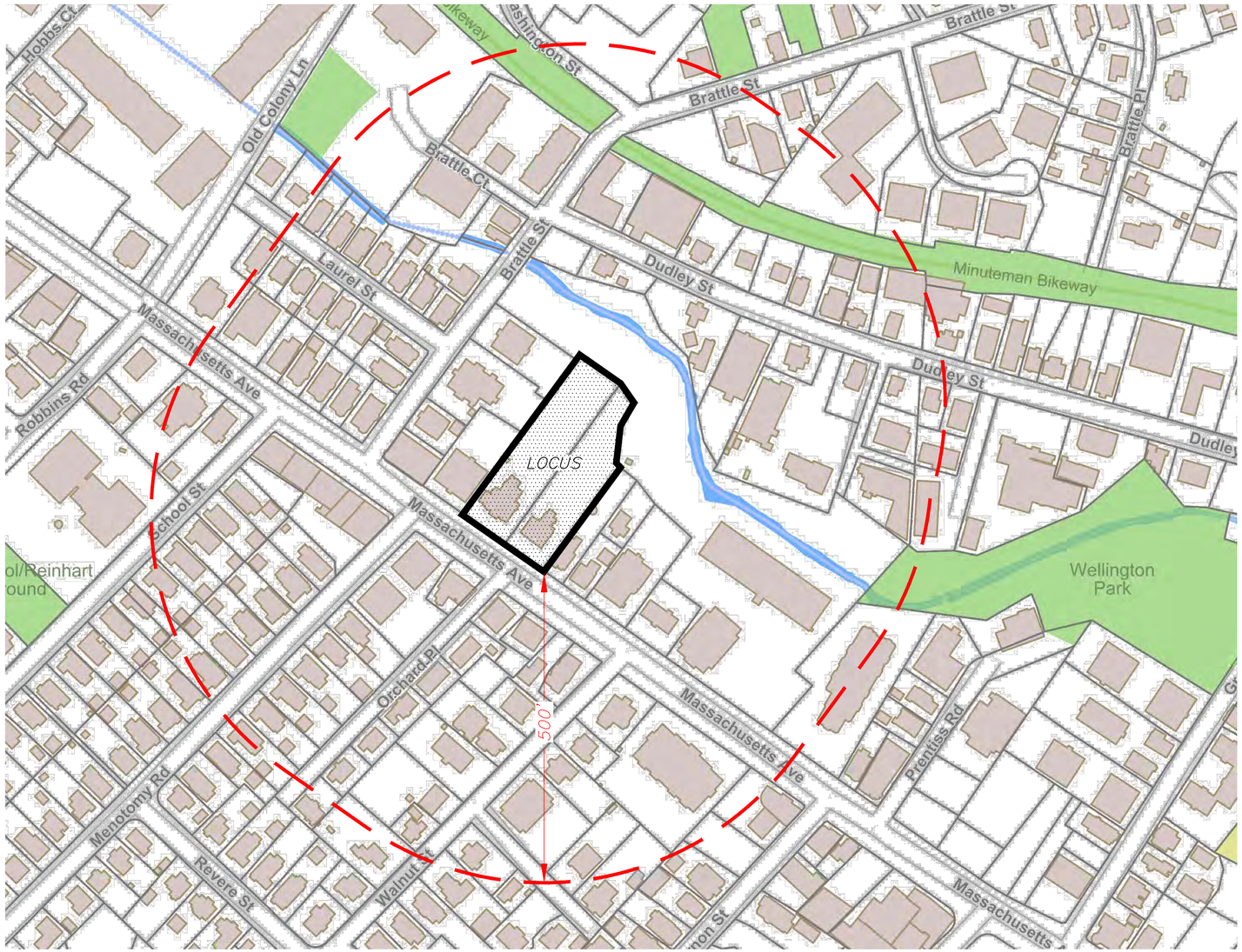
NOTES:

1. THE INFORMATION DEPICTED ON THIS PLAN HAS BEEN COMPILED FROM THE TOWN OF ARLINGTON GIS SYSTEM
2. LAND USE WITHIN 500 FEET OF THE SUBJECT PROPERTY IS PRIMARILY SINGLE FAMILY DWELLINGS AND COMMERCIAL BUSINESSES, AND INCLUDES THE HIGHLAND FIRE STATION.

1021 & 1025 MASSACHUSETTS AVENUE
(1021 ASSESSORS MAP 55 LOT 19)
(1025 ASSESSORS MAP 55 LOT 20)
COMPREHENSIVE PERMIT PLAN SET

(TO ACCOMPANY A ZONING BOARD OF APPEALS APPLICATION)
LOCATED IN ARLINGTON, MA
SEPTEMBER 19, 2022



LOCUS CONTEXT MAP
(SCALE 1"=100')

PREPARED BY:

PATRIOT Engineering
35 BEDFORD STREET, SUITE 4
LEXINGTON, MASSACHUSETTS 02420
T: (978) 726-2654
www.patriot-eng.com

COMMONWEALTH OF MASSACHUSETTS
MICHAEL J. NOVAK
CIVIL
No. 50696
REGISTERED PROFESSIONAL ENGINEER

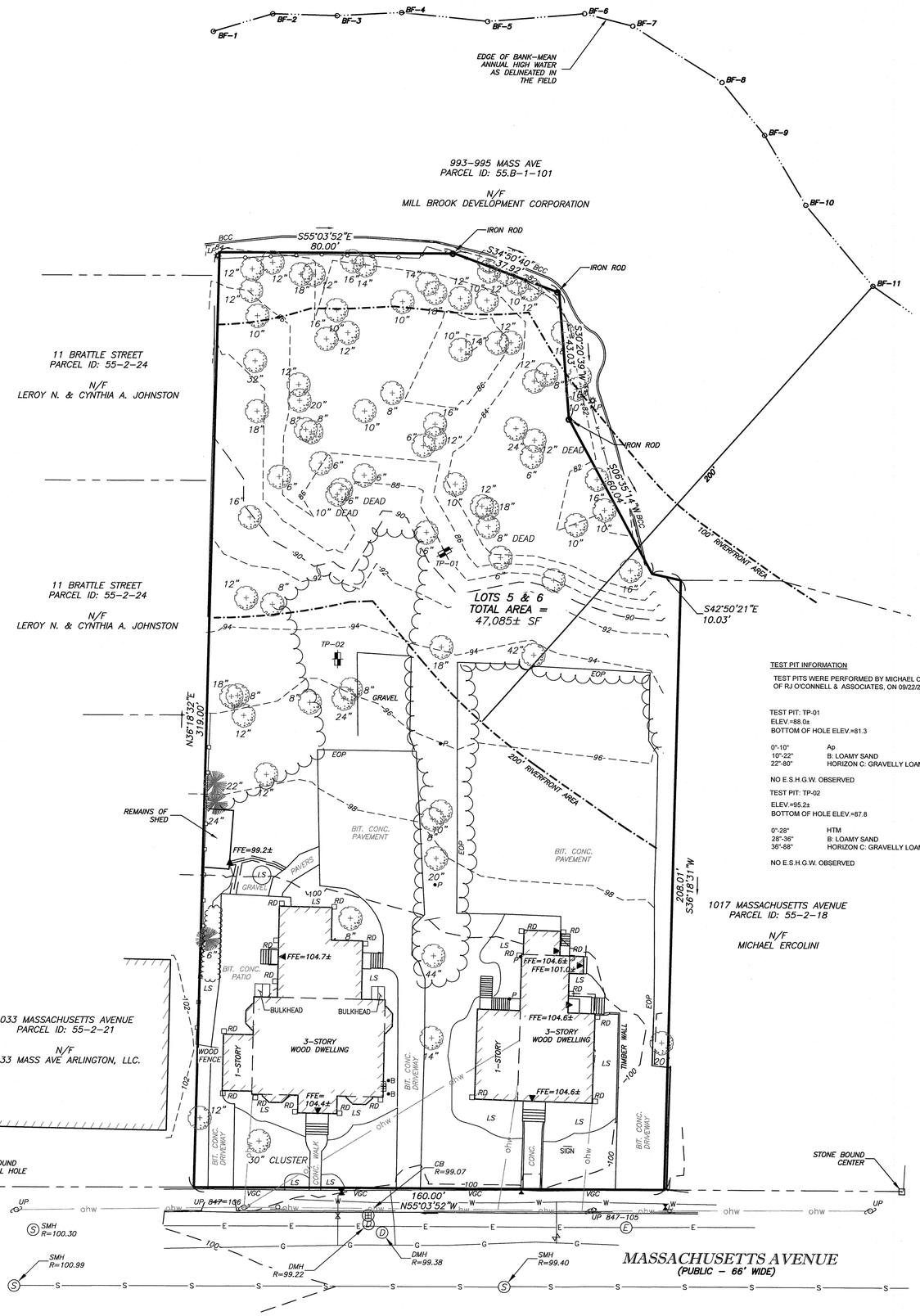
SHEET INDEX

1. COVER SHEET
2. EXISTING CONDITIONS PLAN
3. SITE DEMOLITION PLAN
4. SITE GRADING AND UTILITY PLAN
5. SITE UTILITY PLAN
6. SITE DETAILS - I
7. SITE DETAILS - II

APPLICANT:

MAJ INVESTMENT, LLC
13 WHEELING AVENUE
WOBURN, MA 01801

PERMITTING SET



DIG SAFE

BEFORE YOU DIG
CALL 811

TEST PIT INFORMATION

TEST PITS WERE PERFORMED BY MICHAEL CAPACHIETTI OF RJ O'CONNELL & ASSOCIATES, ON 09/22/2021.

TEST PIT: TP-01
ELEV.=88.0±
BOTTOM OF HOLE ELEV.=81.3

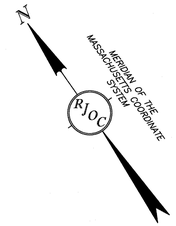
0"-10"	Ap
10"-22"	B: LOAMY SAND
22"-80"	HORIZON C: GRAVELLY LOAMY SAND W/ COBBLES

NO E.S.H.G.W. OBSERVED

TEST PIT: TP-02
ELEV.=95.2±
BOTTOM OF HOLE ELEV.=87.8

0"-28"	HTM
28"-36"	B: LOAMY SAND
36"-88"	HORIZON C: GRAVELLY LOAMY SAND W/ COBBLES

NO E.S.H.G.W. OBSERVED



LEGEND

(NOT ALL FEATURES CONTAINED IN THIS LEGEND APPEAR ON THE PLAN)

	BOUNDARY LINE
	ABUTTING PROPERTY LINE
S	SEWER SERVICE
D	DRAIN SERVICE
W	WATER SERVICE
G	GAS LINE
E	ELECTRIC LINE
T	TELEPHONE LINE
ohw	OVERHEAD WIRES
X	CHAIN LINK FENCE
	STOCKADE FENCE
100	INDEX CONTOUR
98	INTERMEDIATE CONTOUR
UP	UTILITY POLE
LP	LIGHT POLE
	ELECTRIC HAND HOLE
C	CABLE MANHOLE
S	SEWER MANHOLE
D	DRAIN MANHOLE
	CATCH BASIN
	WATER VALVE
	FIRE HYDRANT
SPR	SPRINKLER CONNECTION
PIV	POST INDICATOR VALVE
	BOLLARD
GM	GAS METER
	GAS VALVE
RD	ROOF DRAIN
AD	AREA DRAIN
ICV	IRRIGATION CONTROL VALVE
×114.7	SPOT GRADE
	TEST PIT
CC	CONCRETE CURB
VGC	VERTICAL GRANITE CURB
BCB	BITUMINOUS CONCRETE CURB
HC	HANDICAP
HPDE	HIGH DENSITY POLYETHYLENE
CONC.	CONCRETE
LSA	LANDSCAPE AREA
	DOOR
	SIGN
B / BC	PARKING COUNT / COMPACT NUMBER
	DECIDUOUS TREE
	CONIFEROUS TREE
(REC)	FROM RECORD PLANS
	RETAINING WALL
	DETECTABLE WARNING PAD

NOTES:

1. THE PURPOSE OF THIS PLAN IS TO SHOW THE EXISTING SITE CONDITIONS, AS THEY EXISTED AT THE TIME OF THE FIELD SURVEY, OF THE LOCUS PARCEL FOR DESIGN PURPOSES. THIS PLAN WAS PREPARED FROM AN ACTUAL SURVEY MADE ON THE GROUND USING TOTAL STATION METHODS BY R. J. O'CONNELL & ASSOCIATES (RJOC).
2. UNDERGROUND UTILITIES SHOWN ARE FROM OBSERVED SURFACE INDICATIONS, SUBSURFACE INDICATIONS, AND COMPILED FROM AVAILABLE RECORD PLANS OF UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. AS OF THE DATE OF THIS SURVEY, NO INFORMATION REGARDING RECORD UTILITIES HAS BEEN PROVIDED BY ELECTRIC AND GAS PROVIDERS. BEFORE CONSTRUCTION CALL "DIG SAFE" 811.
3. THE HORIZONTAL DATUM I IS THE MASSACHUSETTS COORDINATE SYSTEM (NAD83), THE VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). DATUMS WERE ESTABLISHED USING RTK GPS METHODS.
4. THE POSITIONAL ACCURACY OF THE DATA AND PHYSICAL IMPROVEMENTS ON THIS PLAN MAY BE APPROXIMATE. ANY USE OF ELECTRONIC DATA CONTAINED IN AUTOCAD VERSIONS OF THIS PLAN TO GENERATE COORDINATES OR DIMENSIONS NOT SHOWN ON THE PLAN IS NOT AUTHORIZED.
5. EDGE OF BANK-MEAN ANNUAL HIGH WATER LINE WAS DELINEATED BY LEC ENVIRONMENTAL CONSULTANTS, INC. ON OCTOBER 15, 2021 AND WAS LOCATED IN THE FIELD BY TOTAL STATION METHODS ON THE SAME DAY BY RJ O'CONNELL & ASSOCIATES.
6. CONTOUR INTERVAL IS TWO FOOT (2').

PLAN REFERENCES:

PLAN BOOK AND PAGES REFERENCE THE MIDDLESEX SOUTH COUNTY REGISTRY OF DEEDS

1. PLAN BOOK 21 PAGE 6 (1864)
2. LAND COURT PLAN 31556a (1962)
3. PLAN 1006 OR 1967
4. LAND COURT PLAN 35170 (1970)
5. PLAN 1158 OF 1986
6. PLAN 586 OF 2015

20 0 10 20 40

GRAPHIC SCALE IN FEET

RJOC

NO.	REVISION	DATE

Record Owner:
1021 MASSACHUSETTS AVENUE
JOHN H. CHAGLASSIAN
1021 ARLINGTON, MA 02476
BK 72517 / PG 224

1025 - 1027 MASSACHUSETTS AVENUE
STEPHEN B. GERSH
21 KING'S COURT
ESSEX, MA 01929
BK 57969 / PG 298

Location:
PARCEL ID:
1021 MASSACHUSETTS AVENUE
MAP 055 BLOCK 002 LOT 019

1025 - 1027 MASSACHUSETTS AVENUE
MAP 055 BLOCK 002 LOT 020

ARLINGTON, MA

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

PREPARED FOR:

MAJ INVESTMENT, LLC.
13 WHEELING AVENUE
WOBURN, MA 01801

PROJECT NAME:

1021 & 1025 MASSACHUSETTS AVE
ARLINGTON, MA

THIS PLAN IS THE RESULT OF AN ON THE GROUND SURVEY PERFORMED BETWEEN 08/13/2021 AND 10/15/2021.

COMMONWEALTH OF MASSACHUSETTS
MATTHEW LOWRY
No. 49825
PROFESSIONAL LAND SURVEYOR

9/15/2022
PROFESSIONAL LAND SURVEYOR FOR RJ O'CONNELL & ASSOCIATES, INC — DATE

DRAWN BY:	RJK / WJH
REVIEWED BY:	ML
SCALE:	1" = 20'
FIELD CREW:	RJK / CJR
FIELD BOOK:	FIELD BOOK 40 / PG 5
DATE:	12/09/2021

DRAWING NAME:

EXISTING CONDITIONS PLAN

DRAWING NUMBER:

2 OF 7

PROJECT NUMBER:

21583

Drawing Name: C:\MA\Arlington\Work\1021 - 1025 Massachusetts Ave\Survey\DWG\ARCHIVE\21583_survey 2022-0913.dwg

NOTES:

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5. CONTOUR INTERVAL IS TWO FOOT (2').
6. ALL EXISTING UTILITIES ARE REQUIRED TO BE CUT AND CAPPED AT THE EXISTING MAIN CONNECTIONS.

LEGEND

(NOT ALL FEATURES CONTAINED IN THIS LEGEND APPEAR ON THE PLAN)

- BOUNDARY LINE
- ABUTTING PROPERTY LINE
- SEWER SERVICE
- DRAIN SERVICE
- WATER SERVICE
- GAS LINE
- ELECTRIC LINE
- TELEPHONE LINE
- OVERHEAD WIRES
- CHAIN LINK FENCE
- STOCKADE FENCE
- UTILITY POLE
- LIGHT POLE
- ELECTRIC HAND HOLE
- CABLE MANHOLE
- SEWER MANHOLE
- DRAIN MANHOLE
- CATCH BASIN
- WATER VALVE
- FIRE HYDRANT
- SPRINKLER CONNECTION
- POST INDICATOR VALVE
- BOLLARD
- GAS METER
- GAS VALVE
- ROOF DRAIN
- AREA DRAIN
- IRRIGATION CONTROL VALVE
- 114.7 SPOT GRADE
- TEST PIT
- PTBR PROPOSED TO BE REMOVED
- PROPOSED FILTERMITT
- EXISTING TREE PROPOSED TO BE REMOVED
- CC CONCRETE CURB
- VGC VERTICAL GRANITE CURB
- BCB BITUMINOUS CONCRETE CURB
- HC HANDICAP
- HPDE HIGH DENSITY POLYETHYLENE
- CONC. CONCRETE
- LSA LANDSCAPE AREA
- DOOR
- SIGN
- (8)/(8C) PARKING COUNT / COMPACT NUMBER
- DECIDUOUS TREE
- CONIFEROUS TREE
- (REC) FROM RECORD PLANS
- RETAINING WALL
- DETECTABLE WARNING PAD

TEST PIT INFORMATION

TEST PITS WERE PERFORMED BY MICHAEL CAPACHIETTI OF RJ O'CONNELL & ASSOCIATES, ON 09/22/2021.

TEST PIT: TP-01
ELEV.=82.8±
BOTTOM OF HOLE ELEV.=76.1

0"-10" Ap
10"-22" B: LOAMY SAND
22"-80" HORIZON C: GRAVELLY LOAMY SAND W/ COBBLES

NO E.S.H.G.W. OBSERVED

TEST PIT: TP-02
ELEV.=90.0±
BOTTOM OF HOLE ELEV.=82.6

0"-28" HTM
28"-36" B: LOAMY SAND
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NO E.S.H.G.W. OBSERVED

PERMITTING SET

1021 & 1025 MASSACHUSETTS AVENUE
ARLINGTON, MASSACHUSETTS
DRAWN BY:
DATE: 09-19-2022
CHECKED BY:
PROJECT No: 21-32

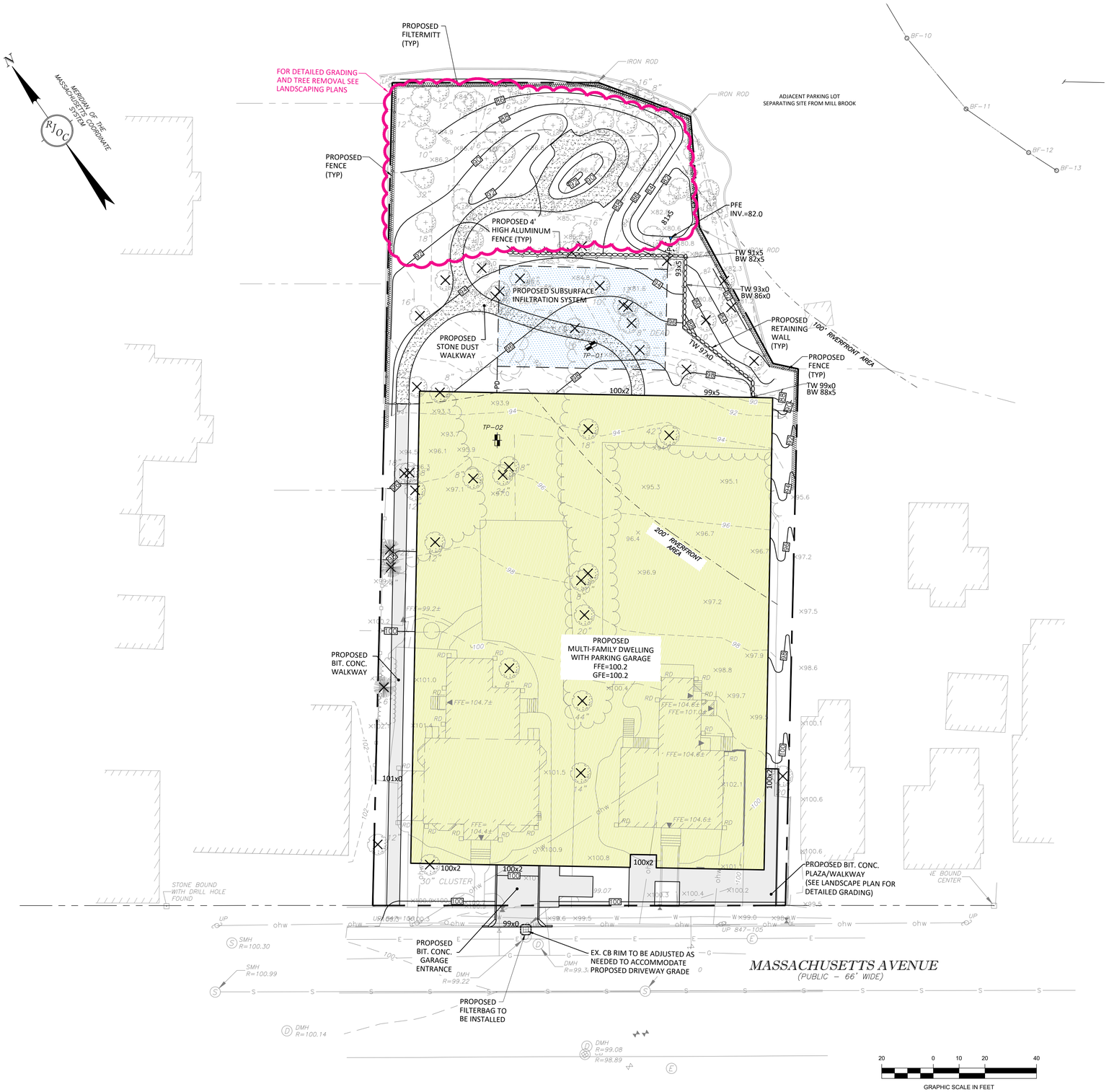
REVISIONS

DATE	BY	DESCRIPTION

COMMONWEALTH OF MASSACHUSETTS
MICHAEL J. NOVAK
No. 34568
REGISTERED PROFESSIONAL ENGINEER

PATRIOT Engineering
35 BEDFORD STREET, SUITE 4
LEXINGTON, MASSACHUSETTS 02420
T: (978) 726-2654
www.patriot-eng.com

SITE DEMOLITION PLAN
LOCATED IN
ARLINGTON, MA
(MIDDLESEX COUNTY)
PREPARED FOR
MAJ INVESTMENT, LLC



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- X — CHAIN LINK FENCE
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- SEWER MANHOLE
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- GAS VALVE
- ROOF DRAIN
- AREA DRAIN
- IRRIGATION CONTROL VALVE
- 114.7 — SPOT GRADE
- TEST PIT
- PSIS — PROPOSED SUBSURFACE INFILTRATION SYSTEM
- PROPOSED FILTERMITT
- TYP — TYPICAL
- PFE — PROPOSED FLARED END
- INV. — INVERT
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- VGC — VERTICAL GRANITE CURB
- BCB — BITUMINOUS CONCRETE CURB
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- HPDE — HIGH DENSITY POLYETHYLENE
- CONC. — CONCRETE
- LSA — LANDSCAPE AREA
- DOOR
- SIGN
- 8 / 8C — PARKING COUNT / COMPACT NUMBER
- DECIDUOUS TREE
- CONIFEROUS TREE
- (REC) — FROM RECORD PLANS
- RETAINING WALL
- DETECTABLE WARNING PAD
- 99x5 — PROPOSED SPOT GRADE
- 98 — PROPOSED CONTOUR
- PROPOSED CONTOUR
- TREE PROPOSED TO BE REMOVED
- LIMIT OF RIVERFRONT AREA
- PS — PROPOSED SEWER SERVICE
- PW — PROPOSED WATER SERVICE
- PD — PROPOSED DRAIN LINE

PROJECT SUMMARY	
SITE AREA	47,085 S.F.
NUMBER OF HOUSING UNITS	50 UNITS
PERCENT COVERAGE	
BUILDING COVERAGE	53%
USEABLE OPEN SPACE	46%
PARKING AND PAVED AREA	1%
UN-USEABLE OPEN SPACE	0%
TOTAL COVERAGE	100%
PARKING SUMMARY	
TOTAL PARKING SPACES:	53 SPACES
PARKING RATIO (SPACES PER UNIT)	1.1

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PERMITTING SET

1021 & 1025 MASSACHUSETTS AVENUE
ARLINGTON, MASSACHUSETTS

DRAWN BY:
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REVISIONS

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COMMONWEALTH OF MASSACHUSETTS
MICHAEL J. NOVAK
No. 50696
REGISTERED PROFESSIONAL ENGINEER

PATRIOT Engineering
35 BEDFORD STREET, SUITE 4
LEXINGTON, MASSACHUSETTS 02420
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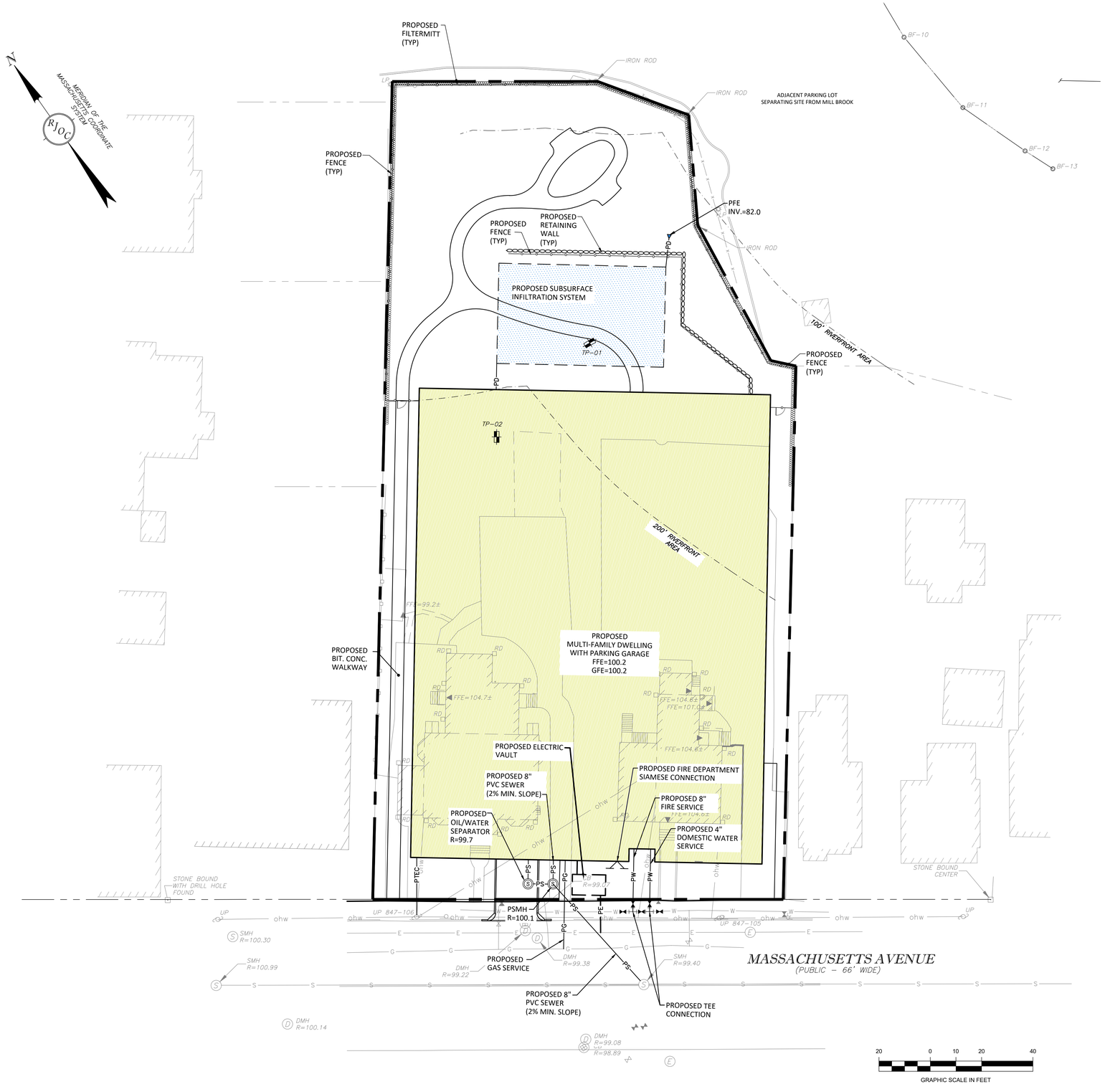
SITE GRADING AND DRAINAGE PLAN
LOCATED IN
ARLINGTON, MA
(MIDDLESEX COUNTY)
PREPARED FOR
MAJ INVESTMENT, LLC

SHEET
4 OF 7



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UTILITY NOTES:

1. ALL EXISTING UTILITIES ARE REQUIRED TO BE CUT AND CAPPED AT THE EXISTING MAIN CONNECTIONS.
2. ALL PROPOSED WATER AND SEWER PIPING SHALL BE SEPARATED BY 10 FEET HORIZONTALLY AND/OR 18 INCHES VERTICALLY (WATER OVER SEWER).
3. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS (BOTH VERTICALLY OR HORIZONTALLY) TO CONFIRM ALL PROPOSED UTILITY CONNECTIONS WILL MEET ALL TOWN REQUIREMENTS AND FUNCTION AS DESIGNED.

LEGEND

(NOT ALL FEATURES CONTAINED IN THIS LEGEND APPEAR ON THE PLAN)

- BOUNDARY LINE
- ABUTTING PROPERTY LINE
- SEWER SERVICE
- DRAIN SERVICE
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- DOOR
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- (REC) FROM RECORD PLANS
- RETAINING WALL
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- PTEC PROPOSED TELEPHONE/ELECTRIC/CABLE
- LIMIT OF RIVERFRONT AREA
- PS PROPOSED SEWER SERVICE
- PW PROPOSED WATER SERVICE
- PD PROPOSED DRAIN LINE
- PROPOSED WATER GATE
- PG PROPOSED GAS LINE
- PE PROPOSED ELECTRIC LINE
- PROPOSED SEWER MANHOLE (PSMH)

PERMITTING SET

1021 & 1025 MASSACHUSETTS AVENUE
ARLINGTON, MASSACHUSETTS
DRAWN BY:
DATE: 09-19-2022
CHECKED BY:
PROJECT No: 21-32

REVISIONS

DATE	BY	DESCRIPTION

COMMONWEALTH OF MASSACHUSETTS
MICHAEL J. NOVAK
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SITE UTILITY PLAN
LOCATED IN
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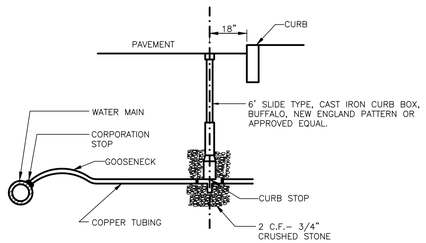
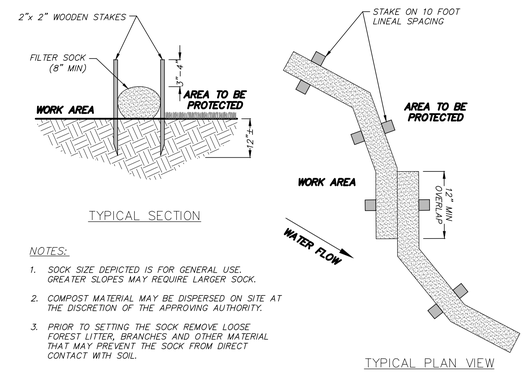


NOTE:
1. INSTALLATION AND MATERIALS TO BE IN ACCORDANCE WITH TOWN OF NORTH ATTLEBOROUGH'S SPECIFICATIONS.

2. WATER SERVICES LARGER THAN 1" ARE TO BE RESTRAINED TO MAIN W/ APPROVED SADDLE.

TYPICAL WATER SERVICE CONNECTION DETAIL
SCALE: N.T.S.



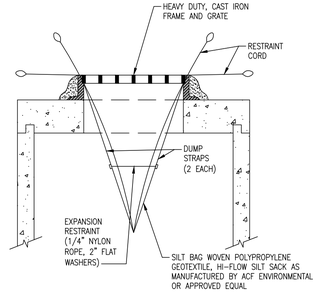
TYPICAL SECTION

TYPICAL PLAN VIEW

NOTES:

1. SOCK SIZE DEPICTED IS FOR GENERAL USE. GREATER SLOPES MAY REQUIRE LARGER SOCK.
2. COMPOST MATERIAL MAY BE DISPERSED ON SITE AT THE DISCRETION OF THE APPROVING AUTHORITY.
3. PRIOR TO SETTING THE SOCK REMOVE LOOSE FOREST LITTER, BRANCHES AND OTHER MATERIAL THAT MAY PREVENT THE SOCK FROM DIRECT CONTACT WITH SOIL.

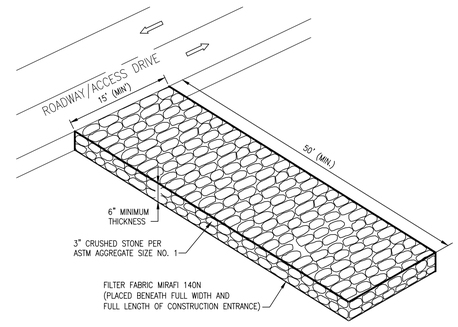
COMPOST FILTER SOCK
SCALE: N.T.S.



NOTES:

1. INSTALL SILT BAG IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2. WHEN EXPANSION RESTRAINT CORD IS NO LONGER VISIBLE, THE SILT BAG IS FULL AND SHOULD BE EMPTIED OR REPLACED.
3. REMOVE SILT BAG PER MANUFACTURER'S INSTRUCTIONS.

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

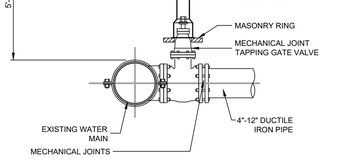


PERSPECTIVE VIEW

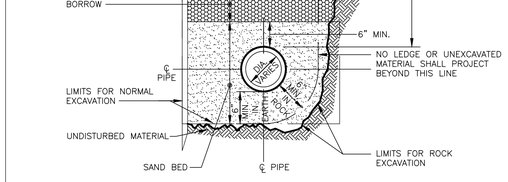
NOTES:

1. ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT PREVENTS TRACKING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY.
2. WHEN THE ENTRANCE PAD BECOMES INEFFECTIVE, THE STONE SHALL BE REMOVED WITH THE COLLECTED SOIL MATERIAL, REGRADED, STABILIZED AND THE CONSTRUCTION ENTRANCE RECONSTRUCTED.

VEHICLE TRACKING PAD DETAIL
SCALE: N.T.S.

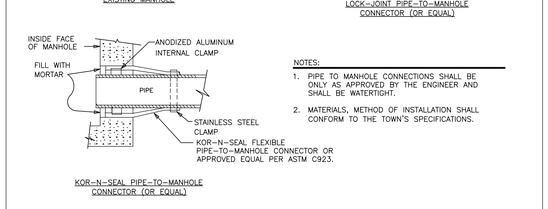


TYPICAL GATE VALVE DETAIL
SCALE: N.T.S.



NOTE:
WHERE MORE STRINGENT, CONTRACTOR SHALL COMPLY WITH TOWN'S REQUIREMENTS.

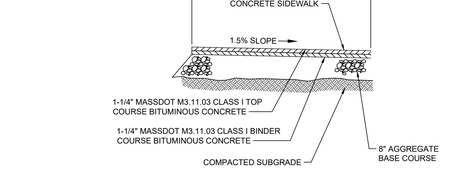
TYPICAL WATER TRENCH DETAIL
SCALE: N.T.S.



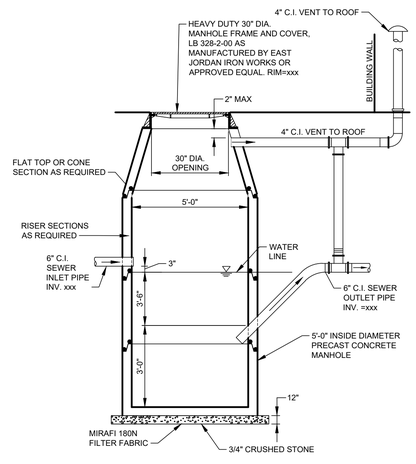
NOTES:

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 THE TOWN'S SPECIFICATIONS.

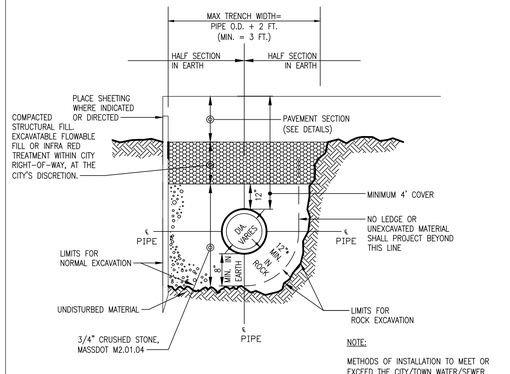
PIPE CONNECTIONS TO SEWER MANHOLE DETAIL
SCALE: N.T.S.



BITUMINOUS SIDEWALK DETAIL
SCALE: N.T.S.



TYPICAL OIL/WATER SEPARATOR DETAIL
SCALE: N.T.S.

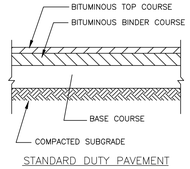


NOTE:
METHODS OF INSTALLATION TO MEET OR EXCEED THE CITY/TOWN WATER/SEWER DEPARTMENT AND PIPE MANUFACTURER'S SPECIFICATIONS.

SEWER PIPE WITH LESS THAN 4 FEET OF COVER MUST BE INSULATED. MIN SEWER COVER SHOULD NOT BE LESS THAN 3 FEET.

* AS PER CITY/TOWN SPECIFICATIONS

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



STANDARD DUTY PAVEMENT

PAVEMENT LAYER	STANDARD DUTY PAVEMENT
TOP COURSE BITUMINOUS PAVEMENT SECTION M3.11.00	1 INCH
BINDER COURSE BITUMINOUS PAVEMENT SECTION M1.11.00	2 INCHES
BASE COURSE SEE NOTE 3	12 INCHES

PAVEMENT SECTION TABLE

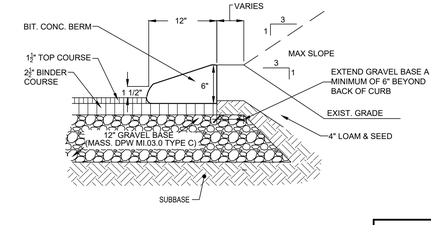
NOTES:

1. BITUMINOUS TOP COURSE SHALL MEET MASS DOT ITEM M3.11.00 TABLE A (TOP COURSE)
2. BITUMINOUS BINDER COURSE SHALL MEET MASS DOT ITEM M3.11.00 TABLE A (BINDER COURSE)
3. BASE COURSE MATERIAL SHALL BE BASE COURSE SAND AND GRAVEL PER THE SPECIFICATIONS AND/OR RECLAIMED ASPHALT PAVEMENT BORROW MATERIAL PER MassDOT ITEM M1.11.0. SEE DEMOLITION NOTES 10 AND 11, DWG. N-1.

BITUMINOUS PAVEMENT DETAIL
SCALE: N.T.S.

NOTE:

1. BITUMINOUS CONCRETE FOR CURBING SHALL BE CLASS I CONFORMING TO THE APPLICABLE REQUIREMENTS FOR DENSE MIX IN SECTION M3.11.03, TABLE A, OF THE MASSDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
2. THE BITUMINOUS CONCRETE MIXTURE SHALL BE PLACED AND COMPACTED WITH A MACHINE CAPABLE OF SPREADING THE MIXTURE TRUE TO LINE AND GRADE AND TO THE SHAPE STIPULATED.
3. IF AT ANY TIME BEFORE ACCEPTANCE OF THE WORK ANY SOFT OR IMPERFECT SPOTS DEVELOP IN THE EXPOSED SURFACE OF THE CURB, THAT PORTION OF THE CURB SHALL BE REMOVED AND REPLACED WITH NEW CURBING AT NO COST TO THE OWNER.



PERMITTING SET

BITUMINOUS CONCRETE CURB DETAIL (CAPE COD)
SCALE: N.T.S.

1021 & 1025 MASSACHUSETTS AVENUE
ARLINGTON, MASSACHUSETTS
DRAWN BY:
DATE: 09-19-2022
CHECKED BY:
PROJECT No: 21-32

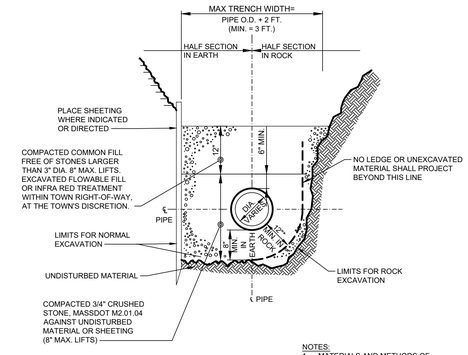
REVISIONS

DATE	BY	DESCRIPTION

COMMONWEALTH OF MASSACHUSETTS
MICHAEL J. NOVAK
No. 50566
REGISTERED PROFESSIONAL ENGINEER

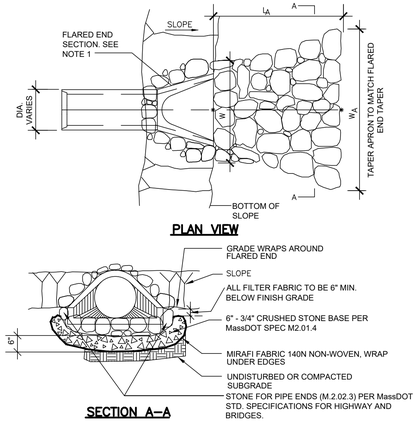
PATRIOT Engineering
35 BEDFORD STREET, SUITE 4
LEXINGTON, MASSACHUSETTS 02420
T: (978) 726-2654
www.patriot-eng.com

SITE DETAILS I
LOCATED IN
ARLINGTON, MA
(MIDDLESEX COUNTY)
PREPARED FOR
MAJ INVESTMENT, LLC



NOTES:
1. MATERIALS AND METHODS OF INSTALLATION SHALL CONFORM TO THE DPW AND/OR ENGINEERING DEPARTMENT STANDARDS AND SPECIFICATIONS.

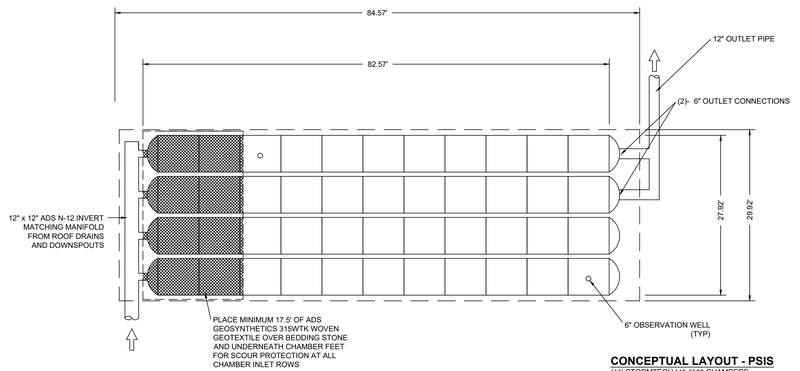
TYPICAL DRAIN TRENCH DETAIL
SCALE: N.T.S.



NOTES:
1. THE FLARED END SECTION (FES) AND THE LAST RUN OF PIPE OUTLETTING TO THE FES SHALL BE REINFORCED CONCRETE (RCP)

OUTLET	L_A (FT.)	W (FT.)	W_A (FT.)
FES-1	10	3	11

FLARED END SECTION WITH RIP RAP APRON
SCALE: N.T.S.

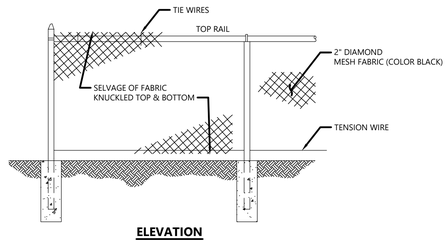


CONCEPTUAL LAYOUT - PSIS
(44) STORMTECH MC-3500 CHAMBERS

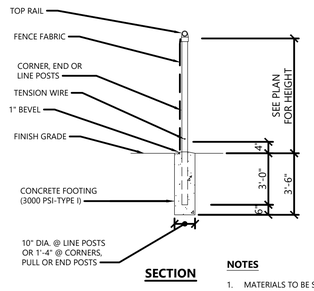
PROPOSED ELEVATIONS - PSIS

MINIMUM FINISHED GRADE:	93.00
TOP OF STONE:	92.00
TOP OF CHAMBER:	91.00
(2) - 6" OUTLET CONNECTION INVERT:	88.90
INLET CONNECTION INVERT:	87.25
BOTTOM OF CHAMBER:	86.25
BOTTOM OF STONE:	85.50
ESTIMATED SEASONAL HIGH GROUNDWATER ELEVATION:	81.30

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



ELEVATION



SECTION

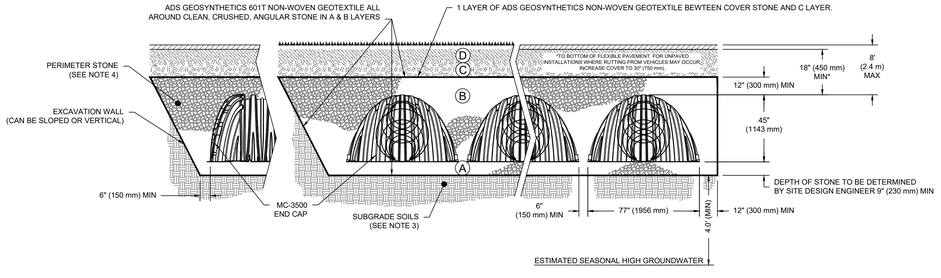
NOTES
1. MATERIALS TO BE SUPPLIED AND INSTALLED IN CONFORMANCE WITH "CHAIN LINK MANUFACTURER'S INSTITUTE" PRODUCT MANUAL.
2. ALL POSTS, RAILS, FABRIC AND COMPONENTS SHALL BE BLACK VINYL COATED.

CHAINLINK FENCE
SCALE: N.T.S.

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:
1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

EXCAVATION NOTE:

1. WITHIN THE FOOTPRINT OF THE SUBSURFACE INFILTRATION SYSTEM ALL TOPSOIL, SUBSOIL AND/OR FILL SHALL BE REMOVED DOWN TO AN ELEVATION OF PARENT MATERIAL OR LEDGE AND REPLACES WITH A SAND, STONE OR CLEAN FILL MATERIAL WITH AN EQUIVALENT EXFILTRATION RATE OF 1.02 IN/HR OR GREATER. (TO BE OBSERVED AND INSPECTED BY A GEOLOGIST).

STORMTECH MC-3500 CHAMBER DETAIL (PSIS)

PERMITTING SET

1021 & 1025 MASSACHUSETTS AVENUE
ARLINGTON, MASSACHUSETTS
DRAWN BY:
DATE: 09-19-2022
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PROJECT No: 21-32

REVISIONS

DATE	BY	DESCRIPTION

COMMONWEALTH OF MASSACHUSETTS
MICHAEL NOVAK
No. 50696
REGISTERED PROFESSIONAL ENGINEER

PATRIOT Engineering
35 BEDFORD STREET, SUITE 4
LEXINGTON, MASSACHUSETTS 02420
T: (978) 726-2654
www.patriot-eng.com

SITE DETAILS II
LOCATED IN
ARLINGTON, MA
(MIDDLESEX COUNTY)
PREPARED FOR
MAJ INVESTMENT, LLC

SHEET
7 OF 7