City of Bristol
Zoning Commission

REGULAR MEETING - MONDAY, OCTOBER 21, 2024
MEETING ROOM 3-1 - THIRD FLOOR
CITY HALL - 111 NORTH MAIN STREET - 6:00 P.M.

INFORMATION FOR THE PUBLIC TO ACCESS THIS MEETING
Zoom Meeting link:
https://bristolct-gov.zoom.us/j/86569669924?pwd=RZYATBWzBWp0xybFsuiOkJ2IBAVkrL.1
Meeting ID:
865 6966 9924
Meeting Passcode:
123456
Join by phone
1-929-205-6099

AGENDA
REVISION #1

1. Call to Order

2. Approval of Minutes

   a. Special Meeting - September 12, 2024

   b. Regular Meeting - September 16, 2024

3. ZEO Report

   a. September 2024

4. Receipt of New Applications

   a. Application #2509 – Special Permit for parking on a separate lot under different ownership at 37 Main Street and 149 Church Street; Assessor's Map 30, Lots 61, 61-1 & 61-3; 49, 50, 61-1A & 61-2; BD-1 & BD-2 (Downtown Business) zones; Gold Coast Properties, LLC, applicant.

b. Application #2510 – Site Plan for a Mixed Use Development and parking on a separate lot under different ownership at 37 Main Street and 149 Church Street; Assessor's Map 30, Lots 61, 61-1 & 61-3; 49, 50, 61-1A & 61-2; BD-1 & BD-2 (Downtown Business) zone; Gold Coast Properties LLC, applicant.

5. Public Hearings

a. Application #2504 – Special Permit for a Civic Facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; R-40 (Single-Family Residential) zone; New Britain Water Department, applicant – Public Hearing continued from September 16, 2024.

b. Application #2505 – Site Plan for a Civic Facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; R-40 (Single-Family Residential) zone; New Britain Water Department, applicant – Public Hearing continued from September 16, 2024.

c. Application #2506 – Special Permit for Earth Removal at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; R-40 (Single-Family Residential) zone; New Britain Water Department, applicant – Public Hearing continued from September 16, 2024.

d. Application #2507 **-** Special Permit for earth removal and processing of earth materials between south of Barnum Road, north of Farrell Avenue and east of Arcadia Rd. ; Assessor's Maps 67, Lot 78 (Farrell Ave.), Lot 57 (Arcadia Rd.) and Lot 43 (Barnum Rd.); R-15 (Single-Family Residential) zone; Willow Materials, LLC, applicant.

e. Application #2508 – Special Permit for the adaptive re-use of an existing non-residential principal building to add dwelling units at 92 Jeanette Street; R-10 (Single-Family Residential) zone; Assessor's Map 39, Lot 57; Paul J. Laferriere, applicant.

6. Old Business

7. New Business

a. Alternative Signage Program – Pursuant to Article III, Section 14.7. of the Bristol Zoning Regulations: Request for review/approval of an Alternative Signage Program for a 152,000 s.f. mixed use development at 100 North Main Street and 130 North Main Street; Assessor's Map 26, Lot 7 and Map 20 Lot 5; BD-1 (Downtown Business) zone; Ryan Carrier, agent; Centre Square Village, LLC, applicant.

8. Staff Reports

9. Adjournment

REMINDER: The next Regular Meeting of the Zoning Commission is Monday, November 18, 2024

BRISTOL ZONING COMMISSION
MINUTES
SPECIAL MEETING OF THURSDAY SEPTEMBER 12, 2024

ORDER:

By: Chairman White Time: 5:00 P.M. Place: City Hall, via Zoom

ROLL CALL:

MEMBERS	NAME	PRESENT	ABSENT
REGULAR MEMBERS:	David White (Chairman)	X	
	Thomas Marra (Vice Chairman)	X	
	Richard Harlow	X	
	Richard Goodwin (Secretary)	X	
	John LaFreniere		X
ALTERNATE MEMBERS:	Michael DeRoehn	X	
	Sara Mangiafico	X	
	Peter Caruso	X	
STAFF:	Robert M. Flanagan, AICP, City Planner	X	

1. Call to Order

Per the order of Chairman White, the meeting was called to order at 5:01 P.M.

2. Public Participation

There was no public participation.

Chairman White reminded the Commission the next Regular Meeting of the Zoning Commission is Monday, September 16, 2024.

3. New Business

a. Review Phase 3 schedule

b. Review recommended amendments to environmental regulations and revisions made since last meeting.

Mr. Gomes explained the environmental Regulations amendments had been worked on for a few months.
Next Mr. Gomes wanted to discuss the commercial, industrial and mixed-use districts.

Mr. Gomes needed to finalize the recommended amendments for the environmental Regulations amendments because this was the third month of those discussions. Mr. Gomes noted the recommended amendments for the environmental Regulations amendments needed to be presented to the public in a virtual presentation.

Mr. Gomes reviewed the recommended amendments that were discussed previously. Mr. Gomes spoke with Attorney Peter Olson and he recommended keeping the APA Regulations as they exists. He explained Attorney Olson's recommendations was to reference the APA Regulations and to require a Site Plan indicating if the property is in the APA area with the boundary.

Regarding ground mounted solar, Mr. Gomes briefed the concerns of the August meeting of the height limits of truck access and emergency vehicle access. Ms. Gomez reported the Building Code concerns with ground mounted solar were not height limits but wind, electrical and structural integrity. Mr. Gomes stated the Fire Marshal's concerns were building access and property access. Mr. Gomes indicated the Commission should focus on the location, lot area and the structure height.

Next Mr. Gomes reviewed the amendments to the planting and protection of large healthy trees. Mr. Gomez explained the concern was the removal and replacement of trees. Mr. Gomes explained removal of non-evasive trees was excluded.
He reviewed the requirements of replacing the trees with 2-inch caliper trees or 6 ft. evergreen trees. He explained if there is no area on the property and if the applicant owns additional property, the trees shall be placed on the additional property.

He explained if the applicant cannot provide the trees a fee could be charged which would be lieu of the trees. He recommended a professional arborist to determine the specifications of the trees.

Commission inquiries: Mr. Gomes explained that items k. and l. are being replaced with the new updated language for trees.

Mr. Gomes reviewed some of the reports from the State legislative research for the clear cutting of trees regarding inland wetlands and subdivision approvals. Mr. Gomes explained the Commission can limit clear cutting of trees. Mr. Gomes made clear there were no suits filed against any towns that made people plant trees. He commented there were no suits overturned by the courts.

Mr. Gomes stated there were no changes to the allowance of the Sustainability Incentive Regulations.

Mr. Gomes reviewed a significant number of rivers and brooks would be affected by the Riparian Order of Protection. He explained more than 100 structures would become non-conforming but continue their use, but not be allowed to expand within a zone. Mr. Gomes explained the structure may expand out of the zone. Mr. Gomes reviewed the mapping with the 25 ft. setback and the 50 ft. setback for the waterways for the Riparian Order of Protection. Mr. Gomes pointed out he was not a hydrologist. He mentioned the larger continuous streams were on the mapping.

Staff suggested starting with the Pequabuck River for now. Commissioner Marra and Caruso suggested the regulation be applied to any new construction with the 25 ft. setback only. Commissioner Caruso suggested also making the property owner apply for a Special Permit.

Mr. Gomes suggested phasing this suggestion to the Pequabuck River and then apply it to additional waterways connected to the Pequabuck River.

c. Discuss/identify date for public presentation of environmental regulations.

Mr. Gomes and Staff requested a virtual presentation on October 17, 2024 at 6:00 P.M. Mr. Gomes observed the virtual presentation would entail the environmental Regulations and the items discussed this evening.

d. Next steps

Mr. Gomes wanted to finalize the environmental Regulation amendments. Mr. Gomes needed to start the review meeting for the commercial industrial and mixed-use districts. Mr. Gomes noted the next meeting was two weeks prior to the virtual meeting on October 10, 2024. Mr. Gomes presumed the Riparian Order of Protection would be resolved by the next meeting on October 10, 2024.

Mr. Gomes said the Commission would have one more meeting before the virtual presentation to review the Riparian Order of Protection. Mr. Gomes briefed the Commission that he and Staff reviewed the items discussed at the August meeting. Mr. Gomes wanted to discuss the schedule and the environmental Regulations amendments.

4. Adjournment

Chairman White designated regular Commissioners White, Marra, Harlow and Goodwin to vote on the adjournment. He also designated alternate Commissioners DeRoehn to vote on the adjournment.

MOTION: Move to adjourn at 6:15 P.M.

By: White Seconded: Goodwin.

For: White, Marra, Harlow, Goodwin and DeRoehn.
Against: None.
Abstained: None.

This meeting was taped.
Respectfully submitted,

Nancy King
Recording Secretary

David White, Chairman

Richard Goodwin, Secretary

DRAFT

BRISTOL ZONING COMMISSION
MINUTES
REGULAR MEETING OF MONDAY SEPTEMBER 16, 2024

1. Call to Order

By: Chairman White Time: 7:00 P.M. Place: City Hall
111 North Main St.
Council Chambers
First Floor

MEMBERS	NAME	PRESENT	ABSENT
REGULAR MEMBERS:	David White (Chairman)	X	
	Thomas Marra (Vice Chairman)	X	
	Richard Harlow	X	
	Richard Goodwin (Secretary)		X
	John LaFreniere	X	
ALTERNATE MEMBERS:	Michael DeRoehn	X	
	Sara Mangiafico	X	
	Peter Caruso	X	
STAFF:	Robert M. Flanagan, AICP, City Planner	X	
	Andrew Armstrong, Assistant City Planner	X	

Per the order of Chairman White, the meeting was called to order at 6:00 P.M.

Chairman White reminded the Commission the next Regular Meeting of the Zoning Commission is Monday, October 21, 2024.

2. Approval of Minutes

a. Special Meeting - August 15, 2024

Chairman White designated regular Commissioners Marra, Goodwin, Harlow and White to vote on the August 15, 2024, minutes. He also designated alternate Commissioners DeRoehn and Caruso to vote on the August 15, 2024, minutes with the absence of Commissioner Goodwin this evening and Commissioner LaFreniere' s absence at the August 15, 2024, meeting.

MOTION: Move to approve the minutes of the August 15, 2024, special meeting.

By: Harlow Seconded: Marra.

For: Marra, DeRoehn, Harlow, Caruso and White.
Against: None.
Abstained: None.

b. Special Meeting of August 19, 2024

Chairman White designated regular Commissioners Marra, Harlow, LaFreniere and White to vote on the August 19, 2024, minutes. He also designated alternate Commissioner DeRoehn to vote on the August 19, 2024, regular minutes with the absence of Commissioner Goodwin this evening.

MOTION: Move to approve the minutes of the August 19, 2024, special meeting.

By: Harlow Seconded: Marra.

For: Marra, Harlow, LaFreniere, DeRoehn and White.

Against: None.
Abstained: None.

3. ZEO Report
a. August 2024

The Commission reviewed the Zoning Enforcement Officer's report, for July and August dated September 1, 2024.

Chairman White noticed a large increase in activities from July through August.

Receipt of New Applications

a. Application #2507 - Special Permit for earth removal and processing of earth materials between south of Barnum Road, north of Farrell Avenue and east of Arcadia Rd.; Assessor's Maps 67, Lot 78 (Farrell Ave.), Lot 57 (Arcadia Rd.) and Lot 43 (Barnum Rd.); R-15 (Single-Family Residential) zone; Willow Materials, LLC, applicant.

Chairman White designated regular Commissioners Marra, Harlow, LaFreniere and White to vote on Application #2507. He also designated alternate Commissioner DeRoehn to vote on Application #2507 with the absence of Commissioner Goodwin this evening.

Staff noted the Schultz Corporation had purchased this property about six years ago. Staff indicated the trucks access road was Barnum Rd. Staff noted the applicant indicated this may be the last renewal with the revised Regulations for renewals for 3 years. Staff noted the application would expire in October 17, 2024.

MOTION: Move to schedule Application #2507 for a public hearing for the October 21, 2024, regular meeting of the Commission.

By: Marra Seconded: Harlow.

For: Harlow, Marra, DeRoehn, LaFreniere and White.
Against: None.
Abstained: None.

The application is scheduled for public hearing.

b. Application #2508 – Special Permit for the adaptive re-use of an existing non-residential principal building to add dwelling units at 92 Jeanette Street; R-10 (Single Family Residential) zone; Assessor's Map 39, Lot 57; Paul J. Laferriere, applicant.

Chairman White designated regular Commissioners Marra, Goodwin, Harlow, LaFreniere and White to vote on Application #2508. He also designated alternate Commissioner DeRoehn to vote on Application #2508 with the absence of Commissioner Goodwin.

MOTION: Move to schedule Application #2508 for a public hearing for the October 21, 2024, regular meeting of the Commission.

By: Marra Seconded: Harlow.

For: Marra, Harlow, LaFreniere, DeRoehn and White.
Against: None.
Abstained: None.

Staff described this as an adaptive reuse of a commercial building in a residential zone. Staff stated if the application is approved, the property would become more conforming. Staff requested the plans show the parking spaces and the plans needed to be stamped.

Charles Talmadge, Development Planning Solutions, 225 North Main St., representing the applicant, stated the request would only be for a Special Permit. Mr. Talmadge noted no changes to the exterior would be made so only a Special Permit was required for the property. Mr. Talmadge requested the application be referred to the Planning Commission as required by Article II Section 4.3.1.j. Mr. Talmadge requested the application to be scheduled for a public hearing for the October 21, 2024 meeting.

The application is scheduled for public hearing.

4. Public Hearings

   a. Application #2494 – Special Permit for a Unified Residential Development (15 units) at Earl Street, east of Crown Street and west of Melrose Street; Assessor's Map 14, Lots 72/71, 73/70, 74/69, 75/68 & 76/67 Earl Street; R-15/RM (Single-Family Residential/Mixed Residential Overlay) zone; DGG Development, LLC, applicant. - – Public Hearing Closed; Deliberations continued from August 19, 2024.

   b. Application #2495 – Site Plan for a Unified Residential Development (15 units) at Earl Street, east of Crown Street and west of Melrose Street; Assessor's Map 14, Lots 72/71, 73/70, 74/69, 75/68 & 76/67 Earl Street; R-15/RM (Single-Family Residential /Mixed Residential Overlay) zone; DGG Development, LLC, applicant – Public Hearing continued from August 19, 2024.

Chairman White explained Applications #2494 and #2495 would be heard concurrently and voted on concurrently.

Commissioner LaFreniere recused himself from voting on Applications #2494 and #2495 to avoid any conflict of interest.

Chairman White designated regular Commissioners Marra, Goodwin, Harlow and White to vote on Application #2494 and Application #2495. Chairman White designated alternate Commissioner DeRoehn to vote on Applications #2494 and #2495 with the absence of Commissioner Goodwin this evening. Chairman White designated alternate Commissioner Mangiafico to vote on Applications #2494 and #2495 in place of Commissioner LaFreniere with his recusal on Applications #2494 and #2495.

Attorney Timothy Furey, 43 Bellevue Ave., representing the applicant, requested the withdrawal of Applications #2494 and #2495 as indicated in his letter dated September 13, 2024. He represented the applicant would discuss the plans with the Commission with an appropriate time limit for an informed vote on the application. Attorney Furey requested on behalf of the applicant to withdraw Applications #2494 and #2495 as requested in his letter.

MOTION: Move to accept the withdrawal of Applications #2494 and #2495, as requested by Attorney Furey's letter dated September 13, 2024.

By: Marra Seconded: Harlow.

For: Marra, Harlow, Mangiafico, DeRoehn and White.
Against: None.
Abstained: None.

The applications #2494 and #2495 are withdrawn.

   c. Application #2498 – Change of Zone from R-15 (Single-Family Residential) zone to A (Multi-Family Residential) zone at east of Old Wolcott Road and south of Wolcott Street; Map 7, Lot 45 (Old Wolcott Road) and Assessor's Map 7, Lots 44-2, 44-1 & 44 (Wolcott Street); Crown Estates, LLC, applicant – Public Hearing continued from July 8, 2024.

Chairman White designated regular Commissioners Marra and White to vote on Application #2498. He also designated alternate Commissioner Caruso to vote on Application #2498 with the absence of Commissioner Goodwin this evening.

Chairman White designated Commissioner Mangiafico to vote on Application #2498 with the absence of Commissioner Harlow that was absent at the July 8, 2024, regular meeting for Application #2498.

Chairman White designated alternate Commissioner DeRoehn to vote on Application #2498 in place of Commissioner LaFreniere.

The following items were submitted into the record: a letter dated May 13, 2024, from Scott Hesketh, P.E., F.A. Hesketh Traffic Engineers, regarding the enforceability of the items discussed for the application (submitted by Charles Talmadge.) A neighbor's petition undated (submitted by Matthew Small.) A letter dated September 16, 2024 (submitted by Sharon Allen.)

Attorney Timothy Furey, 43 Bellevue Ave., representing the applicant, reviewed the request to change the zone. Attorney Furey overviewed the July meeting presentation of the five available A-zoned sites in the City for development. Attorney Furey noted only 1 of the 5 properties would be viable for a development.

Attorney Furey stated the reasons the Planning Commission gave a positive referral for the zone change because it was consistent with the goals of the PoCD. Attorney Furey noted the proposed property is on an arterial street. The Planning Commission recommended constructing modern housing for the working citizens.

Attorney Furey reviewed the F.A. Hesketh traffic report addendum from the July meeting with State data that indicated no negative effects on the A-zone. Attorney Furey reviewed the appraisal report from the July meeting verifying no decreased housing values. Attorney Furey noted the appraisal report indicated the modern housing was needed to attract professional to the region.

Attorney Furey previously wrote to the neighbors. He met with the neighbors Ms. Lloyd and Mr. Small to review their concerns. Attorney Furey indicated this was only a Zone Change application, but if the application is approved the concerns would be reviewed during the site plans application. Attorney Furey explained with the site plan there would be a substantial green space added.

Staff reminded the Commission this was a Zone Change application. Staff stated that any potential site development plans would be reviewed by the Planning Commission.

Charles Talmadge of Development Planning Solutions, 225 North Main St., representing the applicant, confirmed the plans are the intended plans to be constructed. Mr. Talmadge stated the site was 3.89 acres under the 4-acre requirement for a special permit and site plan with the Zoning Commission. Mr. Talmadge noted a positive referral was granted by the Planning Commission under Chapters 6 and 10 of the PoCD.

Mr. Talmadge explained his presentations outlined Bristol's housing growth was reduced versus Hartford County. Therefore, newer housing was needed for Bristol without creating negative impacts. Mr. Talmadge compared the prior plan versus the revised plan. Mr. Talmadge claimed the buffers and easement would be sufficient for the neighbors.

The following persons spoke in favor of the application: Matthew Small, 15 Old Wolcott Rd. and Sharon Allen, 489 Old Wolcott St.

Mr. Small submitted into the record a petition from the neighbors. Mr. Small at first was against the plan. After meeting with the applicant, Mr. Small was in favor of the plan because single family houses would clear the lots. Mr. Small noted there would not be much area between the lots. Mr. Small's view was this plan would preserve as much land as possible.

Staff reviewed the petition submitted into the record for statutory requirements for Zone Change applications and the number of signatures. Ms. Allan noted the woods to the left in the photos would be removed. Ms. Allan had concerns of viewing a 40 ft. gable wall up to the condominium, so the privacy would be dramatically changed. Ms. Allan's view was the property values would be affected and may not be saleable because of this plan.

No one spoke against the application.

Attorney Furey requested to speak with Ms. Allan after the meeting regarding her requests.

Staff reviewed the draft motion with the Commission. Staff noted the properties do not comply with the A-zone minimum acerage, so the properties must be merged to be compliant for the A-zone. Staff mentioned if the application is approved the Planning Commission would only require vote of 3 to 5 to approve the application because of the positive referral.

Chairman White reiterated the Commission was only concerned with the Zone Change this evening. Chairman White encouraged the public audience to attend the Planning Commission meeting if the application is approved when there is a site plan application.

Commissioner DeRoehn was sympathetic to the persons against the application, but the Commission was here to do the best thing for the City.

Commissioner Marra's view was this was a good use of a small property to do some good for the City. Commissioner Marra noted this was an insulated property from the residential areas. Commissioner Marra noted the applicant went beyond the requirements to provide a traffic study.

Commissioner Mangiafico's view was the newer housing would be a good use of the property for young adults. Chairman White reiterated this was a vacant site that would be developed. Chairman White had no concerns this would be a good use of the property.
The hearing is closed.

By: Marra Seconded: Caruso.

For: Caruso, Mangiafico, DeRoehn, Marra and White.
Against: None.
Abstained: None.

Staff mentioned the Commission has 65 days to make a decision on the application.

MOTION: Move that Application #2498 – Change of Zone from R-15 (Single-Family Residential) zone to A (Multi-Family Residential) zone at east of Old Wolcott Road and south of Wolcott Street; Map 7, Lot 45 (Old Wolcott Road) and Assessor's Map 7, Lots 44-2, 44-1 & 44 (Wolcott Street); Crown Estates, LLC, applicant – Public Hearing continued from July 8, 2024, be approved.

The Zoning Map amendment, as presented, would be consistent with the goals, policies and action steps of the 2015 Plan of Conservation and Development, amended to April 1, 2018, and specifically:

a. Section 9.3.1.4. – Encourage the appropriate design of housing in order to meet community needs in the future.

The effective date of the Zoning Map Amendment will be the date on which a map and deed are filed on the City Land Records merging Map 7, Lot 44 Old Wolcott Road with the three properties located on Wolcott Street otherwise known as: Map 7, Lots 44-2, 44-1 and 44.

By: Marra Seconded: Mangiafico.

For: Marra, Caruso, Mangiafico and White.
Against: DeRoehn.
Abstained: None.

The application is approved.

d. Application #2504 – Special Permit for a Civic Facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; R-40 (Single- Family Residential) zone; New Britain Water Department, applicant.

e. Application #2505 – Site Plan for a Civic Facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; R-40 (Single-Family Residential) zone; New Britain Water Department, applicant. Application #2506 – Special Permit for Earth Removal at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; R-40 (Single- Family Residential) zone; New Britain Water Department, applicant.

f. Application #2506 – Special Permit for Earth Removal at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; R-40 (Single- Family Residential) zone; New Britain Water Department, applicant.

Chairman White designated regular Commissioners Marra, LaFreniere, Harlow and White to vote on Application #2504, #2505 and #2506. He also designated alternate Commissioner DeRoehn to vote on Application #2504, #2505 and #2406 with the absence of Commissioner Goodwin this evening.

The following item was submitted into the record: a letter dated May 16, 2024, to DEEP Commissioner Dykes from the Pequabuck River Watershed Association, Farmington River Watershed Association and Rivers Alliance of Connecticut.

Attorney Joseph Hammer of MacDermid, Reynolds & Glissman, P.C., 110 Whitney Ave., New Haven, representing the applicant, reviewed the requests for two Special Permits and one Site Plan for the 300-acre site on Maltby St. Attorney Hammer described the existing use for public drinking water and well fields for over 100 years.

Attorney Hammer stated the plan would bring the property into compliance with the current State Dept. of Health Regulations for the separation of wells and the elevation of wells out of the floodplain. Attorney Hammer stated that the existing wells would be replaced with new wells and a new pump station would be constructed.

Attorney Hammer noted the property received approvals for an Inland Wetlands Agency permit and a Floodplain permit. Attorney Hammer indicated only occasional employees would be on site to review readings. Attorney Hammer's view was the plan would be a benefit to the health, safety and welfare for drinking water to the City of New Britain and adjoining towns.

Staff inquiries: Attorney Hammer agreed that the applications would be continued to the October meeting. Attorney Hammer noted the facility would be upgraded for drinking water for the next 100 years. Attorney Hammer agreed with Staff this would give the facility modern Special Permits and Site Plans.

Kyle Gerlach, P.E., E.E., of CDM Smith, 54 Longfellow Rd., Holyoke, MA, representing the applicant, cited the three water sources of the upper wellfields, the lower wellfields and the pumping station on Maltby St. Mr. Gerlach pointed out the site is in the 100-year floodplain. Mr. Gerlach verified the last upgrade to the mechanical equipment was in the 1980's.

Mr. Gerlach clarified the wells and the proposed new building had to be raised 2 ft. above the base flood elevation with fill to be brought onsite. He indicated 35 wells would be demolished and replaced with 9 new wells. Mr. Gerlach stated that two buildings would be demolished and replaced with a 4,000 sq. ft. building with 2 employee parking spaces.

Mr. Gerlach stated that the construction to take about 3 years that included testing the wells. He explained the building on Maltby St. would require new sewer and water lines. Mr. Gerlach discussed the route for the construction vehicles on Stafford Ave., RT 6. He noted a small area on Mix St. needed a compensatory storage area. Mr. Gerlach observed the construction hours of 7:00 A.M. to 10:00 P.M. Monday to Saturday and 9:00 A.M. to 10:00 P.M. Sundays. Mr. Gerlach's view was the plan would improve the water supply for New Britain, Bristol and adjoining towns.

Staff inquiries: Mr. Gerlach explained the reason for raising the well elevation was for sanitary purposes.
Regarding the Aquifer Protection Area, Mr. Gerlach explained an Aquifer Protection Area Determination application would be reviewed this evening. Mr. Gerlach stated that no petroleum would be stored on the site. Mr. Gerlach briefed the containment area for the trucks when trucks needed to be serviced or refueled on site. Mr. Gerlach observed a spill kit would be on site.

Staff commented the APA Guidelines should be placed on a separate sheet on Site Plan maps.
The following persons did not speak in favor or against the applications, but had inquiries: John Hoffert, 90 Wolcott Circle and Timothy Gamache, 1389 Stafford Ave.

Mr. Hoffert inquired if increased water would be pumped out of the new wells. If so, would it be a consideration for the surrounding area.

The following persons spoke against the application: Erik Madsen, 70 Oak Hill Dr., representing the Pequabuck Watershed Association; the Farmington River Watershed Association; and the letter dated May 16, 2024, to the CT DEEP Commission.

Mr. Gamache explained the construction of the bridge on Jerome Ave. has increased the area traffic tremendously. Mr. Gamache inquired if the project this evening would be constructed concurrently with the Jerome Ave. project. Mr. Gamache noted the Jerome Ave. project would be done in the summer of 2025. Mr. Gamache's view was the traffic in this area would be much worse. Mr. Gamache requested the consideration of both these projects not be done at the same time.

Mr. Madsen read his letters into the record. Mr. Madsen informed the Commission the plans would affect an aquifer protection area, inland wetlands, brooks and part of a water source for multiple municipalities. Mr. Madsen pointed out an additional aquifer boundary study be done prior to the wells construction. Mr. Madsen suggested the aquifer boundary study not be done after the wells are constructed. Mr. Madsen requested for PRWA more details of how vehicles would access the inland wetlands area behind Harbor Freight to make comments. Mr. Madsen was concerned with the Coppermine Brook already had elevated pollutants from the impervious surfaces. Mr. Madsen claimed better management practices were needed to limit additional disturbances.

Attorney Hammer responded that the NBWD had a Registered Diversion permit with the CT DEEP to pump out the required amounts of water. Attorney Hammer explained the Registered Diversion application was beyond the scope of this Commission.

Attorney Hammer stated the Inland Wetlands Agency did not find any additional jurisdiction. Attorney Hammer reminded the Commission this was not a new process to pump out the new wells. Attorney Hammer presumed the applicant's manager would work with the City for the Jerome Ave. project to prevent overlapping traffic concerns.

Commission inquiries: Attorney Hammer suggested the Water Dept. was better informed to discuss the amounts allowed by the Register Diversion permit. Attorney Hammer confirmed the applicant would work with the CT DEEP before the work begins.

MOTION: Move that the Public Hearings on Applications #2504, #2505 and #2506 be continued to the October 21, 2024, Regular meeting of the Zoning Commission.

By: White Seconded: Marra.

For: Marra, LaFreniere, Harlow, DeRoehn, and White.
Against: None.
Abstained: None.

The applications #2504, #2505 and #2506 are continued.

5. Old Business

There was no old business.

6. New Business

There was no new business.

7. Communications

There were no communications.

8. Adjournment

Chairman White designated regular Commissioners Harlow, Marra, LaFreniere and White to vote on the adjournment. He also designated alternate Commissioner DeRoehn to vote on the adjournment with the absence of Commissioner Goodwin this evening.

MOTION: Move to adjourn at 8:13P.M.

By: Goodwin Seconded: Marra.

For: LaFreniere, DeRoehn, Marra, Harlow and White.
Against: None.
Abstained: None.

This meeting was recorded.

Respectfully submitted,

Nancy King
Recording Secretary

David White, Chairman

Richard Goodwin, Secretary

DRAFT

2024 ZONING ENFORCEMENT REPORT

For September 2024, the following complaints were investigated by the Chief Building Official. This report also includes the number of abatements, citations, and permits issued by the Bristol Building Department for the current month. For comparison, data from the previous year is also listed for each complaint type and category.

COMPLAINT TYPE:	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Motor Vehicle:	**2**	**2**	**0**	**4**	**8**	**10**	**5**	**10**	**3**				**44**
Year (23):	*3*	*1*	*3*	*0*	*4*	*3*	*1*	*12*	*2*				*29*
Illegal Business:	**0**	**1**	**1**	**4**	**2**	**2**	**0**	**4**	**1**				**15**
Year (23):	*1*	*0*	*2*	*2*	*0*	*0*	*0*	*2*	*2*				*9*
Lack of Permit:	**3**	**0**	**0**	**0**	**2**	**1**	**1**	**2**	**0**				**9**
Year (23):	*1*	*0*	*1*	*1*	*4*	*2*	*3*	*3*	*0*				*15*
Accessory Structure:	**1**	**0**	**1**	**0**	**1**	**2**	**0**	**1**	**0**				**6**
Year (23):	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*1*				*2*
Illegal Fence:	**1**	**0**	**0**	**2**	**0**	**2**	**0**	**0**	**0**				**5**
Year (23):	*0*	*0*	*0*	*1*	*1*	*0*	*0*	*2*	*1*				*5*
Illegal Sign:	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**				**2**
Year (23):	*1*	*1*	*1*	*3*	*0*	*2*	*0*	*0*	*0*				*8*
Fowl:	**0**	**1**	**1**	**1**	**0**	**0**	**0**	**5**	**1**				**9**
Year (23):	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*1*	*0*				*2*
Blight:	**2**	**2**	**0**	**6**	**1**	**1**	**0**	**5**	**4**				**21**
Year (23):	*9*	*6*	*6*	*3*	*6*	*1*	*1*	*9*	*4*				*45*
Sightline:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**				**2**
Year (23):	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*				*0*
Lighting:	**0**	**0**	**0**	**1**	**1**	**1**	**0**	**1**	**0**				**4**
Year (23):	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*1*	*0*				*2*
Site Plan:	**1**	**15**	**7**	**6**	**3**	**3**	**0**	**1**	**0**				**36**
Year (23):	*3*	*1*	*1*	*0*	*2*	*4*	*0*	*0*	*3*				*14*
Illegal Rentals:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**				**1**
Year (23):	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*				*0*
Miscellaneous:	**3**	**0**	**1**	**4**	**4**	**0**	**0**	**5**	**2**				**19**
Year (23):	*2*	*6*	*1*	*1*	*1*	*2*	*0*	*5*	*3*				*21*
2023 TOTAL:	**13**	**21**	**11**	**28**	**18**	**20**	**6**	**36**	**10**				**163**
Year (23):	*20*	*16*	*15*	*15*	*19*	*14*	*5*	*36*	*16*				*156*
ABATEMENTS:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**				**0**
Year (23):	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*3*				*3*
CITATIONS:	**6**	**2**	**3**	**0**	**3**	**0**	**1**	**1**	**3**				**19**
Year (23):	*11*	*10*	*7*	*4*	*8*	*13*	*3*	*6*	*4*				*66*
PERMITS ISSUED:	**275**	**234**	**250**	**300**	**351**	**335**	**339**	**296**	**389**				**2769**
Year (23):	*256*	*273*	*351*	*321*	*363*	*371*	*321*	*404*	*327*				*2987*

Respectfully submitted,

R.J. Brown

Richard J. Brown
Chief Building Official
October 9, 2024

For Office Use Only	
APPLICATION NO.	2509
DATE FILED:	10/3/24
DECISION DATE:	
DECISION:	

BRISTOL ZONING COMMISSION
CITY OF BRISTOL, CONNECTICUT
APPLICATION FOR SPECIAL PERMIT

The undersigned Applicant hereby applies to the Bristol Zoning Commission for approval under Section(s) Article III Section 13.6.B of the Bristol Zoning Regulations for the following Special Permit use: Location of parking on a separate lot under different ownership

Address or Location of the Property: 37 Main Street & 149 Church Street

Assessor's Map No.: 30 Assessor's Lot No.(s): 61, 61-1 & 61-3; 49; 50; 61-1A; 61-2;

Zone of the Property: BD-1 & BD-2 Size of the Property (in acres or square feet): 27,123 s.f. & 57, 934 s.f.

Reason for the Special Permit: To offer additonal parking for the proposed mixed use development.

Does this application involve an activity regulated by the Inland Wetlands Agency? [✓] yes [ ] no

If yes, has an application for a permit been submitted to the Inland Wetlands Agency? [✓] yes, on 9/9/24 [ ] no

Other comments: IWWA App. #2040

NOTE: Section 8-3c(a) of the Connecticut General Statutes requires that, if an application for a Special Permit involves an activity regulated under the Inland Wetlands and Watercourses provisions of the statutes, the applicant shall submit an application for a wetlands permit to the local Inland Wetlands Agency no later than the day the Special Permit application is filed.

APPLICANT (If more than one, list on Page 2)

Name: Gold Coast Properties, LLC

Address: 303 Linwood Ave. Suite 2B City: Fairfield State: CT Zip: 06824

Telephone No.: 203-610-1545 E-Mail: goldcoasthouse@gmail.com

Signature: [signature] *Signature – (Printed/Typed)* Stephen Shapiro

CHECK ONE: [ ] owner [✓] other (specify): under contract

OWNER(S) OF RECORD (If other than Applicant; if more than one, list on Page 2)

Name: 37 Main Street, LLC

Address: 108 River Road City: Deep River State: CT Zip: 06417

Telephone No.: E-Mail:

Signature: [signature] *Signature – (Printed/Typed)* Rich Lemieux

THIS APPLICATION MUST BE FILED IN PERSON NO LATER THAN 12 NOON ON THE DEADLINE DAY FOR APPLICATION SUBMISSION – NO EXCEPTIONS!

BZC – 08/17

For Office Use Only
APPLICATION NO. 2059

CITY OF BRISTOL, CONNECTICUT
SUPPLEMENTARY INFORMATION

Address or location of property: 37 Main Street & 149 Church Street

ADDITIONAL INFORMATION/COMMENTS (click inside the box below and begin typing)

ADDITIONAL APPLICANT

Name: _____ CHECK ONE: [ ] owner [ ] other: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

ADDITIONAL OWNER(S) OF RECORD

Name: City of Bristol, CT

Address: 111 North Main Street City: Bristol State: CT Zip: 06010

Telephone No.: 860-584-6252 E-Mail: mayorsoffice@britolct.gov

Signature: _____ Signature – (Printed/Typed) Mayor Jeffrey Caggiano

Name: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

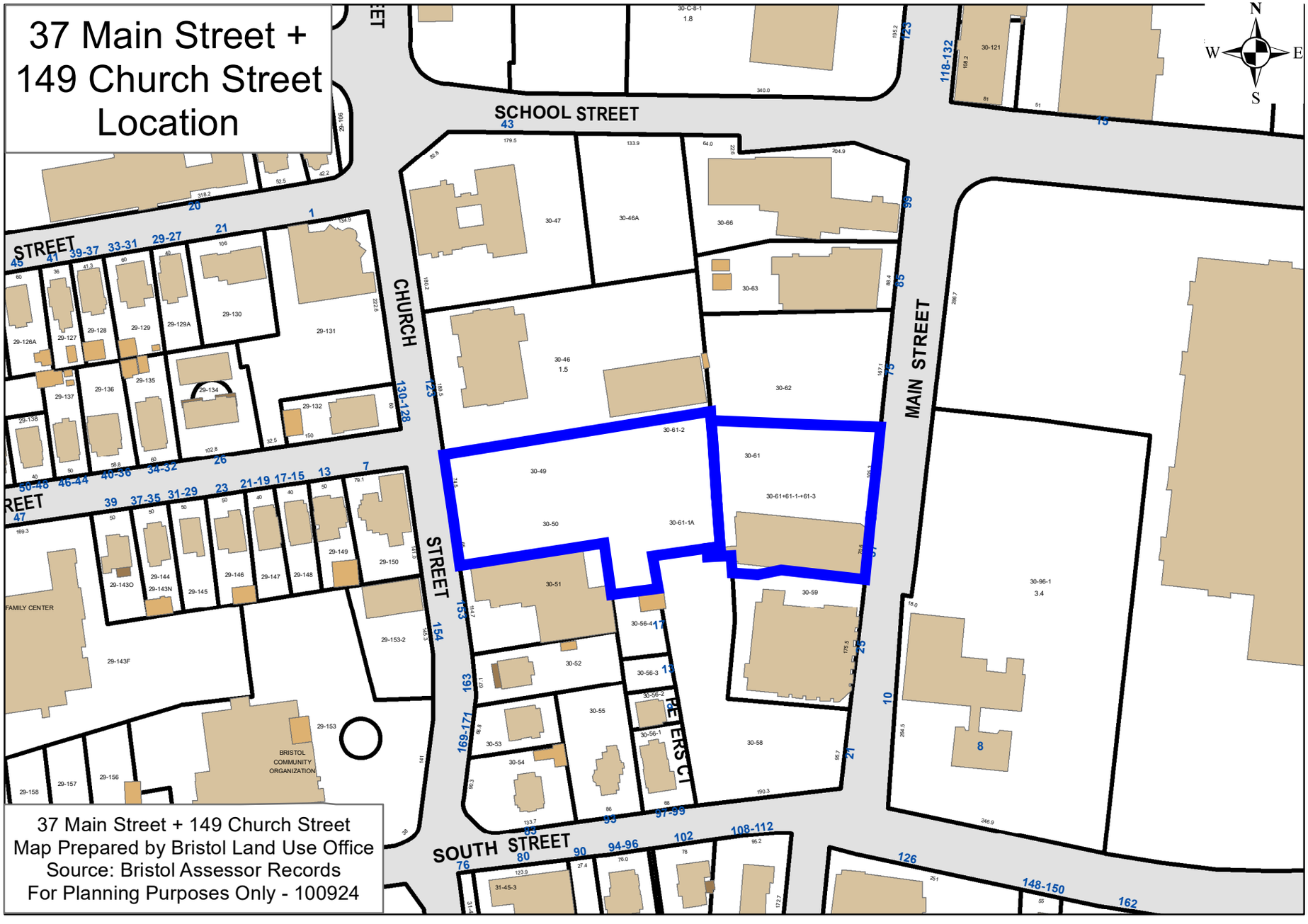
(OPTIONAL) SEND COPIES OF ALL CORRESPONDENCE TO:

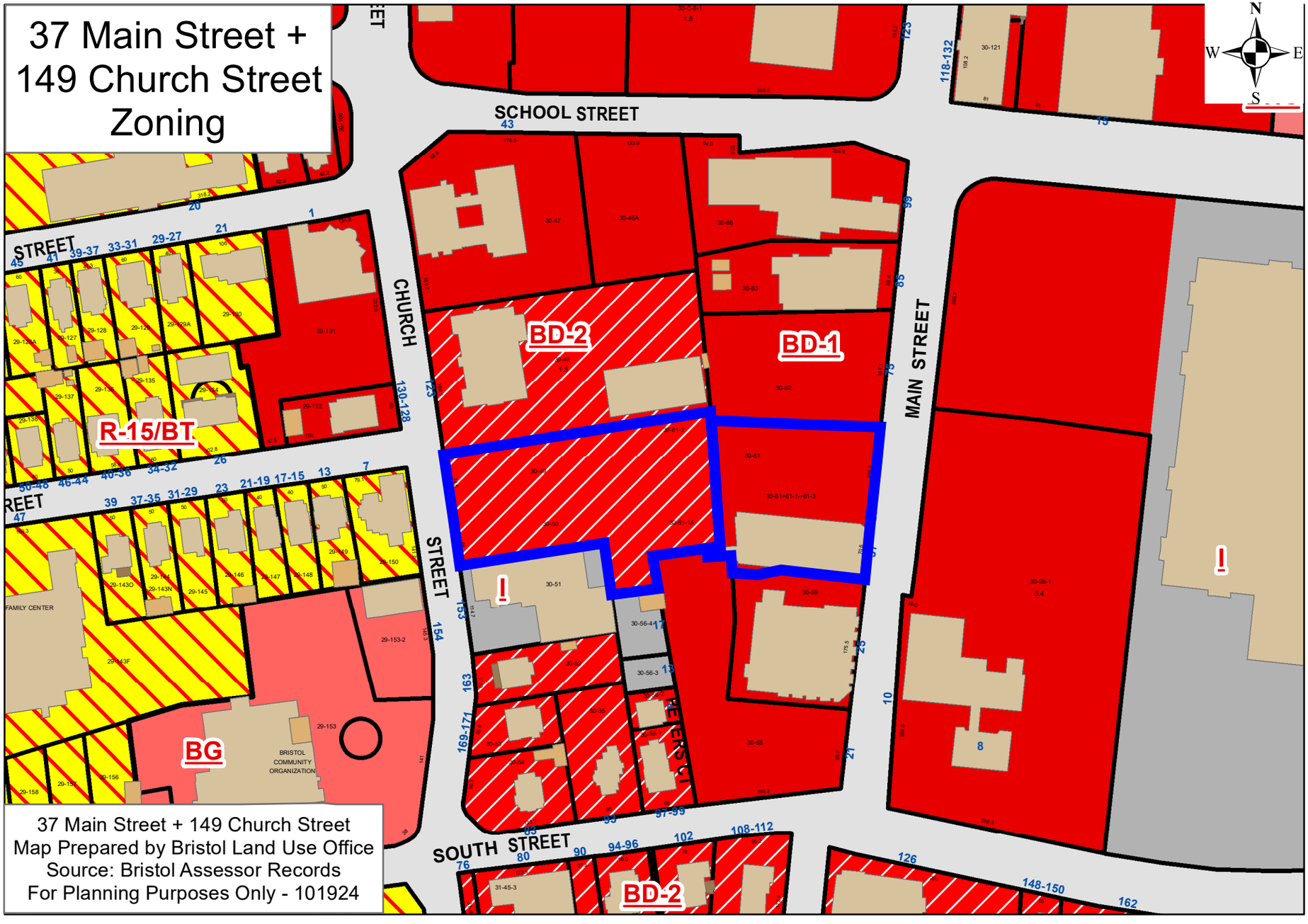
Name: Attorney James Ziogas

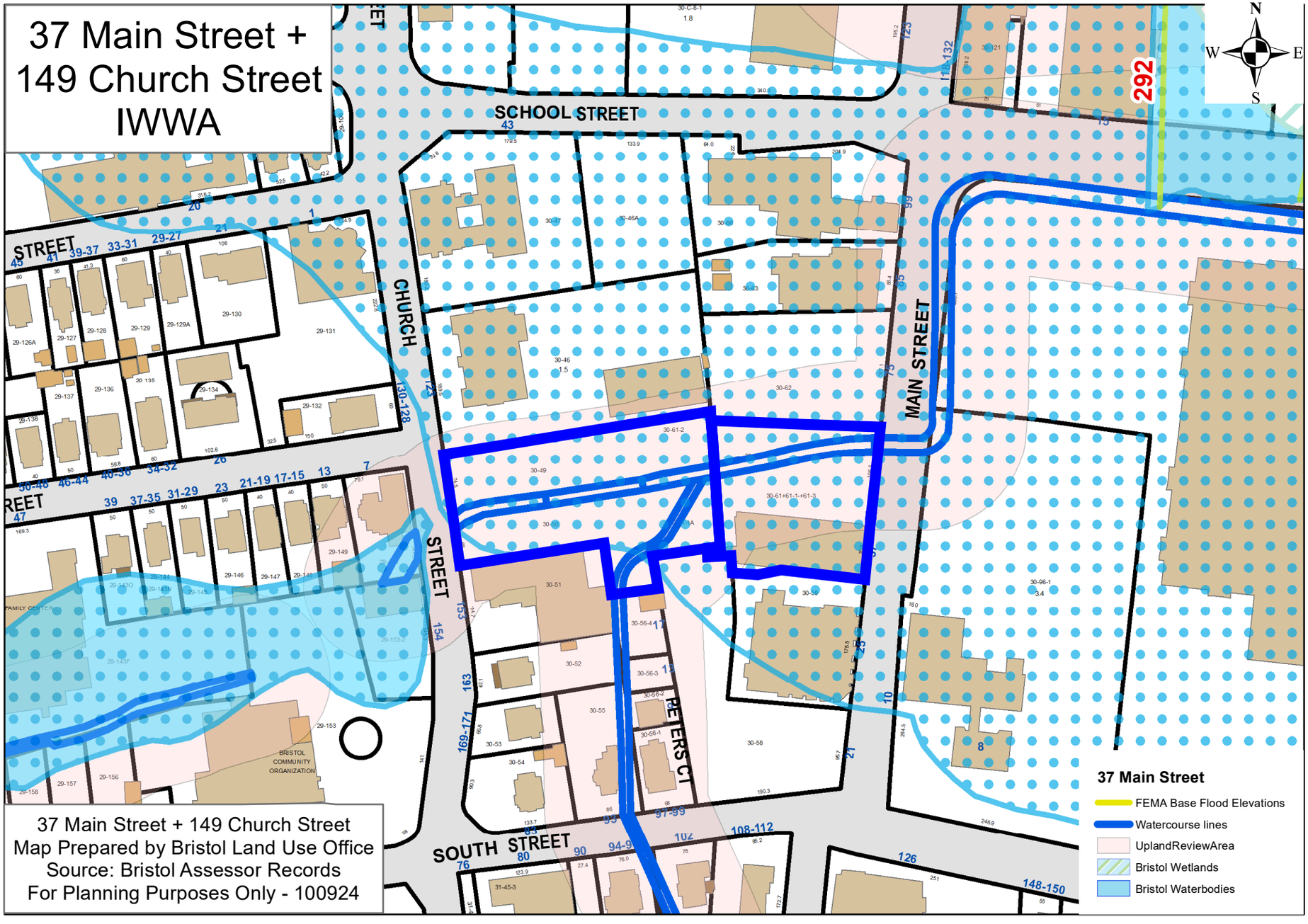
Address: 104 Bellevue Ave. City: Bristol State: CT Zip: 06010

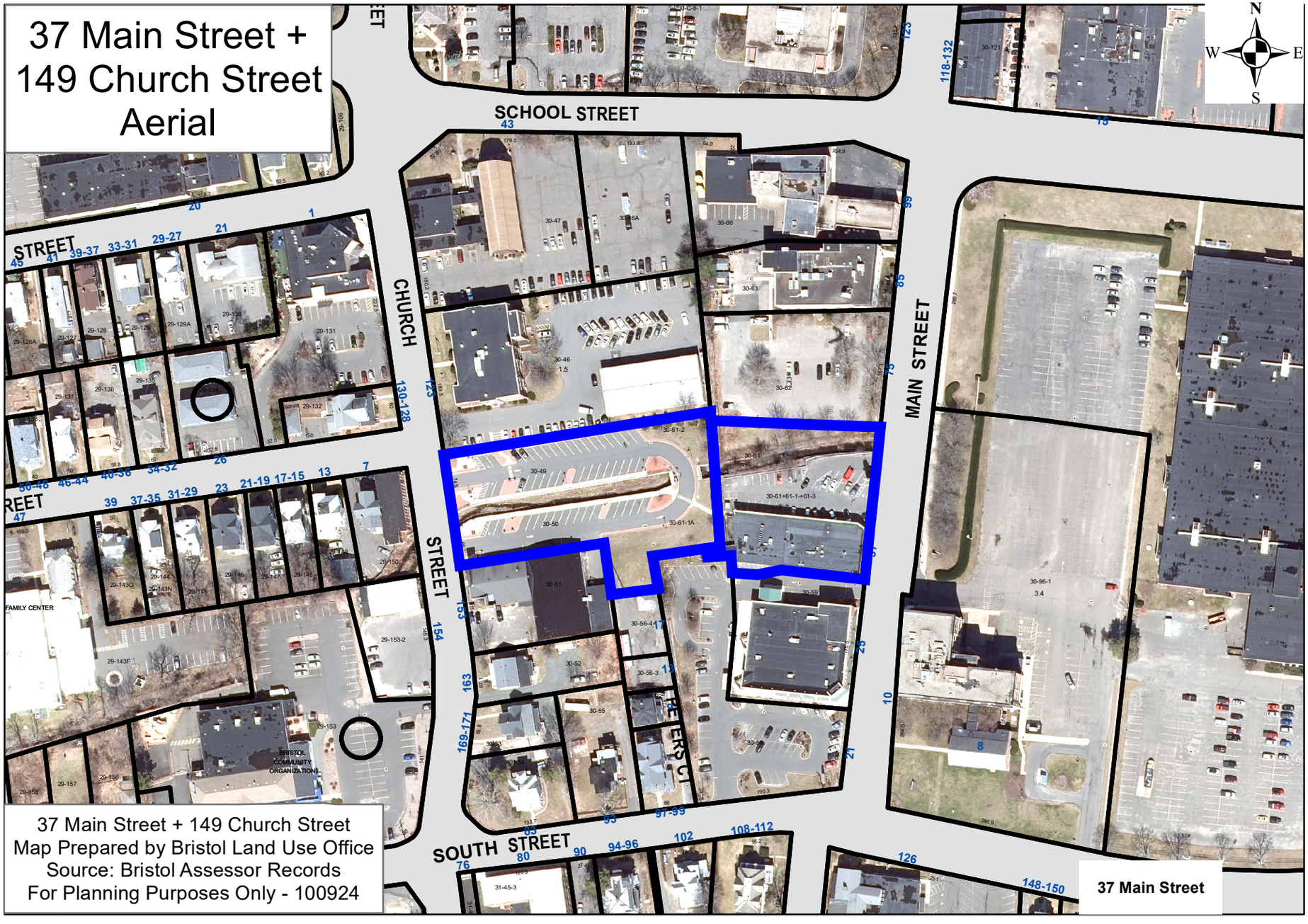
Telephone No.: _____ E-Mail: _____

08/17 - LUO


37 Main Street +
149 Church Street
Location
SCHOOL STREET
CHURCH STREET
MAIN STREET
SOUTH STREET
PETERS CT
BRISTOL COMMUNITY ORGANIZATION
FAMILY CENTER
30-46
1.5
30-61-2
30-49
30-50
30-61-1A
30-61
30-61+61-1-+61-3
30-51
30-52
30-53
30-54
30-55
30-56-1
30-56-2
30-56-3
30-56-4
30-58
30-59
30-62
30-63
30-66
30-47
30-46A
30-96-1
3.4
30-C-8-1
1.8
30-121
31-45-3
29-106
29-126A
29-127
29-128
29-129
29-129A
29-130
29-131
29-132
29-134
29-135
29-136
29-137
29-138
29-143O
29-143N
29-144
29-145
29-146
29-147
29-148
29-149
29-150
29-153-2
29-143F
29-153
29-156
29-157
29-158
N
W
E
S
37 Main Street + 149 Church Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 100924


37 Main Street +
149 Church Street
Zoning
SCHOOL STREET
CHURCH STREET
MAIN STREET
SOUTH STREET
BD-2
BD-1
R-15/BT
BG
I
BRISTOL COMMUNITY ORGANIZATION
FAMILY CENTER
N
W
E
S
37 Main Street + 149 Church Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 101924


37 Main Street +
149 Church Street
IWWA
SCHOOL STREET
CHURCH STREET
MAIN STREET
PETERS CT
SOUTH STREET
BRISTOL COMMUNITY ORGANIZATION
292
N
W
E
S
37 Main Street
FEMA Base Flood Elevations
Watercourse lines
UplandReviewArea
Bristol Wetlands
Bristol Waterbodies
37 Main Street + 149 Church Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 100924


37 Main Street +
149 Church Street
Aerial
SCHOOL STREET
CHURCH STREET
MAIN STREET
SOUTH STREET
37 Main Street
37 Main Street + 149 Church Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 100924

Google Earth


Layers



Site Plan
8/27/24

PROPOSED 4-STORY MULTI-USE BUILDING
FORMER MAFALES PLAZA

#37 Main Street
Bristol, Connecticut



Project Narrative

The project is the re-development of 37 Main Street (Mafles Plaza). The existing site is 27,123 s.f. (0.623 Acres) and is bordered by Main Street to the east, Former Walgreens Pharmacy to the south, City of Bristol public parking to the west and SNET to the north. An existing sidewalk connects the subject property to the public parking lot. The northern property line comprises sections of existing concrete retaining walls which contain an unnamed brook in a depressed section. The area between the walls would be flagged as inland wetlands, but the area was inaccessible due to chain link fence enclosures. The portion of these inland wetlands on the subject property would equate to 936 s.f. The remaining site is uplands comprising of bituminous pavement, concrete sidewalk and a recently demolished building subject to a fire in 2022. The entire existing site is made up of impervious surfaces. Additionally, 19,336 s.f. of the subject property is within the 100' upland review area. The site does not contain any storm drainage features and the entire site sheetflows to Main Street.

The proposed project is a 4-story mixed use building with a footprint of 7,035 s.f. The building will consist of 3,083 s.f. of retail space and 28 residential units (mix of 1 and 2 bedroom units). The site will include 21 off-street parking spaces to the rear of the building and 6 on-street parking spaces along the west side of Main Street. Additional parking will be available on the east side of Main Street (to be developed by others) and the City of Bristol public parking lot to the west of the site contains 55 spaces. The site is serviced by sanitary sewer, public water, underground electric, telephone and cable, and gas services. The east side of the building will have an open-air patio/entrance area along the entire building frontage.

On-site storm drainage consists of a conventional pipe and catch basin system, hydro-dynamic oil/grit separator and an underground storage/infiltration system that treats on-site storm water quality and reduces peak flows to the City of Bristol storm drainage system in Main Street. Proposed impervious is 18,916 s.f. (69.7%) vs 27,123 s.f. (100%) existing, which results in a significant reduction in impervious cover.

AS-BUILT SURVEY SHALL BE PROVIDED PRIOR TO ISSUANCE OF C.O.

ISSUE LOG:

SUBMITTALS / REVISIONS:
Wetlands Submittal; 08-27-24

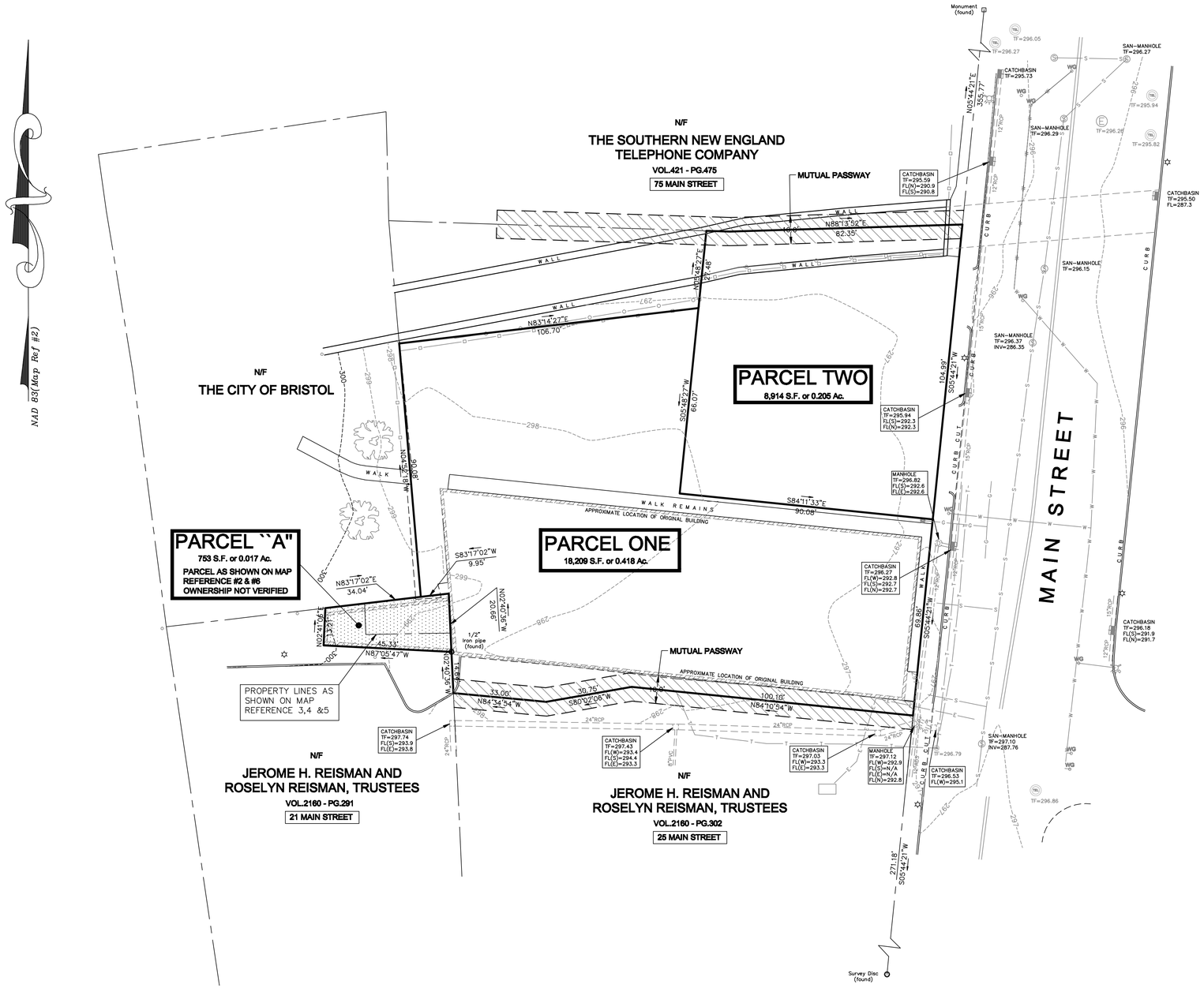
APPROVALS:
Wetlands Application #xxx; Approved xxx
Zoning Application #xxx - xxx; Approved xxx

PREPARED FOR:

Gold Coast Properties
303 Linwood Avenue - Suite 2D
Fairfield, CT 06824
Primary Contact: Stephen Shapiro

ENGINEER:

R. R. Hiltbrand Engineers & Surveyors
575 North Main Street
Bristol, Connecticut
06010



L E G E N D

STONE WALL	
SANITARY SEWER	S S
STORM SEWER	
CONTOUR LINE	100
WATER LINE	W W
ELECTRIC LINE	E E
TELEPHONE LINE	T T
GAS LINE	G G
FOLIAGE LINE	
CHAINLINK FENCE	
GUARDRAIL	
IRON PIN	
SURVEY MONUMENT	
DRILL HOLE	
CURB CATCHBASIN	
CURBLESS CATCHBASIN	
UTILITY POLE	
UTILITY POLE WITH GUY	
SANITARY MANHOLE	S
DRAINAGE MANHOLE	D
WATER GATE VALVE	WG
ELECTRIC MANHOLE	E
TELEPHONE MANHOLE	TEL
LIGHT STAND	

NOTES:

1. THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-20 AND THE ``STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT'' AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INCORPORATED ON SEPTEMBER 26, 1996.

2. TYPE OF SURVEY = LIMITED PROPERTY SURVEY

3. BOUNDARY DETERMINATION CATEGORY = DEPENDENT RE-SURVEY

4. OWNERS OF RECORD - 37 MAIN STREET, LLC (Vol.1432 - Pg.330)

5. TOTAL AREA - 27,876 S.F. or 0.640 Ac.

6. ZONE - C

7. ELEVATIONS BASED ON MAP REFERENCE #2

8. BEARINGS BASED ON N.A.D. 83 AS ESTABLISHED BY MAP REFERENCE #2

9. UNDERGROUND UTILITIES, STRUCTURE AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROLE TESTIMONY AND FROM OTHER SOURCES. THESE LOCATIONS ARE APPROXIMATE AND OTHER SUCH FEATURES MAY EXIST UNKNOWN TO DUFOUR SURVEYING ASSOCIATES. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455

MAP REFERENCES :

1.``MAP OF PROPERTY - OF - VETRANO BROTHERS - INCORPORATED - BRISTOL, CONN.'', scale 1" = 20', dated March 1961, revised to 2/1/57 and prepared by W.C.Lefevre, P.E. & L.S.

2. ``DEPARTMENT OF PUBLIC WORKS - DIVISION OF ENGINEERING - CITY OF BRISTOL - CONNECTICUT - MAP OF LOTS - 49-51, 61-1A AND 61-2 - OWNED BY THE CITY OF BRISTOL - CHURCH STREET BRISTOL, CT'', scale 1" = 20', dated Jan. 2010 and prepared by Peter W. Forrest, L.S.

3. ``PROPERTY MAP - FOR - WALGREENS - STORE #1-203 - DEVELOPER/OWNER - 107 SOUTH STREET CORP. - #25 MAIN STREET - BRISTOL, CT'', scale 1" = 20', dated July 1, 2005, revised to 9/27/05 and prepared by Kratzert, Jones & Associates, Inc.

4. ``REVISED PROPERTY - MAP - FOR - WALGREENS - STORE #10203 - DEVELOPER/OWNER - 107 SOUTH STREET CORP. - #25 MAIN STREET - BRISTOL, CT'', scale 1" = 20', dated July 1, 2005, revised to 9/27/05 and prepared by Kratzert, Jones & Associated, Inc.

5. ``LOT LINE - REVISION - MAP - FOR - WALGREENS - STORE #10203 - DEVELOPER/OWNER - 107 SOUTH STREET CORP. - #25 MAIN STREET - BRISTOL, CT'', scale 1" = 20', dated July 1, 2005, revised to 9/27/05 and prepared by Kratzert, Jones & Associates, Inc.

6. ``LOT LINE - REVISION - MAP - FOR - WALGREENS - STORE #10203 - DEVELOPER/OWNER - 107 SOUTH STREET CORP. - #25 MAIN STREET - BRISTOL, CT'', scale 1" = 20', dated July 1, 2005, revised to 6/21/06 and prepared by Kratzert, Jones & Associates, Inc.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON. THIS MAP AND SURVEY WERE PREPARED IN ACCORDANCE WITH THE STANDARDS OF A CLASS A-2 & T-2 SURVEY AS DEFINED IN THE CODE OF PRACTICE FOR STANDARDS OF ACCURACY OF SURVEYS AND MAPS, ADOPTED SEPT. 26, 1996 AS AMENDED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INCORPORATED.

CARMINE J. MATRASCIA - L.S. #70219

DUFOUR SURVEYING LLC

IMPROVEMENT LOCATION SURVEY

PREPARED FOR: 37 MAIN STREET LLC

37 MAIN STREET, BRISTOL, CONNECTICUT

SCALE: 1" = 20'	APPROVED: CARMINE J. MATRASCIA - L.S. #70219	
DATE: 08-05-2022	JOB NO.: 22-37	FILE NO.: \22-37

DUFOUR SURVEYING LLC
575 NORTH MAIN STREET
BRISTOL, CONNECTICUT
860-314-0502 860-738-0222

N/F

THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY

VOL.421 - PG.475

75 MAIN STREET

EXISTING CONCRETE WALL

North

CATCHBASIN
TF=295.59
FL(N)=290.9
FL(S)=290.8

TF=295.82

CATCHBASIN
TF=295.50
FL=287.3

SAN-MANHOLE
TF=296.15

SAN-MANHOLE
TF=296.37
INV=286.35

CATCHBASIN
TF=295.94
FL(S)=292.3
FL(N)=292.3

EXISTING UNNAMED BROOK

297

298

300

299

296

WETLANDS ARE LIMITED TO THE BOUNDS OF THE UNNAMED BROOK WITHIN THE CONCRETE WALLS
19,336 S.F. OF THE SITE IS WITHIN THE 100' UPLAND REVIEW AREA
NO WETLANDS DISTURBANCE PROPOSED

EXISTING CONCRETE WALL

EXISTING BITUMINOUS PARKING LOT TO BE REMOVED

EXIST. CONC. WALK

N/F

THE CITY OF BRISTOL

REMOVE EXISTING SIDEWALK

ABANDON WATER LATERAL AT THE MAIN PER C.O.B. WATER AND SEWER SPECIFICATIONS

WALK REMAINS

MANHOLE
TF=296.82
FL(S)=292.6
FL(E)=292.6

CATCHBASIN
TF=296.27
FL(W)=292.8
FL(S)=292.7
FL(N)=292.7

LIMIT OF 100' URA

EXISTING BUILDING RAZED AFTER FIRE IN 2022

ABANDON EXISTING 4"Ø SANITARY LATERAL TO SEWER MAIN AND REPLACE WITH 6"Ø (SEE SITE UTILITIES PLAN)

REMOVE EXISTING SIDEWALK

REMOVE EXISTING PAVEMENT WITHIN PROPERTY LIMITS

EXISTING CITY SIDEWALK SHALL BE REPLACED AND GRANITE CURB EITHER REPLACED OR RE-USED

CATCHBASIN
TF=296.18
FL(S)=291.9
FL(N)=291.7

ABANDON EXISTING 4"Ø SANITARY LATERAL TO CITY OF BRISTOL WATER AND SEWER SPECIFICATIONS

MAIN STREET

N/F

JEROME H. REISMAN AND ROSELYN REISMAN, TRUSTEES

VOL.2160 - PG.291

21 MAIN STREET

N/F

JEROME H. REISMAN AND ROSELYN REISMAN, TRUSTEES

VOL.2160 - PG.302

25 MAIN STREET

CATCHBASIN
TF=297.74
FL(S)=293.9
FL(E)=293.8

CATCHBASIN
TF=297.43
FL(W)=293.4
FL(S)=294.4
FL(E)=293.3

CATCHBASIN
TF=297.03
FL(W)=293.3
FL(E)=293.3

MANHOLE
TF=297.12
FL(W)=292.9
FL(S)=N/A
FL(E)=N/A
FL(N)=292.8

CATCHBASIN
TF=296.53
FL(W)=295.1

SAN-MANHOLE
TF=297.10
INV=287.76

TF=296.79

UTILITY NOTE:
LOCATION OF UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED UPON FIELD SURVEY OF VISIBLE SURFACE STRUCTURES SUCH AS CATCH BASINS AND MANHOLES, TOGETHER WITH RECORD MAPPING OBTAINED FROM UTILITY COMPANIES AND GOVERNMENTAL AGENCIES AS NOTED UNDER MAP REFERENCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. IN ADDITION, OTHER UTILITIES MAY ALSO EXIST, UNKNOWN TO THE SURVEYOR. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455.

GRAPHIC SCALE
10 5 0 10 20
1 Inch = 10 Feet

PREPARED FOR:
Stephen Shapiro
Gold Coast Properties
303 Linwood Avenue - Suite 2D
Fairfield, CT 06824

R. R. HILTBRAND Engineers and Surveyors

SITE DEMOLITION PLAN
#37 Main Street
Bristol, Connecticut
August 27, 2024

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

ZONING TABLE (ZONE BD-1)		
	REQUIRED	PROPOSED
MINIMUM LOT AREA	N/A	27,123 S.F.
MINIMUM LOT WIDTH	N/A	174.85 Ft
MINIMUM FRONT YARD	N/A	13.00 Ft
MINIMUM SIDE YARD	N/A	12.00 Ft
MINIMUM REAR YARD	N/A	90.30 Ft
MAXIMUM BUILDING HEIGHT	N/A	3 STORY
MAXIMUM BUILDING COVERAGE	N/A	25.94%

BUILDING FORM STANDARDS TABLE (ZONE BD-1)		
	REQUIRED	PROPOSED
MINIMUM FLOOR AREA RATIO	0.6	1.04
MAXIMUM BUILD-TO LINE	10 FT	15.50 Ft
MINIMUM BUILDING HEIGHT	18 FT	4 STORY (40'±)
NUMBER OF STORIES	2 FULL (MIN.)	4 FULL
AREA OF BUILDING FENESTRATION	65% (MIN.) (593 S.F. MIN.)	585.0 S.F. = 64.1%*
BUILDING FRONTAGE - LOT FRONTAGE RATIO	65% = 113.7 FT (174.85' x 65%)	65.2% (114.0 FT/174.85 FT)
ORIENTATION OF BUILDING ENTRANCES	2 STREET ENTRANCES	3 STREET ENTRANCES

VARIANCE APPLICATION #XXXX - APPROVED XXXXX

SITE IMPERVIOUS
Existing: 27,123 S.F. = 100%
Proposed: 18,916 S.F. = 69.7%

WETLANDS ARE LIMITED TO THE BOUNDS OF THE UNNAMED BROOK WITHIN THE CONCRETE WALLS
19,336 S.F. OF THE SITE IS WITHIN THE 100' UPLAND REVIEW AREA
NO WETLANDS DISTURBANCE PROPOSED

City of Bristol - Downtown Compliance Chart

		Main Street
Sec. VI.C.6.b.(1)	floor area ratio (.6 min)	
	gross floor area of buildings (sq. ft.)	28,140
	total lot area (sq. ft.)	27,123
	ratio of floor area to lot area (.60 required)	103.7%
Sec. VI.C.6.b.(2)	build-to line (10 ft. min.; 25 ft. max for up to 50% of building wall)	
	total length of building wall (ft.)	114
	portion of building wall up to 10-ft. build-to-line (ft.)	0
	portion of building wall up to 10-ft. build-to-line (%)	0%
	portion of building wall between 10-ft. build-to-line and 25ft. (ft.)	114
	portion of building wall between 10-ft. build-to-line and 25ft. (%)	100%
	greatest setback from front lot line (ft.)	15.5
Sec. VI.C.6.b.(5)	building fenestration ("glazing")* (65% min)	
	total area of building wall* (sq. ft.)	912
	portion of building wall cotaining glazing* (sq. ft.)	585
	portion of building wall cotaining glazing* (%)	64.1%
	** measured between 2 ft. and 10 ft. above street grade*	
Sec. VI.C.6.b.(6)	building frontage to lot frontage (65% min)	
	total length of building wall (building frontage) (ft.)	114'
	total length of front lot line (ft.)	174.85'
	ratio of building frontage to lot frontage	65.2%

N/F
THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY
VOL.421 - PG.475
75 MAIN STREET

N/F
THE CITY OF BRISTOL

N/F
JEROME H. REISMAN AND ROSELYN REISMAN, TRUSTEES
VOL.2160 - PG.291
21 MAIN STREET

N/F
JEROME H. REISMAN AND ROSELYN REISMAN, TRUSTEES
VOL.2160 - PG.302
25 MAIN STREET

PARKING REQUIREMENTS TABLE		
	REQUIRED	PROPOSED
RESIDENTIAL DWELLING UNIT		
28 TOTAL UNITS		
1.5 SPACES PER UNIT	42 SPACES	
PROPOSED RETAIL - 3,083 S.F.		
3 SPACES PER 1,000 S.F.	9.25 SPACES	
TOTAL:	= 51.25 SPACES	21 SPACES
		20 STANDARD
		1 HANDICAP

EXISTING UNNAMED BROOK
EXISTING CONCRETE WALL
EXIST. CONC. WALK
PROPOSED 5' CONCRETE SIDEWALK
PROPOSED HANDICAP SPACE WITH BOLLARD SIGN
PROPOSED BITUMINOUS PARKING LOT
PROPOSED BITUMINOUS DRIVEWAY
PROPOSED 4-STORY BUILDING
7,035 S.F. FOOTPRINT
3,083 S.F. RETAIL SPACE
+ 28 DWELLING UNITS
GROUND FLOOR ELEV. 299.00
SEE ARCHITECT'S PLAN FOR BUILDING DIMENSIONS
EXISTING CONCRETE WALL
PROPOSED CONCRETE PATIO/ENTRANCE AREA
PROPOSED CURB WALL (HEIGHT VARIES ±24")
PROPOSED CONCRETE WALKS ALONG FRONTAGE
PROPOSED RE-BUILT CONCRETE WALKS ALONG FRONTAGE
10' BUILD TO LINE
25' BUILD TO LINE
LIMIT OF 100' URA
PROPOSED 10' x 10' CONCRETE DUMPSTER PAD ENCLOSURE (SEE DETAIL)
PROPOSED 12" WIDE WHITE STOP BAR AND STOP SIGN
PROPOSED CONCRETE APRON TO CITY OF BRISTOL SPECIFICATIONS
PROPOSED RE-STRIPING OF MAIN STREET BY OTHERS
MAIN STREET
CURB
22.9'
12.0'
13.0'
15.5'
114.0'
5.5'
5.0'
7.9'
27.5'
10.0'
25.0'
90.3'
18.6'
9.0'
18.0'
13.6'
65.0'
30.9'
20.0'
5.0'
7/8"/FT DN
FLUSH
CC
12
9
D

PREPARED FOR:
Stephen Shapiro
Gold Coast Properties
303 Linwood Avenue - Suite 2D
Fairfield, CT 06824

R. R. HILTBRAND Engineers and Surveyors

SITE LAYOUT PLAN
#37 Main Street
Bristol, Connecticut
August 27, 2024

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

UTILITY NOTE:
LOCATION OF UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED UPON FIELD SURVEY OF VISIBLE SURFACE STRUCTURES SUCH AS CATCH BASINS AND MANHOLES, TOGETHER WITH RECORD MAPPING OBTAINED FROM UTILITY COMPANIES AND GOVERNMENTAL AGENCIES AS NOTED UNDER MAP REFERENCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. IN ADDITION, OTHER UTILITIES MAY ALSO EXIST, UNKNOWN TO THE SURVEYOR. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455.

GRAPHIC SCALE
10 5 0 10 20
1 Inch = 10 Feet

SITE IMPERVIOUS
Existing: 27,123 S.F. = 100%
Proposed: 18,916 S.F. = 69.7%

North

TEST PIT DATA:

DP #1 (PARKING LOT AREA)

0 - 3" BITUMINOUS CONCRETE
3 - 15" TAN MEDIUM-FINE SAND SUB-BASE
15 - 34" MIXED FILL
34 - 38" ORIGINAL GRADE (ORGANICS)
38 - 90" BROWN MEDIUM-FINE SAND AND GRAVEL (6" COBBLES)

NO GROUNDWATER MOTTLING @ 84"

DP #2 (BUILDING DEMO AREA)

0 - 36" MIXED FILL
36 - 40" ORIGINAL GRADE (ORGANICS)
40 - 99" BROWN MEDIUM-FINE SAND AND GRAVEL (6" COBBLES)

GROUNDWATER @ 96" MOTTLING @ 86"

N/F
THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY
VOL.421 - PG.475
75 MAIN STREET

N/F
THE CITY OF BRISTOL

N/F
JEROME H. REISMAN AND ROSELYN REISMAN, TRUSTEES
VOL.2160 - PG.291
21 MAIN STREET

N/F
JEROME H. REISMAN AND ROSELYN REISMAN, TRUSTEES
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25 MAIN STREET

EXISTING UNNAMED BROOK
EXISTING CONCRETE WALL
EXIST. CONC. WALK
LIMIT OF 100' URA
PROPOSED 5' CONCRETE SIDEWALK
PROPOSED CONCRETE PATIO/ENTRANCE AREA
PROPOSED CURB WALL (HEIGHT VARIES ±24")
MAIN STREET
CURB

PROPOSED STMH #1
TF - 298.40
FL - 295.00

PROPOSED 24"Ø YD #3
TF - 297.50
FL - 293.80

PROPOSED 24"Ø YD #2
TF - 297.50
FL - 293.80

PROPOSED 24"Ø YD #1
TF - 297.50
FL - 293.50

PROPOSED C-CB #3
TF - 297.50
FL - 294.50

PROPOSED C-CB #2
TF - 297.50
FL - 293.95

PROPOSED C-CB #1
TF - 297.50
FL - 294.70

PROPOSED C-CB #4
TF - 295.88±
FL - 292.50

PROPOSED 24"Ø YD #4
TF - 297.50
FL - 294.75

PROPOSED 4'Ø DOWNSTREAM DEFENDER S4
TF - 298.17
FL - 293.60 (IN)
FL - 293.60 (OUT)

100' - 12" CPP @ 1%
32' - 12" CPP @ 1%
22' - 12" CPP @ 5.5%
40' - 8" CPP @ 1%
52' - 12" CPP @ 1%
34' - 12" CPP (RL)
36' - 12" CPP @ 1%
75' - 12" CPP @ 1%

8"Ø CPP ROOF LEADER
FL - 296.40

12"Ø CPP ROOF LEADER OUTLET
FL - 296.40

PROPOSED 4-STORY BUILDING
7,035 S.F. FOOTPRINT
3,083 S.F. RETAIL SPACE
+ 28 DWELLING UNITS
GROUND FLOOR ELEV. 299.00

SEE ARCHITECT'S PLAN FOR BUILDING DIMENSIONS

STORAGE AND INFILTRATION SYSTEM
4 ROWS - 6 UNITS EACH ROW
STORMTECH SC-740
BOTTOM OF UNIT - 293.00

DP 1
DP 2

7/8"/FT DN

CATCHBASIN
TF=295.59
FL(N)=290.9
FL(S)=290.8

CATCHBASIN
TF=295.50
FL=287.3

CATCHBASIN
TF=295.94
FL(S)=292.3
FL(N)=292.3

MANHOLE
TF=296.82
FL(S)=292.6
FL(E)=292.6

CATCHBASIN
TF=296.27
FL(W)=292.8
FL(S)=292.7
FL(N)=292.7

CATCHBASIN
TF=296.18
FL(S)=291.9
FL(N)=291.7

CATCHBASIN
TF=297.74
FL(S)=293.9
FL(E)=293.8

CATCHBASIN
TF=297.43
FL(W)=293.4
FL(S)=294.4
FL(E)=293.3

CATCHBASIN
TF=297.03
FL(W)=293.3
FL(E)=293.3

MANHOLE
TF=297.12
FL(W)=292.9
FL(S)=N/A
FL(E)=N/A
FL(N)=292.8

CATCHBASIN
TF=296.53
FL(W)=295.1

PREPARED FOR:
Stephen Shapiro
Gold Coast Properties
303 Linwood Avenue - Suite 2D
Fairfield, CT 06824

SITE GRADING & DRAINAGE PLAN
#37 Main Street
Bristol, Connecticut
August 27, 2024

R. R. HILTBRAND Engineers and Surveyors

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

UTILITY NOTE:
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GRAPHIC SCALE
10 5 0 10 20
1 Inch = 10 Feet

SITE IMPERVIOUS
Existing: 27,123 S.F. = 100%
Proposed: 18,916 S.F. = 69.7%

North

N/F
THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY
VOL.421 - PG.475
75 MAIN STREET

EXISTING CONCRETE WALL

POSSIBLE GAS LATERAL LOCATION. FINAL LOCATION SHALL BE DETERMINED BY EVERSOURCE GAS

CATCHBASIN
TF=295.59
FL(N)=290.9
FL(S)=290.8

TF=295.62

CATCHBASIN
TF=295.50
FL=287.3

EXISTING UNNAMED BROOK

PROPOSED STMH #1
TF - 298.40
FL - 295.00

PROPOSED 24"Ø YD #3
TF - 297.50
FL - 293.80

PROPOSED 24"Ø YD #2
TF - 297.50
FL - 293.80

PROPOSED 24"Ø YD #1
TF - 297.50
FL - 293.50

100' - 12" CPP @ 1%

PROPOSED C-CB #4
TF - 295.88±
FL - 292.50

SAN-MANHOLE
TF=296.15

PROPOSED 4" DIP CL-52 DOMESTIC

PROPOSED 8" x 4" TSV & 4" GATE VALVE

PROPOSED 6" DIP CL-52 FIRE SERVICE

PROPOSED 8" x 6" TSV & 6" GATE VALVE

WG

BITUMINOUS PATCH TRENCHES TO CITY OF BRISTOL SPECIFICATIONS (TYPICAL)

SAN-MANHOLE
TF=296.37
INV=286.35

CATCHBASIN
TF=295.94
FL(S)=292.3
FL(N)=292.3

7/8"/FT DN

32' - 12" CPP @ 1%

22' - 12" CPP @ 5.5%

8"Ø CPP ROOF LEADER
FL - 296.40

PROPOSED 4-STORY BUILDING
7,035 S.F. FOOTPRINT
3,083 S.F. RETAIL SPACE
+ 28 DWELLING UNITS
GROUND FLOOR ELEV. 299.00

SEE ARCHITECT'S PLAN FOR BUILDING DIMENSIONS

PROPOSED CONCRETE PATIO/ENTRANCE AREA

PROPOSED CURB WALL (HEIGHT VARIES ±24")

DP 1

STORAGE AND INFILTRATION SYSTEM

BOTTOM OF UNIT = 293.00

4 ROWS - 6 UNITS EACH ROW

STORMTECH SC-740

PROPOSED C-CB #3
TF - 297.50
FL - 294.50

PROPOSED 5' CONCRETE SIDEWALK

40' - 8" CPP @

PROPOSED 24"Ø YD #4
TF - 297.50
FL - 294.75

52' - 12" CPP @ 1%

12"Ø CPP ROOF LEADER OUTLET
FL - 296.40

PROPOSED C-CB #2
TF - 297.50
FL - 293.95

34' - 12" CPP (RL)

DP 2

36' - 12" CPP @ 1%

PROPOSED 4'Ø DOWNSTREAM DEFENDER S4
TF - 298.17
FL - 293.60 (IN)
FL - 293.60 (OUT)

REPLACE EXISTING 4"Ø SANITARY TO MAIN WITH NEW 6"Ø PVC SDR-35 WITH BACKFLOW PREVENTER WITHIN BUILDING

LIMIT OF 100' URA

75' - 12" CPP @ 1%

PROPOSED C-CB #1
TF - 297.50
FL - 294.70

7/8"/FT DN

EXIST. CONC. WALK

N/F
THE CITY OF BRISTOL

WATER NOTES:
1. 6" FIRE SERVICE HAS NO CONNECTION FEES, BUT MUST BE PRESSURE TESTED, BACTERIA TESTED AND FLUSHED.

2. MINIMUM 3" SEPARATION REQUIRED BETWEEN 6" FIRE SERVICE AND 4" DOMESTIC SERVICE.

N/F
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VOL.2160 - PG.291
21 MAIN STREET

D

N/F
JEROME H. REISMAN AND ROSELYN REISMAN, TRUSTEES
VOL.2160 - PG.302
25 MAIN STREET

CATCHBASIN
TF=297.74
FL(S)=293.9
FL(E)=293.8

CATCHBASIN
TF=297.43
FL(W)=293.4
FL(S)=294.4
FL(E)=293.3

CATCHBASIN
TF=297.03
FL(W)=293.3
FL(E)=293.3

MANHOLE
TF=297.12
FL(W)=292.9
FL(S)=N/A
FL(E)=N/A
FL(N)=292.8

CATCHBASIN
TF=296.53
FL(W)=295.1

TF=296.79

SAN-MANHOLE
TF=297.10
INV=287.76

MANHOLE
TF=296.82
FL(S)=292.6
FL(E)=292.6

CATCHBASIN
TF=296.27
FL(W)=292.8
FL(S)=292.7
FL(N)=292.7

ABANDON WATER LATERAL AT THE MAIN PER C.O.B. WATER AND SEWER SPECIFICATIONS

CATCHBASIN
TF=296.18
FL(S)=291.9
FL(N)=291.7

ABANDON SEWER LATERAL AND CAP OFF PER C.O.B. WATER AND SEWER SPECIFICATIONS

BITUMINOUS PATCH TRENCHES TO CITY OF BRISTOL SPECIFICATIONS (TYPICAL)

MAIN STREET

UTILITY NOTE:
LOCATION OF UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED UPON FIELD SURVEY OF VISIBLE SURFACE STRUCTURES SUCH AS CATCH BASINS AND MANHOLES, TOGETHER WITH RECORD MAPPING OBTAINED FROM UTILITY COMPANIES AND GOVERNMENTAL AGENCIES AS NOTED UNDER MAP REFERENCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. IN ADDITION, OTHER UTILITIES MAY ALSO EXIST, UNKNOWN TO THE SURVEYOR. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455.

GRAPHIC SCALE
10 5 0 10 20
1 Inch = 10 Feet

PREPARED FOR:
Stephen Shapiro
Gold Coast Properties
303 Linwood Avenue - Suite 2D
Fairfield, CT 06824

R. R. HILTBRAND Engineers and Surveyors

SITE UTILITIES PLAN
#37 Main Street
Bristol, Connecticut
August 27, 2024

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

SITE IMPERVIOUS
Existing: 27,123 S.F. = 100%
Proposed: 18,916 S.F. = 69.7%

North

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THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY
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EXISTING CONCRETE WALL WILL PREVENT ANY SEDIMENT/RUN-OFF FROM ENTERING THE BROOK

EXISTING CONCRETE WALL

CATCHBASIN
TF=295.59
FL(N)=290.9
FL(S)=290.8

CATCHBASIN
TF=295.50
FL=287.3

PROPOSED C-CB #4
TF - 295.88±
FL - 292.50

EXISTING CONCRETE WALL WILL PREVENT ANY SEDIMENT/RUN-OFF FROM ENTERING THE BROOK

EXISTING UNNAMED BROOK

PROPOSED STMH #1
TF - 298.40
FL - 295.00

PROPOSED 24"Ø YD #3
TF - 297.50
FL - 293.80

PROPOSED 24"Ø YD #2
TF - 297.50
FL - 293.80

PROPOSED 24"Ø YD #1
TF - 297.50
FL - 293.50

100' - 12" CPP @ 1%

32' - 12" CPP @ 1%

22' - 12" CPP @ 5.5%

8"Ø CPP ROOF LEADER
FL - 296.40

PROPOSED 8"Ø SEDIMENT LOG (SEE DETAIL) (TYPICAL)

PROPOSED C-CB #3
TF - 297.50
FL - 294.50

PROPOSED 5' CONCRETE SIDEWALK

STORAGE AND INFILTRATION SYSTEM

BOTTOM OF UNIT - 293.00

4 ROWS - 6 UNITS EACH ROW

STORMTECH SC-740

40' - 8" CPP @ 1%

52' - 12" CPP @ 1%

PROPOSED 24"Ø YD #4
TF - 297.50
FL - 294.75

12"Ø CPP ROOF LEADER OUTLET
FL - 296.40

PROPOSED 4-STORY BUILDING
7,035 S.F. FOOTPRINT
3,083 S.F. RETAIL SPACE
+ 28 DWELLING UNITS
GROUND FLOOR ELEV. 299.00

SEE ARCHITECT'S PLAN FOR BUILDING DIMENSIONS

PROPOSED C-CB #2
TF - 297.50
FL - 293.95

34' - 12" CPP (RL)

36' - 12" CPP @ 1%

PROPOSED 4'Ø DOWNSTREAM DEFENDER S4
TF - 298.17
FL - 293.60 (IN)
FL - 293.60 (OUT)

LIMIT OF 100' URA

75' - 12" CPP @ 1%

PROPOSED C-CB #1
TF - 297.50
FL - 294.70

PROPOSED CONCRETE PATIO/ENTRANCE AREA

PROPOSED CURB WALL (HEIGHT VARIES ±24")

7/8"/FT DN

H.P.

INSTALL CRUSHED STONE CONSTRUCTION ENTRANCE (SEE DETAIL)

MAIN STREET

CURB

CATCHBASIN
TF=295.94
FL(S)=292.3
FL(N)=292.3

MANHOLE
TF=296.82
FL(S)=292.6
FL(E)=292.6

CATCHBASIN
TF=296.27
FL(W)=292.8
FL(S)=292.7
FL(N)=292.7

CATCHBASIN
TF=296.18
FL(S)=291.9
FL(N)=291.7

CATCHBASIN
TF=296.53
FL(W)=295.1

MANHOLE
TF=297.12
FL(W)=292.9
FL(S)=N/A
FL(E)=N/A
FL(N)=292.8

CATCHBASIN
TF=297.03
FL(W)=293.3
FL(E)=293.3

CATCHBASIN
TF=297.43
FL(W)=293.4
FL(S)=294.4
FL(E)=293.3

CATCHBASIN
TF=297.74
FL(S)=293.9
FL(E)=293.8

N/F
THE CITY OF BRISTOL

EXIST. CONC. WALK

N/F
JEROME H. REISMAN AND ROSELYN REISMAN, TRUSTEES
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21 MAIN STREET

N/F
JEROME H. REISMAN AND ROSELYN REISMAN, TRUSTEES
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UTILITY NOTE:
LOCATION OF UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED UPON FIELD SURVEY OF VISIBLE SURFACE STRUCTURES SUCH AS CATCH BASINS AND MANHOLES, TOGETHER WITH RECORD MAPPING OBTAINED FROM UTILITY COMPANIES AND GOVERNMENTAL AGENCIES AS NOTED UNDER MAP REFERENCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. IN ADDITION, OTHER UTILITIES MAY ALSO EXIST, UNKNOWN TO THE SURVEYOR. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455.

GRAPHIC SCALE
10 5 0 10 20
1 Inch = 10 Feet

PREPARED FOR:
Stephen Shapiro
Gold Coast Properties
303 Linwood Avenue - Suite 2D
Fairfield, CT 06824

R. R. HILTBRAND Engineers and Surveyors

EROSION & SEDIMENTATION CONTROL PLAN
#37 Main Street
Bristol, Connecticut
August 27, 2024

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

DESIGN REFERENCE:

SEDIMENT & EROSION CONTROL BASED ON 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL D.E.P. BULLETIN 34 BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION.

Erosion & Sediment Controls and Stabilization Practices

a. Temporary seeding.
b. Mulching.
c. Stone Rip-rap.

During construction, sheet runoff from the site will be filtered through hay bale barriers and silt fences. All storm drain inlets shall be provided with barrier filters. Stone rip-rap shall be provided at the outlets of drainage pipe in which erosive velocities are encountered.

Off Site Vehicle Tracking

Stabilized construction entrances will be installed at all proposed entrances.

Installation, Maintenance and Inspection Procedures of Erosion & Sediment Controls

A. General-

These are the general inspection and maintenance practices that will be used to implement the plan.

- The smallest practical portion of the site will be denuded at one time.

- All erosion control measures will be inspected at least once a week and following any storm event of 0.25 inches or greater.

- All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of the report.

- Built up sediment will be removed from the silt fence or hay bale barriers when it has reached one third the height of the of the fence or barrier.

- A maintenance inspection report will be made after each inspection.

- The contractor's site superintendent will be responsible for inspections, maintenance and repair activities, and completing the inspection and maintenance report.

- R.R. Hiltbrand Engineers & Surveyors shall inspect the site on a periodic basis to assure compliance with the plan.

B. Filters -

1. Straw/ hay bales
   a. Sheet Flow Applications
      1. Bales shall be placed in a single row , lengthwise on the contour, with the ends of the adjacent bales tightly abutting one another.
      2. All bales shall be either wire bound or string tied. Bales shall be installed so that the bindings are oriented around the sides rather than along the tops and bottoms of the bales to prevent deterioration of the bindings.
      3. The barrier shall be entrenched and backfilled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a minimum depth of (4) inches. After the bales are staked and chinked, the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill side and shall be built-up to (4) inches against the uphill side of the barrier. Ideally, bales should be placed ten (10) feet away from the toe of slope.
      4. Each bale shall be securely anchored by at least two (2) stakes or rebars driven through the bale. The first stake in each bale shall be driven toward the previously laid bale to force the bales together. Stakes and rebars shall be driven deep enough into the ground to securely anchor the bales.
      5. The gaps between bales shall be chinked (filled by wedging) with straw/hay to prevent water from escaping between the bales.
2. Silt Fence
   a. Synthetic filter fabric shall be a pervious sheet of propylene, nylon, polyester or ethylene yarn and shall be certified by the manufacturer or supplier as conforming to the following requirements.

Physical Property Test Requirements

Filtering Efficiency ASTM 5,41 75% minimum

Grab Tensile Strength ASTM D4632 100lbs.
Elongation & Failure ASTM D4632 15%
Puncture Strength
ASTM 4833 50 lbs.
Flow Rate ASTM D4491 0.2gal./ft2/min.

Ultra-Violet Radiation Stability % ASTM D4355 70% after 500 hours of exposure

b. The height of a silt fence shall not exceed thirty (30) inches above grade.

c. The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth shall be spliced together only at the support posts, with a min. six (6) inch overlap, and securely sealed.

d. Posts shall be spaced a maximum of ten (10) feet apart at the barrier location and driven securely into the ground (min. of 12 inches).

e. A trench shall be excavated approximately six (6) inches wide and six (6) inches deep along the line of posts and upslope from the barrier.

f. When 'standard strength' filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy duty wire staples at least one inch long, tie wires or hog rings. The wire shall extend no more than 30 inches above the original ground surface.

g. The 'standard strength' filter fabric shall be stapled or wired to the fence, and eight (8) inches of the fabric shall be extended into the trench. The fabric shall not extend more than 30 inches above the original ground surface.

h. When 'extra strength' filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case the filter fabric is stapled or wired directly to the posts with all other provisions of item 'g' applying.

i. The trench shall be backfilled and the soil compacted over the filter fabric.

j. Silt fences shall be removed when they have served their useful purpose, but not before the upslope areas have been permanently stabilized.

Sequence of Installation

Sediment barriers shall be installed prior to any soil disturbance of the contributing drainage area above them.

Maintenance

a. Straw/ hay bale barrier and silt fence barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. They shall be repaired if there are any signs of erosion or sedimentation below them. Any required repairs shall be made immediately. If there are signs of undercutting at the center or the ends, or impounding of large volumes of water behind them, sediment barriers shall be replaced with a temporary check dam.

b. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier still is necessary, the fabric shall be replaced promptly.

c. Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately (1/3) the height of the barrier.

d. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

C. Mulching

1. Timing

In order for mulch to be effective, it must be in place prior to major storm events There are two (2) types of standards which shall be used to assure this.

a. Apply mulch prior to any storm event.

This is applicable when working within 100 feet of wetlands. It will be necessary to closely monitor weather predictions, usually by contacting the National Weather Service in Massachusetts (508- 822- 0634), to have adequate warning of significant storms.

b. Required mulching within a specified time period.

The time period can range from 14 to 21 days of inactivity on an area, the length of time varying with site conditions, Professional judgment shall be used to evaluate the interaction of site conditions (soil erodibility, season of year, extent of disturbance, proximity to sensitive resources, etc.) and the potential impact of erosion on adjacent areas to choose an appropriate time restriction.

2. Guidelines for winter mulch application.

When mulch is applied to provide protection over winter (past the growing season) it shall be at a rate of 6000 lb. of hay or straw per acre. A tackifier may be added to the mulch.

3. Maintenance

All mulches must be inspected periodically, in particular after rain storms, to check for erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied.

D. Temporary Grass Cover

1. Seedbed Preparation

Apply fertilizer at the rate of 300 lb. / acre of 10-10-10. Apply limestone (equivalent to 50% calcium plus magnesium oxide) at a rate of (1) tons/ acre.

2. Seeding

a. Utilize annual rye grass at a rate of 40 lb./ acre.

b. Where the soil has been compacted by construction operations, loosen soil to a depth of two (2) inches before applying fertilizer, lime and seed.

c. Apply seed uniformly by hand, cyclone seeder, or hydroseeder (slurry including seed and fertilizer), Hydroseedings, which include mulch, may be left on soil surface. Seeding rates must be increased 10% when hydroseeding.

3. Maintenance

Temporary seedings shall be periodically inspected. At a minimum, 95% of the soil surface shall be covered by vegetation. If any evidence of erosion or sedimentation is apparent, repairs shall be made and other temporary measures used in the interim (mulch, filter barriers, check dams, etc.).

E. Permanent Grass Cover

1. Seedbed Preparation

Apply fertilizer at the rate of 300 lb. / acre of 10-10-10. Apply limestone (equivalent to 50% calcium plus magnesium oxide) at a rate of (1) tons/ acre.

2. Seeding

	Lbs./1,000 Sq. Ft.
a. Utilize Creeping Red Fescue (Pennlawn, Wintergreen)	.45
Redtop (Streeker, Common)	.10
Tall Fescue (Kentucky 31 or Smooth Bromegrass (Saratoga, Lincoln)	.45
	1.00

b. Where the soil has been compacted by construction operations, loosen soil to a depth of two (2) inches before applying fertilizer, lime and seed.

c. Apply seed uniformly by hand, cyclone seeder, or hydroseeder (slurry including seed and fertilizer), Hydroseedings, which include mulch, may be left on soil surface. Seeding rates must be increased 10% when hydroseeding.

F. Storm Drain Inlet Protection

1. Straw Bale Inlet Structure

a. Bales shall be either wire bound or string tied with the bindings oriented around the sides rather than over and under the bales.

b. Bales shall be placed lengthwise in a single row surrounding the inlet, with the ends of adjacent bales pressed together.

c. The filter barrier shall be entrenched and backfilled. A trench shall be excavated around the inlet the width of a bale to a minimum depth of four (4) inches. After the bales are staked, the excavated soil shall be backfilled and compacted against the filter barrier.

d. Each bale shall be securely anchored and held in place by at least two (2) stakes or rebars driven through the bale.

e. Loose straw shall be wedged between bales to prevent water from entering between bales.

F. Stabilized Construction Entrance

1. Specifications

a. Aggregate Size: Use two (2) inch stone, (Gradation Shall Be D.O.T. No. 3)

b. Aggregate thickness: Not less than six (6) inches.

c. Width: Ten (10) foot minimum, but not less than the full width of points where ingress or egress occurs.

d. Length: As required, but not less than one hundred (50) feet.

e. Geotextile: To be placed over the entire area to be covered with aggregate. Piping of surface water under entrance(s) shall be provided as required.

f. Criteria for Geotextile: The fabrics shall be Trevia Spunbound 1135, Mirafi 6000x, or equal.

2. Maintenance

The entrance(s) shall be maintained in a condition which will prevent tracking of sediment onto the public right-of-way. When washing is required, it shall be completed on an area stabilized with aggregate which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches or waterways.

Timing of Controls/ Measures

As indicated in the sequence of Major Activities the hay bales and silt fences shall be installed prior to commencing any clearing, demolition or grading of the site. Structural controls shall be installed concurrently with the applicable activity, Area(s) where construction activity temporarily ceases for more than twenty one (21) days will be stabilized with a temporary seed and mulch within fourteen (14) days of the last disturbance. Once construction activity ceases permanently in an area, silt fences and hay bale barriers will be removed once permanent measures are established.

Waste Disposal

A. Waste Materials

All waste materials will be collected and stored in securely lidded receptacles. All trash and construction debris from the site will be deposited into a dumpster. No construction waste materials will be buried on site. All personnel will be instructed regarding the correct procedure for waste disposal by the superintendent.

B. Hazardous Waste

All hazardous waste materials will be disposed of in the manner specified by local or state regulation or by the manufacturer. Site personnel will be instructed in the practices by the superintendent.

C. Sanitary Waste

All sanitary waste will be collected from the portable units a minimum of once per week by a licensed sanitary waste management contractor.

Spill Prevention

A. Material Management Practices

The following are the materials management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances during construction to storm water runoff:

Good Housekeeping:

The following good housekeeping practices will be followed on site during the construction project:

-An effort will be made to store only sufficient amounts of products to do the job.

-All materials stored on site will be stored in a neat, orderly manner in their proper (original if possible) containers and, if possible, under a roof or other enclosure.

-Manufacturer's recommendations for proper use and disposal will be followed.

-The site superintendent will inspect daily to ensure proper use and disposal of materials.

-Substances will not be mixed with one another unless recommended by the manufacturer.

-When ever possible all of a product will be used up before disposing of the container.

Hazardous Products:

The following practices will be used to reduce the risks associated with hazardous products:

-Products will be kept in their original containers unless they are not re-sealable

-Original labels and product safety data will be retained for important product information.

-Surplus product that must be disposed of will be discarded according to the manufacturer's recommended methods of disposal.

B. Product Specific Practices

The following product specific practices will be followed on site:

Petroleum Products:

All on site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. Any asphalt based substances used on site will be applied according to the manufacturer's recommendations.

Fertilizers:

Fertilizers used will be applied only in the minimum amounts directed by the specifications. Once applied, fertilizer will be worked into the soil to limit exposure to storm water Storage will be in a covered shed or enclosed trailers. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

Paints:

All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system but will be disposed of properly according to manufacturer's instructions or state and local regulations.

Concrete Trucks:

Concrete trucks will discharge and wash out surplus concrete or drum wash water in a contained area on site..

C. Spill Control Practices

In addition to good housekeeping and material management practices discussed in the previous section the following practices will be followed for spill prevention and cleanup:

-Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnnel will be made aware of the procedures and the location of the information and cleanup supplies.

-Materials and equipment necessary for spill cleanup will be kept in the material storage area on site. Equipment and materials will include but not limited to brooms, dustpans, mops, rags, gloves, goggles, kitty litter, sand, sawdust and plastic or metal trash containers specifically for this purpose.

-All spills will be cleaned up immediately after discovery.

-The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.

-Spills of toxic or hazardous material will be reported to the appropriate state or local government agency, regardless of the size.

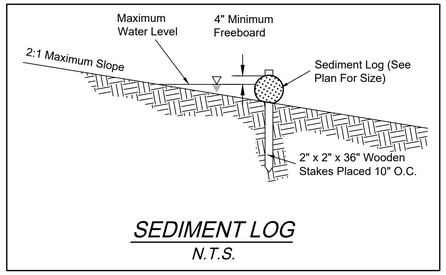
-The spill prevention plan will be adjusted to include measures to prevent this type of spill from recurring and how to cleanup the spill if it recurs. A description of the spill, its cause, and the cleanup measures will be included.

-The site superintendent responsible for day to day operations will be the spill prevention and cleanup coordinator.

The General Contractor(s) and/or Project Owner(s)
are assigned the responsibility for implementing this erosion and sediment control plan. This responsibility includes the installation and maintenance of control measures, informing all parties engaged on the construction site of the requirements and objectives of the plan, notifying the Planning and Zoning office of any transfer of this responsibility, and for conveying a copy of the Sediment & Erosion Control Plan if the title to the land is transferred.

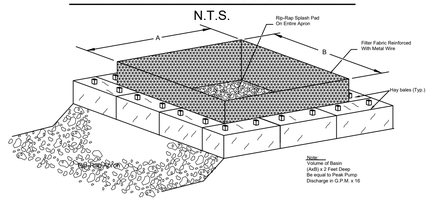
Responsible Person:
GOLD COAST PROPERTIES
Stephen Shapiro
203-610-1545

Contingency Erosion Plan
Should unforeseen erosion or sedimentation problems arise, the design engineer of record. (R.R. Hiltbrand Engineers & Surveyors) and the local enforcement agent shall be notified immediately. An inspection of the affected area(s) shall be promptly performed. A remedial action plan shall be formulated with the local enforcement agent's approval. The site contractor shall then implement the recommended course of action which has been determined by both the engineer and local enforcement agent.

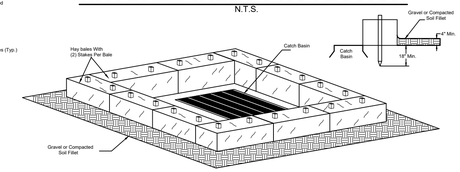


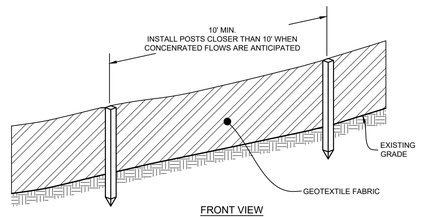
SEDIMENT LOG
N.T.S.

TEMPORARY SEDIMENT BASIN FOR DEWATERING DISCHARGE



HAYBALE INLET PROTECTION





FRONT VIEW

DETAIL FOR FENCE JOINT

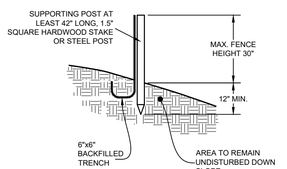


* POSITION POSTS TO OVERLAP AS SHOWN ABOVE, MAKING CERTAIN THAT THE FABRIC FOLDS AROUND EACH POST ONE FULL TURN

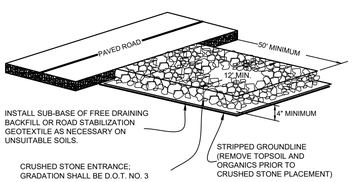
* DRIVE POSTS TIGHTLY TOGETHER AND SECURE TOPS OF POSTS BY TYING OFF WITH CORD OR WIRE TO PREVENT FLOW-THROUGH OF BUILT-UP SEDIMENT AT JOINT.

SILT FENCE
N.T.S.

1. THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR SILT FENCES, OF THE '2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL'.
2. THE HEIGHT OF THE BARRIER SHALL NOT EXCEED 30 INCHES ABOVE GRADE.
3. POSTS SHALL BE SPACED A MAXIMUM OF (10) FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MIN. 12 INCHES). WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL BE AS THE MANUFACTURER RECOMMENDS.
4. A TRENCH SHALL BE EXCAVATED APPROX., (6) INCHES WIDE BY (6) INCHES DEEP ALONG THE LINE OF THE POSTS AND UPSLOPE FROM THE BARRIER IN ACCORDANCE WITH RECOMMENDATIONS.
5. THE FABRIC SHALL NOT EXTEND MORE THAN (30) INCHES ABOVE THE ORIGINAL GROUND SURFACE, AND WILL EXTEND A MINIMUM OF (8) INCHES INTO THE TRENCH. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
6. THE TRENCH SHALL BE BACKFILLED AND SOIL COMPACTED OVER THE FILTER FABRIC.
7. FILTER BARRIERS SHALL BE REMOVED WHEN THE HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPHILL SURFACE HAS BEEN PERMANENTLY STABILIZED.
8. FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL, AND AT LEAST DAILY DURING PROLONGED RAINFALL, ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
9. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
10. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
11. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED, SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.



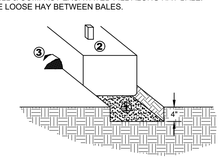
SIDE VIEW



CONSTRUCTION ENTRANCE n.t.s.

PLACEMENTand CONSTRUCTION OF HAY BALE BARRIER
N.T.S.

1. EXCAVATE TRENCH 4" AND PLACE FILL UP-SLOPE OF TRENCH. PLACE HAYBALE & STAKE FIRST STAKE AT ANGLE TOWARDS
2. FIRST HAYBALE. STAKES ARE 18" MIN. INTO GROUND.
3. BACKFILL & COMPACT EXCAVATED FILL ALONG HAY BALE.
4. WEDGE LOOSE HAY BETWEEN BALES.



SEDIMENT AND EROSION CONTROL SEQUENCE:

1. CALL BEFORE YOU DID - 1-800-922-4455.
2. PRE-CONSTRUCTION MEETING WITH BRISTOL WETLANDS AND ZONING STAFF.
3. UTILIZE EXISTING NORTHEASTERN SIDEWALK RAMP ENTRANCE TO SITE FOR AS LONG AS POSSIBLE.
4. ONCE EXISTING ENTRANCE IS NO LONGER PRACTICAL, INSTALL STONE CONSTRUCTION ENTRANCE.
5. COMPLETE DEMOLITION OF BITUMINOUS SURFACES AND REMOVE OFF-SITE.
6. INSTALL PERIMETER EROSION CONTROLS AS SHOWN INCLUDING AN 8"Ø SEDIMENT LOG ALONG MAIN STREET FRONTAGE.
7. CONTACT TOWN STAFF FOR INSPECTION 24 HOURS PRIOR TO EXCAVATION OF BUILDING FOUNDATION.
8. COMPLETE EXISTING UTILITY DISCONNECTS FOR EXISTING WATER AND SEWER LATERALS.
9. EXTEND NEW WATER AND SEWER LATERALS TO BUILDING FOOTPRINT.
10. EXCAVATE FOR BUILDING FOOTINGS AND WALLS
11. BACKFILL FOOTINGS AND WALLS.
12. INSTALL SITE STORM DRAINAGE.
13. CONSTRUCT ACCESS DRIVEWAY AND PARKING LOT TO PROCESS GRAVEL SURFACE FOR PROJECT STAGING.
14. CONSTRUCT BUILDING.
15. REMOVE CURBING AND SIDEWALKS ALONG MAIN STREET.
16. CONSTRUCT CONCRETE OPEN-AIR PATIO/ENTRANCE AREA.
17. INSTALL GRANITE CURB ALONG PROJECT FRONTAGE.
18. CONSTRUCT NEW CONCRETE WALKS AND ENTRANCE RAMP TO SITE.
19. BITUMINOUS PAVE ACCESS DRIVE AND PARKING LOT.
20. INSTALL EXTRUDED CONCRETE IN AREAS WITHOUT MONOLITHIC CURB
21. COMPLETE PROJECT RESTORATION, LANDSCAPING AND LIGHTING.
22. MAINTAIN ALL EROSION CONTROLS ON PROPERTY AS NEEDED. ADDITIONAL EROSION CONTROLS MAY BE REQUIRED BASED ON SITE CONDITIONS.

Maintenance of Erosion and Sediment Controls

CE 1. **Construction Entrance (CE)**
Maintain the entrance in a condition which will prevent tracking and washing of sediment onto paved surfaces. Provide periodic top dressing with additional stone or additional length as conditions demand. Repair any measures used to trap sediment as needed. Immediately remove all sediment spilled, dropped, washed or tracked onto paved surfaces. Roads adjacent to a construction site shall be left clean at the end of each day. If the construction entrance is being properly maintained and the action of a vehicle traveling over the stone pad is not sufficient to remove the majority of the sediment, then either (1) increase the length of the construction entrance, (2) modify the construction entrance road surface, or (3) install washing racks and associated settling area or similar devices before the vehicle enters a paved surface.

GSF 2. **Geo-textile Silt Fence (GSF)**
Inspect the silt fence at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater. Inspection of silt fence prior to large anticipated storms is also recommended.

PS 3. **Permanent Seeding (PS)**
Inspect permanent seeding at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater during the first growing season. Repair eroded areas as needed to control erosion with existing erosion controls or add additional erosion controls.

DC 4. **Entrance and Dust Control Maintenance**
a. Sweep paved apron at entrance to site weekly or as required. Any spillage on the Farmington River Turnpike by truck wheels shall be removed daily.
b. Dust control measures will be a daily activity when required. Water will be used to suppress dust from the haul road and general work area.
c. Clear drywells of silt and debris as needed.
d. To prevent airborne dust, excavation face area will be kept to a minimum. Topsoil to be stripped as excavation progresses and areas reclaimed immediately.

MS 5. **Mulch for Seed (MS)**
Application of mulch to protect soil surface and promote the establishment of seeding. See Maintenance Notes for inspection requirements.

IP 6. **Inlet Protection (IP)**
a. Inspect the structure after each major rainfall for damage and deterioration. Repair damage immediately. (See Erosion and Sedimentation Control Details Sheet ES7).

SL 7. **Sediment Log (SL)**
Inspect the sediment log at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater. Inspection of sediment log prior to large anticipated storms is also recommended.

PREPARED FOR:
Stephen Shapiro
Gold Coast Properties
303 Linwood Avenue - Suite 2D
Fairfield, CT 06824

R. R. HILTBRAND
Engineers and Surveyors

EROSION AND SEDIMENTATION CONTROL NOTES AND DETAILS
#37 Main Street
Bristol, Connecticut
August 27, 2024

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

PROJECT INFORMATION	
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ADS SALES REP:	JOHN STELMOKAS 413-519-2036 JOHN.STELMOKAS@ADSPIPE.COM
PROJECT NO:	5438866

Advanced Drainage Systems, Inc.

37 MAIN ST. - PROPOSED RETAIL PLAZA

BRISTOL, CT

SC-740 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH SC-740.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN/IN, THE ASC IS DEFINED IN SECTION 8.2.8 OF ASTM F2418, AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE EVALUATION SHALL DEMONSTRATE THAT WHEEL LOADS ON TOP OF THE CHAMBER ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD. THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTION 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.
10. MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 8.32 FOR MANIFOLD SIZING GUIDANCE. DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
11. ADS DOES NOT DESIGN OR PROVIDE MEMBRANE LINER SYSTEMS. TO MINIMIZE THE LEAKAGE POTENTIAL OF LINER SYSTEMS, THE MEMBRANE LINER SYSTEM SHOULD BE DESIGNED BY A KNOWLEDGEABLE GEOTEXTILE PROFESSIONAL AND INSTALLED BY A QUALIFIED CONTRACTOR.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-740 SYSTEM

1. STORMTECH SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS SHOWN IN THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 9" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE; AASHTO M43 #0, 357, 4, 467, 5, 56, OR 57.
8. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
9. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH SC-740 CHAMBERS SHALL NOT BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-740 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-800-821-6710 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

ADS-ACAD, INC.

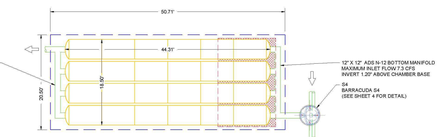
ADS SiteAssist® FOR STORMTECH INSTALLATION INSTRUCTIONS VISIT OUR WEBSITE

PROPOSED LAYOUT

24	STORMTECH SC-740 CHAMBERS
8	STORMTECH SC-740 END CAPS
6	STONE ABOVE (in)
6	STONE BELOW (in)
40	% STONE VOID
1040	SYSTEM AREA (ft²)
140	SYSTEM PERIMETER (ft)

PROPOSED ELEVATIONS

304.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
298.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
297.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
297.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
297.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
296.50	TOP OF STONE
296.00	TOP OF SC-740 CHAMBER
295.80	12" BOTTOM MANIFOLD INVERT
293.50	BOTTOM OF SC-740 CHAMBER
293.00	BOTTOM OF STONE



NO ISOLATOR ROW PLUS

PLACE MINIMUM 12.5' OF ADSPLUS85 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS

37 MAIN ST. - PROPOSED RETAIL PLAZA — BRISTOL, CT — DATE: 08/20/2024 — DRAWN: JTS — PROJECT #: 5438866 — CHECKED: JTS

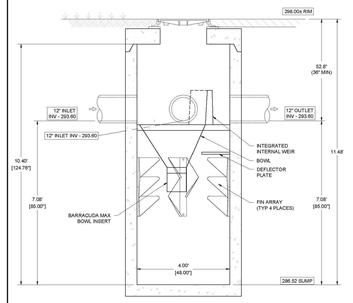
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4640 TRUEMAN BLVD HILLIARD, OH 43026

ADS AS NOTED

SHEET 3 OF 6

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SECTION VIEW A-A
SCALE: 1" = 1'

PRODUCT SPECIFICATIONS

- THE STORMWATER TREATMENT UNIT SHALL BE AN INLINE UNIT CAPABLE OF CONVEYING 100% OF THE DESIGN PEAK FLOW. IF PEAK FLOW RATES EXCEED MAXIMUM HYDRAULIC RATE, THE UNIT SHALL BE INSTALLED OFFLINE.
- THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 80% OF THE SUSPENDED SOLIDS ON AN ANNUAL AGGREGATE REMOVAL BASIS. SAID REMOVAL SHALL BE BASED ON FULL-SCALE THIRD PARTY TESTING USING OK-110 MEDIA GRADATION OR EQUIVALENT AND 300 mg/L INFLUENT CONCENTRATION. SAID FULL SCALE TESTING SHALL HAVE INCLUDED SEDIMENT CAPTURE BASED ON ACTUAL TOTAL MASS COLLECTED BY THE STORMWATER TREATMENT UNIT.
  - OR -
  THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS USING A MEDIA MIX WITH d_{50}=75 MICRON AND 200 MG/L INFLUENT CONCENTRATION.
  - OR -
  THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS PER CURRENT NJDEP/NJCAT HDS PROTOCOL.

SITE SPECIFIC PLAN VIEW
SCALE: 1" = 5'

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Barracuda Max Stormwater Separator

ADS AS NOTED

SHEET 4 OF 6

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PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER:	NICHOLAS BEDDINGFIELD 713-559-5811 NICHOLAS.BEDDINGFIELD@ADSPIPE.COM
ADS SALES REP:	JOHN STELMOKAS 413-519-2036 JOHN.STELMOKAS@ADSPIPE.COM
PROJECT NO:	5438866

Advanced Drainage Systems, Inc.

37 MAIN ST. - PROPOSED RETAIL PLAZA

BRISTOL, CT

BAYSAVER BARRACUDA SPECIFICATIONS

MATERIALS AND DESIGN

CONCRETE STRUCTURES: DESIGNED FOR H-20 AND/OR HS-20 TRAFFIC LOADING AND APPLICABLE SOIL LOADS OR AS OTHERWISE DETERMINED BY A LICENSED PROFESSIONAL ENGINEER. THE MATERIALS AND STRUCTURAL DESIGN OF THE DEVICES SHALL BE PER ASTM C857 AND ASTM C858.

48" HP MANHOLE STRUCTURES: MADE FROM AN IMPACT MODIFIED COPOLYMER POLYPROPYLENE MEETING THE MATERIAL REQUIREMENTS OF ASTM F2764. THE ECCENTRIC CONE REDUCER SHALL BE MANUFACTURED FROM POLYETHYLENE MATERIAL MEETING ASTM D3350 CELL CLASS 315320C. GASKETS SHALL BE MADE OF MATERIAL MEETING THE REQUIREMENTS OF ASTM F477.

SEPARATOR INTERNALS SHALL BE SUBSTANTIALLY CONSTRUCTED OF STAINLESS STEEL, POLYETHYLENE, OR OTHER THERMOPLASTIC MATERIAL APPROVED BY THE MANUFACTURER.

PERFORMANCE

THE STORMWATER TREATMENT UNIT SHALL BE AN INLINE UNIT CAPABLE OF CONVEYING 100% OF THE DESIGN PEAK FLOW. IF PEAK FLOW RATES EXCEED MAXIMUM HYDRAULIC RATE, THE UNIT SHALL BE INSTALLED OFFLINE.

THE STORMWATER TREATMENT UNIT INTERNALS SHALL CONSIST OF(1)SEPARATOR CONE ASSEMBLY, AND (1)SUMP ASSEMBLY WHICH INCLUDES(4) LEGS WITH "TEETH".

THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 80% OF THE SUSPENDED SOLIDS ON AN ANNUAL AGGREGATE REMOVAL BASIS. SAID REMOVAL SHALL BE BASED ON FULL-SCALE THIRD PARTY TESTING USING OK-110 MEDIA GRADATION OR EQUIVALENT AND 300 mg/L INFLUENT CONCENTRATION. SAID FULL SCALE TESTING SHALL HAVE INCLUDED SEDIMENT CAPTURE BASED ON ACTUAL TOTAL MASS COLLECTED BY THE STORMWATER TREATMENT UNIT.
- OR -
THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS USING A MEDIA MIX WITH d_{50}=75 MICRON AND 200 MSG, INFLUENT CONCENTRATION.
- OR -
THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS PER CURRENT NJDEP/NJCAT HDS PROTOCOL.

MANUFACTURER

EACH STORMWATER TREATMENT SYSTEM SHALL BE A BARRACUDA SYSTEM AS MANUFACTURED BY BAYSAVER, LLC. 1030 DEER HOLLOW DR., MOUNT AIRY, MD 21771, PHONE (301) 829-8470, FAX (301) 829-3747, TOLL FREE 1-800-229-7283 (1-800-BAYSAVER), EMAIL INFO@BAYSAVER.COM

BARRACUDA MAINTENANCE

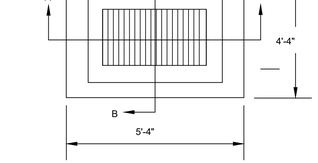
BARRACUDA SYSTEMS MUST BE INSPECTED AND MAINTAINED PERIODICALLY. INSPECTION IS MADE BY CHECKING THE DEPTH OF SEDIMENT IN EACH MANHOLE WITH A GRADE STICK OR SIMILAR DEVICE. MAINTENANCE IS REQUIRED WHEN THE SEDIMENT DEPTH IN EXCEEDS 20 INCHES. MINIMUM INSPECTION IS RECOMMENDED TWICE A YEAR TO MAINTAIN OPERATION AND FUNCTION OF THE UNIT.

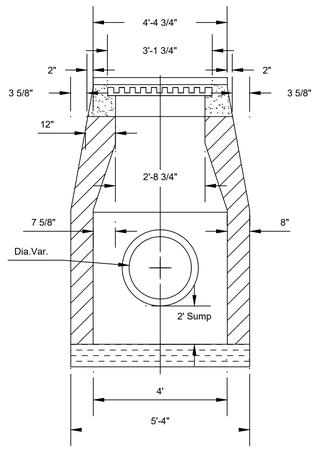
MAINTENANCE INSTRUCTIONS

1. REMOVE THE MANHOLE COVER TO PROVIDE ACCESS TO THE POLLUTANT STORAGE. POLLUTANTS ARE STORED IN THE SUMP, BELOW THE BOWL ASSEMBLY VISIBLE FROM THE SURFACE. YOU'LL ACCESS THIS AREA THROUGH THE 10" DIAMETER ACCESS CYLINDER.
2. USE A VACUUM TRUCK OR OTHER SIMILAR EQUIPMENT TO REMOVE ALL WATER, DEBRIS, OILS AND SEDIMENT.
3. USE A HIGH PRESSURE HOSE TO CLEAN THE MANHOLE OF ALL THE REMAINING SEDIMENT AND DEBRIS. THEN, USE THE VACUUM TRUCK TO REMOVE THE WATER.
4. FILL THE CLEANED MANHOLE WITH WATER UNTIL THE LEVEL REACHES THE INVERT OF THE OUTLET PIPE.
5. REPLACE THE MANHOLE COVER.
6. DISPOSE OF THE POLLUTED WATER, OILS, SEDIMENT AND TRASH AT AN APPROVED FACILITY.
   - LOCAL REGULATIONS PROHIBIT THE DISCHARGE OF SOLID MATERIAL INTO THE SANITARY SYSTEM. CHECK WITH THE LOCAL SEWER AUTHORITY FOR AUTHORITY TO DISCHARGE THE LIQUID.
   - SOME LOCALITIES TREAT THE POLLUTANTS AS LEACHATE. CHECK WITH LOCAL REGULATORS ABOUT DISPOSAL REQUIREMENTS.
   - ADDITIONAL LOCAL REGULATIONS MAY APPLY TO THE MAINTENANCE PROCEDURE.

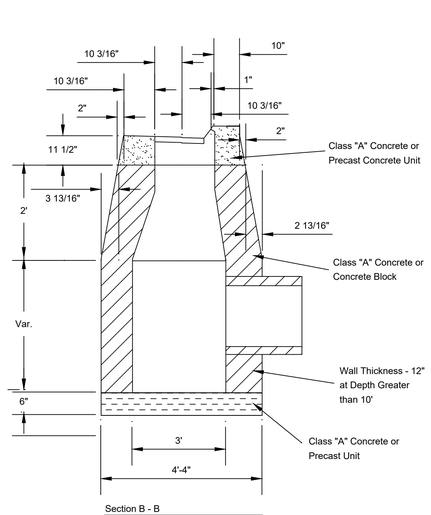
BARRACUDA INSTALLATION NOTES

INSTALLATION OF THE STORMWATER TREATMENT UNIT(S) SHALL BE PERFORMED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. SUCH INSTRUCTIONS CAN BE OBTAINED BY CALLING ADVANCED DRAINAGE SYSTEMS AT (800) 821-6710 OR BY LOGGING ON TO WWW.ADS-PIPE.COM OR WWW.BAYSAVER.COM.





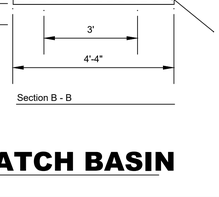
Section A - A



Section B - B

TYPE "C" CATCH BASIN

n. t. s.



CLASS I BACKFILL:
ANGULAR CRUSHED STONE OR ROCK, DENSE OR OPEN-GRADED WITH LITTLE OR NO FINES (NOMINAL 1" INCHES TO 2" INCHES IN SIZE).

CLASS II BACKFILL:
CLEAN, COARSE-GRAINED MATERIALS, SUCH AS GRAVEL, COARSE SANDS AND GRAVEL-SAND MIXTURES (1" inches (max. size).

CLASS III BACKFILL:
COARSE-GRAINED MATERIALS WITH FINES INCLUDING SILTY OR CLAYEY GRAVELS OR SANDS. GRAVEL OR SAND MUST COMPRISE MORE THAN 50 PERCENT OF CLASS III MATERIALS (1" INCHES MAX. SIZE)

ADS N-12 (CPP) TRENCH DETAIL

N.T.S.

PREPARED FOR:
Stephen Shapiro Gold Coast Properties 303 Linwood Avenue - Suite 2D Fairfield, CT 06824

R. R. HILTBRAND Engineers and Surveyors

SITE DETAILS
Sheet 1 OF XXX
#37 Main Street
Bristol, Connecticut
August 27, 2024

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

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ADS AS NOTED

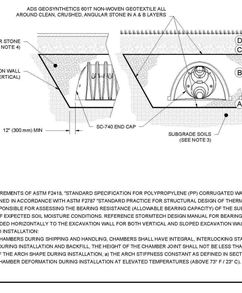
SHEET 5 OF 6

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ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR RIGID PAVEMENT SUBBASE OR BASE COURSE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE.	AASHTO M145[2] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% RELATIVE DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[3]	AASHTO M43* 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[3]	AASHTO M43* 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) MAX LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



NOTES:

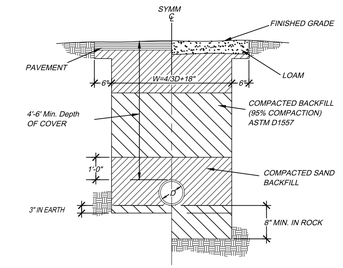
1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS. REFERENCE STORMTECH DESIGN MANUAL FOR BEARING CAPACITY GUIDANCE.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 8.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT/IN, AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

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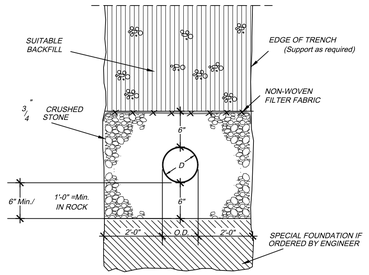
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ADS AS NOTED



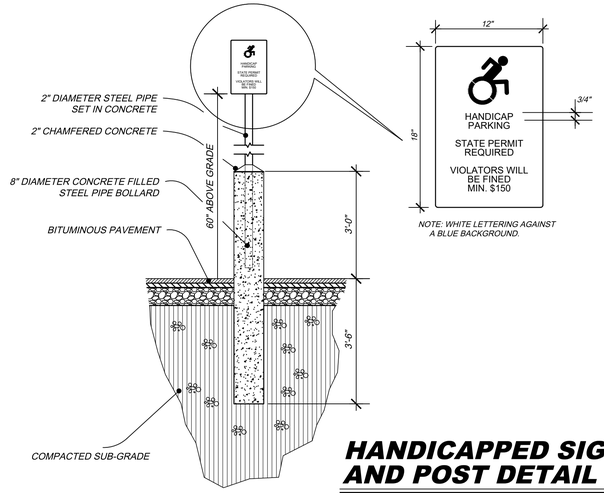
WATER MAIN TRENCH SECTION

N.T.S.



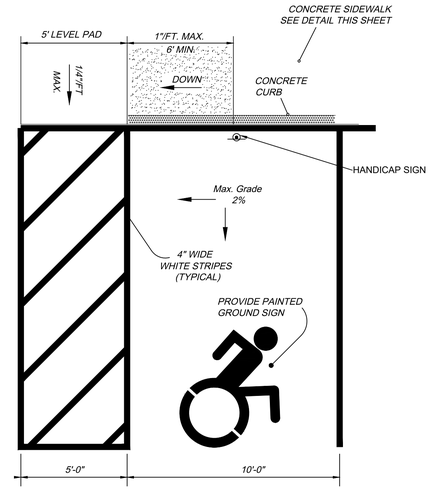
SANITARY SEWER TRENCH SECTION

N.T.S.



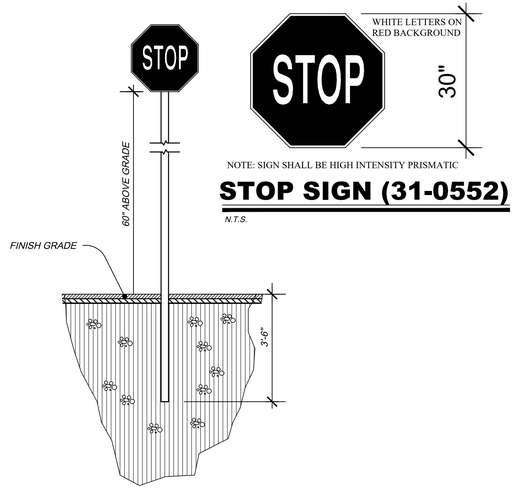
HANDICAPPED SIGN AND POST DETAIL

N.T.S.



HANDICAPPED PARKING STALL DETAIL

N.T.S.



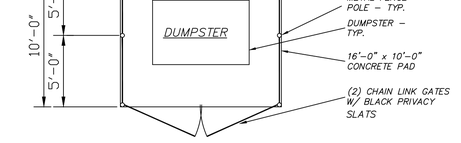
NOTE: SIGN SHALL BE HIGH INTENSITY PRISMATIC

STOP SIGN (31-0552)

N.T.S.

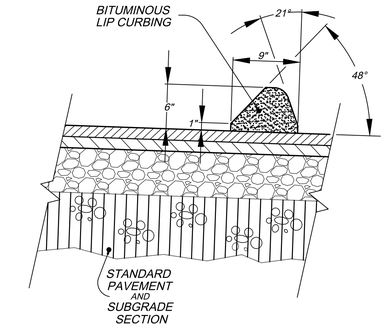
STOP SIGN (31-0552) AND POST DETAIL

N.T.S.



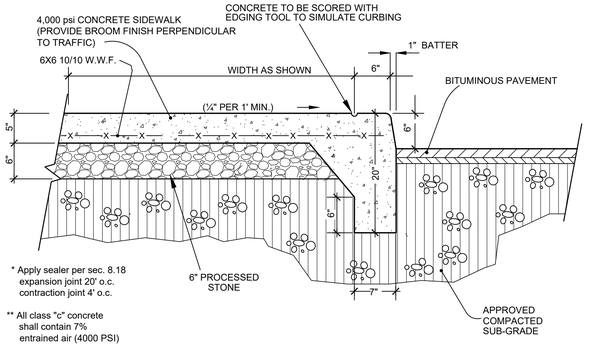
SCREENED DUMPSTER PAD DETAIL

N.T.S.



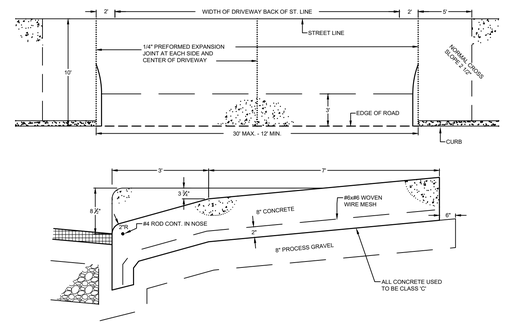
BITUMINOUS LIP CURBING

N.T.S.



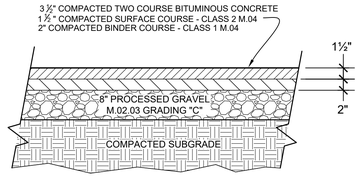
CONCRETE CURB and SIDEWALK

N.T.S.



TYPICAL COMMERCIAL DRIVEWAY APRON

N.T.S.



NOTE:
-ROADWAY MATERIALS AND METHODS TO BE IN CONFORMANCE WITH CONN. D.O.T. STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION FORM 814, 1988 WITH RECENT REVISIONS, and/or MUNICIPAL CURRENT STANDARDS.

-CONTRACTOR SHALL CONFIRM SUB-GRADE IS OF ADEQUATE BEARING CAPACITY PRIOR TO PAVING.

BITUMINOUS PAVEMENT DETAIL

SCALE: N.T.S.

PREPARED FOR:
Stephen Shapiro
Gold Coast Properties
303 Linwood Avenue - Suite 2D
Fairfield, CT 06824

R. R. HILTBRAND Engineers and Surveyors

SITE DETAILS
Sheet 2 OF XXX
#37 Main Street
Bristol, Connecticut
August 27, 2024

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

North

NF
THE CITY OF BRISTOL

NF
JEROME H. REISMAN AND ROSELYN REISMAN, TRUSTEES
VOL. 2180 - PG. 332
21 MAIN STREET

NF
JEROME H. REISMAN AND ROSELYN REISMAN, TRUSTEES
VOL. 2180 - PG. 332
25 MAIN STREET

NF
THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY
VOL. 421 - PG. 475
10 MAIN STREET

EXIST CONC WALK

EXISTING CONCRETE WALL

EXISTING UNNAMED BROOK

PROPOSED 5' CONCRETE SIDEWALK

D

9

NO 18.81'

NO 1.83'

PROPOSED 4-STORY BUILDING
7,035 S.F. FOOTPRINT
3,083 S.F. RETAIL SPACE
+ 28 DWELLING UNITS
GROUND FLOOR ELEV. 299.00

SEE ARCHITECT'S PLAN FOR BUILDING DIMENSIONS

NO 7.98'

DN 7/8"/FT

PROPOSED CONCRETE PATIO/ENTRANCE AREA

PROPOSED CURB WALL (HEIGHT VARIES ±24")

EXISTING CURB

CURB CUT

23.0'

9.7'

7

1

12.0'

MAIN STREET

EXISTING CURB

12.0'

9.0'

13.0'

18.0'

45°

CURB

25

CURB

CURB CUT

CURB CUT

CURB CUT

SCHOOL STREET

MEMORIAL BOULEVARD

EXISTING YELLOW LINE

MATCH EXISTING DOUBLE YELLOW

EXISTING ENTRANCE TO #10 MAIN STREET

PROPOSED WHITE LINE (TYPICAL)

EXISTING YELLOW LINE

PROPOSED YELLOW LINE

MATCH EXISTING DOUBLE YELLOW

EXISTING WHITE LINE

EXISTING YELLOW LINE

UTILITY NOTE:
LOCATION OF UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED UPON FIELD SURVEY OF VISIBLE SURFACE STRUCTURES SUCH AS CATCH BASINS AND MANHOLES, TOGETHER WITH RECORD MAPPING OBTAINED FROM UTILITY COMPANIES AND GOVERNMENTAL AGENCIES AS NOTED UNDER MAP REFERENCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. IN ADDITION, OTHER UTILITIES MAY ALSO EXIST, UNKNOWN TO THE SURVEYOR. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455.

GRAPHIC SCALE
20 10 0 20 40
1 Inch = 20 Feet

PREPARED FOR:
Stephen Shapiro
Gold Coast Properties
303 Linwood Avenue - Suite 2D
Fairfield, CT 06824

R. R. HILTBRAND Engineers and Surveyors

PROPOSED RE-STRIPING OF A PORTION OF MAIN STREET PLAN (BY OTHERS)

Bristol, Connecticut

August 27, 2024

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

Elevation Drawings and Floor Plans

BRISTOL COMMONS ON MAIN

37 MAIN STREET

BRISTOL CT.



SHEET LIST	
SHEET NUMBER	SHEET NAME
A-000	TITLE SHEET
A-101	FIRST FLOOR PLAN
A-102	SECOND FLOOR PLAN
A-103	THIRD FLOOR PALN
A-104	FOURTH FLOOR PLAN
A-201	ELEVATIONS
A-202	ELEVATIONS

OWNER:

GOLD COAST PROPERTIES
STEPHEN SHAPIRO
EASTON, CONNECTICUT, 06612

ARCHITECT:

SCHADLER SELNAU ASSOCIATES P.C.
5 WATERVILLE ROAD
FARMINGTON, CONNECTICUT 06032

STRUCTURAL ENGINEER:

TO BE DETERMINED

MEP ENGINEERS:

TO BE DETERMINED

CIVIL ENGINEER:

R.R. HILTBRAND ENGINEERS AND SURVEYORS
575 NORTH MAIN STREET
BRISTOL, CONNECTICUT, 06010

Job.No. yyyy-xxxx

Schadler Selnau associates, p.c.
architecture • planning • interiors
5 waterville road farmington, ct 06032
(860) 677-9620
hsa-architects.com

Bristol Commons on Main

37 MAIN STREET BRISTOL CT

REVISION		
NO	DESC	DATE

NOT FOR CONSTRUCTION

TITLE SHEET

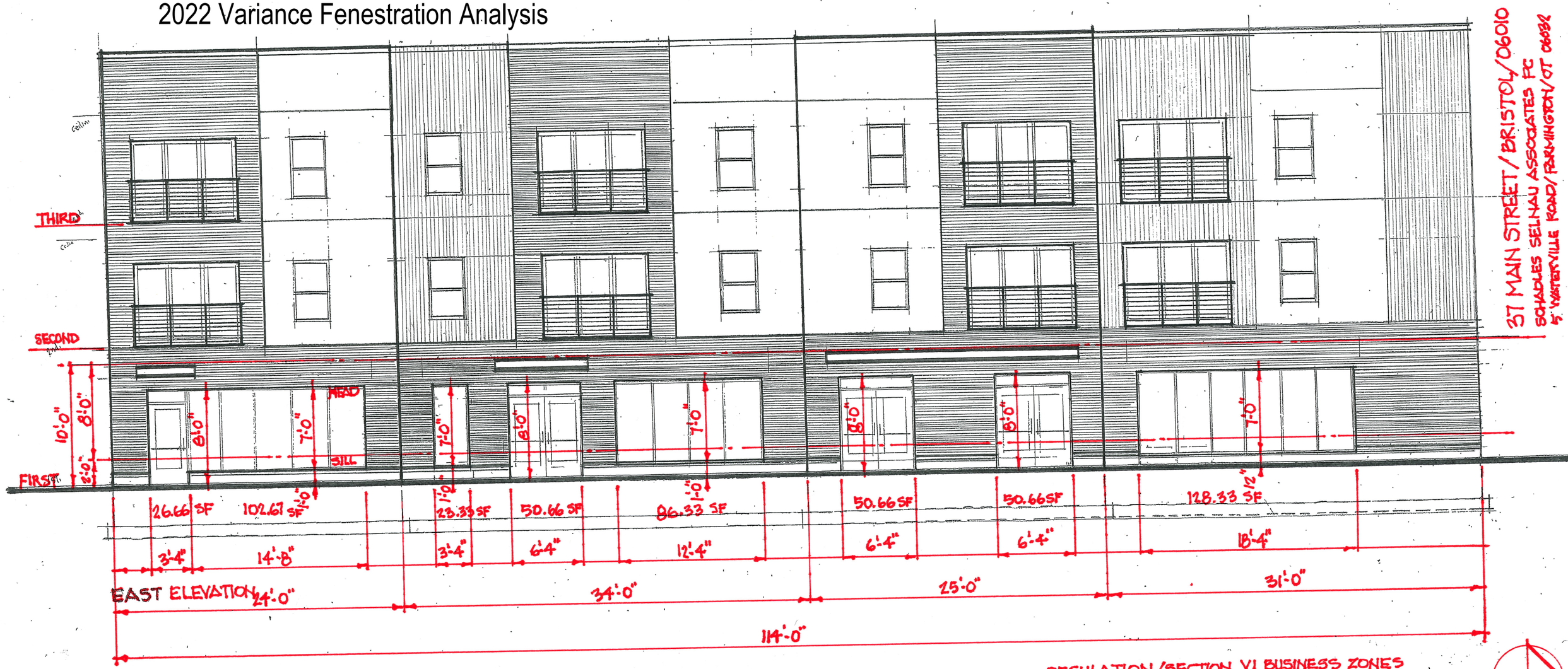
SCALE: 12" = 1'-0"

DATE ISSUED: Issue Date

A-000

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2022 Variance Fenestration Analysis



EAST ELEVATION

37 MAIN STREET / BRISTOL / 06010
SCHADLER SELINAU ASSOCIATES PC
5 WATERVILLE ROAD / FARMINGTON / CT 06032

REQUIRED WINDOW FENESTRATION
MEASURED @ 10'-0" TO HEAD AND 2'-0" TO SILL
OR 8'-0" X LENGTH OF BUILDING STREET FACING
FASCADE OR 8'-0" x 114' BUILDING LENGTH OF
8' x 114' = 912 SF @ 65% REQUIRED OR 593 SF REQUIRED

WINDOW FENESTRATION PROVIDED
519.33 SF PROVIDED SHORT FALL 73.67 SF
593.00 SF REQUIRED

REGULATION / SECTION VI BUSINESS ZONES
V.C. - DOWNTOWN BUSINESS ZONE
V.C.1.a BD1 - MAIN STREET
V.C.BD.6 BUILDING FORM STANDARDS
V.C. BD.6 (5) BUILDING ELEMENT
BD-1 65% MIN OF WALL AREA
WALL MEASURED BETWEEN 2' AND 10'
FROM TOP OF FOUNDATION WALL

SCALE : 1/8" = 1'-0"
DATE : 10 OCTOBER 2022

2024 Revised Window Configuration



37 MAIN STREET
FIRST FLOOR
21 AUGUST 2024

114'-0"
5'-0"
104'-0"
5'-0"
26'-6"
25'-6"
25'-6"
26'-6"

ADA
one bedroom

ONE BEDROOM

ONE BEDROOM

ONE BEDROOM

65'-0"
38'-6"
26'-6"
21 RISERS @ 6.85" = 144"/12'-0" FLR. TO FLR.
19 TREADS @ 11"

STAIR NO. 1
9'-2"
12"
8'-0"
12"
12"
18'-0"

T.

STAIR NO. 2

T.
T.

3500# =
8'-8"
7'-0"
ELEV.
OTIS · ELEC.

WINDOW FENESTRATION
REQUIRED
Measured @ 10' HEAD and 2'-0" to SILL or 8'-0" x Length of Building street Facing Facade or 8'-0" x 114' = 912 SF @ 65% REQUIRED or 593 SF REQUIRED

RETAIL

PROVIDED 585 SF

REQ'D 593 SF - 585 SF = 8 SF shortfall

RETAIL

RETAIL

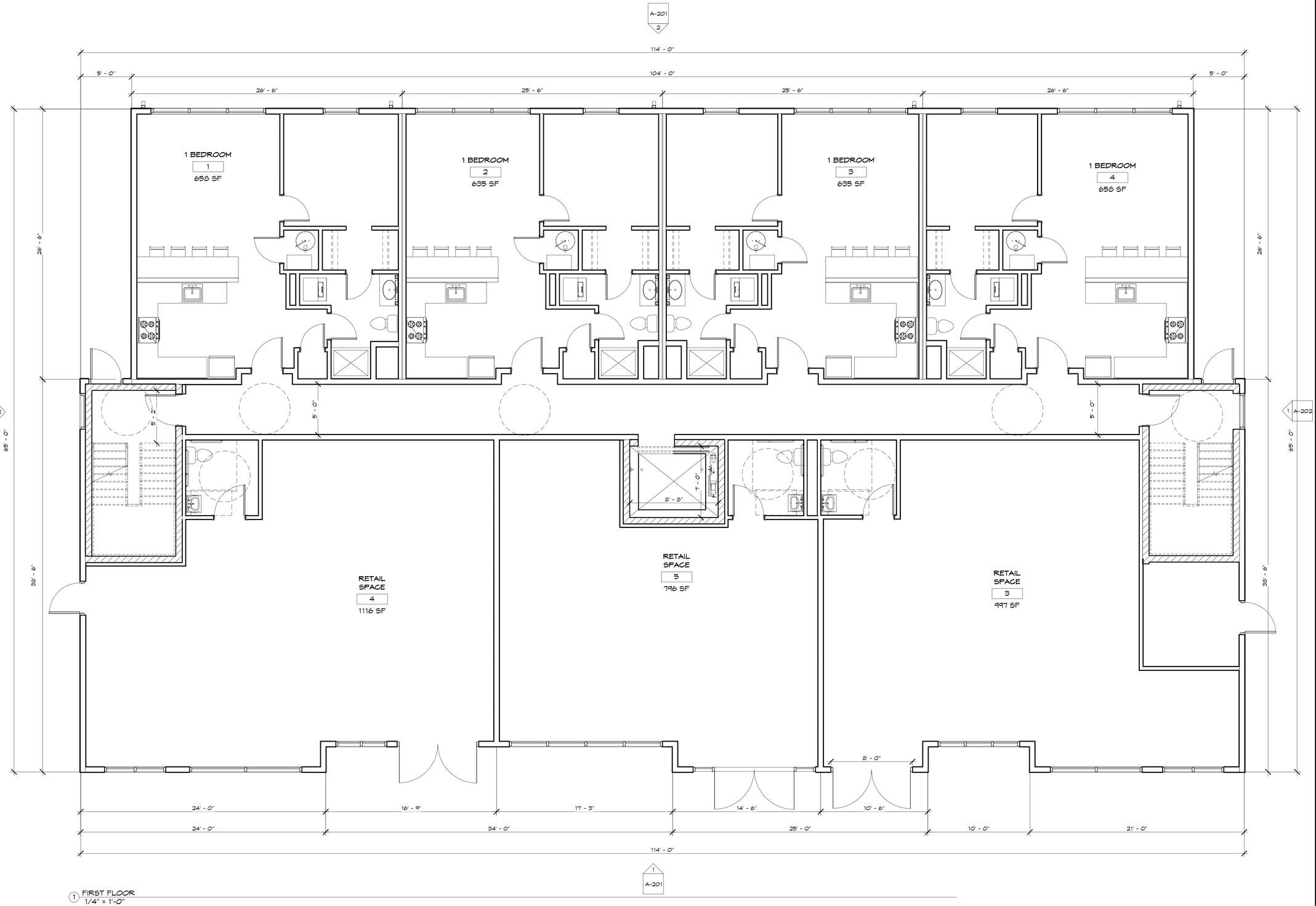
WATER
MECH.
ELECTRICAL

3'-0"
11'-0"

2'-0" 6'-0" 3'-0" 11'-0" 2'-0" 1'-0" 5'-0" 2'-0" 6'-0" 4'-0" 14'-0" 2'-0" 2'-0" 6'-0" 2'-0" 5'-0" 6'-0" 2'-6" 1'-0" 8'-0" 1'-0" 9'-0" 6'-0" 2'-0"
2'-0" 2'-0" 2'-0" 2'-0"

7x6=42SF
24'-0"
7x11=77SF
7x5=35SF
8x6=48SF
34'-0"
14x7=98SF
7x2=14SF
8x6=48SF
7x2=14SF
8x6=48SF
25'-0"
7x8=56SF
7x9=63SF
2'-0"
10'-0"
21'-0"
7x6=42SF

114'-0"



1 FIRST FLOOR
1/4" = 1'-0"

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9/30/2024 11:31:18 AM

Job.No. yyyy-xxxx

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architecture • planning • interiors
5 waterville road, farmington, ct 06032
(860) 677-9620
hsa-architects.com

Bristol Commons on Main

37 MAIN STREET BRISTOL CT

REVISION

NO	DESC	DATE

NOT FOR CONSTRUCTION

FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

DATE ISSUED: Issue Date

A-101



S:\Shared Folders\new server location\COMPUTER INFORMATION\current projects\37 Main Street Bristol CT\CD\37 Main Street Bristol CT_R24.rvt

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Bristol Commons on Main

37 MAIN STREET BRISTOL CT

REVISION

NO	DESC	DATE

NOT FOR CONSTRUCTION

SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"

DATE ISSUED: Issue Date

A-102



1 THIRD FLOOR
1/4" = 1'-0"

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9/30/2024 11:31:22 AM

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hsa-architects.com

Bristol Commons on Main

37 MAIN STREET BRISTOL CT

REVISION

NO	DESC	DATE

NOT FOR CONSTRUCTION

THIRD FLOOR PALN

SCALE: 1/4" = 1'-0"

DATE ISSUED: Issue Date

A-103



1 FOURTH FLOOR
1/4" = 1'-0"

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9/30/2024 11:31:24 AM

Job.No.yyyy-xxxx

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(860) 677-9620
hsa-architects.com

Bristol Commons on Main

37 MAIN STREET BRISTOL CT

REVISION		
NO	DESC	DATE

NOT FOR CONSTRUCTION

FOURTH FLOOR PLAN

SCALE: 1/4" = 1'-0"

DATE ISSUED: Issue Date

A-104



1 EAST ELEVATION
3/16" = 1'-0"



2 WEST ELEVATION
3/16" = 1'-0"

Job.No. yyyy-xxxx

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architecture • planning • interiors
5 waterville road, farmington, ct 06032
(860) 677-9620
hsa-architects.com

Bristol Commons on Main

37 MAIN STREET BRISTOL CT

REVISION

NO	DESC	DATE

NOT FOR CONSTRUCTION

ELEVATIONS

SCALE: 3/16" = 1'-0"

DATE ISSUED: Issue Date

A-201

9/30/2024 11:31:28 AM S:\Shared Folders\new server location\COMPUTER INFORMATION\current projects\37 Main Street Bristol CT\CD\37 Main Street Bristol CT(R4).rvt

1 NORTH ELEVATION 1
3/16" = 1'-0"

2 SOUTH ELEVATION
3/16" = 1'-0"

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Job.No. yyyy-xxxx

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architecture • planning • interiors
5 waterville road, farmington, ct 06032
(860) 677-9620
hsa-architects.com

Bristol Commons on Main

37 MAIN STREET BRISTOL CT

REVISION

NO	DESC	DATE

NOT FOR CONSTRUCTION

ELEVATIONS

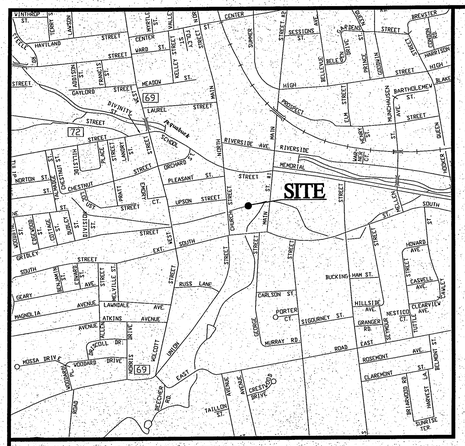
SCALE: 3/16" = 1'-0"

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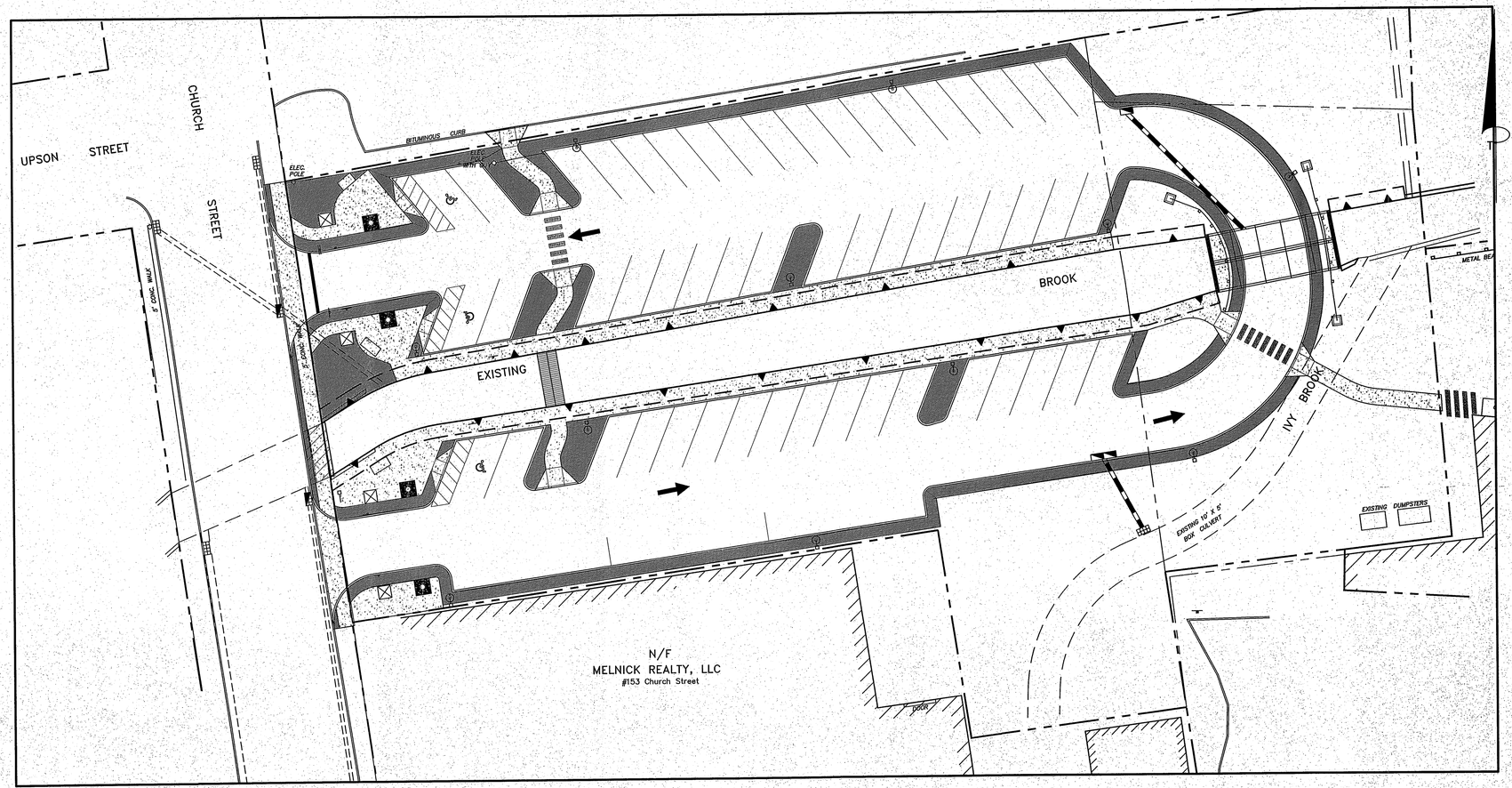
A-202

Site Plan for: 149 Church Street Municipal Parking

CITY OF BRISTOL
PLAN
FOR
SITE REMEDIATION AND CONSTRUCTION OF PARKING FACILITY
149 CHURCH STREET
IN THE TOWN OF
BRISTOL, CONNECTICUT



LOCATION MAP
Scale: 1"=1000'



Approved by the Conservation Commission acting as the Inland-Wetlands Agency for the City of Bristol
X With Conditions ____ Without Condition
8/25/10 Date
1677 Permit Number
Signature

CITY OF BRISTOL, CONNECTICUT
This Site Plan has been approved by the Zoning Commission of the City of Bristol, CT.
Chairman/Secretary
9/15/10 Date

Pursuant to Section 8-3(i) of the Connecticut General Statutes, all work in connection with this Site Plan shall be completed by 9/15/15. Failure to complete all such work by that date shall result in automatic expiration of the approval of this Site Plan.

LIST OF DRAWINGS

SHEET NO.
1 - TITLE SHEET/PROJECT LOCATION MAP
2 - EXISTING CONDITIONS PLAN
3 - NON-REMEDIAL DEMOLITION PLAN
4 - SITE & LAYOUT PLAN
5 - GRADING & EROSION CONTROL PLAN
6 - LIGHTING PLAN
7 - LANDSCAPE, SIGNAGE & PAVEMENT MARKING PLAN
8 - MISCELLANEOUS CONSTRUCTION DETAILS
9 - MISCELLANEOUS CONSTRUCTION DETAILS (2)
10 - REMEDIATION EXCAVATION AREAS

BOARD OF PUBLIC WORKS
MAYOR ARTHUR T. WARD, CHMN.

DIRECTOR OF PUBLIC WORKS
W.E. VESELKA, P.E.

CITY ENGINEER
PAUL A. STRAWDERMAN, P.E.

AUGUST, 2010 Contract :

"THIS DOCUMENT HAS BEEN PREPARED A PART OF THE CITY OF BRISTOL (I.W.W.C., T.P.Z., OR Z.B.A.) APPLICATION PROCESS AND CAN NOT BE CONSIDERED FINAL NOR USED FOR CONSTRUCITON PURPOSES UNTIL ALL NECESSARY APPROVALS HAVE BEEN ATTAINED"

Inland Wetlands Permit No. 1677
Approval Date: 8/25/2010

FORM 816 (2004) STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND INCIDENTAL CONSTRUCTION SHALL GOVERN INCLUDING ALL SUPPLEMENTAL SECIFICATIONS (LATEST REVISION).

PREPARED BY:
City of Bristol
Department of Public Works
111 North Main Street
Bristol, Connecticut 06010
Tel. 860-584-6125
Fax 860-584-3838
ci.bristol.ct.us

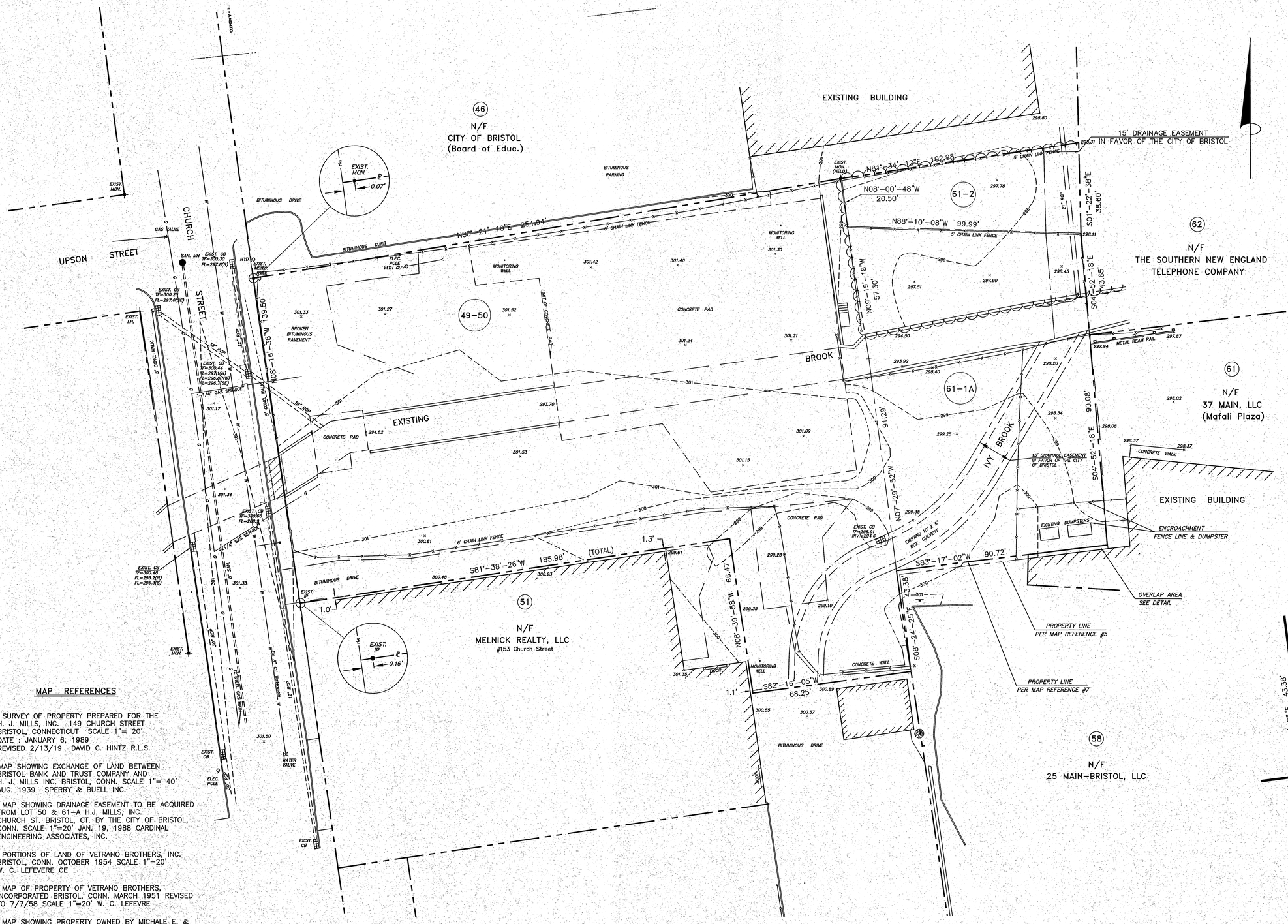
No.	DATE	COMMENTS
1.	8/14/2010	City Staff Comments
2.	10/15/2010	City Staff Comments

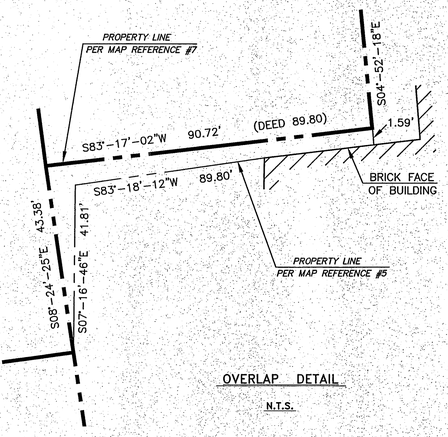
DESIGN BY: DJC
DRAFTED BY: DB/DJC
CHECKED BY: RAR
SCALE: 1"=20'
DATE: 7/30/2010
CONTRACT No:

Site Remediation and Construction of Parking Facility
149 Church Street Bristol Connecticut

Title Sheet

DRAWING NUMBER:
1





OVERLAP DETAIL

N.T.S.

NOTES

1 – THIS SURVEY (OR MAP) HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300B-1 THRU 20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996:

TYPE OF SURVEY : PROPERTY SURVEY.

BOUNDARY DETERMINATION CATEGORY : DEPENDENT RESURVEY

CLASS OF ACCURACY : CLASS "A-2"

2 – BEARINGS BASED ON N.A.D. 83.

3 – (50) DENOTES BRISTOL ASSESSOR'S MAP LOT NUMBER.

4 – AREA OF LOT 49-50 = 40,918 S.F.±
AREA OF LOT 61-1A = 13,293 S.F.±
AREA OF LOT 61-2 = 2982 S.F.±

MAP REFERENCES

1 – SURVEY OF PROPERTY PREPARED FOR THE H. J. MILLS, INC. 149 CHURCH STREET BRISTOL, CONNECTICUT SCALE 1"= 20' DATE : JANUARY 6, 1989 REVISED 2/13/19 DAVID C. HINTZ R.L.S.

2 – MAP SHOWING EXCHANGE OF LAND BETWEEN BRISTOL BANK AND TRUST COMPANY AND H. J. MILLS INC. BRISTOL, CONN. SCALE 1"= 40' AUG. 1939 SPERRY & BUELL INC.

3 – MAP SHOWING DRAINAGE EASEMENT TO BE ACQUIRED FROM LOT 50 & 61-A H.J. MILLS, INC. CHURCH ST. BRISTOL, CT. BY THE CITY OF BRISTOL, CONN. SCALE 1"=20' JAN. 19, 1988 CARDINAL ENGINEERING ASSOCIATES, INC.

4 – PORTIONS OF LAND OF VETRANO BROTHERS, INC. BRISTOL, CONN. OCTOBER 1954 SCALE 1"=20' W. C. LEFEVERE CE

5 – MAP OF PROPERTY OF VETRANO BROTHERS, INCORPORATED BRISTOL, CONN. MARCH 1951 REVISED TO 7/7/58 SCALE 1"=20' W. C. LEFEVRE

6 – MAP SHOWING PROPERTY OWNED BY MICHALE E. & DANIEL E. LAURENTANO AND AMELIA DESMOND CHURCH STREET BRISTOL, CONN. SCALE : 1" = 20' JANUARY 28, 1980

7 – LOT LINE REVISION MAP FOR WALGREENS STORE #10203 DEVELOPER/OWNER 107 SOUTH STREET CORP. #25 MAIN STREET BRISTOL, CT. SCALE : 1" = 20' DATE : JULY 1, 2005 REVISED TO 12/5/05 KRATZERT JONES & ASSOCIATES, INC.

APPROVED

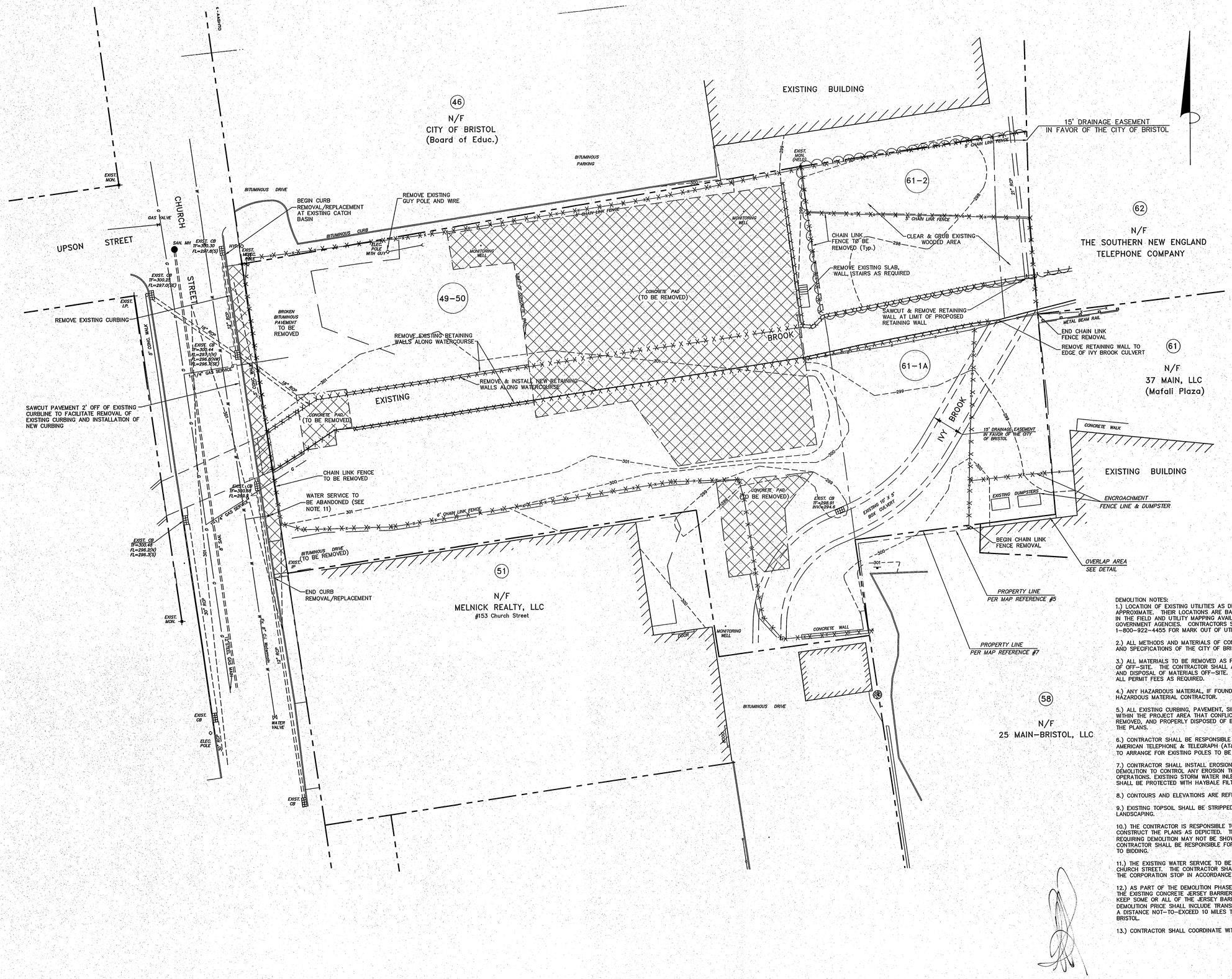
TO MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON

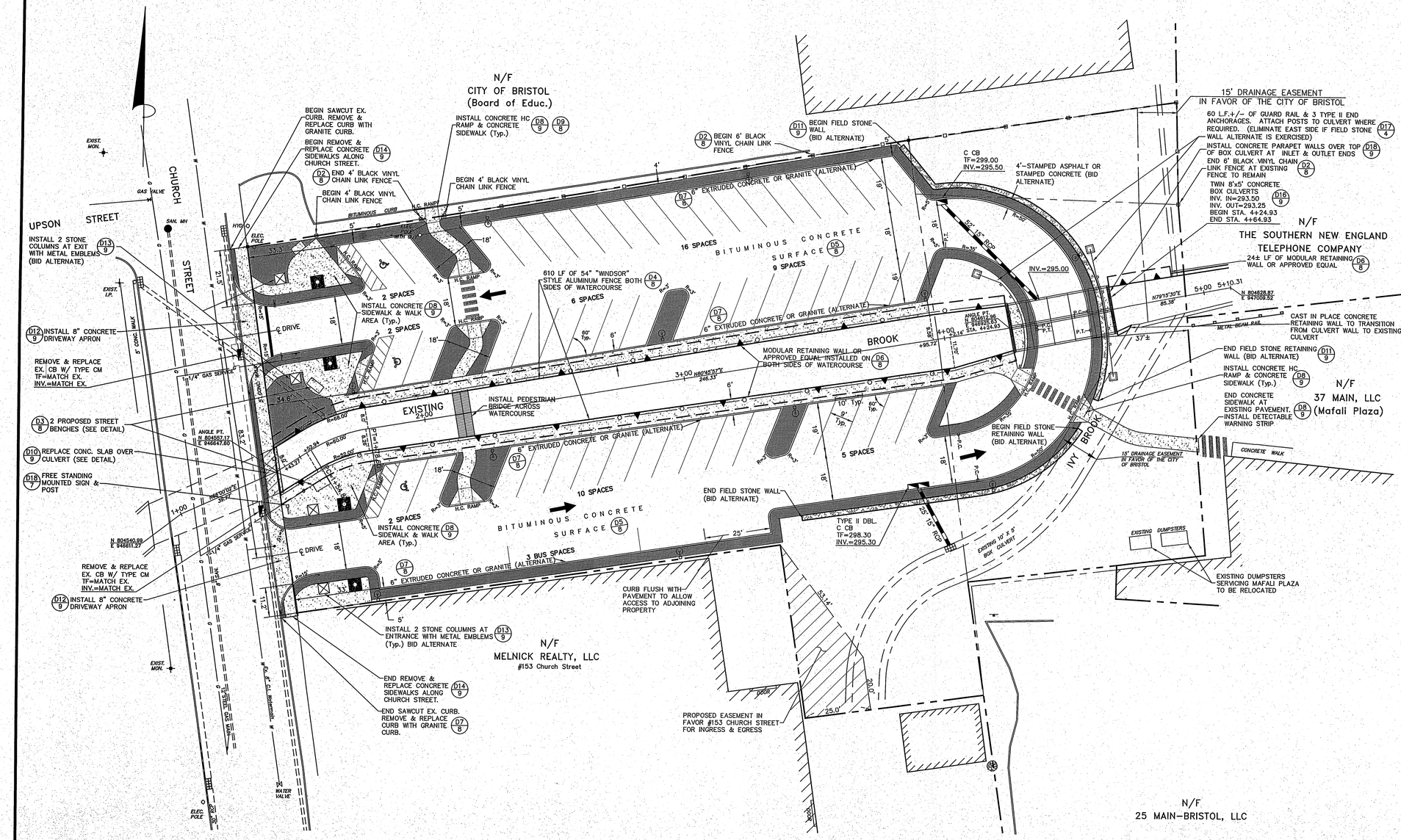
PETER W. FORREST L.S. 11344 DATE

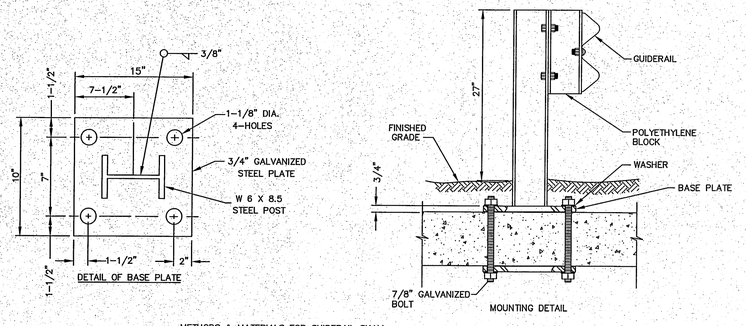
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING
CITY OF BRISTOL
CONNECTICUT

MAP OF LOTS
49-50, 61-1A AND 61-2
OWNED BY THE CITY OF BRISTOL
CHURCH STREET BRISTOL, CT.

DESIGNED		CONTRACT NO.	DATE JAN. 2010
DRAWN	DRB	FIELD BOOK NB-431	SCALE 1" = 20'
CHECKED	PWF		SHEET 1 OF 1


46
N/F
CITY OF BRISTOL
(Board of Educ.)
EXISTING BUILDING
15' DRAINAGE EASEMENT
IN FAVOR OF THE CITY OF BRISTOL
BITUMINOUS PARKING
EXIST. MON. (HELD)
5' CHAIN LINK FENCE
61-2
62
N/F
THE SOUTHERN NEW ENGLAND
TELEPHONE COMPANY
EXIST. MON.
BITUMINOUS DRIVE
BEGIN CURB REMOVAL/REPLACEMENT AT EXISTING CATCH BASIN
REMOVE EXISTING GUY POLE AND WIRE
GAS VALVE
CHURCH STREET
UPSON STREET
SAN. MH
EXIST. CB
IN=300.39
FL=297.6(S)
HYD.
EXIST. MISC. STRUC.
ELEC. POLE WITH GUY
BITUMINOUS CURB
MONITORING WELL
CHAIN LINK FENCE TO BE REMOVED (Typ.)
CLEAR & GRUB EXISTING WOODED AREA
REMOVE EXISTING SLAB, WALL, STAIRS AS REQUIRED
CONCRETE PAD (TO BE REMOVED)
49-50
EXIST. CB
IN=303.23
FL=297.0(SE)
EXIST. I.P.
REMOVE EXISTING CURBING
BROKEN BITUMINOUS PAVEMENT TO BE REMOVED
REMOVE EXISTING RETAINING WALLS ALONG WATERCOURSE
SAWCUT & REMOVE RETAINING WALL AT LIMIT OF PROPOSED RETAINING WALL
METAL BEAM RAIL
END CHAIN LINK FENCE REMOVAL
REMOVE RETAINING WALL TO EDGE OF IVY BROOK CULVERT
BROOK
61
N/F
37 MAIN, LLC
(Mafali Plaza)
EXIST. CB
IN=300.44
FL=297.1(W)
IN=296.6(NW)
IN=296.7(SE)
1/4" GAS SERVICE
18" RCP
61-1A
EXISTING
REMOVE & INSTALL NEW RETAINING WALLS ALONG WATERCOURSE
SAWCUT PAVEMENT 2' OFF OF EXISTING CURBLINE TO FACILITATE REMOVAL OF EXISTING CURBING AND INSTALLATION OF NEW CURBING
CONCRETE PAD (TO BE REMOVED)
IVY BROOK
15' DRAINAGE EASEMENT IN FAVOR OF THE CITY OF BRISTOL
CONCRETE WALK
EXISTING BUILDING
CHAIN LINK FENCE TO BE REMOVED
WATER SERVICE TO BE ABANDONED (SEE NOTE 11)
EXIST. CB
IN=300.68
FL=298.8(N)
FL=296.3(S)
1" GAS SERVICE
6" CHAIN LINK FENCE
CONCRETE PAD (TO BE REMOVED)
EXIST. CB
IN=298.91
INV.=294.6
EXISTING 10' X 5' BOX CULVERT
EXISTING DUMPSTERS
ENCROACHMENT
FENCE LINE & DUMPSTER
BEGIN CHAIN LINK FENCE REMOVAL
OVERLAP AREA
SEE DETAIL
BITUMINOUS DRIVE (TO BE REMOVED)
EXIST. I.P.
END CURB REMOVAL/REPLACEMENT
51
N/F
MELNICK REALTY, LLC
#153 Church Street
PROPERTY LINE
PER MAP REFERENCE #5
PROPERTY LINE
PER MAP REFERENCE #7
MONITORING WELL
CONCRETE WALL
DOOR
BITUMINOUS DRIVE
58
N/F
25 MAIN-BRISTOL, LLC
EXIST. MON.
EXIST. CB
ELEC. POLE
W.S.S.C. WATERMAIN
W
W.S.S.C. SEWER
W
W
W





METHODS & MATERIALS FOR GUIDERAIL SHALL COMFORM TO CONN. D.O.T. STANDARDS.

D17 CONNECTION DETAIL
GUIDE RAIL POST TO CONCRETE BOX CULVERT
N.T.S.

SITE PLAN NOTES:

1.) LOCATION OF EXISTING UTILITIES AS DEPICTED HEREON SHALL BE CONSIDERED APPROXIMATE. THEIR LOCATIONS ARE BASED UPON A COMBINATION OF STRUCTURES VISIBLE IN THE FIELD AND UTILITY MAPPING AVAILABLE FROM LOCAL UTILITY COMPANIES AND GOVERNMENT AGENCIES. CONTRACTORS SHALL CONTACT CALL-BEFORE-U-DIG AT 1-800-922-4455 FOR MARK OUT OF UTILITIES 72 hrs. PRIOR TO ANY EXCAVATION.

2.) ALL METHODS AND MATERIALS OF CONSTRUCTION SHALL COMPLY WITH THE STANDARDS AND SPECIFICATIONS OF THE CITY OF BRISTOL.

3.) PROPERTY LINE AND TOPOGRAPHIC INFORMATION ARE BASED UPON A FIELD SURVEY CONDUCTED BY THE CITY OF BRISTOL DEPARTMENT OF PUBLIC WORKS.

4.) ELEVATIONS AS DEPICTED HEREON ARE BASED UPON NGVD OF 1929.

5.) THE CONTRACTOR SHALL PAY ALL UTILITY COMPANY FEES AND COORDINATE ALL WORK WITH AMERICAN TELEPHONE & TELEGRAPH (AT&T), AND OTHER UTILITIES AS REQUIRED. THE OWNER SHALL REIMBURSE THE CONTRACTOR FOR ALL FEES THAT ARE NOT COVERED UNDER A SEPARATE OWNER/UTILITY COMPANY AGREEMENTS.

6.) THE CONTRACTOR SHALL ARRANGE FOR RESETTING OF CURB BOXES, VALVE BOXES, AND REMOVAL AND/OR RELOCATION OF UTILITY POLES AND OVERHEAD WIRES WITH THE APPROPRIATE UTILITY COMPANIES.

7.) THE CONTRACTOR SHALL EMPLOY ALL NECESSARY MEANS TO CONTROL AND PREVENT WATER POLLUTION AND EROSION, THROUGH THE USE OF SILTATION FENCES, HAYBALES, AND RELATED MEASURES, AS DEPICTED IN THESE CONTRACT DOCUMENTS AND AS ORDERED BY THE ENGINEER.

8.) THE CONTRACTOR SHALL EMPLOY ALL NECESSARY BARRICADES, SIGNS, TRAFFIC CONES, TRAFFIMEN, ETC. FOR MAINTENANCE AND PROTECTION OF TRAFFIC AS REQUIRED BY THE CITY OF BRISTOL.

9.) THE CONTRACTOR SHALL PROTECT ALL MONUMENTS, IRON PINS AND PROPERTY CORNERS DURING CONSTRUCTION. THE CITY OF BRISTOL DEPARTMENT OF PUBLIC WORKS SHALL RESET ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION AND THE CONTRACTOR SHALL REIMBURSE THE CITY FOR THE TOTAL COSTS INCURRED.

10.) NO INTERRUPTION OF EXISTING UTILITIES SERVICING ADJACENT STRUCTURES SHALL OCCUR UNLESS AUTHORIZED IN WRITING BY THE ENGINEER. INTERRUPTIONS SHALL ONLY OCCUR AFTER APPROVAL IN WRITING FROM THE ENGINEER AND TEMPORARY SERVICES HAVE BEEN PROVIDED.

11.) ALL SITE DIMENSIONS DEPICTED ARE REFERENCED TO THE FACE OF CURB OR EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

12.) THE CONTRACTOR SHALL RESTORE ANY DAMAGED CURBS, PAVEMENT, STRUCTURES, SIDEWALKS, ETC., DAMAGED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER, AS DIRECTED BY THE ENGINEER.

13.) A STORM SEWER CONNECTION PERMIT OBTAINED FROM THE PUBLIC WORKS DEPARTMENT, WILL BE REQUIRED PRIOR TO CONNECTING THE PROPOSED DRAINAGE SYSTEM INTO THE CITY SYSTEM AND/OR INSTALLING STORM DRAINAGE WITHIN THE CITY R.O.W. THE CONTRACTOR MAKING THE STORM SEWER CONNECTION AND/OR INSTALLING STORM DRAINAGE WITHIN THE CITY R.O.W. SHALL NOTIFY THE CITY SEWER INSPECTOR 48 HOURS PRIOR TO ANY SUCH INSTALLATION AND/OR CONNECTION TO MAKE ARRANGEMENTS FOR AN INSPECTION OF THE STORM SEWER INSTALLATION. NO STORM SEWER SHALL BE BACK FILLED PRIOR TO AN INSPECTION OF THE COMPLETE PIPE INSTALLATION BY THE CITY SEWER INSPECTOR.

14.) A DRIVEWAY APRON AND/OR SIDEWALK PERMIT OBTAINED FROM THE PUBLIC WORKS DEPARTMENT, WILL BE REQUIRED PRIOR TO CONSTRUCTING ANY DRIVEWAY APRON AND/OR SIDEWALK WITHIN THE CITY R.O.W. THE CONTRACTOR CONSTRUCTION THE DRIVEWAY APRON AND/OR SIDEWALK WITHIN THE CITY R.O.W. SHALL NOTIFY THE CITY HIGHWAY INSPECTOR 48 HOURS PRIOR TO ANY SUCH CONSTRUCTION TO MAKE ARRANGEMENTS FOR AN INSPECTION OF ANY DRIVEWAY APRON AND/OR SIDEWALK INSTALLATION. NO CONCRETE (PORTLAND CEMENT AND/OR BITUMINOUS) SHALL BE PLACED PRIOR TO AN INSPECTION BY THE CITY HIGHWAY INSPECTOR.

15.) SEDIMENTATION AND SILTATION CONTROLS SHALL BE INSTALLED AS REQUIRED BY THE ENGINEERING DIVISION/IWEO.

16.) GRADING AROUND THE PROPOSED IMPROVEMENTS SHALL BE PERFORMED IN A MANNER WHICH PREVENTS ALL RUNOFF FROM BEING DIRECTED ONTO ADJACENT PROPERTIES; BOTH DURING AND AFTER CONSTRUCTION.

17.) STORM DRAINAGE PIPE SHALL BE CLASS IV REINFORCED CONCRETE PIPE, MEETING STANDARDS AND SPECIFICATIONS OF THE CITY OF BRISTOL.

18.) CATCH BASINS, MANHOLES, FRAMES, ETC. SHALL MEET THE REQUIREMENTS OF THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD DETAILS FOR CONSTRUCTION.

19.) PRECAST DRAINAGE STRUCTURES HAVE BEEN SPECIFIED ON THE PLANS. FIELD CONDITIONS AND DESIGN OFTEN DICTATE MINOR ELEVATION ADJUSTMENTS THAT MAY MAKE THE USE OF PRECAST STRUCTURES UNFEASIBLE. THE CONTRACTOR ASSUMES ALL RESPONSIBILITY AND EXPENSE FOR INSTALLING AND CONSTRUCTING THE DRAINAGE STRUCTURES AS DEPICTED ON THE PLANS.

20.) THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE ANY COST ASSOCIATED WITH DEWATERING THAT MAY BE NECESSARY TO CONSTRUCT THE PROJECT AS DEPICTED ON THE PLANS.

21.) FAILURE TO SPECIFICALLY MENTION WORK WHICH IS REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM SUCH WORK.

ZONING DATA
Zone: (BD) Downtown Business Zone

Description	Required/Permitted	Provided
Minimum Lot Area (Sq. Ft.)-BD Zone	N/A	57,193 Sq. Ft.
Minimum Lot Width (BD Zone)	N/A	139.50'
Minimum Front Yard Parking Setback	30'	33'
Minimum Side Yard Parking Setback	5'	5'
Minimum Rear Yard Parking Setback	5'	94'
Maximum Building Coverage (%)	N/A	0%
Maximum Building Height (Stories/feet)	N/A	N/A
Parking Requirements: Use: Parking Facility	N/A	52 Spaces + 3 Bus Spaces

APPROVED

PREPARED BY:
City of Bristol
Department of Public Works
111 North Main Street
Bristol, Connecticut 06010
Tel. 860-584-6125
Fax. 860-584-3838
ci.bristol.ct.us

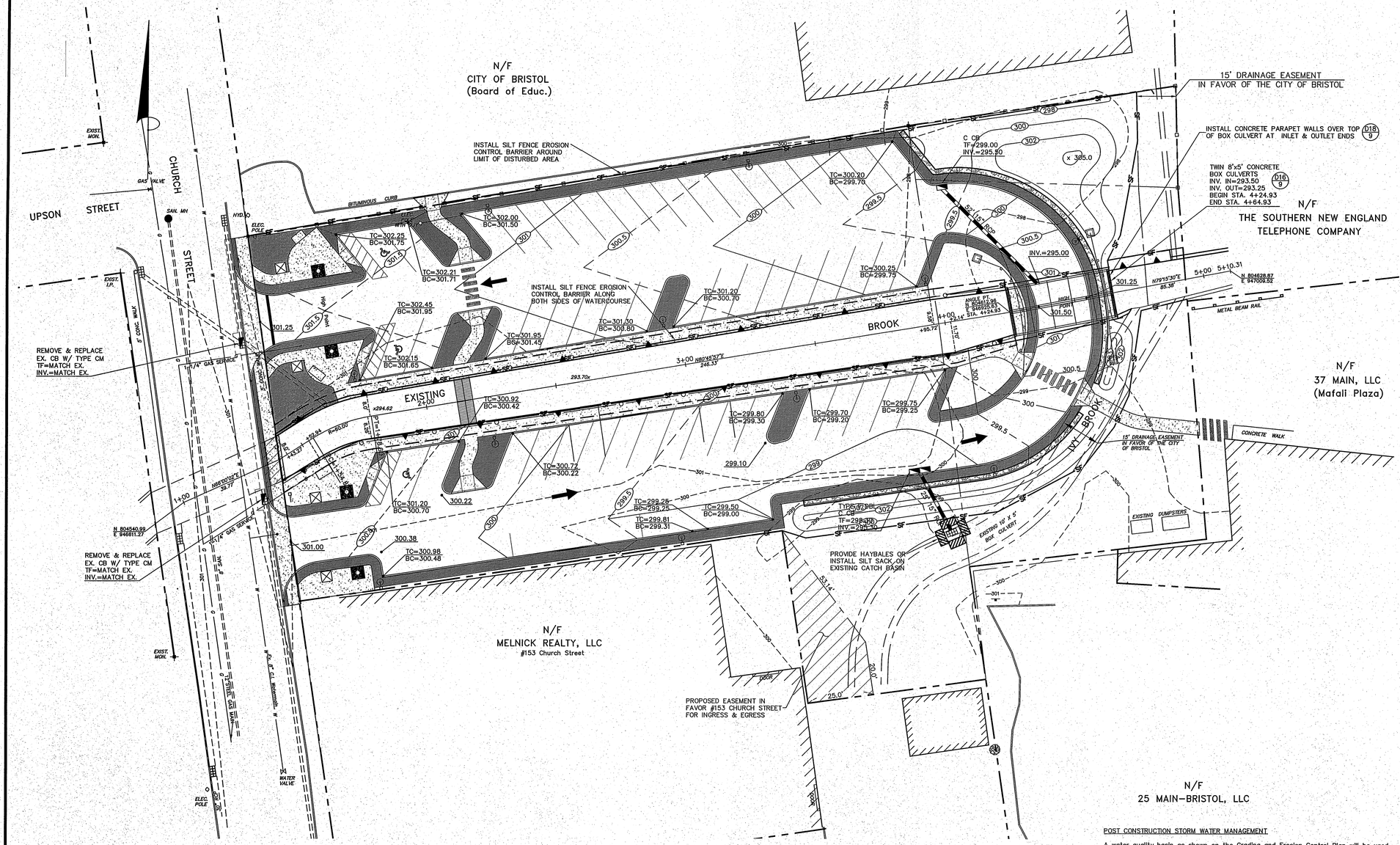
No.	DATE	COMMENTS:
1	9/14/2010	City Staff Comments
2	10/15/2010	City Staff Comments

DESIGN BY: DJC
DRAFTED BY: DB/DJC
CHECKED BY: RAR
SCALE: 1"=20'
DATE: 7/30/2010
CONTRACT No:

Site Remediation and Construction of Parking Facility
149 Church Street
Bristol Connecticut

Site, Layout & Utility Plan

DRAWING NUMBER:
4



1. All disturbed areas shall have erosion control provided in accordance with the "Connecticut Guidelines for Erosion and Sediment Control" and the Town. Erosion control measures are to be accomplished prior to any other construction on the site.
2. Temporary erosion control shall be directed toward and have the purpose of controlling soil erosion at its potential source. Downstream sediment entrapment measures (proposed channel and infiltration basins) shall be employed, but only as a backup to primary control at the source.
3. A continuing program of installation and maintenance of sediment control shall be employed during the construction period. The contractor shall inspect and maintain sediment control devices on a weekly basis and immediately after each rainfall event.
4. Temporary erosion control construction shall be employed until such time as permanent paving, planting, and restoration of natural areas is effective in control of erosion from the site.
5. Temporary silt fences shall be located at all points where surface water can leave the construction area. Silt fences shall be constructed to remove sediments from flowing water through filtration and sedimentation. Silt fences shall be arranged to create ponding behind them. Provisions shall be made for removing accumulated sediments and maintaining ponding capacity. Stockpiles shall be encircled with silt fence. Silt and unusable material shall be disposed of in area approved by owner's engineer. Contractor to contact engineer prior to placement.
6. Grading operations shall be scheduled so that the ground surface will be disturbed for the shortest possible time before permanent construction is installed. Large areas shall be maintained as flat as possible to minimize soil transport through surface flow. Wherever steeper slopes or abrupt changes in grade are required, a diversion ditch or berm shall be constructed at the top of the slope to cause the surface water to flow along the diversion to a control point to be transported downslope in a slope drain. In no case shall surface water be allowed to flow uncontrolled down slopes.
7. Concentrated storm runoff shall not be permitted to flow uncontrolled down unprotected slopes. Temporary slope drains shall be provided to convey surface water down slopes until the permanent drainage system is in place and permanent ground cover is established. Slope drains shall be provided with an apron at their tops to anchor them and properly direct water into them. Stone or hay bales shall be placed at slope drain outlets to prevent scour at these points.
8. As much of the permanent storm drainage system as is practicable shall be initially installed and surface water diverted into the system. The remainder of the storm drainage system shall be installed as soon as conditions will allow. Temporary sediment barriers shall be maintained around drainage structures until final subgrade preparation is begun.
9. All disturbed areas except those designated to receive pavement shall be grassed or covered with vegetative materials in accordance with the Landscape Plans. All grade break slopes shall be protected by application of ground cover or terracing until construction of permanent surfaces begins. Temporary ground cover may consist of any effective erosion preventative treatment such as straw or other mulches, stone base, plastic sheets, fiber mats, plantings, etc. All grassing or planting operations shall include mulching as stabilization until ground cover by planting is effective. Any stockpiled top soil, if left undisturbed for more than 30 days, shall be grassed.
10. At the time that permanent erosion control is effective, temporary devices and their accumulated sediments shall be removed.
11. Hazardous or pollutant materials shall be stored at least 25 feet from any wetland/watercourse or storm drainage inlet. Contractor's equipment when parked shall follow same criteria.
12. The schedule on interim stabilization is as follows: Immediately upon reaching final grades or work has temporarily been suspended for more than 30 days, hay shall be spread on all disturbed area to provide a uniform blanket of protection. Hay shall be removed only when conditions are appropriate for growing grass.

CONSTRUCTION SEQUENCE:

1. Install sedimentation and erosion control barriers.
2. Conduct demolition of existing features as required.
3. Remove existing retaining walls along watercourse.
4. Install proposed box culvert.
5. Install proposed retaining walls along watercourse.
6. Bring site to subgrade. Install granite curbing.
7. Install bituminous pavement binder course.
8. Final grade site. Establish vegetation. Install concrete sidewalks and other site improvements.
9. Install finish course of bituminous concrete.

POST CONSTRUCTION STORM WATER MANAGEMENT

A water quality basin as shown on the Grading and Erosion Control Plan will be used as a post construction filtering device to control pollutants and storm water discharges. Also, a grass swale along the easterly portion of the site shall be maintained to direct surface water into the detention/sedimentation pond.

Waste disposal: No litter, debris, building materials or similar materials are to be discharged into the waters of the State. Also, offsite vehicle tracking of sediment and generation of dust shall be minimized.

INSPECTION

Qualified personnel (provided by the developer) shall inspect disturbed areas of the construction activity that have not been finally stabilized, structural control measures, and locations where vehicles enter or exit the site at least once every seven calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater. Where sites have been temporarily or finally stabilized, structural control measures, and locations where vehicles enter or exit the site at least once every seven calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater. Where sites have been temporarily or finally stabilized, such inspection shall be conducted at least once every month for three months.

1. Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are assessable, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off–site sediment tracking.
2. Based on the results of the inspection, the description of potential sources and pollution prevention measures identified in the plan shall be revised as appropriate as soon as practicable after such inspection. Such modification shall provide for timely implementation of any changes to the plan within 7 calendar days following he inspection.

APPROVED

PREPARED BY:

City of Bristol
Department of Public Works
111 North Main Street
Bristol, Connecticut 06010
Tel. 860-584-6125
Fax. 860-584-3838
ci.bristol.ct.us

No.	DATE	COMMENTS:
1	9/14/2010	City Staff Comments
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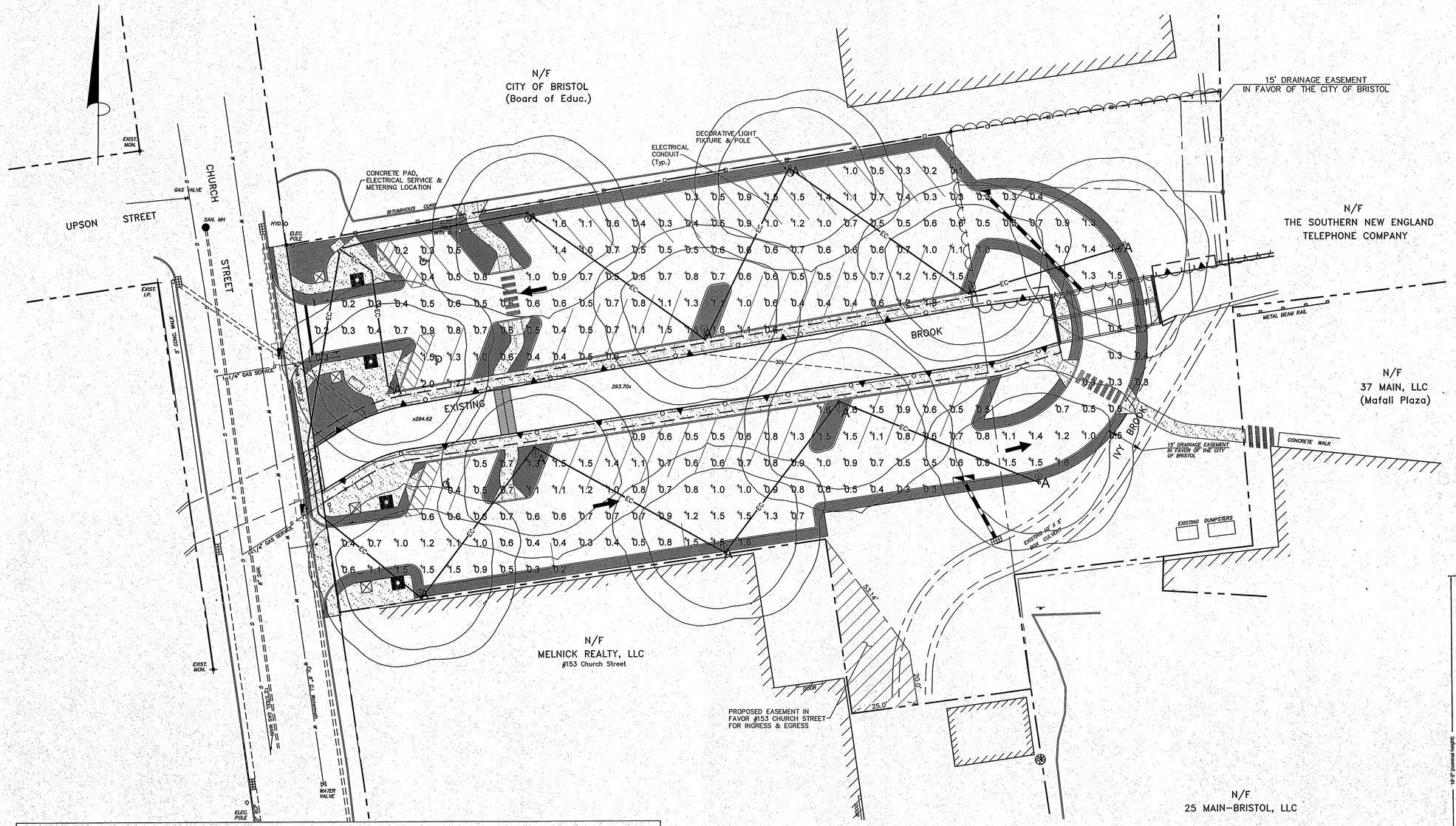
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DRAFTED BY:	DB/DJC
CHECKED BY:	RAR
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DATE:	7/30/2010
CONTRACT No:	

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149 Church Street Bristol Connecticut

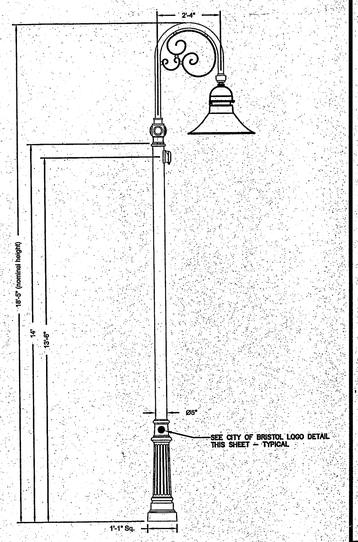
Grading & Erosion Control Plan

DRAWING NUMBER:

5



CITY OF BRISTOL
LOGO DETAIL



FIXTURE TYPE 'A' DETAIL

STATISTICS

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Parking & Drive	+	0.8 fc	2.0 fc	0.1 fc	20.0:1	8.0:1

LUMINAIRE SCHEDULE

Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
	A	11	GP10DMH000XS1 AN	GLASWERKS II PRAGUE	100W CLEAR PULSE PROTECTED MH	105642.IES	9000	0.72	130

NOTES

1. Fixture mounting height at 14'6"
2. All calculations shown are maintained after 4000hr burn in period.

APPROVED

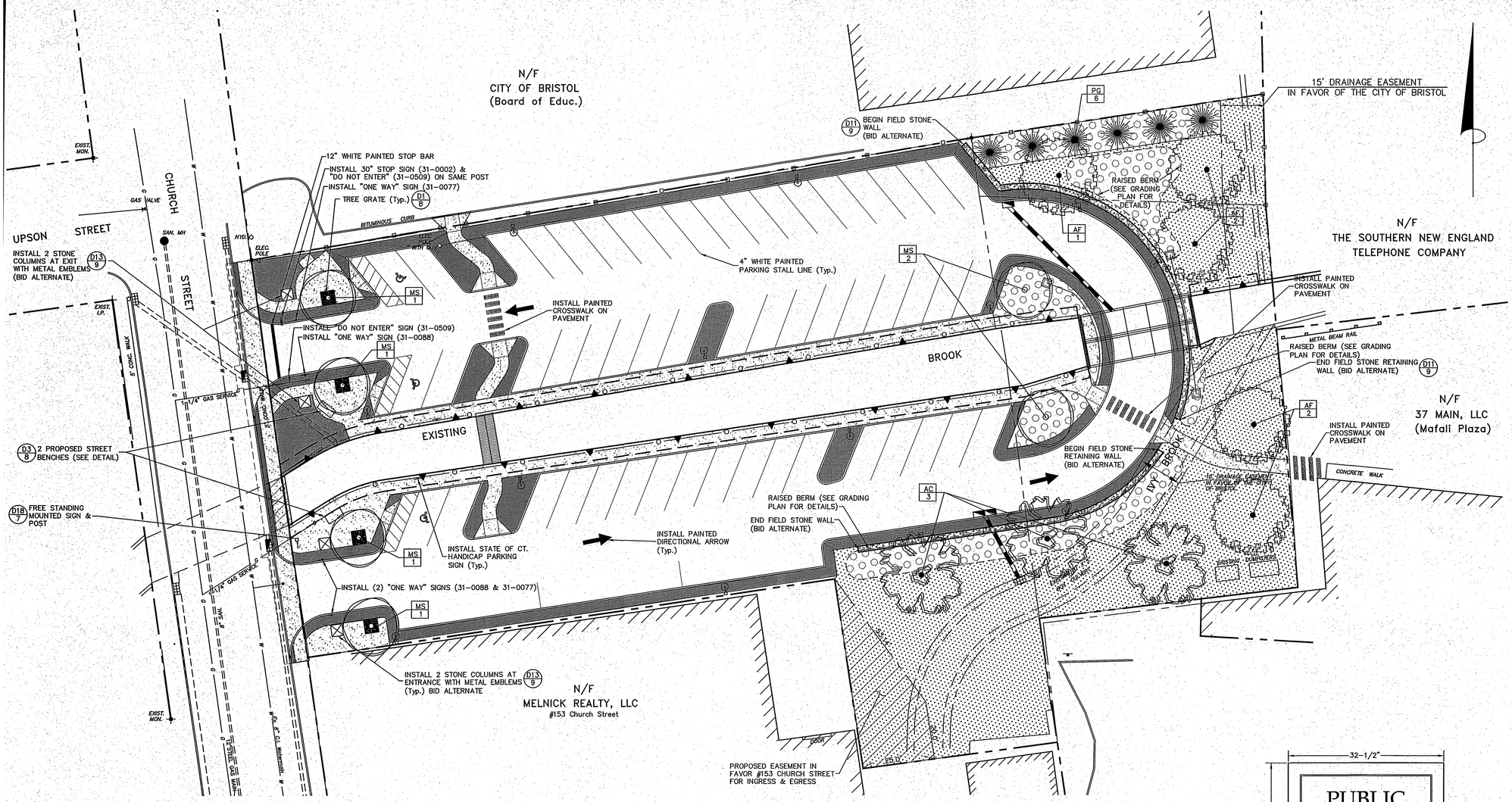
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Site Remediation and Construction of Parking Facility
149 Church Street Bristol Connecticut
Lighting Plan

DRAWING NUMBER:
6



LANDSCAPE NOTES:

1.) THE CONTRACTOR SHALL GUARANTEE THAT ALL PLANTS, TREES, AND SHRUBS SHALL BE HEALTHY AND FREE OF DISEASE FOR A PERIOD OF TWO YEARS AFTER INSTALLATION. CONTRACTOR SHALL REPLACE ANY DEAD OR DISEASED PLANTS AT THE CONTRACTOR'S EXPENSE.

2.) THE CONTRACTOR SHALL SUPPLY ALL MATERIALS, PLANTS, AND LABOR NECESSARY TO COMPLETE THE WORK DEPICTED ON THE DRAWINGS AND LISTED IN THE PLANT SCHEDULE. IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN IN THE PLANT SCHEDULE AND THOSE REQUIRED BY THE DRAWINGS, THE LARGER SHALL APPLY.

3.) THE LOCATIONS FOR PLANT MATERIAL SHALL BE CONSIDERED APPROXIMATE AND ARE SUBJECT TO FIELD ADJUSTMENT DUE TO SLOPE, VEGETATION, AND SITE FACTORS SUCH AS ROCK OUTCROPS, ETC. PRIOR TO PLANTING THE CONTRACTOR SHALL GET APPROVAL FROM THE OWNER FOR ANY ADJUSTMENTS OF THE PLANT MATERIALS AND OR LOCATIONS.

4.) LANDSCAPE PLANTING PITS MUST BE FREE DRAINING. PAVEMENT, COMPACTED SUBGRADE, AND BLASTED ROCK SHALL BE REMOVED FROM WITHIN ISLANDS TO BE LANDSCAPED TO A DEPTH OF 2' OR A GREATER DEPTH IF REQUIRED BY PLANTING DETAILS OR SPECIFICATIONS. REPLACE SOIL WITHIN ISLANDS WITH LOAM OR SANDY LOAM FREE OF RUBBISH AND STONES GREATER THAN 1" IN DIAMETER AND ANY OTHER MATERIAL HARMFUL TO PLANT GROWTH AND DEVELOPMENT.

5.) ALL SLOPES GREATER THAN 3:1 RECEIVING A GRASS SEEDING MIXTURE SHALL BE COVERED WITH AN EROSION CONTROL BLANKET.

6.) UNLESS NOTED OTHERWISE, ALL DISTURBED AREAS NOT COVERED BY OTHER SITE IMPROVEMENTS SHALL BE RECEIVE A MINIMUM OF 6" OF TOPSOIL AND TURF ESTABLISHED.

7.) ALL PLANTING BEDS SHALL BE MULCHED WITH 3" OF SHREDDED BARK OVER A WEED BARRIER.

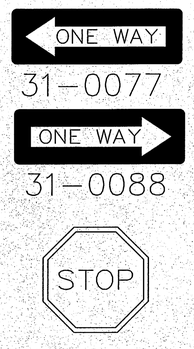
8.) PLANT MATERIALS AND THEIR INSTALLATION SHALL BE IN ACCORDANCE WITH THE CONNECTICUT LANDSCAPE CONTRACTORS ASSOCIATION STANDARDS.

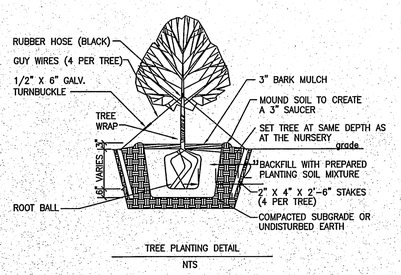
9.) PARKING SPACES SHALL BE STRIPED WITH 4" SINGLE WHITE LINES. PAINTED STOP BARS SHALL BE 12" SINGLE WHITE LINES. HATCHING AREA FOR HANDICAPPED SPACES SHALL BE 4" SINGLE WHITE LINES AT A 45-DEGREE ANGLE, 2' ON CENTER.

10.) WILDFLOWER SEED MIX SHALL BE A MIX CONSISTING OF ONLY NATIVE PLANTS SUITED FOR THE NORTHEAST REGION. APPLICATION RATE SHALL BE 20 lbs./ACRE.

11.) PAVEMENT MARKINGS SHALL BE EPOXY IN ACCORDANCE WITH CONNECTICUT D.O.T. SPECIFICATIONS.

12.) SIGN DIMENSIONS, COLORS, SIZES, HEIGHTS, AND INSTALLATION DETAILS SHALL BE IN ACCORDANCE WITH THE STATE TRAFFIC COMMISSION STANDARDS AND THE "MANUAL OF TRAFFIC CONTROL DEVICES."

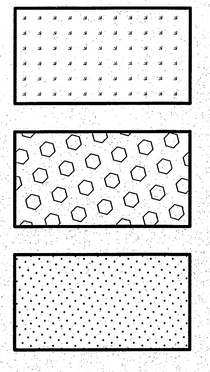




TREE PLANTING DETAIL
NTS

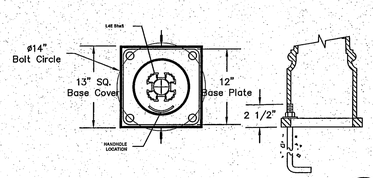
R7 - SERIES				
HANDICAPPED PARKING STATE PERMIT REQUIRED	BACKGROUND BLUE LEGEND WHITE		(NO ARROW) (P)	
	SIZE (INCHES)	CONN D.O.T. #	SUPPORTS	ALUM THK
(I L)	12x21	31-0629	1	080

HANDICAPPED SIGN

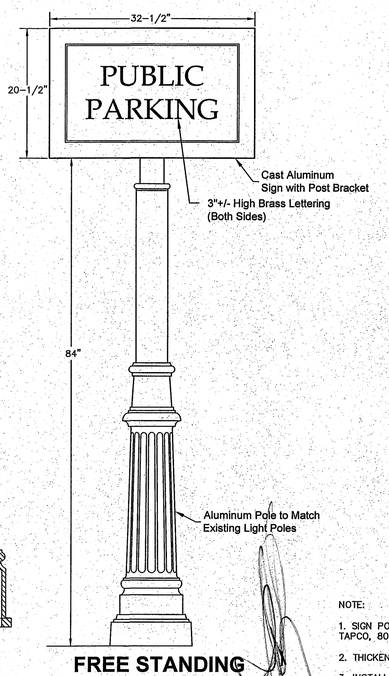


PLANT SCHEDULE

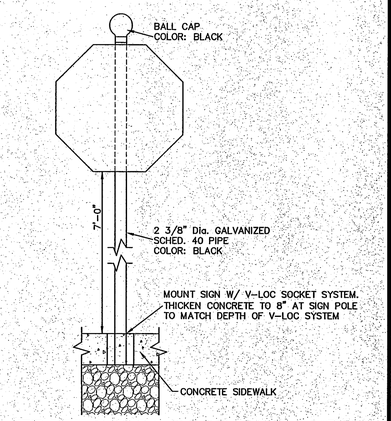
SYMBOL	LATIN NAME	COMMON NAME	SIZE	QTY	NOTES
EVERGREEN TREES					
PG	PICEA GLAUCA	WHITE SPRUCE	5-6'	6	B&B
DECIDUOUS TREES					
AC	AMELANCHIAR CANADENSIS	SHADBLOW	5-6'	3	B&B
AF	ACER x FREEMANII 'AUTUMN FANTASY'	AUTUMN FANTASY MAPLE	5-6'	5	B&B
MS	MALUS 'VELVET PILLAR'	VELVET PILLAR FLOWERING CRABAPPLE	2 1/2"-3" CAL.	6	B&B



POST ANCHOR DETAIL
N.T.S.



D18 FREE STANDING MOUNTED SIGN & POST
N.T.S.



TRAFFIC SIGN POST
N.T.S.

APPROVED

NOTE:

1. SIGN POST SHALL BE MOUNTED WITH A V-LOC SOCKET SYSTEM MODEL 23-VRI MF'D. BY TAPCO, 800 WALL ST. ELM GROVE, WI 53122, WWW.TAPCONET.COM
2. THICKEN CONC. SIDEWALK TO 8" AT SIGN POST TO ACCOMODATE THE V-LOC SYSTEM.
3. INSTALL THE V-LOC SYSTEM PLUMB & LEVEL & DO NOT MATCH THE SIDEWALK PITCH.
4. USE THIS SIGN POST FOR ALL TRAFFIC SIGNS & HANDICAP PARKING SIGNS.

City of Bristol
Department of Public Works
111 North Main Street
Bristol, Connecticut 06010
Tel. 860-584-6125
Fax 860-584-3838

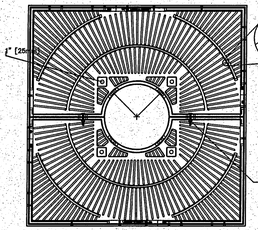
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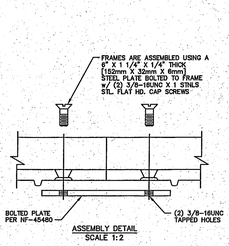
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DESIGN BY: DJC
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SCALE: 1"=20'

Site Remediation and Construction of Parking Facility
149 Church Street
Bristol Connecticut

DRAWING NUMBER
7





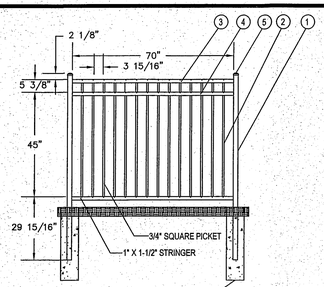
ASSEMBLY DETAIL
SCALE 1:2

D1 TREE GRATE DETAIL

NOTE: ALL DIMENSIONS SHOWN ARE IN ENGLISH AND [METRIC] CONFORMANCE: DESIGNED AND MANUFACTURED TO ASTM A-536-84 GR. 60-40-18 OR ASTM A-48 CLASS 35B FINISH: NO PAINT WEIGHT: FRAME 25# EACH, GRATE23# EACH

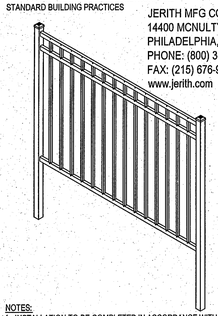
DR. KMH	SCALE 1"=1'-0"	TITLE R-8714-A 60" x 60" TREE GRATE AND FRAME	
CK.			
APP.	DW. DW.	NEENAH FOUNDRY COMPANY	NF- 8714 115 B
DATE 11-22-99			

CAD DWG. REF: 8714115.DWG-



ALL POSTS TYPICALLY INSTALLED IN CONCRETE IN ACCORDANCE WITH LOCAL CONDITIONS AND STANDARD BUILDING PRACTICES

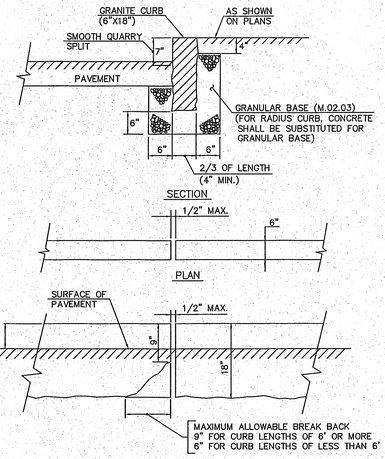
JERITH MFG CO., INC.
14400 MCNULTY ROAD
PHILADELPHIA, PA 19154
PHONE: (800) 344-2242
FAX: (215) 676-9756
www.jerith.com



NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. ALL DIMENSIONS ARE CONSIDERED TRUE AND REFLECT MANUFACTURER'S SPECIFICATIONS.

D4 WINDSOR FENCE

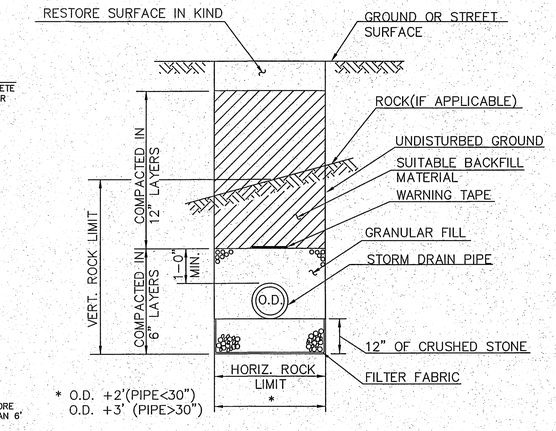
54" HEIGHT



NOTE: GRANITE CURBING TO BE INSTALLED ALONG CHURCH STREET SHALL INCLUDE COST FOR SAW CUTTING BACK OF CURB TO FACILITATE INSTALLATION OF BRICK PAVERS.

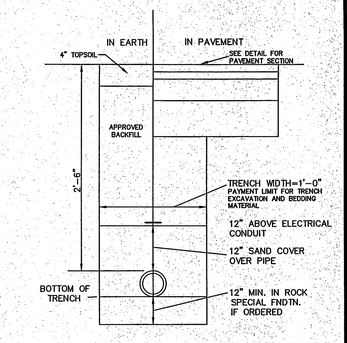
D7 GRANITE STONE CURBING

(BID ALTERNATE)



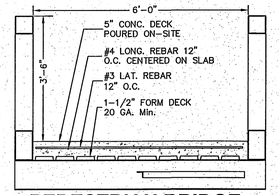
* O.D. +2'(PIPE<30")
O.D. +3' (PIPE>30")

STORM DRAIN



ELECTRICAL TRENCH DETAIL

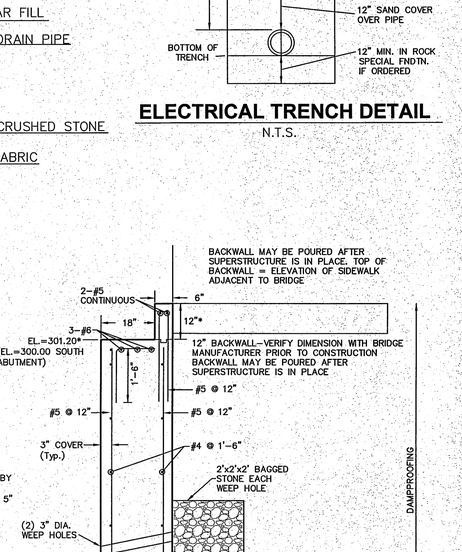
N.T.S.



PEDESTRIAN BRIDGE

N.T.S.

PEDESTRIAN BRIDGE SHALL BE 20'x6' PRATT TRUSS TUBULAR STEEL BRIDGE PROVIDED BY EXCEL BRIDGE MANUFACTURING Co. (800)548-0054 OR APPROVED EQUAL. FINISH: PAINTED STEEL. COLOR: BLACK. DECK: GALVANIZED FORM PAN WITH SIDE DAMS FOR 5" CONCRETE WALK TO BE INSTALLED BY SITE CONTRACTOR AS PART OF THIS CONTRACT



PEDESTRIAN BRIDGE ANCHOR BOLTS

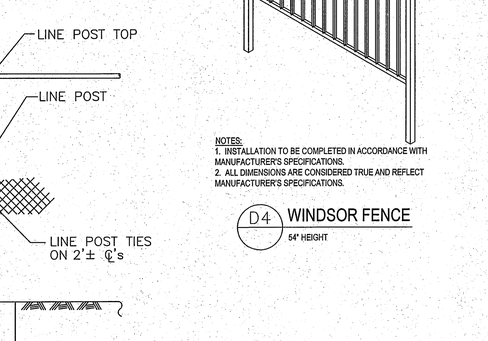
N.T.S.

*CONTRACTOR SHALL BE RESPONSIBLE TO MODIFY BRIDGE ABUTMENT(S) BEARING PLATE ELEVATION(S) & BOTTOM OF FOOTING ELEVATIONS TO MATCH FINAL BRIDGE SHOP DRAWINGS & FIELD CONDITIONS.

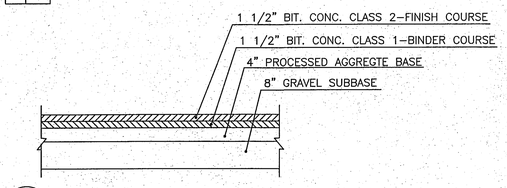
SOUTHERLY ABUTMENT SHALL BE CONSTRUCTED THE SAME AS NORTHERLY ABUTMENT EXCEPT FOR BOTTOM OF FOOTING & BEARING PLATE ELEVATIONS AS NOTED.

NORTH PEDESTRIAN BRIDGE ABUTMENT

N.T.S.

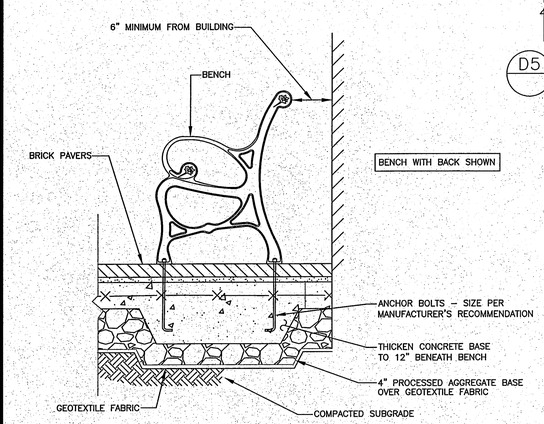


D2 CHAIN LINK FENCE



D5 PAVEMENT SECTION

(PARKING)



NOTE:
1. BENCH (WITH BACK) SHALL BE TIMBERFORM RESTORATION SERIES MODEL NO. 2118-8 EIGHT FEET LONG MANUFACTURED BY COLUMBIA CASCADE.

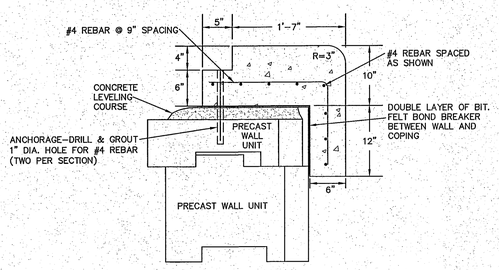
D3 STREET BENCH

N.T.S.

RETAINING WALL NOTES:

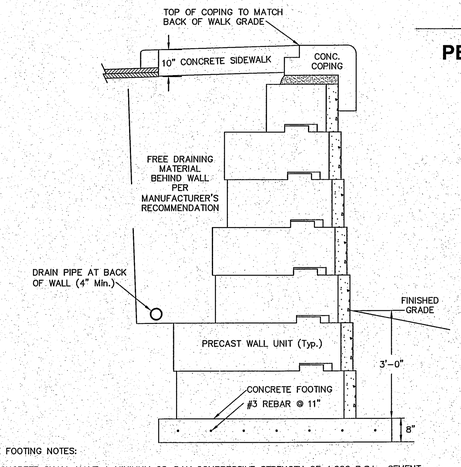
1. PRECAST CONCRETE WALL UNITS SHALL BE RECON 50 SERIES, NORTH SHORE GRANITE TEXTURE BY RECON RETAINING WALL SYSTEMS OR ACCEPTABLE EQUAL. RECON RETAINING WALL SYSTEM AVAILABLE FROM ATLAS CONCRETE PRODUCTS, 65 BURRITT STREET, NEW BRITAIN, CT 06053.

2. A SIX FOOT BAND OF CONCRETE SIDEWALK BEHIND RETAINING WALLS SHALL BE 10" THICK.



D6 CONCRETE COPING DETAIL

NOT TO SCALE



CONCRETE FOOTING NOTES:

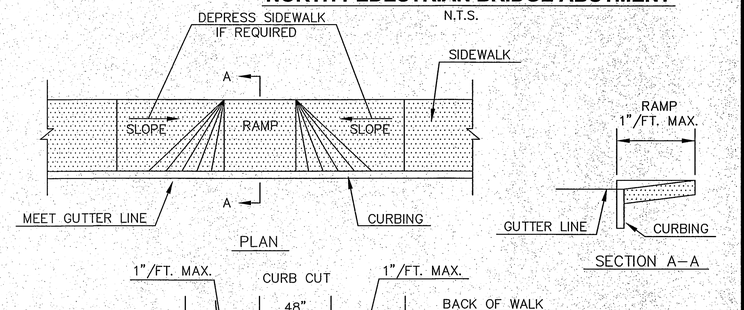
1. ALL CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 P.S.I. CEMENT USED SHALL BE CLASS F AND MEET THE REQUIREMENTS OF CONNDOT FORM 816 M.03.01.

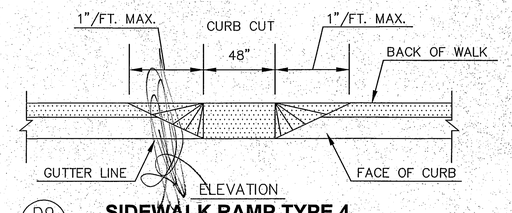
2. REINFORCING SHALL MEET THE REQUIREMENTS OF ASTM A-615M GRADE 60 DEFORMED STEEL BARS FOR CONCRETE REINFORCING. ALL BARS SHALL BE BENT COLD. UNLESS NOTED OTHERWISE NOTED, REINFORCING SPLICE LENGTHS SHALL BE 15" FOR #3 BARS.

DISCLAIMER:
These typical details are preliminary and conceptual in nature. They are provided for general information purposes only. Prior to construction the contractor shall submit a shop drawing of the proposed retaining wall system for approval. The shop drawing shall be a site specific design performed by a licensed Professional Engineer who is familiar with the actual site conditions, materials, and local practices.

D6 BLOCK RETAINING WALL

NOT TO SCALE





D9 SIDEWALK RAMP TYPE 4

APPROVED

PREPARED BY:

City of Bristol
Department of Public Works
111 North Main Street
Bristol, Connecticut 06010
Tel. 860-584-6125
Fax 860-584-3838
ci.bristol.ct.us

No.	DATE	COMMENTS:
1	9/14/2010	City Staff Comments
2	10/15/2010	City Staff Comments

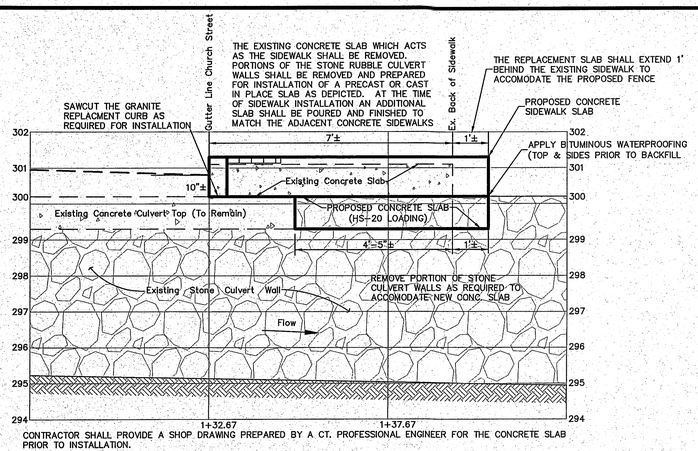
DESIGN BY: DJC
DRAFTED BY: DB/DJC
CHECKED BY: RAR
SCALE: 1"=20'
DATE: 7/30/2010
CONTRACT No:

Site Remediation and Construction of Parking Facility
149 Church Street
Bristol Connecticut

Miscellaneous Construction Details

DRAWING NUMBER:

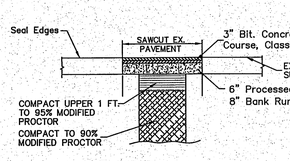
8



CONTRACTOR SHALL PROVIDE A SHOP DRAWING PREPARED BY A CT. PROFESSIONAL ENGINEER FOR THE CONCRETE SLAB PRIOR TO INSTALLATION.

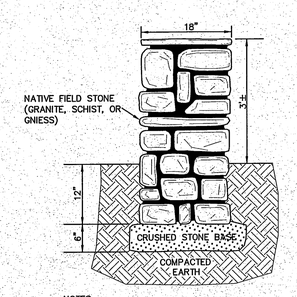
D10 CONCRETE SLAB REPLACEMENT OVER CULVERT DETAIL

N.T.S.



TYPICAL PAVEMENT CUT & REPAIR

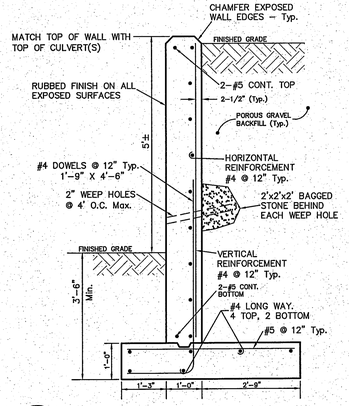
N.T.S.



NOTES:
1. CAP SHALL BE A Min. OF 3" THICK.
2. ALL MORTAR JOINTS SHALL BE DEEPLY RAKED TO AVOID MORTAR BEING EXPOSED ALONG ANY WALL FACE.
3. USE NATIVE FIELD STONE FOR EXPOSED FACE STONES.

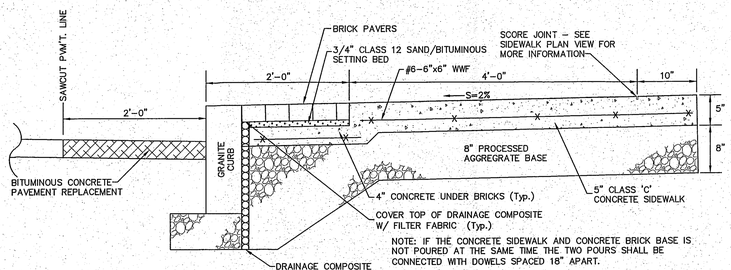
D11 FIELD STONE WALL

N.T.S. (BID ALTERNATE)



D15 CONCRETE TRANSITION WALL

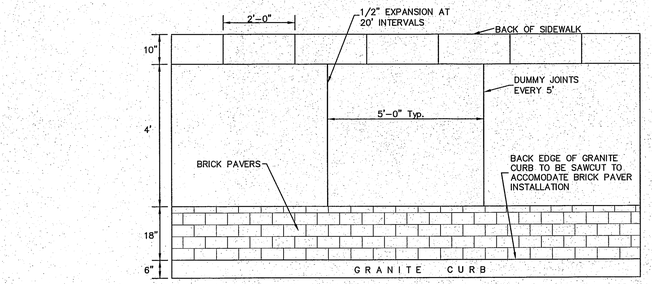
Scale: 1"=2'



NOTE: IF THE CONCRETE SIDEWALK AND CONCRETE BRICK BASE IS NOT POURED AT THE SAME TIME THE TWO POURS SHALL BE CONNECTED WITH DOWELS SPACED 18" APART.

SECTION

N.T.S.

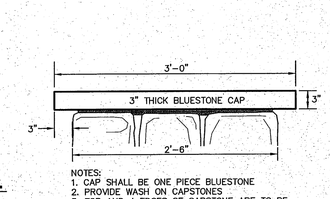


PLAN

N.T.S.

D14 CHURCH STREET SIDEWALK REPLACEMENT

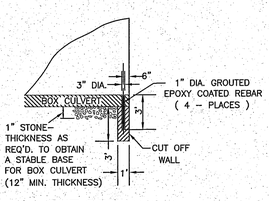
N.T.S.



NOTES:
1. CAP SHALL BE ONE PIECE BLUESTONE
2. PROVIDE WASH ON CAPSTONES
3. TOP AND 4 EDGES OF CAPSTONE ARE TO BE THERMAL FINISHED
4. MORTAR CAPSTONE IN PLACE

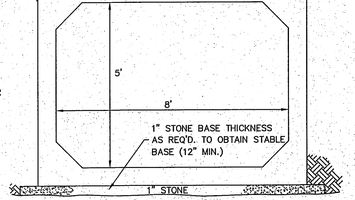
STONE COLUMN CAP

N.T.S.



CUT OFF WALL

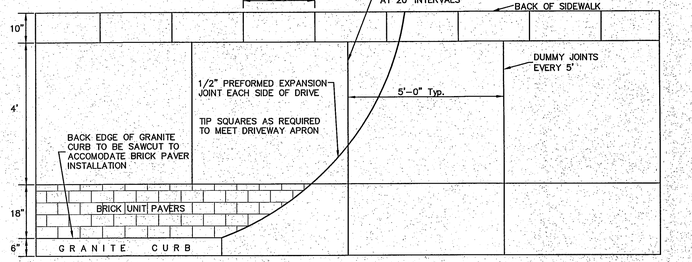
NOT TO SCALE



D16 TYPICAL CULVERT SECTION

NOT TO SCALE

NOTES:
1. DESIGN BOX SECTIONS FOR LESS THAN 2 FEET OF COVER IN ACCORDANCE WITH ASTM C1433 (AASHTO M273)
2. INSTALL CUT OFF WALLS AT THE INLET AND OUTLET OF THE PROPOSED CULVERT

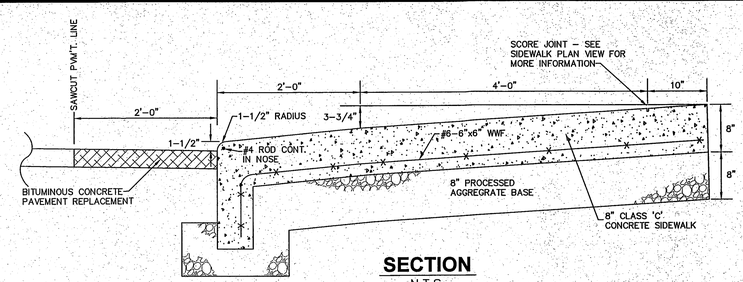


PLAN

N.T.S.

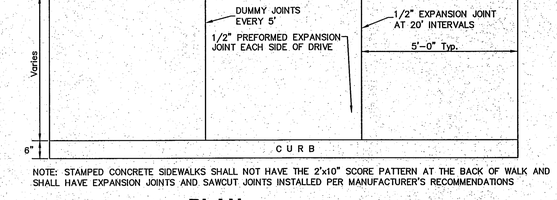
D12 CHURCH STREET SIDEWALK REPLACEMENT AT DRIVEWAY

N.T.S.



SECTION

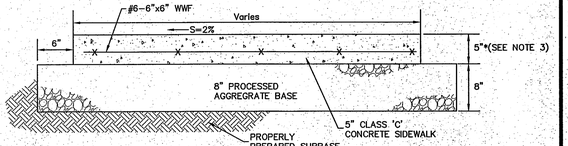
N.T.S.



NOTE: STAMPED CONCRETE SIDEWALKS SHALL NOT HAVE THE 2'x10" SCORE PATTERN AT THE BACK OF WALK AND SHALL HAVE EXPANSION JOINTS AND SAWCUT JOINTS INSTALLED PER MANUFACTURER'S RECOMMENDATIONS

PLAN

N.T.S.



SECTION

N.T.S.

D8 INTERIOR SIDEWALK DETAILS

N.T.S.

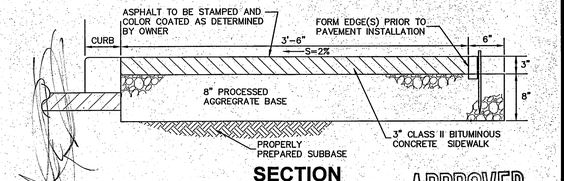
NOTE:
1. STAMPED CONCRETE PATTERN AND COLOR SHALL BE PATTERN: OFFSET BRICK, COLOR: TERRACOTTA. SHOP DRAWING SHALL BE SUBMITTED OF BOTH PATTERN & COLOR FOR APPROVAL PRIOR TO SIDEWALK INSTALLATION.

2. CONCRETE SIDEWALKS NOT STAMPED & COLORED SHALL BE BROOM FINISHED AND WINDOW PANED.

3. A SIX FOOT BAND OF CONCRETE SIDEWALK BEHIND THE MODULAR RETAINING WALL ALONG THE RIVER SHALL BE 10" THICK

NOTE:
1. STAMPED ASPHALT PATTERN SHALL BE OFFSET BRICK PATTERN AND ASPHALT COATING SHALL BE COLOR TERRACOTTA.

2. LIMITS OF ASPHALT SHALL BE FORMED TO PROVIDE SHARP EDGE AND EVEN PAVEMENT DIMENSIONS

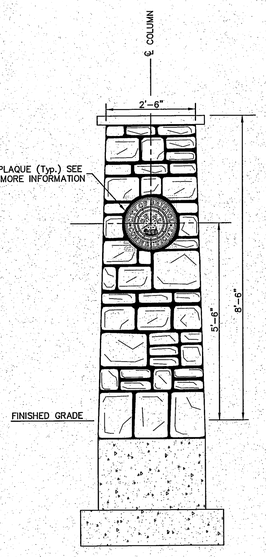


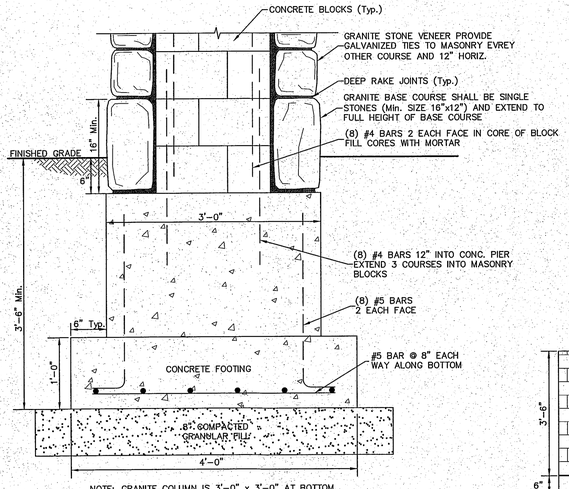
SECTION

N.T.S.

D8 STAMPED ASPHALT DETAILS

N.T.S.

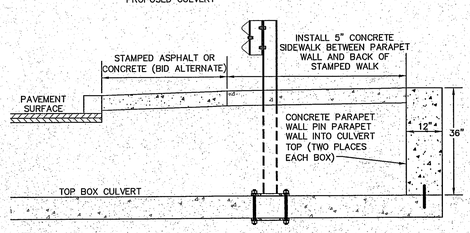




NOTE: GRANITE COLUMN IS 3'–0" x 3'–0" AT BOTTOM AND 2'–6" x 2'–6" AT TOP

D13 STONE COLUMN

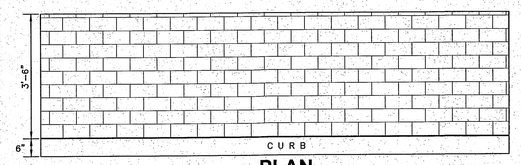
N.T.S. (BID ALTERNATE)



NOTES:
1. PARAPET WALL SHALL BE CAST IN PLACE OR PRE-CAST CONCRETE.
2. CONTRACTOR SHALL PROVIDE SHOP DRAWING OF PARAPET WALL FOR APPROVAL PRIOR TO INSTALLATION.

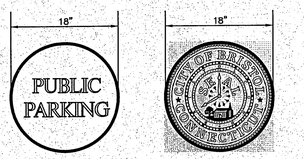
D18 CONCRETE PARAPET WALL

N.T.S.



PLAN

N.T.S.



FONT: TIMES ROMAN

BRONZE PLAQUE DETAIL

N.T.S.

NOTES:
1. PLAQUES SHALL BE INSTALLED ON BOTH ENTRANCE & EXIT DRIVE STONE COLUMNS FACING THE STREET. CITY SEAL SHALL BE INSTALLED ON NORTHERLY COLUMNS. "PUBLIC PARKING" PLAQUE SHALL BE INSTALLED ON SOUTHERLY COLUMNS.

2. PLAQUES SHALL BE CAST BRONZE WITH PEBBLE FINISH FROM ARCHITECTURAL BRONZE ALUMINUM CORPORATION. 1-800-339-6581 OR APPROVED EQUAL.

3. CONTRACTOR SHALL PROVIDE A SHOP DRAWING OF PROPOSED CASTING FROM THE MANUFACTURER FOR APPROVAL BY THE ENGINEER PRIOR TO CASTING.

APPROVED

PREPARED BY:

City of Bristol
Department of Public Works
111 North Main Street
Bristol, Connecticut 06010
Tel. 860-584-6125
Fax. 860-584-3838
ci.Bristol.ct.us

No.	DATE	COMMENTS:
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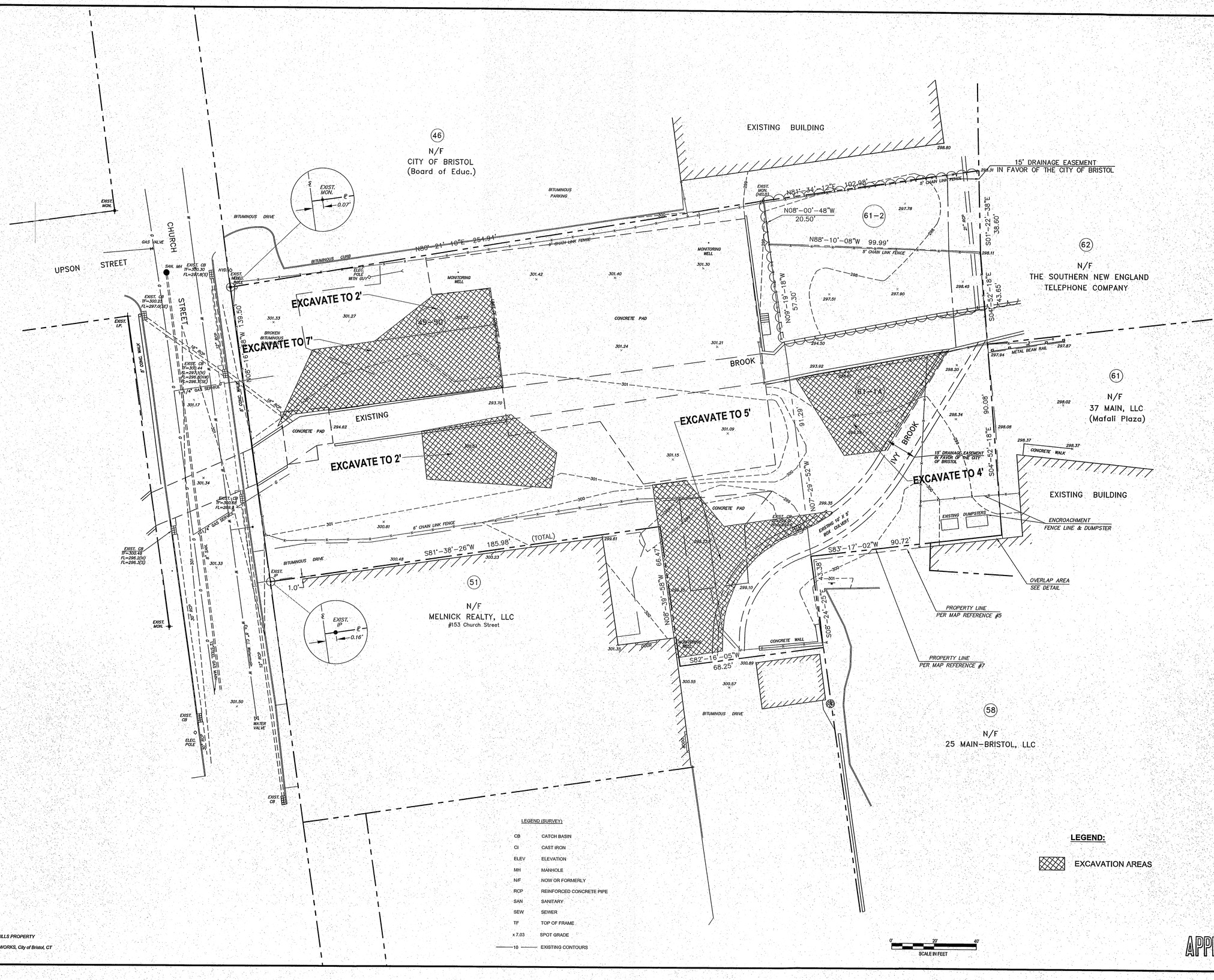
DESIGN BY: DJC
DRAFTED BY: DB/DJC
CHECKED BY: RAR
SCALE: 1"=20'
DATE: 7/30/2010
CONTRACT No:

Site Remediation and Construction of Parking Facility
149 Church Street Bristol Connecticut

Miscellaneous Construction Details

DRAWING NUMBER:

9



SOURCE:
Based on Fig 2, *Existing Conditions Plan*
REHABILITATION OF THE FORMER H.J. MILLS PROPERTY
149 Church Street, Bristol, CT
Property of the DEPARTMENT OF PUBLIC WORKS, City of Bristol, CT
Jul 2010

©2011 AKRF, Inc. Environmental Consultants T:\Projects\91089 - HJ Mills (94-00284 Documents\Figures\91089 Remediation Excavation Areas_BW_Docx.dwg

AKRF
Environmental Consultants
700 Main Street Suite C, Willimantic, CT 06226

FORMER H.J. MILLS SITE
149-151 CHURCH STREET
BRISTOL, CT

REMEDIATION EXCAVATION AREAS

DATE
4.18.11

SCALE
as shown

PROJECT No.
91089

FIGURE
1

For Office Use Only	
APPLICATION NO.	2510
DATE FILED:	10/3/24
DECISION DATE:	
DECISION:	

CITY OF BRISTOL, CONNECTICUT
APPLICATION FOR SITE PLAN APPROVAL

The undersigned Applicant hereby applies for approval of a Site Plan for the following use:

Mixed Use Development and Location of parking on a seperate lot under different ownership, a ☑ permitted use ☑ Special Permit use

under Section(s) Article II Section 4.2 and Article III Section 13.6.b of the Bristol Zoning Regulations.

Address or Location of the Property: 37 Main Street & 149 Church Street

Assessor's Map No.: 30 Assessor's Lot No.(s): 61, 61-1 & 61-3; 49; 50; 61-1A; 61-2;

Zone of the Property: BD-1 & BD-2 Size of the Property (in acres or square feet): 27,123 sq. ft. & 57,934 sq. ft

Does this application involve an activity regulated by the Inland Wetlands Agency? ☑ yes [ ] no

If yes, has an application for a permit been submitted to the Inland Wetlands Agency? ☑ yes, on 9/9/24 [ ] no

Other comments: IWWA App. #2040

NOTE: Section 8-3c(a) of the Connecticut General Statutes requires that, if an application for a Special Permit involves an activity regulated under the Inland Wetlands and Watercourses provisions of the statutes, the applicant shall submit an application for a wetlands permit to the local Inland Wetlands Agency no later than the day the Special Permit application is filed.

APPLICANT (If more than one, list on Page 2)

Name: Gold Coast Properties, LLC

Address: 303 Linwood Ave. Suite 2B City: Fairfield State: CT Zip: 06824

Telephone No.: 203-610-1545 E-Mail: goldcoasthouse@gmail.com

Signature: *Signature – (Printed/Typed)* Stephen Shapiro

CHECK ONE: [ ] owner ☑ other (specify): under contract

OWNER(S) OF RECORD (If other than Applicant; if more than one, list on Page 2)

Name: 37 Main Street, LLC

Address: 108 River Road City: Deep River State: CT Zip: 06417

Telephone No.: E-Mail:

Signature: *Signature – (Printed/Typed)* Rich Lemieux

The following shall be included as part of this application:

- filing fee – $310 (includes $60 State fee) *plus* $50 per dwelling unit *plus* $10 per 1,000 sq. ft. or portion thereof of proposed non-residential building (make checks payable to "City of Bristol")
- six paper copies and one digital copy of a Site Plan containing all information required on the Site Plan Requirements Checklist
- a written narrative and any other data and drawings as may be required (e.g., drainage calculations, exterior building elevations)

THIS APPLICATION MUST BE FILED IN PERSON NO LATER THAN 12 NOON ON THE DEADLINE DAY FOR APPLICATION SUBMISSION – NO EXCEPTIONS!

LUO – 01/24

For Office Use Only
APPLICATION NO. 2510

CITY OF BRISTOL, CONNECTICUT
SUPPLEMENTARY INFORMATION

Address or location of property: 37 Main Street & 149 Church Street

ADDITIONAL INFORMATION/COMMENTS (click inside the box below and begin typing)

ADDITIONAL APPLICANT

Name: _____ CHECK ONE: [ ] owner [ ] other: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

ADDITIONAL OWNER(S) OF RECORD

Name: City of Bristol, CT

Address: 111 North Main Street City: Bristol State: CT Zip: 06010

Telephone No.: 860-584-6252 E-Mail: mayorsoffice@britolct.gov

Signature: _____ Signature – (Printed/Typed) Mayor Jeffrey Caggiano

Name: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

(OPTIONAL) SEND COPIES OF ALL CORRESPONDENCE TO:

Name: Attorney James Ziogas

Address: 104 Bellevue Ave. City: Bristol State: CT Zip: 06010

Telephone No.: _____ E-Mail: _____

1/24 - LUO

Stormwater Permit Information for Developers and Contractors

If your project disturbs more than one acre of land, regardless of phasing, you are responsible for the requirements of the Connecticut Department of Energy & Environmental Protection (DEEP) *General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities* ("Construction Stormwater General Permit").

If your project is greater than 5 acres, you are required to submit a registration for the Construction Stormwater General Permit at least 60 days prior to the planned commencement of the construction activity. A copy of your Stormwater Pollution Control Plan shall be provided to the City upon request.

If your project is between one and five acres, you must adhere to the erosion and sediment control land use regulations of the City of Bristol which can be found in the Code of Ordinances, Zoning Regulations and Inland Wetland and Watercourses Regulations, as well as the Connecticut Guidelines for Soil Erosion and Sediment Control and the Connecticut Stormwater Quality Manual. No registration or plan review and certification is required for such construction activity provided a City of Bristol land-use commission (i.e. Planning, Zoning, or Inland Wetland) reviews and issues a written approval of the proposed erosion and sediment control measures, pursuant to the requirements of section 22a-329 of the Connecticut General Statutes.

More information can be obtained by calling the DEEP at 860-424-3000 or visiting their Construction Stormwater General Permit webpage at:

http://www.ct.gov/deep/cwp/view.asp?a=2721&q=558612&DEEPNav_GID=1654

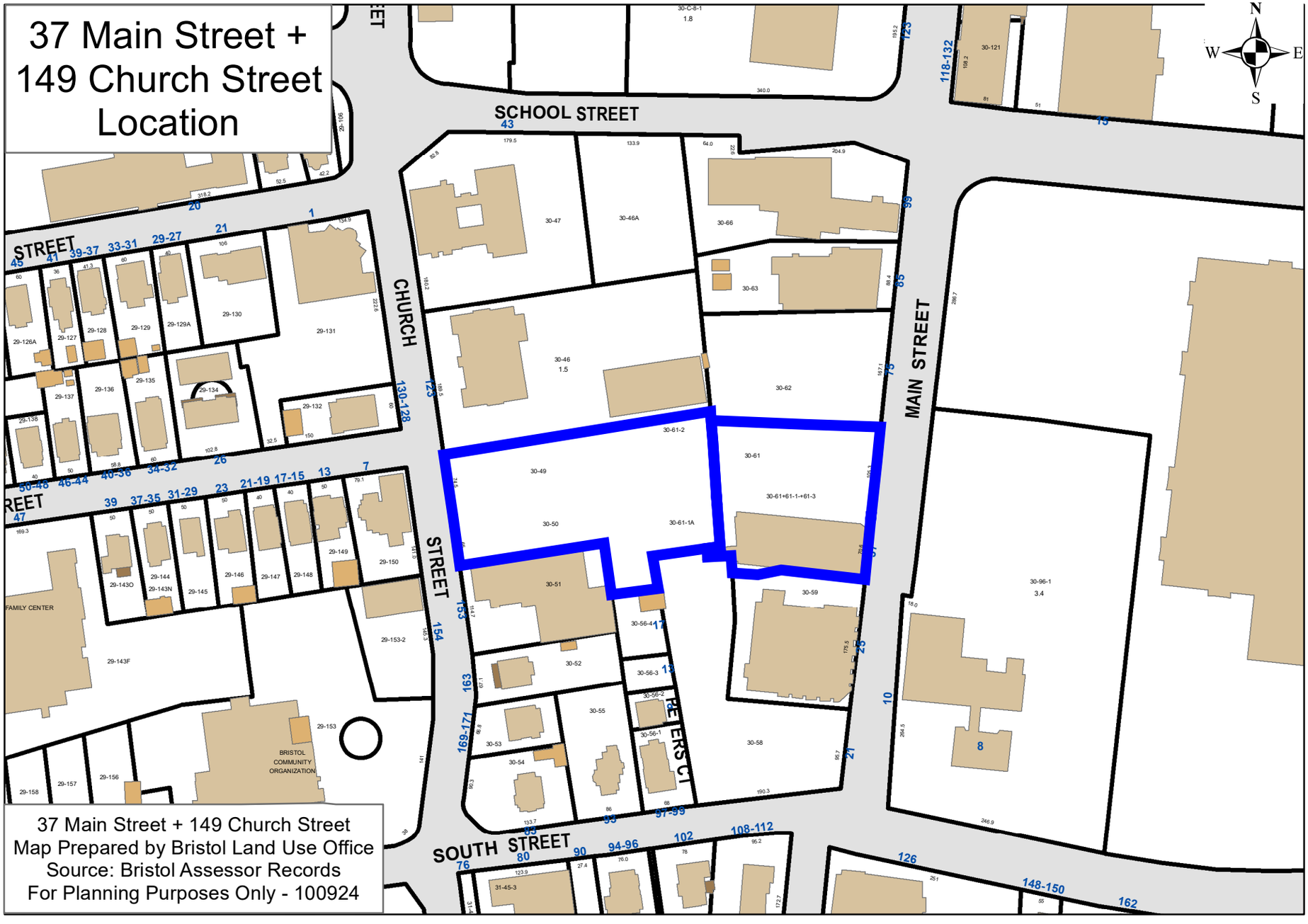
DRAINAGE REPORT
37 Main Street
Bristol, CT
August 27, 2024

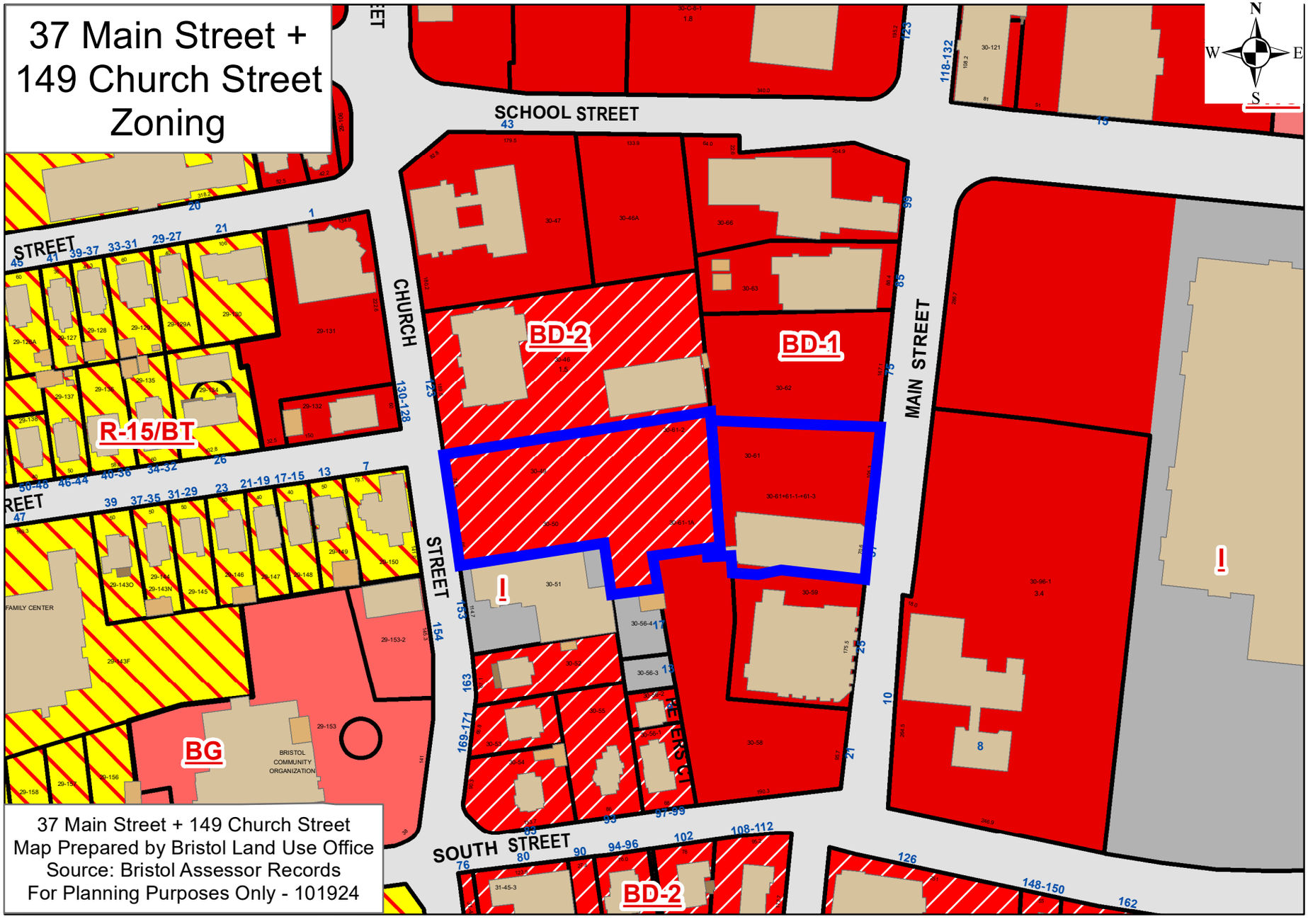
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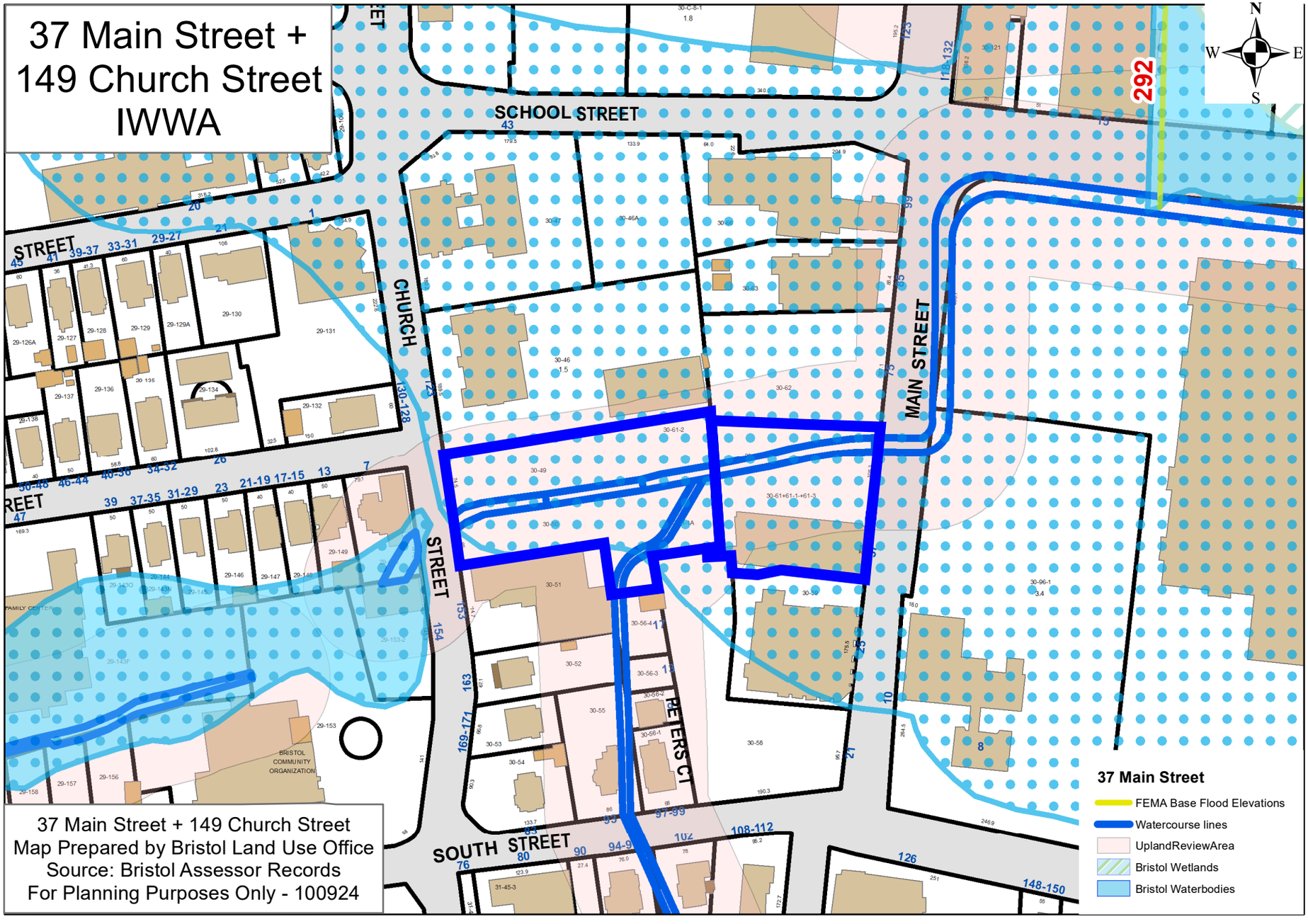
https://www.bristolct.gov/DocumentCenter/View/47617/Complete-Drainage-Analysis-8-27-24-

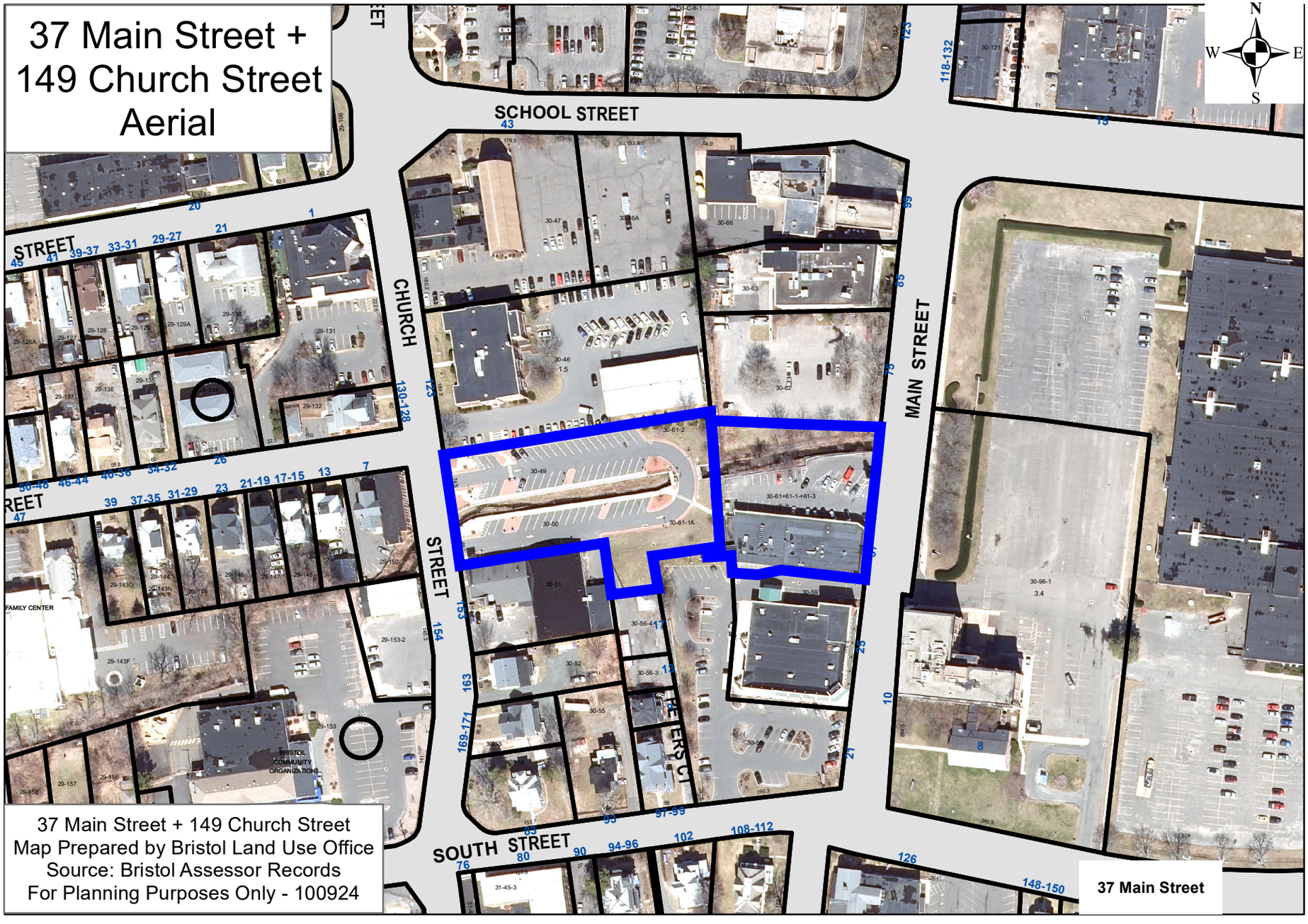
Prepared For:
Gold Coast Properties, LLC
303 Linwood Avenue Suite 2D
Fairfield, CT 06824

Prepared by:
R.R. Hiltbrand Engineers & Surveyors, LLC
575 North Main Street
Bristol, CT 06010
rrhilt@aol.com


37 Main Street +
149 Church Street
Location
SCHOOL STREET
CHURCH STREET
MAIN STREET
SOUTH STREET
PETERS CT
BRISTOL COMMUNITY ORGANIZATION
FAMILY CENTER
30-46
1.5
30-61-2
30-49
30-50
30-61-1A
30-61
30-61+61-1+61-3
30-51
30-52
30-53
30-54
30-55
30-56-1
30-56-2
30-56-3
30-56-4
30-58
30-59
30-62
30-63
30-66
30-47
30-46A
30-96-1
3.4
30-C-8-1
1.8
30-121
31-45-3
29-106
29-126A
29-127
29-128
29-129
29-129A
29-130
29-131
29-132
29-134
29-135
29-136
29-137
29-138
29-143O
29-143N
29-144
29-145
29-146
29-147
29-148
29-149
29-150
29-153-2
29-143F
29-153
29-156
29-157
29-158
N
W
E
S
37 Main Street + 149 Church Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 100924


37 Main Street +
149 Church Street
Zoning
SCHOOL STREET
CHURCH STREET
MAIN STREET
SOUTH STREET
BD-2
BD-1
R-15/BT
BG
I
BRISTOL COMMUNITY ORGANIZATION
FAMILY CENTER
N
W
E
S
37 Main Street + 149 Church Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 101924


37 Main Street +
149 Church Street
IWWA
SCHOOL STREET
CHURCH STREET
MAIN STREET
PETERS CT
SOUTH STREET
BRISTOL COMMUNITY ORGANIZATION
292
N
W
E
S
37 Main Street
FEMA Base Flood Elevations
Watercourse lines
UplandReviewArea
Bristol Wetlands
Bristol Waterbodies
37 Main Street + 149 Church Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 100924


37 Main Street +
149 Church Street
Aerial
SCHOOL STREET
CHURCH STREET
MAIN STREET
SOUTH STREET
37 Main Street
37 Main Street + 149 Church Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 100924

Google Earth


Layers



Site Plan
8/27/24

PROPOSED 4-STORY MULTI-USE BUILDING
FORMER MAFALES PLAZA

#37 Main Street
Bristol, Connecticut



Project Narrative

The project is the re-development of 37 Main Street (Mafles Plaza). The existing site is 27,123 s.f. (0.623 Acres) and is bordered by Main Street to the east, Former Walgreens Pharmacy to the south, City of Bristol public parking to the west and SNET to the north. An existing sidewalk connects the subject property to the public parking lot. The northern property line comprises sections of existing concrete retaining walls which contain an unnamed brook in a depressed section. The area between the walls would be flagged as inland wetlands, but the area was inaccessible due to chain link fence enclosures. The portion of these inland wetlands on the subject property would equate to 936 s.f. The remaining site is uplands comprising of bituminous pavement, concrete sidewalk and a recently demolished building subject to a fire in 2022. The entire existing site is made up of impervious surfaces. Additionally, 19,336 s.f. of the subject property is within the 100' upland review area. The site does not contain any storm drainage features and the entire site sheetflows to Main Street.

The proposed project is a 4-story mixed use building with a footprint of 7,035 s.f. The building will consist of 3,083 s.f. of retail space and 28 residential units (mix of 1 and 2 bedroom units). The site will include 21 off-street parking spaces to the rear of the building and 6 on-street parking spaces along the west side of Main Street. Additional parking will be available on the east side of Main Street (to be developed by others) and the City of Bristol public parking lot to the west of the site contains 55 spaces. The site is serviced by sanitary sewer, public water, underground electric, telephone and cable, and gas services. The east side of the building will have an open-air patio/entrance area along the entire building frontage.

On-site storm drainage consists of a conventional pipe and catch basin system, hydro-dynamic oil/grit separator and an underground storage/infiltration system that treats on-site storm water quality and reduces peak flows to the City of Bristol storm drainage system in Main Street. Proposed impervious is 18,916 s.f. (69.7%) vs 27,123 s.f. (100%) existing, which results in a significant reduction in impervious cover.

AS-BUILT SURVEY SHALL BE PROVIDED PRIOR TO ISSUANCE OF C.O.

ISSUE LOG:

SUBMITTALS / REVISIONS:
Wetlands Submittal; 08-27-24

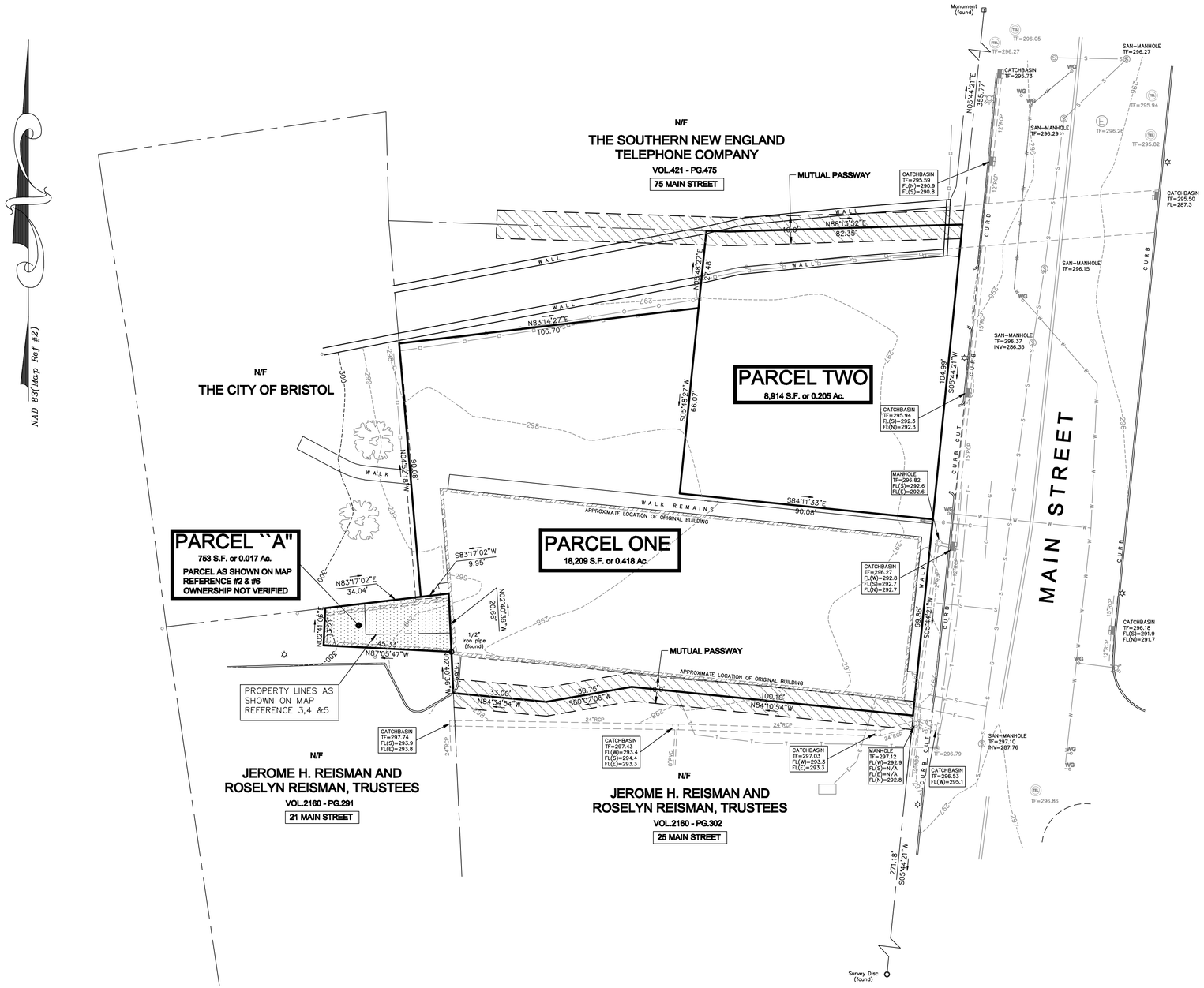
APPROVALS:
Wetlands Application #xxx; Approved xxx
Zoning Application #xxx - xxx; Approved xxx

PREPARED FOR:

Gold Coast Properties
303 Linwood Avenue - Suite 2D
Fairfield, CT 06824
Primary Contact: Stephen Shapiro

ENGINEER:

R. R. Hiltbrand Engineers & Surveyors
575 North Main Street
Bristol, Connecticut
06010



LEGEND

STONE WALL	
SANITARY SEWER	S — S
STORM SEWER	
CONTOUR LINE	100
WATER LINE	W — W
ELECTRIC LINE	E — E
TELEPHONE LINE	T — T
GAS LINE	G — G
FOLIAGE LINE	
CHAINLINK FENCE	
GUARDRAIL	
IRON PIN	
SURVEY MONUMENT	
DRILL HOLE	
CURB CATCHBASIN	
CURBLESS CATCHBASIN	
UTILITY POLE	
UTILITY POLE WITH GUY	
SANITARY MANHOLE	
DRAINAGE MANHOLE	
WATER GATE VALVE	WG
ELECTRIC MANHOLE	
TELEPHONE MANHOLE	
LIGHT STAND	

NOTES:

1. THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-20 AND THE ``STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT'' AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INCORPORATED ON SEPTEMBER 26, 1996.

2. TYPE OF SURVEY = LIMITED PROPERTY SURVEY

3. BOUNDARY DETERMINATION CATEGORY = DEPENDENT RE-SURVEY

4. OWNERS OF RECORD - 37 MAIN STREET, LLC (Vol.1432 - Pg.330)

5. TOTAL AREA - 27,876 S.F. or 0.640 Ac.

6. ZONE - C

7. ELEVATIONS BASED ON MAP REFERENCE #2

8. BEARINGS BASED ON N.A.D. 83 AS ESTABLISHED BY MAP REFERENCE #2

9. UNDERGROUND UTILITIES, STRUCTURE AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROLE TESTIMONY AND FROM OTHER SOURCES. THESE LOCATIONS ARE APPROXIMATE AND OTHER SUCH FEATURES MAY EXIST UNKNOWN TO DUFOUR SURVEYING ASSOCIATES. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455

MAP REFERENCES :

1.``MAP OF PROPERTY - OF - VETRANO BROTHERS - INCORPORATED - BRISTOL, CONN.'', scale 1" = 20', dated March 1961, revised to 2/1/57 and prepared by W.C.Lefevre, P.E. & L.S.

2. ``DEPARTMENT OF PUBLIC WORKS - DIVISION OF ENGINEERING - CITY OF BRISTOL - CONNECTICUT - MAP OF LOTS - 49-51, 61-1A AND 61-2 - OWNED BY THE CITY OF BRISTOL - CHURCH STREET BRISTOL, CT'', scale 1" = 20', dated Jan. 2010 and prepared by Peter W. Forrest, L.S.

3. ``PROPERTY MAP - FOR - WALGREENS - STORE #1-203 - DEVELOPER/OWNER - 107 SOUTH STREET CORP. - #25 MAIN STREET - BRISTOL, CT'', scale 1" = 20', dated July 1, 2005, revised to 9/27/05 and prepared by Kratzert, Jones & Associates, Inc.

4. ``REVISED PROPERTY - MAP - FOR - WALGREENS - STORE #10203 - DEVELOPER/OWNER - 107 SOUTH STREET CORP. - #25 MAIN STREET - BRISTOL, CT'', scale 1" = 20', dated July 1, 2005, revised to 9/27/05 and prepared by Kratzert, Jones & Associated, Inc.

5. ``LOT LINE - REVISION - MAP - FOR - WALGREENS - STORE #10203 - DEVELOPER/OWNER - 107 SOUTH STREET CORP. - #25 MAIN STREET - BRISTOL, CT'', scale 1" = 20', dated July 1, 2005, revised to 9/27/05 and prepared by Kratzert, Jones & Associates, Inc.

6. ``LOT LINE - REVISION - MAP - FOR - WALGREENS - STORE #10203 - DEVELOPER/OWNER - 107 SOUTH STREET CORP. - #25 MAIN STREET - BRISTOL, CT'', scale 1" = 20', dated July 1, 2005, revised to 6/21/06 and prepared by Kratzert, Jones & Associates, Inc.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON. THIS MAP AND SURVEY WERE PREPARED IN ACCORDANCE WITH THE STANDARDS OF A CLASS A-2 & T-2 SURVEY AS DEFINED IN THE CODE OF PRACTICE FOR STANDARDS OF ACCURACY OF SURVEYS AND MAPS, ADOPTED SEPT. 26, 1996 AS AMENDED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INCORPORATED.

CARMINE J. MATRASCIA - L.S. #70219

DUFOUR SURVEYING LLC

IMPROVEMENT LOCATION SURVEY

PREPARED FOR: 37 MAIN STREET LLC

37 MAIN STREET, BRISTOL, CONNECTICUT

SCALE: 1" = 20'	APPROVED: CARMINE J. MATRASCIA - L.S. #70219	
DATE: 08-05-2022	JOB NO.: 22-37	FILE NO.: \22-37

DUFOUR SURVEYING LLC
575 NORTH MAIN STREET
BRISTOL, CONNECTICUT
860-314-0502 860-738-0222

N/F

THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY

VOL.421 - PG.475

75 MAIN STREET

EXISTING CONCRETE WALL

North

CATCHBASIN
TF=295.59
FL(N)=290.9
FL(S)=290.8

TF=295.82

CATCHBASIN
TF=295.50
FL=287.3

SAN-MANHOLE
TF=296.15

SAN-MANHOLE
TF=296.37
INV=286.35

CATCHBASIN
TF=295.94
FL(S)=292.3
FL(N)=292.3

EXISTING UNNAMED BROOK

297

298

300

296

WG

CURB

12"RCP

8" DIP

15"RCP

18" PVC @ 1%

WETLANDS ARE LIMITED TO THE BOUNDS OF THE UNNAMED BROOK WITHIN THE CONCRETE WALLS
19,336 S.F. OF THE SITE IS WITHIN THE 100' UPLAND REVIEW AREA
NO WETLANDS DISTURBANCE PROPOSED

EXISTING CONCRETE WALL

EXISTING BITUMINOUS PARKING LOT TO BE REMOVED

EXIST. CONC. WALK

N/F

THE CITY OF BRISTOL

REMOVE EXISTING SIDEWALK

ABANDON WATER LATERAL AT THE MAIN PER C.O.B. WATER AND SEWER SPECIFICATIONS

WALK REMAINS

MAIN STREET

MANHOLE
TF=296.82
FL(S)=292.6
FL(E)=292.6

CATCHBASIN
TF=296.27
FL(W)=292.8
FL(S)=292.7
FL(N)=292.7

LIMIT OF 100' URA

EXISTING BUILDING RAZED AFTER FIRE IN 2022

ABANDON EXISTING 4"Ø SANITARY LATERAL TO SEWER MAIN AND REPLACE WITH 6"Ø (SEE SITE UTILITIES PLAN)

REMOVE EXISTING SIDEWALK

REMOVE EXISTING PAVEMENT WITHIN PROPERTY LIMITS

EXISTING CITY SIDEWALK SHALL BE REPLACED AND GRANITE CURB EITHER REPLACED OR RE-USED

CATCHBASIN
TF=295.82

CATCHBASIN
TF=296.18
FL(S)=291.9
FL(N)=291.7

ABANDON EXISTING 4"Ø SANITARY LATERAL TO CITY OF BRISTOL WATER AND SEWER SPECIFICATIONS

N/F

JEROME H. REISMAN AND ROSELYN REISMAN, TRUSTEES

VOL.2160 - PG.291

21 MAIN STREET

24"RCP

8"PVC

CATCHBASIN
TF=297.74
FL(S)=293.9
FL(E)=293.8

CATCHBASIN
TF=297.43
FL(W)=293.4
FL(S)=294.4
FL(E)=293.3

CATCHBASIN
TF=297.03
FL(W)=293.3
FL(E)=293.3

MANHOLE
TF=297.12
FL(W)=292.9
FL(S)=N/A
FL(E)=N/A
FL(N)=292.8

CATCHBASIN
TF=296.53
FL(W)=295.1

TF=296.79

SAN-MANHOLE
TF=297.10
INV=287.76

N/F

JEROME H. REISMAN AND ROSELYN REISMAN, TRUSTEES

VOL.2160 - PG.302

25 MAIN STREET

UTILITY NOTE:
LOCATION OF UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED UPON FIELD SURVEY OF VISIBLE SURFACE STRUCTURES SUCH AS CATCH BASINS AND MANHOLES, TOGETHER WITH RECORD MAPPING OBTAINED FROM UTILITY COMPANIES AND GOVERNMENTAL AGENCIES AS NOTED UNDER MAP REFERENCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. IN ADDITION, OTHER UTILITIES MAY ALSO EXIST, UNKNOWN TO THE SURVEYOR. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455.

GRAPHIC SCALE

10 5 0 10 20

1 Inch = 10 Feet

PREPARED FOR:
Stephen Shapiro
Gold Coast Properties
303 Linwood Avenue - Suite 2D
Fairfield, CT 06824

R. R. HILTBRAND Engineers and Surveyors

SITE DEMOLITION PLAN

#37 Main Street

Bristol, Connecticut

August 27, 2024

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

ZONING TABLE (ZONE BD-1)		
	REQUIRED	PROPOSED
MINIMUM LOT AREA	N/A	27,123 S.F.
MINIMUM LOT WIDTH	N/A	174.85 Ft
MINIMUM FRONT YARD	N/A	13.00 Ft
MINIMUM SIDE YARD	N/A	12.00 Ft
MINIMUM REAR YARD	N/A	90.30 Ft
MAXIMUM BUILDING HEIGHT	N/A	3 STORY
MAXIMUM BUILDING COVERAGE	N/A	25.94%

BUILDING FORM STANDARDS TABLE (ZONE BD-1)		
	REQUIRED	PROPOSED
MINIMUM FLOOR AREA RATIO	0.6	1.04
MAXIMUM BUILD-TO LINE	10 FT	15.50 Ft
MINIMUM BUILDING HEIGHT	18 FT	4 STORY (40'±)
NUMBER OF STORIES	2 FULL (MIN.)	4 FULL
AREA OF BUILDING FENESTRATION	65% (MIN.) (593 S.F. MIN.)	585.0 S.F. = 64.1%*
BUILDING FRONTAGE - LOT FRONTAGE RATIO	65% = 113.7 FT (174.85' x 65%)	65.2% (114.0 FT/174.85 FT)
ORIENTATION OF BUILDING ENTRANCES	2 STREET ENTRANCES	3 STREET ENTRANCES

VARIANCE APPLICATION #XXXX - APPROVED XXXXX

SITE IMPERVIOUS
Existing: 27,123 S.F. = 100%
Proposed: 18,916 S.F. = 69.7%

WETLANDS ARE LIMITED TO THE BOUNDS OF THE UNNAMED BROOK WITHIN THE CONCRETE WALLS
19,336 S.F. OF THE SITE IS WITHIN THE 100' UPLAND REVIEW AREA
NO WETLANDS DISTURBANCE PROPOSED

City of Bristol - Downtown Compliance Chart

		Main Street
Sec. VI.C.6.b.(1)	floor area ratio (.6 min)	
	gross floor area of buildings (sq. ft.)	28,140
	total lot area (sq. ft.)	27,123
	ratio of floor area to lot area (.60 required)	103.7%
Sec. VI.C.6.b.(2)	build-to line (10 ft. min.; 25 ft. max for up to 50% of building wall)	
	total length of building wall (ft.)	114
	portion of building wall up to 10-ft. build-to-line (ft.)	0
	portion of building wall up to 10-ft. build-to-line (%)	0%
	portion of building wall between 10-ft. build-to-line and 25ft. (ft.)	114
	portion of building wall between 10-ft. build-to-line and 25ft. (%)	100%
	greatest setback from front lot line (ft.)	15.5
Sec. VI.C.6.b.(5)	building fenestration ("glazing")* (65% min)	
	total area of building wall* (sq. ft.)	912
	portion of building wall cotaining glazing* (sq. ft.)	585
	portion of building wall cotaining glazing* (%)	64.1%
	** measured between 2 ft. and 10 ft. above street grade*	
Sec. VI.C.6.b.(6)	building frontage to lot frontage (65% min)	
	total length of building wall (building frontage) (ft.)	114'
	total length of front lot line (ft.)	174.85'
	ratio of building frontage to lot frontage	65.2%

N/F
THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY
VOL.421 - PG.475
75 MAIN STREET

N/F
THE CITY OF BRISTOL

N/F
JEROME H. REISMAN AND ROSELYN REISMAN, TRUSTEES
VOL.2160 - PG.291
21 MAIN STREET

N/F
JEROME H. REISMAN AND ROSELYN REISMAN, TRUSTEES
VOL.2160 - PG.302
25 MAIN STREET

PARKING REQUIREMENTS TABLE		
	REQUIRED	PROPOSED
RESIDENTIAL DWELLING UNIT		
28 TOTAL UNITS		
1.5 SPACES PER UNIT	42 SPACES	
PROPOSED RETAIL - 3,083 S.F.		
3 SPACES PER 1,000 S.F.	9.25 SPACES	
TOTAL:	= 51.25 SPACES	21 SPACES
		20 STANDARD
		1 HANDICAP

EXISTING UNNAMED BROOK
EXISTING CONCRETE WALL
EXIST. CONC. WALK
LIMIT OF 100' URA
PROPOSED HANDICAP SPACE WITH BOLLARD SIGN
PROPOSED BITUMINOUS PARKING LOT
PROPOSED BITUMINOUS DRIVEWAY
PROPOSED 5' CONCRETE SIDEWALK
PROPOSED 4-STORY BUILDING
7,035 S.F. FOOTPRINT
3,083 S.F. RETAIL SPACE
+ 28 DWELLING UNITS
GROUND FLOOR ELEV. 299.00
SEE ARCHITECT'S PLAN FOR BUILDING DIMENSIONS
25' BUILD TO LINE
10' BUILD TO LINE
PROPOSED CONCRETE PATIO/ENTRANCE AREA
PROPOSED CURB WALL (HEIGHT VARIES ±24")
PROPOSED RE-BUILT CONCRETE WALKS ALONG FRONTAGE
PROPOSED 10' x 10' CONCRETE DUMPSTER PAD ENCLOSURE (SEE DETAIL)
PROPOSED 12" WIDE WHITE STOP BAR AND STOP SIGN
PROPOSED CONCRETE APRON TO CITY OF BRISTOL SPECIFICATIONS
PROPOSED RE-STRIPING OF MAIN STREET BY OTHERS
MAIN STREET
CURB
22.9'
12.0'
13.0'
15.5'
114.0'
5.5'
5.0'
7.9'
27.5'
10.0'
25.0'
90.3'
18.6'
9.0'
18.0'
13.6'
65.0'
30.9'
20.0'
5.0'
7/8"/FT DN
FLUSH
CC
12
9
D

PREPARED FOR:
Stephen Shapiro
Gold Coast Properties
303 Linwood Avenue - Suite 2D
Fairfield, CT 06824

R. R. HILTBRAND Engineers and Surveyors

SITE LAYOUT PLAN
#37 Main Street
Bristol, Connecticut
August 27, 2024

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

UTILITY NOTE:
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GRAPHIC SCALE
10 5 0 10 20
1 Inch = 10 Feet

SITE IMPERVIOUS
Existing: 27,123 S.F. = 100%
Proposed: 18,916 S.F. = 69.7%

North

TEST PIT DATA:

DP #1 (PARKING LOT AREA)

0 - 3" BITUMINOUS CONCRETE
3 - 15" TAN MEDIUM-FINE SAND SUB-BASE
15 - 34" MIXED FILL
34 - 38" ORIGINAL GRADE (ORGANICS)
38 - 90" BROWN MEDIUM-FINE SAND AND GRAVEL (6" COBBLES)

NO GROUNDWATER MOTTLING @ 84"

DP #2 (BUILDING DEMO AREA)

0 - 36" MIXED FILL
36 - 40" ORIGINAL GRADE (ORGANICS)
40 - 99" BROWN MEDIUM-FINE SAND AND GRAVEL (6" COBBLES)

GROUNDWATER @ 96" MOTTLING @ 86"

N/F
THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY
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N/F
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25 MAIN STREET

EXISTING UNNAMED BROOK
EXISTING CONCRETE WALL
EXIST. CONC. WALK
LIMIT OF 100' URA
MAIN STREET
PROPOSED 5' CONCRETE SIDEWALK
PROPOSED CONCRETE PATIO/ENTRANCE AREA
PROPOSED CURB WALL (HEIGHT VARIES ±24")

PROPOSED 4-STORY BUILDING
7,035 S.F. FOOTPRINT
3,083 S.F. RETAIL SPACE
+ 28 DWELLING UNITS
GROUND FLOOR ELEV. 299.00
SEE ARCHITECT'S PLAN FOR BUILDING DIMENSIONS

PROPOSED STMH #1
TF - 298.40
FL - 295.00

PROPOSED 24"Ø YD #3
TF - 297.50
FL - 293.80

PROPOSED 24"Ø YD #2
TF - 297.50
FL - 293.80

PROPOSED 24"Ø YD #1
TF - 297.50
FL - 293.50

PROPOSED C-CB #3
TF - 297.50
FL - 294.50

PROPOSED C-CB #2
TF - 297.50
FL - 293.95

PROPOSED C-CB #1
TF - 297.50
FL - 294.70

PROPOSED C-CB #4
TF - 295.88±
FL - 292.50

PROPOSED 24"Ø YD #4
TF - 297.50
FL - 294.75

PROPOSED 4'Ø DOWNSTREAM DEFENDER S4
TF - 298.17
FL - 293.60 (IN)
FL - 293.60 (OUT)

8"Ø CPP ROOF LEADER
FL - 296.40

12"Ø CPP ROOF LEADER OUTLET
FL - 296.40

100' - 12" CPP @ 1%
32' - 12" CPP @ 1%
22' - 12" CPP @ 5.5%
40' - 8" CPP @ 1%
52' - 12" CPP @ 1%
34' - 12" CPP (RL)
36' - 12" CPP @ 1%
75' - 12" CPP @ 1%

STORAGE AND INFILTRATION SYSTEM
BOTTOM OF UNIT - 293.00
4 ROWS - 6 UNITS EACH ROW
STORMTECH SC-740

DP 1
DP 2

7/8"/FT DN
H.P.

CATCHBASIN
TF=295.59
FL(N)=290.9
FL(S)=290.8

CATCHBASIN
TF=295.50
FL=287.3

CATCHBASIN
TF=295.94
FL(S)=292.3
FL(N)=292.3

MANHOLE
TF=296.82
FL(S)=292.6
FL(E)=292.6

CATCHBASIN
TF=296.27
FL(W)=292.8
FL(S)=292.7
FL(N)=292.7

CATCHBASIN
TF=296.18
FL(S)=291.9
FL(N)=291.7

CATCHBASIN
TF=297.74
FL(S)=293.9
FL(E)=293.8

CATCHBASIN
TF=297.43
FL(W)=293.4
FL(S)=294.4
FL(E)=293.3

CATCHBASIN
TF=297.03
FL(W)=293.3
FL(E)=293.3

MANHOLE
TF=297.12
FL(W)=292.9
FL(S)=N/A
FL(E)=N/A
FL(N)=292.8

CATCHBASIN
TF=296.53
FL(W)=295.1

UTILITY NOTE:
LOCATION OF UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED UPON FIELD SURVEY OF VISIBLE SURFACE STRUCTURES SUCH AS CATCH BASINS AND MANHOLES, TOGETHER WITH RECORD MAPPING OBTAINED FROM UTILITY COMPANIES AND GOVERNMENTAL AGENCIES AS NOTED UNDER MAP REFERENCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. IN ADDITION, OTHER UTILITIES MAY ALSO EXIST, UNKNOWN TO THE SURVEYOR. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455.

GRAPHIC SCALE
10 5 0 10 20
1 Inch = 10 Feet

PREPARED FOR:
Stephen Shapiro
Gold Coast Properties
303 Linwood Avenue - Suite 2D
Fairfield, CT 06824

SITE GRADING & DRAINAGE PLAN
#37 Main Street
Bristol, Connecticut
August 27, 2024

R. R. HILTBRAND Engineers and Surveyors

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

SITE IMPERVIOUS
Existing: 27,123 S.F. = 100%
Proposed: 18,916 S.F. = 69.7%

North

N/F
THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY
VOL.421 - PG.475
75 MAIN STREET

EXISTING CONCRETE WALL

POSSIBLE GAS LATERAL LOCATION. FINAL LOCATION SHALL BE DETERMINED BY EVERSOURCE GAS

CATCHBASIN
TF=295.59
FL(N)=290.9
FL(S)=290.8

TF=295.62

CATCHBASIN
TF=295.50
FL=287.3

EXISTING UNNAMED BROOK

PROPOSED STMH #1
TF - 298.40
FL - 295.00

PROPOSED 24"Ø YD #3
TF - 297.50
FL - 293.80

PROPOSED 24"Ø YD #2
TF - 297.50
FL - 293.80

PROPOSED 24"Ø YD #1
TF - 297.50
FL - 293.50

100' - 12" CPP @ 1%

PROPOSED C-CB #4
TF - 295.88±
FL - 292.50

SAN-MANHOLE
TF=296.15

PROPOSED 4" DIP CL-52 DOMESTIC

PROPOSED 8" x 4" TSV & 4" GATE VALVE

PROPOSED 6" DIP CL-52 FIRE SERVICE

PROPOSED 8" x 6" TSV & 6" GATE VALVE

WG

BITUMINOUS PATCH TRENCHES TO CITY OF BRISTOL SPECIFICATIONS (TYPICAL)

SAN-MANHOLE
TF=296.37
INV=286.35

CATCHBASIN
TF=295.94
FL(S)=292.3
FL(N)=292.3

7/8"/FT DN

22" 12" CPP @ 5.5%

32' - 12" CPP @ 1%

8"Ø CPP ROOF LEADER
FL - 296.40

PROPOSED 4-STORY BUILDING
7,035 S.F. FOOTPRINT
3,083 S.F. RETAIL SPACE
+ 28 DWELLING UNITS
GROUND FLOOR ELEV. 299.00

SEE ARCHITECT'S PLAN FOR BUILDING DIMENSIONS

PROPOSED CONCRETE PATIO/ENTRANCE AREA

PROPOSED CURB WALL (HEIGHT VARIES ±24")

EXIST. CONC. WALK

N/F
THE CITY OF BRISTOL

PROPOSED 5' CONCRETE SIDEWALK

PROPOSED C-CB #3
TF - 297.50
FL - 294.50

DP 1

STORAGE AND INFILTRATION SYSTEM

4 ROWS - 6 UNITS EACH ROW

BOTTOM OF UNIT = 293.00

STORMTECH SC-740

40' - 8" CPP @ 1%

PROPOSED 24"Ø YD #4
TF - 297.50
FL - 294.75

52' - 12" CPP @ 1%

12"Ø CPP ROOF LEADER OUTLET
FL - 296.40

PROPOSED C-CB #2
TF - 297.50
FL - 293.95

34' - 12" CPP (RL)

DP 2

36' - 12" CPP @ 1%

PROPOSED 4'Ø DOWNSTREAM DEFENDER S4
TF - 298.17
FL - 293.60 (IN)
FL - 293.60 (OUT)

REPLACE EXISTING 4"Ø SANITARY TO MAIN WITH NEW 6"Ø PVC SDR-35 WITH BACKFLOW PREVENTER WITHIN BUILDING

LIMIT OF 100' URA

75' - 12" CPP @ 1%

7/8"/FT DN

PROPOSED C-CB #1
TF - 297.50
FL - 294.70

D

N/F
JEROME H. REISMAN AND ROSELYN REISMAN, TRUSTEES
VOL.2160 - PG.291
21 MAIN STREET

WATER NOTES:
1. 6" FIRE SERVICE HAS NO CONNECTION FEES, BUT MUST BE PRESSURE TESTED, BACTERIA TESTED AND FLUSHED.

2. MINIMUM 3" SEPARATION REQUIRED BETWEEN 6" FIRE SERVICE AND 4" DOMESTIC SERVICE.

MAIN STREET

MANHOLE
TF=296.82
FL(S)=292.6
FL(E)=292.6

CATCHBASIN
TF=296.27
FL(W)=292.8
FL(S)=292.7
FL(N)=292.7

ABANDON WATER LATERAL AT THE MAIN PER C.O.B. WATER AND SEWER SPECIFICATIONS

CATCHBASIN
TF=296.18
FL(S)=291.9
FL(N)=291.7

ABANDON SEWER LATERAL AND CAP OFF PER C.O.B. WATER AND SEWER SPECIFICATIONS

BITUMINOUS PATCH TRENCHES TO CITY OF BRISTOL SPECIFICATIONS (TYPICAL)

SAN-MANHOLE
TF=297.10
INV=287.76

TF=296.79

CATCHBASIN
TF=296.53
FL(W)=295.1

MANHOLE
TF=297.12
FL(W)=292.9
FL(S)=N/A
FL(E)=N/A
FL(N)=292.8

CATCHBASIN
TF=297.03
FL(W)=293.3
FL(E)=293.3

CATCHBASIN
TF=297.43
FL(W)=293.4
FL(S)=294.4
FL(E)=293.3

CATCHBASIN
TF=297.74
FL(S)=293.9
FL(E)=293.8

24"RCP

8"PVC

12"ADS

18" PVC @ 1%

15"RCP

12"RCP

8" DIP

N/F
JEROME H. REISMAN AND ROSELYN REISMAN, TRUSTEES
VOL.2160 - PG.302
25 MAIN STREET

UTILITY NOTE:
LOCATION OF UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED UPON FIELD SURVEY OF VISIBLE SURFACE STRUCTURES SUCH AS CATCH BASINS AND MANHOLES, TOGETHER WITH RECORD MAPPING OBTAINED FROM UTILITY COMPANIES AND GOVERNMENTAL AGENCIES AS NOTED UNDER MAP REFERENCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. IN ADDITION, OTHER UTILITIES MAY ALSO EXIST, UNKNOWN TO THE SURVEYOR. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455.

GRAPHIC SCALE
10 5 0 10 20
1 Inch = 10 Feet

PREPARED FOR:
Stephen Shapiro
Gold Coast Properties
303 Linwood Avenue - Suite 2D
Fairfield, CT 06824

R. R. HILTBRAND Engineers and Surveyors

SITE UTILITIES PLAN
#37 Main Street
Bristol, Connecticut
August 27, 2024

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

SITE IMPERVIOUS
Existing: 27,123 S.F. = 100%
Proposed: 18,916 S.F. = 69.7%

North

N/F
THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY
VOL.421 - PG.475
75 MAIN STREET

EXISTING CONCRETE WALL WILL PREVENT ANY SEDIMENT/RUN-OFF FROM ENTERING THE BROOK

EXISTING CONCRETE WALL

CATCHBASIN
TF=295.59
FL(N)=290.9
FL(S)=290.8

CATCHBASIN
TF=295.50
FL=287.3

PROPOSED C-CB #4
TF - 295.88±
FL - 292.50

EXISTING CONCRETE WALL WILL PREVENT ANY SEDIMENT/RUN-OFF FROM ENTERING THE BROOK

EXISTING UNNAMED BROOK

PROPOSED STMH #1
TF - 298.40
FL - 295.00

PROPOSED 24"Ø YD #3
TF - 297.50
FL - 293.80

PROPOSED 24"Ø YD #2
TF - 297.50
FL - 293.80

PROPOSED 24"Ø YD #1
TF - 297.50
FL - 293.50

100' - 12" CPP @ 1%

32' - 12" CPP @ 1%

22' - 12" CPP @ 5.5%

8"Ø CPP ROOF LEADER
FL - 296.40

PROPOSED 8"Ø SEDIMENT LOG (SEE DETAIL) (TYPICAL)

EXISTING CONCRETE WALL

PROPOSED C-CB #3
TF - 297.50
FL - 294.50

PROPOSED 5' CONCRETE SIDEWALK

STORAGE AND INFILTRATION SYSTEM
BOTTOM OF UNIT - 293.00
4 ROWS - 6 UNITS EACH ROW
STORMTECH SC-740

40' - 8" CPP @ 1%

PROPOSED 24"Ø YD #4
TF - 297.50
FL - 294.75

12"Ø CPP ROOF LEADER OUTLET
FL - 296.40

PROPOSED 4-STORY BUILDING
7,035 S.F. FOOTPRINT
3,083 S.F. RETAIL SPACE
+ 28 DWELLING UNITS
GROUND FLOOR ELEV. 299.00

SEE ARCHITECT'S PLAN FOR BUILDING DIMENSIONS

PROPOSED CONCRETE PATIO/ENTRANCE AREA

PROPOSED CURB WALL (HEIGHT VARIES ±24")

52' - 12" CPP @ 1%

34' - 12" CPP (RL)

36' - 12" CPP @ 1%

PROPOSED C-CB #2
TF - 297.50
FL - 293.95

PROPOSED 4'Ø DOWNSTREAM DEFENDER S4
TF - 298.17
FL - 293.60 (IN)
FL - 293.60 (OUT)

LIMIT OF 100' URA

75' - 12" CPP @ 1%

PROPOSED C-CB #1
TF - 297.50
FL - 294.70

7/8"/FT DN

H.P.

INSTALL CRUSHED STONE CONSTRUCTION ENTRANCE (SEE DETAIL)

MAIN STREET

CURB

CATCHBASIN
TF=295.94
FL(S)=292.3
FL(N)=292.3

MANHOLE
TF=296.82
FL(S)=292.6
FL(E)=292.6

CATCHBASIN
TF=296.27
FL(W)=292.8
FL(S)=292.7
FL(N)=292.7

CATCHBASIN
TF=296.18
FL(S)=291.9
FL(N)=291.7

CATCHBASIN
TF=296.53
FL(W)=295.1

N/F
THE CITY OF BRISTOL

EXIST. CONC. WALK

N/F
JEROME H. REISMAN AND ROSELYN REISMAN, TRUSTEES
VOL.2160 - PG.291
21 MAIN STREET

N/F
JEROME H. REISMAN AND ROSELYN REISMAN, TRUSTEES
VOL.2160 - PG.302
25 MAIN STREET

CATCHBASIN
TF=297.74
FL(S)=293.9
FL(E)=293.8

CATCHBASIN
TF=297.43
FL(W)=293.4
FL(S)=294.4
FL(E)=293.3

CATCHBASIN
TF=297.03
FL(W)=293.3
FL(E)=293.3

MANHOLE
TF=297.12
FL(W)=292.9
FL(S)=N/A
FL(E)=N/A
FL(N)=292.8

UTILITY NOTE:
LOCATION OF UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED UPON FIELD SURVEY OF VISIBLE SURFACE STRUCTURES SUCH AS CATCH BASINS AND MANHOLES, TOGETHER WITH RECORD MAPPING OBTAINED FROM UTILITY COMPANIES AND GOVERNMENTAL AGENCIES AS NOTED UNDER MAP REFERENCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. IN ADDITION, OTHER UTILITIES MAY ALSO EXIST, UNKNOWN TO THE SURVEYOR. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455.

GRAPHIC SCALE
10 5 0 10 20
1 Inch = 10 Feet

PREPARED FOR:
Stephen Shapiro
Gold Coast Properties
303 Linwood Avenue - Suite 2D
Fairfield, CT 06824

R. R. HILTBRAND Engineers and Surveyors

EROSION & SEDIMENTATION CONTROL PLAN
#37 Main Street
Bristol, Connecticut
August 27, 2024

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

DESIGN REFERENCE:

SEDIMENT & EROSION CONTROL BASED ON 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL D.E.P. BULLETIN 34 BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION.

Erosion & Sediment Controls and Stabilization Practices

a. Temporary seeding.
b. Mulching.
c. Stone Rip-rap.

During construction, sheet runoff from the site will be filtered through hay bale barriers and silt fences. All storm drain inlets shall be provided with barrier filters. Stone rip-rap shall be provided at the outlets of drainage pipe in which erosive velocities are encountered.

Off Site Vehicle Tracking

Stabilized construction entrances will be installed at all proposed entrances.

Installation, Maintenance and Inspection Procedures of Erosion & Sediment Controls

A. General-

These are the general inspection and maintenance practices that will be used to implement the plan.

- The smallest practical portion of the site will be denuded at one time.

- All erosion control measures will be inspected at least once a week and following any storm event of 0.25 inches or greater.

- All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of the report.

- Built up sediment will be removed from the silt fence or hay bale barriers when it has reached one third the height of the of the fence or barrier.

- A maintenance inspection report will be made after each inspection.

- The contractor's site superintendent will be responsible for inspections, maintenance and repair activities, and completing the inspection and maintenance report.

- R.R. Hiltbrand Engineers & Surveyors shall inspect the site on a periodic basis to assure compliance with the plan.

B. Filters -

1. Straw/ hay bales
   a. Sheet Flow Applications
      1. Bales shall be placed in a single row , lengthwise on the contour, with the ends of the adjacent bales tightly abutting one another.
      2. All bales shall be either wire bound or string tied. Bales shall be installed so that the bindings are oriented around the sides rather than along the tops and bottoms of the bales to prevent deterioration of the bindings.
      3. The barrier shall be entrenched and backfilled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a minimum depth of (4) inches. After the bales are staked and chinked, the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill side and shall be built-up to (4) inches against the uphill side of the barrier. Ideally, bales should be placed ten (10) feet away from the toe of slope.
      4. Each bale shall be securely anchored by at least two (2) stakes or rebars driven through the bale. The first stake in each bale shall be driven toward the previously laid bale to force the bales together. Stakes and rebars shall be driven deep enough into the ground to securely anchor the bales.
      5. The gaps between bales shall be chinked (filled by wedging) with straw/hay to prevent water from escaping between the bales.
2. Silt Fence
   a. Synthetic filter fabric shall be a pervious sheet of propylene, nylon, polyester or ethylene yarn and shall be certified by the manufacturer or supplier as conforming to the following requirements.

Physical Property Test Requirements

Filtering Efficiency ASTM 5,41 75% minimum

Grab Tensile Strength ASTM D4632 100lbs.
Elongation & Failure ASTM D4632 15%
Puncture Strength
ASTM 4833 50 lbs.

Flow Rate ASTM D4491 0.2gal./ft2/min.

Ultra-Violet Radiation Stability % ASTM D4355 70% after 500 hours of exposure

b. The height of a silt fence shall not exceed thirty (30) inches above grade.

c. The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth shall be spliced together only at the support posts, with a min. six (6) inch overlap, and securely sealed.

d. Posts shall be spaced a maximum of ten (10) feet apart at the barrier location and driven securely into the ground (min. of 12 inches).

e. A trench shall be excavated approximately six (6) inches wide and six (6) inches deep along the line of posts and upslope from the barrier.

f. When 'standard strength' filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy duty wire staples at least one inch long, tie wires or hog rings. The wire shall extend no more than 30 inches above the original ground surface.

g. The 'standard strength' filter fabric shall be stapled or wired to the fence, and eight (8) inches of the fabric shall be extended into the trench. The fabric shall not extend more than 30 inches above the original ground surface.

h. When 'extra strength' filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case the filter fabric is stapled or wired directly to the posts with all other provisions of item 'g' applying.

i. The trench shall be backfilled and the soil compacted over the filter fabric.

j. Silt fences shall be removed when they have served their useful purpose, but not before the upslope areas have been permanently stabilized.

Sequence of Installation

Sediment barriers shall be installed prior to any soil disturbance of the contributing drainage area above them.

Maintenance

a. Straw/ hay bale barrier and silt fence barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. They shall be repaired if there are any signs of erosion or sedimentation below them. Any required repairs shall be made immediately. If there are signs of undercutting at the center or the ends, or impounding of large volumes of water behind them, sediment barriers shall be replaced with a temporary check dam.

b. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier still is necessary, the fabric shall be replaced promptly.

c. Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately (1/3) the height of the barrier.

d. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

C. Mulching

1. Timing

In order for mulch to be effective, it must be in place prior to major storm events There are two (2) types of standards which shall be used to assure this.

a. Apply mulch prior to any storm event.

This is applicable when working within 100 feet of wetlands. It will be necessary to closely monitor weather predictions, usually by contacting the National Weather Service in Massachusetts (508- 822- 0634), to have adequate warning of significant storms.

b. Required mulching within a specified time period.

The time period can range from 14 to 21 days of inactivity on an area, the length of time varying with site conditions, Professional judgment shall be used to evaluate the interaction of site conditions (soil erodibility, season of year, extent of disturbance, proximity to sensitive resources, etc.) and the potential impact of erosion on adjacent areas to choose an appropriate time restriction.

2. Guidelines for winter mulch application.

When mulch is applied to provide protection over winter (past the growing season) it shall be at a rate of 6000 lb. of hay or straw per acre. A tackifier may be added to the mulch.

3. Maintenance

All mulches must be inspected periodically, in particular after rain storms, to check for erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied.

D. Temporary Grass Cover

1. Seedbed Preparation

Apply fertilizer at the rate of 300 lb. / acre of 10-10-10. Apply limestone (equivalent to 50% calcium plus magnesium oxide) at a rate of (1) tons/ acre.

2. Seeding

a. Utilize annual rye grass at a rate of 40 lb./ acre.

b. Where the soil has been compacted by construction operations, loosen soil to a depth of two (2) inches before applying fertilizer, lime and seed.

c. Apply seed uniformly by hand, cyclone seeder, or hydroseeder (slurry including seed and fertilizer), Hydroseedings, which include mulch, may be left on soil surface. Seeding rates must be increased 10% when hydroseeding.

3. Maintenance

Temporary seedings shall be periodically inspected. At a minimum, 95% of the soil surface shall be covered by vegetation. If any evidence of erosion or sedimentation is apparent, repairs shall be made and other temporary measures used in the interim (mulch, filter barriers, check dams, etc.).

E. Permanent Grass Cover

1. Seedbed Preparation

Apply fertilizer at the rate of 300 lb. / acre of 10-10-10. Apply limestone (equivalent to 50% calcium plus magnesium oxide) at a rate of (1) tons/ acre.

2. Seeding

	Lbs./1,000 Sq. Ft.
a. Utilize Creeping Red Fescue (Pennlawn, Wintergreen)	.45
Redtop (Streeker, Common)	.10
Tall Fescue (Kentucky 31 or Smooth Bromegrass (Saratoga, Lincoln)	.45
	1.00

b. Where the soil has been compacted by construction operations, loosen soil to a depth of two (2) inches before applying fertilizer, lime and seed.

c. Apply seed uniformly by hand, cyclone seeder, or hydroseeder (slurry including seed and fertilizer), Hydroseedings, which include mulch, may be left on soil surface. Seeding rates must be increased 10% when hydroseeding.

F. Storm Drain Inlet Protection

1. Straw Bale Inlet Structure

a. Bales shall be either wire bound or string tied with the bindings oriented around the sides rather than over and under the bales.

b. Bales shall be placed lengthwise in a single row surrounding the inlet, with the ends of adjacent bales pressed together.

c. The filter barrier shall be entrenched and backfilled. A trench shall be excavated around the inlet the width of a bale to a minimum depth of four (4) inches. After the bales are staked, the excavated soil shall be backfilled and compacted against the filter barrier.

d. Each bale shall be securely anchored and held in place by at least two (2) stakes or rebars driven through the bale.

e. Loose straw shall be wedged between bales to prevent water from entering between bales.

F. Stabilized Construction Entrance

1. Specifications

a. Aggregate Size: Use two (2) inch stone, (Gradation Shall Be D.O.T. No. 3)

b. Aggregate thickness: Not less than six (6) inches.

c. Width: Ten (10) foot minimum, but not less than the full width of points where ingress or egress occurs.

d. Length: As required, but not less than one hundred (50) feet.

e. Geotextile: To be placed over the entire area to be covered with aggregate. Piping of surface water under entrance(s) shall be provided as required.

f. Criteria for Geotextile: The fabrics shall be Trevia Spunbound 1135, Mirafi 6000x, or equal.

2. Maintenance

The entrance(s) shall be maintained in a condition which will prevent tracking of sediment onto the public right-of-way. When washing is required, it shall be completed on an area stabilized with aggregate which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches or waterways.

Timing of Controls/ Measures

As indicated in the sequence of Major Activities the hay bales and silt fences shall be installed prior to commencing any clearing, demolition or grading of the site. Structural controls shall be installed concurrently with the applicable activity, Area(s) where construction activity temporarily ceases for more than twenty one (21) days will be stabilized with a temporary seed and mulch within fourteen (14) days of the last disturbance. Once construction activity ceases permanently in an area, silt fences and hay bale barriers will be removed once permanent measures are established.

Waste Disposal

A. Waste Materials

All waste materials will be collected and stored in securely lidded receptacles. All trash and construction debris from the site will be deposited into a dumpster. No construction waste materials will be buried on site. All personnel will be instructed regarding the correct procedure for waste disposal by the superintendent.

B. Hazardous Waste

All hazardous waste materials will be disposed of in the manner specified by local or state regulation or by the manufacturer. Site personnel will be instructed in the practices by the superintendent.

C. Sanitary Waste

All sanitary waste will be collected from the portable units a minimum of once per week by a licensed sanitary waste management contractor.

Spill Prevention

A. Material Management Practices

The following are the materials management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances during construction to storm water runoff:

Good Housekeeping:

The following good housekeeping practices will be followed on site during the construction project:

-An effort will be made to store only sufficient amounts of products to do the job.

-All materials stored on site will be stored in a neat, orderly manner in their proper (original if possible) containers and, if possible, under a roof or other enclosure.

-Manufacturer's recommendations for proper use and disposal will be followed.

-The site superintendent will inspect daily to ensure proper use and disposal of materials.

-Substances will not be mixed with one another unless recommended by the manufacturer.

-When ever possible all of a product will be used up before disposing of the container.

Hazardous Products:

The following practices will be used to reduce the risks associated with hazardous products:

-Products will be kept in their original containers unless they are not re-sealable

-Original labels and product safety data will be retained for important product information.

-Surplus product that must be disposed of will be discarded according to the manufacturer's recommended methods of disposal.

B. Product Specific Practices

The following product specific practices will be followed on site:

Petroleum Products:

All on site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. Any asphalt based substances used on site will be applied according to the manufacturer's recommendations.

Fertilizers:

Fertilizers used will be applied only in the minimum amounts directed by the specifications. Once applied, fertilizer will be worked into the soil to limit exposure to storm water Storage will be in a covered shed or enclosed trailers. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

Paints:

All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system but will be disposed of properly according to manufacturer's instructions or state and local regulations.

Concrete Trucks:

Concrete trucks will discharge and wash out surplus concrete or drum wash water in a contained area on site..

C. Spill Control Practices

In addition to good housekeeping and material management practices discussed in the previous section the following practices will be followed for spill prevention and cleanup:

-Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnnel will be made aware of the procedures and the location of the information and cleanup supplies.

-Materials and equipment necessary for spill cleanup will be kept in the material storage area on site. Equipment and materials will include but not limited to brooms, dustpans, mops, rags, gloves, goggles, kitty litter, sand, sawdust and plastic or metal trash containers specifically for this purpose.

-All spills will be cleaned up immediately after discovery.

-The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.

-Spills of toxic or hazardous material will be reported to the appropriate state or local government agency, regardless of the size.

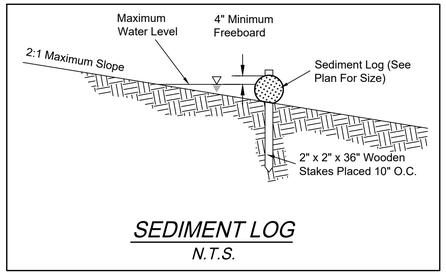
-The spill prevention plan will be adjusted to include measures to prevent this type of spill from recurring and how to cleanup the spill if it recurs. A description of the spill, its cause, and the cleanup measures will be included.

-The site superintendent responsible for day to day operations will be the spill prevention and cleanup coordinator.

The General Contractor(s) and/or Project Owner(s)
are assigned the responsibility for implementing this erosion and sediment control plan. This responsibility includes the installation and maintenance of control measures, informing all parties engaged on the construction site of the requirements and objectives of the plan, notifying the Planning and Zoning office of any transfer of this responsibility, and for conveying a copy of the Sediment & Erosion Control Plan if the title to the land is transferred.

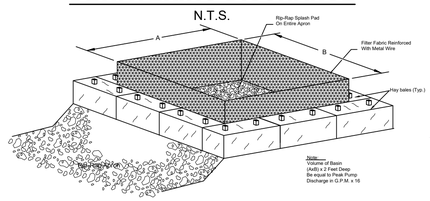
Responsible Person:
GOLD COAST PROPERTIES
Stephen Shapiro
203-610-1545

Contingency Erosion Plan
Should unforeseen erosion or sedimentation problems arise, the design engineer of record. (R.R. Hiltbrand Engineers & Surveyors) and the local enforcement agent shall be notified immediately. An inspection of the affected area(s) shall be promptly performed. A remedial action plan shall be formulated with the local enforcement agent's approval. The site contractor shall then implement the recommended course of action which has been determined by both the engineer and local enforcement agent.

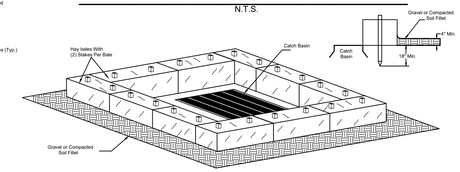


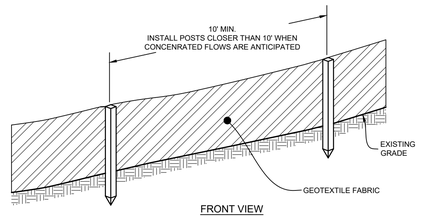
SEDIMENT LOG
N.T.S.

TEMPORARY SEDIMENT BASIN FOR DEWATERING DISCHARGE



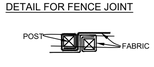
HAYBALE INLET PROTECTION





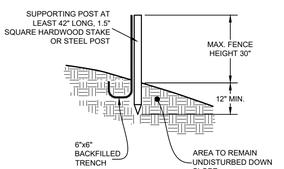
FRONT VIEW

DETAIL FOR FENCE JOINT



* POSITION POSTS TO OVERLAP AS SHOWN ABOVE, MAKING CERTAIN THAT THE FABRIC FOLDS AROUND EACH POST ONE FULL TURN

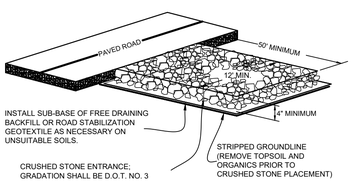
* DRIVE POSTS TIGHTLY TOGETHER AND SECURE TOPS OF POSTS BY TYING OFF WITH CORD OR WIRE TO PREVENT FLOW-THROUGH OF BULK-UP SEDIMENT AT JOINT.



SIDE VIEW

SILT FENCE
N.T.S.

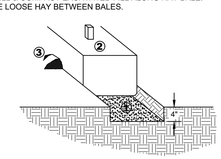
1. THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR SILT FENCES, OF THE '2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL'.
2. THE HEIGHT OF THE BARRIER SHALL NOT EXCEED 30 INCHES ABOVE GRADE.
3. POSTS SHALL BE SPACED A MAXIMUM OF (10) FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MIN. 12 INCHES). WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL BE AS THE MANUFACTURER RECOMMENDS.
4. A TRENCH SHALL BE EXCAVATED APPROX., (6) INCHES WIDE BY (6) INCHES DEEP ALONG THE LINE OF THE POSTS AND UPSLOPE FROM THE BARRIER IN ACCORDANCE WITH RECOMMENDATIONS.
5. THE FABRIC SHALL NOT EXTEND MORE THAN (30) INCHES ABOVE THE ORIGINAL GROUND SURFACE, AND WILL EXTEND A MINIMUM OF (8) INCHES INTO THE TRENCH. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
6. THE TRENCH SHALL BE BACKFILLED AND SOIL COMPACTED OVER THE FILTER FABRIC.
7. FILTER BARRIERS SHALL BE REMOVED WHEN THE HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPHILL SURFACE HAS BEEN PERMANENTLY STABILIZED.
8. FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL, AND AT LEAST DAILY DURING PROLONGED RAINFALL, ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
9. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
10. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
11. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED, SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.



CONSTRUCTION ENTRANCE n.t.s.

PLACEMENTand CONSTRUCTION OF HAY BALE BARRIER
N.T.S.

1. EXCAVATE TRENCH 4" AND PLACE FILL UP-SLOPE OF TRENCH. PLACE HAYBALE & STAKE FIRST STAKE AT ANGLE TOWARDS
2. FIRST HAYBALE. STAKES ARE 18" MIN. INTO GROUND.
3. BACKFILL & COMPACT EXCAVATED FILL ALONG HAY BALE.
4. WEDGE LOOSE HAY BETWEEN BALES.



SEDIMENT AND EROSION CONTROL SEQUENCE:

1. CALL BEFORE YOU DID - 1-800-922-4455.
2. PRE-CONSTRUCTION MEETING WITH BRISTOL WETLANDS AND ZONING STAFF.
3. UTILIZE EXISTING NORTHEASTERN SIDEWALK RAMP ENTRANCE TO SITE FOR AS LONG AS POSSIBLE.
4. ONCE EXISTING ENTRANCE IS NO LONGER PRACTICAL, INSTALL STONE CONSTRUCTION ENTRANCE.
5. COMPLETE DEMOLITION OF BITUMINOUS SURFACES AND REMOVE OFF-SITE.
6. INSTALL PERIMETER EROSION CONTROLS AS SHOWN INCLUDING AN 8"Ø SEDIMENT LOG ALONG MAIN STREET FRONTAGE.
7. CONTACT TOWN STAFF FOR INSPECTION 24 HOURS PRIOR TO EXCAVATION OF BUILDING FOUNDATION.
8. COMPLETE EXISTING UTILITY DISCONNECTS FOR EXISTING WATER AND SEWER LATERALS.
9. EXTEND NEW WATER AND SEWER LATERALS TO BUILDING FOOTPRINT.
10. EXCAVATE FOR BUILDING FOOTINGS AND WALLS
11. BACKFILL FOOTINGS AND WALLS.
12. INSTALL SITE STORM DRAINAGE.
13. CONSTRUCT ACCESS DRIVEWAY AND PARKING LOT TO PROCESS GRAVEL SURFACE FOR PROJECT STAGING.
14. CONSTRUCT BUILDING.
15. REMOVE CURBING AND SIDEWALKS ALONG MAIN STREET.
16. CONSTRUCT CONCRETE OPEN-AIR PATIO/ENTRANCE AREA.
17. INSTALL GRANITE CURB ALONG PROJECT FRONTAGE.
18. CONSTRUCT NEW CONCRETE WALKS AND ENTRANCE RAMP TO SITE.
19. BITUMINOUS PAVE ACCESS DRIVE AND PARKING LOT.
20. INSTALL EXTRUDED CONCRETE IN AREAS WITHOUT MONOLITHIC CURB
21. COMPLETE PROJECT RESTORATION, LANDSCAPING AND LIGHTING.
22. MAINTAIN ALL EROSION CONTROLS ON PROPERTY AS NEEDED. ADDITIONAL EROSION CONTROLS MAY BE REQUIRED BASED ON SITE CONDITIONS.

Maintenance of Erosion and Sediment Controls

(CE) 1. **Construction Entrance (CE)**
Maintain the entrance in a condition which will prevent tracking and washing of sediment onto paved surfaces. Provide periodic top dressing with additional stone or additional length as conditions demand. Repair any measures used to trap sediment as needed. Immediately remove all sediment spilled, dropped, washed or tracked onto paved surfaces. Roads adjacent to a construction site shall be left clean at the end of each day. If the construction entrance is being properly maintained and the action of a vehicle traveling over the stone pad is not sufficient to remove the majority of the sediment, then either (1) increase the length of the construction entrance, (2) modify the construction entrance road surface, or (3) install washing racks and associated settling area or similar devices before the vehicle enters a paved surface.

(GSF) 2. **Geo-textile Silt Fence (GSF)**
Inspect the silt fence at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater. Inspection of silt fence prior to large anticipated storms is also recommended.

(PS) 3. **Permanent Seeding (PS)**
Inspect permanent seeding at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater during the first growing season. Repair eroded areas as needed to control erosion with existing erosion controls or add additional erosion controls.

(DC) 4. **Entrance and Dust Control Maintenance**
a. Sweep paved apron at entrance to site weekly or as required. Any spillage on the Farmington River Turnpike by truck wheels shall be removed daily.
b. Dust control measures will be a daily activity when required. Water will be used to suppress dust from the haul road and general work area.
c. Clear drywells of silt and debris as needed.
d. To prevent airborne dust, excavation face area will be kept to a minimum. Topsoil to be stripped as excavation progresses and areas reclaimed immediately.

(MS) 5. **Mulch for Seed (MS)**
Application of mulch to protect soil surface and promote the establishment of seeding. See Maintenance Notes for inspection requirements.

(IP) 6. **Inlet Protection (IP)**
a. Inspect the structure after each major rainfall for damage and deterioration. Repair damage immediately. (See Erosion and Sedimentation Control Details Sheet ES7).

(SL) 7. **Sediment Log (SL)**
Inspect the sediment log at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater. Inspection of sediment log prior to large anticipated storms is also recommended.

PREPARED FOR:
Stephen Shapiro
Gold Coast Properties
303 Linwood Avenue - Suite 2D
Fairfield, CT 06824

R. R. HILTBRAND
Engineers and Surveyors

EROSION AND SEDIMENTATION CONTROL NOTES AND DETAILS
#37 Main Street
Bristol, Connecticut
August 27, 2024

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER:	AARON CHEEVER 978-302-0990 ACHEEVER@ADSPIPE.COM
ADS SALES REP:	JOHN STELMOKAS 413-519-2038 JOHN.STELMOKAS@ADSPIPE.COM
PROJECT NO:	5438866

ADS SiteAssist® FOR STORMTECH INSTALLATION INSTRUCTIONS VISIT OUR WEBSITE

37 MAIN ST. - PROPOSED RETAIL PLAZA

BRISTOL, CT

SC-740 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH SC-740.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN/IN, THE ASC IS DEFINED IN SECTION 8.2.6 OF ASTM F2418, AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES ABOVE 73° F (23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT WHEEL LOADS EQUAL TO OR GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTION 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.
10. MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 8.32 FOR MANIFOLD SIZING GUIDANCE. DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
11. ADS DOES NOT DESIGN OR PROVIDE MEMBRANE LINER SYSTEMS. TO MINIMIZE THE LEAKAGE POTENTIAL OF LINER SYSTEMS, THE MEMBRANE LINER SYSTEM SHOULD BE DESIGNED BY A KNOWLEDGEABLE GEOTEXTILE PROFESSIONAL AND INSTALLED BY A QUALIFIED CONTRACTOR.

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IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-740 SYSTEM

1. STORMTECH SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS SHOWN IN THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 9" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE; AASHTO M43 #0, 357, 4, 467, 5, 56, OR 57.
8. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
9. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH SC-740 CHAMBERS SHALL NOT BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-740 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

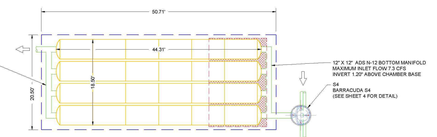
CONTACT STORMTECH AT 1-800-821-6710 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

PROPOSED LAYOUT

24	STORMTECH SC-740 CHAMBERS
8	STORMTECH SC-740 END CAPS
6	STONE ABOVE (in)
6	STONE BELOW (in)
40	% STONE VOID
1040	SYSTEM AREA (ft²)
140	SYSTEM PERIMETER (ft)

PROPOSED ELEVATIONS

304.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
298.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
297.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
297.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
297.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
296.50	TOP OF STONE
296.00	TOP OF SC-740 CHAMBER
295.80	12" BOTTOM MANIFOLD INVERT
293.50	BOTTOM OF SC-740 CHAMBER
293.00	BOTTOM OF STONE



NO ISOLATOR ROW PLUS

PLACE MINIMUM 12.5' OF ADSPLUS85 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS

37 MAIN ST. - PROPOSED RETAIL PLAZA	BRISTOL, CT
DATE:	02/20/2024
DRAWN:	JTS
CHECKED:	JTS
PROJECT #:	5438866

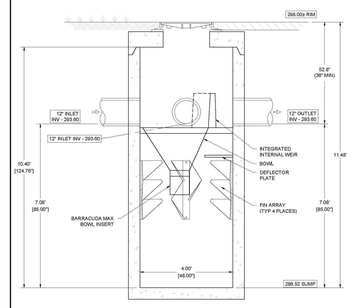
StormTech® CHAMBER SYSTEMS | 1-800-821-6710 | WWW.STORMTECH.COM

450 TRUCKMAN BLVD HILLIARD, OH 43026

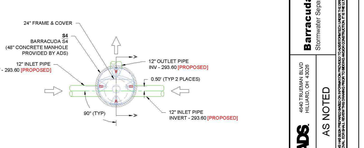
ADS AS NOTED

SHEET 3 OF 6

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SECTION VIEW A-A
SCALE: 1" = 1'



SITE SPECIFIC PLAN VIEW
SCALE: 1" = 5'

PRODUCT SPECIFICATIONS

- THE STORMWATER TREATMENT UNIT SHALL BE AN INLINE UNIT CAPABLE OF CONVEYING 100% OF THE DESIGN PEAK FLOW. IF PEAK FLOW RATES EXCEED MAXIMUM HYDRAULIC RATE, THE UNIT SHALL BE INSTALLED OFFLINE.
- THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 80% OF THE SUSPENDED SOLIDS ON AN ANNUAL AGGREGATE REMOVAL BASIS. SAID REMOVAL SHALL BE BASED ON FULL-SCALE THIRD PARTY TESTING USING OK-110 MEDIA GRADATION OR EQUIVALENT AND 300 mg/L INFLUENT CONCENTRATION. SAID FULL SCALE TESTING SHALL HAVE INCLUDED SEDIMENT CAPTURE BASED ON ACTUAL TOTAL MASS COLLECTED BY THE STORMWATER TREATMENT UNIT.
  - OR -
  THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS USING A MEDIA MIX WITH d_{50}=75 MICRON AND 200 MG/L INFLUENT CONCENTRATION.
  - OR -
  THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS PER CURRENT NJDEP/NJCAT HDS PROTOCOL.

PROJECT INFORMATION	
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ADS SALES REP:	JOHN STELMOKAS 413-519-2038 JOHN.STELMOKAS@ADSPIPE.COM
PROJECT NO:	5438866

37 MAIN ST. - PROPOSED RETAIL PLAZA

BRISTOL, CT

BAYSAVER BARRACUDA SPECIFICATIONS

MATERIALS AND DESIGN

CONCRETE STRUCTURES: DESIGNED FOR H-20 AND/OR HS-20 TRAFFIC LOADING AND APPLICABLE SOIL LOADS OR AS OTHERWISE DETERMINED BY A LICENSED PROFESSIONAL ENGINEER. THE MATERIALS AND STRUCTURAL DESIGN OF THE DEVICES SHALL BE PER ASTM C857 AND ASTM C858.

48" HP MANHOLE STRUCTURES: MADE FROM AN IMPACT MODIFIED COPOLYMER POLYPROPYLENE MEETING THE MATERIAL REQUIREMENTS OF ASTM F2764. THE ECCENTRIC CONE REDUCER SHALL BE MANUFACTURED FROM POLYETHYLENE MATERIAL MEETING ASTM D3350 CELL CLASS 315320C. GASKETS SHALL BE MADE OF MATERIAL MEETING THE REQUIREMENTS OF ASTM F477.

SEPARATOR INTERNALS SHALL BE SUBSTANTIALLY CONSTRUCTED OF STAINLESS STEEL, POLYETHYLENE, OR OTHER THERMOPLASTIC MATERIAL APPROVED BY THE MANUFACTURER.

PERFORMANCE

THE STORMWATER TREATMENT UNIT SHALL BE AN INLINE UNIT CAPABLE OF CONVEYING 100% OF THE DESIGN PEAK FLOW. IF PEAK FLOW RATES EXCEED MAXIMUM HYDRAULIC RATE, THE UNIT SHALL BE INSTALLED OFFLINE.

THE STORMWATER TREATMENT UNIT INTERNALS SHALL CONSIST OF(1)SEPARATOR CONE ASSEMBLY, AND (1)SUMP ASSEMBLY WHICH INCLUDES(4) LEGS WITH "TEETH".

THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 80% OF THE SUSPENDED SOLIDS ON AN ANNUAL AGGREGATE REMOVAL BASIS. SAID REMOVAL SHALL BE BASED ON FULL-SCALE THIRD PARTY TESTING USING OK-110 MEDIA GRADATION OR EQUIVALENT AND 300 mg/L INFLUENT CONCENTRATION. SAID FULL SCALE TESTING SHALL HAVE INCLUDED SEDIMENT CAPTURE BASED ON ACTUAL TOTAL MASS COLLECTED BY THE STORMWATER TREATMENT UNIT.
- OR -
THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS USING A MEDIA MIX WITH d_{50}=75 MICRON AND 200 MSG, INFLUENT CONCENTRATION.
- OR -
THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS PER CURRENT NJDEP/NJCAT HDS PROTOCOL.

MANUFACTURER

EACH STORMWATER TREATMENT SYSTEM SHALL BE A BARRACUDA SYSTEM AS MANUFACTURED BY BAYSAVER, LLC. 1030 DEER HOLLOW DR., MOUNT AIRY, MD 21771, PHONE (301) 829-8470, FAX (301) 829-3747, TOLL FREE 1-800-229-7283 (1-800-BAYSAVER), EMAIL INFO@BAYSAVER.COM

BARRACUDA MAINTENANCE

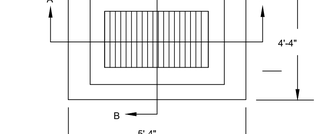
BARRACUDA SYSTEMS MUST BE INSPECTED AND MAINTAINED PERIODICALLY. INSPECTION IS MADE BY CHECKING THE DEPTH OF SEDIMENT IN EACH MANHOLE WITH A GRADE STICK OR SIMILAR DEVICE. MAINTENANCE IS REQUIRED WHEN THE SEDIMENT DEPTH IN EXCEEDS 20 INCHES. MINIMUM INSPECTION IS RECOMMENDED TWICE A YEAR TO MAINTAIN OPERATION AND FUNCTION OF THE UNIT.

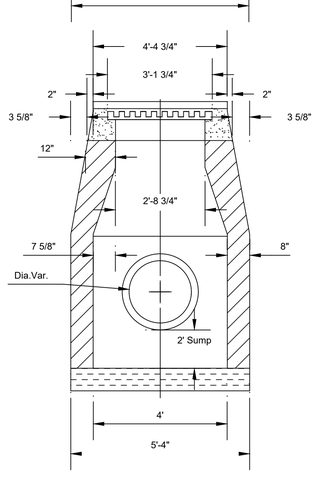
MAINTENANCE INSTRUCTIONS

1. REMOVE THE MANHOLE COVER TO PROVIDE ACCESS TO THE POLLUTANT STORAGE. POLLUTANTS ARE STORED IN THE SUMP, BELOW THE BOWL ASSEMBLY VISIBLE FROM THE SURFACE. YOU'LL ACCESS THIS AREA THROUGH THE 10" DIAMETER ACCESS CYLINDER.
2. USE A VACUUM TRUCK OR OTHER SIMILAR EQUIPMENT TO REMOVE ALL WATER, DEBRIS, OILS AND SEDIMENT.
3. USE A HIGH PRESSURE HOSE TO CLEAN THE MANHOLE OF ALL THE REMAINING SEDIMENT AND DEBRIS. THEN, USE THE VACUUM TRUCK TO REMOVE THE WATER.
4. FILL THE CLEANED MANHOLE WITH WATER UNTIL THE LEVEL REACHES THE INVERT OF THE OUTLET PIPE.
5. REPLACE THE MANHOLE COVER.
6. DISPOSE OF THE POLLUTED WATER, OILS, SEDIMENT AND TRASH AT AN APPROVED FACILITY.
   - LOCAL REGULATIONS PROHIBIT THE DISCHARGE OF SOLID MATERIAL INTO THE SANITARY SYSTEM. CHECK WITH THE LOCAL SEWER AUTHORITY FOR AUTHORITY TO DISCHARGE THE LIQUID.
   - SOME LOCALITIES TREAT THE POLLUTANTS AS LEACHATE. CHECK WITH LOCAL REGULATORS ABOUT DISPOSAL REQUIREMENTS.
   - ADDITIONAL LOCAL REGULATIONS MAY APPLY TO THE MAINTENANCE PROCEDURE.

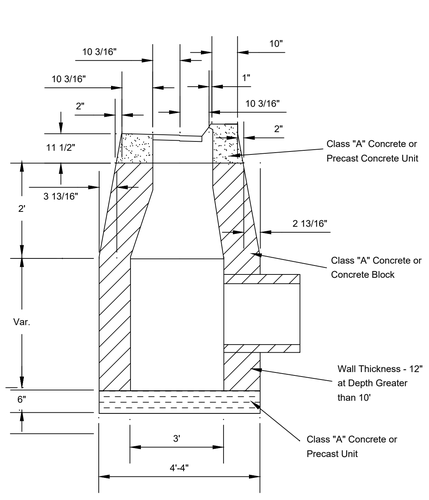
BARRACUDA INSTALLATION NOTES

INSTALLATION OF THE STORMWATER TREATMENT UNIT(S) SHALL BE PERFORMED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. SUCH INSTRUCTIONS CAN BE OBTAINED BY CALLING ADVANCED DRAINAGE SYSTEMS AT (800) 821-6710 OR BY LOGGING ON TO WWW.ADS-PIPE.COM OR WWW.BAYSAVER.COM.

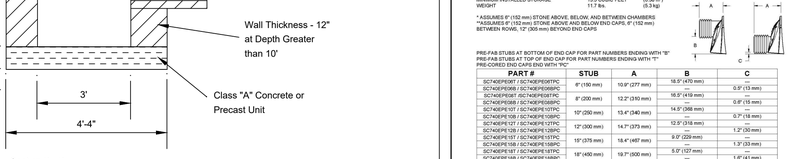




Section A - A



Section B - B



CLASS I BACKFILL:
ANGULAR CRUSHED STONE OR ROCK, DENSE OR OPEN-GRADED WITH LITTLE OR NO FINES (NOMINAL 1 INCH TO 1 INCHES IN SIZE).

CLASS II BACKFILL:
CLEAN, COARSE-GRAINED MATERIALS, SUCH AS GRAVEL, COARSE SANDS AND GRAVEL-SAND MIXTURES (1 inches (max. size).

CLASS III BACKFILL:
COARSE-GRAINED MATERIALS WITH FINES INCLUDING SILTY OR CLAYEY GRAVELS OR SANDS. GRAVEL OR SAND MUST COMPRISE MORE THAN 50 PERCENT OF CLASS III MATERIALS (1 INCHES MAX. SIZE)

ADS N-12 (CPP) TRENCH DETAIL

N.T.S.

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR RIGID PAVEMENT SUBBASE OR BASE COURSE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE.	AASHTO M145[2] A-1, A-2-4, A-3 OR AASHTO M43[2] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% RELATIVE DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[1]	AASHTO M43[2] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[1]	AASHTO M43[2] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) MAX LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. CAICL5 LAYER 'C' MATERIALS, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'C' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".

NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS. REFERENCE STORMTECH DESIGN MANUAL FOR BEARING CAPACITY GUIDANCE.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 8.2.6 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT/IN, AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

37 MAIN ST. - PROPOSED RETAIL PLAZA	BRISTOL, CT
DATE:	02/20/2024
DRAWN:	JTS
CHECKED:	JTS
PROJECT #:	5438866

StormTech® CHAMBER SYSTEMS | 1-800-821-6710 | WWW.STORMTECH.COM

450 TRUCKMAN BLVD HILLIARD, OH 43026

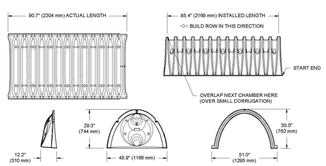
ADS AS NOTED

SHEET 5 OF 6

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ADVANCED DRAINAGE SYSTEMS, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ADVANCED DRAINAGE SYSTEMS, INC. IS PROHIBITED. ANY USE OF THIS DRAWING FOR THE DESIGN OF ANY ADVANCED DRAINAGE SYSTEMS, INC. PRODUCT INSTALLATION WITHOUT THE EXPRESS WRITTEN CONSENT OF ADVANCED DRAINAGE SYSTEMS, INC. IS PROHIBITED.

SC-740 TECHNICAL SPECIFICATION

NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET	(2.12 m³)
WEIGHT	75.0 lbs.	(33.4 kg)

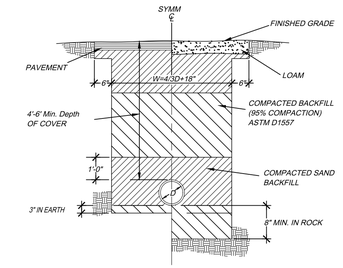
NOMINAL END CAP SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	45.9" X 29.3" X 0.9"	(1166 mm X 744 mm X 244 mm)
END CAP STORAGE	2.6 CUBIC FEET	(0.07 m³)
MINIMUM INSTALLED STORAGE**	13.9 CUBIC FEET	(0.39 m³)
WEIGHT	11.7 lbs.	(5.3 kg)

* ASSUMES 9" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS
**ASSUMES 9" (152 mm) STONE ABOVE AND BELOW END CAPS, 6" (152 mm) BETWEEN ROWS, 12" (305 mm) BEYOND END CAPS

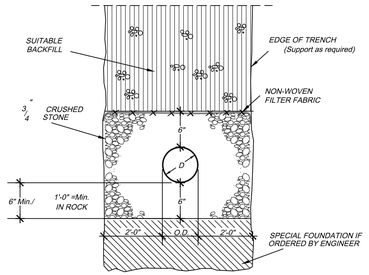
PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
PRE-CORED END CAPS END WITH "PC"

PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	16.5" (419 mm)	—
SC740EPE06B / SC740EPE06BPC			—	0.3" (13 mm)
SC740EPE08T / SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	—
SC740EPE08B / SC740EPE08BPC			—	0.8



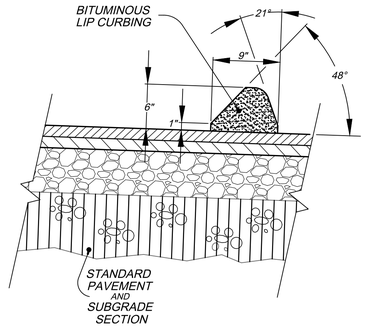
WATER MAIN TRENCH SECTION

N.T.S.



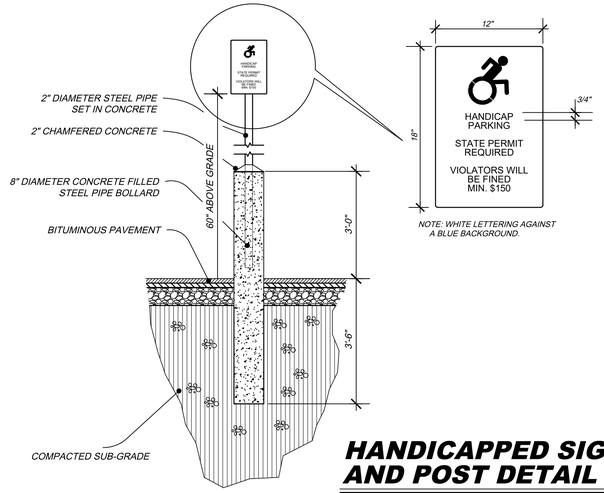
SANITARY SEWER TRENCH SECTION

N.T.S.



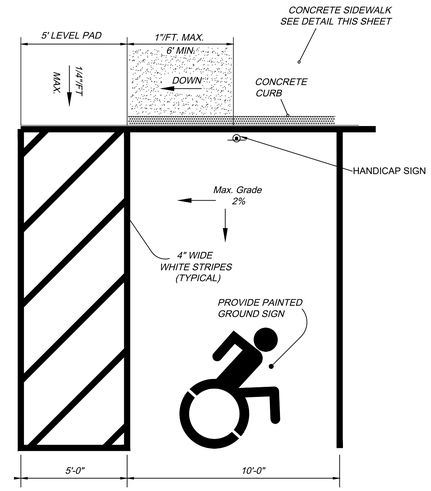
BITUMINOUS LIP CURBING

N.T.S.



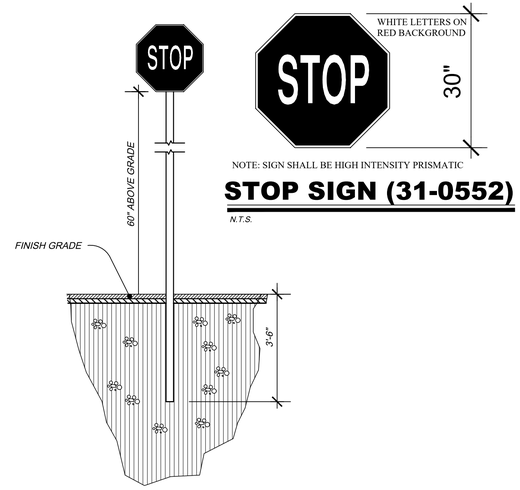
HANDICAPPED SIGN AND POST DETAIL

N.T.S.



HANDICAPPED PARKING STALL DETAIL

N.T.S.



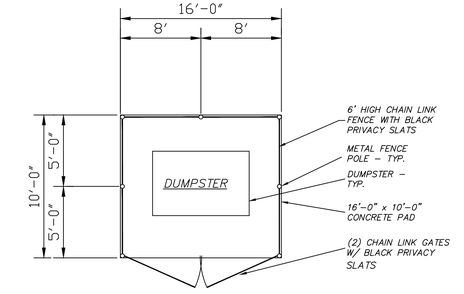
NOTE: SIGN SHALL BE HIGH INTENSITY PRISMATIC

STOP SIGN (31-0552)

N.T.S.

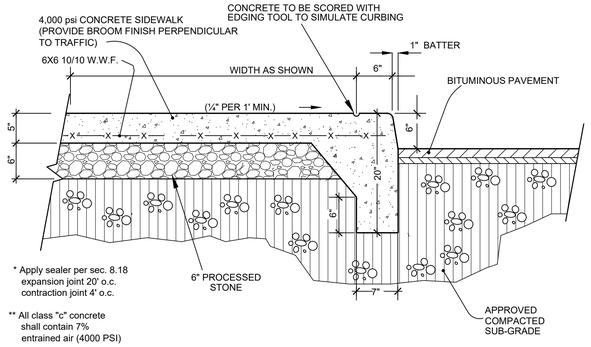
STOP SIGN (31-0552) AND POST DETAIL

N.T.S.



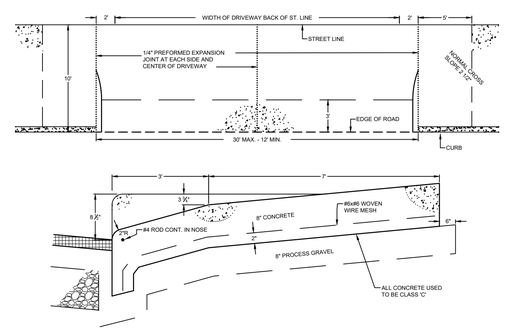
SCREENED DUMPSTER PAD DETAIL

N.T.S.



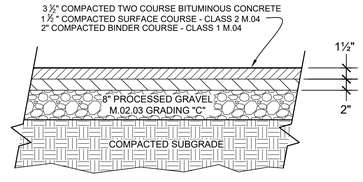
CONCRETE CURB and SIDEWALK

N.T.S.



TYPICAL COMMERCIAL DRIVEWAY APRON

N.T.S.



NOTE:
-ROADWAY MATERIALS AND METHODS TO BE IN CONFORMANCE WITH CONN. D.O.T. STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION FORM 814, 1988 WITH RECENT REVISIONS, and/or MUNICIPAL CURRENT STANDARDS.

-CONTRACTOR SHALL CONFIRM SUB-GRADE IS OF ADEQUATE BEARING CAPACITY PRIOR TO PAVING.

BITUMINOUS PAVEMENT DETAIL

SCALE: N.T.S.

PREPARED FOR:
Stephen Shapiro
Gold Coast Properties
303 Linwood Avenue - Suite 2D
Fairfield, CT 06824

R. R. HILTBRAND Engineers and Surveyors

SITE DETAILS
Sheet 2 OF XXX
#37 Main Street
Bristol, Connecticut
August 27, 2024

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

North

NF
THE CITY OF BRISTOL

NF
JEROME H. REISMAN AND ROSELYN REISMAN, TRUSTEES
VOL. 2190 - PG. 332
25 MAIN STREET

NF
JEROME H. REISMAN AND ROSELYN REISMAN, TRUSTEES
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25 MAIN STREET

NF
THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY
VOL. 421 - PG. 475
10 MAIN STREET

EXIST CONC WALK

EXISTING CONCRETE WALL

EXISTING UNNAMED BROOK

PROPOSED 5' CONCRETE SIDEWALK

PROPOSED 4-STORY BUILDING
7,035 S.F. FOOTPRINT
3,083 S.F. RETAIL SPACE
+ 28 DWELLING UNITS
GROUND FLOOR ELEV. 299.00

SEE ARCHITECT'S PLAN FOR BUILDING DIMENSIONS

PROPOSED CONCRETE PATIO/ENTRANCE AREA

PROPOSED CURB WALL (HEIGHT VARIES ±24")

D

DN 7/8"/FT

EXISTING CURB

CURB CUT

23.0'

9.7'

12.0'

MAIN STREET

9.0'

13.0'

18.0'

45°

CURB

7

1

25

EXISTING YELLOW LINE

MATCH EXISTING DOUBLE YELLOW

EXISTING ENTRANCE TO #10 MAIN STREET

PROPOSED WHITE LINE (TYPICAL)

EXISTING YELLOW LINE

PROPOSED YELLOW LINE

MATCH EXISTING DOUBLE YELLOW

EXISTING WHITE LINE

EXISTING YELLOW LINE

SCHOOL STREET

MEMORIAL BOULEVARD

UTILITY NOTE:
LOCATION OF UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED UPON FIELD SURVEY OF VISIBLE SURFACE STRUCTURES SUCH AS CATCH BASINS AND MANHOLES, TOGETHER WITH RECORD MAPPING OBTAINED FROM UTILITY COMPANIES AND GOVERNMENTAL AGENCIES AS NOTED UNDER MAP REFERENCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. IN ADDITION, OTHER UTILITIES MAY ALSO EXIST, UNKNOWN TO THE SURVEYOR. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455.

GRAPHIC SCALE
20 10 0 20 40
1 Inch = 20 Feet

PREPARED FOR:
Stephen Shapiro
Gold Coast Properties
303 Linwood Avenue - Suite 2D
Fairfield, CT 06824

R. R. HILTBRAND Engineers and Surveyors

PROPOSED RE-STRIPING OF A PORTION OF MAIN STREET PLAN (BY OTHERS)

Bristol, Connecticut

August 27, 2024

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

Elevation Drawings and Floor Plans

BRISTOL COMMONS ON MAIN

37 MAIN STREET

BRISTOL CT.



SHEET LIST	
SHEET NUMBER	SHEET NAME
A-000	TITLE SHEET
A-101	FIRST FLOOR PLAN
A-102	SECOND FLOOR PLAN
A-103	THIRD FLOOR PALN
A-104	FOURTH FLOOR PLAN
A-201	ELEVATIONS
A-202	ELEVATIONS

OWNER:

GOLD COAST PROPERTIES
STEPHEN SHAPIRO
EASTON, CONNECTICUT, 06612

ARCHITECT:

SCHADLER SELNAU ASSOCIATES P.C.
5 WATERVILLE ROAD
FARMINGTON, CONNECTICUT 06032

STRUCTURAL ENGINEER:

TO BE DETERMINED

MEP ENGINEERS:

TO BE DETERMINED

CIVIL ENGINEER:

R.R. HILTBRAND ENGINEERS AND SURVEYORS
575 NORTH MAIN STREET
BRISTOL, CONNECTICUT, 06010

Job.No. yyyy-xxxx

Schadler Selnau associates, p.c.
architecture • planning • interiors
5 waterville road farmington, ct 06032
(860) 677-9620
hsa-architects.com

Bristol Commons on Main

37 MAIN STREET BRISTOL CT

REVISION		
NO	DESC	DATE

NOT FOR CONSTRUCTION

TITLE SHEET

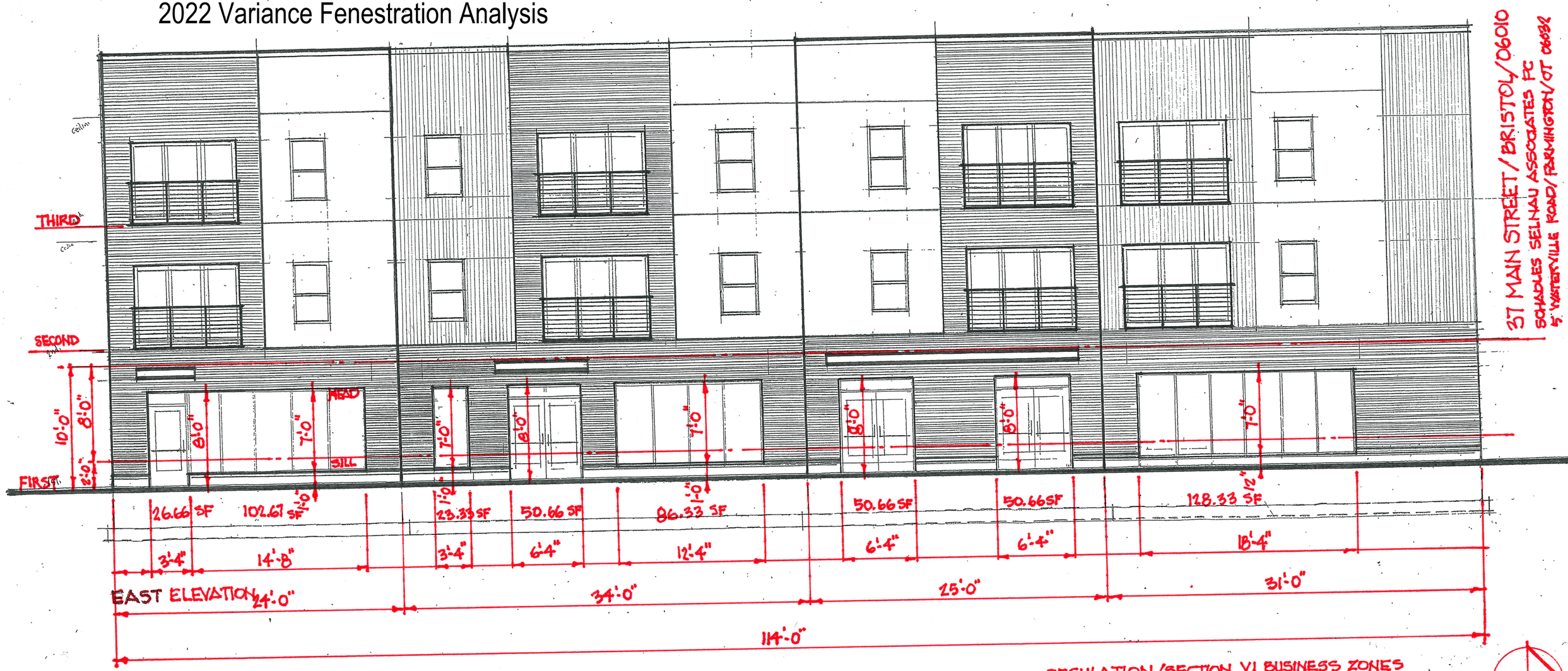
SCALE: 12" = 1'-0"

DATE ISSUED: Issue Date

A-000

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2022 Variance Fenestration Analysis



EAST ELEVATION

37 MAIN STREET / BRISTOL / 06010
SCHADLER SELINAU ASSOCIATES PC
5 WATERVILLE ROAD / FARMINGTON / CT 06032

REQUIRED WINDOW FENESTRATION
MEASURED @ 10'-0" TO HEAD AND 2'-0" TO SILL
OR 8'-0" X LENGTH OF BUILDING STREET FACING
FASCADE OR 8'-0" x 114' BUILDING LENGTH OF
8' x 114' = 912 SF @ 65% REQUIRED OR 593 SF REQUIRED

WINDOW FENESTRATION PROVIDED
519.33 SF PROVIDED SHORT FALL 73.67 SF
593.00 SF REQUIRED

REGULATION / SECTION VI BUSINESS ZONES
V.C. - DOWNTOWN BUSINESS ZONE
V.C.1.a BD1 - MAIN STREET
V.C.BD.6 BUILDING FORM STANDARDS
V.C. BD.6 (5) BUILDING ELEMENT
BD-1 65% MIN OF WALL AREA
WALL MEASURED BETWEEN 2' AND 10'
FROM TOP OF FOUNDATION WALL

SCALE : 1/8" = 1'-0"
DATE : 10 OCTOBER 2022

2024 Revised Window Configuration



2024 Variance Fenestration Analysis

37 MAIN STREET
FIRST FLOOR
21 AUGUST 2024

114'-0"
104'-0"
5'-0"
26'-6"
25'-6"
25'-6"
26'-6"
5'-0"

ADA
one bedroom

ONE BEDROOM

ONE BEDROOM

ONE BEDROOM

65'-0"
38'-6"
26'-6"
21 RISERS @ 6.85" = 144"/12.0" FLR. TO FLR.
19 TREADS @ 11"

STAIR NO. 1
9'-2"
12"
8'-0"
12"
18'-0"
12"

T.

WINDOW FENESTRATION
REQUIRED
Measured @ 10' HEAD and
2'-0" to SILL or 8'-0" x
Length of Building Street
Facing Facade or 8'-0" x 114' = 912 SF @ 65% REQUIRED or 593 SF REQUIRED

RETAIL

PROVIDED 585 SF

REQ'D 593SF - 585SF = 8SF shortfall

RETAIL

3500# =
8'-8"
7'-0"
ELEV.
OTIS · ELEC.

T.
T.

RETAIL

STAIR NO. 2

WATER
MECH.
ELECTRICAL

3'-0"
11'-0"

2'-0" 6'-0" 3'-0" 11'-0" 2'-0" 1'-0" 5'-0" 2'-0" 6'-0" 4'-0" 14'-0" 2'-0" 2'-0" 6'-0" 2'-0" 5'-0" 2'-6" 6'-0" 1'-0" 1'-0" 8'-0" 9'-0" 6'-0" 2'-0"
2'-0" 2'-0" 2'-0"

7x6=42SF
7x11=77SF
7x5=35SF
8x6=48SF
14x7=98SF
7x2=14SF
8x6=48SF
7x2=14SF
8x6=48SF
7x8=56SF
7x9=63SF
7x6=42SF

24'-0"
34'-0"
25'-0"
10'-0"
21'-0"
114'-0"

42SF 77SF 35SF 48SF 98SF 14SF 8'x6'-4" 14SF 8'x6'-4" 48SF 56SF 63SF 42SF

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A-201 2

114' - 0"

5' - 0" | 104' - 0" | 5' - 0"

26' - 6" | 25' - 6" | 25' - 6" | 26' - 6"

1 BEDROOM 1 650 SF

1 BEDROOM 2 635 SF

1 BEDROOM 3 635 SF

1 BEDROOM 4 650 SF

26' - 6"

A-202 2

5' - 2"

5' - 0"

5' - 0"

1 A-202

65' - 0"

65' - 0"

38' - 6"

38' - 6"

RETAIL SPACE 4 1116 SF

RETAIL SPACE 5 796 SF

RETAIL SPACE 3 997 SF

7' - 0"

8' - 8"

8' - 0"

24' - 0" | 16' - 9" | 17' - 3" | 14' - 6" | 10' - 6"

24' - 0" | 34' - 0" | 25' - 0" | 10' - 0" | 21' - 0"

114' - 0"

A-201 1

1 FIRST FLOOR
1/4" = 1'-0"

Job.No. yyyy-xxxx

Schadler Selnau associates, p.c.
architecture • planning • interiors
5 waterville road, farmington, ct 06032
(860) 677-9620
hsa-architects.com

Bristol Commons on Main

37 MAIN STREET BRISTOL CT

REVISION

NO	DESC	DATE

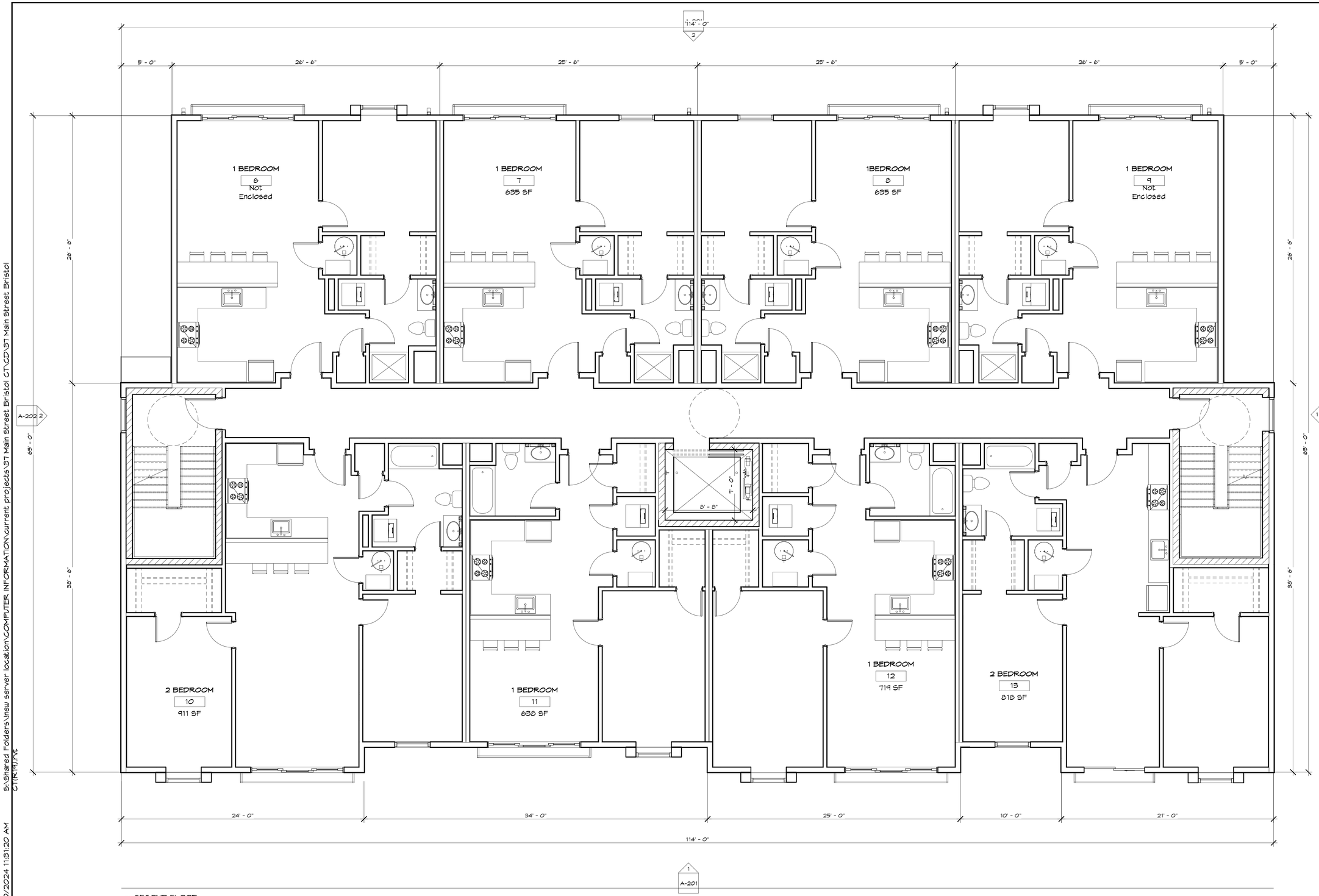
NOT FOR CONSTRUCTION

FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

DATE ISSUED: Issue Date

A-101



1 SECOND FLOOR
1/4" = 1'-0"

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Job.No.yyyy-xxxx

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37 MAIN STREET BRISTOL CT

REVISION

NO	DESC	DATE

NOT FOR CONSTRUCTION

SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"

DATE ISSUED: Issue Date

A-102



1 THIRD FLOOR
1/4" = 1'-0"

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Job.No. yyyy-xxxx

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5 waterville road, farmington, ct 06032
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Bristol Commons on Main

37 MAIN STREET BRISTOL CT

REVISION

NO	DESC	DATE

NOT FOR CONSTRUCTION

THIRD FLOOR PALN

SCALE: 1/4" = 1'-0"

DATE ISSUED: Issue Date

A-103



1 FOURTH FLOOR
1/4" = 1'-0"

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37 MAIN STREET BRISTOL CT

REVISION

NO	DESC	DATE

NOT FOR CONSTRUCTION

FOURTH FLOOR PLAN

SCALE: 1/4" = 1'-0"

DATE ISSUED: Issue Date

A-104



1 EAST ELEVATION
3/16" = 1'-0"



2 WEST ELEVATION
3/16" = 1'-0"

Job.No. yyyy-xxxx

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5 waterville road, farmington, ct 06032
(860) 677-9620
hsa-architects.com

Bristol Commons on Main

37 MAIN STREET BRISTOL CT

REVISION

NO	DESC	DATE

NOT FOR CONSTRUCTION

ELEVATIONS

SCALE: 3/16" = 1'-0"

DATE ISSUED: Issue Date

A-201

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1 NORTH ELEVATION 1
3/16" = 1'-0"

2 SOUTH ELEVATION
3/16" = 1'-0"

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Job.No. yyyy-xxxx

Schadler Selnau associates, p.c.
architecture • planning • interiors
5 waterville road, farmington, ct 06032
(860) 677-9620
hsa-architects.com

Bristol Commons on Main

37 MAIN STREET BRISTOL CT

REVISION

NO	DESC	DATE

NOT FOR CONSTRUCTION

ELEVATIONS

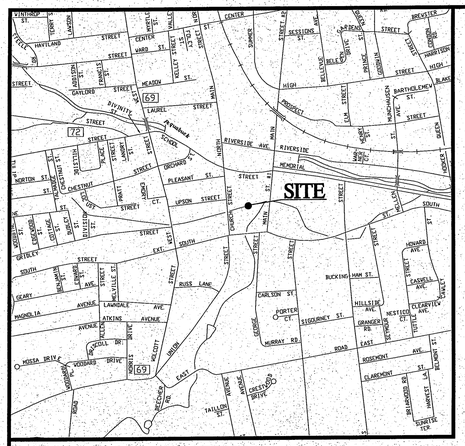
SCALE: 3/16" = 1'-0"

DATE ISSUED: Issue Date

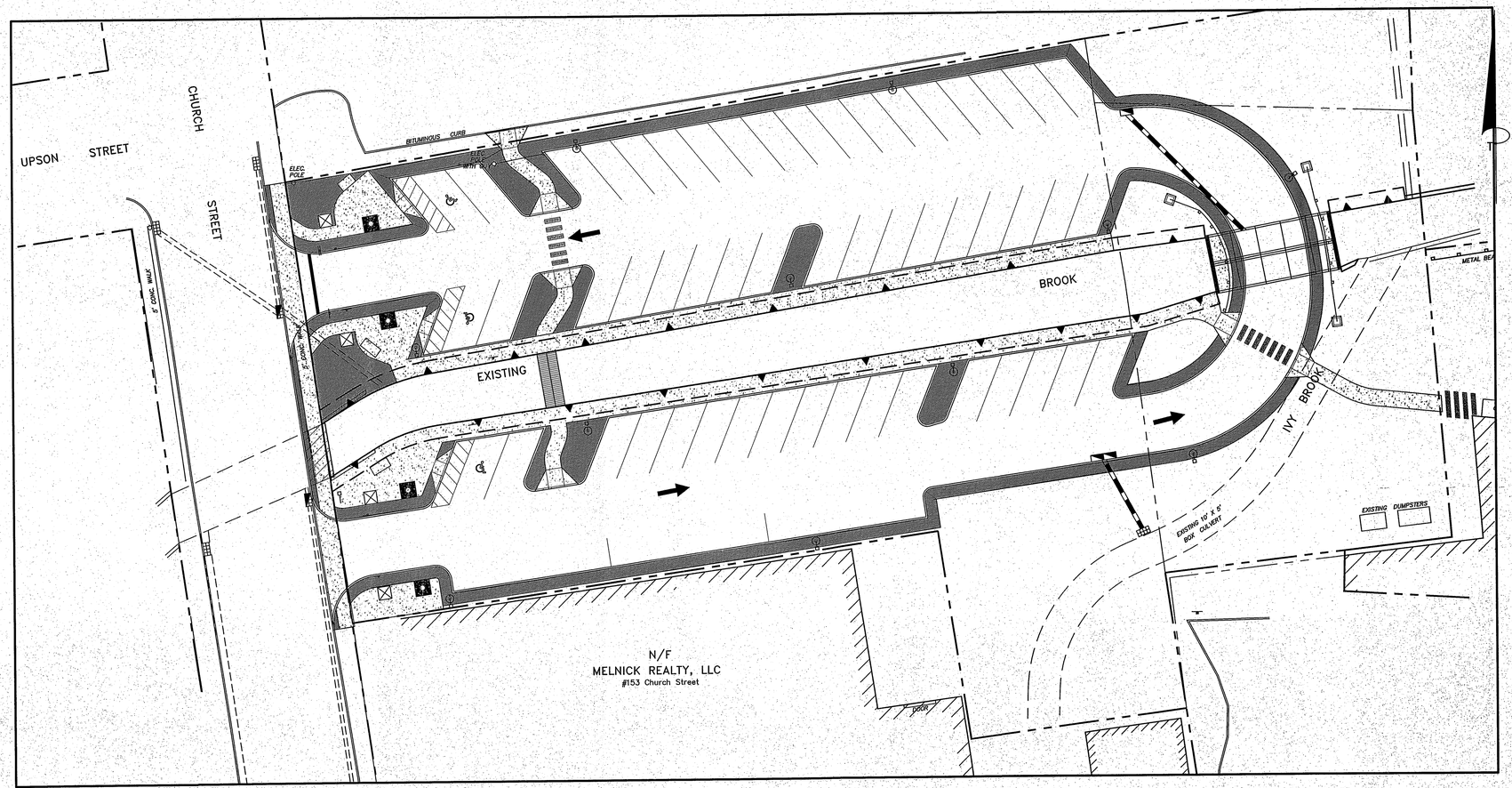
A-202

Site Plan for: 149 Church Street Municipal Parking

CITY OF BRISTOL
PLAN
FOR
SITE REMEDIATION AND CONSTRUCTION OF PARKING FACILITY
149 CHURCH STREET
IN THE TOWN OF
BRISTOL, CONNECTICUT



LOCATION MAP
Scale: 1"=1000'



Approved by the Conservation Commission acting as the Inland-Wetlands Agency for the City of Bristol
X With Conditions ____ Without Condition
8/25/10 Date
1677 Permit Number
Signature

CITY OF BRISTOL, CONNECTICUT
This Site Plan has been approved by the Zoning Commission of the City of Bristol, CT.
Chairman/Secretary
9/15/10 Date
Pursuant to Section 8-3(i) of the Connecticut General Statutes, all work in connection with this Site Plan shall be completed by 9/15/15. Failure to complete all such work by that date shall result in automatic expiration of the approval of this Site Plan.

LIST OF DRAWINGS

SHEET NO.
1 - TITLE SHEET/PROJECT LOCATION MAP
2 - EXISTING CONDITIONS PLAN
3 - NON-REMEDIAL DEMOLITION PLAN
4 - SITE & LAYOUT PLAN
5 - GRADING & EROSION CONTROL PLAN
6 - LIGHTING PLAN
7 - LANDSCAPE, SIGNAGE & PAVEMENT MARKING PLAN
8 - MISCELLANEOUS CONSTRUCTION DETAILS
9 - MISCELLANEOUS CONSTRUCTION DETAILS (2)
10 - REMEDIATION EXCAVATION AREAS

BOARD OF PUBLIC WORKS
MAYOR ARTHUR T. WARD, CHMN.
DIRECTOR OF PUBLIC WORKS
W.E. VESELKA, P.E.
CITY ENGINEER
PAUL A. STRAWDERMAN, P.E.
AUGUST, 2010 Contract :

"THIS DOCUMENT HAS BEEN PREPARED A PART OF THE CITY OF BRISTOL (I.W.W.C., T.P.Z., OR Z.B.A.) APPLICATION PROCESS AND CAN NOT BE CONSIDERED FINAL NOR USED FOR CONSTRUCITON PURPOSES UNTIL ALL NECESSARY APPROVALS HAVE BEEN ATTAINED"

Inland Wetlands Permit No. 1677
Approval Date: 8/25/2010

FORM 816 (2004) STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND INCIDENTAL CONSTRUCTION SHALL GOVERN INCLUDING ALL SUPPLEMENTAL SECIFICATIONS (LATEST REVISION).

PREPARED BY:
City of Bristol
Department of Public Works
111 North Main Street
Bristol, Connecticut 06010
Tel. 860-584-6125
Fax 860-584-3838
ci.bristol.ct.us

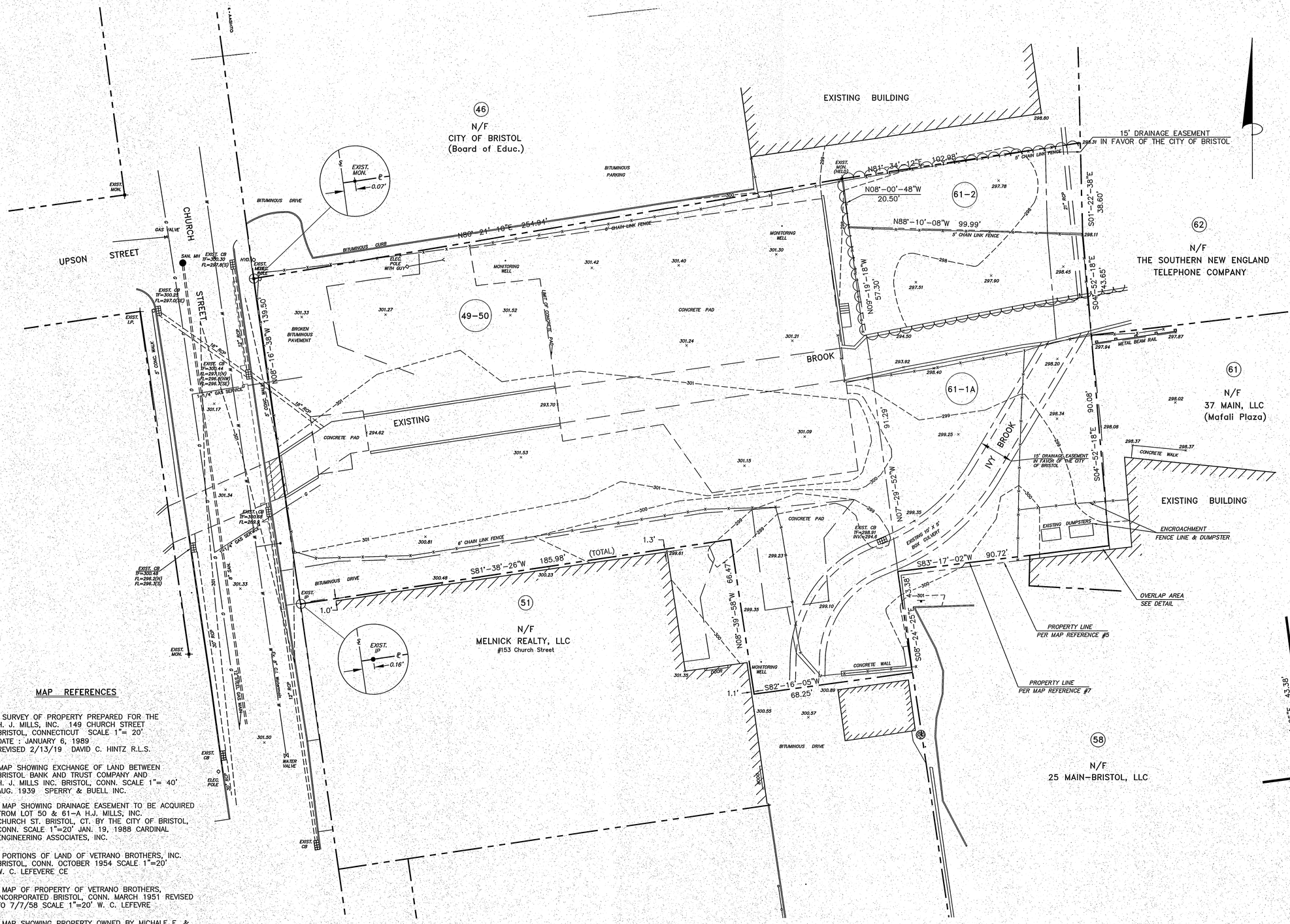
No.	DATE	COMMENTS
1.	8/14/2010	City Staff Comments
2.	10/15/2010	City Staff Comments

DESIGN BY: DJC
DRAFTED BY: DB/DJC
CHECKED BY: RAR
SCALE: 1"=20'
DATE: 7/30/2010
CONTRACT No:

Site Remediation and Construction of Parking Facility
149 Church Street Bristol Connecticut

Title Sheet

DRAWING NUMBER:
1



NOTES

1 – THIS SURVEY (OR MAP) HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300B-1 THRU 20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996:

TYPE OF SURVEY : PROPERTY SURVEY.

BOUNDARY DETERMINATION CATEGORY : DEPENDENT RESURVEY

CLASS OF ACCURACY : CLASS "A-2"

2 – BEARINGS BASED ON N.A.D. 83.

3 – (50) DENOTES BRISTOL ASSESSOR'S MAP LOT NUMBER.

4 – AREA OF LOT 49-50 = 40,918 S.F.±
AREA OF LOT 61-1A = 13,293 S.F.±
AREA OF LOT 61-2 = 2982 S.F.±

MAP REFERENCES

1 – SURVEY OF PROPERTY PREPARED FOR THE H. J. MILLS, INC. 149 CHURCH STREET BRISTOL, CONNECTICUT SCALE 1"= 20' DATE : JANUARY 6, 1989 REVISED 2/13/19 DAVID C. HINTZ R.L.S.

2 – MAP SHOWING EXCHANGE OF LAND BETWEEN BRISTOL BANK AND TRUST COMPANY AND H. J. MILLS INC. BRISTOL, CONN. SCALE 1"= 40' AUG. 1939 SPERRY & BUELL INC.

3 – MAP SHOWING DRAINAGE EASEMENT TO BE ACQUIRED FROM LOT 50 & 61-A H.J. MILLS, INC. CHURCH ST. BRISTOL, CT. BY THE CITY OF BRISTOL, CONN. SCALE 1"=20' JAN. 19, 1988 CARDINAL ENGINEERING ASSOCIATES, INC.

4 – PORTIONS OF LAND OF VETRANO BROTHERS, INC. BRISTOL, CONN. OCTOBER 1954 SCALE 1"=20' W. C. LEFEVERE CE

5 – MAP OF PROPERTY OF VETRANO BROTHERS, INCORPORATED BRISTOL, CONN. MARCH 1951 REVISED TO 7/7/58 SCALE 1"=20' W. C. LEFEVRE

6 – MAP SHOWING PROPERTY OWNED BY MICHALE E. & DANIEL E. LAURENTANO AND AMELIA DESMOND CHURCH STREET BRISTOL, CONN. SCALE : 1" = 20' JANUARY 28, 1980

7 – LOT LINE REVISION MAP FOR WALGREENS STORE #10203 DEVELOPER/OWNER 107 SOUTH STREET CORP. #25 MAIN STREET BRISTOL, CT. SCALE : 1" = 20' DATE : JULY 1, 2005 REVISED TO 12/5/05 KRATZERT JONES & ASSOCIATES, INC.

OVERLAP DETAIL

N.T.S.

APPROVED

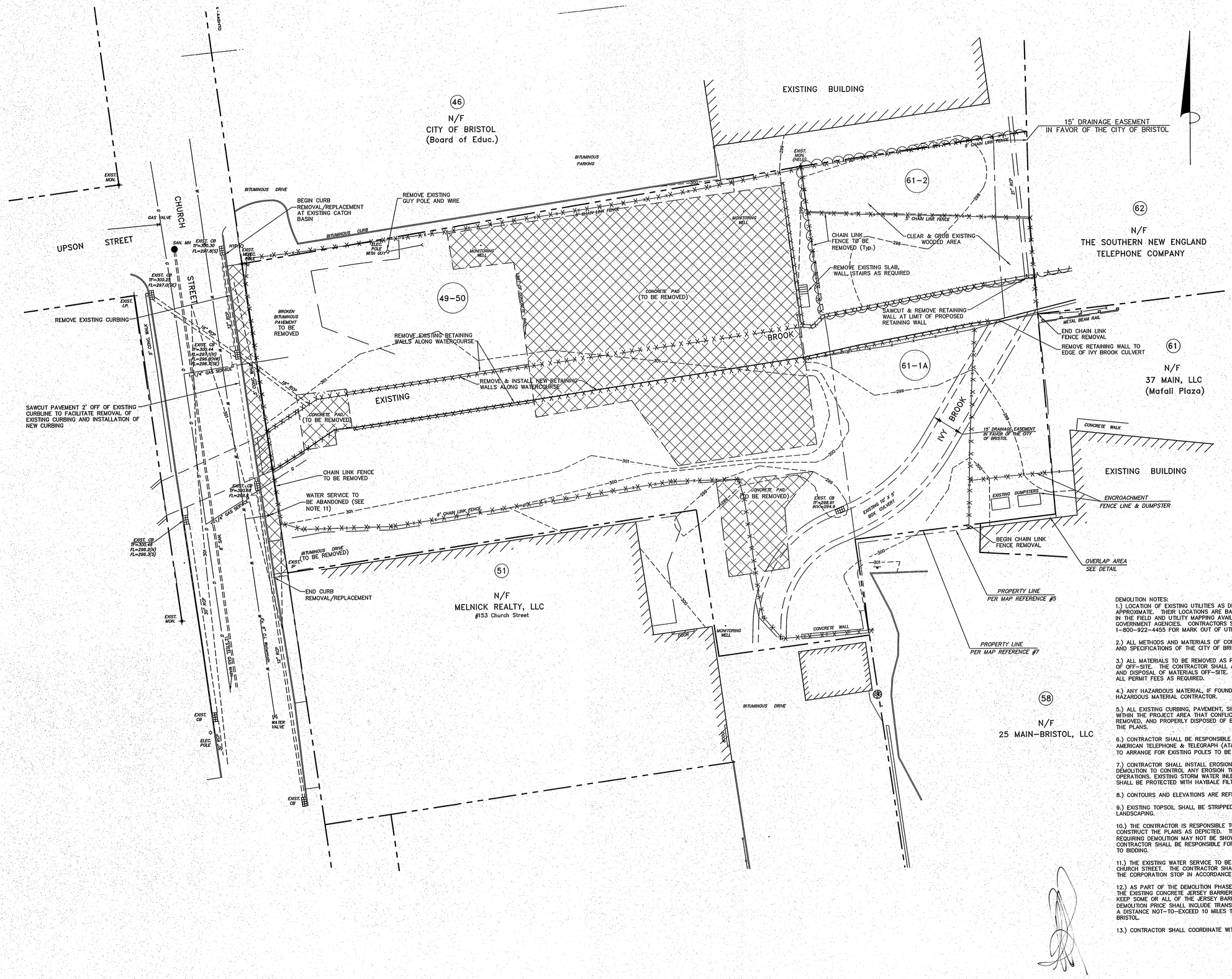
TO MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON

PETER W. FORREST L.S. 11344 DATE

DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING
CITY OF BRISTOL
CONNECTICUT

MAP OF LOTS
49-50, 61-1A AND 61-2
OWNED BY THE CITY OF BRISTOL
CHURCH STREET BRISTOL, CT.

DESIGNED		CONTRACT NO.	DATE JAN. 2010
DRAWN	DRB	FIELD BOOK NB-431	SCALE 1" = 20'
CHECKED	PWF		SHEET 1 OF 1



DEMOLITION NOTES:

1.) LOCATION OF EXISTING UTILITIES AS DEPICTED HEREON SHALL BE CONSIDERED APPROXIMATE. THEIR LOCATIONS ARE BASED UPON A COMBINATION OF STRUCTURES VISIBLE IN THE FIELD AND UTILITY MAPPING AVAILABLE FROM LOCAL UTILITY COMPANIES AND GOVERNMENT AGENCIES. CONTRACTORS SHALL CONTACT CALL- BEFORE-U-DIG AT 1-800-922-4455 FOR MARK OUT OF UTILITIES 72 hrs. PRIOR TO ANY EXCAVATION.

2.) ALL METHODS AND MATERIALS OF CONSTRUCTION SHALL COMPLY WITH THE STANDARDS AND SPECIFICATIONS OF THE CITY OF BRISTOL.

3.) ALL MATERIALS TO BE REMOVED AS PART OF THIS PLAN SHALL BE PROPERLY DISPOSED OF OFF-SITE. THE CONTRACTOR SHALL ACQUIRE ALL NECESSARY PERMITS FOR DEMOLITION AND DISPOSAL OF MATERIALS OFF-SITE. THE CONTRACTOR SHALL POST BONDS AND PAY ALL PERMIT FEES AS REQUIRED.

4.) ANY HAZARDOUS MATERIAL, IF FOUND ON-SITE, SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIAL CONTRACTOR.

5.) ALL EXISTING CURBING, PAVEMENT, SIDEWALKS, CONCRETE, SIGNAGE, EARTH MATERIAL, ETC. WITHIN THE PROJECT AREA THAT CONFLICT WITH PROPOSED WORK SHALL BE DEMOLISHED, REMOVED, AND PROPERLY DISPOSED OF BY THE CONTRACTOR UNLESS DIRECTED OTHERWISE IN THE PLANS.

6.) CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH AMERICAN TELEPHONE & TELEGRAPH (AT&T) AND/OR CONNECTICUT LIGHT & POWER (CL&P) TO ARRANGE FOR EXISTING POLES TO BE REMOVED/RELOCATED AS NECESSARY.

7.) CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES AS NECESSARY DURING DEMOLITION TO CONTROL ANY EROSION THAT MAY TAKE PLACE DURING DEMOLITION OPERATIONS. EXISTING STORM WATER INLETS SUCH AS CATCH BASINS, YARD DRAINS, ETC. SHALL BE PROTECTED WITH HAYBALE FILTERS.

8.) CONTOURS AND ELEVATIONS ARE REFERENCED TO NGVD OF 1929.

9.) EXISTING TOPSOIL SHALL BE STRIPPED AND STOCK PILED FOR USE IN LATER LANDSCAPING.

10.) THE CONTRACTOR IS RESPONSIBLE TO DEMOLISH AND REMOVE ALL ITEMS AS REQUIRED TO CONSTRUCT THE PLANS AS DEPICTED. THE CONTRACTOR SHALL BE AWARE THAT ALL ITEMS REQUIRING DEMOLITION MAY NOT BE SHOWN AND/OR DEPICTED ON THE PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH THE PROPERTY PRIOR TO BIDDING.

11.) THE EXISTING WATER SERVICE TO BE ABANDONED SHALL BE TERMINATED AT THE MAIN IN CHURCH STREET. THE CONTRACTOR SHALL EXCAVATE AND REMOVE THE EXISTING SERVICE TO THE CORPORATION STOP IN ACCORDANCE WITH BRISTOL WATER DEPARTMENT REQUIREMENTS.

12.) AS PART OF THE DEMOLITION PHASE, THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE EXISTING CONCRETE JERSEY BARRIERS. THE CITY OF BRISTOL RESERVES THE RIGHT TO KEEP SOME OR ALL OF THE JERSEY BARRIERS IF THEY SO DESIRE. THE CONTRACTORS DEMOLITION PRICE SHALL INCLUDE TRANSPORTING AND DELIVERING THE BARRIER(S) ONE-WAY A DISTANCE NOT-TO-EXCEED 10 MILES TO A LOCATION TO BE DETERMINED BY THE CITY OF BRISTOL.

13.) CONTRACTOR SHALL COORDINATE WITH CL&P TO REMOVE EXISTING GUY POLE AND WIRE.

APPROVED

PREPARED BY:

City of Bristol
Department of Public Works
111 North Main Street
Bristol, Connecticut 06010
Tel. 860-584-6125
Fax. 860-584-3838
ci.bristol.ct.us

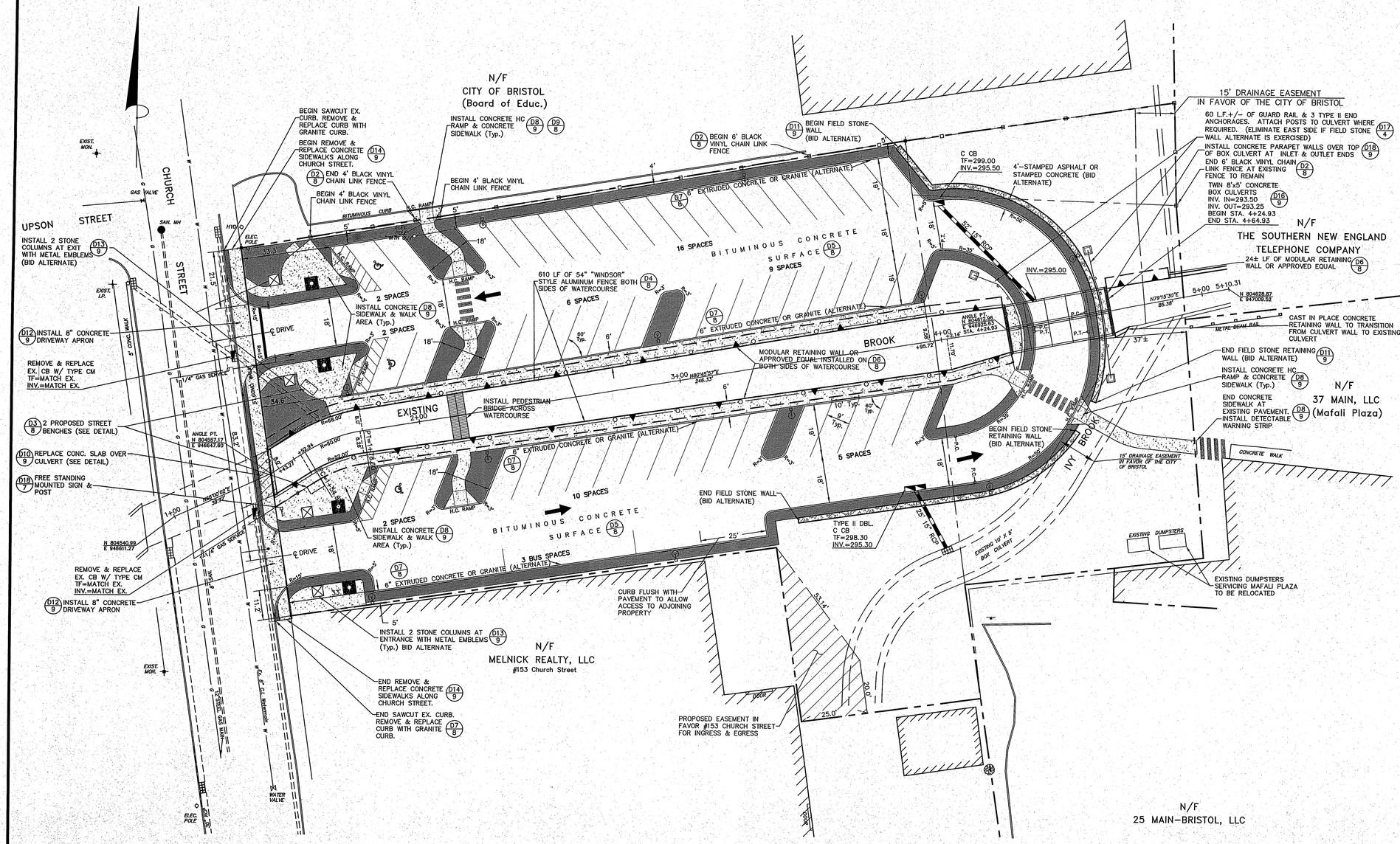
No.	DATE	COMMENTS:
1	9/14/2010	City Staff Comments
2	10/15/2010	City Staff Comments

DESIGN BY: DJC
DRAFTED BY: DB/DJC
CHECKED BY: RAR
SCALE: 1"=20'
DATE: 7/30/2010
CONTRACT No:

Site Remediation and Construction of Parking Facility
149 Church Street Bristol Connecticut

Non-Remedial Demolition Plan

DRAWING NUMBER:
3



SITE PLAN NOTES:

1.) LOCATION OF EXISTING UTILITIES AS DEPICTED HEREON SHALL BE CONSIDERED APPROXIMATE. THEIR LOCATIONS ARE BASED UPON A COMBINATION OF STRUCTURES VISIBLE IN THE FIELD AND UTILITY MAPPING AVAILABLE FROM LOCAL UTILITY COMPANIES AND GOVERNMENT AGENCIES. CONTRACTORS SHALL CONTACT CALL-BEFORE-U-DIG AT 1-800-922-4455 FOR MARK OUT OF UTILITIES 72 hrs. PRIOR TO ANY EXCAVATION.

2.) ALL METHODS AND MATERIALS OF CONSTRUCTION SHALL COMPLY WITH THE STANDARDS AND SPECIFICATIONS OF THE CITY OF BRISTOL.

3.) PROPERTY LINE AND TOPOGRAPHIC INFORMATION ARE BASED UPON A FIELD SURVEY CONDUCTED BY THE CITY OF BRISTOL DEPARTMENT OF PUBLIC WORKS.

4.) ELEVATIONS AS DEPICTED HEREON ARE BASED UPON NGVD OF 1929.

5.) THE CONTRACTOR SHALL PAY ALL UTILITY COMPANY FEES AND COORDINATE ALL WORK WITH AMERICAN TELEPHONE & TELEGRAPH (AT&T), AND OTHER UTILITIES AS REQUIRED. THE OWNER SHALL REIMBURSE THE CONTRACTOR FOR ALL FEES THAT ARE NOT COVERED UNDER A SEPARATE OWNER/UTILITY COMPANY AGREEMENTS.

6.) THE CONTRACTOR SHALL ARRANGE FOR RESETTING OF CURB BOXES, VALVE BOXES, AND REMOVAL AND/OR RELOCATION OF UTILITY POLES AND OVERHEAD WIRES WITH THE APPROPRIATE UTILITY COMPANIES.

7.) THE CONTRACTOR SHALL EMPLOY ALL NECESSARY MEANS TO CONTROL AND PREVENT WATER POLLUTION AND EROSION, THROUGH THE USE OF SILTATION FENCES, HAYBALES, AND RELATED MEASURES, AS DEPICTED IN THESE CONTRACT DOCUMENTS AND AS ORDERED BY THE ENGINEER.

8.) THE CONTRACTOR SHALL EMPLOY ALL NECESSARY BARRICADES, SIGNS, TRAFFIC CONES, TRAFFIMEN, ETC. FOR MAINTENANCE AND PROTECTION OF TRAFFIC AS REQUIRED BY THE CITY OF BRISTOL.

9.) THE CONTRACTOR SHALL PROTECT ALL MONUMENTS, IRON PINS AND PROPERTY CORNERS DURING CONSTRUCTION. THE CITY OF BRISTOL DEPARTMENT OF PUBLIC WORKS SHALL RESET ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION AND THE CONTRACTOR SHALL REIMBURSE THE CITY FOR THE TOTAL COSTS INCURRED.

10.) NO INTERRUPTION OF EXISTING UTILITIES SERVICING ADJACENT STRUCTURES SHALL OCCUR UNLESS AUTHORIZED IN WRITING BY THE ENGINEER. INTERRUPTIONS SHALL ONLY OCCUR AFTER APPROVAL IN WRITING FROM THE ENGINEER AND TEMPORARY SERVICES HAVE BEEN PROVIDED.

11.) ALL SITE DIMENSIONS DEPICTED ARE REFERENCED TO THE FACE OF CURB OR EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

12.) THE CONTRACTOR SHALL RESTORE ANY DAMAGED CURBS, PAVEMENT, STRUCTURES, SIDEWALKS, ETC., DAMAGED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER, AS DIRECTED BY THE ENGINEER.

13.) A STORM SEWER CONNECTION PERMIT OBTAINED FROM THE PUBLIC WORKS DEPARTMENT, WILL BE REQUIRED PRIOR TO CONNECTING THE PROPOSED DRAINAGE SYSTEM INTO THE CITY SYSTEM AND/OR INSTALLING STORM DRAINAGE WITHIN THE CITY R.O.W. THE CONTRACTOR MAKING THE STORM SEWER CONNECTION AND/OR INSTALLING STORM DRAINAGE WITHIN THE CITY R.O.W. SHALL NOTIFY THE CITY SEWER INSPECTOR 48 HOURS PRIOR TO ANY SUCH INSTALLATION AND/OR CONNECTION TO MAKE ARRANGEMENTS FOR AN INSPECTION OF THE STORM SEWER INSTALLATION. NO STORM SEWER SHALL BE BACK FILLED PRIOR TO AN INSPECTION OF THE COMPLETE PIPE INSTALLATION BY THE CITY SEWER INSPECTOR.

14.) A DRIVEWAY APRON AND/OR SIDEWALK PERMIT OBTAINED FROM THE PUBLIC WORKS DEPARTMENT, WILL BE REQUIRED PRIOR TO CONSTRUCTING ANY DRIVEWAY APRON AND/OR SIDEWALK WITHIN THE CITY R.O.W. THE CONTRACTOR CONSTRUCTION THE DRIVEWAY APRON AND/OR SIDEWALK WITHIN THE CITY R.O.W. SHALL NOTIFY THE CITY HIGHWAY INSPECTOR 48 HOURS PRIOR TO ANY SUCH CONSTRUCTION TO MAKE ARRANGEMENTS FOR AN INSPECTION OF ANY DRIVEWAY APRON AND/OR SIDEWALK INSTALLATION. NO CONCRETE (PORTLAND CEMENT AND/OR BITUMINOUS) SHALL BE PLACED PRIOR TO AN INSPECTION BY THE CITY HIGHWAY INSPECTOR.

15.) SEDIMENTATION AND SILTATION CONTROLS SHALL BE INSTALLED AS REQUIRED BY THE ENGINEERING DIVISION/IWEO.

16.) GRADING AROUND THE PROPOSED IMPROVEMENTS SHALL BE PERFORMED IN A MANNER WHICH PREVENTS ALL RUNOFF FROM BEING DIRECTED ONTO ADJACENT PROPERTIES; BOTH DURING AND AFTER CONSTRUCTION.

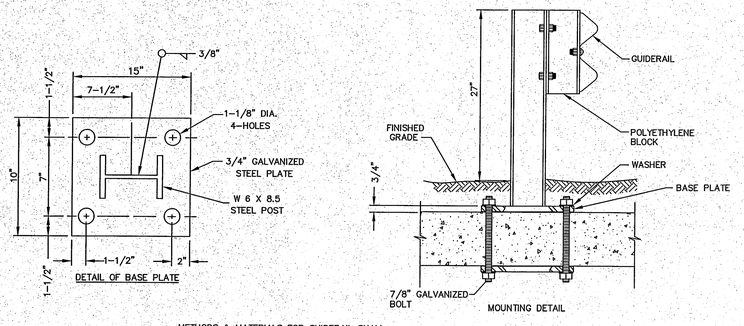
17.) STORM DRAINAGE PIPE SHALL BE CLASS IV REINFORCED CONCRETE PIPE, MEETING STANDARDS AND SPECIFICATIONS OF THE CITY OF BRISTOL.

18.) CATCH BASINS, MANHOLES, FRAMES, ETC. SHALL MEET THE REQUIREMENTS OF THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD DETAILS FOR CONSTRUCTION.

19.) PRECAST DRAINAGE STRUCTURES HAVE BEEN SPECIFIED ON THE PLANS. FIELD CONDITIONS AND DESIGN OFTEN DICTATE MINOR ELEVATION ADJUSTMENTS THAT MAY MAKE THE USE OF PRECAST STRUCTURES UNFEASIBLE. THE CONTRACTOR ASSUMES ALL RESPONSIBILITY AND EXPENSE FOR INSTALLING AND CONSTRUCTING THE DRAINAGE STRUCTURES AS DEPICTED ON THE PLANS.

20.) THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE ANY COST ASSOCIATED WITH DEWATERING THAT MAY BE NECESSARY TO CONSTRUCT THE PROJECT AS DEPICTED ON THE PLANS.

21.) FAILURE TO SPECIFICALLY MENTION WORK WHICH IS REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM SUCH WORK.



METHODS & MATERIALS FOR GUIDERAIL SHALL COMFORM TO CONN. D.O.T. STANDARDS.

D17 CONNECTION DETAIL
GUIDE RAIL POST TO CONCRETE BOX CULVERT
N.T.S.

ZONING DATA
Zone: (BD) Downtown Business Zone

Description	Required/Permitted	Provided
Minimum Lot Area (Sq. Ft.)-BD Zone	N/A	57,193 Sq. Ft.
Minimum Lot Width (BD Zone)	N/A	139.50'
Minimum Front Yard Parking Setback	30'	33'
Minimum Side Yard Parking Setback	5'	5'
Minimum Rear Yard Parking Setback	5'	94'
Maximum Building Coverage (%)	N/A	0%
Maximum Building Height (Stories/feet)	N/A	N/A
Parking Requirements: Use: Parking Facility	N/A	52 Spaces + 3 Bus Spaces



APPROVED

City of Bristol
Department of Public Works
111 North Main Street
Bristol, Connecticut 06010
Tel. 860-584-6125
Fax. 860-584-3838
ci.bristol.ct.us

PREPARED BY:

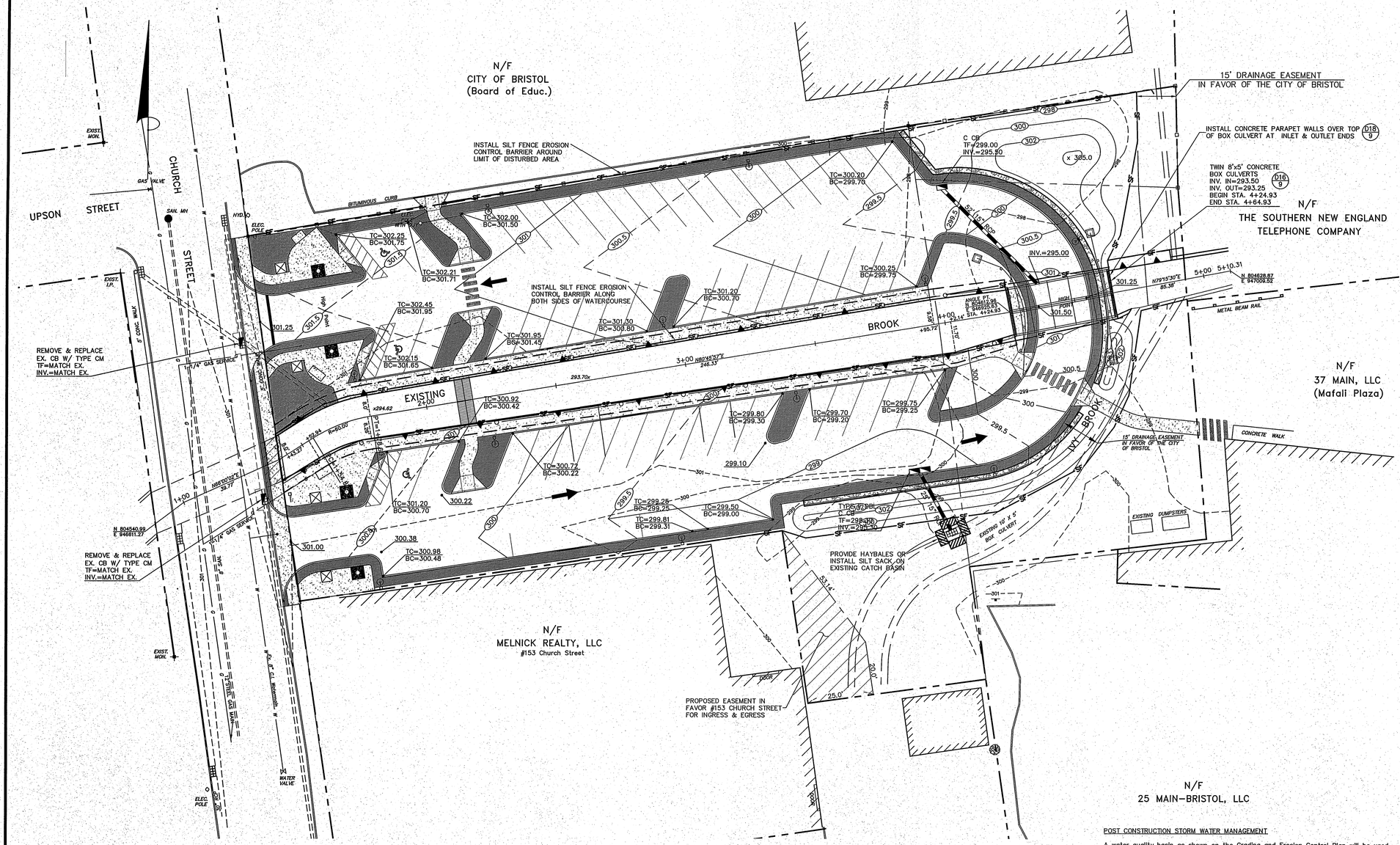
No.	DATE	COMMENTS:
1	9/14/2010	City Staff Comments
2	10/15/2010	City Staff Comments

DESIGN BY: DJC
DRAFTED BY: DB/DJC
CHECKED BY: RAR
SCALE: 1"=20'
DATE: 7/30/2010
CONTRACT No:

Site Remediation and Construction of Parking Facility
149 Church Street
Bristol Connecticut

Site, Layout & Utility Plan

DRAWING NUMBER:
4



1. All disturbed areas shall have erosion control provided in accordance with the "Connecticut Guidelines for Erosion and Sediment Control" and the Town. Erosion control measures are to be accomplished prior to any other construction on the site.
2. Temporary erosion control shall be directed toward and have the purpose of controlling soil erosion at its potential source. Downstream sediment entrapment measures (proposed channel and infiltration basins) shall be employed, but only as a backup to primary control at the source.
3. A continuing program of installation and maintenance of sediment control shall be employed during the construction period. The contractor shall inspect and maintain sediment control devices on a weekly basis and immediately after each rainfall event.
4. Temporary erosion control construction shall be employed until such time as permanent paving, planting, and restoration of natural areas is effective in control of erosion from the site.
5. Temporary silt fences shall be located at all points where surface water can leave the construction area. Silt fences shall be constructed to remove sediments from flowing water through filtration and sedimentation. Silt fences shall be arranged to create ponding behind them. Provisions shall be made for removing accumulated sediments and maintaining ponding capacity. Stockpiles shall be encircled with silt fence. Silt and unusable material shall be disposed of in area approved by owner's engineer. Contractor to contact engineer prior to placement.
6. Grading operations shall be scheduled so that the ground surface will be disturbed for the shortest possible time before permanent construction is installed. Large areas shall be maintained as flat as possible to minimize soil transport through surface flow. Wherever steeper slopes or abrupt changes in grade are required, a diversion ditch or berm shall be constructed at the top of the slope to cause the surface water to flow along the diversion to a control point to be transported downslope in a slope drain. In no case shall surface water be allowed to flow uncontrolled down slopes.
7. Concentrated storm runoff shall not be permitted to flow uncontrolled down unprotected slopes. Temporary slope drains shall be provided to convey surface water down slopes until the permanent drainage system is in place and permanent ground cover is established. Slope drains shall be provided with an apron at their tops to anchor them and properly direct water into them. Stone or hay bales shall be placed at slope drain outlets to prevent scour at these points.
8. As much of the permanent storm drainage system as is practicable shall be initially installed and surface water diverted into the system. The remainder of the storm drainage system shall be installed as soon as conditions will allow. Temporary sediment barriers shall be maintained around drainage structures until final subgrade preparation is begun.
9. All disturbed areas except those designated to receive pavement shall be grassed or covered with vegetative materials in accordance with the Landscape Plans. All grade break slopes shall be protected by application of ground cover or terracing until construction of permanent surfaces begins. Temporary ground cover may consist of any effective erosion preventative treatment such as straw or other mulches, stone base, plastic sheets, fiber mats, plantings, etc. All grassing or planting operations shall include mulching as stabilization until ground cover by planting is effective. Any stockpiled top soil, if left undisturbed for more than 30 days, shall be grassed.
10. At the time that permanent erosion control is effective, temporary devices and their accumulated sediments shall be removed.
11. Hazardous or pollutant materials shall be stored at least 25 feet from any wetland/watercourse or storm drainage inlet. Contractor's equipment when parked shall follow same criteria.
12. The schedule on interim stabilization is as follows: Immediately upon reaching final grades or work has temporarily been suspended for more than 30 days, hay shall be spread on all disturbed area to provide a uniform blanket of protection. Hay shall be removed only when conditions are appropriate for growing grass.

CONSTRUCTION SEQUENCE:

1. Install sedimentation and erosion control barriers.
2. Conduct demolition of existing features as required.
3. Remove existing retaining walls along watercourse.
4. Install proposed box culvert.
5. Install proposed retaining walls along watercourse.
6. Bring site to subgrade. Install granite curbing.
7. Install bituminous pavement binder course.
8. Final grade site. Establish vegetation. Install concrete sidewalks and other site improvements.
9. Install finish course of bituminous concrete.

POST CONSTRUCTION STORM WATER MANAGEMENT

A water quality basin as shown on the Grading and Erosion Control Plan will be used as a post construction filtering device to control pollutants and storm water discharges. Also, a grass swale along the easterly portion of the site shall be maintained to direct surface water into the detention/sedimentation pond.

Waste disposal: No litter, debris, building materials or similar materials are to be discharged into the waters of the State. Also, offsite vehicle tracking of sediment and generation of dust shall be minimized.

INSPECTION

Qualified personnel (provided by the developer) shall inspect disturbed areas of the construction activity that have not been finally stabilized, structural control measures, and locations where vehicles enter or exit the site at least once every seven calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater. Where sites have been temporarily or finally stabilized, structural control measures, and locations where vehicles enter or exit the site at least once every seven calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater. Where sites have been temporarily or finally stabilized, such inspection shall be conducted at least once every month for three months.

1. Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are assessable, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off–site sediment tracking.
2. Based on the results of the inspection, the description of potential sources and pollution prevention measures identified in the plan shall be revised as appropriate as soon as practicable after such inspection. Such modification shall provide for timely implementation of any changes to the plan within 7 calendar days following he inspection.

APPROVED

PREPARED BY:

City of Bristol
Department of Public Works
111 North Main Street
Bristol, Connecticut 06010
Tel. 860-584-6125
Fax. 860-584-3838
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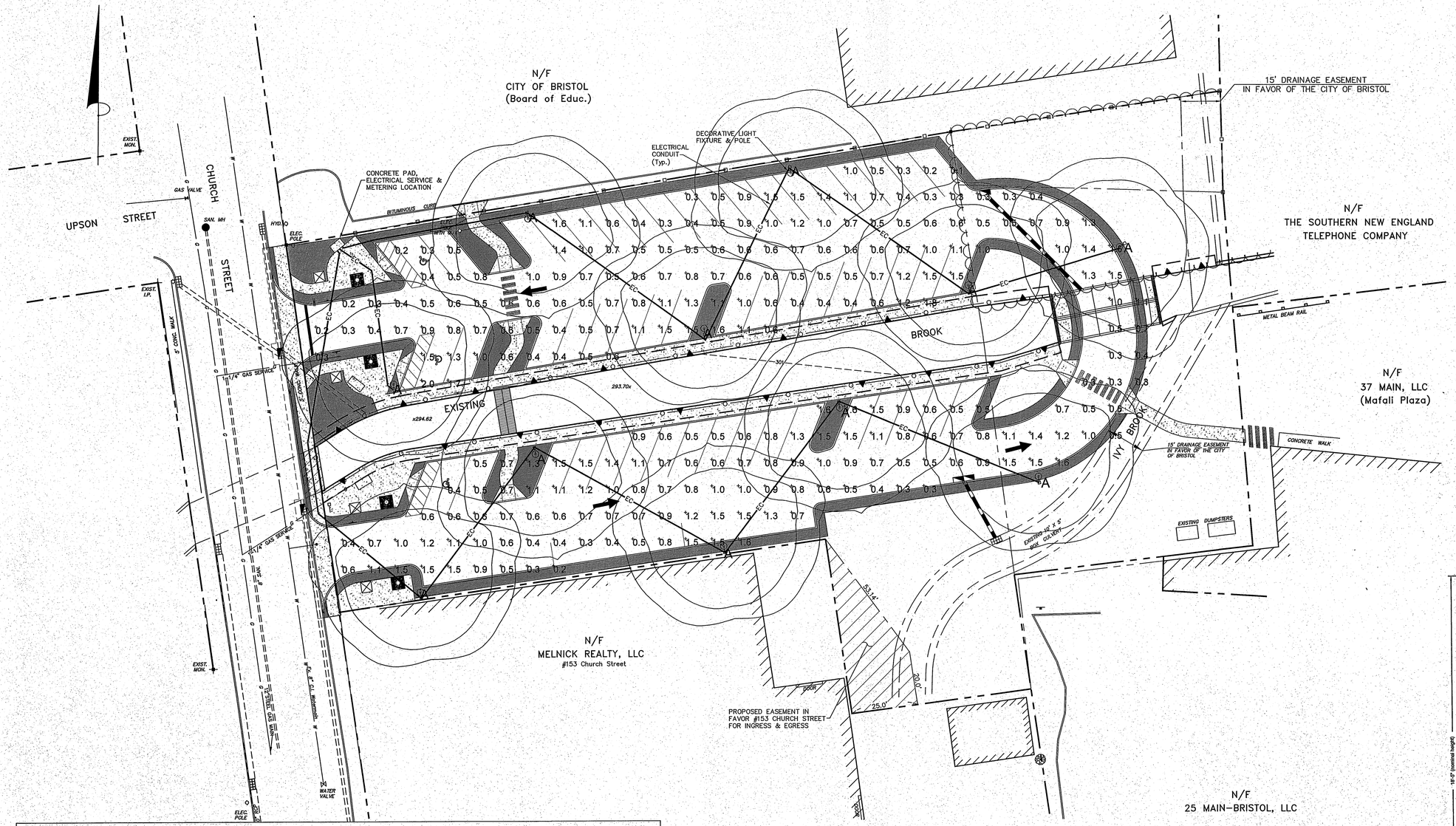
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DRAFTED BY:	DB/DJC	DATE:	7/30/2010
CHECKED BY:	RAR	CONTRACT No:	

Site Remediation and Construction of Parking Facility
149 Church Street Bristol Connecticut

Grading & Erosion Control Plan

DRAWING NUMBER:

5



STATISTICS

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Parking & Drive	+	0.8 fc	2.0 fc	0.1 fc	20.0:1	8.0:1

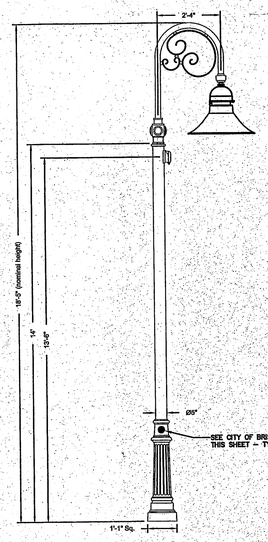
LUMINAIRE SCHEDULE

Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
	A	11	GP10DMH000XS1 AN	GLASWERKS II PRAGUE	100W CLEAR PULSE PROTECTED MH	105642.IES	9000	0.72	130

NOTES

1. Fixture mounting height at 14'6"
2. All calculations shown are maintained after 4000hr burn in period.

CITY OF BRISTOL
LOGO DETAIL



FIXTURE TYPE 'A' DETAIL

APPROVED

PREPARED BY:

City of Bristol
Department of Public Works
111 North Main Street
Bristol, Connecticut 06010
Tel. 860-584-6125
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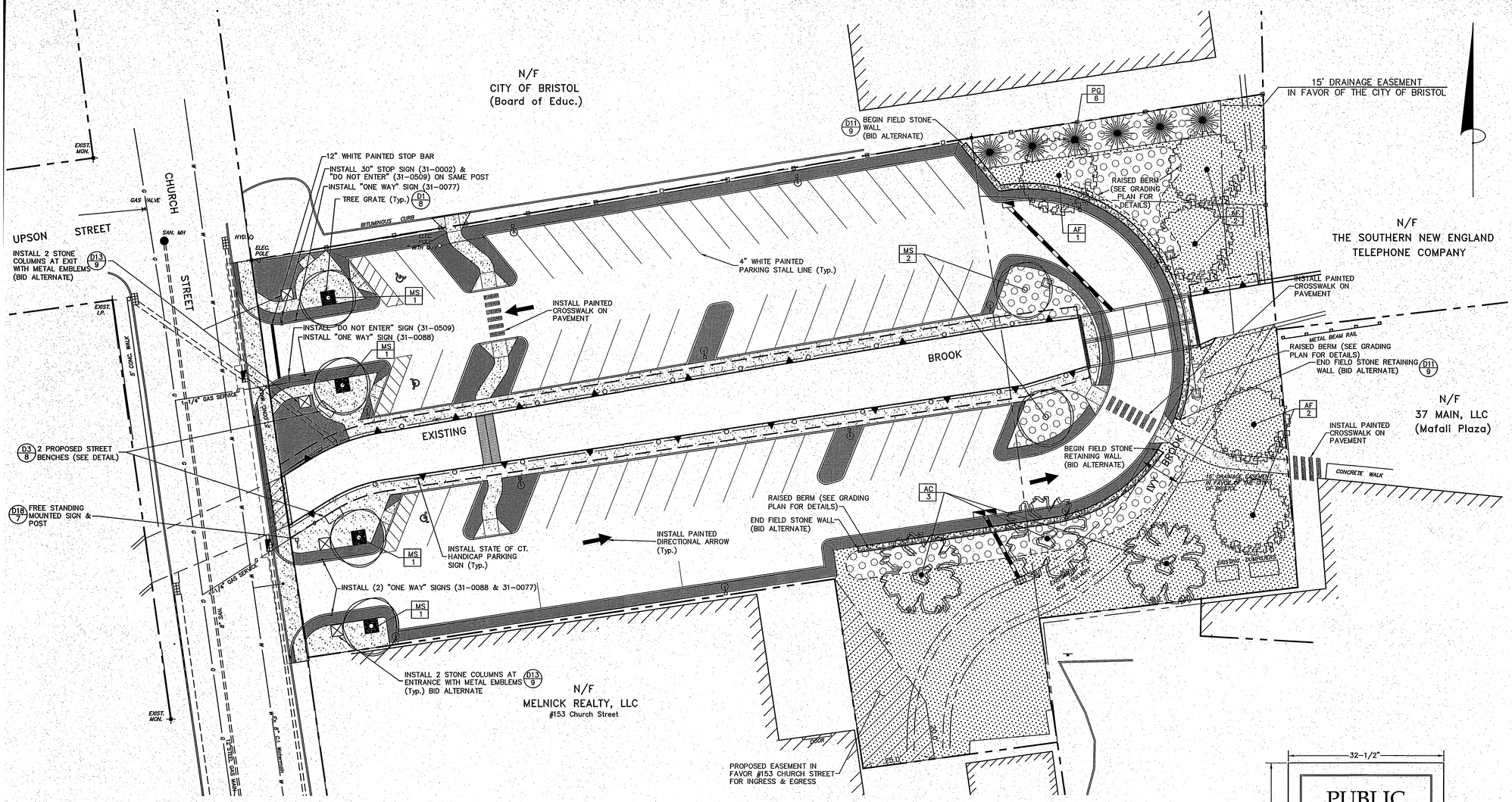
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CONTRACT No:

Site Remediation and Construction of Parking Facility
149 Church Street Bristol Connecticut

Lighting Plan

DRAWING NUMBER:
6



LANDSCAPE NOTES:

1.) THE CONTRACTOR SHALL GUARANTEE THAT ALL PLANTS, TREES, AND SHRUBS SHALL BE HEALTHY AND FREE OF DISEASE FOR A PERIOD OF TWO YEARS AFTER INSTALLATION. CONTRACTOR SHALL REPLACE ANY DEAD OR DISEASED PLANTS AT THE CONTRACTOR'S EXPENSE.

2.) THE CONTRACTOR SHALL SUPPLY ALL MATERIALS, PLANTS, AND LABOR NECESSARY TO COMPLETE THE WORK DEPICTED ON THE DRAWINGS AND LISTED IN THE PLANT SCHEDULE. IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN IN THE PLANT SCHEDULE AND THOSE REQUIRED BY THE DRAWINGS, THE LARGER SHALL APPLY.

3.) THE LOCATIONS FOR PLANT MATERIAL SHALL BE CONSIDERED APPROXIMATE AND ARE SUBJECT TO FIELD ADJUSTMENT DUE TO SLOPE, VEGETATION, AND SITE FACTORS SUCH AS ROCK OUTCROPS, ETC. PRIOR TO PLANTING THE CONTRACTOR SHALL GET APPROVAL FROM THE OWNER FOR ANY ADJUSTMENTS OF THE PLANT MATERIALS AND OR LOCATIONS.

4.) LANDSCAPE PLANTING PITS MUST BE FREE DRAINING. PAVEMENT, COMPACTED SUBGRADE, AND BLASTED ROCK SHALL BE REMOVED FROM WITHIN ISLANDS TO BE LANDSCAPED TO A DEPTH OF 2' OR A GREATER DEPTH IF REQUIRED BY PLANTING DETAILS OR SPECIFICATIONS. REPLACE SOIL WITHIN ISLANDS WITH LOAM OR SANDY LOAM FREE OF RUBBISH AND STONES GREATER THAN 1" IN DIAMETER AND ANY OTHER MATERIAL HARMFUL TO PLANT GROWTH AND DEVELOPMENT.

5.) ALL SLOPES GREATER THAN 3:1 RECEIVING A GRASS SEEDING MIXTURE SHALL BE COVERED WITH AN EROSION CONTROL BLANKET.

6.) UNLESS NOTED OTHERWISE, ALL DISTURBED AREAS NOT COVERED BY OTHER SITE IMPROVEMENTS SHALL BE RECEIVE A MINIMUM OF 6" OF TOPSOIL AND TURF ESTABLISHED.

7.) ALL PLANTING BEDS SHALL BE MULCHED WITH 3" OF SHREDDED BARK OVER A WEED BARRIER.

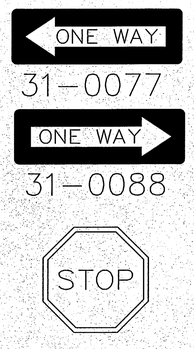
8.) PLANT MATERIALS AND THEIR INSTALLATION SHALL BE IN ACCORDANCE WITH THE CONNECTICUT LANDSCAPE CONTRACTORS ASSOCIATION STANDARDS.

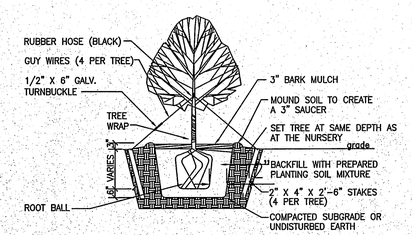
9.) PARKING SPACES SHALL BE STRIPED WITH 4" SINGLE WHITE LINES. PAINTED STOP BARS SHALL BE 12" SINGLE WHITE LINES. HATCHING AREA FOR HANDICAPPED SPACES SHALL BE 4" SINGLE WHITE LINES AT A 45-DEGREE ANGLE, 2' ON CENTER.

10.) WILDFLOWER SEED MIX SHALL BE A MIX CONSISTING OF ONLY NATIVE PLANTS SUITED FOR THE NORTHEAST REGION. APPLICATION RATE SHALL BE 20 lbs./ACRE.

11.) PAVEMENT MARKINGS SHALL BE EPOXY IN ACCORDANCE WITH CONNECTICUT D.O.T. SPECIFICATIONS.

12.) SIGN DIMENSIONS, COLORS, SIZES, HEIGHTS, AND INSTALLATION DETAILS SHALL BE IN ACCORDANCE WITH THE STATE TRAFFIC COMMISSION STANDARDS AND THE "MANUAL OF TRAFFIC CONTROL DEVICES."

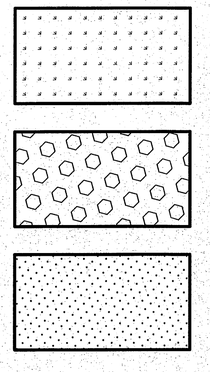




TREE PLANTING DETAIL
NTS

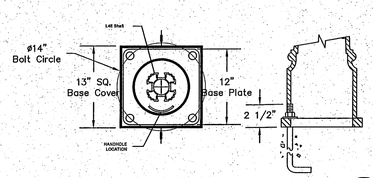
R7 - SERIES				
HANDICAPPED PARKING STATE PERMIT REQUIRED	BACKGROUND BLUE LEGEND WHITE (NO ARROW) (P)			
	SIZE (INCHES)	CONN D.O.T. #	SUPPORTS	ALUM THK
(I L)	12x21	31-0629	1	080

HANDICAPPED SIGN

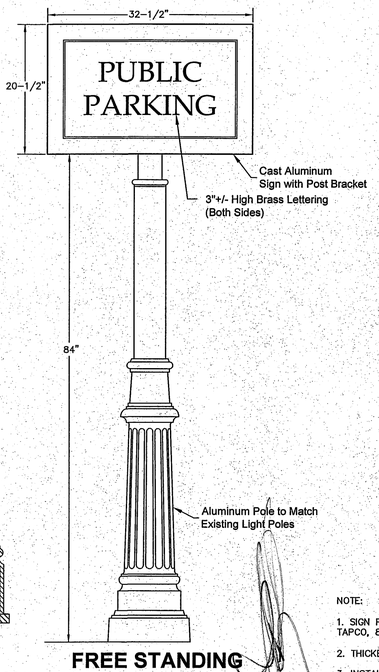


PLANT SCHEDULE

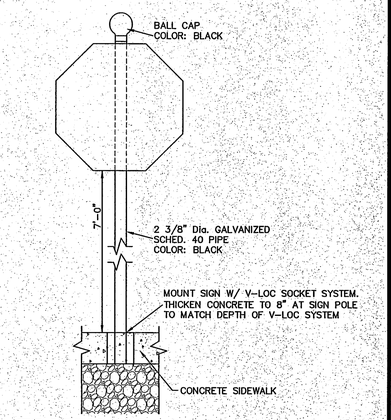
SYMBOL	LATIN NAME	COMMON NAME	SIZE	QTY	NOTES
EVERGREEN TREES					
PG	PICEA GLAUCA	WHITE SPRUCE	5-6'	6	B&B
DECIDUOUS TREES					
AC	AMELANCHIAR CANADENSIS	SHADBLOW	5-6'	3	B&B
AF	ACER x FREEMANII 'AUTUMN FANTASY'	AUTUMN FANTASY MAPLE	5-6'	5	B&B
MS	MALUS 'VELVET PILLAR'	VELVET PILLAR FLOWERING CRABAPPLE	2 1/2"-3" CAL.	6	B&B



POST ANCHOR DETAIL
N.T.S.



D18 FREE STANDING MOUNTED SIGN & POST
N.T.S.



TRAFFIC SIGN POST
N.T.S.

APPROVED

NOTE:

1. SIGN POST SHALL BE MOUNTED WITH A V-LOC SOCKET SYSTEM MODEL 23-VRI MF'D. BY TAPCO, 800 WALL ST. ELM GROVE, WI 53122, WWW.TAPCONET.COM
2. THICKEN CONC. SIDEWALK TO 8" AT SIGN POST TO ACCOMODATE THE V-LOC SYSTEM.
3. INSTALL THE V-LOC SYSTEM PLUMB & LEVEL & DO NOT MATCH THE SIDEWALK PITCH.
4. USE THIS SIGN POST FOR ALL TRAFFIC SIGNS & HANDICAP PARKING SIGNS.

City of Bristol
Department of Public Works
111 North Main Street
Bristol, Connecticut 06010
Tel. 860-584-6125
Fax 860-584-3838

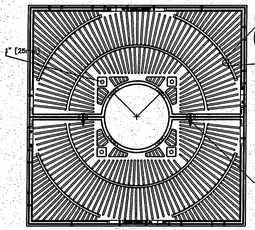
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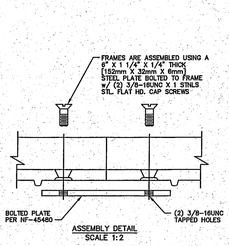
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149 Church Street
Bristol Connecticut

DRAWING NUMBER
7





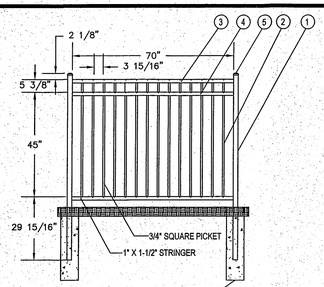
ASSEMBLY DETAIL
SCALE 1:2

D1 TREE GRATE DETAIL

NOTE: ALL DIMENSIONS SHOWN ARE IN ENGLISH AND [METRIC] CONFORMANCE: DESIGNED AND MANUFACTURED TO ASTM A-536-84 GRADE 60-40-18 DUCTILE IRON, AASHTO M306-97 LOAD RATING: H-20 FINISH: NO PAINT WEIGHT: FRAME 25# EACH, GRATE23.5# EACH

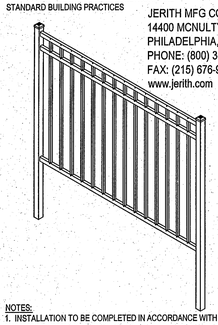
DR. KMH	SCALE 1"=1'-0"	TITLE R-8714-A	
CK.		60" x 60" TREE GRATE AND FRAME	
APP.	DW. DW.	NEENAH FOUNDRY COMPANY	NF- 8714 115 B
DATE 11-22-99			

CAD DWG. REF: 8714115.DWG-



ALL POSTS TYPICALLY INSTALLED IN CONCRETE IN ACCORDANCE WITH LOCAL CONDITIONS AND STANDARD BUILDING PRACTICES

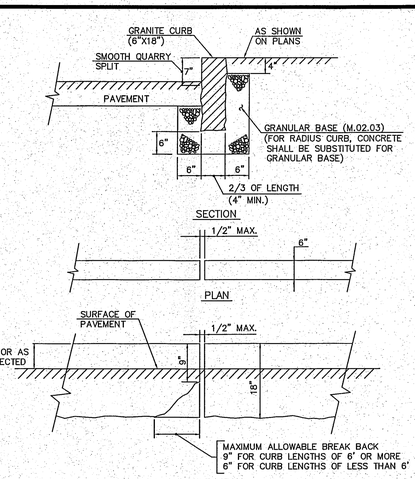
JERITH MFG CO., INC.
14400 MCNULTY ROAD
PHILADELPHIA, PA 19154
PHONE: (800) 344-2242
FAX: (215) 676-9756
www.jerith.com



NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. ALL DIMENSIONS ARE CONSIDERED TRUE AND REFLECT MANUFACTURER'S SPECIFICATIONS.

D4 WINDSOR FENCE

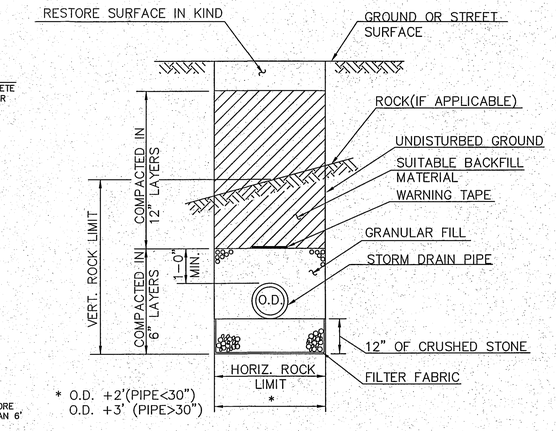
54" HEIGHT



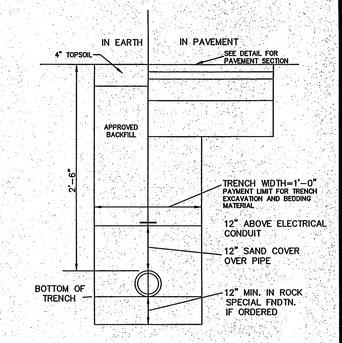
NOTE: GRANITE CURBING TO BE INSTALLED ALONG CHURCH STREET SHALL INCLUDE COST FOR SAW CUTTING BACK OF CURB TO FACILITATE INSTALLATION OF BRICK PAVERS.

D7 GRANITE STONE CURBING

(BID ALTERNATE)

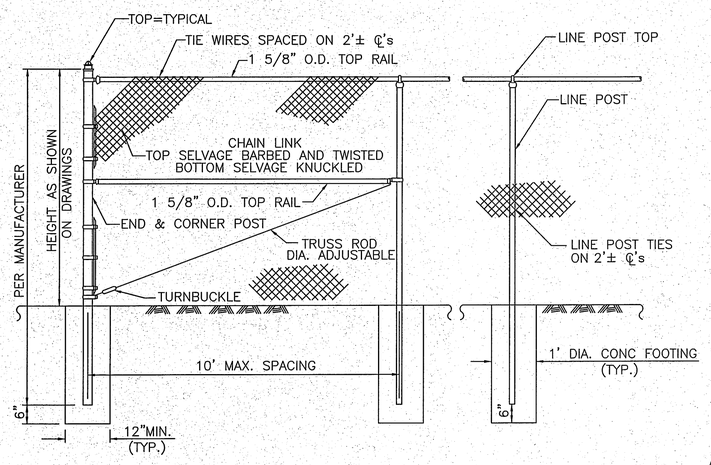


* O.D. +2'(PIPE<30")
O.D. +3' (PIPE>30")

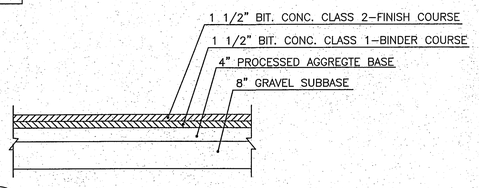


ELECTRICAL TRENCH DETAIL

N.T.S.

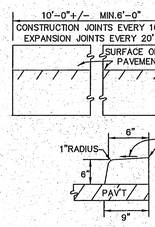


D2 CHAIN LINK FENCE



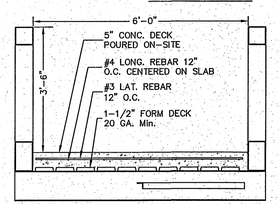
D5 PAVEMENT SECTION

(PARKING)



D7 EXTRUDED CONCRETE CURB

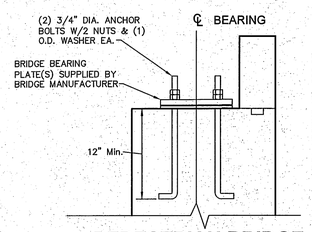
N.T.S.



PEDESTRIAN BRIDGE

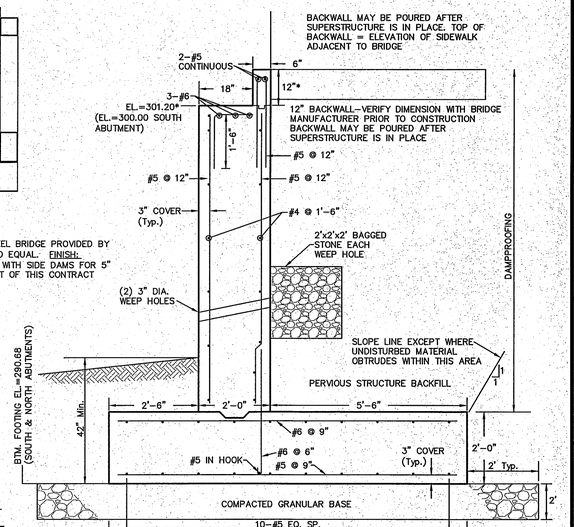
N.T.S.

PEDESTRIAN BRIDGE SHALL BE 20'x6' PRATT TRUSS TUBULAR STEEL BRIDGE PROVIDED BY EXCEL BRIDGE MANUFACTURING Co. (800)548-0054 OR APPROVED EQUAL. FINISH: PAINTED STEEL. COLOR: BLACK. DECK: GALVANIZED FORM PAN WITH SIDE DAMS FOR 5" CONCRETE WALK TO BE INSTALLED BY SITE CONTRACTOR AS PART OF THIS CONTRACT



PEDESTRIAN BRIDGE ANCHOR BOLTS

N.T.S.

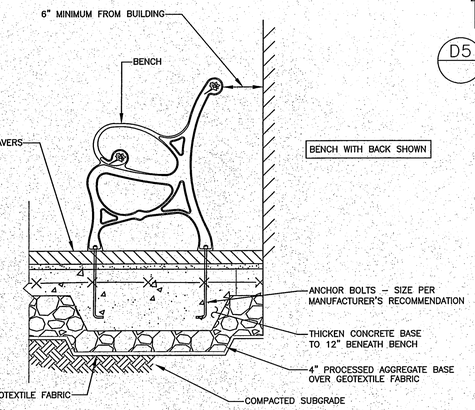


*CONTRACTOR SHALL BE RESPONSIBLE TO MODIFY BRIDGE ABUTMENT(S) BEARING PLATE ELEVATION(S) & BOTTOM OF FOOTING ELEVATIONS TO MATCH FINAL BRIDGE SHOP DRAWINGS & FIELD CONDITIONS.

SOUTHERLY ABUTMENT SHALL BE CONSTRUCTED THE SAME AS NORTHERLY ABUTMENT EXCEPT FOR BOTTOM OF FOOTING & BEARING PLATE ELEVATIONS AS NOTED.

NORTH PEDESTRIAN BRIDGE ABUTMENT

N.T.S.



NOTE:
1. BENCH (WITH BACK) SHALL BE TIMBERFORM RESTORATION SERIES MODEL NO. 2118-8 EIGHT FEET LONG MANUFACTURED BY COLUMBIA CASCADE.

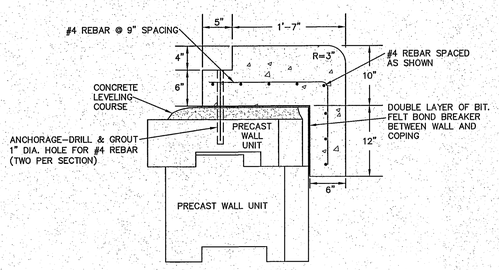
D3 STREET BENCH

N.T.S.

RETAINING WALL NOTES:

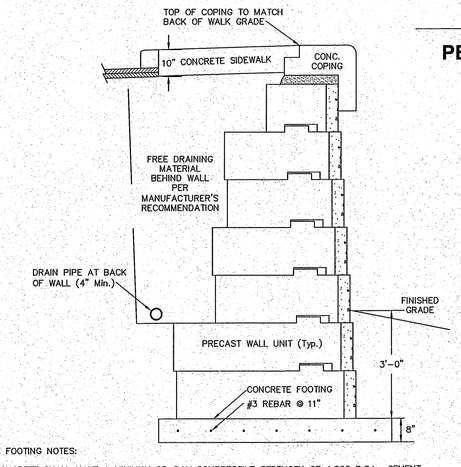
1. PRECAST CONCRETE WALL UNITS SHALL BE RECON 50 SERIES, NORTH SHORE GRANITE TEXTURE BY RECON RETAINING WALL SYSTEMS OR ACCEPTABLE EQUAL. RECON RETAINING WALL SYSTEM AVAILABLE FROM ATLAS CONCRETE PRODUCTS, 65 BURRITT STREET, NEW BRITAIN, CT 06053.

2. A SIX FOOT BAND OF CONCRETE SIDEWALK BEHIND RETAINING WALLS SHALL BE 10" THICK.



D6 CONCRETE COPING DETAIL

NOT TO SCALE



CONCRETE FOOTING NOTES:

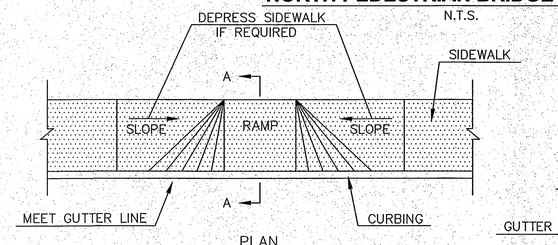
1. ALL CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 P.S.I. CEMENT USED SHALL BE CLASS F AND MEET THE REQUIREMENTS OF CONNDOT FORM 816 M.03.01.

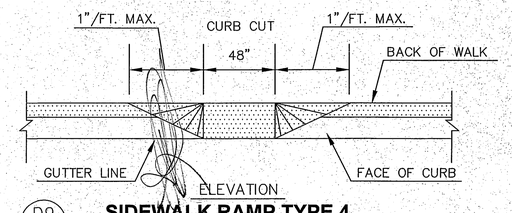
2. REINFORCING SHALL MEET THE REQUIREMENTS OF ASTM A-615M GRADE 60 DEFORMED STEEL BARS FOR CONCRETE REINFORCING. ALL BARS SHALL BE BENT COLD. UNLESS NOTED OTHERWISE NOTED, REINFORCING SPLICE LENGTHS SHALL BE 15" FOR #3 BARS.

DISCLAIMER:
These typical details are preliminary and conceptual in nature. They are provided for general information purposes only. Prior to construction the contractor shall submit a shop drawing of the proposed retaining wall system for approval. The shop drawing shall be a site specific design performed by a licensed Professional Engineer who is familiar with the actual site conditions, materials, and local practices.

D6 BLOCK RETAINING WALL

NOT TO SCALE





D9 SIDEWALK RAMP TYPE 4

APPROVED

PREPARED BY:

City of Bristol
Department of Public Works
111 North Main Street
Bristol, Connecticut 06010
Tel. 860-584-6125
Fax 860-584-3838
ci.bristol.ct.us

No.	DATE	COMMENTS:
1	9/14/2010	City Staff Comments
2	10/15/2010	City Staff Comments

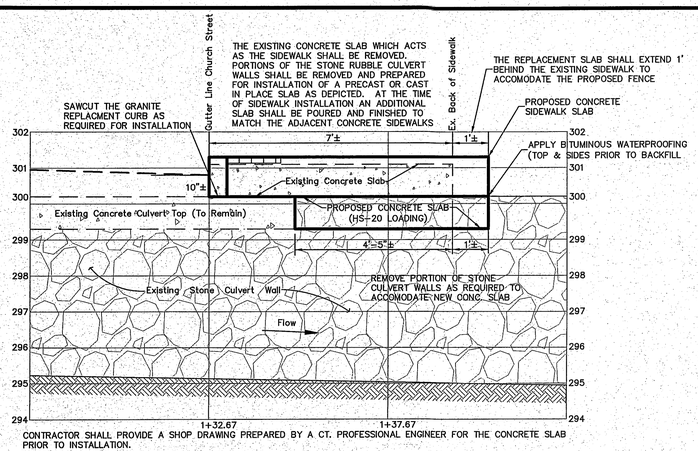
DESIGN BY: DJC
DRAFTED BY: DB/DJC
CHECKED BY: RAR
SCALE: 1"=20'
DATE: 7/30/2010
CONTRACT No:

Site Remediation and Construction of Parking Facility
149 Church Street Bristol Connecticut

Miscellaneous Construction Details

DRAWING NUMBER:

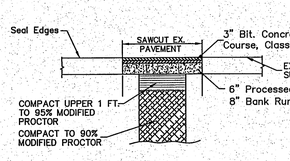
8



CONTRACTOR SHALL PROVIDE A SHOP DRAWING PREPARED BY A CT. PROFESSIONAL ENGINEER FOR THE CONCRETE SLAB PRIOR TO INSTALLATION.

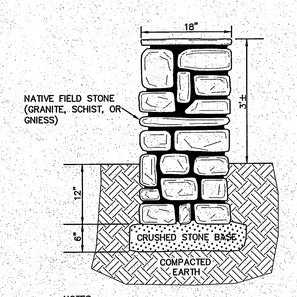
D10 CONCRETE SLAB REPLACEMENT OVER CULVERT DETAIL

N.T.S.



TYPICAL PAVEMENT CUT & REPAIR

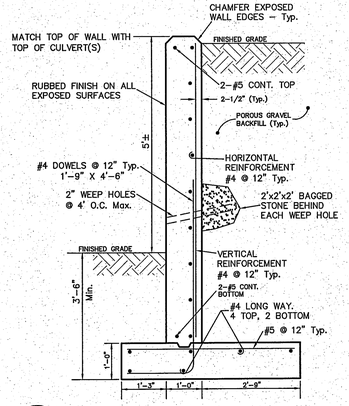
N.T.S.



NOTES:
1. CAP SHALL BE A Min. OF 3" THICK.
2. ALL MORTAR JOINTS SHALL BE DEEPLY RAKED TO AVOID MORTAR BEING EXPOSED ALONG ANY WALL FACE.
3. USE NATIVE FIELD STONE FOR EXPOSED FACE STONES.

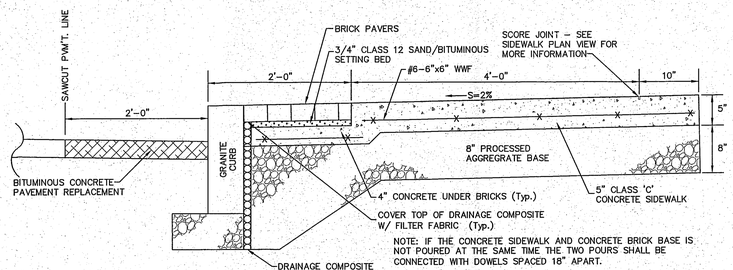
D11 FIELD STONE WALL

N.T.S. (BID ALTERNATE)



D15 CONCRETE TRANSITION WALL

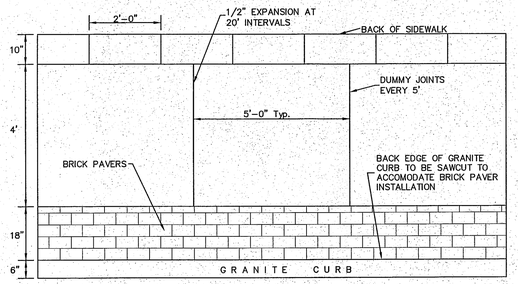
Scale: 1"=2'



NOTE: IF THE CONCRETE SIDEWALK AND CONCRETE BRICK BASE IS NOT POURED AT THE SAME TIME THE TWO POURS SHALL BE CONNECTED WITH DOWELS SPACED 18" APART.

SECTION

N.T.S.

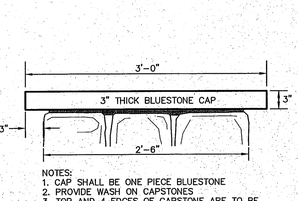


PLAN

N.T.S.

D14 CHURCH STREET SIDEWALK REPLACEMENT

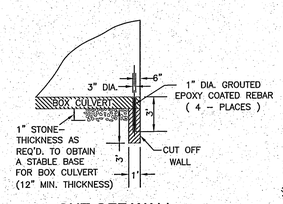
N.T.S.



NOTES:
1. CAP SHALL BE ONE PIECE BLUESTONE
2. PROVIDE WASH ON CAPSTONES
3. TOP AND 4 EDGES OF CAPSTONE ARE TO BE THERMAL FINISHED
4. MORTAR CAPSTONE IN PLACE

STONE COLUMN CAP

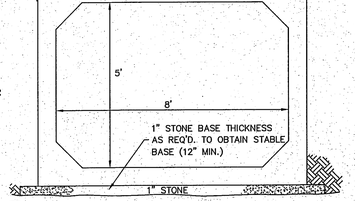
N.T.S.



NOT TO SCALE

CUT OFF WALL

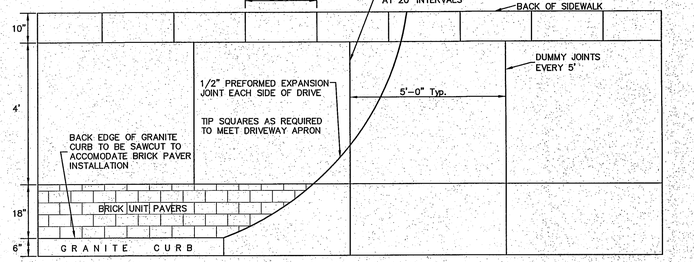
NOT TO SCALE



D16 TYPICAL CULVERT SECTION

NOT TO SCALE

NOTES:
1. DESIGN BOX SECTIONS FOR LESS THAN 2 FEET OF COVER IN ACCORDANCE WITH ASTM C1433 (AASHTO M273)
2. INSTALL CUT OFF WALLS AT THE INLET AND OUTLET OF THE PROPOSED CULVERT

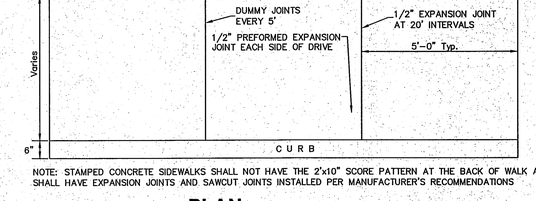


PLAN

N.T.S.

D12 CHURCH STREET SIDEWALK REPLACEMENT AT DRIVEWAY

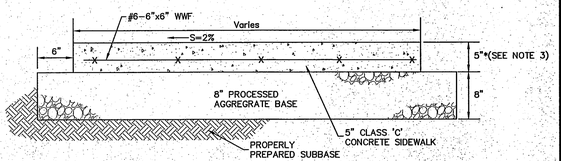
N.T.S.



NOTE: STAMPED CONCRETE SIDEWALKS SHALL NOT HAVE THE 2'x10" SCORE PATTERN AT THE BACK OF WALK AND SHALL HAVE EXPANSION JOINTS AND SAWCUT JOINTS INSTALLED PER MANUFACTURER'S RECOMMENDATIONS

PLAN

N.T.S.



SECTION

N.T.S.

D8 INTERIOR SIDEWALK DETAILS

N.T.S.

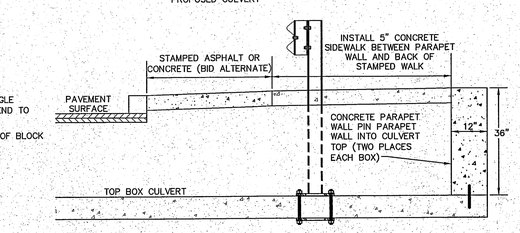
NOTE:
1. STAMPED CONCRETE PATTERN AND COLOR SHALL BE PATTERN: OFFSET BRICK, COLOR: TERRACOTTA. SHOP DRAWING SHALL BE SUBMITTED OF BOTH PATTERN & COLOR FOR APPROVAL PRIOR TO SIDEWALK INSTALLATION.

2. CONCRETE SIDEWALKS NOT STAMPED & COLORED SHALL BE BROOM FINISHED AND WINDOW PANED.

3. A SIX FOOT BAND OF CONCRETE SIDEWALK BEHIND THE MODULAR RETAINING WALL ALONG THE RIVER SHALL BE 10" THICK

SECTION

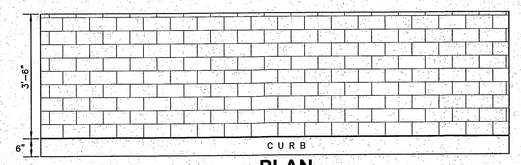
N.T.S.



NOTES:
1. PARAPET WALL SHALL BE CAST IN PLACE OR PRE-CAST CONCRETE.
2. CONTRACTOR SHALL PROVIDE SHOP DRAWING OF PARAPET WALL FOR APPROVAL PRIOR TO INSTALLATION.

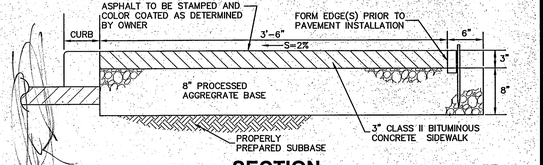
D18 CONCRETE PARAPET WALL

N.T.S.



PLAN

N.T.S.



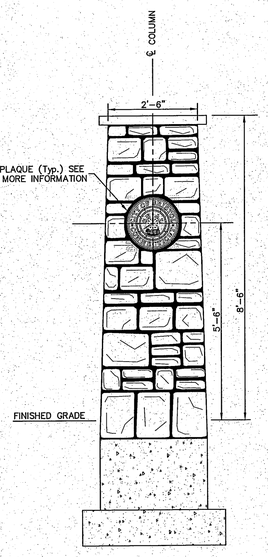
SECTION

N.T.S.

D8 STAMPED ASPHALT DETAILS

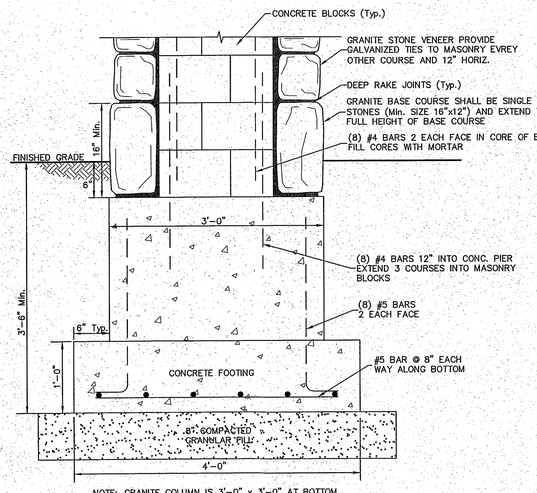
N.T.S.

APPROVED



D13 STONE COLUMN

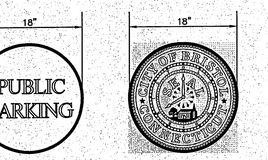
N.T.S. (BID ALTERNATE)



NOTE: GRANITE COLUMN IS 3'–0" x 3'–0" AT BOTTOM AND 2'–6" x 2'–6" AT TOP

D13 STONE COLUMN

N.T.S. (BID ALTERNATE)



FONT: TIMES ROMAN

BRONZE PLAQUE DETAIL

N.T.S.

NOTES:
1. PLAQUES SHALL BE INSTALLED ON BOTH ENTRANCE & EXIT DRIVE STONE COLUMNS FACING THE STREET. CITY SEAL SHALL BE INSTALLED ON NORTHERLY COLUMNS. "PUBLIC PARKING" PLAQUE SHALL BE INSTALLED ON SOUTHERLY COLUMNS.

2. PLAQUES SHALL BE CAST BRONZE WITH PEBBLE FINISH FROM ARCHITECTURAL BRONZE ALUMINUM CORPORATION. 1-800-339-6581 OR APPROVED EQUAL.

3. CONTRACTOR SHALL PROVIDE A SHOP DRAWING OF PROPOSED CASTING FROM THE MANUFACTURER FOR APPROVAL BY THE ENGINEER PRIOR TO CASTING.

PREPARED BY:

City of Bristol
Department of Public Works
111 North Main Street
Bristol, Connecticut 06010
Tel. 860-584-6125
Fax. 860-584-3838
ci.Bristol.ct.us

No.	DATE	COMMENTS:
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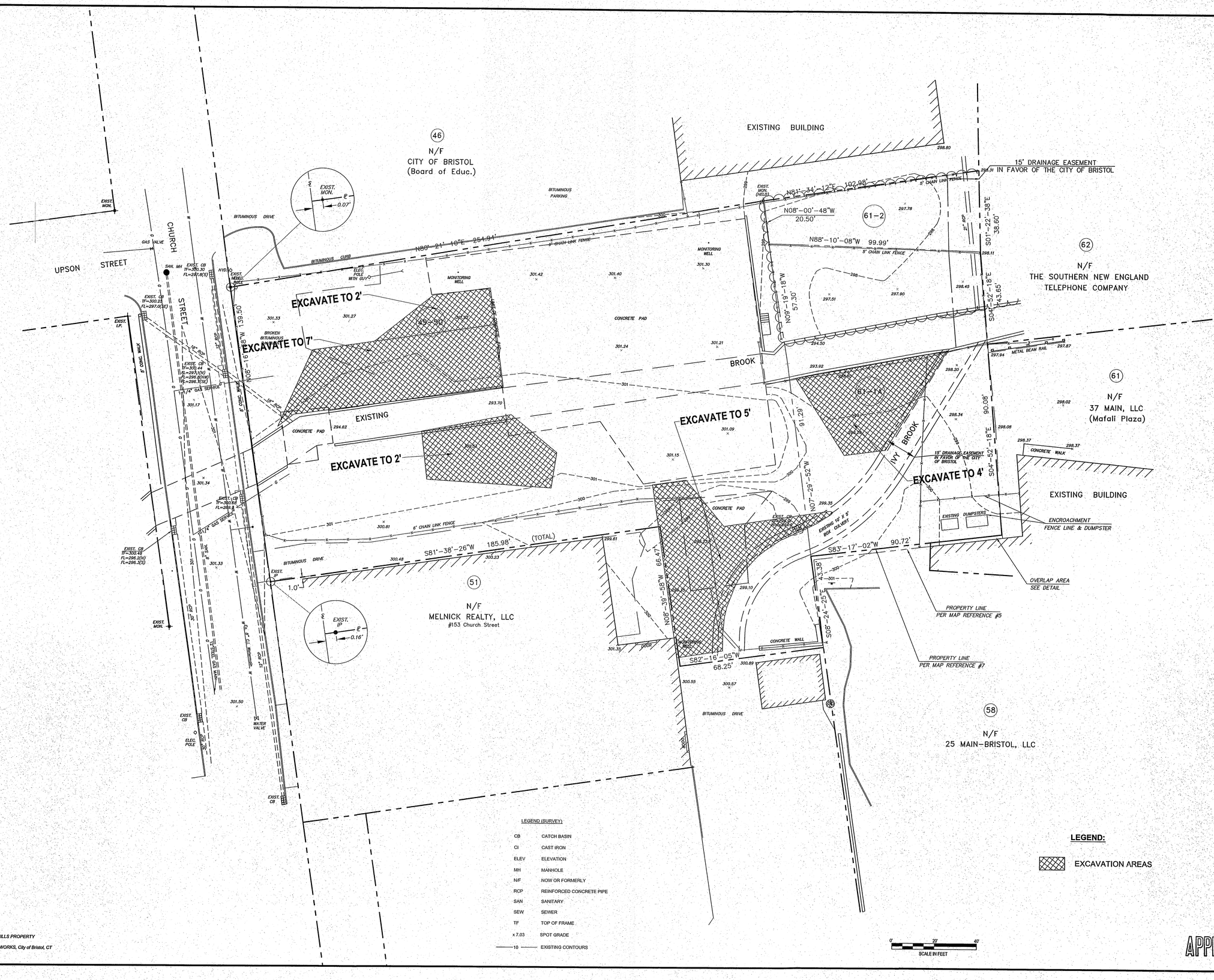
DESIGN BY: DJC
DRAFTED BY: DB/DJC
CHECKED BY: RAR
SCALE: 1"=20'
DATE: 7/30/2010
CONTRACT No:

Site Remediation and Construction of Parking Facility
149 Church Street Bristol Connecticut

Miscellaneous Construction Details

DRAWING NUMBER:

9



LEGEND (SURVEY)

CB	CATCH BASIN
CI	CAST IRON
ELEV	ELEVATION
MH	MANHOLE
N/F	NOW OR FORMERLY
RCP	REINFORCED CONCRETE PIPE
SAN	SANITARY
SEW	SEWER
TF	TOP OF FRAME
x 7.03	SPOT GRADE
10	EXISTING CONTOURS

LEGEND:

EXCAVATION AREAS

APPROVED

SOURCE:
Based on Fig 2, *Existing Conditions Plan*
REHABILITATION OF THE FORMER H.J. MILLS PROPERTY
149 Church Street, Bristol, CT
Property of the DEPARTMENT OF PUBLIC WORKS, City of Bristol, CT
Jul 2010

©2011 AKRF, Inc. Environmental Consultants T:\Projects\91089 - HJ Mills (94-00284 Documents\Figures\91089 Remediation Excavation Areas_BB_Docx.dwg

AKRF
Environmental Consultants
700 Main Street Suite C, Willimantic, CT 06226

FORMER H.J. MILLS SITE
149-151 CHURCH STREET
BRISTOL, CT

REMEDIATION EXCAVATION AREAS

DATE
4.18.11

SCALE
as shown

PROJECT No.
91089

FIGURE
1

For Office Use Only	
APPLICATION NO.	2504
DATE FILED:	6/27/24
DECISION DATE:	
DECISION:	

BRISTOL ZONING COMMISSION
CITY OF BRISTOL, CONNECTICUT
APPLICATION FOR SPECIAL PERMIT

The undersigned Applicant hereby applies to the Bristol Zoning Commission for approval under Section(s) Article II, Section 4.2 of the Bristol Zoning Regulations for the following Special Permit use: Civic Facility

Address or Location of the Property: Maltby Street

Assessor's Map No.: 52 & 53 Assessor's Lot No.(s): 11, 15, 16B16A, 17, 145, 147, 149, 150, 151

Zone of the Property: R-40 Size of the Property (in acres or square feet): 303.7 acres (total)

Reason for the Special Permit: Replacement of White Bridge Waterworks Facilitie, including new pump station and wells.

See project narrative, ATTACHED.

Does this application involve an activity regulated by the Inland Wetlands Agency? [✓] yes [ ] no

If yes, has an application for a permit been submitted to the Inland Wetlands Agency? [✓] yes, on 12/26/2023 [ ] no

Other comments: Three applications were submitted to Inland Wetlands Agency (App# 2019, #2020, #23-458F-305)

Approval for all three applications received from Inlands Wetland Agency on June 3, 2024. SEE ATTACHED

NOTE: Section 8-3c(a) of the Connecticut General Statutes requires that, if an application for a Special Permit involves an activity regulated under the Inland Wetlands and Watercourses provisions of the statutes, the applicant shall submit an application for a wetlands permit to the local Inland Wetlands Agency no later than the day the Special Permit application is filed.

APPLICANT (If more than one, list on Page 2)

Name: New Britain Water Department, Ramon Esponda

Address: 1000 Shuttle Meadow Ave City: New Britain State: CT Zip: 06052

Telephone No.: (860) 826-3535 E-Mail: Ray.Esponda@newbritainct.gov

Signature: [signature] *Signature – (Printed/Typed)* Ramon Esponda

CHECK ONE: [✓] owner [ ] other (specify): _____

OWNER(S) OF RECORD (If other than Applicant; if more than one, list on Page 2)

Name: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ *Signature – (Printed/Typed)* _____

THIS APPLICATION MUST BE FILED IN PERSON NO LATER THAN 12 NOON ON THE DEADLINE DAY FOR APPLICATION SUBMISSION – NO EXCEPTIONS!

BZC – 08/17

For Office Use Only
APPLICATION NO. 2504

CITY OF BRISTOL, CONNECTICUT
SUPPLEMENTARY INFORMATION

Address or location of property: Maltby Street

ADDITIONAL INFORMATION/COMMENTS (click inside the box below and begin typing)

The White Bridge Waterworks Facilities Upper and Lower Wellfield Improvements Project is intended to bring this 100-year old drinking water facility up to modern standards so it can continue to be a viable drinking water source for the City of New Britain and surrounding communities. The project includes the replacement and restoration of the wellfields, demolition and removal of existing structures, and construction of new groundwater wells, a new pump house, and underground piping. It also includes the addition of water and sewer utilities in Maltby Street.

See the attached documents for more information.

ADDITIONAL APPLICANT

Name: _____ CHECK ONE: [ ] owner [ ] other: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

ADDITIONAL OWNER(S) OF RECORD

Name: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

Name: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

(OPTIONAL) SEND COPIES OF ALL CORRESPONDENCE TO:

Name: Vinta Varghese (CDM Smith)

Address: 101 East River Drive, Suite 1A City: East Hartford State: CT Zip: 06108

Telephone No.: Direct: 860-808-2325 E-Mail: vargheseva@cdmsmith.com

08/17 - LUO

Letter

May 16, 2024

Commissioner Katie Dykes
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

RE: "Log" letter consideration request – New Britain Water Dept. - Whitebridge registrations, Bristol CT

Good day, Commissioner Dykes:

This letter is written to request your immediate consideration of concerns regarding the New Britain Water Department upgrade project of the existing wellfields and surface water withdrawal systems, known as Whitebridge, located in Bristol CT. In addition to their other registered diversions within the state, the City of New Britain has 3 registered diversions in the City of Bristol, known as Whitebridge; North wellfield (2.16 MGD), South Wellfield (6.62 MGD), and Surface Water (Copper Mine/Polkville Brooks) (15 MGD)

- Fact: Bristol Water Department also has registered diversions, located near Whitebridge in the same Coppermine Brook watershed.
- Fact: New Britain historically operates the Whitebridge diversions at much much lower than the registration rates, currently approximately 1/5 to 1/7 of the registered rates. Based on the New Britain Water submittal information, DEEP issued a Negative Declaration of Diversion on February 21, 2024 for construction improvements at both wellfield locations for new wells of larger sizes with capacity increases to approximately match the registered diversion rates.
- Fact: The aquifer was assessed for Level A APA in a 2007 Study (Lenard). The study indicated "It was determined that the aquifer could not support the maximum registered diversion of the New Britain upper, lower and Bristol Mix Street wellfields". The study reassigned "agreed upon" reduced flow rates to simulate a safe yield for each of the wellfields. The surface water diversion was not assessed (Executive summary attached). The City of Bristol administers APA regulations based on the 2007 Level A study boundary.
- Fact: Coppermine Brook, the surface water immediately adjacent to Whitebridge is designated impaired for flow. Coppermine is listed in Connecticut Department of Energy and Environmental Protection's (DEEP) 2022 Integrated Water Quality Report to Congress under Nonpollutant Impairments (EPA Category 4c) for Flow Regime Modification.
- Fact: The City of Bristol Inland Wetlands Commission is currently reviewing the project applications for impact to wetlands and floodplain within the Coppermine Brook (Pequabuck River/Farmington River) watershed basins.

The watershed protection groups, Pequabuck River Watershed Association, Rivers Alliance of Connecticut and Farmington River Watershed Association, along with other concerned citizens, request CT DEEP further investigate the concerns related to this project:

- Due to the past study determination that the "aquifer could not support the maximum registered diversion of the New Britain upper, lower and Bristol Mix Street wellfields", the Aquifer Protection Area (APA) Level A boundary in Bristol was established based on "agreed

upon" flow rates which were much lower than the "grandfathered" registration rates. Based on inquiry to DEEP, New Britain Water has been operating in accordance with the (lowered) flow rates which established the APA. If New Britain Water is proposing a change which would increase the diversion operations over the Level A study rates, additional study is warranted, prior to construction, to establish safe levels of operation and potential changes to the regulated Level A boundary.

- New Britain is a good neighbor. Both the Bristol and New Britain Water Departments have a right and a responsibility to maintain and protect their water system sources. Watercourse / wetland / and aquifer natural system resources are vital components. The resources have limited capacity.
- Bristol Wetland Commission is currently reviewing the New Britain Whitebridge proposal. The diversion rate issue is central to the wetlands/watercourse review, yet the New Britain Water Department legal representative has instructed the Bristol Wetland Commission that the impacts relative to increases in the groundwater and surface water withdrawal operations, up to the registered diversion rates, cannot be considered in their decision. Our concern is that larger well construction and withdrawal operations will unreasonably impair water resources. The Bristol Inland Wetland Commission decision will be made at a May 22, 2024 “Special Meeting”.

Potential solutions to foreseeable “water wars” between municipalities for water use allocations within the Coppermine Brook (Pequabuck/Farmington) watershed can include:

- New Britain Water Department should update the Level A boundary study to reflect the registration rates, prior to any state agency construction approval. The Level A boundary should be modified, as necessary, for any increased flow rates in order to protect the resources. If, as past studies (Lenard 2007 and others) indicate the aquifer is unable to sustain the registration rates, the model should be updated, and reviewed/approved by DEEP for appropriate diversion allocations between the municipalities, including drought restriction protections, prior to construction.
- DEEP, potentially through adjudication, should intervene for a proposed plan of action to allocate resources and resource protection measures.

Your prompt reviews and actions are appreciated.

Sincerely,

Alicea Charamut, Executive Director, Rivers Alliance of Connecticut

Mary Rydingsward, Executive Director, Pequabuck River Watershed Association

Aimee Petras, Executive Director, Farmington River Watershed Association

cc: Graham J. Stevens, Bureau Chief, Water Protection and Land Resources
Brendan Schain, Esq., CT DEEP Shalyn Zappulla, CT DEEP
Chris Bellucci, CT DEEP Kim Czapla, CT DEEP
Raul Tejada, CT DPH Lori Mathieu, CT DPH
Jack Betkoski, III, Chair, Connecticut Water Planning Council
Roger Reynolds, Senior Legal Director, Save the Sound

CT DPH - Notification

From: Microsoft Power Apps and Power Automate <microsoft@powerapps.com>
Sent: Tuesday, July 2, 2024 3:34 PM
To: Ray.Esponda <Ray.Esponda@newbritainct.gov>; Gerlach, Kyle T. <gerlachkt@cdmsmith.com>
Subject: Acknowledgement of Submission to CTDPH

This email is being sent automatically to confirm the submission of a project notification form to the Connecticut Department of Public Health pursuant to Connecticut General Statutes Section 8-3i and/or 22a-42f.

A project notification form is required to be completed and submitted to the Department of Public Health when an application, petition, request or plan is located in a Drinking Water Source Watershed or Aquifer Protection Area.

Thank you for your submission. If you have any questions, please send an email to dph.sourceprotection@ct.gov.

Please enter the docket number/application ID for this application, petition, request or plan, if applicable:
App 2504 - Special Permit for Civic Facility

What municipal entity is this application, petition, request or plan being submitted to?["Zoning Commission"]

Is the location associated with the proposed application, petition, request or plan in a drinking water watershed?Yes

Is the location associated with the proposed application, petition, request or plan in an Aquifer Protection Area?
The White Bridge Waterworks Facilities Upper and Lower Wellfield Improvements Project is intended to bring this 100-year old drinking water facility up to modern standards so it can continue to be a viable drinking water source for the City of New Britain and surrounding communities. The project includes the replacement and restoration of the wellfields, demolition and removal of existing structures, and construction of new groundwater wells, a new pump house, and underground piping. It also includes the addition of water and sewer utilities in Maltby Street.

Does this application include a petition or proposal to change the regulations, boundaries or classifications of zoning districts?No

Please enter a brief description of the project or proposal:
The White Bridge Waterworks Facilities Upper and Lower Wellfield Improvements Project is intended to bring this 100-year old drinking water facility up to modern standards so it can continue to be a viable drinking water source for the City of New Britain and surrounding communities. The project includes the replacement and restoration of the wellfields, demolition and removal of existing structures, and construction of new groundwater wells, a new pump house, and underground piping. It also includes the addition of water and sewer utilities in Maltby Street.

Please enter the date of the application, petition, request or plan:
2024-06-27

What is the size of the area to be disturbed?
equal to or greater than 5 acres

Is any part of this project located within 50 feet of a wetland, stream, pond, lake or reservoir?Yes

What type of use is this application, petition, request or plan proposing?Institutional (school, hospital, nursing home, etc,)

How will this project be provided a potable water supply?Connection to existing public water supply

How will domestic waste be handled?
Sanitary Sewer (will be extended to project area as a result of project)

If the proposed project is 1) not located on single family residential property and 2) will utilize a new well for drinking water supply, a Public Water Supply (PWS) Screening Application should be submitted to the Department of Public Health. Was a PWS Screening Application submitted?Yes

Applicant Name:
New Britain Water Department - Ramon Esponda

Applicant email address:
Ray.Esponda@newbritainct.gov

Street address or intersection of application, petition, request or plan:
Maltby Street, Bristol CT

Enter Project Longitude/Latitude:
-72.916330
41.700721

Is there any other information relevant to the Department's review of this application, petition, request or plan? If so, please enter in the space below:
This project is receiving funding by the Department of Public Health and there has been much coordination and collaboration between the City of New Britain, the design team, and the Department. The Department has been kept updated throughout the progress of the project design and has already received site plans and other documentation.

If you would like a confirmation of this submission to be sent to the town, please enter the email address you would like it to be sent to in the field below:
gerlachkt@cdmsmith.com

From: Joseph Hammer [mailto:jhammer@mrglaw.com]
Sent: Wednesday, July 3, 2024 3:18 PM
To: Robert Flanagan <RobertFlanagan@bristolct.gov>; Nancy Levesque <NancyLevesque@bristolct.gov>; andrewarmstrong@bristolct.org
Cc: ray.esponda@newbritainct.gov; Sebastian Amenta - Comprehensive Environmental Inc. (samenta@ceiengineers.com) <samenta@ceiengineers.com>; Varghese, Vinta A. (vargheseva@cdmsmith.com) <vargheseva@cdmsmith.com>; Rachel Fancy <RFancy@mrglaw.com>
Subject: Bristol Zoning Commission - Applications #2504, #2505,# 2506; Applicant - City of New Britain, Water Department

Dear Mr. Flanagan,

Our firm represents the City of New Britain in connection with the above-referenced Special Permit and Site Plan applications which were submitted on June 27, 2024.

The applicant understands that due to the holidays and anticipated scheduling of public hearings by the Zoning Commission, the public hearing on the applications will likely be scheduled for September 16, 2024. The 65 day period to open the hearing, following receipt of the applications on July 8, will expire on September 11. The applicant therefore consents to a five-day extension of time, to September 16, 2024, within which to commence the public hearing.

Thank you.

M R G
MacDermid Reynolds & Glissman, P.C.
110 Whitney Avenue
New Haven, CT 06510

86 Farmington Avenue
Hartford, CT 06105
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Site Plan Comments

CITY OF BRISTOL
SITE PLAN REVIEW COMMITTEE
STAFF COMMENTS - 2505

SITE PLAN & SPECIAL PERMIT: Site Plan for a Civic Facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; R-40 (Single-Family Residential) zone; New Britain Water Department, applicant. *Plans Dated: June 2024; Date of Committee Review: July 31, 2024 (first review); October 21, 2024 (second review)*

ENGINEERING/PUBLIC WORKS (Anthony Lorenzetti):
Engineering Review Comments Application # 2504 and #2505

1) Section 16.3.5, a Class A-2 survey is required.

   9/7/24 Applicant Response: The A2 Survey for the work area was provided electronically. Additional A2 survey for the access road on Mix Street for location curb cut/ entrance to work area access is in progress and anticipated to be submitted in October 2024.

   10/21/24 City Response:

2) Section 16.3.8 There are several homes and other adjacent facilities that are across Mix Street that are not shown.

   9/7/24 Applicant Response: The additional homes across Mix Street will be shown on expanded drawings after completion of the additional survey in October 2024.

   10/21/24 City Response:

3) In review of the Traffic Impact Sketch showing trucking routes, it is stated that the traffic is going to enter and exit the site primarily from Stafford Avenue, other than the compensatory storage construction area on Mix Street. Considering that both driveway access points are located approximately midway between Stafford Avenue and Maltby Street, and utility installation on Maltby Street, Mix Street, and Stafford Avenue along with wetlands creation on Mix Street would likely be utilized more extensively. In addition, what temporary traffic impacts are expected due to the utility construction expected to have on Mix Street and Stafford Avenue? Construction the within the intersections of Maltby Street at Stafford and Maltby Street and Mix Street should be limited to off peak periods. This item can be more thoroughly discussed in the permitting process. Two new Truck warning signs (w11-10) are recommended on Maltby street, due to the very limited current traffic entering from both existing drives that will be increased. The traffic narrative mentions only 15 vehicles per day on site, does this also include trucking materials in and out of the site. What would be the expected total project trip ends per day?

   9/7/24 Applicant Response: Construction at the Maltby Street/Stafford Avenue and Maltby Street/Mix Street intersections will be limited to off-peak hours, avoiding school bus traffic times, as required by the City of Bristol. A more detailed traffic control narrative is in development and will incorporate any additional considerations put forth by the City.

   10/21/24 City Response:

4) Provide enhanced mapping for the site access on Mix Street for the Wetlands creation, showing street access required. A City permit will be required for this area.

   9/7/24 Applicant Response: Enhanced mapping for the site access on Mix Street will be shown on expanded drawings after completion of the additional survey in October 2024.

   10/21/24 City Response:

5) Recommend storage of all construction equipment in upland areas to minimize risk of pollution.

9/7/24 Applicant Response: This is good practice and will be covered in the Stormwater Pollution Prevention Plan prepared by the Contractor per Specification Section 312500, Erosion and Sedimentation Controls. Additional language will also be added to the General Notes on Sheet C-1 to enhance this requirement.

10/21/24 City Response:

6) Update as needed to the updated 2024 Connecticut Guidelines for Soil Erosion and Sediment Control and Connecticut Stormwater Quality Manual.

9/7/24 Applicant Response: Specification Section 312500, Erosion and Sedimentation Controls, as well as relevant Drawings and notes, will be updated to reflect compliance with the 2024 Connecticut Guidelines for Soil Erosion and Sediment Control and Connecticut Stormwater Quality Manual.

10/21/24 City Response:

7) While it is understood that the timelines shown in the design report are preliminary and subject to final completion of the contractor(s), the narrative on page 4 and the schedule chart submitted are not consistent with each other.

9/7/24 Applicant Response: The overall Construction Sequencing stages presented in the Project Narrative reflects sequencing and interdependence of some activities as well as seasonal constraints; the schedule chart will be reviewed and updated. The utility work in Maltby Street must occur before the new Pumping Station building is completed, but can be arranged to accommodate any specific timing constraints by the City of Bristol.

10/21/24 City Response:

8) Add the most current city road repair details, we can provide them to you.

9/7/24 Applicant Response: The Civil Detail sheets will be updated with the City's most current road repair details when provided (it appears that the Details available on the DPW website are sidewalk and curb related).

10/21/24 City Response:

9) Where will the staging areas for the utility main construction be?

9/7/24 Applicant Response: Proposed staging areas (onsite and offsite) are required to be submitted by the Contractor per Specification Section 015000, Temporary Facilities and Controls.

10/21/24 City Response:

10) The site access off Maltby Street to the lower well field site is being widened, and as part of the widening to the west trees will have to be removed and some tree trimming may be required to provide adequate sightlines from the driveway, add to plans.

9/7/24 Applicant Response: Additional notes regarding tree removal will be added to Sheet C-7 to reflect this work.

10/21/24 City Response:

11) The access to the upper well field does not show any upgrades on the plans. The driveway currently is gravel with a reveal at the edge of sidewalk. Care must be taken to not break the sidewalk.

9/7/24 Applicant Response: The upper wellfield access driveway is anticipated to remain with no substantial improvements, other than filling of potholes and restoration of any damage that may occur during construction. Additional notes regarding protection and repair of sidewalk will be added to Sheets C-1 and C-6.

10/21/24 City Response:

CITY PLANNER (Robert Flanagan/Andrew Armstrong):

1. Indicate application number, approval date, and nature of Site Plan/Special Permits associated with this project.

   9/7/24 Applicant Response: This information will be added to the Cover sheet for the project prior to bidding.

   10/21/24 City Response:

2. Indicate application number, approval date, and nature of IWWA approval associated with this project.

   9/7/24 Applicant Response: This information will be added to the Cover sheet for the project prior to bidding.

   10/21/24 City Response:

3. Show/label on Site Plan the location of all proposed building entrances and exits.

   9/7/24 Applicant Response: This information is shown on Sheet C-10. A simpler overall Site Plan is in development and will be added to the drawing set.

   10/21/24 City Response:

4. Final As-Built of building required prior to C.O. being issued.

   9/7/24 Applicant Response: Record drawings will be prepared for the project and are noted in Specification Section 017839. The requirement to submit building record drawings prior to the Certificate of Occupancy will be added to that Specification.

   10/21/24 City Response:

5. Indicate dimension of driveway opening, measured at street line.

   9/7/24 Applicant Response: This information will be added to Sheet C-10.

   10/21/24 City Response:

6. What are the proposed limits of tree clearing for all proposed improvements? Particularly, show the dimension and final landscape condition for proposed compensation and storage area abutting single-family residential properties on the upper and lower wellfields. Provide a landscape sheet showing these conditions and setback dimensions to the property lines not just the floodway line.

   9/7/24 Applicant Response: Additional drawings to clarify these conditions are in development and will be added to the drawing set.

10/21/24 City Response:

7. The "site plans" for the upper and lower wellfields need to be shown as an actual site plan. The building and site features are not clear. These sheets primarily show underground raceway schedules, charts and other items that are not relevant and should be separate from the site plan. Provide a plan sheet for site plan that clearly shows residential property lines, particularly the properties from Collins Road and parcel boundaries, including the abutting parcel located at Assessor's Map 53, Lot 147. Plans provided are drawn indicating mostly Wetlands features.

   9/7/24 Applicant Response: Additional drawings to clarify these conditions, including a simpler overall Site Plan, are in development and will be added to the drawing set.

   10/21/24 City Response:

8. The abbreviated plan set shows many red revision clouds. Was this plan set intended to be submitted? Please make changes and remove notes and revision symbols.

   9/7/24 Applicant Response: The latest drawings, revised to incorporate comments herein, will be submitted in October 2024.

   10/21/24 City Response:

9. The Zoning Table lists the proposed building height as 258.3 feet. Please revise.

   9/7/24 Applicant Response: The reference to 258.3 feet in the Zoning Table on Sheet C-10 is an elevation, not the building height; this will be revised in the October 2024 submission.

   10/21/24 City Response:

10. There are 2 separate Zoning Tables with the same lot numbers and different requirements. Please clarify.

    9/7/24 Applicant Response: The second table on Sheet C-10 refers to parking requirements; this will be revised in the October 2024 submission.

    10/21/24 City Response:

11. This property is located within an Aquifer Protection Area and requires a determination by the Aquifer Protection Agency. When this determination has been completed, please add the approval, date, and application number to the cover sheet.

    9/7/24 Applicant Response: The Aquifer Protection Agency review is pending; this information will be added to the Cover sheet for the project prior to bidding.

    10/21/24 City Response:

12. The "site plans" for the upper and lower wellfields need to be shown as an actual site plan. The building and site features are not clear. These sheets primarily show underground raceway schedules, charts and other items that are not relevant and should be separate from the site plan.

    9/7/24 Applicant Response: Additional drawings to clarify these conditions, including a simpler overall Site Plan, are in development and will be underground raceway schedules, charts and other items that are not relevant and should be separate from the site plan added to the drawing set.

10/21/24 City Response:

13. What is the height of the retaining walls? Please include this on the plan and details.

9/7/24 Applicant Response: The wall is detailed on Sheet C-27; additional information will be provided for wall greater than 3 feet tall.

10/21/24 City Response:

14. Will there be any impacts or protections to the nearby parking area for 815 Stafford Avenue?

9/7/24 Applicant Response: There are no anticipated impacts to the parking area for 815 Stafford Avenue.

10/21/24 City Response:

15. Include a plan sheet showing E&S controls. (E&S control details are included in the current set).

9/7/24 Applicant Response: Locations of E&S controls are shown on Sheets C-6, C-7, and C-8.

10/21/24 City Response:

16. (New Comment) DEEP has indicated that strongly oppose the refueling of trucks within the aquifer. Find an alternative location for fueling located outside the aquifer boundary.

BUILDING/ZONING ENFORCEMENT (Richard Brown)

1. No comments at this time.

POLICE DEPARTMENT (Lt. Krajewski/Sgt. Ouellette)

1. No issues with design, does not affect traffic of surrounding roads.

FIRE MARSHAL (Kristopher Lambert):

1. On page A-2 there is a double leaf door that leads from/into the "Future Treatment Area" that is part of a 2-hour rated wall assembly. What is the rating of these doors?

9/7/24 Applicant Response: This is door D-104C per Sheet A-3; this door has a 90-minute fire rating per the Door Schedule on Sheet A-9.

10/21/24 City Response:

WATER DEPARTMENT (Paul Keegan/Rob Longo)

1. Bristol Water and Sewer requires all permits to be pulled by licensed plumbers. A copy of our policies and procedures are given to the plumber when the permit is pulled. All non-emergency work requires a min of 4 days' notice.

9/7/24 Applicant Response: This requirement will be added to Division 01 of the project Specifications.

10/21/24 City Response:

Water:

1. 12 X 8 tapping sleeve and valve requires payment prior to work being done

   9/7/24 Applicant Response: This requirement will be added to Division 01 of the project Specifications and to the Civil Drawings.

   10/21/24 City Response:

2. All hydrants require a secondary valve.

   9/7/24 Applicant Response: The hydrant assembly includes a gate valve per Detail D on Sheet C-25.

   10/21/24 City Response:

3. Call the office for a price on the 2" service.

   9/7/24 Applicant Response: The relevant fees will be included in Division 01 of the project Specifications. Information provided by the City recently indicates an anticipated $4,725 connection fee.

   10/21/24 City Response:

4. 2" service requires a curb stop.

   9/7/24 Applicant Response: Additional details on the 2" water service connection will be added to Sheet C-18C.

   10/21/24 City Response:

5. Bristol Water and Sewer insects every inch of pipe being installed.

   9/7/24 Applicant Response: This requirement for full inspection will be added to Division 01 of the project Specifications and to the Civil Drawings.

   10/21/24 City Response:

6. 8" DIP requires pressure test, flushing and Bacteria test.

   9/7/24 Applicant Response: Pressure test and flushing are included in Sections 221113 and 330519 of the Specifications. Disinfection requirements are included in Section 331300 of the Specifications. City of Bristol requirements are also referenced in Section 331300.

   10/21/24 City Response:

7. Each hydrant requires pressure test, flush and Bacteria sample.

   9/7/24 Applicant Response: Pressure test and flushing of hydrants are included in Sections 221113 and 331219 of the Specifications Disinfection requirements are included in Section 331300 of the Specifications. City of Bristol requirements are also referenced in Sections 331219 and 331300.

   10/21/24 City Response:

8. Inspection fees apply to private services.

9/7/24 Applicant Response: Requirements and anticipated fees for full inspection will be added to Division 01 of the project Specifications and to the Civil Drawings.

10/21/24 City Response:

9. Water and sewer must maintain 10’ separation at all times

9/7/24 Applicant Response: Understood; Maltby Street water and sewer drawings have been submitted to the Water and Sewer Department.

10/21/24 City Response:

Sewer:

1. 8” sewer must extend, no forced main in the city right of way

9/7/24 Applicant Response: he low-pressure sewer can remain on NBWD property until the edge of the property and then transition to gravity sewer in the street, but there are concerns with storm drain conflict and shallow coverage, so the exact location requires further discussion with the Water and Sewer Department.

10/21/24 City Response:

Project Narrative

Zoning Commission – Application for Special Permit

Project Narrative:

The New Britain Water Department (NBWD) has owned and operated groundwater wells as a raw water source at the White Bridge Waterworks Facilities on Maltby Street in Bristol for over one hundred years. The facilities are located in an R-40 designated residential zone across several parcels including 52-11, 52-15, 52-16B16A, 52-17, 53-145, 53-147, 53-149, 53-150, and 53-151. Work is specifically being performed on lot 52-16B16A, 52-17, 53-145, 53-147, and 53-150. Project location figures are included as **Attachment 1** to this application. The Lower Wellfield wells (located south of Maltby Street) were originally constructed in 1921 and have been operated since 1923. These wells have undergone upgrades in the 1940s and 1950s, with the most recent upgrades occurring the 1980s. A pump station at the Lower Wellfield was constructed as part of the 1940s upgrades. The Upper Wellfield wells (located north of Maltby Street) were originally installed in 1940. These were replaced with new wells in 1955 and again in the 1980s. A pump station at the Upper Wellfield was also constructed in the floodway in 1955. In addition to the wells, NBWD has also operated the Supply Pond surface water source at the White Bridge Waterworks Facilities since the 1950s. The existing 1923 pump station, already located on the site, was converted to a surface water pump station in 1950. This building and associated pumping equipment have not received major upgrades since.

Much of the mechanical equipment at the wellfields and existing Pond Pumping Station has reached the end of its useful life or, due to its age, is very difficult or not possible to find the necessary replacement parts for sustained operations. Regulatory requirements and industry standards have also changed over the past 100-years. To redevelop the Upper and Lower Wellfields with new wells that can be used as a potable drinking water source, the Connecticut Department of Public Health (DPH) requires new wells to be located 50-feet from any water body or wetlands boundary. In addition, DPH requires new wells and water infrastructure to be raised to an elevation 2-feet above the 100-year floodplain elevation. As the majority of the NBWD owned property is within the 100-year floodplain with some areas up to 6-feet below the flood elevation, the existing wells and three pump stations cannot be redrilled/rehabilitated in their current locations. This project will rehabilitate the White Bridge Waterworks Facility to bring it up to modern standards and regulations and create a reliable potable drinking water source for the New Britain Water Department and surrounding communities.

The project includes the abandonment of all currently existing wells in accordance with DPH requirements, demolition of existing structures and the three existing pump stations, construction of a single new pump station, filling and grading to achieve DPH flood resiliency requirements, wetlands creation/replication, and creation of compensatory flood storage. A total of three new wells will be drilled at the Upper Wellfield and six new wells drilled at the Lower Wellfield. Based on water quality, the Lower Wellfield wells may but suitable for use as a public potable water supply with minimal chemical treatment, subject to the ground water under the direct influence of surface water (GWUDI) testing. Both the Upper and Lower Wellfield wells will be equipped with new submersible style pumps within the wells, making it unnecessary to have pump stations at each site. An Aquifer Protection Area Program Registration Form for Regulated Activities will be submitted following this application submittal. A single pump station building will be constructed to house pumping equipment associated with the

Supply Pond surface water source and will also include designated space for treatment equipment in the event the Lower Wellfield is used for potable water. This new building will be constructed with a finished floor elevation 2-feet above the 100-year flood elevation and outside the floodway. The project will also install associated yard piping around the wells, pump station building, and connections to the existing New Britain water infrastructure on-site. New water and sewer utilities from Bristol will be constructed in Maltby Street and provide service for the new pump station. Design Drawings for the project are included in **Attachment 2** and a 3D Rendering of the new Pond Pumping Station is included in **Attachment 3**.

As filling of the site is required for the new wells and pump station to meet DPH requirements, compensatory flood storage areas will be constructed so as to not increase the current flood elevation levels, as given by FEMA guidelines. The new structure and wells will add approximately 6,543 cubic yards of fill within the floodplain. Approximately 15,327 cubic yards of material will be removed from the floodplain for the creation of compensatory storage. These compensatory storage areas will also create additional wetland areas. Fill and earth removal on the site is associated with construction activities only and the final use of the site will not include earth removal activities. A Special Permit for Earth Removal in Excess of 400 Cubic Yards is also being filed for approval. The project will impact approximately 24,952 square feet of wetlands. However, wetlands replication will be done at a ratio of three to one, with a total of 75,946 square feet of wetlands replication proposed. In total, the project is expected to disturb approximately 223,000 square feet of land. This includes areas for wetland replication; compensatory storage creation; and disturbances for installing the new wells, associated yard piping, abandoning and decommissioning existing wells, Pond Pump Station building construction, and demolition of the three existing buildings. A Permit for Flood Plain Development (Application #23-458F-305), Form IW-1 (Application for a Wetlands Permit) (Application #2020), and Form IW-2 (Application for a Wetlands Boundary Change) (Application #2019) were approved by the Bristol Inland Wetlands and Watercourses Agency of the Conservation Commission on June 6, 2024 for this project. A Site Plan Permit for this project is also being filed for approval.

An Erosion and Sediment Control Plan has been developed to control accelerated erosion and sedimentation from stormwater runoff on the site during construction based on the best available technologies. The Control Plan narrative is included with this application in accordance with Section 15.1.5. The “Connecticut Guidelines for Soil Erosion and Sedimentation Control (2002)” document was utilized in preparation of the Plan. A Stormwater Management Report for post-construction conditions has also been developed for this project based on the 2004 *Connecticut Stormwater Quality Manual (CSQM)* as required in Section 15.5.3. A copy of the Stormwater Management Report is included as **Attachment 6** to this application.

The new Pond Pump Station and Lower Wellfield area will be enclosed in a 6.5-foot tall chain link fence for security. A double-leaf swing gate will provide access to the site on the driveway. As shown on the Drawings, the fence and access gate are located outside of the 50-foot required front yardage for R-40 residential zones. A double-leaf vehicular control gate will be located at the foot of the driveway to control vehicular access onto the public utility site. This gate will be less than the 4.5-foot height restriction for fences within front yards and will be more than 50 percent open. A detail for this vehicular control gate is included in the drawings. An existing vehicular access gate for the Upper Wellfield access road (located on the north side of Maltby Street) will remain.

Public utility buildings are not listed as a Use Group in the table included in Section 13.2 of the Zoning Regulations; however, two parking spaces will be provided at the Pond Pumping Station. Each parking space is designed to be 10-feet wide and 18-feet deep, meeting the requirements of perpendicular parking spaces required by Section 13.7.2. As a utility service building, this facility is not open to the public and it will not be continuously manned by NBWD staff. It is not expected that more than two NBWD staff vehicles will be present on-site during operations. The post-construction vehicle traffic from NBWD staff is not expected to increase from their current operations. In the event potable water treatment is implemented for the Lower Wellfield, it is expected that the facility will received 2-3 trucks per month for deliveries.

A construction vehicle routing figure is included as **Attachment 5** to this application. The main route for construction vehicle access to the site on Maltby Street will be via Stafford Avenue, south to Farmington Avenue (Route 6). Vehicles can than access other State Roadways, including Route 69 (to the west) and Route 177 (to the east). It is expected that 15-20 construction vehicles (including pickup trucks, trailers, dump trucks, etc.) could be accessing the site during construction. The Annual Average Daily Traffic (AADT) for Stafford Avenue is 8,300 vehicles per day, 19,300 vehicles per day for Route 6 (west of Stafford Avenue), and 23,200 vehicles per day for Route 6 (east of Stafford Avenue). The construction vehicles generated by this project will represent less than 1% of traffic in the area. For access to the compensatory storage area located in the south of the site (closest to Harbor Freight), construction vehicle access will be off Mix Street via Stafford Avenue. Additionally, work to install new water and sewer utilities within Maltby Street will require temporary lane closures. Typical traffic management details have been developed and are included in the attached design drawings.

The accompanying plans to this application are based on a Class A-2 survey map prepared by a registered land surveyor licensed to conduct business in the State of Connecticut with the exception of Sheets C-13, Sheet C-14, and Sheet C-14A. These sheets depict the general locations of wetland replication and compensatory storage areas and are currently based on a Class D survey due to the scale and size of the parcels and location of work. We request a Class A-2 survey of these areas to be included as a condition of approval for this application and the final Class A-2 survey will be performed and submitted to the Commission for final issuance of the Special Permit prior to construction. Additionally, the wetlands replication and compensatory storage area in the southernmost part of the site, shown on Sheet C-13, cannot comply with the 100-foot buffer zone to a residential property (as required by Section 15.2.5.B). The closest abutting residential property line is 70-feet from proposed excavation activities for the wetlands replication and compensatory storage area. The location of this earth removal work to create compensatory storage is dictated by the contours of existing grade and the removal of certain volumes at each elevation to offset fill brought to that same elevation. It is important to note that this area of the site is heavily vegetated along with the abutting residential properties. We also note that the closest residential building on these lots are 250-feet away. We believe the dense vegetation, distance to residential dwelling, and nature of this construction (creation of wetlands area without a permanent structure) comply with the intent of requirements in Section 15.2.5.B for screening.

Erosion Control Narrative

Zoning Commission – Application for Special Permit

Erosion and Sediment Control Plan- Project Narrative:

This Erosion and Sediment Control Plan is provided in accordance with Section 15.1.5 of the Bristol Zoning Regulations. The erosion and sedimentation control measures at the White Bridge facility focus on the protection of wetlands and waterways during and following construction since the work includes land disturbances, excavation dewatering, supply pond and canal sediment removal activities, and other associated construction activities. Several methods are included on the Drawings to slow the flow of runoff and protect disturbed land during construction activities. Please refer to the project plans for typical details of measures to protect wetlands and waterways during and after construction. The following summary presents typical mitigation measures that will be implemented to avoid and minimize wetland impacts during construction.

Construction Period

- During construction, the limit of land disturbances will be kept to a minimum, where possible, and the construction will be sequenced so the entire site will not be disturbed at the same time.
- Clearing and grubbing will be limited to only the areas necessary for work to be performed, specifically in areas at the Upper and Lower Wellfields (Sheet C-9 and C-11) where wells and piping will be installed, at the Maltby Street 16" pipe crossing (Sheet C-18), at areas where wetlands and compensatory storage will be created (Sheet C-13 and C-14), and areas around the Supply Pond for access during sediment removal activities (Sheet C-23).
- Sedimentation barriers (i.e., silt fence and/or compost logs/straw wattles installed per industry standards) will be installed at the down gradient limits of work and construction access roadways prior to the commencement of work to prevent the transport of sediment to the downgradient wetlands and waterways during construction (see Sheets C-6 thru C-8). Specifically, at the Upper Wellfield this includes compost logs/straw wattles along the facility driveway from Maltby Street to the existing Pumping Station and down each of the well field laterals. At the Lower Wellfield, this includes along the wetlands to the north and west of proposed work, along the Coppermine Brook to the east, around the Supply Pond, and along both sides of the Canal to the Polkville Avenue Brook. These barriers will be inspected at least once per week and within 24 hours of rainfall events ½-inch or greater and repaired as needed. These barriers will remain in place until all disturbed soils are stabilized. A stockpile of compost logs/straw wattles and silt fence will be maintained on site for routine maintenance and emergency repairs. Barriers will be replaced as necessary due to sediment build-up and degradation.
- Sedimentation barriers (i.e., silt fence and/or compost logs/straw wattles installed per industry standards) will be installed surrounding temporary stockpile areas.
- For all slopes 4:1 or steeper, an erosion control blanket will be required, including at the Upper and Lower Wellfield wells (see Sheet C-9 and C-11). Temporary erosion control blankets will be inspected at least once per week and within 24 hours of rainfall events.

- A turbidity curtain will be installed to prevent sedimentation and turbidity disturbances in the Coppermine Brook during canal and supply pond sediment removal activities (see Sheet C-23 and Detail Sheet C-24). Turbidity curtains will be inspected daily during Supply Pond and canal sediment removal activities. The turbidity curtain will not be removed before sediment removal activities have ended and clarity of water has returned.
- Catch basin filters will be installed on catch basins near all excavation work on Maltby Street, Stafford Avenue, and Mix Street (See Sheet C-18 and Detail Sheet C-24).
- In the event that excavation dewatering is necessary, water will be pumped and discharged to one of the temporary sedimentation basins in designated areas of the site (see Sheet C-6 thru C-8 and Detail Sheet C-24). Temporary sedimentation basins will be inspected at least once per week and cleaned as needed to remove accumulated sediments. Temporary portable sediment tanks may also be used to handle significant amounts of excavation dewatering. All water to be discharged from dewatering activities will be filtered or otherwise treated prior to discharge to prevent siltation to adjacent areas. Best management practices will be used by the Contractor in order to prevent siltation to adjacent areas during dewatering activities.
- A temporary sediment dewatering and stockpiling area has been designated within the Supply Pond to dewater removed sediments during restoration activities (see Sheet C-23 and Detail Sheet C-24). Stockpiled materials and containment area will be inspected daily during dewatering activities, weekly during non-dewatering activities, and within 24 hours of rainfall events of ½-inch or greater.
- A stabilized construction entrance is also being required for the site to prevent tire tracked soils to onsite and offsite locations (see Sheet C-23 and Detail Sheet C-24). The stabilized construction entrance will be inspected periodically and additional top dressing or length will be added, as necessary, to continue capturing sediment tracked on vehicles.
- The silt fence and/or compost log/straw wattle barrier will not be removed until the site areas are vegetated, paved or otherwise permanently stabilized to prevent erosion of exposed soils. Work will proceed as rapidly as possible, limiting the exposure time of disturbed soils to wind and precipitation.
- The sedimentation barriers will not be removed until the site areas are vegetated, paved or otherwise permanently stabilized to prevent erosion of exposed soils. Work will proceed as rapidly as possible, limiting the exposure time of disturbed soils to wind and precipitation.
- Periodic inspections will be made by the applicant to ensure compliance with the permit conditions.

Spill Control Measures

- Spill containment equipment (e.g. oil absorbent pads, oil absorbent materials, containment booms, shovels, etc.) will be stored in the equipment storage and refueling area in an easily accessible manner for use in the clean-up of accidental releases of fuel or other hazardous materials. Should there be an accidental release the proper authorities will be notified in accordance with all applicable federal, state, and local laws; and

- To minimize the possibility of leakage of hydraulic fluid, all hydraulic lines on all construction equipment and vehicles will be inspected at the end of each workday. If any excessive wear or leakage is observed, the line will be repaired prior to further use. In addition, a supply of oil absorbent materials (i.e. pads, "speedy dry," and/or booms) will be maintained with the equipment at the work area for immediate deployment in the event of an accidental release of fuel, hydraulic fluid, oil, etc.

Schedule for Grading and Construction Activities:

A proposed construction sequencing for critical path items in the White Bridge Waterworks Facilities Upper and Lower Wellfields and Pond Pumping Station Project is included as an attachment to this application. Tasks listed are generally to be performed within each proposed stage, and are not necessarily presented sequentially. As required by Project Specifications, the Contractor is required to submit a detailed Final Construction Schedule for approval by the Engineer. Further, as required by the Specifications, the Contractor is required to submit a detailed Construction Sequencing Plan for review and approval by the Engineer. Both the Construction Schedule and Construction Sequencing Plan submitted by the Contractor will be reviewed for compliance with time of year restrictions imposed by the Natural Diversity Database (NDDB) (no bank disturbance work in/adjacent to wetlands November 1 through March 15) and for the expected Great Blue Heron nesting period (March through May).

Some specific sequencing constraints and estimated durations are listed below. <u>These represent a suggested sequencing for critical path items or items that will require earth excavation and disturbance of soils. The final Construction Sequence will be developed by the Contractor.</u> Some items listed in each "Stage" can/will overlap with items listed in previous stages.

<u>Construction Sequencing - Stage 1 (Fall 2024 – Fall 2026)</u>

- Terminate operation of existing Lower Wellfield (LWF) Wells
- **Install Erosion and Sedimentation control measures around the Lower Wellfield, Lower Wellfield Pump Station, Supply Pond, and Canal areas**
- Demolish existing LWF Pumping Station (3 months)
- Demolish existing caisson and fencing near intake pond (1 month)
- Perform canal and pond restoration (to be completed following demolition of the caisson and prior to replacement of the canal culverts) (3 months – **not to be performed between November 1 and March 15**)
- Install test wells, stream gauges, and other equipment required for well pump testing at Upper Wellfield (UWF) and LWF (2 months)
- **Install Erosion and Sedimentation control measures around the Upper Wellfield and access driveway**
- Drill UWF Wells. Order final UWF pumps/motors (3 months each, 7 months total – **not to be performed between November 1 and March 15 at applicable wells**)
- Drill LWF Wells. Order final LWF pumps/motors (3 months each, 13 months total – **not to be performed between November 1 and March 15 at applicable wells, not to be performed between March and May**)
- Install well meter vault, vault control cabinets, meter, and electrical equipment (18 months total, to follow each well drilled – **not to be performed between November 1 and March 15 at applicable wells**)

- Install foundation of new Pond Pumping Station building (3 months – **not to be performed between March and May**)

Construction Sequencing - Stage 2 (Spring 2025 – Fall 2026)

- Install yard piping from UWF and LWF for raw water transmission to Shuttle Meadow during Groundwater Under Direct Influence of Surface Water (GWUDI) testing. Install temporary connection to existing Pond Pumping Station. Install fiber optic cabling (6 months – **not to be performed between November 1 and March 15**
- Install final LWF yard piping, electrical conduit, fiber optic cabling (6 months – **not to be performed between November 1 and March 15 in applicable areas, not to be performed between March and May in applicable areas**)
- **Final stabilization of UWF and LWF wellhead areas**
- Perform canal crossing work for yard piping and restore canal culverts (1 month – **not to be performed between November 1 and March 15**)
- Install new gas service from Mix Street to Pond Pumping Station building (2 months – **not to be performed between March and May**)
- Install new sewer force main and water service to Maltby Street (3 months)
- Install fiber optic cables and Well Pump Communication/VFD Platforms (3 months each, 9 months total)
- Terminate operation of existing UWF Wells. **Install Erosion and Sedimentation control measures around the UWF Pump Station**
- Demolish existing UWF Pump Station
- Install and test UWF submersible well pumps and motors (2 months)
- Install and test LWF submersible well pumps and motors (2 months)
- Install electrical service and equipment at the new Pond Pumping Station, UWF, and LWF (3 months)

Construction Sequencing - Stage 3 (Summer 2025 – Spring 2028)

- Setup instrumentation and perform GWUDI Testing on new UWF and LWF wells (12 months). UWF and LWF pumped via raw water main to Shuttle Meadow Reservoir
- Construct new Pond Pumping Station Building (18 months total - **exterior construction not to be performed between March and May**)
- Install yard piping to complete final connections to Pond Pumping Station (1 month)

Construction Sequencing – Stage 4 (Summer 2027 – Fall 2027)

- GWUDI testing completed
- Completion of new Pond Pumping Station building. Terminate operation of existing Pond Pumping Station
- Abandon/demolish existing Pond Pumping Station building, electrical shed, and UWF Pumping Station. Cap and abandon temporary connections (3 months)

Construction Methods:

Trench excavations will be used for pipe, valve, and appurtenance installation. Suitable material removed from trenches may be placed back into the excavation and compacted or temporarily stockpiled on site, while material deemed unsuitable for reuse will be removed from the site. Open excavations will be used to install the foundation and footings for the Pond Pumping Station and the vaults located at each well. Material removed from these excavations will be taken off-site or temporarily stockpiled on the site with proper best management erosion and sedimentation control measures being implemented around the

stockpile to prevent sedimentation from stockpiled material. This includes placement of straw wattles/compost socks and a trenched silt fence around the stockpile area in addition to the sedimentation controls along the limits of work.

Alternative construction methods for the yard piping may include trenchless installation of pipe to limit area of disturbed land. Pipe could be installed by horizontal directional drilling, pipe ramming, pipe bursting of existing pipelines, tunneling, or horizontal auger boring. All of these methods would still require excavation for access to the existing pipe or as insertion and receiving pits. None of these methods were selected due to the amount and complexity of existing utilities present at the site, lack of record drawings for most of these utilities, and complexity of new piping connections to be installed.

A temporary stabilized construction entrance will be installed during sediment removal and restoration of the supply pond and canal. This construction entrance will run along the berm between the canal and supply pond to the temporary stabilized pond access point. Sediment removed from the supply pond and canal will be temporarily stored within the supply pond to dewater before being removed from the site.

Backfilling of trenches and excavations will be completed as soon as practicable. Pipe bedding will be placed up to 12-inches above the crown of the pipe and suitable backfill will be placed in 6-inch lifts and compacted by hand or pneumatic ramming with tools weighing at least 20 pounds to finished grade. Disturbed areas will be loamed and seeded to provide vegetated soil cover against sheet runoff and wind erosion. An erosion control blanket will be required for slopped areas until vegetated cover is established.

Typical construction equipment, including heavy machinery, is expected to be used to complete this work. Machinery may include bulldozers, loaders, excavators, backhoe loaders, triaxle dump trucks, and drill rig trucks. Equipment, machinery, and materials will be stored or stockpiled in the designated areas shown on the sequencing drawings.

Post-Construction Period

The following summary of mitigation measures will be implemented to restore any areas affected by short-term impacts that occur in or adjacent to wetlands.

- The final site is designed to have a 3-foot wide gravel infiltration trench with 1.5”-3” diameter washed aggregate covered with 6” pea gravel running along the facility driveway to collect and slow the flow of runoff from impervious surfaces (see Sheet C-10 and Detail Sheet C-26).
- All areas disturbed during construction activities are to be loamed and seeded to provide vegetated soil cover protection against sheet runoff and wind erosion (see Sheet C-9 thru C-12). Seeded areas will be inspected at least once per week and within 24 hours of rainfall events of ½-inch or greater.
- Once established, seeded areas will be mowed and maintained as appropriate.
- The Pond Pumping Station building roof drain leader will outlet to a riprap apron (See Sheet C-10 and Detail Sheet C-26). Riprap used in the roof drain apron will be inspected periodically to determine if high flows have caused scour beneath riprap or if vegetation removal is required. On

the northeast side of the Pond Pumping Station building, a retaining wall will be utilized to prevent steep slopes.

- The wetland replication and restoration areas will be planted with trees and shrubs per the planting plans, and seeded with a wetland seed mixture.
- If seeding occurs outside of the growing season, temporary stabilization measures (i.e., mulching or erosion control blankets) will be used to prevent erosion until the area can be seeded during the following growing season.
- Reseeding and mulching disturbed areas. These areas will be maintained and re-seeded to ensure that grass cover is adequate to stabilize the exposed soil, and
- Sedimentation and erosion control barriers will not be removed until a vegetative cover dense enough to prevent erosion is established.

Selections from Figure 3-2 of the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control:

Figure 3-2 Measure Selection Matrix

Identify Problem Areas	Identify Control Problems	Identify Strategy	Select Specific Measure		Plan Key
			Functional Group	Measure	
Disturbed Areas	**Control Soil Detachment**	Preserve and Conserve Existing Site Resources	Protect Vegetation	Tree Protection	TP
			Preserve and Conserve Soil	Topsoiling	TO
	Raindrop Splash			Land Grading	LG
				Surface Roughening	SR
Short or Shallow Slopes	Sheet & Rill Erosion	Protect Surface		Dust Control	DC
			Vegetative Soil Cover	Temporary Seeding	TS
	Wind Erosion			Permanent Seeding	PS
				Sodding	SO
				Landscape Planting	LP
Steep Slopes			Non-Living Soil Protection	Temporary Soil Protection	TSP
				Mulch for Seed	MS
Long Slopes				Landscape Mulch	LM
				Temporary Erosion Control Blanket	ECB
				Permanent Turf Reinforcement Mat	TRM
				Stone Slope Protection	SSP
Stockpile Areas		Protect Surface and/or Convey Runoff	Stabilization Structures	Retaining Walls	RW
				Riprap	RR
	Control Water Movement			Gabions	G
Borrow Areas				Permanent Slope Drain	PSD
	Gully Erosion			Channel Grade Stabilization Structure	CSS
				Temporary Lined Chute	TC
				Temporary Pipe Slope Drain	TSD
	Channel & Stream Erosion		Drainageways and Watercourses	Vegetated Waterway	VW
Drainage Ways		Convey Runoff		Temporary Lined Channel	TLC
				Permanent Lined Waterway	PW
Wetlands and Watercourses				Temporary Stream Crossing	TSC
		Direct Runoff	Diversions	Temporary Fill Berm	TFB
				Water Bar	WB
				Temporary Diversion	TD
Waterbodies				Permanent Diversion	PD
		Intercept Grnd.Water	Subsurface Drains	Subsurface Drain	SD
		Detain Runoff	Detention Structures	Detention Basin	DB
Areas of Flooding and Existing Erosion	Natural Resource Degradation	Diffuse Runoff	Energy Dissipators	Level Spreader	LS
				Outlet Protection	OP
				Stone Check Dam	SCD
	Control Sediment Deposition	Detain Sediments	Sediment Impoundments, Barriers, and Filters	Temporary Sediment Basin	SB
				Temporary Sediment Trap	TST
Drainage Outlets				Hay Bale Barrier	HB
	Protect Onsite and Offsite Areas			Geotextile Silt Fence	GSF
				Turbidity Curtain	TC
				Vegetative Filter	VF
Travel Areas		Control Mechanically Moved Waters and Soils	Tire Tracked Soils	Construction Entrance	CE
			Dewatering	Pump Intake and Outlet Protection	PuP
				Pumping Settling Basin	PSB
				Portable Sediment Tank	PST
Dewatering				Dewatering of Earth Materials	DWM

Stormwater Management Report Hyperlink:

https://www.bristolct.gov/DocumentCenter/View/47020/NBW-Stormwater-Report

Geotechnical Report

USDA United States Department of Agriculture

NRCS Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

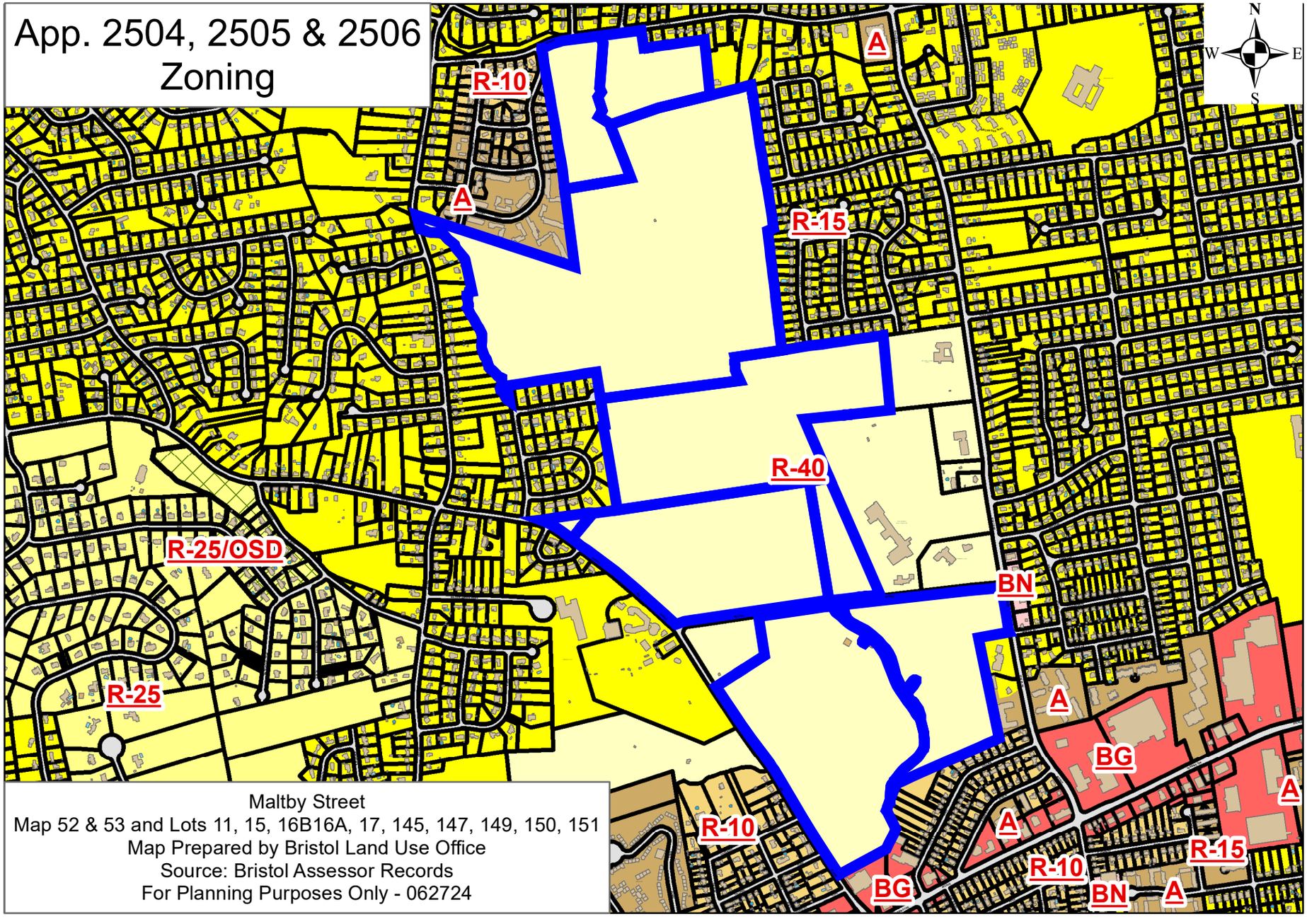
Custom Soil Resource Report for State of Connecticut

White Bridge Waterworks Facilities - Pond Pumping Station

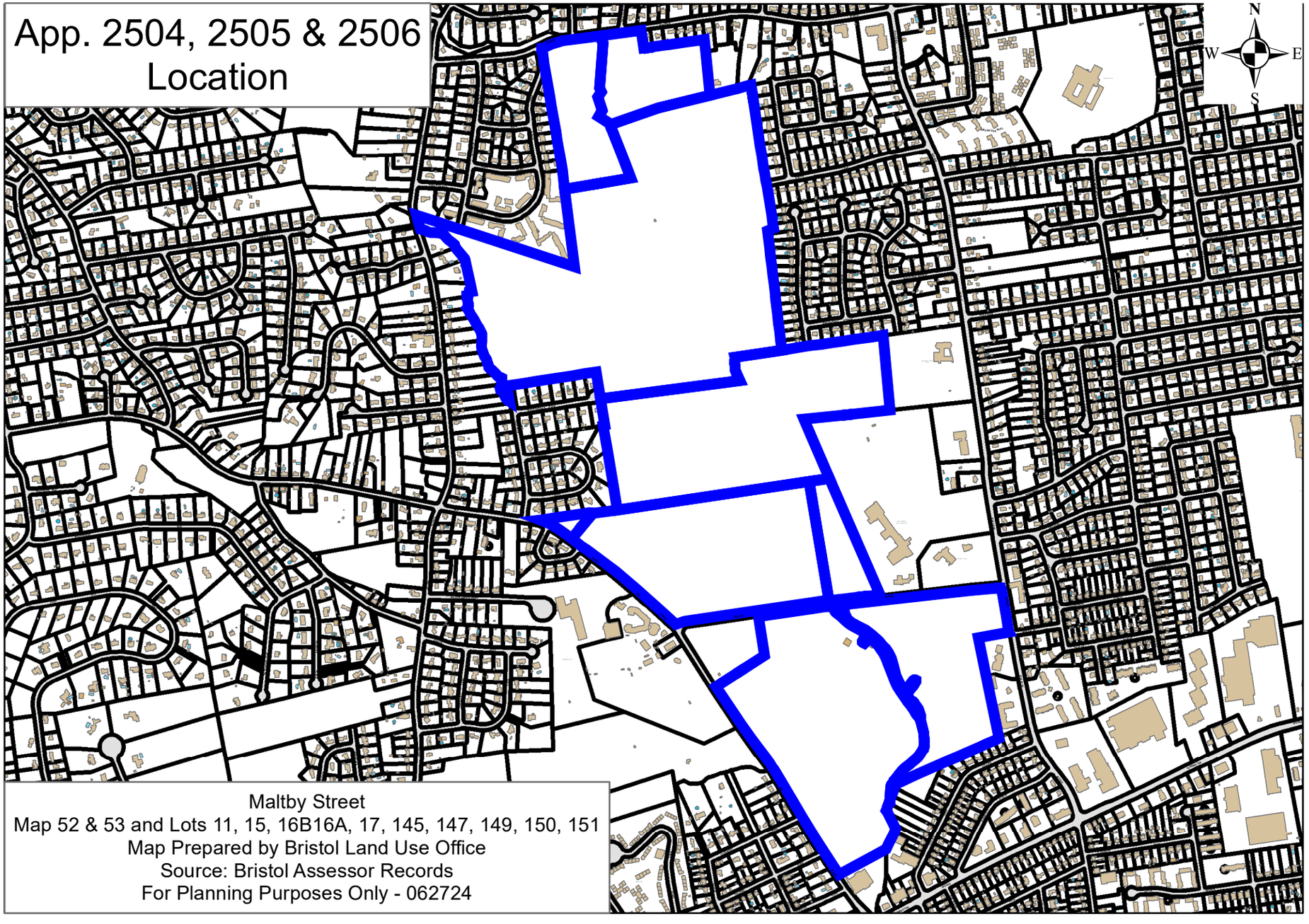
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September 26, 2022

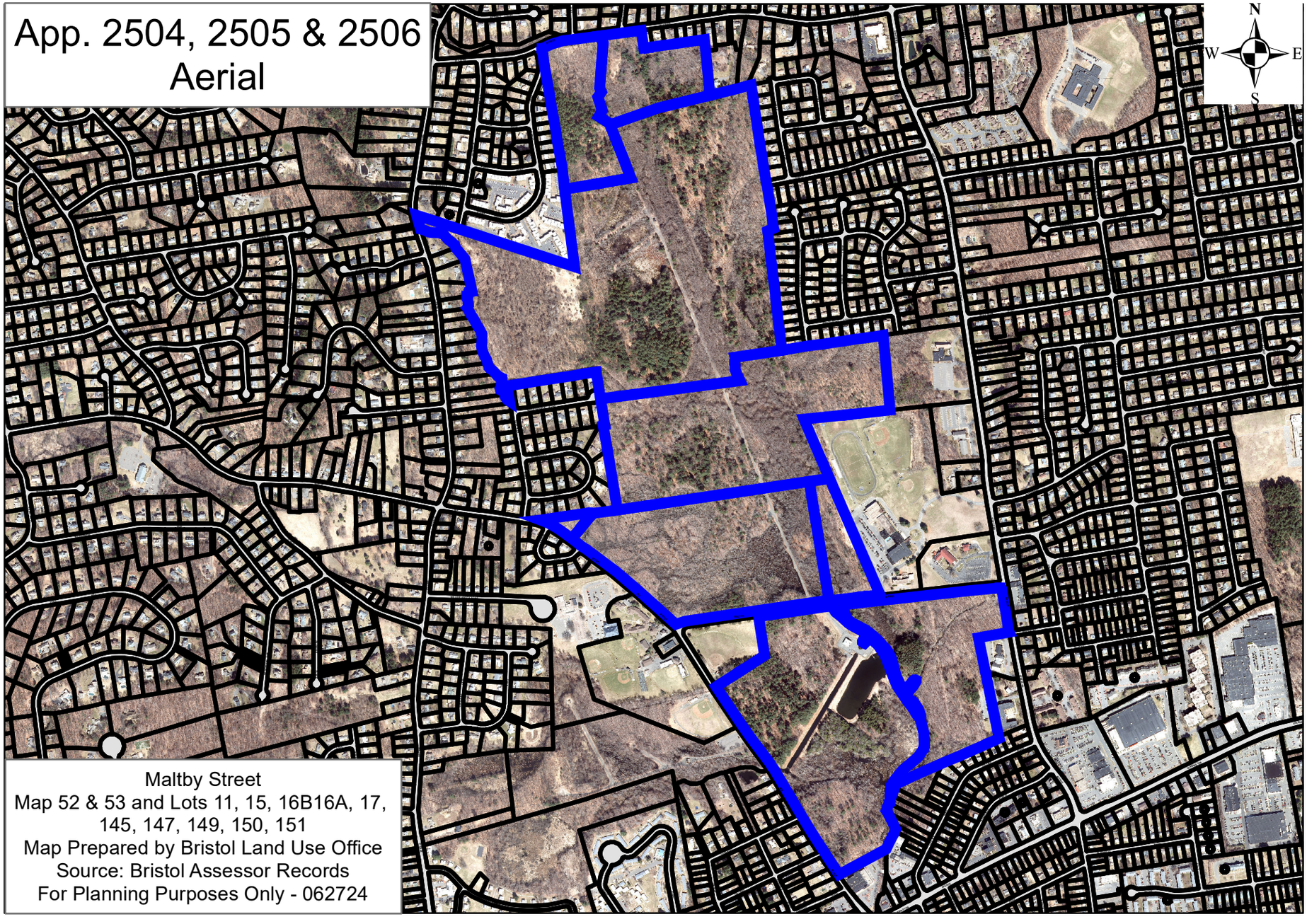

App. 2504, 2505 & 2506
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Maltby Street
Map 52 & 53 and Lots 11, 15, 16B16A, 17, 145, 147, 149, 150, 151
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 062724

App. 2504, 2505 & 2506 Location

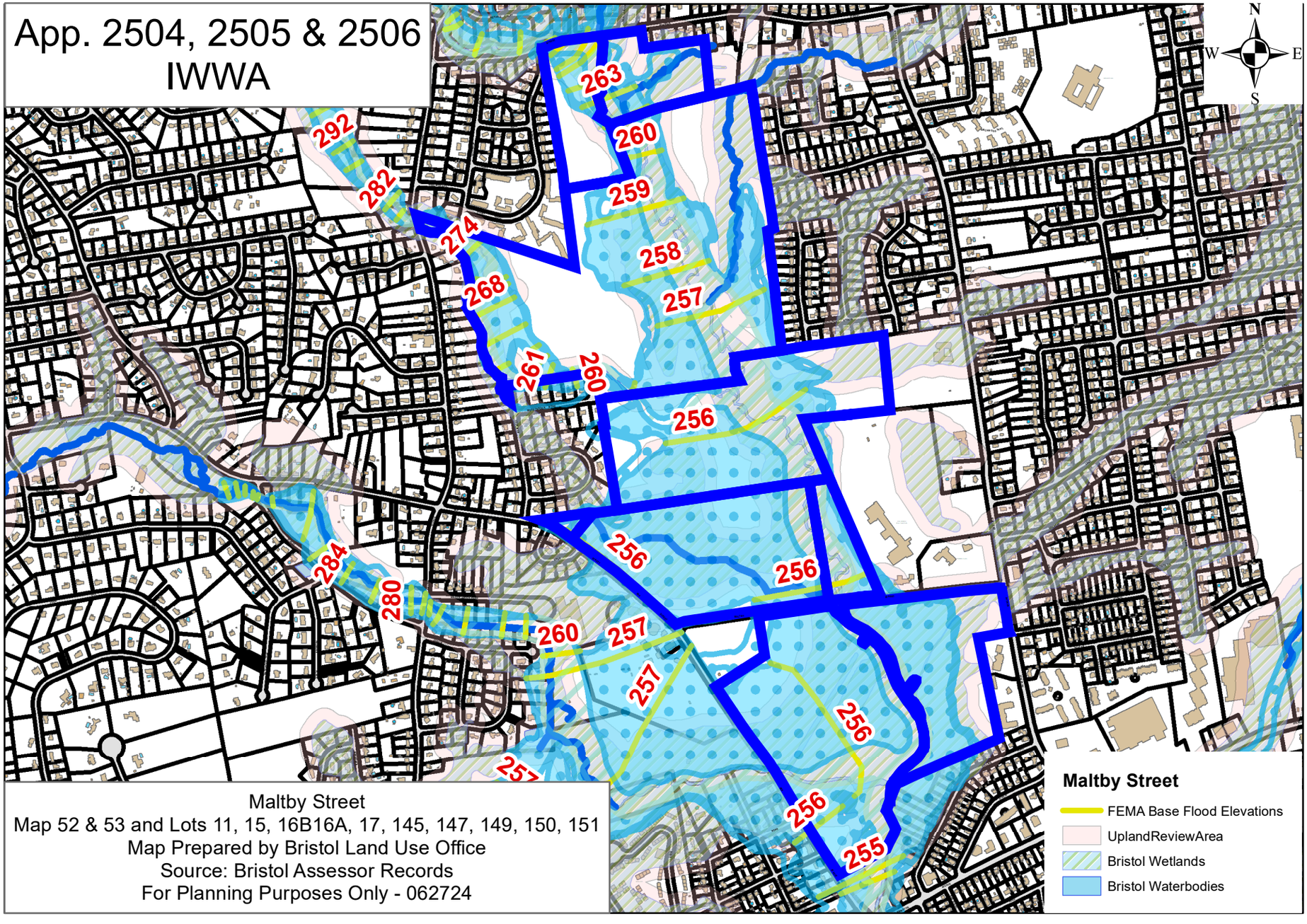


Maltby Street
Map 52 & 53 and Lots 11, 15, 16B16A, 17, 145, 147, 149, 150, 151
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 062724

App. 2504, 2505 & 2506
Aerial



Maltby Street
Map 52 & 53 and Lots 11, 15, 16B16A, 17, 145, 147, 149, 150, 151
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 062724


App. 2504, 2505 & 2506
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Maltby Street
FEMA Base Flood Elevations
UplandReviewArea
Bristol Wetlands
Bristol Waterbodies
Maltby Street
Map 52 & 53 and Lots 11, 15, 16B16A, 17, 145, 147, 149, 150, 151
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 062724

Google Earth


Copper Mine Brook
Polkville Ave Brook
Layers
2D


Copper Mine Brook
Polkville Ave Brook
Field


Copper Mine Brook
Copper Mine Brook
Copper Mine Brook

Revised Specification Section 101024

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SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Construction Sequencing.
4. Work performed by Owner.
5. Contractor’s use of site and premises.
6. Coordination with occupants.
7. Work restrictions.
8. Specification and Drawing conventions.
9. Miscellaneous provisions.

B. Related Requirements:

1. Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.
2. Section 017300 “Execution and Construction Sequencing” for sequencing requirements.
3. Appendix G for state, local, and federal requirements and conditions from project permits.

1.3 DEFINITIONS

A. Work Package: A group of specifications, drawings, and schedules prepared by the design team to describe a portion of the Project Work for pricing, permitting, and construction.

1.4 PROJECT INFORMATION

A. Project Identification: White Bridge Waterworks Facilities, City of New Britain, CT.

1. Project Location: Maltby Street, Bristol, CT

B. Owner: City of New Britain, CT

C. Engineer: CDM Smith Inc., East Hartford, CT

D. Engineer's Consultants: Engineer has retained the following design professionals who have prepared designated portions of the Contract Documents:

1. Comprehensive Environmental Inc. (CEI)

1.5 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work of Project is defined by the Contract Documents and includes, but is not limited to, the following:

1. Construction of White Bridge Waterworks Facilities including groundwater production wells, Pond Pumping Station, electrical and instrumentation upgrades, and other Work indicated in the Contract Documents.

a. Groundwater production wells:

1) Specifications for the construction and development of gravel packed groundwater production wells and the abandonment and decommissioning of existing wells are included in Appendix A to these Contract Documents.

b. Existing Conditions:

1) Data regarding the geological and geotechnical field testing conducted for the Work are included in Appendix F. The information provided is for general informational purposes only. The subsurface information presented is accurate only at the specific locations and times the subsurface explorations were made. It is the Contractor’s responsibility to review the information contained within these Contract Documents and make their own interpretations and conclusions of the character of materials to be encountered and the impact on the Work based on the Contractor’s expert knowledge of the area and of earthwork techniques. The Contractor, at their own expense, may conduct additional subsurface explorations for their own information after obtaining the Owner’s permission.

2) Parts of the project site are located within Federal, State, and Local protected species habitat, including the Spotted Turtle (Clemmys Guttata), Wood Turtle (Glyptemys Insculpta), and Great Blue Herron. Information on requirements and construction activity limitations are included in the permits included in Appendix G.

3) Test pit excavations were performed to confirm the locations of select existing utilities on the White Bridge Waterworks Facilities site. A memorandum summarizing the test pits is included in Appendix E. Information provided in the memorandum is for general informational purposes only.

2. Demolition of existing White Bridge Waterworks Facilities including the existing Pond Pumping Station, existing Lower Wellfield Pumping Station, existing Upper Wellfield Pumping Station, existing caisson structure located at the Lower Wellfield, and existing production wells at the Upper and Lower Wellfields. Existing equipment to be removed from these locations may include, but is not limited to, the following:

a. Existing Pond Pumping Station:

1) Centrifugal pumps and associated motor
2) Process piping
3) Compressor and air tanks
4) Electrical equipment and controls cabinets

b. Existing Lower Wellfield Pumping Station:

1) Electrical controls and equipment cabinets
2) Wall mounted electrical equipment
3) Bulk liquid chemical storage tanks
4) Compressor and air tanks
5) Pumps and associated motors
6) Process piping
7) HVAC equipment
8) Miscellaneous furniture

c. Existing Upper Wellfield Pumping Station:

1) Electrical controls and equipment cabinets
2) Pumps and associated motors
3) Process piping
4) Compressor and air tanks

d. Data regarding the hazardous material field testing conducted for building demolition Work are included in Appendix C.

3. Cleaning and inspecting of approximately 2,000 LF of existing 12-inch ductile-iron water main in the UWF driveway.

4. Rehabilitation of the Supply Pond and canal, including sediment removal, handling and disposal and rehabilitation of the Intake Structure.

a. Data regarding material field testing conducted for the Supply Pond are included in Appendix D.

5. Extension of the Bristol, CT water and sewer systems with installation of ductile-iron water main and PVC sewer main in Mix Street and Maltby Street.

B. Type of Contract:

1. Project will be constructed under a single prime contract.

1.6 CONSTRUCTION SEQUENCING

A. Construct the Work stages, with each stage substantially complete as indicated on Drawings and in Section 017300.

B. Before commencing Work of each stage, submit an updated copy of Contractor's construction schedule and Construction Sequencing Plan, showing the sequence, commencement and completion dates for all stages of the Work.

1.7 WORK PERFORMED BY OWNER

A. Cooperate fully with Owner, so work may be carried out smoothly, without interfering with or delaying Work under this Contract or work by Owner. Coordinate the Work of this Contract with work performed by Owner.

B. Future Work Not Part of this Contract: The Contract Documents include requirements that will allow Owner to carry out future work following completion of this Project; provide for the following future work:

1. Treatment of Lower Wellfield water to potable standards and cleaning, lining, and final connections of the 20” potable water main cross country from the White Bridge Waterworks Facilities to Stafford Avenue.

1.8 CONTRACTOR’S USE OF SITE AND PREMISES

A. Restricted Use of Site: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.

B. Limits on Use of Site: Limit use of Project site to Work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

1. Driveways, Walkways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or for storage of materials.

a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

C. Condition of Existing Buildings: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period, unless otherwise noted on the Drawings. Repair damage caused by construction operations.

D. Condition of Existing Grounds: Maintain portions of existing grounds, landscaping, and hardscaping affected by construction operations throughout construction period. Repair damage caused by construction operations.

1.9 COORDINATION WITH OCCUPANTS

A. Partial Owner Occupancy: Owner will occupy the premises during entire construction period, with the exception of areas under construction or have been decommissioned and demolished as part of the construction sequencing. Cooperate with Owner during construction operations to

minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations. Maintain existing exits unless otherwise indicated.

1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
2. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.

1.10 WORK RESTRICTIONS

A. Comply with restrictions on construction operations.

1. Comply with limitations on use of public streets, work on public streets, rights of way, and other requirements of authorities having jurisdiction.

B. On-Site Work Hours: Limit work to between 7:00 a.m. to 7:00 p.m., Monday through Saturday, unless otherwise indicated. Work hours may be modified to meet Project requirements if approved by Owner and authorities having jurisdiction.

1. Sunday Hours: Work may be permitted on Sunday between 9:00 a.m. and 5:00 p.m.
2. Early Morning Hours: No work shall occur at the site before 7:00 a.m.
3. Hours for Utility Shutdowns: Coordinate with Owner; utility shutdowns and other activities requiring City of New Britain personnel shall be planned between 7:00 a.m. and 2:00 p.m.
4. City of Bristol Noise Ordinance and other work hour restrictions shall be followed at all times.

C. **Work withing City of Bristol Roadways:**

1. **Work within the intersection of Maltby Street and Stafford Avenue is prohibited during bus drop off times (7:30 a.m. to 7:40 a.m.) at St. Paul Catholic High School. Work shall not start in this intersection before 8:00 a.m. on weekdays (Monday through Friday) while school is in session.**
2. **Work within the intersection of Maltby Street and Stafford Avenue is prohibited during bus pick up times (2:15 p.m.) at St. Paul Catholic High School. Work shall not be performed in the intersection between 2:00 p.m. and 3:00 p.m. on weekdays (Monday through Friday) while school is in session.**
    a. **Roadways shall be made safe and passable for all through traffic at the end of each day and for the specified periods of no-work within the intersection.**
3. **Utility installation work within Maltby Street is prohibited during peak traffic hours and is limited to the hours of 10:00 a.m. to 4:00 p.m. unless previously approved by the Engineer.**

D. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging for temporary utility services according to requirements indicated:

1. Notify Engineer not less than two days in advance of proposed utility interruptions.
2. Obtain Engineer's written permission before proceeding with utility interruptions.

E. Noise, Vibration, Dust, and Odors: Coordinate operations that may result in high levels of noise and vibration, dust, odors, or other disruption to Owner occupancy with Owner.

1. Notify Engineer not less than two days in advance of proposed disruptive operations.
2. Obtain Engineer's written permission before proceeding with disruptive operations.

F. Smoking and Controlled Substance Restrictions: Use of tobacco products, alcoholic beverages, and other controlled substances on Project site is not permitted.

G. Employee Identification: Provide identification tags for Contractor personnel working on Project site. Require personnel to use identification tags at all times.

H. Employee Screening: Comply with Owner's requirements for drug and background screening of Contractor personnel working on Project site.

1. Maintain list of approved screened personnel with Owner's representative.

I. Local, State, and Federal Requirements: Comply with all local, state, and federal requirements and conditions issued for the project including, but not limited to, time of year work restrictions to protect state-listed species and other restrictions listed in the permits included as Appendix G to these Contract Documents.

J. **Construction Vehicle Access to Site shall be from Maltby Street via Stafford Avenue, to the extent practicable. Construction vehicle access to the site via Mix Street is prohibited except to perform Work associated with the wetlands creation area and/or without prior approval by the Engineer. Contractor's construction vehicles shall avoid residential roadways in the City of Bristol.**

1.11 COORDINATION WITH CITY OF BRISTOL, CT

A. The White Bridge Water Works Facility is owned and operated by the City of New Britain, CT but is located within the City of Bristol, CT and the following coordination is expected between the Contractor and the City of Bristol:

1. Bristol Public Works Department:

a. Contractor shall coordinate with the City of Bristol Public Works Department for nearby ongoing projects, including but not limited to, the Jerome Avenue Bridge Project to minimize traffic and construction impacts to the Maltby Street area.

2. Bristol Water and Sewer Department:

a. Contractor shall obtain all necessary permits, policies, and procedures from the Water and Sewer Department. The Water and Sewer Department requires all permits to be obtained by a licensed plumber. Contractor shall provide a minimum of 4 days notice for all non-emergency work on the water and sewer utilities.
b. Contractor shall coordinate connection of new water main in Maltby Street to existing water main in Mix Street with the Water and Sewer Department.

Payment for the City of Bristol to furnish and install a tapping sleeve for final connection must be made prior to work being completed.

c. Contractor shall pay the expected water service connection fee of $4,725.00 to the Water and Sewer Department, which will cover the connection fee, tapping the water main, 2" corporation stop and saddle, 2" curb stop and box, copper tubing to the property line, inspection of copper tubing from the property line to the building, and connections within the building.

d. Contractor shall coordinate with the Water and Sewer Department for inspection before final acceptance of water and sewer utilities installed within Maltby Street.

1.12 SPECIFICATION AND DRAWING CONVENTIONS

A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
2. Text Color: Text used in the Specifications, including units of measure, manufacturer and product names, and other text may appear in multiple colors or underlined as part of a hyperlink; no emphasis is implied by text with these characteristics.
3. Hypertext: Text used in the Specifications may contain hyperlinks. Hyperlinks may allow for access to linked information that is not residing in the Specifications. Unless otherwise indicated, linked information is not part of the Contract Documents.
4. Specification requirements are to be performed by Contractor unless specifically stated otherwise.

B. Division 00 Contracting Requirements: General provisions of the Contract, including General and Supplementary Conditions, apply to all Sections of the Specifications.

C. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.

D. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:

1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
2. Abbreviations: Materials and products are identified by abbreviations scheduled on Drawings and published as part of the U.S. National CAD Standard.
3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

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PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 011000

Revised Specification Temporary Facilities and Controls 101024

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SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes requirements for temporary utilities, support facilities, security and protection facilities, and environmental protection facilities.

B. Related Requirements:

1. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.

1.3 USE CHARGES

A. Installation, removal, and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities engaged in the Project to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Engineer, occupants of Project, testing agencies, and authorities having jurisdiction.

B. Sewer Service: Pay sewer-service use charges for sewer usage by all entities for construction operations.

C. Water Service: Pay water-service use charges for water used by all entities for construction operations.

D. Electric Power Service: Pay electric-power-service use charges for electricity used by all entities for construction operations.

E. Water and Sewer Service from Existing System: There is currently no potable water or sewer service at the site. Obtain and pay for water and sanitary service required for contractor operations until such time as these new utilities are operational.

F. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use with metering. Provide connections and extensions of services and metering as required for construction operations.

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1.4 INFORMATIONAL SUBMITTALS

A. Site Utilization Plan: Show temporary facilities, temporary utility lines and connections, staging areas, construction site entrances, vehicle circulation, and parking areas for construction personnel.

B. Implementation and Termination Schedule: Within **15** days of date established for commencement of the Work, submit schedule indicating implementation and termination dates of each temporary utility.

C. Project Identification and Temporary Signs: Show fabrication and installation details, including plans, elevations, details, layouts, typestyles, graphic elements, and message content.

1. Refer to General Conditions Article 52 and Notices to Contractor NTC-41 for specific signage requirements for City of New Britain and Drinking Water State Revolving Fund.

D. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.

E. Moisture- and Mold-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage and mold. Describe delivery, handling, storage, installation, and protection provisions for materials subject to water absorption or water damage.

1. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and requirements for replacing water-damaged Work.
2. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.
3. Indicate methods to be used to avoid trapping water in finished work.

F. Flood Contingency Plan: Describe procedures and controls for protecting buoyant, hazardous, flammable, explosive, soluble, expansive, or radioactive materials or any other materials that could be injurious to human, animal, or plant life in the event of a flood during construction. Detail such materials expected to be on-site and how such materials will be protected from flood damage, secured or removed from the floodplain to prevent pollution and hazards to life and property. Comply with any local, state, and federal requirements or conditions of Appendix G.

G. State-Listed Species Habitat Protection Plan: Describe procedures and controls for protecting state-listed species and habitat, as detailed in the NDDB Determination included in Appendix G. The State-Listed Species Habitat Protection Plan shall also include the qualifications and any certifications of the qualified professional familiar with habitat requirements and behavior of state-listed species who will perform species relocations, as required herein.

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1.5 QUALITY ASSURANCE

A. Temporary facilities shall comply with all applicable state and local ordinances, codes and regulations.

B. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

C. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

D. Accessible Temporary Egress: Comply with applicable provisions in the United States Access Board's ADA-ABA Accessibility Guidelines.

1.6 PROJECT CONDITIONS

A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Chain-Link Fencing: Minimum 2-inch (50-mm), 0.148-inch- (3.8-mm-) thick, galvanized-steel, chain-link fabric fencing; minimum 6 feet (1.8 m) high with galvanized-steel pipe posts; minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts, with 1-5/8-inch- (42-mm-) OD top rails.

B. Portable Chain-Link Fencing: Minimum 2-inch (50-mm), 0.148-inch- (3.8-mm-) thick, galvanized-steel, chain-link fabric fencing; minimum 6 feet (1.8 m) high with galvanized-steel pipe posts; minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts, with 1-5/8-inch- (42-mm-) OD top and bottom rails. Provide galvanized-steel bases for supporting posts.

C. Fencing Windscreen Privacy Screen: Polyester fabric scrim with grommets for attachment to chain-link fence, sized to height of fence, in color selected by Engineer from manufacturer's standard colors.

D. Wood Enclosure Fence: Plywood, 6 feet high, framed with four 2-by-4-inch (50-by-100-mm) rails, with preservative-treated wood posts spaced not more than 8 feet (2.4 m) apart.

E. Polyethylene Sheet: Reinforced, fire-resistive sheet, 10-mil (0.25-mm) minimum thickness, with flame-spread rating of 15 or less in accordance with ASTM E84 and passing NFPA 701 Test Method 2.

F. Dust-Control Adhesive-Surface Walk-Off Mats: Provide mats, minimum 36 by 60 inches (914 by 1524 mm).

G. Insulation: Unfaced mineral-fiber blanket, manufactured from glass, slag wool, or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively.

2.2 TEMPORARY FACILITIES

A. Field Offices: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.

B. Engineer's Field Office: Of sufficient size, but minimum 12-feet by 50-feet, to accommodate needs of Owner, Engineer, and construction personnel office activities and to accommodate Project meetings specified in other Division 01 Sections for duration of project. Keep office clean and orderly. Furnish and equip offices as follows:

1. Field office trailer shall have at least two offices, one conference room, one closet, and two exterior doors.
2. Conference room shall include built-in plan table.
3. Engineer's field office shall be weather-tight construction with floor, walls, and ceiling completely insulated. Each room shall have at least one operating window. Each window shall have a venetian blind and full insect screen. Furnish two sets of keys for each exterior door. Provide fully insulated skirting on all sides of the field office trailer. Provide steps, platforms, handrails, and boot scrapers for each exterior door.
4. Field office trailer shall be Mobile Mini, ModSpace, Williams Scotsman, or equal. Converted storage or box containers will not be acceptable.
5. Furnishings:

    a. Provide the following furnishings for the Engineer's temporary field office for the duration of the project. All furnishings shall be new – or in very good condition – subject to approval of the Engineer.

        1) Four 60-inch by 30-inch desks with file drawer and 5 drawers, all lockable.
        2) Upholstered swivel type chair with arms for each desk.
        3) One 30-inch by 84-inch conference table.
        4) Ten armless side chairs (stacking type).
        5) Two 54-inch by 30-inch folding tables.
        6) Six file cabinet, 4 drawer, legal size, Hon No. HN-315C, or equal.
        7) Four wastebaskets.
        8) One rolling plan storage rack, 10-stick capacity.
        9) One lockable storage cabinet, 72-inch high, 36-inch wide, and 18-inch deep.
        10) Two steel bookcase units, 4 shelves high, Hon No. HN-S48 ABC, or equal.
        11) One digital telephone answering machine.
        12) 24 painted steel coat hangers.
        13) One electric bottled water dispenser with hot and cold outlets and refrigerator unit. Adequate water bottles shall be provided (and paid for by the Contractor) until Final Completion.
        14) One wall-mounted first aid kit, McMaster-Carr 9501T1 or equal.
        15) Two smoke detectors, with batteries.
        16) Two dry erase boards, aluminum frame, 36-inch by 60-inch, markers and eraser, Quartet Model No. TS-S 535 or equal.
        17) One 1000-watt minimum 1.4-cu.ft. microwave oven.
        18) One 6-cf refrigerator.

19) Commercial duty cross-cut shredder with basket, designed for 3 to 5 users, Fellowes Powershred SB-125i, or equal.
20) One first aid kit, OSHA (1910.151.b) and ANSI (Z308.1-2003) compliant, suitable for ten people.
21) Temporary toilet and hand washing facilities.

6. Equipment:

a. Contractor shall provide the following equipment for the Engineer's temporary field office for the duration of the project. All equipment shall be new.

1) A multifunction Photocopier, printer, facsimile and scanner.

b. With 50-sheet auto-feeder, capable of copying and printing
c. Letter-sized, legal-sized, 11-inch by 17-inch, **and 12-inch by 18-inch** documents.
d. Contractor to provide paper and ink cartridges, as required, for the duration of the project.

1) Answering machine with digital recorder.
2) Digital Camera: provide one new digital camera for the Engineer's use for the project duration. Camera shall be a major brand name (e.g., Minolta, Cannon, Olympic, Pentax, etc. – subject to the Engineer's approval) and shall have an automatic date function, 3 Mega pixel or greater, 3x optical zoom or better, and at least one GB of memory (on board or supplemental memory card). The camera shall come complete with carrying case, storage card, rechargeable batteries, battery charger, flash memory reader, USB cables and all necessary software. After completion of project the camera will become the property of the Owner.
3) Four 8-outlet surge protectors with six-foot cord and minimum 1800-joule energy rating or greater; as manufactured by Belkin, or equal.
4) One 4-cup coffeemaker with timer, by Krups, or equal.

7. Services:

a. Provide the following services for the duration of the project. Services shall include all costs for installation, use, maintenance, and removal of all products, services and equipment billed by each provider for each service specified herein.
b. Field office shall have complete and fully functional electrical, plumbing, and HVAC systems. Provide at least two smoke detectors hard-wired into the electrical system. Perform all scheduled and unscheduled maintenance for all systems and as directed by the Engineer.
c. Electrical System: Provide connection to temporary electric service. Comply with the electrical requirements of the furnished office trailer. Provide main circuit panel, sufficient GFCI outlets and lighting in each room, exterior lights at each exterior door, and proper grounding of entire electrical system.
d. Plumbing system: Connect to existing potable water supply if available. Provide hot water heater and hot and cold water to each fixture. Connect waste pipes to existing sanitary system or a waste holding tank. Heat trace and insulate exterior piping to prevent freezing. Where potable water service is not available, Contractor shall provide bottle water service with water chiller/dispenser.

e. HVAC System: Provide central heating and air conditioning system with programmable thermostat. System shall be capable of maintaining an interior temperature of 70 degrees F when the exterior temperature is 0 degrees F and an interior temperature of 75 degrees F when exterior temperature is 100 degrees F.

f. Bottled water service: Provide bottled water service complete with dispenser with hot- and cold-water taps and regular bottle and cup replenishment as directed by the Engineer.

g. Janitorial service: Provide janitorial services (at least weekly) that include dusting, sweeping, vacuuming, mopping, disinfection, and trash removal.

h. Sanitary service: Provide regular pumping of chemical toilets and any other waste holding tank, if applicable, as needed.

i. Communications:

1) Install two telephone lines in the Engineer's field office for the Engineer's exclusive use:

a) one voice grade line with caller ID and call-waiting features.
b) a second line for a dedicated fax line.

j. Internet Access:

1) Provide high-speed Broadband internet access for the duration of the project.
2) Provide one air card for the Engineer's use for the duration of the project (through Final Completion], with unlimited data plans.

k. Pay all costs for installation, maintenance, and removal of the telephone and internet service and instruments, including cellular phone service. The monthly cost of all calls made and received by the Engineer, including toll and long-distance calls, shall be paid for by the Contractor for the duration of the project.

8. Supplies: Provide the following supplies for the duration of the project: copy paper, toner, toilet paper, paper towels, soap, light bulbs, and other consumables as required by the Engineer.

C. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.

1. Store combustible materials apart from building.

2.3 EQUIPMENT

A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

B. HVAC Equipment: Unless Owner authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.

1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
2. Heating, Cooling, and Dehumidifying Units: Listed and labeled for type of fuel being consumed, by a qualified testing agency acceptable to authorities having jurisdiction and marked for intended location and application.

2.4 ENVIRONMENTAL PROTECTION FACILITIES

A. Exclusionary Fencing: Exclusionary fencing shall be provided for protection of state-listed species, as detailed below and required by the NDDB Determination included in Appendix G.

1. Exclusionary fencing shall be at least 20-inches tall and must be secured to and remain in contact with the ground. Fencing shall be regularly maintained to secure any gaps or openings at ground level that may allow animals pass through.
2. Prior to construction activities, Contractor shall search Work area and fencing for the presence of and state-listed species named in the NDDB Determination. Any state-listed species included in the NDDB Determination encountered shall be relocated to suitable habitat outside the area of disturbance. Contractor shall provide a qualified professional familiar with habitat requirements and behavior of the species to perform relocations.

B. Aquifer Protection Area: Implement best management practices, to the extent practicable, for temporary construction as indicated in the CT DEEP Aquifer Protection Area Guidance document "Best Management Practices for Temporary Construction and Reconstruction Operations in Aquifer Protection Areas," included as Attachment A to this specification.

PART 3 - EXECUTION

3.1 TEMPORARY FACILITIES, GENERAL

A. Conservation: Coordinate construction and use of temporary facilities with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

3.2 INSTALLATION, GENERAL

A. Locate facilities where shown on the Drawings or where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work. Engineer's trailer shall be set up and ready for occupancy within 30 days of the Notice to Proceed.

1. Locate facilities to limit site disturbance as specified in Section 011000 "Summary."

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B. Provide each facility ready for use within 30 days of the Notice to Proceed and prior to Commencement of Work at the site. Do not remove until approved by Engineer or are replaced by authorized use of completed permanent facilities.

3.3 ENGINEER'S OFFICE

A. Engineer's trailer shall be set up and ready for occupancy within 30 days of the Notice to Proceed and prior to commencement of Work at the site. All systems, furnishings, equipment, and services specified herein shall be furnished, installed, and completely operational for the field office to be considered established.

1. Provide regular office cleaning services for the duration of the project.
2. Provide supplies including, but not limited to restroom supplies (toilet tissue paper, paper towel, and soap), as well as light bulbs, air conditioner filters, etc.
3. Provide office supplies for printers and fax machines, etc.
4. Supply all fuel for heating and pay all utility bills.

B. Install field office plumb and level.

C. Engineer's trailer shall be removed, and the site shall be cleaned up and restored before Final Completion of the project.

3.4 CONTRACTOR'S FIELD OFFICE

A. Provide a temporary field office(s) for the Contractor's use for the duration of the project. An authorized representative of the Contractor shall be present at all times while the Work is in progress. Instructions received at the Contractors field office from the Engineer shall be considered delivered to the Contractor.

B. Locate field office(s) in accordance with approved shop drawings and as directed by the Owner.

C. Establish and occupy field office within 30 days of the Notice to Proceed, unless otherwise approved by the Engineer or Owner.

3.5 TEMPORARY UTILITY INSTALLATION

A. General: Install temporary service or connect to existing service, if approved by Owner.

1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.

B. There is currently no potable water or sewer service at the site. Obtain and pay for water and sanitary service required for contractor operations until such time as these new utilities are operational.

C. Sanitary Facilities: Provide temporary toilets, wash facilities, safety shower and eyewash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities. Provide regular maintenance and cleaning of sanitary facilities.

D. Temporary Heating and Cooling: Provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.

1. Provide temporary dehumidification systems when required to reduce ambient and substrate moisture levels to level required to allow installation or application of finishes and their proper curing or drying.

E. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.

1. Prior to commencing work, isolate the HVAC system in area where work is to be performed.

a. Disconnect supply and return ductwork in work area from HVAC systems servicing occupied areas.
b. Maintain negative air pressure within work area, using HEPA-equipped air-filtration units, starting with commencement of temporary partition construction, and continuing until removal of temporary partitions is complete.

2. Maintain dust partitions during the Work. Use vacuum collection attachments on dust-producing equipment. Isolate limited work within occupied areas using portable dust-containment devices.
3. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.

F. Temporary Light and Power: Provide by Contractor, including 220 Volt service for welding, complete with wiring, lamps and similar equipment as required to adequately light all work areas and with sufficient power capacity to meet the project needs. Make all necessary arrangements with the local electric company for temporary electric service and pay all expenses in connection therewith.

G. Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner.

H. Electric Power Service: Provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.

1. Install electric power service overhead unless otherwise indicated.
2. Connect temporary service to Owner's existing power source, as directed by Owner.

I. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.

1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.

J. Telephone Service: Provide temporary telephone service in common-use facilities for use by all construction personnel. Install WiFi cell phone access equipment and one land-based telephone line(s) for each field office.

1. At each telephone, post a list of important telephone numbers.

    a. Police and fire departments.
    b. Ambulance service.
    c. Contractor's home office.
    d. Contractor's emergency after-hours telephone number.
    e. Engineer's offices.
    f. Owner's office.
    g. Principal subcontractors' field and home offices.

K. Electronic Communication Service: Provide secure WiFi wireless connection to internet with provisions for access by Engineer and Owner.

L. Project Computer: Provide a desktop computer in the primary field office adequate for use by Engineer and Owner to access Project electronic documents and maintain electronic communications. Equip computer with not less than the following:

1. Processor: Intel Core i5 or i7.
2. Memory: 164 gigabyte.
3. Disk Storage: 1 -terabyte hard-disk drive and combination DVD-RW/CD-RW drive.
4. Display: 24 inch (610 mm) LCD monitor with 256-Mb dedicated video RAM.
5. Full-size keyboard and mouse.
6. Operating System: Microsoft Windows 10 Professional.
7. Productivity Software:

    a. Microsoft Office Professional, 2013 or higher, including Word, Excel, and Outlook.
    b. Adobe Reader DC.
    c. WinZip 10 or higher.

8. Printer: "All-in-one" unit equipped with printer server, combining color printing, photocopying, scanning, and faxing, or separate units for each of these three functions.
9. Internet Service: Broadband modem, router and ISP, equipped with hardware firewall, providing minimum 10 Mbps upload and 15 Mbps download speeds at each computer.
10. Internet Security: Integrated software, providing software firewall, virus, spyware, phishing, and spam protection in a combined application.
11. Backup: External hard drive, minimum 2 terrabytes, with automated backup software providing daily backups.

3.6 SUPPORT FACILITIES INSTALLATION

A. Comply with the following:

1. Provide construction for temporary field offices, shops, and sheds located within construction area or within 30 feet (9 m) of building lines that is noncombustible in accordance with ASTM E136. Comply with NFPA 241.
2. Utilize designated area within existing building for temporary field offices.
3. Maintain support facilities until Engineer schedules Final Completion inspection. Remove just before Final Completion.

B. Temporary Roads and Paved Areas: Construct and maintain temporary roads and paved areas adequate for construction operations. Locate temporary roads and paved areas within construction limits indicated on Drawings.

1. Provide dust-control treatment that is nonpolluting and nontracking. Reapply treatment as required to minimize dust.

C. Temporary Use of Planned Permanent Roads and Paved Areas: Locate temporary roads and paved areas in same location as permanent roads and paved areas. Construct and maintain temporary roads and paved areas adequate for construction operations. Extend temporary roads and paved areas, within construction limits indicated, as necessary for construction operations.

1. Coordinate elevations of temporary roads and paved areas with permanent roads and paved areas.
2. Prepare subgrade and install subbase and base for temporary roads and paved areas accordance with Section 312000 "Earthwork."
3. Recondition base after temporary use, including removing contaminated material, regrading, proofrolling, compacting, and testing.
4. Delay installation of final course of permanent hot-mix asphalt pavement until immediately before Substantial Completion. Repair hot-mix asphalt base-course pavement before installation of final course in accordance with Section 321216 "Asphalt Paving."

D. Traffic Controls: Comply with requirements of authorities having jurisdiction.

1. Protect existing site improvements to remain including curbs, pavement, and utilities.
2. Maintain access for fire-fighting equipment and access to fire hydrants.

E. Parking: Use designated areas of Owner's existing parking areas for construction personnel.

F. Storage and Staging: Provide temporary offsite area as needed to supplement designated areas of Project site for storage and staging needs.

G. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.

1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
2. Remove snow and ice as required to minimize accumulations.

H. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.

1. Identification Signs: Provide Project identification signs as indicated on Drawings. Signs shall be constructed of A-A Ext – APA grade plywood, 1-in thick. Posts and braces shall be of pressure treated lumber.
2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.

    a. Provide temporary, directional signs for construction personnel and visitors.

3. Maintain and touch up signs, so they are legible at all times.

I. Waste Disposal Facilities: Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."

J. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Section 017300 "Execution."

K. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.

1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

L. Temporary Stairs: Until permanent stairs are available, provide temporary stairs where ladders are not adequate.

M. Existing Stair Usage: Use of Owner's existing stairs will be permitted, provided stairs are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore stairs to condition existing before initial use.

1. Provide protective coverings, barriers, devices, signs, or other procedures to protect stairs and to maintain means of egress. If stairs become damaged, restore damaged areas, so no evidence remains of correction work.

N. Temporary Use of Permanent Stairs: Use of new stairs for construction traffic will be permitted, provided stairs are protected and finishes restored to new condition at time of Substantial Completion.

3.7 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.

1. Where access to adjacent properties is required in order to affect protection of existing facilities, obtain written permission from adjacent property owner to access property for that purpose.

B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

1. Comply with work restrictions specified in Section 011000 "Summary."
2. Comply with environmental protection facilities as required in Appendix G.

C. Temporary Erosion and Sedimentation Control: Comply with requirements of authorities having jurisdiction as detailed in approvals and conditions included in Appendix G and requirements specified in Section 312500 "Erosion and Sedimentation Controls."

D. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent

properties and walkways, according to erosion- and sedimentation-control Drawings and authorities having jurisdiction, whichever is more stringent.

1. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross tree- or plant-protection zones.
2. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
3. Clean, repair, and restore adjoining properties and roads affected by erosion and sedimentation from Project site during the course of Project.
4. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

E. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.

F. Tree and Plant Protection: Comply with requirements specified in Section 015639 "Temporary Tree and Plant Protection."

G. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.

H. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals, so Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using materials approved by authorities having jurisdiction.

I. Site Enclosure Fence: Before construction operations begin, furnish and install site enclosure fence in a manner that will prevent people from easily entering site except by entrance gates.

1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.
2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Furnish one set of keys to Owner.

J. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each workday.

K. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.

L. Temporary Egress: Provide temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction. Provide, install and maintain signage directing occupants to temporary egress.

M. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.

1. Where heating or cooling is needed and permanent enclosure is incomplete, insulate temporary enclosures.

N. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire-prevention program.

1. Prohibit smoking in construction areas. Comply with additional limits on smoking specified in other Sections.
2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition in accordance with requirements of authorities having jurisdiction.
3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
4. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign, stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.

O. Weather protection shall comply with M.G.L. Chapter 149 Section 44G.

3.8 MOISTURE AND MOLD CONTROL

A. Moisture and Mold Protection: Protect stored materials and installed Work in accordance with Moisture and Mold Protection Plan.

B. Exposed Construction Period: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect as follows:

1. Protect porous materials from water damage.
2. Protect stored and installed material from flowing or standing water.
3. Keep porous and organic materials from coming into prolonged contact with concrete.
4. Remove standing water from decks.
5. Keep deck openings covered or dammed.

C. Partially Enclosed Construction Period: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:

1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.
2. Keep interior spaces reasonably clean and protected from water damage.
3. Periodically collect and remove waste containing cellulose or other organic matter.
4. Discard or replace water-damaged material.
5. Do not install material that is wet.
6. Discard and replace stored or installed material that begins to grow mold.
7. Perform work in a sequence that allows wet materials adequate time to dry before enclosing the material in gypsum board or other interior finishes.

D. Controlled Construction Period: After completing and sealing of the building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:

1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
2. Use temporary or permanent HVAC system to control humidity within ranges specified for installed and stored materials.
3. Comply with manufacturer's written instructions for temperature, relative humidity, and exposure to water limits.

    a. Hygroscopic materials that may support mold growth, including wood and gypsum-based products, that become wet during the course of construction and remain wet for 48 hours are considered defective and require replacing.
    b. Measure moisture content of materials that have been exposed to moisture during construction operations or after installation. Record readings beginning at time of exposure and continuing daily for 48 hours. Identify materials containing moisture levels higher than allowed. Report findings in writing to Engineer.
    c. Remove and replace materials that cannot be completely restored to their manufactured moisture level within 48 hours.

3.9 OPERATION, TERMINATION, AND REMOVAL

A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.

B. Maintenance: Maintain facilities in good operating condition until removal.

1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
2. Clear snow and ice from all drives, walks and stairs to maintain safe vehicle and pedestrian access to the site and facilities as directed by the Engineer.

C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Final Completion.

D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Final Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
2. Remove temporary roads and paved areas not intended for or acceptable for integration into permanent construction. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
3. Just prior to Final Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

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3.10 ATTACHMENTS

A. CT DEEP Aquifer Protection Area Guidance – Best Management Practices for Temporary Construction and Reconstruction Operations in Aquifer Protection Areas

END OF SECTION 015000

Aquifer Protection Area Guidance: Construction and Stormwater 101024

AQUIFER PROTECTION AREA GUIDANCE

Best Management Practices for Temporary Construction and Reconstruction Operations in Aquifer Protection Areas

Issues and Concerns
Potential groundwater quality concerns include stormwater, fuel, and other maintenance chemicals associated with vehicles, machinery, and equipment.

Guidance/Recommendations
For the protection of ground water quality at construction operations in aquifer protection areas, DEEP recommends the following:

Temporary Construction Measures

- Significant fuel, chemical or other hazardous materials storage and handling, including fueling of construction vehicles, should be located outside well field area and aquifer protection area.
- No repair or maintenance of construction vehicles or washing of construction vehicles is permitted within the aquifer protection area.
- Any necessary temporary storage should be aboveground, protected from rainfall, and on an impervious containment surface.
- An emergency spill and response plan should be developed, including coordination with the water supplier.
- The site access should be adequately secured at all times to prohibit any unauthorized disposal of waste materials.

Stormwater Pollution Prevention Measures:

- Ways to minimize pollutant load (sand, salt, etc.) should be examined.
- Deicing management areas should be established including low salt use areas, alternative chemical or sand methods.
- Wellhead protection signs shall be posted in clear visibility of the highway at the entrance and exit points of the aquifer protection area and at ½ mile intervals.

Drainage System Design Criteria:

- Select best management practices from the DEEP stormwater manual based on treatment effectiveness and low groundwater pollution potential.

- Sheetflow and swale collection is encouraged, where possible, outside of immediate well field area.
- Catch basins and curbs should be used in immediate wellhead area to divert and control runoff and spills away from wellhead.
- Dry wells or similar subsurface leaching structures should not be used for stormwater disposal from paved or other areas that have high potential to pollute groundwater; existing structures which have high potential to pollute groundwater should be removed or converted.
- Gross particle/oil separators (swirl concentrator type) may be used for pretreatment of consecutive catch basins. Deep catch basins (minimum 4' deep and tight construction, with baffles, may also be used).
- Stormwater discharge points shall outlet to aboveground land surface or basin type structures. Significant or critical discharge points should have a basin designed with a forebay (tight soil or lined) capable of containing an 8,000-10,000 gallon spill volume and 3-6 feet above water table, 4 feet above bedrock.
- Potential strategic groundwater monitoring should be considered.

For questions or more information, please contact the Aquifer Protection Area Program at 860-424-3040 or visit our website at www.ct.gov/deep/aquiferprotection.

AQUIFER PROTECTION AREA GUIDANCE

Best Management Practices for Controlling Stormwater from Parking Lots in Aquifer Protection Areas

(1) Do not use direct infiltration structures (galleries, drywells, trenches) as these do not allow for attenuation of salt or other soluble compounds that may be contained in parking lot runoff.

(2) Non-structural measures to dissipate and treat runoff are encouraged, including sheetflow from uncurbed pavement and vegetated swales/basins. These provide an opportunity for volatilization of volatile organic compounds to the extent possible before the stormwater can infiltrate into the ground.

(3) If a stormwater collection system must be installed, it should discharge to an above-ground outlet point (swales, detention/retention basins or surface waters).

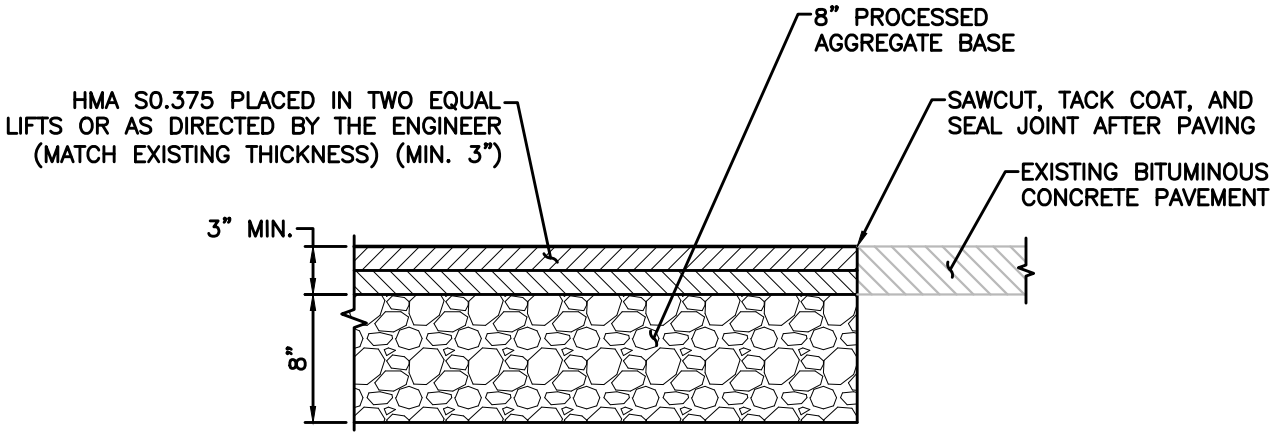
(a) Any catch basins installed should have deep sumps to trap sediments and hoods to trap oil and grease.

(b) If more than 1 acre of pavement drains to a common discharge point, a gross particle separator should also be installed. Advanced designs for gross particle separators have been developed, such as Vortechnics, Downstream Defender and Stormceptor, that the Department believes are very effective in retaining medium to coarse grained sediments as well as floatables. The last type of separator is designed to treat runoff from areas up to approximately 1 acre in size, while the former two can be sized to accommodate flow from larger areas. It is recommended that the appropriate variety of this or similar type of unit with a cyclonic design be installed in conjunction with each outfall, depending on the size of the drainage area.

(4) Provisions should be made for the periodic maintenance that will be required to insure continued effectiveness of these control measures.

For more information regarding the design of stormwater collection systems, contact Chris Stone of the DEEP's Stormwater Permitting & Enforcement Division at (860) 424-3850.

Standard Bristol DPW Roadway, Curb and Sidewalk Repair Details



RECONSTRUCTION OF ROADWAY

SCALE: $1\frac{1}{2}$" = 1'–0"

111 NORTH MAIN STREET
BRISTOL, CONNECTICUT
06010
T: 860.584.6125
www.bristolct.gov

Bristol CONNECTICUT Public Works

RECONSTRUCTION OF ROADWAY DETAIL

APPLICANT:

ON: ---
AT: ---

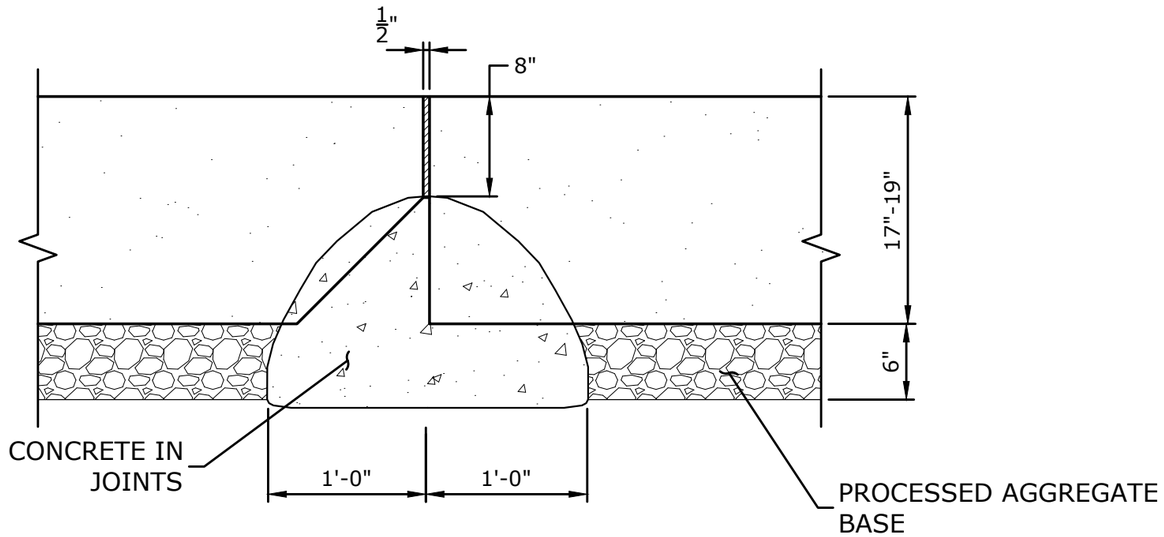
STANDARD ROADWAY DETAILS

DATE: **JULY 14, 2023**

SCALE: **AS SHOWN**

SHEET: **01**

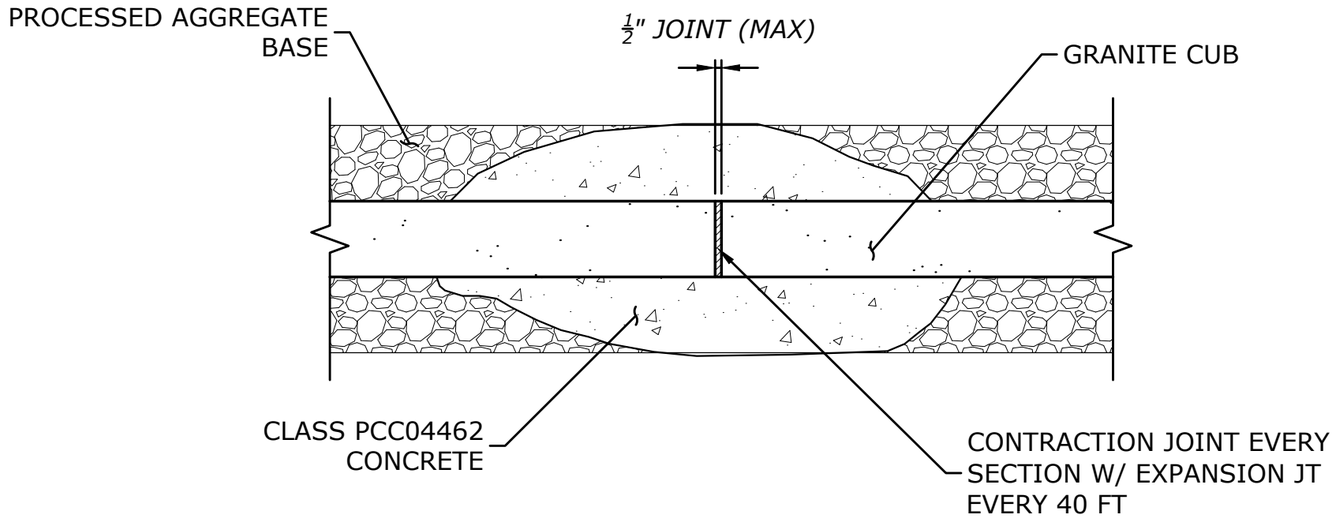
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CURB ELEVATION

NOT TO SCALE

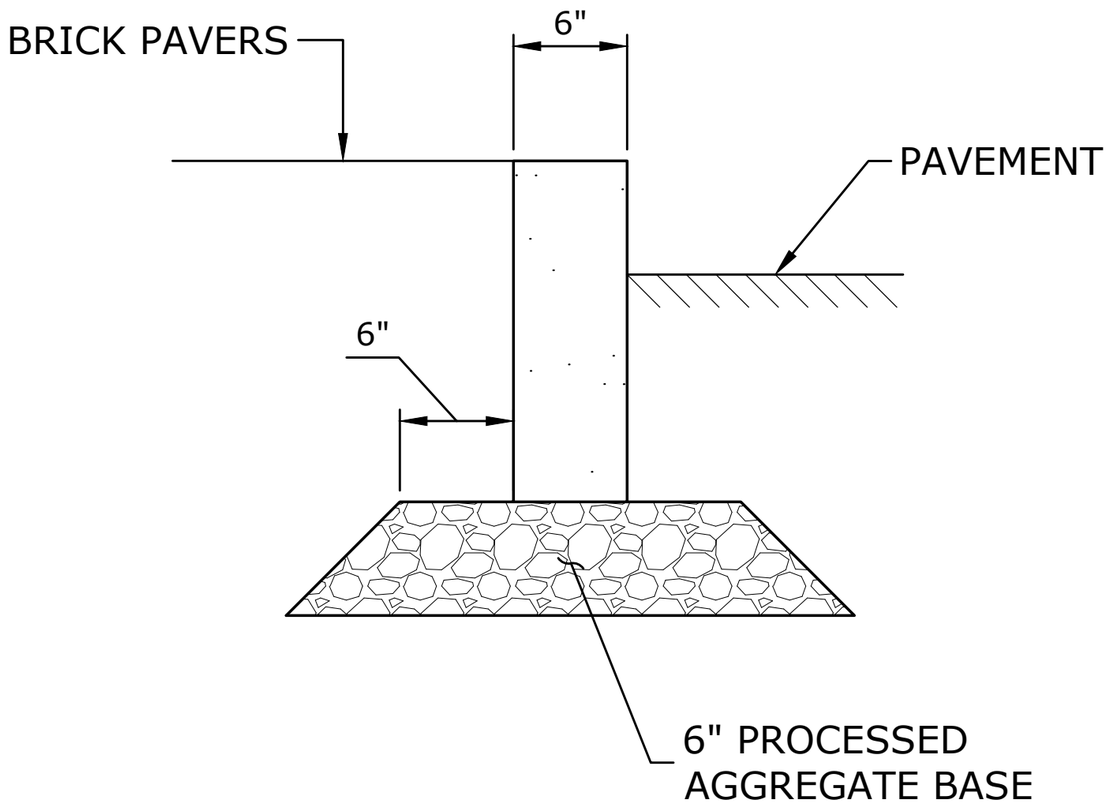
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CURB PLAN VIEW

SCALE: 1" = 1'-0"

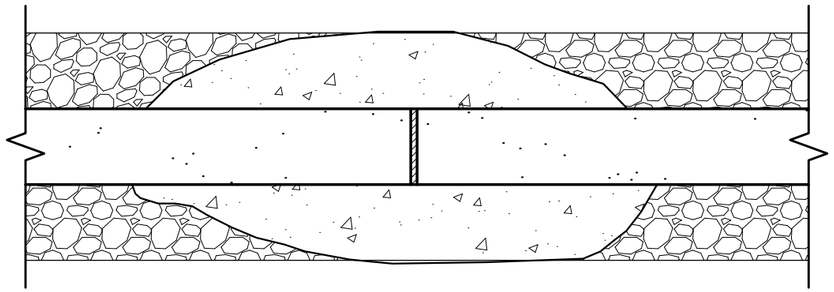
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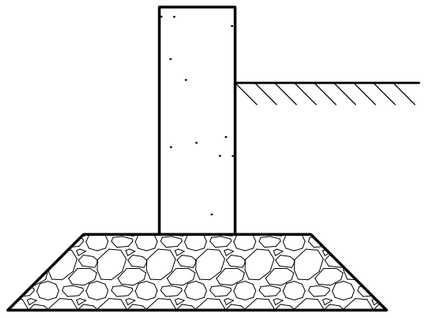


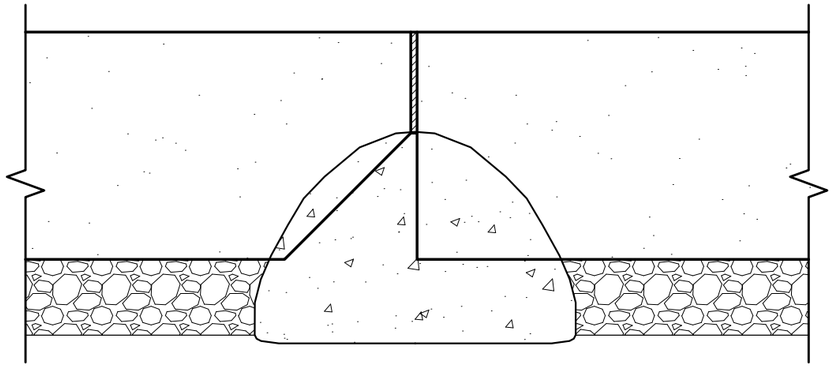
CURB SECTION

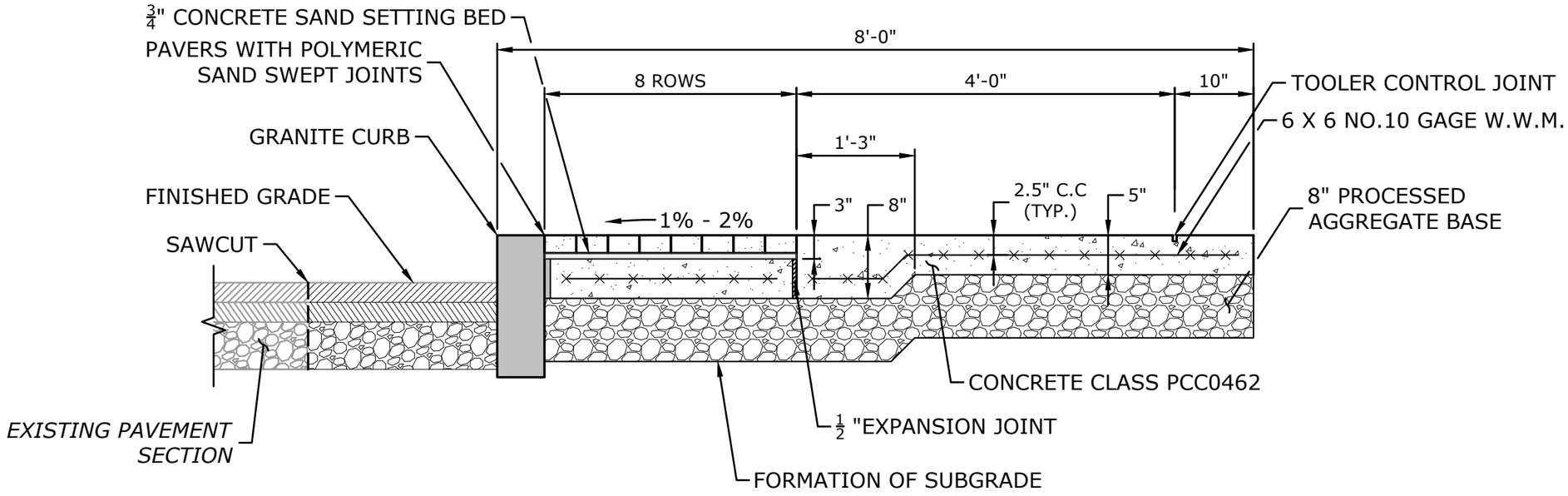
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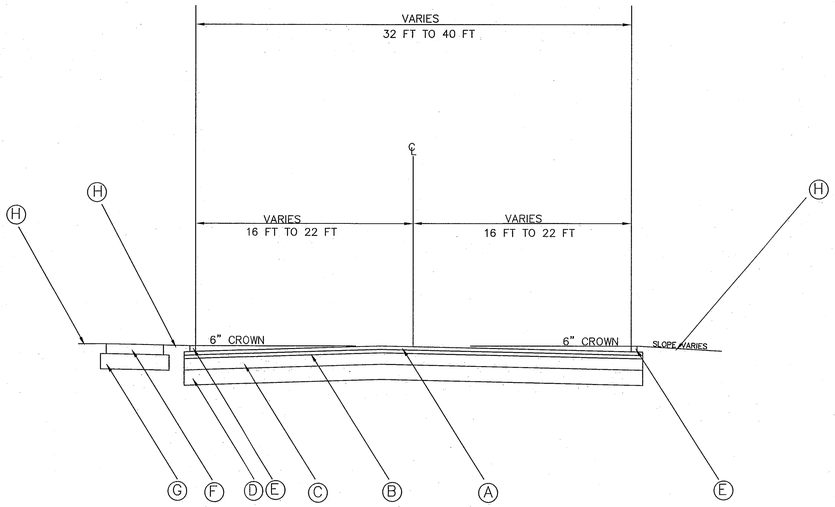






CONCRETE SIDEWALK WITH BRICK PAVERS

SCALE: ¾" = 1'-0"



TYPICAL SECTION
STA. 10+50 TO 31+30

Ⓐ TWO INCH (2") CLASS 2 SURFACE COURSE

Ⓑ TWO INCH (2") CLASS 1 BINDER COURSE

Ⓒ SIX INCH (6") AGGREGATE BASE (M.05.01)

Ⓓ TEN INCH (10") SUBBASE (M.02.02)

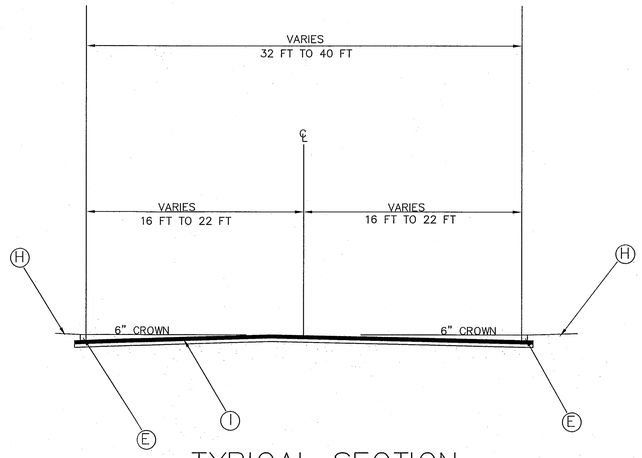
Ⓔ SIX INCH (6") BITUMINOUS LIP CURB (REMOVE EXISTING)

Ⓕ FIVE INCH (5") THICK CONCRETE WALK

Ⓖ EIGHT INCH (8") PROCESS GRAVEL

Ⓗ TURF ESTABLISHMENT (4" MINIMUM OF TOPSOIL)

Ⓘ MILL TWO INCH (2") EXISTING CLASS 2 SURFACE PAVEMENT. OVERLAY WITH NEW CLASS 2 SURFACE PAVEMENT.



TYPICAL SECTION
STA. 4+17 TO 10+50

DESCRIPTION	SHEET. NO.	NO SCALE	DESIGNER: AMF	CITY OF BRISTOL, CONNECTICUT	Bristol Department of Public Works 111 North Main Street Bristol, CT 06010 (860) 584-6125 (860) 584-3838 Fax	PROJECT TITLE: MIX STREET ROAD RECONSTRUCTION	TOWN: BRISTOL, CONNECTICUT	DOT PROJECT:
REVISIONS			DRAFTER: AMF					DRAWING NO.:
			CHECKED BY: RAR	ENGINEER: BRISTOL DPW			DRAWING TITLE: TYPICAL SECTIONS	SHEET NO.: 4
			DATE CHECKED: 10-9-09	APPROVED BY: DATE: OCTOBER 9, 2009		CADD: PLOTTED: BRISTOL DPW		

Standard Bristol DPW Contractor Excavation Forms

City of Bristol

DEPARTMENT OF PUBLIC WORKS
BRISTOL, CONNECTICUT 06010

EXCAVATION
CONTRACTOR'S PERMIT BOND

_____
Name of License Holder

_____
Bond Number

KNOW ALL MEN BY THESE PRESENTS,

That we, _____ of the Town
(Licensee)

of_____County of _____,

and the State of Connecticut, as Principal, and _____,
(Bonding Company)

of the State of _____ having an office and place of business at

_____,

as Surety, are held and firmly bound unto the City of Bristol, in the sum of

_____ Dollars,

lawful money of the United States, to be paid to assure completion of all work for which payment, well and truly to be made, we bind ourselves, our heirs, executors and administrators and assigns, jointly and severally by these presents, the said bond and surety to be holden to the CITY OF BRISTOL for such time and under such stipulations as hereinafter stated.

The condition of this obligation is such, that:

Whereas, the above named Principal has received, or may, upon his application, receive, a permit or permits from the CITY OF BRISTOL, to perform work on, about or adjacent to a highway or for the use of the highway right of way, on, over, or below, within said CITY OF BRISTOL as is or may be particularly specified in said permit or permits, to which permit or permits reference is hereby made and are made a part hereof: and Whereas, the said Principal has undertaken and does hereby agree to comply with all the rules, regulations and restrictions of said CITY OF BRISTOL in regard to said permit or permits.

NOW, THEREFORE, it is agreed that (a) this bond shall expire one year from date hereof, except that it shall continue in full force and effect as herein provided as to any and all work required under any permit issued to the Principal within one year from date hereof; (b) if the said Principal fails to complete the required work described in each and every permit issued to him, and continues in said failure and/or neglect for more than thirty days after written notice of said failure and/or neglect is mailed by the Director of Public Works of the City of Bristol to the Principal and surety (by certified mail to the address shown hereon) said Director of Public Works shall arrange to complete all unfinished work and charge the same to the Surety to the extent of this bond; and (c) if the said Principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements specified in said permit or permits, and shall well and truly save harmless and indemnify the said CITY OF BRISTOL and the DIRECTOR OF PUBLIC WORKS, or either of them, from all damages and costs that the CITY OF BRISTOL or the DIRECTOR OF PUBLIC WORKS may suffer, be liable for, or be compelled to pay, or in fact does pay, for any injuries or damages which may be caused by any action or work being carried on either by the said Principal, his servants, agents or employees, under any permit or permits issued or which may be issued by said CITY OF BRISTOL, or its authorized agent, or by reason of negligence or violation of any law on the part of said Principal, his servants, agents or employees, and shall, further indemnify said CITY OF BRISTOL for any expenses that said CITY OF BRISTOL or the DIRECTOR OF PUBLIC WORKS may suffer, be liable for, or be compelled to pay, or in fact does pay for any required adjustments to the highway and its facilities to a comparable condition, including but not limited to refilling openings or excavations, removing guard railings, removing trees, tree stumps and other obstructions, replacing drainage involving driveways and restoring pavements opened or excavated satisfactory to the CITY or existed prior to the initiation of the work said Principal, his servants, agents or employees, then this obligation shall be void; otherwise to remain in full force and effect.

All of the provisions of the foregoing are to be subject to the present statute laws of the State of Connecticut and ordinances and standards and regulations of the CITY OF BRISTOL and to any change, alteration or repeal of any existing laws as may be enacted by any future session of the Legislature of the State of Connecticut or the City Council of the City of Bristol.

IN WITNESS WHEREOF, we have hereunto set our hands and seal the _____

day of _____, in the year two thousand, and _____.

Witness to Licensee's Signature (2)

_____

_____

_____
Licensee's Signature

_____
Bond Company Name

_____
Bond Company Address

_____
Agent Representing Bond Company

City of Bristol DEPARTMENT
OF PUBLIC WORKS BRISTOL,
CONNECTICUT 06010
860-584-6125 – Front Desk
860-584-6295 – Sanitary Sewer Inspector

Contractor's License & Bonding Information Package

License & Bonding Narrative

This Contractor's License and Bonding Information Package includes the following:

- License & Bonding Narrative
- Excavation Contractor's License Application (to be completed & returned to DPW)
- Excavating Contractor's Permit Bond Form (to be completed & returned to DPW along with bond & Power of Attorney Form)
- List of streets requiring uniformed City of Bristol Police Officer for Traffic Control. Call 860-584-3000 48 hours prior to work to schedule Police Officers. Contractor is responsible for cost of officers.
- Sanitary Sewer Connection fee schedule.

Requirements and procedures to become a licensed and bonded Excavation Contractor in the City of Bristol

- Contractor must be licensed by the State of Connecticut as a P1, P7 or W-9 Contractor
- Complete and return the Excavation Contractor's License Application to the Bristol Public Works Department.
- Complete and return to the Bristol Public Works Department the Excavation Contractor's Permit Bond Form and supply a bond for ten thousand dollars ($10,000.00) with a Power of Attorney Form.
- Provide a Certificate of Liability Insurance with the following coverage;
  - Personal Injury - $100,000 Minimum(300,000)
  - Property Damage - $10,000 Minimum(300,000)

Submit the above listed information as one package to the Bristol Department of Public Works office during regular office hours (M-F, 8:00-5:00). This information will be reviewed by the Sanitary Sewer Inspector.

After you become a licensed and bonded Contractor you must obtain an Excavation Permit from the City of Bristol Sanitary Sewer Inspector prior to conducting any work within a City of Bristol street and/or right of way.

City of Bristol DEPARTMENT
OF PUBLIC WORKS BRISTOL,
CONNECTICUT 06010

License & Bonding Narrative (Continued)

Excavation Permit & Permanent Patch Information

All excavation and utility work conducted within any City of Bristol street and/or right of way can only be conducted by Contractors licensed and bonded ***by the City of Bristol***.

To become a licensed and bonded Contractor in the City of Bristol obtain a "Contractor's License & Bonding Information Package" from the City of Bristol Department of Public Works office located in City Hall at 111 North Main Street, Bristol Connecticut.

An excavation permit must be issued by the City of Bristol Sanitary Sewer Inspector (584-6115) a minimum of 48 hours prior to any excavation work within any City of Bristol street and/or right of way.

All ***utility connection fees*** for the subject property must be paid prior to issuance of an excavation permit.

Excavation permits are issued Monday thru Friday from 8:00 a.m. to 9:00 a.m. and from 3:30 p.m. to 4:30 p.m. and at other times as arranged with the Sanitary Sewer Inspector.

Fees

Excavation permit fee = $40.00 each. Separate excavation permits are required for each utility.

Permanent Patch fee – At the time of issuance of an Excavation Permit the Contractor shall pay the estimated cost of the permanent patch to the City of Bristol. During the period between temporary patch and permanent patch, the Contractor shall be responsible for maintaining the patch and shall promptly correct all defects upon order of the Director of Public Works or his designated agent. The intent is that temporary patches shall go through one complete winter season prior to being permanently patched by the City of Bristol. Prior to issuing a Certificate of Occupancy, the City of Bristol with measure the total area of the temporary patch, to assure the funds collected will cover the total permanent patch cost. If additional funds are needed to cover permanent patch cost they will be collected before a Certificate of Occupancy is issued.

Calculation of estimated patch cost will be based on length and width, (width shall be diameter of pipe plus twelve (12) inches, minimum twenty-four (24) inches, plus twelve (12) inches for every foot to depth of trench.) Permanent patch fees are calculated by the City of Bristol and subject to payment by the contractor.

City of Bristol
DEPARTMENT OF PUBLIC WORKS
BRISTOL, CONNECTICUT 06010
860-584-6125 – Front Desk

PERMANENT PATCHING OF CITY STREETS

The permanent patching of all utility trenches and other excavations in streets maintained by the City of Bristol will be by the public works department or under contract to the city. All utility contractors shall obtain an excavating permit for any trenches in the public street.

Excavation, backfilling and patching, general requirements.

Pavement and/or sidewalks shall be cut or sawn to straight neat lines, excavation without cutting or sawing will not be allowed. Cut line shall be parallel and six (6) inches minimum, outside either edge of the proposed trench. Tunneling under pavement or sidewalks will not be allowed. Bituminous material, cement concrete, ledge, rock and boulders over six (6) inches in any dimension shall be removed from the job, together with any clay, silt, or organic material. The public works inspector will check the material excavated and will allow re-use as backfill, sandy and/or gravelly material. Material not approved shall be disposed of off the job. Backfill shall be approved sandy gravelly material with no stones over six (6) inches in any dimension. Backfill shall be compacted in twelve-inch layers using mechanical compaction equipment.

The trench shall be filled to within eleven (11) inches of finished grade, eight (8) inches of approved processed gravel shall be spread and compacted, then three (3) inches of bituminous concrete shall be spread and compacted with the finished material flush with the adjacent existing surface. Bituminous concrete material shall be "hot mix," except during winter season when plants are closed "cold patch" will be used. During the period between temporary patch and permanent patch, the utility contractor shall be responsible for maintaining the patch and shall promptly correct all defects upon order of the director of public works. The contractor is an agent of the utility whose pipe, conduit, etc., is laid in the trench and has ultimate responsibility for the trench. In sanitary sewer laterals this is the serviced property owner. This procedure also includes new sanitary sewer construction and the ultimate responsibility shall be the city public works department.

Fees, deposits, records and measurements for patches.

Annually the city may advertise and receive bids for permanent patching of utility trenches. Bids will be taken on repair of bituminous pavement, curbing and sidewalk. The lowest acceptable unit prices will be utilized with a ten (10) per cent escalator for charging utility contractors, that year, for trench permanent patching. Trenches that are temporarily patched this year will be permanently patched next year, the intent is that temporary patches shall go through one complete winter season.

At the time of issuance of an excavation permit, the utility contractor shall deposit a fee equal to the estimated cost of the permanent patch. Upon completion, the actual patch will be measured and the contractor shall be billed for any additional amount or added cost due to increased bid cost, if the amount is less than the prepayment he will receive credit. Calculation of estimated patch will be based on length and width, (width shall be diameter of pipe plus twelve (12) inches, minimum twenty-four (24)inches, plus twelve (12) inches for every foot to depth of trench.) Permits will not be issued to contractors owing the city any excess fee. Responsible persons will be liened if excess fee not paid within ninety (90) days of the due date.
The public works department shall keep a written record of all trenches, with date of excavation, temporary patch and permanent patch, deposit fee and estimate quantity final fee and actual quantity balance or credit due, and exact location, and type of utility. The city shall maintain a separate fund, for permanent patching of all city streets. All payments by utility contractor or others excavating in the public street will be deposited in the fund, and payments for permanent patching completed will be disbursed from the fund.

Detailed patching requirements.
Permanent patching shall be performed as follows:
(a) ***Sidewalks***. Temporary bituminous material shall be removed. Existing walk faces shall be straight and true with no cracks or breaks, if not, shall be cut at next sound transverse joint. Subgrade material shall be removed to five (5) inches below finish grade one-half inch preformed full depth and width expansion joints shall be placed against existing concrete. Portland cement concrete shall be as specified in Chapter 21 of the City Ordinances. Topsoil and seeding shall be repaired as specified in Chapter 21 of the City Ordinances. Bituminous concrete walks shall be repaired as specified in subsection (c).
(b) ***Curbing***. Curbing shall be replaced to conform to existing adjacent curb. Existing curb shall be cut to neat true lines. Concrete and granite curb replacement shall be not less than three (3) feet. Bituminous curb less than twenty-five (25) feet may be hand formed to proper cross section. Curbing shall conform to Chapter 21 of the City Ordinances.
(c) ***Pavement***. Existing bituminous material shall be removed, existing pavement shall be cut to reasonably straight longitudinal lines, transverse jogs within ten (10) feet of each other shall not be accepted, transverse cuts shall be perpendicular to the longitudinal cut. Several small excavations shall be widened into one. If existing pavement has cracked due to trench settlement, the edge of the trench shall be cut beyond such cracks to firm true pavement. The subgrade shall be graded and compacted to three (3) inches below finished grade. The contractor shall add any necessary processed gravel to bring trench to subgrade, care shall be taken to keep processed gravel tight under adjacent pavement. Edge of existing bituminous shall be painted with hot liquid asphalt prior to paving. Transverse joints in new patch shall be cut square and painted with hot liquid asphalt. Bituminous material shall be placed in two (2) equal layers of one and one-half inches compacted. Finished surface shall meet existing surface neat and true. Edges of completed patch shall be sealed with an application of hot liquid asphalt three (3) inches minimum wide. Finish surface shall be lightly dusted with cement or fine quarry screenings. Patch shall be barricaded and traffic kept off for at least four (4) hours.

City of Bristol

DEPARTMENT OF PUBLIC WORKS
BRISTOL, CONNECTICUT 06010

Excavation Contractor's License Application

Date Filed: _____
Approved: _____
Denied: _____

1. **APPLICANT:** (Person completing this application)

   Name: _____ Signature: _____

   Address: _____ City: _____State: _____Zip: _____

   Telephone No.: _____ [ ] home [ ] work

2. **COMPANY:**

   Name: _____

   Address: _____ City: _____State: _____Zip: _____

   Telephone No.: _____ [ ] home [ ] work

3. **STATE LICENSES HELD:**

   Classification & Number:_____

   _____

4. **REFERENCES:** List a minimum of three (3) references (other than material suppliers) who are familiar with your work and the information contained within this application. Attach another sheet if necessary.

_____

_____

_____

_____

_____

_____

Original Site Plan

June 2024 (Full Set)

CITY OF NEW BRITAIN, CONNECTICUT

WATER SYSTEM IMPROVEMENTS

WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

BID NO. 4145

MAYOR

HONORABLE ERIN E. STEWART

DIRECTOR OF PUBLIC WORKS

MARK E. MORIARTY, P.E.

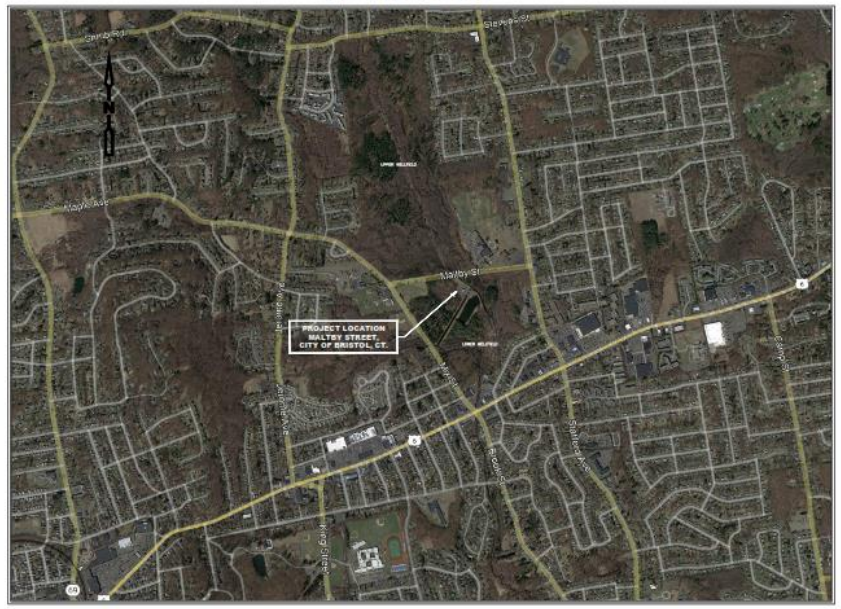
DIRECTOR OF UTILITIES DIVISION

RAMON ESPONDA, P.E.

SUPERINTENDENT OF UTILITIES DIVISION

CHRIS POLKOWSKI

JUNE 2024



LOCATION PLAN

CDM Smith

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

EAST HARTFORD, CONNECTICUT

Water *Environment* *Transportation* *Energy* *Facilities*

Full Set of Civil Drawings at this Hyperlink:

https://www.bristolct.gov/DocumentCenter/View/47022/Full-Set-NBW

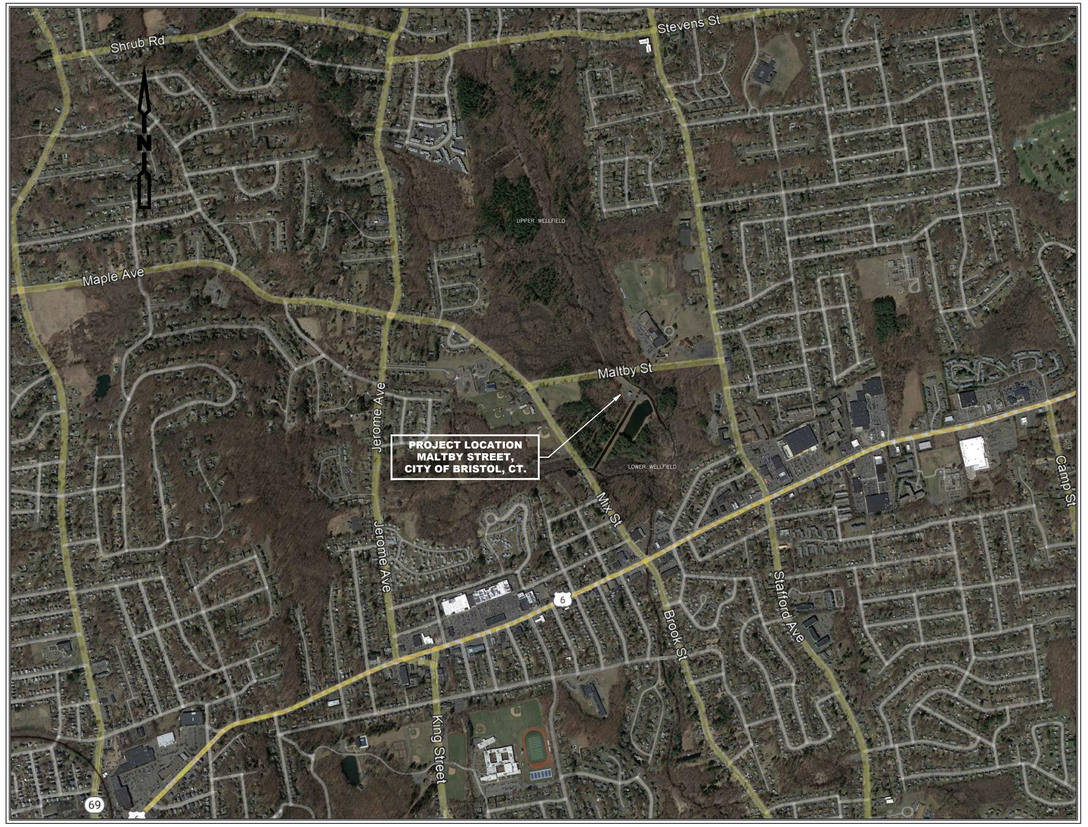
Revised Site Plan 101024

CITY OF NEW BRITAIN, CONNECTICUT

WATER SYSTEM IMPROVEMENTS

WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

BID NO. 4145



LOCATION PLAN

SCALE: 1" = 1000'

MAYOR

HONORABLE ERIN E. STEWART

DIRECTOR OF PUBLIC WORKS

MARK E. MORIARTY, P.E.

DIRECTOR OF UTILITIES DIVISION

RAMON ESPONDA, P.E.

SUPERINTENDENT OF UTILITIES DIVISION

CHRIS POLKOWSKI

OCTOBER 2024

BRISTOL ZONING COMMISSION APPLICATION
(APPROVED XX):
#2504 – SPECIAL PERMIT FOR CIVIC FACILITY
#2505 – SITE PLAN FOR CIVIC FACILITY
#2506 – SPECIAL PERMIT FOR EARTH REMOVAL

BRISTOL AQUIFER PROTECTION AGENCY
(APPROVED XX):
– DETERMINATION FORM

BRISTOL IWWA APPLICATIONS
(APPROVED JUNE 7, 2024):
#2019 – APPLICATION WETLANDS BOUNDARY CHANGE
#2020 – PERMIT TO CONDUCT REGULATED ACTIVITIES
#23-485F-3058 – PERMIT FOR FLOODPLAIN DEVELOPMENT

SP-01 OVERVIEW UWF NORTH
SP-02 OVERVIEW UWF SOUTH
SP-03 OVERVIEW LWF
SP-04 SITE PLAN UPPER WELLFIELD
SP-05 SITE PLAN POND PUMPING STATION
SP-06 SITE PLAN LOWER WELLFIELD
SP-07 MIX STREET ACCESS ROAD
SP-08 MALTBY STREET UTILITIES I
SP-09 MALTBY STREET UTILITIES II
SP-10 MALTBY STREET UTILITIES III
SP-11 STAFFORD AVENUE AND CROSS COUNTRY UTILITIES
SP-12 E&S CONTROLS UWF
SP-13 E&S CONTROLS POND PUMPING STATION
SP-14 E&S CONTROLS LWF

CDM Smith

STATE OF CONNECTICUT
STEVE GERSLEY
No. 24384
LICENSED PROFESSIONAL ENGINEER
10-10-24

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

EAST HARTFORD, CONNECTICUT

Water Environment Transportation Energy Facilities

IMAGE OBTAINED FROM GOOGLE EARTH PRO DECEMBER, 2021
Plot Stamp – File: C:\USERS\ENGELSB\DC\ACCDOCS\CDM SMITH INC\10739-264571 – NEW BRITAIN CT WHITE BRIDGE WELL FIELDS AND PS\PROJECT FILES\01 GENERAL (G)\10 CADD\PERMIT-GOODNFCV.DWG Saved by: ENGELSB On: 9-Oct-24 Plotted on: 9-Oct-24 10:59 AM

CIVIL/SITE ABBREVIATIONS

SYMBOL	DESCRIPTION
BC	BOTTOM OF CURB
BS	BOTTOM OF STEP
BW	BOTTOM OF WALL
CB	CATCH BASIN
CLF	CHAIN LINK FENCE
CS	CRUSHED STONE
CW	COLD POTABLE WATER
DI	DUCTILE IRON
DMH	DRAIN MANHOLE
DN	DOWN
FES	FLARED END SECTION
FFE	FINISHED FLOOR ELEVATION
FM	FORCE MAIN
FRP	FIBERGLASS REINFORCED PLASTIC
GV	GATE VALVE
HDPE	HIGH-DENSITY POLYETHYLENE
INF	INFLUENT
INV. EL.	INVERT ELEVATION
MH	MANHOLE
MJ	MECHANICAL JOINT
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
SS	STAINLESS STEEL
TC	TOP OF CURB
TS	TOP OF STEP/SLAB
TW	TOP OF WALL
UP	UTILITY POLE
VGC	VERTICAL GRANITE CURB
UWF	UPPER WELLFIELD
LWF	LOWER WELLFIELD

PROCESS FLOW STREAMS:

DR	DRAIN
FINW	FINISHED WATER
OVF	OVERFLOW
RW	RAW WATER
SAN	SANITARY
SPL	SAMPLE
VT	VENT
FLUO	SODIUM FLUORIDE
HYPO	SODIUM HYPOCHLORITE
NAOH	SODIUM HYDROXIDE
PHOS	POLYPHOSPHATE

FOR ADDITIONAL RELATED FLOW STREAMS SEE LEGEND SHEETS P-1 AND I-1

PIPE MATERIALS:

CS	CARBON STEEL
CU	COPPER
DI(FLG)	DUCTILE IRON (FLANGED JOINT)
DI(MJ)	DUCTILE IRON (MECHANICAL JOINT)
DI(POJ)	DUCTILE IRON (PUSH ON JOINT)
PVC(SCH 40)	POLYVINYL CHLORIDE (SCHEDULE 40)
PVC(SCH 80)	POLYVINYL CHLORIDE (SCHEDULE 80)
PTFE	POLYTETRAFLUOROETHYLENE
SS316	316 STAINLESS STEEL

YARD PIPING NOTES

1. THE LOCATION OF EXISTING UTILITIES AND OTHER UNDERGROUND STRUCTURES SHOWN ON THE DRAWINGS IS APPROXIMATE, AND THEIR ACTUAL LOCATIONS MAY VARY FROM THAT SHOWN. FURTHER, IT IS NOT WARRANTED THAT ALL UNDERGROUND UTILITIES AND STRUCTURES ARE SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND FEATURES THAT MAY BE AFFECTED BY THE WORK.
2. NEW WATER MAINS SHALL HAVE A MINIMUM COVER OF 4.5 FEET UNLESS OTHERWISE INDICATED AND SHALL PASS UNDER EXISTING UTILITIES AS NECESSARY TO MEET THIS REQUIREMENT.
3. ALL NEW WATER PIPES, INCLUDING FIRE PROTECTION LINES, AND OTHER PRESSURE PIPES INCLUDING FORCE MAINS, SHALL HAVE RESTRAINED JOINTS AS SPECIFIED.
4. TEST PITS SHALL BE DUG TO LOCATE EXISTING PIPES TO WHICH NEW PIPES ARE TO BE CONNECTED, AND WHERE NECESSARY TO DETERMINE EXACT LOCATIONS OF EXISTING UTILITIES.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL FINAL CONNECTIONS TO PIPES.
6. ABANDONED PIPES, VALVES AND APPURTENANCES ENCOUNTERED DURING CONSTRUCTION MAY BE REMOVED AS REQUIRED. PIPES LEFT IN PLACE SHALL BE PLUGGED AND ABANDONED AS SPECIFIED AND AS APPROVED BY THE ENGINEER.
7. WALKWAYS AND PAVEMENTS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED WITHOUT ADDITIONAL EXPENSE BY OWNER.
8. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION BY DIGGING TEST PITS (WHETHER OR NOT INDICATED ON THE DRAWINGS) WHERE UTILITY INFORMATION IS ESSENTIAL.
9. PRIOR TO ANY EXCAVATION WORK, IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE DETAILS OF THE PROJECT AREA. THE CONTRACTOR SHALL COORDINATE WITH DEPARTMENT PERSONNEL AND OWNER AND REVIEW ANY DRAWINGS THAT MAY BE AVAILABLE. CONTRACTOR SHALL ENSURE THAT EXISTING UTILITIES WITHIN THE WORK OF THIS CONTRACT ARE NOT DAMAGED, UTILITIES DAMAGED DURING EXCAVATION SHALL BE IMMEDIATELY REPAIRED AT NO ADDITIONAL COST TO OWNER.
10. PERFORM EXCAVATION CLOSE TO EXISTING UTILITIES BY HAND TO DETERMINE EXACT UTILITY LOCATION PRIOR TO INSTALLING EXCAVATION BRACING OR BEFORE MACHINE EXCAVATION.

GRADING NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING GRADES AND LOCATION OF UTILITIES. MAJOR DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
2. TO ESTABLISH PROPER GRADES, CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF GRADE STAKES. THE NUMBER AND LOCATION SHALL BE DETERMINED IN THE FIELD AND APPROVED BY THE ENGINEER.

GENERAL NOTES

1. BEFORE CONSTRUCTION, ALL UTILITIES, PUBLIC AND PRIVATE MUST BE NOTIFIED CALL "DIG SAFE" 1 (888) 344-7233 HTTP://WWW.DIGSAFE.COM.
2. FOR BORING INFORMATION AND LOCATIONS SEE EXISTING CONDITIONS DRAWINGS AND APPENDIX TO SPECIFICATIONS.
3. THE CONTRACTOR SHALL PREPARE AN EROSION AND SEDIMENT CONTROL PLAN AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AS SPECIFIED TO PROTECT THE SITES FROM EROSION AND PREVENT THE MOVEMENT OF SEDIMENT AND DEBRIS. THE SWPPP SHALL BE PREPARED FOR APPROVAL BY STATE AND FEDERAL PERMIT AUTHORITIES AND FOR INFORMATIONAL PURPOSES ONLY BY THE OWNER AND ENGINEER.
4. ALL AREAS OUTSIDE THE LIMIT OF DISTURBANCE SHALL BE PROTECTED AT ALL TIMES UNLESS OTHERWISE DIRECTED BY THE OWNER AND/OR ENGINEER.
5. ALL MATERIALS TO BE REMOVED WITHIN THE LIMIT OF DISTURBANCE SHALL BE REMOVED TO A LOCATION ARRANGED BY THE CONTRACTOR AND APPROVED BY THE OWNER AND/OR ENGINEER. THE LOCATION OF STOCKPILED TOPSOIL SHALL BE IN AREAS APPROVED BY THE OWNER AND/OR ENGINEER.
6. CONTRACTOR SHALL PROVIDE SITE SECURITY THROUGHOUT CONSTRUCTION PERIOD.
7. WHEN EXCAVATING AROUND EXISTING STRUCTURES, EXCAVATE SOILS UNIFORMLY AROUND THE STRUCTURE UNLESS INDICATED OTHERWISE. CONTROL EXCAVATION LEVELS AROUND THE ENTIRE PERIMETER OF THE STRUCTURE SUCH THAT THE GRADE DIFFERENTIAL DOES NOT EXCEED 2 FT.
8. WHEN BACKFILLING AROUND STRUCTURES, BRING UP BACKFILL UNIFORMLY AROUND STRUCTURE UNLESS INDICATED OTHERWISE. CONTROL BACKFILL LEVELS AROUND THE ENTIRE PERIMETER OF THE STRUCTURE SUCH THAT THE GRADE DIFFERENTIAL DOES NOT EXCEED 2 FT.
9. GAS MAINS ARE ASSUMED TO HAVE THREE FEET OF COVER UNLESS SHOWN OTHERWISE. LOCAL WATER MAINS ARE ASSUMED TO HAVE 5 FEET OF COVER. IT IS NOT WARRANTED THAT ALL UTILITIES ARE SHOWN OR ARE SHOWN AT THE CORRECT ELEVATION.
10. ALL UNDERGROUND SERVICES TO HOUSES ARE NOT SHOWN.
11. BORING LOGS HAVE BEEN APPENDED TO THE SPECIFICATION DOCUMENTS. BORINGS ARE INCLUDED FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT BE SHOWN AT EXACT LOCATIONS.
12. CONTRACTOR SHALL MINIMIZE CLEARING AND GRUBBING AS MUCH AS POSSIBLE. ALL CROSS-COUNTRY AREAS SHALL BE LOAMED AND SEEDED OR SODDED TO THE LIMITS DISTURBED BY CONSTRUCTION UNLESS OTHERWISE NOTED.
13. CONTRACTOR SHALL NOT DISTURB ANY LAND OUTSIDE THE LIMITS OF WORK.
14. WHEN THE HORIZONTAL SEPARATION BETWEEN THE NEW SEWER AND EXISTING OR RELOCATED WATER MAIN IS LESS THAN 10-FT AND THE VERTICAL SEPARATION IS LESS THAN 18-IN THE NEW SEWER SHALL BE CONSTRUCTED OF RESTRAINED MJ DI OR CONCRETE ENCASED PIPE FOR A MINIMUM OF 10-FT BEYOND WHERE THE SPACING IS LESS THAN 10-FT HORIZONTAL AND 18-IN VERTICAL.
15. IF A WATER MAIN CROSSES UNDER THE NEW SEWER, BOTH PIPES SHALL BE RESTRAINED MJ DI OR CONCRETE ENCASED FOR A MINIMUM OF 10-FT TO EITHER SIDE OF THE RESPECTIVE CENTER LINES.
16. IF NECESSARY TO WORK IN LIVE SEWER MANHOLES CONTRACTOR SHALL FOLLOW ALL FEDERAL, STATE AND LOCAL REQUIREMENTS FOR SAFETY WHEN IN CONFINED SPACES. THE CONTRACTOR IS ALSO REFERRED TO RECOMMENDATIONS IN THE NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH PUBLICATION NO. 80-106, "WORKING IN CONFINED SPACES".
17. CONTRACTOR TO MAINTAIN FLOW IN EXISTING DRAINS AT ALL TIMES.
18. IT IS NOT WARRANTED THAT ALL EXISTING ABOVE GROUND AND UNDERGROUND STRUCTURES, EQUIPMENT, PIPING AND ELECTRICAL CONDUITS ARE SHOWN. NOR IS IT WARRANTED THAT LOCATIONS AND SIZES OF STRUCTURES AND UTILITIES ARE EXACT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL SIZES AND LOCATIONS OF EXISTING EQUIPMENT, PIPING, ETC. REFER TO SPECIFICATIONS FOR FURTHER DETAILS.
19. ELEVATIONS SHOWN ARE IN FEET AND ARE REFERENCED USGS DATUM NAVD88.
20. THE CONTRACTOR SHALL COORDINATE WORK TO ENSURE CONTINUED ACCESS TO ALL EXISTING FACILITY STRUCTURES. SEE SPECIFICATION FOR ADDITIONAL INFORMATION.
21. REMOVE AND DISPOSE OF EXISTING PAVEMENT WITHIN LIMITS SHOWN ON DRAWINGS TAKING CARE NOT TO DAMAGE EXISTING WALLS, CURBS, BUILDINGS OR UTILITY STRUCTURES.
22. STRIP EXISTING VEGETATION AND 6" LAYER TOPSOIL WITHIN AREAS OF DISTURBANCE. GRIND ANY STUMPS TO A MINIMUM OF ONE FOOT BELOW FINISH GRADE AND BACKFILL WITH MAX. 12 INCH COMPACTED LAYERS AS SPECIFIED. CONTRACTOR SHALL STOCKPILE STRIPPED TOPSOIL IN A MANNER APPROVED BY THE ENGINEER.
23. EXISTING VERTICAL OR SLOPED GRANITE CURB DISTURBED FOR CONSTRUCTION SHALL BE STOCKPILED AND REINSTALLED AS APPROVED BY THE ENGINEER.
24. ALL BITUMINOUS ROADWAY AND SIDEWALK PAVEMENT AREAS AND ALL CONCRETE SIDEWALK AND OTHER AREAS DISTURBED BY TRENCHING SHALL BE REPAIRED AS SPECIFIED. SELECTED AREAS TO RECEIVE AN OVERPLAY LEVELING COURSE AS DIRECTED BY THE ENGINEER.
25. COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS FOR LIMITING CONSTRUCTION ACTIVITIES NEAR THE GREAT BLUE HERON ROOKERY AREA AND NATURAL DIVERSITY DATABASE (NDDB) STATE-LISTED SPECIES HABITAT. REFER TO SPECIFICATIONS FOR FURTHER DETAILS.
26. HAZARDOUS BUILDING MATERIALS WERE FOUND IN SAMPLES TAKEN FROM SELECT LOCATIONS IN EXISTING BUILDINGS. PRIOR TO COMMENCING WITH ANY MODIFICATIONS OR DEMOLITION WORK, REFER TO SPECIFICATIONS FOR KNOW LOCATIONS OF HAZARDOUS BUILDING MATERIALS AND EQUIPMENT, PROPOSED ABATEMENT AND DISTURBANCE WORK, REQUIREMENTS FOR ADDITIONAL SAMPLING AND TESTING TO BE PERFORMED AS PART OF THE WORK, MONITORING REQUIREMENTS, AND WASTE HANDLING AND DISPOSAL REQUIREMENTS.
27. ALL OBSERVATION AND MONITORING WELLS ASSOCIATED WITH THE UPPER AND LOWER WELLFIELDS MAY NOT BE SHOWN ON THE DRAWINGS. REFER TO SPECIFICATIONS FOR FURTHER DETAILS.
28. SILT FENCING SHALL BE INSTALLED ON THE TOE OF ALL PROPOSED NEW SLOPES. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MONITORED DURING CONSTRUCTION, AND REMOVED ONLY ONCE SLOPE HAS BEEN STABILIZED.
29. THE CONTRACTOR IS PROHIBITED FROM PERFORMING ANY ACTIVITY THAT MAY CAUSE CONTAMINATION TO SOIL AND/OR GROUNDWATER INCLUDING, BUT NOT LIMITED TO, REFUELING, DEGREASING, OR CHANGING OIL OF EQUIPMENT, MACHINERY, OR OTHER VEHICLES, ON THE PROJECT SITE WITHOUT THE INSTALLATION OF A CONTAINMENT UNIT. CONTAINMENT UNITS SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO USE AND SHALL NOT BE LOCATED WITHIN REGULATED AREAS OR THEIR BUFFER ZONE.
30. CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS INCLUDED IN THE JUNE 2024 ORDER OF CONDITIONS RECIEVED FROM THE BRISTOL CONSERVATION COMMISSION FOR APPLICATION #2020. REFER TO SPECIFICATIONS FOR FURTHER DETAIL.
31. CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE CONCRETE SIDEWALK AT THE UPPER WELLFIELD ACCESS ROADWAY ENTRANCE ON MALTBY STREET. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED TO EXISTING SIDEWALK DURING CONSTRUCTION.
32. CONTRACTOR SHALL IMPLEMENT PROTECTIVE MEASURES TO LIMIT DUST, NOISE, FLYING ROCK, AND OTHER NUISANCES, AS REQUIRED IN THE SUPPLEMENTAL GENERAL CONDITIONS AND SPECIFICATION SECTION 015000.

LAYOUT NOTES:

1. CONTRACTOR SHALL VERIFY ALL PROPERTY AND SURVEY INFORMATION.
2. CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY AND PROTECT ALL ON-SITE STRUCTURES AND VEGETATION TO BE RETAINED ON THE SITE THROUGHOUT THE CONSTRUCTION PROJECT.
3. CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS AND ALL UTILITY SERVICES THROUGHOUT THE DURATION OF THE CONTRACT, UNLESS OTHERWISE SPECIFIED.
4. LOCATIONS OF BURIED UTILITIES, VAULTS AND CONCRETE PADS ARE APPROXIMATE ONLY. FINAL LOCATIONS SHALL BE DETERMINED IN THE FIELD AFTER STAKING BY THE CONTRACTOR BASED ON ACTUAL SITE CONDITIONS AS APPROVED BY THE OWNER AND/OR ENGINEER.
5. ALL DISTURBED AREAS NOT COVERED WITH PAVEMENT, PADS, CRUSHED STONE, SOD, OR STRUCTURES SHALL RECEIVE 6" LAYER OF LOAM AND SEED AS SPECIFIED, UNLESS NOTED OTHERWISE.
6. DIMENSIONS FOR STRUCTURES ARE TO OUTSIDE FACE OF WALL. DIMENSIONS TO CONCRETE PADS ARE TO EDGE OF PAD. DIMENSIONS TO FENCES AND GATES ARE ON-CENTER.
7. ALL ITEMS TO BE REMOVED, UNLESS OTHERWISE INDICATED ON THE DRAWINGS, SHALL BE DISPOSED OFF SITE IN A LEGAL MANNER.
8. CONTRACTOR SHALL LIMIT CONSTRUCTION ACCESS TO AREAS DESIGNATED ON THE DRAWINGS AND AS INDICATED BY THE OWNER.
9. LOCATIONS OF CONCRETE PADS, PAVEMENTS, BOLLARDS, GATES, AND SIGNS ARE APPROXIMATE ONLY. FINAL LOCATIONS SHALL BE STAKED IN THE FIELD FOR REVIEW AND APPROVAL BY THE ENGINEER.
10. BOUNDARIES OF AREAS TO RECEIVE LOAM & SEED MIXTURES, WASHED STONE, OVERLAY PAVEMENT OR OTHER SURFICIAL MATERIALS ARE FOR SCHEMATIC PURPOSES ONLY. FINAL LOCATIONS SHALL BE STAKED IN THE FIELD BY THE CONTRACTOR FOR REVIEW AND APPROVAL BY THE ENGINEER.
11. THE EXISTING CONDITIONS SHOWN ON THIS BASEMAP ARE THE RESULT OF A GROUND SURVEY INSTRUMENT PERFORMED BY FREEMAN COMPANIES IN 2020.
12. HORIZONTAL AND VERTICAL CONTROL WAS ESTABLISHED WITH RTK IN 2020. HORIZONTAL DATUM IS BASED ON THE CONNECTICUT STATE PLANE COORDINATE SYSTEM NAD-83 – ENGLISH UNITS. VERTICAL DATUM IS CONNECTICUT STATE PLAN COORDINATE SYSTEM NAVD-88 – ENGLISH UNITS.
13. A PORTION OF THE EASTERN PROPERTY LINE ALONG THE COPPERMINE BROOK WAS TAKEN FROM THE DRAWING TITLED "CONSTRUCTION OF MALTBY STREET BRIDGE AND APPROACHES" BY THE CITY OF BRISTOL DEPARTMENT OF ENGINEERING, DATED JANUARY 1978.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: V. BITTO
SHEET CHK'D BY: K. GERLACH
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — KYLE GERSLEY BITTO — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

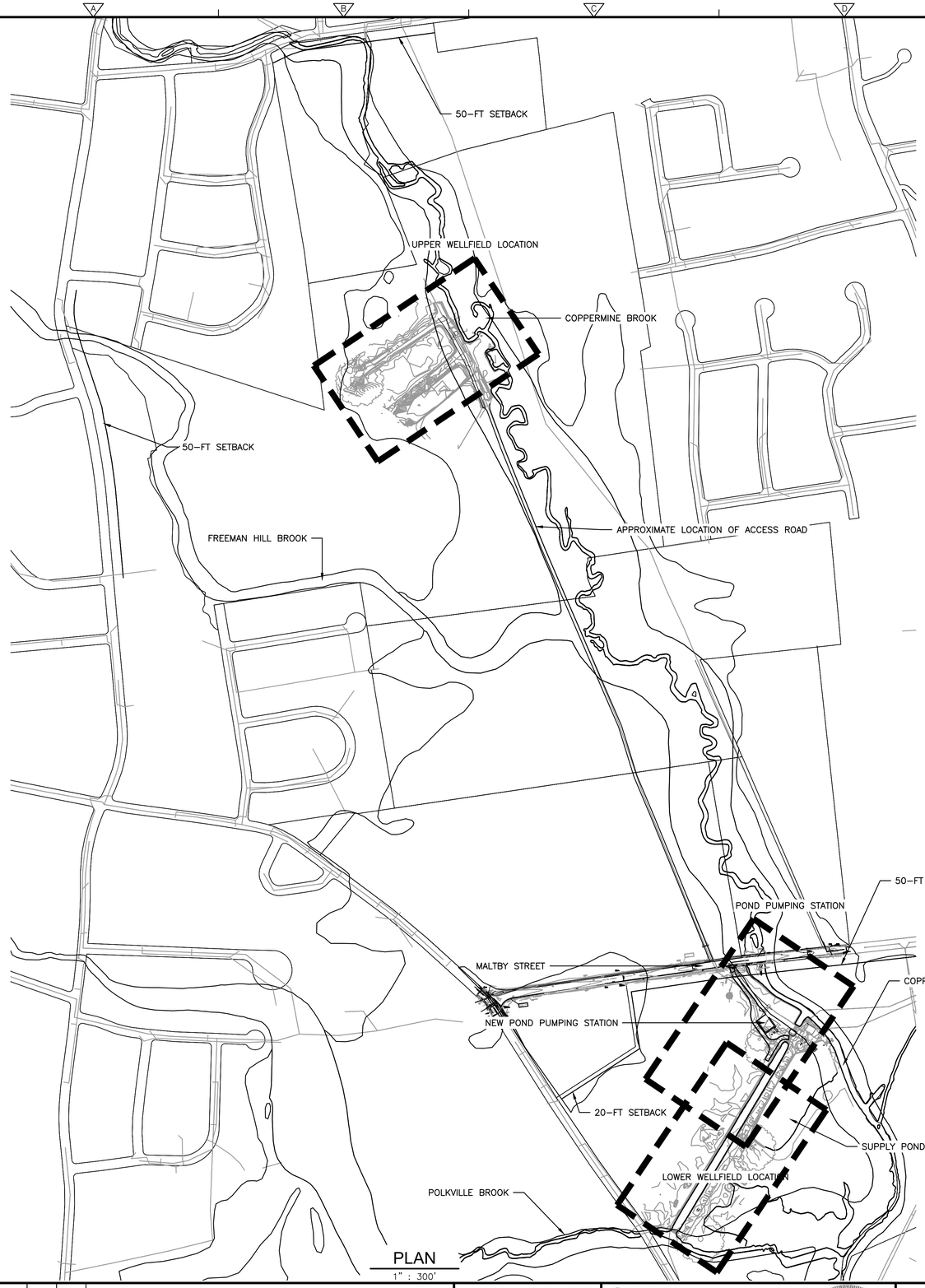
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

LEGEND, ABBREVIATIONS AND GENERAL NOTES

PROJECT NO. 10739-264571
FILE NAME P-ERM-C001GELG.DWG
SHEET NO. P-ERM

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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PLAN
1" : 300'



PLAN
N.T.S.

FLOOD	LOWER WELLFIELD & POND PUMPING STATION ELEVATION (ft)	UPPER WELLFIELD ELEVATION (ft)
0.2% ANNUAL CHANCE FLOOD (500 – YR FLOOD)	256.7	259.7
1% ANNUAL CHANCE FLOOD (100 – YR FLOOD)	255.9	259.0
2% ANNUAL CHANCE FLOOD (50 – YR FLOOD)	255.6	258.6
10% ANNUAL CHANCE FLOOD (10 – YR FLOOD)	253.0	258.0

NOTE: ELEVATIONS SHOWN ARE IN FEET AND ARE REFERENCED USGS DATUM NAVD88

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT · KERBER, WAGNER · No. 24084 · LICENSED PROFESSIONAL ENGINEER · 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT

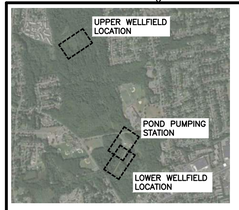
WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

OVERALL SITE PLAN

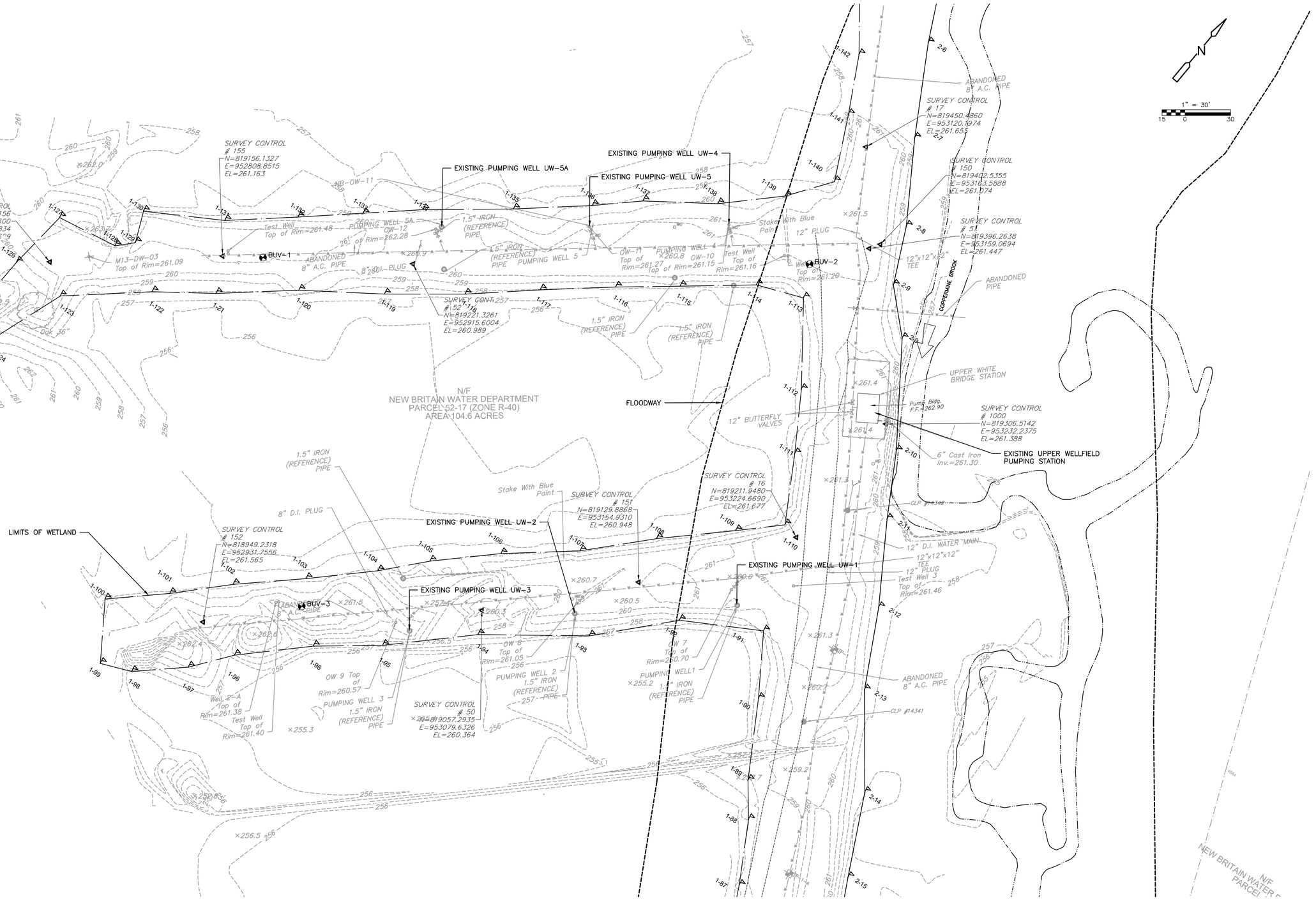
PROJECT NO. 10739-264571
FILE NAME: C002STPL.DWG
SHEET NO. C-2

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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PLAN
N.T.S.



NOTES:

1. AREAS OF THE UPPER WELLFIELD ARE LOCATED WITHIN HABITAT OF STATE LISTED SPECIES. REFER TO GENERAL NOTE 25 ON SHEET C-1 FOR MORE DETAILS.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — KEVIN WAGNER — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

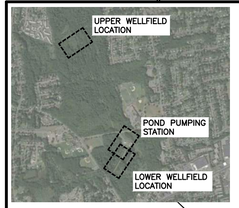
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

UPPER WELLFIELD
EXISTING CONDITIONS PLAN

PROJECT NO. 10739-264571
FILE NAME: C003STPL.DWG
SHEET NO. C-3

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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PLAN
N.T.S.

NOTES:

1. AREAS OF THE LOWER WELLFIELD AND POND PUMPING STATION ARE LOCATED WITHIN HABITAT OF STATE LISTED SPECIES. REFER TO GENERAL NOTE 25 ON SHEET C-1 FOR MORE DETAILS.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G.HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — JEFFERSLEY WAGNER — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT

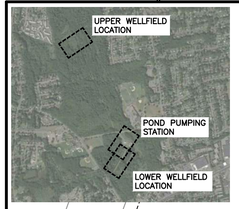
WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

POND PUMPING STATIONS EXISTING CONDITIONS PLAN

PROJECT NO. 10739-264571
FILE NAME: C004STPL.DWG
SHEET NO. C-4

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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PLAN
N.T.S.

APPROXIMATE LOCATION OF EXISTING GREAT BLUE HERON ROOKERY. SEE GENERAL NOTE 25 ON SHEET C–1 FOR MORE DETAILS

N/F
NEW BRITAIN WATER DEPARTMENT
PARCEL 53-145 (ZONE R-40)
AREA: 50.38 ACRES

LIMIT OF WETLAND

SURVEY CONTROL # 2567 N=814780.4678 E=954191.2578 EL=249.809

SURVEY CONTROL # 149 N=815074.5860 E=954425.7922 EL=251.494

SURVEY CONTROL # 148 N=815197.8447 E=954516.4758 EL=253.523

SURVEY CONTROL # 147 N=815295.0131 E=954567.0095 EL=251.162

SURVEY CONTROL # 147 N=815295.0131 E=954567.0095 EL=251.292

SURVEY CONTROL # 60 N=815542.7606 E=954587.8219 EL=251.733

SURVEY CONTROL # 31 N=814722.6132 E=954351.2270 EL=251.019

SURVEY CONTROL # 32 N=814962.7770 E=954515.6314 EL=251.406

SURVEY CONTROL # 33 N=815089.6478 E=954688.8275 EL=249.693

SURVEY CONTROL # 44 N=814637.4824 E=954479.1256 EL=248.687

SURVEY CONTROL # 45 N=814631.6821 E=954563.1325 EL=248.503

WELL 9 Upper Rim 250.16
WELL 9–A Upper Rim 250.18
Well 10 Upper Rim=251.81
Well 10–A Upper Rim=251.82
Well 7–A Upper Rim=251.62
Well 7 Upper Rim=251.63
Well 11 3" Upper Rim=251.62
Well 3" 11–A Upper Rim=252.29
3" Dia. Well Top of Rim=250.88

BLWF–1
BLWF–3
BLWF–4
BLWF–6

CLP #1021
CLP #10213
CLP #10214
CLP #10216

CANAL

Top of Wall At Spillway=251.4
Test Well 5–A Top of Cap=250.35
Test Well OW–16 Top of Cap=251.91
Test Well 6A Top of Rim=251.56
OW–15 Top of Rim=250.97
3" WELL OW–5 Top of Rim=250.43
NB–OW–14 Old 3" Well Top of Rim=252.60
Existing Well (Typ)
Top of Frame=251.67
Top of Frame=251.65
Top of Frame=252.55
Top of Frame=252.41
Top of Frame=252.37
Top of Frame=252.43
Top of Frame=252.15
Top of Frame=251.30
Top of Frame=252.20
Top of Frame=253.65
Top of Frame=253.73
Top of Frame=253.05
Top of Frame=252.96
Top of Frame=251.43
Top of Frame=253.20
Well 5 stake
No #

HEADER CAP
ABANDONED PIPE AND WELLS
FLOODWAY
POLKVILLE BROOK
SUPPLY POND
16" C.I. SUCTION HEADER
6" D.I. WELL CONNECTIONS
48" OAK
RING"

MATCH LINE SEE SHEET C–4

NOTES:

1. AREAS OF THE LOWER WELLFIELD ARE LOCATED WITHIN HABITAT OF STATE LISTED SPECIES. REFER TO GENERAL NOTE 25 ON SHEET C–1 FOR MORE DETAILS.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — JEFFREY WARD — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

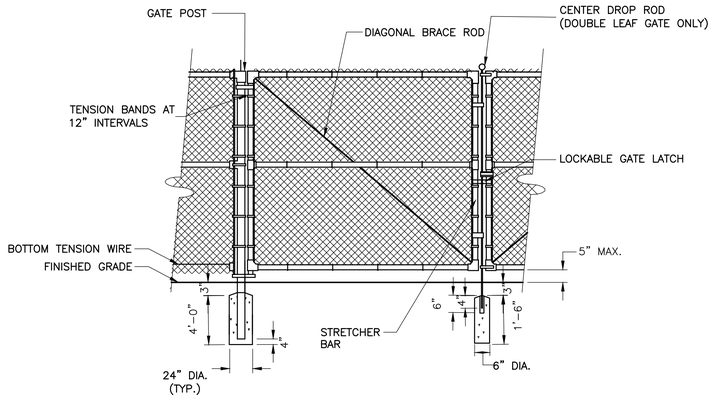
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

LOWER WELLFIELD
EXISTING CONDITIONS PLAN

PROJECT NO. 10739–264571
FILE NAME: C005GDPL.DWG
SHEET NO. C-5

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

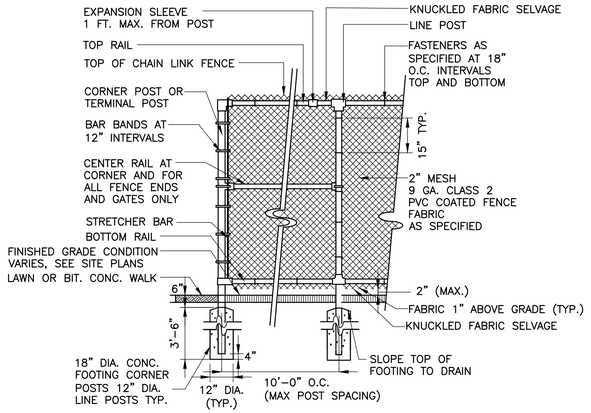
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CHAIN LINK DOUBLE LEAF SWING GATE

DETAIL A

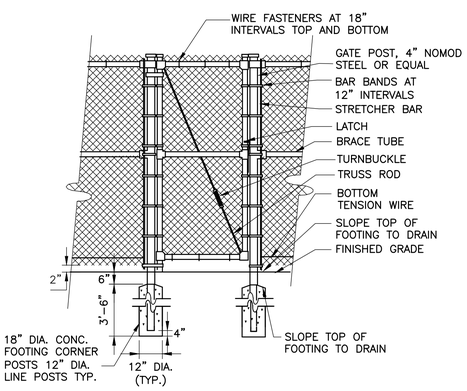
NOT TO SCALE



6.5-FT HIGH CHAIN LINK FENCE

DETAIL B

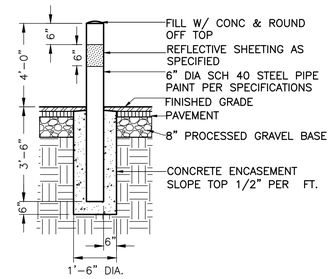
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PEDESTRIAN CHAIN LINK FENCE GATE

DETAIL C

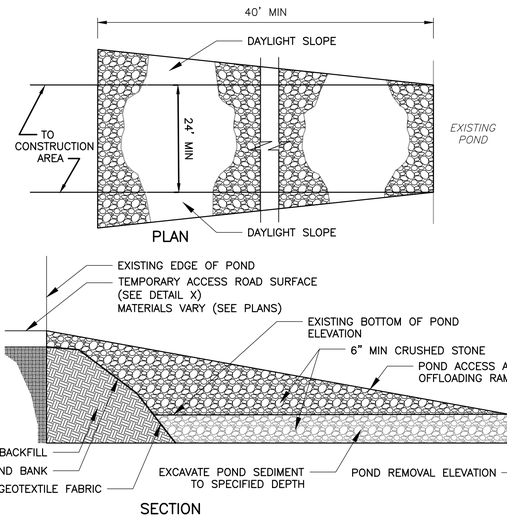
NOT TO SCALE



STEEL BOLLARD

DETAIL D

NOT TO SCALE



SECTION

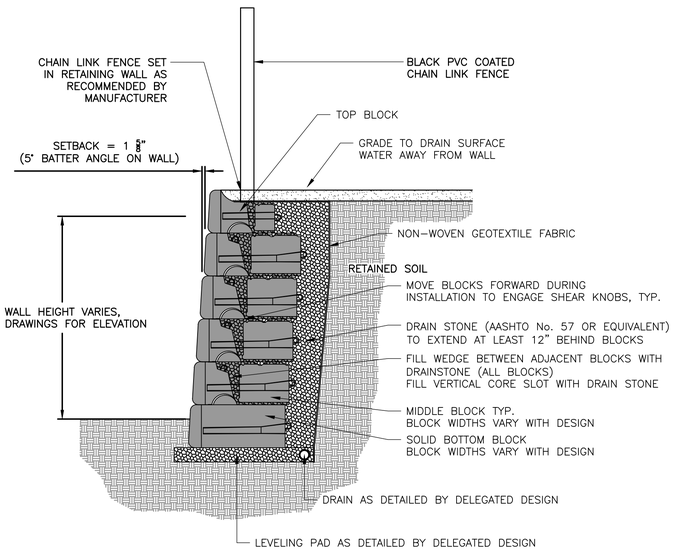
NOTES:

1. PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED POND ACCESS/TRUCK OFFLOADING RAMP AND EXISTING GROUND SURFACE
2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO GROUND SURFACE.
3. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDING STONE TO THE LENGTH OF THE ENTRANCE.
4. REPAIR AND CLEANOUT MEASURES USED TO TRAP SEDIMENT.
5. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
6. THE SLOPE OF THE POND ACCESS AND OFFLOADING RAMP TO BE DETERMINED BY CONTRACTOR BASED ON SELECTED EQUIPMENT, MEANS AND METHODS, AND APPROVED BY THE ENGINEER.
7. DAYLIGHT SLOPES OF THE RAMP WILL BE INSTALLED AS NEEDED BASED ON THE EXCAVATION DEPTH AND BANK HEIGHT TO MAINTAIN STABILITY OF THE POND ACCESS/OFFLOADING RAMP.
8. ALL MATERIAL FOR POND ACCESS/OFFLOADING RAMP IS TEMPORARY AND WILL BE REMOVED AFTER SEDIMENT REMOVAL COMPLETED. POND BANK TO BE RESTORED PER SPECIFICATIONS.

POND ACCESS AND TRUCK OFFLOADING RAMP

DETAIL F

SCALE: NTS



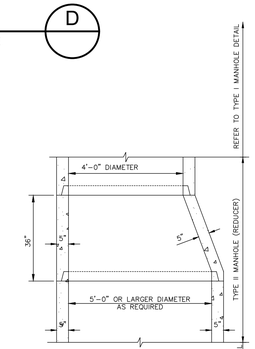
NOTES:

1. SEE SPECIFICATION SECTION 323223 FOR MORE DETAILS. CONTRACTOR TO OBTAIN BUILDING PERMIT FOR SEGMENTAL UNIT RETAINING WALLS GREATER THAN 3 FEET IN HEIGHT.

SEGMENTAL UNIT RETAINING WALL

DETAIL E

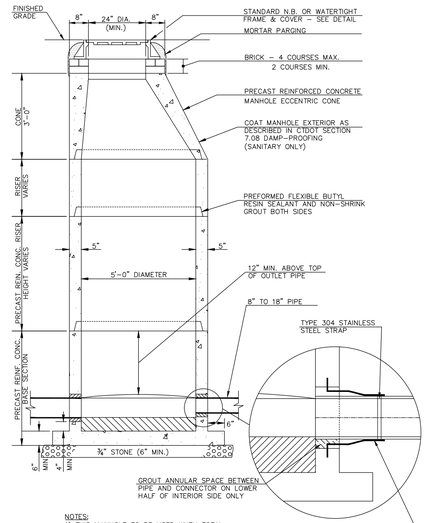
SCALE: NTS



REDUCER SECTION

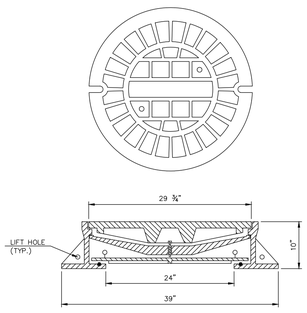
NOTES:
1) THIS MANHOLE TO BE USED WHEN TOTAL DEPTH IS GREATER THAN 12' OR ANY PIPE SIZE IS GREATER THAN 18".
2) ALL NEW SANITARY AND STORM SEWER INSTALLATIONS SHALL BE TELEVISED.

TYPE II MANHOLE
(PRECAST WITHOUT STEPS)



NOTES:
1) THIS MANHOLE TO BE USED WHEN TOTAL DEPTH IS 12' OR LESS AND LARGEST PIPE SIZE IS 18" OR SMALLER.
2) ALL NEW SANITARY AND STORM SEWER INSTALLATIONS SHALL BE TELEVISED.

TYPE I MANHOLE
(PRECAST WITHOUT STEPS)



NEW BRITAIN STANDARD
WATERTIGHT MANHOLE CASTING

MANHOLE

DETAIL G

NOT TO SCALE

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

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101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — KERSLEY WAGNER — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

CIVIL DETAILS IV

PROJECT NO. 10739-264571
FILE NAME: CD004CSDT.DWG
SHEET NO. C-27

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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NOTES:

1. REFER TO SPECIFICATIONS FOR MORE DETAILS AND REQUIREMENTS FOR WETLANDS REPLICATION AND COMPENSATORY FLOOD STORAGE REQUIREMENTS.
2. SILT FENCING SHALL BE INSTALLED ON THE TOE OF ALL PROPOSED NEW SLOPES. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MONITORED DURING CONSTRUCTION, AND REMOVED ONLY ONCE SLOPE HAS BEEN STABILIZED.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: K. GERLACH
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — KYLE GERSLEY KOCH — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

WETLAND REPLICATION AND COMPENSATORY FLOOD STORAGE PLAN II

PROJECT NO. 10739-264571
FILE NAME: C014STPL.DWG
SHEET NO. SP-01

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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MATCHLINE SHEET C-14

N/F
NEW BRITAIN WATER DEPARTMENT
PARCEL 52-17 (ZONE R-40)
AREA: 104.6 ACRES

PROPERTY LINE

N/F
NEW BRITAIN WATER DEPARTMENT
PARCEL 52-11 (ZONE R-40)
AREA: 49.5 ACRES

FLOODWAY

25-FOOT SIDE YARD SETBACK

PROPERTY LINE

25-FT

PROPOSED LIMIT OF TREE REMOVAL

N/F
NEW BRITAIN WATER DEPARTMENT
PARCEL 53-150 (ZONE R-40)
AREA: 39.9 ACRES

COMPENSATORY FLOOD STORAGE AREA

N/F
NEW BRITAIN WATER DEPARTMENT
PARCEL 53-149 (ZONE R-40)
AREA: 6.8 ACRES

25-FOOT SIDE YARD SETBACK

PROPERTY LINE

25-FT

PROPOSED WETLAND CREATION AND
FLOOD COMPENSATORY STORAGE AREA

378-FT TO MALTBY STREET

N

1" = 100'
50 0 100

NOTES:

1. REFER TO SPECIFICATIONS FOR MORE DETAILS AND REQUIREMENTS FOR WETLANDS REPLICATION AND COMPENSATORY FLOOD STORAGE REQUIREMENTS.
2. SILT FENCING SHALL BE INSTALLED ON THE TOE OF ALL PROPOSED NEW SLOPES. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MONITORED DURING CONSTRUCTION, AND REMOVED ONLY ONCE SLOPE HAS BEEN STABILIZED.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: K. GERLACH
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — JEFFREY GERSLEY FORD — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

WETLAND REPLICATION AND
COMPENSATORY FLOOD STORAGE
PLAN III

PROJECT NO. 10739-264571
FILE NAME: C014STPL.DWG
SHEET NO.
SP-02

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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PROPOSED LIMIT OF TREE REMOVAL

20-FT SIDE YARD SETBACK

NEW BRITAIN WATER DEPARTMENT
LOT 53-147 (ZONE R-40)
AREA: 25.8 ACRES

COPPER MINE BROOK

PROPOSED WETLAND CREATION AND
FLOOD COMPENSATORY STORAGE AREA

PROPOSED LIMIT OF TREE REMOVAL

PROPOSED LIMIT OF TREE REMOVAL

20-FT SIDE YARD SETBACK

PROPERTY LINE

FLOODWAY

LIMIT OF TREE REMOVAL

NEW BRITAIN WATER DEPARTMENT
LOT 53-145 (ZONE R-40)
AREA: 50.38 ACRES

PROPERTY LINE

PROPOSED LIMIT OF TREE REMOVAL

50-FT FRONT
YARD SETBACK

15-FT WIDE ACCESS FOR WETLAND
CREATION AND MAINTENANCE

PROPOSED WETLAND CREATION AND
FLOOD COMPENSATORY STORAGE AREA

PROPOSED LIMITS OF TREE REMOVAL

COVENTRY RD

MIX STREET

TOLLAND RD

COLLINS ROAD

COPPER MINE BROOK

VEGETATED BUFFER AND STREAM
BETWEEN EARTH REMOVAL AND
RESIDENTIAL BOUNDARY

10-FT VEGITATED BUFFER
BETWEEN ACCESS DRIVE
AND PROPERTY BOUNDARY

N/F ROOKSIDE MEDICAL OFFICES LLC

N/F LINDA A COLBURN

N/F LUNDEN PEG

N/F MANDY L & CAROL A MAULDING

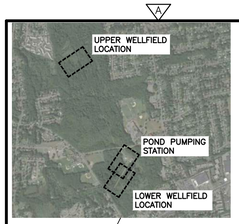
N/F RONALD V + DAWANZA Q COE

N/F AMANDA CYR

EXISTING BUILDING

EXISTING BUILDING

EXISTING BUILDING



PLAN
N.T.S.

LEGEND

- WETLAND FLAG
- BORING

2,056 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS

907 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS

UPPER WELLFIELD WELL NO. 1.

1,771 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS

UPPER WELLFIELD WELL NO. 2.

851 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS

FLOODWAY

3,168 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS

UPPER WELLFIELD WELL NO. 3.

1,160 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS

EROSION CONTROL BLANKETS ON ALL SLOPES 4:1 OR STEEPER

B / C-27 6-FT HIGH CHAIN LINK FENCE

A / C-27 24-FT WIDE DOUBLE-LEAF SWING GATE

EXISTING UPPER WELLFIELD PUMPING STATION TO BE DEMOLISHED

TRENCH FOR PIPING, AND REPAIR TRENCH TO EXISTING CONDITIONS

922-FT TO NEAREST PROPERTY BOUNDARY

902-FT TO NEAREST PROPERTY BOUNDARY

COPPER MINE BROOK

1" = 30'
15 0 30

XREFs: [CDMS_2436_XSVPL000, Floodway_Floodplain, 2022-17, BORING LOCATIONS, CWP000ST, AW2001PS - 2D Process Export, CYPWP001] Images: [Base Image]
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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (660) 529-7615

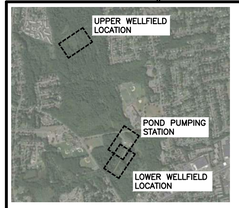
STATE OF CONNECTICUT — STEVEN BERSLEY PAUL — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

UPPER WELLFIELD SITE PLAN

PROJECT NO. 10739-264571
FILE NAME: C009STPL.DWG
SHEET NO.
SP-04

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION



PLAN
N.T.S.

LEGEND

- BITUMINOUS CONCRETE
- INFILTRATION TRENCH
- CONCRETE WALKWAY
- DETENTION BASIN
- CHAIN LINK FENCE
- STEEL BEAM GUARDRAIL
- WETLAND FLAG
- BORING

Location:	**(LOT 53-145) MALTBY STREET BRISTOL, CT**
Zone:	**R-40 RESIDENTIAL ZONE**
Use:	**PUBLIC WATER UTILITY FACILITY (SPECIAL PERMIT USE)**

Item #	Item	Requirements	Proposed	Variance
1	Minimum Lot Area	40,000 S.F.	2,191,068 S.F.	No
2	Minimum Lot Frontage	150 feet	623 feet	No
3	Minimum Front Yard	50 feet	285 feet	No
4	Minimum Side Yard	20 feet	105 feet	No
5	Minimum Rear Yard	50 feet	1,180 feet	No
6	Maximum Building Height	35 feet	25.3 feet	No
7	Maximum Building Coverage	20 percent	0.18 percent	No
8	Building Size	None Required	4032 S.F. (Pump Station)	No
9	Parking Required	N/A[1]	2 spaces	No
10	Minimum Parking Dimensions	9 feet x 18 feet	10 feet x 18 feet	No
11	Minimum Aisle Width	24 feet	40 feet	No
12	Minimum Residential Setback	50 feet	193 feet	No
13	Minimum Front Lot Line	10 feet	193 feet	No
14	Minimum Side Setback	5 feet	98 feet	No
15	Minimum Rear Setback	5 feet	1,200 feet	No
16	Landscaping, Curbs, and Islands	N/A (Less than 10 parking spaces)	N/A	N/A

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

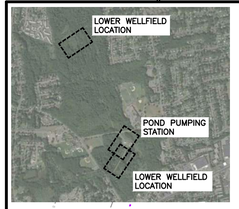
STATE OF CONNECTICUT — KEVIN M. WAGNER — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10.10.24

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

POND PUMPING STATION SITE PLAN

PROJECT NO. 10739-264571
FILE NAME: C010GDPL.DWG
SHEET NO. SP-05

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION



PLAN
N.T.S.

LEGEND
- WETLAND FLAG
- BORING

N/F
NEW BRITAIN WATER DEPARTMENT
PARCEL 53-145 (ZONE R-40)
AREA: 50.38 ACRES

1" = 30'
15 0 30

50-FT FRONT YARD SETBACK
PROPERTY LINE
LIMIT OF TREE CLEARING
LOWER WELLFIELD WELL NO. 1. TOP OF WELL CAP SET AT ELEVATION 259'. SEE SHEET C-16 FOR WELL LOCATION
LOWER WELLFIELD WELL NO. 2. TOP OF WELL CAP SET AT ELEVATION 259', SEE SHEET C-16 FOR WELL LOCATION
EROSION CONTROL BLANKETS ON ALL SLOPES 4:1 OR STEEPER
LOAM AND SEED ALL DISTURBED AREAS
B / C-27 6-FT HIGH CHAIN LINK FENCE
C / C-27 6-FT WIDE PEDESTRIAN SWING GATE
LOWER WELLFIELD WELL NO. 3. TOP OF WELL CAP SET AT ELEVATION 259'. SEE SHEET C-16 FOR WELL LOCATION
LOWER WELLFIELD WELL NO. 4. TOP OF WELL CAP SET AT ELEVATION 259'. SEE SHEET C-16 FOR WELL LOCATION
LOWER WELLFIELD WELL NO. 5. TOP OF WELL CAP SET AT ELEVATION 259'. SEE SHEET C-16 FOR WELL LOCATION
LOWER WELLFIELD WELL NO. 6. TOP OF WELL CAP SET AT ELEVATION 259'. SEE SHEET C-16 FOR WELL LOCATION
3,003 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS
1,320 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS
358 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS
LOAM AND SEED ALL WELL BERMS, TYP.
CANAL
SUPPLY POND
POLKVILLE BROOK
ABANDONED PIPE AND WELLS
MATCH LINE SEE PUMPING STATION SHEETS

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT · JERSLEY WATSON · No. 24384 · LICENSED PROFESSIONAL ENGINEER · 10-10-24

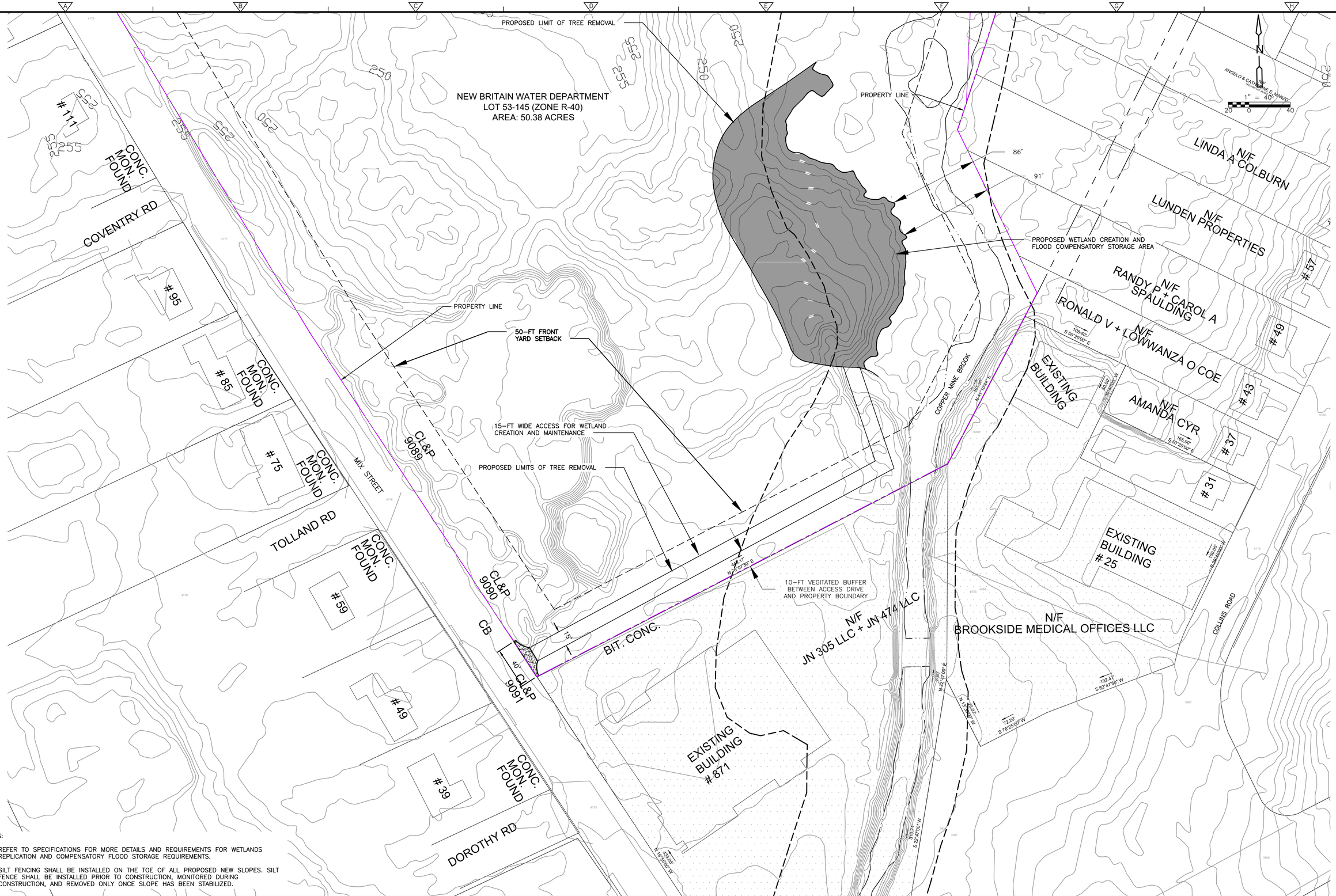
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

LOWER WELLFIELD SITE PLAN

PROJECT NO. 10739-264571
FILE NAME: C011GDPL.DWG
SHEET NO. SP-06

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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NOTES:

1. REFER TO SPECIFICATIONS FOR MORE DETAILS AND REQUIREMENTS FOR WETLANDS REPLICATION AND COMPENSATORY FLOOD STORAGE REQUIREMENTS.
2. SILT FENCING SHALL BE INSTALLED ON THE TOE OF ALL PROPOSED NEW SLOPES. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MONITORED DURING CONSTRUCTION, AND REMOVED ONLY ONCE SLOPE HAS BEEN STABILIZED.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GARLACH
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: K. GERLACH
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — KIMBERLY A. WAGNER — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

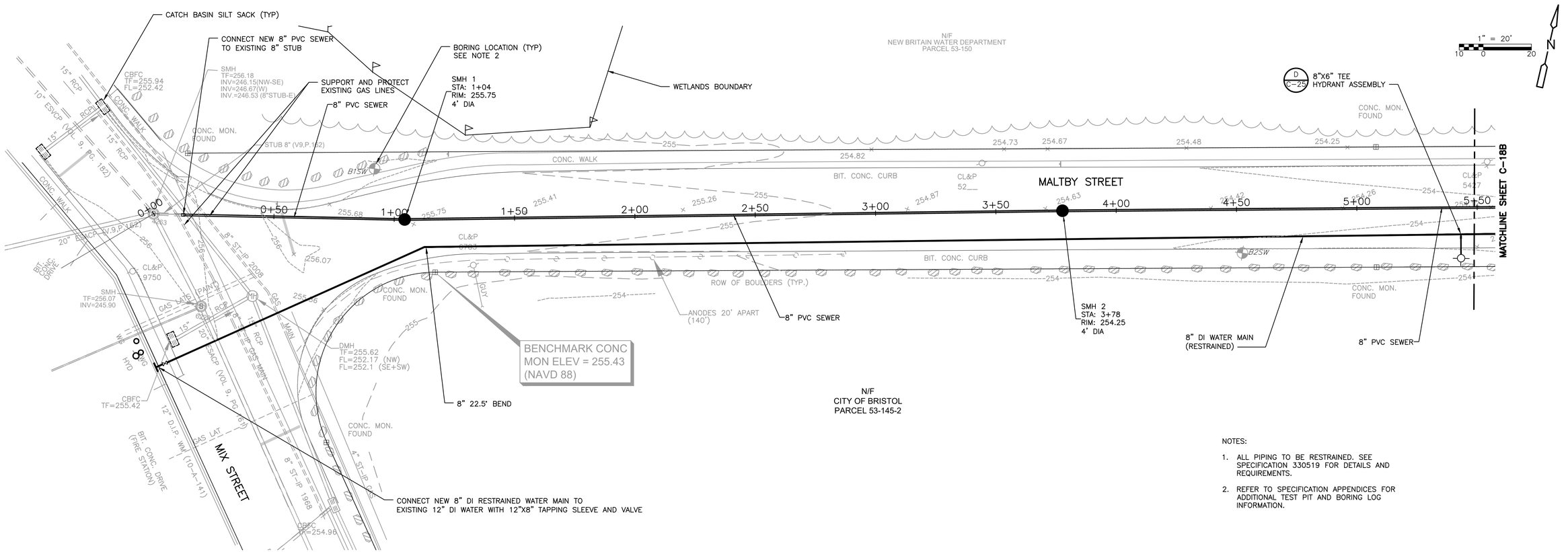
WETLAND REPLICATION AND
COMPENSATORY FLOOD STORAGE
ENLARGED PLAN I

PROJECT NO. 10739-264571
FILE NAME: C013STPL.DWG
SHEET NO.
SP-07

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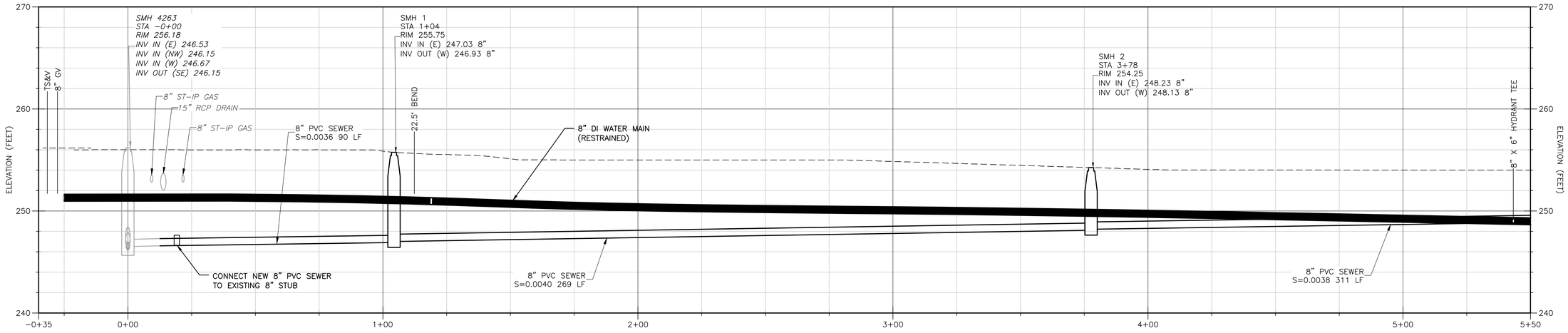
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NOTES:

1. ALL PIPING TO BE RESTRAINED. SEE SPECIFICATION 330519 FOR DETAILS AND REQUIREMENTS.
2. REFER TO SPECIFICATION APPENDICES FOR ADDITIONAL TEST PIT AND BORING LOG INFORMATION.

PLAN
1" = 20'



1" = 20'
PROFILE
HORZ:1"=20' VERT:1"=5'
1" = 5'

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: S. ENGEL
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

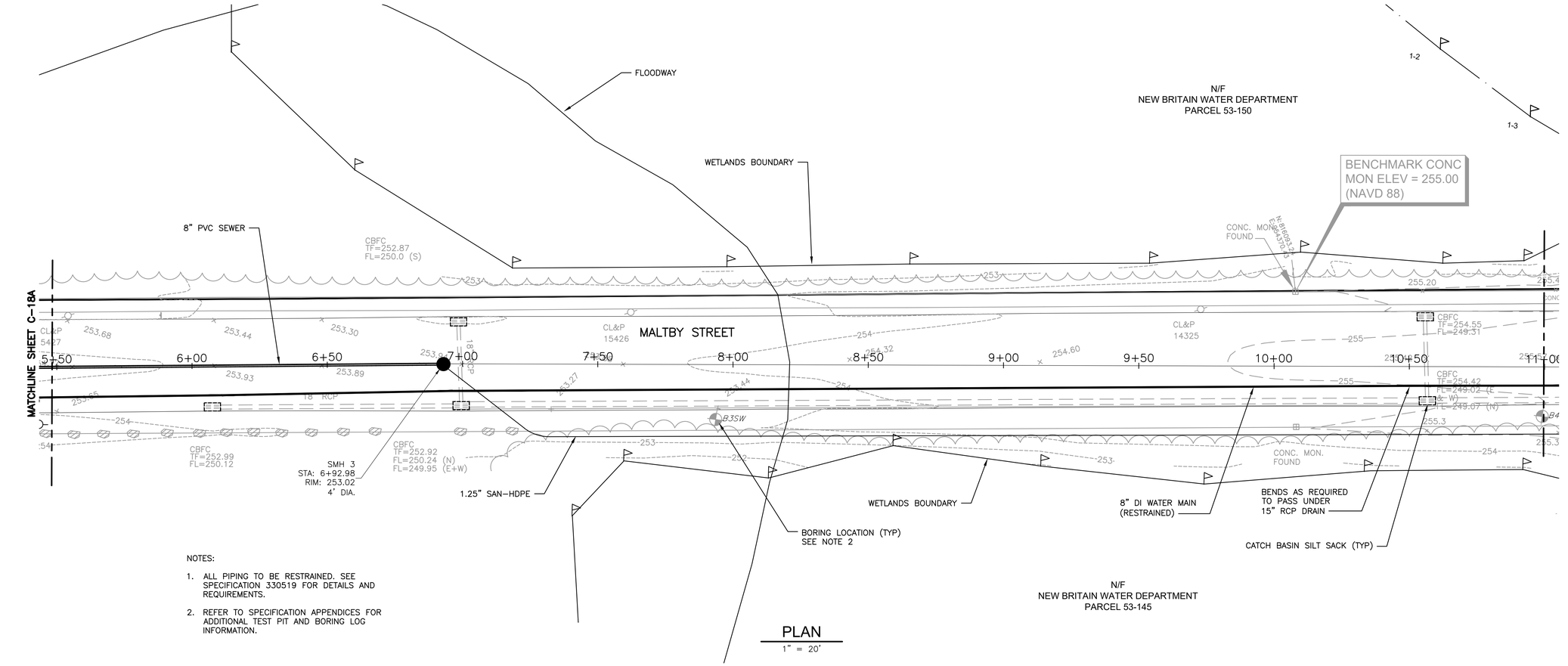
STATE OF CONNECTICUT · KERRI S. WAGNER · No. 24384 · LICENSED PROFESSIONAL ENGINEER · 10.10.24

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

MALTBY STREET
PLAN AND PROFILE I

PROJECT NO. 10739-264571
FILE NAME: C018AYPPL.DWG
SHEET NO.
SP-08

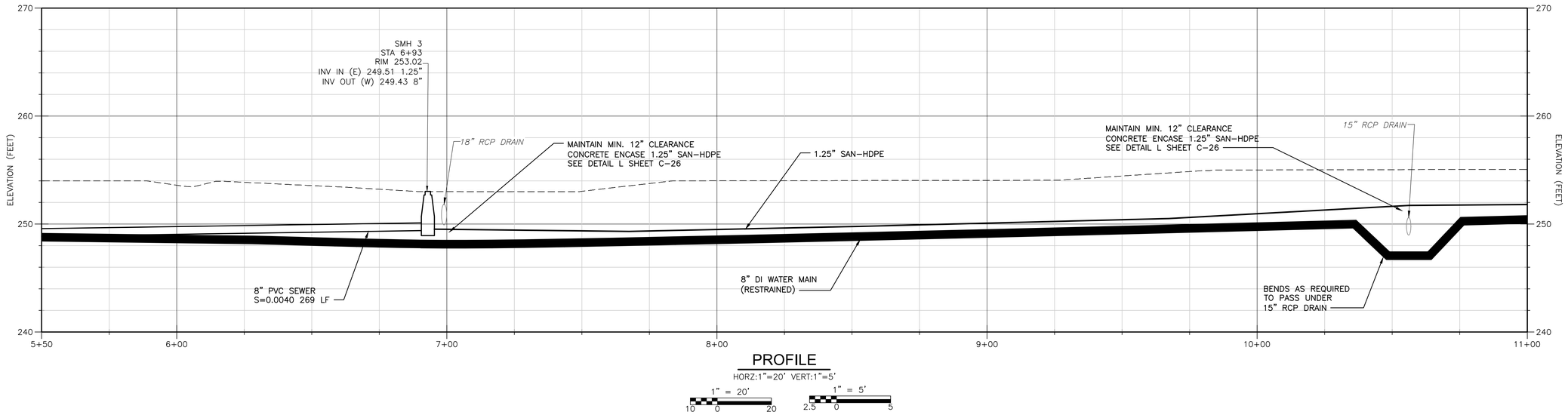
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NOTES:

1. ALL PIPING TO BE RESTRAINED. SEE SPECIFICATION 330519 FOR DETAILS AND REQUIREMENTS.
2. REFER TO SPECIFICATION APPENDICES FOR ADDITIONAL TEST PIT AND BORING LOG INFORMATION.

PLAN
1" = 20'



PROFILE
HORZ:1"=20' VERT:1"=5'
1" = 20' 10 0 20
1" = 5' 2.5 0 5

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: S. ENGEL
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — JEFFREY WARD — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT

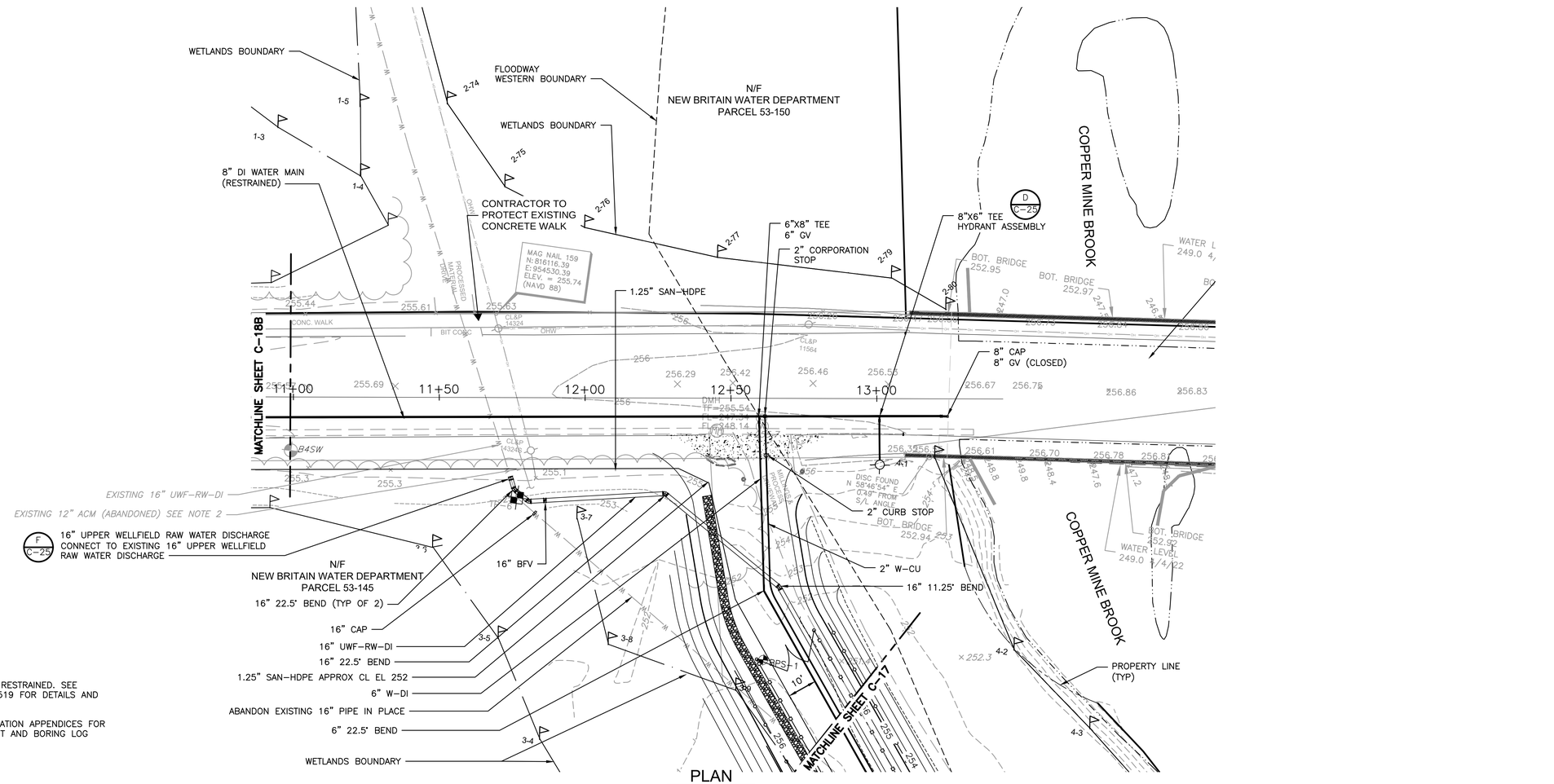
WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

MALTBY STREET PLAN AND PROFILE II

PROJECT NO. 10739-264571
FILE NAME: C018BYPPL.DWG
SHEET NO.
SP-09

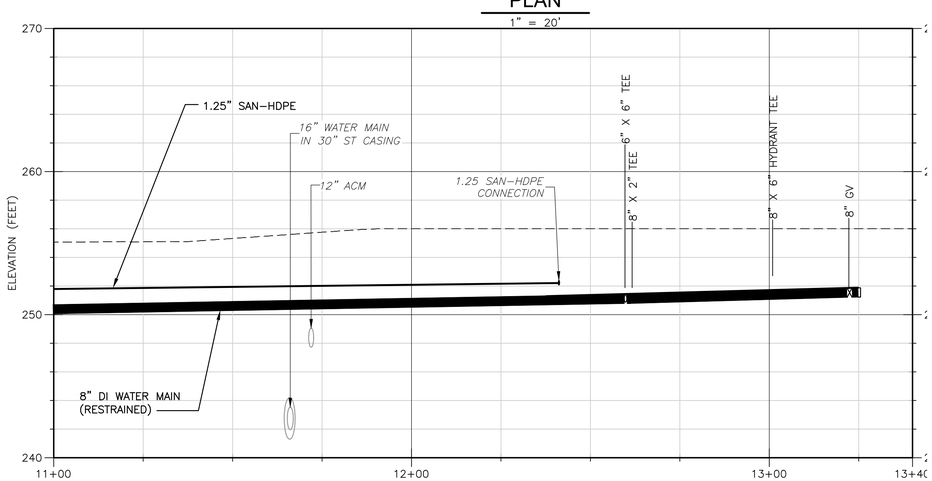
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PLAN

1" = 20'



PROFILE

1" = 20' HORZ:1"=20' VERT:1"=5' 1" = 5'

NOTES:

1. ALL PIPING TO BE RESTRAINED. SEE SPECIFICATION 330519 FOR DETAILS AND REQUIREMENTS.
2. REFER TO SPECIFICATION APPENDICES FOR ADDITIONAL TEST PIT AND BORING LOG INFORMATION.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: S. ENGEL
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — STEVE J. GERBLE — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

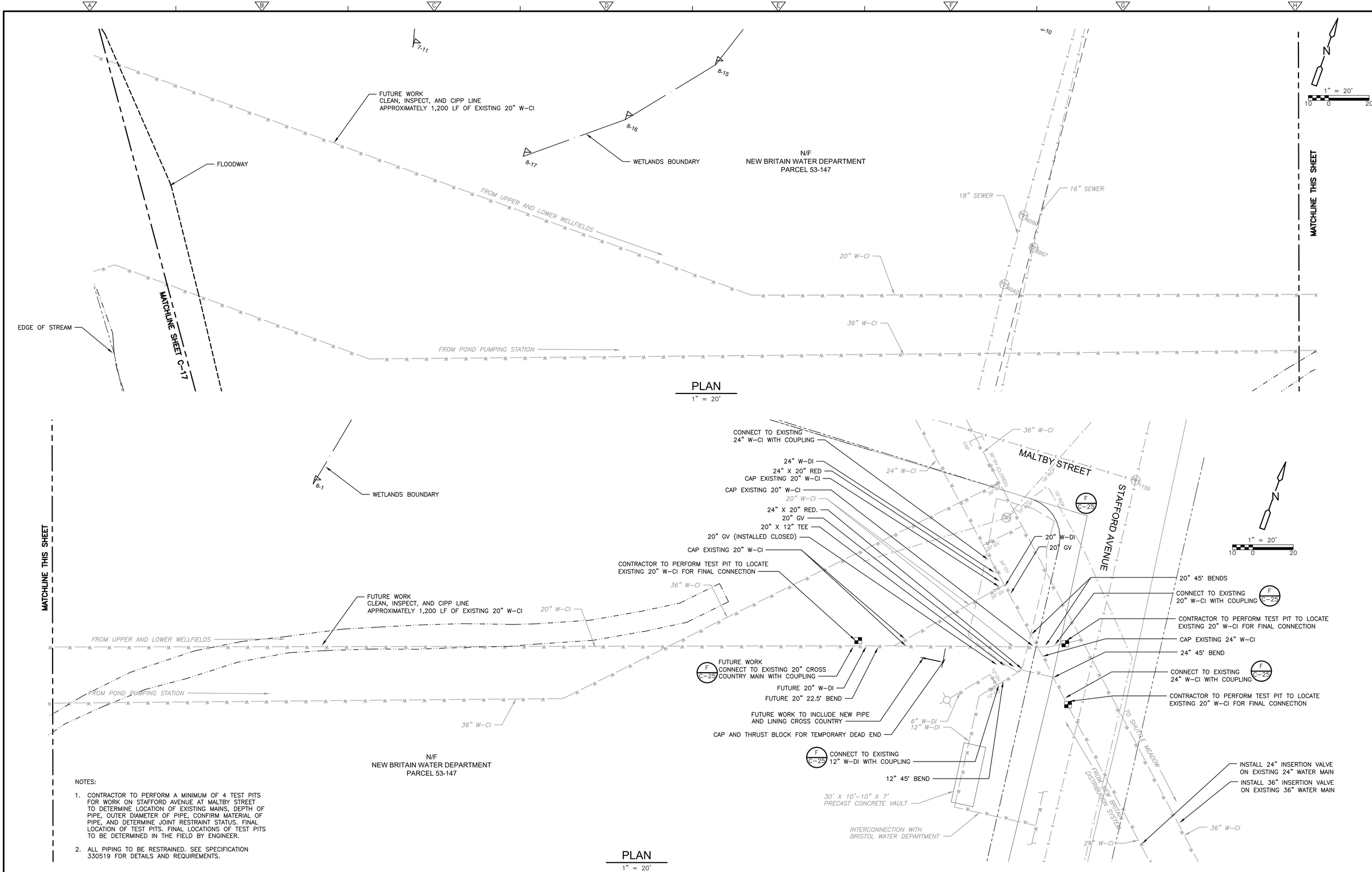
MALTBY STREET
PLAN AND PROFILE III

PROJECT NO. 10739-264571
FILE NAME: C018CYPPL.DWG
SHEET NO.
SP-10

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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NOTES:

1. CONTRACTOR TO PERFORM A MINIMUM OF 4 TEST PITS FOR WORK ON STAFFORD AVENUE AT MALTBY STREET TO DETERMINE LOCATION OF EXISTING MAINS, DEPTH OF PIPE, OUTER DIAMETER OF PIPE, CONFIRM MATERIAL OF PIPE, AND DETERMINE JOINT RESTRAINT STATUS. FINAL LOCATION OF TEST PITS. FINAL LOCATIONS OF TEST PITS TO BE DETERMINED IN THE FIELD BY ENGINEER.
2. ALL PIPING TO BE RESTRAINED. SEE SPECIFICATION 330519 FOR DETAILS AND REQUIREMENTS.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: S. ENGEL
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
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Tel: (860) 529-7615

STATE OF CONNECTICUT · KIMBERLY A. WAGNER · No. 24384 · LICENSED PROFESSIONAL ENGINEER · 10-10-24

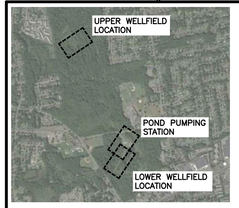
CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

STAFFORD AVENUE AND CROSS COUNTRY PLAN

PROJECT NO. 10739-264571
FILE NAME: C019YPPL.DWG
SHEET NO. SP-11

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION



PLAN
N.T.S.

LEGEND

- COMPOST SOCK
- BUILDING REMOVAL
- WETLAND FLAG
- BORING

NOTES:

1. EXISTING WELLS TO HAVE THE WELL HEAD REMOVED TO 5 FEET BELOW FINISHED GRADE, LATERAL DISCHARGE PIPING REMOVED TO THE HEADER PIPE AND A CAP OR CONCRETE PLUG INSTALLED ON THE ABANDONED HEADER PIPE. SEE SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF EXISTING WELLS.
2. THE EXISTING UPPER WELLFIELD PUMPING STATION BUILDING TO BE DEMOLISHED TO AT LEAST 2 FEET BELOW FINISHED GRADE. THE WESTERN WALL SHALL REMAIN TO AT LEAST 2 FEET BELOW GRADE. BUILDING FOUNDATION TO BE FILLED AND COMPACTED TO EXISTING GRADE. OWNER TO TAG ITEMS AND EQUIPMENT TO BE SAVED PRIOR TO DEMOLITION. CONTRACTOR TO REMOVE AND RETURN TO OWNER ANY TAGGED ITEM OR EQUIPMENT. SEE SPECIFICATION SECTION 024116 FOR ADDITIONAL BUILDING DEMOLITION REQUIREMENTS.
3. CONTRACTOR TO INSTALL COMPOST SOCK ON BOTH SIDES OF THE UPPER WELLFIELD ACCESS DRIVEWAY (APPROX. 3,200 LF EACH, NOT SHOWN) TO MALTBY STREET. THE EXISTING ACCESS DRIVEWAY BRIDGE CROSSING OF THE FREEMAN HILL BROOK TO BE PROTECTED DURING CONSTRUCTION.
4. HAZARDOUS BUILDING MATERIALS WERE FOUND IN SAMPLES TAKEN FROM SELECT LOCATIONS IN EXISTING BUILDINGS. PRIOR TO COMMENCING WITH ANY MODIFICATIONS OR DEMOLITION WORK, REFER TO SPECIFICATIONS FOR KNOW LOCATIONS OF HAZARDOUS BUILDING MATERIALS AND EQUIPMENT, PROPOSED ABATEMENT AND DISTURBANCE WORK, REQUIREMENTS FOR ADDITIONAL SAMPLING AND TESTING TO BE PERFORMED AS PART OF THE WORK, MONITORING REQUIREMENTS, AND WASTE HANDLING AND DISPOSAL REQUIREMENTS.
5. SILT FENCING SHALL BE INSTALLED ON THE TOE OF ALL PROPOSED NEW SLOPES. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MONITORED DURING CONSTRUCTION, AND REMOVED ONLY ONCE SLOPE HAS BEEN STABILIZED.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

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STATE OF CONNECTICUT — KIMBERLEY A. WAGNER — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT

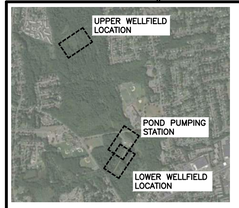
WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

UPPER WELLFIELD DEMOLITION AND E&S CONTROLS

PROJECT NO. 10739-264571
FILE NAME: C006STPL.DWG
SHEET NO. SP-12

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PLAN

N.T.S.

LEGEND

- COMPOST SOCK
- BUILDING REMOVAL
- WETLAND FLAG
- BORING

NOTES:

1. EXISTING WELLS TO HAVE THE WELL HEAD REMOVED TO 5 FEET BELOW FINISHED GRADE, LATERAL DISCHARGE PIPING REMOVED TO THE EXISTING 16" CI SUCTION HEADER PIPE, AND A CAP OR CONCRETE PLUG INSTALLED ON THE ABANDONED HEADER PIPE. SEE SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF EXISTING WELLS.
2. EXISTING WELLS WITH WELL HEAD LOCATED IN A VAULT TO HAVE VAULT DEMOLISHED AND REMOVED, WELL HEAD REMOVED TO 5 FEET BELOW BOTTOM OF VAULT, LATERAL DISCHARGE PIPING REMOVED TO THE EXISTING 16" CI SUCTION HEADER PIPE, AND A CAP OR CONCRETE PLUG INSTALLED ON THE ABANDONED HEADER PIPE. SEE SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF EXISTING WELLS.
3. THE EXISTING POND PUMPING STATION BUILDING TO BE DEMOLISHED AT COMPLETION OF NEW POND PUMPING STATION TO AT LEAST 2 FEET BELOW FINISHED GRADE. THE WESTERN WALL SHALL REMAIN TO AT LEAST 2 FEET BELOW GRADE. BUILDING FOUNDATION TO BE FILLED AND COMPACTED TO EXISTING GRADE. OWNER TO TAG ITEMS AND EQUIPMENT TO BE SAVED PRIOR TO DEMOLITION. CONTRACTOR TO REMOVE AND RETURN TO OWNER ANY TAGGED ITEM OR EQUIPMENT. SEE SPECIFICATION SECTION 024116 FOR ADDITIONAL BUILDING DEMOLITION REQUIREMENTS.
4. THE EXISTING LOWER WELLFIELD PUMPING STATION BUILDING AND FOUNDATION TO BE DEMOLISHED TO ELEVATION 241.2 FT. EXCAVATION LIMITS FOR THE NEW POND PUMPING STATION BUILDING TO APPROXIMATE MIN ELEVATION 241.2 FT. OWNER TO TAG ITEMS AND EQUIPMENT TO BE SAVED PRIOR TO DEMOLITION. CONTRACTOR TO REMOVE AND RETURN TO OWNER ANY TAGGED ITEM OR EQUIPMENT. SEE DETAIL B ON SHEET C-26 AND SPECIFICATIONS SECTION 024116 FOR ADDITIONAL BUILDING DEMOLITION REQUIREMENTS.
5. THE EXISTING CAISSON WELL TO BE DECOMMISSIONED AND ABANDONED IN PLACE. THE CONE OF THE EXISTING CAISSON WELL TO BE DEMOLISHED TO AT LEAST 2 FEET BELOW FINISH GRADE. SEE DETAIL B ON SHEET C-28 AND SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF THE EXISTING CAISSON WELL.
6. HAZARDOUS BUILDING MATERIALS WERE FOUND IN SAMPLES TAKEN FROM SELECT LOCATIONS IN EXISTING BUILDINGS. PRIOR TO COMMENCING WITH ANY MODIFICATIONS OR DEMOLITION WORK, REFER TO SPECIFICATIONS FOR KNOW LOCATIONS OF HAZARDOUS BUILDING MATERIALS AND EQUIPMENT, PROPOSED ABATEMENT AND DISTURBANCE WORK, REQUIREMENTS FOR ADDITIONAL SAMPLING AND TESTING TO BE PERFORMED AS PART OF THE WORK, MONITORING REQUIREMENTS, AND WASTE HANDLING AND DISPOSAL REQUIREMENTS.
7. SILT FENCING SHALL BE INSTALLED ON THE TOE OF ALL PROPOSED NEW SLOPES. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MONITORED DURING CONSTRUCTION, AND REMOVED ONLY ONCE SLOPE HAS BEEN STABILIZED.
8. CONTRACTOR TO REMOVE TREES TO WIDEN ACCESS DRIVE AND PROVIDE ADEQUATE SITE LINES FROM DRIVEWAY ONTO MALTBY STREET.

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
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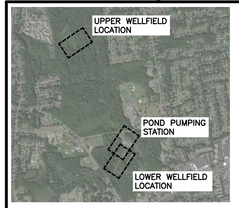
STATE OF CONNECTICUT — KEVIN J. WAGNER — No. 24384 — REGISTERED PROFESSIONAL ENGINEER — 10.10.24

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

POND PUMPING STATION
DEMOLITION AND E&S CONTROLS

PROJECT NO. 10739-264571
FILE NAME: C007STPL.DWG
SHEET NO. SP-13

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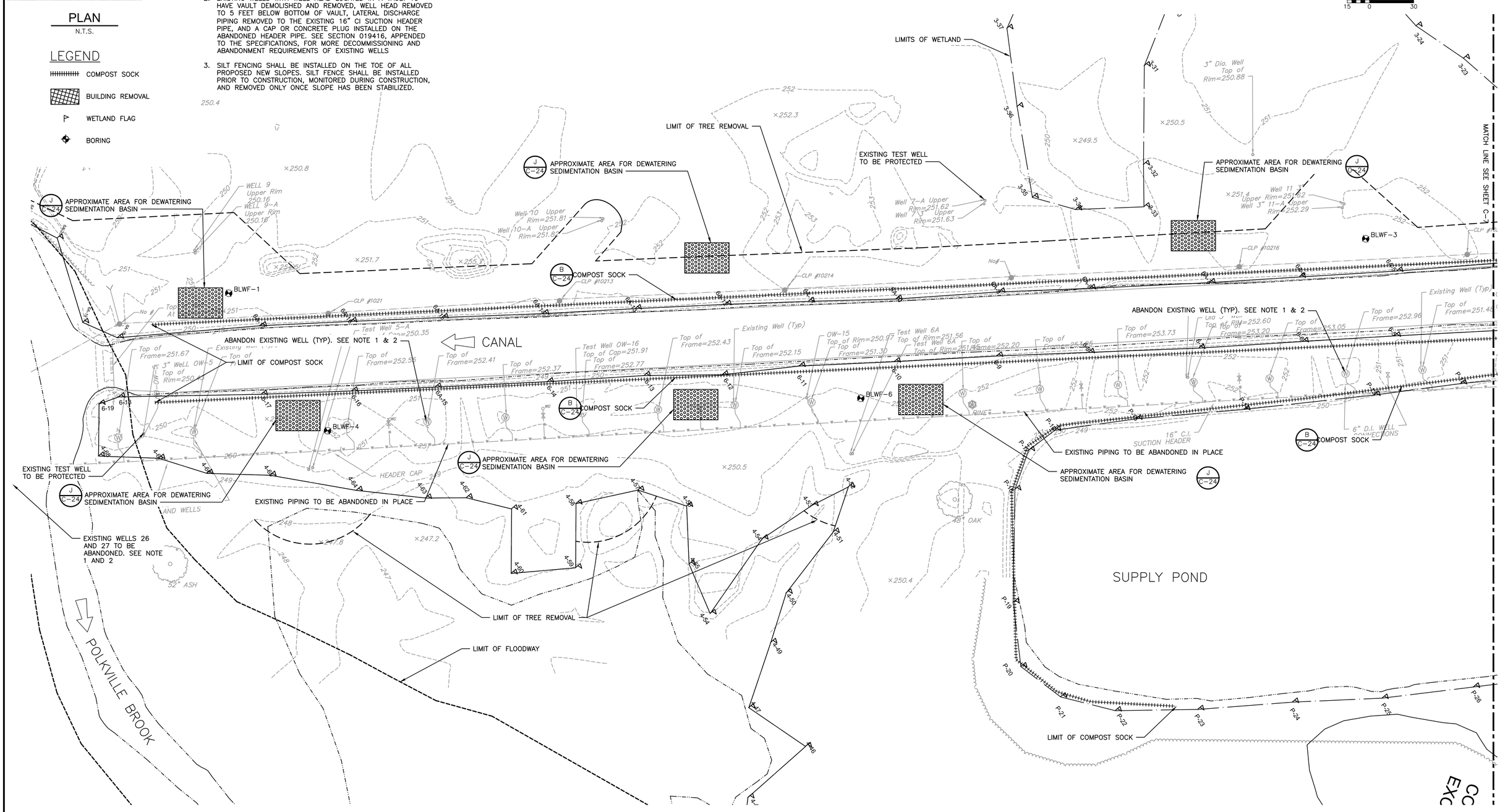
PLAN
N.T.S.

NOTES:

1. EXISTING WELLS TO HAVE THE WELL HEAD REMOVED TO 5 FEET BELOW FINISHED GRADE, LATERAL DISCHARGE PIPING REMOVED TO THE EXISTING 16" CI SUCTION HEADER PIPE, AND A CAP OR CONCRETE PLUG INSTALLED ON THE ABANDONED HEADER PIPE. SEE SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF EXISTING WELLS.
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LEGEND

- COMPOST SOCK
- BUILDING REMOVAL
- WETLAND FLAG
- BORING



REV. NO.	DATE	DRWN	CHK'D	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

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STATE OF CONNECTICUT — KEVIN SERBLE WAGNER — No. 24084 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

LOWER WELLFIELD
DEMOLITION AND E&S CONTROLS

PROJECT NO. 10739-264571
FILE NAME: C008GDPL.DWG
SHEET NO.
SP-14

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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NOTES FOR TRAFFIC CONTROL PLANS

1. IF A TRAFFIC STOPPAGE OCCURS IN ADVANCE OF SIGN (A), THEN AN ADDITIONAL SIGN (A) SHALL BE INSTALLED IN ADVANCE OF THE STOPPAGE.
2. SIGNS (AA), (A), AND (D) SHOULD BE OMITTED WHEN THESE SIGNS HAVE ALREADY BEEN INSTALLED TO DESIGNATE A LARGER WORK ZONE THAN THE WORK ZONE THAT IS ENCOMPASSED ON THIS PLAN.
3. SEE TABLE 1 FOR ADJUSTMENT OF TAPERS IF NECESSARY.
4. IF THIS PLAN REMAINS IN CONTINUOUS OPERATION FOR MORE THAN 36 HOURS, THEN TRAFFIC DRUMS SHALL BE USED IN PLACE OF TRAFFIC CONES.
5. ANY LEGAL SPEED LIMIT SIGNS WITHIN THE LIMITS OF A ROADWAY / LANE CLOSURE AREA SHALL BE COVERED WITH AN OPAQUE MATERIAL WHILE THE CLOSURE IS IN EFFECT, AND UNCOVERED WHEN THE ROADWAY / LANE CLOSURE IS RE-OPENED TO ALL LANES OF TRAFFIC.
6. IF THIS PLAN REMAINS IN CONTINUOUS OPERATION FOR MORE THAN 36 HOURS, THEN ANY EXISTING CONFLICTING PAVEMENT MARKINGS SHALL BE ERADICATED OR COVERED, AND TEMPORARY PAVEMENT MARKINGS THAT DELINEATE THE PROPER TRAVELPATHS SHALL BE INSTALLED.
7. DISTANCES BETWEEN SIGNS IN THE ADVANCE WARNING AREA MAY BE REDUCED TO 100' ON LOW-SPEED URBAN ROADS (SPEED LIMIT < 40 MPH).
8. IF THIS PLAN IS TO REMAIN IN OPERATION DURING THE HOURS OF DARKNESS, INSTALL BARRICADE WARNING LIGHTS - HIGH INTENSITY ON ALL POST-MOUNTED DIAMOND SIGNS IN THE ADVANCE WARNING AREA.
9. A CHANGEABLE MESSAGE SIGN SHALL BE INSTALLED ONE HALF TO ONE MILE IN ADVANCE OF THE LANE CLOSURE TAPER.
10. SIGN (P) SHALL BE MOUNTED A MINIMUM OF 7 FEET FROM THE PAVEMENT SURFACE TO THE BOTTOM OF THE SIGN.

TABLE 1 - MINIMUM TAPER LENGTHS

POSTED SPEED LIMIT (MILES PER HOUR)	MINIMUM TAPER LENGTH FOR A SINGLE LANE CLOSURE
30 OR LESS	180' (55m)
35	250' (75m)
40	320' (100m)
45	540' (165m)
50	600' (180m)
55	660' (200m)
65	780' (240m)

METRIC CONVERSION CHART (1" = 25mm)

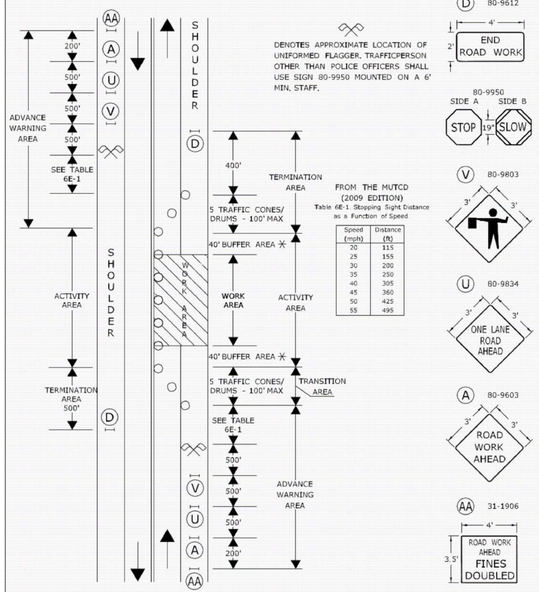
ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC
12"	300mm	42"	1050mm	72"	1800mm
18"	450mm	48"	1200mm	78"	1950mm
24"	600mm	54"	1350mm	84"	2100mm
30"	750mm	60"	1500mm	90"	2250mm
36"	900mm	66"	1650mm	96"	2400mm

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
NOTES

WORK IN TRAVEL LANE AND SHOULDER
TWO LANE HIGHWAY
ALTERNATING ONE-WAY TRAFFIC OPERATIONS

SIGN FACE 108 SQ. FT (MIN.)



TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 13 - SHEET 1 OF 2
SEE NOTES 1, 2, 4, 6, 7, 8

WORK IN TRAVEL LANE AND SHOULDER
TWO LANE HIGHWAY
ALTERNATING ONE-WAY TRAFFIC OPERATIONS

SIGN FACE 108 SQ. FT (MIN.)

HAND SIGNAL METHODS TO BE USED BY UNIFORMED FLAGGERS

THE FOLLOWING METHODS FROM SECTION 6E.07, FLAGGER PROCEDURES, IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," SHALL BE USED BY UNIFORMED FLAGGERS WHEN DIRECTING TRAFFIC THROUGH A WORK AREA. THE STOP/SLOW SIGN PADDLE (SIGN NO. 80-9950) SHOWN ON THE TRAFFIC STANDARD SHEET TR-1220 01 ENTITLED, "SIGNS FOR CONSTRUCTION AND PERMIT OPERATIONS" SHALL BE USED.

A. TO STOP TRAFFIC

TO STOP ROAD USERS, THE FLAGGER SHALL FACE ROAD USERS AND AIM THE STOP PADDLE FACE TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE FREE ARM SHALL BE HELD WITH THE PALM OF THE HAND ABOVE SHOULDER LEVEL TOWARD APPROACHING TRAFFIC.



B. TO DIRECT TRAFFIC TO PROCEED

TO DIRECT STOPPED ROAD USERS TO PROCEED, THE FLAGGER SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE FLAGGER SHALL MOTION WITH THE FREE HAND FOR ROAD USERS TO PROCEED.



C. TO ALERT OR SLOW TRAFFIC

TO ALERT OR SLOW TRAFFIC, THE FLAGGER SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. TO FURTHER ALERT OR SLOW TRAFFIC, THE FLAGGER HOLDING THE SLOW PADDLE FACE TOWARD ROAD USERS MAY MOTION UP AND DOWN WITH THE FREE HAND, PALM DOWN.



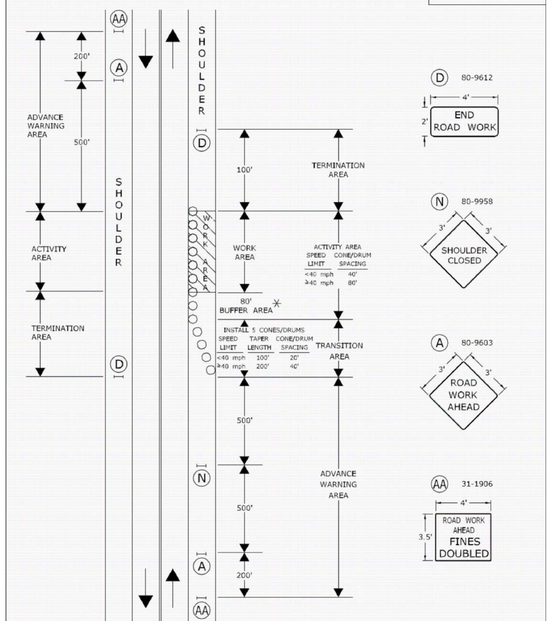
TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 13 - SHEET 2 OF 2
SEE NOTES 1, 2, 4, 6, 7, 8

WORK IN SHOULDER - TWO LANE HIGHWAY

SIGN FACE 71 SQ. FT (MIN.)



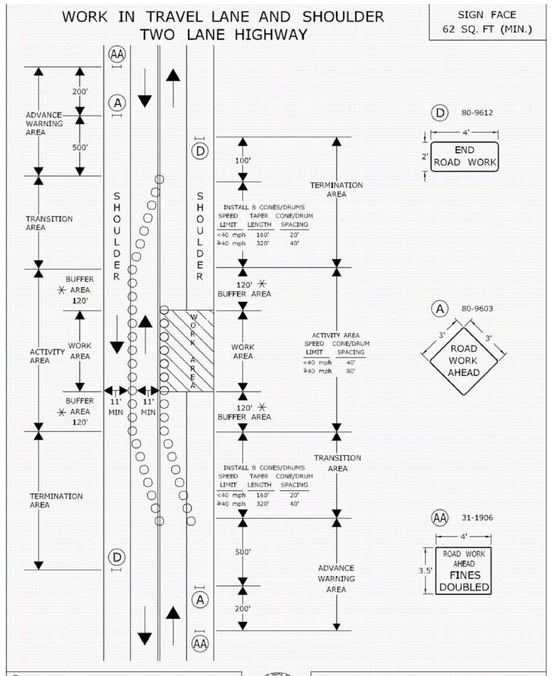
TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 14
SEE NOTES 1, 2, 4, 7, 8

WORK IN TRAVEL LANE AND SHOULDER
TWO LANE HIGHWAY

SIGN FACE 62 SQ. FT (MIN.)



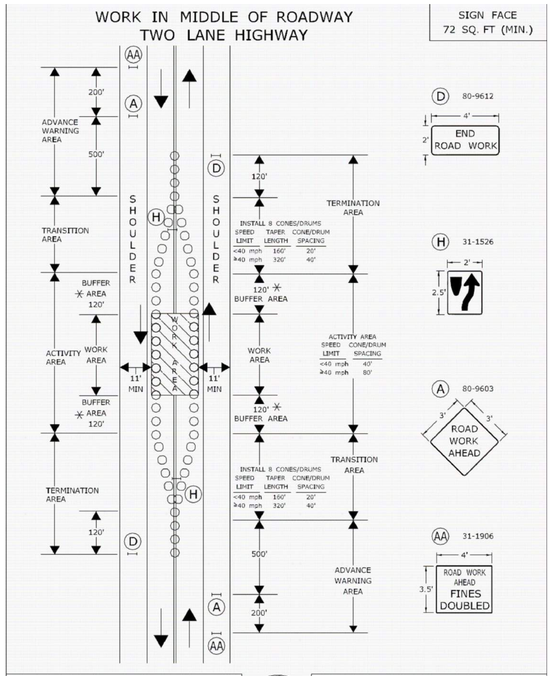
TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 15
SEE NOTES 1, 2, 4, 6, 7, 8

WORK IN MIDDLE OF ROADWAY
TWO LANE HIGHWAY

SIGN FACE 72 SQ. FT (MIN.)



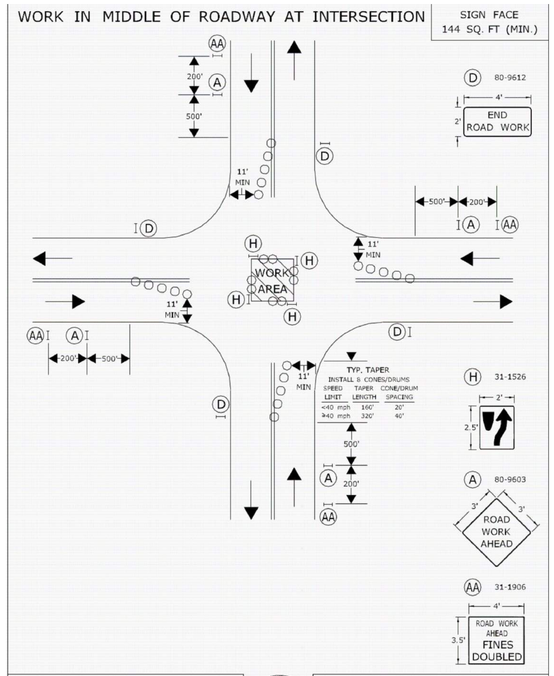
TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 16
SEE NOTES 1, 2, 4, 6, 7, 8

WORK IN MIDDLE OF ROADWAY AT INTERSECTION

SIGN FACE 144 SQ. FT (MIN.)



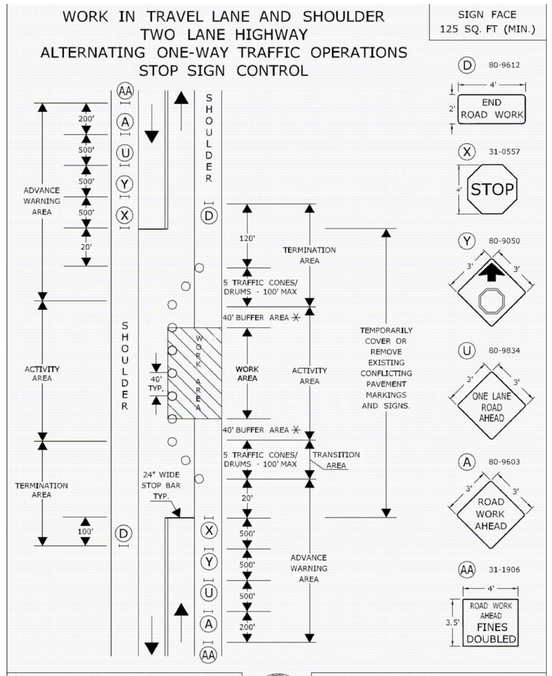
TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 17
SEE NOTES 1, 2, 4, 6, 7, 8

WORK IN TRAVEL LANE AND SHOULDER
TWO LANE HIGHWAY
ALTERNATING ONE-WAY TRAFFIC OPERATIONS
STOP SIGN CONTROL

SIGN FACE 125 SQ. FT (MIN.)



TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 18
SEE NOTES 1, 2, 4, 7, 8

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: S. ENGEL
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: DECEMBER 2023

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

TRAFFIC CONTROL
NOTES AND PLANS

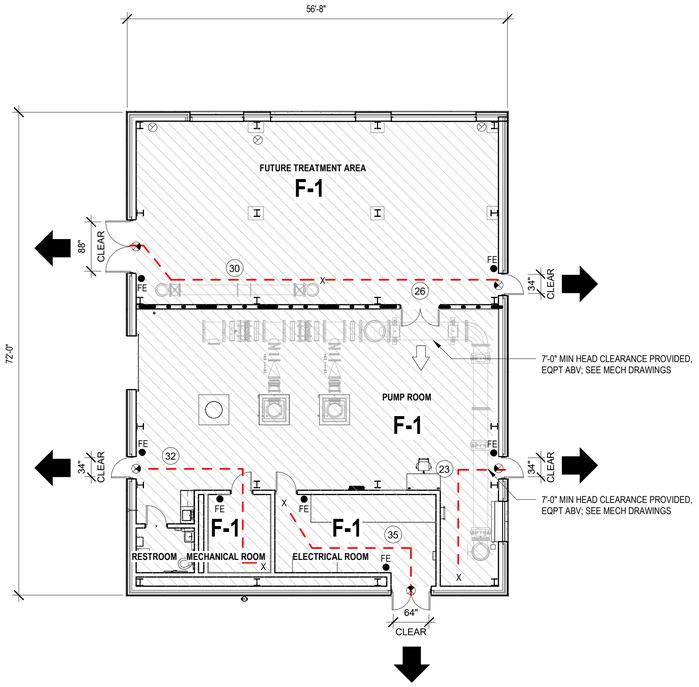
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FILE NAME: C029TRFC.DWG
SHEET NO. C-29

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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Elevation Drawings and Floor Plans

Include in hard copy submittal



LIFE SAFETY PLAN

3/32" = 1'-0"

LIFE SAFETY PLAN LEGEND

- EGRESS PATH
- 2 HOUR FIRE RATING
- EXIT DISCHARGE
- AREA OR SPACE EXIT
- EXIT SIGN
- FE — FIRE EXTINGUISHER - MULTIPURPOSE DRY-CHEMICAL TYPE
- (X) — TRAVEL DISTANCE (FEET)
- [X] — COMMON PATH OF TRAVEL (FEET)
- X — POINT OF ORIGIN
- FACTORY INDUSTRIAL, F-1 OCCUPANCY CLASSIFICATION

Building Code Summary			
Owner:	City of New Britain, Connecticut	**Date:**	April 2023
Project Name:	White Bridge Waterworks Facilities	**Location:**	New Britain, CT
Project No:	10739-264571	**Architect of Record:**	CDM Architects Inc.
Building Name:	Pond Pumping Station		
Work Scope:	Construction of pump station (New Structure)		
Applicable Ordinances, Codes, and Standards			
Abbreviations	**ICC** - International Code Council; **IBC** - International Building Code; **IEBC** - International Existing Building Code; **IECC** - International Energy Conservation Code; **IFC** - International Fire Code; **IMC** - International Mechanical Code; **IPC** - International Plumbing Code;		
Building Code	2022 CT State Building Code - 2021 IBC		
Mechanical Code	2022 CT State Building Code - 2021 IMC		
Energy Code	2022 CT State Building Code - 2021 IECC		
Plumbing Code	2022 CT State Building Code - 2021 IPC		
Electrical Code	2020 National Electrical Code (NFPA 70)		
Accessibility Code	2017 ICC A117.1		
Use and Occupancy Classification			
IBC Code Reference			
Chapter 3			
Section 306	Factory Group F		
306.2	Moderate-hazard factory industrial, Group F-1		
General Building Heights and Areas			
Chapter 5			
Section 504	Building Height and Number of Stories		
Table 504.3	Allowable Building Height in Feet Above Grade Plane	Allowable	Proposed
	Group F-1 Type IIB - No Sprinklers	55 Feet	25 Feet, 10 Inches
Table 504.4	Allowable Number of Stories Above Grade Plane		
	Group F-1 Type IIB - No Sprinklers	2 Stories	1 Story
Section 506	Building Area		
Table 506.2	Allowable Area Factor in Square Feet		
	Group F-1 Type IIB - No Sprinklers	15,500 SF	4,085 SF
Types of Construction			
Chapter 6			
Section 602	Construction Classification		
602.2	Types I and II, Non Combustible	Type IIB Construction	
Fire Protection and Life Safety Systems			
Chapter 9			
Section 903	Automatic Sprinkler Systems	Not required for Group F-1 occupancy: 1. Fire area under 12,000 square feet. 2. Fire area not located more than three stories above grade plane. 3. Combined area of all F-1 fire areas under 24,000 square feet.	
Section 906	Portable Fire Extinguishers	Required in accordance to 906.2 and NFPA 10	
Section 907 907.2.4	Fire Alarm and Detection Systems Group F	Not required for Group F-1 occupancy 1. F occupancy under two stories in height. 2. F occupancy has occupant load under 500.	
Means of Egress			
Chapter 10			
Section 1004	Occupant Load		
Table 1004.5	Maximum Floor Area Allowances per Occupant		
	Function of Space	Occupant Load Factor	Area / Occupant Load Factor
	Accessory storage areas, mechanical equipment room	300 gross	(4,085 / 300) = 14
Section 1010	Doors, Gates and Turnstiles	Required	Proposed
1010.1.1	Size of doors	Minimum clear width: 32 inches	34 inches
Section 1017	Exit Access Travel Distance		
Table 1017.2	Occupancy	without Sprinklers (feet)	with Sprinklers (feet)
	F-1	200	N/A
Accessibility			
Chapter 11			
Section 1103	Scoping Requirements		
1103.2.9	Equipment spaces are not required to comply with this chapter		
Energy Efficiency			
Chapter 13			
Section 1301	General		
1301.1.1	Building designed and constructed in accordnace with the IECC with compliance requirements indicated in COMcheck report		

0 4' 8' 12' 20'

SCALE: 3/32" = 1'-0"

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: R. MARSHALL
DRAWN BY: R. MARSHALL
SHEET CHK'D BY: S. BRADFORD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: B. GIORGI
DATE: APRIL 2023

CDM Smith
77 Hartland Street, Suite 200
East Hartford, CT 06108
Tel: (860) 529-7615

CDM Architects Inc.
75 State Street
Boston, Massachusetts 02109

CITY OF NEW BRITAIN, CONNECTICUT

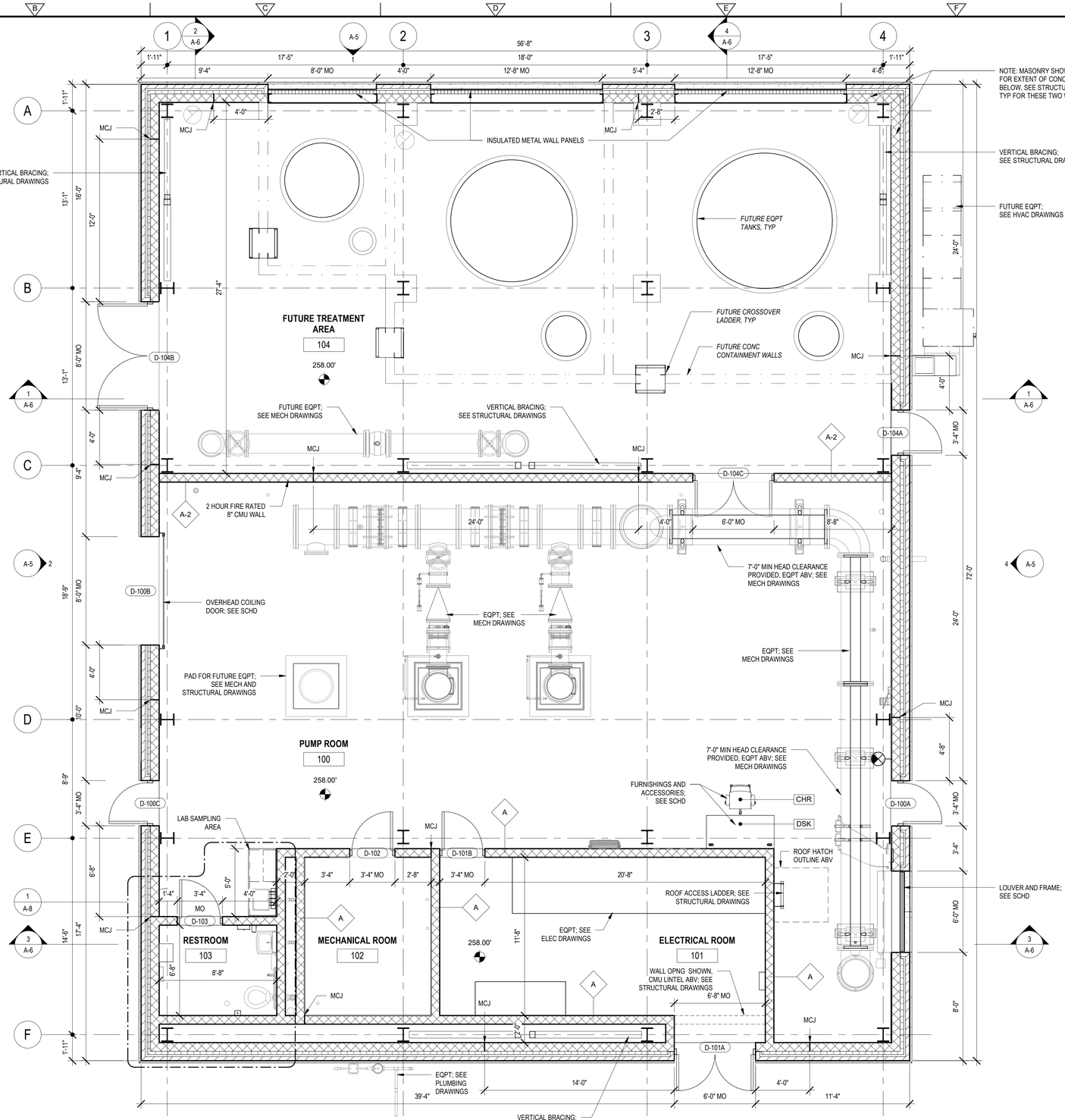
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS AND
POND PUMPING STATION

POND PUMPING STATION
BUILDING CODE SUMMARY AND LIFE SAFETY PLAN

PROJECT NO. 10739-264571
FILE NAME: AWZ001PS.RVT
SHEET NO. A-2

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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GROUND LEVEL FLOOR PLAN
1/4" = 1'-0"

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

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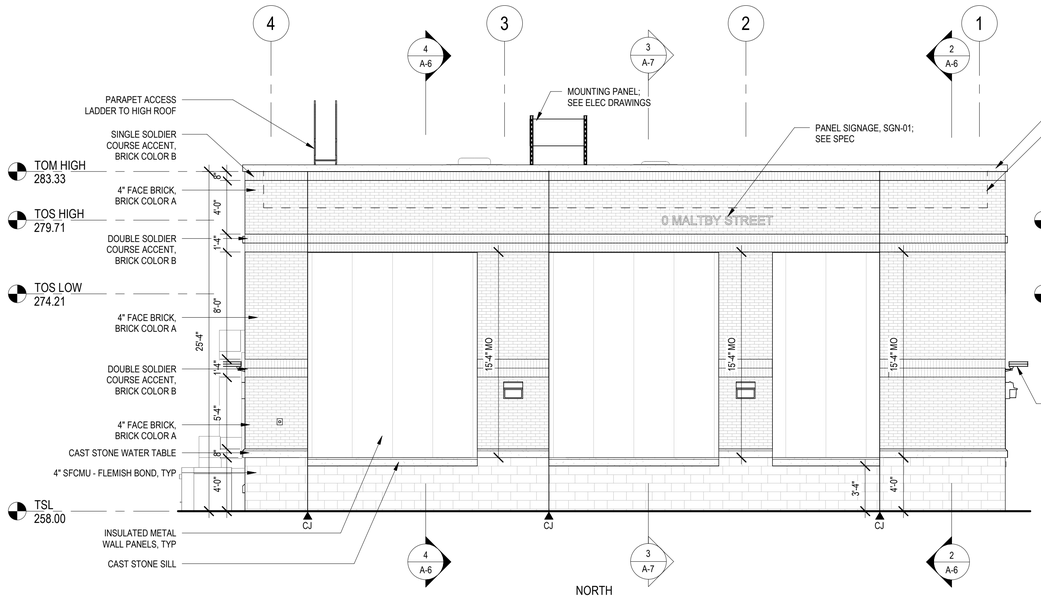
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS AND
POND PUMPING STATION

POND PUMPING STATION
FLOOR PLAN

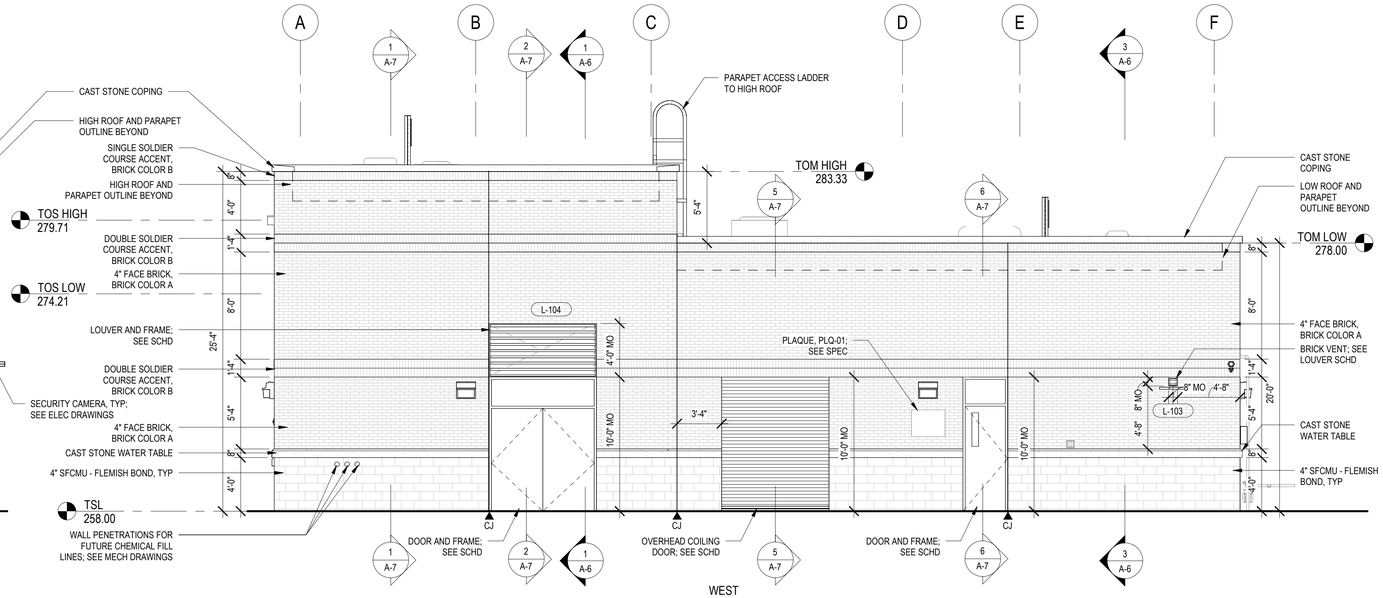
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FILE NAME: AWZ001PS.RVT
SHEET NO.
A-3

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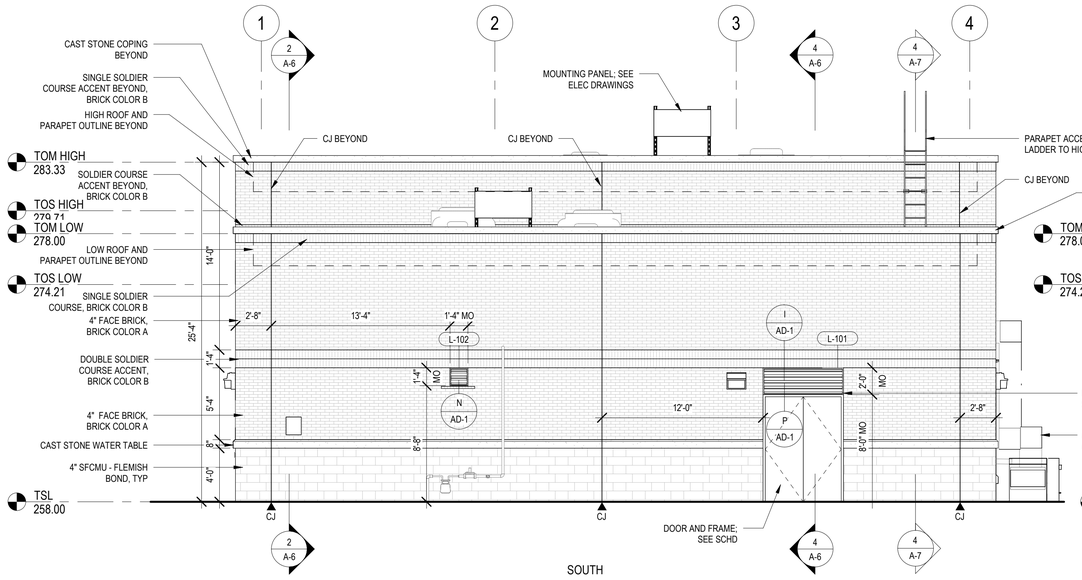
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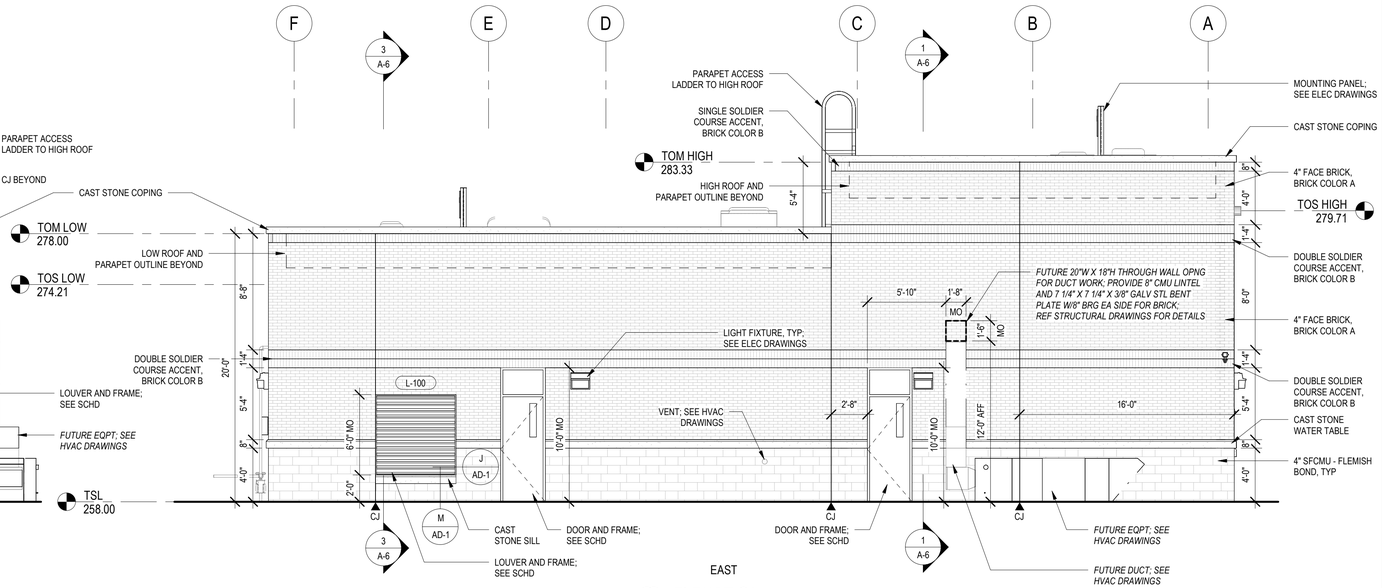
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2 ELEVATION A-3 — 3/16" = 1'-0"



3 ELEVATION A-3 — 3/16" = 1'-0"



4 ELEVATION A-3 — 3/16" = 1'-0"

0 2' 4' 6' 10'

SCALE: 3/16" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

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APPROVED BY: B. GIORGI
DATE: APRIL 2023

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CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS AND
POND PUMPING STATION

POND PUMPING STATION
EXTERIOR ELEVATIONS

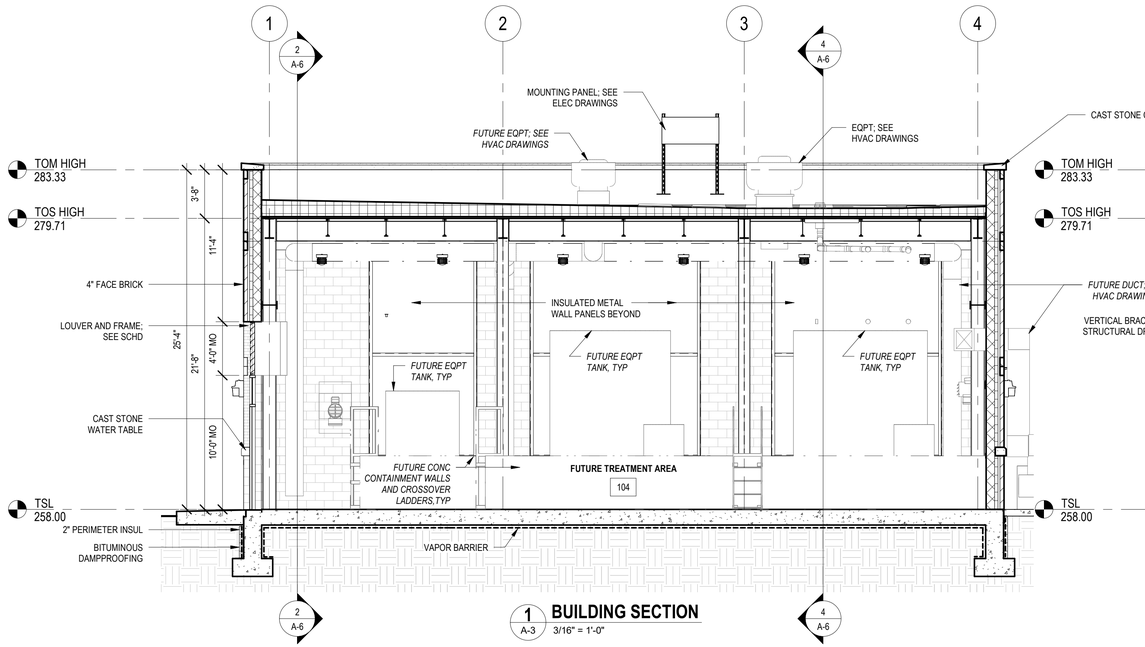
PROJECT NO. 10739-264571
FILE NAME: AWZ001PS.RVT

SHEET NO.
A-5

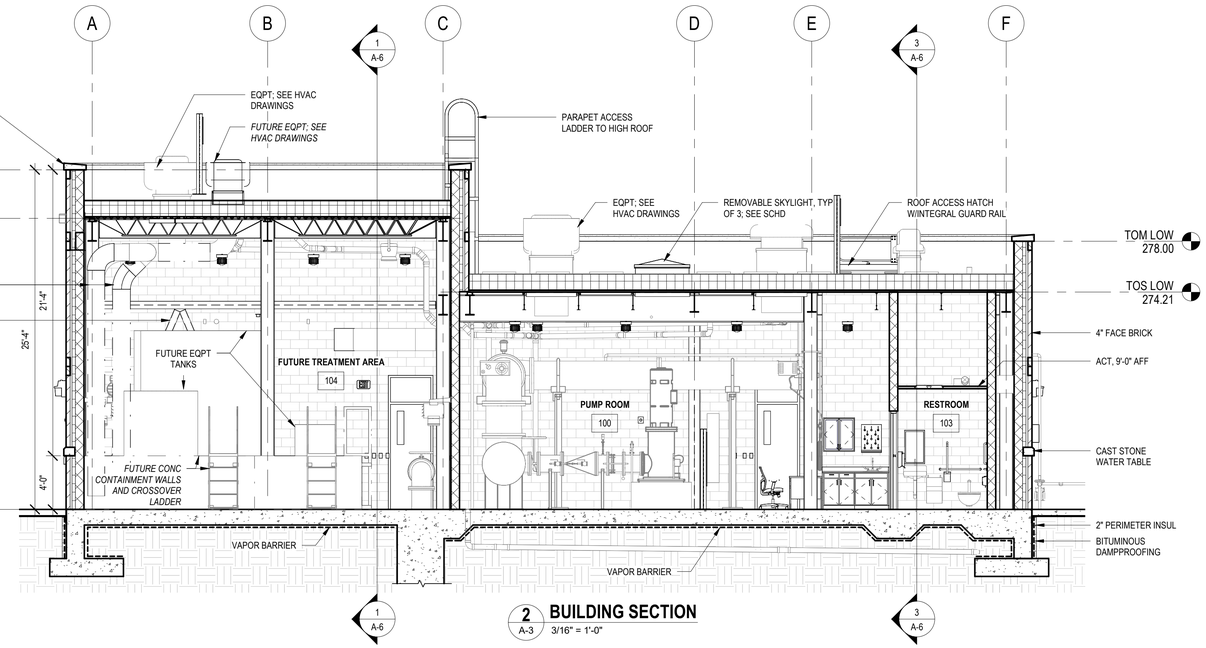
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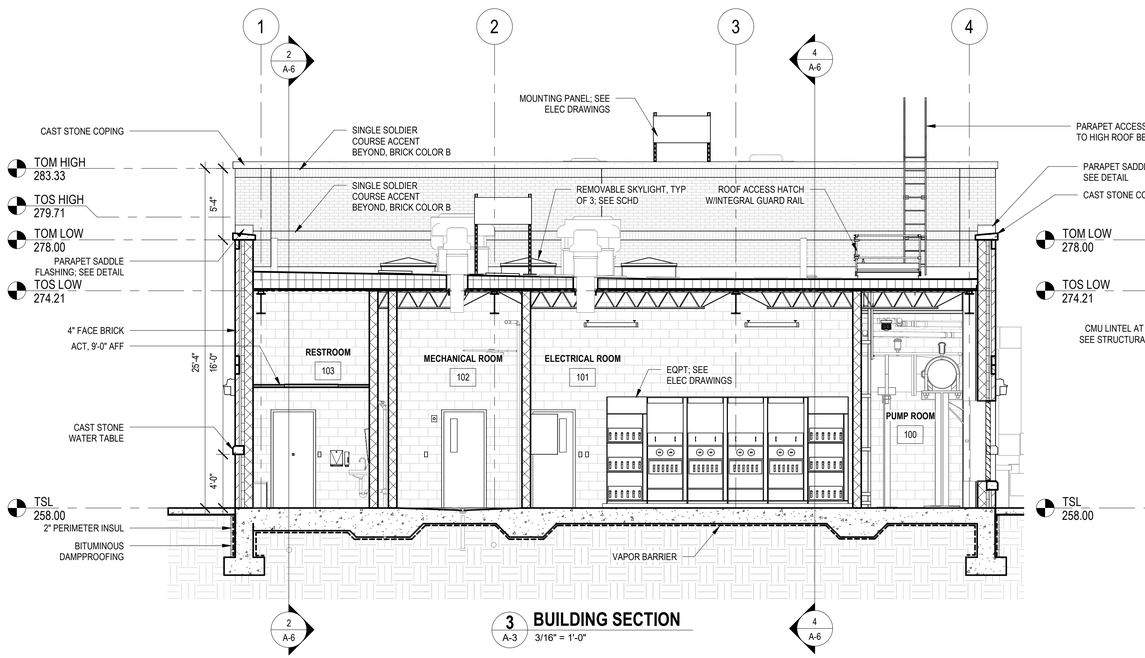
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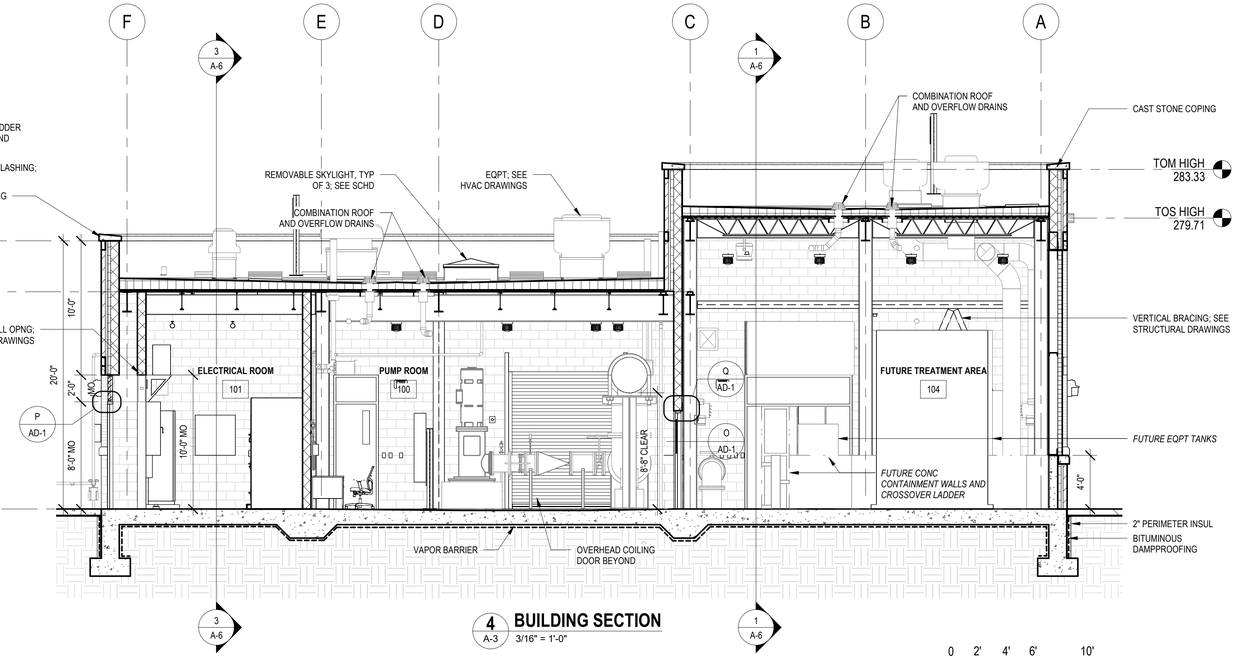
1 **BUILDING SECTION** A-3 3/16" = 1'-0"



2 **BUILDING SECTION** A-3 3/16" = 1'-0"



3 **BUILDING SECTION** A-3 3/16" = 1'-0"



4 **BUILDING SECTION** A-3 3/16" = 1'-0"

0 2' 4' 6' 10'

SCALE: 3/16" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

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DRAWN BY: R. MARSHALL
SHEET CHK'D BY: S. BRADFORD
CROSS CHK'D BY: K. WAGNER
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CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS AND
POND PUMPING STATION

POND PUMPING STATION
BUILDING SECTIONS

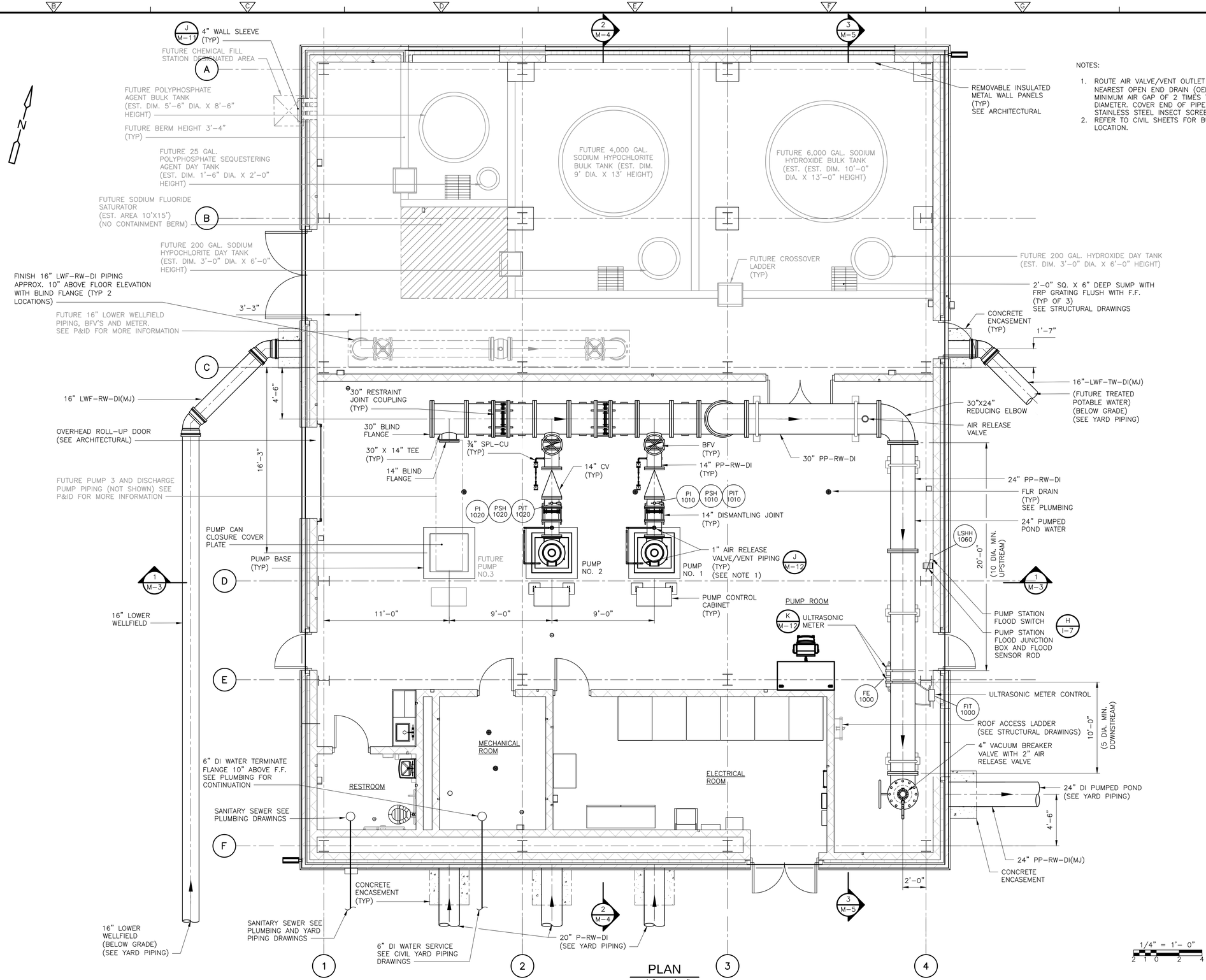
PROJECT NO. 10739-264571
FILE NAME: AWZ001PS.RVT

SHEET NO.
A-6

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DRAWN BY: V. BITTO
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: APRIL 2023

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CITY OF NEW BRITAIN, CONNECTICUT

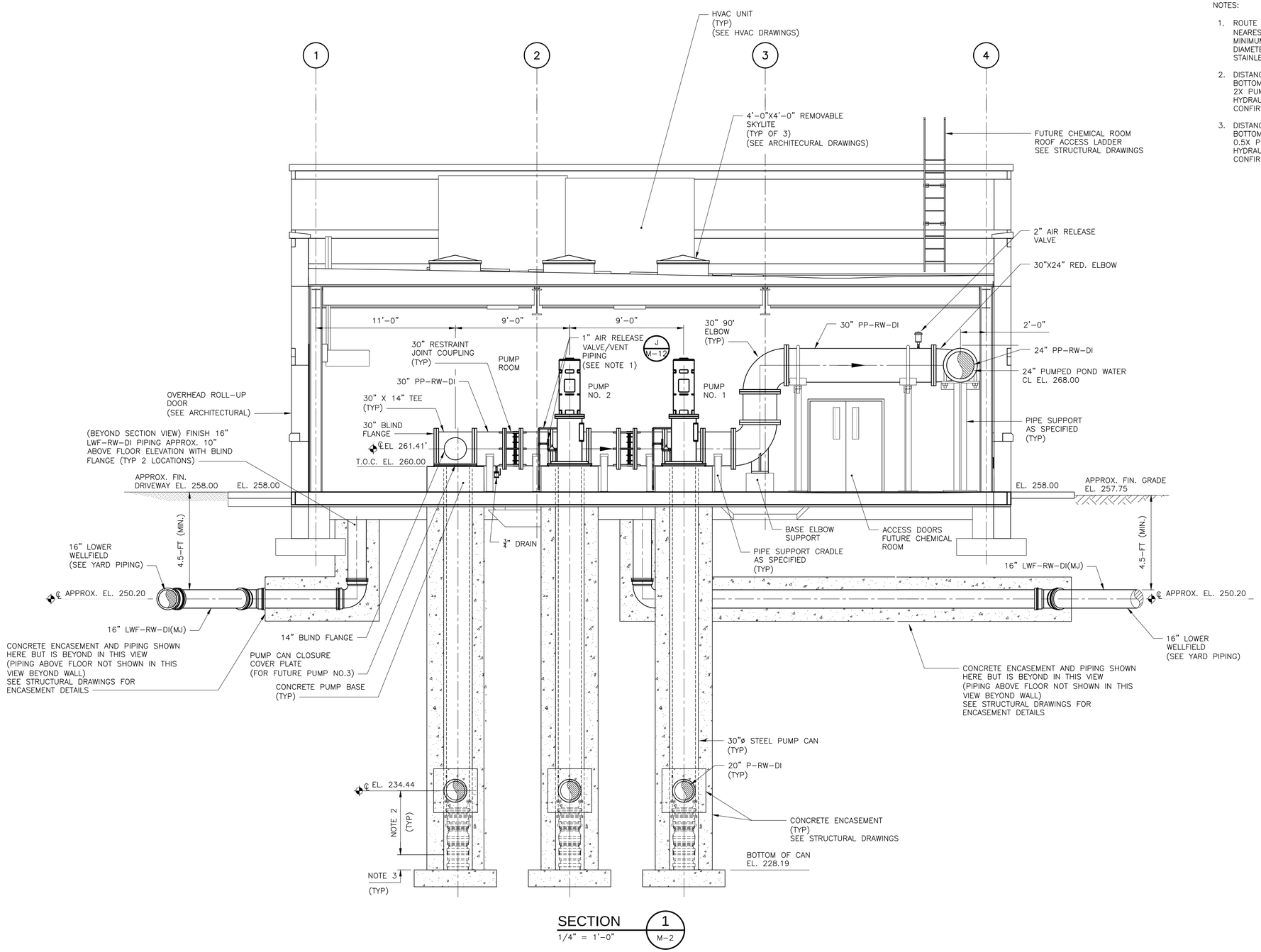
WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

POND PUMPING STATION FLOOR PLAN

PROJECT NO. 10739-264571
FILE NAME: M002PSPL.DWG
SHEET NO. M-2

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SECTION 1 / M-2
1/4" = 1'-0"

NOTES:

1. ROUTE AIR VALVE/VENT OUTLET PIPING TO THE NEAREST OPEN END DRAIN (OED). PROVIDE MINIMUM AIR GAP OF 2 TIMES THE PIPE DIAMETER. COVER END OF PIPE WITH STAINLESS STEEL INSECT SCREEN.
2. DISTANCE FROM SUCTION PIPE CENTERLINE TO BOTTOM OF PUMP BOWLS SHALL BE MINIMUM 2X PUMP CAN INSIDE DIAMETER, PER HYDRAULIC INSTITUTE STANDARDS. TO BE CONFIRMED BY PUMP SUPPLIER.
3. DISTANCE FROM SUCTION PIPE CENTERLINE TO BOTTOM OF PUMP BOWLS SHALL BEMINIMUM 0.5X PUMP CAN INSIDE DIAMETER, PER HYDRAULIC INSTITUTE STANDARDS. TO BE CONFIRMED BY PUMP SUPPLIER.

1/4" = 1'- 0"
2 1 0 2 4

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: V. BITTO
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: APRIL 2023

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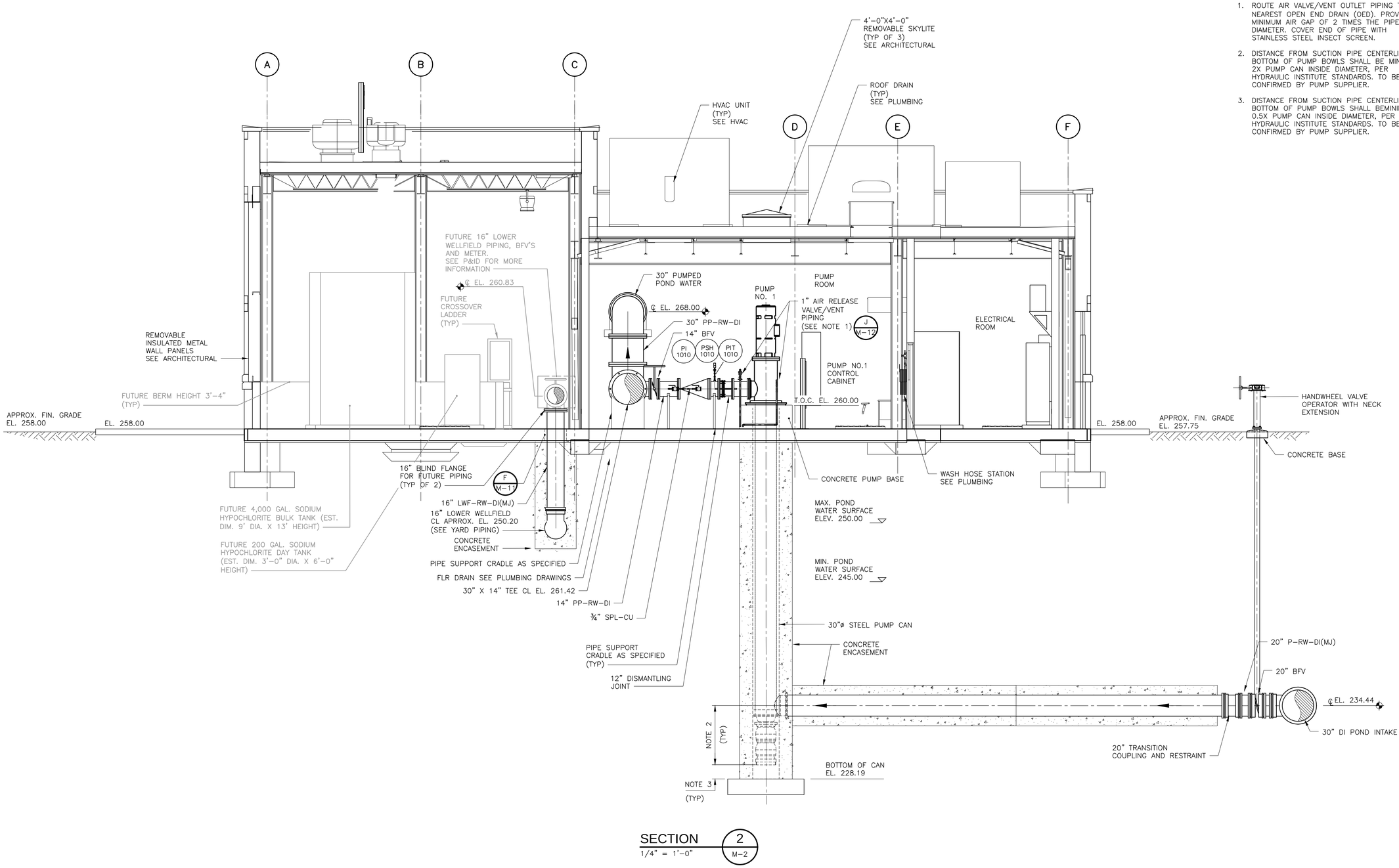
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

POND PUMPING STATION
SECTIONS I

PROJECT NO. 10739-264571
FILE NAME: M003PSSC.DWG
SHEET NO.
M-3

NOTES:

1. ROUTE AIR VALVE/VENT OUTLET PIPING TO THE NEAREST OPEN END DRAIN (OED). PROVIDE MINIMUM AIR GAP OF 2 TIMES THE PIPE DIAMETER. COVER END OF PIPE WITH STAINLESS STEEL INSECT SCREEN.
2. DISTANCE FROM SUCTION PIPE CENTERLINE TO BOTTOM OF PUMP BOWLS SHALL BE MINIMUM 2X PUMP CAN INSIDE DIAMETER, PER HYDRAULIC INSTITUTE STANDARDS. TO BE CONFIRMED BY PUMP SUPPLIER.
3. DISTANCE FROM SUCTION PIPE CENTERLINE TO BOTTOM OF PUMP BOWLS SHALL BEMINIMUM 0.5X PUMP CAN INSIDE DIAMETER, PER HYDRAULIC INSTITUTE STANDARDS. TO BE CONFIRMED BY PUMP SUPPLIER.



SECTION 2 / M-2
1/4" = 1'-0"

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CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: APRIL 2023

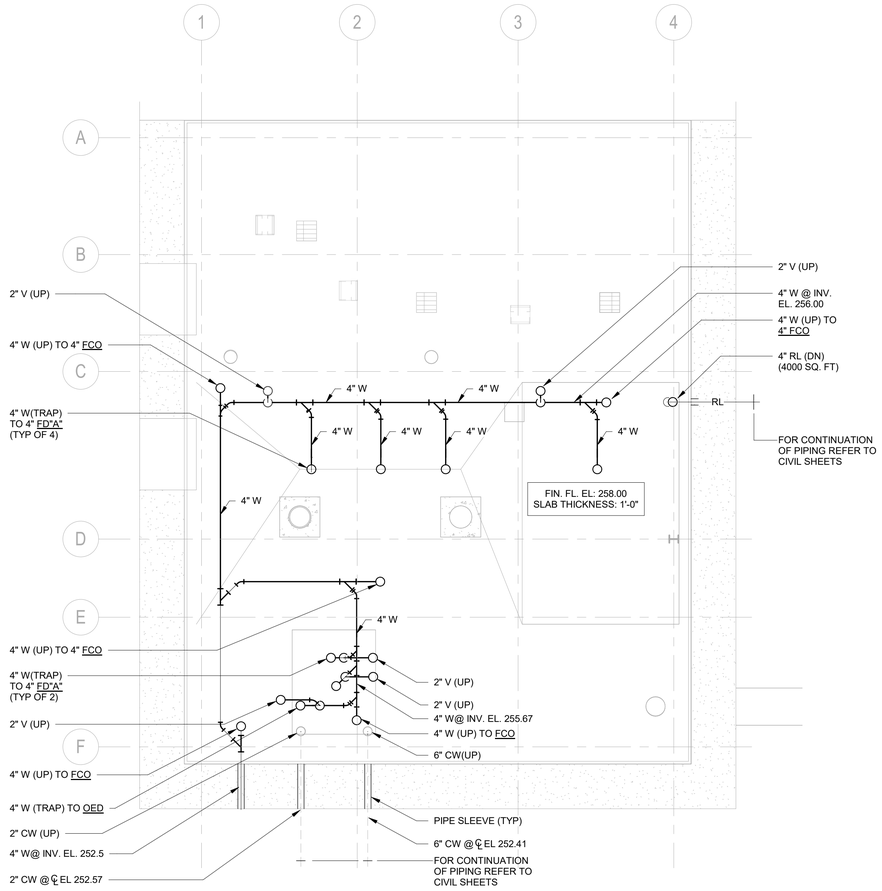
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WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

POND PUMPING STATION
SECTIONS II

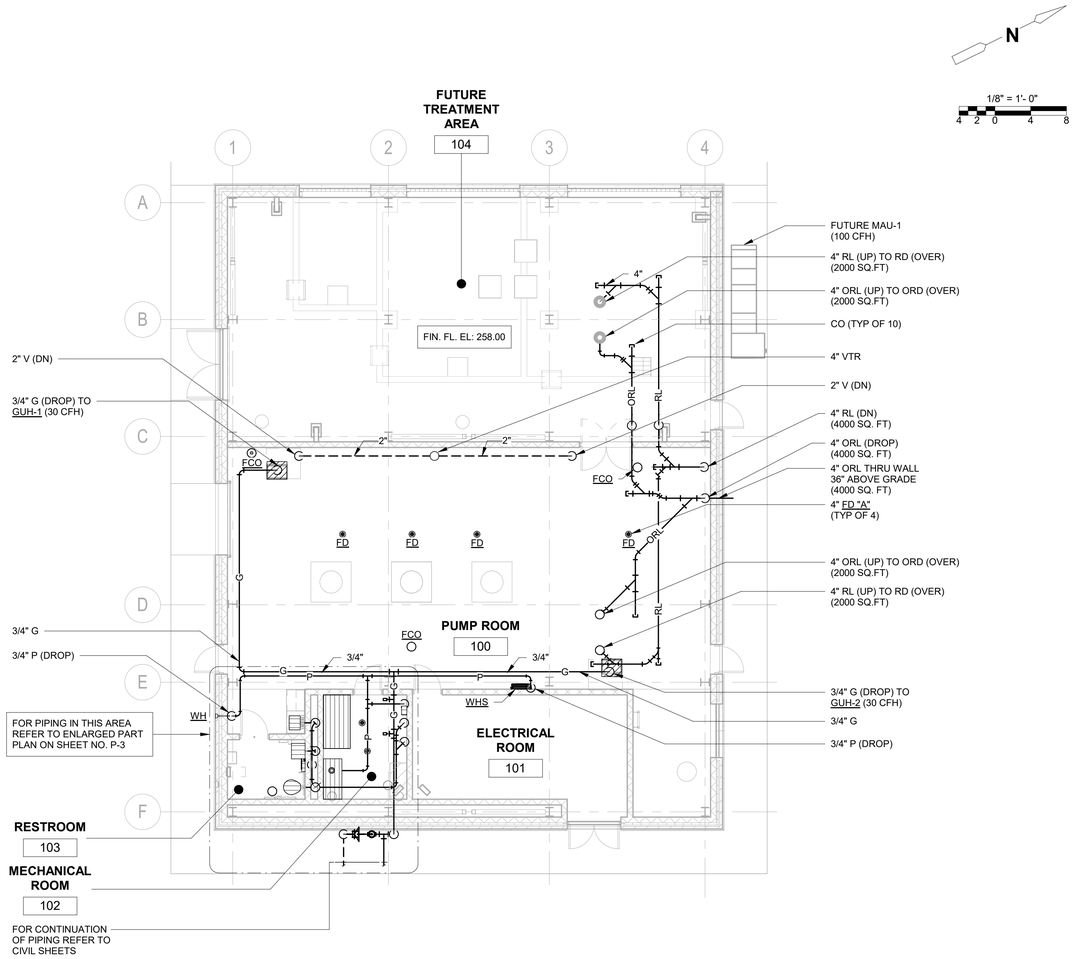
PROJECT NO. 10739-264571
FILE NAME: M004PSSC.DWG
SHEET NO. M-4

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BURIED PIPING

1/8" = 1'-0"



FLOOR PLAN

1/8" = 1'-0"

NOTES:

1. ALL PIPES PASSING THROUGH THE FOUNDATION WALL SHALL BE INSTALLED IN A SLEEVE THAT IS 2" IN DIAMETER LARGER THAN THE PIPE AND SHALL EXTEND THOUGH THE WALL 2" ON EITHER SIDE OF THE FOUNDATION WALL IN CONFORMANCE WITH THE PROJECT SPECIFICATIONS.
2. ALL PIPES PASSING UNDERNEATH THE FOUNDATION SHALL BE INSTALLED IN A SLEEVE THAT IS 2" IN DIAMETER LARGER THAN THE PIPE AND SHALL EXTEND 12" BEYOND THE ANGLE OF REPOSE OF THE FOUNDATION FOOTING ON BOTH SIDES OF THE FOOTING.

NOTES:

1. ALL BURIED PIPING WITHIN THE BUILDING SHALL BE ENCASED IN CONCRETE AS SHOWN ON THE DETAIL ON THE STRUCTURAL DETAIL SHEET.
2. IN LIEU OF TRAP PRIMERS WHERE ALLOWED BY CODE, CONTRACTOR SHALL INSTALL A TRAP RESEALER MADE OF ELASTOMERIC MATERIAL.
3. 1/2" SOFT ROLLED COPPER TUBING SHALL BE INSTALLED TO FEED THE WATER FROM THE TRAP PRIMER UNIT TO THE TRAPS FOR THE FLOOR DRAINS WHERE REQUIRED. THE SOFT ROLLED COPPER TUBING SHALL BE WRAPPED WITH ARMAFLEX TO PROTECT IT FROM THE CONCRETE. THE TUBING IS NOT SHOWN ON THE DRAWING FOR CLARITY SAKE. BUT THE PIPING SHALL BE FURNISHED AND INSTALLED BY THE PLUMBING CONTRACTOR.
4. SANITARY PIPING SHALL EXTEND BEYOND THE BUILDING 5'-0" UNDER THE PLUMBING CONTRACTOR'S SCOPE OF WORK.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: J. SHEEHAN
DRAWN BY: P. MANI
SHEET CHK'D BY: B. BUCCHIANERI
CROSS CHK'D BY: K. WAGNER
APPROVED BY: D. FLAHERTY
DATE: JANUARY 2024

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CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS AND
POND PUMPING STATION

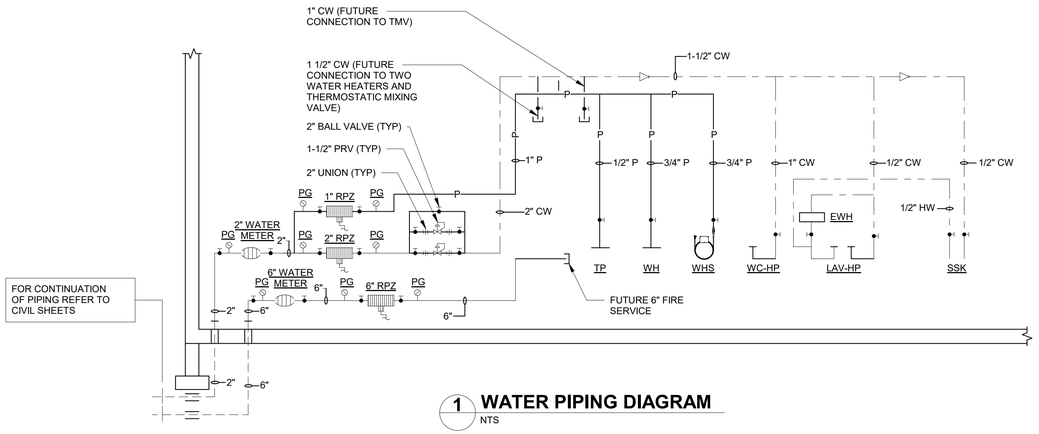
BURIED PIPING AND FLOOR PLANS

PROJECT NO. 10739-264571
FILE NAME: HPWZ001PS.RVT

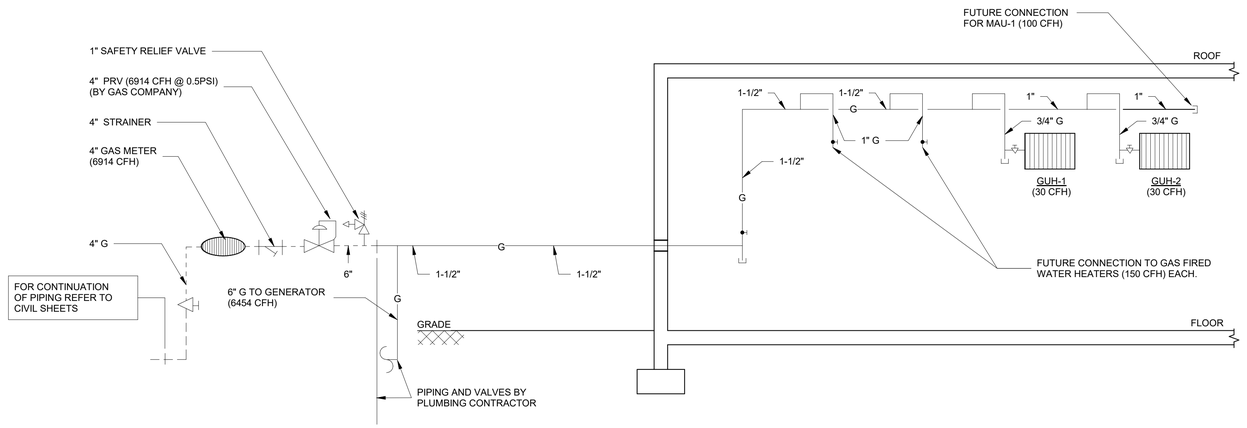
SHEET NO.
P-2

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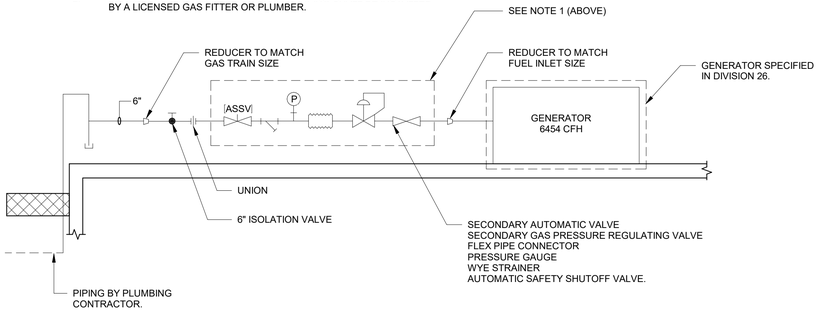
1 WATER PIPING DIAGRAM
NTS



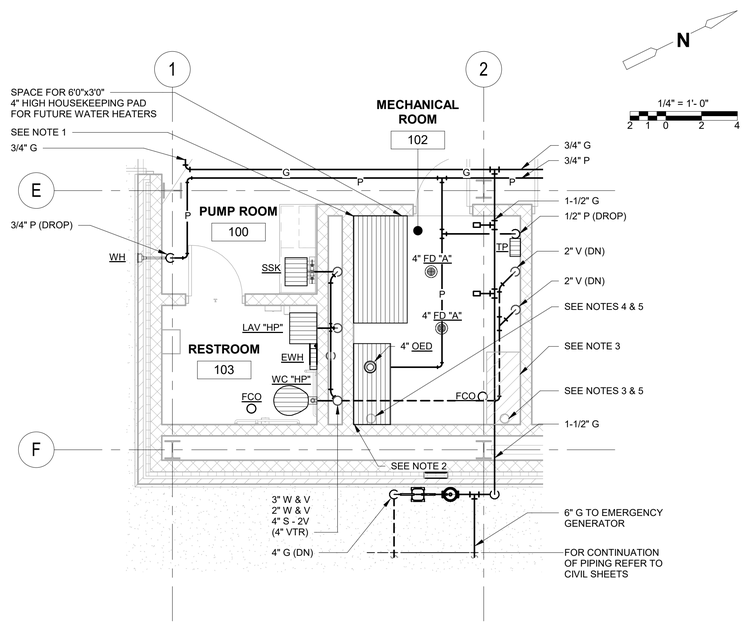
2 GAS PIPING DIAGRAM
NTS

NOTES:

1. GAS TRAIN COMPONENTS SHALL BE PROVIDED BY THE GENERATOR MANUFACTURER AND INSTALLED BY THE PLUMBING CONTRACTOR.
2. INSTALL 6" G LINE TO GENERATOR. GAS PIPING SHALL BE INSTALLED BY A LICENSED GAS FITTER OR PLUMBER.



3 GAS PIPING DIAGRAM FOR STANDBY GENERATOR
NTS



4 ENLARGED FLOOR PLAN
1/4" = 1'-0"

NOTES:

1. SPACE ALLOCATED FOR FUTURE WATER HEATERS, TEPID WATER MIXING VALVE AND TEPID WATER RECIRCULATION PUMP.
2. SPACE ALLOCATED FOR DOMESTIC WATER SERVICE. FOR VALVES AND APPURTENANCES REFER TO THE WATER PIPING DIAGRAM ON SHEET NO. P-3. WATER SERVICE HAS BEEN SIZED TO INCLUDE FUTURE ADDITION OF CHEMICALS AND TEPID WATER HEATING SYSTEM.
3. SPACE ALLOCATED FOR FUTURE FIRE PROTECTION SERVICE SHALL SERVE AN AUTOMATIC FIRE PROTECTION SYSTEM WHEN THE FUTURE CHEMICAL SYSTEMS ARE INSTALLED ON THE PROJECT. 6" FIRE SERVICE SHALL BE BROUGHT INTO THE BUILDING AND LEFT AS A FLANGED CONNNECTION 8"-12" ABOVE FINISHED FLOOR BY GENERAL CONTRACTOR.
4. 2" DOMESTIC WATER SERVICE SHALL BE BROUGHT INTO THE BUILDING AND LEFT AS A FLANGED CONNECTION 8"-12" ABOVE FINISHED FLOOR BY GENERAL CONTRACTOR. A 2" CAPPED WATER CONNECTION SHALL BE LEFT IN THE MECHANICAL ROOM 102.
5. 6" RPZ FOR FUTURE FIRE SERVICE SHALL BE INSTALLED 36" AFF. 2" RPZ FOR DOMESTIC POTABLE WATER SHALL BE INSTALLED 36" AFF AND THE 1" RPZ FOR NON-POTABLE WATER SHALL BE INSTALLED AT 54" AFF.

PLUMBING FIXTURE SCHEDULE

FIXTURE	DESCRIPTION	WASTE (INCH) MIN	VENT (INCH) MIN	TRAP (INCH) MIN	CW (INCH) MIN	HW (INCH) MIN	TW (INCH) MIN	REMARKS
WC-HP	TOILET, FLUSH VALVE, WALL MOUNTED, WALL OUTLET	4	2	4	1	-	-	SEE SECTION 224213.13
SSK	SERVICE SINK	2	2	2	1/2	1/2	-	SEE SECTION 224216.13
LAV-HP	LAVATORY, COUNTER MOUNTED	2	2	2	1/2	1/2	-	SEE SECTION 224216.13
WHS	WASH HOSE STATION	-	-	-	3/4	-	-	SEE SECTION 221119
EWH	ELECTRIC WATER HEATER	-	-	-	1/2	1/2	-	SEE SECTION 223300
TP	TRAP PRIMER	-	-	-	1/2	-	-	SEE SECTION 221119

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: J. SHEEHAN
DRAWN BY: P. MANI
SHEET CHK'D BY: B. BUCCHIANERI
CROSS CHK'D BY: K. WAGNER
APPROVED BY: D. FLAHERTY
DATE: JANUARY 2024

CDM Smith
77 Hartland Street, Suite 200
East Hartford, CT 06108
Tel: (860) 529-7615

CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS AND
POND PUMPING STATION

PIPING DIAGRAMS, ENLARGED FLOOR PLAN AND PLUMBING SCHEDULE

PROJECT NO. 10739-264571
FILE NAME: HPWZ001PS.RVT

SHEET NO.
P-3

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

For Office Use Only
APPLICATION NO. 2505
DATE FILED: 6/27/24
DECISION DATE: _____
DECISION: _____

CITY OF BRISTOL, CONNECTICUT
APPLICATION FOR SITE PLAN APPROVAL

The undersigned Applicant hereby applies for approval of a Site Plan for the following use:

Civic Facility and Earth Removal, a [ ] permitted use [✓] Special Permit use

under Section(s) Article II, Section 4.2 of the Bristol Zoning Regulations.

Address or Location of the Property: Maltby Street

Assessor's Map No.: 52 & 53 Assessor's Lot No.(s): 11, 15, 16B16A, 17, 145, 147, 149, 150, 151

Zone of the Property: R-40 Size of the Property (in acres or square feet): 303.7

Does this application involve an activity regulated by the Inland Wetlands Agency? [✓] yes [ ] no

If yes, has an application for a permit been submitted to the Inland Wetlands Agency? [✓] yes, on 12/26/2023 [ ] no

Other comments: Three applications were submitted to Inland Wetlands Agency (App# 2019, #2020, #23-458F-305)

Approval for all three applications received from Inlands Wetland Agency on June 3, 2024. SEE ATTACHED

NOTE: Section 8-3c(a) of the Connecticut General Statutes requires that, if an application for a Special Permit involves an activity regulated under the Inland Wetlands and Watercourses provisions of the statutes, the applicant shall submit an application for a wetlands permit to the local Inland Wetlands Agency no later than the day the Special Permit application is filed.

APPLICANT (If more than one, list on Page 2)

Name: New Britain Water Department, Ramon Esponda

Address: 1000 Shuttle Meadow Ave City: New Britain State: CT Zip: 06052

Telephone No.: (860) 826-3535 E-Mail: Ray.Esponda@newbritainct.gov

Signature: [signature] *Signature – (Printed/Typed)* Ramon Esponda

CHECK ONE: [X] owner [ ] other (specify): _____

OWNER(S) OF RECORD (If other than Applicant; if more than one, list on Page 2)

Name: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ *Signature – (Printed/Typed)* _____

The following shall be included as part of this application:

- filing fee – $310 (includes $60 State fee) *plus* $50 per dwelling unit *plus* $10 per 1,000 sq. ft. or portion thereof of proposed non-residential building (make checks payable to "City of Bristol")
- six paper copies and one digital copy of a Site Plan containing all information required on the Site Plan Requirements Checklist
- a written narrative and any other data and drawings as may be required (e.g., drainage calculations, exterior building elevations)

THIS APPLICATION MUST BE FILED IN PERSON NO LATER THAN 12 NOON ON THE DEADLINE DAY FOR APPLICATION SUBMISSION – NO EXCEPTIONS!

LUO – 01/24

For Office Use Only
APPLICATION NO. 2505

CITY OF BRISTOL, CONNECTICUT
SUPPLEMENTARY INFORMATION

Address or location of property: Maltby Street

ADDITIONAL INFORMATION/COMMENTS (click inside the box below and begin typing)

The White Bridge Waterworks Facilities Upper and Lower Wellfield Improvements Project is intended to bring this 100-year old drinking water facility up to modern standards so it can continue to be a viable drinking water source for the City of New Britain and surrounding communities. The project includes the replacement and restoration of the wellfields, demolition and removal of existing structures, and construction of new groundwater wells, a new pump house, and underground piping. It also includes the addition of water and sewer utilities in Maltby Street.

See the attached documents for more information.

ADDITIONAL APPLICANT

Name: _____ CHECK ONE: [ ] owner [ ] other: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

ADDITIONAL OWNER(S) OF RECORD

Name: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

Name: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

(OPTIONAL) SEND COPIES OF ALL CORRESPONDENCE TO:

Name: Vinta Varghese

Address: 101 East River Drive, Suite 1A City: East Hartford State: CT Zip: 06108

Telephone No.: 860-808-2325 E-Mail: vargheseva@cdmsmith.com

1/24 - LUO

Letter

May 16, 2024

Commissioner Katie Dykes
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

RE: "Log" letter consideration request – New Britain Water Dept. - Whitebridge registrations, Bristol CT

Good day, Commissioner Dykes:

This letter is written to request your immediate consideration of concerns regarding the New Britain Water Department upgrade project of the existing wellfields and surface water withdrawal systems, known as Whitebridge, located in Bristol CT. In addition to their other registered diversions within the state, the City of New Britain has 3 registered diversions in the City of Bristol, known as Whitebridge; North wellfield (2.16 MGD), South Wellfield (6.62 MGD), and Surface Water (Copper Mine/Polkville Brooks) (15 MGD)

- Fact: Bristol Water Department also has registered diversions, located near Whitebridge in the same Coppermine Brook watershed.
- Fact: New Britain historically operates the Whitebridge diversions at much much lower than the registration rates, currently approximately 1/5 to 1/7 of the registered rates. Based on the New Britain Water submittal information, DEEP issued a Negative Declaration of Diversion on February 21, 2024 for construction improvements at both wellfield locations for new wells of larger sizes with capacity increases to approximately match the registered diversion rates.
- Fact: The aquifer was assessed for Level A APA in a 2007 Study (Lenard). The study indicated "It was determined that the aquifer could not support the maximum registered diversion of the New Britain upper, lower and Bristol Mix Street wellfields". The study reassigned "agreed upon" reduced flow rates to simulate a safe yield for each of the wellfields. The surface water diversion was not assessed (Executive summary attached). The City of Bristol administers APA regulations based on the 2007 Level A study boundary.
- Fact: Coppermine Brook, the surface water immediately adjacent to Whitebridge is designated impaired for flow. Coppermine is listed in Connecticut Department of Energy and Environmental Protection's (DEEP) 2022 Integrated Water Quality Report to Congress under Nonpollutant Impairments (EPA Category 4c) for Flow Regime Modification.
- Fact: The City of Bristol Inland Wetlands Commission is currently reviewing the project applications for impact to wetlands and floodplain within the Coppermine Brook (Pequabuck River/Farmington River) watershed basins.

The watershed protection groups, Pequabuck River Watershed Association, Rivers Alliance of Connecticut and Farmington River Watershed Association, along with other concerned citizens, request CT DEEP further investigate the concerns related to this project:

- Due to the past study determination that the "aquifer could not support the maximum registered diversion of the New Britain upper, lower and Bristol Mix Street wellfields", the Aquifer Protection Area (APA) Level A boundary in Bristol was established based on "agreed

upon" flow rates which were much lower than the "grandfathered" registration rates. Based on inquiry to DEEP, New Britain Water has been operating in accordance with the (lowered) flow rates which established the APA. If New Britain Water is proposing a change which would increase the diversion operations over the Level A study rates, additional study is warranted, prior to construction, to establish safe levels of operation and potential changes to the regulated Level A boundary.

- New Britain is a good neighbor. Both the Bristol and New Britain Water Departments have a right and a responsibility to maintain and protect their water system sources. Watercourse / wetland / and aquifer natural system resources are vital components. The resources have limited capacity.
- Bristol Wetland Commission is currently reviewing the New Britain Whitebridge proposal. The diversion rate issue is central to the wetlands/watercourse review, yet the New Britain Water Department legal representative has instructed the Bristol Wetland Commission that the impacts relative to increases in the groundwater and surface water withdrawal operations, up to the registered diversion rates, cannot be considered in their decision. Our concern is that larger well construction and withdrawal operations will unreasonably impair water resources. The Bristol Inland Wetland Commission decision will be made at a May 22, 2024 “Special Meeting”.

Potential solutions to foreseeable “water wars” between municipalities for water use allocations within the Coppermine Brook (Pequabuck/Farmington) watershed can include:

- New Britain Water Department should update the Level A boundary study to reflect the registration rates, prior to any state agency construction approval. The Level A boundary should be modified, as necessary, for any increased flow rates in order to protect the resources. If, as past studies (Lenard 2007 and others) indicate the aquifer is unable to sustain the registration rates, the model should be updated, and reviewed/approved by DEEP for appropriate diversion allocations between the municipalities, including drought restriction protections, prior to construction.
- DEEP, potentially through adjudication, should intervene for a proposed plan of action to allocate resources and resource protection measures.

Your prompt reviews and actions are appreciated.

Sincerely,

Alicea Charamut, Executive Director, Rivers Alliance of Connecticut

Mary Rydingsward, Executive Director, Pequabuck River Watershed Association

Aimee Petras, Executive Director, Farmington River Watershed Association

cc: Graham J. Stevens, Bureau Chief, Water Protection and Land Resources
Brendan Schain, Esq., CT DEEP Shalyn Zappulla, CT DEEP
Chris Bellucci, CT DEEP Kim Czapla, CT DEEP
Raul Tejada, CT DPH Lori Mathieu, CT DPH
Jack Betkoski, III, Chair, Connecticut Water Planning Council
Roger Reynolds, Senior Legal Director, Save the Sound

CT DPH - Notification

From: Microsoft Power Apps and Power Automate <microsoft@powerapps.com>
Sent: Tuesday, July 2, 2024 3:42 PM
To: Ray.Esponda <Ray.Esponda@newbritainct.gov>; Gerlach, Kyle T. <gerlachkt@cdmsmith.com>
Subject: Acknowledgement of Submission to CTDPH

This email is being sent automatically to confirm the submission of a project notification form to the Connecticut Department of Public Health pursuant to Connecticut General Statutes Section 8-3i and/or 22a-42f.

A project notification form is required to be completed and submitted to the Department of Public Health when an application, petition, request or plan is located in a Drinking Water Source Watershed or Aquifer Protection Area.

Thank you for your submission. If you have any questions, please send an email to dph.sourceprotection@ct.gov.

Please enter the docket number/application ID for this application, petition, request or plan, if applicable:
App 2505 - Site Plan

What municipal entity is this application, petition, request or plan being submitted to?["Zoning Commission"]

Is the location associated with the proposed application, petition, request or plan in a drinking water watershed?Yes

Is the location associated with the proposed application, petition, request or plan in an Aquifer Protection Area?
The White Bridge Waterworks Facilities Upper and Lower Wellfield Improvements Project is intended to bring this 100-year old drinking water facility up to modern standards so it can continue to be a viable drinking water source for the City of New Britain and surrounding communities. The project includes the replacement and restoration of the wellfields, demolition and removal of existing structures, and construction of new groundwater wells, a new pump house, and underground piping. It also includes the addition of water and sewer utilities in Maltby Street. This notification is for the Bristol Zoning Site Plan application.

Does this application include a petition or proposal to change the regulations, boundaries or classifications of zoning districts?No

Please enter a brief description of the project or proposal:
The White Bridge Waterworks Facilities Upper and Lower Wellfield Improvements Project is intended to bring this 100-year old drinking water facility up to modern standards so it can continue to be a viable drinking water source for the City of New Britain and surrounding communities. The project includes the replacement and restoration of the wellfields, demolition and removal of existing structures, and construction of new groundwater wells, a new pump house, and underground piping. It also includes the addition of water and sewer utilities in Maltby Street. This notification is for the Bristol Zoning Site Plan application.

Please enter the date of the application, petition, request or plan:
2024-06-27

What is the size of the area to be disturbed?
equal to or greater than 5 acres

Is any part of this project located within 50 feet of a wetland, stream, pond, lake or reservoir?Yes

What type of use is this application, petition, request or plan proposing?Institutional (school, hospital, nursing home, etc,)

How will this project be provided a potable water supply?Connection to existing public water supply

How will domestic waste be handled?
Sanitary Sewer (will be extended to project area as a result of project)

If the proposed project is 1) not located on single family residential property and 2) will utilize a new well for drinking water supply, a Public Water Supply (PWS) Screening Application should be submitted to the Department of Public Health. Was a PWS Screening Application submitted?Yes

Applicant Name:
New Britain Water Department - Ramon Esponda

Applicant email address:
Ray.Esponda@newbritainct.gov

Street address or intersection of application, petition, request or plan:
Maltby Street, Bristol, CT

Enter Project Longitude/Latitude:
-72.916330
41.700721

Is there any other information relevant to the Department's review of this application, petition, request or plan? If so, please enter in the space below:
This project is receiving funding by the Department of Public Health and there has been much coordination and collaboration between the City of New Britain, the design team, and the Department. The Department has been kept updated throughout the progress of the project design and has already received site plans and other documentation.

If you would like a confirmation of this submission to be sent to the town, please enter the email address you would like it to be sent to in the field below:
gerlachkt@cdmsmith.com

From: Joseph Hammer [mailto:jhammer@mrglaw.com]
Sent: Wednesday, July 3, 2024 3:18 PM
To: Robert Flanagan <RobertFlanagan@bristolct.gov>; Nancy Levesque <NancyLevesque@bristolct.gov>; andrewarmstrong@bristolct.org
Cc: ray.esponda@newbritainct.gov; Sebastian Amenta - Comprehensive Environmental Inc. (samenta@ceiengineers.com) <samenta@ceiengineers.com>; Varghese, Vinta A. (vargheseva@cdmsmith.com) <vargheseva@cdmsmith.com>; Rachel Fancy <RFancy@mrglaw.com>
Subject: Bristol Zoning Commission - Applications #2504, #2505,# 2506; Applicant - City of New Britain, Water Department

Dear Mr. Flanagan,

Our firm represents the City of New Britain in connection with the above-referenced Special Permit and Site Plan applications which were submitted on June 27, 2024.

The applicant understands that due to the holidays and anticipated scheduling of public hearings by the Zoning Commission, the public hearing on the applications will likely be scheduled for September 16, 2024. The 65 day period to open the hearing, following receipt of the applications on July 8, will expire on September 11. The applicant therefore consents to a five-day extension of time, to September 16, 2024, within which to commence the public hearing.

Thank you.

M R G
MacDermid Reynolds & Glissman, P.C.
110 Whitney Avenue
New Haven, CT 06510

86 Farmington Avenue
Hartford, CT 06105
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Joseph L. Hammer
jhammer@mrglaw.com
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Bio V-card

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Site Plan Comments

CITY OF BRISTOL
SITE PLAN REVIEW COMMITTEE
STAFF COMMENTS - 2505

SITE PLAN & SPECIAL PERMIT: Site Plan for a Civic Facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; R-40 (Single-Family Residential) zone; New Britain Water Department, applicant. *Plans Dated: June 2024; Date of Committee Review: July 31, 2024 (first review); October 21, 2024 (second review)*

ENGINEERING/PUBLIC WORKS (Anthony Lorenzetti):
Engineering Review Comments Application # 2504 and #2505

1) Section 16.3.5, a Class A-2 survey is required.

   9/7/24 Applicant Response: The A2 Survey for the work area was provided electronically. Additional A2 survey for the access road on Mix Street for location curb cut/ entrance to work area access is in progress and anticipated to be submitted in October 2024.

   10/21/24 City Response:

2) Section 16.3.8 There are several homes and other adjacent facilities that are across Mix Street that are not shown.

   9/7/24 Applicant Response: The additional homes across Mix Street will be shown on expanded drawings after completion of the additional survey in October 2024.

   10/21/24 City Response:

3) In review of the Traffic Impact Sketch showing trucking routes, it is stated that the traffic is going to enter and exit the site primarily from Stafford Avenue, other than the compensatory storage construction area on Mix Street. Considering that both driveway access points are located approximately midway between Stafford Avenue and Maltby Street, and utility installation on Maltby Street, Mix Street, and Stafford Avenue along with wetlands creation on Mix Street would likely be utilized more extensively. In addition, what temporary traffic impacts are expected due to the utility construction expected to have on Mix Street and Stafford Avenue? Construction the within the intersections of Maltby Street at Stafford and Maltby Street and Mix Street should be limited to off peak periods. This item can be more thoroughly discussed in the permitting process. Two new Truck warning signs (w11-10) are recommended on Maltby street, due to the very limited current traffic entering from both existing drives that will be increased. The traffic narrative mentions only 15 vehicles per day on site, does this also include trucking materials in and out of the site. What would be the expected total project trip ends per day?

   9/7/24 Applicant Response: Construction at the Maltby Street/Stafford Avenue and Maltby Street/Mix Street intersections will be limited to off-peak hours, avoiding school bus traffic times, as required by the City of Bristol. A more detailed traffic control narrative is in development and will incorporate any additional considerations put forth by the City.

   10/21/24 City Response:

4) Provide enhanced mapping for the site access on Mix Street for the Wetlands creation, showing street access required. A City permit will be required for this area.

   9/7/24 Applicant Response: Enhanced mapping for the site access on Mix Street will be shown on expanded drawings after completion of the additional survey in October 2024.

   10/21/24 City Response:

5) Recommend storage of all construction equipment in upland areas to minimize risk of pollution.

9/7/24 Applicant Response: This is good practice and will be covered in the Stormwater Pollution Prevention Plan prepared by the Contractor per Specification Section 312500, Erosion and Sedimentation Controls. Additional language will also be added to the General Notes on Sheet C-1 to enhance this requirement.

10/21/24 City Response:

6) Update as needed to the updated 2024 Connecticut Guidelines for Soil Erosion and Sediment Control and Connecticut Stormwater Quality Manual.

9/7/24 Applicant Response: Specification Section 312500, Erosion and Sedimentation Controls, as well as relevant Drawings and notes, will be updated to reflect compliance with the 2024 Connecticut Guidelines for Soil Erosion and Sediment Control and Connecticut Stormwater Quality Manual.

10/21/24 City Response:

7) While it is understood that the timelines shown in the design report are preliminary and subject to final completion of the contractor(s), the narrative on page 4 and the schedule chart submitted are not consistent with each other.

9/7/24 Applicant Response: The overall Construction Sequencing stages presented in the Project Narrative reflects sequencing and interdependence of some activities as well as seasonal constraints; the schedule chart will be reviewed and updated. The utility work in Maltby Street must occur before the new Pumping Station building is completed, but can be arranged to accommodate any specific timing constraints by the City of Bristol.

10/21/24 City Response:

8) Add the most current city road repair details, we can provide them to you.

9/7/24 Applicant Response: The Civil Detail sheets will be updated with the City's most current road repair details when provided (it appears that the Details available on the DPW website are sidewalk and curb related).

10/21/24 City Response:

9) Where will the staging areas for the utility main construction be?

9/7/24 Applicant Response: Proposed staging areas (onsite and offsite) are required to be submitted by the Contractor per Specification Section 015000, Temporary Facilities and Controls.

10/21/24 City Response:

10) The site access off Maltby Street to the lower well field site is being widened, and as part of the widening to the west trees will have to be removed and some tree trimming may be required to provide adequate sightlines from the driveway, add to plans.

9/7/24 Applicant Response: Additional notes regarding tree removal will be added to Sheet C-7 to reflect this work.

10/21/24 City Response:

11) The access to the upper well field does not show any upgrades on the plans. The driveway currently is gravel with a reveal at the edge of sidewalk. Care must be taken to not break the sidewalk.

9/7/24 Applicant Response: The upper wellfield access driveway is anticipated to remain with no substantial improvements, other than filling of potholes and restoration of any damage that may occur during construction. Additional notes regarding protection and repair of sidewalk will be added to Sheets C-1 and C-6.

10/21/24 City Response:

CITY PLANNER (Robert Flanagan/Andrew Armstrong):

1. Indicate application number, approval date, and nature of Site Plan/Special Permits associated with this project.

9/7/24 Applicant Response: This information will be added to the Cover sheet for the project prior to bidding.

10/21/24 City Response:

2. Indicate application number, approval date, and nature of IWWA approval associated with this project.

9/7/24 Applicant Response: This information will be added to the Cover sheet for the project prior to bidding.

10/21/24 City Response:

3. Show/label on Site Plan the location of all proposed building entrances and exits.

9/7/24 Applicant Response: This information is shown on Sheet C-10. A simpler overall Site Plan is in development and will be added to the drawing set.

10/21/24 City Response:

4. Final As-Built of building required prior to C.O. being issued.

9/7/24 Applicant Response: Record drawings will be prepared for the project and are noted in Specification Section 017839. The requirement to submit building record drawings prior to the Certificate of Occupancy will be added to that Specification.

10/21/24 City Response:

5. Indicate dimension of driveway opening, measured at street line.

9/7/24 Applicant Response: This information will be added to Sheet C-10.

10/21/24 City Response:

6. What are the proposed limits of tree clearing for all proposed improvements? Particularly, show the dimension and final landscape condition for proposed compensation and storage area abutting single-family residential properties on the upper and lower wellfields. Provide a landscape sheet showing these conditions and setback dimensions to the property lines not just the floodway line.

9/7/24 Applicant Response: Additional drawings to clarify these conditions are in development and will be added to the drawing set.

10/21/24 City Response:

7. The "site plans" for the upper and lower wellfields need to be shown as an actual site plan. The building and site features are not clear. These sheets primarily show underground raceway schedules, charts and other items that are not relevant and should be separate from the site plan. Provide a plan sheet for site plan that clearly shows residential property lines, particularly the properties from Collins Road and parcel boundaries, including the abutting parcel located at Assessor's Map 53, Lot 147. Plans provided are drawn indicating mostly Wetlands features.

   9/7/24 Applicant Response: Additional drawings to clarify these conditions, including a simpler overall Site Plan, are in development and will be added to the drawing set.

   10/21/24 City Response:

8. The abbreviated plan set shows many red revision clouds. Was this plan set intended to be submitted? Please make changes and remove notes and revision symbols.

   9/7/24 Applicant Response: The latest drawings, revised to incorporate comments herein, will be submitted in October 2024.

   10/21/24 City Response:

9. The Zoning Table lists the proposed building height as 258.3 feet. Please revise.

   9/7/24 Applicant Response: The reference to 258.3 feet in the Zoning Table on Sheet C-10 is an elevation, not the building height; this will be revised in the October 2024 submission.

   10/21/24 City Response:

10. There are 2 separate Zoning Tables with the same lot numbers and different requirements. Please clarify.

    9/7/24 Applicant Response: The second table on Sheet C-10 refers to parking requirements; this will be revised in the October 2024 submission.

    10/21/24 City Response:

11. This property is located within an Aquifer Protection Area and requires a determination by the Aquifer Protection Agency. When this determination has been completed, please add the approval, date, and application number to the cover sheet.

    9/7/24 Applicant Response: The Aquifer Protection Agency review is pending; this information will be added to the Cover sheet for the project prior to bidding.

    10/21/24 City Response:

12. The "site plans" for the upper and lower wellfields need to be shown as an actual site plan. The building and site features are not clear. These sheets primarily show underground raceway schedules, charts and other items that are not relevant and should be separate from the site plan.

    9/7/24 Applicant Response: Additional drawings to clarify these conditions, including a simpler overall Site Plan, are in development and will be underground raceway schedules, charts and other items that are not relevant and should be separate from the site plan added to the drawing set.

10/21/24 City Response:

13. What is the height of the retaining walls? Please include this on the plan and details.

9/7/24 Applicant Response: The wall is detailed on Sheet C-27; additional information will be provided for wall greater than 3 feet tall.

10/21/24 City Response:

14. Will there be any impacts or protections to the nearby parking area for 815 Stafford Avenue?

9/7/24 Applicant Response: There are no anticipated impacts to the parking area for 815 Stafford Avenue.

10/21/24 City Response:

15. Include a plan sheet showing E&S controls. (E&S control details are included in the current set).

9/7/24 Applicant Response: Locations of E&S controls are shown on Sheets C-6, C-7, and C-8.

10/21/24 City Response:

16. (New Comment) DEEP has indicated that strongly oppose the refueling of trucks within the aquifer. Find an alternative location for fueling located outside the aquifer boundary.

BUILDING/ZONING ENFORCEMENT (Richard Brown)

1. No comments at this time.

POLICE DEPARTMENT (Lt. Krajewski/Sgt. Ouellette)

1. No issues with design, does not affect traffic of surrounding roads.

FIRE MARSHAL (Kristopher Lambert):

1. On page A-2 there is a double leaf door that leads from/into the "Future Treatment Area" that is part of a 2-hour rated wall assembly. What is the rating of these doors?

9/7/24 Applicant Response: This is door D-104C per Sheet A-3; this door has a 90-minute fire rating per the Door Schedule on Sheet A-9.

10/21/24 City Response:

WATER DEPARTMENT (Paul Keegan/Rob Longo)

1. Bristol Water and Sewer requires all permits to be pulled by licensed plumbers. A copy of our policies and procedures are given to the plumber when the permit is pulled. All non-emergency work requires a min of 4 days' notice.

9/7/24 Applicant Response: This requirement will be added to Division 01 of the project Specifications.

10/21/24 City Response:

Water:

1. 12 X 8 tapping sleeve and valve requires payment prior to work being done

   9/7/24 Applicant Response: This requirement will be added to Division 01 of the project Specifications and to the Civil Drawings.

   10/21/24 City Response:

2. All hydrants require a secondary valve.

   9/7/24 Applicant Response: The hydrant assembly includes a gate valve per Detail D on Sheet C-25.

   10/21/24 City Response:

3. Call the office for a price on the 2" service.

   9/7/24 Applicant Response: The relevant fees will be included in Division 01 of the project Specifications. Information provided by the City recently indicates an anticipated $4,725 connection fee.

   10/21/24 City Response:

4. 2" service requires a curb stop.

   9/7/24 Applicant Response: Additional details on the 2" water service connection will be added to Sheet C-18C.

   10/21/24 City Response:

5. Bristol Water and Sewer insects every inch of pipe being installed.

   9/7/24 Applicant Response: This requirement for full inspection will be added to Division 01 of the project Specifications and to the Civil Drawings.

   10/21/24 City Response:

6. 8" DIP requires pressure test, flushing and Bacteria test.

   9/7/24 Applicant Response: Pressure test and flushing are included in Sections 221113 and 330519 of the Specifications. Disinfection requirements are included in Section 331300 of the Specifications. City of Bristol requirements are also referenced in Section 331300.

   10/21/24 City Response:

7. Each hydrant requires pressure test, flush and Bacteria sample.

   9/7/24 Applicant Response: Pressure test and flushing of hydrants are included in Sections 221113 and 331219 of the Specifications Disinfection requirements are included in Section 331300 of the Specifications. City of Bristol requirements are also referenced in Sections 331219 and 331300.

   10/21/24 City Response:

8. Inspection fees apply to private services.

9/7/24 Applicant Response: Requirements and anticipated fees for full inspection will be added to Division 01 of the project Specifications and to the Civil Drawings.

10/21/24 City Response:

9. Water and sewer must maintain 10’ separation at all times

9/7/24 Applicant Response: Understood; Maltby Street water and sewer drawings have been submitted to the Water and Sewer Department.

10/21/24 City Response:

Sewer:

1. 8” sewer must extend, no forced main in the city right of way

9/7/24 Applicant Response: he low-pressure sewer can remain on NBWD property until the edge of the property and then transition to gravity sewer in the street, but there are concerns with storm drain conflict and shallow coverage, so the exact location requires further discussion with the Water and Sewer Department.

10/21/24 City Response:

Project Narrative

Zoning Commission – Application for Special Permit

Project Narrative:

The New Britain Water Department (NBWD) has owned and operated groundwater wells as a raw water source at the White Bridge Waterworks Facilities on Maltby Street in Bristol for over one hundred years. The facilities are located in an R-40 designated residential zone across several parcels including 52-11, 52-15, 52-16B16A, 52-17, 53-145, 53-147, 53-149, 53-150, and 53-151. Work is specifically being performed on lot 52-16B16A, 52-17, 53-145, 53-147, and 53-150. Project location figures are included as **Attachment 1** to this application. The Lower Wellfield wells (located south of Maltby Street) were originally constructed in 1921 and have been operated since 1923. These wells have undergone upgrades in the 1940s and 1950s, with the most recent upgrades occurring the 1980s. A pump station at the Lower Wellfield was constructed as part of the 1940s upgrades. The Upper Wellfield wells (located north of Maltby Street) were originally installed in 1940. These were replaced with new wells in 1955 and again in the 1980s. A pump station at the Upper Wellfield was also constructed in the floodway in 1955. In addition to the wells, NBWD has also operated the Supply Pond surface water source at the White Bridge Waterworks Facilities since the 1950s. The existing 1923 pump station, already located on the site, was converted to a surface water pump station in 1950. This building and associated pumping equipment have not received major upgrades since.

Much of the mechanical equipment at the wellfields and existing Pond Pumping Station has reached the end of its useful life or, due to its age, is very difficult or not possible to find the necessary replacement parts for sustained operations. Regulatory requirements and industry standards have also changed over the past 100-years. To redevelop the Upper and Lower Wellfields with new wells that can be used as a potable drinking water source, the Connecticut Department of Public Health (DPH) requires new wells to be located 50-feet from any water body or wetlands boundary. In addition, DPH requires new wells and water infrastructure to be raised to an elevation 2-feet above the 100-year floodplain elevation. As the majority of the NBWD owned property is within the 100-year floodplain with some areas up to 6-feet below the flood elevation, the existing wells and three pump stations cannot be redrilled/rehabilitated in their current locations. This project will rehabilitate the White Bridge Waterworks Facility to bring it up to modern standards and regulations and create a reliable potable drinking water source for the New Britain Water Department and surrounding communities.

The project includes the abandonment of all currently existing wells in accordance with DPH requirements, demolition of existing structures and the three existing pump stations, construction of a single new pump station, filling and grading to achieve DPH flood resiliency requirements, wetlands creation/replication, and creation of compensatory flood storage. A total of three new wells will be drilled at the Upper Wellfield and six new wells drilled at the Lower Wellfield. Based on water quality, the Lower Wellfield wells may but suitable for use as a public potable water supply with minimal chemical treatment, subject to the ground water under the direct influence of surface water (GWUDI) testing. Both the Upper and Lower Wellfield wells will be equipped with new submersible style pumps within the wells, making it unnecessary to have pump stations at each site. An Aquifer Protection Area Program Registration Form for Regulated Activities will be submitted following this application submittal. A single pump station building will be constructed to house pumping equipment associated with the

Supply Pond surface water source and will also include designated space for treatment equipment in the event the Lower Wellfield is used for potable water. This new building will be constructed with a finished floor elevation 2-feet above the 100-year flood elevation and outside the floodway. The project will also install associated yard piping around the wells, pump station building, and connections to the existing New Britain water infrastructure on-site. New water and sewer utilities from Bristol will be constructed in Maltby Street and provide service for the new pump station. Design Drawings for the project are included in **Attachment 2** and a 3D Rendering of the new Pond Pumping Station is included in **Attachment 3**.

As filling of the site is required for the new wells and pump station to meet DPH requirements, compensatory flood storage areas will be constructed so as to not increase the current flood elevation levels, as given by FEMA guidelines. The new structure and wells will add approximately 6,543 cubic yards of fill within the floodplain. Approximately 15,327 cubic yards of material will be removed from the floodplain for the creation of compensatory storage. These compensatory storage areas will also create additional wetland areas. Fill and earth removal on the site is associated with construction activities only and the final use of the site will not include earth removal activities. A Special Permit for Earth Removal in Excess of 400 Cubic Yards is also being filed for approval. The project will impact approximately 24,952 square feet of wetlands. However, wetlands replication will be done at a ratio of three to one, with a total of 75,946 square feet of wetlands replication proposed. In total, the project is expected to disturb approximately 223,000 square feet of land. This includes areas for wetland replication; compensatory storage creation; and disturbances for installing the new wells, associated yard piping, abandoning and decommissioning existing wells, Pond Pump Station building construction, and demolition of the three existing buildings. A Permit for Flood Plain Development (Application #23-458F-305), Form IW-1 (Application for a Wetlands Permit) (Application #2020), and Form IW-2 (Application for a Wetlands Boundary Change) (Application #2019) were approved by the Bristol Inland Wetlands and Watercourses Agency of the Conservation Commission on June 6, 2024 for this project. A Site Plan Permit for this project is also being filed for approval.

An Erosion and Sediment Control Plan has been developed to control accelerated erosion and sedimentation from stormwater runoff on the site during construction based on the best available technologies. The Control Plan narrative is included with this application in accordance with Section 15.1.5. The “Connecticut Guidelines for Soil Erosion and Sedimentation Control (2002)” document was utilized in preparation of the Plan. A Stormwater Management Report for post-construction conditions has also been developed for this project based on the 2004 *Connecticut Stormwater Quality Manual (CSQM)* as required in Section 15.5.3. A copy of the Stormwater Management Report is included as **Attachment 6** to this application.

The new Pond Pump Station and Lower Wellfield area will be enclosed in a 6.5-foot tall chain link fence for security. A double-leaf swing gate will provide access to the site on the driveway. As shown on the Drawings, the fence and access gate are located outside of the 50-foot required front yardage for R-40 residential zones. A double-leaf vehicular control gate will be located at the foot of the driveway to control vehicular access onto the public utility site. This gate will be less than the 4.5-foot height restriction for fences within front yards and will be more than 50 percent open. A detail for this vehicular control gate is included in the drawings. An existing vehicular access gate for the Upper Wellfield access road (located on the north side of Maltby Street) will remain.

Public utility buildings are not listed as a Use Group in the table included in Section 13.2 of the Zoning Regulations; however, two parking spaces will be provided at the Pond Pumping Station. Each parking space is designed to be 10-feet wide and 18-feet deep, meeting the requirements of perpendicular parking spaces required by Section 13.7.2. As a utility service building, this facility is not open to the public and it will not be continuously manned by NBWD staff. It is not expected that more than two NBWD staff vehicles will be present on-site during operations. The post-construction vehicle traffic from NBWD staff is not expected to increase from their current operations. In the event potable water treatment is implemented for the Lower Wellfield, it is expected that the facility will received 2-3 trucks per month for deliveries.

A construction vehicle routing figure is included as **Attachment 5** to this application. The main route for construction vehicle access to the site on Maltby Street will be via Stafford Avenue, south to Farmington Avenue (Route 6). Vehicles can than access other State Roadways, including Route 69 (to the west) and Route 177 (to the east). It is expected that 15-20 construction vehicles (including pickup trucks, trailers, dump trucks, etc.) could be accessing the site during construction. The Annual Average Daily Traffic (AADT) for Stafford Avenue is 8,300 vehicles per day, 19,300 vehicles per day for Route 6 (west of Stafford Avenue), and 23,200 vehicles per day for Route 6 (east of Stafford Avenue). The construction vehicles generated by this project will represent less than 1% of traffic in the area. For access to the compensatory storage area located in the south of the site (closest to Harbor Freight), construction vehicle access will be off Mix Street via Stafford Avenue. Additionally, work to install new water and sewer utilities within Maltby Street will require temporary lane closures. Typical traffic management details have been developed and are included in the attached design drawings.

The accompanying plans to this application are based on a Class A-2 survey map prepared by a registered land surveyor licensed to conduct business in the State of Connecticut with the exception of Sheets C-13, Sheet C-14, and Sheet C-14A. These sheets depict the general locations of wetland replication and compensatory storage areas and are currently based on a Class D survey due to the scale and size of the parcels and location of work. We request a Class A-2 survey of these areas to be included as a condition of approval for this application and the final Class A-2 survey will be performed and submitted to the Commission for final issuance of the Special Permit prior to construction. Additionally, the wetlands replication and compensatory storage area in the southernmost part of the site, shown on Sheet C-13, cannot comply with the 100-foot buffer zone to a residential property (as required by Section 15.2.5.B). The closest abutting residential property line is 70-feet from proposed excavation activities for the wetlands replication and compensatory storage area. The location of this earth removal work to create compensatory storage is dictated by the contours of existing grade and the removal of certain volumes at each elevation to offset fill brought to that same elevation. It is important to note that this area of the site is heavily vegetated along with the abutting residential properties. We also note that the closest residential building on these lots are 250-feet away. We believe the dense vegetation, distance to residential dwelling, and nature of this construction (creation of wetlands area without a permanent structure) comply with the intent of requirements in Section 15.2.5.B for screening.

Erosion Control Narrative

Zoning Commission – Application for Special Permit

Erosion and Sediment Control Plan- Project Narrative:

This Erosion and Sediment Control Plan is provided in accordance with Section 15.1.5 of the Bristol Zoning Regulations. The erosion and sedimentation control measures at the White Bridge facility focus on the protection of wetlands and waterways during and following construction since the work includes land disturbances, excavation dewatering, supply pond and canal sediment removal activities, and other associated construction activities. Several methods are included on the Drawings to slow the flow of runoff and protect disturbed land during construction activities. Please refer to the project plans for typical details of measures to protect wetlands and waterways during and after construction. The following summary presents typical mitigation measures that will be implemented to avoid and minimize wetland impacts during construction.

Construction Period

- During construction, the limit of land disturbances will be kept to a minimum, where possible, and the construction will be sequenced so the entire site will not be disturbed at the same time.
- Clearing and grubbing will be limited to only the areas necessary for work to be performed, specifically in areas at the Upper and Lower Wellfields (Sheet C-9 and C-11) where wells and piping will be installed, at the Maltby Street 16" pipe crossing (Sheet C-18), at areas where wetlands and compensatory storage will be created (Sheet C-13 and C-14), and areas around the Supply Pond for access during sediment removal activities (Sheet C-23).
- Sedimentation barriers (i.e., silt fence and/or compost logs/straw wattles installed per industry standards) will be installed at the down gradient limits of work and construction access roadways prior to the commencement of work to prevent the transport of sediment to the downgradient wetlands and waterways during construction (see Sheets C-6 thru C-8). Specifically, at the Upper Wellfield this includes compost logs/straw wattles along the facility driveway from Maltby Street to the existing Pumping Station and down each of the well field laterals. At the Lower Wellfield, this includes along the wetlands to the north and west of proposed work, along the Coppermine Brook to the east, around the Supply Pond, and along both sides of the Canal to the Polkville Avenue Brook. These barriers will be inspected at least once per week and within 24 hours of rainfall events ½-inch or greater and repaired as needed. These barriers will remain in place until all disturbed soils are stabilized. A stockpile of compost logs/straw wattles and silt fence will be maintained on site for routine maintenance and emergency repairs. Barriers will be replaced as necessary due to sediment build-up and degradation.
- Sedimentation barriers (i.e., silt fence and/or compost logs/straw wattles installed per industry standards) will be installed surrounding temporary stockpile areas.
- For all slopes 4:1 or steeper, an erosion control blanket will be required, including at the Upper and Lower Wellfield wells (see Sheet C-9 and C-11). Temporary erosion control blankets will be inspected at least once per week and within 24 hours of rainfall events.

- A turbidity curtain will be installed to prevent sedimentation and turbidity disturbances in the Coppermine Brook during canal and supply pond sediment removal activities (see Sheet C-23 and Detail Sheet C-24). Turbidity curtains will be inspected daily during Supply Pond and canal sediment removal activities. The turbidity curtain will not be removed before sediment removal activities have ended and clarity of water has returned.
- Catch basin filters will be installed on catch basins near all excavation work on Maltby Street, Stafford Avenue, and Mix Street (See Sheet C-18 and Detail Sheet C-24).
- In the event that excavation dewatering is necessary, water will be pumped and discharged to one of the temporary sedimentation basins in designated areas of the site (see Sheet C-6 thru C-8 and Detail Sheet C-24). Temporary sedimentation basins will be inspected at least once per week and cleaned as needed to remove accumulated sediments. Temporary portable sediment tanks may also be used to handle significant amounts of excavation dewatering. All water to be discharged from dewatering activities will be filtered or otherwise treated prior to discharge to prevent siltation to adjacent areas. Best management practices will be used by the Contractor in order to prevent siltation to adjacent areas during dewatering activities.
- A temporary sediment dewatering and stockpiling area has been designated within the Supply Pond to dewater removed sediments during restoration activities (see Sheet C-23 and Detail Sheet C-24). Stockpiled materials and containment area will be inspected daily during dewatering activities, weekly during non-dewatering activities, and within 24 hours of rainfall events of ½-inch or greater.
- A stabilized construction entrance is also being required for the site to prevent tire tracked soils to onsite and offsite locations (see Sheet C-23 and Detail Sheet C-24). The stabilized construction entrance will be inspected periodically and additional top dressing or length will be added, as necessary, to continue capturing sediment tracked on vehicles.
- The silt fence and/or compost log/straw wattle barrier will not be removed until the site areas are vegetated, paved or otherwise permanently stabilized to prevent erosion of exposed soils. Work will proceed as rapidly as possible, limiting the exposure time of disturbed soils to wind and precipitation.
- The sedimentation barriers will not be removed until the site areas are vegetated, paved or otherwise permanently stabilized to prevent erosion of exposed soils. Work will proceed as rapidly as possible, limiting the exposure time of disturbed soils to wind and precipitation.
- Periodic inspections will be made by the applicant to ensure compliance with the permit conditions.

Spill Control Measures

- Spill containment equipment (e.g. oil absorbent pads, oil absorbent materials, containment booms, shovels, etc.) will be stored in the equipment storage and refueling area in an easily accessible manner for use in the clean-up of accidental releases of fuel or other hazardous materials. Should there be an accidental release the proper authorities will be notified in accordance with all applicable federal, state, and local laws; and

- To minimize the possibility of leakage of hydraulic fluid, all hydraulic lines on all construction equipment and vehicles will be inspected at the end of each workday. If any excessive wear or leakage is observed, the line will be repaired prior to further use. In addition, a supply of oil absorbent materials (i.e. pads, "speedy dry," and/or booms) will be maintained with the equipment at the work area for immediate deployment in the event of an accidental release of fuel, hydraulic fluid, oil, etc.

Schedule for Grading and Construction Activities:

A proposed construction sequencing for critical path items in the White Bridge Waterworks Facilities Upper and Lower Wellfields and Pond Pumping Station Project is included as an attachment to this application. Tasks listed are generally to be performed within each proposed stage, and are not necessarily presented sequentially. As required by Project Specifications, the Contractor is required to submit a detailed Final Construction Schedule for approval by the Engineer. Further, as required by the Specifications, the Contractor is required to submit a detailed Construction Sequencing Plan for review and approval by the Engineer. Both the Construction Schedule and Construction Sequencing Plan submitted by the Contractor will be reviewed for compliance with time of year restrictions imposed by the Natural Diversity Database (NDDB) (no bank disturbance work in/adjacent to wetlands November 1 through March 15) and for the expected Great Blue Heron nesting period (March through May).

Some specific sequencing constraints and estimated durations are listed below. <u>These represent a suggested sequencing for critical path items or items that will require earth excavation and disturbance of soils. The final Construction Sequence will be developed by the Contractor.</u> Some items listed in each "Stage" can/will overlap with items listed in previous stages.

<u>Construction Sequencing - Stage 1 (Fall 2024 – Fall 2026)</u>

- Terminate operation of existing Lower Wellfield (LWF) Wells
- **Install Erosion and Sedimentation control measures around the Lower Wellfield, Lower Wellfield Pump Station, Supply Pond, and Canal areas**
- Demolish existing LWF Pumping Station (3 months)
- Demolish existing caisson and fencing near intake pond (1 month)
- Perform canal and pond restoration (to be completed following demolition of the caisson and prior to replacement of the canal culverts) (3 months – **not to be performed between November 1 and March 15**)
- Install test wells, stream gauges, and other equipment required for well pump testing at Upper Wellfield (UWF) and LWF (2 months)
- **Install Erosion and Sedimentation control measures around the Upper Wellfield and access driveway**
- Drill UWF Wells. Order final UWF pumps/motors (3 months each, 7 months total – **not to be performed between November 1 and March 15 at applicable wells**)
- Drill LWF Wells. Order final LWF pumps/motors (3 months each, 13 months total – **not to be performed between November 1 and March 15 at applicable wells, not to be performed between March and May**)
- Install well meter vault, vault control cabinets, meter, and electrical equipment (18 months total, to follow each well drilled – **not to be performed between November 1 and March 15 at applicable wells**)

- Install foundation of new Pond Pumping Station building (3 months – **not to be performed between March and May**)

Construction Sequencing - Stage 2 (Spring 2025 – Fall 2026)

- Install yard piping from UWF and LWF for raw water transmission to Shuttle Meadow during Groundwater Under Direct Influence of Surface Water (GWUDI) testing. Install temporary connection to existing Pond Pumping Station. Install fiber optic cabling (6 months – **not to be performed between November 1 and March 15**
- Install final LWF yard piping, electrical conduit, fiber optic cabling (6 months – **not to be performed between November 1 and March 15 in applicable areas, not to be performed between March and May in applicable areas**)
- **Final stabilization of UWF and LWF wellhead areas**
- Perform canal crossing work for yard piping and restore canal culverts (1 month – **not to be performed between November 1 and March 15**)
- Install new gas service from Mix Street to Pond Pumping Station building (2 months – **not to be performed between March and May**)
- Install new sewer force main and water service to Maltby Street (3 months)
- Install fiber optic cables and Well Pump Communication/VFD Platforms (3 months each, 9 months total)
- Terminate operation of existing UWF Wells. **Install Erosion and Sedimentation control measures around the UWF Pump Station**
- Demolish existing UWF Pump Station
- Install and test UWF submersible well pumps and motors (2 months)
- Install and test LWF submersible well pumps and motors (2 months)
- Install electrical service and equipment at the new Pond Pumping Station, UWF, and LWF (3 months)

Construction Sequencing - Stage 3 (Summer 2025 – Spring 2028)

- Setup instrumentation and perform GWUDI Testing on new UWF and LWF wells (12 months). UWF and LWF pumped via raw water main to Shuttle Meadow Reservoir
- Construct new Pond Pumping Station Building (18 months total - **exterior construction not to be performed between March and May**)
- Install yard piping to complete final connections to Pond Pumping Station (1 month)

Construction Sequencing – Stage 4 (Summer 2027 – Fall 2027)

- GWUDI testing completed
- Completion of new Pond Pumping Station building. Terminate operation of existing Pond Pumping Station
- Abandon/demolish existing Pond Pumping Station building, electrical shed, and UWF Pumping Station. Cap and abandon temporary connections (3 months)

Construction Methods:

Trench excavations will be used for pipe, valve, and appurtenance installation. Suitable material removed from trenches may be placed back into the excavation and compacted or temporarily stockpiled on site, while material deemed unsuitable for reuse will be removed from the site. Open excavations will be used to install the foundation and footings for the Pond Pumping Station and the vaults located at each well. Material removed from these excavations will be taken off-site or temporarily stockpiled on the site with proper best management erosion and sedimentation control measures being implemented around the

stockpile to prevent sedimentation from stockpiled material. This includes placement of straw wattles/compost socks and a trenched silt fence around the stockpile area in addition to the sedimentation controls along the limits of work.

Alternative construction methods for the yard piping may include trenchless installation of pipe to limit area of disturbed land. Pipe could be installed by horizontal directional drilling, pipe ramming, pipe bursting of existing pipelines, tunneling, or horizontal auger boring. All of these methods would still require excavation for access to the existing pipe or as insertion and receiving pits. None of these methods were selected due to the amount and complexity of existing utilities present at the site, lack of record drawings for most of these utilities, and complexity of new piping connections to be installed.

A temporary stabilized construction entrance will be installed during sediment removal and restoration of the supply pond and canal. This construction entrance will run along the berm between the canal and supply pond to the temporary stabilized pond access point. Sediment removed from the supply pond and canal will be temporarily stored within the supply pond to dewater before being removed from the site.

Backfilling of trenches and excavations will be completed as soon as practicable. Pipe bedding will be placed up to 12-inches above the crown of the pipe and suitable backfill will be placed in 6-inch lifts and compacted by hand or pneumatic ramming with tools weighing at least 20 pounds to finished grade. Disturbed areas will be loamed and seeded to provide vegetated soil cover against sheet runoff and wind erosion. An erosion control blanket will be required for slopped areas until vegetated cover is established.

Typical construction equipment, including heavy machinery, is expected to be used to complete this work. Machinery may include bulldozers, loaders, excavators, backhoe loaders, triaxle dump trucks, and drill rig trucks. Equipment, machinery, and materials will be stored or stockpiled in the designated areas shown on the sequencing drawings.

Post-Construction Period

The following summary of mitigation measures will be implemented to restore any areas affected by short-term impacts that occur in or adjacent to wetlands.

- The final site is designed to have a 3-foot wide gravel infiltration trench with 1.5”-3” diameter washed aggregate covered with 6” pea gravel running along the facility driveway to collect and slow the flow of runoff from impervious surfaces (see Sheet C-10 and Detail Sheet C-26).
- All areas disturbed during construction activities are to be loamed and seeded to provide vegetated soil cover protection against sheet runoff and wind erosion (see Sheet C-9 thru C-12). Seeded areas will be inspected at least once per week and within 24 hours of rainfall events of ½-inch or greater.
- Once established, seeded areas will be mowed and maintained as appropriate.
- The Pond Pumping Station building roof drain leader will outlet to a riprap apron (See Sheet C-10 and Detail Sheet C-26). Riprap used in the roof drain apron will be inspected periodically to determine if high flows have caused scour beneath riprap or if vegetation removal is required. On

the northeast side of the Pond Pumping Station building, a retaining wall will be utilized to prevent steep slopes.

- The wetland replication and restoration areas will be planted with trees and shrubs per the planting plans, and seeded with a wetland seed mixture.
- If seeding occurs outside of the growing season, temporary stabilization measures (i.e., mulching or erosion control blankets) will be used to prevent erosion until the area can be seeded during the following growing season.
- Reseeding and mulching disturbed areas. These areas will be maintained and re-seeded to ensure that grass cover is adequate to stabilize the exposed soil, and
- Sedimentation and erosion control barriers will not be removed until a vegetative cover dense enough to prevent erosion is established.

Selections from Figure 3-2 of the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control:

Figure 3-2 Measure Selection Matrix

Identify Problem Areas	Identify Control Problems	Identify Strategy	Select Specific Measure		Plan Key
			Functional Group	Measure	
Disturbed Areas	**Control Soil Detachment**	Preserve and Conserve Existing Site Resources	Protect Vegetation	Tree Protection	TP
			Preserve and Conserve Soil	Topsoiling	TO
	Raindrop Splash			Land Grading	LG
				Surface Roughening	SR
Short or Shallow Slopes	Sheet & Rill Erosion	Protect Surface		Dust Control	DC
			Vegetative Soil Cover	Temporary Seeding	TS
	Wind Erosion			Permanent Seeding	PS
				Sodding	SO
				Landscape Planting	LP
Steep Slopes			Non-Living Soil Protection	Temporary Soil Protection	TSP
				Mulch for Seed	MS
Long Slopes				Landscape Mulch	LM
				Temporary Erosion Control Blanket	ECB
				Permanent Turf Reinforcement Mat	TRM
				Stone Slope Protection	SSP
Stockpile Areas		Protect Surface and/or Convey Runoff	Stabilization Structures	Retaining Walls	RW
				Riprap	RR
	Control Water Movement			Gabions	G
Borrow Areas				Permanent Slope Drain	PSD
	Gully Erosion			Channel Grade Stabilization Structure	CSS
				Temporary Lined Chute	TC
				Temporary Pipe Slope Drain	TSD
	Channel & Stream Erosion		Drainageways and Watercourses	Vegetated Waterway	VW
Drainage Ways		Convey Runoff		Temporary Lined Channel	TLC
				Permanent Lined Waterway	PW
Wetlands and Watercourses				Temporary Stream Crossing	TSC
		Direct Runoff	Diversions	Temporary Fill Berm	TFB
				Water Bar	WB
				Temporary Diversion	TD
Waterbodies				Permanent Diversion	PD
		Intercept Grnd.Water	Subsurface Drains	Subsurface Drain	SD
		Detain Runoff	Detention Structures	Detention Basin	DB
Areas of Flooding and Existing Erosion	Natural Resource Degradation	Diffuse Runoff	Energy Dissipators	Level Spreader	LS
				Outlet Protection	OP
				Stone Check Dam	SCD
	Control Sediment Deposition	Detain Sediments	Sediment Impoundments, Barriers, and Filters	Temporary Sediment Basin	SB
				Temporary Sediment Trap	TST
Drainage Outlets				Hay Bale Barrier	HB
	Protect Onsite and Offsite Areas			Geotextile Silt Fence	GSF
				Turbidity Curtain	TC
				Vegetative Filter	VF
Travel Areas		Control Mechanically Moved Waters and Soils	Tire Tracked Soils Dewatering	Construction Entrance	CE
				Pump Intake and Outlet Protection	PuP
				Pumping Settling Basin	PSB
				Portable Sediment Tank	PST
Dewatering				Dewatering of Earth Materials	DWM

Stormwater Management Report Hyperlink:

https://www.bristolct.gov/DocumentCenter/View/47020/NBW-Stormwater-Report

Geotechnical Report

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for State of Connecticut

White Bridge Waterworks Facilities - Pond Pumping Station

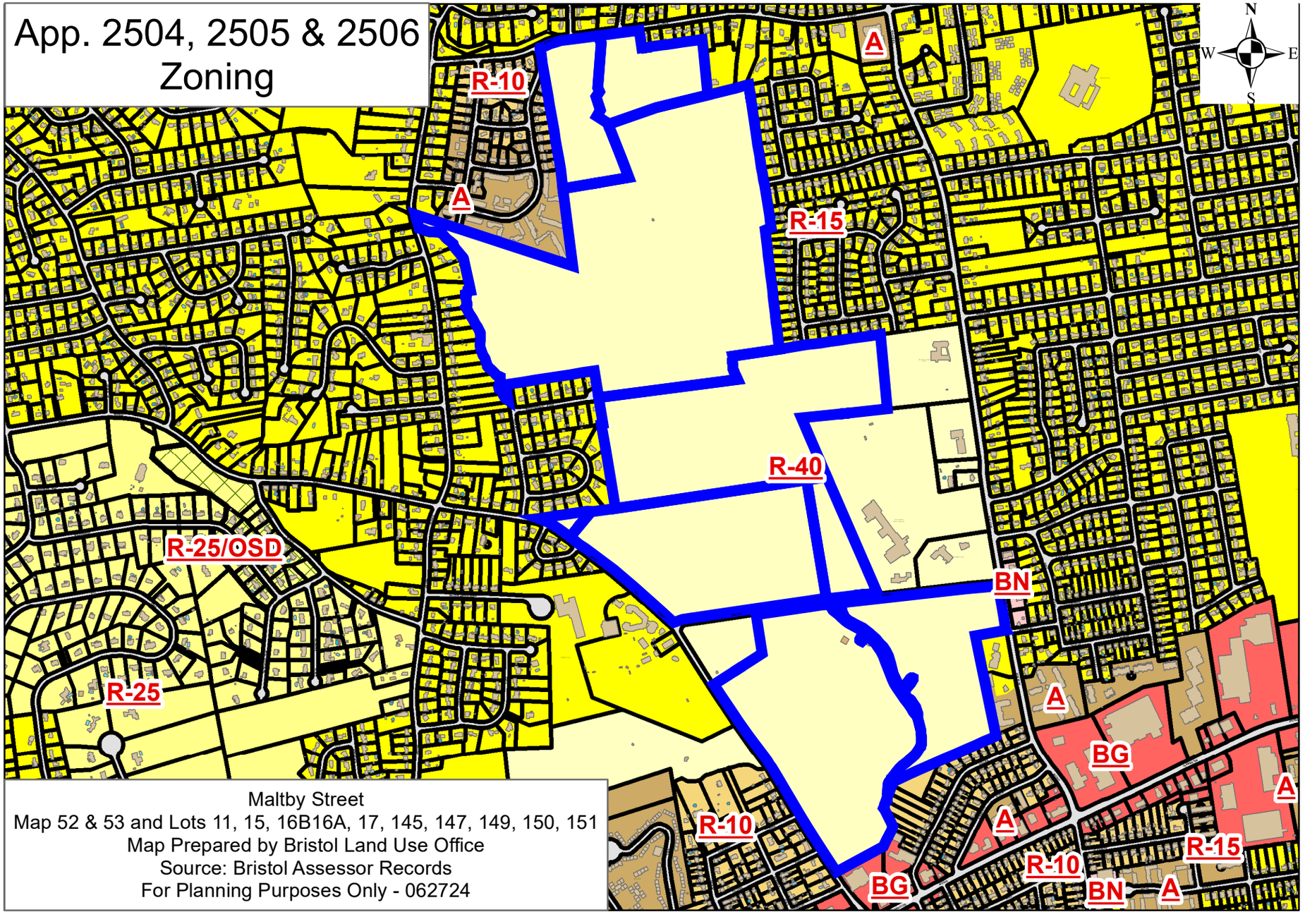
Hyperlink:

https://www.bristolct.gov/DocumentCenter/View/47021/Geotechnical-Report



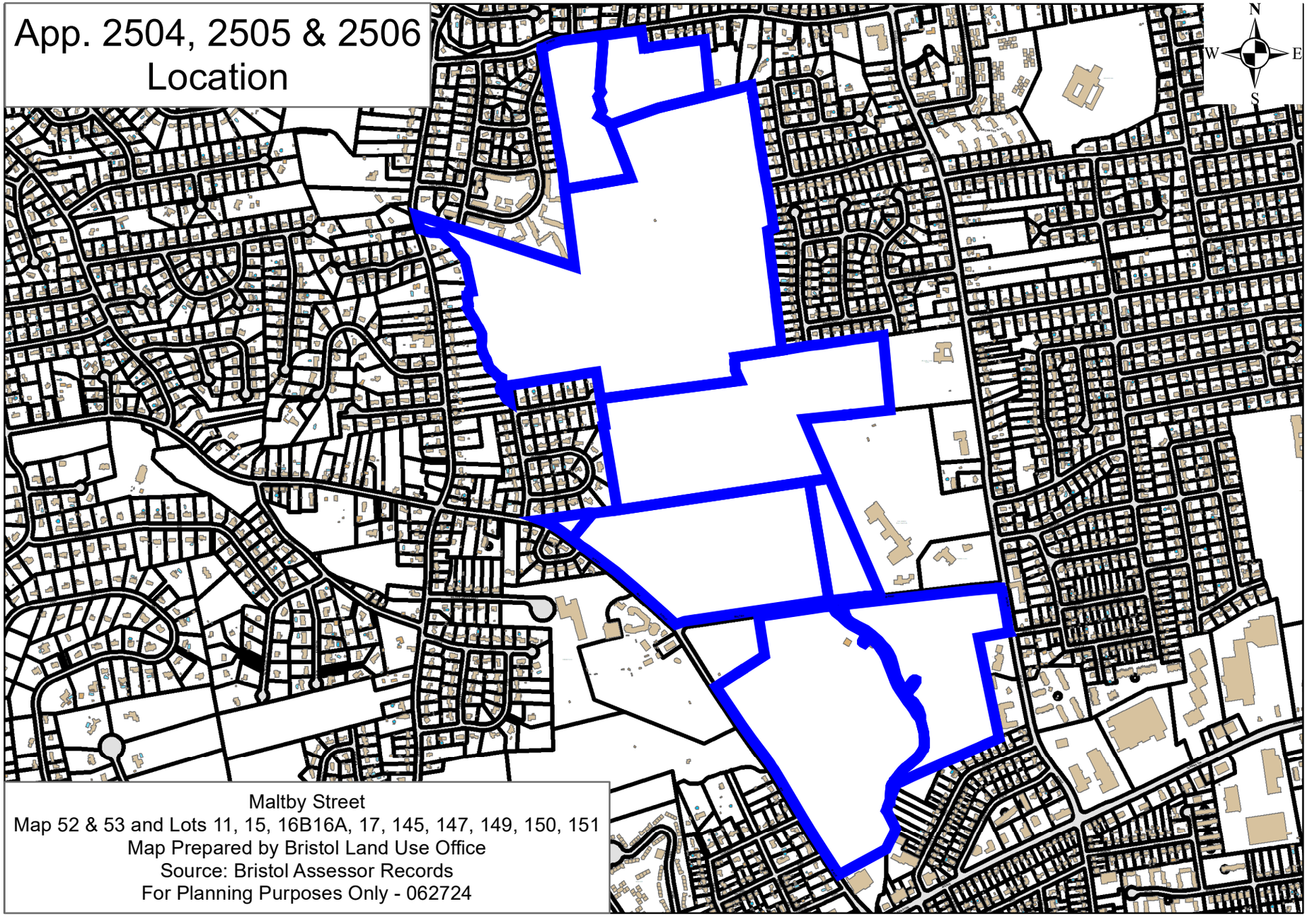
September 26, 2022

App. 2504, 2505 & 2506 Zoning



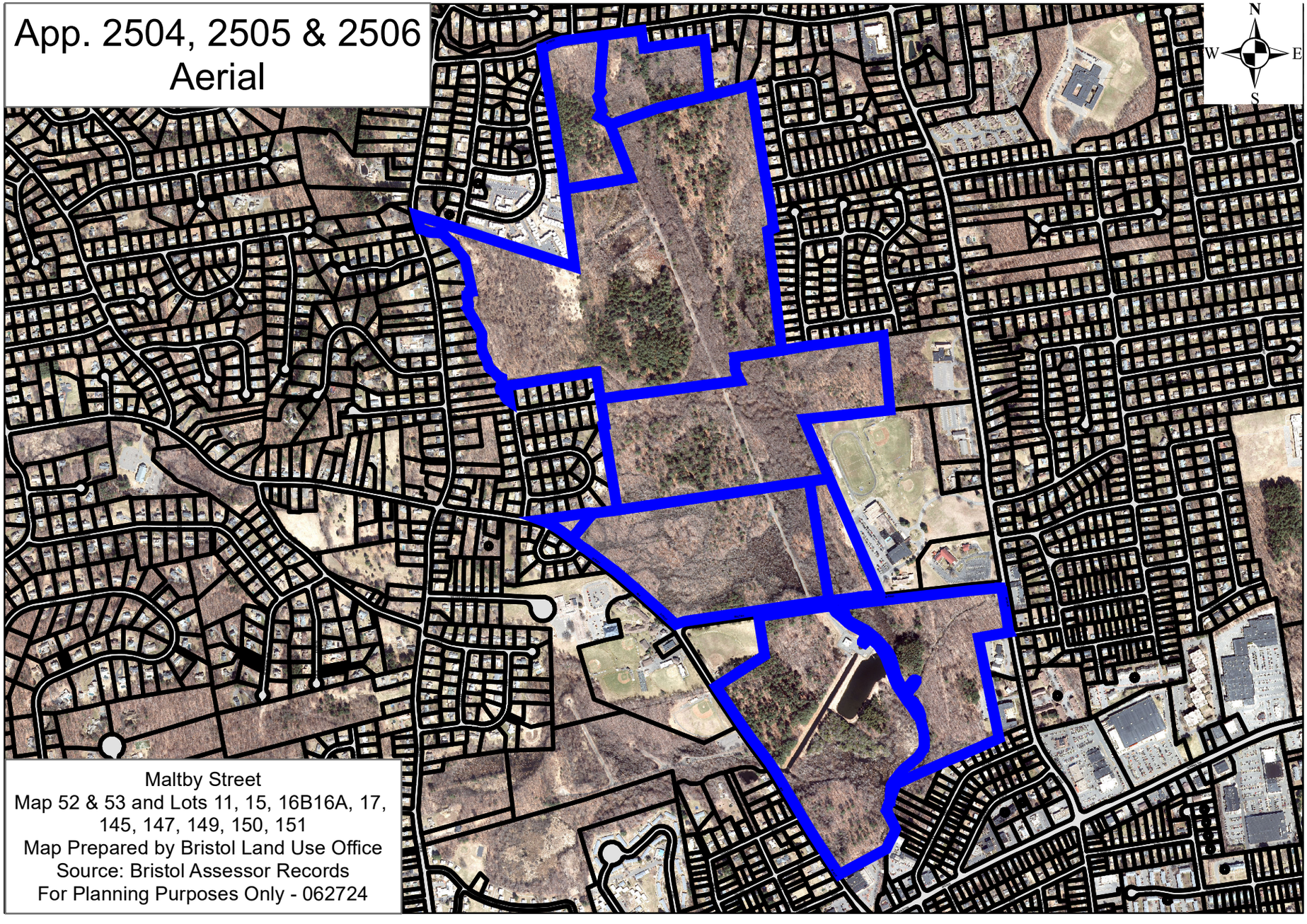
Maltby Street
Map 52 & 53 and Lots 11, 15, 16B16A, 17, 145, 147, 149, 150, 151
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 062724

App. 2504, 2505 & 2506 Location

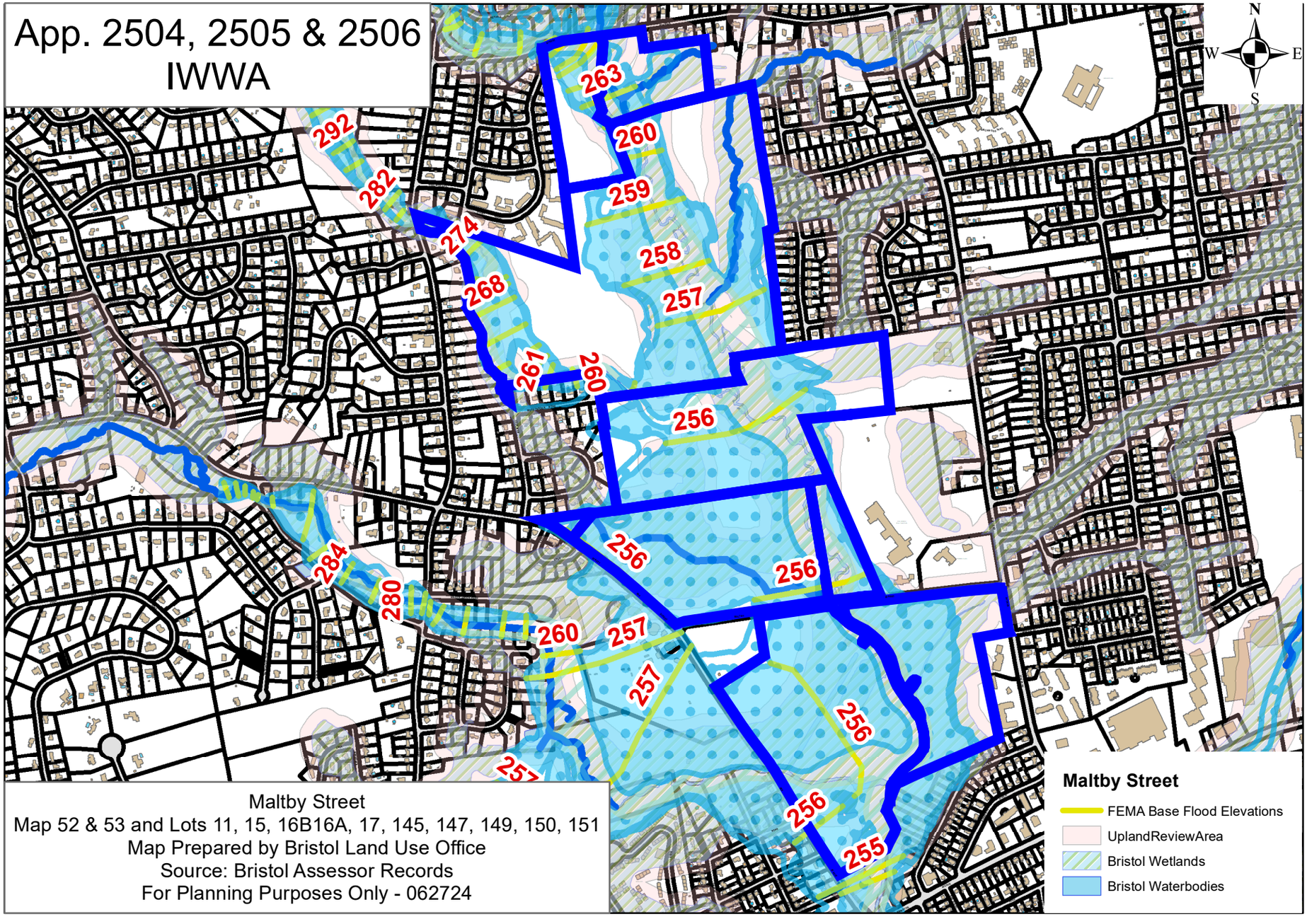


Maltby Street
Map 52 & 53 and Lots 11, 15, 16B16A, 17, 145, 147, 149, 150, 151
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 062724

App. 2504, 2505 & 2506
Aerial



Maltby Street
Map 52 & 53 and Lots 11, 15, 16B16A, 17, 145, 147, 149, 150, 151
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 062724


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Maltby Street
FEMA Base Flood Elevations
UplandReviewArea
Bristol Wetlands
Bristol Waterbodies
Maltby Street
Map 52 & 53 and Lots 11, 15, 16B16A, 17, 145, 147, 149, 150, 151
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 062724

Google Earth


Copper Mine Brook
Polkville Ave Brook
Layers
2D


Copper Mine Brook
Polkville Ave Brook
Field


Copper Mine Brook
Copper Mine Brook
Copper Mine Brook

Revised Specification Section 101024

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SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Construction Sequencing.
4. Work performed by Owner.
5. Contractor’s use of site and premises.
6. Coordination with occupants.
7. Work restrictions.
8. Specification and Drawing conventions.
9. Miscellaneous provisions.

B. Related Requirements:

1. Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.
2. Section 017300 “Execution and Construction Sequencing” for sequencing requirements.
3. Appendix G for state, local, and federal requirements and conditions from project permits.

1.3 DEFINITIONS

A. Work Package: A group of specifications, drawings, and schedules prepared by the design team to describe a portion of the Project Work for pricing, permitting, and construction.

1.4 PROJECT INFORMATION

A. Project Identification: White Bridge Waterworks Facilities, City of New Britain, CT.

1. Project Location: Maltby Street, Bristol, CT

B. Owner: City of New Britain, CT

C. Engineer: CDM Smith Inc., East Hartford, CT

D. Engineer's Consultants: Engineer has retained the following design professionals who have prepared designated portions of the Contract Documents:

1. Comprehensive Environmental Inc. (CEI)

1.5 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work of Project is defined by the Contract Documents and includes, but is not limited to, the following:

1. Construction of White Bridge Waterworks Facilities including groundwater production wells, Pond Pumping Station, electrical and instrumentation upgrades, and other Work indicated in the Contract Documents.

a. Groundwater production wells:

1) Specifications for the construction and development of gravel packed groundwater production wells and the abandonment and decommissioning of existing wells are included in Appendix A to these Contract Documents.

b. Existing Conditions:

1) Data regarding the geological and geotechnical field testing conducted for the Work are included in Appendix F. The information provided is for general informational purposes only. The subsurface information presented is accurate only at the specific locations and times the subsurface explorations were made. It is the Contractor’s responsibility to review the information contained within these Contract Documents and make their own interpretations and conclusions of the character of materials to be encountered and the impact on the Work based on the Contractor’s expert knowledge of the area and of earthwork techniques. The Contractor, at their own expense, may conduct additional subsurface explorations for their own information after obtaining the Owner’s permission.

2) Parts of the project site are located within Federal, State, and Local protected species habitat, including the Spotted Turtle (Clemmys Guttata), Wood Turtle (Glyptemys Insculpta), and Great Blue Herron. Information on requirements and construction activity limitations are included in the permits included in Appendix G.

3) Test pit excavations were performed to confirm the locations of select existing utilities on the White Bridge Waterworks Facilities site. A memorandum summarizing the test pits is included in Appendix E. Information provided in the memorandum is for general informational purposes only.

2. Demolition of existing White Bridge Waterworks Facilities including the existing Pond Pumping Station, existing Lower Wellfield Pumping Station, existing Upper Wellfield Pumping Station, existing caisson structure located at the Lower Wellfield, and existing production wells at the Upper and Lower Wellfields. Existing equipment to be removed from these locations may include, but is not limited to, the following:

a. Existing Pond Pumping Station:

1) Centrifugal pumps and associated motor
2) Process piping
3) Compressor and air tanks
4) Electrical equipment and controls cabinets

b. Existing Lower Wellfield Pumping Station:

1) Electrical controls and equipment cabinets
2) Wall mounted electrical equipment
3) Bulk liquid chemical storage tanks
4) Compressor and air tanks
5) Pumps and associated motors
6) Process piping
7) HVAC equipment
8) Miscellaneous furniture

c. Existing Upper Wellfield Pumping Station:

1) Electrical controls and equipment cabinets
2) Pumps and associated motors
3) Process piping
4) Compressor and air tanks

d. Data regarding the hazardous material field testing conducted for building demolition Work are included in Appendix C.

3. Cleaning and inspecting of approximately 2,000 LF of existing 12-inch ductile-iron water main in the UWF driveway.

4. Rehabilitation of the Supply Pond and canal, including sediment removal, handling and disposal and rehabilitation of the Intake Structure.

a. Data regarding material field testing conducted for the Supply Pond are included in Appendix D.

5. Extension of the Bristol, CT water and sewer systems with installation of ductile-iron water main and PVC sewer main in Mix Street and Maltby Street.

B. Type of Contract:

1. Project will be constructed under a single prime contract.

1.6 CONSTRUCTION SEQUENCING

A. Construct the Work stages, with each stage substantially complete as indicated on Drawings and in Section 017300.

B. Before commencing Work of each stage, submit an updated copy of Contractor's construction schedule and Construction Sequencing Plan, showing the sequence, commencement and completion dates for all stages of the Work.

1.7 WORK PERFORMED BY OWNER

A. Cooperate fully with Owner, so work may be carried out smoothly, without interfering with or delaying Work under this Contract or work by Owner. Coordinate the Work of this Contract with work performed by Owner.

B. Future Work Not Part of this Contract: The Contract Documents include requirements that will allow Owner to carry out future work following completion of this Project; provide for the following future work:

1. Treatment of Lower Wellfield water to potable standards and cleaning, lining, and final connections of the 20” potable water main cross country from the White Bridge Waterworks Facilities to Stafford Avenue.

1.8 CONTRACTOR’S USE OF SITE AND PREMISES

A. Restricted Use of Site: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.

B. Limits on Use of Site: Limit use of Project site to Work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

1. Driveways, Walkways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or for storage of materials.

a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

C. Condition of Existing Buildings: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period, unless otherwise noted on the Drawings. Repair damage caused by construction operations.

D. Condition of Existing Grounds: Maintain portions of existing grounds, landscaping, and hardscaping affected by construction operations throughout construction period. Repair damage caused by construction operations.

1.9 COORDINATION WITH OCCUPANTS

A. Partial Owner Occupancy: Owner will occupy the premises during entire construction period, with the exception of areas under construction or have been decommissioned and demolished as part of the construction sequencing. Cooperate with Owner during construction operations to

minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations. Maintain existing exits unless otherwise indicated.

1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
2. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.

1.10 WORK RESTRICTIONS

A. Comply with restrictions on construction operations.

1. Comply with limitations on use of public streets, work on public streets, rights of way, and other requirements of authorities having jurisdiction.

B. On-Site Work Hours: Limit work to between 7:00 a.m. to 7:00 p.m., Monday through Saturday, unless otherwise indicated. Work hours may be modified to meet Project requirements if approved by Owner and authorities having jurisdiction.

1. Sunday Hours: Work may be permitted on Sunday between 9:00 a.m. and 5:00 p.m.
2. Early Morning Hours: No work shall occur at the site before 7:00 a.m.
3. Hours for Utility Shutdowns: Coordinate with Owner; utility shutdowns and other activities requiring City of New Britain personnel shall be planned between 7:00 a.m. and 2:00 p.m.
4. City of Bristol Noise Ordinance and other work hour restrictions shall be followed at all times.

C. **Work withing City of Bristol Roadways:**

1. **Work within the intersection of Maltby Street and Stafford Avenue is prohibited during bus drop off times (7:30 a.m. to 7:40 a.m.) at St. Paul Catholic High School. Work shall not start in this intersection before 8:00 a.m. on weekdays (Monday through Friday) while school is in session.**
2. **Work within the intersection of Maltby Street and Stafford Avenue is prohibited during bus pick up times (2:15 p.m.) at St. Paul Catholic High School. Work shall not be performed in the intersection between 2:00 p.m. and 3:00 p.m. on weekdays (Monday through Friday) while school is in session.**
    a. **Roadways shall be made safe and passable for all through traffic at the end of each day and for the specified periods of no-work within the intersection.**
3. **Utility installation work within Maltby Street is prohibited during peak traffic hours and is limited to the hours of 10:00 a.m. to 4:00 p.m. unless previously approved by the Engineer.**

D. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging for temporary utility services according to requirements indicated:

1. Notify Engineer not less than two days in advance of proposed utility interruptions.
2. Obtain Engineer's written permission before proceeding with utility interruptions.

E. Noise, Vibration, Dust, and Odors: Coordinate operations that may result in high levels of noise and vibration, dust, odors, or other disruption to Owner occupancy with Owner.

1. Notify Engineer not less than two days in advance of proposed disruptive operations.
2. Obtain Engineer's written permission before proceeding with disruptive operations.

F. Smoking and Controlled Substance Restrictions: Use of tobacco products, alcoholic beverages, and other controlled substances on Project site is not permitted.

G. Employee Identification: Provide identification tags for Contractor personnel working on Project site. Require personnel to use identification tags at all times.

H. Employee Screening: Comply with Owner's requirements for drug and background screening of Contractor personnel working on Project site.

1. Maintain list of approved screened personnel with Owner's representative.

I. Local, State, and Federal Requirements: Comply with all local, state, and federal requirements and conditions issued for the project including, but not limited to, time of year work restrictions to protect state-listed species and other restrictions listed in the permits included as Appendix G to these Contract Documents.

J. **Construction Vehicle Access to Site shall be from Maltby Street via Stafford Avenue, to the extent practicable. Construction vehicle access to the site via Mix Street is prohibited except to perform Work associated with the wetlands creation area and/or without prior approval by the Engineer. Contractor's construction vehicles shall avoid residential roadways in the City of Bristol.**

1.11 COORDINATION WITH CITY OF BRISTOL, CT

A. The White Bridge Water Works Facility is owned and operated by the City of New Britain, CT but is located within the City of Bristol, CT and the following coordination is expected between the Contractor and the City of Bristol:

1. Bristol Public Works Department:

a. Contractor shall coordinate with the City of Bristol Public Works Department for nearby ongoing projects, including but not limited to, the Jerome Avenue Bridge Project to minimize traffic and construction impacts to the Maltby Street area.

2. Bristol Water and Sewer Department:

a. Contractor shall obtain all necessary permits, policies, and procedures from the Water and Sewer Department. The Water and Sewer Department requires all permits to be obtained by a licensed plumber. Contractor shall provide a minimum of 4 days notice for all non-emergency work on the water and sewer utilities.
b. Contractor shall coordinate connection of new water main in Maltby Street to existing water main in Mix Street with the Water and Sewer Department.

Payment for the City of Bristol to furnish and install a tapping sleeve for final connection must be made prior to work being completed.

c. Contractor shall pay the expected water service connection fee of $4,725.00 to the Water and Sewer Department, which will cover the connection fee, tapping the water main, 2" corporation stop and saddle, 2" curb stop and box, copper tubing to the property line, inspection of copper tubing from the property line to the building, and connections within the building.

d. Contractor shall coordinate with the Water and Sewer Department for inspection before final acceptance of water and sewer utilities installed within Maltby Street.

1.12 SPECIFICATION AND DRAWING CONVENTIONS

A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
2. Text Color: Text used in the Specifications, including units of measure, manufacturer and product names, and other text may appear in multiple colors or underlined as part of a hyperlink; no emphasis is implied by text with these characteristics.
3. Hypertext: Text used in the Specifications may contain hyperlinks. Hyperlinks may allow for access to linked information that is not residing in the Specifications. Unless otherwise indicated, linked information is not part of the Contract Documents.
4. Specification requirements are to be performed by Contractor unless specifically stated otherwise.

B. Division 00 Contracting Requirements: General provisions of the Contract, including General and Supplementary Conditions, apply to all Sections of the Specifications.

C. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.

D. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:

1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
2. Abbreviations: Materials and products are identified by abbreviations scheduled on Drawings and published as part of the U.S. National CAD Standard.
3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

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PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 011000

Revised Specification Temporary Facilities and Controls 101024

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SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes requirements for temporary utilities, support facilities, security and protection facilities, and environmental protection facilities.

B. Related Requirements:

1. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.

1.3 USE CHARGES

A. Installation, removal, and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities engaged in the Project to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Engineer, occupants of Project, testing agencies, and authorities having jurisdiction.

B. Sewer Service: Pay sewer-service use charges for sewer usage by all entities for construction operations.

C. Water Service: Pay water-service use charges for water used by all entities for construction operations.

D. Electric Power Service: Pay electric-power-service use charges for electricity used by all entities for construction operations.

E. Water and Sewer Service from Existing System: There is currently no potable water or sewer service at the site. Obtain and pay for water and sanitary service required for contractor operations until such time as these new utilities are operational.

F. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use with metering. Provide connections and extensions of services and metering as required for construction operations.

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1.4 INFORMATIONAL SUBMITTALS

A. Site Utilization Plan: Show temporary facilities, temporary utility lines and connections, staging areas, construction site entrances, vehicle circulation, and parking areas for construction personnel.

B. Implementation and Termination Schedule: Within **15** days of date established for commencement of the Work, submit schedule indicating implementation and termination dates of each temporary utility.

C. Project Identification and Temporary Signs: Show fabrication and installation details, including plans, elevations, details, layouts, typestyles, graphic elements, and message content.

1. Refer to General Conditions Article 52 and Notices to Contractor NTC-41 for specific signage requirements for City of New Britain and Drinking Water State Revolving Fund.

D. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.

E. Moisture- and Mold-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage and mold. Describe delivery, handling, storage, installation, and protection provisions for materials subject to water absorption or water damage.

1. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and requirements for replacing water-damaged Work.
2. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.
3. Indicate methods to be used to avoid trapping water in finished work.

F. Flood Contingency Plan: Describe procedures and controls for protecting buoyant, hazardous, flammable, explosive, soluble, expansive, or radioactive materials or any other materials that could be injurious to human, animal, or plant life in the event of a flood during construction. Detail such materials expected to be on-site and how such materials will be protected from flood damage, secured or removed from the floodplain to prevent pollution and hazards to life and property. Comply with any local, state, and federal requirements or conditions of Appendix G.

G. State-Listed Species Habitat Protection Plan: Describe procedures and controls for protecting state-listed species and habitat, as detailed in the NDDB Determination included in Appendix G. The State-Listed Species Habitat Protection Plan shall also include the qualifications and any certifications of the qualified professional familiar with habitat requirements and behavior of state-listed species who will perform species relocations, as required herein.

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1.5 QUALITY ASSURANCE

A. Temporary facilities shall comply with all applicable state and local ordinances, codes and regulations.

B. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

C. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

D. Accessible Temporary Egress: Comply with applicable provisions in the United States Access Board's ADA-ABA Accessibility Guidelines.

1.6 PROJECT CONDITIONS

A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Chain-Link Fencing: Minimum 2-inch (50-mm), 0.148-inch- (3.8-mm-) thick, galvanized-steel, chain-link fabric fencing; minimum 6 feet (1.8 m) high with galvanized-steel pipe posts; minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts, with 1-5/8-inch- (42-mm-) OD top rails.

B. Portable Chain-Link Fencing: Minimum 2-inch (50-mm), 0.148-inch- (3.8-mm-) thick, galvanized-steel, chain-link fabric fencing; minimum 6 feet (1.8 m) high with galvanized-steel pipe posts; minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts, with 1-5/8-inch- (42-mm-) OD top and bottom rails. Provide galvanized-steel bases for supporting posts.

C. Fencing Windscreen Privacy Screen: Polyester fabric scrim with grommets for attachment to chain-link fence, sized to height of fence, in color selected by Engineer from manufacturer's standard colors.

D. Wood Enclosure Fence: Plywood, 6 feet high, framed with four 2-by-4-inch (50-by-100-mm) rails, with preservative-treated wood posts spaced not more than 8 feet (2.4 m) apart.

E. Polyethylene Sheet: Reinforced, fire-resistive sheet, 10-mil (0.25-mm) minimum thickness, with flame-spread rating of 15 or less in accordance with ASTM E84 and passing NFPA 701 Test Method 2.

F. Dust-Control Adhesive-Surface Walk-Off Mats: Provide mats, minimum 36 by 60 inches (914 by 1524 mm).

G. Insulation: Unfaced mineral-fiber blanket, manufactured from glass, slag wool, or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively.

2.2 TEMPORARY FACILITIES

A. Field Offices: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.

B. Engineer's Field Office: Of sufficient size, but minimum 12-feet by 50-feet, to accommodate needs of Owner, Engineer, and construction personnel office activities and to accommodate Project meetings specified in other Division 01 Sections for duration of project. Keep office clean and orderly. Furnish and equip offices as follows:

1. Field office trailer shall have at least two offices, one conference room, one closet, and two exterior doors.
2. Conference room shall include built-in plan table.
3. Engineer's field office shall be weather-tight construction with floor, walls, and ceiling completely insulated. Each room shall have at least one operating window. Each window shall have a venetian blind and full insect screen. Furnish two sets of keys for each exterior door. Provide fully insulated skirting on all sides of the field office trailer. Provide steps, platforms, handrails, and boot scrapers for each exterior door.
4. Field office trailer shall be Mobile Mini, ModSpace, Williams Scotsman, or equal. Converted storage or box containers will not be acceptable.
5. Furnishings:

    a. Provide the following furnishings for the Engineer's temporary field office for the duration of the project. All furnishings shall be new – or in very good condition – subject to approval of the Engineer.

        1) Four 60-inch by 30-inch desks with file drawer and 5 drawers, all lockable.
        2) Upholstered swivel type chair with arms for each desk.
        3) One 30-inch by 84-inch conference table.
        4) Ten armless side chairs (stacking type).
        5) Two 54-inch by 30-inch folding tables.
        6) Six file cabinet, 4 drawer, legal size, Hon No. HN-315C, or equal.
        7) Four wastebaskets.
        8) One rolling plan storage rack, 10-stick capacity.
        9) One lockable storage cabinet, 72-inch high, 36-inch wide, and 18-inch deep.
        10) Two steel bookcase units, 4 shelves high, Hon No. HN-S48 ABC, or equal.
        11) One digital telephone answering machine.
        12) 24 painted steel coat hangers.
        13) One electric bottled water dispenser with hot and cold outlets and refrigerator unit. Adequate water bottles shall be provided (and paid for by the Contractor) until Final Completion.
        14) One wall-mounted first aid kit, McMaster-Carr 9501T1 or equal.
        15) Two smoke detectors, with batteries.
        16) Two dry erase boards, aluminum frame, 36-inch by 60-inch, markers and eraser, Quartet Model No. TS-S 535 or equal.
        17) One 1000-watt minimum 1.4-cu.ft. microwave oven.
        18) One 6-cf refrigerator.

19) Commercial duty cross-cut shredder with basket, designed for 3 to 5 users, Fellowes Powershred SB-125i, or equal.
20) One first aid kit, OSHA (1910.151.b) and ANSI (Z308.1-2003) compliant, suitable for ten people.
21) Temporary toilet and hand washing facilities.

6. Equipment:

a. Contractor shall provide the following equipment for the Engineer's temporary field office for the duration of the project. All equipment shall be new.

1) A multifunction Photocopier, printer, facsimile and scanner.

b. With 50-sheet auto-feeder, capable of copying and printing
c. Letter-sized, legal-sized, 11-inch by 17-inch, **and 12-inch by 18-inch** documents.
d. Contractor to provide paper and ink cartridges, as required, for the duration of the project.

1) Answering machine with digital recorder.
2) Digital Camera: provide one new digital camera for the Engineer's use for the project duration. Camera shall be a major brand name (e.g., Minolta, Cannon, Olympic, Pentax, etc. – subject to the Engineer's approval) and shall have an automatic date function, 3 Mega pixel or greater, 3x optical zoom or better, and at least one GB of memory (on board or supplemental memory card). The camera shall come complete with carrying case, storage card, rechargeable batteries, battery charger, flash memory reader, USB cables and all necessary software. After completion of project the camera will become the property of the Owner.
3) Four 8-outlet surge protectors with six-foot cord and minimum 1800-joule energy rating or greater; as manufactured by Belkin, or equal.
4) One 4-cup coffeemaker with timer, by Krups, or equal.

7. Services:

a. Provide the following services for the duration of the project. Services shall include all costs for installation, use, maintenance, and removal of all products, services and equipment billed by each provider for each service specified herein.
b. Field office shall have complete and fully functional electrical, plumbing, and HVAC systems. Provide at least two smoke detectors hard-wired into the electrical system. Perform all scheduled and unscheduled maintenance for all systems and as directed by the Engineer.
c. Electrical System: Provide connection to temporary electric service. Comply with the electrical requirements of the furnished office trailer. Provide main circuit panel, sufficient GFCI outlets and lighting in each room, exterior lights at each exterior door, and proper grounding of entire electrical system.
d. Plumbing system: Connect to existing potable water supply if available. Provide hot water heater and hot and cold water to each fixture. Connect waste pipes to existing sanitary system or a waste holding tank. Heat trace and insulate exterior piping to prevent freezing. Where potable water service is not available, Contractor shall provide bottle water service with water chiller/dispenser.

e. HVAC System: Provide central heating and air conditioning system with programmable thermostat. System shall be capable of maintaining an interior temperature of 70 degrees F when the exterior temperature is 0 degrees F and an interior temperature of 75 degrees F when exterior temperature is 100 degrees F.

f. Bottled water service: Provide bottled water service complete with dispenser with hot- and cold-water taps and regular bottle and cup replenishment as directed by the Engineer.

g. Janitorial service: Provide janitorial services (at least weekly) that include dusting, sweeping, vacuuming, mopping, disinfection, and trash removal.

h. Sanitary service: Provide regular pumping of chemical toilets and any other waste holding tank, if applicable, as needed.

i. Communications:

1) Install two telephone lines in the Engineer's field office for the Engineer's exclusive use:

a) one voice grade line with caller ID and call-waiting features.
b) a second line for a dedicated fax line.

j. Internet Access:

1) Provide high-speed Broadband internet access for the duration of the project.
2) Provide one air card for the Engineer's use for the duration of the project (through Final Completion], with unlimited data plans.

k. Pay all costs for installation, maintenance, and removal of the telephone and internet service and instruments, including cellular phone service. The monthly cost of all calls made and received by the Engineer, including toll and long-distance calls, shall be paid for by the Contractor for the duration of the project.

8. Supplies: Provide the following supplies for the duration of the project: copy paper, toner, toilet paper, paper towels, soap, light bulbs, and other consumables as required by the Engineer.

C. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.

1. Store combustible materials apart from building.

2.3 EQUIPMENT

A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

B. HVAC Equipment: Unless Owner authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.

1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
2. Heating, Cooling, and Dehumidifying Units: Listed and labeled for type of fuel being consumed, by a qualified testing agency acceptable to authorities having jurisdiction and marked for intended location and application.

2.4 ENVIRONMENTAL PROTECTION FACILITIES

A. Exclusionary Fencing: Exclusionary fencing shall be provided for protection of state-listed species, as detailed below and required by the NDDB Determination included in Appendix G.

1. Exclusionary fencing shall be at least 20-inches tall and must be secured to and remain in contact with the ground. Fencing shall be regularly maintained to secure any gaps or openings at ground level that may allow animals pass through.
2. Prior to construction activities, Contractor shall search Work area and fencing for the presence of and state-listed species named in the NDDB Determination. Any state-listed species included in the NDDB Determination encountered shall be relocated to suitable habitat outside the area of disturbance. Contractor shall provide a qualified professional familiar with habitat requirements and behavior of the species to perform relocations.

B. Aquifer Protection Area: Implement best management practices, to the extent practicable, for temporary construction as indicated in the CT DEEP Aquifer Protection Area Guidance document "Best Management Practices for Temporary Construction and Reconstruction Operations in Aquifer Protection Areas," included as Attachment A to this specification.

PART 3 - EXECUTION

3.1 TEMPORARY FACILITIES, GENERAL

A. Conservation: Coordinate construction and use of temporary facilities with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

3.2 INSTALLATION, GENERAL

A. Locate facilities where shown on the Drawings or where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work. Engineer's trailer shall be set up and ready for occupancy within 30 days of the Notice to Proceed.

1. Locate facilities to limit site disturbance as specified in Section 011000 "Summary."

B. Provide each facility ready for use within 30 days of the Notice to Proceed and prior to Commencement of Work at the site. Do not remove until approved by Engineer or are replaced by authorized use of completed permanent facilities.

3.3 ENGINEER'S OFFICE

A. Engineer's trailer shall be set up and ready for occupancy within 30 days of the Notice to Proceed and prior to commencement of Work at the site. All systems, furnishings, equipment, and services specified herein shall be furnished, installed, and completely operational for the field office to be considered established.

1. Provide regular office cleaning services for the duration of the project.
2. Provide supplies including, but not limited to restroom supplies (toilet tissue paper, paper towel, and soap), as well as light bulbs, air conditioner filters, etc.
3. Provide office supplies for printers and fax machines, etc.
4. Supply all fuel for heating and pay all utility bills.

B. Install field office plumb and level.

C. Engineer's trailer shall be removed, and the site shall be cleaned up and restored before Final Completion of the project.

3.4 CONTRACTOR'S FIELD OFFICE

A. Provide a temporary field office(s) for the Contractor's use for the duration of the project. An authorized representative of the Contractor shall be present at all times while the Work is in progress. Instructions received at the Contractors field office from the Engineer shall be considered delivered to the Contractor.

B. Locate field office(s) in accordance with approved shop drawings and as directed by the Owner.

C. Establish and occupy field office within 30 days of the Notice to Proceed, unless otherwise approved by the Engineer or Owner.

3.5 TEMPORARY UTILITY INSTALLATION

A. General: Install temporary service or connect to existing service, if approved by Owner.

1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.

B. There is currently no potable water or sewer service at the site. Obtain and pay for water and sanitary service required for contractor operations until such time as these new utilities are operational.

C. Sanitary Facilities: Provide temporary toilets, wash facilities, safety shower and eyewash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities. Provide regular maintenance and cleaning of sanitary facilities.

D. Temporary Heating and Cooling: Provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.

1. Provide temporary dehumidification systems when required to reduce ambient and substrate moisture levels to level required to allow installation or application of finishes and their proper curing or drying.

E. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.

1. Prior to commencing work, isolate the HVAC system in area where work is to be performed.

a. Disconnect supply and return ductwork in work area from HVAC systems servicing occupied areas.
b. Maintain negative air pressure within work area, using HEPA-equipped air-filtration units, starting with commencement of temporary partition construction, and continuing until removal of temporary partitions is complete.

2. Maintain dust partitions during the Work. Use vacuum collection attachments on dust-producing equipment. Isolate limited work within occupied areas using portable dust-containment devices.
3. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.

F. Temporary Light and Power: Provide by Contractor, including 220 Volt service for welding, complete with wiring, lamps and similar equipment as required to adequately light all work areas and with sufficient power capacity to meet the project needs. Make all necessary arrangements with the local electric company for temporary electric service and pay all expenses in connection therewith.

G. Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner.

H. Electric Power Service: Provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.

1. Install electric power service overhead unless otherwise indicated.
2. Connect temporary service to Owner's existing power source, as directed by Owner.

I. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.

1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.

J. Telephone Service: Provide temporary telephone service in common-use facilities for use by all construction personnel. Install WiFi cell phone access equipment and one land-based telephone line(s) for each field office.

1. At each telephone, post a list of important telephone numbers.

    a. Police and fire departments.
    b. Ambulance service.
    c. Contractor's home office.
    d. Contractor's emergency after-hours telephone number.
    e. Engineer's offices.
    f. Owner's office.
    g. Principal subcontractors' field and home offices.

K. Electronic Communication Service: Provide secure WiFi wireless connection to internet with provisions for access by Engineer and Owner.

L. Project Computer: Provide a desktop computer in the primary field office adequate for use by Engineer and Owner to access Project electronic documents and maintain electronic communications. Equip computer with not less than the following:

1. Processor: Intel Core i5 or i7.
2. Memory: 164 gigabyte.
3. Disk Storage: 1 -terabyte hard-disk drive and combination DVD-RW/CD-RW drive.
4. Display: 24 inch (610 mm) LCD monitor with 256-Mb dedicated video RAM.
5. Full-size keyboard and mouse.
6. Operating System: Microsoft Windows 10 Professional.
7. Productivity Software:

    a. Microsoft Office Professional, 2013 or higher, including Word, Excel, and Outlook.
    b. Adobe Reader DC.
    c. WinZip 10 or higher.

8. Printer: "All-in-one" unit equipped with printer server, combining color printing, photocopying, scanning, and faxing, or separate units for each of these three functions.
9. Internet Service: Broadband modem, router and ISP, equipped with hardware firewall, providing minimum 10 Mbps upload and 15 Mbps download speeds at each computer.
10. Internet Security: Integrated software, providing software firewall, virus, spyware, phishing, and spam protection in a combined application.
11. Backup: External hard drive, minimum 2 terrabytes, with automated backup software providing daily backups.

3.6 SUPPORT FACILITIES INSTALLATION

A. Comply with the following:

1. Provide construction for temporary field offices, shops, and sheds located within construction area or within 30 feet (9 m) of building lines that is noncombustible in accordance with ASTM E136. Comply with NFPA 241.
2. Utilize designated area within existing building for temporary field offices.
3. Maintain support facilities until Engineer schedules Final Completion inspection. Remove just before Final Completion.

B. Temporary Roads and Paved Areas: Construct and maintain temporary roads and paved areas adequate for construction operations. Locate temporary roads and paved areas within construction limits indicated on Drawings.

1. Provide dust-control treatment that is nonpolluting and nontracking. Reapply treatment as required to minimize dust.

C. Temporary Use of Planned Permanent Roads and Paved Areas: Locate temporary roads and paved areas in same location as permanent roads and paved areas. Construct and maintain temporary roads and paved areas adequate for construction operations. Extend temporary roads and paved areas, within construction limits indicated, as necessary for construction operations.

1. Coordinate elevations of temporary roads and paved areas with permanent roads and paved areas.
2. Prepare subgrade and install subbase and base for temporary roads and paved areas accordance with Section 312000 "Earthwork."
3. Recondition base after temporary use, including removing contaminated material, regrading, proofrolling, compacting, and testing.
4. Delay installation of final course of permanent hot-mix asphalt pavement until immediately before Substantial Completion. Repair hot-mix asphalt base-course pavement before installation of final course in accordance with Section 321216 "Asphalt Paving."

D. Traffic Controls: Comply with requirements of authorities having jurisdiction.

1. Protect existing site improvements to remain including curbs, pavement, and utilities.
2. Maintain access for fire-fighting equipment and access to fire hydrants.

E. Parking: Use designated areas of Owner's existing parking areas for construction personnel.

F. Storage and Staging: Provide temporary offsite area as needed to supplement designated areas of Project site for storage and staging needs.

G. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.

1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
2. Remove snow and ice as required to minimize accumulations.

H. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.

1. Identification Signs: Provide Project identification signs as indicated on Drawings. Signs shall be constructed of A-A Ext – APA grade plywood, 1-in thick. Posts and braces shall be of pressure treated lumber.
2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.

    a. Provide temporary, directional signs for construction personnel and visitors.

3. Maintain and touch up signs, so they are legible at all times.

I. Waste Disposal Facilities: Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."

J. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Section 017300 "Execution."

K. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.

1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

L. Temporary Stairs: Until permanent stairs are available, provide temporary stairs where ladders are not adequate.

M. Existing Stair Usage: Use of Owner's existing stairs will be permitted, provided stairs are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore stairs to condition existing before initial use.

1. Provide protective coverings, barriers, devices, signs, or other procedures to protect stairs and to maintain means of egress. If stairs become damaged, restore damaged areas, so no evidence remains of correction work.

N. Temporary Use of Permanent Stairs: Use of new stairs for construction traffic will be permitted, provided stairs are protected and finishes restored to new condition at time of Substantial Completion.

3.7 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.

1. Where access to adjacent properties is required in order to affect protection of existing facilities, obtain written permission from adjacent property owner to access property for that purpose.

B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

1. Comply with work restrictions specified in Section 011000 "Summary."
2. Comply with environmental protection facilities as required in Appendix G.

C. Temporary Erosion and Sedimentation Control: Comply with requirements of authorities having jurisdiction as detailed in approvals and conditions included in Appendix G and requirements specified in Section 312500 "Erosion and Sedimentation Controls."

D. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent

properties and walkways, according to erosion- and sedimentation-control Drawings and authorities having jurisdiction, whichever is more stringent.

1. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross tree- or plant-protection zones.
2. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
3. Clean, repair, and restore adjoining properties and roads affected by erosion and sedimentation from Project site during the course of Project.
4. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

E. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.

F. Tree and Plant Protection: Comply with requirements specified in Section 015639 "Temporary Tree and Plant Protection."

G. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.

H. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals, so Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using materials approved by authorities having jurisdiction.

I. Site Enclosure Fence: Before construction operations begin, furnish and install site enclosure fence in a manner that will prevent people from easily entering site except by entrance gates.

1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.
2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Furnish one set of keys to Owner.

J. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each workday.

K. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.

L. Temporary Egress: Provide temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction. Provide, install and maintain signage directing occupants to temporary egress.

M. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.

1. Where heating or cooling is needed and permanent enclosure is incomplete, insulate temporary enclosures.

N. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire-prevention program.

1. Prohibit smoking in construction areas. Comply with additional limits on smoking specified in other Sections.
2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition in accordance with requirements of authorities having jurisdiction.
3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
4. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign, stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.

O. Weather protection shall comply with M.G.L. Chapter 149 Section 44G.

3.8 MOISTURE AND MOLD CONTROL

A. Moisture and Mold Protection: Protect stored materials and installed Work in accordance with Moisture and Mold Protection Plan.

B. Exposed Construction Period: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect as follows:

1. Protect porous materials from water damage.
2. Protect stored and installed material from flowing or standing water.
3. Keep porous and organic materials from coming into prolonged contact with concrete.
4. Remove standing water from decks.
5. Keep deck openings covered or dammed.

C. Partially Enclosed Construction Period: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:

1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.
2. Keep interior spaces reasonably clean and protected from water damage.
3. Periodically collect and remove waste containing cellulose or other organic matter.
4. Discard or replace water-damaged material.
5. Do not install material that is wet.
6. Discard and replace stored or installed material that begins to grow mold.
7. Perform work in a sequence that allows wet materials adequate time to dry before enclosing the material in gypsum board or other interior finishes.

D. Controlled Construction Period: After completing and sealing of the building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:

1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
2. Use temporary or permanent HVAC system to control humidity within ranges specified for installed and stored materials.
3. Comply with manufacturer's written instructions for temperature, relative humidity, and exposure to water limits.

    a. Hygroscopic materials that may support mold growth, including wood and gypsum-based products, that become wet during the course of construction and remain wet for 48 hours are considered defective and require replacing.
    b. Measure moisture content of materials that have been exposed to moisture during construction operations or after installation. Record readings beginning at time of exposure and continuing daily for 48 hours. Identify materials containing moisture levels higher than allowed. Report findings in writing to Engineer.
    c. Remove and replace materials that cannot be completely restored to their manufactured moisture level within 48 hours.

3.9 OPERATION, TERMINATION, AND REMOVAL

A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.

B. Maintenance: Maintain facilities in good operating condition until removal.

1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
2. Clear snow and ice from all drives, walks and stairs to maintain safe vehicle and pedestrian access to the site and facilities as directed by the Engineer.

C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Final Completion.

D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Final Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
2. Remove temporary roads and paved areas not intended for or acceptable for integration into permanent construction. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
3. Just prior to Final Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

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3.10 ATTACHMENTS

A. CT DEEP Aquifer Protection Area Guidance – Best Management Practices for Temporary Construction and Reconstruction Operations in Aquifer Protection Areas

END OF SECTION 015000

Aquifer Protection Area Guidance: Construction and Stormwater 101024

AQUIFER PROTECTION AREA GUIDANCE

Best Management Practices for Temporary Construction and Reconstruction Operations in Aquifer Protection Areas

Issues and Concerns
Potential groundwater quality concerns include stormwater, fuel, and other maintenance chemicals associated with vehicles, machinery, and equipment.

Guidance/Recommendations
For the protection of ground water quality at construction operations in aquifer protection areas, DEEP recommends the following:

Temporary Construction Measures

- Significant fuel, chemical or other hazardous materials storage and handling, including fueling of construction vehicles, should be located outside well field area and aquifer protection area.
- No repair or maintenance of construction vehicles or washing of construction vehicles is permitted within the aquifer protection area.
- Any necessary temporary storage should be aboveground, protected from rainfall, and on an impervious containment surface.
- An emergency spill and response plan should be developed, including coordination with the water supplier.
- The site access should be adequately secured at all times to prohibit any unauthorized disposal of waste materials.

Stormwater Pollution Prevention Measures:

- Ways to minimize pollutant load (sand, salt, etc.) should be examined.
- Deicing management areas should be established including low salt use areas, alternative chemical or sand methods.
- Wellhead protection signs shall be posted in clear visibility of the highway at the entrance and exit points of the aquifer protection area and at ½ mile intervals.

Drainage System Design Criteria:

- Select best management practices from the DEEP stormwater manual based on treatment effectiveness and low groundwater pollution potential.

- Sheetflow and swale collection is encouraged, where possible, outside of immediate well field area.
- Catch basins and curbs should be used in immediate wellhead area to divert and control runoff and spills away from wellhead.
- Dry wells or similar subsurface leaching structures should not be used for stormwater disposal from paved or other areas that have high potential to pollute groundwater; existing structures which have high potential to pollute groundwater should be removed or converted.
- Gross particle/oil separators (swirl concentrator type) may be used for pretreatment of consecutive catch basins. Deep catch basins (minimum 4' deep and tight construction, with baffles, may also be used).
- Stormwater discharge points shall outlet to aboveground land surface or basin type structures. Significant or critical discharge points should have a basin designed with a forebay (tight soil or lined) capable of containing an 8,000-10,000 gallon spill volume and 3-6 feet above water table, 4 feet above bedrock.
- Potential strategic groundwater monitoring should be considered.

For questions or more information, please contact the Aquifer Protection Area Program at 860-424-3040 or visit our website at www.ct.gov/deep/aquiferprotection.

AQUIFER PROTECTION AREA GUIDANCE

Best Management Practices for Controlling Stormwater from Parking Lots in Aquifer Protection Areas

(1) Do not use direct infiltration structures (galleries, drywells, trenches) as these do not allow for attenuation of salt or other soluble compounds that may be contained in parking lot runoff.

(2) Non-structural measures to dissipate and treat runoff are encouraged, including sheetflow from uncurbed pavement and vegetated swales/basins. These provide an opportunity for volatilization of volatile organic compounds to the extent possible before the stormwater can infiltrate into the ground.

(3) If a stormwater collection system must be installed, it should discharge to an above-ground outlet point (swales, detention/retention basins or surface waters).

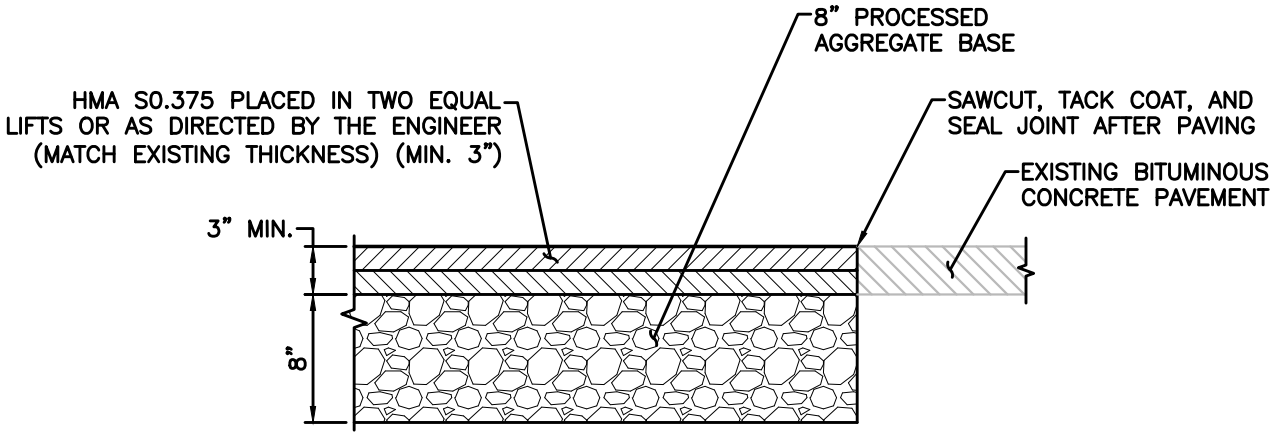
(a) Any catch basins installed should have deep sumps to trap sediments and hoods to trap oil and grease.

(b) If more than 1 acre of pavement drains to a common discharge point, a gross particle separator should also be installed. Advanced designs for gross particle separators have been developed, such as Vortechnics, Downstream Defender and Stormceptor, that the Department believes are very effective in retaining medium to coarse grained sediments as well as floatables. The last type of separator is designed to treat runoff from areas up to approximately 1 acre in size, while the former two can be sized to accommodate flow from larger areas. It is recommended that the appropriate variety of this or similar type of unit with a cyclonic design be installed in conjunction with each outfall, depending on the size of the drainage area.

(4) Provisions should be made for the periodic maintenance that will be required to insure continued effectiveness of these control measures.

For more information regarding the design of stormwater collection systems, contact Chris Stone of the DEEP's Stormwater Permitting & Enforcement Division at (860) 424-3850.

Standard Bristol DPW Roadway, Curb and Sidewalk Repair Details



RECONSTRUCTION OF ROADWAY

SCALE: $1\frac{1}{2}$" = 1'–0"

111 NORTH MAIN STREET
BRISTOL, CONNECTICUT
06010
T: 860.584.6125
www.bristolct.gov

Bristol CONNECTICUT Public Works

RECONSTRUCTION OF ROADWAY DETAIL

APPLICANT:

ON: ---
AT: ---

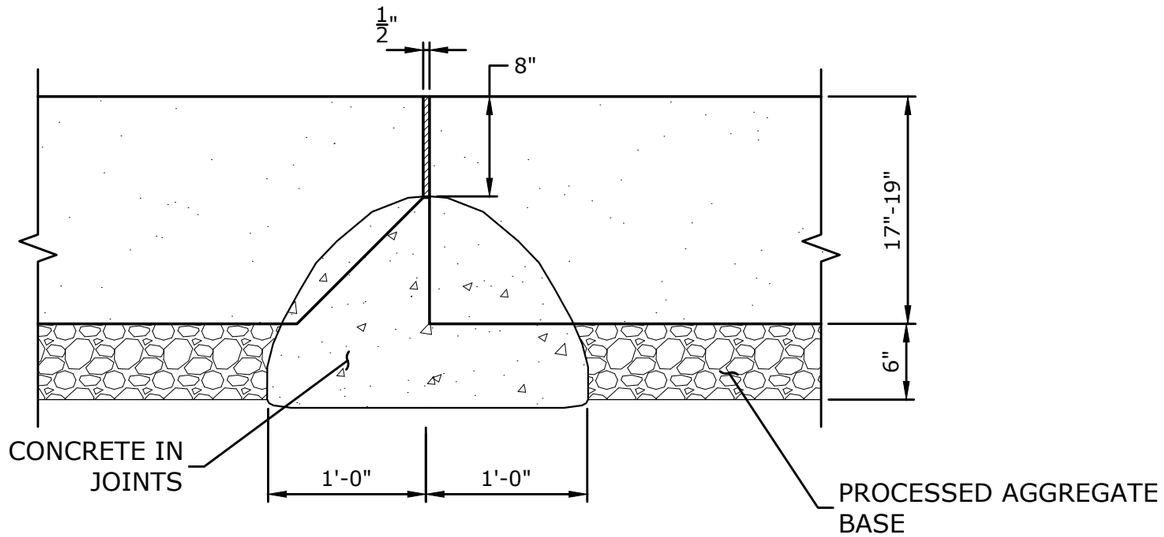
STANDARD ROADWAY DETAILS

DATE: **JULY 14, 2023**

SCALE: **AS SHOWN**

SHEET: **01**

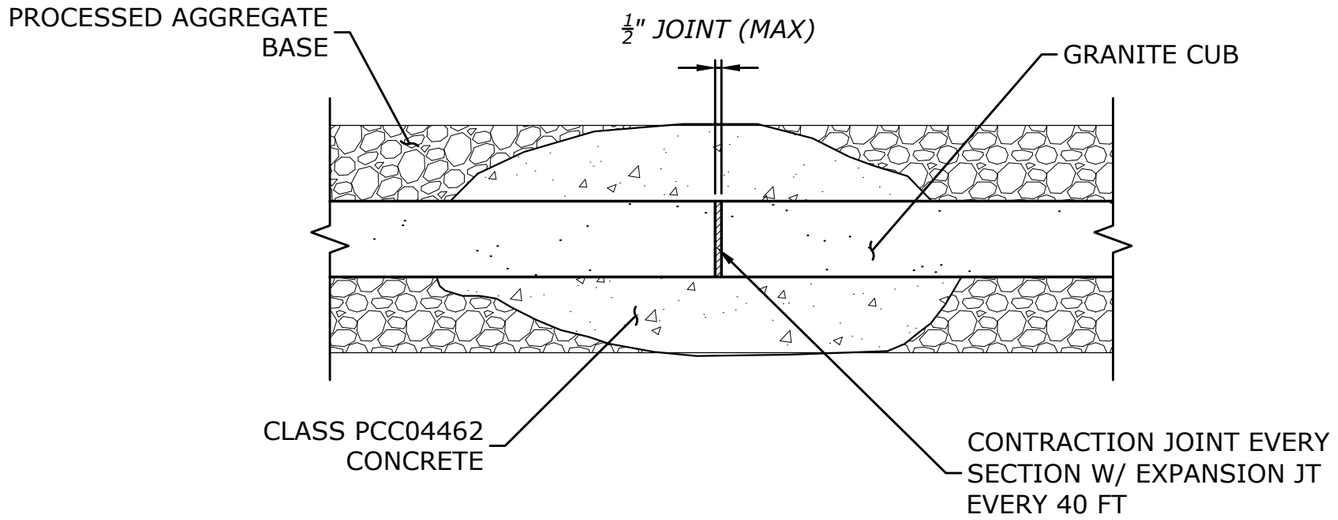
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CURB ELEVATION

NOT TO SCALE

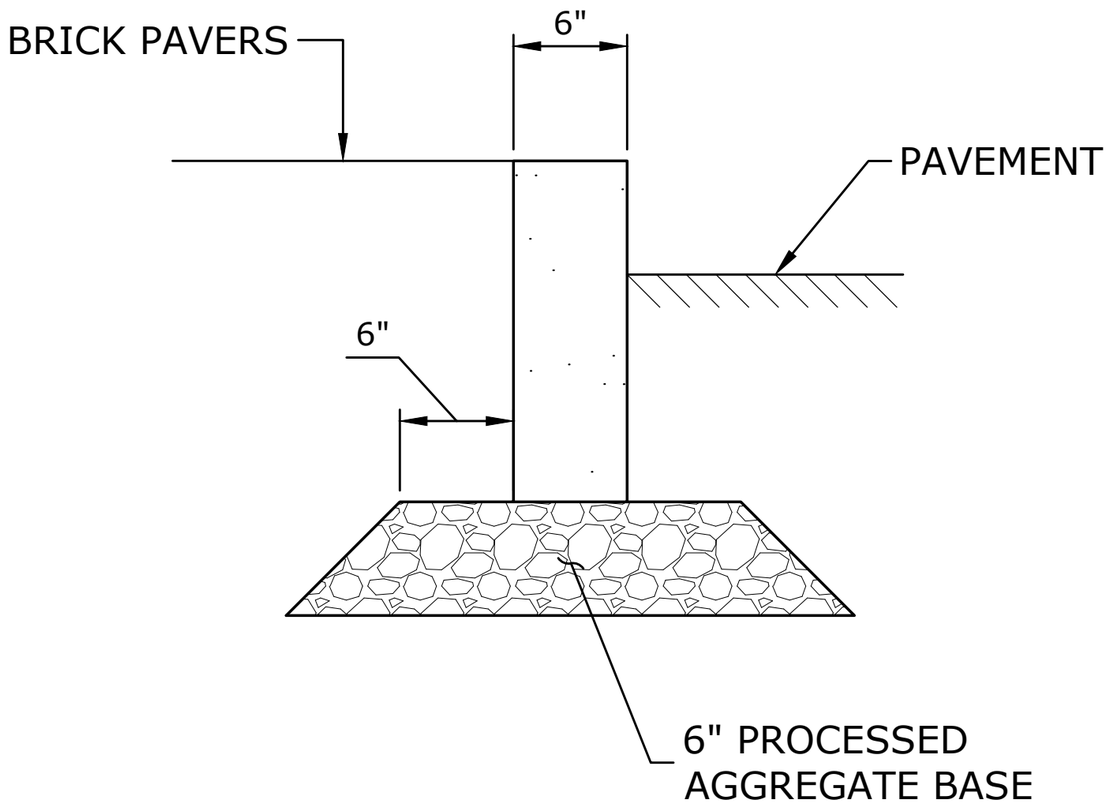
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CURB PLAN VIEW

SCALE: 1" = 1'-0"

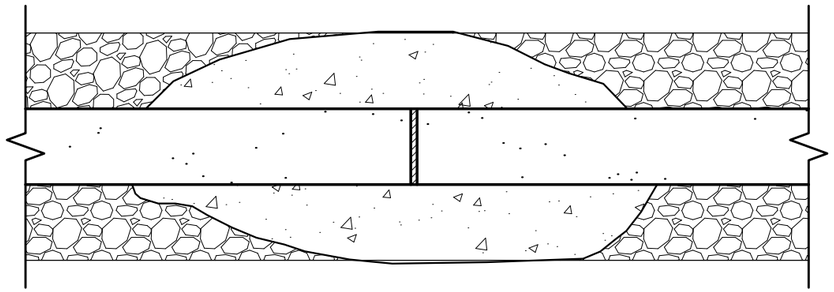
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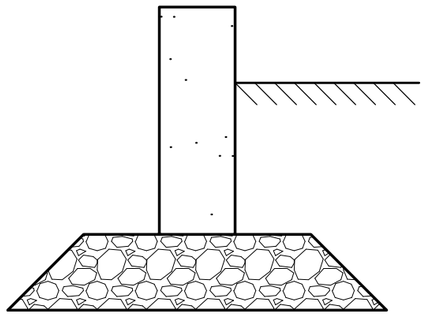


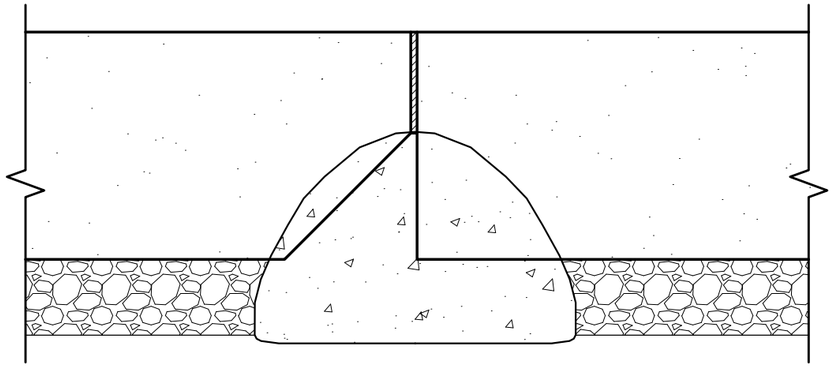
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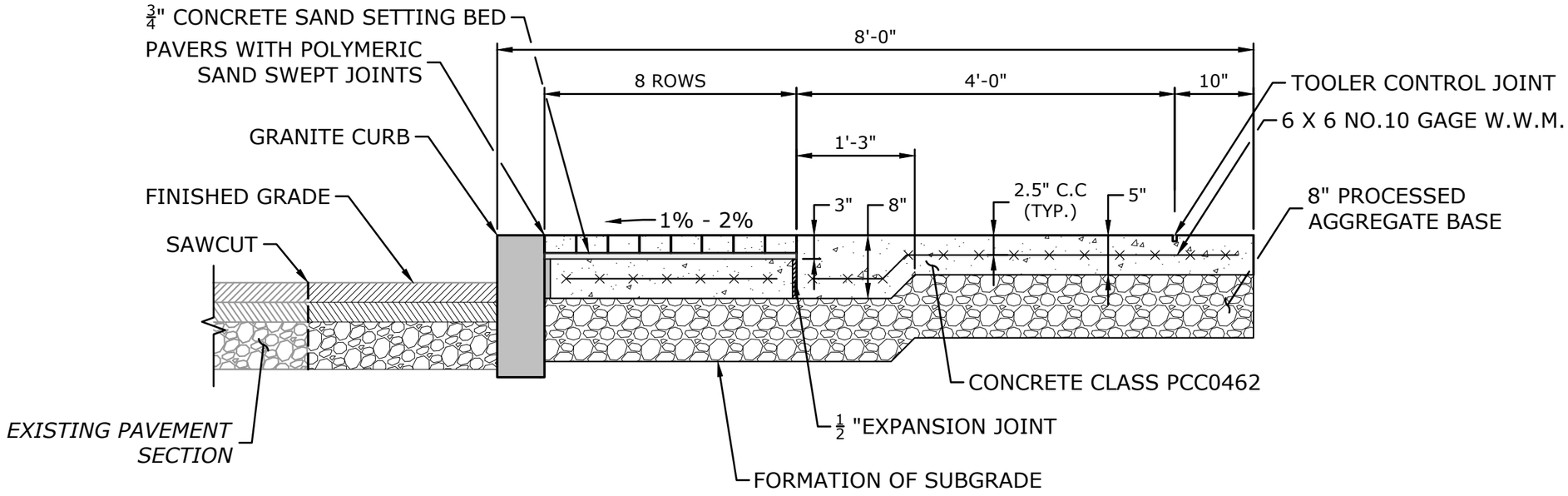
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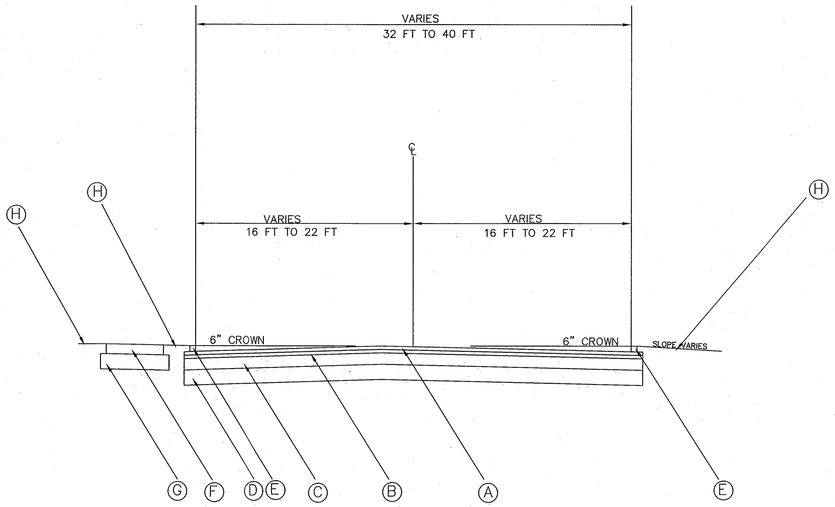






CONCRETE SIDEWALK WITH BRICK PAVERS

SCALE: ¾" = 1'-0"



TYPICAL SECTION
STA. 10+50 TO 31+30

Ⓐ TWO INCH (2") CLASS 2 SURFACE COURSE

Ⓑ TWO INCH (2") CLASS 1 BINDER COURSE

Ⓒ SIX INCH (6") AGGREGATE BASE (M.05.01)

Ⓓ TEN INCH (10") SUBBASE (M.02.02)

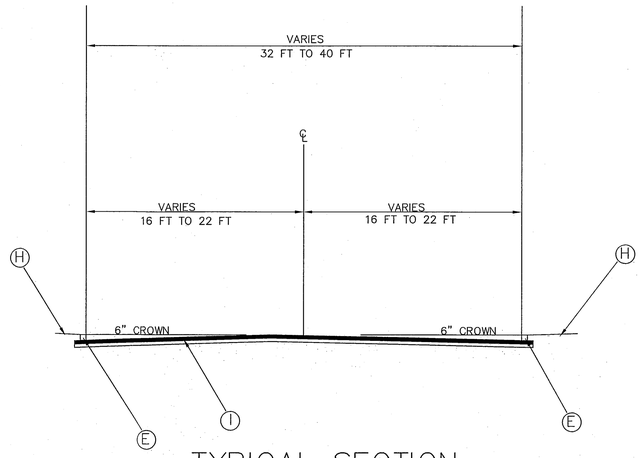
Ⓔ SIX INCH (6") BITUMINOUS LIP CURB (REMOVE EXISTING)

Ⓕ FIVE INCH (5") THICK CONCRETE WALK

Ⓖ EIGHT INCH (8") PROCESS GRAVEL

Ⓗ TURF ESTABLISHMENT (4" MINIMUM OF TOPSOIL)

Ⓘ MILL TWO INCH (2") EXISTING CLASS 2 SURFACE PAVEMENT. OVERLAY WITH NEW CLASS 2 SURFACE PAVEMENT.



TYPICAL SECTION
STA. 4+17 TO 10+50

DESCRIPTION	SHEET. NO.
REVISIONS	

NO SCALE

DESIGNER: AMF

DRAFTER: AMF

CHECKED BY: RAR

DATE CHECKED: 10-9-09

CITY OF BRISTOL, CONNECTICUT

ENGINEER: BRISTOL DPW

APPROVED BY:

DATE: OCTOBER 9, 2009

Bristol Department of Public Works
111 North Main Street
Bristol, CT 06010
(860) 584-6125
(860) 584-3838 Fax

PROJECT TITLE:
MIX STREET ROAD RECONSTRUCTION

CADD:

PLOTTED: BRISTOL DPW

TOWN:
BRISTOL, CONNECTICUT

DRAWING TITLE:
TYPICAL SECTIONS

DOT PROJECT:

DRAWING NO.:

SHEET NO.: 4

Standard Bristol DPW Contractor Excavation Forms

City of Bristol

DEPARTMENT OF PUBLIC WORKS
BRISTOL, CONNECTICUT 06010

EXCAVATION
CONTRACTOR'S PERMIT BOND

_____
Name of License Holder

_____
Bond Number

KNOW ALL MEN BY THESE PRESENTS,

That we, _____ of the Town
(Licensee)

of_____County of _____,

and the State of Connecticut, as Principal, and _____,
(Bonding Company)

of the State of _____ having an office and place of business at

_____,

as Surety, are held and firmly bound unto the City of Bristol, in the sum of

_____ Dollars,

lawful money of the United States, to be paid to assure completion of all work for which payment, well and truly to be made, we bind ourselves, our heirs, executors and administrators and assigns, jointly and severally by these presents, the said bond and surety to be holden to the CITY OF BRISTOL for such time and under such stipulations as hereinafter stated.

The condition of this obligation is such, that:

Whereas, the above named Principal has received, or may, upon his application, receive, a permit or permits from the CITY OF BRISTOL, to perform work on, about or adjacent to a highway or for the use of the highway right of way, on, over, or below, within said CITY OF BRISTOL as is or may be particularly specified in said permit or permits, to which permit or permits reference is hereby made and are made a part hereof: and Whereas, the said Principal has undertaken and does hereby agree to comply with all the rules, regulations and restrictions of said CITY OF BRISTOL in regard to said permit or permits.

NOW, THEREFORE, it is agreed that (a) this bond shall expire one year from date hereof, except that it shall continue in full force and effect as herein provided as to any and all work required under any permit issued to the Principal within one year from date hereof; (b) if the said Principal fails to complete the required work described in each and every permit issued to him, and continues in said failure and/or neglect for more than thirty days after written notice of said failure and/or neglect is mailed by the Director of Public Works of the City of Bristol to the Principal and surety (by certified mail to the address shown hereon) said Director of Public Works shall arrange to complete all unfinished work and charge the same to the Surety to the extent of this bond; and (c) if the said Principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements specified in said permit or permits, and shall well and truly save harmless and indemnify the said CITY OF BRISTOL and the DIRECTOR OF PUBLIC WORKS, or either of them, from all damages and costs that the CITY OF BRISTOL or the DIRECTOR OF PUBLIC WORKS may suffer, be liable for, or be compelled to pay, or in fact does pay, for any injuries or damages which may be caused by any action or work being carried on either by the said Principal, his servants, agents or employees, under any permit or permits issued or which may be issued by said CITY OF BRISTOL, or its authorized agent, or by reason of negligence or violation of any law on the part of said Principal, his servants, agents or employees, and shall, further indemnify said CITY OF BRISTOL for any expenses that said CITY OF BRISTOL or the DIRECTOR OF PUBLIC WORKS may suffer, be liable for, or be compelled to pay, or in fact does pay for any required adjustments to the highway and its facilities to a comparable condition, including but not limited to refilling openings or excavations, removing guard railings, removing trees, tree stumps and other obstructions, replacing drainage involving driveways and restoring pavements opened or excavated satisfactory to the CITY or existed prior to the initiation of the work said Principal, his servants, agents or employees, then this obligation shall be void; otherwise to remain in full force and effect.

All of the provisions of the foregoing are to be subject to the present statute laws of the State of Connecticut and ordinances and standards and regulations of the CITY OF BRISTOL and to any change, alteration or repeal of any existing laws as may be enacted by any future session of the Legislature of the State of Connecticut or the City Council of the City of Bristol.

IN WITNESS WHEREOF, we have hereunto set our hands and seal the _____

day of _____, in the year two thousand, and _____.

Witness to Licensee's Signature (2)

_____

_____

_____
Licensee's Signature

_____
Bond Company Name

_____
Bond Company Address

_____
Agent Representing Bond Company

City of Bristol DEPARTMENT
OF PUBLIC WORKS BRISTOL,
CONNECTICUT 06010
860-584-6125 – Front Desk
860-584-6295 – Sanitary Sewer Inspector

Contractor's License & Bonding Information Package

License & Bonding Narrative

This Contractor's License and Bonding Information Package includes the following:

- License & Bonding Narrative
- Excavation Contractor's License Application (to be completed & returned to DPW)
- Excavating Contractor's Permit Bond Form (to be completed & returned to DPW along with bond & Power of Attorney Form)
- List of streets requiring uniformed City of Bristol Police Officer for Traffic Control. Call 860-584-3000 48 hours prior to work to schedule Police Officers. Contractor is responsible for cost of officers.
- Sanitary Sewer Connection fee schedule.

Requirements and procedures to become a licensed and bonded Excavation Contractor in the City of Bristol

- Contractor must be licensed by the State of Connecticut as a P1, P7 or W-9 Contractor
- Complete and return the Excavation Contractor's License Application to the Bristol Public Works Department.
- Complete and return to the Bristol Public Works Department the Excavation Contractor's Permit Bond Form and supply a bond for ten thousand dollars ($10,000.00) with a Power of Attorney Form.
- Provide a Certificate of Liability Insurance with the following coverage;
  - Personal Injury - $100,000 Minimum(300,000)
  - Property Damage - $10,000 Minimum(300,000)

Submit the above listed information as one package to the Bristol Department of Public Works office during regular office hours (M-F, 8:00-5:00). This information will be reviewed by the Sanitary Sewer Inspector.

After you become a licensed and bonded Contractor you must obtain an Excavation Permit from the City of Bristol Sanitary Sewer Inspector prior to conducting any work within a City of Bristol street and/or right of way.

City of Bristol DEPARTMENT
OF PUBLIC WORKS BRISTOL,
CONNECTICUT 06010

License & Bonding Narrative (Continued)

Excavation Permit & Permanent Patch Information

All excavation and utility work conducted within any City of Bristol street and/or right of way can only be conducted by Contractors licensed and bonded ***by the City of Bristol***.

To become a licensed and bonded Contractor in the City of Bristol obtain a "Contractor's License & Bonding Information Package" from the City of Bristol Department of Public Works office located in City Hall at 111 North Main Street, Bristol Connecticut.

An excavation permit must be issued by the City of Bristol Sanitary Sewer Inspector (584-6115) a minimum of 48 hours prior to any excavation work within any City of Bristol street and/or right of way.

All ***utility connection fees*** for the subject property must be paid prior to issuance of an excavation permit.

Excavation permits are issued Monday thru Friday from 8:00 a.m. to 9:00 a.m. and from 3:30 p.m. to 4:30 p.m. and at other times as arranged with the Sanitary Sewer Inspector.

Fees

Excavation permit fee = $40.00 each. Separate excavation permits are required for each utility.

Permanent Patch fee – At the time of issuance of an Excavation Permit the Contractor shall pay the estimated cost of the permanent patch to the City of Bristol. During the period between temporary patch and permanent patch, the Contractor shall be responsible for maintaining the patch and shall promptly correct all defects upon order of the Director of Public Works or his designated agent. The intent is that temporary patches shall go through one complete winter season prior to being permanently patched by the City of Bristol. Prior to issuing a Certificate of Occupancy, the City of Bristol with measure the total area of the temporary patch, to assure the funds collected will cover the total permanent patch cost. If additional funds are needed to cover permanent patch cost they will be collected before a Certificate of Occupancy is issued.

Calculation of estimated patch cost will be based on length and width, (width shall be diameter of pipe plus twelve (12) inches, minimum twenty-four (24) inches, plus twelve (12) inches for every foot to depth of trench.) Permanent patch fees are calculated by the City of Bristol and subject to payment by the contractor.

City of Bristol
DEPARTMENT OF PUBLIC WORKS
BRISTOL, CONNECTICUT 06010
860-584-6125 – Front Desk

PERMANENT PATCHING OF CITY STREETS

The permanent patching of all utility trenches and other excavations in streets maintained by the City of Bristol will be by the public works department or under contract to the city. All utility contractors shall obtain an excavating permit for any trenches in the public street.

Excavation, backfilling and patching, general requirements.

Pavement and/or sidewalks shall be cut or sawn to straight neat lines, excavation without cutting or sawing will not be allowed. Cut line shall be parallel and six (6) inches minimum, outside either edge of the proposed trench. Tunneling under pavement or sidewalks will not be allowed. Bituminous material, cement concrete, ledge, rock and boulders over six (6) inches in any dimension shall be removed from the job, together with any clay, silt, or organic material. The public works inspector will check the material excavated and will allow re-use as backfill, sandy and/or gravelly material. Material not approved shall be disposed of off the job. Backfill shall be approved sandy gravelly material with no stones over six (6) inches in any dimension. Backfill shall be compacted in twelve-inch layers using mechanical compaction equipment.

The trench shall be filled to within eleven (11) inches of finished grade, eight (8) inches of approved processed gravel shall be spread and compacted, then three (3) inches of bituminous concrete shall be spread and compacted with the finished material flush with the adjacent existing surface. Bituminous concrete material shall be "hot mix," except during winter season when plants are closed "cold patch" will be used. During the period between temporary patch and permanent patch, the utility contractor shall be responsible for maintaining the patch and shall promptly correct all defects upon order of the director of public works. The contractor is an agent of the utility whose pipe, conduit, etc., is laid in the trench and has ultimate responsibility for the trench. In sanitary sewer laterals this is the serviced property owner. This procedure also includes new sanitary sewer construction and the ultimate responsibility shall be the city public works department.

Fees, deposits, records and measurements for patches.

Annually the city may advertise and receive bids for permanent patching of utility trenches. Bids will be taken on repair of bituminous pavement, curbing and sidewalk. The lowest acceptable unit prices will be utilized with a ten (10) per cent escalator for charging utility contractors, that year, for trench permanent patching. Trenches that are temporarily patched this year will be permanently patched next year, the intent is that temporary patches shall go through one complete winter season.

At the time of issuance of an excavation permit, the utility contractor shall deposit a fee equal to the estimated cost of the permanent patch. Upon completion, the actual patch will be measured and the contractor shall be billed for any additional amount or added cost due to increased bid cost, if the amount is less than the prepayment he will receive credit. Calculation of estimated patch will be based on length and width, (width shall be diameter of pipe plus twelve (12) inches, minimum twenty-four (24)inches, plus twelve (12) inches for every foot to depth of trench.) Permits will not be issued to contractors owing the city any excess fee. Responsible persons will be liened if excess fee not paid within ninety (90) days of the due date.
The public works department shall keep a written record of all trenches, with date of excavation, temporary patch and permanent patch, deposit fee and estimate quantity final fee and actual quantity balance or credit due, and exact location, and type of utility. The city shall maintain a separate fund, for permanent patching of all city streets. All payments by utility contractor or others excavating in the public street will be deposited in the fund, and payments for permanent patching completed will be disbursed from the fund.

Detailed patching requirements.
Permanent patching shall be performed as follows:
(a) ***Sidewalks***. Temporary bituminous material shall be removed. Existing walk faces shall be straight and true with no cracks or breaks, if not, shall be cut at next sound transverse joint. Subgrade material shall be removed to five (5) inches below finish grade one-half inch preformed full depth and width expansion joints shall be placed against existing concrete. Portland cement concrete shall be as specified in Chapter 21 of the City Ordinances. Topsoil and seeding shall be repaired as specified in Chapter 21 of the City Ordinances. Bituminous concrete walks shall be repaired as specified in subsection (c).
(b) ***Curbing***. Curbing shall be replaced to conform to existing adjacent curb. Existing curb shall be cut to neat true lines. Concrete and granite curb replacement shall be not less than three (3) feet. Bituminous curb less than twenty-five (25) feet may be hand formed to proper cross section. Curbing shall conform to Chapter 21 of the City Ordinances.
(c) ***Pavement***. Existing bituminous material shall be removed, existing pavement shall be cut to reasonably straight longitudinal lines, transverse jogs within ten (10) feet of each other shall not be accepted, transverse cuts shall be perpendicular to the longitudinal cut. Several small excavations shall be widened into one. If existing pavement has cracked due to trench settlement, the edge of the trench shall be cut beyond such cracks to firm true pavement. The subgrade shall be graded and compacted to three (3) inches below finished grade. The contractor shall add any necessary processed gravel to bring trench to subgrade, care shall be taken to keep processed gravel tight under adjacent pavement. Edge of existing bituminous shall be painted with hot liquid asphalt prior to paving. Transverse joints in new patch shall be cut square and painted with hot liquid asphalt. Bituminous material shall be placed in two (2) equal layers of one and one-half inches compacted. Finished surface shall meet existing surface neat and true. Edges of completed patch shall be sealed with an application of hot liquid asphalt three (3) inches minimum wide. Finish surface shall be lightly dusted with cement or fine quarry screenings. Patch shall be barricaded and traffic kept off for at least four (4) hours.

City of Bristol

DEPARTMENT OF PUBLIC WORKS
BRISTOL, CONNECTICUT 06010

Excavation Contractor's License Application

Date Filed: _____
Approved: _____
Denied: _____

1. **APPLICANT:** (Person completing this application)

   Name: _____ Signature: _____

   Address: _____ City: _____State: _____Zip: _____

   Telephone No.: _____ [ ] home [ ] work

2. **COMPANY:**

   Name: _____

   Address: _____ City: _____State: _____Zip: _____

   Telephone No.: _____ [ ] home [ ] work

3. **STATE LICENSES HELD:**

   Classification & Number:_____

   _____

4. **REFERENCES:** List a minimum of three (3) references (other than material suppliers) who are familiar with your work and the information contained within this application. Attach another sheet if necessary.

_____

_____

_____

_____

_____

_____

Original Site Plan

June 2024 (Full Set)

CITY OF NEW BRITAIN, CONNECTICUT

WATER SYSTEM IMPROVEMENTS

WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

BID NO. 4145

MAYOR

HONORABLE ERIN E. STEWART

DIRECTOR OF PUBLIC WORKS

MARK E. MORIARTY, P.E.

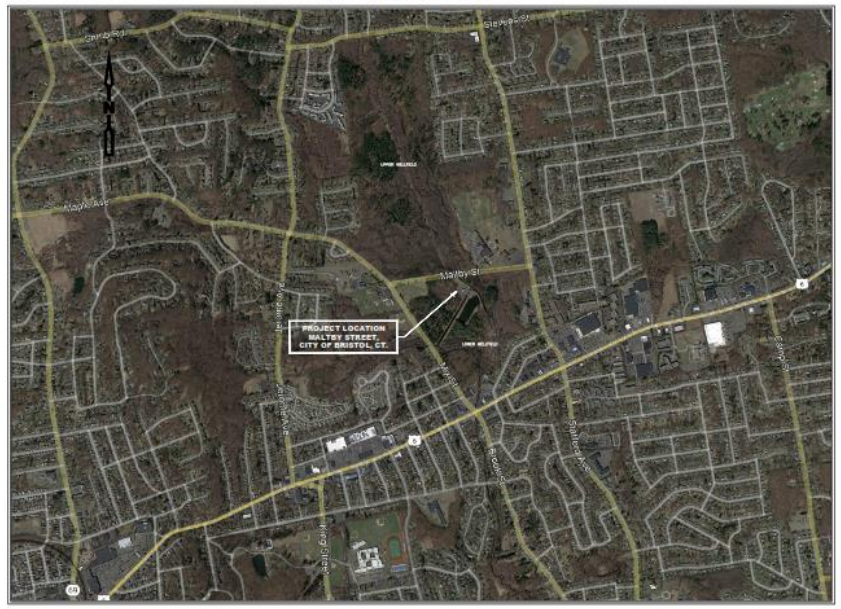
DIRECTOR OF UTILITIES DIVISION

RAMON ESPONDA, P.E.

SUPERINTENDENT OF UTILITIES DIVISION

CHRIS POLKOWSKI

JUNE 2024



LOCATION PLAN

CDM Smith

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

EAST HARTFORD, CONNECTICUT

Water ***Environment*** ***Transportation*** ***Energy*** ***Facilities***

Full Set of Civil Drawings at this Hyperlink:

https://www.bristolct.gov/DocumentCenter/View/47022/Full-Set-NBW

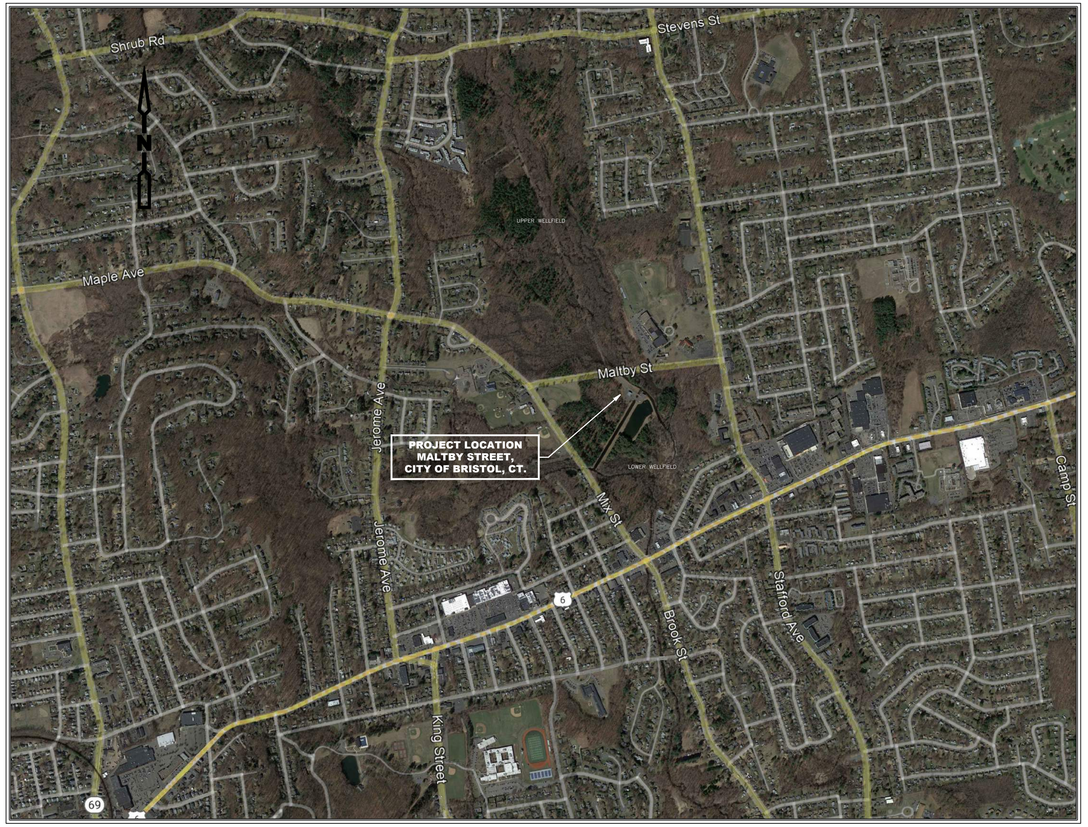
Revised Site Plan 101024

CITY OF NEW BRITAIN, CONNECTICUT

WATER SYSTEM IMPROVEMENTS

WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

BID NO. 4145



LOCATION PLAN

SCALE: 1" = 1000'

BRISTOL ZONING COMMISSION APPLICATION
(APPROVED XX):
#2504 – SPECIAL PERMIT FOR CIVIC FACILITY
#2505 – SITE PLAN FOR CIVIC FACILITY
#2506 – SPECIAL PERMIT FOR EARTH REMOVAL

BRISTOL AQUIFER PROTECTION AGENCY
(APPROVED XX):
– DETERMINATION FORM

BRISTOL IWWA APPLICATIONS
(APPROVED JUNE 7, 2024):
#2019 – APPLICATION WETLANDS BOUNDARY CHANGE
#2020 – PERMIT TO CONDUCT REGULATED ACTIVITIES
#23-485F-3058 – PERMIT FOR FLOODPLAIN DEVELOPMENT

SP-01 OVERVIEW UWF NORTH
SP-02 OVERVIEW UWF SOUTH
SP-03 OVERVIEW LWF
SP-04 SITE PLAN UPPER WELLFIELD
SP-05 SITE PLAN POND PUMPING STATION
SP-06 SITE PLAN LOWER WELLFIELD
SP-07 MIX STREET ACCESS ROAD
SP-08 MALTBY STREET UTILITIES I
SP-09 MALTBY STREET UTILITIES II
SP-10 MALTBY STREET UTILITIES III
SP-11 STAFFORD AVENUE AND CROSS COUNTRY UTILITIES
SP-12 E&S CONTROLS UWF
SP-13 E&S CONTROLS POND PUMPING STATION
SP-14 E&S CONTROLS LWF

MAYOR

HONORABLE ERIN E. STEWART

DIRECTOR OF PUBLIC WORKS

MARK E. MORIARTY, P.E.

DIRECTOR OF UTILITIES DIVISION

RAMON ESPONDA, P.E.

SUPERINTENDENT OF UTILITIES DIVISION

CHRIS POLKOWSKI

OCTOBER 2024

CDM Smith

STATE OF CONNECTICUT
STEVE GERSLEY WALSH
No. 24384
LICENSED PROFESSIONAL ENGINEER
10-10-24

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

EAST HARTFORD, CONNECTICUT

Water Environment Transportation Energy Facilities

IMAGE OBTAINED FROM GOOGLE EARTH PRO DECEMBER, 2021
Plot Stamp – File: C:\USERS\ENGELSB\DC\ACCDOCS\CDM SMITH INC\10739-264571 – NEW BRITAIN CT WHITE BRIDGE WELL FIELDS AND PS\PROJECT FILES\01 GENERAL (G)\10 CADD\PERMIT-GOODNFCV.DWG Saved by: ENGELSB On: 9-Oct-24 Plotted on: 9-Oct-24 10:59 AM

CIVIL/SITE ABBREVIATIONS

SYMBOL	DESCRIPTION
BC	BOTTOM OF CURB
BS	BOTTOM OF STEP
BW	BOTTOM OF WALL
CB	CATCH BASIN
CLF	CHAIN LINK FENCE
CS	CRUSHED STONE
CW	COLD POTABLE WATER
DI	DUCTILE IRON
DMH	DRAIN MANHOLE
DN	DOWN
FES	FLARED END SECTION
FFE	FINISHED FLOOR ELEVATION
FM	FORCE MAIN
FRP	FIBERGLASS REINFORCED PLASTIC
GV	GATE VALVE
HDPE	HIGH-DENSITY POLYETHYLENE
INF	INFLUENT
INV. EL.	INVERT ELEVATION
MH	MANHOLE
MJ	MECHANICAL JOINT
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
SS	STAINLESS STEEL
TC	TOP OF CURB
TS	TOP OF STEP/SLAB
TW	TOP OF WALL
UP	UTILITY POLE
VGC	VERTICAL GRANITE CURB
UWF	UPPER WELLFIELD
LWF	LOWER WELLFIELD

PROCESS FLOW STREAMS:

DR	DRAIN
FINW	FINISHED WATER
OVF	OVERFLOW
RW	RAW WATER
SAN	SANITARY
SPL	SAMPLE
VT	VENT
FLUO	SODIUM FLUORIDE
HYPO	SODIUM HYPOCHLORITE
NAOH	SODIUM HYDROXIDE
PHOS	POLYPHOSPHATE

FOR ADDITIONAL RELATED FLOW STREAMS SEE LEGEND SHEETS P-1 AND I-1

PIPE MATERIALS:

CS	CARBON STEEL
CU	COPPER
DI(FLG)	DUCTILE IRON (FLANGED JOINT)
DI(MJ)	DUCTILE IRON (MECHANICAL JOINT)
DI(POJ)	DUCTILE IRON (PUSH ON JOINT)
PVC(SCH 40)	POLYVINYL CHLORIDE (SCHEDULE 40)
PVC(SCH 80)	POLYVINYL CHLORIDE (SCHEDULE 80)
PTFE	POLYTETRAFLUOROETHYLENE
SS316	316 STAINLESS STEEL

YARD PIPING NOTES

1. THE LOCATION OF EXISTING UTILITIES AND OTHER UNDERGROUND STRUCTURES SHOWN ON THE DRAWINGS IS APPROXIMATE, AND THEIR ACTUAL LOCATIONS MAY VARY FROM THAT SHOWN. FURTHER, IT IS NOT WARRANTED THAT ALL UNDERGROUND UTILITIES AND STRUCTURES ARE SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND FEATURES THAT MAY BE AFFECTED BY THE WORK.
2. NEW WATER MAINS SHALL HAVE A MINIMUM COVER OF 4.5 FEET UNLESS OTHERWISE INDICATED AND SHALL PASS UNDER EXISTING UTILITIES AS NECESSARY TO MEET THIS REQUIREMENT.
3. ALL NEW WATER PIPES, INCLUDING FIRE PROTECTION LINES, AND OTHER PRESSURE PIPES INCLUDING FORCE MAINS, SHALL HAVE RESTRAINED JOINTS AS SPECIFIED.
4. TEST PITS SHALL BE DUG TO LOCATE EXISTING PIPES TO WHICH NEW PIPES ARE TO BE CONNECTED, AND WHERE NECESSARY TO DETERMINE EXACT LOCATIONS OF EXISTING UTILITIES.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL FINAL CONNECTIONS TO PIPES.
6. ABANDONED PIPES, VALVES AND APPURTENANCES ENCOUNTERED DURING CONSTRUCTION MAY BE REMOVED AS REQUIRED. PIPES LEFT IN PLACE SHALL BE PLUGGED AND ABANDONED AS SPECIFIED AND AS APPROVED BY THE ENGINEER.
7. WALKWAYS AND PAVEMENTS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED WITHOUT ADDITIONAL EXPENSE BY OWNER.
8. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION BY DIGGING TEST PITS (WHETHER OR NOT INDICATED ON THE DRAWINGS) WHERE UTILITY INFORMATION IS ESSENTIAL.
9. PRIOR TO ANY EXCAVATION WORK, IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE DETAILS OF THE PROJECT AREA. THE CONTRACTOR SHALL COORDINATE WITH DEPARTMENT PERSONNEL AND OWNER AND REVIEW ANY DRAWINGS THAT MAY BE AVAILABLE. CONTRACTOR SHALL ENSURE THAT EXISTING UTILITIES WITHIN THE WORK OF THIS CONTRACT ARE NOT DAMAGED, UTILITIES DAMAGED DURING EXCAVATION SHALL BE IMMEDIATELY REPAIRED AT NO ADDITIONAL COST TO OWNER.
10. PERFORM EXCAVATION CLOSE TO EXISTING UTILITIES BY HAND TO DETERMINE EXACT UTILITY LOCATION PRIOR TO INSTALLING EXCAVATION BRACING OR BEFORE MACHINE EXCAVATION.

GRADING NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING GRADES AND LOCATION OF UTILITIES. MAJOR DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
2. TO ESTABLISH PROPER GRADES, CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF GRADE STAKES. THE NUMBER AND LOCATION SHALL BE DETERMINED IN THE FIELD AND APPROVED BY THE ENGINEER.

GENERAL NOTES

1. BEFORE CONSTRUCTION, ALL UTILITIES, PUBLIC AND PRIVATE MUST BE NOTIFIED CALL "DIG SAFE" 1 (888) 344-7233 HTTP://WWW.DIGSAFE.COM.
2. FOR BORING INFORMATION AND LOCATIONS SEE EXISTING CONDITIONS DRAWINGS AND APPENDIX TO SPECIFICATIONS.
3. THE CONTRACTOR SHALL PREPARE AN EROSION AND SEDIMENT CONTROL PLAN AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AS SPECIFIED TO PROTECT THE SITES FROM EROSION AND PREVENT THE MOVEMENT OF SEDIMENT AND DEBRIS. THE SWPPP SHALL BE PREPARED FOR APPROVAL BY STATE AND FEDERAL PERMIT AUTHORITIES AND FOR INFORMATIONAL PURPOSES ONLY BY THE OWNER AND ENGINEER.
4. ALL AREAS OUTSIDE THE LIMIT OF DISTURBANCE SHALL BE PROTECTED AT ALL TIMES UNLESS OTHERWISE DIRECTED BY THE OWNER AND/OR ENGINEER.
5. ALL MATERIALS TO BE REMOVED WITHIN THE LIMIT OF DISTURBANCE SHALL BE REMOVED TO A LOCATION ARRANGED BY THE CONTRACTOR AND APPROVED BY THE OWNER AND/OR ENGINEER. THE LOCATION OF STOCKPILED TOPSOIL SHALL BE IN AREAS APPROVED BY THE OWNER AND/OR ENGINEER.
6. CONTRACTOR SHALL PROVIDE SITE SECURITY THROUGHOUT CONSTRUCTION PERIOD.
7. WHEN EXCAVATING AROUND EXISTING STRUCTURES, EXCAVATE SOILS UNIFORMLY AROUND THE STRUCTURE UNLESS INDICATED OTHERWISE. CONTROL EXCAVATION LEVELS AROUND THE ENTIRE PERIMETER OF THE STRUCTURE SUCH THAT THE GRADE DIFFERENTIAL DOES NOT EXCEED 2 FT.
8. WHEN BACKFILLING AROUND STRUCTURES, BRING UP BACKFILL UNIFORMLY AROUND STRUCTURE UNLESS INDICATED OTHERWISE. CONTROL BACKFILL LEVELS AROUND THE ENTIRE PERIMETER OF THE STRUCTURE SUCH THAT THE GRADE DIFFERENTIAL DOES NOT EXCEED 2 FT.
9. GAS MAINS ARE ASSUMED TO HAVE THREE FEET OF COVER UNLESS SHOWN OTHERWISE. LOCAL WATER MAINS ARE ASSUMED TO HAVE 5 FEET OF COVER. IT IS NOT WARRANTED THAT ALL UTILITIES ARE SHOWN OR ARE SHOWN AT THE CORRECT ELEVATION.
10. ALL UNDERGROUND SERVICES TO HOUSES ARE NOT SHOWN.
11. BORING LOGS HAVE BEEN APPENDED TO THE SPECIFICATION DOCUMENTS. BORINGS ARE INCLUDED FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT BE SHOWN AT EXACT LOCATIONS.
12. CONTRACTOR SHALL MINIMIZE CLEARING AND GRUBBING AS MUCH AS POSSIBLE. ALL CROSS-COUNTRY AREAS SHALL BE LOAMED AND SEEDED OR SODDED TO THE LIMITS DISTURBED BY CONSTRUCTION UNLESS OTHERWISE NOTED.
13. CONTRACTOR SHALL NOT DISTURB ANY LAND OUTSIDE THE LIMITS OF WORK.
14. WHEN THE HORIZONTAL SEPARATION BETWEEN THE NEW SEWER AND EXISTING OR RELOCATED WATER MAIN IS LESS THAN 10-FT AND THE VERTICAL SEPARATION IS LESS THAN 18-IN THE NEW SEWER SHALL BE CONSTRUCTED OF RESTRAINED MJ DI OR CONCRETE ENCASED PIPE FOR A MINIMUM OF 10-FT BEYOND WHERE THE SPACING IS LESS THAN 10-FT HORIZONTAL AND 18-IN VERTICAL.
15. IF A WATER MAIN CROSSES UNDER THE NEW SEWER, BOTH PIPES SHALL BE RESTRAINED MJ DI OR CONCRETE ENCASED FOR A MINIMUM OF 10-FT TO EITHER SIDE OF THE RESPECTIVE CENTER LINES.
16. IF NECESSARY TO WORK IN LIVE SEWER MANHOLES CONTRACTOR SHALL FOLLOW ALL FEDERAL, STATE AND LOCAL REQUIREMENTS FOR SAFETY WHEN IN CONFINED SPACES. THE CONTRACTOR IS ALSO REFERRED TO RECOMMENDATIONS IN THE NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH PUBLICATION NO. 80-106, "WORKING IN CONFINED SPACES".
17. CONTRACTOR TO MAINTAIN FLOW IN EXISTING DRAINS AT ALL TIMES.
18. IT IS NOT WARRANTED THAT ALL EXISTING ABOVE GROUND AND UNDERGROUND STRUCTURES, EQUIPMENT, PIPING AND ELECTRICAL CONDUITS ARE SHOWN. NOR IS IT WARRANTED THAT LOCATIONS AND SIZES OF STRUCTURES AND UTILITIES ARE EXACT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL SIZES AND LOCATIONS OF EXISTING EQUIPMENT, PIPING, ETC. REFER TO SPECIFICATIONS FOR FURTHER DETAILS.
19. ELEVATIONS SHOWN ARE IN FEET AND ARE REFERENCED USGS DATUM NAVD88.
20. THE CONTRACTOR SHALL COORDINATE WORK TO ENSURE CONTINUED ACCESS TO ALL EXISTING FACILITY STRUCTURES. SEE SPECIFICATION FOR ADDITIONAL INFORMATION.
21. REMOVE AND DISPOSE OF EXISTING PAVEMENT WITHIN LIMITS SHOWN ON DRAWINGS TAKING CARE NOT TO DAMAGE EXISTING WALLS, CURBS, BUILDINGS OR UTILITY STRUCTURES.
22. STRIP EXISTING VEGETATION AND 6" LAYER TOPSOIL WITHIN AREAS OF DISTURBANCE. GRIND ANY STUMPS TO A MINIMUM OF ONE FOOT BELOW FINISH GRADE AND BACKFILL WITH MAX. 12 INCH COMPACTED LAYERS AS SPECIFIED. CONTRACTOR SHALL STOCKPILE STRIPPED TOPSOIL IN A MANNER APPROVED BY THE ENGINEER.
23. EXISTING VERTICAL OR SLOPED GRANITE CURB DISTURBED FOR CONSTRUCTION SHALL BE STOCKPILED AND REINSTALLED AS APPROVED BY THE ENGINEER.
24. ALL BITUMINOUS ROADWAY AND SIDEWALK PAVEMENT AREAS AND ALL CONCRETE SIDEWALK AND OTHER AREAS DISTURBED BY TRENCHING SHALL BE REPAIRED AS SPECIFIED. SELECTED AREAS TO RECEIVE AN OVERPLAY LEVELING COURSE AS DIRECTED BY THE ENGINEER.
25. COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS FOR LIMITING CONSTRUCTION ACTIVITIES NEAR THE GREAT BLUE HERON ROOKERY AREA AND NATURAL DIVERSITY DATABASE (NDDB) STATE-LISTED SPECIES HABITAT. REFER TO SPECIFICATIONS FOR FURTHER DETAILS.
26. HAZARDOUS BUILDING MATERIALS WERE FOUND IN SAMPLES TAKEN FROM SELECT LOCATIONS IN EXISTING BUILDINGS. PRIOR TO COMMENCING WITH ANY MODIFICATIONS OR DEMOLITION WORK, REFER TO SPECIFICATIONS FOR KNOW LOCATIONS OF HAZARDOUS BUILDING MATERIALS AND EQUIPMENT, PROPOSED ABATEMENT AND DISTURBANCE WORK, REQUIREMENTS FOR ADDITIONAL SAMPLING AND TESTING TO BE PERFORMED AS PART OF THE WORK, MONITORING REQUIREMENTS, AND WASTE HANDLING AND DISPOSAL REQUIREMENTS.
27. ALL OBSERVATION AND MONITORING WELLS ASSOCIATED WITH THE UPPER AND LOWER WELLFIELDS MAY NOT BE SHOWN ON THE DRAWINGS. REFER TO SPECIFICATIONS FOR FURTHER DETAILS.
28. SILT FENCING SHALL BE INSTALLED ON THE TOE OF ALL PROPOSED NEW SLOPES. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MONITORED DURING CONSTRUCTION, AND REMOVED ONLY ONCE SLOPE HAS BEEN STABILIZED.
29. THE CONTRACTOR IS PROHIBITED FROM PERFORMING ANY ACTIVITY THAT MAY CAUSE CONTAMINATION TO SOIL AND/OR GROUNDWATER INCLUDING, BUT NOT LIMITED TO, REFUELING, DEGREASING, OR CHANGING OIL OF EQUIPMENT, MACHINERY, OR OTHER VEHICLES, ON THE PROJECT SITE WITHOUT THE INSTALLATION OF A CONTAINMENT UNIT. CONTAINMENT UNITS SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO USE AND SHALL NOT BE LOCATED WITHIN REGULATED AREAS OR THEIR BUFFER ZONE.
30. CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS INCLUDED IN THE JUNE 2024 ORDER OF CONDITIONS RECIEVED FROM THE BRISTOL CONSERVATION COMMISSION FOR APPLICATION #2020. REFER TO SPECIFICATIONS FOR FURTHER DETAIL.
31. CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE CONCRETE SIDEWALK AT THE UPPER WELLFIELD ACCESS ROADWAY ENTRANCE ON MALTBY STREET. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED TO EXISTING SIDEWALK DURING CONSTRUCTION.
32. CONTRACTOR SHALL IMPLEMENT PROTECTIVE MEASURES TO LIMIT DUST, NOISE, FLYING ROCK, AND OTHER NUISANCES, AS REQUIRED IN THE SUPPLEMENTAL GENERAL CONDITIONS AND SPECIFICATION SECTION 015000.

LAYOUT NOTES:

1. CONTRACTOR SHALL VERIFY ALL PROPERTY AND SURVEY INFORMATION.
2. CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY AND PROTECT ALL ON-SITE STRUCTURES AND VEGETATION TO BE RETAINED ON THE SITE THROUGHOUT THE CONSTRUCTION PROJECT.
3. CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS AND ALL UTILITY SERVICES THROUGHOUT THE DURATION OF THE CONTRACT, UNLESS OTHERWISE SPECIFIED.
4. LOCATIONS OF BURIED UTILITIES, VAULTS AND CONCRETE PADS ARE APPROXIMATE ONLY. FINAL LOCATIONS SHALL BE DETERMINED IN THE FIELD AFTER STAKING BY THE CONTRACTOR BASED ON ACTUAL SITE CONDITIONS AS APPROVED BY THE OWNER AND/OR ENGINEER.
5. ALL DISTURBED AREAS NOT COVERED WITH PAVEMENT, PADS, CRUSHED STONE, SOD, OR STRUCTURES SHALL RECEIVE 6" LAYER OF LOAM AND SEED AS SPECIFIED, UNLESS NOTED OTHERWISE.
6. DIMENSIONS FOR STRUCTURES ARE TO OUTSIDE FACE OF WALL. DIMENSIONS TO CONCRETE PADS ARE TO EDGE OF PAD. DIMENSIONS TO FENCES AND GATES ARE ON-CENTER.
7. ALL ITEMS TO BE REMOVED, UNLESS OTHERWISE INDICATED ON THE DRAWINGS, SHALL BE DISPOSED OFF SITE IN A LEGAL MANNER.
8. CONTRACTOR SHALL LIMIT CONSTRUCTION ACCESS TO AREAS DESIGNATED ON THE DRAWINGS AND AS INDICATED BY THE OWNER.
9. LOCATIONS OF CONCRETE PADS, PAVEMENTS, BOLLARDS, GATES, AND SIGNS ARE APPROXIMATE ONLY. FINAL LOCATIONS SHALL BE STAKED IN THE FIELD FOR REVIEW AND APPROVAL BY THE ENGINEER.
10. BOUNDARIES OF AREAS TO RECEIVE LOAM & SEED MIXTURES, WASHED STONE, OVERLAY PAVEMENT OR OTHER SURFICIAL MATERIALS ARE FOR SCHEMATIC PURPOSES ONLY. FINAL LOCATIONS SHALL BE STAKED IN THE FIELD BY THE CONTRACTOR FOR REVIEW AND APPROVAL BY THE ENGINEER.
11. THE EXISTING CONDITIONS SHOWN ON THIS BASEMAP ARE THE RESULT OF A GROUND SURVEY INSTRUMENT PERFORMED BY FREEMAN COMPANIES IN 2020.
12. HORIZONTAL AND VERTICAL CONTROL WAS ESTABLISHED WITH RTK IN 2020. HORIZONTAL DATUM IS BASED ON THE CONNECTICUT STATE PLANE COORDINATE SYSTEM NAD-83 - ENGLISH UNITS. VERTICAL DATUM IS CONNECTICUT STATE PLAN COORDINATE SYSTEM NAVD-88 - ENGLISH UNITS.
13. A PORTION OF THE EASTERN PROPERTY LINE ALONG THE COPPERMINE BROOK WAS TAKEN FROM THE DRAWING TITLED "CONSTRUCTION OF MALTBY STREET BRIDGE AND APPROACHES" BY THE CITY OF BRISTOL DEPARTMENT OF ENGINEERING, DATED JANUARY 1978.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: V. BITTO
SHEET CHK'D BY: K. GERLACH
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — JEFFREY S. GERSLEY — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

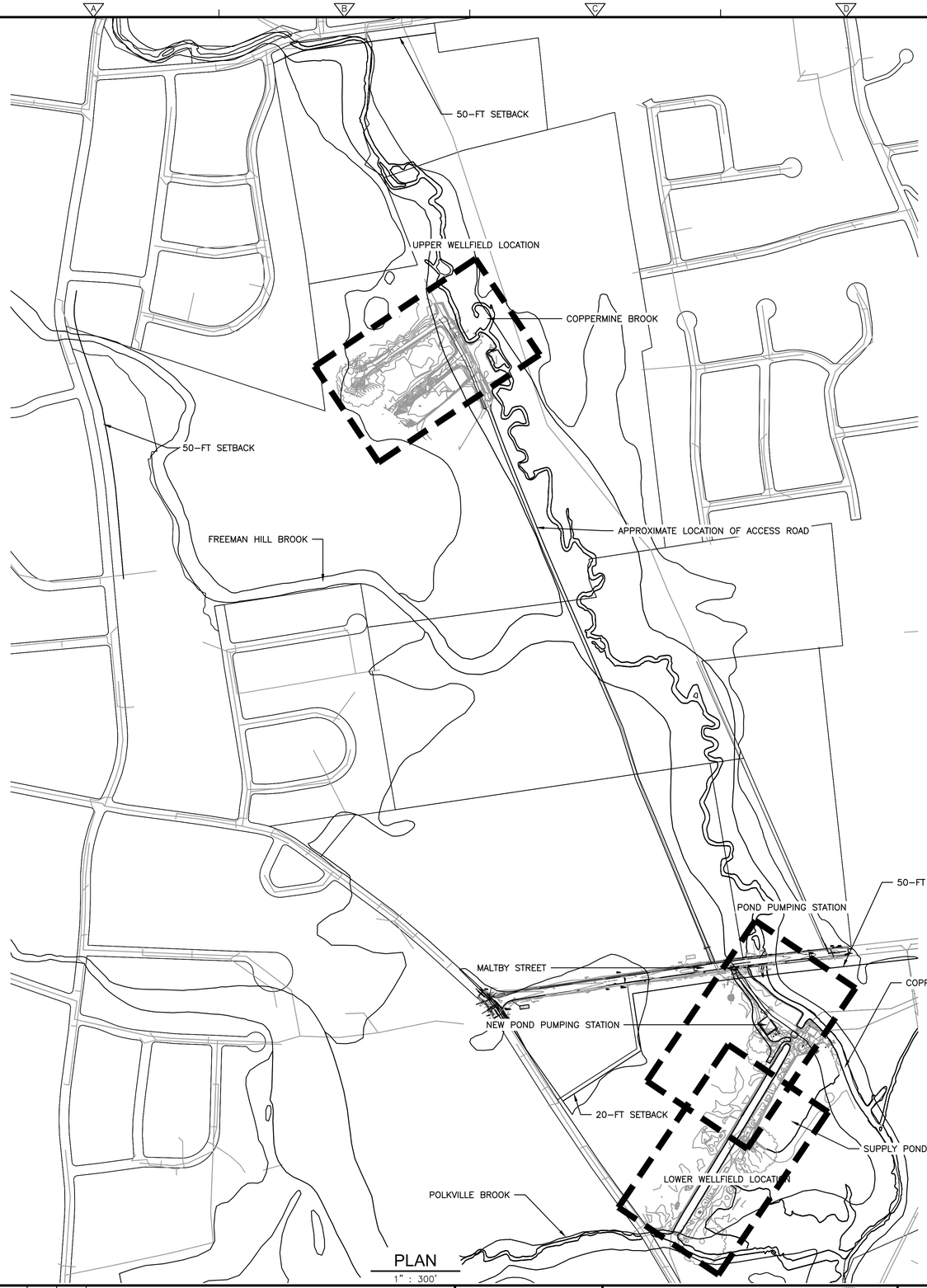
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

LEGEND, ABBREVIATIONS AND GENERAL NOTES

PROJECT NO. 10739-264571
FILE NAME P-ERM-C001GELG.DWG
SHEET NO. P-ERM

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PLAN
1" : 300'



PLAN
N.T.S.

FLOOD	LOWER WELLFIELD & POND PUMPING STATION ELEVATION (ft)	UPPER WELLFIELD ELEVATION (ft)
0.2% ANNUAL CHANCE FLOOD (500 – YR FLOOD)	256.7	259.7
1% ANNUAL CHANCE FLOOD (100 – YR FLOOD)	255.9	259.0
2% ANNUAL CHANCE FLOOD (50 – YR FLOOD)	255.6	258.6
10% ANNUAL CHANCE FLOOD (10 – YR FLOOD)	253.0	258.0

NOTE: ELEVATIONS SHOWN ARE IN FEET AND ARE REFERENCED USGS DATUM NAVD88

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
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Tel: (860) 529-7615

STATE OF CONNECTICUT · KERRI E. WAGNER · No. 24084 · LICENSED PROFESSIONAL ENGINEER
10-10-24

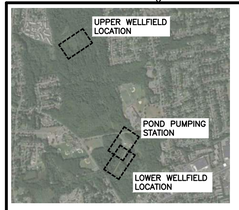
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

OVERALL SITE PLAN

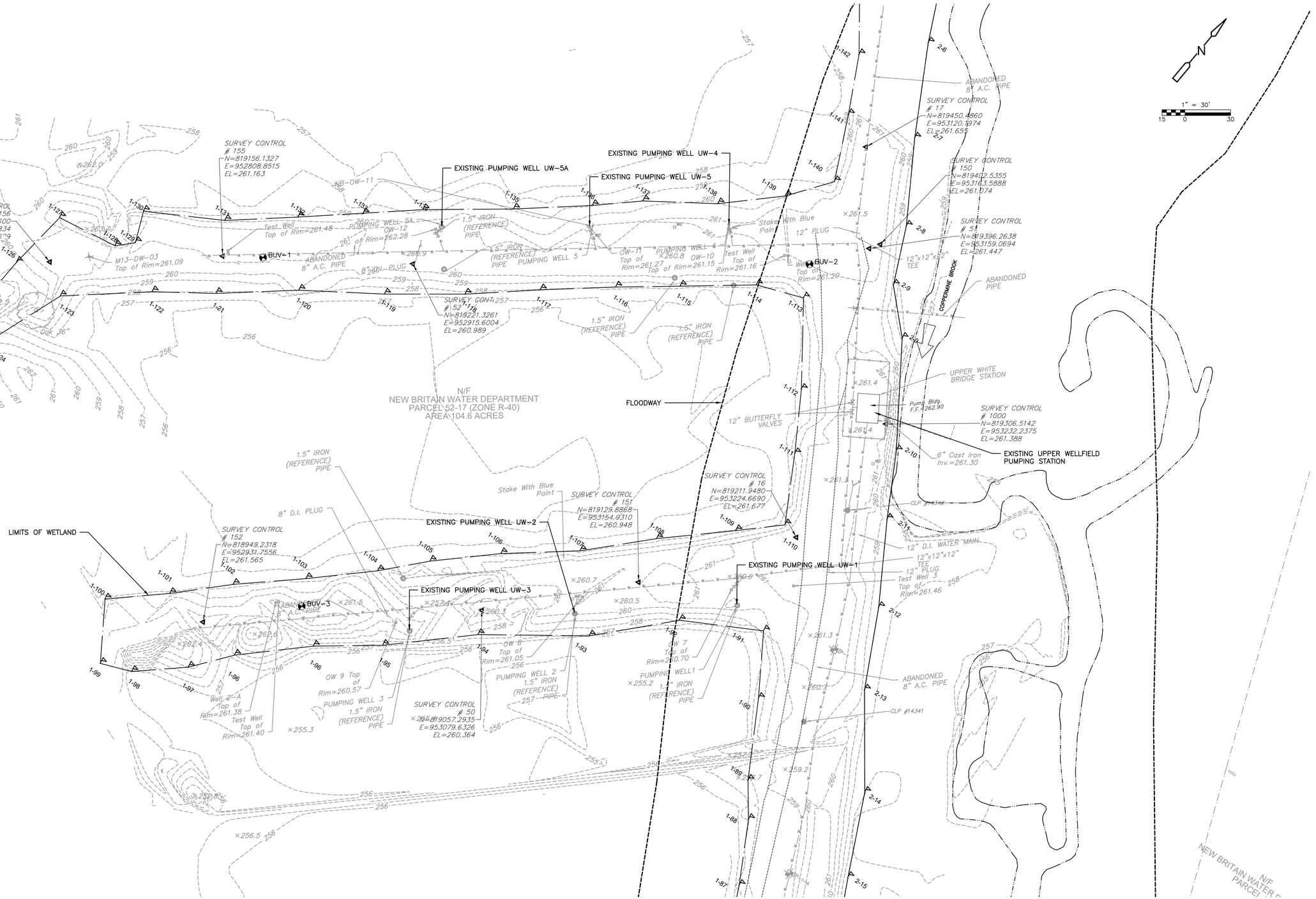
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FILE NAME: C002STPL.DWG
SHEET NO.
C-2

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PLAN
N.T.S.



NOTES:

1. AREAS OF THE UPPER WELLFIELD ARE LOCATED WITHIN HABITAT OF STATE LISTED SPECIES. REFER TO GENERAL NOTE 25 ON SHEET C-1 FOR MORE DETAILS.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

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Tel: (860) 529-7615

STATE OF CONNECTICUT — KEVIN GERALD WAGNER — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10.10.24

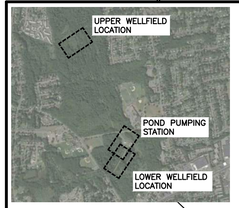
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

UPPER WELLFIELD
EXISTING CONDITIONS PLAN

PROJECT NO. 10739-264571
FILE NAME: C003STPL.DWG
SHEET NO.
C-3

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PLAN
N.T.S.

NOTES:

1. AREAS OF THE LOWER WELLFIELD AND POND PUMPING STATION ARE LOCATED WITHIN HABITAT OF STATE LISTED SPECIES. REFER TO GENERAL NOTE 25 ON SHEET C-1 FOR MORE DETAILS.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G.HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

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STATE OF CONNECTICUT · JEFFREY L. WAGNER · No. 24384 · LICENSED PROFESSIONAL ENGINEER · 10-10-24

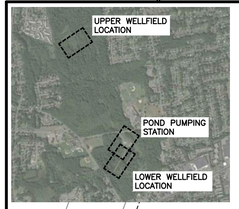
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WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

POND PUMPING STATIONS
EXISTING CONDITIONS PLAN

PROJECT NO. 10739-264571
FILE NAME: C004STPL.DWG
SHEET NO. C-4

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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PLAN
N.T.S.

APPROXIMATE LOCATION OF EXISTING GREAT BLUE HERON ROOKERY. SEE GENERAL NOTE 25 ON SHEET C–1 FOR MORE DETAILS

N/F
NEW BRITAIN WATER DEPARTMENT
PARCEL 53-145 (ZONE R-40)
AREA: 50.38 ACRES

LIMIT OF WETLAND

FLOODWAY

CANAL

SURVEY CONTROL # 2567 N=814780.4678 E=954191.2578 EL=249.809

SURVEY CONTROL # 149 N=815074.5860 E=954425.7922 EL=251.494

SURVEY CONTROL # 148 N=815197.8447 E=954516.4758 EL=253.523

SURVEY CONTROL # 147 N=815295.0131 E=954567.0095 EL=251.162

SURVEY CONTROL # 147 N=815295.0131 E=954567.0095 EL=251.292

SURVEY CONTROL # 60 N=815542.7606 E=954587.8219 EL=251.733

SURVEY CONTROL # 31 N=814722.6132 E=954351.2270 EL=251.019

SURVEY CONTROL # 32 N=814962.7770 E=954515.6314 EL=251.406

SURVEY CONTROL # 33 N=815089.6478 E=954688.8275 EL=249.693

SURVEY CONTROL # 44 N=814637.4824 E=954479.1256 EL=248.687

SURVEY CONTROL # 45 N=814631.6821 E=954563.1325 EL=248.503

WELL 9 Upper Rim 250.16
WELL 9–A Upper Rim 250.18
Well 10 Upper Rim=251.81
Well 10–A Upper Rim=251.82
Well 7–A Upper Rim=251.62
Well 7 Upper Rim=251.63
Well 11 3" Upper Rim=251.62
Well 3" 11–A Upper Rim=252.29
3" Dia. Well Top of Rim=250.88

BLWF–1
BLWF–3
BLWF–4
BLWF–6

CLP #1021
CLP #10213
CLP #10214
CLP #10216

Top of Wall At Spillway=251.4
Top of Frame=251.67
Top of Frame=251.65
3" WELL OW–5 Top of Rim=250.43
Test Well 5–A Top of Cap=250.35
Top of Frame=252.55
Top of Frame=252.41
Top of Frame=252.37
Test Well OW–16 Top of Cap=251.91
Top of Frame=252.77
Top of Frame=252.43
Top of Frame=252.15
Existing Well (Typ)
OW–15 Top of Rim=250.97
Top of Frame=251.30
Test Well 6A Top of Rim=251.56
Test Well 6A Top of Rim=251.46
Top of Frame=252.20
Top of Frame=253.65
Top of Frame=253.73
NB–OW–14 Old 3" Well Top of Rim=252.60
Top of Frame=253.20
Top of Frame=253.05
Top of Frame=252.96
Top of Frame=251.42
Existing Well (Typ)

HEADER CAP
ABANDONED PIPE AND WELLS
16" C.I. SUCTION HEADER
6" D.I. WELL CONNECTIONS
18" OAK
SUPPLY POND
POLKVILLE BROOK

MATCH LINE SEE SHEET C–4

NOTES:

1. AREAS OF THE LOWER WELLFIELD ARE LOCATED WITHIN HABITAT OF STATE LISTED SPECIES. REFER TO GENERAL NOTE 25 ON SHEET C–1 FOR MORE DETAILS.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

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East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — KATHLEEN JERSEY WAGNER — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

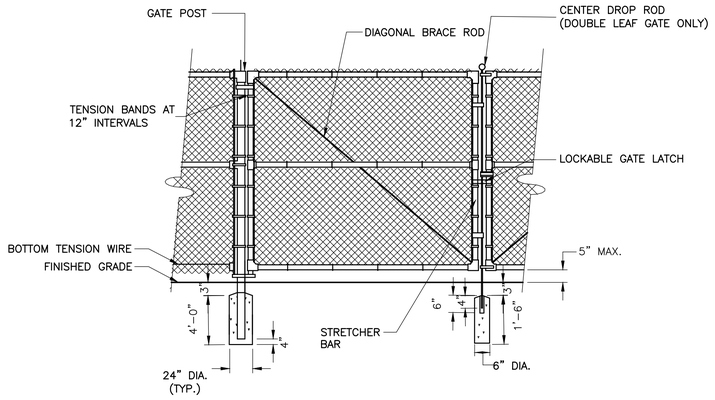
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

LOWER WELLFIELD
EXISTING CONDITIONS PLAN

PROJECT NO. 10739–264571
FILE NAME: C005GDPL.DWG
SHEET NO. C-5

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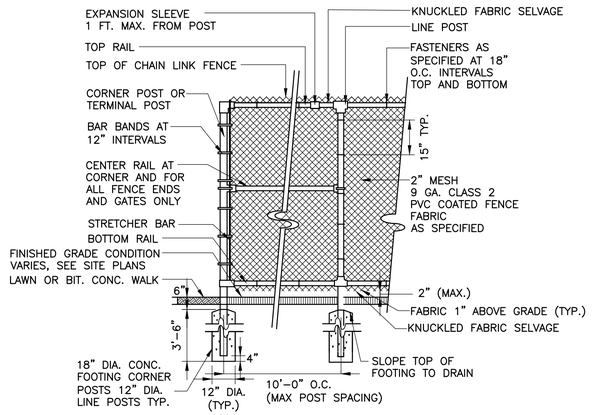
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CHAIN LINK DOUBLE LEAF SWING GATE

DETAIL A

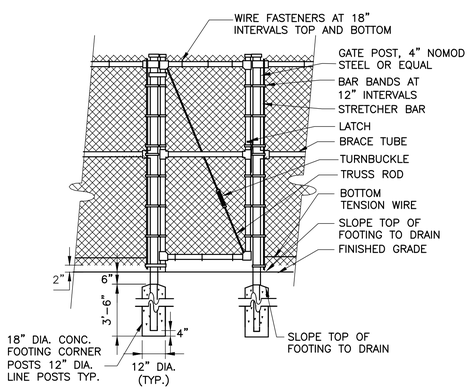
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6.5-FT HIGH CHAIN LINK FENCE

DETAIL B

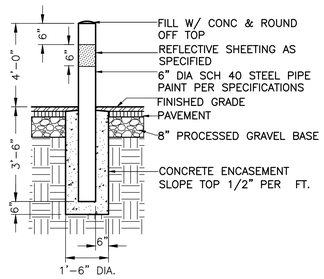
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PEDESTRIAN CHAIN LINK FENCE GATE

DETAIL C

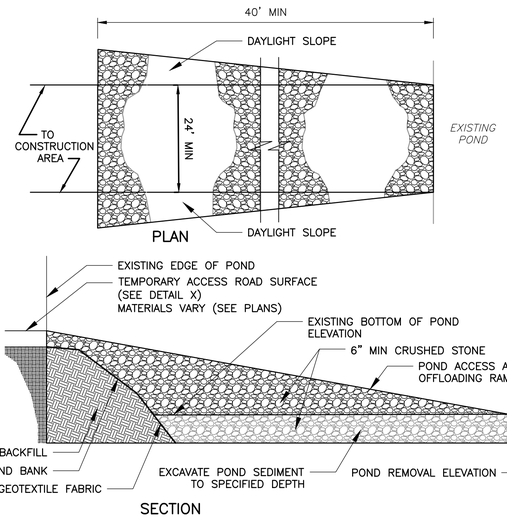
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STEEL BOLLARD

DETAIL D

NOT TO SCALE



SECTION

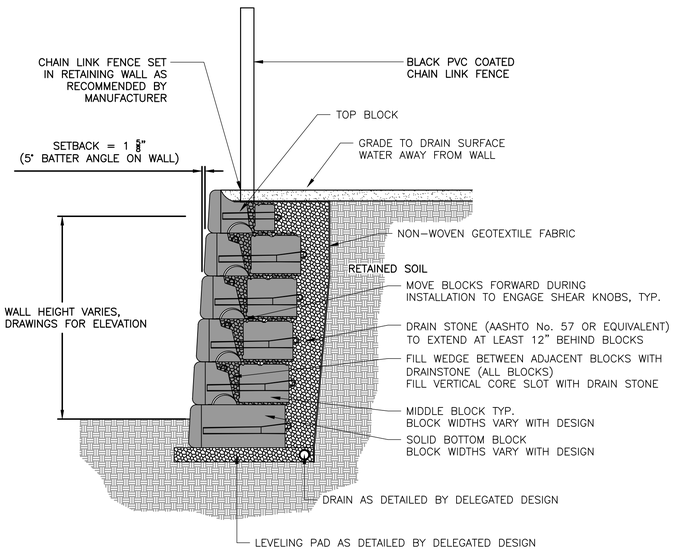
NOTES:

1. PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED POND ACCESS/TRUCK OFFLOADING RAMP AND EXISTING GROUND SURFACE
2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO GROUND SURFACE.
3. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDING STONE TO THE LENGTH OF THE ENTRANCE.
4. REPAIR AND CLEANOUT MEASURES USED TO TRAP SEDIMENT.
5. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
6. THE SLOPE OF THE POND ACCESS AND OFFLOADING RAMP TO BE DETERMINED BY CONTRACTOR BASED ON SELECTED EQUIPMENT, MEANS AND METHODS, AND APPROVED BY THE ENGINEER.
7. DAYLIGHT SLOPES OF THE RAMP WILL BE INSTALLED AS NEEDED BASED ON THE EXCAVATION DEPTH AND BANK HEIGHT TO MAINTAIN STABILITY OF THE POND ACCESS/OFFLOADING RAMP.
8. ALL MATERIAL FOR POND ACCESS/OFFLOADING RAMP IS TEMPORARY AND WILL BE REMOVED AFTER SEDIMENT REMOVAL COMPLETED. POND BANK TO BE RESTORED PER SPECIFICATIONS.

POND ACCESS AND TRUCK OFFLOADING RAMP

DETAIL F

SCALE: NTS



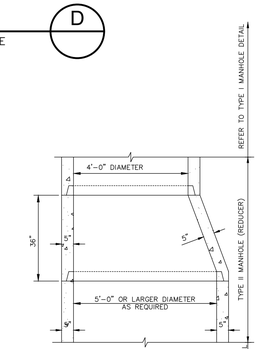
NOTES:

1. SEE SPECIFICATION SECTION 323223 FOR MORE DETAILS. CONTRACTOR TO OBTAIN BUILDING PERMIT FOR SEGMENTAL UNIT RETAINING WALLS GREATER THAN 3 FEET IN HEIGHT.

SEGMENTAL UNIT RETAINING WALL

DETAIL E

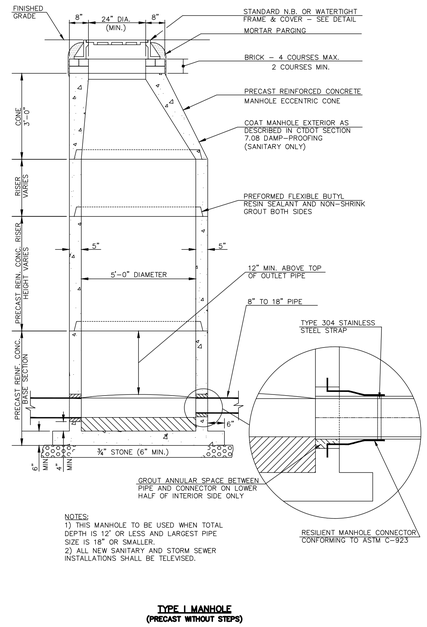
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REDUCER SECTION

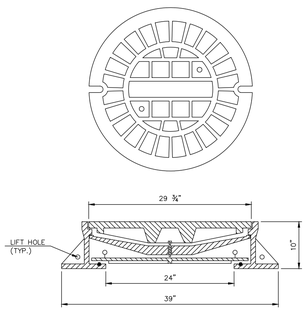
NOTES:
1) THIS MANHOLE TO BE USED WHEN TOTAL DEPTH IS GREATER THAN 12' OR ANY PIPE SIZE IS GREATER THAN 18".
2) ALL NEW SANITARY AND STORM SEWER INSTALLATIONS SHALL BE TELEVISED.

TYPE II MANHOLE
(PRECAST WITHOUT STEPS)



NOTES:
1) THIS MANHOLE TO BE USED WHEN TOTAL DEPTH IS 12' OR LESS AND LARGEST PIPE SIZE IS 18" OR SMALLER.
2) ALL NEW SANITARY AND STORM SEWER INSTALLATIONS SHALL BE TELEVISED.

TYPE I MANHOLE
(PRECAST WITHOUT STEPS)



NEW BRITAIN STANDARD
WATERTIGHT MANHOLE CASTING

MANHOLE

DETAIL G

NOT TO SCALE

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — KIMBERLEY WAGNER — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

CIVIL DETAILS IV

PROJECT NO. 10739-264571
FILE NAME: CD004CSDT.DWG
SHEET NO. C-27

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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NOTES:

1. REFER TO SPECIFICATIONS FOR MORE DETAILS AND REQUIREMENTS FOR WETLANDS REPLICATION AND COMPENSATORY FLOOD STORAGE REQUIREMENTS.
2. SILT FENCING SHALL BE INSTALLED ON THE TOE OF ALL PROPOSED NEW SLOPES. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MONITORED DURING CONSTRUCTION, AND REMOVED ONLY ONCE SLOPE HAS BEEN STABILIZED.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: K. GERLACH
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

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STATE OF CONNECTICUT — STEVE GERSLEY — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

WETLAND REPLICATION AND COMPENSATORY FLOOD STORAGE PLAN II

PROJECT NO. 10739-264571
FILE NAME: C014STPL.DWG
SHEET NO. SP-01

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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MATCHLINE SHEET C-14

N/F
NEW BRITAIN WATER DEPARTMENT
PARCEL 52-17 (ZONE R-40)
AREA: 104.6 ACRES

PROPERTY LINE

N/F
NEW BRITAIN WATER DEPARTMENT
PARCEL 52-11 (ZONE R-40)
AREA: 49.5 ACRES

FLOODWAY

25-FOOT SIDE YARD SETBACK

PROPERTY LINE

25-FT

PROPOSED LIMIT OF TREE REMOVAL

N/F
NEW BRITAIN WATER DEPARTMENT
PARCEL 53-150 (ZONE R-40)
AREA: 39.9 ACRES

COMPENSATORY FLOOD STORAGE AREA

N/F
NEW BRITAIN WATER DEPARTMENT
PARCEL 53-149 (ZONE R-40)
AREA: 6.8 ACRES

25-FOOT SIDE YARD SETBACK

PROPERTY LINE

25-FT

PROPOSED WETLAND CREATION AND
FLOOD COMPENSATORY STORAGE AREA

378-FT TO MALTBY STREET

N

1" = 100'
50 0 100

NOTES:

1. REFER TO SPECIFICATIONS FOR MORE DETAILS AND REQUIREMENTS FOR WETLANDS REPLICATION AND COMPENSATORY FLOOD STORAGE REQUIREMENTS.
2. SILT FENCING SHALL BE INSTALLED ON THE TOE OF ALL PROPOSED NEW SLOPES. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MONITORED DURING CONSTRUCTION, AND REMOVED ONLY ONCE SLOPE HAS BEEN STABILIZED.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: K. GERLACH
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

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101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT · JEFFREY GERSLEY FORD · No. 24364 · LICENSED PROFESSIONAL ENGINEER · 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

WETLAND REPLICATION AND COMPENSATORY FLOOD STORAGE PLAN III

PROJECT NO. 10739-264571
FILE NAME: C014STPL.DWG
SHEET NO.
SP-02

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PROPOSED LIMIT OF TREE REMOVAL

20-FT SIDE YARD SETBACK

NEW BRITAIN WATER DEPARTMENT
LOT 53-147 (ZONE R-40)
AREA: 25.8 ACRES

COPPER MINE BROOK

PROPOSED WETLAND CREATION AND
FLOOD COMPENSATORY STORAGE AREA

PROPOSED LIMIT OF TREE REMOVAL

PROPOSED LIMIT OF TREE REMOVAL

20-FT SIDE YARD SETBACK

PROPERTY LINE

FLOODWAY

LIMIT OF TREE REMOVAL

NEW BRITAIN WATER DEPARTMENT
LOT 53-145 (ZONE R-40)
AREA: 50.38 ACRES

PROPERTY LINE

PROPOSED LIMIT OF TREE REMOVAL

50-FT FRONT
YARD SETBACK

15-FT WIDE ACCESS FOR WETLAND
CREATION AND MAINTENANCE

PROPOSED WETLAND CREATION AND
FLOOD COMPENSATORY STORAGE AREA

PROPOSED LIMITS OF TREE REMOVAL

COVENTRY RD

TOLLAND RD

MIX STREET

COLLINS ROAD

COPPER MINE BROOK

VEGETATED BUFFER AND STREAM
BETWEEN EARTH REMOVAL AND
RESIDENTIAL BOUNDARY

10-FT VEGITATED BUFFER
BETWEEN ACCESS DRIVE
AND PROPERTY BOUNDARY

N/F
ROOKSIDE MEDICAL OFFICES LLC

N/F
LINDA A COLBURN

N/F
LUNDEN PEC

N/F
MANDY L & CAROL A
GERALD BUILDING

N/F
RONALD V + EDWANDA Q COE

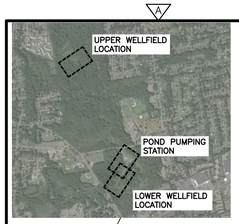
N/F
AMANDA CYR

EXISTING
BUILDING
25

EXISTING
BUILDING

EXISTING
BUILDING

EXISTING
BUILDING



PLAN
N.T.S.

LEGEND

- WETLAND FLAG
- BORING

2,056 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS

907 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS

UPPER WELLFIELD WELL NO. 1.

1,771 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS

UPPER WELLFIELD WELL NO. 2.

851 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS

FLOODWAY

3,168 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS

UPPER WELLFIELD WELL NO. 3.

1,160 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS

EROSION CONTROL BLANKETS ON ALL SLOPES 4:1 OR STEEPER

B C-27 6-FT HIGH CHAIN LINK FENCE

A' C-27 24-FT WIDE DOUBLE-LEAF SWING GATE

EXISTING UPPER WELLFIELD PUMPING STATION TO BE DEMOLISHED

TRENCH FOR PIPING, AND REPAIR TRENCH TO EXISTING CONDITIONS

922-FT TO NEAREST PROPERTY BOUNDARY

902-FT TO NEAREST PROPERTY BOUNDARY

COPPER MINE BROOK

1" = 30'

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — STEVE BERSLEY — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

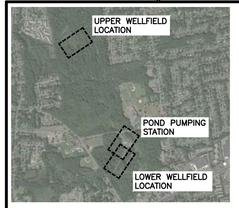
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

UPPER WELLFIELD SITE PLAN

PROJECT NO. 10739-264571
FILE NAME: C009STPL.DWG
SHEET NO. SP-04

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PLAN
N.T.S.

LEGEND

- BITUMINOUS CONCRETE
- INFILTRATION TRENCH
- CONCRETE WALKWAY
- DETENTION BASIN
- CHAIN LINK FENCE
- STEEL BEAM GUARDRAIL
- WETLAND FLAG
- BORING

Location:	**(LOT 53-145) MALTBY STREET BRISTOL, CT**
Zone:	**R-40 RESIDENTIAL ZONE**
Use:	**PUBLIC WATER UTILITY FACILITY (SPECIAL PERMIT USE)**

Item #	Item	Requirements	Proposed	Variance
1	Minimum Lot Area	40,000 S.F.	2,191,068 S.F.	No
2	Minimum Lot Frontage	150 feet	623 feet	No
3	Minimum Front Yard	50 feet	285 feet	No
4	Minimum Side Yard	20 feet	105 feet	No
5	Minimum Rear Yard	50 feet	1,180 feet	No
6	Maximum Building Height	35 feet	25.3 feet	No
7	Maximum Building Coverage	20 percent	0.18 percent	No
8	Building Size	None Required	4032 S.F. (Pump Station)	No
9	Parking Required	N/A[1]	2 spaces	No
10	Minimum Parking Dimensions	9 feet x 18 feet	10 feet x 18 feet	No
11	Minimum Aisle Width	24 feet	40 feet	No
12	Minimum Residential Setback	50 feet	193 feet	No
13	Minimum Front Lot Line	10 feet	193 feet	No
14	Minimum Side Setback	5 feet	98 feet	No
15	Minimum Rear Setback	5 feet	1,200 feet	No
16	Landscaping, Curbs, and Islands	N/A (Less than 10 parking spaces)	N/A	N/A

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

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East Hartford, CT 06108
Tel: (860) 529-7615

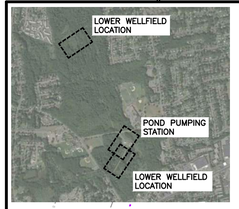
STATE OF CONNECTICUT — KEVIN WAGNER — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10.10.24

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

POND PUMPING STATION SITE PLAN

PROJECT NO. 10739-264571
FILE NAME: C010GDPL.DWG
SHEET NO. SP-05

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION



PLAN
N.T.S.

LEGEND
- WETLAND FLAG
- BORING

N/F
NEW BRITAIN WATER DEPARTMENT
PARCEL 53-145 (ZONE R-40)
AREA: 50.38 ACRES

1" = 30'
15 0 30

N

50-FT FRONT YARD SETBACK
PROPERTY LINE
LIMIT OF TREE CLEARING
LOWER WELLFIELD WELL NO. 1. TOP OF WELL CAP SET AT ELEVATION 259'. SEE SHEET C-16 FOR WELL LOCATION
LOWER WELLFIELD WELL NO. 2. TOP OF WELL CAP SET AT ELEVATION 259', SEE SHEET C-16 FOR WELL LOCATION
EROSION CONTROL BLANKETS ON ALL SLOPES 4:1 OR STEEPER
LOAM AND SEED ALL DISTURBED AREAS
B/C-27 6-FT HIGH CHAIN LINK FENCE
C/C-27 6-FT WIDE PEDESTRIAN SWING GATE
LIMIT OF TREE CLEARING
LOWER WELLFIELD WELL NO. 3. TOP OF WELL CAP SET AT ELEVATION 259'. SEE SHEET C-16 FOR WELL LOCATION
MATCH LINE SEE PUMPING STATION SHEETS
CANAL
LOWER WELLFIELD WELL NO. 4. TOP OF WELL CAP SET AT ELEVATION 259'. SEE SHEET C-16 FOR WELL LOCATION
LOWER WELLFIELD WELL NO. 5. TOP OF WELL CAP SET AT ELEVATION 259'. SEE SHEET C-16 FOR WELL LOCATION
LOWER WELLFIELD WELL NO. 6. TOP OF WELL CAP SET AT ELEVATION 259'. SEE SHEET C-16 FOR WELL LOCATION
LIMIT OF TREE CLEARING
3,003 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS
LOAM AND SEED ALL WELL BERMS, TYP.
1,320 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS
358 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS
SUPPLY POND
POLKVILLE BROOK
ABANDONED PIPE AND WELLS
HEADER CAP
16" C.I. SUCTION HEADER
6" D.I. WELL CONNECTIONS
52" ASH
48" OAK
BLWF-1
BLWF-2
BLWF-3
BLWF-4
BLWF-5
BLWF-6

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
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East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT · JERSLEY WATSON · No. 24384 · LICENSED PROFESSIONAL ENGINEER · 10-10-24

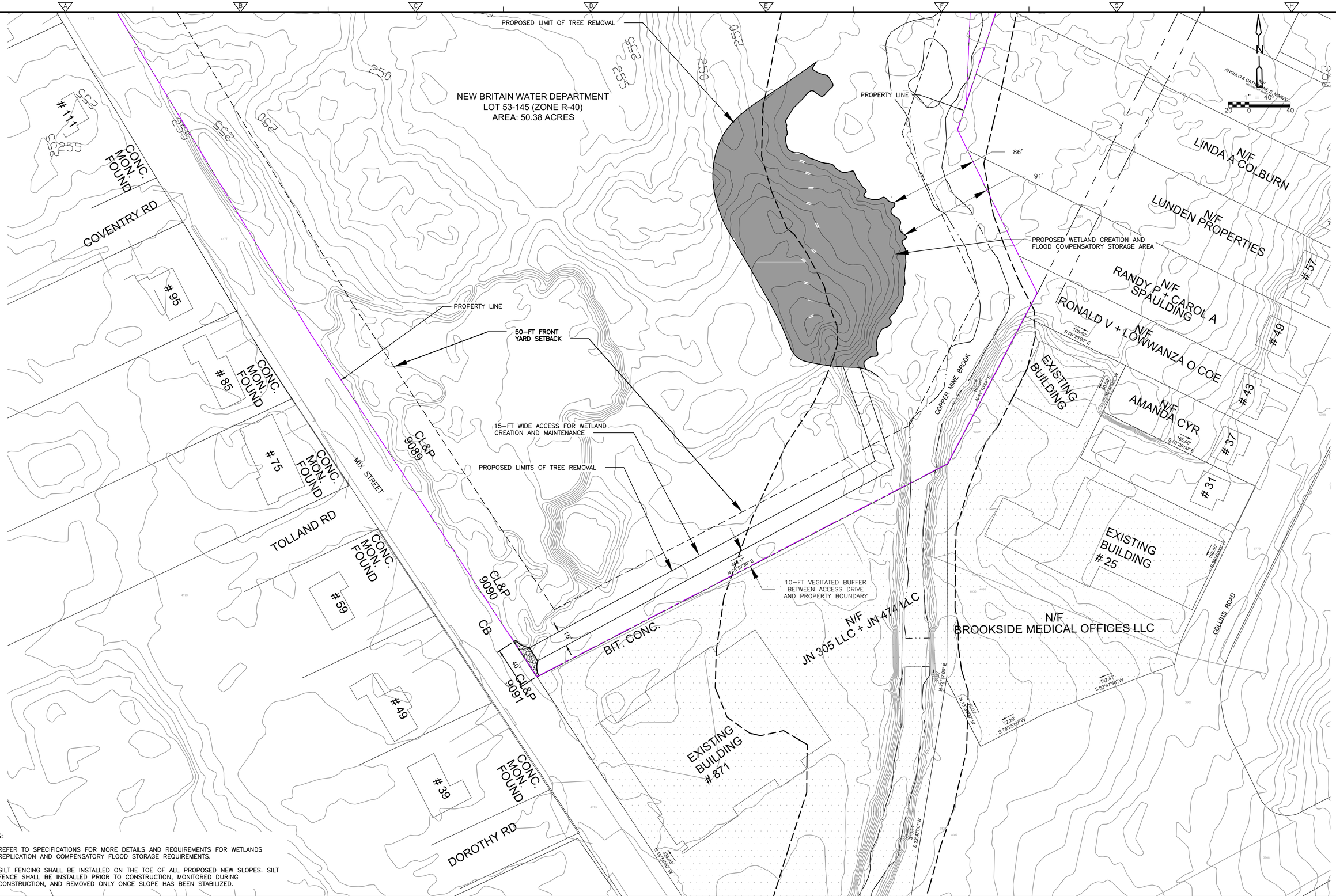
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

LOWER WELLFIELD
SITE PLAN

PROJECT NO. 10739-264571
FILE NAME: C011GDPL.DWG
SHEET NO.
SP-06

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NOTES:

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2. SILT FENCING SHALL BE INSTALLED ON THE TOE OF ALL PROPOSED NEW SLOPES. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MONITORED DURING CONSTRUCTION, AND REMOVED ONLY ONCE SLOPE HAS BEEN STABILIZED.

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DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: K. GERLACH
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

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101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — KIMBERLEY A. WAGNER — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

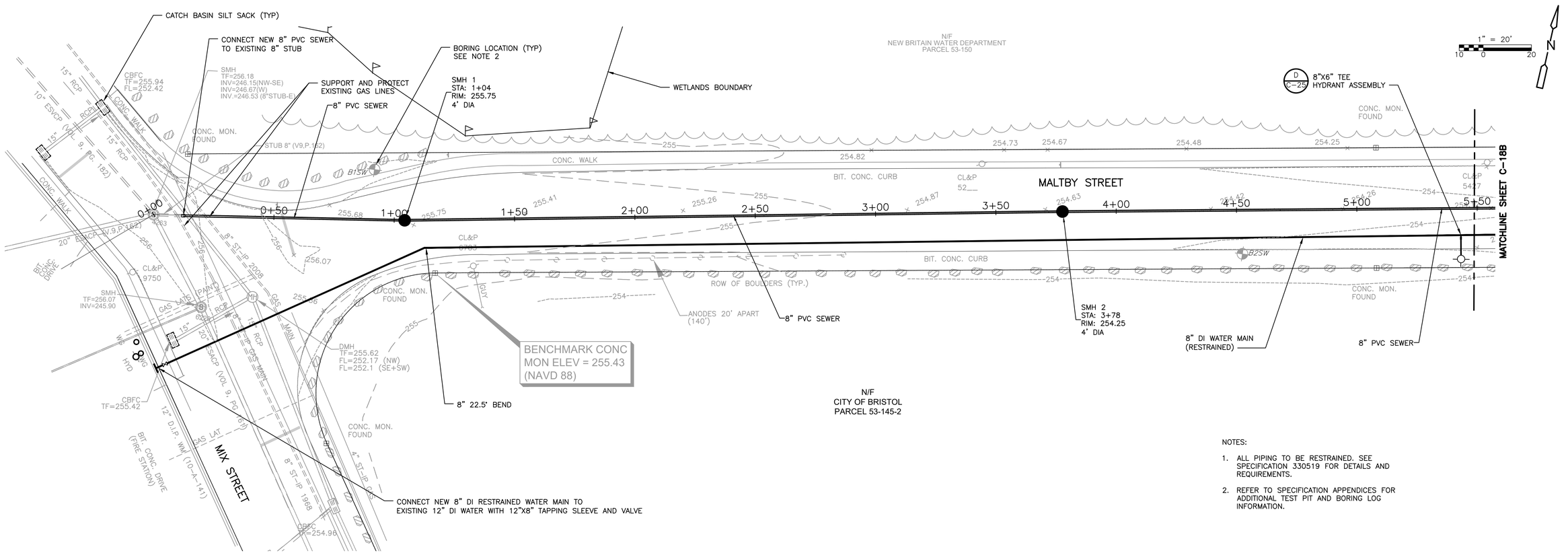
WETLAND REPLICATION AND COMPENSATORY FLOOD STORAGE ENLARGED PLAN I

PROJECT NO. 10739-264571
FILE NAME: C013STPL.DWG
SHEET NO. SP-07

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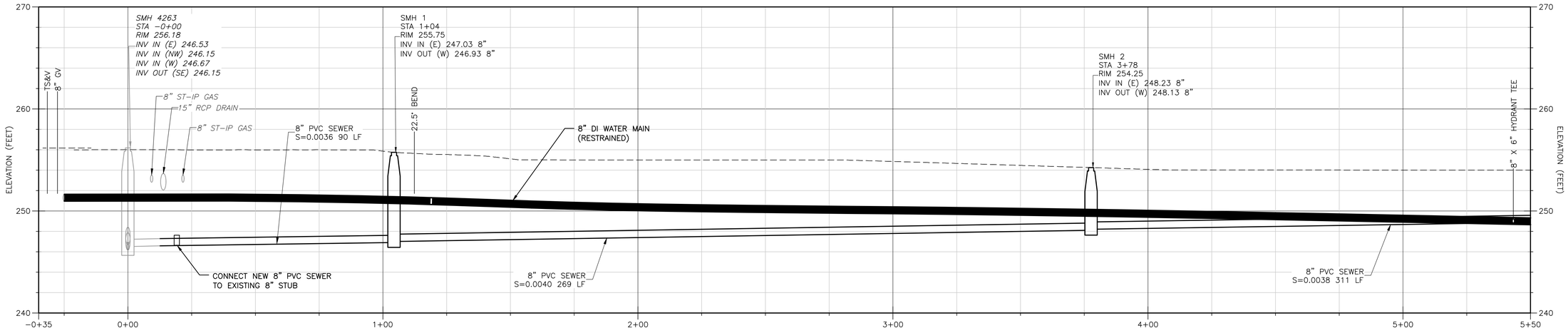
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NOTES:

1. ALL PIPING TO BE RESTRAINED. SEE SPECIFICATION 330519 FOR DETAILS AND REQUIREMENTS.
2. REFER TO SPECIFICATION APPENDICES FOR ADDITIONAL TEST PIT AND BORING LOG INFORMATION.

PLAN
1" = 20'



1" = 20' (10 0 20) PROFILE 1" = 5' (2.5 0 5)
HORZ:1"=20' VERT:1"=5'

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: S. ENGEL
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

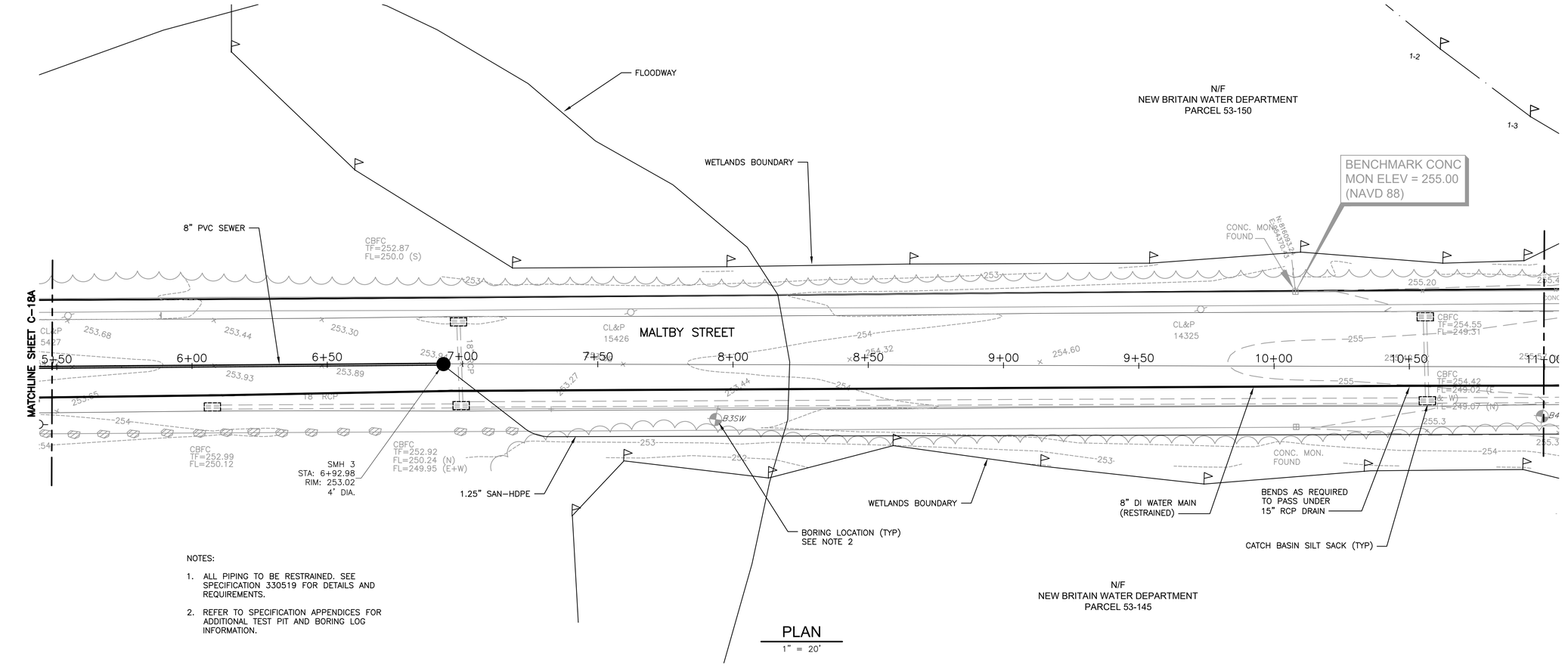
CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT · BERGELIN · No. 24384 · LICENSED PROFESSIONAL ENGINEER · 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

MALTBY STREET
PLAN AND PROFILE I

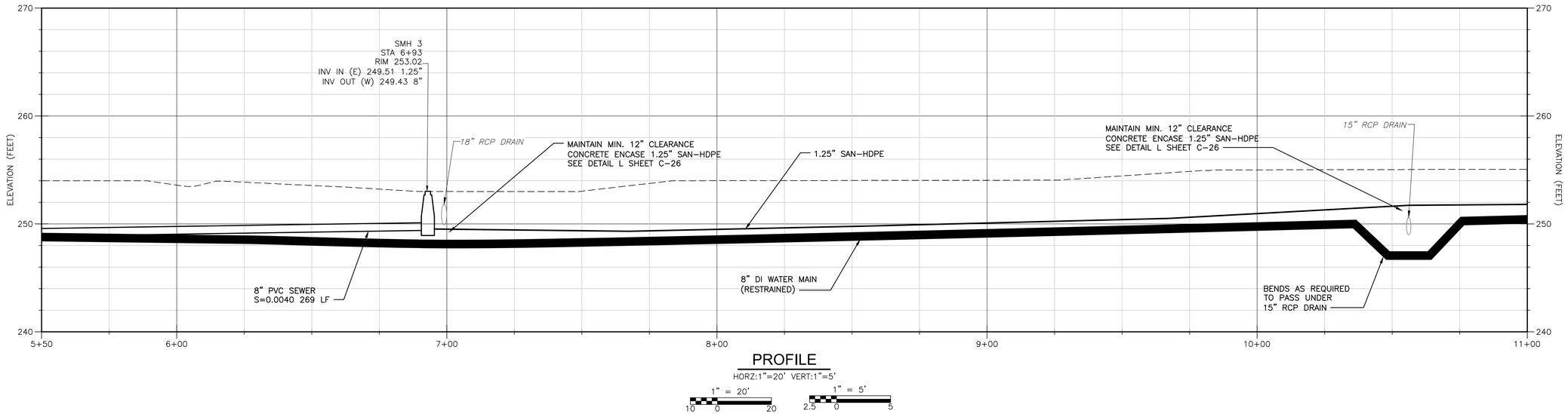
PROJECT NO. 10739-264571
FILE NAME: C018AYPPL.DWG
SHEET NO.
SP-08



PLAN
1" = 20'

NOTES:

1. ALL PIPING TO BE RESTRAINED. SEE SPECIFICATION 330519 FOR DETAILS AND REQUIREMENTS.
2. REFER TO SPECIFICATION APPENDICES FOR ADDITIONAL TEST PIT AND BORING LOG INFORMATION.



PROFILE
HORZ:1"=20' VERT:1"=5'

1" = 20'
10 0 20

1" = 5'
2.5 0 5

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: S. ENGEL
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — JEFFREY S. WAGNER — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT

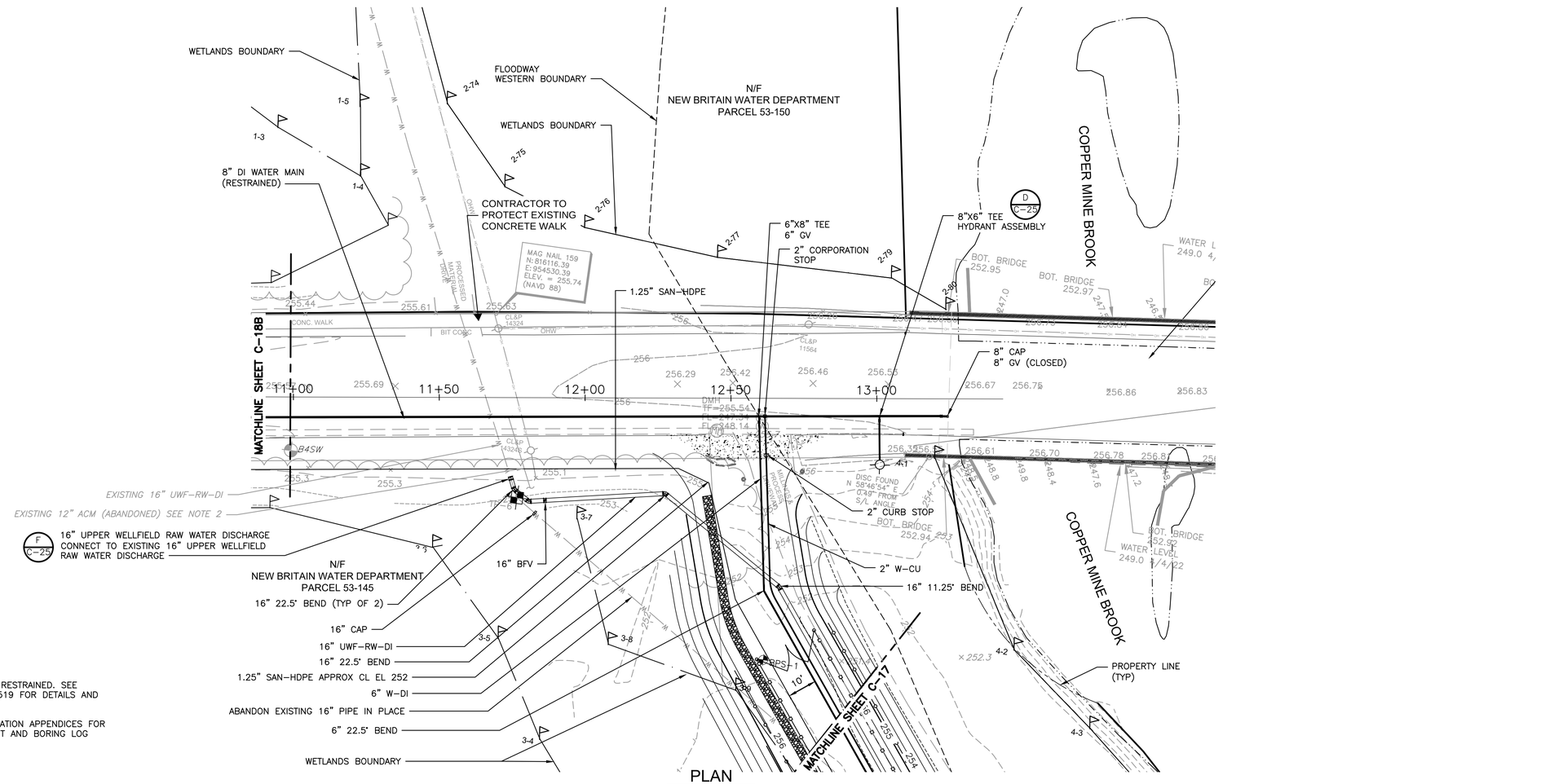
WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

MALTBY STREET PLAN AND PROFILE II

PROJECT NO. 10739-264571
FILE NAME: C018BYPPL.DWG
SHEET NO.
SP-09

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

XREFs: [CDMS_2436_XSVPL000, CWP000ST, AWZ001PS - 2D Process Export, 2022-17, BORING LOCATIONS-CEI Edits, Floodway_Floodplain, CYPWP002] Images: []
Last saved by: ENGELSB Time: 10/10/2024 9:36:26 AM
C:\Users\engelsb\DC\ACCDocs\CDM Smith Inc\10739-264571 - New Britain CT White Bridge Well Fields and PS\Project Files\02 Civil (C)\10 CADD\C018BYPPL.dwg
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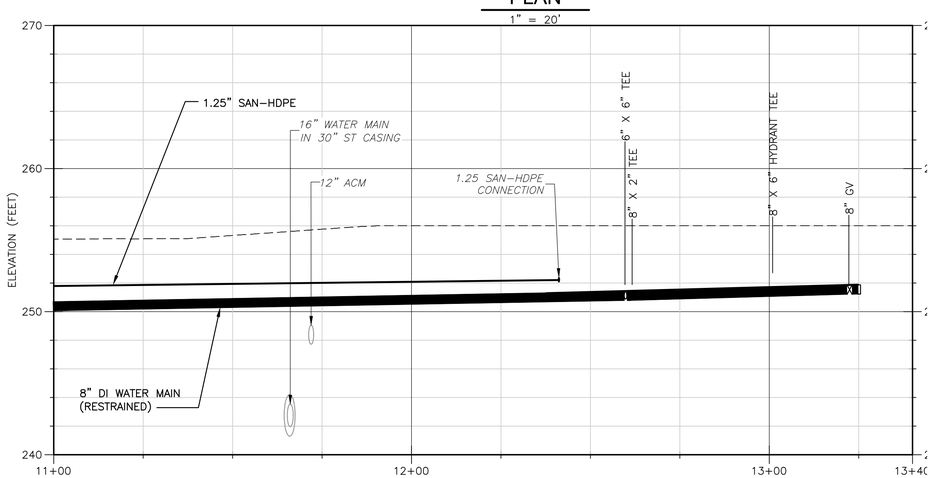


NOTES:

1. ALL PIPING TO BE RESTRAINED. SEE SPECIFICATION 330519 FOR DETAILS AND REQUIREMENTS.
2. REFER TO SPECIFICATION APPENDICES FOR ADDITIONAL TEST PIT AND BORING LOG INFORMATION.

PLAN

1" = 20'



PROFILE

1" = 20' (10 0 20) HORZ:1"=20' VERT:1"=5' 1" = 5' (2.5 0 5)

XREFs: [CDMS_2436, XSVPL000, CWP000ST, AWZ001PS - 2D Process Export, 2022-17, BORING LOCATIONS-CEI Edits, Floodway_Floodplain, CYPWP002] Images: []
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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: S. ENGEL
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — BRIAN S. GERBLE — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

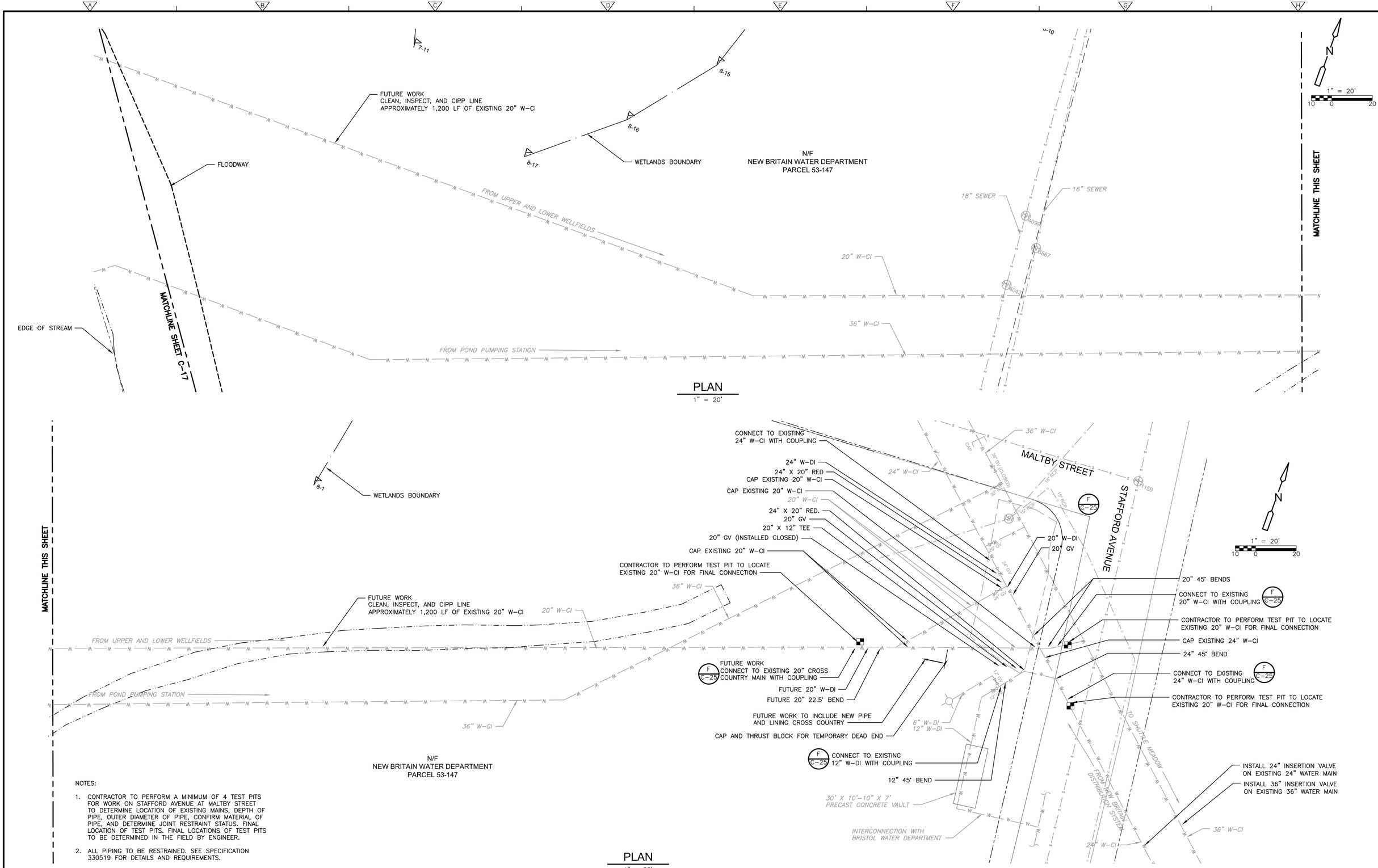
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

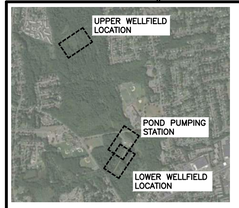
MALTBY STREET
PLAN AND PROFILE III

PROJECT NO. 10739-264571
FILE NAME: C018CYPPL.DWG
SHEET NO.
SP-10

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

XREFs: [CDMS_2436, CYPWP001, XSVPL000, CWP000ST, AW2001PS - 2D Process Export, 2022-17, BORING LOCATIONS-CEI Edits, Floodway_Floodplain] Images: []
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D
E
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N
1" = 20'
10 0 20
7-11
8-15
8-16
8-17
8-10
FUTURE WORK
CLEAN, INSPECT, AND CIPP LINE
APPROXIMATELY 1,200 LF OF EXISTING 20" W-CI
FLOODWAY
WETLANDS BOUNDARY
N/F
NEW BRITAIN WATER DEPARTMENT
PARCEL 53-147
FROM UPPER AND LOWER WELLFIELDS
FROM POND PUMPING STATION
20" W-CI
36" W-CI
18" SEWER
16" SEWER
4098
3867
4042
EDGE OF STREAM
MATCHLINE SHEET C-17
MATCHLINE THIS SHEET
PLAN
1" = 20'
CONNECT TO EXISTING
24" W-CI WITH COUPLING
24" W-DI
24" X 20" RED
CAP EXISTING 20" W-CI
CAP EXISTING 20" W-CI
20" W-CI
24" X 20" RED.
20" GV
20" X 12" TEE
20" GV (INSTALLED CLOSED)
CAP EXISTING 20" W-CI
CONTRACTOR TO PERFORM TEST PIT TO LOCATE
EXISTING 20" W-CI FOR FINAL CONNECTION
FUTURE WORK
CLEAN, INSPECT, AND CIPP LINE
APPROXIMATELY 1,200 LF OF EXISTING 20" W-CI
FROM UPPER AND LOWER WELLFIELDS
FROM POND PUMPING STATION
N/F
NEW BRITAIN WATER DEPARTMENT
PARCEL 53-147
FUTURE WORK
CONNECT TO EXISTING 20" CROSS
COUNTRY MAIN WITH COUPLING
FUTURE 20" W-DI
FUTURE 20" 22.5° BEND
FUTURE WORK TO INCLUDE NEW PIPE
AND LINING CROSS COUNTRY
CAP AND THRUST BLOCK FOR TEMPORARY DEAD END
CONNECT TO EXISTING
12" W-DI WITH COUPLING
12" 45° BEND
30' X 10'-10" X 7'
PRECAST CONCRETE VAULT
INTERCONNECTION WITH
BRISTOL WATER DEPARTMENT
6" W-DI
12" W-DI
MALTBY STREET
STAFFORD AVENUE
TO SHUTTLE MEADOW
FROM NEW BRITAIN DISTRIBUTION SYSTEM
20" W-DI
20" GV
20" 45° BENDS
CONNECT TO EXISTING
20" W-CI WITH COUPLING
CONTRACTOR TO PERFORM TEST PIT TO LOCATE
EXISTING 20" W-CI FOR FINAL CONNECTION
CAP EXISTING 24" W-CI
24" 45° BEND
CONNECT TO EXISTING
24" W-CI WITH COUPLING
CONTRACTOR TO PERFORM TEST PIT TO LOCATE
EXISTING 20" W-CI FOR FINAL CONNECTION
INSTALL 24" INSERTION VALVE
ON EXISTING 24" WATER MAIN
INSTALL 36" INSERTION VALVE
ON EXISTING 36" WATER MAIN
24" W-CI
36" W-CI
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LEGEND

- COMPOST SOCK
- BUILDING REMOVAL
- WETLAND FLAG
- BORING

NOTES:

1. EXISTING WELLS TO HAVE THE WELL HEAD REMOVED TO 5 FEET BELOW FINISHED GRADE, LATERAL DISCHARGE PIPING REMOVED TO THE HEADER PIPE AND A CAP OR CONCRETE PLUG INSTALLED ON THE ABANDONED HEADER PIPE. SEE SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF EXISTING WELLS.
2. THE EXISTING UPPER WELLFIELD PUMPING STATION BUILDING TO BE DEMOLISHED TO AT LEAST 2 FEET BELOW FINISHED GRADE. THE WESTERN WALL SHALL REMAIN TO AT LEAST 2 FEET BELOW GRADE. BUILDING FOUNDATION TO BE FILLED AND COMPACTED TO EXISTING GRADE. OWNER TO TAG ITEMS AND EQUIPMENT TO BE SAVED PRIOR TO DEMOLITION. CONTRACTOR TO REMOVE AND RETURN TO OWNER ANY TAGGED ITEM OR EQUIPMENT. SEE SPECIFICATION SECTION 024116 FOR ADDITIONAL BUILDING DEMOLITION REQUIREMENTS.
3. CONTRACTOR TO INSTALL COMPOST SOCK ON BOTH SIDES OF THE UPPER WELLFIELD ACCESS DRIVEWAY (APPROX. 3,200 LF EACH, NOT SHOWN) TO MALTBY STREET. THE EXISTING ACCESS DRIVEWAY BRIDGE CROSSING OF THE FREEMAN HILL BROOK TO BE PROTECTED DURING CONSTRUCTION.
4. HAZARDOUS BUILDING MATERIALS WERE FOUND IN SAMPLES TAKEN FROM SELECT LOCATIONS IN EXISTING BUILDINGS. PRIOR TO COMMENCING WITH ANY MODIFICATIONS OR DEMOLITION WORK, REFER TO SPECIFICATIONS FOR KNOW LOCATIONS OF HAZARDOUS BUILDING MATERIALS AND EQUIPMENT, PROPOSED ABATEMENT AND DISTURBANCE WORK, REQUIREMENTS FOR ADDITIONAL SAMPLING AND TESTING TO BE PERFORMED AS PART OF THE WORK, MONITORING REQUIREMENTS, AND WASTE HANDLING AND DISPOSAL REQUIREMENTS.
5. SILT FENCING SHALL BE INSTALLED ON THE TOE OF ALL PROPOSED NEW SLOPES. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MONITORED DURING CONSTRUCTION, AND REMOVED ONLY ONCE SLOPE HAS BEEN STABILIZED.

XREFs: [CDMS_2436_XSVP1000_Floodway_Floodplain_2022-17_BORING LOCATIONS] Images: [Base image]
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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

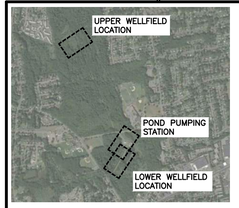
STATE OF CONNECTICUT — KIMBERLEY A. WAGNER — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

UPPER WELLFIELD
DEMOLITION AND E&S CONTROLS

PROJECT NO. 10739-264571
FILE NAME: C006STPL.DWG
SHEET NO.
SP-12

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION



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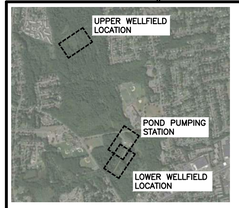
LEGEND

- COMPOST SOCK
- BUILDING REMOVAL
- WETLAND FLAG
- BORING

NOTES:

1. EXISTING WELLS TO HAVE THE WELL HEAD REMOVED TO 5 FEET BELOW FINISHED GRADE, LATERAL DISCHARGE PIPING REMOVED TO THE EXISTING 16" CI SUCTION HEADER PIPE, AND A CAP OR CONCRETE PLUG INSTALLED ON THE ABANDONED HEADER PIPE. SEE SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF EXISTING WELLS.
2. EXISTING WELLS WITH WELL HEAD LOCATED IN A VAULT TO HAVE VAULT DEMOLISHED AND REMOVED, WELL HEAD REMOVED TO 5 FEET BELOW BOTTOM OF VAULT, LATERAL DISCHARGE PIPING REMOVED TO THE EXISTING 16" CI SUCTION HEADER PIPE, AND A CAP OR CONCRETE PLUG INSTALLED ON THE ABANDONED HEADER PIPE. SEE SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF EXISTING WELLS.
3. THE EXISTING POND PUMPING STATION BUILDING TO BE DEMOLISHED AT COMPLETION OF NEW POND PUMPING STATION TO AT LEAST 2 FEET BELOW FINISHED GRADE. THE WESTERN WALL SHALL REMAIN TO AT LEAST 2 FEET BELOW GRADE. BUILDING FOUNDATION TO BE FILLED AND COMPACTED TO EXISTING GRADE. OWNER TO TAG ITEMS AND EQUIPMENT TO BE SAVED PRIOR TO DEMOLITION. CONTRACTOR TO REMOVE AND RETURN TO OWNER ANY TAGGED ITEM OR EQUIPMENT. SEE SPECIFICATION SECTION 024116 FOR ADDITIONAL BUILDING DEMOLITION REQUIREMENTS.
4. THE EXISTING LOWER WELLFIELD PUMPING STATION BUILDING AND FOUNDATION TO BE DEMOLISHED TO ELEVATION 241.2 FT. EXCAVATION LIMITS FOR THE NEW POND PUMPING STATION BUILDING TO APPROXIMATE MIN ELEVATION 241.2 FT. OWNER TO TAG ITEMS AND EQUIPMENT TO BE SAVED PRIOR TO DEMOLITION. CONTRACTOR TO REMOVE AND RETURN TO OWNER ANY TAGGED ITEM OR EQUIPMENT. SEE DETAIL B ON SHEET C-26 AND SPECIFICATIONS SECTION 024116 FOR ADDITIONAL BUILDING DEMOLITION REQUIREMENTS.
5. THE EXISTING CAISSON WELL TO BE DECOMMISSIONED AND ABANDONED IN PLACE. THE CONE OF THE EXISTING CAISSON WELL TO BE DEMOLISHED TO AT LEAST 2 FEET BELOW FINISH GRADE. SEE DETAIL B ON SHEET C-28 AND SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF THE EXISTING CAISSON WELL.
6. HAZARDOUS BUILDING MATERIALS WERE FOUND IN SAMPLES TAKEN FROM SELECT LOCATIONS IN EXISTING BUILDINGS. PRIOR TO COMMENCING WITH ANY MODIFICATIONS OR DEMOLITION WORK, REFER TO SPECIFICATIONS FOR KNOW LOCATIONS OF HAZARDOUS BUILDING MATERIALS AND EQUIPMENT, PROPOSED ABATEMENT AND DISTURBANCE WORK, REQUIREMENTS FOR ADDITIONAL SAMPLING AND TESTING TO BE PERFORMED AS PART OF THE WORK, MONITORING REQUIREMENTS, AND WASTE HANDLING AND DISPOSAL REQUIREMENTS.
7. SILT FENCING SHALL BE INSTALLED ON THE TOE OF ALL PROPOSED NEW SLOPES. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MONITORED DURING CONSTRUCTION, AND REMOVED ONLY ONCE SLOPE HAS BEEN STABILIZED.
8. CONTRACTOR TO REMOVE TREES TO WIDEN ACCESS DRIVE AND PROVIDE ADEQUATE SITE LINES FROM DRIVEWAY ONTO MALTBY STREET.

REMOVE AND DISPOSE OF EXISTING GATE
REMOVE AND DISPOSE OF EXISTING BIT. CONC. DRIVE
LIMIT OF TREE REMOVAL, SEE NOTE 8
APPROXIMATE AREA FOR DEWATERING SEDIMENTATION BASIN. SEE DETAIL J ON SHEET C-24
REMOVE AND DISPOSE OF OR STOCKPILE FOR REUSE OF TOPSOIL WITHIN LIMITS OF WORK. STOCKPILED TOPSOIL MAY BE AMENDED AND UTILIZED IN AREAS TO BE LOAMED AND SEEDED IN ACCORDANCE WITH SPECIFICATION SECTION 329113 SOIL PREPARATION AS APPROVED BY ENGINEER
REMOVE AND DISPOSE OF EXISTING GRAVEL DRIVE TO A MINIMUM DEPTH OF 12-INCHES
COMPOST SOCK
16" WATER MAIN TO BE ABANDONED
LIMIT OF TREE REMOVAL
LIMIT OF AREA OF EXCAVATION FOR NEW PUMPING STATION BUILDING
REMOVE AND DISPOSE OF EXISTING CHAIN LINK FENCE AND GATES
EXISTING WATER LINES TO BE ABANDONED IN PLACE. ANY CONFLICTS WITH PROPOSED WORK SHALL BE REMOVED AND DISPOSED OF
EXISTING WELL 8 TO BE ABANDONED. SEE NOTE 1
EXISTING WELL 8-A TO BE ABANDONED. SEE NOTE 1
APPROXIMATE AREA FOR DEWATERING SEDIMENTATION BASIN
EXISTING ELECTRICAL SHED AND CLP #10218 TO BE DEMOLISHED AT COMPLETION OF CONSTRUCTION
REMOVE AND REPLACE TWO CULVERTS
EXISTING PIPE TO BE ABANDONED IN PLACE
ABANDON EXISTING WELL (TYP). SEE NOTES 1 & 2
DECOMMISSION AND ABANDON EXISTING CAISSON WELL. SEE NOTE 5 THIS SHEET AND DETAIL B ON SHEET C-28
REMOVE AND DISPOSE EXISTING MANHOLE (TYP 2).
COMPOST SOCK TO BE INSTALLED WEST DOWN MALTBY STREET ON BOTH SIDES TO MIX STREET (APPROXIMATELY 1,200 LF EACH SIDE)
STABILIZED CONSTRUCTION ENTRANCE
1" = 30'
MALTBY STREET
MALTBY STREET BRIDGE
COPPER MINE BROOK
AREA FOR TEMPORARY CONTRACTOR AND OWNER CONSTRUCTION TRAILERS
FLOODWAY WESTERN BOUNDARY
AREA FOR TEMPORARY CONTRACTOR STORING AND STAGING
DEMOLISH EXISTING LOWER WELLFIELD PUMPING STATION. SEE NOTE 4
REFUELING AREA WITH CONTAINMENT SYSTEM
APPROXIMATE AREA FOR DEWATERING SEDIMENTATION BASIN
FLOODWAY EASTERN BOUNDARY
LIMIT OF REMOVE AND DISPOSE OF EXISTING GRAVEL DRIVE TO A MINIMUM DEPTH OF 12-INCHES
DEMOLISH EXISTING GENERATOR AT COMPLETION OF CONSTRUCTION
DEMOLISH EXISTING POND PUMPING STATION AT COMPLETION OF CONSTRUCTION. SEE NOTE 3
APPROXIMATE AREA FOR DEWATERING SEDIMENTATION BASIN
EXISTING LOWER WELLFIELD PUMPING STATION FFE = 253.00
EXISTING POND PUMPING STATION F.F.= 253.15 (TO BE DEMOLISHED AT COMPLETION OF CONSTRUCTION)
CANAL
MATCH LINE SEE SHEET C-8
CLASS-TLY LIMIT OF A-2 SURVEY
BPS-1
BPS-2
BPS-3
BPS-4
BPS-5
BLWF-3
HBLW
3" Dia. Well Top of Rim=250.88
Well 11 3" Upper Rim=251.62
Well 3" 11-A Upper Rim=252.29
NB-OW-14
Old 3" Well Top of Rim=252.60
Existing Well (Typ.)
16" C.I. SUCTION HEADER
6" D.I. WELL CONNECTIONS
20" D.I. WATER MAIN
16" D.I. SUCTION HEADER
GATE VALVE AND VALVE BOX
INLET SCREEN
"SISTER" MAPLE DBH 10"
300 Gallon Propane Tank with Double Wall Containment
Gate
Pump
Motor
Control Panel
Generator
Fuel Tank
Top of Frame=253.73
Top of Frame=252.20
Top of Frame=253.05
Top of Frame=252.96
Top of Frame=251.44
Top of Frame=253.20
Top of Frame=251.56
Top of Rim=251.63
Top of Frame=252.60
Top of Frame=253.58
Top of Frame=252.96
Top of Frame=252.52
Top of Frame=252.52
Top of Frame=252.52



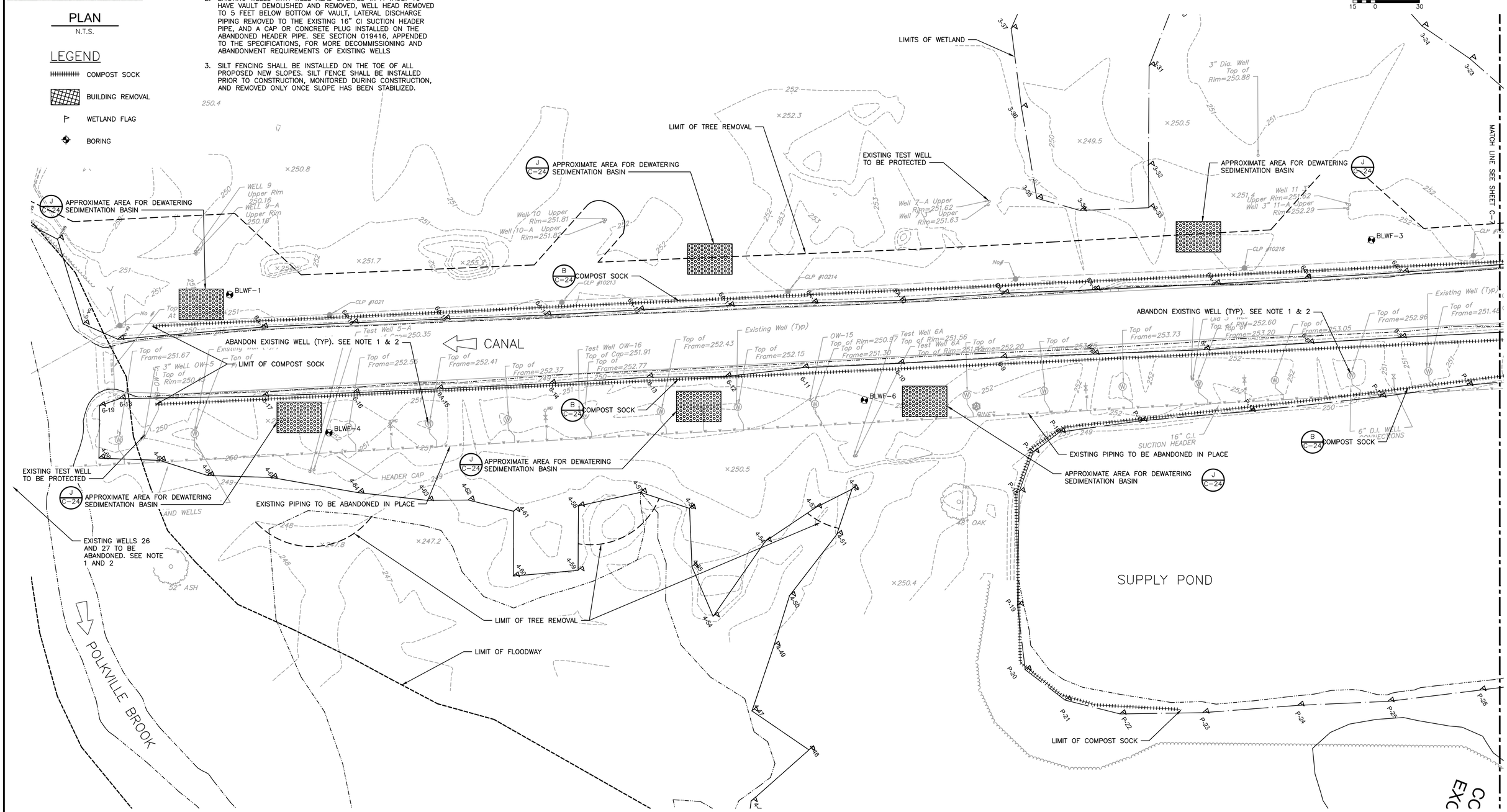
PLAN
N.T.S.

NOTES:

1. EXISTING WELLS TO HAVE THE WELL HEAD REMOVED TO 5 FEET BELOW FINISHED GRADE, LATERAL DISCHARGE PIPING REMOVED TO THE EXISTING 16" CI SUCTION HEADER PIPE, AND A CAP OR CONCRETE PLUG INSTALLED ON THE ABANDONED HEADER PIPE. SEE SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF EXISTING WELLS.
2. EXISTING WELLS WITH WELL HEAD LOCATED IN A VAULT TO HAVE VAULT DEMOLISHED AND REMOVED, WELL HEAD REMOVED TO 5 FEET BELOW BOTTOM OF VAULT, LATERAL DISCHARGE PIPING REMOVED TO THE EXISTING 16" CI SUCTION HEADER PIPE, AND A CAP OR CONCRETE PLUG INSTALLED ON THE ABANDONED HEADER PIPE. SEE SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF EXISTING WELLS
3. SILT FENCING SHALL BE INSTALLED ON THE TOE OF ALL PROPOSED NEW SLOPES. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MONITORED DURING CONSTRUCTION, AND REMOVED ONLY ONCE SLOPE HAS BEEN STABILIZED.

LEGEND

- COMPOST SOCK
- BUILDING REMOVAL
- WETLAND FLAG
- BORING



XREFs: [CDMS_2436, CWP000ST, Floodway_Floodplain, AWZ001PS – 2D Process Export, CEP000ST, XSVPL000, BORING LOCATIONS, 2022-17] Images: [Base Image]
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REV. NO.	DATE	DRWN	CHK'D	REMARKS

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DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

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STATE OF CONNECTICUT — KIMBERLEY A. WAGNER — No. 24084 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

LOWER WELLFIELD
DEMOLITION AND E&S CONTROLS

PROJECT NO. 10739-264571
FILE NAME: C008GDPL.DWG
SHEET NO.
SP-14

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

NOTES FOR TRAFFIC CONTROL PLANS

1. IF A TRAFFIC STOPPAGE OCCURS IN ADVANCE OF SIGN (A), THEN AN ADDITIONAL SIGN (A) SHALL BE INSTALLED IN ADVANCE OF THE STOPPAGE.
2. SIGNS (AA), (A), AND (D) SHOULD BE OMITTED WHEN THESE SIGNS HAVE ALREADY BEEN INSTALLED TO DESIGNATE A LARGER WORK ZONE THAN THE WORK ZONE THAT IS ENCOMPASSED ON THIS PLAN.
3. SEE TABLE 1 FOR ADJUSTMENT OF TAPERS IF NECESSARY.
4. IF THIS PLAN REMAINS IN CONTINUOUS OPERATION FOR MORE THAN 36 HOURS, THEN TRAFFIC DRUMS SHALL BE USED IN PLACE OF TRAFFIC CONES.
5. ANY LEGAL SPEED LIMIT SIGNS WITHIN THE LIMITS OF A ROADWAY / LANE CLOSURE AREA SHALL BE COVERED WITH AN OPAQUE MATERIAL WHILE THE CLOSURE IS IN EFFECT, AND UNCOVERED WHEN THE ROADWAY / LANE CLOSURE IS RE-OPENED TO ALL LANES OF TRAFFIC.
6. IF THIS PLAN REMAINS IN CONTINUOUS OPERATION FOR MORE THAN 36 HOURS, THEN ANY EXISTING CONFLICTING PAVEMENT MARKINGS SHALL BE ERADICATED OR COVERED, AND TEMPORARY PAVEMENT MARKINGS THAT DELINEATE THE PROPER TRAVELPATHS SHALL BE INSTALLED.
7. DISTANCES BETWEEN SIGNS IN THE ADVANCE WARNING AREA MAY BE REDUCED TO 100' ON LOW-SPEED URBAN ROADS (SPEED LIMIT < 40 MPH).
8. IF THIS PLAN IS TO REMAIN IN OPERATION DURING THE HOURS OF DARKNESS, INSTALL BARRICADE WARNING LIGHTS - HIGH INTENSITY ON ALL POST-MOUNTED DIAMOND SIGNS IN THE ADVANCE WARNING AREA.
9. A CHANGEABLE MESSAGE SIGN SHALL BE INSTALLED ONE HALF TO ONE MILE IN ADVANCE OF THE LANE CLOSURE TAPER.
10. SIGN (P) SHALL BE MOUNTED A MINIMUM OF 7 FEET FROM THE PAVEMENT SURFACE TO THE BOTTOM OF THE SIGN.

TABLE 1 - MINIMUM TAPER LENGTHS

POSTED SPEED LIMIT (MILES PER HOUR)	MINIMUM TAPER LENGTH FOR A SINGLE LANE CLOSURE
30 OR LESS	180' (55m)
35	250' (75m)
40	320' (100m)
45	540' (165m)
50	600' (180m)
55	660' (200m)
65	780' (240m)

METRIC CONVERSION CHART (1" = 25mm)

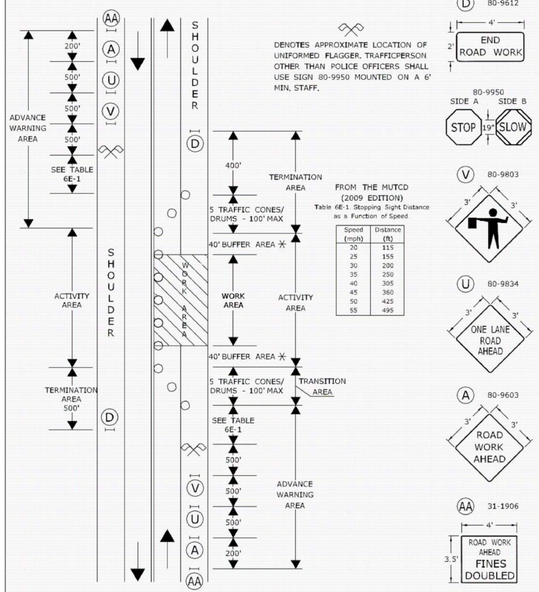
ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC
12"	300mm	42"	1050mm	72"	1800mm
18"	450mm	48"	1200mm	78"	1950mm
24"	600mm	54"	1350mm	84"	2100mm
30"	750mm	60"	1500mm	90"	2250mm
36"	900mm	66"	1650mm	96"	2400mm

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
NOTES

WORK IN TRAVEL LANE AND SHOULDER
TWO LANE HIGHWAY
ALTERNATING ONE-WAY TRAFFIC OPERATIONS

SIGN FACE 108 SQ. FT (MIN.)



○ TRAFFIC CONE **OR** TRAFFIC DRUM
✳ OPTIONAL ⊗ TRAFFIC DRUM ⟼ PORTABLE SIGN SUPPORT
⟵ HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 13 - SHEET 1 OF 2
SEE NOTES 1, 2, 4, 6, 7, 8

WORK IN TRAVEL LANE AND SHOULDER
TWO LANE HIGHWAY
ALTERNATING ONE-WAY TRAFFIC OPERATIONS

SIGN FACE 108 SQ. FT (MIN.)

HAND SIGNAL METHODS TO BE USED BY UNIFORMED FLAGGERS

THE FOLLOWING METHODS FROM SECTION 6E.07, FLAGGER PROCEDURES, IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," SHALL BE USED BY UNIFORMED FLAGGERS WHEN DIRECTING TRAFFIC THROUGH A WORK AREA. THE STOP/SLOW SIGN PADDLE (SIGN NO. 80-9950) SHOWN ON THE TRAFFIC STANDARD SHEET TR-1220 01 ENTITLED, "SIGNS FOR CONSTRUCTION AND PERMIT OPERATIONS" SHALL BE USED.

A. TO STOP TRAFFIC

TO STOP ROAD USERS, THE FLAGGER SHALL FACE ROAD USERS AND AIM THE STOP PADDLE FACE TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE FREE ARM SHALL BE HELD WITH THE PALM OF THE HAND ABOVE SHOULDER LEVEL TOWARD APPROACHING TRAFFIC.



B. TO DIRECT TRAFFIC TO PROCEED

TO DIRECT STOPPED ROAD USERS TO PROCEED, THE FLAGGER SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE FLAGGER SHALL MOTION WITH THE FREE HAND FOR ROAD USERS TO PROCEED.



C. TO ALERT OR SLOW TRAFFIC

TO ALERT OR SLOW TRAFFIC, THE FLAGGER SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. TO FURTHER ALERT OR SLOW TRAFFIC, THE FLAGGER HOLDING THE SLOW PADDLE FACE TOWARD ROAD USERS MAY MOTION UP AND DOWN WITH THE FREE HAND, PALM DOWN.



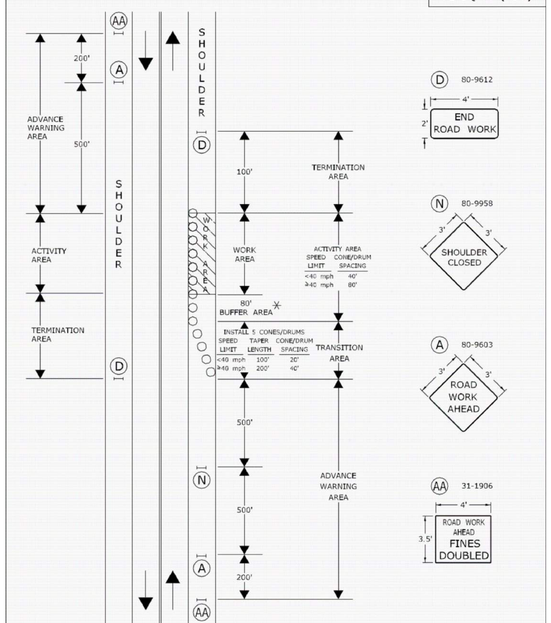
○ TRAFFIC CONE **OR** TRAFFIC DRUM
✳ OPTIONAL ⊗ TRAFFIC DRUM ⟼ PORTABLE SIGN SUPPORT
⟵ HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 13 - SHEET 2 OF 2
SEE NOTES 1, 2, 4, 6, 7, 8

WORK IN SHOULDER - TWO LANE HIGHWAY

SIGN FACE 71 SQ. FT (MIN.)



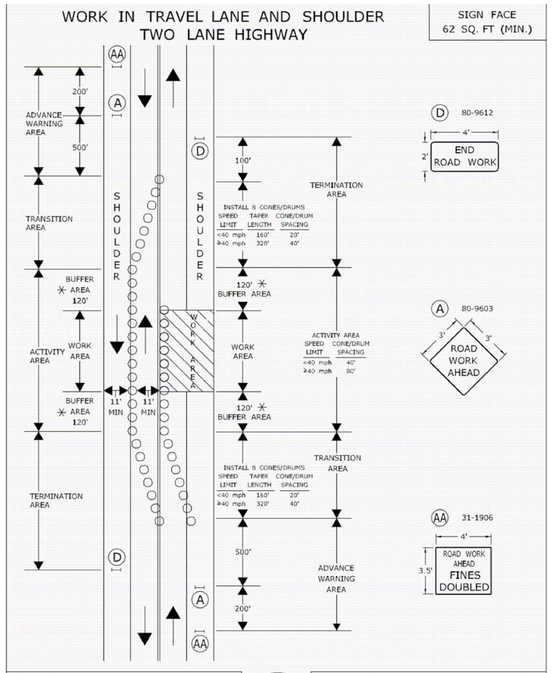
○ TRAFFIC CONE **OR** TRAFFIC DRUM
✳ OPTIONAL ⊗ TRAFFIC DRUM ⟼ PORTABLE SIGN SUPPORT
⟵ HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 14
SEE NOTES 1, 2, 4, 7, 8

WORK IN TRAVEL LANE AND SHOULDER
TWO LANE HIGHWAY

SIGN FACE 62 SQ. FT (MIN.)



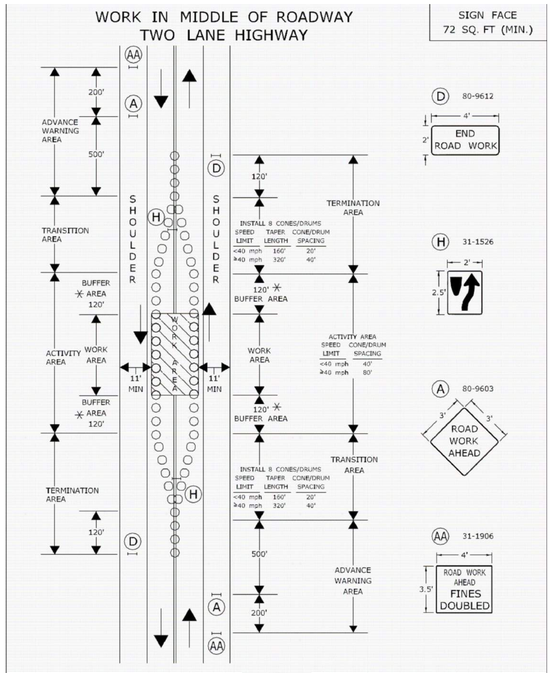
○ TRAFFIC CONE **OR** TRAFFIC DRUM
✳ OPTIONAL ⊗ TRAFFIC DRUM ⟼ PORTABLE SIGN SUPPORT
⟵ HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 15
SEE NOTES 1, 2, 4, 6, 7, 8

WORK IN MIDDLE OF ROADWAY
TWO LANE HIGHWAY

SIGN FACE 72 SQ. FT (MIN.)



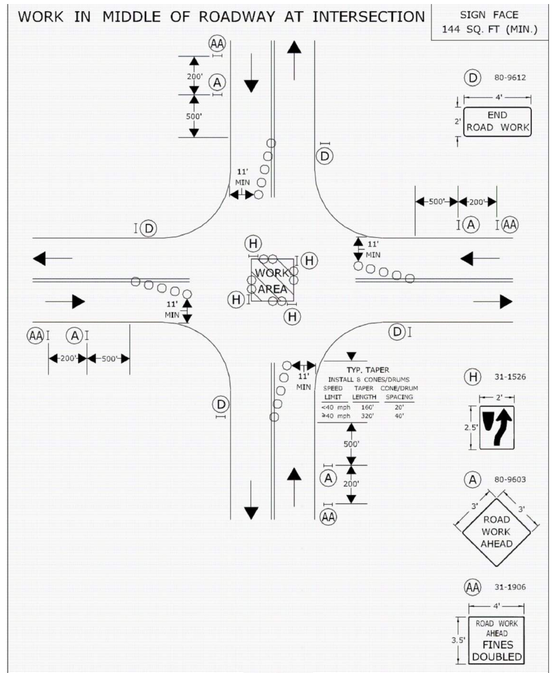
○ TRAFFIC CONE **OR** TRAFFIC DRUM
✳ OPTIONAL ⊗ TRAFFIC DRUM ⟼ PORTABLE SIGN SUPPORT
⟵ HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 16
SEE NOTES 1, 2, 4, 6, 7, 8

WORK IN MIDDLE OF ROADWAY AT INTERSECTION

SIGN FACE 144 SQ. FT (MIN.)



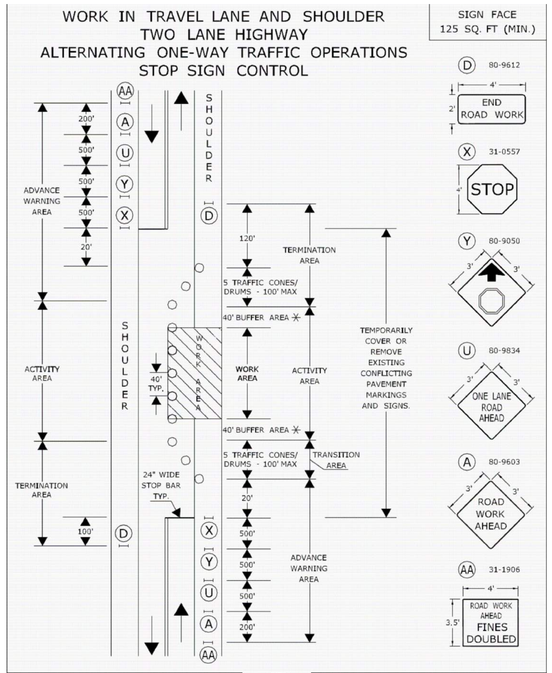
○ TRAFFIC CONE **OR** TRAFFIC DRUM
✳ OPTIONAL ⊗ TRAFFIC DRUM ⟼ PORTABLE SIGN SUPPORT
⟵ HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 17
SEE NOTES 1, 2, 4, 6, 7, 8

WORK IN TRAVEL LANE AND SHOULDER
TWO LANE HIGHWAY
ALTERNATING ONE-WAY TRAFFIC OPERATIONS
STOP SIGN CONTROL

SIGN FACE 125 SQ. FT (MIN.)



○ TRAFFIC CONE **OR** TRAFFIC DRUM
✳ OPTIONAL ⊗ TRAFFIC DRUM ⟼ PORTABLE SIGN SUPPORT
⟵ HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 18
SEE NOTES 1, 2, 4, 7, 8

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: S. ENGEL
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: DECEMBER 2023

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CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

TRAFFIC CONTROL
NOTES AND PLANS

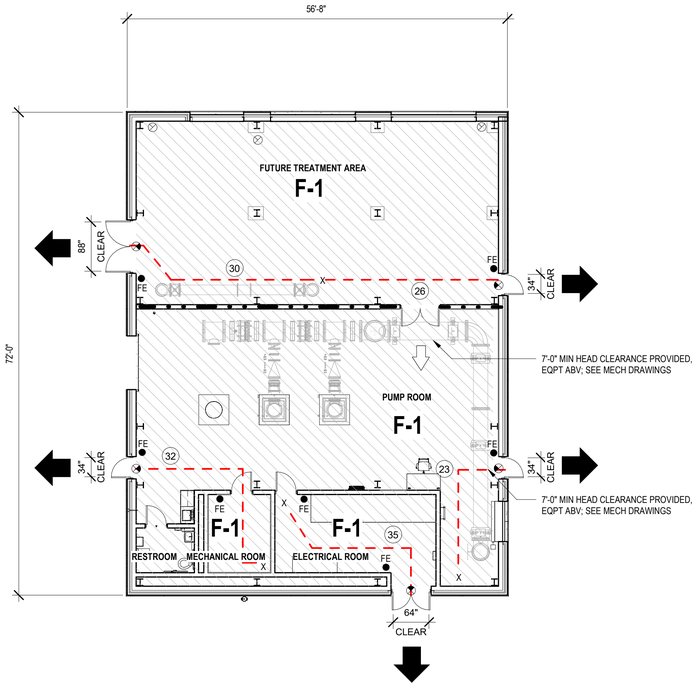
PROJECT NO. 10739-264571
FILE NAME: C029TRFC.DWG
SHEET NO. C-29

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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Elevation Drawings and Floor Plans

Include in hard copy submittal



LIFE SAFETY PLAN

3/32" = 1'-0"

LIFE SAFETY PLAN LEGEND

- EGRESS PATH
- 2 HOUR FIRE RATING
- EXIT DISCHARGE
- AREA OR SPACE EXIT
- EXIT SIGN
- FE — FIRE EXTINGUISHER - MULTIPURPOSE DRY-CHEMICAL TYPE
- (X) — TRAVEL DISTANCE (FEET)
- [X] — COMMON PATH OF TRAVEL (FEET)
- X — POINT OF ORIGIN
- FACTORY INDUSTRIAL, F-1 OCCUPANCY CLASSIFICATION

Building Code Summary			
Owner:	City of New Britain, Connecticut	**Date:**	April 2023
Project Name:	White Bridge Waterworks Facilities	**Location:**	New Britain, CT
Project No:	10739-264571	**Architect of Record:**	CDM Architects Inc.
Building Name:	Pond Pumping Station		
Work Scope:	Construction of pump station (New Structure)		
Applicable Ordinances, Codes, and Standards			
Abbreviations	**ICC** - International Code Council; **IBC** - International Building Code; **IEBC** - International Existing Building Code; **IECC** - International Energy Conservation Code; **IFC** - International Fire Code; **IMC** - International Mechanical Code; **IPC** - International Plumbing Code;		
Building Code	2022 CT State Building Code - 2021 IBC		
Mechanical Code	2022 CT State Building Code - 2021 IMC		
Energy Code	2022 CT State Building Code - 2021 IECC		
Plumbing Code	2022 CT State Building Code - 2021 IPC		
Electrical Code	2020 National Electrical Code (NFPA 70)		
Accessibility Code	2017 ICC A117.1		
Use and Occupancy Classification			
IBC Code Reference			
Chapter 3			
Section 306	Factory Group F		
306.2	Moderate-hazard factory industrial, Group F-1		
General Building Heights and Areas			
Chapter 5			
Section 504	Building Height and Number of Stories		
Table 504.3	Allowable Building Height in Feet Above Grade Plane	Allowable	Proposed
	Group F-1 Type IIB - No Sprinklers	55 Feet	25 Feet, 10 Inches
Table 504.4	Allowable Number of Stories Above Grade Plane		
	Group F-1 Type IIB - No Sprinklers	2 Stories	1 Story
Section 506	Building Area		
Table 506.2	Allowable Area Factor in Square Feet		
	Group F-1 Type IIB - No Sprinklers	15,500 SF	4,085 SF
Types of Construction			
Chapter 6			
Section 602	Construction Classification		
602.2	Types I and II, Non Combustible	Type IIB Construction	
Fire Protection and Life Safety Systems			
Chapter 9			
Section 903	Automatic Sprinkler Systems	Not required for Group F-1 occupancy: 1. Fire area under 12,000 square feet. 2. Fire area not located more than three stories above grade plane. 3. Combined area of all F-1 fire areas under 24,000 square feet.	
Section 906	Portable Fire Extinguishers	Required in accordance to 906.2 and NFPA 10	
Section 907 907.2.4	Fire Alarm and Detection Systems Group F	Not required for Group F-1 occupancy 1. F occupancy under two stories in height. 2. F occupancy has occupant load under 500.	
Means of Egress			
Chapter 10			
Section 1004	Occupant Load		
Table 1004.5	Maximum Floor Area Allowances per Occupant		
	Function of Space	Occupant Load Factor	Area / Occupant Load Factor
	Accessory storage areas, mechanical equipment room	300 gross	(4,085 / 300) = 14
Section 1010	Doors, Gates and Turnstiles	Required	Proposed
1010.1.1	Size of doors	Minimum clear width: 32 inches	34 inches
Section 1017	Exit Access Travel Distance		
Table 1017.2	Occupancy	without Sprinklers (feet)	with Sprinklers (feet)
	F-1	200	N/A
Accessibility			
Chapter 11			
Section 1103	Scoping Requirements		
1103.2.9	Equipment spaces are not required to comply with this chapter		
Energy Efficiency			
Chapter 13			
Section 1301	General		
1301.1.1	Building designed and constructed in accordnace with the IECC with compliance requirements indicated in COMcheck report		

N

0 4' 8' 12' 20'

SCALE: 3/32" = 1'-0"

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REV. NO.	DATE	DRWN	CHKD	REMARKS

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DRAWN BY: R. MARSHALL
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CROSS CHK'D BY: K. WAGNER
APPROVED BY: B. GIORGI
DATE: APRIL 2023

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Boston, Massachusetts 02109

CITY OF NEW BRITAIN, CONNECTICUT

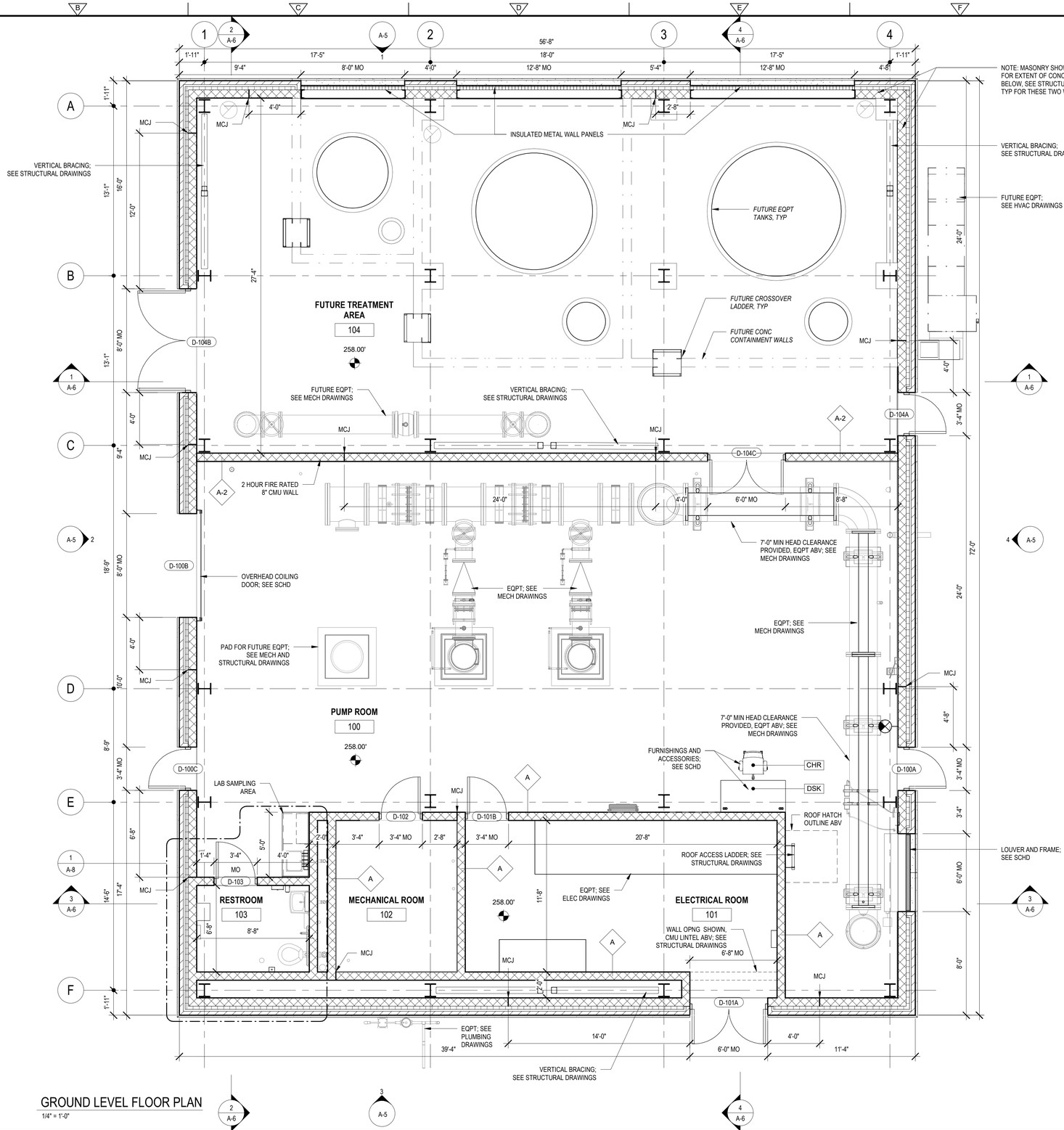
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS AND
POND PUMPING STATION

POND PUMPING STATION
BUILDING CODE SUMMARY AND LIFE SAFETY PLAN

PROJECT NO. 10739-264571
FILE NAME: AWZ001PS.RVT
SHEET NO. A-2

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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GROUND LEVEL FLOOR PLAN
1/4" = 1'-0"

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: R. MARSHALL
DRAWN BY: R. MARSHALL
SHEET CHK'D BY: S. BRADFORD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: B. GIORGI
DATE: APRIL 2023

CDM Smith
77 Hartland Street, Suite 200
East Hartford, CT 06108
Tel: (860) 529-7615

CDM Architects Inc.
75 State Street
Boston, Massachusetts 02109

CITY OF NEW BRITAIN, CONNECTICUT

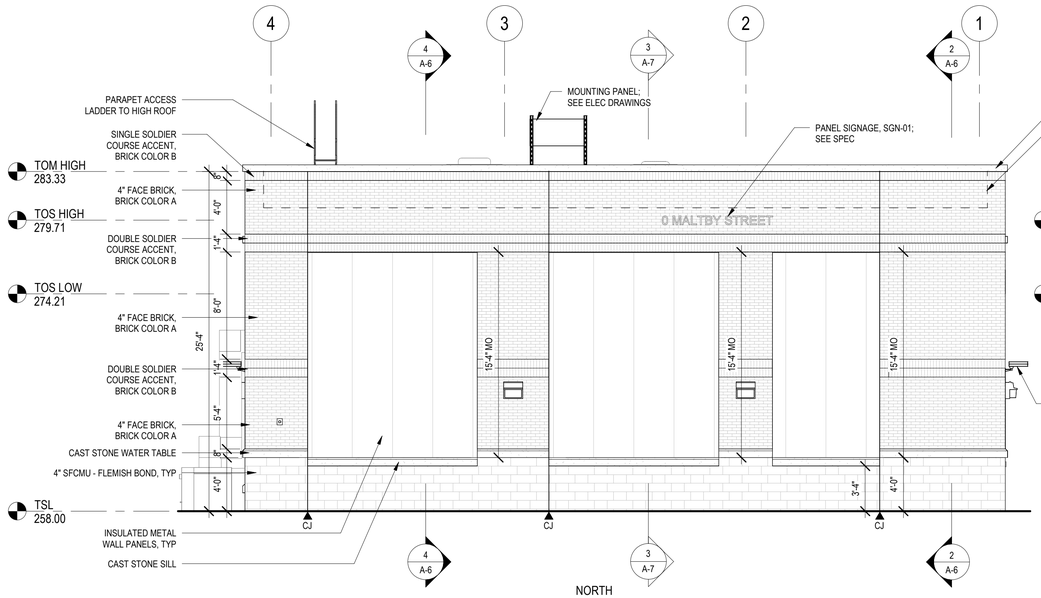
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS AND
POND PUMPING STATION

POND PUMPING STATION
FLOOR PLAN

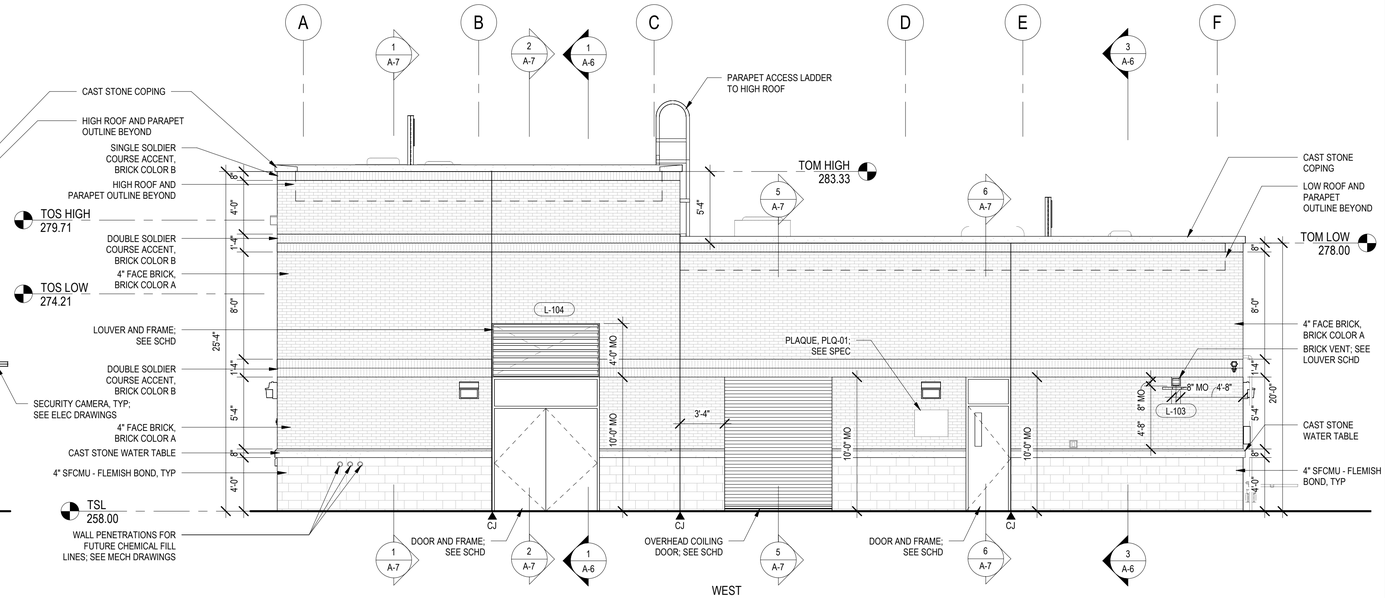
PROJECT NO. 10739-264571
FILE NAME: AWZ001PS.RVT
SHEET NO.
A-3

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

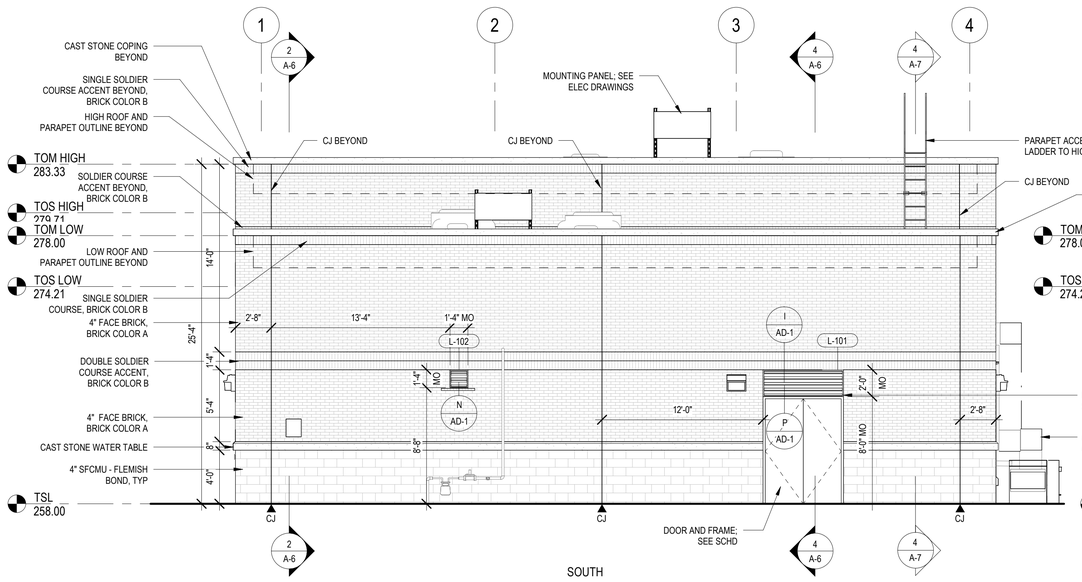
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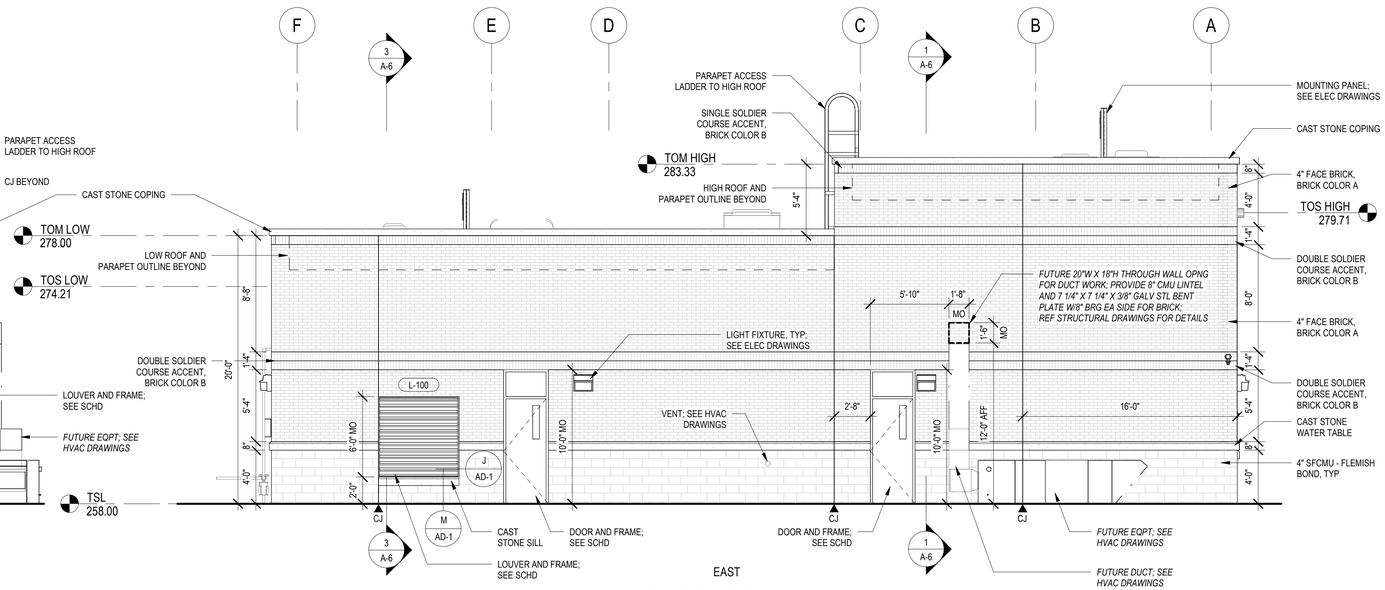
1 ELEVATION
A-3 3/16" = 1'-0"



2 ELEVATION
A-3 3/16" = 1'-0"



3 ELEVATION
A-3 3/16" = 1'-0"



4 ELEVATION
A-3 3/16" = 1'-0"

0 2' 4' 6' 10'
SCALE: 3/16" = 1'-0"

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REV. NO.	DATE	DRWN	CHKD	REMARKS

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DRAWN BY: R. MARSHALL
SHEET CHK'D BY: S. BRADFORD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: B. GIORGI
DATE: APRIL 2023

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CITY OF NEW BRITAIN, CONNECTICUT

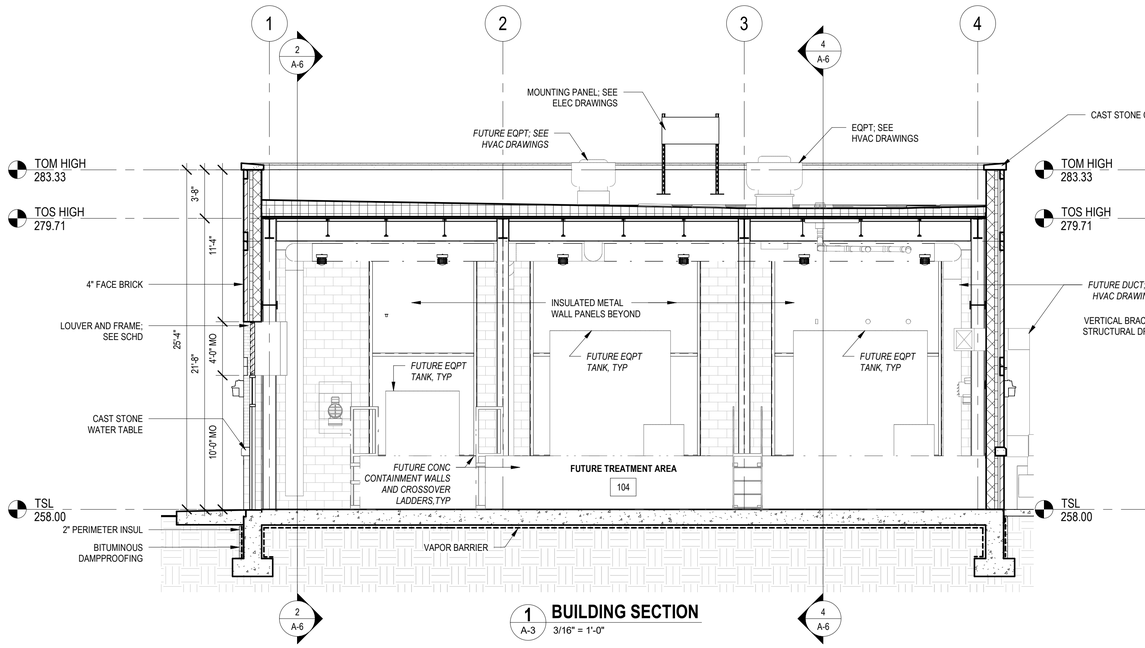
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS AND
POND PUMPING STATION

POND PUMPING STATION
EXTERIOR ELEVATIONS

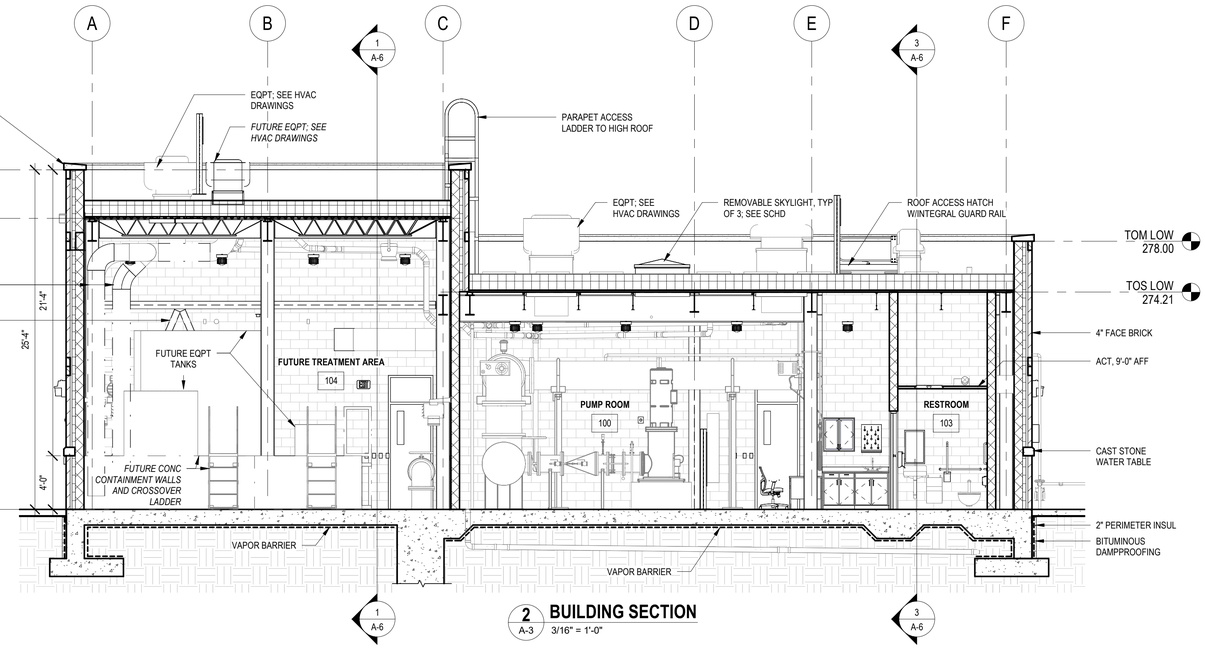
PROJECT NO. 10739-264571
FILE NAME: AWZ001PS.RVT
SHEET NO. A-5

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

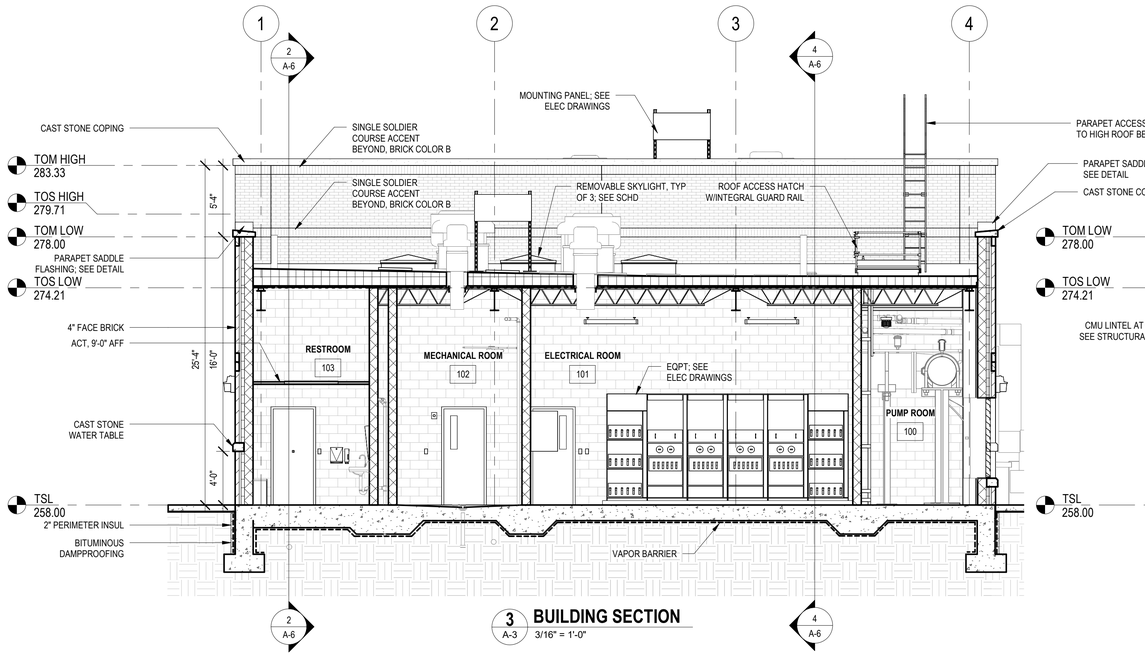
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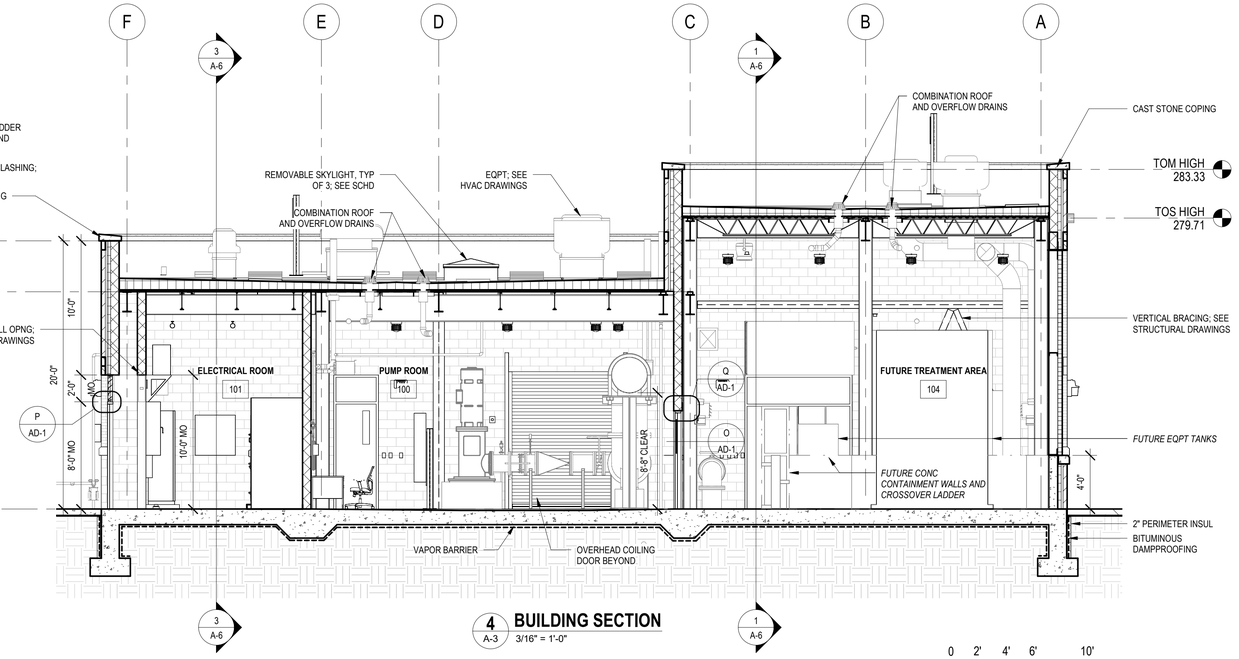
1 **BUILDING SECTION** A-3 3/16" = 1'-0"



2 **BUILDING SECTION** A-3 3/16" = 1'-0"



3 **BUILDING SECTION** A-3 3/16" = 1'-0"



4 **BUILDING SECTION** A-3 3/16" = 1'-0"

0 2' 4' 6' 10'

SCALE: 3/16" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: R. MARSHALL
DRAWN BY: R. MARSHALL
SHEET CHK'D BY: S. BRADFORD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: B. GIORGI
DATE: APRIL 2023

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CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS AND
POND PUMPING STATION

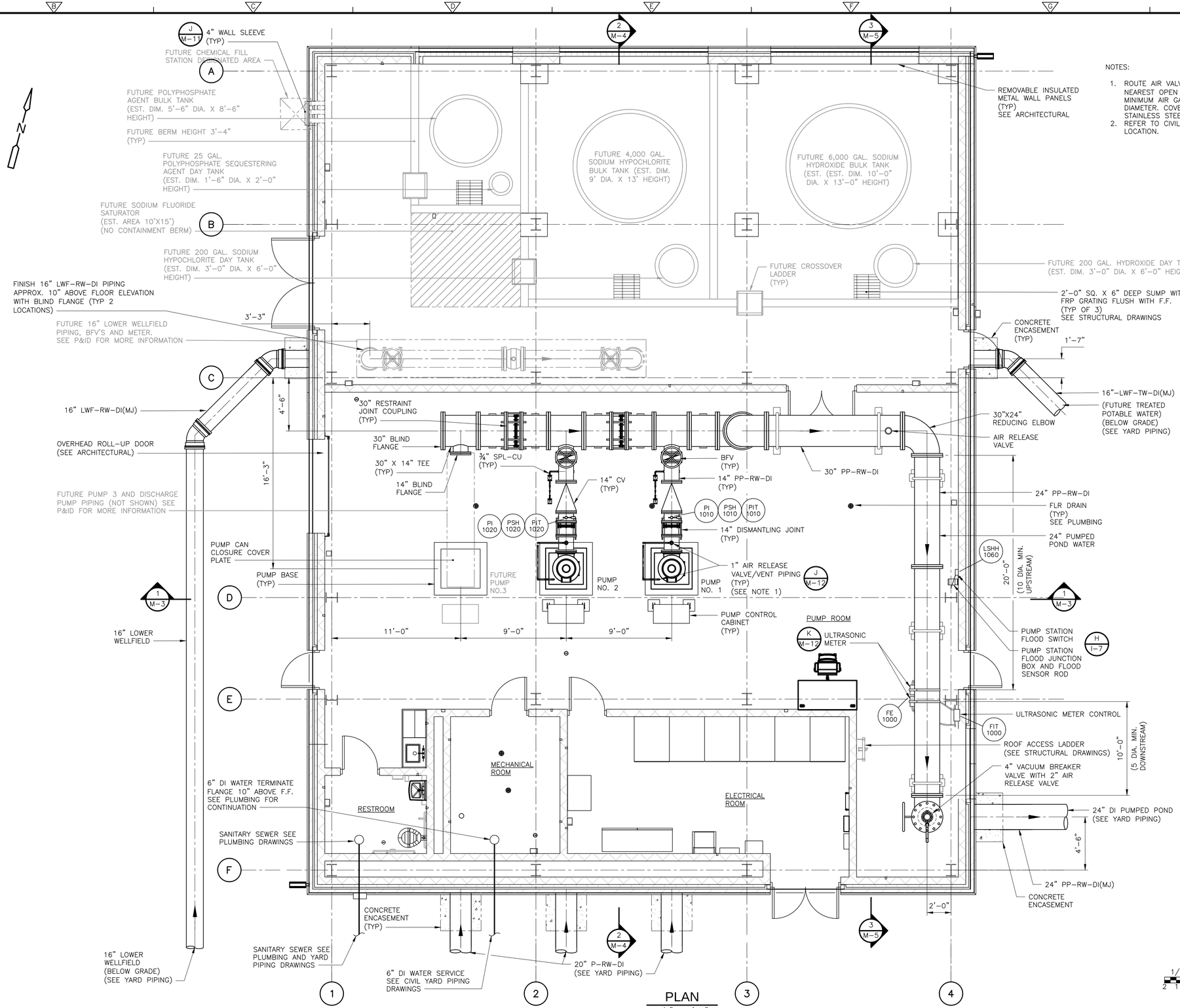
POND PUMPING STATION
BUILDING SECTIONS

PROJECT NO. 10739-264571
FILE NAME: AWZ001PS.RVT

SHEET NO.
A-6

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NOTES:

1. ROUTE AIR VALVE/VENT OUTLET PIPING TO THE NEAREST OPEN END DRAIN (OED). PROVIDE MINIMUM AIR GAP OF 2 TIMES THE PIPE DIAMETER. COVER END OF PIPE WITH STAINLESS STEEL INSECT SCREEN.
2. REFER TO CIVIL SHEETS FOR BUILDING LOCATION.

PLAN
1/4" = 1'-0"

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Images: []
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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: V. BITTO
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: APRIL 2023

CDM Smith
77 Hartland Street, Suite 200
East Hartford, CT 06108
Tel: (860) 529-7615

CITY OF NEW BRITAIN, CONNECTICUT

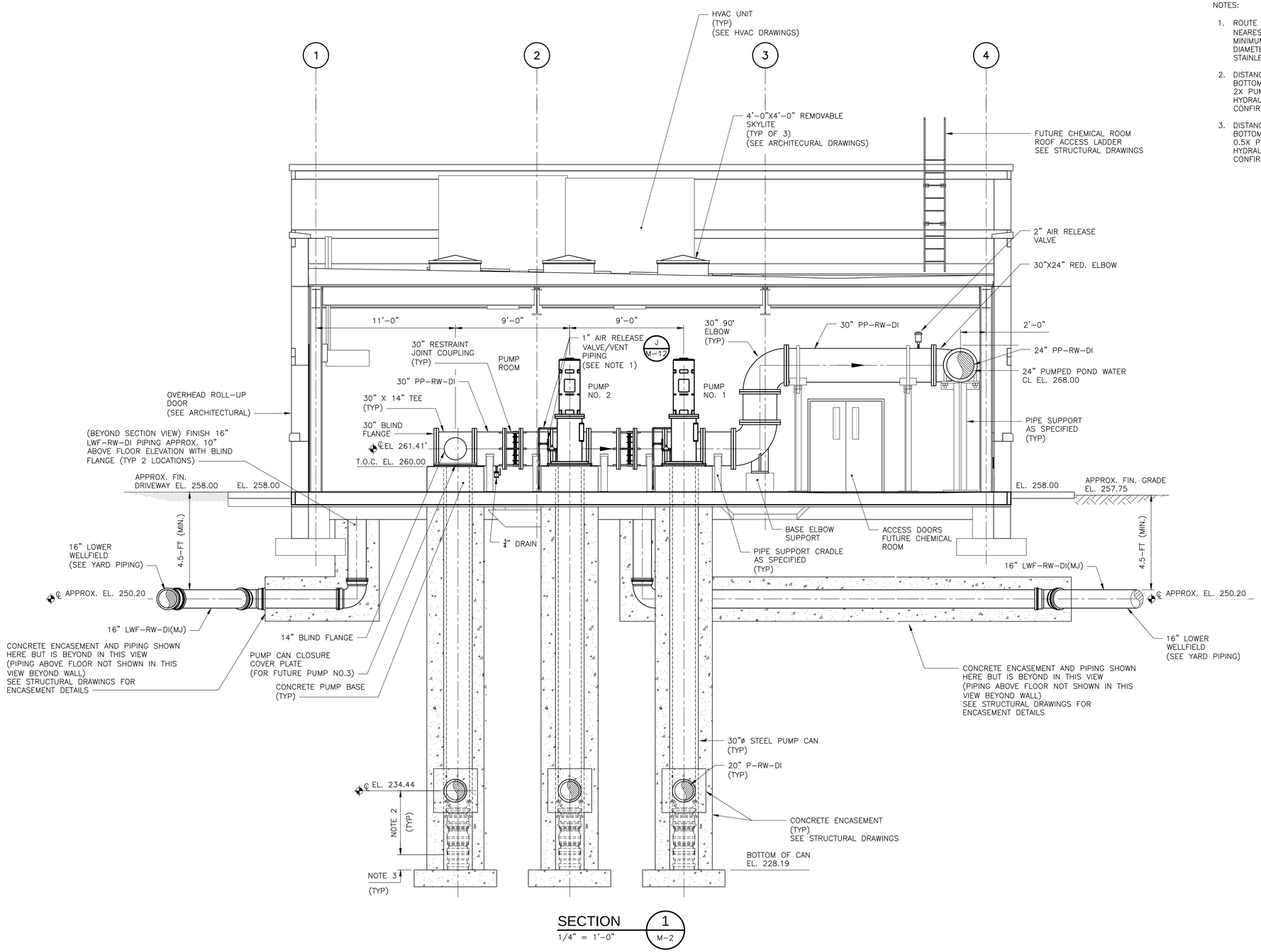
WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

POND PUMPING STATION FLOOR PLAN

PROJECT NO. 10739-264571
FILE NAME: M002PSPL.DWG
SHEET NO. M-2

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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SECTION 1 / M-2
1/4" = 1'-0"

NOTES:

1. ROUTE AIR VALVE/VENT OUTLET PIPING TO THE NEAREST OPEN END DRAIN (OED). PROVIDE MINIMUM AIR GAP OF 2 TIMES THE PIPE DIAMETER. COVER END OF PIPE WITH STAINLESS STEEL INSECT SCREEN.
2. DISTANCE FROM SUCTION PIPE CENTERLINE TO BOTTOM OF PUMP BOWLS SHALL BE MINIMUM 2X PUMP CAN INSIDE DIAMETER, PER HYDRAULIC INSTITUTE STANDARDS. TO BE CONFIRMED BY PUMP SUPPLIER.
3. DISTANCE FROM SUCTION PIPE CENTERLINE TO BOTTOM OF PUMP BOWLS SHALL BEMINIMUM 0.5X PUMP CAN INSIDE DIAMETER, PER HYDRAULIC INSTITUTE STANDARDS. TO BE CONFIRMED BY PUMP SUPPLIER.

1/4" = 1'- 0"
2 1 0 2 4

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: V. BITTO
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: APRIL 2023

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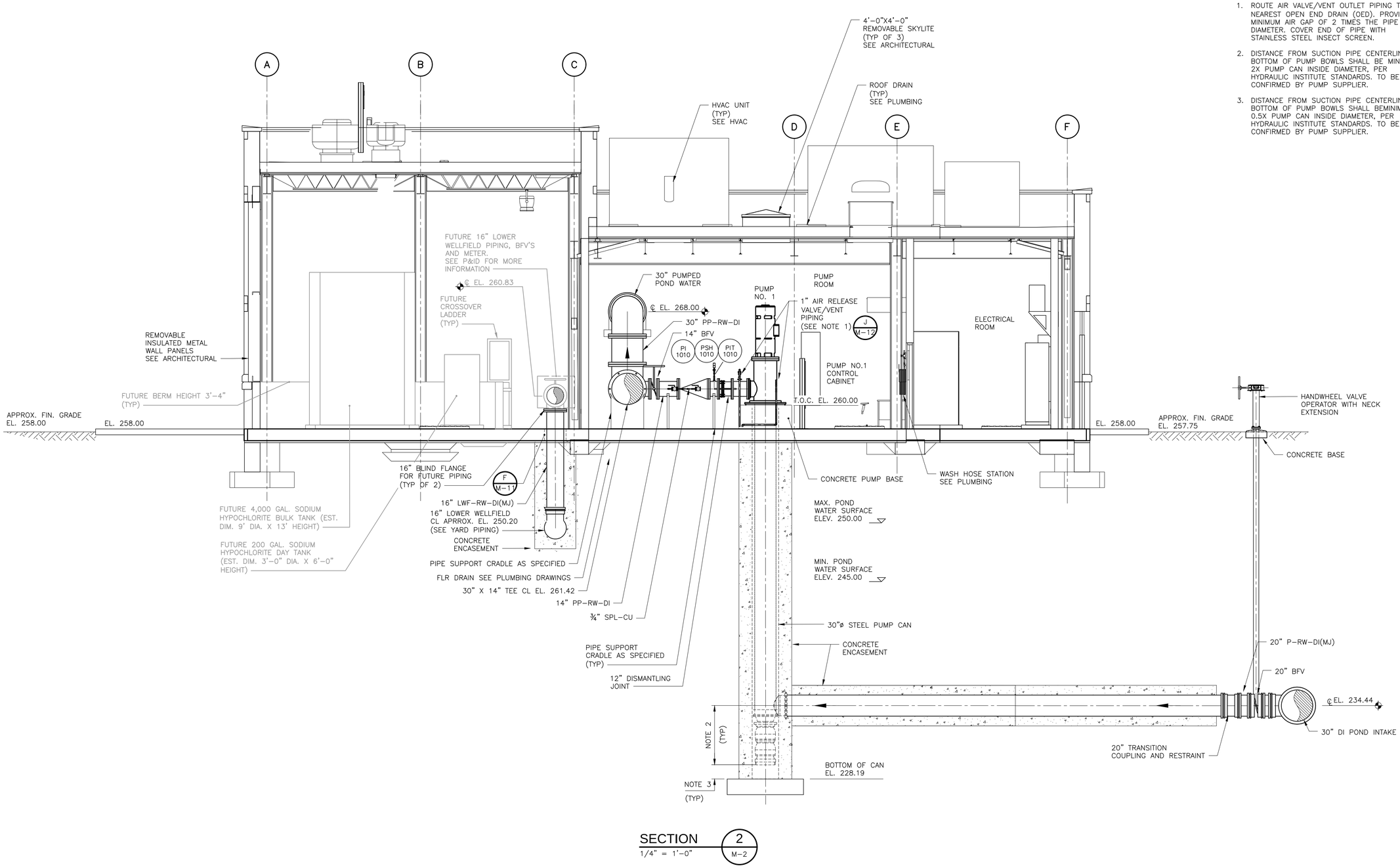
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

POND PUMPING STATION
SECTIONS I

PROJECT NO. 10739-264571
FILE NAME: M003PSSC.DWG
SHEET NO.
M-3

NOTES:

1. ROUTE AIR VALVE/VENT OUTLET PIPING TO THE NEAREST OPEN END DRAIN (OED). PROVIDE MINIMUM AIR GAP OF 2 TIMES THE PIPE DIAMETER. COVER END OF PIPE WITH STAINLESS STEEL INSECT SCREEN.
2. DISTANCE FROM SUCTION PIPE CENTERLINE TO BOTTOM OF PUMP BOWLS SHALL BE MINIMUM 2X PUMP CAN INSIDE DIAMETER, PER HYDRAULIC INSTITUTE STANDARDS. TO BE CONFIRMED BY PUMP SUPPLIER.
3. DISTANCE FROM SUCTION PIPE CENTERLINE TO BOTTOM OF PUMP BOWLS SHALL BEMINIMUM 0.5X PUMP CAN INSIDE DIAMETER, PER HYDRAULIC INSTITUTE STANDARDS. TO BE CONFIRMED BY PUMP SUPPLIER.



SECTION 2 / M-2
1/4" = 1'-0"

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: V. BITTO
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: APRIL 2023

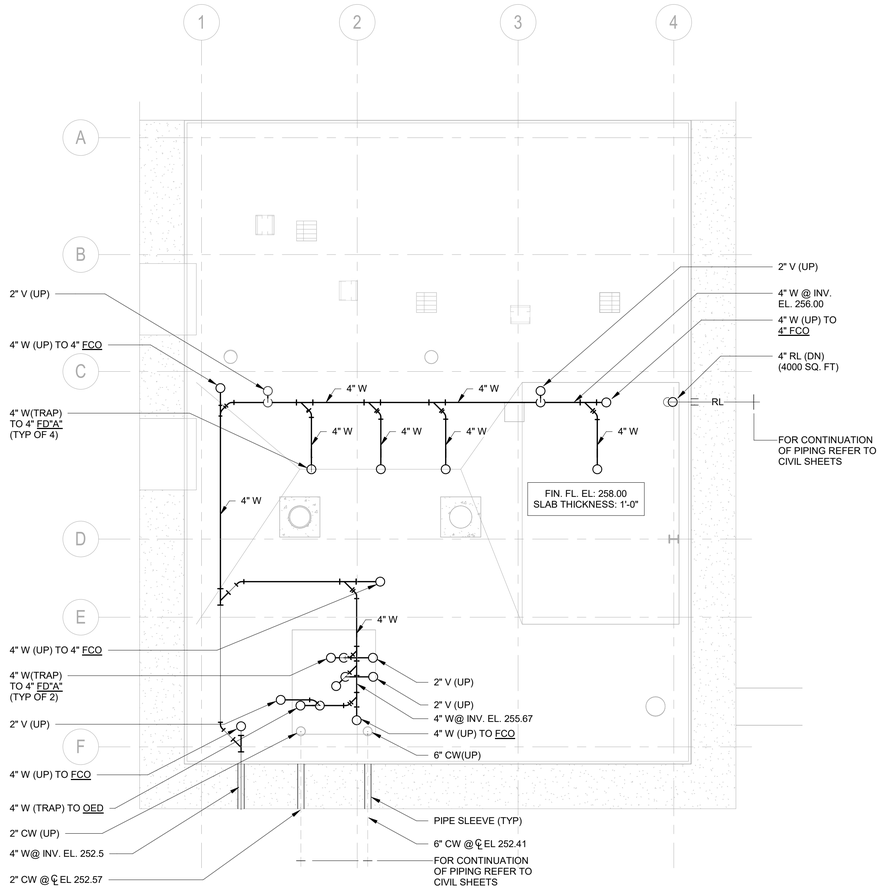
CDM Smith
77 Hartland Street, Suite 200
East Hartford, CT 06108
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CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

POND PUMPING STATION
SECTIONS II

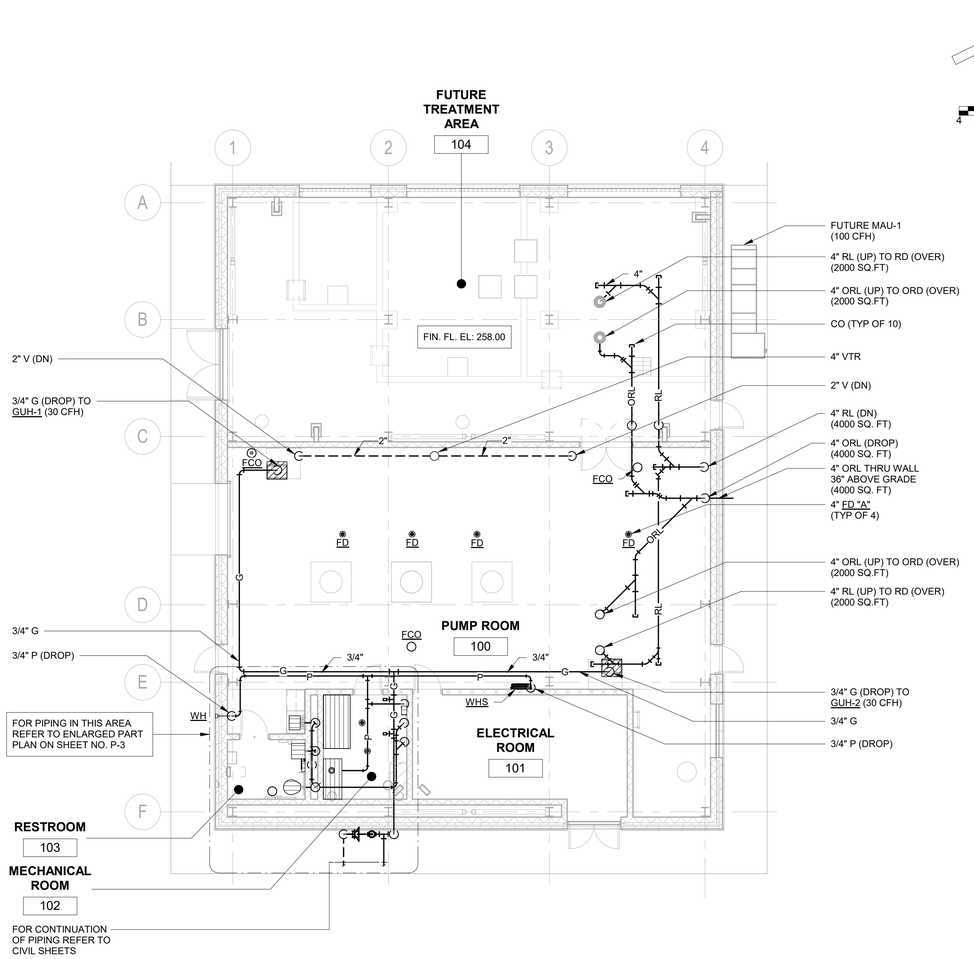
PROJECT NO. 10739-264571
FILE NAME: M004PSSC.DWG
SHEET NO. M-4

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION



BURIED PIPING

1/8" = 1'-0"



FLOOR PLAN

1/8" = 1'-0"

NOTES:

1. ALL PIPES PASSING THROUGH THE FOUNDATION WALL SHALL BE INSTALLED IN A SLEEVE THAT IS 2" IN DIAMETER LARGER THAN THE PIPE AND SHALL EXTEND THOUGH THE WALL 2" ON EITHER SIDE OF THE FOUNDATION WALL IN CONFORMANCE WITH THE PROJECT SPECIFICATIONS.
2. ALL PIPES PASSING UNDERNEATH THE FOUNDATION SHALL BE INSTALLED IN A SLEEVE THAT IS 2" IN DIAMETER LARGER THAN THE PIPE AND SHALL EXTEND 12" BEYOND THE ANGLE OF REPOSE OF THE FOUNDATION FOOTING ON BOTH SIDES OF THE FOOTING.

NOTES:

1. ALL BURIED PIPING WITHIN THE BUILDING SHALL BE ENCASED IN CONCRETE AS SHOWN ON THE DETAIL ON THE STRUCTURAL DETAIL SHEET.
2. IN LIEU OF TRAP PRIMERS WHERE ALLOWED BY CODE, CONTRACTOR SHALL INSTALL A TRAP RESEALER MADE OF ELASTOMERIC MATERIAL.
3. 1/2" SOFT ROLLED COPPER TUBING SHALL BE INSTALLED TO FEED THE WATER FROM THE TRAP PRIMER UNIT TO THE TRAPS FOR THE FLOOR DRAINS WHERE REQUIRED. THE SOFT ROLLED COPPER TUBING SHALL BE WRAPPED WITH ARMAFLEX TO PROTECT IT FROM THE CONCRETE. THE TUBING IS NOT SHOWN ON THE DRAWING FOR CLARITY SAKE. BUT THE PIPING SHALL BE FURNISHED AND INSTALLED BY THE PLUMBING CONTRACTOR.
4. SANITARY PIPING SHALL EXTEND BEYOND THE BUILDING 5'-0" UNDER THE PLUMBING CONTRACTOR'S SCOPE OF WORK.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: J. SHEEHAN
DRAWN BY: P. MANI
SHEET CHK'D BY: B. BUCCHIANERI
CROSS CHK'D BY: K. WAGNER
APPROVED BY: D. FLAHERTY
DATE: JANUARY 2024

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CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS AND
POND PUMPING STATION

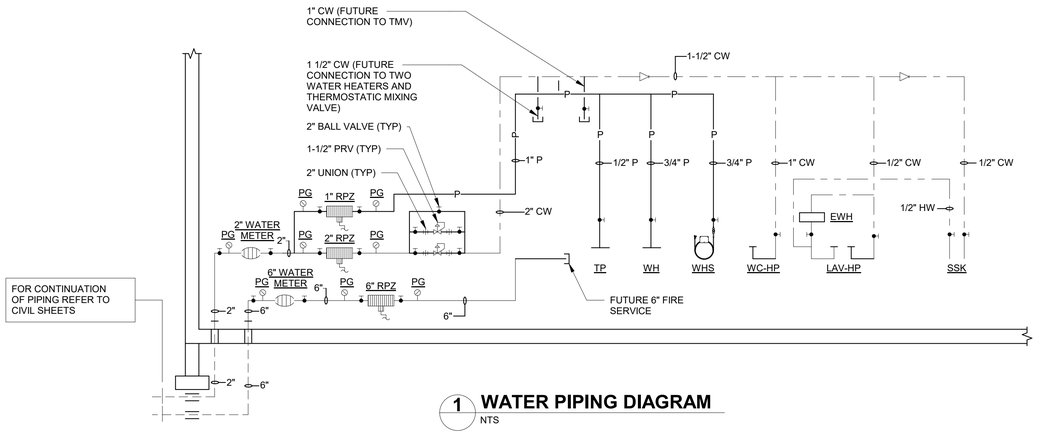
BURIED PIPING AND FLOOR PLANS

PROJECT NO. 10739-264571
FILE NAME: HPWZ001PS.RVT

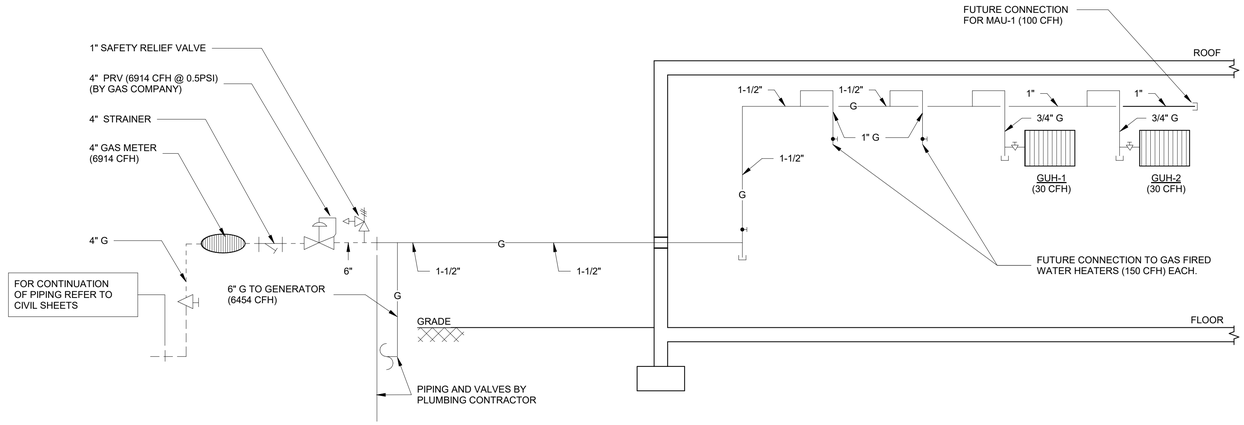
SHEET NO.
P-2

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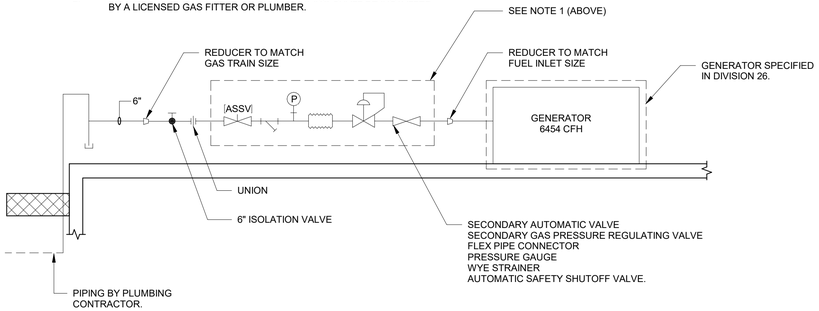
1 WATER PIPING DIAGRAM
NTS



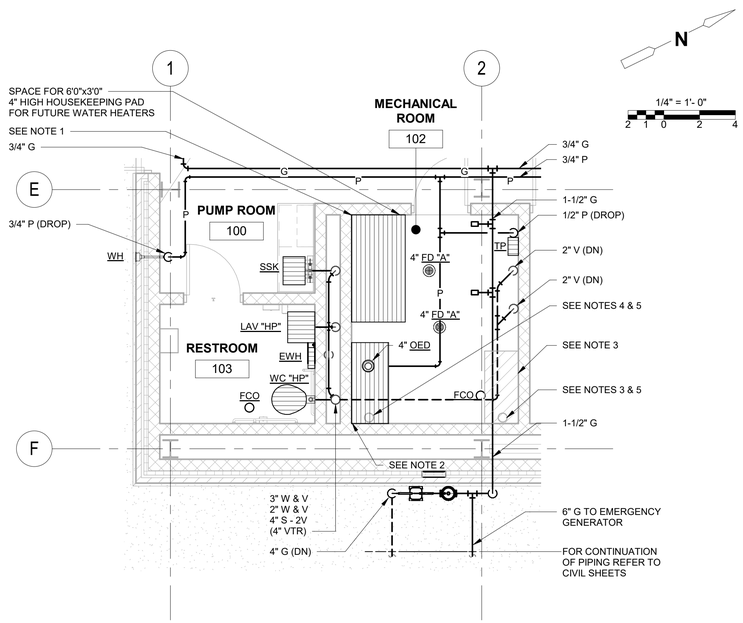
2 GAS PIPING DIAGRAM
NTS

NOTES:

1. GAS TRAIN COMPONENTS SHALL BE PROVIDED BY THE GENERATOR MANUFACTURER AND INSTALLED BY THE PLUMBING CONTRACTOR.
2. INSTALL 6" G LINE TO GENERATOR. GAS PIPING SHALL BE INSTALLED BY A LICENSED GAS FITTER OR PLUMBER.



3 GAS PIPING DIAGRAM FOR STANDBY GENERATOR
NTS



4 ENLARGED FLOOR PLAN
1/4" = 1'-0"

NOTES:

1. SPACE ALLOCATED FOR FUTURE WATER HEATERS, TEPID WATER MIXING VALVE AND TEPID WATER RECIRCULATION PUMP.
2. SPACE ALLOCATED FOR DOMESTIC WATER SERVICE. FOR VALVES AND APPURTENANCES REFER TO THE WATER PIPING DIAGRAM ON SHEET NO. P-3. WATER SERVICE HAS BEEN SIZED TO INCLUDE FUTURE ADDITION OF CHEMICALS AND TEPID WATER HEATING SYSTEM.
3. SPACE ALLOCATED FOR FUTURE FIRE PROTECTION SERVICE SHALL SERVE AN AUTOMATIC FIRE PROTECTION SYSTEM WHEN THE FUTURE CHEMICAL SYSTEMS ARE INSTALLED ON THE PROJECT. 6" FIRE SERVICE SHALL BE BROUGHT INTO THE BUILDING AND LEFT AS A FLANGED CONNNECTION 8"-12" ABOVE FINISHED FLOOR BY GENERAL CONTRACTOR.
4. 2" DOMESTIC WATER SERVICE SHALL BE BROUGHT INTO THE BUILDING AND LEFT AS A FLANGED CONNECTION 8"-12" ABOVE FINISHED FLOOR BY GENERAL CONTRACTOR. A 2" CAPPED WATER CONNECTION SHALL BE LEFT IN THE MECHANICAL ROOM 102.
5. 6" RPZ FOR FUTURE FIRE SERVICE SHALL BE INSTALLED 36" AFF. 2" RPZ FOR DOMESTIC POTABLE WATER SHALL BE INSTALLED 36" AFF AND THE 1" RPZ FOR NON-POTABLE WATER SHALL BE INSTALLED AT 54" AFF.

PLUMBING FIXTURE SCHEDULE

FIXTURE	DESCRIPTION	WASTE (INCH) MIN	VENT (INCH) MIN	TRAP (INCH) MIN	CW (INCH) MIN	HW (INCH) MIN	TW (INCH) MIN	REMARKS
WC-HP	TOILET, FLUSH VALVE, WALL MOUNTED, WALL OUTLET	4	2	4	1	-	-	SEE SECTION 224213.13
SSK	SERVICE SINK	2	2	2	1/2	1/2	-	SEE SECTION 224216.13
LAV-HP	LAVATORY, COUNTER MOUNTED	2	2	2	1/2	1/2	-	SEE SECTION 224216.13
WHS	WASH HOSE STATION	-	-	-	3/4	-	-	SEE SECTION 221119
EWH	ELECTRIC WATER HEATER	-	-	-	1/2	1/2	-	SEE SECTION 223300
TP	TRAP PRIMER	-	-	-	1/2	-	-	SEE SECTION 221119

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DATE: JANUARY 2024

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Tel: (860) 529-7615

CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS AND
POND PUMPING STATION

PIPING DIAGRAMS, ENLARGED FLOOR PLAN AND PLUMBING SCHEDULE

PROJECT NO. 10739-264571
FILE NAME: HPWZ001PS.RVT

SHEET NO.
P-3

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

For Office Use Only	
APPLICATION NO.	2506
DATE FILED:	6/27/24
DECISION DATE:	
DECISION:	

BRISTOL ZONING COMMISSION
CITY OF BRISTOL, CONNECTICUT
APPLICATION FOR SPECIAL PERMIT

The undersigned Applicant hereby applies to the Bristol Zoning Commission for approval under Section(s) Article III, Section 15.2.4.A.2 of the Bristol Zoning Regulations for the following Special Permit use: Special Permit for Earth Removal in excess of 400 cubic yards

Address or Location of the Property: Maltby Street

Assessor's Map No.: 52 & 53 Assessor's Lot No.(s): 11, 15, 16B16A, 17, 145, 147, 149, 150, 151

Zone of the Property: R-40 Size of the Property (in acres or square feet): 303.7 acres (total)

Reason for the Special Permit: To add approximately 6,500 cubic yards and remove approximately 15,500 cubic yards of material within the floodplain in order to facilitate the renovation and construction of the White Bridge Waterworks Facilities

Does this application involve an activity regulated by the Inland Wetlands Agency? [✓] yes [ ] no

If yes, has an application for a permit been submitted to the Inland Wetlands Agency? [✓] yes, on 12/26/2023 [ ] no

Other comments: Three applications were submitted to Inland Wetlands Agency (App# 2019, #2020, #23-458F-305)

Approval for all three applications received from Inlands Wetland Agency on June 3, 2024. SEE ATTACHED

NOTE: Section 8-3c(a) of the Connecticut General Statutes requires that, if an application for a Special Permit involves an activity regulated under the Inland Wetlands and Watercourses provisions of the statutes, the applicant shall submit an application for a wetlands permit to the local Inland Wetlands Agency no later than the day the Special Permit application is filed.

APPLICANT (If more than one, list on Page 2)

Name: New Britain Water Department, Ramon Esponda

Address: 1000 Shuttle Meadow Ave City: New Britain State: CT Zip: 06052

Telephone No.: (860) 826-3535 E-Mail: Ray.Esponda@newbritainct.gov

Signature: _____ *Signature – (Printed/Typed)* Ramon Esponda

CHECK ONE: [✓] owner [ ] other (specify): _____

OWNER(S) OF RECORD (If other than Applicant; if more than one, list on Page 2)

Name: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ *Signature – (Printed/Typed)* _____

THIS APPLICATION MUST BE FILED IN PERSON NO LATER THAN 12 NOON ON THE DEADLINE DAY FOR APPLICATION SUBMISSION – NO EXCEPTIONS!

BZC – 08/17

For Office Use Only
APPLICATION NO. 2506

CITY OF BRISTOL, CONNECTICUT
SUPPLEMENTARY INFORMATION

Address or location of property: Maltby Street

ADDITIONAL INFORMATION/COMMENTS (click inside the box below and begin typing)

ADDITIONAL APPLICANT

Name: _____ CHECK ONE: [ ] owner [ ] other: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

ADDITIONAL OWNER(S) OF RECORD

Name: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

Name: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

(OPTIONAL) SEND COPIES OF ALL CORRESPONDENCE TO:

Name: Vinta Varghese (CDM Smith)

Address: 101 East River Drive, Suite 1A City: East Hartford State: CT Zip: 06108

Telephone No.: 860-808-2325 E-Mail: vargheseva@cdmsmith.com

08/17 - LUO

Letter

May 16, 2024

Commissioner Katie Dykes
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

RE: "Log" letter consideration request – New Britain Water Dept. - Whitebridge registrations, Bristol CT

Good day, Commissioner Dykes:

This letter is written to request your immediate consideration of concerns regarding the New Britain Water Department upgrade project of the existing wellfields and surface water withdrawal systems, known as Whitebridge, located in Bristol CT. In addition to their other registered diversions within the state, the City of New Britain has 3 registered diversions in the City of Bristol, known as Whitebridge; North wellfield (2.16 MGD), South Wellfield (6.62 MGD), and Surface Water (Copper Mine/Polkville Brooks) (15 MGD)

- Fact: Bristol Water Department also has registered diversions, located near Whitebridge in the same Coppermine Brook watershed.
- Fact: New Britain historically operates the Whitebridge diversions at much much lower than the registration rates, currently approximately 1/5 to 1/7 of the registered rates. Based on the New Britain Water submittal information, DEEP issued a Negative Declaration of Diversion on February 21, 2024 for construction improvements at both wellfield locations for new wells of larger sizes with capacity increases to approximately match the registered diversion rates.
- Fact: The aquifer was assessed for Level A APA in a 2007 Study (Lenard). The study indicated "It was determined that the aquifer could not support the maximum registered diversion of the New Britain upper, lower and Bristol Mix Street wellfields". The study reassigned "agreed upon" reduced flow rates to simulate a safe yield for each of the wellfields. The surface water diversion was not assessed (Executive summary attached). The City of Bristol administers APA regulations based on the 2007 Level A study boundary.
- Fact: Coppermine Brook, the surface water immediately adjacent to Whitebridge is designated impaired for flow. Coppermine is listed in Connecticut Department of Energy and Environmental Protection's (DEEP) 2022 Integrated Water Quality Report to Congress under Nonpollutant Impairments (EPA Category 4c) for Flow Regime Modification.
- Fact: The City of Bristol Inland Wetlands Commission is currently reviewing the project applications for impact to wetlands and floodplain within the Coppermine Brook (Pequabuck River/Farmington River) watershed basins.

The watershed protection groups, Pequabuck River Watershed Association, Rivers Alliance of Connecticut and Farmington River Watershed Association, along with other concerned citizens, request CT DEEP further investigate the concerns related to this project:

- Due to the past study determination that the "aquifer could not support the maximum registered diversion of the New Britain upper, lower and Bristol Mix Street wellfields", the Aquifer Protection Area (APA) Level A boundary in Bristol was established based on "agreed

upon" flow rates which were much lower than the "grandfathered" registration rates. Based on inquiry to DEEP, New Britain Water has been operating in accordance with the (lowered) flow rates which established the APA. If New Britain Water is proposing a change which would increase the diversion operations over the Level A study rates, additional study is warranted, prior to construction, to establish safe levels of operation and potential changes to the regulated Level A boundary.

- New Britain is a good neighbor. Both the Bristol and New Britain Water Departments have a right and a responsibility to maintain and protect their water system sources. Watercourse / wetland / and aquifer natural system resources are vital components. The resources have limited capacity.
- Bristol Wetland Commission is currently reviewing the New Britain Whitebridge proposal. The diversion rate issue is central to the wetlands/watercourse review, yet the New Britain Water Department legal representative has instructed the Bristol Wetland Commission that the impacts relative to increases in the groundwater and surface water withdrawal operations, up to the registered diversion rates, cannot be considered in their decision. Our concern is that larger well construction and withdrawal operations will unreasonably impair water resources. The Bristol Inland Wetland Commission decision will be made at a May 22, 2024 “Special Meeting”.

Potential solutions to foreseeable “water wars” between municipalities for water use allocations within the Coppermine Brook (Pequabuck/Farmington) watershed can include:

- New Britain Water Department should update the Level A boundary study to reflect the registration rates, prior to any state agency construction approval. The Level A boundary should be modified, as necessary, for any increased flow rates in order to protect the resources. If, as past studies (Lenard 2007 and others) indicate the aquifer is unable to sustain the registration rates, the model should be updated, and reviewed/approved by DEEP for appropriate diversion allocations between the municipalities, including drought restriction protections, prior to construction.
- DEEP, potentially through adjudication, should intervene for a proposed plan of action to allocate resources and resource protection measures.

Your prompt reviews and actions are appreciated.

Sincerely,

Alicea Charamut, Executive Director, Rivers Alliance of Connecticut

Mary Rydingsward, Executive Director, Pequabuck River Watershed Association

Aimee Petras, Executive Director, Farmington River Watershed Association

cc: Graham J. Stevens, Bureau Chief, Water Protection and Land Resources
Brendan Schain, Esq., CT DEEP Shalyn Zappulla, CT DEEP
Chris Bellucci, CT DEEP Kim Czapla, CT DEEP
Raul Tejada, CT DPH Lori Mathieu, CT DPH
Jack Betkoski, III, Chair, Connecticut Water Planning Council
Roger Reynolds, Senior Legal Director, Save the Sound

CT DPH - Notification

From: Microsoft Power Apps and Power Automate <microsoft@powerapps.com>
Sent: Tuesday, July 2, 2024 3:45 PM
To: Ray.Esponda <Ray.Esponda@newbritainct.gov>; Gerlach, Kyle T. <gerlachkt@cdmsmith.com>
Subject: Acknowledgement of Submission to CTDPH

This email is being sent automatically to confirm the submission of a project notification form to the Connecticut Department of Public Health pursuant to Connecticut General Statutes Section 8-3i and/or 22a-42f.

A project notification form is required to be completed and submitted to the Department of Public Health when an application, petition, request or plan is located in a Drinking Water Source Watershed or Aquifer Protection Area.

Thank you for your submission. If you have any questions, please send an email to dph.sourceprotection@ct.gov.

Please enter the docket number/application ID for this application, petition, request or plan, if applicable:
App 2506 - Special Permit for Earth Removal

What municipal entity is this application, petition, request or plan being submitted to?["Zoning Commission"]

Is the location associated with the proposed application, petition, request or plan in a drinking water watershed?Yes

Is the location associated with the proposed application, petition, request or plan in an Aquifer Protection Area?
The White Bridge Waterworks Facilities Upper and Lower Wellfield Improvements Project is intended to bring this 100-year old drinking water facility up to modern standards so it can continue to be a viable drinking water source for the City of New Britain and surrounding communities. The project includes the replacement and restoration of the wellfields, demolition and removal of existing structures, and construction of new groundwater wells, a new pump house, and underground piping. It also includes the addition of water and sewer utilities in Maltby Street. This notification is for the Bristol Zoning Earth Removal special permit.

Does this application include a petition or proposal to change the regulations, boundaries or classifications of zoning districts?No

Please enter a brief description of the project or proposal:
The White Bridge Waterworks Facilities Upper and Lower Wellfield Improvements Project is intended to bring this 100-year old drinking water facility up to modern standards so it can continue to be a viable drinking water source for the City of New Britain and surrounding communities. The project includes the replacement and restoration of the wellfields, demolition and removal of existing structures, and construction of new groundwater wells, a new pump house, and underground piping. It also includes the addition of water and sewer utilities in Maltby Street. This notification is for the Bristol Zoning Earth Removal special permit.

Please enter the date of the application, petition, request or plan:
2024-06-27

What is the size of the area to be disturbed?
equal to or greater than 5 acres

Is any part of this project located within 50 feet of a wetland, stream, pond, lake or reservoir?Yes

What type of use is this application, petition, request or plan proposing?Institutional (school, hospital, nursing home, etc,)

How will this project be provided a potable water supply?Connection to existing public water supply

How will domestic waste be handled?
Sanitary Sewer (will be extended to project area as a result of project)

If the proposed project is 1) not located on single family residential property and 2) will utilize a new well for drinking water supply, a Public Water Supply (PWS) Screening Application should be submitted to the Department of Public Health. Was a PWS Screening Application submitted?Yes

Applicant Name:
New Britain Water Department - Ramon Esponda

Applicant email address:
Ray.Esponda@newbritainct.gov

Street address or intersection of application, petition, request or plan:
Maltby Street, Bristol CT

Enter Project Longitude/Latitude:
-72.916330
41.700721

Is there any other information relevant to the Department's review of this application, petition, request or plan? If so, please enter in the space below:
This project is receiving funding by the Department of Public Health and there has been much coordination and collaboration between the City of New Britain, the design team, and the Department. The Department has been kept updated throughout the progress of the project design and has already received site plans and other documentation.

If you would like a confirmation of this submission to be sent to the town, please enter the email address you would like it to be sent to in the field below:
gerlachkt@cdmsmith.com

From: Joseph Hammer [mailto:jhammer@mrglaw.com]
Sent: Wednesday, July 3, 2024 3:18 PM
To: Robert Flanagan <RobertFlanagan@bristolct.gov>; Nancy Levesque <NancyLevesque@bristolct.gov>; andrewarmstrong@bristolct.org
Cc: ray.esponda@newbritainct.gov; Sebastian Amenta - Comprehensive Environmental Inc. (samenta@ceiengineers.com) <samenta@ceiengineers.com>; Varghese, Vinta A. (vargheseva@cdmsmith.com) <vargheseva@cdmsmith.com>; Rachel Fancy <RFancy@mrglaw.com>
Subject: Bristol Zoning Commission - Applications #2504, #2505,# 2506; Applicant - City of New Britain, Water Department

Dear Mr. Flanagan,

Our firm represents the City of New Britain in connection with the above-referenced Special Permit and Site Plan applications which were submitted on June 27, 2024.

The applicant understands that due to the holidays and anticipated scheduling of public hearings by the Zoning Commission, the public hearing on the applications will likely be scheduled for September 16, 2024. The 65 day period to open the hearing, following receipt of the applications on July 8, will expire on September 11. The applicant therefore consents to a five-day extension of time, to September 16, 2024, within which to commence the public hearing.

Thank you.

M R G
MacDermid Reynolds & Glissman, P.C.
110 Whitney Avenue
New Haven, CT 06510

86 Farmington Avenue
Hartford, CT 06105
www.mrglaw.com

Joseph L. Hammer
jhammer@mrglaw.com
Tel: 203-777-1001
Cell: 860-992-3130
Fax: 860-547-1191
Bio V-card

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Site Plan Comments - Earth Removal

CITY OF BRISTOL
SITE PLAN REVIEW COMMITTEE
STAFF COMMENTS - 2506

SPECIAL PERMIT: Application #2506 – Special Permit for Earth Removal at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; R-40 (Single- Family Residential) zone; New Britain Water Department, applicant. *Plans Dated: June 2024; Date of Committee Review: July 24, 2024 (first review); September 16, 2024 (second review)*

ENGINEERING/PUBLIC WORKS (Anthony Lorenzetti):

1. Section 15.2.5 B 1, provide mapping that shows the 100-foot buffer location from residential property, and the abutting property that is located 70 feet from the proposed excavation as stated on page 3 the project narrative.

   9/7/24 Applicant Response: The additional properties will be shown on expanded drawings after completion of the additional survey in October 2024.

   10/21/24 City Response:

2. Section 15.2.5 E, provide a narrative and plans showing areas of tree removal.

   9/7/24 Applicant Response: Additional notes regarding tree removal will be added to Sheet C-7 to reflect this work and a narrative will be developed.

   10/21/24 City Response:

3. See comment above regarding traffic.

   9/7/24 Applicant Response: A more detailed traffic control narrative is in development and will incorporate any additional considerations put forth by the City, as well as estimated number of trucks associated with material removal.

   10/21/24 City Response:

CITY PLANNER (Robert Flanagan/Andrew Armstrong):

1. What are the proposed limits of tree clearing for all proposed improvements? Particularly, show the dimension and final landscape condition for proposed compensation and storage area abutting single-family residential properties on the upper and lower wellfields. Provide a landscape sheet showing these conditions and setback dimensions to the property lines not just the floodway line. How will limits of clearing be marked in the field?

   9/7/24 Applicant Response: Additional notes regarding tree removal will be added to Sheet C-7 to reflect this work. Further, additional drawings to clarify these conditions are in development and will be added to the drawing set.

   10/21/24 City Response:

2. Provide a plan sheet that clearly shows residential property lines, particularly the properties from Collins Road and parcel boundaries, including the abutting parcel located at Assessor's Map 53, Lot 147. Plans provided are drawn indicating mostly Wetlands features.

   9/7/24 Applicant Response: Additional drawings to clarify these conditions are in development and will be added to the drawing set.

   10/21/24 City Response:

3. How will limits of clearing be marked in the field? Applicant should develop a plan for review by staff that shows limits of clearing marked in the field. These limits will need to be inspected prior to and during Earth Removal activities occurring on site.

   9/7/24 Applicant Response: Additional drawings to clarify these conditions are in development and will be added to the drawing set.

   10/21/24 City Response:

4. What are the proposed hours of operation for earth removal?

   9/7/24 Applicant Response: Specification Section 011000 includes work hours limitations of 7:00 am to 7:00 pm Mondays through Saturdays, and 9:00 am to 5:00 pm Sundays, and a reference to the City of Bristol Noise Ordinance.

   10/21/24 City Response:

5. Notes should be added to the plan related to measures to control dust and noise associated with the operation.

   9/7/24 Applicant Response: Additional notes will be added to the Civil Drawings. Noise pollution is also addressed in the Contract Supplemental General Conditions and Special Provisions; Dust control is also included in Specification Sections 015000 and various technical specifications.

   10/21/24 City Response:

6. Applicant should define the protective measures used to minimize the nuisance of noise, dust and flying rock.

   9/7/24 Applicant Response: Additional notes will be added to the Civil Drawings. Noise pollution is also addressed in the Contract Supplemental General Conditions and Special Provisions; Dust control is also included in Specification Sections 015000 and various technical specifications.

   10/21/24 City Response:

7. Applicant should provide an engineering estimate for the posting of a Sedimentation and Erosion Control Performance Bond for the project. Engineer should “show the work” in how the bond amount was calculated.

   9/7/24 Applicant Response: This is in development.

   10/21/24 City Response:

8. The abbreviated plan set shows many red revision clouds. Was this plan set intended to be submitted? Please make changes and remove notes and revision symbols.

   9/7/24 Applicant Response: The latest drawings, revised to incorporate comments herein, will be submitted in October 2024.

   10/21/24 City Response:

9. The Zoning Table lists the proposed building height as 258.3 feet. Please revise.

   9/7/24 Applicant Response: The reference to 258.3 feet in the Zoning Table on Sheet C-10 is an elevation, not the building height; this will be revised in the October 2024 submission.

10/21/24 City Response:

10. There are 2 separate Zoning Tables with the same lot numbers and different requirements. Please clarify.

9/7/24 Applicant Response: The second table on Sheet C-10 refers to parking requirements; this will be revised in the October 2024 submission.

10/21/24 City Response:

11. The erosion and sediment control narrative references protecting waterways, wetlands, etc. What steps are being taken to reduce the impacts on abutting residential neighbors? What steps will be taken to protect existing properties from the newly created temporary accessway from Mix Street, such as 871 Farmington Avenue and others?

9/7/24 Applicant Response: Locations of E&S controls are shown on Sheets C-6, C-7, and C-8. Additional measures to protect adjacent properties are under review and will be included in the revised drawings to be submitted in October 2024.

10/21/24 City Response:

12. Include the proposed E&S control measures outlined in the narrative in the site plan set.

9/7/24 Applicant Response: Locations of E&S controls are shown on Sheets C-6, C-7, and C-8. Additional drawings are in development and will be added to the drawing set.

10/21/24 City Response:

13. Include a plan sheet showing E&S controls. (E&S control details are included in the current set).

9/7/24 Applicant Response: Locations of E&S controls are shown on Sheets C-6, C-7, and C-8. Additional drawings are in development and will be added to the drawing set.

10/21/24 City Response:

14. The “site plans” for the upper and lower wellfields need to be shown as an actual site plan. The building and site features are not clear. These sheets primarily show underground raceway schedules, charts and other items that are not relevant and should be separate from the site plan.

9/7/24 Applicant Response: Additional drawings to clarify these conditions, including a simpler overall Site Plan, are in development and will be added to the drawing set.

10/21/24 City Response:

15. Show the required 100-foot buffer for excavation to properties per Article II, Section 15.2.5A.1.

9/7/24 Applicant Response: Expanded drawings will be provided after completion of the additional survey in October 2024.

10/21/24 City Response:

16. Vehicular access to the site within the 100-foot buffer requires Commission approval.

9/7/24 Applicant Response: Enhanced mapping and site access will be shown on expanded drawings after completion of the additional survey in October 2024.

10/21/24 City Response:

17. No trees greater than five inches in caliper measured 3 feet off the ground shall be removed unless approved by the Commission. Is there documentation showing the limits of tree clearing?

9/7/24 Applicant Response: Additional notes regarding tree removal will be added to Sheet C-7 to reflect this work.

10/21/24 City Response:

BUILDING/ZONING ENFORCEMENT (Richard Brown)
1. No comments at this time.

POLICE DEPARTMENT (Lt. Krajewski/Sgt. Ouellette)
1. No issues with design, does not affect traffic of surrounding roads.

FIRE MARSHAL (Kristopher Lambert):
1. On page A-2 there is a double leaf door that leads from/into the "Future Treatment Area" that is part of a 2-hour rated wall assembly. What is the rating of these doors?

9/7/24 Applicant Response: This is door D-104C per Sheet A-3; this door has a 90 minute fire rating per the Door Schedule on Sheet A-9.

10/21/24 City Response:

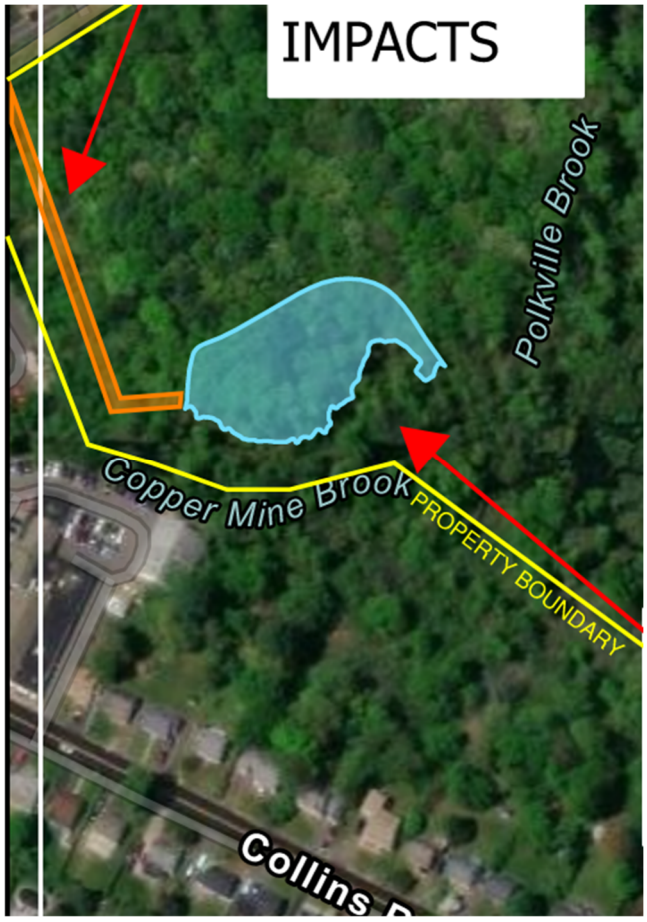
WATER DEPARTMENT (Paul Keegan/Rob Longo)
1. No comments at this time.

Supplemental Narrative – Earth Removal 101024

Zoning Commission – Supplemental Information

Earth Excavation Activities near Collins Street:

The Drawings have been revised to more clearly show offset distances between the earth excavation activities associated with the wetlands/compensatory storage creation area in the southern portion of the site and the adjacent residential properties on Collins Street. The proposed earth excavation activities will be approximately 86-feet from the closest residential property boundary. Article 15.2.5.B(1) of the Bristol Zoning Regulations requires a 100-foot buffer between earth excavations and adjacent residential lots. However, Article 15.2.5.B (3) allows the Commission to reduce the required buffer area if the existing vegetation or topography within the buffer area will effectively screen the earth removal. As seen on the Drawings and the aerial view, below, the buffer area consists of densely wooded area and the Copper Mine Brook. Additionally, the actual dwellings located on the properties adjacent to the earth excavation are approximately 330-feet from the excavation. Excavation in this area is necessary to construct the compensatory flood storage area and the selection of its location is based on the elevations of existing topography and the need to excavate at elevations matching those where fill was added to the site. Following excavation of this area to the required elevations, it will be restored as a wetland.



Construction Traffic Control Narrative:

A construction vehicle routing figure was included with the June 2024 application. As indicated in the figure, the main route for construction vehicle access to the site on Maltby Street will be via Stafford Avenue, south to Farmington Avenue (Route 6). Vehicles can than access other State Roadways, including Route 69 (to the west) and Route 177 (to the east). Specification Section 011000 "Summary" of the Contract Documents has been updated to require the Contractor to follow this route, to the limits practicable, and to only utilize Mix Street for access to the wetland creation area located off Mix Street. Revised Section 011000 is included as an attachment.

The Annual Average Daily Traffic (AADT) for Stafford Avenue is 8,300 vehicles per day, 19,300 vehicles per day for Route 6 (west of Stafford Avenue), and 23,200 vehicles per day for Route 6 (east of Stafford Avenue). The following table presents an estimated number of construction vehicles expected per major construction activity on the site. These estimated values include trucking materials on/off site; however, they do not include personal vehicles of the construction crew. It is assumed Contractor will utilize designated space on the site to provide parking for personal crew vehicles, which will stay on-site for the duration of the workday. The Contractor will have to identify offsite parking for personal crew vehicles that cannot be accommodated onsite.

Construction Activity	Activity Duration	Estimated Construction Vehicles[1]
Supply Pond and Canal Restoration	3 Months	15-20 vehicles per day
UWF and LWF Well Drilling	17 Months	2-5 vehicles per day (Large drill rigs will likely remain on site for duration of drilling)
Existing Pump Station Demolition & Pond Pump Station Construction	18 Months	25 vehicles per day
Maltby Street Utility Installation (Water and Sewer)	3 Months	5 vehicles per day (10 vehicles per day during paving)
Construction of Wetlands and Compensatory Storage Areas	3 Months	5-10 vehicles per day
Construction of Wetlands and Compensatory Storage Areas (Mix Street)	1 Month	5-10 vehicles per day

Notes:

1) Presented values are estimated and are subject to change depending on the Contractor.

2) Construction activities will not all occur concurrently, so the total number of vehicles entering and exiting the site per day will vary depending on the actual construction activities occurring.

Specification Section 011000 has been updated to also prohibit work in the intersection of Maltby Street and Stafford Avenue during school bus drop off/pick-up hours and to limit utility work in Maltby Street to the hours of 10am to 4 pm, to avoid peak traffic time. Finally, we are requiring the Contractor to coordinate with the Bristol Public Works Department to limit traffic and construction impacts caused by this project and other projects in the area, including the Jerome Avenue Bridge Project. See attached updated Section 011000 for these changes.

The drawings have been updated to include new W11-10 Truck sign to warn vehicle traffic for trucks entering and exiting the facility. As shown on the drawings, signs will be installed 250-ft from the site access drives in both directions on Maltby Street. Table 23-C of the Manual on Uniform Traffic Control

Devices (MUTCD 11TH Edition) was used to determine the distance for advance placement of warning signs. A speed limit of 35 miles per hour (mph) (30 mph base speed on Maltby Street with an additional 5 mph) was used to determine the distance on the table.

W11-10	41-4837	Truck Symbol	30	30	1	SL	XI	Yellow	

Standard roadway and curb/sidewalk repair details were received from the City and will be incorporated into the final Bid Set Drawings. These standard details are included as an Attachment to this narrative. The standard DPW excavation forms provided to Contractors were also received from the City and will be incorporated into the final Bid Set Specifications. These standard forms are included as an Attachment to this narrative.

Construction Sequencing Narrative:

A proposed construction sequencing figure for critical path items in the White Bridge Waterworks Facilities Upper and Lower Wellfields and Pond Pumping Station Project was included as an attachment to the June 2024 permit submission. Some specific sequencing constraints and estimated durations in relation to earth moving were also included in the narrative associated with the June 2024 submission. The list included in the narrative is copied below and annotated with revisions based on comments received from the City. It is important to note that these represent a suggested sequencing for critical path items or items that will require earth excavation and disturbance of soils. The final Construction Sequence will be developed by the Contractor.

Construction Sequencing - Stage 1 (Fall 2024 – Fall 2026)

- Terminate operation of existing Lower Wellfield (LWF) Wells
- **Install Erosion and Sedimentation control measures around the Lower Wellfield, Lower Wellfield Pump Station, Supply Pond, and Canal areas**
- Demolish existing LWF Pumping Station (3 months)
- Demolish existing caisson and fencing near intake pond (1 month)
- Perform canal and pond restoration (to be completed following demolition of the caisson and prior to replacement of the canal culverts) (3 months – **not to be performed between November 1 and March 15**) [Shown on figure to occupy 8 months, will depend on Contractor's methods but 3 month duration anticipated]
- Install test wells, stream gauges, and other equipment required for well pump testing at Upper Wellfield (UWF) and LWF (2 months) [Shown on figure to occupy 3 months, will depend on Contractor's methods but 2 month duration anticipated]
- **Install Erosion and Sedimentation control measures around the Upper Wellfield and access driveway**
- Drill UWF Wells. Order final UWF pumps/motors (3 months each, 7 months total – **not to be performed between November 1 and March 15 at applicable wells**)
- Drill LWF Wells. Order final LWF pumps/motors (3 months each, 13 months total – **not to be performed between November 1 and March 15 at applicable wells, not to be performed between March and May**)
- Install well meter vault, vault control cabinets, meter, and electrical equipment (18 months total, to follow each well drilled – **not to be performed between November 1 and March 15 at applicable wells**) [Shown on figure to occupy 13 months with a 5 month downtime for NDDB restrictions, will depend on well drilling sequence and proximity to wetlands]

- Install foundation of new Pond Pumping Station building (3 months – **not to be performed between March and May**) [Shown on figure to occupy 4 months, will depend on Contractor's methods but 3 month duration anticipated]

Construction Sequencing - Stage 2 (Spring 2025 – Fall 2026)

- Install yard piping from UWF and LWF for raw water transmission to Shuttle Meadow during Groundwater Under Direct Influence of Surface Water (GWUDI) testing. Install temporary connection to existing Pond Pumping Station. Install fiber optic cabling (6 months – **not to be performed between November 1 and March 15**
- Install final LWF yard piping, electrical conduit, fiber optic cabling (6 months – **not to be performed between November 1 and March 15 in applicable areas, not to be performed between March and May in applicable areas**)
- **Final stabilization of UWF and LWF wellhead areas**
- Perform canal crossing work for yard piping and restore canal culverts (1 month – **not to be performed between November 1 and March 15**)
- Install new gas service from Mix Street to Pond Pumping Station building (2 months – **not to be performed between March and May**)
- Install new sewer force main and water service to Maltby Street (3 months)
- Install fiber optic cables and Well Pump Communication/VFD Platforms (3 months each, 9 months total)
- Terminate operation of existing UWF Wells. **Install Erosion and Sedimentation control measures around the UWF Pump Station**
- Demolish existing UWF Pump Station
- Install and test UWF submersible well pumps and motors (2 months)
- Install and test LWF submersible well pumps and motors (2 months)
- Install electrical service and equipment at the new Pond Pumping Station, UWF, and LWF (3 months)

Construction Sequencing - Stage 3 (Summer 2025 – Spring 2028)

- Setup instrumentation and perform GWUDI Testing on new UWF and LWF wells (12 months). UWF and LWF pumped via raw water main to Shuttle Meadow Reservoir
- Construct new Pond Pumping Station Building (18 months total - **exterior construction not to be performed between March and May**)
- Install yard piping to complete final connections to Pond Pumping Station (1 month)

Construction Sequencing – Stage 4 (Summer 2027 – Fall 2027)

- GWUDI testing completed
- Completion of new Pond Pumping Station building. Terminate operation of existing Pond Pumping Station
- Abandon/demolish existing Pond Pumping Station building, electrical shed, and UWF Pumping Station. Cap and abandon temporary connections (3 months)

Aquifer Protection Best Management Practices:

As discussed during the September 16, 2024 Zoning Commission meeting, the CT DEEP Best Management Practices Document is incorporated into the Contract Documents as a requirement and an Attachment to Specification Section 015000 "Temporary Facilities and Controls." The updated section is included as an Attachment.

Estimated Quantities of Material Brought On/Off Site:

Quantity Material Brought On-Site	Quantity Material Taken Off-Site
Pond Pump Station Fill = 143,745 cf	Compensatory Flood Storage Areas = 433,855 cf
Upper Wellfield Fill = 13,840 cf	Supply Pond/Canal Sediment = 162,000 cf
Lower Wellfield Fill = 19,077 cf	
Total = 176,662 cf	**Total = 595,855 cf**

It is estimated that 176,662 cubic feet (cf) (or 6,543 cubic yards [cy]) of material will be brought onto the site to fill areas around each of the nine wellheads and around the new Pond Pump Station building. This fill is necessary to comply with CT DPH requirements for infrastructure above flood elevations and to provide a 50-foot radius around wellheads to the nearest high-water mark. Approximately 595,855 cf (or 22,068 cy) of material is expected to be removed from the site. Removal of this material is required to offset necessary fill within the floodplain and will be removed from the designated compensatory flood storage creation areas indicated on the Drawings. A portion of the material removed from the site will be sediment from the supply pond and canal (162,000 cf or 6,000 cy) that has accumulated over the past 20 years. This is a routine maintenance activity for the water utility and will restore the supply pond and canal to their constructed capacities. Depending on sampling and gradation testing, the Contractor may elect to reuse material scheduled for removal from the site as fill material in other areas.

Changes Made to Drawings Since June 27, 2024 Submittal:

Several changes have been made to the Drawings since the June 2024 submittal package. Please see a summary of the major changes made, below. See the revised Drawings, Attached.

- Site Plans for the different locations of work (Upper Wellfield, Lower Wellfield, Pond Pumping Station, and wetlands/compensatory storage creation sites) have been simplified. Property boundaries, required setback lines, and site features have been clarified.
- A class A-2 survey was performed for the southern portion of Lot 53-145 along Mix Street and along the property boundary with the lots on Collins Street. Enhanced mapping of these areas are included in the Drawings.
- Offsets from earth excavation locations to the nearest property boundary were more clearly depicted.
- As agreed with the Bristol Water and Sewer Department in the October 8, 2024 call, the 8-inch gravity sewer was extended west on Maltby Street to the property boundary between Lot 53-145-2 (Bristol Baseball Field) and Lot 53-145. The slope of the gravity sewer line in Maltby Street was adjusted from 0.01 to 0.004 to provide a minimum 3-foot coverage to pipe along the entire alignment. The alignment of the 1.25-inch force main from the Pond Pump Station was moved into the New Britain owned property of Lot 53-145 until its lateral connection within a new manhole in Maltby Street.
- Extents of clearing and grubbing were better designated on the Drawings.
- The City of Bristol standard road repair and sidewalk details have been received and will be incorporated into final bid set Drawing Detail Sheets. For record, PDFs of the standard details that will be incorporated into final Drawings are attached.
- Cover Sheet information has been updated to indicate the application numbers and approvals of the project.
- The Zoning Table has been simplified and values corrected.

Attachments:

- Attachment A – Revised Site Plan Drawings
- Attachment B – Revised Specification Section 011000 “Summary”
- Attachment C – Revised Specification Section 015000 “Temporary Facilities and Controls”
- Attachment D – Bristol Standard Sidewalk and Road Repair Details
- Attachment E – Bristol Standard DPW Contractor Forms

Project Narrative

Zoning Commission – Application for Special Permit

Project Narrative:

The New Britain Water Department (NBWD) has owned and operated groundwater wells as a raw water source at the White Bridge Waterworks Facilities on Maltby Street in Bristol for over one hundred years. The facilities are located in an R-40 designated residential zone across several parcels including 52-11, 52-15, 52-16B16A, 52-17, 53-145, 53-147, 53-149, 53-150, and 53-151. Work is specifically being performed on lot 52-16B16A, 52-17, 53-145, 53-147, and 53-150. Project location figures are included as **Attachment 1** to this application. The Lower Wellfield wells (located south of Maltby Street) were originally constructed in 1921 and have been operated since 1923. These wells have undergone upgrades in the 1940s and 1950s, with the most recent upgrades occurring the 1980s. A pump station at the Lower Wellfield was constructed as part of the 1940s upgrades. The Upper Wellfield wells (located north of Maltby Street) were originally installed in 1940. These were replaced with new wells in 1955 and again in the 1980s. A pump station at the Upper Wellfield was also constructed in the floodway in 1955. In addition to the wells, NBWD has also operated the Supply Pond surface water source at the White Bridge Waterworks Facilities since the 1950s. The existing 1923 pump station, already located on the site, was converted to a surface water pump station in 1950. This building and associated pumping equipment have not received major upgrades since.

Much of the mechanical equipment at the wellfields and existing Pond Pumping Station has reached the end of its useful life or, due to its age, is very difficult or not possible to find the necessary replacement parts for sustained operations. Regulatory requirements and industry standards have also changed over the past 100-years. To redevelop the Upper and Lower Wellfields with new wells that can be used as a potable drinking water source, the Connecticut Department of Public Health (DPH) requires new wells to be located 50-feet from any water body or wetlands boundary. In addition, DPH requires new wells and water infrastructure to be raised to an elevation 2-feet above the 100-year floodplain elevation. As the majority of the NBWD owned property is within the 100-year floodplain with some areas up to 6-feet below the flood elevation, the existing wells and three pump stations cannot be redrilled/rehabilitated in their current locations. This project will rehabilitate the White Bridge Waterworks Facility to bring it up to modern standards and regulations and create a reliable potable drinking water source for the New Britain Water Department and surrounding communities.

The project includes the abandonment of all currently existing wells in accordance with DPH requirements, demolition of existing structures and the three existing pump stations, construction of a single new pump station, filling and grading to achieve DPH flood resiliency requirements, wetlands creation/replication, and creation of compensatory flood storage. A total of three new wells will be drilled at the Upper Wellfield and six new wells drilled at the Lower Wellfield. Based on water quality, the Lower Wellfield wells may but suitable for use as a public potable water supply with minimal chemical treatment, subject to the ground water under the direct influence of surface water (GWUDI) testing. Both the Upper and Lower Wellfield wells will be equipped with new submersible style pumps within the wells, making it unnecessary to have pump stations at each site. An Aquifer Protection Area Program Registration Form for Regulated Activities will be submitted following this application submittal. A single pump station building will be constructed to house pumping equipment associated with the

Supply Pond surface water source and will also include designated space for treatment equipment in the event the Lower Wellfield is used for potable water. This new building will be constructed with a finished floor elevation 2-feet above the 100-year flood elevation and outside the floodway. The project will also install associated yard piping around the wells, pump station building, and connections to the existing New Britain water infrastructure on-site. New water and sewer utilities from Bristol will be constructed in Maltby Street and provide service for the new pump station. Design Drawings for the project are included in **Attachment 2** and a 3D Rendering of the new Pond Pumping Station is included in **Attachment 3**.

As filling of the site is required for the new wells and pump station to meet DPH requirements, compensatory flood storage areas will be constructed so as to not increase the current flood elevation levels, as given by FEMA guidelines. The new structure and wells will add approximately 6,543 cubic yards of fill within the floodplain. Approximately 15,327 cubic yards of material will be removed from the floodplain for the creation of compensatory storage. These compensatory storage areas will also create additional wetland areas. Fill and earth removal on the site is associated with construction activities only and the final use of the site will not include earth removal activities. A Special Permit for Earth Removal in Excess of 400 Cubic Yards is also being filed for approval. The project will impact approximately 24,952 square feet of wetlands. However, wetlands replication will be done at a ratio of three to one, with a total of 75,946 square feet of wetlands replication proposed. In total, the project is expected to disturb approximately 223,000 square feet of land. This includes areas for wetland replication; compensatory storage creation; and disturbances for installing the new wells, associated yard piping, abandoning and decommissioning existing wells, Pond Pump Station building construction, and demolition of the three existing buildings. A Permit for Flood Plain Development (Application #23-458F-305), Form IW-1 (Application for a Wetlands Permit) (Application #2020), and Form IW-2 (Application for a Wetlands Boundary Change) (Application #2019) were approved by the Bristol Inland Wetlands and Watercourses Agency of the Conservation Commission on June 6, 2024 for this project. A Site Plan Permit for this project is also being filed for approval.

An Erosion and Sediment Control Plan has been developed to control accelerated erosion and sedimentation from stormwater runoff on the site during construction based on the best available technologies. The Control Plan narrative is included with this application in accordance with Section 15.1.5. The “Connecticut Guidelines for Soil Erosion and Sedimentation Control (2002)” document was utilized in preparation of the Plan. A Stormwater Management Report for post-construction conditions has also been developed for this project based on the 2004 *Connecticut Stormwater Quality Manual (CSQM)* as required in Section 15.5.3. A copy of the Stormwater Management Report is included as **Attachment 6** to this application.

The new Pond Pump Station and Lower Wellfield area will be enclosed in a 6.5-foot tall chain link fence for security. A double-leaf swing gate will provide access to the site on the driveway. As shown on the Drawings, the fence and access gate are located outside of the 50-foot required front yardage for R-40 residential zones. A double-leaf vehicular control gate will be located at the foot of the driveway to control vehicular access onto the public utility site. This gate will be less than the 4.5-foot height restriction for fences within front yards and will be more than 50 percent open. A detail for this vehicular control gate is included in the drawings. An existing vehicular access gate for the Upper Wellfield access road (located on the north side of Maltby Street) will remain.

Public utility buildings are not listed as a Use Group in the table included in Section 13.2 of the Zoning Regulations; however, two parking spaces will be provided at the Pond Pumping Station. Each parking space is designed to be 10-feet wide and 18-feet deep, meeting the requirements of perpendicular parking spaces required by Section 13.7.2. As a utility service building, this facility is not open to the public and it will not be continuously manned by NBWD staff. It is not expected that more than two NBWD staff vehicles will be present on-site during operations. The post-construction vehicle traffic from NBWD staff is not expected to increase from their current operations. In the event potable water treatment is implemented for the Lower Wellfield, it is expected that the facility will received 2-3 trucks per month for deliveries.

A construction vehicle routing figure is included as **Attachment 5** to this application. The main route for construction vehicle access to the site on Maltby Street will be via Stafford Avenue, south to Farmington Avenue (Route 6). Vehicles can than access other State Roadways, including Route 69 (to the west) and Route 177 (to the east). It is expected that 15-20 construction vehicles (including pickup trucks, trailers, dump trucks, etc.) could be accessing the site during construction. The Annual Average Daily Traffic (AADT) for Stafford Avenue is 8,300 vehicles per day, 19,300 vehicles per day for Route 6 (west of Stafford Avenue), and 23,200 vehicles per day for Route 6 (east of Stafford Avenue). The construction vehicles generated by this project will represent less than 1% of traffic in the area. For access to the compensatory storage area located in the south of the site (closest to Harbor Freight), construction vehicle access will be off Mix Street via Stafford Avenue. Additionally, work to install new water and sewer utilities within Maltby Street will require temporary lane closures. Typical traffic management details have been developed and are included in the attached design drawings.

The accompanying plans to this application are based on a Class A-2 survey map prepared by a registered land surveyor licensed to conduct business in the State of Connecticut with the exception of Sheets C-13, Sheet C-14, and Sheet C-14A. These sheets depict the general locations of wetland replication and compensatory storage areas and are currently based on a Class D survey due to the scale and size of the parcels and location of work. We request a Class A-2 survey of these areas to be included as a condition of approval for this application and the final Class A-2 survey will be performed and submitted to the Commission for final issuance of the Special Permit prior to construction. Additionally, the wetlands replication and compensatory storage area in the southernmost part of the site, shown on Sheet C-13, cannot comply with the 100-foot buffer zone to a residential property (as required by Section 15.2.5.B). The closest abutting residential property line is 70-feet from proposed excavation activities for the wetlands replication and compensatory storage area. The location of this earth removal work to create compensatory storage is dictated by the contours of existing grade and the removal of certain volumes at each elevation to offset fill brought to that same elevation. It is important to note that this area of the site is heavily vegetated along with the abutting residential properties. We also note that the closest residential building on these lots are 250-feet away. We believe the dense vegetation, distance to residential dwelling, and nature of this construction (creation of wetlands area without a permanent structure) comply with the intent of requirements in Section 15.2.5.B for screening.

Erosion Control Narrative

Zoning Commission – Application for Special Permit

Erosion and Sediment Control Plan- Project Narrative:

This Erosion and Sediment Control Plan is provided in accordance with Section 15.1.5 of the Bristol Zoning Regulations. The erosion and sedimentation control measures at the White Bridge facility focus on the protection of wetlands and waterways during and following construction since the work includes land disturbances, excavation dewatering, supply pond and canal sediment removal activities, and other associated construction activities. Several methods are included on the Drawings to slow the flow of runoff and protect disturbed land during construction activities. Please refer to the project plans for typical details of measures to protect wetlands and waterways during and after construction. The following summary presents typical mitigation measures that will be implemented to avoid and minimize wetland impacts during construction.

Construction Period

- During construction, the limit of land disturbances will be kept to a minimum, where possible, and the construction will be sequenced so the entire site will not be disturbed at the same time.
- Clearing and grubbing will be limited to only the areas necessary for work to be performed, specifically in areas at the Upper and Lower Wellfields (Sheet C-9 and C-11) where wells and piping will be installed, at the Maltby Street 16" pipe crossing (Sheet C-18), at areas where wetlands and compensatory storage will be created (Sheet C-13 and C-14), and areas around the Supply Pond for access during sediment removal activities (Sheet C-23).
- Sedimentation barriers (i.e., silt fence and/or compost logs/straw wattles installed per industry standards) will be installed at the down gradient limits of work and construction access roadways prior to the commencement of work to prevent the transport of sediment to the downgradient wetlands and waterways during construction (see Sheets C-6 thru C-8). Specifically, at the Upper Wellfield this includes compost logs/straw wattles along the facility driveway from Maltby Street to the existing Pumping Station and down each of the well field laterals. At the Lower Wellfield, this includes along the wetlands to the north and west of proposed work, along the Coppermine Brook to the east, around the Supply Pond, and along both sides of the Canal to the Polkville Avenue Brook. These barriers will be inspected at least once per week and within 24 hours of rainfall events ½-inch or greater and repaired as needed. These barriers will remain in place until all disturbed soils are stabilized. A stockpile of compost logs/straw wattles and silt fence will be maintained on site for routine maintenance and emergency repairs. Barriers will be replaced as necessary due to sediment build-up and degradation.
- Sedimentation barriers (i.e., silt fence and/or compost logs/straw wattles installed per industry standards) will be installed surrounding temporary stockpile areas.
- For all slopes 4:1 or steeper, an erosion control blanket will be required, including at the Upper and Lower Wellfield wells (see Sheet C-9 and C-11). Temporary erosion control blankets will be inspected at least once per week and within 24 hours of rainfall events.

- A turbidity curtain will be installed to prevent sedimentation and turbidity disturbances in the Coppermine Brook during canal and supply pond sediment removal activities (see Sheet C-23 and Detail Sheet C-24). Turbidity curtains will be inspected daily during Supply Pond and canal sediment removal activities. The turbidity curtain will not be removed before sediment removal activities have ended and clarity of water has returned.
- Catch basin filters will be installed on catch basins near all excavation work on Maltby Street, Stafford Avenue, and Mix Street (See Sheet C-18 and Detail Sheet C-24).
- In the event that excavation dewatering is necessary, water will be pumped and discharged to one of the temporary sedimentation basins in designated areas of the site (see Sheet C-6 thru C-8 and Detail Sheet C-24). Temporary sedimentation basins will be inspected at least once per week and cleaned as needed to remove accumulated sediments. Temporary portable sediment tanks may also be used to handle significant amounts of excavation dewatering. All water to be discharged from dewatering activities will be filtered or otherwise treated prior to discharge to prevent siltation to adjacent areas. Best management practices will be used by the Contractor in order to prevent siltation to adjacent areas during dewatering activities.
- A temporary sediment dewatering and stockpiling area has been designated within the Supply Pond to dewater removed sediments during restoration activities (see Sheet C-23 and Detail Sheet C-24). Stockpiled materials and containment area will be inspected daily during dewatering activities, weekly during non-dewatering activities, and within 24 hours of rainfall events of ½-inch or greater.
- A stabilized construction entrance is also being required for the site to prevent tire tracked soils to onsite and offsite locations (see Sheet C-23 and Detail Sheet C-24). The stabilized construction entrance will be inspected periodically and additional top dressing or length will be added, as necessary, to continue capturing sediment tracked on vehicles.
- The silt fence and/or compost log/straw wattle barrier will not be removed until the site areas are vegetated, paved or otherwise permanently stabilized to prevent erosion of exposed soils. Work will proceed as rapidly as possible, limiting the exposure time of disturbed soils to wind and precipitation.
- The sedimentation barriers will not be removed until the site areas are vegetated, paved or otherwise permanently stabilized to prevent erosion of exposed soils. Work will proceed as rapidly as possible, limiting the exposure time of disturbed soils to wind and precipitation.
- Periodic inspections will be made by the applicant to ensure compliance with the permit conditions.

Spill Control Measures

- Spill containment equipment (e.g. oil absorbent pads, oil absorbent materials, containment booms, shovels, etc.) will be stored in the equipment storage and refueling area in an easily accessible manner for use in the clean-up of accidental releases of fuel or other hazardous materials. Should there be an accidental release the proper authorities will be notified in accordance with all applicable federal, state, and local laws; and

- To minimize the possibility of leakage of hydraulic fluid, all hydraulic lines on all construction equipment and vehicles will be inspected at the end of each workday. If any excessive wear or leakage is observed, the line will be repaired prior to further use. In addition, a supply of oil absorbent materials (i.e. pads, "speedy dry," and/or booms) will be maintained with the equipment at the work area for immediate deployment in the event of an accidental release of fuel, hydraulic fluid, oil, etc.

Schedule for Grading and Construction Activities:

A proposed construction sequencing for critical path items in the White Bridge Waterworks Facilities Upper and Lower Wellfields and Pond Pumping Station Project is included as an attachment to this application. Tasks listed are generally to be performed within each proposed stage, and are not necessarily presented sequentially. As required by Project Specifications, the Contractor is required to submit a detailed Final Construction Schedule for approval by the Engineer. Further, as required by the Specifications, the Contractor is required to submit a detailed Construction Sequencing Plan for review and approval by the Engineer. Both the Construction Schedule and Construction Sequencing Plan submitted by the Contractor will be reviewed for compliance with time of year restrictions imposed by the Natural Diversity Database (NDDB) (no bank disturbance work in/adjacent to wetlands November 1 through March 15) and for the expected Great Blue Heron nesting period (March through May).

Some specific sequencing constraints and estimated durations are listed below. <u>These represent a suggested sequencing for critical path items or items that will require earth excavation and disturbance of soils. The final Construction Sequence will be developed by the Contractor.</u> Some items listed in each "Stage" can/will overlap with items listed in previous stages.

<u>Construction Sequencing - Stage 1 (Fall 2024 – Fall 2026)</u>

- Terminate operation of existing Lower Wellfield (LWF) Wells
- **Install Erosion and Sedimentation control measures around the Lower Wellfield, Lower Wellfield Pump Station, Supply Pond, and Canal areas**
- Demolish existing LWF Pumping Station (3 months)
- Demolish existing caisson and fencing near intake pond (1 month)
- Perform canal and pond restoration (to be completed following demolition of the caisson and prior to replacement of the canal culverts) (3 months – **not to be performed between November 1 and March 15**)
- Install test wells, stream gauges, and other equipment required for well pump testing at Upper Wellfield (UWF) and LWF (2 months)
- **Install Erosion and Sedimentation control measures around the Upper Wellfield and access driveway**
- Drill UWF Wells. Order final UWF pumps/motors (3 months each, 7 months total – **not to be performed between November 1 and March 15 at applicable wells**)
- Drill LWF Wells. Order final LWF pumps/motors (3 months each, 13 months total – **not to be performed between November 1 and March 15 at applicable wells, not to be performed between March and May**)
- Install well meter vault, vault control cabinets, meter, and electrical equipment (18 months total, to follow each well drilled – **not to be performed between November 1 and March 15 at applicable wells**)

- Install foundation of new Pond Pumping Station building (3 months – **not to be performed between March and May**)

Construction Sequencing - Stage 2 (Spring 2025 – Fall 2026)

- Install yard piping from UWF and LWF for raw water transmission to Shuttle Meadow during Groundwater Under Direct Influence of Surface Water (GWUDI) testing. Install temporary connection to existing Pond Pumping Station. Install fiber optic cabling (6 months – **not to be performed between November 1 and March 15**
- Install final LWF yard piping, electrical conduit, fiber optic cabling (6 months – **not to be performed between November 1 and March 15 in applicable areas, not to be performed between March and May in applicable areas**)
- **Final stabilization of UWF and LWF wellhead areas**
- Perform canal crossing work for yard piping and restore canal culverts (1 month – **not to be performed between November 1 and March 15**)
- Install new gas service from Mix Street to Pond Pumping Station building (2 months – **not to be performed between March and May**)
- Install new sewer force main and water service to Maltby Street (3 months)
- Install fiber optic cables and Well Pump Communication/VFD Platforms (3 months each, 9 months total)
- Terminate operation of existing UWF Wells. **Install Erosion and Sedimentation control measures around the UWF Pump Station**
- Demolish existing UWF Pump Station
- Install and test UWF submersible well pumps and motors (2 months)
- Install and test LWF submersible well pumps and motors (2 months)
- Install electrical service and equipment at the new Pond Pumping Station, UWF, and LWF (3 months)

Construction Sequencing - Stage 3 (Summer 2025 – Spring 2028)

- Setup instrumentation and perform GWUDI Testing on new UWF and LWF wells (12 months). UWF and LWF pumped via raw water main to Shuttle Meadow Reservoir
- Construct new Pond Pumping Station Building (18 months total - **exterior construction not to be performed between March and May**)
- Install yard piping to complete final connections to Pond Pumping Station (1 month)

Construction Sequencing – Stage 4 (Summer 2027 – Fall 2027)

- GWUDI testing completed
- Completion of new Pond Pumping Station building. Terminate operation of existing Pond Pumping Station
- Abandon/demolish existing Pond Pumping Station building, electrical shed, and UWF Pumping Station. Cap and abandon temporary connections (3 months)

Construction Methods:

Trench excavations will be used for pipe, valve, and appurtenance installation. Suitable material removed from trenches may be placed back into the excavation and compacted or temporarily stockpiled on site, while material deemed unsuitable for reuse will be removed from the site. Open excavations will be used to install the foundation and footings for the Pond Pumping Station and the vaults located at each well. Material removed from these excavations will be taken off-site or temporarily stockpiled on the site with proper best management erosion and sedimentation control measures being implemented around the

stockpile to prevent sedimentation from stockpiled material. This includes placement of straw wattles/compost socks and a trenched silt fence around the stockpile area in addition to the sedimentation controls along the limits of work.

Alternative construction methods for the yard piping may include trenchless installation of pipe to limit area of disturbed land. Pipe could be installed by horizontal directional drilling, pipe ramming, pipe bursting of existing pipelines, tunneling, or horizontal auger boring. All of these methods would still require excavation for access to the existing pipe or as insertion and receiving pits. None of these methods were selected due to the amount and complexity of existing utilities present at the site, lack of record drawings for most of these utilities, and complexity of new piping connections to be installed.

A temporary stabilized construction entrance will be installed during sediment removal and restoration of the supply pond and canal. This construction entrance will run along the berm between the canal and supply pond to the temporary stabilized pond access point. Sediment removed from the supply pond and canal will be temporarily stored within the supply pond to dewater before being removed from the site.

Backfilling of trenches and excavations will be completed as soon as practicable. Pipe bedding will be placed up to 12-inches above the crown of the pipe and suitable backfill will be placed in 6-inch lifts and compacted by hand or pneumatic ramming with tools weighing at least 20 pounds to finished grade. Disturbed areas will be loamed and seeded to provide vegetated soil cover against sheet runoff and wind erosion. An erosion control blanket will be required for slopped areas until vegetated cover is established.

Typical construction equipment, including heavy machinery, is expected to be used to complete this work. Machinery may include bulldozers, loaders, excavators, backhoe loaders, triaxle dump trucks, and drill rig trucks. Equipment, machinery, and materials will be stored or stockpiled in the designated areas shown on the sequencing drawings.

Post-Construction Period

The following summary of mitigation measures will be implemented to restore any areas affected by short-term impacts that occur in or adjacent to wetlands.

- The final site is designed to have a 3-foot wide gravel infiltration trench with 1.5”-3” diameter washed aggregate covered with 6” pea gravel running along the facility driveway to collect and slow the flow of runoff from impervious surfaces (see Sheet C-10 and Detail Sheet C-26).
- All areas disturbed during construction activities are to be loamed and seeded to provide vegetated soil cover protection against sheet runoff and wind erosion (see Sheet C-9 thru C-12). Seeded areas will be inspected at least once per week and within 24 hours of rainfall events of ½-inch or greater.
- Once established, seeded areas will be mowed and maintained as appropriate.
- The Pond Pumping Station building roof drain leader will outlet to a riprap apron (See Sheet C-10 and Detail Sheet C-26). Riprap used in the roof drain apron will be inspected periodically to determine if high flows have caused scour beneath riprap or if vegetation removal is required. On

the northeast side of the Pond Pumping Station building, a retaining wall will be utilized to prevent steep slopes.

- The wetland replication and restoration areas will be planted with trees and shrubs per the planting plans, and seeded with a wetland seed mixture.
- If seeding occurs outside of the growing season, temporary stabilization measures (i.e., mulching or erosion control blankets) will be used to prevent erosion until the area can be seeded during the following growing season.
- Reseeding and mulching disturbed areas. These areas will be maintained and re-seeded to ensure that grass cover is adequate to stabilize the exposed soil, and
- Sedimentation and erosion control barriers will not be removed until a vegetative cover dense enough to prevent erosion is established.

Selections from Figure 3-2 of the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control:

Figure 3-2 Measure Selection Matrix

Identify Problem Areas	Identify Control Problems	Identify Strategy	Select Specific Measure		Plan Key
			Functional Group	Measure	
Disturbed Areas	**Control Soil Detachment**	Preserve and Conserve Existing Site Resources	Protect Vegetation	Tree Protection	TP
			Preserve and Conserve Soil	Topsoiling	TO
	Raindrop Splash			Land Grading	LG
				Surface Roughening	SR
Short or Shallow Slopes	Sheet & Rill Erosion	Protect Surface		Dust Control	DC
			Vegetative Soil Cover	Temporary Seeding	TS
	Wind Erosion			Permanent Seeding	PS
				Sodding	SO
				Landscape Planting	LP
Steep Slopes			Non-Living Soil Protection	Temporary Soil Protection	TSP
				Mulch for Seed	MS
Long Slopes				Landscape Mulch	LM
				Temporary Erosion Control Blanket	ECB
				Permanent Turf Reinforcement Mat	TRM
				Stone Slope Protection	SSP
Stockpile Areas		Protect Surface and/or Convey Runoff	Stabilization Structures	Retaining Walls	RW
				Riprap	RR
	Control Water Movement			Gabions	G
Borrow Areas				Permanent Slope Drain	PSD
	Gully Erosion			Channel Grade Stabilization Structure	CSS
				Temporary Lined Chute	TC
				Temporary Pipe Slope Drain	TSD
	Channel & Stream Erosion		Drainageways and Watercourses	Vegetated Waterway	VW
Drainage Ways		Convey Runoff		Temporary Lined Channel	TLC
				Permanent Lined Waterway	PW
Wetlands and Watercourses				Temporary Stream Crossing	TSC
		Direct Runoff	Diversions	Temporary Fill Berm	TFB
				Water Bar	WB
				Temporary Diversion	TD
Waterbodies				Permanent Diversion	PD
		Intercept Grnd.Water	Subsurface Drains	Subsurface Drain	SD
		Detain Runoff	Detention Structures	Detention Basin	DB
Areas of Flooding and Existing Erosion	Natural Resource Degradation	Diffuse Runoff	Energy Dissipators	Level Spreader	LS
				Outlet Protection	OP
				Stone Check Dam	SCD
	Control Sediment Deposition	Detain Sediments	Sediment Impoundments, Barriers, and Filters	Temporary Sediment Basin	SB
				Temporary Sediment Trap	TST
Drainage Outlets				Hay Bale Barrier	HB
	Protect Onsite and Offsite Areas			Geotextile Silt Fence	GSF
				Turbidity Curtain	TC
				Vegetative Filter	VF
Travel Areas		Control Mechanically Moved Waters and Soils	Tire Tracked Soils Dewatering	Construction Entrance	CE
				Pump Intake and Outlet Protection	PuP
				Pumping Settling Basin	PSB
				Portable Sediment Tank	PST
Dewatering				Dewatering of Earth Materials	DWM

Stormwater Management Report Hyperlink:

https://www.bristolct.gov/DocumentCenter/View/47020/NBW-Stormwater-Report

Geotechnical Report

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

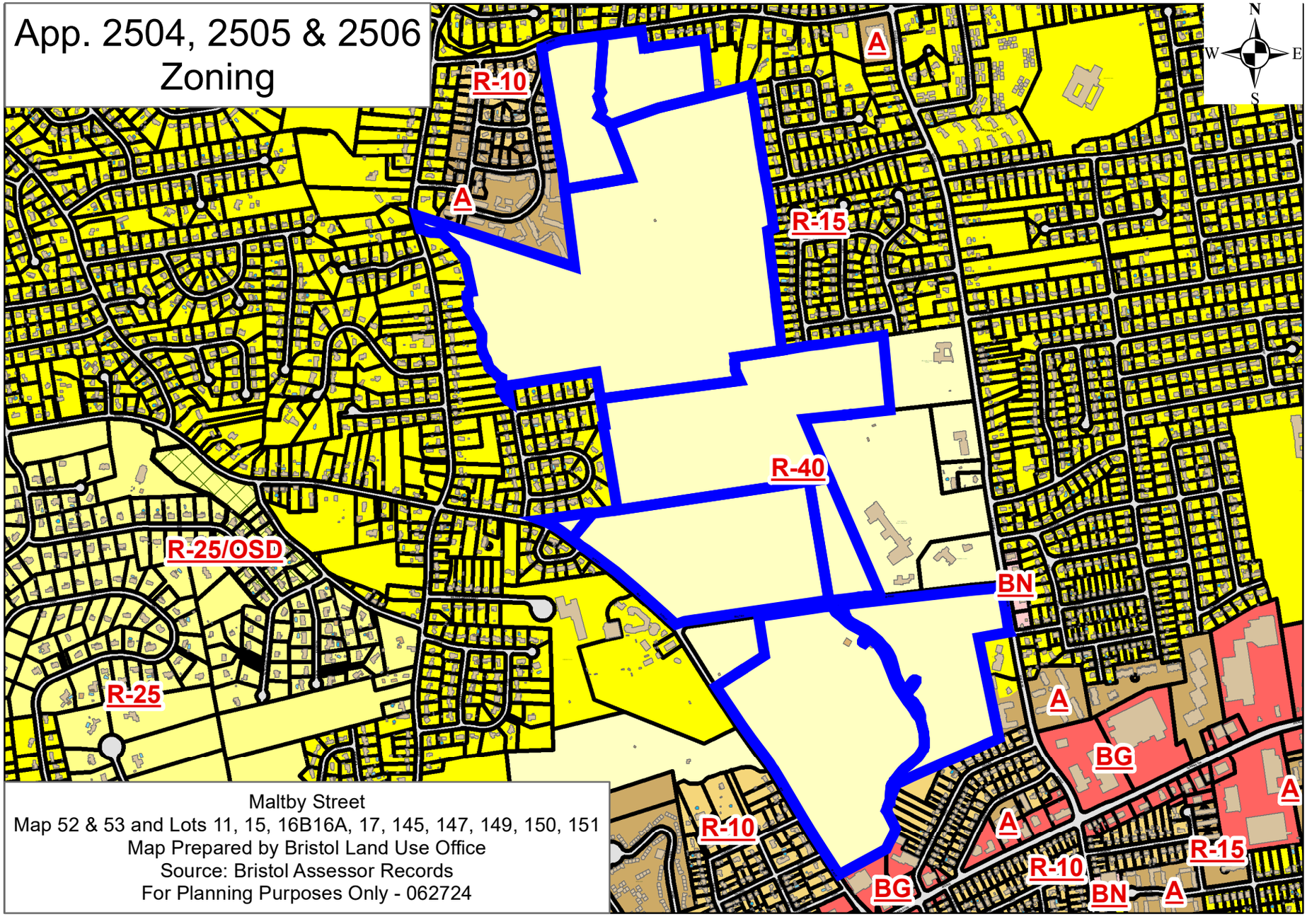
Custom Soil Resource Report for State of Connecticut

White Bridge Waterworks Facilities - Pond Pumping Station

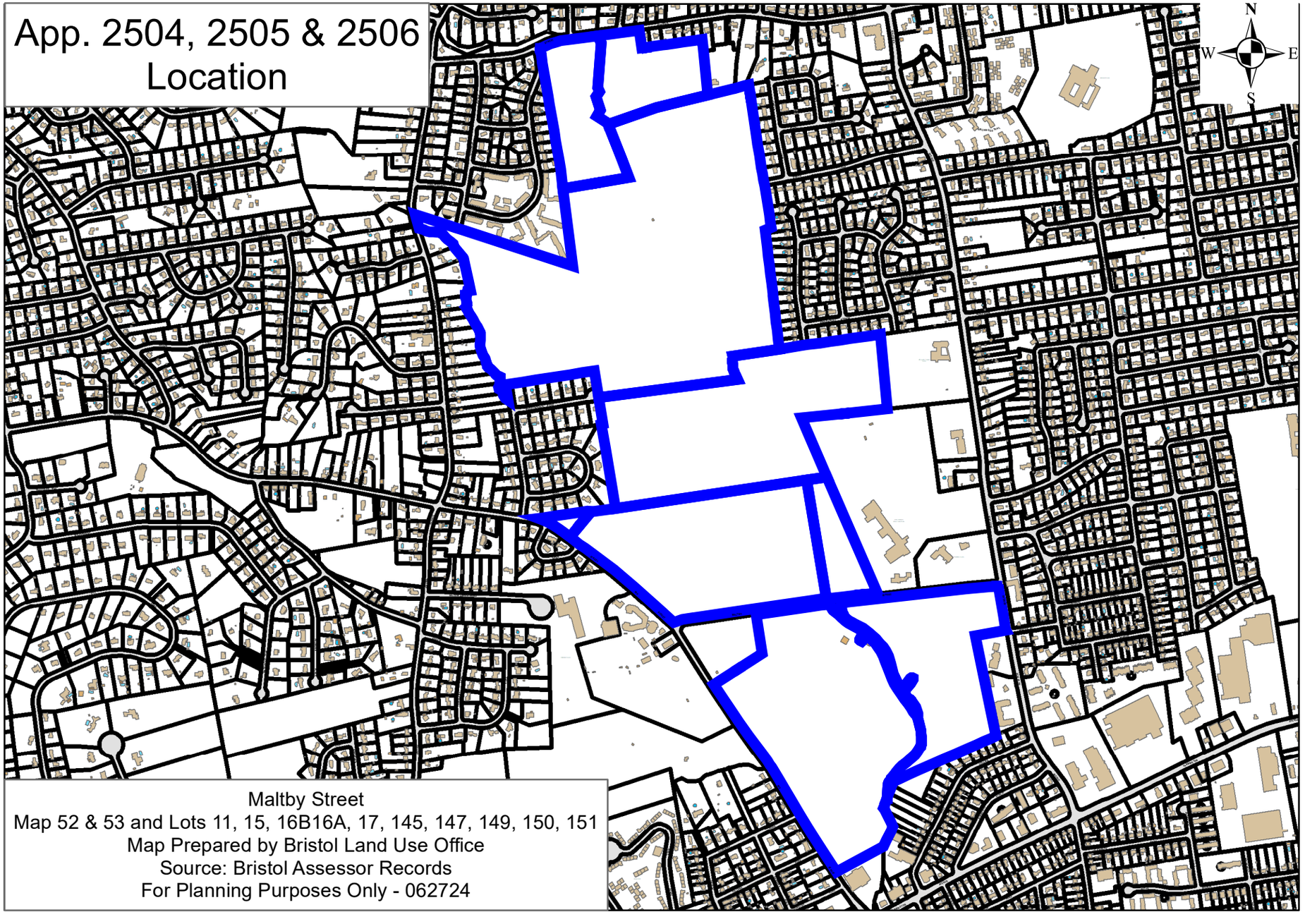
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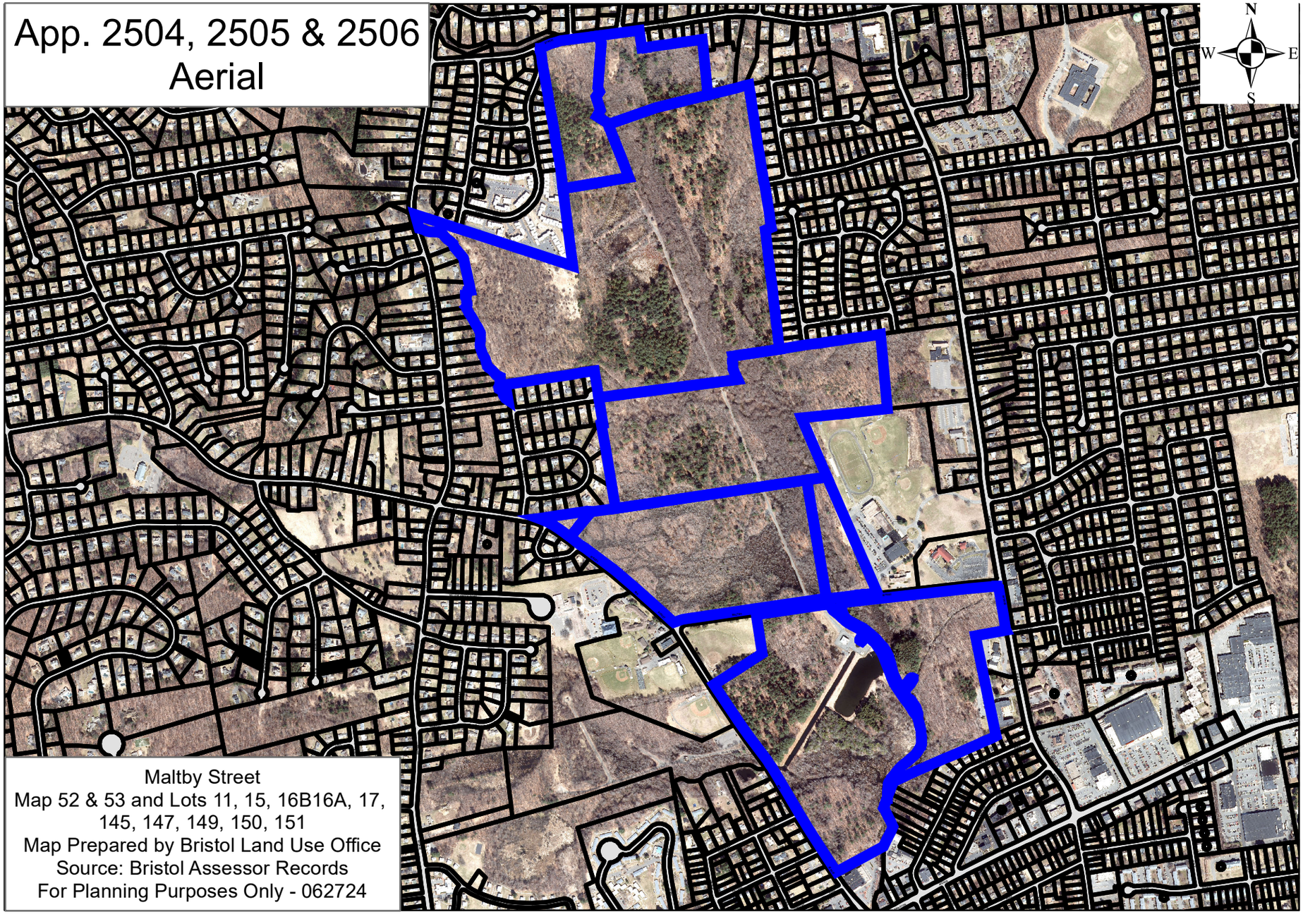

App. 2504, 2505 & 2506
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Maltby Street
Map 52 & 53 and Lots 11, 15, 16B16A, 17, 145, 147, 149, 150, 151
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 062724

App. 2504, 2505 & 2506 Location

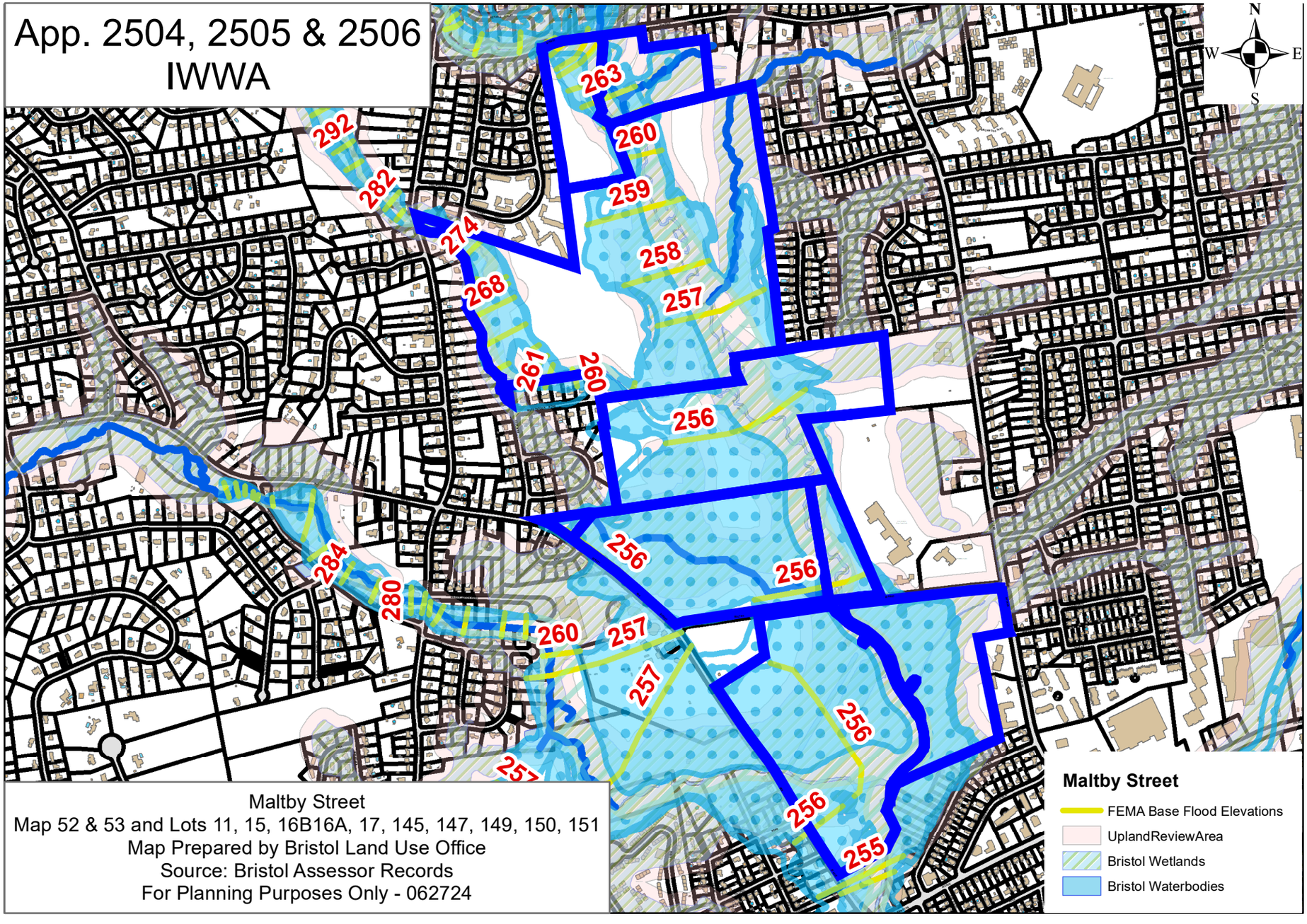


Maltby Street
Map 52 & 53 and Lots 11, 15, 16B16A, 17, 145, 147, 149, 150, 151
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 062724

App. 2504, 2505 & 2506
Aerial



Maltby Street
Map 52 & 53 and Lots 11, 15, 16B16A, 17, 145, 147, 149, 150, 151
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 062724


App. 2504, 2505 & 2506
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Maltby Street
FEMA Base Flood Elevations
UplandReviewArea
Bristol Wetlands
Bristol Waterbodies
Maltby Street
Map 52 & 53 and Lots 11, 15, 16B16A, 17, 145, 147, 149, 150, 151
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 062724

Google Earth


Copper Mine Brook
Polkville Ave Brook
Layers
2D


Copper Mine Brook
Polkville Ave Brook
Field


Copper Mine Brook
Copper Mine Brook
Copper Mine Brook

Revised Specification Section 101024

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SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Construction Sequencing.
4. Work performed by Owner.
5. Contractor’s use of site and premises.
6. Coordination with occupants.
7. Work restrictions.
8. Specification and Drawing conventions.
9. Miscellaneous provisions.

B. Related Requirements:

1. Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.
2. Section 017300 “Execution and Construction Sequencing” for sequencing requirements.
3. Appendix G for state, local, and federal requirements and conditions from project permits.

1.3 DEFINITIONS

A. Work Package: A group of specifications, drawings, and schedules prepared by the design team to describe a portion of the Project Work for pricing, permitting, and construction.

1.4 PROJECT INFORMATION

A. Project Identification: White Bridge Waterworks Facilities, City of New Britain, CT.

1. Project Location: Maltby Street, Bristol, CT

B. Owner: City of New Britain, CT

C. Engineer: CDM Smith Inc., East Hartford, CT

D. Engineer's Consultants: Engineer has retained the following design professionals who have prepared designated portions of the Contract Documents:

1. Comprehensive Environmental Inc. (CEI)

1.5 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work of Project is defined by the Contract Documents and includes, but is not limited to, the following:

1. Construction of White Bridge Waterworks Facilities including groundwater production wells, Pond Pumping Station, electrical and instrumentation upgrades, and other Work indicated in the Contract Documents.

a. Groundwater production wells:

1) Specifications for the construction and development of gravel packed groundwater production wells and the abandonment and decommissioning of existing wells are included in Appendix A to these Contract Documents.

b. Existing Conditions:

1) Data regarding the geological and geotechnical field testing conducted for the Work are included in Appendix F. The information provided is for general informational purposes only. The subsurface information presented is accurate only at the specific locations and times the subsurface explorations were made. It is the Contractor’s responsibility to review the information contained within these Contract Documents and make their own interpretations and conclusions of the character of materials to be encountered and the impact on the Work based on the Contractor’s expert knowledge of the area and of earthwork techniques. The Contractor, at their own expense, may conduct additional subsurface explorations for their own information after obtaining the Owner’s permission.

2) Parts of the project site are located within Federal, State, and Local protected species habitat, including the Spotted Turtle (Clemmys Guttata), Wood Turtle (Glyptemys Insculpta), and Great Blue Herron. Information on requirements and construction activity limitations are included in the permits included in Appendix G.

3) Test pit excavations were performed to confirm the locations of select existing utilities on the White Bridge Waterworks Facilities site. A memorandum summarizing the test pits is included in Appendix E. Information provided in the memorandum is for general informational purposes only.

2. Demolition of existing White Bridge Waterworks Facilities including the existing Pond Pumping Station, existing Lower Wellfield Pumping Station, existing Upper Wellfield Pumping Station, existing caisson structure located at the Lower Wellfield, and existing production wells at the Upper and Lower Wellfields. Existing equipment to be removed from these locations may include, but is not limited to, the following:

a. Existing Pond Pumping Station:

1) Centrifugal pumps and associated motor
2) Process piping
3) Compressor and air tanks
4) Electrical equipment and controls cabinets

b. Existing Lower Wellfield Pumping Station:

1) Electrical controls and equipment cabinets
2) Wall mounted electrical equipment
3) Bulk liquid chemical storage tanks
4) Compressor and air tanks
5) Pumps and associated motors
6) Process piping
7) HVAC equipment
8) Miscellaneous furniture

c. Existing Upper Wellfield Pumping Station:

1) Electrical controls and equipment cabinets
2) Pumps and associated motors
3) Process piping
4) Compressor and air tanks

d. Data regarding the hazardous material field testing conducted for building demolition Work are included in Appendix C.

3. Cleaning and inspecting of approximately 2,000 LF of existing 12-inch ductile-iron water main in the UWF driveway.

4. Rehabilitation of the Supply Pond and canal, including sediment removal, handling and disposal and rehabilitation of the Intake Structure.

a. Data regarding material field testing conducted for the Supply Pond are included in Appendix D.

5. Extension of the Bristol, CT water and sewer systems with installation of ductile-iron water main and PVC sewer main in Mix Street and Maltby Street.

B. Type of Contract:

1. Project will be constructed under a single prime contract.

1.6 CONSTRUCTION SEQUENCING

A. Construct the Work stages, with each stage substantially complete as indicated on Drawings and in Section 017300.

B. Before commencing Work of each stage, submit an updated copy of Contractor's construction schedule and Construction Sequencing Plan, showing the sequence, commencement and completion dates for all stages of the Work.

1.7 WORK PERFORMED BY OWNER

A. Cooperate fully with Owner, so work may be carried out smoothly, without interfering with or delaying Work under this Contract or work by Owner. Coordinate the Work of this Contract with work performed by Owner.

B. Future Work Not Part of this Contract: The Contract Documents include requirements that will allow Owner to carry out future work following completion of this Project; provide for the following future work:

1. Treatment of Lower Wellfield water to potable standards and cleaning, lining, and final connections of the 20” potable water main cross country from the White Bridge Waterworks Facilities to Stafford Avenue.

1.8 CONTRACTOR’S USE OF SITE AND PREMISES

A. Restricted Use of Site: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.

B. Limits on Use of Site: Limit use of Project site to Work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

1. Driveways, Walkways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or for storage of materials.

a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

C. Condition of Existing Buildings: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period, unless otherwise noted on the Drawings. Repair damage caused by construction operations.

D. Condition of Existing Grounds: Maintain portions of existing grounds, landscaping, and hardscaping affected by construction operations throughout construction period. Repair damage caused by construction operations.

1.9 COORDINATION WITH OCCUPANTS

A. Partial Owner Occupancy: Owner will occupy the premises during entire construction period, with the exception of areas under construction or have been decommissioned and demolished as part of the construction sequencing. Cooperate with Owner during construction operations to

minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations. Maintain existing exits unless otherwise indicated.

1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
2. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.

1.10 WORK RESTRICTIONS

A. Comply with restrictions on construction operations.

1. Comply with limitations on use of public streets, work on public streets, rights of way, and other requirements of authorities having jurisdiction.

B. On-Site Work Hours: Limit work to between 7:00 a.m. to 7:00 p.m., Monday through Saturday, unless otherwise indicated. Work hours may be modified to meet Project requirements if approved by Owner and authorities having jurisdiction.

1. Sunday Hours: Work may be permitted on Sunday between 9:00 a.m. and 5:00 p.m.
2. Early Morning Hours: No work shall occur at the site before 7:00 a.m.
3. Hours for Utility Shutdowns: Coordinate with Owner; utility shutdowns and other activities requiring City of New Britain personnel shall be planned between 7:00 a.m. and 2:00 p.m.
4. City of Bristol Noise Ordinance and other work hour restrictions shall be followed at all times.

C. **Work withing City of Bristol Roadways:**

1. **Work within the intersection of Maltby Street and Stafford Avenue is prohibited during bus drop off times (7:30 a.m. to 7:40 a.m.) at St. Paul Catholic High School. Work shall not start in this intersection before 8:00 a.m. on weekdays (Monday through Friday) while school is in session.**
2. **Work within the intersection of Maltby Street and Stafford Avenue is prohibited during bus pick up times (2:15 p.m.) at St. Paul Catholic High School. Work shall not be performed in the intersection between 2:00 p.m. and 3:00 p.m. on weekdays (Monday through Friday) while school is in session.**
    a. **Roadways shall be made safe and passable for all through traffic at the end of each day and for the specified periods of no-work within the intersection.**
3. **Utility installation work within Maltby Street is prohibited during peak traffic hours and is limited to the hours of 10:00 a.m. to 4:00 p.m. unless previously approved by the Engineer.**

D. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging for temporary utility services according to requirements indicated:

1. Notify Engineer not less than two days in advance of proposed utility interruptions.
2. Obtain Engineer's written permission before proceeding with utility interruptions.

E. Noise, Vibration, Dust, and Odors: Coordinate operations that may result in high levels of noise and vibration, dust, odors, or other disruption to Owner occupancy with Owner.

1. Notify Engineer not less than two days in advance of proposed disruptive operations.
2. Obtain Engineer's written permission before proceeding with disruptive operations.

F. Smoking and Controlled Substance Restrictions: Use of tobacco products, alcoholic beverages, and other controlled substances on Project site is not permitted.

G. Employee Identification: Provide identification tags for Contractor personnel working on Project site. Require personnel to use identification tags at all times.

H. Employee Screening: Comply with Owner's requirements for drug and background screening of Contractor personnel working on Project site.

1. Maintain list of approved screened personnel with Owner's representative.

I. Local, State, and Federal Requirements: Comply with all local, state, and federal requirements and conditions issued for the project including, but not limited to, time of year work restrictions to protect state-listed species and other restrictions listed in the permits included as Appendix G to these Contract Documents.

J. **Construction Vehicle Access to Site shall be from Maltby Street via Stafford Avenue, to the extent practicable. Construction vehicle access to the site via Mix Street is prohibited except to perform Work associated with the wetlands creation area and/or without prior approval by the Engineer. Contractor's construction vehicles shall avoid residential roadways in the City of Bristol.**

1.11 COORDINATION WITH CITY OF BRISTOL, CT

A. The White Bridge Water Works Facility is owned and operated by the City of New Britain, CT but is located within the City of Bristol, CT and the following coordination is expected between the Contractor and the City of Bristol:

1. Bristol Public Works Department:

a. Contractor shall coordinate with the City of Bristol Public Works Department for nearby ongoing projects, including but not limited to, the Jerome Avenue Bridge Project to minimize traffic and construction impacts to the Maltby Street area.

2. Bristol Water and Sewer Department:

a. Contractor shall obtain all necessary permits, policies, and procedures from the Water and Sewer Department. The Water and Sewer Department requires all permits to be obtained by a licensed plumber. Contractor shall provide a minimum of 4 days notice for all non-emergency work on the water and sewer utilities.
b. Contractor shall coordinate connection of new water main in Maltby Street to existing water main in Mix Street with the Water and Sewer Department.

Payment for the City of Bristol to furnish and install a tapping sleeve for final connection must be made prior to work being completed.

c. Contractor shall pay the expected water service connection fee of $4,725.00 to the Water and Sewer Department, which will cover the connection fee, tapping the water main, 2" corporation stop and saddle, 2" curb stop and box, copper tubing to the property line, inspection of copper tubing from the property line to the building, and connections within the building.

d. Contractor shall coordinate with the Water and Sewer Department for inspection before final acceptance of water and sewer utilities installed within Maltby Street.

1.12 SPECIFICATION AND DRAWING CONVENTIONS

A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
2. Text Color: Text used in the Specifications, including units of measure, manufacturer and product names, and other text may appear in multiple colors or underlined as part of a hyperlink; no emphasis is implied by text with these characteristics.
3. Hypertext: Text used in the Specifications may contain hyperlinks. Hyperlinks may allow for access to linked information that is not residing in the Specifications. Unless otherwise indicated, linked information is not part of the Contract Documents.
4. Specification requirements are to be performed by Contractor unless specifically stated otherwise.

B. Division 00 Contracting Requirements: General provisions of the Contract, including General and Supplementary Conditions, apply to all Sections of the Specifications.

C. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.

D. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:

1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
2. Abbreviations: Materials and products are identified by abbreviations scheduled on Drawings and published as part of the U.S. National CAD Standard.
3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

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PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 011000

Revised Specification Temporary Facilities and Controls 101024

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SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes requirements for temporary utilities, support facilities, security and protection facilities, and environmental protection facilities.

B. Related Requirements:

1. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.

1.3 USE CHARGES

A. Installation, removal, and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities engaged in the Project to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Engineer, occupants of Project, testing agencies, and authorities having jurisdiction.

B. Sewer Service: Pay sewer-service use charges for sewer usage by all entities for construction operations.

C. Water Service: Pay water-service use charges for water used by all entities for construction operations.

D. Electric Power Service: Pay electric-power-service use charges for electricity used by all entities for construction operations.

E. Water and Sewer Service from Existing System: There is currently no potable water or sewer service at the site. Obtain and pay for water and sanitary service required for contractor operations until such time as these new utilities are operational.

F. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use with metering. Provide connections and extensions of services and metering as required for construction operations.

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1.4 INFORMATIONAL SUBMITTALS

A. Site Utilization Plan: Show temporary facilities, temporary utility lines and connections, staging areas, construction site entrances, vehicle circulation, and parking areas for construction personnel.

B. Implementation and Termination Schedule: Within **15** days of date established for commencement of the Work, submit schedule indicating implementation and termination dates of each temporary utility.

C. Project Identification and Temporary Signs: Show fabrication and installation details, including plans, elevations, details, layouts, typestyles, graphic elements, and message content.

1. Refer to General Conditions Article 52 and Notices to Contractor NTC-41 for specific signage requirements for City of New Britain and Drinking Water State Revolving Fund.

D. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.

E. Moisture- and Mold-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage and mold. Describe delivery, handling, storage, installation, and protection provisions for materials subject to water absorption or water damage.

1. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and requirements for replacing water-damaged Work.
2. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.
3. Indicate methods to be used to avoid trapping water in finished work.

F. Flood Contingency Plan: Describe procedures and controls for protecting buoyant, hazardous, flammable, explosive, soluble, expansive, or radioactive materials or any other materials that could be injurious to human, animal, or plant life in the event of a flood during construction. Detail such materials expected to be on-site and how such materials will be protected from flood damage, secured or removed from the floodplain to prevent pollution and hazards to life and property. Comply with any local, state, and federal requirements or conditions of Appendix G.

G. State-Listed Species Habitat Protection Plan: Describe procedures and controls for protecting state-listed species and habitat, as detailed in the NDDB Determination included in Appendix G. The State-Listed Species Habitat Protection Plan shall also include the qualifications and any certifications of the qualified professional familiar with habitat requirements and behavior of state-listed species who will perform species relocations, as required herein.

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1.5 QUALITY ASSURANCE

A. Temporary facilities shall comply with all applicable state and local ordinances, codes and regulations.

B. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

C. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

D. Accessible Temporary Egress: Comply with applicable provisions in the United States Access Board's ADA-ABA Accessibility Guidelines.

1.6 PROJECT CONDITIONS

A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Chain-Link Fencing: Minimum 2-inch (50-mm), 0.148-inch- (3.8-mm-) thick, galvanized-steel, chain-link fabric fencing; minimum 6 feet (1.8 m) high with galvanized-steel pipe posts; minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts, with 1-5/8-inch- (42-mm-) OD top rails.

B. Portable Chain-Link Fencing: Minimum 2-inch (50-mm), 0.148-inch- (3.8-mm-) thick, galvanized-steel, chain-link fabric fencing; minimum 6 feet (1.8 m) high with galvanized-steel pipe posts; minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts, with 1-5/8-inch- (42-mm-) OD top and bottom rails. Provide galvanized-steel bases for supporting posts.

C. Fencing Windscreen Privacy Screen: Polyester fabric scrim with grommets for attachment to chain-link fence, sized to height of fence, in color selected by Engineer from manufacturer's standard colors.

D. Wood Enclosure Fence: Plywood, 6 feet high, framed with four 2-by-4-inch (50-by-100-mm) rails, with preservative-treated wood posts spaced not more than 8 feet (2.4 m) apart.

E. Polyethylene Sheet: Reinforced, fire-resistive sheet, 10-mil (0.25-mm) minimum thickness, with flame-spread rating of 15 or less in accordance with ASTM E84 and passing NFPA 701 Test Method 2.

F. Dust-Control Adhesive-Surface Walk-Off Mats: Provide mats, minimum 36 by 60 inches (914 by 1524 mm).

G. Insulation: Unfaced mineral-fiber blanket, manufactured from glass, slag wool, or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively.

2.2 TEMPORARY FACILITIES

A. Field Offices: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.

B. Engineer's Field Office: Of sufficient size, but minimum 12-feet by 50-feet, to accommodate needs of Owner, Engineer, and construction personnel office activities and to accommodate Project meetings specified in other Division 01 Sections for duration of project. Keep office clean and orderly. Furnish and equip offices as follows:

1. Field office trailer shall have at least two offices, one conference room, one closet, and two exterior doors.
2. Conference room shall include built-in plan table.
3. Engineer's field office shall be weather-tight construction with floor, walls, and ceiling completely insulated. Each room shall have at least one operating window. Each window shall have a venetian blind and full insect screen. Furnish two sets of keys for each exterior door. Provide fully insulated skirting on all sides of the field office trailer. Provide steps, platforms, handrails, and boot scrapers for each exterior door.
4. Field office trailer shall be Mobile Mini, ModSpace, Williams Scotsman, or equal. Converted storage or box containers will not be acceptable.
5. Furnishings:

    a. Provide the following furnishings for the Engineer's temporary field office for the duration of the project. All furnishings shall be new – or in very good condition – subject to approval of the Engineer.

        1) Four 60-inch by 30-inch desks with file drawer and 5 drawers, all lockable.
        2) Upholstered swivel type chair with arms for each desk.
        3) One 30-inch by 84-inch conference table.
        4) Ten armless side chairs (stacking type).
        5) Two 54-inch by 30-inch folding tables.
        6) Six file cabinet, 4 drawer, legal size, Hon No. HN-315C, or equal.
        7) Four wastebaskets.
        8) One rolling plan storage rack, 10-stick capacity.
        9) One lockable storage cabinet, 72-inch high, 36-inch wide, and 18-inch deep.
        10) Two steel bookcase units, 4 shelves high, Hon No. HN-S48 ABC, or equal.
        11) One digital telephone answering machine.
        12) 24 painted steel coat hangers.
        13) One electric bottled water dispenser with hot and cold outlets and refrigerator unit. Adequate water bottles shall be provided (and paid for by the Contractor) until Final Completion.
        14) One wall-mounted first aid kit, McMaster-Carr 9501T1 or equal.
        15) Two smoke detectors, with batteries.
        16) Two dry erase boards, aluminum frame, 36-inch by 60-inch, markers and eraser, Quartet Model No. TS-S 535 or equal.
        17) One 1000-watt minimum 1.4-cu.ft. microwave oven.
        18) One 6-cf refrigerator.

19) Commercial duty cross-cut shredder with basket, designed for 3 to 5 users, Fellowes Powershred SB-125i, or equal.
20) One first aid kit, OSHA (1910.151.b) and ANSI (Z308.1-2003) compliant, suitable for ten people.
21) Temporary toilet and hand washing facilities.

6. Equipment:

a. Contractor shall provide the following equipment for the Engineer's temporary field office for the duration of the project. All equipment shall be new.

1) A multifunction Photocopier, printer, facsimile and scanner.

b. With 50-sheet auto-feeder, capable of copying and printing
c. Letter-sized, legal-sized, 11-inch by 17-inch, **and 12-inch by 18-inch** documents.
d. Contractor to provide paper and ink cartridges, as required, for the duration of the project.

1) Answering machine with digital recorder.
2) Digital Camera: provide one new digital camera for the Engineer's use for the project duration. Camera shall be a major brand name (e.g., Minolta, Cannon, Olympic, Pentax, etc. – subject to the Engineer's approval) and shall have an automatic date function, 3 Mega pixel or greater, 3x optical zoom or better, and at least one GB of memory (on board or supplemental memory card). The camera shall come complete with carrying case, storage card, rechargeable batteries, battery charger, flash memory reader, USB cables and all necessary software. After completion of project the camera will become the property of the Owner.
3) Four 8-outlet surge protectors with six-foot cord and minimum 1800-joule energy rating or greater; as manufactured by Belkin, or equal.
4) One 4-cup coffeemaker with timer, by Krups, or equal.

7. Services:

a. Provide the following services for the duration of the project. Services shall include all costs for installation, use, maintenance, and removal of all products, services and equipment billed by each provider for each service specified herein.
b. Field office shall have complete and fully functional electrical, plumbing, and HVAC systems. Provide at least two smoke detectors hard-wired into the electrical system. Perform all scheduled and unscheduled maintenance for all systems and as directed by the Engineer.
c. Electrical System: Provide connection to temporary electric service. Comply with the electrical requirements of the furnished office trailer. Provide main circuit panel, sufficient GFCI outlets and lighting in each room, exterior lights at each exterior door, and proper grounding of entire electrical system.
d. Plumbing system: Connect to existing potable water supply if available. Provide hot water heater and hot and cold water to each fixture. Connect waste pipes to existing sanitary system or a waste holding tank. Heat trace and insulate exterior piping to prevent freezing. Where potable water service is not available, Contractor shall provide bottle water service with water chiller/dispenser.

e. HVAC System: Provide central heating and air conditioning system with programmable thermostat. System shall be capable of maintaining an interior temperature of 70 degrees F when the exterior temperature is 0 degrees F and an interior temperature of 75 degrees F when exterior temperature is 100 degrees F.

f. Bottled water service: Provide bottled water service complete with dispenser with hot- and cold-water taps and regular bottle and cup replenishment as directed by the Engineer.

g. Janitorial service: Provide janitorial services (at least weekly) that include dusting, sweeping, vacuuming, mopping, disinfection, and trash removal.

h. Sanitary service: Provide regular pumping of chemical toilets and any other waste holding tank, if applicable, as needed.

i. Communications:

1) Install two telephone lines in the Engineer's field office for the Engineer's exclusive use:

a) one voice grade line with caller ID and call-waiting features.
b) a second line for a dedicated fax line.

j. Internet Access:

1) Provide high-speed Broadband internet access for the duration of the project.
2) Provide one air card for the Engineer's use for the duration of the project (through Final Completion], with unlimited data plans.

k. Pay all costs for installation, maintenance, and removal of the telephone and internet service and instruments, including cellular phone service. The monthly cost of all calls made and received by the Engineer, including toll and long-distance calls, shall be paid for by the Contractor for the duration of the project.

8. Supplies: Provide the following supplies for the duration of the project: copy paper, toner, toilet paper, paper towels, soap, light bulbs, and other consumables as required by the Engineer.

C. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.

1. Store combustible materials apart from building.

2.3 EQUIPMENT

A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

B. HVAC Equipment: Unless Owner authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.

1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
2. Heating, Cooling, and Dehumidifying Units: Listed and labeled for type of fuel being consumed, by a qualified testing agency acceptable to authorities having jurisdiction and marked for intended location and application.

2.4 ENVIRONMENTAL PROTECTION FACILITIES

A. Exclusionary Fencing: Exclusionary fencing shall be provided for protection of state-listed species, as detailed below and required by the NDDB Determination included in Appendix G.

1. Exclusionary fencing shall be at least 20-inches tall and must be secured to and remain in contact with the ground. Fencing shall be regularly maintained to secure any gaps or openings at ground level that may allow animals pass through.
2. Prior to construction activities, Contractor shall search Work area and fencing for the presence of and state-listed species named in the NDDB Determination. Any state-listed species included in the NDDB Determination encountered shall be relocated to suitable habitat outside the area of disturbance. Contractor shall provide a qualified professional familiar with habitat requirements and behavior of the species to perform relocations.

B. Aquifer Protection Area: Implement best management practices, to the extent practicable, for temporary construction as indicated in the CT DEEP Aquifer Protection Area Guidance document "Best Management Practices for Temporary Construction and Reconstruction Operations in Aquifer Protection Areas," included as Attachment A to this specification.

PART 3 - EXECUTION

3.1 TEMPORARY FACILITIES, GENERAL

A. Conservation: Coordinate construction and use of temporary facilities with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

3.2 INSTALLATION, GENERAL

A. Locate facilities where shown on the Drawings or where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work. Engineer's trailer shall be set up and ready for occupancy within 30 days of the Notice to Proceed.

1. Locate facilities to limit site disturbance as specified in Section 011000 "Summary."

B. Provide each facility ready for use within 30 days of the Notice to Proceed and prior to Commencement of Work at the site. Do not remove until approved by Engineer or are replaced by authorized use of completed permanent facilities.

3.3 ENGINEER'S OFFICE

A. Engineer's trailer shall be set up and ready for occupancy within 30 days of the Notice to Proceed and prior to commencement of Work at the site. All systems, furnishings, equipment, and services specified herein shall be furnished, installed, and completely operational for the field office to be considered established.

1. Provide regular office cleaning services for the duration of the project.
2. Provide supplies including, but not limited to restroom supplies (toilet tissue paper, paper towel, and soap), as well as light bulbs, air conditioner filters, etc.
3. Provide office supplies for printers and fax machines, etc.
4. Supply all fuel for heating and pay all utility bills.

B. Install field office plumb and level.

C. Engineer's trailer shall be removed, and the site shall be cleaned up and restored before Final Completion of the project.

3.4 CONTRACTOR'S FIELD OFFICE

A. Provide a temporary field office(s) for the Contractor's use for the duration of the project. An authorized representative of the Contractor shall be present at all times while the Work is in progress. Instructions received at the Contractors field office from the Engineer shall be considered delivered to the Contractor.

B. Locate field office(s) in accordance with approved shop drawings and as directed by the Owner.

C. Establish and occupy field office within 30 days of the Notice to Proceed, unless otherwise approved by the Engineer or Owner.

3.5 TEMPORARY UTILITY INSTALLATION

A. General: Install temporary service or connect to existing service, if approved by Owner.

1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.

B. There is currently no potable water or sewer service at the site. Obtain and pay for water and sanitary service required for contractor operations until such time as these new utilities are operational.

C. Sanitary Facilities: Provide temporary toilets, wash facilities, safety shower and eyewash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities. Provide regular maintenance and cleaning of sanitary facilities.

D. Temporary Heating and Cooling: Provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.

1. Provide temporary dehumidification systems when required to reduce ambient and substrate moisture levels to level required to allow installation or application of finishes and their proper curing or drying.

E. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.

1. Prior to commencing work, isolate the HVAC system in area where work is to be performed.

a. Disconnect supply and return ductwork in work area from HVAC systems servicing occupied areas.
b. Maintain negative air pressure within work area, using HEPA-equipped air-filtration units, starting with commencement of temporary partition construction, and continuing until removal of temporary partitions is complete.

2. Maintain dust partitions during the Work. Use vacuum collection attachments on dust-producing equipment. Isolate limited work within occupied areas using portable dust-containment devices.
3. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.

F. Temporary Light and Power: Provide by Contractor, including 220 Volt service for welding, complete with wiring, lamps and similar equipment as required to adequately light all work areas and with sufficient power capacity to meet the project needs. Make all necessary arrangements with the local electric company for temporary electric service and pay all expenses in connection therewith.

G. Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner.

H. Electric Power Service: Provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.

1. Install electric power service overhead unless otherwise indicated.
2. Connect temporary service to Owner's existing power source, as directed by Owner.

I. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.

1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.

J. Telephone Service: Provide temporary telephone service in common-use facilities for use by all construction personnel. Install WiFi cell phone access equipment and one land-based telephone line(s) for each field office.

1. At each telephone, post a list of important telephone numbers.

    a. Police and fire departments.
    b. Ambulance service.
    c. Contractor's home office.
    d. Contractor's emergency after-hours telephone number.
    e. Engineer's offices.
    f. Owner's office.
    g. Principal subcontractors' field and home offices.

K. Electronic Communication Service: Provide secure WiFi wireless connection to internet with provisions for access by Engineer and Owner.

L. Project Computer: Provide a desktop computer in the primary field office adequate for use by Engineer and Owner to access Project electronic documents and maintain electronic communications. Equip computer with not less than the following:

1. Processor: Intel Core i5 or i7.
2. Memory: 164 gigabyte.
3. Disk Storage: 1 -terabyte hard-disk drive and combination DVD-RW/CD-RW drive.
4. Display: 24 inch (610 mm) LCD monitor with 256-Mb dedicated video RAM.
5. Full-size keyboard and mouse.
6. Operating System: Microsoft Windows 10 Professional.
7. Productivity Software:

    a. Microsoft Office Professional, 2013 or higher, including Word, Excel, and Outlook.
    b. Adobe Reader DC.
    c. WinZip 10 or higher.

8. Printer: "All-in-one" unit equipped with printer server, combining color printing, photocopying, scanning, and faxing, or separate units for each of these three functions.
9. Internet Service: Broadband modem, router and ISP, equipped with hardware firewall, providing minimum 10 Mbps upload and 15 Mbps download speeds at each computer.
10. Internet Security: Integrated software, providing software firewall, virus, spyware, phishing, and spam protection in a combined application.
11. Backup: External hard drive, minimum 2 terrabytes, with automated backup software providing daily backups.

3.6 SUPPORT FACILITIES INSTALLATION

A. Comply with the following:

1. Provide construction for temporary field offices, shops, and sheds located within construction area or within 30 feet (9 m) of building lines that is noncombustible in accordance with ASTM E136. Comply with NFPA 241.
2. Utilize designated area within existing building for temporary field offices.
3. Maintain support facilities until Engineer schedules Final Completion inspection. Remove just before Final Completion.

B. Temporary Roads and Paved Areas: Construct and maintain temporary roads and paved areas adequate for construction operations. Locate temporary roads and paved areas within construction limits indicated on Drawings.

1. Provide dust-control treatment that is nonpolluting and nontracking. Reapply treatment as required to minimize dust.

C. Temporary Use of Planned Permanent Roads and Paved Areas: Locate temporary roads and paved areas in same location as permanent roads and paved areas. Construct and maintain temporary roads and paved areas adequate for construction operations. Extend temporary roads and paved areas, within construction limits indicated, as necessary for construction operations.

1. Coordinate elevations of temporary roads and paved areas with permanent roads and paved areas.
2. Prepare subgrade and install subbase and base for temporary roads and paved areas accordance with Section 312000 "Earthwork."
3. Recondition base after temporary use, including removing contaminated material, regrading, proofrolling, compacting, and testing.
4. Delay installation of final course of permanent hot-mix asphalt pavement until immediately before Substantial Completion. Repair hot-mix asphalt base-course pavement before installation of final course in accordance with Section 321216 "Asphalt Paving."

D. Traffic Controls: Comply with requirements of authorities having jurisdiction.

1. Protect existing site improvements to remain including curbs, pavement, and utilities.
2. Maintain access for fire-fighting equipment and access to fire hydrants.

E. Parking: Use designated areas of Owner's existing parking areas for construction personnel.

F. Storage and Staging: Provide temporary offsite area as needed to supplement designated areas of Project site for storage and staging needs.

G. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.

1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
2. Remove snow and ice as required to minimize accumulations.

H. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.

1. Identification Signs: Provide Project identification signs as indicated on Drawings. Signs shall be constructed of A-A Ext – APA grade plywood, 1-in thick. Posts and braces shall be of pressure treated lumber.
2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.

    a. Provide temporary, directional signs for construction personnel and visitors.

3. Maintain and touch up signs, so they are legible at all times.

I. Waste Disposal Facilities: Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."

J. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Section 017300 "Execution."

K. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.

1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

L. Temporary Stairs: Until permanent stairs are available, provide temporary stairs where ladders are not adequate.

M. Existing Stair Usage: Use of Owner's existing stairs will be permitted, provided stairs are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore stairs to condition existing before initial use.

1. Provide protective coverings, barriers, devices, signs, or other procedures to protect stairs and to maintain means of egress. If stairs become damaged, restore damaged areas, so no evidence remains of correction work.

N. Temporary Use of Permanent Stairs: Use of new stairs for construction traffic will be permitted, provided stairs are protected and finishes restored to new condition at time of Substantial Completion.

3.7 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.

1. Where access to adjacent properties is required in order to affect protection of existing facilities, obtain written permission from adjacent property owner to access property for that purpose.

B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

1. Comply with work restrictions specified in Section 011000 "Summary."
2. Comply with environmental protection facilities as required in Appendix G.

C. Temporary Erosion and Sedimentation Control: Comply with requirements of authorities having jurisdiction as detailed in approvals and conditions included in Appendix G and requirements specified in Section 312500 "Erosion and Sedimentation Controls."

D. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent

properties and walkways, according to erosion- and sedimentation-control Drawings and authorities having jurisdiction, whichever is more stringent.

1. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross tree- or plant-protection zones.
2. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
3. Clean, repair, and restore adjoining properties and roads affected by erosion and sedimentation from Project site during the course of Project.
4. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

E. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.

F. Tree and Plant Protection: Comply with requirements specified in Section 015639 "Temporary Tree and Plant Protection."

G. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.

H. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals, so Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using materials approved by authorities having jurisdiction.

I. Site Enclosure Fence: Before construction operations begin, furnish and install site enclosure fence in a manner that will prevent people from easily entering site except by entrance gates.

1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.
2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Furnish one set of keys to Owner.

J. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each workday.

K. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.

L. Temporary Egress: Provide temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction. Provide, install and maintain signage directing occupants to temporary egress.

M. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.

1. Where heating or cooling is needed and permanent enclosure is incomplete, insulate temporary enclosures.

N. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire-prevention program.

1. Prohibit smoking in construction areas. Comply with additional limits on smoking specified in other Sections.
2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition in accordance with requirements of authorities having jurisdiction.
3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
4. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign, stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.

O. Weather protection shall comply with M.G.L. Chapter 149 Section 44G.

3.8 MOISTURE AND MOLD CONTROL

A. Moisture and Mold Protection: Protect stored materials and installed Work in accordance with Moisture and Mold Protection Plan.

B. Exposed Construction Period: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect as follows:

1. Protect porous materials from water damage.
2. Protect stored and installed material from flowing or standing water.
3. Keep porous and organic materials from coming into prolonged contact with concrete.
4. Remove standing water from decks.
5. Keep deck openings covered or dammed.

C. Partially Enclosed Construction Period: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:

1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.
2. Keep interior spaces reasonably clean and protected from water damage.
3. Periodically collect and remove waste containing cellulose or other organic matter.
4. Discard or replace water-damaged material.
5. Do not install material that is wet.
6. Discard and replace stored or installed material that begins to grow mold.
7. Perform work in a sequence that allows wet materials adequate time to dry before enclosing the material in gypsum board or other interior finishes.

D. Controlled Construction Period: After completing and sealing of the building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:

1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
2. Use temporary or permanent HVAC system to control humidity within ranges specified for installed and stored materials.
3. Comply with manufacturer's written instructions for temperature, relative humidity, and exposure to water limits.

    a. Hygroscopic materials that may support mold growth, including wood and gypsum-based products, that become wet during the course of construction and remain wet for 48 hours are considered defective and require replacing.
    b. Measure moisture content of materials that have been exposed to moisture during construction operations or after installation. Record readings beginning at time of exposure and continuing daily for 48 hours. Identify materials containing moisture levels higher than allowed. Report findings in writing to Engineer.
    c. Remove and replace materials that cannot be completely restored to their manufactured moisture level within 48 hours.

3.9 OPERATION, TERMINATION, AND REMOVAL

A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.

B. Maintenance: Maintain facilities in good operating condition until removal.

1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
2. Clear snow and ice from all drives, walks and stairs to maintain safe vehicle and pedestrian access to the site and facilities as directed by the Engineer.

C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Final Completion.

D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Final Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
2. Remove temporary roads and paved areas not intended for or acceptable for integration into permanent construction. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
3. Just prior to Final Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

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3.10 ATTACHMENTS

A. CT DEEP Aquifer Protection Area Guidance – Best Management Practices for Temporary Construction and Reconstruction Operations in Aquifer Protection Areas

END OF SECTION 015000

Aquifer Protection Area Guidance: Construction and Stormwater 101024

AQUIFER PROTECTION AREA GUIDANCE

Best Management Practices for Temporary Construction and Reconstruction Operations in Aquifer Protection Areas

Issues and Concerns
Potential groundwater quality concerns include stormwater, fuel, and other maintenance chemicals associated with vehicles, machinery, and equipment.

Guidance/Recommendations
For the protection of ground water quality at construction operations in aquifer protection areas, DEEP recommends the following:

Temporary Construction Measures

- Significant fuel, chemical or other hazardous materials storage and handling, including fueling of construction vehicles, should be located outside well field area and aquifer protection area.
- No repair or maintenance of construction vehicles or washing of construction vehicles is permitted within the aquifer protection area.
- Any necessary temporary storage should be aboveground, protected from rainfall, and on an impervious containment surface.
- An emergency spill and response plan should be developed, including coordination with the water supplier.
- The site access should be adequately secured at all times to prohibit any unauthorized disposal of waste materials.

Stormwater Pollution Prevention Measures:

- Ways to minimize pollutant load (sand, salt, etc.) should be examined.
- Deicing management areas should be established including low salt use areas, alternative chemical or sand methods.
- Wellhead protection signs shall be posted in clear visibility of the highway at the entrance and exit points of the aquifer protection area and at ½ mile intervals.

Drainage System Design Criteria:

- Select best management practices from the DEEP stormwater manual based on treatment effectiveness and low groundwater pollution potential.

- Sheetflow and swale collection is encouraged, where possible, outside of immediate well field area.
- Catch basins and curbs should be used in immediate wellhead area to divert and control runoff and spills away from wellhead.
- Dry wells or similar subsurface leaching structures should not be used for stormwater disposal from paved or other areas that have high potential to pollute groundwater; existing structures which have high potential to pollute groundwater should be removed or converted.
- Gross particle/oil separators (swirl concentrator type) may be used for pretreatment of consecutive catch basins. Deep catch basins (minimum 4' deep and tight construction, with baffles, may also be used).
- Stormwater discharge points shall outlet to aboveground land surface or basin type structures. Significant or critical discharge points should have a basin designed with a forebay (tight soil or lined) capable of containing an 8,000-10,000 gallon spill volume and 3-6 feet above water table, 4 feet above bedrock.
- Potential strategic groundwater monitoring should be considered.

For questions or more information, please contact the Aquifer Protection Area Program at 860-424-3040 or visit our website at www.ct.gov/deep/aquiferprotection.

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

AQUIFER PROTECTION AREA GUIDANCE

Best Management Practices for Controlling Stormwater from Parking Lots in Aquifer Protection Areas

(1) Do not use direct infiltration structures (galleries, drywells, trenches) as these do not allow for attenuation of salt or other soluble compounds that may be contained in parking lot runoff.

(2) Non-structural measures to dissipate and treat runoff are encouraged, including sheetflow from uncurbed pavement and vegetated swales/basins. These provide an opportunity for volatilization of volatile organic compounds to the extent possible before the stormwater can infiltrate into the ground.

(3) If a stormwater collection system must be installed, it should discharge to an above-ground outlet point (swales, detention/retention basins or surface waters).

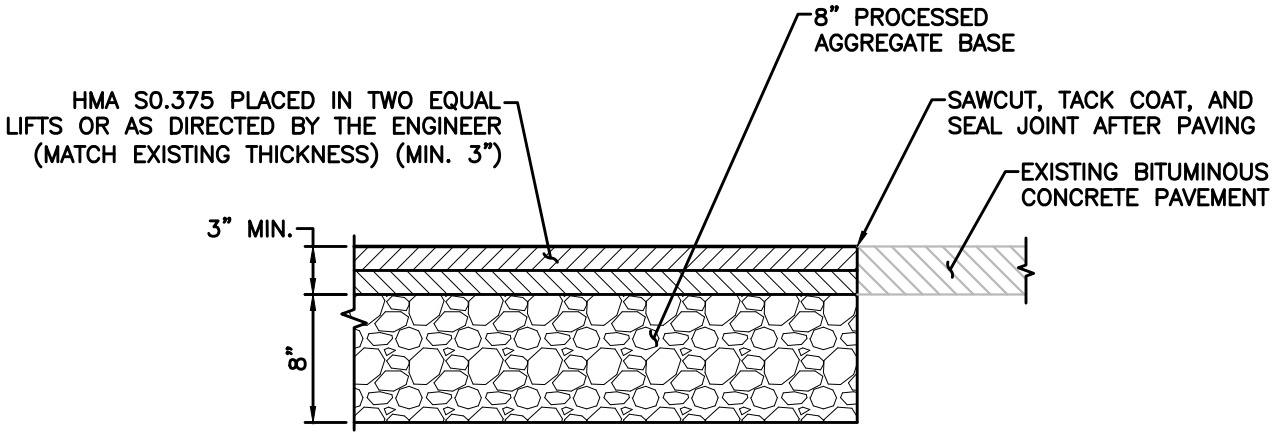
(a) Any catch basins installed should have deep sumps to trap sediments and hoods to trap oil and grease.

(b) If more than 1 acre of pavement drains to a common discharge point, a gross particle separator should also be installed. Advanced designs for gross particle separators have been developed, such as Vortechnics, Downstream Defender and Stormceptor, that the Department believes are very effective in retaining medium to coarse grained sediments as well as floatables. The last type of separator is designed to treat runoff from areas up to approximately 1 acre in size, while the former two can be sized to accommodate flow from larger areas. It is recommended that the appropriate variety of this or similar type of unit with a cyclonic design be installed in conjunction with each outfall, depending on the size of the drainage area.

(4) Provisions should be made for the periodic maintenance that will be required to insure continued effectiveness of these control measures.

For more information regarding the design of stormwater collection systems, contact Chris Stone of the DEEP's Stormwater Permitting & Enforcement Division at (860) 424-3850.

Standard Bristol DPW Roadway, Curb and Sidewalk Repair Details



RECONSTRUCTION OF ROADWAY

SCALE: $1\frac{1}{2}$" = 1'–0"

111 NORTH MAIN STREET
BRISTOL, CONNECTICUT
06010
T: 860.584.6125
www.bristolct.gov

Bristol CONNECTICUT Public Works

RECONSTRUCTION OF ROADWAY DETAIL

APPLICANT:

ON: ---
AT: ---

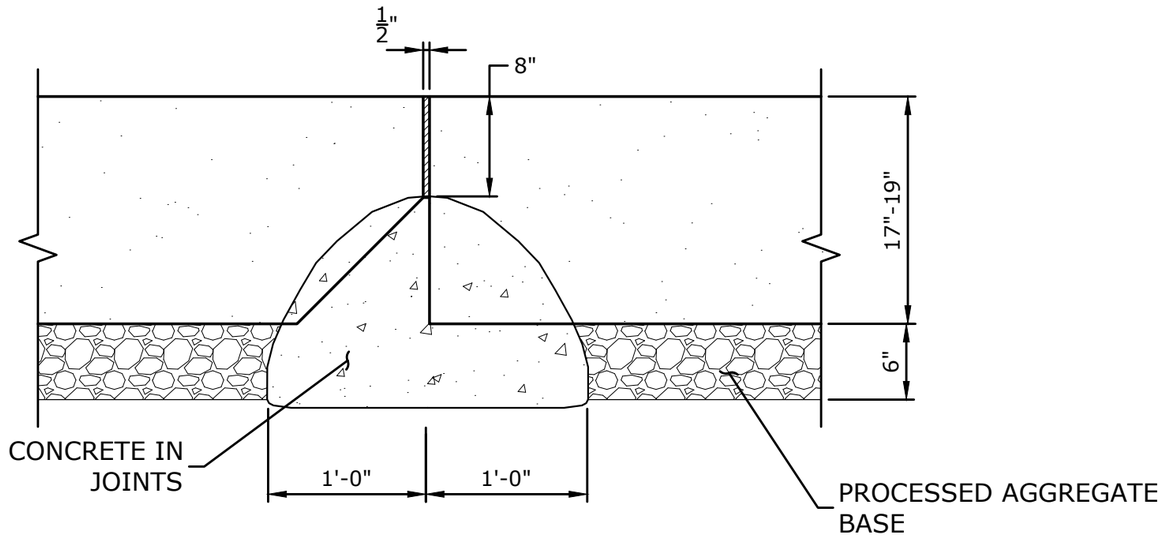
STANDARD ROADWAY DETAILS

DATE: **JULY 14, 2023**

SCALE: **AS SHOWN**

SHEET: **01**

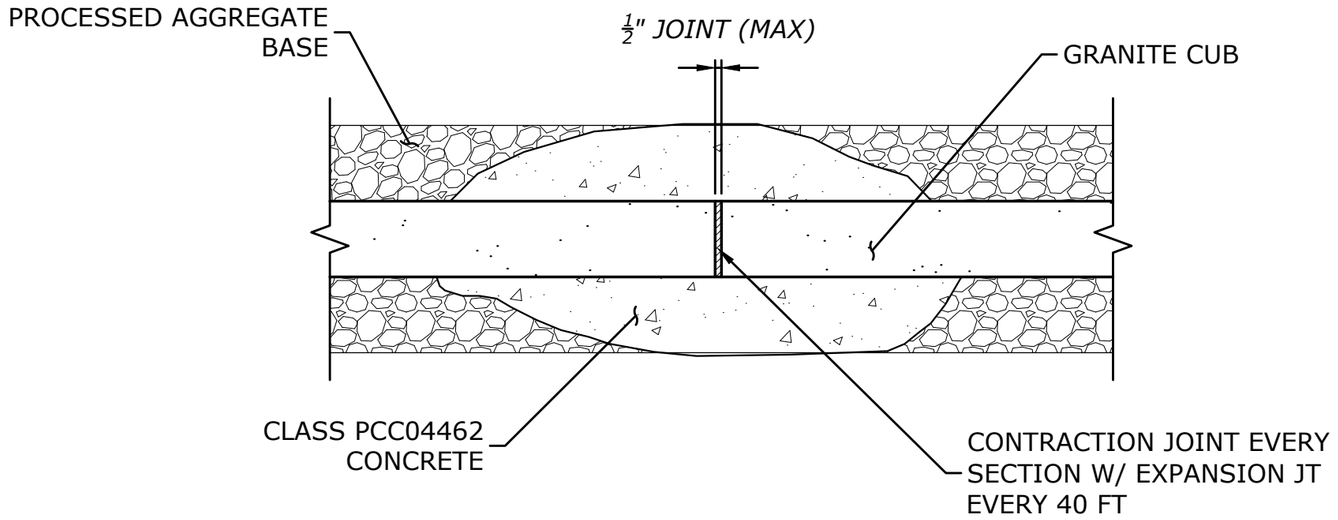
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CURB ELEVATION

NOT TO SCALE

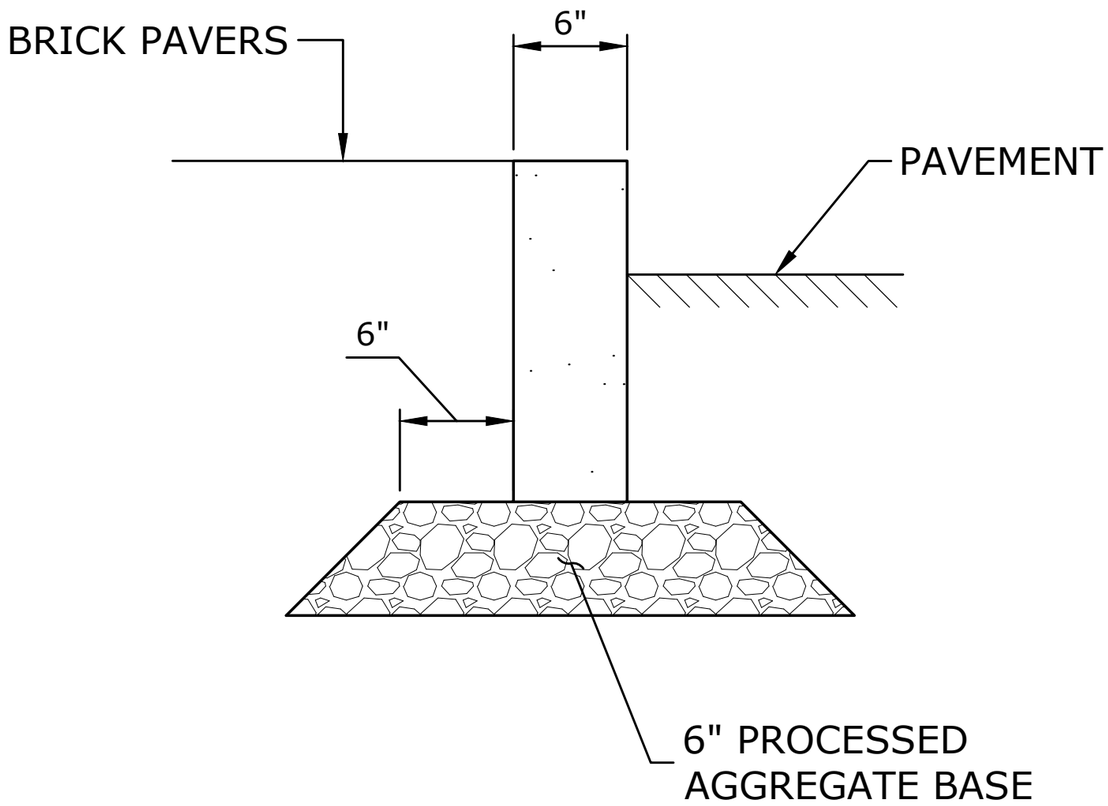
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CURB PLAN VIEW

SCALE: 1" = 1'-0"

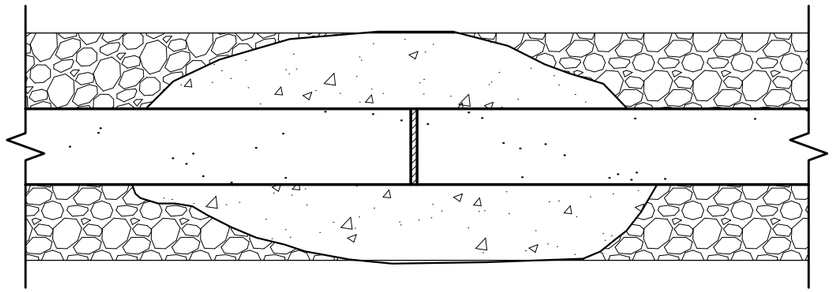
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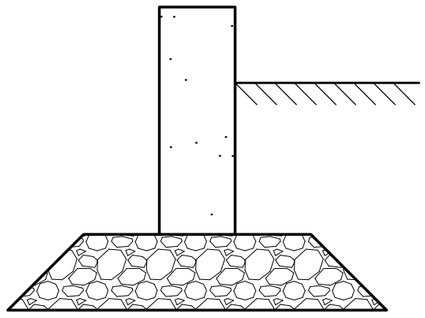


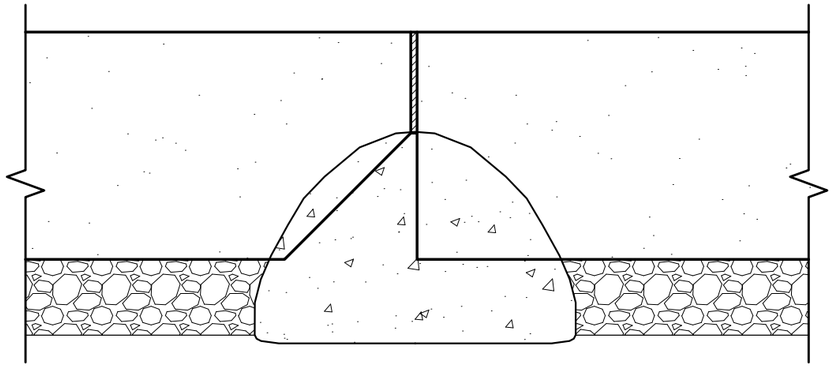
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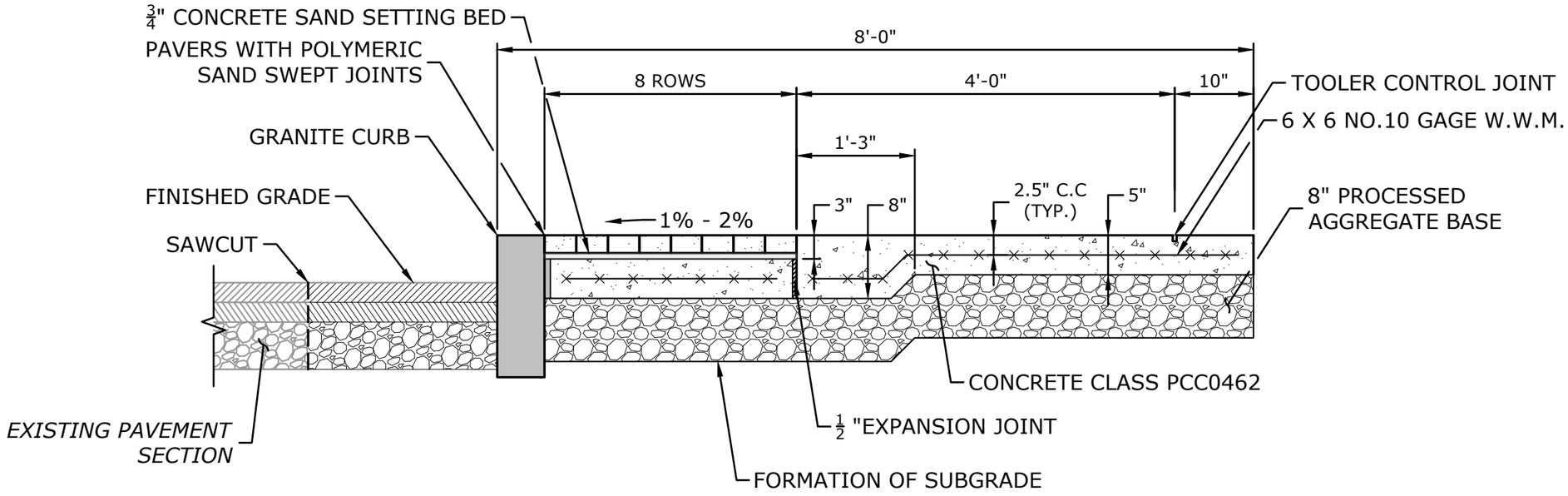
Scale: 1" = 1'-0"

Drawing: C:\USERS\JEWELH~1\APPDATA\LOCAL\TEMP\ACPUBLISH_15256\Z-DET-CURB.DWG Layout: Tab:11X17



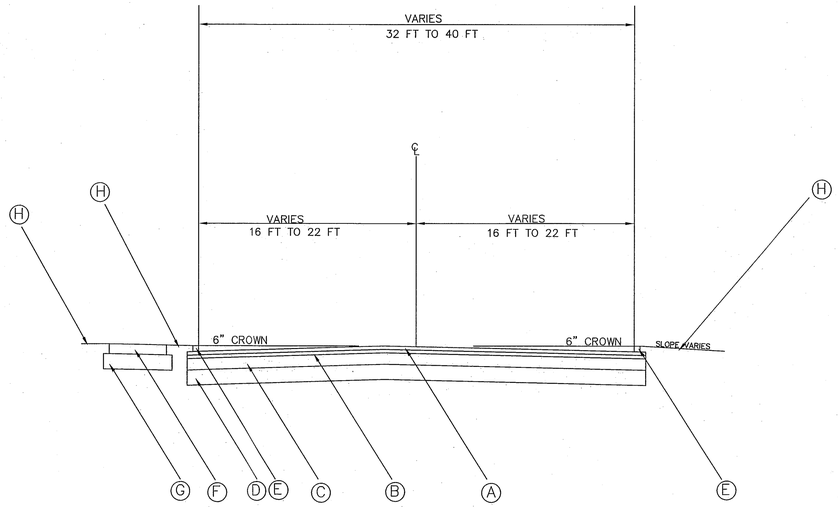






CONCRETE SIDEWALK WITH BRICK PAVERS

SCALE: ¾" = 1'-0"



TYPICAL SECTION
STA. 10+50 TO 31+30

Ⓐ TWO INCH (2") CLASS 2 SURFACE COURSE

Ⓑ TWO INCH (2") CLASS 1 BINDER COURSE

Ⓒ SIX INCH (6") AGGREGATE BASE (M.05.01)

Ⓓ TEN INCH (10") SUBBASE (M.02.02)

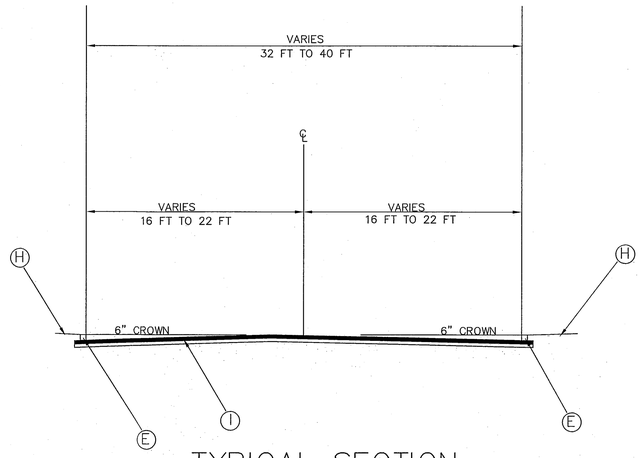
Ⓔ SIX INCH (6") BITUMINOUS LIP CURB (REMOVE EXISTING)

Ⓕ FIVE INCH (5") THICK CONCRETE WALK

Ⓖ EIGHT INCH (8") PROCESS GRAVEL

Ⓗ TURF ESTABLISHMENT (4" MINIMUM OF TOPSOIL)

Ⓘ MILL TWO INCH (2") EXISTING CLASS 2 SURFACE PAVEMENT. OVERLAY WITH NEW CLASS 2 SURFACE PAVEMENT.



TYPICAL SECTION
STA. 4+17 TO 10+50

DESCRIPTION	SHEET. NO.	NO SCALE	DESIGNER: AMF	CITY OF BRISTOL, CONNECTICUT	Bristol Department of Public Works 111 North Main Street Bristol, CT 06010 (860) 584-6125 (860) 584-3838 Fax	PROJECT TITLE: MIX STREET ROAD RECONSTRUCTION	TOWN: BRISTOL, CONNECTICUT	DOT PROJECT:
REVISIONS			DRAFTER: AMF					DRAWING NO.:
			CHECKED BY: RAR	ENGINEER: BRISTOL DPW			DRAWING TITLE: TYPICAL SECTIONS	SHEET NO.: 4
			DATE CHECKED: 10-9-09	APPROVED BY: DATE: OCTOBER 9, 2009		CADD: PLOTTED: BRISTOL DPW		

Standard Bristol DPW Contractor Excavation Forms

City of Bristol

DEPARTMENT OF PUBLIC WORKS
BRISTOL, CONNECTICUT 06010

EXCAVATION
CONTRACTOR'S PERMIT BOND

_____
Name of License Holder

_____
Bond Number

KNOW ALL MEN BY THESE PRESENTS,

That we, _____ of the Town
(Licensee)

of_____County of _____,

and the State of Connecticut, as Principal, and _____,
(Bonding Company)

of the State of _____ having an office and place of business at

_____,

as Surety, are held and firmly bound unto the City of Bristol, in the sum of

_____ Dollars,

lawful money of the United States, to be paid to assure completion of all work for which payment, well and truly to be made, we bind ourselves, our heirs, executors and administrators and assigns, jointly and severally by these presents, the said bond and surety to be holden to the CITY OF BRISTOL for such time and under such stipulations as hereinafter stated.

The condition of this obligation is such, that:

Whereas, the above named Principal has received, or may, upon his application, receive, a permit or permits from the CITY OF BRISTOL, to perform work on, about or adjacent to a highway or for the use of the highway right of way, on, over, or below, within said CITY OF BRISTOL as is or may be particularly specified in said permit or permits, to which permit or permits reference is hereby made and are made a part hereof: and Whereas, the said Principal has undertaken and does hereby agree to comply with all the rules, regulations and restrictions of said CITY OF BRISTOL in regard to said permit or permits.

NOW, THEREFORE, it is agreed that (a) this bond shall expire one year from date hereof, except that it shall continue in full force and effect as herein provided as to any and all work required under any permit issued to the Principal within one year from date hereof; (b) if the said Principal fails to complete the required work described in each and every permit issued to him, and continues in said failure and/or neglect for more than thirty days after written notice of said failure and/or neglect is mailed by the Director of Public Works of the City of Bristol to the Principal and surety (by certified mail to the address shown hereon) said Director of Public Works shall arrange to complete all unfinished work and charge the same to the Surety to the extent of this bond; and (c) if the said Principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements specified in said permit or permits, and shall well and truly save harmless and indemnify the said CITY OF BRISTOL and the DIRECTOR OF PUBLIC WORKS, or either of them, from all damages and costs that the CITY OF BRISTOL or the DIRECTOR OF PUBLIC WORKS may suffer, be liable for, or be compelled to pay, or in fact does pay, for any injuries or damages which may be caused by any action or work being carried on either by the said Principal, his servants, agents or employees, under any permit or permits issued or which may be issued by said CITY OF BRISTOL, or its authorized agent, or by reason of negligence or violation of any law on the part of said Principal, his servants, agents or employees, and shall, further indemnify said CITY OF BRISTOL for any expenses that said CITY OF BRISTOL or the DIRECTOR OF PUBLIC WORKS may suffer, be liable for, or be compelled to pay, or in fact does pay for any required adjustments to the highway and its facilities to a comparable condition, including but not limited to refilling openings or excavations, removing guard railings, removing trees, tree stumps and other obstructions, replacing drainage involving driveways and restoring pavements opened or excavated satisfactory to the CITY or existed prior to the initiation of the work said Principal, his servants, agents or employees, then this obligation shall be void; otherwise to remain in full force and effect.

All of the provisions of the foregoing are to be subject to the present statute laws of the State of Connecticut and ordinances and standards and regulations of the CITY OF BRISTOL and to any change, alteration or repeal of any existing laws as may be enacted by any future session of the Legislature of the State of Connecticut or the City Council of the City of Bristol.

IN WITNESS WHEREOF, we have hereunto set our hands and seal the _____

day of _____, in the year two thousand, and _____.

Witness to Licensee's Signature (2)

_____

_____

_____
Licensee's Signature

_____
Bond Company Name

_____
Bond Company Address

_____
Agent Representing Bond Company

City of Bristol DEPARTMENT
OF PUBLIC WORKS BRISTOL,
CONNECTICUT 06010
860-584-6125 – Front Desk
860-584-6295 – Sanitary Sewer Inspector

Contractor's License & Bonding Information Package

License & Bonding Narrative

This Contractor's License and Bonding Information Package includes the following:

- License & Bonding Narrative
- Excavation Contractor's License Application (to be completed & returned to DPW)
- Excavating Contractor's Permit Bond Form (to be completed & returned to DPW along with bond & Power of Attorney Form)
- List of streets requiring uniformed City of Bristol Police Officer for Traffic Control. Call 860-584-3000 48 hours prior to work to schedule Police Officers. Contractor is responsible for cost of officers.
- Sanitary Sewer Connection fee schedule.

Requirements and procedures to become a licensed and bonded Excavation Contractor in the City of Bristol

- Contractor must be licensed by the State of Connecticut as a P1, P7 or W-9 Contractor
- Complete and return the Excavation Contractor's License Application to the Bristol Public Works Department.
- Complete and return to the Bristol Public Works Department the Excavation Contractor's Permit Bond Form and supply a bond for ten thousand dollars ($10,000.00) with a Power of Attorney Form.
- Provide a Certificate of Liability Insurance with the following coverage;
  - Personal Injury - $100,000 Minimum(300,000)
  - Property Damage - $10,000 Minimum(300,000)

Submit the above listed information as one package to the Bristol Department of Public Works office during regular office hours (M-F, 8:00-5:00). This information will be reviewed by the Sanitary Sewer Inspector.

After you become a licensed and bonded Contractor you must obtain an Excavation Permit from the City of Bristol Sanitary Sewer Inspector prior to conducting any work within a City of Bristol street and/or right of way.

City of Bristol DEPARTMENT
OF PUBLIC WORKS BRISTOL,
CONNECTICUT 06010

License & Bonding Narrative (Continued)

Excavation Permit & Permanent Patch Information

All excavation and utility work conducted within any City of Bristol street and/or right of way can only be conducted by Contractors licensed and bonded ***by the City of Bristol***.

To become a licensed and bonded Contractor in the City of Bristol obtain a "Contractor's License & Bonding Information Package" from the City of Bristol Department of Public Works office located in City Hall at 111 North Main Street, Bristol Connecticut.

An excavation permit must be issued by the City of Bristol Sanitary Sewer Inspector (584-6115) a minimum of 48 hours prior to any excavation work within any City of Bristol street and/or right of way.

All ***utility connection fees*** for the subject property must be paid prior to issuance of an excavation permit.

Excavation permits are issued Monday thru Friday from 8:00 a.m. to 9:00 a.m. and from 3:30 p.m. to 4:30 p.m. and at other times as arranged with the Sanitary Sewer Inspector.

Fees

Excavation permit fee = $40.00 each. Separate excavation permits are required for each utility.

Permanent Patch fee – At the time of issuance of an Excavation Permit the Contractor shall pay the estimated cost of the permanent patch to the City of Bristol. During the period between temporary patch and permanent patch, the Contractor shall be responsible for maintaining the patch and shall promptly correct all defects upon order of the Director of Public Works or his designated agent. The intent is that temporary patches shall go through one complete winter season prior to being permanently patched by the City of Bristol. Prior to issuing a Certificate of Occupancy, the City of Bristol with measure the total area of the temporary patch, to assure the funds collected will cover the total permanent patch cost. If additional funds are needed to cover permanent patch cost they will be collected before a Certificate of Occupancy is issued.

Calculation of estimated patch cost will be based on length and width, (width shall be diameter of pipe plus twelve (12) inches, minimum twenty-four (24) inches, plus twelve (12) inches for every foot to depth of trench.) Permanent patch fees are calculated by the City of Bristol and subject to payment by the contractor.

City of Bristol
DEPARTMENT OF PUBLIC WORKS
BRISTOL, CONNECTICUT 06010
860-584-6125 – Front Desk

PERMANENT PATCHING OF CITY STREETS

The permanent patching of all utility trenches and other excavations in streets maintained by the City of Bristol will be by the public works department or under contract to the city. All utility contractors shall obtain an excavating permit for any trenches in the public street.

Excavation, backfilling and patching, general requirements.

Pavement and/or sidewalks shall be cut or sawn to straight neat lines, excavation without cutting or sawing will not be allowed. Cut line shall be parallel and six (6) inches minimum, outside either edge of the proposed trench. Tunneling under pavement or sidewalks will not be allowed. Bituminous material, cement concrete, ledge, rock and boulders over six (6) inches in any dimension shall be removed from the job, together with any clay, silt, or organic material. The public works inspector will check the material excavated and will allow re-use as backfill, sandy and/or gravelly material. Material not approved shall be disposed of off the job. Backfill shall be approved sandy gravelly material with no stones over six (6) inches in any dimension. Backfill shall be compacted in twelve-inch layers using mechanical compaction equipment.

The trench shall be filled to within eleven (11) inches of finished grade, eight (8) inches of approved processed gravel shall be spread and compacted, then three (3) inches of bituminous concrete shall be spread and compacted with the finished material flush with the adjacent existing surface. Bituminous concrete material shall be "hot mix," except during winter season when plants are closed "cold patch" will be used. During the period between temporary patch and permanent patch, the utility contractor shall be responsible for maintaining the patch and shall promptly correct all defects upon order of the director of public works. The contractor is an agent of the utility whose pipe, conduit, etc., is laid in the trench and has ultimate responsibility for the trench. In sanitary sewer laterals this is the serviced property owner. This procedure also includes new sanitary sewer construction and the ultimate responsibility shall be the city public works department.

Fees, deposits, records and measurements for patches.

Annually the city may advertise and receive bids for permanent patching of utility trenches. Bids will be taken on repair of bituminous pavement, curbing and sidewalk. The lowest acceptable unit prices will be utilized with a ten (10) per cent escalator for charging utility contractors, that year, for trench permanent patching. Trenches that are temporarily patched this year will be permanently patched next year, the intent is that temporary patches shall go through one complete winter season.

At the time of issuance of an excavation permit, the utility contractor shall deposit a fee equal to the estimated cost of the permanent patch. Upon completion, the actual patch will be measured and the contractor shall be billed for any additional amount or added cost due to increased bid cost, if the amount is less than the prepayment he will receive credit. Calculation of estimated patch will be based on length and width, (width shall be diameter of pipe plus twelve (12) inches, minimum twenty-four (24)inches, plus twelve (12) inches for every foot to depth of trench.) Permits will not be issued to contractors owing the city any excess fee. Responsible persons will be liened if excess fee not paid within ninety (90) days of the due date.

The public works department shall keep a written record of all trenches, with date of excavation, temporary patch and permanent patch, deposit fee and estimate quantity final fee and actual quantity balance or credit due, and exact location, and type of utility. The city shall maintain a separate fund, for permanent patching of all city streets. All payments by utility contractor or others excavating in the public street will be deposited in the fund, and payments for permanent patching completed will be disbursed from the fund.

Detailed patching requirements.

Permanent patching shall be performed as follows:

(a) ***Sidewalks***. Temporary bituminous material shall be removed. Existing walk faces shall be straight and true with no cracks or breaks, if not, shall be cut at next sound transverse joint. Subgrade material shall be removed to five (5) inches below finish grade one-half inch preformed full depth and width expansion joints shall be placed against existing concrete. Portland cement concrete shall be as specified in Chapter 21 of the City Ordinances. Topsoil and seeding shall be repaired as specified in Chapter 21 of the City Ordinances. Bituminous concrete walks shall be repaired as specified in subsection (c).

(b) ***Curbing***. Curbing shall be replaced to conform to existing adjacent curb. Existing curb shall be cut to neat true lines. Concrete and granite curb replacement shall be not less than three (3) feet. Bituminous curb less than twenty-five (25) feet may be hand formed to proper cross section. Curbing shall conform to Chapter 21 of the City Ordinances.

(c) ***Pavement***. Existing bituminous material shall be removed, existing pavement shall be cut to reasonably straight longitudinal lines, transverse jogs within ten (10) feet of each other shall not be accepted, transverse cuts shall be perpendicular to the longitudinal cut. Several small excavations shall be widened into one. If existing pavement has cracked due to trench settlement, the edge of the trench shall be cut beyond such cracks to firm true pavement. The subgrade shall be graded and compacted to three (3) inches below finished grade. The contractor shall add any necessary processed gravel to bring trench to subgrade, care shall be taken to keep processed gravel tight under adjacent pavement. Edge of existing bituminous shall be painted with hot liquid asphalt prior to paving. Transverse joints in new patch shall be cut square and painted with hot liquid asphalt. Bituminous material shall be placed in two (2) equal layers of one and one-half inches compacted. Finished surface shall meet existing surface neat and true. Edges of completed patch shall be sealed with an application of hot liquid asphalt three (3) inches minimum wide. Finish surface shall be lightly dusted with cement or fine quarry screenings. Patch shall be barricaded and traffic kept off for at least four (4) hours.

City of Bristol

DEPARTMENT OF PUBLIC WORKS
BRISTOL, CONNECTICUT 06010

Excavation Contractor's License Application

Date Filed: _____
Approved: _____
Denied: _____

1. **APPLICANT:** (Person completing this application)

   Name: _____ Signature: _____

   Address: _____ City: _____State: _____Zip: _____

   Telephone No.: _____ [ ] home [ ] work

2. **COMPANY:**

   Name: _____

   Address: _____ City: _____State: _____Zip: _____

   Telephone No.: _____ [ ] home [ ] work

3. **STATE LICENSES HELD:**

   Classification & Number:_____

   _____

4. **REFERENCES:** List a minimum of three (3) references (other than material suppliers) who are familiar with your work and the information contained within this application. Attach another sheet if necessary.

_____

_____

_____

_____

_____

_____

Original Site Plan

June 2024 (Full Set)

CITY OF NEW BRITAIN, CONNECTICUT

WATER SYSTEM IMPROVEMENTS

WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

BID NO. 4145

MAYOR

HONORABLE ERIN E. STEWART

DIRECTOR OF PUBLIC WORKS

MARK E. MORIARTY, P.E.

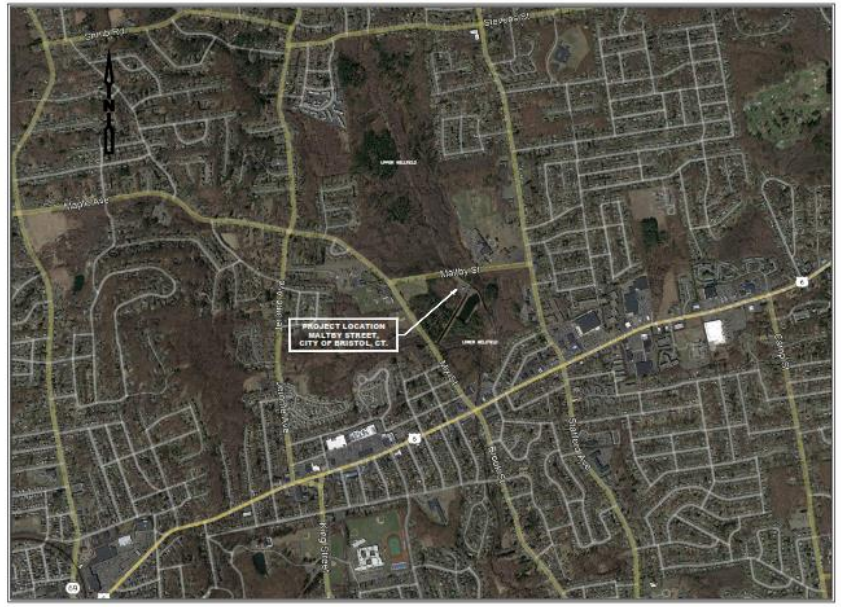
DIRECTOR OF UTILITIES DIVISION

RAMON ESPONDA, P.E.

SUPERINTENDENT OF UTILITIES DIVISION

CHRIS POLKOWSKI

JUNE 2024



LOCATION PLAN

CDM Smith

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

EAST HARTFORD, CONNECTICUT

Water ***Environment*** ***Transportation*** ***Energy*** ***Facilities***

Full Set of Civil Drawings at this Hyperlink:

https://www.bristolct.gov/DocumentCenter/View/47022/Full-Set-NBW

Revised Site Plan 101024

CITY OF NEW BRITAIN, CONNECTICUT

WATER SYSTEM IMPROVEMENTS

WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

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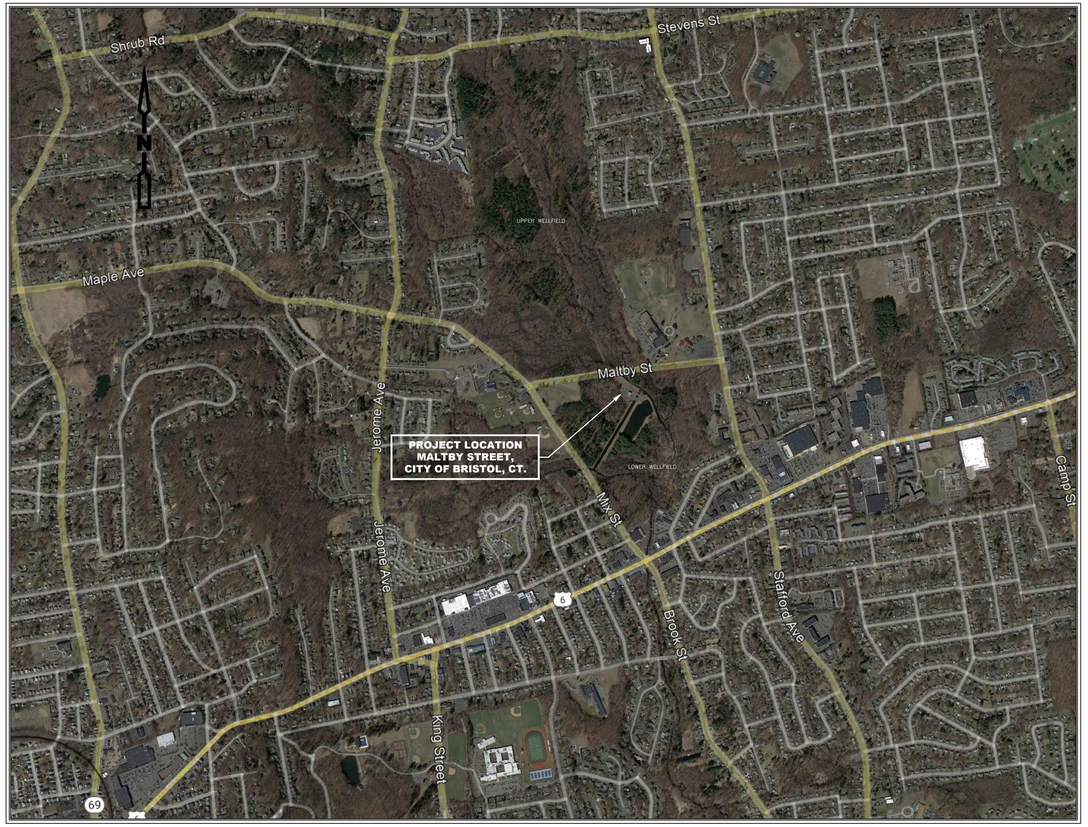
DIRECTOR OF UTILITIES DIVISION

RAMON ESPONDA, P.E.

SUPERINTENDENT OF UTILITIES DIVISION

CHRIS POLKOWSKI

OCTOBER 2024



LOCATION PLAN

SCALE: 1" = 1000'

BRISTOL ZONING COMMISSION APPLICATION
(APPROVED XX):
#2504 – SPECIAL PERMIT FOR CIVIC FACILITY
#2505 – SITE PLAN FOR CIVIC FACILITY
#2506 – SPECIAL PERMIT FOR EARTH REMOVAL

BRISTOL AQUIFER PROTECTION AGENCY
(APPROVED XX):
– DETERMINATION FORM

BRISTOL IWWA APPLICATIONS
(APPROVED JUNE 7, 2024):
#2019 – APPLICATION WETLANDS BOUNDARY CHANGE
#2020 – PERMIT TO CONDUCT REGULATED ACTIVITIES
#23-485F-3058 – PERMIT FOR FLOODPLAIN DEVELOPMENT

SP-01 OVERVIEW UWF NORTH
SP-02 OVERVIEW UWF SOUTH
SP-03 OVERVIEW LWF
SP-04 SITE PLAN UPPER WELLFIELD
SP-05 SITE PLAN POND PUMPING STATION
SP-06 SITE PLAN LOWER WELLFIELD
SP-07 MIX STREET ACCESS ROAD
SP-08 MALTBY STREET UTILITIES I
SP-09 MALTBY STREET UTILITIES II
SP-10 MALTBY STREET UTILITIES III
SP-11 STAFFORD AVENUE AND CROSS COUNTRY UTILITIES
SP-12 E&S CONTROLS UWF
SP-13 E&S CONTROLS POND PUMPING STATION
SP-14 E&S CONTROLS LWF

CDM Smith

STATE OF CONNECTICUT
STEVE GERSLEY
No. 24384
LICENSED PROFESSIONAL ENGINEER
10-10-24

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

EAST HARTFORD, CONNECTICUT

Water Environment Transportation Energy Facilities

IMAGE OBTAINED FROM GOOGLE EARTH PRO DECEMBER, 2021
Plot Stamp – File: C:\USERS\ENGELSB\DC\ACCDOCS\CDM SMITH INC\10739-264571 – NEW BRITAIN CT WHITE BRIDGE WELL FIELDS AND PS\PROJECT FILES\01 GENERAL (G)\10 CADD\PERMIT-GOODNFCV.DWG Saved by: ENGELSB On: 9-Oct-24 Plotted on: 9-Oct-24 10:59 AM

CIVIL/SITE ABBREVIATIONS

SYMBOL	DESCRIPTION
BC	BOTTOM OF CURB
BS	BOTTOM OF STEP
BW	BOTTOM OF WALL
CB	CATCH BASIN
CLF	CHAIN LINK FENCE
CS	CRUSHED STONE
CW	COLD POTABLE WATER
DI	DUCTILE IRON
DMH	DRAIN MANHOLE
DN	DOWN
FES	FLARED END SECTION
FFE	FINISHED FLOOR ELEVATION
FM	FORCE MAIN
FRP	FIBERGLASS REINFORCED PLASTIC
GV	GATE VALVE
HDPE	HIGH-DENSITY POLYETHYLENE
INF	INFLUENT
INV. EL.	INVERT ELEVATION
MH	MANHOLE
MJ	MECHANICAL JOINT
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
SS	STAINLESS STEEL
TC	TOP OF CURB
TS	TOP OF STEP/SLAB
TW	TOP OF WALL
UP	UTILITY POLE
VGC	VERTICAL GRANITE CURB
UWF	UPPER WELLFIELD
LWF	LOWER WELLFIELD

PROCESS FLOW STREAMS:

DR	DRAIN
FINW	FINISHED WATER
OVF	OVERFLOW
RW	RAW WATER
SAN	SANITARY
SPL	SAMPLE
VT	VENT
FLUO	SODIUM FLUORIDE
HYPO	SODIUM HYPOCHLORITE
NAOH	SODIUM HYDROXIDE
PHOS	POLYPHOSPHATE

FOR ADDITIONAL RELATED FLOW STREAMS SEE LEGEND SHEETS P-1 AND I-1

PIPE MATERIALS:

CS	CARBON STEEL
CU	COPPER
DI(FLG)	DUCTILE IRON (FLANGED JOINT)
DI(MJ)	DUCTILE IRON (MECHANICAL JOINT)
DI(POJ)	DUCTILE IRON (PUSH ON JOINT)
PVC(SCH 40)	POLYVINYL CHLORIDE (SCHEDULE 40)
PVC(SCH 80)	POLYVINYL CHLORIDE (SCHEDULE 80)
PTFE	POLYTETRAFLUOROETHYLENE
SS316	316 STAINLESS STEEL

YARD PIPING NOTES

1. THE LOCATION OF EXISTING UTILITIES AND OTHER UNDERGROUND STRUCTURES SHOWN ON THE DRAWINGS IS APPROXIMATE, AND THEIR ACTUAL LOCATIONS MAY VARY FROM THAT SHOWN. FURTHER, IT IS NOT WARRANTED THAT ALL UNDERGROUND UTILITIES AND STRUCTURES ARE SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND FEATURES THAT MAY BE AFFECTED BY THE WORK.
2. NEW WATER MAINS SHALL HAVE A MINIMUM COVER OF 4.5 FEET UNLESS OTHERWISE INDICATED AND SHALL PASS UNDER EXISTING UTILITIES AS NECESSARY TO MEET THIS REQUIREMENT.
3. ALL NEW WATER PIPES, INCLUDING FIRE PROTECTION LINES, AND OTHER PRESSURE PIPES INCLUDING FORCE MAINS, SHALL HAVE RESTRAINED JOINTS AS SPECIFIED.
4. TEST PITS SHALL BE DUG TO LOCATE EXISTING PIPES TO WHICH NEW PIPES ARE TO BE CONNECTED, AND WHERE NECESSARY TO DETERMINE EXACT LOCATIONS OF EXISTING UTILITIES.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL FINAL CONNECTIONS TO PIPES.
6. ABANDONED PIPES, VALVES AND APPURTENANCES ENCOUNTERED DURING CONSTRUCTION MAY BE REMOVED AS REQUIRED. PIPES LEFT IN PLACE SHALL BE PLUGGED AND ABANDONED AS SPECIFIED AND AS APPROVED BY THE ENGINEER.
7. WALKWAYS AND PAVEMENTS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED WITHOUT ADDITIONAL EXPENSE BY OWNER.
8. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION BY DIGGING TEST PITS (WHETHER OR NOT INDICATED ON THE DRAWINGS) WHERE UTILITY INFORMATION IS ESSENTIAL.
9. PRIOR TO ANY EXCAVATION WORK, IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE DETAILS OF THE PROJECT AREA. THE CONTRACTOR SHALL COORDINATE WITH DEPARTMENT PERSONNEL AND OWNER AND REVIEW ANY DRAWINGS THAT MAY BE AVAILABLE. CONTRACTOR SHALL ENSURE THAT EXISTING UTILITIES WITHIN THE WORK OF THIS CONTRACT ARE NOT DAMAGED, UTILITIES DAMAGED DURING EXCAVATION SHALL BE IMMEDIATELY REPAIRED AT NO ADDITIONAL COST TO OWNER.
10. PERFORM EXCAVATION CLOSE TO EXISTING UTILITIES BY HAND TO DETERMINE EXACT UTILITY LOCATION PRIOR TO INSTALLING EXCAVATION BRACING OR BEFORE MACHINE EXCAVATION.

GRADING NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING GRADES AND LOCATION OF UTILITIES. MAJOR DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
2. TO ESTABLISH PROPER GRADES, CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF GRADE STAKES. THE NUMBER AND LOCATION SHALL BE DETERMINED IN THE FIELD AND APPROVED BY THE ENGINEER.

GENERAL NOTES

1. BEFORE CONSTRUCTION, ALL UTILITIES, PUBLIC AND PRIVATE MUST BE NOTIFIED CALL "DIG SAFE" 1 (888) 344-7233 HTTP://WWW.DIGSAFE.COM.
2. FOR BORING INFORMATION AND LOCATIONS SEE EXISTING CONDITIONS DRAWINGS AND APPENDIX TO SPECIFICATIONS.
3. THE CONTRACTOR SHALL PREPARE AN EROSION AND SEDIMENT CONTROL PLAN AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AS SPECIFIED TO PROTECT THE SITES FROM EROSION AND PREVENT THE MOVEMENT OF SEDIMENT AND DEBRIS. THE SWPPP SHALL BE PREPARED FOR APPROVAL BY STATE AND FEDERAL PERMIT AUTHORITIES AND FOR INFORMATIONAL PURPOSES ONLY BY THE OWNER AND ENGINEER.
4. ALL AREAS OUTSIDE THE LIMIT OF DISTURBANCE SHALL BE PROTECTED AT ALL TIMES UNLESS OTHERWISE DIRECTED BY THE OWNER AND/OR ENGINEER.
5. ALL MATERIALS TO BE REMOVED WITHIN THE LIMIT OF DISTURBANCE SHALL BE REMOVED TO A LOCATION ARRANGED BY THE CONTRACTOR AND APPROVED BY THE OWNER AND/OR ENGINEER. THE LOCATION OF STOCKPILED TOPSOIL SHALL BE IN AREAS APPROVED BY THE OWNER AND/OR ENGINEER.
6. CONTRACTOR SHALL PROVIDE SITE SECURITY THROUGHOUT CONSTRUCTION PERIOD.
7. WHEN EXCAVATING AROUND EXISTING STRUCTURES, EXCAVATE SOILS UNIFORMLY AROUND THE STRUCTURE UNLESS INDICATED OTHERWISE. CONTROL EXCAVATION LEVELS AROUND THE ENTIRE PERIMETER OF THE STRUCTURE SUCH THAT THE GRADE DIFFERENTIAL DOES NOT EXCEED 2 FT.
8. WHEN BACKFILLING AROUND STRUCTURES, BRING UP BACKFILL UNIFORMLY AROUND STRUCTURE UNLESS INDICATED OTHERWISE. CONTROL BACKFILL LEVELS AROUND THE ENTIRE PERIMETER OF THE STRUCTURE SUCH THAT THE GRADE DIFFERENTIAL DOES NOT EXCEED 2 FT.
9. GAS MAINS ARE ASSUMED TO HAVE THREE FEET OF COVER UNLESS SHOWN OTHERWISE. LOCAL WATER MAINS ARE ASSUMED TO HAVE 5 FEET OF COVER. IT IS NOT WARRANTED THAT ALL UTILITIES ARE SHOWN OR ARE SHOWN AT THE CORRECT ELEVATION.
10. ALL UNDERGROUND SERVICES TO HOUSES ARE NOT SHOWN.
11. BORING LOGS HAVE BEEN APPENDED TO THE SPECIFICATION DOCUMENTS. BORINGS ARE INCLUDED FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT BE SHOWN AT EXACT LOCATIONS.
12. CONTRACTOR SHALL MINIMIZE CLEARING AND GRUBBING AS MUCH AS POSSIBLE. ALL CROSS-COUNTRY AREAS SHALL BE LOAMED AND SEEDED OR SODDED TO THE LIMITS DISTURBED BY CONSTRUCTION UNLESS OTHERWISE NOTED.
13. CONTRACTOR SHALL NOT DISTURB ANY LAND OUTSIDE THE LIMITS OF WORK.
14. WHEN THE HORIZONTAL SEPARATION BETWEEN THE NEW SEWER AND EXISTING OR RELOCATED WATER MAIN IS LESS THAN 10-FT AND THE VERTICAL SEPARATION IS LESS THAN 18-IN THE NEW SEWER SHALL BE CONSTRUCTED OF RESTRAINED MJ DI OR CONCRETE ENCASED PIPE FOR A MINIMUM OF 10-FT BEYOND WHERE THE SPACING IS LESS THAN 10-FT HORIZONTAL AND 18-IN VERTICAL.
15. IF A WATER MAIN CROSSES UNDER THE NEW SEWER, BOTH PIPES SHALL BE RESTRAINED MJ DI OR CONCRETE ENCASED FOR A MINIMUM OF 10-FT TO EITHER SIDE OF THE RESPECTIVE CENTER LINES.
16. IF NECESSARY TO WORK IN LIVE SEWER MANHOLES CONTRACTOR SHALL FOLLOW ALL FEDERAL, STATE AND LOCAL REQUIREMENTS FOR SAFETY WHEN IN CONFINED SPACES. THE CONTRACTOR IS ALSO REFERRED TO RECOMMENDATIONS IN THE NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH PUBLICATION NO. 80-106, "WORKING IN CONFINED SPACES".
17. CONTRACTOR TO MAINTAIN FLOW IN EXISTING DRAINS AT ALL TIMES.
18. IT IS NOT WARRANTED THAT ALL EXISTING ABOVE GROUND AND UNDERGROUND STRUCTURES, EQUIPMENT, PIPING AND ELECTRICAL CONDUITS ARE SHOWN. NOR IS IT WARRANTED THAT LOCATIONS AND SIZES OF STRUCTURES AND UTILITIES ARE EXACT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL SIZES AND LOCATIONS OF EXISTING EQUIPMENT, PIPING, ETC. REFER TO SPECIFICATIONS FOR FURTHER DETAILS.
19. ELEVATIONS SHOWN ARE IN FEET AND ARE REFERENCED USGS DATUM NAVD88.
20. THE CONTRACTOR SHALL COORDINATE WORK TO ENSURE CONTINUED ACCESS TO ALL EXISTING FACILITY STRUCTURES. SEE SPECIFICATION FOR ADDITIONAL INFORMATION.
21. REMOVE AND DISPOSE OF EXISTING PAVEMENT WITHIN LIMITS SHOWN ON DRAWINGS TAKING CARE NOT TO DAMAGE EXISTING WALLS, CURBS, BUILDINGS OR UTILITY STRUCTURES.
22. STRIP EXISTING VEGETATION AND 6" LAYER TOPSOIL WITHIN AREAS OF DISTURBANCE. GRIND ANY STUMPS TO A MINIMUM OF ONE FOOT BELOW FINISH GRADE AND BACKFILL WITH MAX. 12 INCH COMPACTED LAYERS AS SPECIFIED. CONTRACTOR SHALL STOCKPILE STRIPPED TOPSOIL IN A MANNER APPROVED BY THE ENGINEER.
23. EXISTING VERTICAL OR SLOPED GRANITE CURB DISTURBED FOR CONSTRUCTION SHALL BE STOCKPILED AND REINSTALLED AS APPROVED BY THE ENGINEER.
24. ALL BITUMINOUS ROADWAY AND SIDEWALK PAVEMENT AREAS AND ALL CONCRETE SIDEWALK AND OTHER AREAS DISTURBED BY TRENCHING SHALL BE REPAIRED AS SPECIFIED. SELECTED AREAS TO RECEIVE AN OVERPLAY LEVELING COURSE AS DIRECTED BY THE ENGINEER.
25. COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS FOR LIMITING CONSTRUCTION ACTIVITIES NEAR THE GREAT BLUE HERON ROOKERY AREA AND NATURAL DIVERSITY DATABASE (NDDB) STATE-LISTED SPECIES HABITAT. REFER TO SPECIFICATIONS FOR FURTHER DETAILS.
26. HAZARDOUS BUILDING MATERIALS WERE FOUND IN SAMPLES TAKEN FROM SELECT LOCATIONS IN EXISTING BUILDINGS. PRIOR TO COMMENCING WITH ANY MODIFICATIONS OR DEMOLITION WORK, REFER TO SPECIFICATIONS FOR KNOW LOCATIONS OF HAZARDOUS BUILDING MATERIALS AND EQUIPMENT, PROPOSED ABATEMENT AND DISTURBANCE WORK, REQUIREMENTS FOR ADDITIONAL SAMPLING AND TESTING TO BE PERFORMED AS PART OF THE WORK, MONITORING REQUIREMENTS, AND WASTE HANDLING AND DISPOSAL REQUIREMENTS.
27. ALL OBSERVATION AND MONITORING WELLS ASSOCIATED WITH THE UPPER AND LOWER WELLFIELDS MAY NOT BE SHOWN ON THE DRAWINGS. REFER TO SPECIFICATIONS FOR FURTHER DETAILS.
28. SILT FENCING SHALL BE INSTALLED ON THE TOE OF ALL PROPOSED NEW SLOPES. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MONITORED DURING CONSTRUCTION, AND REMOVED ONLY ONCE SLOPE HAS BEEN STABILIZED.
29. THE CONTRACTOR IS PROHIBITED FROM PERFORMING ANY ACTIVITY THAT MAY CAUSE CONTAMINATION TO SOIL AND/OR GROUNDWATER INCLUDING, BUT NOT LIMITED TO, REFUELING, DEGREASING, OR CHANGING OIL OF EQUIPMENT, MACHINERY, OR OTHER VEHICLES, ON THE PROJECT SITE WITHOUT THE INSTALLATION OF A CONTAINMENT UNIT. CONTAINMENT UNITS SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO USE AND SHALL NOT BE LOCATED WITHIN REGULATED AREAS OR THEIR BUFFER ZONE.
30. CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS INCLUDED IN THE JUNE 2024 ORDER OF CONDITIONS RECIEVED FROM THE BRISTOL CONSERVATION COMMISSION FOR APPLICATION #2020. REFER TO SPECIFICATIONS FOR FURTHER DETAIL.
31. CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE CONCRETE SIDEWALK AT THE UPPER WELLFIELD ACCESS ROADWAY ENTRANCE ON MALTBY STREET. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED TO EXISTING SIDEWALK DURING CONSTRUCTION.
32. CONTRACTOR SHALL IMPLEMENT PROTECTIVE MEASURES TO LIMIT DUST, NOISE, FLYING ROCK, AND OTHER NUISANCES, AS REQUIRED IN THE SUPPLEMENTAL GENERAL CONDITIONS AND SPECIFICATION SECTION 015000.

LAYOUT NOTES:

1. CONTRACTOR SHALL VERIFY ALL PROPERTY AND SURVEY INFORMATION.
2. CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY AND PROTECT ALL ON-SITE STRUCTURES AND VEGETATION TO BE RETAINED ON THE SITE THROUGHOUT THE CONSTRUCTION PROJECT.
3. CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS AND ALL UTILITY SERVICES THROUGHOUT THE DURATION OF THE CONTRACT, UNLESS OTHERWISE SPECIFIED.
4. LOCATIONS OF BURIED UTILITIES, VAULTS AND CONCRETE PADS ARE APPROXIMATE ONLY. FINAL LOCATIONS SHALL BE DETERMINED IN THE FIELD AFTER STAKING BY THE CONTRACTOR BASED ON ACTUAL SITE CONDITIONS AS APPROVED BY THE OWNER AND/OR ENGINEER.
5. ALL DISTURBED AREAS NOT COVERED WITH PAVEMENT, PADS, CRUSHED STONE, SOD, OR STRUCTURES SHALL RECEIVE 6" LAYER OF LOAM AND SEED AS SPECIFIED, UNLESS NOTED OTHERWISE.
6. DIMENSIONS FOR STRUCTURES ARE TO OUTSIDE FACE OF WALL. DIMENSIONS TO CONCRETE PADS ARE TO EDGE OF PAD. DIMENSIONS TO FENCES AND GATES ARE ON-CENTER.
7. ALL ITEMS TO BE REMOVED, UNLESS OTHERWISE INDICATED ON THE DRAWINGS, SHALL BE DISPOSED OFF SITE IN A LEGAL MANNER.
8. CONTRACTOR SHALL LIMIT CONSTRUCTION ACCESS TO AREAS DESIGNATED ON THE DRAWINGS AND AS INDICATED BY THE OWNER.
9. LOCATIONS OF CONCRETE PADS, PAVEMENTS, BOLLARDS, GATES, AND SIGNS ARE APPROXIMATE ONLY. FINAL LOCATIONS SHALL BE STAKED IN THE FIELD FOR REVIEW AND APPROVAL BY THE ENGINEER.
10. BOUNDARIES OF AREAS TO RECEIVE LOAM & SEED MIXTURES, WASHED STONE, OVERLAY PAVEMENT OR OTHER SURFICIAL MATERIALS ARE FOR SCHEMATIC PURPOSES ONLY. FINAL LOCATIONS SHALL BE STAKED IN THE FIELD BY THE CONTRACTOR FOR REVIEW AND APPROVAL BY THE ENGINEER.
11. THE EXISTING CONDITIONS SHOWN ON THIS BASEMAP ARE THE RESULT OF A GROUND SURVEY INSTRUMENT PERFORMED BY FREEMAN COMPANIES IN 2020.
12. HORIZONTAL AND VERTICAL CONTROL WAS ESTABLISHED WITH RTK IN 2020. HORIZONTAL DATUM IS BASED ON THE CONNECTICUT STATE PLANE COORDINATE SYSTEM NAD-83 - ENGLISH UNITS. VERTICAL DATUM IS CONNECTICUT STATE PLAN COORDINATE SYSTEM NAVD-88 - ENGLISH UNITS.
13. A PORTION OF THE EASTERN PROPERTY LINE ALONG THE COPPERMINE BROOK WAS TAKEN FROM THE DRAWING TITLED "CONSTRUCTION OF MALTBY STREET BRIDGE AND APPROACHES" BY THE CITY OF BRISTOL DEPARTMENT OF ENGINEERING, DATED JANUARY 1978.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: V. BITTO
SHEET CHK'D BY: K. GERLACH
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — JEFFREY S. GERSLEY — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

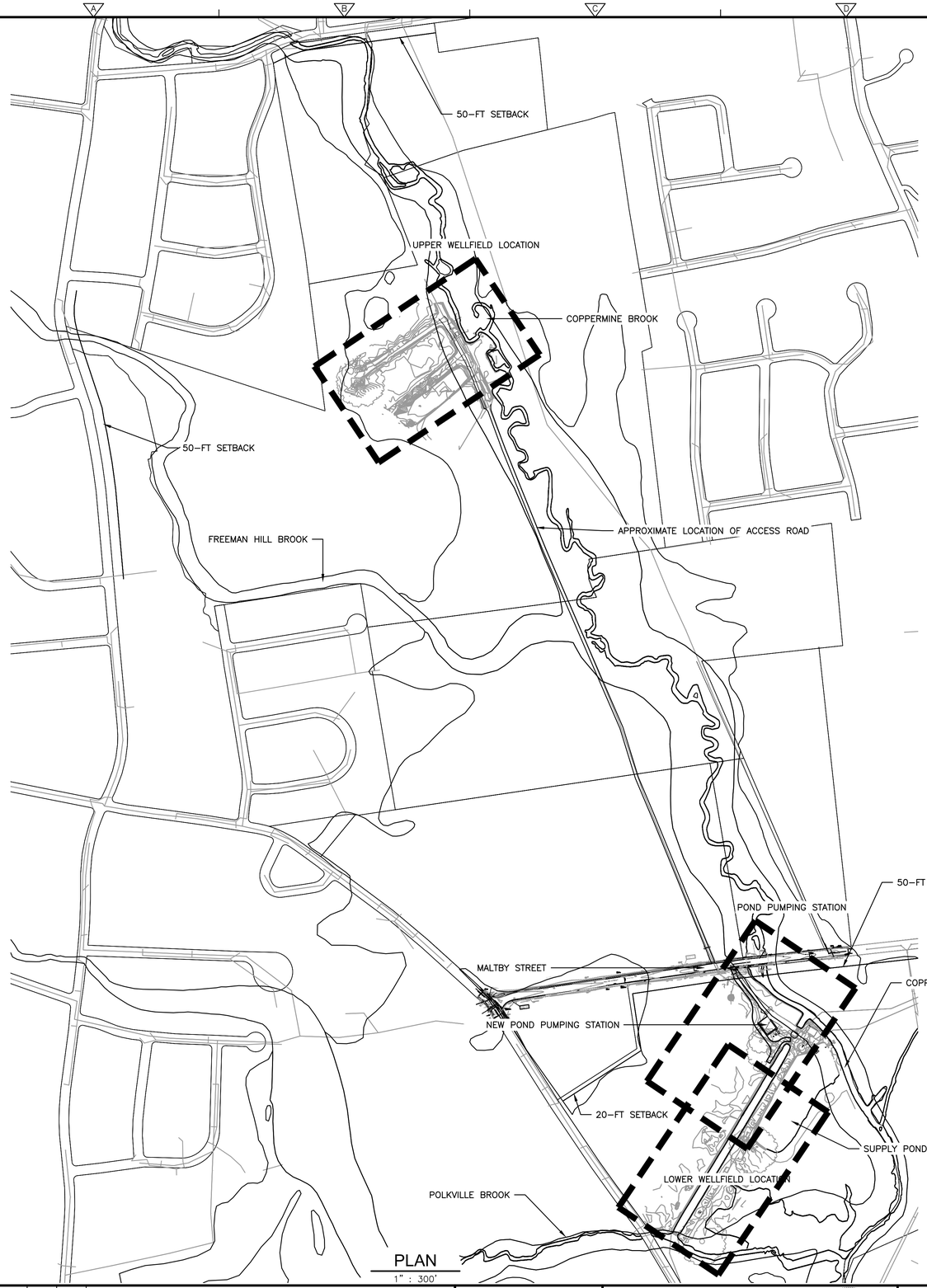
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

LEGEND, ABBREVIATIONS AND GENERAL NOTES

PROJECT NO. 10739-264571
FILE NAME P-ERM-C001GELG.DWG
SHEET NO. P-ERM

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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PLAN
1" : 300'



PLAN
N.T.S.

FLOOD	LOWER WELLFIELD & POND PUMPING STATION ELEVATION (ft)	UPPER WELLFIELD ELEVATION (ft)
0.2% ANNUAL CHANCE FLOOD (500 – YR FLOOD)	256.7	259.7
1% ANNUAL CHANCE FLOOD (100 – YR FLOOD)	255.9	259.0
2% ANNUAL CHANCE FLOOD (50 – YR FLOOD)	255.6	258.6
10% ANNUAL CHANCE FLOOD (10 – YR FLOOD)	253.0	258.0

NOTE: ELEVATIONS SHOWN ARE IN FEET AND ARE REFERENCED USGS DATUM NAVD88

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

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Tel: (860) 529-7615

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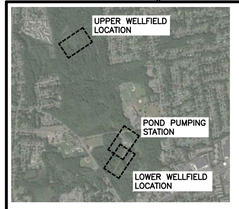
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

OVERALL SITE PLAN

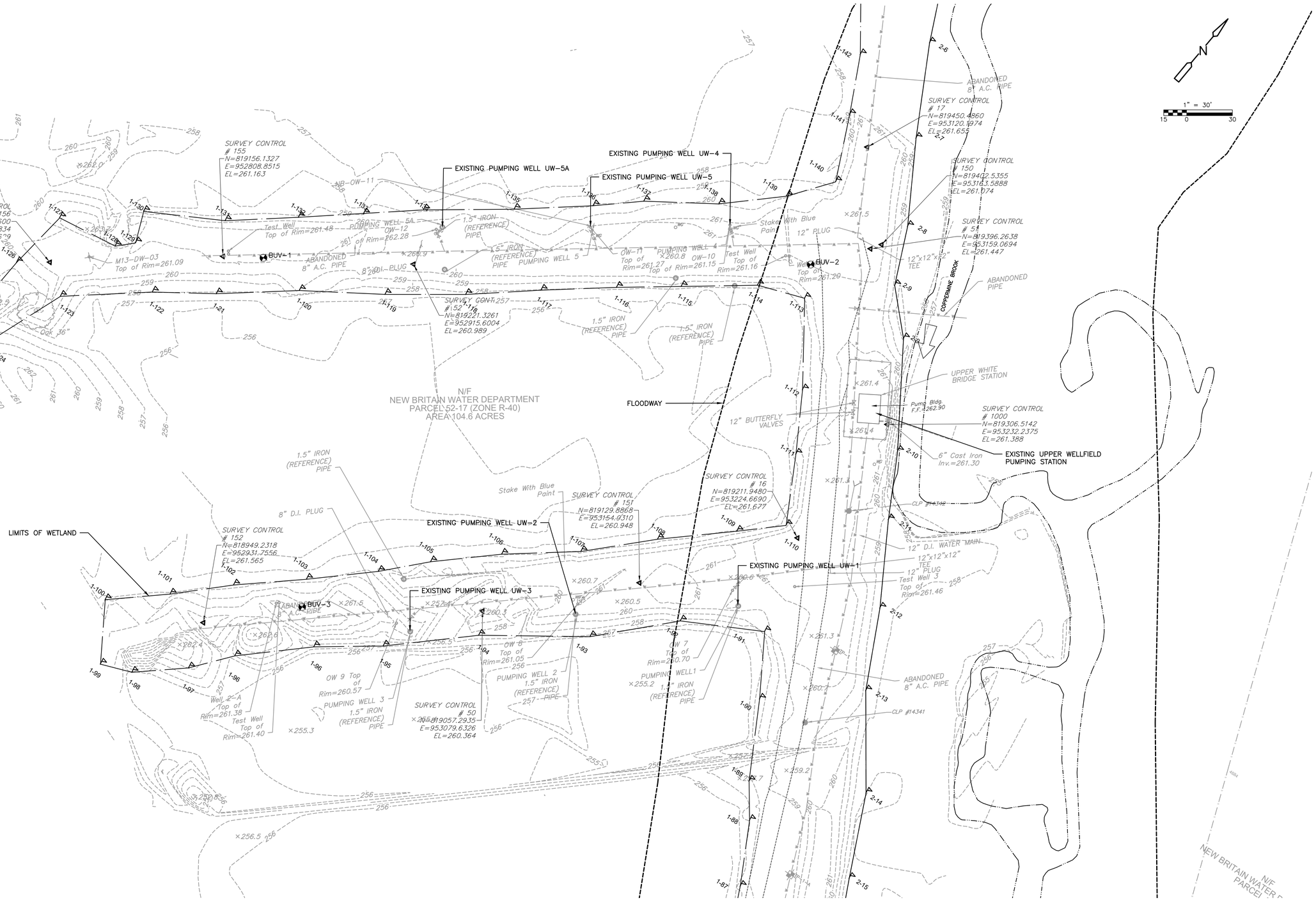
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FILE NAME: C002STPL.DWG
SHEET NO.
C-2

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PLAN
N.T.S.



NOTES:

1. AREAS OF THE UPPER WELLFIELD ARE LOCATED WITHIN HABITAT OF STATE LISTED SPECIES. REFER TO GENERAL NOTE 25 ON SHEET C-1 FOR MORE DETAILS.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
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East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — KIMBERLEY A. WAGNER — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10.10.24

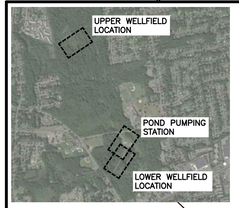
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

UPPER WELLFIELD
EXISTING CONDITIONS PLAN

PROJECT NO. 10739-264571
FILE NAME: C003STPL.DWG
SHEET NO.
C-3

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PLAN
N.T.S.

NOTES:

1. AREAS OF THE LOWER WELLFIELD AND POND PUMPING STATION ARE LOCATED WITHIN HABITAT OF STATE LISTED SPECIES. REFER TO GENERAL NOTE 25 ON SHEET C-1 FOR MORE DETAILS.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G.HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

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STATE OF CONNECTICUT · JEFFERSLEY WAGNER · No. 24384 · LICENSED PROFESSIONAL ENGINEER · 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT

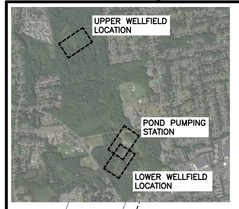
WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

POND PUMPING STATIONS EXISTING CONDITIONS PLAN

PROJECT NO. 10739-264571
FILE NAME: C004STPL.DWG
SHEET NO. C-4

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PLAN
N.T.S.

APPROXIMATE LOCATION OF EXISTING GREAT BLUE HERON ROOKERY. SEE GENERAL NOTE 25 ON SHEET C–1 FOR MORE DETAILS

N/F
NEW BRITAIN WATER DEPARTMENT
PARCEL 53-145 (ZONE R-40)
AREA: 50.38 ACRES

LIMIT OF WETLAND

FLOODWAY

HEADER CAP

ABANDONED PIPE AND WELLS

CANAL

CANAL

SUPPLY POND

SURVEY CONTROL # 2567 N=814780.4678 E=954191.2578 EL=249.809

SURVEY CONTROL # 149 N=815074.5860 E=954425.7922 EL=251.494

SURVEY CONTROL # 148 N=815197.8447 E=954516.4758 EL=253.523

SURVEY CONTROL # 147 N=815295.0131 E=954567.0095 EL=251.162

SURVEY CONTROL # 147 N=815295.0131 E=954567.0095 EL=251.292

SURVEY CONTROL # 60 N=815542.7606 E=954587.8219 EL=251.733

SURVEY CONTROL # 31 N=814722.6132 E=954351.2270 EL=251.019

SURVEY CONTROL # 32 N=814962.7770 E=954515.6314 EL=251.406

SURVEY CONTROL # 33 N=815089.6478 E=954688.8275 EL=249.693

SURVEY CONTROL # 44 N=814637.4824 E=954479.1256 EL=248.687

SURVEY CONTROL # 45 N=814631.6821 E=954563.1325 EL=248.503

WELL 9 Upper Rim 250.16
WELL 9–A Upper Rim 250.18
Well 10 Upper Rim=251.81
Well 10–A Upper Rim=251.82
Well 7–A Upper Rim=251.62
Well 7 Upper Rim=251.63
Well 11 3" Upper Rim=251.62
Well 3" 11–A Upper Rim=252.29
3" Dia. Well Top of Rim=250.88

BLWF–1
BLWF–3
BLWF–4
BLWF–6

CLP #1021
CLP #10213
CLP #10214
CLP #10216

Top of Wall At Spillway=251.4
Test Well 5–A Top of Cap=250.35
Test Well OW–16 Top of Cap=251.91
Test Well 6A Top of Rim=251.56
Test Well 6A Top of Rim=251.46
OW–15 Top of Rim=250.97
3" WELL OW–5 Top of Rim=250.43
NB–OW–14 Old 3" Well Top of Rim=252.60
Top of Frame=251.67
Top of Frame=251.65
Top of Frame=252.55
Top of Frame=252.41
Top of Frame=252.37
Top of Frame=252.43
Top of Frame=252.15
Top of Frame=251.30
Top of Frame=252.20
Top of Frame=253.65
Top of Frame=253.73
Top of Frame=253.20
Top of Frame=253.05
Top of Frame=252.96
Top of Frame=251.42
Existing Well (Typ)
Well 5 stake

6" D.I. WELL CONNECTIONS
16" C.I. SUCTION HEADER
48" OAK

NOTES:

1. AREAS OF THE LOWER WELLFIELD ARE LOCATED WITHIN HABITAT OF STATE LISTED SPECIES. REFER TO GENERAL NOTE 25 ON SHEET C–1 FOR MORE DETAILS.

MATCH LINE SEE SHEET C–4

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

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East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — KATHLEEN JERSEY WAGNER — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

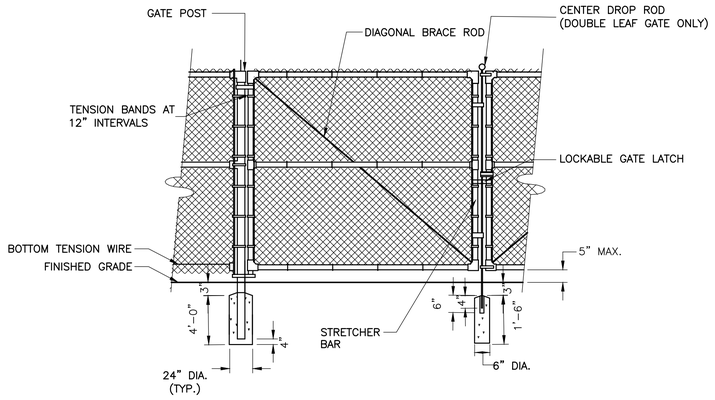
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

LOWER WELLFIELD
EXISTING CONDITIONS PLAN

PROJECT NO. 10739–264571
FILE NAME: C005GDPL.DWG
SHEET NO. C-5

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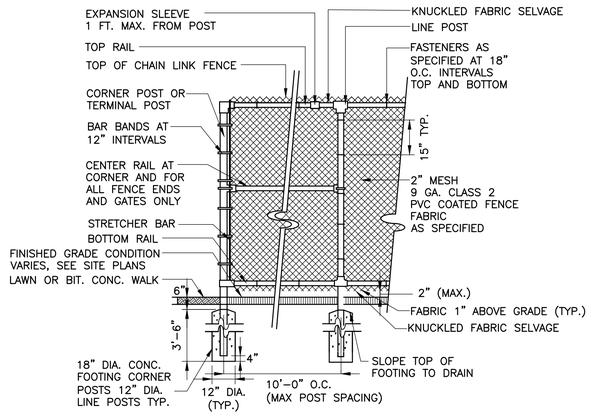
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CHAIN LINK DOUBLE LEAF SWING GATE

DETAIL A

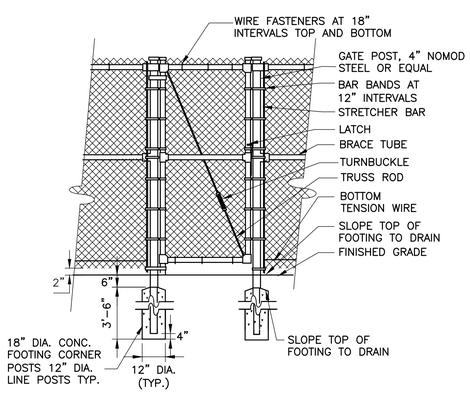
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6.5-FT HIGH CHAIN LINK FENCE

DETAIL B

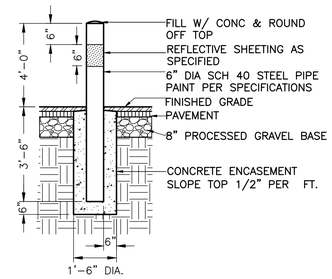
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PEDESTRIAN CHAIN LINK FENCE GATE

DETAIL C

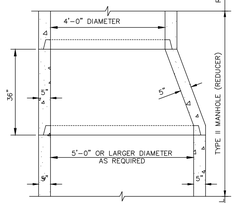
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STEEL BOLLARD

DETAIL D

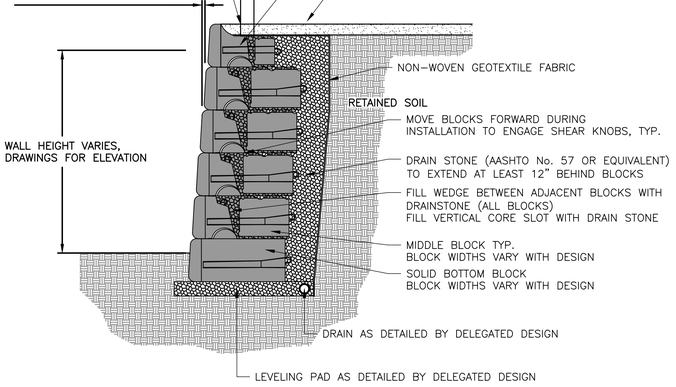
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REDUCER SECTION

NOTES:
1) THIS MANHOLE TO BE USED WHEN TOTAL DEPTH IS GREATER THAN 12' OR ANY PIPE SIZE IS GREATER THAN 18".
2) ALL NEW SANITARY AND STORM SEWER INSTALLATIONS SHALL BE TELEVISED.

TYPE II MANHOLE
(PRECAST WITHOUT STEPS)



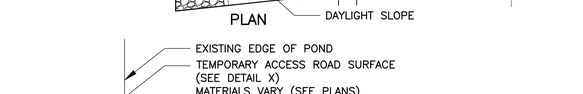
NOTES:

1. SEE SPECIFICATION SECTION 323223 FOR MORE DETAILS. CONTRACTOR TO OBTAIN BUILDING PERMIT FOR SEGMENTAL UNIT RETAINING WALLS GREATER THAN 3 FEET IN HEIGHT.

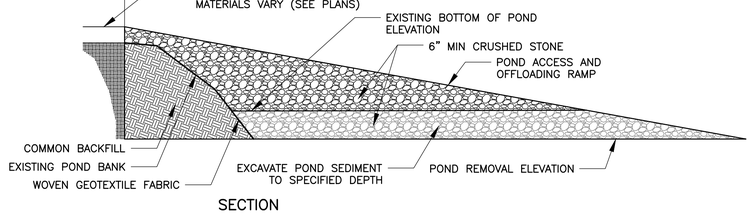
SEGMENTAL UNIT RETAINING WALL

DETAIL E

SCALE: NTS



PLAN



SECTION

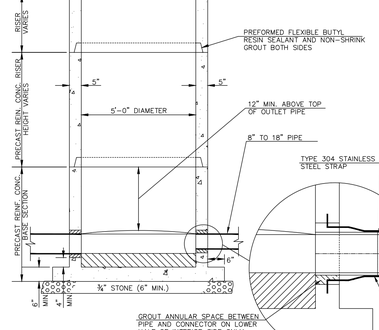
NOTES:

1. PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED POND ACCESS/TRUCK OFFLOADING RAMP AND EXISTING GROUND SURFACE
2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO GROUND SURFACE.
3. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDING STONE TO THE LENGTH OF THE ENTRANCE.
4. REPAIR AND CLEANOUT MEASURES USED TO TRAP SEDIMENT.
5. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
6. THE SLOPE OF THE POND ACCESS AND OFFLOADING RAMP TO BE DETERMINED BY CONTRACTOR BASED ON SELECTED EQUIPMENT, MEANS AND METHODS, AND APPROVED BY THE ENGINEER.
7. DAYLIGHT SLOPES OF THE RAMP WILL BE INSTALLED AS NEEDED BASED ON THE EXCAVATION DEPTH AND BANK HEIGHT TO MAINTAIN STABILITY OF THE POND ACCESS/OFFLOADING RAMP.
8. ALL MATERIAL FOR POND ACCESS/OFFLOADING RAMP IS TEMPORARY AND WILL BE REMOVED AFTER SEDIMENT REMOVAL COMPLETED. POND BANK TO BE RESTORED PER SPECIFICATIONS.

POND ACCESS AND TRUCK OFFLOADING RAMP

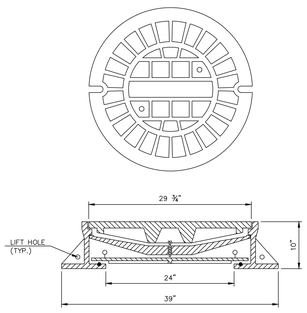
DETAIL F

SCALE: NTS



NOTES:
1) THIS MANHOLE TO BE USED WHEN TOTAL DEPTH IS 12' OR LESS AND LARGEST PIPE SIZE IS 18" OR SMALLER.
2) ALL NEW SANITARY AND STORM SEWER INSTALLATIONS SHALL BE TELEVISED.

TYPE I MANHOLE
(PRECAST WITHOUT STEPS)



NEW BRITAIN STANDARD
WATERTIGHT MANHOLE CASTING

MANHOLE

DETAIL G

NOT TO SCALE

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — JEFFREY WAGNER — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

CIVIL DETAILS IV

PROJECT NO. 10739-264571
FILE NAME: CD004CSDT.DWG
SHEET NO.
C-27

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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NEW BRITAIN WATER DEPARTMENT
LOT 52-15 (ZONE R-40)
AREA: 11.9 ACRES

NEW BRITAIN WATER DEPARTMENT
LOT 52-16B16A (ZONE R-40)
AREA: 13.3 ACRES

NEW BRITAIN WATER DEPARTMENT
LOT 52-17 (ZONE R-40)
AREA: 104.6 ACRES

JEFFERSON AVENUE
SHAWN DRIVE
TIMBER LANE
DEBRA LANE
JEROME AVENUE
DANBURY LANE

PROPERTY LINE
25'-FOOT SIDE YARD SETBACK
25'
PROPOSED LIMIT OF CLEARING
PROPOSED WETLAND CREATION AND FLOOD COMPENSATORY STORAGE AREA
15-FT WIDE ACCESS ROAD FOR WETLAND CREATION AND MAINTENANCE
VERNAL POOL (EXISTING)
100-FT BUFFER
163'-0"
325'-0"
FLOODWAY

1" = 100'
50 0 100

NOTES:

1. REFER TO SPECIFICATIONS FOR MORE DETAILS AND REQUIREMENTS FOR WETLANDS REPLICATION AND COMPENSATORY FLOOD STORAGE REQUIREMENTS.
2. SILT FENCING SHALL BE INSTALLED ON THE TOE OF ALL PROPOSED NEW SLOPES. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MONITORED DURING CONSTRUCTION, AND REMOVED ONLY ONCE SLOPE HAS BEEN STABILIZED.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: K. GERLACH
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT · STEVE GERSLEY · No. 24384 · LICENSED PROFESSIONAL ENGINEER · 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

WETLAND REPLICATION AND COMPENSATORY FLOOD STORAGE PLAN II

PROJECT NO. 10739-264571
FILE NAME: C014STPL.DWG
SHEET NO. SP-01

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

MATCHLINE SHEET C-14

N/F
NEW BRITAIN WATER DEPARTMENT
PARCEL 52-17 (ZONE R-40)
AREA: 104.6 ACRES

PROPERTY LINE

N/F
NEW BRITAIN WATER DEPARTMENT
PARCEL 52-11 (ZONE R-40)
AREA: 49.5 ACRES

FLOODWAY

25-FOOT SIDE YARD SETBACK

PROPERTY LINE

25-FT

PROPOSED LIMIT OF TREE REMOVAL

N/F
NEW BRITAIN WATER DEPARTMENT
PARCEL 53-150 (ZONE R-40)
AREA: 39.9 ACRES

COMPENSATORY FLOOD STORAGE AREA

N/F
NEW BRITAIN WATER DEPARTMENT
PARCEL 53-149 (ZONE R-40)
AREA: 6.8 ACRES

25-FOOT SIDE YARD SETBACK

PROPERTY LINE

25-FT

PROPOSED WETLAND CREATION AND
FLOOD COMPENSATORY STORAGE AREA

378-FT TO MALTBY STREET

N

1" = 100'
50 0 100

NOTES:

1. REFER TO SPECIFICATIONS FOR MORE DETAILS AND REQUIREMENTS FOR WETLANDS REPLICATION AND COMPENSATORY FLOOD STORAGE REQUIREMENTS.
2. SILT FENCING SHALL BE INSTALLED ON THE TOE OF ALL PROPOSED NEW SLOPES. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MONITORED DURING CONSTRUCTION, AND REMOVED ONLY ONCE SLOPE HAS BEEN STABILIZED.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: K. GERLACH
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — KEVIN GERSLEY WAGNER — No. 24364 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

WETLAND REPLICATION AND COMPENSATORY FLOOD STORAGE PLAN III

PROJECT NO. 10739-264571
FILE NAME: C014STPL.DWG
SHEET NO.
SP-02

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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PROPOSED LIMIT OF TREE REMOVAL

20-FT SIDE YARD SETBACK

NEW BRITAIN WATER DEPARTMENT
LOT 53-147 (ZONE R-40)
AREA: 25.8 ACRES

COPPER MINE BROOK

PROPOSED WETLAND CREATION AND
FLOOD COMPENSATORY STORAGE AREA

PROPOSED LIMIT OF TREE REMOVAL

PROPOSED LIMIT OF TREE REMOVAL

20-FT SIDE YARD SETBACK

PROPERTY LINE

FLOODWAY

LIMIT OF TREE REMOVAL

NEW BRITAIN WATER DEPARTMENT
LOT 53-145 (ZONE R-40)
AREA: 50.38 ACRES

PROPERTY LINE

PROPOSED LIMIT OF TREE REMOVAL

50-FT FRONT
YARD SETBACK

15-FT WIDE ACCESS FOR WETLAND
CREATION AND MAINTENANCE

PROPOSED WETLAND CREATION AND
FLOOD COMPENSATORY STORAGE AREA

PROPOSED LIMITS OF TREE REMOVAL

COVENTRY RD

MIX STREET

TOLLAND RD

COLLINS ROAD

COPPER MINE BROOK

VEGETATED BUFFER AND STREAM
BETWEEN EARTH REMOVAL AND
RESIDENTIAL BOUNDARY

10-FT VEGITATED BUFFER
BETWEEN ACCESS DRIVE
AND PROPERTY BOUNDARY

N/F ROOKSIDE MEDICAL OFFICES LLC

N/F LINDA A COLBURN

N/F LUNDEN PEG

N/F MANDY L & CAROL A GAULDING

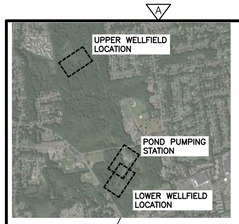
N/F RONALD V + EDWANDA Q COE

N/F AMANDA CYR

EXISTING BUILDING

EXISTING BUILDING

EXISTING BUILDING



PLAN
N.T.S.

LEGEND

- WETLAND FLAG
- BORING

2,056 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS

907 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS

UPPER WELLFIELD WELL NO. 1.

1,771 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS

UPPER WELLFIELD WELL NO. 2.

851 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS

FLOODWAY

3,168 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS

UPPER WELLFIELD WELL NO. 3.

1,160 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS

EROSION CONTROL BLANKETS ON ALL SLOPES 4:1 OR STEEPER

B / C-27 6-FT HIGH CHAIN LINK FENCE

A / C-27 24-FT WIDE DOUBLE-LEAF SWING GATE

EXISTING UPPER WELLFIELD PUMPING STATION TO BE DEMOLISHED

TRENCH FOR PIPING, AND REPAIR TRENCH TO EXISTING CONDITIONS

922-FT TO NEAREST PROPERTY BOUNDARY

902-FT TO NEAREST PROPERTY BOUNDARY

COPPER MINE BROOK

1" = 30'
15 0 30

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — JEFFREY BERSLEY WARD — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

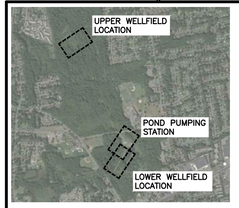
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

UPPER WELLFIELD SITE PLAN

PROJECT NO. 10739-264571
FILE NAME: C009STPL.DWG
SHEET NO. SP-04

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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PLAN
N.T.S.

LEGEND

- BITUMINOUS CONCRETE
- INFILTRATION TRENCH
- CONCRETE WALKWAY
- DETENTION BASIN
- CHAIN LINK FENCE
- STEEL BEAM GUARDRAIL
- WETLAND FLAG
- BORING

Location:	**(LOT 53-145) MALTBY STREET BRISTOL, CT**
Zone:	**R-40 RESIDENTIAL ZONE**
Use:	**PUBLIC WATER UTILITY FACILITY (SPECIAL PERMIT USE)**

Item #	Item	Requirements	Proposed	Variance
1	Minimum Lot Area	40,000 S.F.	2,191,068 S.F.	No
2	Minimum Lot Frontage	150 feet	623 feet	No
3	Minimum Front Yard	50 feet	285 feet	No
4	Minimum Side Yard	20 feet	105 feet	No
5	Minimum Rear Yard	50 feet	1,180 feet	No
6	Maximum Building Height	35 feet	25.3 feet	No
7	Maximum Building Coverage	20 percent	0.18 percent	No
8	Building Size	None Required	4032 S.F. (Pump Station)	No
9	Parking Required	N/A[1]	2 spaces	No
10	Minimum Parking Dimensions	9 feet x 18 feet	10 feet x 18 feet	No
11	Minimum Aisle Width	24 feet	40 feet	No
12	Minimum Residential Setback	50 feet	193 feet	No
13	Minimum Front Lot Line	10 feet	193 feet	No
14	Minimum Side Setback	5 feet	98 feet	No
15	Minimum Rear Setback	5 feet	1,200 feet	No
16	Landscaping, Curbs, and Islands	N/A (Less than 10 parking spaces)	N/A	N/A

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — KEVIN M. WAGNER — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10.10.24

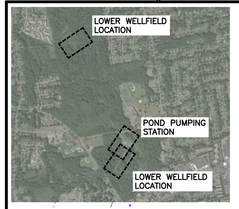
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

POND PUMPING STATION
SITE PLAN

PROJECT NO. 10739-264571
FILE NAME: C010GDPL.DWG
SHEET NO. SP-05

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PLAN
N.T.S.

LEGEND
- WETLAND FLAG
- BORING

N/F
NEW BRITAIN WATER DEPARTMENT
PARCEL 53-145 (ZONE R-40)
AREA: 50.38 ACRES

1" = 30'
15 0 30

N

50-FT FRONT YARD SETBACK

PROPERTY LINE

LIMIT OF TREE CLEARING

LOWER WELLFIELD WELL NO. 1.
TOP OF WELL CAP SET AT ELEVATION 259'.
SEE SHEET C-16 FOR WELL LOCATION

LOWER WELLFIELD WELL NO. 2.
TOP OF WELL CAP SET AT ELEVATION 259'.
SEE SHEET C-16 FOR WELL LOCATION

EROSION CONTROL BLANKETS ON ALL SLOPES 4:1 OR STEEPER

LOAM AND SEED ALL DISTURBED AREAS

B C-27 6-FT HIGH CHAIN LINK FENCE

C C-27 6-FT WIDE PEDESTRIAN SWING GATE

LOWER WELLFIELD WELL NO. 3.
TOP OF WELL CAP SET AT ELEVATION 259'.
SEE SHEET C-16 FOR WELL LOCATION

CANAL

LOWER WELLFIELD WELL NO. 4.
TOP OF WELL CAP SET AT ELEVATION 259'.
SEE SHEET C-16 FOR WELL LOCATION

LOWER WELLFIELD WELL NO. 5.
TOP OF WELL CAP SET AT ELEVATION 259'.
SEE SHEET C-16 FOR WELL LOCATION

LOWER WELLFIELD WELL NO. 6.
TOP OF WELL CAP SET AT ELEVATION 259'.
SEE SHEET C-16 FOR WELL LOCATION

3,003 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS

1,320 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS

358 SF OF PERMANENT IMPACT TO VEGETATED WETLANDS

LOAM AND SEED ALL WELL BERMS, TYP.

SUPPLY POND

POLKVILLE BROOK

MATCH LINE SEE PUMPING STATION SHEETS

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT · JERSLEY WATSON · No. 24384 · LICENSED PROFESSIONAL ENGINEER · 10-10-24

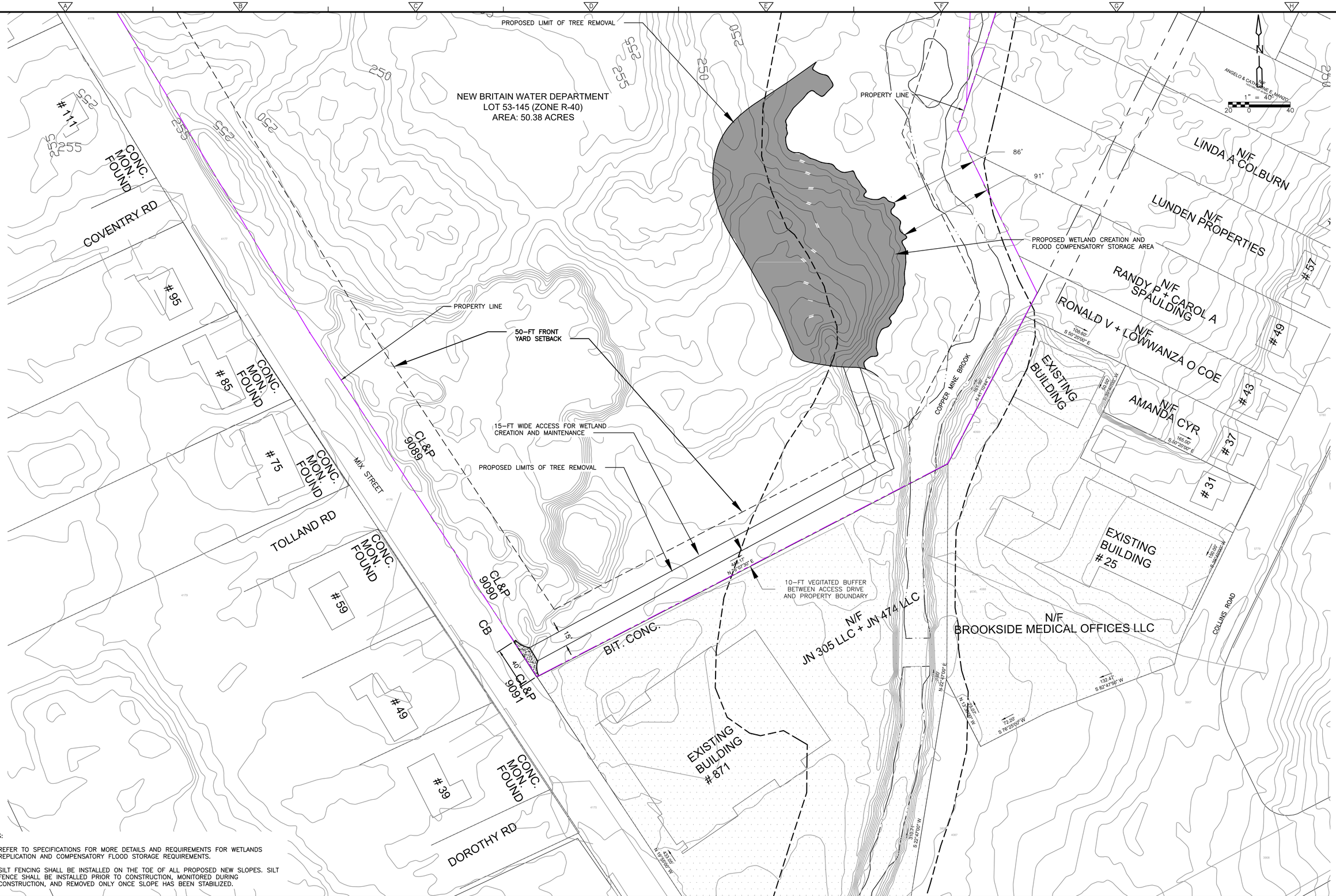
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

LOWER WELLFIELD
SITE PLAN

PROJECT NO. 10739-264571
FILE NAME: C011GDPL.DWG
SHEET NO.
SP-06

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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NOTES:

1. REFER TO SPECIFICATIONS FOR MORE DETAILS AND REQUIREMENTS FOR WETLANDS REPLICATION AND COMPENSATORY FLOOD STORAGE REQUIREMENTS.
2. SILT FENCING SHALL BE INSTALLED ON THE TOE OF ALL PROPOSED NEW SLOPES. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MONITORED DURING CONSTRUCTION, AND REMOVED ONLY ONCE SLOPE HAS BEEN STABILIZED.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GARLACH
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: K. GERLACH
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — KIMBERLEY A. WAGNER — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

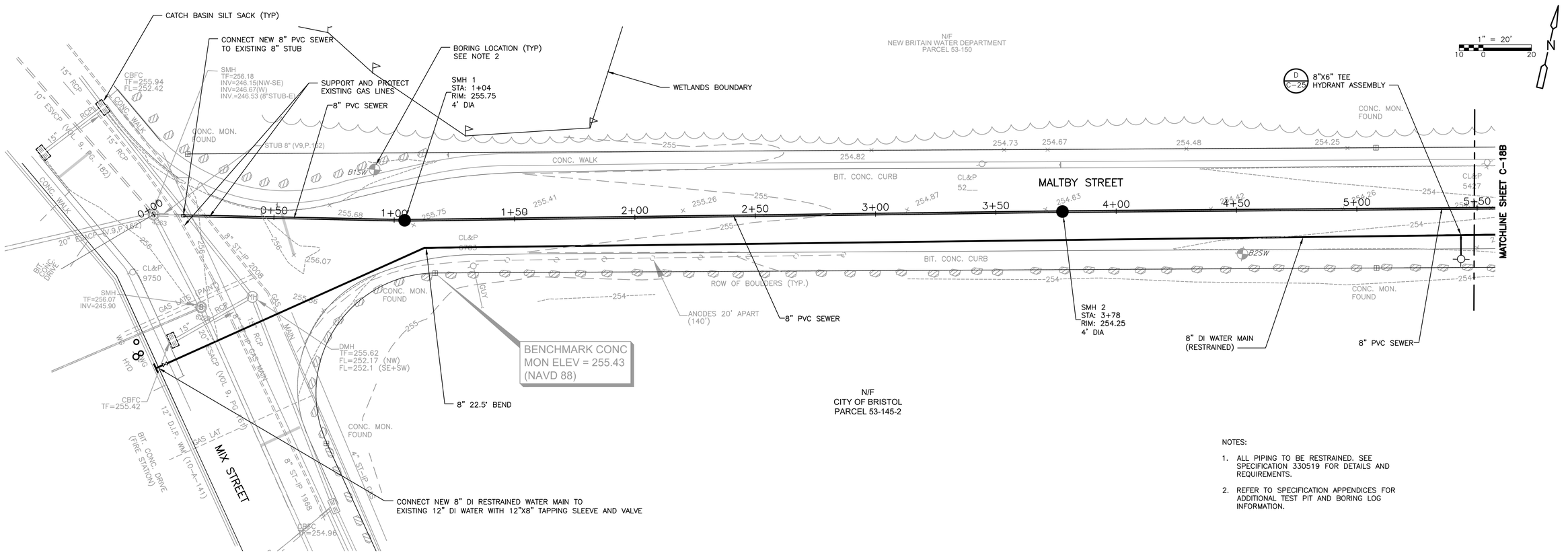
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WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

WETLAND REPLICATION AND COMPENSATORY FLOOD STORAGE ENLARGED PLAN I

PROJECT NO. 10739-264571
FILE NAME: C013STPL.DWG
SHEET NO. SP-07

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

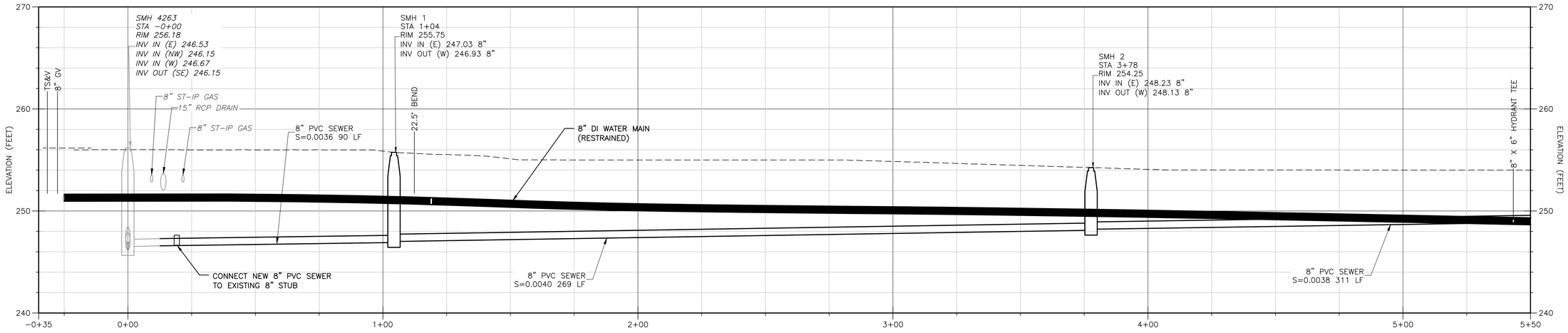
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NOTES:

1. ALL PIPING TO BE RESTRAINED. SEE SPECIFICATION 330519 FOR DETAILS AND REQUIREMENTS.
2. REFER TO SPECIFICATION APPENDICES FOR ADDITIONAL TEST PIT AND BORING LOG INFORMATION.

PLAN
1" = 20'



1" = 20'
10 0 20

PROFILE
HORZ:1"=20' VERT:1"=5'

1" = 5'
2.5 0 5

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: S. ENGEL
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT · KERRI L. WAGNER · No. 24384 · LICENSED PROFESSIONAL ENGINEER · 10-10-24

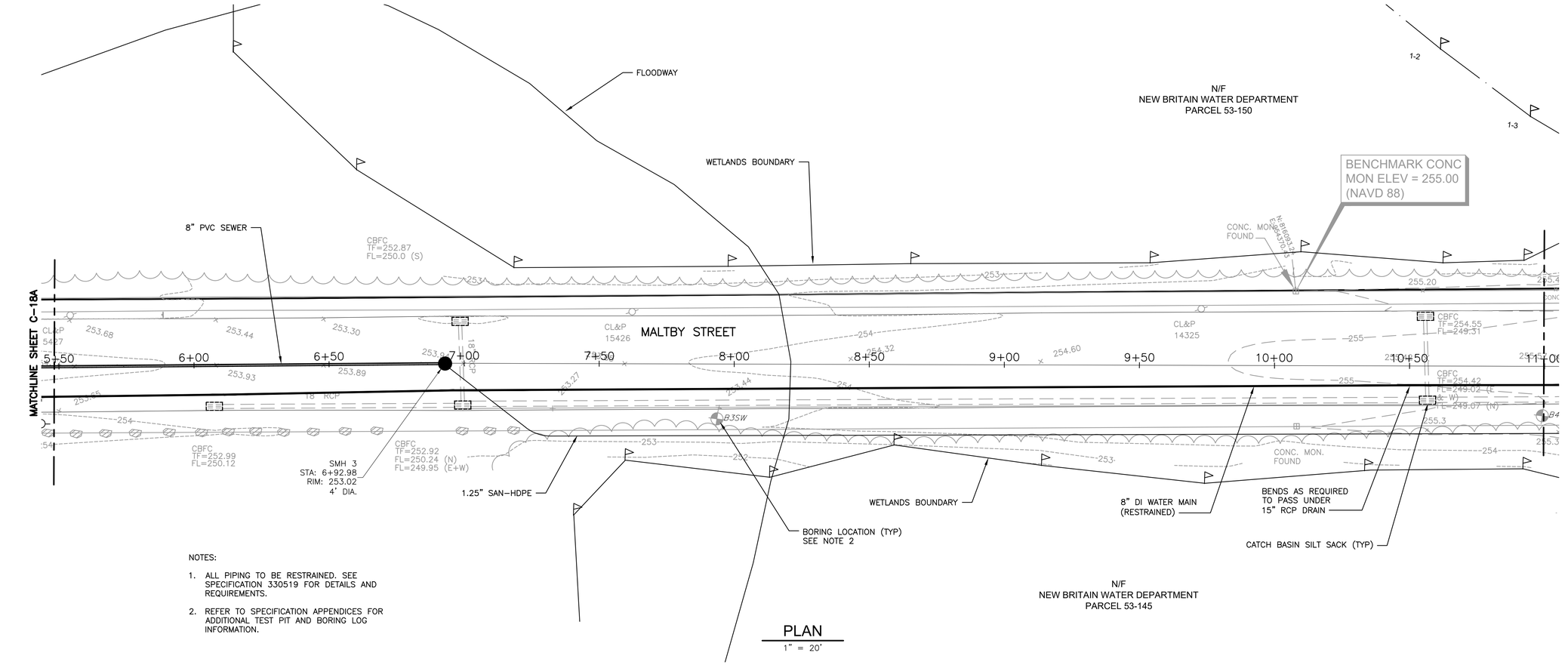
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

MALTBY STREET
PLAN AND PROFILE I

PROJECT NO. 10739-264571
FILE NAME: C018AYPPL.DWG
SHEET NO.
SP-08

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

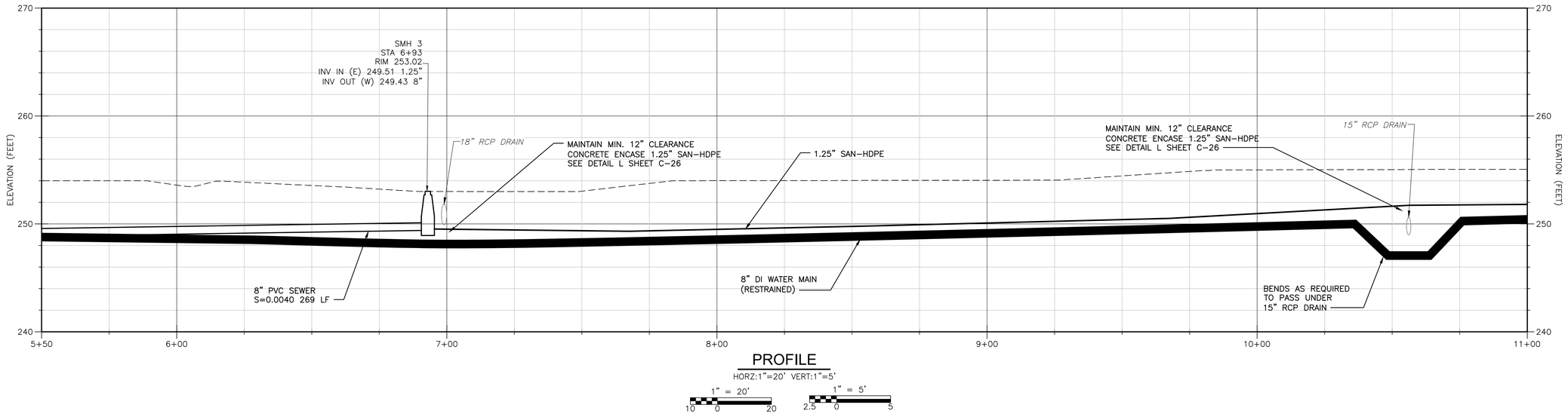
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PLAN
1" = 20'

NOTES:

1. ALL PIPING TO BE RESTRAINED. SEE SPECIFICATION 330519 FOR DETAILS AND REQUIREMENTS.
2. REFER TO SPECIFICATION APPENDICES FOR ADDITIONAL TEST PIT AND BORING LOG INFORMATION.



PROFILE
HORZ:1"=20' VERT:1"=5'

1" = 20' 10 0 20
1" = 5' 2.5 0 5

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: S. ENGEL
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

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STATE OF CONNECTICUT — JEFFERSLEY WAGNER — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT

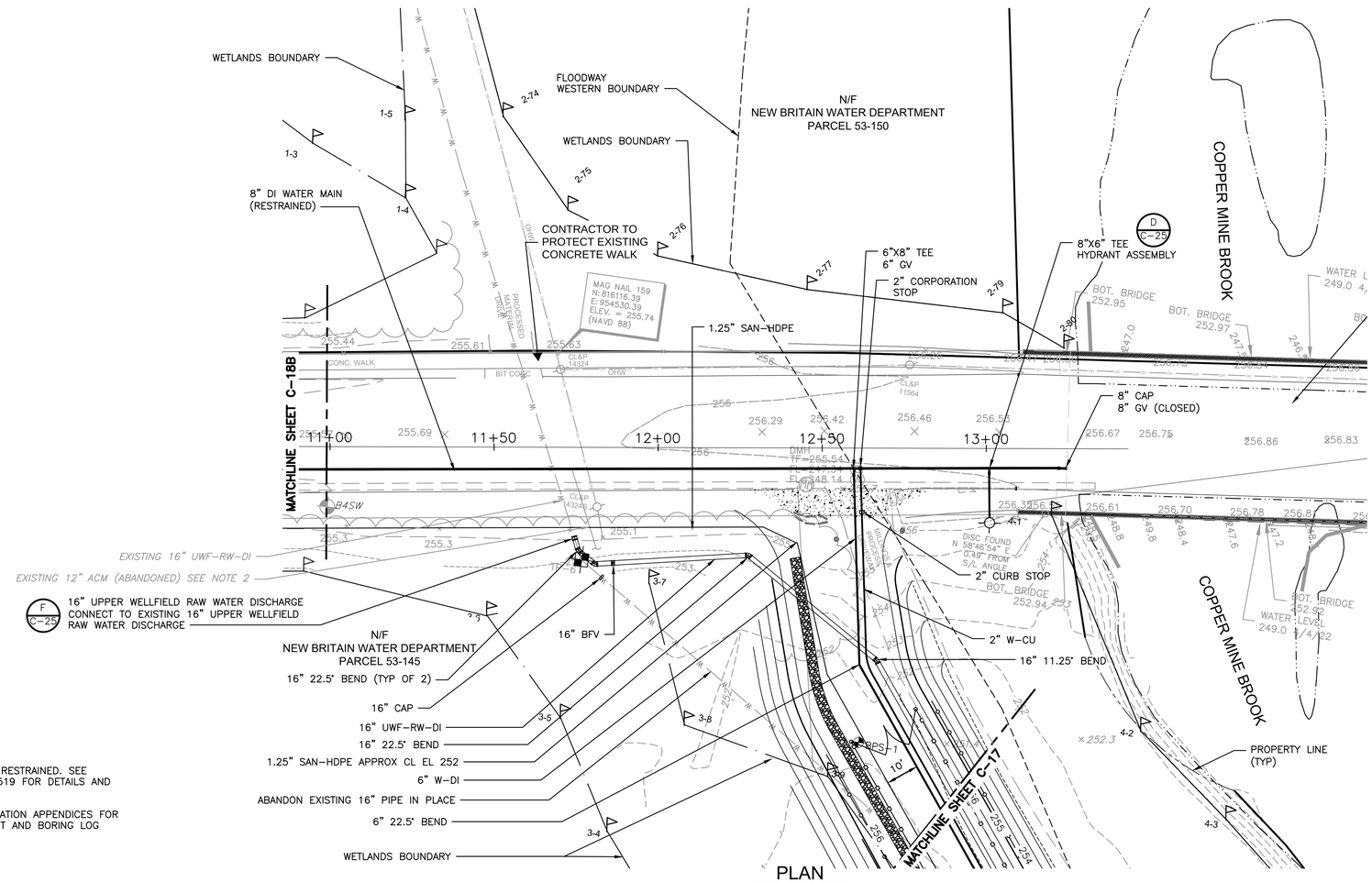
WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

MALTBY STREET PLAN AND PROFILE II

PROJECT NO. 10739-264571
FILE NAME: C018BYPPL.DWG
SHEET NO.
SP-09

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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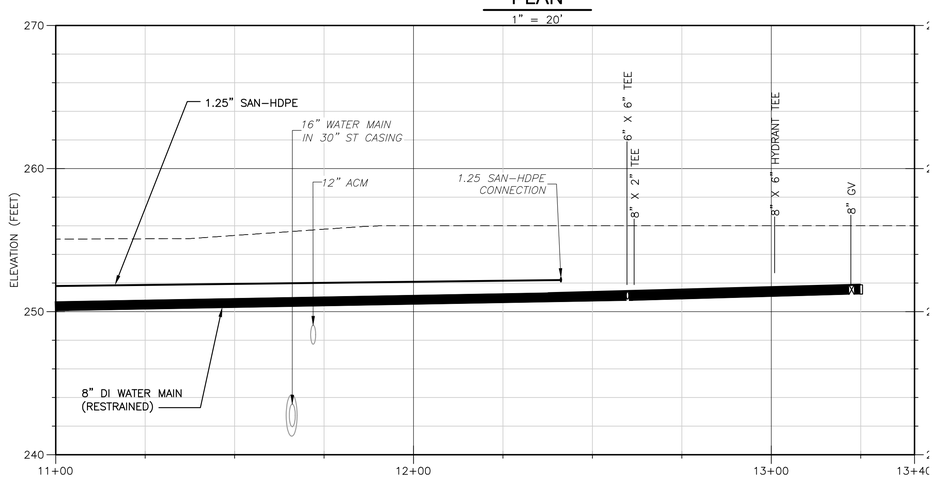


NOTES:

1. ALL PIPING TO BE RESTRAINED. SEE SPECIFICATION 330519 FOR DETAILS AND REQUIREMENTS.
2. REFER TO SPECIFICATION APPENDICES FOR ADDITIONAL TEST PIT AND BORING LOG INFORMATION.

PLAN

1" = 20'



PROFILE

1" = 20' HORZ:1"=20' VERT:1"=5' 1" = 5'

XREFs: [CDMS_2436, XSVPL000, CWP000ST, AWZ001PS - 2D Process Export, 2022-17, BORING LOCATIONS-CEI Edits, Floodway_Floodplain, CYPWP002] Images: []
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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: S. ENGEL
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

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Tel: (860) 529-7615

STATE OF CONNECTICUT BRIAN S. ENGELSBY No. 24384 LICENSED PROFESSIONAL ENGINEER 10-10-24

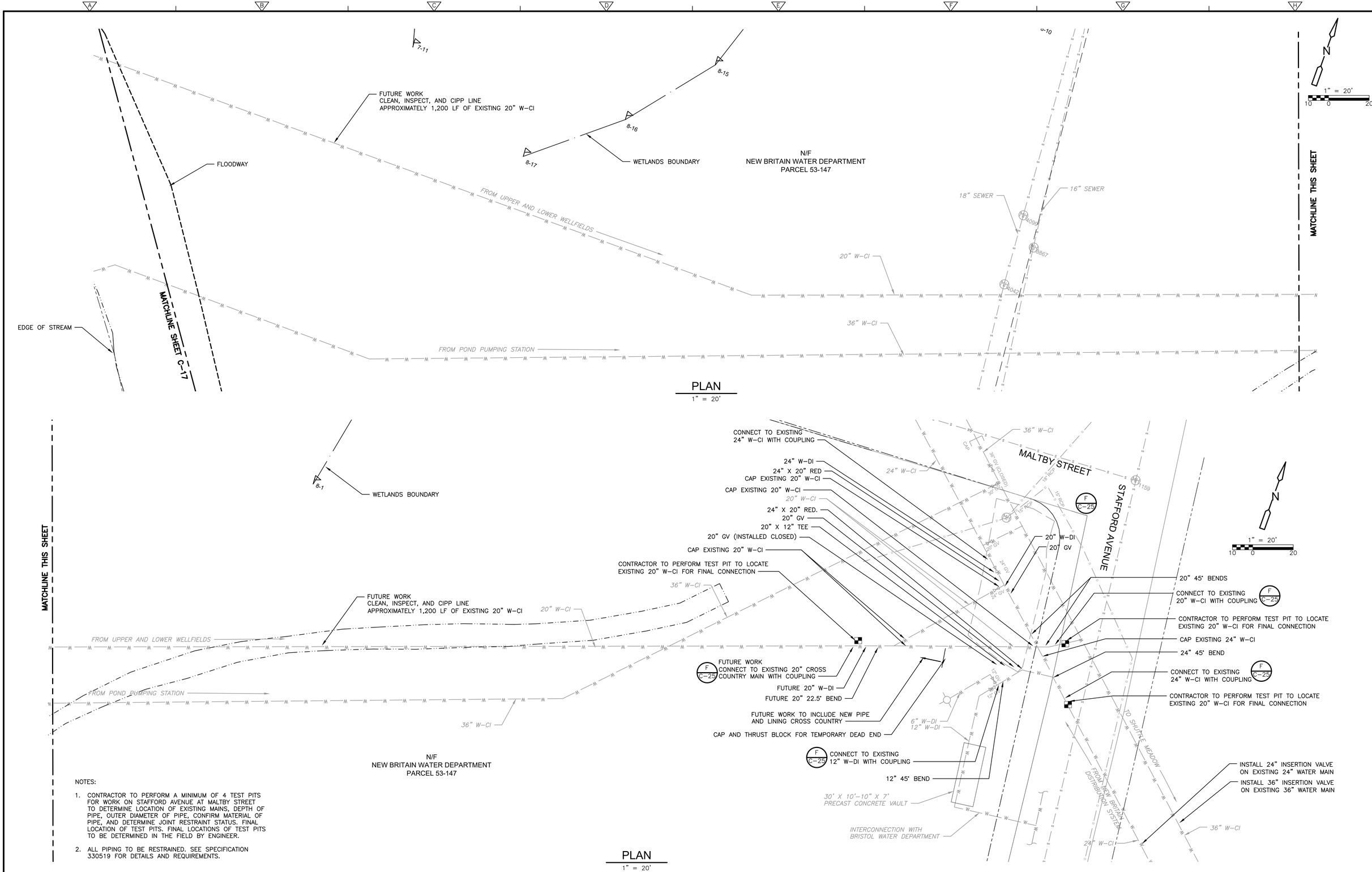
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

MALTBY STREET
PLAN AND PROFILE III

PROJECT NO. 10739-264571
FILE NAME: C018CYPPL.DWG
SHEET NO.
SP-10

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NOTES:

1. CONTRACTOR TO PERFORM A MINIMUM OF 4 TEST PITS FOR WORK ON STAFFORD AVENUE AT MALTBY STREET TO DETERMINE LOCATION OF EXISTING MAINS, DEPTH OF PIPE, OUTER DIAMETER OF PIPE, CONFIRM MATERIAL OF PIPE, AND DETERMINE JOINT RESTRAINT STATUS. FINAL LOCATION OF TEST PITS. FINAL LOCATIONS OF TEST PITS TO BE DETERMINED IN THE FIELD BY ENGINEER.
2. ALL PIPING TO BE RESTRAINED. SEE SPECIFICATION 330519 FOR DETAILS AND REQUIREMENTS.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: S. ENGEL
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT · KIMBERLY A. WAGNER · No. 24384 · LICENSED PROFESSIONAL ENGINEER · 10-10-24

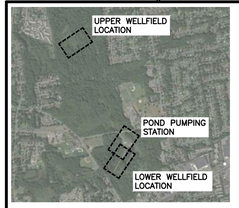
CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

STAFFORD AVENUE AND CROSS COUNTRY PLAN

PROJECT NO. 10739-264571
FILE NAME: C019YPPL.DWG
SHEET NO.
SP-11

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION



PLAN
N.T.S.

LEGEND

- COMPOST SOCK
- BUILDING REMOVAL
- WETLAND FLAG
- BORING

NOTES:

1. EXISTING WELLS TO HAVE THE WELL HEAD REMOVED TO 5 FEET BELOW FINISHED GRADE, LATERAL DISCHARGE PIPING REMOVED TO THE HEADER PIPE AND A CAP OR CONCRETE PLUG INSTALLED ON THE ABANDONED HEADER PIPE. SEE SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF EXISTING WELLS.
2. THE EXISTING UPPER WELLFIELD PUMPING STATION BUILDING TO BE DEMOLISHED TO AT LEAST 2 FEET BELOW FINISHED GRADE. THE WESTERN WALL SHALL REMAIN TO AT LEAST 2 FEET BELOW GRADE. BUILDING FOUNDATION TO BE FILLED AND COMPACTED TO EXISTING GRADE. OWNER TO TAG ITEMS AND EQUIPMENT TO BE SAVED PRIOR TO DEMOLITION. CONTRACTOR TO REMOVE AND RETURN TO OWNER ANY TAGGED ITEM OR EQUIPMENT. SEE SPECIFICATION SECTION 024116 FOR ADDITIONAL BUILDING DEMOLITION REQUIREMENTS.
3. CONTRACTOR TO INSTALL COMPOST SOCK ON BOTH SIDES OF THE UPPER WELLFIELD ACCESS DRIVEWAY (APPROX. 3,200 LF EACH, NOT SHOWN) TO MALTBY STREET. THE EXISTING ACCESS DRIVEWAY BRIDGE CROSSING OF THE FREEMAN HILL BROOK TO BE PROTECTED DURING CONSTRUCTION.
4. HAZARDOUS BUILDING MATERIALS WERE FOUND IN SAMPLES TAKEN FROM SELECT LOCATIONS IN EXISTING BUILDINGS. PRIOR TO COMMENCING WITH ANY MODIFICATIONS OR DEMOLITION WORK, REFER TO SPECIFICATIONS FOR KNOW LOCATIONS OF HAZARDOUS BUILDING MATERIALS AND EQUIPMENT, PROPOSED ABATEMENT AND DISTURBANCE WORK, REQUIREMENTS FOR ADDITIONAL SAMPLING AND TESTING TO BE PERFORMED AS PART OF THE WORK, MONITORING REQUIREMENTS, AND WASTE HANDLING AND DISPOSAL REQUIREMENTS.
5. SILT FENCING SHALL BE INSTALLED ON THE TOE OF ALL PROPOSED NEW SLOPES. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MONITORED DURING CONSTRUCTION, AND REMOVED ONLY ONCE SLOPE HAS BEEN STABILIZED.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — KIMBERLEY A. WAGNER — No. 24384 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

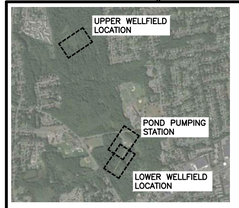
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

UPPER WELLFIELD
DEMOLITION AND E&S CONTROLS

PROJECT NO. 10739-264571
FILE NAME: C006STPL.DWG
SHEET NO.
SP-12

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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PLAN

N.T.S.

LEGEND

- COMPOST SOCK
- BUILDING REMOVAL
- WETLAND FLAG
- BORING

NOTES:

1. EXISTING WELLS TO HAVE THE WELL HEAD REMOVED TO 5 FEET BELOW FINISHED GRADE, LATERAL DISCHARGE PIPING REMOVED TO THE EXISTING 16" CI SUCTION HEADER PIPE, AND A CAP OR CONCRETE PLUG INSTALLED ON THE ABANDONED HEADER PIPE. SEE SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF EXISTING WELLS.
2. EXISTING WELLS WITH WELL HEAD LOCATED IN A VAULT TO HAVE VAULT DEMOLISHED AND REMOVED, WELL HEAD REMOVED TO 5 FEET BELOW BOTTOM OF VAULT, LATERAL DISCHARGE PIPING REMOVED TO THE EXISTING 16" CI SUCTION HEADER PIPE, AND A CAP OR CONCRETE PLUG INSTALLED ON THE ABANDONED HEADER PIPE. SEE SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF EXISTING WELLS.
3. THE EXISTING POND PUMPING STATION BUILDING TO BE DEMOLISHED AT COMPLETION OF NEW POND PUMPING STATION TO AT LEAST 2 FEET BELOW FINISHED GRADE. THE WESTERN WALL SHALL REMAIN TO AT LEAST 2 FEET BELOW GRADE. BUILDING FOUNDATION TO BE FILLED AND COMPACTED TO EXISTING GRADE. OWNER TO TAG ITEMS AND EQUIPMENT TO BE SAVED PRIOR TO DEMOLITION. CONTRACTOR TO REMOVE AND RETURN TO OWNER ANY TAGGED ITEM OR EQUIPMENT. SEE SPECIFICATION SECTION 024116 FOR ADDITIONAL BUILDING DEMOLITION REQUIREMENTS.
4. THE EXISTING LOWER WELLFIELD PUMPING STATION BUILDING AND FOUNDATION TO BE DEMOLISHED TO ELEVATION 241.2 FT. EXCAVATION LIMITS FOR THE NEW POND PUMPING STATION BUILDING TO APPROXIMATE MIN ELEVATION 241.2 FT. OWNER TO TAG ITEMS AND EQUIPMENT TO BE SAVED PRIOR TO DEMOLITION. CONTRACTOR TO REMOVE AND RETURN TO OWNER ANY TAGGED ITEM OR EQUIPMENT. SEE DETAIL B ON SHEET C-26 AND SPECIFICATIONS SECTION 024116 FOR ADDITIONAL BUILDING DEMOLITION REQUIREMENTS.
5. THE EXISTING CAISSON WELL TO BE DECOMMISSIONED AND ABANDONED IN PLACE. THE CONE OF THE EXISTING CAISSON WELL TO BE DEMOLISHED TO AT LEAST 2 FEET BELOW FINISH GRADE. SEE DETAIL B ON SHEET C-28 AND SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF THE EXISTING CAISSON WELL.
6. HAZARDOUS BUILDING MATERIALS WERE FOUND IN SAMPLES TAKEN FROM SELECT LOCATIONS IN EXISTING BUILDINGS. PRIOR TO COMMENCING WITH ANY MODIFICATIONS OR DEMOLITION WORK, REFER TO SPECIFICATIONS FOR KNOW LOCATIONS OF HAZARDOUS BUILDING MATERIALS AND EQUIPMENT, PROPOSED ABATEMENT AND DISTURBANCE WORK, REQUIREMENTS FOR ADDITIONAL SAMPLING AND TESTING TO BE PERFORMED AS PART OF THE WORK, MONITORING REQUIREMENTS, AND WASTE HANDLING AND DISPOSAL REQUIREMENTS.
7. SILT FENCING SHALL BE INSTALLED ON THE TOE OF ALL PROPOSED NEW SLOPES. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MONITORED DURING CONSTRUCTION, AND REMOVED ONLY ONCE SLOPE HAS BEEN STABILIZED.
8. CONTRACTOR TO REMOVE TREES TO WIDEN ACCESS DRIVE AND PROVIDE ADEQUATE SITE LINES FROM DRIVEWAY ONTO MALTBY STREET.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

STATE OF CONNECTICUT — KEVIN J. WAGNER — No. 24384 — PROFESSIONAL ENGINEER — 10.10.24

CITY OF NEW BRITAIN, CONNECTICUT

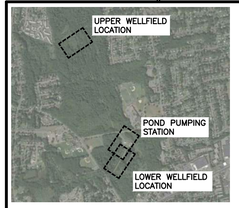
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

POND PUMPING STATION
DEMOLITION AND E&S CONTROLS

PROJECT NO. 10739-264571
FILE NAME: C007STPL.DWG
SHEET NO. SP-13

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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PLAN
N.T.S.

NOTES:

1. EXISTING WELLS TO HAVE THE WELL HEAD REMOVED TO 5 FEET BELOW FINISHED GRADE, LATERAL DISCHARGE PIPING REMOVED TO THE EXISTING 16" CI SUCTION HEADER PIPE, AND A CAP OR CONCRETE PLUG INSTALLED ON THE ABANDONED HEADER PIPE. SEE SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF EXISTING WELLS.
2. EXISTING WELLS WITH WELL HEAD LOCATED IN A VAULT TO HAVE VAULT DEMOLISHED AND REMOVED, WELL HEAD REMOVED TO 5 FEET BELOW BOTTOM OF VAULT, LATERAL DISCHARGE PIPING REMOVED TO THE EXISTING 16" CI SUCTION HEADER PIPE, AND A CAP OR CONCRETE PLUG INSTALLED ON THE ABANDONED HEADER PIPE. SEE SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF EXISTING WELLS
3. SILT FENCING SHALL BE INSTALLED ON THE TOE OF ALL PROPOSED NEW SLOPES. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MONITORED DURING CONSTRUCTION, AND REMOVED ONLY ONCE SLOPE HAS BEEN STABILIZED.

LEGEND

- COMPOST SOCK
- BUILDING REMOVAL
- WETLAND FLAG
- BORING

N

1" = 30'
15 0 30

LIMITS OF WETLAND
LIMIT OF TREE REMOVAL
EXISTING TEST WELL TO BE PROTECTED
APPROXIMATE AREA FOR DEWATERING SEDIMENTATION BASIN (J/C-24)
COMPOST SOCK (B/C-24)
ABANDON EXISTING WELL (TYP). SEE NOTE 1 & 2
LIMIT OF COMPOST SOCK
CANAL
BLWF-1
BLWF-3
BLWF-4
BLWF-6
EXISTING PIPING TO BE ABANDONED IN PLACE
EXISTING WELLS 26 AND 27 TO BE ABANDONED. SEE NOTE 1 AND 2
LIMIT OF FLOODWAY
POLKVILLE BROOK
SUPPLY POND
MATCH LINE SEE SHEET C-1

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REV. NO.	DATE	DRWN	CHK'D	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: OCTOBER 2024

CDM Smith
101 East River Drive, Suite 1A
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Tel: (860) 529-7615

STATE OF CONNECTICUT — KEVIN SERBLE WAGNER — No. 24084 — LICENSED PROFESSIONAL ENGINEER — 10-10-24

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

LOWER WELLFIELD
DEMOLITION AND E&S CONTROLS

PROJECT NO. 10739-264571
FILE NAME: C008GDPL.DWG
SHEET NO.
SP-14

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

NOTES FOR TRAFFIC CONTROL PLANS

1. IF A TRAFFIC STOPPAGE OCCURS IN ADVANCE OF SIGN (A), THEN AN ADDITIONAL SIGN (A) SHALL BE INSTALLED IN ADVANCE OF THE STOPPAGE.
2. SIGNS (AA), (A), AND (D) SHOULD BE OMITTED WHEN THESE SIGNS HAVE ALREADY BEEN INSTALLED TO DESIGNATE A LARGER WORK ZONE THAN THE WORK ZONE THAT IS ENCOMPASSED ON THIS PLAN.
3. SEE TABLE 1 FOR ADJUSTMENT OF TAPERS IF NECESSARY.
4. IF THIS PLAN REMAINS IN CONTINUOUS OPERATION FOR MORE THAN 36 HOURS, THEN TRAFFIC DRUMS SHALL BE USED IN PLACE OF TRAFFIC CONES.
5. ANY LEGAL SPEED LIMIT SIGNS WITHIN THE LIMITS OF A ROADWAY / LANE CLOSURE AREA SHALL BE COVERED WITH AN OPAQUE MATERIAL WHILE THE CLOSURE IS IN EFFECT, AND UNCOVERED WHEN THE ROADWAY / LANE CLOSURE IS RE-OPENED TO ALL LANES OF TRAFFIC.
6. IF THIS PLAN REMAINS IN CONTINUOUS OPERATION FOR MORE THAN 36 HOURS, THEN ANY EXISTING CONFLICTING PAVEMENT MARKINGS SHALL BE ERADICATED OR COVERED, AND TEMPORARY PAVEMENT MARKINGS THAT DELINEATE THE PROPER TRAVELPATHS SHALL BE INSTALLED.
7. DISTANCES BETWEEN SIGNS IN THE ADVANCE WARNING AREA MAY BE REDUCED TO 100' ON LOW-SPEED URBAN ROADS (SPEED LIMIT < 40 MPH).
8. IF THIS PLAN IS TO REMAIN IN OPERATION DURING THE HOURS OF DARKNESS, INSTALL BARRICADE WARNING LIGHTS - HIGH INTENSITY ON ALL POST-MOUNTED DIAMOND SIGNS IN THE ADVANCE WARNING AREA.
9. A CHANGEABLE MESSAGE SIGN SHALL BE INSTALLED ONE HALF TO ONE MILE IN ADVANCE OF THE LANE CLOSURE TAPER.
10. SIGN (P) SHALL BE MOUNTED A MINIMUM OF 7 FEET FROM THE PAVEMENT SURFACE TO THE BOTTOM OF THE SIGN.

TABLE 1 - MINIMUM TAPER LENGTHS

POSTED SPEED LIMIT (MILES PER HOUR)	MINIMUM TAPER LENGTH FOR A SINGLE LANE CLOSURE
30 OR LESS	180' (55m)
35	250' (75m)
40	320' (100m)
45	540' (165m)
50	600' (180m)
55	660' (200m)
65	780' (240m)

METRIC CONVERSION CHART (1" = 25mm)

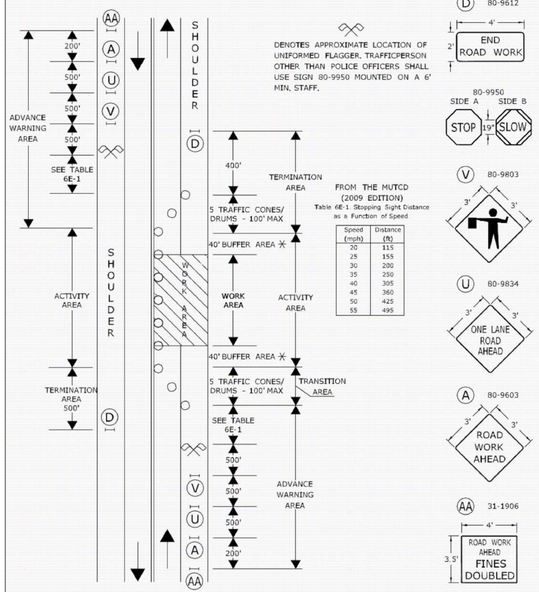
ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC
12"	300mm	42"	1050mm	72"	1800mm
18"	450mm	48"	1200mm	78"	1950mm
24"	600mm	54"	1350mm	84"	2100mm
30"	750mm	60"	1500mm	90"	2250mm
36"	900mm	66"	1650mm	96"	2400mm

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
NOTES

WORK IN TRAVEL LANE AND SHOULDER
TWO LANE HIGHWAY
ALTERNATING ONE-WAY TRAFFIC OPERATIONS

SIGN FACE 108 SQ. FT (MIN.)



TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 13 - SHEET 1 OF 2
SEE NOTES 1, 2, 4, 6, 7, 8

WORK IN TRAVEL LANE AND SHOULDER
TWO LANE HIGHWAY
ALTERNATING ONE-WAY TRAFFIC OPERATIONS

SIGN FACE 108 SQ. FT (MIN.)

HAND SIGNAL METHODS TO BE USED BY UNIFORMED FLAGGERS

THE FOLLOWING METHODS FROM SECTION 6E.07, FLAGGER PROCEDURES, IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," SHALL BE USED BY UNIFORMED FLAGGERS WHEN DIRECTING TRAFFIC THROUGH A WORK AREA. THE STOP/SLOW SIGN PADDLE (SIGN NO. 80-9950) SHOWN ON THE TRAFFIC STANDARD SHEET TR-1220 01 ENTITLED, "SIGNS FOR CONSTRUCTION AND PERMIT OPERATIONS" SHALL BE USED.

A. TO STOP TRAFFIC

TO STOP ROAD USERS, THE FLAGGER SHALL FACE ROAD USERS AND AIM THE STOP PADDLE FACE TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE FREE ARM SHALL BE HELD WITH THE PALM OF THE HAND ABOVE SHOULDER LEVEL TOWARD APPROACHING TRAFFIC.



B. TO DIRECT TRAFFIC TO PROCEED

TO DIRECT STOPPED ROAD USERS TO PROCEED, THE FLAGGER SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE FLAGGER SHALL MOTION WITH THE FREE HAND FOR ROAD USERS TO PROCEED.



C. TO ALERT OR SLOW TRAFFIC

TO ALERT OR SLOW TRAFFIC, THE FLAGGER SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. TO FURTHER ALERT OR SLOW TRAFFIC, THE FLAGGER HOLDING THE SLOW PADDLE FACE TOWARD ROAD USERS MAY MOTION UP AND DOWN WITH THE FREE HAND, PALM DOWN.



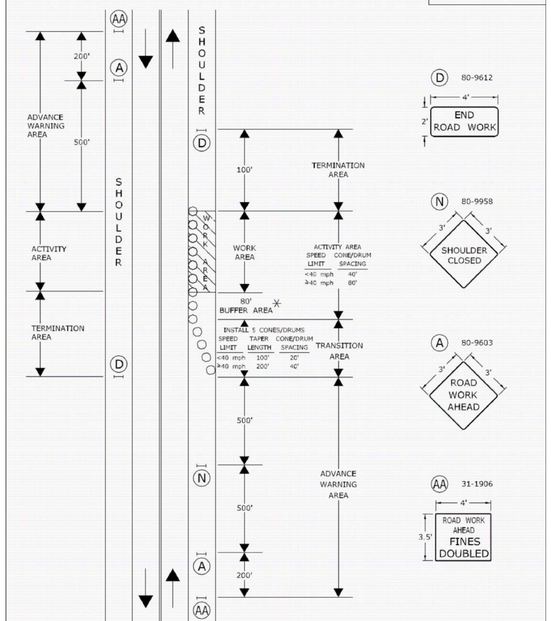
TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 13 - SHEET 2 OF 2
SEE NOTES 1, 2, 4, 6, 7, 8

WORK IN SHOULDER - TWO LANE HIGHWAY

SIGN FACE 71 SQ. FT (MIN.)



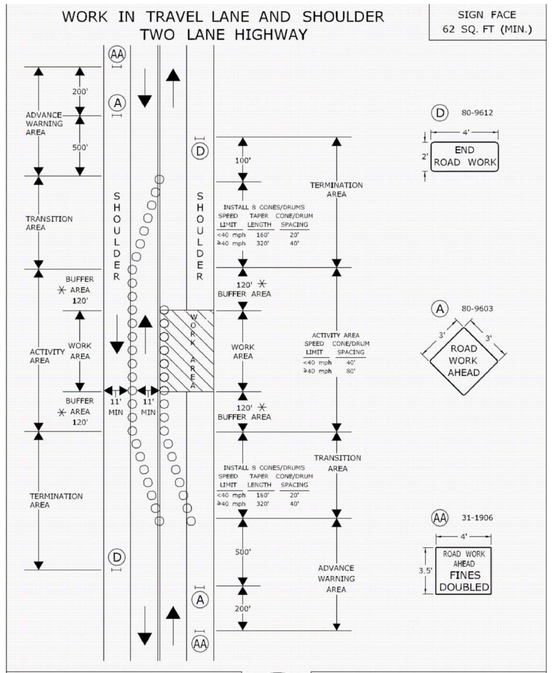
TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 14
SEE NOTES 1, 2, 4, 7, 8

WORK IN TRAVEL LANE AND SHOULDER
TWO LANE HIGHWAY

SIGN FACE 62 SQ. FT (MIN.)



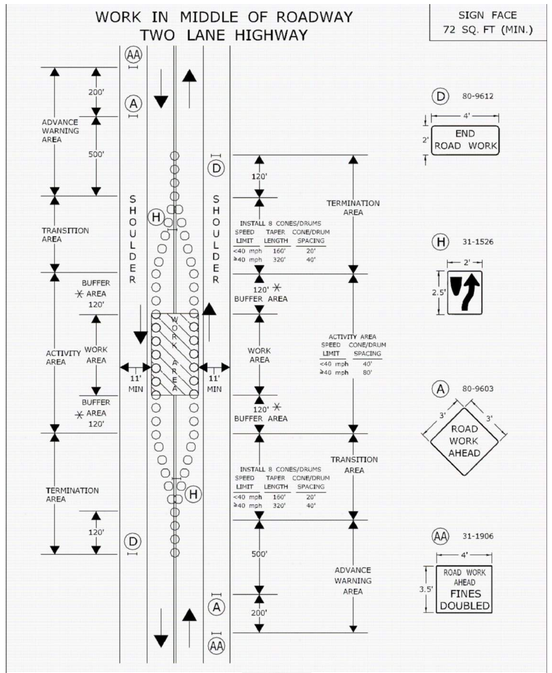
TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 15
SEE NOTES 1, 2, 4, 6, 7, 8

WORK IN MIDDLE OF ROADWAY
TWO LANE HIGHWAY

SIGN FACE 72 SQ. FT (MIN.)



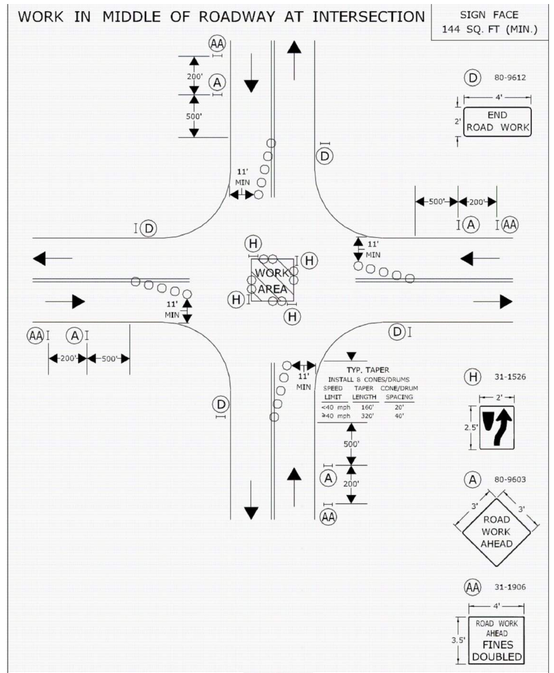
TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 16
SEE NOTES 1, 2, 4, 6, 7, 8

WORK IN MIDDLE OF ROADWAY AT INTERSECTION

SIGN FACE 144 SQ. FT (MIN.)



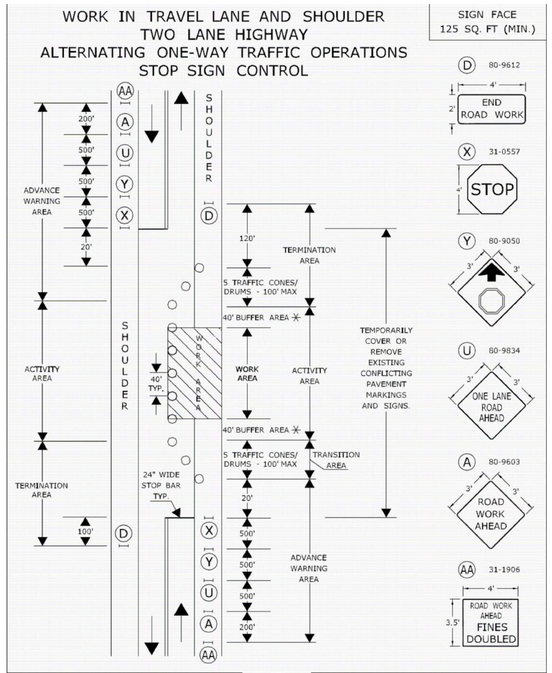
TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 17
SEE NOTES 1, 2, 4, 6, 7, 8

WORK IN TRAVEL LANE AND SHOULDER
TWO LANE HIGHWAY
ALTERNATING ONE-WAY TRAFFIC OPERATIONS
STOP SIGN CONTROL

SIGN FACE 125 SQ. FT (MIN.)



TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 18
SEE NOTES 1, 2, 4, 7, 8

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: S. ENGEL
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: DECEMBER 2023

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CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

TRAFFIC CONTROL
NOTES AND PLANS

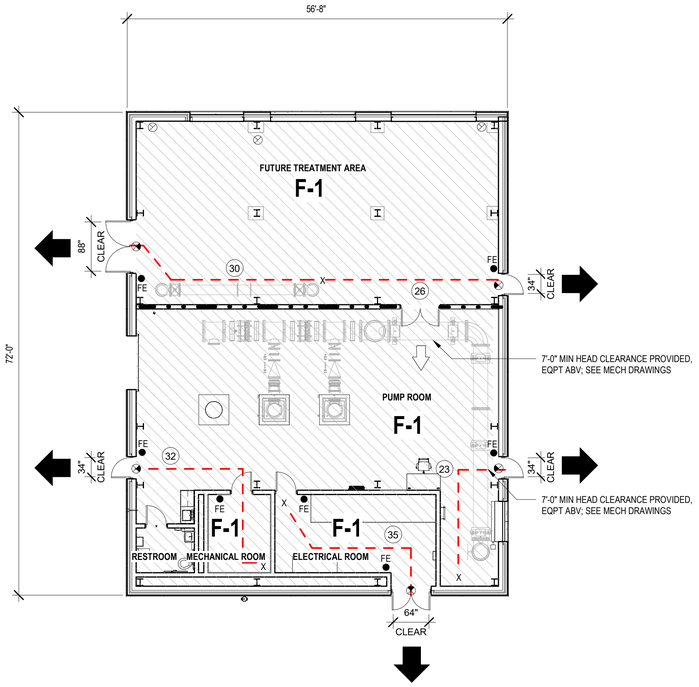
PROJECT NO. 10739-264571
FILE NAME: C029TRFC.DWG
SHEET NO. C-29

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Elevation Drawings and Floor Plans

Include in hard copy submittal



LIFE SAFETY PLAN

3/32" = 1'-0"

LIFE SAFETY PLAN LEGEND

- EGRESS PATH
- 2 HOUR FIRE RATING
- EXIT DISCHARGE
- AREA OR SPACE EXIT
- EXIT SIGN
- FE — FIRE EXTINGUISHER - MULTIPURPOSE DRY-CHEMICAL TYPE
- (X) — TRAVEL DISTANCE (FEET)
- [X] — COMMON PATH OF TRAVEL (FEET)
- X — POINT OF ORIGIN
- FACTORY INDUSTRIAL, F-1 OCCUPANCY CLASSIFICATION

Building Code Summary			
Owner:	City of New Britain, Connecticut	**Date:**	April 2023
Project Name:	White Bridge Waterworks Facilities	**Location:**	New Britain, CT
Project No:	10739-264571	**Architect of Record:**	CDM Architects Inc.
Building Name:	Pond Pumping Station		
Work Scope:	Construction of pump station (New Structure)		
Applicable Ordinances, Codes, and Standards			
Abbreviations	**ICC** - International Code Council; **IBC** - International Building Code; **IEBC** - International Existing Building Code; **IECC** - International Energy Conservation Code; **IFC** - International Fire Code; **IMC** - International Mechanical Code; **IPC** - International Plumbing Code;		
Building Code	2022 CT State Building Code - 2021 IBC		
Mechanical Code	2022 CT State Building Code - 2021 IMC		
Energy Code	2022 CT State Building Code - 2021 IECC		
Plumbing Code	2022 CT State Building Code - 2021 IPC		
Electrical Code	2020 National Electrical Code (NFPA 70)		
Accessibility Code	2017 ICC A117.1		
Use and Occupancy Classification			
IBC Code Reference			
Chapter 3			
Section 306	Factory Group F		
306.2	Moderate-hazard factory industrial, Group F-1		
General Building Heights and Areas			
Chapter 5			
Section 504	Building Height and Number of Stories		
Table 504.3	Allowable Building Height in Feet Above Grade Plane	Allowable	Proposed
	Group F-1 Type IIB - No Sprinklers	55 Feet	25 Feet, 10 Inches
Table 504.4	Allowable Number of Stories Above Grade Plane		
	Group F-1 Type IIB - No Sprinklers	2 Stories	1 Story
Section 506	Building Area		
Table 506.2	Allowable Area Factor in Square Feet		
	Group F-1 Type IIB - No Sprinklers	15,500 SF	4,085 SF
Types of Construction			
Chapter 6			
Section 602	Construction Classification		
602.2	Types I and II, Non Combustible	Type IIB Construction	
Fire Protection and Life Safety Systems			
Chapter 9			
Section 903	Automatic Sprinkler Systems	Not required for Group F-1 occupancy: 1. Fire area under 12,000 square feet. 2. Fire area not located more than three stories above grade plane. 3. Combined area of all F-1 fire areas under 24,000 square feet.	
Section 906	Portable Fire Extinguishers	Required in accordance to 906.2 and NFPA 10	
Section 907 907.2.4	Fire Alarm and Detection Systems Group F	Not required for Group F-1 occupancy 1. F occupancy under two stories in height. 2. F occupancy has occupant load under 500.	
Means of Egress			
Chapter 10			
Section 1004	Occupant Load		
Table 1004.5	Maximum Floor Area Allowances per Occupant		
	Function of Space	Occupant Load Factor	Area / Occupant Load Factor
	Accessory storage areas, mechanical equipment room	300 gross	(4,085 / 300) = 14
Section 1010	Doors, Gates and Turnstiles	Required	Proposed
1010.1.1	Size of doors	Minimum clear width: 32 inches	34 inches
Section 1017	Exit Access Travel Distance		
Table 1017.2	Occupancy	without Sprinklers (feet)	with Sprinklers (feet)
	F-1	200	N/A
Accessibility			
Chapter 11			
Section 1103	Scoping Requirements		
1103.2.9	Equipment spaces are not required to comply with this chapter		
Energy Efficiency			
Chapter 13			
Section 1301	General		
1301.1.1	Building designed and constructed in accordnace with the IECC with compliance requirements indicated in COMcheck report		

0 4' 8' 12' 20'

SCALE: 3/32" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: R. MARSHALL
DRAWN BY: R. MARSHALL
SHEET CHK'D BY: S. BRADFORD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: B. GIORGI
DATE: APRIL 2023

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75 State Street
Boston, Massachusetts 02109

CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS AND
POND PUMPING STATION

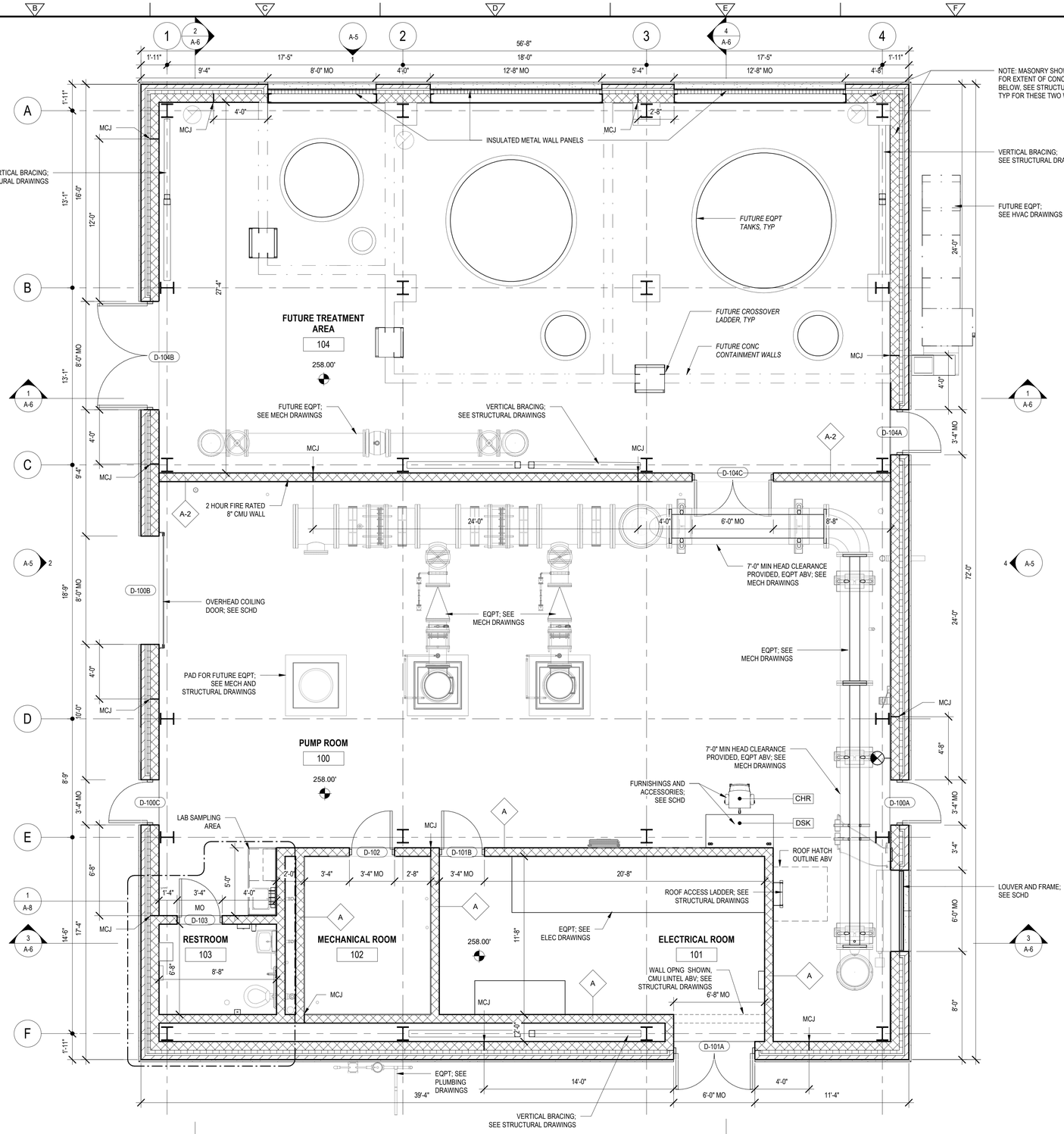
POND PUMPING STATION
BUILDING CODE SUMMARY AND LIFE SAFETY PLAN

PROJECT NO. 10739-264571
FILE NAME: AWZ001PS.RVT
SHEET NO. A-2

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GROUND LEVEL FLOOR PLAN
1/4" = 1'-0"

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

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DRAWN BY: R. MARSHALL
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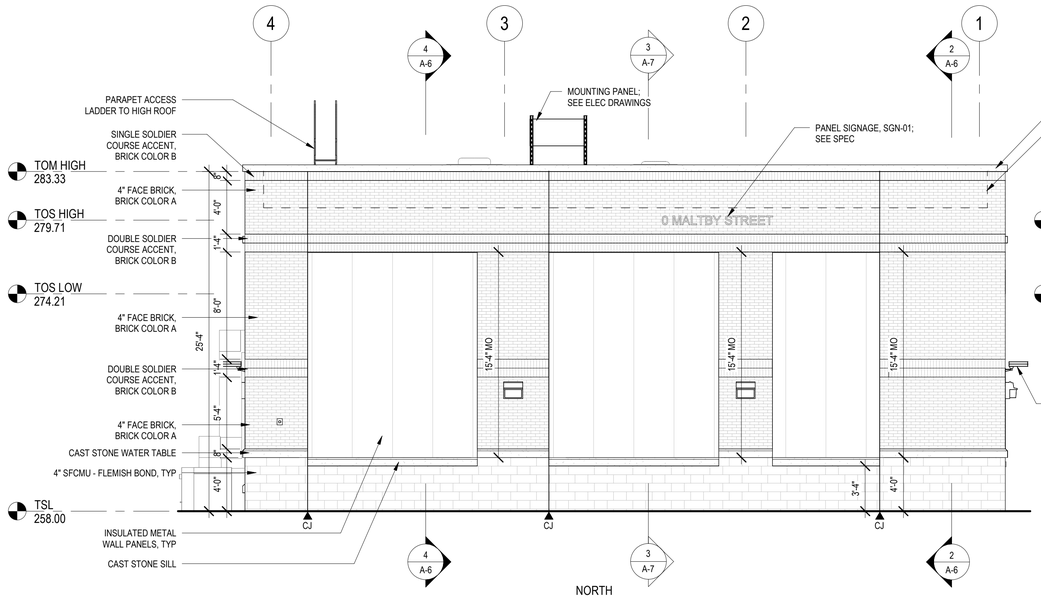
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS AND
POND PUMPING STATION

POND PUMPING STATION
FLOOR PLAN

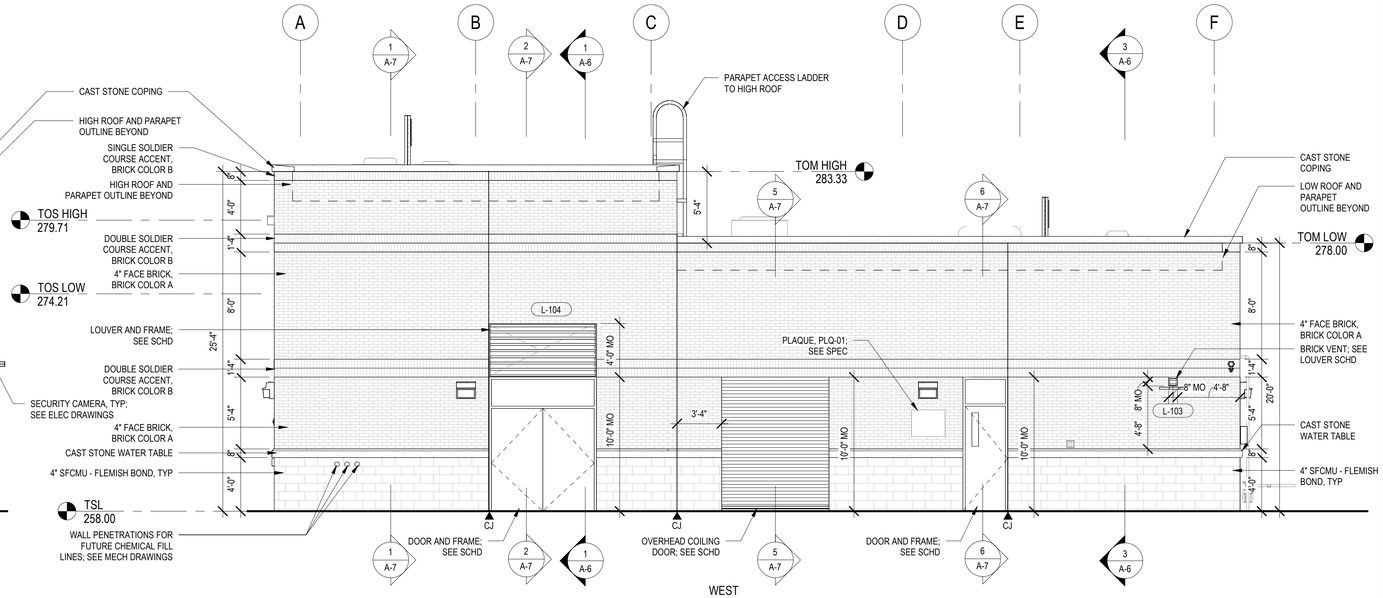
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FILE NAME: AWZ001PS.RVT
SHEET NO.
A-3

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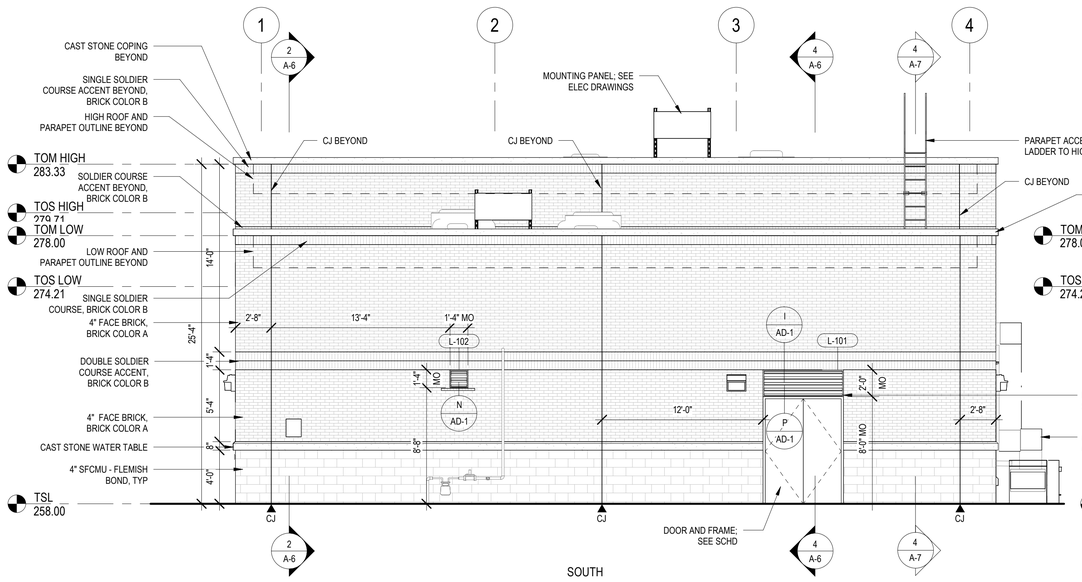
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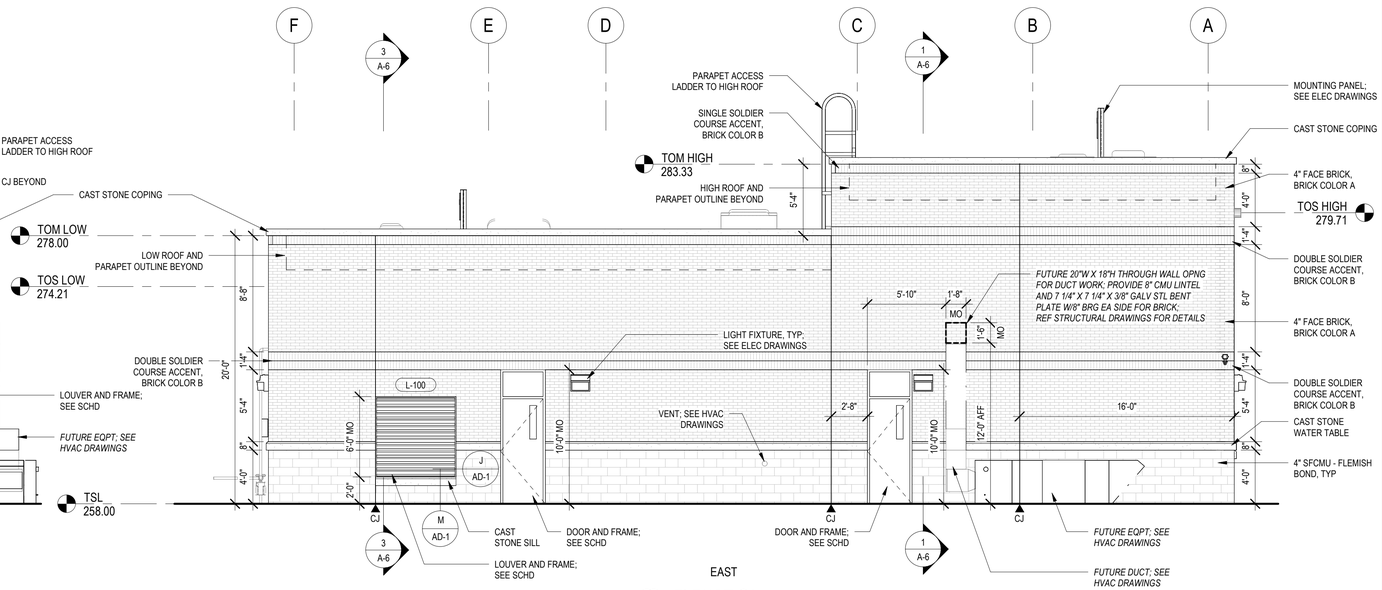
1 ELEVATION A-3 3/16" = 1'-0"



2 ELEVATION A-3 3/16" = 1'-0"



3 ELEVATION A-3 3/16" = 1'-0"



4 ELEVATION A-3 3/16" = 1'-0"

0 2' 4' 6' 10'

SCALE: 3/16" = 1'-0"

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DRAWN BY: R. MARSHALL
SHEET CHK'D BY: S. BRADFORD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: B. GIORGI
DATE: APRIL 2023

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Boston, Massachusetts 02109

CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS AND
POND PUMPING STATION

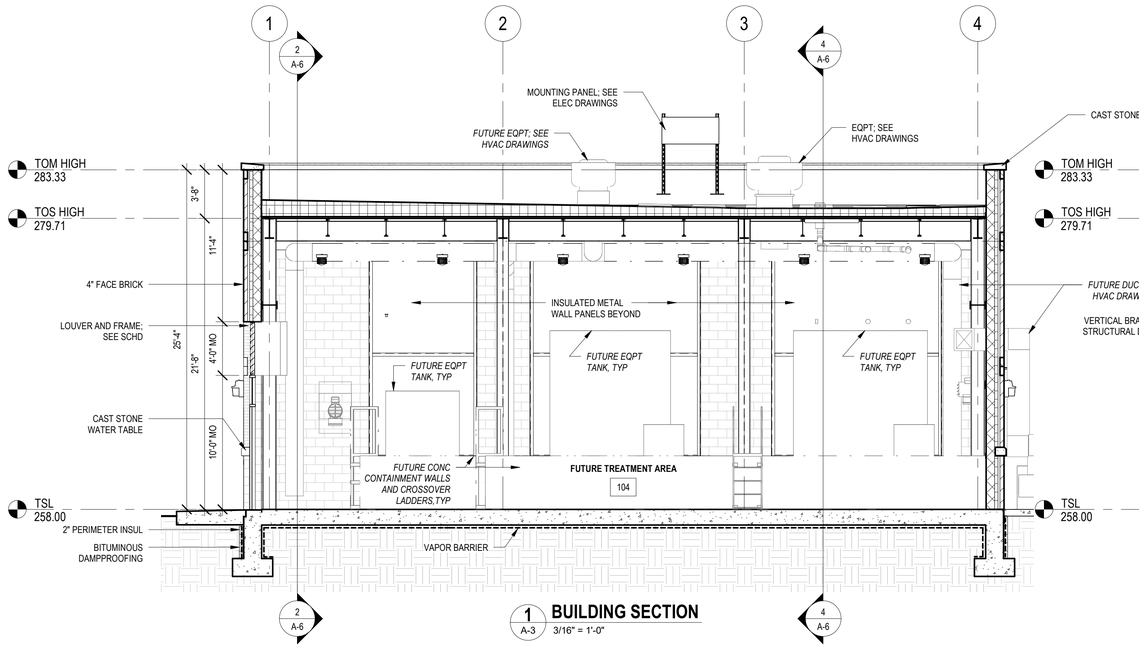
POND PUMPING STATION
EXTERIOR ELEVATIONS

PROJECT NO. 10739-264571
FILE NAME: AWZ001PS.RVT

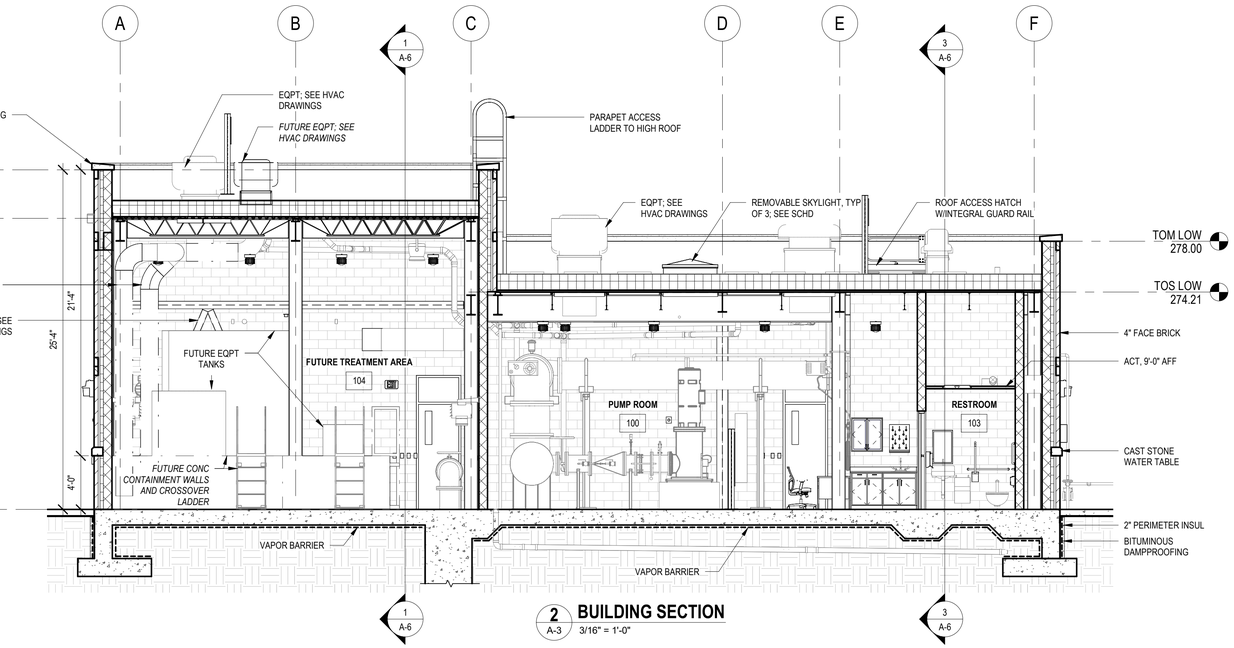
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A-5

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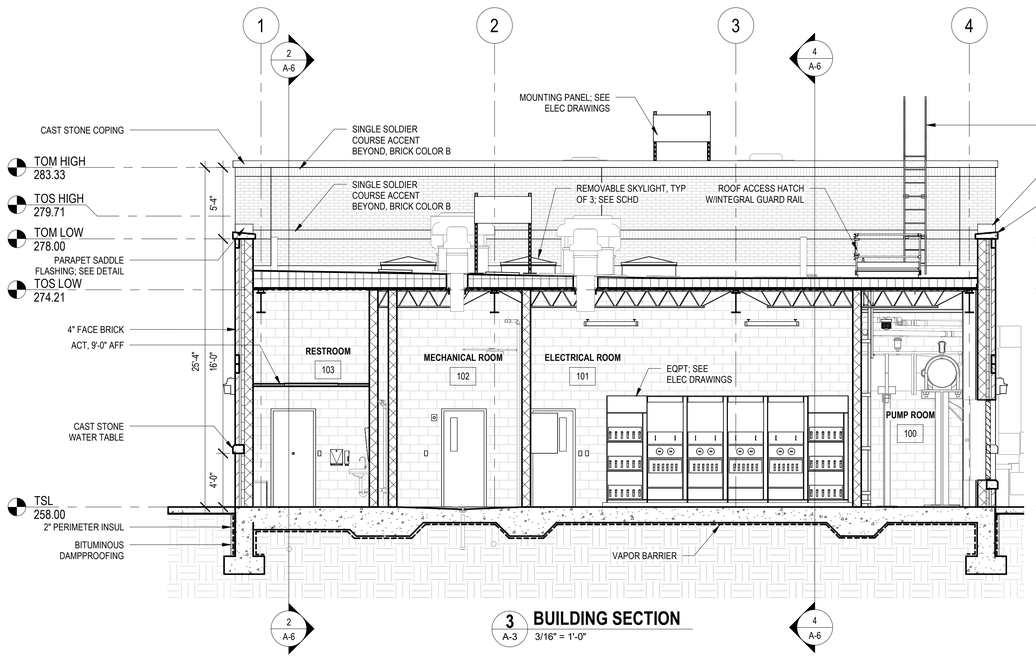
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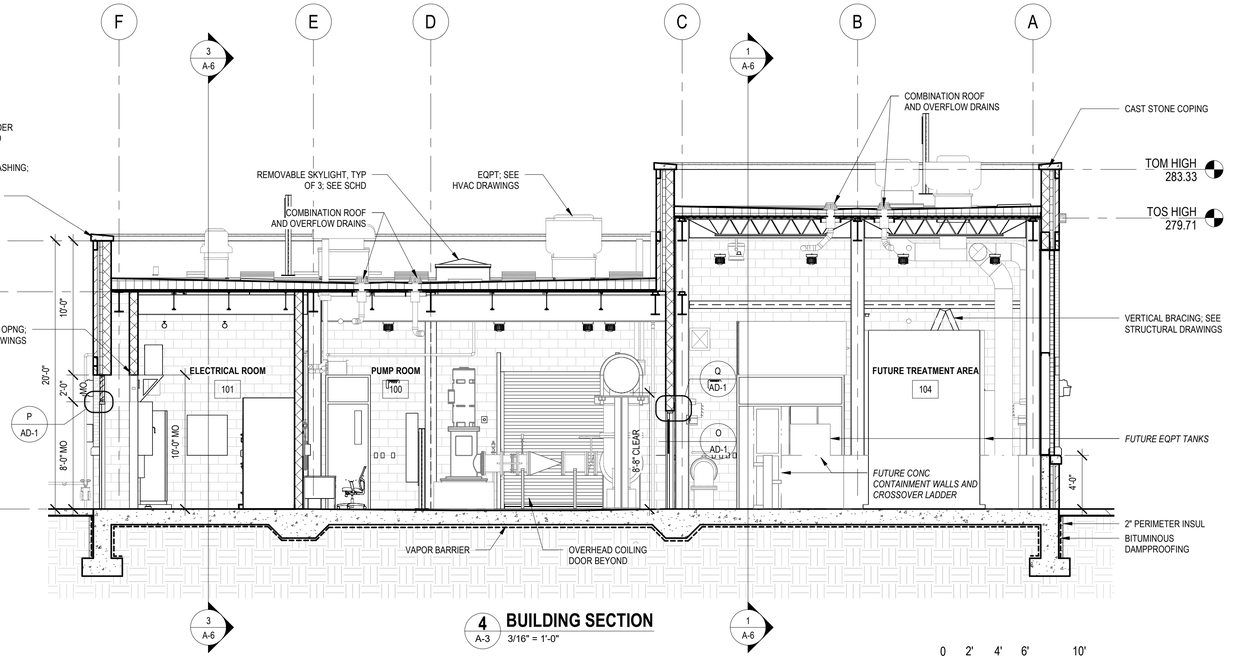
1 A-3 **BUILDING SECTION** 3/16" = 1'-0"



2 A-3 **BUILDING SECTION** 3/16" = 1'-0"



3 A-3 **BUILDING SECTION** 3/16" = 1'-0"



4 A-3 **BUILDING SECTION** 3/16" = 1'-0"

0 2' 4' 6' 10'

SCALE: 3/16" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: R. MARSHALL
DRAWN BY: R. MARSHALL
SHEET CHK'D BY: S. BRADFORD
CROSS CHK'D BY: K. WAGNER
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CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS AND
POND PUMPING STATION

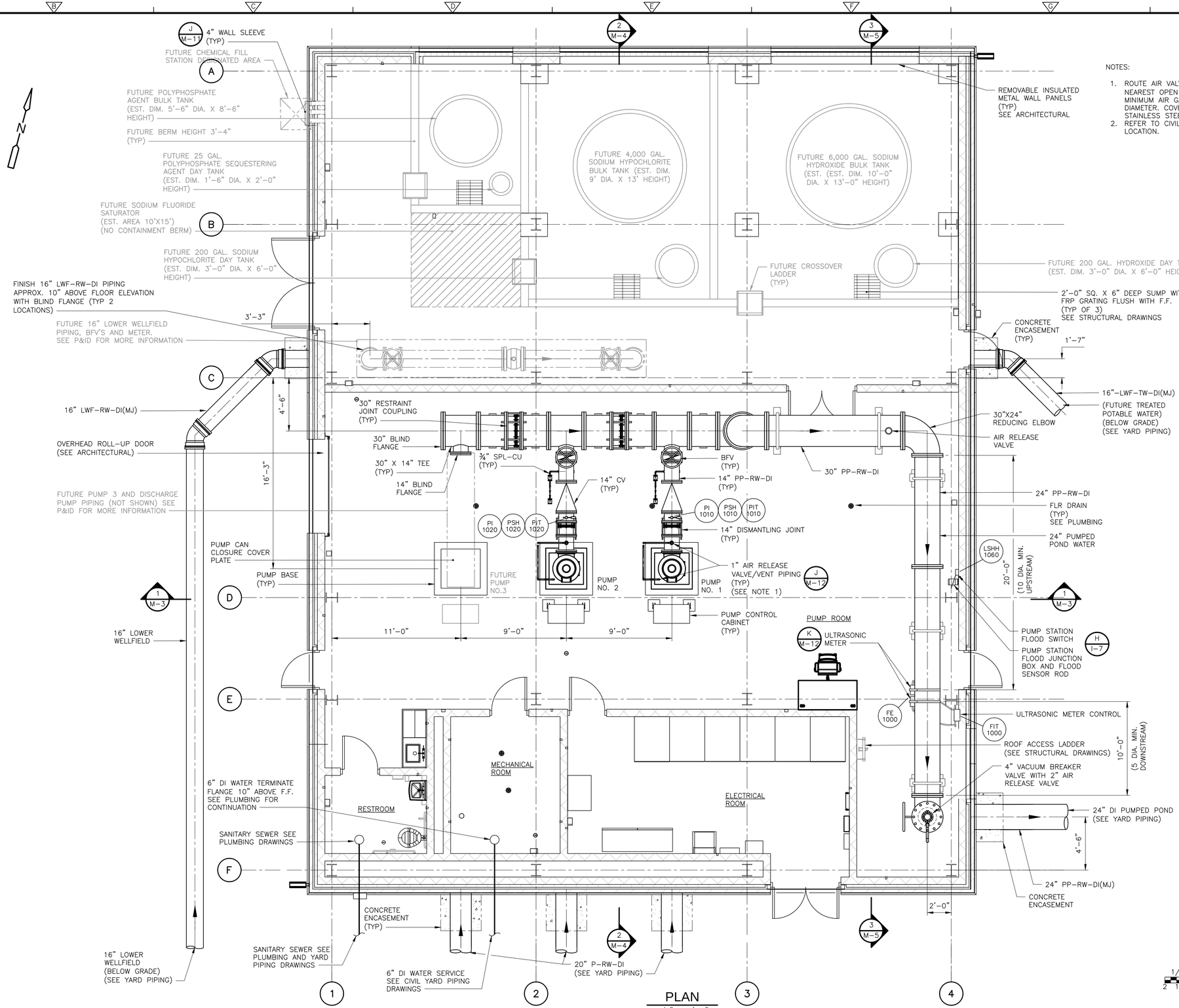
POND PUMPING STATION
BUILDING SECTIONS

PROJECT NO. 10739-264571
FILE NAME: AWZ001PS.RVT

SHEET NO.
A-6

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CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: APRIL 2023

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Tel: (860) 529-7615

CITY OF NEW BRITAIN, CONNECTICUT

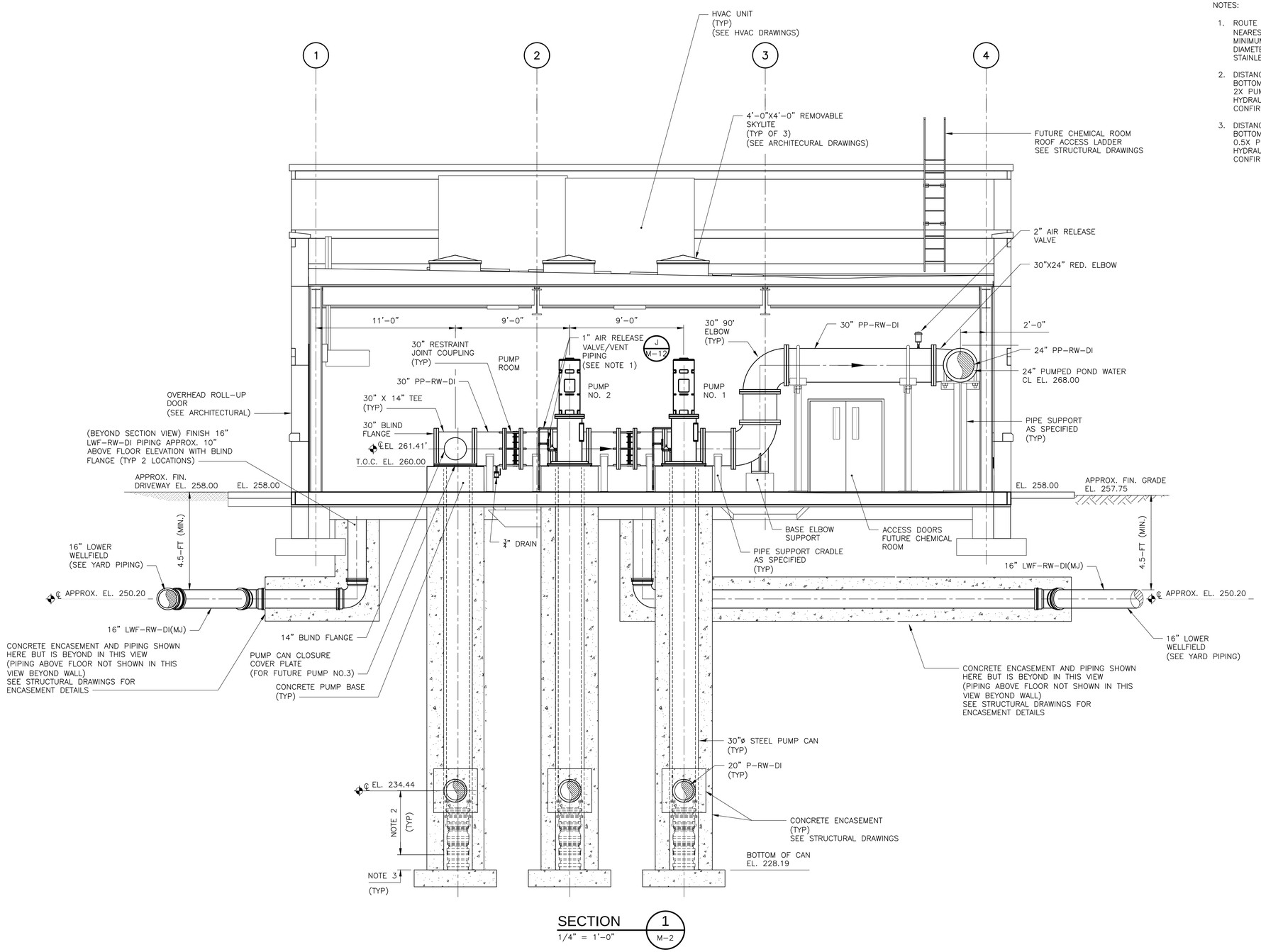
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

POND PUMPING STATION
FLOOR PLAN

PROJECT NO. 10739-264571
FILE NAME: M002PSPL.DWG

SHEET NO.
M-2

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION



SECTION 1 / M-2
1/4" = 1'-0"

NOTES:

1. ROUTE AIR VALVE/VENT OUTLET PIPING TO THE NEAREST OPEN END DRAIN (OED). PROVIDE MINIMUM AIR GAP OF 2 TIMES THE PIPE DIAMETER. COVER END OF PIPE WITH STAINLESS STEEL INSECT SCREEN.
2. DISTANCE FROM SUCTION PIPE CENTERLINE TO BOTTOM OF PUMP BOWLS SHALL BE MINIMUM 2X PUMP CAN INSIDE DIAMETER, PER HYDRAULIC INSTITUTE STANDARDS. TO BE CONFIRMED BY PUMP SUPPLIER.
3. DISTANCE FROM SUCTION PIPE CENTERLINE TO BOTTOM OF PUMP BOWLS SHALL BEMINIMUM 0.5X PUMP CAN INSIDE DIAMETER, PER HYDRAULIC INSTITUTE STANDARDS. TO BE CONFIRMED BY PUMP SUPPLIER.

1/4" = 1'- 0"
2 1 0 2 4

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: V. BITTO
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: APRIL 2023

CDM Smith
77 Hartland Street, Suite 200
East Hartford, CT 06108
Tel: (860) 529-7615

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

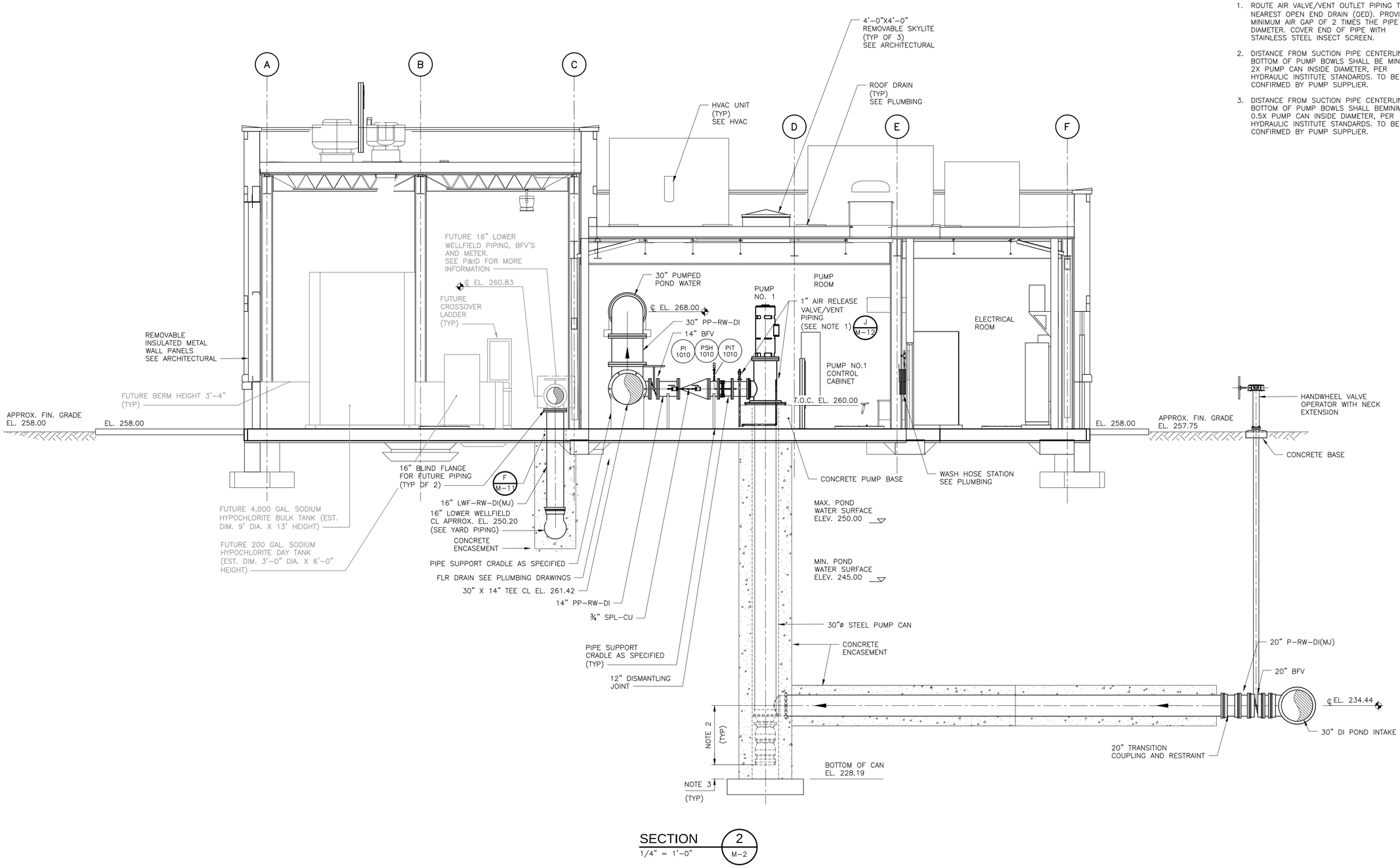
POND PUMPING STATION
SECTIONS I

PROJECT NO. 10739-264571
FILE NAME: M003PSSC.DWG
SHEET NO.
M-3

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

NOTES:

1. ROUTE AIR VALVE/VENT OUTLET PIPING TO THE NEAREST OPEN END DRAIN (OED). PROVIDE MINIMUM AIR GAP OF 2 TIMES THE PIPE DIAMETER. COVER END OF PIPE WITH STAINLESS STEEL INSECT SCREEN.
2. DISTANCE FROM SUCTION PIPE CENTERLINE TO BOTTOM OF PUMP BOWLS SHALL BE MINIMUM 2X PUMP CAN INSIDE DIAMETER, PER HYDRAULIC INSTITUTE STANDARDS. TO BE CONFIRMED BY PUMP SUPPLIER.
3. DISTANCE FROM SUCTION PIPE CENTERLINE TO BOTTOM OF PUMP BOWLS SHALL BEMINIMUM 0.5X PUMP CAN INSIDE DIAMETER, PER HYDRAULIC INSTITUTE STANDARDS. TO BE CONFIRMED BY PUMP SUPPLIER.



SECTION 2 / M-2
1/4" = 1'-0"

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APPROVED BY: K. WAGNER
DATE: APRIL 2023

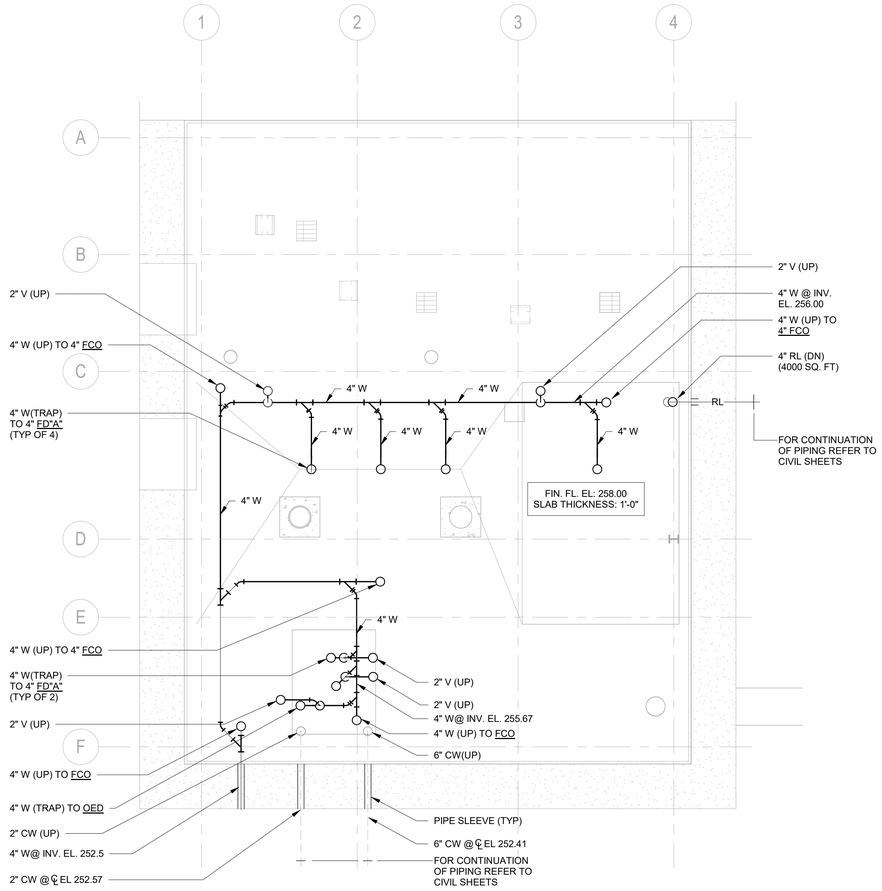
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77 Hartland Street, Suite 200
East Hartford, CT 06108
Tel: (860) 529-7615

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

POND PUMPING STATION
SECTIONS II

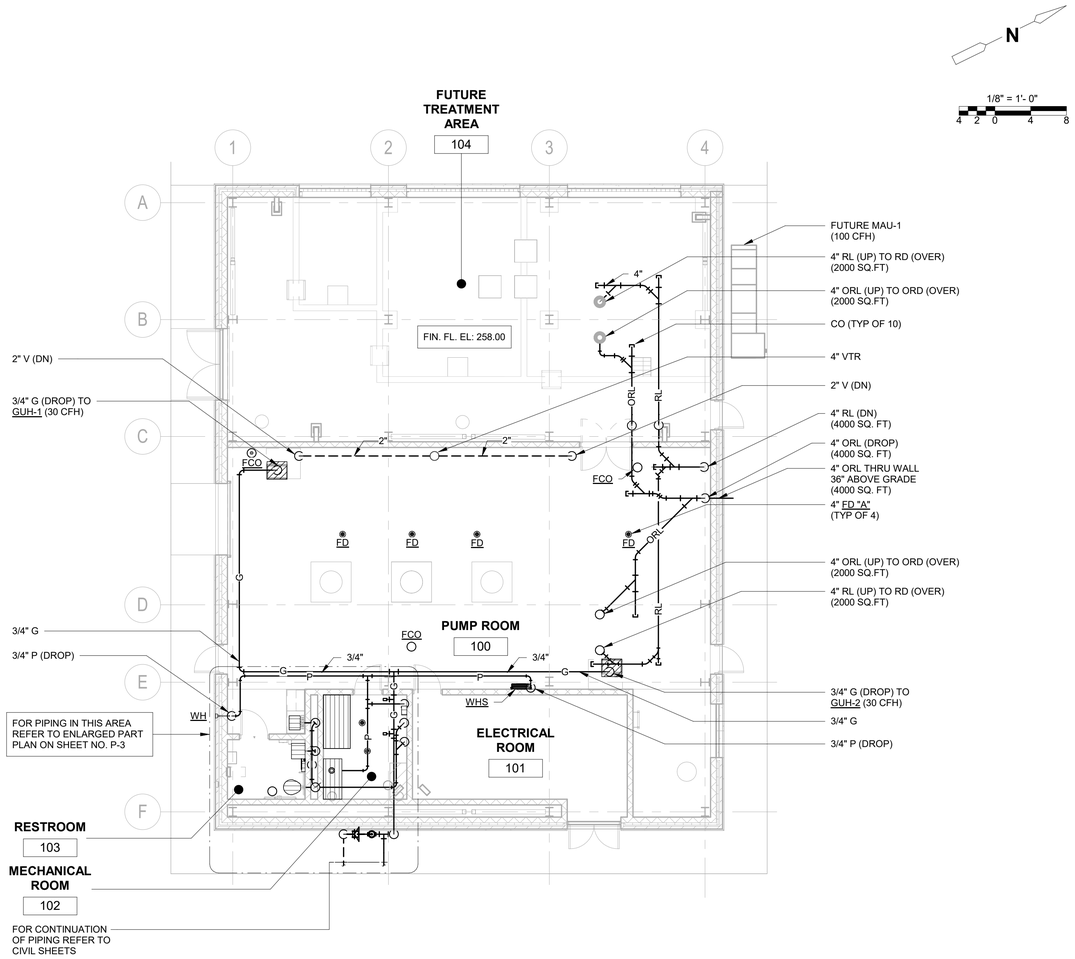
PROJECT NO. 10739-264571
FILE NAME: M004PSSC.DWG
SHEET NO. M-4

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION



BURIED PIPING

1/8" = 1'-0"



FLOOR PLAN

1/8" = 1'-0"

NOTES:

1. ALL PIPES PASSING THROUGH THE FOUNDATION WALL SHALL BE INSTALLED IN A SLEEVE THAT IS 2" IN DIAMETER LARGER THAN THE PIPE AND SHALL EXTEND THOUGH THE WALL 2" ON EITHER SIDE OF THE FOUNDATION WALL IN CONFORMANCE WITH THE PROJECT SPECIFICATIONS.
2. ALL PIPES PASSING UNDERNEATH THE FOUNDATION SHALL BE INSTALLED IN A SLEEVE THAT IS 2" IN DIAMETER LARGER THAN THE PIPE AND SHALL EXTEND 12" BEYOND THE ANGLE OF REPOSE OF THE FOUNDATION FOOTING ON BOTH SIDES OF THE FOOTING.

NOTES:

1. ALL BURIED PIPING WITHIN THE BUILDING SHALL BE ENCASED IN CONCRETE AS SHOWN ON THE DETAIL ON THE STRUCTURAL DETAIL SHEET.
2. IN LIEU OF TRAP PRIMERS WHERE ALLOWED BY CODE, CONTRACTOR SHALL INSTALL A TRAP RESEALER MADE OF ELASTOMERIC MATERIAL.
3. 1/2" SOFT ROLLED COPPER TUBING SHALL BE INSTALLED TO FEED THE WATER FROM THE TRAP PRIMER UNIT TO THE TRAPS FOR THE FLOOR DRAINS WHERE REQUIRED. THE SOFT ROLLED COPPER TUBING SHALL BE WRAPPED WITH ARMAFLEX TO PROTECT IT FROM THE CONCRETE. THE TUBING IS NOT SHOWN ON THE DRAWING FOR CLARITY SAKE. BUT THE PIPING SHALL BE FURNISHED AND INSTALLED BY THE PLUMBING CONTRACTOR.
4. SANITARY PIPING SHALL EXTEND BEYOND THE BUILDING 5'-0" UNDER THE PLUMBING CONTRACTOR'S SCOPE OF WORK.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: J. SHEEHAN
DRAWN BY: P. MANI
SHEET CHK'D BY: B. BUCCHIANERI
CROSS CHK'D BY: K. WAGNER
APPROVED BY: D. FLAHERTY
DATE: JANUARY 2024

CDM Smith
77 Hartland Street, Suite 200
East Hartford, CT 06108
Tel: (860) 529-7615

CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS AND
POND PUMPING STATION

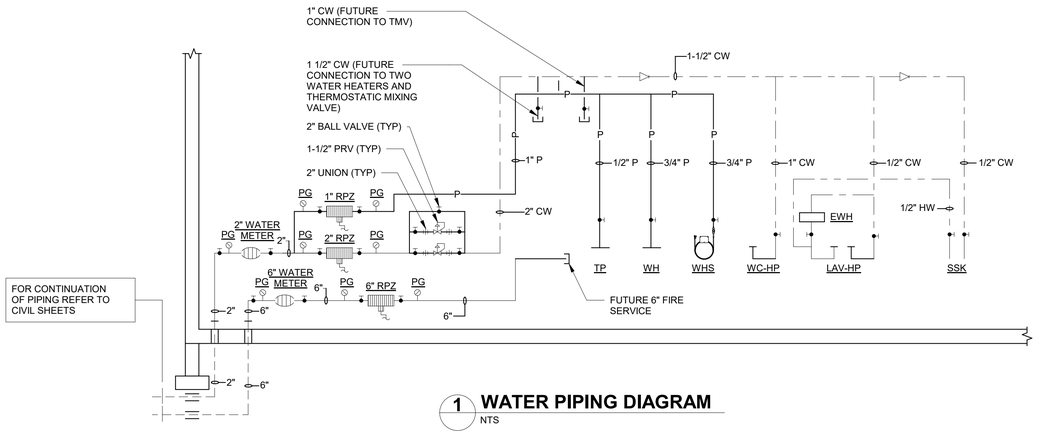
BURIED PIPING AND FLOOR PLANS

PROJECT NO. 10739-264571
FILE NAME: HPWZ001PS.RVT

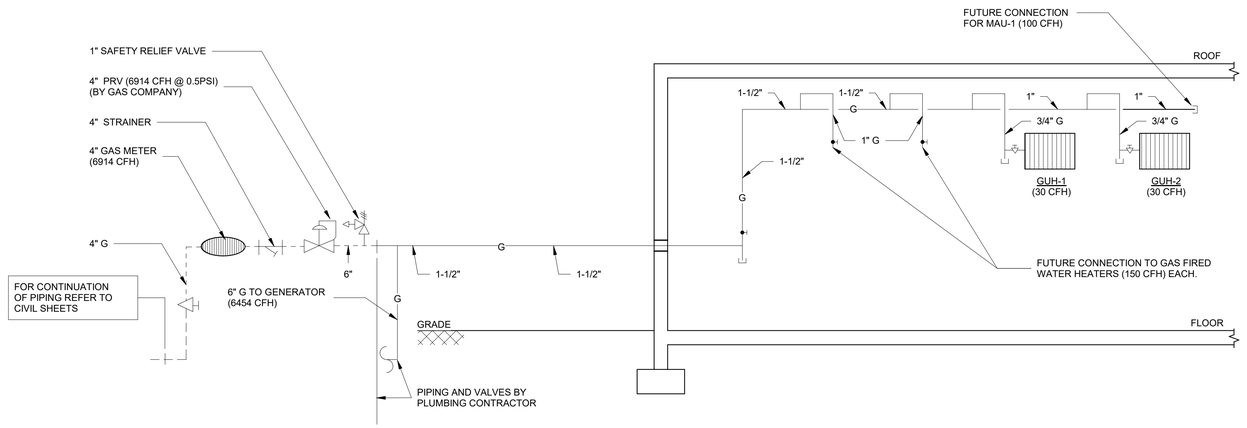
SHEET NO.
P-2

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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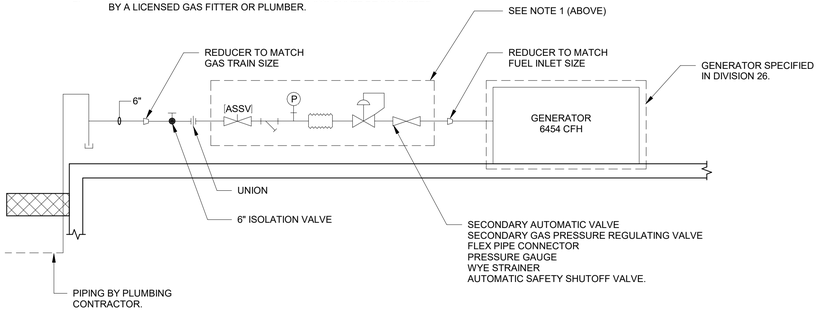
1 WATER PIPING DIAGRAM
NTS



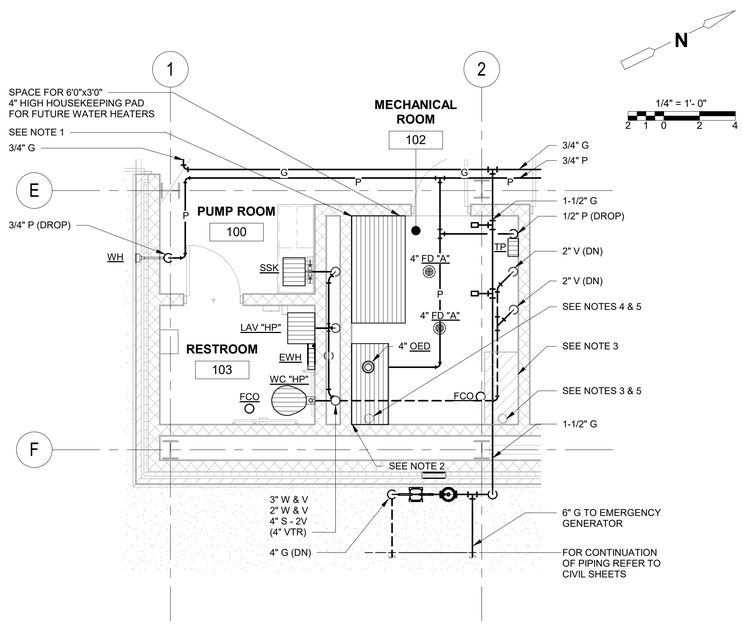
2 GAS PIPING DIAGRAM
NTS

NOTES:

1. GAS TRAIN COMPONENTS SHALL BE PROVIDED BY THE GENERATOR MANUFACTURER AND INSTALLED BY THE PLUMBING CONTRACTOR.
2. INSTALL 6" G LINE TO GENERATOR. GAS PIPING SHALL BE INSTALLED BY A LICENSED GAS FITTER OR PLUMBER.



3 GAS PIPING DIAGRAM FOR STANDBY GENERATOR
NTS



4 ENLARGED FLOOR PLAN
1/4" = 1'-0"

NOTES:

1. SPACE ALLOCATED FOR FUTURE WATER HEATERS, TEPID WATER MIXING VALVE AND TEPID WATER RECIRCULATION PUMP.
2. SPACE ALLOCATED FOR DOMESTIC WATER SERVICE. FOR VALVES AND APPURTENANCES REFER TO THE WATER PIPING DIAGRAM ON SHEET NO. P-3. WATER SERVICE HAS BEEN SIZED TO INCLUDE FUTURE ADDITION OF CHEMICALS AND TEPID WATER HEATING SYSTEM.
3. SPACE ALLOCATED FOR FUTURE FIRE PROTECTION SERVICE SHALL SERVE AN AUTOMATIC FIRE PROTECTION SYSTEM WHEN THE FUTURE CHEMICAL SYSTEMS ARE INSTALLED ON THE PROJECT. 6" FIRE SERVICE SHALL BE BROUGHT INTO THE BUILDING AND LEFT AS A FLANGED CONNNECTION 8"-12" ABOVE FINISHED FLOOR BY GENERAL CONTRACTOR.
4. 2" DOMESTIC WATER SERVICE SHALL BE BROUGHT INTO THE BUILDING AND LEFT AS A FLANGED CONNECTION 8"-12" ABOVE FINISHED FLOOR BY GENERAL CONTRACTOR. A 2" CAPPED WATER CONNECTION SHALL BE LEFT IN THE MECHANICAL ROOM 102.
5. 6" RPZ FOR FUTURE FIRE SERVICE SHALL BE INSTALLED 36" AFF. 2" RPZ FOR DOMESTIC POTABLE WATER SHALL BE INSTALLED 36" AFF AND THE 1" RPZ FOR NON-POTABLE WATER SHALL BE INSTALLED AT 54" AFF.

PLUMBING FIXTURE SCHEDULE

FIXTURE	DESCRIPTION	WASTE (INCH) MIN	VENT (INCH) MIN	TRAP (INCH) MIN	CW (INCH) MIN	HW (INCH) MIN	TW (INCH) MIN	REMARKS
WC-HP	TOILET, FLUSH VALVE, WALL MOUNTED, WALL OUTLET	4	2	4	1	-	-	SEE SECTION 224213.13
SSK	SERVICE SINK	2	2	2	1/2	1/2	-	SEE SECTION 224216.13
LAV-HP	LAVATORY, COUNTER MOUNTED	2	2	2	1/2	1/2	-	SEE SECTION 224216.13
WHS	WASH HOSE STATION	-	-	-	3/4	-	-	SEE SECTION 221119
EWH	ELECTRIC WATER HEATER	-	-	-	1/2	1/2	-	SEE SECTION 223300
TP	TRAP PRIMER	-	-	-	1/2	-	-	SEE SECTION 221119

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: J. SHEEHAN
DRAWN BY: P. MANI
SHEET CHK'D BY: B. BUCCHIANERI
CROSS CHK'D BY: K. WAGNER
APPROVED BY: D. FLAHERTY
DATE: JANUARY 2024

CDM Smith
77 Hartland Street, Suite 200
East Hartford, CT 06108
Tel: (860) 529-7615

CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS AND
POND PUMPING STATION

PIPING DIAGRAMS, ENLARGED FLOOR PLAN AND PLUMBING SCHEDULE

PROJECT NO. 10739-264571
FILE NAME: HPWZ001PS.RVT

SHEET NO.
P-3

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

For Office Use Only	
APPLICATION NO.	2507
DATE FILED:	9-4-2024
DECISION DATE:	
DECISION:	

BRISTOL ZONING COMMISSION
CITY OF BRISTOL, CONNECTICUT
APPLICATION FOR SPECIAL PERMIT

The undersigned Applicant hereby applies to the Bristol Zoning Commission for approval under Section(s) Article III Section 15.2.4 of the Bristol Zoning Regulations for the following Special Permit use: EARTH REMOVAL AND PROCESSING OF EARTH MATERIALS

Address or Location of the Property: South of Barnum Road, North of Farrell Ave, East of Arcadia

Assessor's Map No.: 67 Assessor's Lot No.(s): 78,57, and 43

Zone of the Property: R-15 Size of the Property (in acres or square feet): 46.65 acres

Reason for the Special Permit: Special Permit for Earth Removal; Special Permit for processing of earth material

Does this application involve an activity regulated by the Inland Wetlands Agency? ☑ yes [ ] no

If yes, has an application for a permit been submitted to the Inland Wetlands Agency? ☑ yes, on 2-5-2020 [ ] no

Other comments: Area of active earth removal continues to be 11.79 acres with approximately 52,551.72 c.y. of material to be removed

NOTE: Section 8-3c(a) of the Connecticut General Statutes requires that, if an application for a Special Permit involves an activity regulated under the Inland Wetlands and Watercourses provisions of the statutes, the applicant shall submit an application for a wetlands permit to the local Inland Wetlands Agency no later than the day the Special Permit application is filed.

APPLICANT (If more than one, list on Page 2)

Name: Willow Materials, LLC

Address: 101 North Riverside Ave City: Terryville State: CT Zip: 06786

Telephone No.: 860-302-3261 E-Mail: kyles@schultzcorp.com

Signature: [signature] *Signature – (Printed/Typed)* Bill Schultz

CHECK ONE: ☑ owner [ ] other (specify): _____

OWNER(S) OF RECORD (If other than Applicant; if more than one, list on Page 2)

Name: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ *Signature – (Printed/Typed)* _____

THIS APPLICATION MUST BE FILED IN PERSON NO LATER THAN 12 NOON ON THE DEADLINE DAY FOR APPLICATION SUBMISSION – NO EXCEPTIONS!

BZC – 08/17

For Office Use Only
APPLICATION NO. 2507

CITY OF BRISTOL, CONNECTICUT
SUPPLEMENTARY INFORMATION

Address or location of property: South of Barnum Road, North of Farrell Ave, East of Arcadia

ADDITIONAL INFORMATION/COMMENTS (click inside the box below and begin typing)

ADDITIONAL APPLICANT

Name: _____ CHECK ONE: [ ] owner [ ] other: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

ADDITIONAL OWNER(S) OF RECORD

Name: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

Name: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

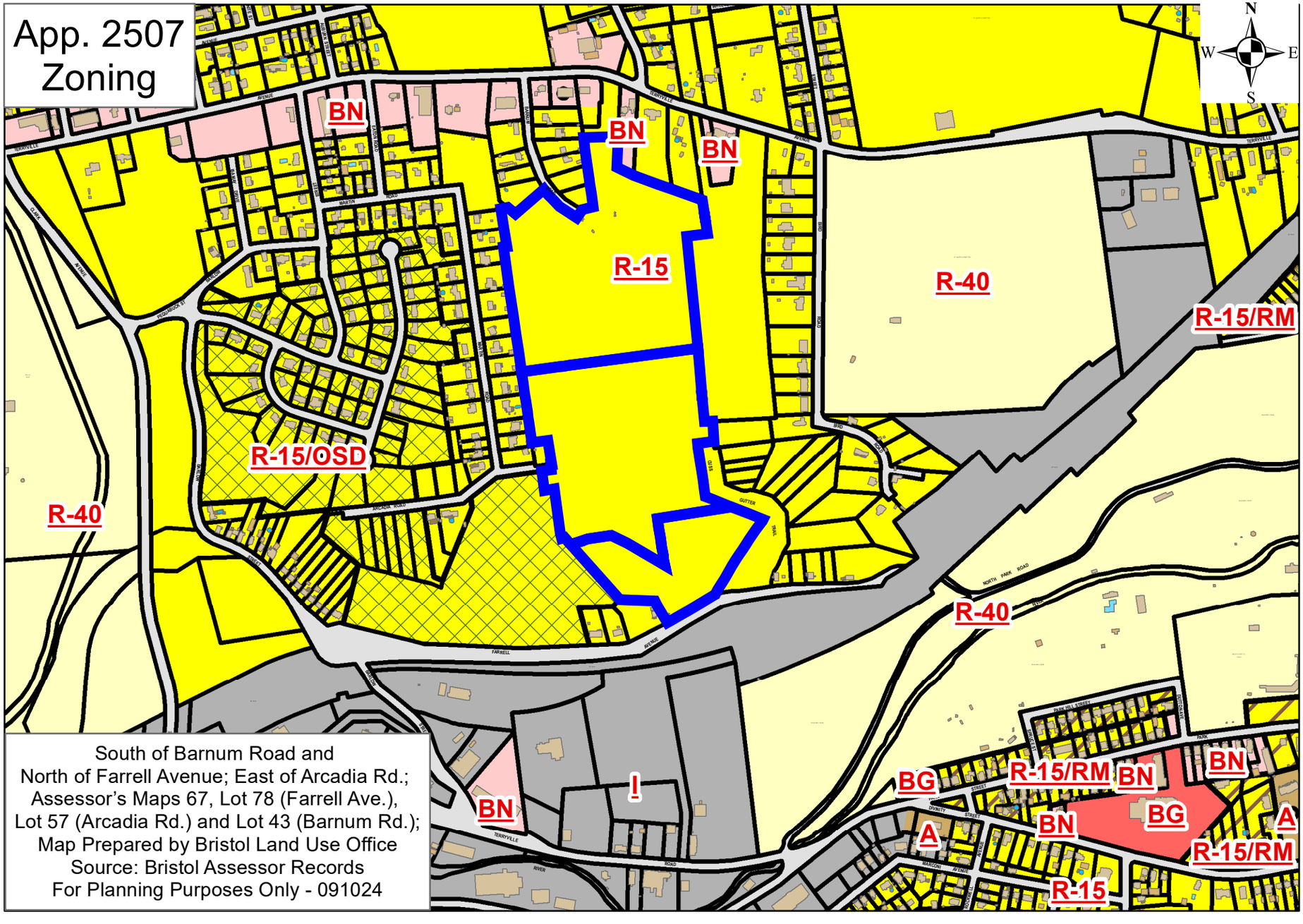
(OPTIONAL) SEND COPIES OF ALL CORRESPONDENCE TO:

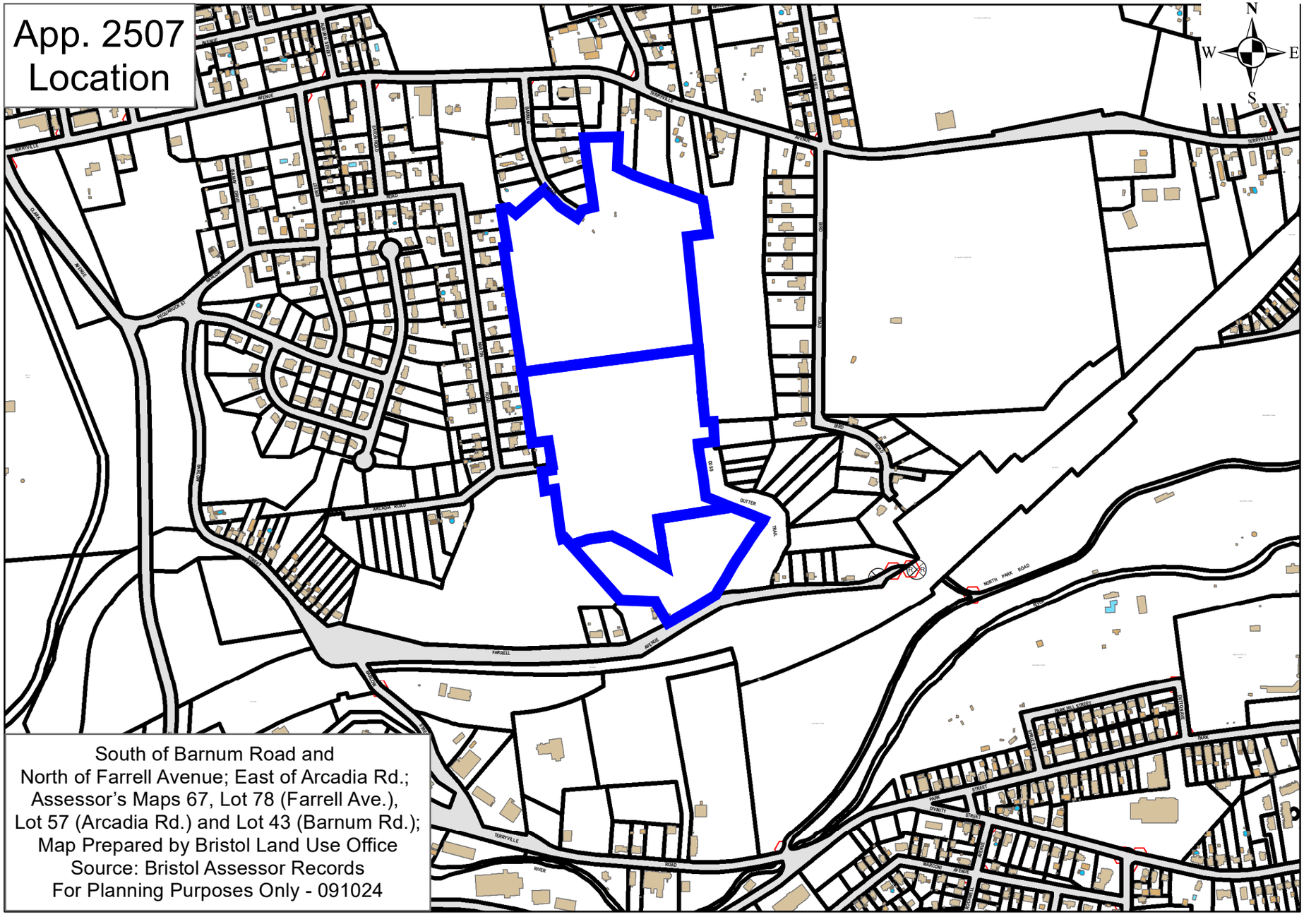
Name: Mark Ziogas

Address: 88 Valley St City: Bristol State: CT Zip: 06010

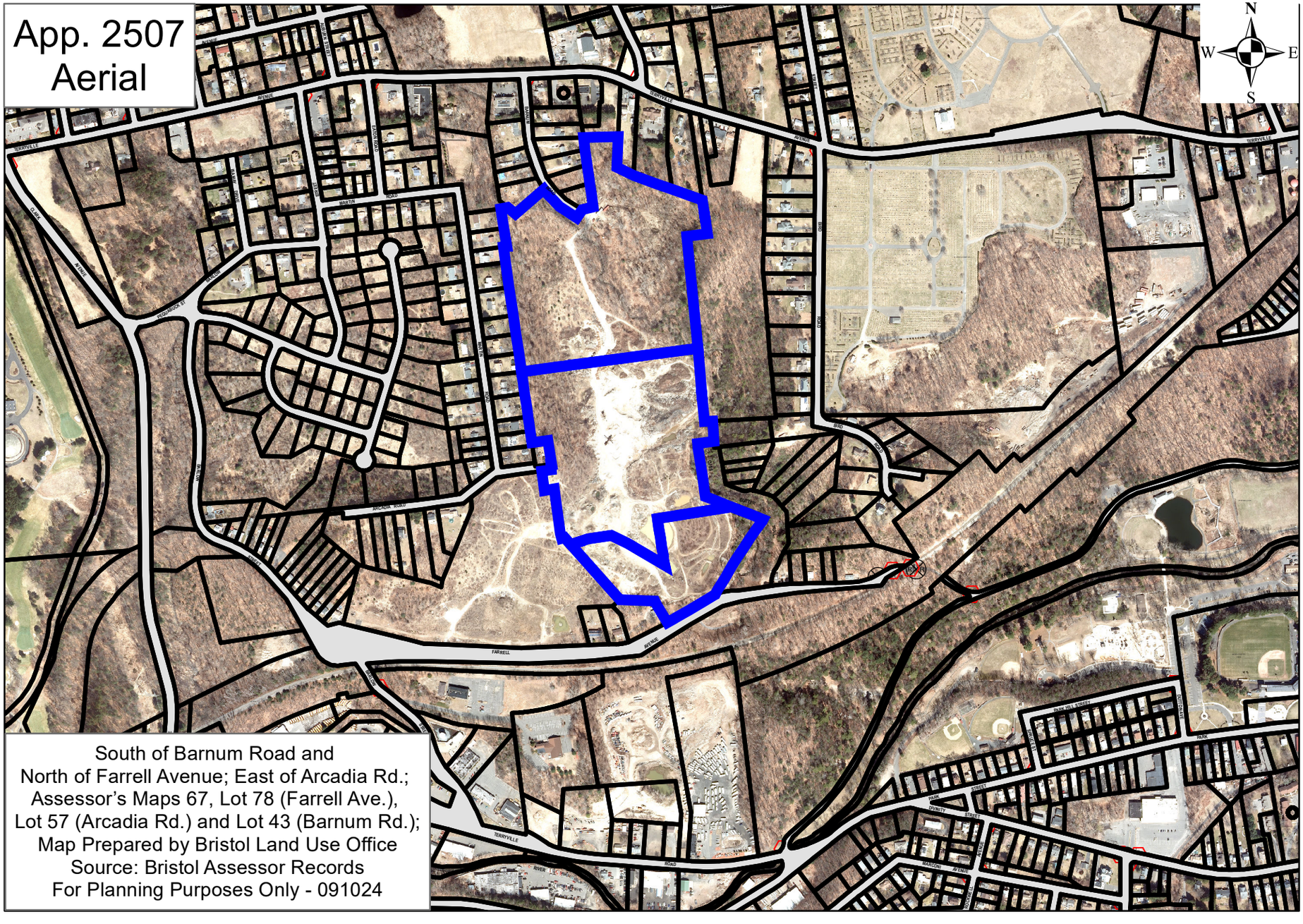
Telephone No.: 860-589-4121 E-Mail: mziogas@csmzllc.com

08/17 - LUO

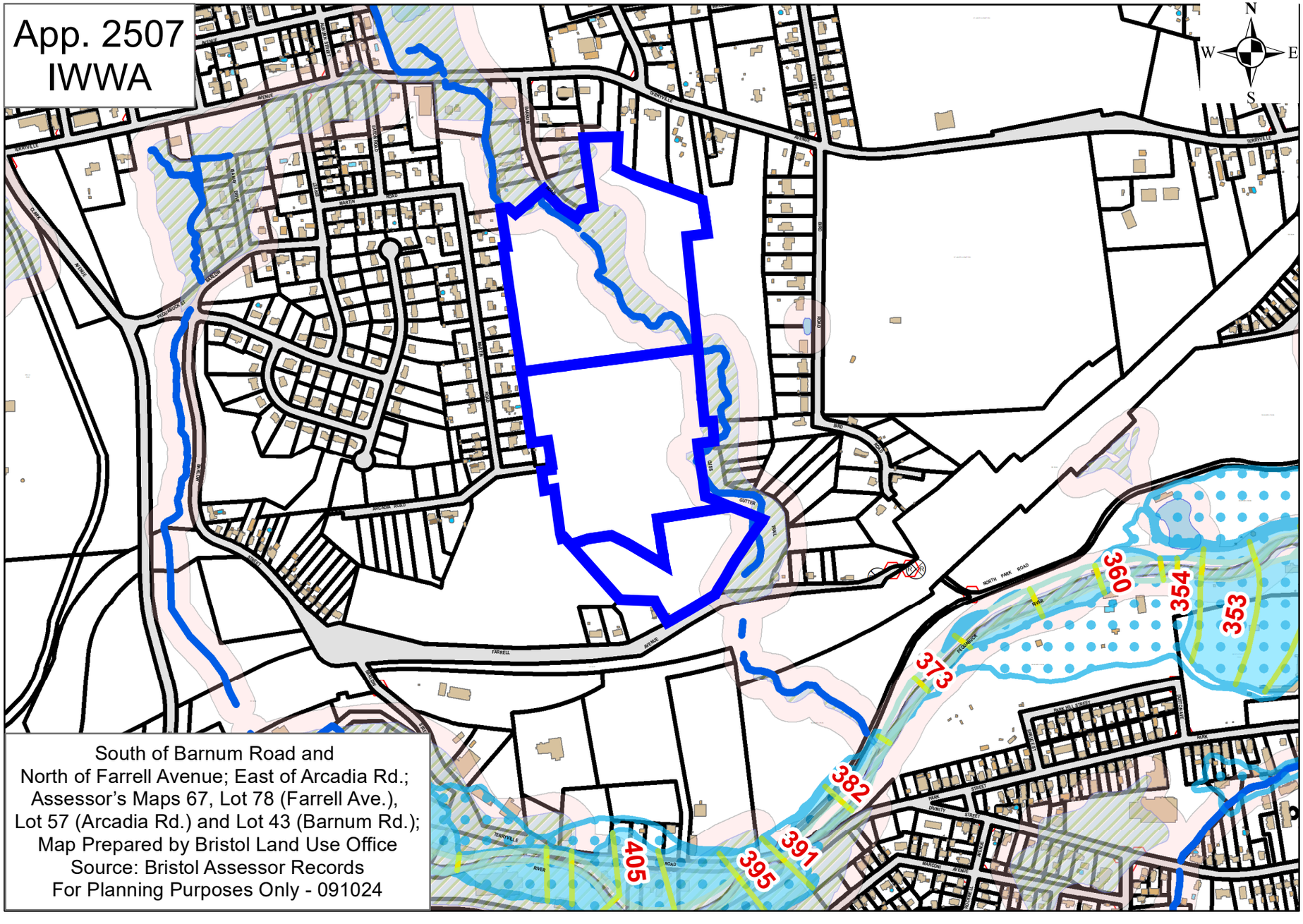

App. 2507
Zoning
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R-15/RM
R-15
South of Barnum Road and
North of Farrell Avenue; East of Arcadia Rd.;
Assessor's Maps 67, Lot 78 (Farrell Ave.),
Lot 57 (Arcadia Rd.) and Lot 43 (Barnum Rd.);
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 091024


App. 2507
Location
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South of Barnum Road and
North of Farrell Avenue; East of Arcadia Rd.;
Assessor's Maps 67, Lot 78 (Farrell Ave.),
Lot 57 (Arcadia Rd.) and Lot 43 (Barnum Rd.);
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 091024

App. 2507
Aerial



South of Barnum Road and
North of Farrell Avenue; East of Arcadia Rd.;
Assessor's Maps 67, Lot 78 (Farrell Ave.),
Lot 57 (Arcadia Rd.) and Lot 43 (Barnum Rd.);
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 091024


App. 2507
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South of Barnum Road and
North of Farrell Avenue; East of Arcadia Rd.;
Assessor's Maps 67, Lot 78 (Farrell Ave.),
Lot 57 (Arcadia Rd.) and Lot 43 (Barnum Rd.);
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 091024

Bond Info

From: Fitzgibbons, Sharon [mailto:Sharon.Fitzgibbons@phly.com]
Sent: Thursday, September 26, 2024 11:48 AM
To: Robert Flanagan <RobertFlanagan@bristolct.gov>
Subject: Willow Materials LLC Bond #PB11832700145 Eff: 1/11/2024-1/11/2025

Hi Robert:

Confirming that the above bond has been renewed and is in full force and effect.

Let me know if you have any questions.

Thank you,

Sharon

Sharon Fitzgibbons
Sr. Surety Underwriter Assistant – New England Region
Philadelphia Insurance Companies
A Member of the Tokio Marine Group

1 Lakeshore Center, Suite 300 I Bridgewater, MA 02324
O: 781-297-6559 | M: 781-534-8284 | sharon.fitzgibbons@phly.com
Hear what our agents are saying about their experience with The PHLY *Difference*
Watch our video series to learn more about PHLY's surety options

Previous Approvals

2022 Signed Earth Removal -- Approved on October 17, 2022:

Application #2445 - Special Permit for removal and processing of earth materials between south of Barnum Road and north of Farrell Avenue; Assessor's Maps 67, Lot 78 (Farrell Ave.), Lot 57 (Arcadia Road) and Lot 43 (Barnum Rd.); R-15 (Single-Family Residential) zone; Willow Materials, LLC, applicant:

Hyperlink:

https://www.bristolct.gov/DocumentCenter/View/47454/App-2445_2022Renewal_Barnum-Rd_Farrell-Ave-Earth-Removal---Approved-Plan-Set

****

2020 IWWA Application – Approved on February 5, 2020:

Application #1891 – Wetlands Application to clean up piles left by previous owner and clean out the detention ponds; Barnum Rd. and Farrell Ave., Lots 54, 56, 57, 58, 65, 67, 69, 72, 73, 74, 75, 76, 77 and 78; Assessor's Map 50, Lots 134; Willow Industries, applicant.

Hyperlink:

https://www.bristolct.gov/DocumentCenter/View/47455/IWWA_2020-Approval_App-1891_Combined

Site Plan Comments

CITY OF BRISTOL
SITE PLAN REVIEW COMMITTEE
STAFF COMMENTS - 2507

SITE PLAN: Special Permit for removal and processing of earth materials between south of Barnum Road and north of Farrell Avenue; Assessor's Maps 67, Lot 78 (Farrell Ave.), Lot 57 (Arcadia Road) and Lot 43 (Barnum Rd.); R-15 (Single-Family Residential) zone; Willow Materials, LLC, applicant.
Date of Committee Review: 10/7/24 (first review); 10/21/24 (second review)

ENGINEERING/PUBLIC WORKS (Anthony Lorenzetti):

1. Existing stipulations should remain in effect.

   10/10/24 Applicant Response: None.

   10/21/24 City Response:

2. The plans have a note shown as DC in a circle, what does this stand for?

   10/10/24 Applicant Response: That stands for "dust control".

   10/21/24 City Response:

3. The plans show Permanent Disturbance Markers (Typ.), what do these markers look like? Is there a typical detain for these?

   10/10/24 Applicant Response: There is not a typical detail for them.

   10/21/24 City Response:

4. Design criteria shown on sheet 20, SE4 that refers to the 2002 Connecticut Guidelines for Erosion and Sediment Control. The documents should reflect the updated Guidelines.

   10/10/24 Applicant Response: The erosion and sediment control guidelines are still using the 2002 guidelines.

   10/21/24 City Response:

BUILDING/ZONING ENFORCEMENT (Rick Brown/Ed Spyros):

1. No comments.

CITY PLANNER (Andrew Armstrong):

1. Provide report pursuant to Article III, Section 15.2.6(E) of the Zoning Regulations.

   10/10/24 Applicant Response: The report will be sent.

   10/21/24 City Response: Acknowledged. Comment remains.

2. List all renewal dates for this project including Inland Wetlands Commission approvals with each date clearly listed on the cover sheet.

   10/10/24 Applicant Response: Renewal dates have been added.

   10/21/24 City Response:

3. Provide locations and dimensions for all stockpile areas to nearest residences.

   10/10/24 Applicant Response: Dimensions have been added to the Aerial Map.

   10/21/24 City Response:

4. Provide buffer dimensions to nearest residences.

   10/10/24 Applicant Response: Dimensions have been added to the Aerial Map.

   10/21/24 City Response:

5. What is the condition of the construction entrance(s)?

   10/10/24 Applicant Response: The construction entrance is paved. For dust control water is applied and the roadway is swept on a daily or weekly basis.

   10/21/24 City Response:

6. Indicate what the green shaded areas of the plan represent?

   10/10/24 Applicant Response: This is the area that has been stabilized with seed.

   10/21/24 City Response:

7. The narrative on Page 20 states the remaining earth removal operation consists of 73,738 cubic yards of material. Other areas of the plan state earth removal quantities total 52,551.72 cubic yards. Please clarify.

   10/10/24 Applicant Response: 52,551.72 cubic yards, this had been corrected on Page 20.

   10/21/24 City Response:

8. How many truckloads are expected to complete the remaining earth removal operations for all remaining work?

   10/10/24 Applicant Response: The remaining truck loads to complete the removal are roughly 3,300 loads at 16 cubic yards each.

   10/21/24 City Response:

9. What route will trucks take entering and exiting the site for Phase 3 operations?

   10/10/24 Applicant Response: The trucks will continue to use Barnum Road entrance for Phase 3 operations.

   10/21/24 City Response:

10. Will this be the final extension needed?

    10/10/24 Applicant Response: No, at this rate we are going, we expect to be another 5 years to finish.

    10/21/24 City Response:

11. When is Phase 2 expected to be restored and stabilized?

    10/10/24 Applicant Response: Phase 2 will be restored and stabilized with Phase 3, the reason for this is that the berm separating our excavation area and Trademark contractors' area will be removed last when we are both done excavating the area.

    10/21/24 City Response:

12. Provide a legend for the cut and fill map on Page 23.

    10/10/24 Applicant Response: Legend has been added.

    10/21/24 City Response:

13. The limits of Phase 3 are shown on Page 2. Provide a clear boundary of the limits of Phase 3 work in subsequent plan sheets/details.

    10/10/24 Applicant Response: The phasing lines have been added to all plans.

    10/21/24 City Response:

14. How often is the silt fence near Farrell Avenue replaced?

    10/10/24 Applicant Response: There is no silt fence there, turf establishment has taken root and all sediments are diverted to the ponds which are cleaned regularly.

    10/21/24 City Response: Comment addressed.

15. Provide details of the restoration of Phase 1.

    10/10/24 Applicant Response: Phase 1 was done and completed before we took ownership of the property, the ground is all established on that area, but we have no details of this.

    10/21/24 City Response: Comment addressed.

16. Will there be any future blasting?

    10/10/24 Applicant Response: No.

    10/21/24 City Response: Comment addressed.

17. See Attachment #1, a recent aerial photo from 2024 indicating operations and materials storage in an area not indicated on the plans and shown as "restored". Please provide an explanation and clarification. What is the dimension from this work area to the existing residential homes?

    10/10/24 Applicant Response: This area was added to keep trucks from having to drive down into the excavation area and tracking up dirt. The dimensions have been put on the map sent. Also note that there is a 30 foot elevation difference between the material storage areas and the homes on Martin Road.

    10/21/24 City Response:

18. What will be the final state of "temporary" construction/earth removal site features shown on the plan (sedimentation basin, diversion swale, etc.)?

    10/10/24 Applicant Response: Once the earth removal has been completed the temp[orary swales and diversions will be removed and a housing development will be put on the property. A permanent drainage system will be designed and approved before this will happen.

    10/21/24 City Response:

19. A site restoration bond (Philadelphia Insurance Companies) was deposited with the City in amount of $180,000. Applicant should confirm that the bond was in fact renewed on January 11, 2024 and will automatically renew on January 11, 2025, and will continue to be in place for the three-year duration of this permit.

    10/10/24 Applicant Response: None.

    10/21/24 City Response:

20. The following stipulations below were part of the approval granted in October 2022
    1. The Earth Removal Site Plan shall not be signed off until all remaining staff comments have been addressed and the plan revised accordingly.
    2. The operation shall be conducted in accordance with the drawings entitled "Proposed Earth Removal Plan, Barnum Road & Farrell Avenue, Bristol, Connecticut", prepared by R.R. Hiltbrand Engineers & Surveyors, and consisting of the following sheets, all dated 7/23/22 and revised to 10/14/22:

        a. Cover Sheet: Dated 7/23/20 with a Revised Date of 10/14/22.
        b. Sheet P: Phase Map
        c. Sheet E1-E4: Existing Conditions Plan
        d. Sheet OG: Overall Grading Plan
        e. Sheets G1-G4: Proposed Grading Plan
        f. Sheet OS: Cross Section Plan View
        g. Sheets S1-S4: Cross Section Profiles
        h. Sheet SE1-SE4: Sediment and Erosion Details Sheet
        i. Sheet SE: Details Sheet
        j. Sheet SUB: Feasibility Study for Future Subdivision

    3. The current $180,000 performance bond shall continue to be in place for the two-year duration of this permit.
    4. The Special Permit shall be good for a period of two years from the date of issuance.
    5. There shall be no operation on Saturdays, Sundays or holidays.
    6. The crushing process, pursuant to Section IX.B.5.f., will be conducted on a twice annual basis and shall not exceed a duration of two weeks for each event. Advance notice of at least 7 business days shall be provided to the ZEO (Zoning Enforcement Officer) prior to crushing operations commencing. Once the crushing process begins, the ZEO shall confirm that the operations are being conducted in accordance with the approved plan.
    7. The hours of operation for Earth Removal shall be Monday through Friday, 7:30 AM to 4:00 PM. Maintenance can begin at 7:00 AM, but no on-site excavation or removal can occur until 7:30 AM. Crushing operations (within the twice annual two week windows) cannot commence until 8:00 AM to 4:00 PM.
    8. The sifter and crusher shall not be used simultaneously on the property.
    9. Measures to control dust from the operation shall be applied as needed.
    10. The applicant shall sweep and remove the sand from Barnum Road along the frontage of the property at least once a week.

11. No material shall be stockpiled on the property within 400 feet of any residence.
12. No material shall be brought onto the property for processing.
13. Regular inspections of the excavation sequence used by the applicant shall be conducted by the Zoning Enforcement Officer.
14. The 3-to-1 slope requirement shall be waived along portions of the perimeter of the property in accordance with Section IX.B.5.c. of the Zoning Regulations and a 2-to-1 slope permitted in its place, inasmuch as the steeper slope has previously been permitted and already exists.
15. The required 100-foot buffer shall be reduced as per the approved map in accordance with Section IX.B.5.b.(3) of the Zoning Regulations, inasmuch as the lesser buffer is warranted in order to match proposed contours to the existing contours of the adjoining land.

10/10/24 Applicant Response: In response to Item #6, there is a permanent Variance allowing crushing on this premises during business hours. We do not agree with this stipulation.

10/21/24 City Response:

POLICE DEPARTMENT (Lt. Krajewski/Sgt. Ouellette):
1. No comment.

FIRE MARSHAL (Kris Lambert):
1. No comments.

WATER DEPARTMENT (Paul Keegan)
1. No water service in the area.

Google Earth


66'-7 3/4"
43'-9"
42'-10 1/2"
256'-9 1/2"
95'-5 1/2"
212'-11"
39'-7 1/2"
86'-6"
Vertical
Mon Apr 22 2024


Vertical
Mon Apr 22 2024


Vertical
Mon Apr 22 2024

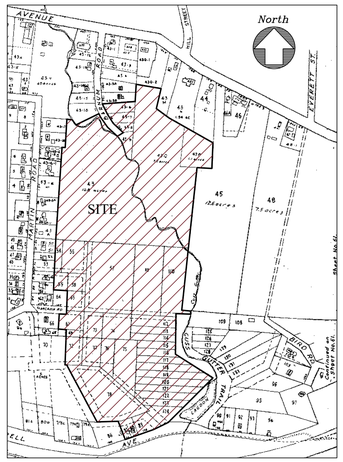

66'-7 3/4"
43'-9"
42'-10 1/2"
256'-9 1/2"
95'-5 1/2"
212'-11"
39'-7 1/2"
86'-6"
Vertical
Mon Apr 22 2024




Pond At


Layers
2D

Narrative



SITE LOCATION PLAN
SCALE: 1"=500'±

PROPOSED EARTH REMOVAL PLAN

Barnum Road & Farrell Avenue
Bristol, Connecticut
Mav 20. 2020
(Updated August 15, 2024)

North



REVISIONS:

07-23-20; Revised as per Staff Comments Dated July 9, 2020
03-04-21; Revised to show Lot Merger
9-15-2022; Updated Topography for Permit Renewal
8-15-2024; Updated Topography for Permit Renewal

APPROVALS:

The IWWA approval was granted February 5, 2020
Special Permit Application #2374 - Removal and Processing of Earth Materials
Approved: 10/17/2022

PREPARED FOR: *WILLOW MATERIALS LLC*
107 North Riverside Avenue
Terryville, Connecticut
06786

ENGINEER: *R. R. Hiltbrand Engineers & Surveyors*
575 North Main Street
Bristol, Connecticut
06010
Phone: (860) 582-4548

ROBERT R. HILTBRAND – P.E. # 17025

DATE:	REVISION
7-23-20	COB STAFF COMMENTS DATED JULY 9, 2020
10-14-22	Update Topography for Permit Renewal

North

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

GRAPHIC SCALE
80 40 0 80 160
1 Inch = 80 Feet

OWNER/APPLICANT:
WILLOW MATERIALS LLC
100 NORTHFIELD STREET
TERRYVILLE, CT 06786

OVERALL PHASE MAP

EARTH REMOVAL PLAN
BARNUM ROAD, FARRELL AVENUE

DATE: MAY 20, 2020
SCALE: As Noted
DRAWN BY: SMP
CHECKED BY: RRH
SHEET NO.: P
PHASE MAP

MAP NOTES:

1. Total Lot Area = 46.65 Acres
2. Area of Wetlands = 1.25 Acres Total
3. Area of Active Earth Removal = 11.79 Acres
   Area of Active Restoration = 3.62 Acres
4. Horizontal Datum - Connecticut Grid System
5. Vertical Datum - NAVD88

MAP REFERENCE:

1. Proposed Grading Plan
   For Earth Removal
   Land of Jay Dee Realty
   Bristol, Connecticut
   Scale: 1" = 40' Date: November 11, 1996
   Prepared By: Roderick D. Hewitt

SEE SHEET E2

N/F
DEMARK
TIONS, LLC
3 - P:739

N 07°30'01" W 232.34'

N 07°30'03" W 25.55'

S 73°13'15" W 9.74'

Phase III
Area of Earth
Removal Operation

Phase II
Area Being
Restored

Phase 1
Restored
(Complete)

EXISTING CONCRETE BLOCKS

RIP-RAP/STONE BERM
TOP = 502.00 (SEE DETAIL)

TSB "A"

15" CPP PERF. RISER
TOP 498.56
FL 496.14

40' - 15" CPP
@ 2.3%

15" CPP
FLARED END
FL 495.24

TSB "C"

10' WIDE EARTH BERM WITH EROSION CONTROL GRASS COVER

ROUGH BOTTOM
TO PROMOTE INFILTRATION

EXISTING
CPP FLARED END
FL 494.13

EXISTING
40' - 15" CPP
@ 2.0%

TSB "B"

EXISTING
15" CPP
PERF. RISER
TOP 498.41
FL 494.94

100' UPLAND
REVIEW AREA

GRASS ACCESS ROAD TO REMAIN

344.73'
S 70°22'43" E

536.00'
S 38°13'15" W

EXISTING RIP-RAP
EMERGENCY SPILLWAY
INTERMEDIATE GRADE
ELEV. 501.50

EXISTING DETENTION BASIN
FOR FUTURE RESIDENTIAL SUBDIVISION
TO BE TEMPORARY INFILTRATION BASIN
FOR EARTH REMOVAL OPERATION
(APPROVED BY CITY OF BRISTOL WETLANDS)

COARSE SEDIMENT
POOL

EXISTING
STONE CHECK DAM
TOP ELEV. 491.00
(SEE DETAIL)

CUSS GUTTER TRAIL
NOT A PUBLIC R.O.W.

N/F
TRADEMARK
ACQUISITIONS, LLC
V:2043 - P:739

S 73°13'15" W 135.52'

N 37°46'36" W 135.52'

S 58°13'15" W

LOT 79A
N/F
WILCOX, DAN
V:1922 - P:915
#135 FARRELL AVE.

LOT 86
N/F |
PAGE, KYLE L.
V:2124 - P:609
#169 FARRELL AVENUE

FARRELL AVENUE

EXISTING MULTI-STAGE
OUTLET STRUCTURE
TF - 493.52
FL - 484.42 (24" RCP)
FL - 491.52 (8" PVC PORT)
FL - 491.02 (8" PVC PORT)

EXISTING
125 - 24" RCP
@ 6.7%

EXISTING 60" ø
STORM MANHOLE
TF - 481.10
FL - 475.00 (24" RCP)
FL - 471.50 (24" RCP)

EXISTING
16' - 24" RCP
WITH FLARED END
@ 2.5%
FL - 471.10

EXISTING ¾" CRUSHED STONE
FILTER 2FT HIGH AROUND
OUTLET STRUCTURE

EXISTING
BITUMINOUS
DRIVEWAY

DATE:	REVISION
7-23-20	COB STAFF COMMENTS DATED JULY 9, 2020
10-14-22	Update Topography for Permit Renewal

North

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

GRAPHIC SCALE
40 0 20 40 80
1 Inch = 40 Feet

R. R. HILTBRAND Engineers and Land Surveyors

OWNER/APPLICANT:
WILLOW MATERIALS LLC
1100 WEST MAIN AVE.
TERRYVILLE, CT 06786

EXISTING CONDITIONS PLAN

EARTH REMOVAL PLAN

BARNUM ROAD, FARRELL AVENUE

DATE: MAY 20, 2020

SCALE: As Noted

DRAWN BY: SMP

CHECKED BY: RRH

SHEET NO.: E1

SEE SHEET E3

LOT 50-1
(ORS LOTS 50 & 51)
N/F
VIN, CYNTHIA L.
1301 - P:173
MARTIN ROAD

LOT 53-2
(SSORS LOTS 52 & 53)
N/F
RON, MICHAEL G. &
SUE ELLEN A.
V:1532 - P:156
85 MARTIN ROAD

LOT 60
N/F
DEKOW, ROCHELLE B.
V:1613 - P:571
#195 MARTIN ROAD

LOT 61
N/F BROCHU
ROLAND P. & KAREN C.
V:680 - P:784
#201 MARTIN ROAD

LOT 62
N/F PAGE
DAVID L. & NELLIE VON S.
V:644 - P:152
#205 MARTIN ROAD

LOT 64
N/F
PAGE, DAVID L.
& NELLIE VON S.
V:955 - P:946

ARCADIA ROAD

N/F
TRADEMARK
ACQUISITIONS, LLC
V:2043 - P:739

LOT 109
N/F
WYREBEK, SETH
V:1664 - P:961
#140 BIRD ROAD

CUSS GUTTER TRAIL
NOT A PUBLIC R.O.W.

Phase III
Area of Earth
Removal Operation

Phase 1
Restored
(Complete)

SEE SHEET E1

DATE:	REVISION
7-23-20	COB STAFF COMMENTS DATED JULY 9, 2020
10-14-22	Update Topography for Permit Renewal.

North

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

GRAPHIC SCALE
40 20 0 40 80
1 Inch = 40 Feet

OWNER/APPLICANT:
WILLOW MATERIALS LLC
107 NORTH RIVERSIDE AVE.
TERRYVILLE, CT 06786

EXISTING CONDITIONS PLAN

EARTH REMOVAL PLAN
BARNUM ROAD, FARRELL AVENUE

DATE: MAY 20, 2020
SCALE: As Noted
DRAWN BY: SMP
CHECKED BY: RRH
SHEET NO.: E2

SEE SHEET E4

LOT 43-17
N/F
FEDERAL NATIONAL
MORTGAGE ASSOCIATION
V:2109 - P:143
#81 MARTIN ROAD

LOT 43-18
N/F
SCHIAVONE, ANTHONY J.
V:722 - P:155
#91 MARTIN ROAD

LOT 43-6-2
N/F
MATTIOLO, ANTHONY M.
& MICHAEL J.
V:2014 - P:908
#103 MARTIN ROAD

LOT 43-6-1
N/F
JOHNSON, DUSTIN J. &
PRELI, BETHANY R.
V:2029 - P:199
#121 MARTIN ROAD

LOT 43-6
N/F
PERREAULT, GILLES
V:1998 - P:95
#127 MARTIN ROAD

LOT 43-6A
N/F
AMATO, LISA B.
V:1992 - P:588
#147 MARTIN ROAD

LOT 43-6A-1
N/F
AYOTTA, LISA ANN
V:2120 - P:737
#157 MARTIN ROAD

LOT 43R
N/F
LEVASSEUR, PETER J.
V:1707 - P:1266
#165 MARTIN ROAD

LOT 43-9

LOT 43P

LOT 43Q

LOT 43

LOT 45
N/F
MINOR, GEORGE L.
V:1194 - P:252

LOT 45
N/F
MINOR, GEORGE L.
V:1194 - P:252

Area Restored

Phase III
Area of Earth
Removal Operation

ROCKS

SEE SHEET E2

DATE:	REVISION
7-23-20	COB STAFF COMMENTS DATED JULY 9, 2020
10-14-22	Update Topography for Permit Renewal

North

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

GRAPHIC SCALE
40 20 0 40 80
1 Inch = 40 Feet

OWNER/APPLICANT:
WILLOW MATERIALS LLC
107 NORTH RIVERSIDE AVE.
TERRYVILLE, CT 06786

EXISTING CONDITIONS PLAN

EARTH REMOVAL PLAN
BARNUM ROAD, FARRELL AVENUE

DATE: MAY 20, 2020
SCALE: As Noted
DRAWN BY: SMP
CHECKED BY: RRH
SHEET NO.: E3

DATE:	REVISION
7-23-20	COB STAFF COMMENTS DATED JULY 9, 2020
10-14-22	Update Topography for Permit Renewal

North

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

GRAPHIC SCALE
40 20 0 40 80
1 Inch = 40 Feet

OWNER/APPLICANT:
WILLOW MATERIALS LLC
1001 TERRYVILLE AVE.
TERRYVILLE, CT 06786

EARTH REMOVAL PLAN
BARNUM ROAD, FARRELL AVENUE

EXISTING CONDITIONS PLAN

DATE: MAY 20, 2020
SCALE: As Noted
DRAWN BY: SMP
CHECKED BY: RRH
SHEET NO.: E4

BARNUM ROAD
MARTIN ROAD
TERRYVILLE AVENUE
PARKING
POOL
FB
CB
LOT 43-4 N/F ROBILLARD, JEFFREY M. V:2087 - P:169 #29 BARNUM ROAD
LOT 43Q-2 N/F MALJEVIC, JORDJE D. & PAULINE V:1459 - P:753
N88°07'18"E 435.33'
LOT 43-5A N/F ROY, LISA A. V:1696 - P:282 #37 BARNUM ROAD
LOT 43-5B N/F MIRON, COREY M. & PABST, AMANDA R. V:1971 - P:607 #47 BARNUM ROAD
N 16°08'10" W 179.11'
LOT 43-6 N/F JAY-DEE REALTY & DEV CO V:2126 - P:1168
N 36°39'00" W 75.00'
LOT 43M N/F MALJEVIC, JORDJE D. & PAULINE V:956 - P:10 #627 TERRYVILLE AVENUE
S 02°25'19" W 141.89'
S63°08'14"E 90.00'
LOT 43N N/F JACK AND MICHAEL'S, LLC V:1339 - P:939 #621 TERRYVILLE AVENUE
S71°30'21"E 142.10'
S71°28'33"E 75.00'
LOT 44 N/F GIGUERE, DAVID V:886 - P:217 #595 TERRYVILLE AVE.
S71°30'34"E 154.18'
S25°54'49"E 176.12'
99.50' S 80°53'26" W
LOT 43-16 N/F KELLY, SCOTT P. V:1791 - P:1172
LOT 43-8 N/F JAY-DEE REALTY & DEV CO V:2126 - P:1168
S36°19'38"E 29.07'
S43°44'13"E 82.75'
N 43°47'14" W 74.64'
N 55°32'00" W 100.00'
S55°19'17"E 92.11'
N48°59'00"E 52.00'
LOT 43T-1 N/F DAAR UL EHSAAN USA INC. V:1626 - P:248
N82°04'38"E 25.00'
S69°21'44"E 35.58'
N63°01'46"E 192.98'
LOT 43-17 N/F FERDERAL NATIONAL MORTGAGE ASSOCIATION V:2109 - P:143 #81 MARTIN ROAD
N 07°56'30" W 200.38'
LOT 43-18 N/F SCHIAVONE, ANTHONY J. V:722 - P:155 #91 MARTIN ROAD
N82°02'32"E 29.98'
LOT 43-6-2 N/F MATTIOLO, ANTHONY M. & MICHAEL J. V:2014 - P:908 #103 MARTIN ROAD
LOT 43-6-1 N/F
Area Restored
SEE SHEET E3

Site Stormwater Quality and Erosion Control Design Notes

The system consists of two temporary sediment basins and a detention basin that was designed to be in place for a future R-15 Residential development. The basin is to be utilized as a storm water quality basin to infiltrate any flows exiting the Temporary Sediment Basins (A, B & C) with the goal of no outflows to the Cuss Gutter Brook. Monitoring since 2012± indicates no overflows from the detention basin to date. The stormwater quality basin has a storage volume of 2.9 Ac. Ft.

Temporary Sediment Basin "C" was not part of the original design and was constructed to help mitigate the effects of sedimentation from a large screened sand stockpile that was located west of TSB "C". That stockpile has since been removed, but TSB "C" has remained in place.

The following tables depict design parameters for the storm water quality system based on various site conditions. This can be found in the Drainage Report by R.R. Hiltbrand Engineers & Surveyors dated March 10, 2009, as submitted for a Wetlands Permit Application.

Proposed Storm Water Quality Basin - Active Earth Removal Operation

Storm	Routed Outflow	Inflow	Peak Flow Diff.	Water Surface Elevation
(yr.)	(CFS)	(CFS)	(CFS)	(FT)
2	2.62	11.25	-8.63	491.80
5	6.32	23.01	-16.69	493.31
10	14.16	32.01	-17.85	493.93
25	27.10	44.99	-17.89	494.35
50	32.78	57.04	-24.26	494.76
100	37.17	69.78	-32.61	495.19

Proposed Storm Water Quality Basin – Earth Removal Complete Everything Stabilized

Storm	Routed Outflow	Inflow	Peak Flow Diff.	Water Surface Elevation
(yr.)	(CFS)	(CFS)	(CFS)	(FT)
2	0.00*	0.00	0.00	489.00
5	0.00*	0.11	-0.11	489.00
10	0.00*	0.40	-0.40	489.00
25	0.00*	1.19	-1.19	489.00
50	0.00*	3.43	-3.43	489.78
100	0.51	6.89	-6.38	491.14

*No Outflow through the outlet structure due to infiltration in basin bottom.

Proposed Storm Water Quality Basin – Future R-15 Subdivision Feasibility

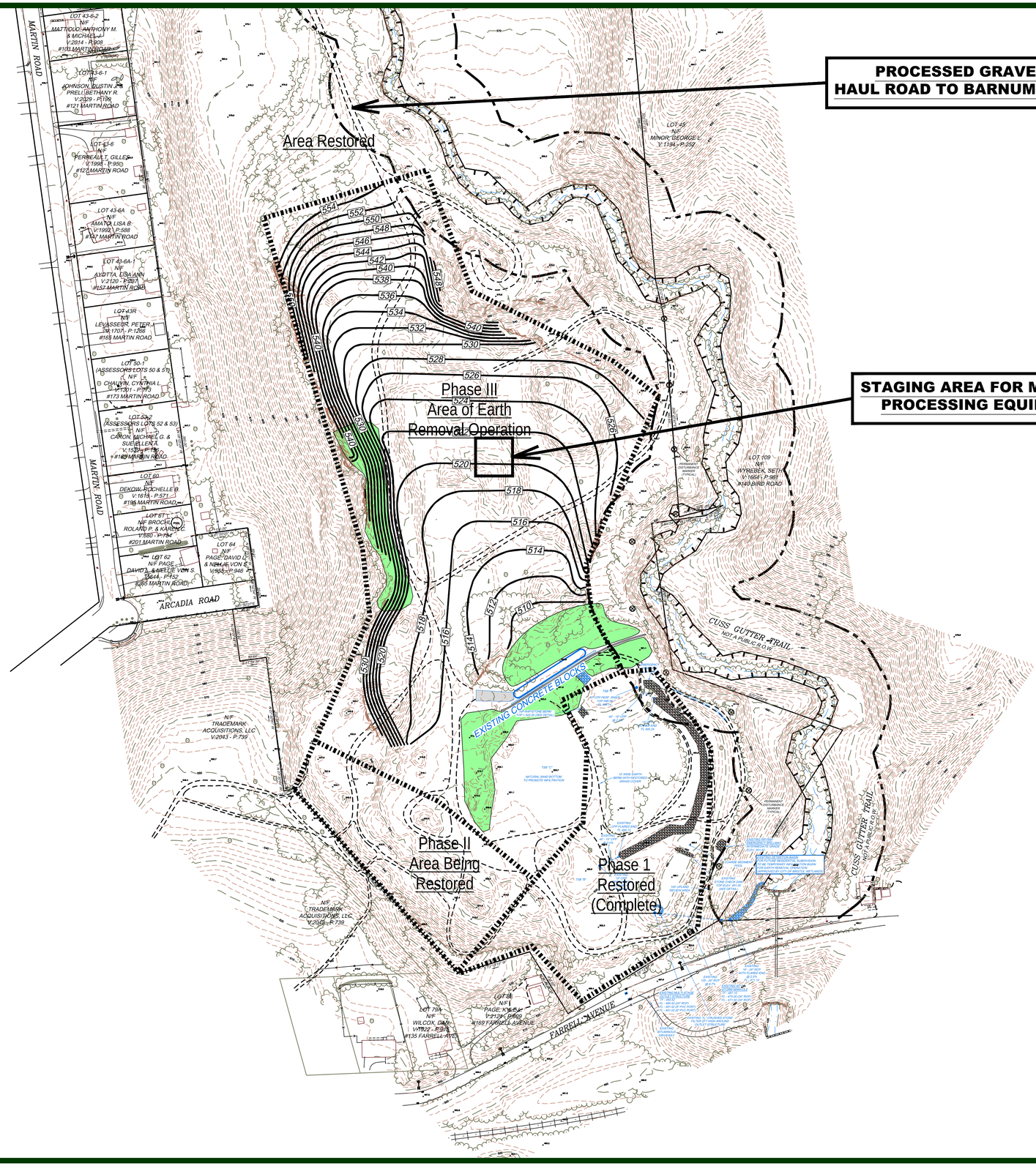
Storm	Routed Outflow	Inflow	Peak Flow Diff.	Water Surface Elevation
(yr.)	(CFS)	(CFS)	(CFS)	(FT)
2	0.00*	0.90	-0.90	489.00
5	0.00*	5.16	-5.16	490.44
10	1.84	9.76	-7.92	491.61
25	5.04	17.73	-12.69	492.72
50	7.77	25.88	-18.11	493.62
100	17.28	35.20	-17.92	494.04

*No Outflow through the outlet structure due to infiltration in basin bottom.

TSB "A"
Drainage Area = 12.7 Acres
Dry Volume Sediment Storage Required = 0.06 Ac. Ft.
Wet Volume Storage Required = 0.12 Ac. Ft.
Total Basin Storage Provided = 0.25 Ac. Ft.

TSB "B"
Drainage Area = 17.6 Acres
Dry Volume Sediment Storage Required = 0.08 Ac. Ft.
Wet Volume Storage Required = 0.16 Ac. Ft.
Total Basin Storage Provided = 0.25 Ac. Ft.

TSB "C"
No Design Requirement
Temporary implementation to handle sediment from a stockpile that no longer exists.
Estimated Volume Provided = 0.75 Ac. Ft.


PROCESSED GRAVEL HAUL ROAD TO BARNUM ROAD
STAGING AREA FOR MATERIAL PROCESSING EQUIPMENT
Area Restored
Phase III Area of Earth Removal Operation
Phase II Area Being Restored
Phase 1 Restored (Complete)
MARTIN ROAD
ARCADIA ROAD
FARRELL AVENUE
CUSS GUTTER TRAIL
NOT A PUBLIC R.O.W.
EXISTING CONCRETE BLOCKS
LOT 43-6-2 N/F MATTIOLO, ANTHONY M. & MICHELE V.2014 - P.908 #103 MARTIN ROAD
LOT 43-6-1 N/F JOHNSON, JUSTIN PRELI, BETHANY R. V.2029 - P.196 #121 MARTIN ROAD
LOT 43-6 N/F PERREAULT, GILLES V.1998 - P.950 #127 MARTIN ROAD
LOT 43-6A N/F AMATO, LISA B. V.1992 - P.568 #147 MARTIN ROAD
LOT 43-6A-1 N/F AYOTTA, LISA ANN V.2120 - P.1071 #157 MARTIN ROAD
LOT 43R N/F LEVASSEUR, PETER J. V.1707 - P.1256 #165 MARTIN ROAD
LOT 50-1 ASSESSORS LOTS 50 & 51 N/F CHAUVIN, CYNTHIA L. V.1301 - P.193 #173 MARTIN ROAD
LOT 52-2 ASSESSORS LOTS 52 & 53 N/F CARON, MICHAEL G. & SUE ELLEN A. V.1532 - P.196 #187 MARTIN ROAD
LOT 60 N/F DEKOW, ROCHELLE B. V.1618 - P.571 #195 MARTIN ROAD
LOT 61 N/F BROCHU, ROLAND P. & KAREN C. V.880 - P.744 #201 MARTIN ROAD
LOT 62 N/F PAGE, DAVID L. & NEALIE VON S. V.644 - P.452 #283 MARTIN ROAD
LOT 64 N/F PAGE, DAVID L. & NEALIE VON S. V.955 - P.946
LOT 45 N/F MINOR, GEORGE V. V.1194 - P.252
LOT 109 N/F WYREBEK, SETH V.1664 - P.969 #340 BIRD ROAD
LOT 78 N/F TRADEMARK ACQUISITIONS, LLC V.2043 - P.739
LOT 78A N/F WILCOX, DAN V.1922 - P.91 #135 FARRELL AVE.
LOT 78 N/F PAGE, KYLE C. V.2139 - P.802 #169 FARRELL AVENUE
NIF TRADEMARK ACQUISITIONS, LLC V.2043 - P.739
NATURAL SAND BOTTOM TO PROMOTE INFILTRATION
PERMANENT DISTURBANCE BOUNDARY (TYPICAL)
EXISTING STONE CHECK DAM TO BE REMOVED
EXISTING STONE CHECK DAM TO REMAIN
EXISTING RIP-RAP OUTLET PROTECTION TO REMAIN
EXISTING 12" HDPE OUTLET PIPE TO REMAIN
EXISTING 12" HDPE OUTLET PIPE TO BE REMOVED
EXISTING 18" HDPE OUTLET PIPE TO REMAIN
EXISTING 18" HDPE OUTLET PIPE TO BE REMOVED
EXISTING 24" HDPE OUTLET PIPE TO REMAIN
EXISTING 24" HDPE OUTLET PIPE TO BE REMOVED
EXISTING 30" HDPE OUTLET PIPE TO REMAIN
EXISTING 30" HDPE OUTLET PIPE TO BE REMOVED
EXISTING 36" HDPE OUTLET PIPE TO REMAIN
EXISTING 36" HDPE OUTLET PIPE TO BE REMOVED
EXISTING RIP-RAP OUTLET PROTECTION TO BE REMOVED

SEE SHEET G2

Phase III
Area of Earth
Removal Operation

Phase II
Area Being
Restored

Phase 1
Restored
(Complete)

EXISTING CONCRETE BLOCKS

RIP-RAP/STONE BERM
TOP = 502.00 (SEE DETAIL)

TSB "A"
15" CPP PERF. RISER
TOP 498.56
FL 496.14

40' - 15" CPP
@ 2.3%

15" CPP
FLARED END
FL 495.24

TSB "C"

NATURAL SAND BOTTOM
TO PROMOTE INFILTRATION

10' WIDE EARTH
BERM WITH RESTORED
GRASS COVER

EXISTING
CPP FLARED END
FL 494.13

EXISTING
40' - 15" CPP
@ 2.0%

TSB "B"

EXISTING
15" CPP
PERF. RISER
TOP 498.41
FL 494.94

100' UPLAND
REVIEW AREA

GRAVEL ACCESS ROAD

TO PERMIT

344.73'
S70°22'43"E

PERMANENT
DISTURBANCE
MARKER
(TYPICAL)

536.00'
S 38°13'15" W

EXISTING RIP-RAP
EMERGENCY SPILLWAY
INTERMEDIATE GRADE
ELEV. 501.50

COARSE SEDIMENT
POOL

EXISTING DETENTION BASIN
FOR FUTURE RESIDENTIAL SUBDIVISION
TO BE TEMPORARY INFILTRATION BASIN
FOR EARTH REMOVAL OPERATION
(APPROVED BY CITY OF BRISTOL WETLANDS)

EXISTING STONE CHECK DAM
TOP ELEV. 491.00
(SEE DETAIL)

CUSS GUTTER TRAIL
NOT A PUBLIC R.O.W.

N/F
TRADEMARK
ACQUISITIONS, LLC
V:2043 - P:739

N 07°29'01" W
232.34'

N 07°29'03" W
25.24'

S 74°34'32" E
38.5'

142.27'
S 73°13'15" W

N 37°46'45" W
139.82'

S 55°13'15" W

LOT 79A
N/F
WILCOX, DAN
V:1922 - P:915
#135 FARRELL AVE.

LOT 86
N/F |
PAGE, KYLE L.
V:2124 - P:609
#169 FARRELL AVENUE

FARRELL AVENUE

EXISTING MULTI-STAGE
OUTLET STRUCTURE
TF - 493.52
FL - 484.42 (24" RCP)
FL - 491.52 (8" PVC PORT)
FL - 491.02 (8" PVC PORT)

EXISTING
125 - 24" RCP
@ 6.7%

EXISTING 60" CMP
STORM MANHOLE
TF - 481.10
FL - 475.00 (24" RCP)
FL - 471.50 (24" RCP)

EXISTING
16" - 24" RCP
WITH FLARED END
@ 2.5%
FL - 471.10

EXISTING ¾" CRUSHED STONE
FILTER 2FT HIGH AROUND
OUTLET STRUCTURE

EXISTING
BITUMINOUS
DRIVEWAY

EARTH REMOVAL QUANTITIES

EARTH CUTS = 55,101.72 C.Y.
EARTH FILLS = 2,550 C.Y.
TOTAL EARTH REMOVAL = 52,551.72 C.Y.
Earth Removed Since 2020 = 47,448.28 C.Y.

AREA OF ACTIVE EARTH REMOVAL = 11.79 ACRES

DATE:	REVISION
7-23-20	COB STAFF COMMENTS DATED JULY 9, 2020
10-14-22	Update Topography for Permit Renewal

North

GRAPHIC SCALE
1 Inch = 40 Feet
40 0 20 40 80

R. R. HILTBRAND ENGINEERS and SURVEYORS
576 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

R. R. HILTBRAND
Engineers
and
Surveyors
Bristol, Conn.

OWNER/APPLICANT:
WILLOW MATERIALS, LLC
WILLOW RIDGE ESTATE AVE.
TERRYVILLE, CT 06786

PROPOSED GRADING PLAN

EARTH REMOVAL PLAN

BARNUM ROAD, FARRELL AVENUE

DATE: MAY 20, 2020
SCALE: As Noted
DRAWN BY: SMP
CHECKED BY: RRH
SHEET NO.: G1

EARTH REMOVAL QUANTITIES

EARTH CUTS = 55,101.72 C.Y.
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Earth Removed Since 2020 = 47,448.28 C.Y.

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DATE:	REVISION
7-23-20	COB STAFF COMMENTS DATED JULY 9, 2020
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SEE SHEET G3

SEE SHEET G1

Phase III
Area of Earth
Removal Operation

Phase 1
Restored
(Complete)

LOT 109
N/F
WYREBEK, SETH
V:1664 - P:961
#140 BIRD ROAD

LOT 50-1
ORS LOTS 50 & 51)
N/F
VIN, CYNTHIA L.
1301 - P:173
MARTIN ROAD

LOT 53-2
SSORS LOTS 52 & 53)
N/F
RON, MICHAEL G. &
SUE ELLEN A.
V:1532 - P:156
85 MARTIN ROAD

LOT 60
N/F
DEKOW, ROCHELLE B.
V:1613 - P:571
#195 MARTIN ROAD

LOT 61
N/F BROCHU
ROLAND P. & KAREN C.
V:680 - P:784
#201 MARTIN ROAD

LOT 62
N/F PAGE
DAVID L. & NELLIE VON S.
V:644 - P:152
#205 MARTIN ROAD

LOT 64
N/F
PAGE, DAVID L.
& NELLIE VON S.
V:955 - P:946

N/F
TRADEMARK
ACQUISITIONS, LLC
V:2043 - P:739

ARCADIA ROAD

CUSS GUTTER TRAIL
NOT A PUBLIC R.O.W.

PERMANENT DISTURBANCE MARKER (TYPICAL)

EXISTING CONCRETE BLOCKS

RIP-RAP/STONE BERM
TOP = 502.00 (SEE DETAIL)

EMERGENCY SPILLWAY
ELEV. = 510.00

TSB "A"

15" CPP PERF. RISER
TOP 498.56
FL 496.14

15" CPP
FLARED END
FL 495.24

EXISTING ROAD TO REMAIN

S 12°48'15" E 380.65'
S04°20'47"E 380.65'
N 08°02'27" W 99.91'
N 08°02'27" W 100.00'
N 81°54'32" E 100.00'
N81°50'27"E 50.00'
N 08°02'48" W 100.02'
S 81°54'32" W 50.64'
N 07°30'01" W 232.34'
S 81°55'05" W 100.00'
N 08°02'48" W 360.00'
S 58°36'56" W 57.25'
N 75°05'56" E (85.00')
S.81°54'32" W (105.00')
S 08°05'28" E 282.00'
344.73'
S70°22'43"E

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

GRAPHIC SCALE
40 20 0 40 80
1 Inch = 40 Feet

OWNER/APPLICANT:
WILLOW MATERIALS, LLC
1000 FARREL AVENUE
TERRYVILLE, CT 06786

PROPOSED GRADING PLAN

EARTH REMOVAL PLAN
BARNUM ROAD, FARRELL AVENUE

DATE: MAY 20, 2020
SCALE: As Noted
DRAWN BY: SMP
CHECKED BY: RRH
SHEET NO.: G2

SEE SHEET G4

V:1626 - P:248

LOT 43-17
N/F
FEDERAL NATIONAL
MORTGAGE ASSOCIATION
V:2109 - P:143
#81 MARTIN ROAD

LOT 43-18
N/F
SCHIAVONE, ANTHONY J.
V:722 - P:155
#91 MARTIN ROAD

LOT 43-6-2
N/F
MATTIOLO, ANTHONY M.
& MICHAEL J.
V:2014 - P:908
#103 MARTIN ROAD

LOT 43-6-1
N/F
JOHNSON, DUSTIN J. &
PRELI, BETHANY R.
V:2029 - P:199
#121 MARTIN ROAD

LOT 43-6
N/F
PERREAULT, GILLES
V:1998 - P:95
#127 MARTIN ROAD

LOT 43-6A
N/F
AMATO, LISA B.
V:1992 - P:588
#147 MARTIN ROAD

LOT 43-6A-1
N/F
AYOTTA, LISA ANN
V:2120 - P:737
#157 MARTIN ROAD

LOT 45
N/F
MINOR, GEORGE L.
V:1194 - P:252

LOT 45
N/F
MINOR, GEORGE L.
V:1194 - P:252

N82°04'35"E 25.00'
S68°27'41"E 38.26'
N 07°55'30" W 200.38'
N82°02'32"E 29.98'
S 32°00' W
S55°19'17"E 92.11'
N48°59'00"E 52.00'
S 80°53'26" W 99.50'
S08°54'49"E 176.12'
S05°01'15"E 596.62'
S12°58'19"E 75.00'

Area Restored

Phase III
Area of Earth
Removal Operation

ROCKS

SEE SHEET G2

EARTH REMOVAL QUANTITIES

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DATE:	REVISION
7-23-20	COB STAFF COMMENTS DATED JULY 9, 2020
10-14-22	Update Topography for Permit Renewal

North

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

GRAPHIC SCALE
40 20 0 40 80
1 Inch = 40 Feet

OWNER/APPLICANT:
WILLOW MATERIALS LLC
107 NORTH RIVERSIDE AVE.
TERRYVILLE, CT 06786

PROPOSED GRADING PLAN

EARTH REMOVAL PLAN

BARNUM ROAD, FARRELL AVENUE

DATE: MAY 20, 2020
SCALE: As Noted
DRAWN BY: SMP
CHECKED BY: RRH
SHEET NO.: G3

EARTH REMOVAL QUANTITIES

EARTH CUTS = 55,101.72 C.Y.
EARTH FILLS = 2,550 C.Y.
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Earth Removed Since 2020 = 47,448.28 C.Y.

AREA OF ACTIVE EARTH REMOVAL = 11.79 ACRES

LOT 43-4
N/F
ROBILLARD, JEFFREY M.
V:2087 - P:169
#29 BARNUM ROAD

LOT 43Q-2
N/F
MALJEVIC, JORDJE D. & PAULINE
V:1459 - P:753

LOT 43-5A
N/F
ROY, LISA A.
V:1696 - P:282
#37 BARNUM ROAD

LOT 43-5B
N/F
MIRON, COREY M. & PABST, AMANDA R.
V:1971 - P:607
#47 BARNUM ROAD

LOT 43-6
N/F
JAY-DEE REALTY & DEV CO
V:2126 - P:1168

LOT 43M
N/F
MALJEVIC, JORDJE D. & PAULINE
V:956 - P:10
#627 TERRYVILLE AVENUE

LOT 43N
N/F
JACK AND MICHAEL'S, LLC
V:1339 - P:939
#621 TERRYVILLE AVENUE

LOT 44
N/F
GIGUERE, DAVID
V:886 - P:217
#595 TERRYVILLE AVE.

LOT 43-16
N/F
KELLY, SCOTT P.
V:1791 - P:1172

LOT 43-8
N/F
JAY-DEE REALTY & DEV CO
V:2126 - P:1168

LOT 43T-1
N/F
DAAR UL EHSAAN USA INC.
V:1626 - P:248

LOT 43-17
N/F
FERDERAL NATIONAL MORTGAGE ASSOCIATION
V:2109 - P:143
#81 MARTIN ROAD

LOT 43-18
N/F
SCHIAVONE, ANTHONY J.
V:722 - P:155
#91 MARTIN ROAD

LOT 43-6-2
N/F
MATTIOLO, ANTHONY M. & MICHAEL J.
V:2014 - P:908
#103 MARTIN ROAD

LOT 43-6-1
N/F

BARNUM ROAD

MARTIN ROAD

TERRYVILLE AVENUE

PARKING

POOL

CB

FB

N88°07'18"E 435.33'

N 16°08'10" W 179.11'

N 36°39'00" W 75.00'

N 43°47'14" W 174.64'

N 55°32'00" W 100.00'

S36°19'38"E 29.07'

S43°47'13"E 82.75'

S55°19'17"E 92.11'

N48°39'00"E 52.00'

S 02°25'19" W 141.89'

S63°08'14"E 90.00'

S71°30'21"E 142.10'

S71°28'33"E 75.00'

S71°30'34"E 154.19'

S05°54'49"E 176.12'

99.50' S 80°53'26" W

N53°01'46"E 192.98'

N82°04'38"E 25.00'

S69°21'44"E 35.58'

N 07°56'30" W 200.39'

N82°02'32"E 29.98'

Area Restored

SEE SHEET G3

DATE:	REVISION
7-23-20	COB STAFF COMMENTS DATED JULY 9, 2020
10-14-22	Update Topography for Permit Renewal

North

GRAPHIC SCALE
1 Inch = 40 Feet

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

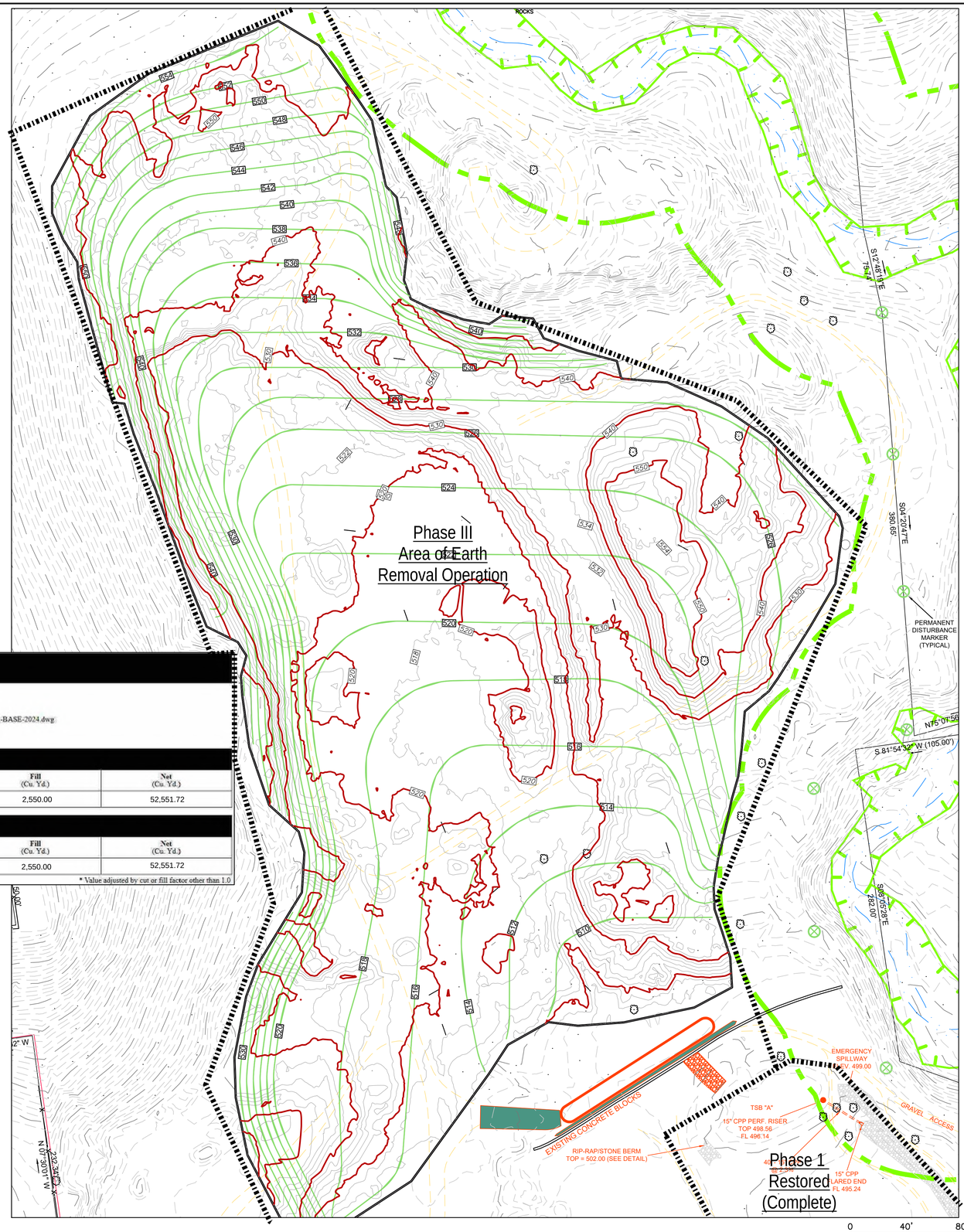
OWNER/APPLICANT:
WILLOW MATERIALS LLC
#627 TERRYVILLE AVE.
TERRYVILLE, CT 06786

EARTH REMOVAL PLAN

PROPOSED GRADING PLAN

BARNUM ROAD, FARRELL AVENUE

DATE: MAY 20, 2020
SCALE: As Noted
DRAWN BY: SMP
CHECKED BY: RRH
SHEET NO.: G4



Cut/Fill Report

Generated: 2024-08-13 18:23:49
By user: jasone
Drawing: K:\PROJECTS\2972-SCHULTZ-BARNUM AVE-BRISTOL\SURVEY\K:\PROJECTS\2972-SCHULTZ-BARNUM AVE-BRISTOL\SURVEY\2972-JEA-BASE-2024.dwg

Volume Summary

Name	Type	Cut Factor	Fill Factor	2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
2024-2022	full	1.00	1.00	397,021.64	55,101.72	2,550.00	52,551.72

Totals

	2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
Total	397,021.64	55,101.72	2,550.00	52,551.72

* Value adjusted by cut or fill factor other than 1.0

J. EDWARDS & ASSOCIATES LLC
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227 Stepney Road Easton, CT 06612
Phone:203.268.4205 Fax: 203.268.5604
www.jedwardsassoc.com

WILLOW INDUSTRIES
BARNUM ROAD
BRISTOL, CONNECTICUT

REVISIONS

#	DATE	DESCRIPTION
1	XXXX	XXXX

DATE: AUGUST 13, 2024
PROJECT #: 2972
DRAWING FILE: 2972-BASE
DRAWN BY: JSE
SCALE: 1"=50'

TITLE

EXCAVATION ANALYSIS

SHEET NO.:
OS
OVERALL SECTION

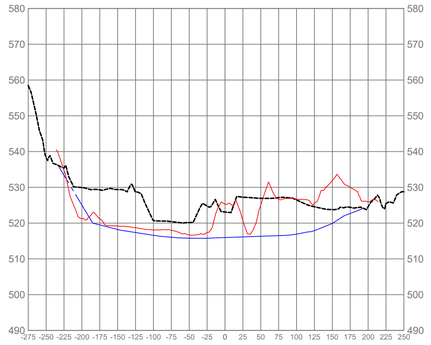
SECTIONS
EXISTING vs. PROPOSED vs. ORIGINAL
SOUTH TO NORTH
SCALE: 1"=100' HOR.
1"=20' VERT.

ORIGINAL GRADE

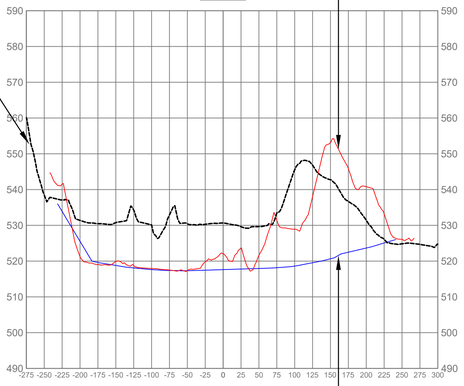
GRADE PER 8-13-24 SURVEY

PROPOSED GRADE PER APPROVED PLANS

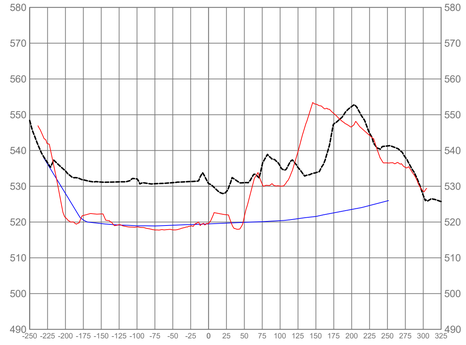
4+00
SL-30



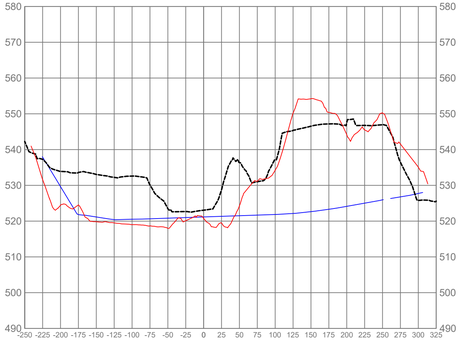
4+50
SL-31



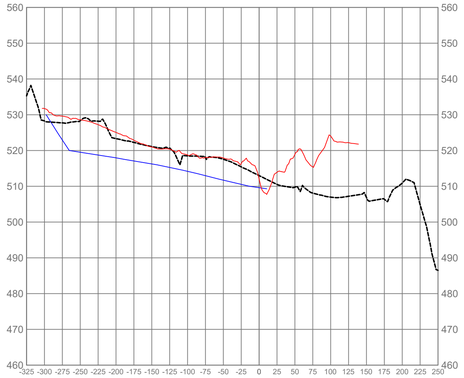
5+00
SL-32



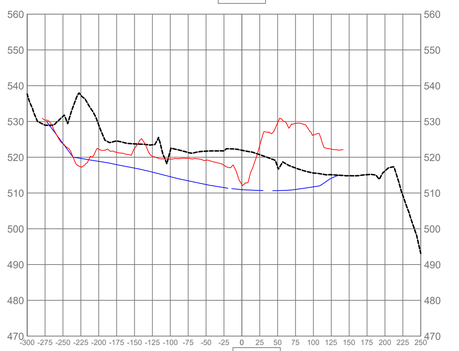
5+50
SL-33



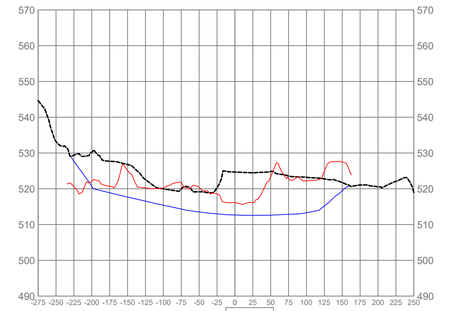
2+00
SL-26



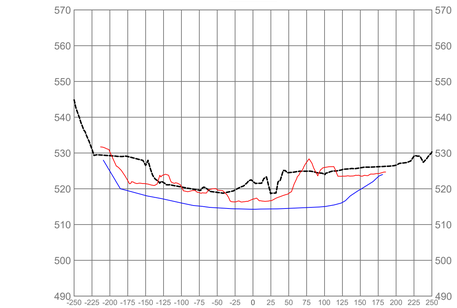
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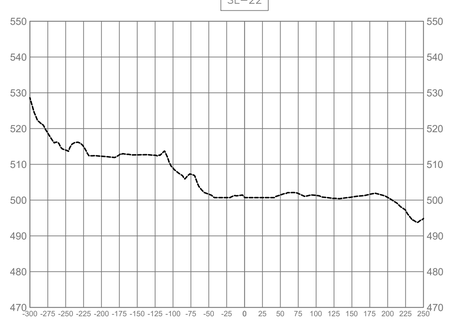
3+00
SL-28



3+50
SL-29



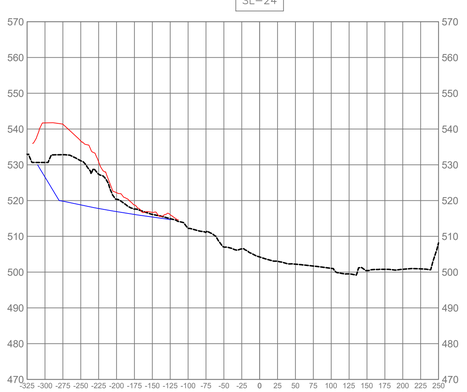
0+00
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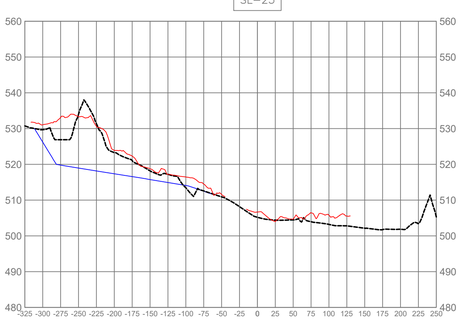
0+50
SL-23



1+00
SL-24



1+50
SL-25



J. EDWARDS & ASSOCIATES LLC
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227 Stepney Road Easton, CT 06612
Phone:203.268.4205 Fax: 203.268.5604
www.jedwardsassoc.com

WILLOW INDUSTRIES
BARNUM ROAD
BRISTOL, CONNECTICUT

REVISIONS

#	DATE	DESCRIPTION
1	xxxx	xxxx

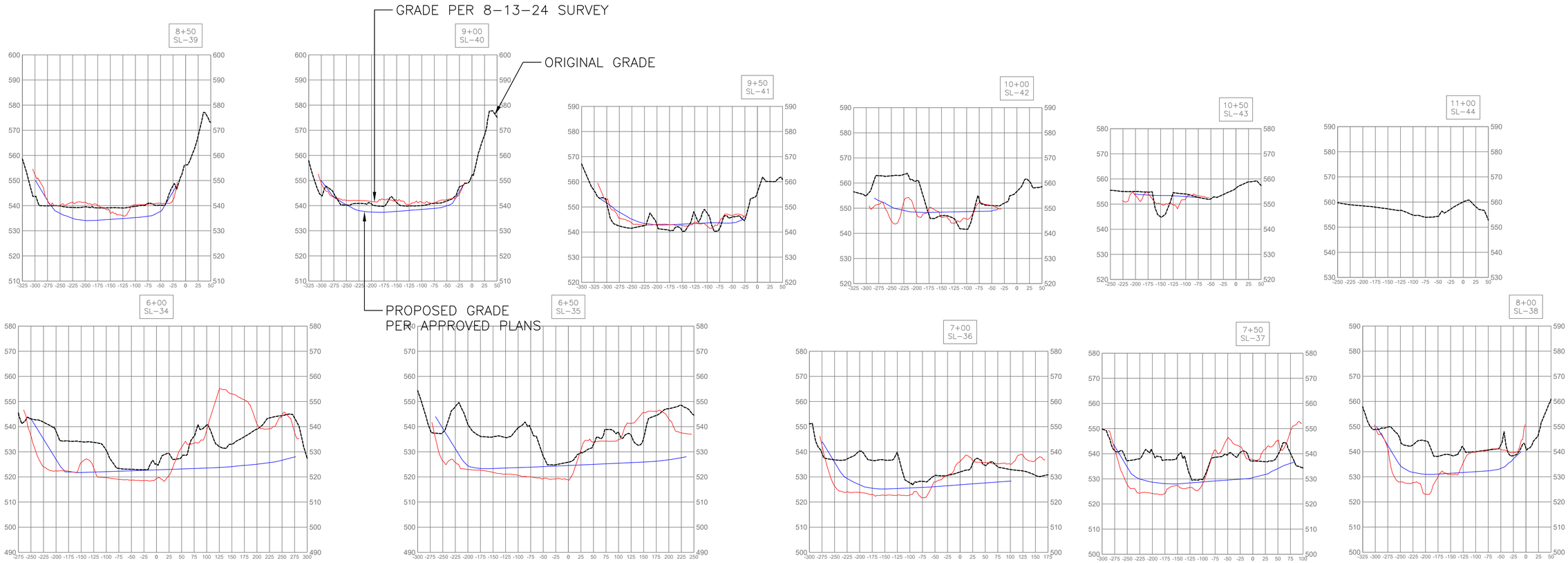
DATE: AUGUST 13, 2024
PROJECT #: 2972
DRAWING FILE: 2972-BASE
DRAWN BY: JSE
SCALE: 1"=100'

TITLE

CROSS SECTIONS

SHEET NO.:
S1

SECTIONS
EXISTING vs. PROPOSED vs. ORIGINAL
SOUTH TO NORTH
SCALE: 1"=100' HOR.
1"=20' VERT.



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WILLOW INDUSTRIES
BARNUM ROAD
BRISTOL, CONNECTICUT

REVISIONS

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1	XXXX	XXXX

DATE: AUGUST 13, 2024
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DRAWN BY: JSE
SCALE: 1"=100'

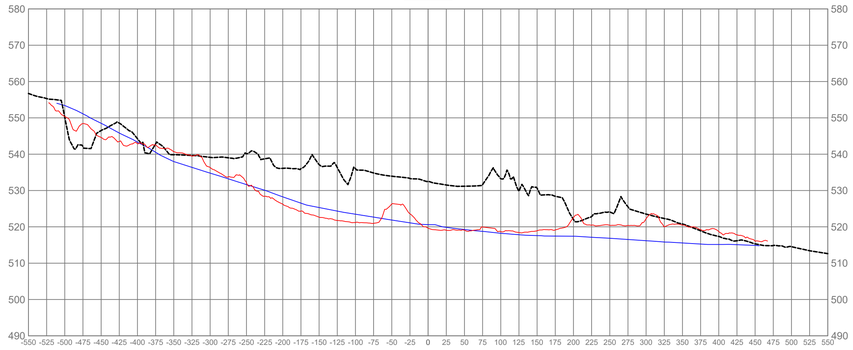
TITLE

CROSS SECTIONS

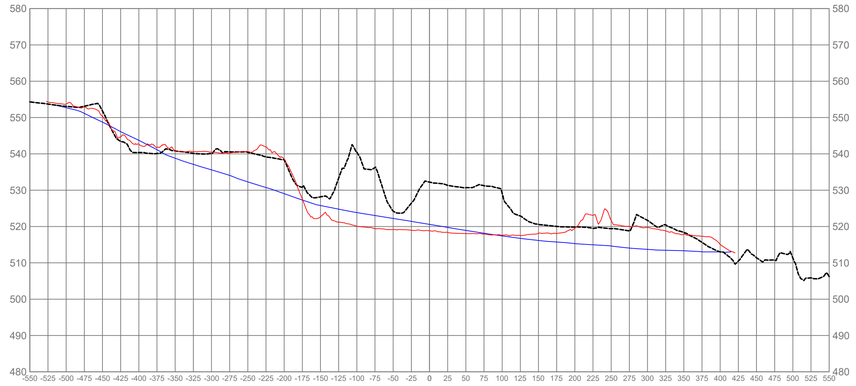
SHEET NO.:
S2

SECTIONS
EXISTING vs. PROPOSED vs. ORIGINAL
WEST TO EAST
SCALE: 1"=100' HOR.
1"=20' VERT.

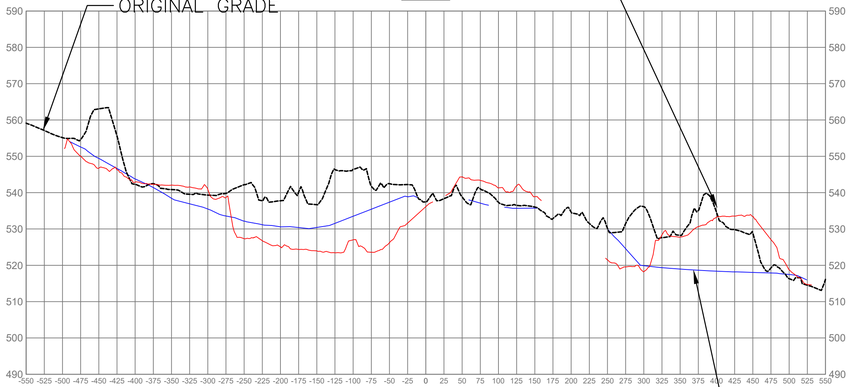
2+00
SL-49



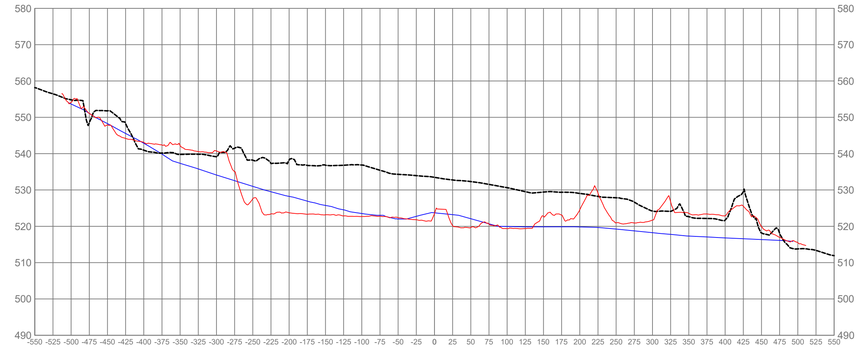
2+50
SL-50



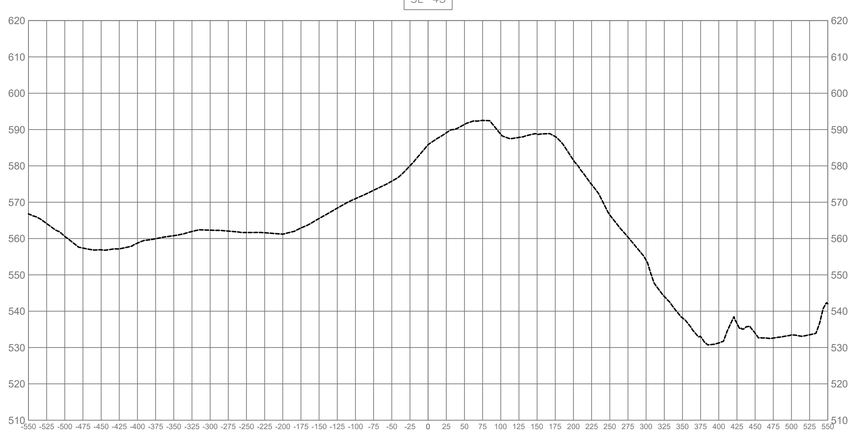
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SL-47



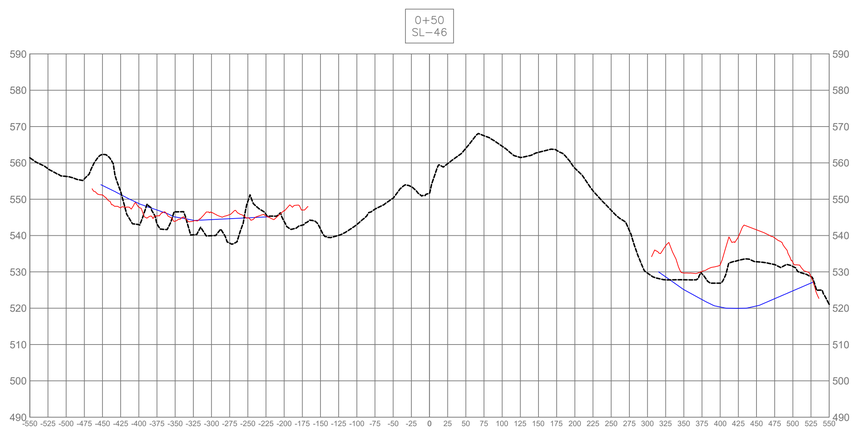
1+50
SL-48



0+00
SL-45



0+50
SL-46



J. EDWARDS & ASSOCIATES LLC
ENGINEERING • SURVEYING • SITE PLANNING

227 Stepney Road Easton, CT 06612
Phone:203.268.4205 Fax: 203.268.5604
www.jedwardsassoc.com

WILLOW INDUSTRIES
BARNUM ROAD
BRISTOL, CONNECTICUT

REVISIONS

#	DATE	DESCRIPTION
1	XXXX	XXXX

DATE: AUGUST 13, 2024
PROJECT #: 2972
DRAWING FILE: 2972-BASE
DRAWN BY: JSE
SCALE: 1"=100'

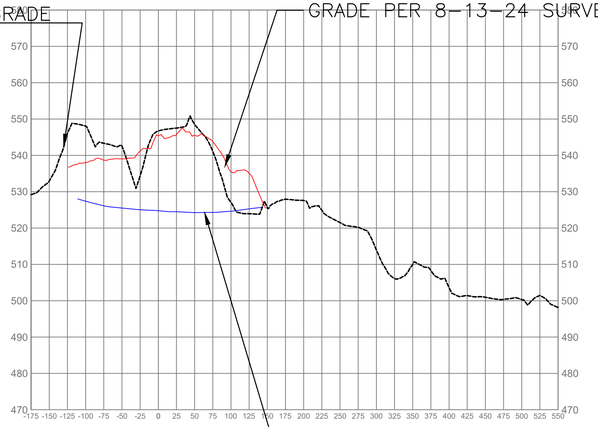
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CROSS SECTIONS

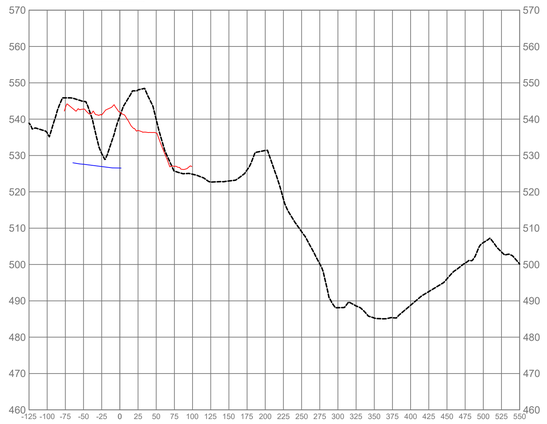
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S3

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EXISTING vs. PROPOSED vs. ORIGINAL
WEST TO EAST
SCALE: 1"=100' HOR.
1"=20' VERT.

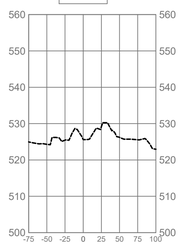
5+50
SL-56



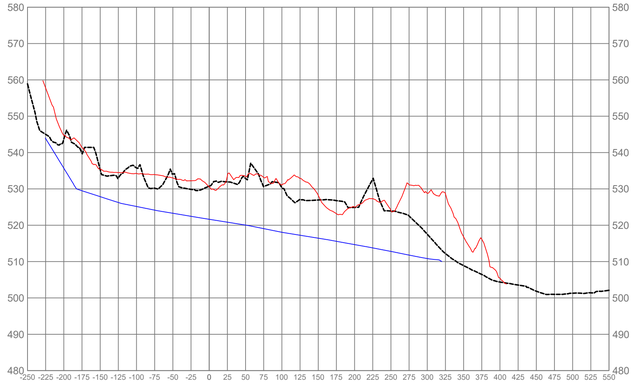
6+00
SL-57



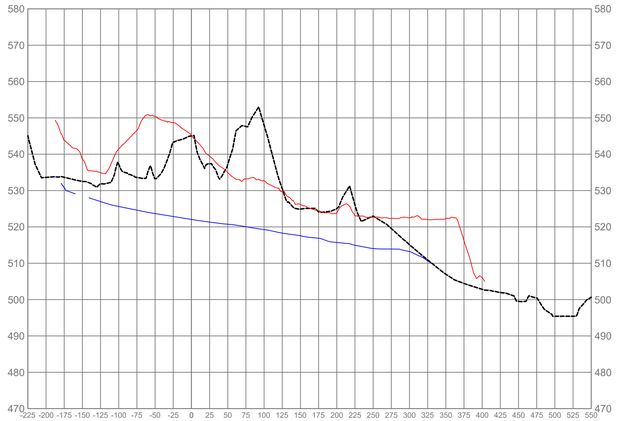
6+50
SL-58



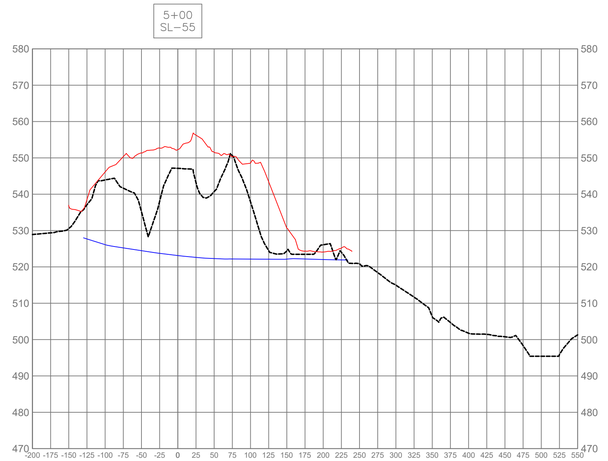
4+00
SL-53



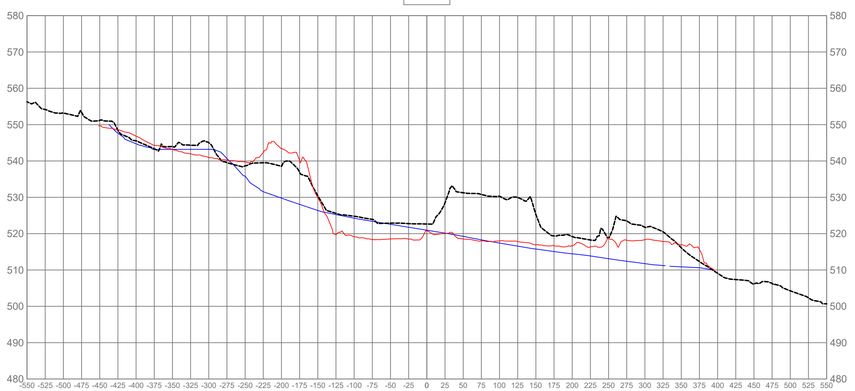
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SL-54



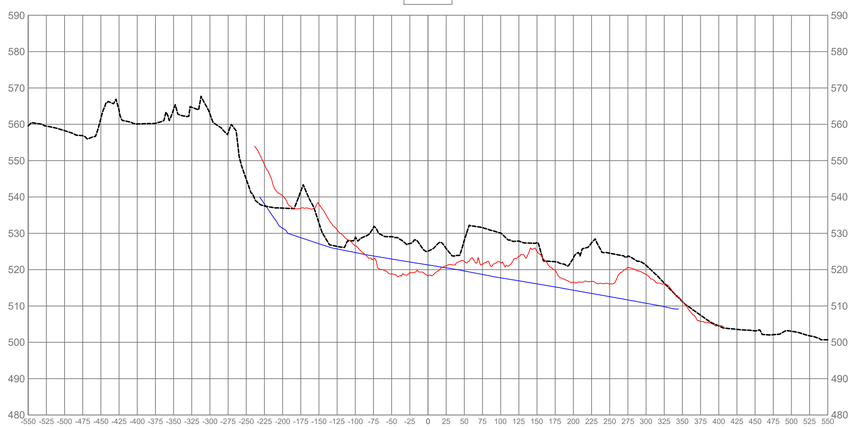
5+00
SL-55



3+00
SL-51



3+50
SL-52



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WILLOW INDUSTRIES
BARNUM ROAD
BRISTOL, CONNECTICUT

REVISIONS

#	DATE	DESCRIPTION
1	XXXX	XXXX

DATE: AUGUST 13, 2024
PROJECT #: 2972
DRAWING FILE: 2972-BASE
DRAWN BY: JSE
SCALE: 1"=100'

TITLE

CROSS SECTIONS

SHEET NO.:
S4

SEE SHEET SE2

EXISTING CONCRETE BLOCKS

RIP-RAP/STONE BERM
TOP = 502.00 (SEE DETAIL)

TSB "A"

15" CPP PERF. RISER
TOP 498.56
FL 496.14

40' - 15" CPP
@ 2.3%

15" CPP
FLARED END
FL 495.24

TSB "C"

Phase III
Area of Earth
Removal Operation

NATURAL SAND BOTTOM
TO GROUNDWATER ELEVATION

10' WIDE EARTH
BERM WITH RESTORED
GRASS COVER

EXISTING
CPP FLARED END
FL 494.13

EXISTING
40' - 15" CPP
@ 2.0%

TSB "B"

EXISTING
15" CPP
PERF. RISER
TOP 498.41
FL 494.94

100' UPLAND
REVIEW AREA

Phase II
Area Being
Restored

Phase 1
Restored
(Complete)

EXISTING ACCESS ROAD TO REMAIN

344.73'
S 70°22'43" E

PERMANENT
DISTURBANCE
MARKER
(TYPICAL)

536.00'
S 38°13'15" W

EXISTING RIP-RAP
EMERGENCY SPILLWAY
INTERMEDIATE GRADE
ELEV. 501.50

EXISTING DETENTION BASIN
FOR FUTURE RESIDENTIAL SUBDIVISION
TO BE TEMPORARY INFILTRATION BASIN
FOR EARTH REMOVAL OPERATION
(APPROVED BY CITY OF BRISTOL WETLANDS)

COARSE SEDIMENT
POOL

EXISTING
STONE CHECK DAM
TOP ELEV. 491.00
(SEE DETAIL)

CUSS GUTTER TRAIL
NOT A PUBLIC R.O.W.

N/F
TRADEMARK
ACQUISITIONS, LLC
V:2043 - P:739

N 13°46'45" W
413.25'

S 73°13'15" W

N 31°46'45" W
139.82'

S 56°13'15" W

LOT 79A
N/F
WILCOX, DAN
V:1922 - P:915
#135 FARRELL AVE.

LOT 86
N/F
PAGE, KYLE L.
V:2124 - P:609
#169 FARRELL AVENUE

FARRELL AVENUE

EXISTING MULTI-STAGE
OUTLET STRUCTURE
TF - 493.52
FL - 484.42 (24" RCP)
FL - 491.52 (8" PVC PORT)
FL - 491.02 (8" PVC PORT)

EXISTING
125 - 24" RCP
@ 6.7%

EXISTING
18" - 24" RCP
WITH FLARED END
@ 2.5%
FL - 471.10

EXISTING 60" DIA.
STORM MANHOLE
TF - 481.10
FL - 475.00 (24" RCP)
FL - 471.50 (24" RCP)

EXISTING ¾" CRUSHED STONE
FILTER 2FT HIGH AROUND
OUTLET STRUCTURE

EXISTING
BITUMINOUS
DRIVEWAY

SR
PS
TSB
SCD
SQB
LS

SOIL TYPES:

Uplands Soil:
Hinckley - Gravelly Sandy Loam

Wetlands Soil:
Raypole - Silt Loam

DATE:	REVISION
7-23-20	COB STAFF COMMENTS DATED JULY 9, 2020
10-14-22	Update Topography for Permit Renewal

North

R. R. HILTBRAND ENGINEERS and SURVEYORS
576 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

GRAPHIC SCALE
40 0 20 40 80
1 Inch = 40 Feet

R. R. HILTBRAND Engineers and Surveyors

OWNER/APPLICANT:
WILLOW MATERIALS LLC
100 NORTH RIVERSIDE AVE.
TERRYVILLE, CT 06786

SEDIMENT AND EROSION CONTROL PLAN

EARTH REMOVAL PLAN

BARNUM ROAD, FARRELL AVENUE

DATE: MAY 20, 2020
SCALE: As Noted
DRAWN BY: SMP
CHECKED BY: RRH
SHEET NO.: SE1

SEE SHEET SE3

SEE SHEET SE1

Phase III
Area of Earth
Removal Operation

Phase 1
Restored
(Complete)

LOT 50-1
(FORMERLY LOTS 50 & 51)
N/F
...VIN, CYNTHIA L.
...1301 - P:173
...MARTIN ROAD

LOT 53-2
(FORMERLY LOTS 52 & 53)
N/F
...RON, MICHAEL G. &
SUE ELLEN A.
V:1532 - P:156
...85 MARTIN ROAD

LOT 60
N/F
...DEKOW, ROCHELLE B.
V:1613 - P:571
#195 MARTIN ROAD

LOT 61
N/F BROCHU
ROLAND P. & KAREN C.
V:680 - P:784
#201 MARTIN ROAD

LOT 62
N/F PAGE
DAVID L. & NELLIE VON S.
V:644 - P:152
#205 MARTIN ROAD

LOT 64
N/F
PAGE, DAVID L.
& NELLIE VON S.
V:955 - P:946

ARCADIA ROAD

N/F
TRADEMARK
ACQUISITIONS, LLC
V:2043 - P:739

LOT 109
N/F
WYREBEK, SETH
V:1664 - P:961
#140 BIRD ROAD

CUSS GUTTER TRAIL
NOT A PUBLIC R.O.W.

PERMANENT DISTURBANCE MARKER (TYPICAL)

EXISTING CONCRETE BLOCKS

RIP-RAP/STONE BERM
TOP = 502.00 (SEE DETAIL)

TSB
TSB "A"

15" CPP PERF. RISER
TOP 498.56
FL 496.14

EMERGENCY SPILLWAY
ELEV. 500.00

15" CPP
FLARED END
FL 495.24

ACCESS ROAD TO REMAIN

S12°48'15"E 380.65'

S04°20'47"E 380.65'

S70°22'43"E 344.73'

N85°07'56"E (65.00')

S 58°36'56" W 37.42'

S.81°54'32"W (105.00')

S 08°05'28" E 82.00'

N 08°02'48" W 100.00'

S 81°54'32" W 50.64'

N 08°02'12" W 99.98'

N 08°02'54" W 50.00'

N81°50'27"E 50.00'

N 07°30'01" W 252.84'

100.00' S 81°55'05" W

N 08°05'28" W 360.00'

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

GRAPHIC SCALE
40 20 0 40 80
1 Inch = 40 Feet

DATE:	REVISION
7-23-20	COB STAFF COMMENTS DATED JULY 9, 2020
10-14-22	Update Topography for Permit Renewal.

North

OWNER/APPLICANT:
WILLOW MATERIALS, LLC
107 NORTH RIVERSIDE AVE.
TERRYVILLE, CT 06786

SEDIMENT AND EROSION CONTROL PLAN

EARTH REMOVAL PLAN

BARNUM ROAD, FARRELL AVENUE

DATE: MAY 20, 2020
SCALE: As Noted
DRAWN BY: SMP
CHECKED BY: RRH
SHEET NO.: SE2

DATE:	REVISION
7-23-20	COB STAFF COMMENTS DATED JULY 9, 2020
10-14-22	Update Topography for Permit Renewal

North

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

GRAPHIC SCALE
40 20 0 40 80
1 Inch = 40 Feet

OWNER/APPLICANT:
WILLOW MATERIALS LLC
WILLOW BROOK RD. EXT.
TERRYVILLE, CT 06786

SEDIMENT AND EROSION CONTROL PLAN

EARTH REMOVAL PLAN

BARNUM ROAD, FARRELL AVENUE

DATE: MAY 20, 2020
SCALE: As Noted
DRAWN BY: SMP
CHECKED BY: RRH
SHEET NO.: SE3

LOT 45
N/F
MINOR, GEORGE L.
V:1194 - P:252

LOT 43-6A-1
N/F
..., LISA ANN
...0 - P:737
...RTIN ROAD

LOT 43R
N/F
...SEUR, PETER J.
...707 - P:1266

...LISA B.
...P:588
...TIN ROAD

...-6A

...ILLES,
...95
...ROAD

Area Restored

Phase III
Area of Earth
Removal Operation

DC CE SR PS

SEE SHEET SE2

Maintenance of Erosion and Sediment Controls

1. **Construction Entrance (CE)**
   Maintain the entrance in a condition which will prevent tracking and washing of sediment onto paved surfaces. Provide periodic top dressing with additional stone or additional length as conditions demand. Repair any measures used to trap sediment as needed. Immediately remove all sediment spilled, dropped, washed or tracked onto paved surfaces. Roads adjacent to a construction site shall be left clean at the end of each day. If the construction entrance is being properly maintained and the action of a vehicle traveling over the stone pad is not sufficient to remove the majority of the sediment, then either (1) increase the length of the construction entrance, (2) modify the construction entrance road surface.

2. **Geo-textile Silt Fence (GSF)**
   Inspect the silt fence at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater. Inspection of silt fence prior to large anticipated storms is also recommended.

3. **Temporary Seeding (TS)**
   Inspect temporary seeding at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater for seed and mulch movement and rill erosion. Repair eroded areas as needed to control erosion with existing erosion controls or add additional erosion controls.

4. **Permanent Seeding (PS)**
   Inspect permanent seeding at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater during the first growing season. Repair eroded areas as needed to control erosion with existing erosion controls or add additional erosion controls.

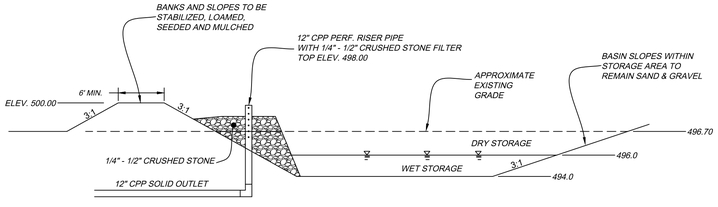
5. **Temporary Erosion Control Blanket (ECB)**
   Inspect temporary Erosion Control Blanket at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater for failures. Repair washout, erosion or blanket displacement within one week maximum or prior to next anticipated rainfall.

6. **Vegetated Waterway (VW)**
   Inspect vegetated waterway at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater until vegetation becomes well established and the contributing areas are stabilized.

7. **Permanent Lined Waterway (PW) (ie. Rip-Rap Swale)**
   Inspect permanent lined waterway at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater for sediment accumulation and determine maintenance needs and / or addition of upslope erosion controls to protect lining.

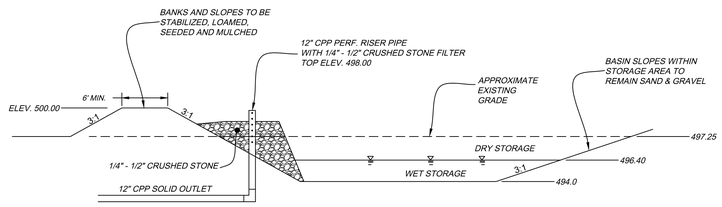
8. **Temporary Sediment Basin**
   a. Inspect the sediment basin at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater.
   b. Clean when sediment has accumulated one half of the wet storage.
   c. Inspect the slotted riser, rip-rap channel / level spreader and emergency spillway for debris and / or erosion at least biannually and after a major storm event.
   d. Clean sediment basin of silt and debris annually or as needed. If frequent maintenance or cleaning is required check condition / application of upslope erosion controls.

9. **Entrance and Dust Control Maintenance**
   a. Sweep paved apron at entrance to site weekly or as required. Any spillage on Barnum Road by truck wheels shall be removed daily.
   b. Dust control measures will be a daily activity when required.



TEMPORARY SEDIMENT TRAP/WATER QUALITY & INFILTRATION BASIN "A"

N.T.S.



TEMPORARY SEDIMENT TRAP/WATER QUALITY & INFILTRATION BASIN "B"

N.T.S.

Site Description

The project site is located on the north side of Farrell Avenue, to the south of the terminus of Barnum Road. An existing residential subdivision along Martin Road borders the western edge of the site which generally consists of a restored slope from previous earth removal operation. The Cuss Gutter Brook borders a portion of the site on the southeasterly boundary and then bisects the site to the south of Barnum Road. The site is 46.65 acres in total with an active earth removal operation of 11.79 acres of the site. Inland wetlands are located along the brook corridor and were survey located as a portion of previous application in 2002.

Narrative

The project consists of a 11.79 acre earth removal operation of the 46.65 acre site. A final grading plan for the site has been prepared to accommodate a possible future residential development. In order to accomplish final grading and provide long term sediment and erosion control 3 each temporary sediment basins and a stormwater quality basin have been built and are currently being maintained on a regular basis. Where possible, self contained excavation is utilized to filtrate storm water and trap eroded sediments. The stormwater quality basin and outfall were designed and located to be utilized as a portion of stormwater management for future development. The remaining earth removal operation consists of **52,551.72** c.y. of material.

Erosion Control Goals

Site specific erosion control goals are to protect Cuss Gutter Brook and associated wetland areas from erosion or deposition of eroded soils from the earth removal operation.

Design Criteria

Connecticut Guidelines for Erosion and Sediment Control (2002), Conn. DEP Bulletin 34.

a. Sediment/Water Quality Basin SCS TR55- 2,5,10,25,50, 100 year 24 hour storms. The basin outfall is designed for location, sizing and elevation to be utilized as an outfall for final stormwater design of the site. The purpose is to minimize future disturbance in this area relating to final land use.

b. Temporary Sediment Basins – sediment storage wet and dry based on upslope drainage area in accordance with DEP Bulletin 34.

c. Permanent lined water way – SCS TR55- 50 year design stormwater quality basin outfall. SCS TR55 – 2 year design on low flow channel temporary sediment pond to stormwater quality basin.

Permits and Application Information

a. Property is located in Zone R-15.
b. Wetlands application #1260 Removal of Earth Materials, June 17,2002.
c. Zoning Permit #1949 Special Permit to Remove Earth Materials, Oct. 11, 2006.
d. Project is not located within a FEMA Flood Zone.

Lots 110, 112, 113, 114, 115, 119, 120 & 121 have inland wetlands and are associated with this application totaling 1.24 acres.

Documents and Support Information

a. Inland wetlands flagged as part of previous applications and were mapped on a map entitled "Proposed Grading Plan for Earth Removal, Land of Jay Dee Realty, Bristol, CT., Roderick D. Hewitt Consulting Engineers and Land Surveyors, Revised to 10/19/98. Scale 1" – 40 ft., Certified A-2.

b. Aerial topography based on new flight data dated 3/02/2020 and mapping by Golden Aerial Surveys – 2 foot contour interval, scale 1"= 40 ft. Topography was updated in August 2024 by J. Edwards & Associates LLC.

Conservation Practices

a. Keep land disturbances to a minimum by stabilizing portions of the project.
b. Install perimeter controls.
c. Install sediment ponds and stormwater quality features to treat stormwater prior to discharge to Cuss Gutter Brook.
d. Utilize dust control measures.
e. Utilize depressed excavation method to contain sediment from removal operation and promote infiltration of surface flows.

(GSF) **Geotextile Silt Fence.**
See Detail Sediment and Erosion Control Detail Sheet.
See Maintenance Notes for inspection requirements.

(TS) **Temporary Seeding.**
Seeding for temporary slope conditions.
Apply 6" topsoil and dozer track for surface roughening.
Seed Mix: Flatpea 10 lb. / acre
Perennial 2 lb. / acre
Crown Vetch 10 lb. / acre
Tall Fescue 2 lb. / acre
Total: 24 lb. / acre
Mulch for seed cover.
See Maintenance Notes for inspection requirements.
Optimum seeding dates 3/1 to 6/15 and 8/1 to 10/15.

(PS) **Permanent Seeding.**
Seeding for final graded areas.
Apply 6" topsoil and dozer track for surface roughening.
Apply fertilizer and lime as soil testings by UCONN Soil Testing Laboratory.
Mulch for seed cover.
Seed mix: Northern Wildflower Mix 16 lb. / acre.
Discovery Hard Fescue 25 lb. / acre.
Total: 40 lb. / acre.

(SR) **Surface Roughening.**
Dozer track slopes by tracking up and down the slope.

(MS) **Mulch for Seed.**
Application of mulch to protect soil surface and promote the establishment of seeding.
See Maintenance Notes for inspection requirements.

(ECB) **Temporary Erosion Control Blanket.**
A manufactured blanket utilized to provide temporary surface protection to newly seeded and / or disturbed soils. Follow manufacturer's recommendations for installation and stapling patterns. ECB to be installed after mulch for seed.

(PW) **Permanent Lined Waterway.**
Permanent Lined Channel with rip-rap lining to convey concentrated flows from the earth removal operation.
See Detail Sheet.
See Maintenance Notes for inspection requirements.

(TSB) **Temporary Sediment Basin.**
A temporary excavated pit or pond area placed directly below disturbed areas to collect sediment as a primary treatment. To provide ease in maintenance / access on a daily / weekly basis if needed. Wet and dry storage is provided.
See Maintenance Notes for inspection requirements.

(SCD) **Stone Check Dam.**
A temporary stone dam placed across a drainage way where concentrated flows are expected to cause erosion.

(LS) **Level Spreader.**
An outlet for water conveyance at a discharge point with a zero percent grade.

(OP) **Outlet Protection.**
Structurally lined apron for energy dissipation.

(SQB) **Storm Water Quality Basin.**
An impoundment made to store stormwater to achieve storm water quality, groundwater infiltration and prevent downstream erosion and flooding.
See Maintenance Notes for inspection requirements.

DATE:	REVISION
7-23-20	COB STAFF COMMENTS DATED JULY 9, 2020
10-14-22	Update Topography for Permit Renewal

North

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

GRAPHIC SCALE
40 20 0 40 80
1 Inch = 40 Feet

R. R. HILTBRAND Engineers and Surveyors

OWNER/APPLICANT:
WILLOW MATERIALS LLC
107 NORTH RIVERSIDE AVE.
TERRYVILLE, CT 06786

SEDIMENT AND EROSION CONTROL PLAN

EARTH REMOVAL PLAN
BARNUM ROAD, FARRELL AVENUE

DATE: MAY 20, 2020
SCALE: As Noted
DRAWN BY: SMP
CHECKED BY: RRH
SHEET NO.: SE4

DESIGN REFERENCE:

SEDIMENT & EROSION CONTROL BASED ON 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL D.E.P. BULLETIN 34 BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION.

Erosion & Sediment Controls and Stabilization Practices

a. Temporary seeding.
b. Mulching.
c. Stone Rip-rap.

During construction, sheet runoff from the site will be filtered through hay bale barriers and silt fences. All storm drain inlets shall be provided with barrier filters. Stone rip-rap shall be provided at the outlets of drainage pipe in which erosive velocities are encountered.

Off Site Vehicle Tracking

Stabilized construction entrances will be installed at all proposed entrances.

Installation, Maintenance and Inspection Procedures of Erosion & Sediment Controls

A. General-

These are the general inspection and maintenance practices that will be used to implement the plan.

- The smallest practical portion of the site will be denuded at one time.

- All erosion control measures will be inspected at least once a week and following any storm event of 0.25 inches or greater.

- All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of the report.

- Built up sediment will be removed from the silt fence or hay bale barriers when it has reached one third the height of the of the fence or barrier.

- A maintenance inspection report will be made after each inspection.

- The contractor's site superintendent will be responsible for inspections, maintenance and repair activities, and completing the inspection and maintenance report.

- R.R. Hiltbrand Engineers & Surveyors shall inspect the site on a periodic basis to assure compliance with the plan.

B. Filters -

1. Straw/ hay bales
   a. Sheet Flow Applications
      1. Bales shall be placed in a single row , lengthwise on the contour, with the ends of the adjacent bales tightly abutting one another.
      2. All bales shall be either wire bound or string tied. Bales shall be installed so that the bindings are oriented around the sides rather than along the tops and bottoms of the bales to prevent deterioration of the bindings.
      3. The barrier shall be entrenched and backfilled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a minimum depth of (4) inches. After the bales are staked and chinked, the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill side and shall be built-up to (4) inches against the uphill side of the barrier. Ideally, bales should be placed ten (10) feet away from the toe of slope.
      4. Each bale shall be securely anchored by at least two (2) stakes or rebars driven through the bale. The first stake in each bale shall be driven toward the previously laid bale to force the bales together. Stakes and rebars shall be driven deep enough into the ground to securely anchor the bales.
      5. The gaps between bales shall be chinked (filled by wedging) with straw/hay to prevent water from escaping between the bales.
2. Silt Fence
   a. Synthetic filter fabric shall be a pervious sheet of propylene, nylon, polyester or ethylene yarn and shall be certified by the manufacturer or supplier as conforming to the following requirements.

Physical Property Test Requirements

Filtering Efficiency ASTM 5.41 75% minimum

Grab Tensile Strength ASTM D4632 100lbs.

Elongation & Failure ASTM D4632 15%

Puncture Strength
ASTM 4833 50 lbs.

Flow Rate ASTM D4491 0.2gal./ft2/min.

Ultra-Violet Radiation Stability % ASTM D4355 70% after 500 hours of exposure

b. The height of a silt fence shall not exceed thirty (30) inches above grade.

c. The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth shall be spliced together only at the support posts, with a min. six (6) inch overlap, and securely sealed.

d. Posts shall be spaced a maximum of ten (10) feet apart at the barrier location and driven securely into the ground (min. of 12 inches).

e. A trench shall be excavated approximately six (6) inches wide and six (6) inches deep along the line of posts and upslope from the barrier.

f. When 'standard strength' filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy duty wire staples at least one inch long, tie wires or hog rings. The wire shall extend no more than 30 inches above the original ground surface.

g. The 'standard strength' filter fabric shall be stapled or wired to the fence, and eight (8) inches of the fabric shall be extended into the trench. The fabric shall not extend more than 30 inches above the original ground surface.

h. When 'extra strength' filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case the filter fabric is stapled or wired directly to the posts with all other provisions of item 'g' applying.

i. The trench shall be backfilled and the soil compacted over the filter fabric.

j. Silt fences shall be removed when they have served their useful purpose, but not before the upslope areas have been permanently stabilized.

Sequence of Installation

Sediment barriers shall be installed prior to any soil disturbance of the contributing drainage area above them.

Maintenance

a. Straw/ hay bale barrier and silt fence barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. They shall be repaired if there are any signs of erosion or sedimentation below them. Any required repairs shall be made immediately. If there are signs of undercutting at the center or the ends, or impounding of large volumes of water behind them, sediment barriers shall be replaced with a temporary check dam.

b. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier still is necessary, the fabric shall be replaced promptly.

c. Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately (1/3) the height of the barrier.

d. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

C. Mulching

1. Timing

In order for mulch to be effective, it must be in place prior to major storm events There are two (2) types of standards which shall be used to assure this.

a. Apply mulch prior to any storm event.

This is applicable when working within 100 feet of wetlands. It will be necessary to closely monitor weather predictions, usually by contacting the National Weather Service in Massachusetts (508- 822- 0634), to have adequate warning of significant storms.

b. Required mulching within a specified time period.

The time period can range from 14 to 21 days of inactivity on an area, the length of time varying with site conditions. Professional judgment shall be used to evaluate the interaction of site conditions (soil erodibility, season of year, extent of disturbance, proximity to sensitive resources, etc.) and the potential impact of erosion on adjacent areas to choose an appropriate time restriction.

2. Guidelines for winter mulch application.

When mulch is applied to provide protection over winter (past the growing season) it shall be at a rate of 6000 lb. of hay or straw per acre. A tackifier may be added to the mulch.

3. Maintenance

All mulches must be inspected periodically, in particular after rain storms, to check for erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied.

D. Temporary Grass Cover

1. Seedbed Preparation

Apply fertilizer at the rate of 300 lb. / acre of 10-10-10. Apply limestone (equivalent to 50% calcium plus magnesium oxide) at a rate of (1) tons/ acre.

2. Seeding

a. Utilize annual rye grass at a rate of 40 lb./ acre.

b. Where the soil has been compacted by construction operations, loosen soil to a depth of two (2) inches before applying fertilizer, lime and seed.

c. Apply seed uniformly by hand, cyclone seeder, or hydroseeder (slurry including seed and fertilizer). Hydroseedings, which include mulch, may be left on soil surface. Seeding rates must be increased 10% when hydroseeding.

3. Maintenance

Temporary seedings shall be periodically inspected. At a minimum, 95% of the soil surface shall be covered by vegetation. If any evidence of erosion or sedimentation is apparent, repairs shall be made and other temporary measures used in the interim (mulch, filter barriers, check dams, etc.).

E. Permanent Grass Cover

1. Seedbed Preparation

Apply fertilizer at the rate of 300 lb. / acre of 10-10-10. Apply limestone (equivalent to 50% calcium plus magnesium oxide) at a rate of (1) tons/ acre.

2. Seeding

	Lbs./1,000 Sq. Ft.
a. Utilize Creeping Red Fescue (Pennlawn, Wintergreen)	.45
Redtop (Streeker, Common)	.10
Tall Fescue (Kentucky 31 or Smooth Bromegrass (Saratoga, Lincoln)	.45
	1.00

b. Where the soil has been compacted by construction operations, loosen soil to a depth of two (2) inches before applying fertilizer, lime and seed.

c. Apply seed uniformly by hand, cyclone seeder, or hydroseeder (slurry including seed and fertilizer). Hydroseedings, which include mulch, may be left on soil surface. Seeding rates must be increased 10% when hydroseeding.

F. Storm Drain Inlet Protection

1. Straw Bale Inlet Structure

a. Bales shall be either wire bound or string tied with the bindings oriented around the sides rather than over and under the bales.

b. Bales shall be placed lengthwise in a single row surrounding the inlet, with the ends of adjacent bales pressed together.

c. The filter barrier shall be entrenched and backfilled. A trench shall be excavated around the inlet the width of a bale to a minimum depth of four (4) inches. After the bales are staked, the excavated soil shall be backfilled and compacted against the filter barrier.

d. Each bale shall be securely anchored and held in place by at least two (2) stakes or rebars driven through the bale.

e. Loose straw shall be wedged between bales to prevent water from entering between bales.

F. Stabilized Construction Entrance

1. Specifications

a. Aggregate Size: Use two (2) inch stone. (Gradation Shall Be D.O.T. No. 3)

b. Aggregate thickness: Not less than six (6) inches.

c. Width: Ten (10) foot minimum, but not less than the full width of points where ingress or egress occurs.

d. Length: As required, but not less than one hundred (50) feet.

e. Geotextile: To be placed over the entire area to be covered with aggregate. Piping of surface water under entrance(s) shall be provided as required.

f. Criteria for Geotextile: The fabrics shall be Trevia Spunbound 1135, Mirafi 6000x, or equal.

2. Maintenance

The entrance(s) shall be maintained in a condition which will prevent tracking of sediment onto the public right-of-way. When washing is required, it shall be completed on an area stabilized with aggregate which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches or waterways.

Timing of Controls/ Measures

As indicated in the sequence of Major Activities the hay bales and silt fences shall be installed prior to commencing any clearing, demolition or grading of the site. Structural controls shall be installed concurrently with the applicable activity. Area(s) where construction activity temporarily ceases for more than twenty one (21) days will be stabilized with a temporary seed and mulch within fourteen (14) days of the last disturbance. Once construction activity ceases permanently in an area, silt fences and hay bale barriers will be removed once permanent measures are established.

Waste Disposal

A. Waste Materials

All waste materials will be collected and stored in securely lidded receptacles. All trash and construction debris from the site will be deposited into a dumpster. No construction waste materials will be buried on site. All personnel will be instructed regarding the correct procedure for waste disposal by the superintendent.

B. Hazardous Waste

All hazardous waste materials will be disposed of in the manner specified by local or state regulation or by the manufacturer. Site personnel will be instructed in the practices by the superintendent.

C. Sanitary Waste

All sanitary waste will be collected from the portable units a minimum of once per week by a licensed sanitary waste management contractor.

Spill Prevention

A. Material Management Practices

The following are the materials management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances during construction to storm water runoff:

Good Housekeeping:

The following good housekeeping practices will be followed on site during the construction project:

-An effort will be made to store only sufficient amounts of products to do the job.

-All materials stored on site will be stored in a neat, orderly manner in their proper (original if possible) containers and, if possible, under a roof or other enclosure.

-Manufacturer's recommendations for proper use and disposal will be followed.

-The site superintendent will inspect daily to ensure proper use and disposal of materials.

-Substances will not be mixed with one another unless recommended by the manufacturer.

-When ever possible all of a product will be used up before disposing of the container.

Hazardous Products:

The following practices will be used to reduce the risks associated with hazardous materials:

-Products will be kept in their original containers unless they are not re-sealable

-Original labels and material safety data will be retained for important product information.

-Surplus product that must be disposed of will be discarded according to the manufacturer's recommended methods of disposal.

B. Product Specific Practices

The following product specific practices will be followed on site:

Petroleum Products:

All on site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. Any asphalt based substances used on site will be applied according to the manufacturer's recommendations.

Fertilizers:

Fertilizers used will be applied only in the minimum amounts directed by the specifications. Once applied, fertilizer will be worked into the soil to limit exposure to storm water Storage will be in a covered shed or enclosed trailers. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

Paints:

All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system but will be disposed of properly according to manufacturer's instructions or state and local regulations.

Concrete Trucks:

Concrete trucks will discharge and wash out surplus concrete or drum wash water in a contained area on site..

C. Spill Control Practices

In addition to good housekeeping and material management practices discussed in the previous section the following practices will be followed for spill prevention and cleanup:

-Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.

-Materials and equipment necessary for spill cleanup will be kept in the material storage area on site. Equipment and materials will include but not limited to brooms, dustpans, mops, rags, gloves, goggles, kitty litter, sand, sawdust and plastic or metal trash containers specifically for this purpose.

-All spills will be cleaned up immediately after discovery.

-The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.

-Spills of toxic or hazardous material will be reported to the appropriate state or local government agency, regardless of the size.

-The spill prevention plan will be adjusted to include measures to prevent this type of spill from recurring and how to cleanup the spill if it recurs. A description of the spill, its cause, and the cleanup measures will be included.

-The site superintendent responsible for day to day operations will be the spill prevention and cleanup coordinator.

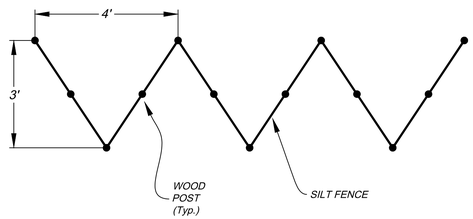
The General Contractor(s) and/or Project Owner(s)

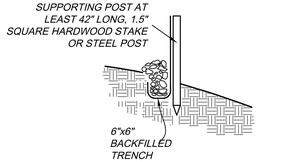
are assigned the responsibility for implementing this erosion and sediment control plan. This responsibility includes the installation and maintenance of control measures, informing all parties engaged on the construction site of the requirements and objectives of the plan, notifying the Planning and Zoning office of any transfer of this responsibility, and for conveying a copy of the Sediment & Erosion Control Plan if the title to the land is transferred.

RESPONSIBLE PERSON:
KYLE SHULTZ
WILLOW MATERIALS LLC
107 NORTH RIVERSIDE AVE.
TERRYVILLE, CT 06786
860-302-3261

Contingency Erosion Plan

Should unforeseen erosion or sedimentation problems arise, the design engineer of record. (R.R. Hiltbrand Engineers & Surveyors) and the local enforcement agent shall be notified immediately. An inspection of the affected area(s) shall be promptly performed. A remedial action plan shall be formulated with the local enforcement agent's approval. The site contractor shall then implement the recommended course of action which has been determined by both the engineer and local enforcement agent.





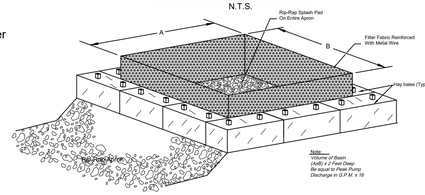
INSTALL SILTFENCE BEYOND 10' RIP-RAP BERM IN SAWTOOTH CONFIGURATION AND BACKFILL FENCE WITH CRUSHED STONE

SAWTOOTH SILT FENCE DETAIL

n.t.s.

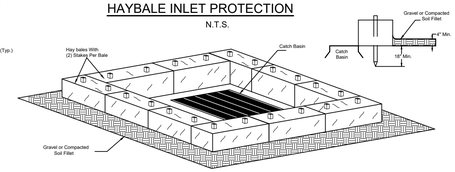
TEMPORARY SEDIMENT BASIN FOR DEWATERING DISCHARGE

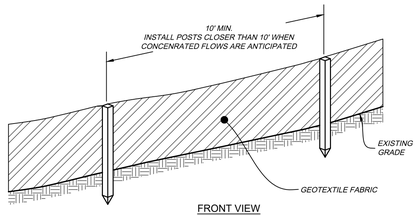
N.T.S.



HAYBALE INLET PROTECTION

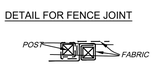
N.T.S.





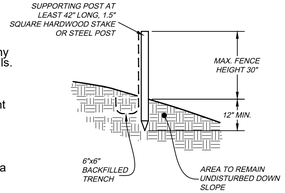
FRONT VIEW

DETAIL FOR FENCE JOINT



* POSITION POSTS TO OVERLAP AS SHOWN ABOVE, MAKING CERTAIN THAT THE FABRIC FOLDS AROUND EACH POST ONE FULL TURN

* DRIVE POSTS TIGHTLY TOGETHER AND SECURE TOPS OF POSTS BY TYING OFF WITH CORD OR WIRE TO PREVENT FLOW-THROUGH OF BUILT-UP SEDIMENT AT JOINT.

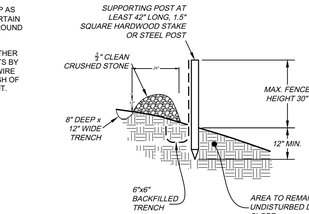


SIDE VIEW

SILT FENCE

N.T.S.

1. The geotextile fabric shall meet the design criteria for silt fences, of the '2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL'.
2. The height of the barrier shall not exceed 30 inches above grade.
3. Posts shall be spaced a maximum of (10) feet apart at the barrier location and driven securely into the ground (Min. 12 inches). When extra strength fabric is used without the wire support fence, post spacing shall be as the manufacturer recommends.
4. A trench shall be excavated approx.. (6) inches wide by (6) inches deep along the line of the posts and upslope from the barrier in accordance with recommendations.
5. The fabric shall not extend more than (30) inches above the original ground surface, and will extend a minimum of (8) inches into the trench. Filter fabric shall not be stapled to existing trees.
6. The trench shall be backfilled and soil compacted over the filter fabric.
7. Filter barriers shall be removed when the have served their useful purpose. But not before the uphill surface has been permanently stabilized.
8. Filter barriers shall be inspected immediately after each rainfall, and at least daily during prolonged rainfall. Any required repairs shall be made immediately.
9. Should the fabric decompose or become ineffective prior to the end of the expected usable life and the barrier still be necessary, the fabric shall be replaced promptly.
10. Sediment deposits shall be removed when they reach approximately one-half the height of the barrier.
11. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required, shall be dressed to conform to the existing grade, prepared and seeded.



SIDE VIEW

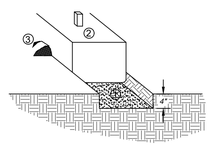
CRUSHED STONE DAM WITH SILTFENCE

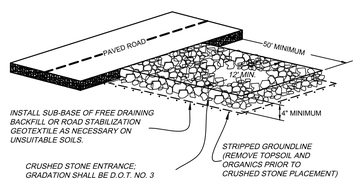
N.T.S.

PLACEMENTand CONSTRUCTION OF HAY BALE BARRIER

N.T.S.

1. EXCAVATE TRENCH 4" AND PLACE FILL UP-SLOPE OF TRENCH. PLACE HAYBALE & STAKE FIRST STAKE AT ANGLE TOWARDS
2. FIRST HAYBALE. STAKES ARE 18" MIN. INTO GROUND.
3. BACKFILL & COMPACT EXCAVATED FILL ALONG HAY BALE.
4. WEDGE LOOSE HAY BETWEEN BALES.





CONSTRUCTION ENTRANCE n.t.s.

DATE:	REVISION
7-23-20	COB STAFF COMMENTS DATED JULY 9, 2020
10-14-22	Update Topography for Permit Renewal

North

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

GRAPHIC SCALE
40 20 0 40 80
1 Inch = 40 Feet

R. R. HILTBRAND Engineers and Surveyors

OWNER/APPLICANT:
WILLOW MATERIALS LLC
107 NORTH RIVERSIDE AVE.
TERRYVILLE, CT 06786

SEDIMENT AND EROSION CONTROL DETAILS SHEET

BARNUM ROAD, FARRELL AVENUE

DATE: MAY 20, 2020

SCALE: As Noted

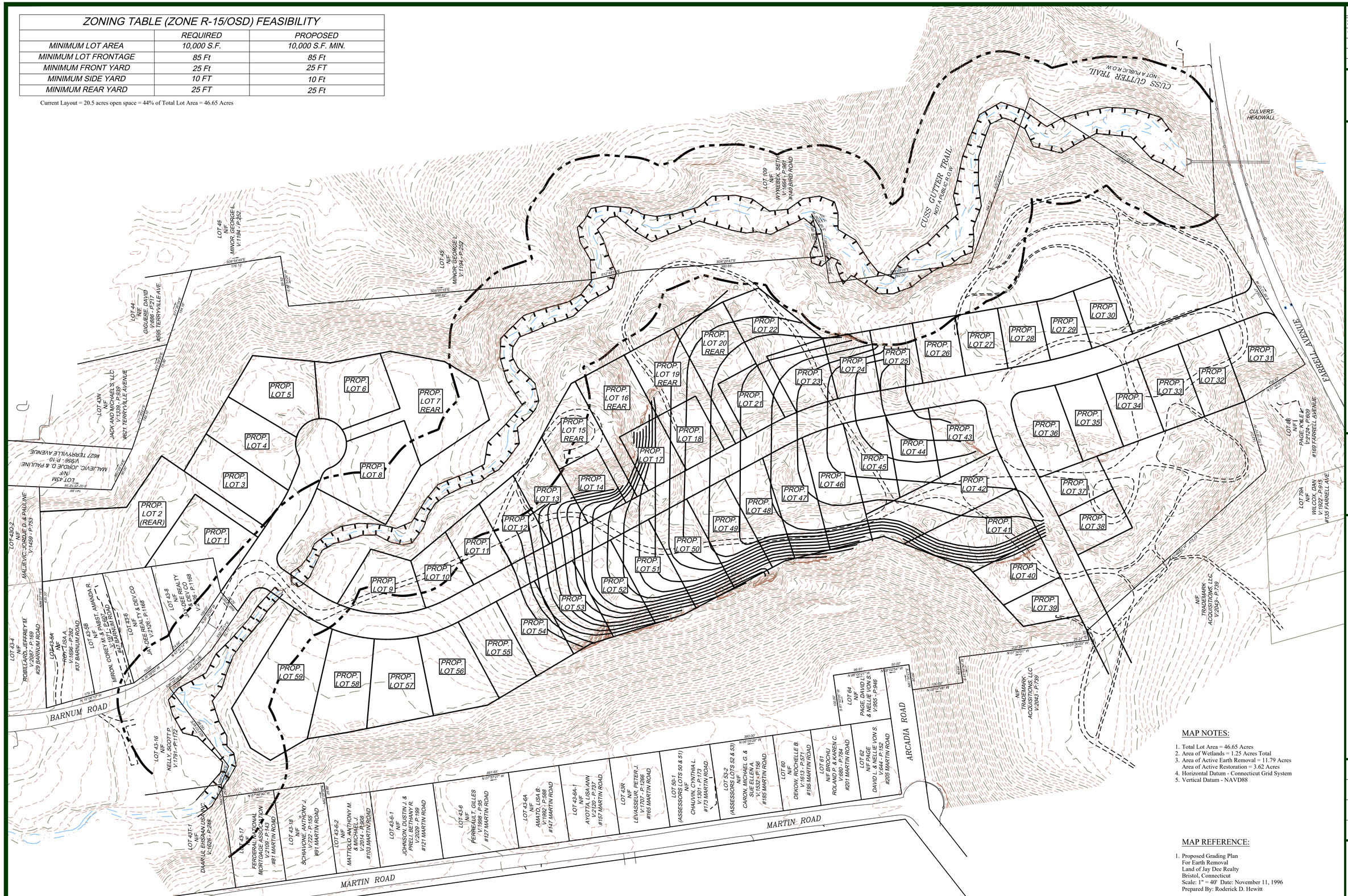
DRAWN BY: SMP

CHECKED BY: RRH

SHEET NO.: SE

ZONING TABLE (ZONE R-15/OSD) FEASIBILITY		
	REQUIRED	PROPOSED
MINIMUM LOT AREA	10,000 S.F.	10,000 S.F. MIN.
MINIMUM LOT FRONTAGE	85 Ft	85 Ft
MINIMUM FRONT YARD	25 Ft	25 FT
MINIMUM SIDE YARD	10 FT	10 Ft
MINIMUM REAR YARD	25 FT	25 Ft

Current Layout = 20.5 acres open space = 44% of Total Lot Area = 46.65 Acres



MAP NOTES:

1. Total Lot Area = 46.65 Acres
2. Area of Wetlands = 1.25 Acres Total
3. Area of Active Earth Removal = 11.79 Acres
   Area of Active Restoration = 3.62 Acres
4. Horizontal Datum - Connecticut Grid System
5. Vertical Datum - NAVD88

MAP REFERENCE:

1. Proposed Grading Plan
   For Earth Removal
   Land of Jay Dee Realty
   Bristol, Connecticut
   Scale: 1" = 40' Date: November 11, 1996
   Prepared By: Roderick D. Hewitt

DATE:	REVISION
7-23-20	COB STAFF COMMENTS DATED JULY 9, 2020
10-14-22	Update Topography for Permit Renewal.

North

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

GRAPHIC SCALE
80 40 0 80 160
1 Inch = 80 Feet

R. R. HILTBRAND Engineers and Land Surveyors

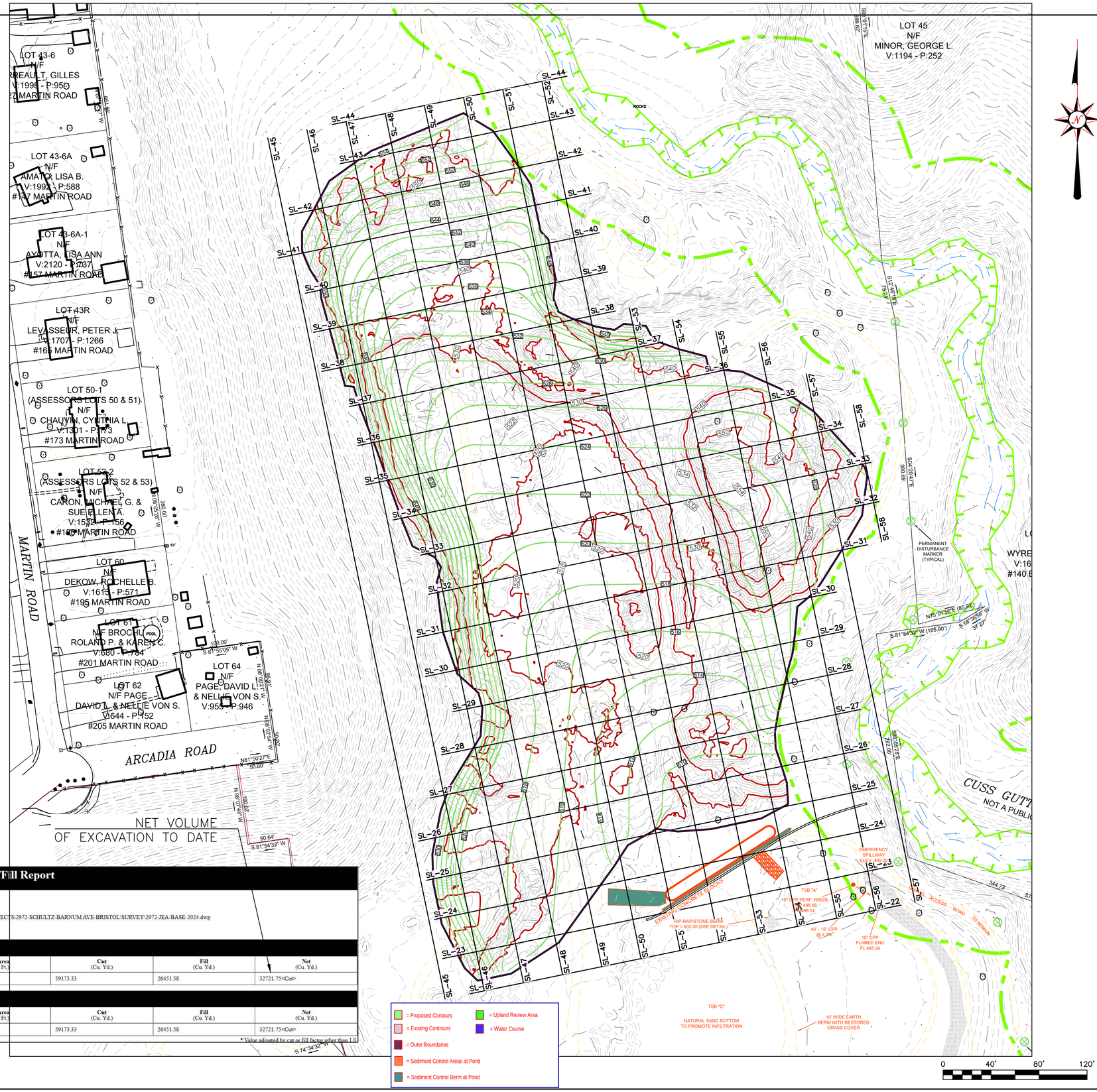
OWNER/APPLICANT:
WILLOW1 MATERIALS, LLC
100 LAKE MARIENBAD AVE
TERRYVILLE, CT 06786

FUTURE SUBDIVISION FEASIBILITY

EARTH REMOVAL PLAN

BARNUM ROAD, FARRELL AVENUE

DATE: MAY 20, 2020
SCALE: As Noted
DRAWN BY: SMP
CHECKED BY: RRH
SHEET NO.: SUB FEASIBILITY



Cut/Fill Report

Generated: 2024-08-22 07:39:19
By user: jasone
Drawing: K:\PROJECTS\2972-SCHULTZ-BARNUM AVE-BRISTOL\SURVEY\K:\PROJECTS\2972-SCHULTZ-BARNUM AVE-BRISTOL\SURVEY\2972-JEA-BASE-2024.dwg

Volume Summary

Name	Type	Cut Factor	Fill Factor	2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
TOTAL EXCAVATION	full	1.000	1.000	397021.64	59173.33	26451.58	32721.75<Cut>

Totals

	2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
Total	397021.64	59173.33	26451.58	32721.75<Cut>

* Value adjusted by cut or fill factor other than 1.0

J. EDWARDS & ASSOCIATES LLC
ENGINEERING • SURVEYING • SITE PLANNING
227 Stepney Road Easton, CT 06612
Phone:203.268.4205 Fax: 203.268.5604
www.jedwardsassoc.com

WILLOW INDUSTRIES
BARNUM AVENUE
BRISTOL, CONNECTICUT

REVISIONS

#	DATE	DESCRIPTION
1	XXXX	XXXX

DATE: AUGUST 13, 2024
PROJECT #: 2972
DRAWING FILE: 2972-BASE
DRAWN BY: JSE
SCALE: 1"=50'

TITLE

EXCAVATION ANALYSIS

SHEET NUMBER

1

FILE NO. XXXXX

For Office Use Only
APPLICATION NO. 2508
DATE FILED: 09-05-2024
DECISION DATE:
DECISION:

BRISTOL ZONING COMMISSION
CITY OF BRISTOL, CONNECTICUT
APPLICATION FOR SPECIAL PERMIT

The undersigned Applicant hereby applies to the Bristol Zoning Commission for approval under Section(s) Article II Section 4.3.1 of the Bristol Zoning Regulations for the following Special Permit use: Adaptive Reuse of Existing Non-Residential Principal Buildings

Address or Location of the Property: 92 Jeanette Street

Assessor's Map No.: 39 Assessor's Lot No.(s): 57

Zone of the Property: R-10 Size of the Property (in acres or square feet): .19 Acre

Reason for the Special Permit: To convert an existing industrial building containing 2772 useable square feet to two residential units (1 unit existing, 1 proposed)

Does this application involve an activity regulated by the Inland Wetlands Agency? [ ] yes [✓] no

If yes, has an application for a permit been submitted to the Inland Wetlands Agency? [ ] yes, on _____ [ ] no

Other comments: _____

NOTE: Section 8-3c(a) of the Connecticut General Statutes requires that, if an application for a Special Permit involves an activity regulated under the Inland Wetlands and Watercourses provisions of the statutes, the applicant shall submit an application for a wetlands permit to the local Inland Wetlands Agency no later than the day the Special Permit application is filed.

APPLICANT (If more than one, list on Page 2)

Name: Paul J Laferriere

Address: 150 Lynn Road City: Bristol State: Ct Zip: 06010

Telephone No.: (860) 877-6368 E-Mail: gaskienergymech@gmail.com

Signature: _____ *Signature – (Printed/Typed)* Paul J Laferriere

CHECK ONE: [✓] owner [ ] other (specify): _____

OWNER(S) OF RECORD (If other than Applicant; if more than one, list on Page 2)

Name: Same as Applicant

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ *Signature – (Printed/Typed)* _____

THIS APPLICATION MUST BE FILED IN PERSON NO LATER THAN 12 NOON ON THE DEADLINE DAY FOR APPLICATION SUBMISSION – NO EXCEPTIONS!

BZC – 08/17

For Office Use Only
APPLICATION NO. 2508

CITY OF BRISTOL, CONNECTICUT
SUPPLEMENTARY INFORMATION

Address or location of property: 92 Jeanette Street

ADDITIONAL INFORMATION/COMMENTS (click inside the box below and begin typing)

ADDITIONAL APPLICANT

Name: _____ CHECK ONE: [ ] owner [ ] other: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

ADDITIONAL OWNER(S) OF RECORD

Name: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

Name: _____

Address: _____ City: _____ State: ____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

(OPTIONAL) SEND COPIES OF ALL CORRESPONDENCE TO:

Name: Development Planning Solutions LLC

Address: 225 North Main Street Suite 207 City: Bristol State: Ct Zip: 06010

Telephone No.: (860) 506-4268 E-Mail: charlie@developmentplanningsolutions.com

08/17 - LUO

Review Comments

From: Andrew Armstrong
Sent: Tuesday, October 8, 2024 3:52 PM
To: Charlie Talmadge <Charlie@developmentplanningsolutions.com>
Cc: Robert Flanagan <RobertFlanagan@bristolct.gov>
Subject: 92 Jeannette Street - Staff Review Comments

Hello Charlie,

We had just a few comments in our review of the Special Permit for Adaptive Reuse at 92 Jeanette Street. See below:

1) Clarify the GFA. The application mentions "usable square footage" only and the narrative mentions neither.
2) Provide address numbers for each new address.
3) Stripe driveway parking spaces to avoid conflict and prevent vehicles parking parallel across the driveway opening and add this to the survey of the property.

Let us know if you have any additional questions or concerns.

Thank you.

Andrew J. Armstrong

From: Charlie Talmadge [mailto:Charlie@developmentplanningsolutions.com]
Sent: Friday, October 18, 2024 11:16 AM
To: Robert Flanagan <RobertFlanagan@bristolct.gov>
Cc: Andrew Armstrong <AndrewArmstrong@bristolct.gov>
Subject: 92 Jeanette

Gentlemen, please see signed map from the surveyor attached. I will have 4 hard copies over to your office shortly.

As for the Floor Area, the property card lists the Gross Floor Area as 6,444 square feet, and the "Living Area" as 2,772 square feet.

For the purposes of this special permit, I based our request off of the lesser amount.

Regards,

Charlie Talmadge
Development Planning Solutions LLC
225 North Main Street, Suite 207
Bristol Ct, 06010
(o) 860-506-4268
(c) 860-712-3967

Narrative

Project Narrative

Project Title: 92 Jeanette Street

General Information

Project Name: 92 Jeanette Street **Project Location:** 92 Jeanette Street **Zone:** R-10 **Project Type:** Adaptive Reuse of Non-Residential Structure **Date Submitted:** 9-5-2024 **Variances Required:** No **Wetlands Approval Required:** No **Special Permit Required:** No **Site Plan Approval Required:** No	**Developer:** Paul Laferriere **Surveyor:** Gary B. LeClair **Architectural Design:** Development Planning Solutions LLC **Landscape Design:** N/A **Lighting Design:** N/A **Project Consultant:** Development Planning Solutions LLC **Legal Representative:** N/A

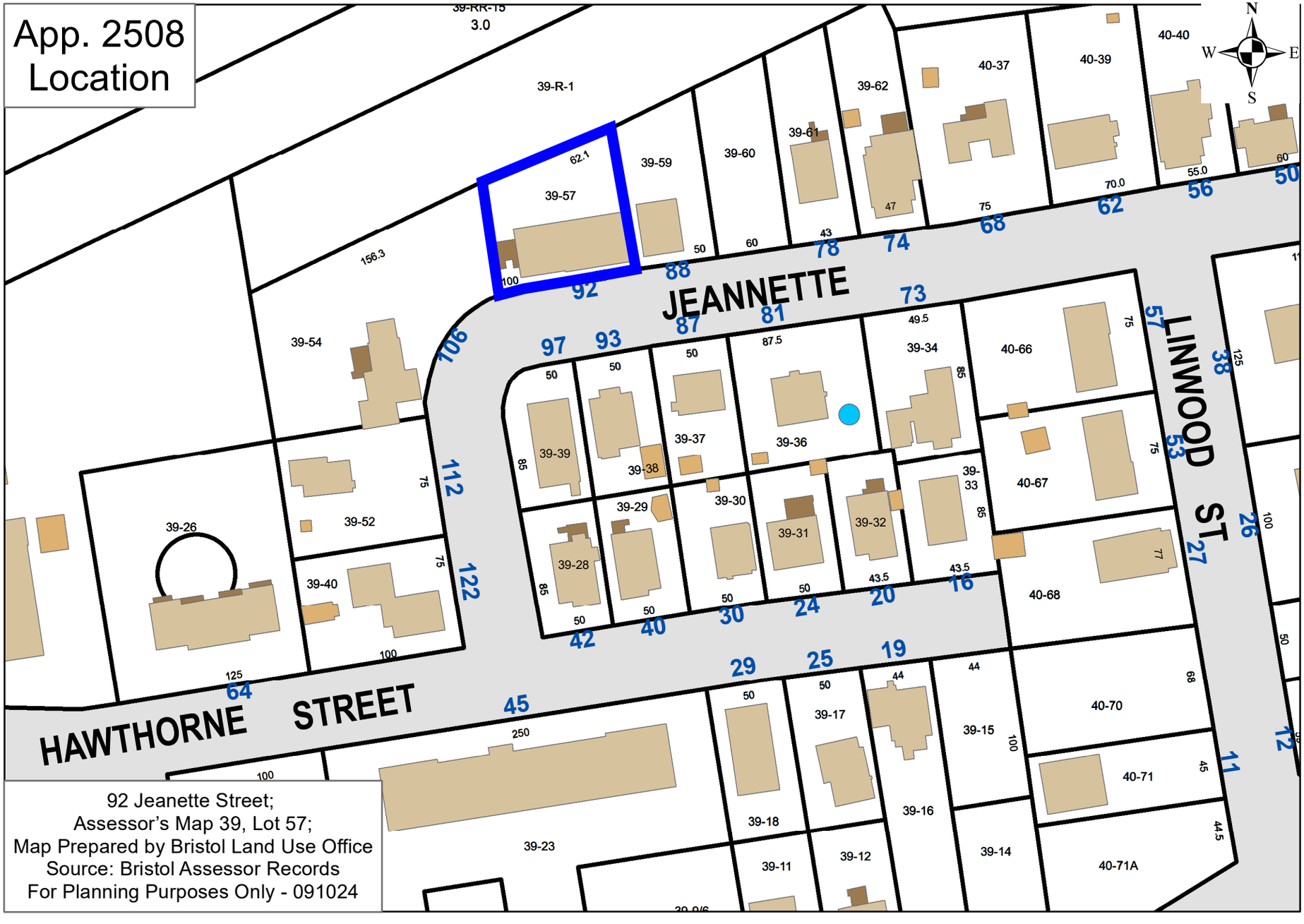
Project Overview

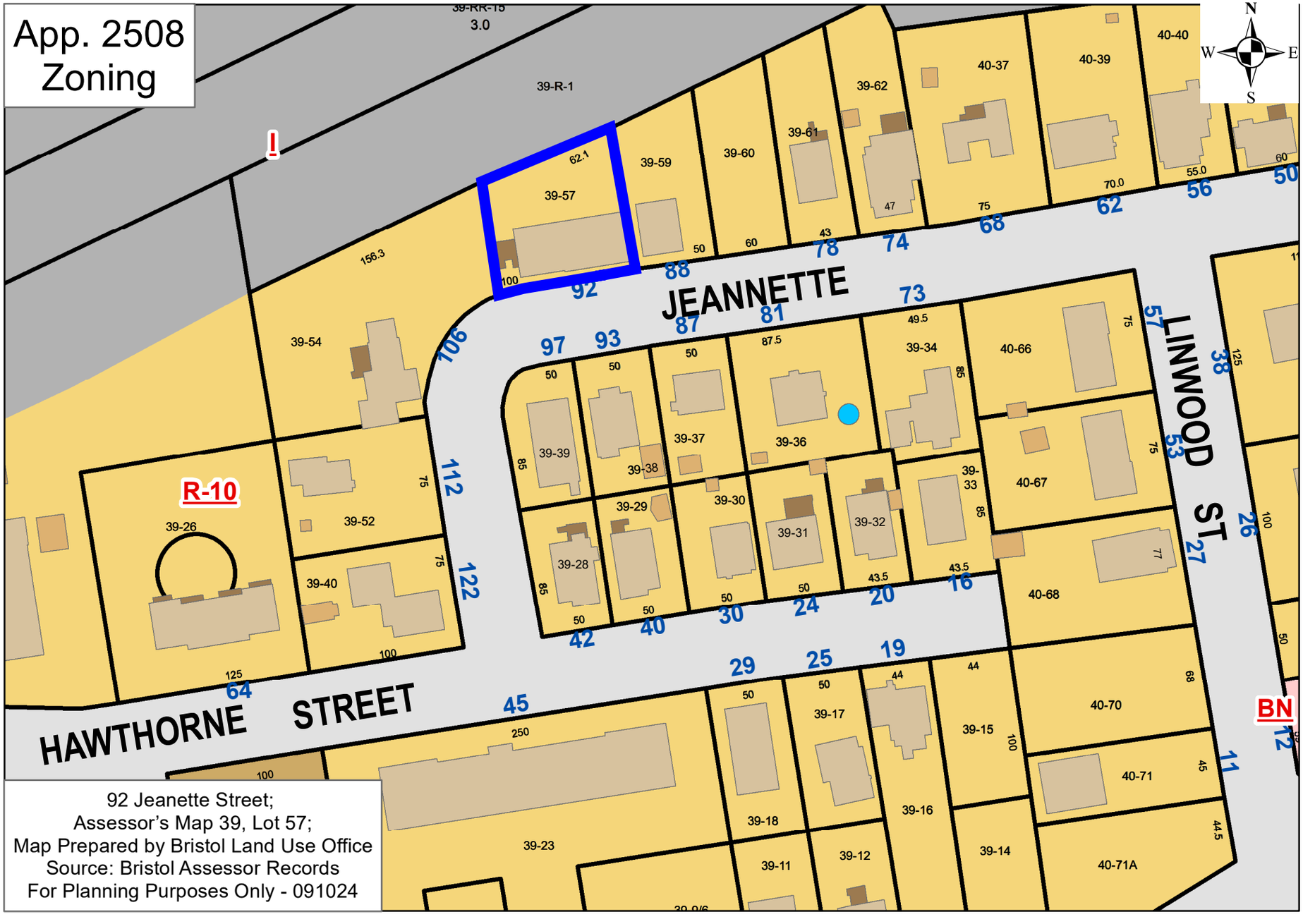
This Project is being proposed under Article II Section 4.3.1. of the City of Bristol Zoning Regulations and is the adaptive reuse of a non-residential principal structure. The building was built as a light manufacturing / service shop in the 1930's and has remained that way ever since. Originally, the second floor was proposed as office space but was converted to an apartment some time ago.

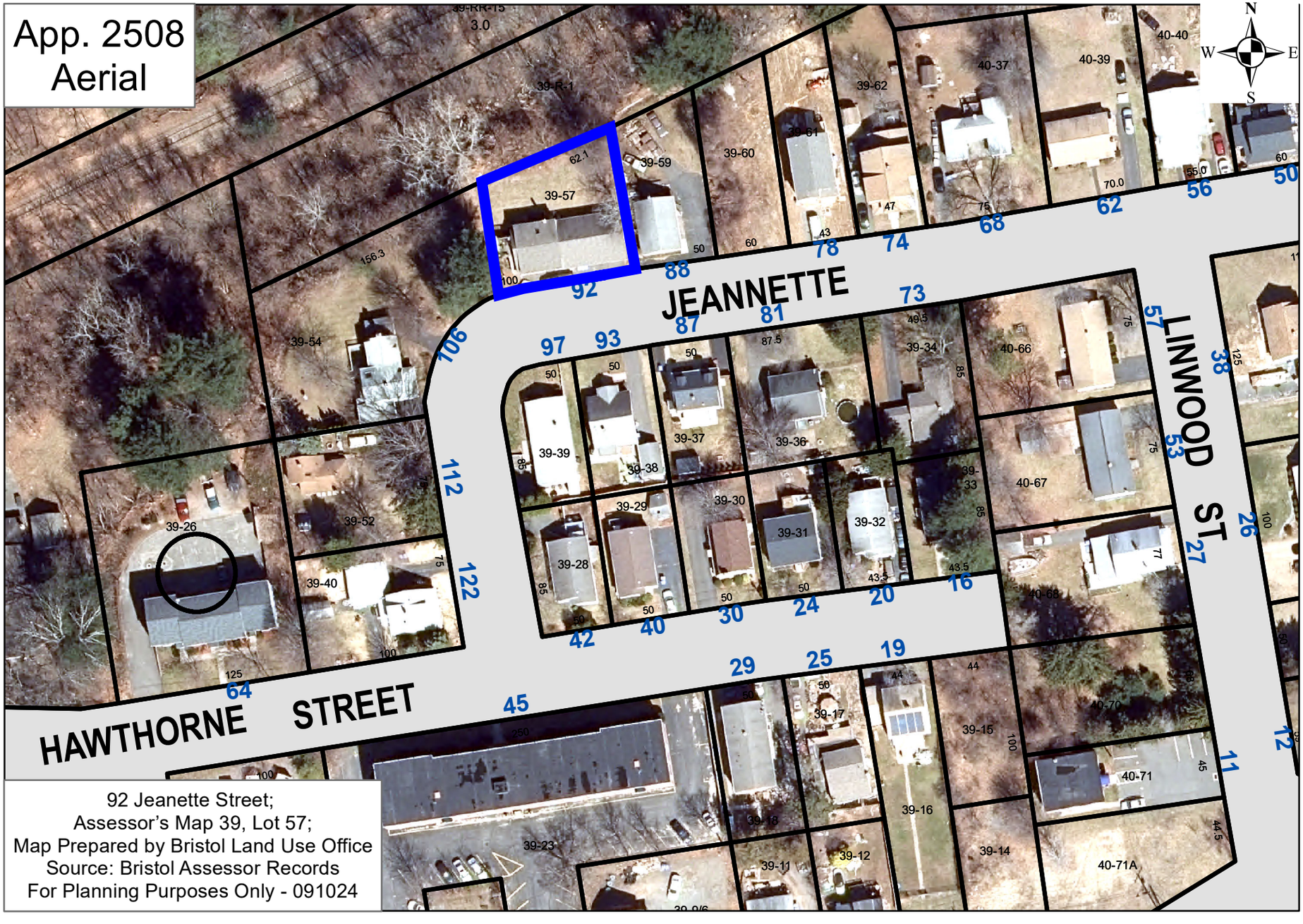
This application is seeking to "formalize" the existing apartment and convert the first-floor shop area into a second apartment effectively changing the use from an industrial property to a two-family residential property. The applicant feels that this conversion to strictly residential use is more appropriate for the neighborhood which is made up of predominately single-family dwellings.

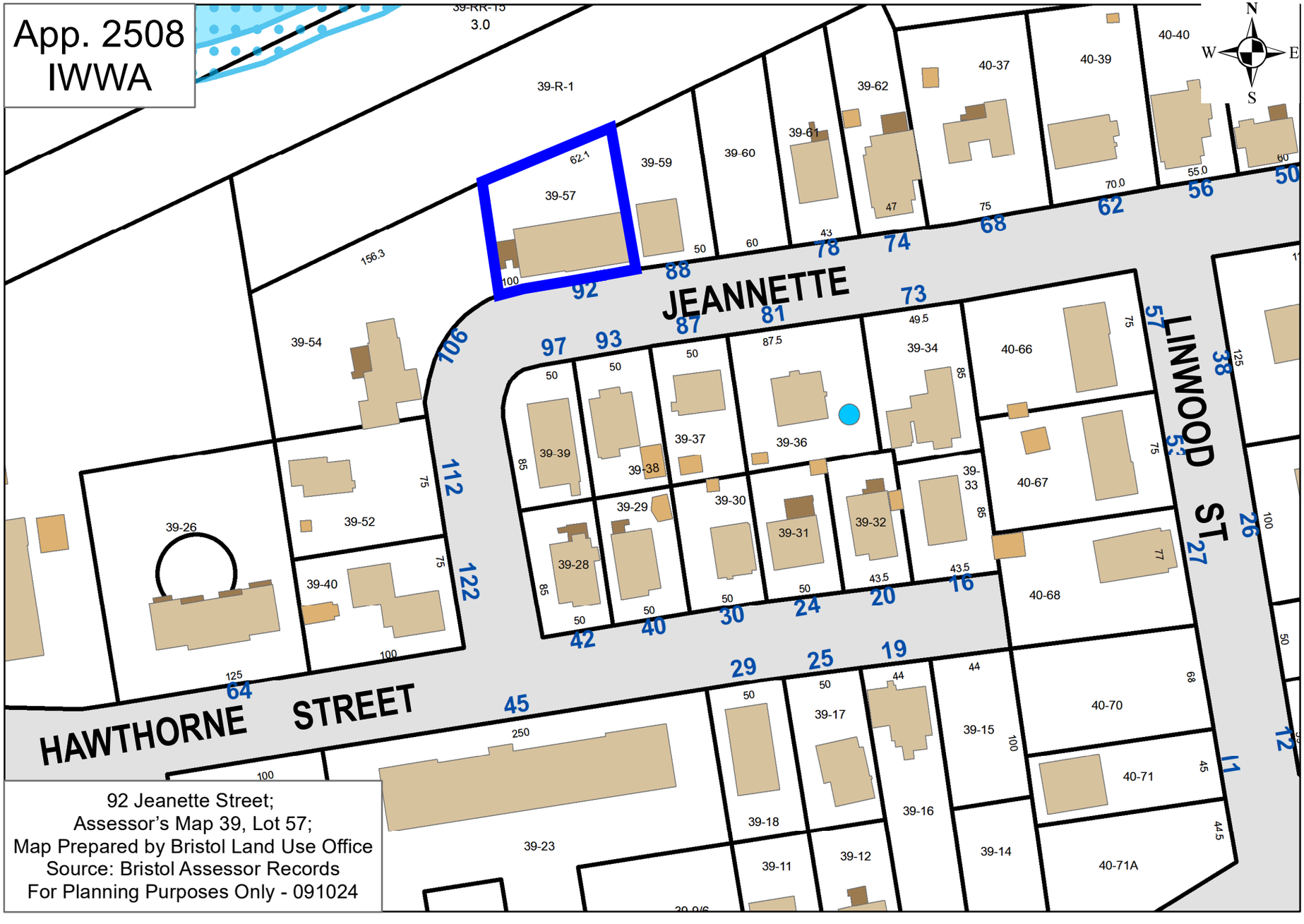
Two of the three existing, street-facing, overhead doors will remain as part of this project, preserving two garage bays and the spaces directly in front of them for resident parking. The remaining asphalt area provides for two visitor parking spaces.

Since no exterior work is proposed as part of the application the request is for a special permit only.


App. 2508
Location
JEANNETTE
LINWOOD ST
HAWTHORNE STREET
39-R-1
39-57
39-54
39-52
39-26
39-40
39-39
39-38
39-37
39-36
39-34
39-33
39-32
39-31
39-30
39-29
39-28
40-66
40-67
40-68
40-70
40-71
40-71A
39-62
39-61
39-60
39-59
40-37
40-39
40-40
39-17
39-18
39-15
39-16
39-14
39-12
39-11
39-23
92 Jeanette Street;
Assessor's Map 39, Lot 57;
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 091024

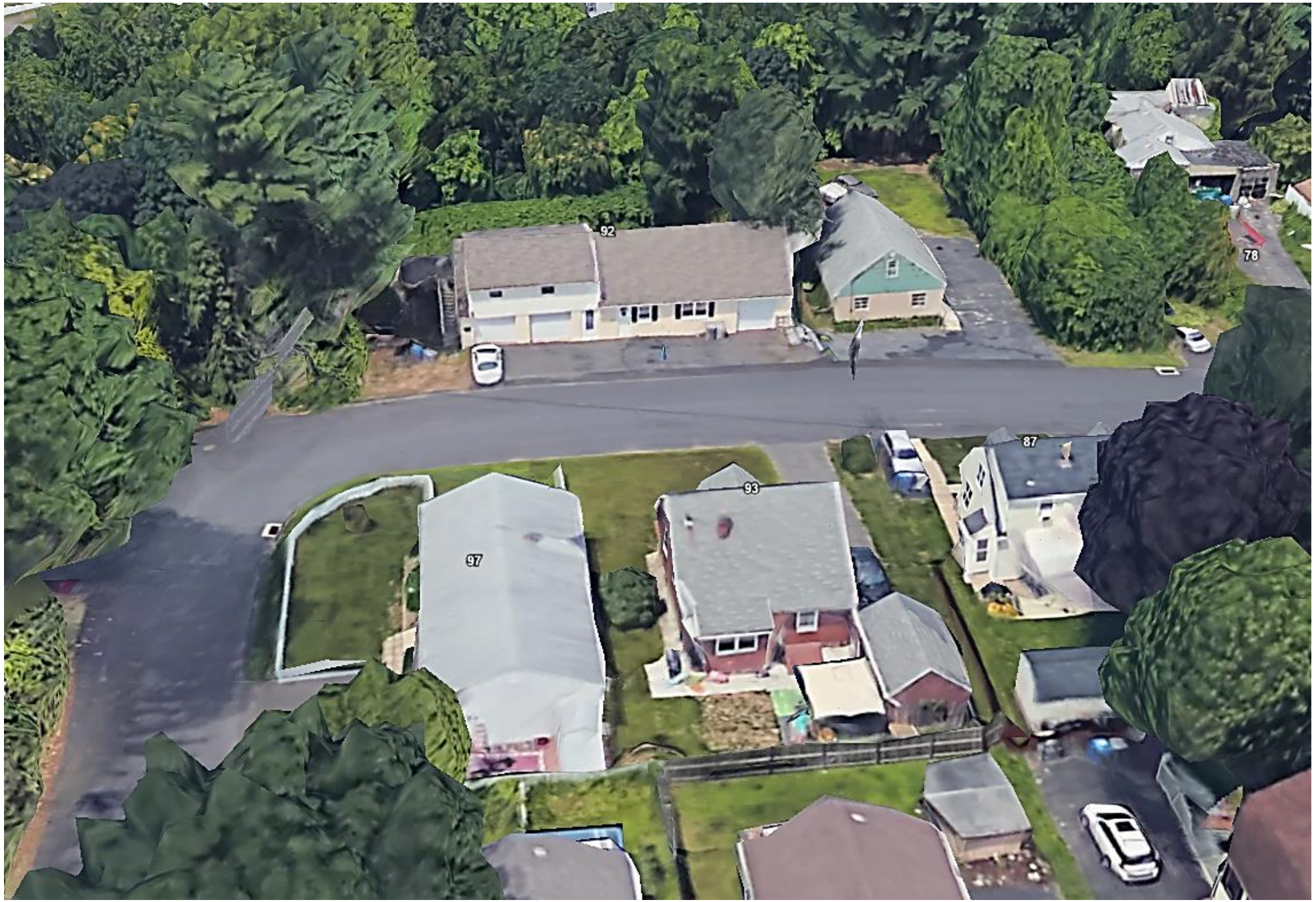

App. 2508
Zoning
39-RR-15
3.0
39-R-1
I
R-10
39-57
62.1
39-59
39-60
39-61
39-62
40-37
40-39
40-40
39-54
156.3
JEANNETTE
39-39
39-38
39-37
39-36
39-34
40-66
39-52
39-40
39-26
39-29
39-30
39-31
39-32
39-33
40-67
39-28
40-68
LINWOOD ST
HAWTHORNE STREET
39-23
39-18
39-17
39-15
40-70
40-71
39-16
39-14
40-71A
39-12
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W
92 Jeanette Street;
Assessor's Map 39, Lot 57;
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 091024


App. 2508
Aerial
N
W
E
S
JEANNETTE
LINWOOD ST
HAWTHORNE STREET
39-57
39-59
39-60
39-62
40-37
40-39
40-40
39-54
39-26
39-52
39-40
39-39
39-38
39-37
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39-32
39-33
40-67
39-28
40-68
39-17
39-15
40-70
39-16
40-71
39-14
40-71A
39-23
39-11
39-12
92 Jeanette Street;
Assessor's Map 39, Lot 57;
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 091024

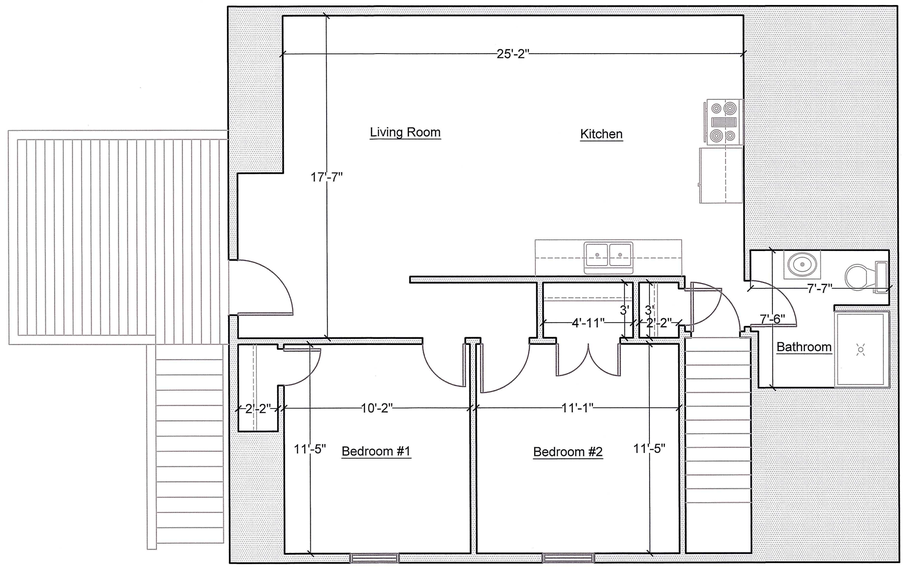

App. 2508
IWWA
JEANNETTE
HAWTHORNE STREET
LINWOOD ST
39-R-1
39-57
39-59
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39-61
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39-26
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92 Jeanette Street;
Assessor's Map 39, Lot 57;
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 091024

Google Earth

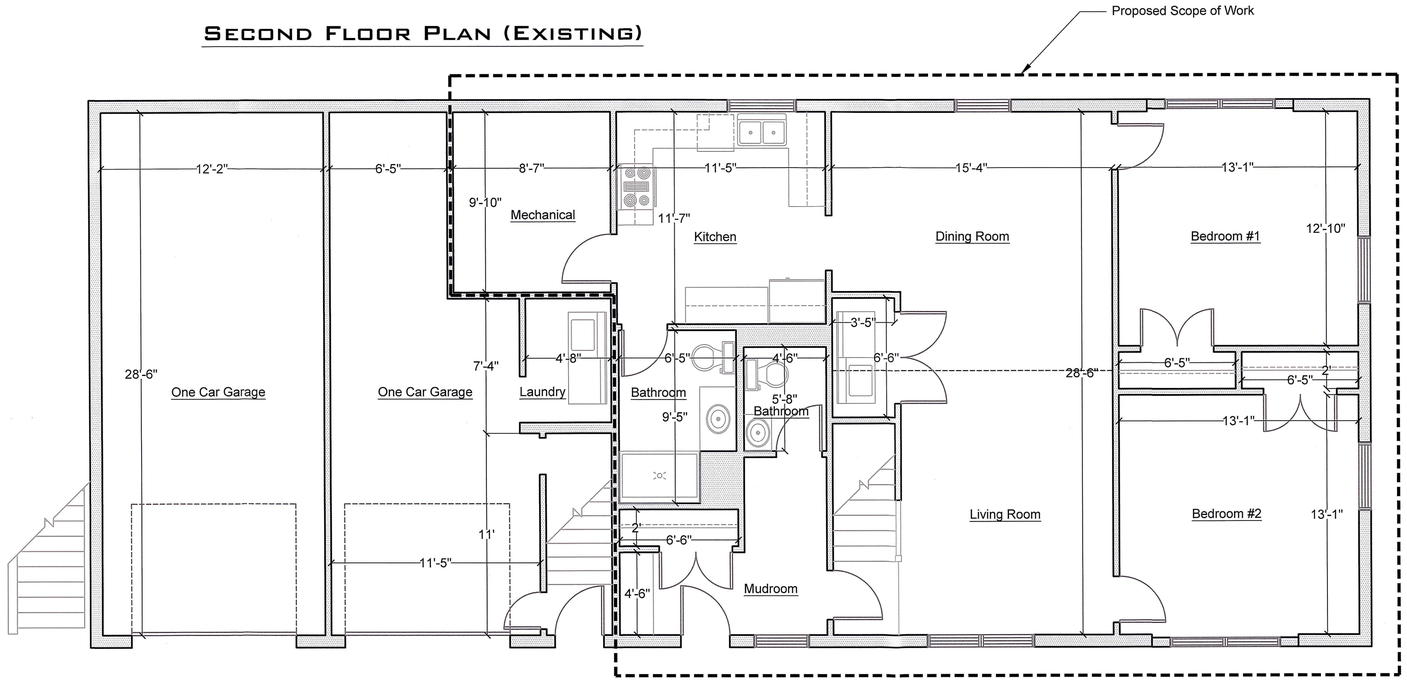

106
92
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97

Floor Plan



Second Floor Plan (Existing)

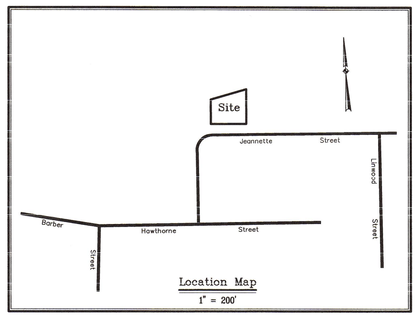


First Floor Plan (Proposed)

Drawing Title	Scale
Adaptive Reuse of Existing Structure **92 Jeanette Street Bristol Ct**	$\frac{1}{4}$" = 1' - 0"
DPS_CLIENTS_LAFERRIERE_BRISTOL_92 JEANETTE	Project Number 2024-15

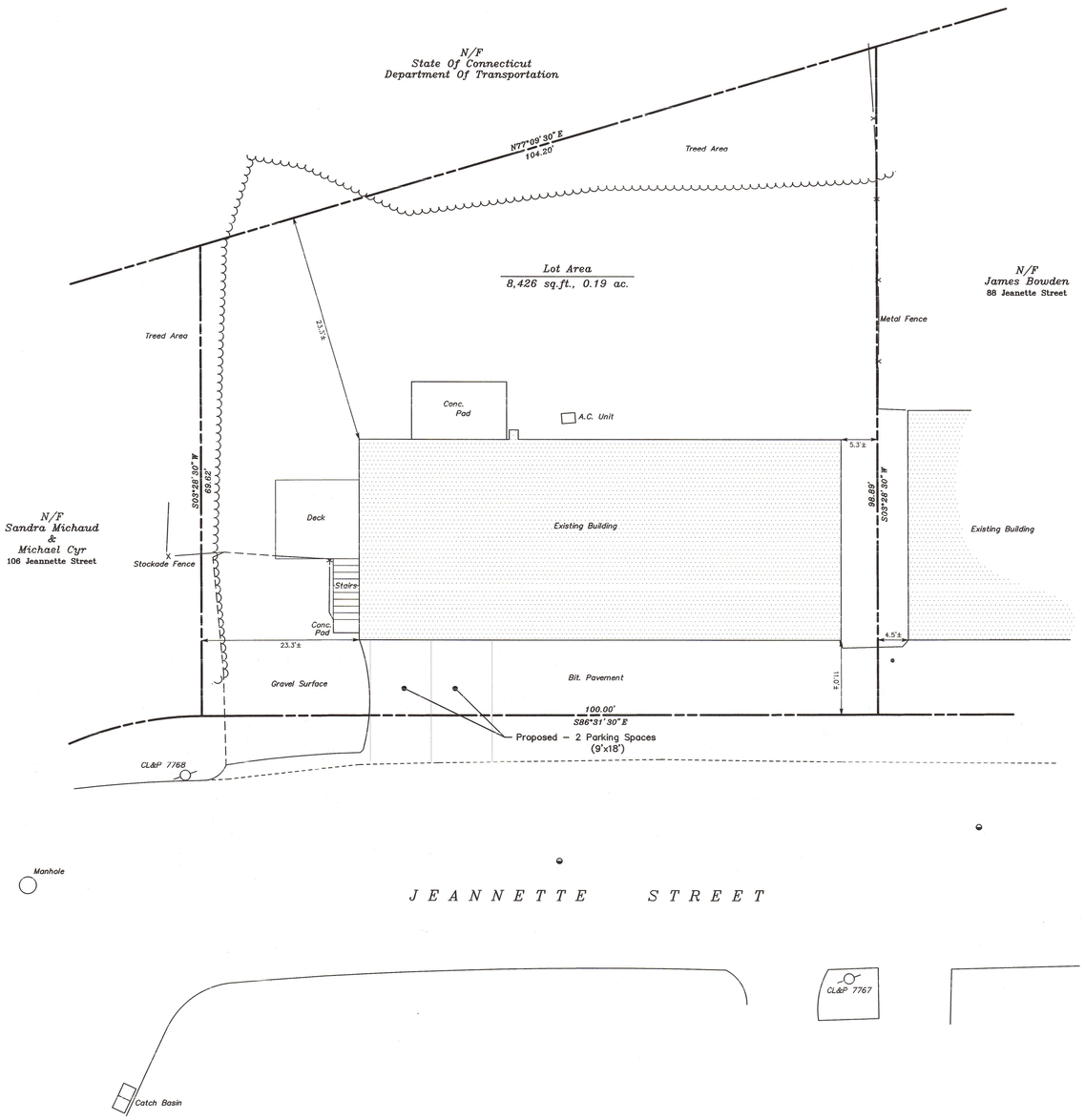
D|P|S
DEVELOPMENT PLANNING SOLUTIONS LLC
225 North Main Street
Suite 207
Bristol Connecticut
(860)506-4268

Survey



Legend:

- Existing IP
- IP (To Be Set)
- Existing Monument
- Monument (To Be Set)
- Drill Hole
- Utility Pole
- Wire On Ground
- Water Gate
- Gas Gate
- Signs
- Bollard
- Hydrant
- Light
- Handhole
- Mail Box
- Monitor Well
- Existing Trees
- Stonewall
- Fence
- Guide Rail
- Tree Line
- Existing Contour Line
- Existing Spot Elevation
- Approx. Location Of Water Main
- Approx. Location Of U.G. Telephone Line
- Approx. Location Of U.G. Electric Line
- Approx. Location Of U.G. Communications Line
- Approx. Location Of Gas Main



Map References:

1. "Pinehurst Owned By Jordan And Selleck Inc. Land Home Office Bridgeport, Conn. Scale 50ft. 1919".
2. "Todd Heights Property Of The Title Realty And Development Co-Inc. New Britain, Conn. Located On Todd Homestead Off Pine Street Bristol, Conn. Scale 50ft. Aug-1917 David F. Crowley Civil Engineer".
3. "Street Line Map Of Streets Pinehurst & Todd Homestead Tracts Bristol, Conn. Nov. 1930 Scale 1" = 50' Carleton W. Buell, City Engineer".
4. "Map Of Boundary Line Agreement Between Egidio & Theodore L. Baraglia Forestville, Conn. Sept. 1953 Scale 1" = 40' W.C. Lefevre, C.E.".
5. "Map Of Property Owned By Arrow Manufacturing Company Jeanette, Ann & Broad Streets Bristol, Connecticut Scale 1" = 40' Date 12-27-85 By A.F. Lepore, Jr. Associates P.C.".
6. "Compilation Plan City Of Bristol Map Showing Land Acquired From Broad Street, LLC By The State Of Connecticut Deqartment Of Transportation Relocation Of Route '72 February 2003".

General Notes:

1. Bearings based on reference map #5.
2. Underground utility, structure and facility locations noted hereon have been compiled, in part, from record mapping supplied by the respective utility companies or governmental agencies, from parol testimony and from other sources. These locations must be considered as approximate in nature. Additionally, other such features may exist on the site, the existence of which are unknown to this surveyor. The size, location and existence of all such features must be field determined and verified by the appropriate authorities prior to construction. Call Before You Dig 1-800-922-4455.
3. This survey and map has been prepared in accordance with Sections 20-300b-1 through 20-300b-20 of the Regulations of Connecticut State Agencies – "Standards for Surveys and Maps in the State of Connecticut" as endorsed by the Connecticut Association of Land Surveyors, Inc. It is a Limited Property Survey based on a Resurvey conforming to Horizontal Accuracy Class A-2.

ZONING INFORMATION BULK CHART:		
ZONE: R-10	REQUIRED	EXISTING
MINIMUM LOT AREA	10,000 sq.ft.	8,426 sq.ft., 0.19 ac.
MIN. LOT FRONTAGE	85'	100.00'
MIN. FRONT YARD	20'	11.0'
MIN. SIDE YARD	8'	5.3'
MIN. REAR YARD	20'	23.3'
MAX. BUILD. COVERAGE	35%	25.1%

These drawings are the property of the Surveyor and have been prepared specifically for the owner of the Project at this site. They are not to be used for any other purpose, location, or person without the written consent of the Surveyor.

No declaration is expressed or implied unless these plans bear the live signature and embossed seal of the Surveyor whose name appears hereon.

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)

1 inch = 10 ft.

TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

STATE OF CONNECTICUT GARY B. LECLAIR 70017 LICENSED LAND SURVEYOR

Gary B. LeClair, L.S. #70017

Zoning Location Survey

Prepared For

Paul J. Laferriere

92 Jeannette Street
Bristol, Connecticut

Map: 39 Lot: 57 Zone: R-10

Gary B. LeClair, LLC
Licensed Land Surveyors
57 ACORN DRIVE
WINDSOR LOCKS, CONNECTICUT 06096
(860) 627-8200

BY	SCALE	DATE	SHEET	CHECKED	NO.
A.B.L.	1" = 10'	6-19-24	1 OF 1	G.B.L.	224011

D | P | S
DEVELOPMENT PLANNING SOLUTIONS LLC.

September 5, 2024

Robert Flanagan, City Planner
City of Bristol Connecticut
111 North Main Street
Bristol Connecticut, 06010

RE: Alternative Signage Program for Center Square Village

Dear Mr. Flanagan,

Due to the complex nature of Mixed-Use Developments the subject of signage was left open-ended at the time of approval of the site plan for the Center Square Village Development. This was done for two primary reasons. At the time of approval, the final number of commercial tenant spaces, and the nature of the tenants themselves were unknown.

Since the total area of the development exceeds 50,000 square feet, we would like to request an approval for the Center Square Village Project to enter into the Alternative Signage Program under Article III, Section 14.7 of the City of Bristol Zoning Regulation.

This request is being made in an effort to establish a consistent and comprehensive signage program for both phases of the development. Please find attached, several examples of the commercial signage types, sign brackets, building mounted lettering, doorway signage, and monument signage proposed for the development.

On behalf of Center Square Village LLC, we respectfully request that the Alternative Signage Program for Center Square Village be added to the agenda for the September 16, 2024 regular meeting of the Zoning Commission to be discussed as a New Business item.

Sincerely,

Charlie Talmadge
President, Development Planning Solutions LLC
225 North Main Street Suite 207
Bristol Ct, 06010
(860) 506-4268
charlie@developmentplanningsolutions.com

CENTRE SQUARE

VILLAGE

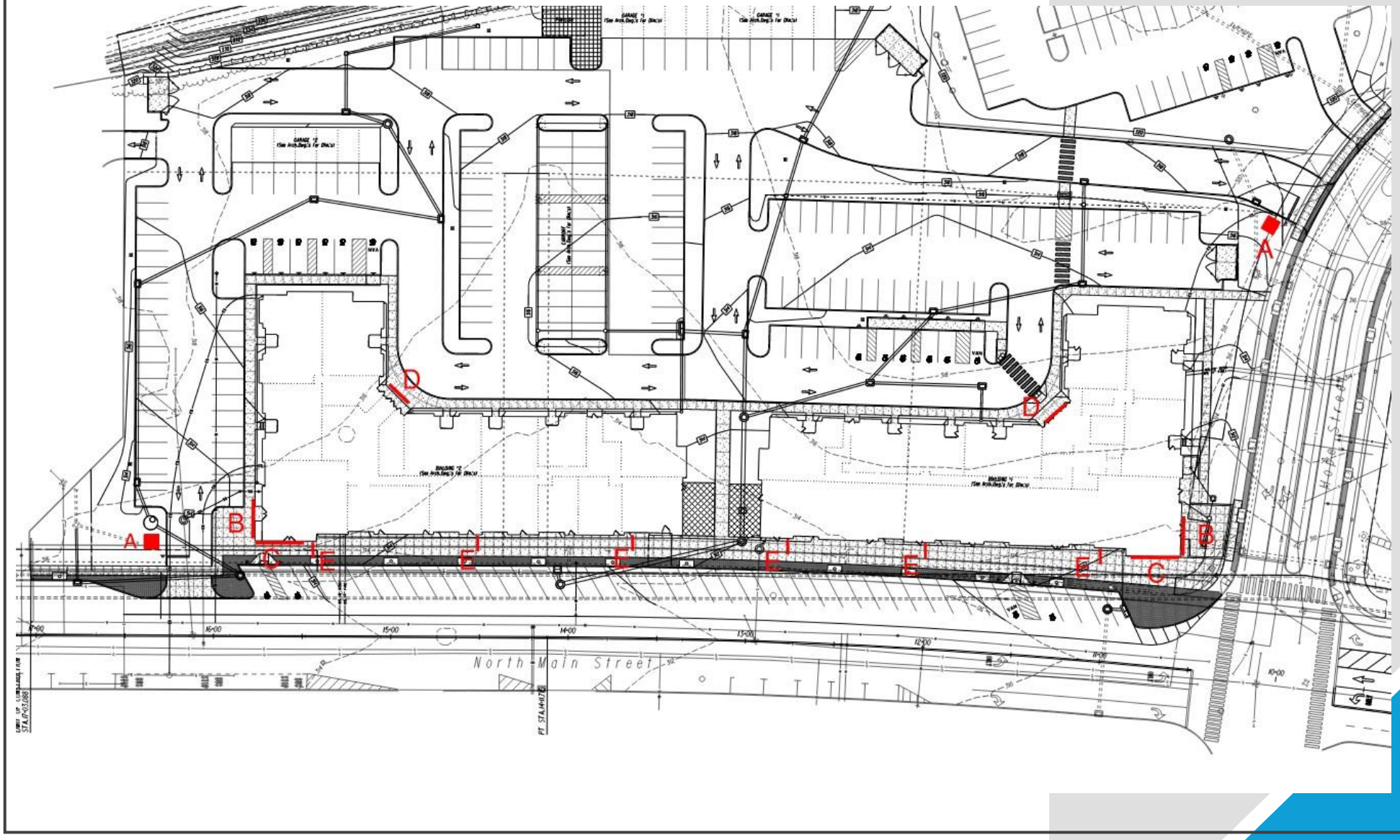
Signage Proposal

100 North Main
street Bristol CT

Label	Type of sign	Proposed size
A	¼” Flat cut aluminum painted black (Monument)	22.75 sq ft (each)(total of 2)
B	¼” Flat cut aluminum painted black (Property name)	11.2 sq ft (each) (total of 2)
C	¼” Flat cut aluminum painted black (property address N Main)	9.6 sq ft (each) (total of 2)
D	¼” Flat cut aluminum painted black (property address courtyard)	9.6 sq ft (each) (total of 2)
E	50” Scroll Bracket (retail signs)	6 sq ft (each) (currently 6)
F		

SIGNAGE PROPOSAL BREAKDOWN

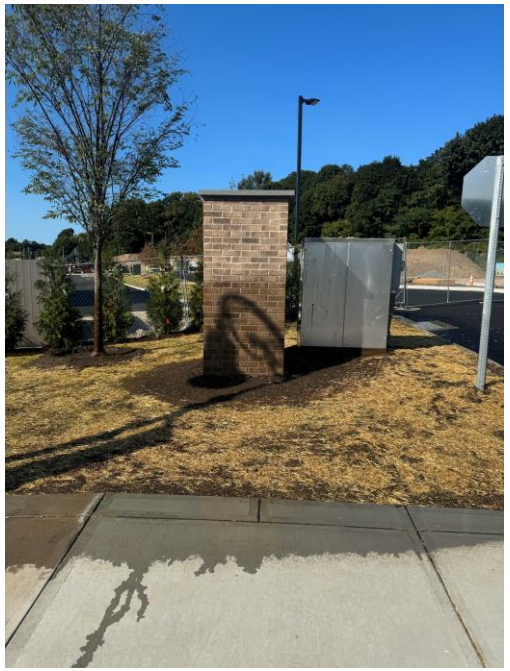
SITE PLAN





Monument signage







Monument signage

TRANSFORMER TO BE REMOVED



Building Signage parking lot side

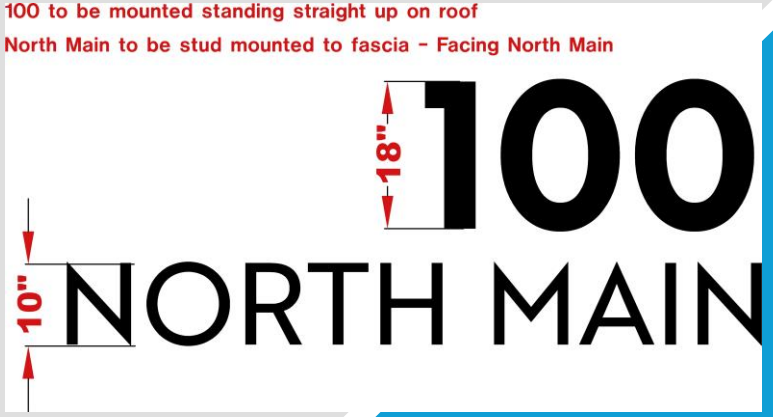
100 to be mounted standing straight up on roof

North Main to be stud mounted to fascia – Facing Courtyard Parking Lot





Building Signage facing north main



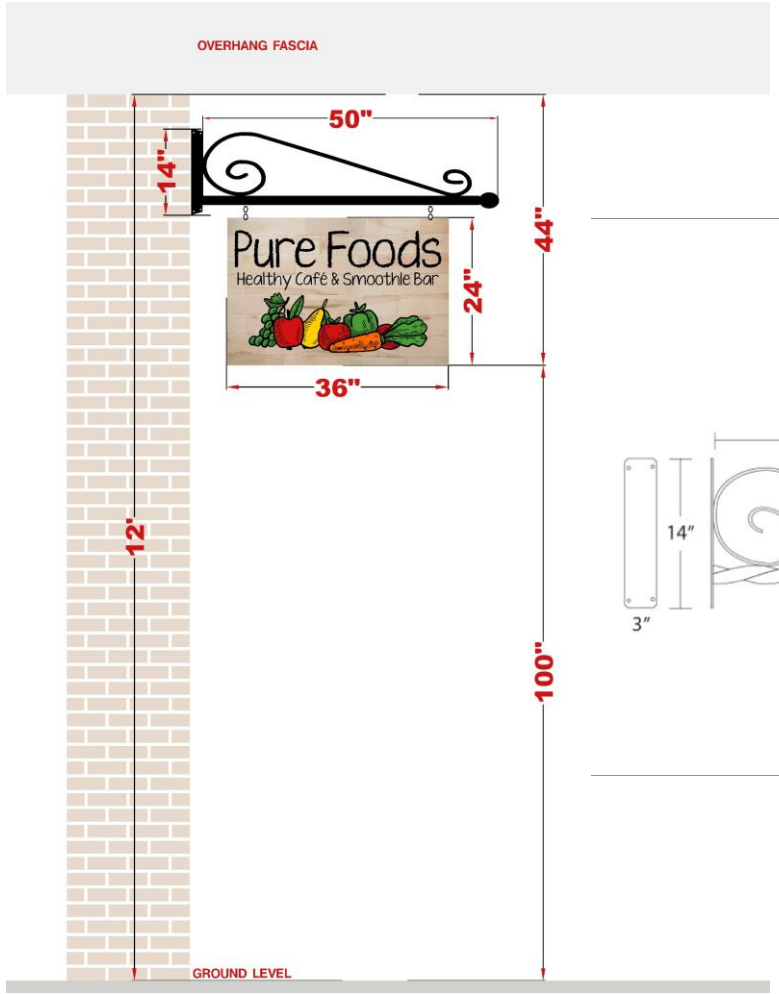
Building Signage facing hope



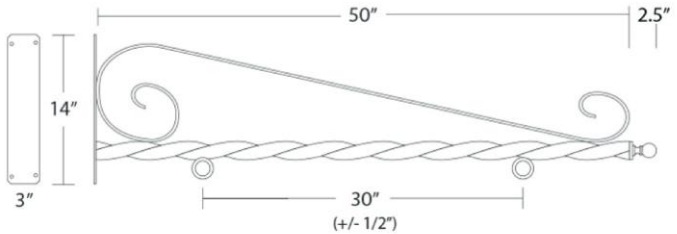
To be stud mounted to fascia - Facing Hope St



Business signage



X-BR-DSB-48



1-3/4"Twisted Steel Shaft



Business signage