

STORMWATER MANAGEMENT PERMIT APPLICATION

FOR

90 DUVAL ROAD

LANCASTER, MA

DATE

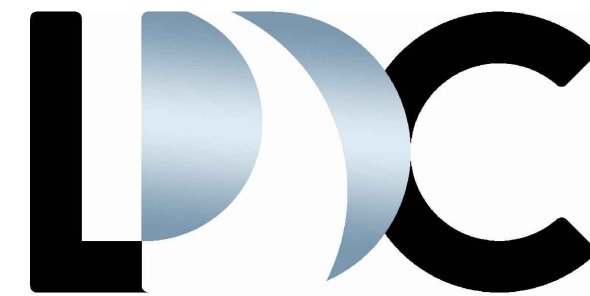
September 21, 2021

REVISED

November 17, 2021

PROJECT TEAM

Civil Engineer | Landscape Architect



LAND DESIGN COLLABORATIVE
Chauncy Place | Terrace North | Suite 1
45 Lyman Street
Westborough, MA 01581
508.952.6300 | LDcollaborative.com

Survey

Real Map Info LLC
11 Apex Drive Suite 300 A
Marlborough, MA 01752

PROJECT OWNER

Five SAC Self-Storage
Corporation
207 E. Clarendon Ave.
Phoenix, AZ 85012

PROJECT APPLICANT

U-Haul Moving & Storage of
West Springfield
380 Union Street
West Springfield, MA 01809



SHEET INDEX

SHEET NO.	SHEET TITLE
---	EXISTING CONDITIONS PLAN OF LAND (BY REAL MAP INFO LLC)
C-001	GENERAL NOTES, LEGEND & ABBREVIATIONS
C-101	STORMWATER MANAGEMENT & EROSION & SEDIMENT CONTROL PLAN
C-201	DETAILS
C-202	DETAILS
L-101	RESTORATION PLANTING PLAN

OWNER/APPLICANT'S REPRESENTATIVE:

U-Haul Moving & Storage of West Springfield
Mr. Jeff Vaine
603 762 5535

SITE CONTRACTOR:

All County Paving
Mr. Bob Foley
617 733 0504

GRID NORTH MASS.
STATE PLANE COORD
SYSTEM NAD83 NAVD 1988



ASSESSORS MAP - PARCEL ID: 147/003-002
ZONING DISTRICT: ENTERPRISE DISTRICT
MINIMUM SETBACK REQUIREMENTS:
FRONT YARD = 30' SIDE YARD = 30.0'
REAR YARD = 20.0'
MAX. HEIGHT = 40'

OWNED BY:
GIGGLES & GRINS LLC

LOCATION:
90 DUVAL ROAD

DEED BOOK 31331 PAGE 177

RECORDED @ WORCESTER COUNTY REG. DEEDS

EXISTING CONDITIONS

PLAN OF LAND IN
LANCASTER, MASS

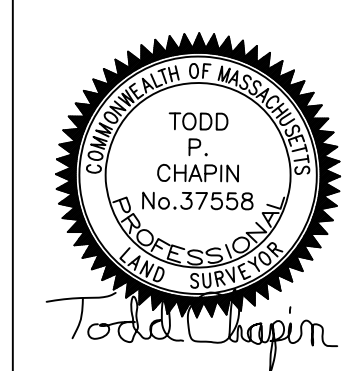
SCALE: 1"=30' DATE: 09/21/2020

REALMAPINFO LLC
11 Apex Drive, Suite 300 A
Marlborough, MA. 01752
774-570-0462

Legend of Symbols & Abbreviations

- | | | | | | | |
|--|---|--|---|--|--|--|
| <ul style="list-style-type: none"> □ SBCH STONE BOUND WITH DRILL HOLE □ SBCC STONE BOUND CENTER BACK □ CBCH CONC. BOUND WITH DRILL HOLE ○ I.P.(S) SET ○ MG(S) MAG. NAIL SET ▲ R.R. SPIKE FOUND ▲ R.R. SPIKE SET ▲ BENCHMARK (R) RECORD DATA (M) MEASURED DATA (S) SURVEYED DATA | <ul style="list-style-type: none"> ⊕ POWERPOLE ⊕ GUY WIRE ⊕ LIGHT POLE ⊕ STREET LIGHT POLE ⊕ ELEC. TRANSFORMER ⊕ AIR CONDITIONER ⊕ BURIED ELECTRIC ⊕ OVERHEAD ELECTRIC ⊕ ELEC. MANHOLE ⊕ ELECTRIC METER ⊕ WATER LINE ⊕ WATER MANHOLE ⊕ WATER VALVE | <ul style="list-style-type: none"> ⊕ SEWER MANHOLE ⊕ CLEAN OUT ⊕ STORM DRAIN MANHOLE ⊕ STORM CATCH BASIN ⊕ CURB INLET ⊕ TELEPHONE BOX ⊕ TELEPHONE MANHOLE ⊕ TELEPHONE POLE ⊕ OVERHEAD UTILITY WIRE ⊕ UNDERGROUND UTILITY LINE ⊕ CABLE TELEVISION ⊕ CABLE BOX | <ul style="list-style-type: none"> R/W RIGHT OF WAY RCF REINFORCED CONC PIPE CMP CORRUGATED METAL PIPE PVC PLASTIC PIPE MTL METAL AGL ABOVE GROUND LEVEL L/S LANDSCAPING TREE MC METAL TANK COVER FF FLAG POLE DS DOOR SILL FF FINISH FLOOR | <ul style="list-style-type: none"> ⊕ WATER METER ⊕ HYDRANT ⊕ BACK FLOW PREVENTOR ⊕ GAS VALVE ⊕ GAS METER ⊕ UNDERGROUND GAS MARKER ⊕ GAS GATE ⊕ GAS LINE ⊕ BOLLARD ⊕ BORE HOLE ⊕ MONITORING WELL ⊕ MAIL BOX ⊕ UNKNOWN MANHOLE ⊕ B.W.W. WETLAND FLAG FOUND | <ul style="list-style-type: none"> ⊕ UNDERGROUND CABLE LINE ⊕ TRAFFIC POLES ⊕ TRAFFIC SIGNAL ⊕ TRAFFIC SIGNAL BOX ⊕ STOP SIGN ⊕ SIGN ⊕ SQUARE METAL LID ⊕ FUEL TANK LID ⊕ V.G.C. VERTICAL GRANITE CURB ⊕ B.V.C. BERM BIT. CONC. CURB | <ul style="list-style-type: none"> ⊕ FINISH GRADE ⊕ BUILDING ZONE LINE (TYP) ⊕ PROPOSED EROSION BARRIER |
|--|---|--|---|--|--|--|

I CERTIFY THAT THE EXISTING BUILDING(S) ARE LOCATED AS SHOWN HEREON AND THAT THE STRUCTURES ARE NOT IN A FEDERALLY DESIGNATED FLOOD ZONE AREA AS DETERMINED BY THE CURRENT FEMA FLOOD ZONE MAP AS NOTED.



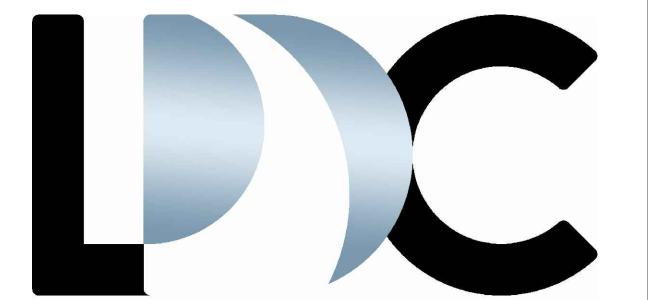
Todd P. Chapin
DATE: 9-21-21
TODD P. CHAPIN P.L.S. 37558

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603 762 5535

SITE CONTRACTOR:

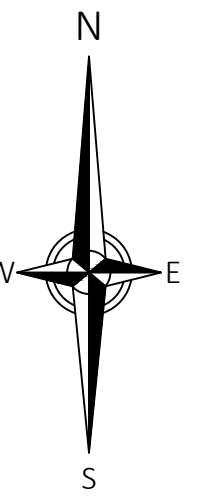
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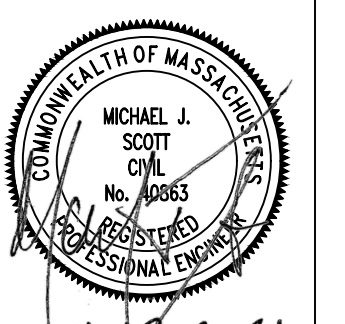
Project Title:

90 Duval Road
Lancaster, MA
(Worcester County)

Sheet Title:

STORMWATER MANAGEMENT & EROSION & SEDIMENT CONTROL PLAN

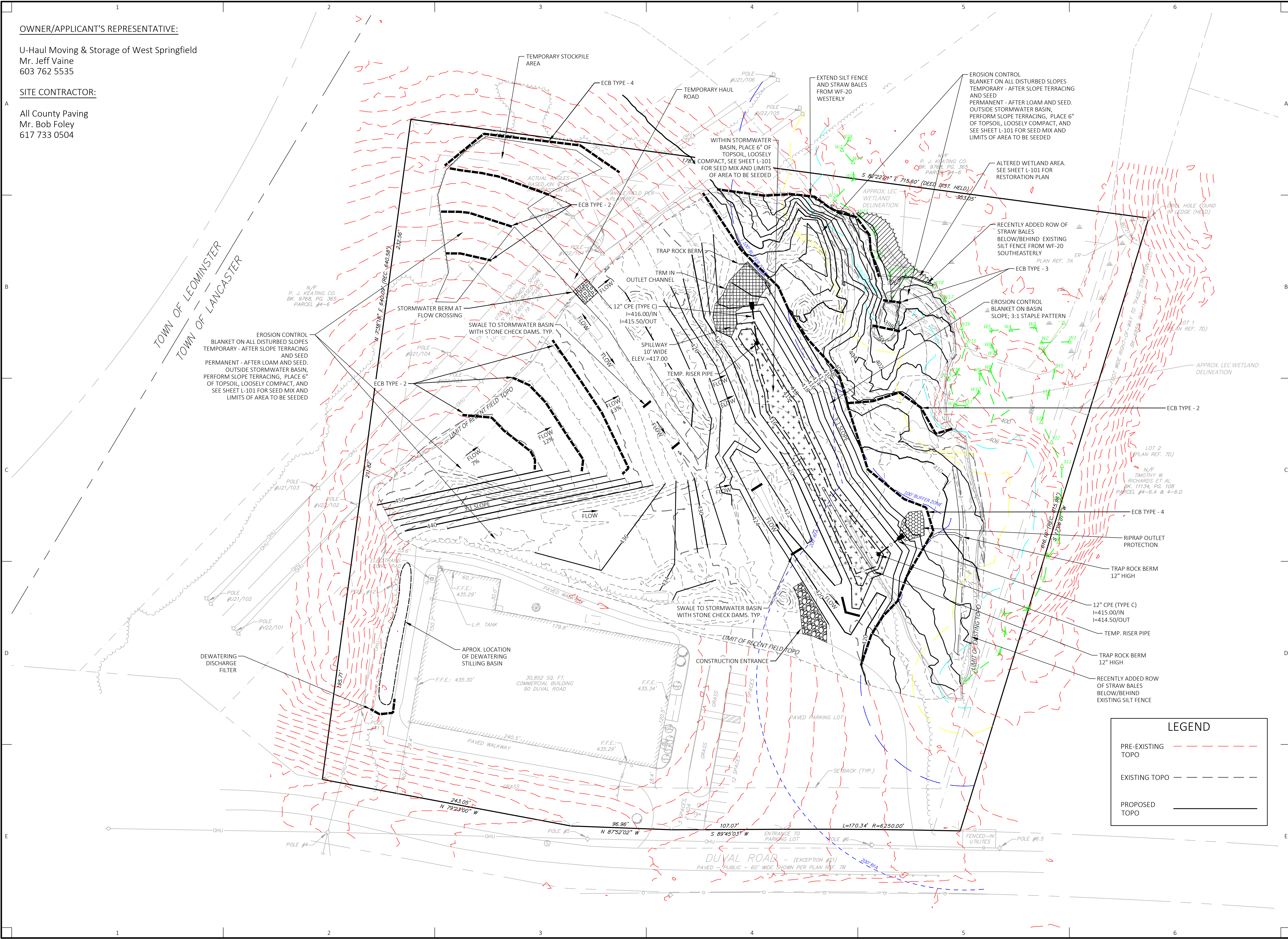
Local Permits



11.17.2021

LEGEND

- PRE-EXISTING TOPO (dashed red line)
- EXISTING TOPO (dashed black line)
- PROPOSED TOPO (solid black line)

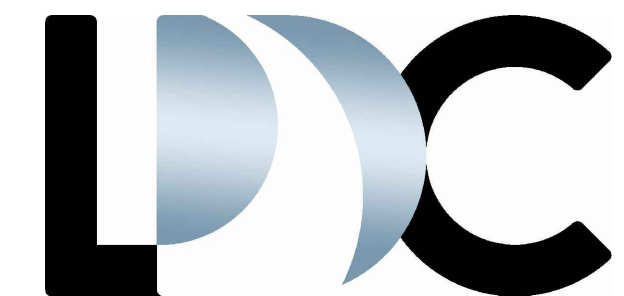


No.	Date	Revision / Issue
1	11/17/2021	REVIEW COMMENTS

Drawn By: CMP Checked By: MIS
Date: 09/21/2021 Project No.: 21-0109

Scale: 1" = 40'

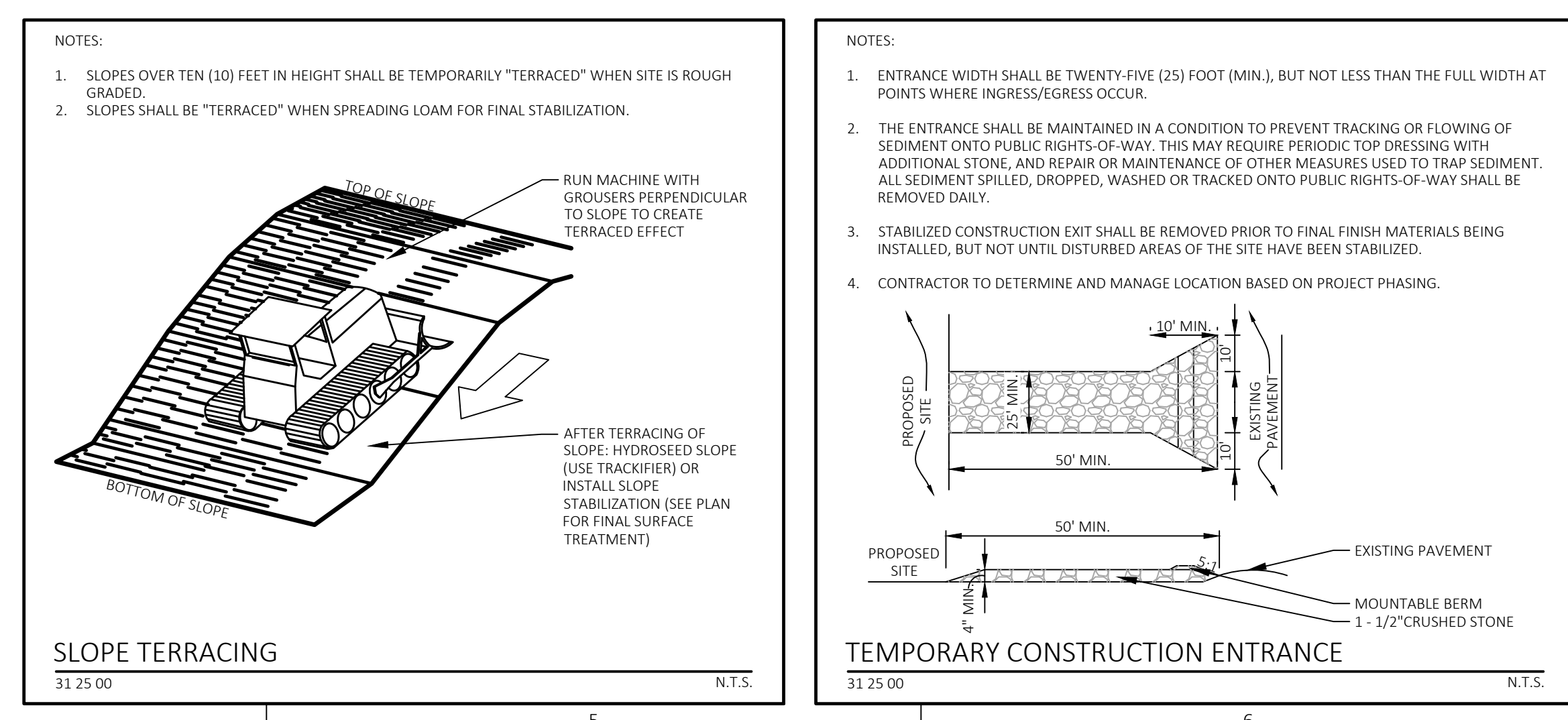
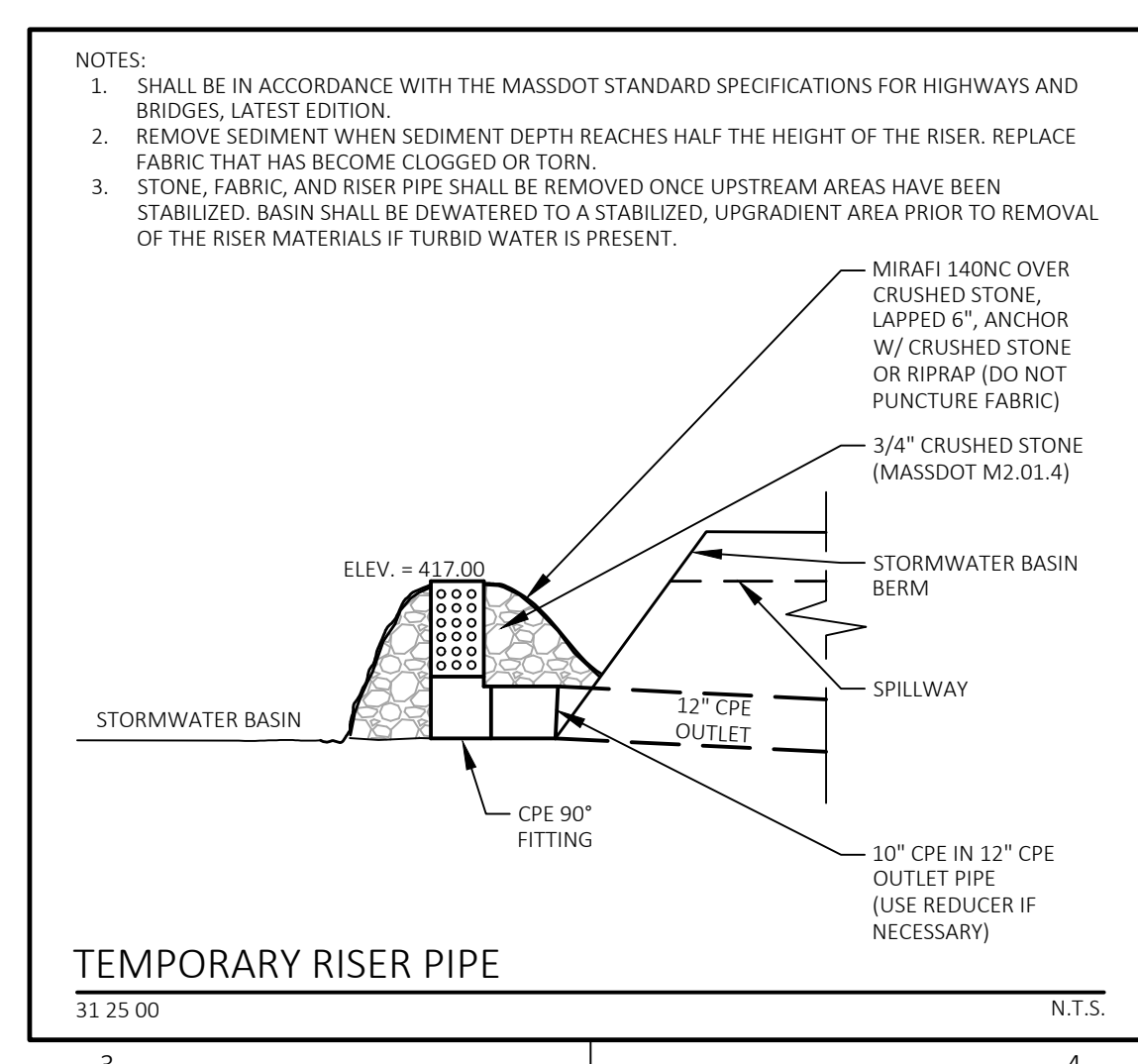
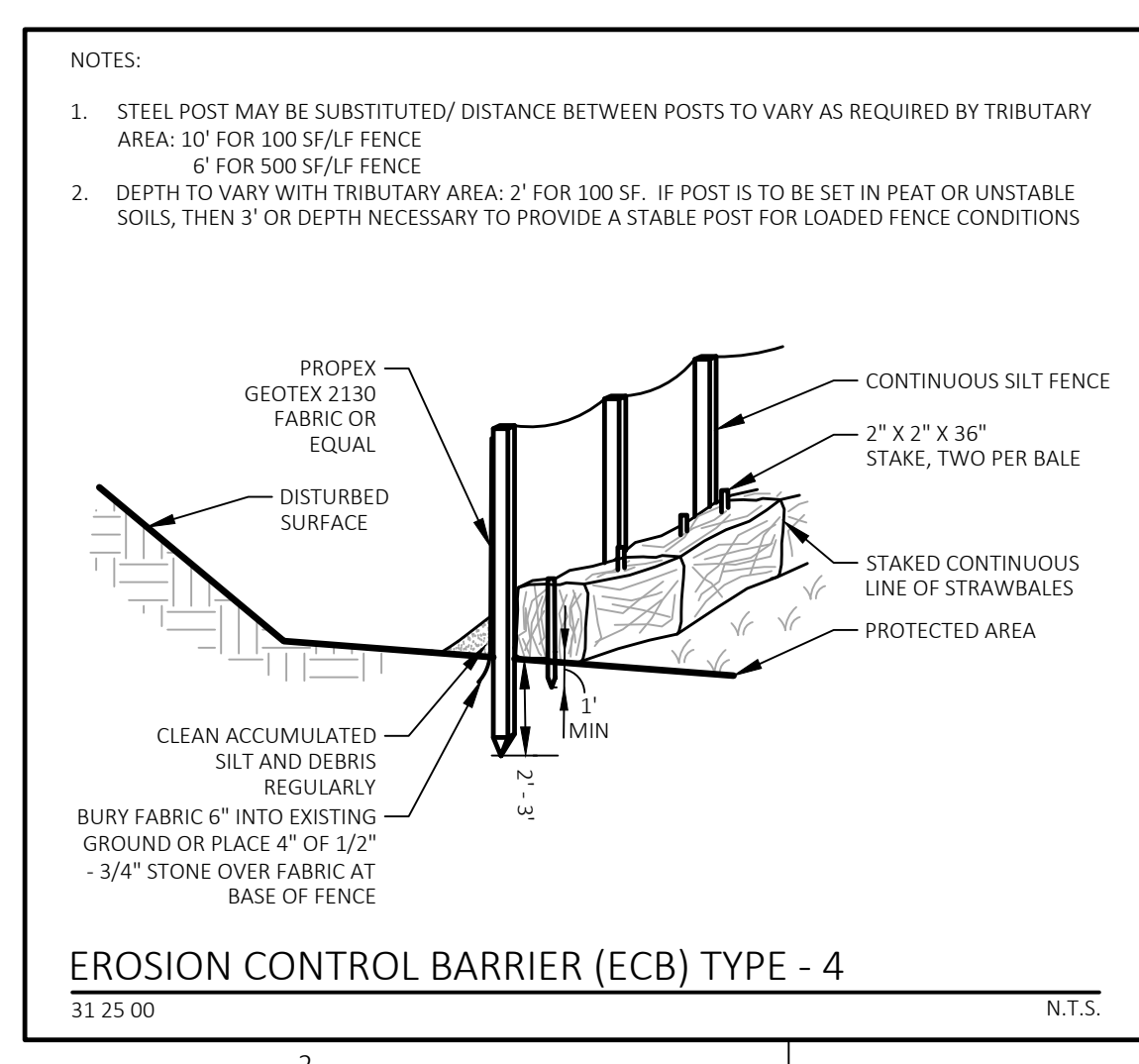
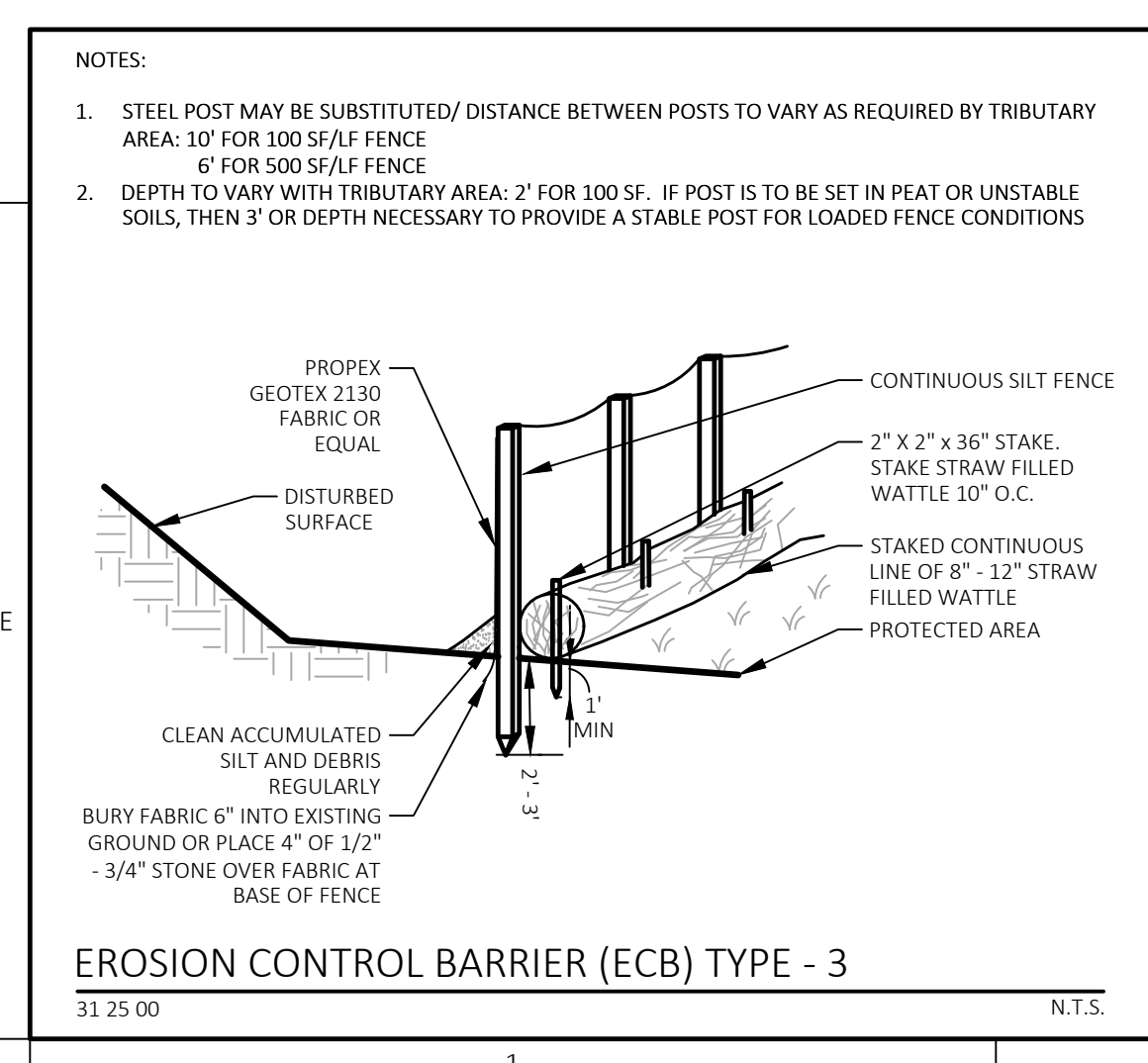
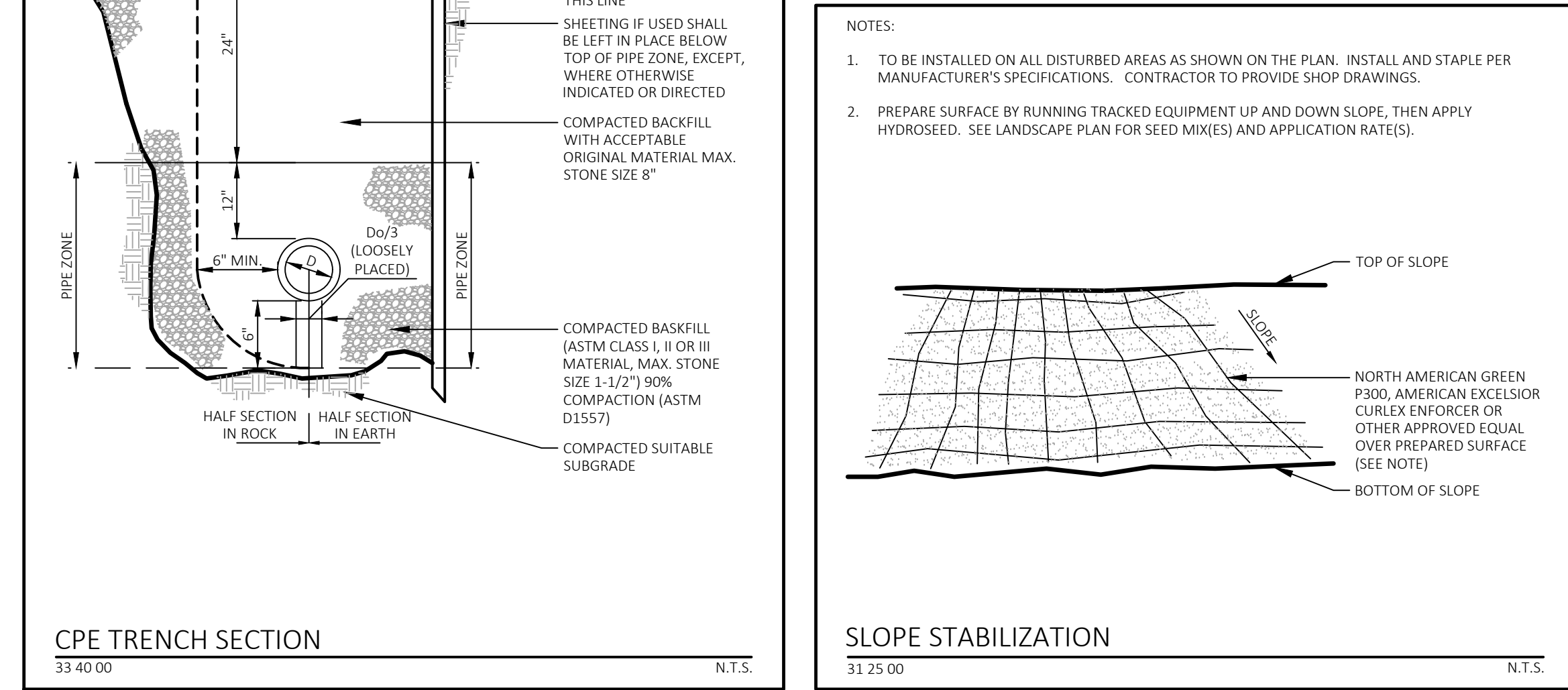
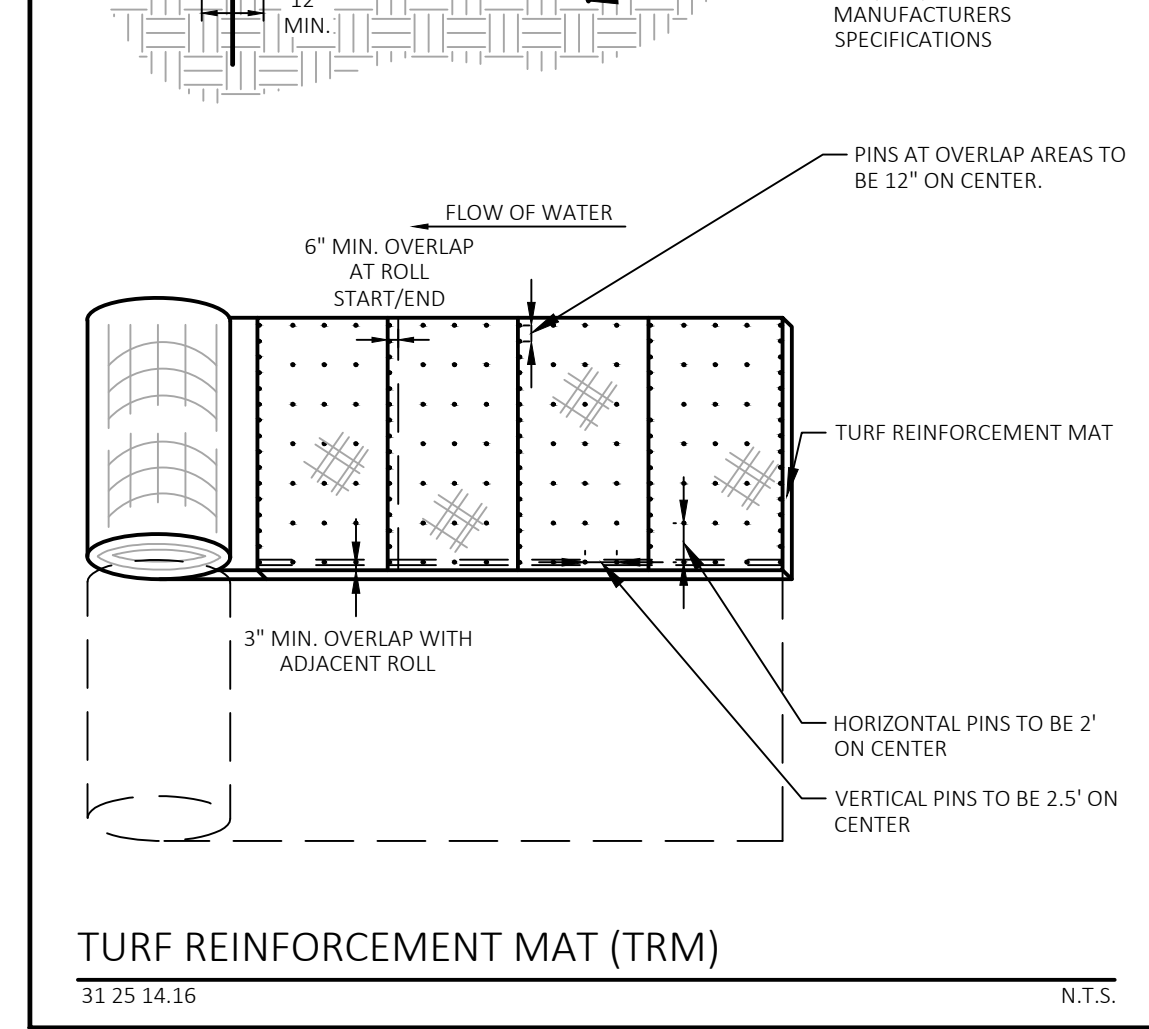
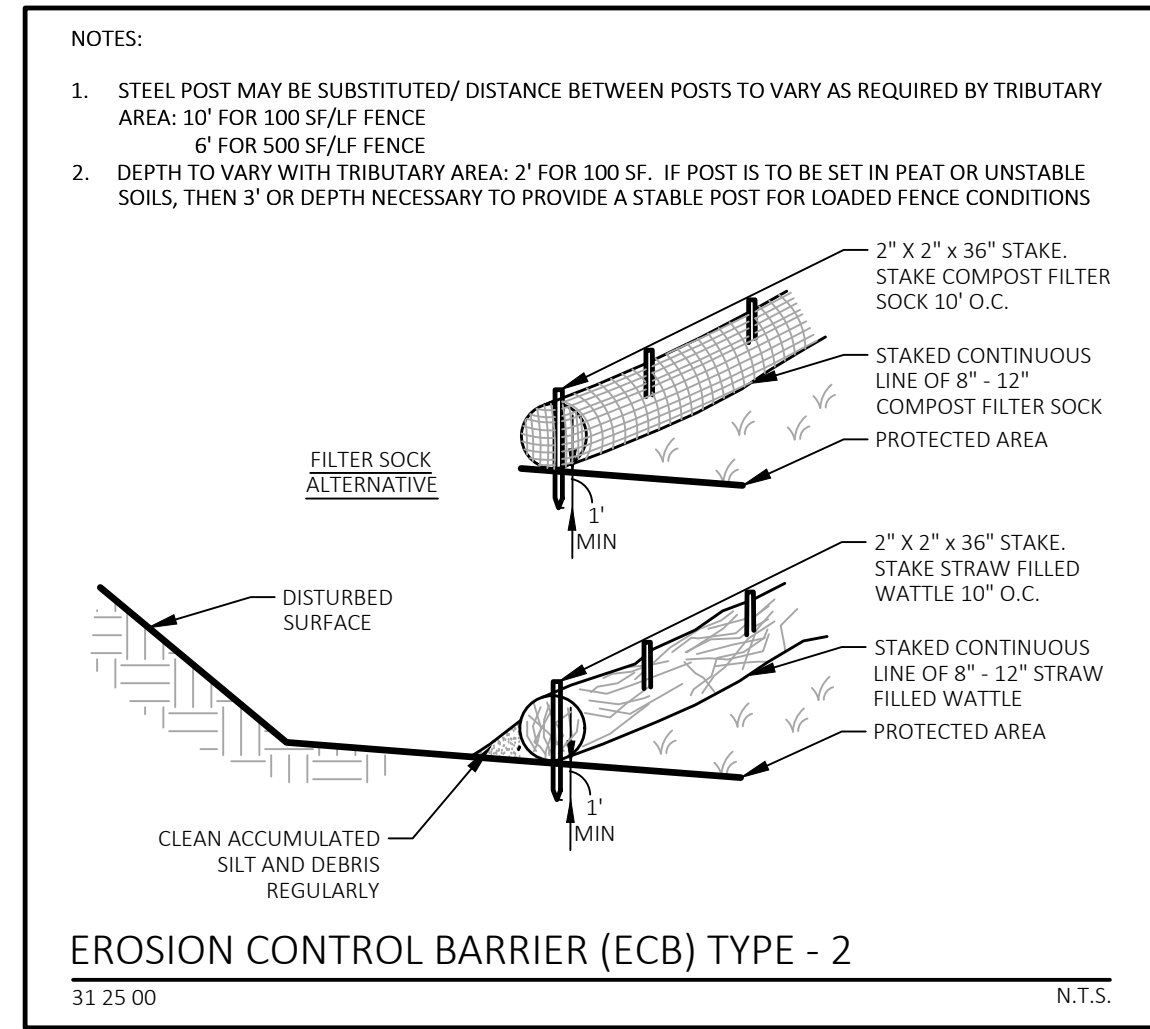
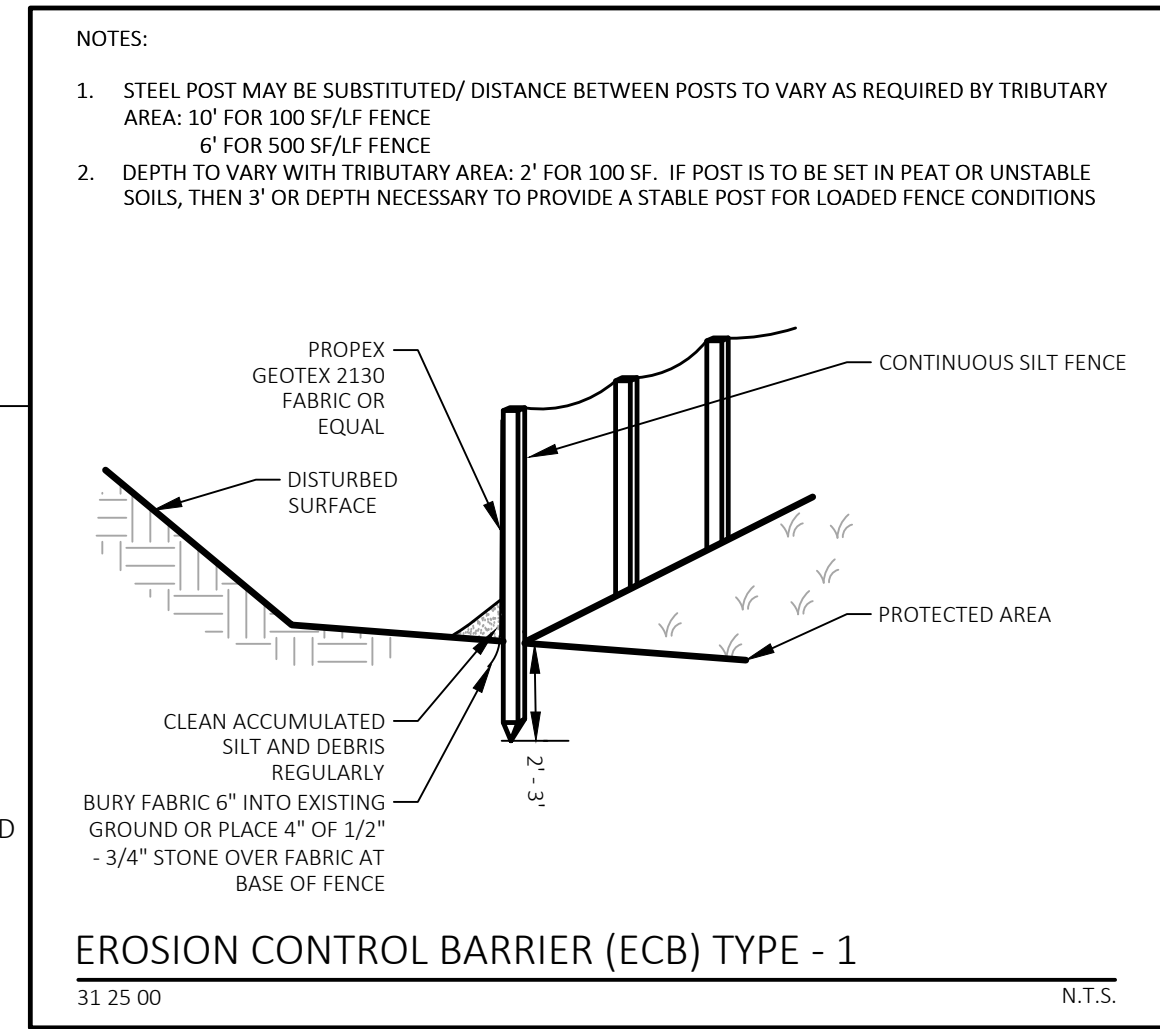
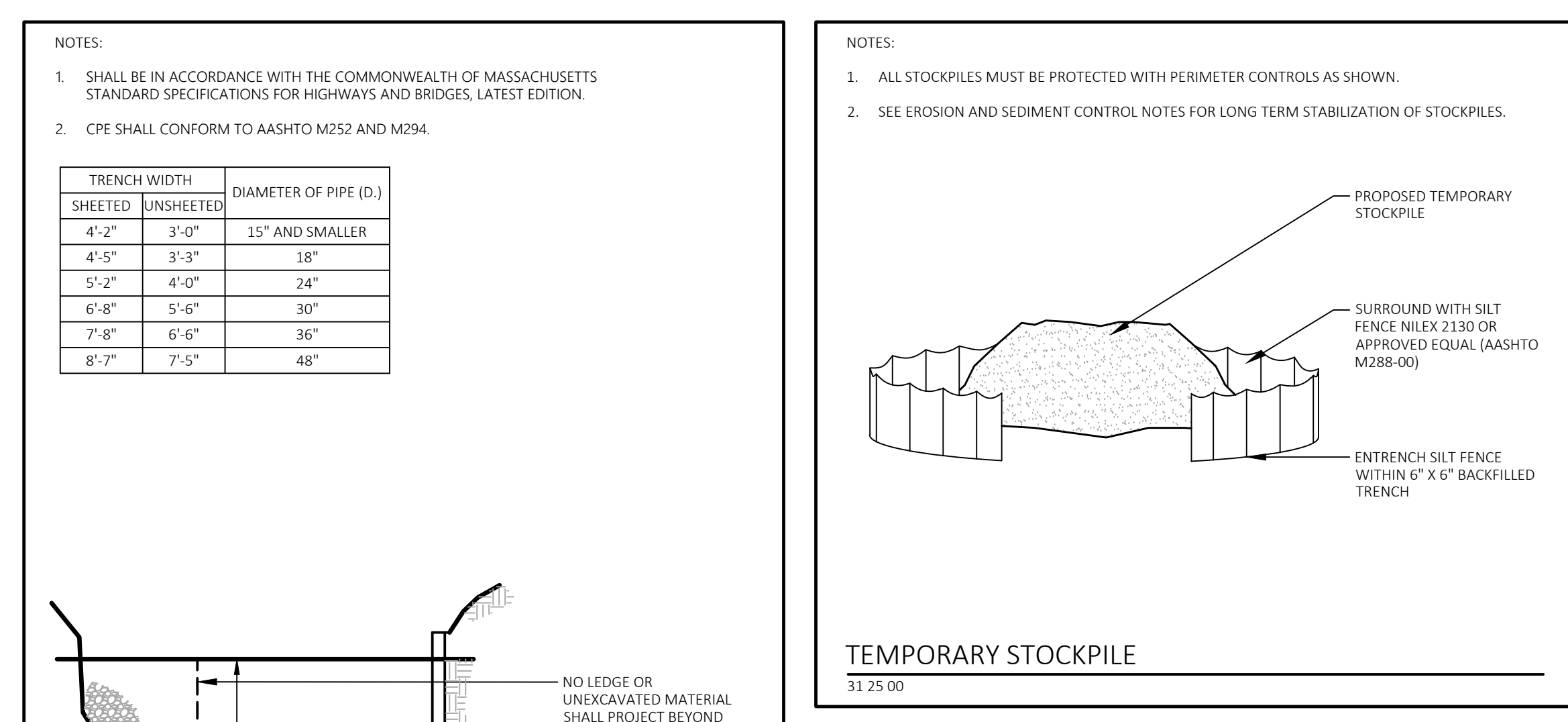
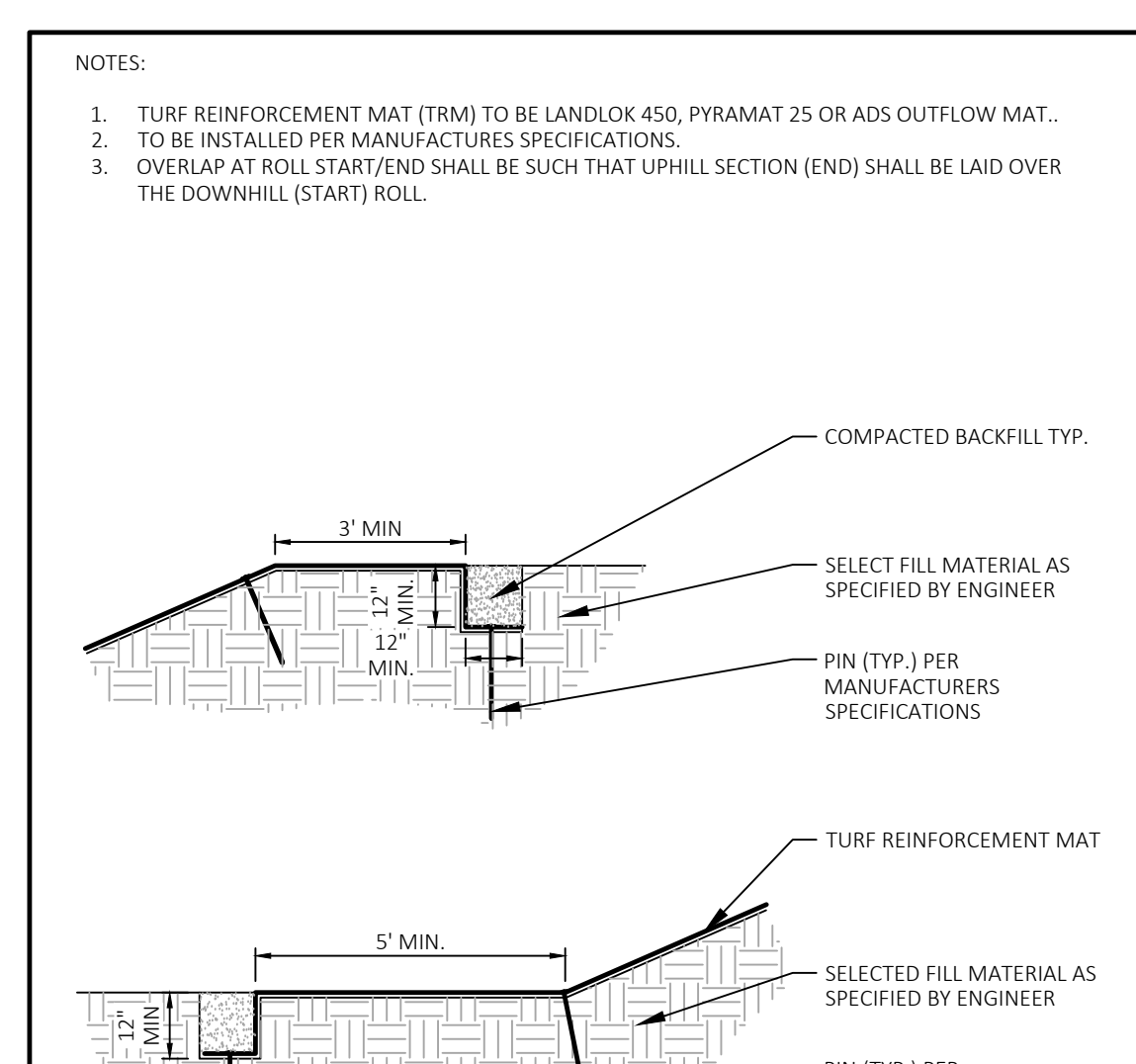
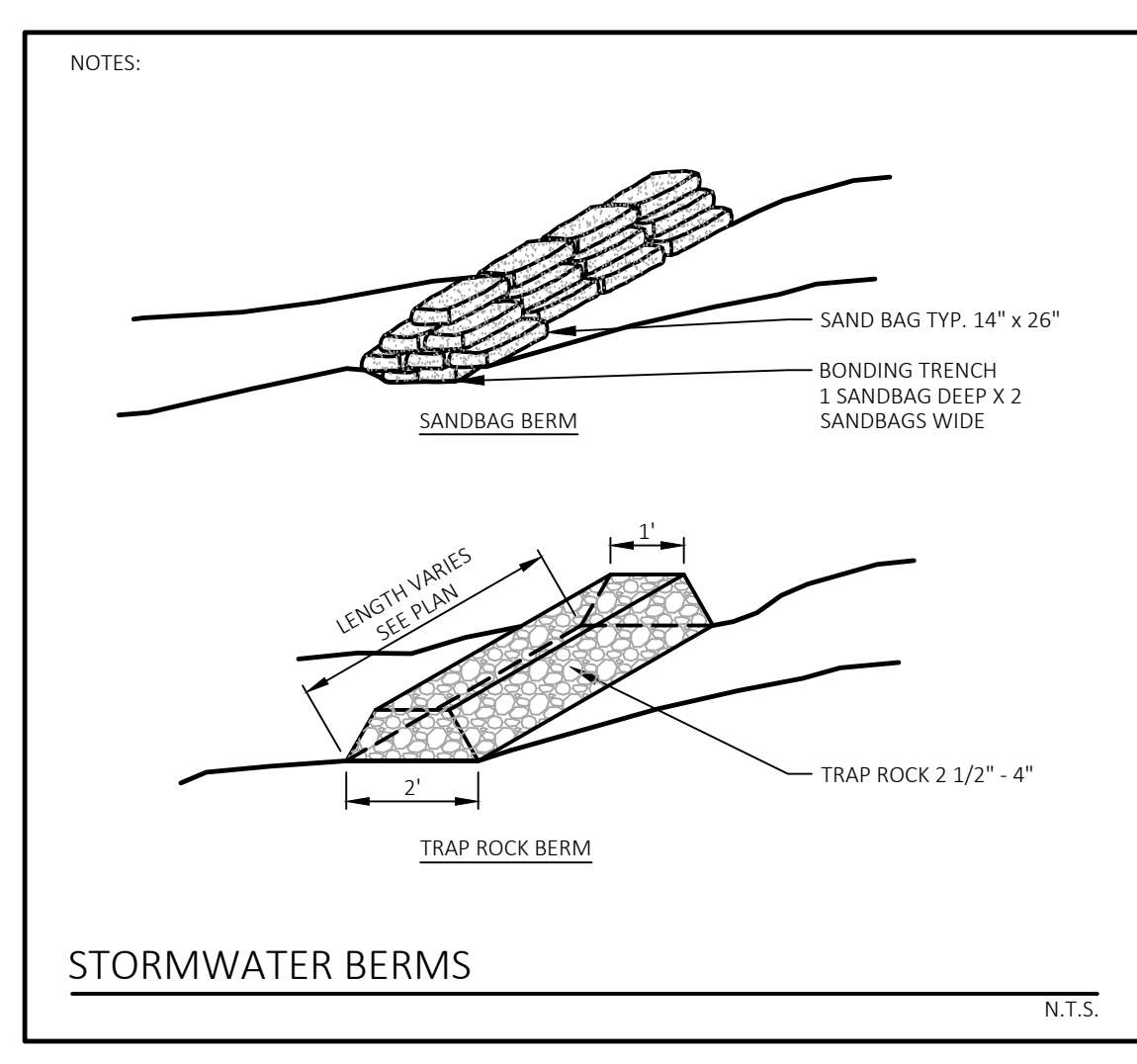
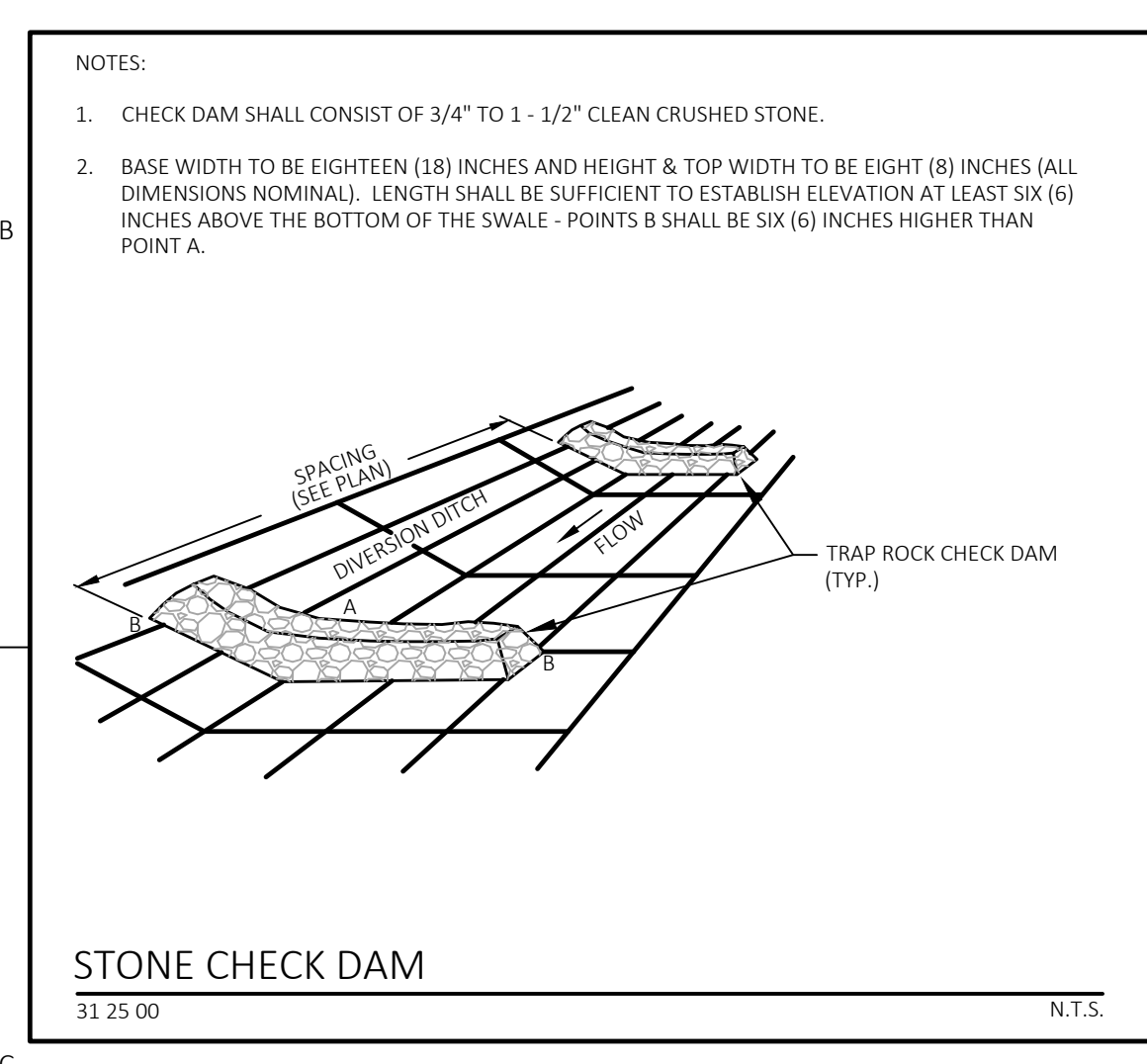
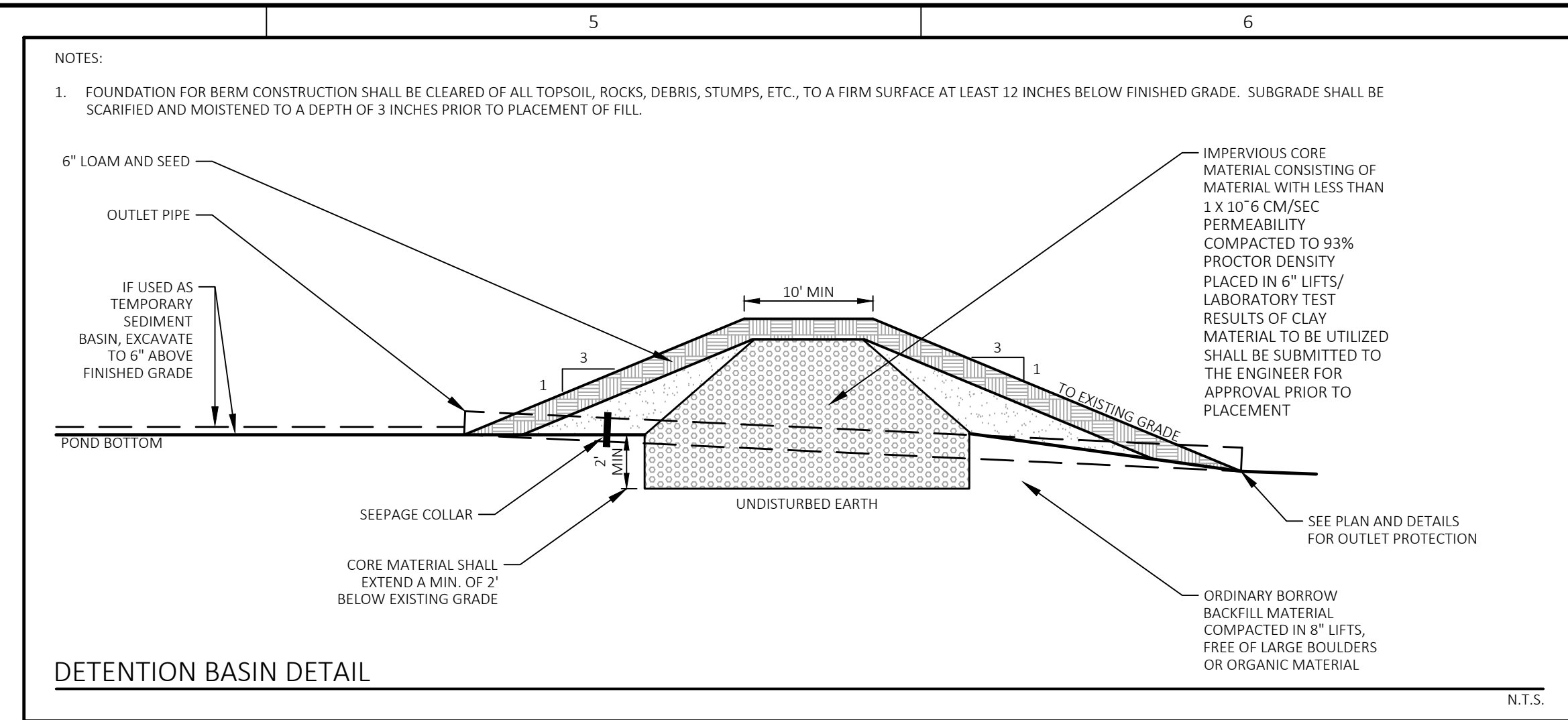
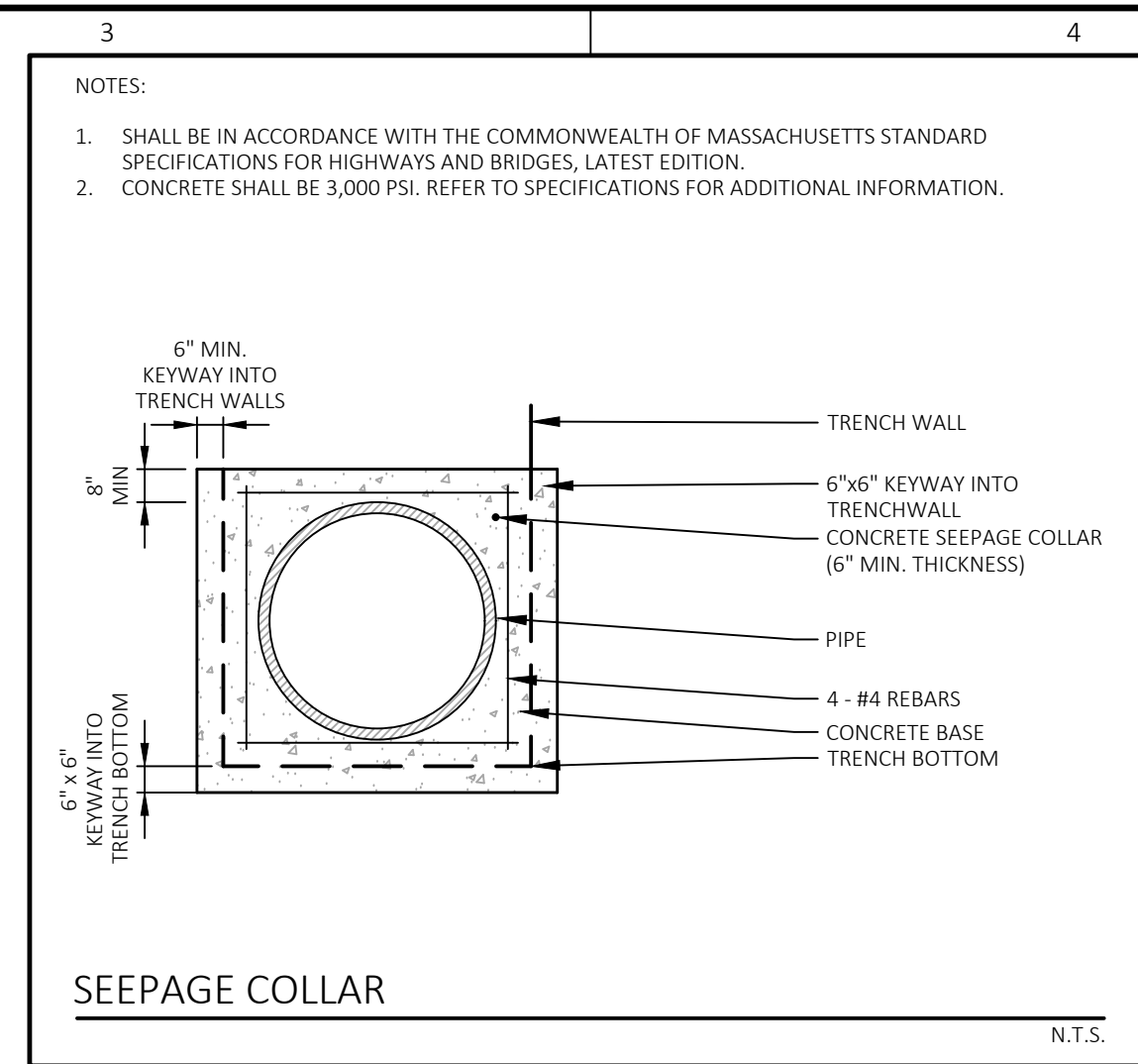
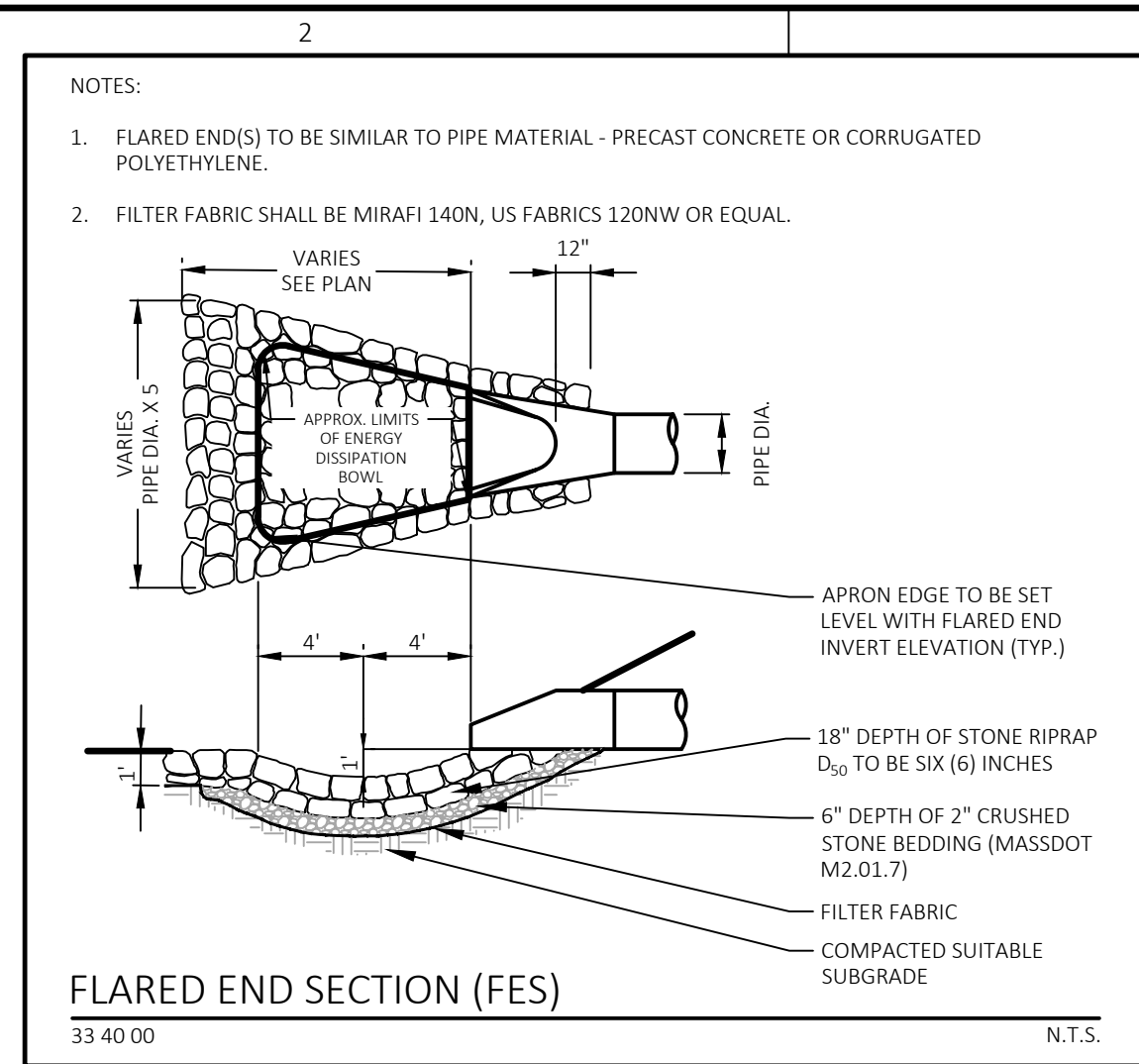
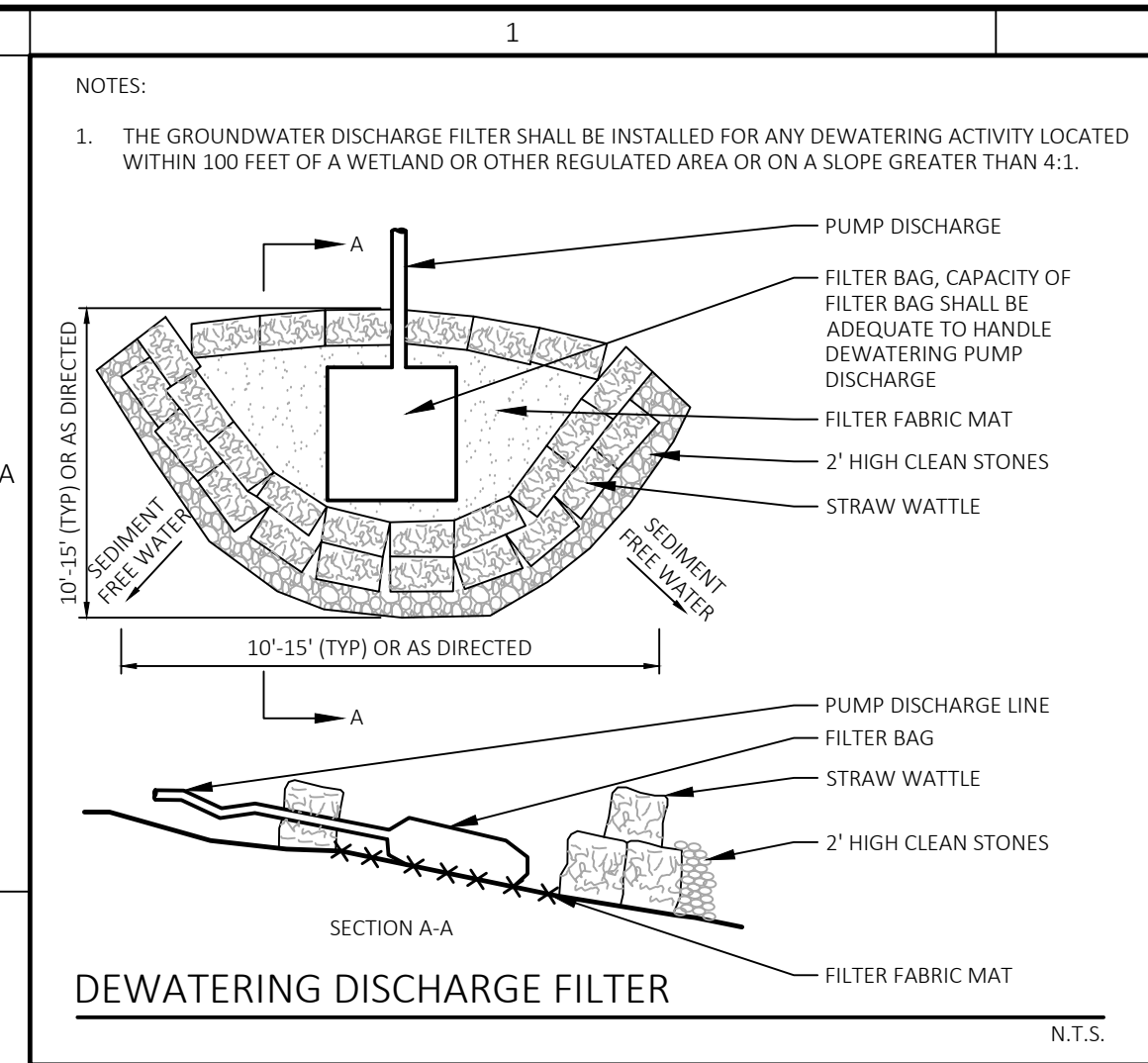
Sheet No.: **C-101**



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Chauncy Place | Terrace North | Suite 1
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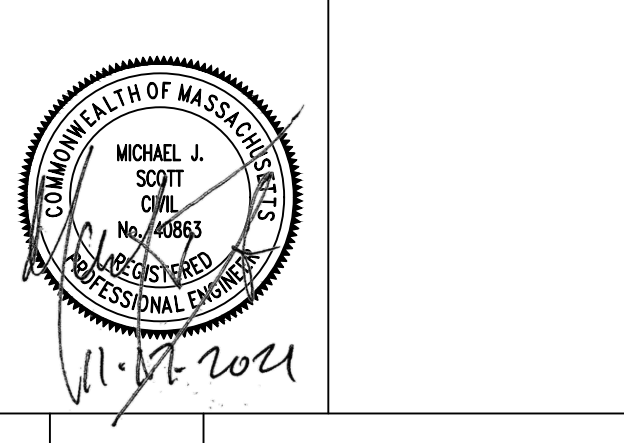
Project Owner:
Five SAC Self-Storage Corporation
207 E. Clarendon Ave.
Phoenix, AZ 85012

Project Applicant:
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West Springfield, MA 01809

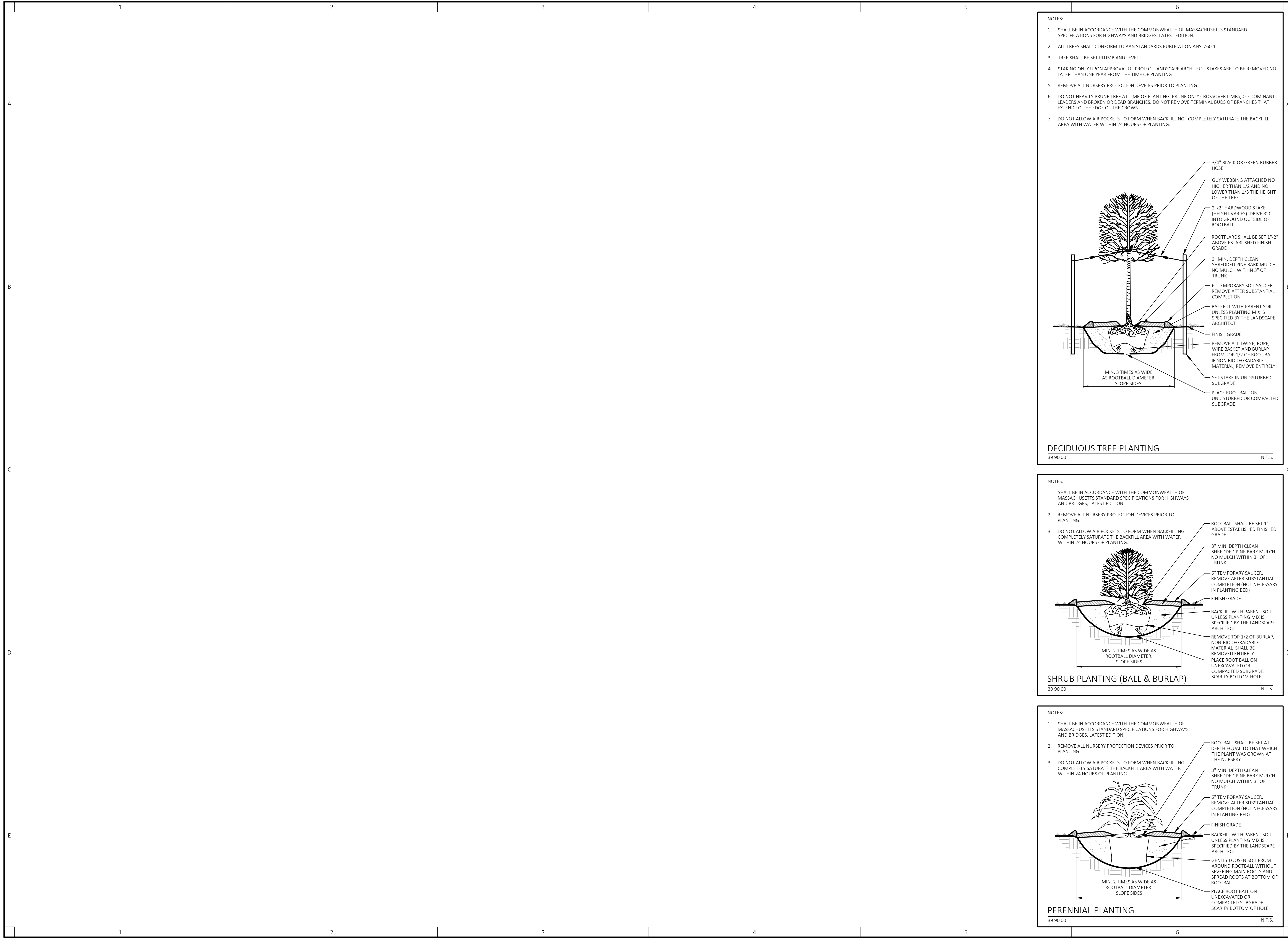
Project Title:
90 Duval Road
Lancaster, MA
(Worcester County)

Sheet Title:
DETAILS

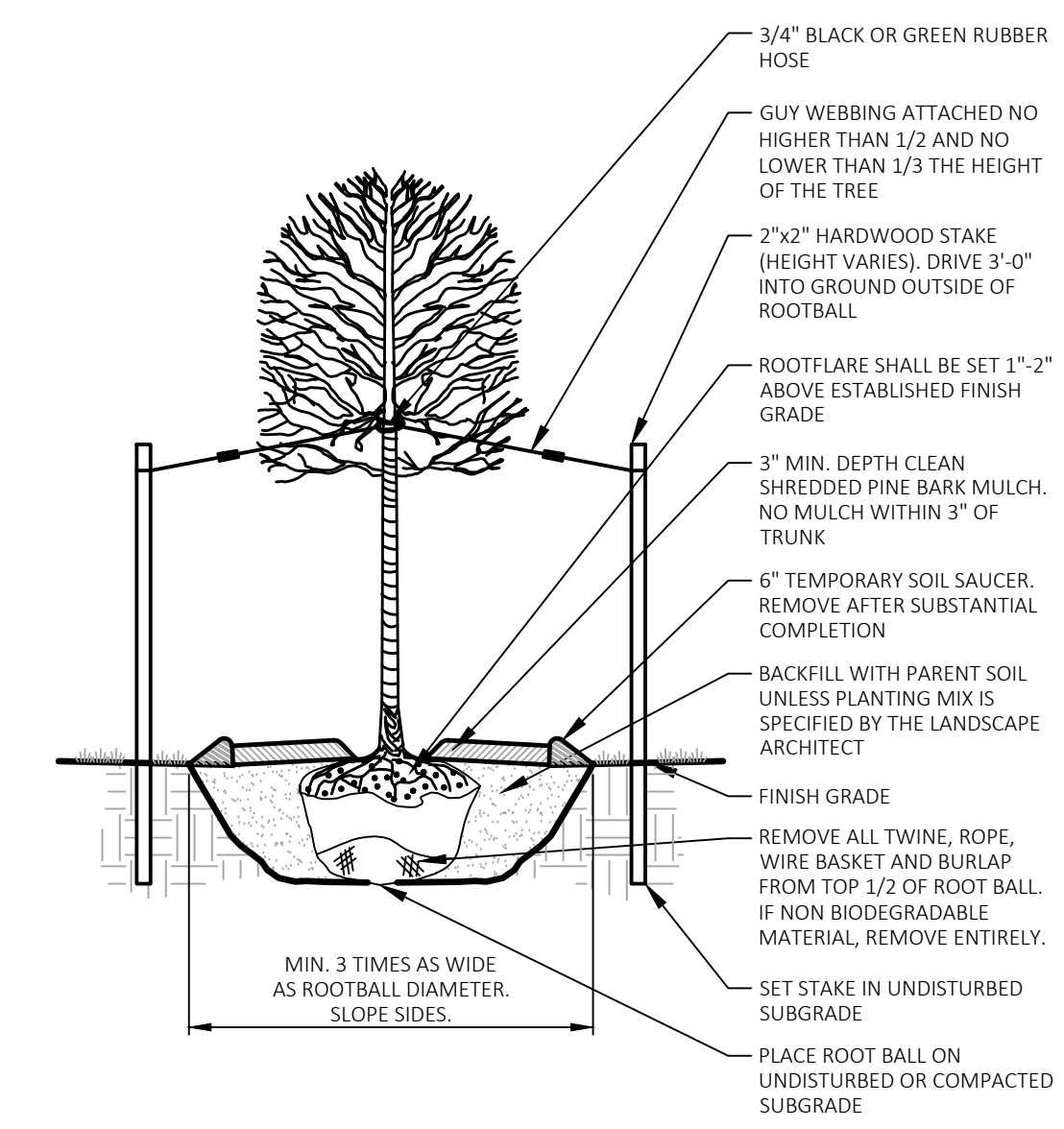
Local Permits



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1	11/17/2021	REVIEW COMMENTS
Drawn By:	CMP	Checked By: MIS
Date:	09/21/2021	Project No.: 21-0109
Sheet No.:	C-201	

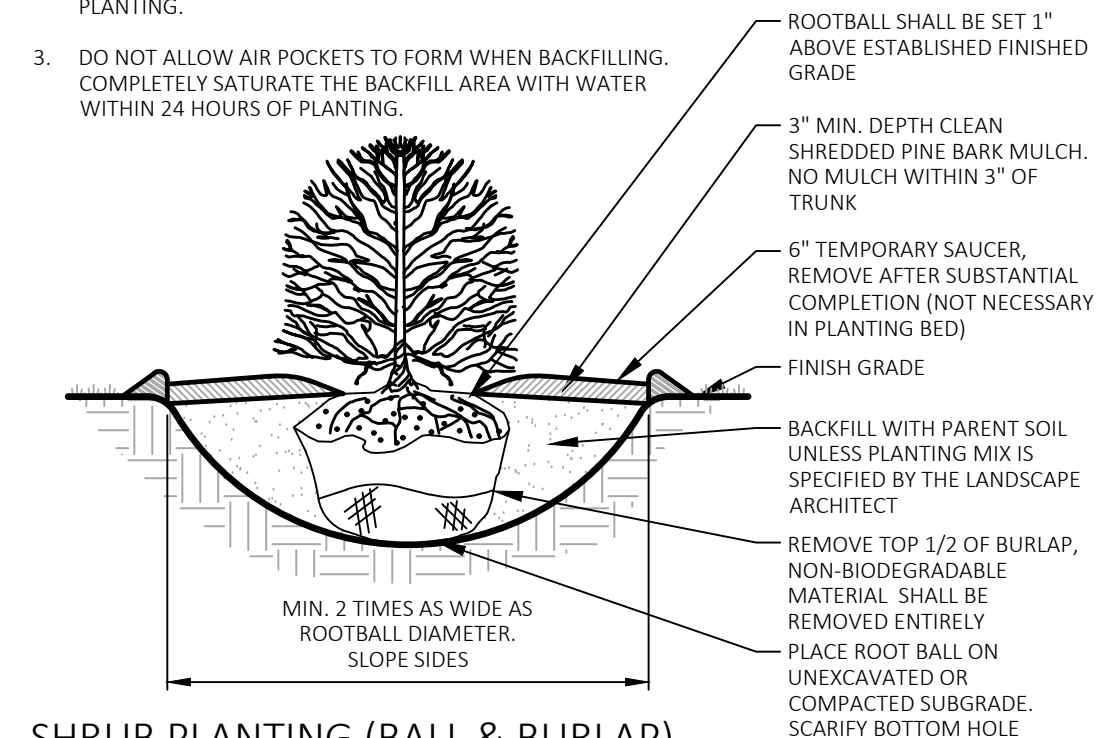


- NOTES:
1. SHALL BE IN ACCORDANCE WITH THE COMMONWEALTH OF MASSACHUSETTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION.
 2. ALL TREES SHALL CONFORM TO AAN STANDARDS PUBLICATION ANSI Z60.1.
 3. TREE SHALL BE SET PLUMB AND LEVEL.
 4. STAKING ONLY UPON APPROVAL OF PROJECT LANDSCAPE ARCHITECT. STAKES ARE TO BE REMOVED NO LATER THAN ONE YEAR FROM THE TIME OF PLANTING
 5. REMOVE ALL NURSERY PROTECTION DEVICES PRIOR TO PLANTING.
 6. DO NOT HEAVILY PRUNE TREE AT TIME OF PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS AND BROKEN OR DEAD BRANCHES. DO NOT REMOVE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN
 7. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING. COMPLETELY SATURATE THE BACKFILL AREA WITH WATER WITHIN 24 HOURS OF PLANTING.



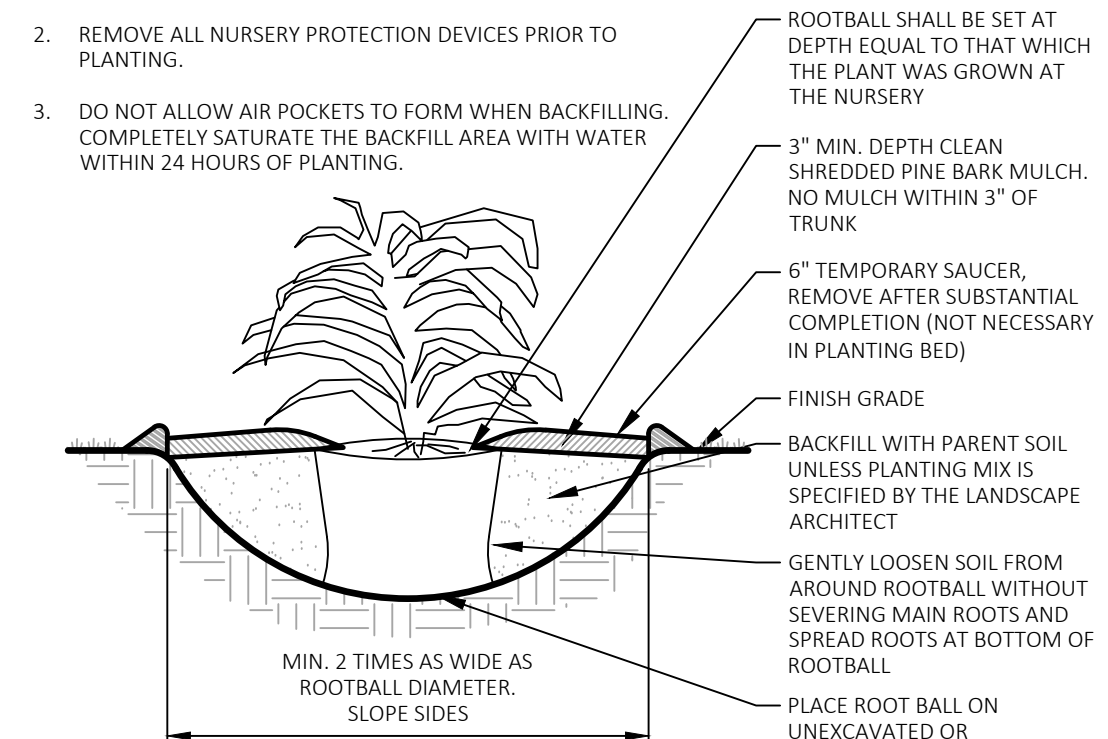
DECIDUOUS TREE PLANTING
39 90 00 N.T.S.

- NOTES:
1. SHALL BE IN ACCORDANCE WITH THE COMMONWEALTH OF MASSACHUSETTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION.
 2. REMOVE ALL NURSERY PROTECTION DEVICES PRIOR TO PLANTING.
 3. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING. COMPLETELY SATURATE THE BACKFILL AREA WITH WATER WITHIN 24 HOURS OF PLANTING.

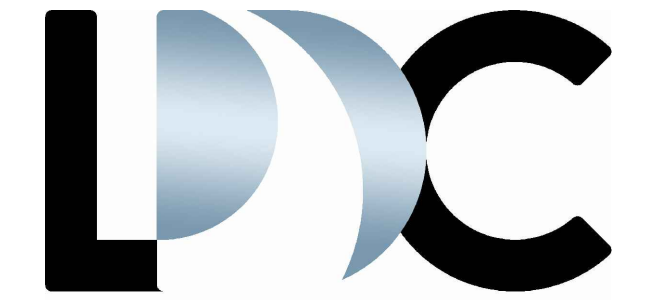


SHRUB PLANTING (BALL & BURLAP)
39 90 00 N.T.S.

- NOTES:
1. SHALL BE IN ACCORDANCE WITH THE COMMONWEALTH OF MASSACHUSETTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION.
 2. REMOVE ALL NURSERY PROTECTION DEVICES PRIOR TO PLANTING.
 3. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING. COMPLETELY SATURATE THE BACKFILL AREA WITH WATER WITHIN 24 HOURS OF PLANTING.



PERENNIAL PLANTING
39 90 00 N.T.S.



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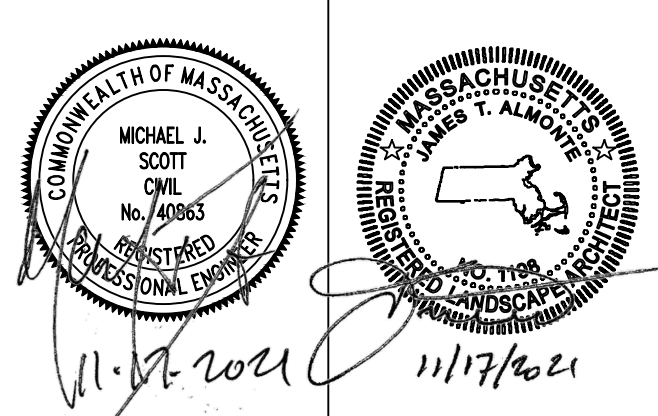
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Lancaster, MA
(Worcester County)

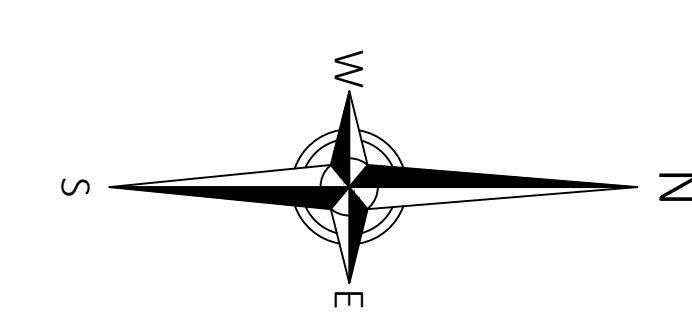
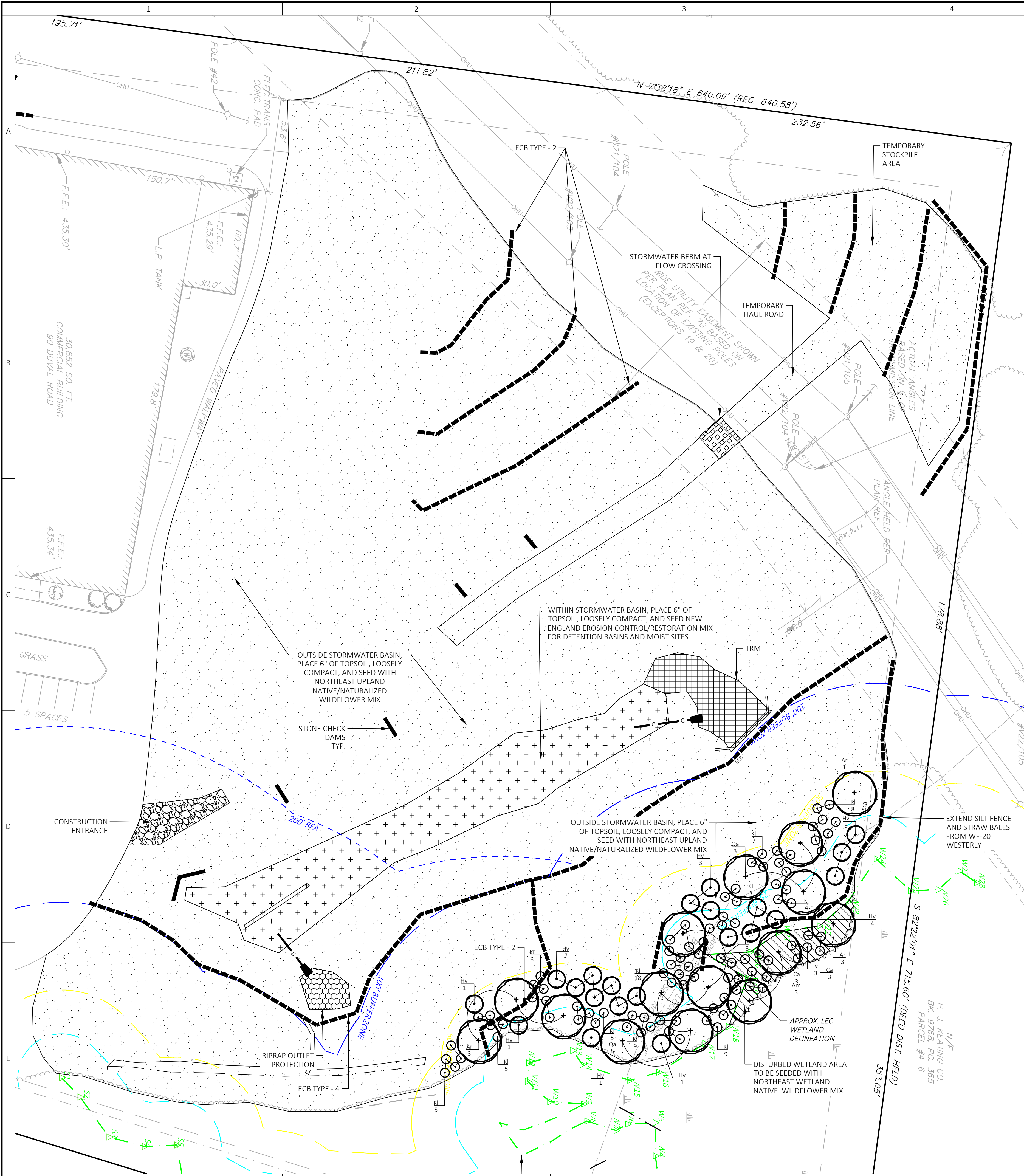
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DETAILS

Local Permits



No.	Date:	Revision Issue:
1	11/17/2021	REVIEW COMMENTS
Drawn By:	CMP	Checked By: MIS
Date:	09/21/2021	Project No.: 21-0109

Sheet No.:
C-202



PLANT SCHEDULE

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
DECIDUOUS TREES					
7	Ar	Acer rubrum	Red Maple	2" - 2.5" cal.	B&B
8	Qa	Quercus alba	White Oak	2" - 2.5" cal.	B&B
SHRUBS					
3	Am	Aronia melanocarpa	Black Chokeberry	#3	CONTAINER
6	Ca	Cornus amomum	Silky Dogwood	#3	CONTAINER
21	Hv	Hamamelis virginiana	Common Witch Hazel	4'-5" HT.	B&B
6	Iv	Ilex verticillata	Winterberry	#3	CONTAINER
79	Kl	Kalmia latifolia	Mountain Laurel	3'-4" HT.	B&B

KEY

	WETLAND AREA SEED MIX (NORTHEAST WETLAND NATIVE WILDFLOWER MIX)
	DISTURBED UPLAND AREA SEED MIX (NORTHEAST UPLAND NATIVE / NATURALIZED WILDFLOWER MIX)
	STORMWATER BASIN SEED MIX (NEW ENGLAND EROSION CONTROL / RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES)

Three Oaks Environmental
P.O. Box 404 Hubbardston, MA 01452
(978) 855-3180

October 22, 2021

James Almonte
jalmonte@ldcollaborative.com

Re: Planting plan
U-haul site, 90 Duval Rd. Lancaster

If there are areas of wetland that need to be restored I would recommend bare-root seedlings of red maple, silky dogwood, black chokeberry and winterberry holly 4-foot on center along with NE wetland seed mix applied on the bare ground between the plantings.

Red maple - *Acer rubrum*
Silky Dogwood - *Cornus amomum*
Black chokeberry - *Aronia melanocarpa*
Winterberry Holly - *Ilex verticillata*

Northeast Wetland Native Wildflower Mix
Code: STCMX-6
\$105.00 Per Pound
1 pound will cover 11,000 sq. ft. @ 50 seeds per sq. ft.

This mix is to seed the early growing season draw down and saturated soil zones. The species have been chosen to provide colorful flowers at various times of the growing season especially in late summer. The mix is produced using hand collected seed from western New York and northwestern Pennsylvania; only a limited amount is available. We recommend a seeding rate of 4 pounds per acre as a supplement to plantings of bare root herbaceous and woody species plantings.

Plantings for the upland buffer zone include
Mountain laurel - *Kalmia latifolia*
Witch hazel - *Hamamelis virginiana*
White oak - *Quercus alba*
Upland wildflower seed mix

Percent by No. of seeds (not weight)	Scientific Name	Common Name
26.66%	N Eupatorium perfoliatum	Boneset
20.80%	N Verbena hastata	Blue Vervain
19.75%	N Panicum dichotomiflorum	Smooth Panic-Grass
8.89%	N Solidago rugosa	Wrinkled Goldenrod
8.74%	N Eupatorium maculatum	Joe Pye Weed
6.65%	N Euthamia graminifolia	Grass Leaf Goldenrod
4.59%	N Polygonum pensylvanicum	Pennsylvania Smartweed
2.80%	N Aster novae-angliae	New England Aster
0.79%	N Bidens cernua	Nodding Beggar's Tick
0.21%	N Asclepias incarnata	Swamp Milkweed
0.12%	N Iris versicolor	Blue Flag

Northeast Upland Native/Naturalized Wildflower Mix
Code: STCMX-1
\$50.00 Per Pound
1 pound will cover 1,800 sq. ft. @ 250+ seeds per sq. ft.

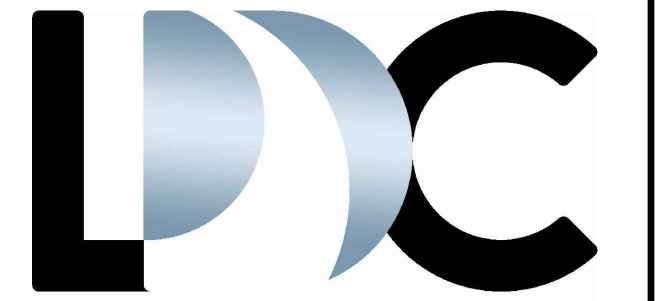
The primary difference between this and ordinary wildflower mixes now commonly used is that this contains only species native and/or fully naturalized in the northeast whereas the common mixes contain a number of species alien to the region. This mix will not flower profusely during the first growing season because it lacks the usual exotic annual weeds, but in later years it will produce a wildflower/grass meadow that appears common to the region. We recommend a seeding rate of 23 pounds per acre with 8 pounds of wildflowers and 15 pounds of grass seed.

Percent by No. of seeds (not weight)	Scientific Name	Common Name
Grass Portion (15 Pounds)		
28.1%	Festuca ovina	Sheep Fescue
26.0%	N Panicum virgatum	Switchgrass
15.3%	Setaria italica	Foxtail Millet
12.8%	Anthoxanthum odoratum	Sweet Vernal Grass
11.1%	Lolium multiflorum	Annual Ryegrass
6.7%	N Elymus canadensis	Wild Rye

Wildflower Portion (8 Pounds)		
47.5%	N Achillea millefolium	Common Yarrow
9.1%	Rudbeckia hirta	Black Eyed Susan
7.5%	Chrysanthemum leucanthem.	Ox-Eye Daisy
7.4%	N Verbena hastata	Blue Vervain
7.3%	Cichorium intybus	Cichory
6.8%	Lotus corniculatus	Birdsfoot Trefoil
5.0%	Hesperis matronalis	Dame's Rocket
2.2%	Daucus carota	Queen Anne's Lace
2.0%	N Solidago canadensis	Canada Goldenrod
2.0%	N Euthamia graminifolia	Grass Leaf Goldenrod
1.5%	N Monarda fistulosa	Wild Bergamot
1.3%	Aster novae-angliae	New England Aster
0.4%	N Asclepias syriaca	Common Milkweed

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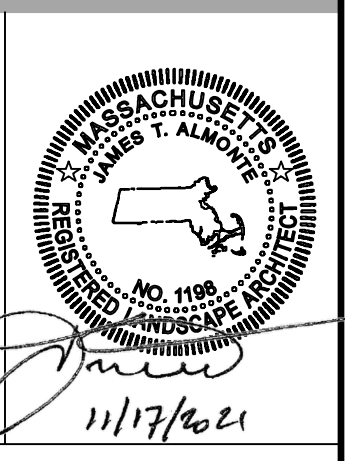
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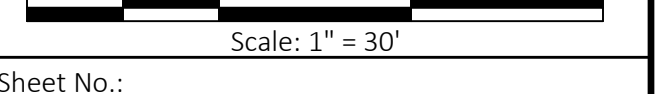
Sheet Title:
**RESTORATION
PLANTING PLAN**

Local Permits



No.	Date:	Revision Issue:
1	11/17/2021	REVIEW COMMENTS

Drawn By: JTA Checked By: MD
Date: 10/25/2021 Project No.: 21-0109



Sheet No.: **L-101**