

CERTIFY

William P. O'Donnell, Jr.  
WILLIAM P. O'DONNELL, JR.

TOWN OF WRENTHAM  
PLANNING BOARD

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Doc:1,500,057 03-22-2022 2:34  
#200904  
Norfolk County Land Court

SEE PLAN FILED IN  
PLAN BOOK 710

OFFICIAL DECISION  
SPECIAL PERMIT (SP 2021-04) & SITE PLAN APPROVAL  
WAREHOUSE

500, 510 & 524 Thurston Street, Wrentham, MA

HAND TO

LAND COURT

Owner(s)	Harold Pittsley, Jr. & Linda Pittsley, 524 Thurston St, Wrentham, MA 02093 (524 Thurston St), and Thurston Street LLC, 17 Pond View Rd., Holliston, MA 01746 (500 & 510 Thurston St)	
Applicant	Bluewater Property Group, LLC, One Tower Bridge, 100 Front St., Ste. 570, Conshohocken, PA 19428	
Location:	500, 510 Thurston Street. Assessor's Parcel Ids: O-07-4-1, O-07-4-2 524 Thurston Street Assessor's Parcel Id: P-07-1-2	
Zoning District:	<ul style="list-style-type: none"> <li>Route 1 South (C1-S)</li> <li>Watershed Protection Overlay District</li> </ul>	
Permits Sought:	<p><u>Article</u></p> <p>390.19.4 (WGC)</p> <p>390.5.3 (WGC)</p> <p>390.7 (WGC)</p> <p>390.9 (WGC)</p> <p>390.14.1 (WGC)</p>	<p><u>Permit Required</u></p> <p>Special Permit / Site Plan Approval: Warehouse / Storage Facility, Site Plan Approval: Office</p> <p>Watershed Protection</p> <p>Site Plan Approval</p> <p>Special Permit</p> <p>Earth Removal</p> <p>WGC=Wrentham General Code</p>
Application Date:	September 28, 2021	
Public Hearing Dates*:	10/20/2021, 11/17/21, 12/1/21, 12/15/21, 1/5/2022, 1/19/22, 2/2/22.	

**DECISION** of the Planning Board of the Town of Wrentham, Massachusetts (hereinafter the "Board") on the petition of Bluewater Property Group, LLC (hereinafter the "Applicant") for Special Permits and Site Plan Approval to construct a new 132,055 square feet warehouse building with office space & associated site improvements on the following three parcels: 500 & 510 Thurston Street, Wrentham Assessor's Map Ids O-07-4-1 & O-07-4-2, owned by Thurston Street LLC by deed recorded in the Norfolk County Registry of Deeds in Book 37056, Page 107 and filed in the Norfolk County Registry District of the Land Court, Certificate #200904, and 524 Thurston Street, Wrentham Assessor's Map Id P-07-1-2, owned by Harold Pittsley, Jr. & Linda Pittsley by deed recorded in the Norfolk Registry of Deeds Book 21141, Page 539.

**BACKGROUND**

The above referenced application for a Special Permit and Site Plan Approval (hereinafter the "Application") was formally received on September 28, 2021. Notice of the public hearing and the subject matter thereof was published in the Sun Chronicle on October 5 & 12, 2021, posted with the Town Clerk's Office on October 4, 2021 and abutters were notified by First Class Mail. The public hearing on the Application was opened on October 20, 2021 and continued to November 17 (no testimony), December

\*Pursuant to Governor Baker's July 15, 2021 Executive Order Extending the Suspension of Certain Provisions of the Open Meeting Law, G.L. c.30A §18, the Town of Wrentham Planning Board conducted their public hearings via remote participation.

HAND TO  
LAND COURT

BK 40406 P-382 #25387  
03-22-2022 @ 02:53p

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*Decision – Wrentham Planning Board  
Special Permit (SP 2020-04) & Site Plan Approval*

N *Pittsley & Thurston Street, LLC (Owners)* of *Bluewater Property Group, LLC (Applicant)*  
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1, December 15, January ~~5, 2022~~, January 19 & February 2, 2022 (~~closed~~). During the public hearing all those wishing to speak were heard. Following public input, the hearing was closed on February 2, 2022.

The following Planning Board members were present throughout the public hearing: Chairperson Michael McKnight (absent 02/02/22), Vice Chairperson Charles Woodhams, Jr., Clerk James Lawrence, Members Robert Cass, Stephen Schwarm, Everett Skinner, Jr. and Thomas Wrynn (absent 01/05/22). Mr. Wrynn was absent for the January 5, 2022 public hearing and completed a Mullin's Certificate in order to remain eligible to vote on this application. At the public hearing, Connor Downey of Bluewater Property Group presented the Application. The record of proceedings and submission upon which this decision is based may be referred to in the Planning & Community Development Office or the Town Clerk's Office.

### SUBMITTALS

The following items were submitted as Exhibits to the Board for its consideration of this application:

1. Application packet submitted by DiPrete Engineering, Inc., Sept. 27, 2021; including the following:
  - Application for Special Permit/Site Plan Approval; 3 pages
  - Form R: Waiver Request Form; dated 9/24/21; 6 pages
  - Tax Collector's sign off; dated 9/21/21; 1 page
  - Article 7 – Site Plan Approval Checklist; 4 pages
  - Article 8 – Community & Environmental Assessment Checklist; 2 pages
  - Application Addendum; 2 pages
2. Certified Abutters List; dated August 31, 2021, received September 27, 2021; 4 pages
3. Site Plan prepared by DiPrete Engineering entitled "Development Plan Set – Thurston Street", dated 09/24/21; 11"x17" & 24"x36"; color; 25 sheets to include:
 

<ul style="list-style-type: none"> <li>• 1, Cover Sheet</li> <li>• 2, Aerial &amp; USGS Map</li> <li>• 3, General Notes &amp; Legend</li> <li>• 4, Existing Conditions Survey</li> <li>• 5, Stormwater Pollution Prevention Plan</li> <li>• 6, Site Layout Plan</li> <li>• 7, Grading Plan</li> </ul>	<ul style="list-style-type: none"> <li>• 8, Drainage Plan</li> <li>• 9, Utilities &amp; Septic Plan</li> <li>• 10, Sand Filter &amp; Forebay Details</li> <li>• 11, Stormtech Details</li> <li>• 12-13, Detail Sheets</li> <li>• 14-16, Landscape Plans</li> <li>• 17, Illustrative Landscape Plan</li> </ul>
Plans by Others	
<ul style="list-style-type: none"> <li>• 18, Architectural Elevations, M+H Architects</li> <li>• 19, Exterior Rendering, Northwest Entry</li> </ul>	<ul style="list-style-type: none"> <li>• 20-25, Lighting Layout &amp; Specs</li> </ul>
4. Project Narrative prepared by John T. Smolak, Esq., received 9/27/21, 43 pages
5. Stormwater Management Report, prepared by DiPrete Engineering, dated 09/24/21, received 09/27/21; 198 pages
6. Stormwater System Operation & Maintenance Plan prepared by DiPrete Engineering, dated 09/24/21, received 09/27/21; 28 pages
7. SWPPP - Stormwater Pollution Prevention Plan prepared by DiPrete Engineering, dated 09/24/21, received 09/27/21; 57 pages
8. Community & Environmental Assessment prepared by DiPrete Engineering, dated 09/24/21, received 09/27/21; 10 pages
9. Transportation Impact Assessment – Appendix prepared by Vanasse Associates, Inc., received 09/27/21; 88 pages
10. Site Lighting Spec Sheets, dated 09/27/21; 28 pages
11. Transportation Impact Assessment, dated 09/27/21; 37 pages



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- Evaluation of Site Sound Emissions, dated 9/1/21, Ostergaard Acoustical Associates; 16 pages
- 12. Public Hearing Notice, dated 10/04/21; 1 page
- 13. Email Correspondence, Police; Re: Request for Comments (PB): Thurston St. Warehouse Facility, dated/received 10/15/21, 2 pages
- 14. Email Correspondence, Water Dept.; Re: Wrentham: Request for Comments (PB): Thurston St. Warehouse Facility, dated/received 10/15/21, 2 pages
- 15. Email Correspondence, BoH Agent; Re: Wrentham: Request for Comments (PB): Thurston St. Warehouse Facility, dated/received 10/15/21, 2 pages
- 16. Email Correspondence, Fire Chief; Re: Request for Comments (PB): Thurston St. Warehouse Facility, dated/received 10/20/21, 2 pages
- 17. Peer Review - Zoning/Site Plan prepared by Beals & Thomas, entitled "Site Plan & Special Permit Review – 500, 510 & 524 Thurston Street", dated/received 10/25/2021; 10 pages
- 18. Request for Public Hearing Continuance, dated 10/20/21, 1 page
- 19. DiPrete Engineering response to BTI Peer Review Comments, dated 11/10/21, 4 pages
- 20. Request for Public Hearing Continuance, dated 11/17/21, 1 page
- 21. Traffic Peer Review prepared by Environmental Partners, dated 11/17/21, received 11/19/21; 11 pages
- 22. Resilient MA Action Team (RMAT) Climate Resilience Design Standards Tool Project Report, dated 11/19/21, received 11/23/21; 5 pages
- 23. Ostergaard Acoustical Assoc.; Evaluation of Site Sound Emissions addendum Report, dated 11/22/21, received 11/23/21; 4 pages
- 24. Stormwater Peer Review prepared by PSC, dated 12/07/21, received 12/07/21; 22 pages
- 25. Response to Traffic Peer Review prepared by Vanasse & Assoc., Inc., dated 12/10/21, received 12/13/21; 72 pages
- 26. Request for Public Hearing Continuance to 01/19/22, dated 01/04/22, 1 page
- 27. Response to Stormwater Peer Review prepared by DiPrete Engineering, dated 01/05/22, 15 pages
- 28. DiPrete Engineering Summary of Requested Waivers, Updated Form R Waiver Request Forms, dated 1/13/22; 7 pages
- 29. Email Correspondence, Martin, Re: 500, 510, 524 Thurston St., dated/received 01/18/22; 2 pages
- 30. Request for Public Hearing Continuance to 02/02/22, dated 01/19/22, 1 page
- 31. Stormwater Pollution Prevention Plan, dated 09/24/21, revised through 01/20/22, received 01/21/22, 60 pages
- 32. Revised Stormwater Management Report, dated 09/24/21, revised through 01/20/22, received 01/21/22; 139 pages
- 33. Revised Site Plan prepared by DiPrete Engineering entitled "Development Plan Set – Thurston Street", revised through 01/19/22; 11"x17" & 24"x36"; color; 31 sheets
  - 1, Cover Sheet
  - 2, Aerial & USGS Map
  - 3, General Notes & Legend
  - 4, Existing Conditions Survey
  - 5-9, Stormwater Pollution Prevention Plan, Phase I-V
  - 10-11, SWPPP Detail Sheets
  - 12, Site Layout Plan
  - 13, Grading Plan
  - 15, Utilities & Septic Plan
  - 16, Sand Filter & Forebay Details
  - 17, Stormtech Details
  - 18-19, Detail Sheets
  - 20, Landscape Plan
  - 21, Landscape Notes & Details
  - 22, Landscape Shading Plan
  - 23, Illustrative Landscape Plan



Decision – Wrentham Planning Board  
Special Permit (SP 2020-04) & Site Plan Approval

N Pittley & Thurston Street, LLC (Owners) / Bluewater Property Group, LLC (Applicant)

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O F F I C I A L

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• 14, Drainage Plan C O P Y

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PLANS BY OTHERS

• 1, Elevations, M+H Architects

• Lighting Layouts (3 sheets), RAB

• Rendering, Northwest Entry, M+H Architects

• Lighting Analysis, RAB

34. Revised Stormwater System Operation & Maintenance Plan, dated 09/24/21, revised through 01/20/22, received 01/21/22; 31 pages

35. Mullin's Certificate completed by Thomas Wrynn for January 5, 2022 meeting, 1 page

36. Peer Review - Zoning/Site Plan prepared by Beals & Thomas, dated 02/02/22; 8 pages

37. Site Plan prepared by DiPrette Engineering entitled "Sight Distance Triangle Exhibit", dated 12/08/21, received 02/02/22, 24"x36" & 11"x17", color, 1 sheet

## FINDINGS

At their meeting of February 2, 2022, after due consideration of the Exhibits submitted and the entire record of proceedings introduced and accepted in this matter, the Wrentham Planning Board made the following Findings:

1. That determinations regarding the following Findings are based upon the documents and plans identified in this Decision, as well as the information and Exhibits submitted and presented in association with the Application.
2. That determinations regarding the following Findings are also predicated upon the maintenance of the Site in accordance with this Decision, as well as all applicable Federal, State and Local regulations, except where modified by this Decision.
3. That this Application is for Special Permits and Site Plan Approval under Wrentham General Code (WGC) §390-19.4(D) Table 19-1 (Warehouse and storage facility, other than a facility for storage of so-called junk vehicles and other scrapped materials), Site Plan Approval under (WGC) §390-19.4(D) Table 19-1 (Complex of offices, office buildings or other nonretail businesses), (WGC) §390-5.3 (Watershed Protection), §390-14.1(Earth Removal), §390-7 (Site Plan Approval), and §390-9 (Special Permits), to construct a new warehouse building consisting of 132,055 square feet (s.f.), including up to 20,000 s.f. of office space, parking improvements, stormwater management, landscaping, lighting and other improvements as shown on the submitted plans (Exhibit #3, #4 & #33).
4. That the Site is 594,456 s.f., and is located in the Commercial Route 1 South (C-1S) Zoning District, and a portion of the Site lies within the Watershed Protection Overlay District (W) (Exhibit #3, #4 & #33).
5. Both parking and loading facilities have been located in such areas so as to reduce potential impacts from operations, and in particular, by locating truck docks to be on the south end of the lot opposite any residential uses, which will significantly mitigate any potential for off-site impacts.
6. Lighting has been designed to prevent off-site glare of headlights, and a photometric plan demonstrates no light spillover from the Property (Exhibit #3 & #10).
7. A stormwater management system has been designed to meet both MassDEP Stormwater Management Standards as well as the requirements of the Wrentham Board of Health Regulations for Storm Water and Runoff Management, as amended. (Exhibit #5-#7, #31, #32 & #34).
8. The building is proposed to be served by an on-site septic system conforming to State Title 5 and local board of health regulations for the treatment of purely domestic sanitary discharges. (Exhibit #3 & #4), and water supplied through the Town of Wrentham water supply system. (Exhibit #15).
9. Site access is proposed to include a right-in only for both trucks and passenger vehicles and a right-out only driveway for passenger cars only onto Washington Street, as well as a 2-way access driveway



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10. The Applicant has been issued a Wetlands Order of Resource Area Delineation (DEP # SE 351-1163), dated August 17, 2021 (ORAD), confirming the Property's wetlands delineation. The Applicant has also filed a wetlands Notice of Intent with the Wrentham Conservation Commission to enable work within wetland buffer areas, and anticipates the Wrentham Conservation Commission will issue an Order of Conditions approving the Project.
11. The Board hearings included extended discussions concerning landscaping and screening, which led to supplemental landscaping and screening being added to the Site as an additional measure of buffering of the Site from both Washington Street and the surrounding properties. Site landscaping adjustments were made so the Applicant's revised design was also able to demonstrate compliance with shading requirements under WGC § 390-6.4.B.9 such that the Applicant has withdrawn its waiver request concerning shading. (Exhibit #3, #28 & #33).

12. With regard to WGC §390-7.7(B)(1), that based upon the Findings stated within this Decision, there is adequate storm water retention on the site (Exhibits #3, #4, 9-11, #21, #25, #33, #37, Finding #7). The Drainage Report demonstrates that stormwater runoff from the site will be reduced in the proposed condition, for all storm events up to and including the 100-year storm. The Site design conforms to the performance standards of the DEP's Storm Water Management Policy and all other state and local requirements. The Board further notes that Stormwater has been reviewed and approved by the Board of Health.
13. With regard to WGC §390-7.7(B)(2), that based upon the Findings stated within this Decision, there is adequate emergency access to the site (Exhibits #3 & #33, Findings #5 & #9). The proposed site plan includes two access points; one from Washington Street and one from Thurston Street, both public ways. The proposed drive aisles provide adequate access to emergency vehicles to all sides of the building (Exhibit #21, Finding #5).
14. With regard to WGC §390-7.7(B)(3), that based upon the Findings stated within this Decision, the Applicant minimized disturbance of the existing natural features to the extent practicable (Exhibits #3, #4 & #33). The site is currently used as a temporary storage for recreation vehicles and a private residence with scrap metal storage and agricultural uses. During the 1970's the site was used as a sand and gravel operation which stripped a majority of the vegetation and topsoil. The Board notes that the proposed site improvements include the planting of trees and landscaped areas as well as the addition of stormwater management features.
15. With regard to WGC §390-7.7(B)(4), the Application minimizes air and water pollution (Exhibit #3-#7, #20, #31-#34). Mitigation measures will be implemented as necessary to minimize and control the dust that may occur as a result of the proposed grading and construction activities. All demolition activities will be conducted in accordance with the applicable provisions of the Dust, Odor, Construction and Demolition regulations, 310 CMR 7.09. Upon completion of construction, there will be large trucks associated with delivery on the site with associated truck and car emissions, due to engine idling which will be regulated by the Massachusetts Anti-Idling Law, MGL Chapter 90, Section 16A, as implemented through the Massachusetts Air Pollution Control Regulations, 310 CMR 7.11.
16. With regard to WGC §390-7.7(B)(5), that based upon the Findings stated within this Decision, the collection and disposal of solid waste is satisfactory (Exhibit #21). The proposed facility will have an



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onsite dumpster or a compactor, depending on the future tenant's operations, set on a concrete pad on the southwesterly end of the loading bay area. A solid waste contractor will be retained to perform weekly refuse removal services or as otherwise scheduled based upon tenant needs.

17. With regard to WGC §390-7.7(B)(6), that based upon the Findings stated within this Decision, pedestrian and vehicular safety on site and with adjoining properties is adequate (Exhibit #9, #11, #23, #25, Findings #5, #9, #13). The proposed facility is expected to generate 244 vehicle trips on an average weekday, consisting of a total of 160 passenger car trips and 84 truck trips. During the weekday morning peak-hour, the Site is expected to generate 24 vehicles trips consisting of 21 passenger car trips and 3 truck trips. During the weekday evening peak-hour the Site is expected to generate 27 vehicle trips consisting of 23 passenger car trips and 4 truck trips. Site circulation and parking has been designed to comply with the requirements of WGC §390-6.4. Based on WGC §390-6.4 the proposed facility requires 150 passenger car parking spaces and the proposed site provides 155 spaces, 8 of which are accessible. The Site also proposes 29 truck loading spaces and 13 trailer storage spaces. A peer review of the traffic issues has been performed on behalf of the Town by Environmental Partners. In accordance with their final review all traffic issues have been adequately addressed.
18. With regard to WGC §390-7.7(B)(7), that based upon the Findings stated within this Decision, the Application minimizes the visibility of parking, any outdoor storage from the public view and any glare from headlights through additional plantings (Exhibits #3, #4 & 33). The Site has been designed to distribute parking around all sides of the building to minimize large expanses of pavement. Existing vegetation has been maintained where possible and landscaping proposed within and around the perimeter of the site provides for additional buffering of parking and outdoor services areas from public view as well as minimizing the glare from headlights and facility lighting.
19. With regard to WGC §390-7.7(B)(8), that based upon the Findings stated within this Decision, the intrusion of light from stationary fixtures on the site to adjoining properties, and is adequate (Exhibit #3 & #33). The proposed lighting layout and fixtures have been designed to prevent any intrusion of light from stationary fixtures on the site into adjoining properties.
20. With regard to WGC §390-7.7(B)(9), that based upon the Findings stated within this Decision, the proposed building will be consistent with the surrounding area's character and intensity of use. (Exhibit #3, #4 & #33).

Criteria for Special Permit Decisions (WGC §390.9.1)

21. With regard to WGC §390-9.1(A), that based upon the Findings stated within this Decision, the Application has a vehicle or pedestrian traffic that is in harmony with the immediate neighborhood (Exhibit #3, #4, #9-#11, #21, #25, #33 & #37, Finding #5, #9, #13 & #17). The Board further notes that the turning movements from Washington Street will be restricted to right in/out and from Thurston Street there will be no truck/delivery vehicle traffic allowed to turn right out of the Site. A copy of the Site's Application for Permit to Access the State Highway will be submitted to MassDOT.
22. With regard to WGC §390-9.1(B), that based upon the Findings stated within this Decision, the project will not have a number of employees, customers or visitors so as to adversely affect the immediate neighborhood (Exhibit #3, #4 & #33, Finding #21).
23. With regard to WGC §390-9.1(C), that based upon the Findings stated within this Decision, the Application has a lot coverage of 55.6% which is less than the maximum of 65% Lot Coverage allowed in the C-1S District under WGC §390-19.5 and Table 19-2, and is allowed in the C-1S Zoning District (Exhibit #3 & #33).



## Decision – Wrentham Planning Board

Special Permit (SP 2020-04) &amp; Site Plan Approval

N Pittsley & Thurston Street, LLC (Owners) / Bluewater Property Group, LLC (Applicant)  
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24. With regard to WGC §390-9.1(D), that based upon the Findings stated within this Decision, there will be no change to, or dangerous condition impacting, the immediate neighborhood through fire, explosion, emission of wastes or other causes (Exhibit #3, #4 & #33, Finding #15 & #16).
25. With regard to WGC §390-9.1(E), that based upon the Findings stated within this Decision, the use does not adversely affect the immediate neighborhood by creation of noise, vibration, dust, heat, smoke, fumes, odor, glare or other nuisance or serious hazard to the immediate neighborhood (see Findings #5, #6, #11, #15, #16, #18, #19, #24).
26. With regard to WGC §390-9.1(F), that based upon the Findings stated within this Decision, the use, as conditioned, shall not adversely affect the character of the immediate neighborhood (see Findings #20 & #22).

Criteria for Special Permit Decisions [WGC §390-9.2(A)]

27. With regard to WGC §390-9.2(A)(1), that based upon the Findings stated within this Decision, the use and dimensional requirements as proposed for the Project comply with Article 19, as a supplement to the requirements of WGC §390-4 & §390-6 (Exhibit #3, #4 & #33).
28. With regard to WGC §390-9.2(A)(2), that based upon the Findings stated within this Decision, there will not be a significant impact nor an adverse environmental effect on vehicular and pedestrian traffic in the neighborhood, the primary or secondary roads, the intersections serving the project area (Exhibits #3, #4, #9-#11, #21, #25, #33, #37, Findings #5, #6, #11, #15, #16, #18, #19 & #24). The Board further notes that as part of this Decision's conditions the Site's Thurston Street truck egress would be restricted to left hand turns out of the Site. The Board further notes that the turning movements from Washington Street will be restricted to right in/out and from Thurston Street there will be no truck/delivery vehicle traffic allowed to turn right out of the Site.
29. With regard to WGC §390-9.2(A)(3), that based upon the Findings stated within this Decision, there will be adequate provisions to control litter, reduce, separate, recycle and/or compost solid waste generated at the site (see Findings #8 & #16).
30. With regard to WGC §390-9.2(A)(4), that based upon the Findings stated within this Decision, the project will not significantly impact the quality of surface water, ground, waters, soil, and the environment to include noise, vibration, dust, smoke, fumes, odor, glare or another nuisance or serious hazard to the immediate neighborhood (see Finding #25).
31. With regard to WGC §390-9.2(A)(5), that based upon the Findings stated within this Decision, as a warehouse use with office, the use will not be a danger to the immediate neighborhood and/or the community or premises through fire, explosion, emission of wastes or runoff or other causes (see Findings #24, #27 & #31).
32. With regard to WGC §390-9.2(A)(6), that based upon the Findings stated within this Decision, the proposed water and septic utilities serving the site are adequate. (see Findings #8 & #29).
33. With regard to WGC §390-9.2(A)(7), that based upon the Findings stated within this Decision, the Application the Project will not have a significant impact on municipal public safety services including water, sewer, police, fire protection and ambulance services (see Findings #2, #8, #9, #13, #16, #17, #21, #22, #24, #25, #29, #30, #31 & #32).
34. With regard to WGC §390-9.2(A)(8), that based upon the Findings stated within this Decision, the architecture of the proposed building is in harmony with the surrounding neighborhood, including without limitation, the zoning district and all abutting zoning districts (see Findings #8, #16, #20, #21, #26).
35. With regard to WGC §390-9.2(A)(9), that based upon the Findings stated within this Decision, the project site is currently being utilized as RV storage (500 & 510 Thurston) as well as a personal



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residence with farm and outside storage of personal property in a blighted condition. The proposed Project will not adversely impact the character of the surrounding neighborhood, including, without limitation, the zoning district and all abutting zoning districts (see Findings #8, #16, #20, #21, #26 & #34).

36. With regard to WGC §390-9.2(A)(10), that based upon the Findings stated within this Decision, and through a combination of an attractive building design, the location and screening of parking and loading, along with the extensive landscaping program have combined to preserve and enhance the character of the surrounding neighborhood, the project will not adversely impact the character of the neighborhood (see Findings #8, #16, #20, #21, #26, #34 & #35).
37. With regard to WGC §390-9.2(A)(11), that based upon the Findings stated within this Decision, the project will have a positive economic impact on the town, its residents and surrounding properties. The board further finds that the proposed project will increase the economic viability of the Town by bringing in more tax revenue and the creation of new jobs. (Exhibit #8).
38. With regard to WGC § 390-9.2.A., that based upon the Findings stated within this Decision, the proposed use is in harmony with the intent and purpose of WGC §390. (Exhibit #4, Findings #21 & #27).
39. With regard to WGC § 390-9.2.A., that based upon the Findings stated within this Decision, the proposed use is not in conflict with the public health, safety and to the health of the Town residents. (Findings #22 & #28).
40. With regard to WGC § 390-9.2.A., that based upon the Findings stated within this Decision, the use does not adversely affect the neighborhood, including the zoning district and all abutting districts, because the Project development is within a commercial district, the Project will be conditioned to ensure adequate buffering, screening and other measures to protect the neighborhood, and presents a service to the community by providing increased tax revenue to the Town. (Exhibits #4 & #8, Finding #35).

Criteria for Watershed Protection District (§ 390-5.3.)

41. With regard to WGC § 390-5.3., that based upon the Findings stated within this Decision, the use and the program of mitigation will not degrade the watershed area because the Applicant has undertaken extensive measures to ensure that the proposed use will not degrade the watershed, including the following:
  - a. Designing a stormwater management system which complies with MassDEP Stormwater Management regulations, as well as Wrentham Board of Health stormwater regulations;
  - b. Implementing an operation and maintenance plan as well as the following best management practices to ensure that State water quality standards within the watershed are maintained including the incorporation of: i. Sediment forebays and deep sump & hooded catch basins for pretreatment; ii. Sand filter and an underground infiltration system for water quality treatment and peak flow mitigation; and,
  - c. Implementing an operation and maintenance plan as well as identifying any other measures to minimize impacts to the watershed (i.e., no use of coal-based tars, use of low- or slow-release nitrogen fertilizers, limited salt de-icers). (Exhibit #3-#8 & #34).
42. With regard to WGC § 390-5.3., that based upon the Findings stated within this Decision, in addition to satisfying the Special Permit findings of WGC §390.9.1 and WGC §390.9.2 as described above, the Project use and proposed mitigation will not degrade the WATERSHED area.

Criteria for Earth Removal Special Permit (WGC §390-14.6)



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43. With regard to WGC §390-14.6(A), that based upon the Findings stated within this Decision, the earth removal for the project may be accomplished without unreasonable danger to the health, safety and general welfare of the inhabitants of the Town in general not to that of those in the immediate vicinity (Exhibits #3 & #33).
44. With regard to WGC §390-14.6(B), that based upon the Findings stated within this Decision, the earth removal for the project will not produce unreasonable noise, dust or other effects observable as detrimental to the normal use of adjacent land.
45. With regard to WGC §390-14.6(C), that based upon the Findings stated within this Decision, the earth removal and change in topography for the project will be accomplished without adverse effect to abutting land by reason of surface water drainage, recharge of the water table not to the pumping rate of any nearby Town well site (Exhibits #3-7 & #31-#36, Finding #42)
46. With regard to WGC §390-14.6(D), that based upon the Findings stated within this Decision, the earth removal for the project will not have a material adverse effect on the health or safety of persons living in the neighborhood or on the use or amenities of adjacent land.

#### WAIVERS

At their meeting on February 2, 2022, after due consideration of the Exhibits submitted and the entire record of proceedings introduced and accepted in this matter, the Wrentham Planning Board (MOTION by Mr. Skinner, SECOND by Mr. Schwarm) voted 6-0 by Roll Call vote: Mr. Cass-Aye, Mr. Lawrence-Aye, Mr. Schwarm-Aye, Mr. Skinner-Aye, Mr. Woodhams-Aye, Mr. Wrynn-Aye (Mr. McKnight absent) to GRANT the Applicant's request for waivers from the following sections of WGC §390, finding that the GRANT of these waivers is in the best interests of the Town and consistent with the intent and purpose of WGC §390:

1. WGC §390-7.3: To allow the plans need to be at a scale of 1" = 50' instead of 1" = 40' scale in order to facilitate review.
2. WGC § 390-14.7(C): To waive the minimum fifty-foot buffer strip along the property lines where the earth and vegetation shall remain undisturbed in order to enable the site layout shown on the Site Plans.
3. WGC §390-14.7(F): To eliminate the requirement that earth removal be carried out in four acre grids and not over the entire site at one time, given that earth removal will be conducted in compliance with both a wetlands order of conditions (including a phased erosion and sediment control plan) as well as a stormwater pollution prevention plan.
4. WGC §390-14.7(J): To waive the requirement for the planting of fingerling fir, white pine or other approved tree cover over the entire disturbed area at five feet to six feet on center lines, given that the disturbed area proposed for this development will be the site of a proposed building, parking, driveways, driveway access, stormwater management features, and landscaped buffer areas.
5. WGC §390-14.7(K): To waive the requirement that no excavation shall be made at less than 10 feet above annual high-water table as established from test pits and soil borings.

**WITHDRAWN WAIVER:** Due to the Site design reconfiguration over the course of the hearing process as the Site Plan design was advanced, resulting in the ability to add additional landscaping onto the Site, the Applicant's initial request to waive the requirement that all new parking lots containing 10 or more parking spaces include tree plantings designed to result in 50% shading of parking lot surface areas within 15 years shading requirements of § 390-6.4.B.9 has been withdrawn,



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and the Board accepts the withdrawal of this waiver request finding the Applicant now complies with the requirements of § 390-6.4.B.9.

### CONDITIONS OF APPROVAL

At their meeting of February 2, 2022, after due consideration of the exhibits submitted and the entire record of proceedings introduced and accepted in this matter, the Wrentham Planning Board voted to **GRANT** the Application for Special Permit and Site Plan Approval with the following conditions:

### STANDARD CONDITIONS

1. This Special Permit and Site Plan Approval specifically authorizes the construction of a new warehouse and storage building consisting of 132,055 square feet, including up to 20,000 s.f. of office uses, along with parking, loading, stormwater management, landscaping, lighting and other improvements on the Site as shown on the Plans identified as Exhibit #3 of this Decision, and as may be modified by the Conditions of this Decision and Wetlands Order of Conditions.
2. The work authorized by this Special Permit and Site Plan Approval shall be solely for the purposes noted within Condition #1 of this Decision and shall run with the land and be binding upon the property owners as well as their administrators, successor, and assigns, including any future tenants. Any instrument for sale, transfer of rights or interest in all or any part of the Site shall reference this Special Permit and shall include a notice that the successors are bound to its terms and conditions.
3. The Applicant shall adhere to the WGC §390 (Zoning By-laws) and all other applicable provisions of municipal law and regulation, Federal and State statutes and related regulations promulgated by Federal and State agencies.
4. Any modifications to the use, Site, structure(s) and/or Site improvements as described within and authorized by this Decision and as presented to the Board during the public hearing and in the above referenced Exhibits shall require, prior to implementing such change, a request in writing, from the Applicant to the Board a determination as to whether the proposed change constitutes a Minor or Major Modification. Insubstantial modifications, such as minor field changes, slight variations in building or site layout and changes that are de minimus in nature shall not require additional review and approval of the Board and may be approved by the Wrentham Building Commissioner in consultation with the Planning Director.
5. All maintenance of the Site hereafter shall be in accordance with all applicable Federal, State and Local regulations.
6. In accordance with (WGC) §§390-7.7(E), WGC §390-9.4(B) and M.G.L. c.40A §9, these Special Permits and Site Plan Approval are valid for two (2) years from the date of the expiration of the appeal period. Development must be completed within the two-year limit unless an extension is granted. Extensions shall be considered Modification of this permit and shall be submitted in writing to the Board prior to expiration for review and approval. Failure to comply with these conditions will result in a penalty of \$300 a day or the maximum allowed under M.G.L. c.40A §7 for each day of continued violation, revocation of the permit, or judicial enforcement.
7. This Special Permit & Site Plan Approval shall not take effect until the Decision and Plans have been recorded at the Norfolk County Registry of Deeds (NCRD). Proof of recording of the Decision and Plans, including Deed Book and Page Number or Instrument Number shall be submitted to the Planning Board office within thirty (30) days of recording.
8. By recording this Special Permit Decision in the NCRD, the Applicant agrees to and accepts the Conditions set forth in this Special Permit & Site Plan Approval decision.
9. Any inability, failure or refusal by the Applicant to comply with the Conditions of this Decision, when notified of failure of compliance, shall be grounds for immediate denial of building construction or occupancy permit with respect to this project.



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10. This approval shall not be construed as final approval of any on- or off-site improvements or work (such as water, sewer, drainage, or other utility installation) associated with this project and shown on the Plans. All applicable Federal, State and Local approvals/permits shall be obtained by the Applicant prior to the construction of any portion of the development or off-site improvements that warrant such approval/permits unless otherwise authorized in advance by the Director of Planning & Economic Development in consultation with the Building Commissioner. All applicable requirements of the Wrentham Board of Health, Conservation Commission, Department of Public Works and all other utilities, are hereby incorporated by reference as a requirement of this Decision.

CONDITIONS TO BE MET PRIOR TO THE START OF CONSTRUCTION

11. Prior to the endorsement of the site plan, a final revised plan, with a revised plan set date, incorporating all conditions and changes listed herein, stamped by the appropriate professional engineers and/or land surveyors shall be submitted to the Board. A block for Planning Board endorsement shall be placed on the cover sheet.
12. Prior to the commencement of any site work, the Applicant shall submit to the Board a final construction phasing schedule which also identified the designated route for construction vehicles, and their anticipated hours of travel. The installation of haybales, compost socks and silt fence and the clearing and grubbing necessary for such installation shall not be considered "site work" for purposes of compliance with this condition. The plan shall clearly explain the building construction and utility sequencing and the provisions for safe access during construction. The Applicant shall ensure that, during construction, the design engineer, or its qualified representative, visits the Site regularly and, at a minimum twice a month during peak activity periods provides regular reports to the Building Commissioner, Planning Director and Board's Consulting Engineer to advise of the status of the work, erosion control measure and any special circumstances with may arise in connection with the construction of the project. The Applicant shall direct construction vehicles to avoid secondary residential roads.
13. A pre-construction meeting shall be held with the Planning Board's Consulting Engineer and Planning Director prior to the start of construction. The Board may require the services of a peer review engineer to inspect portions of the work both during and after construction. The costs for these inspections shall be borne by the Applicant. Based on the results of the pre-construction meeting, a review deposit may be required from the Applicant at that time, but failure to require a deposit at that time shall not preclude the Board from requiring a deposit at a later date if it deems additional inspections are needed.
14. Prior to the start of any construction activity on the Site, an initial inspection of the delineated limits of work, erosion control and site stabilization measures shall be performed by agent(s) of both the Planning Board and Conservation Commission in the presence of a representative of the Applicant/Developer, and notice of such inspection forwarded to both Boards. No construction activity shall occur on the Site until the Applicant/Developer receives written authorization from both the Planning Board and Conservation Commission regarding the adequacy of the initial erosion control and site stabilization measures. The Planning Board reserves the right to require additional erosion control/site stabilization measures at any time during the construction process should the Planning Board, Conservation Commission or their agent(s) deem such measures necessary. The Applicant/Developer shall be notified in writing of the necessity for such additional measures, and shall complete all such requirements within ten (10) days of receiving said notice, or other time as may be agreed upon by both the Planning Board and Conservation Commission.

CONDITIONS TO BE MET DURING CONSTRUCTION

15. The Applicant shall take all necessary measures to minimize dust from rising and blowing across the site and onto roads and adjacent properties. Any sediment or dirt tracked onto public ways shall be swept prior to the end of the construction day.



*Decision – Wrentham Planning Board  
Special Permit (SP 2020-04) & Site Plan Approval*

*N G Pittsley & Thurston Street, LLC (Owners) / Bluewater Property Group, LLC (Applicant)  
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16. Hours of construction shall be as follows:

C O P Y

- a. Interior Building Fit Out: Monday – Friday 7 a.m. to 7:30 p.m.; Saturdays 8 a.m. to 6:30 p.m.; Sundays no work allowed
- b. Exterior Building Construction and Site Work: Monday – Friday 7 a.m. to 6:30 p.m. and earthwork proposed shall only occur Monday through Friday between the hours of 7 a.m. and 5 p.m. and Saturdays from 8 a.m. to 5 p.m. There shall be no construction activity on Sundays or Federal and State holidays.

17. All grading and construction shall be in accordance with the approved Plans and the Conditions of this Decision, as well as all applicable Federal, State and Local regulations, and shall be accomplished so as not to discharge any pollutants or siltation into waterways or resource areas from the site and its associated improvements during construction, and after completion.

18. The Planning Board reserves the right to utilize review fees as allowed under M.G.L. Ch. 44 §53G for engineering, legal and any other professional review services that may be needed to adequately review the project, monitor construction activities and impacts, and review final as-built plans.

19. Prior to the issuance of the Building Permit (BP) or Certificate of Occupancy (CO) for the Project, the Applicant shall satisfy the following requirements of the Wrentham Fire Department:

- a. Before BP: Submit to the Fire Department for review and approval a fire protection/detection plan and sprinkler plan. The plan shall include detailed information for the water distribution system and anticipated water flow data, building sprinkler details and hydrant locations.
- b. Before CO: The Applicant shall install a fire alarm radio box providing a direct connection to the Fire Department. It should be compatible with the current Fire Department receiving equipment. The Applicant may choose its own equipment, provided it is approved in advance by the Fire Department, and the receiving equipment and programming software are provided by the Applicant to the Fire Department in an acceptable manner.
- c. Before CO: A fire department connection shall be installed at a location approved by the fire department, if required.
- d. Before CO: Bidirectional radio amplifiers shall be installed unless an alternate method is agreed to by the Fire Department. This will include two Fire Department radio channels and one Police Department channel, as specified by each Department.

20. The Applicant shall be responsible for litter control both during and after construction.

### CONDITIONS TO BE MET AFTER CONSTRUCTION

#### **A. General**

21. Unless modified by this Decision, the Site shall be developed, constructed and maintained in accordance with all applicable Federal, State and Local regulations, and as shown on the Plans identified as Exhibit #33 of this Decision or as modified by the Conditions of this Special Permit, Site Plan Approval, and Wetlands Order of Conditions. All required permits and approvals shall be secured by the Applicant at the appropriate stage of construction and copies of all pertinent documents regarding said permits and approvals shall be filed with the Planning Board in a timely manner.
22. All final grades and installation of improvements authorized by this Special Permit and Site Plan Approval, or approved modifications thereto, shall be shown on an as-built plan prepared by a professional land surveyor registered in the Commonwealth of Massachusetts. Copies of said plan shall be submitted to the Board and the Building Commissioner prior to the issuance of a Certificate of Occupancy.
23. All landscaping, berms, walls and fencing shown on the approved plans shall be permanently maintained by the owner, and landscaping shall be replaced as needed to maintain the buffer to neighboring parcels and compliance with the requirements of WGC §390 and approved plans.
24. The final as-built plans shall be submitted in electronic format compatible and/or able to be converted for use with the Town's GIS. A copy shall also be submitted in pdf format for more general use.



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**B. Noise**

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C O P Y

25. No vehicles shall be allowed to idle for more than 5 minutes in accordance with State Air Pollution Regulations, 310 CMR 7.11(1). "No idling" signs shall be placed around the building so to be clearly visible to all trucks.
26. Idling reduction technologies, including electric parking spaces (anti-idling plugs) shall be installed at all operational loading bays throughout the building.
27. The Applicant and tenant(s) will endeavor to use low-noise back-up beepers for tenant owned trucks.
28. If rooftop air conditioning units are installed, they shall be screened and sufficiently set back from building parapet to prevent or diminish noise impacts to surrounding areas.
29. Average site noise levels shall not exceed average ambient levels by more than 10 dB measured at property lines between 7:30 pm and 6:30 am.
30. Building occupants shall conform to Massachusetts DEP noise regulations.
31. No refrigerated storage or refrigerated trucks are allowed unless they conform with the sound study analysis included with the Application and meet the noise conditions contained in this Decision.
32. The Zoning Enforcement Officer (ZEO) or Planning Board may require at their discretion and at the Applicant's expense, a post-occupancy sound study for comparison to the sound study prepared by the Applicant to ensure compliance with noise conditions set forth herein. This sound study shall be completed by sound consultant of Applicant's choosing for consistency. This post-occupancy sound monitoring shall occur no sooner than two months after full building occupancy to allow time to establish routine procedures within the facility. Should the post-occupancy sound study show that noise levels exceed the conditioned levels, tenant(s) shall be required to propose mitigation measures to eliminate such noise that exceeds the conditioned levels.

**C. Operations**

33. Exterior and parking lot lighting shall be turned off or dimmed within one-hour of close of business, unless otherwise deemed necessary by the Wrentham Police Department for safety reasons. All sign illumination shall also be turned off during these hours except for the illumination of signs regarding hours of operation, truck idling and wayfinding for the purpose of directing trucks access and egress in accordance with the conditions in this Decision. Lighting and illumination levels shall follow the submitted lighting plan. All fixtures shall have LED bulbs and adjustable shields so that none of the site lighting extends beyond the property line nearest the residential neighborhood
34. The loading bay doors shall be closed when the bays are not in operation (active loading or unloading) to prevent noise transmitting from the building from interior operations.
35. Operation and emptying of trash containers shall be between the hours of 6:00 AM and 10:00 PM. There shall be no trash pick-up on Sundays.
36. Forklift operations in the truck court area are prohibited from the hours of 10:00 PM to 6:00 AM. There shall be no forklift operations in the truck court area from the hours of 7:00 PM to 7:00 AM on Sundays.
37. Public roadways shall not be used for staging of vehicles, all staging of vehicles shall occur on site.
38. Snow storage shall be consistent with the operations & management plan. No snow shall be deposited in resource areas.
39. Use of drones for shipping and receiving is not allowed unless specifically approved by Planning Board.

**D. Traffic**

40. A traffic monitoring program will be conducted as directed by MassDOT and/or MEPA in five annual intervals with ongoing communication with the Town of Wrentham and the appropriate MassDOT units. The monitoring plan will begin six-months after initial full occupancy of the warehouse. The Planning Board shall be provided the results of this traffic monitoring program.



Decision – Wrentham Planning Board  
Special Permit (SP 2020-04) & Site Plan Approval  
Pittley & Thurston Street, LLC (Owners) / Bluewater Property Group, LLC (Applicant)  
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41. Should post-occupancy traffic monitoring indicate significant impacts to traffic operations that would require mitigation, the Applicant will propose mitigation measures such as signal timing adjustments.
42. The Project's average daily trip generation shall not exceed the trip counts in the Transportation Impact Assessment dated September 2021 by more than 20%. The project's average daily weekday trip generation per the Transportation Impact Assessment dated September 2021 are as follows: 244 total vehicle trips consisting of a total of 160 passenger car trips and 84 truck trips.
43. If a specific tenant is identified by the Applicant that is anticipated to generate traffic exceeding any of these thresholds under Condition #42 above, the Applicant must apply for a modification to the Decision in accordance with Condition #4 above. The Applicant shall produce a new traffic impact study using trip generation specific to that tenant to prove no substantial impacts will result and, following review and approval by the Planning Board, to adjust the above specified threshold limits as appropriate.

**E. Site Specific**

44. Trucks shall not be permitted to turn right onto Thurston Street to exit the Site. All truck traffic shall exit the Site by turning left onto Thurston Street towards Washington Street. Signs shall be posted to ensure compliance with this condition.

**RECORD OF VOTE**

Constituting a majority of the Planning Board, the following members (MOTION by Mr. Skinner, SECOND by Mr. Lawrence) voted 6-0 by Roll Call vote: Mr. Cass-Aye, Mr. Lawrence-Aye, Mr. Schwarm-Aye, Mr. Skinner-Aye, Mr. Woodhams-Aye, Mr. Wrynn-Aye (Mr. McKnight absent) to **APPROVE** with Conditions the Special Permits for Use, Watershed Protection, and Earth Removal and Site Plan Approval for a new 132,055 square foot warehouse building with office space & associated site improvements at 500, 510 & 524 Thurston Street based on the information received at the public hearing and the aforementioned findings.

**BY ORDER OF THE BOARD:**



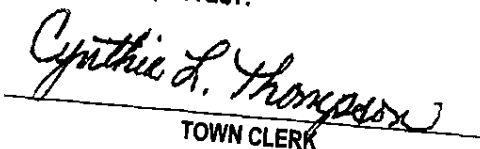
Rachel Benson, Director of Planning & Economic Development

2/7/22  
Date

- |     |                         |                           |                   |
|-----|-------------------------|---------------------------|-------------------|
| cc: | • Applicant             | • Owner                   | • Assessor        |
|     | • Building Commissioner | • Conservation Commission | • Board of Health |
|     | • DPW                   | • Fire Department         |                   |

NOTICE OF APPEAL RECEIVED 20 DAYS  
FOLLOWING RECORDING OF NOTICE AND  
APPROVAL OF PLANS FROM PLANNING  
BOARD OR BOARD OF APPEALS.

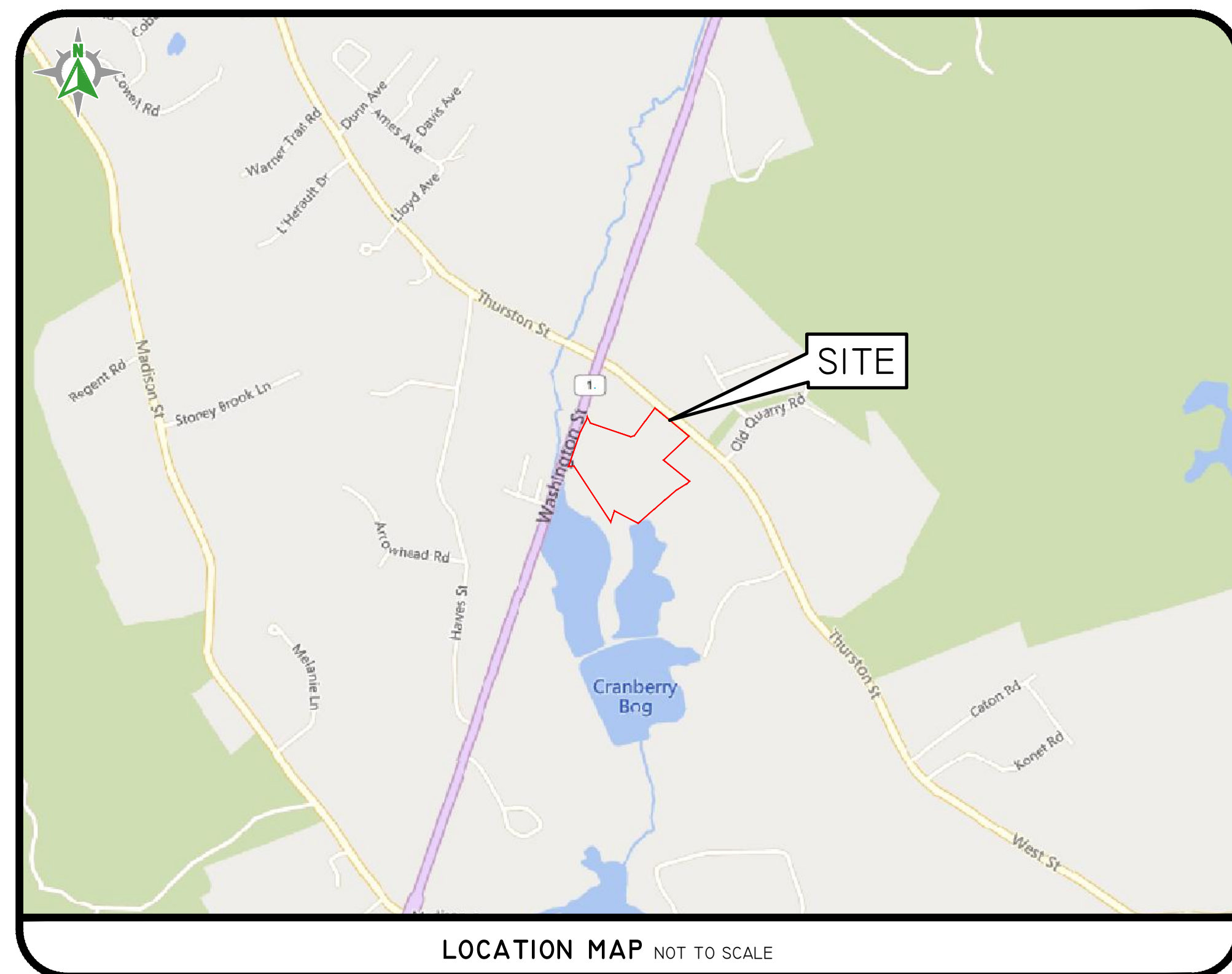
A TRUE COPY, ATTEST:

  
TOWN CLERK

MAR 22 2022



# THURSTON STREET



# SHEET INDEX

## PLANS BY OTHERS

SWPPP / O&M  
THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND STORMWATER OPERATION AND MAINTENANCE PLAN (O&M) ARE REQUIRED DOCUMENTS WITH THIS PLAN SET AND MUST BE MAINTAINED BY THE CONTRACTOR AND OWNER ON SITE.

DATE APPROVED: \_\_\_\_\_  
DATE ENDORSED: \_\_\_\_\_  
WRENTHAM PLANNING BOARD

I HEREBY CERTIFY THAT 20 DAYS HAVE  
ELAPSED SINCE PLANNING BOARD APPROVAL  
AND THAT NO APPEAL HAS BEEN FILED IN  
THIS OFFICE.

\_\_\_\_\_  
DATE WRENTHAM TOWN CLERK



*James Bradley*

1	01/19/2022	DEVELOPMENT PLAN AND NOI RESUBMISSION	R.S.S.
0	10/8/2021	NOTICE OF INTENT SUBMISSION	M.I.D.
NO.	DATE	DESCRIPTION	BY:

**THURSTON STREET**  
MAP 07, BLOCK 4, LOTS 1 & 2 & MAP 07, BLOCK 1, LOT 2  
WRENTHAM, MASSACHUSETTS, 02093

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PREPARED FOR:  
**BLUEWATER PROPERTY GROUP**  
1 LITTLE WEST 12TH STREET, NEW YORK, NY, 10014  
TEL 212.904.0615

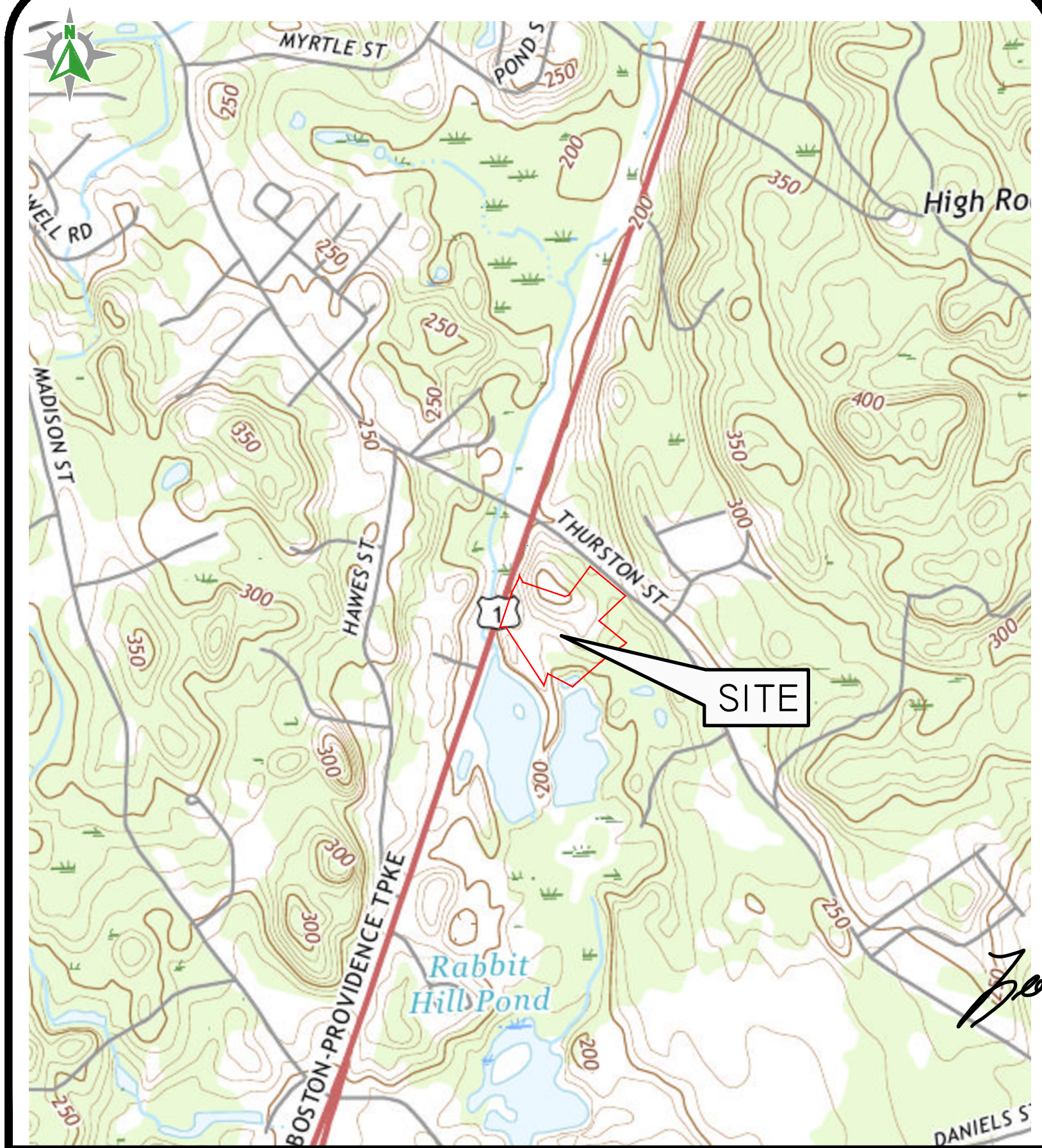


\\DESKTOP01\PROJECTS\2021\THURSTON STREET 500 & 524\AUTOCAD DRAWINGS\2021-01-CV&D.DWG PLOTTED: 1/20/2022



PHOTO OBTAINED FROM NEARMAP.  
DATE OF PHOTOGRAPHY 03/30/2021.

SCALE: 1"=200'  
0 100' 200' 400'



USGS MAP SCALE: 1"=1000'

DATE APPROVED:	_____
DATE ENDORSED:	_____
WRENTHAM PLANNING BOARD	
I HEREBY CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE PLANNING BOARD APPROVAL AND THAT NO APPEAL HAS BEEN FILED IN THIS OFFICE.	
DATE	WRENTHAM TOWN CLERK

#### AERIAL & USGS MAP

THURSTON STREET  
MAP 07 BLOCK 4, LOTS 1 & 2 & MAP 07 BLOCK 1, LOT 2  
WRENTHAM, MASSACHUSETTS, 02093

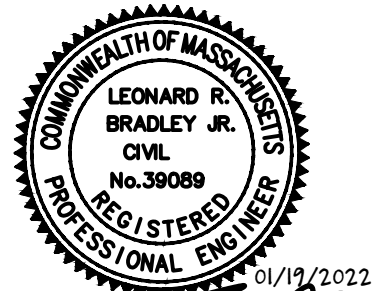
PREPARED FOR  
BLUEWATER PROPERTY GROUP  
1 LITTLE WEST 12TH STREET, NEW YORK, NY, 10014  
TEL 212-594-9465

NO.	DATE	DESCRIPTION	BY	DATE
1	07/10/2021	DEVELOPMENT PLAN AND NOI SUBMISSION	R.S.S.	
2	07/10/2021	INTERIM SUBMISSION	R.S.S.	
3	07/10/2021	FINAL SUBMISSION	R.S.S.	

THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES WITHOUT THE WRITTEN CONSENT OF THE REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING.

DIPRETE ENGINEERING ONLY WARRANTS THAT THE PLANS AND SPECIFICATIONS WERE PREPARED BY A REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING. DIPRETE ENGINEERING IS NOT RESPONSIBLE FOR ANY DAMAGE TO PROPERTY OR PERSONS ARISING FROM THE USE OF THESE PLANS AND SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY, PRECAUTIONS AND REQUIREMENTS, AND OSHA DESIGN COMPLIANCE IN THE IMPLEMENTATION OF THIS PLAN AND DESIGN.

EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR DAMAGE TO PROPERTY OR PERSONS ARISING FROM THE USE OF THESE PLANS AND SPECIFICATIONS. SEE UTILITY NOTE ON SHEET 3.



**Diprete Engineering**

990 Washington Street Suite 100A Dedham, MA 02026  
tel 781-326-0021 fax 401-464-6006 www.diprete-eng.com

Boston • Providence • Newport



GENERAL NOTES:

1. THE SITE IS LOCATED ON THE TOWN OF WRENTHAM ASSESSOR'S MAP 07, BLOCK 4, LOTS 1 & 2 AND MAP 07, BLOCK 1, LOT 2 IN THE TOWN OF WRENTHAM, NORFOLK COUNTY, MASSACHUSETTS.
2. THE SITE IS APPROXIMATELY 13.64 ACRES AND IS ZONED C-1S.
3. THE OWNER OF MAP 07 BLOCK 1 LOT 2 IS:
- HAROLD PITTSLEY JR. & LINDA PITTSLEY  
524 THURSTON STREET  
WRENTHAM, MA 02093
- THE OWNER OF MAP 07 BLOCK 4 LOTS 1 & 2 ARE:
- THURSTON STREET LLC  
17 PONDVIEW ROAD  
HOLLISTON, MA 01746
3. THIS SITE IS LOCATED IN FEMA FLOOD ZONE X (UNSHADED), WHICH ARE AREAS WHERE THERE IS MINIMAL FLOODING. REFERENCE FEMA FLOOD INSURANCE RATE MAP 2502IC03AIE, MAP REVISED JULY 17, 2012.
4. THE BOUNDARY LINE AS SHOWN ON THE ENGINEERING PLAN SET DEPICTS THE RESULTS OF A BOUNDARY RETRACEMENT SURVEY AS PERFORMED BY DIPRETE ENGINEERING. THIS PLAN IS NOT TO BE CONSTRUED AS A BOUNDARY RETRACEMENT SURVEY PLAN AND IS NOT SUITABLE FOR RECORDING AS A SURVEY PLAN IN CONFORMANCE WITH THE RULES AND REGULATIONS AS STATED IN CMR 250 SECTION 6.00.
5. ALL WORK PERFORMED HEREIN IS TO BE GOVERNED BY CURRENT EDITIONS OF THE MASSDOT HIGHWAY DIVISION CONSTRUCTION STANDARD DETAILS, TOWN OF WRENTHAM STANDARD SPECIFICATIONS AND DETAILS AND SPECIFICATIONS INCLUDED AS PART OF THE DRAWINGS. IN AREAS OF CONFLICT BETWEEN THE DIFFERENT SPECIFICATIONS, THE DESIGN PLANS AND PROJECT SPECIFICATIONS WILL TAKE PRECEDENCE OVER THE GENERAL SPECIFICATIONS AND THE DESIGN ENGINEER WILL INTERPRET THE CONSTRUCTION REQUIREMENT. THE CONTRACTOR IS ADVISED TO SUBMIT A REQUEST FOR INFORMATION (RFI) FOR ANY AREAS OF CONFLICT BEFORE COMMITTING TO CONSTRUCTION.
6. THE FOLLOWING DOCUMENTS ARE CONSIDERED PART OF THE PROJECT PLANS AND THE CONTRACTOR/OWNER MUST MAINTAIN THESE DOCUMENTS AS PART OF A FULL PLAN SET:
- STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP CONTAINS THE FOLLOWING:
    - EROSION CONTROL MEASURES
    - SHORT TERM MAINTENANCE
    - ESTABLISHMENT OF VEGETATIVE COVER
    - CONSTRUCTION POLLUTION PREVENTION
    - SEQUENCE OF CONSTRUCTION
  - OPERATION AND MAINTENANCE PLAN (O&M). THE O&M CONTAINS:
    - LONG TERM MAINTENANCE
    - LONG TERM POLLUTION PREVENTION

7. THIS PLAN SET REFERENCES MASSDOT HIGHWAY DIVISION STANDARD DETAILS (DESIGNATED AS MASSDOT STD XXX.X.X), MASSDOT STANDARD DETAILS ARE AVAILABLE FROM MASSDOT AND ONLINE AT <https://www.mass.gov/lists/construction-details>
8. THE SITE IS TO BE SERVICED BY PUBLIC WATER AND PRIVATE OWTS.
9. THE DRAINAGE SYSTEM IS DESIGNED TO MEET THE TOWN OF WRENTHAM SUBDIVISION AND LAND DEVELOPMENT REGULATIONS WITH THE USE OF CATCH BASINS, CULVERTS, A SAND FILTER, AND AN UNDERGROUND INFILTRATION SYSTEM. THE STORMWATER MANAGEMENT SYSTEM MEETS THE MASSDOT BEST MANAGEMENT PRACTICES.
10. THE SITE IS PROPOSED TO BE BUILT IN 1 PHASE.
11. SOIL EVALUATIONS WERE COMPLETED BY DIPRETE ENGINEERING ON JUNE 7, 2021 AND AUGUST 31, 2021.
12. WETLAND EDGE DELINEATED BY DIPRETE ENGINEERING AND SURVEYED BY DIPRETE ENGINEERING USING SUBMETER GPS ON DATE JUNE 7, 2021.
13. ANY PROPRIETARY PRODUCTS REFERENCED IN THIS PLAN SET ARE REPRESENTATIVE OF THE MINIMUM DESIGN REQUIREMENTS FOR THE PURPOSE THEY PROPOSE TO SERVE. ALTERNATIVES TO ANY PROPRIETARY PRODUCT MAY BE SUBMITTED TO THE ENGINEER OF RECORD FOR CONSIDERATION, WHICH MUST BE ACCOMPANIED BY APPROPRIATE SPECIFICATION SHEETS/DESIGN CALCULATIONS THAT DEMONSTRATE THE ALTERNATIVE(S) MEET THE MINIMUM DESIGN PARAMETERS OF THE PRODUCT SHOWN ON THE PLANS. NO ALTERNATIVES MAY BE USED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD.
14. THIS PLAN SET MAY REFERENCE AND/OR INCLUDE REPRODUCTIONS OF PROPRIETARY PRODUCTS/DETAILS BY OTHERS, AND/OR THEIR ASSOCIATED SPECIFICATIONS. ANY REFERENCED OR REPRODUCED PROPRIETARY PRODUCT OR DETAIL BY OTHERS THAT IS SHOWN ON DIPRETE PLANS IS STRICTLY FOR INFORMATION/SPECIFICATION PURPOSES ONLY. DIPRETE ENGINEERING DOES NOT WARRANT ANY PROPRIETARY PRODUCTS, DETAILS BY OTHERS OR THEIR RESPECTIVE DESIGNS. IF A DIPRETE ENGINEERING PLAN INCLUDES A PROPRIETARY PRODUCT DETAIL BY OTHERS (EITHER EXPLICITLY OR IMPLIED) AND IS STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND/OR REGISTERED LANDSCAPE ARCHITECT OF DIPRETE ENGINEERING, SAID STAMP DOES NOT EXTEND TO ANY PORTION OF THE PROPRIETARY PRODUCT/DETAIL BY OTHERS OR ITS DESIGN.

SOIL INFORMATION:

(REFERENCE: USDA NATURAL RESOURCES CONSERVATION SERVICE)  
SOIL NAME DESCRIPTION

1. WATER
- 53 FREETOWN MUCK, PONDED, 0 TO 1 PERCENT SLOPES
- 245C HINKLEY SANDY LOAM, 8 TO 15 PERCENT SLOPES
- 253D HINKLEY LOAMY SAND, IS TO 35 PERCENT SLOPES
- 653 UDORTHENTS, SANDY

PLAN REFERENCES:

1. PROPOSED SITE PLAN DOCUMENTS FOR THURSTON STREET, LLC, PROPOSED CONVENIENCE STORE AND FUELING STATION, 500 THURSTON STREET, TOWN OF WRENTHAM, NORFOLK COUNTY MASSACHUSETTS, PREPARED BY BOMLER.

DEMOLITION NOTES:

1. CONTRACTOR MUST OBTAIN ALL FEDERAL, STATE, AND MUNICIPAL APPROVALS PRIOR TO THE START OF CONSTRUCTION.
2. CONTRACTOR MUST PERFORM DAILY SWEEPING AT CONSTRUCTION ENTRANCE DURING DEMOLITION AND CONSTRUCTION TO MINIMIZE SEDIMENTS ON EXTERNAL STREETS.
3. ANY EXISTING BUILDING(S) AND PROPERTY PROPOSED TO REMAIN THAT ARE DAMAGED BY THE CONTRACTOR MUST BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
4. CONTRACTOR IS RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING (R&D) ALL MATERIALS INDICATED ON THE PLANS UNLESS SPECIFIED OTHERWISE HERE IN. R&D MATERIALS MUST INCLUDE BUT ARE NOT LIMITED TO PAVEMENT, GRAVEL, CATCH BASINS, MANHOLES, GRATES/FRAMES/COVERS, AND ANY EXCESS SOIL THAT IS NOT INCORPORATED INTO THE WORK.
5. IN ADDITION TO THOSE AREAS SPECIFICALLY DESIGNATED ON THE PLANS, ALL DISTURBED AREAS, INCLUDING THE CONTRACTOR'S STOCKPILE AND STAGING AREAS WITHIN THE LIMIT OF WORK, MUST BE RESTORED TO MATCH THE DESIGN PLANS.
6. CONTRACTOR MUST DOCUMENT LOCATION OF ALL SUBSURFACE UTILITIES REMAINING IN PLACE AFTER DEMOLITION (ACTIVE AND INACTIVE/ABANDONED). LOCATION MUST BE DOCUMENTED BY FIELD SURVEY OR SWING TIES. COPIES OF LOCATION DOCUMENTATION MUST BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF DEMOLITION AND PRIOR TO START OF NEW CONSTRUCTION. A MARKER MUST BE INSTALLED TO FINISH GROUND AT ALL INSTALLED CAPS/PLUGS. THE MARKER CAN BE A POST IN CONSTRUCTION AREAS OR PAINTED ON A PERMANENT SURFACE.
7. ACTIVE UTILITY LINES AND STRUCTURES NOT SPECIFICALLY NOTED ON PLANS, BUT WHICH ARE ENCOUNTERED TO BE IN CONFLICT WITH THE PROPOSED WORK, MUST BE EXTENDED, PROTECTED, OR REWORKED BY THE CONTRACTOR AS DIRECTED OR REQUIRED BY THE UTILITY ENTITY OR OWNER UNLESS OTHERWISE NOTED.
8. CONTRACTOR MUST COORDINATE THE CUTTING AND CAPPING OF ALL UTILITIES WITH THE OWNER, THE MUNICIPALITY, AND ALL APPLICABLE UTILITY ENTITIES HAVING JURISDICTION.
9. INACTIVE SUBSURFACE UTILITIES NOT IN CONFLICT WITH THE PROPOSED WORK AREA MAY BE ABANDONED IN PLACE WITH WRITTEN PERMISSION FROM THE OWNER.

TRAFFIC NOTES:

1. ALL TRAFFIC CONTROL MUST CONFORM TO THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) CURRENT EDITION.
2. DURING CONSTRUCTION, TRAFFIC CONES MUST BE USED FOR SEPARATION OF ACTIVE TRAFFIC FROM WORK ZONE PER MUTCD REQUIREMENTS.
3. DURING CONSTRUCTION FLAGGERS MUST BE EMPLOYED TO ENSURE SAFETY FOR INTERACTION OF CONSTRUCTION VEHICLES AND ACTIVE TRAFFIC.
4. ALL SIGNS, FLAGGERS, TRAFFIC CONTROL DEVICES, AND TEMPORARY TRAFFIC ZONE ACTIVITIES MUST MEET THE REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL (MUTCD) LATEST EDITION AND SUBSEQUENT ADDENDA.
5. TEMPORARY CONSTRUCTION SIGNS MUST BE MOUNTED ON MASSDOT APPROVED SUPPORTS AND MUST BE REMOVED OR COVERED WHEN NOT APPLICABLE.

AS-BUILT NOTES:

- ALL COMPONENTS OF THE DRAINAGE, SEWER, AND WATER SYSTEMS MUST BE MUST BE FIELD LOCATED PRIOR TO COVERING. NOTIFY SURVEYOR A MINIMUM OF SEVENTY-TWO (72) HOURS IN ADVANCE OF NEED FOR FIELD LOCATION OF IMPROVEMENTS. SURVEYOR MUST PROVIDE OWNER AND CONTRACTOR WITH WRITTEN NOTICE OF COMPLETION OF FIELD WORK PRIOR TO CONTRACTOR COVERING IMPROVEMENTS. OWNER/DIPRETE WILL NOT ACCEPT FIELD MEASUREMENTS FROM THE SITE CONTRACTOR.

MASSDOT NOTES:

1. ALL WORK TO BE DONE WITHIN THE STATE RIGHT OF WAY MUST CONFORM TO THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES LATEST REVISION. STANDARD DETAILS FOR THIS WORK ARE THE MASSDOT HIGHWAY DIVISION CONSTRUCTION STANDARD DETAILS LATEST EDITION.
2. ALL TRAFFIC CONTROL MUST CONFORM TO THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, INCLUDING ALL REVISIONS.
3. LANE OR SHOULDER CLOSURES MUST NOT BE PERFORMED WITHIN THE STATE ROW DURING PEAK TRAFFIC HOURS.
4. WATER CONNECTIONS WITHIN THE STATE RIGHT OF WAY WILL REQUIRE A SEPARATE MASSDOT UTILITY PERMIT, WHICH CONTRACTOR MUST OBTAIN BEFORE CONSTRUCTION.
5. THE DRAINAGE SYSTEM IS DESIGNED TO DECREASE BOTH STORMWATER RUNOFF RATE, AND STORMWATER RUNOFF VOLUME TO THE STATE RIGHT OF WAY FROM PRE-DEVELOPMENT TO POST DEVELOPMENT. THERE WILL BE NO INCREASE IN RUNOFF TO THE STATE RIGHT OF WAY FROM THE PROPOSED DEVELOPMENT.

LAYOUT AND MATERIALS:

1. DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
2. CURBING MUST BE PRECAST CONCRETE OR MONOLITHIC CONCRETE AS LABELED ON THE PLANS.
3. SIDEWALK MUST BE CONCRETE.
4. 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 MUST REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.
5. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND DETAILS PERTAINING TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.
6. PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION MUST BE SET OR RESET BY A PROFESSIONAL LICENSED SURVEYOR.
7. CONTRACTOR MUST NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS. CONTRACTOR MUST VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE STAMPED PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.
8. ALL GUARDRAIL ONSITE SHALL BE MASSDOT STD A40.1.1 STEEL GUARDRAIL WITH STEEL POSTS AND IN CONFORMANCE WITH SECTION 5.4.1.7 OF THE AASHTO ROADSIDE DESIGN GUIDE. ALTERNATIVE GUARDRAILS WILL BE CONSIDERED BY THE DESIGN ENGINEER IF THEY ARE DOT APPROVED EQUAL AND ACCEPTABLE TO THE OWNER. ALTERNATIVES MUST BE APPROVED IN WRITING BY THE OWNER AND DESIGN ENGINEER PRIOR TO CONSTRUCTION.
9. INFRARED TREATMENT OF PAVEMENT IS REQUIRED AT ALL CURB CUTS, ANY DISTURBED PAVEMENT ON ROADWAYS AND WHERE ANY NEW PAVEMENT MEETS EXISTING PAVEMENT.
10. ALL EXISTING PAVEMENT MARKING REMOVED AS INCIDENTAL DURING CONSTRUCTION MUST BE REPLACED IN-KIND FOLLOWING COMPLETION OF CONSTRUCTION UNLESS OTHERWISE NOTED.
11. NEW PAVEMENT MARKING MUST BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248 TYPE F. PAINT MUST BE APPLIED AS SPECIFIED BY THE MANUFACTURER.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR ALL SOIL EROSION AND SEDIMENT CONTROL ON SITE WHICH MUST BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE APPLICABLE REGULATIONS AND AUTHORITY HAVING JURISDICTION. THE CONTRACTOR IS TO NOTIFY THE DESIGN ENGINEER, THE DIRECTOR OF PUBLIC WORKS, THE TOWN ENGINEER, AND THE CONSERVATION COMMISSION AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
2. FOR SEQUENCE OF CONSTRUCTION, PROJECT PHASING AND CONSTRUCTION PHASING, SEE SHEET 5 THRU SHEET 11.
3. CONTRACTOR MAY MODIFY SEQUENCE OF CONSTRUCTION WITH APPROVAL FROM DESIGN ENGINEER AND OWNER. THE OWNER SHALL SUBMIT ANY CHANGES TO SEQUENCE OR TIMING OF CONSTRUCTION OR INSPECTIONS TO THE COMMISSION PRIOR TO IMPLEMENTATION.

GRADING AND UTILITY NOTES:

1. CONSTRUCTION TO COMMENCE SUMMER 2022 OR UPON RECEIPT OF ALL NECESSARY APPROVALS.
2. THE CONTRACTOR MUST COORDINATE WITH ALL OF THE APPROPRIATE UTILITY COMPANIES FOR AGREEMENTS TO SERVICE THE PROPOSED BUILDING. THIS MUST BE DONE PRIOR TO CONSTRUCTION. NO REPRESENTATIONS ARE MADE BY DIPRETE ENGINEERING THAT UTILITY SERVICE IS AVAILABLE.
3. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING FINISH GRADING AND DRAINAGE AROUND THE BUILDING TO ENSURE SURFACE WATER AND/OR GROUNDWATER ARE DIRECTED AWAY FROM THE STRUCTURE.
4. PRIOR TO START OF CONSTRUCTION, CONTRACTOR MUST VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERSECT WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES. CONTRACTOR MUST NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
5. ALL PROPOSED UNDERGROUND UTILITIES SERVING THE SITE AND BUILDINGS MUST BE COORDINATED WITH OWNER, ARCHITECT, AND ENGINEER PRIOR TO INSTALLATION.
6. ALL RETAINING WALLS AND STEEP SLOPES ARE SUBJECT TO FINAL STRUCTURAL DESIGN. DIPRETE ENGINEERING IS NOT PROVIDING THE STRUCTURAL DESIGN OF THESE ITEMS. ALL WALLS AND STEEP SLOPES MUST BE DESIGNED AND BUILT UNDER THE DIRECTION OF A MASSACHUSETTS LICENSED PROFESSIONAL ENGINEER SUITABLY QUALIFIED IN GEOTECHNICAL ENGINEERING AND CERTIFIED TO THE OWNER PRIOR TO THE COMPLETION OF THE PROJECT. SHOP DRAWINGS MUST BE SUBMITTED PRIOR TO CONSTRUCTION. FINAL STRUCTURAL DESIGN MUST INCORPORATE THE INTENT OF THE GRADING SHOWN ON THESE PLANS AND ALL WORK MUST BE WITHIN THE LIMIT OF DISTURBANCE SHOWN ON THE PLANS.
7. ALL CUT AND FILL WORK MUST BE DONE UNDER THE DIRECTION OF A PROFESSIONAL GEOTECHNICAL ENGINEER, WITH TESTING AND CERTIFICATION PROVIDED TO THE APPLICANT AT THE COMPLETION OF THE PROJECT. DIPRETE ENGINEERING IS NOT PROVIDING THE FILL SPECIFICATION, GEOTECHNICAL ENGINEERING, STRUCTURAL ENGINEERING SERVICES, OR SUPERVISION AS PART OF THESE DRAWINGS.
8. MATERIAL STOCKPILES MUST NOT BE LOCATED IN THE RIGHT-OF-WAY, AND TRENCHES MUST NOT BE LEFT OPEN OVERNIGHT.
9. ALL LOAM IN DISTURBED AREAS MUST BE STOCKPILED FOR FUTURE USE.
10. ALL EXCESS SOIL, TREES, ROCKS, BOULDERS, AND OTHER REFUSE, MUST BE DISCARDED OFF SITE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS. STUMPS MUST BE GROUND ON SITE OR REMOVED.
11. THE SITE WILL HAVE 6" CONCRETE CURBING. SITE GRADING/CONTOURS SHOWN ON THE PLANS DO NOT NECESSARILY REFLECT THE APPROPRIATE CURBING REVEAL. CONTRACTOR MUST INSTALL CURBING WITH APPROPRIATE REVEAL UNLESS OTHERWISE NOTED.
12. NO STUMP DUMPS ARE PROPOSED ON SITE.
13. ALL DRAINAGE OUTFALLS ARE DESIGNED TO BE INSTALLED AT EXISTING GROUND ELEVATION. CONTRACTOR MUST IMMEDIATELY NOTIFY DIPRETE ENGINEERING OF ANY DISCREPANCIES WHERE EXISTING GROUND IS HIGHER THAN OUTFALL DESIGN ELEVATION. ANY RESOLUTION OF DISCREPANCIES BY THE CONTRACTOR, UNLESS AUTHORIZED IN WRITING IN ADVANCE BY THE OWNER AND DIPRETE ENGINEERING, IS DONE AT THE CONTRACTOR'S RISK.
14. CONTRACTOR MUST PROVIDE SUMP CUTTING AND FULL DEPTH PAVEMENT RESTORATION IN AREAS WHERE PAVEMENT AND/OR SIDEWALK IS REMOVED FOR UTILITY INSTALLATION.
15. IF ROADWAY SURFACE PAVEMENT COURSE IS NOT TO BE INSTALLED FOR 12 MONTHS OR MORE AFTER INSTALLATION OF DRAINAGE STRUCTURES, ALL CATCH BASIN RIMS MUST BE SET AT BINDER GRADE AND RAISED TO FINAL PAVEMENT GRADE PRIOR TO PLACEMENT OF SURFACE COURSE.

**DRAINAGE**  
ALL DRAINAGE PIPING MUST BE HIGH-DENSITY POLYETHYLENE (HDPE) WITH WATERTIGHT JOINTS WHERE INSTALLED WITHIN THE SEASONAL HIGH GROUNDWATER, UNLESS NOTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS. ALL STORMWATER PIPE WITHIN THE STATE'S RIGHT OF WAY MUST BE REINFORCED CONCRETE PIPE (RCP).

- DRAINAGE STRUCTURES MUST BE AS FOLLOWS (UNLESS OTHERWISE NOTED ON PLANS):
- CATCH BASINS (CB): MASSDOT STD. 201.0.0 OR APPROVED EQUAL
  - FLAT TOP CATCH BASINS (CB FLAT TOP): SITUATE COMPANIES 4" DIA CATCH BASIN SRP-CB4 (ALTERNATE FLAT TOP DRAIN) HS-201.0.1 DIA LOW PROFILE FLAT TOP SRP-OF-T4 OR APPROVED EQUAL. SEE PLANS FOR ALTERNATE STRUCTURE DIAMETERS WHERE REQUIRED.
  - FLAT TOP DOUBLE CATCH BASINS (DCB FLAT TOP): SITUATE COMPANIES 4" DIA DOUBLE CATCH BASIN DWS SRP-DCB4 OR APPROVED EQUAL. SEE PLANS FOR ALTERNATE STRUCTURE DIAMETERS WHERE REQUIRED.
  - CATCH BASIN FRAMES: MASSDOT STD. 201.6.0 OR APPROVED EQUAL
  - GUTTER INLET (GI): MASSDOT STD. 204.2.0 OR APPROVED EQUAL
  - DRAINAGE MANHOLES (DMH): MASSDOT STD. 202.4.0 OR APPROVED EQUAL
  - DRAINAGE MANHOLE FRAMES AND COVERS: MASSDOT STD. 202.6.0 OR APPROVED EQUAL
  - ALL CATCH BASINS WITHIN PARKING LOT MUST CONTAIN HOODS, AND INCLUDE 4" SLUMP.
  - ALL MANHOLES MUST SUPPORT AASHTO H20-44 LOADING.

ALL DRAINAGE STRUCTURES AND PIPES MUST BE WATERTIGHT.

DRAINAGE CONNECTIONS FROM ALL YARD DRAINS (YD), AREA DRAINS (AD), TRENCH DRAINS (TD), FRENCH DRAINS (FD), WALL DRAINS (WD), AND DOWNSPOUTS (DS) ARE SHOWN FOR SCHEMATIC PURPOSES ONLY. THE LEVEL OF DETAIL SHOWN DOES NOT INCLUDE ALL JOINTS THAT MAY BE REQUIRED FOR CONSTRUCTION. ALL FITTINGS AND PIPE SLOPES TO THE INTO MAIN TRUNK LINE MUST BE FIELD FIT BY CONTRACTOR.

**SANITARY SEWER**  
ALL SANITARY SEWER PIPING TO BE SD-35 UNLESS NOTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS. ALL SEWER IMPROVEMENTS MUST COMPLY WITH THE TOWN OF WRENTHAM WATER & SEWER AUTHORITY, MWRA AND ANY APPLICABLE AUTHORITY HAVING JURISDICTION, INCLUDING (BUT NOT LIMITED TO) MATERIALS, DIMENSIONS AND ACCESS COVERS. CONTRACTOR MUST SUBMIT SHOP DRAWINGS FOR APPROVAL BY ENGINEER OF RECORD PRIOR TO CONSTRUCTION. ALL PIPES FROM BUILDING TO GREASE TRAP/INTERCEPTOR AND FROM GREASE TRAP/INTERCEPTOR TO THE NEXT STRUCTURE MUST BE CAST IRON AND IN ACCORDANCE WITH 284CMR.

**WATER**  
ALL WATER LINES MUST BE CEMENT LINED DUCTILE IRON PIPE (CLDIP). ALL WATER MAIN IMPROVEMENTS MUST COMPLY WITH THE TOWN OF WRENTHAM WATER & SEWER AUTHORITY AND ANY APPLICABLE AUTHORITY HAVING JURISDICTION, INCLUDING (BUT NOT LIMITED TO) MATERIALS, DIMENSIONS AND ACCESS COVERS. CONTRACTOR TO PROVIDE SHOP DRAWINGS AND SUBMITTALS TO THE ENGINEER OF RECORD FOR APPROVAL FOR ALL WATER IMPROVEMENTS AND APPURTENANCES INCLUDING BUT NOT LIMITED TO PIPES, VALVES, FITTINGS, HEAT ENCLOSURES, AND BACKFLOWS.

IN THE CASE OF ANY NEW HYDRANT INSTALLED IN OR NEXT TO AN EXISTING SIDEWALK, THE CONTRACTOR MUST INCREASE THE WIDTH OF THE SIDEWALK, AS NECESSARY, TO MAINTAIN A MINIMUM OF 3'-0" CLEAR WIDTH FROM THE OUTERMOST COMPONENTS OF THE HYDRANT TO THE EDGE OF THE SIDEWALK. THE 3'-0" SIDEWALK WIDTH IS REQUIRED ONLY ON ONE SIDE OF THE HYDRANT TO PROVIDE A CLEAR PATH ON THE SIDEWALK.

**ELECTRIC/TELECOM**  
PROPOSED ELECTRIC, CABLE AND DATA UTILITIES ARE SHOWN SCHEMATICALLY AND ARE PROPOSED TO BE UNDERGROUND. OWNER AND CONTRACTOR MUST COORDINATE FINAL DESIGN WITH APPROPRIATE UTILITY COMPANIES. ALL WORK MUST BE IN ACCORDANCE WITH EACH UTILITY COMPANY'S STANDARDS AND DETAILS, AS WELL AS LOCAL AND FEDERAL REGULATIONS. THIS INCLUDES BUT IS NOT LIMITED TO POLES, TRANSFORMERS, PULL BOXES, CONCRETE PADS, CONCRETE ENCASEMENTS AND CONDUITS. CONNECTION POINTS FOR ELECTRIC AND TELECOM UTILITIES, AT THE EXISTING INFRASTRUCTURE, ARE CURRENTLY SHOWN AS UNDERGROUND UTILITIES. THESE UTILITIES MAY BE UNDERGROUND OR OVERHEAD AND MUST BE COORDINATED WITH NATIONAL GRID/APPROPRIATE UTILITY AUTHORITY PRIOR TO CONSTRUCTION.

**SITE LIGHTING**  
SITE LIGHTING (TEMPORARY AND PERMANENT) MUST BE DIRECTED AWAY FROM AND SHIELDED FROM ENVIRONMENTALLY SENSITIVE AREAS AND ABUTTING LANDS. EXACT LOCATIONS OF LIGHT POLE MUST BE COORDINATED WITH OTHER UTILITIES AND MUST BE LOCATED WITHIN THE STREET RIGHTS OF WAY. FINAL LIGHTING AND CONDUIT LOCATIONS BY OTHERS.

AMERICANS WITH DISABILITIES ACT (ADA) NOTES:

1. ALL IMPROVEMENTS MUST COMPLY WITH THE 'AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES' (ADAAG) BY THE US DEPARTMENT OF JUSTICE (CURRENT EDITION).
2. MAXIMUM RUNNING SLOPE ALONG ALL ACCESSIBLE PATHS OF TRAVEL MUST BE 4.5% (0.045 FT/FT), AND MAXIMUM CROSS SLOPE ACROSS ALL ACCESSIBLE PATHS OF TRAVEL MUST BE 1.5% (0.015 FT/FT).
3. ADA PARKING SPACES AND LOADING AREAS: THE STEEPEST SLOPE OF THE SPACE, MEASURED IN ANY DIRECTION (INCLUDING DIAGONALLY), MUST BE LESS THAN OR EQUAL TO 2% (0.02 FT/FT). DIPRETE ENGINEERING GENERALLY RECOMMENDS A MAXIMUM OF 1.4% (0.014 FT/FT) BE USED FOR BOTH RUNNING AND CROSS SLOPES IN ORDER TO COMPLY.
4. A MINIMUM 5'X5' LANDING MUST BE PROVIDED IN FRONT OF ALL PUBLICLY ACCESSIBLE BUILDING ENTRANCES/EGRESSES. THE STEEPEST SLOPE OF THE LANDING, MEASURED IN ANY DIRECTION (INCLUDING DIAGONALLY), MUST BE LESS THAN OR EQUAL TO 2% (0.02 FT/FT). DIPRETE ENGINEERING GENERALLY RECOMMENDS A MAXIMUM OF 1.4% (0.014 FT/FT) BE USED FOR BOTH RUNNING AND CROSS SLOPES IN ORDER TO COMPLY.
5. FOR EVERY 6 (OR FRACTION OF 6) ADA PARKING SPACES, AT LEAST ONE MUST BE A VAN PARKING SPACE. FOR EXAMPLE, IF 7 ADA PARKING SPACES ARE REQUIRED, A MINIMUM OF 2 MUST BE VAN SPACES.
6. NOTWITHSTANDING THE NOTES LISTED ABOVE, TOWN OR STATE-SPECIFIC STANDARDS MAY BE MORE STRINGENT AND OVERLIE. IT IS THE CONTRACTOR'S RESPONSIBILITY OF THE USER OF THIS PLAN SET TO MAINTAIN COMPLIANCE WITH THE CONTROLLING STANDARD.
7. NOTE THAT THE GRADING/PLAN VIEWS AND DETAILS CONTAINED WITHIN THIS PLAN SET MAY NOT SHOW THE DETAIL NECESSARY TO CONSTRUCT WALKWAYS, RAMPS AND SPACES TO COMPLY WITH THE ABOVE REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE LEVEL OF CARE NECESSARY TO BE CERTAIN THAT THE CONSTRUCTED PRODUCT MEETS ADA/CONTROLLING STANDARDS. IN THE EVENT OF ANY NON COMPLIANCE, THE CONTRACTOR MUST NOTIFY THE DESIGNER BEFORE CONSTRUCTION FOR ADVICE IN FINDING A RESOLUTION.

ABBREVIATIONS LEGEND

ADA	AMERICANS WITH DISABILITY ACT	N/F	NOW OR FORMERLY
AHJ	AUTHORITY HAVING JURISDICTION	OHW	OVERHEAD WIRE
AP	ASSESSOR'S PLAT	PE	POLYETHYLENE
ARCH	ARCHITECT	PL	PROPERTY LINE
BC	BOTTOM OF CURB	PR	PROPOSED
BT	BOTTOM OF TESTHOLE	PVC	POLYVINYL CHLORIDE
BIT	BITUMINOUS (BERM)	R	RADIUS
BIO	BIORETENTION	R&D	REMOVE AND DISPOSE
BS	BASEMENT SLAB ELEVATION	RCP	REINFORCED CONCRETE PIPE
BW	FINISHED GRADE AT BOTTOM OF WALL	RL	ROOF LEADER
CB	CATCH BASIN	ROW	RIGHT-OF-WAY
(C)	CALCULATED	S	SLOPE
CL	CENTERLINE	SD	SUBDRAIN
CA	CHORD ANGLE	SED	SEDIMENT FOREBAY
CLDIP	CONCRETE LINED DUCTILE IRON PIPE	SF	SQUARE FOOT
CO	CLEAN OUT	SFL	STATE FREEWAY LINE
CONC	CONCRETE	SFM	SEWER FORCE MAIN
(D)	DEED	SG	SLAB ON GRADE ELEVATION
DCB	DOUBLE CATCH BASIN	SHL	STATE HIGHWAY LINE
DI	DROP INLET	SMH	SEWER MANHOLE
DMH	DRAINAGE MANHOLE	SNF	SAND FILTER
DP	DETENTION POND	SS	SIDE SLOPE
ELEV	ELEVATION	STA	STATION
EOP	EDGE OF PAVEMENT	TC	TOP OF CURB
ESC	EROSION AND SEDIMENT CONTROL	TD	TRENCH DRAIN
EX	EXISTING	TF	TOP OF FOUNDATION
FES	FLARED END SECTION	TRANS	TRANSITION
FFE	FINISH FLOOR ELEVATION	TW	TOP OF WALL (FINISHED)
GS	GARAGE SLAB ELEVATION		GRADE AT TOP OF WALL
GW	GROUND WATER TABLE	TYP	TYPICAL
UDS	UNDERGROUND		
UIS	UNDERGROUND		
INF	INFILTRATION SYSTEM		
INV	INVERT		
IP	INFILTRATION POND		
LARCH	LANDSCAPE ARCHITECT		
LF	LINEAR FEET		
LOD	LIMIT OF DISTURBANCE		
LP	LIGHT POLE		
(M)	MEASURED		
MEP	MECHANICAL/ELECTRICAL/PLUMBING ENGINEER		

SITE CALLOUTS LEGEND

4DY	4" EPOXY RESIN PAVEMENT MARKINGS- DOUBLE YELLOW
4W	4" PAINTED WHITE MARKINGS
4W4S	4" WHITE STRIPING 2' ON CENTER AT 45°
12W	STOP LINE (REFERENCE MUTCD SECTION 3B.16)
ADAS	ADA SPACE PAVEMENT MARKINGS MUST COMPLY WITH ALL ADA AND MUTCD REGULATIONS AND REQUIREMENTS.
ADAR	ADA CURB RAMP MUST COMPLY WITH ALL ADA REGULATIONS AND REQUIREMENTS.
ADAV	VAN ADA SPACE PAVEMENT MARKINGS MUST COMPLY WITH ALL ADA AND MUTCD REGULATIONS AND REQUIREMENTS.
CURB	PRECAST CONCRETE CURB
MONO	MONOLITHIC CURB AND SIDEWALK (SEE DETAIL SHEET I3)
400.1.1	MASSDOT STD STEEL GUARDRAIL, TL-3

EXISTING LEGEND

(AS SHOWN ON PROPOSED PLANS)	
NOT ALL ITEMS SHOWN WILL APPEAR ON PLANS	
	NAIL FOUND/SET
	DRILL HOLE FOUND/SET
	IRON ROD FOUND/SET
	BOUND FOUND/SET
	SIGN
	BOLLARD
	SOIL EVALUATION
	CATCH BASIN
	DOUBLE CATCH BASIN
	DRAINAGE MANHOLE
	FLARED END SECTION
	GUY POLE
	ELECTRIC MANHOLE
	UTILITY/POWER POLE
	LIGHTPOST
	SEWER/SEPTIC MANHOLE
	SEWER VALVE
	CLEANOUT
	HYDRANT
	IRRIGATION VALVE
	WATER VALVE
	WELL
	MONITORING WELL
	UNKNOWN MANHOLE
	GAS VALVE
	BENCH MARK
	STREAM FLOW DIRECTION

PROPOSED LEGEND

NOT ALL ITEMS SHOWN WILL APPEAR ON PLANS	
	PROPERTY LINE
	PROPERTY LINE TO BE ABANDONED
	BUILDING SETBACKS
	CHAINLINK FENCE
	GUARDRAIL SEE LAYOUT AND MATERIALS NOTE 8
	RETAINING WALL
	MINOR CONTOUR LINE
	MAJOR CONTOUR LINE
	SPOT ELEVATION
	EDGE OF PAVEMENT
	CONCRETE CURB
	BUILDING FOOTPRINT
	BUILDING OVERHANG
	ASPHALT PAVEMENT
	HEAVY DUTY ASPHALT PAVEMENT
	HEAVY DUTY CONCRETE
	CONCRETE
	SAWCUT LINE
	SIGN
	SINGLE LIGHT
	DOUBLE LIGHT
	OVERHANGING LIGHT
	ACCESSIBLE PARKING SPACE SYMBOLS
	BUILDING INGRESS/EGRESS

NOTE: THIS PLAN MUST BE REPRODUCED IN COLOR

UTILITY NOTE:

ALL UNDERGROUND UTILITIES SHOWN ON THESE PLANS WERE PROVIDED BY OTHERS AND ARE APPROXIMATE ONLY. LOCATIONS MUST BE DETERMINED IN THE FIELD BEFORE EXCAVATION, BLASTING, UTILITY INSTALLATION, BACKFILLING, GRADING, PAVEMENT RESTORATION, AND ALL OTHER SITE WORK. ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, MUST BE CONTACTED INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THESE DOCUMENTS. CONTACT DIG SAFE A MINIMUM OF 72 WORKING HOURS PRIOR TO ANY CONSTRUCTION AT 811. DIG SAFE IS RESPONSIBLE FOR CONTACTING MEMBER UTILITY COMPANIES. DIG SAFE MEMBER UTILITY COMPANIES ARE RESPONSIBLE TO MARK ONLY THE FACILITIES THAT THEY OWN OR MAINTAIN. NON DIG SAFE MEMBER COMPANIES ARE NOT NOTIFIED BY DIG SAFE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INVESTIGATE AND NOTIFY IF ANY PRIVATELY OWNED OR NON DIG SAFE MEMBER UTILITIES ARE IN THE AREA.

PER THE CODE OF FEDERAL REGULATIONS - TITLE 29, PART 1926 IT IS THE SITE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ACCURATE UNDERGROUND UTILITY LINE LOCATIONS FROM THE UTILITY OWNERS AND, OR VIA UNDERGROUND UTILITY LOCATION EQUIPMENT AS NEEDED TO ESTABLISH ACCURATE LOCATIONS PRIOR TO ANY EXCAVATION. THE USE OF PROFESSIONAL UTILITY LOCATING COMPANIES PRIOR TO ANY EXCAVATION IS RECOMMENDED.

DIPRETE ENGINEERING IS NOT A PROFESSIONAL UTILITY LOCATION COMPANY, AND IS NOT RESPONSIBLE FOR UNDERGROUND UTILITIES, DEPICTED OR NOT, EITHER IN SERVICE OR ABANDONED, ANY SIZES, LOCATIONS, EXISTENCE, OR LACK OF EXISTENCE OF UTILITIES SHOWN ON THESE PLANS SHOULD BE CONSIDERED APPROXIMATE UNTIL VERIFIED BY A PROFESSIONAL UTILITY LOCATION COMPANY. DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED.

**DiPrete Engineering**



*Leonard Bradley, Jr.*

THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS STAMPED BY A REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING.

DIPRETE ENGINEERING ONLY WARRANTS PLANS ON A DIPRETE ENGINEERING PROJECT. DIPRETE ENGINEERING IS NOT A PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING. DIPRETE ENGINEERING IS NOT RESPONSIBLE FOR ANY OF THE RESULTS OF THE CONTRACTOR'S PERFORMANCE FOR ALL OF THE REASONS. THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE REASONS. METHODS, SAFETY, PRECAUTIONS AND REQUIREMENTS, AND OSHA DESIGN.

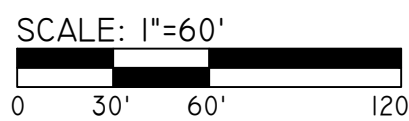
EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED BY THE CONTRACTOR'S PERFORMANCE. SEE UTILITY NOTE ON SHEET 5.

NO.	DATE	DESCRIPTION	R.E.S.	DESIGN BY: R.E.S.
1	07/10/2022	DEVELOPMENT PLAN AND NO. REVISIONS	R.E.S.	
2	07/10/2022	NO. REVISIONS	R.E.S.	
3	07/10/2022	NO. REVISIONS	R.E.S.	

**GENERAL NOTES & LEGEND**

**THURSTON STREET**  
MAP 07, BLOCK 4, LOTS 1 & 2 & MAP 07, BLOCK 1, LOT 2  
WRENTHAM, MASSACHUSETTS, 02093





LEGEND

- |  |             |                      |         |                  |  |                     |
|--|-------------|----------------------|---------|------------------|--|---------------------|
|  | W           | WATER LINE           | 123/134 | DEED BOOK/PAGE   |  | BOLLARD             |
|  | S           | SEWER LINE           | AP      | ASSESSOR'S PLAT  |  | SOC EVALUATION      |
|  | SFWH        | SEWER FORCE MAIN     | H/C     | HANDICAPPED      |  | CATCH BASIN         |
|  | G           | GAS LINE             | N/F     | NOW OR FORMERLY  |  | DOUBLE CATCH BASIN  |
|  | E           | ELECTRIC LINE        | L/C     | LANDSCAPING      |  | WATER VALVE         |
|  | OHV         | OVERHEAD WIRES       | (R)     | RECORD           |  | GAS VALVE           |
|  | D           | DRAINAGE LINE        | (CA)    | CHORD SCALE      |  | WETLAND FLAG        |
|  | I           | MINOR CONTOUR LINE   |         | NAIL/SPIKE       |  | DRAINAGE MANHOLE    |
|  | 5-          | MAJOR CONTOUR LINE   |         | DRILL HOLE       |  | FLARED END SECTION  |
|  |             | PROPERTY LINE        |         | IRON ROD/PIPE    |  | GUY POLE            |
|  |             | ASSESSORS LINE       |         | BOUND            |  | ELECTRIC MANHOLE    |
|  |             | TREELINE             |         | SIGN POST        |  | UTILITY/POWER POLE  |
|  | X           | FENCE                |         | SEWER MANHOLE    |  | LIGHTPOST           |
|  |             | GUARDRAIL            |         | SEWER CLEANOUT   |  | WELL                |
|  |             | RETAINING WALL       |         | HYDRANT          |  | MONITORING WELL     |
|  |             | STONE WALL           |         | IRRIGATION VALVE |  | BENCH MARK          |
|  | I - I       | ZONING LINE          |         | UNKNOWN MANHOLE  |  | TREE                |
|  |             | SOILS LINES          |         |                  |  |                     |
|  | 253<br>307D | 50' WETLAND BUFFER   |         |                  |  | FEMA BOUNDARY       |
|  |             | 100' BUFFER ZONE     |         |                  |  |                     |
|  |             | 200' RIVERFRONT AREA |         |                  |  | WETLAND LINE & FLAG |



GENERAL NOTES

- THE PARCEL IS LOCATED ON MAP 07, BLOCK 4, LOTS 1 & 2 AND MAP 07, BLOCK 1, LOT 2 IN THE TOWN OF WRENTHAM, NORFOLK COUNTY, MASSACHUSETTS.
2. THE OWNER OF:
  - 2.1. MAP 07 BLOCK 4 LOTS 1 & 2 PER DEED BOOK 37056, PAGE 107 IS THURSTON STREET LLC.
  - 2.2. MAP 07 BLOCK 1 LOT 2 PER DEED BOOK 21041, PAGE 539 IS HAROLD ARTHUR PITTSLEY, JR., AND LINDA PITTSLEY.
3. THIS SITE IS LOCATED IN FEMA FLOOD ZONE X. REFERENCE FEMA FLOOD INSURANCE RATE MAP 2502IC034E, MAP REEDED JULY 17, 2021. THIS DESIGNATION MAY CHANGE BASED UPON REVIEW BY A FLOOD ZONE SPECIALIST OR BY THE RESULTS OF A COMPREHENSIVE FLOOD STUDY.
4. THE PARCEL IS ZONED C-S1 BASED ON THE TOWN OF WRENTHAM ZONING DISTRICTS MAP. ANY OVERLAY DISTRICTS, SPECIAL PERMITS OR VARIANCES SPECIFIC TO THIS SITE ARE NOT TAKEN INTO CONSIDERATION. PLEASE CONTACT THE ZONING DEPARTMENT FOR ANY ADDITIONAL INFORMATION OR FOR A CERTIFICATE OF ZONING.
5. THERE WERE NO CEMETERIES, GRAVE SITES OR BURIAL GROUNDS OBSERVED WITHIN THE LIMITS OF THE SUEVY.
6. FIELD SURVEY PERFORMED BY DIPRETE ENGINEERING ON JUNE AND JULY, 2021. THIS PLAN REFLECTS ON THE GROUND CONDITIONS AS OF THAT DATE.
7. SOIL EVALUATIONS WERE COMPLETED BY DIPRETE ENGINEERING ON JUNE 7, 2021 AND AUGUST 31, 2021.
8. WETLAND EDGE DELINEATED BY DIPRETE ENGINEERING AND SURVEYED BY DIPRETE ENGINEERING USING SUBMETER GPS ON DATE JUNE 7, 2021.
9. ELEVATIONS SHOWN HEREON, IN U.S. SURVEY FEET, ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1989 (NAVD 88), AS DETERMINED BY DIPRETE ENGINEERING USING REAL TIME KINEMATIC G.P.S. OBSERVATIONS.
10. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. DIPRETE ENGINEERING IS NOT RESPONSIBLE FOR ANY UNKNOWN OR UNRECORDED EASEMENTS, DEEDS OR CLAIMS THAT A TITLE REPORT WOULD DISCLOSE.  
  
PLANIMETRIC FEATURES, CONTOUR LINES, AND SPOT ELEVATIONS WERE STEREO COMPILED AT A SCALE OF 1"=40' BLUE-GRADE, NORTH ADAMS, H&H, SUB-CONSULTANTS TO THE OWNER/DEVELOPER, FROM BLACK AND WHITE PHOTOGRAPHY TAKEN AT A SCALE OF 1"=500' AND FIT TO GROUND CONTROL POINTS SURVEYED BY DE A GROUND CONTROL WAS PERFORMED ON THE GROUND BY DE USING REAL TIME KINEMATIC G.P.S. OBSERVATIONS. THE GROUND CONTROL WAS 2 FEET. NINETY PERCENT OF THE TOPOGRAPHY AS DEPICTED IS ACCURATE TO WITHIN HALF THE CONTOUR INTERVAL, AND THE REMAINING TEN PERCENT IS ACCURATE TO WITHIN ONE FULL CONTOUR INTERVAL.

PLAN REFERENCES:

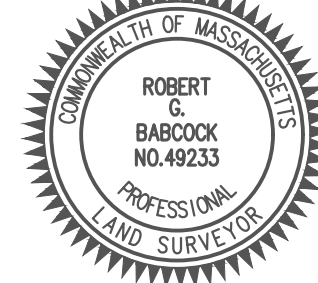
1. SUBDIVISION OF LOT B2 SHOWN ON PLAN I4887 C, LAND IN WRENTHAM, SCALE 1"=100', DATED SEPTEMBER 2, 1941, PLAN BY E. W. PILLING, ENGINEER. LAND COURT CASE I4887D.
2. SUBDIVISION PLAN OF LAND IN WRENTHAM, SCALE 1"=20', DATED NOVEMBER 1966, PLAN BY JOHN P. LIENSCH SURVEYOR, LAND COURT CASE I4887H.
3. APPROVAL NOT REQUIRED, KAYROUZ REALTY TRUST, 500 & 510 THURSTON STREET, MAP 0-7, BLOCK 4, LOTS 1 & 2, TOWN OF WRENTHAM, NORFOLK COUNTY, COMMONWEALTH OF MASSACHUSETTS, SCALE 1"=40', DATED APRIL 27, 2021, PLAN BY CONTROL POINT ASSOCIATES, INC. LAND COURT CASE I4887K.
4. PLAN OF LAND IN WRENTHAM, MA., THURSTON STREET, SCALE 1"=100', DATED APRIL 4, 1999, PLAN BY BAY COLONY GROUP, INC., RECORDED AS PLAN NUMBER 424 OF 1999 IN PLAN BOOK 466.
5. PLAN OF LAND IN WRENTHAM, MA. WASHINGTON STREET/THURSTON STREET, SCALE 1"=150', DATED APRIL 19, 2001, PLAN BY BAY COLONY GROUP, INC., RECORDED AS PLAN NUMBER 295 OF 2001 IN PLAN BOOK 486.
6. PLAN 369 OF 1932 IN PLAN BOOK I15.
7. PROPOSED SITE PLAN DOCUMENTS FOR KAYROUZ REALTY, LLC, PROPOSED CONVENIENCE STORE AND FUELING STATION, 500 THURSTON STREET, TOWN OF WRENTHAM, NORFOLK COUNTY, MASSACHUSETTS, SCALE 1"=40', PLAN BY BOHLER.
8. LAYOUT NO. 2744.
9. LAYOUT NO. 3268.
10. LAYOUT NO. 7277.

### UTILITY NOTES

1. ALL EXISTING UTILITIES DEPICTED ARE SHOWN ACCORDANCE WITH UTILITY QUALITY LEVEL "C" AS DEFINED IN C/ASCE STANDARD 38-02 (STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA). LATEST REVISION.
2. ALL EXISTING UNDERGROUND UTILITIES SHOWN WERE PROVIDED BY OTHERS AND ARE APPROXIMATE ONLY. CONTRACTOR MUST BE FIELD BEFORE EXCAVATION, BLASTING, UTILITY INSTALLATION, BACKFILLING, GRADING, PAVEMENT RESTORATION, AND ALL OTHER SITE WORK. ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, MUST BE CONTACTED INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON RECORD PLANS OR PERMITS. CONTRACTOR IS TO WORKING HOUR PRIOR TO ANY EXCAVATION OR CONSTRUCTION AT 811. DISA SAFE IS RESPONSIBLE FOR CONTACTING MEMBER UTILITY COMPANIES. DISA SAFE MEMBER UTILITY COMPANIES ARE RESPONSIBLE TO MARK ONLY THE FACILITIES THAT THEY OWN OR MAINTAIN. NON DISA SAFE MEMBER UTILITY COMPANIES ARE RESPONSIBLE TO MARK ONLY THE FACILITIES THAT THEY OWN OR MAINTAIN TO INVESTIGATE AND NOTIFY IF ANY PRIVATELY OWNED OR NON DISA SAFE MEMBER UTILITIES ARE IN THE AREA.
3. PER THE CODE OF FEDERAL REGULATIONS - TITLE 29, PART 1926 IT IS THE SITE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ACCURATE UNDERGROUND UTILITY LINE LOCATIONS FROM THE UTILITY COMPANIES OR FROM THE STATE OF CALIFORNIA OR VIA UTILITY LOCATOR EQUIPMENT AS NEEDED TO ESTABLISH ACCURATE LOCATIONS PRIOR TO ANY EXCAVATION. IT IS THE USE OF PROFESSIONAL UTILITY LOCATING COMPANIES PRIOR TO ANY EXCAVATION IS RECOMMENDED.
4. DIPRETE ENGINEERING IS NOT A PROFESSIONAL UTILITY LOCATION COMPANY, AND IS NOT RESPONSIBLE FOR UNDERGROUND UTILITIES, DEPICTED OR NOT, EITHER IN SERVICE OR ABANDONED. ANY SIZES, LOCATIONS, EXPOSURE, OR LACK OF EXISTENCE OF UTILITIES SHOWN ON THESE PLANS SHOULD BE CONSIDERED APPROXIMATE ONLY, VERIFIED BY A PROFESSIONAL UTILITY LOCATION COMPANY. DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED.
5. UTILITY PLAN REFERENCES:
  - 5.1. WATER INFORMATION OBTAINED FROM THE TOWN OF WRENHAM.
  - 5.2. DRAINAGE INFORMATION OBTAINED FROM LAYOUT NO. 7277.

### CERTIFICATION

I CERTIFY THAT THIS ACTUAL SURVEY WAS MADE ON THE GROUND IN ACCORDANCE WITH THE RULES AND REGULATIONS AS STATED IN CMR 250 SECTION 6.00.



  
ROBERT G. BABCOCK, PLS #49233

9/30/21  
DATE

## EXISTING CONDITIONS SURVEY

**THURSTON STREET**  
MAP 07, BLOCK 4, LOTS 1 & 2 & MAP 07, BLOCK 1, LOT 2  
WRENTHAM, MASSACHUSETTS, 02093

PREPARED FOR:  
**BLUEWATER PROPERTY GROUP**  
LITTLE WEST 12TH STREET, NEW YORK

FILE 200 774 2010

DE JOB NO: 295A-001 COPYRIGHT 2022 BY DIPRETE ENGINEERING ASSOCIATES, INC.


**DiPrete Engineering**

990 Washington Street Suite 101A Dedham, MA 02026  
tel 781-326-0021 fax 401-464-6006 [www.diprete-eng.com](http://www.diprete-eng.com)

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01/19/2022

THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS STAMPED "ISSUED FOR CONSTRUCTION" AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING.

DIPIRETE ENGINEERING ONLY WARRANTS PLANS ON A DIPIRETE  
ENGINEERING TITLE BLOCK STAMPED BY REGISTERED

PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING. DIPRETE ENGINEERING DOES NOT WARRANT PLANS BY ANY OTHER PARTY

THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY PRECAUTIONS AND REQUIREMENTS, AND OBTAINING CONFORMANCE IN THE IMPLEMENTATION OF THIS PLAN AND

EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE DESIGN.

KNLY, DIPRIE ENGINEERING ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED DUE TO LOCATIONS OF EXISTING UTILITIES. SEE 'UTILITY NOTE' ON SHEET 3.

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01/19/2022	DEVELOPMENT PLAN AND NOI RESUBMISSION	R.S.S.
10/8/2021	NOTICE OF INTENT SUBMISSION	M.I.D.
DATE	DESCRIPTION	BY:
DRAWN BY: R.S.S.		DESIGN BY: R.S.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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## EXISTING CONDITIONS SURVEY

**THURSTON STREET**  
MAP 07, BLOCK 4, LOTS 1 & 2 & MAP 07, BLOCK 1, LOT 2  
WRENTHAM, MASSACHUSETTS, 02093

PREPARED FOR:  
**BLUEWATER PROPERTY GROUP**  
LITTLE WEST 12TH STREET, NEW YORK, NY, 10014

FILE 200 774 7010  
 JOB NO: 2954-001 COPYRIGHT 2022 BY DIPRETE ENGINEERING ASSOCIATES INC.



SEQUENCE OF CONSTRUCTION AND STAGING OF LAND  
DISTURBING ACTIVITIES

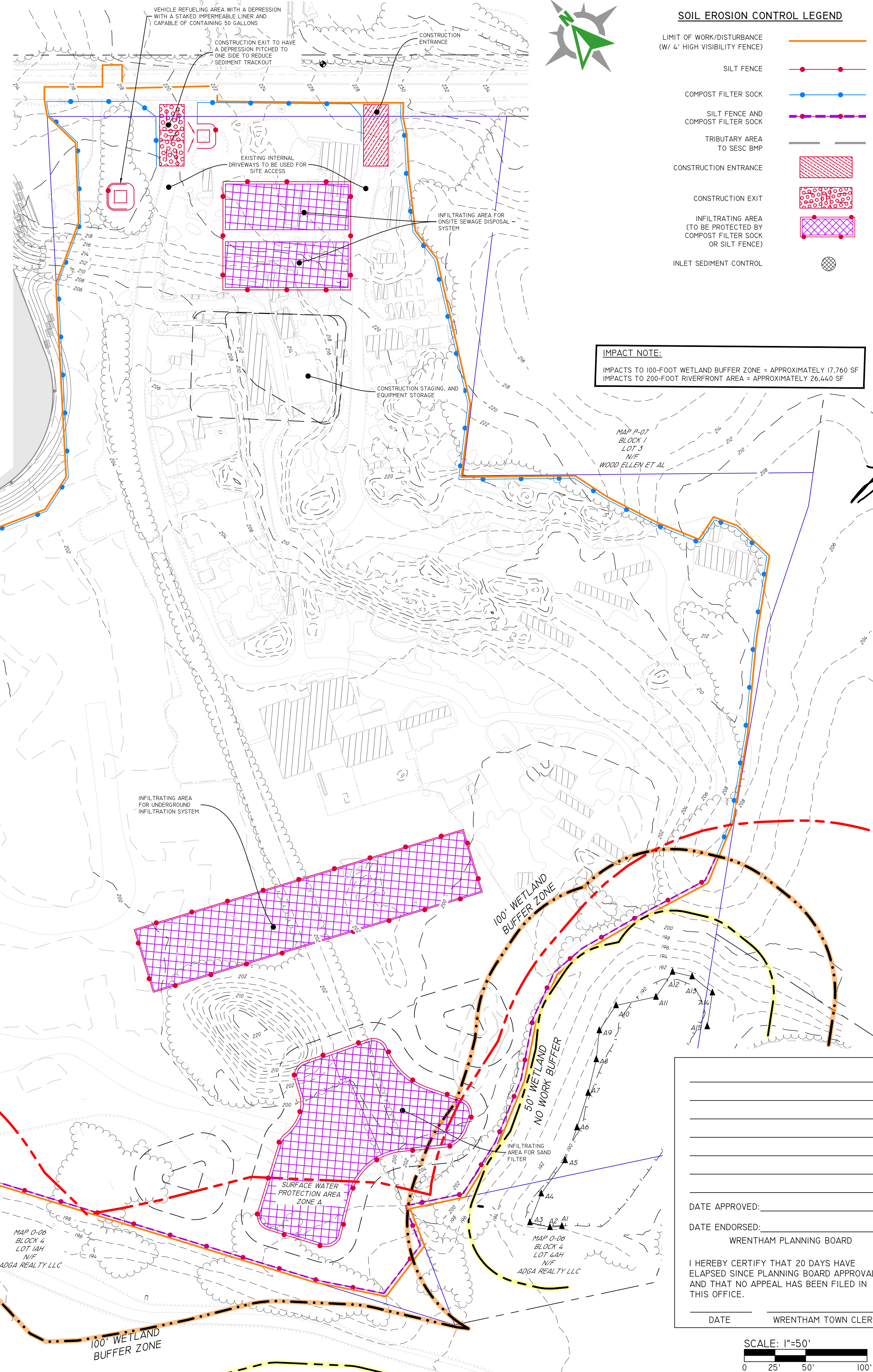
SEE GENERAL EROSION CONTROL NOTES AND FULL SEQUENCE OF CONSTRUCTION ON SHEETS 10 & 11.

PHASE I

1. CONTRACTOR IS RESPONSIBLE FOR STORMWATER POLLUTION PREVENTION PLAN (SWPPP) ON-SITE. SEQUENCE OF CONSTRUCTION PROVIDED MAY BE MODIFIED AS FIELD CONDITIONS WARRANT WITH PRIOR APPROVAL FROM THE TOWN OR THEIR REPRESENTATIVE.
2. CONSTRUCTION TO BEGIN IN THE SUMMER 2022 OR UPON RECEIPT OF ALL NECESSARY APPROVALS.
3. SURVEY AND STAKE THE DRAINAGE BMPs (UNDERGROUND INFILTRATION SYSTEM, SEDIMENT FOREBAYS, SAND FILTER, SEWAGE DISPOSAL SYSTEM AND/OR OTHER DRAINAGE FEATURES), DRAIN LINES, WATER LINES, SEWER LINES AND LIMIT OF WORK FENCE.
4. PLACE/INSTALL LIMIT OF WORK FENCE, SILT FENCE AND COMPOST FILTER SOCK AS SHOWN ON THE PLANS AND STAKED OUT IN THE FIELD. IN NO CASE IS THE LIMIT OF WORK TO EXTEND BEYOND THE SEDIMENTATION BARRIERS. INSTALL CONSTRUCTION ENTRANCE AND EXIT.
5. INSPECTION OF EROSION CONTROL DEVICES ADJACENT TO THE BUFFER ZONES WILL BE DONE BY THE ENGINEER OF RECORD AND ONCE DETERMINED TO BE ACCURATE THE ENGINEER WILL SEND A LETTER TO THE CONSERVATION COMMISSION ATTESTING TO ACCURACY AND DESCRIBING ANY POTENTIAL CHANGES.
6. BEGIN DEMOLITION OF EXISTING STRUCTURES AND CLEARING OF DEBRIS AND GRUBBING IN AREA OF THE BUILDING. OTHER AREAS AS INDICATED ON THE PLANS.

PURPOSE OF PHASE:

THE PURPOSE OF PHASE I IS TO DEMOLISH EXISTING STRUCTURES AND CLEAN UP THE SITE TO PREPARE FOR THE PREPARATION OF THE BUILDING PAD.



SOIL EROSION CONTROL LEGEND

- LIMIT OF WORK/DISTURBANCE (W/ 4" HIGH VISIBILITY FENCE)
- SILT FENCE
- COMPOST FILTER SOCK
- SILT FENCE AND COMPOST FILTER SOCK
- TRIBUTARY AREA TO SESS BMP
- CONSTRUCTION ENTRANCE
- CONSTRUCTION EXIT
- INFILTRATING AREA (TO BE PROTECTED BY COMPOST FILTER SOCK OR SILT FENCE)
- INLET SEDIMENT CONTROL

IMPACT NOTE:  
IMPACTS TO 100-FOOT WETLAND BUFFER ZONE = APPROXIMATELY 17,760 SF  
IMPACTS TO 200-FOOT RIVERFRONT AREA = APPROXIMATELY 26,440 SF

PRIOR TO ANY ALTERATION OF THE SITE, AN ON-SITE MEETING BETWEEN THE OWNER'S REPRESENTATIVE, THE CONSTRUCTION SUPERVISOR, AND THE CONSERVATION AGENT SHALL OCCUR. THE OWNER AND THE AGENT MAY INVITE OTHER INDIVIDUALS AS NEEDED. SIMILAR MEETINGS WILL OCCUR ONCE EROSION CONTROL MEASURES ARE IN PLACE AND THEREAFTER ON A MONTHLY BASIS UNLESS OTHERWISE AGREED TO BY ALL PARTIES.

CONTRACTOR MAY MODIFY SEQUENCE OF CONSTRUCTION WITH APPROVAL FROM DESIGN ENGINEER AND OWNER. THE OWNER SHALL SUBMIT ANY CHANGES TO SEQUENCE OR TIMING OF CONSTRUCTION OR INSPECTIONS TO THE COMMISSION PRIOR TO IMPLEMENTATION.

ALL EROSION & SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO ALL CONSTRUCTION ACTIVITY AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.

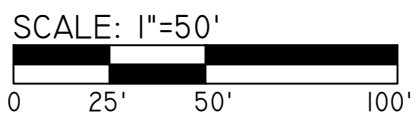
EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

THE LOCATION OF THE SILT FENCE, COMPOST FILTER SOCK AND LIMIT OF WORK FENCE ON THE DRAWINGS IS FOR GRAPHICAL REPRESENTATION ONLY. THE CONTRACTOR IS TO ENSURE THAT THE SILT FENCE, COMPOST FILTER SOCK AND LIMIT OF WORK FENCE ENCOMPASS THE ENTIRE WORK AREA.

CONTRACTOR IS TO MONITOR THE CONSTRUCTION EXIT, SUPERVISE EXITING TRAFFIC, CLEAN OFF VEHICLES AND EXIT AND SEDIMENT CATCHMENT AREA.  
PORTION OF THURSTON STREET NEAR CONSTRUCTION ACCESSSES IS TO BE SWEEPED DAILY.

SAND FILTER MUST NOT BE USED FOR THE CONTROL OF STORMWATER DURING CONSTRUCTION. THE WRENTHAM CONSERVATION COMMISSION WILL REQUIRE THAT WATER BE HELD ON THE WORK SITE AND THAT THE SAND FILTER MUST NOT BE USED EXCEPT FOR THE COMPLETED PROJECT.

DATE APPROVED: \_\_\_\_\_  
DATE ENDORSED: \_\_\_\_\_  
WRENTHAM PLANNING BOARD  
I HEREBY CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE PLANNING BOARD APPROVAL AND THAT NO APPEAL HAS BEEN FILED IN THIS OFFICE.  
DATE \_\_\_\_\_ WRENTHAM TOWN CLERK



**DiPrete Engineering**  
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tel 781-326-0021 fax 401-464-6006 www.diprete-eng.com

**Boston • Providence • Newport**



THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS FIRST REVIEWED AND APPROVED BY A REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING.

DIPRETE ENGINEERING ONLY WARRANTS PLANS ON A DIPRETE PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING. DIPRETE ENGINEERING IS NOT RESPONSIBLE FOR ANY DAMAGE TO PROPERTY, METHODS, SAFETY, PRECAUTIONS AND REQUIREMENTS, AND OSHA DESIGN.

EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR DAMAGE TO EXISTING UTILITIES OR FOR ANY CONSTRUCTION UTILITIES. SEE UTILITY NOTE ON SHEET 3.

NO.	DATE	DESCRIPTION	R.S.S.
1	01/19/2022	DEVELOPMENT PLAN AND NOI RESUBMISSION	R.S.S.
2	01/19/2022	NOI SUBMITTAL	R.S.S.
3	01/19/2022	NOI SUBMITTAL	R.S.S.

**SWPPP - PHASE I**

**THURSTON STREET**  
MAP 07 BLOCK 4, LOTS 1 & 2 & MAP 07 BLOCK 1, LOT 2  
WRENTHAM, MASSACHUSETTS, 02093

PREPARED FOR:  
**BLUEWATER PROPERTY GROUP**  
1 LITTLE WEST 12TH STREET, NEW YORK, NY, 10014  
TEL 212-594-9615

DESIGNED BY: R.S.S.  
DRAWN BY: R.S.S.

SHEET **5** OF 23



SEQUENCE OF CONSTRUCTION AND STAGING OF LAND  
DISTURBING ACTIVITIES

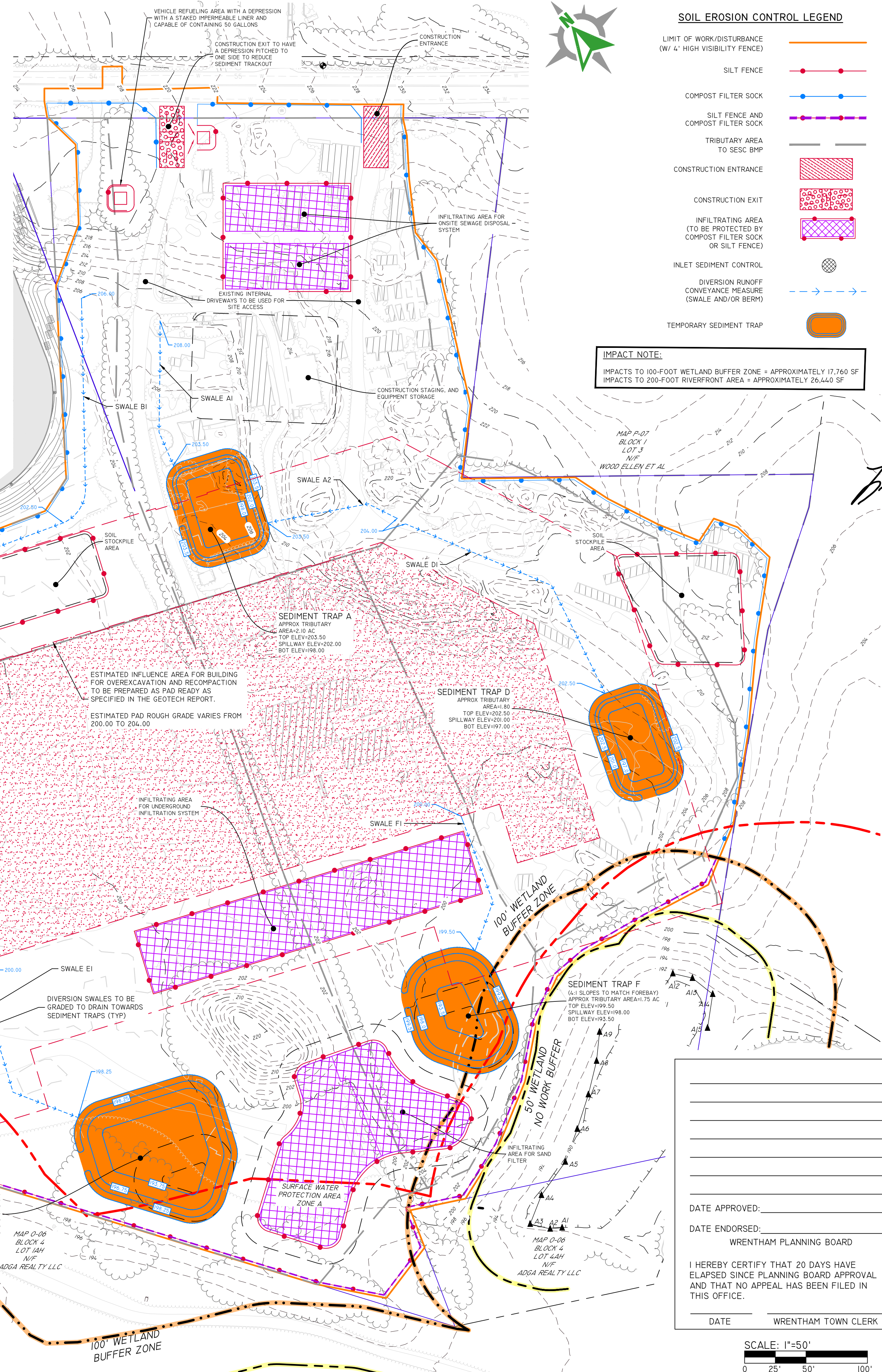
SEE GENERAL EROSION CONTROL NOTES AND FULL SEQUENCE OF CONSTRUCTION ON SHEETS 10 & 11.

PHASE 2

- INSTALL TEMPORARY SEDIMENTATION CONTROL MEASURES AND DEVICES AS SPECIFIED. THE PROPOSED SEDIMENT TRAPS MUST BE USED DURING CONSTRUCTION AND PLACED IN SPECIFIED LOCATIONS OR ALTERNATE LOCATIONS AS APPROVED TO LIMIT SIZE OF WORK AREAS. INSTALL DIVERSION SWALE IN SPECIFIED LOCATIONS AND WHERE APPROPRIATE TO DIRECT STORMWATER TO THE SEDIMENT TRAPS.
- PREPARE BUILDING PAD AREA AS SPECIFIED IN THE GEOTECHNICAL REPORT. TOPSOIL IS TO BE STRIPPED AND STOCKPILED IN APPROVED LOCATIONS. TOPSOIL STOCKPILES ARE TO BE PROTECTED WITH SILT FENCE AND TEMPORARILY STABILIZED. EXCAVATE AS NEEDED TO PREPARE BUILDING PAD AREA AND ACCESS AROUND BUILDING PAD AREA.

PURPOSE OF PHASE:

THE PURPOSE OF PHASE 2 IS TO PREPARE THE BUILDING PAD AREA.



PRIOR TO ANY ALTERATION OF THE SITE, AN ON-SITE MEETING BETWEEN THE OWNER'S REPRESENTATIVE, THE CONSTRUCTION SUPERVISOR, AND THE CONSERVATION AGENT SHALL OCCUR. THE OWNER AND THE AGENT MAY INVITE OTHER INDIVIDUALS AS NEEDED. SIMILAR MEETINGS WILL OCCUR ONCE EROSION CONTROL MEASURES ARE IN PLACE AND THEREAFTER ON A MONTHLY BASIS UNLESS OTHERWISE AGREED TO BY ALL PARTIES.

CONTRACTOR MAY MODIFY SEQUENCE OF CONSTRUCTION WITH APPROVAL FROM DESIGN ENGINEER AND OWNER. THE OWNER SHALL SUBMIT ANY CHANGES TO SEQUENCE OR TIMING OF CONSTRUCTION OR INSPECTIONS TO THE COMMISSION PRIOR TO IMPLEMENTATION.

ALL EROSION & SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO ALL CONSTRUCTION ACTIVITY AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

THE LOCATION OF THE SILT FENCE, COMPOST FILTER SOCK AND LIMIT OF WORK FENCE ON THE DRAWINGS IS FOR GRAPHICAL REPRESENTATION ONLY. THE CONTRACTOR IS TO ENSURE THAT THE SILT FENCE, COMPOST FILTER SOCK AND LIMIT OF WORK FENCE ENCOMPASS THE ENTIRE WORK AREA.

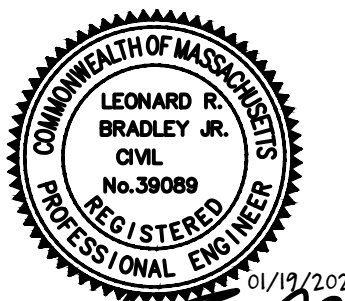
CONTRACTOR IS TO MONITOR THE CONSTRUCTION EXIT, SUPERVISE EXITING TRAFFIC, CLEAN OFF VEHICLES AND EXIT AND SEDIMENT CATCHMENT AREA.

PORTION OF THURSTON STREET NEAR CONSTRUCTION ACCESSSES IS TO BE SWEEP DAILY.

SAND FILTER MUST NOT BE USED FOR THE CONTROL OF STORMWATER DURING CONSTRUCTION. THE WRENTHAM CONSERVATION COMMISSION WILL REQUIRE THAT WATER BE HELD ON THE WORK SITE AND THAT THE SAND FILTER MUST NOT BE USED EXCEPT FOR THE COMPLETED PROJECT.

DiPrete Engineering

990 Washington Street Suite 100A Dedham, MA 02026  
tel 781-326-0021 fax 401-464-6006 www.diprete-eng.com



THIS PLAN SET IS NOT TO BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS APPROVED BY THE WRENTHAM PLANNING BOARD AND THE WRENTHAM CONSERVATION COMMISSION. THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY, PRECAUTIONS AND REQUIREMENTS, AND DESIGN. EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. DIPRETE ENGINEERING ASSOCIATES, INC. HAS NO RESPONSIBILITY FOR DAMAGE TO EXISTING UTILITIES OR FOR ANY OTHER CONSEQUENCES OF CONSTRUCTION. SEE UTILITY NOTE ON SHEET 3.

NO.	DATE	DESCRIPTION	BY	DESIGN BY
1	07/12/2022	DEVELOPMENT PLAN AND NO. RESUBMISSION	R.S.S.	R.S.S.
2	07/27/2022	NO. RESUBMISSION	BT	R.S.S.

SWPPP - PHASE 2  
THURSTON STREET  
MAP 07 BLOCK 4, LOTS 1 & 2 & MAP 07 BLOCK 1, LOT 2  
WRENTHAM, MASSACHUSETTS, 02093  
PREPARED FOR  
BLUEWATER PROPERTY GROUP  
1 LITTLE WEST 12TH STREET, NEW YORK, NY, 10014  
TEL 212-594-9615  
DESIGNED BY: R.S.S.



SEQUENCE OF CONSTRUCTION AND STAGING OF LAND  
DISTURBING ACTIVITIES

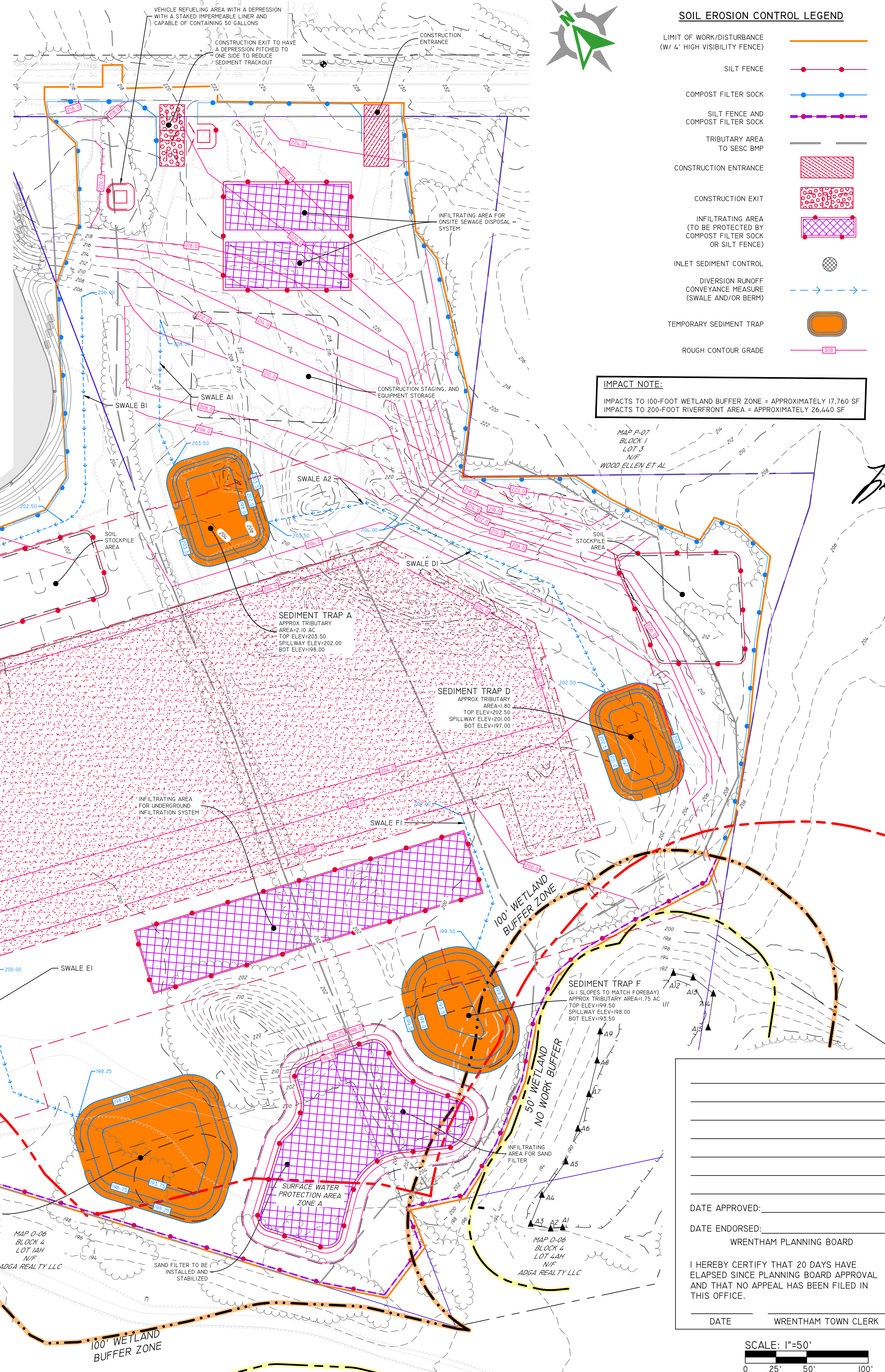
SEE GENERAL EROSION CONTROL NOTES AND FULL SEQUENCE OF CONSTRUCTION ON SHEETS 10 & 11.

PHASE 3

- BEGIN CONSTRUCTION OF BUILDING FOOTINGS AND PLACE COMPACTED GRAVEL PAD IN BUILDING AREA AS SPECIFIED IN THE GEOTECHNICAL REPORT.
- EXCAVATE AND INSTALL UNDERGROUND INFILTRATION SYSTEM AND ASSOCIATED DRAINAGE STRUCTURES. EXCAVATE AND GRADE THE SAND FILTER, ROUGH GRADE AND STABILIZE PERIMETER AREAS NEAR BMPS. THE SAND FILTER MUST BE PERMANENTLY STABILIZED FOLLOWING FINISH GRADING.
- ROUGH GRADE PAVEMENT AREAS AND FINAL GRADE LANDSCAPE AREAS OF THE SITE WHILE LIMITING THE SIZE OF THE ACTIVE WORK AREA. STABILIZE PREVIOUS WORK AREA PRIOR TO MOVING TO NEW ACTIVE WORK AREA.
- ONCE THE WORK AREAS TRIBUTARY TO THE SEDIMENT TRAPS AT THE SEDIMENT FOREBAY LOCATIONS ARE STABILIZED AFTER ROUGH GRADING, THE SEDIMENT TRAPS CAN BE CONVERTED INTO THE PERMANENT SEDIMENT FOREBAYS. INSTALL PERMANENT ACCESS PATH AROUND SAND FILTER AND SEDIMENT FOREBAYS.
- INSTALL DRAIN PIPING, DRAINAGE MANHOLES AND CATCH BASINS BEGINNING AT THE SEDIMENT FOREBAY LOCATIONS AND WORKING UP GRADIENT TO THE UNDERGROUND INFILTRATION SYSTEM AND BYPASS MANHOLES. PROTECT DISCHARGE OUTLETS WITH RIP-RAP APRONS. PLACE EROSION CONTROLS AT THE DISCHARGE POINTS AND SEED THE SAND FILTER AND SEDIMENT FOREBAYS, AND DISTURBED AREAS OUTSIDE OF THE PAVING LIMITS. IF SEASON IS UNSUITABLE FOR SEEDING, THESE AREAS MAY BE STABILIZED USING AN APPROVED METHOD UNTIL SEEDING CAN BE COMPLETED. THE SAND FILTER IS TO BE PROTECTED FROM RUNOFF UNTIL ALL UNSTABILIZED AREAS ARE STABILIZED WITH VEGETATION.

PURPOSE OF PHASE:

THE PURPOSE OF PHASE 3 IS ONCE THE BUILDING PAD AREA IS PREPARED, THE SAND FILTER AND UNDERGROUND INFILTRATION SYSTEM BMPS ARE TO BE INSTALLED. ROUGH GRADE PAVEMENT AREAS AND FINAL GRADE LANDSCAPE AREAS AND THEN STABILIZING THOSE AREAS PRIOR TO MOVING TO A NEW ACTIVE WORK AREA.



- SOIL EROSION CONTROL LEGEND**
- LIMIT OF WORK/DISTURBANCE (W/ 4" HIGH VISIBILITY FENCE)
  - SILT FENCE
  - COMPOST FILTER SOCK
  - SILT FENCE AND COMPOST FILTER SOCK
  - TRIBUTARY AREA TO SESC BMP
  - CONSTRUCTION ENTRANCE
  - CONSTRUCTION EXIT
  - INFILTRATING AREA (TO BE PROTECTED BY COMPOST FILTER SOCK OR SILT FENCE)
  - INLET SEDIMENT CONTROL
  - DIVERSION RUNOFF CONVEYANCE MEASURE (SWALE AND/OR BERM)
  - TEMPORARY SEDIMENT TRAP
  - ROUGH CONTOUR GRADE

**IMPACT NOTE:**  
IMPACTS TO 100-FOOT WETLAND BUFFER ZONE = APPROXIMATELY 17,760 SF  
IMPACTS TO 200-FOOT RIVERFRONT AREA = APPROXIMATELY 26,440 SF

- PRIOR TO ANY ALTERATION OF THE SITE, AN ON-SITE MEETING BETWEEN THE OWNER'S REPRESENTATIVE, THE CONSTRUCTION SUPERVISOR, AND THE CONSERVATION AGENT SHALL OCCUR. THE OWNER AND THE AGENT MAY INVITE OTHER INDIVIDUALS AS NEEDED. SIMILAR MEETINGS WILL OCCUR ONCE EROSION CONTROL MEASURES ARE IN PLACE AND THEREAFTER ON A MONTHLY BASIS UNLESS OTHERWISE AGREED TO BY ALL PARTIES.
- CONTRACTOR MAY MODIFY SEQUENCE OF CONSTRUCTION WITH APPROVAL FROM DESIGN ENGINEER AND OWNER. THE OWNER SHALL SUBMIT ANY CHANGES TO SEQUENCE OR TIMING OF CONSTRUCTION OR INSPECTIONS TO THE COMMISSION PRIOR TO IMPLEMENTATION.
- ALL EROSION & SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO ALL CONSTRUCTION ACTIVITY AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
- EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
- THE LOCATION OF THE SILT FENCE, COMPOST FILTER SOCK AND LIMIT OF WORK FENCE ON THE DRAWINGS IS FOR GRAPHICAL REPRESENTATION ONLY. THE CONTRACTOR IS TO ENSURE THAT THE SILT FENCE, COMPOST FILTER SOCK AND LIMIT OF WORK FENCE ENCOMPASS THE ENTIRE WORK AREA.
- CONTRACTOR IS TO MONITOR THE CONSTRUCTION EXIT, SUPERVISE EXITING TRAFFIC, CLEAN OFF VEHICLES AND EXIT AND SEDIMENT CATCHMENT AREA.
- PORTION OF THURSTON STREET NEAR CONSTRUCTION ACCESSSES IS TO BE SWEEPED DAILY.
- SAND FILTER MUST NOT BE USED FOR THE CONTROL OF STORMWATER DURING CONSTRUCTION. THE WRENTHAM CONSERVATION COMMISSION WILL REQUIRE THAT WATER BE HELD ON THE WORK SITE AND THAT THE SAND FILTER MUST NOT BE USED EXCEPT FOR THE COMPLETED PROJECT.

**DiPrete Engineering**  
990 Washington Street Suite 101A Dedham, MA 02026  
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**Boston • Providence • Newport**

01/19/2022  
LEONARD BRADLEY, P.E.  
No. 39089  
REGISTERED PROFESSIONAL ENGINEER

THIS PLAN SET IS NOT TO BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS FIRST APPROVED BY THE WRENTHAM PLANNING BOARD AND THE WRENTHAM CONSERVATION COMMISSION. THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY, PRECAUTIONS AND REQUIREMENTS, AND OSHA COMPLIANCE IN THE IMPLEMENTATION OF THIS PLAN AND DESIGN.

EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR DAMAGE TO EXISTING UTILITIES OR FOR ANY OTHER CONSEQUENCES OF CONSTRUCTION. SEE UTILITY NOTE ON SHEET 3.

NO.	DATE	DESCRIPTION	R.S.	BY
1	01/19/2022	DEVELOPMENT PLAN AND NO. RESUBMISSION	R.S.	BY
2	01/19/2022	NO. RESUBMISSION	R.S.	BY

DRAWN BY: R.S.S.

**SWPP - PHASE 3**

**THURSTON STREET**  
MAP 07 BLOCK 4, LOTS 1 & 2 & MAP 07 BLOCK 1, LOT 2  
WRENTHAM, MASSACHUSETTS, 02093

PREPARED FOR:  
**BLUEWATER PROPERTY GROUP**  
1 LITTLE WEST 12TH STREET, NEW YORK, NY, 10014  
TEL 212-594-9615

DESIGNED BY: R.S.S.

DATE APPROVED: \_\_\_\_\_  
DATE ENDORSED: \_\_\_\_\_  
WRENTHAM PLANNING BOARD

I HEREBY CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE PLANNING BOARD APPROVAL AND THAT NO APPEAL HAS BEEN FILED IN THIS OFFICE.

DATE \_\_\_\_\_ WRENTHAM TOWN CLERK

SCALE: 1"=50'  
0 25' 50' 100'



SEQUENCE OF CONSTRUCTION AND STAGING OF LAND  
DISTURBING ACTIVITIES

SEE GENERAL EROSION CONTROL NOTES AND FULL SEQUENCE OF CONSTRUCTION ON SHEETS 10 & 11.

PHASE 4

14. INSTALL DRAIN PIPING, DRAINAGE MANHOLES AND CATCH BASINS FOR THE REMAINDER OF THE DRAINAGE NETWORK, WORKING UPGRADIENT. INSTALL WATER, SEWER, ELECTRIC, TELEPHONE, CABLE, AND GAS IN ACCORDANCE WITH THE APPROVED FINAL CONSTRUCTION PLANS. SEED THE DISTURBED AREAS OUTSIDE OF THE PAVING LIMITS. THE DRAINAGE NETWORK ARE TO BE PROTECTED FROM RUNOFF UNTIL ALL UNSTABILIZED AREAS ARE STABILIZED WITH VEGETATION. INSTALL EROSION CONTROL MEASURES IN CATCH BASINS AS THEY ARE CONSTRUCTED.
15. BEGIN CONSTRUCTION OF THE BUILDING STRUCTURE.
16. INSTALL RETAINING WALL NORTHEAST OF THE BUILDING.
17. GRADE RIGHT-IN/RIGHT-OUT ONTO ROUTE 1.
18. FINISH ROUGH GRADING IN THE PAVEMENTS AREA IN ACCORDANCE WITH THE SITE PLANS. INSTALL SUBGRADE, SUBBASE AND BASE COURSE AS SPECIFIED IN THE GEOTECHNICAL REPORT.

PURPOSE OF PHASE:

THE PURPOSE OF PHASE 4 IS TO INSTALL THE REMAINDER OF THE DRAINAGE NETWORK, SEWAGE DISPOSAL SYSTEM AND ALL OTHER UTILITIES AND THEN PREPARE ALL PAVEMENT AREAS TO BE READY FOR PAVING.

PRIOR TO ANY ALTERATION OF THE SITE, AN ON-SITE MEETING BETWEEN THE OWNER'S REPRESENTATIVE, THE CONSTRUCTION SUPERVISOR, AND THE CONSERVATION AGENT SHALL OCCUR. THE OWNER AND THE AGENT MAY INVITE OTHER INDIVIDUALS AS NEEDED. SIMILAR MEETINGS WILL OCCUR ONCE EROSION CONTROL MEASURES ARE IN PLACE AND THEREAFTER ON A MONTHLY BASIS UNLESS OTHERWISE AGREED TO BY ALL PARTIES.

CONTRACTOR MAY MODIFY SEQUENCE OF CONSTRUCTION WITH APPROVAL FROM DESIGN ENGINEER AND OWNER. THE OWNER SHALL SUBMIT ANY CHANGES TO SEQUENCE OR TIMING OF CONSTRUCTION OR INSPECTIONS TO THE COMMISSION PRIOR TO IMPLEMENTATION.

ALL EROSION & SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO ALL CONSTRUCTION ACTIVITY AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.

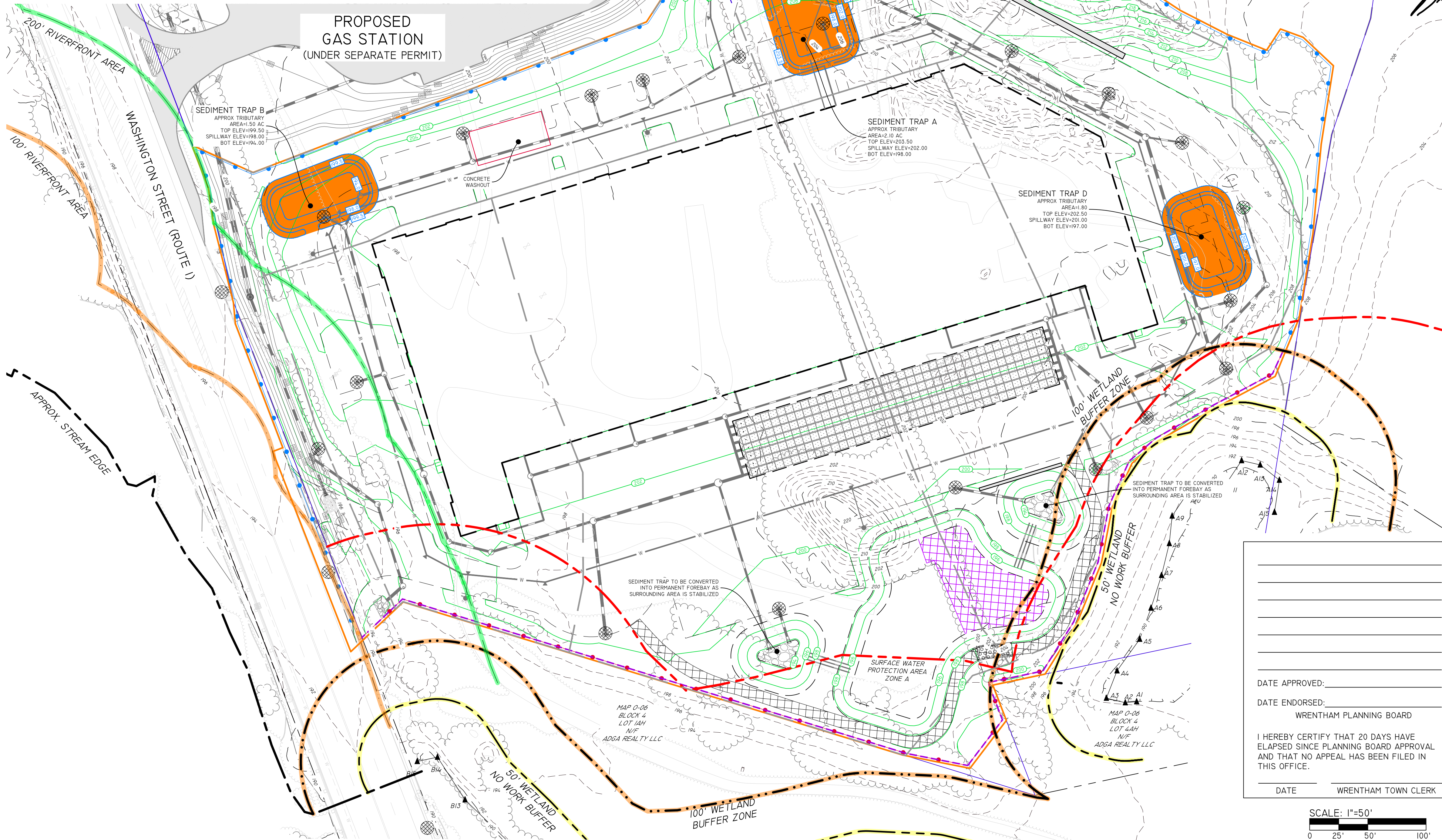
EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

THE LOCATION OF THE SILT FENCE, COMPOST FILTER SOCK AND LIMIT OF WORK FENCE ON THE DRAWINGS IS FOR GRAPHICAL REPRESENTATION ONLY. THE CONTRACTOR IS TO ENSURE THAT THE SILT FENCE, COMPOST FILTER SOCK AND LIMIT OF WORK FENCE ENCOMPASS THE ENTIRE WORK AREA.

CONTRACTOR IS TO MONITOR THE CONSTRUCTION EXIT, SUPERVISE EXITING TRAFFIC, CLEAN OFF VEHICLES AND EXIT AND SEDIMENT CATCHMENT AREA.

PORTION OF THURSTON STREET NEAR CONSTRUCTION ACCESSSES IS TO BE SWEEPED DAILY.

SAND FILTER MUST NOT BE USED FOR THE CONTROL OF STORMWATER DURING CONSTRUCTION. THE WRENTHAM CONSERVATION COMMISSION WILL REQUIRE THAT WATER BE HELD ON THE WORK SITE AND THAT THE SAND FILTER MUST NOT BE USED EXCEPT FOR THE COMPLETED PROJECT.



SOIL EROSION CONTROL LEGEND

LIMIT OF WORK/DISTURBANCE (W/ 4" HIGH VISIBILITY FENCE)	—
SILT FENCE	—●—●—●—
COMPOST FILTER SOCK	—●—●—●—
SILT FENCE AND COMPOST FILTER SOCK	—●—●—●—
TRIBUTARY AREA TO SESC BMP	—
CONSTRUCTION ENTRANCE	—
CONSTRUCTION EXIT	—
INFILTRATING AREA (TO BE PROTECTED BY COMPOST FILTER SOCK OR SILT FENCE)	—
INLET SEDIMENT CONTROL	—
DIVERSION RUNOFF CONVEYANCE MEASURE (SWALE AND/OR BERM)	—
TEMPORARY SEDIMENT TRAP	—
FINAL CONTOUR GRADE	—

IMPACT NOTE:  
IMPACTS TO 100-FOOT WETLAND BUFFER ZONE = APPROXIMATELY 17,760 SF  
IMPACTS TO 200-FOOT RIVERFRONT AREA = APPROXIMATELY 26,440 SF



THIS PLAN SET IS NOT TO BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS FIRST REVIEWED AND APPROVED BY THE REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING. DIPRETE ENGINEERING ONLY WARRANTS PLANS ON A DIPRETE PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING. DIPRETE ENGINEERING IS NOT RESPONSIBLE FOR ANY DAMAGE TO PROPERTY OR PERSONS ARISING FROM THE USE OF THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY, PRECAUTIONS AND REQUIREMENTS, AND OSHA COMPLIANCE IN THE IMPLEMENTATION OF THIS PLAN AND DESIGN. EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR DAMAGE TO PROPERTY OR PERSONS ARISING FROM THE USE OF THIS PLAN SET. SEE UTILITY NOTE ON SHEET 3.

NO.		DATE	DESCRIPTION	BY:	DESIGN BY: R.S.S.	
1		07/19/2022	DEVELOPMENT PLAN AND NOI RESUBMISSION	R.S.S.		
2		07/20/2021	NOTICE OF INTENT SUBMISSION	M.I.D.		







\\052\storage\p\dehain\PROJECTS\059L-001 THURSTON STREET 500 & 524\AUTOCAD DRAWINGS\059L-001-SEC.DWG DWG DATE: 1/20/2022

## SOIL EROSION AND SEDIMENTATION CONTROL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR ALL SOIL EROSION AND SEDIMENT CONTROL ON SITE WHICH MUST BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE APPLICABLE REGULATIONS AND AUTHORITY HAVING JURISDICTION. THE CONTRACTOR IS TO NOTIFY THE DESIGN ENGINEER, THE DIRECTOR OF PUBLIC WORKS, THE TOWN ENGINEER, AND THE CONSERVATION COMMISSION AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
2. ALL EROSION CONTROL INCLUDING (BUT NOT LIMITED TO) TEMPORARY SWALES AND TEMPORARY SEDIMENT TRAPS, ETC. MUST BE INSTALLED PER THE LATEST EDITION OF THE MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS (MESCO) AND THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). NOTE: THE SOIL EROSION AND SEDIMENT CONTROL SHOWN ON THESE PLANS ARE THE MINIMUM QUANTITY/TYPE OF EROSION CONTROL DEVICES AND MATERIALS DEEMED REQUIRED BY DIPRETE ENGINEERING TO MEET THE OBJECTIVES OF THE MESCO, BUT IS CONSIDERED A GUIDE ONLY. ADDITIONAL MEASURES/ALTERNATE CONFIGURATIONS MAY BE REQUIRED IN ORDER TO MEET THE MESCO BASED ON FACTORS INCLUDING (BUT NOT LIMITED TO) SITE PARAMETERS, WEATHER, INSPECTIONS AND UNIQUE FEATURES. THE SWPPP WILL CONTINUE TO EVOLVE THROUGHOUT CONSTRUCTION/PHASES. PURSUANT TO NOTE 1 ABOVE, SWPPP REMAINS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL THE SITE IS FULLY STABILIZED AND/OR SWPPP RESPONSIBILITIES ARE ASSUMED BY THE OWNER IN WRITING.
3. ALL SEDIMENTATION BARRIERS INCLUDING SILT FENCE AND COMPOST FILTER SOCK, AND ANY TEMPORARY PROTECTION SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION.
4. SILT FENCE AND COMPOST FILTER SOCK SHALL BE INSTALLED DOWNSTREAM OUTSIDE THE LIMITS OF ANY PROPOSED CONSTRUCTION AS SHOWN ON THE SITE PLANS AND PRIOR TO THE START OF EARTH DISTURBANCE AT THE BEGINNING OF CONSTRUCTION.
5. CONTRACTOR MAY MODIFY SEQUENCE OF CONSTRUCTION WITH APPROVAL FROM DESIGN ENGINEER AND OWNER. THE OWNER SHALL SUBMIT ANY CHANGES TO SEQUENCE OR TIMING OF CONSTRUCTION OR INSPECTIONS TO THE COMMISSION PRIOR TO IMPLEMENTATION.
6. THE UNDERGROUND INFILTRATION SYSTEM AND INFILTRATING PORTION OF THE SAND FILTER SHALL BE STAKED PRIOR TO CONSTRUCTION. NO CONSTRUCTION OR EQUIPMENT IS ALLOWED WITHIN LIMITS OF INFILTRATION BMP. INFILTRATION BMPs CAN BE BROUGHT ONLINE ONCE ALL TRIBUTARY AREAS ARE FULLY STABILIZED.
7. SPILLS AND LEAKS SHALL BE AVOIDED THROUGH FREQUENT INSPECTION OF EQUIPMENT AND MATERIAL STORAGE AREAS. HEAVY EQUIPMENT AND OTHER VEHICLES SHALL BE ROUTINELY INSPECTED FOR LEAKS AND REPAIRED AS NECESSARY. MATERIAL STORAGE AREAS SHALL BE ROUTINELY INSPECTED FOR LEAKY CONTAINERS, OPEN CONTAINERS, OR IMPROPER STORAGE TECHNIQUES THAT MAY LEAD TO SPILLS OR LEAKS. APPROPRIATE CLEANUP PROCEDURES AND SUPPLIES SHALL BE AVAILABLE ON-SITE AND SHOULD BE CLEARLY MARKED SO THAT ALL PERSONNEL CAN LOCATE AND ACCESS THESE SUPPLIES QUICKLY. SPILLS SHALL BE CLEANED UP IMMEDIATELY AND FOLLOWING RESPONSE PROCEDURES AND IN ACCORDANCE WITH ANY APPLICABLE REGULATORY REQUIREMENTS. AT NO TIME SHALL SPILLS BE CLEANED AND FLUSHED DOWN STORM DRAINS OR IN TO ANY ENVIRONMENTALLY SENSITIVE AREA (I.E. STREAM, POND, WETLAND).
8. VEHICLE MAINTENANCE, FUELING AND WASHING SHALL OCCUR OFF-SITE, OR IN DESIGNATED AREAS DEPICTED ON THE PLANS OR APPROVED BY THE SITE OWNER. MAINTENANCE OR WASHING AREAS SHALL NOT BE WITHIN 50-FEET OF THE STORM DRAIN SYSTEM. MAINTENANCE AREAS SHALL BE CLEARLY DESIGNATED, AND BERRIS, SANDBAGS, OR OTHER BARRIERS SHALL BE USED AROUND THE PERIMETER OF THE MAINTENANCE AREA TO PREVENT STORMWATER CONTAMINATION. CONSTRUCTION VEHICLES SHALL BE INSPECTED FREQUENTLY FOR LEAKS. REPAIRS SHALL TAKE PLACE IMMEDIATELY. DISPOSAL OF ALL USED OIL, ANTIFREEZE, SOLVENTS AND OTHER AUTOMOTIVE-RELATED CHEMICALS SHALL BE ACCORDING TO APPLICABLE REGULATIONS; AT NO TIME SHALL ANY MATERIAL BE WASHED DOWN THE STORM DRAIN OR IN TO ANY ENVIRONMENTALLY SENSITIVE AREA.
9. THE DEWATERING OF CONTAMINATED NON-STORMWATER CANNOT BE DISCHARGED WITHOUT OBTAINING A PERMIT TO DO SO. IF DEWATERING OF CONTAMINATED WATER IS ANTICIPATED AT THE SITE, APPROPRIATE PERMITS MUST BE OBTAINED IN ADVANCE.
10. DUST CONTROL PROCEDURES AND PRACTICES SHALL BE USED TO SUPPRESS DUST ON A CONSTRUCTION SITE DURING THE CONSTRUCTION PROCESS, AS APPLICABLE. POSSIBLE DUST CONTROL OPTIONS INCLUDE CALCIUM CHLORIDE OR WATER, BUT SPECIFIC MEASURES ARE AT THE CONTRACTOR'S DISCRETION.
11. ALL TYPES OF WASTE GENERATED AT THE SITE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH STATE LAW REGULATIONS. CONSTRUCTION DEBRIS SHALL BE DISPOSED OF DAILY TO AVOID EXPOSURE TO PRECIPITATION.
12. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND INSPECTION OF THE SAND FILTER AND SEDIMENT FOREBAYS DURING AND UP TO A YEAR AFTER BY THE SITE OWNER. MAINTENANCE OR WASHING AREAS SHALL NOT BE WITHIN 50-FEET OF THE STORM DRAIN SYSTEM. MAINTENANCE AREAS SHALL BE CLEARLY DESIGNATED, AND BERRIS, SANDBAGS, OR OTHER BARRIERS SHALL BE USED AROUND THE PERIMETER OF THE MAINTENANCE AREA TO PREVENT STORMWATER CONTAMINATION. CONSTRUCTION VEHICLES SHALL BE INSPECTED FREQUENTLY FOR LEAKS. REPAIRS SHALL TAKE PLACE IMMEDIATELY. DISPOSAL OF ALL USED OIL, ANTIFREEZE, SOLVENTS AND OTHER AUTOMOTIVE-RELATED CHEMICALS SHALL BE ACCORDING TO APPLICABLE REGULATIONS; AT NO TIME SHALL ANY MATERIAL BE WASHED DOWN THE STORM DRAIN OR IN TO ANY ENVIRONMENTALLY SENSITIVE AREA.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION, MAINTENANCE AND REPAIR TO ALL DRAINAGE STRUCTURES AND RELATED APPURTENANCES ON SITE DURING CONSTRUCTION AND IMMEDIATELY FOLLOWING CONSTRUCTION. FOR A MAXIMUM OF 12 MONTHS AFTER COMPLETION BY THE ENGINEER AND THE OWNER. THE OWNER IS RESPONSIBLE FOR INSPECTIONS AND MAINTENANCE THEREAFTER. THE CONTRACTOR'S MAINTENANCE/INSPECTION RESPONSIBILITIES SHALL INCLUDE STABILIZING/RESEEDING ANY UNSTABILIZED AREAS WITHIN THE DRAINAGE BMPs AT NO ADDITIONAL EXPENSE TO THE OWNER.
14. DURING THE FIRST SIX (6) MONTHS OF OPERATIONS, INSPECTIONS SHALL BE ACCOMPLISHED IN EACH DRAINAGE BMP AFTER EVERY RAINFALL EVENT, TO CHECK FOR LOGGING OR, CONVERSELY, TOO RAPID A STORMWATER RELEASE. FOLLOWING THE SIX (6) MONTHS, INSPECTIONS SHALL BE CONDUCTED, AT A MINIMUM, ANNUALLY.
15. THE CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY FOR THE MAINTENANCE PROGRAM DURING THE CONSTRUCTION PHASE AND FOR A PERIOD OF ONE YEAR AFTER CONSTRUCTION. THE SUPERINTENDENT SHALL SEE THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN.
16. AFTER ACCEPTANCE OF THE SITE BY THE OWNER, THE OWNER SHALL HAVE OVERALL RESPONSIBILITY FOR IMPLEMENTING THE MAINTENANCE PROGRAM FOR THE STORMWATER MANAGEMENT PLAN.
17. STAGING, STOCKPILE AND CONCRETE WASHOUT AREAS SHOWN ON THE PLANS ARE INDICATIVE ONLY. ACTUAL STAGING, STOCKPILE AND WASHOUT AREAS WILL BE DRIVEN BY CONSTRUCTION OPERATIONS AND SITE CONDITIONS, SO LONG AS THEY REMAIN COMPLIANT WITH ALL APPLICABLE REGULATIONS AND GUIDANCE DOCUMENTS.
18. IF CONCRETE TRUCKS ARE WASHED OUT ON SITE, ALL WASHOUT MUST BE PERFORMED IN THE DESIGNATED CONCRETE WASHOUT AREA.
19. REFERENCE THE MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS, 1997 (REVISED 2003) AS A GUIDE.

## BMP MAINTENANCE

1. A MAJOR STORM EVENT SHALL BE DEFINED AS GREATER THEN 0.25 INCHES OF RAIN WITHIN A 12-HOUR PERIOD.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE INSPECTED AT LEAST WEEKLY.
3. INSPECTIONS OF THE EROSION AND SEDIMENT CONTROL DEVICES SHOULD BE COMPLETED AT LEAST 48 HOURS BEFORE ANY PREDICTED STORM EVENTS. THE 48-HOUR PERIOD SHOULD ALLOW TIME FOR REPAIR. THIS INCLUDES THE REMOVAL OF ACCUMULATED SEDIMENT OF CLOSE TO THE ALLOWED DEPTH FOR THE SPECIFIC DEVICE SHOULD BE REMOVED AS SOON AS FOUND AND ACTION SHOULD BE TAKEN TO STABILIZE THE WATERSHED AND ENSURE SILT FENCE, COMPOST FILTER SOCK AND ALL OTHER EROSION AND SEDIMENT CONTROL MEASURES ARE FUNCTIONING PROPERLY.
4. ALL STORM DRAIN INLETS TO BE PROTECTED WITH INLET SEDIMENT CONTROL DEVICES, OR EQUAL UNTIL FINAL SITE STABILIZATION IS ATTAINED. INLET PROTECTION MUST BE INSTALLED ON ALL CATCH BASINS ONCE CONSTRUCTED. DEVICES ARE TO BE CHECKED WEEKLY AND FOLLOWING ANY STORM EVENT AND CLEANED OUT IF MORE THAN 1/4 FULL.
5. RUNOFF WATER QUALITY IS IMPROVED UTILIZING AN UNDERGROUND INFILTRATION SYSTEM, SEDIMENT FOREBAYS, AND SAND FILTER. CONSTRUCTION OF THE BMPs SHALL BE SUPERVISED BY THE PROJECT ENGINEER. THE UNDERGROUND INFILTRATION SYSTEM, SEDIMENT FOREBAYS, AND SAND FILTER SHALL BE BUILT TO CONTROL RUNOFF FOR 1 THROUGH 100 YEAR STORM FREQUENCIES. SIDE SLOPES WITHIN THE SEDIMENT FOREBAYS AND SAND FILTER SHALL BE 4:1 MAXIMUM, UNLESS NOTED OTHERWISE. ALL EMBANKMENTS OF THE BASINS SHALL BE THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES. THE EMERGENCY SPILLWAY SHALL BE PROTECTED BY RIP RAP DOWNSTREAM AND UPSTREAM. A GRADED QUATRY GAGE IS TO BE SET WITHIN THE SEDIMENT FOREBAYS AND SAND FILTERS TO MONITOR ACCUMULATED SEDIMENTS.
6. RIP RAP APRONS SHALL BE INSTALLED AT THE OUTLETS OF ALL DRAINAGE PIPES.
7. TEMPORARY BERRIS AND / OR SWALES SHALL BE USED DURING CONSTRUCTION TO DIRECT SURFACE TO TEMPORARY SEDIMENT TRAPS TO CAPTURE AND TRAP THE MAXIMUM AMOUNT OF STORM WATER.
8. CONTRACTOR TO PROTECT POST DEVELOPMENT BMPs FROM RUNOFF UNTIL ALL TRIBUTARY AREAS ARE FULLY STABILIZED.
9. THE CONTRACTOR SHALL MAINTAIN THE DRAINAGE NETWORK DURING CONSTRUCTION. THE ACCUMULATED SEDIMENTS IN THE CATCH BASINS SHALL BE REMOVED AND DRAINAGE PIPES FLUSHED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION. DURING CONSTRUCTION, THE CATCH BASIN SUMPS SHALL BE CHECKED WEEKLY AND SEDIMENTS SHALL BE REMOVED IF THEY EXCEED 6" DEPTH.
10. IF STANDING WATER IS OBSERVED WITHIN THE SAND FILTER FOR MORE THAN THREE (3) DAYS AFTER A RAINFALL, THEN FAILURE OF THE SYSTEM MAY HAVE OCCURRED AND SHALL BE ADDRESSED THROUGH REPAIR OR REPLACEMENT.
11. IF STANDING WATER IS OBSERVED IN THE UNDERGROUND INFILTRATION SYSTEM FOR MORE THAN THREE (3) DAYS AFTER A RAINFALL, THEN FAILURE OF THE INFILTRATION SYSTEM HAS OCCURRED ANDSHALL BE ADDRESSED THROUGH EITHER REPAIR OR REPLACEMENT.
12. REFERENCE THE MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS, 1997 (REVISED 2003) AS A GUIDE.

## SITE STABILIZATION

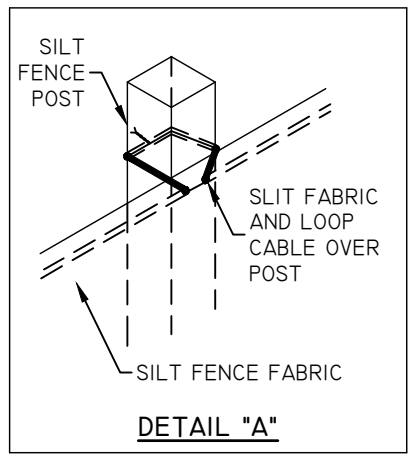
1. ALL SURFACES OF BARE SOIL THAT ARE NOT ACTIVE WORK AREAS MUST BE PROTECTED WITHIN 24 HOURS OF EXPOSURE. PROTECTION CONSISTS OF PROPER EROSION CONTROL, BLANKETS OR COMPOST BLANKET WITH SEED DURING THE GROWING SEASON, JUTE NETTING FOR TEMPORARY COVER, AND EITHER SOD OR STUMP GRINDINGS DURING OTHER TIMES OF THE YEAR. THE CONTRACTOR SHALL ENSURE THESE AREAS ARE MAINTAINED AND PREVENT EROSION.
2. ALL AREAS PROPOSED TO BE VEGETATED THAT ARE DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. PERMANENTLY SEEDED AREAS SHALL BE PROTECTED DURING ESTABLISHMENT WITH MULCH. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. WELL ESTABLISHED VEGETATION SHALL BE MAINTAINED. BARE OR ERODED AREAS SHALL BE IMMEDIATELY REPAIRED AND RESEDED BY THE CONTRACTOR. ACTIVITIES SHALL BE CONFINED TO WITHIN THE LIMIT OF WORK AS SHOWN ON THE PLANS.
3. SHOULD THE TEMPORARY OR PERMANENT SEEDING BE APPLIED AND DEEMED INADEQUATE TO SUFFICIENTLY STABILIZE ANY AREAS IN THE OPINION OF THE DESIGN ENGINEER OR AUTHORITY HAVING JURISDICTION, THE DEFICIENT AREA(S) MUST BE STABILIZED USING NON VEGETATIVE MEASURES IN ACCORDANCE WITH THE MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS, 1997 (REVISED 2003).
4. AREAS NOT STABILIZED BY NOVEMBER IS MUST BE STABILIZED BY NON VEGETATIVE EROSION CONTROL MEASURES IN ACCORDANCE WITH THE MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS, 1997 (REVISED 2003).
5. ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE STABILIZED, PROTECTED, AND MAINTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL CHECK ALL SEEDED AREAS REGULARLY TO SEE THAT A GOOD STAND OF VEGETATION IS MAINTAINED. THE CONTRACTOR MUST REPAIR OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE OWNER.
6. SEEDING IS NOT TO BE USED AS A TEMPORARY STABILIZATION MEASURE IF IT IS NOT A GROWING SEASON OR IF THERE ARE OTHER FACTORS PREVENTING GRASS GROWTH FROM TEMPORARY SEEDING IN A REASONABLE AMOUNT OF TIME.
7. TOPSOIL SHALL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. IMPORTED TOPSOIL SHALL CONSIST OF FERTILE, FRIABLE, NATURAL TOPSOIL, REASONABLY FREE OF STUMPS, ROOTS, STIFF CLAY, STONES LARGER THAN 1 INCH IN DIAMETER, NOXIOUS WEEDS, STICKS, BRUSH, OTHER LITTER, OR CONSTRUCTION DEBRIS AND SHALL CONFORM WITH COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, M.107.0. IMPORTED TOPSOIL CANNOT HAVE NON-NATIVE INVASIVE PLANTS. A COMPETENT PROFESSIONAL SURVEY WILL THE SITE ON A ANNUAL BASIS TO DETERMINE THE PRESENCE OF INVASIVE PLANTS AND IF SUCH PLANTS ARE FOUND THAT A FIVE-YEAR CONTROL PROGRAM WILL BE IMPLEMENTED.
8. THE TEMPORARY SEEDING DESIGN MIX SHALL BE COMPRISED OF THE FOLLOWING:

TYPE	% BY WEIGHT
ANNUAL RYEGRASS	40
PERENNIAL RYEGRASS	60
9. THE NEW ENGLAND EROSION CONTROL/RESTORATION SEED MIX IS TO BE USED IN THE SAND FILTER AND SEDIMENT FOREBAYS SHALL BE COMPRISED OF THE FOLLOWING:

TYPE	% BY WEIGHT
UPLAND BENTGRASS	1.0
CREeping BENTGRASS	1.0
BIG BLUESTEM	8.0
NEW ENGLAND ASTER	1.0
FOX SEDGE	8.0
VIRGINIA WILD RYE	28.0
BONSET	1.0
GRASS LEAVED GOLDENROD	1.0
CREeping RED FESCUE	24.0
SOFT RUSH	0.1
SENSITIVE FERN	1.0
SWITCH GRASS	8.0
LITTLE BLUESTEM	15.0
GREEN BULLRUSH	1.0
WOOL GRASS	0.5
BLUE VERVAIN	1.0
10. CONTRACTOR TO SEED ALL OTHER DISTURBED AREAS USING AN ENDOPHYTE ENHANCED GRASS SEED MIX AT A RATE OF 5.7 LBS. PER 1,000 SQ. FT. OR AS DIRECTED BY TOWN. ANY SOD (TURF) UTILIZED SHALL BE DROUGHT TOLERANT ENDOPHYTES OR PREDOMINANTLY FESCUE IN CHARACTER.
11. EARLY SPRING OR LATE SUMMER SEEDING IS RECOMMENDED. SEEDING SCHEDULE SHOULD CONFORM WITH COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES (M.130). SEEDING DATES, PERMANENT SEEDING SHALL BE DURING THE APRIL 1 TO MAY 31 OR AUGUST 15 TO OCTOBER 15. TEMPORARY SEEDING MAY BE DONE ANYTIME BETWEEN MARCH 15 AND NOVEMBER 15 WITH THE APPROVAL OF THE ENGINEER OF RECORD. BY SIZE AS REQUIRED TO COMPLY WITH THE PERMIT OR UPGRADE EXISTING CONDITIONS. THE SEED MIX SHALL BE INOCULATED WITH 24 HOURS AND BEFORE MIXING AND PLANTING, WITH APPROPRIATE INOCULUMS FOR EACH VARIETY.
12. ALTERNATIVE TEMPORARY STABILIZATION TREATMENT OPTIONS:
  - 12.1. SHALL CONSIST OF 4" LAYER OF FIBER MULCH
  - 12.2. NORTH AMERICAN GREEN ROLLMAX BIOMET S150BN EROSION CONTROL BLANKET OR APPROVED EQUAL. REFER TO MANUFACTURER'S SPECIFICATIONS FOR INSTALLATION.
  - 12.3. HYDROGRASS TECHNOLOGIES, INC. STABILIZATION PRODUCTS OR APPROVED EQUAL. REFER TO MANUFACTURER'S SPECIFICATIONS FOR OPTIONS AND INSTALLATION.
13. SIDE SLOPES OF BASINS SHALL BE TREATED WITH NORTH AMERICAN GREEN ROLLMAX BIOMET S150BN EROSION CONTROL BLANKET OR APPROVED EQUAL. THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER.
14. A STUMP GRINDER CAN BE USED TO MAKE A MULCH MATERIAL THAT CAN BE STOCKPILED AND USED THROUGHOUT THE SITE FOR STABILIZATION.
15. ALL TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE GRASS, GROUND COVER OR PERMANENT STABILIZATION IS ESTABLISHED.
16. MAXIMUM PERMANENT GRADED SLOPE WITHIN THE SITE IS TO BE 3:1 UNLESS NOTED OTHERWISE.
17. REFERENCE THE MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS, 1997 (REVISED 2003) AS A GUIDE.

### NOTES:

1. SHALL BE IN ACCORDANCE WITH SECTION 670.60 OF THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES
2. 1.5"x1.5"x5" MINIMUM WOODEN POSTS FOR SILT FENCE SHALL BE LOCATED 6'-0" (MAXIMUM) O.C. IN WETLAND AREAS AND 4'-0" (MAXIMUM) O.C. IN WETLAND RAVINE. GULLY OR DROP-OFF AREAS AS SHOWN ON PLANS.
3. SILT FENCE SHALL BE INSTALLED BEFORE ANY GRUBBING OR EARTH EXCAVATION TAKES PLACE.
4. SILT FENCE SHALL BE INSPECTED BY THE CONTRACTOR WITHIN 24 HOURS AFTER EACH STORM EVENT OR EVERY 7 DAYS, WHICHEVER COMES FIRST, FOR UNDERMINING AND DETEIORATION. THE SILT FENCE SHALL BE REPAIRED OR REPLACED AS WARRANTED. THE CONTRACTOR SHALL CLEAN THE ACCUMULATED SEDIMENT IF HALF OF THE ORIGINAL HEIGHT OF THE SILT FENCE BECOMES FILLED IN WITH SEDIMENT. THE SILT FENCE SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STANDARD OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED.



## SILT FENCE DETAIL

NOT TO SCALE

## SEQUENCE OF CONSTRUCTION AND STAGING OF LAND DISTURBING ACTIVITIES

SEE GENERAL EROSION CONTROL NOTES AND FULL SEQUENCE OF CONSTRUCTION ON SHEETS 10 & 11.

### PHASE 1

1. CONTRACTOR IS RESPONSIBLE FOR STORMWATER POLLUTION PREVENTION PLAN (SWPPP) ONSITE. SEQUENCE OF CONSTRUCTION PROVIDED MAY BE MODIFIED AS FIELD CONDITIONS WARRANT WITH PRIOR APPROVAL FROM THE TOWN OR THEIR REPRESENTATIVE.
2. CONSTRUCTION TO BEGIN IN THE SUMMER 2022 OR UPON RECEIPT OF ALL NECESSARY APPROVALS.
3. SURVEY AND STAKE THE DRAINAGE BMPs (UNDERGROUND INFILTRATION SYSTEM, SEDIMENT FOREBAYS, SAND FILTER, SEWAGE DISPOSAL SYSTEM AND/OR OTHER DRAINAGE FEATURES), DRAIN LINES, WATER LINES, SEWER LINES AND LIMIT OF WORK FENCE.
4. PLACE/INSTALL LIMIT OF WORK FENCE, SILT FENCE AND COMPOST FILTER SOCK AS SHOWN ON THE PLANS AND STAKED OUT IN THE FIELD. IN NO CASE IS THE LIMIT OF WORK TO EXTEND BEYOND THE SEDIMENTATION BARRIERS. INSTALL CONSTRUCTION ENTRANCE AND EXIT.
5. INSPECTION OF EROSION CONTROL DEVICES ADJACENT TO THE BUFFER ZONES WILL BE DONE BY THE ENGINEER OF RECORD AND ONCE DETERMINED TO BE ACCURATE THE ENGINEER WILL SEND A LETTER TO THE CONSERVATION COMMISSION ATTESTING TO ACCURACY AND DESCRIBING ANY POTENTIAL CHANGES.
6. BEGIN DEMOLITION OF EXISTING STRUCTURES AND CLEARING OF DEBRIS AND GRUBBING IN AREA OF THE BUILDING, OTHER AREAS AS INDICATED ON THE PLANS.

### PHASE 2

7. INSTALL TEMPORARY SEDIMENTATION CONTROL MEASURES AND DEVICES AS SPECIFIED. THE PROPOSED SEDIMENT TRAPS MUST BE USED DURING CONSTRUCTION AND PLACE IN SPECIFIED LOCATIONS OR MUST REPAIR OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE OWNER.
8. PREPARE BUILDING PAD AREA AS SPECIFIED IN THE GEOTECHNICAL REPORT. TOPSOIL IS TO BE STRIPPED AND STOCKPILED IN APPROVED LOCATIONS. TOPSOIL STOCKPILES ARE TO BE PROTECTED WITH SILT FENCE AND TEMPORARILY STABILIZED. EXCAVATE AS NEEDED TO PREPARE BUILDING PAD AREA AND ACCESS AROUND BUILDING PAD AREA.

### PHASE 3

9. BEGIN CONSTRUCTION OF BUILDING FOOTINGS AND PLACE COMPACTED GRAVEL PAD IN BUILDING AREA AS SPECIFIED IN THE GEOTECHNICAL REPORT.
10. EXCAVATE AND INSTALL UNDERGROUND INFILTRATION SYSTEM AND ASSOCIATED DRAINAGE STRUCTURES. EXCAVATE AND GRADE THE SAND FILTER, ROUGH GRADE AND STABILIZE PERIMETER AREAS NEAR BMPs. THE SAND FILTER MUST BE PERMANENTLY STABILIZED FOLLOWING FINISH GRADING.
11. ROUGH GRADE PAVEMENT AREAS AND FINAL GRADE LANDSCAPE AREAS OF THE SITE WHILE LIMITING THE SIZE OF THE ACTIVE WORK AREA. STABILIZE PREVIOUS WORK AREA PRIOR TO MOVING TO NEW ACTIVE WORK AREA.
12. ONCE THE WORK AREAS TRIBUTARY TO THE SEDIMENT TRAPS AT THE SEDIMENT FOREBAY LOCATIONS ARE STABILIZED AFTER ROUGH GRADING, THE SEDIMENT TRAPS CAN BE CONVERTED INTO THE PERMANENT SEDIMENT FOREBAYS. INSTALL PERMANENT ACCESS PATH AROUND SAND FILTER AND SEDIMENT FOREBAYS.
13. INSTALL DRAIN PIPING, DRAINAGE MANHOLES AND CATCH BASINS BEGINNING AT THE SEDIMENT FOREBAY LOCATIONS AND WORKING UP GRADIENT TO THE UNDERGROUND INFILTRATION SYSTEM AND BYPASS MANHOLES. PROTECT DISCHARGE OUTLETS WITH RIP-RAP APRONS. PLACE EROSION CONTROLS AT THE DISCHARGE POINTS AND SEED THE SAND FILTER AND SEDIMENT FOREBAYS, AND DISTURBED AREAS OUTSIDE OF THE PAVING LIMITS. IF SEASON IS UNSUITABLE FOR SEEDING, THESE AREAS MAY BE STABILIZED USING AN APPROVED METHOD UNTIL SEEDING CAN BE COMPLETED. THE SAND FILTER IS TO BE PROTECTED FROM RUNOFF UNTIL ALL UNSTABILIZED AREAS ARE STABILIZED WITH VEGETATION.

### PHASE 4

14. INSTALL DRAIN PIPING, DRAINAGE MANHOLES AND CATCH BASINS FOR THE REMAINDER OF THE DRAINAGE NETWORK. WORK WITH CONTRACTOR TO INSTALL WATER, SEWER, ELECTRIC, TELEPHONE, CABLE AND GAS IN ACCORDANCE WITH THE APPROVED FINAL CONSTRUCTION PLANS. SEED THE DISTURBED AREAS OUTSIDE OF THE PAVING LIMITS. THE DRAINAGE NETWORK ARE TO BE PROTECTED FROM RUNOFF UNTIL ALL UNSTABILIZED AREAS ARE STABILIZED WITH VEGETATION. INSTALL EROSION CONTROL MEASURES IN CATCH BASINS AS THEY ARE CONSTRUCTED.
15. BEGIN CONSTRUCTION OF THE BUILDING STRUCTURE.
16. INSTALL RETAINING WALL NORTHEAST OF THE BUILDING.
17. GRADE RIGHT-IN/RIGHT-OUT ONTO ROUTE 1.
18. FINISH ROUGH GRADING IN THE PAVEMENTS AREA IN ACCORDANCE WITH THE SITE PLANS. INSTALL SUBGRADE, SUBBASE AND BASE COURSE AS SPECIFIED IN THE GEOTECHNICAL REPORT.

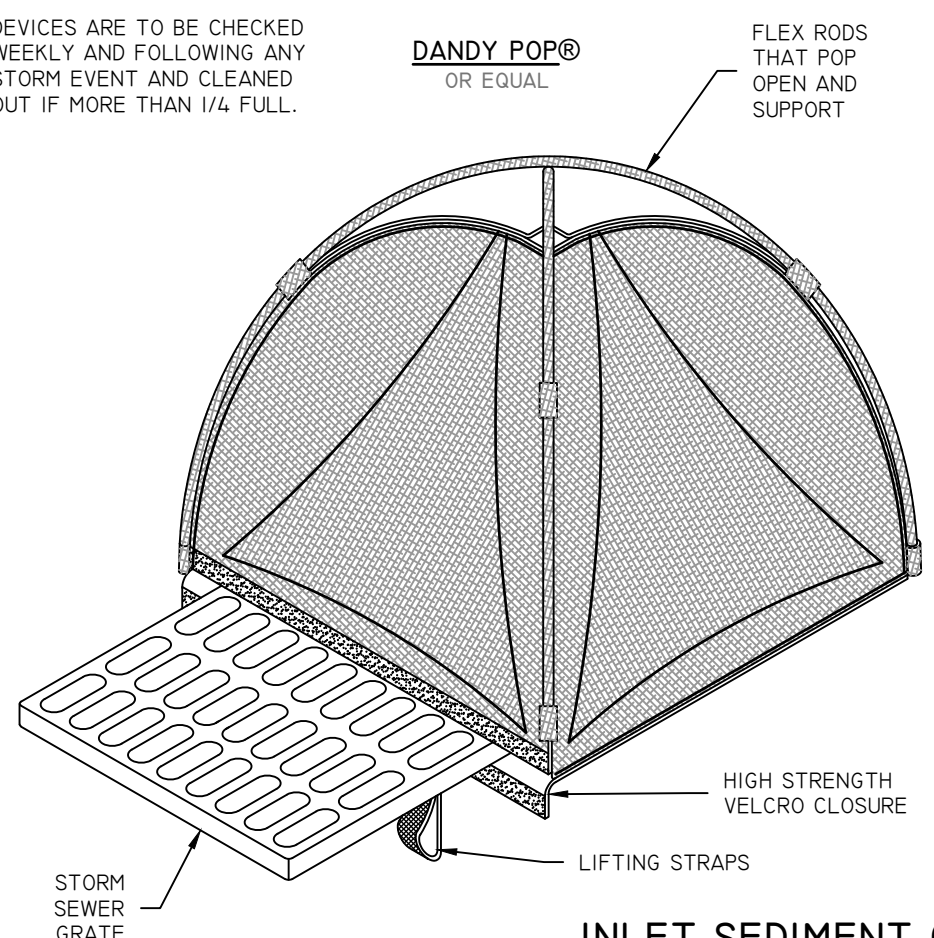
### PHASE 5

19. PLACE BITUMINOUS ASPHALT BINDER PER SITE PLANS.
20. ONCE THE MAJORITY OF THE SITE IS STABILIZED THE DRAINAGE BMPs AND DRAINAGE NETWORK MAY BE BROUGHT ONLINE WITH THE APPROVAL OF THE DESIGN ENGINEER.
21. FINISH PERMANENT STABILIZATION. REPAIR DRAINAGE OUTLETS AND BASINS AS REQUIRED. TREE LIMBS, LEAVES, COBBLES, Boulders, ETC. SHALL BE REMOVED FROM THE BOTTOM OF THE BASINS BEFORE THE APPLICATION OF TOPSOIL.
22. SWEEP THE ROADWAY TO REMOVE ALL SEDIMENTS.
23. THE CONTRACTOR SHALL CLEAN AND FLUSH THE DRAINAGE STRUCTURES AND PIPES AT THE END OF CONSTRUCTION AND ALL ACCUMULATED SEDIMENTS IN THE SAND FILTER AND SEDIMENT FOREBAYS SHALL BE REMOVED.
24. REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES FOLLOWING VEGETATIVE ESTABLISHMENT OF ALL DISTURBED AREAS.
25. PRIOR TO ACTIVATION OF ALL UTILITIES (WATER, SEWER, AND STORM), UTILITY COMPANY AND TOWN ENGINEER TO BE NOTIFIED 48 HOURS IN ADVANCE TO SCHEDULE FINAL INSPECTION.

## EXTREME STORM EVENTS PLAN

1. AN EXTREME STORM EVENT SHALL BE DEFINED AS GREATER THEN 1.00 INCHES OF RAIN WITHIN A 12-HOUR PERIOD.
2. THE CONTRACTOR IS TO HAVE THE APPROPRIATE MATERIALS FOR SITE STABILIZATION ONSITE OR IMMEDIATE ACCESS TO THOSE MATERIALS AT SHORT NOTICE TO BE PREPARED FOR ANY ANTICIPATED EXTREME STORM EVENTS.
3. AT LEAST 48 HOURS PRIOR TO AN EXTREME STORM EVENT:
  - 3.1. ANY WORK AREAS NOT PLANNED TO BE DISTURBED PRIOR TO THE STORM EVENT MUST BE INSPECTED TO ENSURE INSTALLED STABILIZATION METHODS ARE IN PLACE AND FUNCTIONING CORRECTLY.
  - 3.2. ALL ACTIVE WORK AREAS MUST BE PREPARED FOR TEMPORARY STABILIZATION WITH PLANS ON HOW EACH WORK AREA WILL BE STABILIZED. STABILIZATION METHODS ARE TO BE INSTALLED ONCE WORK HAS CEASED FOR THE WORK DAY PRIOR TO THE STORM EVENT.
  - 3.3. ADDITIONAL STABILIZATION METHODS INCLUDE EROSION CONTROL BLANKETS OR MATS, TEMPORARY SWALES AND CHECK DAMS, FILTREX SLOPE STABILIZATION, WOOD CHIPS OR STUMP GRINDINGS.
4. INSPECTIONS OF THE EROSION AND SEDIMENT CONTROL DEVICES SHOULD BE COMPLETED AT LEAST 48 HOURS BEFORE ANY PREDICTED STORM EVENTS TO ALLOW TIME FOR REPAIR. THIS INCLUDES REMOVAL OF ACCUMULATED SEDIMENT IF MORE THAN 1/2 THE ALLOWED SEDIMENT DEPTH HAS ACCUMULATED WITHIN THE SEDIMENT TRAPS OR BY THE COMPOST FILTER SOCKS OR SILT FENCE AND RESET AND/OR REPAIR OF ANY DISTURBED OR OTHER EROSION AND SEDIMENT CONTROL DEVICES.

DEVICES ARE TO BE CHECKED WEEKLY AND FOLLOWING ANY STORM EVENT AND CLEANED OUT IF MORE THAN 1/4 FULL.

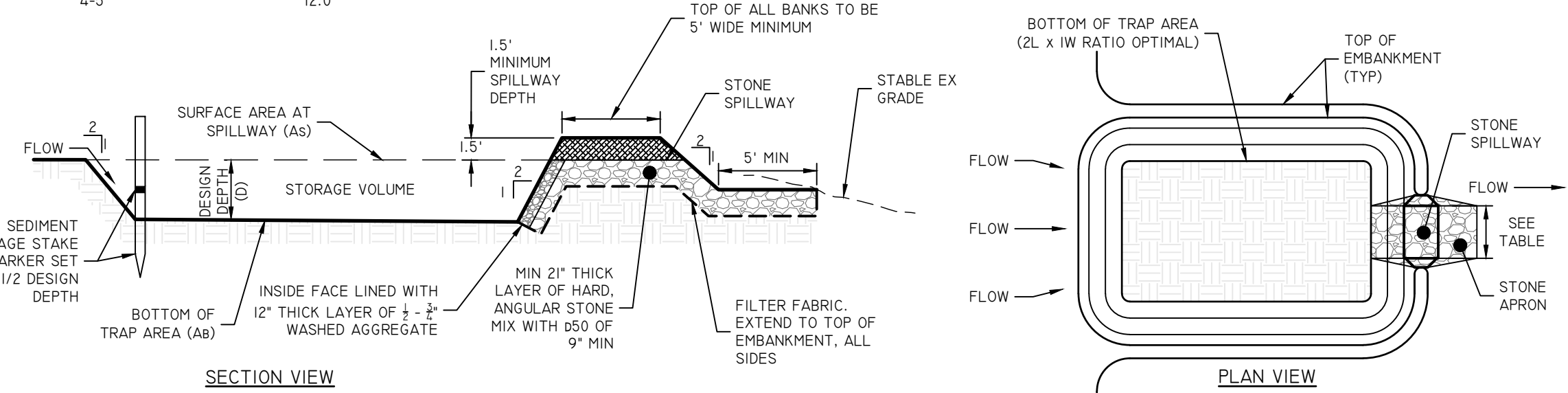


## INLET SEDIMENT CONTROL DEVICES

NOT TO SCALE

### SPILLWAY WIDTH

TRIBUTARY DRAINAGE AREA (AC)	MIN. BOTTOM WIDTH OF SPILLWAY (FT)
UP TO 1	4.0
1-2	6.0
2-3	8.0
3-4	10.0
4-5	12.0



### SECTION VIEW

SEDIMENT TRAP DIMENSIONS	TRAP A	TRAP B	TRAP C	TRAP D	TRAP E	TRAP F
TRIBUTARY DRAINAGE AREA	2.10 AC	1.50 AC	1.60 AC	1.80 AC	3.30 AC	1.75 AC
DESIGN DEPTH (D)	4.00 FT	4.00 FT	4.00 FT	4.00 FT	3.00 FT	4.50 FT
BOTTOM OF TRAP AREA (AB)	2,150 SQ.FT.	1,450 SQ.FT.	1,450 SQ.FT.	1,750 SQ.FT.	4,350 SQ.FT.	1,020 SQ.FT.
SURFACE AREA AT SPILLWAY (AS)	3,875 SQ.FT.	3,000 SQ.FT.	3,000 SQ.FT.	3,325 SQ.FT.	7,900 SQ.FT.	3,900 SQ.FT.
SEDIMENT STORAGE VOLUME	12,050 CU.FT.	8,900 CU.FT.	8,900 CU.FT.	10,150 CU.FT.	18,375 CU.FT.	11,070 CU.FT.

### GENERAL NOTES:

1. TEMPORARY SEDIMENT TRAPS SHALL MEET ALL REQUIREMENTS FOR TEMPORARY SEDIMENT TRAPS OUTLINED IN THE MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS, 1997 (REVISED 2003).
2. THE TEMPORARY SEDIMENT TRAP SHALL HAVE A MINIMUM STORAGE VOLUME OF 203.67 CUBIC YARDS PER ACRE OF CONTRIBUTING DRAINAGE AREA.
3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
4. THE OUTLET SPILLWAY SHALL BE LOCATED AT THE MOST DISTANT HYDRAULIC POINT FROM THE INLET.
5. THE OUTLET SPILLWAY SHALL CONSISTED OF HARD, ANGULAR, WELL-GRADED STONE MIXTURE WITH 650 OF 9 INCHES MINIMUM. INSIDE FACING OF SPILLWAY TO BE LINED WITH A 1-FOOT THICK OF 1/2 TO 1/2 INCH WASHED AGGREGATE. SEE DETAIL.
6. TEMPORARY SEDIMENT TRAPS MUST OUTLET ONTO RIPRAP APRON 5 FEET LONG (MINIMUM) WITH FILTER FABRIC FOUNDATION.
7. MINIMUM WIDTH OF TOP OF EMBANKMENT IS 5 FEET.
8. MAXIMUM HEIGHT OF EMBANKMENT IS 5 FEET FROM OUTER EMBANKMENT TOE TO TOP OF EMBANKMENT.
9. SEDIMENT TRAPS ARE LIMITED TO A MAXIMUM CONTRIBUTING DRAINAGE AREA OF 5 ACRES, AND A STRUCTURE LIFE OF 2 YEARS.

### INSTALLATION NOTES:

- EXCAVATE, GRUB AND STRIP ALL VEGETATION AND ROOT MAT FROM ANY PROPOSED EMBANKMENT AND OUTLET AREA. USE STABLE MINERAL SOIL FREE OF ROOTS, ROCKS, DEBRIS, ORGANIC MATERIAL AND OTHER OBJECTIONABLE MATERIAL.
- PLACE EMBANKMENT FILL IN 9-INCH LIFTS, MAXIMUM. THE FILL SHOULD BE COMPACTED BY ROUTING THE CONSTRUCTION EQUIPMENT SO THAT THE ENTIRE AREA OF THE FILL IS TRAVERSED BY AT LEAST ONE WHEEL OR TREAD TRACK OF THE EQUIPMENT. CONSTRUCT SIDE SLOPES 2:1 OR FLATTER (3:1 RECOMMENDED FOR BACKSLOPE TO IMPROVE STABILITY OF STONE SPILLWAY).
- OVERFILL EMBANKMENT TO 6 INCHES ABOVE DESIGN ELEVATION TO ALLOW FOR SETTLEMENT.

### OUTLET SECTION:

- EXCAVATE TRAPEZOIDAL STONE OUTLET SECTION FROM COMPACTED EMBANKMENT. ALLOW FOR THICKNESS OF STONE SIDE SLOPES (21 INCHES MINIMUM).
- INSTALL FILTER FABRIC UNDER STONE. EXTEND FABRIC UP THE SIDES TO THE TOP OF EMBANKMENT. PLACE SPECIFIED STONE TO LINES AND GRADES SHOWN ON PLANS, WORKING THE SMALL STONES INTO THE VOIDS TO ACHIEVE A DENSE MASS. SPILLWAY CREST MUST BE LEVEL WITH MINIMUM DIMENSIONS SPECIFIED. MEASURE SPILLWAY DEPTH FROM THE HIGHEST STONES IN THE SPILLWAY TO THE DESIGN ELEVATION OF TOP OF EMBANKMENT. MINIMUM DEPTH IS 1.5 FEET.
- KEEP SIDES OF THE STONE OUTLET SECTION AT LEAST 21 INCHES THICK THROUGH THE LEVEL SECTION AND THE DOWNSTREAM FACE OF EMBANKMENT.
- EXTEND OUTLET APRON BEYOND TOE OF EMBANKMENT ON LEVEL GRADE UNTIL STABLE CONDITIONS ARE REACHED (5' MINIMUM). EDGES AND END OF THE STONE APRON SECTION MUST BE FLUSH WITH SURROUNDING GROUND. NO OVERFALL SHOULD EXIST.
- COVER INSIDE OF FACE OF STONE OUTLET SECTION WITH A 1-FOOT THICK LAYER OF 1/2 TO 3/4 INCH AGGREGATE.
- ALL EMBANKMENTS, EARTH SPILLWAYS, AND DISTURBED AREAS DOWNSTREAM FROM THE STRUCTURE SHOULD BE VEGETATED WITHIN 5 DAYS OF COMPLETION OF THE CONSTRUCTION OF THE STRUCTURE.

## TEMPORARY SEDIMENT TRAP DETAIL

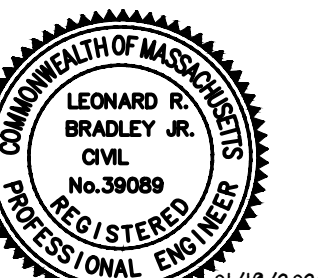
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Boston • Providence • Newport



01/19/2022

James Bradley

### INSPECTION, MAINTENANCE, AND REMOVAL REQUIREMENTS:

1. INSTALL "SEDIMENT STORAGE" STAKE WITH A MARKER AT ONE HALF DESIGN DEPTH. THIS WILL BE THE "CLEANOUT LEVEL". REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO ONE HALF THE DESIGN DEPTH AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS. DEWATER IF NECESSARY.
2. DISPOSE OF THE SEDIMENT REMOVED FROM THE TRAP IN A SUITABLE AREA.
3. INSPECT THE TEMPORARY SEDIMENT TRAPS AT LEAST ONCE A WEEK AND WITHIN 12 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.25 INCH OR GREATER.
4. CLEAN OR REPLACE SPILLWAY GRAVEL FACING IF CLOGGED. PROMPTLY REPLACE ANY DISPLACED RIPRAP, ENSURING THAT NO STONES IN SPILLWAY ARE ABOVE DESIGN GRADE.
5. INSPECT VEGETATION; RESEED AND REMULCH IF NECESSARY.
6. CHECK SPILLWAY DEPTH PERIODICALLY TO ENSURE MINIMUM OF 1.5 FEET DEPTH FROM LOWEST POINT OF THE SETTLED EMBANKMENT TO HIGHEST POINT OF SPILLWAY. MAINTAIN MINIMUM DEPTH OF THE EMBANKMENT TO MAINTAIN DESIGN ELEVATION.
7. AFTER ALL SEDIMENT-PRODUCING AREAS HAVE BEEN STABILIZED, INSPECTED AND APPROVED, REMOVE THE SEDIMENT TRAP AND ALL UNSTABLE SEDIMENT. RESTORE AREA TO DESIGN GRADE AND STABILIZE IN ACCORDANCE WITH LANDSCAPE PLAN/ COVER AS SHOWN ON APPLICABLE PLANS.

THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS FIRST REVIEWED AND APPROVED BY A REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING.

DIPRETE ENGINEERING ONLY WARRANTS THE PLANS ON A DIPRETE ENGINEERING PROJECT. DIPRETE ENGINEERING, A REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING, IS NOT RESPONSIBLE FOR ANY CONSTRUCTION, MAINTENANCE, OR REMOVAL OF THE STRUCTURE OR ANY OTHER WORK NOT SHOWN ON THESE PLANS.

THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE NECESSARY METHODS, SAFETY PRECAUTIONS AND REQUIREMENTS, AND OSHA REQUIREMENTS, TO BE FOLLOWED IN THE IMPLEMENTATION OF THIS PLAN AND DESIGN.

EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION. SEE UTILITY NOTE ON SHEET 1.

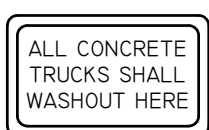
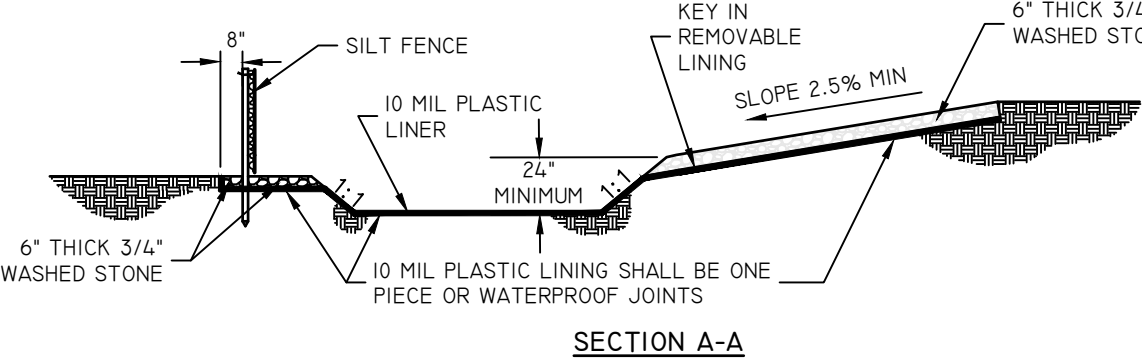
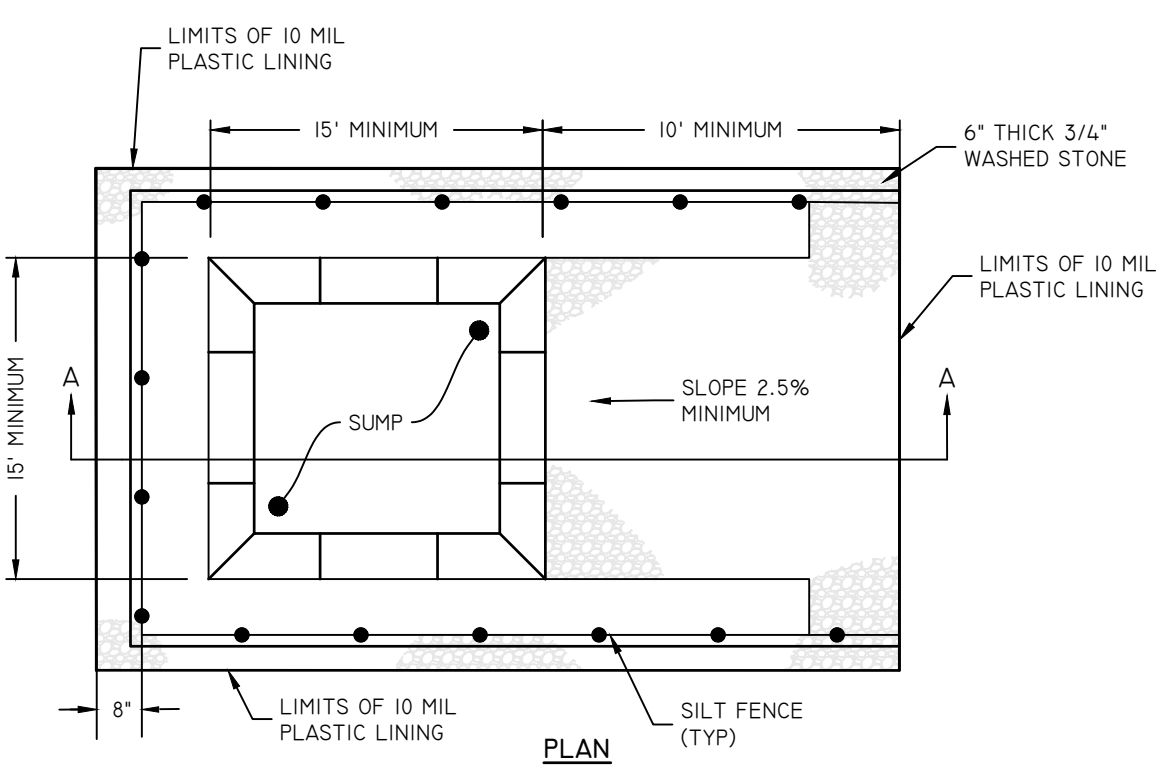
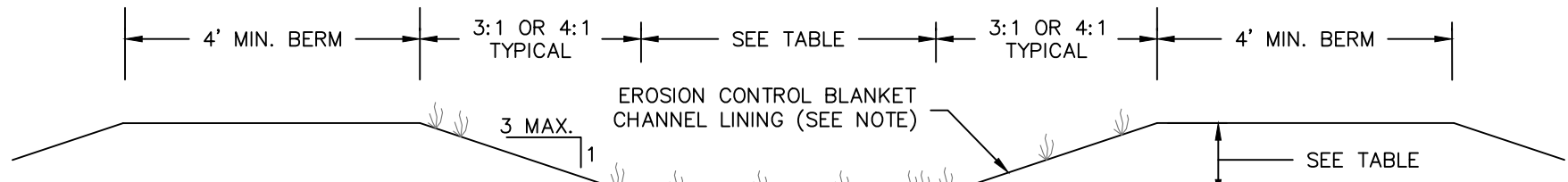
NO.	DATE	DESCRIPTION	BY:
	01/19/2022	DEVELOPMENT PLAN AND NOI RESUBMISSION	R.S.S.
	10/8/2021	NOTICE OF INTENT SUBMISSION	M.I.D.



	A1	A2	B1	C1	C2	D1	E1	F1
DEPTH	1.50	1.50	1.50	1.00	1.00	1.50	1.75	1.75
BASE WIDTH	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
LENGTH	120.00	100.00	475.00	135.00	170.00	225.00	165.00	115.00
AVERAGE SLOPE	0.038	0.005	0.014	0.019	0.015	0.007	0.011	0.004
CHECK DAMS	Yes	No	Yes	No	No	Yes	Yes	Yes

NOTES:

- TEMPORARY EROSION CONTROL BLANKETS TO HANDLE MINIMUM VELOCITY OF 5 FPS. CONTRACTOR TO PROVIDE SHOP DRAWINGS TO DESIGN ENGINEER.
- CONTRACTOR SHALL FIELD ADJUST TEMPORARY SWALES AS NECESSARY, AND ENSURE PROPER FLOW TO THE APPROPRIATE SEDIMENTATION PRACTICE.
- SWALES TO BE ADJUSTED TO MAXIMIZE TRIBUTARY AREA TO EACH SEDIMENT TRAP PER SEDIMENT TRAP DETAIL.



WASHOUT SIGN

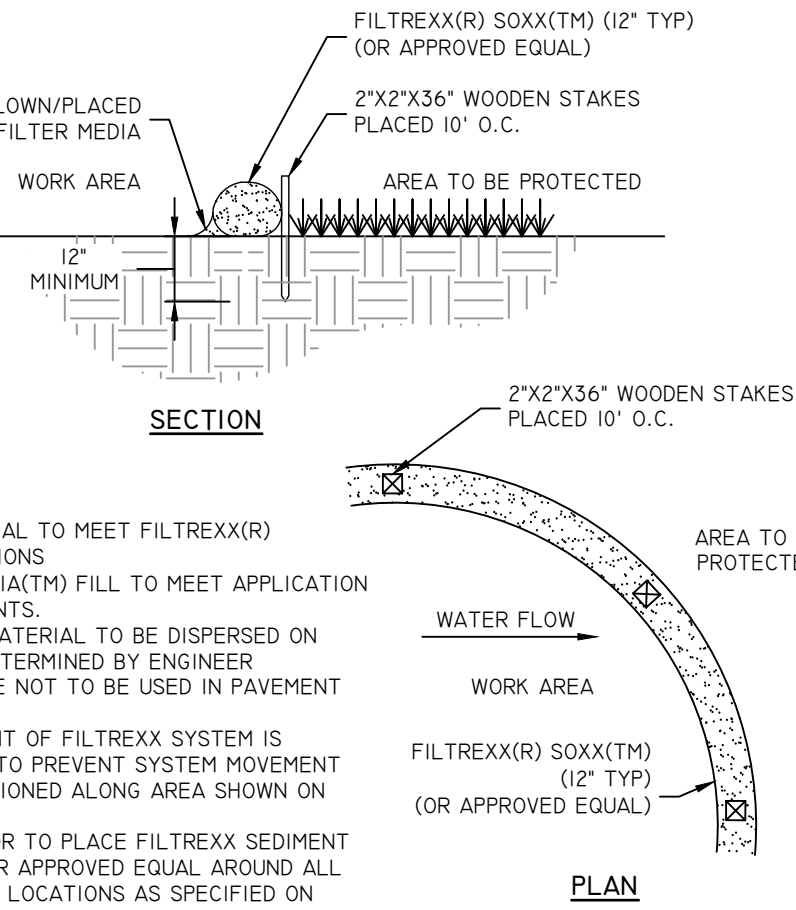
CONCRETE WASHOUT AREA  
NOT TO SCALE

- 13.1. SPECIFICATIONS FOR MULCH FILTER TUBES (" COMPOST SOCKS" )
- THE PURPOSE OF MULCH FILTER TUBES IS TO PROVIDE A LINEAR EMBANKMENT OF ORGANIC MATERIAL, TO BE PLACED IN THE PATH OF STORM WATER FLOWS FOR THE PURPOSE OF FILTERING A SUBSTANTIAL PORTION OF THE SUSPENDED SEDIMENTS FROM THE FLOW. THIS ITEM SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
  - THE FILTER TUBE EXTERIOR SHALL BE 100% ORGANIC BURLAP OR OTHER APPROVED BIODEGRADABLE MATERIAL, AND WILL BECOME INCORPORATED WITH THE ORGANIC INTERIOR MATERIAL.
  - ORGANIC MATTER CONTENT SHALL BE BETWEEN 20-100% (DRY WEIGHT BASIS) AS DETERMINED BY ASTM D2974 (METHOD A) STANDARD TEST METHODS FOR MOISTURE, ASH AND ORGANIC MATTER OF PEAT AND OTHER ORGANIC SOILS.
  - MOISTURE CONTENT SHALL BE <150% BY DRY WEIGHT (<60% BY WET WEIGHT) AS MEASURED BY ASTM D2216 STANDARD TEST METHOD FOR LABORATORY DETERMINATION OF WATER CONTENT OF SOIL AND ROCK AND ASTM D2974 (CITED ABOVE).
  - PARTICLE SIZE AS MEASURED BY SIEVING SHALL BE AS FOLLOWS:  
SIEVE SIZE % PASSING  
75 MM: 100%  
19 MM: 70-100%  
#4: 30-75%  
#20: 20-40%  
NO PARTICLE MAY BE LONGER THAN 150 MM.
  - SOLUBLE SALTS IN THE ORGANIC INTERIOR MATERIAL SHALL BE <5.0 MMHOS/CM, AND THE PH OF SAME SHALL BE BETWEEN 5.5 AND 8.0.
- 13.2. MAINTENANCE

THE APPLICANT SHALL MAINTAIN THE FILTER TUBES IN A FUNCTIONAL CONDITION AT ALL TIMES, INCLUDING INSPECTIONS AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. APPLICANT SHALL IMMEDIATELY CORRECT ALL DEFICIENCIES, SUCH AS GAPS IN COVERAGE, OVERTOPPING, CLOGGING WITH SEDIMENT, EROSION, OR OTHERWISE BECOMING INEFFECTIVE. ANY FILTER TUBE WHICH HAS BROKEN OPEN OR OTHERWISE HAD ITS FUNCTIONING COMPROMISED SHALL BE IMMEDIATELY REPLACED, AND ALL MULCH FROM THE FILTER TUBE INTERIOR SPILLED IN ANY AREA INTENDED TO BE PROTECTED BY THE FILTER TUBE SHALL BE IMMEDIATELY REMOVED. APPLICANT SHALL MAKE A DAILY REVIEW OF THE LOCATION OF THE BERM IN AREAS WHERE CONSTRUCTION ACTIVITY CAUSES DRAINAGE RUNOFF TO ENSURE THAT THE TUBE IS PROPERLY LOCATED FOR EFFECTIVENESS. WHERE DEFICIENCIES EXIST, SUCH AS GAPS IN COVERAGE, OVERTOPPING, OR WASH-OUT, CORRECTIVE ACTION SHALL BE TAKEN IMMEDIATELY, CONSISTENT WITH THE ORDER OF CONDITIONS, OR AS APPROVED OR DIRECTED BY THE COMMISSION OR ITS AGENT. APPLICANT SHALL REMOVE SEDIMENT DEPOSITS AS NECESSARY TO MAINTAIN THE FILTERS IN WORKING CONDITION. SEDIMENT ALSO MUST BE REMOVED WHEN IT REACHES A LEVEL EQUAL TO ONE-HALF THE EFFECTIVE HEIGHT OF THE INSTALLED FILTER TUBE.

- 13.3. REMOVAL
- THE APPLICANT SHALL RAKE OUT FILTER BERMS SO THAT FILTER MATERIAL IS NO GREATER THAN 3" IN DEPTH ON SOIL SUBSTRATE. TYPICALLY, FILTER TUBES ARE TO BE REMOVED AT THE SAME POINT IN THE CONSTRUCTION PROCESS AS CONVENTIONAL EROSION CONTROL MATERIALS SUCH AS MAY BALES AND SILT FENCE WOULD BE. IN APPROPRIATE CASES, THE COMMISSION OR ITS AGENT MAY DIRECT THAT THE TUBES AND/OR THEIR CONTENTS REMAIN IN PLACE TO DECOMPOSE NATURALLY. IF ONLY THE INTERIOR MATERIAL IS TO REMAIN, THE EXTERIOR TUBING MATERIAL SHALL BE CUT AND REMOVED AND DISPOSED OF OFF-SITE BY THE APPLICANT. FILTER MATERIAL REMAINING SHALL BE RAKED PER THE ABOVE INSTRUCTIONS.

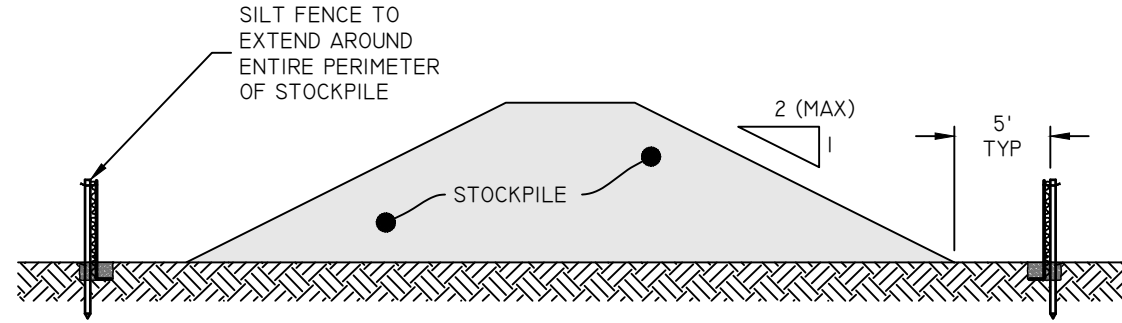
- 13.4. OTHER
- THE DIAMETER OR HEIGHT OF THE FILTER TUBES OR COMPOUND FILTER TUBES TO BE USED MAY BE SPECIFIED BY THE COMMISSION IN ITS ORDER OF CONDITIONS. STEEPER SLOPES MAY REQUIRE THE USE OF COMPOUND FILTER TUBES TO CREATE A BERM.



NOTES:

- ALL MATERIAL TO MEET FILTREXX(R) SPECIFICATIONS
- FILTER MEDIA(TM) FILL TO MEET APPLICATION REQUIREMENTS.
- COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER
- STAKES ARE NOT TO BE USED IN PAVEMENT AREAS.
- SELF WEIGHT OF FILTREXX SYSTEM IS ADEQUATE TO PREVENT SYSTEM MOVEMENT ONCE POSITIONED ALONG AREA SHOWN ON THE PLANS.
- CONTRACTOR TO PLACE FILTREXX SEDIMENT CONTROL OR APPROVED EQUAL AROUND ALL CURB INLET LOCATIONS AS SPECIFIED ON PLANS.

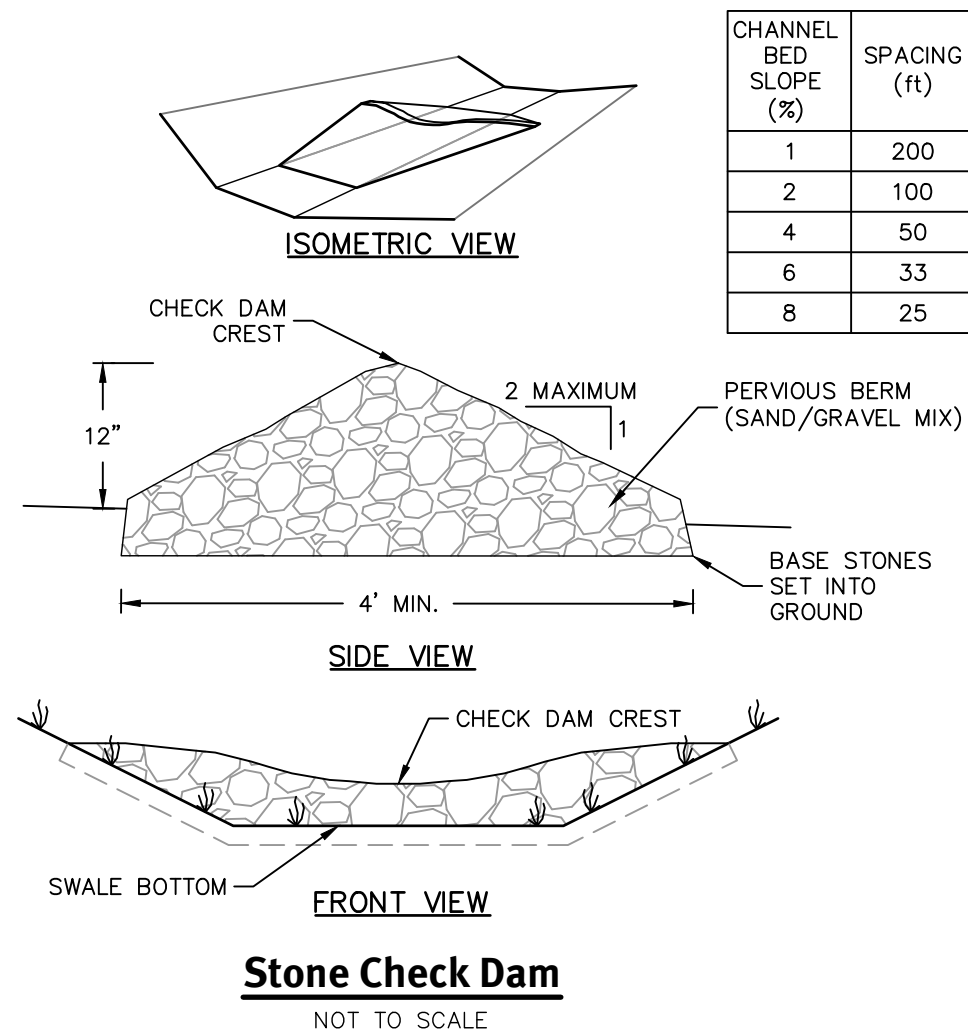
FILTREXX SEDIMENT CONTROL (OR APPROVED EQUAL)  
NOT TO SCALE



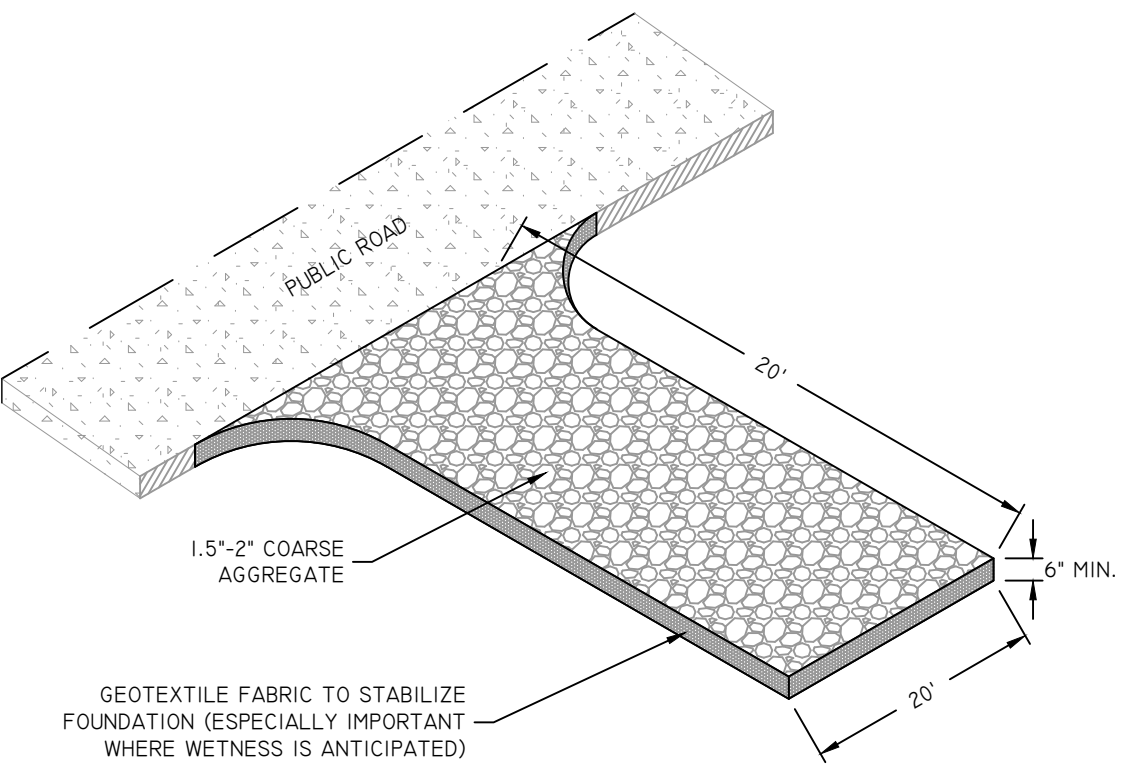
NOTES:

- ALL STOCKPILES MUST BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS (1997, REVISED 2003).
- DIVERT ALL STORMWATER AWAY FROM STOCKPILES.
- STOCKPILES ARE TO BE PROTECTED WITH MULCH, STUMP GRINDINGS, JUTE NETTING, OR ANNUAL SEED MIXES SUPPLEMENTED WITH EROSION CONTROL BLANKETS AND WATERED UNTIL GROWING.
- STOCKPILE AND SILT FENCE MUST BE INSPECTED AT LEAST ONCE PER WEEK AND AFTER RAIN EVENTS IN EXCESS OF 1/4" OF RAINFALL. REPAIR/ REPLACE SILT FENCE (AND STOCKPILE COVERS WHERE APPLICABLE) AS NEEDED TO KEEP THEM FUNCTIONING ADEQUATELY.
- SEDIMENT TRAPPED BY SILT FENCES MUST BE REMOVED AND PROPERLY DISPOSED OF WHENEVER SIGNIFICANT ACCUMULATION OCCURS.
- A TARP OR MULCH CAN BE USED TO COVER STOCKPILES AND TEMPORARY SEEDING CAN ALSO BE APPLIED.

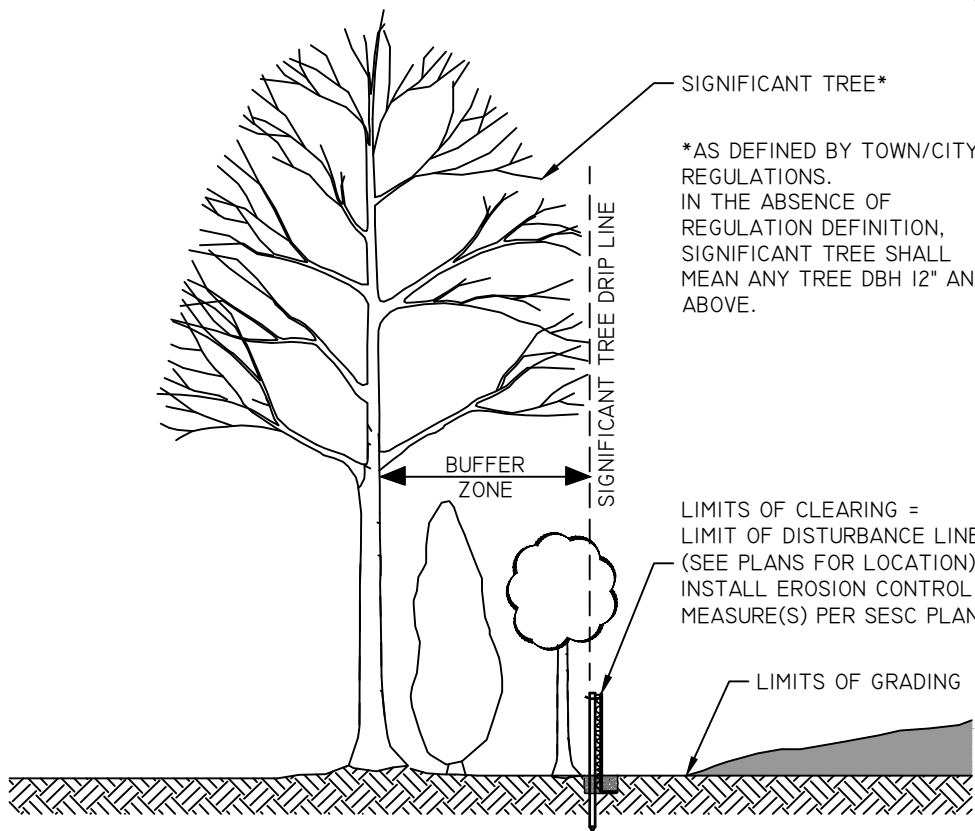
STOCKPILE PROTECTION  
NOT TO SCALE



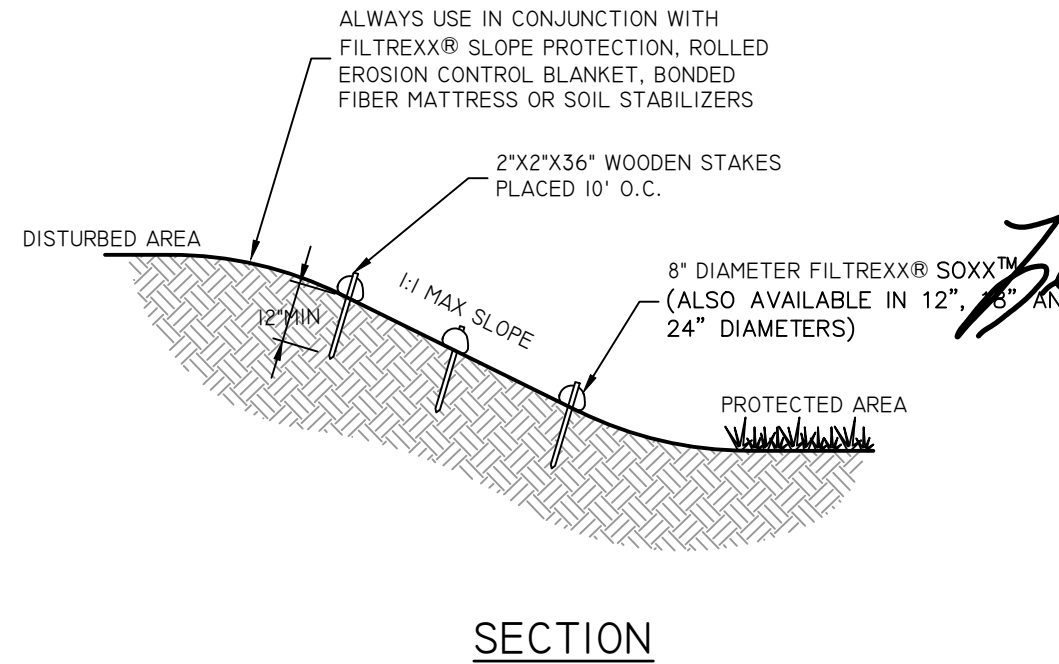
Stone Check Dam  
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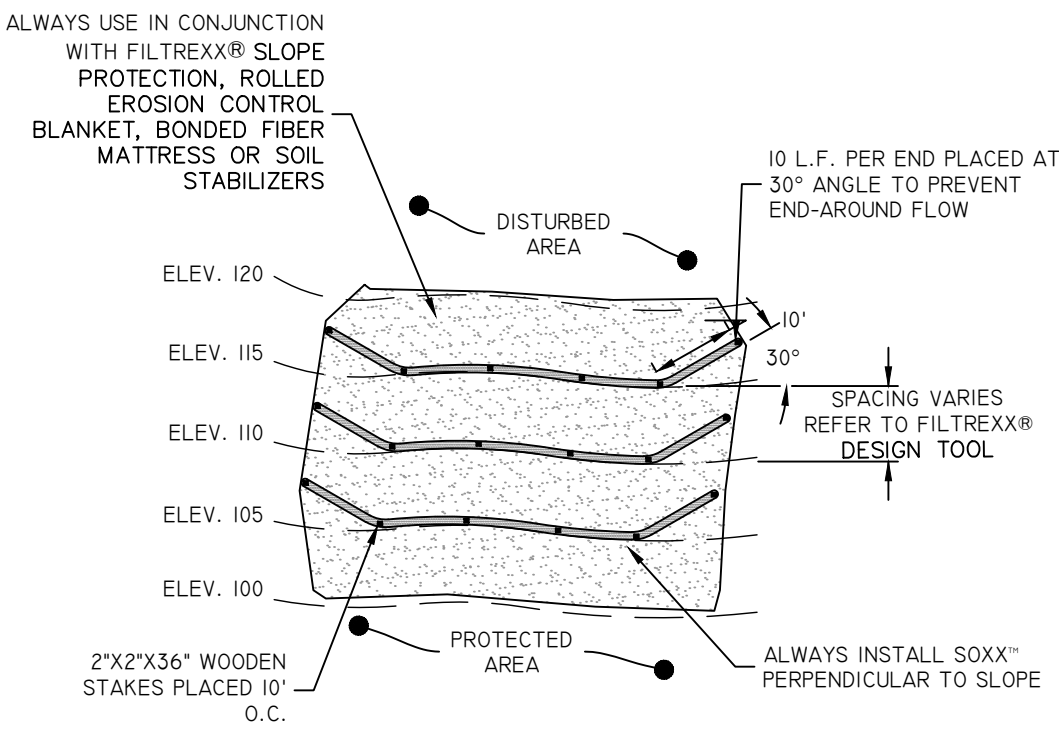
TEMPORARY GRAVEL CONSTRUCTION ENTRANCE  
NOT TO SCALE



LIMIT OF DISTURBANCE AT VEGETATION  
NOT TO SCALE



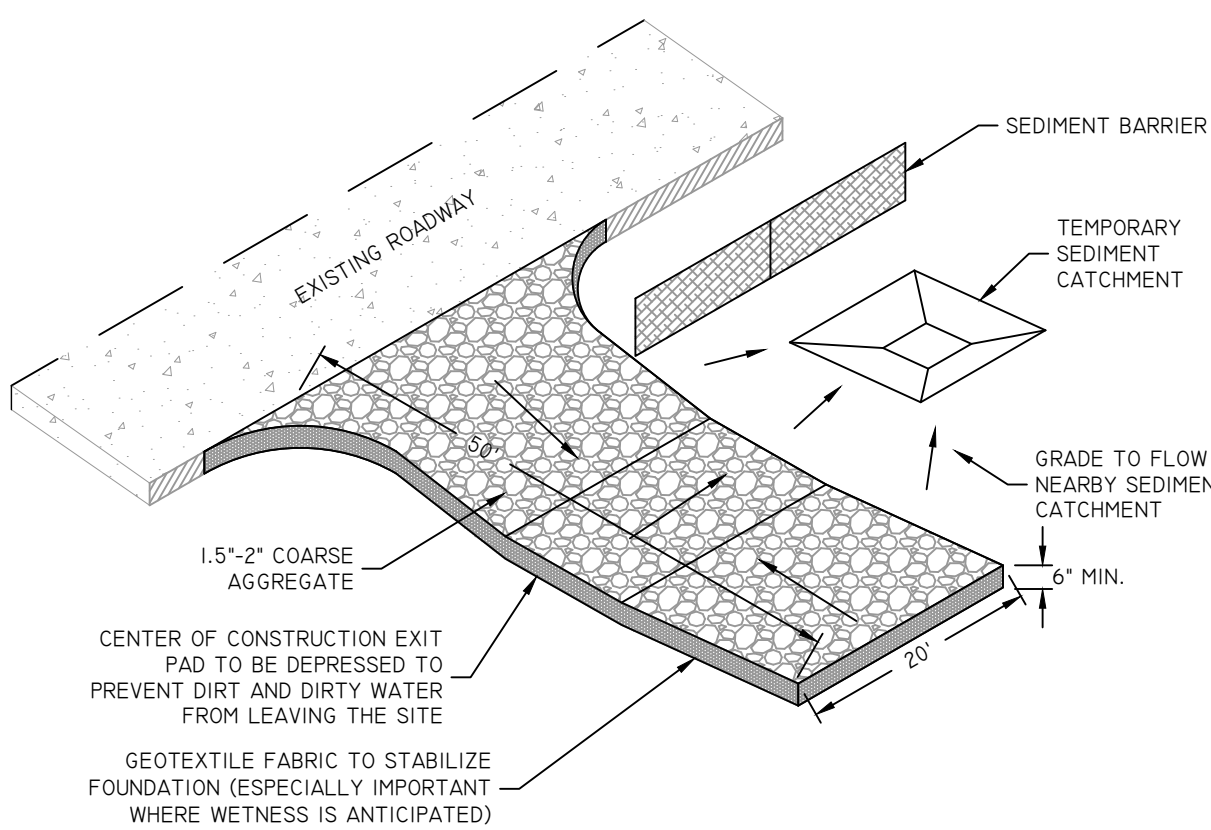
SECTION



PLAN

- NOTES:
- REMOVE SEDIMENT FROM THE UPSLOPE SIDE OF THE SOXX™ WHEN ACCUMULATION HAS REACHED 1/2 OF EFFECTIVE HEIGHT OF SOXX™
  - LOOSE FILTER MEDIA MAY BE BACKFILLED ON THE UPSLOPE SIDE OF THE SOXX™ TO ENHANCE PERFORMANCE.

Filtrexx Slope Interruption (or Approved Equal)  
NOT TO SCALE



TEMPORARY GRAVEL CONSTRUCTION EXIT  
NOT TO SCALE

NOTES:

- MONITOR AND MAINTAIN THE ENTRANCE TO ENSURE THAT IT IS CLEANED AND FUNCTIONING CORRECTLY TO PREVENT TRACKING OF SEDIMENT BY CONSTRUCTION VEHICLES THAT EXIT THE SITE.
- THE MAINTENANCE SHALL INCLUDE TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND OR AS DIRECTED BY THE ENGINEER. ALL SEDIMENTS SPILLED, DROPPED, WASHED, OR TRACKED ON THE PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
- PERSONNEL ARE TO SUPERVISE EXITING TRAFFIC, CLEAN OFF VEHICLES, AND MAINTAIN THE SEDIMENT CATCHMENT AREA.
- NEARBY ROADWAY IS TO BE SWEEPED DAILY.

DATE APPROVED: \_\_\_\_\_

DATE ENDORSED: \_\_\_\_\_

WRENTHAM PLANNING BOARD

I HEREBY CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE PLANNING BOARD APPROVAL AND THAT NO APPEAL HAS BEEN FILED IN THIS OFFICE.

DATE \_\_\_\_\_ WRENTHAM TOWN CLERK

SWPPP DETAIL SHEET

THURSTON STREET  
MAP 07 BLOCK 4, LOTS 1 & 2 & MAP 07 BLOCK 1, LOT 2  
WRENTHAM, MASSACHUSETTS, 02093

PREPARED FOR  
BLUEWATER PROPERTY GROUP  
1 LITTLE WEST 12TH STREET, NEW YORK, NY, 10014  
TEL 212-594-9615



THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS FIRST REVIEWED AND APPROVED BY A REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING.

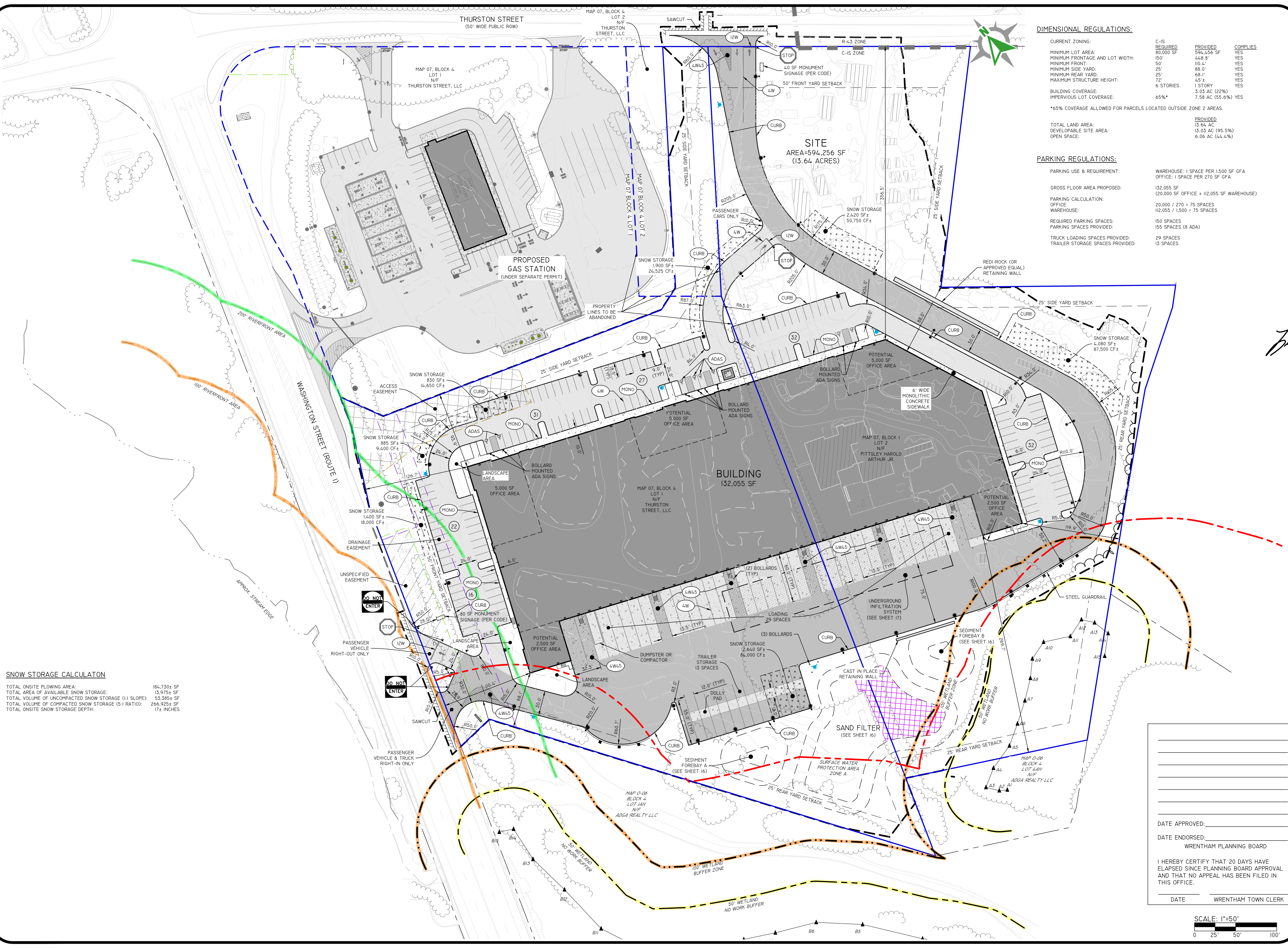
DIPRETE ENGINEERING ONLY WARRANTS PLANS ON A DIPRETE PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING. DIPRETE ENGINEERING SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE, LOSS, OR INJURY TO PERSONS OR PROPERTY, INCLUDING BUT NOT LIMITED TO, DAMAGE TO PROPERTY, LOSS OF LIFE, OR INJURY TO PERSONS OR PROPERTY, ARISING OUT OF THE USE OF THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY PRECAUTIONS AND REQUIREMENTS, AND OSHA COMPLIANCE IN THE IMPLEMENTATION OF THIS PLAN AND DESIGN.

EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE UTILITIES SHOWN ON THIS PLAN. SEE UTILITY NOTE ON SHEET 3.

NO.	DATE	DESCRIPTION	R.S.S.	P.L.D.	BY:	DESIGN BY: R.S.S.
1	07/12/2022	DEVELOPMENT PLAN AND NO. RESUBMISSION				
2	07/20/2022	REVISIONS				



\\DESKTOP\PROJECTS\0254-001\THURSTON STREET 500 & 524\AUTOCAD DRAWINGS\0254-001\PLAN.DWG PLOTTED: 1/20/2022



**SNOW STORAGE CALCULATION**

TOTAL ONSITE PLOWING AREA:	186,730± SF
TOTAL AREA OF AVAILABLE SNOW STORAGE:	13,975± SF
TOTAL VOLUME OF UNCOMPACTED SNOW STORAGE (1:1 SLOPE):	53,385± SF
TOTAL VOLUME OF COMPACTED SNOW STORAGE (5:1 RATIO):	266,928± SF
TOTAL ONSITE SNOW STORAGE DEPTH:	17± INCHES

**DIMENSIONAL REGULATIONS:**

CURRENT ZONING:	C-IS REQUIRED	PROVIDED	COMPLIES
MINIMUM LOT AREA:	80,000 SF	594,456 SF	YES
MINIMUM FRONTAGE AND LOT WIDTH:	150'	448.8'	YES
MINIMUM FRONT:	50'	110.4'	YES
MINIMUM SIDE YARD:	25'	88.0'	YES
MINIMUM REAR YARD:	25'	68.1'	YES
MAXIMUM STRUCTURE HEIGHT:	72'	45'±	YES
BUILDING COVERAGE:	65%*	3.03 AC (22%)	YES
IMPERVIOUS LOT COVERAGE:		7.58 AC (55.6%)	YES

\*65% COVERAGE ALLOWED FOR PARCELS LOCATED OUTSIDE ZONE 2 AREAS.

**PARKING REGULATIONS:**

PARKING USE & REQUIREMENT:	WAREHOUSE: 1 SPACE PER 1,500 SF GFA OFFICE: 1 SPACE PER 270 SF GFA
GROSS FLOOR AREA PROPOSED:	132,055 SF (20,000 SF OFFICE + 112,055 SF WAREHOUSE)
PARKING CALCULATION:	20,000 / 270 = 75 SPACES
WAREHOUSE:	112,055 / 1,500 = 75 SPACES
REQUIRED PARKING SPACES:	150 SPACES (8 ADA)
PARKING SPACES PROVIDED:	155 SPACES
TRUCK LOADING SPACES PROVIDED:	29 SPACES
TRAILER STORAGE SPACES PROVIDED:	13 SPACES

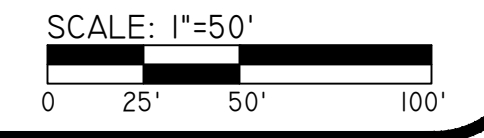
DATE APPROVED: \_\_\_\_\_

DATE ENDORSED: \_\_\_\_\_

WRENTHAM PLANNING BOARD

I HEREBY CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE PLANNING BOARD APPROVAL AND THAT NO APPEAL HAS BEEN FILED IN THIS OFFICE.

DATE \_\_\_\_\_ WRENTHAM TOWN CLERK



**DiPrete Engineering**

990 Washington Street Suite 101A Dedham, MA 02026  
tel 781-326-0021 fax 401-464-6006 www.diprete-eng.com

**LEONARD BRADLEY, P.E.**  
No. 39089  
PROFESSIONAL ENGINEER

01/19/2022

*Leonard Bradley*

THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS FIRST REVIEWED AND APPROVED BY A REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING.

DIPRETE ENGINEERING ONLY WARRANTS ITS PLANS ON A DIPRETE ENGINEERING PROJECT. DIPRETE ENGINEERING IS NOT RESPONSIBLE FOR ANY DAMAGE TO PROPERTY OR PERSONS ARISING FROM THE USE OF THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEASUREMENTS, SURVEYING, AND FIELD DATA. DIPRETE ENGINEERING IS NOT RESPONSIBLE FOR ANY DAMAGE TO PROPERTY OR PERSONS ARISING FROM THE USE OF THIS PLAN SET. SEE UTILITY NOTE ON SHEET 3.

NO.	DATE	DESCRIPTION	R.S.S.	BY	DESIGN BY
1	01/19/2022	DEVELOPMENT PLAN AND NO. RESUBMISSION	R.S.S.	BT	DESIGN BY: R.S.S.
2	01/20/2022	NO. RESUBMISSION	R.S.S.	BT	

**SITE LAYOUT PLAN**

**THURSTON STREET**

MAP 07, BLOCK 4, LOTS 1 & 2 & MAP 07, BLOCK 1, LOT 2

WRENTHAM, MASSACHUSETTS, 02093

PREPARED FOR: **BLUEWATER PROPERTY GROUP**

1 LITTLE WEST 12TH STREET, NEW YORK, NY 10014

TEL 212-994-9915

DE JOB NO. 254-001 COPYRIGHT 2022 BY DIPRETE ENGINEERING ASSOCIATES, INC.

SHEET **12** OF 23







\\BOSTON\PROJECTS\2022\2022-001\THURSTON STREET 500 & 524\AUTOCAD DRAWINGS\2022-001\PLAN.DWG PLOTTED: 1/20/2022



SAND FILTER MUST NOT BE USED FOR THE CONTROL OF STORMWATER DURING CONSTRUCTION. THE WRENTHAM CONSERVATION COMMISSION WILL REQUIRE THAT WATER BE HELD ON THE WORK SITE AND THAT THE SAND FILTER MUST NOT BE USED EXCEPT FOR THE COMPLETED PROJECT.

**DiPrete Engineering**  
990 Washington Street Suite 101A Dedham, MA 02026  
tel 781-326-0021 fax 401-464-6006 www.diprete-eng.com

**Boston • Providence • Newport**

**Leonard Bradley, P.E.**  
Professional Engineer  
01/19/2022

*James Bradley*

THIS PLAN SET IS NOT TO BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS APPROVED BY THE WRENTHAM PLANNING BOARD AND THE WRENTHAM CONSERVATION COMMISSION. THE WRENTHAM CONSERVATION COMMISSION WILL REQUIRE THAT WATER BE HELD ON THE WORK SITE AND THAT THE SAND FILTER MUST NOT BE USED EXCEPT FOR THE COMPLETED PROJECT.

DIPRETE ENGINEERING ONLY WARRANTS PLANS ON A DIPRETE ENGINEERING PROJECT. DIPRETE ENGINEERING IS NOT A PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING. THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY, PRECAUTIONS AND REQUIREMENTS, AND OSHA COMPLIANCE IN THE IMPLEMENTATION OF THIS PLAN AND DESIGN.

EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING UTILITIES SHOWN ON THIS PLAN. SEE UTILITY NOTE ON SHEET 3.

T	U	A	E	D	P	F	E	T	M
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**DRAINAGE PLAN**  
**THURSTON STREET**  
MAP 07 BLOCK 4, LOTS 1 & 2 & MAP 07 BLOCK 1, LOT 2  
WRENTHAM, MASSACHUSETTS, 02093

**BLUEWATER PROPERTY GROUP**  
1 LITTLE WEST 12TH STREET, NEW YORK, NY, 10014  
TEL 212-944-9915

DATE APPROVED: \_\_\_\_\_  
DATE ENDORSED: \_\_\_\_\_  
WRENTHAM PLANNING BOARD

I HEREBY CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE PLANNING BOARD APPROVAL AND THAT NO APPEAL HAS BEEN FILED IN THIS OFFICE.  
DATE \_\_\_\_\_ WRENTHAM TOWN CLERK

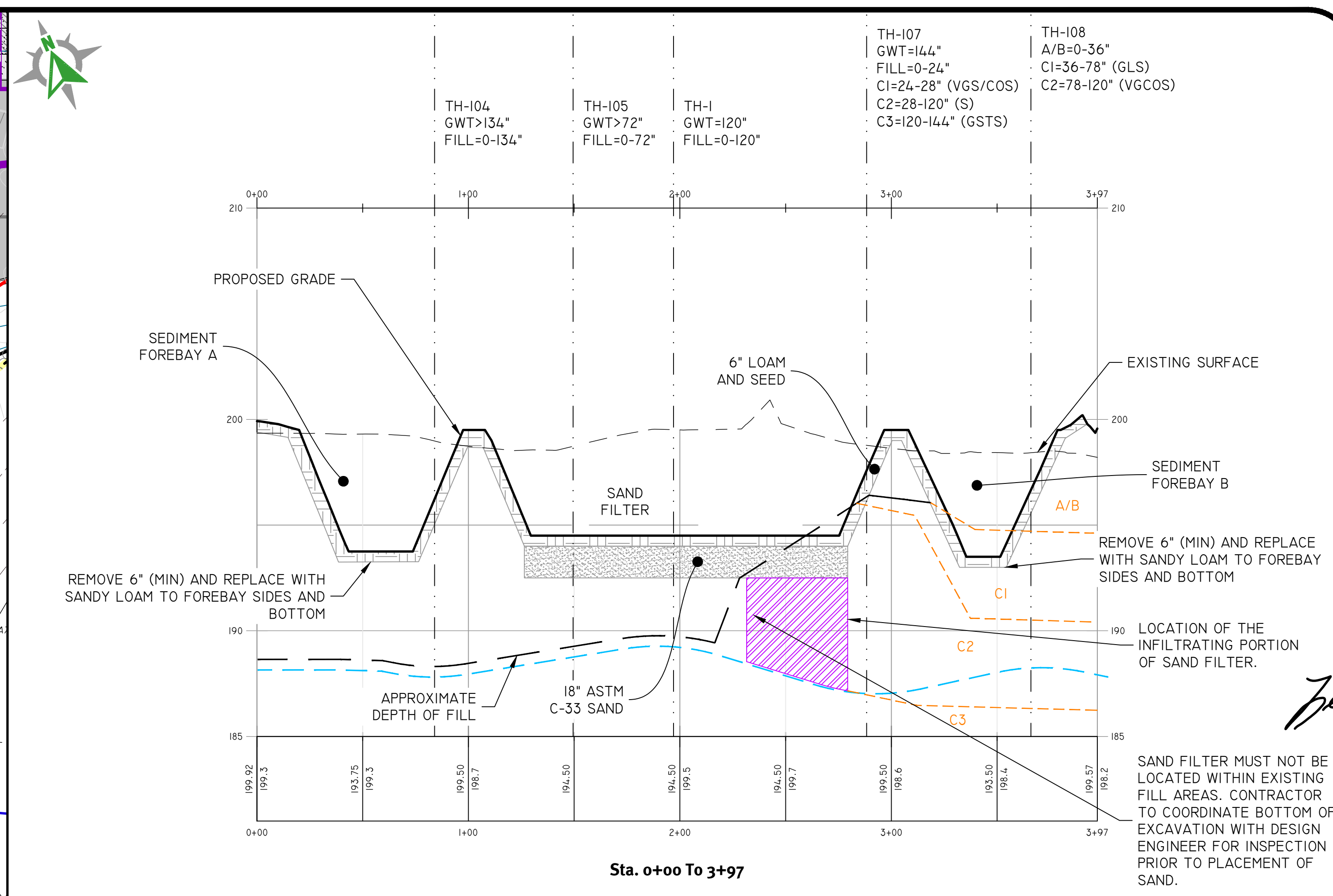
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0 25' 50' 100'

SHEET **14** OF 23



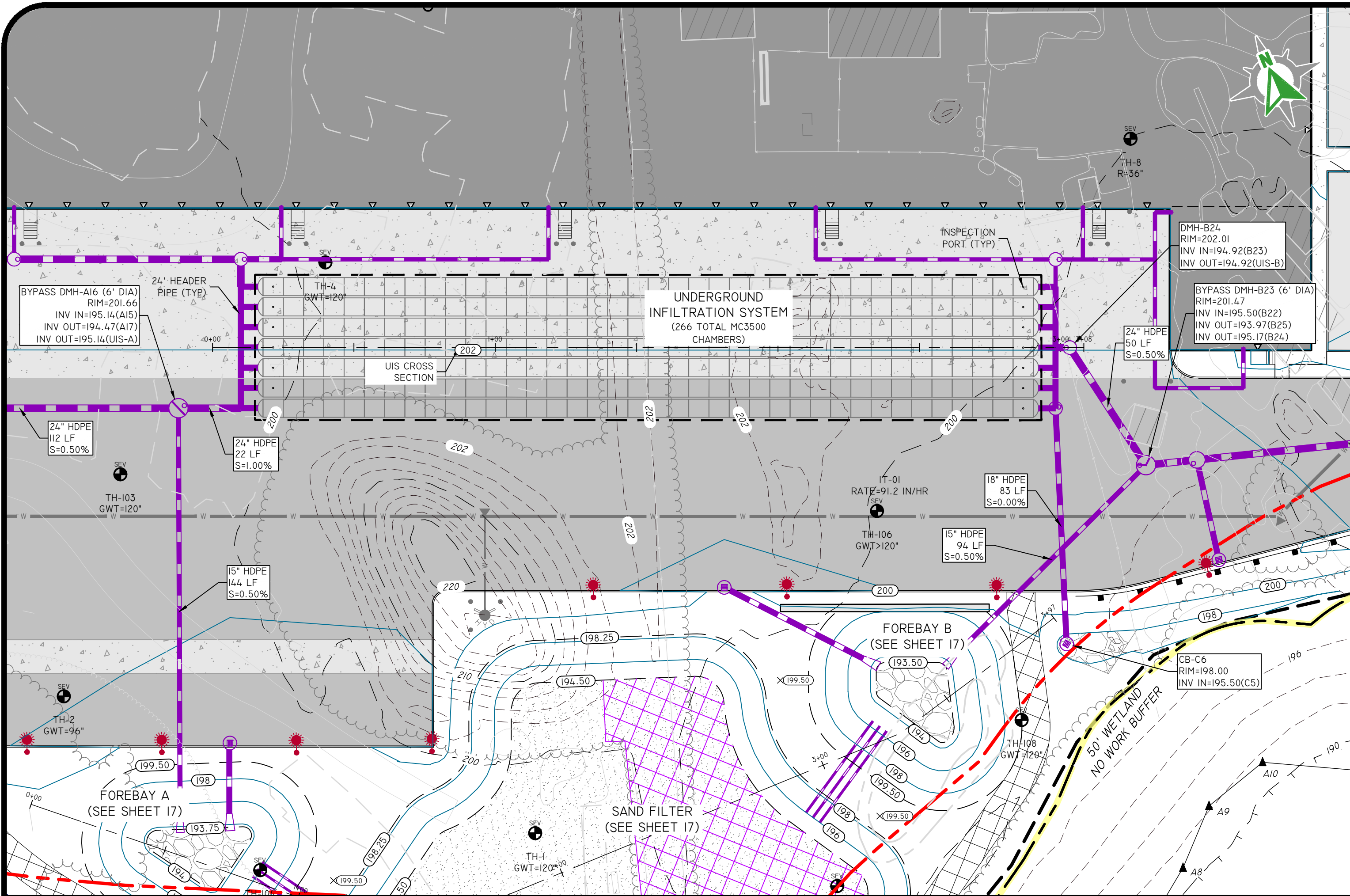




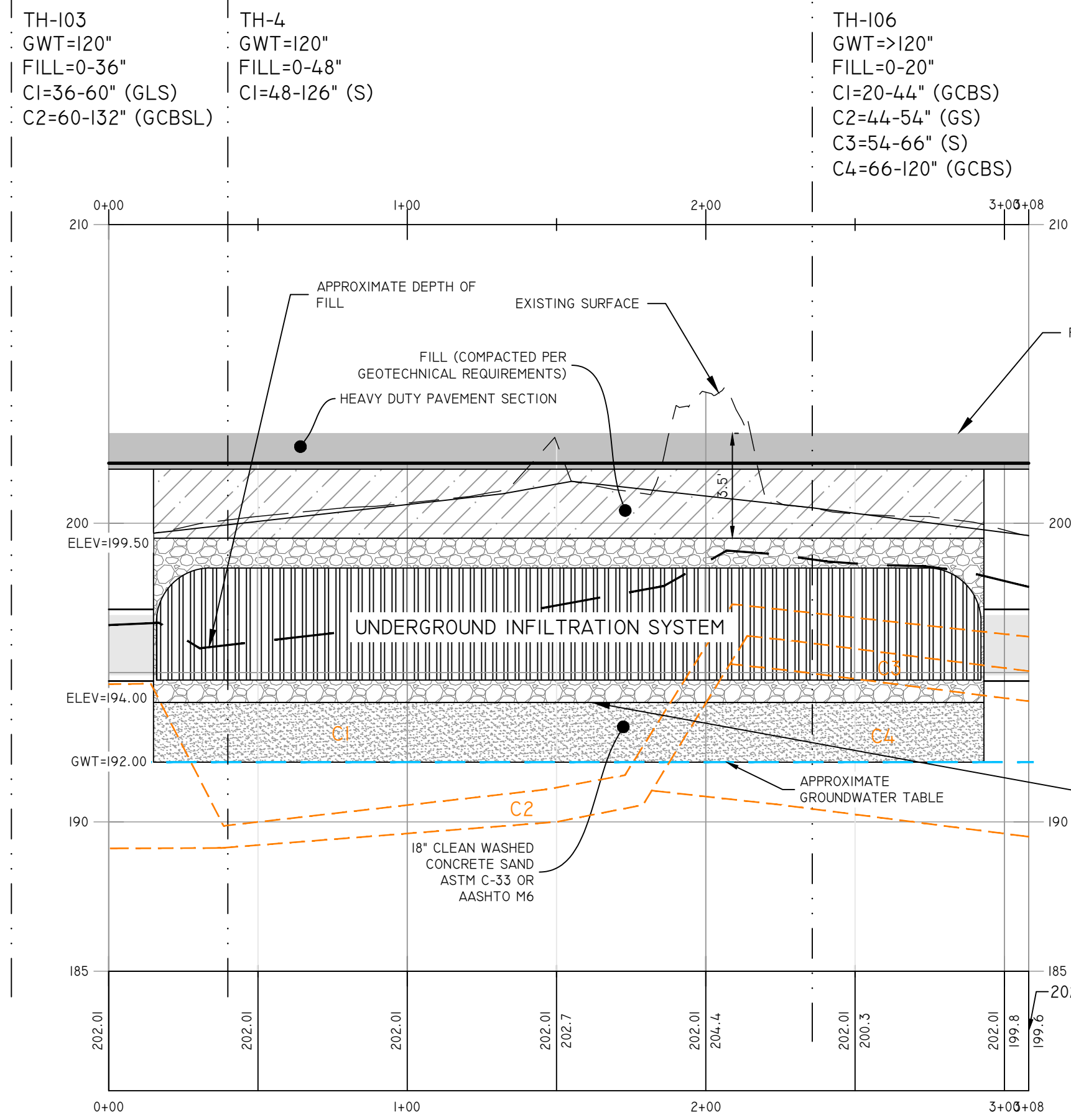
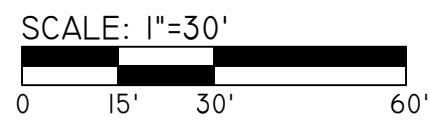




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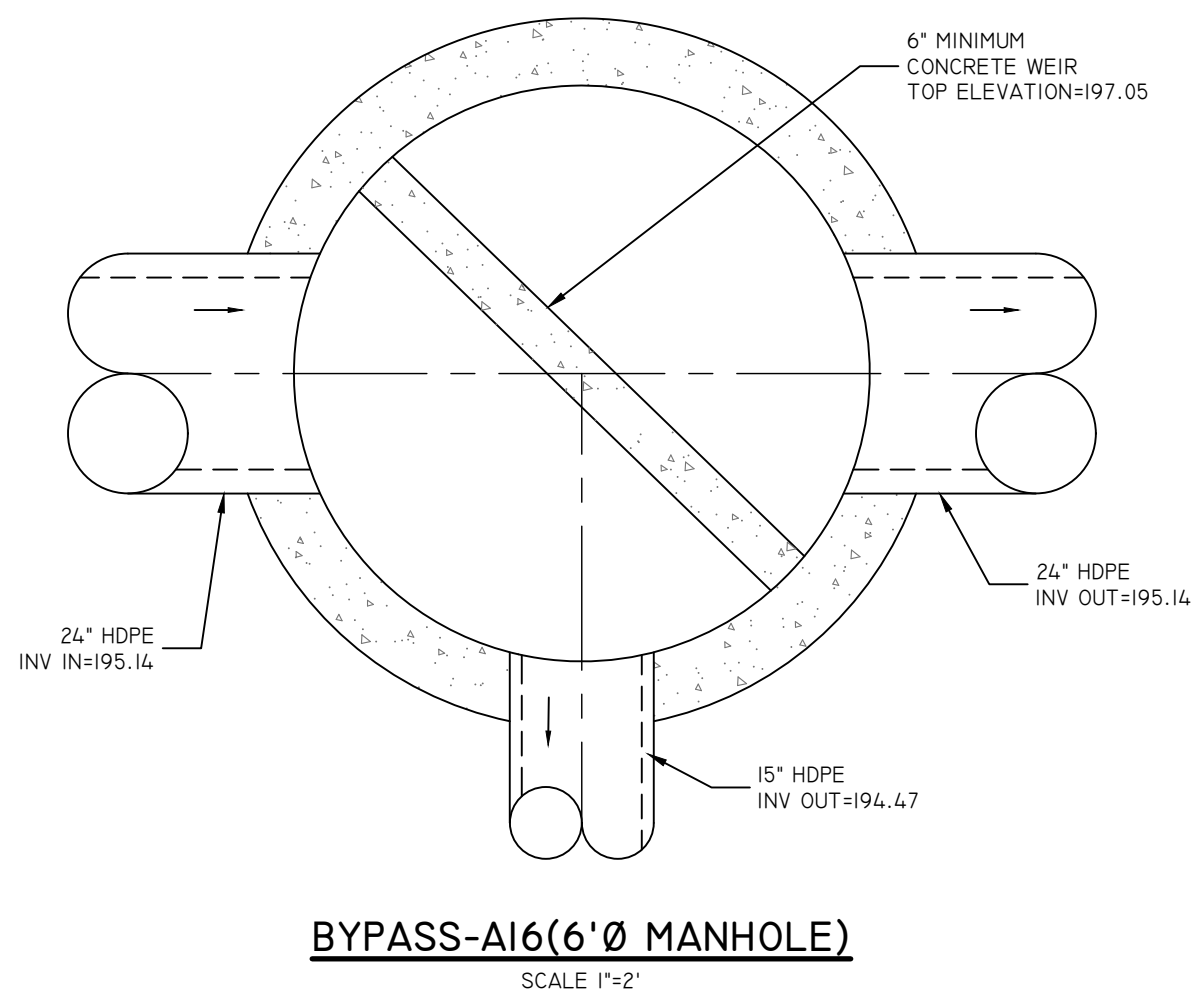
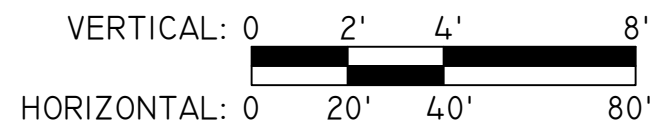


UNDERGROUND INFILTRATION SYSTEM



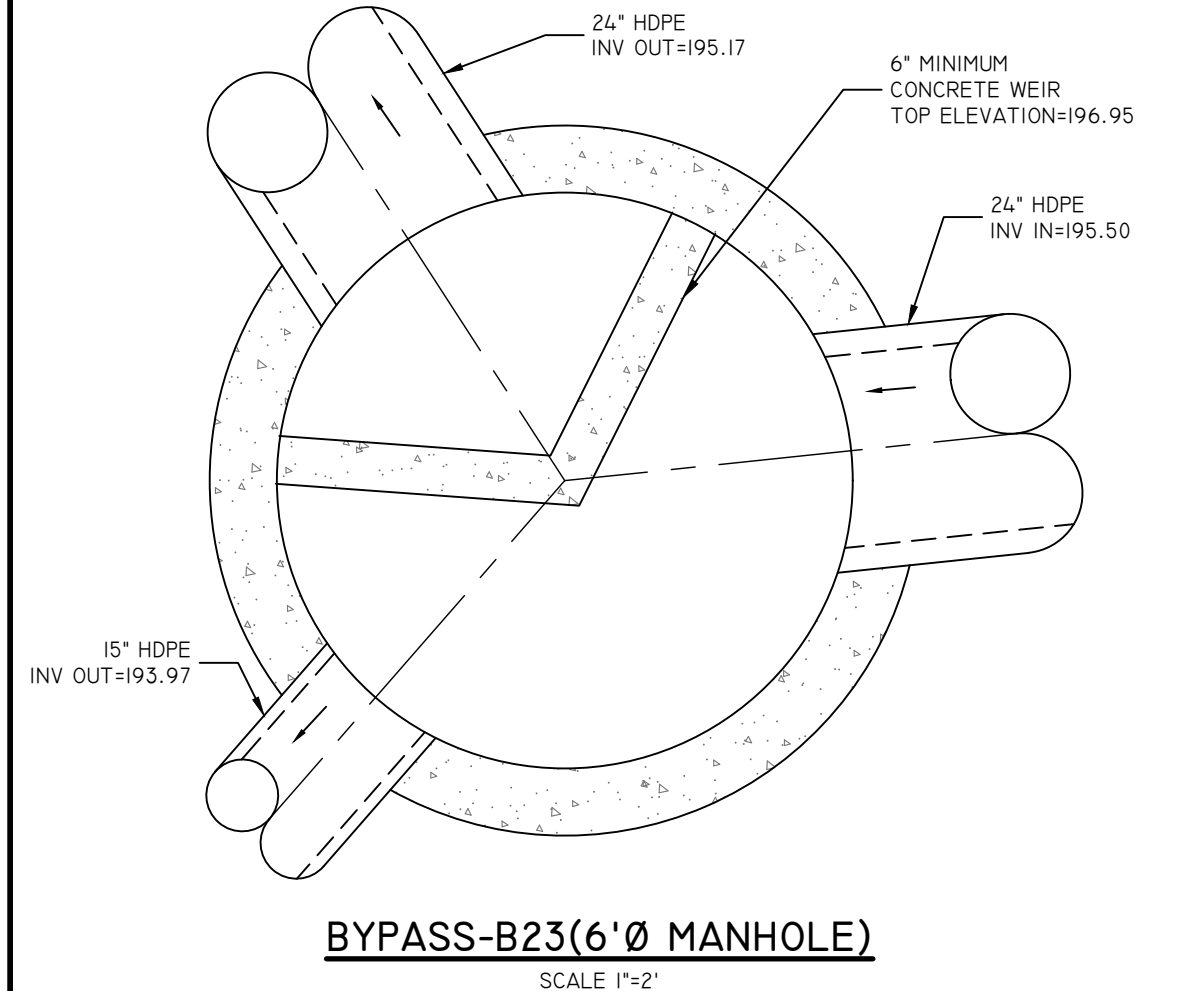
Sta. 0+00 To 3+08

UIS CROSS SECTION



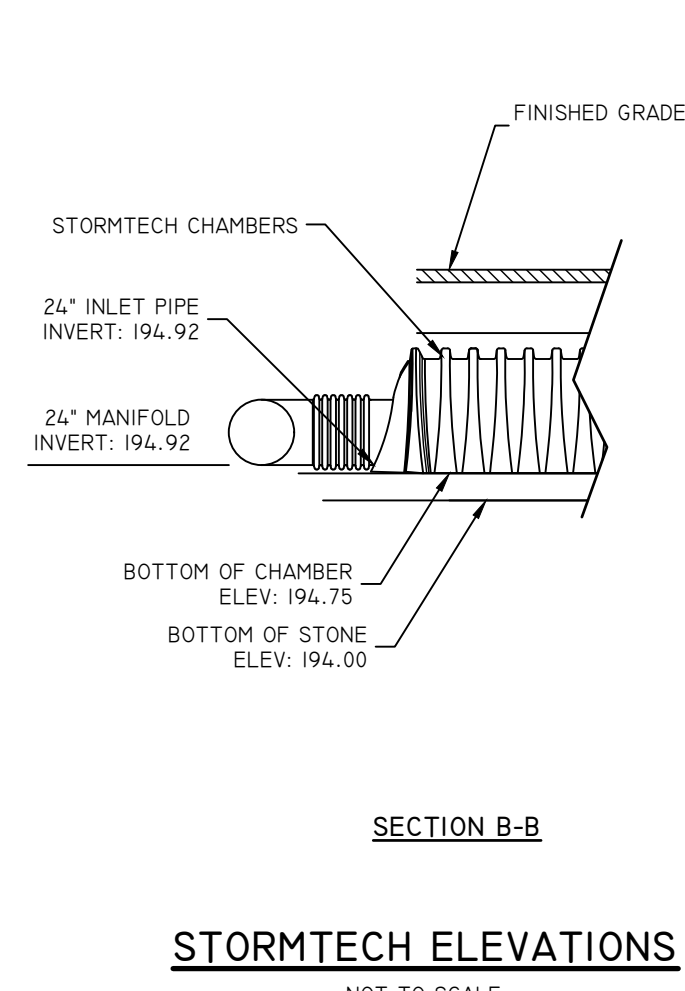
BYPASS-A16(6'Ø) MANHOLE

SCALE 1"=2'



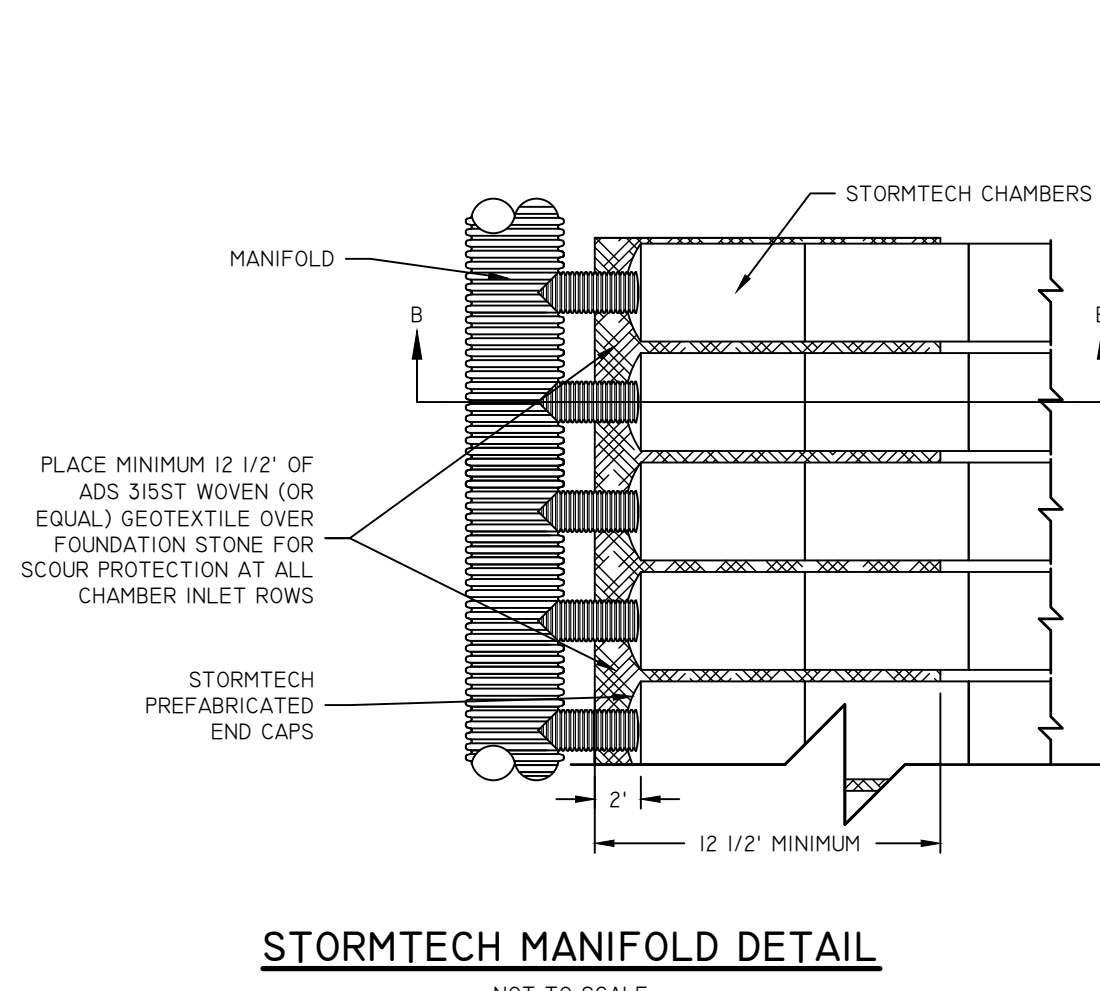
BYPASS-B23(6'Ø) MANHOLE

SCALE 1"=2'



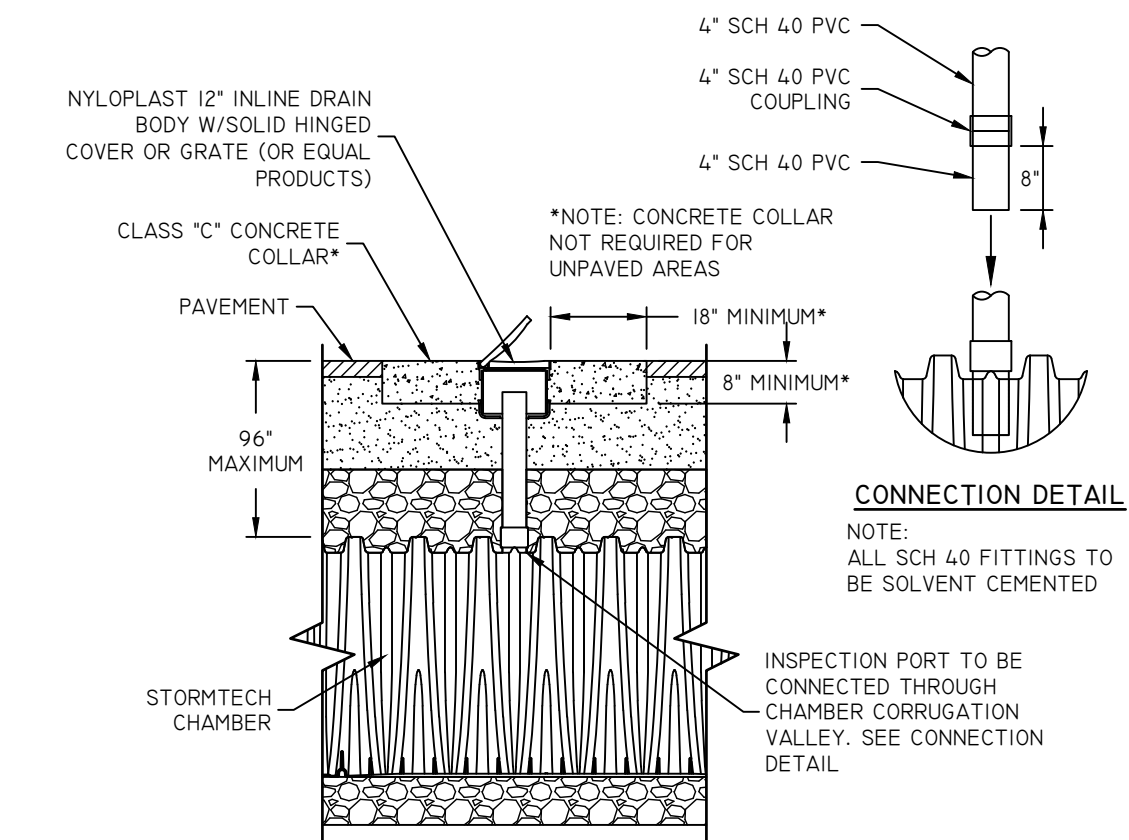
STORMTECH ELEVATIONS

NOT TO SCALE



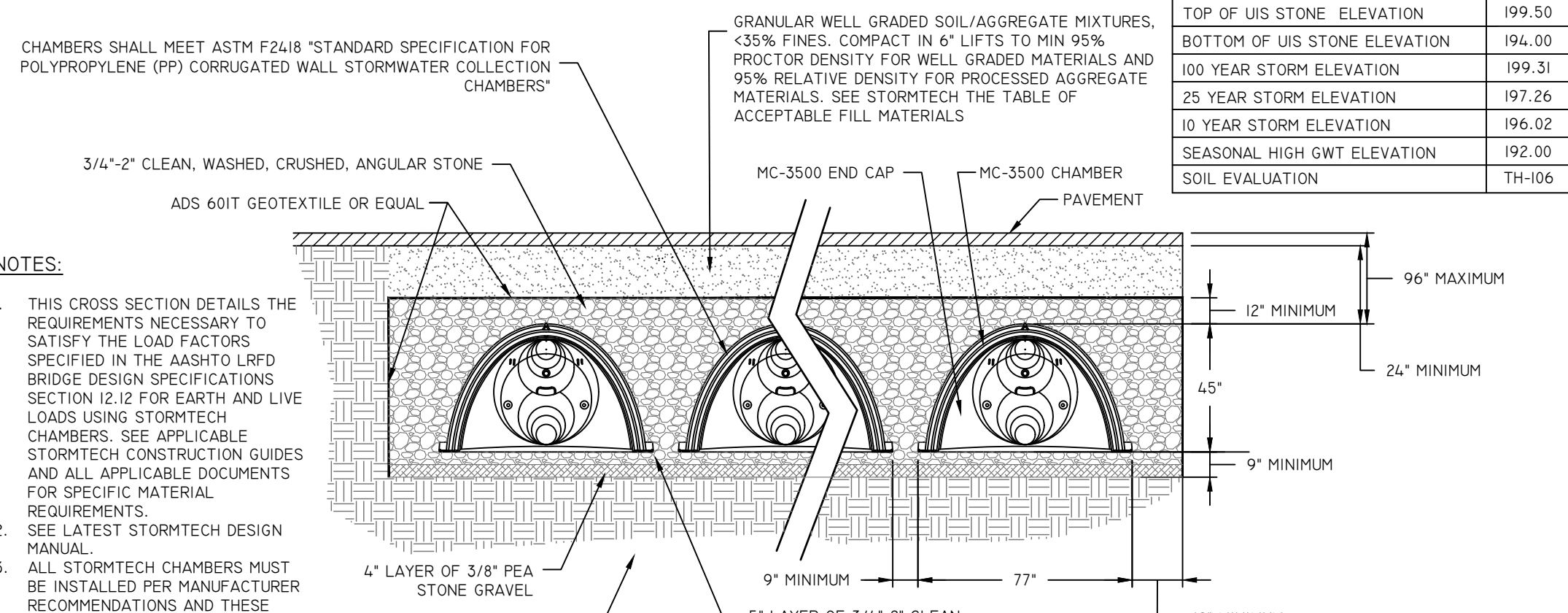
STORMTECH MANIFOLD DETAIL

NOT TO SCALE



STORMTECH GENERAL INSPECTION PORT DETAIL

NOT TO SCALE



STORMTECH MC-3500 TYPICAL CROSS SECTION

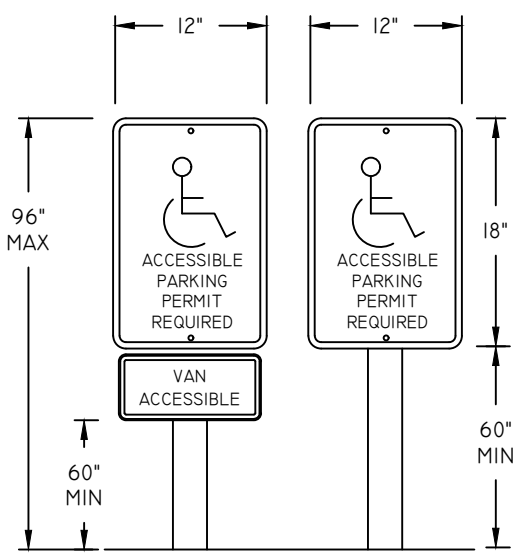
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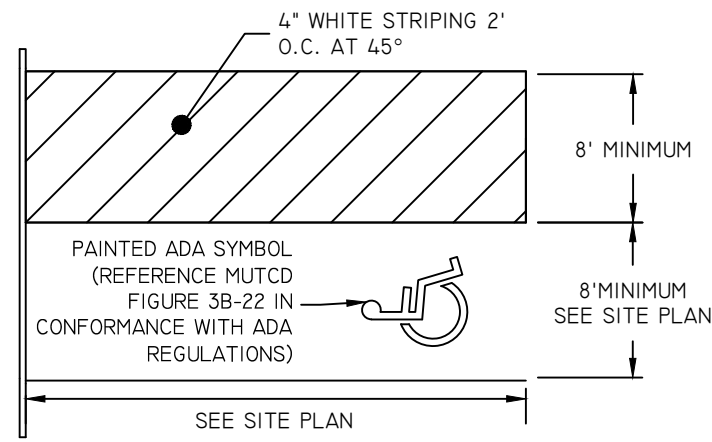
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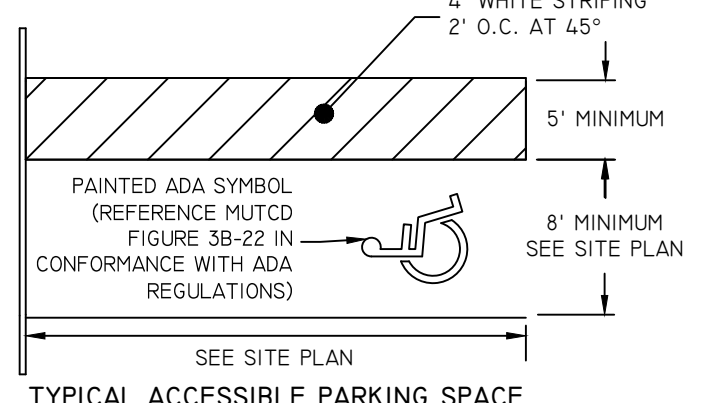
TYPICAL ACCESSIBLE  
PARKING SIGN

NOT TO SCALE

- NOTES:
1. SIGN MUST BE PLACED BEHIND APPLICABLE VAN ACCESSIBLE OR ACCESSIBLE SPACE AS SHOWN ON SITE PLAN.
  2. ACCESSIBLE PARKING SPACES AND SIGNAGE MUST COMPLY WITH LATEST VERSION OF THE ADA STANDARDS FOR ACCESSIBLE DESIGN, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) OR THE APPLICABLE STATE/ MUNICIPAL BUILDING CODE, WHICHEVER STANDARD CONTROLS.
  3. THE MAXIMUM HEIGHT OF THE HIGHEST SIGN SHALL BE 96".
  4. THE MINIMUM HEIGHT OF THE LOWEST SIGN SHALL BE 60".



TYPICAL VAN ACCESSIBLE  
PARKING SPACE

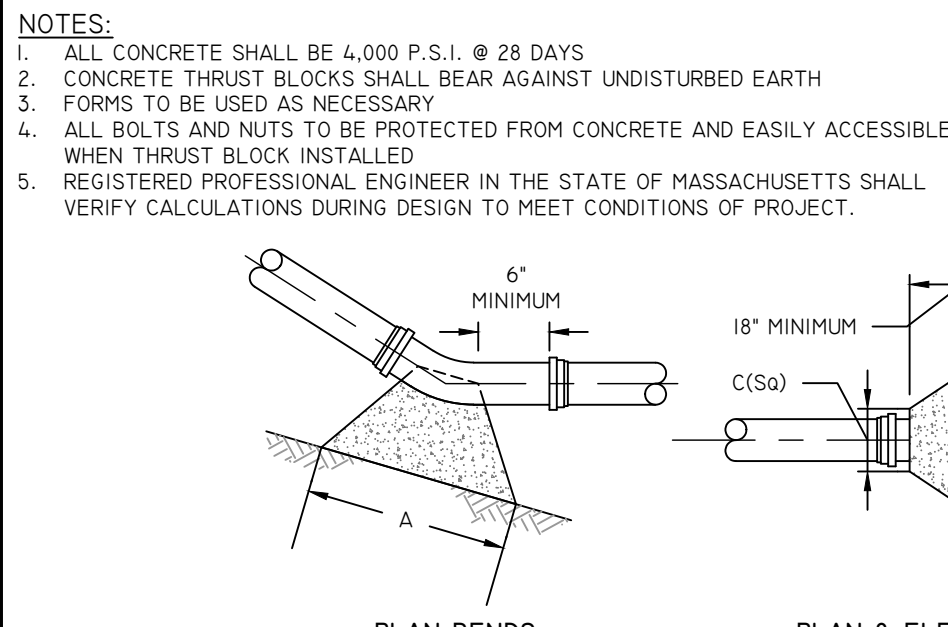


TYPICAL ACCESSIBLE PARKING SPACE

TYPICAL ACCESSIBLE PARKING SPACES

NOT TO SCALE

- NOTES:
1. ALL PAINT MUST BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248 TYPE F. PAINT MUST BE APPLIED AS SPECIFIED BY THE MANUFACTURER.
  2. APPLY 2 COATS OF TRAFFIC TYPE PAINT. APPLY THE FIRST COAT NOT LESS THAN FIVE DAYS AFTER THE PLACING OF BITUMINOUS PAVEMENT. ALLOW FOR MINIMUM CURE TIME OF 24 HOURS BETWEEN APPLICATIONS.
  3. FOR REDEVELOPMENT SITES, PAINT COLOR AND SIZE/ STENCILING OF PAINTED ADA SYMBOL MUST MATCH ADJACENT SPACES, SO LONG AS THEY COMPLY WITH THE CURRENT EDITIONS OF ALL APPLICABLE STANDARDS AND REGULATIONS.



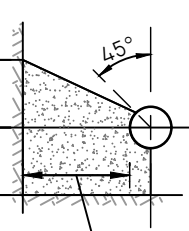
PLAN BENDS

PLAN & ELEVATION PLUGS

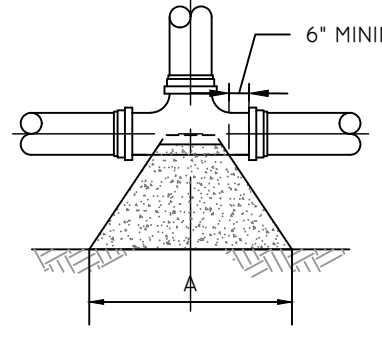
THRUST BLOCK

NOT TO SCALE

SIZE	TEES				PLUGS				90° BEND				45° BEND				22.5° BEND				11.25° BEND				
	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	
6"	20"	10"	10"	21"	24"	12"	18"	9"	13"	7"	9"	5"	8"	26"	13"	12"	26"	32"	16"	12"	17"	9"	12"	6"	
10"	34"	17"	14"	34"	40"	20"	30"	15"	22"	11"	15"	8"	12"	41"	20"	16"	41"	48"	24"	35"	18"	25"	13"	18"	9"
12"	41"	20"	16"	41"	48"	24"	35"	18"	25"	13"	18"	9"	12"	48"	24"	19"	48"	56"	28"	40"	20"	28"	14"	20"	10"
16"	54"	27"	20"	54"	64"	32"	47"	23"	34"	17"	24"	12"	17"	54"	27"	20"	54"	64"	32"	47"	23"	34"	17"	24"	12"

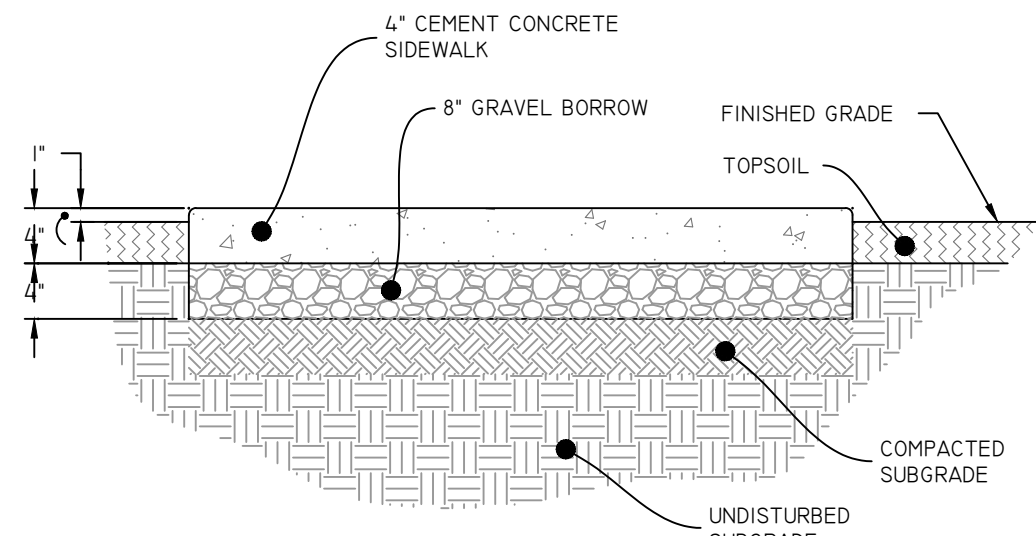


BENDS & TEES SECTIONS



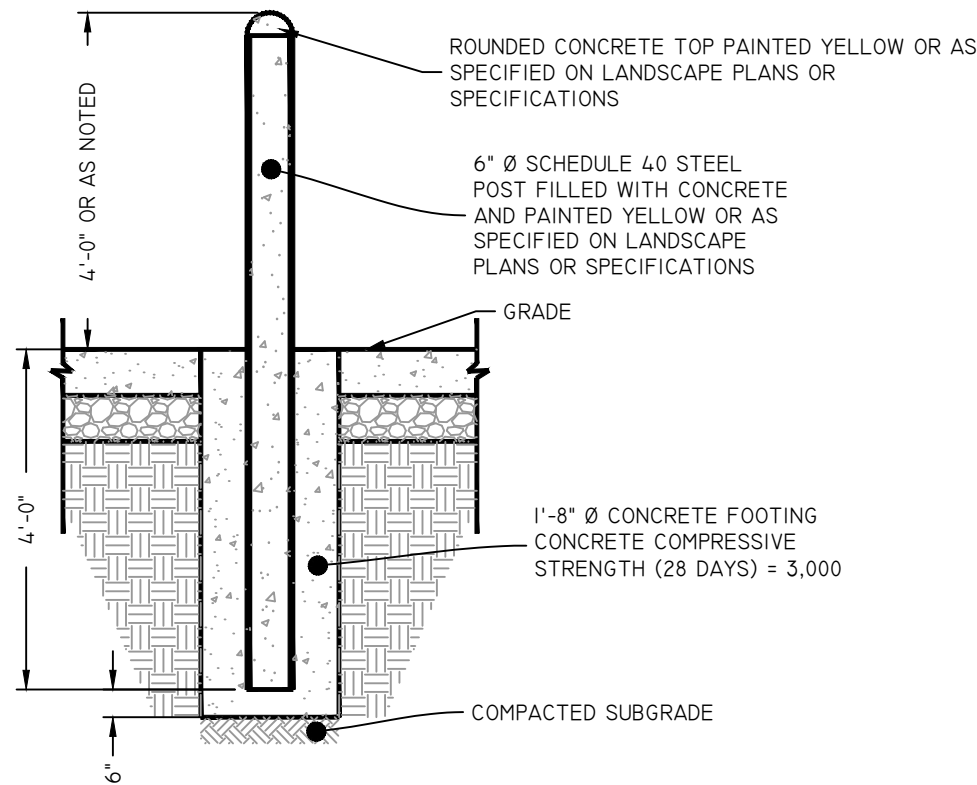
PLAN TEES

- NOTES:
1. SURFACE TEXTURE SHALL BE A LIGHT BROOMING, TRANSVERSE TO THE LENGTH OF THE WALK. CARE SHALL BE TAKEN TO ASSURE A UNIFORM GRADE, FREE OF SAGS AND SHORT GRADE CHANGES.
  2. CONTRACTION JOINTS SHALL BE SPACED EQUAL TO THE WIDTH BUT SHALL NOT EXCEED 6' WITHOUT REINFORCING.
  3. EXPANSION JOINTS SHALL BE SPACED AT A MINIMUM OF 25' OR WHEN ABUTTING A FIXED OBJECT.
  4. SUBGRADE MATERIAL IS TO BE FREE OF ALL ORGANICS.
  5. SEE GRADING SHEETS FOR SIDEWALK GRADING.



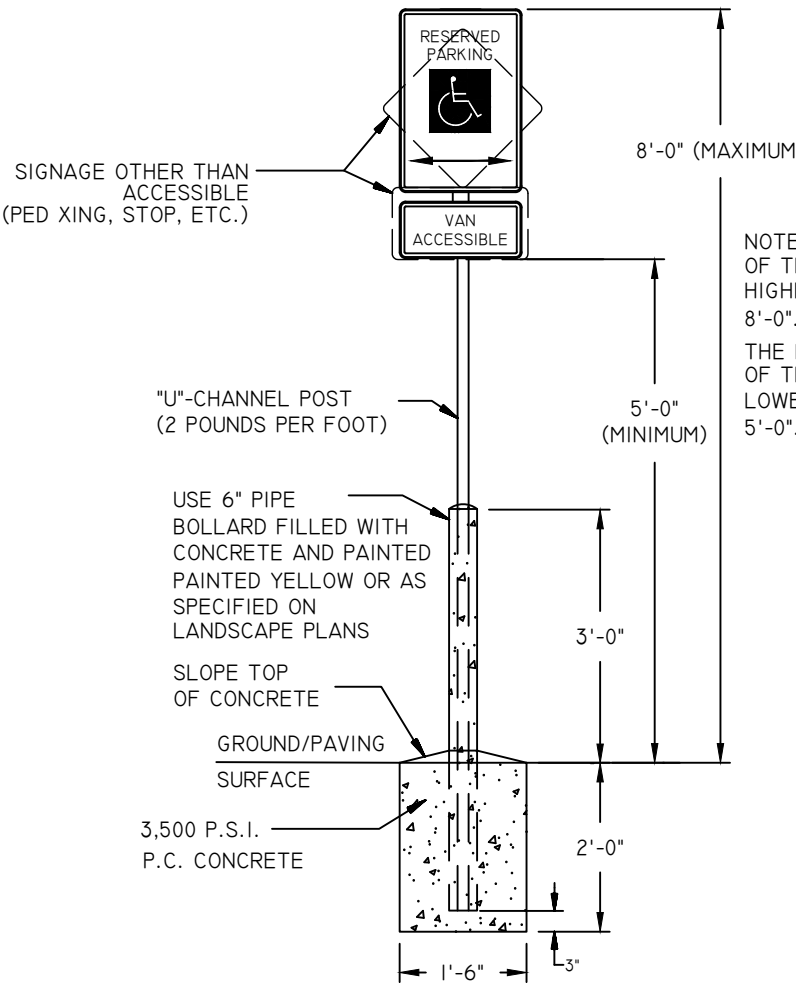
TYPICAL SIDEWALK/SLAB CONSTRUCTION  
(AS SPECIFIED ON PLANS)

NOT TO SCALE



BOLLARD DETAIL

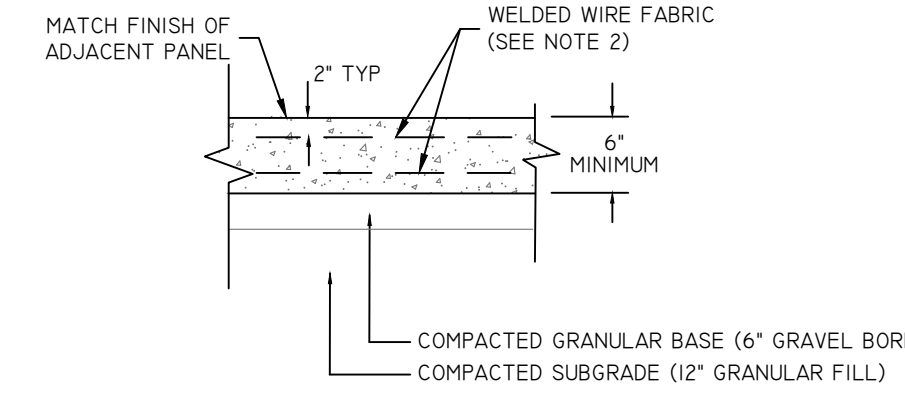
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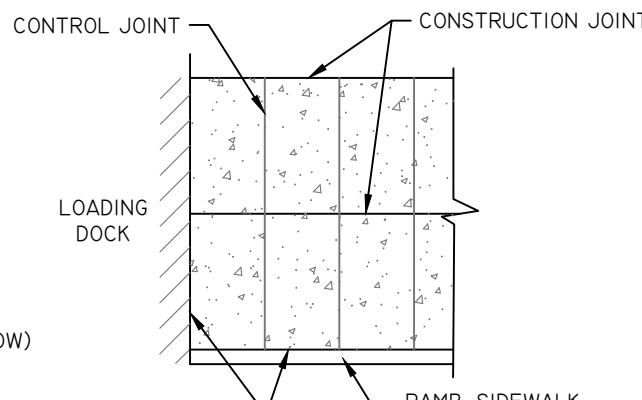
BOLLARD MOUNTED SIGN DETAIL

NOT TO SCALE

- NOTE: THE MAXIMUM HEIGHT OF THE TOP OF THE HIGHEST SIGN SHALL BE 8'-0". THE MINIMUM HEIGHT OF THE BOTTOM OF THE LOWEST SIGN SHALL BE 5'-0".



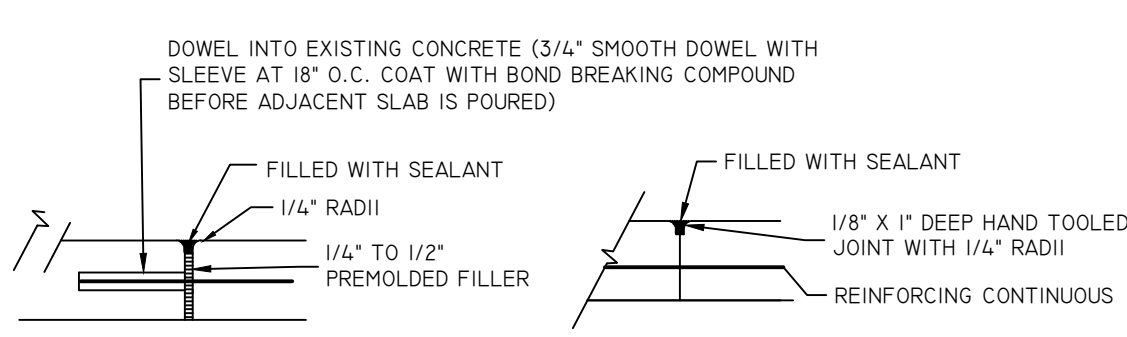
CONCRETE PAVEMENT SECTION



PLAN VIEW AT LOADING DOCK

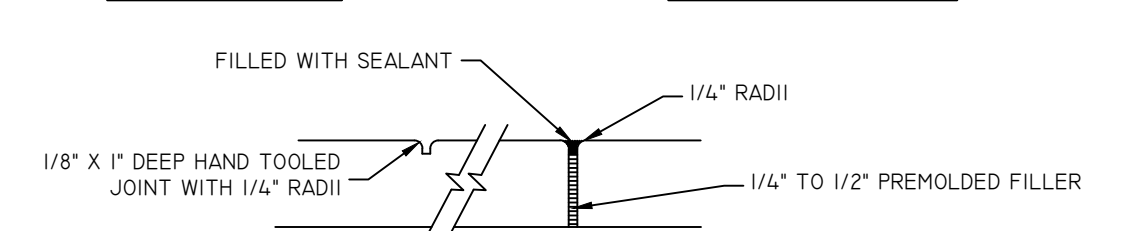
CONCRETE EDGE SECTION

NOT TO SCALE



EXPANSION JOINT

CONSTRUCTION JOINT



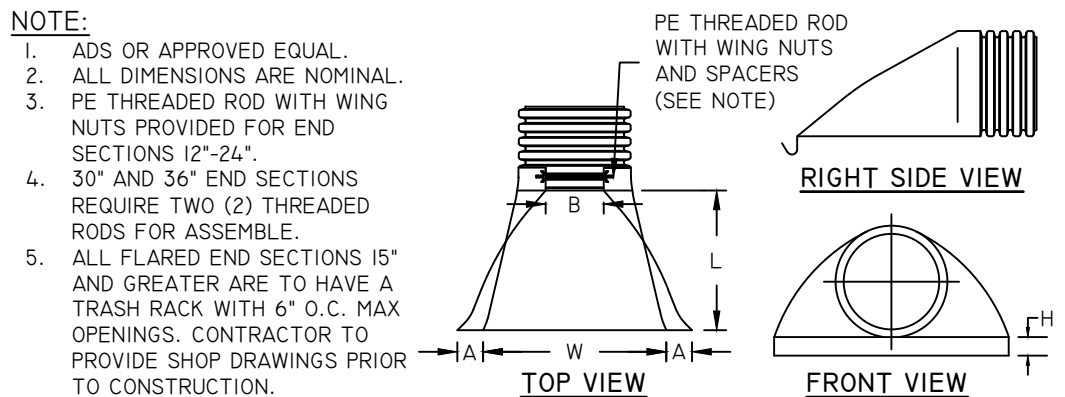
CONTROL JOINT (CJ)

ISOLATION JOINT (IJ)

CONCRETE PAVEMENT DETAIL

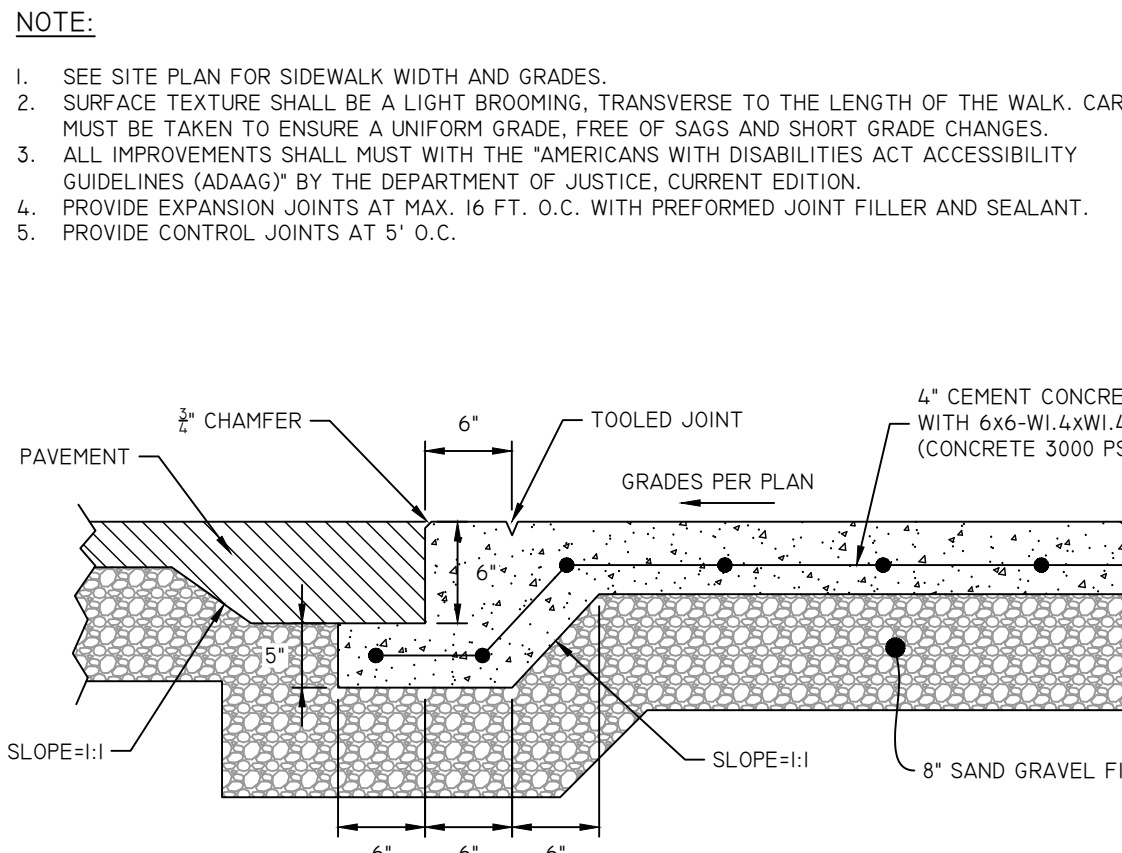
NOT TO SCALE

- NOTES:
1. FOR AREAS TO BE PAVED WITH PORTLAND CEMENT-BASED CONCRETE, A SIX-INCH THICK SLAB ON GRADE IS RECOMMENDED WITH A MINIMUM 6-INCH THICK "GRAVEL BORROW" BASE COURSE AND A 12-INCH THICK "GRAVEL BORROW" SUBBASE.
  2. THE CONCRETE SHOULD HAVE A MINIMUM UNCONFINED COMPRESSIVE STRENGTH OF 5,000 POUNDS PER SQUARE INCH, WITH AIR ENTRAINMENT OF 4 TO 6 PERCENT. THE THICKNESS IS BASED ON A MODULUS OF SUBGRADE REACTION OF 150 POUNDS PER CUBIC INCH. GRADE 60 SIX-INCH BY SIX-INCH W5.5 X W5.5 WELDED WIRE FABRIC (AS + 0.11 INCHES/FOOT) REINFORCEMENT IS RECOMMENDED TO MINIMIZE CRACK OPENINGS.
  3. CONCRETE PAVEMENT SHOULD HAVE EXPANSION JOINTS AT A MAXIMUM SPACING OF 80 FEET WITH A JOINT FILLER THICKNESS BASED ON THE THERMAL EXPANSION. ALL EXPANSION JOINTS SHOULD BE SEALED WITH AN AASHTO-APPROVED ELASTOMERIC JOINT SEALER.
  4. SLABS SEPARATED BY AN EXPANSION JOINT SHOULD BE TIED TOGETHER WITH DOWELS THAT ARE 2'-FOOT-6-INCHES LONG AT A SPACING OF 18 INCHES. DOWELS SHOULD BE SLEEVED ON ONE SIDE OF THE JOINT.
  5. CONTROL JOINTS SHOULD BE CONSTRUCTED AT A SPACING OF APPROXIMATELY 15 FEET IN BOTH DIRECTIONS.
  6. INCREASED SLAB THICKNESS TO BE USED WHERE CONCRETE ABUTS BITUMINOUS PAVEMENT OR LANDSCAPING.
  7. ALL WORK PERFORMED HEREIN SHALL BE GOVERNED BY THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND DETAILS UNLESS OTHERWISE SPECIFIED IN THIS PLAN SET.



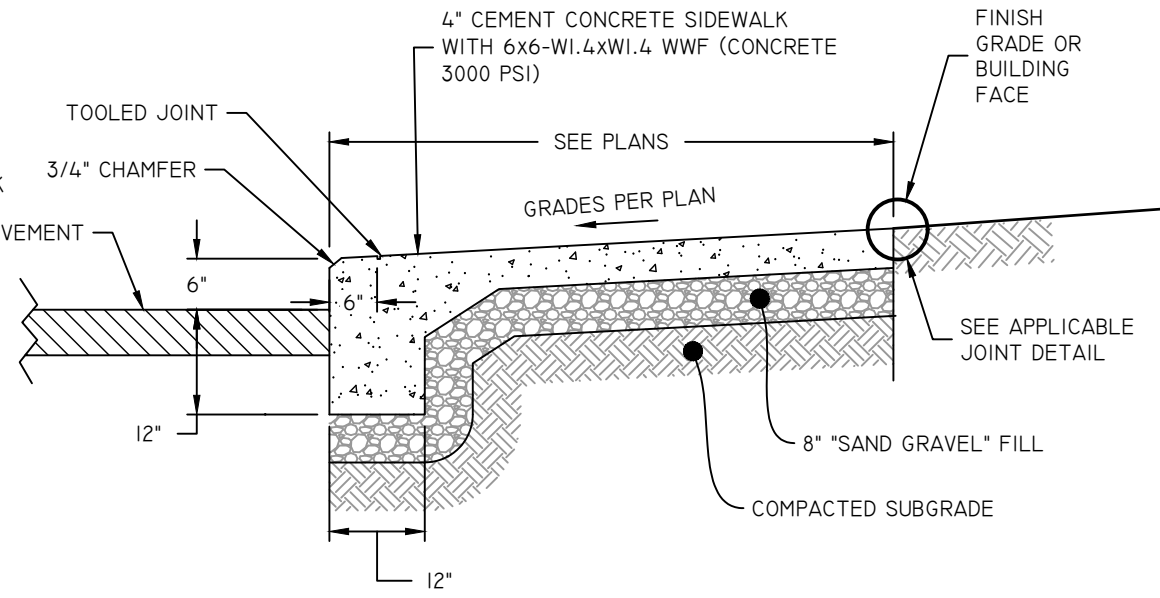
HDPE FLARED END SECTION

NOT TO SCALE



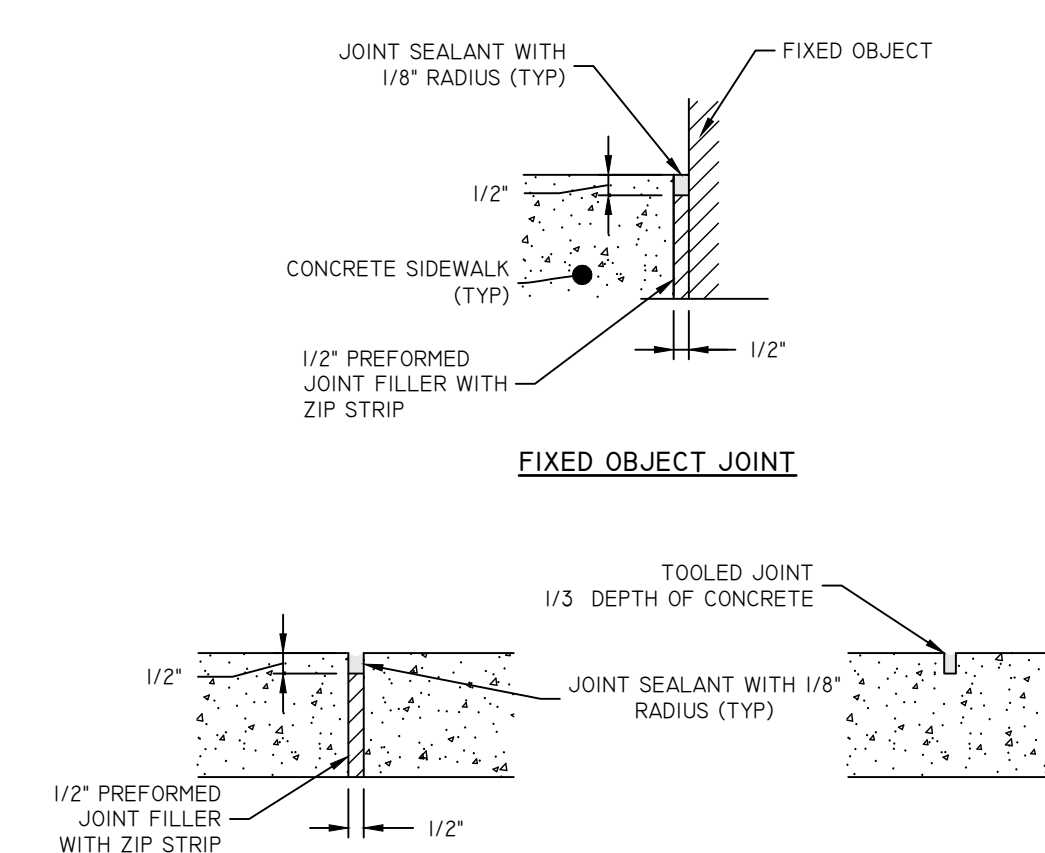
MONOLITHIC CONCRETE SIDEWALK (FLUSH)

NOT TO SCALE

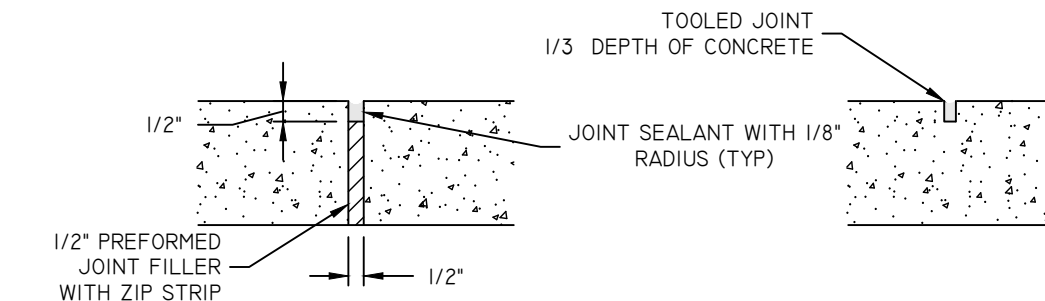


MONOLITHIC CONCRETE SIDEWALK (6" REVEAL)

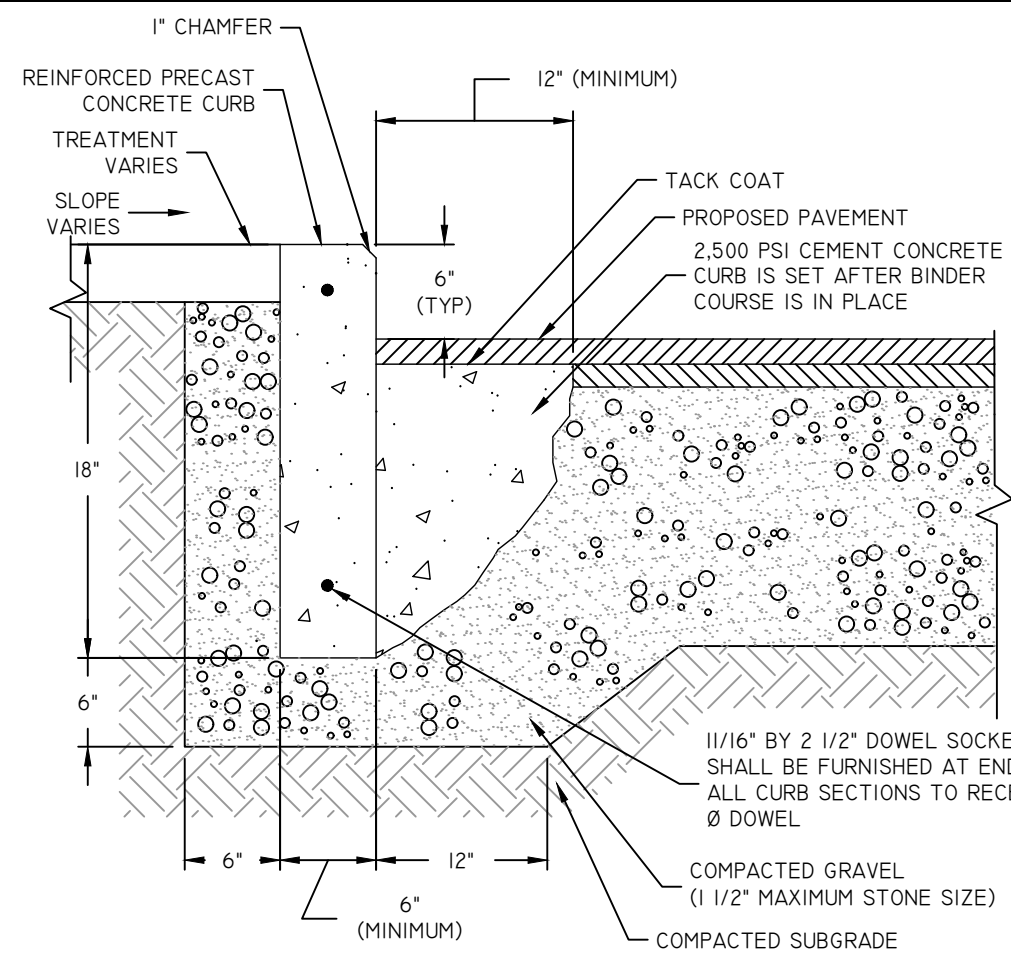
NOT TO SCALE



FIXED OBJECT JOINT



CONTROL JOINT



PRECAST CONCRETE CURB

NOT TO SCALE

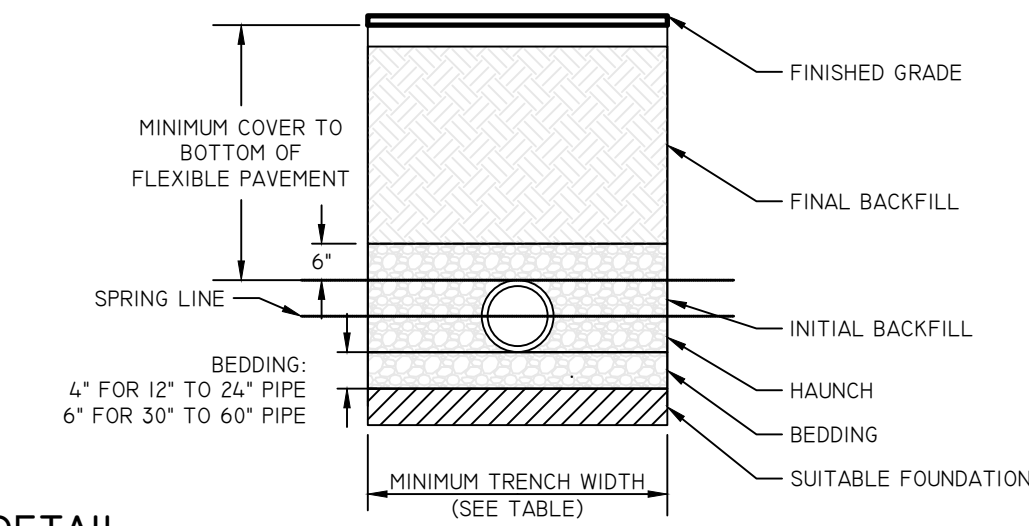
INSTALLATION NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321. "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS. LATEST ADDITION.
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100MM) FOR 4"-24" (100MM-600MM); 6" (150MM) FOR 30"-60" (750MM-900MM).
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6' ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 18" Ø PIPE AND 24" Ø COVER FOR 60" Ø PIPE. MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

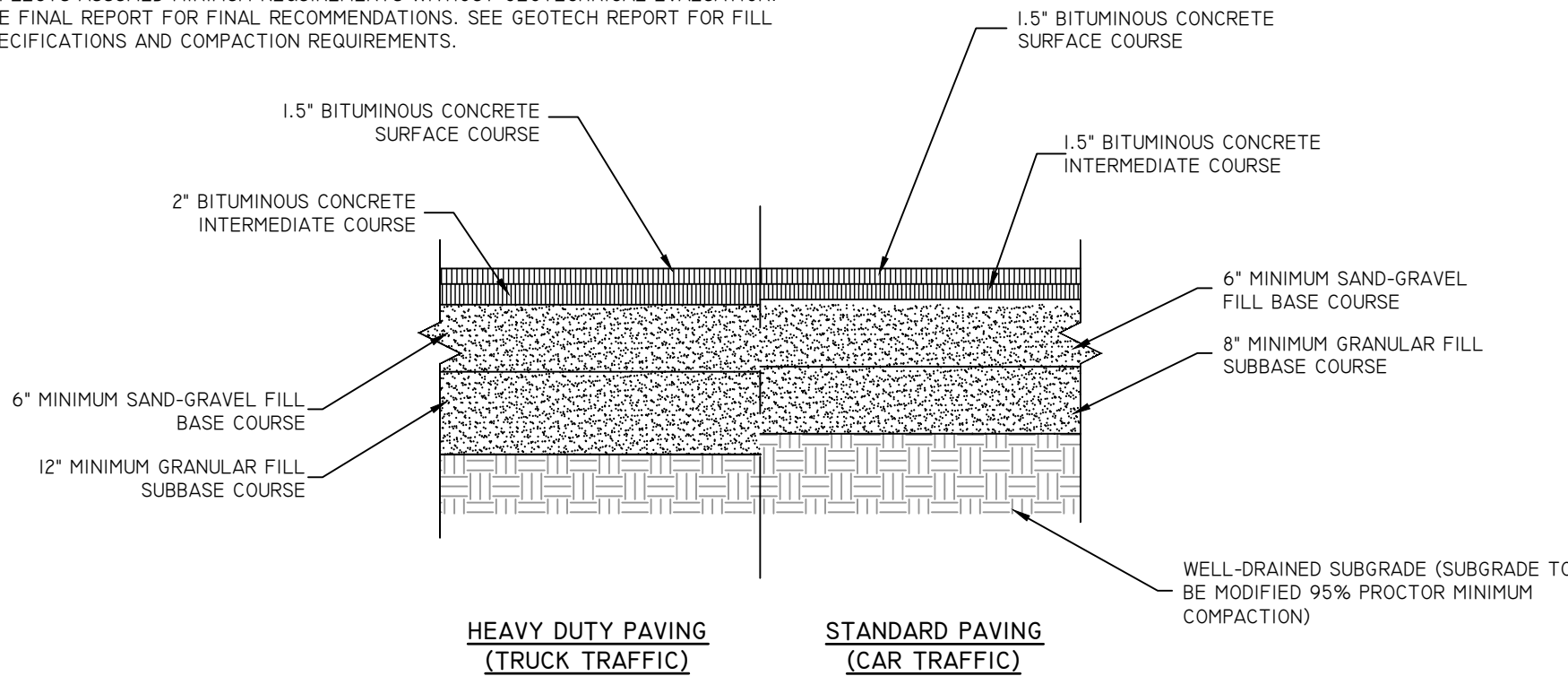
HDPE TRENCH DETAIL

NOT TO SCALE

PIPE Ø	MIN. TRENCH WIDTH	PIPE Ø	MIN. TRENCH WIDTH
4"	21"	24"	48"
6"	23"	36"	56"
8"	26"	42"	64"
10"	28"	48"	72"
12"	30"	60"	80"
15"	34"		
18"	39"		



- NOTE:
- THIS PAVEMENT SECTION DETAIL IS FROM THE GEOTECHNICAL DESIGN BASIS REPORT FOR THE PROPOSED WAREHOUSE FACILITY, WRENTHAM, MA BY PART CORPORATION. REFLECTS ASSUMED MINIMUM REQUIREMENTS WITHOUT GEOTECHNICAL EVALUATION. SEE FINAL REPORT FOR FINAL RECOMMENDATIONS. SEE GEOTECH REPORT FOR FILL SPECIFICATIONS AND COMPACTION REQUIREMENTS.



HEAVY DUTY PAVING  
(TRUCK TRAFFIC)

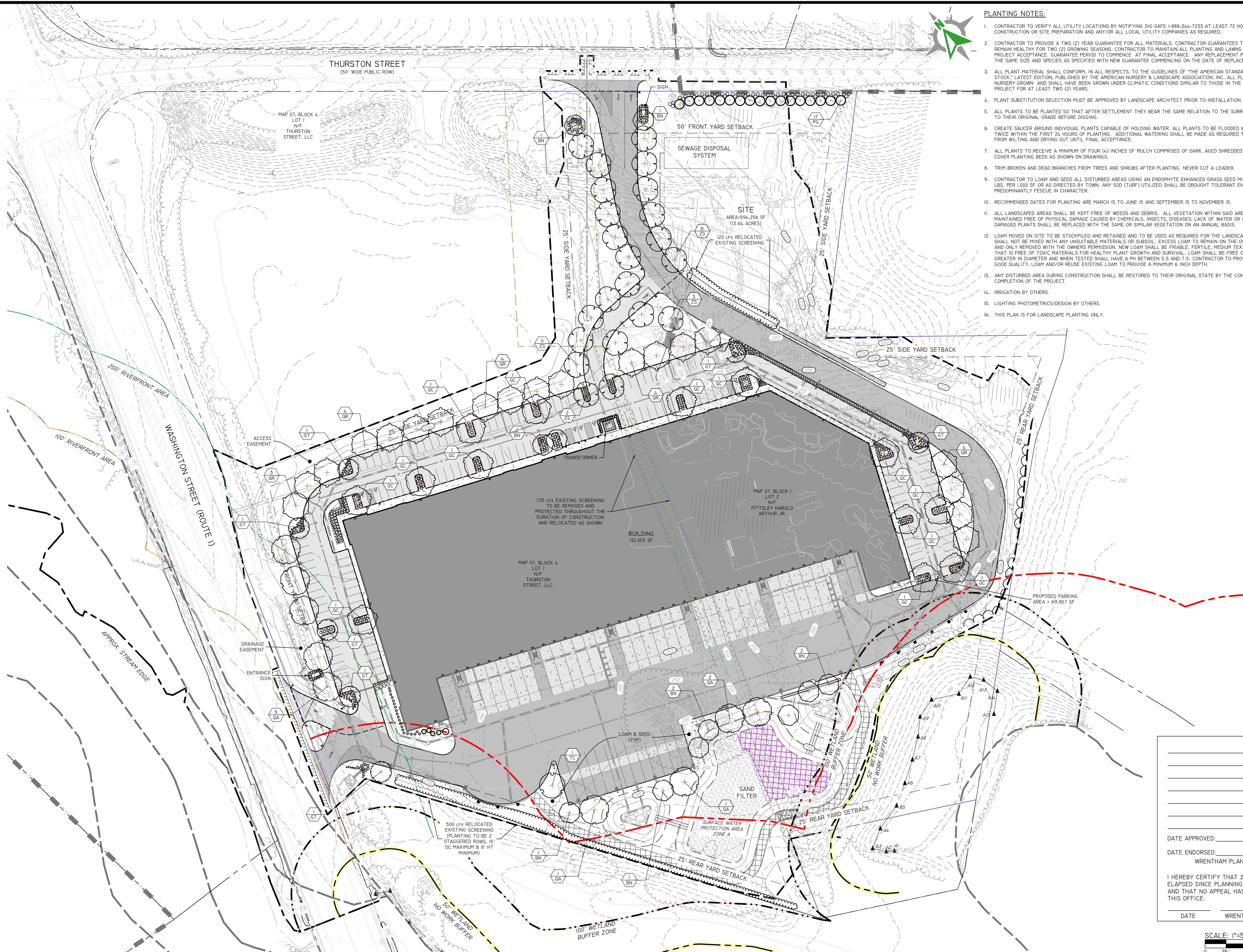
STANDARD PAVING  
(CAR TRAFFIC)

TYPICAL PAVEMENT SECTION

NOT TO SCALE



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#### PLANTING NOTES:

1. CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS BY NOTIFYING DIG-SAFE 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION OR SITE PREPARATION AND ANY/OR ALL LOCAL UTILITY COMPANIES AS REQUIRED.
2. CONTRACTOR TO PROVIDE A TWO (2) YEAR GUARANTEE FOR ALL MATERIALS. CONTRACTOR GUARANTEES THAT PLANTS WILL REMAIN HEALTHY FOR TWO (2) GROWING SEASONS. CONTRACTOR TO MAINTAIN ALL PLANTING AND LAWNS UNTIL FINAL PROJECT ACCEPTANCE. GUARANTEE PERIOD TO COMMENCE AT FINAL ACCEPTANCE. ANY REPLACEMENT PLANTS SHALL BE OF THE SAME SIZE AND SPECIES AS SPECIFIED WITH NEW GUARANTEE COMMENCING ON THE DATE OF REPLACEMENT.
3. ALL PLANT MATERIAL SHALL CONFORM, IN ALL RESPECTS, TO THE GUIDELINES OF "THE AMERICAN STANDARD FOR NURSERY STOCK," LATEST EDITION, PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION, INC. ALL PLANTS SHALL BE NURSERY GROWN AND SHALL HAVE BEEN GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT FOR AT LEAST TWO (2) YEARS.
4. PLANT SUBSTITUTION SELECTION MUST BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
5. ALL PLANTS TO BE PLANTED SO THAT AFTER SETTLEMENT THEY BEAR THE SAME RELATION TO THE SURROUNDING GROUND AS TO THEIR ORIGINAL GRADE BEFORE DIGGING.
6. CREATE SAUCER AROUND INDIVIDUAL PLANTS CAPABLE OF HOLDING WATER. ALL PLANTS TO BE FLOODED WITH CLEAN WATER TWICE WITHIN THE FIRST 24 HOURS OF PLANTING. ADDITIONAL WATERING SHALL BE MADE AS REQUIRED TO KEEP PLANTS FROM WILTING AND DRYING OUT UNTIL FINAL ACCEPTANCE.
7. ALL PLANTS TO RECEIVE A MINIMUM OF FOUR (4) INCHES OF MULCH COMPRISED OF DARK, AGED SHREDDED BARK AND SHALL COVER PLANTING BEDS AS SHOWN ON DRAWINGS.
8. TRIM BROKEN AND DEAD BRANCHES FROM TREES AND SHRUBS AFTER PLANTING. NEVER CUT A LEADER.
9. CONTRACTOR TO LOAM AND SEED ALL DISTURBED AREAS USING AN ENDOPHYTE ENHANCED GRASS SEED MIX AT A RATE OF 5-7 LBS. PER 1,000 SF OR AS DIRECTED BY TOWN. ANY SOD (TURF) UTILIZED SHALL BE DROUGHT TOLERANT ENDOPHYTES OR PREDOMINANTLY FESCUE IN CHARACTER.
10. RECOMMENDED DATES FOR PLANTING ARE MARCH 15 TO JUNE 15 AND SEPTEMBER 15 TO NOVEMBER 15.
11. ALL LANDSCAPED AREAS SHALL BE KEPT FREE OF WEEDS AND DEBRIS. ALL VEGETATION WITHIN SAID AREAS SHALL BE MAINTAINED FREE OF PHYSICAL DAMAGE CAUSED BY CHEMICALS, INSECTS, DISEASES, LACK OF WATER OR OTHER CAUSES. DAMAGED PLANTS SHALL BE REPLACED WITH THE SAME OR SIMILAR VEGETATION ON AN ANNUAL BASIS.
12. LOAM MOVED ON SITE TO BE STOCKPILED AND RETAINED AND TO BE USED AS REQUIRED FOR THE LANDSCAPE DESIGN. LOAM SHALL NOT BE MIXED WITH ANY UNSUITABLE MATERIALS OR SUBSOIL. EXCESS LOAM TO REMAIN ON THE OWNER'S PROPERTY AND ONLY REMOVED WITH THE OWNER'S PERMISSION. NEW LOAM SHALL BE FRIABLE, FERTILE, MEDIUM TEXTURED SANDY LOAM THAT IS FREE OF TOXIC MATERIALS FOR HEALTHY PLANT GROWTH AND SURVIVAL. LOAM SHALL BE FREE OF MATTER 1" OR GREATER IN DIAMETER AND WHEN TESTED SHALL HAVE A PH BETWEEN 5.5 AND 7.5. CONTRACTOR TO PROVIDE 8 INCHES OF GOOD QUALITY, LOAM AND/OR REUSE EXISTING LOAM TO PROVIDE A MINIMUM 6 INCH DEPTH.
13. ANY DISTURBED AREA DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL STATE BY THE CONTRACTOR BEFORE COMPLETION OF THE PROJECT.
14. IRRIGATION BY OTHERS.
15. LIGHTING PHOTOMETRICS/DESIGN BY OTHERS.
16. THIS PLAN IS FOR LANDSCAPE PLANTING ONLY.

DATE APPROVED: \_\_\_\_\_  
DATE ENDORSED: \_\_\_\_\_  
WRENTHAM PLANNING BOARD  
I HEREBY CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE PLANNING BOARD APPROVAL AND THAT NO APPEAL HAS BEEN FILED IN THIS OFFICE.  
DATE \_\_\_\_\_ WRENTHAM TOWN CLERK

SCALE: 1"=50'  
0 25' 50' 100'

#### LANDSCAPE PLAN

THURSTON STREET  
MAP 07, BLOCK 4, LOTS 1 & 2 & MAP 07, BLOCK 1, LOT 2  
WRENTHAM, MASSACHUSETTS, 02093

PREPARED FOR  
BLUEWATER PROPERTY GROUP  
1 LITTLE WEST 12TH STREET, NEW YORK, NY, 10014  
TEL 212-594-9905

DESIGNED BY: R.S.S.  
DRAWN BY: R.S.S.

THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS FIRST REVIEWED AND APPROVED BY A REGISTERED PROFESSIONAL ENGINEER OF MASSACHUSETTS.

DIPRETE ENGINEERING ONLY WARRANTS PLANS ON A DIPRETE ENGINEERING PROJECT. DIPRETE ENGINEERING IS NOT A PROFESSIONAL ENGINEER OF MASSACHUSETTS. THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY, PRECAUTIONS AND REQUIREMENTS, AND OSHA COMPLIANCE IN THE IMPLEMENTATION OF THIS PLAN AND DESIGN.

EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR DAMAGE TO EXISTING UTILITIES OR FOR ANY COSTS OF REPAIRS. SEE UTILITY NOTE ON SHEET 3.

MASSACHUSETTS  
ALEXANDRA C. WREY  
REGISTERED LANDSCAPE ARCHITECT  
NO. 1544  
01/19/2022  
*Alex Wrey*

**DiPrete Engineering**  
990 Washington Street Suite 103A Dedham, MA 02026  
tel 781-326-0021 fax 401-464-6006 www.diprete-eng.com

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WRENTHAM, MA ZONING BY-LAW REGULATIONS:

ARTICLE 6  
DEVELOPMENT REGULATIONS  
6.3 OPEN SPACE REQUIREMENT  
(DO NOT INCLUDE IN THE REQUIRED FRONT SETBACK SHALL BE MAINTAINED AS UNOCCUPIED NATURAL OR LANDSCAPED SPACE. THIS RESTRICTION DOES NOT APPLY TO FENCES, UTILITY POLES, DRIVEWAYS, SEPTIC SYSTEMS, WELLS, UNDERGROUND UTILITY SERVICES, AND CERTAIN SIGNS AUTHORIZED IN ARTICLE 18. BARN OR STABLES USED FOR THE HOUSING AND FEEDING OF DOMESTICATED ANIMALS, SUCH AS BUT NOT LIMITED TO HORSES, SHEEP, COWS, CATTLE, ETC., SHALL BE PLACED ONLY WITHIN THE REAR YARD SETBACK REQUIREMENTS, UNLESS APPROVAL IS OBTAINED FROM THE BOARD OF APPEALS.

LAND INCLUDED IN THE REQUIRED FRONT SETBACK SHALL BE MAINTAINED AS UNOCCUPIED LANDSCAPED SPACE.

6.4 ON SITE PARKING REQUIREMENTS  
2. ANY USE PERMITTED IN ARTICLE 4.2 OR THE EXPANSION OF ANY NON-CONFORMING USE MUST PROVIDE OFF-STREET, ON-SITE PARKING IN ACCORDANCE WITH FOLLOWING PARAGRAPHS A. THROUGH L:  
A. FOR DEVELOPMENTS ADJOINING OR FACING RESIDENTIAL DISTRICTS OR RESIDENTIAL USES, OR WHEN NECESSARY FOR PUBLIC SAFETY OR TO PREVENT ADVERSE IMPACTS ON NEIGHBORING PROPERTIES, A BUFFER STRIP SHALL CONTAIN OPAQUE SCREENS AS DESCRIBED HEREIN. AN OPAQUE SCREEN MAY BE COMPRISED OF WALLS, FENCES, BERMS OR EVERGREEN PLANTING, OR ANY COMBINATION THEREOF; PROVIDING THAT THE PLANNING BOARD MAY REQUIRE EVERGREEN TREES OR SHRUBS INSTEAD OF FENCES WHEN DEEMED APPROPRIATE. OPAQUE SCREENS SHALL BE OPAQUE IN ALL SEASONS OF THE PARKING FACILITIES AND REQUIRED SCREENS AND LANDSCAPING SHALL BE CONTINUOUSLY MAINTAINED IN GOOD CONDITION AND APPEARANCE. WHENEVER NECESSARY, SURFACING, LIGHTING, BARRIERS, MARKINGS, AND PLANTING MATERIALS SHALL BE REPAIRED OR REPLACED WITH NEW MATERIALS TO INSURE CONTINUED COMPLIANCE WITH PROVISIONS OF THIS ARTICLE. FAILURE TO MAINTAIN THE SAME SHALL BE CONSIDERED A VIOLATION OF THIS BY-LAW AND SHALL BE SUBJECT TO THE ENFORCEMENT PROCEDURES CONTAINED HEREIN.

EVERGREEN PLANTING IS PROPOSED ALONG THURSTON STREET TO PROVIDE SCREENING FOR THE RESIDENCES ACROSS THE STREET.

E. PARKING AREAS FOR MORE THAN TEN VEHICLES ARE TO BE DESIGNED AND CONSTRUCTED WITH LIMITED ACCESS AND EXIT DRIVEWAYS AND ARE TO BE SET OFF BY NATURAL, LANDSCAPED SCREENING, LARGE, UNBROKEN PARKING AREAS ARE PROHIBITED (REFER TO ARTICLE 6.4(2)(X)(3)). IN ORDER TO MINIMIZE THE AMOUNT OF IMPIEVIOUS SURFACES AND AESTHETIC EFFECTS, THE PLANNING BOARD MAY REQUIRE STRUCTURED OR BELOW GRADE PARKING FOR ANY PROPOSED PARKING LOT CONTAINING GREATER THAN 1,000 PARKING SPACES.

PARKING AREAS HAVE BEEN DESIGNED AND CONSTRUCTED WITH LIMITED ACCESS AND EXIT DRIVEWAYS AND ARE SET OFF BY NATURAL, LANDSCAPED SCREENING.

I. PARKING LOT LANDSCAPING  
THE LANDSCAPING REQUIREMENTS IN THIS SECTION ARE INTENDED TO PROVIDE A BASELINE SET OF STANDARDS TOWARD REDUCING THE VISUAL IMPACTS OF LARGE AREAS OF PAVEMENT, IMPROVING THE OVERALL ENVIRONMENT OR PARKING AREAS BY PROVIDING AREAS FOR SHADE AND HEAT REDUCTION, AND ENHANCING THE OVERALL AESTHETIC APPEAL OF PARKING AREAS. LANDSCAPING WITHIN PARKING AREAS SHALL PROVIDE VISUAL AND CLIMATIC RELIEF FROM BROAD EXPANSES OF PAVEMENT AND SHALL BE DESIGNED TO CHANNEL AND DEFINE LOGICAL AREAS FOR PEDESTRIAN AND VEHICULAR CIRCULATION. THE FOLLOWING STANDARDS SHALL APPLY TO ALL PARKING LOTS AS DEFINED IN THIS BY-LAW.

1. PARKING LOT ENTRANCES AND EXITS. AT A MINIMUM, PARKING LOT ENTRANCES SHALL BE LANDSCAPED WITH A COMBINATION OF TREES AND SHRUBS. NO TREES OR SHRUBS SHALL BE PLANTED IN A WAY TO OBSTRUCT SIGHT LINES OF MOTORISTS. THESE AREAS MAY ALSO BE USED FOR SIGNAGE IN COMPLIANCE WITH ARTICLE 18 OF THIS BY-LAW.

PARKING LOT ENTRANCES ARE PROPOSED TO BE LANDSCAPED WITH A COMBINATION OF TREES AND SHRUBS WHERE FEASIBLE.

2. REQUIRED LANDSCAPING. DEVELOPMENTS WITH PROPOSED PARKING AREAS OF 10 SPACES OR MORE SHALL PROVIDE A MINIMUM OF 10% OF THE TOTAL PARKING AREA AS LANDSCAPED OPEN SPACE.

PARKING AREAS PROVIDE A MINIMUM OF 10% OF THE TOTAL PARKING AREA AS LANDSCAPED OPEN SPACE.

TOTAL PARKING AREA = 26,275 SF  
REQUIRED 10% OPEN SPACE = 26,275 SF X 0.10 = 2,627.5 SF  
PROPOSED OPEN SPACE = 4,840 SF > 2,627.5 SF

3. USE OF LANDSCAPED ISLANDS AS BUFFERS. PARKING AREAS SHALL BE BROKEN INTO SECTIONS NOT TO EXCEED ONE HUNDRED FORTY (140) CARS PER SECTION. SECTIONS SHALL BE SEPARATED BY LANDSCAPED BUFFERS TO PROVIDE VISUAL RELIEF. AT A MINIMUM, THE BUFFERS SHALL CONSIST OF ISLANDS WHICH SHALL BE A COMBINATION OF "DIVIDER ISLANDS" AND "TERMINAL ISLANDS."

4. STANDARDS FOR LANDSCAPED ISLANDS:

A. GENERAL: EACH LANDSCAPED ISLAND SHALL HAVE A MINIMUM AREA OF 150 SQUARE FEET AND SHALL CONSIST OF PERVIOUS LANDSCAPING. CURBING, AT LEAST FIVE (5) INCHES IN HEIGHT, SHALL SURROUND EACH LANDSCAPED ISLAND AS PROTECTION FROM VEHICLES UNLESS NOT REQUIRED BY THE PLANNING BOARD DUE TO LOW IMPACT DEVELOPMENT PRINCIPLES. NO TREE SHALL BE PLANTED LESS THAN FOUR (4) FEET FROM THE CURBING.

PROPOSED LANDSCAPED ISLAND HAVE A MINIMUM AREA OF 150 SQUARE FEET AND CONSIST OF PERVIOUS LANDSCAPING. CURBING, AT LEAST FIVE (5) INCHES IN HEIGHT, IS PROPOSED TO SURROUND EACH LANDSCAPED ISLAND. NO TREE IS PROPOSED TO BE PLANTED LESS THAN FOUR (4) FEET FROM THE CURBING.

B. DIVIDER ISLANDS: THE FOLLOWING ADDITIONAL DESIGN STANDARDS SHALL APPLY TO DIVIDER ISLANDS:

i. AT LEAST ONE (1) LANDSCAPED DIVIDER ISLAND SHALL BE PROVIDED FOR EVERY FOUR PARALLEL ROWS OF PARKING.  
ii. TREES SHALL BE SPACED NOT MORE THAN 30 FEET ON CENTER.  
iii. AT LEAST ONE (1) SHRUB SHALL BE PROVIDED FOR EVERY FIVE (5) LINEAR FEET, OR ONE SHRUB PER 35 SQUARE FEET OF GROUND AREA, WHICHEVER RESULTS IN A GREATER NUMBER OF SHRUBS.

NOT APPLICABLE.

C. TERMINAL ISLANDS. THE FOLLOWING ADDITIONAL DESIGN STANDARDS APPLY TO TERMINAL ISLANDS:

i. TERMINAL ISLANDS SHALL BE USED EITHER (1) TO SEPARATE PARKING SPACES FROM DRIVEWAYS AND OTHER VEHICULAR TRAVEL LANES, OR (2) TO BREAK UP LARGE NUMBERS OR PARKING SPACES IN A SINGLE ROW OF SPACES.  
ii. LANDSCAPED TERMINAL ISLANDS SHALL BE PROVIDED AT THE ENDS OF ROWS OF PARKING WHERE SUCH ROWS ARE ADJACENT TO DRIVEWAYS OR VEHICULAR TRAVEL LANES. IN ADDITION, TERMINAL ISLANDS SHALL SEPARATE GROUPS OF PARKING SPACES IN A ROW, SUCH THAT NO CONTINUOUS LINE OF ADJOINING SPACES CONTAINS MORE THAN 25 PARKING SPACES.  
iii. TERMINAL ISLANDS SHALL CONTAIN AT LEAST TWO (2) TREES WHEN ABUTTING A DOUBLE ROW OF PARKING SPACES.  
iv. LANDSCAPED TERMINAL ISLANDS SHALL CONTAIN EVERGREEN SHRUBS PLANTED THREE (3) FEET OR LESS ON CENTER, IN ORDER TO PREVENT DAMAGE DUE TO PEDESTRIAN TRAFFIC.

TERMINAL ISLANDS ARE PROPOSED:

5. STRUCTURAL SOIL, A SPECIALIZED SOIL MIX THAT SUPPORTS PAVEMENT AND EXTENSIVE TREE ROOT GROWTH, SHALL BE USED UNDER ALL PAVED PARKING AREAS, FOR LANDSCAPE AREAS THAT DO NOT REQUIRE COMPACTION, WELL DRAINING SOIL SHALL BE USED. THE PLANNING BOARD SHALL ADOPT LANDSCAPE GUIDELINES AND SPECIFICATIONS TO PROVIDE GUIDANCE ON PARKING LOT LANDSCAPING.

6. GRASS OR GROUND COVER MAY BE SUBSTITUTED FOR SHRUBS IN DIVIDER ISLANDS AND TERMINAL ISLANDS, WITH THE APPROVAL OF THE PLANNING BOARD.

7. A LANDSCAPED ISLAND MAY BE UP TO 33% IMPIEVIOUS SURFACE, PROVIDED THAT ALL SUCH AREA IS USED FOR PEDESTRIAN WALKWAYS AND THAT SUCH WALKWAYS ARE ADEQUATELY BUFFERED FROM THE PARKING AREAS.

8. PARKING BARRIERS. A SUBSTANTIAL BUMPER OF GRANITE, CONCRETE, STEEL OR HEAVY TIMBER, OR A CONCRETE CURB OR BERM WHICH IS BACKED, OR A NATURAL BERM, SHALL BE SO LOCATED AT THE EDGE OF SURFACED AREAS EXCEPT DRIVEWAYS SO AS TO PROTECT BUTTING STRUCTURES, PROPERTIES, SIDEWALKS AND LANDSCAPING.

9. PARKING LOT SHADING. ALL NEW PARKING LOTS CONTAINING 10 OR MORE PARKING SPACES SHALL INCLUDE TREE PLANTINGS DESIGNED TO RESULT IN 50% SHADING OF PARKING LOT SURFACE AREAS WITHIN 15 YEARS.

THE SHADING REQUIREMENTS CALCULATIONS APPLY TO ALL NEW IMPIEVIOUS SURFACING ON WHICH A VEHICLE CAN DRIVE INCLUDING PARKING STALLS, ALL DRIVES WITHIN THE PROPERTY LINE (REGARDLESS OF LENGTH), AND ALL MANUEVERING AREAS (REGARDLESS OF DEPTH)

A. EXCEPTIONS TO THE SHADING CALCULATION INCLUDE:  
i. SINGLE AND TWO FAMILY RESIDENTIAL PARKING AREAS  
ii. PARKING STRUCTURES  
iii. TRUCK LOADING AREAS IN FRONT OF OVERHEAD DOORS  
iv. TRUCK MANUEVERING AND PARKING AREAS UNCONNECTED TO AND EXCLUSIVE OF ANY VEHICLE PARKING  
v. SURFACED AREAS NOT TO BE USED FOR VEHICLE PARKING, DRIVING OR MANUEVERING, PROVIDED THEY ARE MADE INACCESSIBLE TO VEHICLES BY A BARRIERS SUCH AS BOLLARDS, CURB, OR FENCING  
vi. PERMITTED OUTDOOR DISPLAY, SALES, SERVICE, AND STORAGE AREAS; HOWEVER PARKING FACILITIES SERVING THESE USES ARE SUBJECT TO SHADING REQUIREMENTS.  
vii. PARKING AREAS UNDER COVERED STALLS AND IN GARAGES  
B. SHADING CALCULATIONS:  
i. IF A SITE HAS TWO OR MORE UNCONNECTED PARKING AREAS, SHADE IS CALCULATED SEPARATELY FOR EACH AREA.  
ii. IF THEY ARE CONNECTED BY A JOINING DRIVE, THEY ARE CALCULATED AS ONE LOT. THE AMOUNT OF SHADE PROVIDED BY A GIVEN TREE IS DETERMINED BY USING THE APPROPRIATE PERCENTAGE AND SQUARE FOOTAGE OF THE TREE CROWN AS INDICATED ON THE APPROVED SHADE TREE LIST (APPENDIX A). SHADING CREDIT IS GIVEN IN 25 PERCENT INCREMENTS BASED ON THE AMOUNT OF THE TREE CROWN THAT SHADES THE PARKING AREA (SEE FIGURE C).  
iii. OVERLAPPING SHADE DOES NOT COUNT TWICE.

TOTAL NEW IMPIEVIOUS AREA = 69,957 SF  
REQUIRED SHADING = 69,957 SF / 0.5 = 34,978.5 SF  
PROPOSED SHADING = 24,050 SF @ 35'Ø (5.04 A 19'Ø @ 481 SF (50%) + 13 QC @ 962 SF (100%) = 24,050 SF)  
8,138 SF @ 30'Ø (2 ZS @ 706 SF (100%) + 19 ZS @ 354 SF (50%) = 8,138 SF)  
2,331 SF @ 25'Ø (1 GT @ 491 SF (100%) + 5 GT @ 368 SF (75%) = 2,321 SF)  
982 SF @ 20'Ø (2 BLN @ 491 SF (100%) = 982 SF)  
35,501 SF > 34,978.5 SF (50.7% SHADE COVERAGE)

10. PLANT SELECTION. NO TREE, SHRUB OR PLANT SHALL BE PROPOSED FOR USE WITHIN A PARKING AREA THAT HAS BEEN IDENTIFIED AS AN INVASIVE SPECIES BY THE MASSACHUSETTS INVASIVE PLANT ADVISORY GROUP IN THE LATEST VERSION OF THE EVALUATION OF NON-NATIVE PLANT SPECIES FOR INVASIVENESS IN MASSACHUSETTS (WITH ANNOTATED LIST), HAS BEEN IDENTIFIED AS INVASIVE OR BANNED ON THE MASSACHUSETTS PROHIBITED PLANT LIST AS PERIODICALLY UPDATED BY THE MASSACHUSETTS DEPARTMENT OF AGRICULTURAL RESOURCES, OR IN ANY OTHER REPUTABLE SCIENTIFIC PUBLICATION THAT MAY BE ACCEPTABLE TO THE BOARD. ADDITIONALLY, ALL TREES, SHRUBS AND HEDGES MUST BE SPECIES THAT ARE HARDY IN PLANT HARDINESS ZONE 5, AS DEFINED BY THE AMERICAN STANDARDS FOR NURSERY STOCK AND SHALL BE RESISTANT TO SALT SPRAY AND SUITABLE FOR URBAN CONDITIONS WHERE APPROPRIATE. PLANTS SHALL ALSO BE SELECTED AND DESIGNED SO AS NOT TO REQUIRE HIGH WATER USAGE OR MAINTENANCE. ALL SIZE AND LOCATION DESIGN ELEMENTS SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS:

A. SHADE OR CANOPY TREES SHALL BE THREE (3) INCHES DIAMETER BREAST HEIGHT (DBH) WITH A HEIGHT OF NOT LESS THAN 14 FEET ABOVE GRADE AND MUST BE EXPECTED TO REACH A HEIGHT OF AT LEAST 20 FEET WITHIN 10 YEARS, WHEN CONSIDERING THE EXPECTED  
B. SMALL OR MINOR SHADE TREES SHALL BE TWO AND ONE-HALF (2.5) INCHES DBH WITH A HEIGHT OF NOT LESS THAN 11 FEET ABOVE THE TOP OF THE ROOT BALL AT THE TIME OF PLANTING, GRADE.  
C. ORNAMENTAL OR FLOWERING FRUIT TREES SHALL BE TWO (2) INCHES DBH WITH A HEIGHT OF NOT LESS THAN NINE (9) FEET ABOVE GRADE.  
D. EVERGREEN TREES USED FOR SCREENING SHALL BE NOT LESS THAN SIX (6) FEET IN HEIGHT (ABOVE GRADE) AT THE TIME OF PLANTING. THE SPECIES OF EVERGREEN TREES SHALL BE SUBJECT TO PLANNING BOARD APPROVAL TO ENSURE LONG-TERM SUITABILITY AS SCREENING. [FENCING MAY BE USED IN CONJUNCTION WITH VEGETATED SCREENING BUT CHAIN LINK FENCE SHALL NOT BE ALLOWED].  
E. SHRUBS AND HEDGES MUST BE AT LEAST THREE AND ONE HALF (3 1/2) FEET IN HEIGHT OR HAVE A SPREAD OF AT LEAST 24 INCHES AT THE TIME OF PLANTING.  
F. TURF MAY BE USED BUT SHALL NOT BE INSTALLED IN STRIPS LESS THAN SIX (6) FEET IN WIDTH. D A SEPARATE LINE-OF-SIGHT BY-LAW, IN WHICH CASE THAT BY-LAW SHALL PREVAIL.

PLANT SELECTION HAS BEEN DETERMINED SO THAT THEY MEET REQUIREMENTS.

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT
	BN	11	BETULA NIGRA	RIVER BIRCH	2.5/3" CAL B&B
	GT	7	GLEDITSIA TRIACANTHOS INERMIS 'SHADEMASTER'	SHADEMASTER HONEY LOCUST	2.5/3" CAL B&B
	QA	9	QUERCUS ALBA	WHITE OAK	3" CAL B&B MIN
	QC	13	QUERCUS COCCINEA	SCARLET OAK	3" CAL B&B MIN
	QR	19	QUERCUS RUBRA	RED OAK	3" CAL B&B MIN
	TC	1	TILIA CORDATA	LITTLELEAF LINDEN	3" CAL B&B MIN
	ZS	22	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE SAWLEAF ZELKOVA	3" CAL B&B MIN
EVERGREEN TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT
	IA	1	ILEX OPACA	AMERICAN HOLLY	7/8" HT
	PG	17	PICEA GLAUCA	WHITE SPRUCE	6" HT MIN
	TOS	17	THUJA OCCIDENTALIS 'SMARAGD'	EMERALD GREEN ARBORVITAE	6" HT MIN
	TOT	4	THUJA OCCIDENTALIS 'TECHNY'	TECHNY ARBORVITAE	6" HT MIN
SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE
	IC	118	ILEX CRENATA 'HELLER'	HELER JAPANESE HOLLY	24" SP MIN
	IG	64	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY HOLLY	3.5" HT MIN
	JP	60	JUNIPERUS PROCUMBENS 'NANA'	SHORE JUNIPER	24" SP MIN
	PL	58	PRUNUS LAUROCERASUS 'OTTO LUYKEN'	LUYKENS LAUREL	3.5" HT MIN
	RG	44	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	24" SP MIN
	RK	55	ROSA X 'KNOCKOUT' TM	KNOCKOUT ROSE	24" SP MIN
	RXR	23	ROSA X 'RADWHITE' TM	WHITE KNOCK OUT ROSE	3 GAL
	SXG	8	SPIRAEA X BUMALDA 'GOLDFLAME'	GOLDFLAME SPIREA	5 GAL
GRASSES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE
	CKF	7	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	2 GAL
	FG	117	FESTUCA GLAUCA 'ELIJAH BLUE'	BLUE FESCUE	1 GAL
	PVS	35	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS	2 GAL
	PAH	160	PENNISETUM ALOPECUROIDES 'HAMELN'	HAMELN DWARF FOUNTAIN GRASS	2 GAL
PERENNIALS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE
	HH	37	HEMEROCALLIS X 'HAPPY RETURNS'	HAPPY RETURNS DAYLILY	1 GAL

19.II. DESIGN STANDARDS FOR THE ROUTE I DISTRICTS, INCLUSIVE OF C-IN AND C-IS DISTRICTS  
F. FENCING AND SCREENING

1. DEVELOPMENTS SHALL PROVIDE YEAR-ROUND SCREENING OF LOADING DOCKS, TRUCK PARKING, OUTDOOR STORAGE, UTILITY METERS, HVAC EQUIPMENT, TRASH COLLECTION AND PROCESSING, AND OTHER SERVICE FUNCTIONS. TRASH ENCLOSURE GATES SHALL FURNISH A STEEL FRAME WITH DECORATIVE COMPOSITE OR WOOD COVERING, OR ANOTHER DESIGN ACCEPTABLE TO THE PLANNING BOARD. CHAIN-LINK FENCING WITH INLaid WOOD, PLASTIC OR METAL SLATS SHALL NOT BE CONSIDERED ACCEPTABLE. SCREENING SHALL BE INTEGRATED INTO THE OVERALL DESIGN OF BUILDINGS AND LANDSCAPING, AND FULLY CONTAIN THE VISUAL IMPACT OF THESE SERVICE FUNCTIONS FROM ADJACENT PUBLIC STREETS AND NEIGHBORING PROPERTIES. ARCHITECTURAL ELEMENTS, MATERIALS, COLORS, AND DESIGN OF SCREENING WALLS, COVERINGS, AND FENCES SHALL BE CONSISTENT WITH THE PREDOMINANT MATERIALS, COLORS, AND ELEMENTS OF THE PRIMARY BUILDING.

SCREENING COMPRISED OF EXISTING & NEW PLANTING IS PROPOSED.

2. LARGE WORK AREA DOORS OR OPEN BAYS SHALL NOT OPEN TOWARD OR FACE ROUTE I. BUILDING UTILITY, EQUIPMENT, STORAGE, AND SERVICE AREAS (INCLUDING GARAGE DOORS AND LOADING AREAS) SHALL BE INTEGRATED INTO THE SITE PLAN AND ARCHITECTURAL COMPOSITION IN WAYS THAT MINIMIZE VISIBILITY AND ANY POTENTIAL ADVERSE IMPACTS.

NOT APPLICABLE.

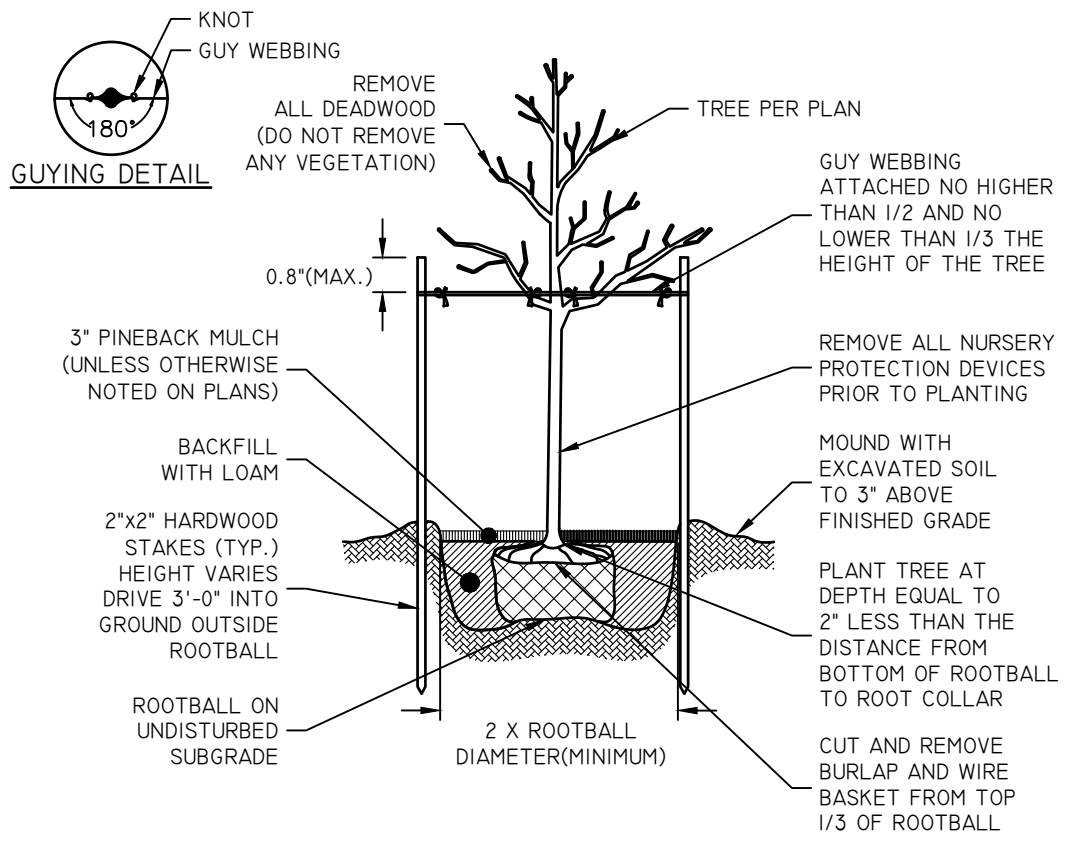
3. HEATING, VENTILATING, AND AIR CONDITIONING EQUIPMENT, DUCT WORK, AIR COMPRESSORS, AND OTHER FIXED OPERATING MACHINERY SHALL BE SCREENED FROM VIEW AND, WHERE POSSIBLE, SHALL NOT BE VISIBLE FROM THE HIGHWAY OR RESIDENTIAL USES/ZONES. PARKING AREAS, DUMPSTERS, LOADING

AREAS AND GROUND LEVEL MECHANICAL EQUIPMENT SHALL BE SCREENED FROM VIEW FROM ALL ADJACENT RESIDENTIAL AREAS BY ADEQUATE VEGETATIVE SCREENING OR FENCING (LANDSCAPING AND VEGETATIVE SCREENING SHALL BE PREFERRED OVER FENCING). A SOLID, YEAR-ROUND, EVERGREEN HEDGE WHICH WILL GROW TO SIX FEET WITHIN THREE YEARS, OR A SUBSTANTIAL, OPAQUE FENCE AT LEAST SIX FEET HIGH, OR THE EQUIVALENT, SHALL BE INSTALLED AND MAINTAINED IN GOOD CONDITION. THE PLANNING BOARD MAY REQUIRE INCREASED SCREENING BASED ON SITE SPECIFIC CONDITIONS. A STRIP OF DENSE VEGETATION OF SHRUBS AND TREES NOT LESS THAN 50 FEET DEEP MAY BE CONSIDERED AN EQUIVALENT.

SCREENING IS PROPOSED WHERE APPLICABLE.

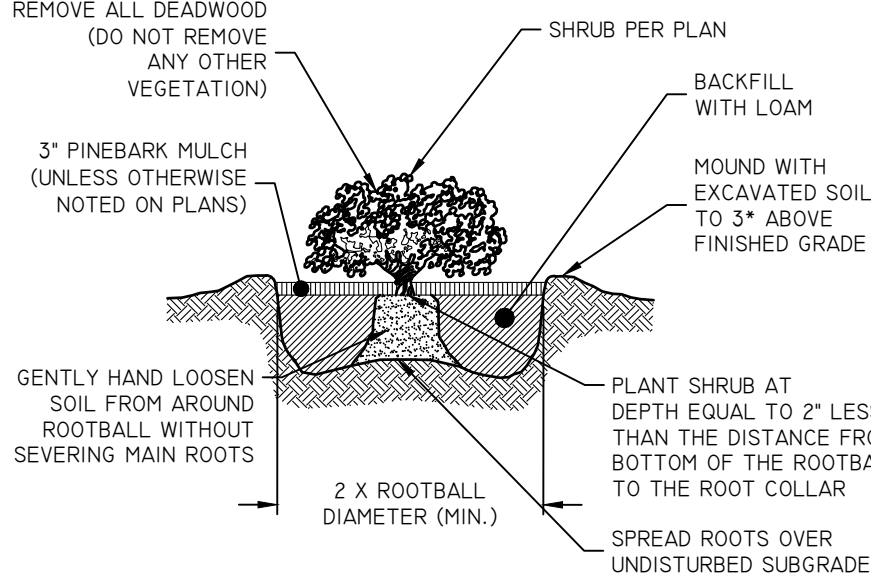
4. NO WALL, FENCE, STRUCTURE, PLANTING OR OTHER OBSTRUCTION TO A DRIVER'S VISION MAY BE PERMITTED AT EYE LEVEL, DEFINED AS THREE (3) TO EIGHT (8) FEET ABOVE STREET GRADE, WITHIN 25 FEET FROM THE INTERSECTION OF STREET SIDE LINES, UNLESS THE TOWN HAS ADOPTED A SEPARATE LINE-OF-SIGHT BY-LAW, IN WHICH CASE THAT BY-LAW SHALL PREVAIL.

NO WALL, FENCE, STRUCTURE, PLANTING OR OTHER OBSTRUCTION TO A DRIVER'S VISION AT EYE LEVEL IS PROPOSED.



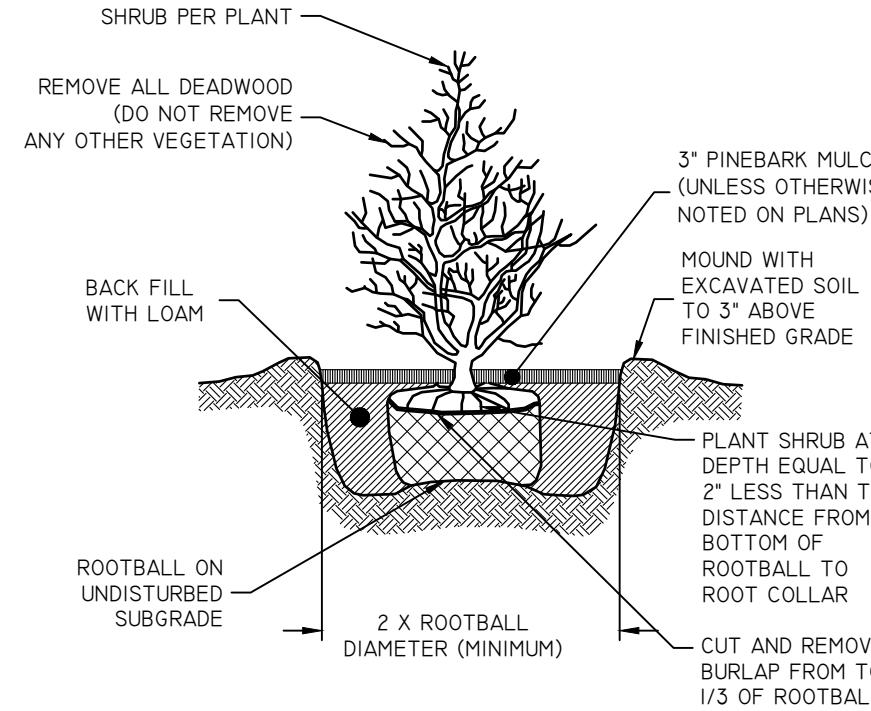
LARGE TREE STAKING AND PLANTING DETAIL  
(2" CALIPER AND GREATER)

NOT TO SCALE



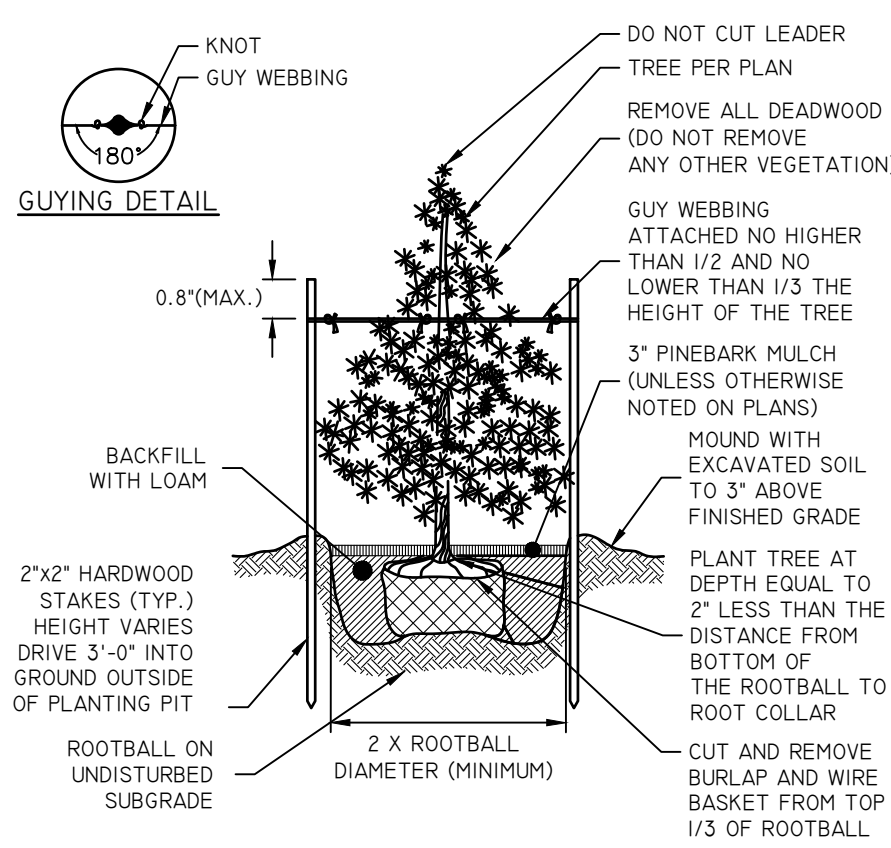
CONTAINER GROWN SHRUB PLANTING DETAIL

NOT TO SCALE



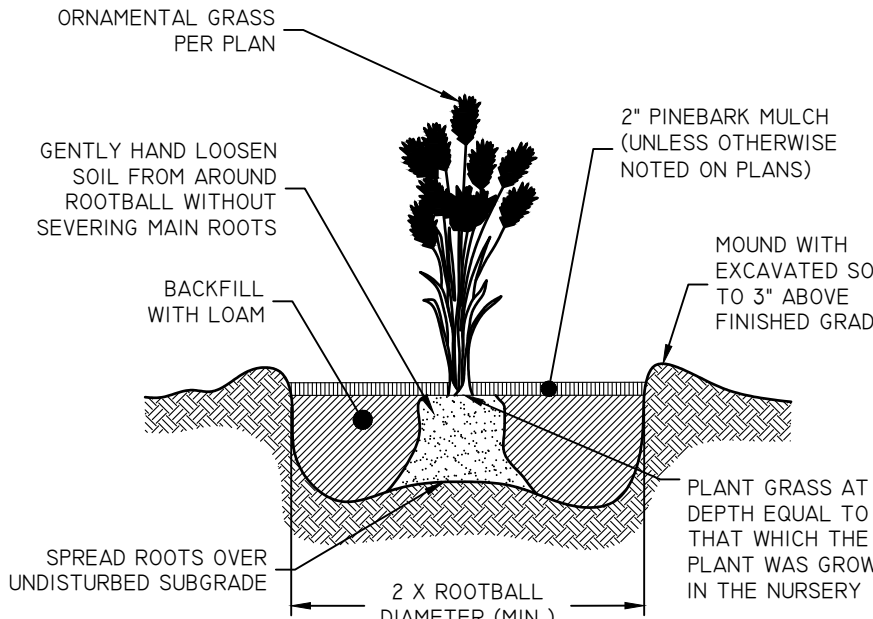
BALL AND BURLAP SHRUB PLANTING DETAIL

NOT TO SCALE



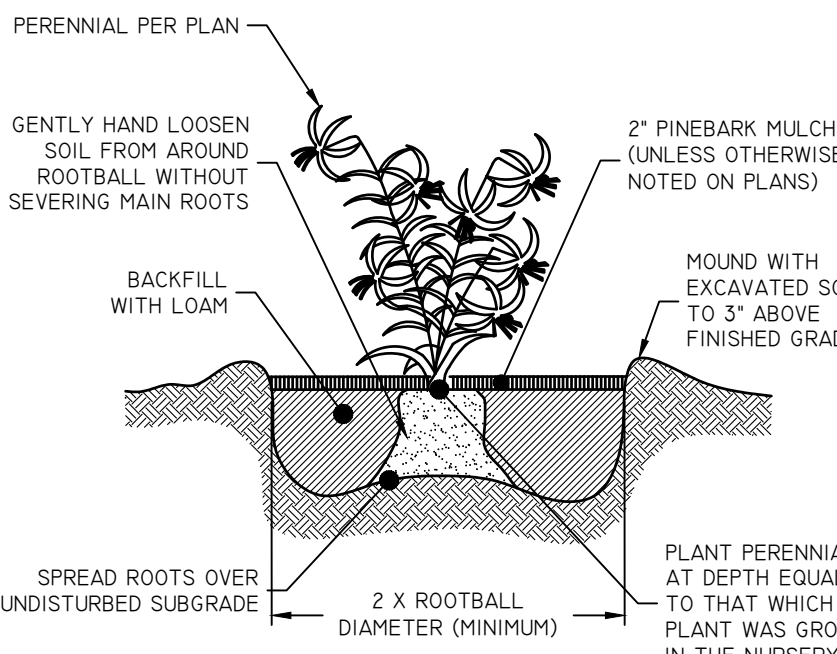
EVERGREEN TREE PLANTING DETAIL  
(4"-0" HIGH AND GREATER)

NOT TO SCALE



ORNAMENTAL GRASS PLANTING DETAIL

NOT TO SCALE



PERENNIAL PLANTING DETAIL

NOT TO SCALE

DATE APPROVED: \_\_\_\_\_  
DATE ENDORSED: \_\_\_\_\_  
WRENTHAM PLANNING BOARD  
I HEREBY CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE PLANNING BOARD APPROVAL AND THAT NO APPEAL HAS BEEN FILED IN THIS OFFICE.  
DATE \_\_\_\_\_ WRENTHAM TOWN CLERK \_\_\_\_\_

LANDSCAPE NOTES & DETAILS

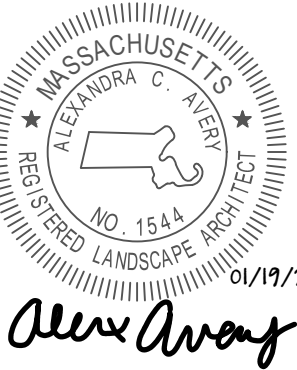
THURSTON STREET  
MAP 07, BLOCK 4, LOTS 1 & 2 & MAP 07, BLOCK 1, LOT 2  
WRENTHAM, MASSACHUSETTS, 02093

PREPARED FOR  
BLUEWATER PROPERTY GROUP  
1 LITTLE WEST 12TH STREET, NEW YORK, NY, 10014  
TEL 212-994-9905

DESIGNED BY: R.S.S. DRAWN BY: R.S.S.

THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS FIRST REVIEWED AND APPROVED BY A REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING.

DIPRETE ENGINEERING ONLY WARRANTS PLANS ON A DIPRETE PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING. DIPRETE ENGINEERING SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE, LOSS, INJURY, OR DEATH, OR FOR ANY OTHER CONSEQUENCES OF ANY KIND, ARISING OUT OF OR IN CONNECTION WITH THE USE OF THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY, PRECAUTIONS AND REQUIREMENTS, AND OSHA COMPLIANCE IN THE IMPLEMENTATION OF THIS PLAN AND DESIGN. EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF ANY UTILITIES SHOWN ON THIS PLAN. SEE UTILITY NOTE ON SHEET 3.



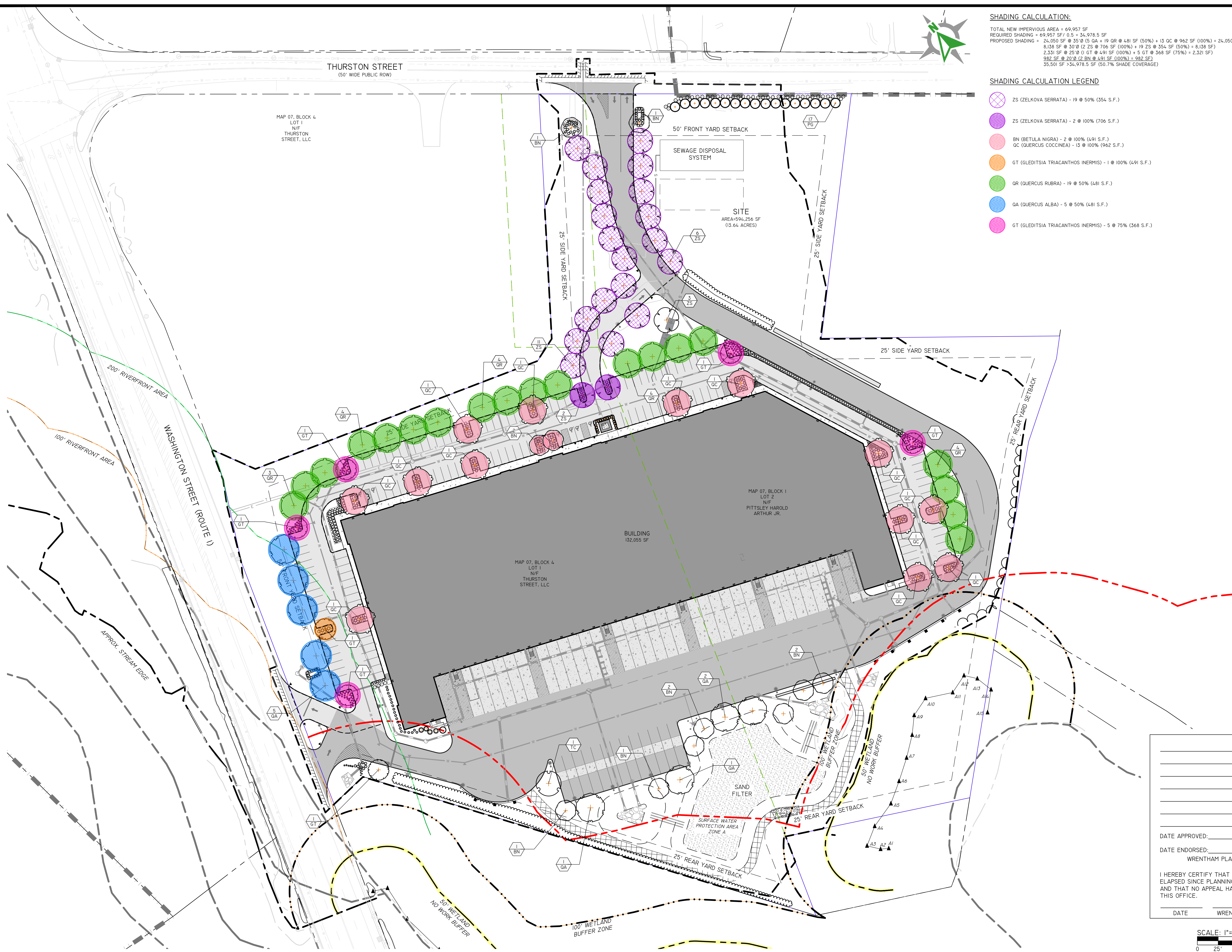
DiPrete Engineering

990 Washington Street Suite 100A Dedham, MA 02026  
tel 781-326-0021 fax 401-464-6006 www.diprete-eng.com

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\\DESKTOP\PROJECTS\2022\01 THURSTON STREET 500 & 524\AUTOCAD DRAWINGS\2022-01 LARC.DWG PLOT: 1/23/2022



SHADING CALCULATION:  
TOTAL NEW IMPERVIOUS AREA = 69,957 SF  
REQUIRED SHADING = 69,957 SF / 0.5 = 34,978.5 SF  
PROPOSED SHADING = 24,050 SF @ 35% (5 QA + 19 QR @ 481 SF (50%) + 13 OC @ 962 SF (100%)) = 24,050 SF  
8,138 SF @ 30% (2 ZS @ 706 SF (100%) + 19 ZS @ 354 SF (50%)) = 8,138 SF  
2,331 SF @ 25% (1 GT @ 491 SF (100%) + 5 GT @ 368 SF (75%)) = 2,331 SF  
982 SF @ 20% (2 BN @ 491 SF (100%)) = 982 SF  
35,501 SF > 34,978.5 SF (50.7% SHADE COVERAGE)

- SHADING CALCULATION LEGEND
- ZS (ZELKOVA SERRATA) - 19 @ 50% (354 S.F.)
  - ZS (ZELKOVA SERRATA) - 2 @ 100% (706 S.F.)
  - BN (BETULA NIGRA) - 2 @ 100% (491 S.F.)  
OC (QUERCUS COCCINEA) - 13 @ 100% (962 S.F.)
  - GT (GLEDITSIA TRIACANTHOS INERMIS) - 1 @ 100% (491 S.F.)
  - QR (QUERCUS RUBRA) - 19 @ 50% (481 S.F.)
  - QA (QUERCUS ALBA) - 5 @ 50% (481 S.F.)
  - GT (GLEDITSIA TRIACANTHOS INERMIS) - 5 @ 75% (368 S.F.)

DATE APPROVED: \_\_\_\_\_

DATE ENDORSED: \_\_\_\_\_

WRENTHAM PLANNING BOARD

I HEREBY CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE PLANNING BOARD APPROVAL AND THAT NO APPEAL HAS BEEN FILED IN THIS OFFICE.

DATE \_\_\_\_\_ WRENTHAM TOWN CLERK

SCALE: 1"=50'

0 25' 50' 100'

LANDSCAPE SHADING PLAN

THURSTON STREET  
MAP 07, BLOCK 4, LOTS 1 & 2 & MAP 07, BLOCK 1, LOT 2  
WRENTHAM, MASSACHUSETTS, 02093

PREPARED FOR  
BLUEWATER PROPERTY GROUP  
1 LITTLE WEST 12TH STREET, NEW YORK, NY, 10014  
TEL 212-594-9905

THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS FIRST REVIEWED AND APPROVED BY A REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING.

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EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. DIPRETE ENGINEERING, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGE TO EXISTING UTILITIES OR FOR THE LOCATION OF UTILITIES. SEE UTILITY NOTE ON SHEET 3.

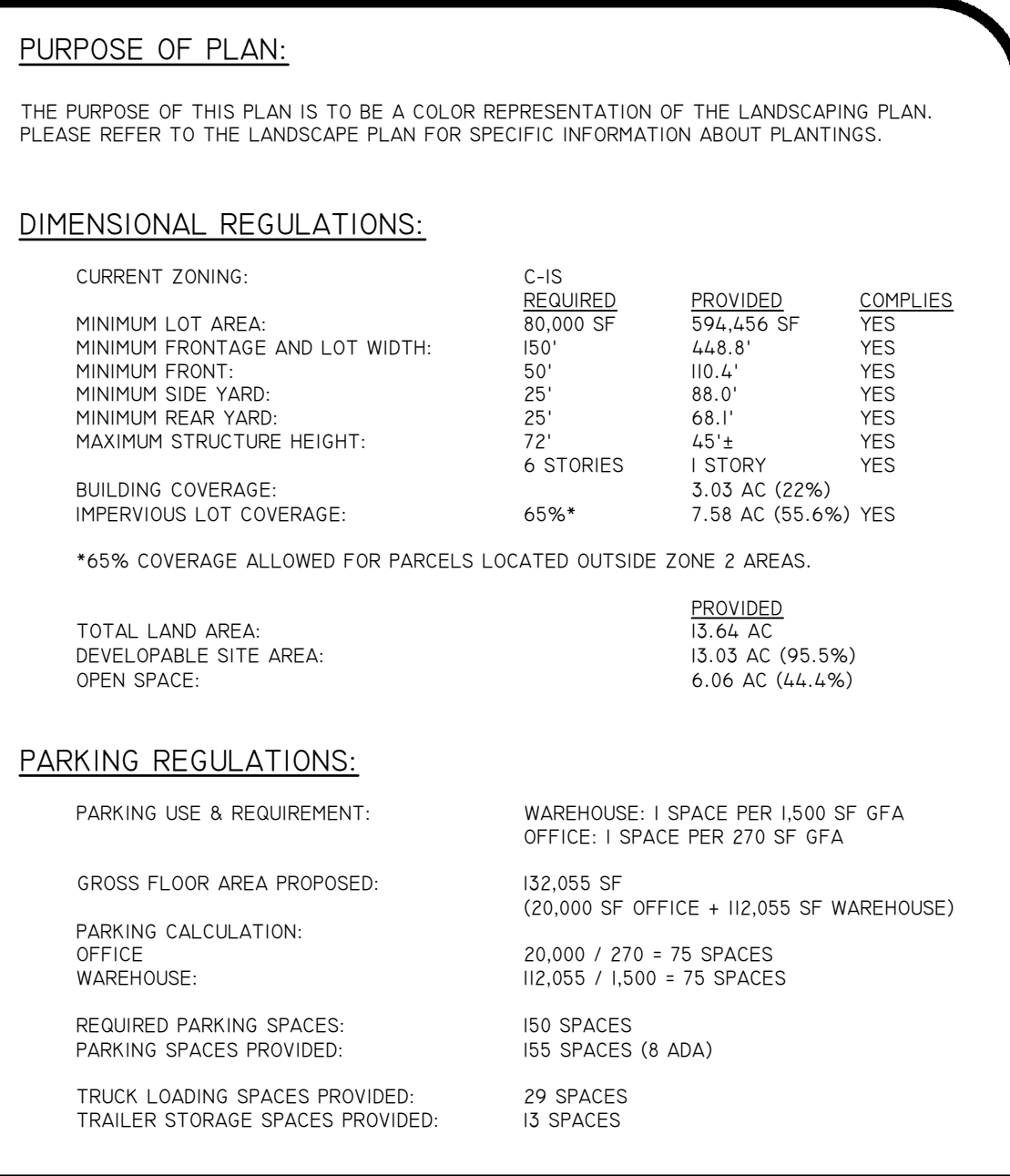
NO.	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	DATE
1	01/19/2022	DEVELOPMENT PLAN AND NO. RESUBMISSION	R.S.S.		
2	01/19/2022	NO. RESUBMISSION	R.S.S.		
3	01/19/2022	NO. RESUBMISSION	R.S.S.		
4	01/19/2022	NO. RESUBMISSION	R.S.S.		
5	01/19/2022	NO. RESUBMISSION	R.S.S.		
6	01/19/2022	NO. RESUBMISSION	R.S.S.		
7	01/19/2022	NO. RESUBMISSION	R.S.S.		
8	01/19/2022	NO. RESUBMISSION	R.S.S.		
9	01/19/2022	NO. RESUBMISSION	R.S.S.		
10	01/19/2022	NO. RESUBMISSION	R.S.S.		
11	01/19/2022	NO. RESUBMISSION	R.S.S.		
12	01/19/2022	NO. RESUBMISSION	R.S.S.		
13	01/19/2022	NO. RESUBMISSION	R.S.S.		
14	01/19/2022	NO. RESUBMISSION	R.S.S.		
15	01/19/2022	NO. RESUBMISSION	R.S.S.		
16	01/19/2022	NO. RESUBMISSION	R.S.S.		
17	01/19/2022	NO. RESUBMISSION	R.S.S.		
18	01/19/2022	NO. RESUBMISSION	R.S.S.		
19	01/19/2022	NO. RESUBMISSION	R.S.S.		
20	01/19/2022	NO. RESUBMISSION	R.S.S.		



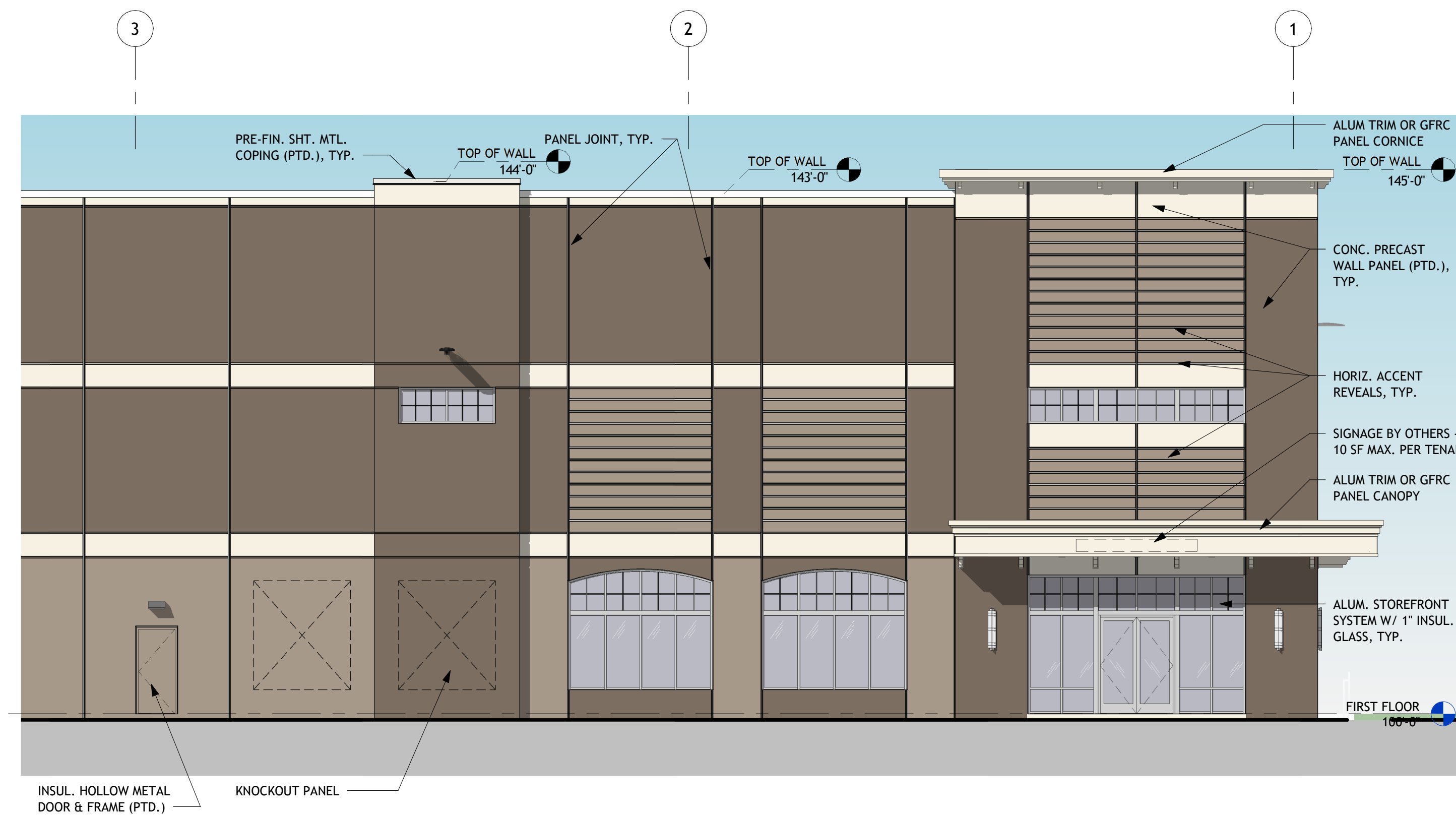
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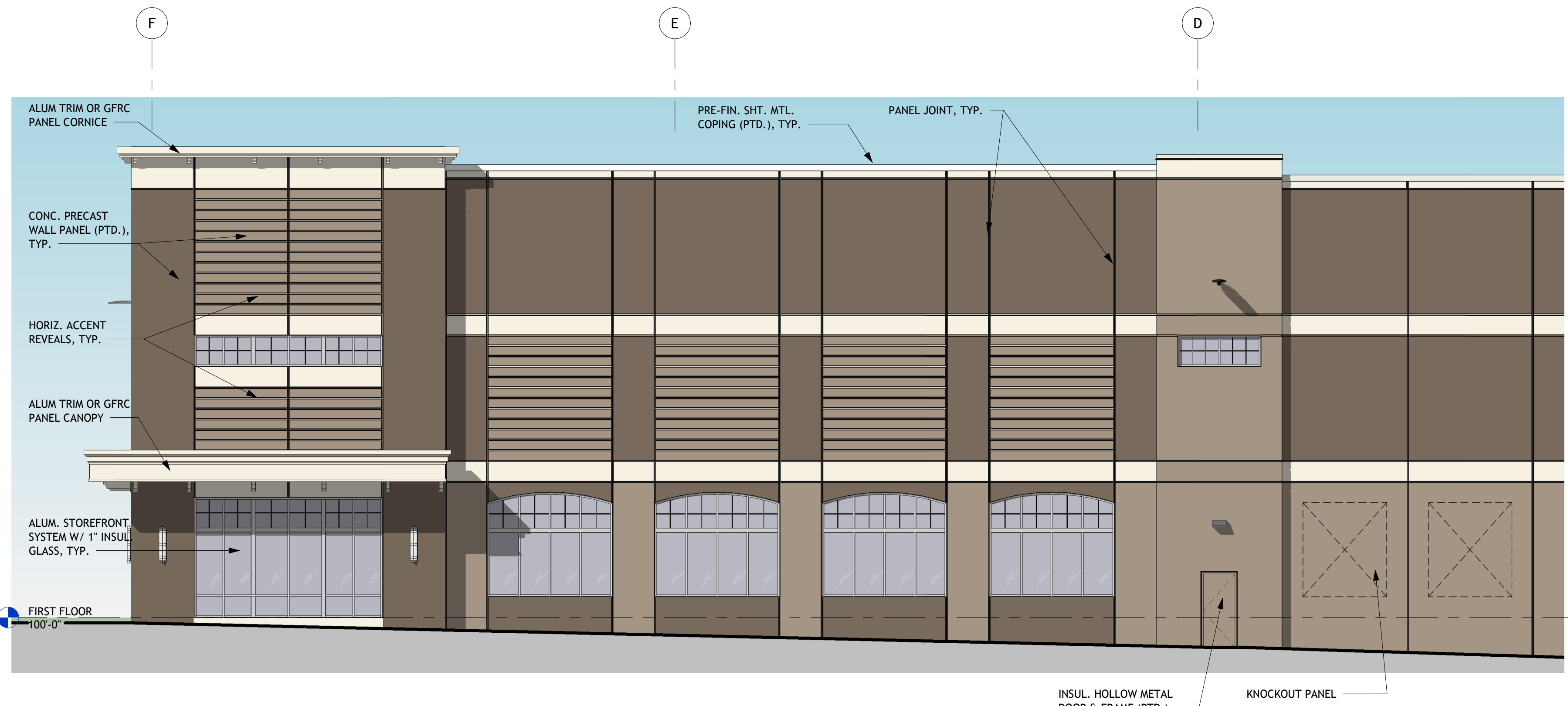




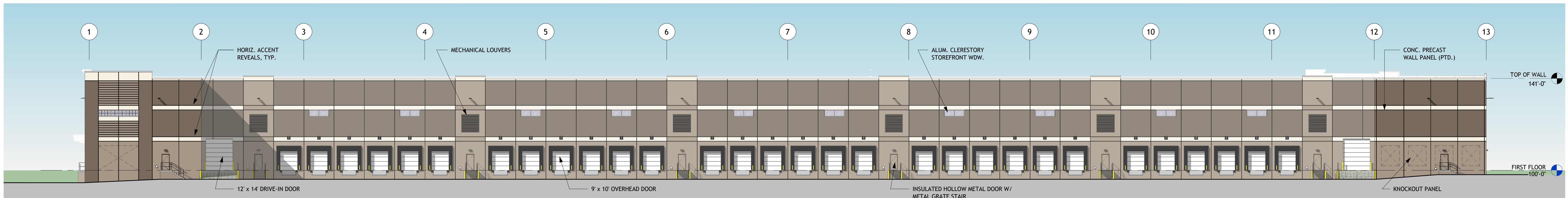




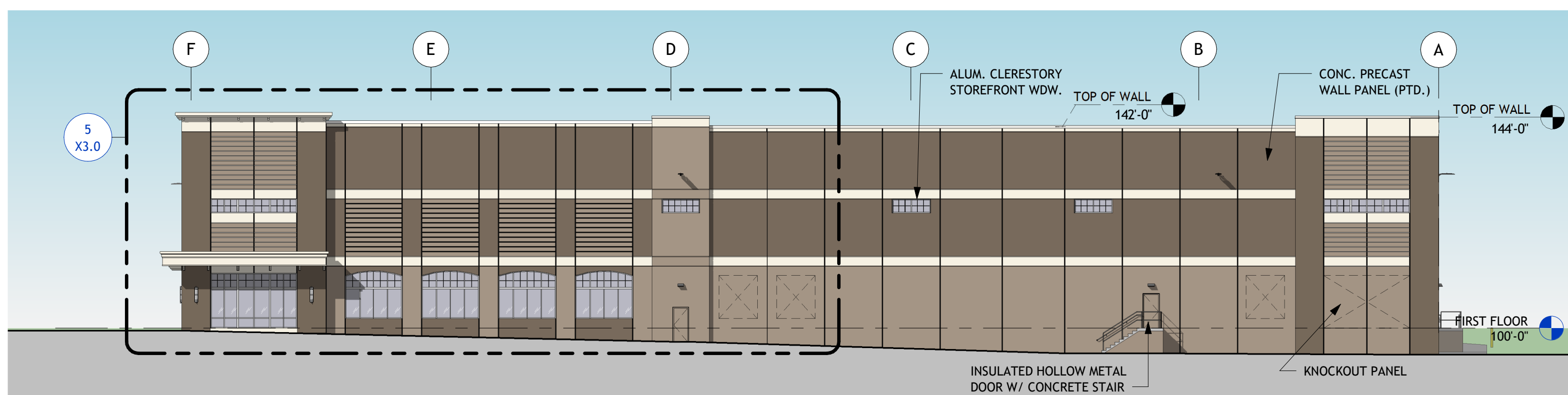
6 ENTRY SOUTH ELEVATION  
1/8" = 1'-0"



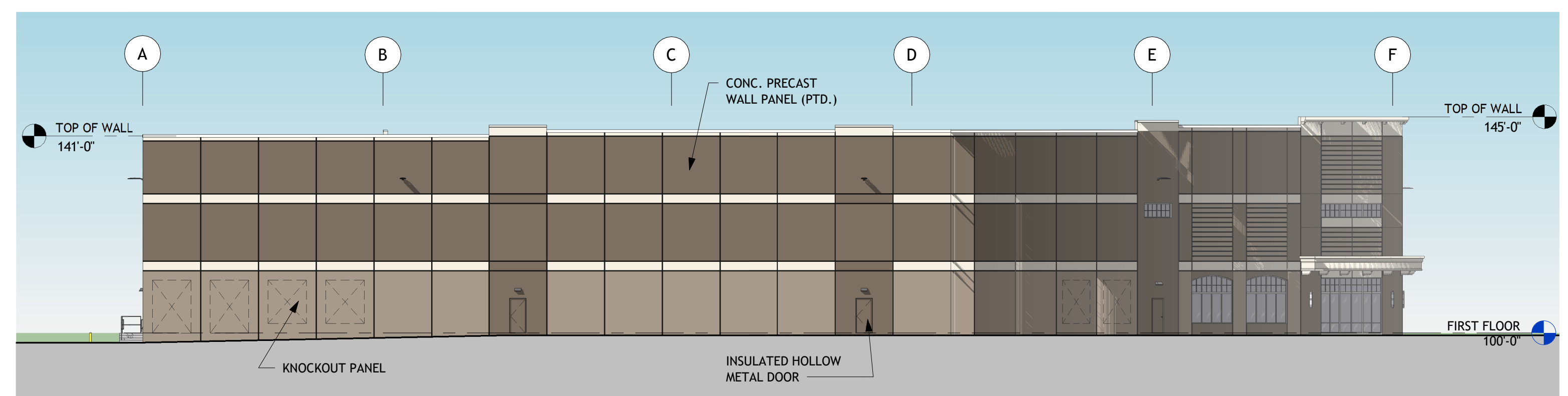
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1/8" = 1'-0"



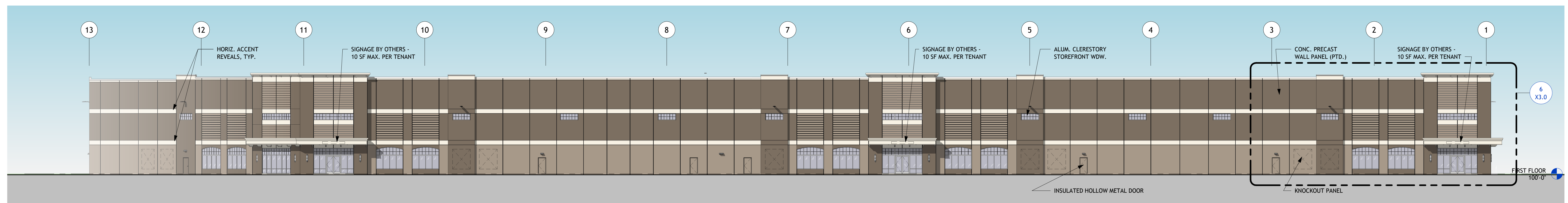
4 SOUTH ELEVATION  
1" = 20'-0"



3 WEST ELEVATION  
1" = 20'-0"



2 EAST ELEVATION  
1" = 20'-0"



1 NORTH ELEVATION  
1" = 20'-0"





NORTHWEST ENTRY

WRENTHAM, MA 02093

THURSTON ST. SPEC. WAREHOUSE

**BLUEWATER**  
PROPERTY GROUP







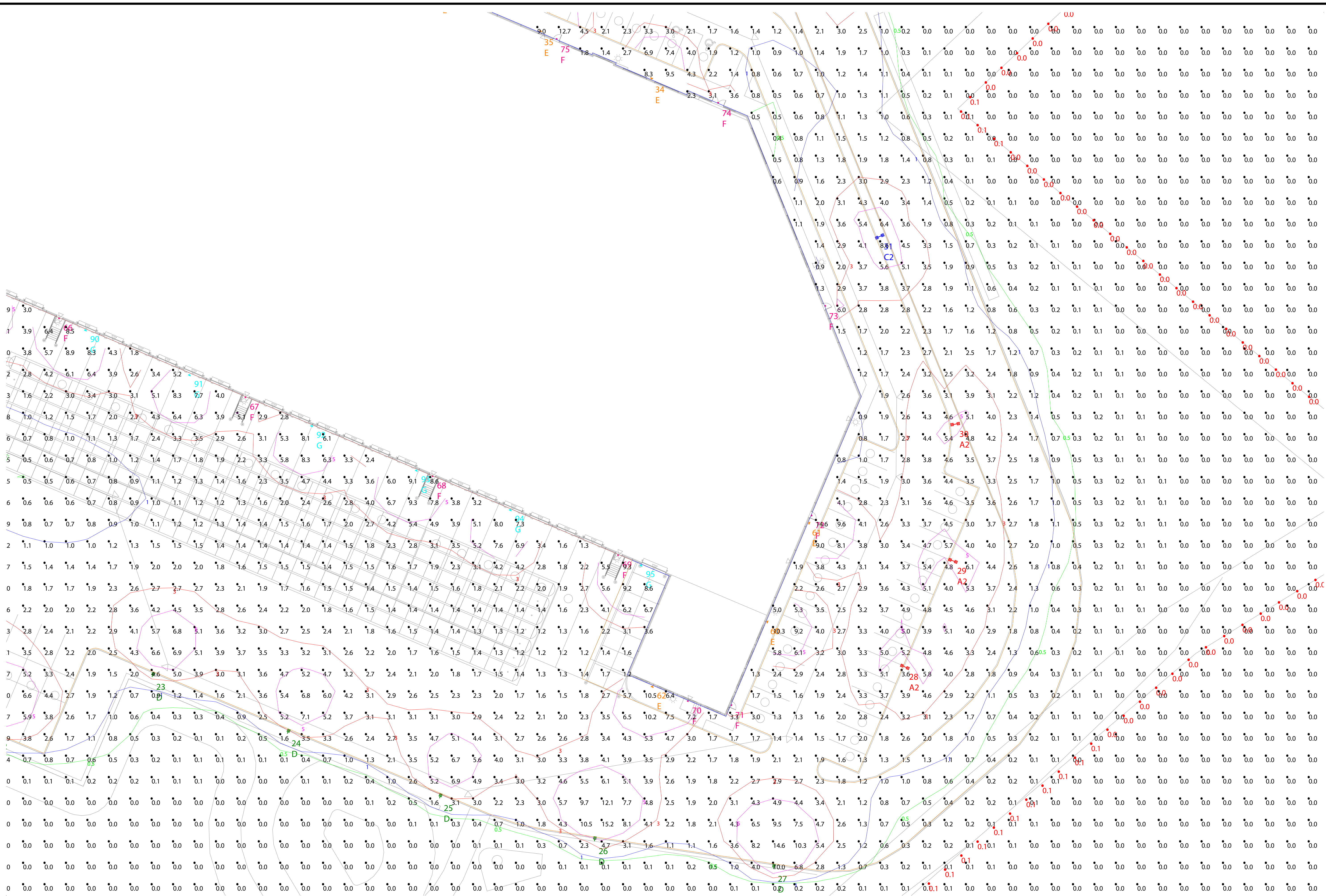


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Filename: C:\Users\margaret.callan\Desktop\524 Thurston Layout 00750722B.AGI





Scale: 1 inch= 20 Ft.

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PROJECT # 181325	Scale: as noted	Job Name: 524 Thurston Wrentham, MA Lighting Layout Version B	Prepared For: Holbrook Associated 35 Reservoir Park Drive Rockland, MA 02370 Tel: 781-871-0011
CASE # 00750722	Date: 11/16/2021	Filename: 524 Thurston Layout 00750722B.AGI	
Drawn By: Margaret Koenig		Filename: C:\Users\margaret.callan\Desktop\524 Thurston Layout 00750722B.AGI	

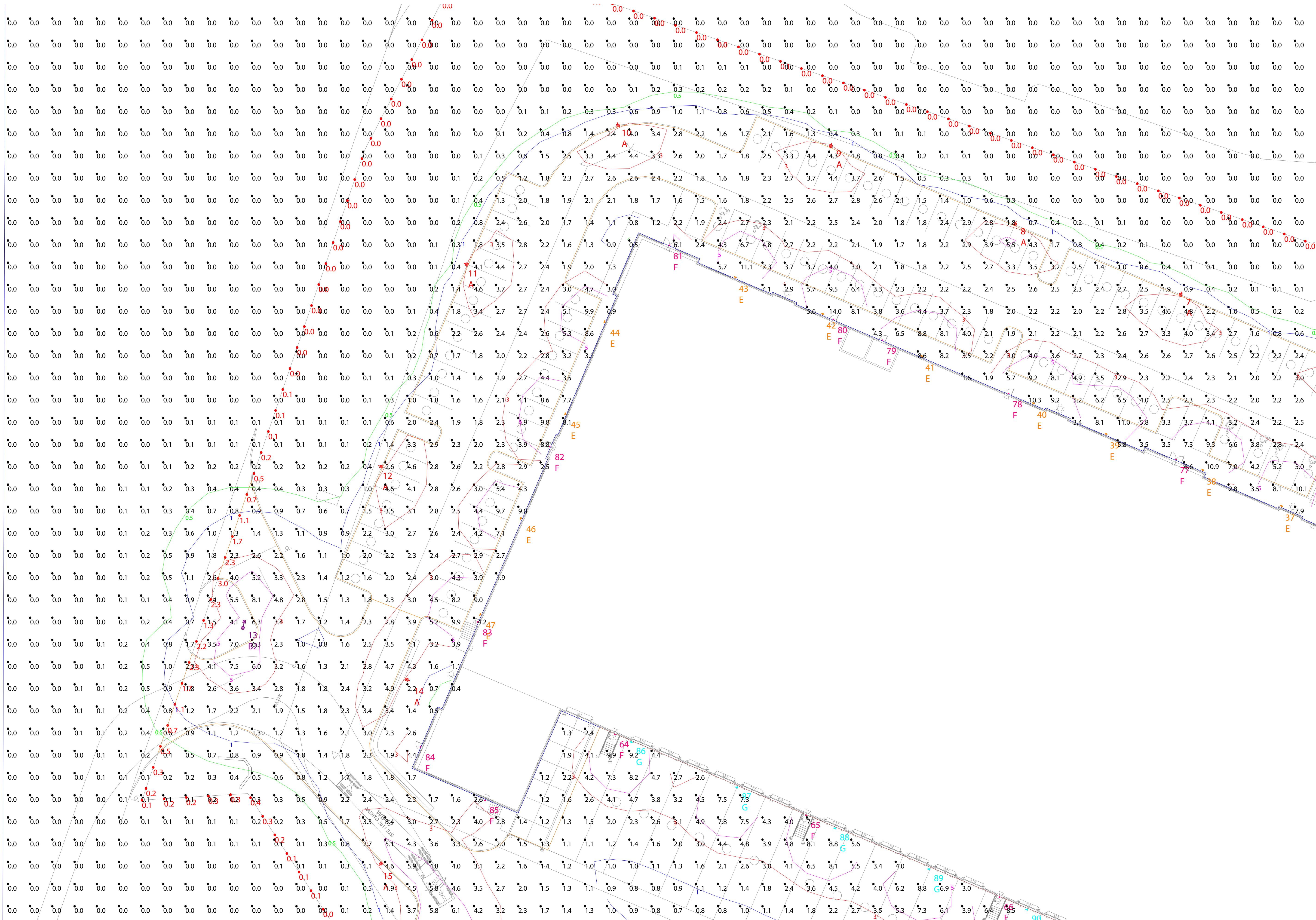
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Scale: 1 inch= 20 Ft.

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Scale: as noted	PROJECT # 181325
Date: 11/16/2021	CASE # 00750722
Filename: 524 Thurston Layout 00750722B.AGI	
Drawn By: Margaret Koenig	

Job Name:  
524 Thurston  
Wrentham, MA  
Lighting Layout  
Version B




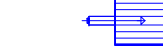





Prepared For:  
Holbrook Associated  
35 Reservoir Park Drive  
Rockland, MA 02370  
Tel: 781-871-0011

Filename: C:\Users\margaret.callan\Desktop\524 Thurston Layout 00750722B.AGI





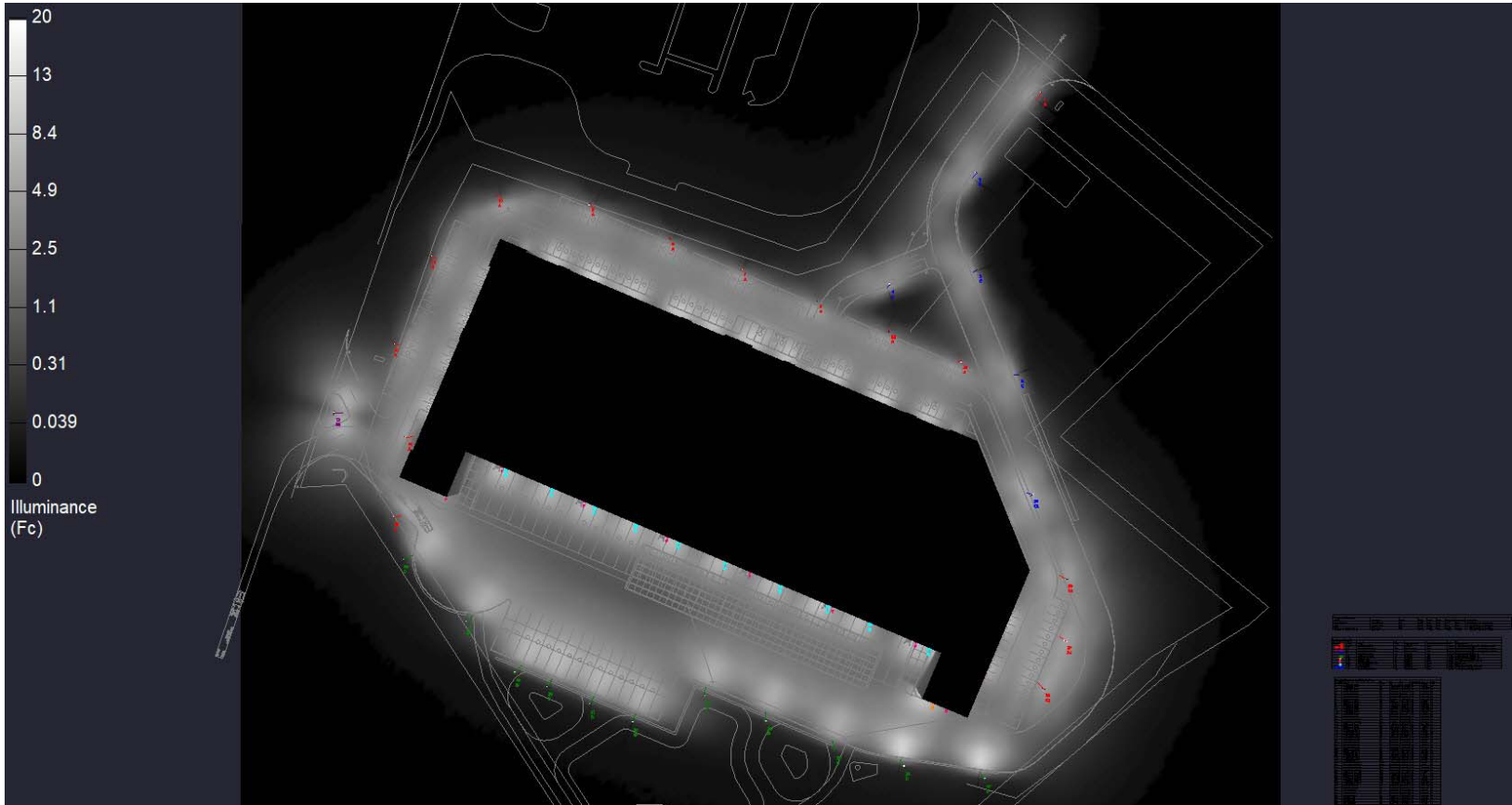
Calculation Summary											
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	PtSpcLr	PtSpcTb	Meter Type	Grid Z
Property Line	Illuminance	Fc	0.09	3.0	0.0	N.A.	N.A.	10	N.A.	Horizontal	N.A
Site	Illuminance	Fc	0.60	15.2	0.0	N.A.	N.A.	10	10	Horizontal	3
Parking and Drive Ar	Illuminance	Fc	2.86	15.2	0.2	14.30	76.00				

Luminaire Schedule								All quotes/orders generated from this layout must be forwarded to the Local Rep Agency			
Symbol	Qty	Tag	Label	Arrangement	LLF	Description	BUG Rating				
	12	A	ALED3T78-SS-B	SINGLE	1.000	Pole Mounted (Type III) + Back Side Shield	B1-U0-G2				
	3	A2	ALED3T78-SS-B x2	BACK-BACK	1.000	Pole Mounted (Type III) x2 @ 180 + Back Side Shield	B1-U0-G2				
	1	B2	ALED4T78-SS-B x2	BACK-BACK	1.000	Pole Mounted (Type IV) x2 @ 180 + Back Side Shield	B1-U0-G2				
	4	C	ALED2T78-SS-B	SINGLE	1.000	Pole Mounted (Type II)	B1-U0-G2				
	1	C2	ALED2T78-SS-B x2	BACK-BACK	1.000	Pole Mounted (Type II) x2	B1-U0-G2				
	11	D	ALED4T150-SS-B	SINGLE	1.000	Pole Mounted (Type IV)	B1-U0-G3				
	17	E	WPLED5C52	SINGLE	1.000	Wall Mounted (Full Cutoff)	B1-U0-G1				
	22	F	WPTLED12 D10 PC2	SINGLE	1.000	Wall Pack	B0-U3-G2				
	10	G	WPLED5C80	SINGLE	1.000	Wall Mounted (Full Cutoff)	B2-U0-G1				

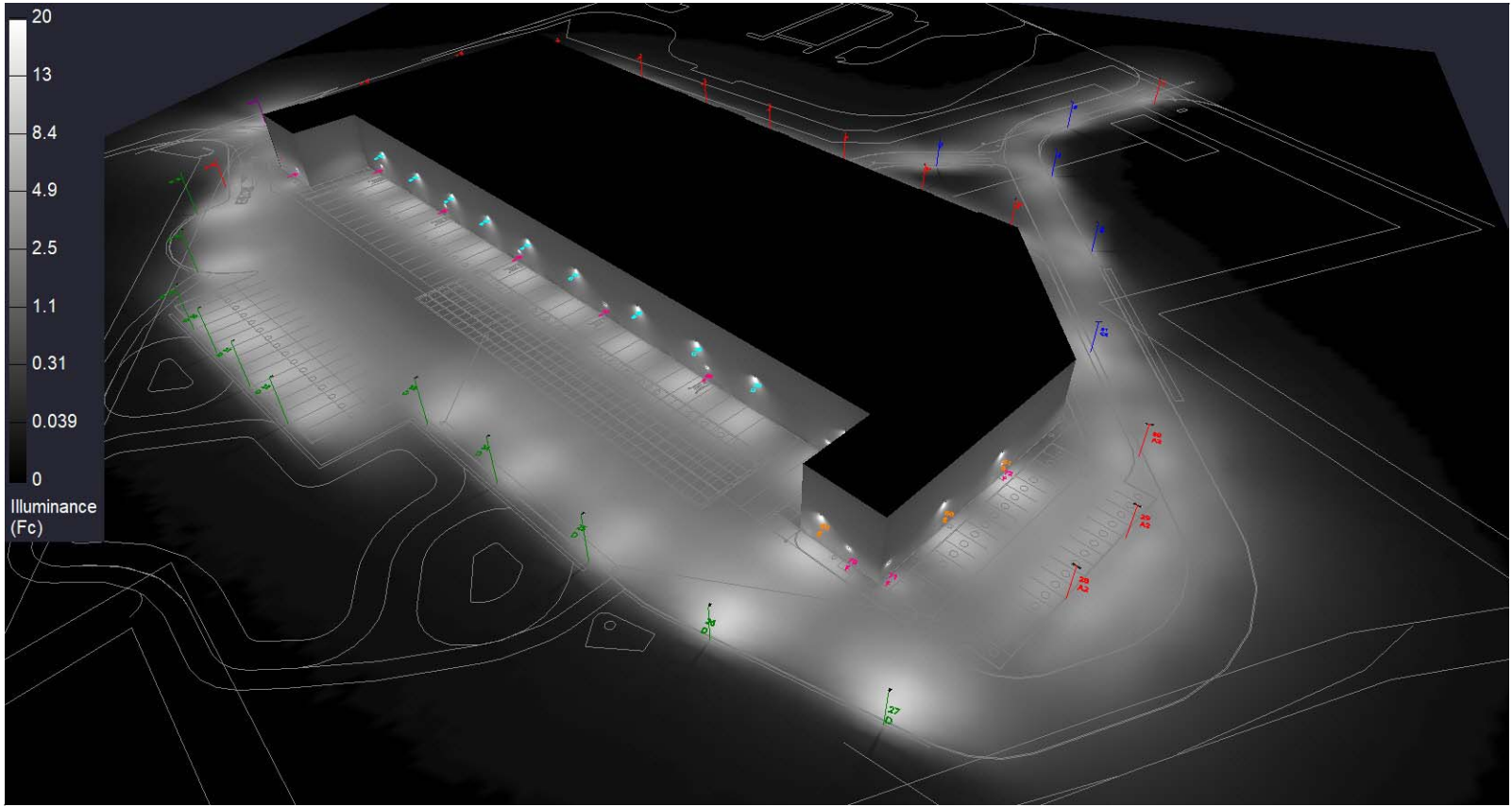
Expanded Luminaire Location Summary						
LumNo	Tag	X	Y	MTG HT	Orient	Tilt
1	A	1065.157	1114.519	23	144.39	0
2	C	997.729	1031.639	23	145.187	0
3	C	998.103	930.119	23	202.058	0
4	C	908.283	915.88	23	112.286	0
5	C	1041.594	821.724	23	200.351	0
6	A	833.47	898.126	23	245.821	0
7	A	754.915	931.043	23	247.12	0
8	A	680.287	962.764	23	246.595	0
9	A	597.238	997.935	23	248.702	0
10	A	501.42	1007.215	23	283.947	0
11	A	433.285	944.67	23	337.208	0
12	A	394.792	853.498	23	338.445	0
13	B2	332.362	780.772	23	257.933	0
13	B2	332.99	783.706	23	77.933	0
14	A	406.155	757.598	23	156.915	0
15	A	394.663	674.71	23	42.879	0
16	D	407.941	632.597	33	32.506	0
17	D	472.351	569.803	33	54.678	0
19	D	522.437	516.757	33	69.872	0
20	D	555.327	502.633	33	67.497	0
21	D	599.152	483.938	33	66.961	0
22	D	643.421	465.747	33	68.198	0
23	D	717.224	493.607	33	67.806	0
24	D	780.431	467.147	33	65.822	0
25	D	851.345	437.019	33	70.927	0
26	D	923.352	417.046	23	81.545	0
27	D	1006.938	404.096	23	83.517	0
28	A2	1069.396	496.284	23	336.8	0
28	A2	1066.638	497.466	23	156.8	0
29	A2	1091.865	545.854	23	339.889	0
29	A2	1089.047	546.886	23	159.889	0
30	A2	1092.999	610.393	23	8.93	0
30	A2	1090.035	609.927	23	188.93	0
31	C2	1057.639	698.334	23	23.613	0
31	C2	1054.891	697.132	23	203.613	0
32	A	907.757	866.529	23	247.051	0
33	A	982.465	834.951	23	244.907	0
34	E	949.884	771.682	20	65.846	0
35	E	898.064	793.715	20	64.796	0
36	E	850.616	813.711	20	67.525	0
37	E	800.462	835.967	20	65.786	0
38	E	765.001	852.228	20	67.066	0
39	E	721.407	868.468	20	66.969	0
40	E	688.573	882.273	20	68.429	0
41	E	638.281	903.561	20	65.264	0
42	E	593.736	922.548	20	65.336	0
43	E	554.247	939.029	20	65.798	0
Total Quantity: 86 ( 47 shown, 1 through 47 )						

Expanded Luminaire Location Summary						
LumNo	Tag	X	Y	MTG HT	Orient	Tilt
44	E	495.192	918.907	20	157.88	0
45	E	477.468	877.352	20	159.417	0
46	E	457.37	830.323	20	156.074	0
47	E	439.167	786.978	20	157.411	0
60	E	1004.016	517.786	20	337.884	0
61	E	1023.541	563.915	20	338.838	0
62	E	950.066	487.434	20	246.529	0
64	F	499.94	732.788	10	244.817	0
65	F	586.199	696.414	10	245.794	0
66	F	673.224	659.493	10	247.162	0
67	F	760.232	622.633	10	245.061	0
68	F	847.592	585.817	10	247.913	0
69	F	934.132	548.986	10	245.808	0
70	F	966.703	480.875	10	247.768	0
71	F	987.143	478.988	10	338.076	0
72	F	1024.554	567.506	10	338.384	0
73	F	1030.938	665.356	10	23.542	0
74	F	980.889	760.166	10	68.629	0
75	F	905.532	789.935	10	67.075	0
76	F	826.359	823.43	10	66.325	0
77	F	752.769	856.872	10	66.461	0
78	F	677.374	886.496	10	67.389	0
79	F	620.576	910.562	10	67.914	0
80	F	598.514	919.928	10	69.511	0
81	F	524.537	953.308	10	66.933	0
82	F	470.675	862.663	10	156.947	0
83	F	438.181	783.536	10	156.036	0
84	F	412.328	727.336	10	157.081	0
85	F	441.405	703.152	10	246.88	0
86	G	507.261	729.248	25	245.377	0
87	G	554.86	708.829	25	243.773	0
88	G	599.056	690.398	25	246.292	0
89	G	641.415	671.984	25	246.072	0
90	G	685.516	653.779	25	246.166	0
91	G	734.037	632.841	25	247.368	0
92	G	791.127	609.088	25	247.43	0
93	G	839.973	588.293	25	244.304	0
94	G	883.794	569.863	25	246.485	0
95	G	944.851	544.017	25	246.844	0
Total Quantity: 86 ( 39 shown, 48 through 86 )						

\*\* NOTE : Fixtures are mounted to RAB with a 3' base provided by others



Plan View



Iso View

NOTES:

\* The light loss factor (LLF) is a product of many variables, only lamp lumen depreciation (LLD) has been applied to the calculated results unless otherwise noted. The LLD is the result (quotient) of mean lumens / initial lumens per lamp manufacturers' specifications.

\* Illumination values shown (in footcandles) are the predicted results for planes of calculation either horizontal, vertical or inclined as designated in the calculation summary. Meter orientation is normal to the plane of calculation.

\* The calculated results of this lighting simulation represent an anticipated prediction of system performance. Actual measured results may vary from the anticipated performance and are subject to means and methods which are beyond the control of RAB Lighting Inc.

\* Mounting height determination is job site specific, our lighting simulations assume a mounting height (insertion point of the luminaire symbol) to be taken at the top of the symbol for ceiling mounted luminaires and at the bottom of the symbol for all other luminaire mounting configurations.

\* It is the Owner's responsibility to confirm the suitability of the existing or proposed poles and bases to support the proposed fixtures, based on the weight and EPA of the proposed fixtures and the owner's site soil conditions and wind zone. It is recommended that a professional engineer licensed to practice in the state the site is located be engaged to assist in this determination.

\* The landscape material shown hereon is conceptual, and is not intended to be an accurate representation of any particular plant, shrub, bush, or tree, as these materials are living objects, and subject to constant change. The conceptual objects shown are for illustrative purposes only. The actual illumination values measured in the field will vary.

\* Photometric model elements such as buildings, rooms, plants, furnishings or any architectural details which impact the dispersion of light must be detailed by the customer documents for inclusion in the RAB lighting design model. RAB is not responsible for any inaccuracies caused by incomplete information on the part of the customer, and reserves the right to use best judgement when translating customer requests into photometric studies.

\* RAB Lighting Inc. luminaire and product designs are protected under U.S. and International intellectual property laws. Patents issued or pending apply.

The Lighting Analysis, Layout, Energy Analysis and/or Visual Simulation ("Lighting Design") provided by RAB Lighting Inc. ("RAB") is for informational purposes only. RAB does not warrant, either implied or stated, that the Lighting Design is accurate, complete, or suitable for any particular purpose. RAB neither warrants, either implied or stated, that the Lighting Design is compliant with any applicable regulatory code requirements, with the exception of those specifically stated on drawings created and issued by RAB. RAB recommends that design parameters and other information be field verified to reduce variation. RAB neither warrants, either implied or stated, that the Lighting Design is compliant with any applicable regulatory code requirements, with the exception of those specifically stated on drawings created and issued by RAB. RAB is not responsible for construction nor as being part of a project's construction documentation package.

Scale: as noted	PROJECT # 181325	
	CASE # 00750722	
Date: 11/16/2021	Filename: 524 Thurston Layout 00750722B.AGI	
	Drawn By: Margaret Koenig	

Job Name: 524 Thurston Wrentham, MA Lighting Layout Version B
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Prepared For: Holbrook Associated 35 Reservoir Park Drive Rockland, MA 02370 Tel: 781-871-0011
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\\NAS\STORAGE\PROJ\DEHAM\PROJECTS\0554-001 THURSTON STREET 500 & 524\AUTOCAD DRAWINGS\0554-001-CVAR.DWG PLOTTER: 12/19/2021

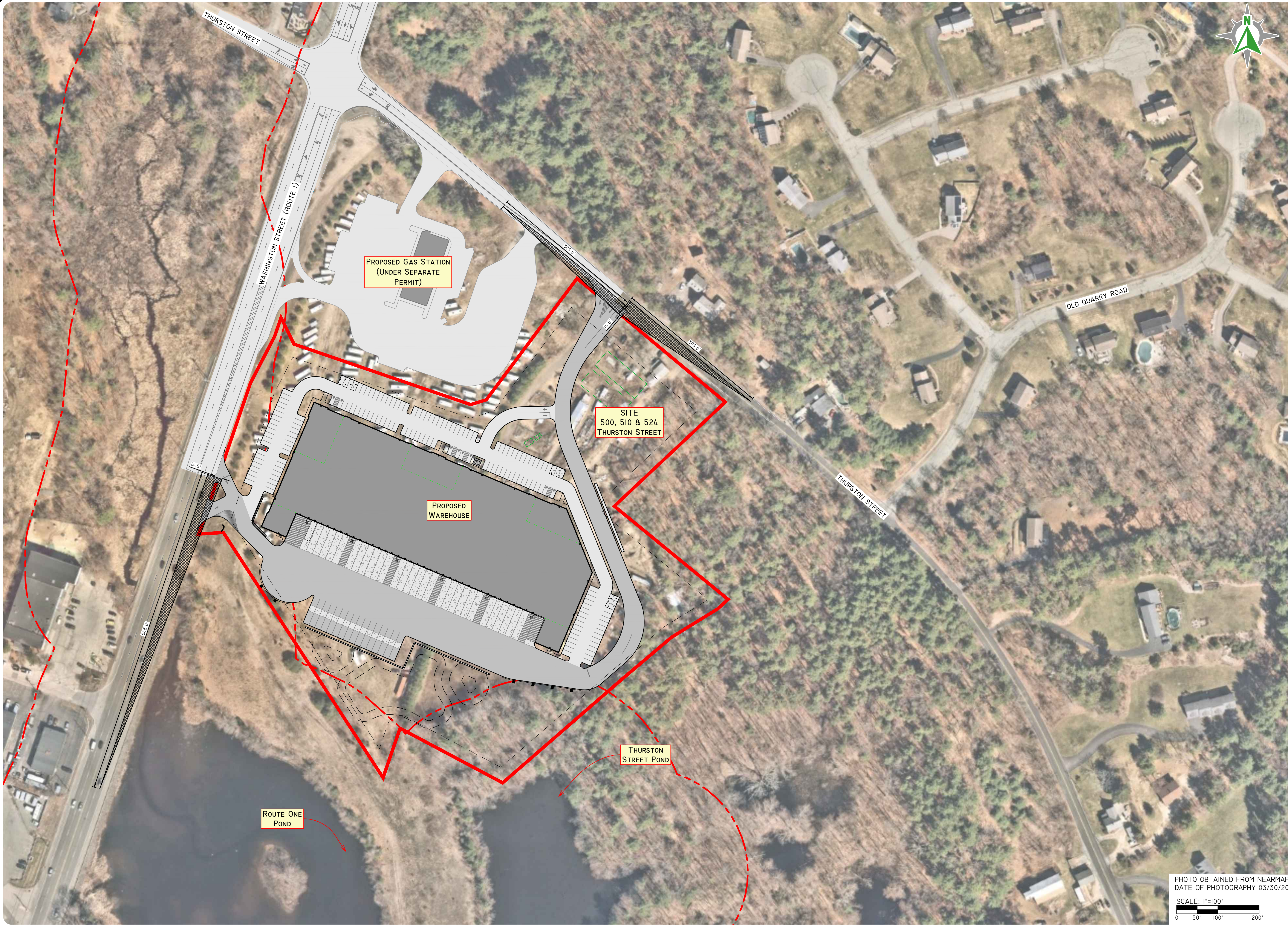


PHOTO OBTAINED FROM NEARMAP.  
DATE OF PHOTOGRAPHY 03/30/2021.  
SCALE: 1"=100'

SIGHT DISTANCE TRIANGLE EXHIBIT

THURSTON STREET  
MAP 07, BLOCK 4, LOTS 1 & 2 & MAP 07, BLOCK 1, LOT 2  
WRENTHAM, MASSACHUSETTS, 02093

PREPARED FOR  
BLUEWATER PROPERTY GROUP  
111 TITTLE WEST 12TH STREET, NEW YORK, NY, 10014  
TEL 212-594-9615

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NO.	DATE	DESCRIPTION	SCALE	DATE	BY
1	03/30/2021	SIGHT DISTANCE TRIANGLE EXHIBIT	1"=100'	03/30/2021	R.S.S.

THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES  
UNLESS STAMPED, ISSUED FOR CONSTRUCTION AND STAMPED BY  
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