

Town of Colchester

Land Use Department
127 Norwich Ave, Suite 105
Colchester, CT 06415
www.colchesterct.gov



Demian Sorrentino, AICP, Planning Director
Stacey Churchill, Land Use Assistant
Isabelle Kisluk, Asst. Planner/ZEO
Daniel Hickey, Wetlands Agent
T: (860) 537-7278

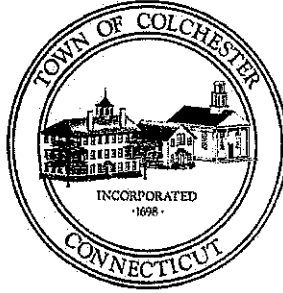
**PLANNING & ZONING COMMISSION
REGULAR MEETING
Wednesday, November 1, 2023 – 7:00 PM
Town Hall Meeting Room 1
AGENDA**

RECEIVED
COLCHESTER, CT
2023 OCT 30 PM 2:05
Dorothy Furman
TOWN CLERK

1. **Call to Order**
2. **Additions or Deletions to the Agenda**
3. **Minutes of Previous Meeting**
 - A. Regular Meeting 10/18/23
4. **Public Hearings**
 - A. **PZC2023-012** of Stephen M. Fedus (Applicant) and Stephen M. Fedus, Trustee of the Stephen M. Fedus Trust Agreement Dated August 15, 2001 (Owner) – Special Permit and Site Plan Review for proposed 19-unit multi-family residential development on 8.5± acres located at 203 Amston Road (Assessor's ID 21-00-003-000) Zoning District: Suburban Use (SU) & APOZ
5. **Five Minute Session for the Public**
6. **Pending Applications**
 - A. **PZC2023-012** of Stephen M. Fedus (Applicant) and Stephen M. Fedus, Trustee of the Stephen M. Fedus Trust Agreement Dated August 15, 2001 (Owner) – Special Permit and Site Plan Review for proposed 19-unit multi-family residential development on 8.5± acres located at 203 Amston Road (Assessor's ID 21-00-003-000) Zoning District: Suburban Use (SU) & APOZ
7. **New Applications**
 - A. **PZC2023-013** of Galaxy Development, LLC (Applicant) and Kettle Club, LLC (Owner) – Special Permit and Site Plan Review for proposed multi-tenant building for commercial development including food service with a pick-up window on 0.79± acres located at 131 Linwood Avenue (Assessor's ID 11-00-027-000) Zoning District: Town Center (TC)
8. **Preliminary Reviews**
9. **Old Business**
10. **New Business**
11. **Planning Issues and Discussions**
 - A. Zoning Enforcement Status Report
12. **Correspondence**
13. **Adjournment**

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PLANNING & ZONING COMMISSION
REGULAR MEETING
Wednesday, October 18, 2023 – 7:00 PM
Town Hall Meeting Room 1
MINUTES

Members Present: Chairman J. Mathieu; Vice Chair J. Novak; B. Hayn; M. Noniewicz; S. Nadeau; S. Smith
Absent:: M. Kehogreen
Also Present: Planning Director D. Sorrentino; Mark Reynolds, PE; Stephen Fedus; Public

RECEIVED
COLCHESTER, CT
2023 OCT 19 AM 11:49
ALEX FURMAN
TOWN CLERK

1. **Call to Order** – Chairman Mathieu called the meeting to order at 7:03 PM
2. **Additions or Deletions to the Agenda** – D. Sorrentino identified that there was a deletion from this evening's agenda related to item #4.B and then read two emails aloud, one from Town Attorney Matt Ranelli dated 10/17/23 and another from Niantic Bay Group's Attorney Sylvia Rutkowska dated 10/16/23, requesting that the Show Cause Hearing related to Jordan Lane be removed from this evening's P&ZC Agenda (both attached hereto). Attorney Ranelli's email recommends that the Commission accept Niantic Bay Group's request and remove the item from the agenda, noting that the 9/28/23 Notice of Zoning Violation & Order to Cease and Desist remains in full effect and unchanged. Motion by M. Noniewicz to amend this evening's agenda by removing item 4.B per the request of Niantic Bay Group, LLC via email dated 10/16/23, and per the Town Attorney's recommendation via email dated 10/17/23. 2nd by B. Hayn. Chairman Mathieu asked for discussion on the motion. D. Sorrentino clarified that Niantic Bay Group has waived their right to this hearing, they do still have the right to appeal to the Zoning Board of Appeals by 10/29/23, and that the Order remains in effect. Hearing no more discussion, Chairman Mathieu called for a vote. Vote was unanimous, motion carried, and item #4.B was removed from the agenda.
3. **Minutes of Previous Meeting**
 - A. Regular Meeting 10/4/23 – Motion by M. Noniewicz to accept the meeting minutes as written. 2nd by B. Hayn. Vote was unanimous with J. Novak and S. Smith abstaining, motion carried.
4. **Public Hearings**
 - A. **PZC2023-012** of Stephen M. Fedus (Applicant) and Stephen M. Fedus, Trustee of the Stephen M. Fedus Trust Agreement Dated August 15, 2001 (Owner) – Special Permit and Site Plan Review for proposed 19-unit multi-family residential development on 8.5± acres located at 203 Amston Road (Assessor's ID 21-00-003-000) Zoning District: Suburban Use (SU) & APOZ – Public Hearing is continued from 10/4/23. D. Sorrentino noted the additional Exhibits added to the file including the Conservation Commission approval, Town Engineer review comments #2, revised drainage area maps, revised site plan set, E&S Bond Estimate and APOZ statement. Mark Reynolds, PE for the applicant presented project revisions precipitated by staff

comments, and submitted and reviewed an APOZ compliance statement. M. Noniewicz requested clarification on stormwater management. M. Reynolds, PE submitted and reviewed a Special Permit general evaluation criteria compliance statement, discussion ensued. Chairman Mathieu asked for anyone in favor of the application. Stephen Fedus, owner/applicant spoke on the need for housing in Colchester. Bob Churney spoke on Stephen Fedus' record of building nice projects and that he supports the proposal. Chairman Mathieu asked for anyone in opposition of the application, there were none. D. Sorrentino identified that he is awaiting confirmation of satisfaction of Fire Marshal review comment, confirmation of satisfaction of Public Works Director per Town Engineer Review Comments #2, Town Engineer's opinion of adequacy of the E&S Bond Estimate, and still has to review plans per his own Review Comments #1, review the applicant's APOZ statement and now the applicant's Special Permit criteria statement. Recommends continuation of Public Hearing to 11/1/23 meeting. Stephen Fedus submitted consent to 30-day extension of the statutory time period for application administration. Motion by M. Noniewicz to accept the applicant's request to continue the public hearing for up to 30 days per the applicant's memorandum dated 10/18/23. 2nd by J. Novak. Vote was unanimous, motion carried. Motion by M. Noniewicz to continue the public hearing for PZC 2023-012 to the next regularly scheduled meeting on 11/1/23 to finalize staff comments. 2nd by J. Novak. Vote was unanimous, motion carried.

- B. **Notice of Zoning Violation and Order to Cease and Desist** dated September 28, 2023 and issued to Niantic Bay Group, LLC of 1967 N. Rose Hue Path, Hernando, FL 34442 for failure to provide required affordable housing within the Jordan Lane Affordable Housing Development (P&ZC Application 2021-015) that was permitted pursuant to Section 8-30g of the CT General Statutes a/k/a the Affordable Housing Appeals Act. Niantic Bay Group, LLC has been Ordered to attend this public hearing to be heard; to demonstrate that the violations have been corrected, and to show cause as to why said Notice and Order should not remain in effect. Property Locations: 34 Jordan Lane (ID#03-00/001-514); 24 Jordan Lane (ID#3-00/001-517); 22 Jordan Lane (ID#3-00/001-518); 20 Jordan Lane (ID#3-00/001-519); 16 Jordan Lane (ID#3-00/001-520); 12 Jordan Lane (ID#3-00/001-521); and 10 Jordan Lane (ID#3-00/001-522). Zoning District: Suburban Use (SU). – This item was removed from the agenda by unanimous vote of the Commission under agenda item #2, above.

5. Five Minute Session for the Public - None

6. Pending Applications

- A. **PZC2023-012** of Stephen M. Fedus (Applicant) and Stephen M. Fedus, Trustee of the Stephen M. Fedus Trust Agreement Dated August 15, 2001 (Owner) – Special Permit and Site Plan Review for proposed 19-unit multi-family residential development on 8.5± acres located at 203 Amston Road (Assessor's ID 21-00-003-000) Zoning District: Suburban Use (SU) & APOZ – Motion by M. Noniewicz to postpone action on application PZC2023-012 until the next regularly scheduled meeting on 11/1/23 because the public hearing is still open. 2nd by J. Novak. Vote was unanimous, motion carried.

7. **New Applications** – None
8. **Preliminary Reviews** – None
9. **Old Business** – None
10. **New Business**
 - A. Review and approve 2024 Regular Meeting Schedule – Commissioners reviewed the proposed 2024 Regular Meeting Schedule. Motion by M. Noniewicz to accept the P&ZC 2024 Regular Meeting Schedule as presented. 2nd by J. Novak. Vote was unanimous, motion carried.
11. **Planning Issues and Discussions**
 - A. Zoning Enforcement Status Report – I. Kisluk was not in attendance.
12. **Correspondence** – Commissioners and staff had a discussion about satisfying the Municipal Land Use Commissioner training requirements.
13. **Adjournment** – Motion by M. Noniewicz to adjourn. 2nd by B. Hayn. Vote was unanimous, meeting adjourned at 7:41 PM.

Respectfully submitted by: Demian Sorrentino, Planning Director

Demian Sorrentino

From: Ranelli, Matt <MRanelli@goodwin.com>
Sent: Tuesday, October 17, 2023 5:23 PM
To: Demian Sorrentino; Isabelle Kisluk
Cc: Archer, Tyler E.
Subject: Niantic Bay Group - Colchester - Request of Niantic Bay LLC and Mr. Doran
Attachments: Niantic Bay Group - Colchester

Isabelle and Demian,

We received the attached email today from attorneys for Niantic Bay Group LLC requesting that the show cause hearing scheduled for Wednesday, October 18 be canceled (i.e., be taken off the agenda). The show cause hearing was to provide an opportunity for Niantic Bay to demonstrate that the violations have been corrected and/or provide any reasons the September 28 Notice of Violation and Order to Cease and Desist should not continue in full force and effect. To the extent that Niantic Bay has now requested to take the item off the agenda and not go forward with the hearing, we recommend that the Commission accept their request and remove the item from the agenda. The Commission can, at the start of the regular meeting or when it reaches the item on the agenda, vote to amend the agenda to remove the item at the request of Niantic Bay. It should be noted that the September 28 Notice of Violation and Order to Cease and Desist remains in full effect and unchanged.

Please let me know if you have any questions or would like to discuss.

Regards,

Matt



Matt Ranelli
Shipman & Goodwin LLP
Partner
MRanelli@goodwin.com
www.shipmangoodwin.com

New Haven Office
265 Church Street - Suite 1207
New Haven, CT 06510-7013
Tel: (860) 251-5748
Cell: (203) 668-1519

Hartford Office
One Constitution Plaza
Hartford, CT 06103-1919
Tel: (860) 251-5748
Cell: (203) 668-1519

Shipman & Goodwin LLP is a 2022 Mansfield Certified Plus Firm

Disclaimer: Privileged and confidential. If received in error, please notify me by e-mail and delete the message.

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Demian Sorrentino

From: Sylvia K. Rutkowska <srutkowska@archlawgrp.com>
Sent: Monday, October 16, 2023 6:54 PM
To: Ranelli, Matt
Cc: Edward M. Cassella
Subject: Niantic Bay Group - Colchester

EXTERNAL EMAIL

Matt:

Pursuant to our discussion today, please receive this email as a formal request to take the show cause hearing associated with the Jordan Lane Housing Development off the agenda for the Planning and Zoning Commission on Wednesday, October 18, 2023.

If you have any questions, please do not hesitate to contact me.

Thank you.

Sylvia K. Rutkowska, Managing Partner



Arch Law Group, LLP

Successor to Dzialo, Pickett & Allen, P.C.

(860) 316-2741

ArchLawGrp.com

Main Office:

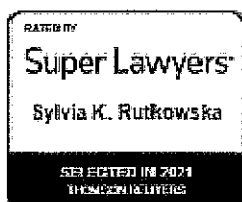
141 Broad Street *[new address]*

Middletown, CT 06457

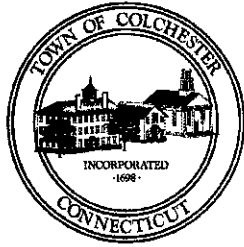
Old Saybrook Office:

63 Main Street,

Old Saybrook, CT 06475



This correspondence and any attachments are privileged and confidential to the intended recipient. If you received this in error, notify the sender immediately.



P&ZC Application No. PZC2023-013

PLANNING & ZONING COMMISSION
TOWN OF COLCHESTER, CONNECTICUT

APPLICATION FOR SITE PLAN APPROVAL

RECEIVED
OCT 30 2023
Sh

This application form, applicable fee(s), five (5) sets of plans, a detailed Statement of Use and all required supporting documentation shall be submitted to the Planning & Zoning Commission Office no later than noon (12:00P) on the Monday before the next regularly scheduled meeting (the first and third Wednesday of the month excepting Holiday periods). Public Hearing is not required but may be held at the discretion of the Commission.

NAME OF APPLICANT: Galaxy Development, LLC
(Please Print)

MAILING ADDRESS: 37 Sutton Road, Webster, MA 01570

EMAIL ADDRESS: mike@galaxydevelopment.net TELEPHONE: (508) 721-0005

OWNER OF RECORD: Kettle Club, LLC
(Please Print)

MAILING ADDRESS: 37 Sutton Road, Webster, MA 01570

STREET ADDRESS OF SUBJECT PROPERTY: 131 Linwood Ave, Colchester, CT

ASSESSOR'S MAP 11 LOT 00-027-000 ZONING DISTRICT TC

IS THIS PROPERTY WHOLLY OR PARTIALLY LOCATED IN ANY OF THE FOLLOWING (Check all that apply):

AQUIFER PROTECTION AREA (APA) AQUIFER PROTECTION ZONE (APZ)
 HISTORIC DISTRICT (HD) HISTORIC PRESERVATION OVERLAY ZONE (HPOZ)

EXISTING USE(S): Vacant Residential

PROPOSED USE(S): Commercial - Multi-tenant building - food service with pickup window, pers. service

APPLICABLE REGULATION SECTION(S): 5.0

ENGINEER/SURVEYOR: MidPoint Engineering + Consulting, LLC TELEPHONE: (508) 721-1900

MAILING ADDRESS: 37 Sutton Road, Webster, MA 01570

CONTACT PERSON TO WHOM CORRESPONDENCE AND INQUIRIES SHOULD BE DIRECTED:

NAME: Patrick Doherty MidPoint Engineering + Consulting, LLC
(Please Print) (Firm Name, if Applicable)

MAILING ADDRESS: 37 Sutton Road, Webster, MA 01570

EMAIL ADDRESS: pdoherly@midpointengineering.com TELEPHONE: 508 721-1900

[Signature] 10/18/23
APPLICANT(S) SIGNATURE DATE

[Signature] 10/18/23
OWNER(S) SIGNATURE DATE

** IF THE APPLICANT IS NOT THE RECORD OWNER, A SIGNED LETTER OF AUTHORIZATION MUST ACCOMPANY THIS APPLICATION **

FOR OFFICIAL USE ONLY BELOW THIS LINE

DATE APPLICATION SUBMITTED: 10/30/23 P&ZC FEE PAID: \$5100 - 82 CK# 1040

DATE OF RECEIPT BY P&ZC: 11/1/23 PUBLIC HEARING START DATE: _____

PUBLIC HEARING END DATE: _____ DATE OF DECISION: _____

NOTICE OF DECISION PUBLISHED: _____ ENGINEERING REVIEW FEES PAID: \$540 OK 1041
82



P&ZC Application No. PZC2023-013

PLANNING & ZONING COMMISSION
TOWN OF COLCHESTER, CONNECTICUT

APPLICATION FOR SPECIAL PERMIT APPROVAL

RECEIVED
OCT 30 2023

SC

This application form, applicable fee(s), five (5) sets of plans and all required supporting documentation shall be submitted to the Planning & Zoning Commission Office no later than noon (12:00P) on the Monday before the next regularly scheduled meeting (the first and third Wednesday of the month excepting Holiday periods). The Applicant shall submit a copy of the Assessor's Map showing all properties and zoning districts within 500 feet of the subject property and a list of the names and addresses of all owners within 500 feet of the subject property. Public Hearing is Required.

NAME OF APPLICANT: Galaxy Development, LLC
(Please Print)

MAILING ADDRESS: 37 Sutton Road, Webster, MA 01570

EMAIL ADDRESS: mike@galaxydevelopment.net TELEPHONE: (508) 721-0005

OWNER OF RECORD: Kettle Club, LLC
(Please Print)

MAILING ADDRESS: 37 Sutton Road, Webster, MA 01570

STREET ADDRESS OF SUBJECT PROPERTY: 131 Linwood Avenue, Colchester, CT

ASSESSOR'S MAP 11 LOT 00-027-000 ZONING DISTRICT TC

IS THIS PROPERTY WHOLLY OR PARTIALLY LOCATED IN ANY OF THE FOLLOWING (Check all that apply):

- AQUIFER PROTECTION AREA (APA) AQUIFER PROTECTION ZONE (APZ)
- HISTORIC DISTRICT (HD) HISTORIC PRESERVATION OVERLAY ZONE (HPOZ)

EXISTING USE(S): Vacant Residential

PROPOSED USE(S): Commercial - Food Service with Pickup Window

APPLICABLE REGULATION SECTION(S): 5.3.2.3

ENGINEER/SURVEYOR: MidPoint Engineering & Consulting TELEPHONE: (508) 721-1900

MAILING ADDRESS: 37 Sutton Road, Webster, MA 01570

CONTACT PERSON TO WHOM CORRESPONDENCE AND INQUIRIES SHOULD BE DIRECTED:

NAME: Patrick Doherty - MidPoint Engineering + Consulting, LLC
(Please Print) (Firm Name, if Applicable)

MAILING ADDRESS: 37 Sutton Road, Webster, MA 01570

EMAIL ADDRESS: pdoherly@midpointengineering.com TELEPHONE: (508) 721-1900

[Signature] 10/18/23
APPLICANT(S) SIGNATURE DATE

[Signature] 10/18/23
OWNER(S) SIGNATURE DATE

** IF THE APPLICANT IS NOT THE RECORD OWNER, A SIGNED LETTER OF AUTHORIZATION MUST ACCOMPANY THIS APPLICATION **

FOR OFFICIAL USE ONLY BELOW THIS LINE

DATE APPLICATION SUBMITTED: 10/30/23 P&ZC FEE PAID: \$ 560. CK# 1040 SC
DATE OF RECEIPT BY P&ZC: 11/1/23 PUBLIC HEARING START DATE: _____
PUBLIC HEARING END DATE: _____ DATE OF DECISION: _____
NOTICE OF DECISION PUBLISHED: _____ ENGINEERING REVIEW FEES PAID: \$540 CK#1041 SC

October 30, 2023

Town of Colchester
Planning & Zoning Commission
127 Norwich Ave
Colchester, CT 06415

RE: Site Plan and Special Permit Application – 131 Linwood Avenue

Dear Members of the Commission,

MidPoint Engineering + Construction, LLC (MidPoint), on behalf of its Client, Galaxy Development, LLC, is pleased to submit this application for Special Permit and Site Plan Review associated with development of a parcel of land located at 131 Linwood Avenue in Colchester, CT. The Applicant seeks remove existing structures, pavement and vegetation and construct a new 5,100 square foot multi-tenant commercial use building on the 1.10 acre property. Parking areas with capacity of 48 vehicles are also proposed along with a service / shipping receiving area and new utility connections, stormwater management system and landscaping. The proposed development is located in the TC zoning district which allows a variety of commercial uses. One proposed use in the building includes a food service with pick up window which is currently allowed with special permit use.

The site is bounded by Linwood Ave to the north, the Keystone shoppes shopping center to the west and south and by a commercial property containing United Bank to the east. Access to the property will be through the Keystone Shoppes shopping center. The existing curb cut onto Linwood Ave will be closed. Utility services including Gas, Sanitary Sewer underground telecommunications and electricity will come from existing infrastructure in Linwood Avenue. Water service will connect to the infrastructure in the shopping center. Wetland resource areas are located more than 100 feet from project disturbances.

The site has been designed to comply with the Town of Colchester regulations. The building and site improvements shown meet required setbacks in the Zoning Ordinance. Stormwater generated from the site will be managed through a modern system that fully complies with the Connecticut Stormwater Quality Manual. The system will utilize stormwater Best Management Practices (BMPs) to control peak rates of runoff and improve stormwater quality by removing total suspended solids prior to discharge. Stormwater calculations are based upon NOAA Atlas 14 point precipitation frequency estimates.

Enclosed please find the following:

- Site Plan & Special Permit Application
- Site Plans dated October 12, 2023
- Stormwater Management report dated October 12, 2023
- Application fees

We respectfully request to be placed on the next available agenda of the Town of Colchester Planning and Zoning Commission to review this application. Should you have any questions or require any additional information please contact me at (508) 721-1900 or via email at pdoherty@midpointengineering.com.

Sincerely,

Midpoint Engineering + Consulting, LLC



Patrick P. Doherty, PE, LEED AP
Principal

Definitive Site Plan

Issued for: Permit

Date Issued: October 12, 2023

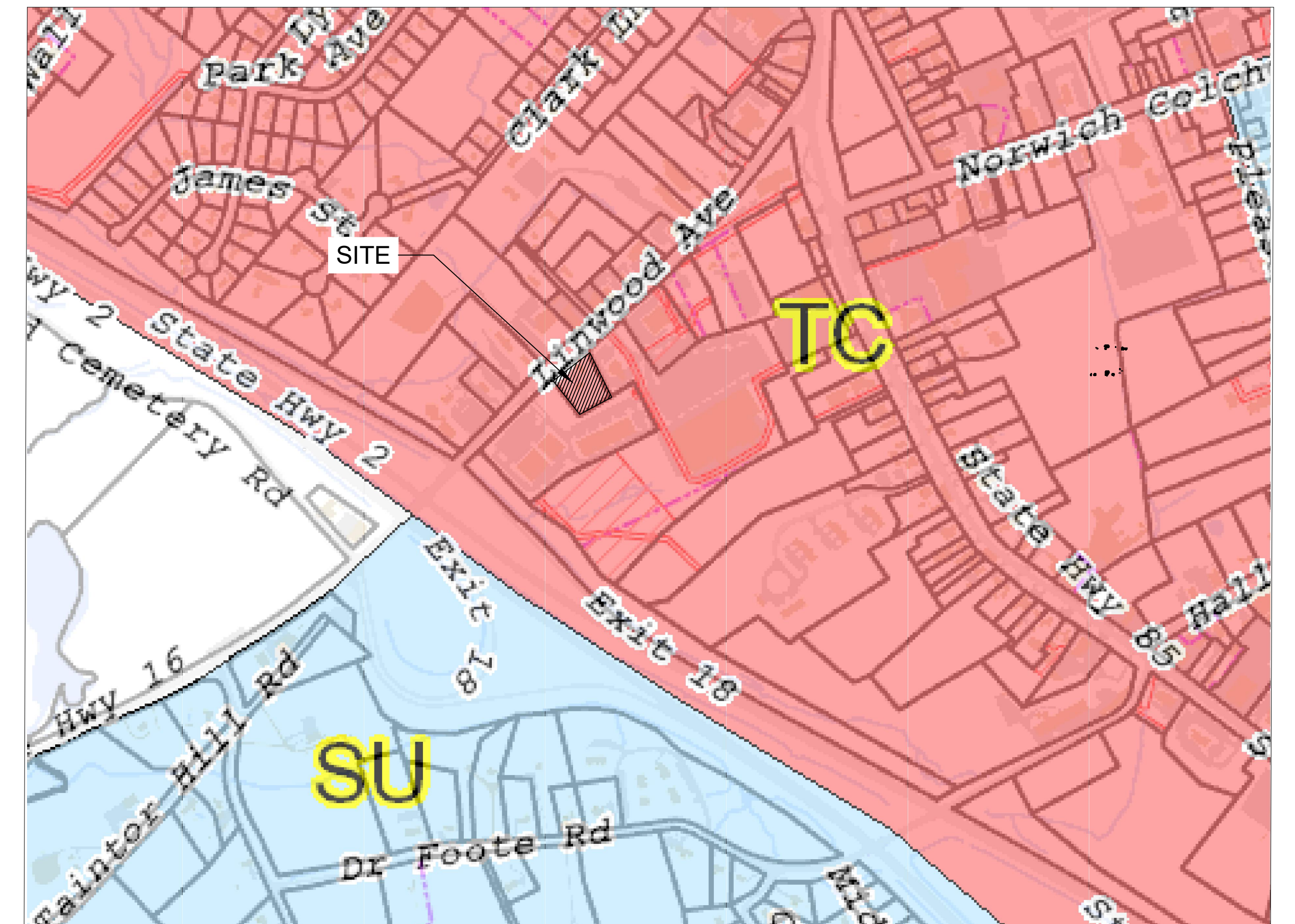
Latest Issue: October 12, 2023

Sheet Index

Number	Drawing Title	Latest Issue
C-1	Site Preparation, Erosion & Sediment Control Plan	10/12/2023
C-2	Layout & Materials Plan	10/12/2023
C-3	Grading Plan	10/12/2023
C-4	Drainage & Utility Plan	10/12/2023
C-5	Site Construction Details 1	10/12/2023
C-6	Site Construction Details 2	10/12/2023
C-7	Site Construction Details 3	10/12/2023
LA-1	Planting Plan	10/12/2023
SE-1	Site Lighting Photometric Plan	10/12/2023
	Boundary and Topographic Survey	6/15/2017

Proposed Commercial Development

131 Linwood Ave
Colchester, CT



Legend

Exist.	Prop.	Exist.	Prop.	
				CONCRETE
				SPOT ELEVATION
				DRAIN
				ROOF DRAIN
				SEWER
				FIRE PROTECTION
				DOMESTIC WATER
				GAS
				ELECTRIC
				TELEPHONE
				CATCH BASIN
				DRAIN MANHOLE
				CLEANOUT
				SEWER MANHOLE
				CURB STOP & BOX
				WATER VALVE & BOX
				TAPPING SLEEVE, VALVE & BOX
				GAS GATE
				GAS METER
				ELECTRIC MANHOLE
				ELECTRIC METER
				LIGHT POLE
				TELEPHONE MANHOLE
				UTILITY POLE
				HAND HOLE

Abbreviations

General		Utility	
ABAN	ABANDON	CB	CATCH BASIN
ACR	ACCESSIBLE CURB RAMP	CO	CLEANOUT
ADJ	ADJUST	DCB	DOUBLE CATCH BASIN
APPROX	APPROXIMATE	DMH	DRAIN MANHOLE
BIT	BITUMINOUS	COND	CONDUIT
CONC	CONCRETE	DIP	DUCTILE IRON PIPE
ELEV	ELEVATION	F&G	FRAME AND GRATE
EXIST	EXISTING	F&C	FRAME AND COVER
FFE	FIRST FLOOR ELEVATION	GJ	GUTTER INLET
GRAN	GRANITE	GT	GREASE TRAP
GTD	GRADE TO DRAIN	HDPE	HIGH DENSITY POLYETHYLENE PIPE
LA	LANDSCAPE AREA	HH	HANDHOLE
LOD	LIMIT OF DISTURBANCE	HYD	HYDRANT
MAX	MAXIMUM	INV	INVERT ELEVATION
MIN	MINIMUM	I=	INVERT ELEVATION
NTS	NOT TO SCALE	LP	LIGHT POLE
PERF	PERFORATED	MES	METAL END SECTION
PROP	PROPOSED	PVC	POLYVINYLCHLORIDE PIPE
REM	REMOVE	RCP	REINFORCED CONCRETE PIPE
R&D	REMOVE AND DISPOSE	R=	RIM ELEVATION
R&R	REMOVE AND RESET	SMH	SEWER MANHOLE
TYP	TYPICAL	TSV	TAPPING SLEEVE, VALVE AND BOX
		UG	UNDERGROUND
		UP	UTILITY POLE

Site Location Map



Scale 1" = 400"

Land Surveyor:
O'Brien Associates, Inc.
83 Mountain laurel Dr
Middletown, CT 06457
(860) 345-7511

Owner:
Kettle Club, LLC
37 SUTTON ROAD - Suite 1
WEBSTER, MA 01570
(508) 721-0005

Applicant:
Galaxy Development, LLC
37 SUTTON ROAD - Suite 1
WEBSTER, MA 01570
(508) 721-0005

MIDPOINT
ENGINEERING + CONSULTING

MIDPOINT ENGINEERING + CONSULTING
37 SUTTON ROAD
WEBSTER, MA 01570
(508) 721-1900
pdoherty@midpointengineering.com

Assessor MBL 11-00-027-000

131 Linwood Ave
Zoning District: TC

DEMOLITION NOTES:

- CONTRACTOR SHALL CALL BEFORE YOU DIG[®] (1-800-922-4455) AT LEAST 48 HOURS BUT NO MORE THAN 30 DAYS BEFORE EXCAVATING.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
- THIS PLAN IS PROVIDED SOLELY FOR INFORMATIONAL PURPOSES. THE CONTRACTOR IS RESPONSIBLE TO IDENTIFY AND REMOVE ALL EXISTING MAN-MADE OR NATURAL FEATURES WITHIN THE LIMIT OF WORK NECESSARY TO COMPLETE THE PROPOSED DEVELOPMENT, INCLUDING BUT NOT LIMITED TO BUILDINGS, STRUCTURES, PAVEMENTS, SLABS, CURBING, FENCES, UTILITY POLES, SIGNS, ETC. UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
- THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES. NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
- CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING MANMADE SURFACE FEATURES WITHIN THE LIMIT OF WORK INCLUDING BUILDINGS, STRUCTURES, PAVEMENTS, SLABS, CURBING, FENCES, UTILITY POLES, SIGNS, ETC. UNLESS INDICATED OTHERWISE ON THE DRAWINGS. REMOVE AND DISPOSE OF EXISTING UTILITIES, FOUNDATIONS AND UNSUITABLE MATERIAL BENEATH AND FOR A DISTANCE OF 10 FEET BEYOND THE PROPOSED BUILDING FOOTPRINT. EARTHWORK SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEERING REPORT PREPARED BY GSI DATED MARCH 11, 2011.
- EXISTING UTILITIES SHALL BE TERMINATED, UNLESS OTHERWISE NOTED, IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL COORDINATE UTILITY SERVICE DISCONNECTS WITH THE UTILITY REPRESENTATIVES. EXISTING UTILITIES TO REMAIN SHALL BE MAINTAINED & PROTECTED AGAINST DAMAGE DURING DEMOLITION OPERATIONS.
- ALL EXISTING UTILITIES ALONG THE SITE FRONTAGE WITHIN THE RIGHT OF WAY SHALL REMAIN UNLESS OTHERWISE DIRECTED BY THE UTILITY OWNER. CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING UTILITIES ALONG THE SITE FRONTAGE WITHIN THE RIGHT OF WAY AND SHALL COORDINATE TEMPORARY PROTECTIONS, RELOCATIONS OR MODIFICATIONS WITH THE UTILITY OWNERS.
- CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES. CONSULT ENVIRONMENTAL ENGINEER PRIOR TO DEMOLITION.
- FURNISH, ERECT AND MAINTAIN ALL TEMPORARY BARRICADES, FENCES, COVERINGS, ENCLOSURES, SIGNS AND LIGHTING AS MAY BE REQUIRED TO CARRY ON DEMOLITION WORK IN A SAFE AND LEGAL MANNER.
- PLACE EROSION CONTROLS PRIOR TO DEMOLITION. MAINTAIN EROSION CONTROLS THROUGHOUT DURATION OF THE PROJECT SEE SHEET C-6 FOR ADDITIONAL INFORMATION.
- LIMIT OF WORK SHALL BE THE PROPERTY LINE WHERE IT IS NOT CALLED OUT ON THE PLAN.
- "STRUCTURES" SHALL BE DEFINED AS ALL ABOVE AND BELOW GRADE COMPONENTS OF THE EXISTING BUILDINGS INCLUDING BUT NOT LIMITED TO FOOTINGS, FOUNDATIONS, FOUNDATION WALLS, UNDERGROUND PIPING, EQUIPMENT, SUPPORTS, ETC.
- CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS. ADJOINING STREETS AND PROPERTIES TO BE KEPT FREE OF DEBRIS RESULTING FROM THE DEMOLITION AND SHALL BE CLEANED ON A DAILY BASIS OR AS NEEDED.
- DUST CONTROL TREATMENTS SHALL BE APPLIED AS NECESSARY TO CONTROL AND REDUCE THE AMOUNT OF DUST WHICH MAY CAUSE OFF SITE DAMAGE, BE A HEALTH HAZARD TO HUMANS, WILDLIFE AND PLANT LIFE, OR POSE A HAZARD TO TRAFFIC SAFETY.
- CONTRACTOR SHALL CONTROL STORM WATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO OWNER.
- HOURS OF OPERATION TO BE AS PER LOCAL ORDINANCE. CONTRACTOR TO VERIFY PRIOR TO STARTING ON SITE OPERATIONS.
- AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECTED MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER AND ENVIRONMENTAL ENGINEER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
- DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
- ALL EXISTING MONITORING WELLS ON SITE SHALL BE ABANDONED IN ACCORDANCE WITH CURRENT ENVIRONMENTAL REGULATIONS PRIOR TO PERFORMING EXCAVATION ACTIVITIES. CONTRACTOR SHALL COORDINATE WITH THE PROJECT LICENSED ENVIRONMENTAL PROFESSIONAL (LEP) WHEN ABANDONING WELLS.
- EXISTING WATER SERVICES NOTED TO BE ABANDONED MUST BE TERMINATED AT THE MAIN IN ACCORDANCE WITH TOWN STANDARDS

Site S&E Narrative:

THE PROPOSED PROJECT WILL INCLUDE DEMOLITION OF EXISTING BUILDINGS AND SITE FEATURES AND CONSTRUCTION OF ONE NEW BUILDING. IMPROVEMENTS INCLUDE BUILDING CONSTRUCTION, PAVED PARKING AREA, UTILITY CONNECTIONS AND STORMWATER MANAGEMENT SYSTEM THAT MEETS GUIDELINES OF THE 2023 CONNECTICUT STORMWATER QUALITY MANUAL.

THE APPROXIMATELY 1.1 ACRE PROJECT SITE WILL BE REDEVELOPED IN A SINGLE PHASE PROJECT. APPROXIMATELY 1.25 ACRES WILL BE DISTURBED DURING CONSTRUCTION WHICH INCLUDES THE REGRADING AREAS OF THE EXISTING ROW AND ADJACENT PARCEL TO THE SOUTH. TO CONTROL SEDIMENT EROSION DURING EARTH FILLING OPERATIONS, THE CONTRACTOR SHALL EMPLOY TECHNIQUES OUTLINED IN THE CONSTRUCTION SEQUENCE AND EROSION CONTROL NOTES TO ENSURE THAT EROSION DOES NOT OCCUR AND THAT SEDIMENT IS NOT TRANSPORTED OFF-SITE.

THE EROSION AND SEDIMENTATION CONTROLS SHALL BE EMPLOYED BY THE CONTRACTOR DURING THE EARTHWORK AND CONSTRUCTION PHASES OF THE PROJECT IN ACCORDANCE WITH THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.

REFER TO THE DRAINAGE/STORMWATER MANAGEMENT REPORT FOR MORE INFORMATION.

Temporary Erosion and Sedimentation Control Maintenance (throughout construction)

THE CONTRACTOR OR SUBCONTRACTOR WILL BE RESPONSIBLE FOR IMPLEMENTING EACH CONTROL SHOWN ON THE SEDIMENTATION AND EROSION CONTROL PLAN.

THE CONTRACTOR WILL INSPECT ALL SEDIMENT AND EROSION CONTROL STRUCTURES PERIODICALLY AND AFTER EACH RAINFALL EVENT. RECORDS OF THE INSPECTIONS WILL BE PREPARED AND MAINTAINED ON-SITE BY THE CONTRACTOR.

DAMAGED OR DETERIORATED ITEMS WILL BE REPAIRED IMMEDIATELY AFTER IDENTIFICATION.

SEDIMENT THAT IS COLLECTED IN STRUCTURES SHALL BE DISPOSED OF PROPERLY AND COVERED IF STORED ON-SITE.

EROSION CONTROL STRUCTURES SHALL REMAIN IN PLACE UNTIL ALL DISTURBED EARTH HAS BEEN SECURELY STABILIZED. REMOVAL OF STRUCTURES, DISTURBED AREAS SHALL BE REGRADED AND STABILIZED AS SOON AS PRACTICAL.

MAINTAIN THE CONSTRUCTION ENTRANCE IN A CONDITION WHICH WILL PREVENT TRACKING AND WASHING OF SEDIMENTS ONTO PAVED SURFACES.

Construction Sequence

- THE SITE CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT ROADS/HIGHWAYS AND THEIR DRAINAGE SYSTEM, NEIGHBORING PROPERTIES, AND REGULATORY PROTECTED AREAS. WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT. PRIOR TO CONSTRUCTION, 24-HR CONTACT INFORMATION FOR THE SITE CONTRACTOR WILL BE PROVIDED PRIOR TO START OF CONSTRUCTION.
- CONTRACTOR SHALL ADHERE TO CONNECTICUT GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- FLAG THE LIMITS OF CONSTRUCTION NECESSARY TO FACILITATE THE PRECONSTRUCTION MEETING.
- HOLD PRE-CONSTRUCTION MEETING WITH THE TOWN OF COLCHESTER ENGINEERING DEPARTMENT. (REMEMBER TO NOTIFY CALL BEFORE YOU DIG 1-800-922-4455).
- NOTIFY THE TOWN OF COLCHESTER ZONING ENFORCEMENT OFFICER AND ENGINEERING DEPARTMENT 48 HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY.
- ALL EROSION AND SEDIMENT CONTROLS ARE TO BE INSPECTED BY THE TOWN OF COLCHESTER ZONING ENFORCEMENT STAFF.
- PRIOR TO INSTALLING SURFACE WATER CONTROLS, INSPECT EXISTING CONDITIONS TO ENSURE DISCHARGE LOCATIONS ARE STABLE. IF NOT STABLE, REVIEW DISCHARGE CONDITIONS WITH THE DESIGN ENGINEER AND IMPLEMENT ADDITIONAL STABILIZATION MEASURES PRIOR TO INSTALLING SURFACE WATER CONTROLS.
- INSTALL EROSION AND SEDIMENT CONTROLS IN ACCORDANCE WITH THE E&S PLAN FOR THE SITE INCLUDING SILT FENCE BARRIERS AND SILT SACKS.
- REMOVE PAVEMENT IN DESIGNATED AREAS.
- BEGIN UTILITY AND FOUNDATION CONSTRUCTION
- INSTALL SILT SACK SEDIMENT TRAPS IN ALL CATCH BASINS.
- INSTALL PAVEMENT BASE & FIRST COURSE OF BITUMINOUS CONCRETE AT PARKING AREA.
- INSTALL LANDSCAPING & LOAM AND SEED ALL DISTURBED AREAS.
- AFTER SITE IS STABILIZED REMOVE TEMPORARY EROSION AND SEDIMENT CONTROLS.
- LOAM AND SEED ALL DISTURBED AREAS.
- WHEN ALL OTHER WORK HAS BEEN COMPLETED, REPAIR AND SWEEP ALL PAVED AREAS FOR THE FINAL COURSE OF PAVING. INSPECT THE DRAINAGE SYSTEM AND CLEAN AS NEEDED.
- INSTALL FINAL COURSE OF PAVEMENT.

Erosion and Sedimentation Control Techniques

THE FOLLOWING EROSION AND SEDIMENTATION CONTROLS SHALL BE EMPLOYED BY THE CONTRACTOR DURING THE EARTHWORK AND CONSTRUCTION PHASES OF THE PROJECT IN ACCORDANCE WITH THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.

SILT FENCING

ALONG THE WESTERLY SIDE OF THE PARKING LOT SILT FENCING WILL BE INSTALLED. THIS SEMI-PERMEABLE BARRIER MADE OF A SYNTHETIC PROPILE FABRIC WILL PROVIDE PROTECTION FROM TRANSPORT OF SEDIMENT OFF SITE. THE SILT FENCES WILL BE REPLACED AS DETERMINED BY PERIODIC FIELD INSPECTIONS.

CATCH BASIN PROTECTION

NEWLY CONSTRUCTED AND EXISTING CATCH BASINS WILL BE PROTECTED WITH SILT SACKS THROUGHOUT CONSTRUCTION.

VEGETATIVE SLOPE STABILIZATION

STABILIZATION OF OPEN SOIL SURFACES WILL BE IMPLEMENTED WITHIN 14 DAYS AFTER GRADING OR CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, UNLESS THERE IS SUFFICIENT SNOW COVER TO PROHIBIT IMPLEMENTATION. VEGETATIVE SLOPE STABILIZATION WILL BE USED TO MINIMIZE EROSION ON SLOPES OF 3:1 OR FLATTER. ANNUAL GRASSES, SUCH AS ANNUAL RYE, WILL BE USED TO ENSURE RAPID GERMINATION AND PRODUCTION OF ROOTMASS. PERMANENT STABILIZATION WILL BE COMPLETED WITH THE PLANTING OF PERENNIAL GRASSES OR LEGUMES. ESTABLISHMENT OF TEMPORARY AND PERMANENT VEGETATIVE COVER MAY BE ESTABLISHED BY HYDRO-SEEDING OR SODDING. A SUITABLE TOPSOIL, GOOD SEEDBED PREPARATION, AND ADEQUATE LIME, FERTILIZER AND WATER WILL BE PROVIDED FOR EFFECTIVE ESTABLISHMENT OF THESE VEGETATIVE STABILIZATION METHODS. MULCH WILL ALSO BE USED AFTER PERMANENT SEEDING TO PROTECT SOIL FROM THE IMPACT OF FALLING RAIN AND TO INCREASE THE CAPACITY OF THE SOIL TO ABSORB WATER.

STOCKPILE MANAGEMENT

SIDESLOPES OF STOCKPILED MATERIAL SHALL BE NO STEEPER THAN 2:1. STOCKPILES NOT USED WITHIN 30 DAYS NEED TO BE SEEDED AND MULCHED IMMEDIATELY AFTER FORMATION OF THE STOCKPILE. HAYBALES AND TIES ARE TO BE PLACED AROUND THE STOCKPILE AREA APPROXIMATELY 10 FEET FROM THE TOW OF SLOPE.

DUST CONTROL

PERIODICALLY MOISTEN EXPOSED SURFACES ON UNPAVED TRAVELWAYS TO KEEP THE TRAVELWAY DAMP AND REDUCE DUST.

Post Construction Stormwater Management

THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ENSURING THAT STORMWATER MANAGEMENT SYSTEMS BE INSPECTED AND MAINTAINED. THE FOLLOWING PLAN COMPONENTS SHALL BE ADHERED TO:

SOURCE CONTROL

A COMPREHENSIVE SOURCE CONTROL PROGRAM WILL BE IMPLEMENTED AT THE SITE, WHICH INCLUDES REGULAR PAVEMENT SWEEPING AND CATCH BASIN CLEANING.

DEEP SLUMP CATCH BASINS

CATCH BASINS AT THE SITE ARE TO BE CONSTRUCTED WITH SLUMPS (MINIMUM 4-FEET) TO TRAP DEBRIS AND SEDIMENTS. CATCH BASINS WILL BE CLEANED ONCE PER YEAR.

HYDRODYNAMIC SEPARATOR WATER QUALITY UNIT

A HYDRODYNAMIC SEPARATOR WATER QUALITY UNIT WILL BE USED TO TREAT STORMWATER BEFORE IT REACHES THE DISCHARGE POINT. THIS ALLOWS SUSPENDED SEDIMENTS TO BE REMOVED AND REDUCES SEDIMENTATION ACCUMULATION. INSPECT THE WATER QUALITY UNIT FOR ACCUMULATED SEDIMENT AND DEBRIS FOUR TIMES PER YEAR. NECESSARY SEDIMENT AND/OR DEBRIS REMOVAL WILL BE PERFORMED IMMEDIATELY UPON IDENTIFICATION AND WHEN POLLUTANT LOADS REACH 15% OF STORAGE CAPACITY (10-INCH DEPTH).

Erosion Control

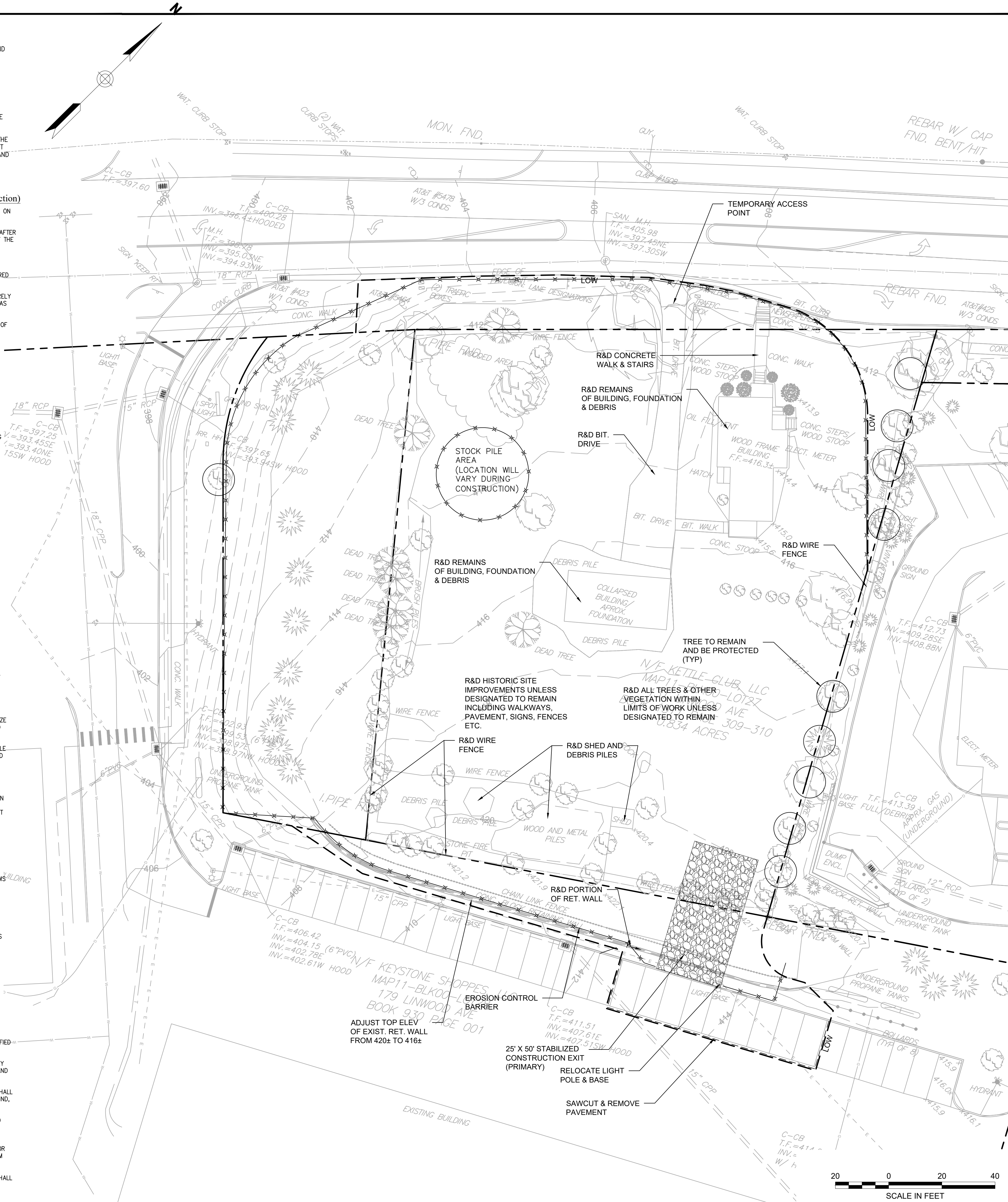
PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.

INSPECT AND MAINTAIN EROSION CONTROL MEASURES, AND REMOVE SEDIMENT THEREFROM ON A WEEKLY BASIS AND WITHIN TWELVE HOURS AFTER EACH STORM EVENT AND DISPOSE OF SEDIMENTS IN AN UPLAND AREA SUCH THAT THEY DO NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT.

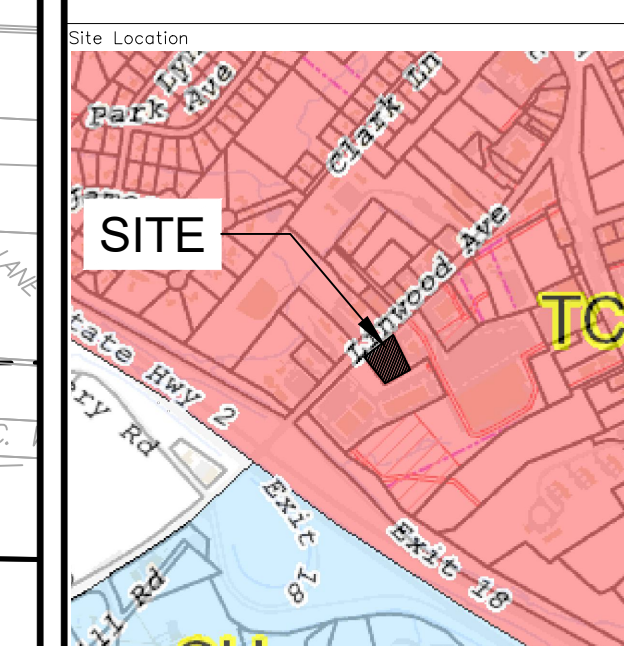
CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION.

UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE AND SEWER SYSTEMS LOCATED ON SITE.

DEWATERING, IF REQUIRED, SHALL BE ACCOMPLISHED BY INSTALLATION OF 4" PIPE IN STONE. PUMP SHALL DISCHARGE TO A TEMPORARY HAYBALE DEWATERING BASIN PRIOR DISCHARGE.



Prepared By:
MIDPOINT
 ENGINEERING • CONSULTING
 37 Sutton Road
 Webster, MA 01570
 (508) 721-1900
 pdoherty@midpointengineering.com



Prepared For:
GALAXY
 DEVELOPMENT, LLC
 37 SUTTON ROAD
 WEBSTER, MA 01570
 (508) 721-0005

Oct. 12, 2023 Scale as noted

Revision	Date

Project Title
PROPOSED COMMERCIAL DEVELOPMENT
 131 LINWOOD AVE
 COLCHESTER, CT

Issued For
Definitive Site Plan

Not for Construction
 Drawing Title
SITE PREPARATION, EROSION & SEDIMENT CONTROL PLAN

Drawing No.
C-1

Project No. XXX Sheet 1 of 8

Zoning Summary Chart

Zoning District(s): TC Overlay District(s): None		
Zoning Regulation Requirements	Required	Provided
MIN. LOT AREA	10,000 SF	47,614 SF
FRONTAGE	75 FT	251 FT
FRONT YARD SETBACK	NA	139 FT
SIDE YARD SETBACK	NA	50 FT
REAR YARD SETBACK	NA	62 FT
MAX. BLDG COVERAGE	75 %	11 %
MAX. BUILDING HEIGHT	3 STY / 40 FT	24 FT
MAX. IMP COVERAGE	95 %	59 %
PARKING LOT LANDSCAPE	15 %	< 15%
MAX PARKING AREA IMPERVIOUS	75 %	74%
NUMBER OF PARKING SPACES	251	47

RETAIL, RESTAURANT, PERSONAL SERVICE IS AN ALLOWED USE IN THE TC ZONING DISTRICT.
PICK UP WINDOW USE REQUIRES SPECIAL PERMIT REVIEW.

Parking Requirements:

RESTAURANT UNIT 1	42 SEAT x 1SP/3 SEAT = 14
RETAIL/SERVICE UNIT 2	1,200 SF GFA x 2SP/1000 SF GFA = 3
RESTAURANT UNIT 3	30 SEAT x 1SP/3 SEAT = 10

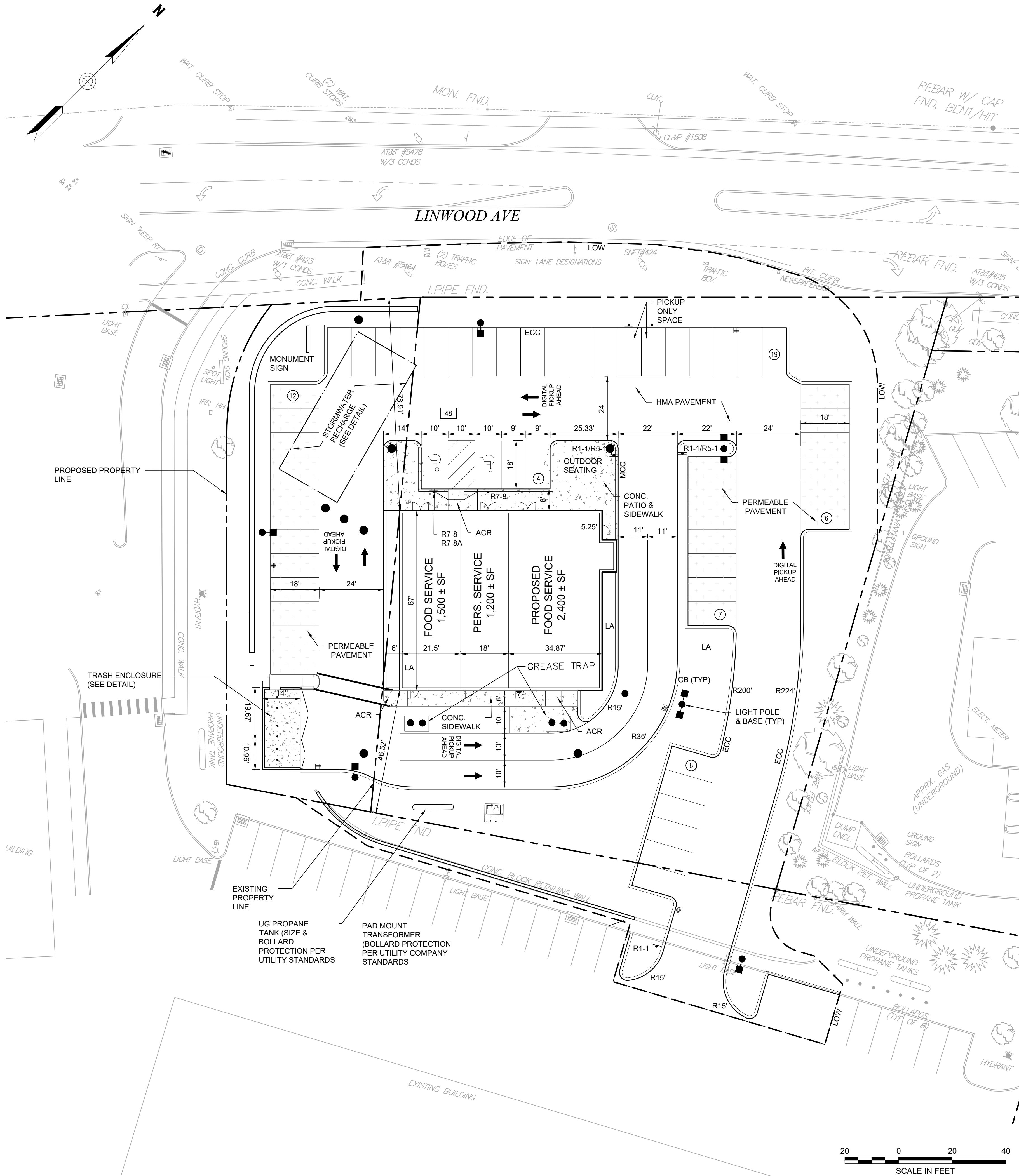
TOTAL PARKING REQUIRED = 27
TOTAL PARKING PROVIDED = 47
ADA PARKING REQUIRED (26-50 TOTAL SPACES) 2
ADA PARKING PROVIDED 2

Layout and Materials

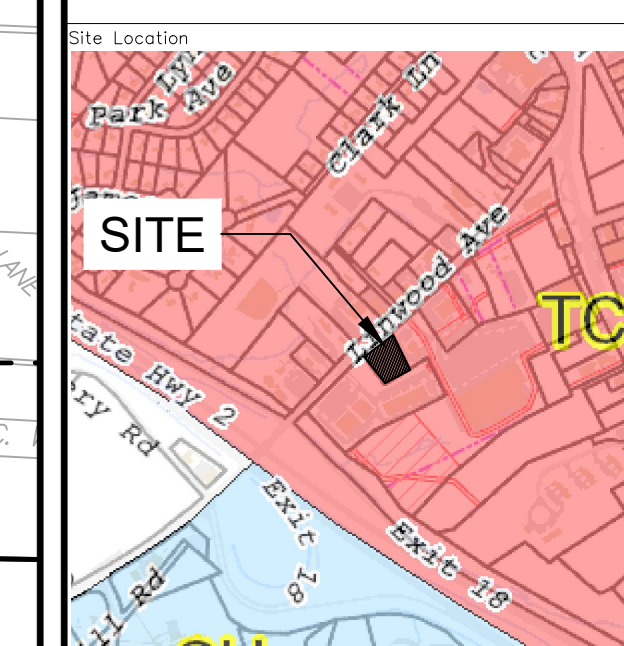
- LANDSCAPED SETBACK AREAS AND REQUIRED PARKING SPACES SHALL NOT BE USED FOR SNOW STORAGE. ONCE ALL DESIGNATED SNOW STORAGE AREAS REACH CAPACITY, THE SNOW SHALL BE REMOVED FROM THE SITE.
- ALL LOADING SPACES SHALL BE STRIPED AS SHOWN ON THE PLAN. ALL PARKING SPACES SHALL BE STRIPED AND ACCESSIBLE SPACES PLACARDS INSTALLED AS REQUIRED BY THE ARCHITECTURAL ACCESS BOARD.
- DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
- CURB RADII ARE THREE (3) FEET UNLESS OTHERWISE NOTED.
- CURBING SHALL BE EXTRUDED CONCRETE (ECC) WITHIN THE SITE UNLESS OTHERWISE INDICATED ON THE PLANS.
- SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND DETAILS CONTIGUOUS TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.
- PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LICENSED SURVEYOR.
- PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.
- SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.
- CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.

Sign Summary

M.U.T.C.D. Number	Specification		Desc.
	Width	Height	
R1-1	30"	30"	STOP
R7-8	12"	18"	RESERVED PARKING
R7-8A	12"	6"	VAN ACCESSIBLE
R5-1	30"	30"	DO NOT ENTER
RA	30"	30"	RESTRICTED AREA - AUTHORIZED PERSONNEL ONLY



Prepared By:
MIDPOINT
ENGINEERING • CONSULTING
37 Sutton Road
Webster, MA 01570
(508) 721-1900
pdoherty@midpointengineering.com



Prepared For:
GALAXY
DEVELOPMENT, LLC
37 SUTTON ROAD
WEBSTER, MA 01570
(508) 721-0005

Date	Revision	Scale	as noted
Oct. 12, 2023			

Project Title:
PROPOSED COMMERCIAL DEVELOPMENT
131 LINWOOD AVE
COLCHESTER, CT

Issued For:
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Drawing Title:
Site Plan

Drawing No.:
C-2
Proj. No.:
XXX
Sheet:
2 of 8

NOTES

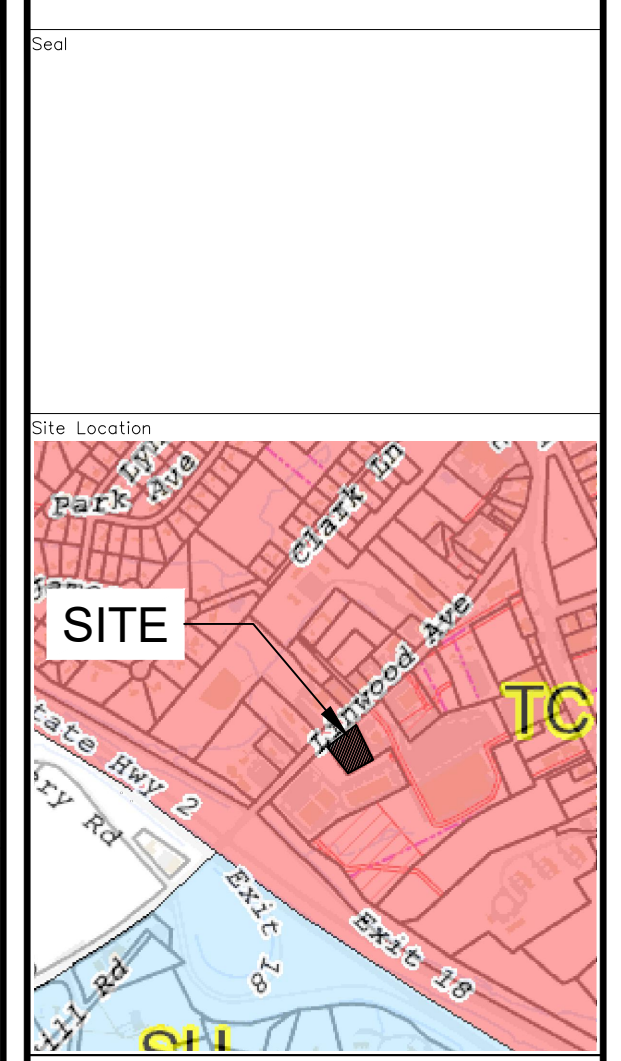
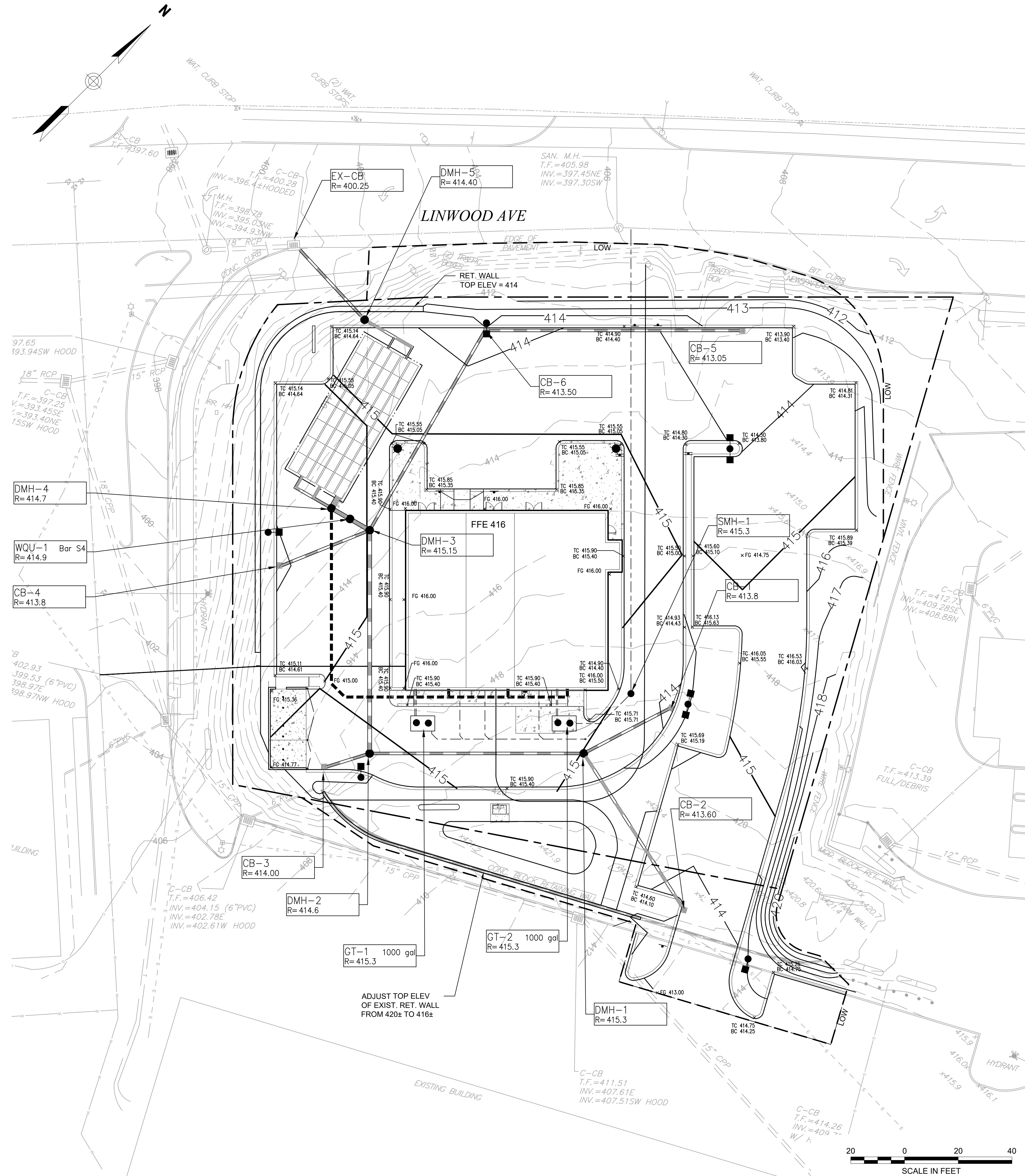
- CONTRACTOR SHALL NOTIFY "CALL BEFORE YOU DIG" (1 800 322-4455) AT LEAST 72 HOURS BEFORE EXCAVATING.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
- THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
- WORK WITHIN THE LOCAL RIGHTS-OF-WAY SHALL CONFORM TO LOCAL MUNICIPAL STANDARDS. WORK WITHIN STATE RIGHTS-OF-WAY SHALL CONFORM TO THE LATEST EDITION OF THE STATE HIGHWAY DEPARTMENTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
- UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.
- IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
- SET CATCH BASIN RIMS, AND INVERTS OF SEWERS, DRAINS, AND DITCHES IN ACCORDANCE WITH ELEVATIONS ON THE GRADING AND UTILITY PLANS.
- RIM ELEVATIONS FOR DRAIN AND SEWER MANHOLES, WATER VALVE COVERS, GAS GATES, ELECTRIC AND TELEPHONE PULL BOXES, AND MANHOLES, AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
 - PAVEMENTS AND CONCRETE SURFACES: FLUSH
 - ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
 - LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: ONE INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.
- ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4" MIN.) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS AND LOCAL MUNICIPAL STANDARDS. FOR MANHOLES THAT ARE 20 FEET IN DEPTH AND GREATER, THE MINIMUM DIAMETER SHALL BE 5 FEET.
- THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, FIRE ALARM, ETC.). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH OWNER AND ARCHITECT.
- UTILITY PIPE MATERIALS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLAN:
 - WATER PIPES SHALL BE DUCTILE IRON FOR GREATER THAN 2" DIAMETER OR AS REQUIRED BY THE CITY OF WORCESTER DPW.
 - SANITARY SEWER PIPES SHALL BE POLYVINYL CHLORIDE (PVC) SDR-35 SEWER PIPE
 - STORM DRAINAGE PIPES SHALL BE HDPE SMOOTH LINED CAPABLE OF WITHSTANDING HS 20 LOADING UNLESS OTHERWISE INDICATED ON THE PLANS. STORM DRAIN PIPES CONNECTING TO THE CITY STORM DRAIN WITHIN THE ROW SHALL BE REINFORCED CONCRETE PIPE.
 - ELECTRIC AND TELECOMMUNICATION CONDUITE SHALL BE PVC SCHEDULE 40.
 - IRRIGATION SLEEVES SHALL BE PVC SCHEDULE 40.
- CONTRACTOR SHALL FURNISH EXCAVATION, INSTALLATION, AND BACKFILL OF ELECTRICAL FURNISHED SITEMARK RELATED ITEMS SUCH AS PULL BOXES, CONDUITS, DUCT BANKS, LIGHT POLE BASES, AND CONCRETE PADS. SITE CONTRACTOR SHALL FURNISH CONCRETE ENCASUREMENT OF DUCT BANKS IF REQUIRED BY THE UTILITY COMPANY AND AS INDICATED ON THE DRAWINGS. CONTRACTOR SHALL PROVIDE ELECTRICAL WIRING AND EQUIPMENT WHICH SHALL BE FURNISHED AND INSTALLED BY A LICENSED ELECTRICIAN.
- CONTRACTOR SHALL EXCAVATE AND BACKFILL TRENCHES FOR GAS IN ACCORDANCE WITH GAS COMPANY'S REQUIREMENTS.
- NEW CATCH BASINS SHALL BE "DEEP SUMP" CATCH BASIN WITH HOOD AND MINIMUM SUMP DEPTH OF 4 FEET.
- ALL WATER AND SEWER PIPE AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE CITY OF WORCESTER STANDARDS.
- MINIMUM COVER OVER ALL WATER PIPES SHALL BE 5 FEET.
- NO SEWER MAIN OR SEWER CONNECTION SHALL BE INSTALLED CLOSER THAN TEN (10) FEET HORIZONTALLY OR EIGHTEEN (18) INCHES VERTICALLY TO ANY WATER MAIN.

PLAN REFERENCES

- EXISTING CONDITIONS AND BOUNDARY SURVEY BASE PLANS PREPARED BY O'BRIEN ASSOCIATES JUNE 15, 2017.

SOIL INFORMATION

- BASED UPON USDA NRCS, ON-SITE SOILS CONSIST OF WOODBRIDGE FINE SANDY LOAM IN SOUTHWEST PORTIONS OF THE SITE AND PAXTON FINE SANDY LOAM IN OTHER AREAS.



37 SUTTON ROAD
 WEBSTER, MA 01570
 (508) 721-0005

Date: Oct. 12, 2023 Scale: as noted

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Project Title
PROPOSED COMMERCIAL DEVELOPMENT
 131 LINWOOD AVE
 COLCHESTER, CT

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Drawing Title
Grading Plan

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C-3

NOTES

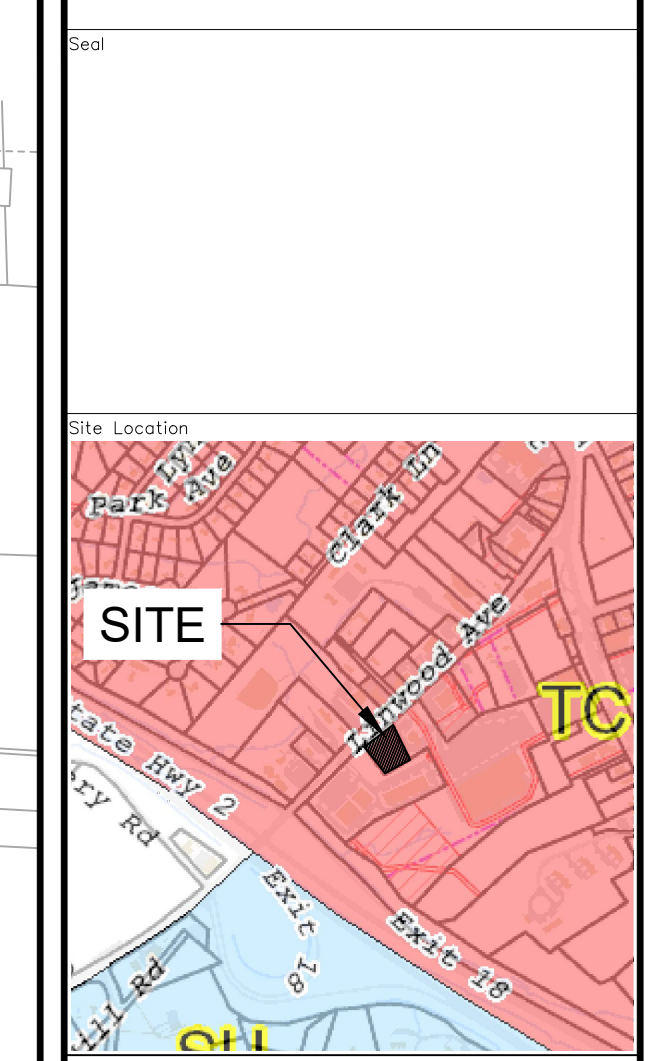
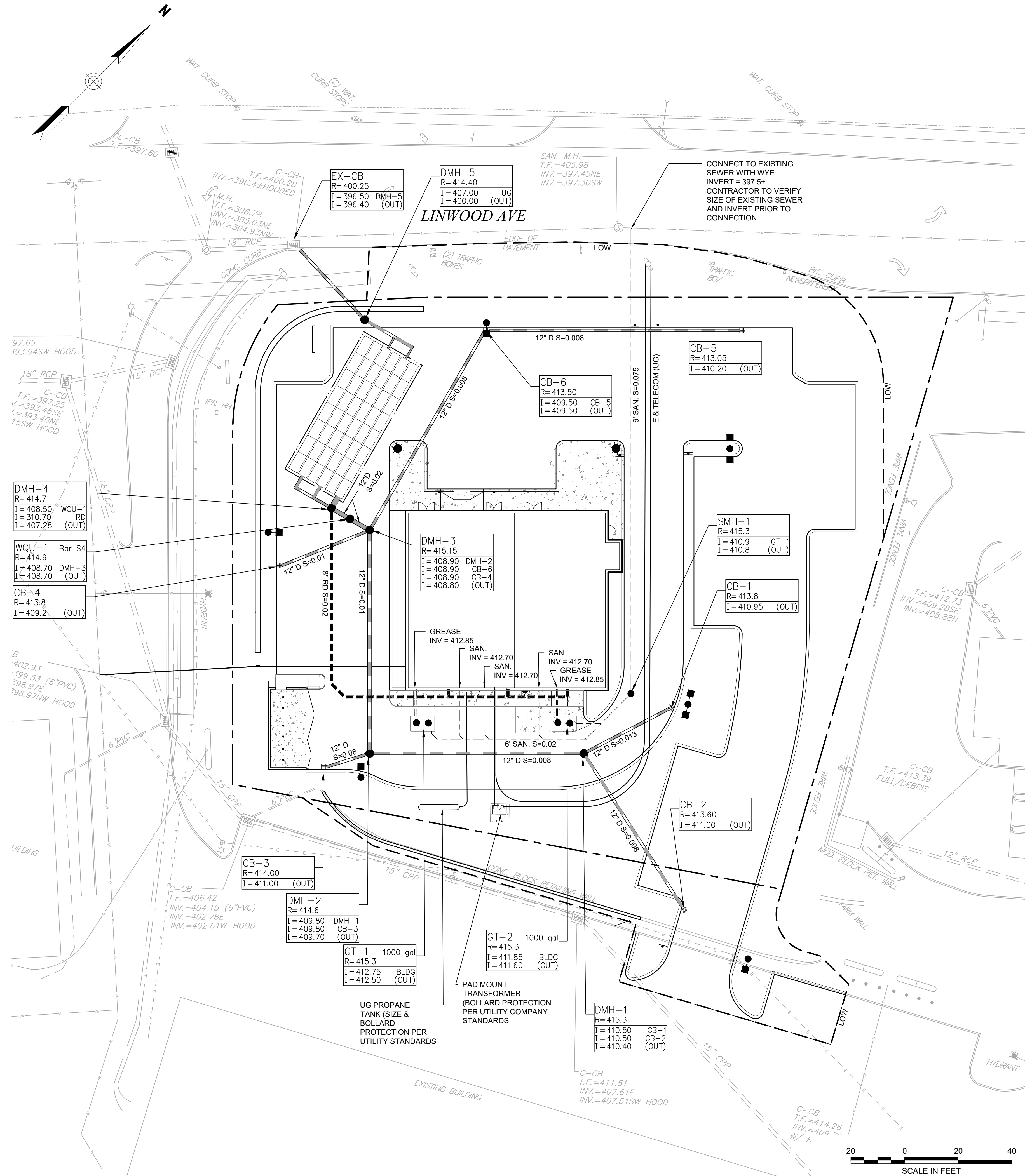
- CONTRACTOR SHALL NOTIFY "DIG-SAFE" (1-888-344-7233) AT LEAST 72 HOURS BEFORE EXCAVATING.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
- THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
- WORK WITHIN THE LOCAL RIGHTS-OF-WAY SHALL CONFORM TO LOCAL MUNICIPAL STANDARDS. WORK WITHIN STATE RIGHTS-OF-WAY SHALL CONFORM TO THE LATEST EDITION OF THE STATE HIGHWAY DEPARTMENTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
- UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.
- IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
- SET CATCH BASIN RIMS, AND INVERTS OF SEWERS, DRAINS, AND DITCHES IN ACCORDANCE WITH ELEVATIONS ON THE GRADING AND UTILITY PLANS.
- RIM ELEVATIONS FOR DRAIN AND SEWER MANHOLES, WATER VALVE COVERS, GAS GATES, ELECTRIC AND TELEPHONE PULL BOXES, AND MANHOLES, AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
 - PAVEMENTS AND CONCRETE SURFACES: FLUSH
 - ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
- LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: ONE INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.
- ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4" MIN.) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS AND LOCAL MUNICIPAL STANDARDS. FOR MANHOLES THAT ARE 20 FEET IN DEPTH AND GREATER, THE MINIMUM DIAMETER SHALL BE 5 FEET.
- THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, FIRE ALARM, ETC.). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH OWNER AND ARCHITECT.
- UTILITY PIPE MATERIALS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLAN:
 - WATER PIPES SHALL BE DUCTILE IRON FOR GREATER THAN 2" DIAMETER OR AS REQUIRED BY THE CITY OF WORCESTER DPW.
 - SANITARY SEWER PIPES SHALL BE POLYVINYL CHLORIDE (PVC) SDR-35 SEWER PIPE
 - STORM DRAINAGE PIPES SHALL BE HDPE SMOOTH LINED CAPABLE OF WITHSTANDING HS 20 LOADING UNLESS OTHERWISE INDICATED ON THE PLANS. STORM DRAIN LINES CONNECTING TO CITY OF WORCESTER DRAINS WITHIN THE ROW SHALL BE REINFORCED CONCRETE PIPE.
 - PRIMARY ELECTRIC CONDUIT SHALL BE AS REQUIRED BY NATIONAL GRID. SECONDARY ELECTRIC AND TELECOMMUNICATION CONDUIT SHALL BE PVC SCHEDULE 40.
 - IRRIGATION SLEEVES SHALL BE PVC SCHEDULE 40.
- CONTRACTOR SHALL FURNISH EXCAVATION, INSTALLATION, AND BACKFILL OF ELECTRICAL FURNISHED SITEMARK RELATED ITEMS SUCH AS PULL BOXES, CONDUITS, DUCT BANKS, LIGHT POLE BASES, AND CONCRETE PADS. SITE CONTRACTOR SHALL FURNISH CONCRETE ENCASUREMENT OF DUCT BANKS IF REQUIRED BY THE UTILITY COMPANY AND AS INDICATED ON THE DRAWINGS. CONTRACTOR SHALL PROVIDE ELECTRICAL WIRING AND EQUIPMENT WHICH SHALL BE FURNISHED AND INSTALLED BY A LICENSED ELECTRICIAN.
- CONTRACTOR SHALL EXCAVATE AND BACKFILL TRENCHES FOR GAS IN ACCORDANCE WITH GAS COMPANY'S REQUIREMENTS.
- NEW CATCH BASINS SHALL BE "DEEP SUMP" CATCH BASIN WITH HOOD AND MINIMUM SUMP DEPTH OF 4 FEET.
- ALL WATER AND SEWER PIPE AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE CITY OF WORCESTER STANDARDS.
- MINIMUM COVER OVER ALL WATER PIPES SHALL BE 5 FEET.
- NO SEWER MAIN OR SEWER CONNECTION SHALL BE INSTALLED CLOSER THAN TEN (10) FEET HORIZONTALLY OR EIGHTEEN (18) INCHES VERTICALLY TO ANY WATER MAIN.

PLAN REFERENCES

- EXISTING CONDITIONS AND BOUNDARY SURVEY BASE PLANS PREPARED BY CONTROL POINT ASSOCIATES AS SHOWN ON "THE HOSPITAL DRIVE SUBDIVISION" PLANS.
- BASE PLAN INFORMATION AND WORK WITHIN OUTSIDE THE LIMIT OF THIS PROPERTY ARE BASED UPON THE LATEST REVISED HOSPITAL DRIVE SUBDIVISION PLANS AND SPECIFICATIONS PREPARED BY BOHLER ENGINEERING AS APPROVED BY THE CITY OF WORCESTER

DPW NOTES

- ALL WORK MUST BE INSPECTED BY A DEPARTMENT OF PUBLIC WORKS UTILITY INSPECTOR. TO SCHEDULE A PRECONSTRUCTION MEETING, CONTACT THE ENGINEERING DIVISION AT (508) 532-6022 OR (508) 532-6010 FORTY-EIGHT HOURS PRIOR TO THE START OF WORK.
- ALL SITE DRAINAGE, WATER, AND SEWER WORK OUTSIDE THE BUILDING FOOTPRINT SHALL BE PERFORMED BY A LICENSED FRAMINGHAM DRAIN LAYER.
- ANY PROPOSED SURFACE OPENINGS AND EXCAVATION WORK WITHIN THE TOWN RIGHT-OF-WAY LIMITS WILL REQUIRE A STREET OPENING PERMIT (SOP) WITH THE WORK CONDUCTED UNDER SAID PERMIT BEING PERFORMED IN COMPLIANCE WITH THE TOWN OF FRAMINGHAM SOP POLICY.
- A TRENCH OPENING PERMIT (TOP) SHALL BE OBTAINED PRIOR TO THE EXCAVATION OF ANY TRENCH. A TRENCH IS DEFINED UNDER MGL 82A AND 520 CMR 14.00 AS ANY EXCAVATION GREATER THAN 3' IN DEPTH AND LESS THAN 15' BETWEEN SOIL WALLS AS MEASURED FROM THE BOTTOM.
- ALL PROPOSED WORK SHALL COMPLY WITH TOWN OF FRAMINGHAM DPW CONSTRUCTION STANDARDS. TOWN OF FRAMINGHAM CONSTRUCTION STANDARDS ARE AVAILABLE ON THE TOWN OF FRAMINGHAM WEBSITE.



37 SUTTON ROAD
 WEBSTER, MA 01570
 (508) 721-0005

Date	Revision	Scale	as noted
Oct. 12, 2023			

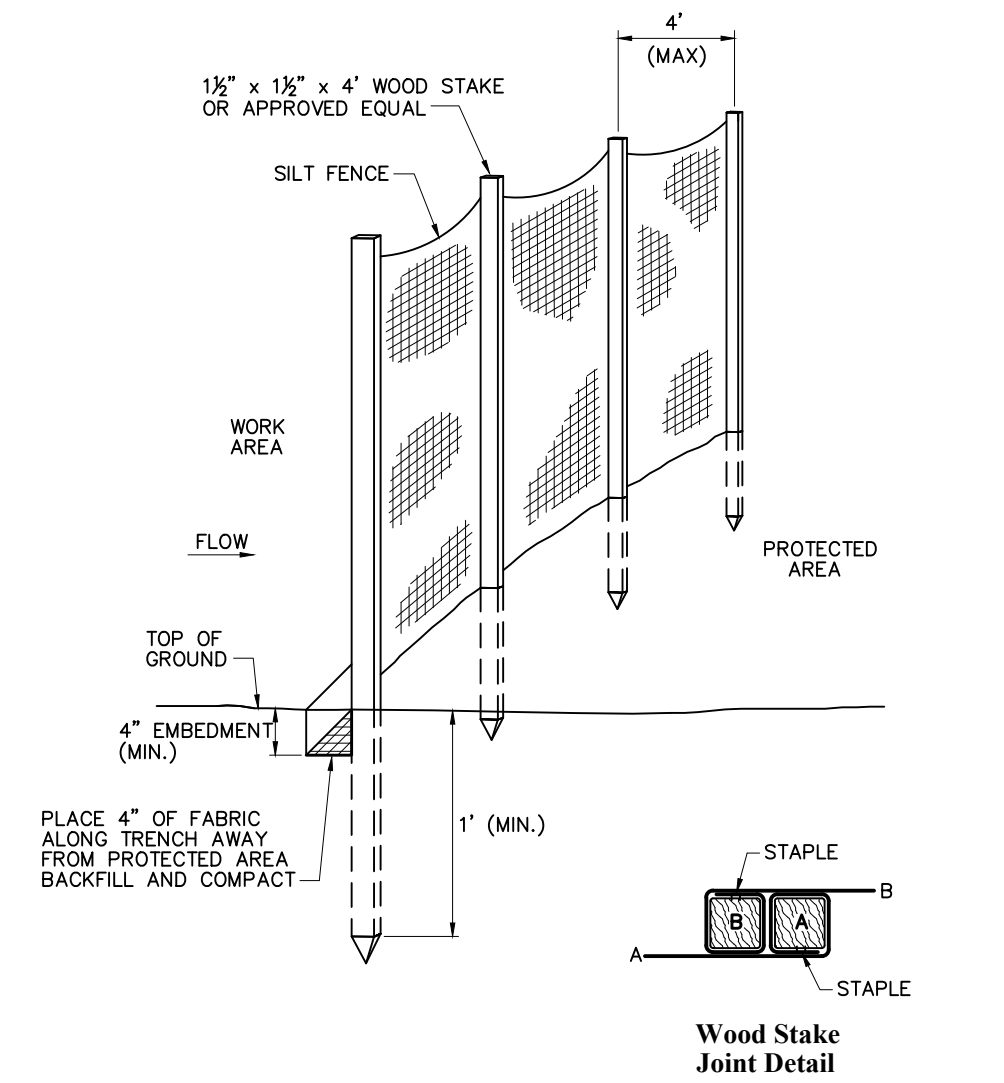
Project Title:
PROPOSED COMMERCIAL DEVELOPMENT

131 LINWOOD AVE
 COLCHESTER, CT
 Issued For:
Definitive Site Plan

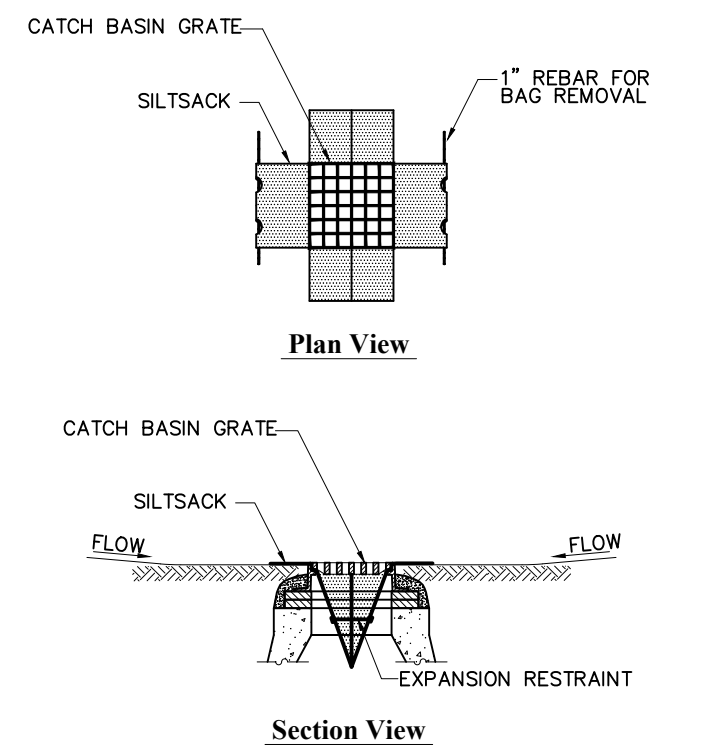
Not for Construction

DRAINAGE &
 UTILITY PLAN

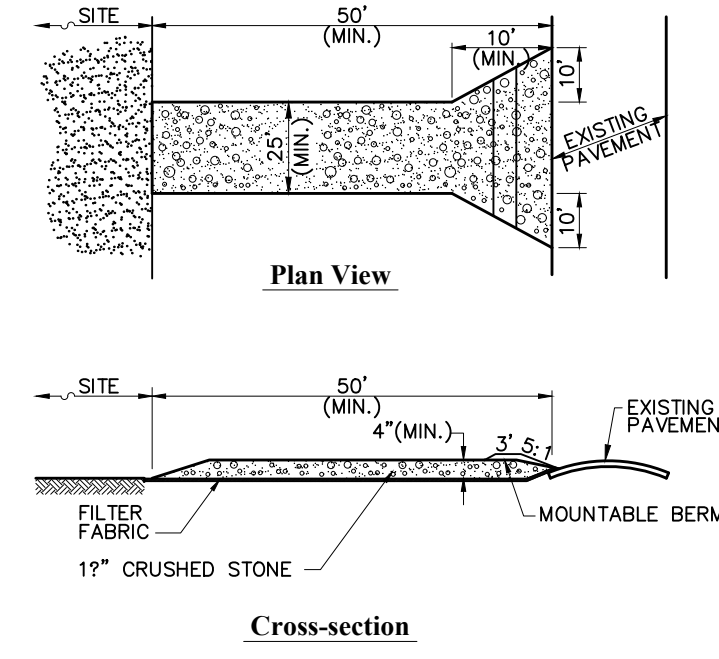
C-4



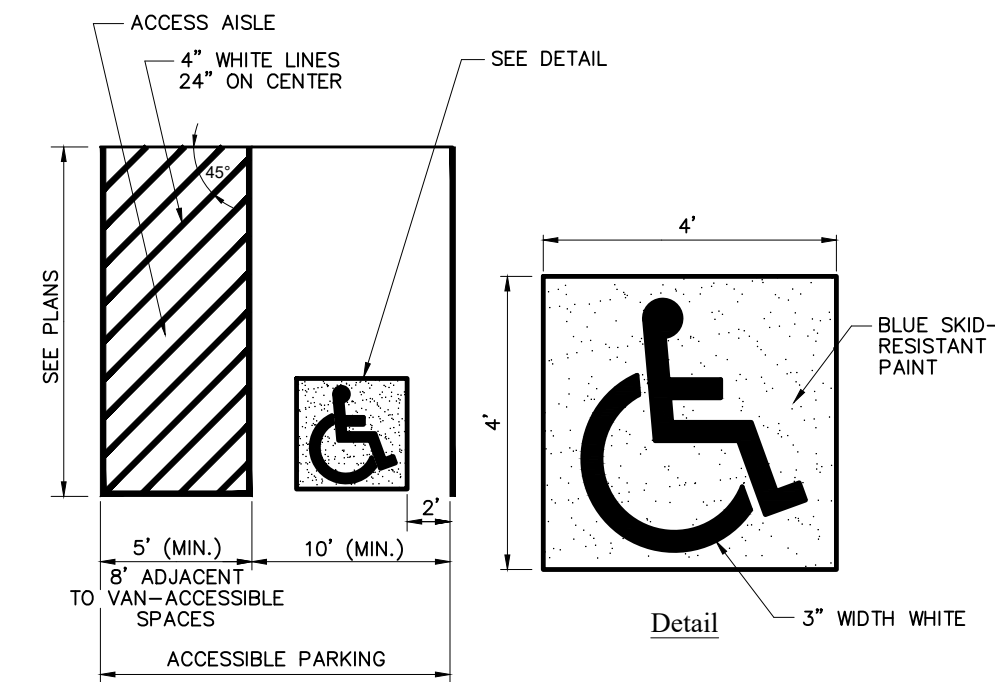
SILT FENCE BARRIER
N.T.S.



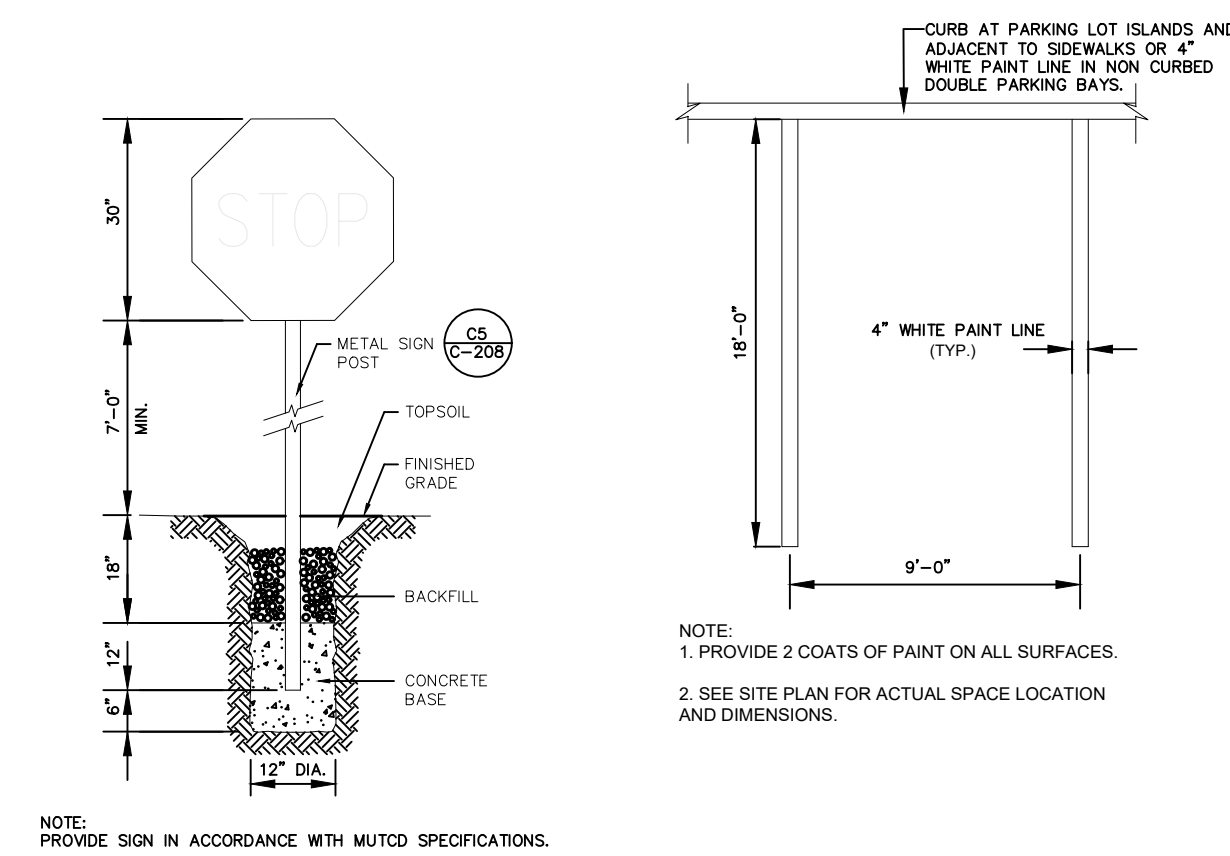
SILT SACK SEDIMENT TRAP
N.T.S.



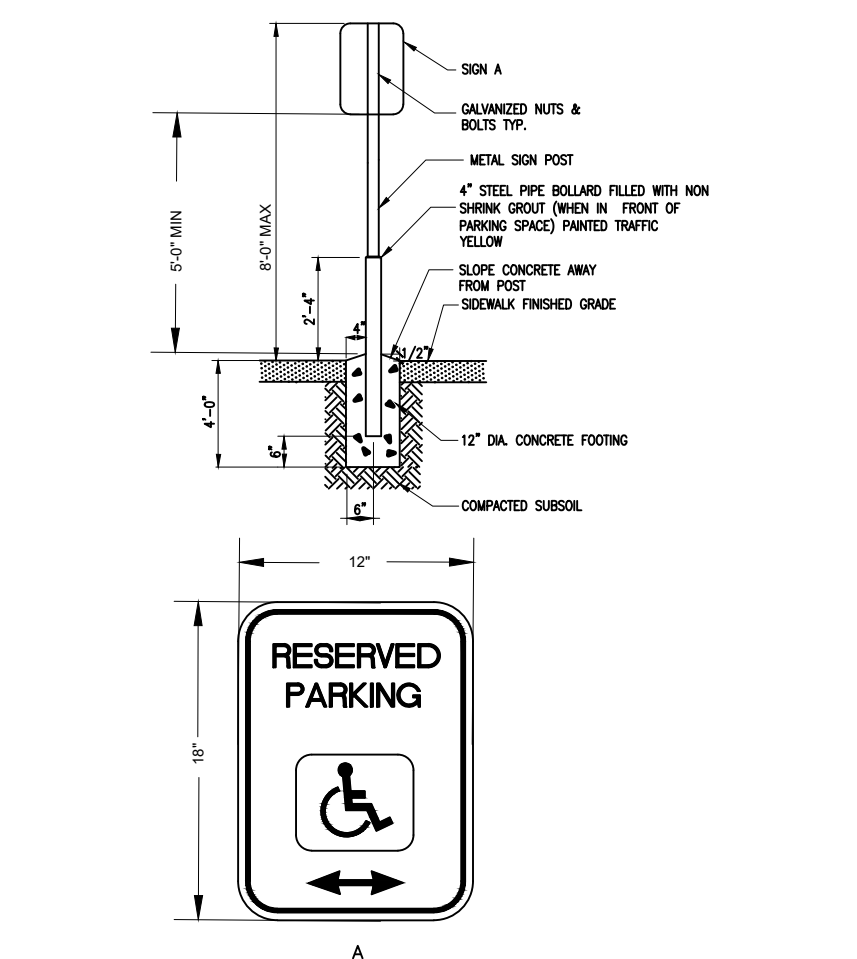
A12 STABILIZED CONSTRUCTION ENTRANCE
N.T.S.



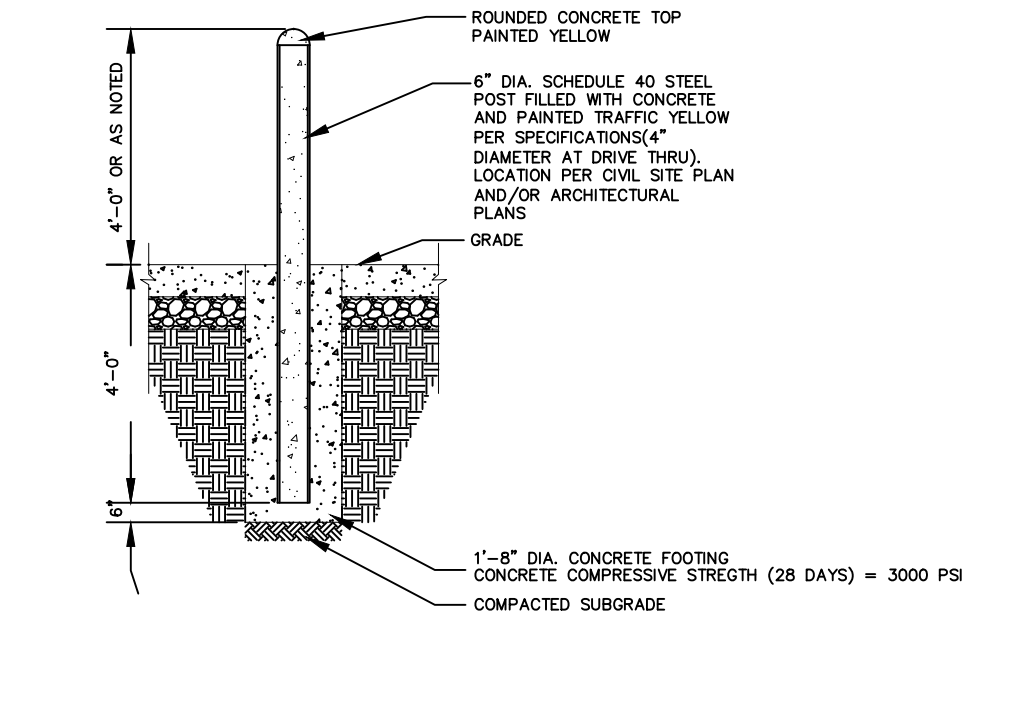
ASSESSIBLE PARKING SPACE DETAIL
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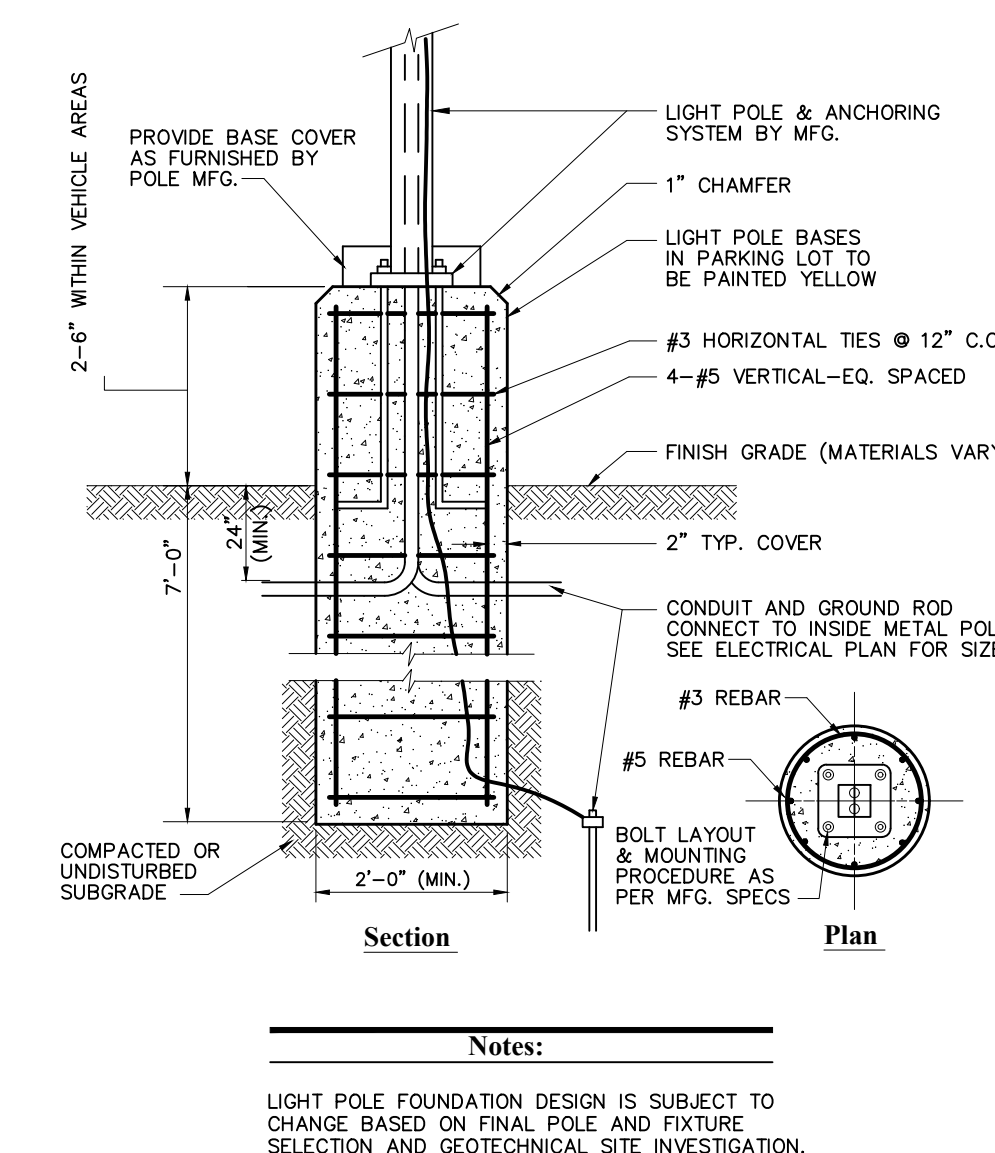
STOP SIGN
N.T.S.



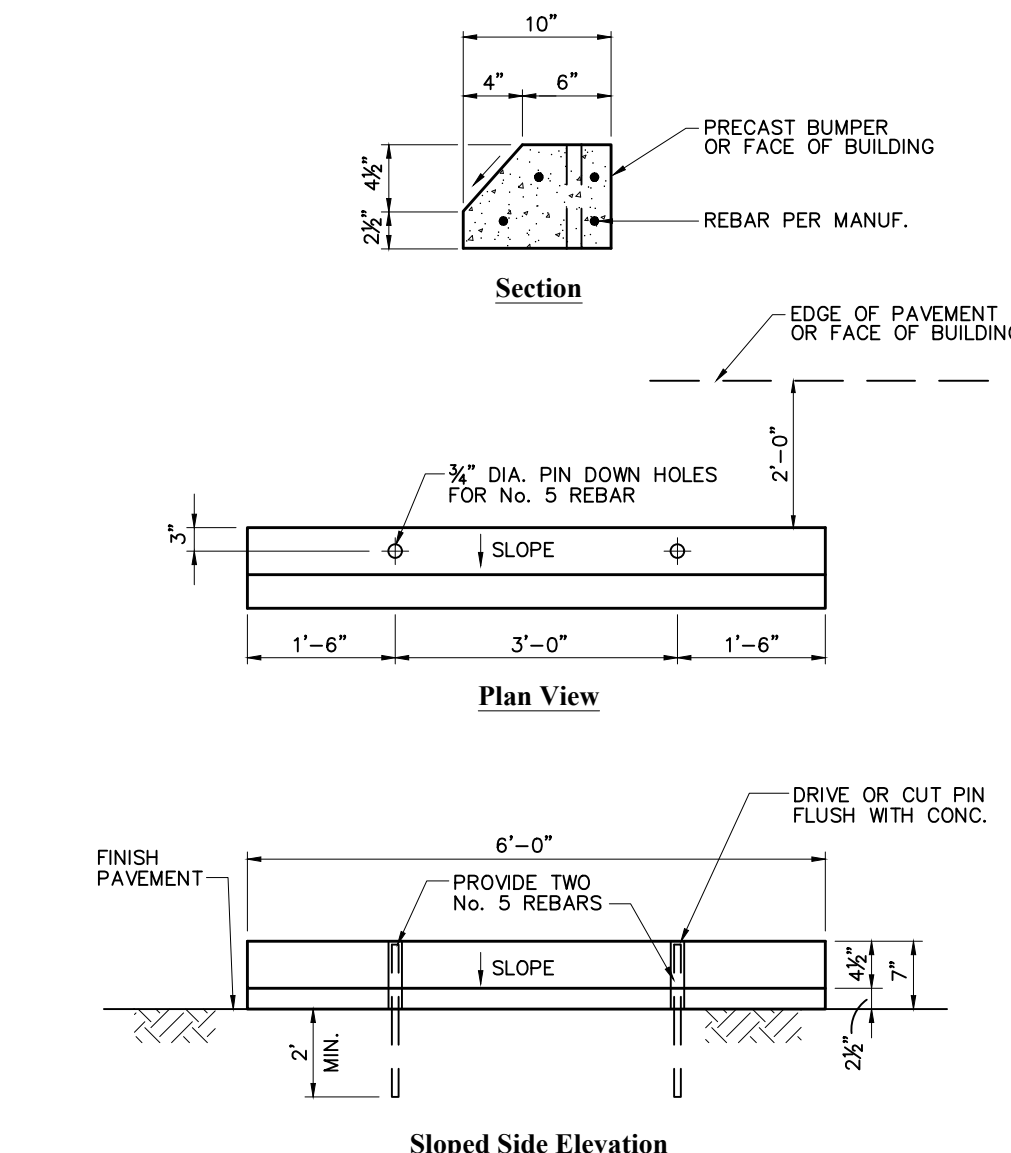
HANDICAPPED PARKING SIGNAGE DETAIL
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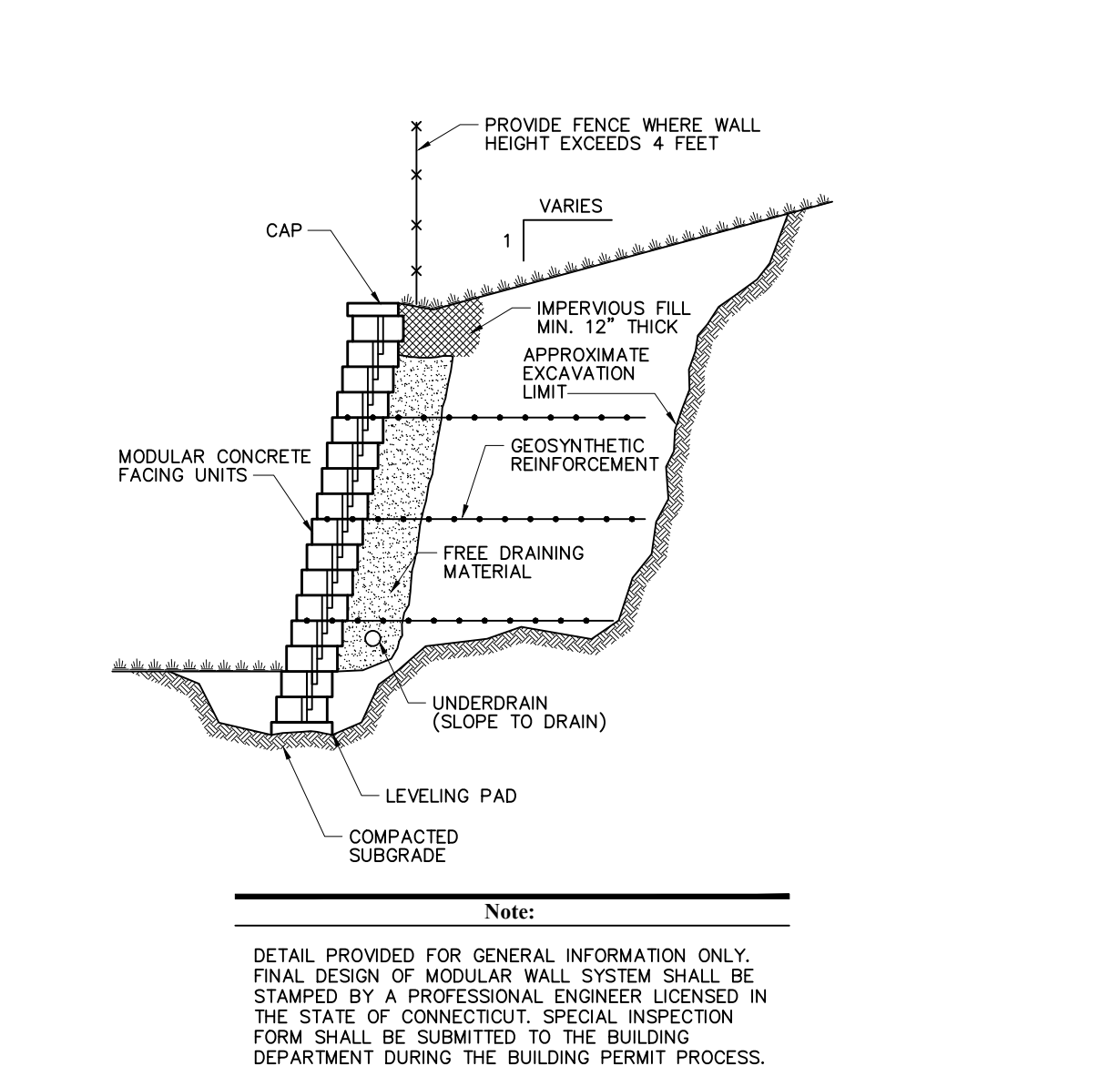
BOLLARD DETAIL
N.T.S.



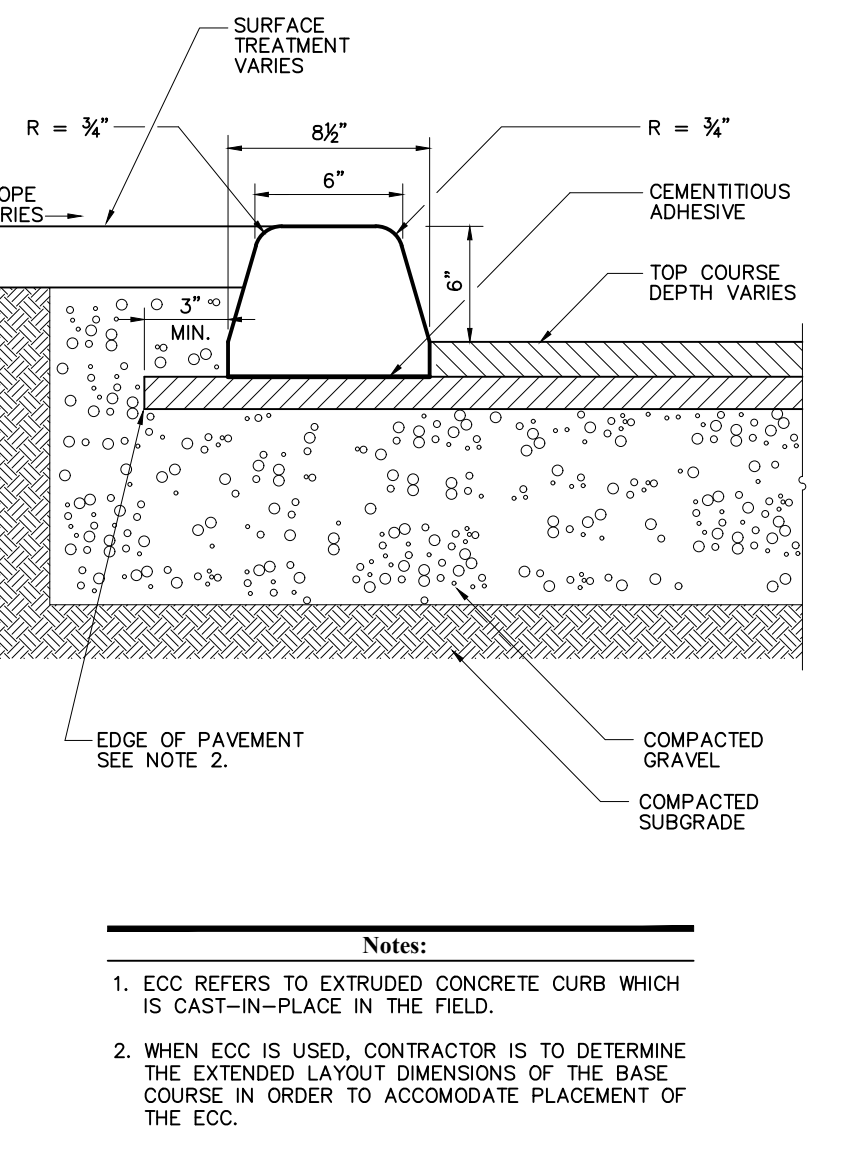
LIGHT POLE BASE
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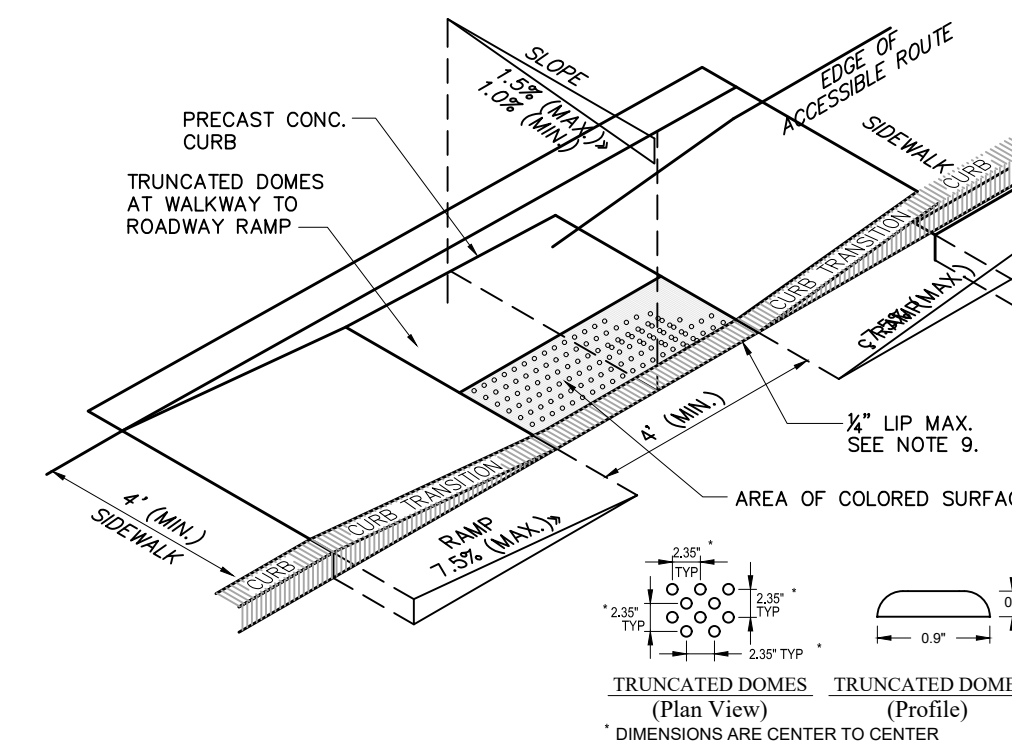
CONCRETE WHEEL STOP
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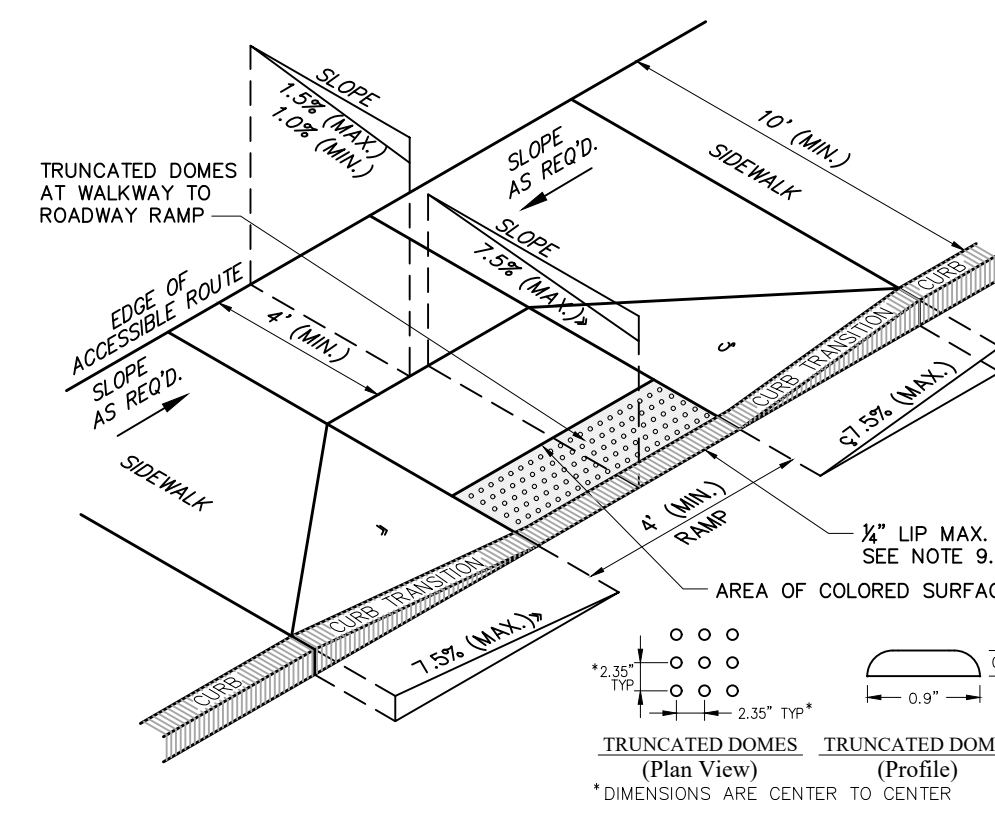
RETAINING WALL
N.T.S.



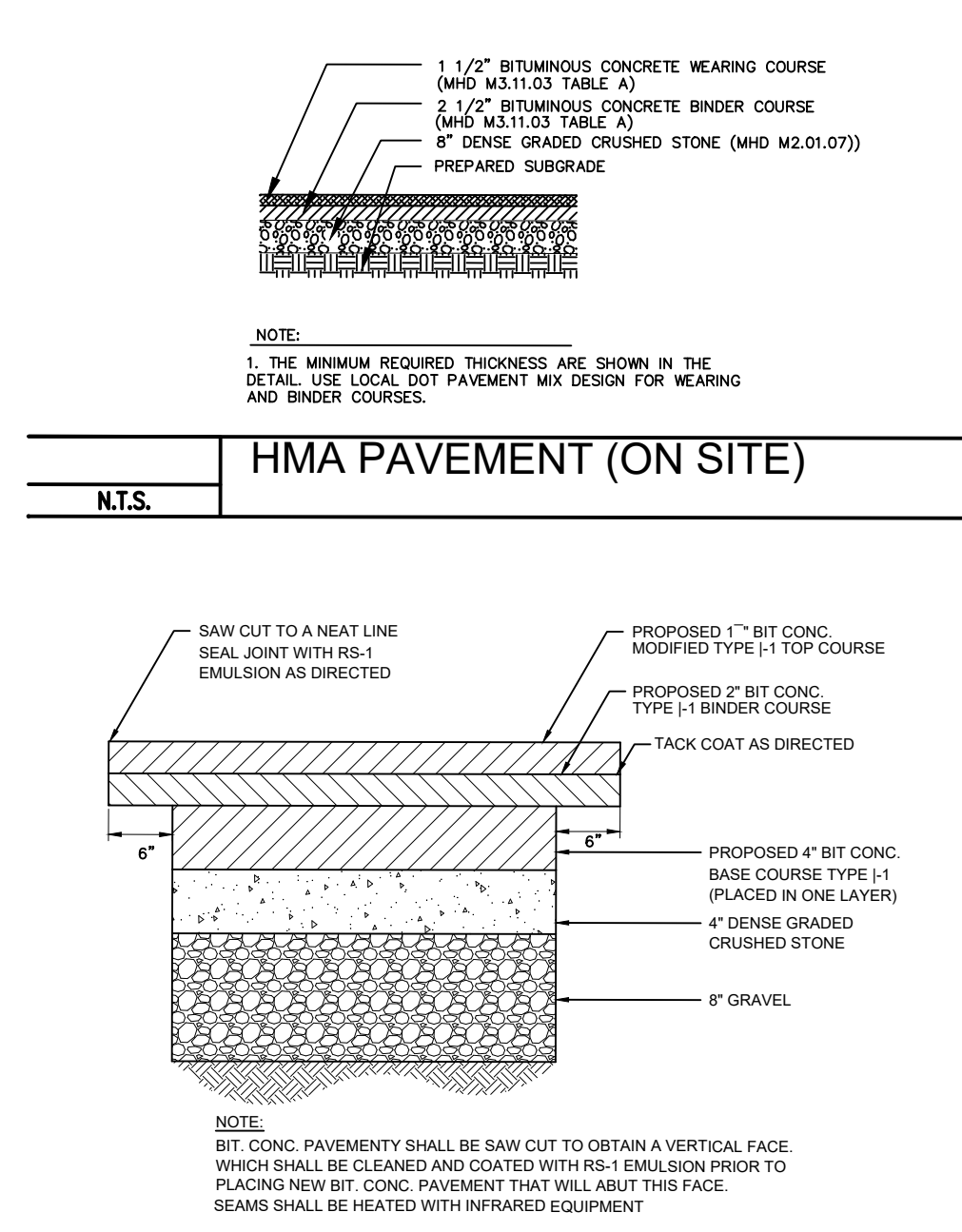
EXTRUDED CONCRETE CURB
N.T.S.



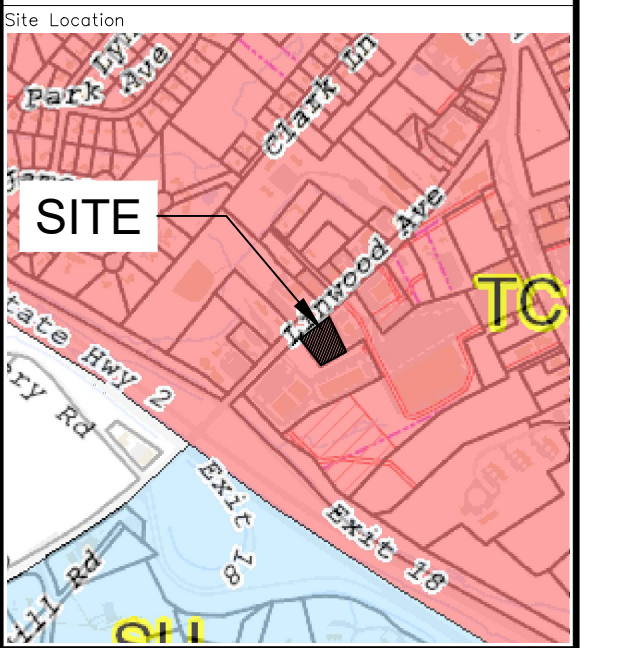
ACCESSIBLE CURB RAMP
N.T.S.



ACCESSIBLE CURB RAMP
N.T.S.



FULL DEPTH PAVEMENT REPAIR
N.T.S.



Date	Oct. 12, 2023	Scale	as noted
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Project Title
PROPOSED COMMERCIAL DEVELOPMENT
131 LINWOOD AVE
COLCHESTER, CT

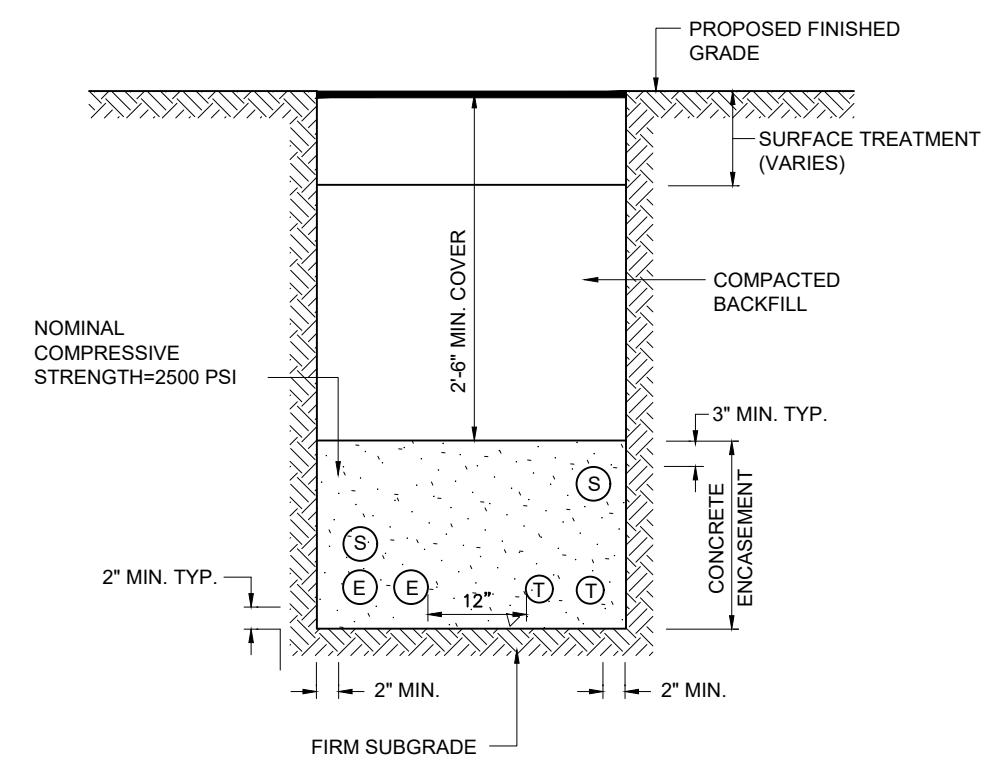
Issued For
Definitive Site Plan

Not for Construction

Drawing Title
SITE CONSTRUCTION DETAILS 1

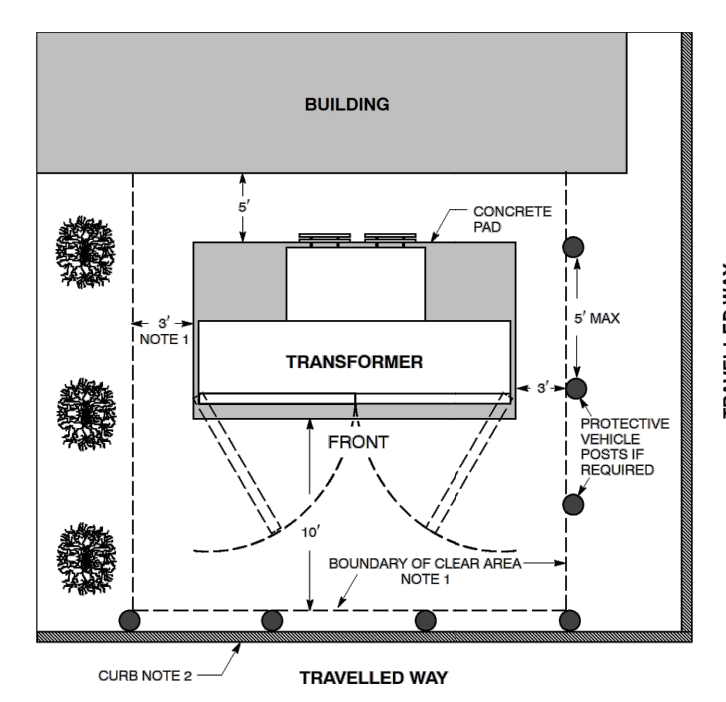
C-5

Pad-Mounted Transformers Location To Buildings and Roadways



E-ELECTRICAL, 5" PVC CONDUIT
T-TELEPHONE, 4" PVC CONDUIT
FA-FIRE ALARM, 4" PVC CONDUIT
S-SPARE 4" PVC CONDUIT

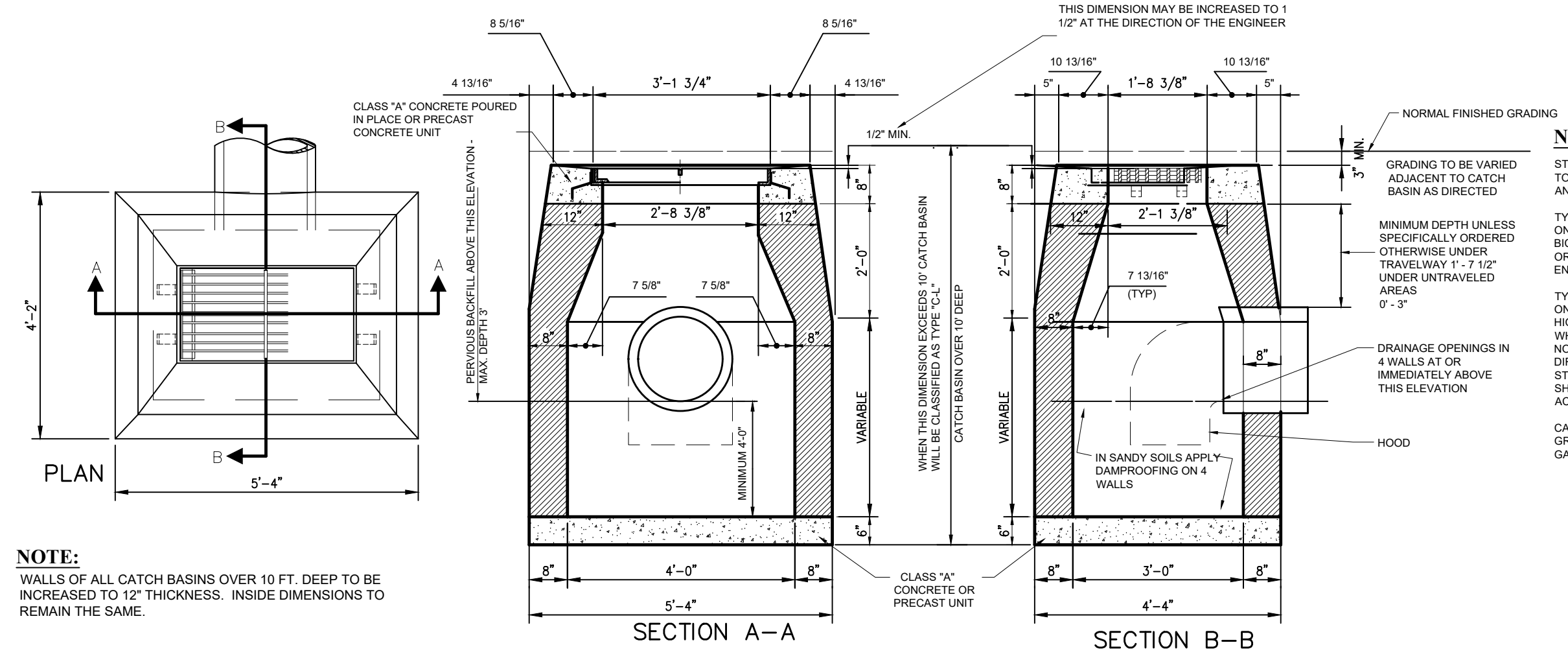
- NOTES:
- TYPICAL CROSS-SECTION SUBJECT TO APPROVAL FROM PRIVATE COMPANIES PRIOR TO CONSTRUCTION.
 - CONTRACTOR SHALL PROVIDE 10' STEEL CONDUIT SWEEPS FOR ELECTRICAL CONDUIT AND 10' STEEL CONDUIT TANGENT SECTION PRIOR TO SWEEP.



- EVERSOURCE INTERNAL REFERENCE 42.047
- NOTES:
- To inspect, provide access, separate elbow connectors, and ventilate the transformer, the above specified clear area distances to buildings or structures shall be maintained. The distance from the building to the concrete transformer pad. Property line shall be considered an obstruction since fences, shrubs, etc. may be installed at a future date by adjacent property owners. Because of the possibility of cooling fins overhanging the pad, side clearances to be increased to 5' for transformers 1000V and larger.
 - If no curb exists or transformer is located closer than 10' to the travelled way, protective vehicle posts shall be installed. Refer to **Pad Mounted Oil Insulated Equipment Location and Mechanical Protection**.
 - The top of the concrete transformer pad shall be installed 5" above finish grade.
 - Transformer shall not be located on steep grades where access to or elbow operation is made difficult.
 - Transformer shall meet the minimum distances to doors, windows, fire escapes, air intakes and walls. Refer to **Pad Mounted Transformer and Environmental Considerations** for information on environmental considerations.
 - Transformer is not to be located with its doors facing the building.
 - Refer to **Oil Distribution for Pad Mounted Transformer and Environmental Considerations** for information on environmental considerations.

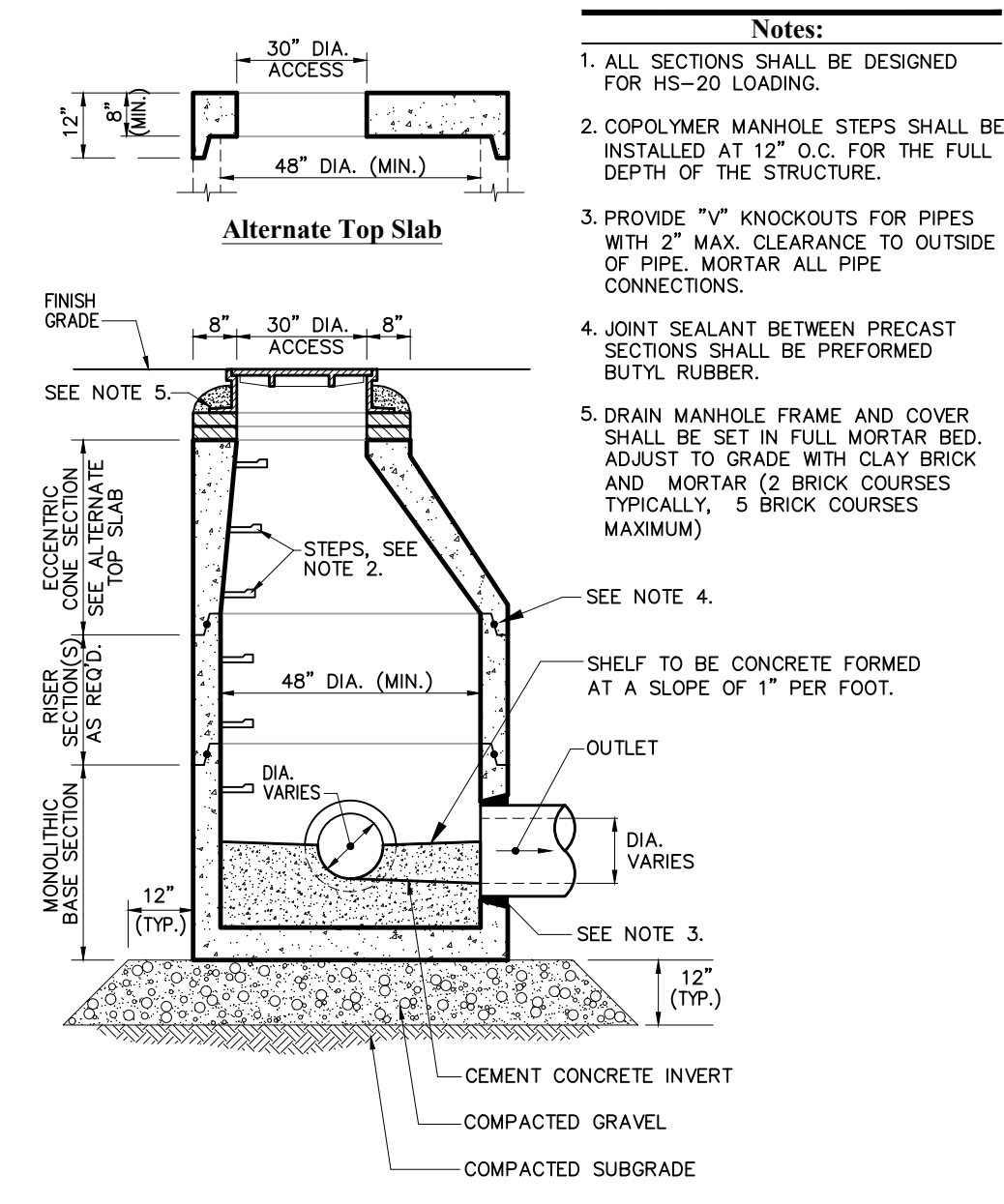
NTS. TYPICAL CONDUIT BANK

NTS. CONCRETE TRANSFORMER PAD



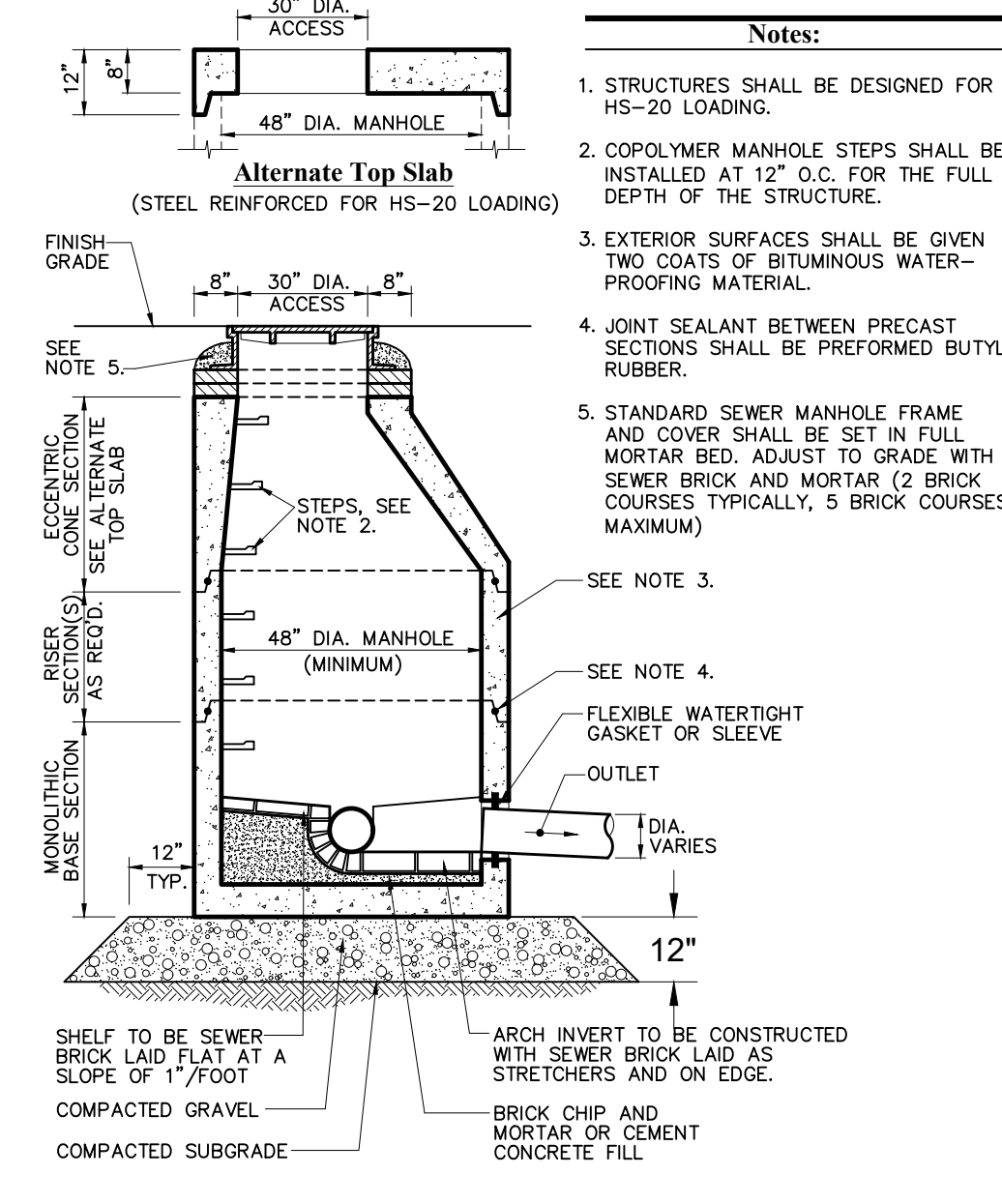
- NOTES:
- STEEL OR CAST IRON FRAMES TO BE USED FOR TYPE "A" AND "B" GRATES.
 - TYPE "A" GRATES TO BE USED ON ALL ROADWAYS WHERE BICYCLE TRAFFIC IS ALLOWED OR AS DIRECTED BY THE ENGINEER.
 - TYPE "B" GRATES TO BE USED ON ALL LIMITED ACCESS HIGHWAYS, RAMP AND WHERE BICYCLE TRAFFIC IS NOT ALLOWED OR AS DIRECTED BY THE ENGINEER. STEEL FRAMES AND GRATES SHALL BE GALVANIZED IN ACCORDANCE WITH M.03.03.
 - CAST IRON FRAMES AND GRATES ARE NOT TO BE GALVANIZED.

NTS. TYPE C-L CATCH BASIN



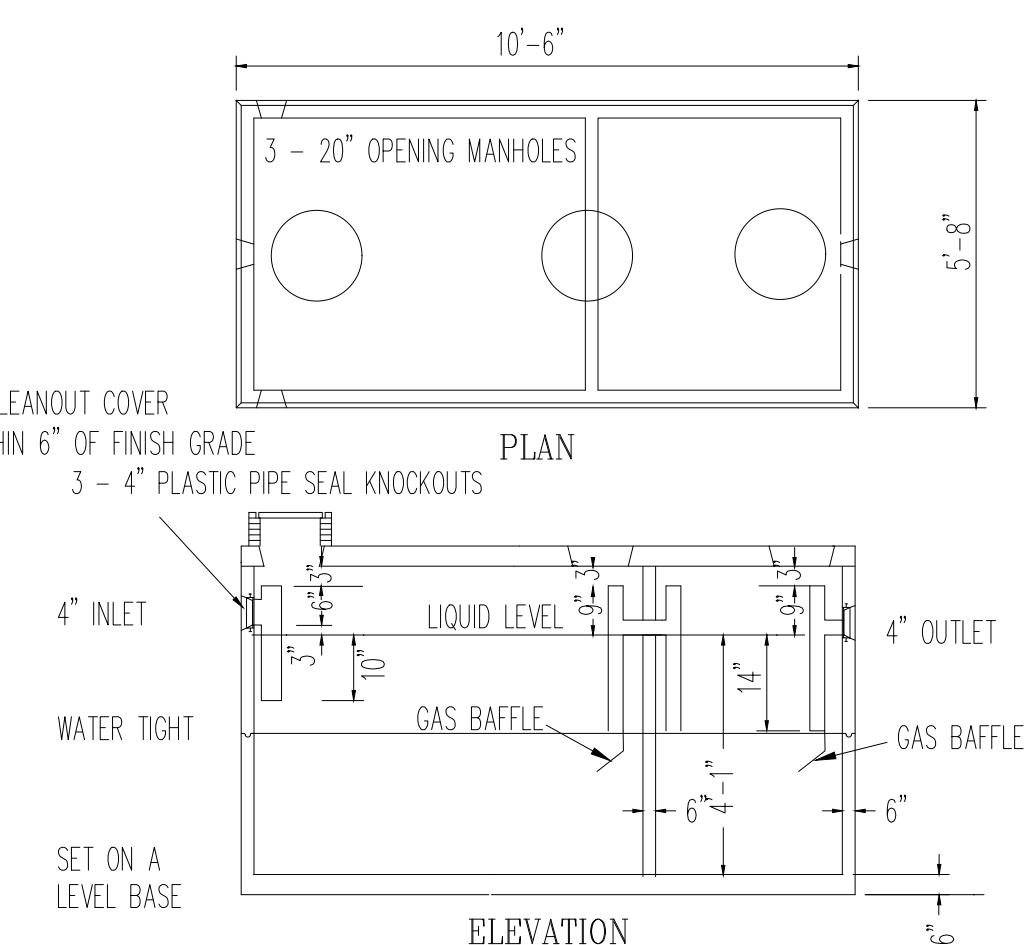
- Notes:
- ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
 - COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
 - PROVIDE "Y" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
 - JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PERFORMED BUTYL RUBBER.
 - DRAIN MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM).

NTS. DRAIN MANHOLE



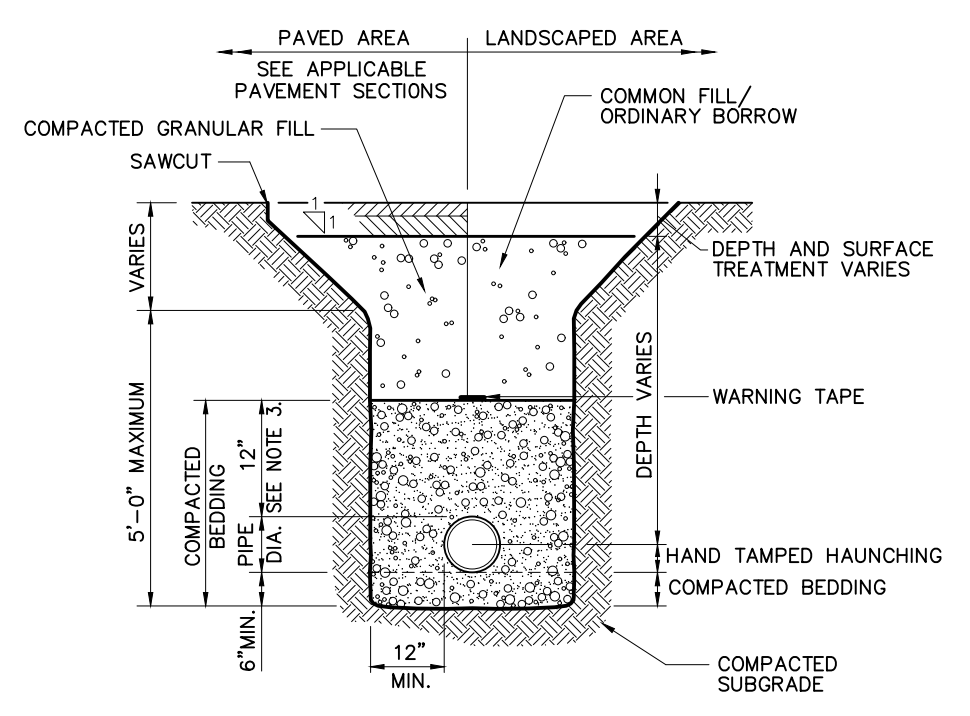
- Notes:
- STRUCTURES SHALL BE DESIGNED FOR HS-20 LOADING.
 - COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
 - EXTERIOR SURFACES SHALL BE GIVEN TWO COATS OF BITUMINOUS WATER-PROOFING MATERIAL.
 - JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PERFORMED BUTYL RUBBER.
 - STANDARD SEWER MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH SEWER BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM).

NTS. SEWER MAHMHOLE



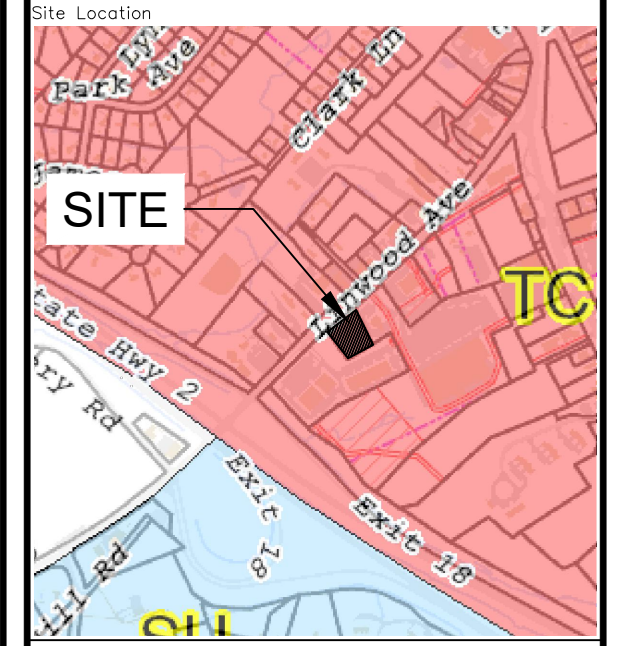
1,500 GALLON HS-20 GREASE TRAP

NTS. GREASE TRAP



- Notes:
- WHERE UTILITY TRENCHES ARE CONSTRUCTED THROUGH DETENTION BASIN BERMS OR OTHER SUCH SPECIAL SECTIONS, PLACE TRENCH BACKFILL WITH MATERIALS SIMILAR TO THE SPECIAL SECTION REQUIREMENTS.
 - USE METALLIC TRACING/WARNING TAPE OVER ALL PIPES.
 - FOR HDPE PIPE, DIMENSION IS 24 INCHES.

NTS. UTILITY TRENCH



Date	Oct. 12, 2023	Scale	as noted
No.		Revision	
			Date

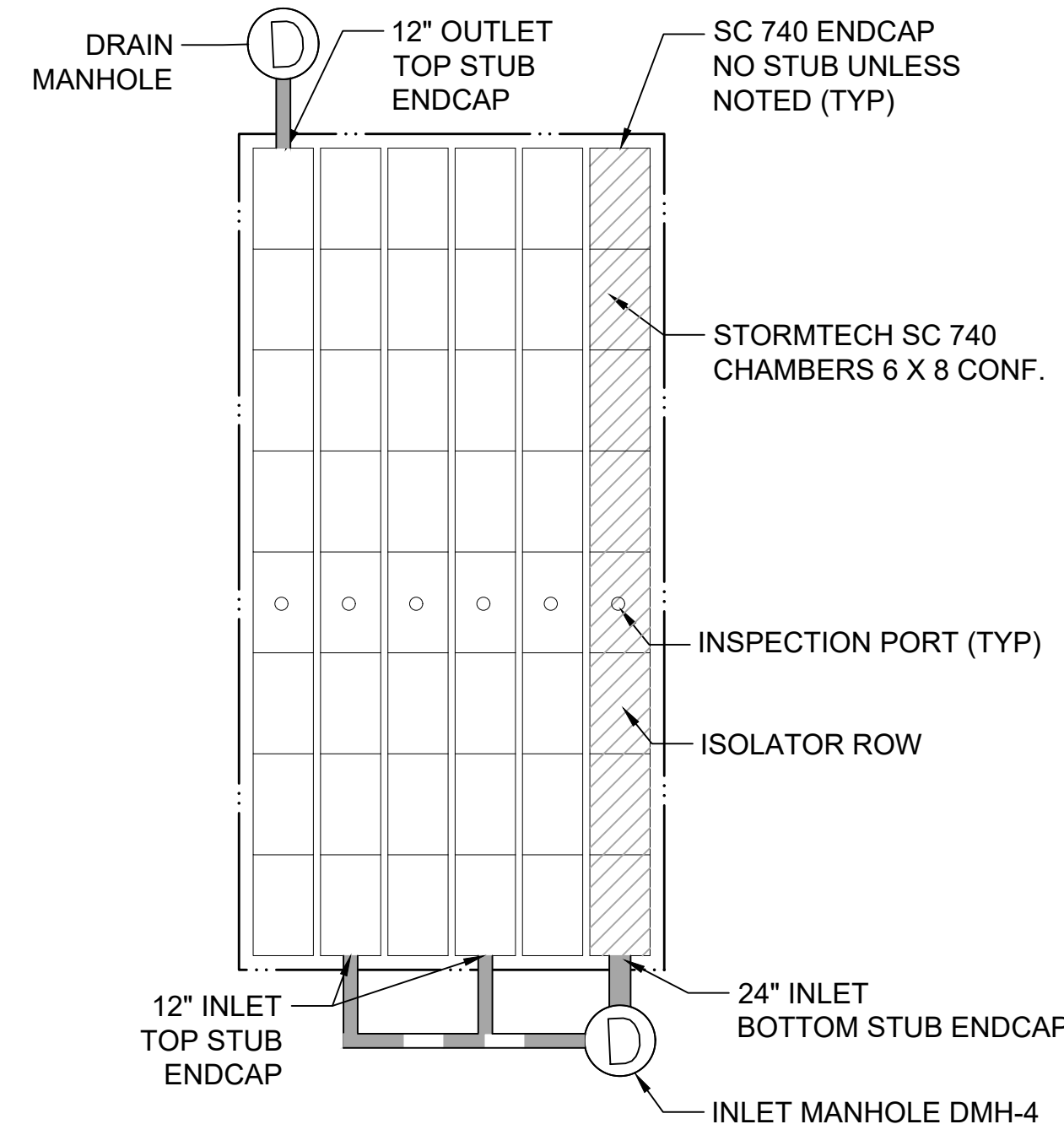
Project Title
PROPOSED COMMERCIAL DEVELOPMENT

131 LINWOOD AVE
COLCHESTER, CT

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Drawing Title
SITE CONSTRUCTION DETAILS 2

Sheet No.
C-6

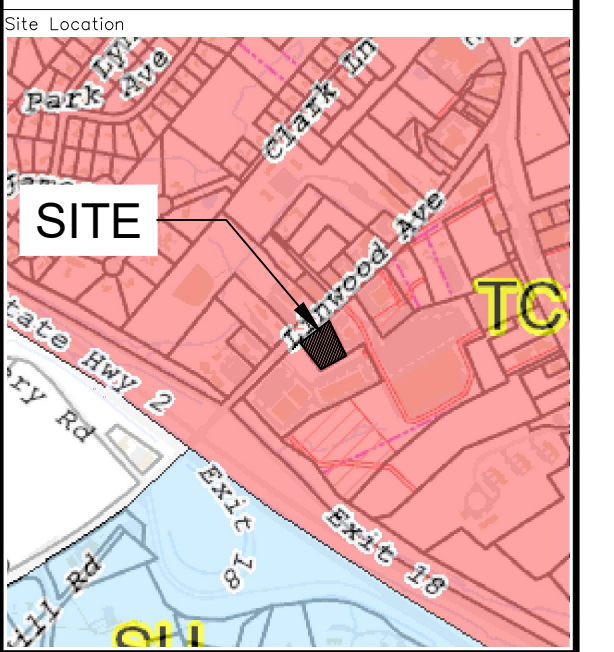


MIN F.G. = 411.75; MAX F.G. = 418.50
 TOP OF STONE ELEV. = 410.50
 TOP OF CHAMBER ELEV. = 410.00
 BOTTOM OF CHAMBER ELEV. = 407.50
 BOTTOM OF STONE ELEV. = 407.00

RECHARGE CHAMBER SYSTEM UG-1
 StormTech SC 740 6 x 8 Configuration

UNDERGROUND CHAMBER SYSTEM PLAN VIEW

N.T.S.



Date: Oct. 12, 2023 Scale: as noted

Project Title:
PROPOSED COMMERCIAL DEVELOPMENT
 131 LINWOOD AVE
 COLCHESTER, CT

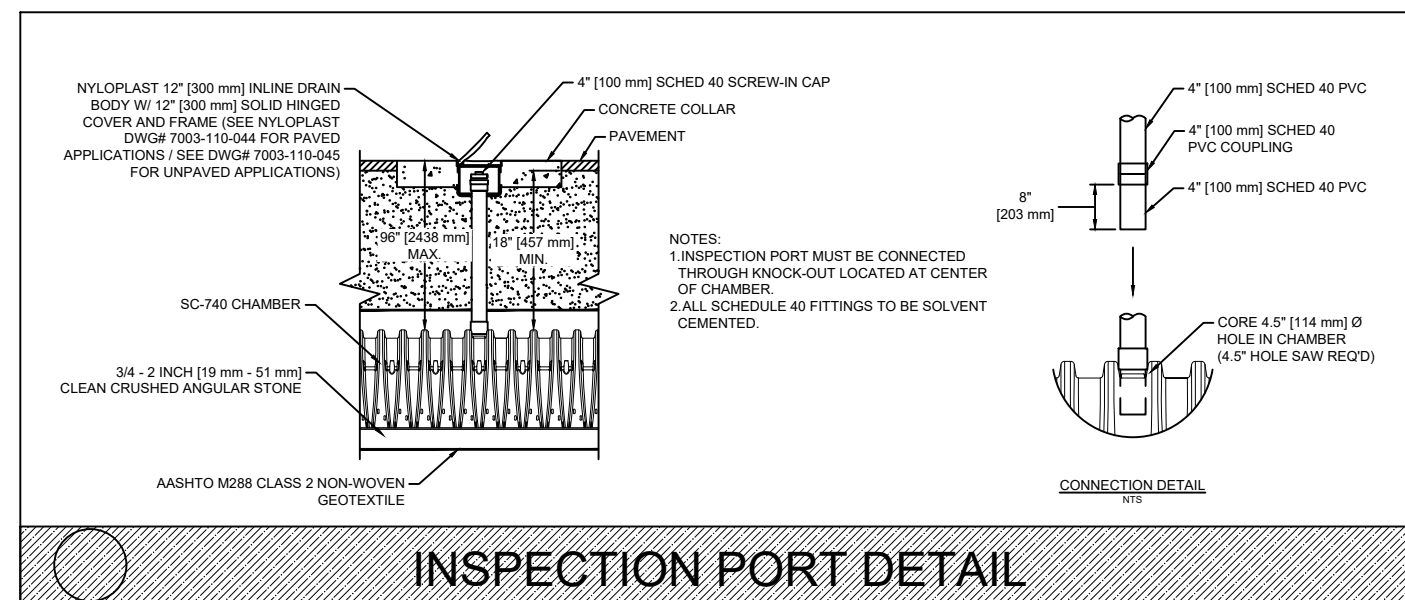
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Definitive Site Plan

Not for Construction
 Drawing Title:
SITE CONSTRUCTION DETAILS 3

Drawing No.:

Proj. No. XXX
 Sheet 7 of 8

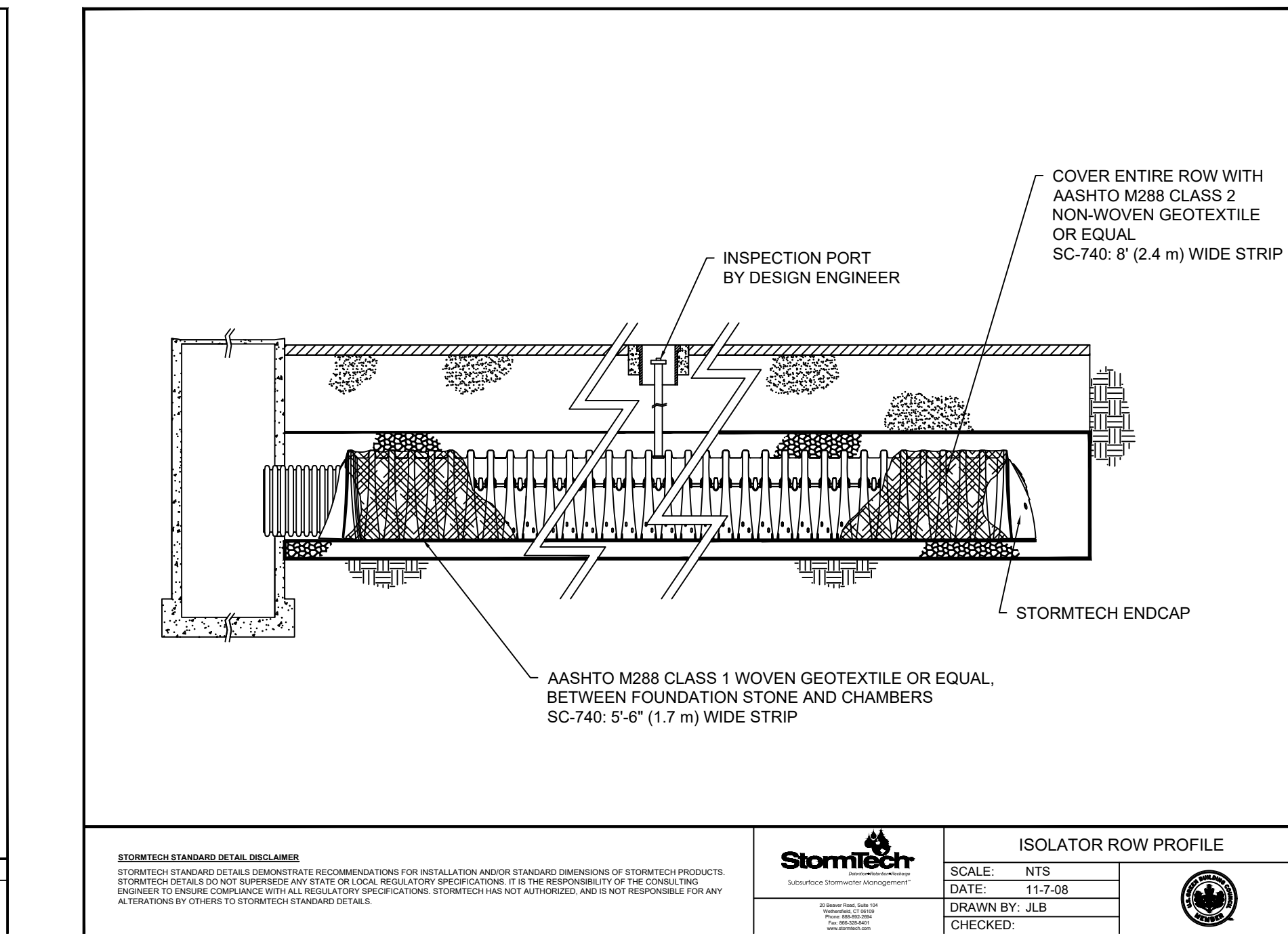
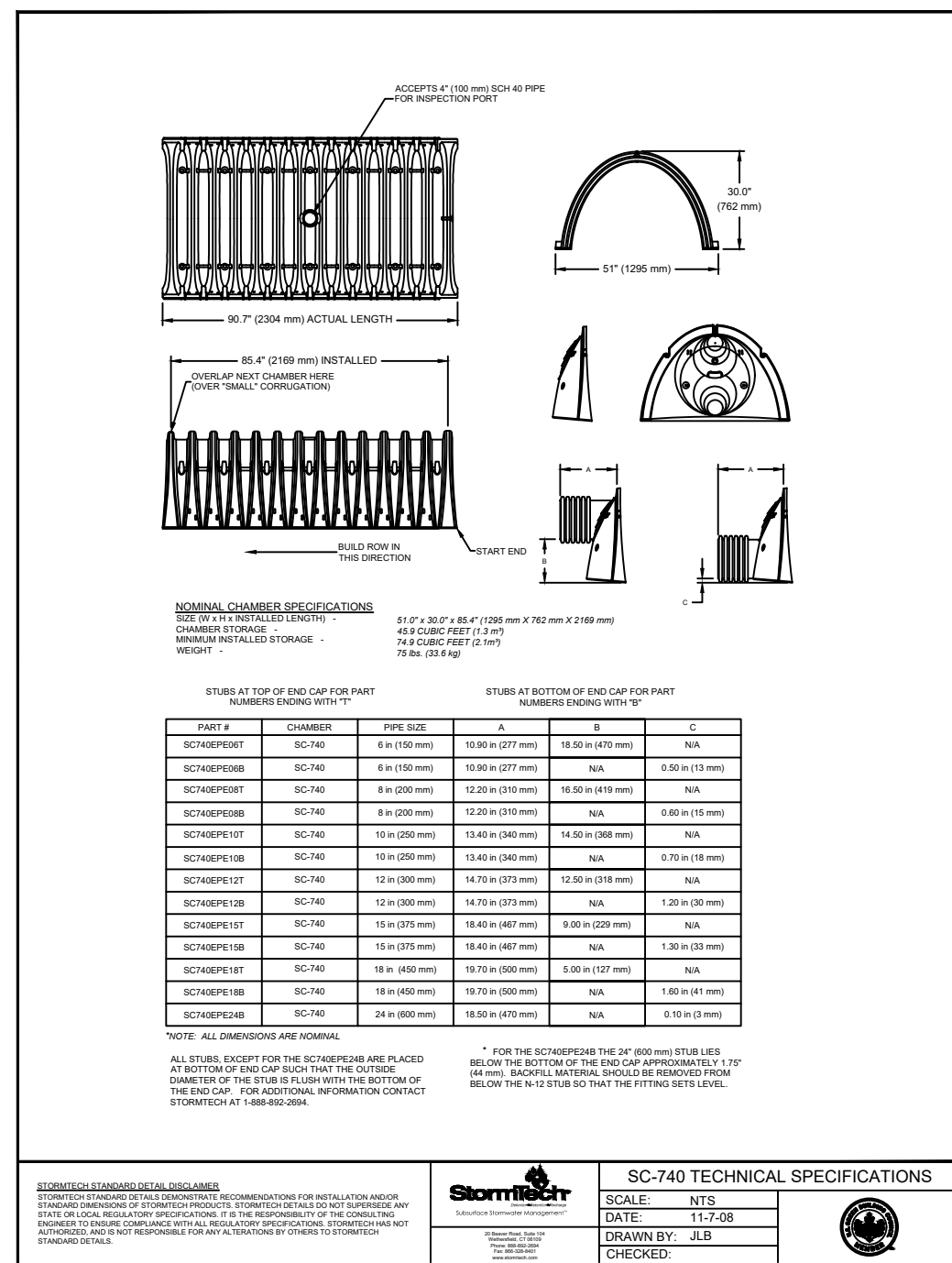
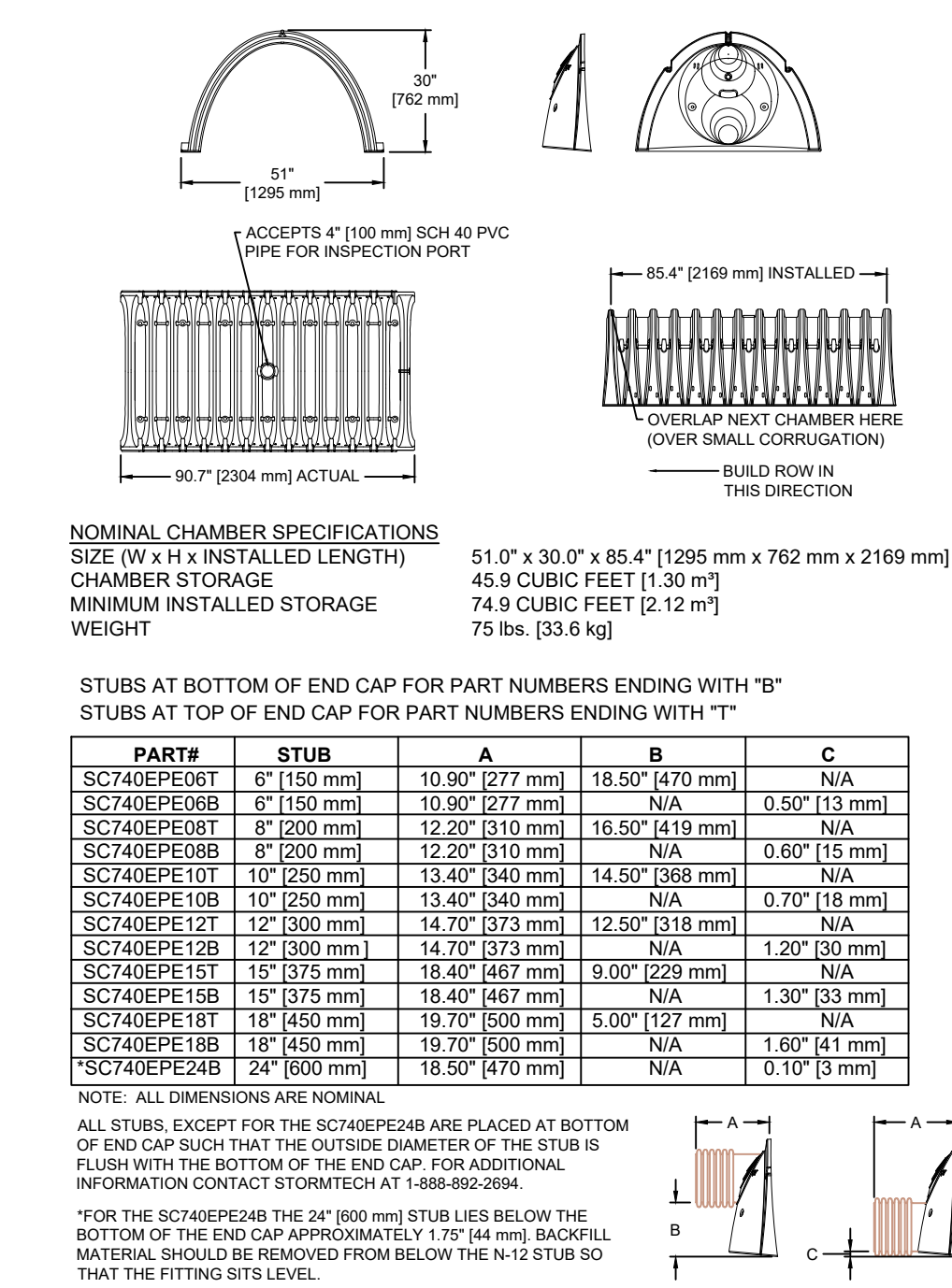
C-7



ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO M33 DESIGNATION	COMPACTION/DENSITY REQUIREMENT
1	FILL MATERIAL FOR LAYER 12" STARTS FROM THE TOP OF THE 12" LAYER TO THE BOTTOM OF THE 4" (100 mm) SCHED 40 PVC COUPLING. ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS, CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS. AGENCIES NOTE: THAT PAVEMENT SUBGRADE MAY BE PART OF THIS LAYER.	N/A	PREPARE PER ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
2	FILL MATERIAL FOR LAYER 12" STARTS FROM THE TOP OF THE EMBASEMENT STONE TO LAYER 10" TO 12" FROM THE TOP OF THE CHAMBER. AGENCIES NOTE: THAT PAVEMENT SUBGRADE MAY BE A PART OF THIS LAYER.	3.507, 4.407, 5.16, 5.17, 4.07, 4.08, 5.17, 4.08, 5.16	BEFORE CONSTRUCTION AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED, COMPACT ADDITIONAL LAYERS IN 12" (300 mm) LIFTS TO A MIN. 90% STANDARD PROCTOR DENSITY. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 25,000 lb (89 kN).
3	EMBASEMENT STONE SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE (OR LAYER) TO THE 12" LAYER ABOVE.	3.357, 4.407, 5.16, 5.17	NO COMPACTION REQUIRED.
4	FOUNDATION STONE BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	3.35, 4.407, 5.16, 5.17	SLATE COMPACT OR ROLL TO ACHIEVE A 90% STANDARD PROCTOR DENSITY.

PLEASE NOTE:
 1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR 44 STONE WOULD STATE: CLEAN, CRUSHED, ANGULAR NO. 4 AASHTO M33 STONE.
 2. AS AN ALTERNATE TO PROCTOR TESTING AND FIELD DENSITY MEASUREMENTS ON OPEN GRADED STONE, STORMTECH COMPACTION REQUIREMENTS ARE MET FOR ALL LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 12" (300 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH AN APPROPRIATE COMPACTOR.



STORMTECH STANDARD DETAIL DISCLAIMERS

STORMTECH STANDARD DETAIL DISCLAIMERS: STORMTECH PRODUCTS ARE NOT TO BE USED FOR INSTALLATION UNLESS THE STANDARD DIMENSIONS OF STORMTECH PRODUCTS ARE STRICTLY ADHERED TO. ANY DEVIATION FROM THESE DIMENSIONS IS AT THE USER'S RISK. STORMTECH IS NOT RESPONSIBLE FOR ANY ALTERATIONS TO THESE STANDARD DETAILS.

STORMTECH TECHNICAL SPECIFICATIONS

SCALE: N.T.S.
 DATE: 11-7-08
 DRAWN BY: JLB
 CHECKED:

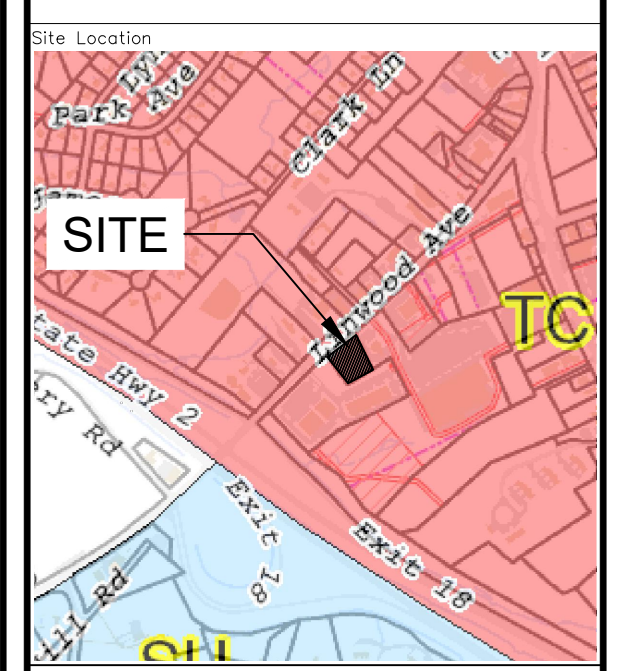
DUMPSTER ENCLOSURE FINISH SCHEDULE

MATERIAL	COLOR/FINISH
CMU - PRIMER	REFER TO PAINT SPECIFICATIONS, COLOR 'WHITE'
CMU	REFER TO PAINT SPECIFICATIONS
METAL COPING	PREFINISHED TO MATCH PAINTED CMU
CORRUGATED METAL & DOOR FRAMES	PAINTED 'KNIGHTS ARMOR' PPG 1001-G

ARCHITECT TO MODIFY PER PROJECT

ARCHITECT TO CONFIRM ORIENTATION OF DUMPSTER ON PROJECT BASIS

ARCHITECT TO VERIFY FOUNDATION DEPTH MEETS LOCAL FROST DEPTH - MIN. 2'-4" DEEP FOUNDATION REQUIRED



Prepared For:
GALAXY
 DEVELOPMENT, LLC
 37 SUTTON ROAD
 WEBSTER, MA 01570
 (508) 721-0005

Date: Oct. 12, 2023 Scale: as noted

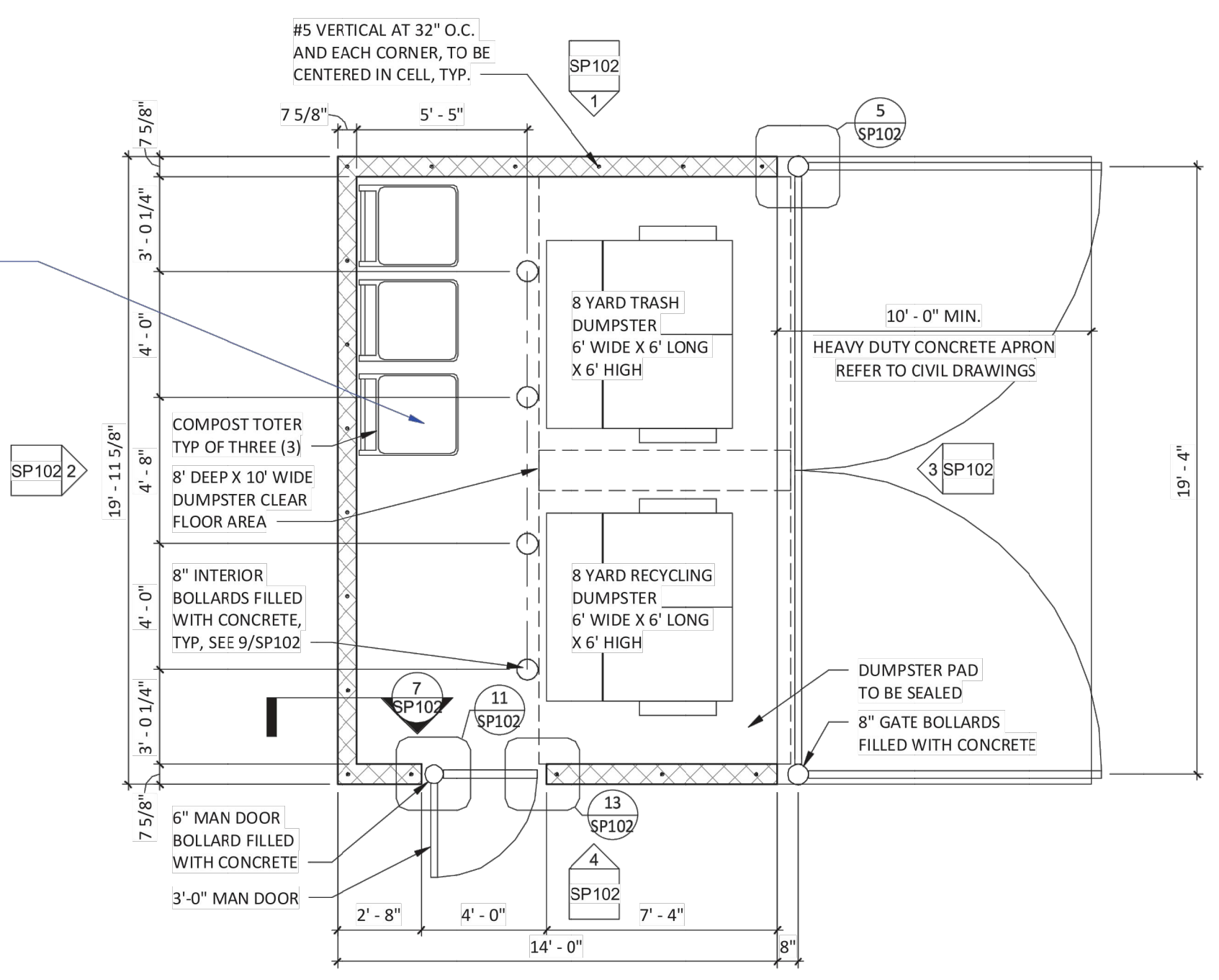
No.	Revision	Date

Project Title:
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 COLCHESTER, CT

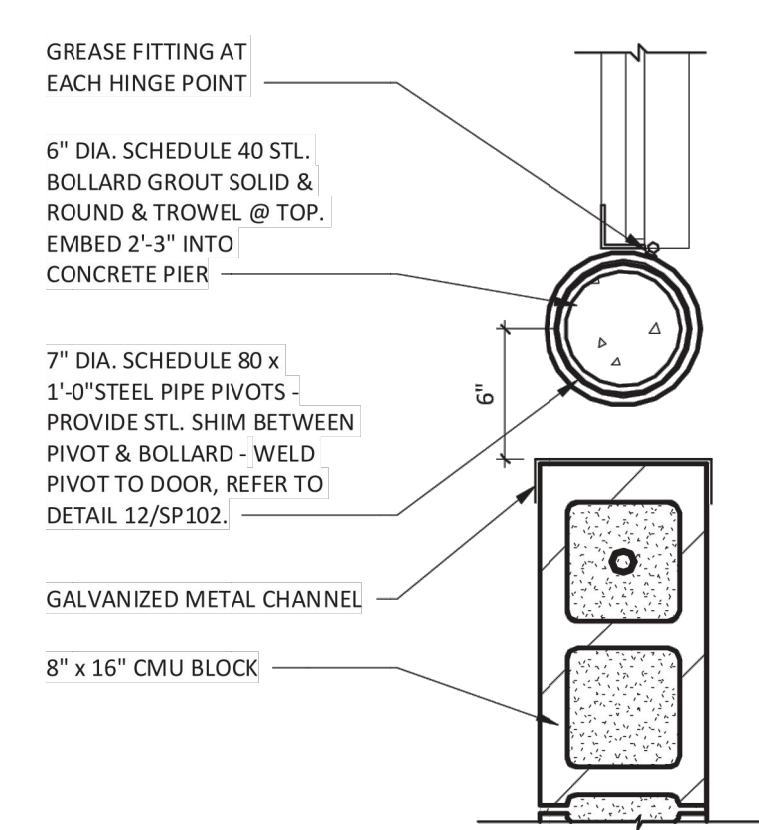
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SITE CONSTRUCTION DETAILS 4

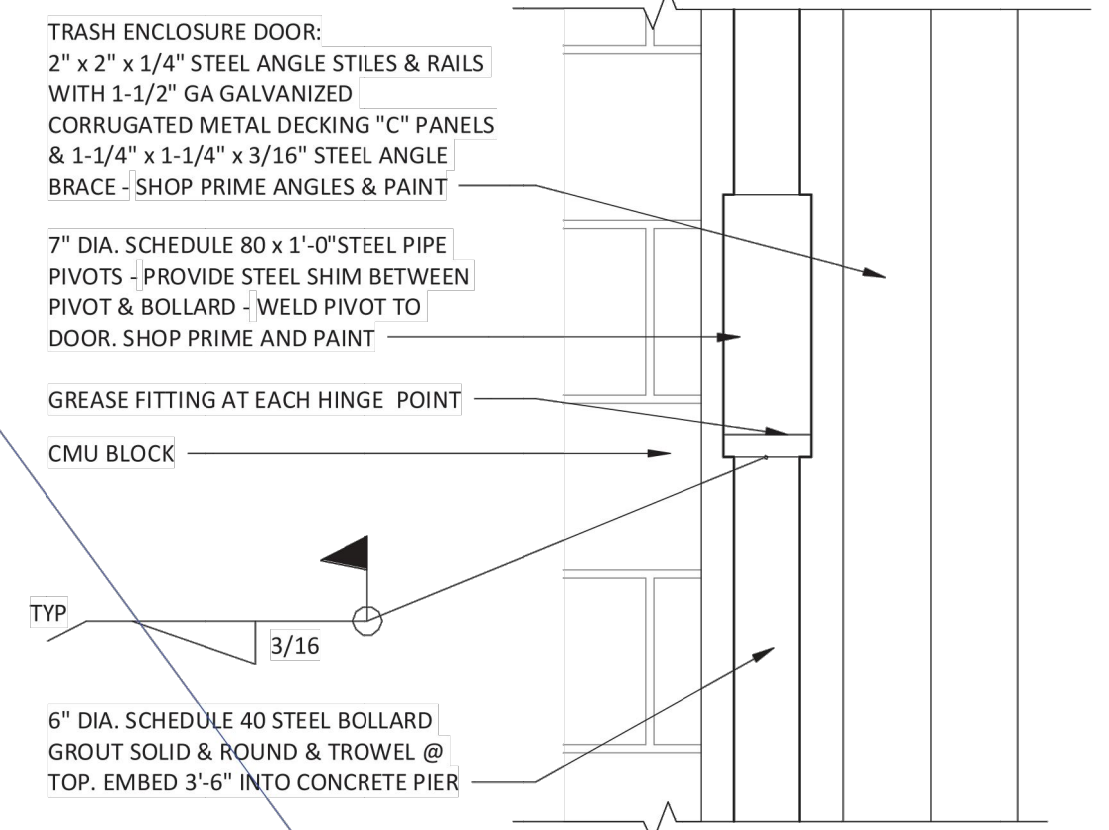
C-8



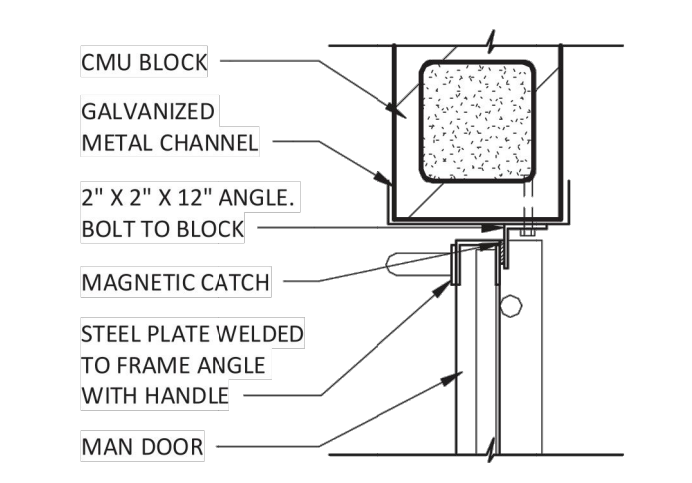
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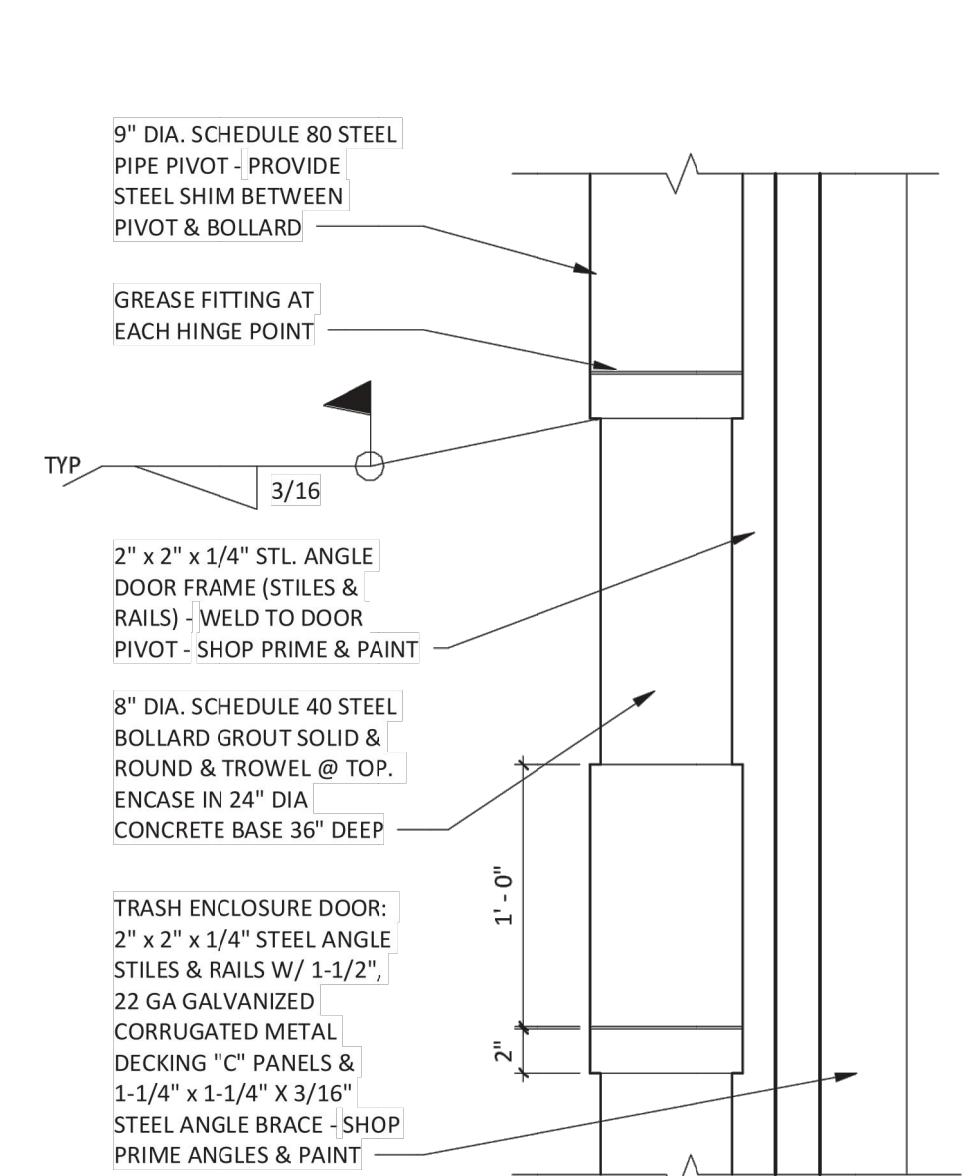
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 11 SP102 1 1/2" = 1'-0"



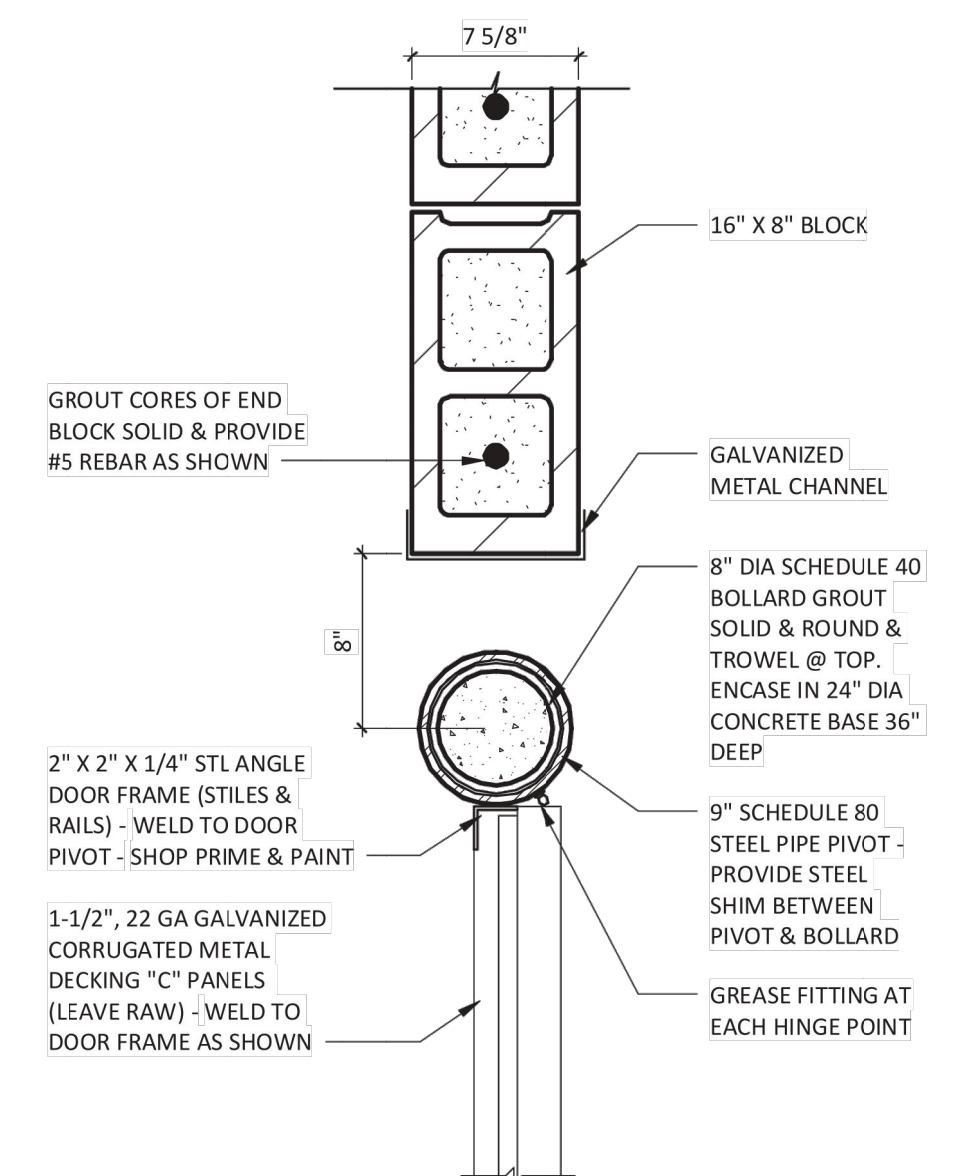
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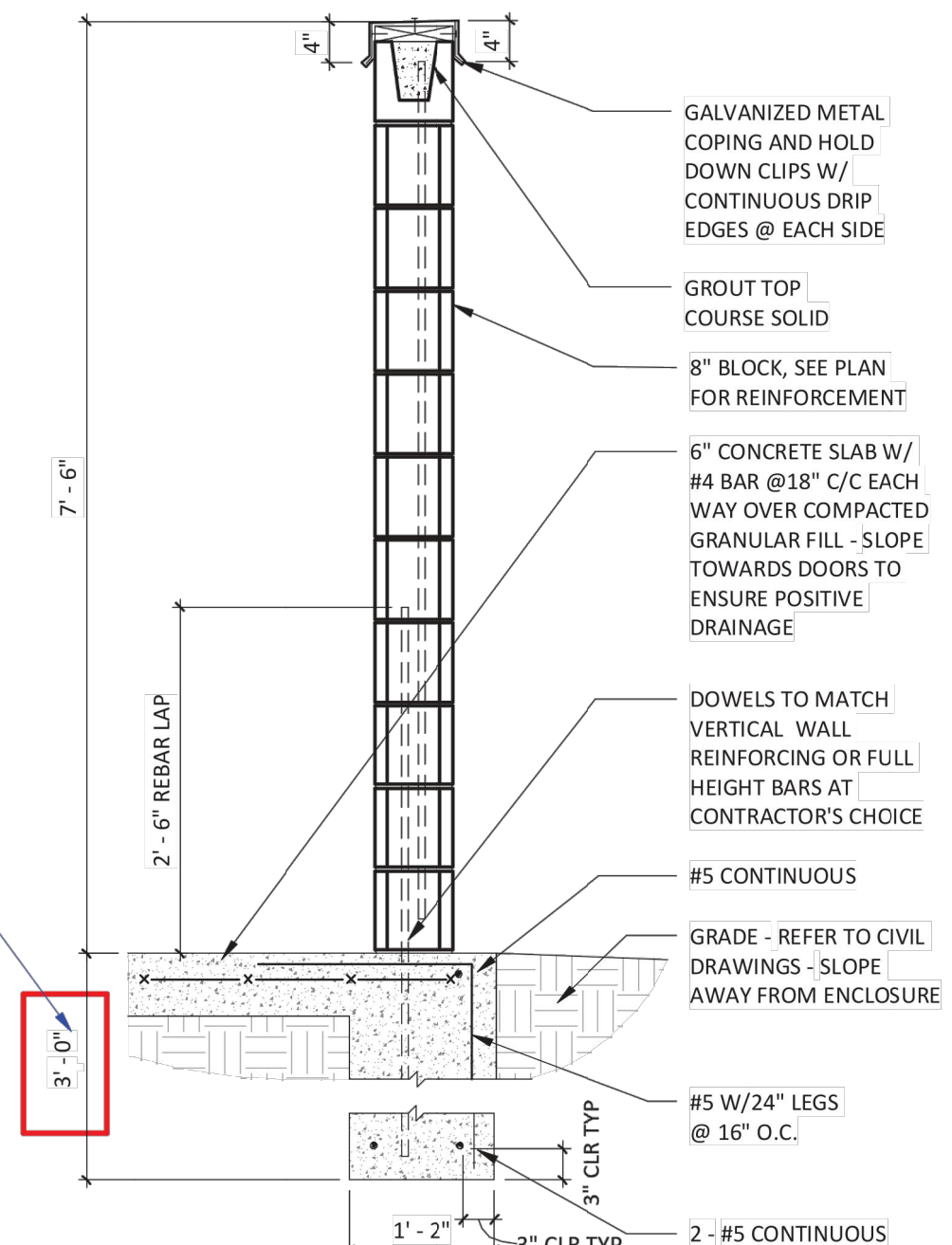
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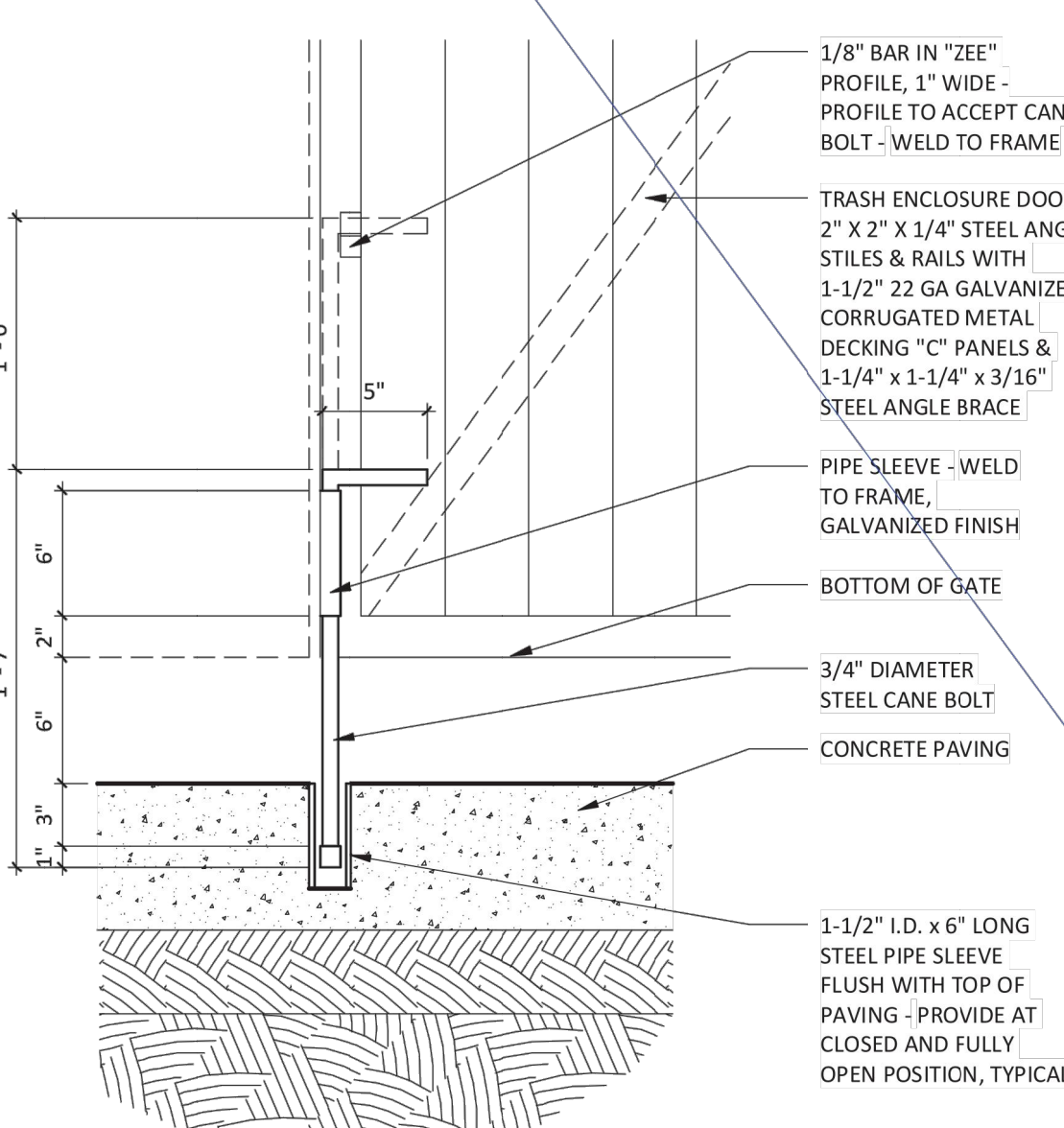
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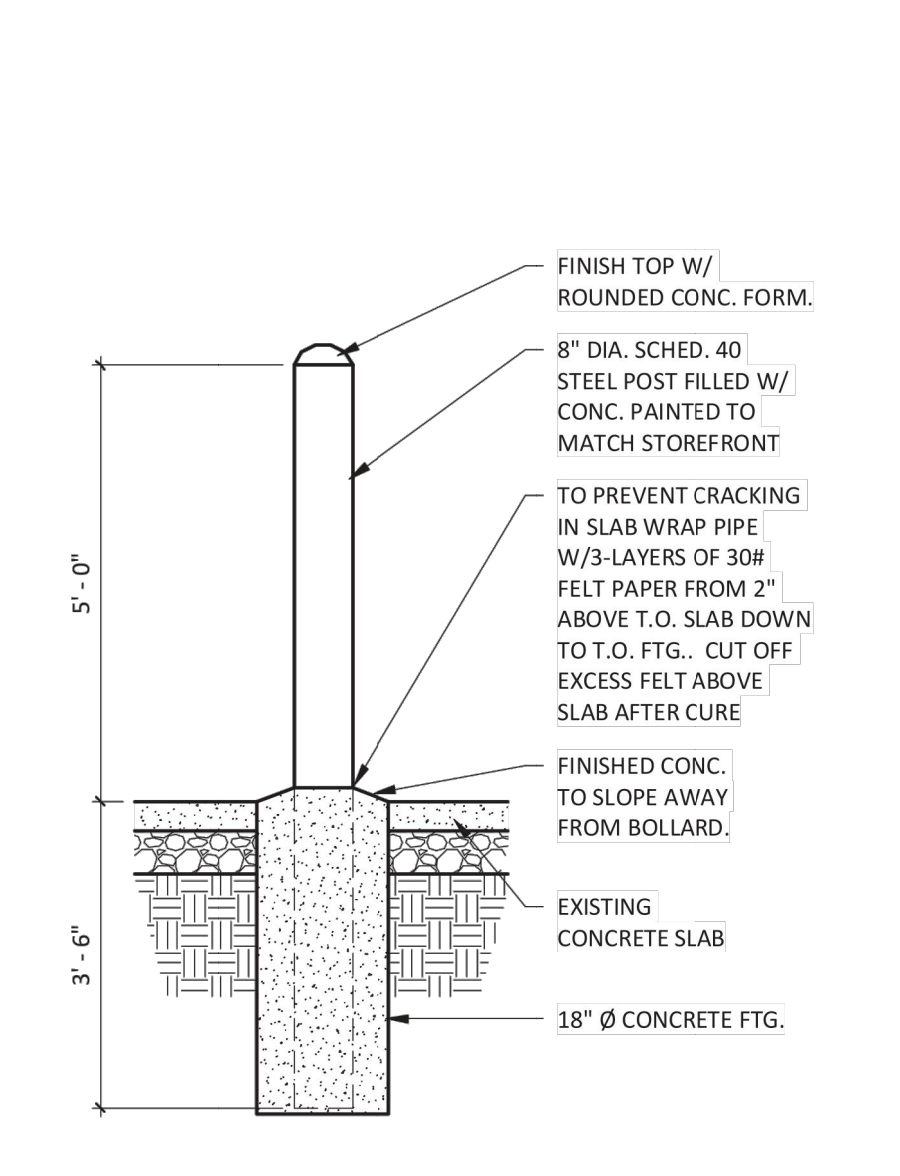
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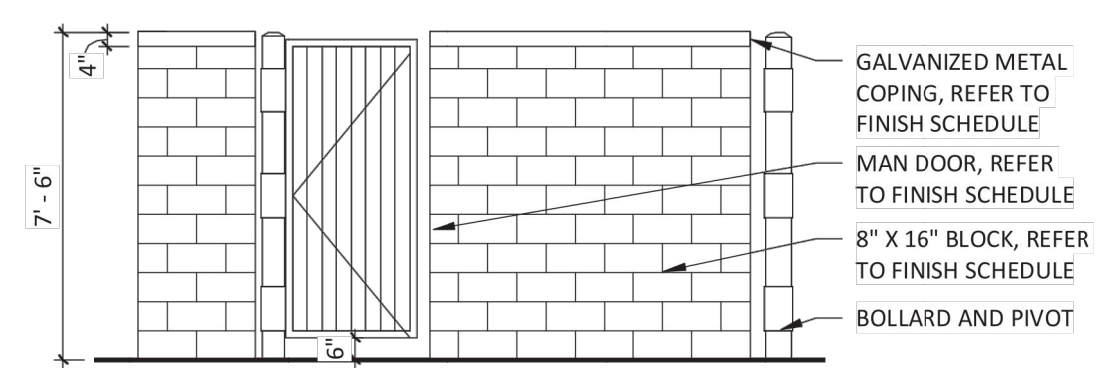
DUMPSTER DETAIL
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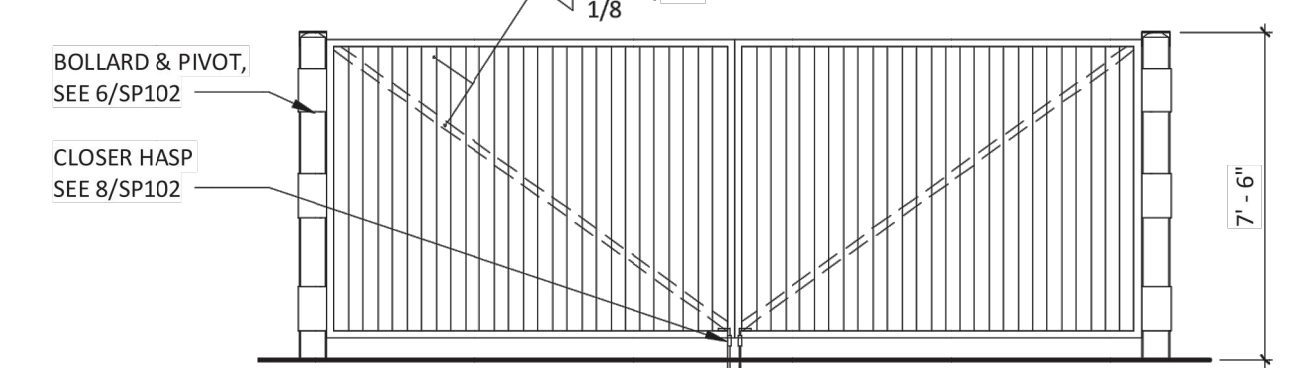
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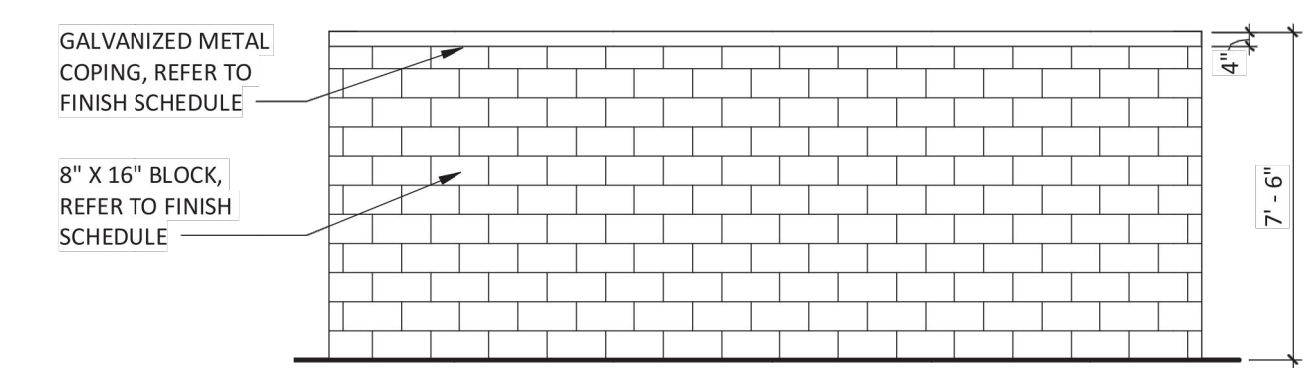
TYP. BOLLARD DETAIL
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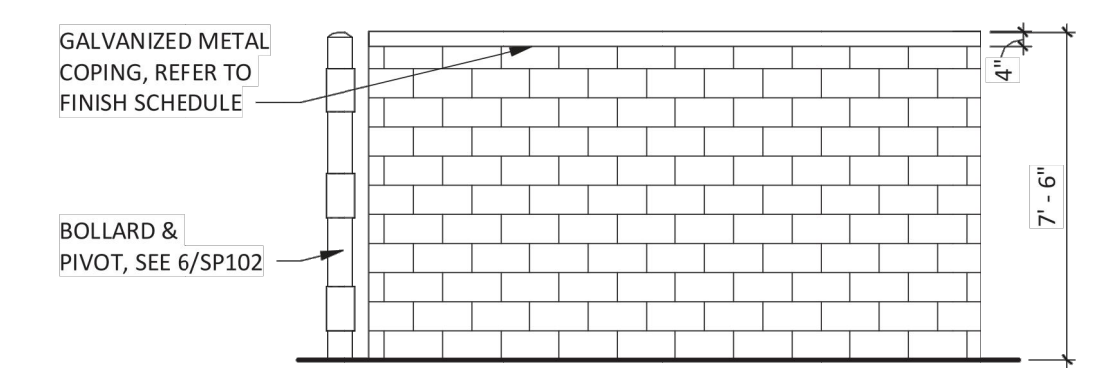
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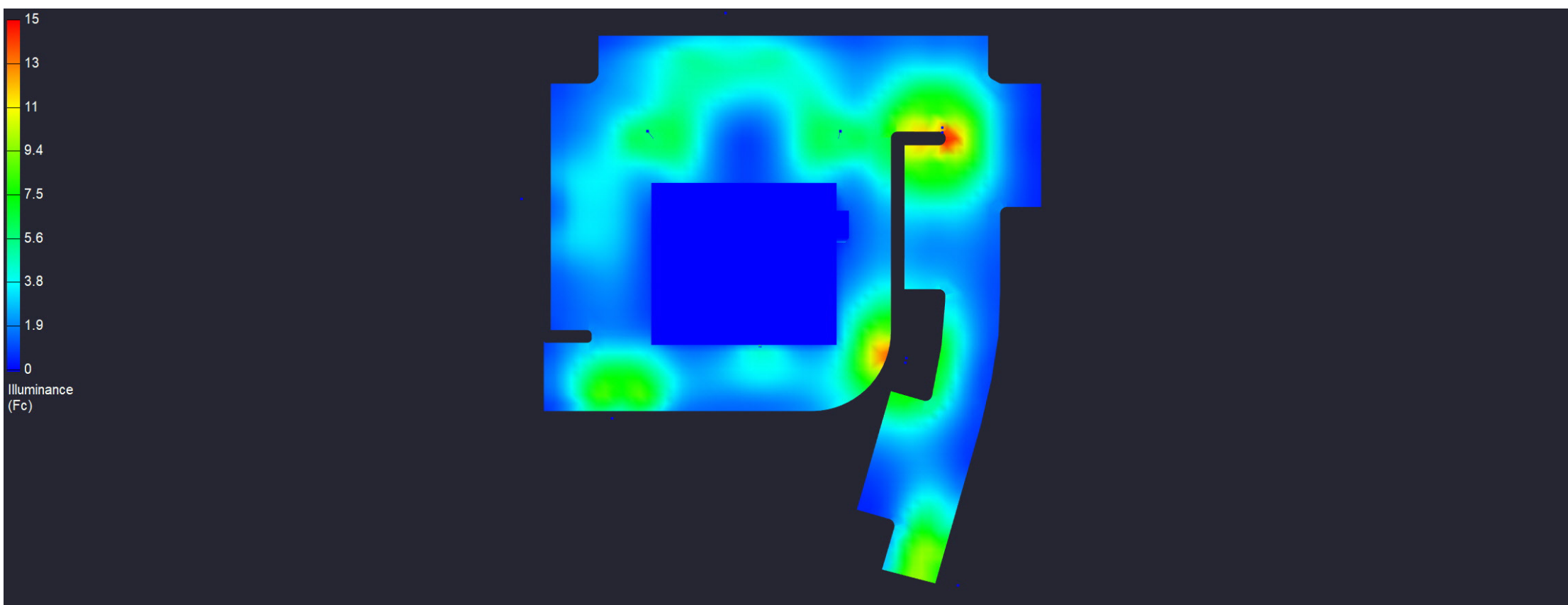
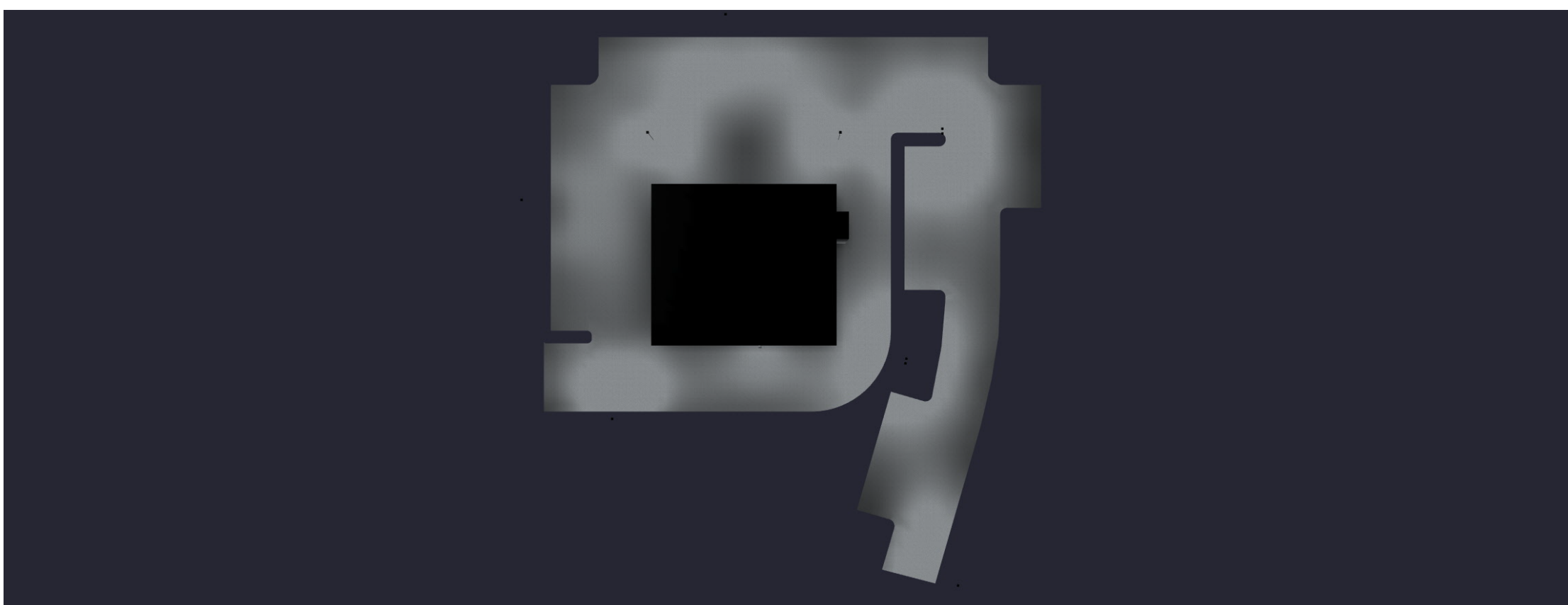
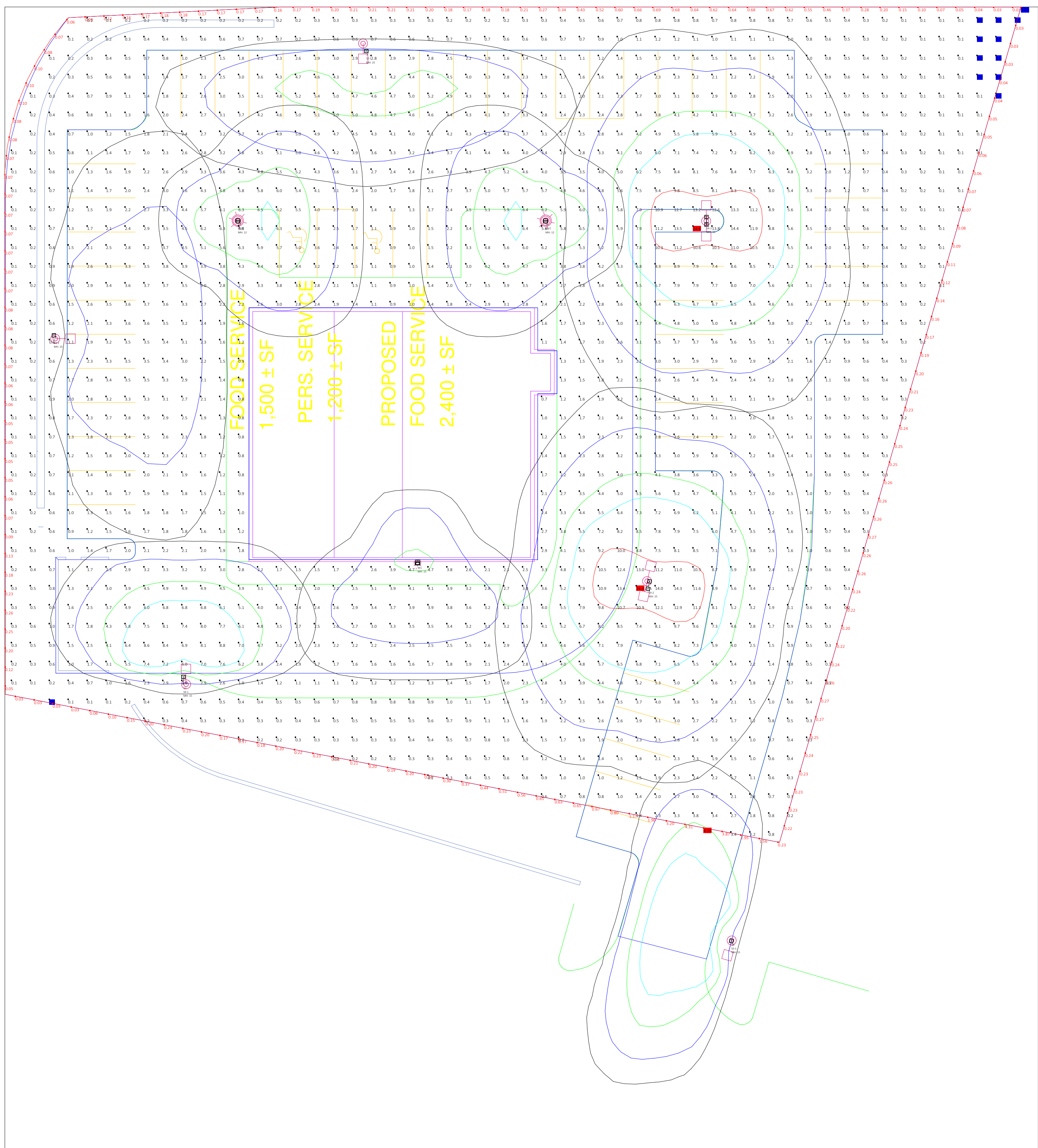
DUMPSTER ELEVATION
 3 SP102 1/4" = 1'-0"



DUMPSTER ELEVATION
 2 SP102 1/4" = 1'-0"



DUMPSTER ELEVATION
 1 SP102 1/4" = 1'-0"



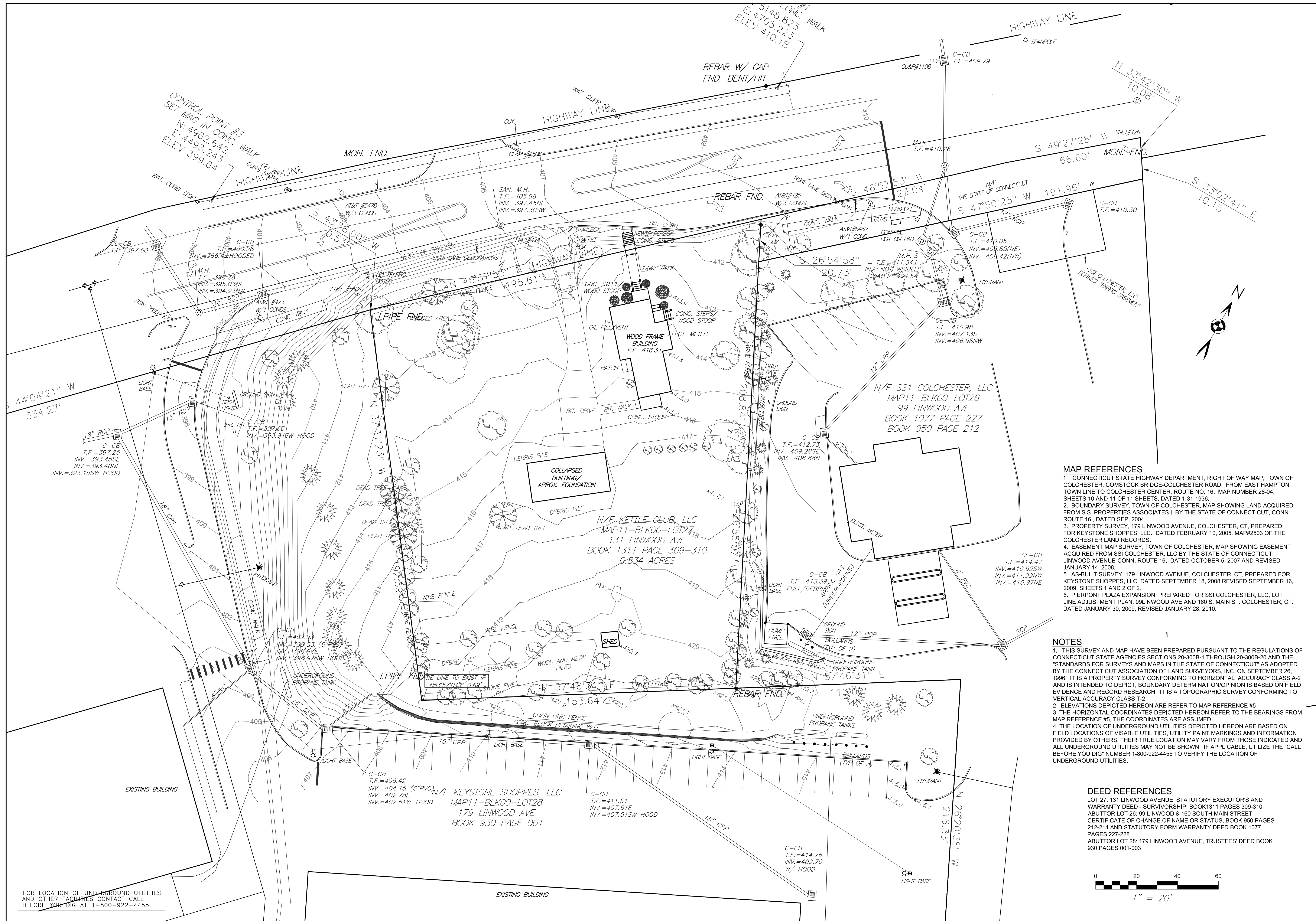
Luminaire Schedule								
Symbol	Qty	Label	Arrangement	Description	LLF	Luminaire Lumens	Luminaire Watts	Total Watts
	2	PTFT	Single	MPP-LED-10L-SIL-FT-40-70CRI	0.900	10817	67	134
	1	S2-1	Single	MRM-LED-18L-SIL-2-40-70CRI-IL	0.900	11746	135	135
	2	S3-1	Single	MRM-LED-18L-SIL-3-40-70CRI-IL	0.900	13448	135	270
	1	S4-1	Single	MRS-LED-18L-SIL-4-40-70CRI-IL	0.900	11130	135	135
	2	S4-2	Back-Back	MRS-LED-18L-SIL-4-40-70CRI	0.900	18149	135	540
	1	W1	Single	XWS-LED-08L-SIL-FT-40-70CRI	0.900	8199	61	61

Calculation Summary						
Label	CalcType	Units	Avg	Max	Min	Avg/Min
Property Line	Illuminance	Fc	0.34	4.59	0.02	17.00
Site Calc Points	Illuminance	Fc	2.70	14.6	0.0	N.A.

Luminaire Location Summary			
LumNo	Label	Orient	Z
1	S3-1	0	25
3	S2-1	270	25
6	S4-2	270	15
13	S4-1	90	15
14	W1	270	15
15	S4-2	258.131	15
16	PTFT	180	12
17	PTFT	0	12
18	S3-1	165.095	15

#	Date	Comments
Revisions		

Drawn By: AH
Checked By:
Date: 10/27/2023
Scale: NTS

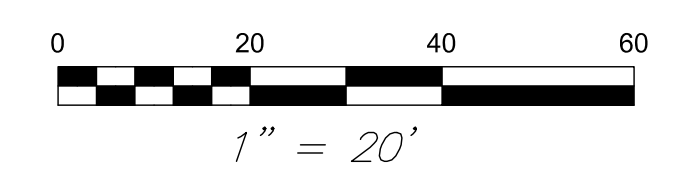


FOR LOCATION OF UNDERGROUND UTILITIES AND OTHER FACILITIES CONTACT CALL BEFORE YOU DIG AT 1-800-922-4455.

- MAP REFERENCES**
- CONNECTICUT STATE HIGHWAY DEPARTMENT, RIGHT OF WAY MAP, TOWN OF COLCHESTER, COMSTOCK BRIDGE-COLCHESTER ROAD, FROM EAST HAMPTON TOWN LINE TO COLCHESTER CENTER, ROUTE NO. 16. MAP NUMBER 28-04, SHEETS 10 AND 11 OF 11 SHEETS, DATED 1-31-1998.
 - BOUNDARY SURVEY, TOWN OF COLCHESTER, MAP SHOWING LAND ACQUIRED FROM S.S. PROPERTIES ASSOCIATES I. BY THE STATE OF CONNECTICUT, CONN. ROUTE 16, DATED SEP, 2004
 - PROPERTY SURVEY, 179 LINWOOD AVENUE, COLCHESTER, CT, PREPARED FOR KEYSTONE SHOPPES, LLC, DATED FEBRUARY 10, 2005. MAP#2503 OF THE COLCHESTER LAND RECORDS.
 - EASEMENT MAP SURVEY, TOWN OF COLCHESTER, MAP SHOWING EASEMENT ACQUIRED FROM SSI COLCHESTER, LLC BY THE STATE OF CONNECTICUT, LINWOOD AVENUE-CONN. ROUTE 16. DATED OCTOBER 5, 2007 AND REVISED JANUARY 14, 2008.
 - AS-BUILT SURVEY, 179 LINWOOD AVENUE, COLCHESTER, CT, PREPARED FOR KEYSTONE SHOPPES, LLC, DATED SEPTEMBER 18, 2008 REVISED SEPTEMBER 16, 2009. SHEETS 1 AND 2 OF 2.
 - PIERPOINT PLAZA EXPANSION, PREPARED FOR SSI COLCHESTER, LLC, LOT LINE ADJUSTMENT PLAN, 99 LINWOOD AVE AND 160 S. MAIN ST. COLCHESTER, CT. DATED JANUARY 30, 2009, REVISED JANUARY 28, 2010.

- NOTES**
- THIS SURVEY AND MAP HAVE BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300B-1 THROUGH 20-300B-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. IT IS A PROPERTY SURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS A-2 AND IS INTENDED TO DEPICT BOUNDARY DETERMINATION/OPINION IS BASED ON FIELD EVIDENCE AND RECORD RESEARCH. IT IS A TOPOGRAPHIC SURVEY CONFORMING TO VERTICAL ACCURACY CLASS T-2.
 - ELEVATIONS DEPICTED HEREON ARE REFER TO MAP REFERENCE #5
 - THE HORIZONTAL COORDINATES DEPICTED HEREON REFER TO THE BEARINGS FROM MAP REFERENCE #5. THE COORDINATES ARE ASSUMED.
 - THE LOCATION OF UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED ON FIELD LOCATIONS OF VISABLE UTILITIES, UTILITY PAINT MARKINGS AND INFORMATION PROVIDED BY OTHERS. THEIR TRUE LOCATION MAY VARY FROM THOSE INDICATED AND ALL UNDERGROUND UTILITIES MAY NOT BE SHOWN. IF APPLICABLE, UTILIZE THE "CALL BEFORE YOU DIG" NUMBER 1-800-922-4455 TO VERIFY THE LOCATION OF UNDERGROUND UTILITIES.

- DEED REFERENCES**
- LOT 27: 131 LINWOOD AVENUE, STATUTORY EXECUTOR'S AND WARRANTY DEED - SURVIVORSHIP, BOOK 1311 PAGES 309-310
 ABUTTOR LOT 26: 99 LINWOOD & 160 SOUTH MAIN STREET, CERTIFICATE OF CHANGE OF NAME OR STATUS, BOOK 950 PAGES 212-214 AND STATUTORY FORM WARRANTY DEED BOOK 1077 PAGES 227-228
 ABUTTOR LOT 28: 179 LINWOOD AVENUE, TRUSTEES' DEED BOOK 930 PAGES 001-003



BOUNDARY AND TOPOGRAPHIC SURVEY
 SHOWING
131 LINWOOD AVENUE-CONN. ROUTE 16
PREPARED FOR GALAXY DEVELOPMENT
COLCHESTER, CONNECTICUT

PREPARED BY:
O'BRIEN ASSOCIATES, INC.
 83 MOUNTAIN LAUREL DRIVE
 MIDDLETOWN, CT 06457
 P: 860-345-7511

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

NOT VALID WITHOUT THE EMBOSSED SEAL OF THE LAND SURVEYOR AFFIXED HEREON

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NO.	DATE	DESCRIPTION

PHILIP J. O'BRIEN L.S. #4198

SHEET 1 OF 1
 FILE 3497
 DATE JUNE 5, 2017

Stormwater Management Report

Definitive Site Plan

131 Linwood Ave
Colchester, CT 01570

Prepared for: **Galaxy Development, LLC**
37 Sutton Road - Suite 1
Webster, MA 01570

Prepared by:

MIDPOINT

ENGINEERING + CONSULTING

37 Sutton Road

Webster, MA 01570

508.721.1900

pdoherty@midpointengineering.com

October 12, 2023

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- Table 2: Proposed Conditions Hydrologic Data
- Table 3: Peak Discharge Rates

Project Summary

The project includes construction of a new multi-tenant commercial building on a 1.1 acre lot located at 131 Linwood Avenue in Colchester, CT. The property is located in the Town Center zoning district and will access Linwood Avenue thru an existing shopping center known as Keystone Shoppes. No direct access to Linwood Avenue is proposed. Utilities for the project including sanitary sewer, electric and telecom will be connected to existing infrastructure within Linwood Avenue. Water will be provided from the existing water main in Keystone Shoppes. Stormwater will be managed on-site by collection of the runoff in deep-sump hooded catch basins that convey flow to an underground chamber infiltration basin.

The project site does not contain any Bordering Vegetated Wetlands (BVW) systems or other resource areas. The site does not contain any areas within flood zone or habitat for rare or endangered species.

The site stormwater management system has been designed to meet requirements of the Connecticut Stormwater quality manual. Calculations utilize NOAA Atlas 14 rainfall depths as directed in the manual. The stormwater management system will meet the objectives of the Regulations by inclusion of stormwater Best Management Practices (BMP's) such as source reduction, deep sump hooded catch basins, proprietary water quality units and an underground recharge chamber system with isolator row. These BMP's will reduce total suspended solids from stormwater discharges and approximate annual groundwater recharge. Additionally the BMP's will attenuate stormwater discharge so that there will be no increase in peak discharge rates between the pre- and post-development conditions. Details of the proposed stormwater management system can be found in the following sections of the report.

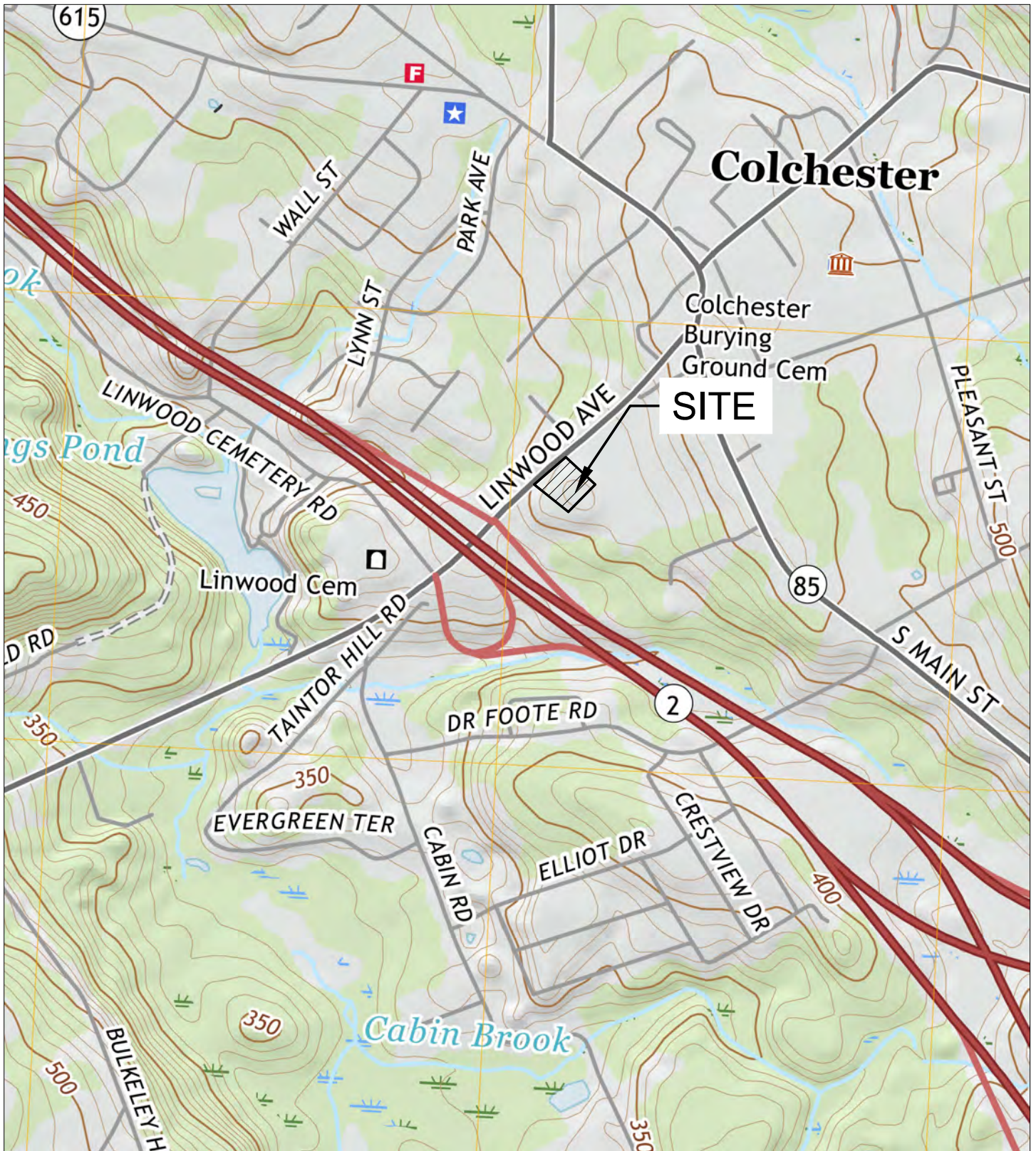
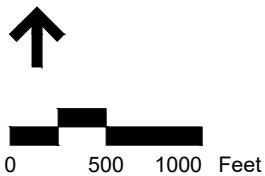


Figure 1



Site Location Map
 131 Linwood Ave
 Colchester, CT

MIDPOINT
 ENGINEERING + CONSULTING

37 SUTTON ROAD
 WEBSTER, MA 01570
 508 721-1900
 pdoherly@midpointengineering.com

Existing Conditions

Summary

The Project Site is located at 131 Linwood Avenue in Colchester, CT. The property line between 131 Linwood Avenue and 179 Linwood Avenue will be adjusted to create a 1.1 acre parcel. The Site is bounded by Linwood Avenue to the North; A commercial property containing a bank to the east; and the Keystone Shoppes shopping center to the south and west. The site is vacant. The former use of the property was residential. The single-family home that occupied the site has been razed. The site rises in elevation from Linwood Avenue to a high point near the southerly property line.

The project site is not located within an area designated as Priority or Estimated Habitat of Rare Species. The project is located more than 100 feet to the nearest wetland resource area and does not contain areas designated as flood plain. Based upon a review of the NRCS Soil maps, soils located on site are classified as Hinkley Loamy Sand (Hydrologic Group A).

Hydrologic Information

For the existing conditions hydrologic analysis, the site was divided into 2 drainage subareas areas that contribute flow off site where peak discharge rate was evaluated (see Figure 2).

Drainage Area EX1 – Consists of areas of the site that flow in a westerly and southerly direction to 179 Linwood Avenue

Drainage Area EX2 – Consists of northern areas of the site that flow in northerly direction to Linwood Avenue

Table 1 summarizes the key hydrologic parameters for each drainage area used in the existing conditions analysis.

Table 1
Existing Conditions Hydrologic Data

(Drainage Area #)	Discharge Location	Design Point	Impervious Area (acres)	Area (acres)	Curve Number	Time of Concentration (min)
<i>EX1</i>	<i>179 Linwood Ave</i>	<i>DP1</i>	<i>0.00</i>	<i>0.34</i>	<i>68</i>	<i>10.1</i>
<i>EX2</i>	<i>Linwood Ave</i>	<i>DP1</i>	<i>0.08</i>	<i>0.94</i>	<i>71</i>	<i>11.0</i>

Proposed Conditions

Summary

The Project Site is located at 131 Linwood Avenue in Colchester, CT. The property line between 131 Linwood Avenue and 179 Linwood Avenue will be adjusted to create a 1.1 acre parcel. The Site is located in the TC zoning district which allows a variety of commercial uses. The Applicant proposes to construct a 5,100 +/- square foot multi-tenant building with food service and personal service use. The building will be constructed with a drive-up pick-up window. Other site improvements include modification of an existing retaining wall, construction of a new parking area with capacity of 48 vehicles, utilities and landscaped areas.

Impervious areas of the site under proposed conditions consist of roof area, parking and service areas, concrete sidewalks, gathering areas and utility pads. As required in the zoning bylaw, more than 25% of the parking area will be constructed with pervious compacted gravel. The total impervious surface coverage will be approximately 0.68 acres or 62% percent of the site. An analysis has been performed to confirm that post development peak stormwater runoff rates will not exceed predevelopment rates due to this increase in impervious coverage. Additionally, recharge to ground water will approximate pre-development conditions by recharging parking lot and roof runoff.

Under proposed conditions, storm water runoff will be renovated through use of Stormwater Best Management Practices (BMPs), pretreatment devices, and infiltration practices. Source control will include covering dumpsters and regular sweeping of paved surfaces. Pretreatment BMP's include deep sump hooded catch basins and proprietary stormwater treatment devices. Infiltration devices include subsurface chamber systems.

The proprietary stormwater quality units proposed are "Barracuda" hydrodynamic separator units manufactured by Baysavers Technologies which have been certified by NJCAT to provide 50 percent TSS removal rate at the published water quality flow rates.

Details of the stormwater water management system features are as follows:

Water Quantity and Quality Control

Site Layout

The site has been designed to minimize impacts by including pervious paved areas.

Source Control

A comprehensive source control program will be implemented at the site, which includes regular pavement sweeping, catch basin cleaning, and maintenance of service and lawn areas. Trash will be managed with covered dumpsters in a masonry enclosure.

Snow Management

Snow storage areas are shown on the project site plans. As much as possible snow will be allowed to melt toward pavement where debris and sand may be deposited and swept up for disposal and snow melt will enter the stormwater management system where it will receive proper treatment.

Spill Prevention

Spill prevention is achieved with the proper storage and handling of hazardous materials. During construction, this is addressed in the Stormwater Pollution Prevention Plan (SWPPP) for Construction Activities to be prepared and implemented by the Site Contractor.

Catch Basins with Sumps and Oil/debris Traps

Catch basins at the site are to be constructed with sumps (minimum 4-feet) and oil/debris traps to prevent the discharge of sediments and floating contaminants. Catch basins will be inspected four times per year and cleaned when deposits reach a depth of two feet.

Barracuda Water Quality Units

Proprietary hydrodynamic particle separator water quality units have oil/debris traps to prevent the discharge of sediments and floating contaminants. Units will be inspected four times per year and cleaned when deposits reach a depth of twenty (20) inches.

Subsurface Chamber Detention Basins

An underground stormwater detention system will control post development peak runoff rates by utilizing an outlet control device. This system will incorporate an “isolator row” wrapped in geotextile filter fabric to renovate and remove TSS prior to discharge.

Hydrologic Information

For the proposed conditions, hydrologic analysis, the site was divided into six (6) drainage areas (see Figure 3). These areas discharge to the design point where peak discharge rate were evaluated for both existing and proposed conditions.

Drainage Subarea PR1- Consists of areas of the parking lot on the west side of the building.

Drainage Subarea PR2A- Consists of the roof area of the building.

Drainage Subarea PR2B- Consists of areas of the loading / service area on the west side of the building.

Table 2 summarizes the key hydrologic parameters for each drainage area used in the proposed conditions analyses.

**Table 2
Proposed Conditions Hydrologic Data**

Drainage Area #	Treatment BMP	Design Point	Impervious Area (Acres)	Total Area (acres)	Curve Number	Time of Concentration (min)
DA PR1	Infiltration (UG 1)	DP1	.01	.15	44	5.0
DA PR2A	N/A roof area only	DP1	0.66	0.92	86	5.0
DA PR2	Barracuda WQU, Isolator Row (UG 3)	DP1	0.00	0.20	39	5.0

The site complies fully with the total suspended solids removal requirements of the Connecticut Stormwater Manual and EPA general permit. The calculated TSS removal rates for discharges from the site are shown on the Worksheets included in Appendix E.

Analysis Summary

Hydrologic Analysis

The rainfall-runoff response of the Site under existing and proposed conditions was evaluated for storm events with recurrence intervals of 2, 10, and 100-years. Rainfall depths used for this analysis were based on NOAA ATLAS 14, Volume 10 Version 3; they were 3.4, 5.2, and 7.9-inches respectively. Runoff coefficients for the pre- and post-development conditions, as previously shown in Tables 1 and 2 respectively, were determined using NRCS Technical Release 55 (TR-55) methodology as provided in HydroCAD.

Drainage areas used in the analyses were described in previous sections and shown on Figures 2 and 3. The HydroCAD model is based on the NRCS Technical Release 20 (TR-20) Model for Project Formulation Hydrology. Detailed printouts of the HydroCAD analyses are included in Appendix D. Table 3 presents a summary of the existing and proposed conditions peak discharge rates.

Table 3
Peak Discharge Rates (cfs*)

<u>Design Point</u>	<u>2-year</u>	<u>10-year</u>	<u>100-year</u>
Design Point DP1:			
Existing	1.1	2.8	5.6
Proposed	0.4	2.7	5.7

* Expressed in cubic feet per second

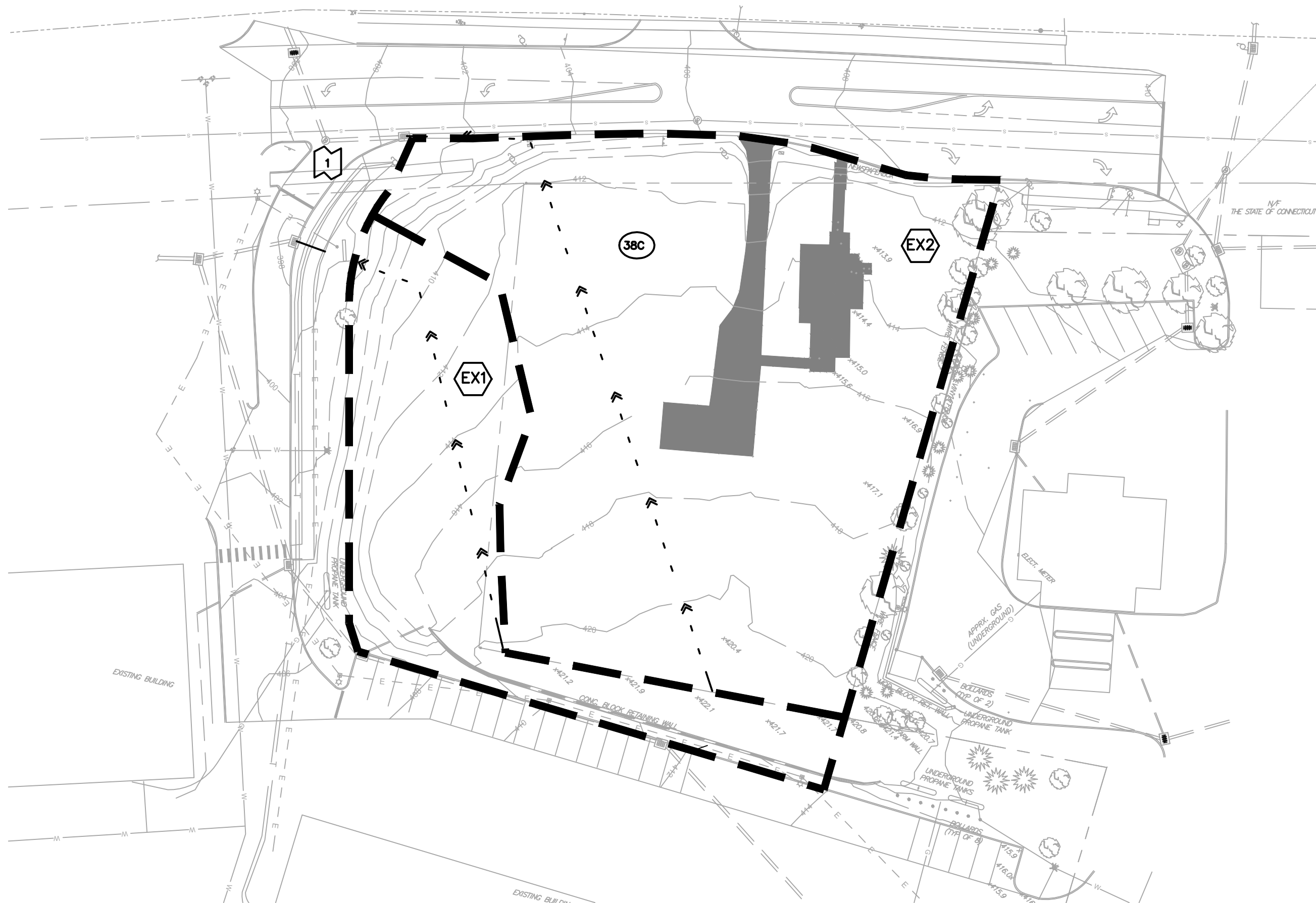
The results of the analysis indicate that there is no overall increase in peak discharge rates from that site during the 2-yr and 10-yr storm events. A de minimis increase of 0.1 cfs is projected to occur during a 100-yr storm event which will not affect downstream properties.

Hydraulic Analysis

The closed drainage system was designed for the 10-year storm event.

Drainage pipes were sized using Manning's Equation for full-flow capacity and the Rational Method. Pipe sizing calculations are included in Appendix E of this report.

Appendix A: Existing/Proposed Conditions Plans



LEGEND

- DESIGN POINT
- POND
- DRAINAGE AREA DESIGNATION
- DRAINAGE AREA BOUNDARY
- TIME OF CONCENTRATION FLOW LINE
- SOIL BOUNDARY
- NRCS SOIL CLASSIFICATIONS**
- HINCKLEY LOAMY SAND, HYDROLOGIC SOIL GROUP A
- IMPERVIOUS COVERAGE

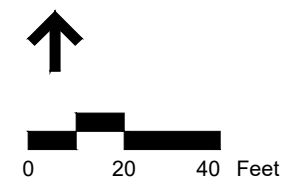
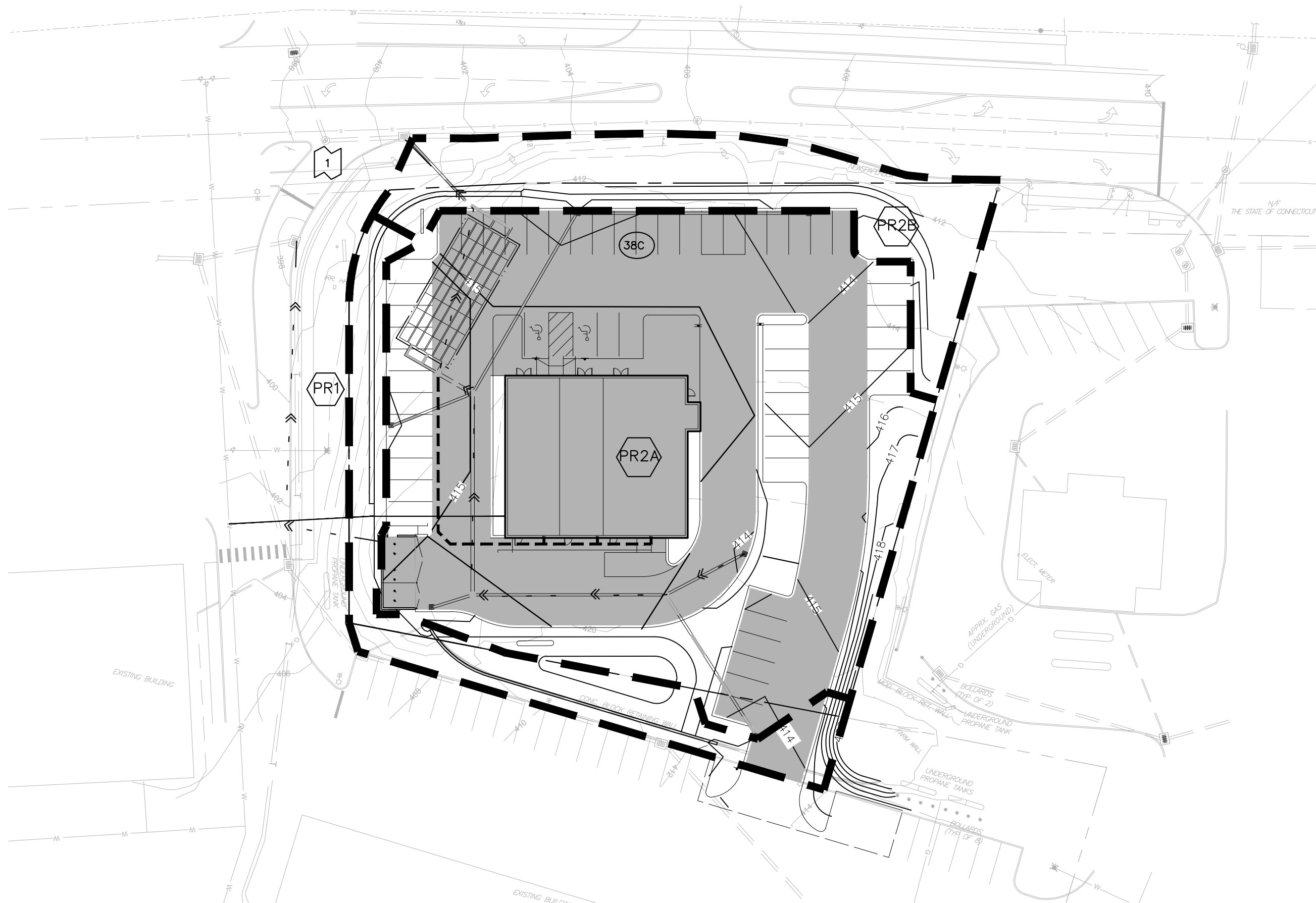










Figure 2
Existing Conditions Drainage Areas



LEGEND

-  DESIGN POINT
-  POND
-  DRAINAGE AREA DESIGNATION
-  DRAINAGE AREA BOUNDARY
-  TIME OF CONCENTRATION FLOW LINE
-  SOIL BOUNDARY
- NRCS SOIL CLASSIFICATIONS**
-  HINCKLEY LOAMY SAND,
HYDROLOGIC SOIL GROUP A
-  IMPERVIOUS COVERAGE

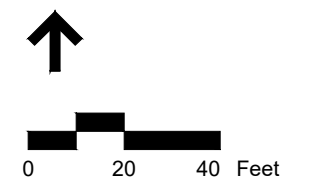


Figure 3
Proposed Conditions Drainage Areas

Appendix B: Floodplain Information

National Flood Hazard Layer FIRMette

72°20'28"W 41°34'31"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS



0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*

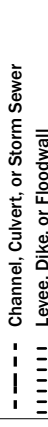


OTHER AREAS OF FLOOD HAZARD

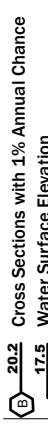
OTHER AREAS



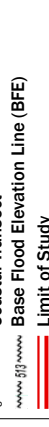
GENERAL STRUCTURES



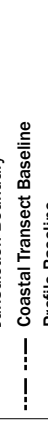
CROSS SECTIONS WITH 1% ANNUAL CHANCE WATER SURFACE ELEVATION



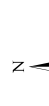
OTHER FEATURES



MAP PANELS



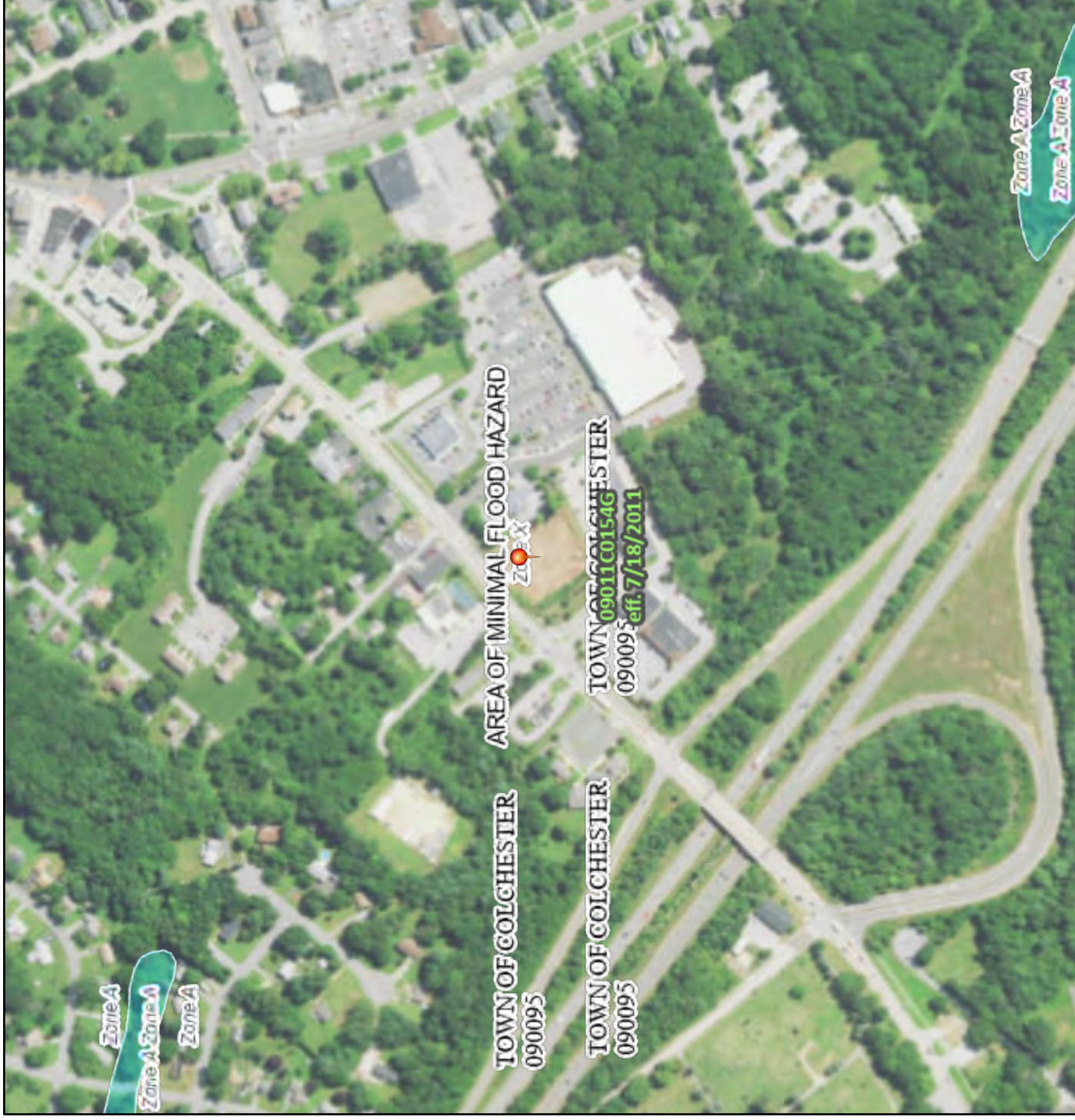
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/18/2023 at 2:17 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



Appendix C: NRCS Soil Survey Information

Custom Soil Resource Report Soil Map





Map Scale: 1:1,210 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84



MAP LEGEND

Area of Interest (AOI)	 Area of Interest (AOI)	 Spoil Area
Soils	 Soil Map Unit Polygons	 Stony Spot
	 Soil Map Unit Lines	 Very Stony Spot
	 Soil Map Unit Points	 Wet Spot
Special Point Features	 Blowout	 Other
	 Borrow Pit	 Special Line Features
	 Clay Spot	Water Features
	 Closed Depression	 Streams and Canals
	 Gravel Pit	Transportation
	 Gravelly Spot	 RAILS
	 Landfill	 Interstate Highways
	 Lava Flow	 US Routes
	 Marsh or swamp	 Major Roads
	 Mine or Quarry	 Local Roads
	 Miscellaneous Water	Background
	 Perennial Water	 Aerial Photography
	 Rock Outcrop	
	 Saline Spot	
	 Sandy Spot	
	 Severely Eroded Spot	
	 Sinkhole	
	 Slide or Slip	
	 Sodic Spot	

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut
 Survey Area Data: Version 22, Sep 12, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 14, 2022—Oct 6, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
38C	Hinckley loamy sand, 3 to 15 percent slopes	2.9	100.0%
Totals for Area of Interest		2.9	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Custom Soil Resource Report

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

State of Connecticut

38C—Hinckley loamy sand, 3 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2svmb

Elevation: 0 to 1,290 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 240 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Hinckley and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hinckley

Setting

Landform: Outwash deltas, outwash terraces, moraines, eskers, kames, outwash plains, kame terraces

Landform position (two-dimensional): Summit, shoulder, backslope, footslope, toeslope

Landform position (three-dimensional): Head slope, nose slope, side slope, crest, riser, tread

Down-slope shape: Concave, convex, linear

Across-slope shape: Convex, linear, concave

Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 8 inches: loamy sand

Bw1 - 8 to 11 inches: gravelly loamy sand

Bw2 - 11 to 16 inches: gravelly loamy sand

BC - 16 to 19 inches: very gravelly loamy sand

C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 3 to 15 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Excessively drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Custom Soil Resource Report

Hydrologic Soil Group: A
Ecological site: F144AY022MA - Dry Outwash
Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 5 percent
Landform: Moraines, eskers, kames, outwash deltas, outwash terraces, outwash plains, kame terraces
Landform position (two-dimensional): Summit, shoulder, backslope, footslope, toeslope
Landform position (three-dimensional): Head slope, nose slope, side slope, crest, riser, tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Hydric soil rating: No

Merrimac

Percent of map unit: 5 percent
Landform: Kames, outwash plains, outwash terraces, moraines, eskers
Landform position (two-dimensional): Summit, shoulder, backslope, footslope, toeslope
Landform position (three-dimensional): Head slope, nose slope, side slope, crest, riser, tread
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Agawam

Percent of map unit: 3 percent
Landform: Outwash deltas, outwash terraces, moraines, eskers, kames, outwash plains, kame terraces
Landform position (two-dimensional): Summit, shoulder, backslope, footslope, footslope
Landform position (three-dimensional): Head slope, nose slope, side slope, crest, riser, tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Hydric soil rating: No

Sudbury

Percent of map unit: 2 percent
Landform: Outwash deltas, moraines, outwash plains, kame terraces, outwash terraces
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Base slope, tread
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Hydric soil rating: No

Custom Soil Resource Report

Engineering Properties—State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>					<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
38C—Hinckley loamy sand, 3 to 15 percent slopes														
Hinckley	85	A	0-1	Moderately decomposed plant material, highly decomposed plant material, slightly decomposed plant material	PT	A-8	0-0-0	0-0-0	—	—	—	—	—	—
			1-8	Loamy coarse sand, loamy sand, sandy loam, very gravelly sandy loam, gravelly loamy sand, fine sandy loam, coarse sandy loam, very fine sandy loam, loamy fine sand	GP-GM, SW-SM, GW-GM, GM, GM, SP-SM, SM	A-1-a, A-2-4, A-1-b, A-3	0-0-3	0-0-37	50-86-100	37-78-92	25-61-78	7-20-32	0-0-59	NP-0-2
			8-11	Coarse sandy loam, sandy loam, loamy fine sand, sand, gravelly loamy sand, loamy coarse sand, cobbly loamy coarse sand, very gravelly sandy loam, loamy sand, fine sandy loam	GP-GM, SW-SM, GW-GM, GM, GM, SP-SM, SM	A-1-a, A-2-4, A-1-b, A-3	0-0-3	0-0-37	51-78-100	38-71-92	25-55-78	7-18-32	0-0-21	NP-0-2

Custom Soil Resource Report

Engineering Properties—State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>					L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H
			11-16	Cobbly loamy coarse sand, loamy fine sand, extremely gravelly coarse sand, gravelly loamy sand, loamy sand, loamy coarse sand	GP-GM, SW-SM, GW-GM, GM, SP-SM, SM	A-1-a, A-2-4, A-1-b, A-3	0-0-3	0-0-34	45-73-100	31-66-92	20-51-77	5-17-31	0-0-18	NP-0-2
			16-19	Cobbly loamy coarse sand, very gravelly sand, loamy fine sand, sand, loamy sand, loamy coarse sand, extremely cobbly loamy coarse sand, very gravelly loamy sand, extremely gravelly coarse sand	GP-GM, SW-SM, GW-GM, GM, GM, GW, GP, SP-SM, SM, SW, SP	A-1-a, A-2-4, A-1-b, A-3	0-0-3	0-0-34	45-62-100	31-49-92	18-36-75	4-9-24	0-0-14	NP
			19-65	Extremely gravelly coarse sand, very gravelly sand, very gravelly loamy coarse sand, extremely gravelly sand, extremely cobbly loamy coarse sand, stratified gravel to very gravelly sand	GP-GM, SW-SM, GW-GM, GM, GW, GP, SP-SM, SP	A-1-a, A-1-b	0-0-5	7-12-33	39-52-70	25-38-59	13-25-44	1-3-11	0-0-14	NP

Appendix F: Erosion and Sedimentation Control Measures

Erosion and Sedimentation Control Measures

The following erosion and sedimentation controls are for use during the earthwork and construction phases of the project. The following controls are provided as recommendations for the site contractor and do not constitute or replace the final Stormwater Pollution Prevention Plan that must be fully implemented by the Contractor and owner in Compliance with the Connecticut General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities.

Perimeter Controls

Compost Filter Socks will be placed to trap sediment transported by runoff before it reaches the drainage system or leaves the construction site. Filter socks will be set at on the existing ground and staked at 10 feet on center.

Catch Basin Protection

Newly constructed and existing catch basins will be protected with silt sacks throughout construction.

Gravel and Construction Entrance/Exit

A temporary crushed-stone construction entrance/exit will be constructed. A cross slope will be placed in the entrance to direct runoff to a protected catch basin inlet or settling area. If deemed necessary after construction begins, a wash pad may be included to wash off vehicle wheels before leaving the project site.

Diversion Channels

Diversion channels will be used to collect runoff from construction areas and discharge to either sedimentation basins or protected catch basin inlets.

Temporary Sediment Basins

Temporary sediment basins will be designed either as excavations or bermed stormwater detention structures (depending on grading) that will retain runoff for a sufficient period of time to allow suspended soil particles to settle out prior to discharge. These temporary basins will be located based on construction needs as determined by the contractor and outlet devices will be designed to control velocity and sediment. Points of discharge from sediment basins will be stabilized to minimize erosion.

Vegetative Slope Stabilization

Stabilization of open soil surfaces will be implemented within 14 days after grading or construction activities have temporarily or permanently ceased, unless there is sufficient snow cover to prohibit implementation. Vegetative slope stabilization will be used to minimize erosion on slopes of 3:1 or flatter. Annual grasses, such as annual rye, will be used to ensure rapid germination and production of root mass. Permanent stabilization will be completed with the planting of perennial grasses or legumes. Establishment of temporary and permanent vegetative cover may be established by hydro-seeding or sodding. A suitable topsoil, good seedbed preparation, and adequate lime, fertilizer and water will be provided for effective establishment of these vegetative stabilization methods. Mulch will also be used after permanent seeding to protect soil from the impact of falling rain and to increase the capacity of the soil to absorb water.

Maintenance

- The contractor or subcontractor will be responsible for implementing each control shown on the Sedimentation and Erosion Control Plan. The contractor must sign a copy of a certification to verify that a plan has been prepared and that permit regulations are understood.
- The on-site contractor will inspect all sediment and erosion control structures periodically and after each rainfall event. Records of the inspections will be prepared and maintained on-site by the contractor.
- Silt shall be removed from behind barriers if greater than 6-inches deep or as needed.
- Damaged or deteriorated items will be repaired immediately after identification.
- Sediment that is collected in structures shall be disposed of properly and covered if stored on-site.
- Erosion control structures shall remain in place until all disturbed earth has been securely stabilized. After removal of structures, disturbed areas shall be regraded and stabilized as necessary.

The sedimentation and erosion control plan is included in project plan set; a reduced version and Erosion Control Maintenance checklist is included here for quick reference.

Construction Best Management Practices - Maintenance/Evaluation Checklist

Construction Best Management Practices - Maintenance Evaluation Checklist

Best Management Practice	Inspection Frequency	Date Inspected	Inspector	Minimum Maintenance and key items to check	Cleaning/Repair Needed Y/N Describe	Date of Cleaning/Repair	Performed by:
Gravel Construction Entrance	Once Per Week						
Catch Basin Protection	Once Per Week or after rain event						
Diversion Channels (if applicable)	Once Per Week or after rain event						
Compost Filter Sock	Once Per Week or after rain event						
Vegetated Slope Stabilization	Once Per Week or after rain event						

Appendix G: Long Term Stormwater Operation and Maintenance Measures

Long Term Stormwater Operation and Maintenance Plan

BMP's Ownership

The OWNERS of the BMP's shall be the person, persons, trust, corporation, etc., or their successors who have title to the land on which the BMP is located. It is anticipated that all BMP's will be owned and maintained by Kettle Club, LLC, until the title of land upon which they are located is transferred. At that time, the purchaser of the property will assume all responsibilities set forth within this document.

Operation and Maintenance Responsibilities:

The party or parties responsible for the funding, operation and maintenance of the BMP's shall be the OWNER or their designees. BMP's each have specific maintenance requirements to ensure long-term effectiveness. These stormwater management systems will be operated, inspected and maintained on a regular basis **by a qualified professional with expertise in inspecting drainage system components**. All of the stormwater BMP's shall be kept in good working order at all times.

Approximate estimated annual maintenance costs for the site are:

Street Sweeping - \$2,000

Deep sump hooded catch basins - \$1,300

Subsurface Infiltration Systems - \$500

Total Estimated Annual maintenance Cost - \$3,800.00

Description of site BMPs with maintenance requirements

Pavement Systems

Standard Asphalt Pavement

- Sweep or vacuum standard asphalt pavement areas at least four times per year with a commercial cleaning unit and properly dispose of removed material.
- Recommended sweeping schedule:
 - Oct/Nov
 - Feb/Mar
 - Apr/May
 - Aug/Sep
 - More frequent sweeping of paved surfaces will result in less accumulation in catch basins, less cleaning of subsurface structures, and less disposal costs.
- Check loading docks and dumpster areas frequently for spillage and/or pavement staining and clean as necessary.

- More frequent sweeping of paved surfaces will result in less accumulation in catch basins, less cleaning of subsurface structures, and less disposal costs.
- Check loading docks and dumpster areas frequently for spillage and/or pavement staining and clean as necessary.

Structural Stormwater Management Devices

Catch Basins

- All catch basins shall be inspected a minimum of four times per year.
- Sediment (if more than 24 inches deep) and/or floatable pollutants shall be pumped from the basin and disposed of at an approved offsite facility in accordance with all applicable regulations.
- Any structural damage or other indication of malfunction will be reported to the site manager and repaired as necessary
- During colder periods, the catch basin grates must be kept free of snow and ice.
- During warmer periods, the catch basin grates must be kept free of leaves, litter, sand, and debris.

“Barracuda” Proprietary Water Quality Units

- All water quality units shall be inspected a minimum of four times per year.
- Sediment (if more than twenty inches deep) and/or floatable pollutants shall be pumped from the structure and disposed of at an approved offsite facility in accordance with all applicable regulations.
- Any structural damage or other indication of malfunction will be reported to the site manager and repaired as necessary

Subsurface Recharge Chamber System

- The subsurface infiltration systems will be inspected at least twice each year by removing the manhole/access port covers and determining the thickness of sediment that has accumulated.
- If sediment is more than three inches deep, it must be suspended via flushing with clean water and removed using a vac truck.
- Manufacturer’s specifications and instructions for cleaning the sediment removal row is provided as an attachment to this section.
- System will be observed after rainfalls to see if it is properly draining.

Stormwater Outfalls

- Inspect outfall locations monthly for the first three months after construction to ensure proper functioning and correct any areas that have settled or experienced washouts.
- Inspect outfalls annually after initial three month period.
- Annual inspections should be supplemented after large storms, when washouts may occur.
- Maintain vegetation around outfalls to prevent blockages at the outfall.
- Maintain rip rap pad below each outfall and replace any washouts.
- Remove and dispose of any trash or debris at the outfall.

Vegetated Stormwater Management Devices

Vegetated Areas Maintenance

Although not a structural component of the drainage system, the maintenance of vegetated areas may affect the functioning of stormwater management practices. This includes the health/density of vegetative cover and activities such as the application and disposal of lawn and garden care products, disposal of leaves and yard trimmings.

- Inspect planted areas on a semi-annual basis and remove any litter.
- Maintain planted areas adjacent to pavement to prevent soil washout.
- Immediately clean any soil deposited on pavement.
- Re-seed bare areas; install appropriate erosion control measures when native soil is exposed or erosion channels are forming.
- Plant alternative mixture of grass species in the event of unsuccessful establishment.
- The grass vegetation should not be cut to a height less than four inches.
- Pesticide/Herbicide Usage – No pesticides are to be used unless a single spot treatment is required for a specific control application.
- Fertilizer usage should be avoided. If deemed necessary, slow release fertilizer should be used. Fertilizer may be used to begin the establishment of vegetation in bare or damaged areas, but should not be applied on a regular basis unless necessary.

Long Term Best Management Practices Plan & Checklist

- The Long-Term BMP Maintenance/Evaluation Map and Checklist is attached.

