

# MUNICIPAL PARKING LOT

MECHANIC STREET · SPENCER · MASSACHUSETTS

100% CONSTRUCTION DRAWINGS

MARCH 06, 2020

PREPARED FOR  
**TOWN OF SPENCER**  
3 OLD MEADOW ROAD  
SPENCER, MA 01562



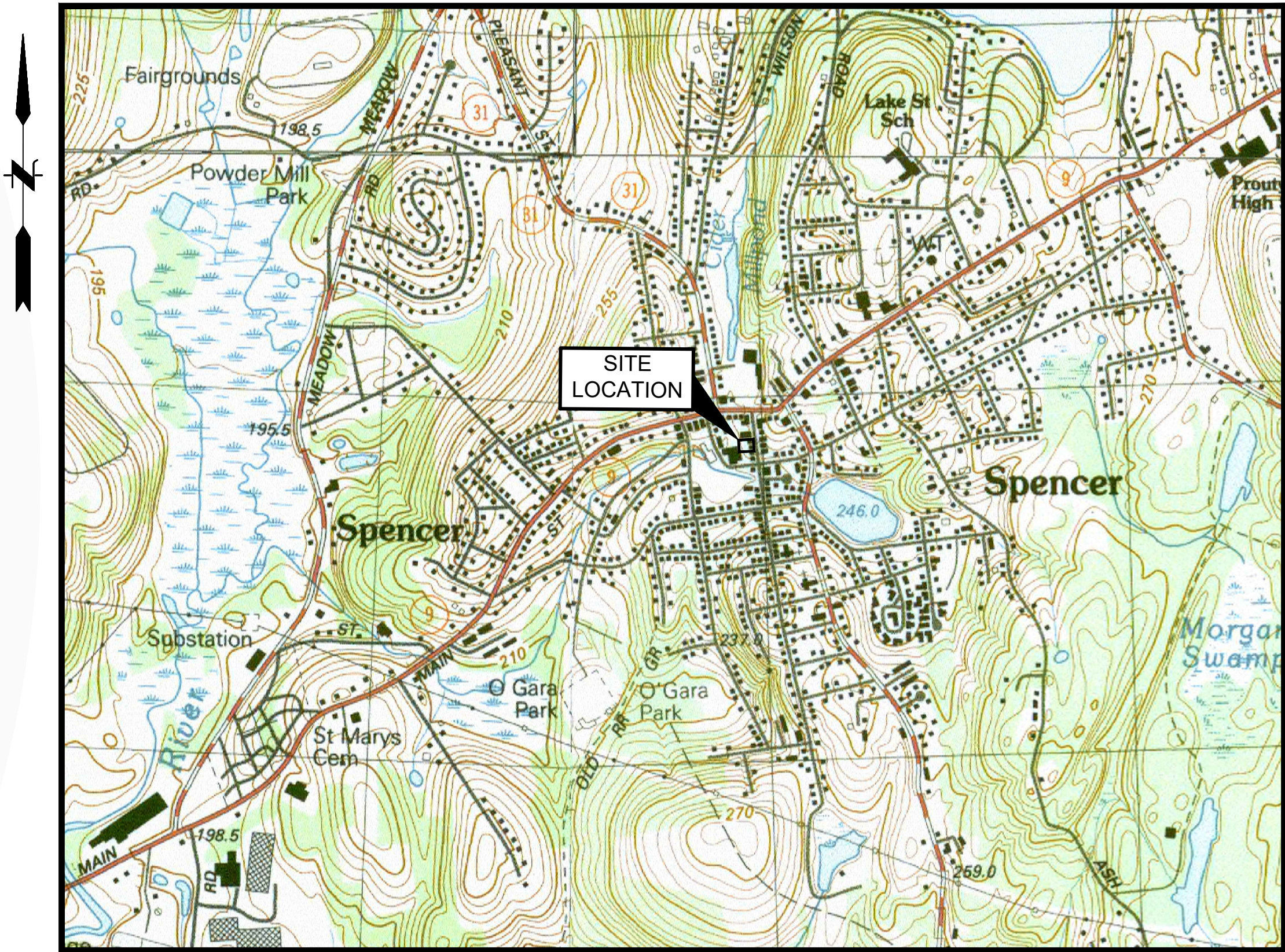
PREPARED BY  
**FUSS & O'NEILL**  
1550 MAIN STREET, SUITE 400  
SPRINGFIELD, MA 01103  
413.452.0445  
www.fando.com

**SHEET INDEX**

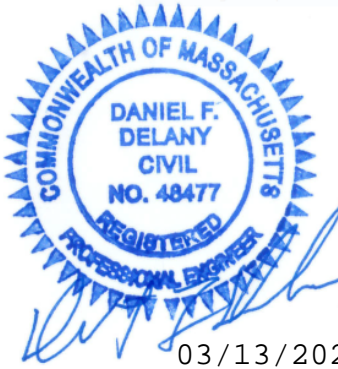
<u>SHEET No.</u>	<u>SHEET TITLE</u>
GI-001	COVER SHEET
CN1.00	CONSTRUCTION NOTES
C1.00	EXISTING CONDITIONS PLAN
C1.10	SITE PREPARATION & DEMOLITION PLAN
C1.20	LAYOUT PLAN
C1.30	GRADING AND DRAINAGE PLAN
L1.00	LANDSCAPE PLAN
C3.00	EROSION & SEDIMENT CONTROL DETAILS
C3.01-C3.08	CONSTRUCTION DETAILS
E1.10	SITE ELECTRICAL PLAN
E1.11	SITE PHOTOMETRIC PLAN
E3.00	ELECTRICAL DETAILS

**PROJECT TEAM**

**SURVEYOR**  
SHERMAN AND FRYDRYK, LLC.  
3 CONVERSE STREET, SUITE 203  
PALMER, MA 01069  
(413) 283-6210



**LOCATION MAP**  
SCALE: 1" = 1000'



PROJ. No.: 20170390.D51  
DATE: 03/06/2020

GI-001









STRUCTURE TABLE  
SMH 1  
RIM=808.51  
INV. IN=798.91  
INV. OUT=798.91

CB 2  
RIM=797.20  
INV. OUT=794.80

CB 3  
RIM=796.82  
INV. IN=793.92  
INV. OUT=792.02

SMH 4  
RIM=796.46  
INV. IN (NE)=789.16  
INV. IN (SE)=789.26  
INV. OUT=789.06

LEGEND

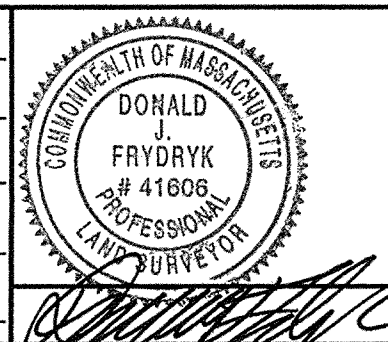
⊙	SANITARY SEWER MANHOLE	---	120	CONTOUR (INDEX)
⊕	STORM DRAIN MANHOLE	---	122	CONTOUR (INTERMEDIATE)
□	CATCH BASIN	---		SANITARY SEWER
⊙	TELECOMM MANHOLE	---		STORM DRAIN
⊙	UTILITY POLE W/GUY	---		GAS LINE
⊙	UTILITY POLE	---		CURB OR BERM (AS NOTED)
⊙	G.G. GAS GATE	---		EDGE OF PAVEMENT
⊙	W.G. WATER GATE	---		PROPERTY LINE
⊙	SIGN	---		ABUTTER LINE
⊙	FD FOUND			
⊙	IP IRON PIPE			
⊙	RB REINFORCING BAR			
⊙	DH DRILL HOLE			
⊙	IB IRON BAR			

- NOTES:
- THIS PLAN IS BASED ON A FIELD SURVEY BY THIS OFFICE DATED 09/19/2019.
  - HORIZONTAL DATUM IS NAD83. VERTICAL DATUM IS NAVD88. BOTH DATUMS WERE ESTABLISHED AT THIS SITE BY GPS METHODS FROM A PREVIOUS SURVEY DONE BY THIS OFFICE.
  - PROPERTY LINES ARE BASED OFF OF A PREVIOUS SURVEY BY THIS OFFICE.
  - LOCATIONS OF UTILITIES SHOWN HEREON ARE THE RESULT OF SURFACE EVIDENCE AS LOCATED BY FIELD SURVEY, PLANS OF RECORD, AND OTHER AVAILABLE SOURCES. THIS PLAN DOES NOT NECESSARILY DEPICT THE EXACT LOCATIONS OF ALL UTILITIES WHICH MAY EXIST AT THIS TIME WITHIN THE PREMISES SURVEYED.
  - THE CONTRACTOR SHOULD VERIFY THE EXISTING CONDITIONS TO HIS SATISFACTION PRIOR TO BEGINNING ANY EXCAVATION. "DIG SAFE" SHALL BE NOTIFIED AT LEAST 72 HOURS PRIOR TO BEGINNING ANY WORK.

NO.	DATE	BY	REVISIONS
1	2/18/20	DJF	ADD BEARINGS & DISTANCES

**SHERMAN & FRYDRYK, LLC**  
*Land Surveying and Engineering*  
3 Converse Street, Suite 203  
Palmer, MA 01069

FIELD WORK: PWS/BJP
COMPS: JMN
DRAFTING: JMN
CHECKED: DJF
APPROVED: DJF

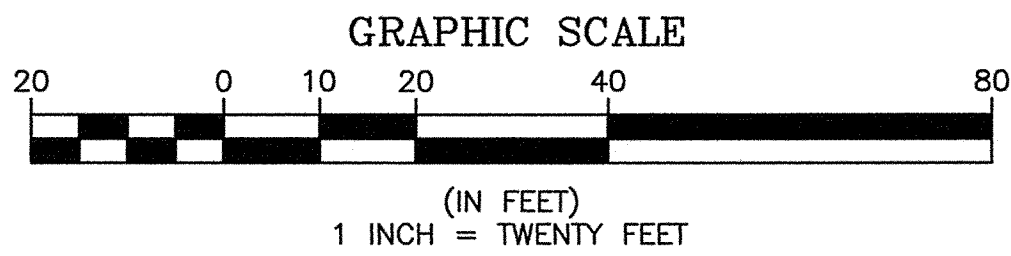


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VERT: N/A
DATE: 02/18/2020

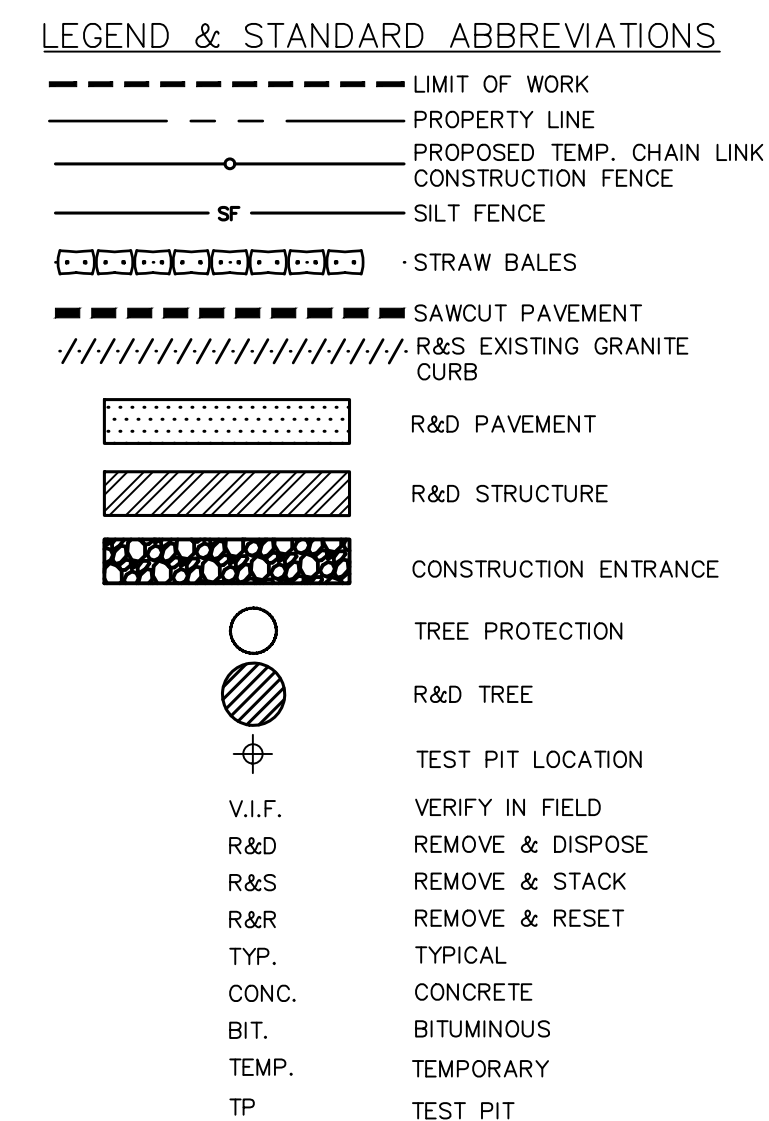
EXISTING CONDITIONS
MECHANIC STREET

PLAN OF LAND IN  
SPENCER, MA  
PREPARED FOR  
FUSS & O'NEILL, INC.

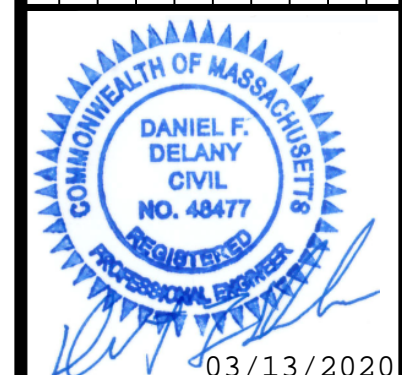
PROJECT NUMBER 13009J
SHEET NUMBER C1.00









PL. BK. 257 PL. 3

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DATUM:	
HORIZ.:	
VERT.:	
 GRAPHIC SCALE	



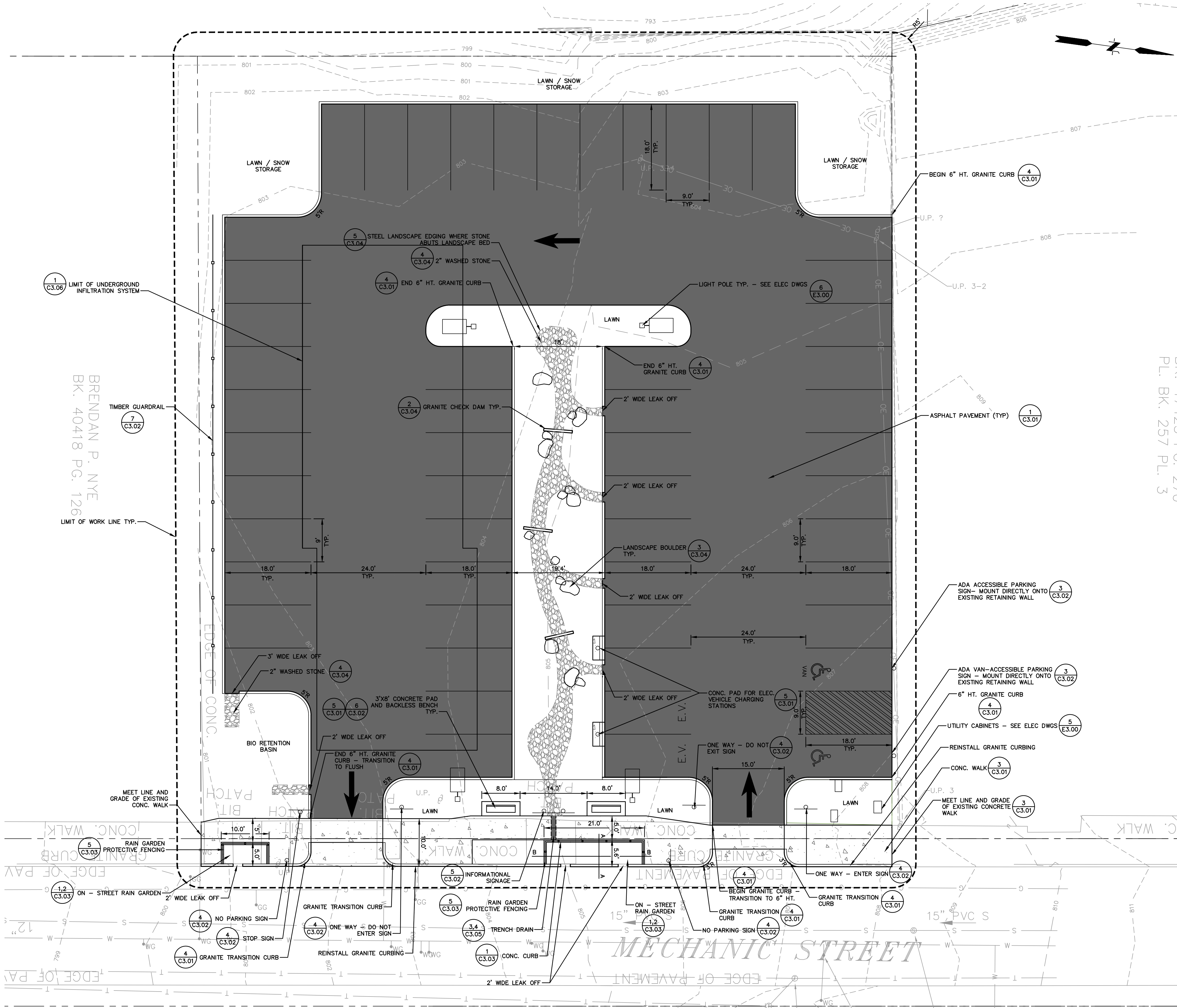
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SPRINGFIELD, MA 01103  
413-452-0445  
[www.fundo.com](http://www.fundo.com)

TOWN OF SPENCER  
SITE PREPARATION & DEMOLITION  
PLAN  
MUNICIPAL PARKING LOT & GREEN  
INFRASTRUCTURE PROJECT  
SPENCER MASSACHUSETTS

PROJ. No.: 20170390.D51
DATE: 03/06/2020

C1.10

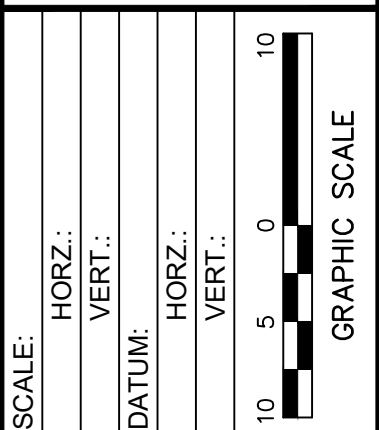




LEGEND & STANDARD ABBREVIATIONS

- |      |                               |
|------|-------------------------------|
| ---  | LIMIT OF WORK                 |
| ---  | PROPERTY LINE                 |
| ---  | GRANITE CURB                  |
| ---  | TIMBER GUARDRAIL              |
| ---  | ASPHALT PAVING                |
| ---  | CONCRETE                      |
| ---  | WASHED STONE                  |
| ---  | SITE SIGNAGE                  |
| ---  | SITE LIGHTING                 |
| ---  | SITE BENCH                    |
| ---  | LANDSCAPE BOULDER             |
| ---  | DETAIL SHEET REFERENCE NUMBER |
| EV   | ELECTRONIC VEHICLE            |
| EX   | EXISTING                      |
| HT   | HEIGHT                        |
| PROP | PROPOSED                      |
| CONC | CONCRETE                      |
| TYP  | TYPICAL                       |
| R    | RADIUS                        |

DESIGNER	REVIEWER
DATE	DESCRIPTION
No.	



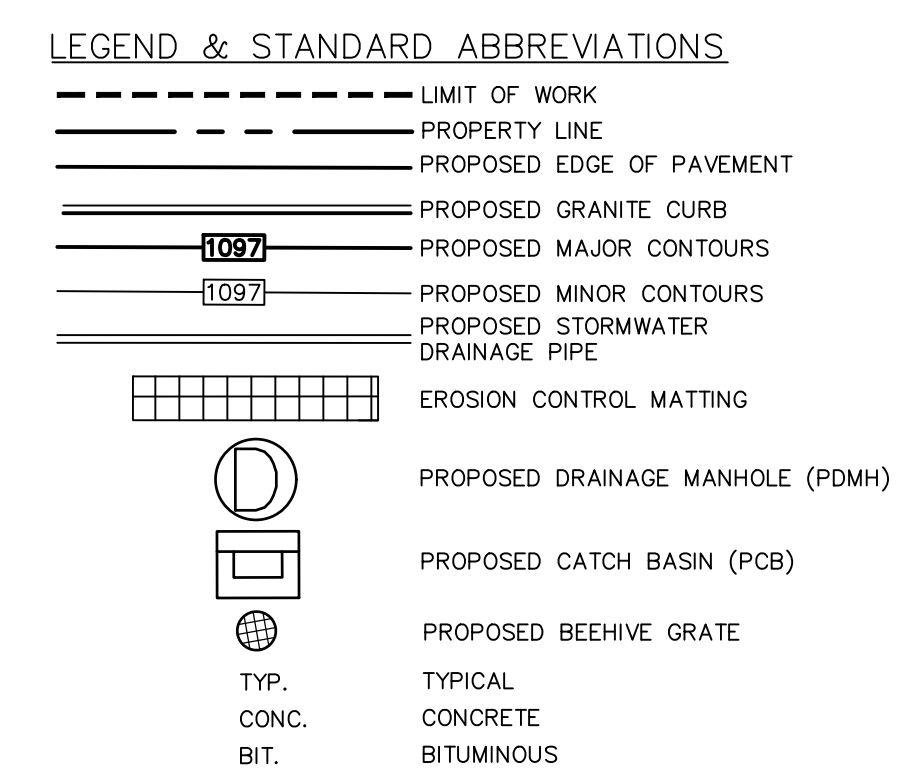
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1550 MAIN STREET, SUITE 400  
SPENCER, MA 01105  
413.452.0445  
www.fandoo.com

TOWN OF SPENCER  
SITE LAYOUT PLAN  
MUNICIPAL PARKING LOT & GREEN  
INFRASTRUCTURE PROJECT  
SPENCER, MASSACHUSETTS

PROJ. No.: 20170390.D51  
DATE: 03/06/2020

C1.20



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SCALE:

HORIZ.: 1" = 10'

VERT.:


DATUM:

HORIZ.:

VERT.:

10 5 0 10

GRAPHIC SCALE



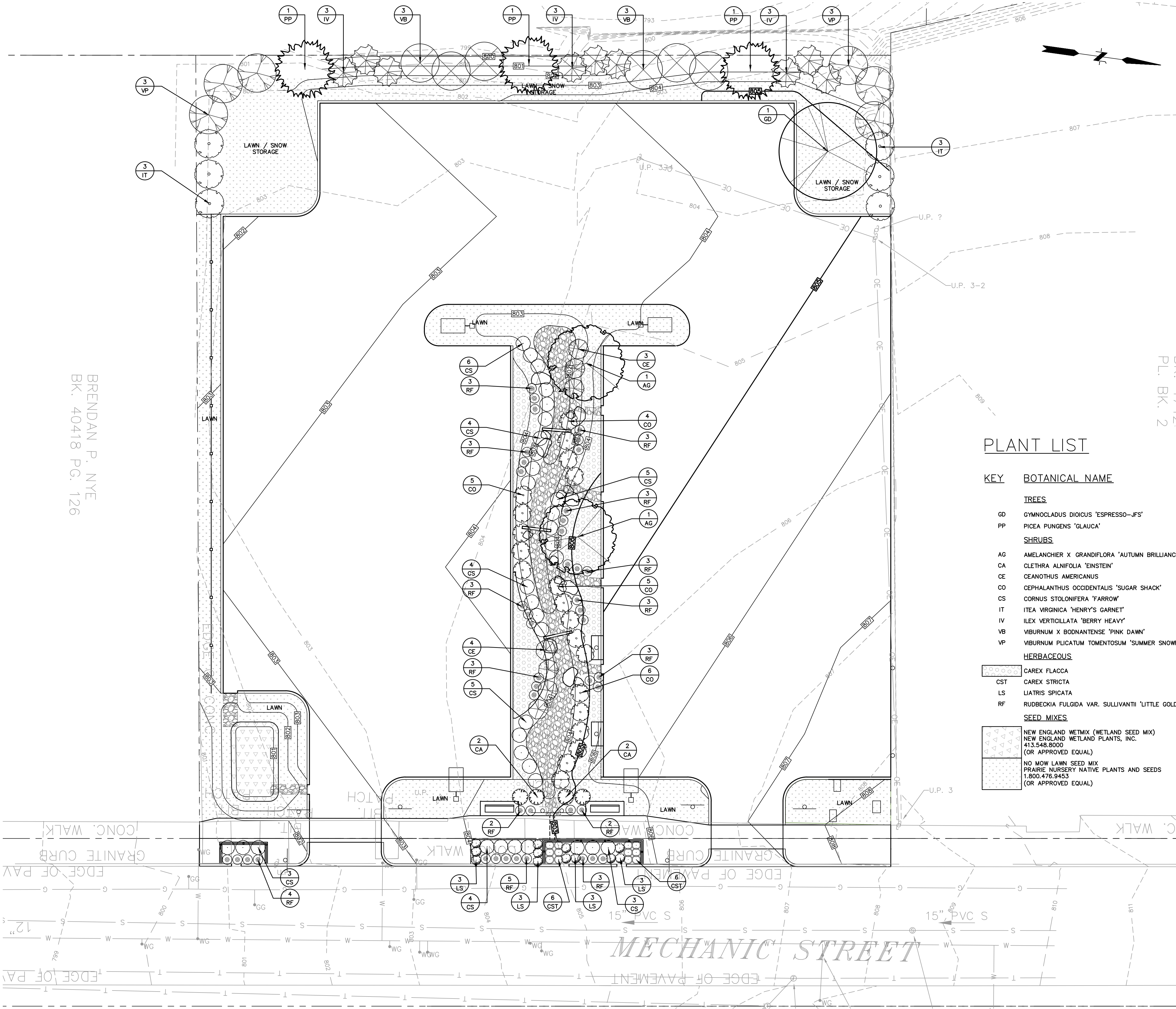
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TOWN OF SPENCER  
SITE GRADING AND DRAINAGE PLAN  
MUNICIPAL PARKING LOT & GREEN  
INFRASTRUCTURE PROJECT  
MASSACHUSETTS  
SPENCER

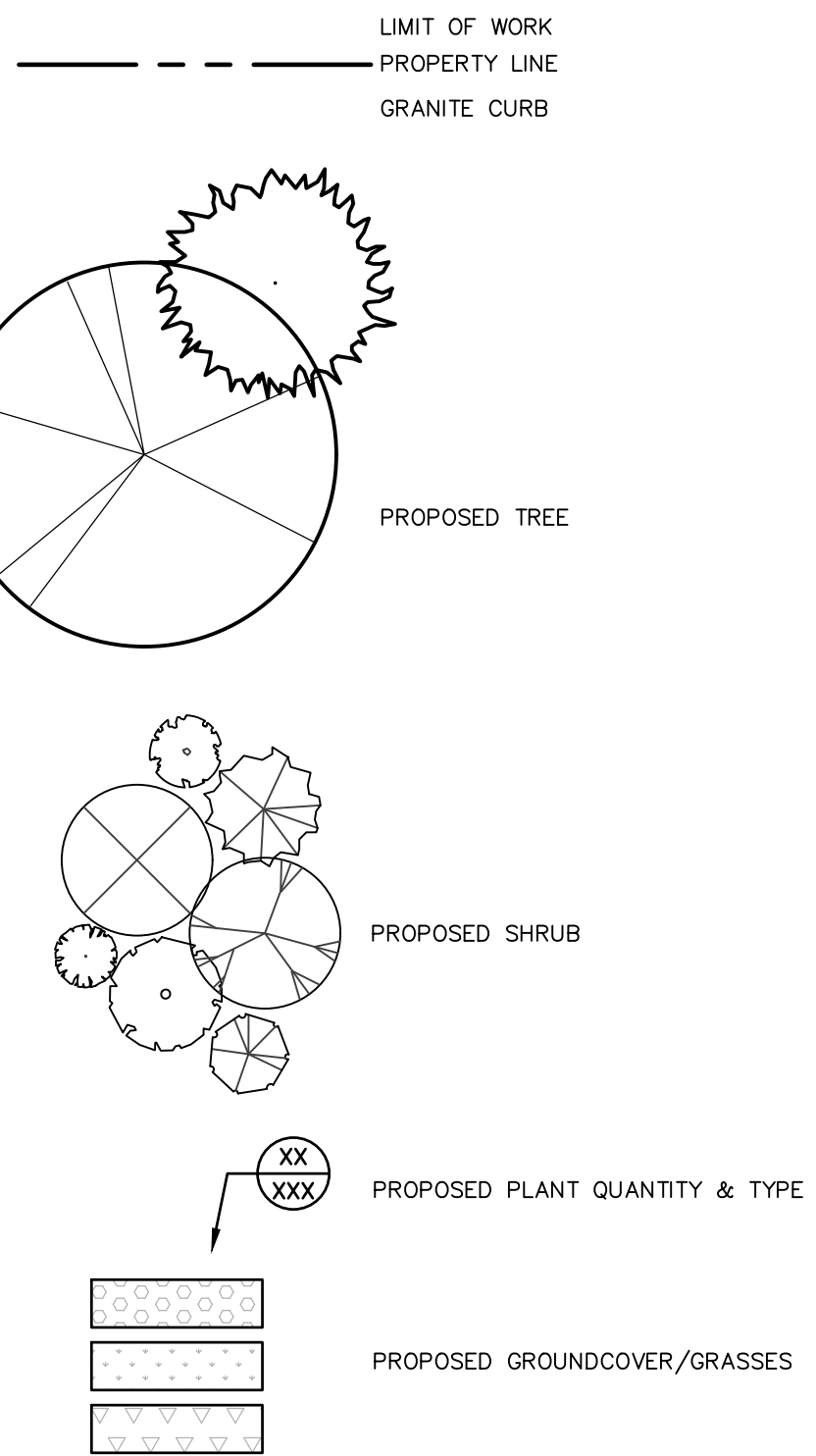
PROJ. No.: 20170390.D51
DATE: 03/06/2020

C1.30





LEGEND & STANDARD ABBREVIATIONS



PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	QTY.	SIZE
<b>TREES</b>				
GD	GYMNOCLADUS DIOICUS 'ESPRESSO-JFS'	ESPRESSO KENTUCKY COFFEE TREE	1	2.5"-3" CAL.
PP	PICEA PUNGENS 'GLAUCA'	COLORADO BLUE SPRUCE	3	5' HT.
<b>SHRUBS</b>				
AG	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE APPLE SERVICEBERRY	2	4' HT.
CA	CLETHRA ALNIFOLIA 'EINSTEIN'	EINSTEIN SUMMERSWEET	4	3 GAL.
CE	CEANOTHUS AMERICANUS	NEW JERSEY TEA	4	3 GAL.
CO	CEPHALANTHUS OCCIDENTALIS 'SUGAR SHACK'	SUGAR SHACK BUTTONBUSH	20	3 GAL.
CS	CORNUS STOLONIFERA 'FARROW'	ARCTIC FIRE RED TWIG DOGWOOD	33	3 GAL.
IT	ITEA VIRGINICA 'HENRY'S GARNET'	HENRY'S GARNET SWEETSPIRE	6	3 GAL.
IV	ILEX VERTICILLATA 'BERRY HEAVY'	BERRY HEAVY WINTERBERRY HOLLY	9	5 GAL.
VB	VIBURNUM X BODNANTENSE 'PINK DAWN'	PINK DAWN VIBURNUM	6	5 GAL.
VP	VIBURNUM Plicatum tomentosum 'SUMMER SNOWFLAKE'	SUMMER SNOWFLAKE VIBURNUM	6	5 GAL.
<b>HERBACEOUS</b>				
FL	CAREX FLACCA	BLUE GREEN SEDGE	400	1 GAL.
CST	CAREX STRICTA	TUSsock SEDGE	12	1 GAL.
LS	LIATRIS SPICATA	BLAZING STAR	6	1 GAL.
RF	RUDBECKIA FULGIDA VAR. SULLIVANTII 'LITTLE GOLDSTAR'	LITTLE GOLDSTAR BLACK-EYED SUSAN	40	1 GAL.
<b>SEED MIXES</b>				
WET	NEW ENGLAND WETMIX (WETLAND SEED MIX) NEW ENGLAND WETLAND PLANTS, INC. 413.548.8000 (OR APPROVED EQUAL)		1	158 S.F.
NOW	NO MOW LAWN SEED MIX PRAIRIE NURSERY NATIVE PLANTS AND SEEDS 1.800.476.9453 (OR APPROVED EQUAL)		1	3,330 S.F.

BRENDAN P. NYE  
BK. 40418 PG. 126

TOWN OF SPENCER  
SITE LANDSCAPE PLAN  
MUNICIPAL PARKING LOT & GREEN  
INFRASTRUCTURE PROJECT  
SPENCER MASSACHUSETTS

PROJ. No.: 20170390.D51  
DATE: 03/06/2020  
L1.00

FUSS & O'NEILL  
155 MAIN STREET, SUITE 400  
SPENCER, MA 01105  
www.fuss-o-neill.com

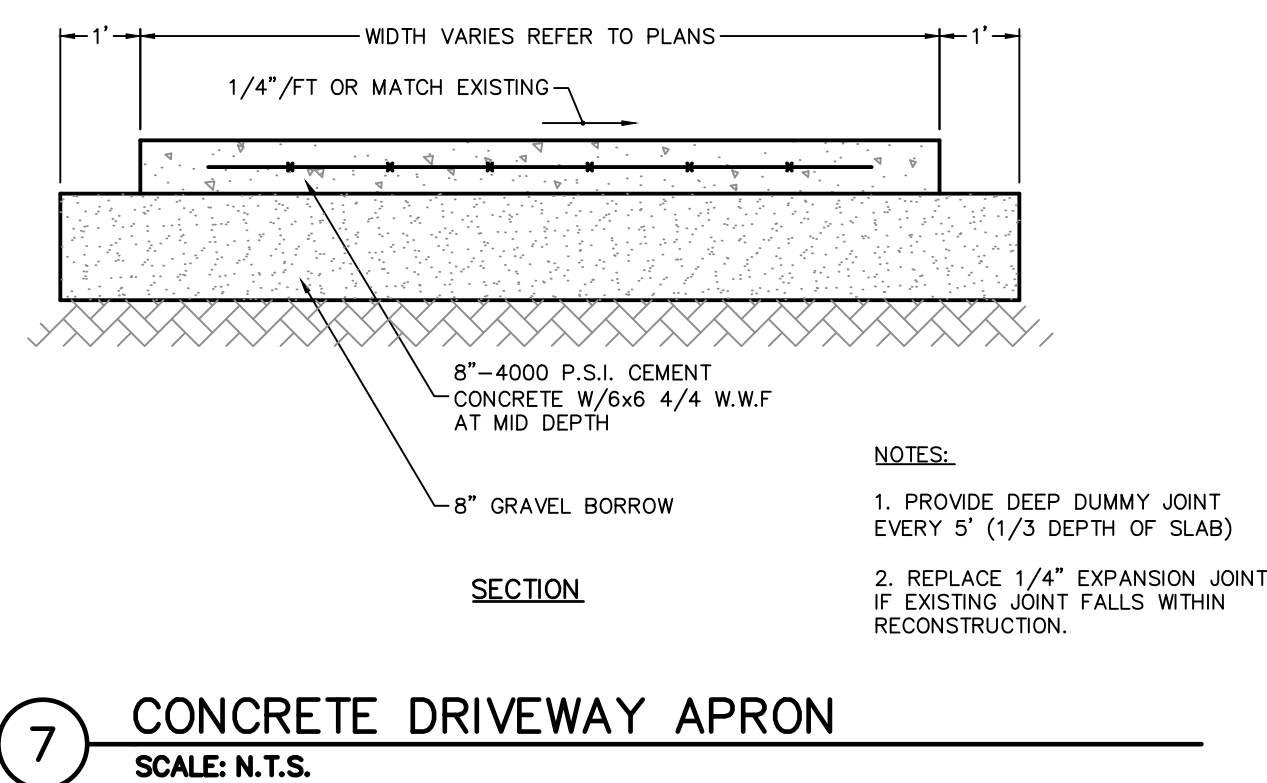
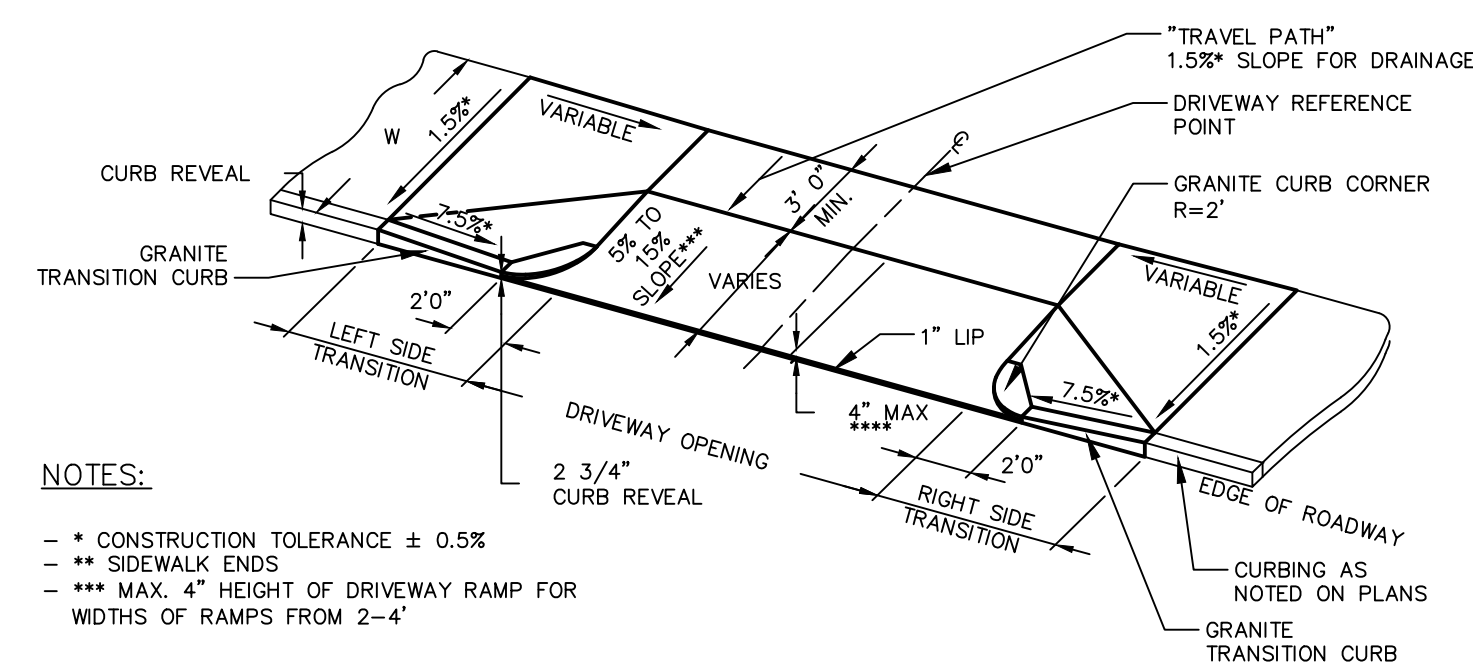
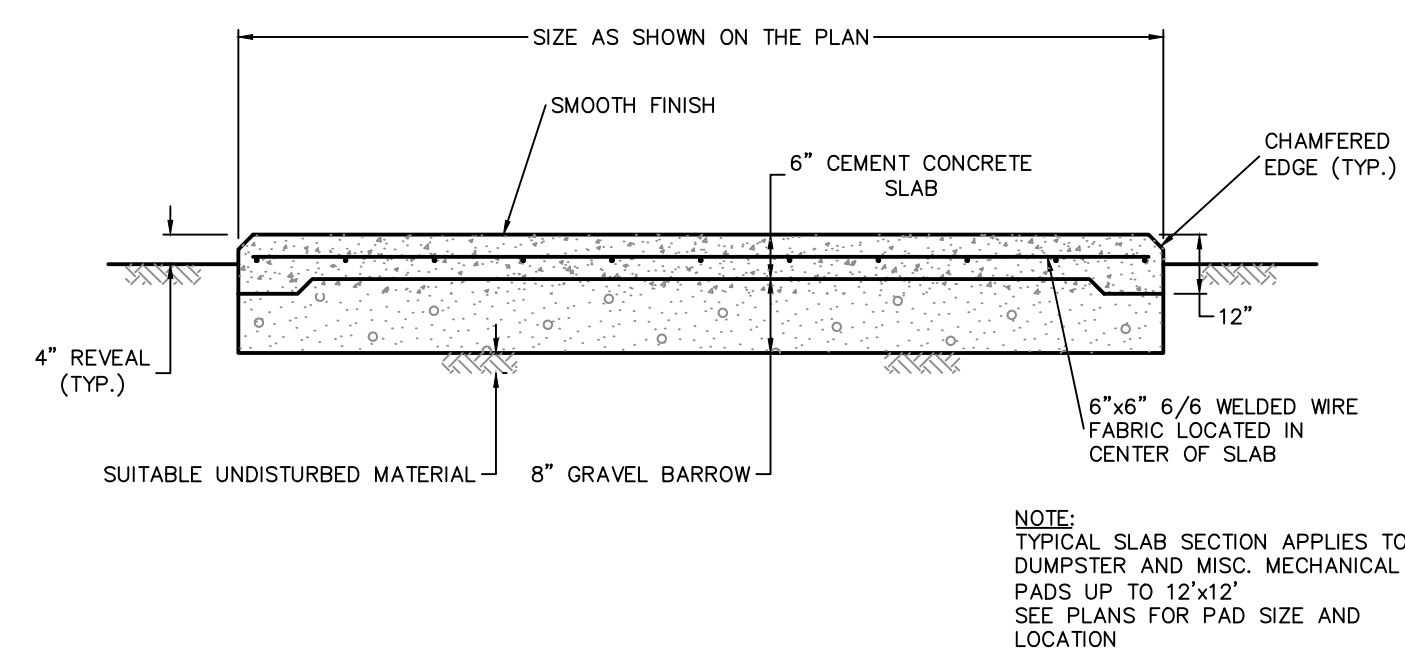
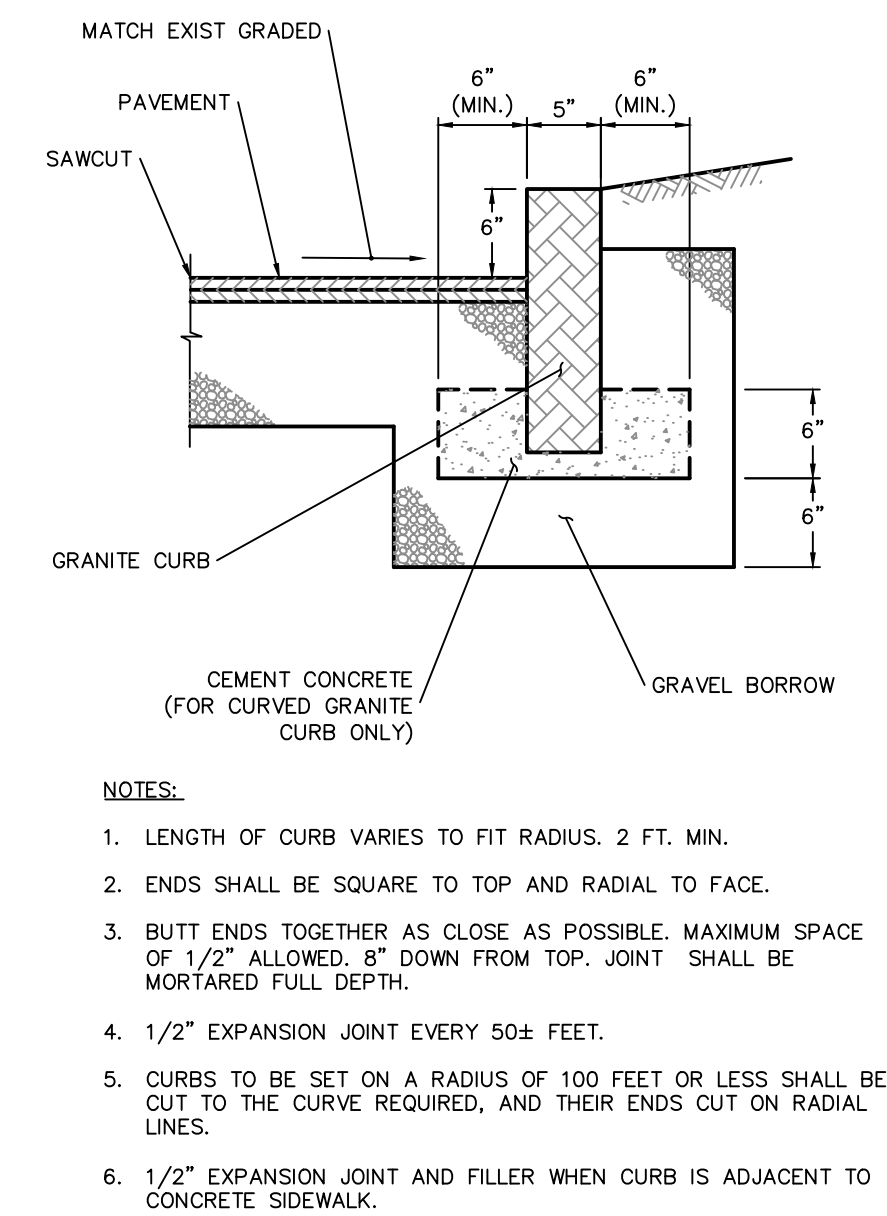
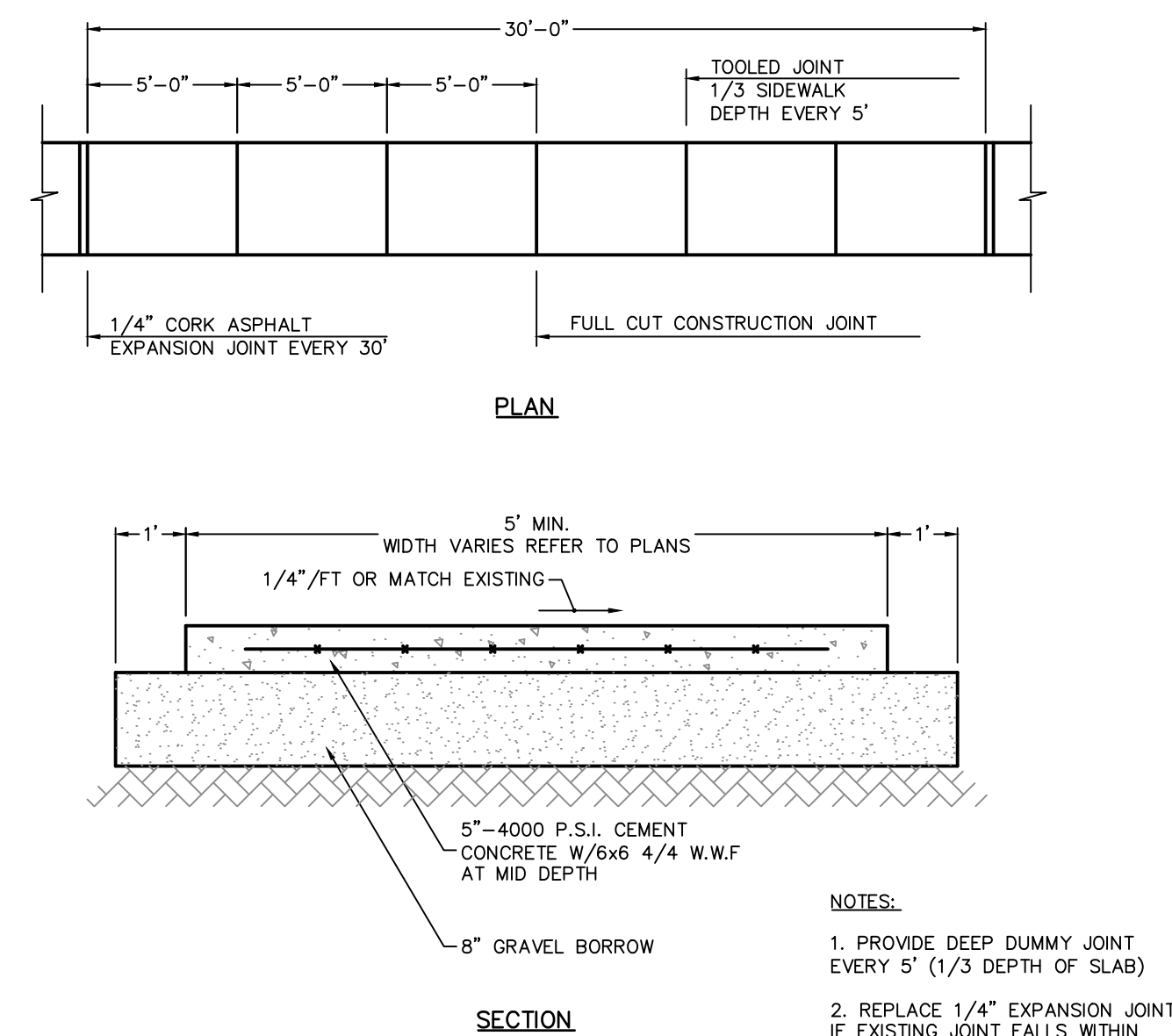
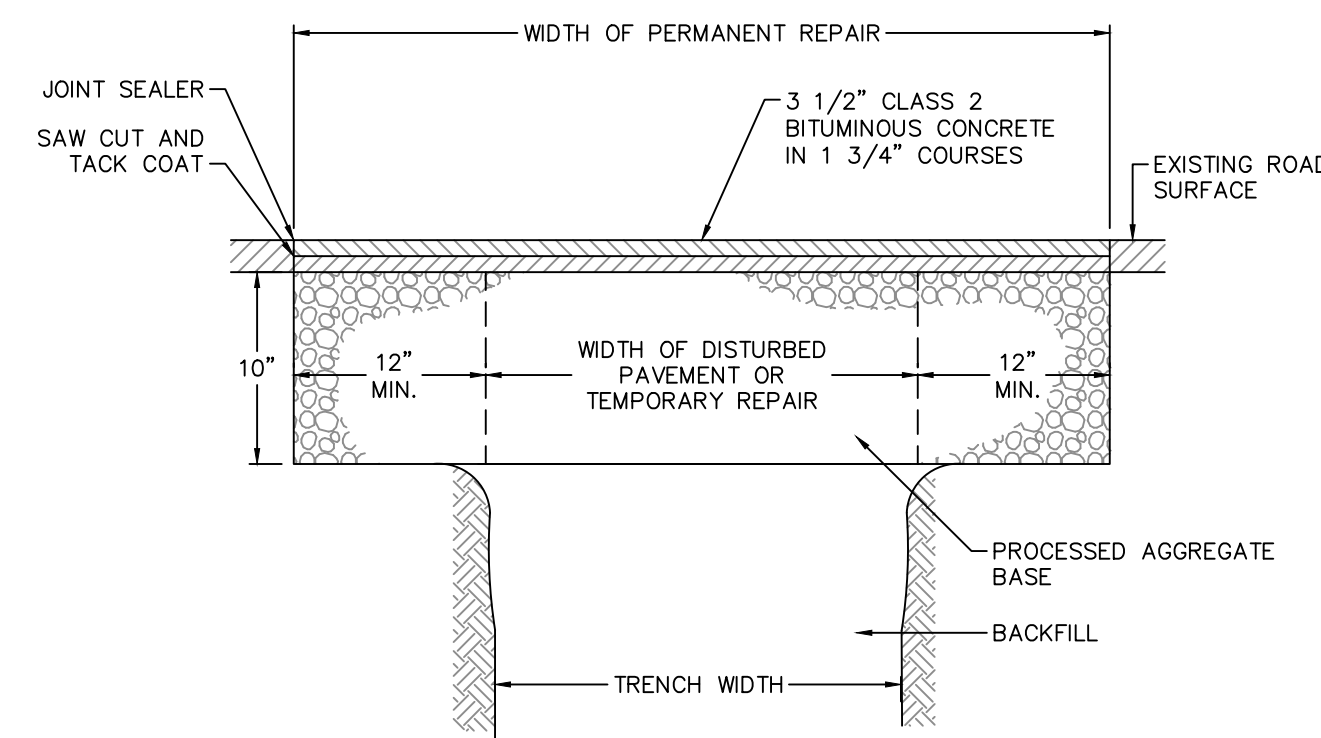
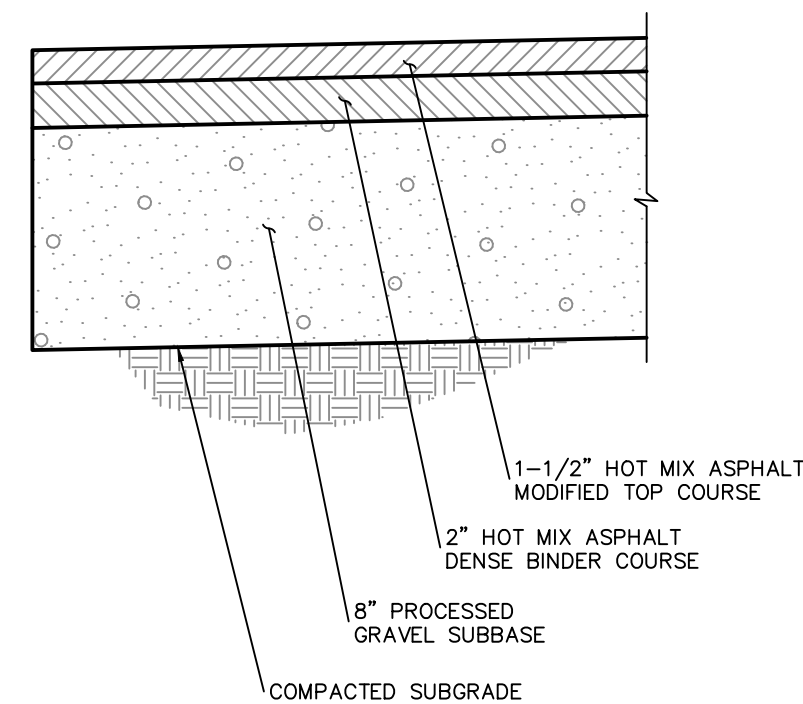
DANIEL F. DELANEY  
CIVIL  
NO. 48477  
03/13/2020


DESIGNER	REVIEWER
DESCRIPTION	DATE
No.	







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HOR.: NTS
VERT.:
DATUM:
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VERT.:

GRAPHIC SCALE

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SPRINGFIELD, MA 01103  
413.452.0445  
[www.fando.com](http://www.fando.com)

CONSTRUCTION DETAILS

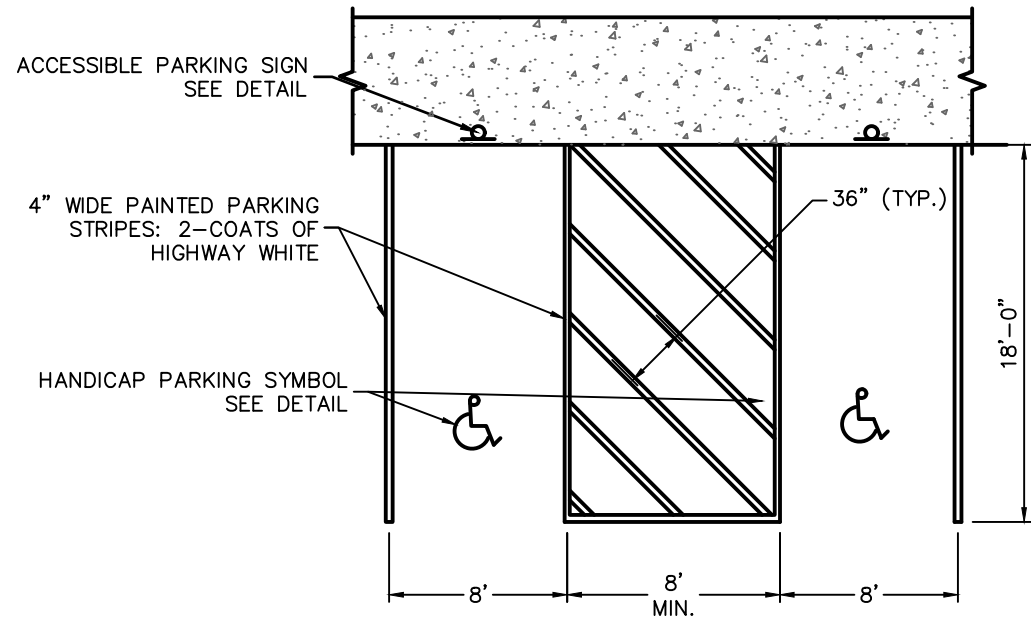
MUNICIPAL PARKING LOT & GREEN  
INFRASTRUCTURE PROJECT

SPENCER MASSACHUSETTS

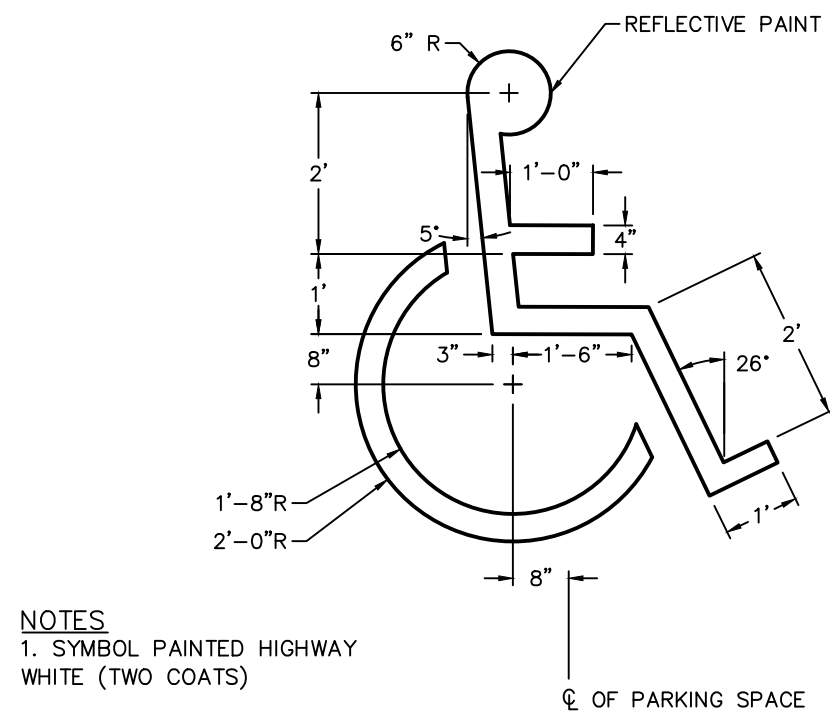
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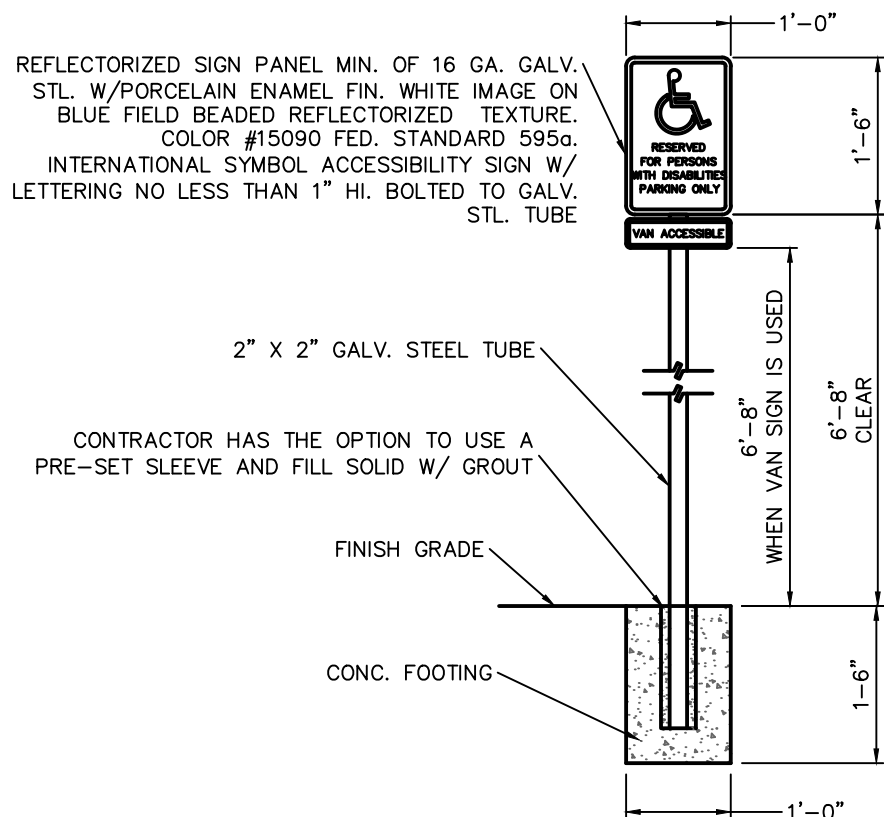




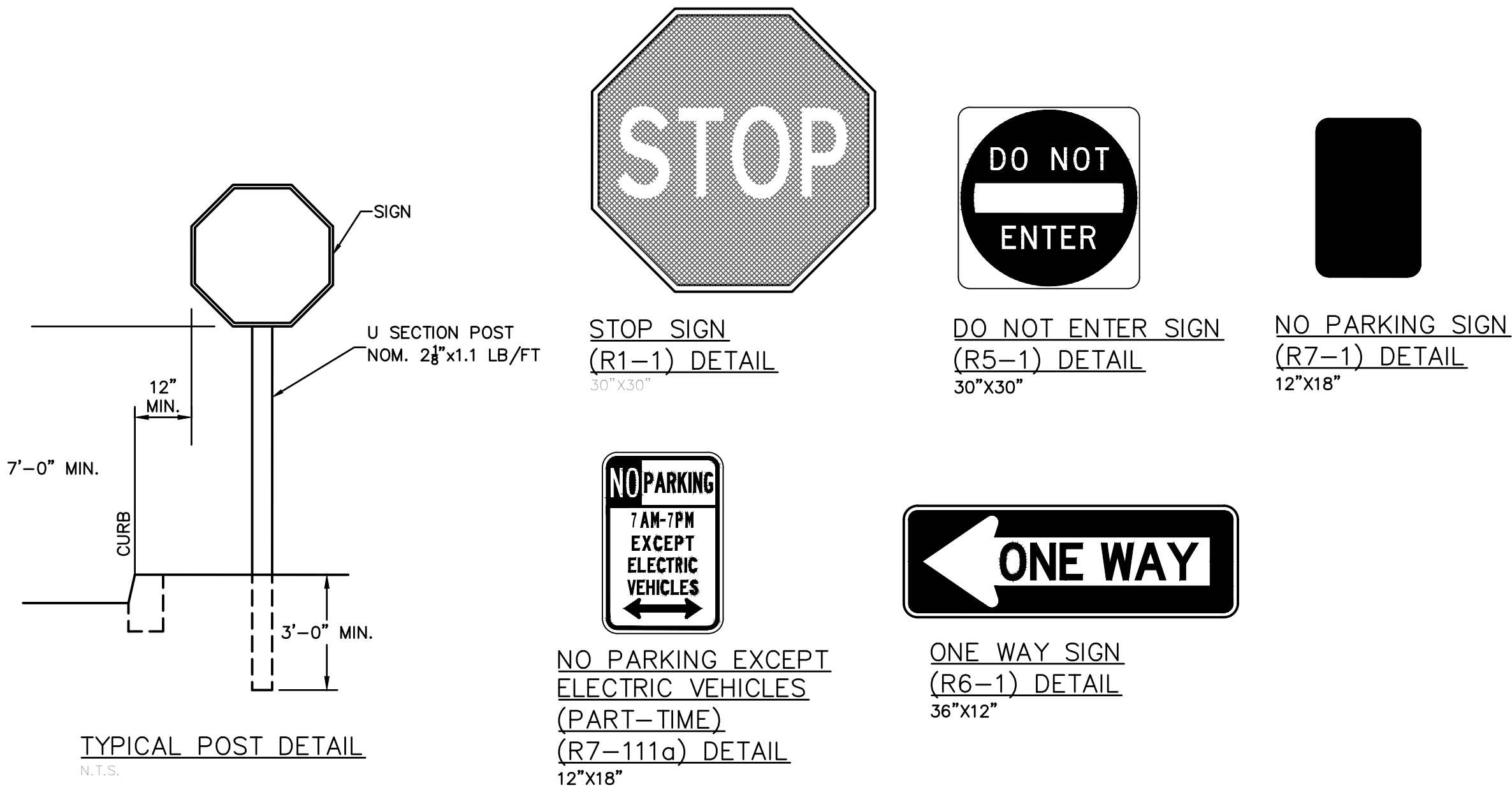
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2 ACCESSIBLE PARKING SYMBOL  
SCALE: N.T.S.



3 ACCESSIBLE PARKING SIGN  
SCALE: N.T.S.



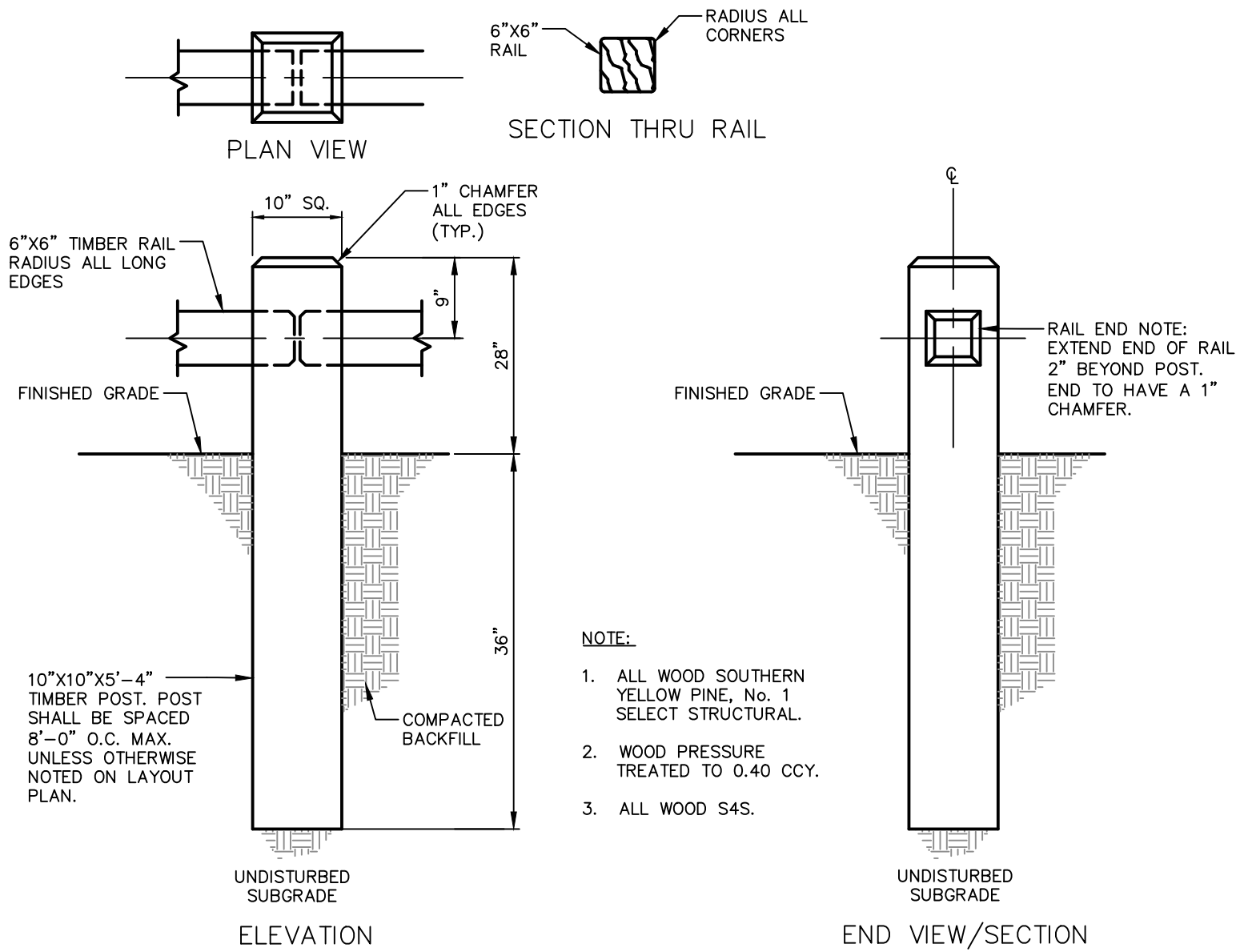
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5 INFORMATIONAL SIGNAGE  
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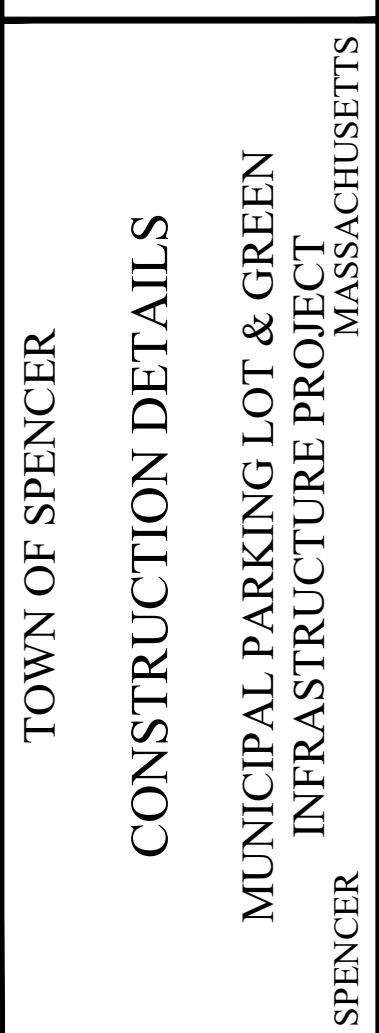
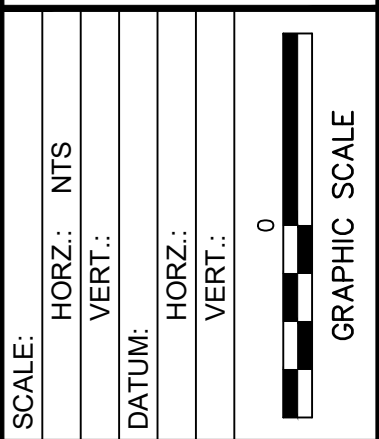


6 BACKLESS BENCH  
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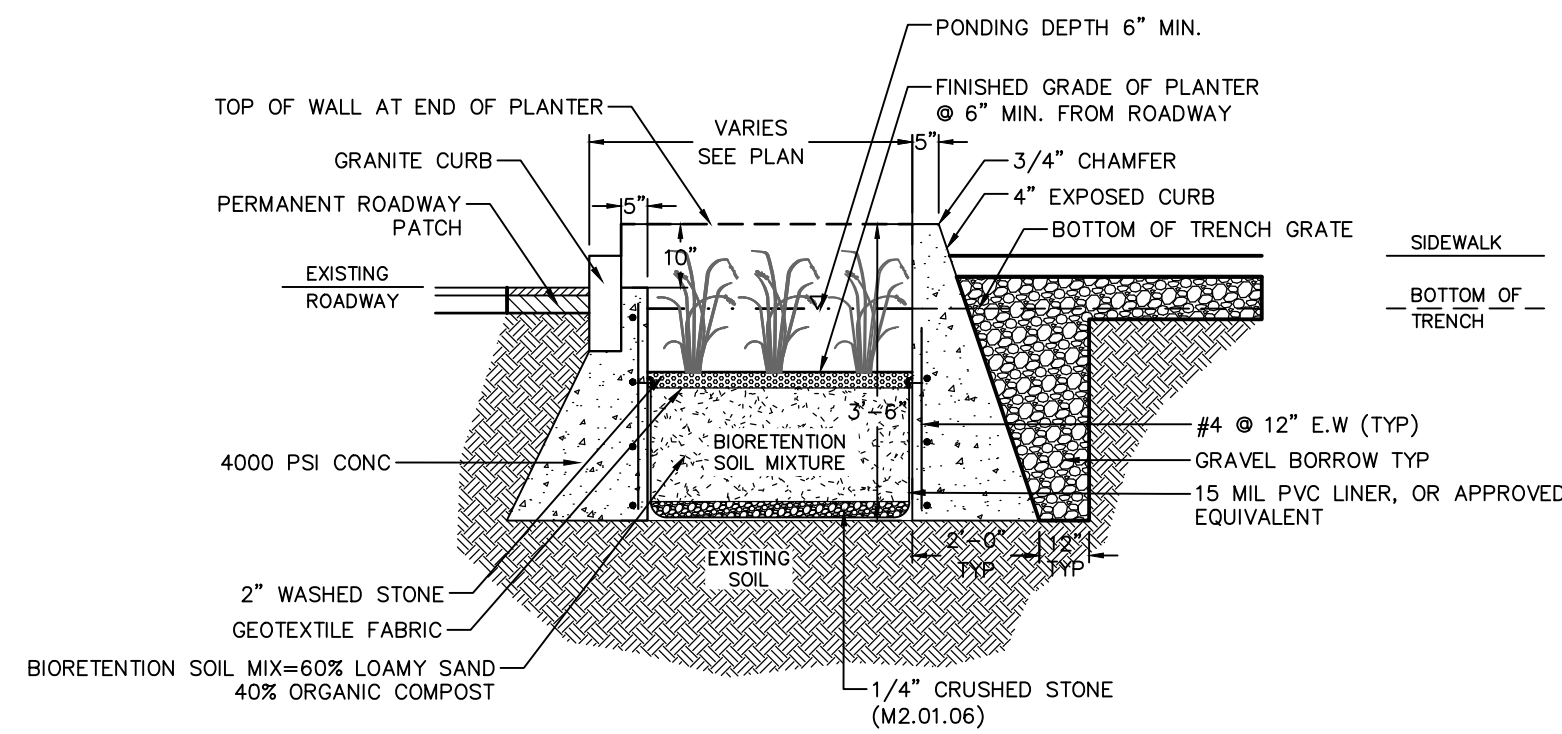
7 TIMBER GUARDRAIL  
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DESIGNER	REVIEWER
DATE	DESCRIPTION
No.	



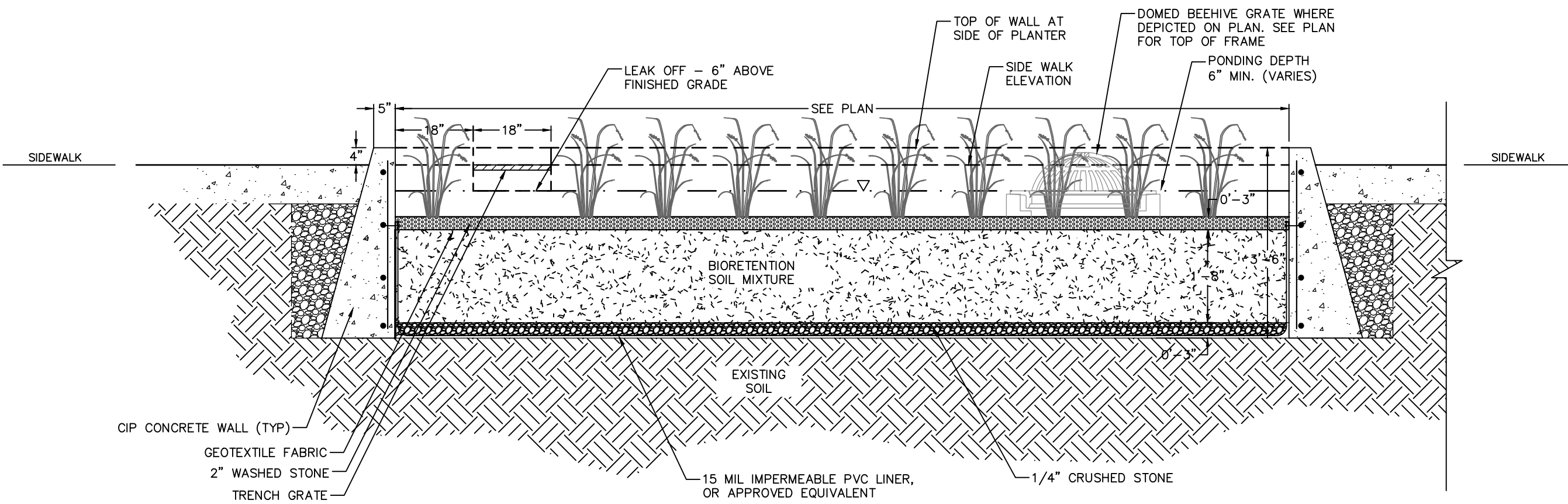
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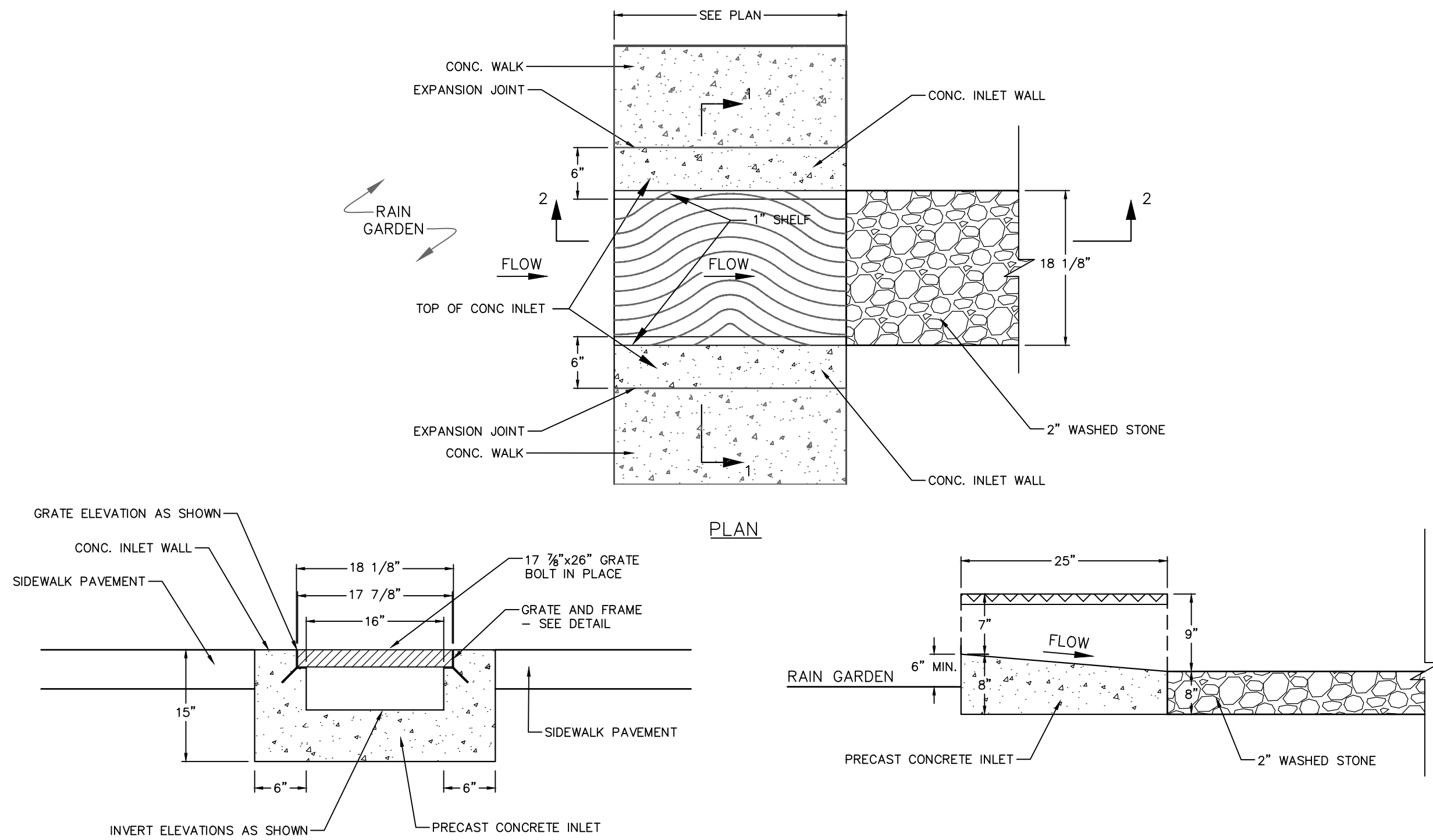


- NOTES:  
1. FINISH ALL EXPOSED CONCRETE SURFACES.  
2. WATERPROOF CONCRETE SEALANT ON INSIDE OF WALL TYPICAL.  
3. BITUMINOUS DAMPROOFING ON OUTSIDE OF WALL TYPICAL.

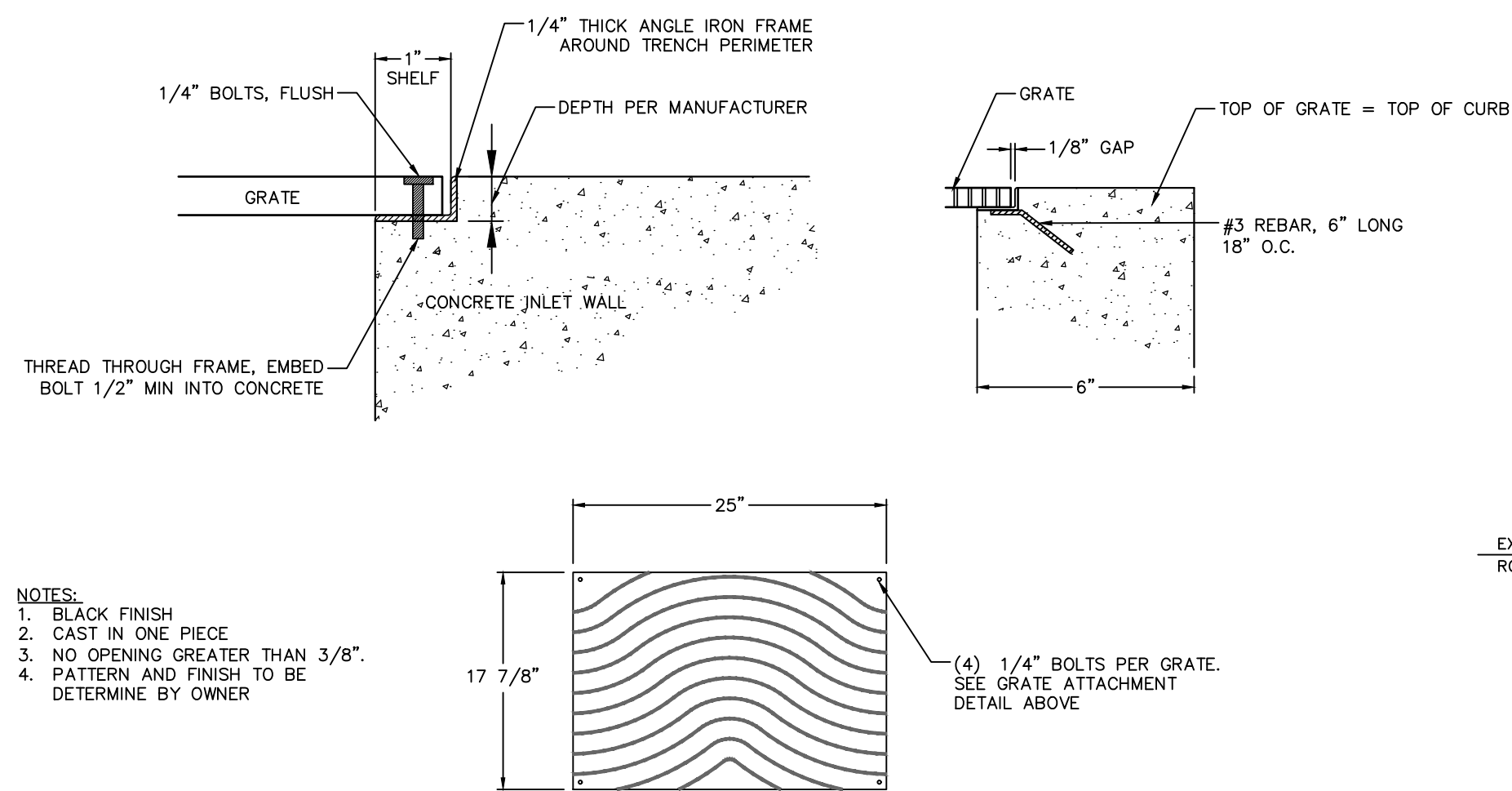
1 RAIN GARDEN SECTION A-A  
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2 RAIN GARDEN SECTION B-B  
SCALE: N.T.S. NTS

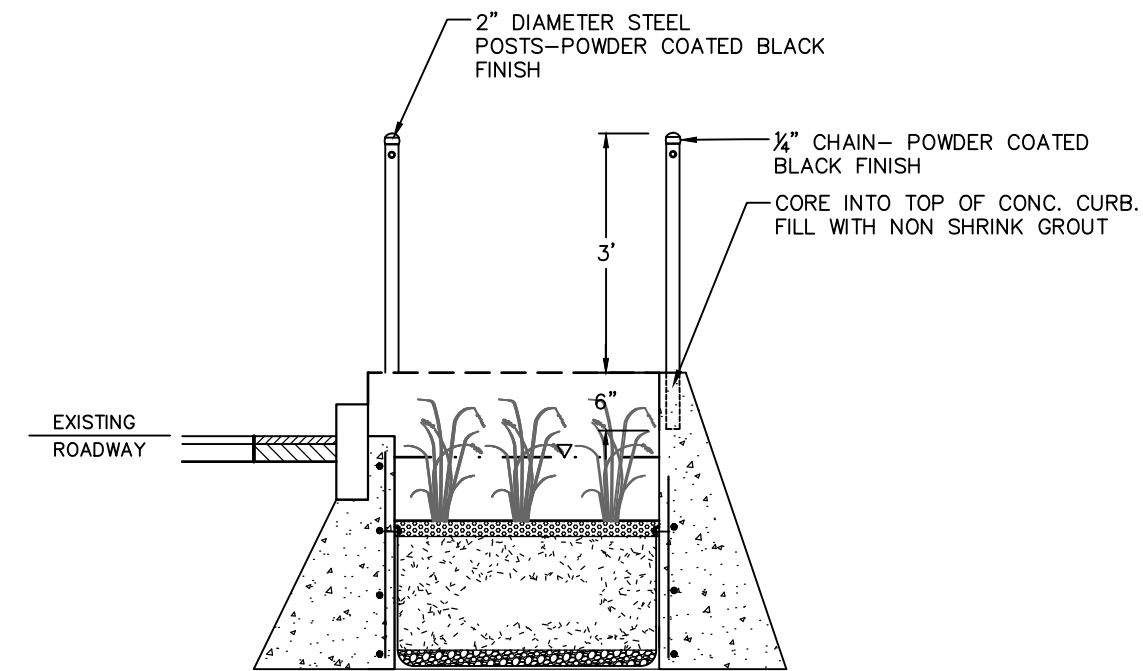


3 RAIN GARDEN CONCRETE INLET  
SCALE: N.T.S.



- NOTES:  
1. BLACK FINISH  
2. CAST IN ONE PIECE  
3. NO OPENING GREATER THAN 3/8\"/>

4 TRENCH GRATE  
SCALE: N.T.S.



5 RAIN GARDEN PROTECTIVE FENCE  
SCALE: N.T.S.- SUBMIT SHOP DRAWING

THE BERKSHIRE FENCE COMPANY  
1625 WEST HOUSATONIC STREET  
PITTSFIELD, MA 01201  
PH: 413-443-4515

DESIGNER	REVIEWER
DATE	DESCRIPTION
No.	



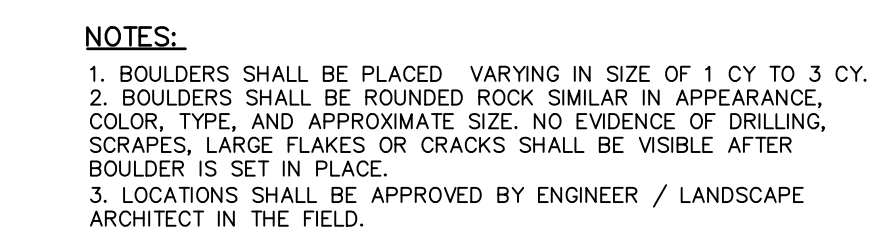
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	VERT.: NTS
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	HORZ.: NTS
	VERT.: NTS
	GRAPHIC SCALE

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TOWN OF SPENCER  
CONSTRUCTION DETAILS  
MUNICIPAL PARKING LOT & GREEN  
INFRASTRUCTURE PROJECT  
SPENCER, MASSACHUSETTS

PROJ. No.: 20190110.A10
DATE: 03/06/2020





C3.04

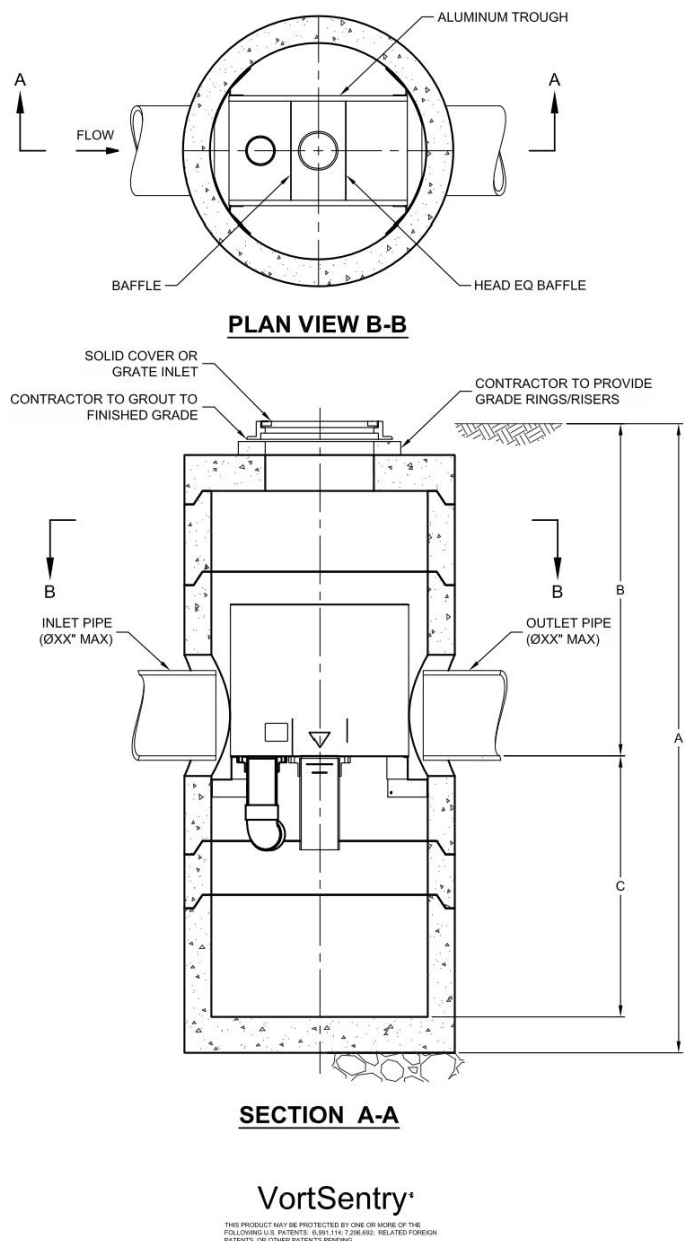












VORTSENTRY HS DESIGN NOTES

1. 150% RATED TREATMENT CAPACITY IS SHOWN IN THE TABLE BELOW. FOR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY VARIES. CONTACT YOUR COTECH REPRESENTATIVE FOR ADDITIONAL INFORMATION.

THE STANDARD SOLID COVER CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW.

CONFIGURATION OPTION DESCRIPTION	
GRATE INLET (60" INLET PIPE)	
GRATE INLET WITH 18" INLET PIPE	

VORTSENTRY HS GENERAL INFORMATION

Model	Manhole Diameter (D)	Total Treatment Flow Rate		Typical Total Distance Rim to Outside Bottom		Typical Distance Rim to Invert		Typical Depth Below Invert (inside)		Approximate Minimum Distance Rim to Invert	Maximum Pipe Diameter (D)			
		FT	M	FT	M	FT	M	FT	M					
HS36	3	900	0.55	15.6	10.10	3.10	4.06	1.24	5.58	1702	3.90	5.91	18	450
HS45	4	1200	1.20	34.0	13.25	4.04	6.00	1.63	6.75	2057	4.00	1.22	24	600
HS60	5	1500	2.20	62.3	15.17	4.61	6.90	1.96	7.96	2426	4.82	1.47	30	750
HS72	6	1800	3.70	104.6	15.66	5.05	6.75	2.06	8.10	2718	5.30	1.79	36	900
HS84	7	2100	5.80	193.6	18.85	5.75	7.75	2.36	10.35	3196	5.90	1.82	42	1050
HS96	8	2400	8.10	229.4	20.87	6.36	8.50	2.59	11.54	3518	6.91	2.11	48	1200

FRAME AND COVER (DIAMETER VARIES) N.T.S.

GENERAL NOTES

1. ANY SUB-BASE, BACKFILL, DEPTH, AND/OR ANTI-FLUTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.

2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE VORTSENTRY HS MANHOLE STRUCTURE, LIFTING CLUTCHES PROVIDED.

3. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.

4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.

5. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

TOWN OF SPENCER

CONSTRUCTION DETAILS

MUNICIPAL PARKING LOT & GREEN INFRASTRUCTURE PROJECT

SPENCER MASSACHUSETTS

PROJ. No.: 20190110.A10

DATE: 03/06/2020

C3.07

SCALE: HORZ.: NTS VERT.: DATUM: HORZ.: VERT.: GRAPHIC SCALE

0 1 2 3 4 5 6 7 8 9 10

03/13/2020

DANIEL F. DELANY

CIVIL

NO. 48477

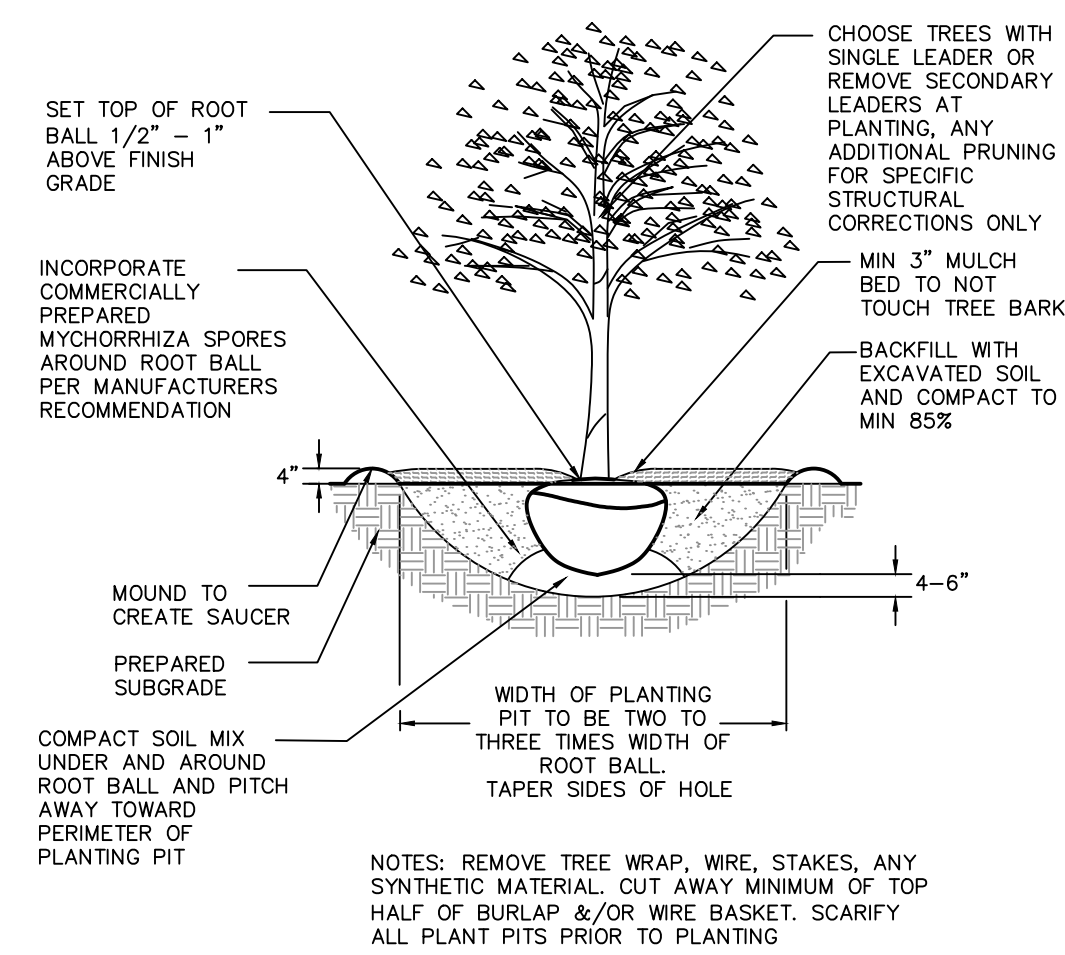
REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS

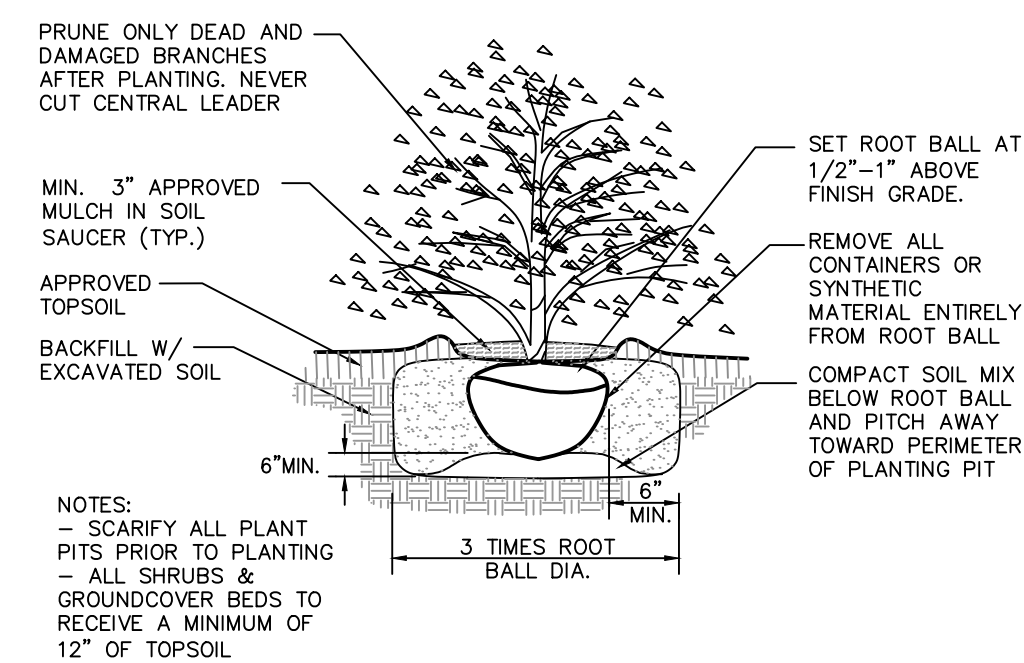
DESIGNER

REVIEWER

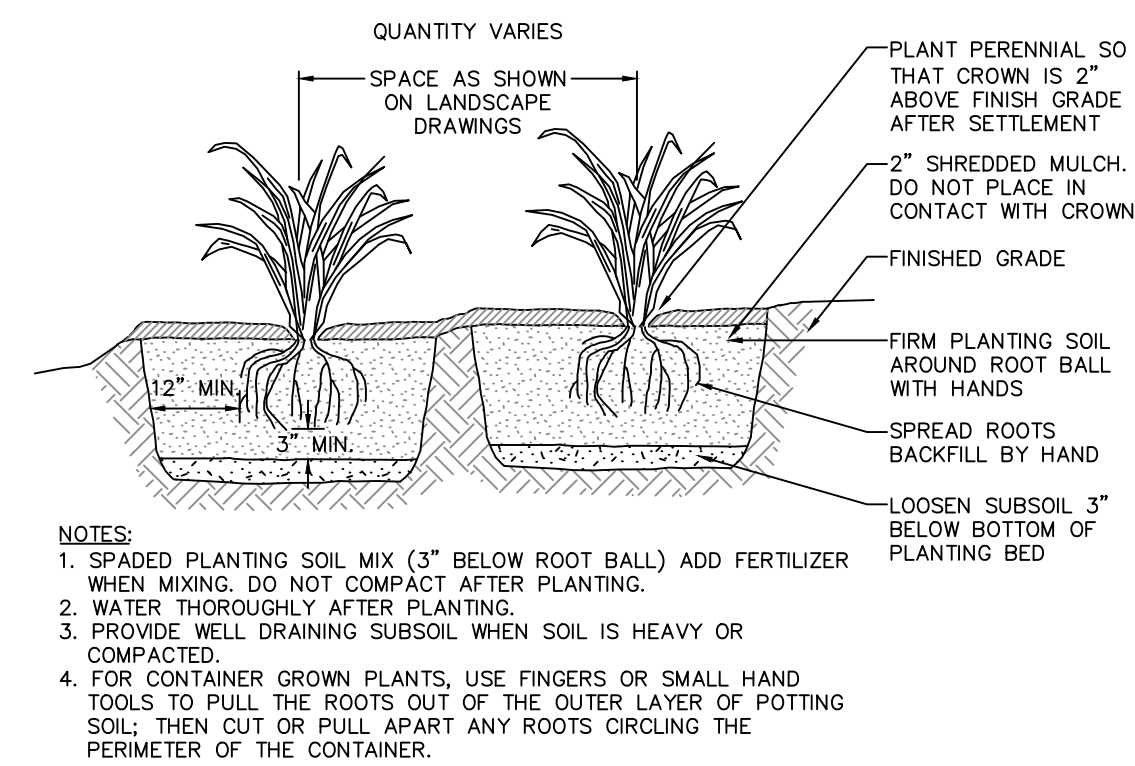




1 TREE PLANTING  
SCALE: N.T.S.



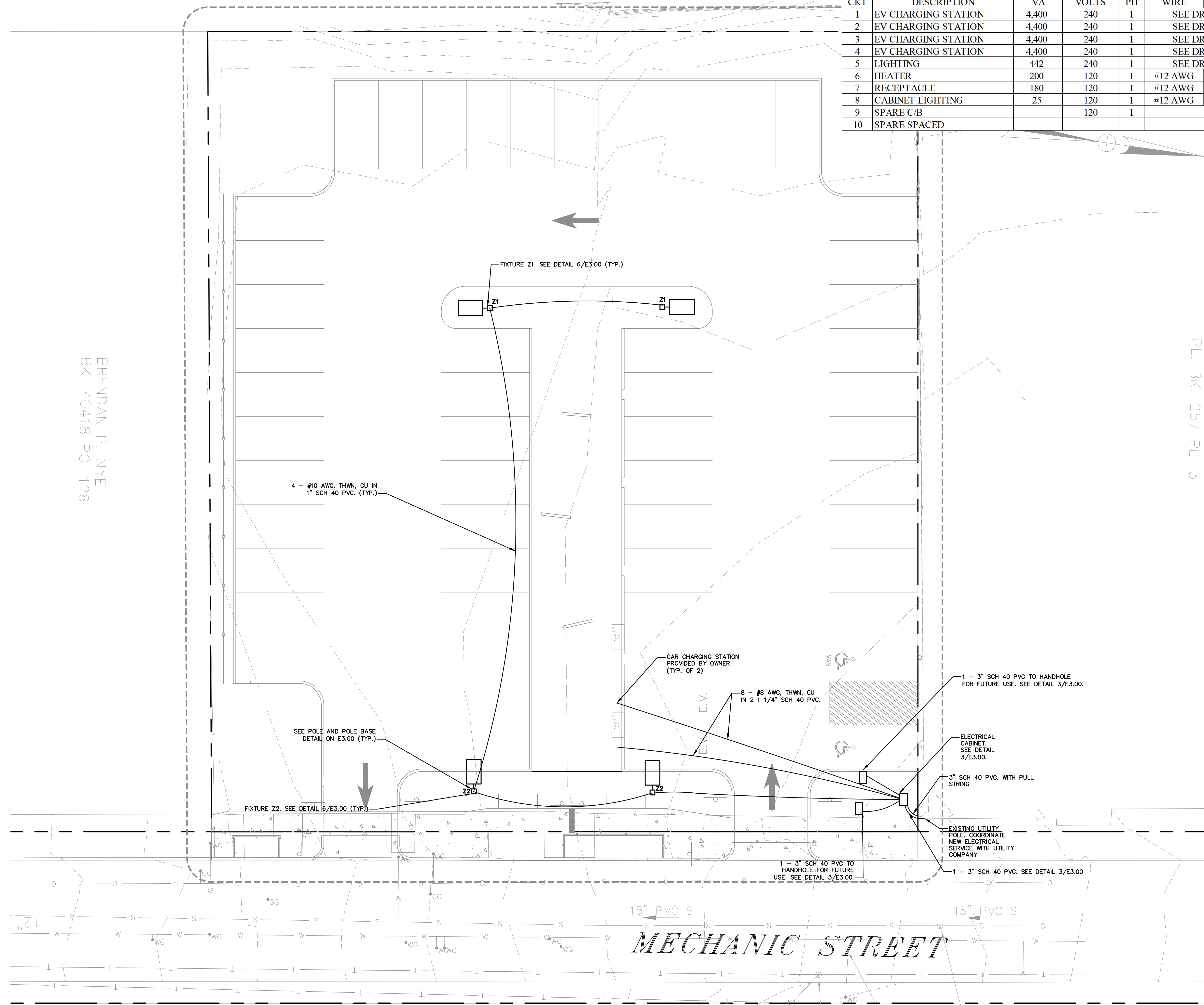
2 SHRUB PLANTING  
SCALE: N.T.S.



3 PERENNIAL PLANT BED  
SCALE: N.T.S.



SCHEDULE FOR PP-1									
	Panel Designation:	PP-1		Frame Size:	100 AMP		Volts:	120/240	
	Mounting:	SURFACE		MLO/MCB (Amps):	100 AMP	MCB	Phase:	1	
	TVSS Type:	NONE		A.I.C.:	10000		Wire:	3	
CKT	DESCRIPTION	VA	VOLTS	PH	WIRE	CONDUIT	AMPS	POLES	REMARKS
1	EV CHARGING STATION	4,400	240	1	SEE DRAWING		40	2	
2	EV CHARGING STATION	4,400	240	1	SEE DRAWING		40	2	
3	EV CHARGING STATION	4,400	240	1	SEE DRAWING		40	2	
4	EV CHARGING STATION	4,400	240	1	SEE DRAWING		40	2	
5	LIGHTING	442	240	1	SEE DRAWING		20	2	
6	HEATER	200	120	1	#12 AWG	3/4" EMT	20	1	
7	RECEPTACLE	180	120	1	#12 AWG	3/4" EMT	20	1	
8	CABINET LIGHTING	25	120	1	#12 AWG	3/4" EMT	20	1	
9	SPARE C/B		120	1			20	4	4 - 20A SINGLE POLE C/B'S
10	SPARE SPACED							7	



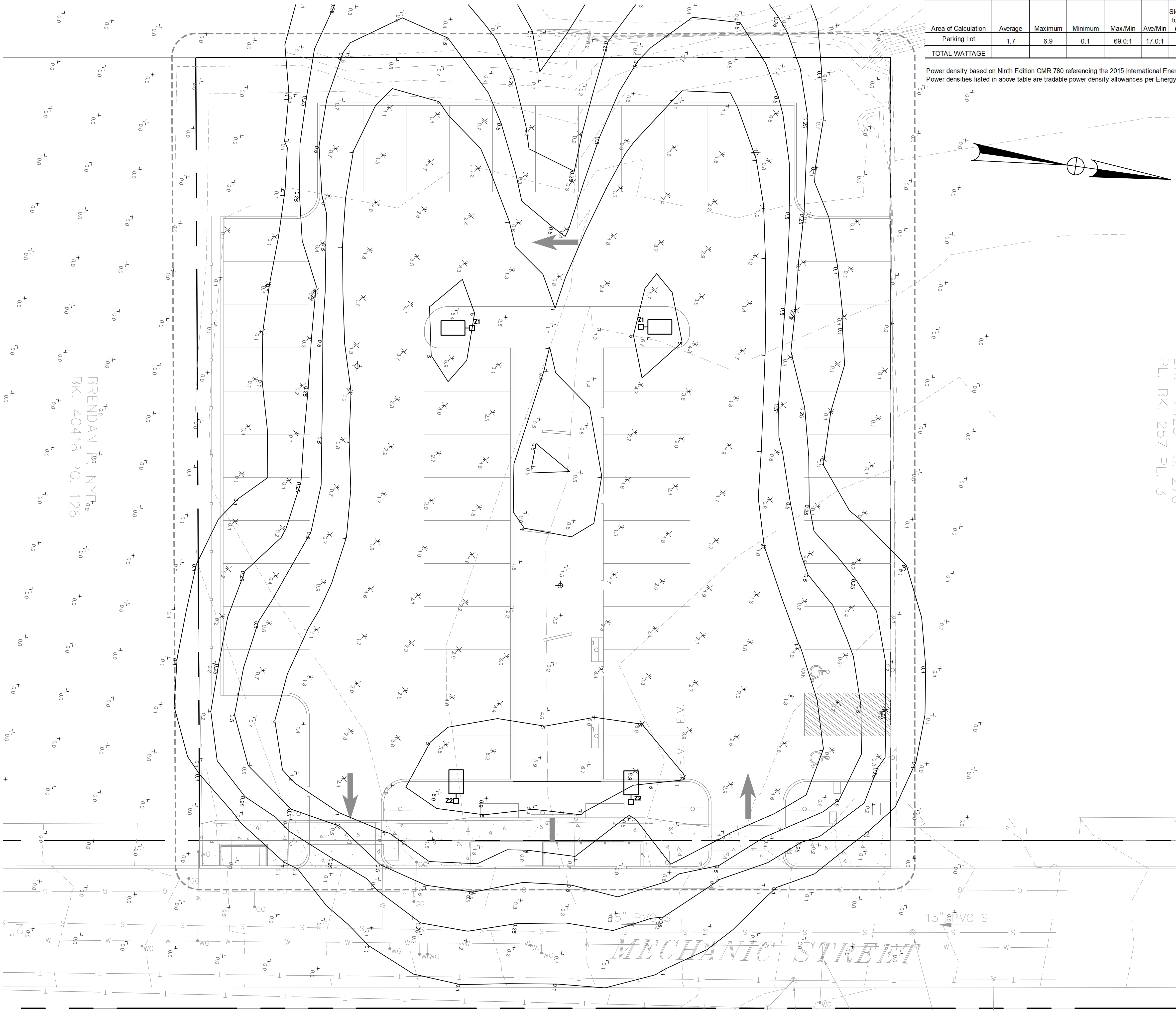
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TOWN OF SPENCER  
SITE ELECTRICAL PLAN  
MUNICIPAL PARKING LOT & GREEN  
INFRASTRUCTURE PROJECT  
SPENCER MASSACHUSETTS

PROJ. No.: 20170390.D51
DATE: 03/06/2020

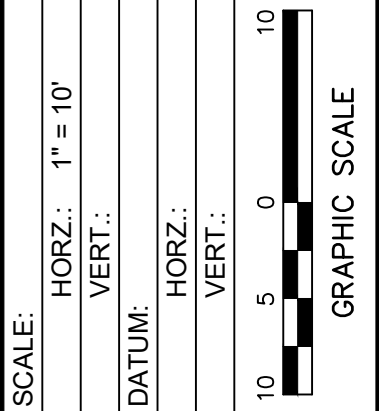
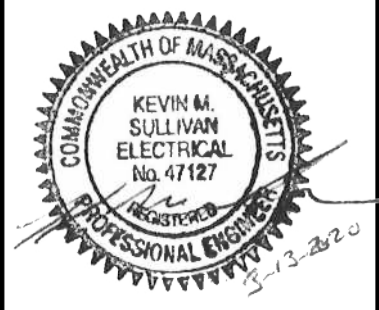
## E1.10





Site Lighting Calculation Summary (in footcandles)										
Area of Calculation	Average	Maximum	Minimum	Max/Min	Ave/Min	Sidewalk up to 10' wide (Lin. Ft.)	Sidewalk greater than 10' wide (Sq. Ft.)	Parking Area (Sq. Ft.)	Energy Code Power Density (Watts/Sq. Ft.)	Design Power Density (Watts/Sq. Ft.)
Parking Lot	1.7	6.9	0.1	69.0:1	17.0:1			16,522	0.06	0.0256
TOTAL WATTAGE									991	422

Power density based on Ninth Edition CMR 780 referencing the 2015 International Energy Conservation Code (IECC), Table 405.6.2(2), Exterior Lighting Zone 2. Power densities listed in above table are tradable power density allowances per Energy Code. Final power density is below Energy Code requirements.

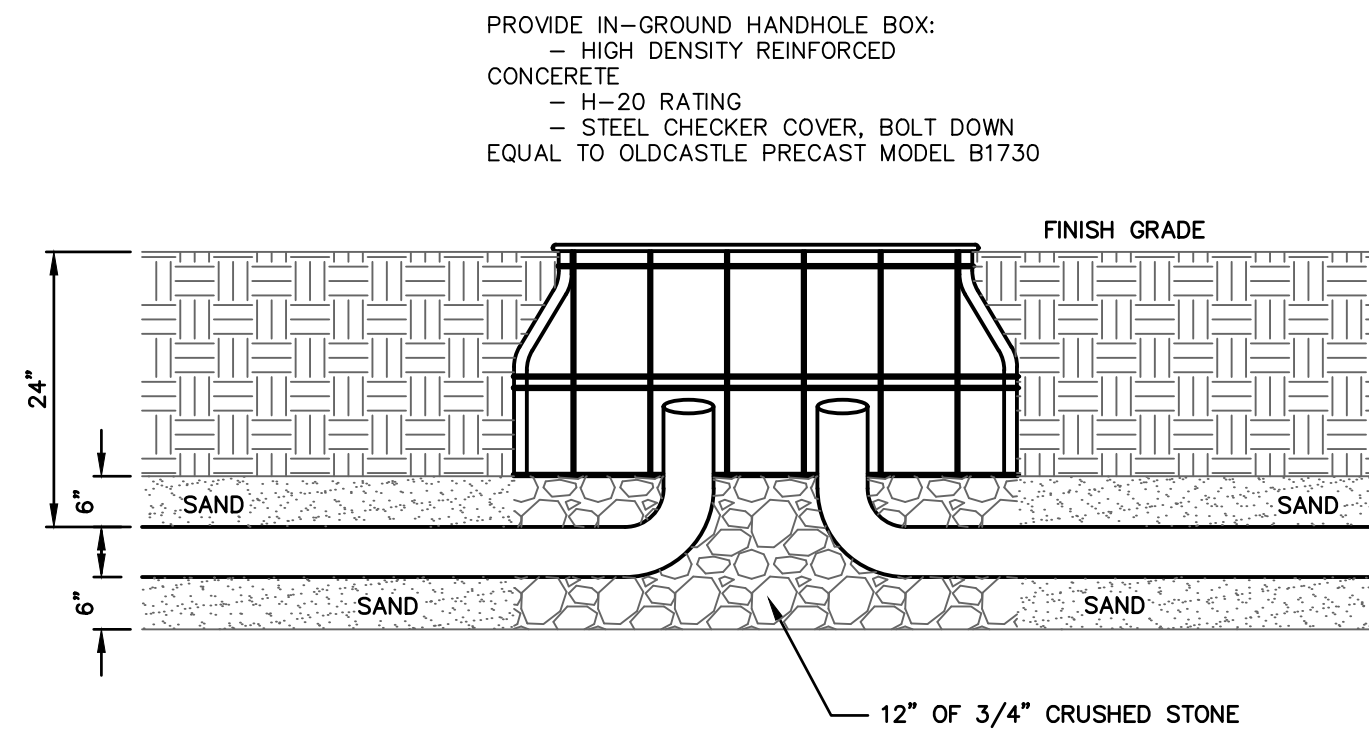


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TOWN OF SPENCER  
SITE PHOTOMETRIC PLAN  
MUNICIPAL PARKING LOT & GREEN  
INFRASTRUCTURE PROJECT  
SPENCER, MASSACHUSETTS

PROJ. No.: 20170390.D51  
DATE: 03/06/2020



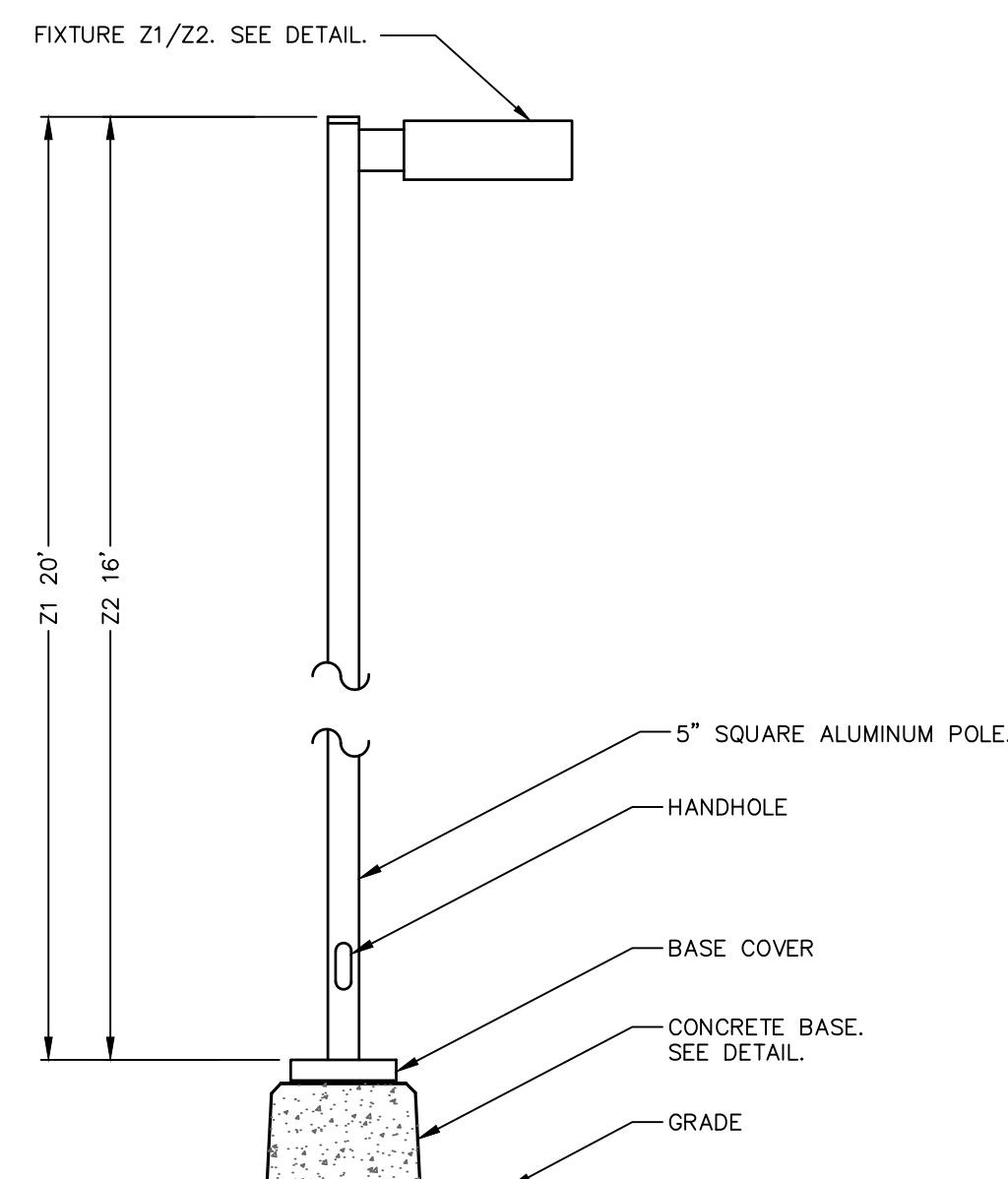


2 FIXTURE Z1/Z2 POLE BASE DETAIL  
SCALE: N.T.S.

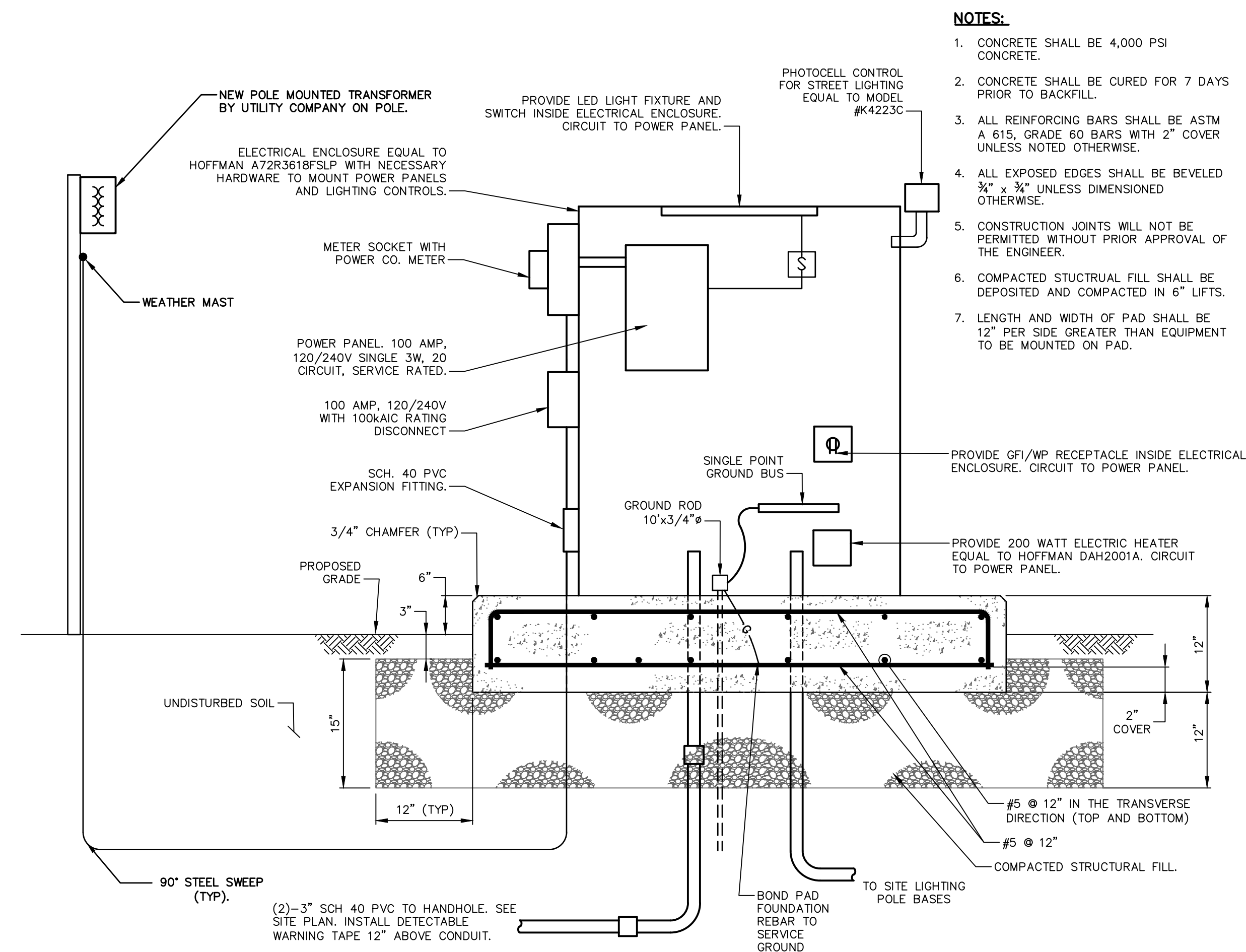
ECF-S-32L-1A-NW-G2-AR-2-240-F2  
ECF-S-32L-1A-NW-G2-AR-4-240-F2

FIXTURE Z1/Z2

SCALE: N.T.S.






6 FIXTURE Z1/Z2 POLE DETAIL  
SCALE: N.T.S.



5 ELECTRICAL CABINET  
SCALE: N.T.S.

[illegible]

<div> <div>  <div> <b>FUSS &amp; O'NEILL</b>            1550 MAIN STREET, SUITE 400            BOSTON, MA 02115            313.457.0445  <a href="http://www.fandof.com">www.fandof.com</a> </div> </div> <div> <p>TOWN OF SPENCER</p> <p>ELECTRICAL DETAILS</p> <p>MUNICIPAL PARKING LOT &amp; GREEN INFRASTRUCTURE PROJECT</p> <p>SPENCER MASSACHUSETTS</p> </div> </div>	<div> <div> <div>SCALE:</div> <div> <div>HORIZ.:</div> <div>VERT.:</div> <div>DATUM:</div> <div>HORIZ.:</div> <div>VERT.:</div> </div> </div> <div>  <div>GRAPHIC SCALE</div> </div> </div>		<div>  </div>		<div> <div>No.</div> <div>DATE</div> <div>DESCRIPTION</div> <div>DESIGNER</div> <div>REVIEWER</div> </div>	
	<div> <div>PROJ. No.: 2017070390.D51</div> <div>DATE: 03/06/2020</div> </div>		<div>E3.00</div>			