

NEEDHAM PLANNING BOARD

Tuesday, March 19, 2024

7:00 p.m.

Charles River Room

Public Services Administration Building, 500 Dedham Avenue

AND

Virtual Meeting using Zoom

Meeting ID: **880 4672 5264**

(Instructions for accessing below)

To view and participate in this virtual meeting on your phone, download the “Zoom Cloud Meetings” app in any app store or at www.zoom.us. At the above date and time, click on “Join a Meeting” and enter the following Meeting ID: **880 4672 5264**

To view and participate in this virtual meeting on your computer, at the above date and time, go to www.zoom.us click “Join a Meeting” and enter the following ID: **880 4672 5264**

Or to Listen by Telephone: Dial (for higher quality, dial a number based on your current location):

US: +1 312 626 6799 or +1 646 558 8656 or +1 301 715 8592 or +1 346 248 7799 or +1 669 900 9128 or +1 253 215 8782 Then enter ID: **880 4672 5264**

Direct Link to meeting: <https://us02web.zoom.us/j/88046725264>

1. Public Hearing:

7:00 p.m. Major Project Site Plan Special Permit No. 20094-01: Town of Needham, 1471 Highland Avenue, Needham, MA, Petitioner. (Property located at 609 Webster Street, Needham, Massachusetts). Regarding request to renovate 4 existing tennis courts, add 4 new tennis courts, install stormwater management improvements, ADA accessible walkways, and landscape improvements.

2. Public Hearing:

7:45 p.m. Article 1: Amend Zoning By-Law – Solar Energy Systems

3. Planning Board Recommendation:

Article 1: Amend Zoning By-Law – Solar Energy Systems

4. ANR Plan – Ridgeway Properties, LLC, and Peter Hammer, Petitioners, (Property located at 25 Ridgeway Avenue and 10 Evans Road, Needham, MA).

5. Decision: Amendment to Major Project Site Plan Special Permit No. 2009-06: Needham Farmer’s Market, Inc., 227 Eliot Street, Ashland, MA, 01721 and Town of Needham, 1471 Highland Avenue, Needham, MA, Petitioners. (Property located at 1471 Highland Avenue, Needham, Massachusetts). Regarding request to permit the operation of a farmers market on a small portion of the Town Common and Garrity’s Way.

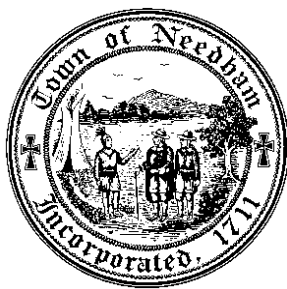
6. Board of Appeals – March 21, 2024.

7. Minutes.

8. Report from Planning Director and Board members.

9. Correspondence.

(Items for which a specific time has not been assigned may be taken out of order.)



PLANNING & COMMUNITY DEVELOPMENT
PLANNING DIVISION

LEGAL NOTICE
Planning Board
TOWN OF NEEDHAM
NOTICE OF HEARING

In accordance with the provisions of M.G.L., Chapter 40A, S. 11, and the Needham Zoning By-Laws, Section 7.4 and Section 4.2 of Major Project Site Plan Review, No. 2004-01, the Needham Planning Board will hold a public hearing on Tuesday, March 19, 2024, at 7:00 PM in the Public Services Administration Building, Charles River Room, 500 Dedham Ave, Needham, Massachusetts, as well as by Zoom Web ID Number 880 4672 5264 (further instructions for accessing by zoom are below), regarding the application of the Town of Needham for an Amendment to the Special Permit under Site Plan Review, Section 7.4 of the Needham Zoning By-Law.

The subject property is the location of the Needham High School at 609 Webster Street, Needham, Massachusetts, shown on Assessor's Map 226, Parcel 10 containing 14.15 acres in the Single Residence B District. The requested Major Project Site Plan Special Permit Amendment would, if granted, permit the renovation of four (4) existing tennis courts, the addition of four (4) new tennis courts, installation of stormwater management improvements, ADA accessible walkways, and landscape improvements.

In accordance with the Zoning By-Law, Section 7.4, a Major Project Site Plan Review Amendment is required. In accordance with Special Permit No. 2004-01, Section 4.2, further site plan approval is required.

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US: +1 312 626 6799 or +1 646 558 8656 or +1 301 715 8592 or +1 346 248 7799 or +1 669 900 9128 or +1 253 215 8782 Then enter ID: 880 4672 5264

Direct Link to meeting: <https://us02web.zoom.us/j/88046725264>

Copies of the plan are available upon request in the office of the Planning Board. Interested persons are encouraged to attend the public hearing and make their views known to the Planning Board. This legal notice is also posted on the Massachusetts Newspaper Publishers Association's (MNPA) website at (<http://masspublicnotices.org/>).

NEEDHAM PLANNING BOARD

Hometown Weekly, February 29, 2024 and March 7, 2024.

TOWN OF NEEDHAM
MASSACHUSETTS

RECEIVED TOWN CLERK
NEEDHAM, MA 02492

2024 FEB 27 AM 11:17



500 Dedham Avenue
Needham, MA 02492
781-455-7550

PLANNING BOARD

APPLICATION FOR SITE PLAN REVIEW

Project Determination: (circle one) Major Project Minor Project

This application must be completed, signed, and submitted with the filing fee by the applicant or his representative in accordance with the Planning Board's Rules as adopted under its jurisdiction as a Special Permit Granting Authority. Section 7.4 of the By-Laws.

Location of Property 609 Webster Street, Needham MA
Name of Applicant Town of Needham
Applicant's Address 1471 Highland Avenue, Needham MA
Phone Number (781) 455-7500

Applicant is: Owner _____ Tenant _____
Agent/Attorney X Purchaser _____

Property Owner's Name Town of Needham
Property Owner's Address 1471 Highland Avenue, Needham MA 02492
Telephone Number (781) 455-7500

Characteristics of Property: Lot Area 14.15 acres Present Use Educational
Map # 226 Parcel # 10 Zoning District Single Residence B

Description of Project for Site Plan Review under Section 7.4 of the Zoning By-Law:

The Town of Needham seeks an amendment of the Major Project Site Plan Special Permit applicable to the Needham High School, 609 Webster Street, to allow for the renovation of four (4) existing tennis courts, the addition of four (4) new tennis courts, and installation of stormwater management improvements and ADA accessible walkways.

Signature of Applicant (or representative) [Signature]
Address if not applicant Christopher Heep, 40 Grove Street-Suite 190, Wellesley MA 02482
Telephone # (617) 804-2422
Owner's permission if other than applicant _____

SUMMARY OF PLANNING BOARD ACTION

Received by Planning Board [Signature] Date 2/27/24
Hearing Date _____ Parties of Interest Notified of Public Hearing _____
Decision Required by _____ Decision/Notices of Decision sent _____
Granted _____

Denied _____ Fee Paid _____ Fee Waived _____
Withdrawn _____

NOTE: Reports on Minor Projects must be issued within 35 days of filing date.

February 26, 2024

BY EMAIL (lnewman@needhamma.gov)

Planning Board
Town of Needham
Public Services Administration Building
500 Dedham Avenue
Needham, MA 02492

**Re: Request to Amend Major Project Site Plan Special Permit No. 2004-01
High School Tennis Court Renovation**

Dear Planning Board Members:

I am pleased to submit this application for an amendment of Major Project Site Plan Special Permit No. 2004-01 on behalf of the Town of Needham (the “Applicant”) to authorize the comprehensive redesign and renovation of the Needham High School tennis courts. The new tennis courts and associated site improvements are shown on the plans submitted herewith, and includes a complete redesign, replacement, and expansion of the existing tennis courts.

The Major Project Site Plan Special Permit applicable to this property is dated April 6, 2004 (the “Decision”) and has previously been amended multiple times.¹ The Decision covers the High School property located at 609 Webster Street, which is located in the Single Residence B zoning district, is shown on Needham Town Assessors' Plan No. 226 as Parcel No. 10, and contains a total of 14.15 acres. The Decision and subsequent amendments allowed for renovations and improvements to the High School but did not authorize any particular work to expand the tennis courts (none was proposed at the time). Accordingly, this application now seeks an amendment of the Decision to authorize renovation of the four (4) existing on-site tennis courts and installation of four (4) additional tennis courts as shown on the site plans. This application does not propose any new buildings, does not involve any changes to the existing parking or vehicular circulation, and does not involve any structural changes to the High School building itself.

The Project

The proposed tennis courts redesign is shown on the plan set entitled “Town of Needham Needham High School Tennis Court Renovation Needham, Massachusetts 02492,” dated February 6, 2024 and prepared by Activitas of 70 Milton Street, Dedham, MA, that is submitted along with this application. The key features of the new tennis courts include the following:

¹ The Planning Board has issued Amendments to the Decision dated January 5, 2010, December 6, 2011, October 27, 2015, July 19, 2016, August 9, 2016, November 28, 2017 and August 7, 2018.

- The High School will be adding four new tennis courts bringing the total number of courts from four (4) to eight (8). The existing four tennis courts will also be renovated and upgraded to match the newly installed courts.
- The site will feature new concrete sidewalks and a set of granite stairs leading to the new court area that will provide pedestrian access from the parking lot to all eight courts. A centrally located patio will be installed between the original and new courts that will be covered by a raised shade.
- The courts will be secured by typical 4-foot and 12-foot chain link fences that enclose four sets of courts (two courts in each fenced in set) that provide entry through gates accessible from the new walkways.

Compliance with MPSP Review Criteria

The proposed renovation of the High School is consistent with all the approval criteria for a Major Project Site Plan Special Permit under Section 7.4.6 of the Zoning Bylaw. Each criterion is discussed below.

(a) Protection of adjoining premises against seriously detrimental uses by provision for surface water drainage, sounds and sight buffers and preservation of views, light, and air.

The redesigned tennis courts will have no detrimental impacts on adjoining premises. The portion of the site is already in use as tennis courts, and the redesign of the site does not create any detrimental impacts on the surrounding area. The High School is not proposing any lighting associated with the tennis courts and the site will be improved with an underground drain line, area drains, and a new infiltration system within the parking lot area designed to keep water on the Property with no negative impact on neighboring lands. See Sheet L2.1 of the Plan Set and Stormwater Management and Erosion Control Report.

(b) Convenience and safety of vehicular and pedestrian movement within the site and on adjacent streets, the location of driveway openings in relation to traffic or to adjacent streets and, when necessary, compliance with other regulations for the handicapped, minors and the elderly.

Convenience and safety of vehicular and pedestrian movement within the site has been adequately provided for. The project does not alter the parking lot other than installing new granite curbing in the areas adjacent to where the walkways will be installed. The new sidewalks will improve pedestrian movement at the site and will provide safe and convenient access to all courts and court entrances.

(c) Adequacy of the arrangement of parking and loading spaces in relation to the proposed uses of the premises.

The plans do not propose adding to or altering the High School parking lot in any way other than providing access to the site by way of the new sidewalks, and the temporary disturbance for the installation of the subsurface infiltration system.

(d) Adequacy of the methods of disposal of refuse and other wastes resulting from the uses permitted on the site.

Disposal of refuse and other waste will be adequately provided for. The project is not a major generator of refuse and other wastes, and the volume of refuse generated is not anticipated to increase relative to the current use of the tennis courts. Disposal will be in accordance with applicable law and established practice for this site.

(e) Relationship of structures and open spaces to the natural landscape, existing buildings and other community assets in the area and compliance with other requirements of this By-Law.

The tennis courts are designed with careful consideration of existing structures and open space, and will fit within the general character of the High School property. In particular, the four (4) renovated courts will be in the same location on the High School property as the existing courts. The four (4) new courts will be located outside of the 25-foot side and rear setback required in the Single Residence B zoning district, thus there will be no encroachment or crowding of adjoining property owners' land. The land surrounding the tennis courts will be improved with new walkways, benches, and a patio to encourage use of the tennis courts and to provide convenient access and an enjoyable environment to the students and spectators.

(f) Mitigation of adverse impacts on the Town's resources including the effect on the Town's water supply and distribution system, sewer collection and treatment, fire protection, and streets; and may require when acting as the Special Permit Granting Authority or recommend in the case of minor projects, when the Board of Appeals is acting as the Special Permit Granting authority, such appropriate conditions, limitation, and safeguards necessary to assure the project meets the criteria of a through f.

The project will have no adverse impacts on the Town's resources. The site is already in use as the High School's tennis courts, and the redesign and renovation of the space will not create any new impacts on the Town's water supply and distribution system, sewer, fire protection or streets. The Stormwater Management and Erosion Controls Report submitted with this application details the mitigation provided to address the construction of the new tennis courts.

Based on the foregoing, the proposed development complies with all standards and criteria set forth in the provisions of the Zoning By-Law, and the requested amendment is in harmony with the purposes and intent of the By-Law and will have minimal adverse impacts on the surrounding area. The Applicant respectfully requests that the Decision be amended to incorporate the plan set submitted herewith showing the renovated tennis courts and associated site improvements.

Application Materials

This application includes the following materials:

- a. Plans entitled “Town of Needham Needham High School Tennis Court Renovation Needham, Massachusetts 02492,” dated February 6, 2024 and prepared by Activitas of 70 Milton Street, Dedham, MA.

Title Sheet & Index
Sheet EX1.1 – Existing Conditions Plan
Sheet SP1.1 – Site Preparation Plan
Sheet SP1.2 – Site Preparation Detail Sheet
Sheet L1.1 – Layout and Materials Plan
Sheet L2.1 – Grading and Utility Plan
Sheet L3.1 – Detail Sheet I
Sheet L3.2 – Detail Sheet II
Sheet L3.3 – Detail Sheet III

- b. Stormwater Management and Erosion Control Report dated February 6, 2024 prepared by Activitas.

Pursuant to Section 7.4.4, the Applicant requests that the Planning Board waive the submission of any of the required information that is not submitted herewith. The Applicant also requests a waiver of the Planning Board’s application fee on the ground that this is a Town project.

In addition, pursuant to Section 7.4.4 the Applicant hereby certifies that the project can be constructed, and the proposed use commenced without need for the issuance of any variance or other zoning relief from any provision of the By-Law by the Zoning Board of Appeals.

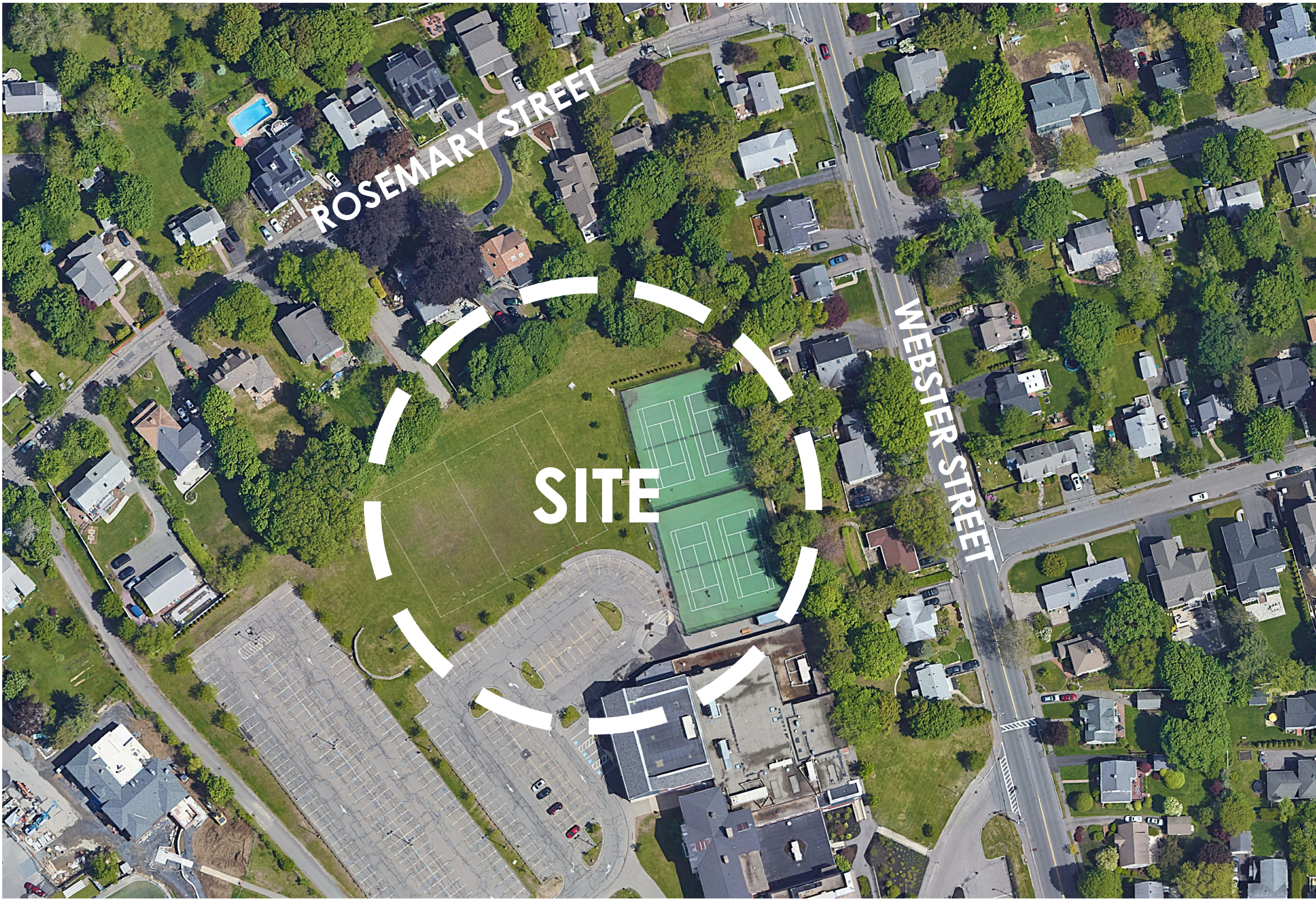
Thank you very much for your consideration of this application, and please let me know if I can provide any additional information prior to the Board's meeting on this request for an amendment of Major Project Site Plan Special Permit No. 2004-01.

Sincerely,



Christopher H. Heep

cc: K. Fitzpatrick
D. Gutekanst
T. Ryder
A. Rrapi



LOCUS MAP

N.T.S. 

LIST OF DRAWINGS

EX1.1	EXISTING CONDITIONS PLAN (BY TOWN OF NEEDHAM)
SP1.1	SITE PREPARATION PLAN
SP1.2	SITE PREPARATION DETAIL SHEET
L1.1	LAYOUT AND MATERIALS PLAN
L2.1	GRADING AND UTILITY PLAN
L3.1	DETAIL SHEET I
L3.2	DETAIL SHEET II
L3.3	DETAIL SHEET III

MAJOR PROJECT SITE PLAN APPROVAL | FEBRUARY 6, 2024

TOWN OF NEEDHAM

NEEDHAM HIGH SCHOOL

TENNIS COURT RENOVATION

NEEDHAM, MASSACHUSETTS 02492

LOT AREA: 14.55 ACRES | MAP# 226 | PARCEL# 199 | ZONING DISTRICT: SINGLE RESIDENCE B

OWNER

Town of Needham
1471 Highland Avenue
Needham, MA 02492
(781) 455-7940

LANDSCAPE ARCHITECT/CIVIL ENGINEER

Activitas
70 Milton Street
Dedham, MA 02026
(781) 326-2600

TOWN OF NEEDHAM
NEEDHAM HIGH SCHOOL TENNIS COURT RENOVATION

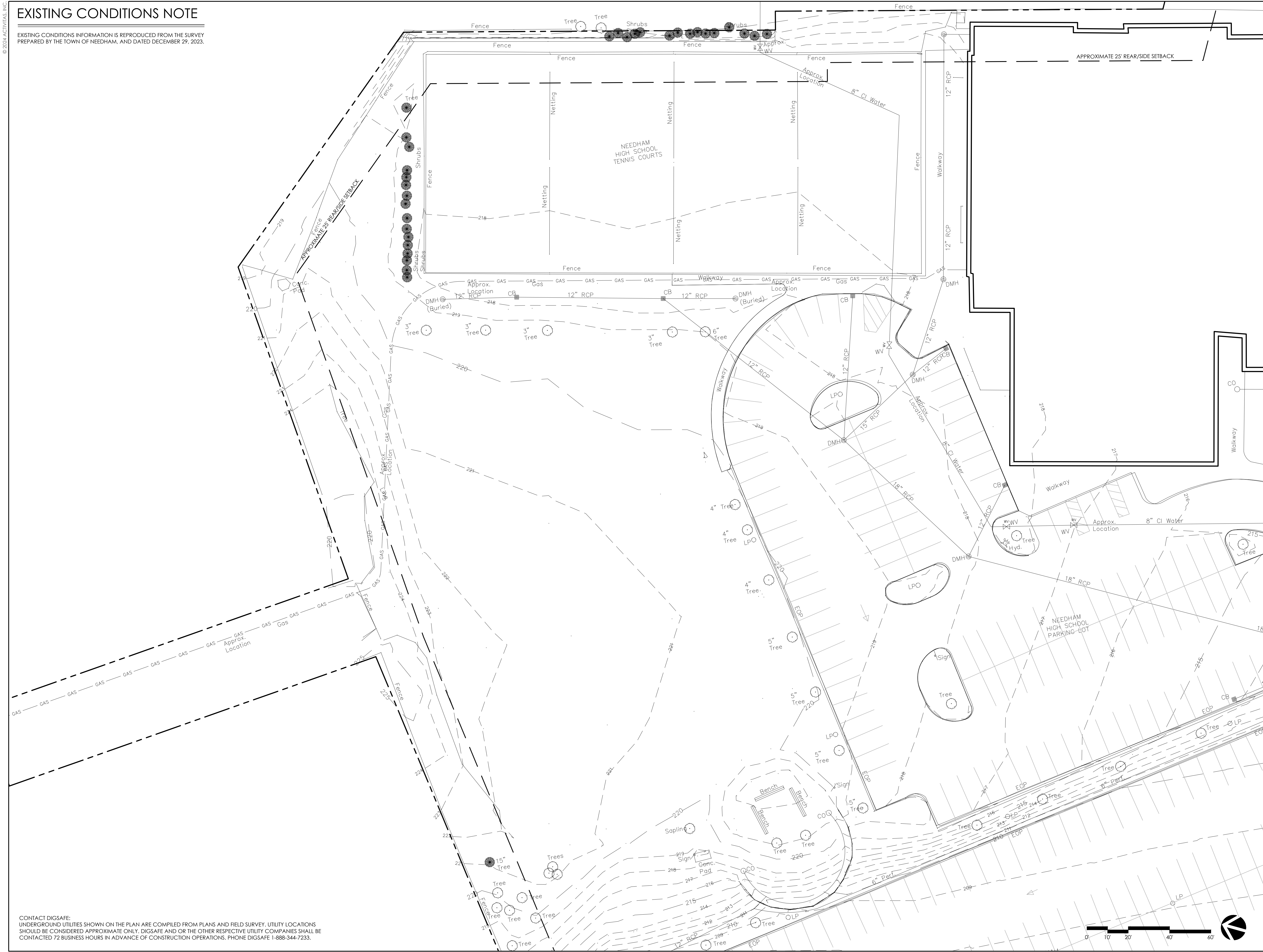
MAJOR PROJECT SITE PLAN APPROVAL | FEBRUARY 6, 2024

REVISIONS:			PROJECT NO. 23016.00
NO.	DATE	SHEETS REVISED	NOTES

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EXISTING CONDITIONS NOTE

EXISTING CONDITIONS INFORMATION IS REPRODUCED FROM THE SURVEY PREPARED BY THE TOWN OF NEEDHAM, AND DATED DECEMBER 29, 2023.



CONTACT DIGSAFE:
UNDERGROUND UTILITIES SHOWN ON THE PLAN ARE COMPILED FROM PLANS AND FIELD SURVEY. UTILITY LOCATIONS SHOULD BE CONSIDERED APPROXIMATE ONLY. DIGSAFE AND OR THE OTHER RESPECTIVE UTILITY COMPANIES SHALL BE CONTACTED 72 BUSINESS HOURS IN ADVANCE OF CONSTRUCTION OPERATIONS. PHONE DIGSAFE 1-888-344-7233.

ACTIVITAS
landscape architecture | civil engineering
70 Milton Street | Dedham, MA 02026-2915
(781) 326-2600 | activitas.com

CONSULTANTS

TOWN OF NEEDHAM

NEEDHAM, MA

NEEDHAM HIGH SCHOOL TENNIS COURT RENOVATION

Major Project Site Plan Approval
February 6, 2024

REVISIONS:		
NO.	DATE	DESCRIPTION

SCALE: 1"=20'-0"
PROJECT NO.: 23016.00
FILE: 23016.00-EX1.1-EX_CONDITIONS_PLAN.dwg
DRAWN: BJM
CHECKED: JC

SEAL:

SHEET TITLE:

EXISTING
CONDITIONS PLAN

SHEET NO:

EX1.1

SITE PREPARATION LEGEND

APPROXIMATE PROPERTY LINE	
APPROXIMATE 25' REAR/SIDE SETBACK	
APPROXIMATE LIMIT OF WORK	
CONSTRUCTION FENCE	
STRAW WATTLE	
REMOVE AND DISPOSE OF FENCE/WALL	
CLEAN SAWCUT	
EXISTING GAS LINE	
REMOVE AND DISPOSE OF EXISTING TREE/SHRUB	
REMOVE AND RELOCATE EXISTING TREE/SHRUB	
TREE PROTECTION	
SILT SACK	
STRIP AND STOCKPILE TOPSOIL	
PULVERIZE IN PLACE EXISTING ASPHALT	

SITE PREPARATION NOTES

- EXISTING CONDITIONS INFORMATION IS REPRODUCED FROM THE SURVEY PREPARED BY THE TOWN OF NEEDHAM, AND DATED DECEMBER 29, 2023.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE FIELD AND REPORT ANY DISCREPANCIES BETWEEN PLANS, SPECIFICATIONS, AND ACTUAL CONDITIONS TO THE LANDSCAPE ARCHITECT/CIVIL ENGINEER FOR CLARIFICATION AND RESOLUTION PRIOR TO STARTING WORK.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING CONDITIONS TO REMAIN THAT ARE DUE TO CONTRACTOR OPERATIONS.
- ALL ITEMS TO BE REMOVED THAT ARE NOT STOCKPILED FOR LATER REUSE ON THE PROJECT OR FOR DELIVERY TO THE OWNER SHALL BE LEGALLY DISPOSED OF OFF SITE BY THE CONTRACTOR.
- THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED ON THE SURVEY REFERENCED. THE CONTRACTOR SHALL CONTACT DIGSAFE AND THE PROPER LOCAL AUTHORITIES OR RESPECTIVE UTILITY COMPANIES TO CONFIRM THE LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. ANY DAMAGE DUE TO FAILURE OF THE CONTRACTOR TO CONTACT THE PROPER AUTHORITIES SHALL BE BORNE BY THE CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS EFFORTS OF THE DEMOLITION WITH ALL TRADES.
- THE CONTRACTOR SHALL COORDINATE ALL ADJUSTMENTS OR ABANDONMENT OF UTILITIES WITH THE RESPECTIVE UTILITY COMPANY.
- THE CONTRACTOR SHALL MAINTAIN OR ADJUST TO NEW FINISH GRADE (AS NECESSARY) ALL UTILITY AND SITE STRUCTURES SUCH AS MANHOLES, CATCH BASINS, ETC. FROM MAINTAINED UTILITY AND SITE SYSTEMS UNLESS OTHERWISE NOTED OR DIRECTED BY THE LANDSCAPE ARCHITECT.
- THE CONTRACTOR SHALL INSTALL CONSTRUCTION FENCING PER THE PLANS AND SPECIFICATIONS. CONTRACTOR MUST TAKE APPROPRIATE MEASURES TO MAINTAIN A SECURE SITE THROUGHOUT THE PROJECT.
- CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES AROUND THE OUTSIDE PERIMETER (LIMIT OF WORK) PRIOR TO COMMENCING DEMOLITION AND EARTHWORK OPERATIONS.
- CONTRACTOR SHALL CONFIRM BENCHMARKS AND NORTHINGS AND EASTINGS IN FIELD PRIOR TO DEMOLITION.
- EXISTING DRAINAGE SYSTEM BASINS SHALL REMAIN OPERATIONAL AS LONG AS POSSIBLE. UPON REMOVAL OF EXISTING BASINS, CONTRACTOR SHALL PROVIDE TEMPORARY INFILTRATION AREAS TO INFILTRATE CONSTRUCTION RUNOFF. CONTRACTOR SHALL FOCUS ON GETTING PROPOSED DRAINAGE SYSTEMS OPERATIONAL AS SOON AS POSSIBLE. CONTRACTOR SHALL ENSURE ALL STORMWATER FLOWING TO NEW BASINS IS TREATED STORMWATER THAT WILL NOT NEGATIVELY AFFECT THE FINAL SYSTEMS.

CONTACT DIGSAFE:
UNDERGROUND UTILITIES SHOWN ON THE PLAN ARE COMPILED FROM PLANS AND FIELD SURVEY. UTILITY LOCATIONS SHOULD BE CONSIDERED APPROXIMATE ONLY. DIGSAFE AND OR THE OTHER RESPECTIVE UTILITY COMPANIES SHALL BE CONTACTED 72 BUSINESS HOURS IN ADVANCE OF CONSTRUCTION OPERATIONS. PHONE DIGSAFE 1-888-344-7233.

PROTECT EXISTING WALL AND PERIMETER FENCE TO REMAIN

APPROXIMATE LIMIT OF WORK

APPROXIMATE 25' REAR/SIDE SETBACK

CUT/CAP AND ABANDON EXISTING WATER LINE, REFER TO L2.1 FOR NEW WATER LINE.

PULVERIZE EXISTING BITUMINOUS CONCRETE TENNIS COURTS

SAWCUT AND REMOVE PAVEMENT FOR PROPOSED WATER LINE, REFER TO L2.1

REMOVE AND DISPOSE OF EXISTING 12' HIGH CHAIN LINK FENCE, TYPICAL

CONTRACTOR SHALL ALLOW ACCESS TO SCHOOL BETWEEN CONSTRUCTION FENCE AND SCHOOL BUILDING DURING CONSTRUCTION, TYPICAL

2 SP1.2 TEMPORARY CONSTRUCTION FENCE, TYPICAL

3 SP1.2 SILT SACK, TYPICAL

REMOVE AND RESET CURB AS NECESSARY

PROTECT EXISTING GRANITE CURB TO REMAIN, TYPICAL

CUT/CAP 12" RCP

CLEAN SAWCUT AND REMOVE PAVEMENT FOR PROPOSED INFILTRATION AREA. CONTRACTOR SHALL REVIEW AREA FOR UNDERGROUND ELECTRICAL CONDUITS FOR EXISTING LIGHT POLES PRIOR TO EXCAVATION

PROTECT EXISTING GAS LINE TO REMAIN, TYPICAL

STRIP AND STOCKPILE EXISTING TOPSOIL FOR REUSE ONSITE, REFER TO SPECIFICATIONS

6 SP1.2 CONSTRUCTION ENTRANCE

REMOVE AND DISPOSE OF EXISTING ASPHALT CURB

PROTECT EXISTING LIGHT POLE TO REMAIN, TYPICAL

7 SP1.2 PROTECT EXISTING TREES TO REMAIN, TYPICAL

PROTECT EXISTING GATE TO REMAIN

1 SP1.2 EROSION CONTROL STRAW WATTLE, TYPICAL

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CONSULTANTS

TOWN OF NEEDHAM

NEEDHAM, MA

NEEDHAM HIGH SCHOOL TENNIS COURT RENOVATION

Major Project Site Plan Approval
February 6, 2024

REVISIONS:

NO.	DATE	DESCRIPTION
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SCALE:

1"=20'-0"

PROJECT NO.:

23016.00

FILE:

23016.00-SP1.1-SP_PLAN.dwg

DRAWN:

BJM

CHECKED:

JC

SEAL:



M. Buczynski
2/6/23

SHEET TITLE:

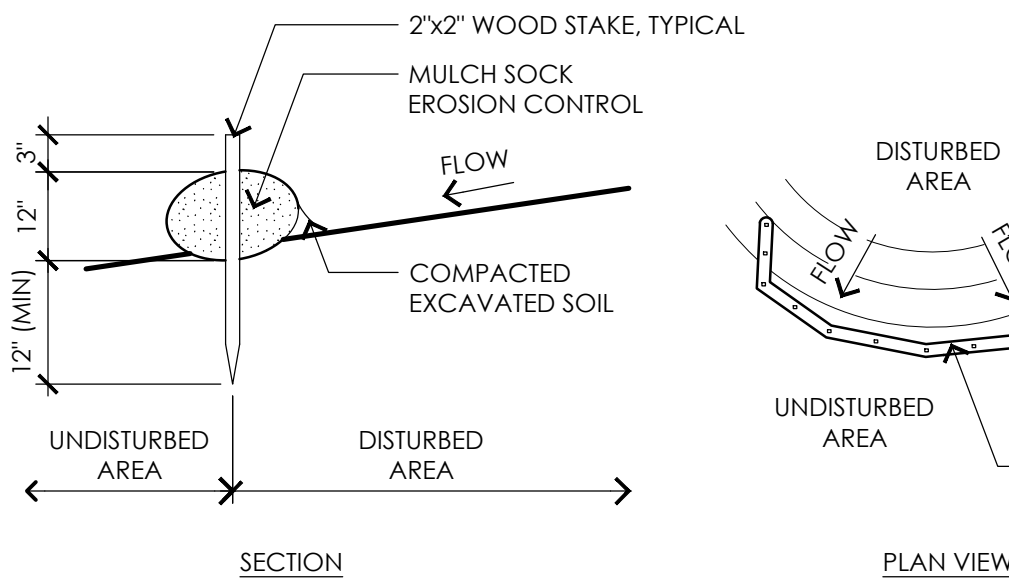
SITE PREPARATION
PLAN

SHEET NO.:

SP1.1

NOTES:

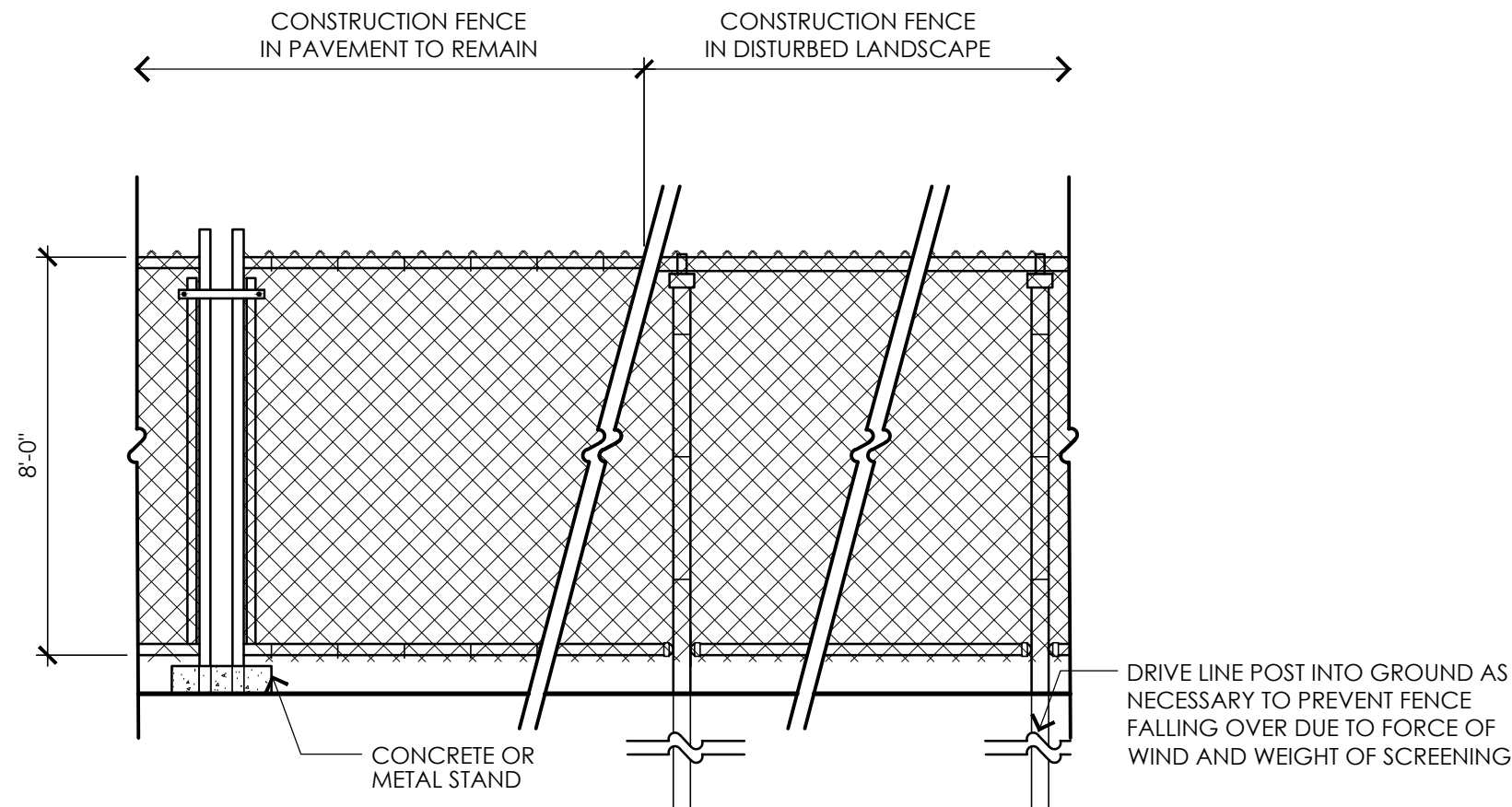
- PLACE EROSION CONTROL MULCH SOCK ON LEVEL GRADE. EXTEND BOTH ENDS OF THE TUBE AT LEAST 8'-0" UPSLOPE AT 45 DEGREES TO THE MAIN ALIGNMENT.
- REMOVE DEPOSITS WHEN SEDIMENT ACCUMULATION IS ONE THIRD THE HEIGHT OF THE EXPOSED EROSION CONTROL MULCH SOCK.
- EROSION CONTROL STRAW WATTLE SHALL REMAIN IN WORKING ORDER UNTIL THE SITE IS STABILIZED. ADDITIONAL EROSION CONTROLS SHALL BE INSTALLED AS NEEDED TO PREVENT SILT FROM LEAVING THE SITE AT NO ADDITIONAL COST TO THE OWNER.
- ALL CONTROLS SHALL BE SET 5' FROM BOTTOM TOE OF SLOPE



1 EROSION CONTROL STRAW WATTLE
NOT TO SCALE

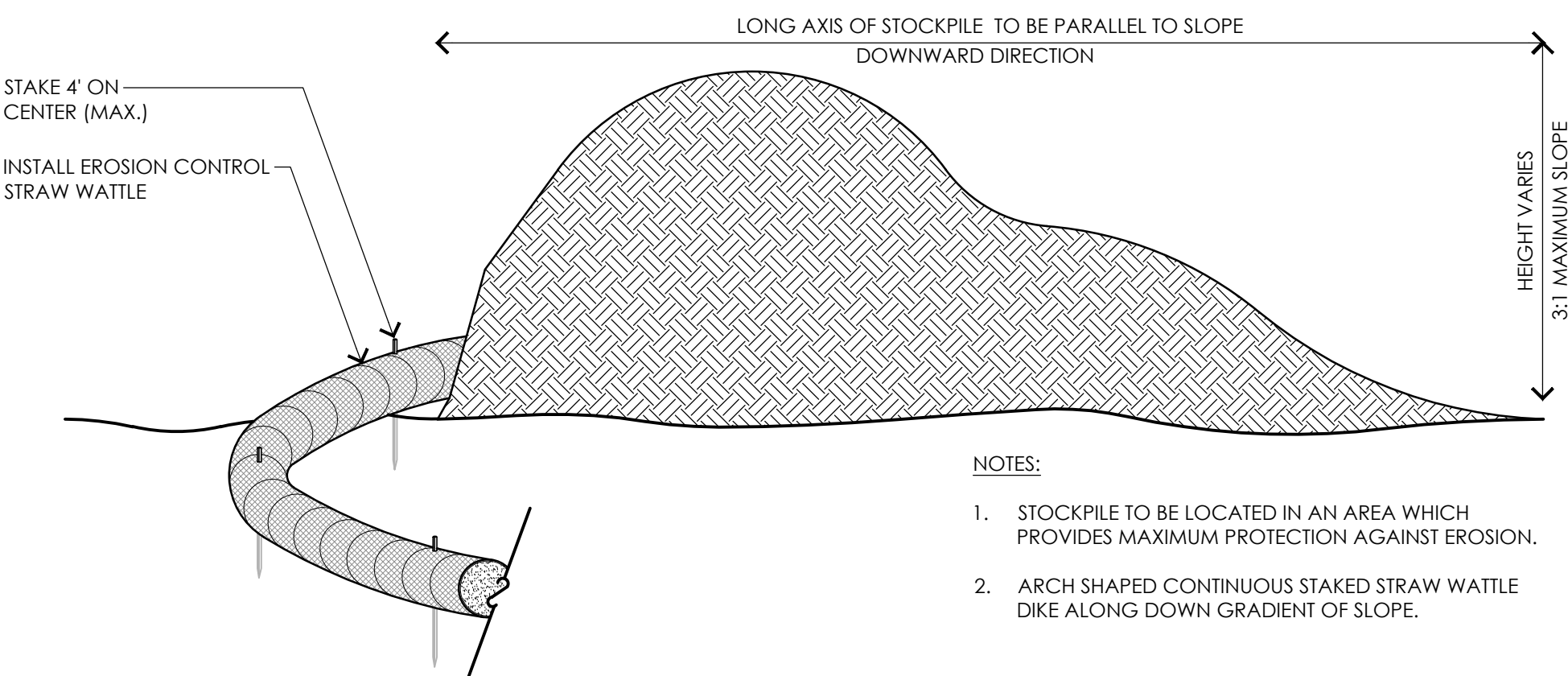
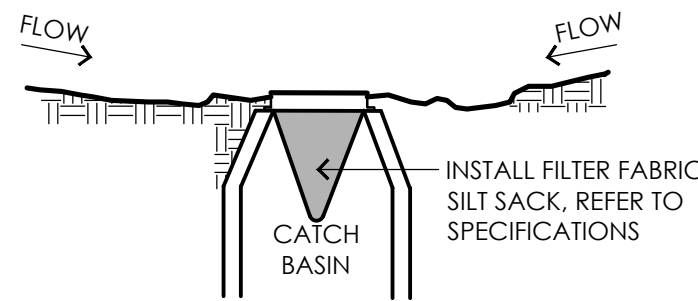
NOTES:

- TEMPORARY CONSTRUCTION FENCE SHALL BE PROVIDED AT PROJECT LIMITS AS SHOWN AND SPECIFIED.



2 TEMPORARY CONSTRUCTION FENCE
NOT TO SCALE

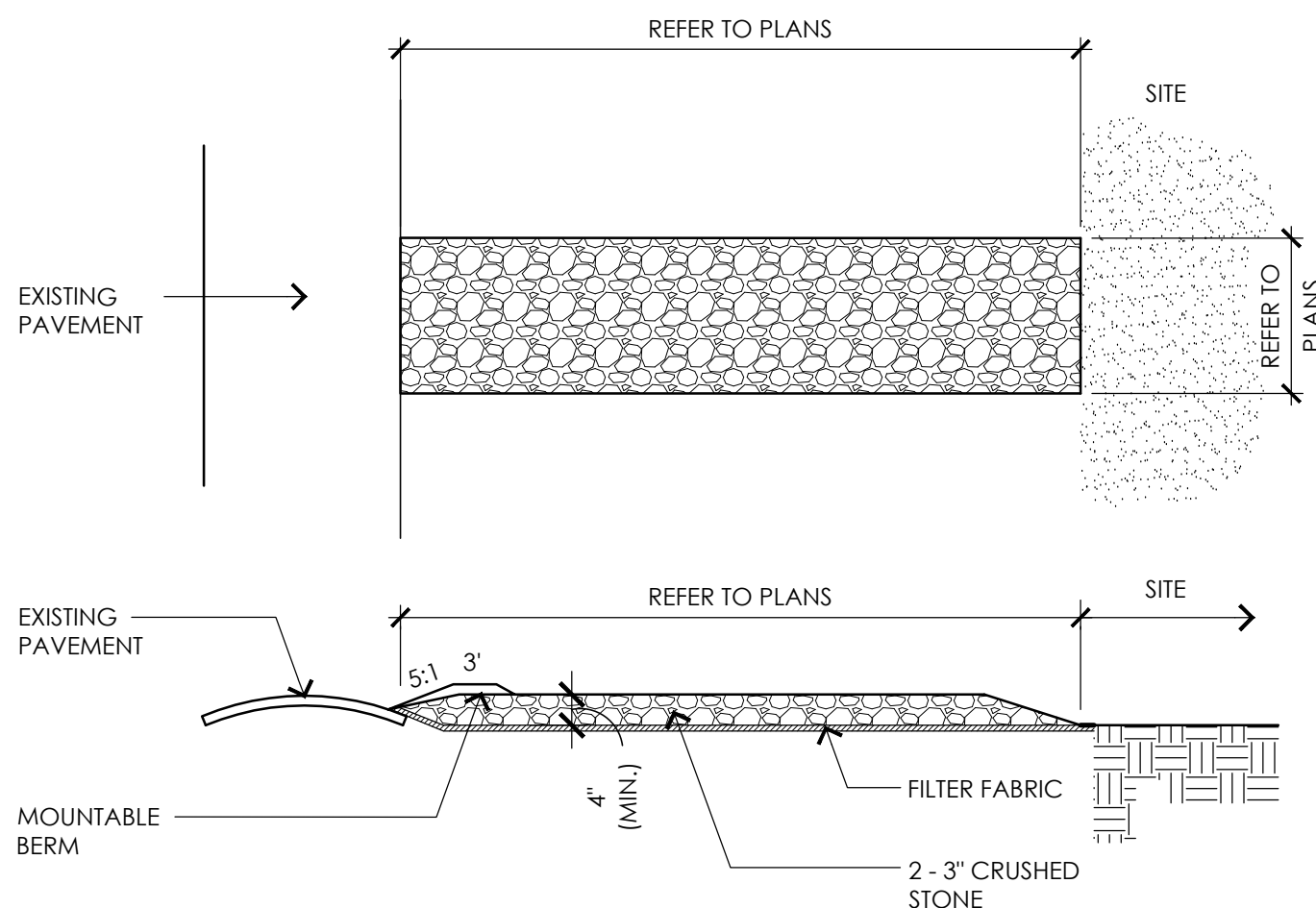
3 SILT SACK
NOT TO SCALE



NOTES:

- STOCKPILE TO BE LOCATED IN AN AREA WHICH PROVIDES MAXIMUM PROTECTION AGAINST EROSION.
- ARCH SHAPED CONTINUOUS STAKED STRAW WATTLE DIKE ALONG DOWN GRADIENT OF SLOPE.

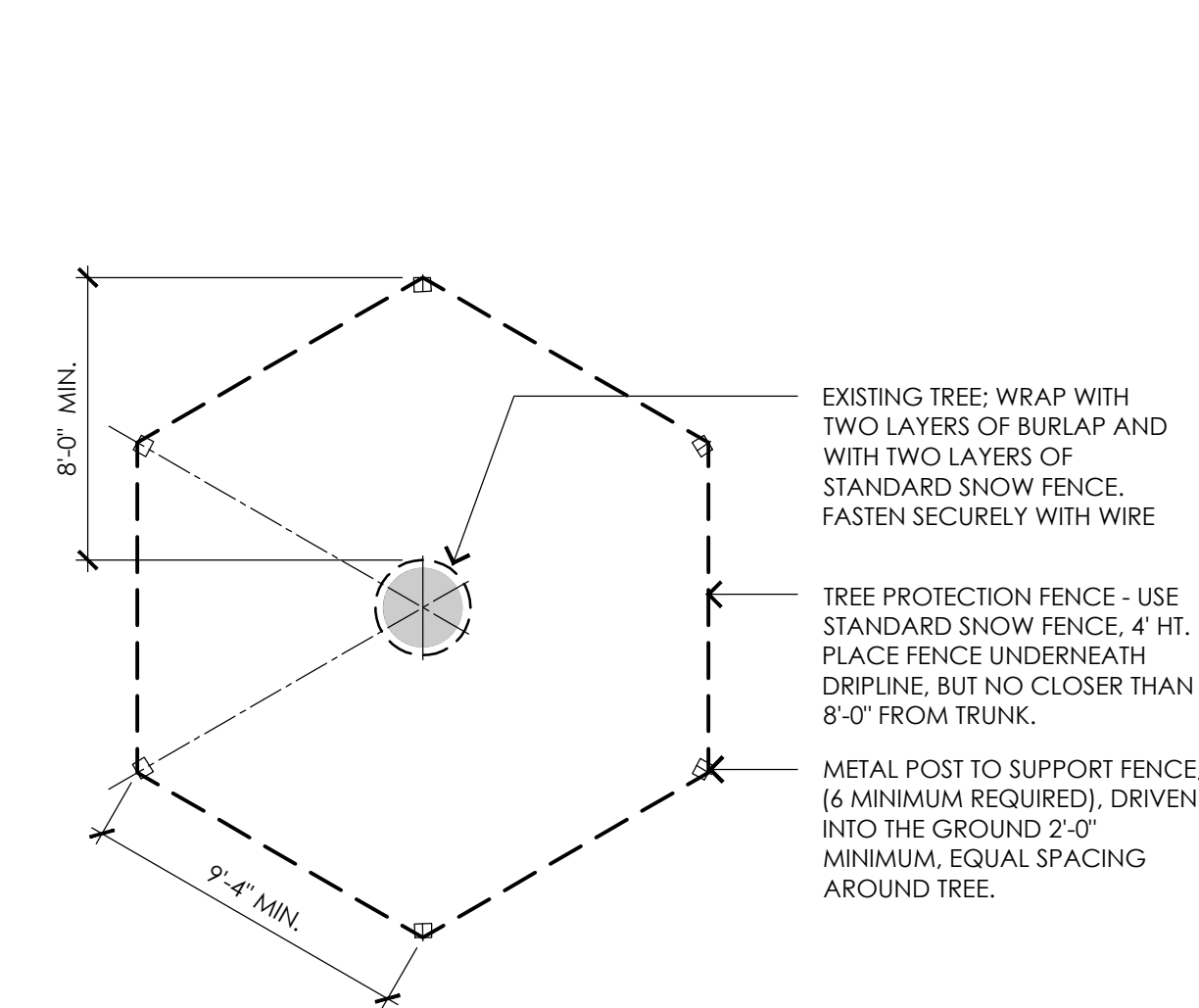
4 TEMPORARY MATERIAL STOCKPILE
NOT TO SCALE



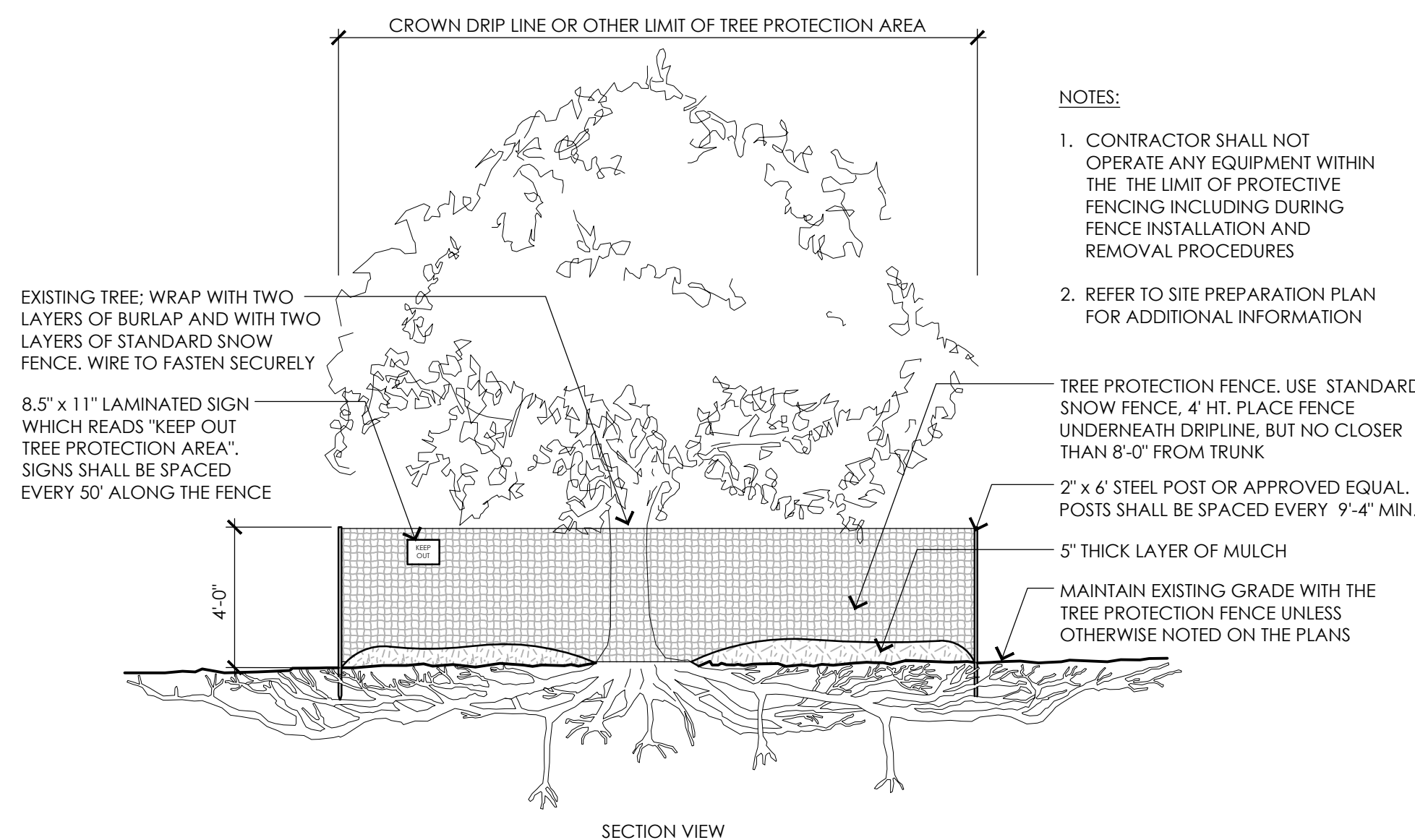
NOTES:

- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT INTO THE STREET. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED AND/OR TRACKED ONTO PUBLIC RIGHTS-OF-WAYS MUST BE REMOVED IMMEDIATELY. MOUNTABLE BERM SHALL BE PERMITTED. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED.
- CONTRACTOR SHALL WASH WHEELS OF VEHICLES AT CONSTRUCTION ENTRANCE PRIOR TO VEHICLES EXITING SITE TO PREVENT SOIL MATERIAL FROM BEING TRACKED FROM THE SITE.
- PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED BY CONTRACTOR.

5 CONSTRUCTION ENTRANCE
NOT TO SCALE



6 EXISTING TREE PROTECTION
NOT TO SCALE



NOTES:

- CONTRACTOR SHALL NOT OPERATE ANY EQUIPMENT WITHIN THE LIMIT OF PROTECTIVE FENCING INCLUDING DURING FENCE INSTALLATION AND REMOVAL PROCEDURES
- REFER TO SITE PREPARATION PLAN FOR ADDITIONAL INFORMATION

CONSULTANTS

TOWN OF NEEDHAM
NEEDHAM, MA
NEEDHAM HIGH SCHOOL TENNIS COURT RENOVATION

Major Project Site Plan Approval
February 6, 2024

REVISIONS:		
NO.	DATE	DESCRIPTION

SCALE:	AS NOTED
PROJECT NO.:	23016.00
FILE:	23016.00-SP1.2-SP_DET_1.dwg
DRAWN:	BJM
CHECKED:	JC

SEAL:

Megan E. Buczynski
2/6/23

SHEET TITLE:
SITE PREPARATION
DETAIL SHEET

SHEET NO:
SP1.2

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LAYOUT AND MATERIALS LEGEND

APPROXIMATE PROPERTY LINE	
APPROXIMATE 25' REAR/SIDE SETBACK	
APPROXIMATE LIMIT OF WORK	
CHAIN LINK FENCE	
CHANNEL DRAIN	
BITUMINOUS CONCRETE PAVEMENT	
CEMENT CONCRETE PAVEMENT	
UNIT PAVERS	
4" CHAIN LINK FENCE DIMENSION	
12' CHAIN LINK FENCE DIMENSION	
CHANNEL DRAIN	
VERTICAL GRANITE CURB	

LAYOUT AND MATERIALS NOTES

- EXISTING CONDITIONS INFORMATION IS REPRODUCED FROM THE SURVEY PREPARED BY THE TOWN OF NEEDHAM, AND DATED DECEMBER 29, 2023.
- THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN ARE BASED ON THE SURVEY REFERENCED ABOVE. THE CONTRACTOR SHALL NOTIFY DIGSAFE AND THE PROPER LOCAL AUTHORITIES OR RESPECTIVE UTILITY COMPANIES TO CONFIRM THE LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. ANY DAMAGE DUE TO FAILURE OF THE CONTRACTOR TO CONTACT THE PROPER AUTHORITIES SHALL BE BORNE BY THE CONTRACTOR.
- CONTRACTOR(S) SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL CONSTRUCTION DOCUMENTS, SPECIFICATIONS, AND SITE CONDITIONS PRIOR TO BIDDING AND PRIOR TO CONSTRUCTION.
- ANY DISCREPANCIES BETWEEN DRAWINGS, SPECIFICATIONS, AND SITE CONDITIONS SHALL BE REPORTED IMMEDIATELY TO THE OWNER'S REPRESENTATIVE FOR CLARIFICATION AND RESOLUTION PRIOR TO BIDDING OR CONSTRUCTION.
- WHILE THE CONTRACTOR MAY USE THE ELECTRONIC DRAWINGS FOR LAYOUT PURPOSES, IT IS HIS RESPONSIBILITY TO CHECK ALL LAYOUT IN THE FIELD TO CONFIRM CONFORMITY WITH THE PROJECT DRAWINGS, SPECIFICATIONS, AND APPROVED SHOP DRAWINGS AND SUBMITTALS. USE OF ONLY THE ELECTRONIC DRAWINGS WITHOUT A SITE CHECK OF LAYOUT IS NOT ACCEPTABLE.

CONTACT DIGSAFE:
UNDERGROUND UTILITIES SHOWN ON THE PLAN ARE COMPILED FROM PLANS AND FIELD SURVEY. UTILITY LOCATIONS SHOULD BE CONSIDERED APPROXIMATE ONLY. DIGSAFE AND/OR THE OTHER RESPECTIVE UTILITY COMPANIES SHALL BE CONTACTED 72 BUSINESS HOURS IN ADVANCE OF CONSTRUCTION OPERATIONS. PHONE DIGSAFE 1-888-344-7233.



ACTIVITAS
landscape architecture | civil engineering
70 Milton Street | Dedham, MA 02026-2915
(781) 326-2600 | activitas.com

CONSULTANTS

TOWN OF NEEDHAM
NEEDHAM, MA

NEEDHAM HIGH SCHOOL TENNIS COURT RENOVATION

Major Project Site Plan Approval
February 6, 2024

REVISIONS:		
NO.	DATE	DESCRIPTION

SCALE: 1"=20'-0"
PROJECT NO.: 23016.00
FILE: 23016.00-11.1-LM_PLAN.dwg
DRAWN: BJM
CHECKED: JC

SEAL:

2/6/2024

SHEET TITLE:
LAYOUT AND MATERIALS PLAN

SHEET NO:
L1.1

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GRADING AND UTILITY LEGEND

APPROXIMATE PROPERTY LINE	---
APPROXIMATE 25' REAR/SIDE SETBACK	- - - - -
APPROXIMATE LIMIT OF WORK	- - - - -
EXISTING 1' CONTOUR	---279---
PROPOSED 1' CONTOUR	XXX
EXISTING SPOT GRADE	278.6
PROPOSED SPOT GRADE	+ 217.93
PROPOSED SLOPE DIRECTION	X.X% →
HDPE SOLID DRAIN LINE	=====
WATER LINE	---
DRAIN MANHOLE	⊙
AREA DRAIN	AD □

GRADING AND UTILITY NOTES

- EXISTING CONDITIONS INFORMATION IS REPRODUCED FROM THE SURVEY PREPARED BY THE TOWN OF NEEDHAM AND DATED DECEMBER 29, 2023.
- PRIOR TO THE START OF ANY EXCAVATION FOR THE PROJECT, BOTH ON AND OFF THE SITE, THE CONTRACTOR SHALL NOTIFY DIGSAFE AND BE PROVIDED WITH A DIGSAFE NUMBER INDICATING THAT ALL EXISTING UTILITIES HAVE BEEN LOCATED AND MARKED.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ALL UNDERGROUND UTILITIES.
- CONTRACTOR(S) SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL CONSTRUCTION DOCUMENTS, SPECIFICATIONS, AND SITE CONDITIONS PRIOR TO BIDDING AND PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL VERIFY EXISTING GRADES AND NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES.
- WHERE PROPOSED GRADES MEET EXISTING GRADES, CONTRACTOR SHALL BLEND GRADES TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW WORK. PONDING AT TRANSITION AREAS WILL NOT BE ALLOWED.
- CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING FOUNDATIONS, STRUCTURES AND PLANTING BEDS.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE OWNER'S REPRESENTATIVE FOR RESOLUTION OF THE CONFLICT.
- THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF ALL GAS, ELECTRIC, TELEPHONE, AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
- CONTRACTOR SHALL MAINTAIN, OR ADJUST TO NEW FINISH GRADE, AS NECESSARY ALL UTILITY AND SITE STRUCTURES SUCH AS: TRAFFIC SIGN POLES, ETC., FROM MAINTAINED UTILITY AND SITE SYSTEMS, UNLESS OTHERWISE NOTED OR DIRECTED BY THE OWNER'S REPRESENTATIVE.
- AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION, AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF ALL GAS, ELECTRIC, TELEPHONE AND OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES PRIOR TO ANY CONSTRUCTION.
- PROTECT AND MAINTAIN EXISTING ON-SITE DRAINAGE STRUCTURES AND PIPES UNLESS OTHERWISE NOTED.
- BITUMINOUS CONCRETE ELEVATIONS AT CATCH BASINS TO BE 1/4 INCH ABOVE RIM ELEVATION SHOWN FOR CATCH.

CONTACT DIGSAFE:
UNDERGROUND UTILITIES SHOWN ON THE PLAN ARE COMPILED FROM PLANS AND FIELD SURVEY. UTILITY LOCATIONS SHOULD BE CONSIDERED APPROXIMATE ONLY. DIGSAFE AND OR THE OTHER RESPECTIVE UTILITY COMPANIES SHALL BE CONTACTED 72 BUSINESS HOURS IN ADVANCE OF CONSTRUCTION OPERATIONS. PHONE DIGSAFE 1-888-344-7233.

CONSULTANTS

TOWN OF NEEDHAM

NEEDHAM, MA

NEEDHAM HIGH SCHOOL TENNIS COURT RENOVATION

Major Project Site Plan Approval
February 6, 2024

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NO.	DATE	DESCRIPTION

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PROJECT NO.:	23016.00
FILE:	23016.00-L2.1-G_PLAN.dwg
DRAWN:	BJM
CHECKED:	JC

SEAL:

COMMONWEALTH OF MASSACHUSETTS
MEGAN E. BUCZYNSKI
No. 47392
REGISTERED PROFESSIONAL ENGINEER
M. E. Buczynski
2/6/23

SHEET TITLE:

GRADING AND
UTILITY PLAN

SHEET NO:

L2.1



Major Project Site Plan Approved
February 6, 2024

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FILE:	23016.00-L4.1-DET_1.dwg
DRAWN:	B.J.
CHECKED:	

SHEET NO:

CONSULTANTS

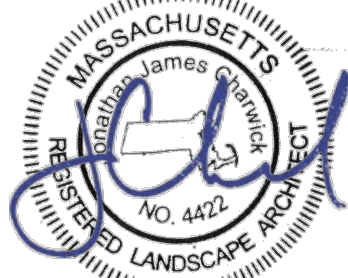
TOWN OF NEEDHAM
NEEDHAM, MA

NEEDHAM HIGH SCHOOL TENNIS COURT RENOVATION

Major Project Site Plan Approval
February 6, 2024

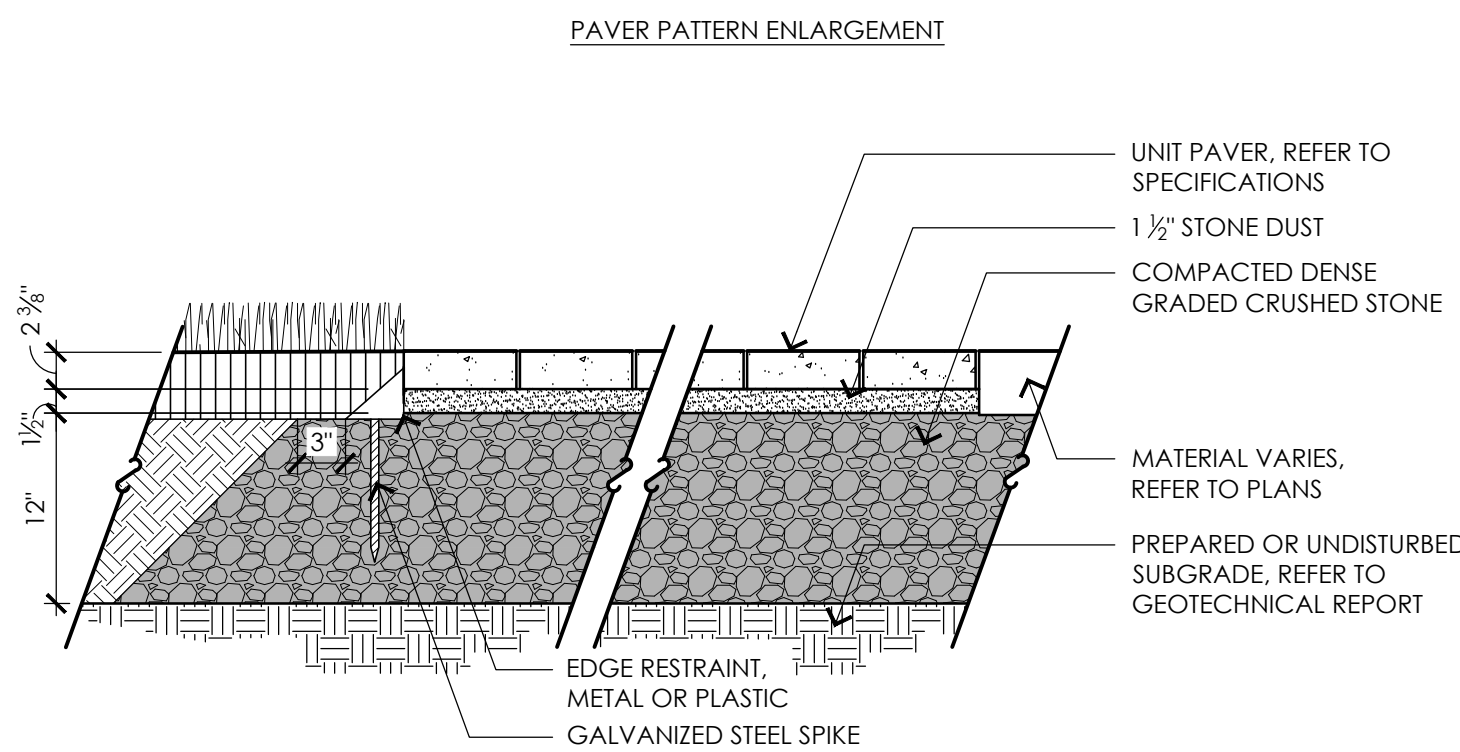
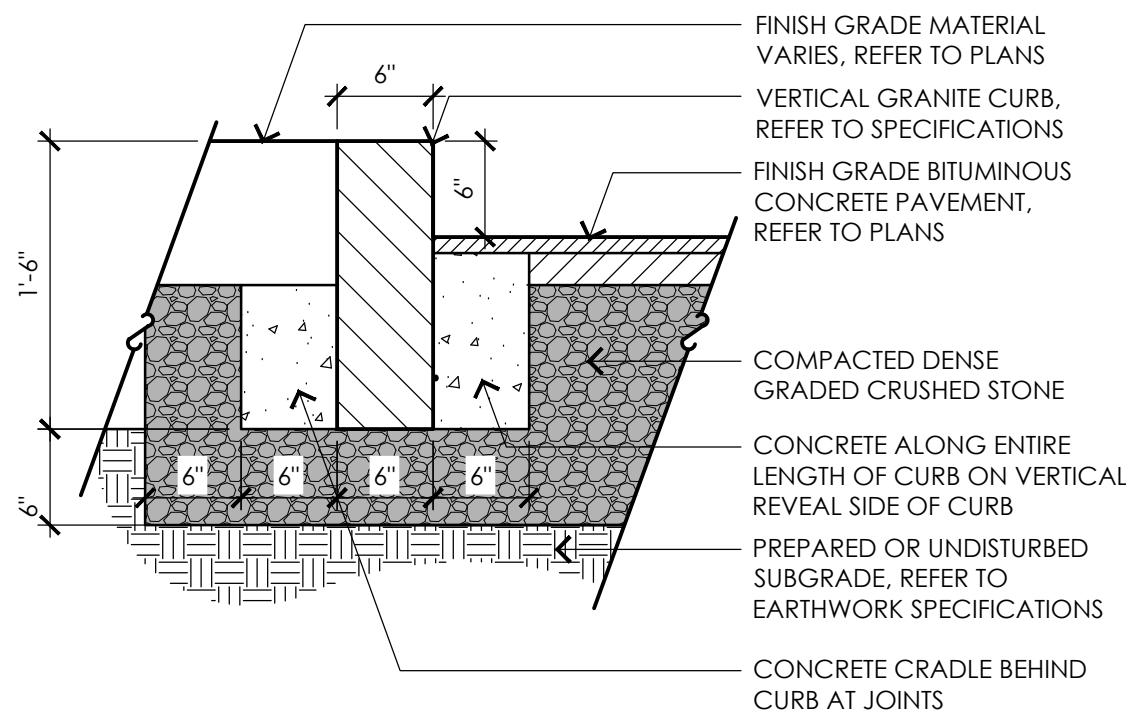
REVISIONS:		
NO.	DATE	DESCRIPTION

SCALE: AS NOTED
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DRAWN: BJM
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SEAL:

2/6/2024

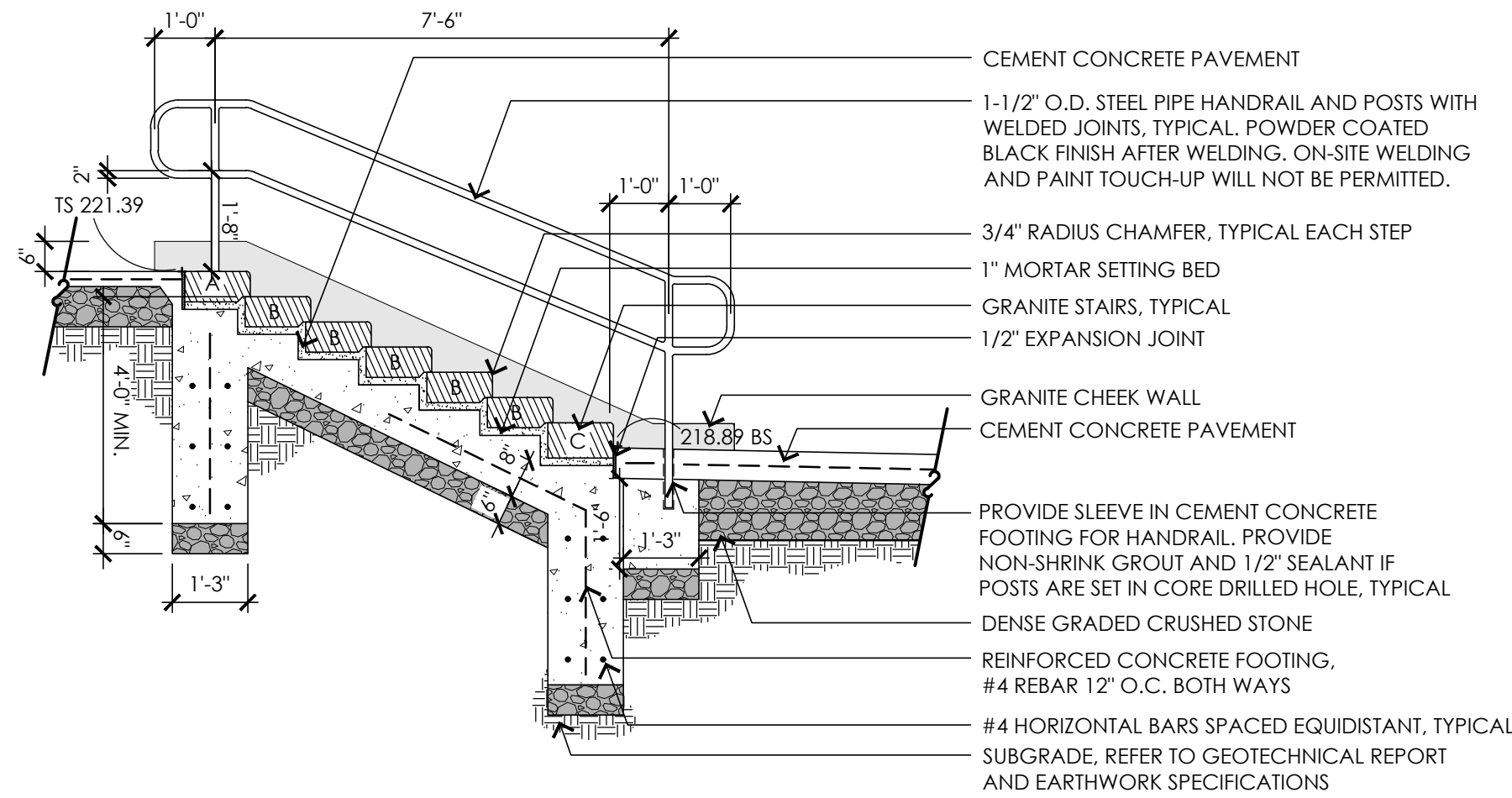
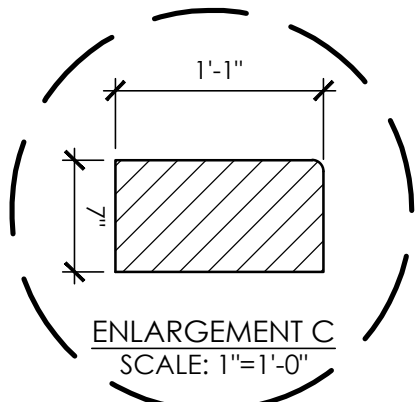
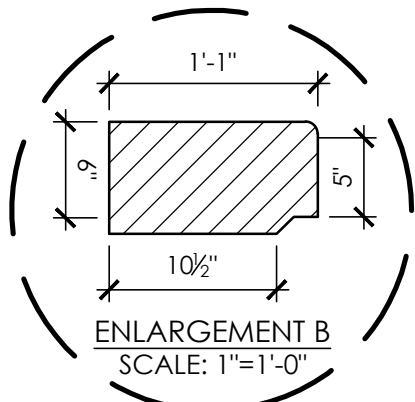
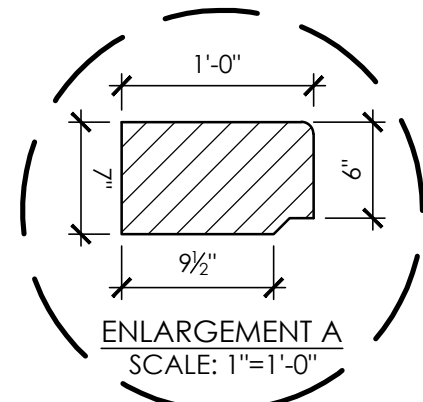
SHEET TITLE:
DETAIL SHEET II

SHEET NO:
L3.2



1 VERTICAL GRANITE CURB
NOT TO SCALE

2 UNIT PAVERS
NOT TO SCALE

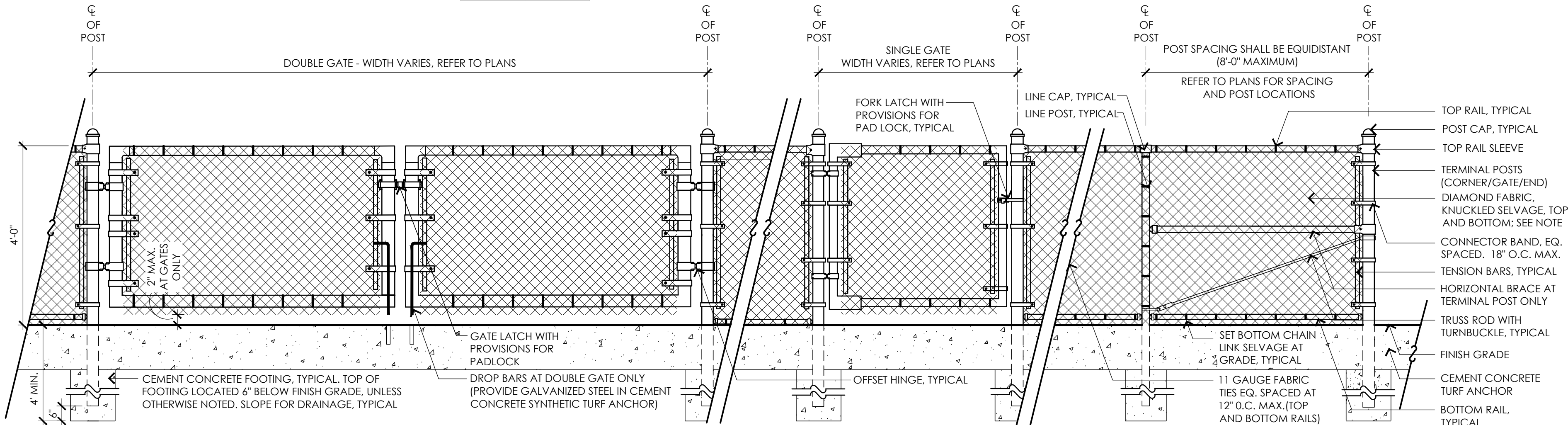


3 GRANITE STAIRS, CHEEK WALLS AND RAILINGS
NOT TO SCALE

NOTES:

- FENCE FABRIC TOP SHALL BE EVEN WITH TOP OF TOP RAIL.
- GATES SHALL SWING 180° DEGREES SO THAT WHEN FULLY OPEN GATE PANELS SHALL BE PARALLEL TO CHAIN LINK FENCE.
- PROVIDE PROVISIONS FOR PAD LOCKS ON ALL GATES.
- TOP OF CONCRETE FENCE POST FOOTING SHALL BE BELOW FINISH GRADE AND SHALL HAVE SLOPE TO PROMOTE POSITIVE DRAINAGE, TYPICAL.
- REFER TO SPECIFICATIONS FOR POST, RAIL, AND FABRIC INFORMATION.
- REFER TO SPECIFICATIONS FOR WINDSCREEN REQUIREMENTS.
- WINDSCREEN TO BE FURNISHED AND INSTALLED BY OTHERS.

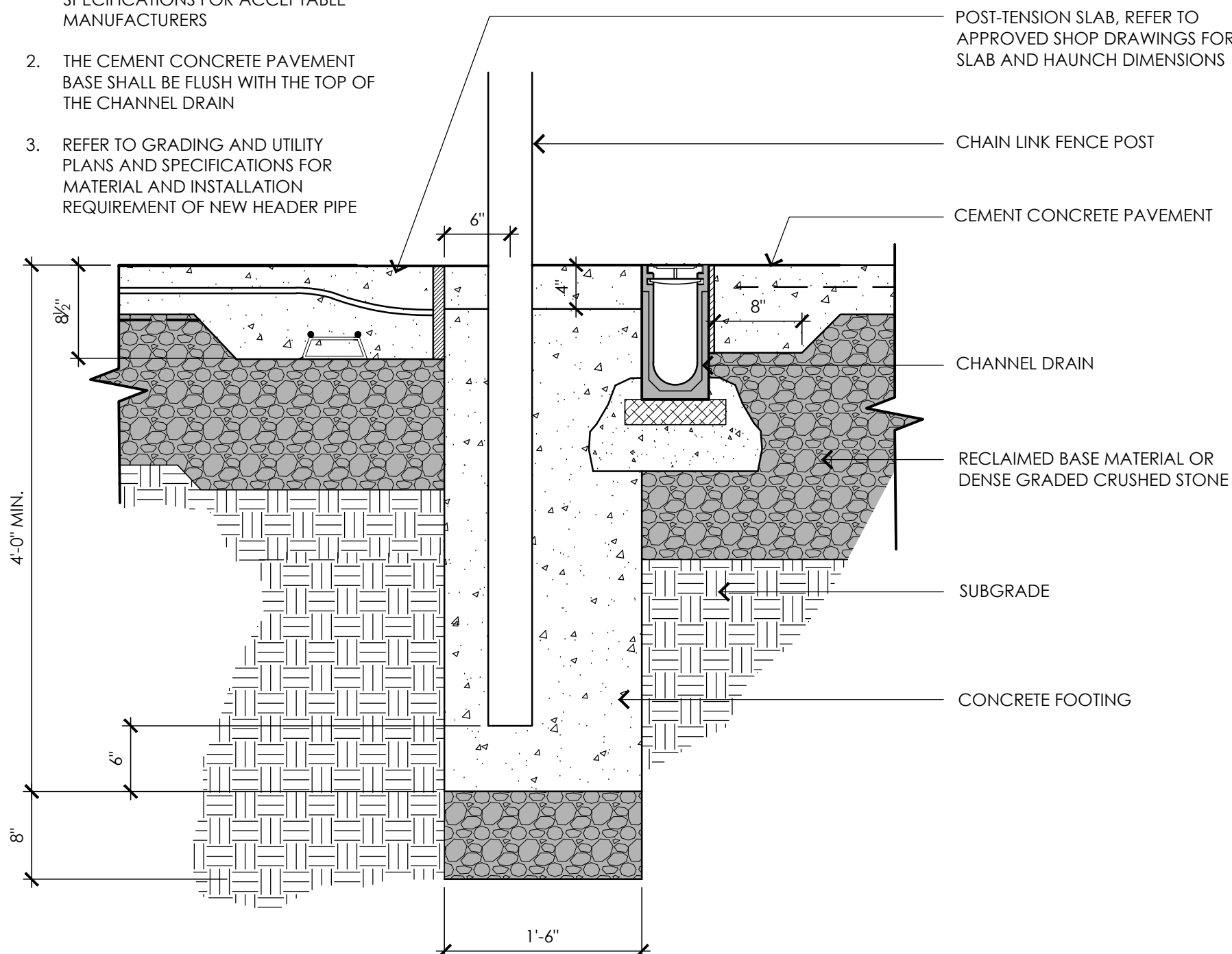
TERMINAL	48"x18"
LINE	48"x15"



4 4' HIGH CHAIN LINK FENCE AND GATES
NOT TO SCALE

NOTES:

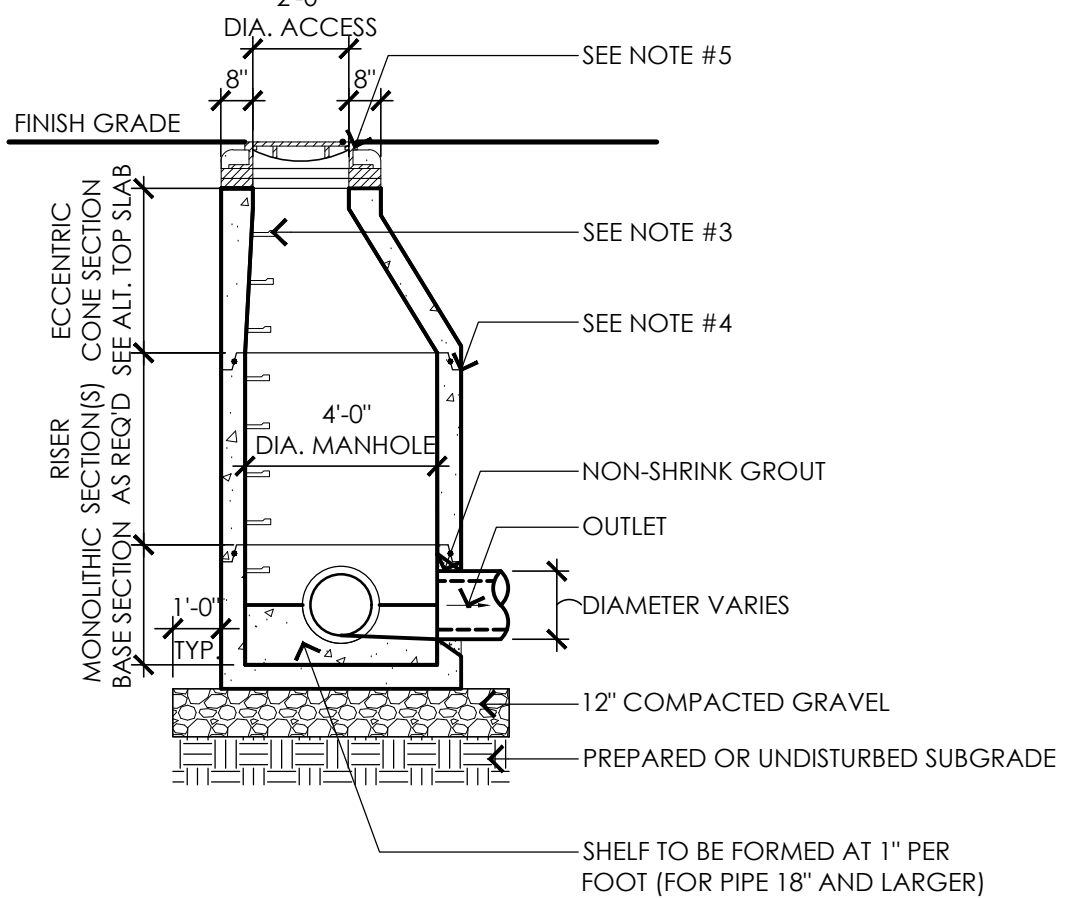
- DESIGN OF CHANNEL DRAINS VARY PER MANUFACTURER. CHANNEL DRAIN SHOWN FOR GRAPHIC AND INSTALLATION INTENT ONLY. REFER TO SPECIFICATIONS FOR ACCEPTABLE MANUFACTURERS
- THE CEMENT CONCRETE PAVEMENT BASE SHALL BE FLUSH WITH THE TOP OF THE CHANNEL DRAIN
- REFER TO GRADING AND UTILITY PLANS AND SPECIFICATIONS FOR MATERIAL AND INSTALLATION REQUIREMENT OF NEW HEADER PIPE



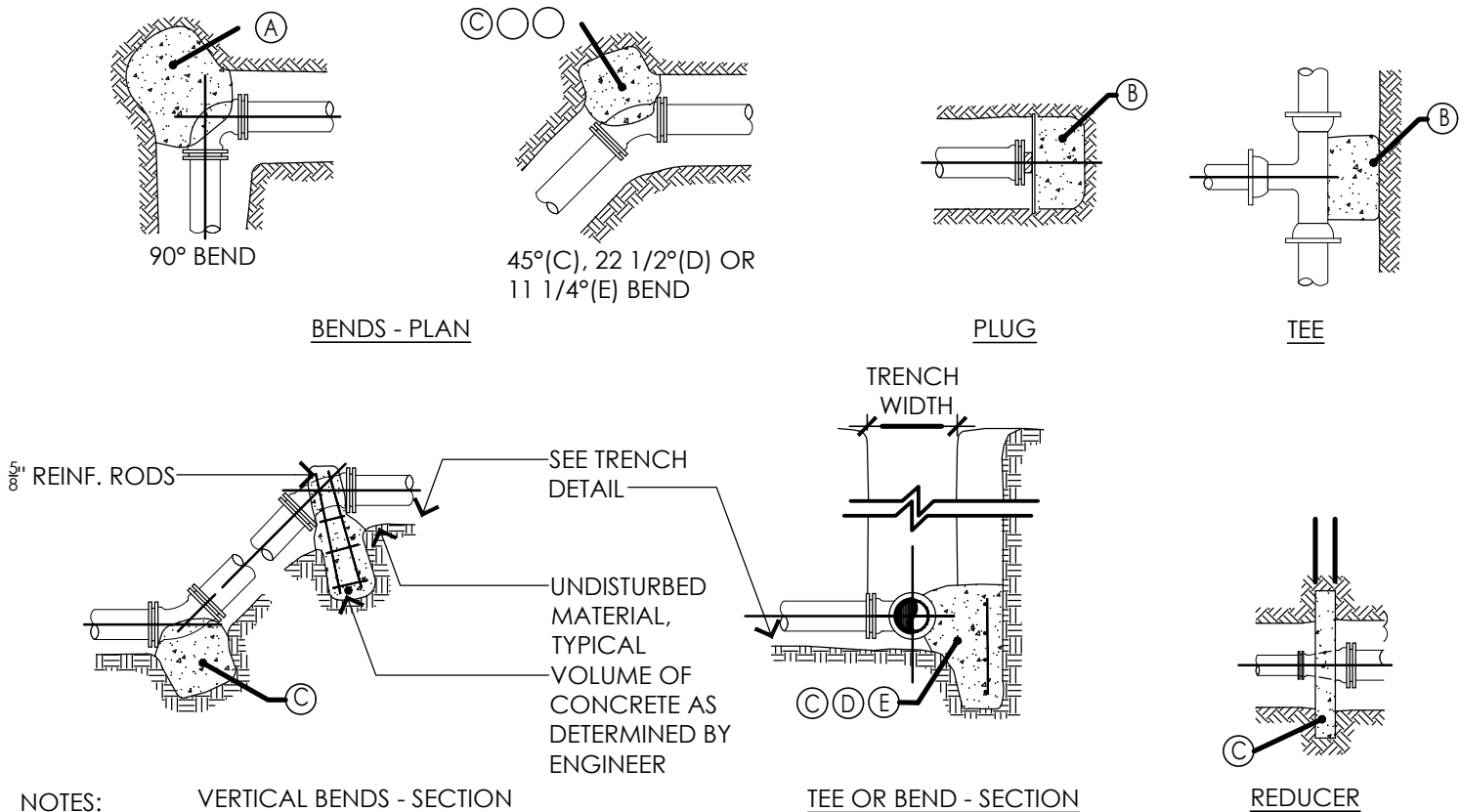
5 CHANNEL DRAIN
NOT TO SCALE

NOTES:

- ALL SECTION SHALL BE DESIGNED FOR HS-20 LOADING.
- PROVIDE "V" KNOCKOUTS FOR PIPES WITH 1" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
- COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
- JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
- DRAIN MANHOLE FRAME SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES MINIMUM 5 BRICK COURSES MAXIMUM).



1 DRAIN MANHOLE
NOT TO SCALE



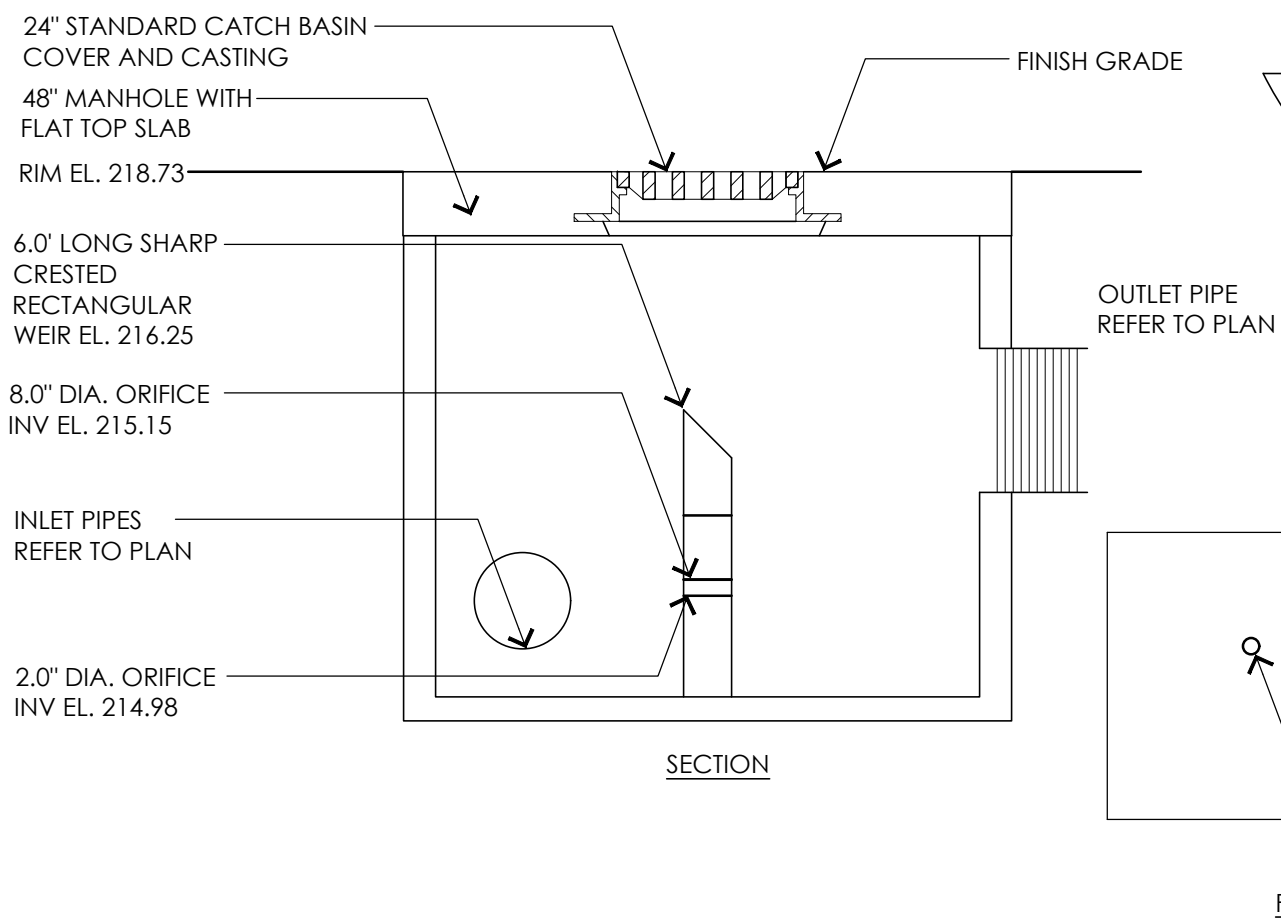
NOTES:

- POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL. WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO JOINTS SHALL BE COVERED WITH CONCRETE.
- ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
- PLACE SOLID CONCRETE BLOCKS IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCK.
- REQUIREMENTS OF THE ABOVE TABLE PRESUME MINIMUM SOIL BEARING OF 1 TON PER SQUARE FOOT, AND MAY BE VARIED BY THE ENGINEER TO MEET OTHER CONDITIONS ENCOUNTERED.
- MEGA-LUG RESTRAINER GLANDS ARE REQUIRED FOR ALL MECHANICAL JOINTS. THESE GLANDS DO NOT REDUCE THE REQUIREMENTS FOR THRUST RESTRAINT.
- ALL FITTINGS SHALL BE WRAPPED IN POLYETHYLENE OR BUILDING PAPER PRIOR TO INSTALLATION OF CONCRETE RESTRAINT.
- THREADED ROD SHALL BE ANSI A242 F550 PIPE RESTRAINT NUTS TO MATCH AWWA C111. THREADED RODS AND NUTS TO BE FIELD COATED WITH BITUMINOUS PAINT.
- THRUST RESTRAINT IS REQUIRED FOR ALL TEES, BENDS, REDUCERS, CAPS, PLUGS, OR CROSSES.
- INSTALL LIFT HOOKS INTO THRUST BLOCKS AT END CAPS AND PLUGS.

5 THRUST BLOCKS
NOT TO SCALE

NOTES:

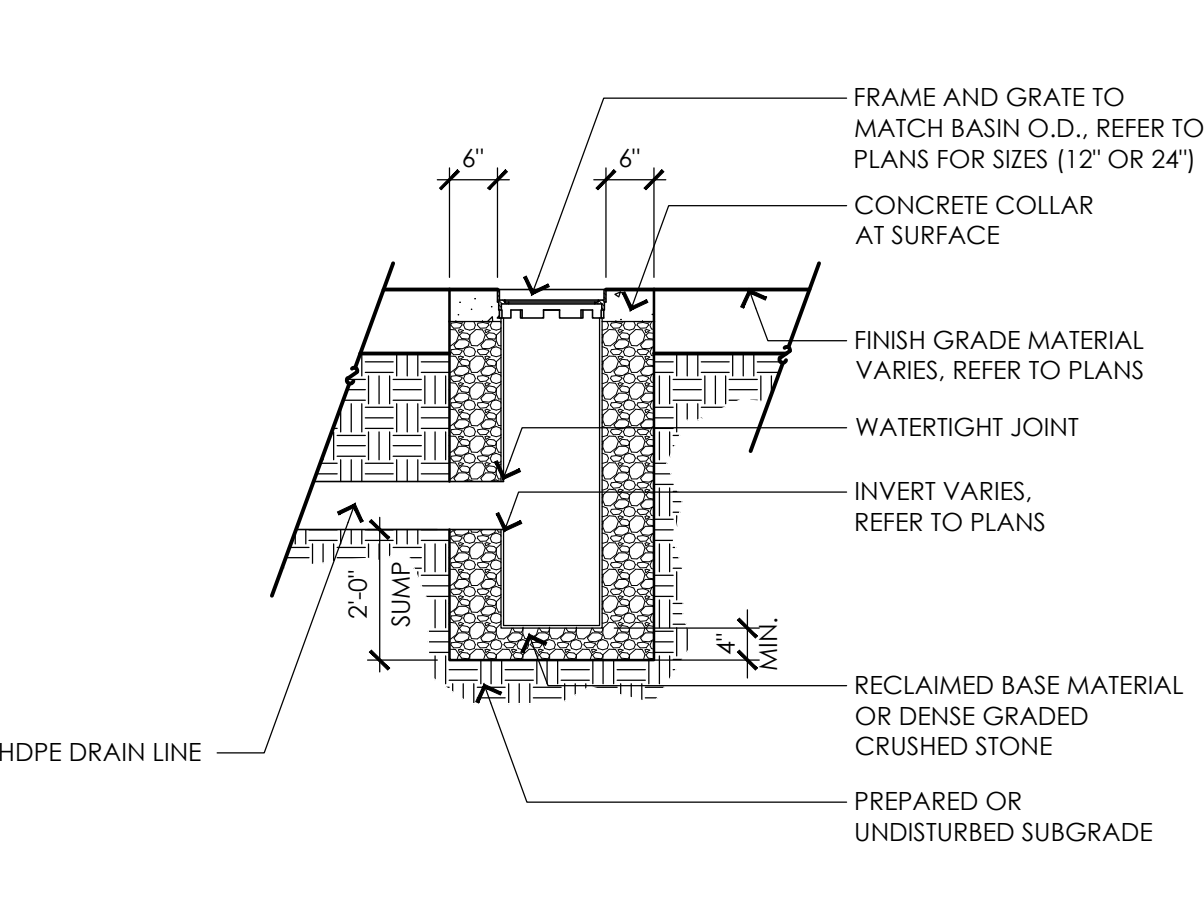
- ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
- PROVIDE "V" KNOCKOUTS FOR PIPES WITH 1" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
- JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.



2 OUTLET CONTROL STRUCTURE
NOT TO SCALE

NOTES:

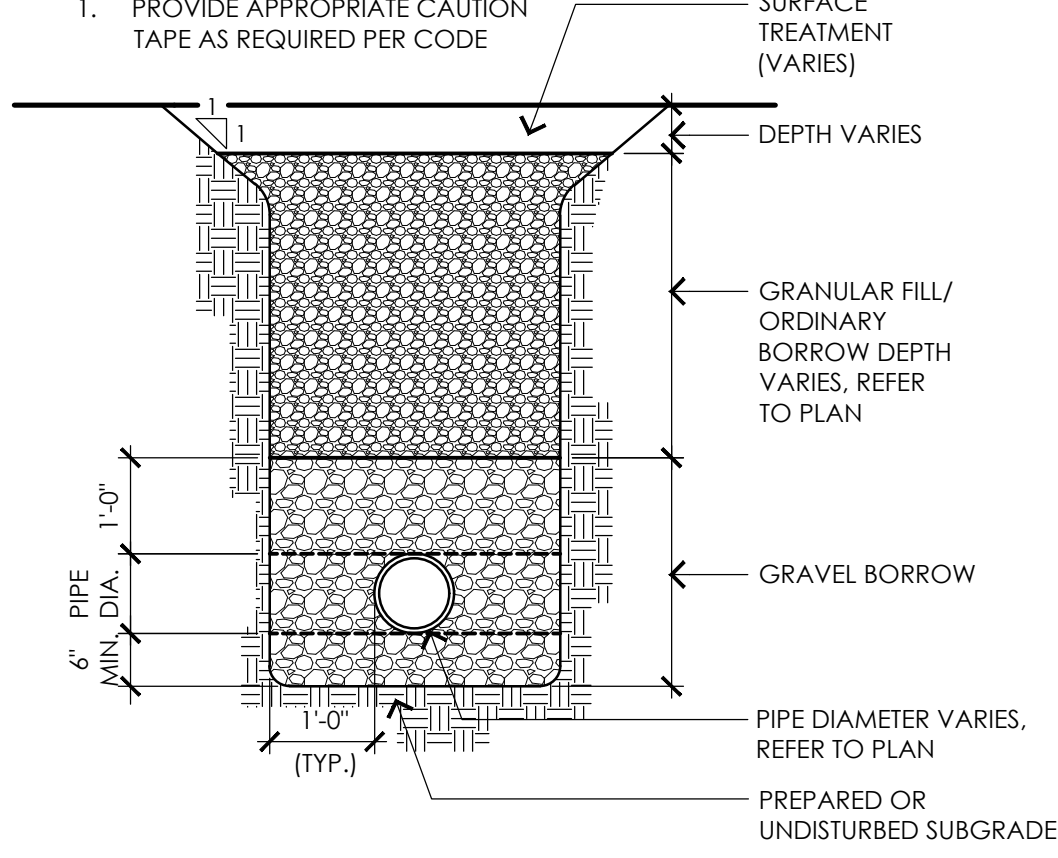
- GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
- FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
- DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE.



3 AREA DRAIN
NOT TO SCALE

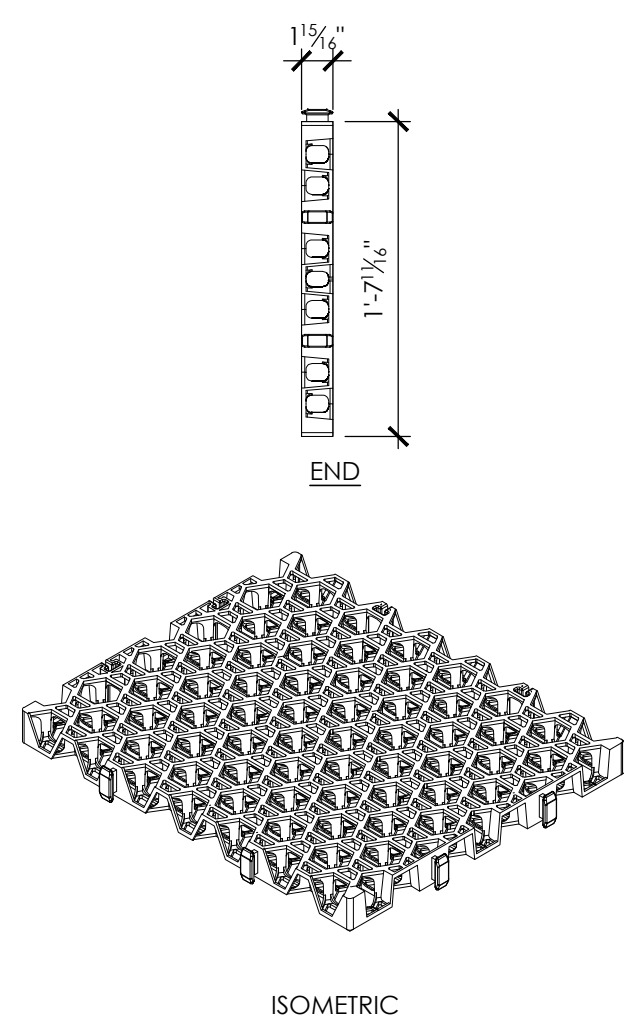
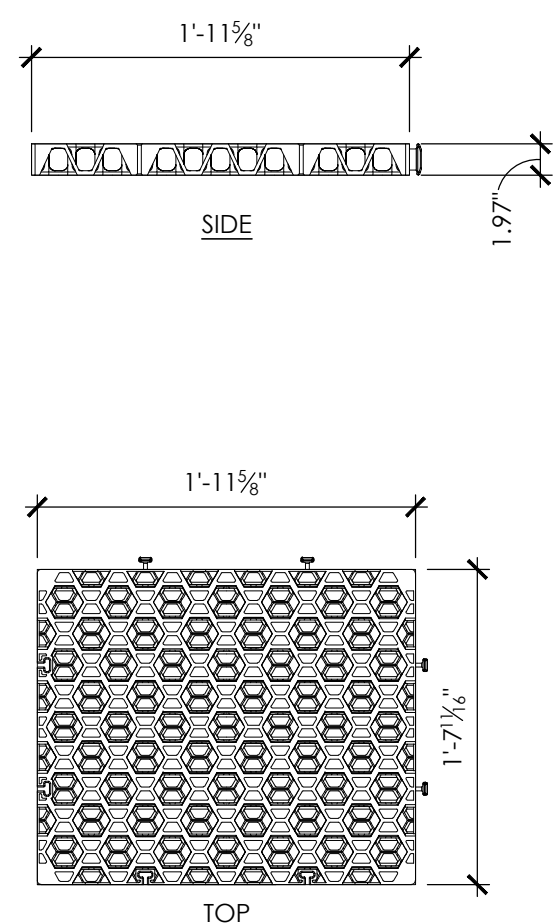
NOTES:

- PROVIDE APPROPRIATE CAUTION TAPE AS REQUIRED PER CODE



4 UTILITY TRENCH
NOT TO SCALE

THRUST BLOCK SCHEDULE											
SQUARE FEET OF CONCRETE THRUST											
BLOCKING BEARING ON UNDISTURBED MATERIAL											
REACTION TYPE	PIPE SIZE										
	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"
(A)	1.78	4.38	7.84	11.14	16.52	21.82	30.82	36.04	48.12	69.28	107.66
(B)	1.30	3.10	5.52	8.38	12.18	16.74	21.78	27.74	34.02	48.98	76.12
(C)	0.96	2.38	4.24	6.02	9.32	11.82	16.68	19.42	26.04	37.50	58.26
(D)	0.50	1.2	2.16	3.08	4.74	6.02	8.50	9.94	13.28	19.12	29.70
(E)	0.26	0.60	1.08	1.54	2.38	3.04	4.24	5.02	6.66	9.58	14.90
OTHER TEST PRESSURES FOR THE ABOVE REACTIONS	ABOVE DIMENSIONS ARE MINIMUM THRUST BLOCK SIZES. THEY HAVE BEEN CALCULATED USING A PRESSURE OF 200 PSI. TEST PRESSURE TO BE 150 PSI MIN. OR AS REQUIRED BY BWSC. SQUARE FEET OF CONCRETE THRUST BLOCKING FOR OTHER TEST PRESSURES IS DIRECTLY PROPORTION TO THE ABOVE TABLE. FOR INSTANCE, AT 225 PSI TEST PRESSURE ABOVE NUMBERS SHOULD BE MULTIPLIED BY 1.125 (225 PSI / 200 PSI = 1.125).										



6 R-TANK XD PANEL
NOT TO SCALE

CONSULTANTS

TOWN OF NEEDHAM
NEEDHAM, MA
NEEDHAM HIGH SCHOOL TENNIS COURT RENOVATION

Major Project Site Plan Approval
February 6, 2024

REVISIONS:		
NO.	DATE	DESCRIPTION

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CHECKED:	JC

SEAL:

Megan E. Buczynski
2/6/23

SHEET TITLE:
DETAIL SHEET II

SHEET NO:
L3.3

STORMWATER MANAGEMENT AND EROSION CONTROL REPORT

Date: 6 February 2024

Applicant: Town of Needham
1471 Highland Ave
Needham, MA 02494

Prepared By: Ben McDonough, EIT
Civil Designer
Activitas Inc.
70 Milton Street
Dedham, MA 02026

Project Address: Needham High School
609 Webster Street
Needham, MA 02494

Reviewed By: Megan Buczynski, PE
Principal Civil Engineer
Activitas Inc.
70 Milton Street
Dedham, MA 02026



Project: Needham High School Tennis Court Renovation

PROJECT OVERVIEW

The Town of Needham would like to renovate the tennis facility at Needham High School located at 609 Webster Street in Needham. The proposed work will include:

- Renovation of four (4) existing tennis courts
- Construction of four (4) new tennis courts
- Renovation / improvements to team and spectator areas
- Construction of handicap accessible walkways to all courts

COMPLIANCE WITH STORMWATER STANDARDS

The Town of Needham utilizes the policy, criteria and information including specifications and standards of the latest edition of the Massachusetts Department of Environmental Protection Stormwater Handbook (MA Stormwater Handbook) and the Town of Needham Stormwater Bylaw (Article 7). The report below outlines how each of the MA Stormwater Standards and requirements set forth in the Needham Stormwater Bylaw are met, satisfying regulatory requirements.

Standard 1: No New Untreated Discharges

The MA Stormwater Handbook requires that projects demonstrate that there are no new untreated discharges and that new discharges will not cause erosion or scour to downstream wetlands or water of the Commonwealth.

Computations and strategies shown for Standards 4 through 6 in this report demonstrate that there will be no new untreated discharges from the site.

Standard 2: Peak Rate Attenuation

Standard 2 was defined with the understanding that development typically includes an increase in impervious surface and that with that increase in impervious surface a greater volume of runoff will be generated. To mitigate this increase in volume to avoid downstream flooding, Standard 2 requires that stormwater management systems be designed so that post-development peak discharge rates don't exceed pre-development peak discharge rates for the 2-yr, 10-yr, and 100-yr storm events.

The Town of Needham has implemented a recharge requirement in the Stormwater Bylaw to further reduce the volume of flow from a project in comparison to the existing condition (refer to Standard 3 for these calculations). The Town has noted that the existing downstream stormwater system is often overtaxed in storm events and the recharge requirement was implemented to help mitigate this issue. On this project site, by implementing the additional recharge requirement, the volume of stormwater to leave the site is below the existing condition volumes. It should be noted that while the rate of runoff is slightly greater than existing, in this case because we are reducing the actual volume, we are meeting the intent of this Standard which is to reduce off-site flooding due to the project. Additionally, in reviewing the watershed which flows to Rosemary Lake, this project site is located on the lower portion of the watershed and the small increase in rate may be beneficial to move water through the stormwater system earlier in a storm event. The calculations in this section will show how the recharge requirement decreases the runoff volume entering the municipal system.

2.1 Site Description

The Needham High School Tennis project site is a 2.09-acre area containing four tennis courts, grassed areas, and walkways. The area is bordered by houses to the north, east, and west, and the Needham High School building and parking areas to the south. The tennis courts are situated on the highest terrace of the high school site around elevation 225.00 and the adjacent parking lot area is down gradient near El. 219.00. The surrounding area to the south continues to slope down gradient.

2.1.1 Soil Conditions

The Natural Resources Conservation Service (NRCS) maps soils in the vicinity of the project site as Woodbridge-Urban land complex, 3-15 percent slopes (623C), refer to the attached NRCS Soil

Report. This soil has a hydrologic rating of C/D. For the purposes of this analysis, a hydrologic rating of C has been used in the analysis.

2.1.2 Rainfall

In accordance with the MA Stormwater Standards, rainfall data is from the TP-40 Rainfall Frequency Atlas of the United States. The following depths were used in the HydroCAD model for the 2-yr, 10-yr, and 100-yr storm events:

Table 2.1: Rainfall Data

Storm Event	Rainfall Depth
2-yr	3.2"
10-yr	4.7"
100-yr	6.7"

*See Rainfall Data attachment for rainfall data

2.2 Hydrologic Model Description

The drainage analysis was performed using the Soil Conservation Service (SCS) TR-55 and TR-20 methodologies and the computer program HydroCAD 10.20-3c by HydroCAD software Solutions, LLC.

2.2.1 Existing Conditions

The existing site is divided in two drainage areas, EX-1, and EX-2, which flow to two different sections of the municipal system, EPLE and WPLE, respectively. See the Pre-Development Plan Attachment (Fig. 1) for a breakdown of the existing area. These two sections of the system eventually combine and flow to Rosemary Lake which is considered Discharge Point 1 modeled DP-1E in HydroCAD.

Drainage Area EX-1 is a 79,516-sf area consisting of the existing four (4) tennis courts, the adjacent grassed areas, and bituminous concrete walkways. Runoff from EX-1 sheet flows to the south and is collected by the existing drainage system west of the existing tennis courts which ties into the eastern system in the parking lot (EPLE).

Drainage Area EX-2 is a 11,584-sf area consisting of a portion of a grassed area to the west of the tennis courts. Runoff from EX-2 sheet flows southwest off site down a slope to a drainage system in the parking lot that flows to the west (WPLE).

As noted above, these two drainage systems flow to DP-1E Rosemary Lake.

2.2.2 Proposed Conditions

In the proposed conditions the two drainage areas (PR-1 and PR-2) are maintained, but runoff from a larger portion of the overall area will now flow towards EPLP. See the Post-Development Plan Attachment (Fig. 2) for a breakdown of the proposed area.

Drainage Area PR-1 is an 88,675-sf area that consists of the existing four (4) tennis courts, the four (4) new tennis courts, spectator areas, handicap accessible walkways, and grassed areas. Runoff from this area flows from the east edge of the existing tennis courts to the west edge of the existing tennis courts where it is collected by a channel drain and connects to the proposed detention basin. Runoff from the new tennis courts flows from north to south and is collected by a channel drain and connects to the proposed detention basin. Runoff from adjacent landscape areas is collected in area drains and sent to the proposed detention basin. The detention basin, modeled as Pond 1P in HydroCAD, outlets to an outlet control structure and flows to the east parking lot system (EPLP) which eventually flows to Rosemary Lake, modeled DP-1P in HydroCAD. See HydroCAD report for details.

Pond 1P was designed to provide adequate storage to meet the Town of Needham 1" recharge requirement. The proposed system uses the R-Tank System as provided by Ferguson and crushed stone with a 35% void ratio. To meet the recharge requirements over C-soils, a large footprint, but low-profile system was designed. Refer to HydroCAD for the layout of the system. Runoff from PR-1 flows into this system and then is released through an outlet control structure that ties into the existing parking lot drainage system (EPLP).

Drainage Area PR-2 is a 2,245-sf area consisting of a small grass area to the south of the new tennis courts that flows downhill and is not collected in the new drainage infrastructure. This runoff continues to flow to the parking area to the south which flows into the drainage system to the west (WPLP) which eventually flows to Rosemary Lake, modeled as DP-1P in HydroCAD. See HydroCAD report for details.

Table 2.2: Existing & Proposed Conditions Takeoff Areas (sf)

	Impervious CN=98	Grass CN=79	Total Area	Average CN
EX-1	36,378	43,138	79,516	88
EX-2	0	11,584	11,584	79
PR-1	66,254	22,421	88,675	92
PR-2	0	2,425	2,425	79

2.2.3 Drainage Analysis Results

Table 2.3 documents the results of the hydrologic analysis. As noted previously, the total volume in all the storms decreases meeting the intent of Standard 2. While the rates are slightly above existing conditions, the volumes are less and therefore the intent of the standard is met.

Table 2.3: Summary of Runoff Rates (cfs) & Volumes (cf)

DISCHARGE POINTS		2 Year		10 Year		100 Year	
		Rate (cfs)	Volume (cf)	Rate (cfs)	Volume (cf)	Rate (cfs)	Volume (cf)
	DP-1E	4.57	14,523	7.72	24,885	11.95	39,296
	DP-1P	5.99	13,577	8.92	24,430	12.77	39,224

Standard 3: Stormwater Recharge

3.1 Stormwater Recharge Calculation

The Stormwater Standards indicate that at a minimum, the annual recharge from the post development site shall approximate the annual recharge from pre-development conditions based on soil type. Since Group C soils have a high runoff potential and low infiltration rates, the Stormwater Standards give us a Volume to Recharge coefficient, F, of 0.25" for C-soils. The required recharge volume, the stormwater volume that must be infiltrated, equals the recharge volume multiplied by the total area within the NRCS Hydrologic Group that is impervious. The Town of Needham requires post construction measures to provide a minimum combined volumetric capacity to recharge one (1) inch of rainfall depth over the total increase in impervious area of the property.

$$R_v = F \times \text{Impervious Area}$$

*F for Town Regulations is 1-inch

$$R_v = (1.0\text{in}) \times \left(\frac{1\text{ft}}{12\text{in}}\right) \times (29,672\text{ sf})$$

$$R_v = 2,472\text{ cf}$$

Pond-1P has a detention volume of 3,200 cf. Therefore, the required recharge volume will be fully infiltrated.

3.2 Drawdown Time

The MA Stormwater Handbook requires that recharge volume have a drawdown time of 72 hours or less. The time required to dewater a recharge system may be estimated by the following equation:

$$Time_{drawdown} = \frac{V_{RS}}{(K) \times \left(\frac{1ft}{12in}\right) \times (A_R)}$$

V_{RS} = Volume of recharge storage system (cf)

$$K = \text{Rawls Rate} \left(\frac{in}{hr}\right)$$

A_R = Surface area of recharge system (sf)

The drawdown time for the detention system associated with the infiltration basin (Pond-1P):

$$Time_{drawdown} = \frac{3,200 \text{ cf}}{\left(\frac{0.17 \text{ in}}{hr}\right) \times \left(\frac{1ft}{12 \text{ in}}\right) \times (3,434 \text{ sf})}$$
$$Time_{drawdown} = 65.76 \text{ hours}$$

The drawdown time of 65.76 hours for Pond-1P is below the 72-hour maximum as set by the MA Stormwater Handbook and therefore the standard has been met.

Standard 4: Required Water Quality Volumes

Stormwater management standards will be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS). The MA Stormwater Handbook states that this standard is met when:

1. Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan, and thereafter are implemented and maintained.
2. Structural stormwater best management practices are sized to capture the required water quality volume as determined in accordance with the Massachusetts Stormwater Handbook; and
3. Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook

The MA Stormwater Handbook requires a water quality volume equal to 0.5-inch of runoff times the total impervious area of the post development site.

$$V_{WQ} = 0.5 \text{ in} \times \frac{1ft}{12 \text{ in}} \times \text{Total Impervious}$$
$$V_{WQ} = 0.5 \text{ in} \times \frac{1ft}{12 \text{ in}} \times 66,254 \text{ sf}$$

$$V_{wq} = 2,760.58 \text{ cf}$$

Pond-1P has a cumulative storage volume of 3,200 cf which meets the required Water Quality Volume calculated above.

Standard 5: Land Uses with Higher Potential Pollutant Loads

This project is not considered a land use with Higher Potential Pollutant loads therefore Standard 5 is not applicable to this project.

Standard 6: Critical Areas

Runoff from this project does not discharge to any critical areas and therefore is not subject to additional treatment required by Standard 6.

Standard 7: Redevelopment

For the purposes of the Stormwater Management Standards, redevelopment projects are defined to include development, rehabilitation, and expansion on previously developed sites provided the redevelopment results in no net increase in impervious area. Since this project increases the total net impervious area on the site, this project does not meet the definition of a redevelopment as defined in the MA Stormwater Standards. Due to this, all the stormwater standards must be met and have been met as demonstrated in this report.

Standard 8: Construction Period Pollution Prevention and Erosion & Sedimentation Control

Construction period pollution prevention and erosion and sedimentation control will be implemented at the project site to control construction related impacts during construction and land disturbance activities. Refer to the Site Preparation Plan for location of erosion and sediment controls. In addition as the project will disturb over 1-acre of land the General Contractor will be required to submit for an obtain an EPA NPDES Construction General Permit for the proposed construction. As part of this submission the General Contractor will be required to develop a Stormwater Pollution Prevention Plan (SWPPP) for the project and submit to the project engineer for review and approval.

Standard 9: Operation and Maintenance Plan

The proposed project is owned by the Town of Needham. Stormwater structures and other stormwater best management practices should be maintained as directed in the Operations

and Maintenance Plan. An Operation and Maintenance Plan has been included as an attachment.

Standard 10: Prohibition of Illicit Discharges

Illicit Discharge Compliance Statement

"Per the requirements of Standard 10 of the Massachusetts Stormwater Management Standards it shall be stated that No Illicit Discharges exist at Needham High School located at 609 Webster Street, Needham, Massachusetts."

If you have any questions or comments on the enclosed information, please do not hesitate to contact me directly at (617) 981-9845 or by email at bjm@activitas.com.

Respectfully,

ACTIVITAS



Ben McDonough, EIT
Civil Designer
bjm@activitas.com

cc: Jon Charwick, Activitas, Inc.
Meg Buczynski, Activitas, Inc.

Attachments: MA Stormwater Checklist
NRCS Soil Report
Rainfall Data
Pre-Development Plan
Post-Development Plan
HydroCAD Report
Operation & Maintenance Plan

MA Stormwater Checklist



Checklist for Stormwater Report

A. Introduction

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A Stormwater Report must be submitted with the Notice of Intent permit application to document compliance with the Stormwater Management Standards. The following checklist is NOT a substitute for the Stormwater Report (which should provide more substantive and detailed information) but is offered here as a tool to help the applicant organize their Stormwater Management documentation for their Report and for the reviewer to assess this information in a consistent format. As noted in the Checklist, the Stormwater Report must contain the engineering computations and supporting information set forth in Volume 3 of the [Massachusetts Stormwater Handbook](#). The Stormwater Report must be prepared and certified by a Registered Professional Engineer (RPE) licensed in the Commonwealth.

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals.¹ This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8²
- Operation and Maintenance Plan required by Standard 9

In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techniques, along with a diagram depicting runoff through the proposed BMP treatment train. Plans are required to show existing and proposed conditions, identify all wetland resource areas, NRCS soil types, critical areas, Land Uses with Higher Potential Pollutant Loads (LUHPPL), and any areas on the site where infiltration rate is greater than 2.4 inches per hour. The Plans shall identify the drainage areas for both existing and proposed conditions at a scale that enables verification of supporting calculations.

As noted in the Checklist, the Stormwater Management Report shall document compliance with each of the Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook. The soils evaluation and calculations shall be done using the methodologies set forth in Volume 3 of the Massachusetts Stormwater Handbook.

To ensure that the Stormwater Report is complete, applicants are required to fill in the Stormwater Report Checklist by checking the box to indicate that the specified information has been included in the Stormwater Report. If any of the information specified in the checklist has not been submitted, the applicant must provide an explanation. The completed Stormwater Report Checklist and Certification must be submitted with the Stormwater Report.

¹ The Stormwater Report may also include the Illicit Discharge Compliance Statement required by Standard 10. If not included in the Stormwater Report, the Illicit Discharge Compliance Statement must be submitted prior to the discharge of stormwater runoff to the post-construction best management practices.

² For some complex projects, it may not be possible to include the Construction Period Erosion and Sedimentation Control Plan in the Stormwater Report. In that event, the issuing authority has the discretion to issue an Order of Conditions that approves the project and includes a condition requiring the proponent to submit the Construction Period Erosion and Sedimentation Control Plan before commencing any land disturbance activity on the site.



Checklist for Stormwater Report

B. Stormwater Checklist and Certification

The following checklist is intended to serve as a guide for applicants as to the elements that ordinarily need to be addressed in a complete Stormwater Report. The checklist is also intended to provide conservation commissions and other reviewing authorities with a summary of the components necessary for a comprehensive Stormwater Report that addresses the ten Stormwater Standards.

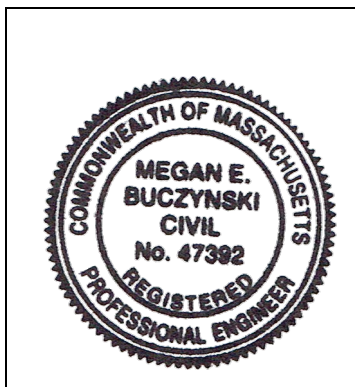
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the item is not applicable (N.A.) and provide the reasons for that determination.

A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement (if included) and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature



M. Buczynski 2/5/2024
Signature and Date

Checklist

Project Type: Is the application for new development, redevelopment, or a mix of new and redevelopment?

- ☐ New development
- ☐ Redevelopment
- ☒ Mix of New Development and Redevelopment



Checklist for Stormwater Report

Checklist (continued)

LID Measures: Stormwater Standards require LID measures to be considered. Document what environmentally sensitive design and LID Techniques were considered during the planning and design of the project:

- ☒ No disturbance to any Wetland Resource Areas
- ☐ Site Design Practices (e.g. clustered development, reduced frontage setbacks)
- ☐ Reduced Impervious Area (Redevelopment Only)
- ☐ Minimizing disturbance to existing trees and shrubs
- ☐ LID Site Design Credit Requested:
 - ☐ Credit 1
 - ☐ Credit 2
 - ☐ Credit 3
- ☐ Use of "country drainage" versus curb and gutter conveyance and pipe
- ☐ Bioretention Cells (includes Rain Gardens)
- ☐ Constructed Stormwater Wetlands (includes Gravel Wetlands designs)
- ☐ Treebox Filter
- ☐ Water Quality Swale
- ☐ Grass Channel
- ☐ Green Roof
- ☐ Other (describe): _____

Standard 1: No New Untreated Discharges

- ☒ No new untreated discharges
- ☐ Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth
- ☐ Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included.



Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation

- ☐ Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.
- ☐ Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.
- ☒ Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

Standard 3: Recharge

- ☐ Soil Analysis provided.
- ☒ Required Recharge Volume calculation provided.
- ☐ Required Recharge volume reduced through use of the LID site Design Credits.
- ☒ Sizing the infiltration, BMPs is based on the following method: Check the method used.
 - ☒ Static
 - ☐ Simple Dynamic
 - ☐ Dynamic Field¹
- ☒ Runoff from all impervious areas at the site discharging to the infiltration BMP.
- ☐ Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.
- ☒ Recharge BMPs have been sized to infiltrate the Required Recharge Volume.
- ☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:
 - ☐ Site is comprised solely of C and D soils and/or bedrock at the land surface
 - ☐ M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
 - ☐ Solid Waste Landfill pursuant to 310 CMR 19.000
 - ☐ Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.
- ☒ Calculations showing that the infiltration BMPs will drain in 72 hours are provided.
- ☐ Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

¹ 80% TSS removal is required prior to discharge to infiltration BMP if Dynamic Field method is used.



Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

- ☐ The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.
- ☐ Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality

The Long-Term Pollution Prevention Plan typically includes the following:

- Good housekeeping practices;
 - Provisions for storing materials and waste products inside or under cover;
 - Vehicle washing controls;
 - Requirements for routine inspections and maintenance of stormwater BMPs;
 - Spill prevention and response plans;
 - Provisions for maintenance of lawns, gardens, and other landscaped areas;
 - Requirements for storage and use of fertilizers, herbicides, and pesticides;
 - Pet waste management provisions;
 - Provisions for operation and management of septic systems;
 - Provisions for solid waste management;
 - Snow disposal and plowing plans relative to Wetland Resource Areas;
 - Winter Road Salt and/or Sand Use and Storage restrictions;
 - Street sweeping schedules;
 - Provisions for prevention of illicit discharges to the stormwater management system;
 - Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
 - Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
 - List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.
- ☐ A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.
 - ☐ Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:
 - ☐ is within the Zone II or Interim Wellhead Protection Area
 - ☐ is near or to other critical areas
 - ☐ is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
 - ☐ involves runoff from land uses with higher potential pollutant loads.
 - ☐ The Required Water Quality Volume is reduced through use of the LID site Design Credits.
 - ☐ Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.



Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

- ☒ The BMP is sized (and calculations provided) based on:
 - ☒ The ½" or 1" Water Quality Volume or
 - ☐ The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.
- ☐ The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the proprietary BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.
- ☐ A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs)

- ☐ The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.
- ☐ The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted **prior to** the discharge of stormwater to the post-construction stormwater BMPs.
- ☒ The NPDES Multi-Sector General Permit does **not** cover the land use.
- ☐ LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.
- ☐ All exposure has been eliminated.
- ☐ All exposure has **not** been eliminated and all BMPs selected are on MassDEP LUHPPL list.
- ☐ The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

Standard 6: Critical Areas

- ☐ The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.
- ☐ Critical areas and BMPs are identified in the Stormwater Report.



Checklist for Stormwater Report

Checklist (continued)

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

- ☐ The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:
 - ☐ Limited Project
 - ☐ Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
 - ☐ Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
 - ☐ Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
 - ☐ Bike Path and/or Foot Path
 - ☐ Redevelopment Project
 - ☐ Redevelopment portion of mix of new and redevelopment.
- ☐ Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.
- ☐ The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the following information:

- Narrative;
 - Construction Period Operation and Maintenance Plan;
 - Names of Persons or Entity Responsible for Plan Compliance;
 - Construction Period Pollution Prevention Measures;
 - Erosion and Sedimentation Control Plan Drawings;
 - Detail drawings and specifications for erosion control BMPs, including sizing calculations;
 - Vegetation Planning;
 - Site Development Plan;
 - Construction Sequencing Plan;
 - Sequencing of Erosion and Sedimentation Controls;
 - Operation and Maintenance of Erosion and Sedimentation Controls;
 - Inspection Schedule;
 - Maintenance Schedule;
 - Inspection and Maintenance Log Form.
- ☒ A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.



Checklist for Stormwater Report

Checklist (continued)

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control (continued)

- ☐ The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has **not** been included in the Stormwater Report but will be submitted **before** land disturbance begins.
- ☐ The project is **not** covered by a NPDES Construction General Permit.
- ☐ The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.
- ☒ The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

Standard 9: Operation and Maintenance Plan

- ☒ The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:
 - ☒ Name of the stormwater management system owners;
 - ☒ Party responsible for operation and maintenance;
 - ☒ Schedule for implementation of routine and non-routine maintenance tasks;
 - ☒ Plan showing the location of all stormwater BMPs maintenance access areas;
 - ☐ Description and delineation of public safety features;
 - ☐ Estimated operation and maintenance budget; and
 - ☒ Operation and Maintenance Log Form.
- ☐ The responsible party is **not** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:
 - ☐ A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
 - ☐ A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

Standard 10: Prohibition of Illicit Discharges

- ☐ The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;
- ☒ An Illicit Discharge Compliance Statement is attached;
- ☐ NO Illicit Discharge Compliance Statement is attached but will be submitted **prior to** the discharge of any stormwater to post-construction BMPs.

NRCS Soil Report



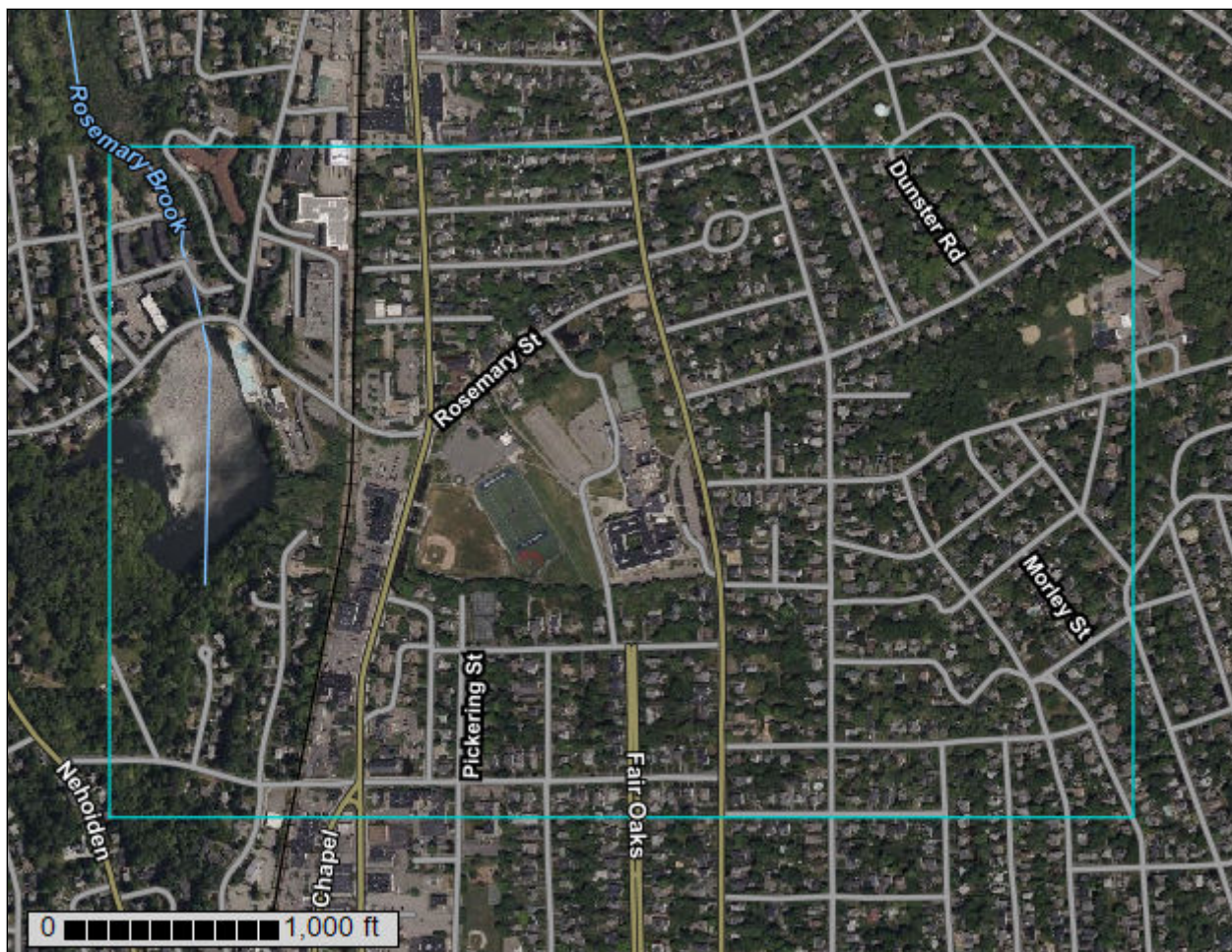
United States
Department of
Agriculture

NRCS

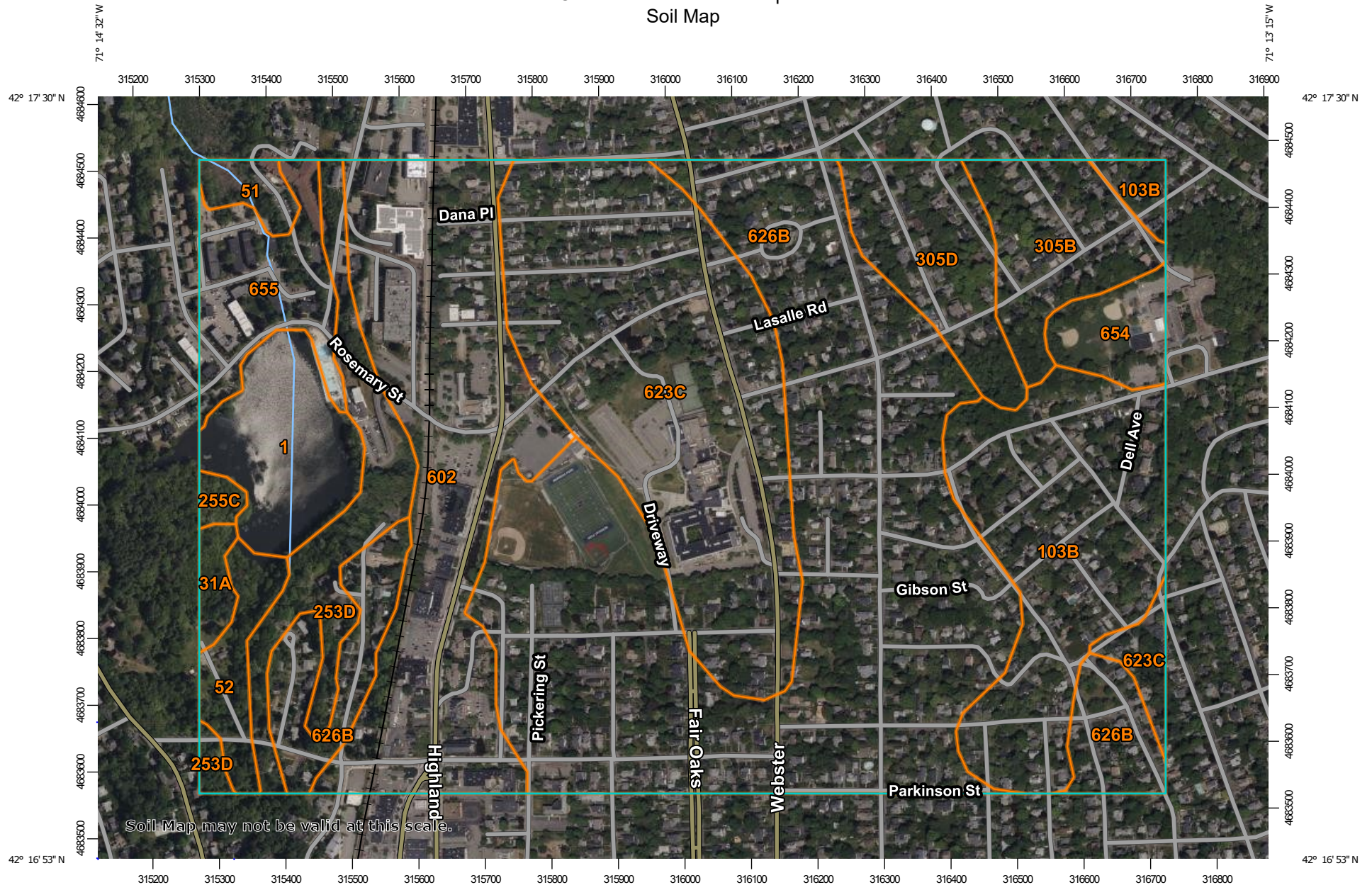
Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Norfolk and Suffolk Counties, Massachusetts

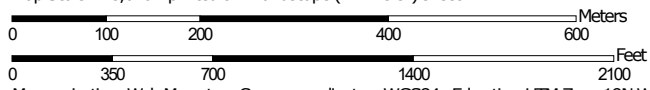


Custom Soil Resource Report Soil Map



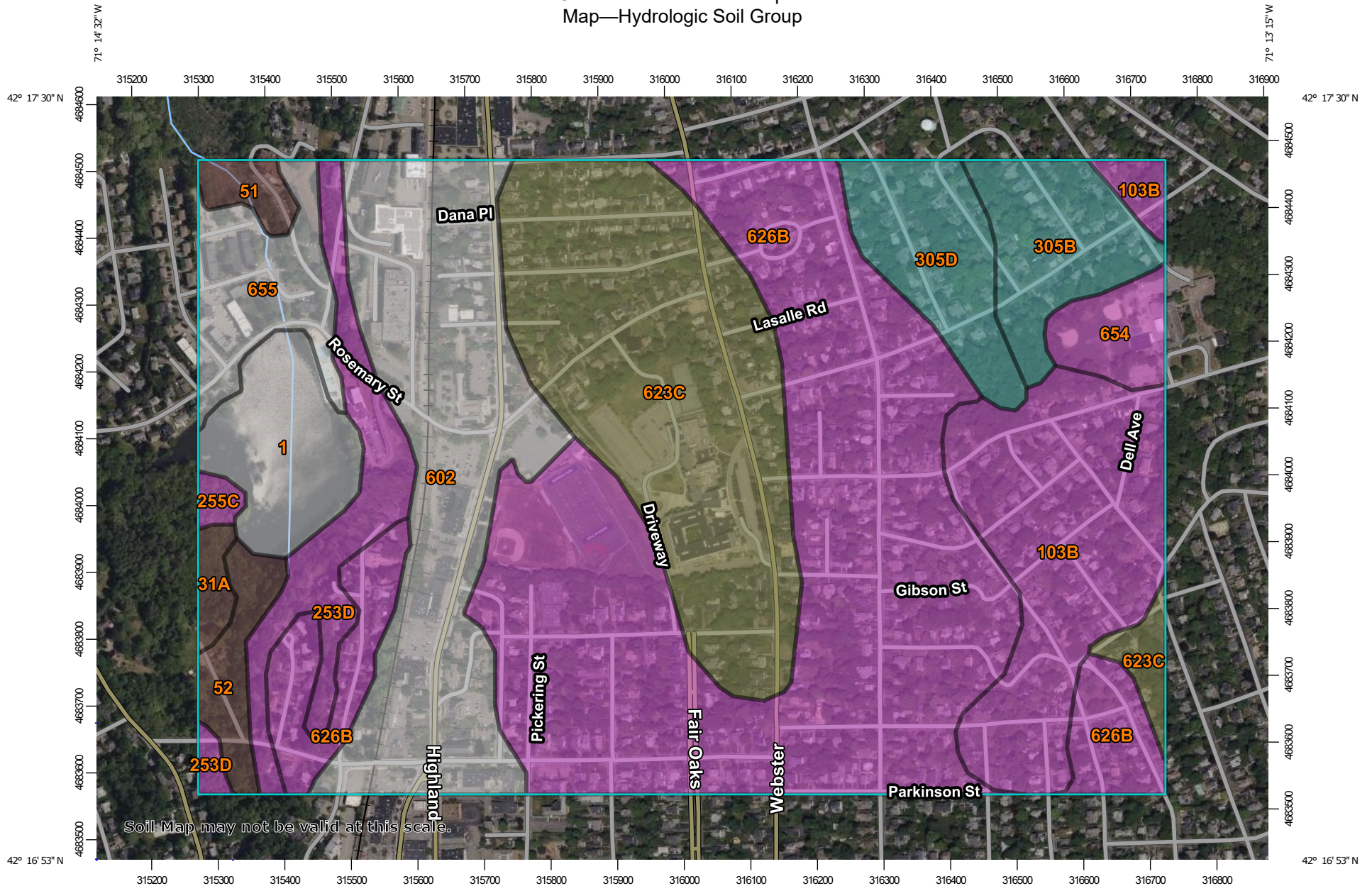
Soil Map may not be valid at this scale.

Map Scale: 1:8,040 if printed on A landscape (11" x 8.5") sheet.

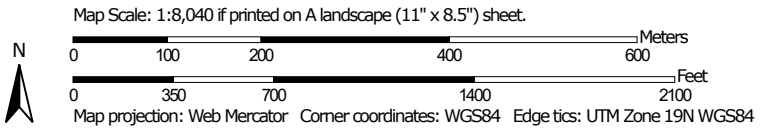


Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

Custom Soil Resource Report Map—Hydrologic Soil Group



Soil Map may not be valid at this scale.



Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
1	Water		13.4	3.9%
31A	Walpole sandy loam, 0 to 3 percent slopes	B/D	2.1	0.6%
51	Swansea muck, 0 to 1 percent slopes	B/D	2.8	0.8%
52	Freetown muck, 0 to 1 percent slopes	B/D	5.7	1.7%
103B	Charlton-Hollis-Rock outcrop complex, 3 to 8 percent slopes	A	36.0	10.5%
253D	Hinckley loamy sand, 15 to 35 percent slopes	A	15.2	4.5%
255C	Windsor loamy sand, 8 to 15 percent slopes	A	1.2	0.3%
305B	Paxton fine sandy loam, 3 to 8 percent slopes	C	13.3	3.9%
305D	Paxton fine sandy loam, 15 to 25 percent slopes	C	13.5	3.9%
602	Urban land, 0 to 15 percent slopes		47.5	13.9%
623C	Woodbridge-Urban land complex, 3 to 15 percent slopes	C/D	58.0	16.9%
626B	Merrimac-Urban land complex, 0 to 8 percent slopes	A	115.6	33.8%
654	Udorthents, loamy	A	5.8	1.7%
655	Udorthents, wet substratum		12.2	3.6%
Totals for Area of Interest			342.3	100.0%

Rating Options—Hydrologic Soil Group*Aggregation Method: Dominant Condition**Component Percent Cutoff: None Specified**Tie-break Rule: Higher*

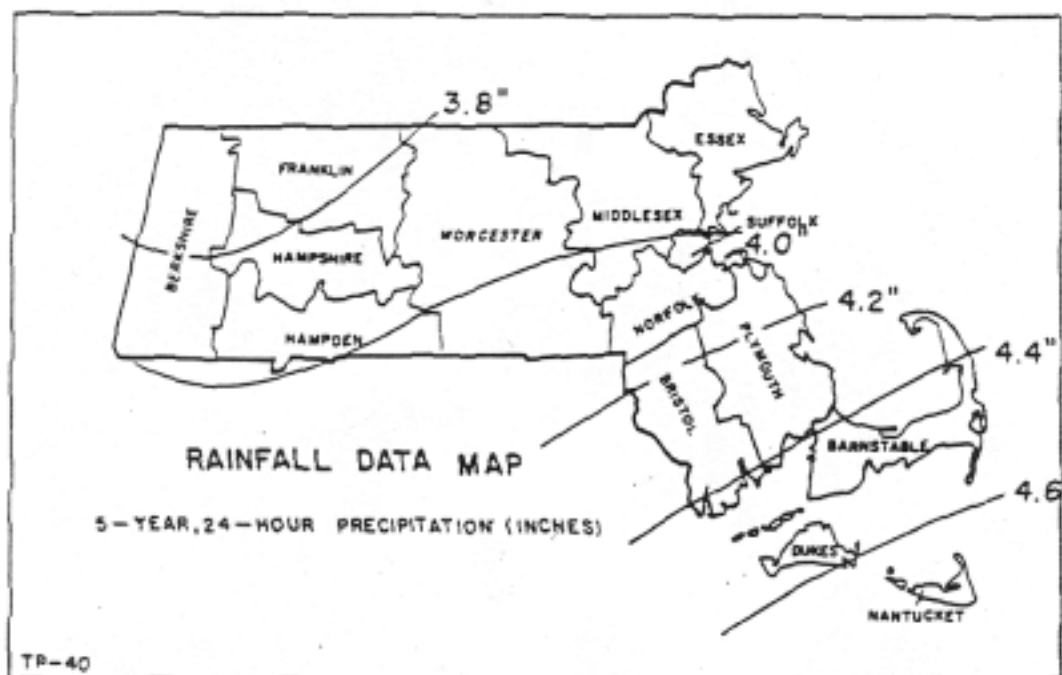
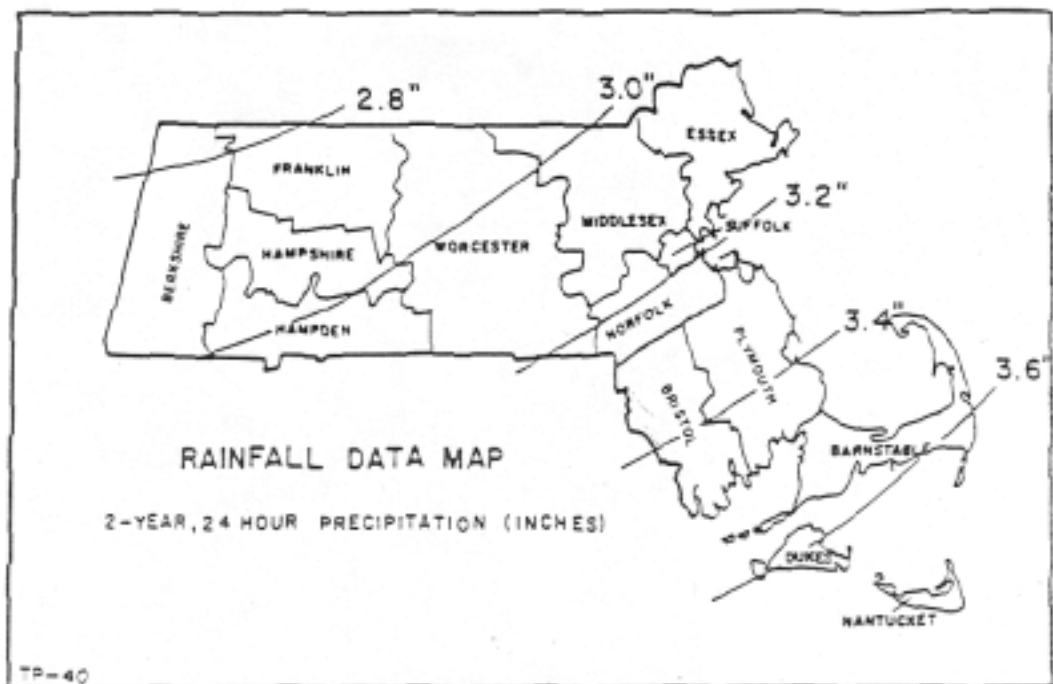
Rainfall Data

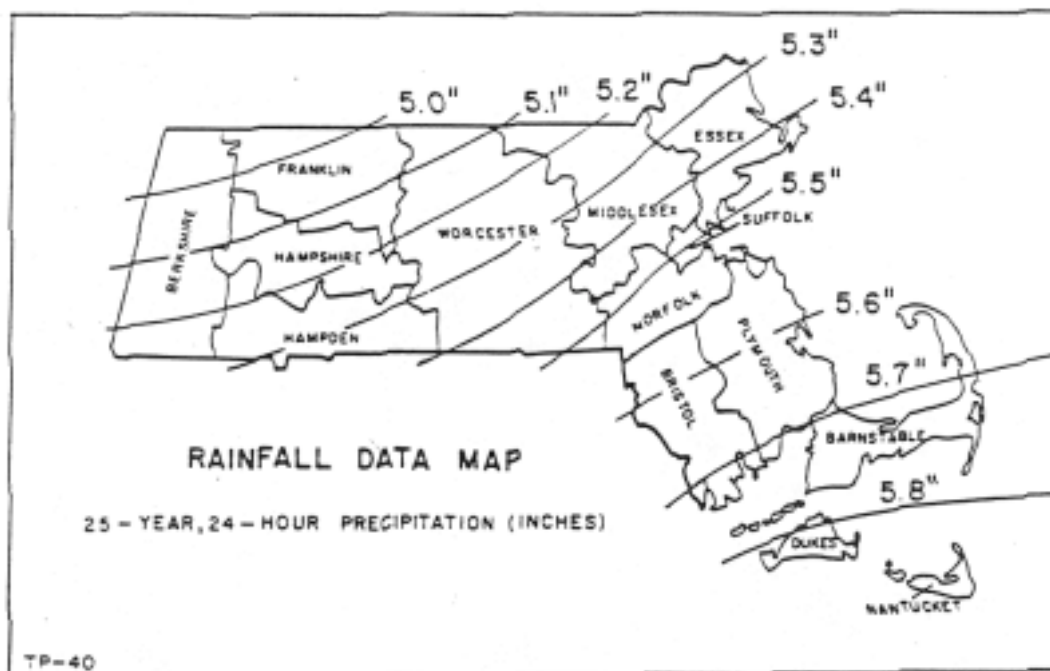
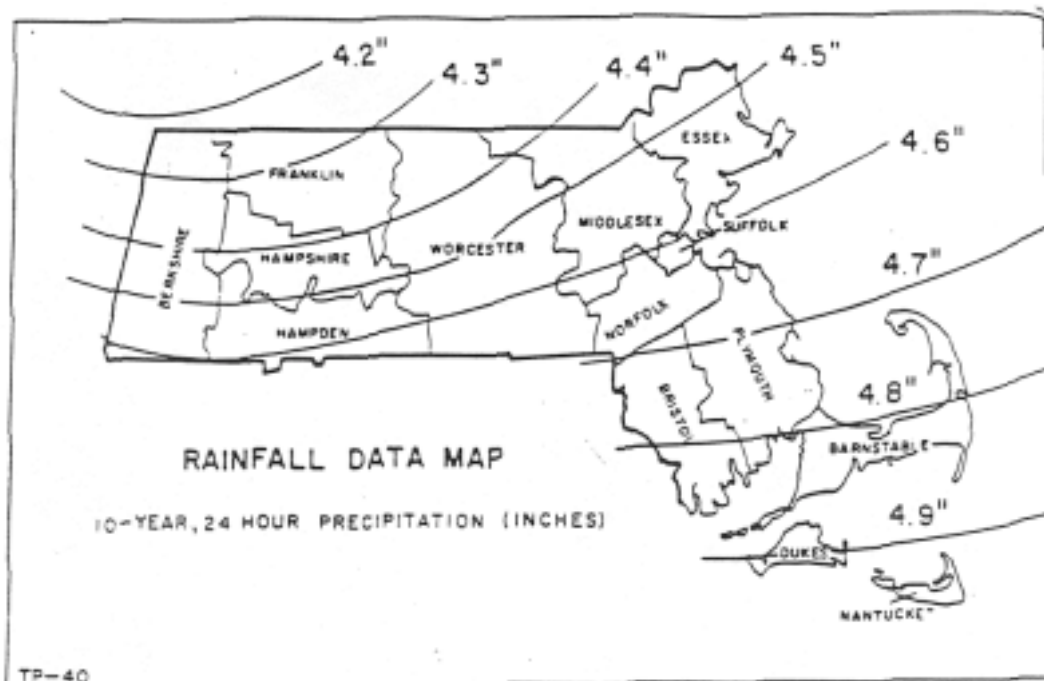
F-1. Rainfall Data for Massachusetts from *Rainfall Frequency Atlas of the United States* (TP-40)

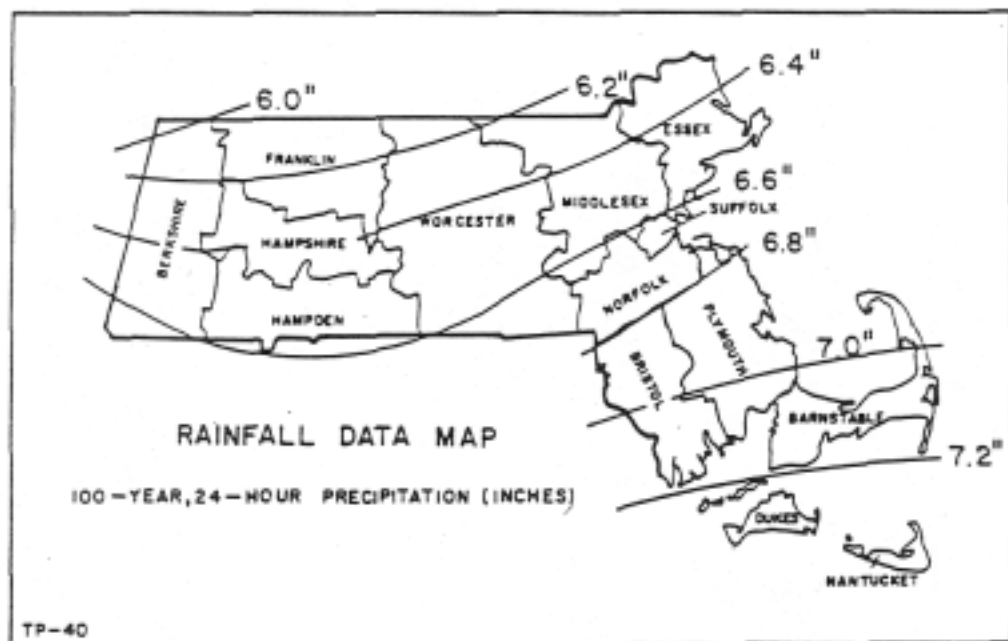
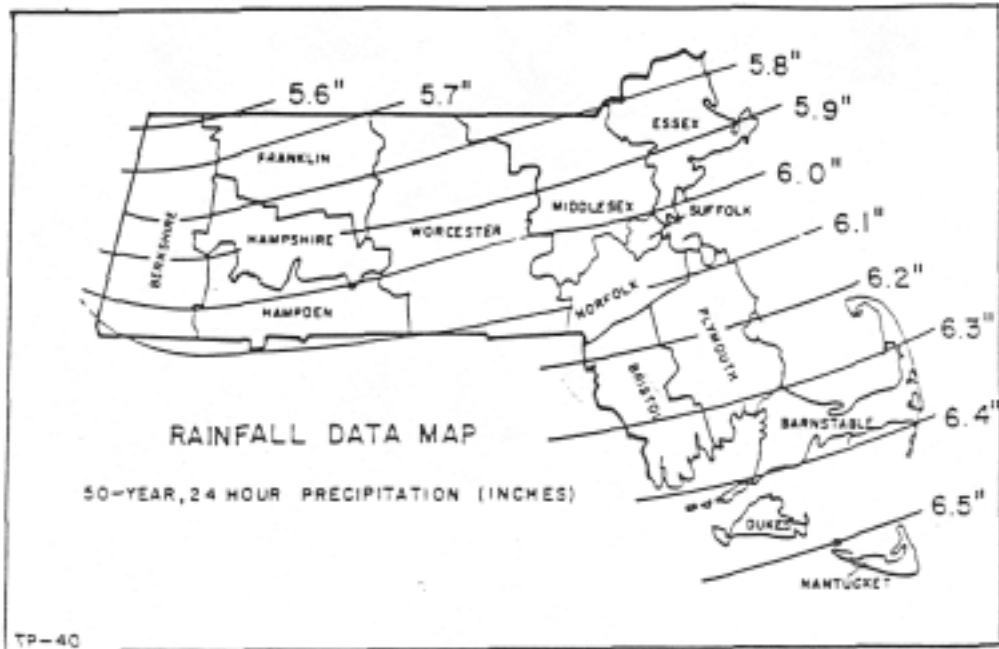
- Users of this Handbook should note that current MA DEP written guidance (see DEP Waterlines newsletter -- Fall 2000) requires the use of TP-40 Rainfall Data for calculations under the Wetlands Protection Regulations and the Stormwater Management Policy. More stringent design storms may be used under a local bylaw or ordinance. However, DEP will continue to require the use of TP-40 in any case it reviews under the Wetlands Protection Act and Stormwater Management Policy.

Adjusted Technical Paper 40 Design Storms for 24-hour Event by County

County Name	1-yr 24-hr	2-yr 24-hr	5-yr 24-hr	10-yr 24-hr	25-yr 24-hr	50-yr 24-hr	100-yr 24-hr
Barnstable	2.5	3.6	4.5	4.8	5.7	6.4	7.1
Berkshire	2.5	2.9	3.8	4.4	5.1	5.9	6.4
Bristol	2.5	3.4	4.3	4.8	5.6	6.3	7.0
Dukes	2.5	3.6	4.6	4.9	5.8	6.5	7.2
Essex	2.5	3.1	3.9	4.5	5.4	5.9	6.5
Franklin	2.5	2.9	3.8	4.3	5.1	5.8	6.2
Hampden	2.5	3.0	4.0	4.6	5.3	6.0	6.5
Hampshire	2.5	3.0	3.9	4.5	5.2	5.9	6.4
Middlesex	2.5	3.1	4.0	4.5	5.3	5.9	6.5
Nantucket	2.5	3.6	4.6	4.9	5.8	6.5	7.2
Norfolk	2.5	3.2	4.1	4.7	5.5	6.1	6.7
Plymouth	2.5	3.4	4.3	4.7	5.6	6.2	7.0
Suffolk	2.5	3.2	4.0	4.6	5.5	6.0	6.6
Worcester	2.5	3.0	4.0	4.5	5.3	5.9	6.5





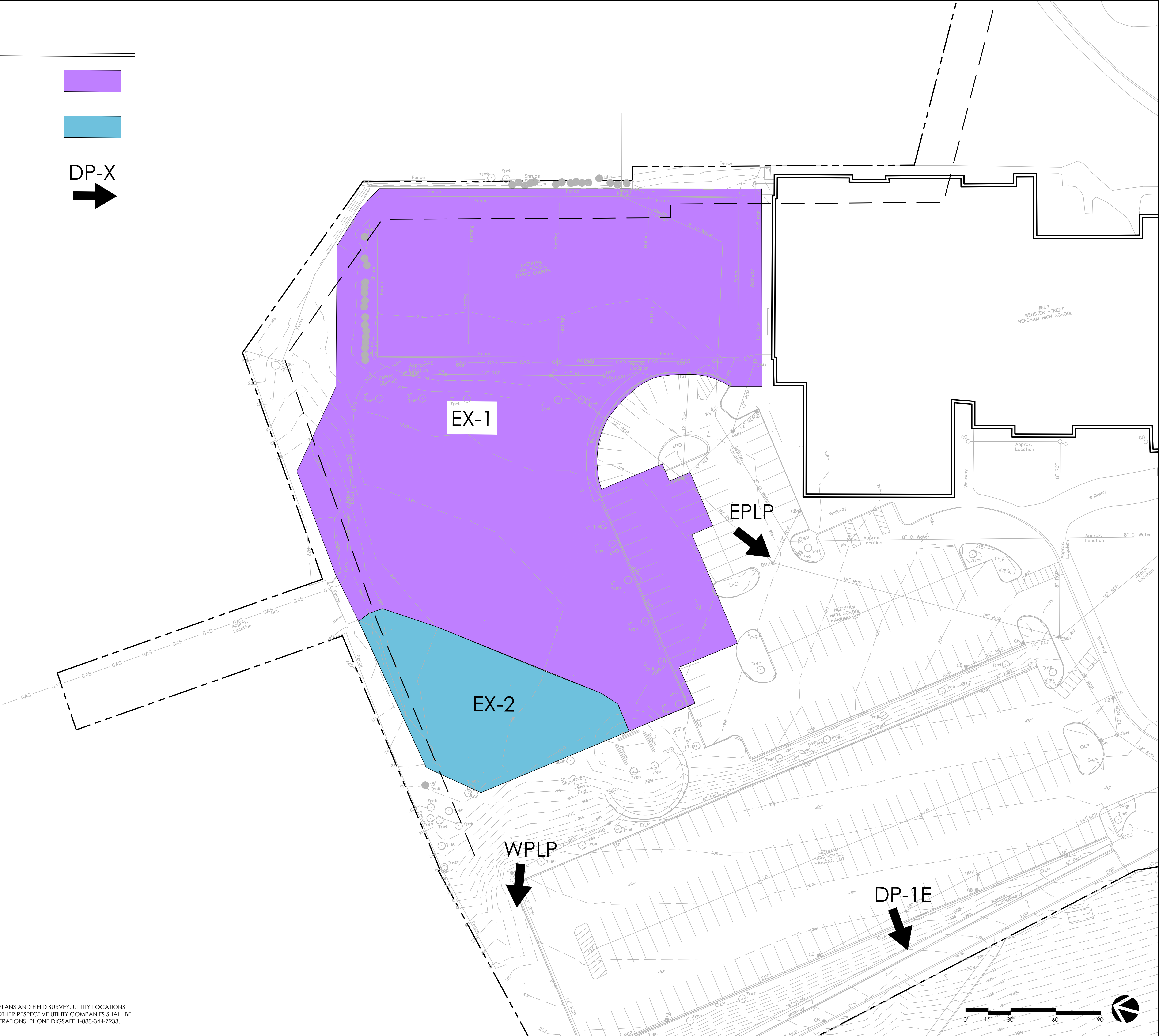


Pre-Development Plan

LEGEND

- DRAINAGE AREA EX-1
- DRAINAGE AREA EX-2
- DISCHARGE POINT

DP-X



CONTACT DIGSAFE:
UNDERGROUND UTILITIES SHOWN ON THE PLAN ARE COMPILED FROM PLANS AND FIELD SURVEY. UTILITY LOCATIONS
SHOULD BE CONSIDERED APPROXIMATE ONLY. DIGSAFE AND/OR THE OTHER RESPECTIVE UTILITY COMPANIES SHALL BE
CONTACTED 72 BUSINESS HOURS IN ADVANCE OF CONSTRUCTION OPERATIONS. PHONE DIGSAFE 1-888-344-7233.

CONSULTANTS

TOWN OF NEEDHAM

NEEDHAM, MA

NEEDHAM HIGH SCHOOL TENNIS COURT RENOVATION

Major Project Site Plan Approval
February 6, 2024

REVISIONS:		
NO.	DATE	DESCRIPTION

SCALE:	1"=30'-0"
PROJECT NO.:	23016.00
FILE:	23016.00-ECS_PLAN.dwg
DRAWN:	BJM
CHECKED:	JC

SEAL:

SHEET TITLE:
EXISTING CONDITIONS
PLAN

SHEET NO:
EX1

Post-Development Plan

LEGEND

- DRAINAGE AREA PR-1
- DRAINAGE AREA PR-2
- DISCHARGE POINT

DP-X



CONTACT DIGSAFE:
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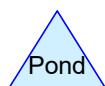
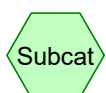
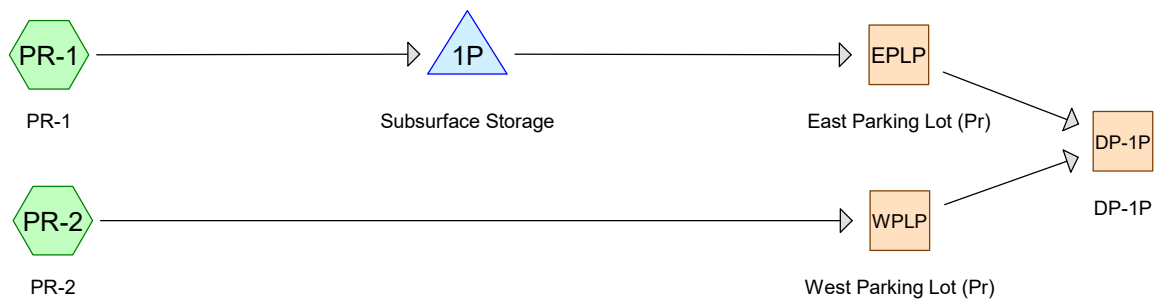
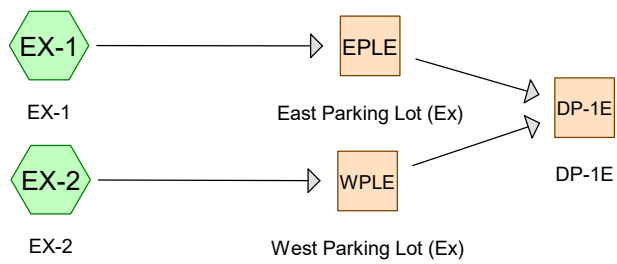
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DRAWN:	BJM
CHECKED:	JC

SEAL:

SHEET TITLE:
PROPOSED
CONDITIONS PLAN

SHEET NO:
PR1

HydroCAD Report



23016-R_Tank_XD-MEB-240205

Prepared by Activitas, Inc

Printed 2/6/2024

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Page 2

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-Year-Storm	Type III 24-hr		Default	24.00	1	3.20	2
2	10-Year-Storm	Type III 24-hr		Default	24.00	1	4.70	2
3	100-Year-Storm	Type III 24-hr		Default	24.00	1	6.70	2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
57,147	79	50-75% Grass cover, Fair, HSG C (EX-1, EX-2, PR-2)
22,421	74	>75% Grass cover, Good, HSG C (PR-1)
102,632	98	Unconnected pavement, HSG C (EX-1, PR-1)
182,200	89	TOTAL AREA

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
182,200	HSG C	EX-1, EX-2, PR-1, PR-2
0	HSG D	
0	Other	
182,200		TOTAL AREA

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover
0	0	57,147	0	0	57,147	50-75% Grass cover, Fair
0	0	22,421	0	0	22,421	>75% Grass cover, Good
0	0	102,632	0	0	102,632	Unconnected pavement
0	0	182,200	0	0	182,200	TOTAL AREA

Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EX-1: EX-1	Runoff Area=79,516 sf 45.75% Impervious Runoff Depth=2.00" Tc=6.0 min CN=88 Runoff=4.17 cfs 13,233 cf
Subcatchment EX-2: EX-2	Runoff Area=11,584 sf 0.00% Impervious Runoff Depth=1.34" Tc=6.0 min CN=79 Runoff=0.40 cfs 1,290 cf
Subcatchment PR-1: PR-1	Runoff Area=88,675 sf 74.72% Impervious Runoff Depth=2.35" Tc=6.0 min CN=92 Runoff=5.36 cfs 17,370 cf
Subcatchment PR-2: PR-2	Runoff Area=2,425 sf 0.00% Impervious Runoff Depth=1.34" Tc=6.0 min CN=79 Runoff=0.08 cfs 270 cf
Reach DP-1E: DP-1E	Inflow=4.57 cfs 14,523 cf Outflow=4.57 cfs 14,523 cf
Reach DP-1P: DP-1P	Inflow=5.99 cfs 13,577 cf Outflow=5.99 cfs 13,577 cf
Reach EPLE: East Parking Lot (Ex)	Inflow=4.17 cfs 13,233 cf Outflow=4.17 cfs 13,233 cf
Reach EPLP: East Parking Lot (Pr)	Inflow=5.91 cfs 13,307 cf Outflow=5.91 cfs 13,307 cf
Reach WPLE: West Parking Lot (Ex)	Inflow=0.40 cfs 1,290 cf Outflow=0.40 cfs 1,290 cf
Reach WPLP: West Parking Lot (Pr)	Inflow=0.08 cfs 270 cf Outflow=0.08 cfs 270 cf
Pond 1P: Subsurface Storage	Peak Elev=216.60' Storage=3,199 cf Inflow=5.36 cfs 17,370 cf Discarded=0.01 cfs 1,150 cf Primary=5.91 cfs 13,307 cf Outflow=5.93 cfs 14,457 cf

Total Runoff Area = 182,200 sf Runoff Volume = 32,163 cf Average Runoff Depth = 2.12"
43.67% Pervious = 79,568 sf 56.33% Impervious = 102,632 sf

Summary for Subcatchment EX-1: EX-1

Runoff = 4.17 cfs @ 12.09 hrs, Volume= 13,233 cf, Depth= 2.00"
 Routed to Reach EPLE : East Parking Lot (Ex)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2-Year-Storm Rainfall=3.20"

Area (sf)	CN	Description
43,138	79	50-75% Grass cover, Fair, HSG C
36,378	98	Unconnected pavement, HSG C
79,516	88	Weighted Average
43,138		54.25% Pervious Area
36,378		45.75% Impervious Area
36,378		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment EX-2: EX-2

Runoff = 0.40 cfs @ 12.10 hrs, Volume= 1,290 cf, Depth= 1.34"
 Routed to Reach WPLE : West Parking Lot (Ex)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2-Year-Storm Rainfall=3.20"

Area (sf)	CN	Description
11,584	79	50-75% Grass cover, Fair, HSG C
11,584		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment PR-1: PR-1

Runoff = 5.36 cfs @ 12.09 hrs, Volume= 17,370 cf, Depth= 2.35"
 Routed to Pond 1P : Subsurface Storage

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2-Year-Storm Rainfall=3.20"

Area (sf)	CN	Description
66,254	98	Unconnected pavement, HSG C
22,421	74	>75% Grass cover, Good, HSG C
88,675	92	Weighted Average
22,421		25.28% Pervious Area
66,254		74.72% Impervious Area
66,254		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment PR-2: PR-2

Runoff = 0.08 cfs @ 12.10 hrs, Volume= 270 cf, Depth= 1.34"
 Routed to Reach WPLP : West Parking Lot (Pr)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2-Year-Storm Rainfall=3.20"

Area (sf)	CN	Description
2,425	79	50-75% Grass cover, Fair, HSG C
2,425		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Reach DP-1E: DP-1E

Inflow Area = 91,100 sf, 39.93% Impervious, Inflow Depth = 1.91" for 2-Year-Storm event
 Inflow = 4.57 cfs @ 12.09 hrs, Volume= 14,523 cf
 Outflow = 4.57 cfs @ 12.09 hrs, Volume= 14,523 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Reach DP-1P: DP-1P

Inflow Area = 91,100 sf, 72.73% Impervious, Inflow Depth = 1.79" for 2-Year-Storm event
 Inflow = 5.99 cfs @ 12.06 hrs, Volume= 13,577 cf
 Outflow = 5.99 cfs @ 12.06 hrs, Volume= 13,577 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Reach EPLE: East Parking Lot (Ex)

Inflow Area = 79,516 sf, 45.75% Impervious, Inflow Depth = 2.00" for 2-Year-Storm event
 Inflow = 4.17 cfs @ 12.09 hrs, Volume= 13,233 cf
 Outflow = 4.17 cfs @ 12.09 hrs, Volume= 13,233 cf, Atten= 0%, Lag= 0.0 min
 Routed to Reach DP-1E : DP-1E

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Reach EPLP: East Parking Lot (Pr)

Inflow Area = 88,675 sf, 74.72% Impervious, Inflow Depth = 1.80" for 2-Year-Storm event
 Inflow = 5.91 cfs @ 12.06 hrs, Volume= 13,307 cf
 Outflow = 5.91 cfs @ 12.06 hrs, Volume= 13,307 cf, Atten= 0%, Lag= 0.0 min
 Routed to Reach DP-1P : DP-1P

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Reach WPLE: West Parking Lot (Ex)

Inflow Area = 11,584 sf, 0.00% Impervious, Inflow Depth = 1.34" for 2-Year-Storm event
 Inflow = 0.40 cfs @ 12.10 hrs, Volume= 1,290 cf
 Outflow = 0.40 cfs @ 12.10 hrs, Volume= 1,290 cf, Atten= 0%, Lag= 0.0 min
 Routed to Reach DP-1E : DP-1E

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Reach WPLP: West Parking Lot (Pr)

Inflow Area = 2,425 sf, 0.00% Impervious, Inflow Depth = 1.34" for 2-Year-Storm event
 Inflow = 0.08 cfs @ 12.10 hrs, Volume= 270 cf
 Outflow = 0.08 cfs @ 12.10 hrs, Volume= 270 cf, Atten= 0%, Lag= 0.0 min
 Routed to Reach DP-1P : DP-1P

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Pond 1P: Subsurface Storage

Inflow Area = 88,675 sf, 74.72% Impervious, Inflow Depth = 2.35" for 2-Year-Storm event
 Inflow = 5.36 cfs @ 12.09 hrs, Volume= 17,370 cf
 Outflow = 5.93 cfs @ 12.06 hrs, Volume= 14,457 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.01 cfs @ 12.06 hrs, Volume= 1,150 cf
 Primary = 5.91 cfs @ 12.06 hrs, Volume= 13,307 cf
 Routed to Reach EPLP : East Parking Lot (Pr)

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 216.60' @ 12.06 hrs Surf.Area= 3,434 sf Storage= 3,199 cf

Plug-Flow detention time= 119.6 min calculated for 14,433 cf (83% of inflow)
 Center-of-Mass det. time= 52.4 min (850.2 - 797.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	213.41'	1,053 cf	33.53'W x 102.43'L x 1.57'H Field A 5,392 cf Overall - 2,384 cf Embedded = 3,008 cf x 35.0% Voids
#2A	213.66'	2,145 cf	Ferguson R-Tank XD 5 x 900 Inside #1 Inside= 19.7"W x 9.8"H => 1.21 sf x 1.97'L = 2.4 cf Outside= 19.7"W x 9.8"H => 1.35 sf x 1.97'L = 2.6 cf 900 Chambers in 18 Rows
#3	214.98'	2 cf	Custom Stage Data (Prismatic) Listed below
		3,200 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
214.98	0	0	0
219.00	1	2	2

Device	Routing	Invert	Outlet Devices
#1	Discarded	213.41'	0.170 in/hr Exfiltration over Surface area
#2	Primary	216.25'	6.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#3	Primary	214.98'	2.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	215.15'	8.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.01 cfs @ 12.06 hrs HW=216.57' (Free Discharge)

↑ **1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=5.51 cfs @ 12.06 hrs HW=216.58' (Free Discharge)

↑ **2=Sharp-Crested Rectangular Weir** (Weir Controls 3.62 cfs @ 1.87 fps)

— **3=Orifice/Grate** (Orifice Controls 0.13 cfs @ 5.92 fps)

— **4=Orifice/Grate** (Orifice Controls 1.76 cfs @ 5.03 fps)

Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EX-1: EX-1	Runoff Area=79,516 sf 45.75% Impervious Runoff Depth=3.38" Tc=6.0 min CN=88 Runoff=6.95 cfs 22,428 cf
Subcatchment EX-2: EX-2	Runoff Area=11,584 sf 0.00% Impervious Runoff Depth=2.55" Tc=6.0 min CN=79 Runoff=0.78 cfs 2,457 cf
Subcatchment PR-1: PR-1	Runoff Area=88,675 sf 74.72% Impervious Runoff Depth=3.80" Tc=6.0 min CN=92 Runoff=8.44 cfs 28,056 cf
Subcatchment PR-2: PR-2	Runoff Area=2,425 sf 0.00% Impervious Runoff Depth=2.55" Tc=6.0 min CN=79 Runoff=0.16 cfs 514 cf
Reach DP-1E: DP-1E	Inflow=7.72 cfs 24,885 cf Outflow=7.72 cfs 24,885 cf
Reach DP-1P: DP-1P	Inflow=8.92 cfs 24,430 cf Outflow=8.92 cfs 24,430 cf
Reach EPLE: East Parking Lot (Ex)	Inflow=6.95 cfs 22,428 cf Outflow=6.95 cfs 22,428 cf
Reach EPLP: East Parking Lot (Pr)	Inflow=8.75 cfs 23,915 cf Outflow=8.75 cfs 23,915 cf
Reach WPLE: West Parking Lot (Ex)	Inflow=0.78 cfs 2,457 cf Outflow=0.78 cfs 2,457 cf
Reach WPLP: West Parking Lot (Pr)	Inflow=0.16 cfs 514 cf Outflow=0.16 cfs 514 cf
Pond 1P: Subsurface Storage	Peak Elev=216.75' Storage=3,199 cf Inflow=8.44 cfs 28,056 cf Discarded=0.01 cfs 1,229 cf Primary=8.75 cfs 23,915 cf Outflow=8.77 cfs 25,144 cf

Total Runoff Area = 182,200 sf Runoff Volume = 53,456 cf Average Runoff Depth = 3.52"
43.67% Pervious = 79,568 sf 56.33% Impervious = 102,632 sf

Summary for Subcatchment EX-1: EX-1

Runoff = 6.95 cfs @ 12.09 hrs, Volume= 22,428 cf, Depth= 3.38"
 Routed to Reach EPLE : East Parking Lot (Ex)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-Year-Storm Rainfall=4.70"

Area (sf)	CN	Description
43,138	79	50-75% Grass cover, Fair, HSG C
36,378	98	Unconnected pavement, HSG C
79,516	88	Weighted Average
43,138		54.25% Pervious Area
36,378		45.75% Impervious Area
36,378		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment EX-2: EX-2

Runoff = 0.78 cfs @ 12.09 hrs, Volume= 2,457 cf, Depth= 2.55"
 Routed to Reach WPLE : West Parking Lot (Ex)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-Year-Storm Rainfall=4.70"

Area (sf)	CN	Description
11,584	79	50-75% Grass cover, Fair, HSG C
11,584		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment PR-1: PR-1

Runoff = 8.44 cfs @ 12.09 hrs, Volume= 28,056 cf, Depth= 3.80"
 Routed to Pond 1P : Subsurface Storage

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-Year-Storm Rainfall=4.70"

Area (sf)	CN	Description
66,254	98	Unconnected pavement, HSG C
22,421	74	>75% Grass cover, Good, HSG C
88,675	92	Weighted Average
22,421		25.28% Pervious Area
66,254		74.72% Impervious Area
66,254		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment PR-2: PR-2

Runoff = 0.16 cfs @ 12.09 hrs, Volume= 514 cf, Depth= 2.55"
 Routed to Reach WPLP : West Parking Lot (Pr)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-Year-Storm Rainfall=4.70"

Area (sf)	CN	Description
2,425	79	50-75% Grass cover, Fair, HSG C
2,425		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Reach DP-1E: DP-1E

Inflow Area = 91,100 sf, 39.93% Impervious, Inflow Depth = 3.28" for 10-Year-Storm event
 Inflow = 7.72 cfs @ 12.09 hrs, Volume= 24,885 cf
 Outflow = 7.72 cfs @ 12.09 hrs, Volume= 24,885 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Reach DP-1P: DP-1P

Inflow Area = 91,100 sf, 72.73% Impervious, Inflow Depth = 3.22" for 10-Year-Storm event
 Inflow = 8.92 cfs @ 12.09 hrs, Volume= 24,430 cf
 Outflow = 8.92 cfs @ 12.09 hrs, Volume= 24,430 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Reach EPLE: East Parking Lot (Ex)

Inflow Area = 79,516 sf, 45.75% Impervious, Inflow Depth = 3.38" for 10-Year-Storm event
 Inflow = 6.95 cfs @ 12.09 hrs, Volume= 22,428 cf
 Outflow = 6.95 cfs @ 12.09 hrs, Volume= 22,428 cf, Atten= 0%, Lag= 0.0 min
 Routed to Reach DP-1E : DP-1E

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Reach EPLP: East Parking Lot (Pr)

Inflow Area = 88,675 sf, 74.72% Impervious, Inflow Depth = 3.24" for 10-Year-Storm event
 Inflow = 8.75 cfs @ 12.09 hrs, Volume= 23,915 cf
 Outflow = 8.75 cfs @ 12.09 hrs, Volume= 23,915 cf, Atten= 0%, Lag= 0.0 min
 Routed to Reach DP-1P : DP-1P

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Reach WPLE: West Parking Lot (Ex)

Inflow Area = 11,584 sf, 0.00% Impervious, Inflow Depth = 2.55" for 10-Year-Storm event
 Inflow = 0.78 cfs @ 12.09 hrs, Volume= 2,457 cf
 Outflow = 0.78 cfs @ 12.09 hrs, Volume= 2,457 cf, Atten= 0%, Lag= 0.0 min
 Routed to Reach DP-1E : DP-1E

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Reach WPLP: West Parking Lot (Pr)

Inflow Area = 2,425 sf, 0.00% Impervious, Inflow Depth = 2.55" for 10-Year-Storm event
 Inflow = 0.16 cfs @ 12.09 hrs, Volume= 514 cf
 Outflow = 0.16 cfs @ 12.09 hrs, Volume= 514 cf, Atten= 0%, Lag= 0.0 min
 Routed to Reach DP-1P : DP-1P

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Pond 1P: Subsurface Storage

Inflow Area = 88,675 sf, 74.72% Impervious, Inflow Depth = 3.80" for 10-Year-Storm event
 Inflow = 8.44 cfs @ 12.09 hrs, Volume= 28,056 cf
 Outflow = 8.77 cfs @ 12.09 hrs, Volume= 25,144 cf, Atten= 0%, Lag= 0.3 min
 Discarded = 0.01 cfs @ 12.09 hrs, Volume= 1,229 cf
 Primary = 8.75 cfs @ 12.09 hrs, Volume= 23,915 cf
 Routed to Reach EPLP : East Parking Lot (Pr)

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 216.75' @ 12.09 hrs Surf.Area= 3,435 sf Storage= 3,199 cf

Plug-Flow detention time= 89.1 min calculated for 25,144 cf (90% of inflow)
 Center-of-Mass det. time= 39.1 min (823.8 - 784.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	213.41'	1,053 cf	33.53'W x 102.43'L x 1.57'H Field A 5,392 cf Overall - 2,384 cf Embedded = 3,008 cf x 35.0% Voids
#2A	213.66'	2,145 cf	Ferguson R-Tank XD 5 x 900 Inside #1 Inside= 19.7"W x 9.8"H => 1.21 sf x 1.97'L = 2.4 cf Outside= 19.7"W x 9.8"H => 1.35 sf x 1.97'L = 2.6 cf 900 Chambers in 18 Rows
#3	214.98'	2 cf	Custom Stage Data (Prismatic) Listed below
		3,200 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
214.98	0	0	0
219.00	1	2	2

Device	Routing	Invert	Outlet Devices
#1	Discarded	213.41'	0.170 in/hr Exfiltration over Surface area
#2	Primary	216.25'	6.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#3	Primary	214.98'	2.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	215.15'	8.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.01 cfs @ 12.09 hrs HW=216.73' (Free Discharge)

↑ **1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=8.50 cfs @ 12.09 hrs HW=216.73' (Free Discharge)

↑ **2=Sharp-Crested Rectangular Weir** (Weir Controls 6.49 cfs @ 2.27 fps)

↑ **3=Orifice/Grate** (Orifice Controls 0.14 cfs @ 6.22 fps)

↑ **4=Orifice/Grate** (Orifice Controls 1.88 cfs @ 5.38 fps)

Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EX-1: EX-1	Runoff Area=79,516 sf 45.75% Impervious Runoff Depth=5.30" Tc=6.0 min CN=88 Runoff=10.64 cfs 35,135 cf
Subcatchment EX-2: EX-2	Runoff Area=11,584 sf 0.00% Impervious Runoff Depth=4.31" Tc=6.0 min CN=79 Runoff=1.31 cfs 4,161 cf
Subcatchment PR-1: PR-1	Runoff Area=88,675 sf 74.72% Impervious Runoff Depth=5.76" Tc=6.0 min CN=92 Runoff=12.50 cfs 42,555 cf
Subcatchment PR-2: PR-2	Runoff Area=2,425 sf 0.00% Impervious Runoff Depth=4.31" Tc=6.0 min CN=79 Runoff=0.27 cfs 871 cf
Reach DP-1E: DP-1E	Inflow=11.95 cfs 39,296 cf Outflow=11.95 cfs 39,296 cf
Reach DP-1P: DP-1P	Inflow=12.77 cfs 39,224 cf Outflow=12.77 cfs 39,224 cf
Reach EPLE: East Parking Lot (Ex)	Inflow=10.64 cfs 35,135 cf Outflow=10.64 cfs 35,135 cf
Reach EPLP: East Parking Lot (Pr)	Inflow=12.50 cfs 38,353 cf Outflow=12.50 cfs 38,353 cf
Reach WPLE: West Parking Lot (Ex)	Inflow=1.31 cfs 4,161 cf Outflow=1.31 cfs 4,161 cf
Reach WPLP: West Parking Lot (Pr)	Inflow=0.27 cfs 871 cf Outflow=0.27 cfs 871 cf
Pond 1P: Subsurface Storage	Peak Elev=216.91' Storage=3,199 cf Inflow=12.50 cfs 42,555 cf Discarded=0.01 cfs 1,288 cf Primary=12.50 cfs 38,353 cf Outflow=12.51 cfs 39,641 cf
Total Runoff Area = 182,200 sf Runoff Volume = 82,722 cf Average Runoff Depth = 5.45" 43.67% Pervious = 79,568 sf 56.33% Impervious = 102,632 sf	

Summary for Subcatchment EX-1: EX-1

Runoff = 10.64 cfs @ 12.09 hrs, Volume= 35,135 cf, Depth= 5.30"
 Routed to Reach EPLE : East Parking Lot (Ex)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100-Year-Storm Rainfall=6.70"

Area (sf)	CN	Description
43,138	79	50-75% Grass cover, Fair, HSG C
36,378	98	Unconnected pavement, HSG C
79,516	88	Weighted Average
43,138		54.25% Pervious Area
36,378		45.75% Impervious Area
36,378		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment EX-2: EX-2

Runoff = 1.31 cfs @ 12.09 hrs, Volume= 4,161 cf, Depth= 4.31"
 Routed to Reach WPLE : West Parking Lot (Ex)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100-Year-Storm Rainfall=6.70"

Area (sf)	CN	Description
11,584	79	50-75% Grass cover, Fair, HSG C
11,584		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment PR-1: PR-1

Runoff = 12.50 cfs @ 12.09 hrs, Volume= 42,555 cf, Depth= 5.76"
 Routed to Pond 1P : Subsurface Storage

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100-Year-Storm Rainfall=6.70"

Area (sf)	CN	Description
66,254	98	Unconnected pavement, HSG C
22,421	74	>75% Grass cover, Good, HSG C
88,675	92	Weighted Average
22,421		25.28% Pervious Area
66,254		74.72% Impervious Area
66,254		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment PR-2: PR-2

Runoff = 0.27 cfs @ 12.09 hrs, Volume= 871 cf, Depth= 4.31"
 Routed to Reach WPLP : West Parking Lot (Pr)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100-Year-Storm Rainfall=6.70"

Area (sf)	CN	Description
2,425	79	50-75% Grass cover, Fair, HSG C
2,425		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Reach DP-1E: DP-1E

Inflow Area = 91,100 sf, 39.93% Impervious, Inflow Depth = 5.18" for 100-Year-Storm event
 Inflow = 11.95 cfs @ 12.09 hrs, Volume= 39,296 cf
 Outflow = 11.95 cfs @ 12.09 hrs, Volume= 39,296 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Reach DP-1P: DP-1P

Inflow Area = 91,100 sf, 72.73% Impervious, Inflow Depth = 5.17" for 100-Year-Storm event
 Inflow = 12.77 cfs @ 12.09 hrs, Volume= 39,224 cf
 Outflow = 12.77 cfs @ 12.09 hrs, Volume= 39,224 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Reach EPLE: East Parking Lot (Ex)

Inflow Area = 79,516 sf, 45.75% Impervious, Inflow Depth = 5.30" for 100-Year-Storm event
 Inflow = 10.64 cfs @ 12.09 hrs, Volume= 35,135 cf
 Outflow = 10.64 cfs @ 12.09 hrs, Volume= 35,135 cf, Atten= 0%, Lag= 0.0 min
 Routed to Reach DP-1E : DP-1E

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Reach EPLP: East Parking Lot (Pr)

Inflow Area = 88,675 sf, 74.72% Impervious, Inflow Depth = 5.19" for 100-Year-Storm event
 Inflow = 12.50 cfs @ 12.09 hrs, Volume= 38,353 cf
 Outflow = 12.50 cfs @ 12.09 hrs, Volume= 38,353 cf, Atten= 0%, Lag= 0.0 min
 Routed to Reach DP-1P : DP-1P

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Reach WPLE: West Parking Lot (Ex)

Inflow Area = 11,584 sf, 0.00% Impervious, Inflow Depth = 4.31" for 100-Year-Storm event
 Inflow = 1.31 cfs @ 12.09 hrs, Volume= 4,161 cf
 Outflow = 1.31 cfs @ 12.09 hrs, Volume= 4,161 cf, Atten= 0%, Lag= 0.0 min
 Routed to Reach DP-1E : DP-1E

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Reach WPLP: West Parking Lot (Pr)

Inflow Area = 2,425 sf, 0.00% Impervious, Inflow Depth = 4.31" for 100-Year-Storm event
 Inflow = 0.27 cfs @ 12.09 hrs, Volume= 871 cf
 Outflow = 0.27 cfs @ 12.09 hrs, Volume= 871 cf, Atten= 0%, Lag= 0.0 min
 Routed to Reach DP-1P : DP-1P

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Pond 1P: Subsurface Storage

Inflow Area = 88,675 sf, 74.72% Impervious, Inflow Depth = 5.76" for 100-Year-Storm event
 Inflow = 12.50 cfs @ 12.09 hrs, Volume= 42,555 cf
 Outflow = 12.51 cfs @ 12.09 hrs, Volume= 39,641 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.01 cfs @ 12.09 hrs, Volume= 1,288 cf
 Primary = 12.50 cfs @ 12.09 hrs, Volume= 38,353 cf
 Routed to Reach EPLP : East Parking Lot (Pr)

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 216.91' @ 12.09 hrs Surf.Area= 3,435 sf Storage= 3,199 cf

Plug-Flow detention time= 67.8 min calculated for 39,641 cf (93% of inflow)
 Center-of-Mass det. time= 31.0 min (804.9 - 774.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	213.41'	1,053 cf	33.53'W x 102.43'L x 1.57'H Field A 5,392 cf Overall - 2,384 cf Embedded = 3,008 cf x 35.0% Voids
#2A	213.66'	2,145 cf	Ferguson R-Tank XD 5 x 900 Inside #1 Inside= 19.7"W x 9.8"H => 1.21 sf x 1.97'L = 2.4 cf Outside= 19.7"W x 9.8"H => 1.35 sf x 1.97'L = 2.6 cf 900 Chambers in 18 Rows
#3	214.98'	2 cf	Custom Stage Data (Prismatic) Listed below
		3,200 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
214.98	0	0	0
219.00	1	2	2

Device	Routing	Invert	Outlet Devices
#1	Discarded	213.41'	0.170 in/hr Exfiltration over Surface area
#2	Primary	216.25'	6.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#3	Primary	214.98'	2.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	215.15'	8.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.01 cfs @ 12.09 hrs HW=216.90' (Free Discharge)

↑ **1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=12.16 cfs @ 12.09 hrs HW=216.90' (Free Discharge)

↑ **2=Sharp-Crested Rectangular Weir** (Weir Controls 10.02 cfs @ 2.63 fps)

— **3=Orifice/Grate** (Orifice Controls 0.14 cfs @ 6.52 fps)

— **4=Orifice/Grate** (Orifice Controls 2.00 cfs @ 5.73 fps)

Operations & Maintenance Plan

Operation and Maintenance Plan

Town of Needham
Needham High School Tennis
Court Renovation

609 Webster Street
Needham, Massachusetts

Owner:

Town of Needham
1471 Highland Ave
Needham, MA 02492
(781) 455-7500

Submitted To:

Town of Needham
Planning Board
1471 Highland Ave
Needham, MA 02492
(781) 455-7526

Applicant:

Activitas, Inc.
70 Milton Street
Dedham, MA 02026
(781) 355-7040



M. Buczynski
2/6/23

February 6, 2024

Table of Contents

Table of Contents.....*i*

1.0 Operation and Maintenance Plan **1**

 1.1 Area Drains 1

 1.2 Subsurface Chamber System 1

 1.3 Outlet Control Structure 1

 1.4 Vegetated Areas Maintenance 2

 1.5 Spill Prevention and Control Plan 2

2.0 Appendices **3**

 2.1 Operations and Maintenance Logs 1

1.0 Operation and Maintenance Plan

The Town of Needham High School Tennis project site is subject to Standard 9 - Operation and Maintenance Plan of the Massachusetts Stormwater Handbook. This Operation and Maintenance Plan details management recommendations for long-term pollution prevention.

The area to be renovated is the existing Needham High School Tennis Facility located at 609 Webster Street. The project scope is limited to an area of approximately 2.09 acres. The project consists of installation of four (4) new tennis courts, renovations to the existing four (4) tennis courts, ADA accessible walkways leading from the parking lot to tennis court areas, new spectator seating areas, and drainage improvements.

The surfacing types within the limit of work consist of cement concrete, post tension concrete, bituminous asphalt, and grassed areas.

1.1 Area Drains

Area drains should be cleaned twice per year. Area drains should be checked at least four times a year and at the end of the foliage and snow-removal seasons.

- Record all maintenance and repairs. Submit reports every year for compliance.
- Inspect all area drains after every storm (or at least four times a year) and at the end of the foliage and snow-removal seasons.
- If sediment is more than six inches deep and/or there are floatable pollutants, they will be removed from the drain and disposed of.
- During colder periods, area drain grates shall be kept free of ice and snow.
- During warmer periods, area drain grates shall be kept free of leaves, litter, sand, and other debris.

1.2 Subsurface Chamber System

The subsurface chamber system should be inspected monthly within the first year of installation. Inspections should begin with upstream and downstream structures for signs of sediment or other debris and standing water in the upstream manhole. Use of a pipe camera is recommended to inspect the pipes and chambers. The recharge system has been designed with inspection ports at the end of each row of chambers. If warranted, sections of the turf field should be removed, and inspection ports accessed.

- The owner shall keep a maintenance log which shall include details of any events which would have an effect on the system's operational capacity.
- The operation and maintenance procedure shall be reviewed periodically and changed to meet site conditions.
- Maintenance of the stormwater management system shall be performed by qualified workers and shall follow applicable occupational health and safety requirements.

Debris removed from the stormwater management system shall be disposed of in accordance with

1.3 Outlet Control Structure

There will be one outlet control structure on site to control the flow out of the tennis court drainage system. The outlet control structure should be inspected twice each year and cleaned twice per year. The outlet control structure should be checked at least four times a year and at the end of the foliage and snow-removal season.

- Record all maintenance and repairs. Submit reports every year for compliance.
- Inspect the outlet control structure every storm (or at least four times a year) and at the end of the foliage and snow-removal season.
- If sediment is more than six inches deep and/or there are floatable pollutants, they will be removed from the outlet control structure and disposed of.

1.4 Vegetated Areas Maintenance

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

- Inspect planted areas on a semi-annual basis and remove any litter.
- Maintain planted areas adjacent to pavement to prevent soil washout.
- Immediately clean any soil deposited on pavement.
- Re-seed bare areas; install appropriate erosion control measures when native soil is exposed or erosion channels are forming.
- Plant alternative mixture of grass species in the event of unsuccessful establishment.

1.5 Spill Prevention and Control Plan

The Property Owner will be responsible for training of people in the proper handling and cleanup of spilled materials. No spilled hazardous materials or hazardous wastes will be allowed to come in contact with stormwater discharges. If such contact occurs, the stormwater discharge will be contained on site until appropriate measures in compliance with state and federal regulations are taken to dispose of such contaminated stormwater.

In order to minimize the potential for a spill of hazardous materials to come into contact with stormwater, the following steps will be implemented:

1. All materials with hazardous properties (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, cleaning solvents, additives for soil stabilization, concrete curing compounds and additives, etc.) will be stored in a secure location, with their lids on, preferably under cover, when not in use.
2. The minimum practical quantity of all such materials will be kept on the site.
3. A spill control and containment kit (containing, for example, absorbent materials, acid neutralizing powder, brooms, dustpans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the maintenance area of the site.
4. Manufacturers recommended methods for spill cleanup will be clearly posted and site personnel will be trained regarding these procedures and the location of the information and cleanup supplies.

In the event of a spill, the following procedures should be followed:

1. All spills will be cleaned up immediately after discovery.
2. The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with hazardous substances.
3. The Owner will be notified immediately.
4. Spills of toxic or hazardous materials will be reported to the appropriate federal, state, and/or local government agency, regardless of the size of the spill.

The Property Owner will be the spill prevention and response coordinator. He will designate the individuals who will receive spill prevention and response training. These individuals will each become responsible for a particular phase of prevention and response. The names of these personnel will be posted in the material storage area and other applicable areas onsite.

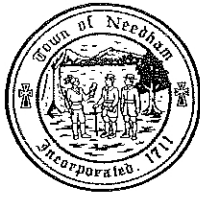
2.0 Appendices

2.1 Operations and Maintenance Logs

Inspection for Year: _____

NOTE: See Operations and Maintenance Plan for details of inspection requirements.

Structural Best Management Practice	Action	Date Completed	Comments	Completed By	Action	Date Completed	Comments	Completed By
Area Drains	Inspect				Clean (if required— See Plan for details.)			
Outlet Control Structure	Inspect				Clean (if required— See Plan for details.)			
Subsurface Recharge System—Inspect every 5 years, clean as required.	Inspect				Clean (if required— See Plan for details.)			



**TOWN OF NEEDHAM, MASSACHUSETTS
PUBLIC WORKS DEPARTMENT
500 Dedham Avenue, Needham, MA 02492
Telephone (781) 455-7550 FAX (781) 449-9023**

March 13, 2024

Needham Planning Board
Needham Public Service Administration Building
Needham, MA 02492

RE: Case Review-Special Permit Amendment
609 Webster Street- Special Permit

Dear Members of the Board,

The Department of Public Works has completed its review of the above-referenced Special Permit to amend the special Permit No 2004-01 to include the renovation and addition of new tennis courts at Needham High School.

The documents submitted for review are as follows:

- Application for the Amendment to Major Project Special Permit No. 2024-01
- Letter from Chris Heep, Town Counsel, dated February 26, 2024
- Plan set entitled "Town Of Needham, Needham High School, Tennis Court Renovation" prepared by Activitas consisting of 8 Sheets
- Stormwater Management And Erosion Control Report, prepared by Activitas, dated February 6, 2024

Our comments and recommendations are as follows:

- We have no comment or objection to the Special Permit

If you have any questions regarding the above, please contact our office at 781-455-7538.

Truly yours,

Thomas A Ryder
Town Engineer
tryder

From: [John Schlittler](#)
To: [Alexandra Clee](#)
Subject: RE: Request for comment - Needham High School Amendment - Tennis Courts
Date: Wednesday, February 28, 2024 3:51:39 PM

Police has no issue

From: Alexandra Clee <aclee@needhamma.gov>
Sent: Wednesday, February 28, 2024 9:00 AM
To: Joseph Prondak <jprondak@needhamma.gov>; Thomas Ryder <tryder@needhamma.gov>; John Schlittler <JSchlittler@needhamma.gov>; Tara Gurge <TGurge@needhamma.gov>; Timothy McDonald <tmcDonald@needhamma.gov>; Tom Conroy <TConroy@needhamma.gov>; Carys Lustig <clustig@needhamma.gov>
Cc: Elisa Litchman <elitchman@needhamma.gov>; Lee Newman <LNewman@needhamma.gov>; Justin Savignano <jsavignano@needhamma.gov>; Donald Anastasi <DAnastasi@needhamma.gov>; Jay Steeves <steevesj@needhamma.gov>; Ronnie Gavel <rgavel@needhamma.gov>; Edward Olsen <eolsen@needhamma.gov>
Subject: Request for comment - Needham High School Amendment - Tennis Courts

Dear all,

We have received the attached application materials for the proposal to permit the renovation of four (4) existing tennis courts, the addition of four (4) new tennis courts, installation of stormwater management improvements, ADA accessible walkways, and landscape improvements. More information can be found in the attachments.

The Planning Board has scheduled this matter for March 19, 2024. Please send your comments by Wednesday March 13, 2024 at the latest.

The documents attached for your review are as follows:

1. Application for the Amendment to Major Project Special Permit No. 2024-01.
2. Letter from Chris Heep, Town Counsel, dated February 26, 2024.
3. Plan set entitled "Town Of Needham, Needham High School, Tennis Court Renovation" prepared by Activitas, 70 Milton Street, Dedham, MA 02026, consisting of 9 sheets: Sheet 1, Cover Sheet, dated February 6, 2024; Sheet 2, Sheet EX1.1, entitled "Existing Conditions Plan," dated February 6, 2024; Sheet 3, Sheet SP1.1, entitled "Site Preparation Plan," dated February 6, 2024; Sheet 4, Sheet SP1.2, entitled "Site Preparation Detail Sheet," dated February 6, 2024; Sheet 5, Sheet L1.1, entitled "Layout and Materials Plan," dated February 6, 2024; Sheet 6, Sheet L2.1, entitled "Grading and Utility Plan," dated February 6, 2024; Sheet 7, Sheet L3.1, entitled "Detail Sheet I," dated February 6, 2024; Sheet 8, Sheet L3.2, entitled "Detail Sheet II," dated February 6, 2024; Sheet 9, Sheet L3.3, entitled "Detail Sheet II," dated February 6, 2024.

4. Stormwater Management And Erosion Control Report, prepared by Activitas, 70 Milton Street, Dedham, MA 02026, dated February 6, 2024.

Thank you, alex.

Alexandra Clee
Assistant Town Planner
Needham, MA
781-455-7550 ext. 271
www.needhamma.gov

From: [Tara Gurge](#)
To: [Alexandra Clee](#); [Lee Newman](#)
Cc: [Sainath Palani](#)
Subject: FW: Request for comment - Needham High School Amendment - Tennis Courts
Date: Monday, March 4, 2024 9:13:33 AM
Attachments: [image002.png](#)
[image003.png](#)

Hello Alex / Lee –

Here are the Public Health Divisions comments for the proposed Planning Board project for **the Needham High School Amendment - Tennis Courts**. See below:

- Sufficient trash and recycling containers shall be placed on site in the existing and the new tennis court areas and these waste containers must be on a sufficient trash and recycling pick up schedule. The area must be left in a clean and sanitary condition after each service and include the clean-up of any waste left near the courts and canopy in order to prevent the attraction of pests.
- Not sure if any new lighting will be installed around the courts, if so, bright light shall not be allowed to migrate onto abutting neighboring properties. As long as any new or existing installed lights are directed downward and are not allowed to have bright light migrate into other neighboring properties, that will prevent the risk of causing any potential public health nuisance issues.
- No stormwater runoff issues should be created by this addition/renovation that would impact neighbors and that water cannot stagnate in or around the courts. We see that you conducted a stormwater analysis, which should address this potential concern.
- We request that no smoking and littering signs be posted by the canopy.

Please let us know if you have any questions on these requirements or let us know if you need any additional information from us.

Thanks,



TARA E. GURGE, R.S., C.E.H.T., M.S. (she/her/hers)
ASSISTANT PUBLIC HEALTH DIRECTOR
Needham Public Health Division
Health and Human Services Department
178 Rosemary Street
Needham, MA 02494
Ph- (781) 455-7940; Ext. 211/Fax- (781) 455-7922
Mobile- (781) 883-0127
Email - tgurge@needhamma.gov
Web- www.needhamma.gov/health



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[Follow Needham Public Health on Twitter!](#)

From: Alexandra Clee <aclee@needhamma.gov>

Sent: Wednesday, February 28, 2024 9:00 AM

To: Joseph Prondak <jprondak@needhamma.gov>; Thomas Ryder <tryder@needhamma.gov>; John Schlittler <JSchlittler@needhamma.gov>; Tara Gurge <TGurge@needhamma.gov>; Timothy McDonald <tmcdonald@needhamma.gov>; Tom Conroy <TConroy@needhamma.gov>; Carys Lustig <clustig@needhamma.gov>

Cc: Elisa Litchman <elitchman@needhamma.gov>; Lee Newman <LNewman@needhamma.gov>; Justin Savignano <jsavignano@needhamma.gov>; Donald Anastasi <DAnastasi@needhamma.gov>; Jay Steeves <steevesj@needhamma.gov>; Ronnie Gavel <rgavel@needhamma.gov>; Edward Olsen <eolsen@needhamma.gov>

Subject: Request for comment - Needham High School Amendment - Tennis Courts

Dear all,

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entitled "Detail Sheet I," dated February 6, 2024; Sheet 8, Sheet L3.2, entitled "Detail Sheet II," dated February 6, 2024; Sheet 9, Sheet L3.3, entitled "Detail Sheet II," dated February 6, 2024.

4. Stormwater Management And Erosion Control Report, prepared by Activitas, 70 Milton Street, Dedham, MA 02026, dated February 6, 2024.

Thank you, alex.

Alexandra Clee
Assistant Town Planner
Needham, MA
781-455-7550 ext. 271
www.needhamma.gov

From: [Joseph Prondak](#)
To: [Alexandra Clee](#)
Subject: RE: Request for comment - Needham High School Amendment - Tennis Courts
Date: Thursday, February 29, 2024 11:42:58 AM

Hello Alex,

We have reviewed the plans on this proposal and have no additional comments.

Sincerely,

Joe Prondak
Needham Building Commissioner
781-455-7550 x308

From: Alexandra Clee <aclee@needhamma.gov>
Sent: Wednesday, February 28, 2024 9:00 AM
To: Joseph Prondak <jprondak@needhamma.gov>; Thomas Ryder <tryder@needhamma.gov>; John Schlittler <JSchlittler@needhamma.gov>; Tara Gurge <TGurge@needhamma.gov>; Timothy McDonald <tmcdonald@needhamma.gov>; Tom Conroy <TConroy@needhamma.gov>; Carys Lustig <clustig@needhamma.gov>
Cc: Elisa Litchman <elitchman@needhamma.gov>; Lee Newman <LNewman@needhamma.gov>; Justin Savignano <jsavignano@needhamma.gov>; Donald Anastasi <DAnastasi@needhamma.gov>; Jay Steeves <steevesj@needhamma.gov>; Ronnie Gavel <rgavel@needhamma.gov>; Edward Olsen <eolsen@needhamma.gov>
Subject: Request for comment - Needham High School Amendment - Tennis Courts

Dear all,

We have received the attached application materials for the proposal to permit the renovation of four (4) existing tennis courts, the addition of four (4) new tennis courts, installation of stormwater management improvements, ADA accessible walkways, and landscape improvements. More information can be found in the attachments.

The Planning Board has scheduled this matter for March 19, 2024. Please send your comments by Wednesday March 13, 2024 at the latest.

The documents attached for your review are as follows:

1. Application for the Amendment to Major Project Special Permit No. 2024-01.
2. Letter from Chris Heep, Town Counsel, dated February 26, 2024.
3. Plan set entitled "Town Of Needham, Needham High School, Tennis Court Renovation" prepared by Activitas, 70 Milton Street, Dedham, MA 02026, consisting of 9 sheets: Sheet 1,

Cover Sheet, dated February 6, 2024; Sheet 2, Sheet EX1.1, entitled "Existing Conditions Plan," dated February 6, 2024; Sheet 3, Sheet SP1.1, entitled "Site Preparation Plan," dated February 6, 2024; Sheet 4, Sheet SP1.2, entitled "Site Preparation Detail Sheet," dated February 6, 2024; Sheet 5, Sheet L1.1, entitled "Layout and Materials Plan," dated February 6, 2024; Sheet 6, Sheet L2.1, entitled "Grading and Utility Plan," dated February 6, 2024; Sheet 7, Sheet L3.1, entitled "Detail Sheet I," dated February 6, 2024; Sheet 8, Sheet L3.2, entitled "Detail Sheet II," dated February 6, 2024; Sheet 9, Sheet L3.3, entitled "Detail Sheet II," dated February 6, 2024.

4. Stormwater Management And Erosion Control Report, prepared by Activitas, 70 Milton Street, Dedham, MA 02026, dated February 6, 2024.

Thank you, alex.

Alexandra Clee
Assistant Town Planner
Needham, MA
781-455-7550 ext. 271
www.needhamma.gov

From: [Edward Olsen](#)
To: [Alexandra Clee](#)
Subject: RE: Request for comment - Needham High School Amendment - Tennis Courts
Date: Friday, March 8, 2024 11:23:32 AM

Hi Alex,

I have reviewed this application and plans for this Tennis court renovation work. Parks & Forestry has no objections. This proposed work has our support as it moves forward.

Thanks,

Eddie

From: Alexandra Clee <aclee@needhamma.gov>
Sent: Wednesday, February 28, 2024 9:00 AM
To: Joseph Prondak <jprondak@needhamma.gov>; Thomas Ryder <tryder@needhamma.gov>; John Schlittler <JSchlittler@needhamma.gov>; Tara Gurge <TGurge@needhamma.gov>; Timothy McDonald <tmcdonald@needhamma.gov>; Tom Conroy <TConroy@needhamma.gov>; Carys Lustig <clustig@needhamma.gov>
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Thank you, alex.

Alexandra Clee
Assistant Town Planner
Needham, MA
781-455-7550 ext. 271
www.needhamma.gov

ARTICLE 1: AMEND ZONING BY-LAW – SOLAR ENERGY SYSTEMS

To see if the Town will vote to amend the Zoning By-Law as follows:

1. In Section 1.3 Definitions, by adding the following terms and definitions in the appropriate alphabetical location as follows:

“Solar Energy System - a device or structural design feature, a substantial purpose of which is to provide daylight for interior lighting or provide for the collection, storage, and distribution of solar energy for space heating or cooling, electricity generation, or water heating. Solar Energy Systems include the following system types:

1. A Solar Energy System, Active: A solar energy system whose primary purpose is to harvest solar energy into another form of energy or to transfer heat from a collector to another medium using mechanical, electrical, or chemical means. Active Solar Energy Systems include, but are not limited to, the following installation types:
 - a) Solar Energy System, Building-mounted: An Active Solar Energy System that is structurally mounted to a building or structure.
 - b) Solar Energy System, Roof-mounted: A special application of a Building-mounted Solar Energy System that is structurally mounted to the roof of a building or structure.
 - c) Solar Energy System, Building-mounted Canopy: A special application of a Building-mounted Solar Energy System that is installed on top of a building with a flat roof that maintains the function of the area beneath the canopy.
 - d) Solar Energy System, Ground-mounted: An Active Solar Energy System that is structurally mounted to the ground.
 - e) Solar Energy System, Small-Scale Ground-mounted: A Ground-mounted Solar Energy System that occupies 1,500 square feet of surface area or less.
 - f) Solar Energy System, Medium-Scale Ground-mounted: A Ground-mounted Solar Energy System that occupies more than 1,500 square feet, but less than 40,000 square feet of surface area.
 - g) Solar Parking Canopy: A special application of a Ground-mounted Solar Energy System that is installed on top of a parking surface or paved surface that maintains the function of the area beneath the canopy.
 - h) Solar Energy System, Building-integrated Photovoltaic (BIPV): An Active Solar Energy System that consists of integrating solar photovoltaic (PV) modules into the surface of a building or structure, where the solar panels themselves function as, or are integrated into, a building material (i.e., roof shingles, siding, windows, skylights) or structural element (i.e., façade). The generation of solar energy is secondary to the function of the building material or structural element.
 - i) Solar Energy System, Surface-integrated: An Active Solar Energy System that is not building-mounted and is integrated into a ground level surface, such as a driveway, walkway, patio surface, path, or parking area, where the solar panels themselves function

as, or are integrated into, the surface material. The generation of solar energy is secondary to the function of the surface element.

2. Solar Energy System, Passive: A Solar Energy System that captures solar light or heat without transforming it to another form of energy or transferring the energy via a heat exchanger.”
2. Amend Section 6, Special Regulations, by adding a new Subsection 6.13 Accessory Uses – Solar Energy Systems, to read as follows:

“6.13 Accessory Uses – Solar Energy Systems

6.13.1 Basic Requirements

- a) Roof-mounted Solar Energy Systems shall be permitted in all use districts as-of-right. The installation of Roof-mounted Solar Energy Systems that: (i) comply with the regulations provided in this section; (ii) are located on properties with nonconforming uses or structures; and (iii) do not increase the nonconformity of such nonconforming uses or structures except with respect to the dimensions of the Roof-mounted Solar Energy System in question shall not be considered a change, extension or alteration that requires a finding by the Zoning Board of Appeals per M.G.L. c.40A s.6.
- b) In residential districts: Small-scale Ground-mounted Solar Energy Systems shall be permitted in rear and side yards as-of-right at the District-level setback as defined in Section 6.13.2.c)4). Small-scale Ground-mounted Solar Energy Systems may be permitted in the front yard by a Special Permit from the Board of Appeals at the applicable District-level setback as defined in Section 6.13.2.c)4). Screening or landscaping of such systems from view from abutting lots or from a street, by plantings, walls, fences or other devices shall be provided. Solar Parking Canopies shall be permitted in rear and side yards as-of-right. Medium-scale Ground-mounted Solar Energy Systems shall be permitted in the rear and side yards as-of-right subject to site plan review by the Planning Board.
- c) In nonresidential districts: Small-scale Ground-mounted Solar Energy Systems shall be permitted in rear and side yards as-of-right. Medium-scale Ground-mounted Solar Energy Systems and Solar Parking Canopies are permitted in the rear and side yards as-of-right subject to site plan review by the Planning Board. The same regulations shall apply in residential districts for uses allowed by operation of M.G.L. c.40A s.3, or other state and federal statutes.
- d) In the New England Business Center (NEBC) District, Mixed Use-128 (MU-128) District and in the portion of the Highland Commercial-128 (HC-128) District located a) north of Highland Avenue and b) south of Highland Avenue and west of Second Avenue: Solar Energy Building-mounted Canopy Systems are permitted as-of-right subject to site plan review by the Planning Board. In the Business (B), Chestnut Street Business (CSB), Center Business (CB), Avery Square Business (ASB), Hillside Avenue Business (HAB), Neighborhood Business (NB), Elder Services (ES), Industrial (I), Industrial-1 (IND-1), Highway Commercial 1 (HC-1), and Institutional (I) districts Solar Energy Building-mounted Canopy Systems are permitted by special permit subject to site plan review by the Planning Board.
- e) BIPV Solar Energy Systems and Surface-integrated Solar Energy Systems shall be permitted as of right as part of any use or site otherwise allowed in any zoning district.

6.13.2 Dimensional Requirement

a) Maximum Percentage (%) Lot Coverage

- 1) For the purpose of regulating lot coverage, the area of Active Solar Energy Systems shall count toward the Maximum Percentage (%) Lot Coverage as defined and regulated in the Dimensional Regulations provided in Section 4 of the Needham Zoning By-Laws.
- 2) An Active Solar Energy System's contribution toward Maximum Percentage (%) Lot Coverage shall be calculated as the total area of the system's panels. For example, if a system includes ten (10) panels that are each three (3) feet by five (5) feet, the system's contribution to Maximum Percentage (%) Lot Coverage would equal 150 square feet.
- 3) Such part of a Building-mounted Solar Energy System or Solar Parking Canopy that extends beyond the impervious area over which it is placed shall count toward Maximum Percentage (%) Lot Coverage.
- 4) For Ground-mounted Solar Energy Systems, the total surface area of the Solar Energy System shall count toward Maximum Percentage (%) Lot Coverage.
- 5) To avoid double counting, the surface area of any Active Solar Energy System that is above an existing impervious surface shall not be included in the calculation of Maximum Percentage (%) Lot Coverage (i.e. the addition of a Roof-mounted Solar Energy System shall not increase the calculated Maximum Percentage Lot Coverage on a lot because it will be located within a surface area - the building's footprint - that is already counted).

b) Height

1) Building-mounted Solar Energy Systems:

System Type	Roof Pitch	Siting	Maximum Height
Roof mounted Solar Energy System	Pitch is greater than or equal to 3.2:12 (a fifteen (15) degree angle)	All districts	Roof-mounted Solar Energy Systems may extend up to one (1) foot above the roof surface on which the system is installed beyond applicable building height limits. Systems shall be surface-mounted and installed parallel to the roof surface.

Roof-mounted Solar Energy System	Pitch is less than 3.2:12 (a fifteen (15) degree angle)	All districts	Roof-mounted Solar Energy Systems may extend up to three (3) feet above the roof surface on which the system is installed beyond applicable building height limits. If the surface on which the system is to be mounted is below maximum building height, the Roof-mounted Solar Energy System may extend up to six (6) feet above the roof surface on which the system is installed, provided it does not exceed building height limits by more than three (3) feet; and provided further that any Roof-mounted Solar Energy System that extends more than three (3) feet above the roof surface on which the system is installed must be installed at least three (3) feet from the roof's edge.
Building-mounted Canopy Solar Energy System	Flat Roof with predominately zero pitch	NEBC, MU-128 & HC-128 districts Municipal buildings in all districts	May extend up to fifteen (15) feet above the roof surface on which the system is installed beyond applicable building height limits.
Building-mounted Canopy Solar Energy System	Flat Roof with predominately zero pitch	B, CSB, CB, ASB, HAB, NB, ES, IND, IND-1, HC-1 & I districts	May extend up to fifteen (15) feet above the roof surface on which the system is installed up to the applicable building height limit of the district.
Other Building-mounted Solar Energy System (e.g., awnings)	Not Applicable	All districts	No greater than the highest point of the roof.

2) Ground-mounted Solar Energy Systems:

System Type	Siting	Maximum Height
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Small-Scale Ground-mounted Solar Energy System	SRB & GR districts	Eight (8) vertical feet from grade.
	All other districts	Ten (10) vertical feet from grade.
Medium-Scale Ground-mounted Solar Energy System	SRB & GR districts	Eight (8) vertical feet from grade.
	All other districts	Ten (10) vertical feet from grade.
Solar Parking Canopy	All districts	Seventeen (17) vertical feet from grade.

c) Setbacks

- 1) Ground-mounted Solar Energy Systems that move along an axis, unfold, or open shall be located so that the entirety of the equipment's reach at all angles falls within the setback requirements.
- 2) Solar Parking Canopies in residential districts shall meet setback requirements for Accessory Structures.
- 3) Solar Parking Canopies and Surface-integrated Solar Energy Systems in non-residential zones shall be allowed where parking is permitted in accordance with the requirements defined in Section 5.1.3, Parking Plan and Design Requirements. The requirements for the planting of trees in landscaped strips within the parking area as defined in Section 5.1.3, Paragraphs (k) Landscape Areas and Paragraph (l) Trees may be met elsewhere on the lot. Landscaping for parking lots located under a canopy shall be designed to manage runoff from the panels and to be shade tolerant.
- 4) All other Ground-mounted Solar Energy Systems shall meet the requirements for Setbacks of principal structures as defined in Section 1.3 and Section 4.2 of the Needham Zoning By-Laws, as regulated for each use district in Section 4 ("District-level setback") provided, however, that a Small-Scale Ground-mounted Energy System in the Rural Residence-Conservation, Single Residence A, Single Residence B, and General Residence Districts located in a side or rear yard may instead meet the setback requirements applicable to accessory structures under Section 4.2.9. A Small-Scale Ground mounted Solar Energy System constructed nearer to any lot line than the Setback applicable to a principal structure pursuant to the forgoing provision shall require screening or landscaping of such systems from view from abutting lots and/or from a street, by plantings, walls, fences or other devices with said screening having a minimum height of six feet.
- 5) Any extension of a Building-Mounted Solar Energy System shall comply with the setback requirements for that building.

6.13.3 Supplemental Regulations

- a) BIPV Solar Energy Systems and Surface-integrated Solar Energy Systems shall be subject to any requirements in the Needham Zoning By-Laws that relate to the material or structural element into which the system is integrated or functions as. For example,

solar roofing would be subject to regulations for roofing; solar pavement would be subject to regulations for pavement.

- b) The impervious portion of Ground-mounted Solar Energy Systems and Surface-integrated Solar Energy Systems shall be subject to any requirements in the Needham Zoning By-Laws that relate to paving, including impervious lot coverage requirements within the Aquifer Protection District. The systems shall also comply with regulations identified in the Town of Needham's Stormwater By-Law, Article 7 of the General By-Laws.

6.13.4 Site Plan Review

- a) Site Plan Review: Medium-scale Ground-mounted Solar Energy Systems in all districts, Solar Parking Canopies in non-residential districts, and Solar Energy Building-mounted Canopy Systems in the New England Business Center, Mixed Use 128, and Highland Commercial-128 districts, are subject to site plan review by the Planning Board prior to construction, installation or modification as provided in this section and in accordance with Section 7.4 Site Plan Review. In reviewing a Special Permit application under Section 6.13.1 b) the Board of Appeals shall also apply the Site Plan Review Document Requirements of Section 6.13.4 b) and the Site Plan Review Design Standards of Section 6.13.3 c). In reviewing a Special Permit application under Section 6.13.1 d) the Planning Board shall also apply the Site Plan Review Document Requirements of Section 6.13.4 b) and the Site Plan Review Design Standards of Section 6.13.3 c).
- b) Site Plan Review Document Requirements: The project proponent shall provide a Final Site Plan to the Planning Board in compliance with Section 7.4 Site Plan Review, Subsection 7.4.4.Procedure. In addition, applicants shall submit the following:
 - 1) Name, address, and contact information for proposed system installer.
 - 2) Name, address, contact information and signature of the project proponent, as well as all co-proponents or property owners, if any.
 - 3) The name, contact information and signature of any agents representing the project proponent.
 - 4) Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, screening vegetation or structures.
 - 5) Blueprints or drawings of the solar energy system showing the proposed layout of the system, any potential shading from nearby structures, the distance between the proposed solar collector and all property lines and existing on-site buildings and structures, and the tallest finished height of the Solar Energy System.
 - 6) All submitted plans must be stamped by electrical, civil, and structural engineers or architects and landscape architects for their respective scope of work. Systems that are installed on existing structures must have a structural analysis stamped by a Professional Engineer that demonstrates the structure can handle the additional deadloads of the system as well as uplift wind loads per the local and state building codes.

- 7) Ground mounted solar structures must include geotechnical reports and engineering of any foundations associated with the new solar system per local and state building codes.
 - 8) Plans must include stormwater analysis with erosion control plans for proposed solar systems as well as stormwater control measures. Site modifications must meet the current stormwater by-laws for stormwater infiltration requirements. Impervious areas will include all impervious surfaces associated with the new solar system.
 - 9) Documentation of the major system components to be used, including the panels, mounting system, and inverter.
 - 10) Operation and Maintenance Plan including measures for maintaining safe access to the installation, stormwater controls, as well as general procedures for operational maintenance of the installation.
 - 11) Locations of active farmland, permanently protected open space, Priority Habitat Areas and BioMap 2 Critical Natural Landscape Core Habitat mapped by the Natural Heritage & Endangered Species Program (NHESP) and “Important Wildlife Habitat” mapped by the Massachusetts Department of Environmental Protection (MassDEP) in relation to the site.
- c) Site Plan Review Design Standards: The Planning Board shall consider the following criteria and standards, in addition to those listed in Section 7.4.6, Review Criteria for Site Plan Review when reviewing site plan submittals made under this section:
- 1) Utility Notification: No solar photovoltaic system shall be installed until evidence has been given to the Planning Board that the owner has submitted notification to the utility company of the customer’s intent to install an interconnected customer-owned generator. Off-grid systems are exempt from this requirement.
 - 2) Utility Connections: Reasonable efforts, as determined by the Planning Board, shall be made to place all utility connections from the solar photovoltaic installation underground, depending on appropriate soil conditions, shape, and topography of the site and any requirements of the utility provider. Electrical transformers for utility interconnections may be above ground if required by the utility provider.
 - 3) Safety: The owner or operator shall provide a copy of the Site Plan Review application to the Needham Fire Department and shall cooperate with local emergency services in developing an emergency response plan. All means of shutting down the solar installation shall be clearly marked. The owner or operator shall identify a person responsible for responding to municipal officials, throughout the life of the installation.
 - 4) Height and Layout: The Planning Board shall also review the height and physical layout of the Solar Energy Systems, utility connections, and appurtenant infrastructure as it relates to the convenience and safety of emergency vehicles, private vehicles and pedestrian movement on the site.
 - 5) Visual Impact: Reasonable efforts, as determined by the Planning Board, shall be made to minimize visual impacts by preserving natural vegetation, screening abutting properties, or other appropriate measures.
 - 6) Land Clearing, Soil Erosion and Habitat Impacts: Clearing of natural vegetation shall be limited to what is necessary for the construction, operation and

maintenance of ground-mounted solar energy systems or as otherwise prescribed by applicable laws, regulations, and By-Laws.

- 7) Stormwater: The Planning Board shall review the existing and post stormwater analysis to meet the current stormwater by-law infiltration requirements.
- 8) Lighting: The Planning Board shall review the physical lighting of the site, including the methods of exterior lighting for convenience, safety and security within the site, and in consideration of impacts of neighboring properties and excessive light pollution. Where feasible, lighting of the Solar Energy System shall be directed downward and shall incorporate full cut-off fixtures to reduce light pollution.”

3. Amend Section 4.2 Dimensional Regulations for Rural Residence-Conservation, Single Residence A, Single Residence B, General Residence, and Institutional Districts, Subsection 4.2.8 Height Limitation Exceptions, by deleting from the second sentence of the first paragraph the phrase “solar panels,” so that the sentence shall now read as follows:

“In the case of schools and other municipal buildings, structures erected on a building and not used for human occupancy, such as chimneys, heating-ventilating or air-conditioning equipment, mechanical equipment, mechanical flues or exhausts, elevator housings or equipment, generators, roof access, stairway enclosures, skylights, and the like may exceed the maximum building height provided that no part of such structure or equipment shall project more than 15 feet above the maximum allowable building height and the total horizontal coverage of all of such structures or projections on the building does not exceed thirty-three percent (33%) of the total roof area of the building.”

4. Amend Section 4.2 Dimensional Regulations for Rural Residence-Conservation, Single Residence A, Single Residence B, General Residence, and Institutional Districts, Subsection 4.2.8 Height Limitation Exceptions, by deleting the fourth sentence of the first paragraph which reads as follows:

“Further provided, subject to the 15-foot maximum height limitation cited above, solar panels shall also be allowed on rooftops of schools and other municipal buildings with no limitation on the roof area coverage provided such panels are set back from the edge of the roof a distance at least equal to the height of the panel.”

5. Amend Section 4.5 Dimensional Regulations for Highland Commercial-128, Subsection (3), by deleting from the fourth sentence of said subsection the phrase “solar or photovoltaic panels,” so that the sentence shall now read as follows:

“Structures erected on a building and not used for human occupancy, such as chimneys, heating-ventilating or air-conditioning equipment, elevator housings, skylights, cupolas, spires and the like may exceed the maximum building height provided that no part of such structure shall project more than 15 feet above the maximum allowable building height, the total horizontal coverage of all of such structures on the building does not exceed 25 percent, and all of such structures are set back from the roof edge by a distance no less than their height.”

6. Amend Section 4.8 Dimensional Regulations for NEBC, Subsection (1), by deleting from the fourth sentence of said subsection the phrase “solar or photovoltaic panels,” so that the sentence shall now read as follows:

“Structures erected on a building and not used for human occupancy, such as chimneys, heating-ventilating or air-conditioning equipment, elevator housings, skylights, cupolas, spires and the like may exceed the maximum building height provided that no part of such structure shall project more than 15 feet above the maximum allowable building height, the total horizontal coverage of all of such structures on the building does not exceed 25 percent, and all of such structures are set back

from the roof edge by a distance no less than their height, provided that the Planning Board may by Special Permit increase the height limit by not more than 5 additional feet.”

7. Amend Section 4.9 Dimensional Regulations for Mixed-Use 128, Subsection (1), by deleting from the fourth sentence of said subsection the phrase “solar or photovoltaic panels,” so that the sentence shall now read as follows:

“Structures erected on a building and not used for human occupancy, such as chimneys, heating-ventilating or air conditioning equipment, elevator housings, skylights, cupolas, spires and the like may exceed the maximum building height provided that no part of such structure shall project more than 15 feet above the maximum allowable building height, the total horizontal coverage of all of such structures on the building does not exceed 25 percent, and all of such structures are set back from the roof edge by a distance no less than their height.”

Or take any other action relative thereto.

TOWN OF NEEDHAM
MASSACHUSETTS



PLANNING BOARD

500 Dedham Avenue
Needham, MA 02492
781-455-7550

APPLICATION FOR ENDORSEMENT OF PLAN
BELIEVED NOT TO REQUIRE APPROVAL

Submit three (3) copies. One copy to be filed with the Planning Board and one with the Town Clerk as required by Section 81-P, Chapter 41 of the General Laws. This application must be accompanied by the **Original Tracing** and **three (3) copies of the plan**.

To the Planning Board:

The undersigned, believing that the accompanying plan of land in the Town of Needham does not constitute a subdivision within the meaning of the Subdivision Control Law, for the reasons outlined below, herewith submits said plan for a determination and endorsement that Planning Board approval under the Subdivision Control Law is not required.

1. Name of Applicant Ridgeway Ave Properties LLC
Address 78 Pheasant Landing RD Needham
2. Name of Engineer or Surveyor Field Resources INC
Address 281 Chestnut St, Needham
3. Deed of property recorded in Norfolk Registry,
Book 40901, Page 005
4. Location and description of property Single family
5. Reasons approval is not required (check as applicable):
 - a) ☒ Every lot shown has the area and frontage required by the Zoning By-Law on a way, as defined by Section 81-L, Chapter 41 of the General Laws.
 - b) Land designated _____ shall not be used as separate building lot(s) but only together with adjacent lots having the required area and frontage.
 - c) Lot(s) having less than required frontage or area resulted from a taking for public purpose or have been recorded prior to 3/26/1925, no land is available to make up the deficiency and the frontage and land area of such lots are not being reduced by the plan.
 - d) _____

(If the applicant is not the owner, written authorization to act as agent must be attached)

Signature of Applicant [Signature]

Address 78 Pheasant Landing rd Needham

By Darius Roper Manager (agent)

Application accepted this _____ day of _____ 20 _____
as duly submitted under the rules and regulations of the Planning Board.

By _____

TOWN OF NEEDHAM
MASSACHUSETTS



PLANNING BOARD

500 Dedham Avenue
Needham, MA 02492
781-455-7550

APPLICATION FOR ENDORSEMENT OF PLAN
BELIEVED NOT TO REQUIRE APPROVAL

Submit three (3) copies. One copy to be filed with the Planning Board and one with the Town Clerk as required by Section 81-P, Chapter 41 of the General Laws. This application must be accompanied by the **Original Tracing** and **three (3) copies of the plan**.

To the Planning Board:

The undersigned, believing that the accompanying plan of land in the Town of Needham does not constitute a subdivision within the meaning of the Subdivision Control Law, for the reasons outlined below, herewith submits said plan for a determination and endorsement that Planning Board approval under the Subdivision Control Law is not required.

1. Name of Applicant Peter Hammer
Address 30 Newbury Park, Needham, MA 02492
2. Name of Engineer or Surveyor Field Resources INC.
Address 281 Chestnut Street, Needham MA 02492
3. Deed of property recorded in Norfolk Registry,
Book 40901, Page 005
34966 280
4. Location and description of property Single Family
5. Reasons approval is not required (check as applicable):

- a) ☒ Every lot shown has the area and frontage required by the Zoning By-Law on a way, as defined by Section 81-L, Chapter 41 of the General Laws.
- b) Land designated _____ shall not be used as separate building lot(s) but only together with adjacent lots having the required area and frontage.
- c) Lot(s) having less than required frontage or area resulted from a taking for public purpose or have been recorded prior to 3/26/1925, no land is available to make up the deficiency and the frontage and land area of such lots are not being reduced by the plan.
- d) _____

(If the applicant is not the owner, written authorization to act as agent must be attached)

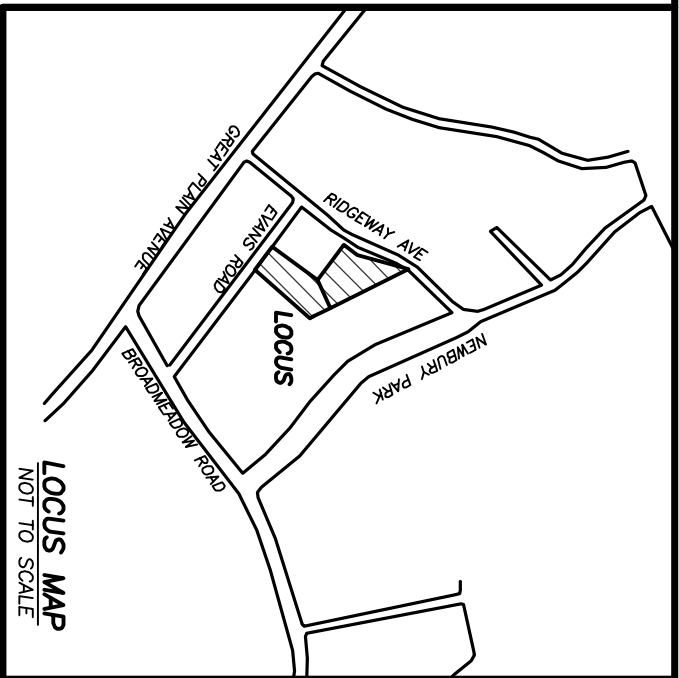
Signature of Applicant Peter Hammer

Address 30 Newbury Park, Needham, MA 02492

By _____ (agent)

Application accepted this _____ day of _____ 20 _____
as duly submitted under the rules and regulations of the Planning Board.

By _____



APPROVAL UNDER THE SUBDIVISION
CONTROL LAW NOT REQUIRED
NEEDHAM PLANNING BOARD

DATE: _____

NO DETERMINATION AS TO COMPLIANCE
WITH ZONING REQUIREMENTS IS MADE
OR INTENDED.
THE PURPOSE OF THIS PLAN IS TO
DIVIDE PARCEL, B FROM LOT 25 AND
PARCEL, A FROM LOT 10, SUBSEQUENTLY
SWAPPING THEM CREATING LOTS 25A
AND 10A.

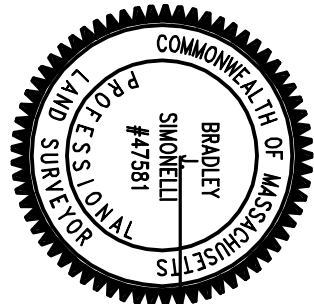
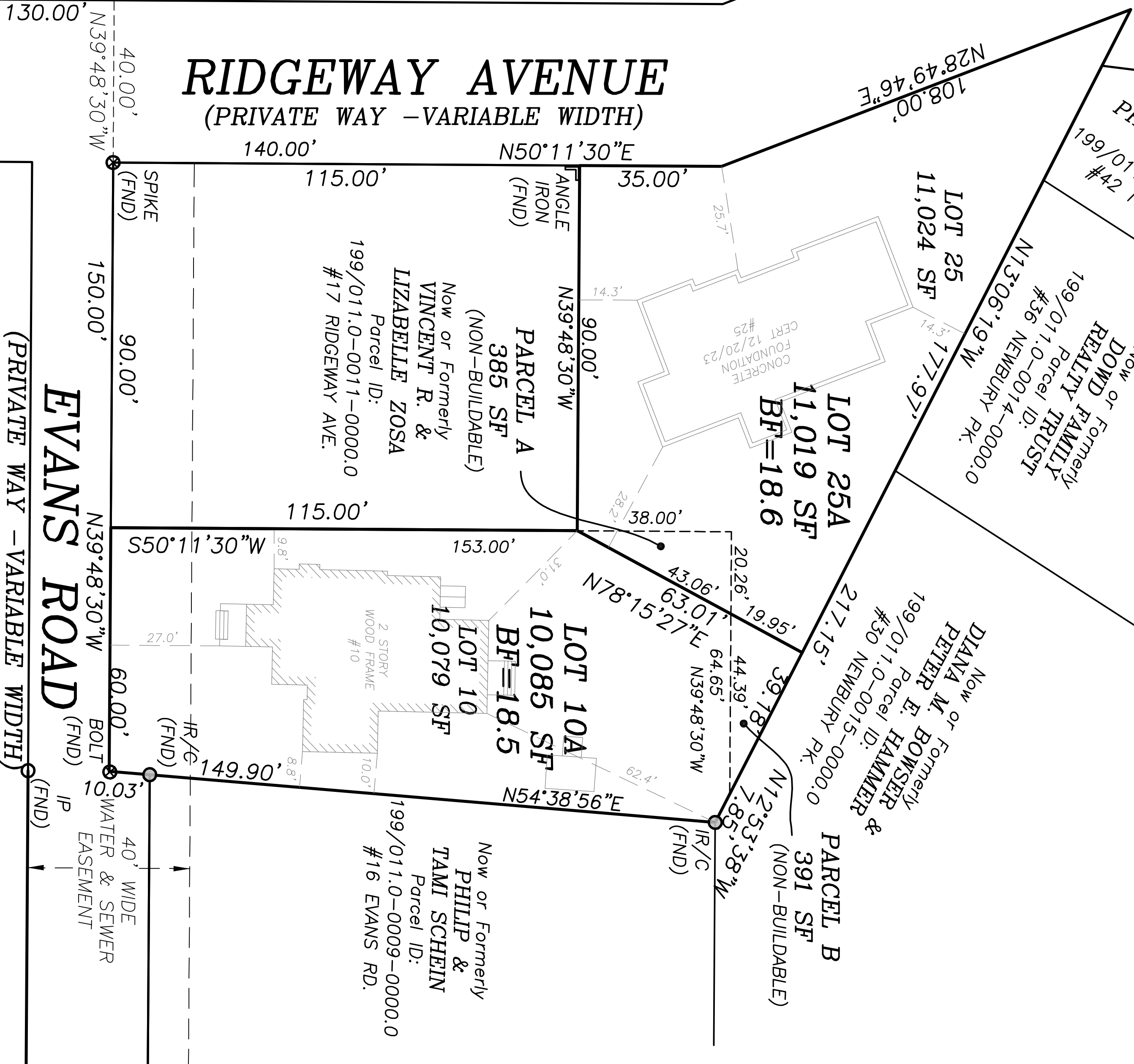
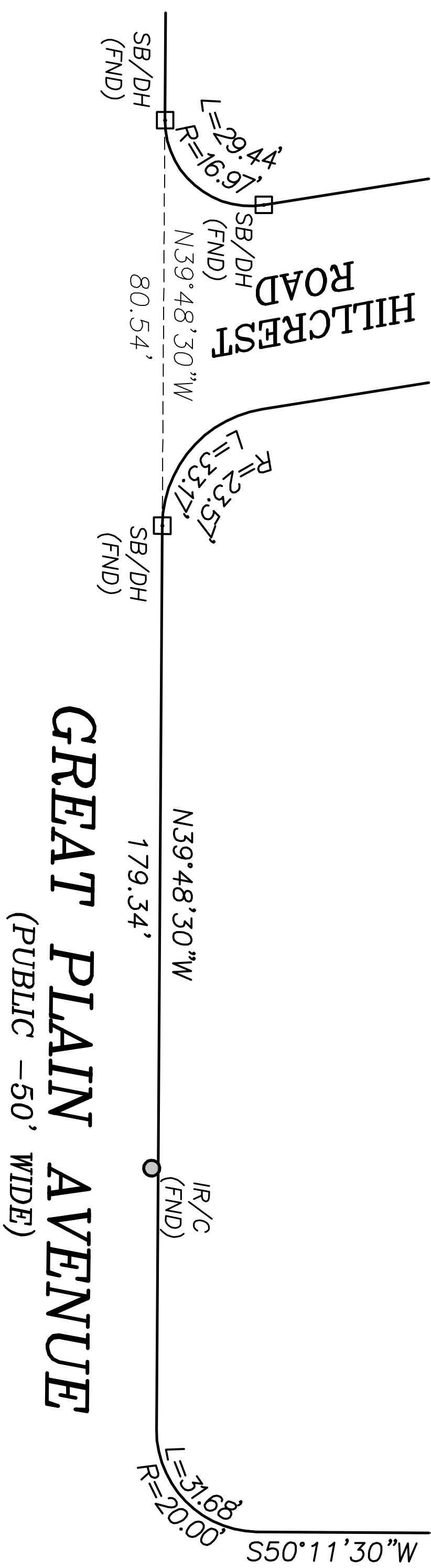
ZONING INFORMATION: SINGLE RESIDENCE B (SRB)			
MINIMUM LOT AREA.....	10,000 SF	LOT 25A REQUIRED.....	LOT 10A 11,019 SF
MAXIMUM BUILD FACTOR.....	20.....	18.6.....	18.5
MINIMUM LOT FRONTAGE.....	80 FEET	143.00 FEET.....	60.00 FEET
MINIMUM FRONT SETBACK.....	20 FEET	23.7 FEET.....	27.0 FEET
MINIMUM SIDE YARD.....	14 FEET	14.3 FEET.....	9.8 FEET
MINIMUM REAR YARD.....	20 FEET	14.3 FEET.....	8.8 FEET
MINIMUM BUILDING COVERAGE.....	25%.....	28.2 FEET.....	62.4 FEET
		20.3%(2241 SF).....	18.8%(1897 SF)

PLAN 720 OF 1940 DEED BOOK 2311 PAGE 78 (LOCUS PLAN)
PLAN 183 OF 1948 DEED BOOK 2742 PAGE 310 (W&S EASEMENT)
PLAN 305 OF 1931 DEED BOOK 1926 PAGE 370

REFERENCES:
DEEDS:
BOOK 40901 PAGE 005 (LOCUS)
BOOK 34966 PAGE 280 (LOCUS)

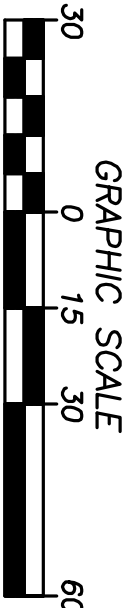
LEGEND:
⊕..... SPIKE
○..... IRON PIPE
○..... IRON ROD
□..... STONE BOUND WITH DRILL HOLE
IP..... IRON PIPE
SB/DH..... STONE BOUND WITH DRILL HOLE
IR..... IRON ROD
FND..... FOUND

PLANS:



I CERTIFY THAT THIS PLAN CONFORMS WITH THE RULES AND
REGULATIONS OF THE REGISTERS OF DEEDS.
I CERTIFY THAT THIS PLAN IS BASED UPON AN ACTUAL FIELD
SURVEY, AND THE LATEST PLANS AND DEEDS OF RECORD.

OWNER/APPLICANT:
PETER E. HAMMER &
DIANA M. BROWSER
10 EVANS ROAD NEEDHAM MA
DEED BK: 34966 Pg 280
PLAN IN BK 2311 Pg 78
DANIELS, KUEPER, MANAGER
RIDGEWAY AVENUE PROPERTIES, 80
78 PHEASANT LANDING RD
DEED BK: 40901 Pg 005
PLAN IN BK 2311 Pg 78

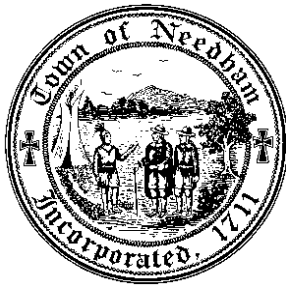


008 NO. 151-23

APPROVAL NOT REQUIRED
PLAN OF LAND
25 RIDGEWAY AVENUE & 10 EVANS ROAD
NEEDHAM, MASS.

Field Resources, Inc.
LAND SURVEYORS

FEBRUARY 29, 2024
P.O. BOX 324
AUBURN, MA
508 832 4332
SCALE 1"=30'
281 CHESTNUT ST.
NEEDHAM, MA.
781 444 5936
fieldresources@hotmail.com



PLANNING & COMMUNITY DEVELOPMENT
PLANNING DIVISION

**MAJOR PROJECT SITE PLAN REVIEW SPECIAL PERMIT
AMENDMENT TO DECISION
Application No. 2009-06**

**Needham Farmers Market, Inc.
Town of Needham
March 19, 2024**

(Original Decision dated November 17, 2009,
amended March 2, 2010, November 16, 2010, November 16, 2010,
June 21, 2011, May 1, 2012, April 25, 2017, May 1, 2018,
May 20, 2020, March 2, 2021, December 21, 2021, July 12, 2022 and May 16, 2023)

DECISION of the Planning Board (hereinafter referred to as the Board) on the petition of Needham Farmer's Market, Inc., 227 Eliot Street, Ashland, MA, 01721 and Town of Needham, 1471 Highland Avenue, Needham, MA, (hereinafter referred to as the Petitioner) for property located at 1471 Highland Avenue, Needham, Massachusetts. Said property is shown on Assessors Plan No. 51 as Parcel 1 containing 1.36 acres in the Center Business District.

This Decision is in response to an application submitted to the Board on January 23, 2024 by the Petitioner for: (1) a Major Project Site Plan Review Special Permit amendment under Section 7.4 of the Needham Zoning By-Law (hereinafter the By-Law) and Section 4.2 of Major Project Site Plan Special Permit No. 2009-06, dated November 17, 2009, as amended; (2) a Special Permit under Section 3.2.2 of the Needham By-Law for a farmers market in the Center Business District; (3) a Special Permit under Section 3.2.2 of the By-Law for more than one use on a lot; and (4) a Special Permit under Section 5.1.1.6 of the By-Law to waive strict adherence with the off-street parking requirements of Sections 5.1.2 and 5.1.3 of the By-Law (Off-Street Parking Requirements).

The requested Major Project Site Plan Review Special Permit Amendment would permit the operation of a farmers market on a small portion of the Town Common and Garrity's Way. Needham Farmers Market (NFM) operated on the Town Common and Garrity's Way during the seasons of 2017 to 2021; however, in 2022 NFM was required to relocate due to a planned renovation of the Town Common in 2022, with Garrity's Way planned to be used for staging materials. NFM subsequently used Greene's Field for two seasons: 2022 and 2023. Now that the Town Common renovations have been completed, NFM seeks permission to return. NFM is applying to make the following changes and amendments to the earlier Special Permits (2017-22) for use of the Site: (1) In 2024, NFM proposes to be open from June 16th to October 27th, inclusive; (2) NFM's hours of operation to the public are proposed to be 11 a.m. to 3 p.m. Setup of the Market is proposed to be 9 a.m. to 11 a.m. and breakdown is proposed to be 3 p.m. to 5 p.m.; (3) NFM proposes to have a maximum of seventeen (17) food vendors per market; (4) NFM proposes to have a maximum of four (4) artists per market; (5) NFM will have a Market Manager and a Community Table; (6) At least seventy-five percent (75%) of all vendors are proposed to sell fresh produce and other food products from booths, tables, or other temporary structures, as previously required at Greene's Field in 2022-

23. The property is the subject of Major Project Site Plan Special Permit No. 2009-06, issued to Town of Needham, 1471 Highland Avenue, Needham, Massachusetts, dated November 17, 2009 and amended March 2, 2010, November 16, 2010, November 16, 2010, June 21, 2011, May 1, 2012, April 25, 2017, May 1, 2018, May 20, 2020, March 2, 2021, December 21, 2021, July 12, 2022 and May 16, 2023.

After causing notice of the time and place of the public hearing and of the subject matter thereof to be published, posted and mailed to the Petitioner, abutters and other parties in interest as required by law, the hearing was called to order by the Chairperson, Adam Block, on Tuesday, February 27, 2024 at 7:00 p.m. in the Charles River Room, Needham Public Services Administration Building, 500 Dedham Avenue, Needham, MA, as well as by Zoom Web ID Number 880 4672 5264. Board members, Adam Block, Natasha Espada, Paul S. Alpert, Jeanne S. McKnight, and Artie Crocker were present at the February 27, 2024 public hearing. The record of the proceedings and the submission upon which this Decision is based may be referred to in the office of the Town Clerk or the office of the Board.

Submitted for the Board's deliberation prior to the close of the public hearing were the following exhibits:

- Exhibit 1** Application Form for Further Site Plan Review completed by the applicant dated January 23, 2024.
- Exhibit 2** License Agreement between the Needham Farmers Market and the Town of Needham, dated January 10, 2024.
- Exhibit 3** Plan entitled "Needham Farmers Market Layout - 2024."
- Exhibit 4** Three letters from Jeffery M. Friedman, President, Needham Farmers Market, two dated January 12, 2024 and one dated February 11, 2024.
- Exhibit 5** Letter from Bagel's Best dated February 23, 2024.
- Exhibit 6** Letter from Paula Jacobson, Executive Director, Charles River YMCA, dated February 23, 2024.
- Exhibit 7** Letter from Ivan Pulecio, Hearth Pizzeria, dated March XX, 2024.
- Exhibit 8** Interdepartmental Communication (IDC) to the Board from Chief Tom Conroy, Needham Fire Department, dated February 21, 2024; IDC to the Board from Chief John Schlittler, Police Department, dated January 26, 2024; IDC to the Board from Joseph Prondak, Building Commissioner, dated February 21, 2024; IDC to the Board from Tara Gurge, Needham Health Division, dated February 21, 2024; and IDC to the Board from Justin Savignano, Assistant Town Engineer, dated February 21, 2024.

EXHIBITS 1, 2, 3 and 4 are referred to hereinafter as the Plan.

FINDINGS AND CONCLUSIONS

- 1.1 The subject property is located in the Center Business zoning district at 1471 Highland Avenue, Needham, MA, 02492, owned by Town of Needham. Said property is shown on Needham Town Assessors Plan No. 51 as Parcel 1 containing 1.36 acres.
- 1.2 The property is the subject of Major Project Site Plan Special Permit No. 2009-06, issued to Town of Needham, 1471 Highland Avenue, Needham, Massachusetts, dated November 17, 2009 and amended March 2, 2010, November 16, 2010, November 16, 2010, June 21, 2011, May 1, 2012, April 25, 2017, May 1, 2018, May 20, 2020, March 2, 2021, December 21, 2021, July 12, 2022 and May 16, 2023.
- 1.3 On November 17, 2009, under Major Project Site Plan Review Special Permit No. 2009-06, dated November 17, 2009, issued to the Town of Needham, the Board approved the expansion of the existing Town Hall by approximately 13,836 square feet, and the renovation of approximately 20,989 square feet of the existing facility for a total of 34,825 square feet.

On April 25, 2017, the Board approved an amendment to Major Project Site Plan Review Special Permit No. 2009-06 to permit the operation of a farmers market on Garrity's Way on Sunday afternoons.

On December 21, 2021, the Board approved an amendment to Major Project Site Plan Review Special Permit No. 2009-06 to permit the comprehensive redesign and renovation of the Town Common at 1471 Highland Avenue. The complete redesign included replacement of the lawn, landscaping, pedestrian pathways, seating areas, lighting, and other amenities. The farmers market relocated during the construction.

Additional Amendments were issued on the property dated: March 2, 2010, November 16, 2010, November 16, 2010, June 21, 2011, May 1, 2012, May 1, 2018, May 20, 2020, March 2, 2021, July 12, 2022 and May 16, 2023.

- 1.4 The Needham Farmers Market, Inc. (NFM) is a nonprofit corporation and civic organization based in Needham with the purpose of operating a farmers market in Needham and advancing community goals of healthy food and diet, especially for children, as well as providing a meeting place for Needham residents.
- 1.5 The Town of Needham has agreed to allow the Needham Farmers Market to use a small portion of the Town Common and Garrity's Way for the operation of a farmers market on Sunday afternoons from Sunday, June 16, 2024 through the Sunday, October 17, 2024. This is pursuant to a License Agreement dated January 10, 2024 detailed under Exhibit 2 of this Decision. The application for Major Project Site Plan Review Special Permit Amendment is for permission to operate on Sunday afternoons the farmers market annually from June to October, pursuant to a fully executed License Agreement for each season with the Town of Needham through the Town Manager's Office or designee and the conditions of this Decision.
- 1.6 The Needham Farmers Market proposes to operate a farmers market on a small portion of the Town Common and Garrity's Way, in front of Needham Town Hall, for four hours every Sunday, opening at 11:00 a.m. and closing at 3:00 p.m.
- 1.7 The Needham Farmers Market has proposed to have a maximum of 17 vendors on each market day, who will use booths, tables, canopies or other temporary structures on the site. Each vendor will have approximately one person selling at its location. The Needham

Farmers Market has stated that at least seventy-five percent (75%) of all vendors will sell food items. The Needham Farmers Market will have a staff of approximately two (2) people on each market day. In addition to the vendors, the Market will have tables, booths or canopies (which might be shared) on Garrity's Way for Needham nonprofit organizations, four (4) artists, musicians, and NFM's Market Manager.

- 1.8 Set-up time is proposed to begin two hours before the start of the market (taking place from 9:00 a.m. to 11:00 a.m.) and break down time is proposed to be for two hours after the market closes (taking place from 3:00 p.m. to 5:00 p.m.). The hours of operation shall be from 11:00 a.m. to 3:00 p.m.
- 1.9 The 17 vendors will be located only in a small portion of the Town Common and Garrity's Way, all as shown on the plan detailed in Exhibit 3. Nothing from the Market will be located outside of the area shown on said plan.
- 1.10 During setup and breakdown, vendors may use parking spaces on Chapel Street, as well as two spaces on Highland Avenue, to unload and load if the spaces are available. During Market hours, the vendors will be parked in the Chapel Street Municipal Parking Lot or other municipal parking lots. During NFM's use of Garrity's Way, it will be blocked off with yellow tape, traffic cones, or by other means.
- 1.11 The Needham Farmers Market acknowledges that all food vendors shall obtain food permits from the Needham Board of Health unless excluded by State or Local regulations. All applicable State and Local Health regulations shall be met.
- 1.12 The Needham Farmers Market and its vendors propose to have liability insurance in effect during the farmers market as well as motor vehicle insurance.
- 1.13 The Petitioner has requested a Special Permit pursuant to Section 5.1.1.6 of the By-Law to waive strict adherence with the requirements of Section 5.1.2 (Required Parking) and Section 5.1.3 (off-street parking design requirements).
- 1.14 Under the By-Law Section 5.1.2, in the event that the Building Commissioner is unable to determine if a particular use relates to any use within the table of "Required Parking" (Section 5.1.2), the Planning Board shall recommend to the Building Commissioner a reasonable number of spaces to be provided based on the expected parking needs of occupants, users, guests or employees of the proposed business. Based on the Department of Public Works' recommendation, as recommended in Report 432 of the Planning Advisory Service for Off Street Parking Requirements for Farm Stands, the use requires 3 parking spots per every 1,000 square feet. The area of the property where the vendors will be stationed is calculated to be approximately 7,154 square feet. Therefore, the Board recommends a total parking requirement of 21 spaces ($7,154/1,000 \times 3 = 21$). Accordingly, a waiver of 21 parking spaces is required as all available on-site parking spaces have been previously allocated to Town Hall use. (It should be noted that the Board previously granted a waiver of 14 spaces to the NFM to operate at this location, so the net increase of parking waiver is 7 spaces).
- 1.15 The Petitioner proposes to operate the farmers market after the main activities of the Town Hall have concluded for the week. During the operation of the Market, parking for motor vehicles will be at the Chapel Street, Eaton Square, and Chestnut Street Municipal Parking Lots. The vendors will park at the Chapel Street Municipal Parking Lot. The Board finds that

the parking lots in the vicinity, as noted above, will satisfy the parking demands for the Needham Farmers Market.

- 1.16 The Planning Board finds that no parking study is required for the farmers market use as proposed, due to its being held on Sundays, when parking in the Center of Town is least scarce and the Town Hall is closed.
- 1.17 The Needham Farmers Market proposes to have free musical entertainment from individuals or small groups at the farmers market, such as flute, fiddle or guitar players. Amplification, if any, would be limited and sound will not extend beyond the site.
- 1.18 Vendors will be permitted to use the restrooms of Bagels Best, Hearth Pizzeria and the Charles River YMCA.
- 1.19 Vendors will be required to remove all trash and waste per an agreement with Needham Farmers Market, Inc. Additionally, the Petitioner has stated that the farmers market staff will assist in picking up and removing all trash from the site.
- 1.20 Adjoining premises will be protected against seriously detrimental uses on the site by provision of surface water drainage, sound and site buffers, and preservation of views, light and air. The farmers market is proposed to utilize a small portion of the Town Common and Garrity's Way on Sunday afternoons from June through October. The Petitioner proposes no construction and no permanent site changes. The Needham Farmers Market proposes to have musical entertainment that will either be un-amplified or slightly amplified where the sound will not extend beyond the parking lot and Town Common.
- 1.21 Convenience and safety of vehicular and pedestrian movement within the site and on adjacent streets, the location of driveway openings in relation to traffic or to adjacent streets and, when necessary, compliance with other regulations for the handicapped, minors and the elderly has been assured. During the operation of the Needham Farmer's Market, parking for motor vehicles will be at the Chapel Street, Eaton Square, and Chestnut Street Municipal Parking Lots. The vendors will park at the Chapel Street Lot. Any additional traffic due to the Market on surrounding streets will be marginally increased, thus no traffic congestion. When the Needham Farmer's Market was previously located at this site, there was no traffic congestion due to the operation of the Market. The Needham Farmer's Market will be solely located on a small portion of the Town Common and Garrity's Way. During Market hours, this road will be blocked to vehicular traffic at Chapel Street and Highland Avenue. Town Hall is closed on Sundays. This location is centrally located in Needham and thus very accessible and convenient to go to by vehicle, walking, jogging, or bicycling. This location is convenient for residents already shopping at Downtown stores. The Market will stimulate retail business. Market shoppers can also eat at local restaurants in the Downtown. Residents out for a walk with their family or dog, jogging, relaxing at the Town Common, bicycling, or shopping can stop at the Market. The handicapped and the elderly can access the Market from the surrounding main arteries, i.e. Chapel Street, Highland Avenue, Great Plain Avenue, and from the Town Common. Bagel's Best, Hearth Pizzeria, and the Charles River YMCA will allow vendors to use their bathrooms.
- 1.22 Adequate methods for disposal of refuse and waste will be provided. Vendors will be required to remove all trash and waste per an agreement with Needham Farmers Market, Inc. Needham Farmers Market staff will additionally assist in picking up and removing all trash from the site. Vendors may use the bathrooms at Bagel's Best, Hearth Pizzeria, and the

Charles River YMCA. The waste water system for these restaurants is connected to the municipal sewer system.

- 1.23 Relationship of structures and open spaces to the natural landscape, existing buildings and other community assets in the area and compliance with other requirements of this By-law has been assured. The Petitioner has not proposed any alteration to the structure or the scope of its operations. The relationship of structures and open spaces to the natural landscaping, existing buildings and other community assets will remain unchanged.
- 1.24 The proposed project will not have any adverse impacts on the Town's resources, including the Town's water supply and distribution system, sewer collection and treatment, fire protection and streets. The proposed use will not have an adverse impact on surrounding businesses. The existence of the Needham Farmers Market is an asset for Needham and will be a source of community in Needham.
- 1.25 Under Section 7.4 of the By-Law, a Major Project Site Plan Special Review Permit amendment may be granted within the Center Business District provided the Board finds that the proposed development will be in compliance with the goals and objectives of the Master Plan, and the provisions of the By-Law. On the basis of the above findings and conclusions, the Board finds the proposed development Plan, as conditioned and limited herein, for the site plan review, to be in harmony with the purposes and intent of the By-Law and Town Master plans, to comply with all applicable By-Law requirements, to have minimized adverse impact, and to have promoted a development which is harmonious with the surrounding area.
- 1.26 Under Section 3.2.2 of the By-Law, a Special Permit may be granted to allow for more than one nonresidential use on the lot, provided the Board finds that the proposed use is in harmony with the general purposes and intent of the By-Law. On the basis of the above findings and conclusions, the Board finds the proposed development Plan, as conditioned and limited herein, to be in harmony with the general purposes and intent of the By-Law, to comply with all applicable By-Law requirements, and to not increase the detriment to the Town's and neighborhood's inherent use.
- 1.27 Under Section 3.2.2 of the By-Law, a Special Permit may be granted to allow a farmers market in the Center Business District. On the basis of the above findings and criteria, the Board finds that the proposed use, as conditioned and limited herein, to be in harmony with the purposes and intent of the By-Law, to comply with all applicable By-Law requirements and to not increase the detriment to the Town's and neighborhood's inherent use.
- 1.28 Under Section 5.1.1.6 of the By-Law, a Special Permit to waive strict adherence with the requirements of Section 5.1.2 and Section 5.1.3 of the By-Law (Off-Street Parking Requirements) may be granted provided the Board finds that owing to special circumstances, the particular use, structure or lot does not warrant the application of certain design and parking spaces requirements, but that a waiver of certain design and parking spaces requirements is warranted. On the basis of the above findings and conclusions, the Board finds that there are special circumstances justifying the reduction in the number of required parking spaces and design requirements of the By-Law, as conditioned and limited herein, which will also be consistent with the intent of the By-Law and which will not increase the detriment to the Town's and neighborhood's inherent use.

THEREFORE, the Board voted 4-0 to GRANT: (1) the requested Major Project Site Plan Review Special Permit amendment under Section 7.4 of the By-Law and Section 4.2 of Major Project Site

Plan Special Permit No. 2009-06, dated November 17, 2009, amended March 2, 2010, November 16, 2010, November 16, 2010, June 21, 2011, May 1, 2012, April 25, 2017, May 1, 2018, May 20, 2020, March 2, 2021, December 21, 2021, July 12, 2022 and May 16, 2023; (2) the requested Special Permit under Section 3.2.2 of the Needham By-Law for a farmers market in the Center Business District; (3) the requested Special Permit under Section 3.2.2 of the By-Law for more than one use on a lot; and (4) the requested Special Permit under Section 5.1.1.6 of the By-Law to waive strict adherence with the off-street parking requirements of Sections 5.1.2 (Required Parking) and 5.1.3 of the By-Law (Off-Street Parking Requirements), subject to and with the benefit of the following Plan modifications, conditions and limitations.

PLAN MODIFICATIONS

Prior to the issuance of a building permit or the start of any construction on the site, the Petitioner shall cause the Plan to be revised to show the following additional, corrected, or modified information. The Building Commissioner shall not issue any building permit nor shall he permit any construction activity on the site to begin on the site until and unless he finds that the Plan is revised to include the following additional corrected, or modified information. Except where otherwise provided, all such information shall be subject to the approval of the Building Commissioner. Where approvals are required from persons other than the Building Commissioner, the Petitioner shall be responsible for providing a written copy of such approvals to the Building Commissioner before the Commissioner shall issue any building permit or permit for any construction on the site. The Petitioner shall submit nine copies of the final Plans as approved for construction by the Building Commissioner to the Board prior to the issuance of a Building Permit.

2.1 No Plan Modifications.

CONDITIONS

- 3.0 The following conditions of this approval shall be strictly adhered to. Failure to adhere to these conditions or to comply with all applicable laws and permit conditions shall give the Board the rights and remedies set forth in Section 3.23 hereof.
- 3.1 The conditions and limitations set forth in Major Project Site Plan Review Special Permit No. 2009-06, issued to Town of Needham, 1471 Highland Avenue, Needham, Massachusetts, dated November 17, 2009 and amended March 2, 2010, November 16, 2010, November 16, 2010, June 21, 2011, May 1, 2012, April 25, 2017, May 1, 2018, May 20, 2020, March 2, 2021, December 21, 2021, July 12, 2022 and May 16, 2023, as further amended by this Amendment are ratified and confirmed.
- 3.2 The Board approves the use by Needham Farmers Market of a farmers market on a small portion of the Town Common and Garrity's Way, as shown on the Plan from the first Sunday of June to the last Sunday in October.
- 3.3 The hours of operation shall be limited to four hours every Sunday, opening at 11:00 a.m. and closing at 3:00 p.m. from June through October.
- 3.4 The operation of the farmers market on a small portion of the Town Common and Garrity's Way, Needham, Massachusetts shall be as described in Sections 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 1.11, 1.12, 1.15, 1.17, 1.18, and 1.19 of this Decision and as further described under the support materials provided under Exhibits 2, 3, 4, 5, 6 and 7 of this Decision.

- 3.5 The maximum number of vendors at any given time shall not exceed seventeen (17).
- 3.6 In addition to the vendors, up to four (4) tables, booths or canopies may be available for the Community Farm, other Needham nonprofit organizations, artists, artisans, musicians and the Needham Farmers Market Manager.
- 3.7 The seventeen (17) vendors shall be located a small portion of the Town Common and Garrity's Way, all as shown on the plan detailed in Exhibit 3. Nothing from the Market will be located outside of the area shown on said plan.
- 3.8 At least seventy-five percent (75%) of all vendors shall sell fresh produce and other food products from booths, tables, or other temporary structures.
- 3.9 In addition to vendors, the Needham Farmers Market may provide up to four (4) tables, booths or canopies for use by nonprofit corporations or organizations and local artists or artisans. Selling by such groups may occur at no more than four (4) tables and shall be restricted to the small portion of the Town Common and Garrity's Way as shown on the Plan.
- 3.10 All food vendors shall obtain food permits from the Needham Board of Health unless excluded by State or Local regulations. All applicable State and Local Health regulations shall be met. Any ice used at the site shall be disposed of at a location approved by the Board of Health and in compliance with Board of Health and Town regulations. Disposal of ice within the Town's drainage system shall not be permitted.
- 3.11 Sale of alcoholic beverages by Needham Farmers Market vendors shall be prohibited. The drinking of alcoholic beverages on the Town Common and Garrity's Way where the farmers market is located shall be prohibited.
- 3.12 Set-up time shall begin no earlier than 9:00 a.m., two hours before the start of the market and break down time shall last no longer than two hours after the market closes at 5:00 p.m. During setup and breakdown, vendors may use parking spaces on Chapel Street and 2 spaces on Highland Avenue to unload and load if the spaces are available. The spaces shall not be reserved for this purpose, but rather utilized if vacant.
- 3.13 The special permit and parking waivers granted herein are specifically premised upon the special characteristics of the farmers market in Garrity's Way and the recognition that Town Hall is closed on Sunday and not utilizing the subject parking spaces. In the event of any change in the use permitted hereunder which would result in a greater parking demand, further site plan review will be required, and the Planning Board shall be entitled to evaluate the parking demand of the building as a whole.
- 3.14 Due diligence must be exercised at all times to avoid excessive off-site parking traffic, tie-ups and unnecessary noise and congestion.
- 3.15 Needham Farmers Market vendors and patrons shall be directed to park in the Chapel Street Municipal parking Lot. The musicians may be located on Garrity's Way in the area designed for use by the farmers market.
- 3.16 Free musical entertainment from individuals or small groups at the farmers market, such as flute, fiddle or guitar players, may be utilized. Any required permits from the Board of Selectmen shall be obtained. Amplification, if any, shall be limited and no sound shall extend beyond Garrity's Way. In the event of any complaint or issue regarding the sound,

- volume or amplification, the Planning Board shall retain jurisdiction to reevaluate the authorization for musical entertainment provided by this Decision.
- 3.17 Vendors shall be permitted to use the restrooms of Bagel's Best, Hearth Pizzeria, and the Charles River YMCA. If vendors at any time are no longer allowed or able to use these restrooms, the Petitioner shall find other suitable arrangements and notify the Planning Board.
- 3.18 All trash and waste shall be confined to the site and shall be removed from the site promptly during the breakdown timeframe. No trash or waste shall be left on the site at the end of the breakdown at 5:00 p.m. The Petitioner shall also examine the vicinity adjacent to the market area and shall be responsible for the cleanup of any market trash or waste inadvertently left by patrons in that location. During the operation of the farmers market, trash receptacles shall be provided for the use of patrons.
- 3.19 This Special Permit to operate a farmers market at Garrity's Way is issued to Needham Farmers Market, Inc., 227 Eliot Street, Ashland, MA, 01721 and Town of Needham, 1471 Highland Avenue, Needham, MA and may not be transferred, set over, or assigned by Needham Farmers Market, Inc. to any other person or entity without the prior written approval of the Board following such notice and hearing, if any as the Board, in its sole and exclusive discretion, shall deem due and sufficient.
- 3.20 The Town of Needham has agreed to allow the Needham Farmers Market to use a small portion of the Town Common and Garrity's Way for the operation of a farmers market on Sunday afternoons from Sunday, June 16, 2024 through the Sunday, October 27, 2024. This is pursuant to a License Agreement dated January 10, 2024 detailed under Exhibit 2 of this Decision. This approval for Major Project Site Plan Special Permit Amendment is for permission to operate the farmers market annually on Sunday afternoons from June to October, pursuant to a fully executed License Agreement for each season with the Town of Needham through the Town Manager's Office or designee and the conditions of this Decision. No further approval from the Planning Board will be required unless the NFM wishes to alter conditions of this Decision.
- 3.21 In addition to the provisions of this approval, the Petitioner must comply with all requirements of all state, federal, and local boards, commission or other agencies, including, but not limited to the Building Commissioner, Fire Department, Department of Public Works, Conservation Commission, Police Department, and Board of Health.
- 3.22 The Petitioner, by accepting this Approval, warrants that the Petitioner has included all relevant documentation, reports, and information available to the Petitioner in the application submitted, and that this information is true and valid to the best of the Petitioner's knowledge.
- 3.23 Violation of any of the conditions of this Decision shall be grounds for revocation of any building permit or certificate of occupancy granted hereunder as follows: In the case of violation of any conditions of this Decision, the Town will notify the owner of such violation and give the owner reasonable time, not to exceed thirty (30) days, to cure the violation. If, at the end of said thirty (30) day period, the Petitioner has not cured the violation, or in the case of violations requiring more than thirty (30) days to cure, has not commenced the cure and prosecuted the cure continuously, the permit granting authority may, after notice to the Petitioner, conduct a hearing in order to determine whether the failure to abide by the conditions contained herein should result in a recommendation to the Building Commissioner

to revoke any building permit or certificate of occupancy granted hereunder. This provision is not intended to limit or curtail the Town's other remedies to enforce compliance with the conditions of this Decision including, without limitation, by an action for injunctive relief before any court of competent jurisdiction. The Petitioner agrees to reimburse the Town for its reasonable costs in connection with the enforcement of the conditions of this Decision if the Town prevails in such enforcement action.

LIMITATIONS

- 4.0 The authority granted to the Petitioner by this permit is limited as follows:
- 4.1 This permit applies only to the site improvements, which are the subject of this petition. All construction to be conducted on site shall be conducted in accordance with the terms of this permit and shall be limited to the improvements on the Plan.
- 4.2 There shall be no further development of this site without further site plan approval as required under Section 7.4 of the By-Law. The Board, in accordance with M.G.L., Ch. 40A, S.9 and said Section 7.4, hereby retains jurisdiction to (after hearing) modify and/or amend the conditions to, or otherwise modify, amend or supplement, this Decision and to take other action necessary to determine and ensure compliance with the Decision.
- 4.3 This Decision applies only to the requested Special Permits and Site Plan Review. Other permits or approvals required by the By-Law, other governmental boards, agencies or bodies having jurisdiction shall not be assumed or implied by this Decision.
- 4.4 No approval of any indicated signs or advertising devices is implied by this Decision.
- 4.5 The foregoing restrictions are stated for the purpose of emphasizing their importance but are not intended to be all-inclusive or to negate the remainder of the By-Law.
- 4.6 This special permit is subject to a fully executed License Agreement for each season with the Town of Needham through the Town Manager's Office or designee for the continued use of Garrity's Way including the Petitioner's request for specific dates and times of operation at the site and the conditions of this Decision.
- 4.7 This Decision shall be recorded in the Norfolk District Registry of Deeds. This Decision shall not take effect until (1) a copy of this Decision bearing the certification of the Town Clerk that twenty (20) days have elapsed after this Decision has been filed in the Town Clerk's office or that if such appeal has been filed, that it has been dismissed or denied and (2) this Decision is recorded with Norfolk District Registry of Deeds, and (3) the Petitioner has delivered a certified copy of the recorded document to the Board.

The provisions of this Special Permit shall be binding upon every owner or owner of the lots and the executors, administrators, heirs, successors and assigns of such owners, and the obligations and restrictions herein set forth shall run with the land, as shown on the Plan, as modified by this Decision, in full force and effect for the benefit of and enforceable by the Town of Needham.

Any person aggrieved by this Decision may appeal pursuant to the General Laws, Chapter 40A, Section 17, within twenty (20) days after filing of this Decision with the Needham Town Clerk.

Witness our hands this 19th day of March, 2024.

NEEDHAM PLANNING BOARD

Natahsa Espada, Vice Chairperson

Jeanne S. McKnight

Paul S. Alpert

Artie Crocker

COMMONWEALTH OF MASSACHUSETTS

_____2024

On this ____ day of March, 2024, before me, the undersigned notary public, personally appeared _____, one of the members of the Planning Board of the Town of Needham, Massachusetts, proved to me through satisfactory evidence of identification, which was _____, to be the person whose name is signed on the proceeding or attached document, and acknowledged the foregoing to be the free act and deed of said Board before me.

Notary Public

My Commission Expires: _____

TO WHOM IT MAY CONCERN: This is to certify that the 20-day appeal period on the Decision on Needham Farmer's Market, Inc., 227 Eliot Street, Ashland, MA, 01721 and Town of Needham, 1471 Highland Avenue, Needham, MA, has passed, and there have been no appeals made to this office. (All Judicial Appeals taken from this Decision have been dismissed.)

Date

Theodora K. Eaton, Town Clerk

Copy sent to:

Petitioner - Certified Mail #
Town Clerk
Building Commissioner
Director, PWD
Board of Health
Conservation Commission

Select Board
Engineering
Fire Department
Police Department
Jeff Friedman
Parties in Interest

NEEDHAM
ZONING BOARD OF APPEALS
AGENDA
THURSDAY, March 21, 2024 - 7:30PM

Charles River Room Public Service Administration Building 500 Dedham Avenue Needham, MA 02492	Also livestreamed on Zoom Meeting ID: 869-6475-7241 To join the meeting click this link: https://us02web.zoom.us/j/86964757241
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- 1. Minutes** Review and approve Minutes from January 18, 2024 meeting.

- 2. 7:30PM – 20 Alder Brook Lane**
Amit Schwartz and Neta Levin Schwartz, owners, applied to the Board of Appeals for a Special Permit under section 1.4.6 and any other section of the Zoning By-Law to allow the change, extension, alteration and enlargement of a lawful, pre-existing, non-conforming structure for relief of a right setback from 9.6 feet to 8 feet; and a Variance under MGL 40A, Section 10, and Section 7.5.3 and any other section of the Zoning By-Law to allow a front setback at 15.4' where 25 feet are required due to unusual soil, shape of topography of the land. This request is associated with the addition and alterations to an existing single-family home. The property is located at 20 Alder Brook Lane, Needham, MA in the Single Residence B (SRB) zoning district.

Next ZBA Meeting – Wednesday, April 24, 2024
Select Board Chambers, Town Hall, 1471 Highland Ave, Needham



ZBA Application For Hearing

RECEIVED TOWN CLERK
NEEDHAM, MA 02492

2024 MAR -6 PM 2:27

Applicants must consult with the Building Inspector prior to filing this Application. Failure to do so will delay the scheduling of the hearing.

Applicant Information

Applicant Name	Amit Schwartz			Date:	03/06/2024
Applicant Address	20 Alder Brook Lane Needham, Massachusetts 02492				
Phone	(617) 678-9101	email	amit.schwartz@gmail.com		
Applicant is ☒ Owner; ☐ Tenant; ☐ Purchaser; ☐ Other _____					
If not the owner, a letter from the owner certifying authorization to apply must be included					
Representative Name	Benjamin Ber				
Address	2001 Beacon Street , Boston, Massachusetts 02135				
Phone	617-285 1985	email	bber@nehkoodah.com		
Representative is ☐ Attorney; ☐ Contractor; ☒ Architect; ☐ Other _____					
Contact ☒ Me ☒ Representative in connection with this application.					

Subject Property Information

Property Address	20 Alder Brook Lane, Needham , MA 02492		
Map/Parcel Number	199/202.0-0016-0000.0	Zone of Property	SR - B
Is property within 100 feet of wetlands, 200 feet of stream or in flood Plain? ☒ Yes ☐ No			
Is property ☒ Residential or ☐ Commercial			
If residential renovation, will renovation constitute "new construction"? ☒ Yes ☐ No			
If commercial, does the number of parking spaces meet the By-Law requirement? ☐ Yes ☐ No			
Do the spaces meet design requirements? ☐ Yes ☐ No			
Application Type (select one): ☒ Special Permit ☒ Variance ☐ Comprehensive Permit ☐ Amendment ☐ Appeal Building Inspector Decision			



ZBA Application For Hearing

Existing Conditions:

One story wood frame single family residence over a basement with a preexisting nonconforming side yard setback, with an unusual shape lot for SR-B District, with wetlands and riverfront restrictions.

Statement of Relief Sought:

Special Permit sought for changing and extending existing nonconforming side yard setback.
Variance sought for front yard set back of 15.4 feet where 25 feet is required for attached garage.

Applicable Section(s) of the Zoning By-Law:

1.4.6 Alterations; 7.5.3 Variances

If application under Zoning Section 1.4 above, list non-conformities:

	Existing Conditions	Proposed Conditions
Use	Single Family Residence	No Change
# Dwelling Units	One	No Change
Lot Area (square feet)	±10,280 SF	No Change
Front Setback (feet)	29.5'	15.4'
Rear Setback (feet)	NA	No Change
Left Setback (feet)	11'	No Change
Right Setback (feet)	9.6'	8'
Frontage (feet)	72.61'+24.64'+30.88'=128.13'	No Change
Lot Coverage (%)	20.3%	24.9%
FAR (Floor area divided by the lot area)	0.20	0.25
Numbers must match those on the certified plot plan and supporting materials		



ZBA Application For Hearing

Date Structure Constructed including additions:

1929

Date Lot was created:

1952

Submission Materials	Provided
Certified Signed Plot Plan of Existing and Proposed Conditions (Required)	
Application Fee, check made payable to the Town of Needham Check holders name, address, and phone number to appear on check and in the Memo line state: "ZBA Fee – Address of Subject Property" (Required)	
If applicant is tenant, letter of authorization from owner (Required)	
Electronic submission of the complete application with attachments (Required)	
Elevations of Proposed Conditions (when necessary)	
Floor Plans of Proposed Conditions (when necessary)	

Feel free to attach any additional information relative to the application.
Additional information may be requested by the Board at any time during the
application or hearing process.



I hereby request a hearing before the Needham Zoning Board of Appeals. I have
reviewed the Board Rules and instructions.

I certify that I have consulted with the Building Inspector _____
8 September 2023
date of consult

Date: _____ 6 March 2024 _____ Applicant Signature _____


*An application must be submitted to the Town Clerk's Office at
townclerk@needhamma.gov and the ZBA Office at dcollins@needhamma.gov*

Memorandum

To: Zoning Board of Appeals **Proj.#:** 20032
Town of Needham

From: Bennie Ber **Proj. Name** Addition and Alteration to
20 Alder Brook Lane, Needham

The applicants, Amit Schwartz & Neta Levin Schwartz ("Applicant" or "Petitioner"), seek zoning relief for an addition and alterations to a single-family residential dwelling located at 20 Alder Brook Lane. Specifically, Applicant requests a Variance, pursuant to Section 7.5.3 of the Town of Needham Zoning By-Law, and a Special Permit, pursuant to Section 1.4.6 of the By-Law.

Existing Conditions Descriptions

The lot Area is ±10,280 square feet.

The existing house was constructed ca. 1929, according to Town of Needham Assessors' Database. The lot was created ca. 1952, according to Town of Needham Engineering Division. Both the construction of the structure and the creation of the lot predated the current dimensional regulations of Town of Needham Zoning By-Law.

The structure was relocated ca. 1951-1952.

An addition was constructed ca. 1976.

Currently, the residence is three bedroom and two bathrooms, with a total of 2,025 square feet.

There exists a water easement on the property per Assessors' map; it is documented on Existing Conditions Plan prepared by Peter Nolan & Associates LLC.

The property is located in proximity to vegetated wetlands; the project team is preparing materials for review and approval by the Town of Needham Conservation Commission.

The lot is a corner lot with a highly unusual shape. it has a front yard and two side yards.

There are two paved driveways for open-air parking of vehicles in the front yard; one in front of the entry door, and another on the right side of the house.

The structure is a lawful pre-existing non-conforming use. It is non-conforming in regards to required side yard setbacks on both right and left sides.

March 1, 2024

The existing house has no garage. Members of the household usually park their cars on the right side of the house, near the side door to the kitchen. The existing driveway is paved and positioned in a way that in entering and exiting the driveway, cars must drive over land owned by the abutter at 34 Alder Brook Lane.

TOWN OF NEEDHAM, MASS.
Building Inspection Department
"Note" (Formerly House #419)
This House being moved from Lot 2

Building Permit No. 8777 No. 407 Dedham Road Dedham
Street Avenue
Avenue

Area 9634 sq. ft. Setback of adjacent buildings None
Owner E.W. Enman Builder _____
Sewer No Water Yes Drain No

(Cellar floor should be high enough to provide ample drainage for sewer and storm-water drain.)
Plot plans to be made at 40' scale. #201
Ho. #399
Lot #11
Lot #10
Lot #2
Ho. #423
Ho. #403
DEDHAM AVE.
I hereby certify that the lot corners, dimensions and offsets to the proposed building are accurately shown on this plan and will conform with the completed construction.
Signed: C. Grazzetta
Civil Engineer
Approved in accordance with Art. 37 of 1940
Date 2/19/51
Town Engineer
Supt. of Public Works
FILE
12-9-2015
Plan 169

Building Permit dated 2/19/51 Indicating Structure being Moved



Subdivision Plan recorded Feb 13, 1952

March 1, 2024

Engineer
TOWN OF NEEDHAM, MASS.
Building Inspection Department

Sewer ☒
Water ☒
Drain ☐

Building Permit No. 4173 At No. 407 DEDHAM AVE.
Lot Area 10,280 S.F. Zone Setback ADDITION
Owner Bernard P. Manzoli Builder _____

PLOT PLAN
40' Scale 6.2
To be drawn according to specifications set forth in Section 12.2, Zoning By-Laws of the Town of Needham.

I hereby certify that the existing and approved street grades, existing sewers, drains, gas lines, water mains and other Public Utilities are accurately shown on this plan and that the dimensions, side line offsets and setback distances (allowing for overhangs), elevation of the top of the foundation and garage floor, and elevations at lot corners on street line for grading along lot line bordering the street are correct as indicated on this plan.

The above is subscribed to and executed by me this 6th day of March 1976.

Approved George M. Smith Civil Engineer or Surveyor
Approved A. J. MacGowan Supt. of Public Works Date 4/20/76
Approved James J. Gaffney Building Inspector Date 4/20/76

Occupancy permit will not be issued until the conditions as to lines and grades and drainage facilities have been fully complied with.

Building Permit dated March 6, 1976 (Addition); Shape of Lot has Changed (further subdivided)

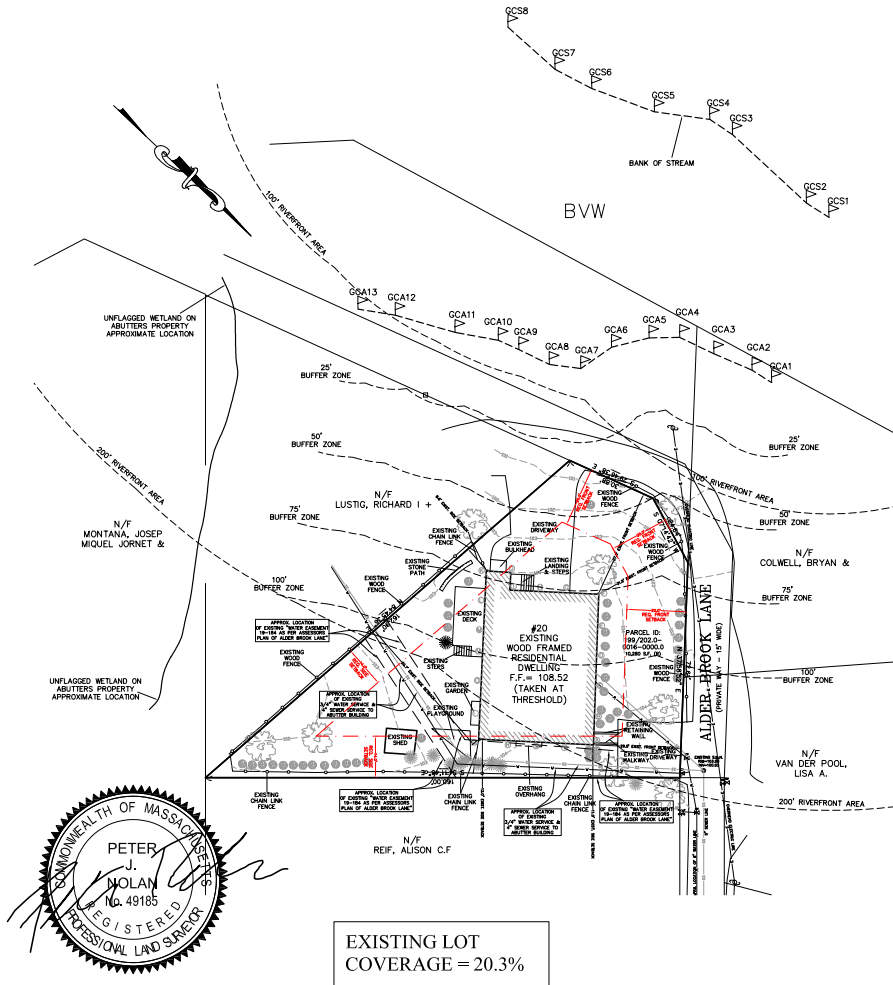
TOWN OF NEEDHAM, MASSACHUSETTS

BUILDING INSPECTION DEPARTMENT

Building Permit No.: _____ Assessor's Map & Parcel Number: 202-0016
 Lot Area: 10,280 ± S.F. Zoning District: SR-B, SINGLE RESIDENCE B
 Owner: AMIT SCHWARTZ & NETA LEVIN SCHWARTZ Address: NO. 20 ALDER BROOK LANE
 Builder: _____

EXISTING CONDITION

SCALE: 1"= 40'



Note: Plot Plans shall be drawn in accordance with Sections 7.2.1 and 7.2.2 of the Zoning By-Laws for the Town of Needham. All plot plans shall show existing structures and public & private utilities, including water mains, sewers, drains, gas lines, etc.; driveways, septic systems, wells, Flood Plain and Wetland Areas, lot dimensions, lot size, dimensions of proposed structures, sideline, front and rear offsets and setback distances (measured to the face of structure) and elevation of top of foundations and garage floor. For new construction, lot coverage, building height calculations, proposed grading and drainage of recharge structures. For pool permits, plot plans shall also show fence surrounding pool with a gate, proposed pool and any accessory structures*, offsets from all structures and property lines, existing elevations at nearest house corners and pool corners, nearest storm drain catch basin (if any) and sewage disposal system location in areas with no public sewer.
 *Accessory structures may require a separate building permit - See Building Code.

I hereby certify that the information provided on this plan is accurately shown and correct as indicated.

The above is subscribed to and executed by me this: 26TH day of: JUNE 2023
 Name: PETER J. NOLAN Registered Land Surveyer #: 49185
 Address: 80 JEWETT STREET (SUITE 1) City: NEWTON State: MA Zip: _____ Tel. No.: (857) 891 7478
 Approved: _____ Director of Public Works: _____ Date _____
 Approved: _____ Building Inspector: _____ Date _____

Existing Conditions Plan

March 1, 2024



View of 20 Alder Brook Lane from corner of lot, September 2020



View of 20 Alder Brook Lane, showing driveway proposed to be removed

Proposed Work

Applicant proposes to construct an addition consisting an attached two-car garage at grade and a primary bedroom suite directly above it, half a story above the existing first floor.

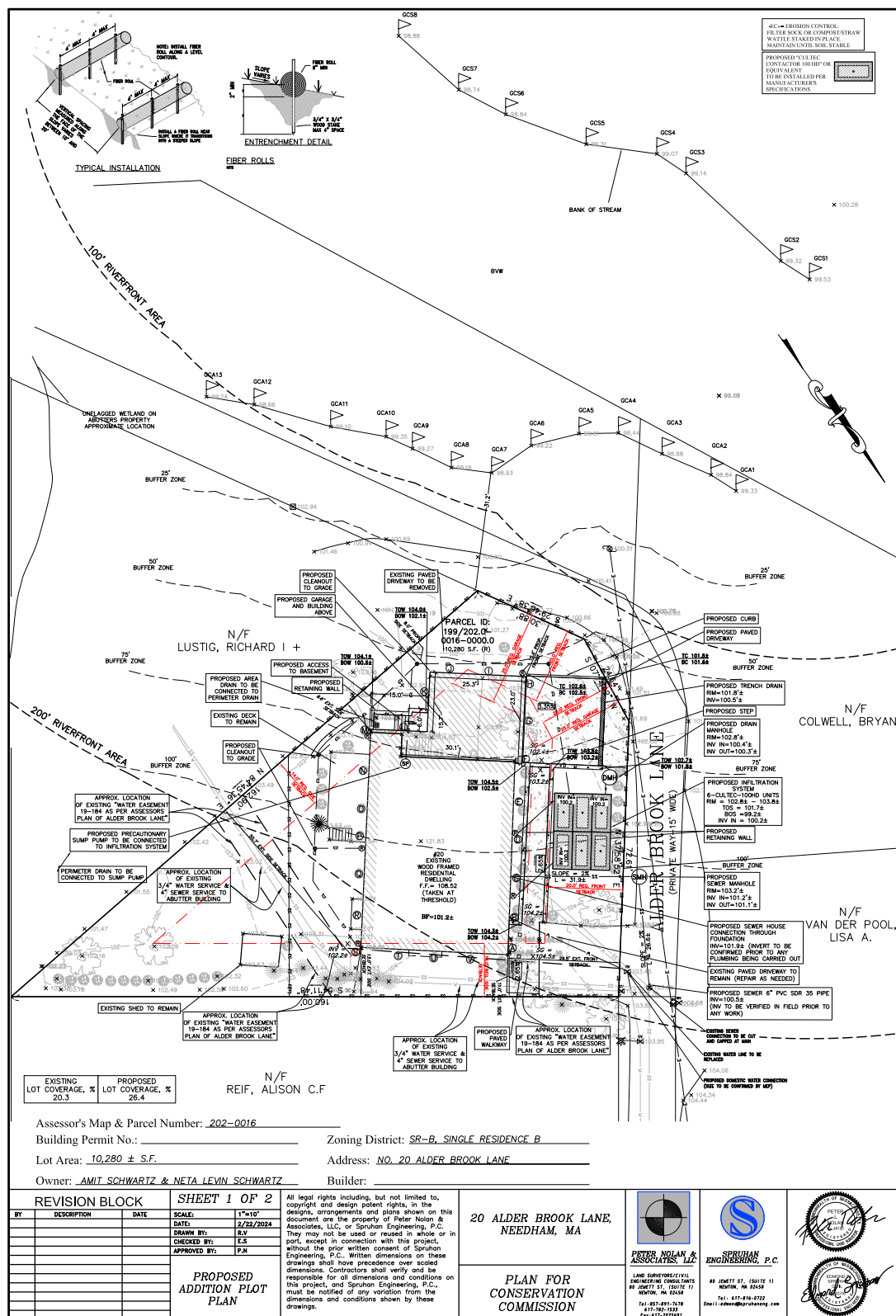
The proposed project is subject to review and approval by the Town of Needham Conservation Commission, due to its proximity to vegetated wetlands and riverfront. It has been designed with sensitivity to resource areas on site.



Existing Conditions

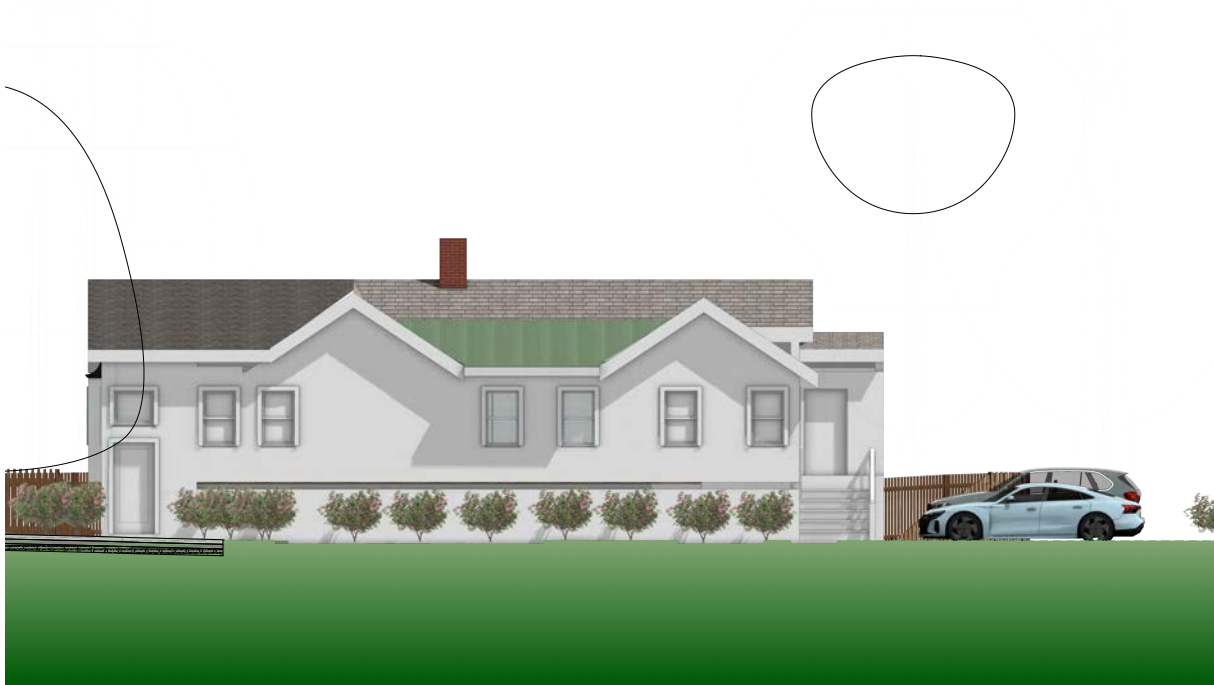


Proposed Addition



Proposed Site Plan

March 1, 2024

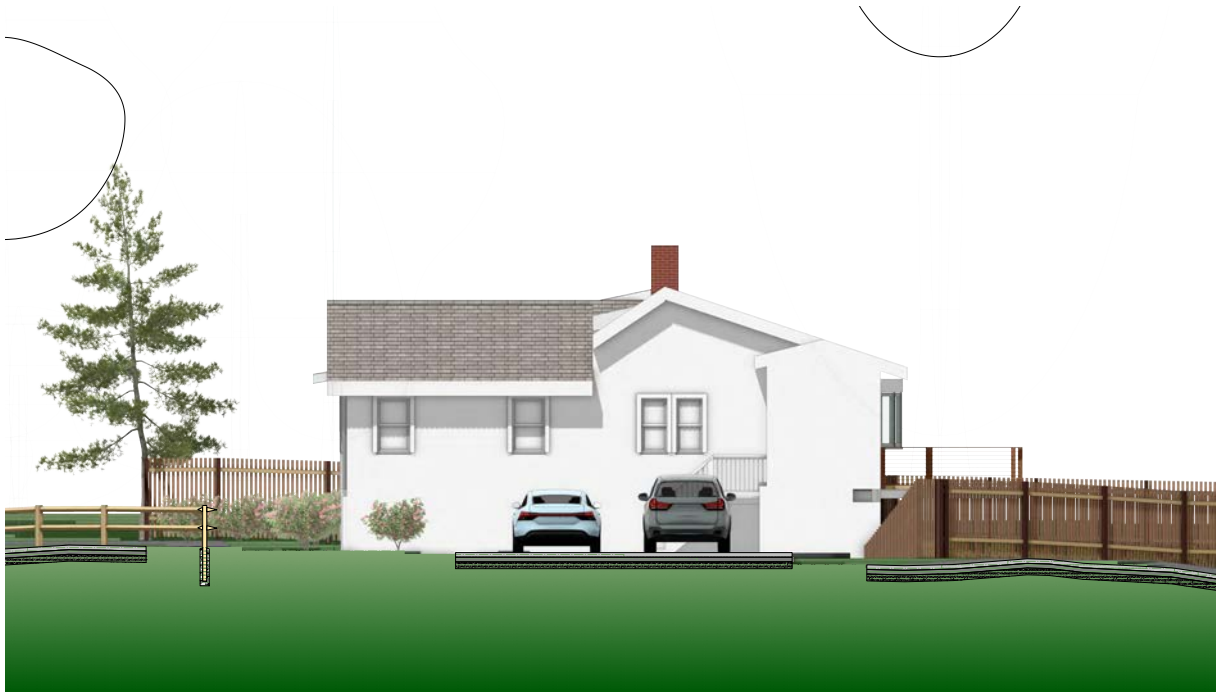


Front Elevation - Existing Conditions



Front Elevation - Proposed Addition

March 1, 2024



Right Elevation - Existing Conditions

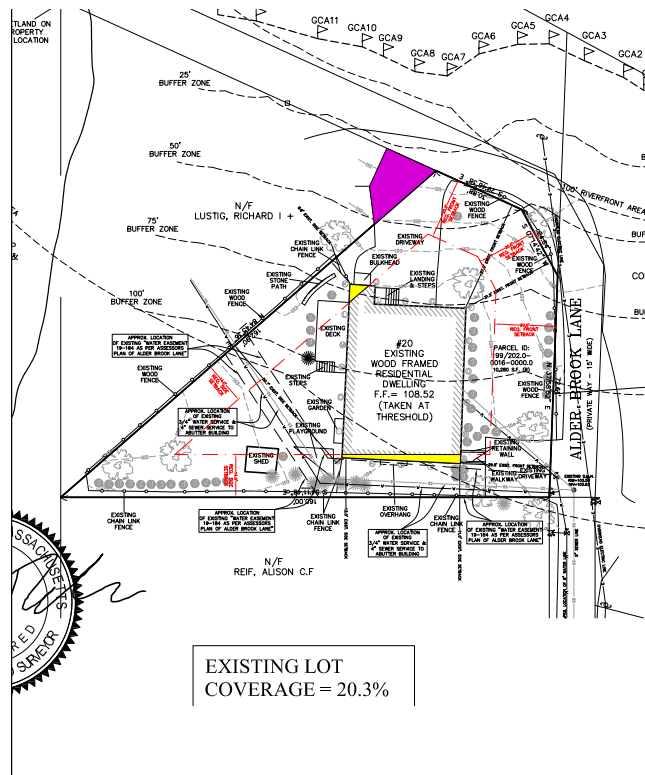


Right Elevation - Proposed Addition

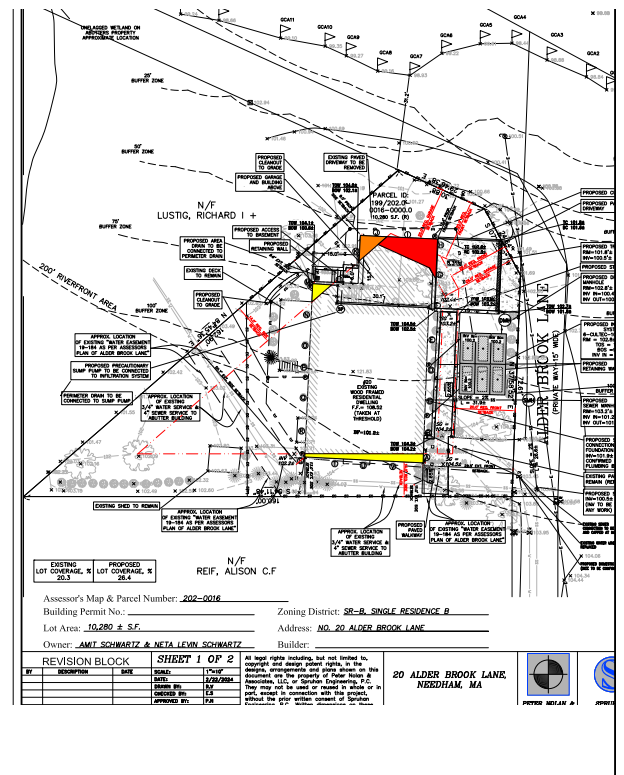
Zoning Relief Sought

Special Permit for extension of pre-existing non-conforming side yard setback per Section 1.4.6 of the Town of Needham Zoning By-Law:
Existing Side Yard setback is 9.6'; proposed 8.0'.

Variance per Section 7.5.3 of the Town of Needham Zoning By-Law for Front Yard setback for attached garage: Required 25'; Proposed 15.4'.



*Pre-existing non-conforming side yards (Yellow);
Driveway access encroachment shown in
Magenta*



*Proposed extension of non-conforming side yard
(Orange);
Proposed non-conforming front yard (Red)*

Argument for Special Permit

20 Alder Brook Lane is a lawful, pre-existing use. The proposed work would change and extend the non-conforming use, and it would structurally alter and enlarge it.

The proposed work:

1. Is designed in a manner that is compatible with the existing natural features of the site and is compatible with the characteristics of the surrounding area.
2. Would not be substantially more detrimental than the existing non-conforming use to the neighborhood.
3. will not result in conditions that unnecessarily add to traffic congestion or the potential for traffic accidents on the site or in the surrounding area.
4. The proposed work would not adversely impact the surrounding area resulting from:
 - a. excessive noise, level of illumination, glare, dust, smoke, or vibration which are higher than levels now experienced from uses permitted in the surrounding area,
 - b. emission or discharge of noxious or hazardous materials or substances, or
 - c. pollution of waterways or groundwater. The proposed work would remove existing driveway paving in portions of the site nearest to identified wetland and to (perennial) Alder Brook, and replace it with native vegetation.

Argument for Variance

The current use of the property is permitted in the SR-B zoning district, and no change is proposed.

The shape of the lot at 20 Alder Brook Lane is highly unusual and quite uncommon compared to the majority of properties located within the SR-B zoning district. Additionally, its proximity to wetlands and riverfront, plus an existing water easement on the property result in constraints on where on the lot an addition may be constructed. These constraints represent a hardship to the Petitioner.

The requested relief would enable Petitioner to correct the existing situation where in entering and exiting their parking spaces they technically encroach on an abutter's land. Denial of the requested relief would cause Petitioner hardship in continuation of this encroachment, with all the future uncertainty that it entails.

The desired relief for the proposed work would not nullify or substantially derogate from the intent of the Town of Needham Zoning By-Law, and it may be granted without substantial detriment to the public good.

NEEDHAM PLANNING BOARD MINUTES

January 2, 2024

The Needham Planning Board meeting, held virtually using Zoom, was called to order by Adam Block, Chairman, on Tuesday, January 2, 2024, at 7:00 p.m. with Messrs. Crocker and Alpert, Mmes. McKnight and Espada, Planner, Ms. Newman and Assistant Planner, Ms. Clee.

Mr. Block noted this is an open meeting that is being held via Zoom per state guidelines. He reviewed the rules of conduct for all meetings. This meeting does not include any public hearings and public comment will not be allowed. If any votes are taken at the meeting the vote will be conducted by roll call. All supporting materials, including the agenda, are posted on the town's website.

Review of Needham Housing Authority Zoning Articles for May 2024 Town Meeting.

Mr. Block summarized the joint meeting that was held of the Planning Board and Housing Authority. There were 10 supporters who spoke, plus with 6 speakers concerned about storm water management, 4 concerned with height, 2 with the number of units and density, 2 with traffic and 2 with the overall size. Mr. Alpert suggested giving more detail about what meeting Mr. Block is talking about. Mr. Block noted there was a joint meeting on 12/6/23 for the community. The zoning proposed by the Housing Authority was discussed and reviewed. The site plan and renderings of what the redevelopment of the site would be was shown. It is going from roughly 150 units to roughly 250 units and one-story and 2-story units will go to 4 stories. The purpose was to consider rezoning of the site that would allow redevelopment for deeply affordable housing.

Mr. Crocker stated a couple of people have reached out to him to suggest 7½ foot ceilings to make the height shorter. Ms. McKnight noted there were questions asked at the community meeting that could have been answered at the meeting. One had to do with drainage with the homes on Maple Street. There was a general response, but she feels it could have been answered with more particulars. She recalls there is a piece of the property that is proposed to be saved as a possible drainage area for the town. The other issue was the location of parking. A 40-foot setback was proposed with parking allowed in the setback area and a 10-foot strip that could accommodate landscaping in front. There is nothing in the zoning that would not allow parking in back of the building. This could be dealt with during the site plan review process. She felt that could have been said. She feels the Board could have been more responsive to the questions.

Mr. Block stated he tried to keep that meeting with a focus on zoning. He would like a Frequently Asked Question site and for that to be kept updated. Comments from the residents were not really about zoning but what they would like to see. He noted the schedule going forward. If all are satisfied tonight, the Board, at the 1/16 meeting, will vote to send the zoning article to the Select Board. The hearing will be at the 2/27 meeting. Ms. Newman stated, ideally, the vote would be taken on 3/5 but they have until 3/19. Mr. Block stated he had a Chairs meeting and he heard there seems to be a willingness to not include any restrictions as to either age or disability as part of the zoning. Subsequent action would be taken by Town Meeting to remove any restrictions and clean up deeds to maximize funding flexibility to be as competitive as possible. The Select Board has not met yet. He expects there will be a letter from them explaining their support and it will be received before the 1/16 meeting.

Reginald Foster, Chair of the Needham Housing Authority, stated he is working on a list of detailed due diligence issues from the Community Preservation Committee (CPC). Some members have taken the position they would like it to not be so restricted. The next CPC meeting is next Wednesday. The answers have not been discussed but they asked if there was anything that would require restrictions. Mr. Crocker thought it was discussed to not include those restrictions. Mr. Block noted it was unresolved. Ms. Newman will flag that to check on it. Robert Smart, Attorney for the applicant, noted Town Counsel Chris Heep was in agreement with no requirement to limit occupancy in terms of age or handicap. It could be eliminated and just have the Section 1.3 restriction, as to affordability, that is in the Zoning By-Law. He is comfortable with the specific zoning. He does want specific reference made to all recorded documents including affordability [unclear].

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Mr. Alpert asked if Town Counsel has gone over the Select Board Warrant Article dealing with the current recorded restrictions. Mr. Smart noted Town Counsel has reviewed it and indicated he felt he and Mr. Smart were on the same page with how it should read. The Article authorizes ~~re is an authorization to~~ the Select Board to execute whatever documents they deem appropriate to remove any restrictions in accordance with the proposed zoning. He is happy to work with the Planning Board on the draft. If there are any concerns they would use framework or the dimensional framework ~~[unclear]~~. Mr. Alpert thinks the Zoning Article as drafted does the trick. A new underlying district is being created. There is a reference to a prior underlying district in Section 3.16.2. Does it make sense to have that there or take it out? Mr. Smart noted he copied from the Elder Services District language and it could be taken out. All agreed it should come out. Mr. Alpert stated it struck him that the setbacks for the parking which are 10 feet for the front and 5 feet for the side and rear would not cause any issues. He does not feel there is anything there on either side that would cause a problem.

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Ms. McKnight stated there should be a screening buffer. All agreed. Mr. Smart stated Footnote 1 on the second page speaks of landscaping. Mr. Alpert feels this is ready to go from the Planning Board point of view. Ms. McKnight suggested adding “, which setback shall provide a landscape buffer” at the end of Footnote 1. Mr. Smart will red-line the 2 changes. Ms. McKnight noted in Section 3.16.2, Scope of Authority, there is a reference to Section 3.2 and Sections 4.2 through 4.10. There is a new Section 4.11. Mr. Smart will add a reference to Section 4.11. Ms. McKnight feels they should have a definition of multi-family. The language that is in the State Zoning Act should be copied. She stated she has rewritten the definition for multi-family housing to be “a building with 3 or more residential dwelling units or 2 or more buildings on a lot with more than one dwelling unit in each building.” All are fine with that.

Ms. McKnight noted in Section 3.16.4, these are uses allowed by right. Ms. Newman was treating this like an apartment district ~~[like an Apartment A-1 District?]~~. Mr. Alpert likes the idea of limiting the use to affordable housing. The purpose is to have deeply affordable housing at this site. Ms. McKnight stated in 3.16.5, if the definition of multi-family is changed as she suggested the multiple building section is not needed. She feels that is redundant. Mr. Smart stated it is not redundant. If you look at the use section and then the dimensional section, it is common to waive that one section. It is better to have that. Ms. McKnight stated there is nothing about minimum lot width. Section 4.1.5 has minimum lot width but does not reference this section. Frontage is specified. Mr. Alpert asked if it accomplishes what she wants by adding 4.1.5 in 3.16.2. Ms. McKnight stated the result of that would be no lot width requirement. That may be the correct solution. Mr. Alpert suggested starting with “Provisions of 3.16 shall supercede ... and add “Section 4.1.5 (minimum required lot width)” and continue from there. He would also change 4.2 through 4.10 to 4.2 through 4.11. All agreed.

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Ms. McKnight mentioned Footnote 4 on chimneys and heating-ventilation or air conditioning equipment, solar or photovoltaic panels. Mr. Smart took the language from the Muzi site zoning language. Mr. Crocker stated the reference may contradict the proposed Solar By-Law. Mr. Block suggested saying “~~notwithstanding~~ notwithstanding the proceeding sentence, roof mounted solar systems may exceed 25% of a building’s² roof within the affordable housing district.” Ms. Newman will correct it. Mr. Smart noted the 5th line, where it says “total horizontal coverage of all such structures”, add “except roof mounted solar energy systems.” Mr. Crocker feels that is cleaner. All agreed. Ms. McKnight noted on page 3, Section 3.16.7 - Parking Requirement, (a) should say “Zoning” By-Law. Mr. Smart stated that is in several places and refers to the By-Law. It is in (b) also.

Mr. Alpert noted the Non-Zoning Article, he suggests there be continued discussions with Town Counsel Heep on how general and how specific the Board wants to be regarding ancient and outdated restrictions. Mr. Smart suggested deleting “ancient and outdated” and just have a restriction on use. Ms. McKnight noted the map with the triangle on it. Ms. Newman will have engineering look at it. Mr. Foster stated there had been a 600 square foot discrepancy and it was that triangle of land still owned by the Town. The Select Board will discuss to see if they want to convey that piece to the Housing Authority. Mr. Smart noted the Map Article and how best to describe that land. In most Articles where land is being put into a new zoning district there is a running description. It could be done as a reference to a Plan or provide a meets ~~Leaps~~ and ~~B~~ bounds description also saying “as shown on plan as such and such.” The concern is the lot consolidation plan is not completed yet. He feels it is best to leave it with a running description. There are a couple of minor errors the surveyor is cleaning up.

Ms. Newman asked when Mr. Smart would have the final ~~Leaps~~ meets and ~~B~~ bounds description. Mr. Smart stated it is very close, but they do not have the final yet. There are 2 or 3 corrections that Hancock is working on, and he wants to confirm the triangle parcel is included in the description. Ms. Newman wants to see the plans of record he is utilizing to create this

rezoning. Mr. Block stated the Board has a clear path for 1/16. They will have the language red-lined and finalized and the hearing is scheduled for 2/27.

Review of Solar Energy Systems Zoning Article for May 2024 Town Meeting.

Mr. Block noted the areas of who and on what basis the special permit granting authority should be flagged [unclear]. Ms. Newman reviewed the By-Law and how she organized it. 1) is the definitions section that defines all systems regulated, 2) defines regulations for uses as accessory uses and the terms they would be allowed, 3) are the dimensional standards such as lot coverage, height and supplemental systems, 4) is site plan approval. She tried to define all terms tying to regular roof mounted, building mounted and building canopy roof mounted. Small scale is up to 1,500 square feet and medium scale is 1,500 to 40,000 square feet. Mr. Block noted in 1 (c), building mounted canopies, he does not think they would have these on residential structures but mainly on commercial. Mr. Crocker stated a canopy would only be on a flat roof.

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Mr. Crocker stated he was not sure of the difference between A and C (a) and (c)?. There could be a building mounted on the side of the building like an awning system. Mr. Crocker is ok with the definitions. He feels this works. Ms. Newman reviewed page 2, paragraph 3, accessory uses. Roof mounted is allowed across zoning districts then differentiated between allowed in residential and non-residential. Small scale are allowed in residential. Ground-Mounted and Solar Parking Canopies are allowed in rear and side yards and front yard by special permit and she has provided for screening. Medium scale is allowed by special permit. Mr. Block stated in 6.2.1 (b) add "as of right" at the beginning. Ms. Newman will make a universal change.

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Ms. McKnight is concerned it does not say who the special permit granting authority is for this but it says later. Ms. Newman stated she wants to have a conversation. They have an as-of-right standard in these districts but predominantly in residential. The Planning Board is not usually involved in reviewing residential structures. Should the Zoning Board of Appeals (ZBA) be the permit granting authority? This is allowing a deviation in setback standards and a special permit in the front yard. Should this all be ZBA granted? Mr. Alpert stated this says medium scale shall be permitted but it does not say where. Ms. Newman noted that is covered under setbacks. Mr. Alpert questioned if medium scale can be in front yard as long as it meets setbacks. He noted small scale specifically says where it is permitted, medium scale does not. Mr. Block does not want it in the front yard and Mr. Alpert agreed. Ms. Newman agreed it should be clarified. Ms. Espada stated it should be site plan review by the special permit granting authority or the Planning Board. Ms. Newman stated the first should be by special permit by the ZBA, then site plan approval by the Planning Board. Mr. Crocker noted the language should clarify medium scale is not allowed in front yards but in side and rear yards. Mr. Alpert noted it should be as of right subject to site plan review. The non-residential district would be the same. Ms. Newman will add the same language.

Ms. Newman stated she added a provision that allowed building mounted systems in the New England Business Center District, Mixed-Use 128 District and Highland Commercial 128 District. Ms. McKnight noted in Section 6.2.1 (b) she is adding medium scale is permitted as of right in side and rear yards and also in (c). In (d), it is permitted in New England Business Center and Mixed-Use 128. Mr. Alpert added "as of right." Ms. Newman will change that universally and list the districts. Ms. McKnight stated the chart on page 4 regarding setbacks noted all other ground mounted are permitted subject to site plan review. She compared Section 6.2.1 (b) to page 5, #4. One says by right and the other says by the special permit granting authority. A discussion ensued.

Ms. Newman stated the Board should say "allowed as of right at the principal structure level." Mr. Alpert feels it should say "between the 5-foot setback and the district setback in Section 6.2.1 (d)." He does not want to allow this along Highland Avenue. Mr. Crocker thought this was on the other side of 128. Mr. Alpert stated there is a residential area there that is very vocal. Mr. Block stated it is allowed in Highland Commercial 128 on both sides and the New England Business Center. This is not adding another story. We are allowing a canopy that is over the mechanicals. Roof mounted mechanicals are allowed in that area. A discussion ensued. Mr. Block does not see this as having a detrimental impact. Mr. Alpert feels it gives the appearance of adding another story. He asked if they wanted to allow that on the main thoroughfare. He has no issue but just wanted to bring it up. He does not want the appearance of adding another floor. Ms. Newman will leave Highland Commercial out for now. Mr. Block agreed that it could be added at another time. Mr. Crocker stated he is also fine not allowing in the area over by the Panera strip but Mr. Alpert noted it gets complicated to carve out. Mr. Crocker clarified it was carved out for Brew Pubs. Ms. Newman will copy the language for Brew Pubs.

Ms. Newman noted the [reference to a](#) Historic District. After discussion, it was decided to remove the Historic District [reference](#). Ms. Newman explained the lot coverage section and noted the Board talked about height at the last meeting. She used the standard pitch of the roof and followed the standard for mechanicals on a roof. She is not sure the Board wants to go with that. Mr. Crocker stated there is no sense to have a setback restriction from the edge of the roof in this situation as it should just be height. Mr. Block feels it should be set back from the edge. There should be some standard for a building mounted canopy. Ms. McKnight feels it should be set back 3 feet. They are only talking about the commercial districts. Mr. Crocker stated the support is being taken away if set back. Ms. Espada stated most of her projects have a setback and that is to have access to all parts of it. A good designer would set it back a bit. Mr. Crocker noted these systems are over the roof and not on the roof. Ms. Espada clarified there is no reason for a setback if you can walk under it. These need to be supported structurally. There is the same visual impact.

Mr. Alpert noted the 15-foot height limitation on roof mounted canopies. Ms. McKnight stated the setback could be determined to be required during site plan review. She would go along with Mr. Crocker. She thinks there should be a 15-foot maximum height. All agreed. Ms. Newman noted small ground mounted are allowed in Single Residence B (SRB) and General Residence with an 8-foot vertical grade and 10 feet in all other districts. Medium scale are allowed at 8 feet in SRB and General Residence and 10 feet in all others. Solar parking canopies are 17 feet vertical from grade. Ms. Newman noted solar parking canopies in residential are treated as accessory structures over parking lots subject to requirements in Section 5.1.3 of the By-Law. Any landscaping requirement would need to be moved elsewhere on the lot.

The Board discussed Section 6.2.4 and provisions for site plan approval and who is responsible. All medium scale requires site plan approval. The Board reviewed how each would be approved and what Board has jurisdiction. Solar parking canopies in non-residential [districts](#) would be by the Planning Board. Small Scale ground mounted not meeting district setback, or front yards, may be assigned to the ZBA. All agreed. Ms. Newman asked what design standard are the authorities looking at. Mr. Block asked, in terms of size, should the Board require a site plan for over 1,500 square feet? Mr. Crocker noted they are talking about photo voltaic systems and different requirements are necessary. Solar thermal are always smaller and always angled off the roof. Ms. Newman will revise the draft for the 1/16 meeting.

Minutes

There were no minutes.

Report from Planning Director and Board members.

Ms. Newman noted there is a [Housing Needham Advisory Group \(HONE\)](#) meeting this Thursday. The [HONE](#) ~~Committee~~ is looking at a final model. There are 3 different scenarios to take to the community meeting with different build outs to accomplish the goal of the MBTA Communities Act. There is one [scenario](#) meeting [the MBTA Guidelines](#) threshold with minimal changes to the framework, a middle ground that mirrors the recommendations in the housing plan and the third with greater density and height. They will meet to review the third option and plan for the community wide workshop on 1/18. Ms. Espada stated there will be options for people to see the different scenarios. Ms. Newman reviewed the different model options. The [Council of Economic Advisers \(CEA\)](#) is inviting some of the developers and property owners to get their input. Ms. Espada stated, with a developer on the committee, they are getting incredible feedback. There are different perspectives from a good group with diverse thoughts.

Correspondence

Mr. Block noted the following correspondence for the record: an undated memo from Joe Matthews regarding limiting the size of homes in SRB. Ms. Newman will respond to him. And a notice of hearing from the City of Newton ZBA, dated 1/10/24, regarding a 300+ unit development at 78 ~~Creafte~~ [Creafte](#) Street.

Upon a motion made by Mr. Alpert, and seconded by Ms. McKnight, it was by a vote of the five members present unanimously:

VOTED: to adjourn the meeting at 9:45 p.m.

Respectfully submitted,

Planning Board Minutes January 2, 2024

Donna J. Kalinowski, Notetaker

Natasha Espada, Vice-Chairman and Clerk

DRAFT

ARTICLE 19: AMEND ZONING BY-LAW – MAP CHANGE FOR AFFORDABLE HOUSING DISTRICT

To see if the Town will vote to amend the Zoning By-Law by amending the Zoning Map as follows:

Place in the Affordable Housing District all that land now zoned Single Residence B and General Residence lying east of Linden Street, comprising parcels 23 and 24, on Assessors Map No. 133, parcel 41 on Assessors Map No. 134, and parcel 13 on Assessors Plan No. 45. Said land is bounded and described as follows:

Beginning at a concrete bound at the northwesterly corner of the property, on the easterly side of Linden Street; Thence, S 83° 26' 20" E for a distance of 107.02 feet to an iron rod; Thence, S 82° 15' 50" E for a distance of 87.89 feet to a concrete bound; Thence, S 08° 56' 11" W for a distance of 328.80 feet to a point; Thence, S 42° 44' 39" E for a distance of 159.58 feet to a point; Thence, S 23° 11' 00" W for a distance of 275.88 feet to a point; Thence, S 14° 57' 44" W for a distance of 199.48 feet to a point; Thence, S 86° 04' 45" E for a distance of 59.86 feet to a point; Thence, S 88° 37' 00" E for a distance of 37.49 feet to a point; Thence, S 86° 19' 44" E for a distance of 140.96 feet to a point; Thence, S 86° 19' 44" E for a distance of 26.25 feet to a point; Thence, along a curve turning to the right, having a radius of 2817.93 feet, a distance of 716.25 feet to a point; Thence, S 37° 38' 40" W for a distance of 530.86 feet to a point; Thence, N 52° 24' 02" W for a distance of 175.47 feet to a point; Thence, N 74° 08' 46" W for a distance of 39.96 feet to a point; Thence, N 21° 18' 16" E for a distance of 70.00 feet to a point; Thence, N 72° 56' 42" E for a distance of 165.00 feet to a point; Thence, N 59° 35' 49" E for a distance of 116.66 feet to a point; Thence, N 40° 49' 41" E for a distance of 118.66 feet to a point; Thence, N 21° 56' 08" E for a distance of 118.67 feet to a point; Thence, N 02° 41' 11" E for a distance of 122.65 feet to a point; Thence, N 09° 25' 32" W for a distance of 271.23 feet to a point; Thence, N 43° 37' 54" E for a distance of 103.44 feet to a point; Thence, N 20° 01' 11" E for a distance of 112.07 feet to a point; Thence, N 86° 04' 45" W for a distance of 22.72 feet to a point; Thence, N 78° 30' 10" W for a distance of 108.86 feet to a point; Thence, N 10° 27' 40" E for a distance of 823.79 feet to a point; Thence N 08° 57' 40" E a distance of 71.55 feet to the point of beginning.

Said parcel contains four hundred seventy-nine thousand two hundred fifty-four square feet more or less (479,254± S.F.)

Or take any other action relative thereto.

INSERTED BY: Planning Board

FINANCE COMMITTEE RECOMMENDS THAT: Recommendation to be Made at Town Meeting

Article Information: Article 19 describes the approximately 11-acre geographical area on which the present Linden-Chambers housing development is located, which is owned by the Needham Housing Authority, plus an isolated 714 square foot triangular parcel owned by the Town of Needham, along the easterly side of Linden Street, proposed to be placed in the Affordable Housing District. The affected property is shown on a plan prepared by Hancock Associates, titled "Plan of Land in Needham, MA", dated December 21, 2023. The land is currently located within the Single Residence B and General Residence zoning districts and contains approximately 479,254 square feet.

ARTICLE 18: AMEND ZONING BY-LAW – AFFORDABLE HOUSING DISTRICT

To see if the Town will vote to amend the Zoning By-Law as follows:

1. In Section 2.1, Classes of Districts, by adding the following term and abbreviation under the subsection Residential:

“AHD – Affordable Housing District”

2. In Section 3, Use Regulations, by inserting a new Subsection 3.16, Affordable Housing District, to read as follows:

“3.16 Affordable Housing District

3.16.1 Purpose of District

The purpose of the Affordable Housing District (hereinafter referred to as AHD) is to promote the health, safety, and general welfare of the community by encouraging the establishment of affordable housing units, while minimizing potential adverse impacts upon nearby residential and other properties.

3.16.2 Scope of Authority

The regulations of the Affordable Housing District shall govern all new construction, reconstruction, or expansion of new or existing buildings, and new or expanded uses. Provisions of Section 3.16 shall supersede those of Section 3.2 (Schedule of Use Regulations), Section 4.1.5 (Minimum Required Lot Width), Sections 4.2 through 4.11 (Dimensional Regulations) and Section 5.1.2 (Required Parking), except as otherwise specifically provided herein. The Planning Board shall be the permitting authority for any multi-family housing development in the AHD.

3.16.3 Definitions

For the purposes of this section and the Needham Zoning By-Law, the following words and phrases shall have the following meanings:

- a. AHD Project – a multi-family housing development of affordable housing units, as defined in Section 1.3 of this By-Law.
- b. Multi-family housing- a building with 3 or more residential dwelling units or 2 or more buildings on the same lot with more than 1 residential dwelling unit in each building.
- c. Site Plan Review – the Site Plan Review process as provided in Section 7.4 that an applicant must obtain for any AHD project.

3.16.4 Allowed Uses

The following uses may be constructed, maintained, and operated by right:

- a. AHD Projects, after completion of Site Plan Review as provided in Section 7.4.
- b. Accessory buildings and uses to the use allowed by right.

3.16.5 Multiple Buildings in the Affordable Housing District

More than one building may be located on a lot in the AHD as a matter of right, provided that each building and its uses complies with the requirements of Section 3.16 of this By-Law.

3.16.6 Dimensional Regulations for AHD Projects in the Affordable Housing District

Minimum Lot Area (Sq. Ft.)	Minimum Lot Frontage (Ft.)	Front Setback (Ft.) (1)	Side Setback (Ft.) (2)	Rear Setback (Ft.) (3)	Maximum Floor Area Ratio	Maximum Dwelling Units Per Acre	Maximum Lot Coverage	Maximum Height (Ft.) (4)	Maximum Number of Stories
20,000	150	40	25	25	0.50	25	20%	58	4

- (1) The front setback shall be a landscaped, vegetative buffer area, except that driveway openings, sidewalks, walkways and screened mechanical equipment may be located in the buffer area. Additionally, parking areas may be located in the buffer area, but must be set back at least 10 feet from the front lot line, which setback shall provide a landscaped buffer.
- (2) Parking areas must be set back at least 5 feet from a side lot line. The side lot line setback shall be a landscaped vegetative buffer area.
- (3) Parking areas must be set back at least 5 feet from a rear lot line. The rear lot line setback shall be a landscaped vegetative buffer area.
- (4) Structures erected on a building and not used for human occupancy, such as chimneys, heating-ventilation or air conditioning equipment, solar or photovoltaic panels, elevator housings, skylights, cupolas, spires and the like may exceed the maximum building height provided that no part of such structure shall project more than 15 feet above the maximum allowable building height, the total horizontal coverage of all such structures, except roof-mounted solar energy systems, on the building does not exceed 25 percent, and all such structures are set back from the roof edge by a distance no less than their height. The Planning Board may require screening for such structures as it deems necessary. Notwithstanding the above height limitations, cornices and parapets may exceed the maximum building height provided they do not extend more than 5 feet above the highest point of the roof.

3.16.7 Parking Requirements

- a. Notwithstanding anything in the By-Law to the contrary, for AHD Projects in the Affordable Housing District, the off-street parking requirement shall be .5 parking spaces per dwelling unit.
- b. For AHD Projects in the Affordable Housing District, the requirements of By-Law Section 5.1.3, Parking Plan and Design Requirements, shall apply.

3.16.8 Site Plan Review

- a. Site plan review under Section 7.4 of the By-Law shall be completed by the Planning Board for any AHD Project prior to the filing of an application for a building permit.
 - b. For AHD Projects the site plan review filing requirements shall be those set forth in the By-Law for Major Projects as defined in Section 7.4.2.
 - c. The procedure for the conduct of site plan review for an AHD project shall be as set forth in Section 7.4.4 of the By-Law.
 - d. In conducting site plan review of an AHD project, the Planning Board shall consider the review criteria set forth in Section 7.4.6 of the By-Law.
3. In Section 7.4 Site Plan Review, Subsection 7.4.2 Definitions, by adding a new paragraph after the paragraph defining MAJOR PROJECT, to read as follows:

“In the Affordable Housing District, a MAJOR PROJECT shall be defined as any construction project which involves the construction of 10,000 or more square feet of gross floor area; or increase in gross floor area by 5,000 or more square feet; or any project which results in the creation of 25 or more off-street parking spaces; or any project that results in any new curb- or driveway-cut.”
 4. In Section 7.4 Site Plan Review, Subsection 7.4.2 Definitions, by adding a new paragraph after the paragraph defining MINOR PROJECT, to read as follows:

“In the Affordable Housing District, a MINOR PROJECT shall be defined as any construction project which involves the construction of more than 5,000 but less than 10,000 square feet gross floor area; or an increase in gross floor area such that the total gross floor area after the increase is 5,000 or more square feet – and the project cannot be defined as a MAJOR PROJECT.”
 5. In Section 3.16 Accessory Dwelling Units (ADU’s) by renumbering the section as Section 3.17 Accessory Dwelling Units (ADU’s).

Or take any other action relative thereto.

INSERTED BY: Planning Board

FINANCE COMMITTEE RECOMMENDS THAT: Recommendation to be Made at Town Meeting

Article Information: Article 18, in combination with Article 19, proposes to create the Affordable Housing District (AHD). Article 18 lays out the regulatory framework for the new district while Article 19 describes its geographical boundaries.

The purpose of the AHD is to create a district for affordable housing, which is in furtherance of a Town goal, set forth in the Town of Needham Housing Plan of December, 2022, to “enable NHA (Needham Housing Authority) to make essential improvements to its property inventory while potentially yielding buildable lot areas for additional deeply affordable or more diverse income affordable housing”. The impetus for creation of the AHD came from the Needham Housing Authority (NHA), which seeks to replace its 152 studio apartments at its 11-acre Linden-Chambers housing complex with 247 new units. During phase 1 of development, 128 new one-bedroom and 8 two-bedroom units are expected. Over time, and as financing permits, an additional 111 new units are planned in a phase 2 project. The Article would also allow occupants to be persons who are not elderly or handicapped, in addition to the elderly and

handicapped, including tenants currently living at Linden-Chambers, provided all must have incomes at or below eighty (80) percent of area median income.

The site at Linden-Chambers is now in two zoning districts, Single Residence-B and General Residence B. The land at Linden-Chambers is also subject to restrictions imposed by recorded deeds, Town Meeting votes, and variances, from the 1957-1971 period. The current zoning allows only for single and two-family use. The recorded deeds, Town Meeting votes, and variances, which do allow for multi-family use, limit occupancy to elderly only. The dimensional requirements in the Single Residence-B and General Residence Districts, and in the recorded restrictions, particularly those relating to number of units, height, and number of stories, would prevent the intended reconstruction from going forward. The new requirements proposed for the AHD District would make such reconstruction possible under zoning.

Uses

The only uses permitted in the AHD are “AHD Projects”, and accessory uses thereto. An AHD Project is defined as “a multi-family housing development of affordable housing units, as defined in Section 1.3 of this By-Law”. Section 1.3 defines affordable housing units as affordable to and occupied by a household with income at or below eighty (80) percent of area median income (AMI). This definition is used throughout the current Needham Zoning Bylaw for affordable housing units, in multiple zoning districts. Single and two-family use would not be permitted in the AHD. It is expected that federal and state requirements applicable to the NHA, and anticipated project funding program requirements, will mean that most, if not all, of the units to be developed will have affordability limits that are lower than 80% of AMI.

Permitting Process

AHD Projects would be allowed by right but would be subject to Site Plan Review by the Planning Board, as provided in Section 7.4 of the Zoning Bylaw. Site Plan review requires submission to the Planning Board of an application, and a site plan. That plan must address location of proposed structures, setbacks, building elevations, contour elevations, parking areas and spaces, maneuvering aisles, driveways and driveway openings, facilities for pedestrian and vehicular movement, drainage, utilities, landscaping, lighting, loading and unloading facilities, refuse removal, traffic, and other information as may be needed by the Planning Board to make a site plan review decision. The Site Plan review procedure includes review of the plans by the Town’s Design Review Board, submission of copies of the application and site plan to the Department of Public Works, Engineering Department, Building Department, Board of Health, Conservation Commission, and other Town boards. Publication, notice to abutters, and at least one public hearing is required. In making its decision, the Planning Board must consider protection of adjoining premises, surface water drainage, sound and sight buffers, traffic and safety, compliance with laws protecting handicapped and elderly persons, parking, refuse disposal, relation of structures and open spaces to natural landscape, existing buildings and other community assets in the area, and mitigation of adverse impacts on town resources including water, sewer, and streets.

Lot Area and Frontage

The AHD District requires a minimum lot area of 20,000 sq. ft. and minimum lot frontage of 150 feet.

Setbacks

The minimum front yard setback is 40 feet. The setback area must be a landscaped, vegetative buffer area, except for driveway openings, sidewalks, walkways, and parking areas. The parking areas must be set back 10 feet from the front lot line, which setback shall provide a landscape buffer.

The minimum side and rear setbacks are 25 feet. The setback areas shall be landscaped buffer areas. The parking areas must be set back five feet from the side and rear lot lines.

Floor Area Ratio and Lot Coverage

The maximum floor area ratio is .50. The maximum lot coverage is 20%.

Dwelling Units Per Acre

The maximum number of dwelling units per acre is 25.

Height and Rooftop Structures

The maximum height of a building, including rooftop structures, is 58 feet.

Rooftop mechanical structures, such as chimneys, HVAC equipment, solar panels, elevator housings, and the like may exceed the height of the building by up to 15 feet, with maximum horizontal coverage (except for solar energy systems) not to exceed 25%, and with the structures set back from the roof edge by at least their height.

Maximum Number of Stories

The maximum number of stories of a building is 4.

Off-Street Parking, Parking Plan and Design Requirements

The off-street parking requirement shall be .5 parking spaces per dwelling unit. Parking lots must comply with all the requirements of Zoning By-Law Section 5.1.3, Parking Plan and Design Requirements.

Summary

The Planning Board believes that the establishment of the proposed Affordable Housing District will further the Town's goal of providing deeply affordable housing units to some of Needham's most vulnerable residents and urges your support.