

# PROPOSED RETAIL MOTOR FUEL OUTLET SITE RE-DEVELOPMENT PLANS

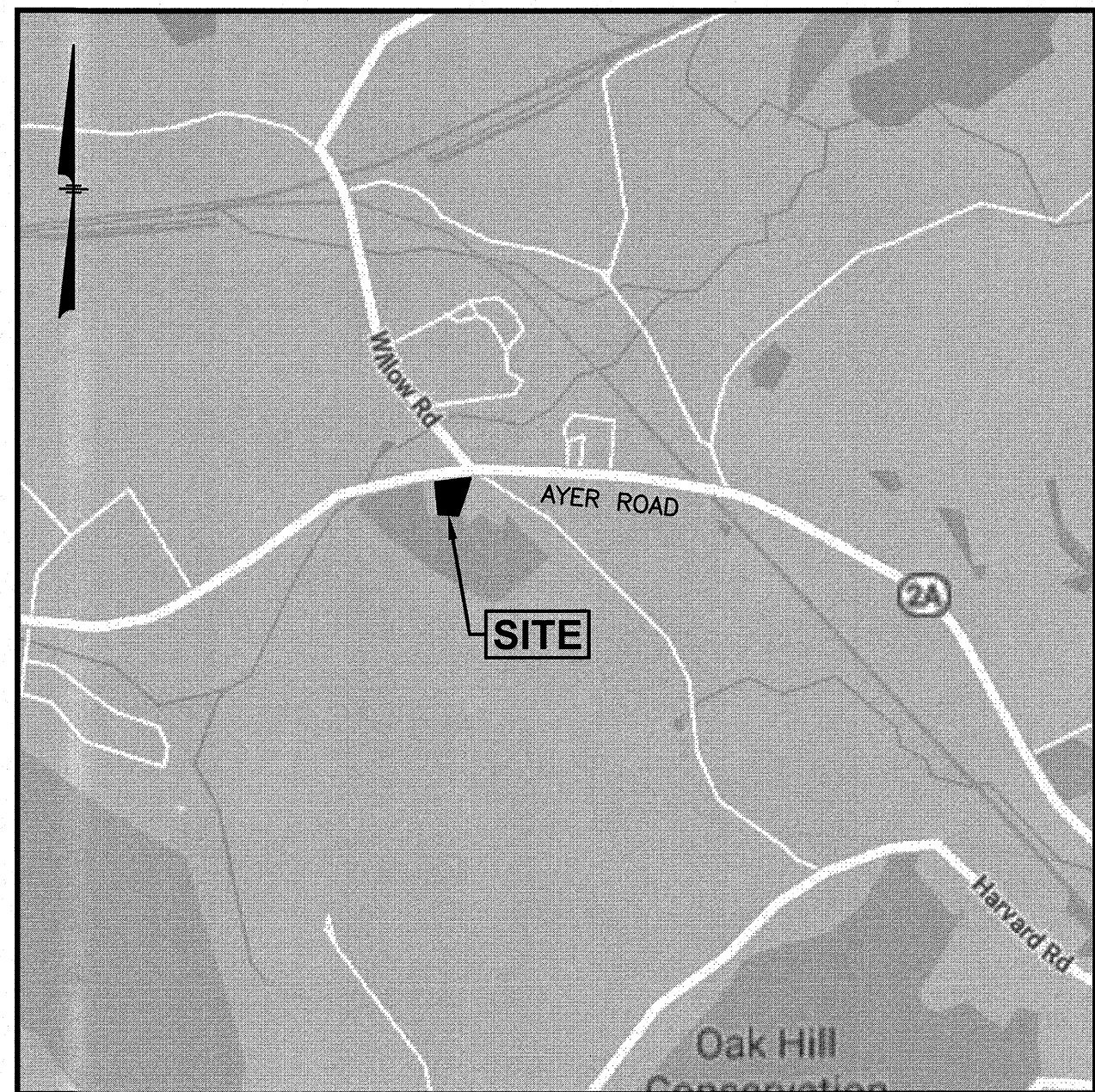
for

PARCEL ID: U45-7-0, U45-7-B,  
U45-8-A, & U45-11-0  
254, 256 & 260 AYER ROAD  
LITTLETON, MASSACHUSETTS

PARCEL ID: 30-16  
0 LITTLETON ROAD  
AYER, MASSACHUSETTS

Prepared for:

**ENERGY NORTH GROUP**  
2 INTERNATIONAL WAY  
LAWRENCE, MA 01843

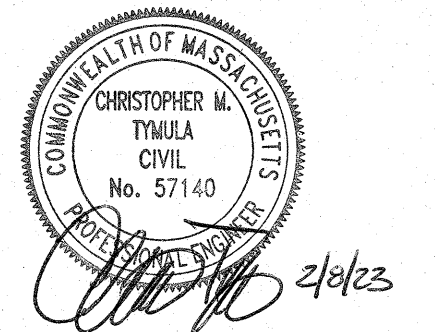


**LOCATION MAP**  
(NOT TO SCALE)

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PROPOSED RETAIL MOTOR FUEL OUTLET  
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0 LITTLETON ROAD  
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## REVISIONS

NO.	REVISION	DATE

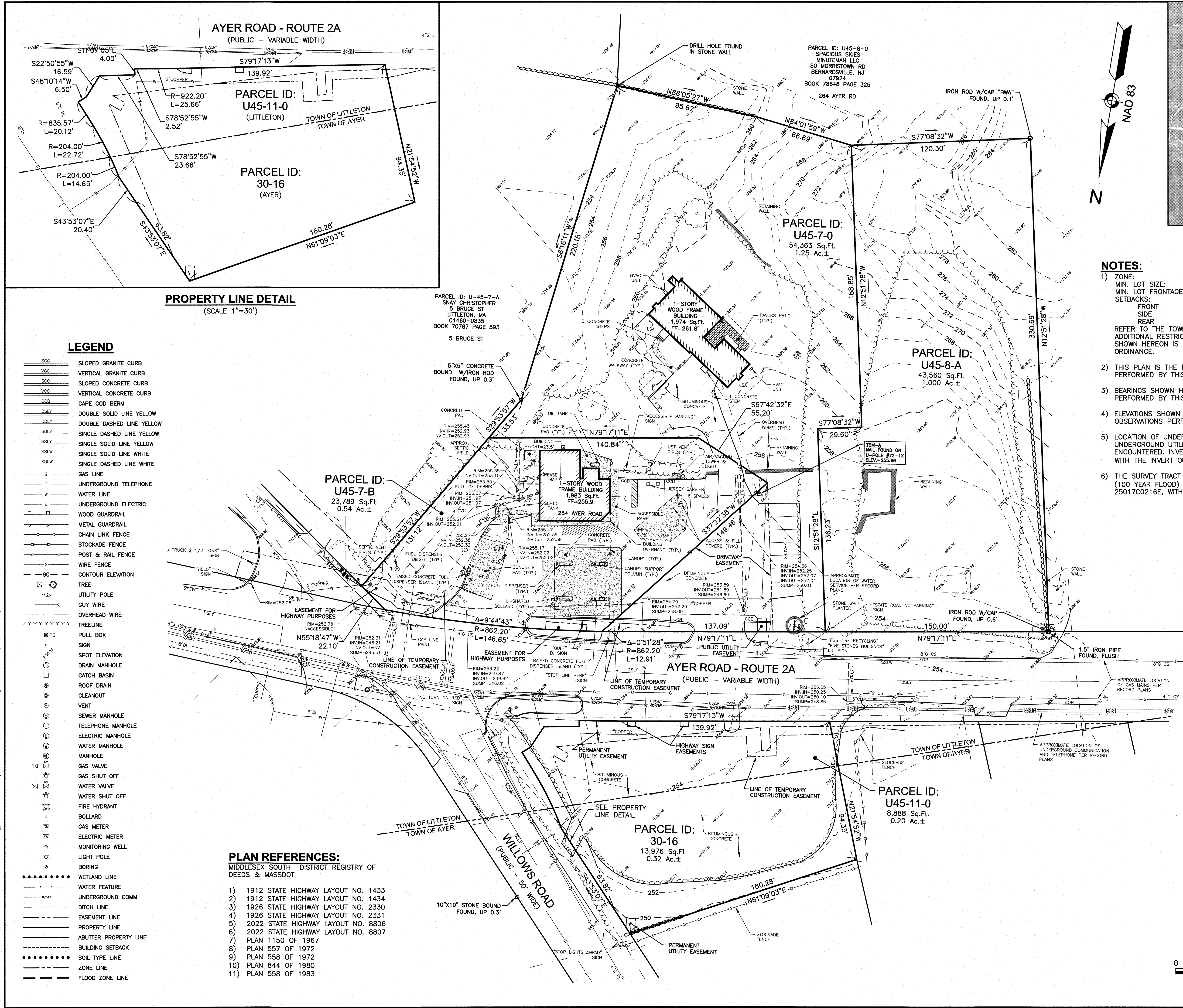
FEBRUARY 8, 2023

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## TITLE SHEET

SCALE:  
NOT TO SCALE  
PROJECT NO.  
NEX-2021267





LEGEND

SGC	SLOPED GRANITE CURB
VGC	VERTICAL GRANITE CURB
SCC	SLOPED CONCRETE CURB
VCC	VERTICAL CONCRETE CURB
CCB	CAPE COD BERM
DSLY	DOUBLE SOLID LINE YELLOW
DDLY	DOUBLE DASHED LINE YELLOW
SDLY	SINGLE DASHED LINE YELLOW
SSLY	SINGLE SOLID LINE YELLOW
SSLW	SINGLE SOLID LINE WHITE
SDLW	SINGLE DASHED LINE WHITE
G	GAS LINE
T	UNDERGROUND TELEPHONE
W	WATER LINE
E	UNDERGROUND ELECTRIC
W	WOOD GUARDRAIL
M	METAL GUARDRAIL
C	CHAIN LINK FENCE
S	STOCKADE FENCE
P	POST & RAIL FENCE
W	WIRE FENCE
90	CONTOUR ELEVATION
U	UTILITY POLE
W	WIRE
W	OVERHEAD WIRE
T	TREELINE
P	PULL BOX
S	SIGN
S	SPOT ELEVATION
M	DRAIN MANHOLE
C	CATCH BASIN
R	ROOF DRAIN
C	CLEANOUT
V	VENT
S	SEWER MANHOLE
T	TELEPHONE MANHOLE
E	ELECTRIC MANHOLE
W	WATER MANHOLE
M	MANHOLE
G	GAS VALVE
G	GAS SHUT OFF
W	WATER VALVE
W	WATER SHUT OFF
F	FIRE HYDRANT
B	BOLLARD
G	GAS METER
E	ELECTRIC METER
M	MONITORING WELL
L	LIGHT POLE
B	BORING
W	WETLAND LINE
W	WATER FEATURE
U	UNDERGROUND COMM
D	DITCH LINE
E	EASEMENT LINE
P	PROPERTY LINE
A	ABUTTER PROPERTY LINE
B	BUILDING SETBACK
S	SOIL TYPE LINE
Z	ZONE LINE
F	FLOOD ZONE LINE

PROPERTY LINE DETAIL  
(SCALE 1"=30')

PLAN REFERENCES:

MIDDLESEX SOUTH DISTRICT REGISTRY OF DEEDS & MASSDOT

- 1) 1912 STATE HIGHWAY LAYOUT NO. 1433
- 2) 1912 STATE HIGHWAY LAYOUT NO. 1434
- 3) 1926 STATE HIGHWAY LAYOUT NO. 2330
- 4) 1926 STATE HIGHWAY LAYOUT NO. 2331
- 5) 2022 STATE HIGHWAY LAYOUT NO. 8806
- 6) 2022 STATE HIGHWAY LAYOUT NO. 8807
- 7) PLAN 1150 OF 1967
- 8) PLAN 557 OF 1972
- 9) PLAN 558 OF 1972
- 10) PLAN 844 OF 1980
- 11) PLAN 558 OF 1983

NOTES:

- 1) ZONE: BUSINESS DISTRICT (B)  
MIN. LOT SIZE: 15,000 Sq.Ft.  
MIN. LOT FRONTAGE: 100 Ft.  
SETBACKS:  
FRONT 25 Ft.  
SIDE 25 Ft.  
REAR 25 Ft.  
REFER TO THE TOWN OF LITTLETON ZONING ORDINANCE FOR VERIFICATION, ADDITIONAL RESTRICTIONS AND PERMITTED USES. THE ZONING INFORMATION SHOWN HEREON IS BASED ON A REVIEW OF THE LITTLETON ZONING ORDINANCE.
- 2) THIS PLAN IS THE RESULT OF AN ON-THE-GROUND FIELD SURVEY PERFORMED BY THIS OFFICE BETWEEN JULY 28 AND AUGUST 2, 2022.
- 3) BEARINGS SHOWN HEREON ARE BASED ON NAD83 PER GPS OBSERVATIONS PERFORMED BY THIS OFFICE ON JULY 28, 2022.
- 4) ELEVATIONS SHOWN HEREON ARE BASED ON NAVD83 PER GPS OBSERVATIONS PERFORMED BY THIS OFFICE ON JULY 28, 2022.
- 5) LOCATION OF UNDERGROUND UTILITIES IS APPROXIMATE ONLY. ADDITIONAL UNDERGROUND UTILITIES OTHER THAN THOSE SHOWN MAY BE ENCOUNTERED. INVERTS ARE LISTED IN A CLOCKWISE DIRECTION ENDING WITH THE INVERT OUT (UNLESS OTHERWISE NOTED).
- 6) THE SURVEY TRACT IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA (100 YEAR FLOOD) PER FLOOD INSURANCE RATE MAP NUMBER 25017C0216E, WITH AN EFFECTIVE DATE OF JUNE 4, 2010.

OWNER OF RECORD:

PARCEL ID: U45-7-B  
(LOCATION 254 AYER ROAD)  
PAUL ROUTHIER TRUSTEE OF  
254 AYER ROAD TRUST  
254 AYER ROAD  
LITTLETON, MA 01460  
BOOK 14407 PAGE 382

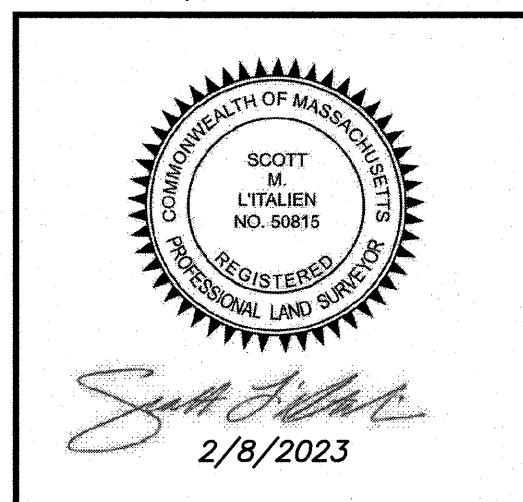
PARCEL ID: U45-7-0  
(LOCATION 256 AYER ROAD)  
PAUL ROUTHIER TRUSTEE OF  
AYER HOUSE TRUST  
256 AYER ROAD  
LITTLETON, MA 01460  
BOOK 14463 PAGE 422

PARCEL ID: U45-8-A  
(LOCATION 260 AYER ROAD)  
JPR TRUST  
PAUL ROUTHIER TRUSTEE  
256 AYER ROAD  
LITTLETON, MA 01460  
BOOK 77124 PAGE 254

PARCEL ID: U45-11-0 (LITTLETON)  
PARCEL ID: 30-16 (AYER)  
PAUL ROUTHIER TRUSTEE OF  
256 AYER ROAD TRUST  
256 AYER ROAD  
LITTLETON, MA 01460  
BOOK 70655 PAGE 127

PREPARED FOR  
ENERGY NORTH GROUP  
2 INTERNATIONAL WAY  
LAWRENCE, MA 01843

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SITE RE-DEVELOPMENT  
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254, 256 & 260 AYER ROAD  
LITTLETON, MASSACHUSETTS  
PARCEL ID: 30-16  
0 LITTLETON ROAD  
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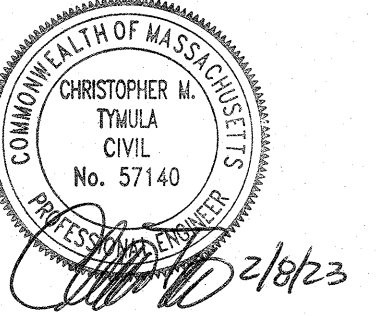


REVISIONS		
NO.	REVISION	DATE
FEBRUARY 8, 2023		
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CSS		SML

EXISTING CONDITIONS PLAN	
SCALE:	1"=30'
PROJECT NO.	NEX-2021267
2 OF 14	



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SITE RE-DEVELOPMENT  
PARCEL ID: U45-7-0, U45-7-B, U45-8-A, & U45-11-0  
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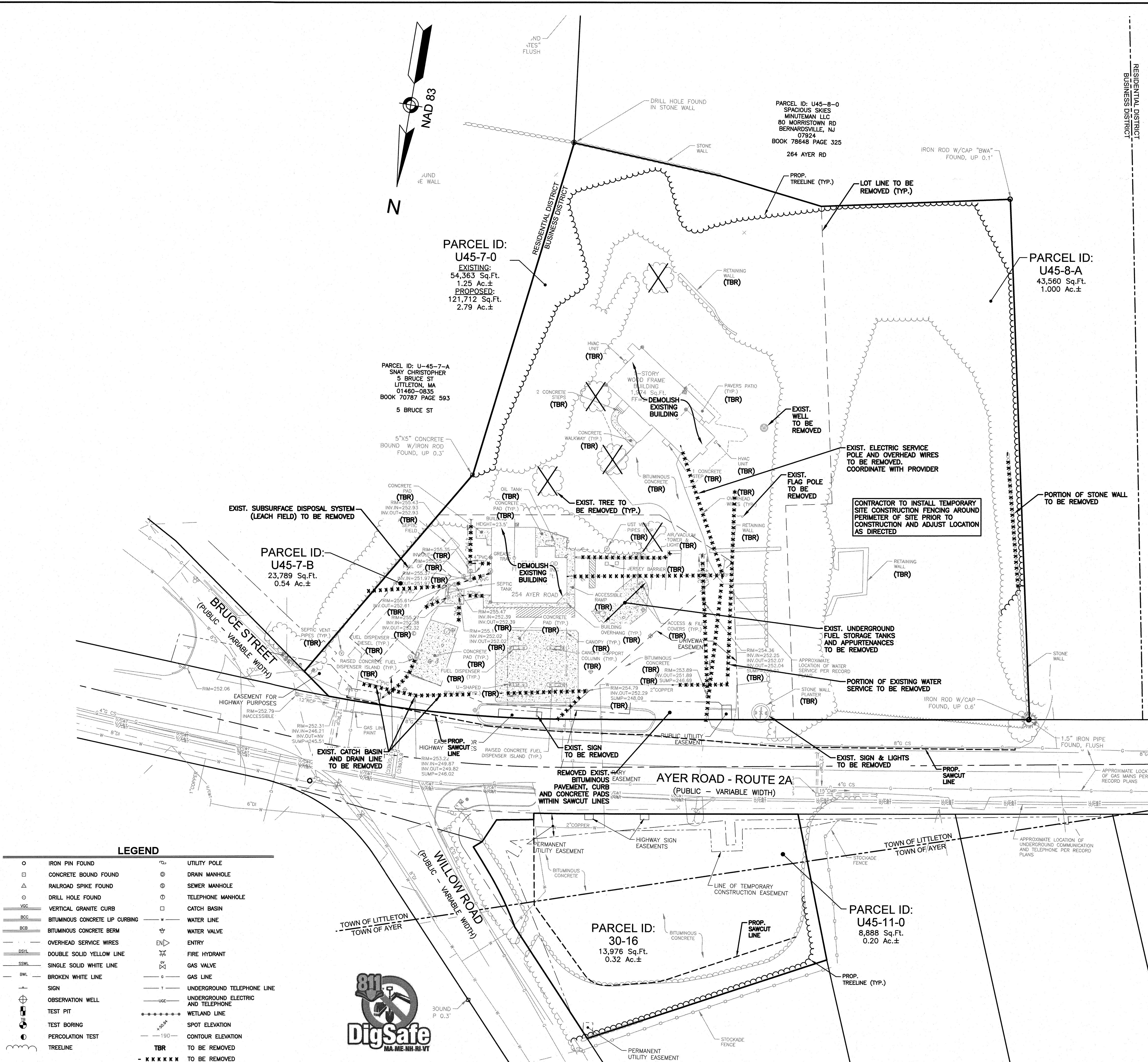
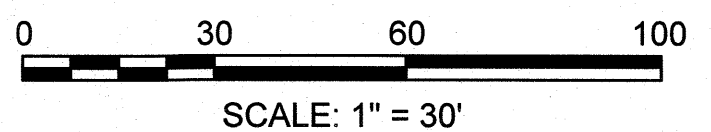
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SCALE:	1"=30'
PROJECT NO.	NEX-2021267
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- 1) A DEMOLITION PERMIT MUST BE OBTAINED FROM THE TOWN OF LITTLETON PRIOR TO COMMENCEMENT OF WORK. ALL EXISTING UTILITY DISCONNECTIONS MUST BE COORDINATED WITH RESPECTIVE UTILITY COMPANIES.
- 2) ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN STRICT ADHERENCE TO ALL FEDERAL, STATE AND LOCAL REGULATIONS. CONTRACTOR TO INSTALL EROSION CONTROL DEVICES IN ACCORDANCE WITH EROSION AND SEDIMENT CONTROL PLAN PRIOR TO BEGINNING DEMOLITION ACTIVITIES.
- 3) PROCEED WITH DEMOLITION IN A SYSTEMATIC MANNER, FROM THE TOP OF THE STRUCTURE(S) TO THE GROUND.
- 4) DEMOLISH CONCRETE IN ALL SECTIONS.
- 5) BREAK UP CONCRETE SLABS—ON—GRADE, UNLESS OTHERWISE DIRECTED BY THE CONSTRUCTION MANAGER.
- 6) CONDUCT ALL DEMOLITION OPERATIONS IN A MANNER THAT WILL PREVENT INJURY, DAMAGE TO STRUCTURES, ADJACENT BUILDINGS AND ALL PERSONS.
- 7) REFRAIN FROM USING EXPLOSIVES WITHOUT PRIOR WRITTEN CONSENT OF THE DEVELOPER AND APPLICABLE GOVERNMENTAL AUTHORITIES.
- 8) CONDUCT DEMOLITION SERVICES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS OR OTHER OCCUPIED FACILITIES WITHOUT PRIOR WRITTEN PERMISSION OF THE DEVELOPER AND APPLICABLE GOVERNMENTAL AUTHORITIES. PROVIDE ALTERNATIVE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS IF REQUIRED BY APPLICABLE GOVERNMENTAL REGULATIONS.
- 9) USE WATERING, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS, AS NECESSARY TO LIMIT THE AMOUNT OF DUST AND DIRT RISING AND SCATTERING IN THE AIR. CLEAN ADJACENT STRUCTURE AND IMPROVEMENTS OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. RETURN ALL ADJACENT AREAS TO THE CONDITIONS EXISTING PRIOR TO THE START OF WORK.
- 10) ACCOMPLISH AND PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE UNAUTHORIZED ENTRY OF PERSONS AT ANY TIME.
- 11) COMPLETELY FILL BELOW GRADE AREAS AND VOIDS RESULTING FROM THE DEMOLITION OF STRUCTURES AND FOUNDATIONS WITH SOIL MATERIALS CONSISTING OF STONE, GRAVEL AND SAND. FREE FROM DEBRIS, TRASH, FROZEN MATERIALS, ROOTS AND OTHER ORGANIC MATTER. MATERIALS USED WILL NOT BE LARGER THAN 6 INCHES IN DIMENSION. MATERIAL FROM DEMOLITION MAY NOT BE USED AS FILL. PRIOR TO PLACEMENT OF FILL MATERIALS, UNDERTAKE ALL NECESSARY ACTION IN ORDER TO INSURE THAT AREAS TO BE FILLED ARE FREE OF STANDING WATER, FROZEN MATERIAL, TRASH, DEBRIS, PLACE FILL MATERIALS LAYERS NOT EXCEEDING 6 INCHES. LOOSELY COMPACT EACH LAYER AT PLACEMENT TO 93% OPTIMUM DENSITY. GRADE SURFACE TO MEET ADJACENT CONTOURS AND TO PROVIDE SURFACE DRAINAGE.
- 12) REMOVE FROM THE DESIGNATED SITE, AT THE EARLIEST POSSIBLE TIME, ALL DEBRIS RUBBISH, SALVAGEABLE ITEMS, HAZARDOUS AND COMBUSTIBLE SERVICES. REMOVED MATERIALS MAY NOT BE STORED, SOLD OR BURNED ON SITE. REMOVAL OF HAZARDOUS AND COMBUSTIBLE MATERIALS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PROCEDURES AS AUTHORIZED BY THE FIRE DEPARTMENT OR OTHER APPROPRIATE REGULATORY AGENCIES AND DEPARTMENTS.
- 13) DISCONNECT, SHUT OFF AND SEAL ALL UTILITIES SERVING THE STRUCTURE(S) TO BE DEMOLISHED BEFORE THE COMMENCEMENT OF THE DESIGNATED DEMOLITION. MARK FOR POSITION ALL UTILITY DRAINAGE AND SANITARY LINES AND PROTECT ALL ACTIVE LINES. CLARIFY IDENTIFY BEFORE THE COMMENCEMENT OF DEMOLITION SERVICES THE REQUIRED INTERFERENCE OF ACTIVE SYSTEMS THAT MAY AFFECT OTHER PARTIES, AND NOTIFY ALL APPLICABLE UTILITY COMPANIES TO INSURE THE CONTINUATION OF SERVICE.
- 14) PROTECT EXISTING DRAINAGE SYSTEM(S) AS NECESSARY TO PREVENT SEDIMENT FROM ENTERING DURING CONSTRUCTION. SEE DETAIL SHEETS FOR EROSION CONTROL DEVICES.
- 15) ALL WORK WITHIN ROADWAY RIGHT—OF—WAYS TO CONFORM TO TOWN & MASSDOT STANDARDS.
- 16) THE LIMITS OF WORK SHALL BE CLEARLY MARKED IN THE FIELD PRIOR TO THE START OF CONSTRUCTION OR SITE CLEARING.
- 17) IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO NOTIFY DIG SAFE (DIAL 811) 72 HOURS PRIOR TO ANY EXCAVATION ON THIS SITE. CONTRACTOR SHALL ALSO NOTIFY LOCAL WATER DEPARTMENT TO MARK OUT THEIR UTILITIES.
- 18) NOTES ON THIS PLAN THAT READ "TBR" REPRESENT FEATURES TO BE REMOVED, ANY FEATURES NOT LABELED "TBR" OR "TO BE REMOVED" SHALL BE CONSIDERED EXISTING TO REMAIN.
- 19) EXISTING IRRIGATION SYSTEM TO BE PROTECTED DURING DEMOLITION AND CONSTRUCTION. EXISTING IRRIGATION SYSTEM TO BE RELOCATED, EXTENDED AND CONNECTED TO ALL PROPOSED LANDSCAPED AREAS AS NECESSARY.
- 20) SEE LANDSCAPE PLAN FOR LIMITS OF CLEARING AND GRUBBING. AFTER CLEARING, STRIP AND STOCKPILE TOP SOIL PER LANDSCAPE PLAN, IF APPLICABLE.

SEE EROSION & SEDIMENT CONTROL  
PLAN FOR CONSTRUCTION SEQUENCE  
AND TEMPORARY EROSION CONTROL  
MEASURES AND LOCATION OF EROSION  
CONTROL DEVICES. SEE LANDSCAPE PLAN  
FOR LIMITS OF CLEARING.









DRAINAGE PIPE SCHEDULE						
FROM: STRUCTURE NUMBER	PIPE SIZE (INCHES)	TYPE OF PIPE	APPROX. PIPE LENGTH (FEET)	SLOPE OF PIPE (FT./FT.)	TO: STRUCTURE NUMBER	
CB-1	12	HDPE	109	0.007	DMH-1	
CB-2	12	HDPE	11	0.018	DMH-1	
CB-3	12	HDPE	11	0.019	DMH-2	
CB-4	12	HDPE	12	0.008	DMH-4	
CB-5	12	HDPE	19	0.016	DMH-6	
CB-6	12	HDPE	67	0.010	DMH-8(FD)	
CB-7	12	HDPE	11	0.042	DMH-8(FD)	
CB-8(FD)	12	HDPE	10	0.010	DMH-9	
CB-9	12	HDPE	37	0.027	FES-2	
DMH-1	12	HDPE	85	0.005	DMH-2	
DMH-2	15	HDPE	41	0.007	DMH-3	
DMH-3	15	HDPE	119	0.005	DMH-4	
DMH-5	12	HDPE	48	0.006	DMH-6	
DMH-6	12	HDPE	153	0.005	DMH-8(FD)	
DMH-8(FD)	18	HDPE	107	0.005	DMH-9	
DMH-9	6	HDPE	5	0.020	OWS-1	
DMH-9	18	HDPE	17	0.035	FES-1	
HW-1	8	HDPE	31	0.128	DMH-DOT	
INF-2	6	HDPE	23	0.025	DMH-6	
OWS-1	6	HDPE	13	0.019	ES-1	
SD-1	8	HDPE	5	0.010	CB-5	

DRAINAGE STRUCTURES

CB-1 RIM=256.45 INV.OUT=253.45	CB-7 RIM=255.80 INV.OUT=252.80	DMH-4 (W/2' SUMP) RIM=256.70 INV.IN=250.92(DMH-3) INV.IN=252.75(CB-4) INV.OUT=250.92 (24" LOW) INV.OUT=252.95 (12" MANIFOLD)	3,500 GALLON OIL/WATER SEPARATOR (OWS-1) RIM=254.9± INV.IN=250.50 INV.OUT=250.25 (SEE DETAIL)
CB-2 RIM=257.20 INV.OUT=254.20	CB-8 RIM=254.30 INV.OUT=251.80	DMH-5 RIM=256.85 INV.IN=250.86(INF-1) INV.OUT=252.65	SLOTTED DRAIN #1 (SD-1) TOP GRATE=255.35-255.80 INV.OUT=253.85
CB-3 RIM=257.20 INV.OUT=253.20	CB-9 RIM=253.65 INV.OUT=251.00	DMH-6 RIM=256.25 INV.IN=252.35(DMH-5) INV.IN=252.55(CB-5) INV.IN=252.45(INF-2) INV.OUT=252.35	ES-1 INV.=250.00
CB-4 RIM=256.85 INV.OUT=252.85	DMH-1 RIM=257.40 INV.IN=254.00(CB-2) INV.IN=252.70(CB-1)	DMH-7 (W/2' SUMP) RIM=256.90 INV.IN=252.20(DMH-1) INV.OUT=251.95	FES-1 INV.=250.00
CB-5 (W/DMH COVER) RIM=255.85 INV.IN=253.80(SD-1) INV.OUT=252.85	DMH-2 RIM=257.60 INV.IN=253.00(CB-3) INV.IN=252.20(DMH-1) INV.OUT=251.95	DMH-8(FD) RIM=255.05 INV.IN=252.35(CB-7) INV.IN=251.65(DMH-6) INV.IN=251.75(CB-6) INV.OUT=251.15	FES-2 INV.=250.00
CB-6 RIM=256.40 INV.OUT=252.40	DMH-3 RIM=258.20 INV.IN=251.65(DMH-2) INV.OUT=251.55	DMH-9 RIM=255.25 INV.IN=251.70(CB-8(FD)) INV.IN=250.80(DMH-8(FD)) INV.OUT=251.60 (18" BYPASS) INV.OUT=250.80 (6" LOW FLOW) (SEE DETAIL)	HW-1 INV.=252.00

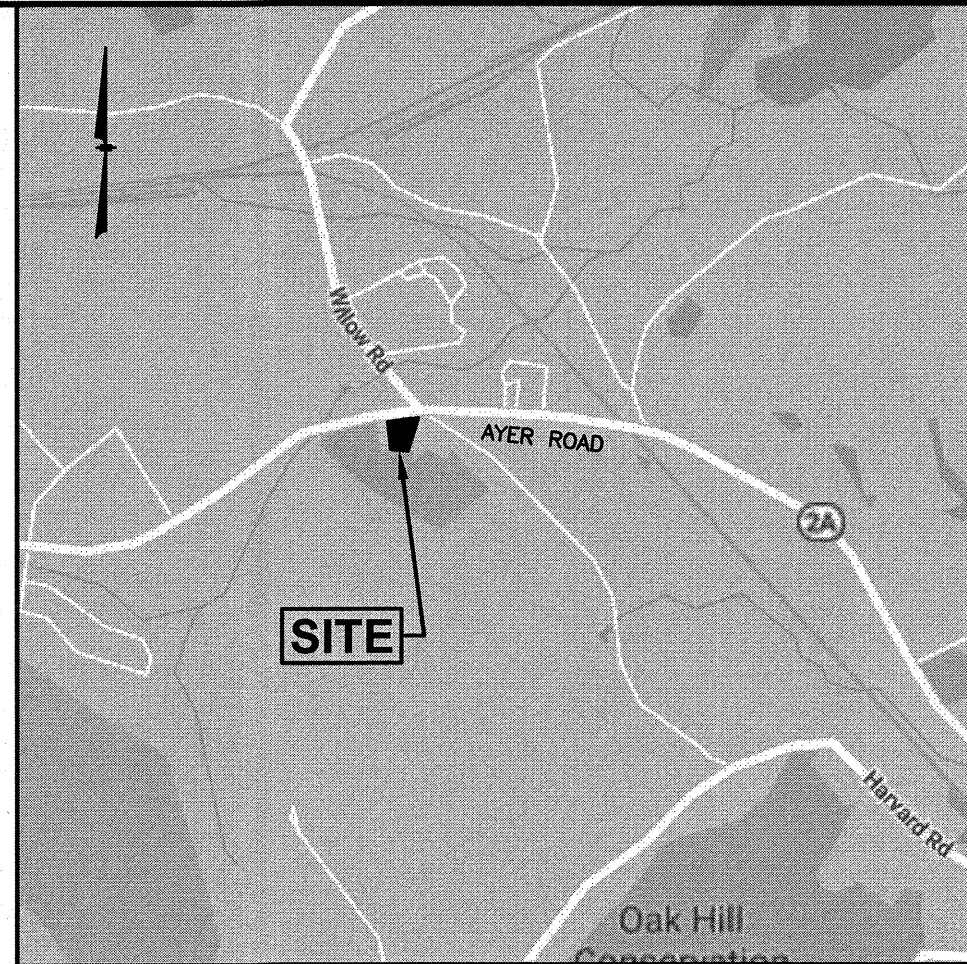
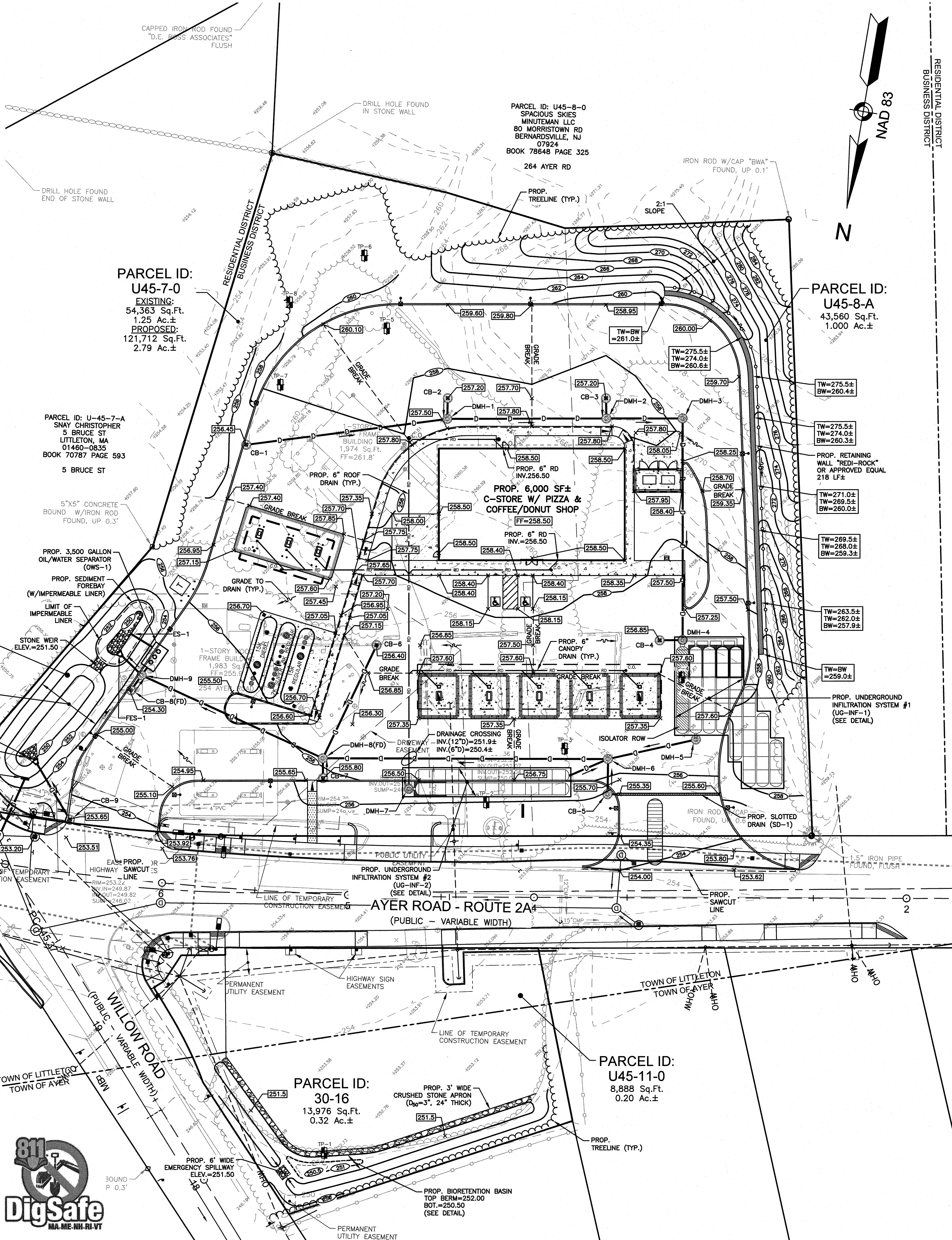
UNDERGROUND INFILTRATION SYSTEM #1 (UG-INF-1)  
(47) S-22 CHAMBERS  
INV.IN=250.92(24" ISOLATOR ROW)  
INV.IN=252.95(12" MANIFOLD)  
INV.OUT=250.85  
BOT.CHAMBER=250.75  
BOT.STONE=250.00  
(SEE DETAIL)

UNDERGROUND INFILTRATION SYSTEM #2 (UG-INF-2)  
(22) S-22 CHAMBERS  
INV.IN=250.36  
INV.OUT=253.02  
BOT.CHAMBER=250.25  
BOT.STONE=249.50  
(SEE DETAIL)

\* DENOTES LOW PROFILE FRAME, GRATE, AND TOP SLAB  
(FD) DENOTES FIRST DEFENSE FD-4HC HYDRODYNAMIC PARTICLE SEPARATOR OR APPROVED EQUAL

LEGEND

○ IRON PIN FOUND	○ UTILITY POLE
△ CONCRETE BOUND FOUND	○ DRAIN MANHOLE
△ RAILROAD SPIKE FOUND	○ SEWER MANHOLE
○ DRILL HOLE FOUND	○ TELEPHONE MANHOLE
— VERTICAL GRANITE CURB	○ CATCH BASIN
— BITUMINOUS CONCRETE LIP CURBING	— WATER LINE
— BITUMINOUS CONCRETE BERM	— WATER VALVE
— OVERHEAD SERVICE WIRES	— ENTRY
— DOUBLE SOLID YELLOW LINE	— FIRE HYDRANT
— SINGLE SOLID WHITE LINE	— GAS VALVE
— BROKEN WHITE LINE	— GAS LINE
— SIGN	— UNDERGROUND TELEPHONE LINE
— OBSERVATION WELL	— UNDERGROUND ELECTRIC AND TELEPHONE
— TEST PIT	— WETLAND LINE
— TEST BORING	— SPOT ELEVATION
— PERCOLATION TEST	— 190— CONTOUR ELEVATION
— TREELINE	— PROP. CONTOUR ELEVATION
— C.O.	— TW= TOP OF WALL ELEV.
— CB-1	— BW= BOTTOM OF WALL ELEV.
— DMH-1	— G.B. GRADE BREAK
— MEG	— TEST PIT
— 331.25	— PROP. SPOT ELEVATION



LOCATION MAP  
(NOT TO SCALE)

NOTES:

- 1) ALL SITE DRAINAGE PIPE SHALL BE CORRUGATED HIGH-DENSITY POLYETHYLENE PIPE WITH STANDARD JOINTS, DUAL-WALL, SMOOTH INTERIOR, AS MANUFACTURED BY ADS, INC., OR APPROVED EQUAL, UNLESS OTHERWISE NOTED ON PLAN.
- 2) ALL ROOF AND CANOPY DRAIN PIPE SHALL BE 6" PVC (SDR-35), EXCEPT WITHIN 10' OF A BUILDING FOUNDATION WHERE CAST IRON PIPE SHALL BE USED. MIN. SLOPE=1%.
- 3) ELEVATIONS ARE BASED ON NAVD83 DATUM.
- 4) ALL PROPOSED ELEVATIONS AS SHOWN ARE BOTTOM OF CURB ELEVATIONS, UNLESS OTHERWISE NOTED.
- 5) ANY UTILITY FIELD ADJUSTMENTS SHALL BE APPROVED BY THE ENGINEER OF RECORD AND COORDINATED WITH THE APPROPRIATE LOCAL UTILITY COMPANY.
- 6) THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR IS TO VERIFY EXACT LOCATION PRIOR TO CONSTRUCTION. THE CONTRACTOR IS TO NOTIFY THE DESIGN ENGINEER OF ANY DISCREPANCIES. CONSTRUCTION SHALL COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND INSTALLATIONS SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 7) ALL CONSTRUCTION SHALL CONFORM TO MUNICIPAL DPW AND ALL APPLICABLE STATE AND FEDERAL STANDARDS.
- 8) THE CONTRACTOR SHALL CALL AND COORDINATE WITH DIG-SAFE (DIAL 811) PRIOR TO COMMENCING ANY EXCAVATION.
- 9) THIS SITE WILL REQUIRE A USEPA NPDES PERMIT FOR STORMWATER DISCHARGE FOR THE SITE CONSTRUCTION SINCE THE DISTURBANCE EXCEEDS ONE ACRE (ACTUAL DISTURBANCE = 122,000 SF±). THE CONSTRUCTION SITE OPERATOR SHALL DEVELOP AND IMPLEMENT A CONSTRUCTION STORM WATER POLLUTION PREVENTION PLAN (SWPPP), WHICH SHALL REMAIN ON SITE AND MADE ACCESSIBLE TO THE PUBLIC. A COMPLETED NOTICE OF TERMINATION (NOT) SHALL BE SUBMITTED TO NPDES PERMITTING AUTHORITY WITHIN 30 DAYS AFTER EITHER OF THE FOLLOWING CONDITIONS HAVE BEEN MET: FINAL STABILIZATION HAS BEEN ACHIEVED ON ALL PORTIONS OF THE SITE FOR WHICH THE PERMITTEE IS RESPONSIBLE, OR ANOTHER OPERATOR/PERMITTEE HAS ASSUMED CONTROL OVER ALL AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
- 10) ANY UTILITIES TO BE TAKEN OUT OF SERVICE SHALL BE DISCONNECTED AS DIRECTED BY UTILITY COMPANY AND LOCAL DPW.
- 11) ALL TRAFFIC CONTROL AND TEMPORARY CONSTRUCTION SIGNAGE ARRANGEMENTS, ACCEPTABLE TO MASSDOT AND THE TOWN DEPARTMENT OF PUBLIC WORKS, SHALL BE EMPLOYED DURING OPERATIONS WITHIN THE PUBLIC RIGHT-OF-WAY.
- 12) ALL ADA ACCESSIBLE WALKWAYS CANNOT EXCEED 5% RUNNING SLOPE AND 2% CROSS SLOPE. RAMPS CANNOT EXCEED 8.33% RUNNING SLOPE AND 2% CROSS SLOPE. AND ACCESSIBLE PARKING STALLS AND ACCESS AISLES CANNOT EXCEED 2% SLOPE IN ANY DIRECTION. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES.
- 13) SEE UTILITY PLAN FOR DETAILED UTILITY LAYOUT.
- 14) CONTRACTOR IS TO FIELD ADJUST GRADES FOR THE TANK PAD TO SHED WATER
- 15) ALL PROPOSED CATCH BASINS SHALL HAVE 4" SUMPS AND OUTLETS EQUIPPED WITH "ELIMINATOR" OIL HOODS OR APPROVED EQUAL.
- 16) ALL PIPE DATA IS CALCULATED TO CENTER OF STRUCTURE, TYP.
- 17) CONTRACTOR TO REFER TO THE OPERATION & MAINTENANCE (O&M) MANUAL FOR STORMWATER MANAGEMENT SYSTEMS & SITE MAINTENANCE DURING AND AFTER CONSTRUCTION.

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GPI.NET.COM

PREPARED FOR  
ENERGY NORTH GROUP  
2 INTERNATIONAL WAY  
LAWRENCE, MA 01843

PROPOSED RETAIL MOTOR FUEL OUTLET  
SITE RE-DEVELOPMENT  
PARCEL ID: U45-7-A, U45-7-B, U45-8-A, & U45-11-0  
254, 256 & 260 AYER ROAD  
LITTLETON, MASSACHUSETTS  
PARCEL ID: 30-16  
0 LITTLETON ROAD  
AYER, MASSACHUSETTS

2/9/23

REVISIONS

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SJB/CNM	CMT	

GRADING & DRAINAGE PLAN

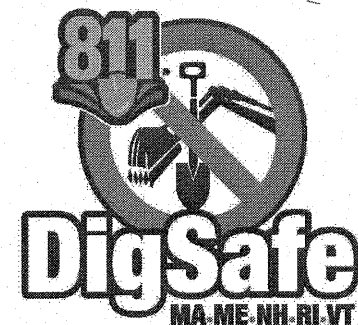
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PROJECT NO. NEX-2021267

5 OF 14

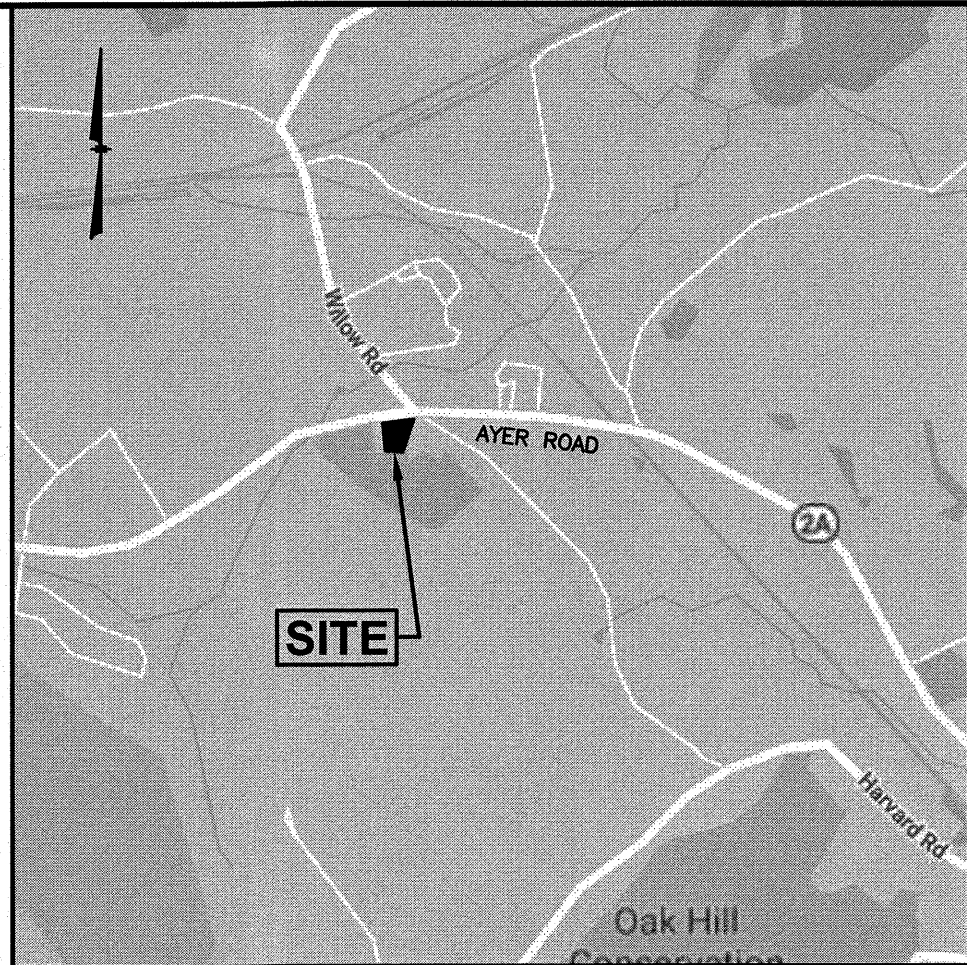
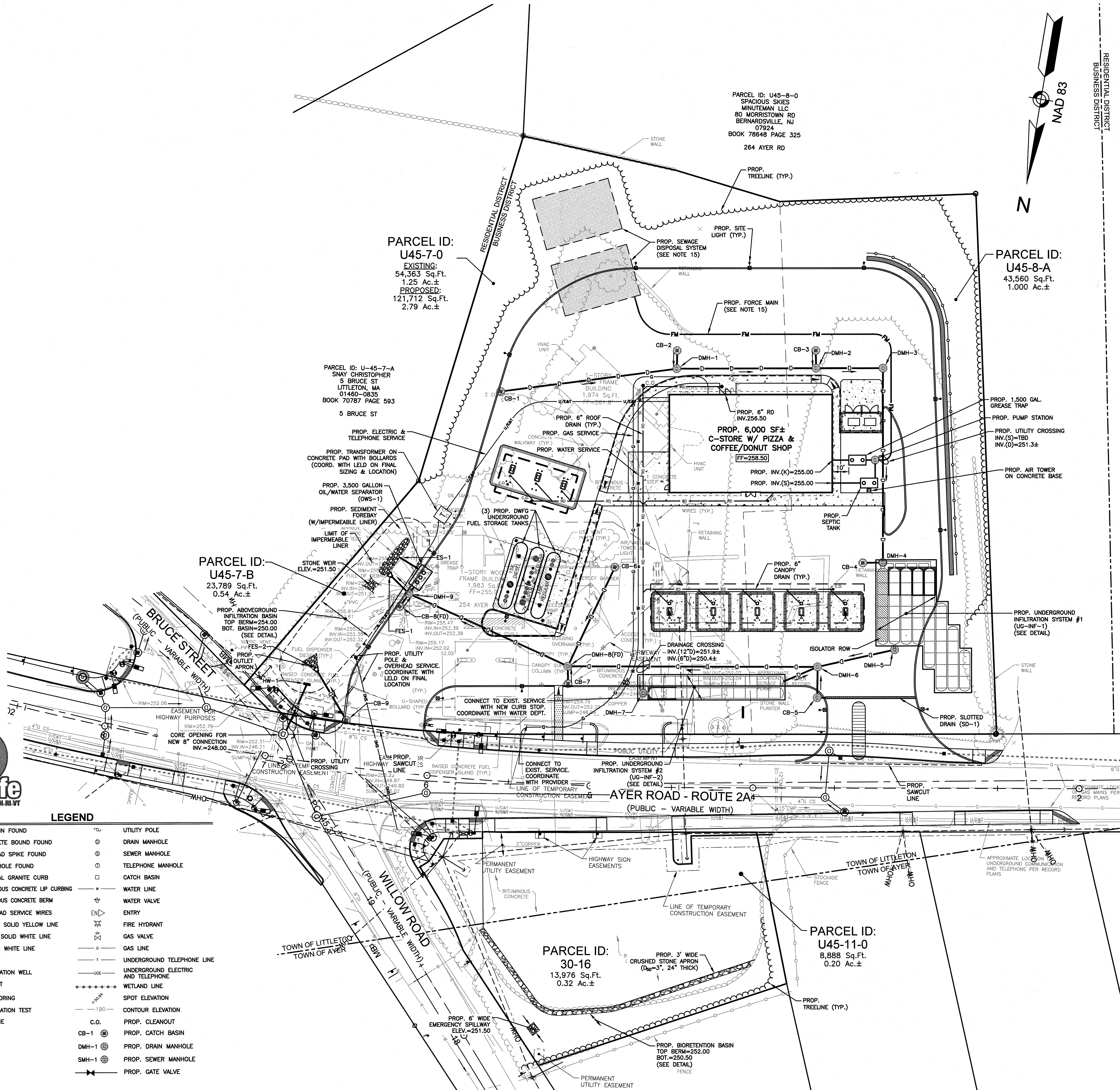
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LEGEND

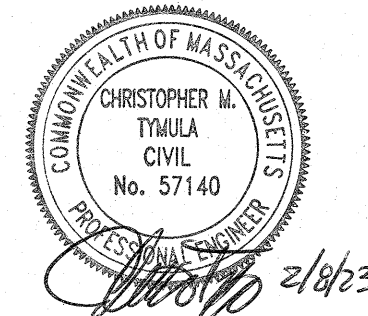
○	IRON PIN FOUND	○	UTILITY POLE
□	CONCRETE BOUND FOUND	⊗	DRAIN MANHOLE
△	RAILROAD SPIKE FOUND	⊗	SEWER MANHOLE
○	DRILL HOLE FOUND	⊗	TELEPHONE MANHOLE
—VSG—	VERTICAL GRANITE CURB	□	CATCH BASIN
—BCB—	BITUMINOUS CONCRETE LIP CURBING	—W—	WATER LINE
—BCB—	BITUMINOUS CONCRETE BERM	⊕	WATER VALVE
—DSWL—	OVERHEAD SERVICE WIRES	EN	ENTRY
—SSWL—	DOUBLE SOLID YELLOW LINE	⊕	FIRE HYDRANT
—SSWL—	SINGLE SOLID WHITE LINE	⊕	GAS VALVE
—BWL—	BROKEN WHITE LINE	—G—	GAS LINE
—SIGN—	SIGN	—T—	UNDERGROUND TELEPHONE LINE
⊕	OBSERVATION WELL	—UG—	UNDERGROUND ELECTRIC AND TELEPHONE
⊕	TEST PIT	—W—	WETLAND LINE
⊕	TEST BORING	—190—	SPOT ELEVATION
⊕	PERCOLATION TEST	—190—	CONTOUR ELEVATION
—	TREELINE	C.O.	PROP. CLEANOUT
		CB-1	PROP. CATCH BASIN
		DMH-1	PROP. DRAIN MANHOLE
		SMH-1	PROP. SEWER MANHOLE
		—X—	PROP. GATE VALVE



LOCATION MAP  
(NOT TO SCALE)

NOTES:

- 1) ALL SANITARY SEWER PIPE SHALL BE PVC (SDR-35), UNLESS OTHERWISE NOTED.
- 2) ALL WATER PIPE SHALL BE COPPER (TYPE K), UNLESS OTHERWISE NOTED.
- 3) ANY UTILITY FIELD ADJUSTMENTS SHALL BE APPROVED BY THE ENGINEER OF RECORD AND COORDINATED WITH THE APPROPRIATE LOCAL UTILITY COMPANY.
- 4) THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR IS TO VERIFY EXACT LOCATION PRIOR TO CONSTRUCTION. THE CONTRACTOR IS TO NOTIFY THE DESIGN ENGINEER OF ANY DISCREPANCIES.
- 5) ALL CONSTRUCTION SHALL CONFORM TO MUNICIPAL DPW AND ALL APPLICABLE STATE AND FEDERAL STANDARDS.
- 6) THE CONTRACTOR SHALL CALL AND COORDINATE WITH DIGSAFE 811 PRIOR TO ANY EXCAVATION.
- 7) ALL WATER AND SEWER CONSTRUCTION SHALL CONFORM TO DEPARTMENT OF PUBLIC WORKS SPECIFICATIONS.
- 8) THIS SITE IS SERVED BY MUNICIPAL WATER AND ON-SITE SEPTIC SYSTEM.
- 9) ALL ELECTRIC, TELEPHONE AND CABLE TV LINES ARE TO BE UNDERGROUND UNLESS OTHERWISE NOTED AND INSTALLED IN CONFORMANCE WITH APPLICABLE UTILITY CO. SPECIFICATIONS AND LITTLETON ELECTRIC LIGHT DEPARTMENT (LELD).
- 10) ANY UTILITIES TO BE TAKEN OUT OF SERVICE SHALL BE DISCONNECTED AS DIRECTED BY UTILITY COMPANY AND LOCAL DPW.
- 11) ALL TRAFFIC CONTROL AND TEMPORARY CONSTRUCTION SIGNAGE ARRANGEMENTS, ACCEPTABLE TO MASSDOT AND TOWN DEPARTMENT OF PUBLIC WORKS, SHALL BE EMPLOYED DURING OPERATIONS WITHIN THE PUBLIC RIGHT-OF-WAY.
- 12) SEE GRADING & DRAINAGE PLAN FOR DETAILED DRAINAGE INFORMATION.
- 13) ELECTRICAL CONDUIT WITHIN 20' OF TANKS OR DISPENSERS MAY NEED TO BE RIGID METAL CONDUIT WITH CONCRETE ENCASUREMENT. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY AND/OR TOWN ELECTRICAL INSPECTOR AS REQUIRED.
- 14) REFER TO DETAIL SHEETS FOR ALL UTILITY AND DRAINAGE STRUCTURE DETAILS AND ADDITIONAL INFORMATION.
- 15) SEE SEWAGE DISPOSAL PLANS (UNDER SEPARATE COVER) FOR FINAL LOCATION AND INFORMATION ON SEWER COMPONENTS.
- 16) REFER TO FINAL FUEL STORAGE DESIGN PLANS FOR ALL UTILITY CROSSINGS/ CONFLICT POINTS & NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES.



REVISIONS

NO.	REVISION	DATE

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UTILITY PLAN

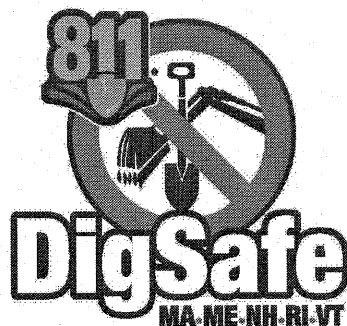
SCALE: 1"=30'

PROJECT NO.  
NEX-2021267



- 1) SEDIMENT TRAPS SHALL BE INSTALLED AS REQUIRED. BARRIERS AND TRAPS ARE TO BE MAINTAINED AND CLEANED UNTIL ALL SLOPES HAVE A HEALTHY STAND OF GRASS.
- 2) MULL SHALL BE MOWINGS OF ACCEPTABLE HERBACEOUS GROWTH, FREE FROM NOXIOUS WEEDS OR WOODY STEMS, AND SHALL BE DRY. NO SALT HAY SHALL BE USED.
- 3) FILL MATERIAL SHALL BE FREE FROM STUMPS, WOOD, ROOTS, ETC.
- 4) STOCKPILED MATERIALS SHALL BE PLACED ONLY IN AREAS SHOWN ON THE PLANS. STOCKPILES SHALL BE PROTECTED BY SILTATION FENCE AND SEEDED TO PREVENT EROSION. THESE MEASURES SHALL REMAIN UNTIL ALL MATERIAL HAS BEEN PLACED OR DISPOSED OFF SITE.
- 5) ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDED. A MINIMUM OF 6 INCHES OF LOAM SHALL BE INSTALLED WITH NOT LESS THAN ONE POUND OF SEED PER 50 SQUARE YARDS OF AREA.
- 6) SEED MIX SHALL BE EQUAL PARTS OF RED FESCUE (CREeping), KENTUCKY BLUEGRASS, REDTOP, PERENNIAL RYEGRASS.
- 7) AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED THE TEMPORARY EROSION CONTROL MEASURES ARE TO BE REMOVED.
- 8) PAVED ROADWAYS AND PARKING LOTS MUST BE KEPT CLEAN AT ALL TIMES. PROVIDE SWEEPING ON A DAILY BASIS OR AS DIRECTED BY THE TOWN.
- 9) ALL CATCH BASIN INLETS WILL BE PROTECTED WITH INLET PROTECTION - SEE DETAIL.
- 10) ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTER AREA.

- 1) INSTALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES AS REQUIRED
- 2) CUT AND STUMP AREAS OF PROPOSED CONSTRUCTION.
- 3) REMOVE AND STOCKPILE TOPSOIL. STOCKPILE SHALL BE SEED TO PREVENT EROSION.
- 4) CONSTRUCT CLOSED DRAINAGE SYSTEM. PROTECT CULVERT INLETS AND CATCH BASINS WITH SEDIMENTATION BARRIERS.
- 5) PERFORM SITE GRADING, PLACING SILTATION FENCES AS REQUIRED TO CONTROL SOIL EROSION.
- 6) INSTALL UNDERGROUND UTILITIES.
- 7) BEGIN TEMPORARY AND PERMANENT SEEDING AND MULCHING. ALL CUT AND FILL SLOPES SHALL BE SEED OR MULCHED IMMEDIATELY AFTER THEIR CONSTRUCTION.
- 8) DAILY, OR AS REQUIRED, CONSTRUCT, INSPECT, AND IF NECESSARY, RECONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, SILT FENCES AND SEDIMENT TRAPS INCLUDING MULCHING AND SEEDING. REFER TO OPERATION AND MAINTENANCE PLAN FOR ADDITIONAL REQUIREMENTS AND INFORMATION. COPIES OF ALL INSPECTION REPORTS ARE TO BE PROVIDED TO THE CONSERVATION COMMISSION DURING CONSTRUCTION AND AVAILABLE UPON REQUEST AFTER CONSTRUCTION IS COMPLETED.
- 9) BEGIN EXCAVATION FOR AND CONSTRUCTION OF BUILDINGS.
- 10) FINISH PAVING ALL DRIVES AND PARKING AREAS.
- 11) COMPLETE PERMANENT SEEDING AND LANDSCAPING.
- 12) CLEAN OUT DRAINAGE SYSTEM AFTER FINAL PAVING AND SITE STABILIZATION. REFER TO STORMWATER OBM.
- 13) AFTER GRASS HAS BEEN FULLY GERMINATED IN ALL SEEDD AREAS, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.



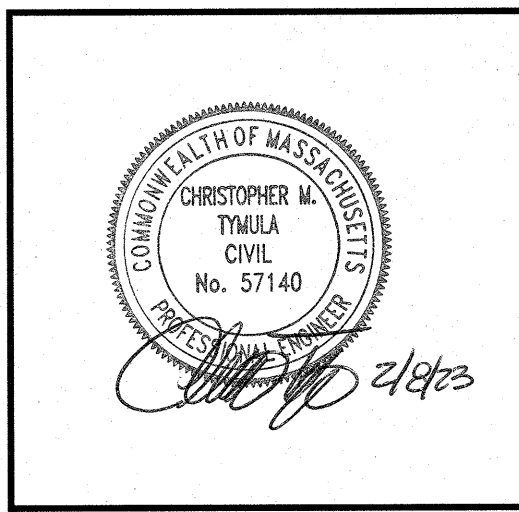
- 1) THE CONTRACTOR IS TO INSTALL AND MAINTAIN DRAINAGE FACILITIES AS SHOWN ON THE SITE PLANS BY GREENMAN+PEDERSEN, INC.
- 2) PRIOR TO CONSTRUCTION, ALL EROSION/SILT CONTROL DEVICES SHOWN ON ABOVE PLAN ARE TO BE INSTALLED, TO PREVENT SILT INTRUSION INTO SURROUNDING AREAS DURING CONSTRUCTION, THE CONTRACTOR IS TO SET SILT FENCING AT ALL SLOPES WHICH MAY ERODE IN THE DIRECTION OF ANY OPEN DRAINAGE FACILITIES OR ADJUTING PROPERTY. SUCH PREVENTIVE MEASURES ARE TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS.
- 3) ALL CONSTRUCTION OF DRAINAGE FACILITIES IS TO BE INSPECTED BY INSPECTORS FROM THE CITY OF METHUEN AND BY AN AUTHORIZED AGENT TO VERIFY CONFORMANCE TO THE DESIGN PLAN.
- 4) THE SEQUENCE OF DRAINAGE CONSTRUCTION SHALL BE AS FOLLOWS:
  - A) CLEAR, GRUB, EXCAVATE AREAS FOR DETENTION/INFILTRATION SYSTEMS.
  - B) INSTALL CATCH BASINS, PIPES AND MANHOLES.
- 5) EROSION CONTROLS ARE TO BE INSPECTED AND MAINTAINED ON A DAILY BASIS. UPON DISCOVERY OF SILTATION BUILD-UP IN ANY CATCH BASIN SUMP OR ANY OTHER STRUCTURE, CLEANING SHALL BE PERFORMED WITHIN 24 HOURS.
- 6) ALL EXPOSED SOILS SHALL BE IMMEDIATELY STABILIZED WITH A LAYER OF MULCH HAY.
- 7) UPON INSTALLATION OF CATCH BASINS, INLET PROTECTION - AS DESCRIBED ON AFOREMENTIONED PLAN - SHALL BE INSTALLED AND MAINTAINED UNTIL READY FOR PAVING.
- 8) PRIOR TO CONSTRUCTION OF IMPERVIOUS AREAS, ALL DRAINAGE STRUCTURES AND PIPES SHALL BE INSTALLED AND INSPECTED FOR PROPER FUNCTION. DURING CONSTRUCTION OF OTHER SITE FEATURES, ALL DRAINAGE FACILITIES SHALL BE INSPECTED ON A DAILY BASIS AND CLEANED/REPAIRED IMMEDIATELY UPON DISCOVERY OF SEDIMENT BUILD-UP OR DAMAGE.
- 9) AFTER PAVING IS INSTALLED, THE SITE SHALL BE SWEEP CLEAN ON A MONTHLY BASIS.
- 10) INSPECTIONS ARE TO BE PERFORMED AND INSPECTION LOGS FILLED OUT ON A WEEKLY BASIS FROM THE START OF CONSTRUCTION THROUGH FINAL STABILIZATION. THE START OF CONSTRUCTION MEANS THE INITIAL DISBURSAL OF SOILS ASSOCIATED WITH CONSTRUCTION. FINAL STABILIZATION MEANS FOR VEGETATIVE GROWTH FOR UNPAVED AREAS.

THE OWNER SHALL BE RESPONSIBLE FOR CONTINUED MAINTENANCE OF ALL ON-SITE DRAINAGE STRUCTURES & SYSTEMS AND SHOULD FOLLOW PROCEDURES CONTAINED IN THE OPERATION AND MAINTENANCE PLAN (OBM).

- 1) INSPECTION OF ALL DRAINAGE FACILITIES (CATCH BASINS, MANHOLES & DETENTION SYSTEMS) EVERY THREE MONTHS. DURING THE FIRST YEAR OF CONSTRUCTION, ALL DRAINAGE FACILITIES SHOULD BE INSPECTED AFTER EVERY STORM. FROM 2-3 DAYS AFTERWARD. DURING THESE INSPECTIONS, THE INSPECTOR AS DESIGNATED BY ENERGY NORTH GROUP, SHALL LOOK FOR EVIDENCE OF THE FOLLOWING: STRUCTURAL DAMAGE, SILT ACCUMULATION (NEAR INLET POINTS ON CATCH BASINS), AND IMPROPER FUNCTION. REPORTS SHALL BE FILED FOR EVERY INSPECTION AND SUBMITTED TO THE TOWN ENGINEER FOR COMPLIANCE FOR ONE (1) YEAR AFTER THE ISSUANCE OF THE OCCUPANCY PERMIT OR UNTIL DEEMED NECESSARY BY THE TOWN ENGINEER.
- 2) AFTER INSPECTION, IF ANY OF THE ABOVE CONDITIONS EXIST, THE INSPECTOR SHALL NOTIFY THE DEVELOPER, WHO SHALL IMMEDIATELY ARRANGE FOR ALL NECESSARY REPAIRS AND SEDIMENT REMOVAL.
- 3) PARKING AREAS ARE TO BE SWEEP CLEAN EVERY MONTH SPRING THROUGH FALL AND OTHERWISE AS NEEDED (I.E. VISUALLY NOTICEABLE DEBRIS BUILD-UP).
- 4) THE CATCH BASINS AND DRAINAGE SYSTEM ARE TO BE INSPECTED EVERY THREE MONTHS. REMOVE OIL, DEBRIS AND SEDIMENT AFTER INSPECTIONS.
- 5) ALL GRADED SLOPES SHALL BE INSPECTED EVERY SPRING FOR EROSION. UPON DISCOVERY OF ANY FAILURE (I.E. EROSION) LOAM AND SEED SHALL BE PUT IN PLACE AND NURTURED.
- 6) DURING THE WINTER MONTHS, ALL SNOW IS TO BE STORED SUCH THAT SNOWMELT IS CONTROLLED. TO THE EXTENT THE AMOUNT OF SNOW EXCEEDS STORAGE CAPACITY, IT MUST BE REMOVED OFF-SITE. THE MINIMUM AMOUNT OF DEICING CHEMICALS NEEDED IS TO BE USED.
- 7) DURING THE SUMMER MONTHS, ALL LANDSCAPE FEATURES ARE TO BE MAINTAINED WITH THE MINIMUM POSSIBLE AMOUNT OF FERTILIZERS, PESTICIDES OR HERBICIDES. IF IN QUESTION, MAINTENANCE PERSONNEL SHOULD CHECK WITH THE CONSERVATION COMMISSION. ALL PERSONNEL NOTIFIED TO MAINTAIN THE MAINTENANCE OF LANDSCAPING WILL BE INFORMED OF THIS CONDITION.

PREPARED FOR  
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2 INTERNATIONAL WAY  
LAWRENCE, MA 01843

PROPOSED RETAIL MOTOR FUEL OUTLET  
SITE RE-DEVELOPMENT  
PARCEL ID: U45-7-0, U45-7-B, U45-8-A, & U45-11-0  
254, 256 & 260 AYER ROAD  
LITTLETON, MASSACHUSETTS  
PARCEL ID: 30-16  
0 LITTLETON ROAD  
AYER, MASSACHUSETTS



REVISIONS		
NO.	REVISION	DATE

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## 7 OF 14



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PLANTING SCHEDULE					
PLANT	QNTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALL. SIZE	REMARKS
TREES					
AR	2	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2 1/2" - 3" CAL. B&B	
AC	4	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	6" - 7" HT., B&B	
MG	2	MALUS 'SPRING SNOW'	SPRING SNOW CRABAPPLE	2" - 2 1/2" CAL. B&B	
SHRUBS					
CA	14	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	HUMMINGBIRD SUMMERSWEET	2" - 3" HT., 3 GAL.	
CS	30	CORNUS SERICEA 'ALLEMAN'S COMPACTA'	COMPACT REDTIG DOGWOOD	2" - 3" HT., 3 GAL.	
ID	8	ILEX GLABRA 'DENSE'	DENSE INKERRY	3" - 4" HT., 10 GAL.	
IG	19	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKERRY	2" - 3" HT., 3 GAL.	
NJ	1	ILEX VERTICILLATA 'JIM DANDY'	JIM DANDY WINTERBERRY	2" - 3" HT., 3 GAL.	
IV	4	ILEX VERTICILLATA 'MARYLAND BEAUTY'	MARYLAND BEAUTY WINTERBERRY	2" - 3" HT., 3 GAL.	
SG	23	SPIREA JAPONICA 'GOLDMOUND'	GOLDMOUND SPIREA	18" - 24" HT., 3 GAL.	
TO	5	THUJA OCCIDENTALIS 'SMARAGO'	EMERALD GREEN ARBORVITAE	6" - 7" HT., B&B	
PERENNIALS & GRASSES					
HD	52	HEMEROCALLIS 'STELLA DE ORO'	DWARF YELLOW DAYLILY	1 GAL.	
FE	30	FESTUCA GLAUCA 'ELIJAH BLUE'	ELIJAH BLUE FESCUE GRASS	1 GAL.	
PH	42	PENNISETUM ALOPECUROIDES 'HAMELIN'	DWARF FOUNTAIN GRASS	1 GAL.	

PROP. LANDSCAPE STONE WITH WEED BARRIER (SEE NOTES) PROP. LOAM AND HYDROSEED (SEE NOTES)

PARCEL ID: U45-7-0  
EXISTING:  
54,363 Sq.Ft.  
1.25 Ac.±  
PROPOSED:  
121,712 Sq.Ft.  
2.79 Ac.±

PARCEL ID: U-45-7-A  
SNAY CHRISTOPHER  
5 BRUCE ST  
LITTLETON, MA  
01160-0835  
BOOK 70787 PAGE 593  
5 BRUCE ST

PARCEL ID: U45-7-B  
23,789 Sq.Ft.  
0.54 Ac.±

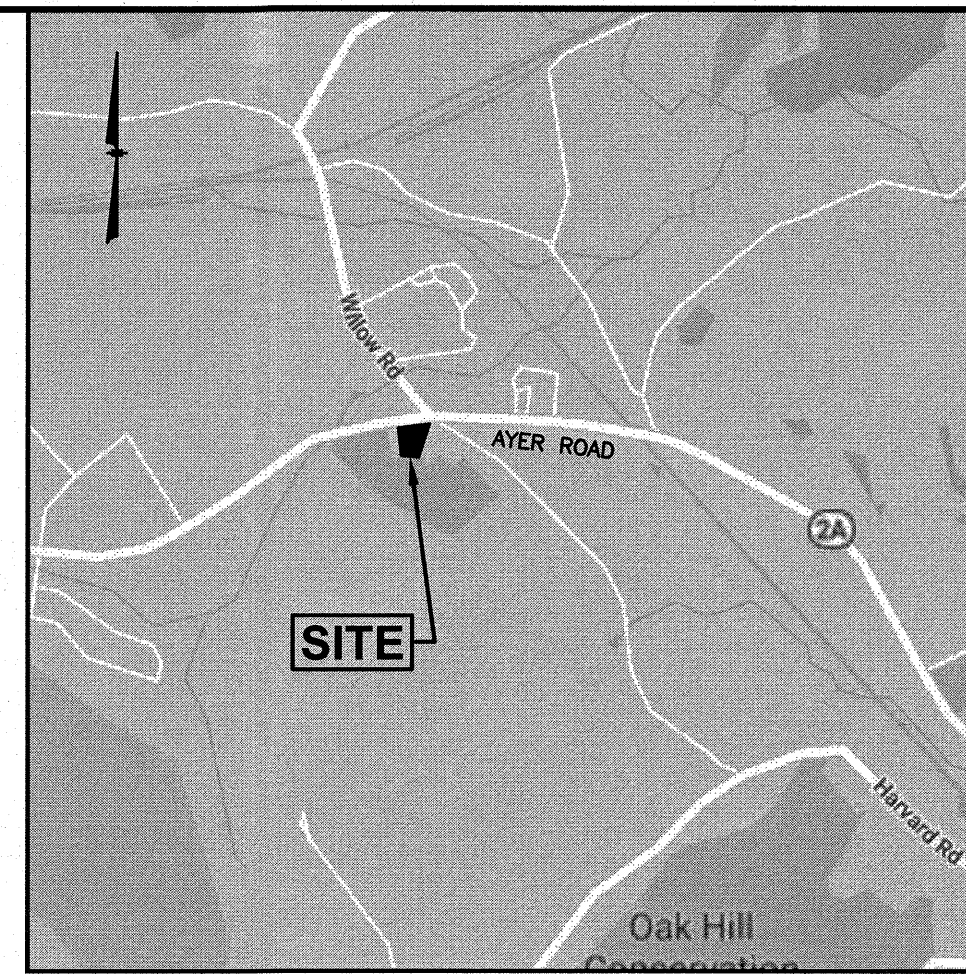
PARCEL ID: U45-8-0  
SPACIOUS SKIES  
MINUTEMAN LLC  
80 MORRISTOWN RD  
BERNARDSVILLE, NJ  
07924  
BOOK 78645 PAGE 325  
264 AYER RD

PARCEL ID: U45-8-A  
43,560 Sq.Ft.  
1.000 Ac.±

PARCEL ID: 30-16  
13,976 Sq.Ft.  
0.32 Ac.±

PARCEL ID: U45-11-0  
8,888 Sq.Ft.  
0.20 Ac.±

LEGEND	
○	IRON PIN FOUND
△	CONCRETE BOUND FOUND
⊠	RAILROAD SPIKE FOUND
○	DRILL HOLE FOUND
VSC	VERTICAL GRANITE CURB
BC	BITUMINOUS CONCRETE LIP CURBING
BCB	BITUMINOUS CONCRETE BERM
OSW	OVERHEAD SERVICE WIRES
DSY	DOUBLE SOLID YELLOW LINE
SSW	SINGLE SOLID WHITE LINE
BWL	BROKEN WHITE LINE
+	SIGN
○	OBSERVATION WELL
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○	TEST BORING
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○	DRAIN MANHOLE
○	SEWER MANHOLE
○	TELEPHONE MANHOLE
○	CATCH BASIN
—	WATER LINE
—	WATER VALVE
EN	ENTRY
—	FIRE HYDRANT
—	GAS VALVE
—	GAS LINE
—	UNDERGROUND TELEPHONE LINE
—	UNDERGROUND ELECTRIC AND TELEPHONE
—	WETLAND LINE
—	SPOT ELEVATION
—	CONTOUR ELEVATION



LOCATION MAP  
(NOT TO SCALE)

#### NOTES:

- ALL PLANT STOCK SHALL CONFORM TO ANSI Z280.1 - NURSERY STOCK, LATEST EDITION (AMERICAN ASSOCIATION OF NURSERMEN, INC.).
- A 4" DIA. TREE RING WITH 3" AGED PINE BARK MULCH TO BE INSTALLED AT BASE OF ALL TREES IN LAWN AREAS.
- 3" AGED PINE BARK MULCH SHALL BE APPLIED TO ALL SHRUB AND GROUNDCOVER BEDS.
- LANDSCAPE STONE SHALL BE TAN RIVERBED STONE. STONE SHALL BE (1 1/2) INCHES IN DIAMETER AND APPLIED AT A THICKNESS OF (4) INCHES DEEP. ALL FINES SHALL BE SCREENED FROM THE AGGREGATE. THE MATERIAL SHALL BE FREE OF ORGANIC AND INORGANIC DEBRIS AND TRASH. SUBMIT SAMPLE IN A 5-GALLON BUCKET TO THE DEVELOPER FOR APPROVAL.
- A WEED BARRIER (TY-PAR FABRIC OR APPROVED EQUAL) SHALL BE APPLIED TO ALL SHRUB AND GROUNDCOVER BEDS. INSTALL WEED BARRIER AS PER MANUFACTURERS RECOMMENDATIONS.
- THE CONTRACTOR SHALL PROVIDE TESTING OF SOILS IN PLANTING LOCATIONS. THE CONTRACTOR SHALL PROVIDE TEST RESULTS AND RECOMMENDATIONS AS NECESSARY FOR SOIL AMENDMENT TO THE ENGINEER FOR THEIR APPROVAL. BACKFILL SHALL BE A BLEND OF ONE-PART LOAM BORROW, ONE PART ORGANIC MATERIAL AND TWO-PARTS EXISTING SUBSOIL.
- ALL LANDSCAPED AREAS NOT PLANTED WITH TREES, SHRUBS OR GROUNDCOVER SHALL BE RESTORED WITH SEED AS INDICATED ON PLANS.
- ALL SHRUB AND TREE AREAS SHALL RECEIVE 6" PH CORRECTED TOPSOIL. AFTER TOPSOIL IS SPREAD EVENLY OVER ENTIRE AREA, ALL CLODS, LUMPS, STONES AND OTHER DELETERIOUS MATERIAL SHALL BE RAKED UP AND REMOVED.
- APPLICATION OF GRASS SEED, FERTILIZERS AND STRAW MULCH SHALL BE ACCOMPLISHED BY BROADCAST SEEDING OR HYDROSEEDING AT THE RATES OUTLINED BELOW:

LIMESTONE:	100 LBS./1,000 SQUARE FEET.
FERTILIZER:	500 LBS./ACRE OF 10-20-20 OR 1000 LBS./ACRE OF 5-10-10.
STRAW MULCH:	APPROXIMATELY 3 TONS/ACRE
SEED MIX (SLOPES LESS THAN 4:1)	LBS/ACRE
CREeping RED FESCUE	20
TALL FESCUE	15
PERENNIAL RYEGRASS	5
REDTOP	2

SLOPE MIX (SLOPES GREATER THAN 4:1)	LBS/ACRE
CREeping RED FESCUE	20
TALL FESCUE	20
BIRDSFOOT TREFOIL	8
	48

- FOR TEMPORARY EROSION CONTROL NOTES, SEE EROSION & SEDIMENT CONTROL PLAN.
- NEWLY GRADED AREAS REQUIRING SLOPE PROTECTION OUTSIDE OF NORMAL SEEDING SEASON SHALL RECEIVE STRAW MULCH AT THE APPROXIMATE RATE OF NO MORE THAN 3 TONS PER ACRE.
- ANY CHANGES IN PLANT LOCATIONS OR TYPES SHALL BE APPROVED BY THE DEVELOPER, LANDOWNER AND TOWN PRIOR TO INSTALLATION.
- CLEAR AND GRUB (TO LIMITS REQUIRED ON GRADING PLAN) TO REMOVE VEGETATION, TREES, ROCKS, DEBRIS, ROOTS, ETC. STUMPS SHALL BE REMOVED AND DISPOSED OF OFF SITE IN ACCORDANCE WITH STATE REGULATIONS. AFTER CLEARING, STRIP AND STOCKPILE ALL ON-SITE TOPSOIL FOR REUSE TO THE MAXIMUM EXTENT POSSIBLE.
- FOR SEED AREAS USE EXISTING TOPSOIL, IF AVAILABLE, FOR A 4" DEPTH AND TOP DRESS WITH 2" OF SCREENED TOPSOIL, UNLESS OTHERWISE NOTED ON PLAN. ALL LOAM OR TOPSOIL IMPORTED OR RE-UTILIZED FROM ON SITE SHALL BE TESTED AND AMENDED AS DIRECTED BY DEVELOPER TO MEET MINIMUM REQUIREMENTS.
- PLANTINGS SHALL BE GUARANTEED BY THE CONTRACTOR FOR ONE YEAR AFTER WRITTEN ACCEPTANCE BY THE DEVELOPER.
- EXPOSED SOILS SHALL BE SEEDED OR STRAW MULCHED WITHIN 72 HOURS OF FINAL GRADING.
- ALL WORK SHALL BE COORDINATED WITH APPLICABLE EPA NPDES/SWPPP PERMIT WORK AS REQUIRED.
- THE CONTRACTOR SHALL INSTALL AN IRRIGATION SYSTEM TO PROVIDE COMPLETE COVERAGE OF ALL SEED AREAS AND SHRUB BEDS WITHIN THE LEASE AREA. THE SYSTEM SHALL INCLUDE A TIMER AND SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODES.

0 30 60 100  
SCALE: 1" = 30'

**GPI** Engineering  
Design  
Planning  
Construction Management  
603.883.0720 GPINET.COM  
Greenman-Pedersen, Inc.  
44 Stiles Road, Suite One  
Salem, NH 03079

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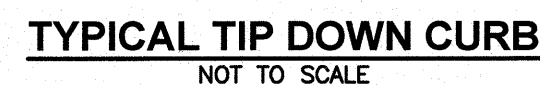
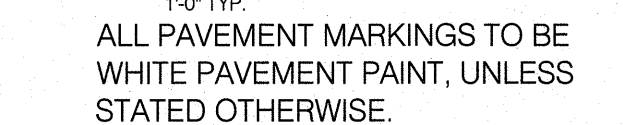
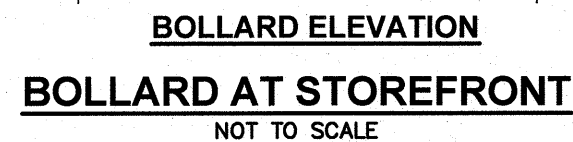
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DRAWN/DESIGN BY	CHECKED BY
SJB/CNM	CMT

LANDSCAPE PLAN  
SCALE: 1"=30'  
PROJECT NO. NEX-2021267  
8 OF 14





\* TOLERANCE FOR CONSTRUCTION  $\pm 0.5\%$



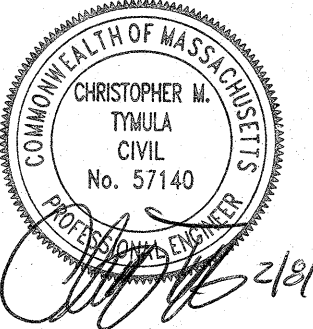
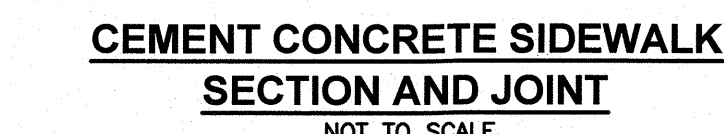
NOTE: SAWCUT 1' OFF FACE OF CURB WHERE  
INSTALLED IN EXISTING PAVEMENT. PATCH  
PAVEMENT TO MATCH EXISTING THICKNESS.



1. THIS PROCEDURE IS APPLICABLE ONLY IF CURB IS TO BE SET AFTER BASE COURSE IS IN PLACE PRIOR TO BINDER AND TOP PLACEMENT.
2. CUT NEAT LINE 6" FROM CURB LINE AND REMOVE BASE AND GRAVEL. REPLACE WITH CEMENT CONCRETE.
3. ANY DESIGNATED CEMENT CONCRETE THAT IS ACCEPTABLE UNDER SECTION M4 OF THE STANDARD SPECIFICATIONS MAY BE USED; ALL TEST REQUIREMENTS ARE WAIVED. HOT MIX ASPHALT SHALL NOT TO BE USED AS A SUBSTITUTE.



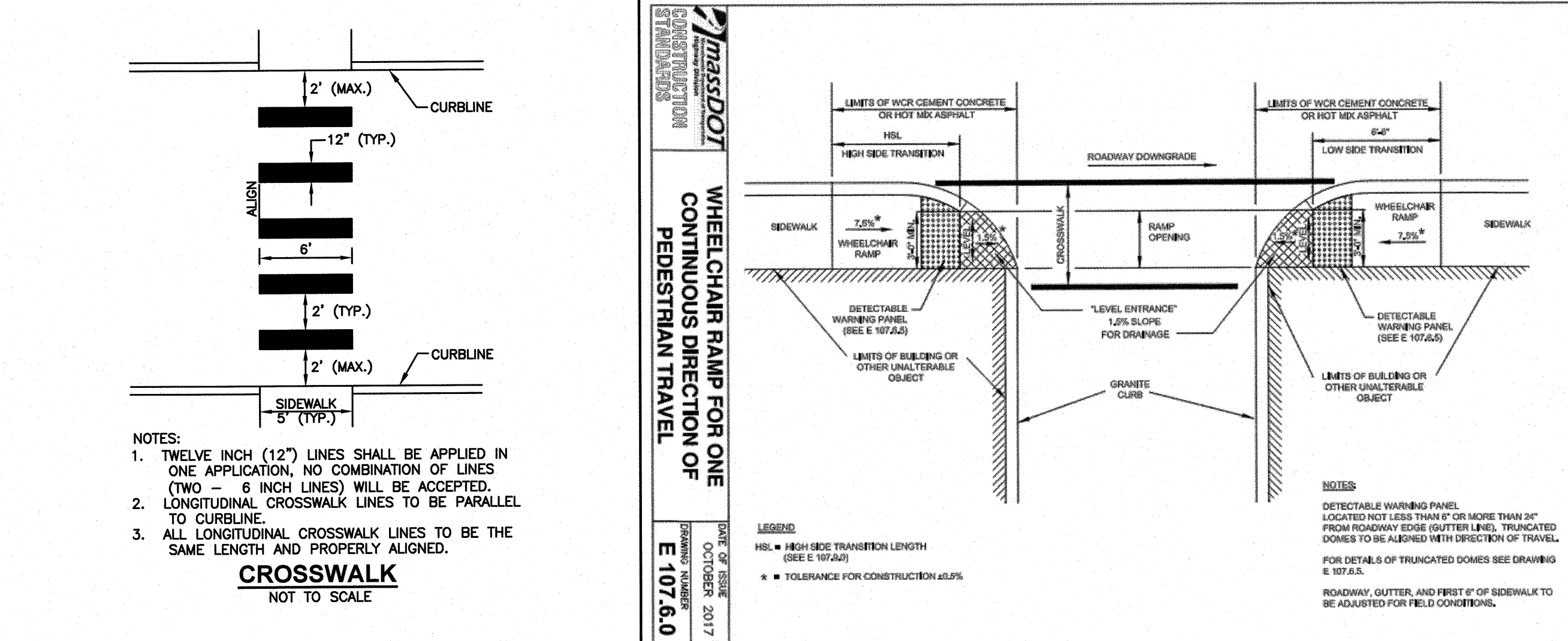
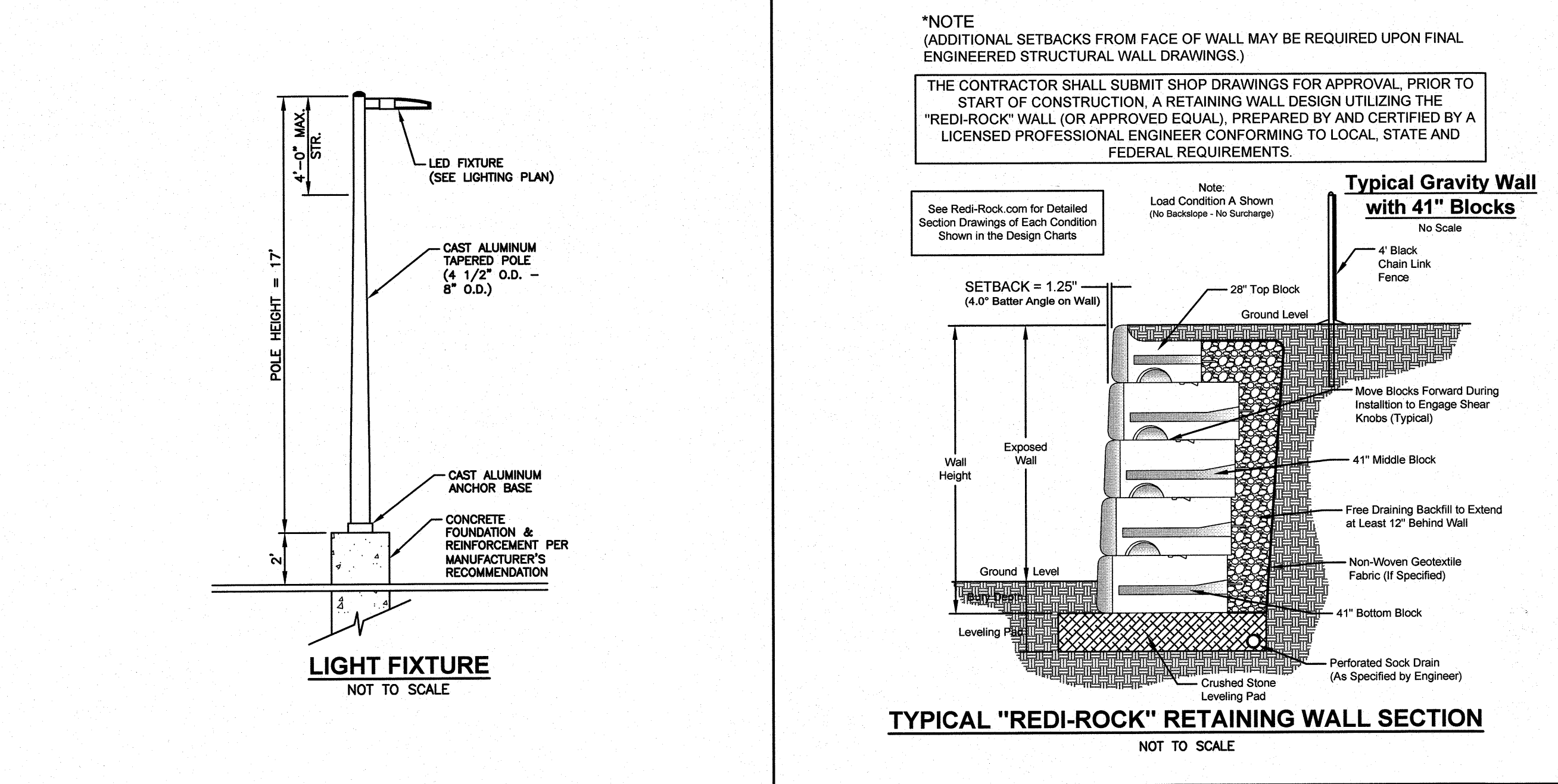
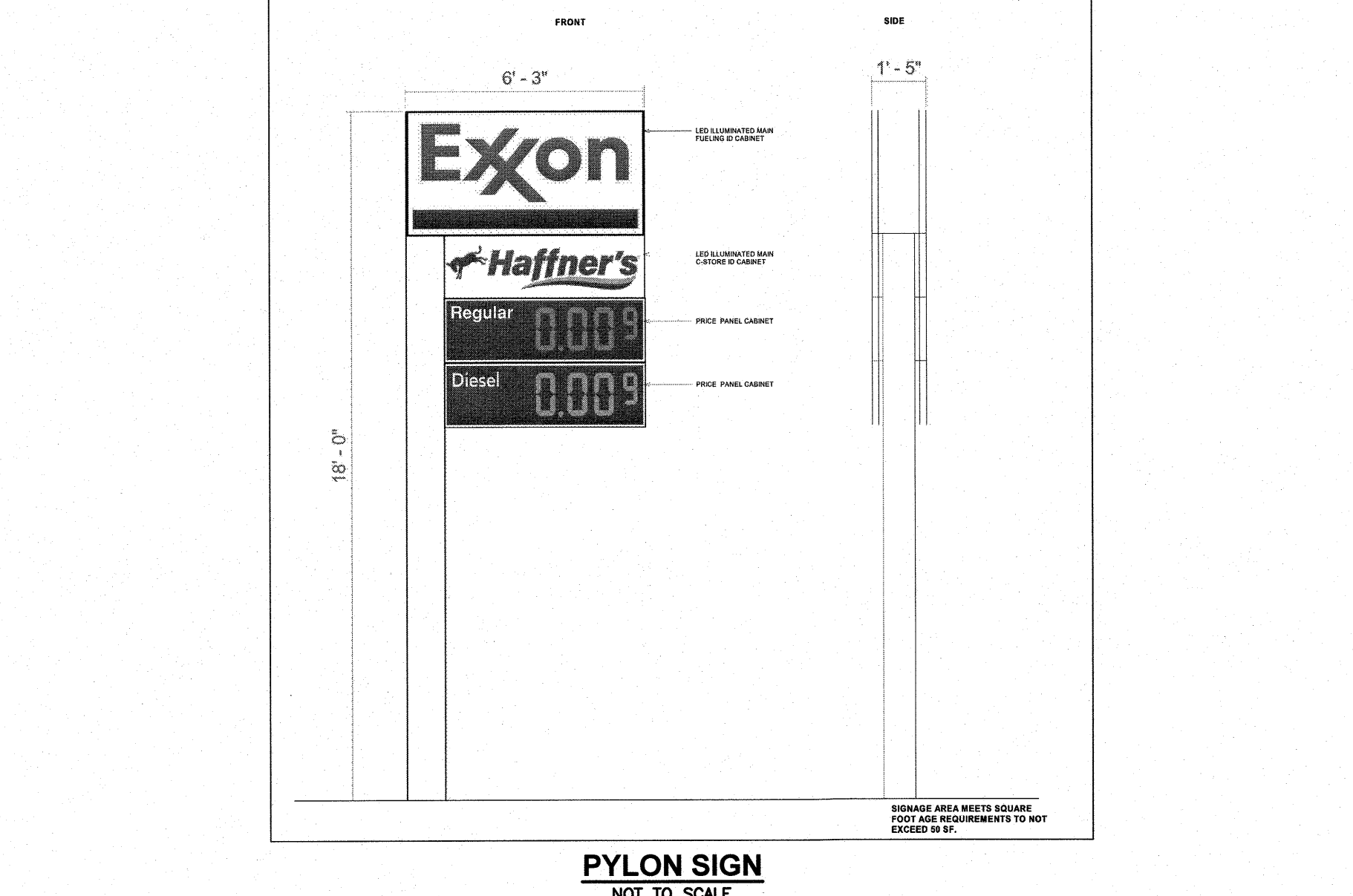
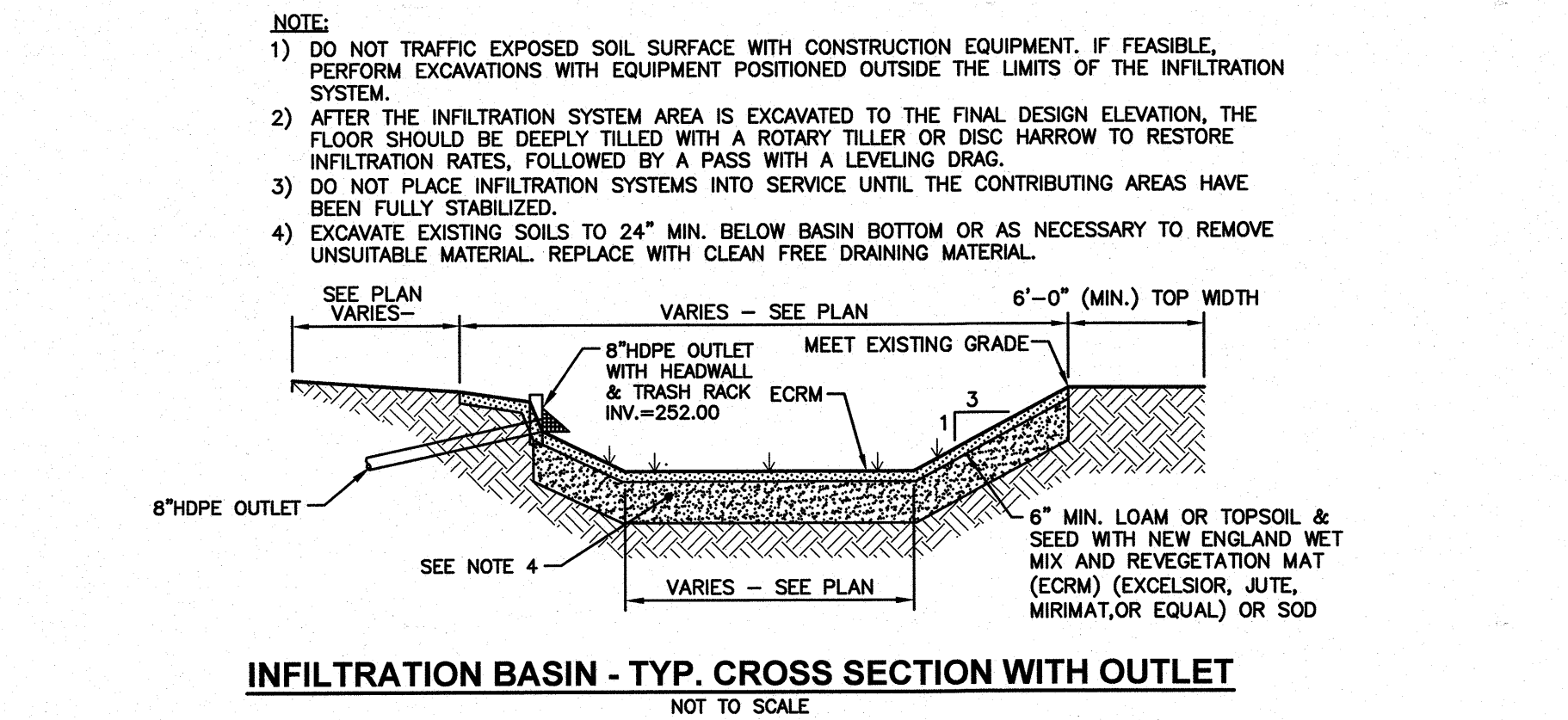
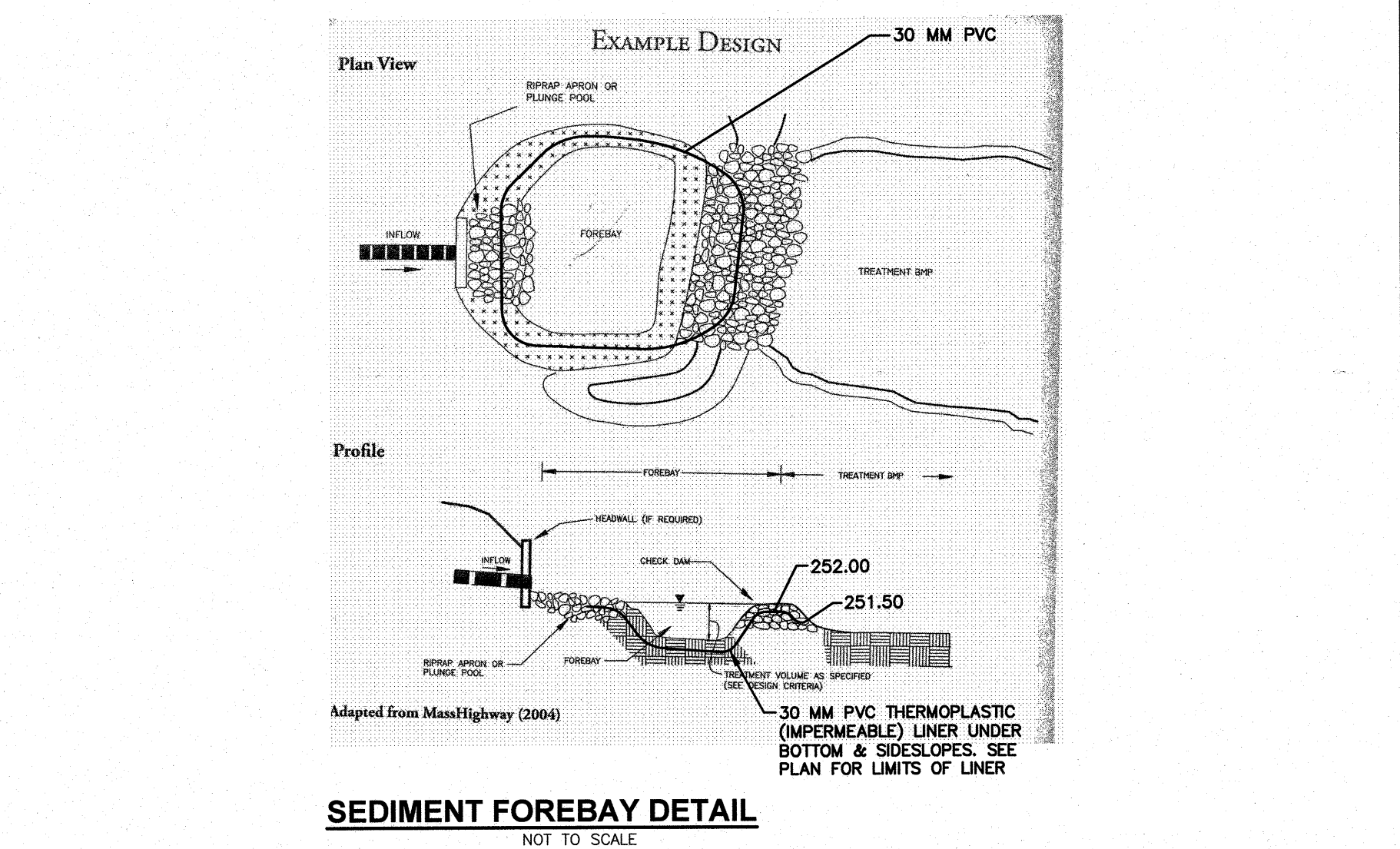
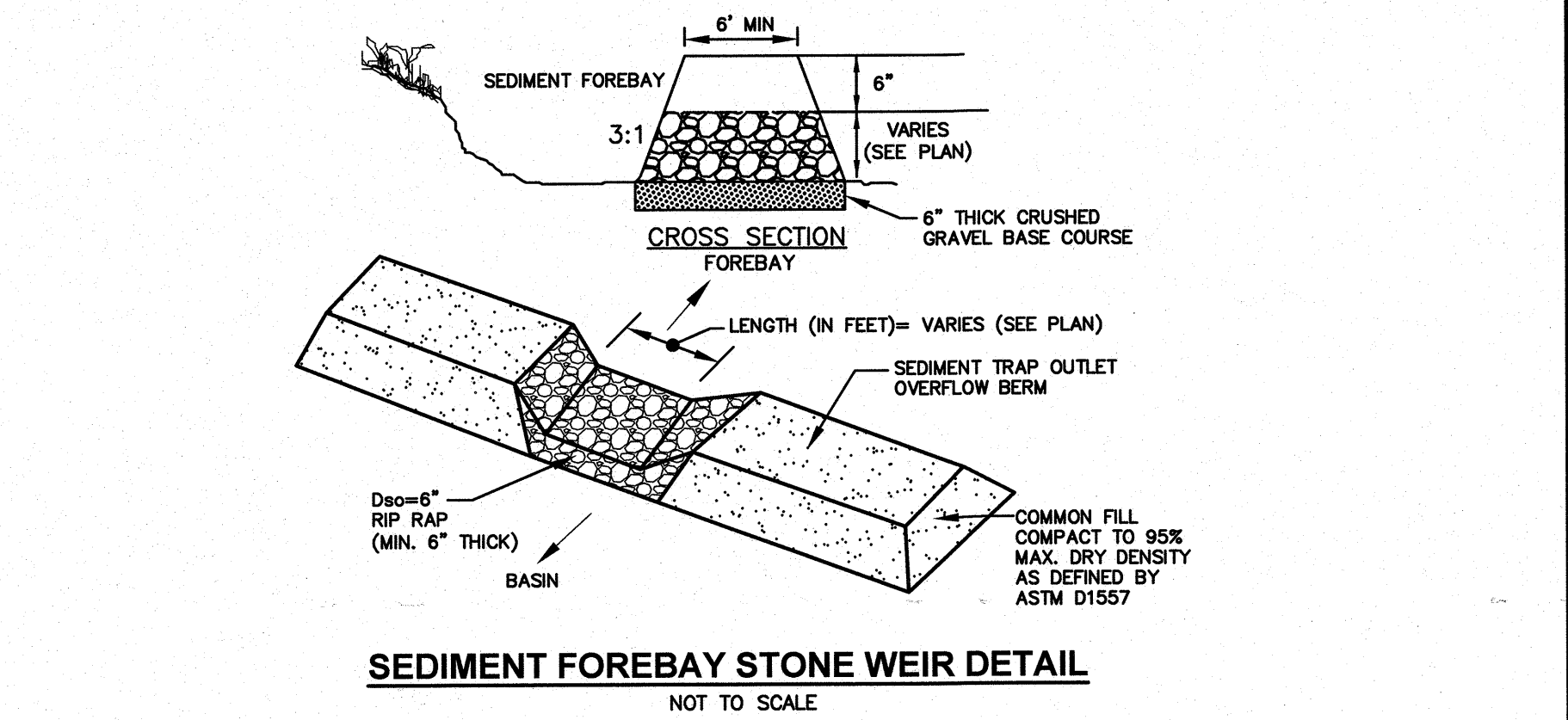
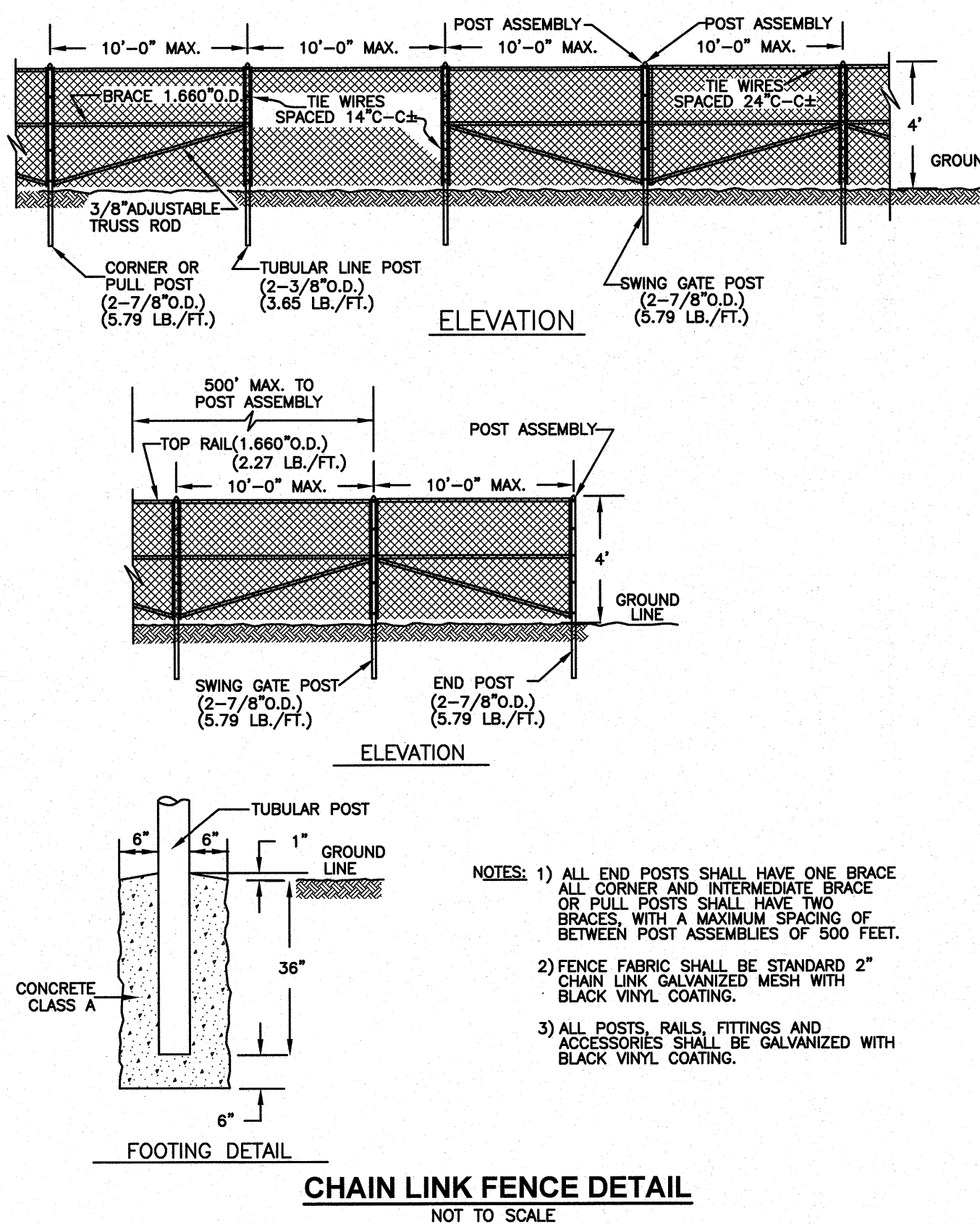
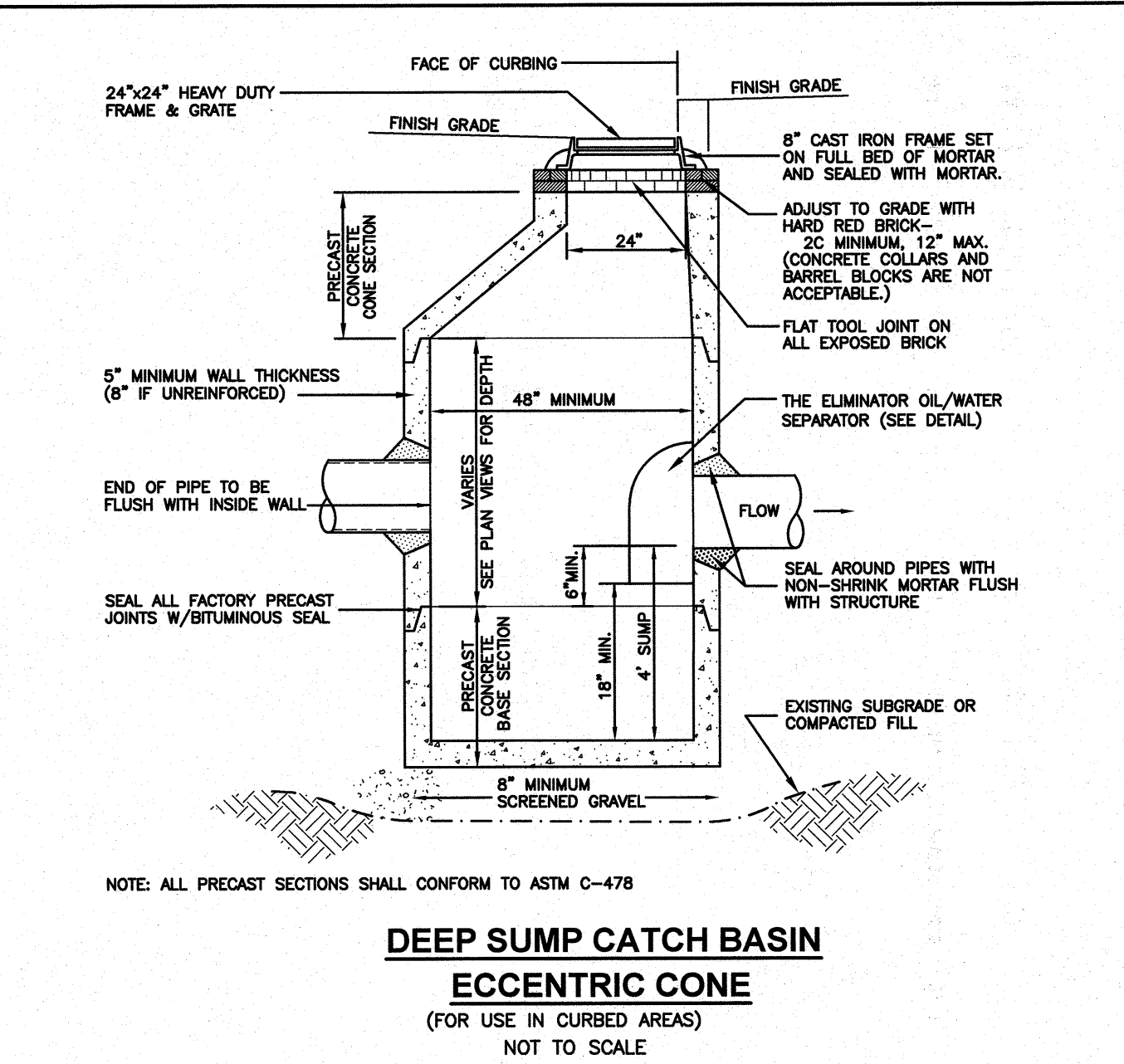
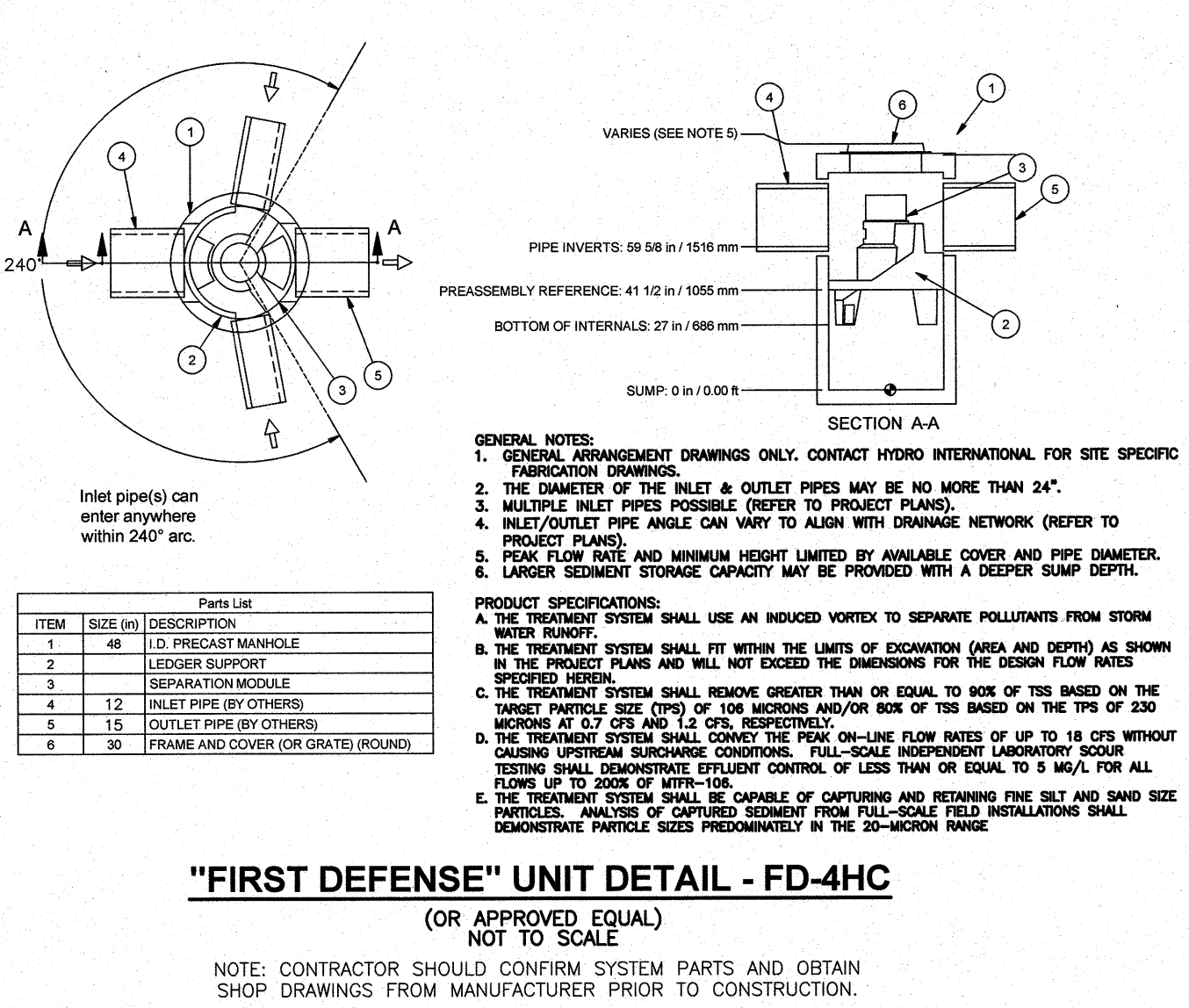
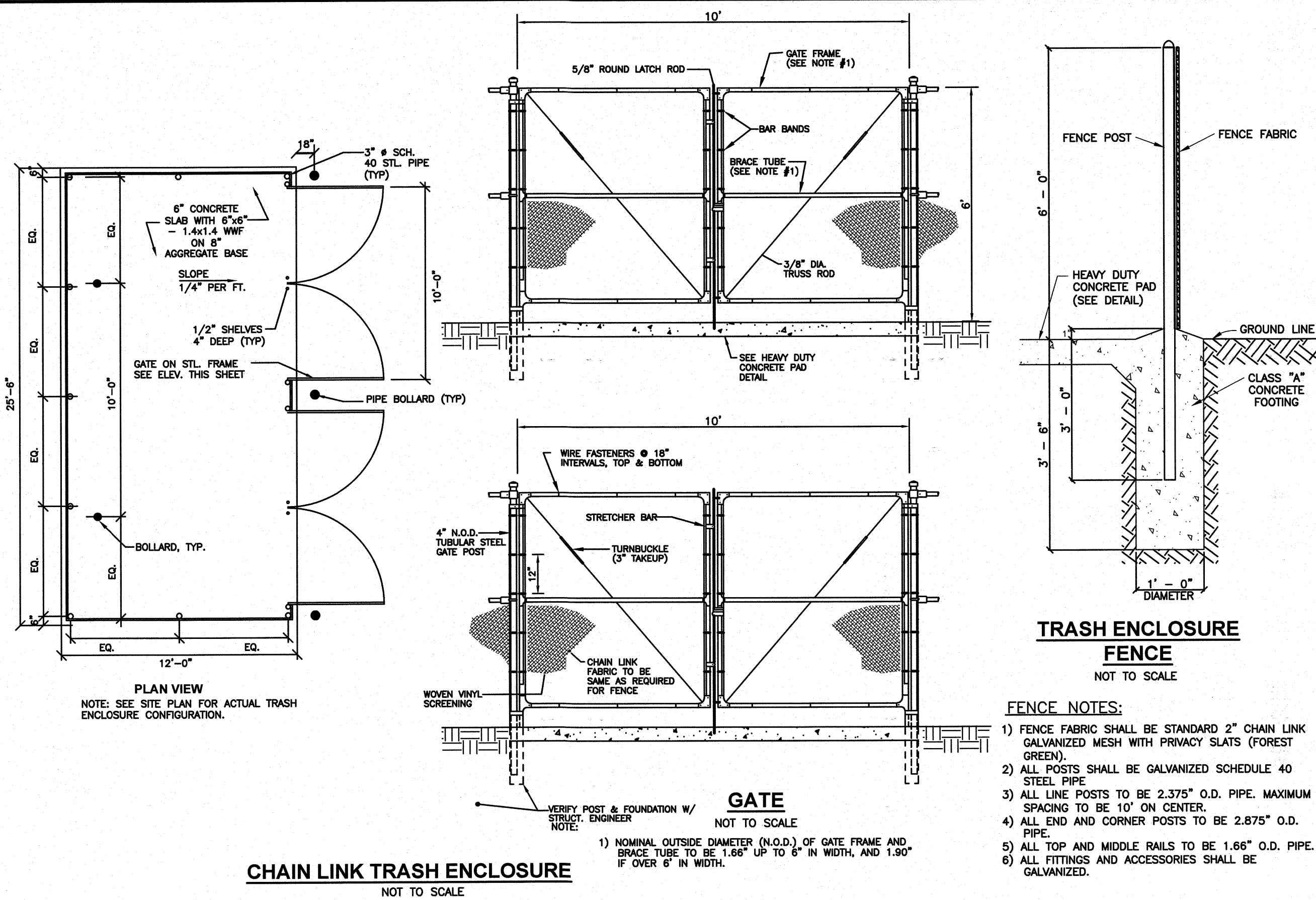
**NOTE:** WHERE BITUMINOUS PAVEMENT SECTIONS ARE TRANSITIONED TO CONCRETE SECTIONS, THE BITUMINOUS PAVEMENT SHOULD BE THICKENED BY 2 IN. (BINDER COURSE) TO MITIGATE THE CHANCES OF DIFFERENTIAL SETTLEMENT AND CRACKING BETWEEN THE TWO SECTIONS. THE LATERAL EXTENT OF THE THICKENED SECTION SHOULD BE 6 IN. AND SHOULD TRANSITION BACK TO THE RECOMMENDED FLEXIBLE PAVEMENT SECTION ON A 2H:1V SLOPE.



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NO.	REVISION	DATE

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603.883.0720 GPINET.COM  
Greenman-Pedersen, Inc.  
44 Stiles Road, Suite One  
Salem, NH 03079

PREPARED FOR  
**ENERGY NORTH GROUP**  
2 INTERNATIONAL WAY  
LAWRENCE, MA 01843

PROPOSED RETAIL MOTOR FUEL OUTLET  
SITE RE-DEVELOPMENT  
PARCEL ID: U45-7-0, U45-7-B, U45-8-A, & U45-11-0  
254, 256 & 260 AYER ROAD  
LITTLETON, MASSACHUSETTS  
PARCEL ID: 30-16  
0 LITTLETON ROAD  
AYER, MASSACHUSETTS

COMMONWEALTH OF MASSACHUSETTS  
CRISTOPHER J. TYMULA  
CIVIL  
No. 57140  
2/8/23

REVISIONS		
NO.	REVISION	DATE

NO. REVISION DATE

FEBRUARY 8, 2023

DRAWN/DESIGN BY: SJB/CNM CHECKED BY: CMT

DETAIL SHEET

SCALE: AS SHOWN

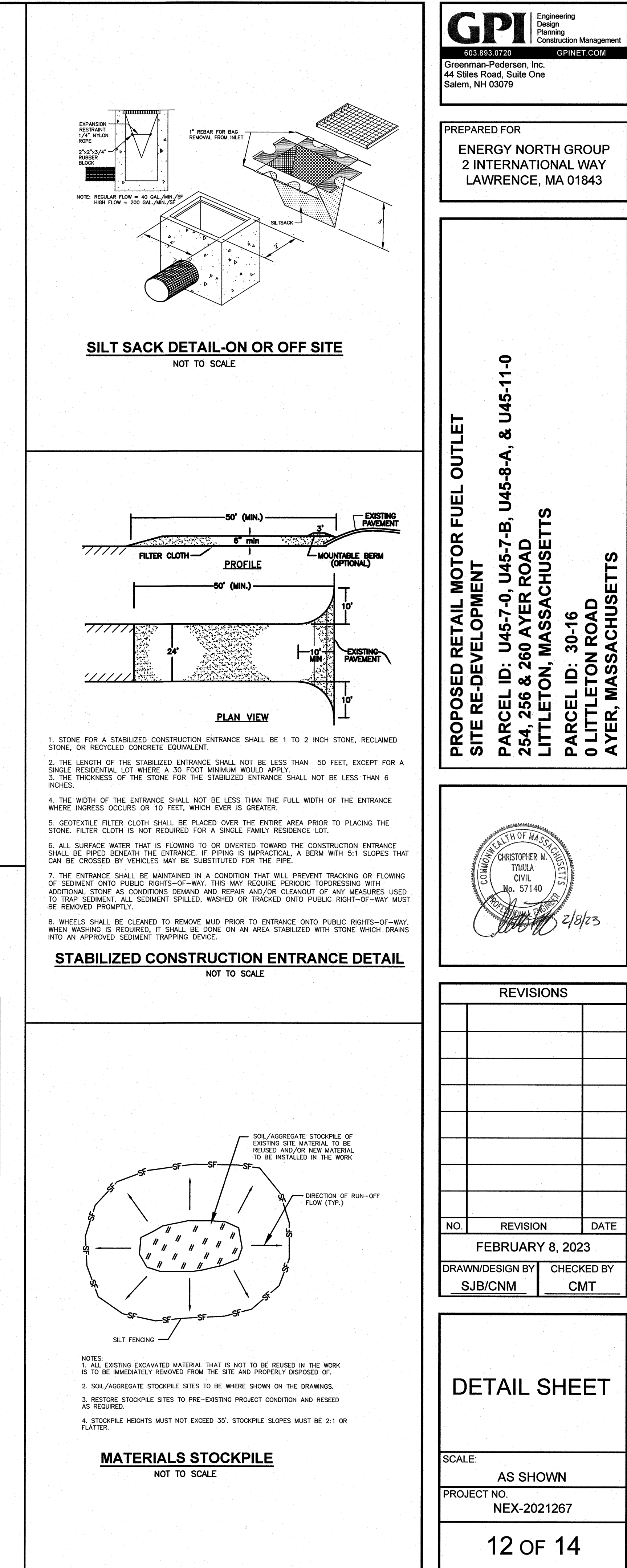
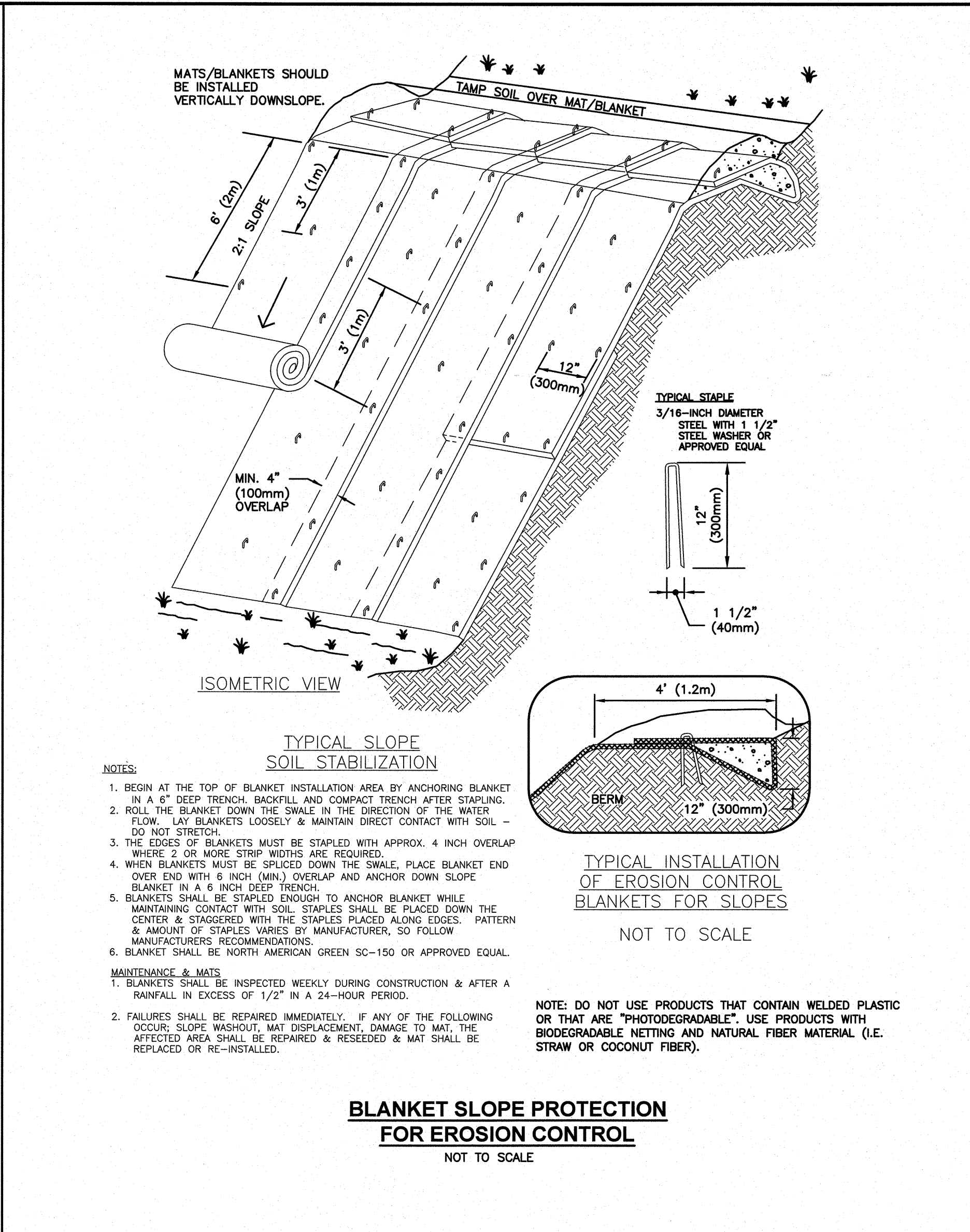
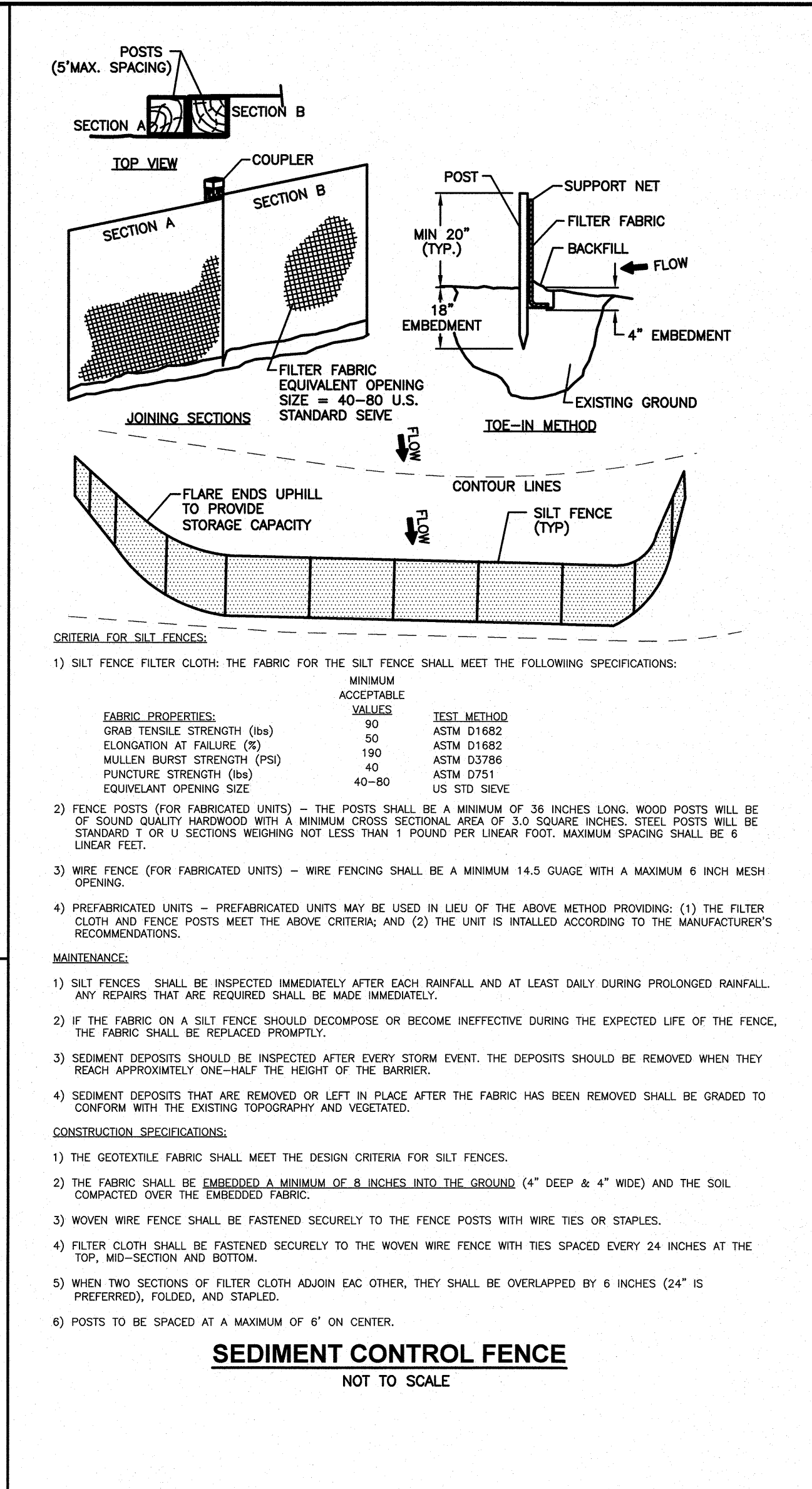
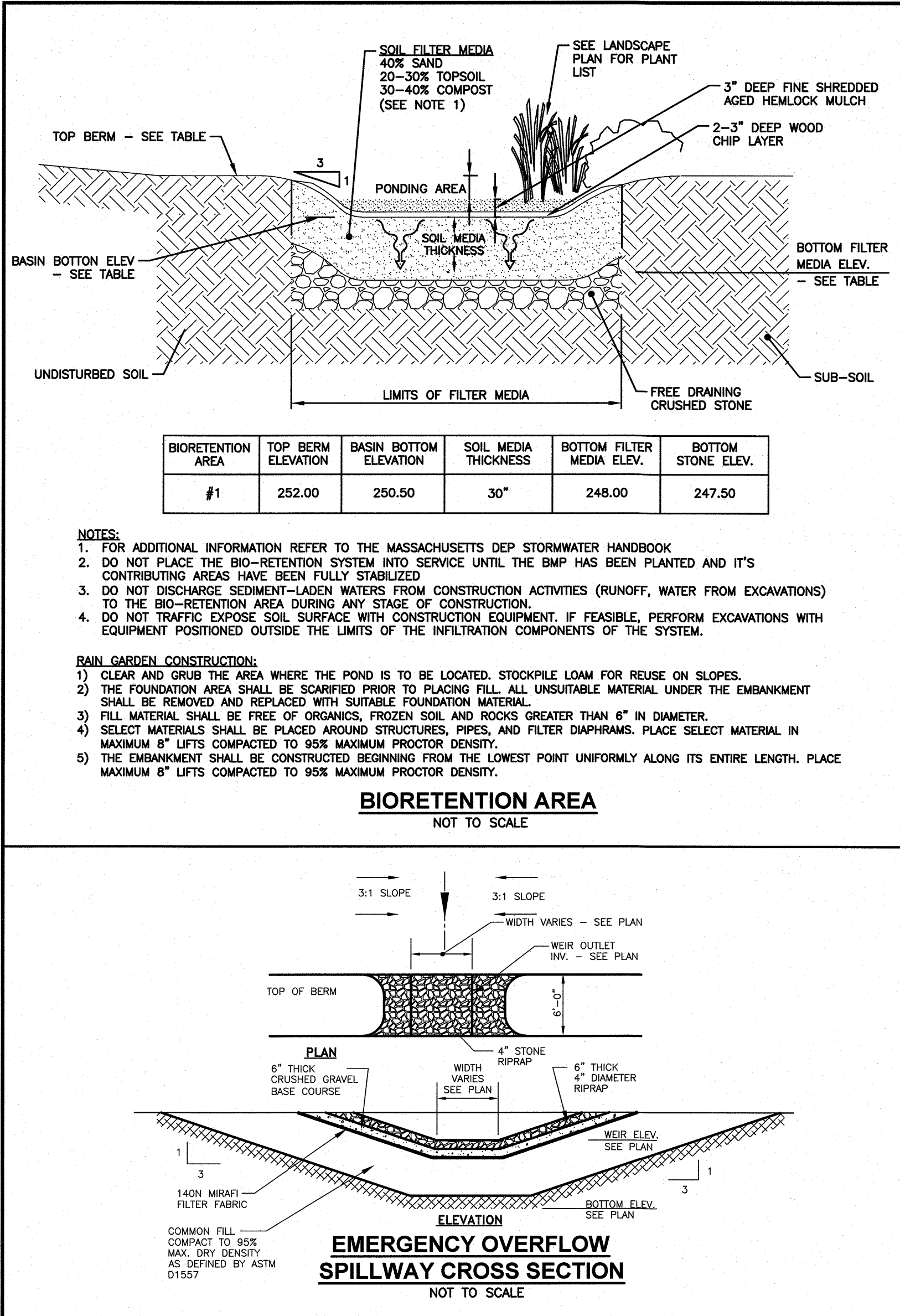
PROJECT NO. NEX-2021267

10 OF 14









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Design  
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254, 256 & 260 AYER ROAD

LITTLETON, MASSACHUSETTS

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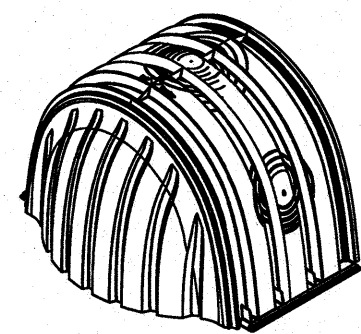
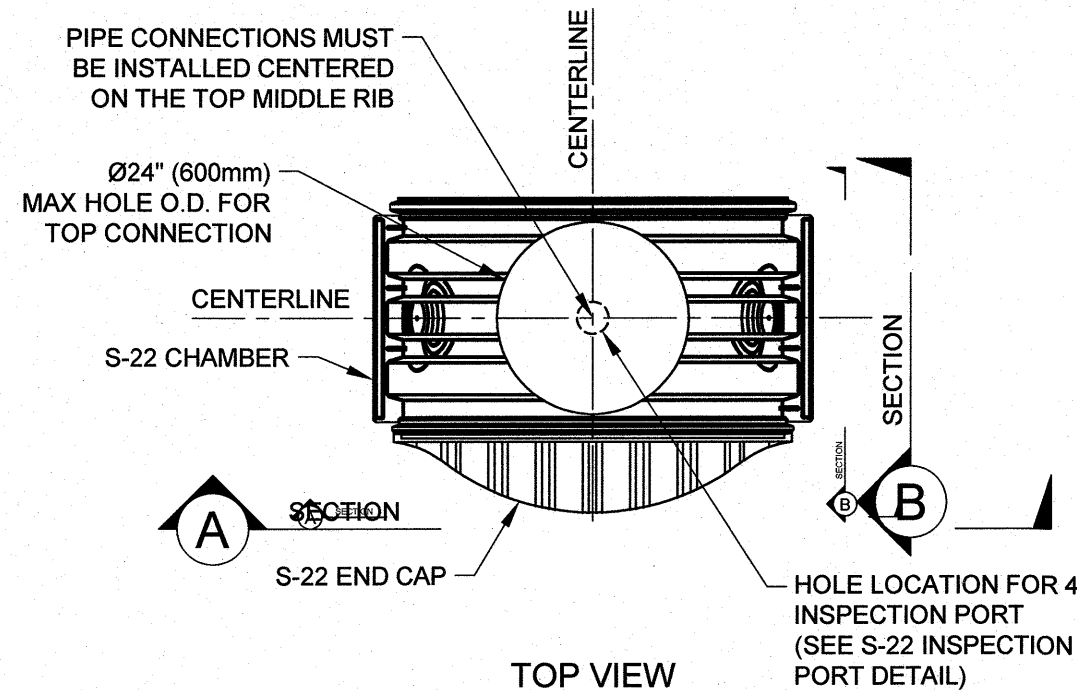
DETAIL SHEET

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12 OF 14



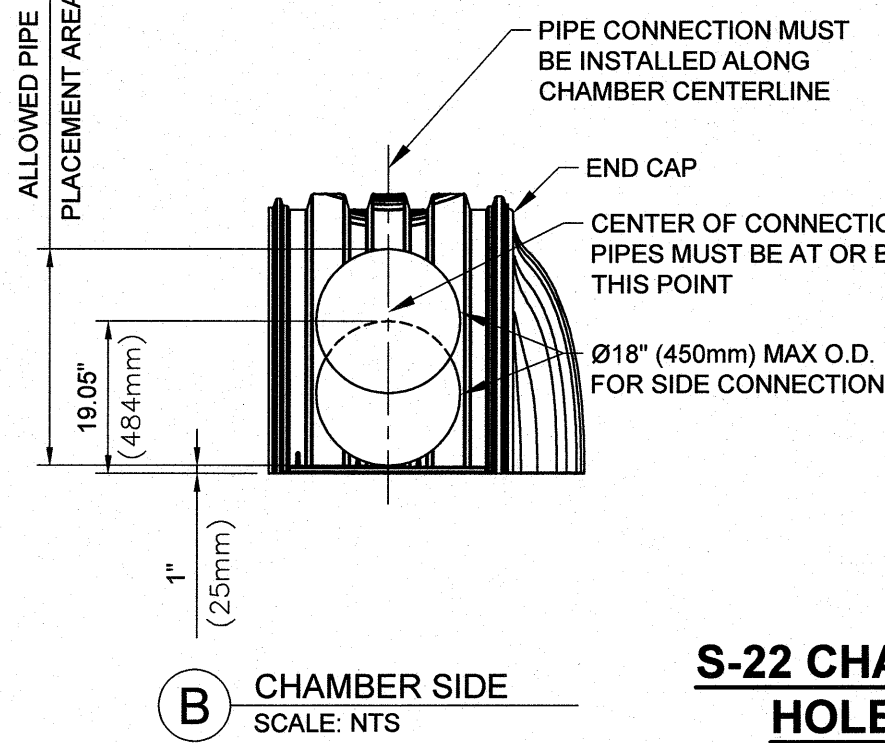
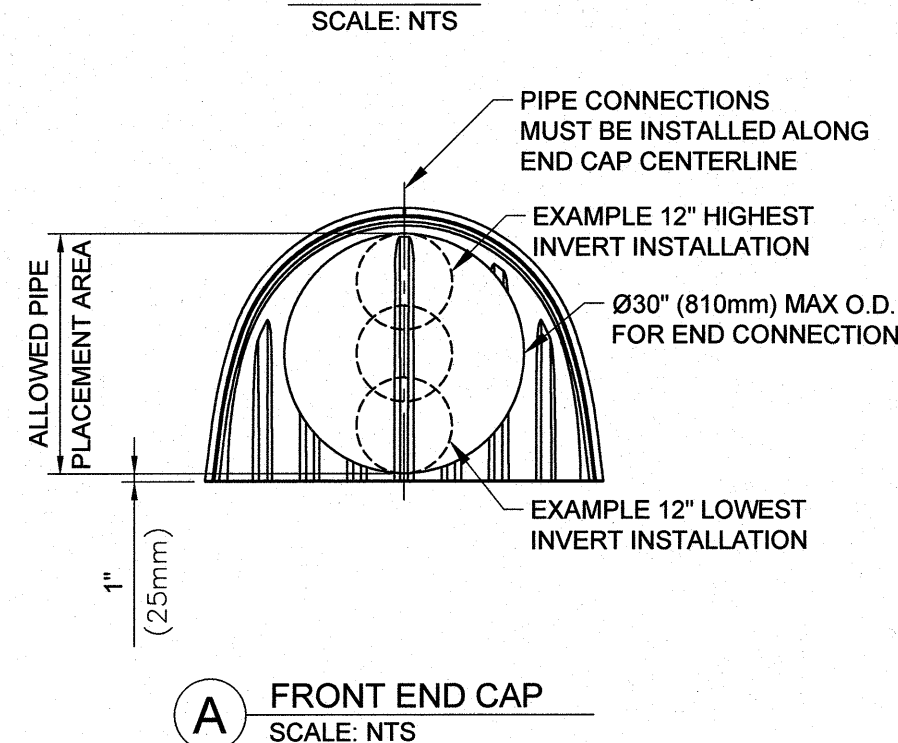


## NOTES:

- CUT CHAMBERS AND END CAPS IN ACCORDANCE WITH THE HYDROCHAIN CHAMBER SUPPLEMENTAL INSTRUCTIONS AND INSTALLATION MANUAL. REFERENCE THE QR CODE BELOW FOR PRODUCT DOCUMENTS.

## RECOMMENDED EQUIPMENT:

- PERSONAL PROTECTION EQUIPMENT (PPE): GLOVES, SAFETY GLASSES, FACE SHIELD, LONG-SLEEVE SHIRT, RESPIRATOR MASK, HEARING PROTECTION, SAFETY-TOED SHOES, HARDHAT, HIGH-VISIBILITY CLOTHING.
- HAND TOOLS: MARKER, RECIPROCATING SAW WITH BIMETAL TAPERED BLADES, DRILL WITH 0.5" BITS, ANGLE GRINDER, TAPE MEASURE.
- EXPENDABLES: SPRAY FOAM GAP SEALER TO FILL GAPS BETWEEN PIPE O.D. AND HOLE.



## S-22 CHAMBER AND END CAP HOLE CUTTING DETAIL

MAX CONNECTION PIPE O.D.	
S-22 CHAMBER	18" (450mm)
S-22 END CAP	30" (762mm)

## NOTES:

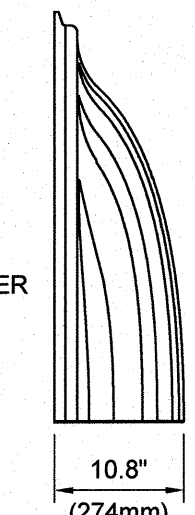
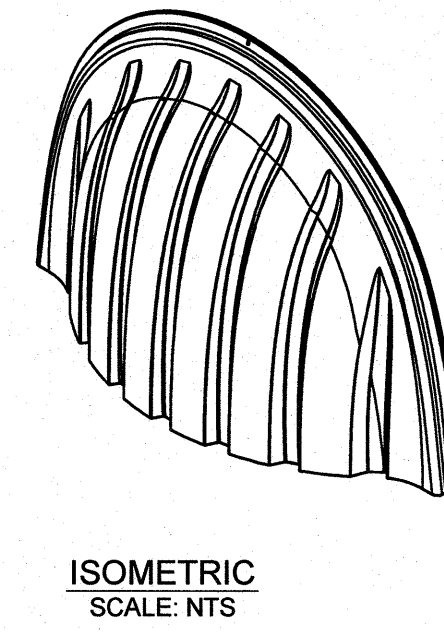
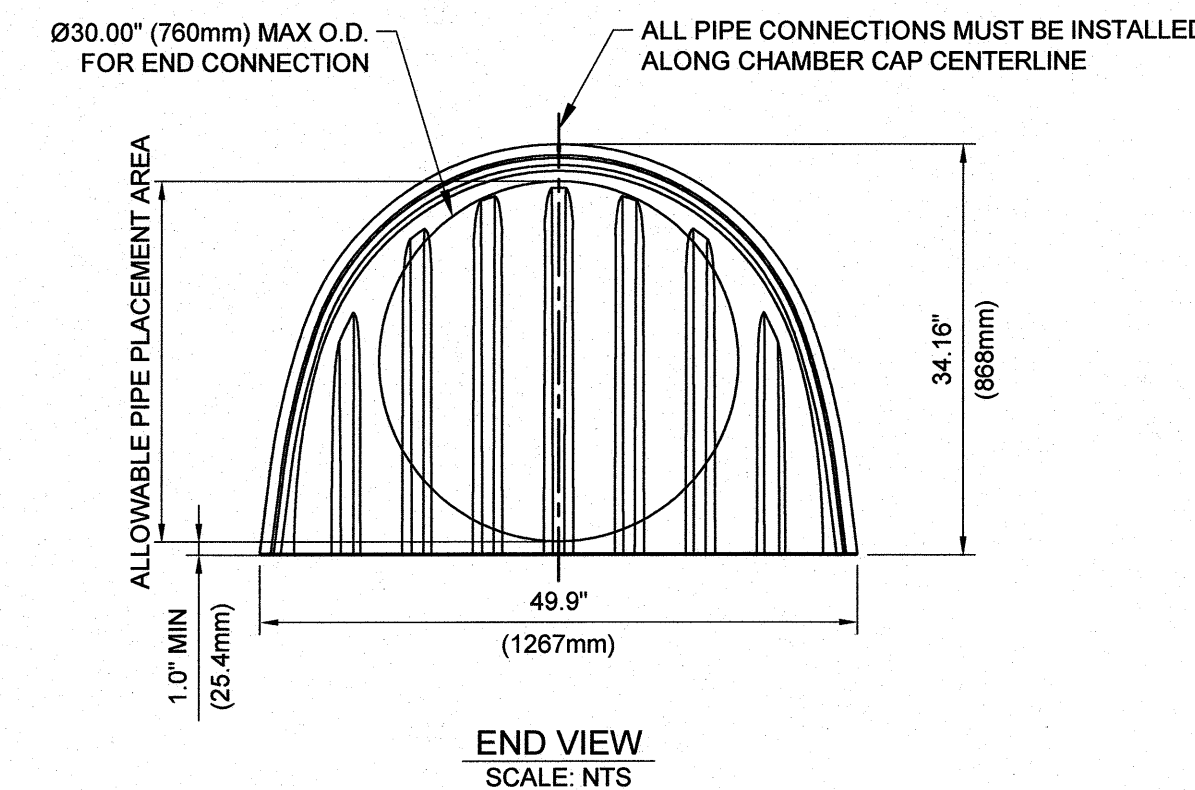
- INSTALL THE MAIN HEADER ROW, CHAMBERS, AND END CAPS IN ACCORDANCE WITH THE SITE SPECIFIC PLANS, HYDROCHAIN INSTALLATION MANUAL AND SUPPLEMENTAL DOCUMENTS. REFERENCE THE QR CODE BELOW FOR PRODUCT DOCUMENTS.
- CONDUCT INSPECTION AND MAINTENANCE IN ACCORDANCE WITH HYDROCHAIN CHAMBER MAIN HEADER ROW OPERATION AND MAINTENANCE MANUAL.

CONNECTION PIPE COMPATIBILITY TABLE					
PIPE SIZE	PIPE MATERIAL <sup>1</sup>	HOLE CUT SIZE <sup>2</sup> MIN-MAX	SIDE CONNECTION	TOP CONNECTION	END CAP
4"	PVC	4.5"-5.5" (114mm-140mm)	X	X	X
	HDPE/PP	4.8"-5.8" (122mm-147mm)	X	X	X
6"	PVC	6.625"-7.625" (168mm-194mm)	X	X	X
	HDPE/PP	6.9"-7.9" (175mm-201mm)	X	X	X
8"	PVC	8.625"-9.625" (219mm-244mm)	X	X	X
	HDPE/PP	9.1"-10.1" (231mm-257mm)	X	X	X
12"	PVC	12.75"-13.75" (324mm-349mm)	X	X	X
	HDPE/PP	14.5"-15.5" (368mm-394mm)	X	X	X
15"	PVC	16"-17" (406mm-431mm)	X	X	X
	HDPE/PP	22"-23" (559mm-584mm)		X	X
18"	PVC	23"-24" (584mm-610mm)		X	X
	HDPE/PP	22"-23" (559mm-584mm)	X	X	X
24"	PVC	24"-25" (610mm-635mm)		X	X
	HDPE/PP	28"-29" (711mm-737mm)			X
	RCP	30"-31" (762mm-787mm)			

- PVC HOLE CUT SIZES BASED ON SCH-40, SCH-80, SDR-35, AND SDR-26 PIPES. HDPE/PP HOLE CUT SIZES BASED ON INDUSTRY STANDARD PIPES CONFORMING TO ASTM F2811/F2306/F2648. RCP HOLE CUT SIZES BASED ON INDUSTRY STANDARD PIPES CONFORMING TO ASTM C79/C655. CONTACT SHAWCOR AT WATERSALES@SHAWCOR.COM FOR ADDITIONAL INFORMATION.
- CUT THE HOLE TO MINIMIZE GAPS BETWEEN THE CONNECTING PIPE O.D. AND CHAMBER HOLE I.D.

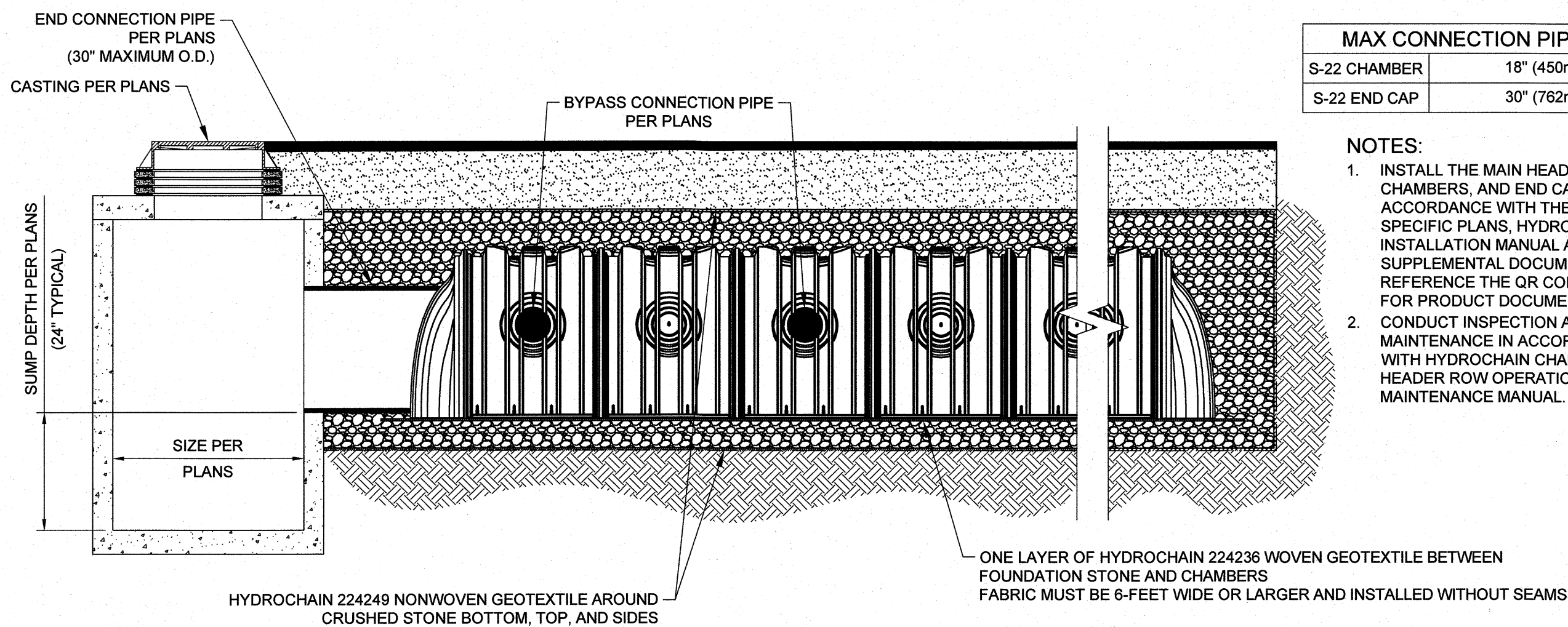
## UNDERGROUND INFILTRATION SYSTEM NOTES:

- EXISTING TOPSOIL, BRUSH, TREES, BOULDERS, FILL, DEBRIS AND OTHER UNSUITABLES TO BE REMOVED FOR 5' ALL AROUND UNDERGROUND INFILTRATION SYSTEM DOWN TO NATIVE MATERIAL. BACKFILL WITH STONE BEDDING MATERIAL.
- DO NOT TRAFFIC EXPOSED SOIL SURFACES WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION SYSTEM.
- DO NOT PLACE INFILTRATION SYSTEMS INTO SERVICE UNTIL THE CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
- CONTRACTOR SHOULD CONFIRM SYSTEM PARTS AND OBTAIN SHOP DRAWINGS FROM MANUFACTURER. SUBSTITUTIONS AND SHOP DRAWINGS SHOULD BE APPROVED BY THE ENGINEER.
- PARTS SPECIFICATIONS SHOWN ARE AS PROVIDED BY SHAWCOR, OR APPROVED EQUAL. ANY CHANGES TO THESE SPECIFICATIONS SHOULD BE APPROVED BY DESIGN ENGINEER FOR PERFORMANCE.



S-22 END CAP PROPERTIES	
NOMINAL DIMENSIONS (LAYUP LENGTH × WIDTH × HEIGHT)	10.8" × 49.9" × 34.16" (274mm × 1267mm × 868mm)
BARE END CAP STORAGE	3.98 CUBIC FEET (0.113 CUBIC METERS)
*MIN INSTALLED STORAGE	9.56 CUBIC FEET (0.271 CUBIC METERS)
*ASSUMING A MIN OF 6" (152mm) STONE ABOVE AND BELOW AND 6" (152mm) BETWEEN ROWS WITH 40% STONE POROSITY (DOES NOT INCLUDE 12" (305mm) PERIMETER STONE VOLUME)	

## S-22 CHAMBER END CAPS TECHNICAL SPECIFICATIONS



## S-22 CHAMBER MAIN HEADER ROW (MHR) DETAIL

## PARTS LIST

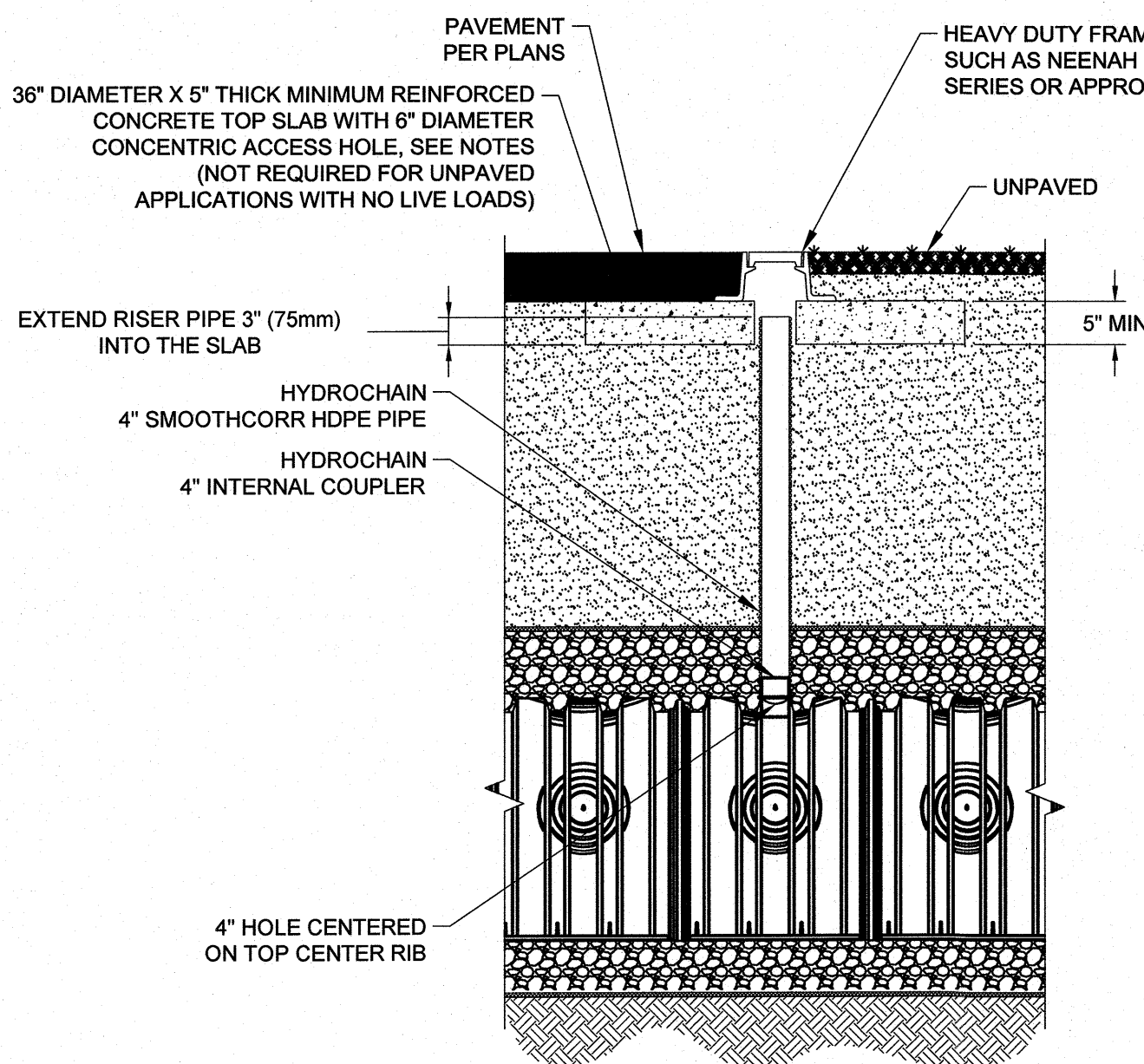
ITEM	QTY	PROVIDER
HEAVY DUTY FRAME AND COVER SUCH AS R-1970 TO 1978 SERIES OR APPROVED EQUAL	1	CONTRACTOR/OTHERS
36" REINFORCED CONCRETE TOP SLAB	1	CONTRACTOR/OTHERS
HYDROCHAIN 4" SMOOTH CORR HDPE PIPE	PER PLANS	MANUFACTURER
HYDROCHAIN 4" INTERNAL COUPLER	1	MANUFACTURER

## NOTES:

- INSTALL INSPECTION PORTS IN ACCORDANCE WITH THE SITE SPECIFIC PLANS, HYDROCHAIN INSTALLATION MANUAL AND SUPPLEMENTAL DOCUMENTS. REFERENCE THE QR CODE BELOW FOR PRODUCT DOCUMENTS.
- THE INSPECTION PORT PIPE MUST NOT BE CONNECTED TO THE TOP SLAB. THE RISER PIPE MUST NOT BE SUBJECT TO SURFACE LOADS.
- SEE HYDROCHAIN CHAMBER CROSS SECTION STANDARD DETAIL FOR CHAMBER AND MINIMUM BACK FILL DIMENSIONS.

## OPERATION AND MAINTENANCE:

- REMOVE CASTING LID.
- USE A LIGHT AND STADIA ROD TO MEASURE THE SEDIMENT DEPTH IN THE BOTTOM OF THE CHAMBER.
- OPTIONALLY, A BORESCOPE CAMERA MAY BE USED TO INSPECT THE INSIDE OF THE CHAMBERS.
- IF SEDIMENT DEPTH IS ABOVE ACCEPTABLE LEVELS, THEN PERFORM MAINTENANCE IN ACCORDANCE WITH LOCAL REQUIREMENTS AND HYDROCHAIN CHAMBER OPERATION AND MAINTENANCE MANUAL.



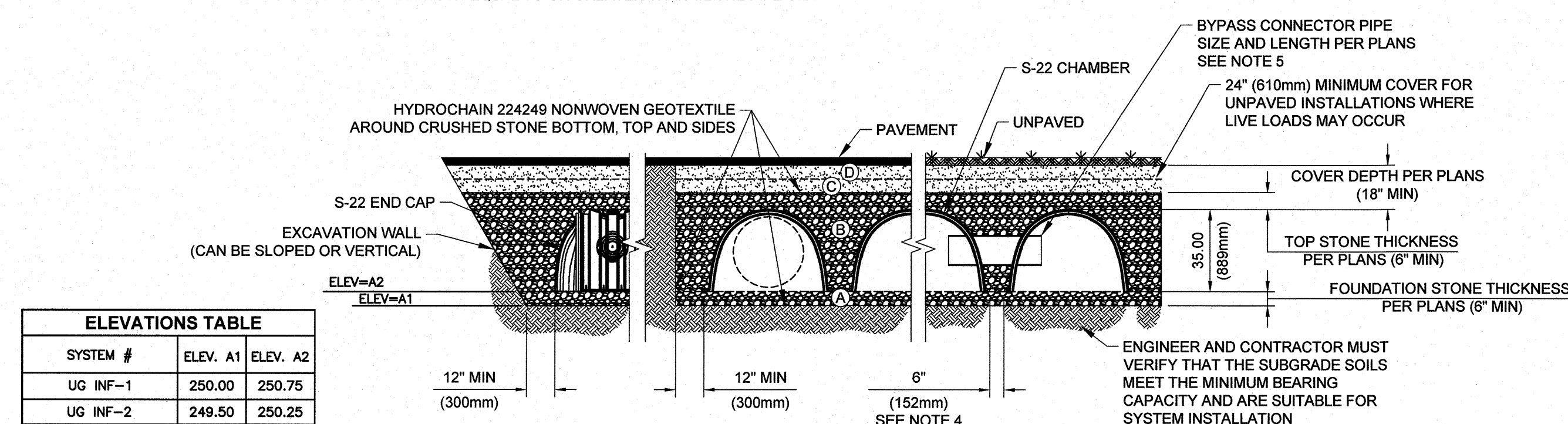
## S-22 CHAMBER 4-INCH INSPECTION PORT

## STANDARD FILL MATERIALS

	MATERIAL LOCATION	DESCRIPTION	AASHTO M43 DESIGNATION	AASHTO M145 DESIGNATION	COMPACT/DENSITY REQUIREMENT
D	FILL MATERIAL FROM 18" TO GRADE ABOVE CHAMBERS	ANY SOIL/ROCK MATERIALS, NATIVE SOILS OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	N/A	PREPARE PER ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	FILL MATERIAL FOR 6" (152mm) TO 18" (457mm) ELEVATION ABOVE CHAMBERS 24" (610mm) FOR UNPAVED INSTALLATIONS	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES. MOST PAVEMENT SUB-BASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	A-1 A-2 A-3	COMPACT IN 6" (154mm) LIFTS TO A MINIMUM 95% STANDARD PROCTOR DENSITY. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs. (5443 kg) DYNAMIC FORCE NOT TO EXCEED 20,000 lbs. (9072 kg).
B	EMBEDMENT STONE SURROUNDING AND TO A 6" (154mm) ELEVATION ABOVE CHAMBERS	¾" - 2" (20-50mm) CLEAN, CRUSHED, ANGULAR STONE (IGNEOUS RECOMMENDED)	3, 357, 4, 467, 5, 56, 57	N/A	NO COMPACTION REQUIRED IF MIXED STONE IS USED.
A	FOUNDATION STONE BELOW CHAMBERS	¾" - 2" (20-50mm) CLEAN, CRUSHED, ANGULAR STONE (IGNEOUS RECOMMENDED)	3, 357, 4, 467, 5, 56, 57	N/A	PLATE COMPACTION OR ROLL TO ACHIEVE A 95% STANDARD PROCTOR DENSITY.

## NOTE:

- INSTALL CHAMBERS AND END CAPS IN ACCORDANCE WITH THE SITE SPECIFIC PLANS, HYDROCHAIN INSTALLATION MANUAL AND SUPPLEMENTAL DOCUMENTS. REFERENCE THE QR CODE BELOW FOR PRODUCT DOCUMENTS.
- 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."
- AS AN ALTERNATE TO PROCTOR TESTING AND FIELD DENSITY MEASUREMENTS ON OPEN GRADED STONE, HYDROCHAIN COMPACTION REQUIREMENTS ARE MET FOR "A" LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 8" (229mm) MAXIMUM LIFTS USING TWO FULL PASSES WITH A VIBRATORY COMPACTOR.
- SPACERS ARE REQUIRED TO CONNECT PERPENDICULAR CHAMBER ROWS WITH 6" SPACING. SEE S-22 SPACER DETAIL.
- EXTEND CONNECTOR PIPE INTO CHAMBER BY A LENGTH EQUAL TO OR GREATER THAN 1/2 THE PIPE O.D.

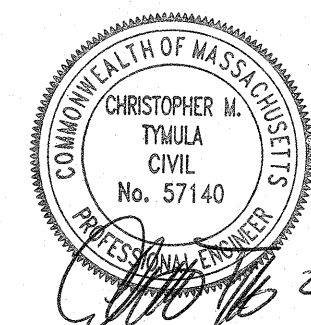


ELEVATIONS TABLE		
SYSTEM #	ELEV. A1	ELEV. A2
UG INF-1	250.00	250.75
UG INF-2	249.50	250.25

## S-22 CHAMBER CROSS SECTION DETAIL

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ENERGY NORTH GROUP  
2 INTERNATIONAL WAY  
LAWRENCE, MA 01843

PROPOSED RETAIL MOTOR FUEL OUTLET  
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254, 256 & 260 AYER ROAD  
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## REVISIONS

NO.	REVISION	DATE

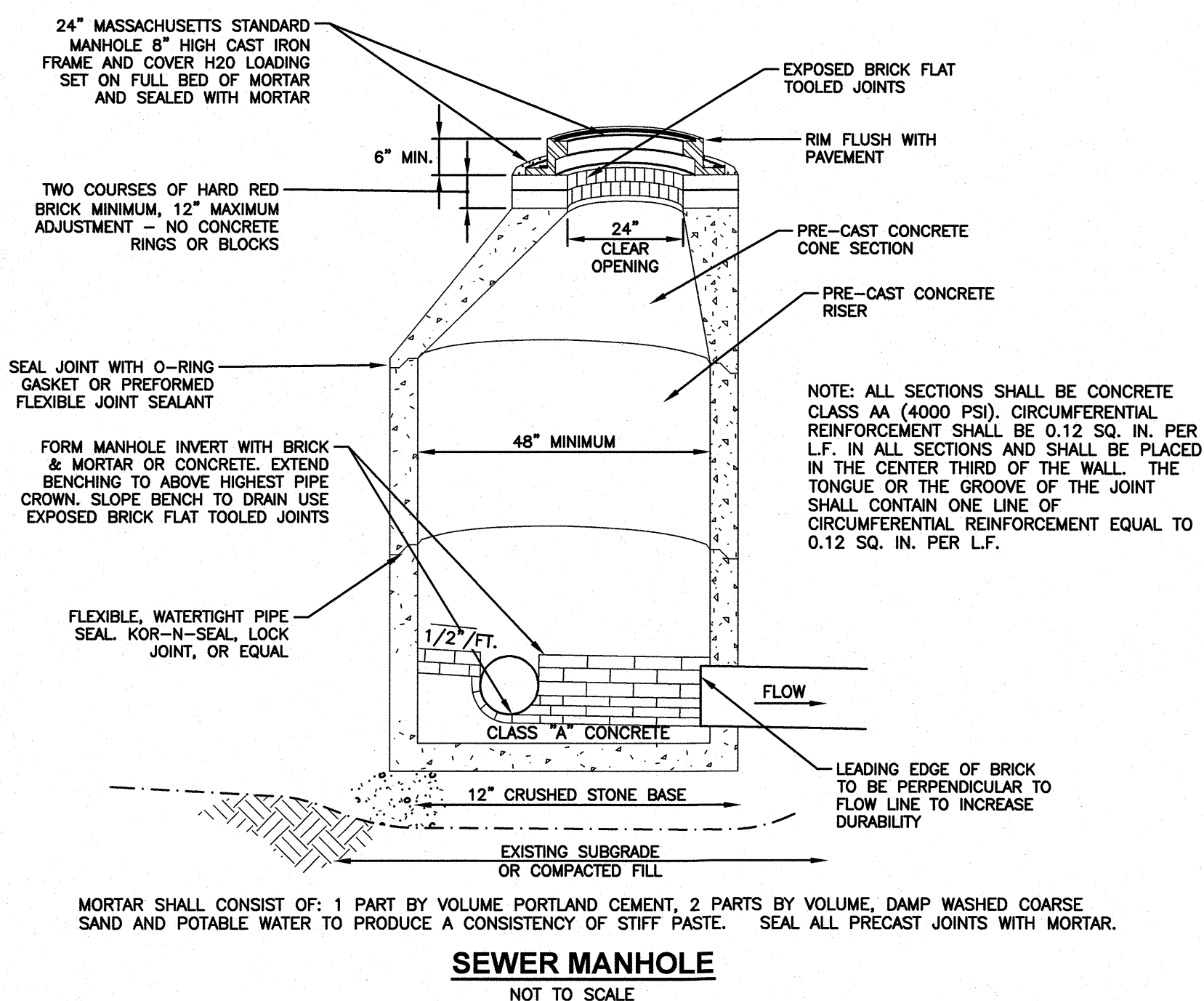
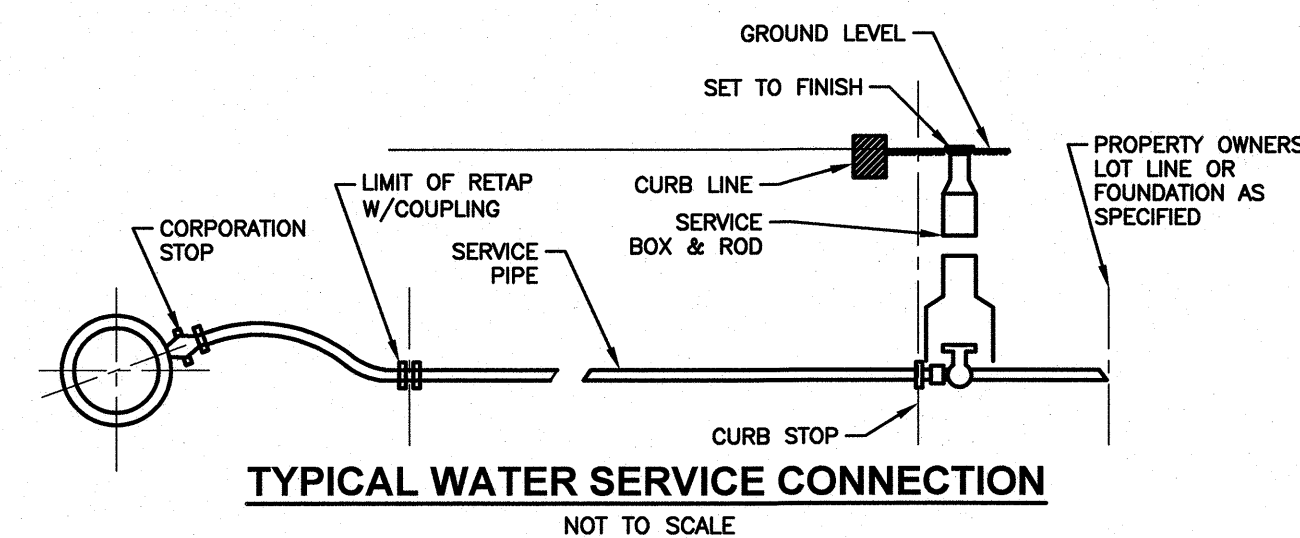
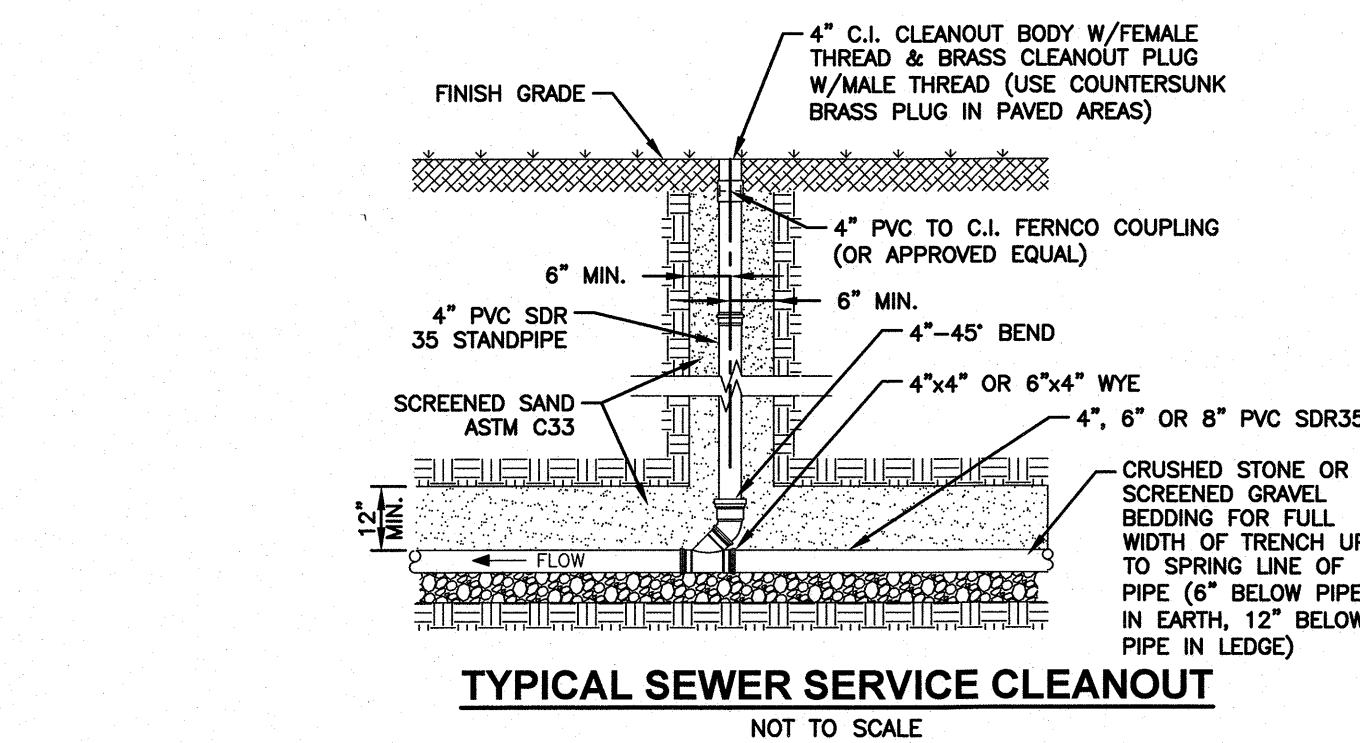
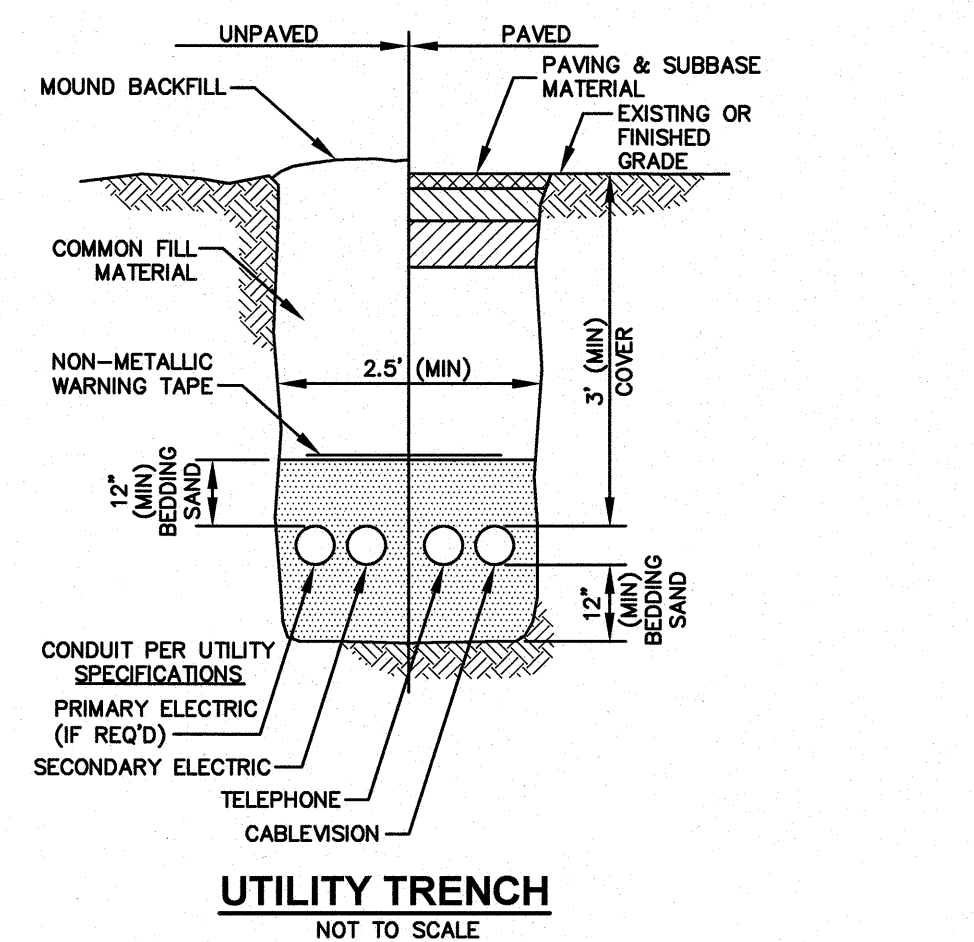
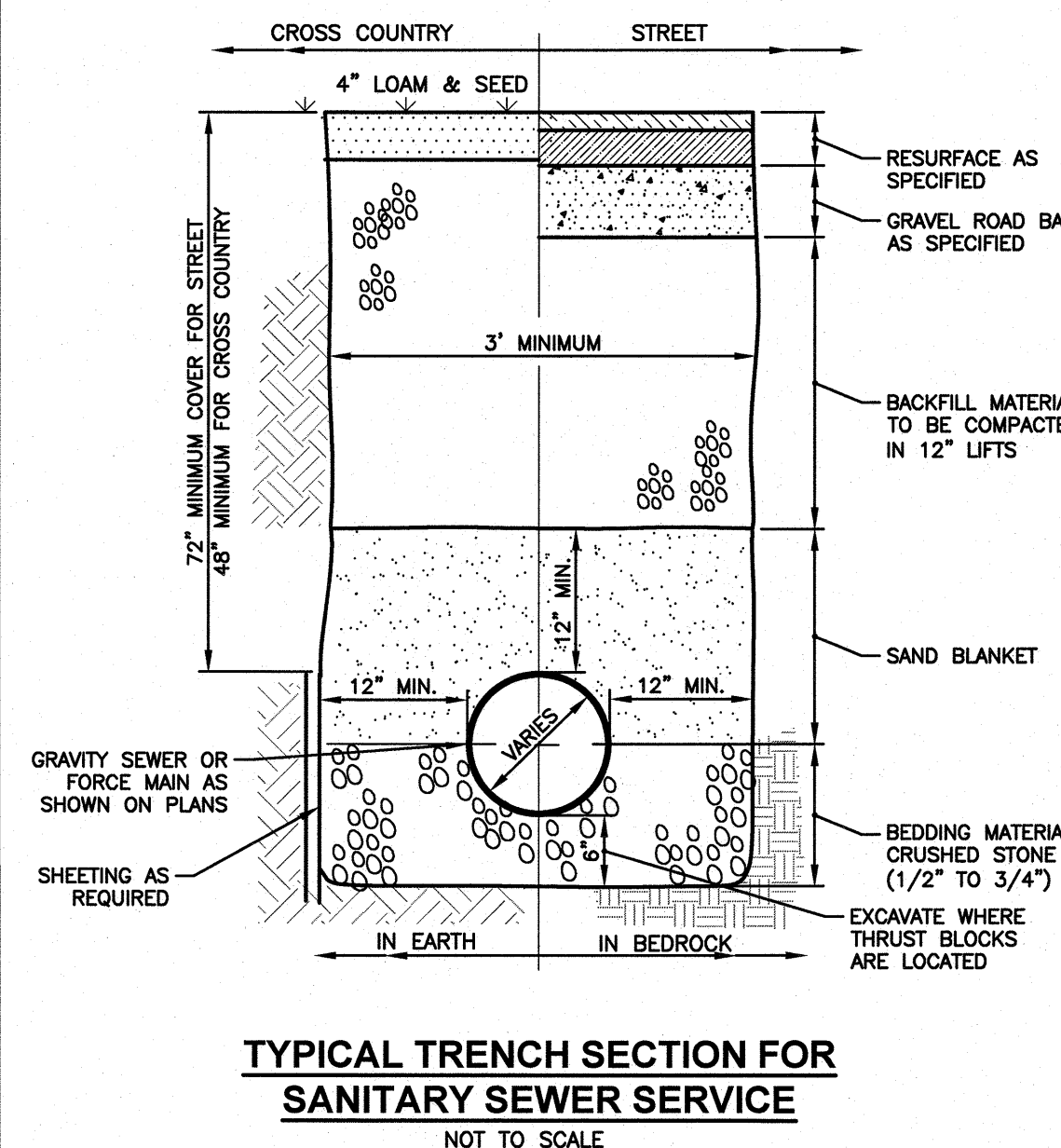
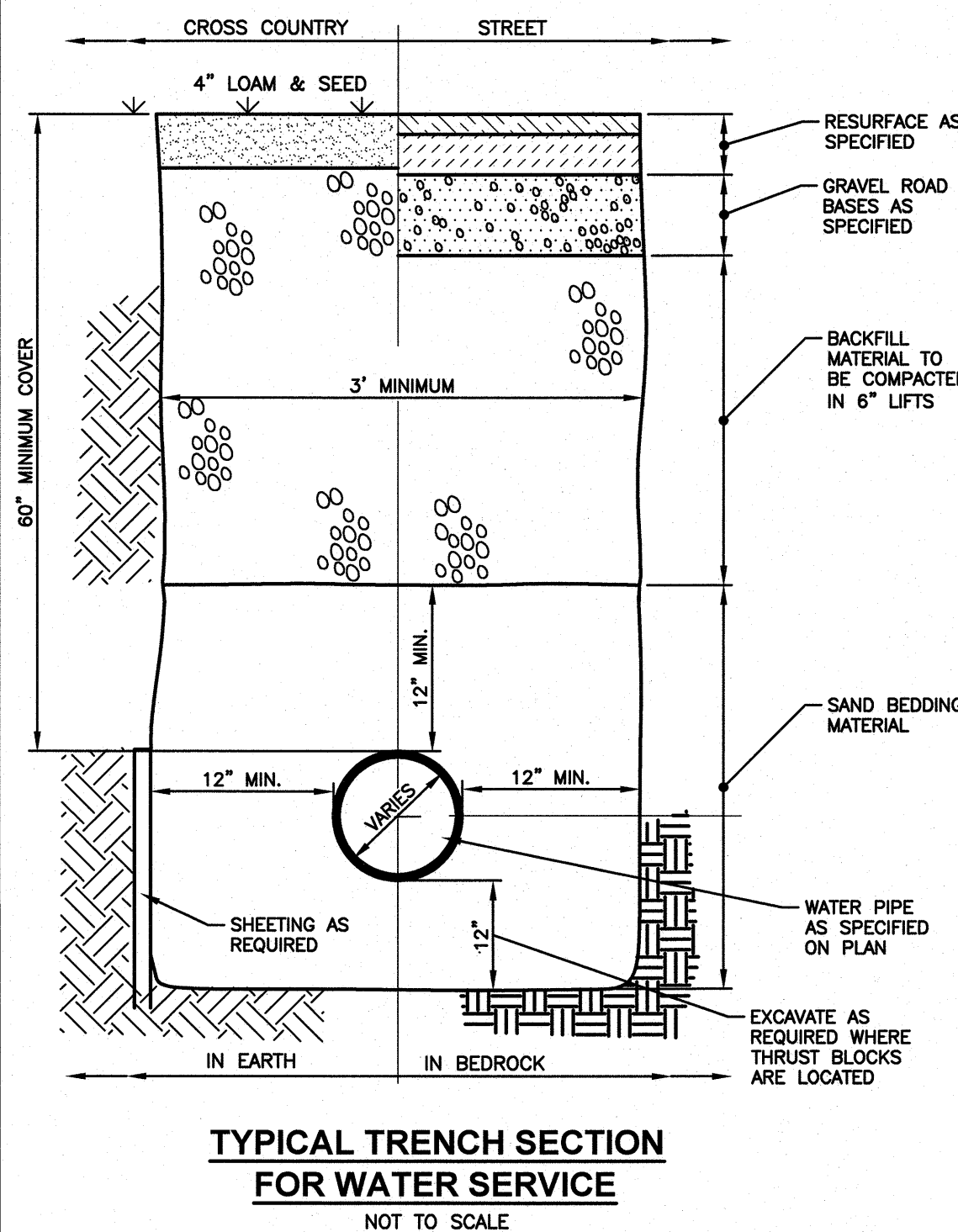
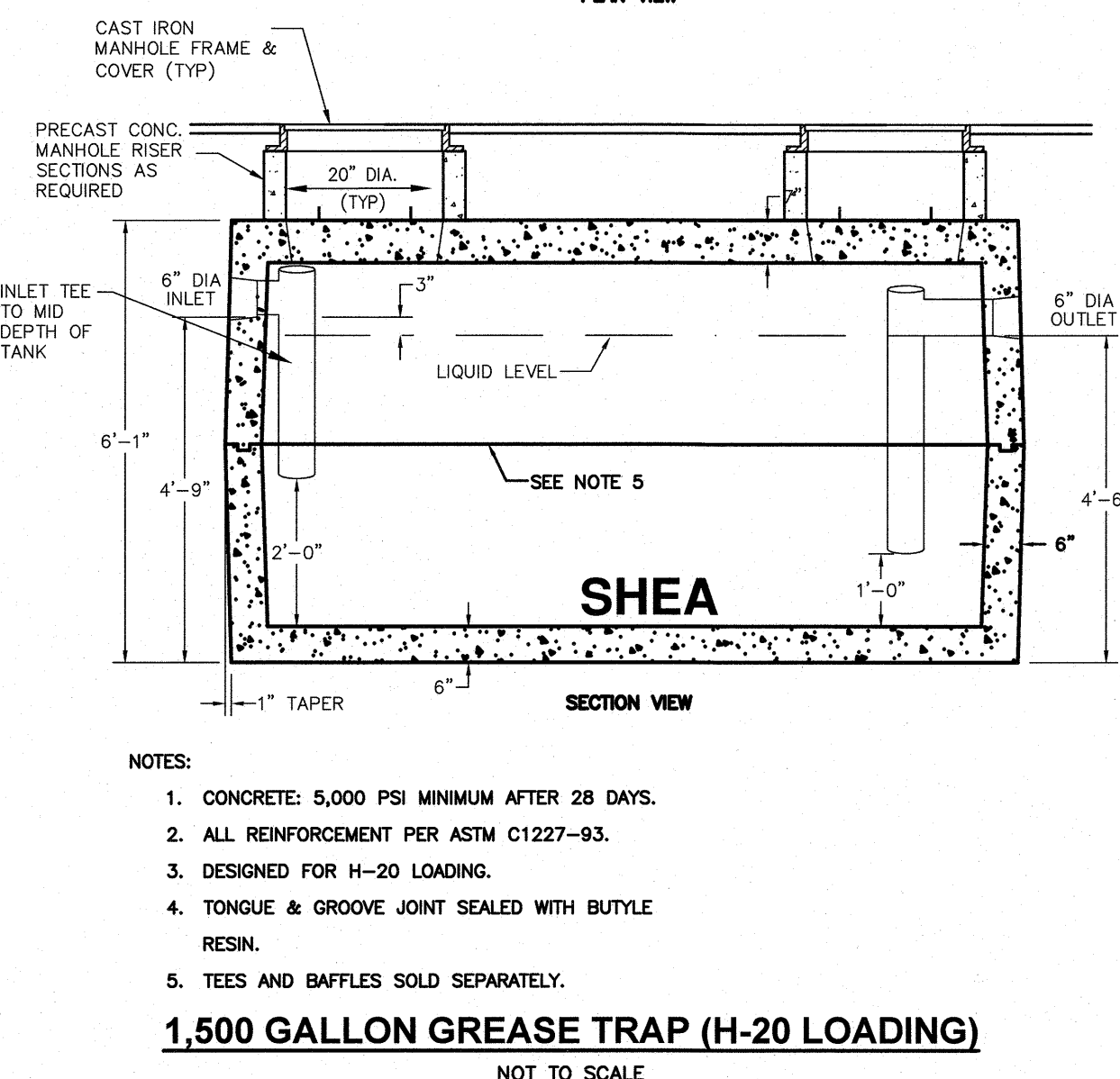
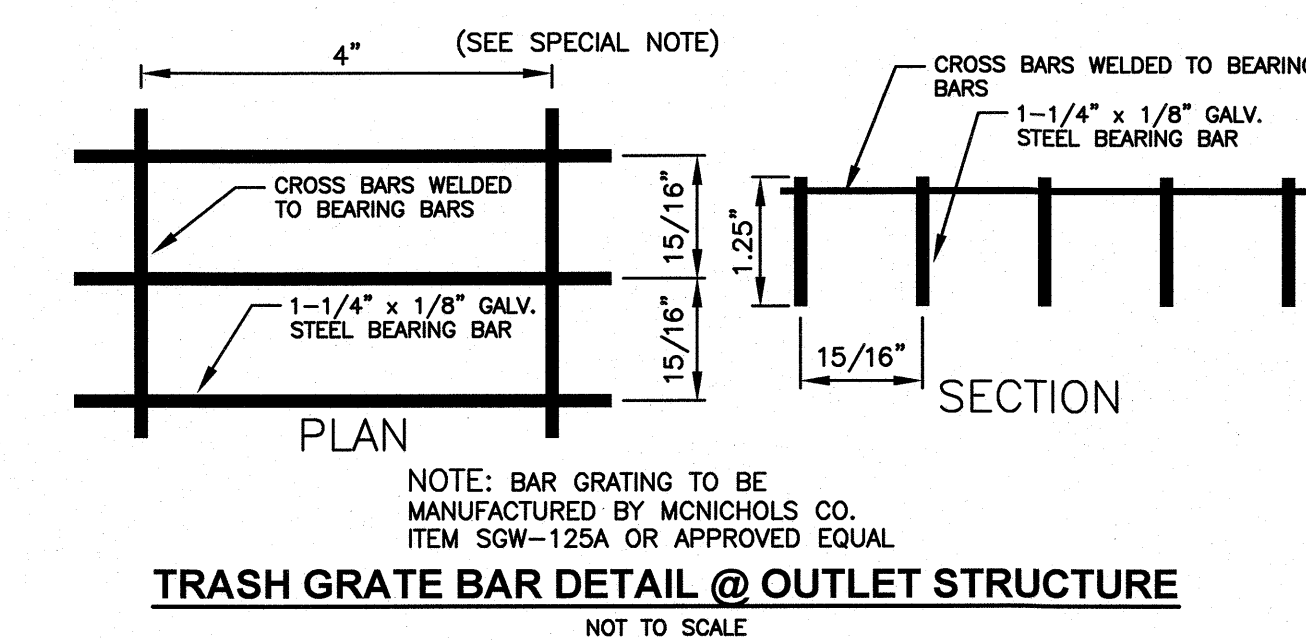
FEBRUARY 8, 2023

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## DETAIL SHEET

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PROJECT NO.  
NEX-2021267



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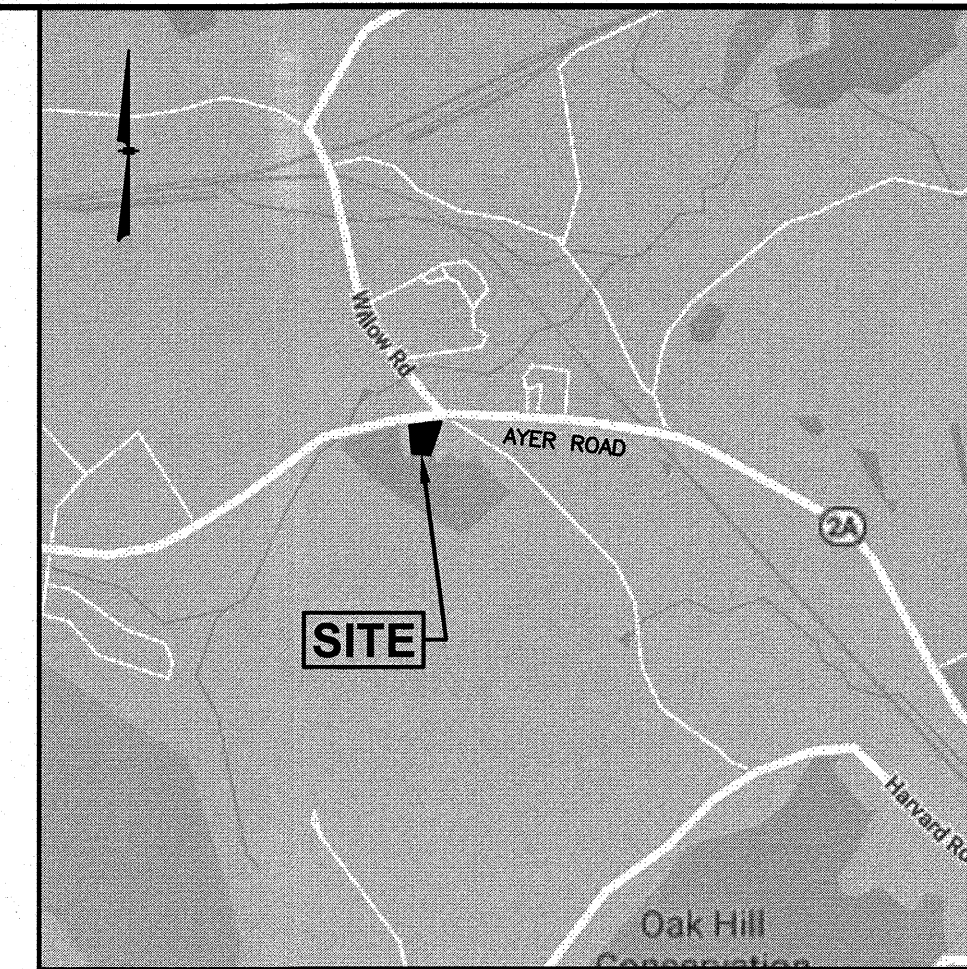
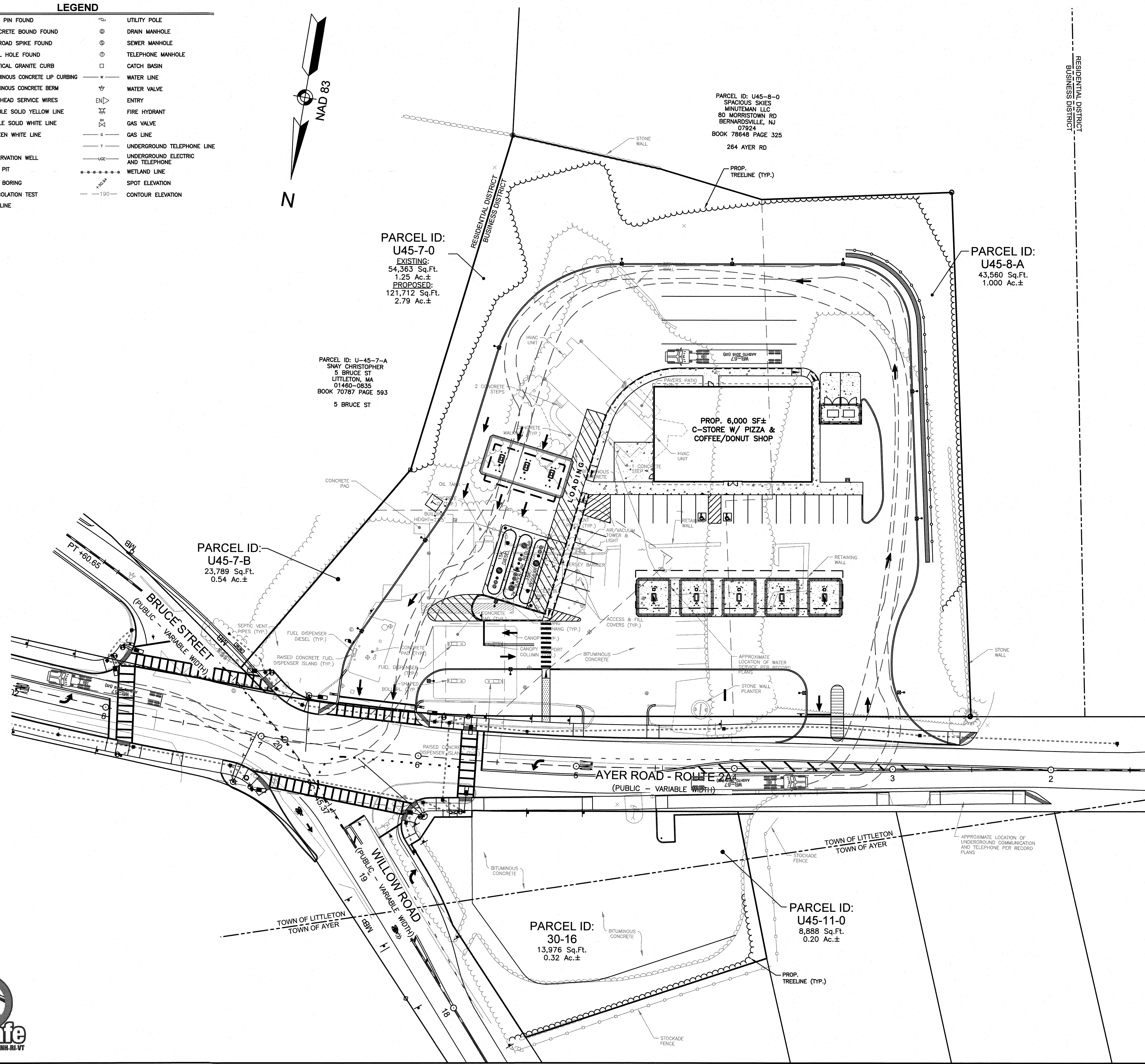
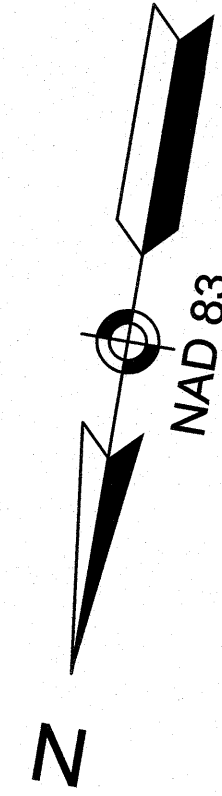
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PROJECT NO.	NEX-2021267

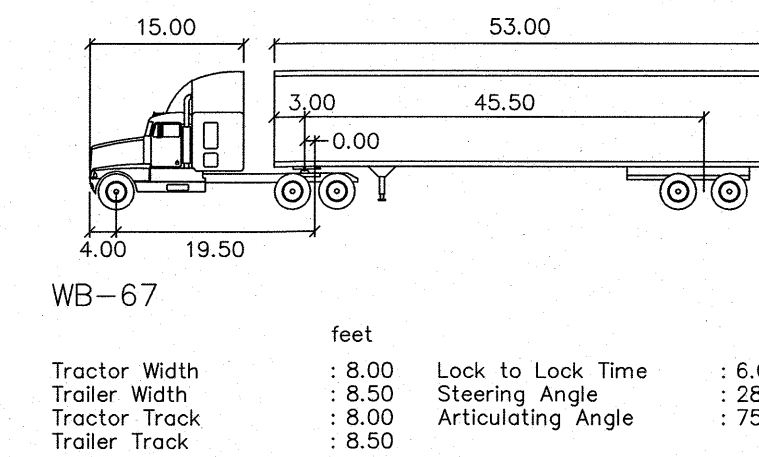


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LEGEND			
○	IRON PIN FOUND	□	UTILITY POLE
□	CONCRETE BOUND FOUND	⊗	DRAIN MANHOLE
△	RAILROAD SPIKE FOUND	⊙	SEWER MANHOLE
○	DRILL HOLE FOUND	⊕	TELEPHONE MANHOLE
— VGC —	VERTICAL GRANITE CURB	□	CATCH BASIN
— BCC —	BITUMINOUS CONCRETE LIP CURBING	— W —	WATER LINE
— BCB —	BITUMINOUS CONCRETE BERM	⊕	WATER VALVE
— —	OVERHEAD SERVICE WIRES	EN	ENTRY
— DSYL —	DOUBLE SOLID YELLOW LINE	⊕	FIRE HYDRANT
— SSWL —	SINGLE SOLID WHITE LINE	⊕	GAS VALVE
— BWL —	BROKEN WHITE LINE	— G —	GAS LINE
— —	SIGN	— T —	UNDERGROUND TELEPHONE LINE
— —	OBSERVATION WELL	— USE —	UNDERGROUND ELECTRIC AND TELEPHONE
— —	TEST PIT	— — — — —	WETLAND LINE
— —	TEST BORING	— — — — —	SPOT ELEVATION
— —	PERCOLATION TEST	— 190 —	CONTOUR ELEVATION
— —	TREELINE		



LOCATION MAP  
(NOT TO SCALE)



**GPI** Engineering  
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LITTLETON, MASSACHUSETTS  
PARCEL ID: 30-16  
0 LITTLETON ROAD  
AYER, MASSACHUSETTS

2/8/23

REVISIONS		
NO.	REVISION	DATE

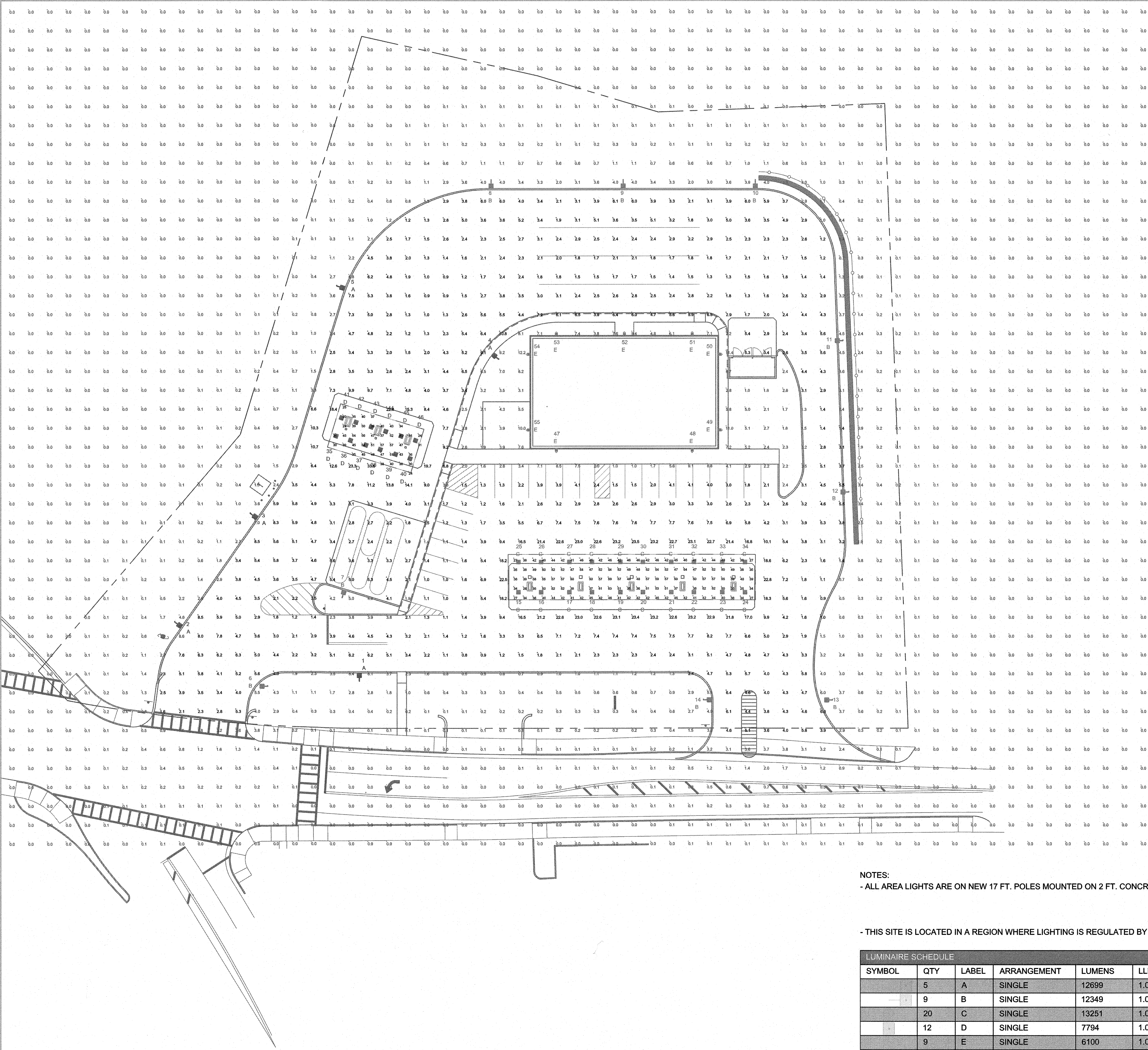
FEBRUARY 8, 2023  
DRAWN/DESIGN BY: SJB/CNM  
CHECKED BY: CMT

TRUCK TURN PLAN

SCALE: 1"=30'  
PROJECT NO. NEX-2021267  
1 OF 1







NOTES:  
- ALL AREA LIGHTS ARE ON NEW 17 FT. POLES MOUNTED ON 2 FT. CONCRETE BASES.



- THIS SITE IS LOCATED IN A REGION WHERE LIGHTING IS REGULATED BY LOCAL ORDINANCES.

LUMINAIRE SCHEDULE										
SYMBOL	QTY	LABEL	ARRANGEMENT	LUMENS	LLF	BUG RATING	WATTS/LUMINAIRE	TOTAL WATTS	MANUFACTURER	CATALOG LOGIC
	5	A	SINGLE	12699	1.030	B2-U0-G2	104	520	CREE, INC.	OSQ-ML-B-DA-XX + OSQM-B-16L-57K7-3M-UL-NM-XX-Q9 + OSQ-BLSMF
	9	B	SINGLE	12349	1.030	B2-U0-G2	104	936	CREE, INC.	OSQ-ML-B-DA-XX + OSQM-B-16L-57K7-4M-UL-NM-XX-Q9 + OSQ-BLSMF
	20	C	SINGLE	13251	1.030	B3-U0-G1	134	2680	CREE, INC.	CAN-304-SL-RS-06-E-UL-XX-700-57K
	12	D	SINGLE	7794	1.030	B3-U0-G1	69	828	CREE, INC.	CAN-304-SL-RS-06-E-UL-XX-350-57K
	9	E	SINGLE	6100	1.030	B2-U0-G2	47	423	CREE, INC.	XSPW-B-WM-4ME-6L-57K-UL-XX

LUMINAIRE LOCATION SUMMARY		
LUM NO.	LABEL	MTG. HT.
1	A	19
2	A	19
3	A	19
4	A	19
5	A	19
6	B	19
7	B	19
8	B	19
9	B	19
10	B	19
11	B	19
12	B	19
13	B	19
14	B	19
15	C	16
16	C	16
17	C	16
18	C	16
19	C	16
20	C	16
21	C	16
22	C	16
23	C	16
24	C	16
25	C	16
26	C	16
27	C	16
28	C	16
29	C	16
30	C	16
31	C	16
32	C	16
33	C	16
34	C	16
35	D	16
36	D	16
37	D	16
38	D	16
39	D	16
40	D	16
41	D	16
42	D	16
43	D	16
44	D	16
45	D	16
46	D	16
47	E	10
48	E	10
49	E	10
50	E	10
51	E	10
52	E	10
53	E	10
54	E	10
55	E	10

FOOTCANDLE LEVELS CALCULATED AT GRADE USING INITIAL LUMEN VALUES					
LABEL	AVG	MAX	MIN	AVG/MIN	MAX/MIN
PAVED AREA	5.02	33.6	0.8	6.28	42.00
UNDEFINED AREA	0.44	12.2	0.0	N.A.	N.A.
UNDER CANOPY_DIESEL	40.33	57	20	2.02	2.85
UNDER CANOPY_GAS	45.02	59	25	1.80	2.36



	QTY	LABEL	DESCRIPTION
<div>CANOPY</div> 	20	C	CAN-304-SL-RS-06-E-UL-XX-700-57K
	12	D	CAN-304-SL-RS-06-E-UL-XX-350-57K

[illegible]

**CREE**  **LIGHTING**

## Technology - Medium &amp; Large

**Product Specifications**  
**SYNAPSE™ SIMPLYSNAP INTELLIGENT CONTROL**  
The Synapse Simplysnap platform is a highly intuitive, connected lighting, motion sensing, and daylight harvesting with energy-grip up to 1000 nodes per gateway. The system features a scalable and easy-to-use interface that runs on smartphones, tablets, and PCs. It is compatible with all major lighting control systems, including DALI, DMX, and 0-10V. The system is also compatible with all major lighting fixtures, including LED, CFL, and incandescent. The system is designed to be easy to install and use, with a simple plug-and-play interface. The system is also designed to be scalable, allowing you to add more nodes and gateways as your needs grow. The system is also designed to be secure, with a robust security protocol that protects your data and your system. The system is also designed to be reliable, with a long lifespan and a low failure rate. The system is also designed to be easy to maintain, with a simple interface for monitoring and troubleshooting. The system is also designed to be easy to integrate with other systems, such as building management systems and security systems. The system is also designed to be easy to upgrade, with a modular architecture that allows you to add new features and functionality as needed. The system is also designed to be easy to support, with a comprehensive support system that includes training, documentation, and technical assistance. The system is also designed to be easy to sell, with a clear value proposition and a competitive price point. The system is also designed to be easy to use, with a simple and intuitive interface that makes it easy for anyone to get up and running. The system is also designed to be easy to install, with a simple plug-and-play interface that makes it easy to get up and running. The system is also designed to be easy to maintain, with a simple interface for monitoring and troubleshooting. The system is also designed to be easy to upgrade, with a modular architecture that allows you to add new features and functionality as needed. The system is also designed to be easy to support, with a comprehensive support system that includes training, documentation, and technical assistance. The system is also designed to be easy to sell, with a clear value proposition and a competitive price point. The system is also designed to be easy to use, with a simple and intuitive interface that makes it easy for anyone to get up and running. The system is also designed to be easy to install, with a simple plug-and-play interface that makes it easy to get up and running.

Symposium Wireless Network Accessories					
<b>Rein-Steel Lighting Controller</b> RLT-400 • Operates for 120V-277V/60Hz voltage only • Requires NEMA/NEC Class III safety • Includes photocell • Set for one watt, FPM or PMEL2 type • Provides 0-600W switching, dimming, power metering, 120V/240V output, and 100mA overload protection of laminaire • 120V/240V type chart for details			<b>Graphic Kit</b> WPS-001 • Major and minor • Control • Meter to • Meter to		
<b>Power Line Lighting Controller</b> RLT-400 • Operates for 120V-277V/60Hz and 180V voltage • Requires NEMA/NEC Class III safety • Includes photocell • Set for one watt, FPM or PMEL2 type • Provides 0-600W switching, dimming, power metering, 120V/240V output, and 100mA overload protection of laminaire • 120V/240V type chart for details			<b>Simplex/Philips</b> WPS-002 • Major and minor • Control • Meter to • Meter to		
<b>Building Kit</b> WPS-003 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-004 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-005 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-006 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-007 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-008 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-009 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-010 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-011 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-012 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-013 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-014 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-015 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-016 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-017 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-018 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-019 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-020 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-021 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-022 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-023 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-024 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-025 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-026 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-027 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-028 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-029 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-030 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-031 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-032 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-033 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-034 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-035 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-036 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-037 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-038 • Major and minor • Control • Meter to • Meter to		
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<b>Simplex/Philips</b> WPS-041 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-042 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-043 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-044 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-045 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-046 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-047 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-048 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-049 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-050 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-051 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-052 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-053 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-054 • Major and minor • Control • Meter to • Meter to		
<b>Simplex/Philips</b> WPS-055 • Major and minor • Control • Meter to • Meter to			<b>Simplex/Philips</b> WPS-056 • Major and minor • Control • Meter to • Meter to		

Structure		120-480V	Voltage	120V
6L**	All	52	76	0.25
	Asymmetric	48	80	0.61
	Symmetric	59	40	0.33
9L	All	46	46	0.53
11L	All	72	50	0.28
13L	All	164	100	0.89
23L	All	132	150	1.02
50L	All	202	200	1.72

\* Electrical BAO at 25 °C/75°F. Actual storage may differ by ±1% after operation.  
 \*\* Available only 240-voltage unit.

Ambient	Optic	Initial LMF	25K hr Reported LMF	50K hr Reported LMF
5°C (41°F)	Asymptotic	1.01	1.03	1.01
	Symmetric	1.08	1.05	1.05
10°C (50°F)	Asymptotic	1.03	1.02	1.00
	Symmetric	1.04	1.02	1.00

15°C (59°F)	Asymmetric	1.02	1.01	0.94
	Symmetric	1.02	1.02	1.02
20°C (68°F)	Asymmetric	1.01	1.00	0.98
	Symmetric	1.01	1.01	1.01
25°C (77°F)	Asymmetric	1.00	0.97	0.97
	Symmetric	1.00	1.00	1.00

\* Lower-membrane values at 25°C DT (°F) were calculated per IES TM-21 based on package and in-situ moisture testing. Membrane polymer temperature factors at membrane faces. Please refer to the [Membrane Data Reduction Tables](#).

**Accessories**

**5-MHz-Imaging**

**Blacklight Shield (Front Facing Optical)**  
CSD-GL350† (Medium)  
CSD-GL350 (Large)

**Blacklight Shield (Rear Facing Optical)**  
CSD-RL350† (Medium)  
CSD-RL350 (Large)

**Black Shield (Medium)**  
CSD-GL350 (Medium)

**Black Shield (Large)**  
CSD-GL350 (Large)

**Black Spikes**  
CSD-GL350 (Medium)

**Hand-Held**  
XA-SC300†

For more information, please call 1-800-451-7829. We'll help you find the right accessories for your system.

**CREE** ⇄ **LIGHTING**

Weight
22.8 lbs. (10.3kg)

175  
 180 Request sheet for details  
 185 specified below current  
 190  
 195 with 120V, 277V or 480V (phase to neutral)  
 200 if 480V is required for 208V, 240V or 480V (phase to phase)  
 205 specified for availability with PME, options  
 210  
 215 120V lighting was time delay fuse  
 220  
 225 Request sheet for details  
 230  
 235 temperature  
 240  
 245 PO  
 250 Name per specification  
 255 **ready LITE**  
 260 with 200V or  
 265 (1 set brass 120V, 0.32 (550VA))  
 270 set 2V  
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 995

24" H102mm) luminaire center to side building member, 4" (102mm) top of luminaire to

**CREE** ⇄ **LIGHTING**

277V	347V	480V
0.21	0.15	0.12
0.27	0.23	0.16
0.26	0.23	0.16
0.36	0.30	0.22
0.34	0.28	0.21
0.50	0.43	0.29

comparing between 120-277V or 247-480V

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

Model	70% of Estimated LM <sup>a</sup>	90% of Estimated LM <sup>a</sup>
1	0.98	0.94
2	1.06	1.04
3	0.97	0.95
4	1.06	1.04

0.55	8.94
1.00	1.03
0.55	8.93
1.01	5.01
0.54	8.92
1.00	5.00

based on the LM-80 report data for the LED  
(L70) have been applied to all luminaires  
for outdoor average nighttime ambient  
based on time durations that are  
the test duration of the LED.

## FIGHTING\*

**CREE** ⇄ **LIGHTING**

Lumen Package	Weight
32, 40, 45	11.0 lbs (5.0 kg)
40	11.0 lbs (5.0 kg)

Color / Symbol	Options
<b>DL</b> <b>Watch</b> <b>DE</b> <b>SE</b> <b>Server</b> <b>SV</b> <b>Driver</b> <b>SW</b> <b>Switch</b>	<b>ML: Multi-Level</b> - Refer to ML page chart for details - Available with IS, bridge only <b>P: Bottom Protocol</b> - Also available with IS, or PML options - Available with IS, and IS-2400s only <b>PML: Programmable Multi-Level</b> - Refer to PML page chart for details - Available with IS, bridge only

**CREE**  **LIGHTING**

Total Current (A)

	200V	250V	275V	300V	400V
17	0.30	0.02	0.07	0.94	0.25
18	0.49	0.05	0.47	0.04	0.04
22	0.31	0.10	0.26	0.87	0.25
24	0.89	0.08	0.07	0.94	0.64
28	0.34	0.14	0.10	0.90	0.87
37	0.16	0.13	0.12	0.89	0.57
44	0.30	0.17	0.18	0.72	0.99
54	0.25	0.15	0.12	0.80	0.87
62	0.25	0.22	0.19	0.54	0.11
66	0.23	0.20	0.18	0.34	0.10
84	0.28	0.26	0.22	0.17	0.13
88	0.23	0.20	0.11	0.14	0.10
94	0.28	0.22	0.28	0.22	0.14
98	0.26	0.28	0.27	0.21	0.15
104	0.27	0.22	0.23	0.22	0.14

0.2	0.25	0.33	0.46	0.60	0.75
-----	------	------	------	------	------

Information Factors	20K hr Estimated <sup>a</sup> LME	20K hr Estimated <sup>b</sup> LME	100K hr Estimated <sup>b</sup> LME
04	0.94	0.92	
05	0.94	0.92	
06	0.95	0.93	

05	0.92	0.91
04	0.92	0.90
02	0.91	0.89
02	0.90	0.88
01	0.89	0.87

IES TM-21 based on IES LM-79 report data for the LED  
modules having a TFC that is 60% applied to all inputs  
[IES TM-21](#) for outdoor average light-to-air ambient  
temperature values based on time durations that are  
that represent the life span duration of the LED.

▲ LIGHTING®

**CREE**  LIGHTING®

1340 Kemper Meadow Dr, Forest Park, OH 45240  
513-574-9500 | [redleonard.com](http://redleonard.com)

PROJECT NAME:  
**ENERGY NORTH  
LITTLETON, MA**  
DRAWING NUMBER:  
**RL-8621-S1**



STIPULATION FOR REUSE  
THE DRAWING HAS BEEN PREPARED FOR  
USE ON A SPECIFIC SITE AT  
THE LOCATION AND DATE INDICATED.  
IT IS NOT TO BE REUSED OR  
REPRODUCED FOR ANY OTHER  
PROJECT, SITE OR A LATER TIME  
WITHOUT THE WRITTEN CONSENT OF  
HARRISON FRENCH & ASSOCIATES, LTD.  
OR ENGINEER. ANY REUSE OF THIS  
DRAWING FOR ANY OTHER PROJECT  
WITHOUT THE WRITTEN CONSENT OF  
HARRISON FRENCH & ASSOCIATES, LTD.  
OR ENGINEER IS PROHIBITED AND MAY BE  
CONSIDERED A VIOLATION OF THE LAW.

ENERGY NORTH -  
HAFFNERS  
LITTLETON, MA

JOB NUMBER: 42-23-50001

ISSUE BLOCK		
1	SD SET	02/06/23

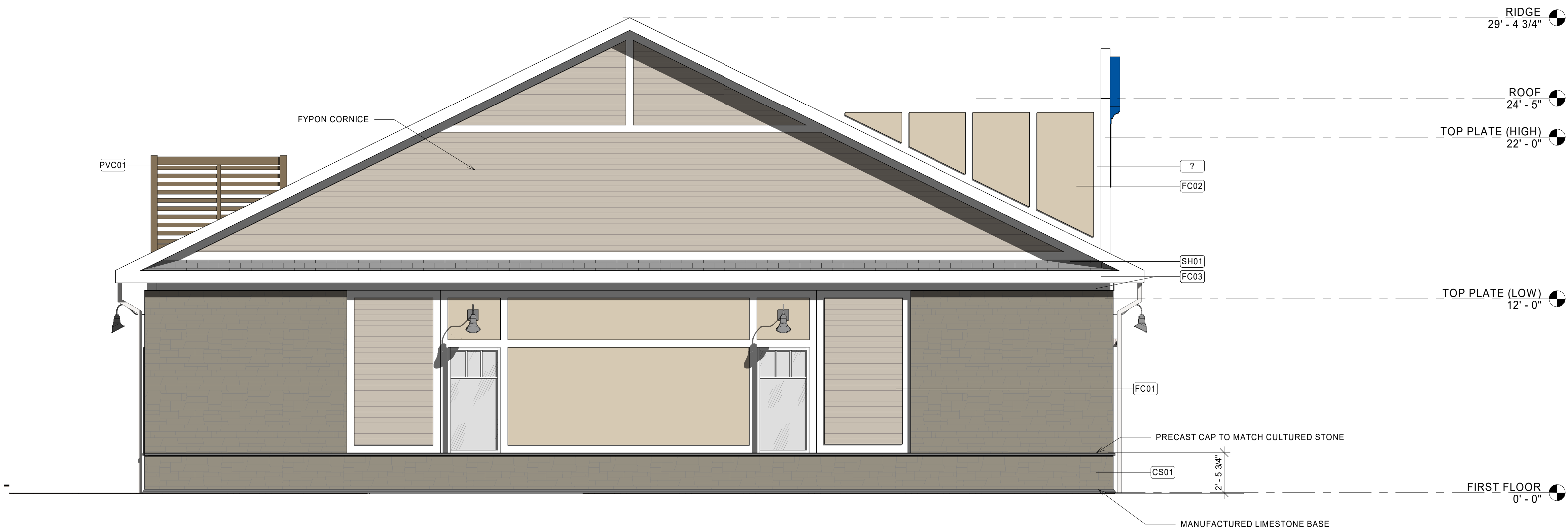
CHECKED BY:	JEO
DRAWN BY:	LT
DOCUMENT DATE:	02/06/23

NOT FOR CONSTRUCTION

ELEVATIONS

SHEET:  
A-200

_Material Takeoff_ Exterior					
Material: Mark	Material: Description	Material: Manufacturer	Material: Model	Material: Mat_Color	Material: Comments
CS01	CULTURED STONE	WESTLAKE	COUNTRY LEDGESTONE		INSTALL DRY STACK ONLY
FC01	FIBER CEMENT CLAPBOARD SIDING		4" EXPOSURE	COBBLESTONE	FACTORY FINISH
FC02	5/16" FIBER CEMENT PANEL SIDING			NAVAJO BEIGE	FACTORY FINISH; WITH ALUM. VERTICAL JOINTS. PAINT JOINTS TO MATCH PANEL.
FC03	5/4X6 FIBER CEMENT TRIM			ARCTIC WHITE	FACTORY FINISH
FT01	30" x 30" FLOOR TILE	ADESSI	DISTRICT GRAY PORCELAIN TILE		GROUT: MAPEI #47 ULTRACOLOR PLUS FA - CHARCOAL. WHERE WALL TILE OCCURS G.C. TO PROVIDE AND INSTALL SHCLUTER COVE BASE.
PVC01	SCREEN FENCE	CERTAINTeed	BREEZEWOOD SELECT CEDAR	WEATHERED BLEND	
SH01	ASPHALT ROOFING SHINGLE			WEATHERWOOD	



2 WEST ELEVATION  
1/4" = 1'-0"

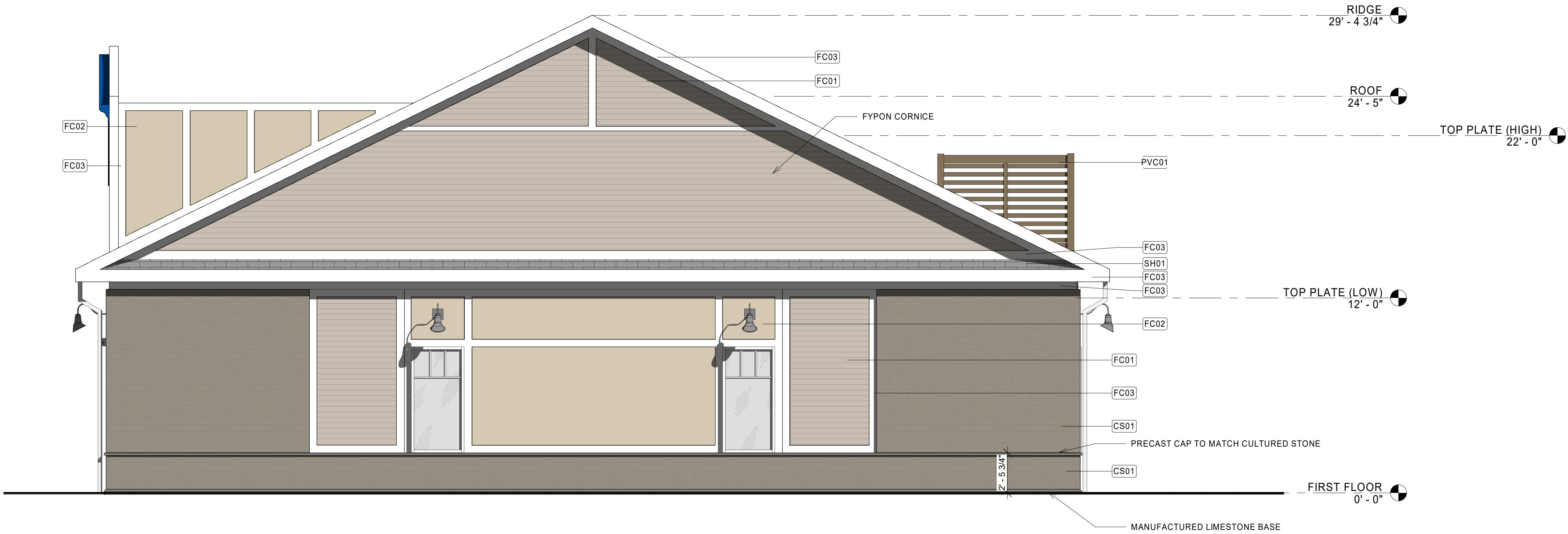


1 SOUTH ELEVATION  
1/4" = 1'-0"

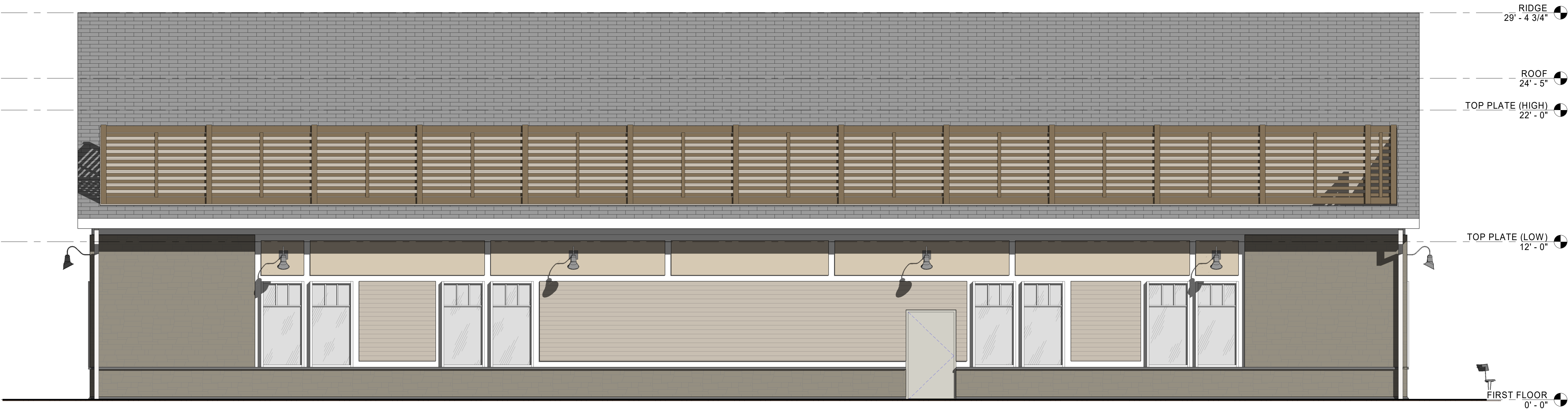


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A-201-ELEVATIONS-SD SET

2 EAST ELEVATION



1 NORTH ELEVATION



_Material Takeoff_ Exterior					
Material: Mark	Material: Description	Material: Manufacturer	Material: Model	Material: Mat_Color	Material: Comments
CS01	CULTURED STONE	WESTLAKE	COUNTRY LEDGESTONE		INSTALL DRY STACK ONLY
FC01	FIBER CEMENT CLAPBOARD SIDING		4" EXPOSURE	COBBLESTONE	FACTORY FINISH
FC02	5/16" FIBER CEMENT PANEL SIDING			NAVAJO BEIGE	FACTORY FINISH; WITH ALUM. VERTICAL JOINTS. PAINT JOINTS TO MATCH PANEL.
FC03	5/4X6 FIBER CEMENT TRIM			ARCTIC WHITE	FACTORY FINISH
FT01	30" x 30" FLOOR TILE	ADESSI	DISTRICT GRAY PORCELAIN TILE		GROUT: MAPEI #47 ULTRACOLOR PLUS FA - CHARCOAL. WHERE WALL TILE OCCURS G.C. TO PROVIDE AND INSTALL SHGLUTER COVE BASE.
PVC01	SCREEN FENCE	CERTAINTED	BREEZEWOOD SELECT CEDAR	WEATHERED BLEND	
SH01	ASPHALT ROOFING SHINGLE			WEATHERWOOD	

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ENERGY NORTH -  
HAFFNERS  
LITTLETON, MA

JOB NUMBER: 42-23-50001

ISSUE BLOCK		
1	SD SET	02/06/23

CHECKED BY:	JEO
DRAWN BY:	LT
DOCUMENT DATE:	02/06/23

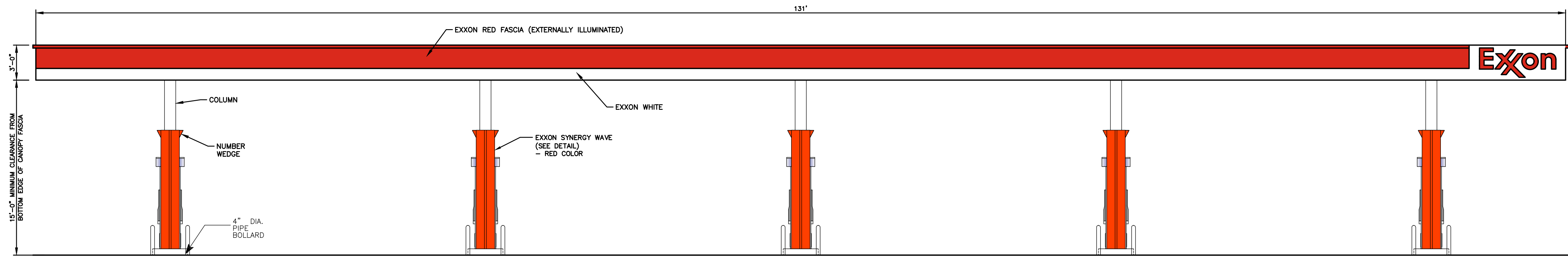
NOT FOR CONSTRUCTION

ELEVATIONS

SHEET:  
A-201

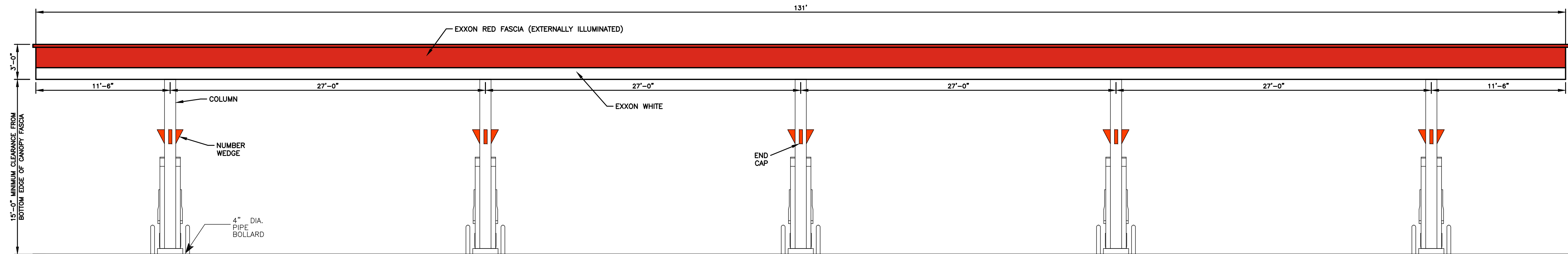


F:\Projects\NEX-2021267 - Littleton, MA - Energy North Group\CAD Files\21267\_CANELEV.dwg CANOPY-Retail 2/09/23 8:36am sbonfanti



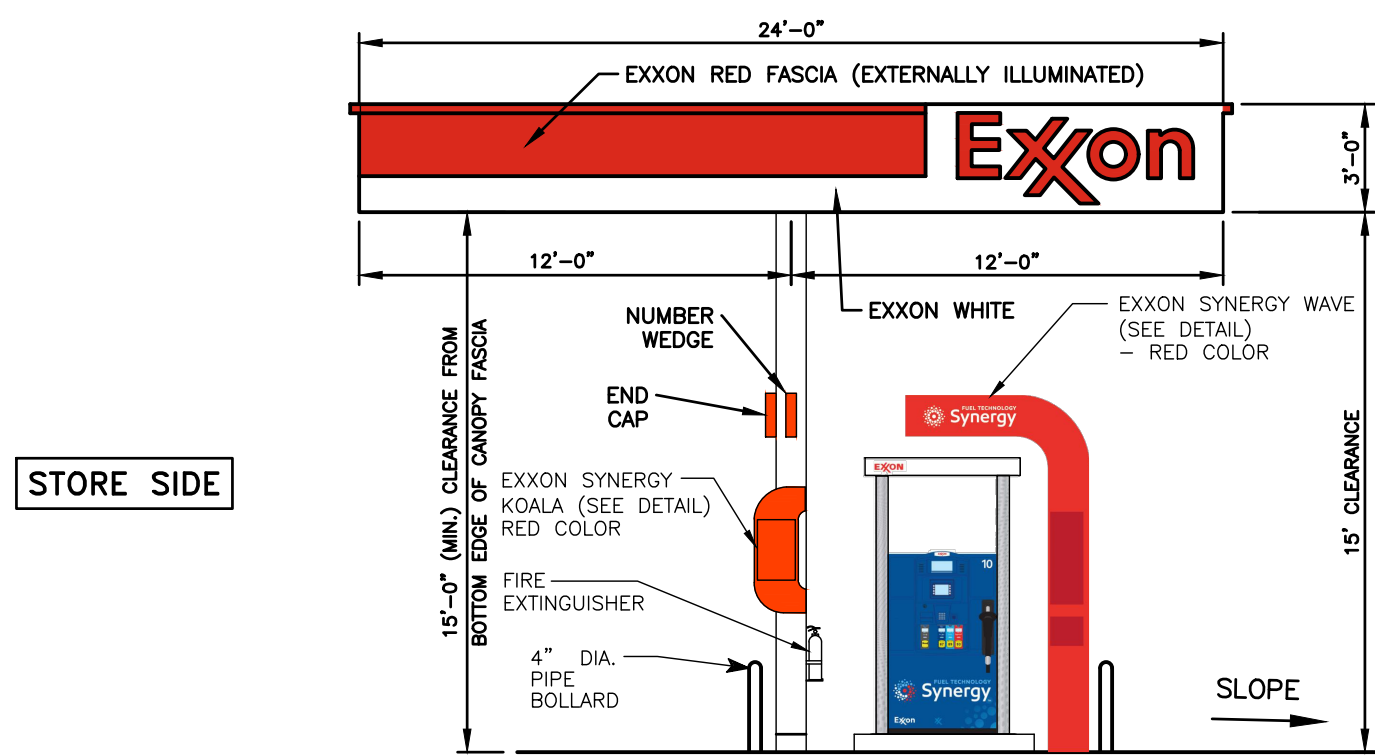
FRONT ELEVATION - FACING AYER ROAD (ROUTE 2A)

SCALE: 3/16" = 1'-0"



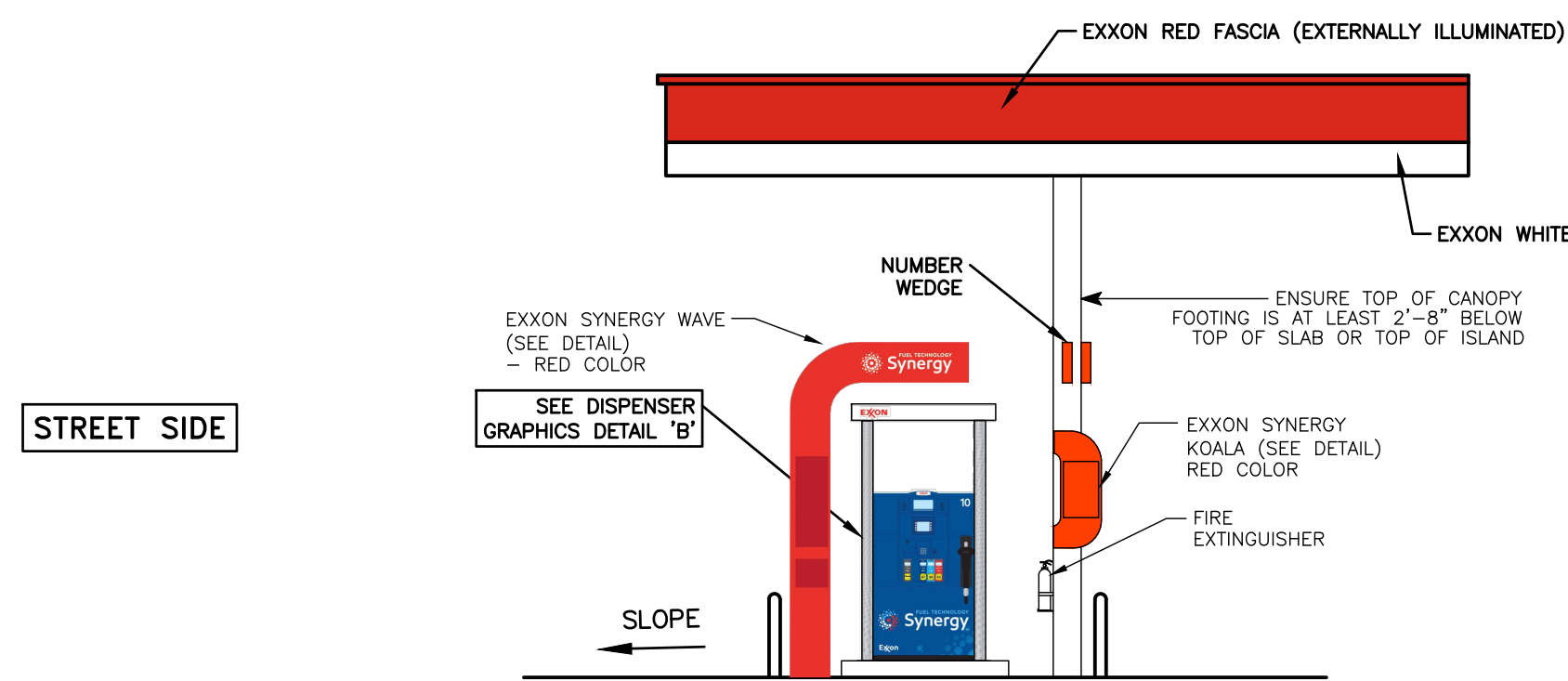
REAR ELEVATION - FACING STORE

SCALE: 3/16" = 1'-0"



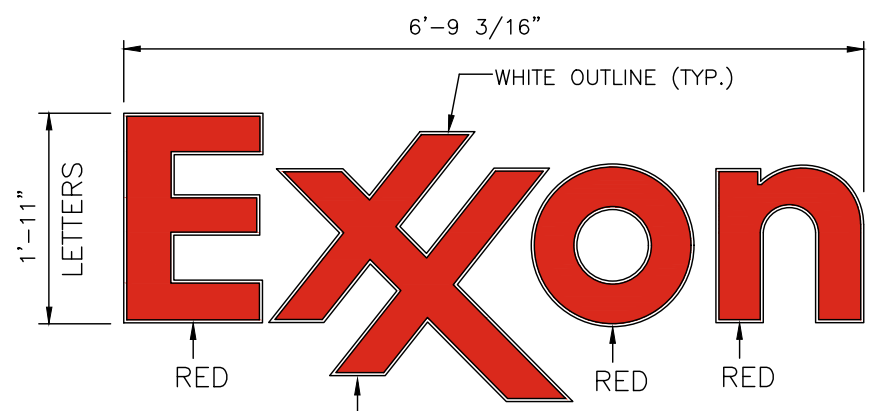
LEFT ELEVATION

SCALE: 3/16" = 1'-0"



RIGHT ELEVATION

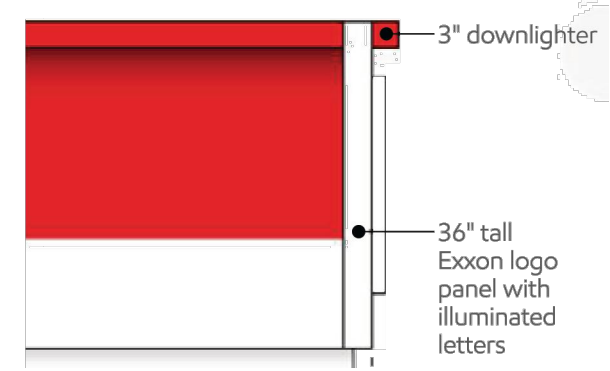
SCALE: 3/16" = 1'-0"



"EXXON" CANOPY LEGEND DETAIL

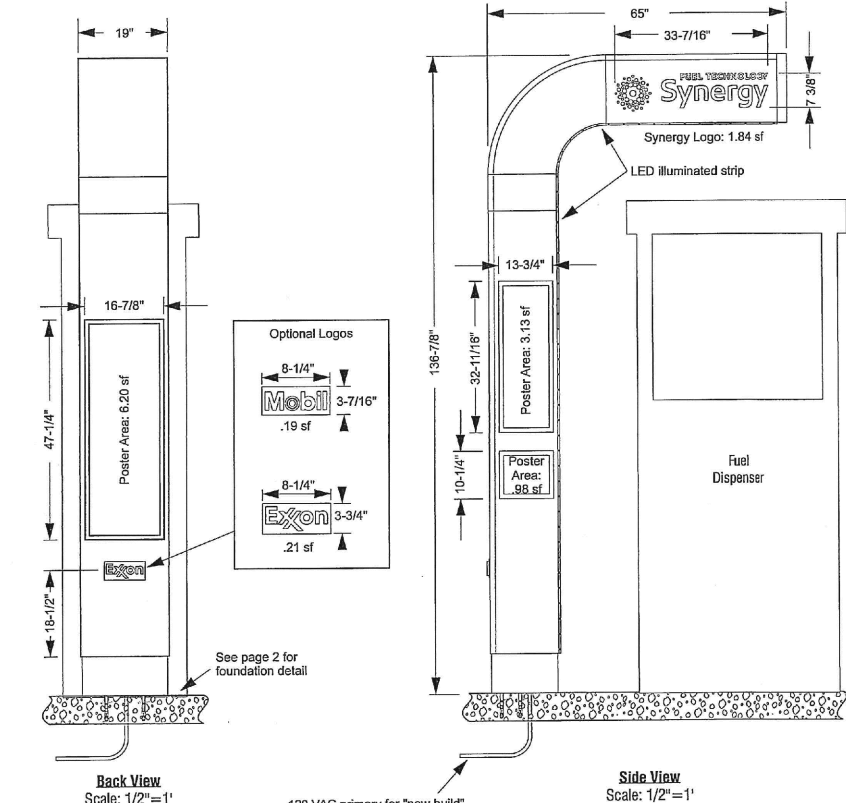
NOT TO SCALE - 13.0 Sq.Ft.

NOTE: SIGN IS INTERNALLY ILLUMINATED CHANNEL LETTERS



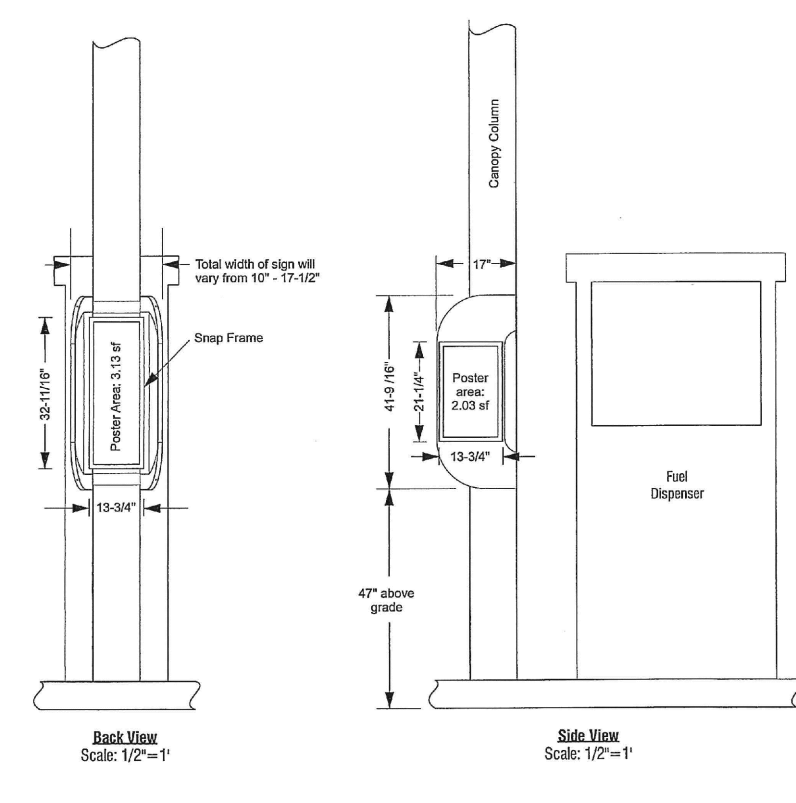
EXXON CANOPY EXTERIOR LIGHTING "EYEBROW"

NOT TO SCALE



WAVE DETAIL

NOT TO SCALE



KOALA DETAIL

NOT TO SCALE

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ENERGY NORTH GROUP  
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LAWRENCE, MA 01843

PROPOSED RETAIL MOTOR FUEL OUTLET  
SITE RE-DEVELOPMENT  
PARCEL ID: U45-7-0, U45-7-B, U45-8-A, & U45-11-0  
254, 256 & 260 AYER ROAD  
LITTLETON, MASSACHUSETTS  
PARCEL ID: 30-16  
0 LITTLETON ROAD  
AYER, MASSACHUSETTS

REVISIONS

NO.	REVISION	DATE

FEBRUARY 8, 2023

DRAWN/DESIGN BY  
SJB/CNM

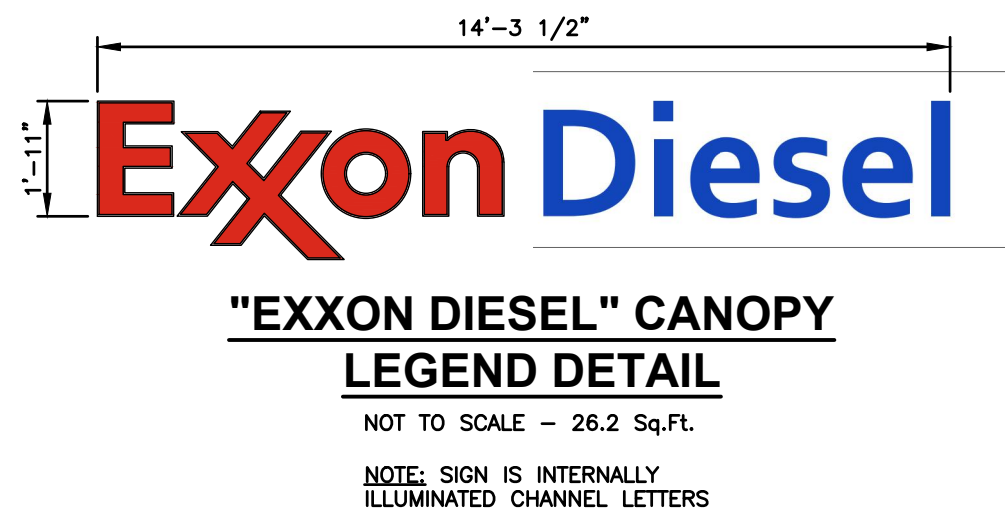
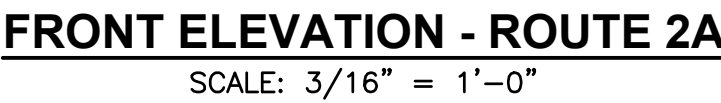
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RETAIL FUEL  
CANOPY  
ELEVATIONS

SCALE:  
3/16"=1'-0"

PROJECT NO.  
NEX-2021267





PROPOSED RETAIL MOTOR FUEL OUTLET  
SITE RE-DEVELOPMENT  
PARCEL ID: U45-7-0, U45-7-B, U45-8-A, & U45-11-0  
254, 256 & 260 AYER ROAD  
LITTLETON, MASSACHUSETTS  
PARCEL ID: 30-16  
0 LITTLETON ROAD  
AYER, MASSACHUSETTS

REVISIONS		
NO.	REVISION	DATE

**FEBRUARY 8, 2023**

<b>DRAWN/DESIGN BY</b> _SJB/CNM_	<b>CHECKED BY</b> CMT
-------------------------------------	--------------------------

# COMMERCIAL DIESEL CANOPY ELEVATIONS

SCALE:  $3/16"=1'-0"$

PROJECT NO.  
NEX-2021267





SIGNAGE AREA = 11.57SF



SIGNAGE AREA = REF CIVIL

5 SD- FUEL CANOPY SIGN

6 SD- DIESEL FUEL CANOPY SIGN



SIGNAGE AREA = 35.48 SF

4 CRACK'D SIGNAGE

3/4" = 1'-0"



SIGNAGE AREA = 49 SF

3 SALS PIZZA SIGNAGE

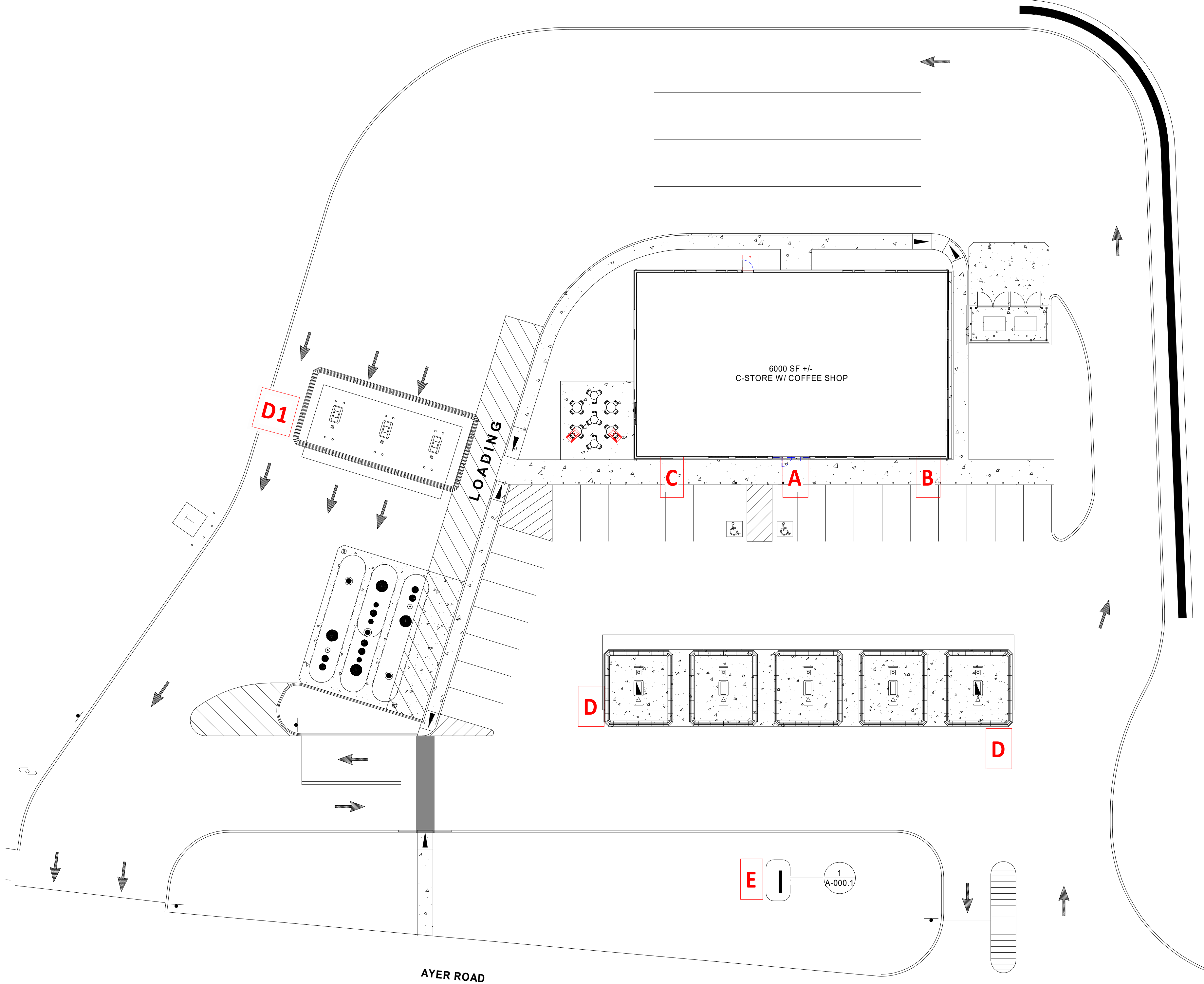
3/4" = 1'-0"



SIGNAGE AREA = 34.8 SF

2 HAFFNERS BUILDING SIGNAGE

3/4" = 1'-0"



1 SIGNAGE SITE PLAN

1" = 20'-0"

EXTERIOR SIGN SCHEDULE	
A	INT. ILLUM. HAFFNERS CHANNEL LETTER SET
B	INT. ILLUM. SALS PIZZA LOGO
C	INT. ILLUM. CRACK'D SIGNAGE
D	INT. ILLUM. FUEL CANOPY CHANNEL LETTERS
D1	INT. ILLUM. DIESEL FUEL CANOPY CHANNEL LETTERS
E	18' HIGH PYLON SIGN

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ENERGY NORTH -  
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LITTLETON, MA

JOB NUMBER: 42-23-50001

ISSUE BLOCK		
1	SD SET	02/06/23

CHECKED BY:	HEW
DRAWN BY:	LT
DOCUMENT DATE:	02/06/23

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SIGNAGE SITE  
PLAN

SHEET:  
A-000



**256 AYER ROAD (ROUTE 2A)  
LITTLETON, MASSACHUSETTS**

REVISIONS		
NO.	REVISION	DATE

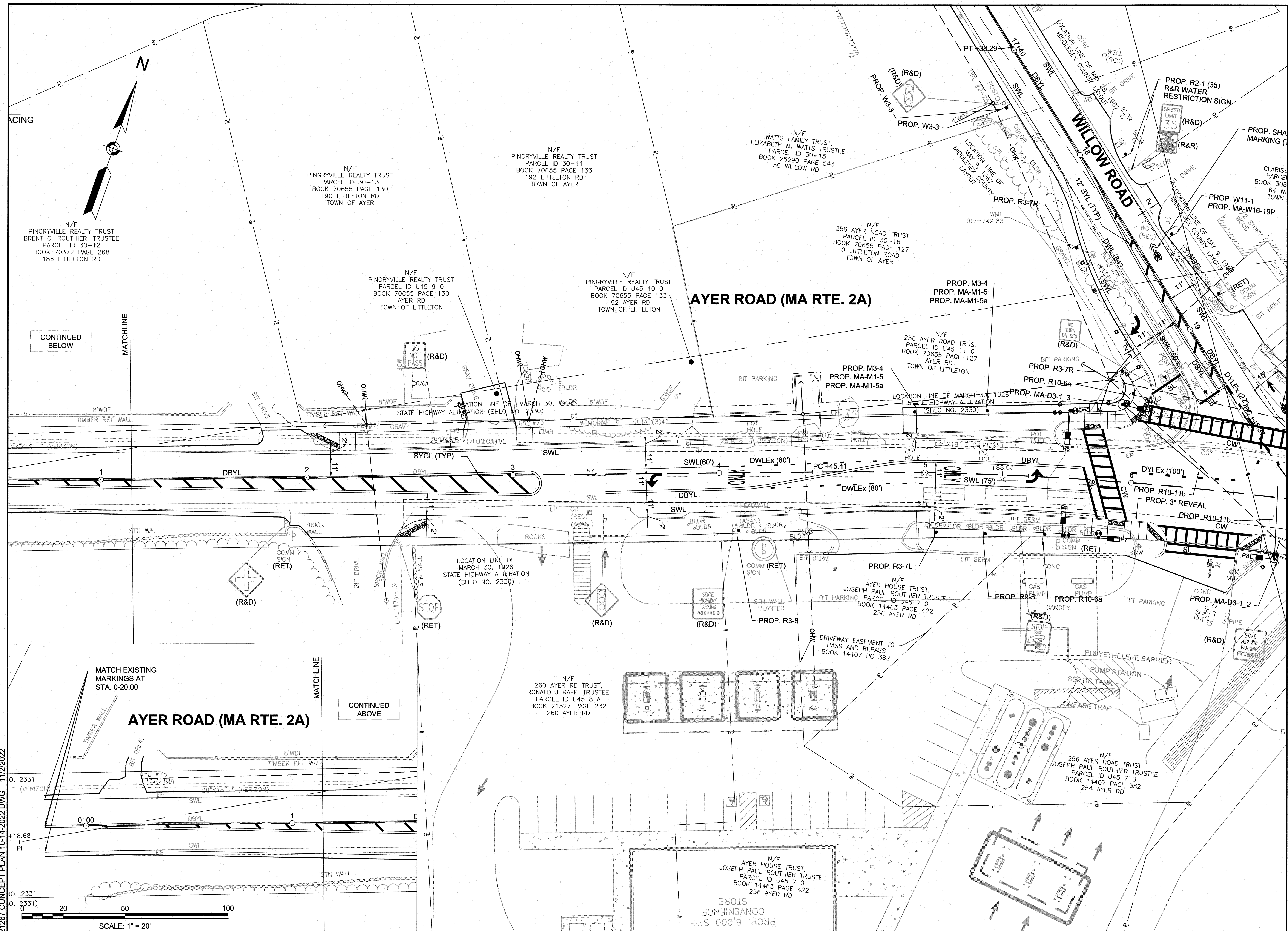
11-02-22	
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## ROADWAY CONCEPT #1

SCALE: 1"=20'

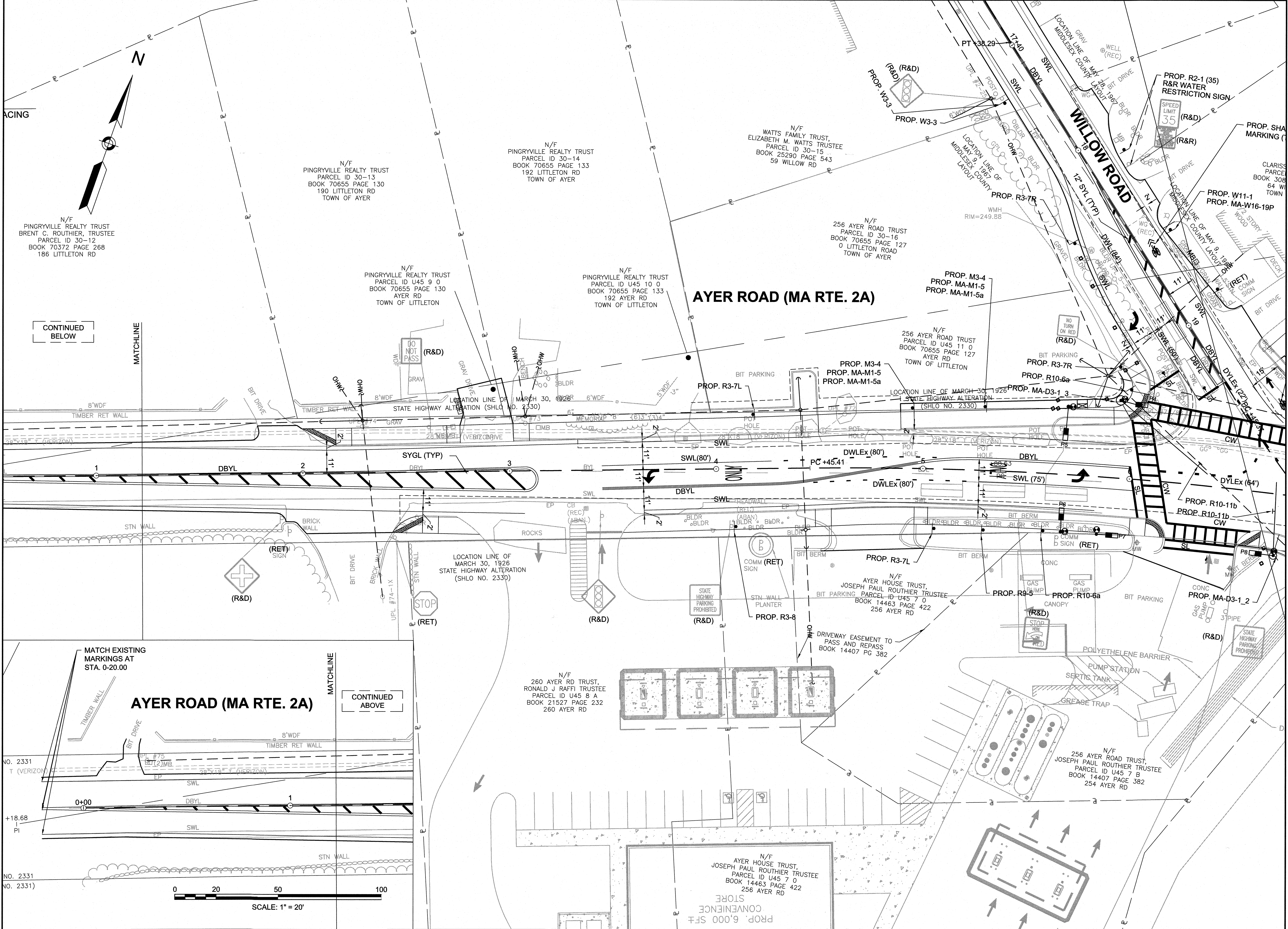
EX-2021267

1 OF 2



21267 CONCEPT PLAN 10-14-2022.DWG 11/2/2022





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LAWRENCE, MA

256 AYER ROAD (ROUTE 2A)  
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ROADWAY  
CONCEPT #2

SCALE: 1"=20'

NEX-2021267

2 OF 2

21267 CONCEPT 2 PLAN 10-26-2022.DWG 10/26/2022