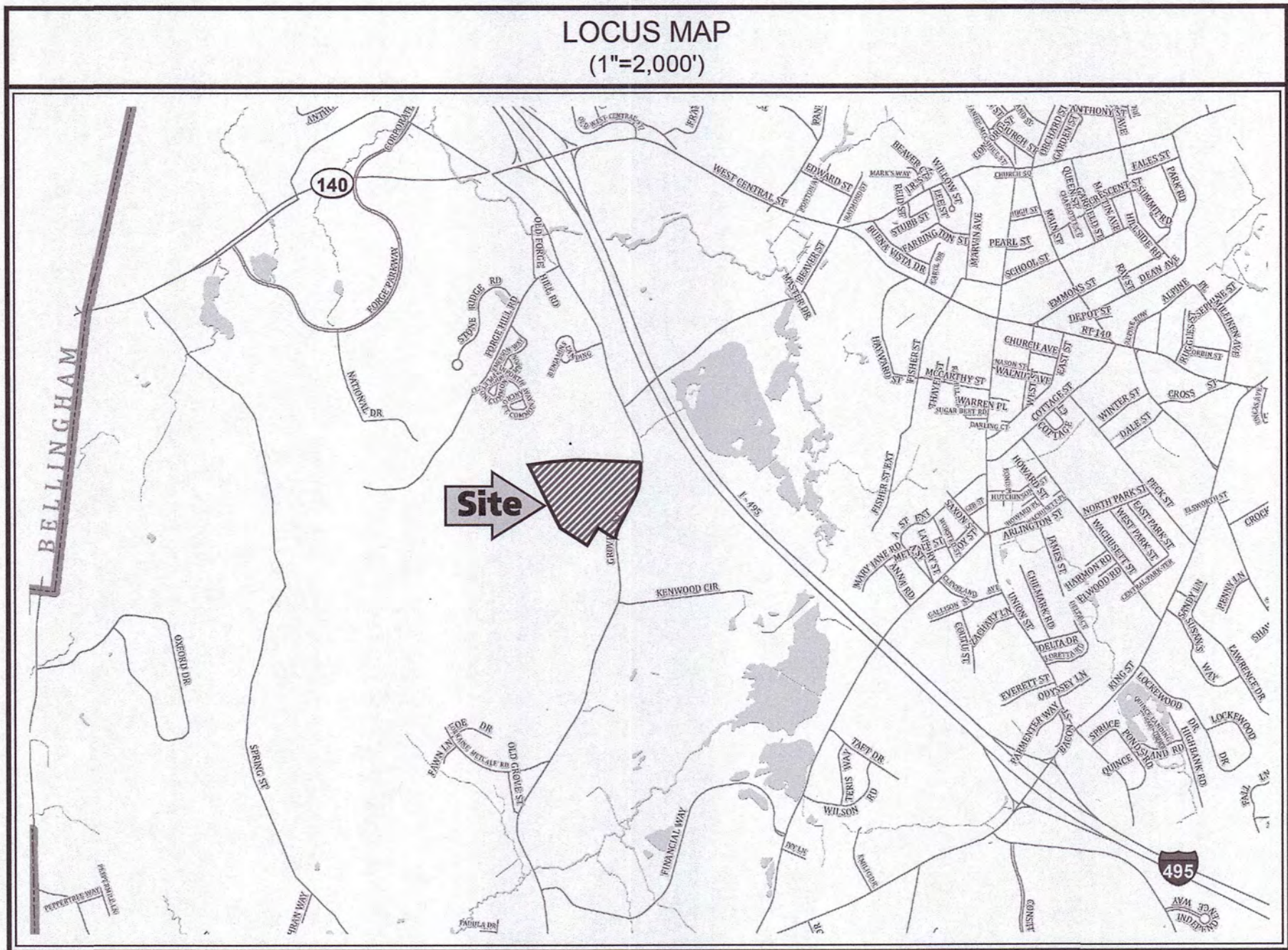


GROVE STREET RESIDENCES

121 GROVE STREET - FRANKLIN, MA

DRAWING INDEX			
DRAWING DATE	LAST REVISION	DRAWING	DRAWING DESCRIPTION
10/30/2023	12/18/2023	C-0	COVER SHEET
05/25/2022	11/09/2023	1 OF 1	EXISTING CONDITIONS SITE PLAN (PREPARED BY GUERRIERE & HALNON, INC.)
10/30/2023	12/18/2023	OS-1	OVERALL SITE PLAN
10/30/2023	12/18/2023	C-1A	DEMOLITION AND EROSION CONTROL PLAN
10/30/2023	12/18/2023	C-1B	DEMOLITION AND EROSION CONTROL PLAN
10/30/2023	12/18/2023	C-2A	GRADING AND DRAINAGE PLAN
10/30/2023	12/18/2023	C-2B	GRADING AND DRAINAGE PLAN
12/18/2023	-	C-2C	WETLAND REPLICATION PLAN
10/30/2023	12/18/2023	C-3A	UTILITY PLAN
10/30/2023	12/18/2023	C-3B	UTILITY PLAN
10/30/2023	12/18/2023	C-4A	PARKING AND TRAFFIC CONTROL PLAN
10/30/2023	12/18/2023	C-4B	PARKING AND TRAFFIC CONTROL PLAN
10/30/2023	12/18/2023	C-5	SITE DETAILS - I
10/30/2023	12/18/2023	C-6	SITE DETAILS - II
10/30/2023	12/18/2023	C-7	SITE DETAILS - III
10/30/2023	12/18/2023	C-8	SITE DETAILS - IV
10/30/2023	12/18/2023	C-9	SITE DETAILS - V
10/30/2023	12/18/2023	C-10	SITE DETAILS - VI
10/30/2023	12/18/2023	C-11	SITE DETAILS - VII
10/30/2023	12/18/2023	C-12	SITE DETAILS - VIII
10/30/2023	12/18/2023	FT-1	FIRE TRUCK TURNING PLAN
10/30/2023	12/18/2023	L100-L103	LANDSCAPING PLANTING PLANS
10/30/2023	12/18/2023	L200-L203	LANDSCAPE LIGHTING PLAN
10/30/2023	12/18/2023	L300	LANDSCAPE DETAILS
10/30/2023	12/18/2023	L400-L403	LANDSCAPE PHOTOMETRIC PLANS



REVISED PER ONSITE SOIL TESTING
RESULTS/NOI SUBMISSION
12/18/2023

RJOC

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PREPARED FOR:
**FAIRFIELD RESIDENTIAL
COMPANY LLC**
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

OWNER:
BRYN SMITH
106 MENDON STREET
BELLINGHAM, MA 02019
PARCEL ID 295-001 AND 294-007

NOT FOR CONSTRUCTION

GOVERNMENT/UTILITY CONTACTS

**BUILDING AND INSPECTIONS
DEPARTMENT:**
MUNICIPAL BUILDING
355 EAST CENTRAL STREET
FRANKLIN, MA 02038
ATTN: LLOYD BROWN,
BUILDING COMMISSIONER
PHONE: (508) 520-4926

ENGINEERING DEPARTMENT:
DPW ADMINISTRATION BUILDING
257 FISHER STREET
FRANKLIN, MA 02038
ATTN: MIKE MAGLIO, TOWN ENGINEER
PHONE: (508) 520-4910

HEALTH DEPARTMENT:
MUNICIPAL BUILDING
355 EAST CENTRAL STREET
FRANKLIN, MA 02038
ATTN: CATHLEEN LIBERTY, MPH
HEALTH DIRECTOR
PHONE: (508) 520-4905

POLICE DEPARTMENT:
911 PANTHER WAY
FRANKLIN, MA 02038
ATTN: THOMAS J. LYNCH,
CHIEF OF POLICE
PHONE: (508) 528-1212

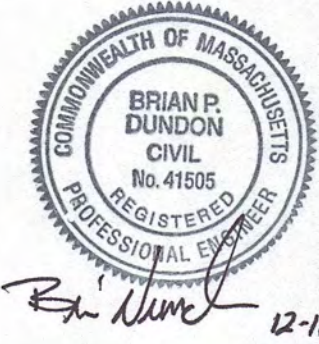
WATER AND SEWER DIVISION:
DPW ADMINISTRATION BUILDING
357 FISHER STREET
FRANKLIN, MA 02038
ATTN: DOUG MARTIN, P.E.
SUPERINTENDENT
PHONE: (508) 520-4910

CONSERVATION COMMISSION:
MUNICIPAL BUILDING
355 EAST CENTRAL STREET
FRANKLIN, MA 02038
ATTN: BREEKA LI GOODLANDER, CWS
CONSERVATION AGENT
PHONE: (508) 520-4847

FIRE DEPARTMENT:
40 WEST CENTRAL STREET
FRANKLIN, MA 02038
ATTN: JAMES McLAUGHLIN, FIRE CHIEF
PHONE: (508) 528-2323

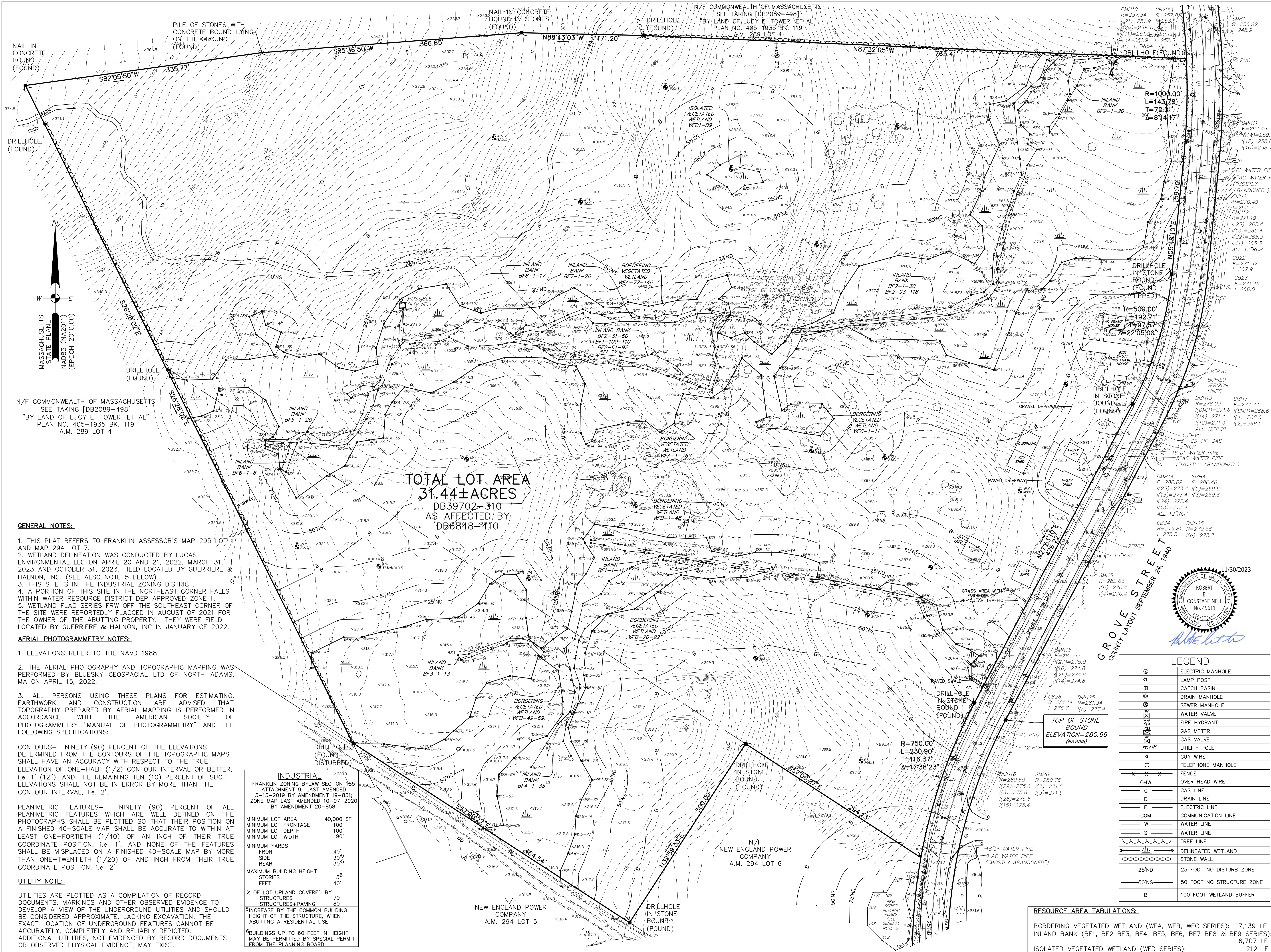
**PLANNING AND COMMUNITY
DEPARTMENT:**
MUNICIPAL BUILDING
355 EAST CENTRAL STREET
FRANKLIN, MA 02038
ATTN: AMY LOVE, TOWN PLANNER
PHONE: (508) 520-4907

PUBLIC WORKS:
DPW ADMINISTRATION BUILDING
257 FISHER STREET
FRANKLIN, MA 02038
ATTN: ROBERT A. CANTOREGGI,
DIRECTOR
PHONE: (508) 520-4910



DRAWING NUMBER:
C-0

PROJECT NUMBER:
22016



GENERAL NOTES:

1. THIS PLAT REFERS TO FRANKLIN ASSESSOR'S MAP 295 LOT 1 AND MAP 294 LOT 7.
2. WETLAND DELINEATION WAS CONDUCTED BY LUCAS ENVIRONMENTAL LLC ON APRIL 20 AND 21, 2022, MARCH 31, 2023 AND OCTOBER 31, 2023. FIELD LOCATED BY GUERRIERE & HALNON, INC. (SEE ALSO NOTE 5 BELOW)
3. THIS SITE IS IN THE INDUSTRIAL ZONING DISTRICT.
4. A PORTION OF THIS SITE IN THE NORTHEAST CORNER FALLS WITHIN WATER RESOURCE DISTRICT DEP APPROVED ZONE II.
5. WETLAND FLAG SERIES FRW OFF THE SOUTHEAST CORNER OF THE SITE WERE REPORTEDLY FLAGGED IN AUGUST OF 2021 FOR THE OWNER OF THE ABUTTING PROPERTY. THEY WERE FIELD LOCATED BY GUERRIERE & HALNON, INC IN JANUARY OF 2022.

AERIAL PHOTOGRAMMETRY NOTES:

1. ELEVATIONS REFER TO THE NAVD 1988.
2. THE AERIAL PHOTOGRAPHY AND TOPOGRAPHIC MAPPING WAS PERFORMED BY BLUESKY GEOSPACIAL LTD OF NORTH ADAMS, MA ON APRIL 15, 2022.
3. ALL PERSONS USING THESE PLANS FOR ESTIMATING, EARTHWORK AND CONSTRUCTION ARE ADVISED THAT TOPOGRAPHY PREPARED BY AERIAL MAPPING IS PERFORMED IN ACCORDANCE WITH THE AMERICAN SOCIETY OF PHOTOGRAMMETRY "MANUAL OF PHOTOGRAMMETRY" AND THE FOLLOWING SPECIFICATIONS:

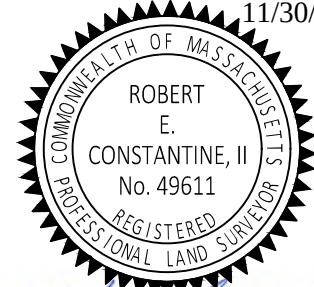
CONTOURS— NINETY (90) PERCENT OF THE ELEVATIONS DETERMINED FROM THE CONTOURS OF THE TOPOGRAPHIC MAPS SHALL HAVE AN ACCURACY WITH RESPECT TO THE TRUE ELEVATION OF ONE-HALF (1/2) CONTOUR INTERVAL OR BETTER, I.E. 1' (12"). AND THE REMAINING TEN (10) PERCENT OF SUCH ELEVATIONS SHALL NOT BE IN ERROR BY MORE THAN THE CONTOUR INTERVAL, I.E. 2'.

PLANIMETRIC FEATURES— NINETY (90) PERCENT OF ALL PLANIMETRIC FEATURES WHICH ARE WELL DEFINED ON THE PHOTOGRAPHS SHALL BE PLOTTED SO THAT THEIR POSITION ON A FINISHED 40-SCALE MAP SHALL BE ACCURATE TO WITHIN AT LEAST ONE-FORTIETH (1/40) OF AN INCH OF THEIR TRUE COORDINATE POSITION, I.E. 1', AND NONE OF THE FEATURES SHALL BE MISPLACED ON A FINISHED 40-SCALE MAP BY MORE THAN ONE-TWENTIETH (1/20) OF AN INCH FROM THEIR TRUE COORDINATE POSITION, I.E. 2'.

UTILITY NOTE:

UTILITIES ARE PLOTTED AS A COMPILATION OF RECORD DOCUMENTS, MARKINGS AND OTHER OBSERVED EVIDENCE TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES AND SHOULD BE CONSIDERED APPROXIMATE. LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. ADDITIONAL UTILITIES, NOT EVIDENCED BY RECORD DOCUMENTS OR OBSERVED PHYSICAL EVIDENCE, MAY EXIST.

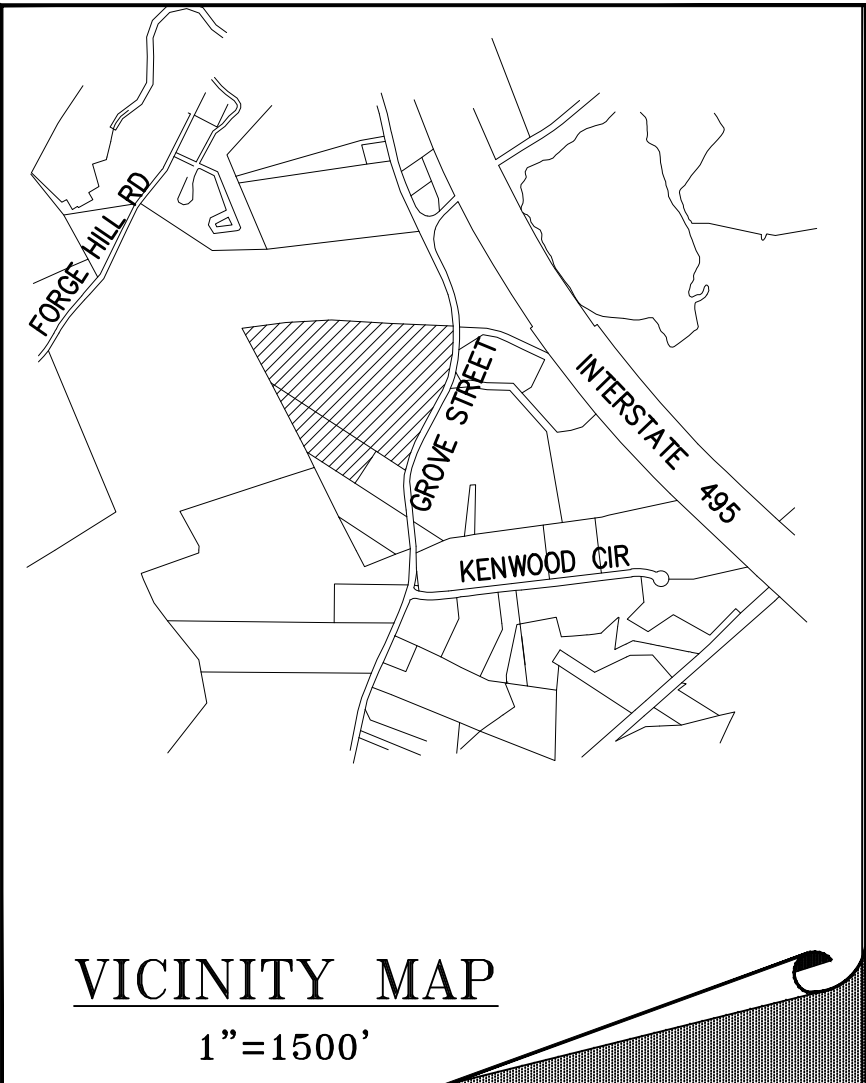
INDUSTRIAL	
FRANKLIN ZONING BYLAW SECTION 185 ATTACHMENT 9; LAST AMENDED 3-13-2019 BY AMENDMENT 19-831; ZONE MAP LAST AMENDED 10-07-2020 BY AMENDMENT 20-858;	
MINIMUM LOT AREA	40,000 SF
MINIMUM LOT FRONTAGE	100'
MINIMUM LOT DEPTH	100'
MINIMUM LOT WIDTH	90'
MINIMUM YARDS	
FRONT	40'
SIDE	30'
REAR	30'
MAXIMUM BUILDING HEIGHT	36
STORIES	40'
FEET	
% OF LOT UPLAND COVERED BY:	
STRUCTURES	70
STRUCTURES+PAVING	80
INCREASE BY THE COMMON BUILDING HEIGHT OF THE STRUCTURE, WHEN ABUTTING A RESIDENTIAL USE.	
BUILDINGS UP TO 60 FEET IN HEIGHT MAY BE PERMITTED BY SPECIAL PERMIT FROM THE PLANNING BOARD.	



LEGEND	
	ELECTRIC MANHOLE
	LAMP POST
	CATCH BASIN
	DRAIN MANHOLE
	SEWER MANHOLE
	WATER VALVE
	FIRE HYDRANT
	GAS METER
	UTILITY POLE
	GUY WIRE
	TELEPHONE MANHOLE
	FENCE
	OVER HEAD WIRE
	GAS LINE
	DRAIN LINE
	ELECTRIC LINE
	COMMUNICATION LINE
	WATER LINE
	WATER LINE
	TREE LINE
	DELINEATED WETLAND
	STONE WALL
	25' NO DISTURB ZONE
	50' NO STRUCTURE ZONE
	100 FOOT WETLAND BUFFER

RESOURCE AREA TABULATIONS:

BORDERING VEGETATED WETLAND (WFA, WFB, WFC SERIES): 7,139 LF
INLAND BANK (BFI, BF2 BF3, BF4, BF5, BF6, BF7 BF8 & BF9 SERIES): 6,707 LF
ISOLATED VEGETATED WETLAND (WFD SERIES): 212 LF



VICINITY MAP

1"=1500'

LEGAL NOTES

UTILITIES ARE PLOTTED AS A COMPILATION OF RECORD DOCUMENTS, MARKINGS AND OTHER OBSERVED EVIDENCE TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES AND SHOULD BE CONSIDERED APPROXIMATE. LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. ADDITIONAL UTILITIES, NOT EVIDENCED BY RECORD DOCUMENTS OR OBSERVED PHYSICAL EVIDENCE, MAY EXIST. CONTRACTORS (IN ACCORDANCE WITH MASS.G.L. CHAPTER 82 SECTION 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING AND CALL DIGSAFE AT 1(888)DIG-SAFE(7233).

CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS-OF-WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

OWNER

BRYN SMITH
106 MENDON STREET
BELLINGHAM, MA 02019
A.M. 295 LOT 1
A.M. 294 LOT 7

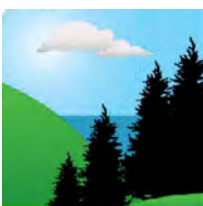
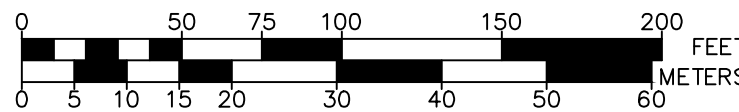
DEED BK. 3972 PG 310

EXISTING
CONDITIONS
SITE PLAN
121 GROVE STREET
FRANKLIN
MASSACHUSETTS

MAY 20, 2022

DATE	REVISION DESCRIPTION
05.25.2022	REVISED EXISTING WATER AND SEWER.
11.16.2022	ADDED LABELS TO RESOURCE AREAS.
01.19.2023	PER PEER REVIEW COMMENTS.
04.03.2023	SERIES D ADDED.
04.20.2023	PER WETLAND SCIENTIST COMMENTS.
07.12.2023	ADDED FRW WETLAND SERIES.
11.09.2023	ADDED BF4-BF9 SERIES.

GRAPHIC SCALE: 1"=60'



Guerriere &
Halnon, Inc.

ENGINEERING & LAND SURVEYING
55 WEST CENTRAL ST. PH. (508) 528-3221
FRANKLIN, MA 02038 FX. (508) 528-7921
www.gandhengineering.com

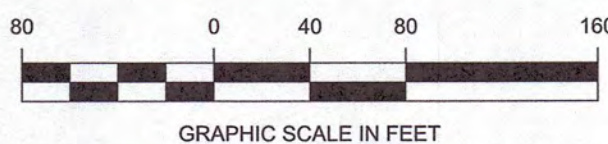
SHEET
1 OF 1

JOB NO. F4545



- NOTES:**
- TOTAL PARKING PROVIDED = 574 SPACES
 - AS SHOWN ON THE PLAN, THE PROPERTY CAPTURES A SMALL PORTION OF THE WATER RESOURCES OVERLAY DISTRICT. NO WORK IS PROPOSED IN THIS AREA AS PART OF THE RESIDENTIAL COMMUNITY.

NOT FOR CONSTRUCTION



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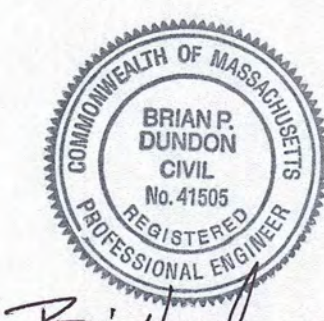
NO.	REVISION	DATE
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	1" = 80'

PREPARED FOR:

**FAIRFIELD GROVE
STREET LLC**
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:



PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

OVERALL SITE PLAN

DRAWING NUMBER:

OS-1

DATE: 10/30/2023

PROJECT NO.: 22016

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Drawing name: G:\MA\Fairfield\Residential\121 Grove Street\Main\2016_C-1 Demolition and Erosion Control Plan.dwg
Dec 19, 2023 - 9:54am



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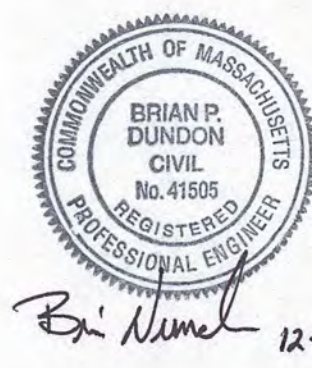
NO.	REVISION	DATE
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	1" = 40'

PREPARED FOR:

**FAIRFIELD GROVE
STREET LLC**
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAintree, MA 02184

SEAL:



PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

**DEMOLITION AND
EROSION CONTROL
PLAN**

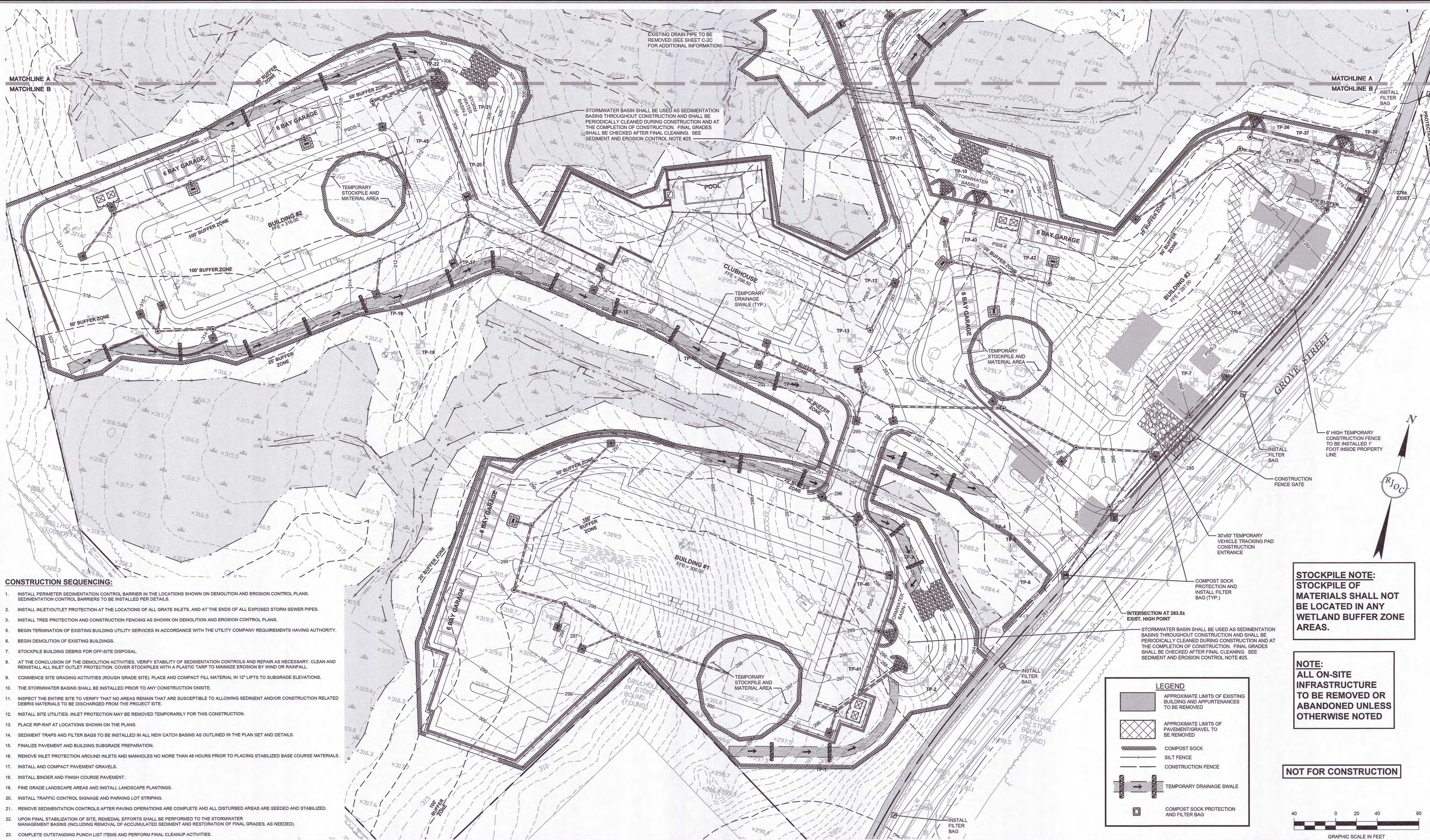
DRAWING NUMBER:

C-1A

DATE: 10/30/2023

PROJECT NO.: 22016

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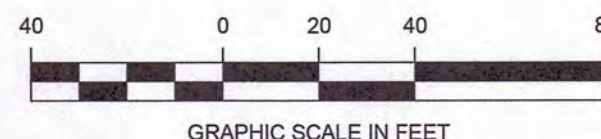
CONSTRUCTION SEQUENCING:

1. INSTALL PERIMETER SEDIMENTATION CONTROL BARRIER IN THE LOCATIONS SHOWN ON DEMOLITION AND EROSION CONTROL PLANS. SEDIMENTATION CONTROL BARRIERS TO BE INSTALLED PER DETAILS.
2. INSTALL INLET/OUTLET PROTECTION AT THE LOCATIONS OF ALL GRATE INLETS, AND AT THE ENDS OF ALL EXPOSED STORM SEWER PIPES.
3. INSTALL TREE PROTECTION AND CONSTRUCTION FENCING AS SHOWN ON DEMOLITION AND EROSION CONTROL PLANS.
4. BEGIN TERMINATION OF EXISTING BUILDING UTILITY SERVICES IN ACCORDANCE WITH THE UTILITY COMPANY REQUIREMENTS HAVING AUTHORITY.
5. BEGIN DEMOLITION OF EXISTING BUILDINGS.
6. STOCKPILE BUILDING DEBRIS FOR OFF-SITE DISPOSAL.
7. AT THE CONCLUSION OF THE DEMOLITION ACTIVITIES, VERIFY STABILITY OF SEDIMENTATION CONTROLS AND REPAIR AS NECESSARY. CLEAN AND REINSTALL ALL INLET/OUTLET PROTECTION. COVER STOCKPILES WITH A PLASTIC TARP TO MINIMIZE EROSION BY WIND OR RAINFALL.
8. COMMENCE SITE GRADING ACTIVITIES (ROUGH GRADE SITE), PLACE AND COMPACT FILL MATERIAL IN 12" LIFTS TO SUBGRADE ELEVATIONS.
9. THE STORMWATER BASINS SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ONSITE.
10. INSPECT THE ENTIRE SITE TO VERIFY THAT NO AREAS REMAIN THAT ARE SUSCEPTIBLE TO ALLOWING SEDIMENT AND/OR CONSTRUCTION RELATED DEBRIS MATERIALS TO BE DISCHARGED FROM THE PROJECT SITE.
11. INSTALL SITE UTILITIES. INLET PROTECTION MAY BE REMOVED TEMPORARILY FOR THIS CONSTRUCTION.
12. PLACE RIP-RAP AT LOCATIONS SHOWN ON THE PLANS.
13. SEDIMENT TRAPS AND FILTER BAGS TO BE INSTALLED IN ALL NEW CATCH BASINS AS OUTLINED IN THE PLAN SET AND DETAILS.
14. FINALIZE PAVEMENT AND BUILDING SUBGRADE PREPARATION.
15. REMOVE INLET PROTECTION AROUND INLETS AND MANHOLES NO MORE THAN 48 HOURS PRIOR TO PLACING STABILIZED BASE COURSE MATERIALS.
16. INSTALL AND COMPACT PAVEMENT GRAVELS.
17. INSTALL BINDER AND FINISH COURSE PAVEMENT.
18. FINE GRADE LANDSCAPE AREAS AND INSTALL LANDSCAPE PLANTINGS.
19. INSTALL TRAFFIC CONTROL SIGNAGE AND PARKING LOT STRIPING.
20. REMOVE SEDIMENTATION CONTROLS AFTER PAVING OPERATIONS ARE COMPLETE AND ALL DISTURBED AREAS ARE SEEDED AND STABILIZED.
21. UPON FINAL STABILIZATION OF SITE, REMEDIAL EFFORTS SHALL BE PERFORMED TO THE STORMWATER MANAGEMENT BASINS (INCLUDING REMOVAL OF ACCUMULATED SEDIMENT AND RESTORATION OF FINAL GRADES, AS NEEDED).
22. COMPLETE OUTSTANDING PUNCH LIST ITEMS AND PERFORM FINAL CLEANUP ACTIVITIES.

STOCKPILE NOTE:
STOCKPILE OF
MATERIALS SHALL NOT
BE LOCATED IN ANY
WETLAND BUFFER ZONE
AREAS.

NOTE:
ALL ON-SITE
INFRASTRUCTURE
TO BE REMOVED OR
ABANDONED UNLESS
OTHERWISE NOTED

NOT FOR CONSTRUCTION



SEDIMENT AND EROSION CONTROL NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIG SAFE" (1-800-344-7233) AT LEAST 72 BUSINESS HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES AND THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCH MARKS NECESSARY FOR THE WORK.
3. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH MASSACHUSETTS EROSION AND SEDIMENTATION CONTROL GUIDELINES, FOR URBAN AND SUBURBAN AREAS MARCH 1997, THE U.S.D.A. S.C.S. EROSION AND SEDIMENT CONTROL IN SITE DEVELOPMENT, MASSACHUSETTS CONSERVATION GUIDE, SEPTEMBER 1983, LOCAL MUNICIPAL REGULATIONS AND THE PERMIT REQUIREMENTS FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION RELATED ACTIVITIES AS OUTLINED IN THE MOST RECENT NPDES GENERAL PERMIT.
4. STOCKPILES SHALL BE SURROUNDED ON THEIR PERIMETERS WITH STAKED COMPOST WATTLES/SOCKS AND/OR SILTATION FENCE TO PREVENT AND/OR CONTROL SILTATION AND EROSION.
5. TOPS OF STOCKPILES SHALL BE COVERED IN SUCH A MANNER THAT STORMWATER DOES NOT INFILTRATE THE MATERIALS AND THEREBY RENDER THE SAME UNSUITABLE FOR FILL USE.
6. EARTHWORK ACTIVITY ON THE SITE SHALL BE DONE IN A MANNER SUCH THAT RUNOFF IS DIRECTED TO THE TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES AS DEPICTED ON CIVIL EROSION CONTROL PLAN.
7. FILTER BAGS SHALL BE PLACED UNDERNEATH THE GRATES OF EXISTING AND PROPOSED CATCH BASINS AND MAINTAINED AS OUTLINED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
8. ALL 3H:1V SLOPES OR STEEPER WILL BE STABILIZED WITH A CURLEX EROSION CONTROL MATTING BY AMERICAN EXCELSIOR COMPANY (OR ENGINEER APPROVED EQUAL) PRIOR TO HYDROSEEDING AND PROTECTED FROM EROSION.
9. THE CONTRACTOR SHALL KEEP ON SITE AT ALL TIMES ADDITIONAL COMPOST WATTLES/SOCKS, FILTER BAGS AND EXTRA SILTATION FENCING FOR INSTALLATION AT THE DIRECTION OF THE ENGINEER TO MITIGATE ANY EMERGENCY CONDITION.
10. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR ANY PERMITS AND/OR CONNECTION FEES REQUIRED TO CARRY OUT THE WORK INCLUDING BUT NOT LIMITED TO DEMOLITION.
11. THE LIMIT OF WORK LINE SHALL BE THE SAME AS THE LIMIT OF WORK LINE NECESSARY FOR GRADING PURPOSES, (I.E., THE GRADING LIMITS AROUND THE PERIMETER OF THE PROJECT AREA).
12. THE AREA OR AREAS OF ENTRANCE AND EXIT TO AND FROM THE SITE SHALL BE CLEARED OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL AS DETERMINED BY THE ENGINEER OR OWNER'S REPRESENTATIVE.
13. THE AREA OR AREAS OF ENTRANCE AND EXIT TO AND FROM THE SITE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO THE PUBLIC RIGHT-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO THE PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.
14. CATCH BASINS WITH TEMPORARY FILTER BAGS MUST BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RAINFALL EVENT. SEDIMENT WILL BE REMOVED FROM FILTER BAG IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
15. UPON COMPLETION OF ALL SITE WORK CONSTRUCTION, SITE CONTRACTOR SHALL INSPECT ALL ON-SITE CATCH BASINS, SWALES, SEDIMENT FOREBAYS AND BASINS, AND REMOVE ALL SEDIMENT AND TRASH DEBRIS THAT HAS ACCUMULATED WITHIN EACH BAP STRUCTURE DURING THE COURSE OF CONSTRUCTION. ALL ON-SITE CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE VACUUMED CLEAN PRIOR TO THE ISSUANCE OF AN OCCUPANCY PERMIT.
16. ALL CONSTRUCTION SHALL MEET OR EXCEED THE TOWN OF FRANKLIN'S ENGINEERING AND DPW DEPARTMENT SPECIFICATIONS.
17. TO MINIMIZE THE MIGRATION OF DUST AND SILT FROM THE CONSTRUCTION SITE, THE FOLLOWING MEASURES SHALL BE IMPLEMENTED AS REQUIRED:
 - SPRAY DISTURBED AREAS WITH WATER DURING DRY AND WINDY DAYS.
 - WASH WHEELS OF VEHICLES BEFORE LEAVING THE SITE.
 - PERIODICALLY CLEAN SURROUNDING ROADWAYS NEAR THE ENTRANCE TO THE SITE.
 - ALL VEHICLES HAULING MATERIAL TO AND FROM THE SITE SHALL PLACE SECURE COVERS OVER THEIR LOADS.
18. THE CONTRACTOR SHALL BE AWARE THAT THE ON-SITE SOILS AT THIS SITE MAKE IT PARTICULARLY SUSCEPTIBLE TO SOIL EROSION AND SENSITIVE TO ITS CONSEQUENCES. IT SHOULD BE NOTED THAT THE EROSION CONTROL MEASURES AS SHOWN ON THE DRAWINGS DEPICT THE MINIMUM REQUIRED AND ARE REPRESENTATIVE OF A SINGLE STAGE OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SITING, RELOCATION AND AUGMENTATION OF EROSION CONTROL DEVICES AS THE PROJECT PROGRESSES AND AS SITE DRAINAGE CONDITIONS CHANGE.
19. THE CONTRACTOR SHALL ANTICIPATE AND MODIFY EROSION CONTROL MEASURES BASED ON PAST AND CURRENT WEATHER CONDITIONS AND ANTICIPATED CONSTRUCTION ACTIVITIES.
20. THE CONTRACTOR SHALL MINIMIZE THE AREA OF DISTURBED SOIL. EFFORTS SHALL BE MADE TO LIMIT THE TIME OF EXPOSURE OF DISTURBED AREAS.
21. THE CONTRACTOR SHALL NOTIFY THE TOWN OF FRANKLIN PLANNING AND CONSERVATION DEPARTMENT AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF ANY SITEWORK AND BEFORE EACH OF THE FOLLOWING:
 - INSTALLATION OF SEDIMENT AND EROSION CONTROL MEASURES.
 - START OF CONSTRUCTION.
 - COMPLETION OF SITE CLEARING.
 - COMPLETION OF ROUGH GRADING.
 - INSTALLATION OF STORMWATER CONTROLS.
 - CLOSE OF THE CONSTRUCTION SEASON.
 - COMPLETION OF FINAL LANDSCAPING.
22. PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES AT THE SITE, THE CONTRACTOR SHALL ENGAGE AN INDIVIDUAL WITH SPECIFIC PROFESSIONAL TRAINING AND EXPERTISE IN EROSION AND SEDIMENT CONTROL. THE EROSION CONTROL MONITOR SHALL PREPARE A WEEKLY REPORT WHICH SHALL BE KEPT ON SITE AT ALL TIMES AND SHALL BE SHOWN TO LOCAL, STATE AND FEDERAL AGENTS UPON REQUEST. THIS REPORT SHALL INDICATE THE STATUS OF THE DITCH: EROSION CONTROLS AND ANY MAINTENANCE REQUIRED AND PERFORMED. THIS REPORT SHALL CONFORM TO THE REQUIREMENTS OF THE EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR DISCHARGE FROM CONSTRUCTION ACTIVITIES.
23. THE LOCATION OF COMPOST WATTLES/SOCKS AND FILTER BAGS SHALL BE FIELD VERIFIED DURING SITE PREPARATION OPERATIONS BY THE ENGINEER AT RECORD.
24. ANY DEWATERING ACTIVITIES PERFORMED IN CONJUNCTION WITH CONSTRUCTING THE SITE SHALL MAKE USE OF A SETTLING POND OR SIMILAR DEVICE TO REMOVE SEDIMENT BEFORE WATER IS RELEASED. THERE SHALL BE NO DIRECT DISCHARGE OF WATER TO CATCH BASINS AND/OR THE MUNICIPAL DRAINAGE SYSTEM.
25. CONTRACTOR TO REMOVE A MINIMUM OF 18" INCHES FROM THE BOTTOM OF THE TEMPORARY SEDIMENTATION BASINS WHERE PROPOSED INFILTRATION BASINS ARE TO BE CONSTRUCTED.
26. WINTER CONSTRUCTION AND STABILIZATION
THE WINTER CONSTRUCTION PERIOD IS FROM NOVEMBER 1 THROUGH APRIL 15

SEDIMENT BARRIERS: DURING FROZEN CONDITIONS, SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERMS OR ANY OTHER RECOGNIZED SEDIMENT BARRIERS AS FROZEN SOIL. PREVENTS THE PROPER INSTALLATION OF COMPOST WATTLES/SOCKS OR SILT FENCES.

MULCHING: ALL AREAS SHALL BE CONSIDERED TO BE DENUDED UNTIL SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1000 SF OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE) AND SHALL BE PROPERLY ANCHORED. EROSION CONTROL MIX MUST BE APPLIED WITH A MINIMUM 4 INCH THICKNESS. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW WILL BE REMOVED DOWN TO A 1-INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA WILL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED OR ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. BETWEEN NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER MULCH NETTING, ASPHALT EMULSION CHEMICAL, OR WOOD CELLULOSE FIBER. THE COVER WILL BE CONSIDERED SUFFICIENT WHEN THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. AFTER NOVEMBER 1ST, MULCH AND ANCHORING OF ALL EXPOSED SOIL SHALL OCCUR AT THE END OF EACH WORKDAY DURING FINAL GRADING ACTIVITIES.

SOIL STOCKPILING: STOCKPILES OF SOIL OR SUBSOIL WILL BE MULCHED FOR WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A 4-INCH LAYER OF EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND REESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL.

SEEDING: BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOOMED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 5 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. DORMANT SEEDING MAY BE PLACED PRIOR TO THE PLACEMENT OF MULCH OR EROSION CONTROL BLANKETS. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5 LBS/1000 SF. ALL AREAS SEEDED DURING THE WINTER WILL BE INSPECTED IN THE SPRING BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE RE-VEGETATED IN THE SPRING.

WINTER STABILIZATION OF DITCHES AND CHANNELS: ALL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL GRASS-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. IF A DITCH OR CHANNEL IS NOT GRASS-LINED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE DITCH:
INSTALL A SOD LINING IN THE DITCH: A DITCH MUST BE LINED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES: PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD ONTO AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING SOD AT THE BASE OF THE DITCH WITH JUTE OR PLASTIC MESH. TO PREVENT THE SOD FROM SLOUGHING DURING FLOW CONDITIONS.
INSTALL A STONE LINING IN THE DITCH: A DITCH MUST BE LINED WITH STONE RIP RAP BY NOVEMBER 15. CONTACT REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH.

WINTER STABILIZATION OF DISTURBED SLOPES: ALL STONE-COVERED SLOPES GREATER THAN 15% MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. AND ALL SLOPES TO BE VEGETATED MUST BE SEEDED AND MULCHED BY SEPTEMBER 1. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SLOPE.
TEMPORARY VEGETATION AND EROSION CONTROL MATS: BY OCTOBER 1 THE DISTURBED SLOPE MUST BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 LBS PER 1000 SF AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED MULCH OVER THE SEEDING. IF THE RYE FAILS TO GROW AT LEAST 3 INCHES OR FAILS TO COVER AT LEAST 75% OF THE SLOPE BY NOVEMBER 1, THEN THE CONTRACTOR WILL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX OR WITH STONE RIPRAP.

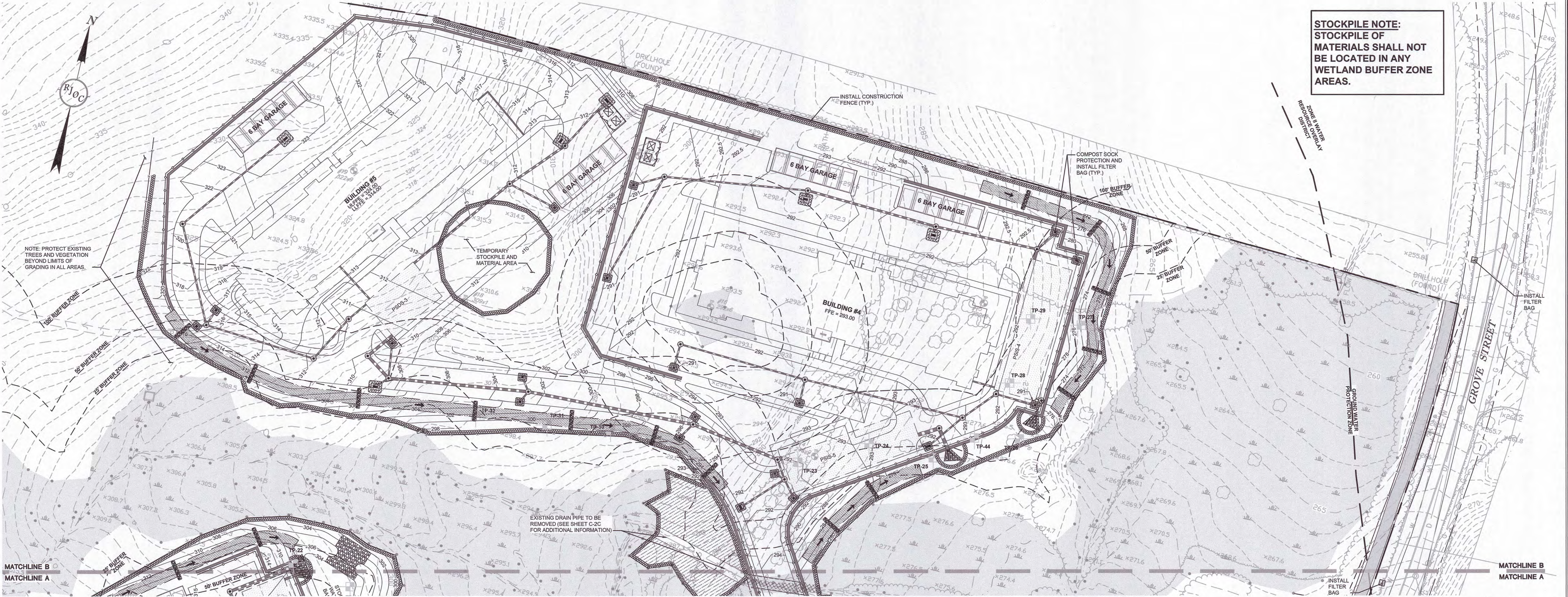
SOD: THE DISTURBED SLOPE MUST BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR WILL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

EROSION CONTROL MIX: EROSION CONTROL MIX MUST BE PROPERLY INSTALLED BY NOVEMBER 15. THE CONTRACTOR WILL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
STONE RIP RAP: PLACE A LAYER OF STONE RIP RAP ON THE SLOPE BY NOVEMBER 15. CONTACT THE PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

WINTER STABILIZATION OF DISTURBED SOILS: BY SEPTEMBER 15, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% MUST BE SEEDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN:
TEMPORARY VEGETATION: BY OCTOBER 1, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 LBS PER 1000 SF. LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SF, AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST 3 INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1, THEN MULCH THE AREA FOR WINTER PROTECTION AS DESCRIBED BELOW.

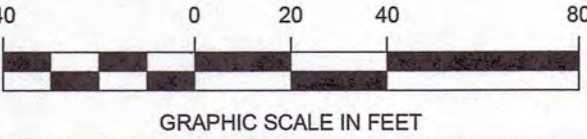
SOD: STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.

MULCH: BY NOVEMBER 15, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 LBS PER 1000 SF ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.



STOCKPILE NOTE:
STOCKPILE OF
MATERIALS SHALL NOT
BE LOCATED IN ANY
WETLAND BUFFER ZONE
AREAS.

NOT FOR CONSTRUCTION

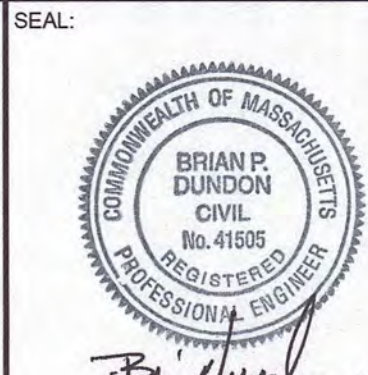


NO.	REVISION	DATE	NO.	REVISION	DATE
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023			

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	1" = 40'

PREPARED FOR:

FAIRFIELD GROVE
STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAintree, MA 02184



12-18-2023

PREPARED BY:

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CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02186
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PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

DEMOLITION AND
EROSION CONTROL
PLAN

DRAWING NUMBER:

C-1B

DATE: 10/30/2023

PROJECT NO.: 22016

Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\2016_C-2 Grading and Drainage Plan.dwg
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NO.	REVISION	DATE	NO.	REVISION	DATE
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SCALE:	1" = 40'

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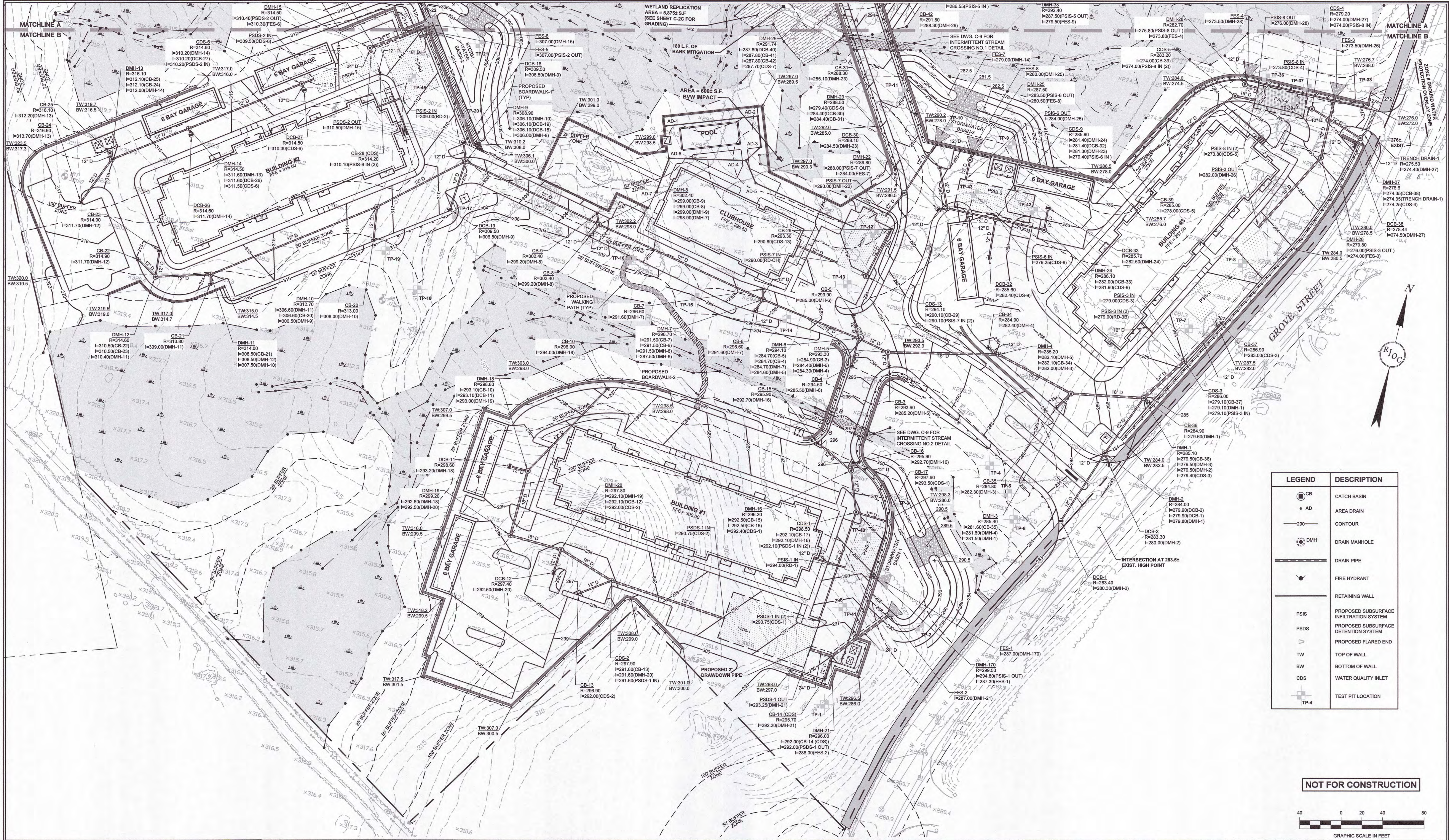
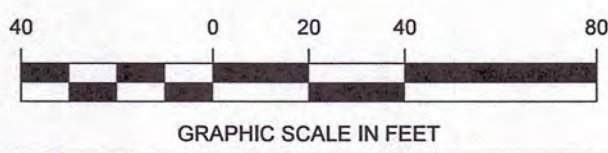
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GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:
GRADING AND DRAINAGE PLAN

DRAWING NUMBER:
C-2A

DATE: 10/30/2023 PROJECT NO.: 22016

NOT FOR CONSTRUCTION



Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\2016_C-2 Grading and Drainage Plan.dwg
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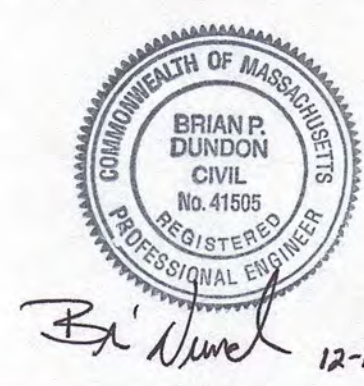
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SEAL:



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PROJECT NAME:

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FRANKLIN, MA

DRAWING NAME:

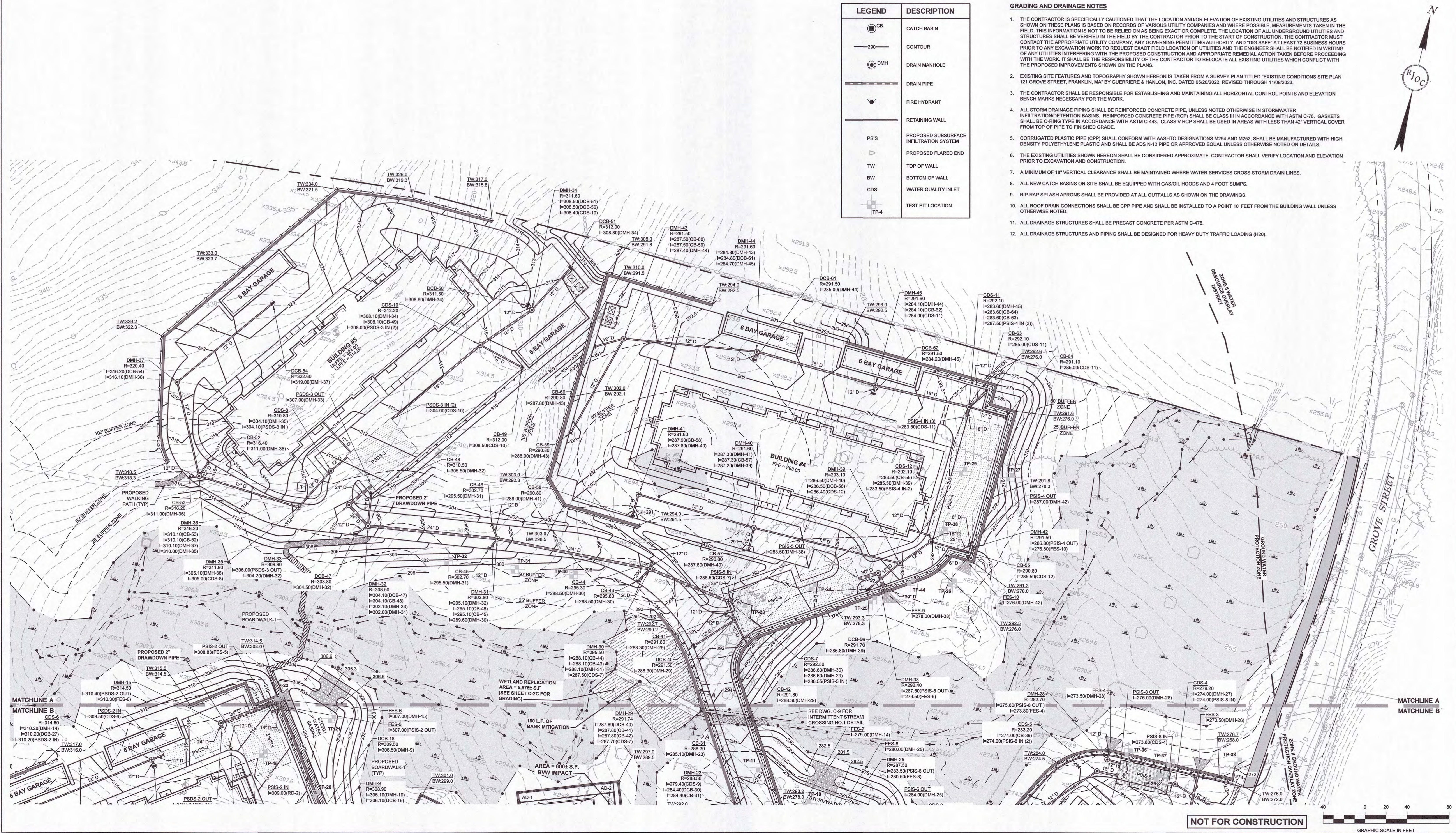
GRADING AND DRAINAGE PLAN

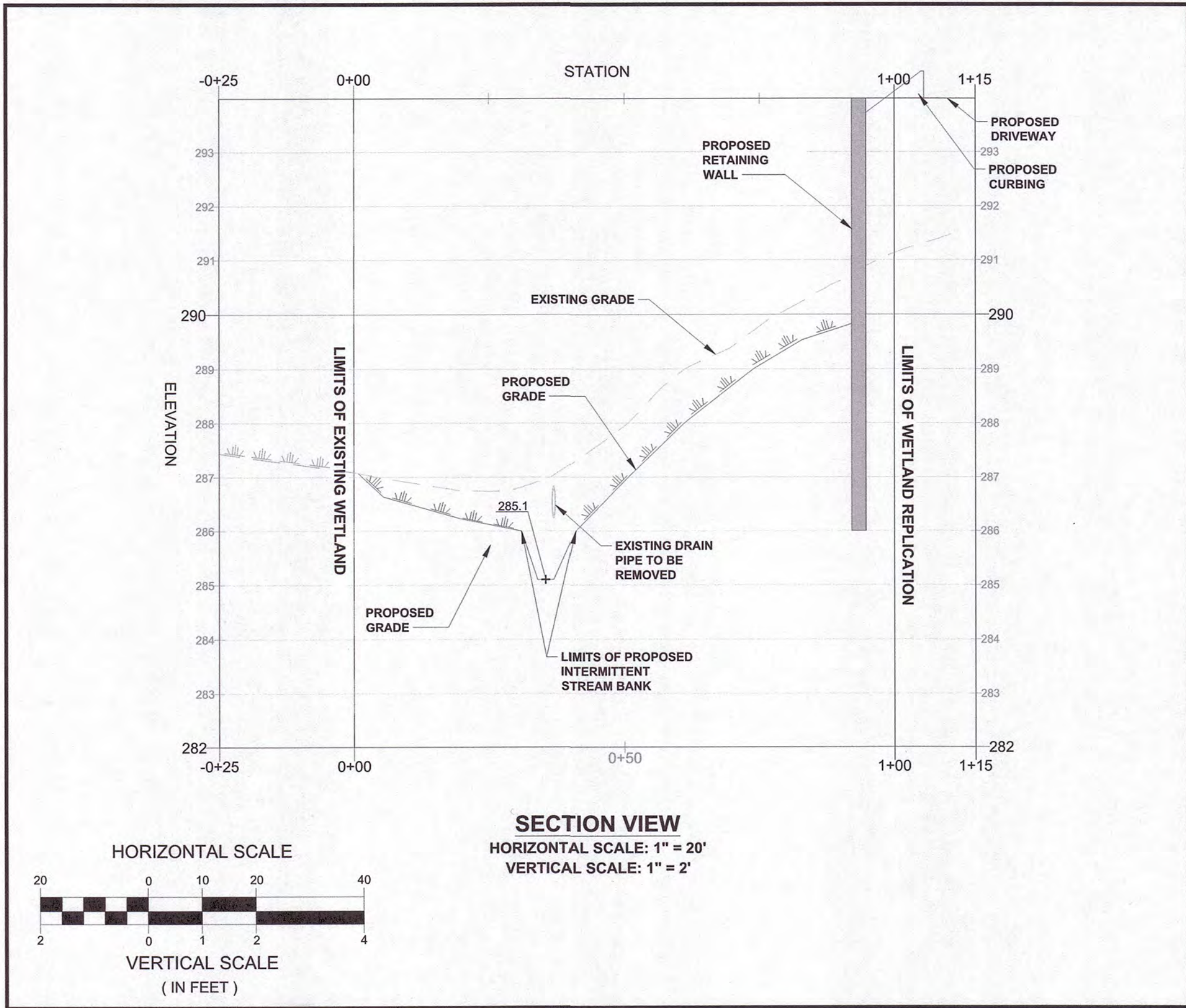
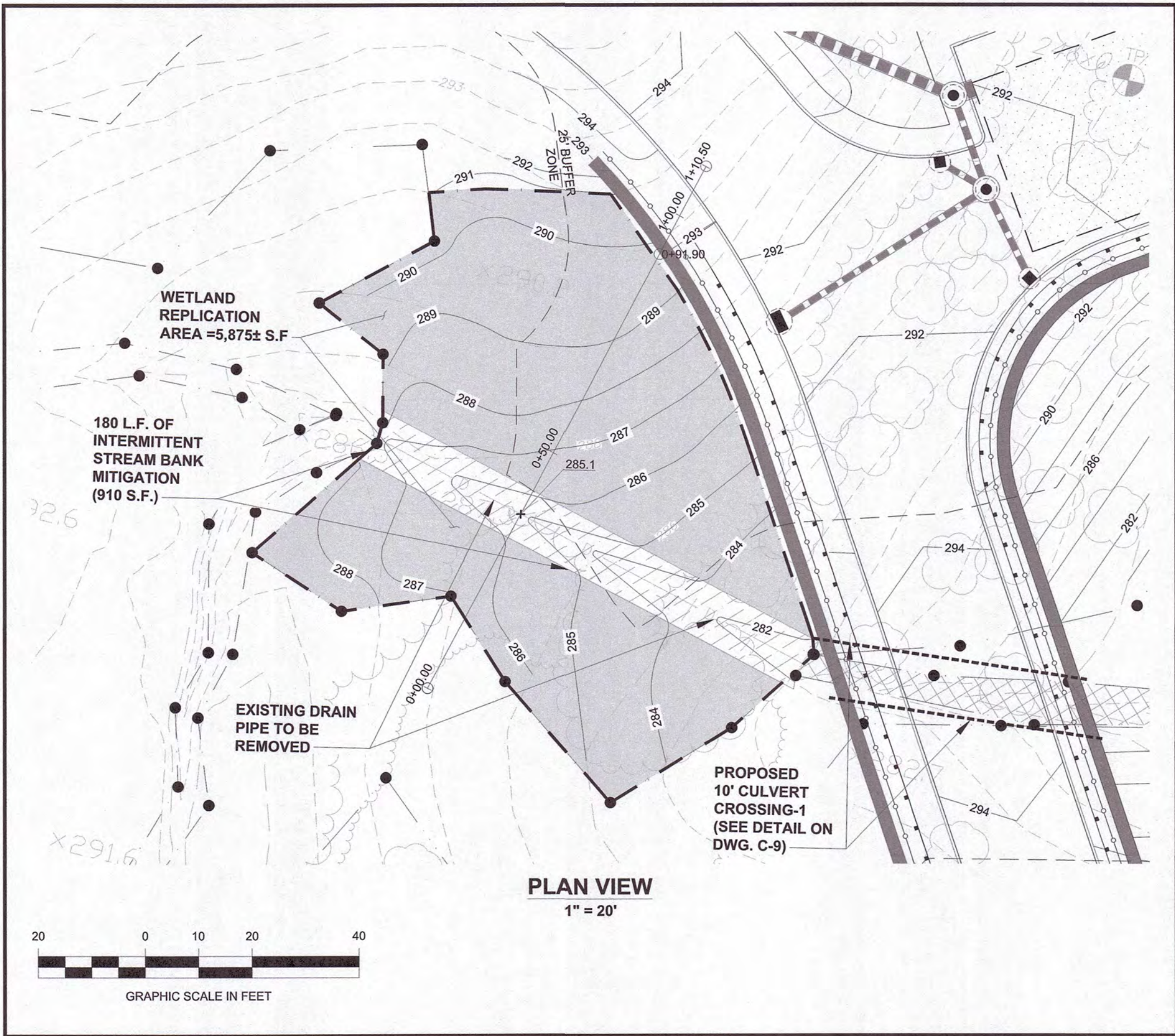
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C-2B

DATE: 10/30/2023 PROJECT NO.: 22016

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8.1 REPLICATION AREA CONSTRUCTION SEQUENCE

THIS SECTION DESCRIBES THE SEQUENCE OF CONSTRUCTION ACTIVITIES AND PROVIDES INFORMATION REGARDING GRADING, PLANTING, AND SEEDING. IT ALSO CONTAINS EROSION AND SEDIMENTATION CONTROL MEASURES THAT WILL BE UTILIZED THROUGHOUT CONSTRUCTION ACTIVITIES. THE CONSERVATION COMMISSION WILL BE NOTIFIED PRIOR TO THE COMMENCEMENT OF WORK, TO SCHEDULE INSPECTION OF THE WORK, TO DISCUSS DEPTH OF SOIL REMOVAL, AND RE-GRADING OF EXCESS SOIL WITHIN UPLAND AREAS. THE PWS WILL DOCUMENT CONDITIONS RELATIVE TO VEGETATION COMPOSITION AND STRUCTURE, TOPOGRAPHY, AND SOILS BOTH BEFORE AND AFTER RESTORATION.

EROSION AND SEDIMENT CONTROLS

PRIOR TO THE COMMENCEMENT OF THE REPLICATION AREA CONSTRUCTION, EROSION AND SEDIMENTATION CONTROLS (I.E. COMPOST FILTER SOCK/SILT FENCE) WILL BE INSTALLED AS SHOWN ON THE SITE PLANS. THE EROSION CONTROLS WILL BE INSPECTED DURING CONSTRUCTION TO MAINTAIN THEIR EFFECTIVENESS IN RETAINING SEDIMENTS.

CLEARING, GRADING, AND SOILS

IN ORDER FOR THE WETLAND MITIGATION AREA TO BECOME SUCCESSFUL THE FINAL GRADES NEED TO BE SET APPROXIMATELY 6 TO 12 INCHES ABOVE GROUNDWATER ELEVATIONS. MINOR ADJUSTMENTS IN FINAL GRADE MAY BE MADE IN THE FIELD BY THE SUPERVISING PWS. IF SUBSTANTIAL CHANGES IN THE REPLICATION AREA PLAN ARE NECESSARY, THE APPLICANT WILL SEEK APPROVAL FROM THE CONSERVATION COMMISSION PRIOR TO IMPLEMENTING ANY REVISIONS.

THE REPLICATION AREA WILL BE CLEARED AND GRUBBED, AND WILL BE EXCAVATED TO A DEPTH OF 18 INCHES BELOW THE FINAL DESIGN ELEVATIONS. SOILS EXCAVATED FROM THE WETLAND IMPACT AREAS ARE OFTEN STOCKPILED AND REUSED IN A PROPOSED REPLICATION AREA IF FEASIBLE AND LACKING IN INVASIVE SPECIES, OTHERWISE A PREPARED TOPSOIL WILL BE REQUIRED. THE SUPERVISING PWS WILL INSPECT THE SUB-GRADE OF THE REPLICATION AREA TO ENSURE THAT THE PROPER HYDROLOGY HAS BEEN ESTABLISHED. MINOR MODIFICATIONS TO THIS GRADING PLAN MAY BE MADE IN THE FIELD BY THE QUALIFIED PWS IN RESPONSE TO SUBSURFACE HYDROLOGIC CONDITIONS.

THE GOAL FOR SOILS AT THE WETLAND REPLICATION AREA IS TO CREATE SOIL PROFILES THAT APPROXIMATE AS CLOSELY AS POSSIBLE THE SOIL PROFILES AT THE NEAREST UNDISTURBED EXISTING WETLAND. THIS MEANS THAT A SURFACE HORIZON IS CREATED THAT APPROXIMATES THE A OR C-HORIZON AT THE UNDISTURBED WETLAND SITE AND THAT AT A MINIMUM, CONTAINS 6-12 INCHES OF A OR C MATERIAL. BENEATH THE A OR C THERE SHOULD BE A B-HORIZON (SUBSOIL) THAT APPROXIMATES THE DEPTH AND TEXTURE OF THE B-HORIZON AT THE UNDISTURBED WETLAND (OR A SUITABLE COMPOSITION OF THE C-HORIZON). THE ON-SITE PWS WILL EXAMINE THE DEPTH OF THE B-HORIZON TO ENSURE IT IS ADEQUATE. IF INADEQUATE, SUITABLE B-HORIZON SOIL MATERIAL WILL BE ADDED TO OBTAIN A MINIMUM DEPTH OF SIX (6) INCHES PRIOR TO PLACING THE TOPSOIL. THE REPLICATION AREA WILL THEN BE BACKFILLED WITH A PREPARED TOPSOIL TO A MINIMUM DEPTH OF TWELVE (12) INCHES. THE PREPARED TOPSOIL IS TO CONSIST OF A 1:1 MIXTURE (OR EQUAL VOLUMES) OF ORGANIC AND MINERAL MATERIALS, THAT CONTAINS AT LEAST 12-PERCENT ORGANIC CARBON CONTENT BY WEIGHT.

WHERE ABUTTING AN EXISTING WETLAND, THE REPLICATION AREA WILL BE GRADED TO THE SAME ELEVATION AS THE ADJACENT WETLAND TO MAINTAIN A HYDROLOGIC CONNECTION. AFTER SOILS HAVE BEEN PLACED AND TILLED, THE REPLICATION AREA WILL BE PLANTED WITH THE NATIVE SHRUBS AND TREES LISTED IN THE FOLLOWING SECTION AND THE SEED MIX WILL BE APPLIED. ANY FINE GRADING WILL BE CONDUCTED, AND EROSION CONTROLS WILL BE LEFT IN PLACE UNTIL VEGETATION IS ESTABLISHED.

SHRUB AND TREE PLANTING

THE SHRUBS AND TREES USED FOR RE-VEGETATION OF THE REPLICATION SITE WILL BE OBTAINED FROM A REPUTABLE WETLAND PLANT NURSERY. SHRUBS WILL MEASURE APPROXIMATELY AT LEAST 24 INCHES IN HEIGHT (ONE-GALLON CONTAINERS), AND TREE SAPLINGS WILL HAVE A MINIMUM CALIPER SIZE OF ONE-INCH WITH ROOT BALLS SECURED WITH BURLAP. ROOTSTOCK WILL BE GROUPED WITHIN THE REPLICATION SITE TO APPROXIMATE NATURAL COMMUNITIES AND PROVIDE FOOD AND/OR COVER FOR WILDLIFE.

PLANTINGS SHOULD BE PLACED BY HAND UNDER THE SUPERVISION OF A QUALIFIED PWS. THE PLANTINGS SHALL BE RELOCATED TO LOCATIONS WITH SUITABLE HYDROLOGY AND SOILS AND WHERE APPROPRIATE STRUCTURAL CONTEXT WITH OTHER PLANTINGS CAN BE MAINTAINED. TABLE 8-1 REPRESENTS THE COMPOSITION AND ABUNDANCE OF PLANT SPECIES TO BE PLANTED WITHIN THE REPLICATION AREA.

TABLE 8-1
REPLICATION AREA PLANTING SCHEDULE

Common Name	Scientific Name	Status	Minimum Size	Quantity
Trees = 26				
Red Maple	<i>Acer rubrum</i>	FAC	1-2" caliper	7
Yellow Birch	<i>Betula alleghaniensis</i>	FAC	1-2" caliper	7
Gray Birch	<i>Betula populifolia</i>	FAC	1-2" caliper	6
Pussy Willow	<i>Salix discolor</i>	FACW	1-2" caliper	6
Shrubs = 40				
Speckled Alder	<i>Alnus rugosa</i>	FACW+	24" minimum	8
Northern Arrow-wood	<i>Viburnum recognitum</i>	FAC	24" minimum	8
Northern Spicebush	<i>Lindera benzoin</i>	FACW	24" minimum	8
Highbush Blueberry	<i>Vaccinium corymbosum</i>	FACW	24" minimum	8
Common Winterberry	<i>Ilex verticillata</i>	FACW	24" minimum	8
Ground Cover				
New England Wetland Seed Mix (or equivalent)	Varies		1 lb./2,500 s.f.	3 lbs.

Note: Trees and shrubs shall be spaced throughout replication area to simulate natural growth patterns.

SEEDING

A NEW ENGLAND WETLAND SEED MIX (OR EQUIVALENT) WILL BE USED FOR THE REPLICATION AREA. THE NEW ENGLAND WETLAND SEED MIX, CONTAINS A SELECTION OF NATIVE SEEDS WHICH ARE SUITABLE FOR MOST WETLAND REPLICATION SITES THAT ARE NOT PERMANENTLY INUNDATED. THESE SPECIES ARE BEST SUITED TO MOIST DISTURBED GROUND AS FOUND IN MOST WET MEADOWS, SCRUB SHRUB, OR FORESTED WETLAND REPLICATION AREAS. THE SEEDS WILL NOT GERMINATE UNDER INUNDATED CONDITIONS. IF PLANTED DURING THE FALL MONTHS, THE SEED MIX WILL GERMINATE THE FOLLOWING SPRING.

DURING THE FIRST SEASON OF GROWTH, SEVERAL SPECIES WILL PRODUCE SEEDS, WHILE OTHER SPECIES WILL PRODUCE SEEDS AFTER THE SECOND GROWING SEASON. NOT ALL SPECIES WILL GROW IN ALL WETLAND SITUATIONS. THIS MIX IS COMPOSED OF THE WETLAND SPECIES MOST LIKELY TO GROW IN CREATED/RESTORED WETLANDS AND SHOULD PRODUCE MORE THAN 75% GROUND COVER IN TWO FULL GROWING SEASONS. THE MIX SHOULD BE APPLIED ON CLEAN BARE SOIL VIA HYDRO-SEEDING, MECHANICAL SPREADER, OR SPREAD BY HAND (ON SMALLER SITES). THE AREAS WHERE THE MIX IS APPLIED SHOULD BE LIGHTLY RAKED OR ROLLED TO ENSURE PROPER SOIL-SEED CONTACT. THE BEST RESULTS ARE OBTAINED WHEN SEEDING IS APPLIED DURING THE SPRING, WHEREAS LATE SPRING AND SUMMER SEEDING WILL BENEFIT WITH A LIGHT MULCHING OF CLEAN WEED-FREE STRAW TO CONSERVE MOISTURE.

IF CONDITIONS ARE DRIER THAN USUAL, WATERING MAY BE REQUIRED. LATE FALL AND WINTER DORMANT SEEDING REQUIRE AN INCREASE IN THE SEEDING RATE. FERTILIZATION IS NOT RECOMMENDED AND THE PREPARATION OF A CLEAN, WEED FREE SOIL SURFACE IS NECESSARY FOR OPTIMAL RESULTS.

TABLE 8-2 CONTAINS A LIST OF SPECIES IN THE NEW ENGLAND WETLAND SEED MIX PROPOSED TO BE USED (OR EQUIVALENT) IN THE REPLICATION AREA. APPROXIMATELY THREE POUNDS (DEPENDING ON TIME OF YEAR) OF THE NEW ENGLAND WETLAND SEED MIX WILL BE REQUIRED WITHIN THE REPLICATION AREA (ONE POUND PER 2,500 SQUARE FEET).

TABLE 8-2
NEW ENGLAND WETLAND SEED MIXTURE

Species	Latin Name	Indicator Status
Swamp Milkweed	<i>Asclepias incarnata</i>	OBL
Starved/Calico Aster	<i>Aster lateriflorus</i>	FACW
Beggar Ticks	<i>Bidens frondosa</i>	FACW
Fringed/Nodding Sedge	<i>Carex crinita</i>	OBL
Hop Sedge	<i>Carex lupulina</i>	OBL
Lurid/Shallow Sedge	<i>Carex lurida</i>	OBL
Blunt Broom Sedge	<i>Carex scoparia</i>	FACW
Fox Sedge	<i>Carex vulpinoidea</i>	OBL
Spotted Joe Pye Weed	<i>Eutrochium maculatum</i>	OBL
American Mannagrass	<i>Glyceria grandis</i>	OBL
Blue Flag	<i>Iris versicolor</i>	OBL
Fowl Bluegrass	<i>Poa palustris</i>	FACW
Soft Rush	<i>Juncus effusus</i>	FACW
Square Stemmed Monkey Flower	<i>Monilulus ringens</i>	OBL
Green Bulrush	<i>Scirpus atrovirens</i>	OBL
New York Ironweed	<i>Veronia noveboracensis</i>	FACW

PLANNED HYDROLOGY

THE PROPOSED LOCATION OF THE REPLICATION AREA IS ADJACENT TO WETLAND A. THE BWV BORDERS ON AN INTERMITTENT STREAM AND IS LOCATED ALONG A SLOPE. HYDROLOGY WITHIN THE BWV IS PROVIDED BY GROUNDWATER PRESENT IN THE SLOPE GROUNDWATER DRAINAGE. HYDROLOGY WITHIN THE REPLICATION AREA WILL BE DRIVEN BY THE SHALLOW DEPTH OF GROUNDWATER, AS WELL AS PRECIPITATION.

IRRIGATION

IF NECESSARY, THE REPLICATION AREA WILL BE IRRIGATED WITH AN APPROVED WATER SOURCE IF NATURAL HYDROLOGICAL CYCLES DO NOT PROVIDE SUFFICIENT WATER TO INITIALLY SUSTAIN THE NEWLY PLANTED VEGETATION. IRRIGATION PRACTICES WILL ONLY BE USED IN DROUGHT SITUATIONS OR IF OTHER UNFORESEEN SITUATIONS WARRANT THE NEED FOR IRRIGATION PRACTICES. AFTER PLANTING AND SEEDING, THE REPLICATION AREA SHALL BE MULCHED WITH STRAW. THE MULCH SHALL PROVIDE SUFFICIENT COVER FOR MOISTURE RETENTION, SEED PROTECTION, AND SOIL STABILIZATION. THE MULCH WILL BE FREE OF WEEDS, REEDS, TWIGS, CHAFF, DEBRIS, AND EXCESSIVE AMOUNTS OF SEED AND GRAIN.

8.1 WETLAND RESTORATION

THERE ARE SEVERAL AREAS OF THE SITE WHERE THE EXISTING WETLANDS ARE BEING ACTIVELY AND LEGALLY MAINTAINED AS AGRICULTURAL AND MOWED FIELDS. THESE AREA ARE IDENTIFIED ON THE EXISTING WETLAND DISTURBANCE EXHIBIT (SHEET 82-EX) INCLUDED IN SECTION III - FIGURES OF THE NOTICE OF INTENT APPLICATION. APPROXIMATELY 12,485 SQUARE FEET OF THESE WETLAND AREAS WILL BE RESTORED. RESTORATION WILL INCLUDE SEEDING PER THE SPECIFICATIONS IN THE PREVIOUS SECTION.

8.2 BUFFER ZONE RESTORATION

TEMPORARILY IMPACTED AREAS OF THE 25-FOOT BUFFER ZONE AND THE 100-FOOT BUFFER ZONE WILL BE RESTORED FOLLOWING COMPLETION OF CONSTRUCTION. THESE AREAS ARE IDENTIFIED ON THE WETLAND & BUFFER ZONE IMPACT EXHIBIT (SHEET 82-EX) INCLUDED IN SECTION III - FIGURES FOR THE NOTICE OF INTENT APPLICATION. WORK GENERALLY INCLUDES GRADING AND CLEARING FOR CONSTRUCTION OF THE ROADWAYS, RETAINING WALLS, PARKING AREAS, AND OTHER INFRASTRUCTURE. APPROXIMATELY 41,575 SQUARE FEET OF THE 25-FOOT BUFFER ZONE WILL BE RESTORED UPON COMPLETION OF WORK. APPROXIMATELY 113,150 SQUARE FEET OF THE 100-FOOT BUFFER ZONE WILL BE RESTORED UPON COMPLETION OF WORK.

THE NEW ENGLAND SHOWY WILDFLOWER MIX PROVIDES A PERMANENT COVER OF GRASSES, WILDFLOWERS, AND LEGUMES FOR BOTH GOOD EROSION CONTROL AND WILDLIFE HABITAT VALUE. THE MIX IS DESIGNED TO BE A NO MAINTENANCE SEEDING, AND IS APPROPRIATE FOR CUT AND FILL SLOPES, DETENTION BASIN SIDE SLOPES, AND DISTURBED AREAS ADJACENT TO COMMERCIAL AND RESIDENTIAL PROJECTS.

THE MIX SHOULD BE APPLIED ON CLEAN BARE SOIL VIA HYDRO-SEEDING OR MECHANICAL SPREADER. THE AREAS WHERE THE MIX IS APPLIED SHOULD BE LIGHTLY RAKED OR ROLLED TO ENSURE PROPER SOIL-SEED CONTACT. THE BEST RESULTS ARE OBTAINED WHEN SEEDING IS APPLIED DURING THE SPRING, WHEREAS LATE SPRING AND SUMMER SEEDING WILL BENEFIT WITH A LIGHT MULCHING OF CLEAN WEED-FREE STRAW TO CONSERVE MOISTURE.

IF CONDITIONS ARE DRIER THAN USUAL, WATERING MAY BE REQUIRED. LATE FALL AND WINTER DORMANT SEEDING REQUIRE AN INCREASE IN THE SEEDING RATE. FERTILIZATION IS NOT RECOMMENDED AND THE PREPARATION OF A CLEAN, WEED FREE SOIL SURFACE IS NECESSARY FOR OPTIMAL RESULTS.

TABLE 8-3 CONTAINS A LIST OF SPECIES IN THE NEW ENGLAND SHOWY WILDFLOWER SEED MIX SEED MIX PROPOSED TO BE USED (OR EQUIVALENT) IN THE RESTORATION AREA.

TABLE 8-3
SHOWY WILDFLOWER SEED MIX

Species	Latin Name	Indicator Status
Little Bluestem	<i>Schizachyrium scoparium</i>	FACU
Partridge Pea	<i>Chamaecrista fasciculata</i>	FACU
Indian Grass	<i>Sorghastrum nutans</i>	UPL
Creeping Red Fescue	<i>Festuca rubra</i>	FACU
Canada Wild Rye	<i>Elymus canadensis</i>	FACU+
Riverbank Wild Rye	<i>Elymus riparius</i>	FACW
Ox Eye Sunflower	<i>Helopsis helanthoides</i>	UPL
Lance Leaved Coreopsis	<i>Coreopsis lanceolata</i>	FACU
Black Eyed Susan	<i>Rudbeckia hirta</i>	FACU-
Marsh Blazing Star	<i>Liatris spicata</i>	FAC+
Common Milkweed	<i>Asclepias syriaca</i>	FACU-
New York Ironweed	<i>Vernonia noveboracensis</i>	FACW+
New England Aster	<i>Aster novae-angliae</i>	FACW-
Purple Joe Pye Weed	<i>Eupatorium purpureum</i>	FAC
Butterfly Milkweed	<i>Asclepias tuberosa</i>	NI
Early Goldenrod	<i>Solidago juncea</i>	NI
Boneset	<i>Eupatorium perfoliatum</i>	FACW

NOT FOR CONSTRUCTION



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NO.	REVISION	DATE	NO.	REVISION	DATE

DESIGNED BY:	MAC
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REVIEWED BY:	BJM
SCALE:	AS NOTED

PREPARED FOR:

FAIRFIELD GROVE
STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184



12-18-2023

PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
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80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
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PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

WETLAND
REPLICATION PLAN

DRAWING NUMBER:

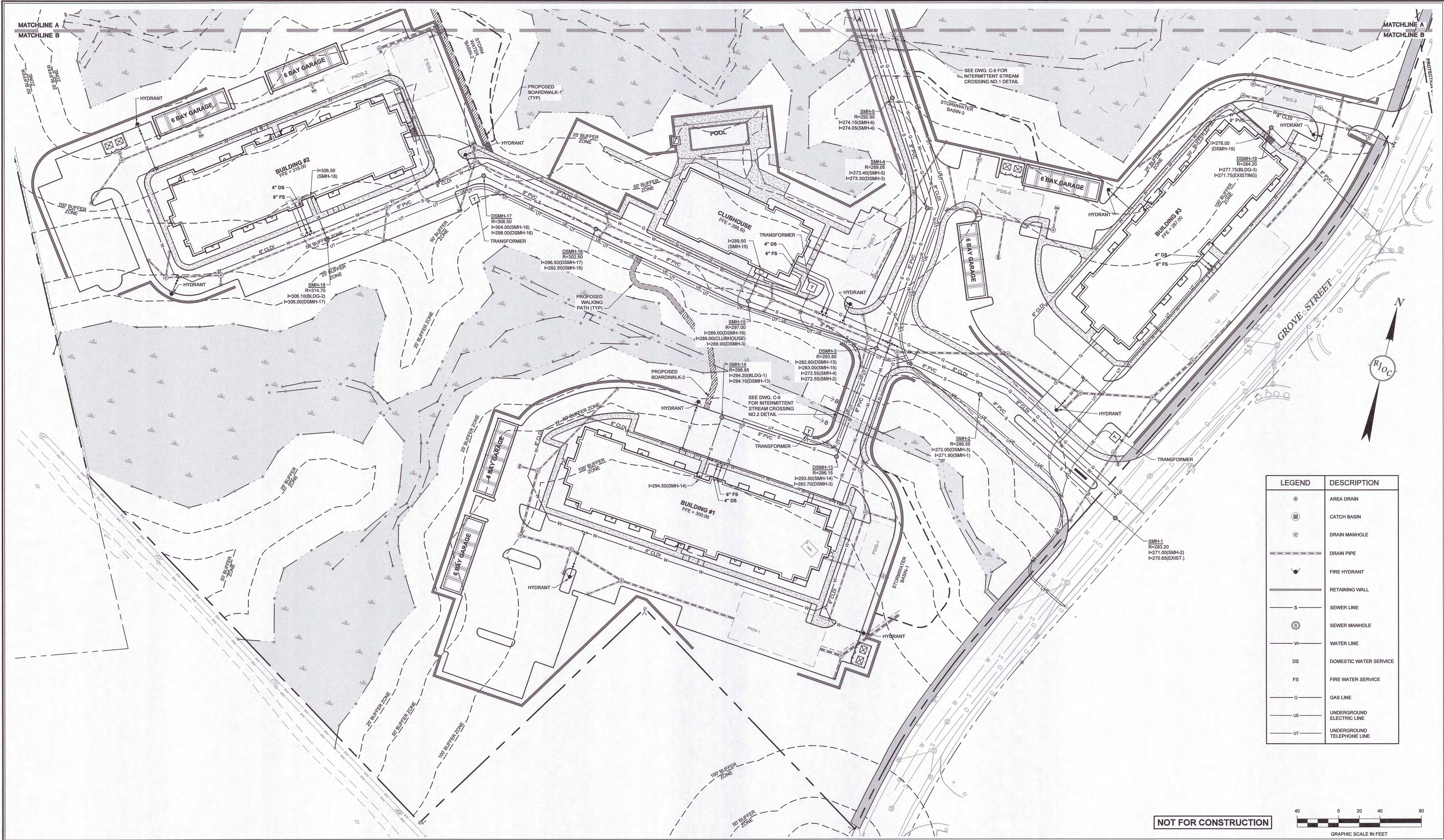
C-2C

DATE: 12/18/2023

PROJECT NO.: 22016

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DESIGNED BY:	MAC
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REVIEWED BY:	BJM
SCALE:	1" = 40'

PREPARED FOR:
FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
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SEAL:

PREPARED BY: RJO'CONNELL & ASSOCIATES, INC. CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS 80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180 PHONE: 781.279.0180 RJOCONNELL.COM	DRAWING NAME: UTILITY PLAN
PROJECT NAME: GROVE STREET RESIDENCES FRANKLIN, MA	DRAWING NUMBER: C-3A
DATE: 10/30/2023	PROJECT NO.: 22016

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LEGEND	DESCRIPTION
	AREA DRAIN
	CATCH BASIN
	DRAIN MANHOLE
	DRAIN PIPE
	FIRE HYDRANT
	RETAINING WALL
	SEWER LINE
	SEWER MANHOLE
	WATER LINE
	DOMESTIC WATER SERVICE
	FIRE WATER SERVICE
	GAS LINE
	UNDERGROUND ELECTRIC LINE
	UNDERGROUND TELEPHONE LINE

UTILITY NOTES

- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIG SAFE" (1-800-344-7233) AT LEAST 72 BUSINESS HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES AND THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN
- EXISTING SITE FEATURES AND TOPOGRAPHY SHOWN HEREON IS TAKEN FROM A SURVEY PLAN TITLED "EXISTING CONDITIONS SITE PLAN, 121 GROVE STREET, FRANKLIN, MA" BY GUERRIERE & HANLON, INC. DATED 05/20/2022, REVISED THROUGH 11/09/2023.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL HORIZONTAL CONTROL POINTS AND ELEVATION BENCH MARKS NECESSARY FOR THE WORK.

GAS NOTES

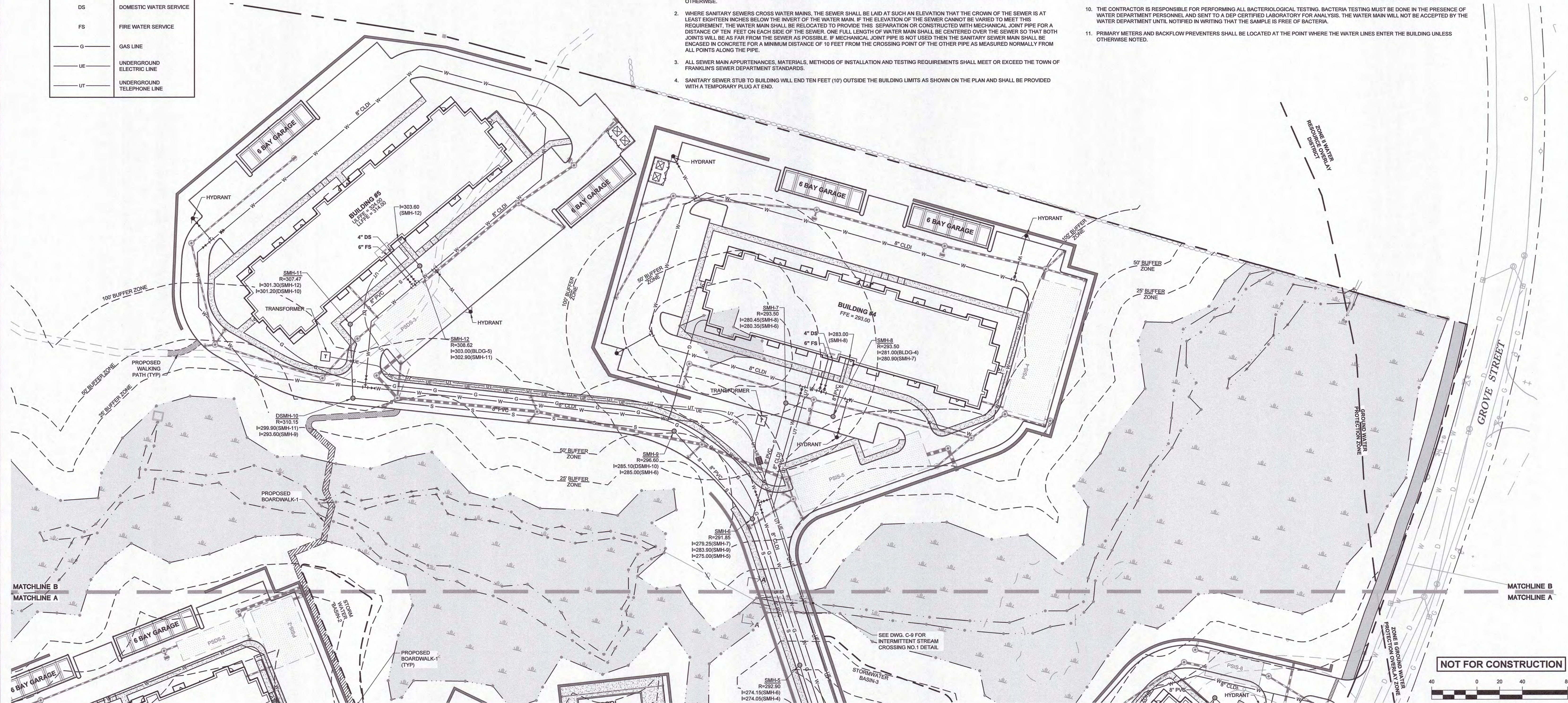
- THE PROPOSED GAS SERVICE LOCATION IS APPROXIMATE ONLY. THE CONTRACTOR SHALL GIVE THE GAS COMPANY ADVANCE NOTICE OF WHEN THE GAS LINE CAN BE INSTALLED. THE CONTRACTOR IS RESPONSIBLE FOR EXCAVATION, BACKFILL AND COMPACTION OF THE GAS LINE IN ACCORDANCE WITH THE SITE WORK AND/OR GAS COMPANY SPECIFICATIONS (MORE STRINGENT SPECIFICATIONS WILL APPLY). THE CONTRACTOR IS ALSO RESPONSIBLE FOR FURNISHING AND INSTALLING PIPE BOLLARDS AS REQUIRED BY THE GAS COMPANY AND/OR LOCAL INSPECTOR IN ORDER TO PROTECT ABOVE GROUND GAS EQUIPMENT.

SEWER NOTES

- ALL GRAVITY SEWER PIPE SHALL BE POLYVINYL CHLORIDE PIPE (P.V.C.), S.D.R. 35 AND SHALL CONFORM WITH ASTM-D3034 UNLESS NOTED OTHERWISE.
- WHERE SANITARY SEWERS CROSS WATER MAINS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST EIGHTEEN INCHES BELOW THE INVERT OF THE WATER MAIN. IF THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THIS REQUIREMENT, THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THIS SEPARATION OR CONSTRUCTED WITH MECHANICAL JOINT PIPE FOR A DISTANCE OF TEN FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. IF MECHANICAL JOINT PIPE IS NOT USED THEN THE SANITARY SEWER MAIN SHALL BE ENCASED IN CONCRETE FOR A MINIMUM DISTANCE OF 10 FEET FROM THE CROSSING POINT OF THE OTHER PIPE AS MEASURED NORMALLY FROM ALL POINTS ALONG THE PIPE.
- ALL SEWER MAIN APPURTENANCES, MATERIALS, METHODS OF INSTALLATION AND TESTING REQUIREMENTS SHALL MEET OR EXCEED THE TOWN OF FRANKLIN'S SEWER DEPARTMENT STANDARDS.
- SANITARY SEWER STUB TO BUILDING WILL END TEN FEET (10') OUTSIDE THE BUILDING LIMITS AS SHOWN ON THE PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AT END.

WATER NOTES

- ALL WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 5 FEET OF COVER AND A MAXIMUM OF 6 FEET OF COVER EXCEPT AS NOTED OR DETAILED OTHERWISE. GREATER DEPTHS ARE PERMITTED WHERE REQUIRED TO AVOID CONFLICTS WITH OTHER UTILITIES.
- GENERALLY, WATER MAIN FITTINGS IDENTIFIED ON THIS DRAWING ARE SHOWN FOR INSTALLATION LOCATION PURPOSES. THE CONTRACTOR SHALL NOTE THAT NOT ALL FITTINGS REQUIRED UNDER THE CONTRACT ARE NOTED, SHOWN, OR INDICATED.
- A MINIMUM OF 10 FEET CLEAR HORIZONTALLY SHALL BE MAINTAINED BETWEEN SANITARY SEWER MAINS AND WATER MAINS. WHENEVER CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET TO A WATER MAIN, THE WATER MAIN SHALL BE LAID IN A SEPARATE TRENCH AND THE ELEVATION OF THE CROWN OF THE SEWER SHALL BE AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN.
- DOMESTIC WATER SERVICE 3" OR SMALLER SHALL BE TYPE K COPPER TUBING AND SHALL BE INSTALLED WITH APPROPRIATELY SIZED CORPORATION STOP WITH APPROVED SADDLE, CURB STOP, AND BOX. DOMESTIC WATER MAIN SHALL BE INSTALLED OVER SEWER MAIN WITH A MINIMUM VERTICAL SEPARATION OF EIGHTEEN INCHES (18") AT THEIR CROSSING.
- ALL WATER MAINS 4" AND LARGER SHALL BE CEMENT LINED DUCTILE IRON CLASS 52 AND SHALL BE INSTALLED WITH APPROPRIATELY SIZED FITTINGS AND GATE VALVES.
- ALL WATER MAIN APPURTENANCES, MATERIALS, METHODS OF INSTALLATION AND TESTING REQUIREMENTS SHALL MEET OR EXCEED THE TOWN OF FRANKLIN WATER STANDARDS.
- PRESSURE AND LEAKAGE TEST, DISINFECTION AND FLUSHING SHALL BE IN ACCORDANCE WITH THE TOWN OF FRANKLIN WATER DEPARTMENT STANDARDS AND REQUIREMENTS. IN THE ABSENCE OF STANDARDS, THEY SHALL CONFORM TO THE REQUIREMENTS OF THE SITE SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS IN CONNECTION WITH UTILITY TESTS, FLUSHING AND INSPECTIONS AS REQUIRED BY THE TOWN OF FRANKLIN'S WATER DEPARTMENT. COPIES OF TEST RESULTS WILL BE SUBMITTED TO THE FRANKLIN WATER DEPARTMENT FOR THEIR RECORDS.
- ALL WATER LEADS TO THE BUILDING WILL TERMINATE TEN FEET (10') OUTSIDE THE BUILDING LIMITS AS SHOWN ON THE PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AT END.
- THE CONTRACTOR SHALL NOTIFY THE FRANKLIN WATER DEPARTMENT BEFORE MAKING ANY CONNECTIONS TO THE MUNICIPAL WATER MAIN.
- THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL BACTERIOLOGICAL TESTING. BACTERIA TESTING MUST BE DONE IN THE PRESENCE OF WATER DEPARTMENT PERSONNEL AND SENT TO A DEP CERTIFIED LABORATORY FOR ANALYSIS. THE WATER MAIN WILL NOT BE ACCEPTED BY THE WATER DEPARTMENT UNTIL NOTIFIED IN WRITING THAT THE SAMPLE IS FREE OF BACTERIA.
- PRIMARY METERS AND BACKFLOW PREVENTERS SHALL BE LOCATED AT THE POINT WHERE THE WATER LINES ENTER THE BUILDING UNLESS OTHERWISE NOTED.



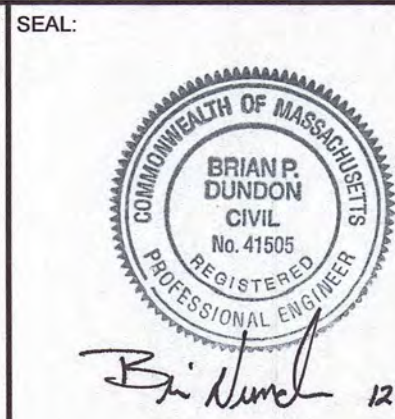
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1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	1" = 40'

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184



SEAL:

PREPARED BY:

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PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

UTILITY PLAN

DRAWING NUMBER:

C-3B

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STREET LLC**
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:



PREPARED BY:

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PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

**PARKING & TRAFFIC
CONTROL PLAN**

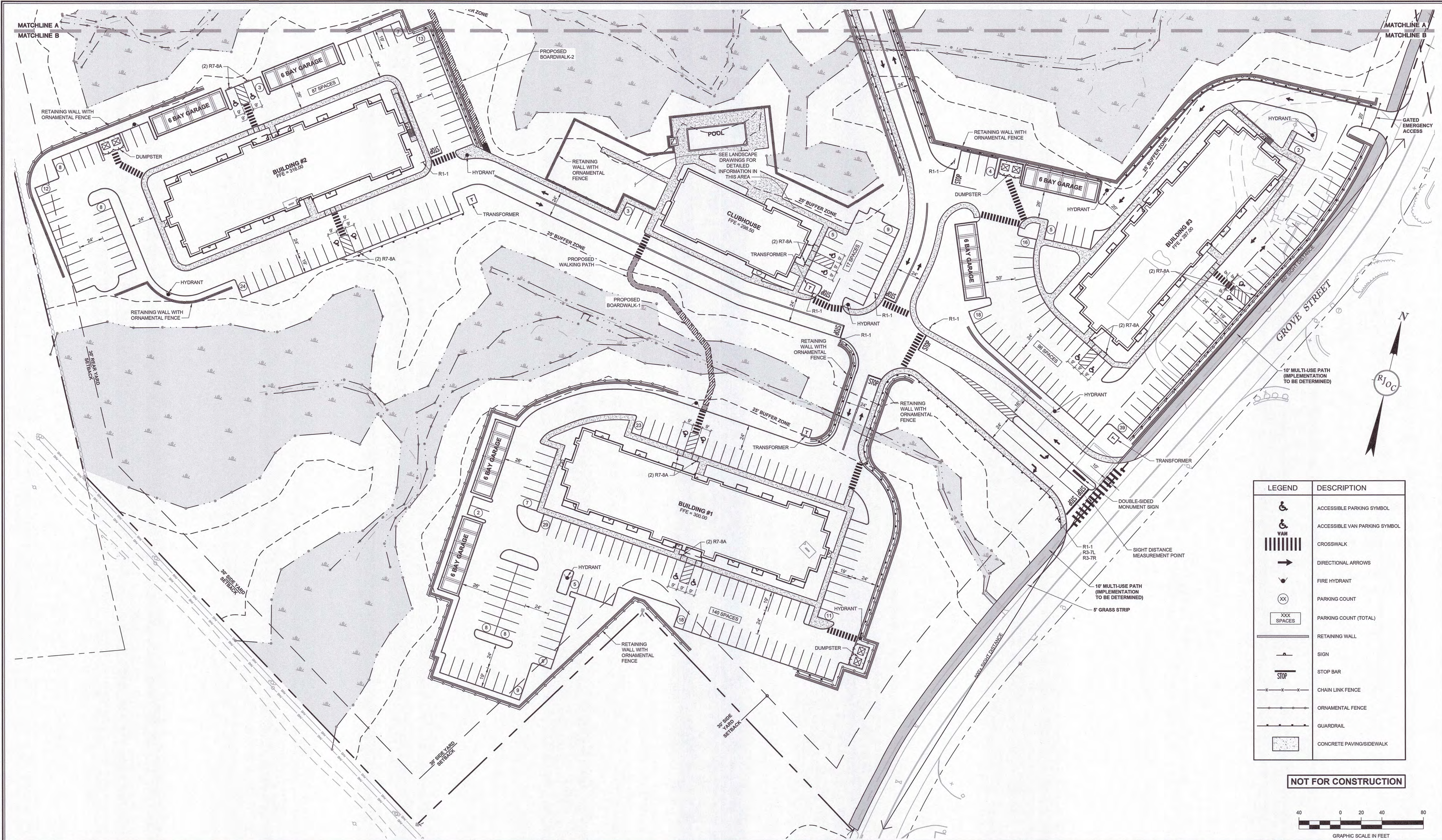
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STREET LLC**
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAintree, MA 02184

SEAL:



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RJO'CONNELL & ASSOCIATES, INC.
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PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

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FRANKLIN, MA

DRAWING NAME:

**PARKING & TRAFFIC
CONTROL PLAN**

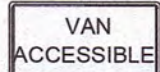
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PROJECT NO.: 22016

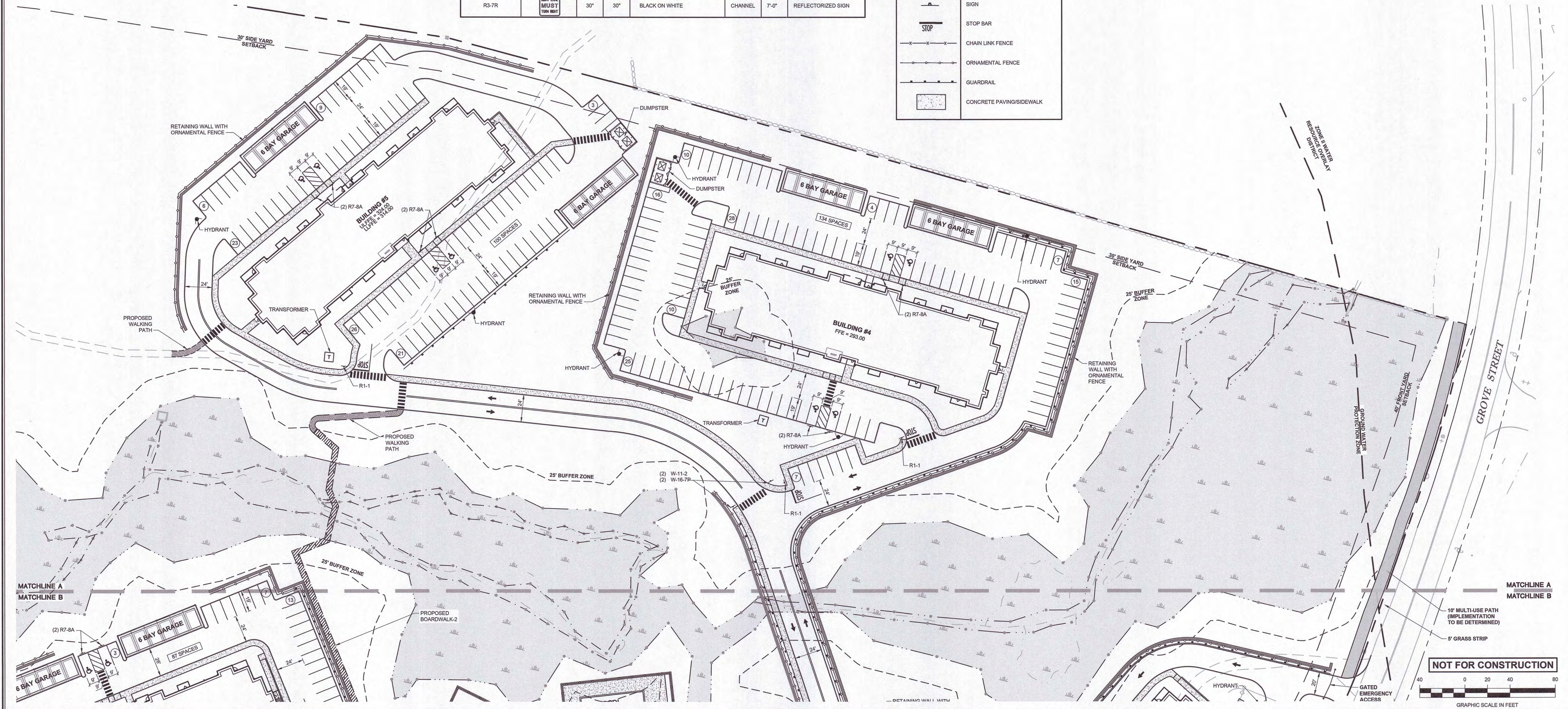
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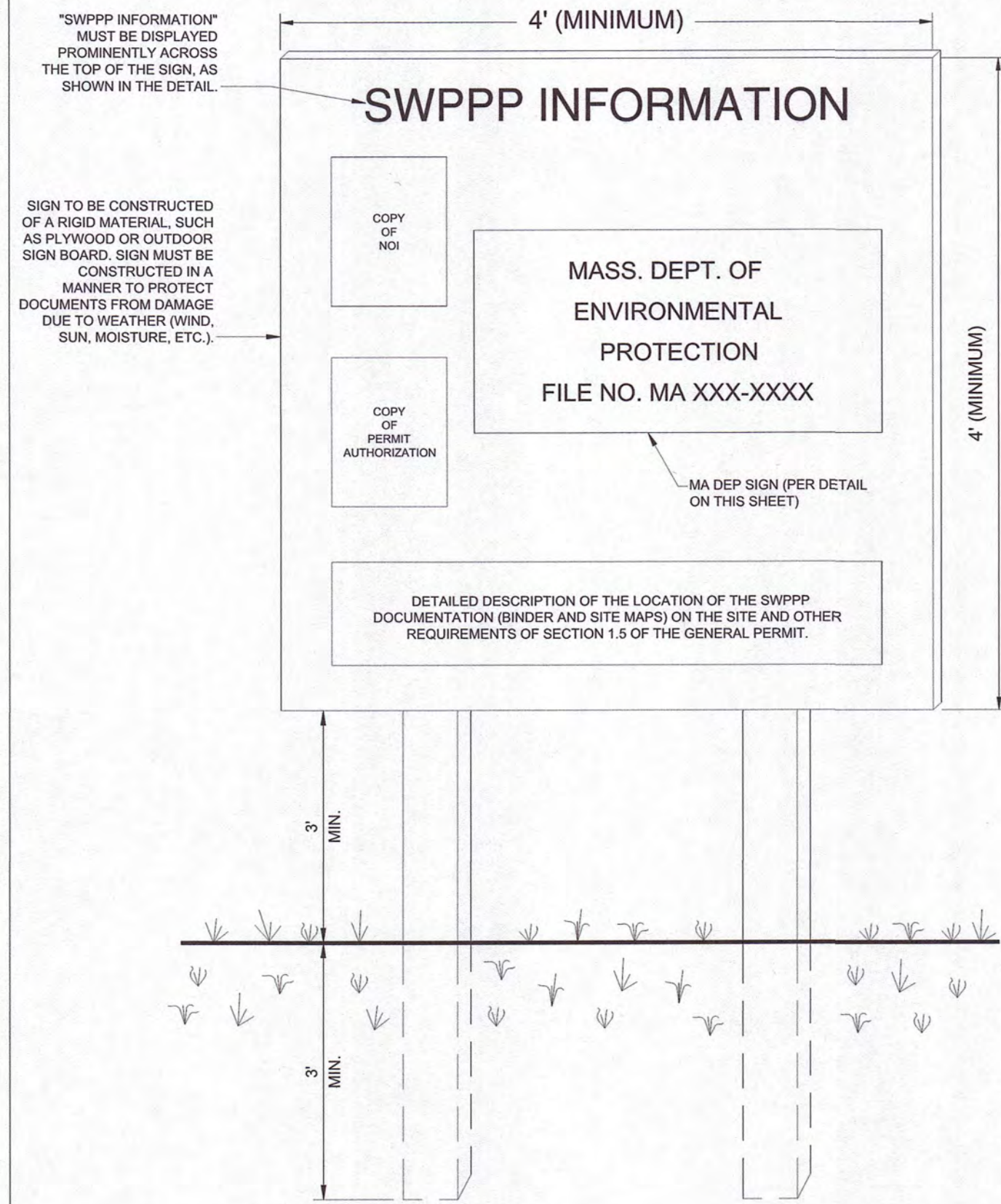
TRAFFIC CONTROL SCHEDULE							
SIGN NUMBER	SIGN	SIZE OF SIGN		DESCRIPTION	MOUNT TYPE	MOUNT HEIGHT	REMARKS
		WIDTH	HEIGHT				
R1-1		30"	30"	WHITE ON RED	3" POST	7'-0"	REFLECTORIZED SIGN
R7-8		12"	18"	BLUE & GREEN ON WHITE	3" POST	7'-0"	REFLECTORIZED SIGN
R7-8A		12"	6"	WHITE ON BLUE	3" POST	6'-6"	REFLECTORIZED SIGN
W11-2		30"	30"	YELLOW ON BLACK	3" POST	8'-6"	REFLECTORIZED SIGN
W16-7P		24"	12"	YELLOW ON BLACK	3" POST	6'-0"	REFLECTORIZED SIGN
R3-7L		30"	30"	BLACK ON WHITE	CHANNEL	7'-0"	REFLECTORIZED SIGN
R3-7R		30"	30"	BLACK ON WHITE	CHANNEL	7'-0"	REFLECTORIZED SIGN

LEGEND	DESCRIPTION
	ACCESSIBLE PARKING SYMBOL
	ACCESSIBLE VAN PARKING SYMBOL
	CROSSWALK
	DIRECTIONAL ARROWS
	FIRE HYDRANT
	PARKING COUNT
	PARKING COUNT (TOTAL)
	RETAINING WALL
	SIGN
	STOP BAR
	CHAIN LINK FENCE
	ORNAMENTAL FENCE
	GUARDRAIL
	CONCRETE PAVING/SIDEWALK

PARKING AND TRAFFIC CONTROL NOTES

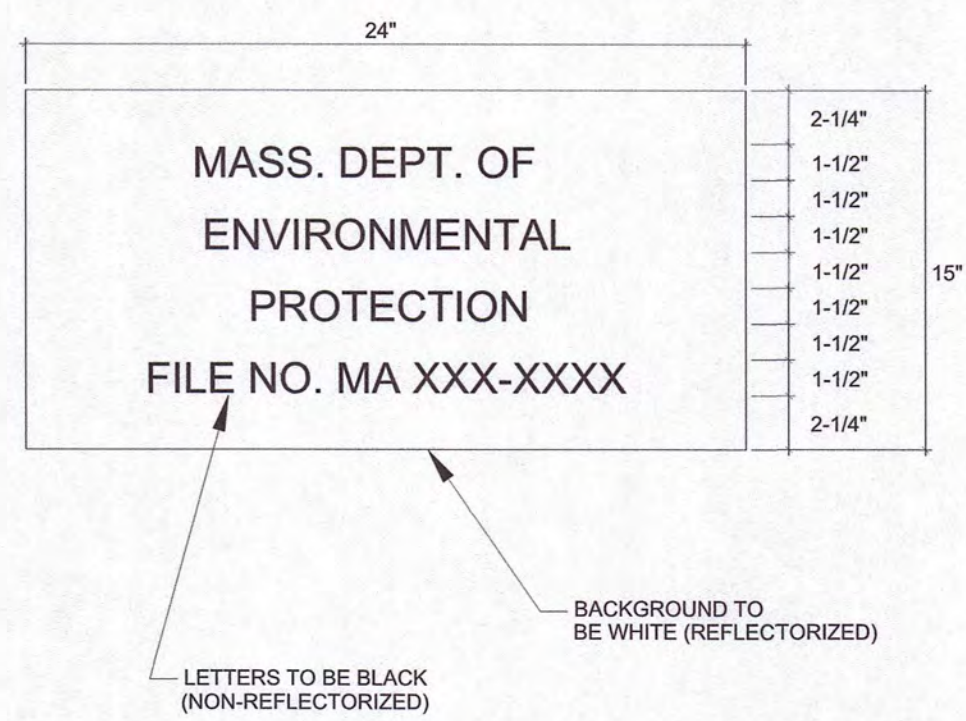
- HANDICAP ACCESSIBLE PARKING SPACES SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (A.D.A.) OF 1990, REVISED SEPT. 15, 2010 AND THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD OF REGULATIONS, 521 CMR UNLESS OTHERWISE NOTED.
- ALL PARKING LOT CURBING SHALL BE PRECAST CONCRETE, UNLESS NOTED OR DETAILED OTHERWISE.
- ALL LIMITS OF PAVEMENT SHALL BE CURBED UNLESS NOTED OR DETAILED OTHERWISE.
- ALL ADA PARKING, CROSS HATCH AREAS AND STANDARD PARKING SPACES SHALL BE 9-FEET IN WIDTH BY 19-FEET IN LENGTH.
- ALL PAVEMENT STRIPING SHALL BE PAINTED WITH 2 COATS OF WHITE PAINT.
- CONTRACTOR SHALL REFER TO ARCHITECTURAL/BUILDING PLANS FOR EXACT LOCATIONS, DETAILS AND DIMENSIONS OF CONCRETE SIDEWALKS, EXIT PORCHES, RAMPS, PRECISE BUILDING DIMENSIONS, CONCRETE PADS AND EXACT UTILITY ENTRANCE LOCATIONS.
- PARKING AND TRAFFIC CONTROL PLANS ARE SCHEMATIC AND FOR LOCATION OF MARKINGS ONLY. SPECIFIC DETAILS FOR INSTALLATION OF PAVEMENT MARKINGS ARE PROVIDED AS PART OF THIS PLAN SET.
- FOR PARKING LOT PAVEMENT SECTION SEE DETAILS.



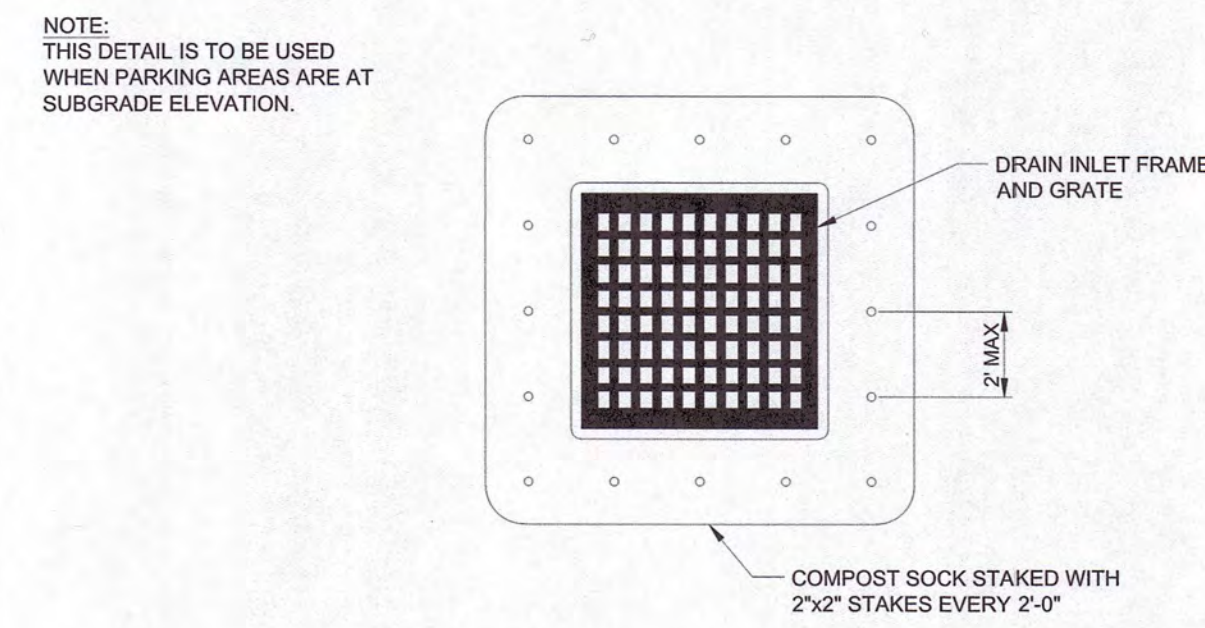


- NOTES:
1. THE SWPPP INFORMATION SIGN MUST BE LOCATED NEAR THE CONSTRUCTION EXIT OF THE SITE, SUCH THAT IT IS ACCESSIBLE AND VIEWABLE BY THE GENERAL PUBLIC, BUT NOT OBSTRUCTING VIEWS AS TO CAUSE A SAFETY HAZARD.
 2. ALL POSTED DOCUMENTS MUST BE MAINTAINED IN A CLEARLY READABLE CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION AND UNTIL THE NOTICE-OF-TERMINATION (NOT) IS FILED FOR THE PERMIT.
 3. CONTRACTOR SHALL POST OTHER STORM WATER AND/OR EROSION AND SEDIMENT CONTROL RELATED PERMITS ON THE SIGN AS REQUIRED BY THE GOVERNING AGENCY.
 4. SIGN SHALL BE LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAY AND EASEMENTS UNLESS APPROVED BY THE GOVERNING AGENCY.
 5. CONTRACTOR IS RESPONSIBLE FOR ENSURING STABILITY OF THE SWPPP INFORMATION SIGN.

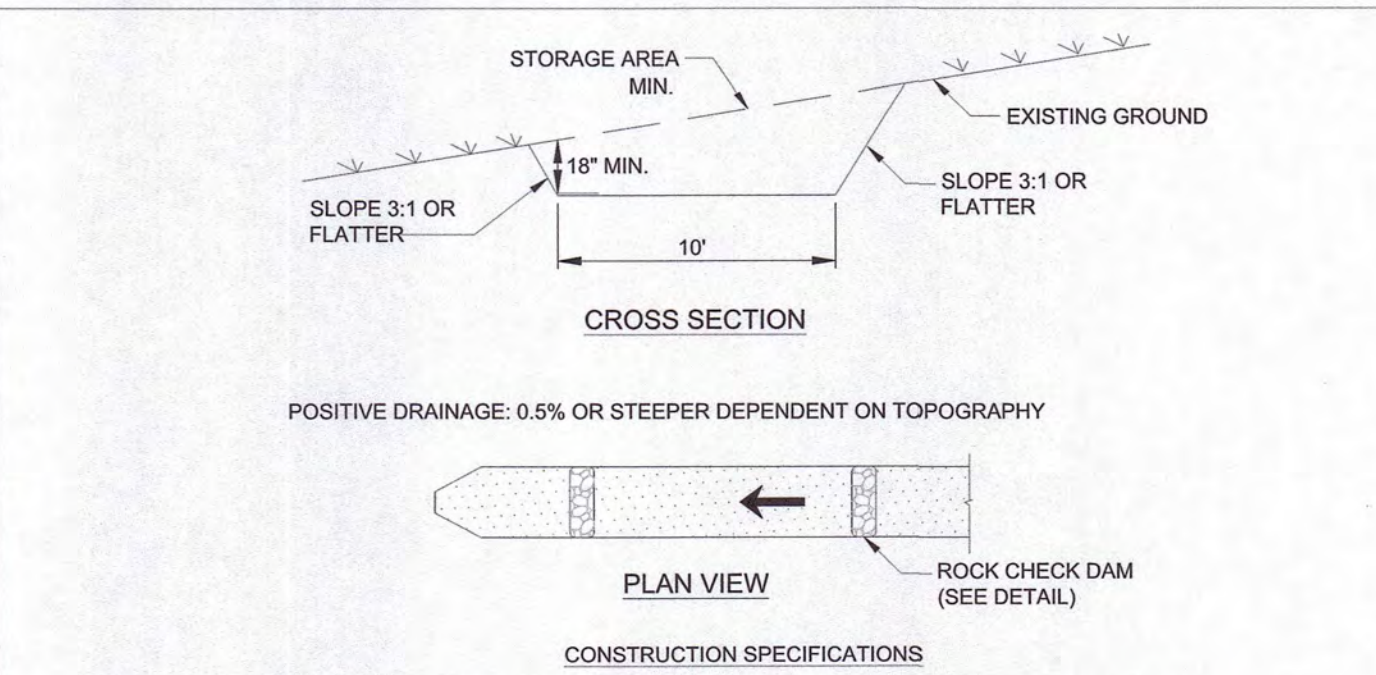
SWPPP INFORMATION SIGN
SCALE: N.T.S.



TYPICAL MASSACHUSETTS DEP SIGN DETAIL
SCALE: N.T.S.

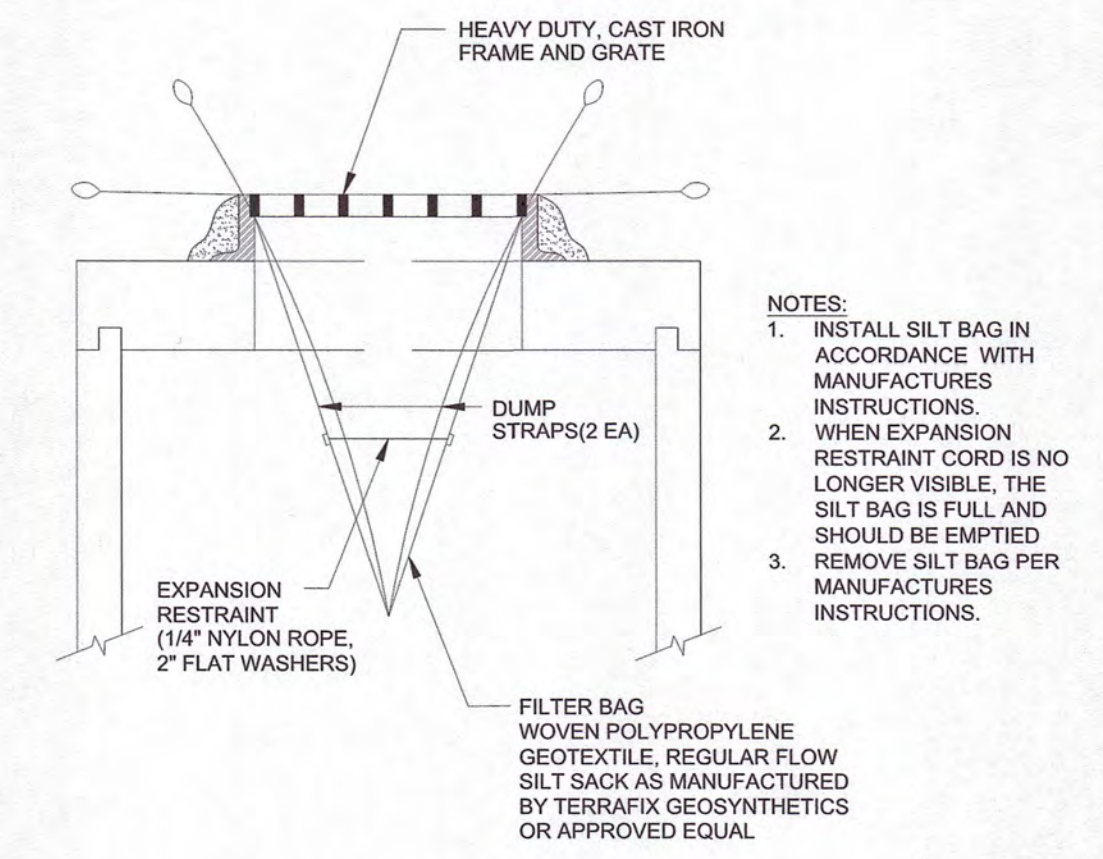


TYPICAL COMPOST SOCK INLET PROTECTION DETAIL
SCALE: N.T.S.

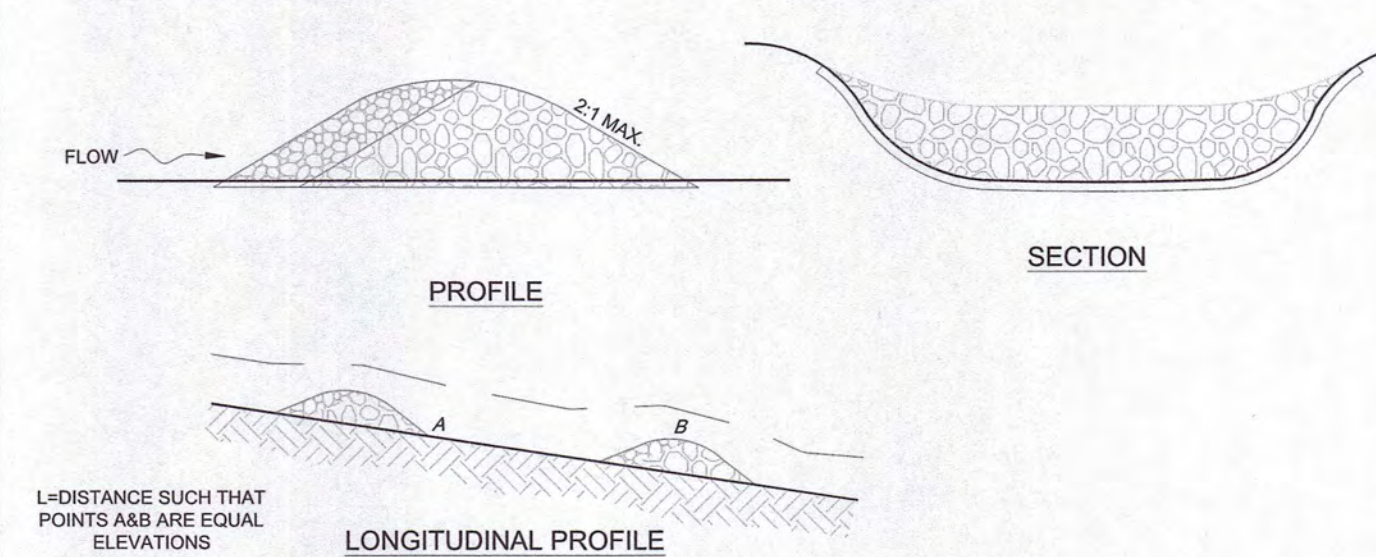


- CONSTRUCTION SPECIFICATIONS
1. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE FLOW TO AN OUTLET.
 2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
 3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
 4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
 5. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
 6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
 7. ALL EARTH REMOVED AND NOT NEEDED FOR CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
 8. STABILIZATION SHALL BE FOR SLOPES GREATER THAN 2%.
 9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT AND AS REQUIRED BY THE PERMIT.

TEMPORARY SWALE DETAIL
SCALE: N.T.S.



TYPICAL FILTER BAG DETAIL
SCALE: N.T.S.



NOTES:

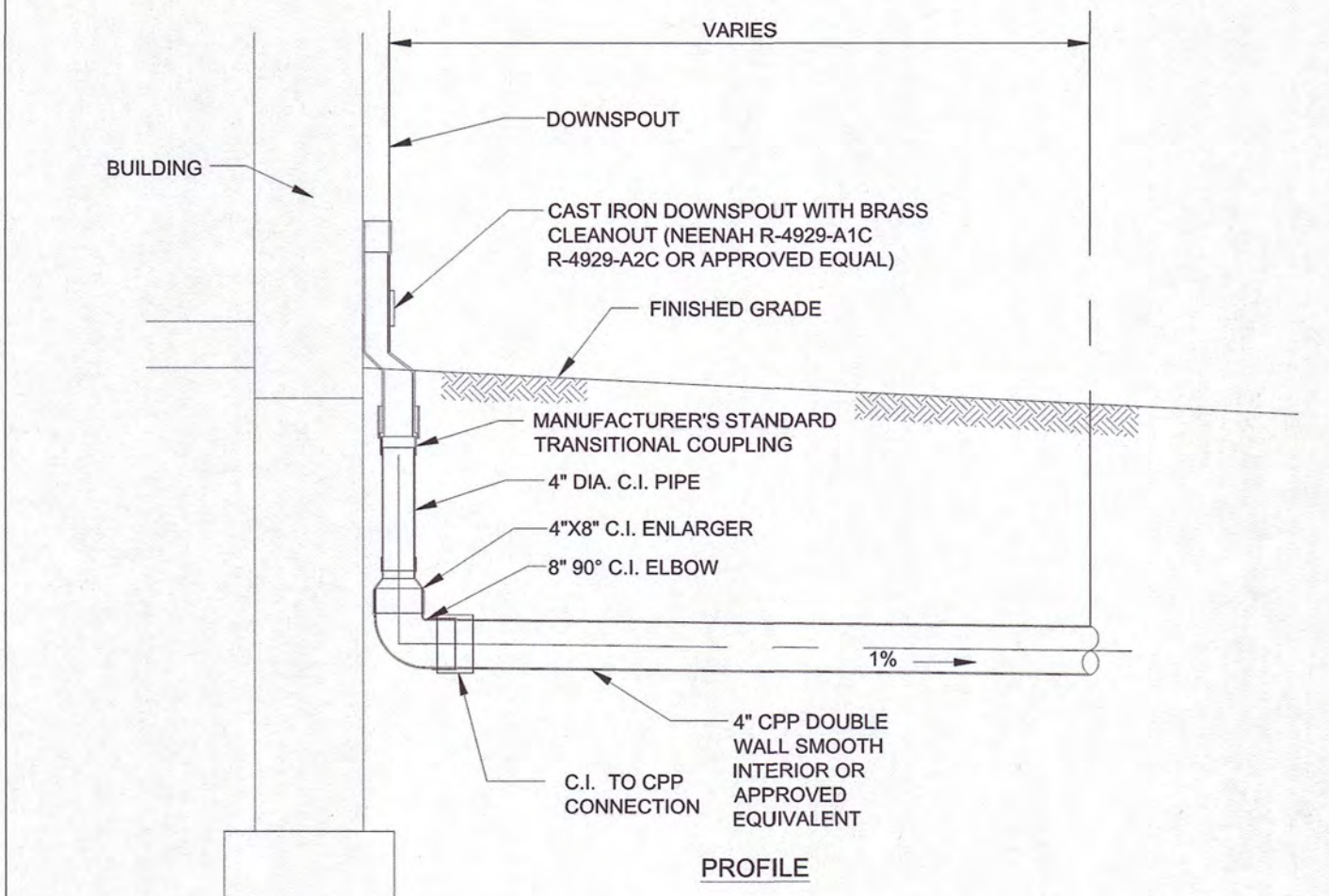
1. THE MAXIMUM HEIGHT OF THE CHECK DAM AT THE CENTER SHALL NOT EXCEED ONE HALF THE DEPTH OF THE CHANNEL.
2. MAXIMUM SPACING SHALL BE SO THE TOE OF THE UPSTREAM DAM IS THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM DAM.
3. REMOVE SEDIMENT WHEN ACCUMULATION IS 25% THE HEIGHT OF THE WEIR.
4. REMOVE CHECK DAMS WHEN SITE STABILIZATION IS ACHIEVED.

CHECK DAM SPACING CRITERIA

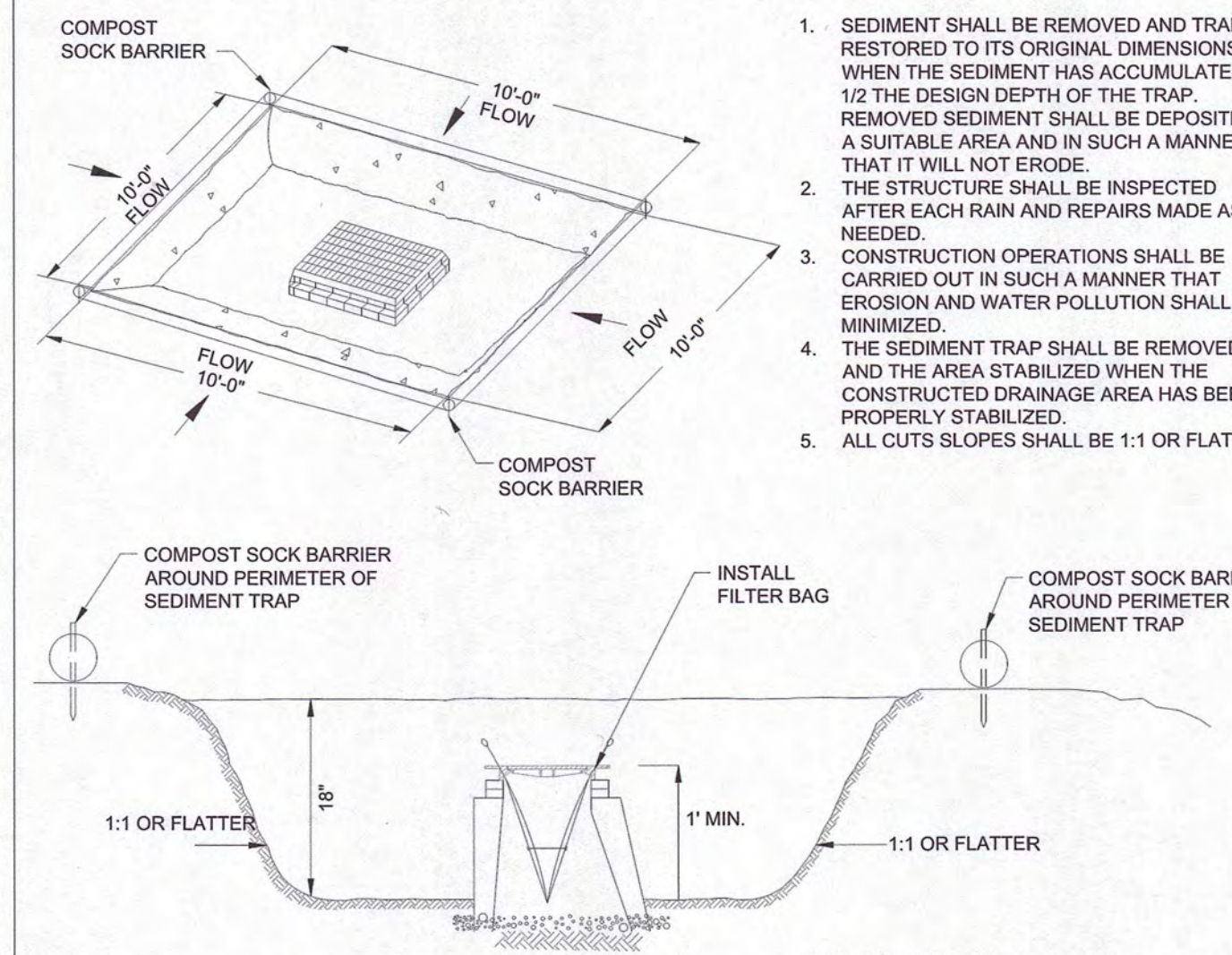
SPILLWAY HEIGHT	CHANNEL SLOPE	CHECK DAM SPACING
1.5	1%	150 FT.
2.0	1%	200 FT.
1.5	2%	75 FT.
2.0	2%	100 FT.
1.5	3%	50 FT.
2.0	3%	67 FT.
1.5	4%	38 FT.
2.0	4%	50 FT.
1.5	5%	30 FT.
2.0	5%	40 FT.

*ASSUME CHANNEL DEPTH IS 2 TIMES SPILLWAY HEIGHT

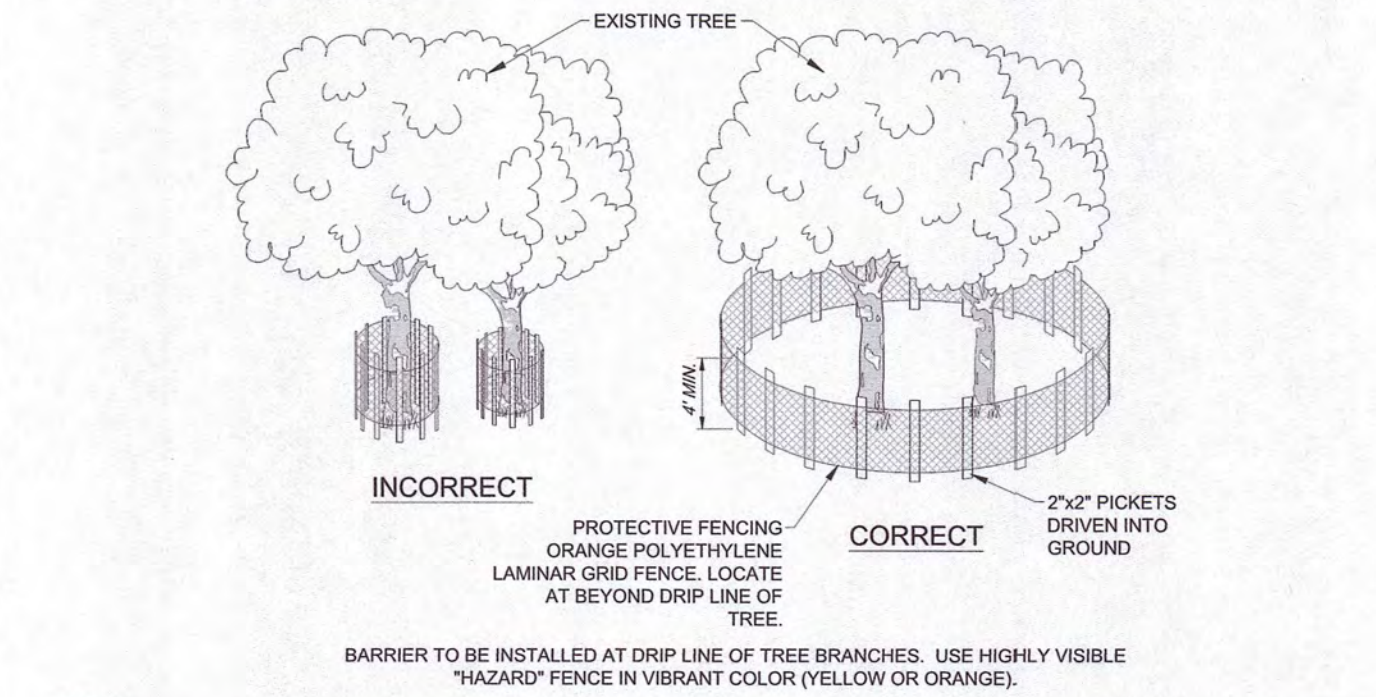
ROCK CHECK DAM DETAIL
SCALE: N.T.S.



TYPICAL EXTERIOR ROOF DRAIN DETAIL
SCALE: N.T.S.

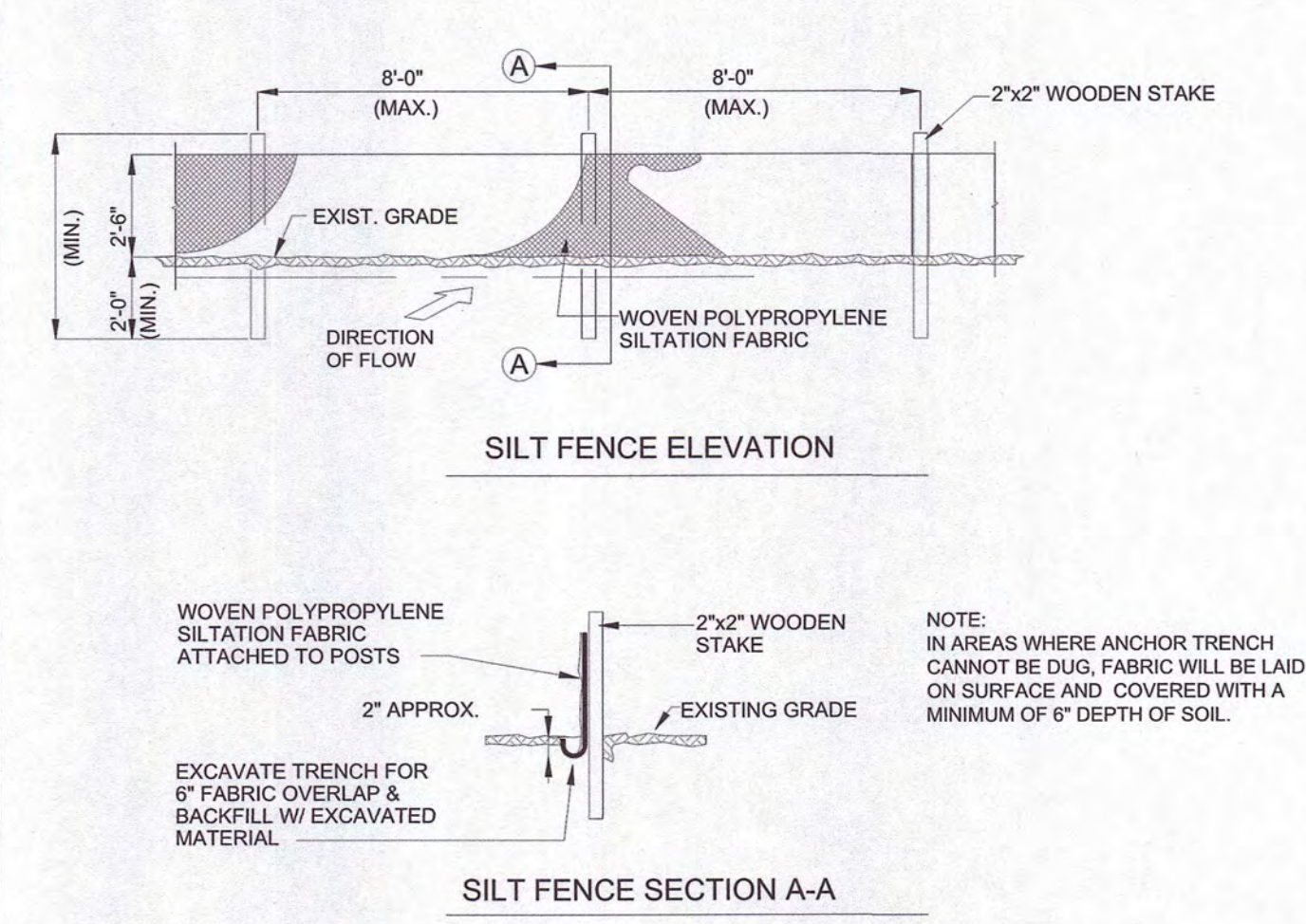


STORM INLET SEDIMENT TRAP
SCALE: N.T.S.

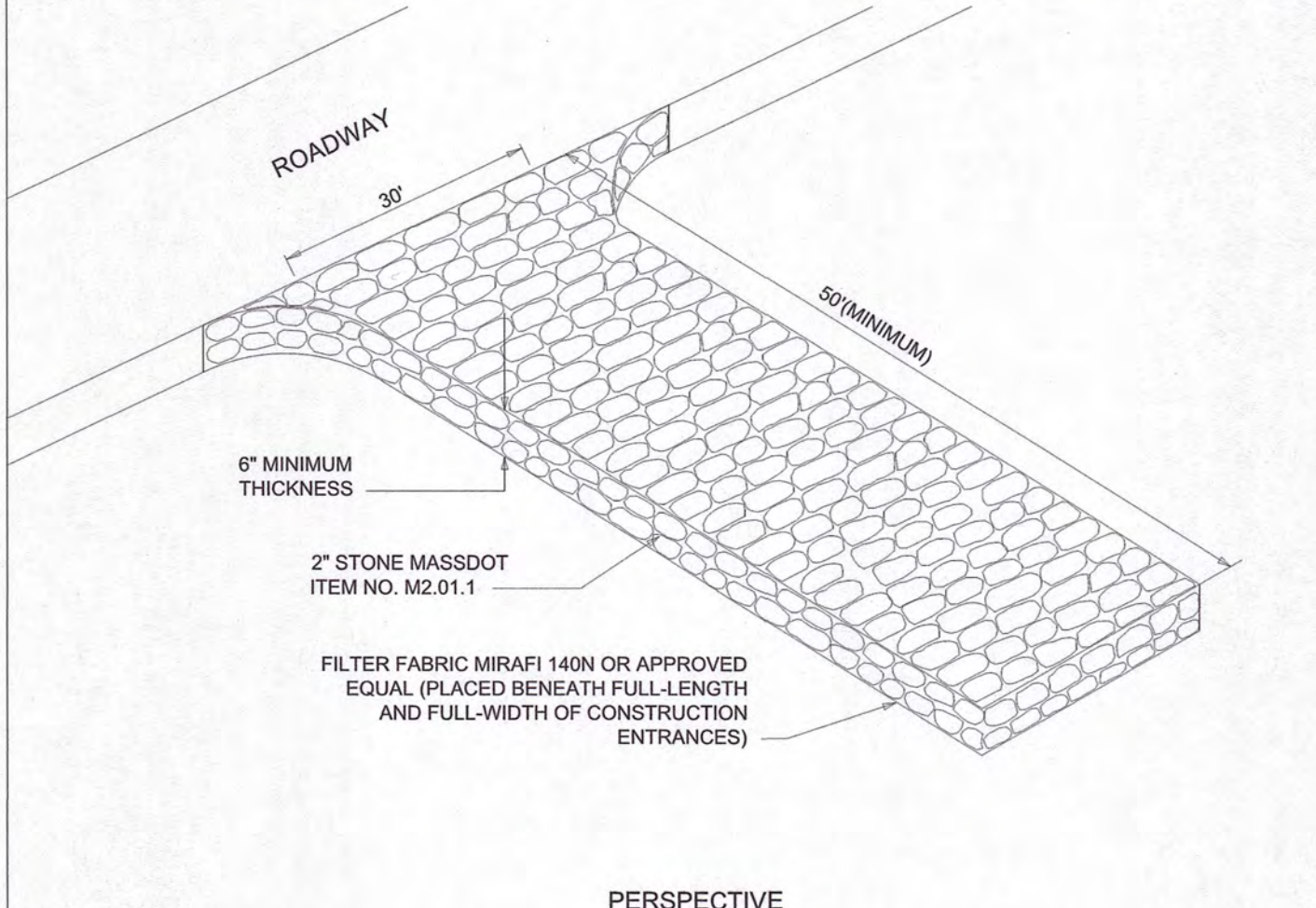


- NOTES:
1. TREE PROTECTION BARRIERS MUST BE PLACED AROUND TREES TO BE RETAINED WITHIN AN AREA WHERE LAND ALTERATION AND CONSTRUCTION ACTIVITIES WILL OCCUR. TREES TO REMAIN SHALL BE INDICATED ON THE PLANS.
 2. TREE PROTECTION BARRIER MUST REMAIN IN PLACE UNTIL GRADING AND CONSTRUCTION ACTIVITY IS COMPLETE OR UNTIL COMMENCEMENT OF FINISH GRADING AND SODDING.
 3. BARRIERS SHALL BE PLACED AROUND TREES AT THE DRIPLINE EXCEPT WHERE LAND ALTERATION OR CONSTRUCTION ACTIVITIES ARE APPROVED WITHIN THE DRIPLINE.
 4. THE DRIPLINE OF A TREE IS THE IMAGINARY VERTICAL LINE THAT EXTENDS DOWNWARD FROM THE OUTERMOST TIPS OF THE TREE'S BRANCHES TO THE GROUND.
 5. AREAS SURROUNDING BY THE TREE PROTECTION BARRIERS SHALL BE PROTECTED FROM VEGETATION REMOVAL, PLACEMENT OF SOIL, DEBRIS, SOLVENTS, CONSTRUCTION MATERIAL, MACHINERY OR OTHER EQUIPMENT OF ANY KIND.
 6. ALL TREE ROOTS WITHIN AREA TO BE GRADED AND ORIGINATING FROM A PROTECTED TREE SHALL BE SEVERED CLEANLY AT THE LIMITS OF THE PROTECTED AREA.
 7. ALL TREE PRUNING AND TRIMMING ON ANY TREE TO BE RETAINED SHALL BE PERFORMED BY AN ARBORIST CERTIFIED BY THE AMERICAN SOCIETY OF ARBORICULTURE (ASA).
 8. 2'x2' TREE PROTECTION SIGNS SPACED A MINIMUM OF 300' SHALL CONTAIN THE WORDING "TREE PROTECTION ZONE - KEEP OUT".

TREE PROTECTION BARRIER
SCALE: N.T.S.



SILTATION FENCE DETAIL
SCALE: N.T.S.



VEHICLE TRACKING PAD
SCALE: N.T.S.

NOT FOR CONSTRUCTION



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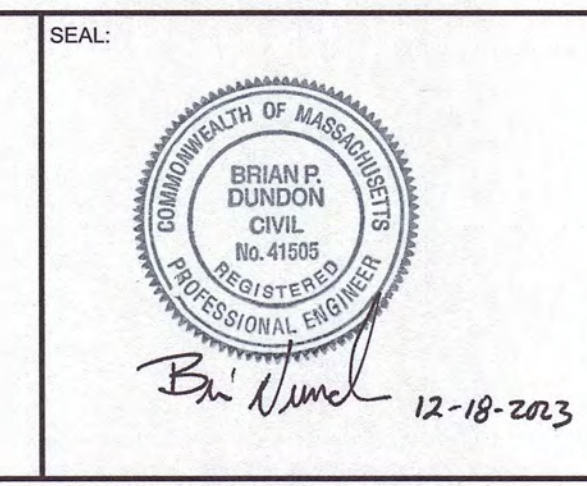
NO.	REVISION	DATE	NO.	REVISION	DATE
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023			

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	N.T.S.

PREPARED FOR:

FAIRFIELD GROVE STREET LLC

30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184



PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.

CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALLE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781-278-0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES

FRANKLIN, MA

DRAWING NAME:

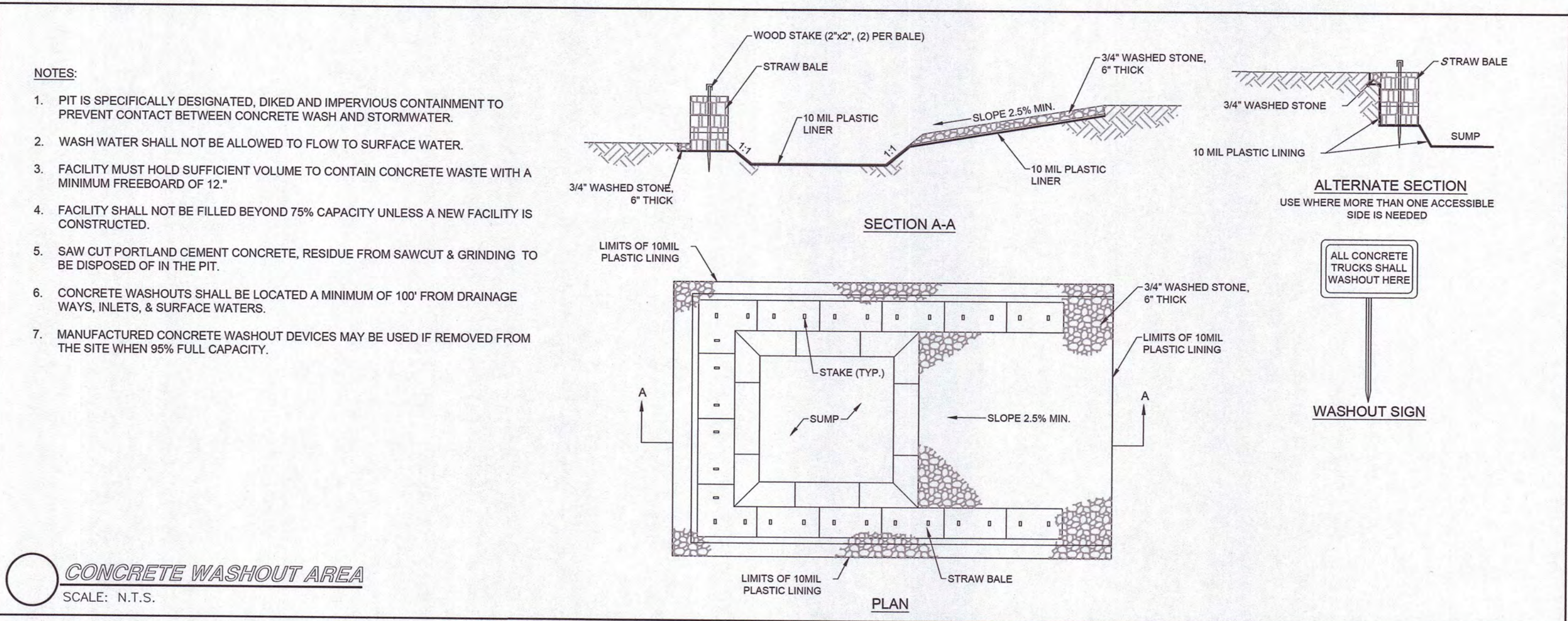
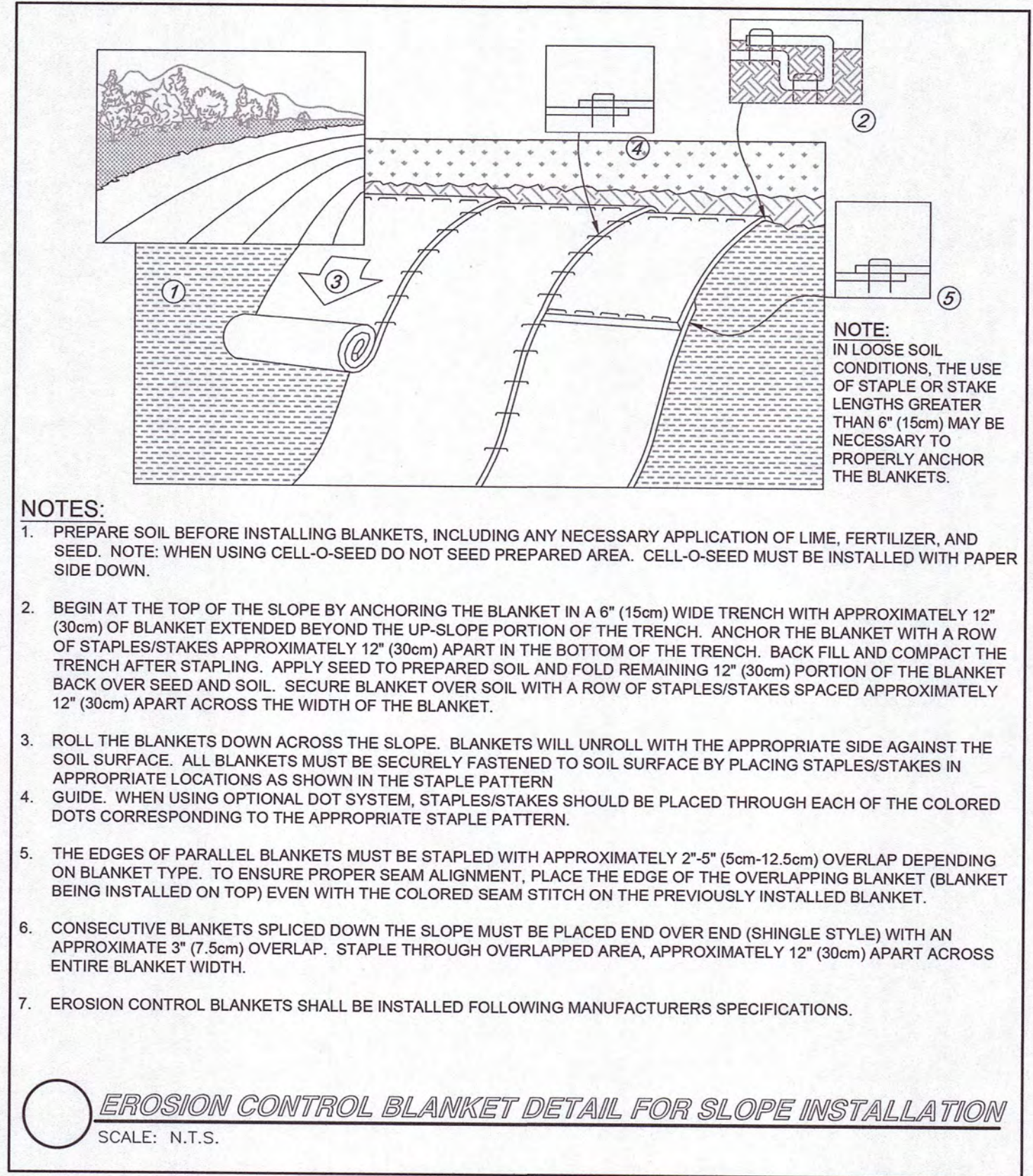
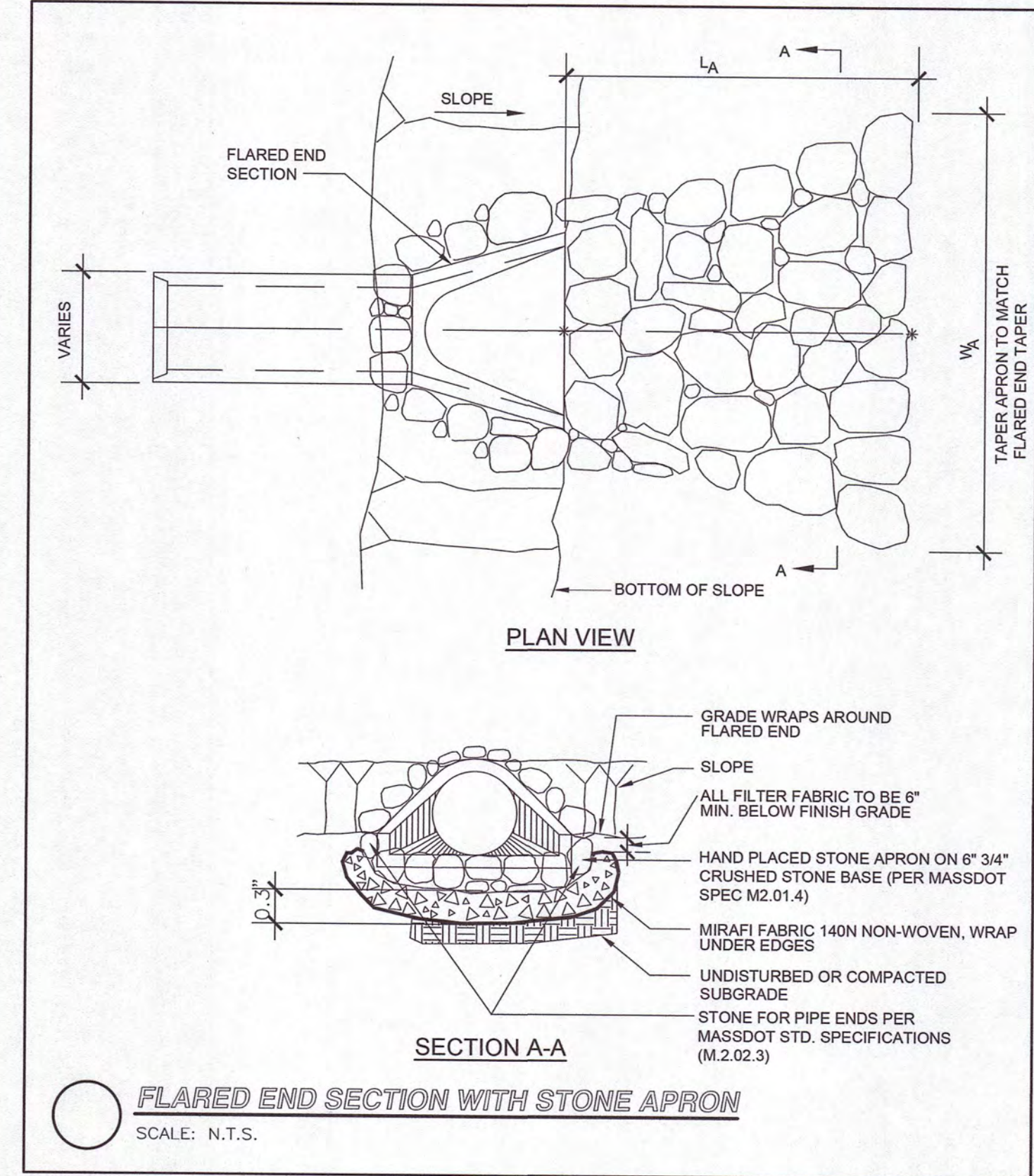
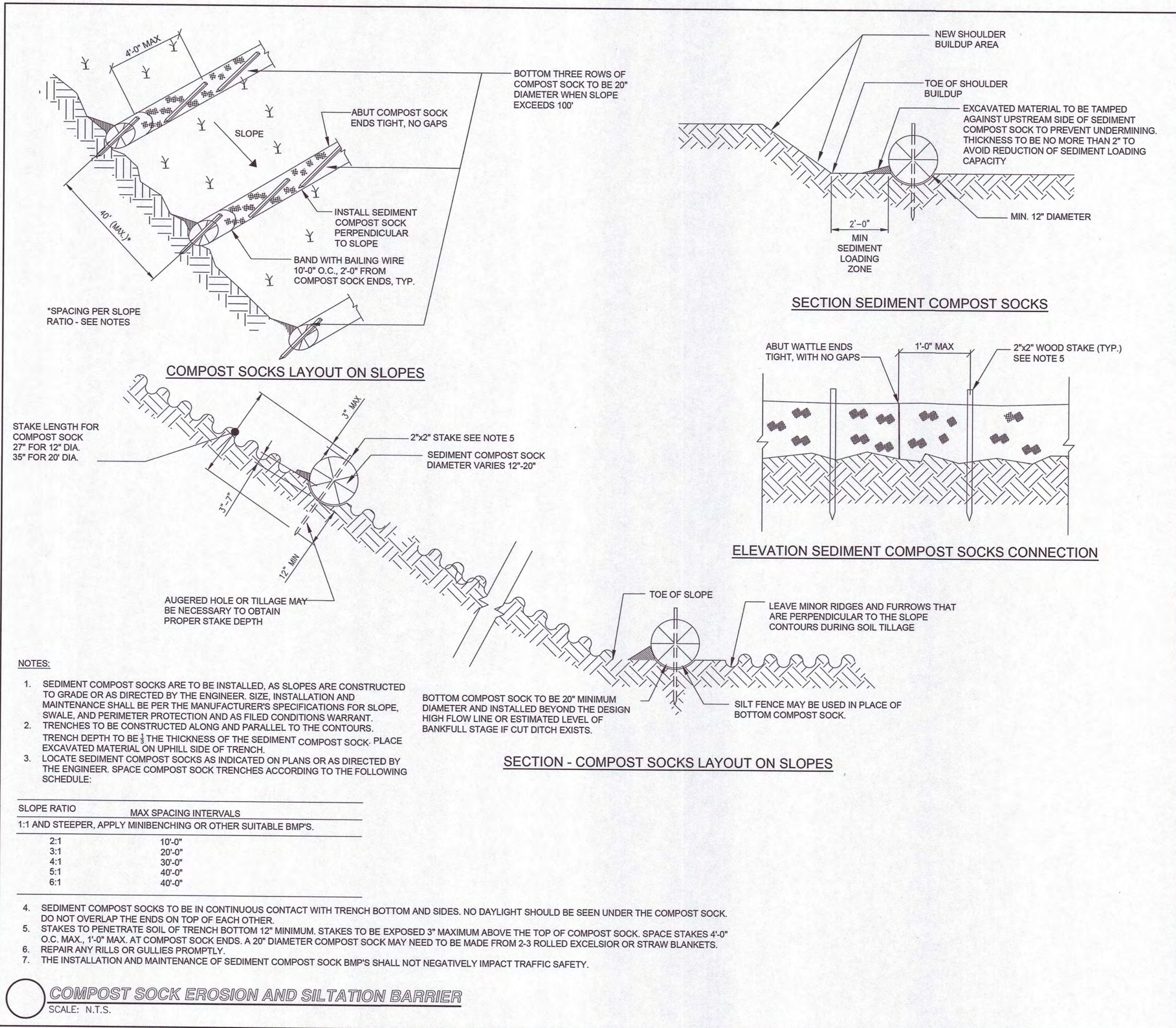
SITE DETAILS - I

DRAWING NUMBER:

C-5

DATE: 10/30/2023 PROJECT NO.: 22016

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NO.	REVISION	DATE
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	N.T.S.

PREPARED FOR:

FAIRFIELD GROVE
STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAintree, MA 02184

SEAL:



PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
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80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02186
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

SITE
DETAILS - II

DRAWING NUMBER:

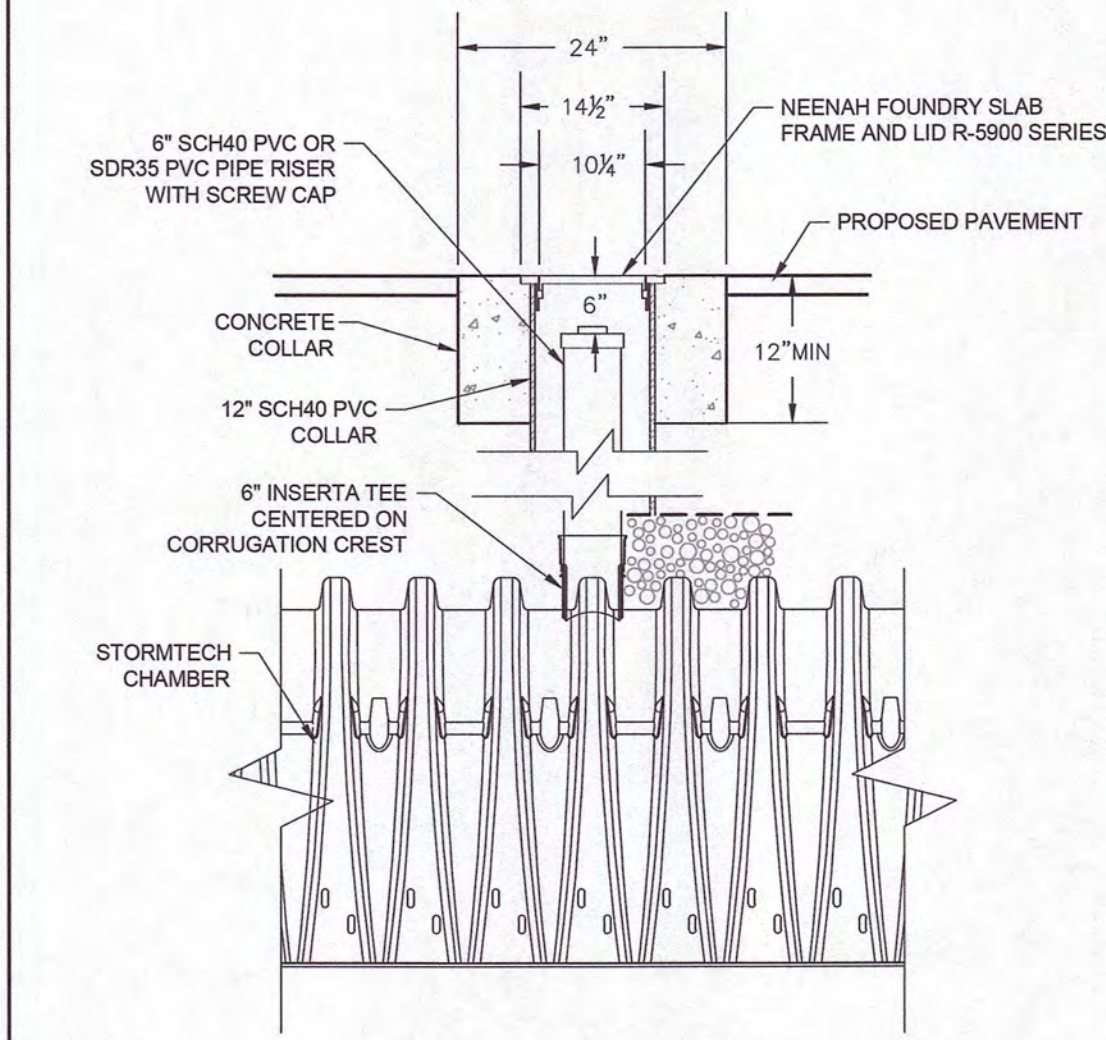
C-6

DATE: 10/30/2023

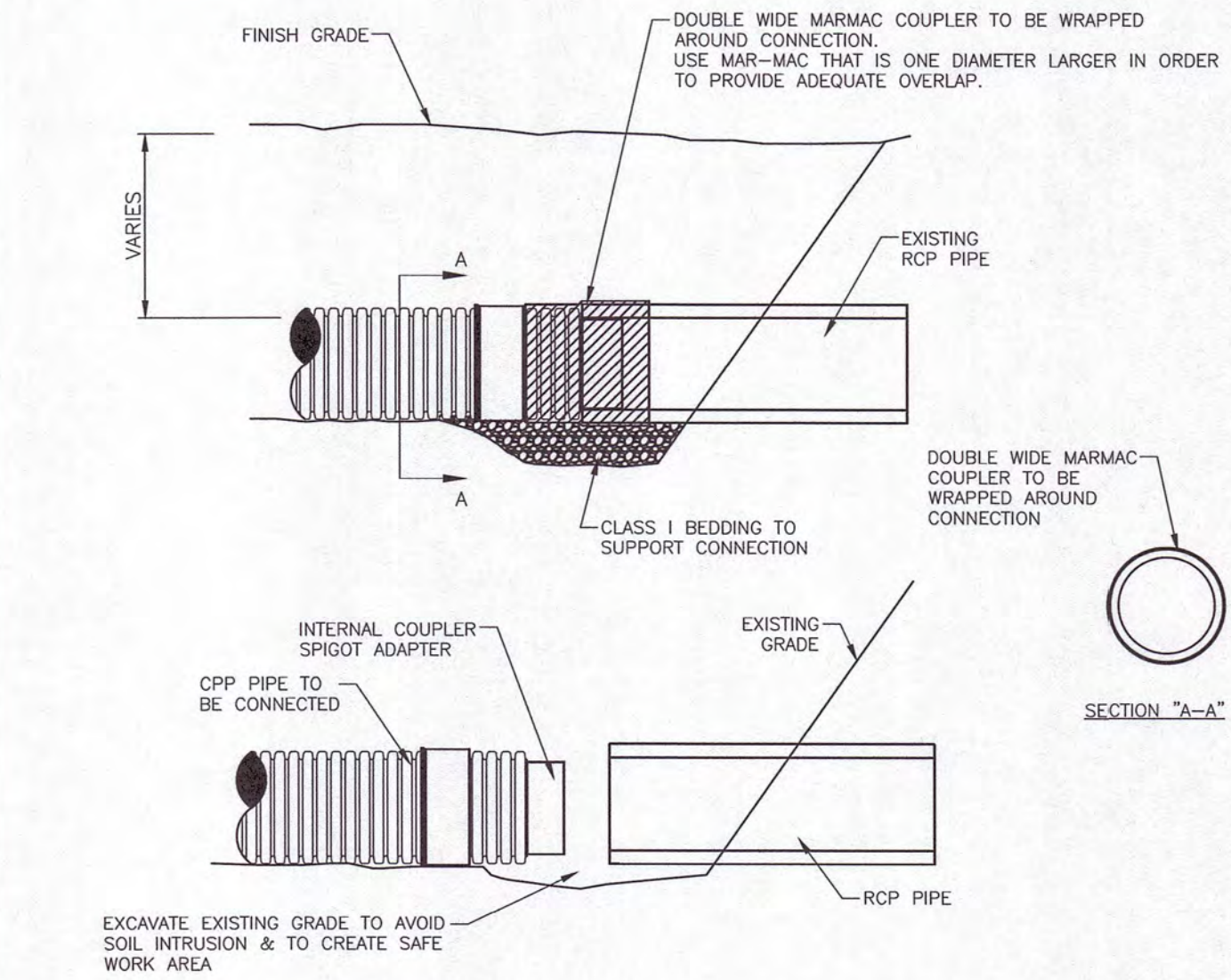
PROJECT NO.: 22016

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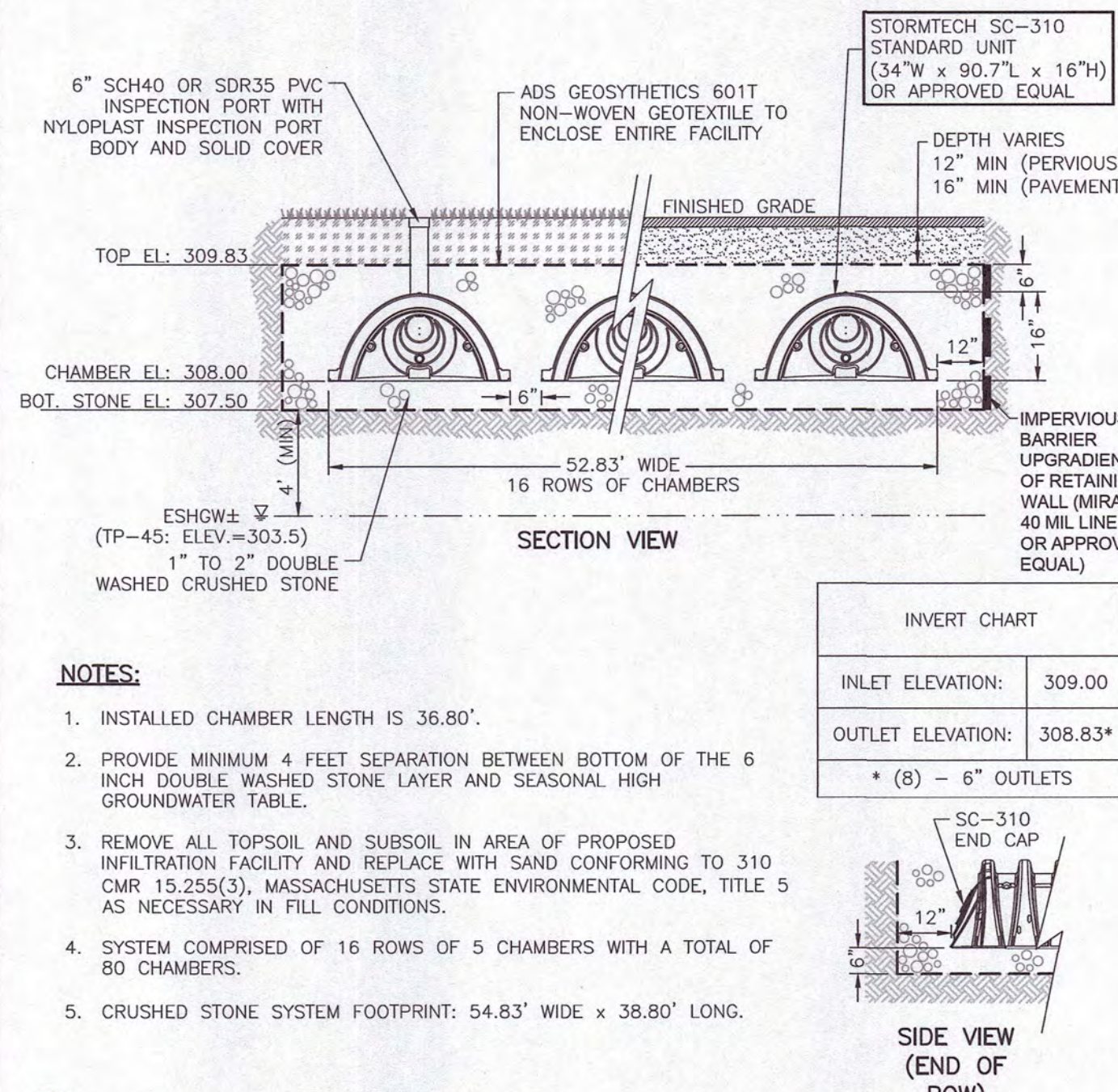
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Dec 16, 2023 - 12:39pm



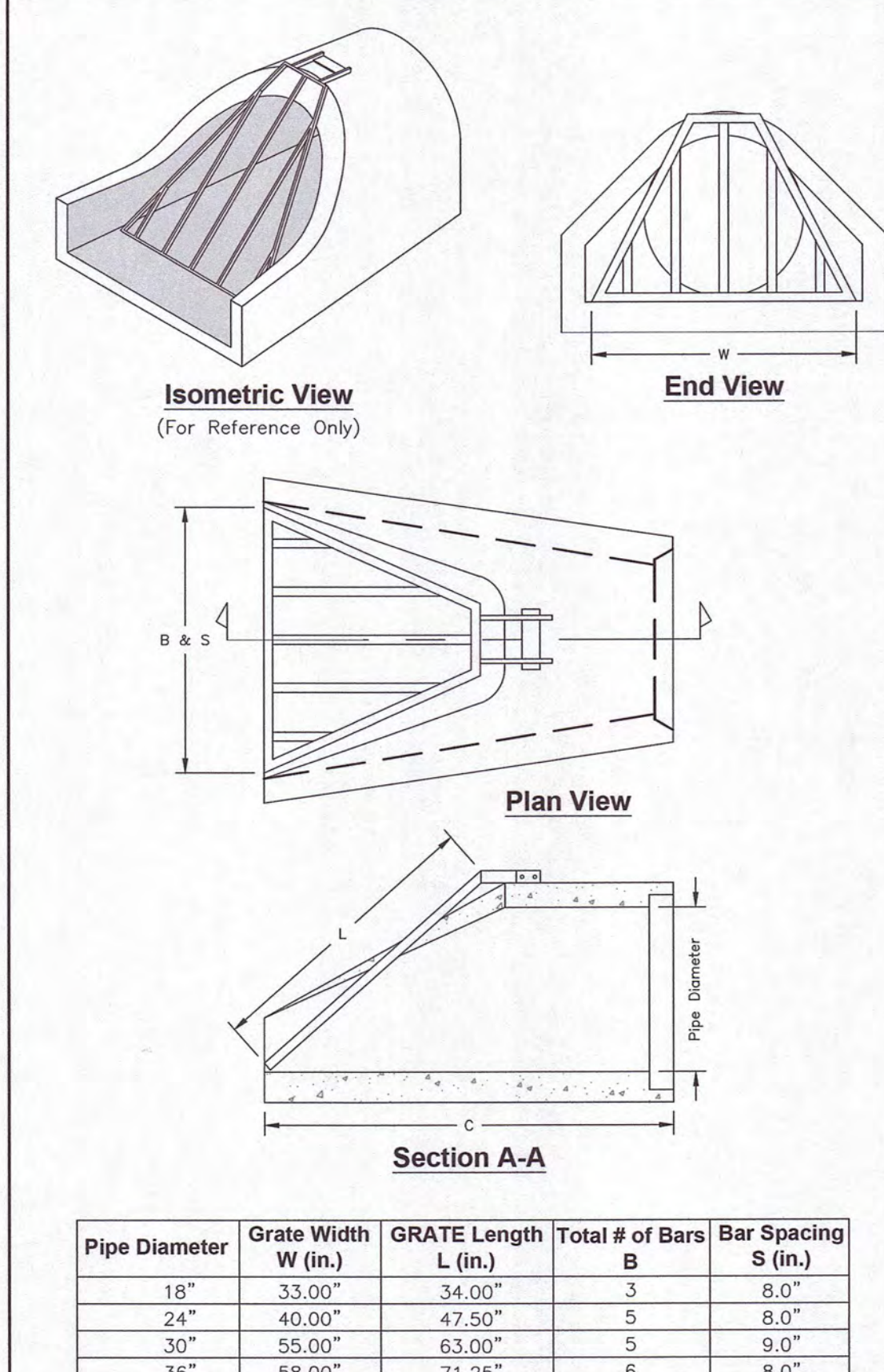
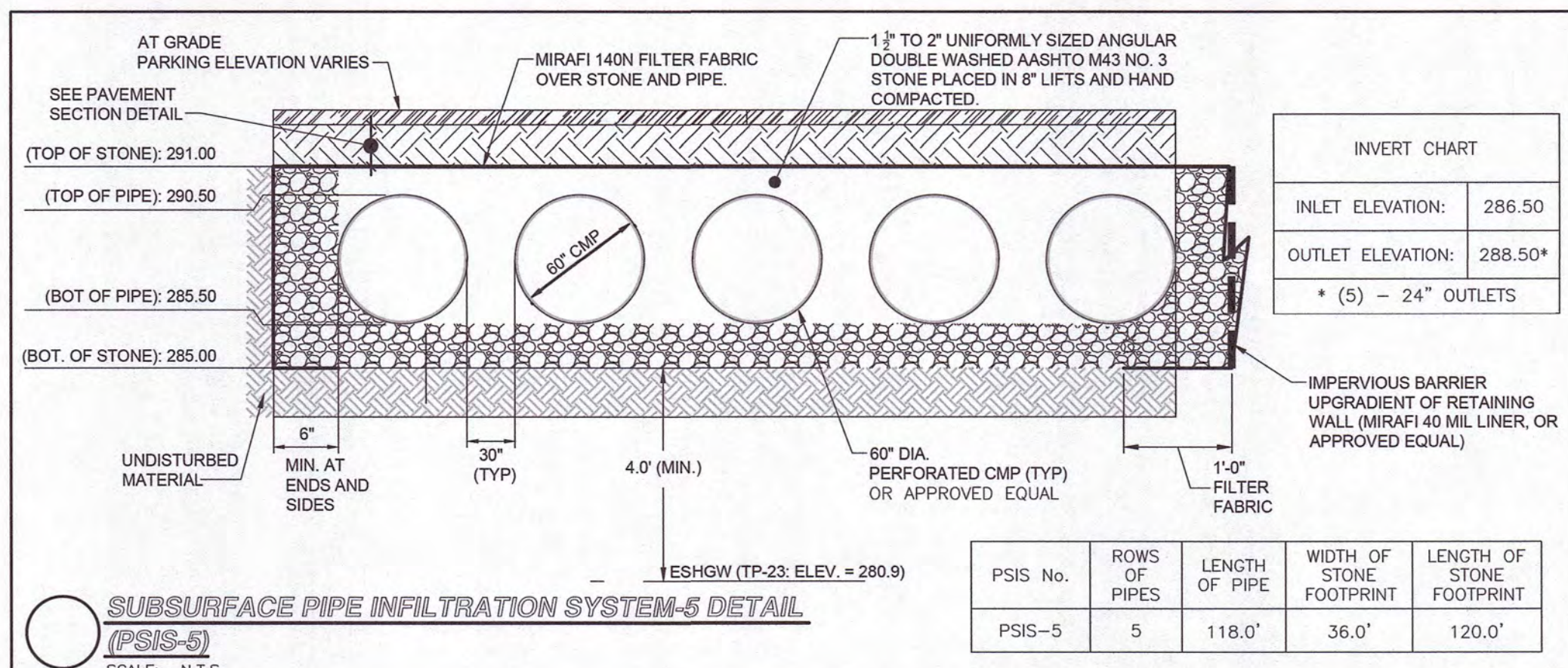
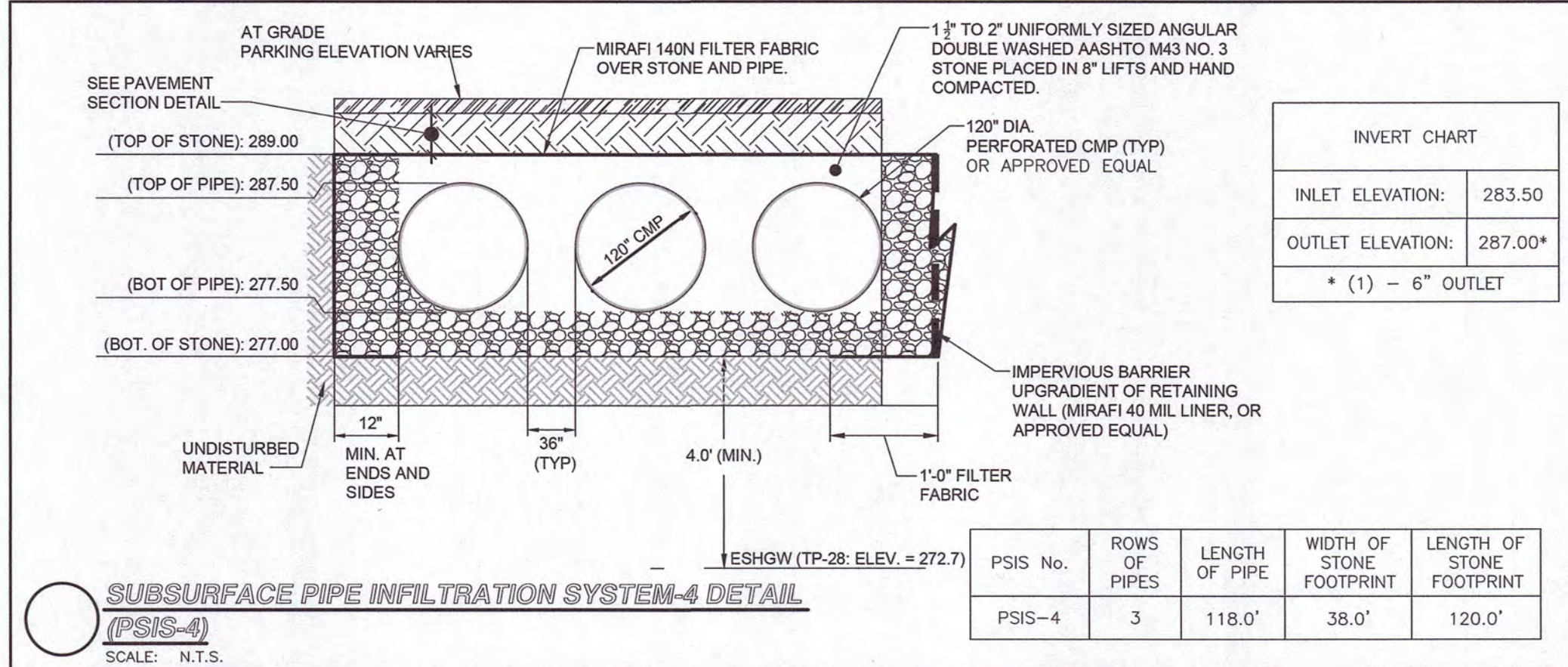
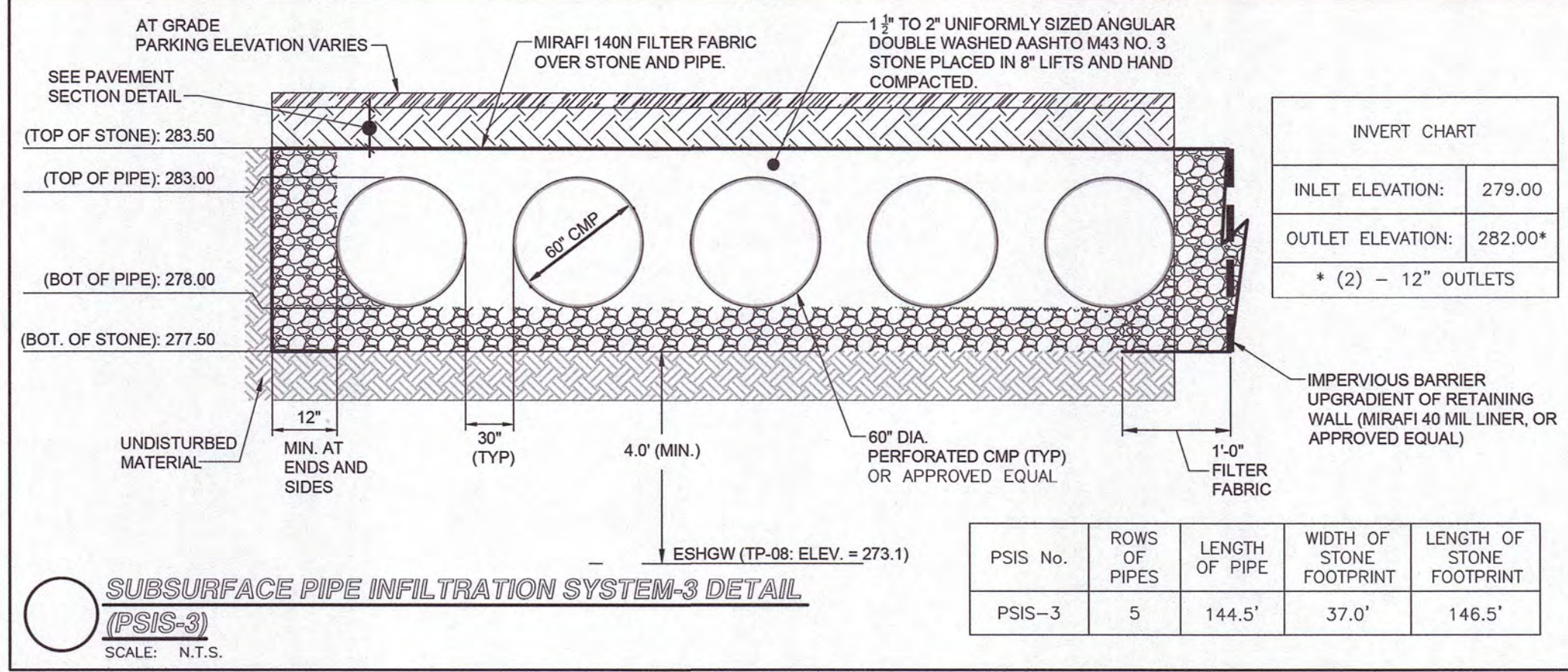
OBSERVATION PORT
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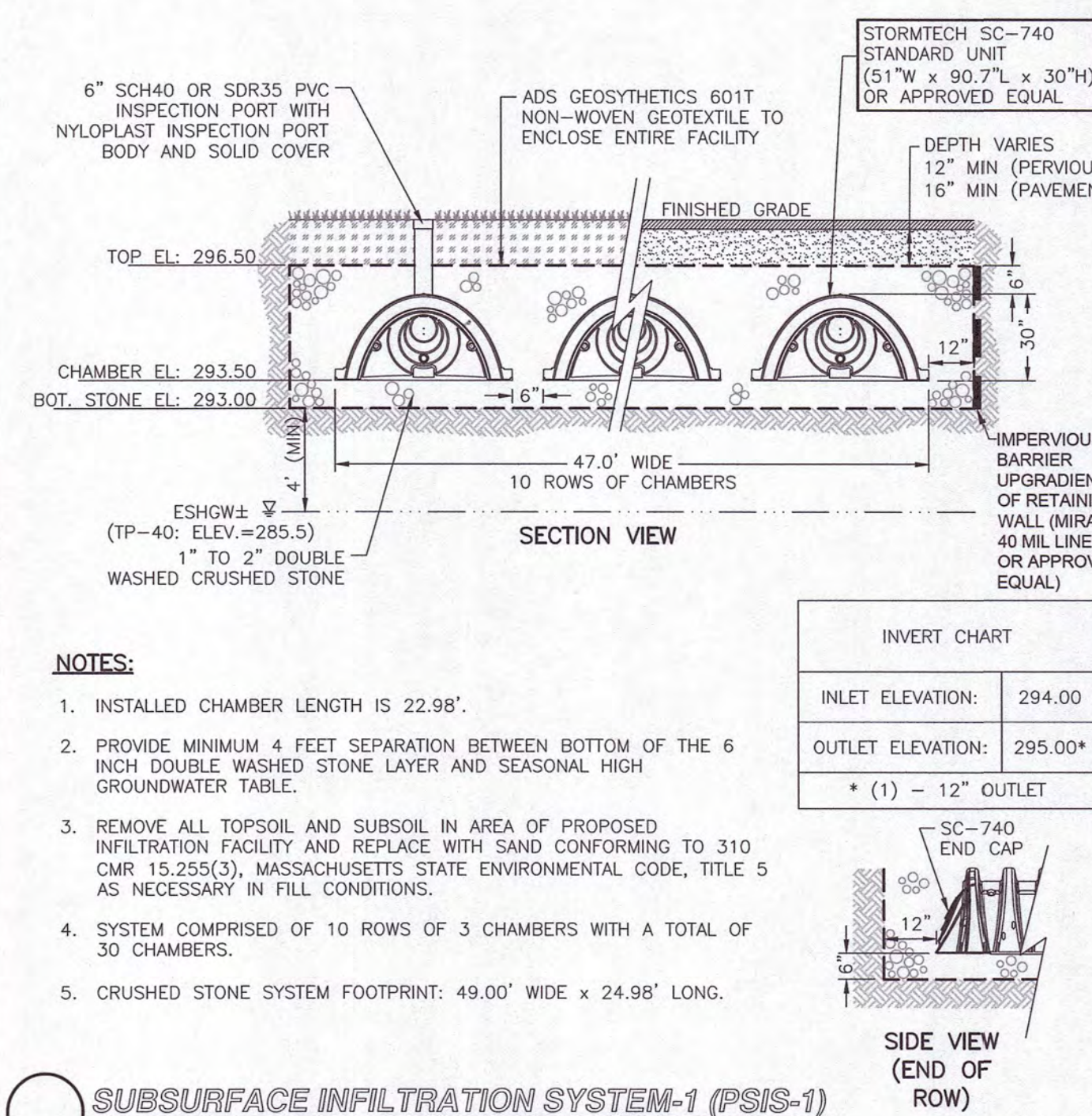
CPP TO RCP CONNECTION (MARMAC) DETAIL
SCALE: N.T.S.



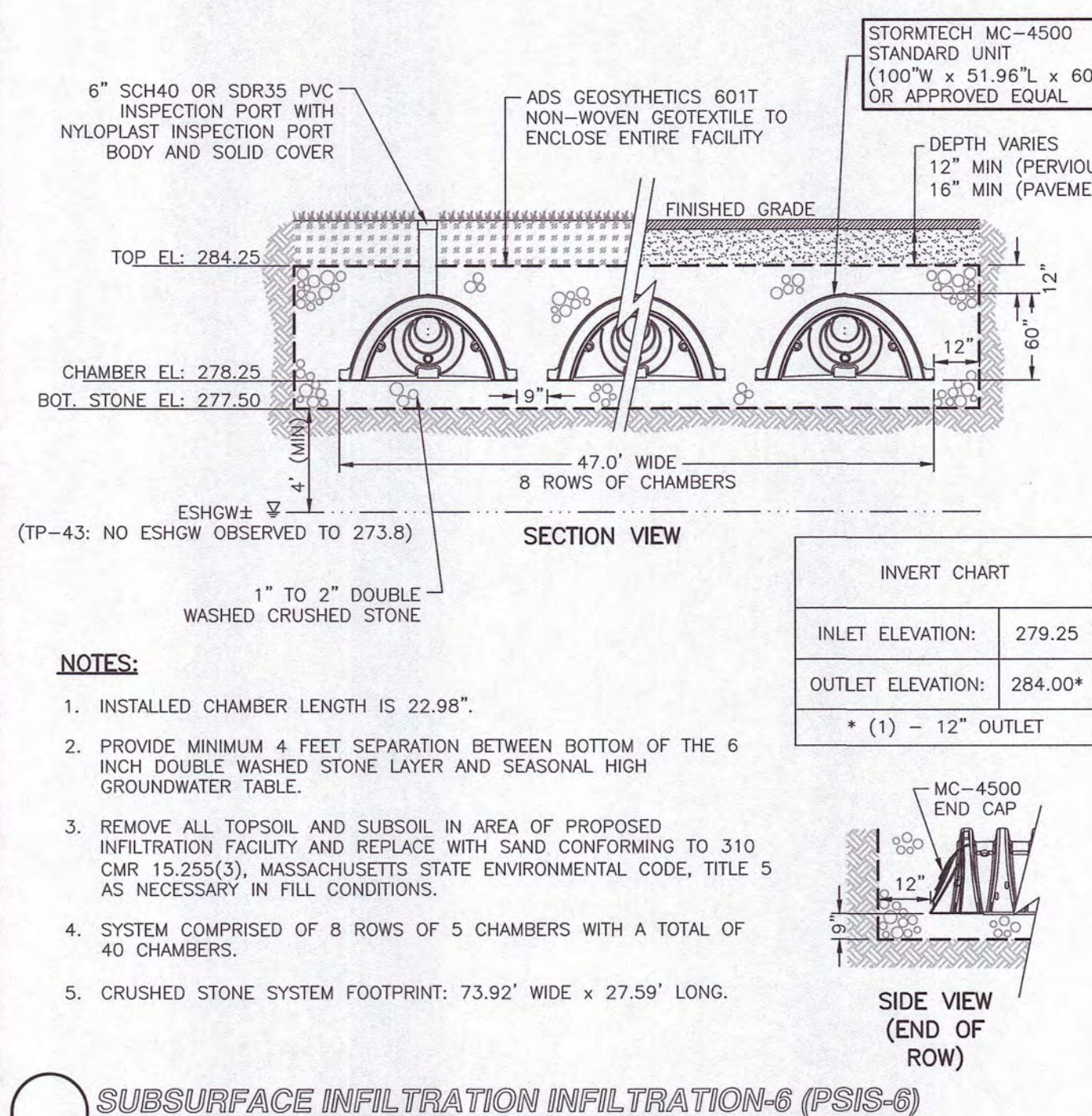
SUBSURFACE INFILTRATION SYSTEM-2 (PSIS-2)
SCALE: N.T.S.



FLARED END GRATE DETAIL
SCALE: N.T.S.



SUBSURFACE INFILTRATION SYSTEM-1 (PSIS-1)
SCALE: N.T.S.



SUBSURFACE INFILTRATION SYSTEM-6 (PSIS-6)
SCALE: N.T.S.

NOT FOR CONSTRUCTION

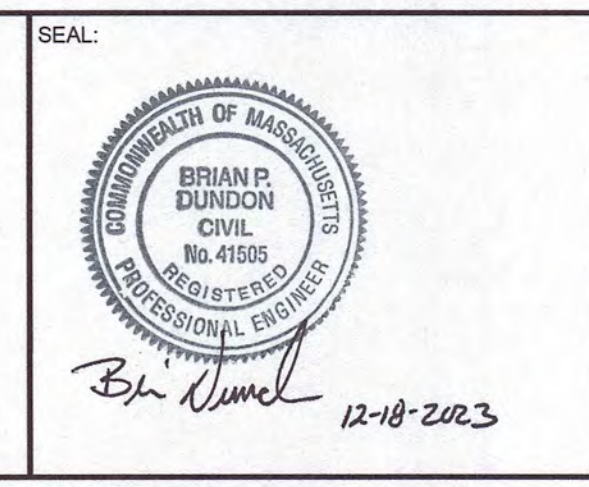


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NO.	REVISION	DATE	NO.	REVISION	DATE
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023			

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	N.T.S.

PREPARED FOR:
FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184



PREPARED BY:
RJO'CONNELL & ASSOCIATES, INC.
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PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:
GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:
SITE DETAILS - IV

DRAWING NUMBER:
C-8

DATE: 10/30/2023 PROJECT NO.: 22016

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Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\22016_C-9 Site Details - V.dwg
Dec 19, 2023 - 7:17am



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NO.	REVISION	DATE
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

NO.	REVISION	DATE
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	N.T.S.

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:



PREPARED BY:

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PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

SITE DETAILS - V

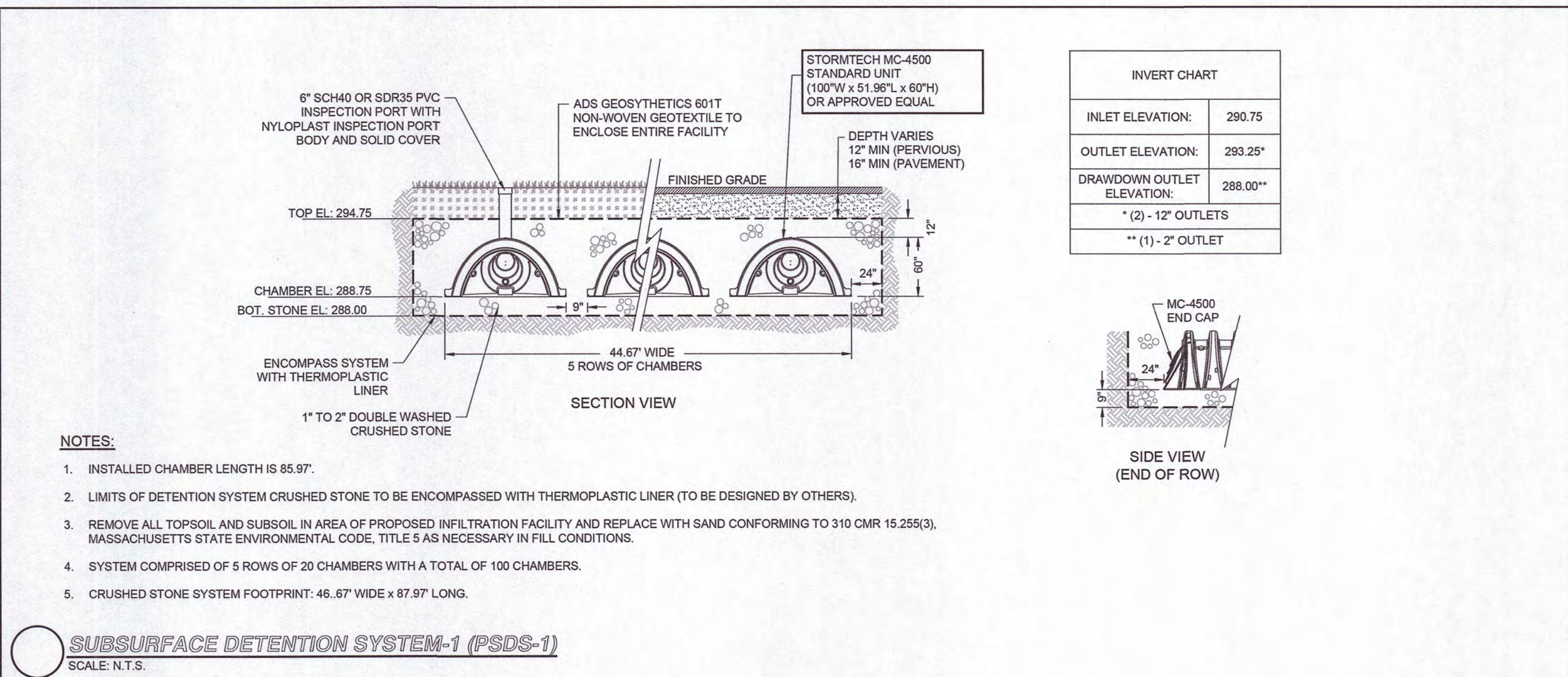
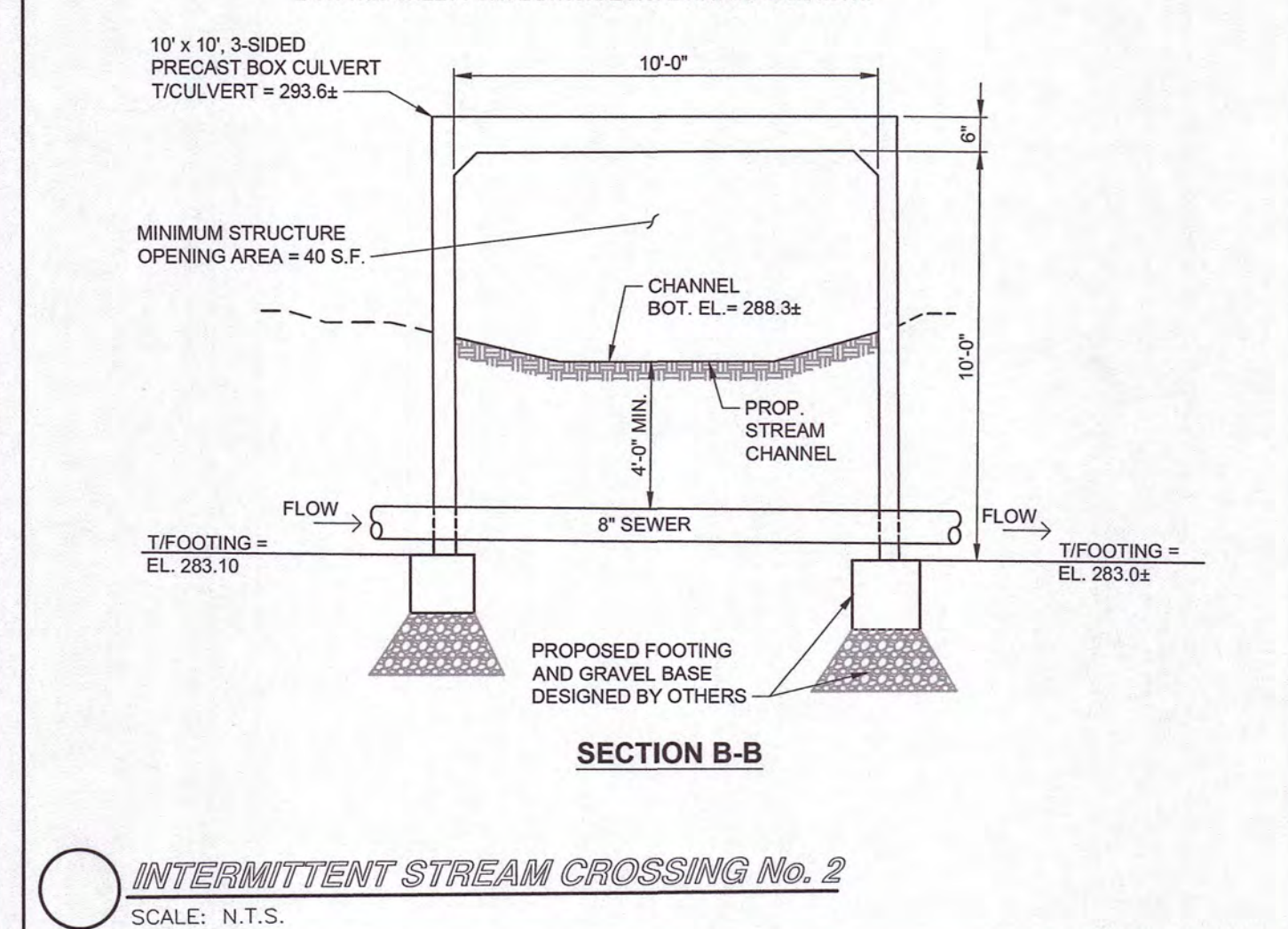
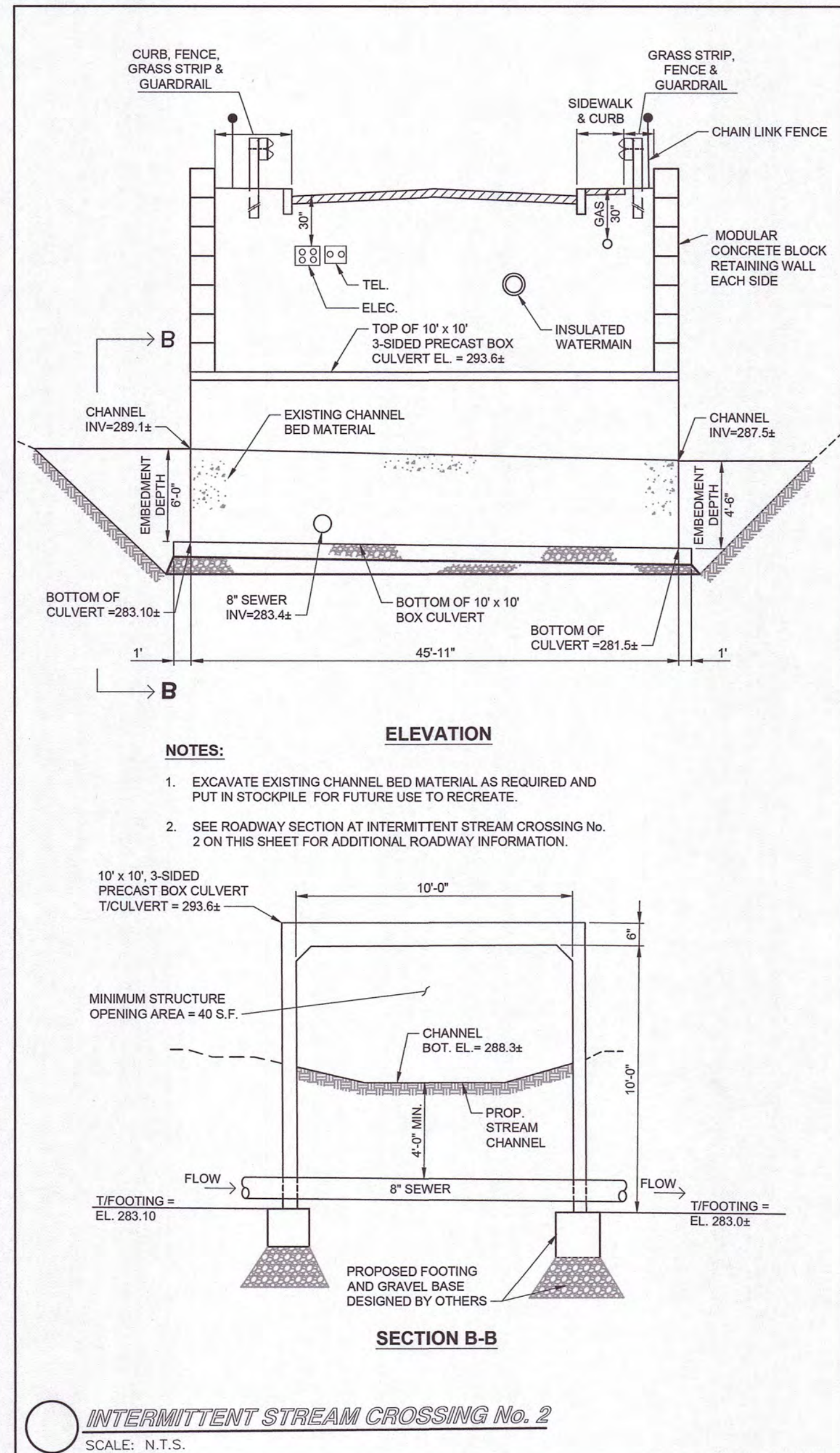
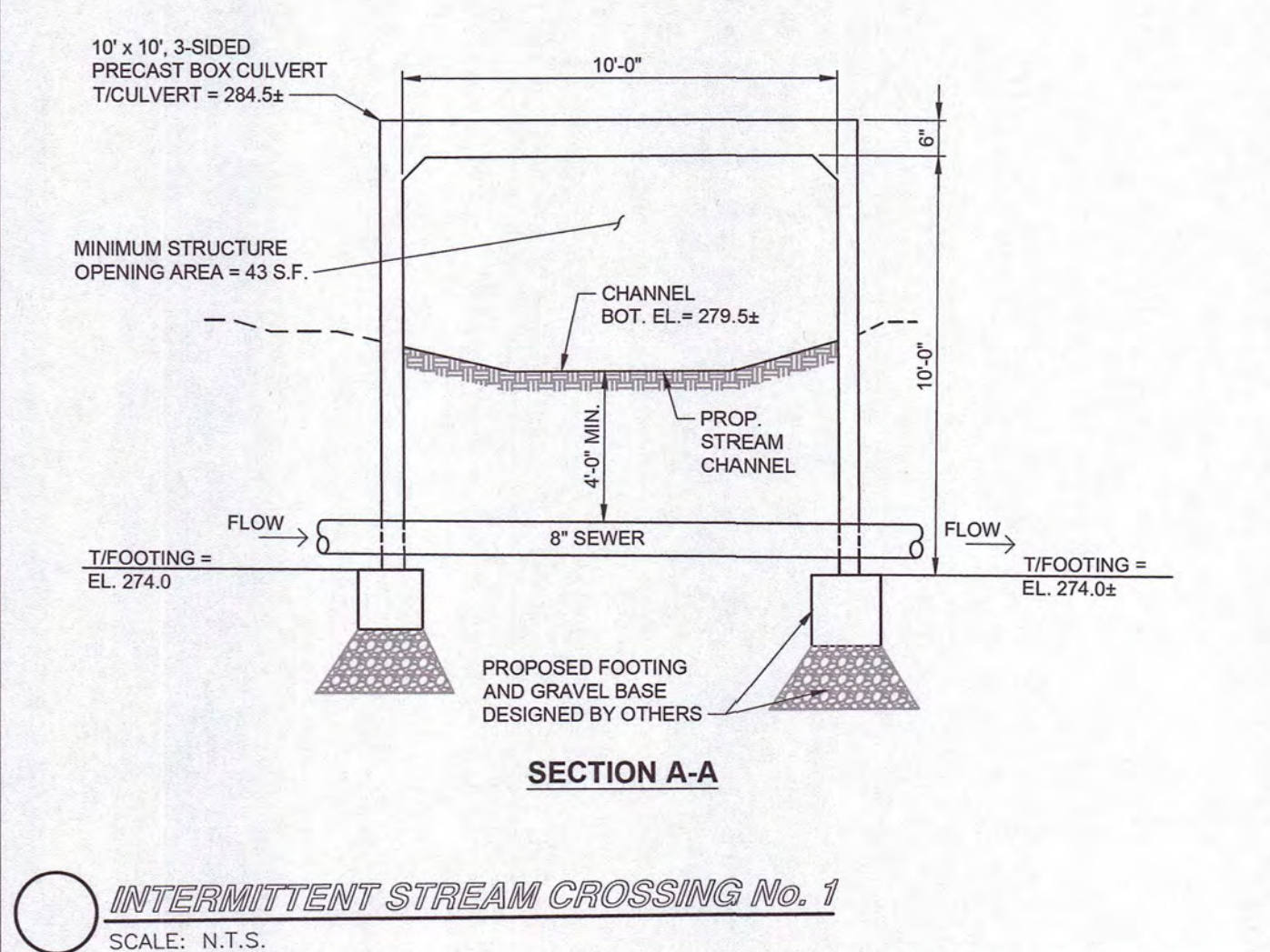
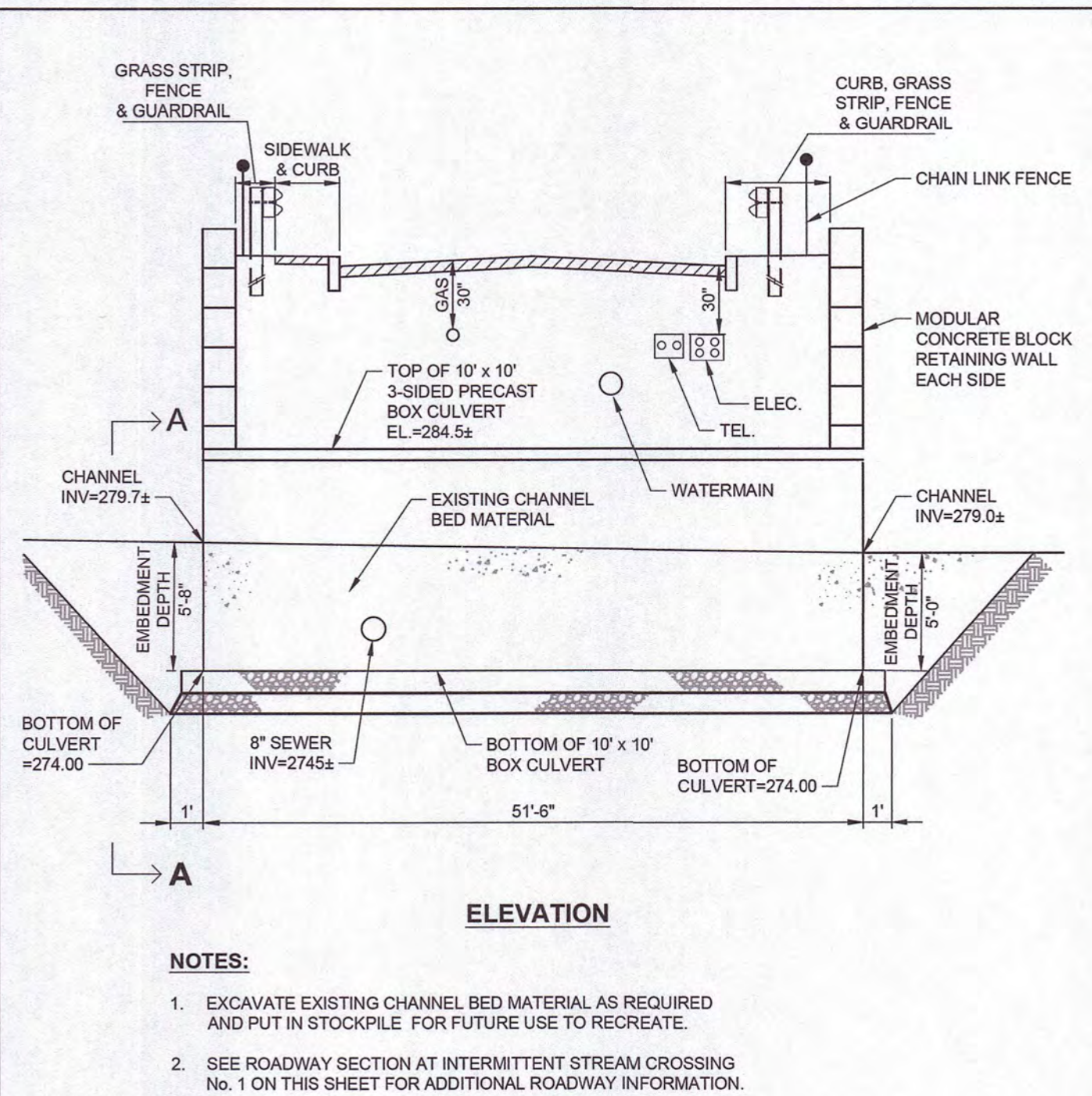
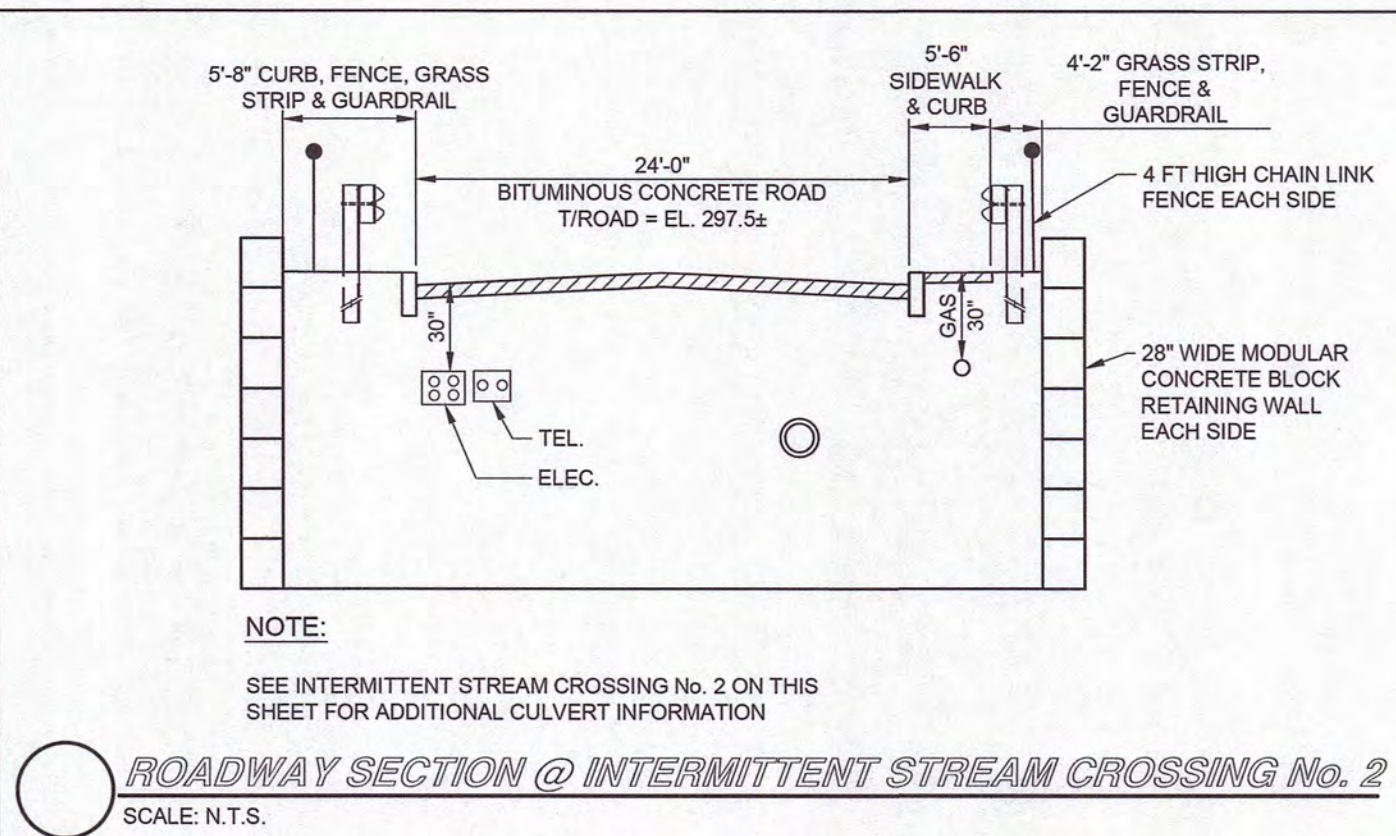
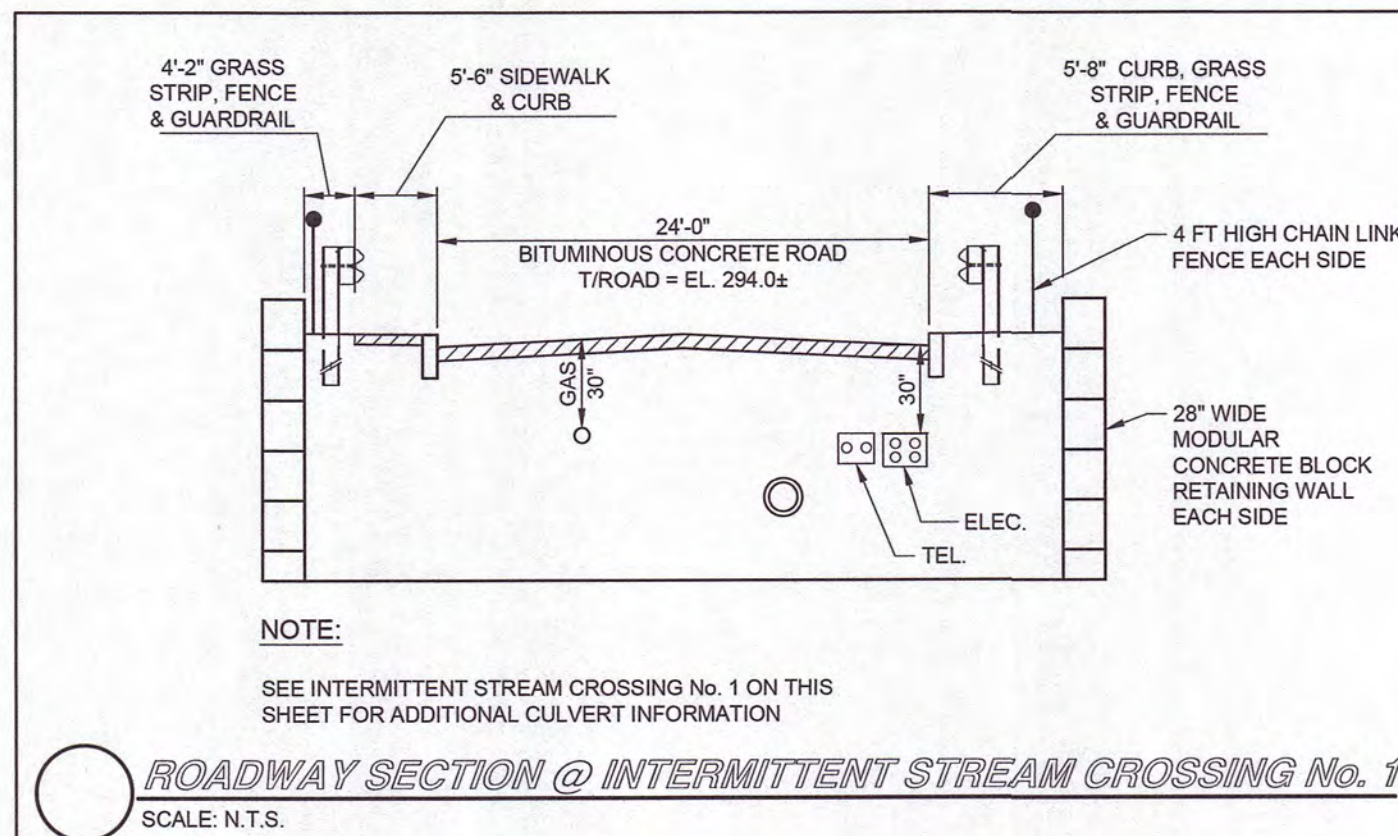
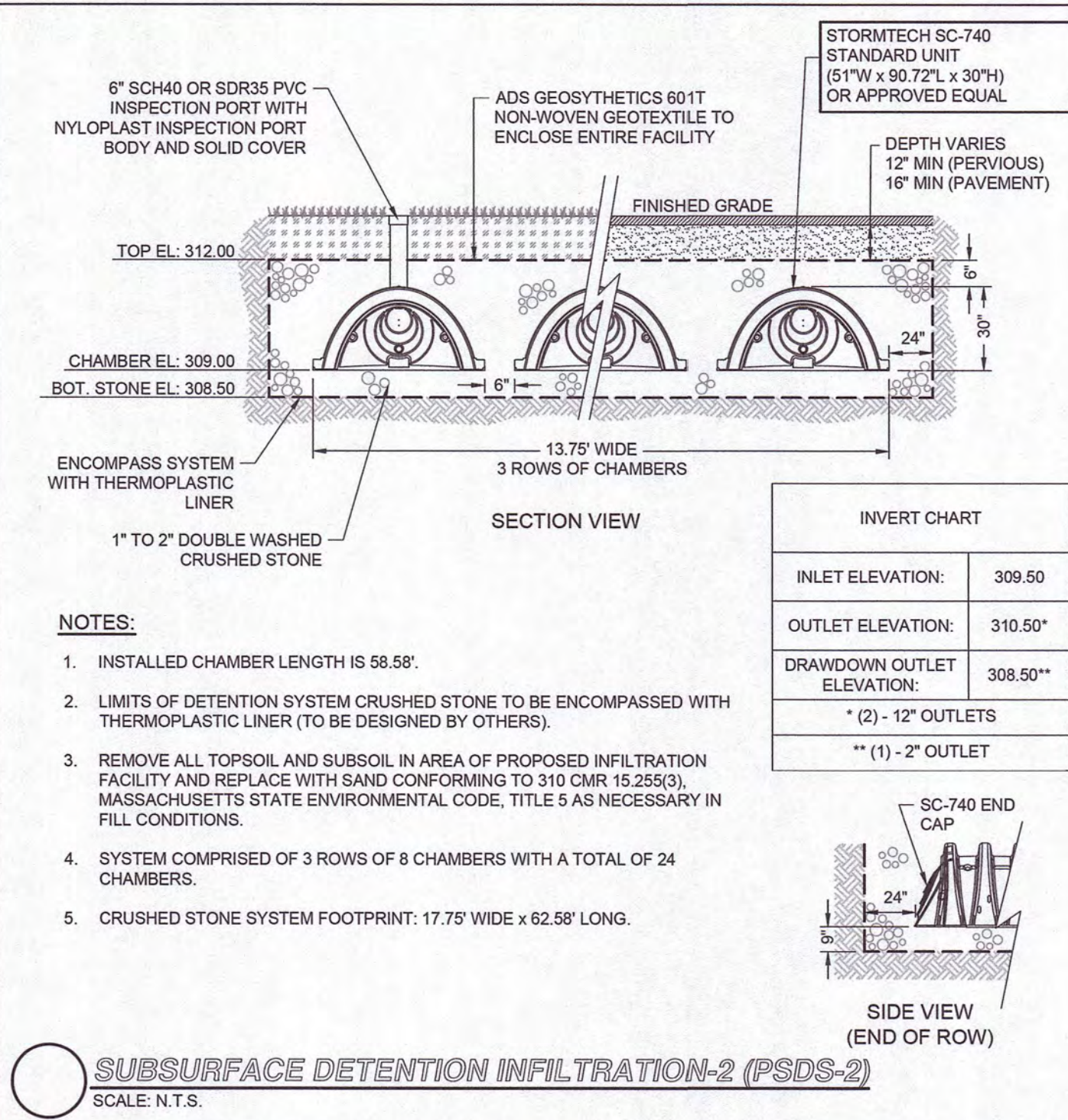
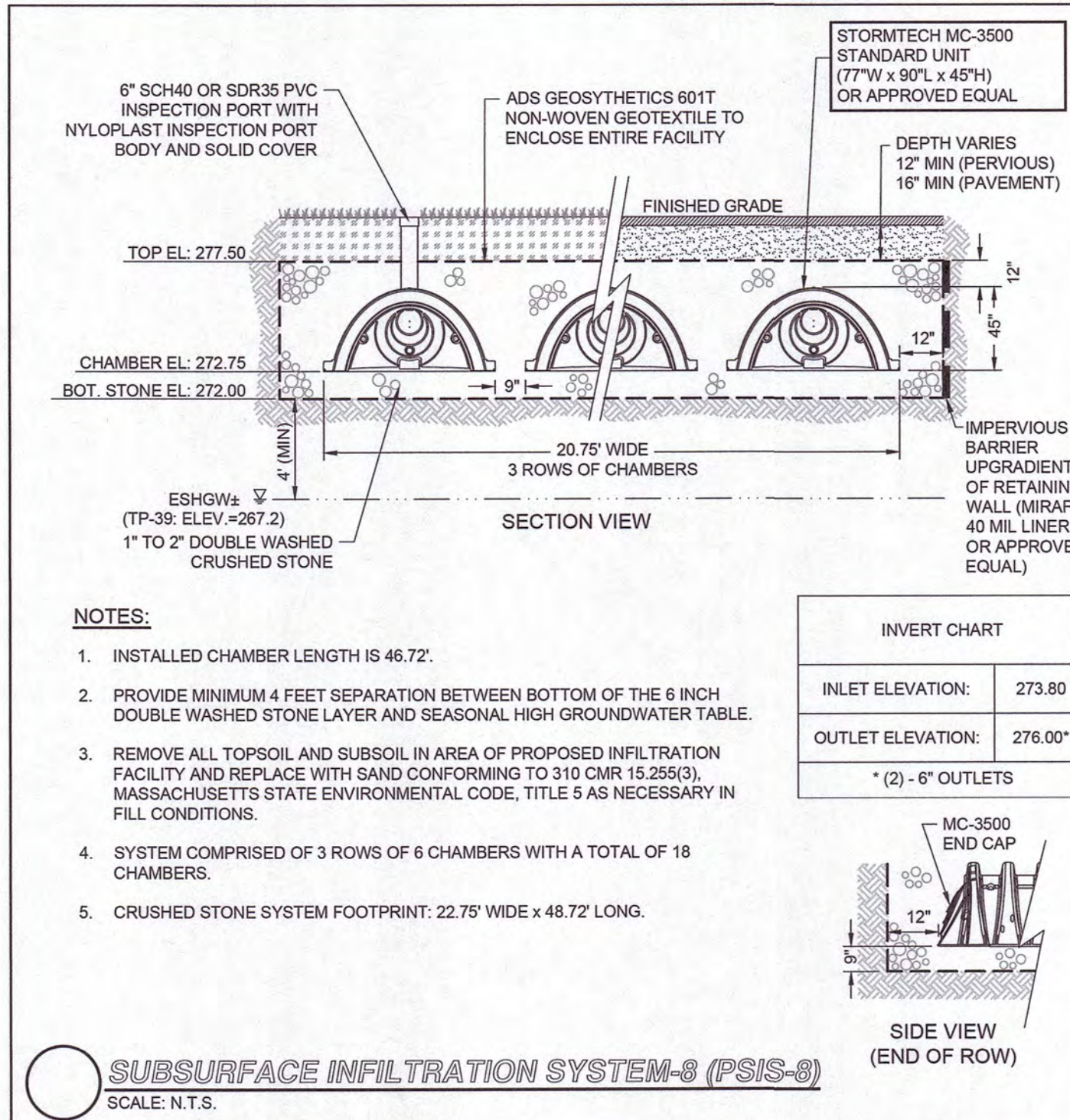
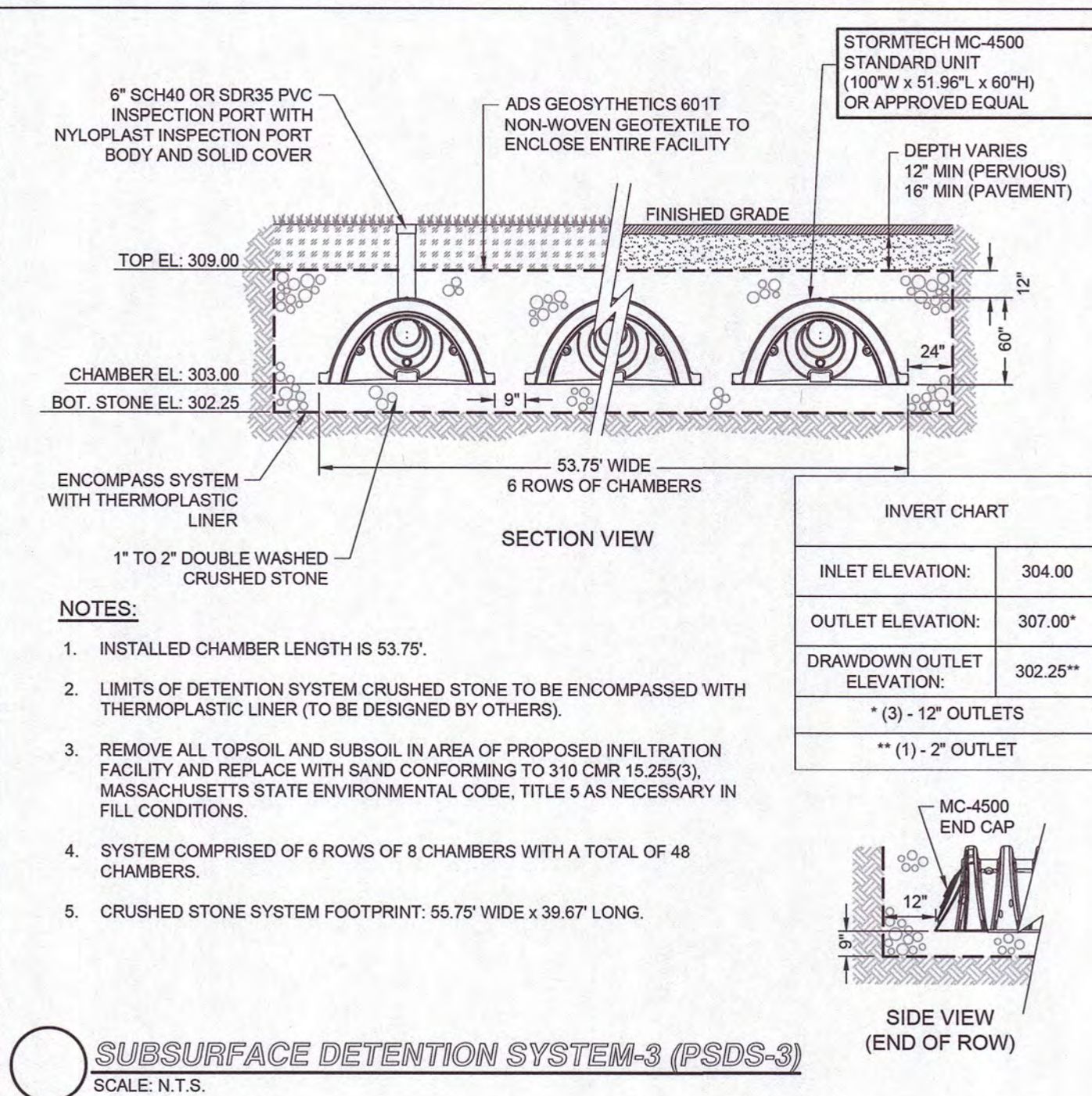
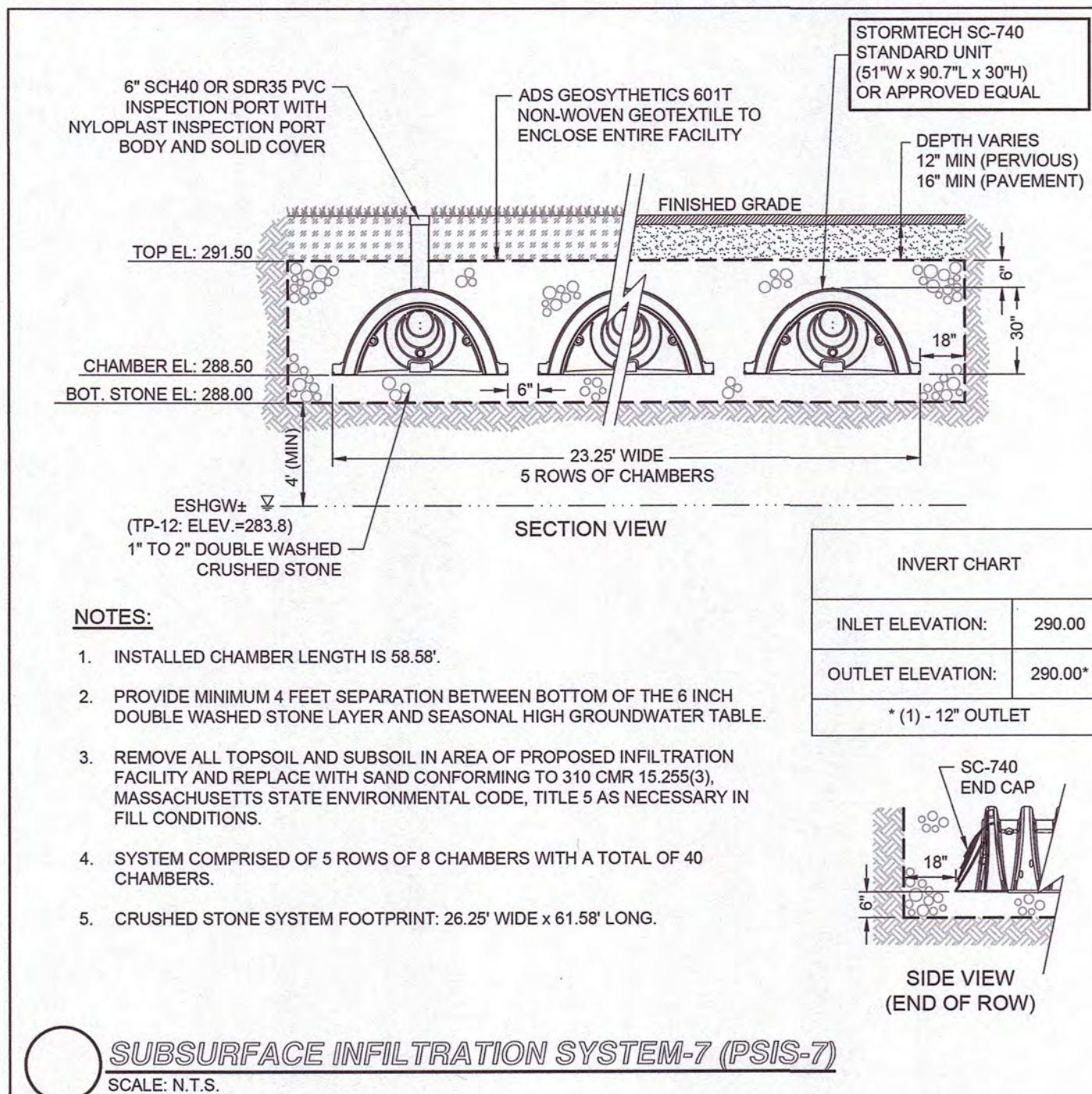
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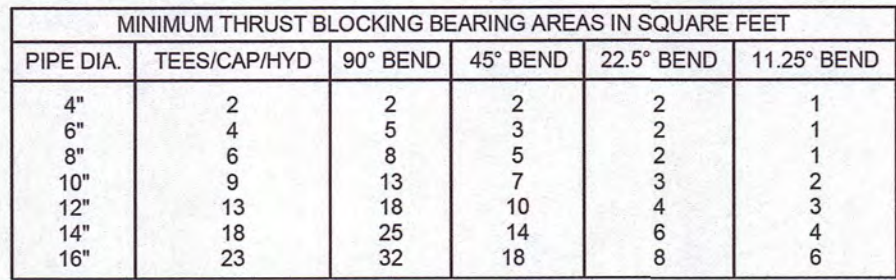
DATE: 10/30/2023

PROJECT NO.: 22016

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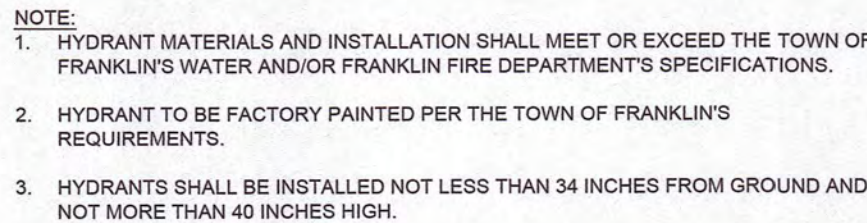


NOT FOR CONSTRUCTION

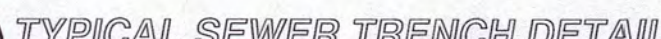


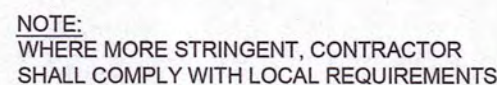
1. ALL WATER MAIN FITTINGS, BENDS, TEES, PLUGS ETC. SHALL BE RESTRAINED W/ THRUST BLOCKS EXCEPT WHERE NOTED.
2. ALL THRUST BLOCKS & COLLARS SHALL BE INSTALLED SO THAT THEY BEAR AGAINST UNDISTURBED EARTH.
3. SIZE OF CONCRETE THRUST BLOCKS AS NOTED BELOW.
4. MINIMUM COMPRESSIVE STRENGTH OF THRUST BLOCK CONCRETE SHALL BE 4,000 P.S.I.
5. MINIMUM BEARING AREA BASED ON 2000 LB/SF ALLOWABLE SOIL BEARING PRESSURE WITH A 1.5 SAFETY FACTOR.
6. A MINIMUM OF 1/3 CUBIC YARD OF CONCRETE MUST BE USED FOR THRUST BLOCKS
7. MATERIALS, METHOD INSTALLATION SHALL CONFORM TO THE TOWN OF FRANKLIN'S WATER/SEWER DEPARTMENT'S SPECIFICATIONS.

SCALE: N.T.S.



SCALE: N.T.S.





SCALE: N.T.S.



SCALE: N.T.S



SCALE: N.T.S



- NOTES:
1. JOINTS BETWEEN PRECAST CONCRETE MANHOLE SECTIONS SHALL BE OF A TYPE APPROVED BY THE ENGINEER. JOINT SEALANT SHALL BE MADE WATERTIGHT WITH A BUTYL RUBBER O-RING PER ASTM C443 OR A DOUBLE ROW OF BUTYL RESIN JOINT SEALANT IN ROPE FORM CONFORMING TO AASHTO 198 B/ASTM C990.
 2. ALL GASKETS AND SEALANTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
 3. FOR BUTIMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY.
 4. MATERIALS AND METHOD OF INSTALLATION SHALL CONFORM TO THE TOWN OF FRANKLIN'S SPECIFICATIONS.

SCALE: N.T.S.



SCALE: N.T.S.



1. PIPE TO MANHOLE CONNECTIONS SHALL BE ONLY AS APPROVED BY THE ENGINEER AND SHALL BE WATERTIGHT.
2. MATERIALS, METHOD OF INSTALLATION SHALL CONFORM TO TOWN OF FRANKLIN'S SPECIFICATIONS.

SCALE: N.T.S.



1. MANHOLES AND ALL COMPONENT PARTS SHALL BE OF SIZE, STRENGTH AND CONFIGURATION AS SHOWN EXCEPT THAT TOP SLABS MAY BE SUBSTITUTED FOR ECCENTRIC CONE SECTIONS. MANHOLES SHALL BE AN ASSEMBLY OF REINFORCED, PRECAST CONCRETE BASE RISER SECTIONS PER ASTM C478 OR MONOLITHICALLY, CAST-IN-PLACE REINFORCED CONCRETE. APPROVED MANHOLE STRUCTURE SHALL BE DESIGNED AND CONSTRUCTED TO MEET OR EXCEED H-20 LOADING AND PREVENT LEAKAGE IN EXCESS OF ONE (1) GALLON PER DAY PER VERTICAL FOOT OF MANHOLE.
2. MANHOLE STEPS TO BE STEEL REINFORCED, CO-POLYMER, POLY-PROPYLENE PLASTIC CONFORMING TO ASTM D4101. STEEL REINFORCING SHALL BE A DEFORMED 1/2" ROD, GRADE 60, ASTM A615. ALIGN STEPS WITH MANHOLE OPENING.

SCALE: N.T.S.



- NOTE:
1. INSTALLATION AND MATERIALS TO BE IN ACCORDANCE WITH TOWN OF FRANKLIN'S SPECIFICATIONS.
 2. WATER SERVICES LARGER THAN 1" ARE TO BE RESTRAINED TO MAIN W/ APPROVED SADDLE.

SCALE: N.T.S.



1. MATERIALS, METHOD OF INSTALLATION SHALL CONFORM TO THE TOWN OF FRANKLIN'S SPECIFICATIONS

SEWER AND DRAIN MANHOLE

SCALE: N.T.S.

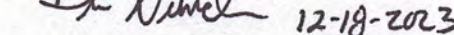
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023
				REVISION	DATE

PREPARED FOR

30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL



PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME

GROVE STREET RESIDENCES

DRAWING NAME:

SITE DETAILS - VI

DRAWING NUMBER

C-10

DATE: 10/30/2023

PROJECT NO : 33014

SEGMENTED BLOCK RETAINING WALL
SCALE: N.T.S.

VERTICAL GRANITE CURB DETAIL
SCALE: N.T.S.

LEDGE CUT DETAIL
SCALE: N.T.S.

TYPICAL MATCH EXISTING PAVEMENT DETAIL
SCALE: N.T.S.

NOTES:

1. PLACE GRAVEL AND CRUSHED STONE AND THOROUGHLY COMPACT SO THAT CURBING IS COMPLETELY SUPPORTED THROUGHOUT ITS LENGTH.
2. CURBING SHALL BE FITTED TOGETHER AS CLOSELY AS POSSIBLE, JOINTS FILL WITH CEMENT MORTAR AND NEATLY POINTED ON THE TOP AND FRONT EXPOSURE PORTIONS. AFTER POINTING, CURBING SHALL BE CLEANED OF ALL EXCESS MORTAR FORCED OUT OF JOINTS.

PRE-CAST CONCRETE CURB DETAIL
SCALE: N.T.S.

NOTES

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND INSTALLATION INSTRUCTIONS.
2. A TRENCH SHALL BE EXCAVATED A MINIMUM OF 12" WIDER THAN THE OVERALL WIDTH OF THE STEEL FRAME(6" MINIMUM ON EACH SIDE)AND A MINIMUM OF 6 INCHES DEEPER THAN THE OVERALL DEPTH OF THE ECONODRAN EPS FORM.

SECTION A-A

SECTION
DO NOT SCALE

NOTES

1. VIBRATE CONCRETE TO ELIMINATE AIR POCKETS.
2. THE FINISHED LEVEL OF THE CONCRETE SURROUND MUST BE APPROX. 1/8" ABOVE THE TOP OF THE CHANNEL EDGE.
3. REFER TO MULTI DRAIN LATEST INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.
4. SEE PLAN FOR INVERT ELEVATIONS AND LENGTHS OF TRENCH DRAINS.
5. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

TYPICAL TRENCH DRAIN DETAIL
SCALE: N.T.S.

ACCESSIBLE CURB RAMPS (AR)

DETECTABLE WARNING PANEL (DWP)

NOTE

SIGN TO BE EITHER INTERNAL ILLUMINATED OR EXTERNAL ILLUMINATED BASED ON FINAL DESIGN. INTERIOR LIGHTING SHALL BE NON -EXPOSED. EXTERNAL LIGHTING SHALL BE SHIELDED AND DIRECTED SOLELY AT THE SIGN.

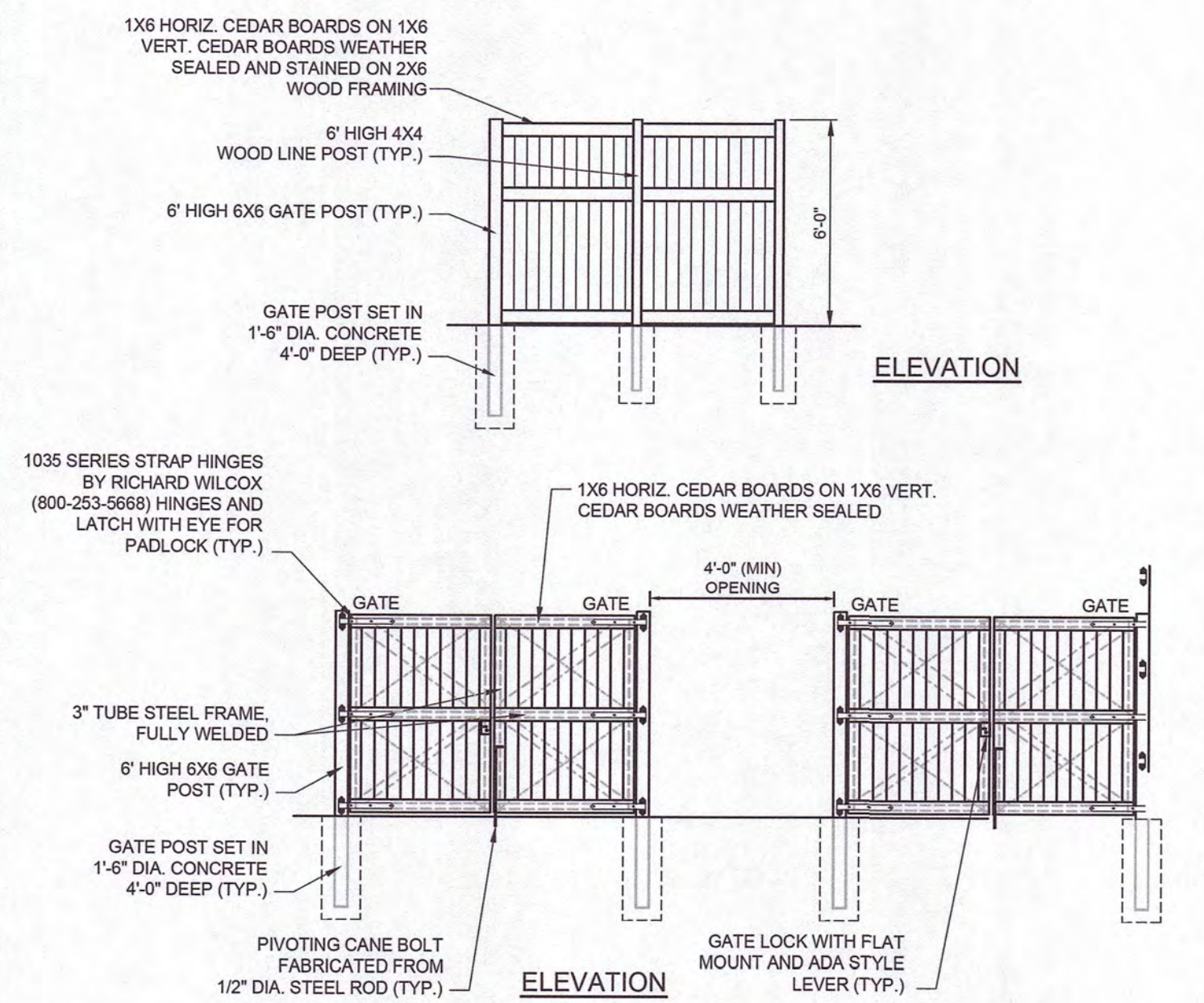
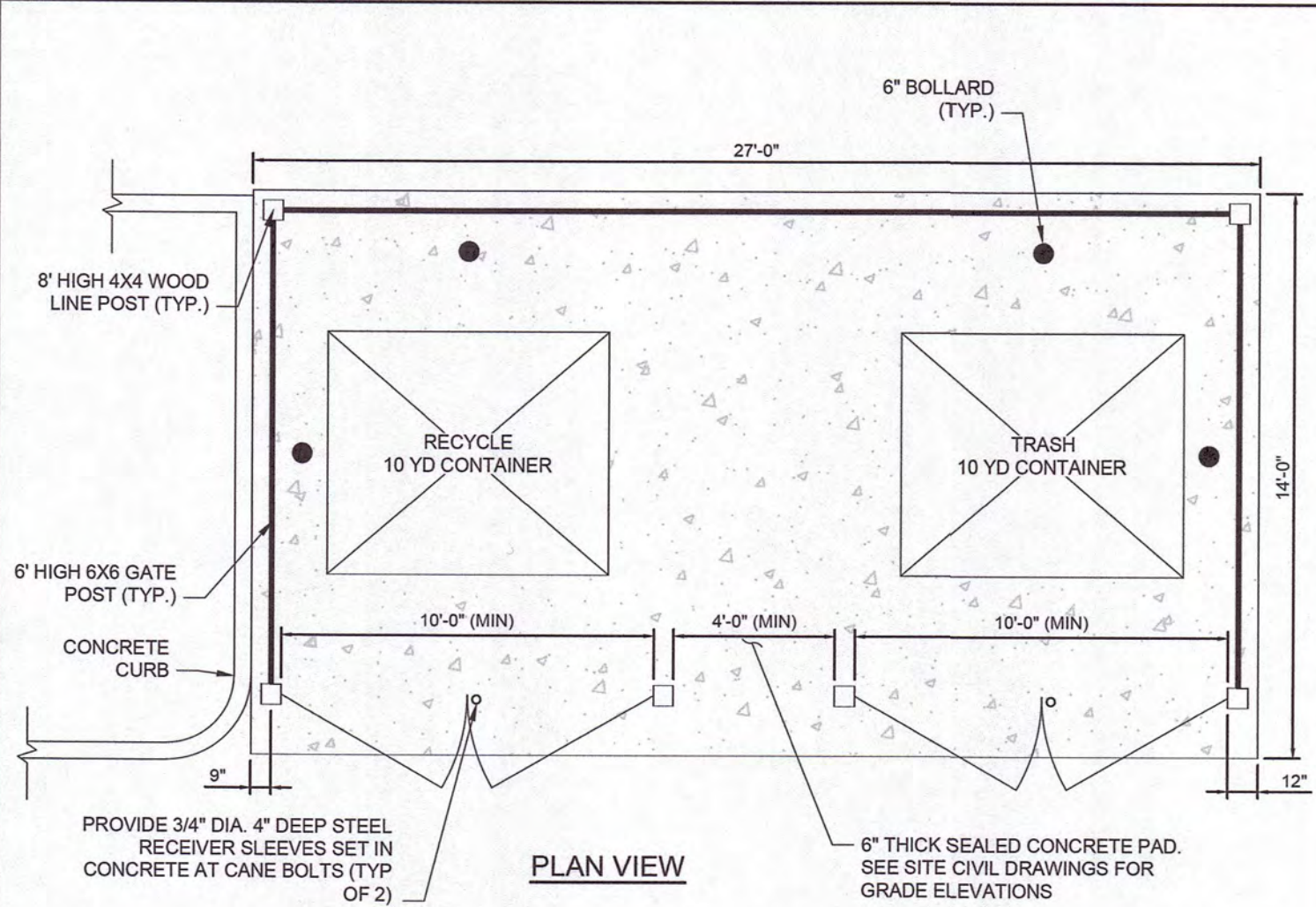
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SCALE: N.T.S.



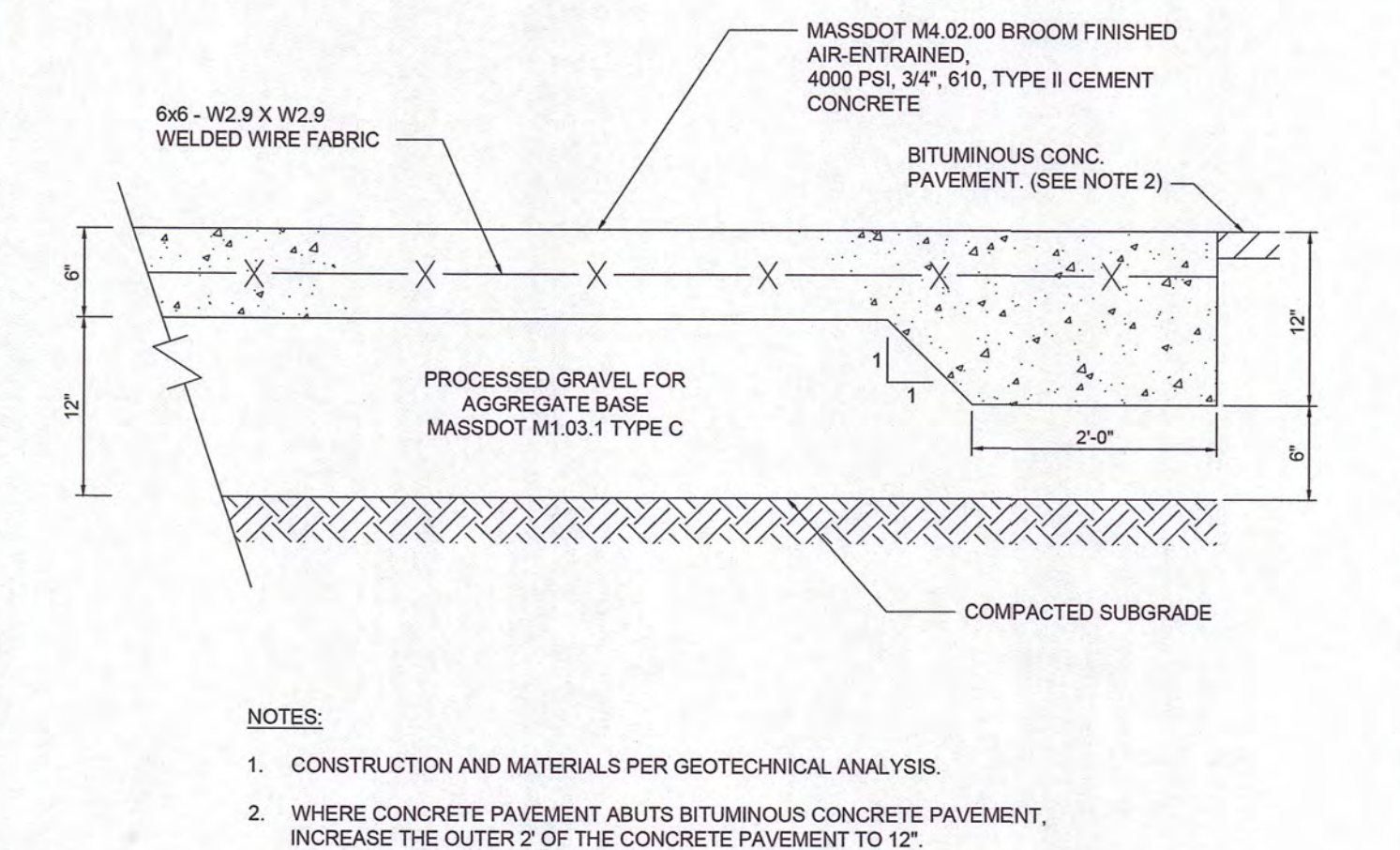
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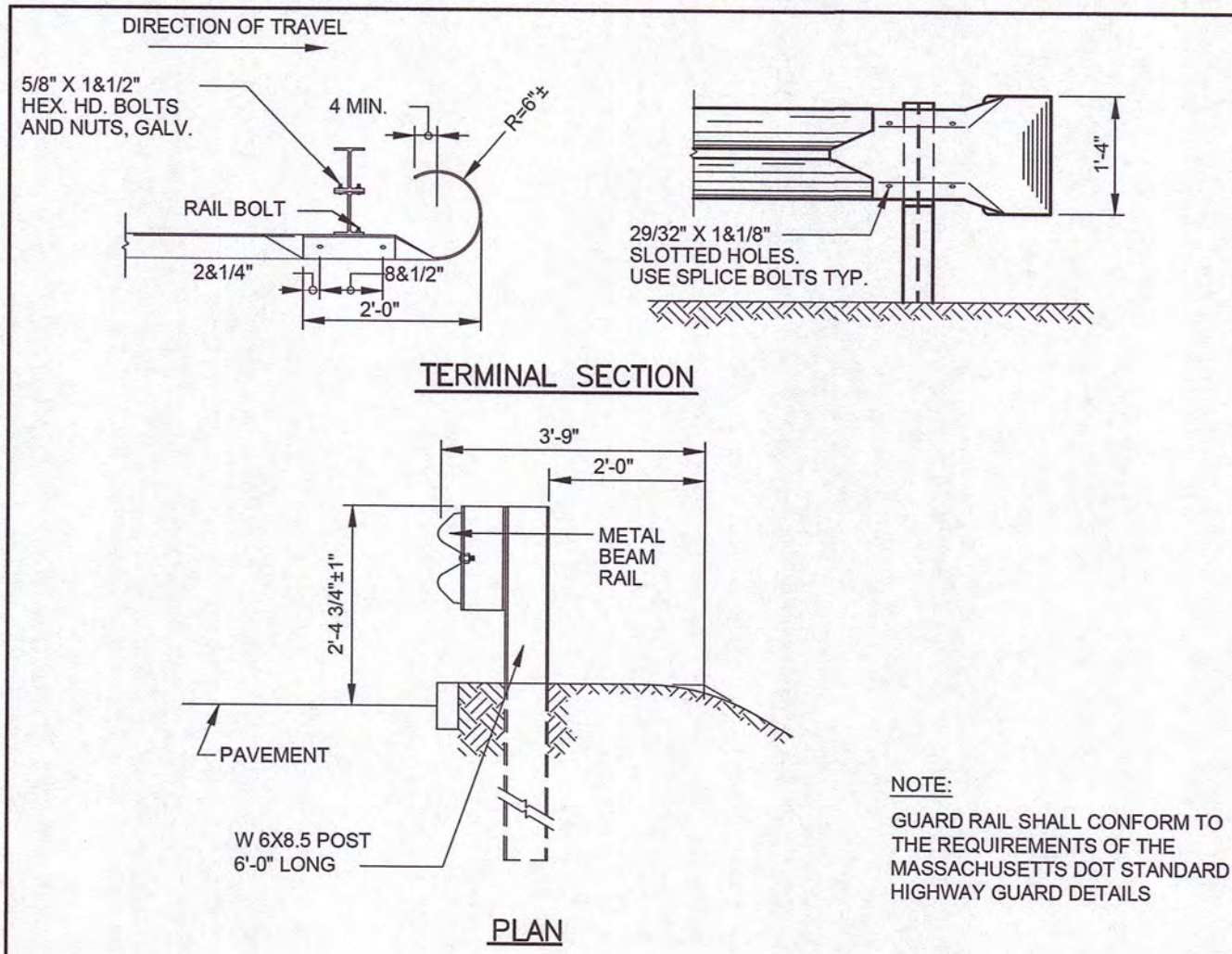
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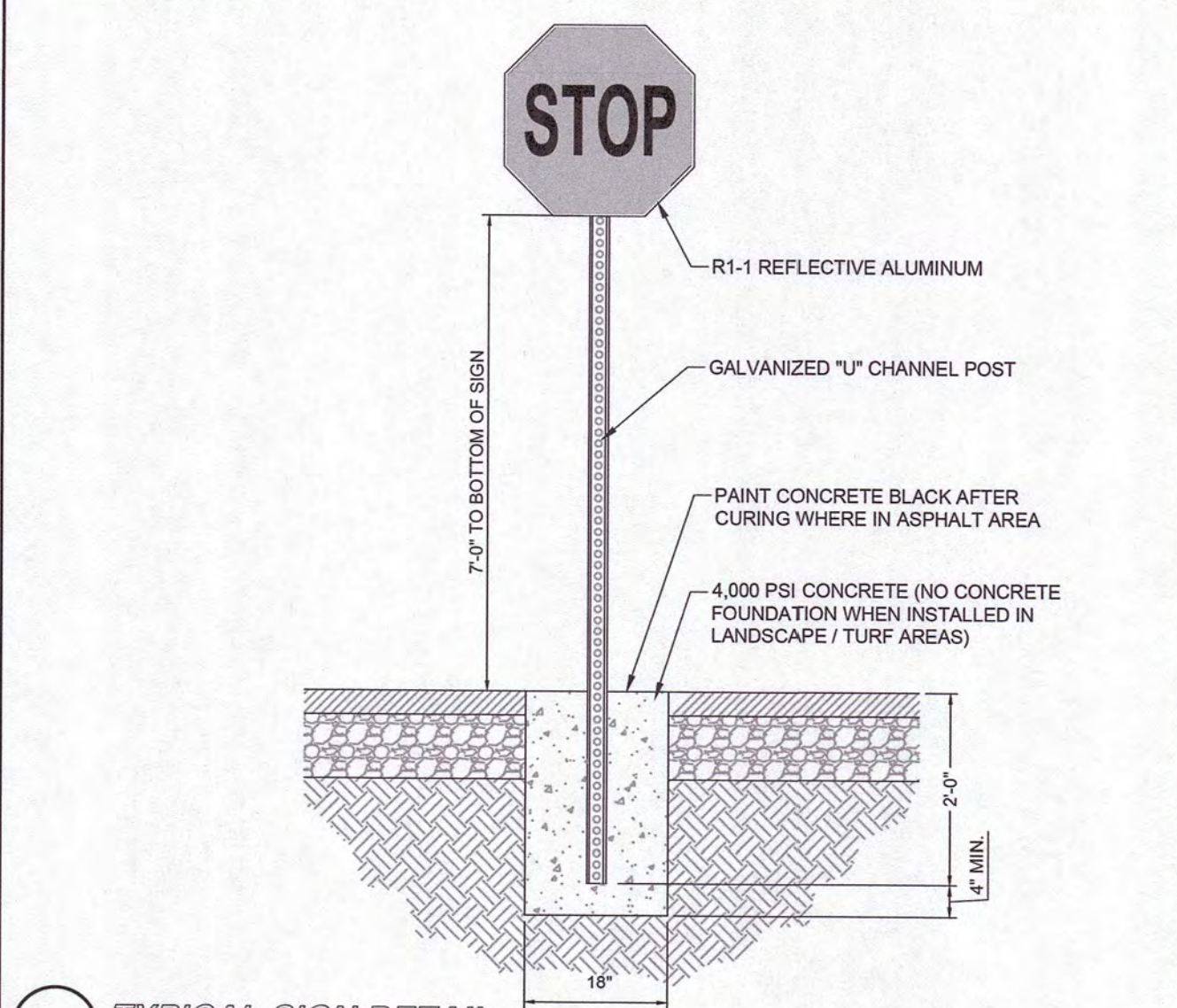
DUMPSTER AREA ENCLOSURE DETAIL
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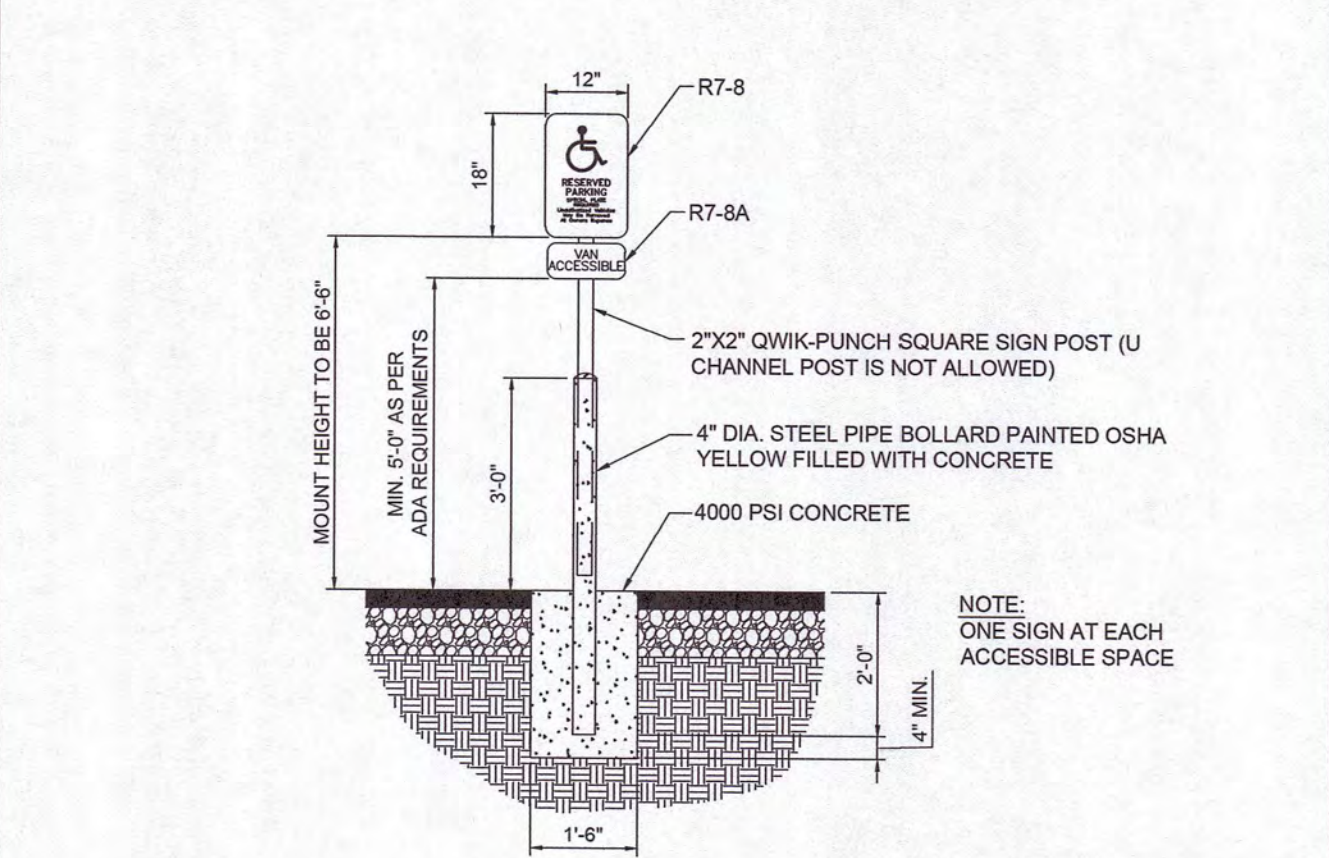
TYPICAL CONCRETE PAVEMENT SECTION - DUMPSTER PAD
SCALE: N.T.S.



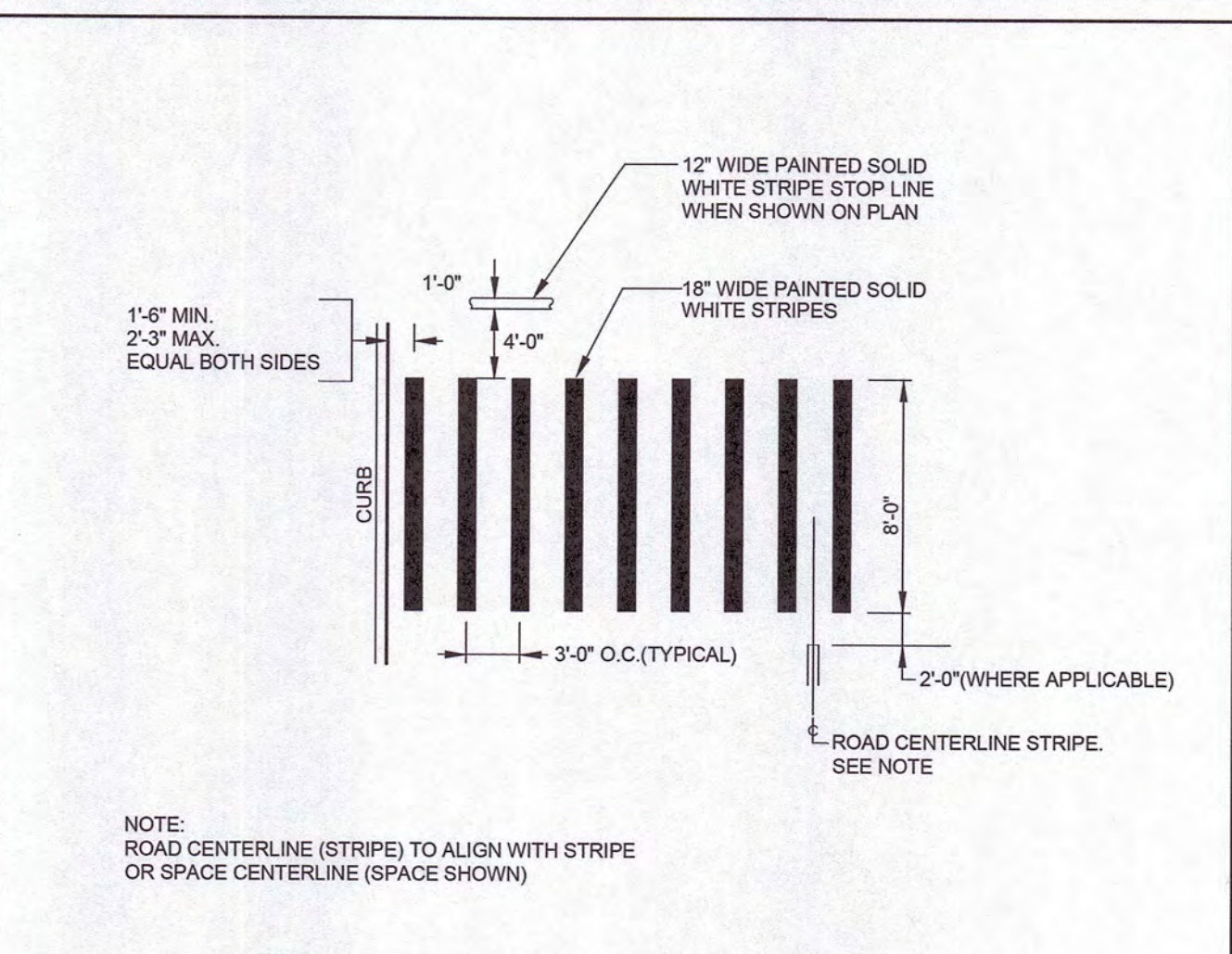
TYPICAL W-BEAM GUARDRAIL/TERMINAL SECTION DETAIL
SCALE: N.T.S.



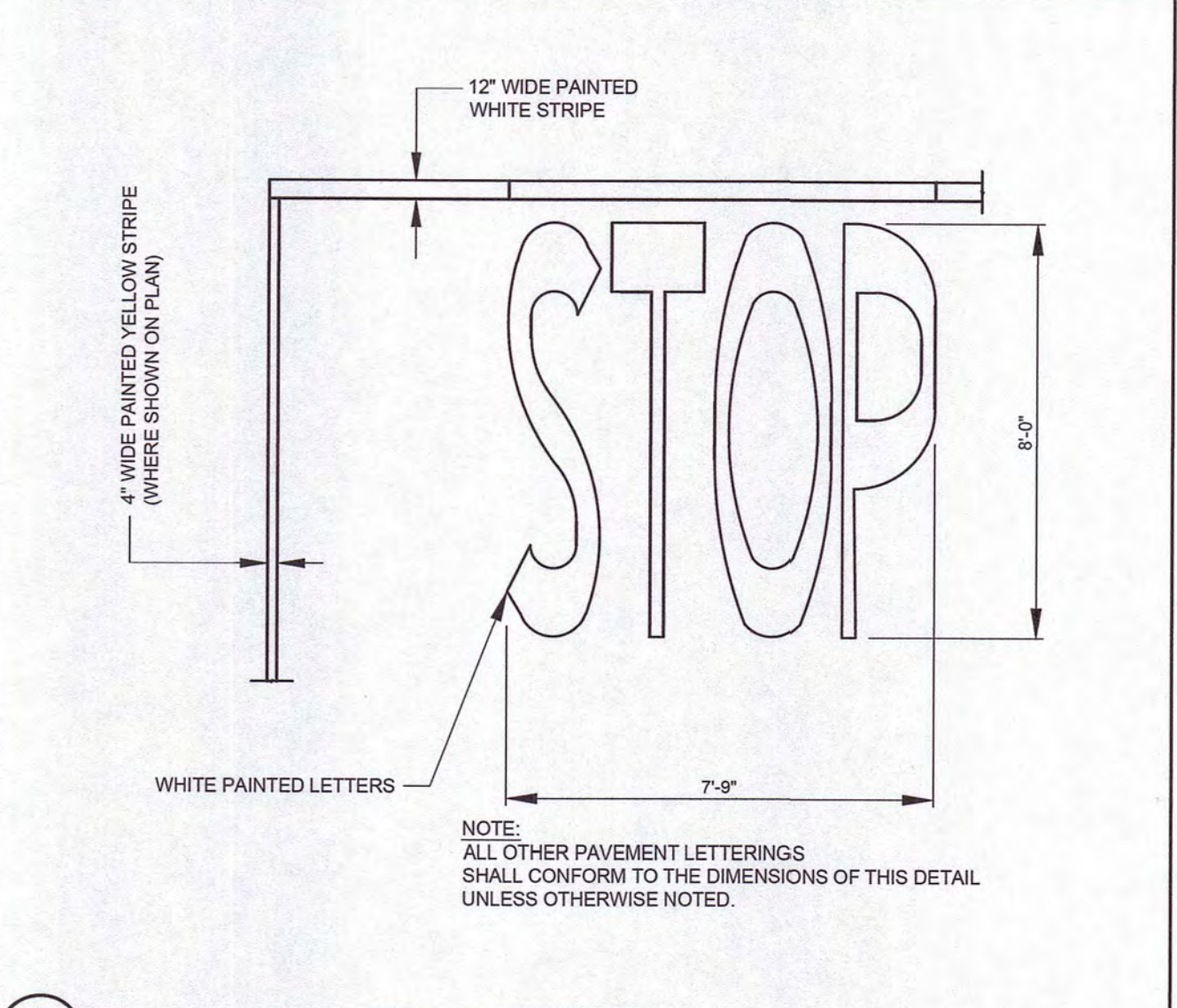
TYPICAL SIGN DETAIL
SCALE: N.T.S.



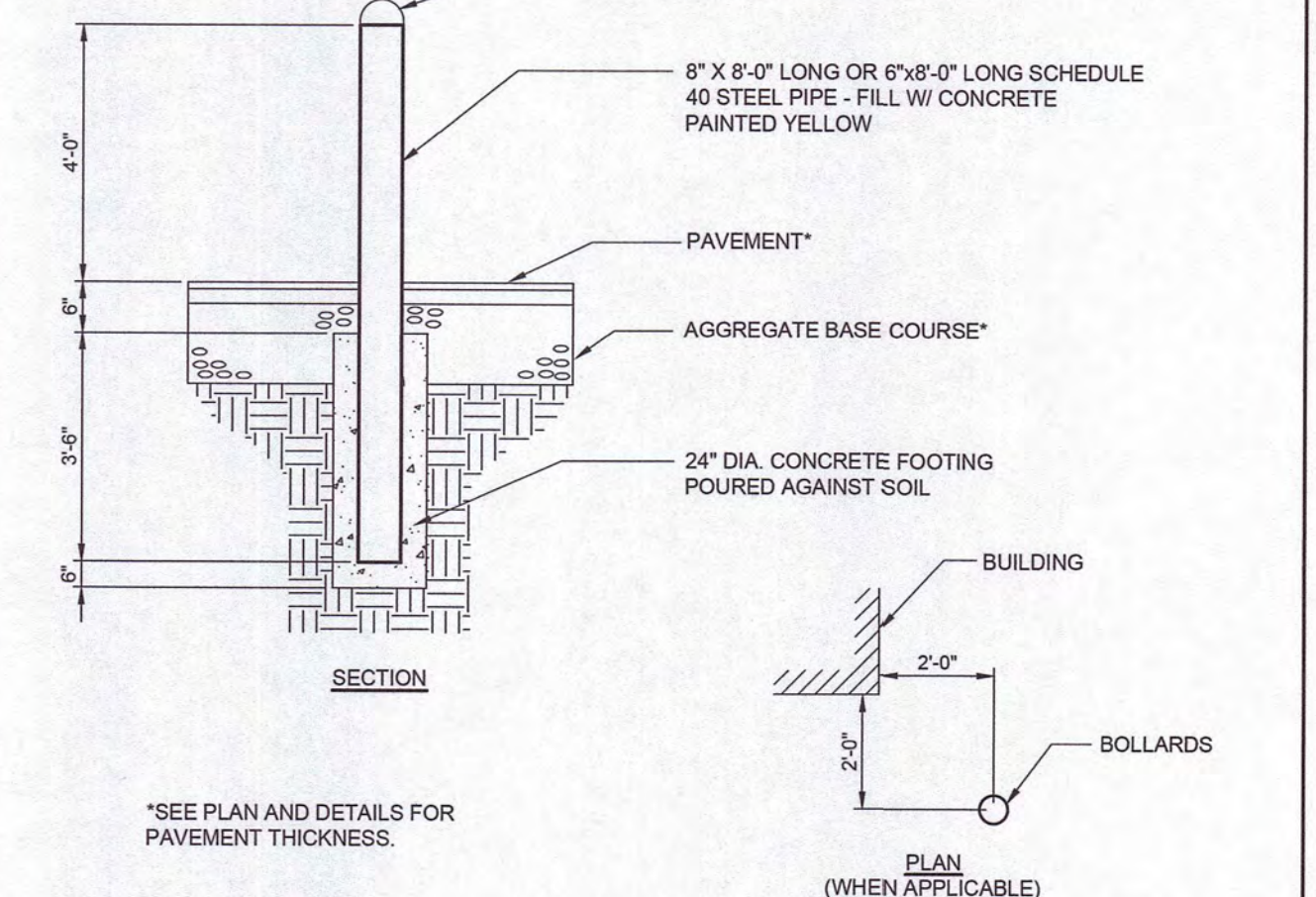
BOLLARD MOUNTED ACCESSIBLE PARKING SIGN DETAIL
SCALE: N.T.S.



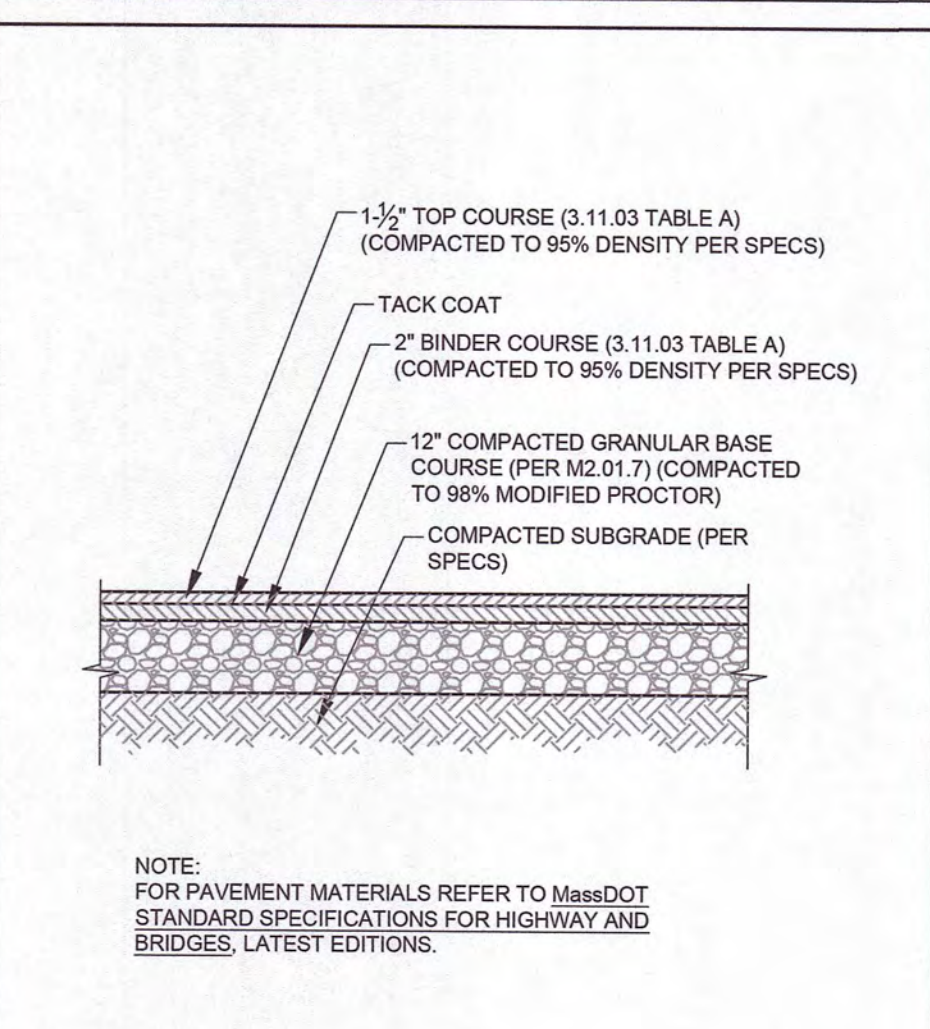
TYPICAL 16" WIDE 90" PAINTED CROSSWALK DETAIL
SCALE: N.T.S.



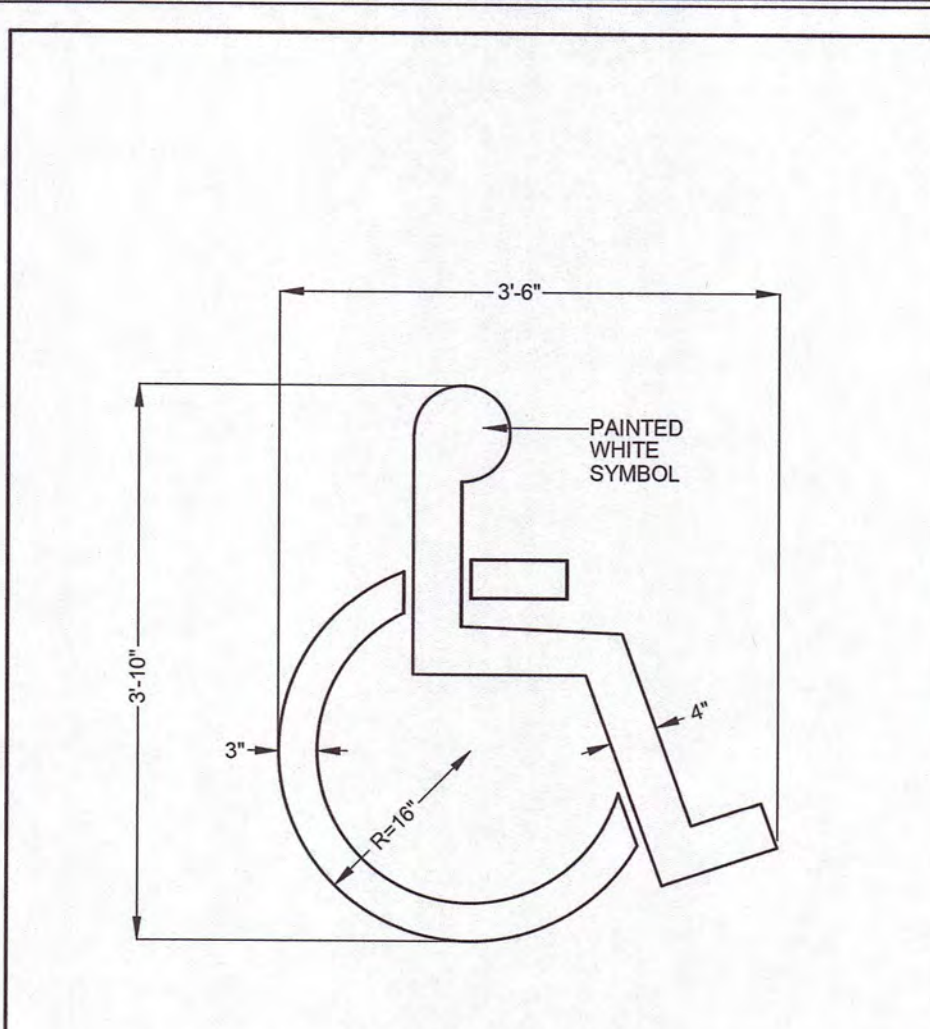
TYPICAL PAINTED 'STOP' DETAIL
SCALE: N.T.S.



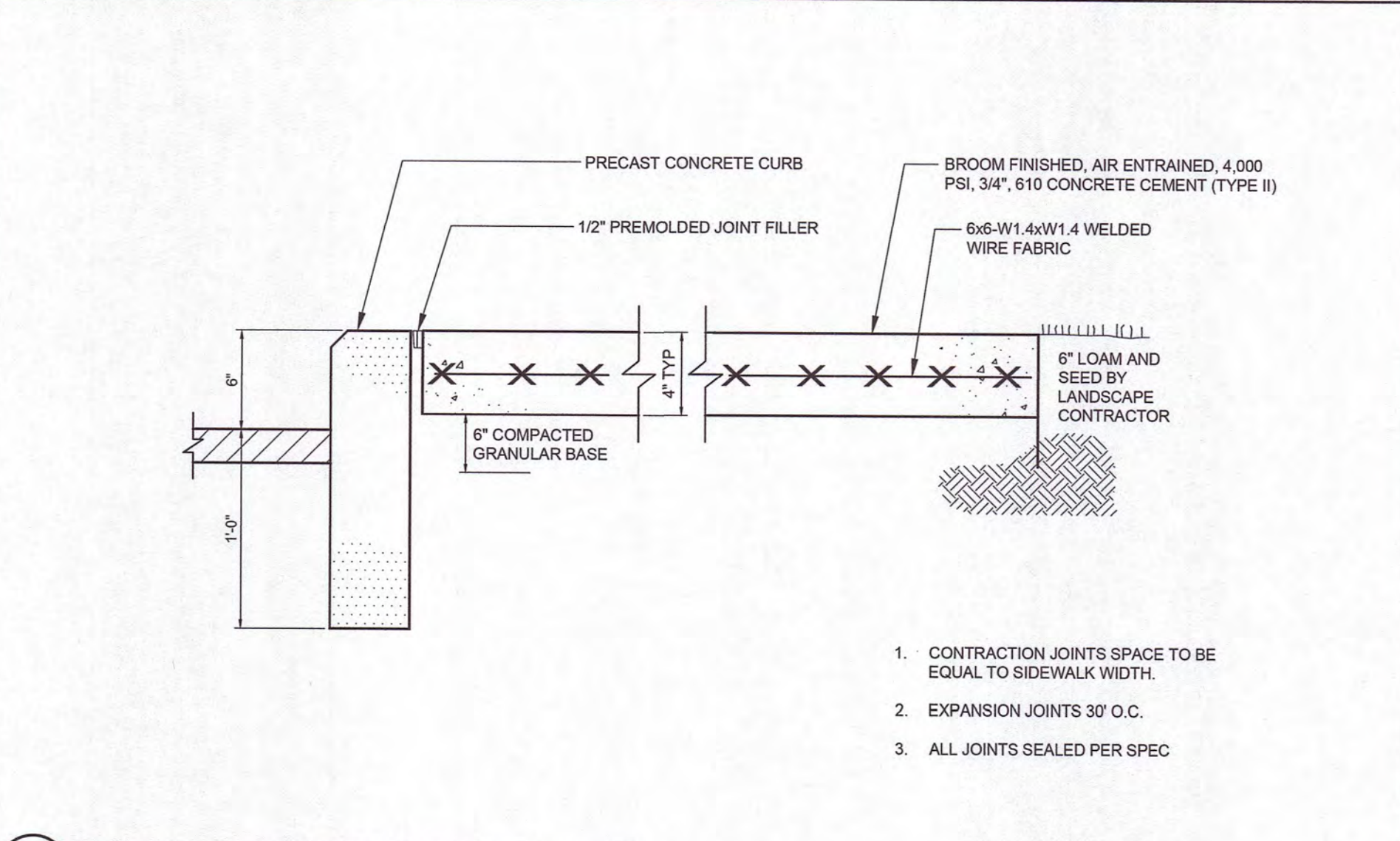
TYPICAL 6-INCH OR 8-INCH BOLLARD DETAIL
SCALE: N.T.S.



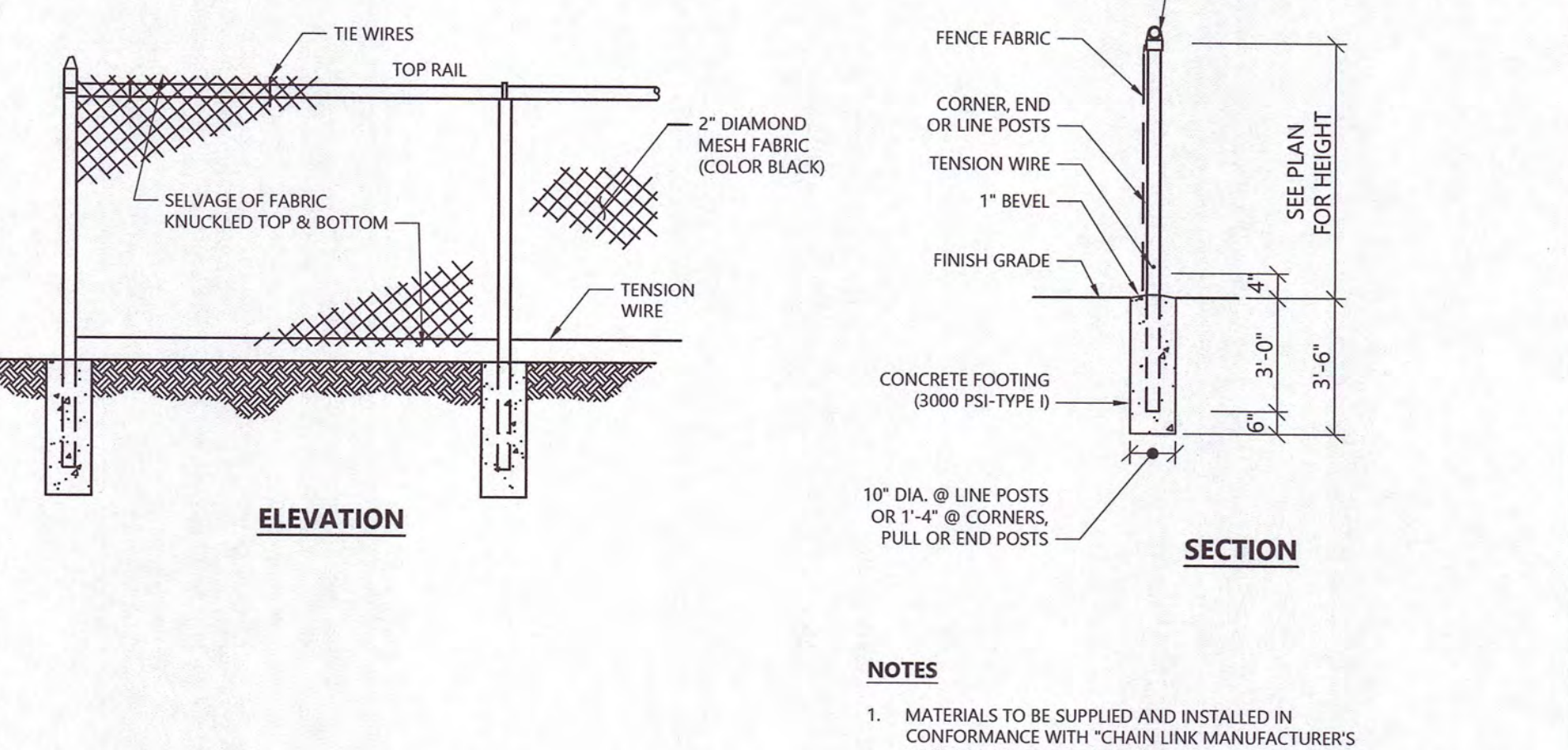
ASPHALT PAVEMENT SECTION
SCALE: N.T.S.



TYPICAL PAINTED HANDICAP SYMBOL DETAIL
SCALE: N.T.S.



TYPICAL CONCRETE SIDEWALK DETAIL
SCALE: N.T.S.



TYPICAL CHAIN LINK FENCE DETAIL
SCALE: N.T.S.

NOT FOR CONSTRUCTION

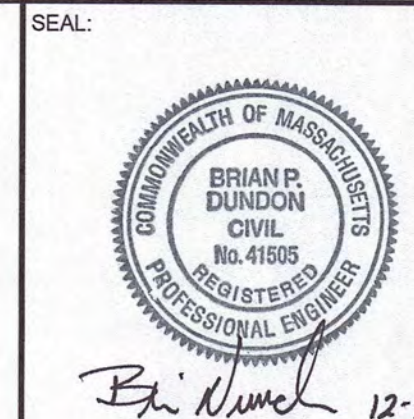


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NO.	REVISION	DATE	NO.	REVISION	DATE
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023			

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	N.T.S.

PREPARED FOR:
FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAintree, MA 02184

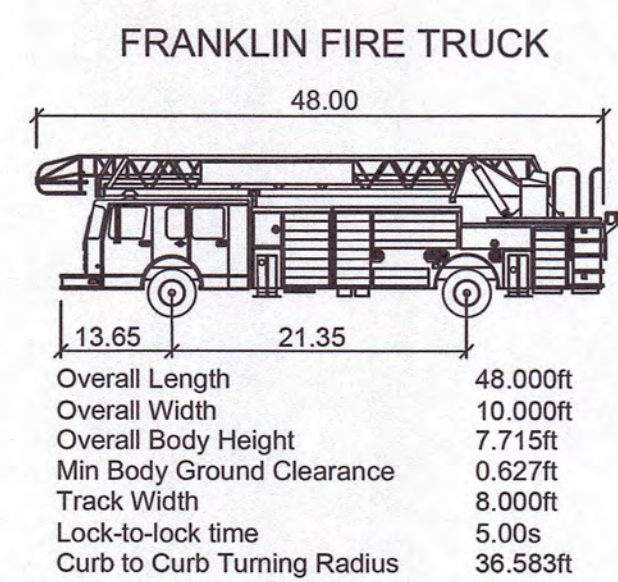
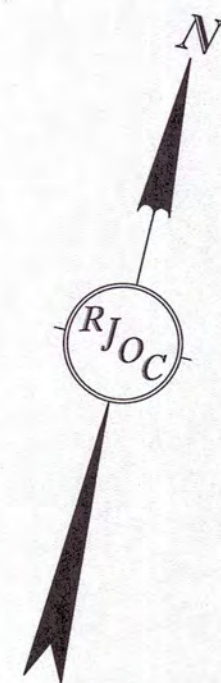


PREPARED BY:
RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

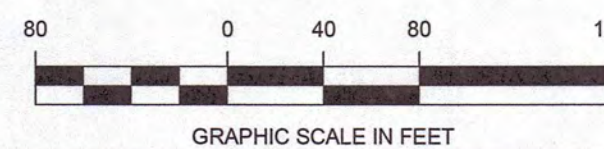
PROJECT NAME:
GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:	
SITE DETAILS - VIII	
DRAWING NUMBER:	
C-12	
DATE:	PROJECT NO.:
10/30/2023	22016

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NO.	REVISION	DATE
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	MAC
SCALE:	1" = 80'

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:



Brian P. Duncanson 12-18-2023

PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.276.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

FIRE TRUCK TURNING PLAN

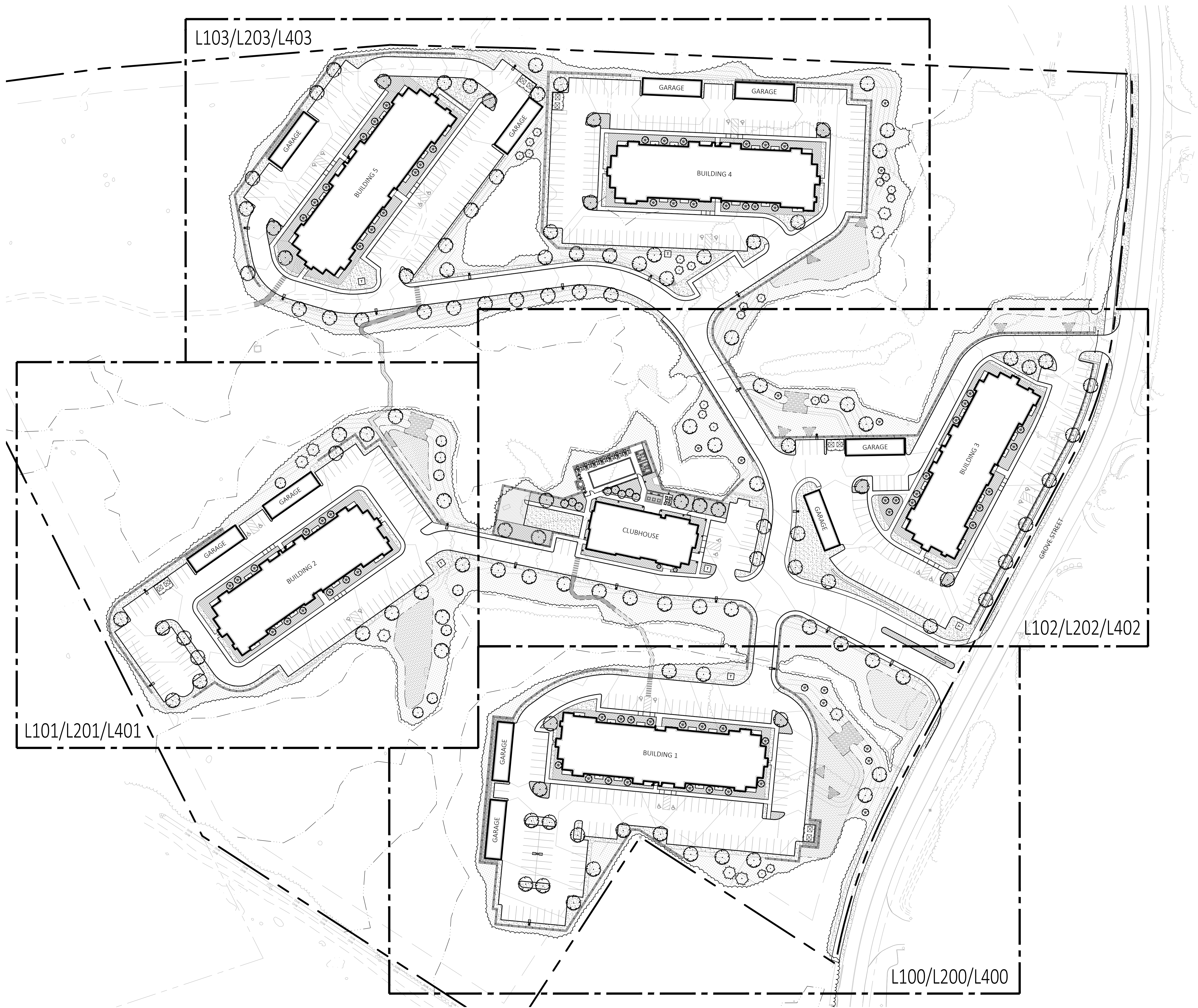
DRAWING NUMBER:

FT-1

DATE: 10/30/2023

PROJECT NO.: 22016

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LANDSCAPE SHEET LIST

- L000 - LANDSCAPE KEY PLAN
- L100 - LANDSCAPE PLANTING PLAN
- L101 - LANDSCAPE PLANTING PLAN
- L102 - LANDSCAPE PLANTING PLAN
- L103 - LANDSCAPE PLANTING PLAN
- L200 - LANDSCAPE LIGHTING PLAN
- L201 - LANDSCAPE LIGHTING PLAN
- L202 - LANDSCAPE LIGHTING PLAN
- L203 - LANDSCAPE LIGHTING PLAN
- L300 - LANDSCAPE DETAILS
- L400 - LANDSCAPE PHOTOMETRIC PLAN
- L401 - LANDSCAPE PHOTOMETRIC PLAN
- L402 - LANDSCAPE PHOTOMETRIC PLAN
- L403 - LANDSCAPE PHOTOMETRIC PLAN



MDLA

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GROVE STREET RESIDENCES
FRANKLIN, MA

STAMP
MICHAEL D'ANGELO
NO. 4006
REGISTERED LANDSCAPE ARCHITECT

REV. NO.	DATE	DESCRIPTION
1	5/1/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER OWNER SOL. TESTING RESULTS AND SUBMISSION

NOT FOR
CONSTRUCTION

LANDSCAPE
KEY PLAN

DRAWN:
NC, AA
CHECKED:
NC
SCALE:
AS NOTED
DATE:
12/18/23

L000

SHEET 1 OF 14

plot date: 12/19/2023

1. DURING CONSTRUCTION, PROTECT ALL EXISTING SITE FEATURES, STRUCTURES AND UTILITIES.
2. PLANTS SHALL BE TRUE TO SPECIES AND VARIETY SPECIFIED AND NURSERY GROWN IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT. SUBSTITUTIONS WILL BE PERMITTED ONLY IF APPROVED BY THE LANDSCAPE ARCHITECT.
3. ALL EXPOSED BURLAP, WIRE BASKETS AND OTHER MATERIALS ATTACHED TO PLANTS SHALL BE REMOVED PRIOR TO PLANTING. CARE SHALL BE TAKEN NOT TO DISTURB THE ROOT BALL OF PLANTS.
4. THOROUGHLY WATER ALL PLANTS IMMEDIATELY AFTER PLANTING.
5. TRANSPLANTING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK.
6. LOAM USED IN PLANT BEDS SHALL BE UNIFORM IN COMPOSITION, FREE FROM SUBSOIL, STONES LARGER THAN 1", NOXIOUS SEEDS AND SUITABLE FOR THE SUPPORT OF VEGETATIVE GROWTH. THE pH VALUE SHALL BE BETWEEN 5.5 AND 6.5.
7. MULCH IN TREE AND SHRUB BEDS SHALL BE NATURAL, NATIVE HEMLOCK MULCH FREE OF GROWTH OR GERMINATION INHIBITING INGREDIENTS. SUBMIT SAMPLES FOR APPROVAL.
8. LOCATIONS FOR PLANTS AND/OR OUTLINE OF AREAS TO BE PLANTED ARE TO BE STATED ON THE SITE FOR APPROVAL BY THE LANDSCAPE ARCHITECT.
9. SOIL DEPTHS: a.) SHRUBS AND PERENNIAL BEDS: 18" MIN.; b.) GROUND COVER: 6" MIN.; c.) TREES: SEE DETAIL; d.) SOIL/SEED: 6" MIN.
10. PROVIDE A SUBSURFACE ROOTBALL ANCHOR BY PLATIPUS EARTH ANCHORS OR EQUIVALENT, SIZE FOR CALIPER

1. THE DESIGN/BUILD IRRIGATION SUB-CONTRACTOR SHALL PROVIDE A COMPLETE SYSTEM FOR THE IRRIGATION AREAS SHOWN ON THE PLAN, WHICH INCLUDES NEW AND EXISTING TRANSPLANTED PLANT MATERIALS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR FINAL LAYOUT OF IRRIGATION SHOWING LOCATIONS AND SIZES OF MAIN LINES AND LATERAL LINES, ZONES, RAIN AND SOIL SENSORS, AND CUT SHEETS FOR CONTROLLER SYSTEM AND COMPONENTS. INCLUDE ANY NECESSARY SLEEVING ON A DIAGRAM.
2. IRRIGATION TO BE COORDINATED WITH GENERAL CONTRACTOR TO LOCATE THE NECESSARY PVC SLEEVING TO ACCOMMODATE THE IRRIGATION PROGRAM.
3. IRRIGATION CONTRACTOR SHALL VERIFY PSI/GPM REQUIREMENTS AT THE SITE BEFORE STARTING CONSTRUCTION.
4. TREES SHOULD BE ON A SEPARATE ZONE.
5. ALL TREES, SHRUBS, PERENNIALS, ORNAMENTAL GRASSES, AND GROUNDCOVER SHALL BE DRIP IRRIGATED. CONTRACTOR SHALL BE AWARE THAT THE IRRIGATION SYSTEM SHALL BE ROUTED TO THE PYLON SIGN PLANTER AND PLANTERS AT THE BUILDING.
6. ALL LAWN AREAS SHALL BE SPRAY HEAD IRRIGATED. THE HEADS SHALL BE LOCATED FOR HEAD TO HEAD COVERAGE WITH ABSOLUTELY NO OVER SPREAD INTO THE PAVEMENT.
7. INSTALL DRIP TUBING, 1/2", 12" CENTERS, STAKED EVERY TURN OR EVERY 4'.
8. THE CONCRETE WORK SHALL BE EXTREMELY CAREFUL DURING THE INSTALLATION PROCESS NOT TO DISTURB NEW OR EXISTING PLANT MATERIALS. THE CONTRACTOR IS TO COORDINATE HIS WORK WITH OTHER SUB-CONTRACTORS.
9. THE IRRIGATION CONTRACTOR SHALL CONFORM TO ANY LOCAL CODES OR ORDINANCES THAT MAY BE REQUIRED TO COMPLETE THE WORK.
10. WATER SUPPLY AND CONTROLLER: COORDINATE CONNECTION TO WATER SUPPLY WITH GENERAL CONTRACTOR. COORDINATE CONTROLLER LOCATION WITH GENERAL CONTRACTOR.
11. MEP CONTRACTOR TO PROVIDE BACK FLOW PREVENTION.
12. THE IRRIGATION CONTRACTOR SHALL TEST WATER SOURCE FOR WATER QUALITY INCLUDING MINERALS AND MAY CAUSE STAINING OF CONCRETE OR PAVING SURFACES.
13. INSTALLER SHALL INSTALL MOISTURE SENSORS. CONTRACTOR SHALL INSTALL PER MANUFACTURER'S SPECIFICATIONS AND SHALL BE RESPONSIBLE TO PROGRAM RELATED HYDROZONES TO RESPECTIVE SOIL MOISTURE SENSORS. PROVIDE ONE FOR EACH IRRIGATION ZONE WITH AUTOMATIC SHUT-OFF ONCE MOISTURE REQUIREMENTS ARE MET.



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SUITE 201A
BOSTON, MA 02127
t. 203.592.4788
www.m-d-l-a.com

GROVE STREET RESIDENCES
FRANKLIN, MA

REV. NO.	DATE	DESCRIPTION
1	5/1/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER ONSITE EOL TESTING RESULTS NOT SUBMISSION

NOT FOR
CONSTRUCTION

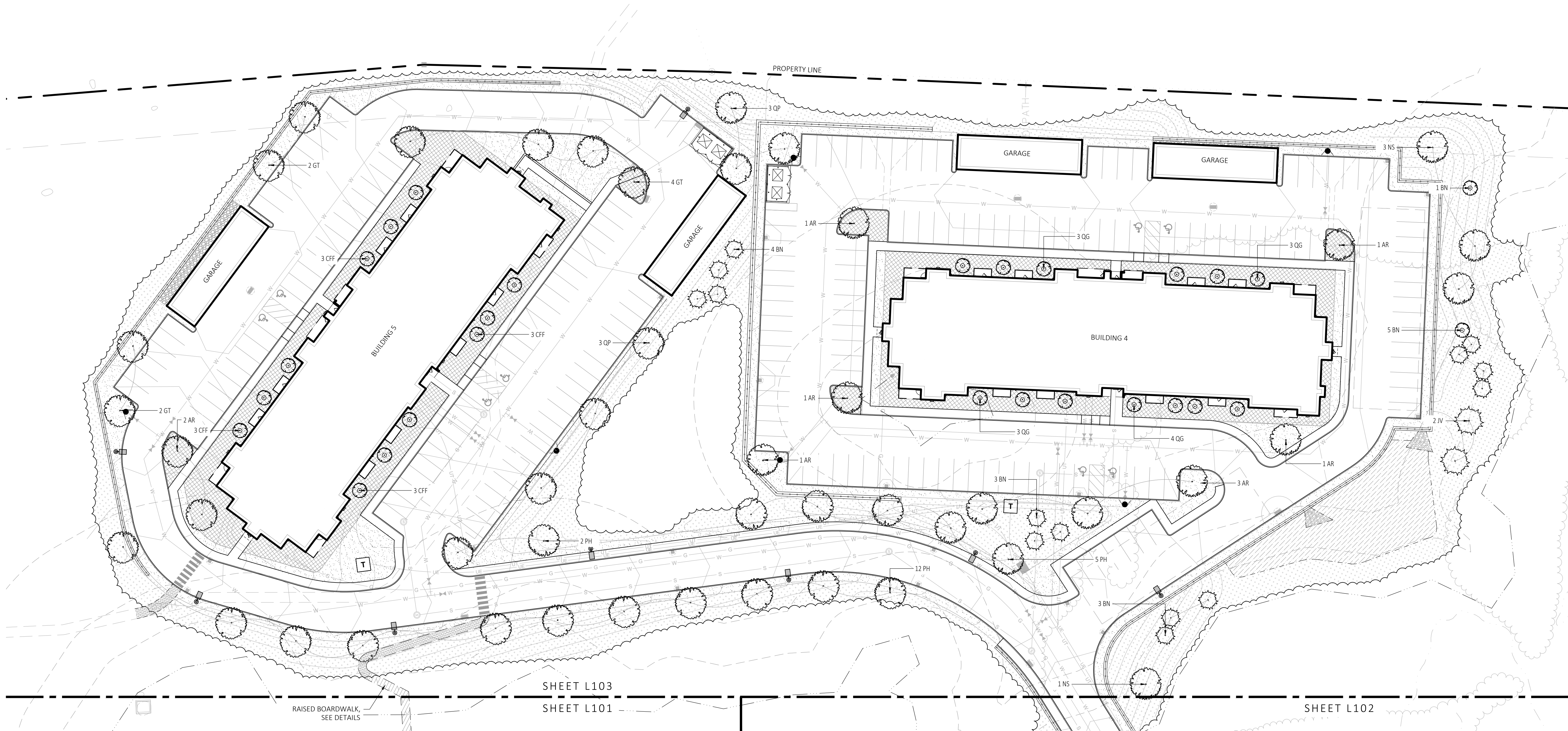
LANDSCAPE
PLANTING
PLAN

DRAWN:	NC, AA
CHECKED:	NC
SCALE:	AS NOTED
DATE:	12/18/23

L101

SHEET 3 OF 14

plot date: 12/19/2023



1 LANDSCAPE PLANTING PLAN

SCALE: 1" = 30'-0"

PLANTING NOTES:

- DURING CONSTRUCTION, PROTECT ALL EXISTING SITE FEATURES, STRUCTURES AND UTILITIES.
- PLANTS SHALL BE TRUE TO SPECIES AND VARIETY SPECIFIED AND NURSERY GROWN IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT. SUBSTITUTIONS WILL BE PERMITTED ONLY IF APPROVED BY THE LANDSCAPE ARCHITECT.
- ALL EXPOSED BURLAP, WIRE BASKETS AND OTHER MATERIALS ATTACHED TO PLANTS SHALL BE REMOVED PRIOR TO PLANTING. CARE SHALL BE TAKEN NOT TO DISTURB THE ROOT BALL OF PLANTS.
- THOROUGHLY WATER ALL PLANTS IMMEDIATELY AFTER PLANTING.
- TRANSPLANTING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK.
- LOAM USED IN PLANT BEDS SHALL BE UNIFORM IN COMPOSITION, FREE FROM SUBSOIL, STONES LARGER THAN 1", NOXIOUS SEEDS AND SUITABLE FOR THE SUPPORT OF VEGETATIVE GROWTH. THE pH VALUE SHALL BE BETWEEN 5.5 AND 6.5.
- MULCH IN TREE AND SHRUB BEDS SHALL BE NATURAL, NATIVE HEMLOCK MULCH FREE OF GROWTH OR GERMINATION INHIBITING INGREDIENTS. SUBMIT SAMPLES FOR APPROVAL.
- LOCATIONS FOR PLANTS AND/OR OUTLINE OF AREAS TO BE PLANTED ARE TO BE STAKED OUT AT THE SITE FOR APPROVAL BY THE LANDSCAPE ARCHITECT.
- SOIL DEPTHS: a.) SHRUBS AND PERENNIAL BEDS: 18" MIN.; b.) GROUND COVER: 6" MIN.; c.) TREES: SEE DETAIL; d.) SOD/SEED: 6" MIN.
- PROVIDE A SUBSURFACE ROOTBALL ANCHOR BY PLATIPUS EARTH ANCHORS OR EQUAL, SIZE FOR CALIPER

GENERAL IRRIGATION NOTES:

- THE DESIGN/BUILD IRRIGATION SUB-CONTRACTOR SHALL PROVIDE A COMPLETE SYSTEM FOR THE IRRIGATION AREAS SHOWN ON THE PLAN, WHICH INCLUDES NEW AND EXISTING TRANSPLANTED PLANT MATERIALS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR FINAL LAYOUT OF IRRIGATION SHOWING LOCATIONS AND SIZES OF MAIN LINES AND LATERAL LINES, ZONES, RAIN AND SOIL SENSORS, AND CUT SHEETS FOR CONTROLLER SYSTEM AND COMPONENTS. INCLUDE ANY NECESSARY SLEEVING ON A DIAGRAM.
- IRRIGATION TO BE COORDINATED WITH GENERAL CONTRACTOR TO LOCATE THE NECESSARY PVC SLEEVING TO COMPLETE IRRIGATION PROGRAM.
- IRRIGATION CONTRACTOR SHALL VERIFY PSI/GPM REQUIREMENTS AT THE SITE BEFORE STARTING CONSTRUCTION.
- TREES SHOULD BE ON A SEPARATE ZONE.
- ALL TREES, SHRUBS, PERENNIALS, ORNAMENTAL GRASSES, AND GROUND COVER SHALL BE DRIP IRRIGATED. CONTRACTOR SHALL BE AWARE THAT THE IRRIGATION SYSTEM SHALL BE ROUTED TO THE PYLON SIGN PLANTER AND PLANTERS AT THE BUILDING.
- ALL LAWN AREAS SHALL BE SPRAY HEAD IRRIGATED. THE HEADS SHALL BE LOCATED FOR HEAD TO HEAD COVERAGE WITH ABSOLUTELY NO OVER SPRAY ONTO THE PAVEMENT.
- INSTALL DRIP TUBING, .6GPH, 12" CENTERS, STAKED EVERY TURN OR EVERY 4'
- THE CONTRACTOR SHALL BE EXTREMELY CAREFUL DURING THE INSTALLATION PROCESS NOT TO DISTURB NEW OR EXISTING PLANT MATERIALS. THE CONTRACTOR IS TO COORDINATE HIS WORK WITH OTHER SUB-CONTRACTORS.
- THE IRRIGATION CONTRACTOR SHALL CONFORM TO ANY LOCAL CODES OR ORDINANCES THAT MAY BE REQUIRED TO COMPLETE THE WORK.
- WATER SUPPLY AND CONTROLLER: COORDINATE CONNECTION TO WATER SUPPLY WITH GENERAL CONTRACTOR. COORDINATE CONTROLLER LOCATION WITH GENERAL CONTRACTOR.
- MEP CONTRACTOR TO PROVIDE BACK FLOW PREVENTION.
- THE IRRIGATION CONTRACTOR SHALL TEST WATER SOURCE FOR WATER QUALITY INCLUDING MINERALS THAT MAY CAUSE STAINING OF CONCRETE AND PAVING SURFACES.
- INSTALLER SHALL INSTALL MOISTURE SENSORS. CONTRACTOR SHALL INSTALL PER MANUFACTURER'S SPECIFICATIONS AND SHALL BE RESPONSIBLE TO PROGRAM RELATED HYDROZONES TO RESPECTIVE SOIL MOISTURE SENSORS. PROVIDE ONE FOR EACH IRRIGATION ZONE WITH AUTOMATIC SHUT-OFF ONCE MOISTURE REQUIREMENTS ARE MET.

SEE SHEET L300 FOR
PLANTING SCHEDULE

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MICHAEL D'ANGELO landscape architecture

MICHAEL D'ANGELO
LANDSCAPE ARCHITECTURE LLC

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SUITE 203A
BOSTON, MA 02127
T. 203.592.4788
WWW.MD-LA.COM

GROVE STREET RESIDENCES
FRANKLIN, MA

STAMP

REVISIONS

REV. NO.	DATE	DESCRIPTION
1	5/1/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER QUOTE SOIL TESTING RESULTS AND SUBMITTAL

NOT FOR
CONSTRUCTION

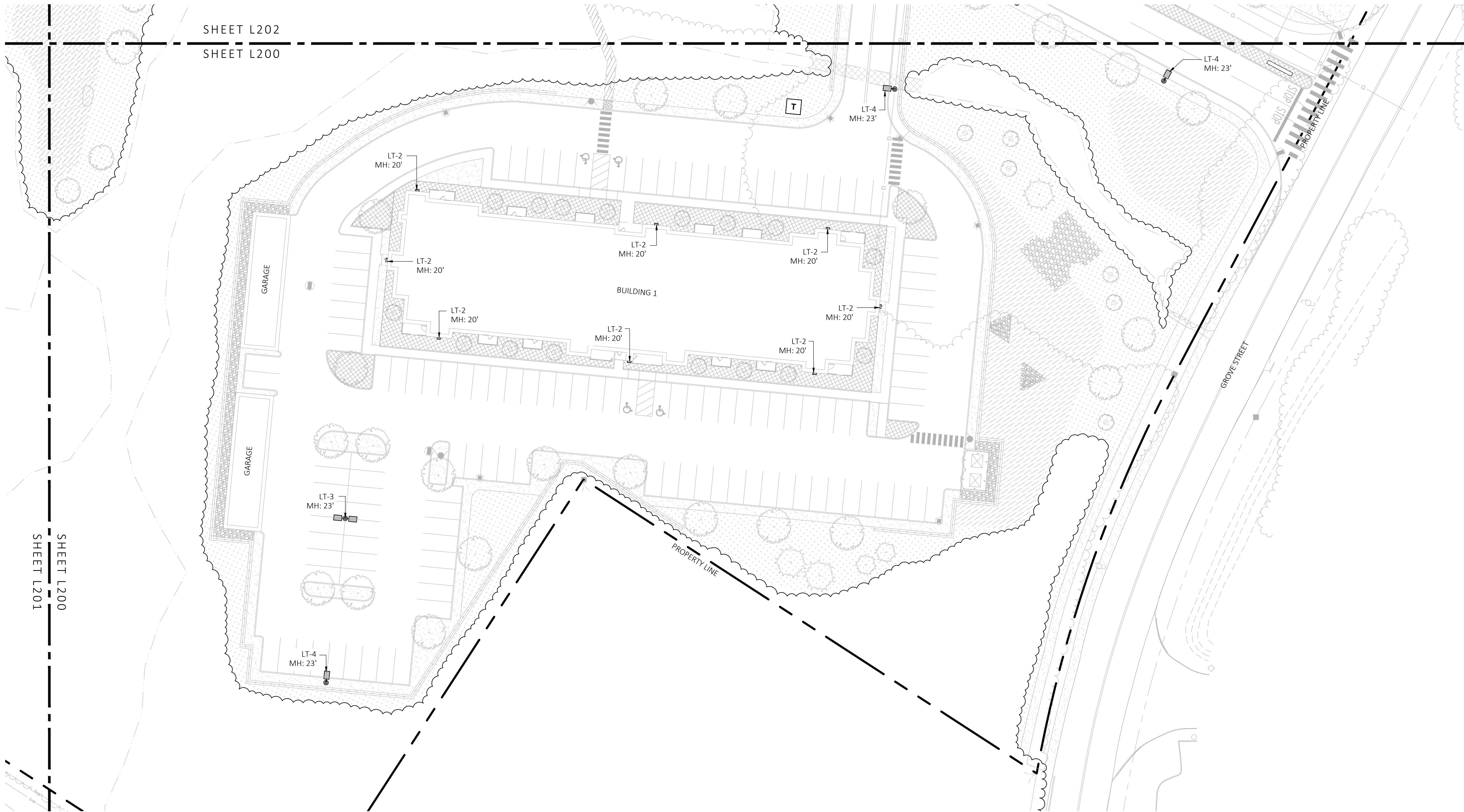
LANDSCAPE
PLANTING
PLAN

DRAWN:
NC, AA
CHECKED:
NC
SCALE:
AS NOTED
DATE:
12/18/23

L103

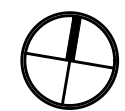
SHEET 5 OF 14

plot date: 12/19/2023



1 LANDSCAPE LIGHTING PLAN

SCALE: 1" = 30'-0"



0 15 30 60
SCALE IN FEET

LIGHT SCHEDULE					
SYMBOL	LABEL	DESCRIPTION	MOUNT	OPTIONS	REP
	LT-1	BOLLARD LIGHT	CONCRETE FOOTING	COLOR: BLK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
	LT-2	BLDG LIGHT	BUILDING MOUNTED	COLOR: BLK	
	LT-3	2-SIDED POLE LIGHT	POLE WITH CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN PLANTING	COLOR: BLK	
	LT-4	1-SIDED POLE LIGHT	POLE WITH CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN PLANTING	COLOR: BLK	

NOTE: MH = MOUNTING HEIGHT

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LANDSCAPE ARCHITECTURE LLC

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SUITE 201A
BOSTON, MA 02127
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www.m-d-a.com

GROVE STREET RESIDENCES
FRANKLIN, MA

STAMP

MASSACHUSETTS
MICHAEL D'ANGELO
REGISTERED LANDSCAPE ARCHITECT
NO. 4096

REV. NO.	DATE	DESCRIPTION
1	5/1/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER ON SITE SOIL TESTING RESULTS TO BE SUBMITTED

NOT FOR
CONSTRUCTION

LANDSCAPE
LIGHTING
PLAN

DRAWN:
NC, AA
CHECKED:
NC
SCALE:
AS NOTED
DATE:
12/18/23

L200

SHEET 6 OF 14

plot date: 12/19/2023

LIGHT SCHEDULE					
SYMBOL	LABEL	DESCRIPTION	MOUNT	OPTIONS	REP
	LT-1	BOLLARD LIGHT	CONCRETE FOOTING	COLOR: BLK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
	LT-2	BLDG LIGHT	BUILDING MOUNTED	COLOR: BLK	
	LT-3	2-SIDED POLE LIGHT	POLE WITH CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN PLANTING	COLOR: BLK	
	LT-4	1-SIDED POLE LIGHT	POLE WITH CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN PLANTING	COLOR: BLK	

NOTE: MH = MOUNTING HEIGHT



1 LANDSCAPE LIGHTING PLAN
SCALE: 1" = 30'-0"



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MICHAEL D'ANGELO landscape architecture

MICHAEL D'ANGELO
LANDSCAPE ARCHITECTURE LLC

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GROVE STREET RESIDENCES
FRANKLIN, MA

STAMP


REV. NO.	DATE	DESCRIPTION
1	5/1/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER ON SITE SOIL TESTING RESULTS AND SUBMISSION

NOT FOR
CONSTRUCTION

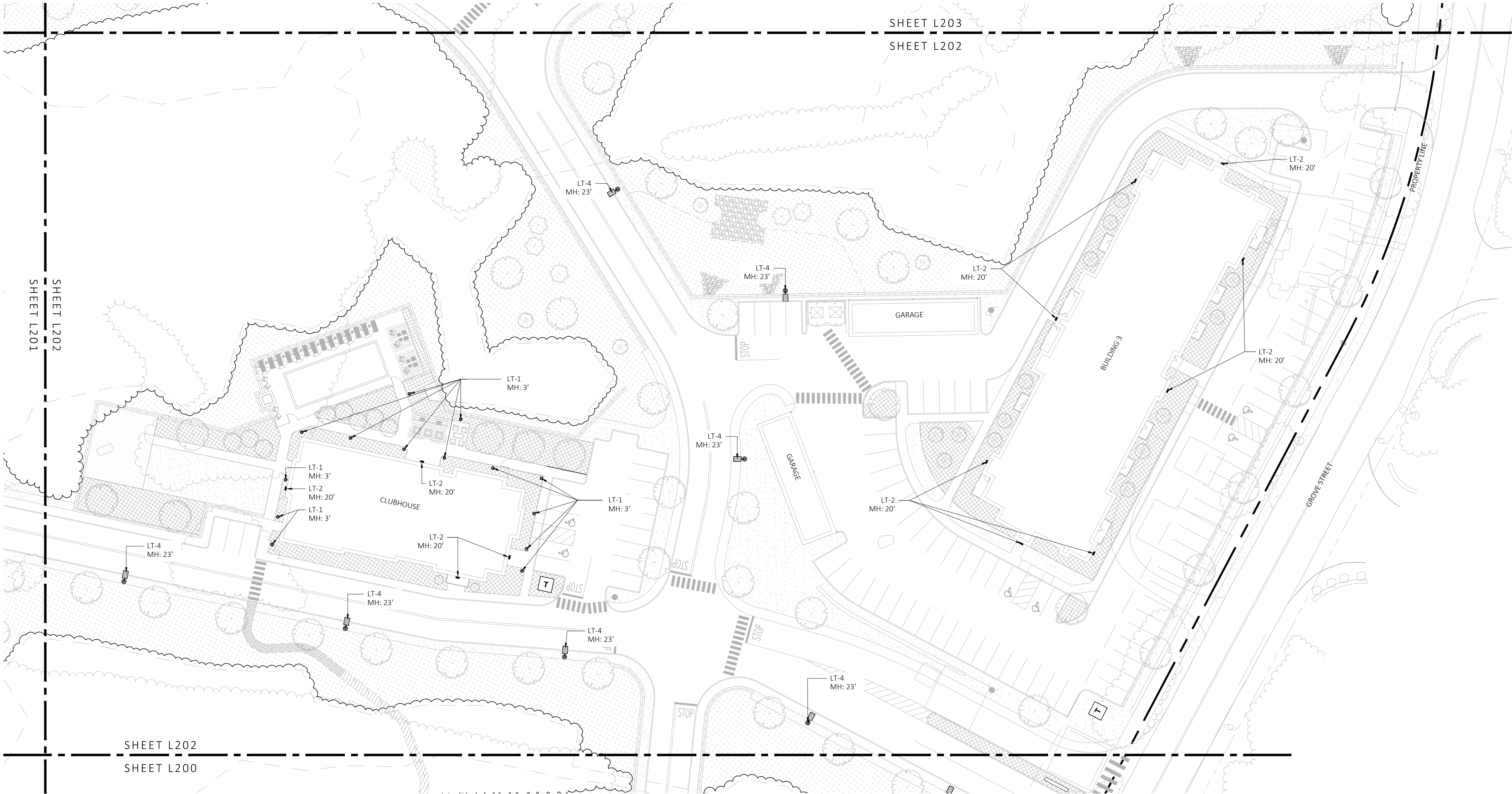
LANDSCAPE
LIGHTING
PLAN

DRAWN:
NC, AA
CHECKED:
NC
SCALE:
AS NOTED
DATE:
12/18/23

L201

SHEET 7 OF 14

plot date: 12/19/2023



LANDSCAPE LIGHTING PLAN

SCALE: 1" = 30'-0"

LIGHT SCHEDULE					
SYMBOL	LABEL	DESCRIPTION	MOUNT	OPTIONS	REP
	LT-1	BOLLARD LIGHT	CONCRETE FOOTING	COLOR: BLK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
	LT-2	BLDG LIGHT	BUILDING MOUNTED	COLOR: BLK	
	LT-3	2-SIDED POLE LIGHT	POLE WITH CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN PLANTING	COLOR: BLK	
	LT-4	1-SIDED POLE LIGHT	POLE WITH CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN PLANTING	COLOR: BLK	

NOTE: MH = MOUNTING HEIGHT

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MICHAEL D'ANGELO
LANDSCAPE ARCHITECTURE LLC

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SUITE 201A
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GROVE STREET RESIDENCES
FRANKLIN, MA

STAMP

MASSACHUSETTS
MICHAEL D'ANGELO
REGISTERED LANDSCAPE ARCHITECT
NO. 4096

REV. NO.	DATE	DESCRIPTION
1	5/1/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER ON SITE SOL. TESTING RESULTS TESTING SUBMISSION

NOT FOR
CONSTRUCTION

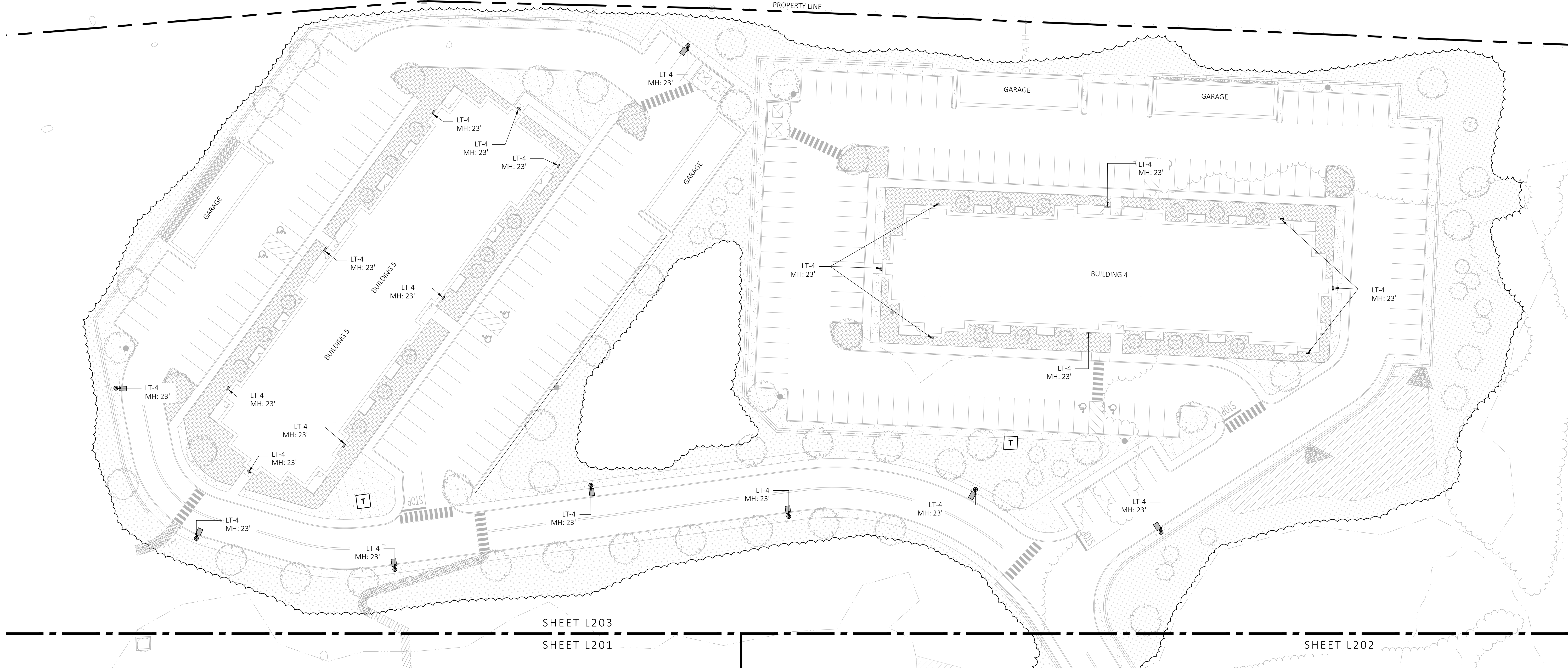
LANDSCAPE
LIGHTING
PLAN

DRAWN:
NC, AA
CHECKED:
NC
SCALE:
AS NOTED
DATE:
12/18/23

L202

SHEET 8 OF 14

plot date: 12/19/2023



LANDSCAPE LIGHTING PLAN

SCALE: 1" = 30'-0"

LIGHT SCHEDULE					
SYMBOL	LABEL	DESCRIPTION	MOUNT	OPTIONS	REP
●	LT-1	BOLLARD LIGHT	CONCRETE FOOTING	COLOR: BLK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
▬	LT-2	BLDG LIGHT	BUILDING MOUNTED	COLOR: BLK	
▬●▬	LT-3	2-SIDED POLE LIGHT	POLE WITH CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN PLANTING	COLOR: BLK	
●▬	LT-4	1-SIDED POLE LIGHT	POLE WITH CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN PLANTING	COLOR: BLK	

NOTE: MH = MOUNTING HEIGHT

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MICHAEL D'ANGELO landscape architecture

MICHAEL D'ANGELO
LANDSCAPE ARCHITECTURE LLC

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BOSTON, MA 02127
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GROVE STREET RESIDENCES
FRANKLIN, MA

STAMP
MICHAEL D'ANGELO
REGISTERED LANDSCAPE ARCHITECT
NO. 4096
STATE OF MASSACHUSETTS

REV. NO.	DATE	DESCRIPTION
1	5/1/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER QUOTE SOL. TESTING RESULTS INTO SUBMITTAL

NOT FOR
CONSTRUCTION

LANDSCAPE
LIGHTING
PLAN

DRAWN:
NC, AA
CHECKED:
NC
SCALE:
AS NOTED
DATE:
12/18/23

L203

SHEET 9 OF 14

plot date: 12/19/2023



Date: August 28, 2018

Native Steep Slope Mix w/Grain Oats - ERNMX-181-1

Botanical Name	Common Name	Price/ft ²
40.00 % <i>Avena sativa</i> , <i>Variety Not Stated</i>	Cats, Variety Not Stated	0.22
40.00 % <i>Gongylurus dentatus</i> , <i>WV Ecotype</i>	Indiganyrs, "WV Ecotype"	2.97
8.10 % <i>Andropogon gerardii</i> , <i>"Nagori"</i>	Big Bluestem, "Nagori"	1.33
7.50 % <i>Elymus virginicus</i> , <i>PA Ecotype</i>	Caraway Wildrye, <i>PA Ecotype</i>	7.76
7.50 % <i>Elymus canadensis</i> , <i>"Tuscar"</i>	Tuscar	1.20
4.50 % <i>Schizanthus scoparium</i> , <i>Fort Indiantown Gb-PA Ecotype</i>	Little Bluestem, Fort Indiantown Gb-PA Ecotype	12.00
3.00 % <i>Elymus canadensis</i> , <i>Fort Indiantown Gb-PA Ecotype</i>	Little Bluestem, PA Ecotype	12.00
3.00 % <i>Andropogon gerardii</i> , <i>Albany Pine Bush-NY Ecotype</i>	Albany Broomgrass, Albany Pine Bush-NY Ecotype	1.40
2.50 % <i>Festuca virginica</i> , <i>"Shawnee"</i>	Switchgrass, "Shawnee"	7.51
2.50 % <i>Chenopodium fasciculatum</i> , <i>PA Ecotype</i>	Partridge Plant, PA Ecotype	26.00
1.00 % <i>Brickellia purpurea</i>	Purple Coneflower	36.00
0.80 % <i>Clethra alnifolia</i>	Wintergreen (Starflower)	26.00
0.80 % <i>Rudbeckia hirta</i>	Black-eyed Susan	26.00
0.70 % <i>Helianthus latifolius</i> , <i>PA Ecotype</i>	Groove Sunflower, PA Ecotype	42.00
0.70 % <i>Setaria rooseae-viridis</i> , <i>PA Ecotype</i>	New England Aster, PA Ecotype	26.00
0.20 % <i>Andropogon syriacus</i> , <i>PA Ecotype</i>	Common Milkweed, PA Ecotype	19.00
0.20 % <i>Liatris pycnostachya</i>	Harris' Coreopsis Blazing Star (Spiked Gayfeather)	216.00
0.10 % <i>Pennisetum distachyon</i>	Tall Whiskers Beardgrass	160.00

100.00 %	Mix Price/lb Bulk:	\$10.45
Seeding Rate: 75 lb per acre		
Erosion Control & Revegetation		

Use this formula with grain oats as a cover crop in the spring and summer (until September 1st). Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.



Date: August 28, 2018

Native Steep Slope Mix w/Grain Rye - ERNMX-181-2

Botanical Name		Common Name	Price/Bulk
40.00%	<i>Scarus coelestis</i> , Variety <i>Not Stated</i>	Gray Fish, Variety Not Stated	0.21
40.00%	<i>Synbranchius rubrus</i> , PA Ecotype	Red Branch, PA Ecotype	10.60
8.10%	<i>Andropogon gracilis</i> , "Nagana"	Big Grasses, "Nagana"	1.30
1.50%	<i>Elymus arvensis</i> , PA Ecotype	Virginia Wildrye, PA Ecotype	7.72
5.20%	<i>Elymus canadensis</i>	Canada Wildrye	12.87
4.50%	<i>Synbranchius gracilior</i> , "Camper"	Little Bluefish, "Camper"	18.59
1.70%	<i>Reinhardtia flexosa</i>	Purpleleaf	1.50
3.00%	<i>Agropyron perennans</i> , Albany Pine Bush-WV Ecotype	Albany Pine Bush-WV Ecotype	14.93
1.00%	<i>Agropyron perennans</i> , Shawnee	Shawnee	1.00
1.10%	<i>Chamaecrista fasciculata</i> , PA Ecotype	Perfringe Pine, PA Ecotype	10.00
0.00%	<i>Echinops purpureus</i>	Purple Coneflower	0.00
0.80%	<i>Calluna americana</i>	Heermann Callardia (Blackheather)	0.80
0.80%	<i>Rudbeckia hirta</i>	Blackeyed Susan	0.80
0.20%	<i>Helopsis palustris</i> , Palmetto	Deep Sunflower, PA Ecotype	0.20
0.40%	<i>Aster lateriflorus</i>	Calico Aster	390.00
0.30%	<i>Liatris spicata</i>	Murch (Dorset) Blazing Star (Spotted Gayeflower)	21.00
0.20%	<i>Andropogon gyrinus</i> , PA Ecotype	Common Hawkgrass, PA Ecotype	198.00
100.00%		Mix Price/Bulk:	\$9.85

Seeding Rate: 75 lb per acre
Erosion Control & Revegetation

Use this formula with grain rye as a cover crop (from August 1st-February 15th). Mix formulations are subject to change without

Use this formula with grain rye as a cover crop (from August 1st-February 15th). Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.



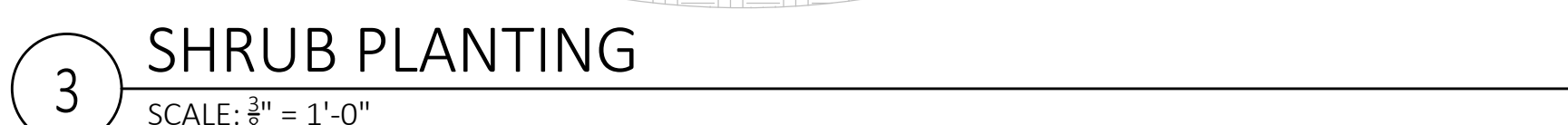
Date: August 28, 2018

Rain Garden Mix - ERNMX-180

Botanical Name	Common Name	Price/lb
35.00% <i>Sclerodermum asperatum, Albany Pine Bush NY Ecotype</i>	Little Bluestem, Albany Pine Bush NY Ecotype	12.92
20.00% <i>Pennisetum virginicum, PA Ecotype</i>	Virgin Hairgrass, PA Ecotype	4.78
20.00% <i>Carex ripidifolia, PA Ecotype</i>	Poor Sedges, PA Ecotype	17.80
20.00% <i>Parian pycnostachya, Coastal Plain NC Ecotype</i>	Partridge Panicum, Coastal Plain NC Ecotype	18.20
3.00% <i>Andropogon furcatus</i>	St. Augustine	10.00
3.00% <i>Corynephorus lanceolata</i>	Lanceleaf Corynephorus	21.00
3.00% <i>Ruellia brittanica</i>	Bildberg's Weegee	20.00
3.00% <i>Carex sparganii, PA Ecotype</i>	East Broad River Sedge, PA Ecotype	22.00
2.00% <i>Chamaecrista fasciculata, PA Ecotype</i>	Pettridge Pea, PA Ecotype	10.00
2.00% <i>Aquarium coelestium, US Ecotype</i>	Bluebonnet, VA Ecotype	10.00
2.00% <i>Helopsis helianthoides, PA Ecotype</i>	Yellow Sunflower, PA Ecotype	42.00
2.00% <i>Paranemum diphyllum, PA Ecotype</i>	Tall White Bonenettle, PA Ecotype	10.00
1.00% <i>Andropogon scoparius, PA Ecotype</i>	Common Milkweed, PA Ecotype	10.00
1.00% <i>Amorpha canescens</i>	Soft Rush	40.00
1.00% <i>Amaranthus tenuis, PA Ecotype</i>	Red Root, PA Ecotype	16.00
1.00% <i>Lespedeza bicolor</i>	Marsh (Dwarf) Blanding Soy (Spiked Gayfeather)	10.00
1.00% <i>Andropogon virginicus, PA Ecotype</i>	New England Aster, PA Ecotype	32.00
1.00% <i>Andropogon furcatus, NY Ecotype</i>	Smooth Blue Aster, NY Ecotype	30.00
1.00% <i>Andropogon furcatus, NY Ecotype</i>	Andropogon furcatus	23.00

0.50	<i>Rutbeckia huijsda</i> var. <i>fulgens</i> , Northern VA Ecotype	Orange Coneflower, Northern VA Ecotype	300.00
0.50	<i>Senna hebecarpa</i> , VA & WV Ecotype	Wild Senna, VA & WV Ecotype	24.00
0.40	<i>Monarda fistulosa</i> , Fort Indiantown Gap-PA Ecotype	Wild Bergamot, Fort Indiantown Gap-PA Ecotype	160.00
0.30	<i>Pycnanthemum tenuifolium</i>	Narrowleaf Mountainmint	140.00
0.30	<i>Solidago juncea</i> , PA Ecotype	Early Goldenrod, PA Ecotype	280.00

0.30 %	<i>Solidago juncea</i> , PA Ecotype	Early Goldenrod, PA Ecotype	280.00
100.00 %		Mix Price/lb Bulk:	\$37.29



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GROVE STREET RESIDENCES
FRANKLIN, MA

STAMP



REV. NO.	DATE	DESCRIPTION
1	5/1/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER ON-SITE EOL TESTING REU, TO-NOT SUBMISSION

NOT FOR
CONSTRUCTION

LANDSCAPE
DETAILS

DRAWN:

NC, AA

CHECKED:
NG

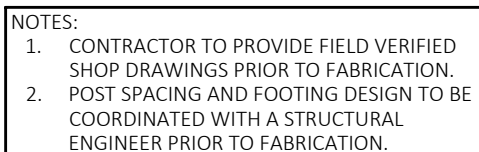
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AS NOTED

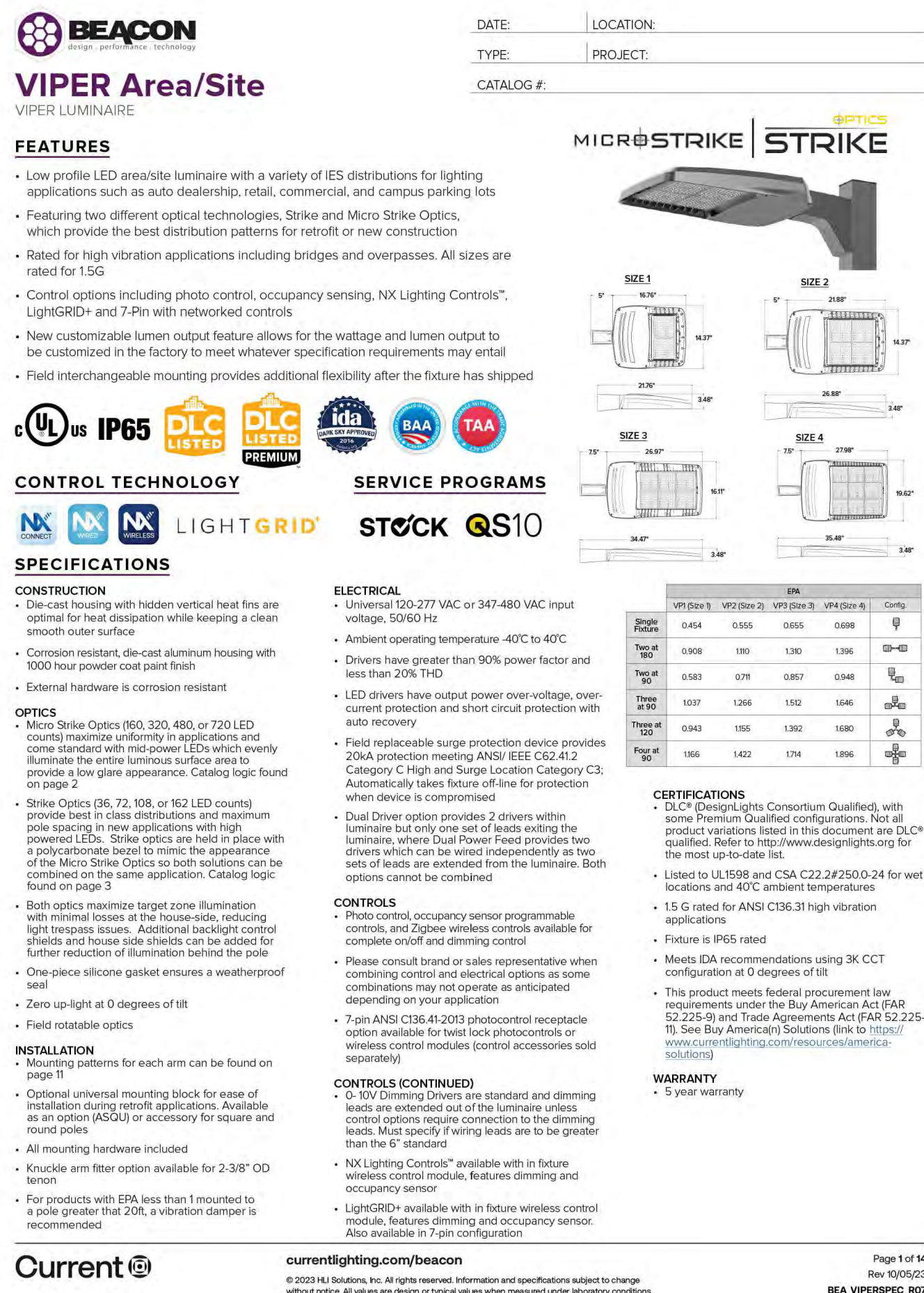
DATE:
12/18/23

SHEET 10 OF 14

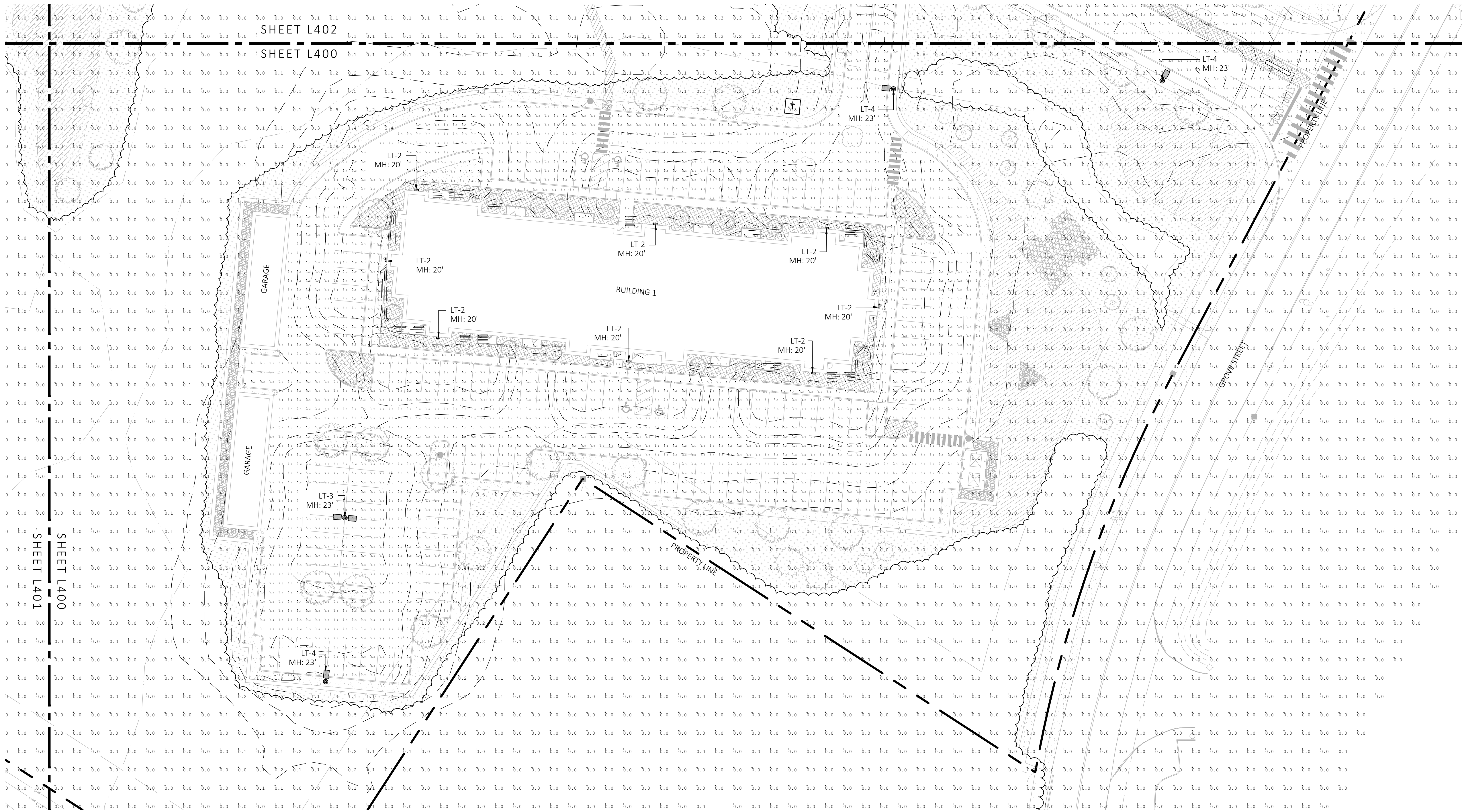
plot date: 12/19/2023



SCALE: 1/2" = 1'-0'



SCALE: N.T.S.



1 LANDSCAPE PHOTOMETRIC PLAN

SCALE: 1" = 30'-0"



Luminaire Schedule					
Symbol	Qty	Label	Arrangement	LLF	Lum. Lumens
	11	LT-1	Single	0.900	1430
	44	LT-2	Single	1.000	15440
	1	LT-3	Back-Back	0.900	15440
	21	LT-4	Single	0.900	15440

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
LNADSCAPE AREA 1	Illuminance	Fc	2.99	5.4	0.0	N.A.	N.A.
LNADSCAPE AREA 2	Illuminance	Fc	2.47	4.9	0.0	N.A.	N.A.
LNADSCAPE AREA 3	Illuminance	Fc	2.74	5.4	0.0	N.A.	N.A.
LNADSCAPE AREA 4	Illuminance	Fc	2.61	4.9	0.0	N.A.	N.A.
LNADSCAPE AREA 5	Illuminance	Fc	3.15	6.9	0.0	N.A.	N.A.
PARKING AND ROADWAYS	Illuminance	Fc	1.82	9.5	0.0	N.A.	N.A.
SPILL LIGHT	Illuminance	Fc	0.16	32.6	0.0	N.A.	N.A.

NOTE: MH = MOUNTING HEIGHT

MDLA

MICHAEL D'ANGELO landscape architecture

MICHAEL D'ANGELO
LANDSCAPE ARCHITECTURE LLC

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WWW.MD-LA.COM

GROVE STREET RESIDENCES FRANKLIN, MA

STAMP



REV. NO.	DATE	DESCRIPTION
1	5/1/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER OWNER SOL. TESTING RESULTS/NO. SUBMITTAL

NOT FOR
CONSTRUCTION

LANDSCAPE
PHOTOMETRIC
PLAN

DRAWN:

NC, AA

CHECKED:

NC

SCALE:

AS NOTED

DATE:

12/18/23

L400

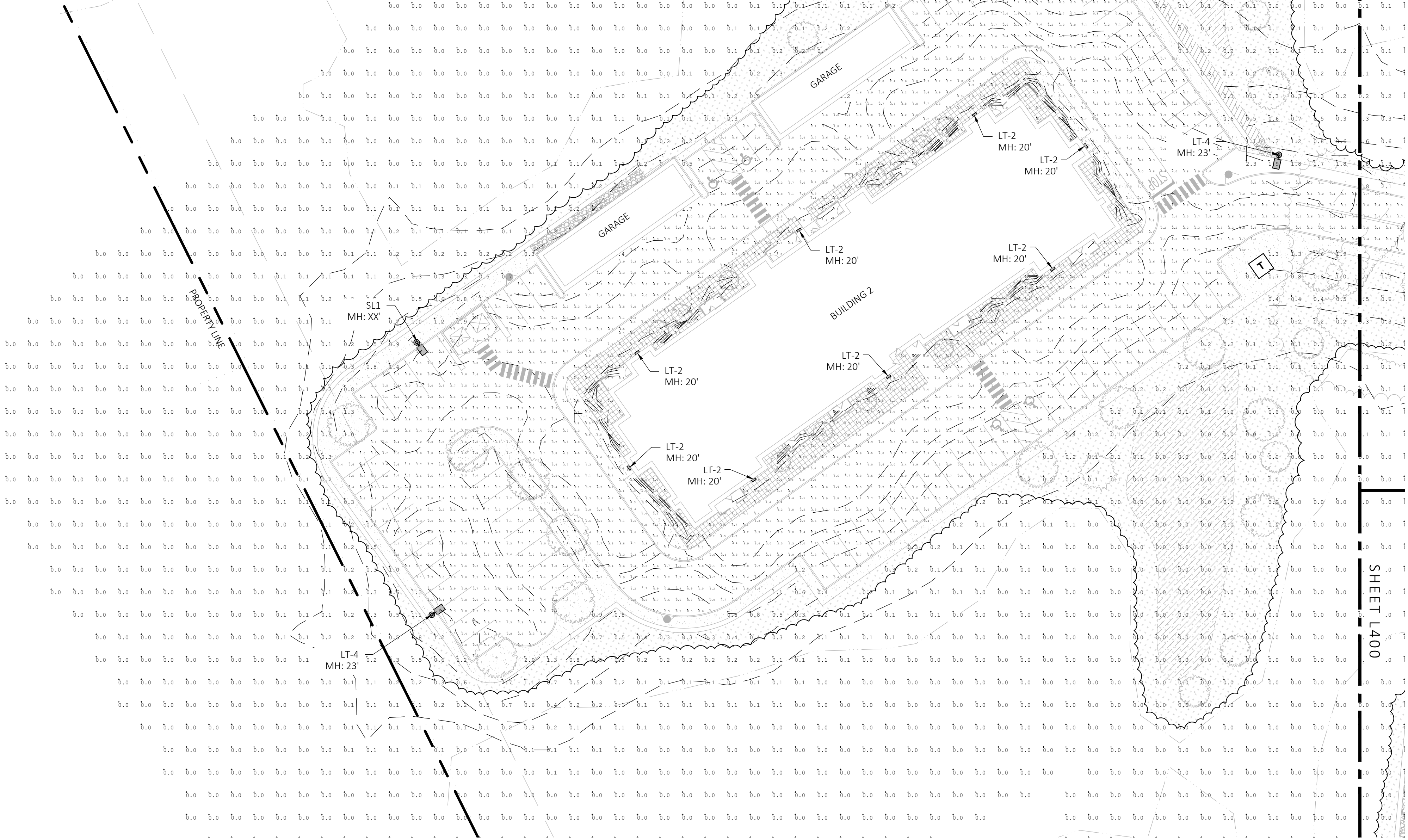
SHEET 11 OF 14

plot date: 12/19/2023

Luminaire Schedule						
Symbol	Qty	Label	Arrangement	LLF		Lum. Lumens
	11	LT-1	Single	0.900		1430
	44	LT-2	Single	1.000		15440
	1	LT-3	Back-Back	0.900		15440
	21	LT-4	Single	0.900		15440

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
LNADSCAPE AREA 1	ILLUMINANCE	Fc	2.99	5.4	0.0	N.A.	N.A.
LNADSCAPE AREA 2	ILLUMINANCE	Fc	2.47	4.9	0.0	N.A.	N.A.
LNADSCAPE AREA 3	ILLUMINANCE	Fc	2.74	5.4	0.0	N.A.	N.A.
LNADSCAPE AREA 4	ILLUMINANCE	Fc	2.61	4.9	0.0	N.A.	N.A.
LNADSCAPE AREA 5	ILLUMINANCE	Fc	3.15	6.9	0.0	N.A.	N.A.
PARKING AND ROADWAYS	ILLUMINANCE	Fc	1.82	9.5	0.0	N.A.	N.A.
SPILL LIGHT	ILLUMINANCE	Fc	0.16	32.6	0.0	N.A.	N.A.

NOTE: MH = MOUNTING HEIGHT



1 LANDSCAPE PHOTOMETRIC PLAN
SCALE: 1" = 30'-0"

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GROVE STREET RESIDENCES
FRANKLIN, MA

STAMP

REV. NO.	DATE	DESCRIPTION
1	5/1/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER OWNER SOL. TESTING RESULTS/REVISIONS

NOT FOR
CONSTRUCTION

LANDSCAPE
PHOTOMETRIC
PLAN

DRAWN:
NC, AA

CHECKED:
NC

SCALE:
AS NOTED

DATE:
12/18/23

L401

SHEET 12 OF 14

plot date: 12/19/2023



1 LANDSCAPE PHOTOMETRIC PLAN
SCALE: 1" = 30'-0"



Luminaire Schedule						
Symbol	Qty	Label	Arrangement	LLF	Lum. Lumens	
	11	LT-1	Single	0.900	1430	
	44	LT-2	Single	1.000	15440	
	1	LT-3	Back-Back	0.900	15440	
	21	LT-4	Single	0.900	15440	

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
LNADSCAPE AREA 1	Illuminance	Fc	2.99	5.4	0.0	N.A.	N.A.
LNADSCAPE AREA 2	Illuminance	Fc	2.47	4.9	0.0	N.A.	N.A.
LNADSCAPE AREA 3	Illuminance	Fc	2.74	5.4	0.0	N.A.	N.A.
LNADSCAPE AREA 4	Illuminance	Fc	2.61	4.9	0.0	N.A.	N.A.
LNADSCAPE AREA 5	Illuminance	Fc	3.15	6.9	0.0	N.A.	N.A.
PARKING AND ROADWAYS	Illuminance	Fc	1.82	9.5	0.0	N.A.	N.A.
SPILL LIGHT	Illuminance	Fc	0.16	32.6	0.0	N.A.	N.A.

NOTE: MH = MOUNTING HEIGHT

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GROVE STREET RESIDENCES
FRANKLIN, MA

STAMP

REV. NO.	DATE	DESCRIPTION
1	5/11/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER CLIENT SOL. TESTING RESULTS TO CORRECTION.

NOT FOR
CONSTRUCTION

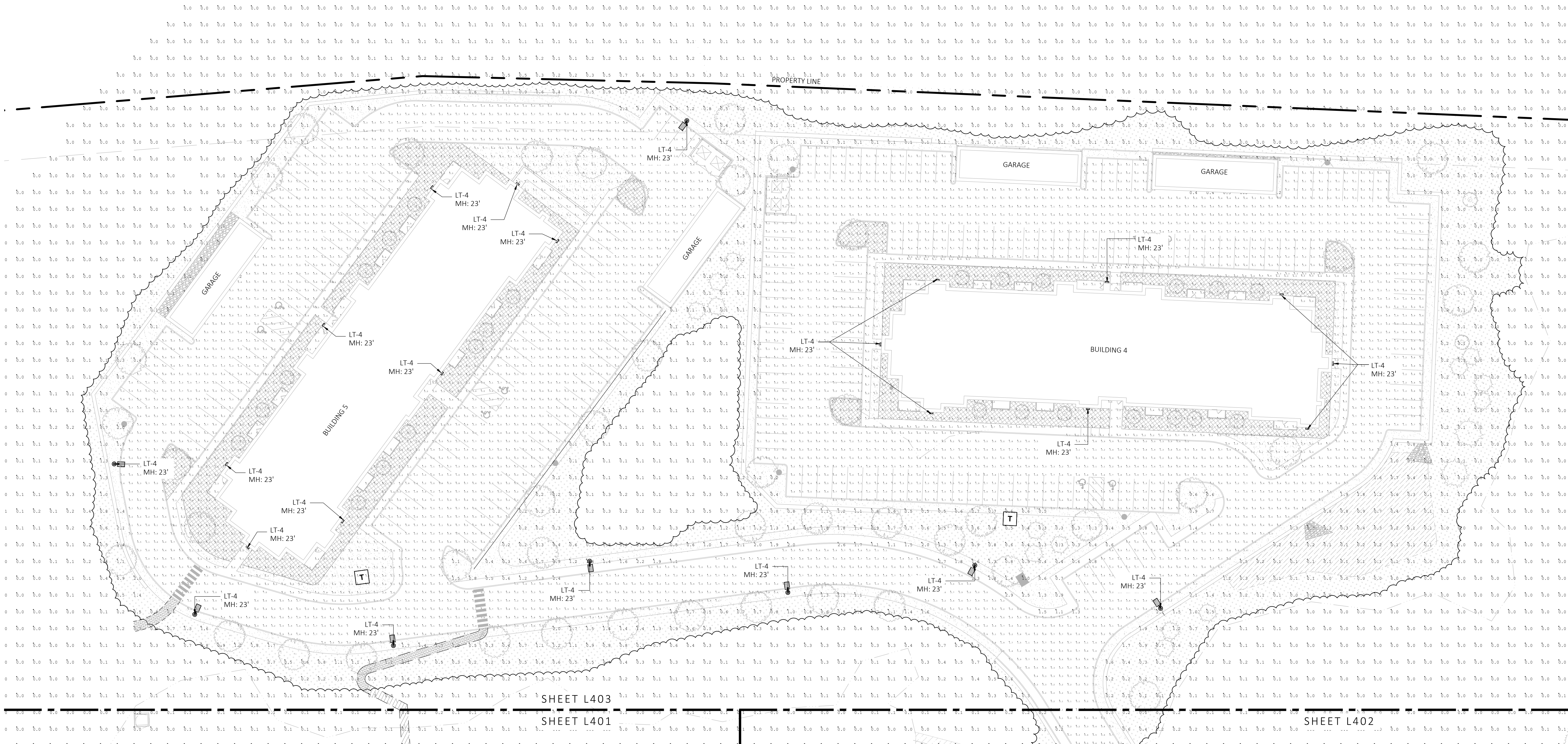
LANDSCAPE
PHOTOMETRIC
PLAN

DRAWN:
NC, AA
CHECKED:
NC
SCALE:
AS NOTED
DATE:
12/18/23

L402

SHEET 13 OF 14

plot date: 12/19/2023



1 LANDSCAPE PHOTOMETRIC PLAN
SCALE: 1" = 30'-0"



Luminaire Schedule						
Symbol	Qty	Label	Arrangement	LLF	Lum. Lumens	
	11	LT-1	Single	0.900	1430	
	44	LT-2	Single	1.000	15440	
	1	LT-3	Back-Back	0.900	15440	
	21	LT-4	Single	0.900	15440	

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
LNADSCAPE AREA 1	Illuminance	Fc	2.99	5.4	0.0	N.A.	N.A.
LNADSCAPE AREA 2	Illuminance	Fc	2.47	4.9	0.0	N.A.	N.A.
LNADSCAPE AREA 3	Illuminance	Fc	2.74	5.4	0.0	N.A.	N.A.
LNADSCAPE AREA 4	Illuminance	Fc	2.61	4.9	0.0	N.A.	N.A.
LNADSCAPE AREA 5	Illuminance	Fc	3.15	6.9	0.0	N.A.	N.A.
PARKING AND ROADWAYS	Illuminance	Fc	1.82	9.5	0.0	N.A.	N.A.
SPILL LIGHT	Illuminance	Fc	0.16	32.6	0.0	N.A.	N.A.

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GROVE STREET RESIDENCES
FRANKLIN, MA

STAMP

REV. NO. DATE DESCRIPTION
1 5/1/23 VE
2 9/23/23 REV 1
3 10/31/23 REV 2
4 12/18/23 REV PER QUOTE SOL. TESTING AND LUMINANCE CORRECTION

NOT FOR CONSTRUCTION

LANDSCAPE PHOTOMETRIC PLAN

DRAWN: NC, AA
CHECKED: NC
SCALE: AS NOTED
DATE: 12/18/23
SHEET 14 OF 14

plot date: 12/19/2023