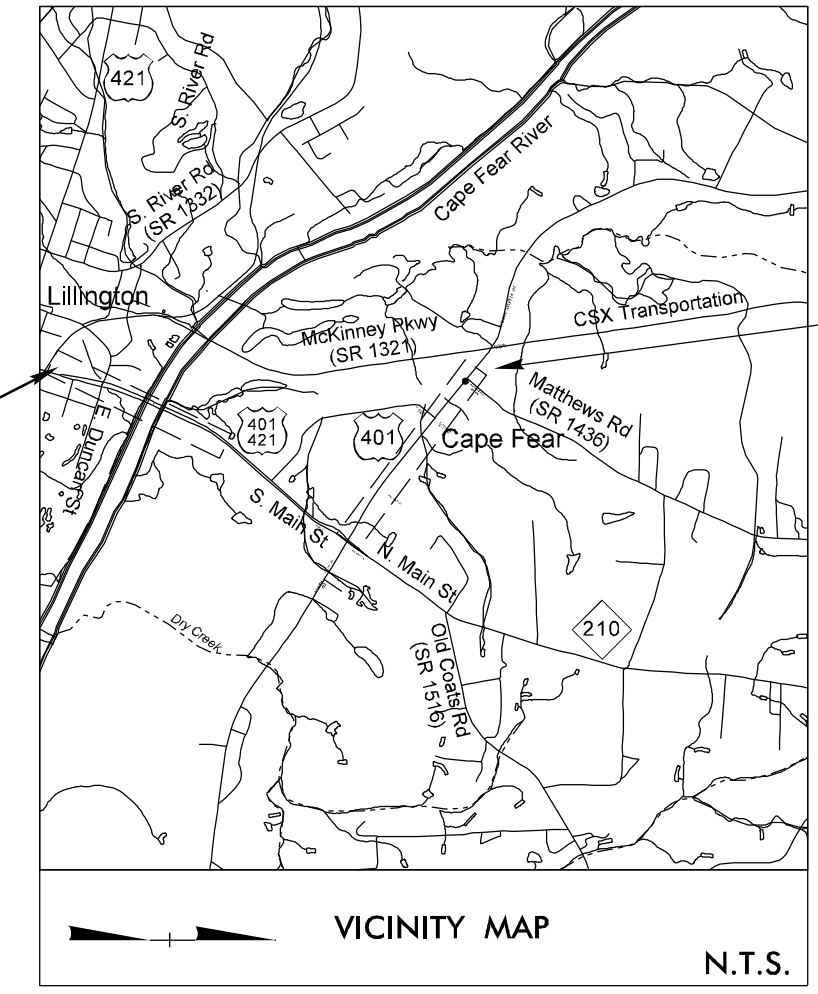
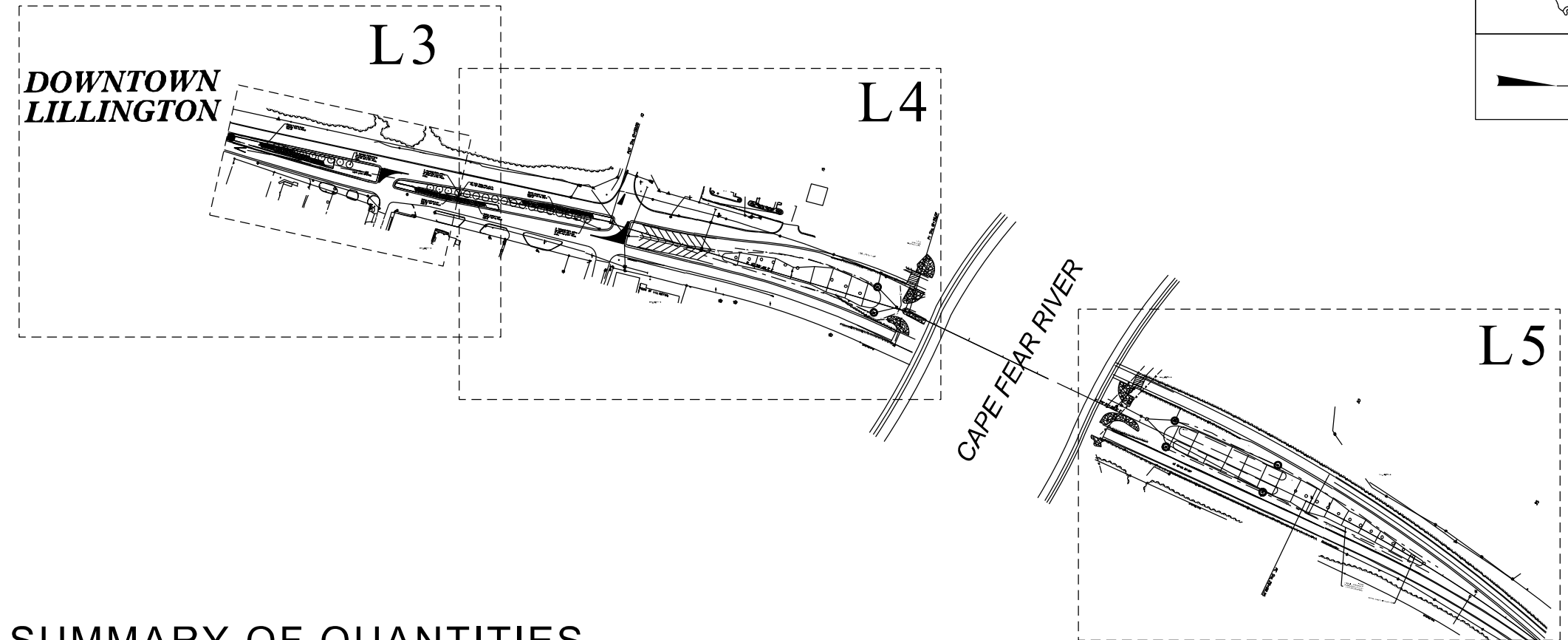
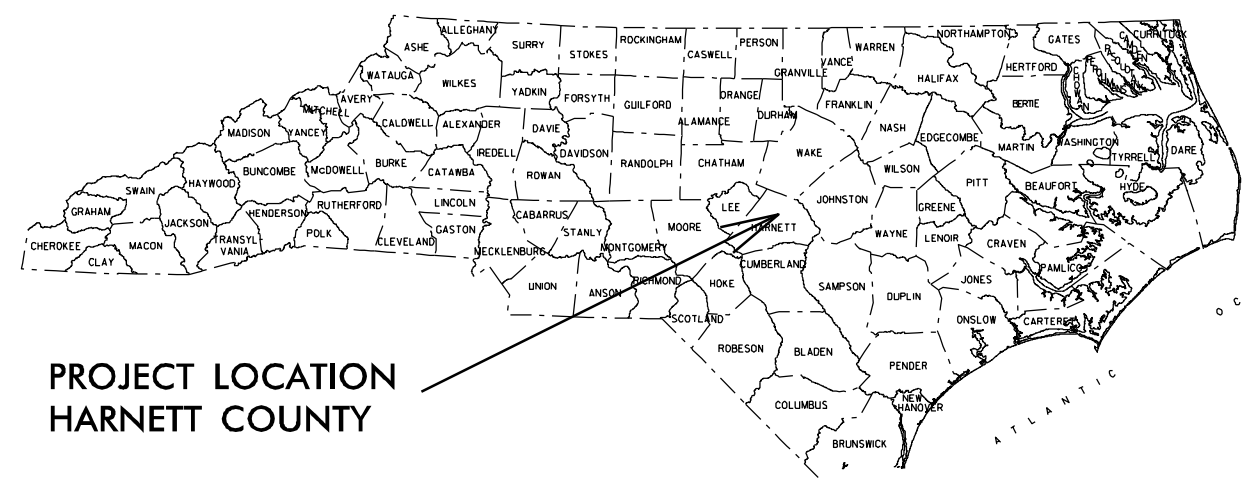


HIGHWAY LANDSCAPE DEVELOPMENT PROJECT



SUMMARY OF QUANTITIES

Quan	Unit	Common Name	Botanical Name	Size	Notes
TREES					
10	EA	Nellie R Stevens Holly	Ilex x 'Nellie R Stevens'	8-10", B&B	full to ground
27	EA	Lagerstroemia indica 'Muskogee'	Muskogee Crape Myrtle	10-12", B&B	2-3 stems
15	EA	Green Giant Arborvitae	Thuja 'Green Giant'	8-10", B&B	full to ground
9	EA	Shumard Oak	Quercus shumardii	12-14", B&B	min. 36" crown
SHRUBS					
31	EA	Dwarf Burning Bush	Euonymus alatus 'Compacta'	15-18", #3 Cont	
132	EA	Double Knockout Red Rose	Rosa 'Radko'	12-15", #3 Cont	
PERENNIALS & GRASSES					
120	EA	Butter and Sugar Siberian Iris	Iris siberica 'Butter and Sugar'	#1 Rhizome	
350	EA	Sugar Rush Siberian Iris	Iris siberica 'Sugar Rush'	#1 Rhizome	
67	EA	Goldsturm Black-eyed Susan	Rudbeckia fulgida 'Goldsturm'	9-12", #1 Cont	
27	EA	White Cloud Muhly Grass	Muhlenbergia calypillaris 'White Cloud'	9-12", #1 Cont	
OTHER ITEMS					
600	CY	Mulch after Planting	2" for existing plant beds; 4" on new plant beds.		
25	MG	Water after Planting			
1227	SF	Sloped Stone Wall			
3100	CY	Roadway Excavation			
10	Ton	Erosion Control Stone, #57 or #5			
24	Ton	Erosion Control Stone, Class A			
250	LF	Core Fiber Baffle			
1250	LF	Temporary Silt Fence			
260	LF	1/4" Hardware Cloth, 24 ga			
1	LS	Vegetation Removal			
1	LS	Traffic Control			
3	ACR	Seeding & Mulching	Centipede		
12	EA	Monthly Maintenance	Establishment period		

T.I.P. #	STATE PROJECT W.B.S. #	SHEET #	SHEET # TOTAL
ER-5600 FM	46305.3.54	L1	16
FED. PROJ. #	DESCRIPTION	DIVISION	
-	Landscape Planting	6	

CONVENTIONAL SYMBOLS

County Line	-----
City or Town Line	-----
Exist. Right of Way Line Marker	-----▲-----
Prop. Right of Way Line Marker (By Others)	-----▲-----
Prop Right of Way Line Marker (By Contract)	-----▲-----
Exist. Control of Access Line	-----○-----
Prop. Control of Access Line	-----○-----
Property Line	-----
Easement Line	-----
Slope Stake Line	-----
Exist. Fence	-----
Prop. Woven Wire Fence	-----
Prop. Chain Link Fence	-----
Exist. Road	-----
Prop. Road	-----
Guardrail	-----
Survey Line	-----
Denotes Line Equality	-----
Bridge	-----
Culvert	-----
Railroad	-----
Woods	-----
Exist. Telephone Pole	-----●-----
Prop. Telephone Pole	-----○-----
Tower Pole and Line	-----■-----
Exist. Power Pole	-----●-----
Prop. Power Pole	-----○-----
Sanitary Sewer Line	-----
Water Line	-----
Gas Line	-----
Picnic Shelter	-----
Regeneration	-----
Reforestation	-----

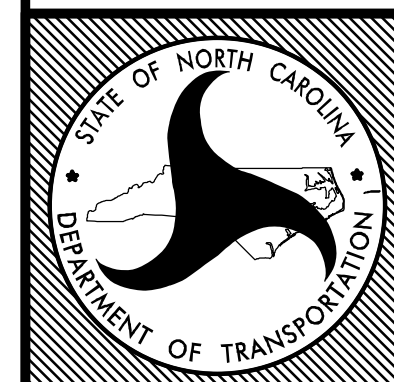
INDEX OF L SHEETS:

- L 1 TITLE, DESCRIPTION, LOCATION, & SUMMARY OF QUAN.
- L 2 PLANTING DETAILS
- L 3 - L 6 .. LANDSCAPE PLANS
- L 7 - L 10 .. DETAILS
- X1 - X6 X-SECTS

PREPARED BY: BK DATE: AUG 2019

REVISIONS

DATE	DESCRIPTION
3-12-19	ADD X-SECT & RDWY ALIGNMENT
7-30-19	PLAN REDESIGN & DETAILS
12-17-19	UPDATE QUANTITIES; ADD DETAILS
4-28-20	REV. SIGN & WALL DETAILS

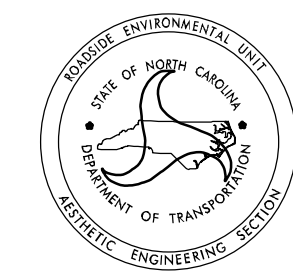


STATE OF
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

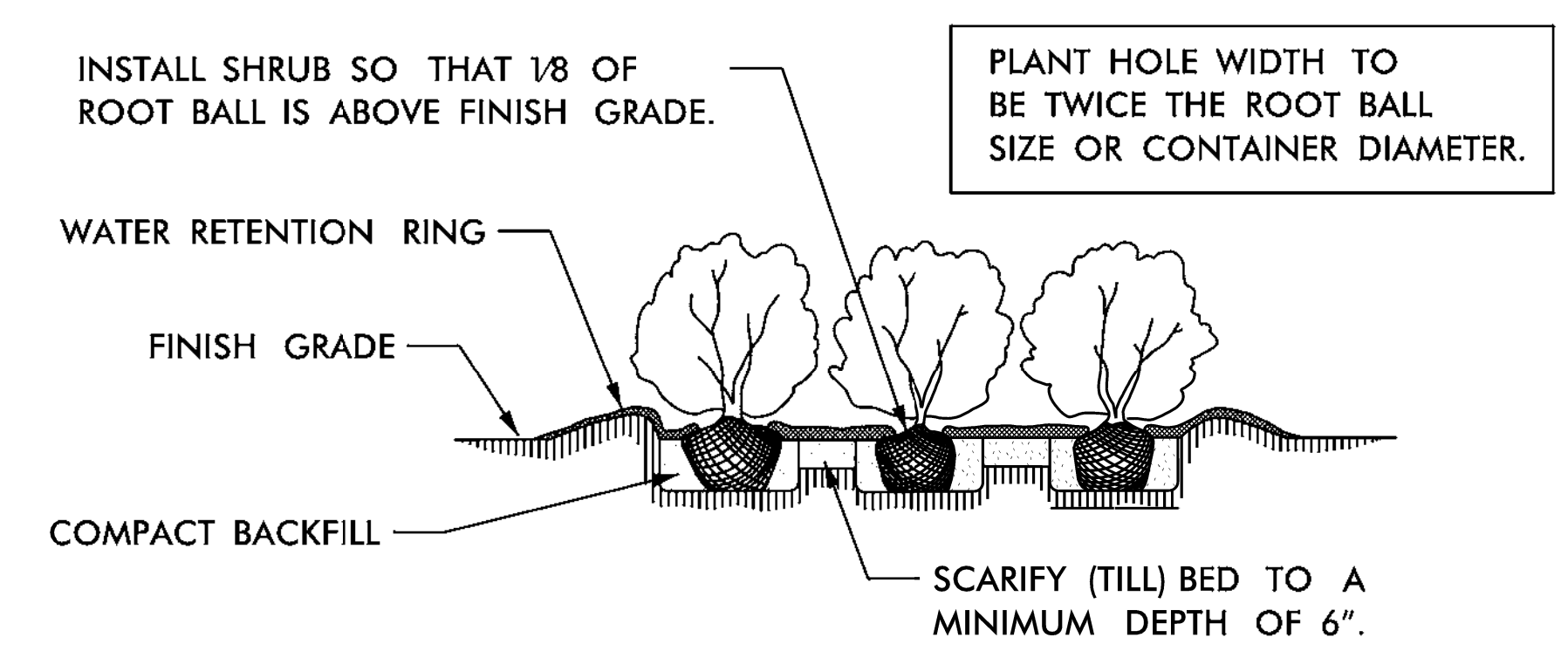
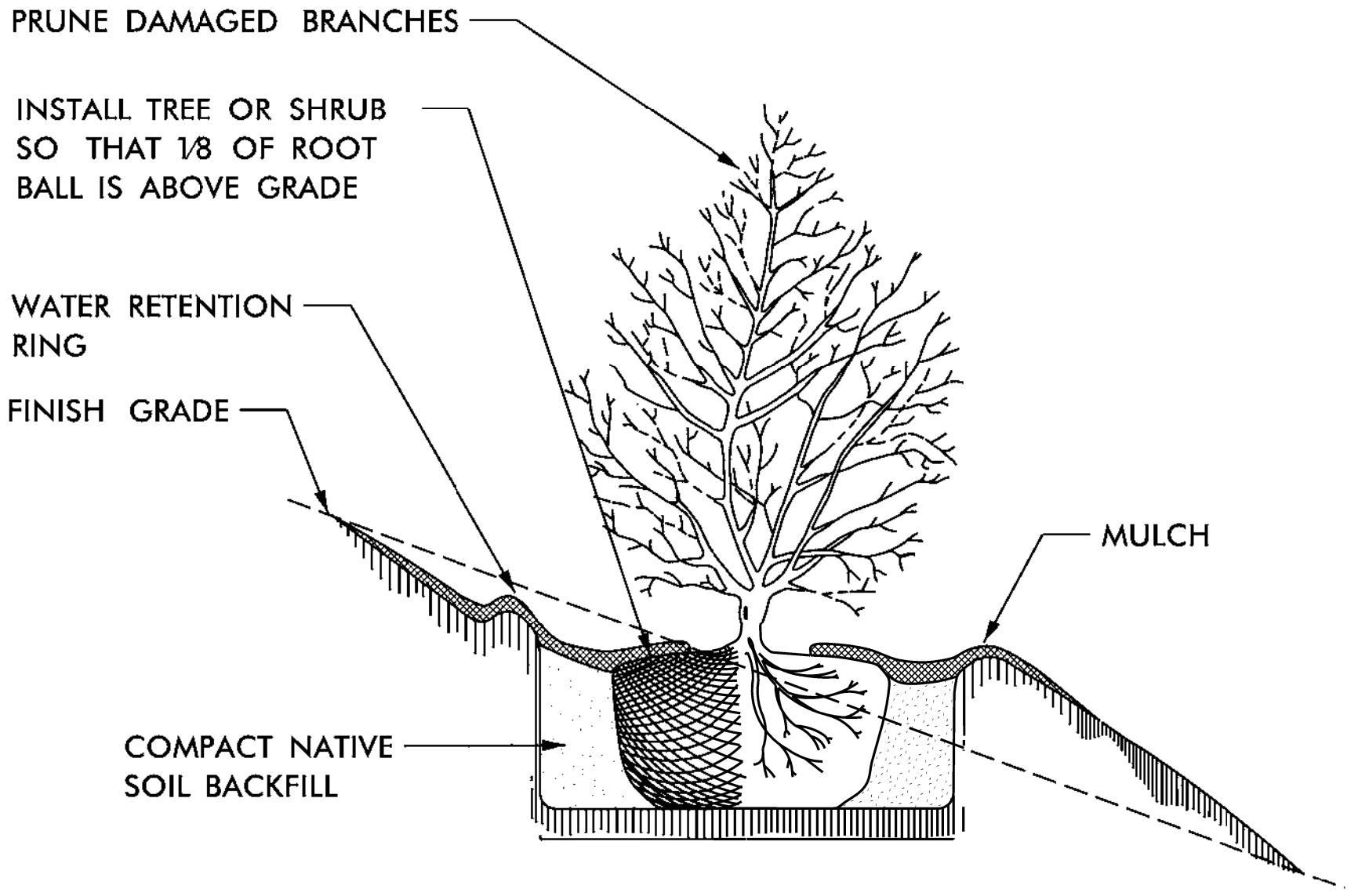
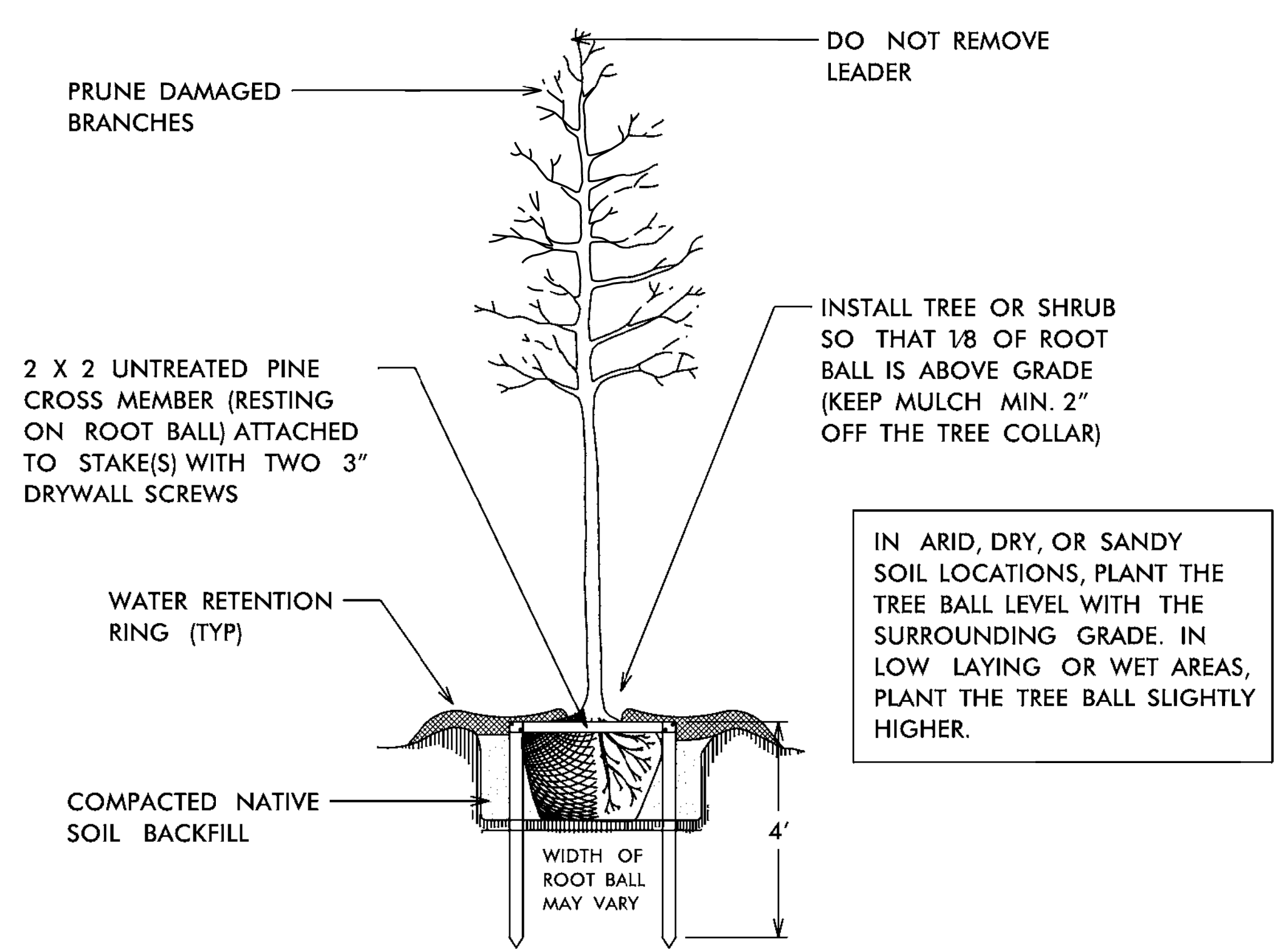
LOCATION: US 401 Median, Lillington

TYPE of WORK: Landscape Planting

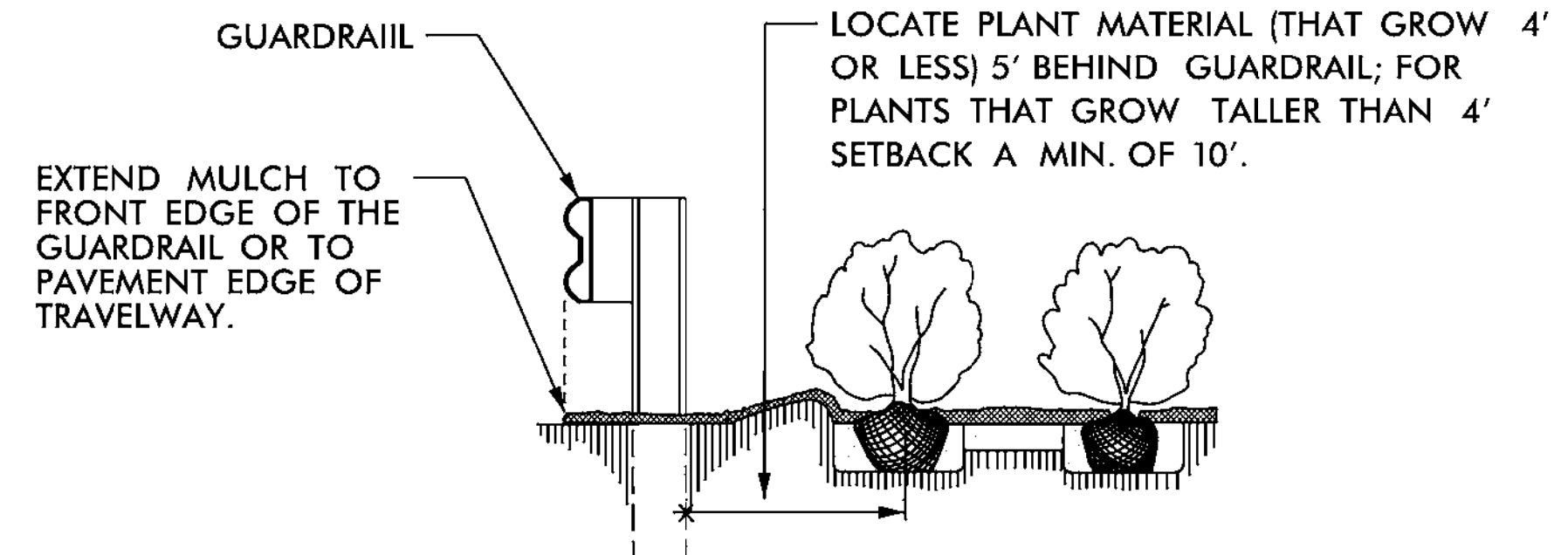
COUNTY: Harnett County



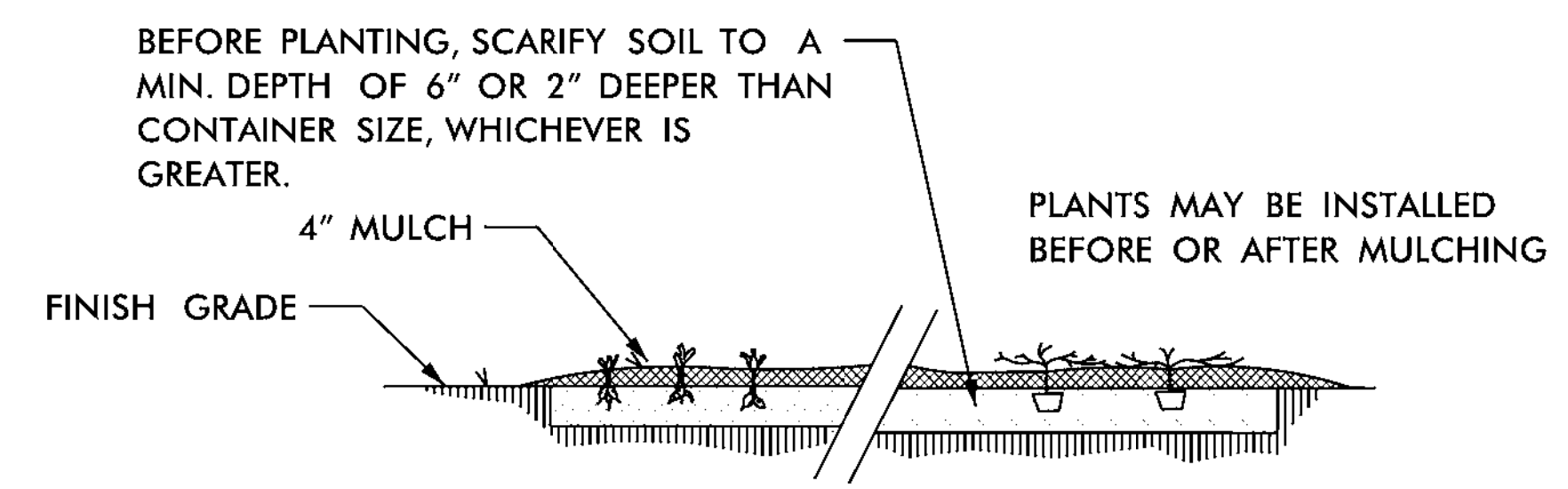
2014 American Standard for Nursery Stock
2018 NCDOT STANDARD SPECIFICATIONS
PREPARED IN THE OFFICE OF:
NCDOT- ROADSIDE ENVIRONMENTAL UNIT
AESTHETIC ENGINEERING SECTION
1557 MAIL SERVICE CENTER
RALEIGH NC 27699 919-707-2920



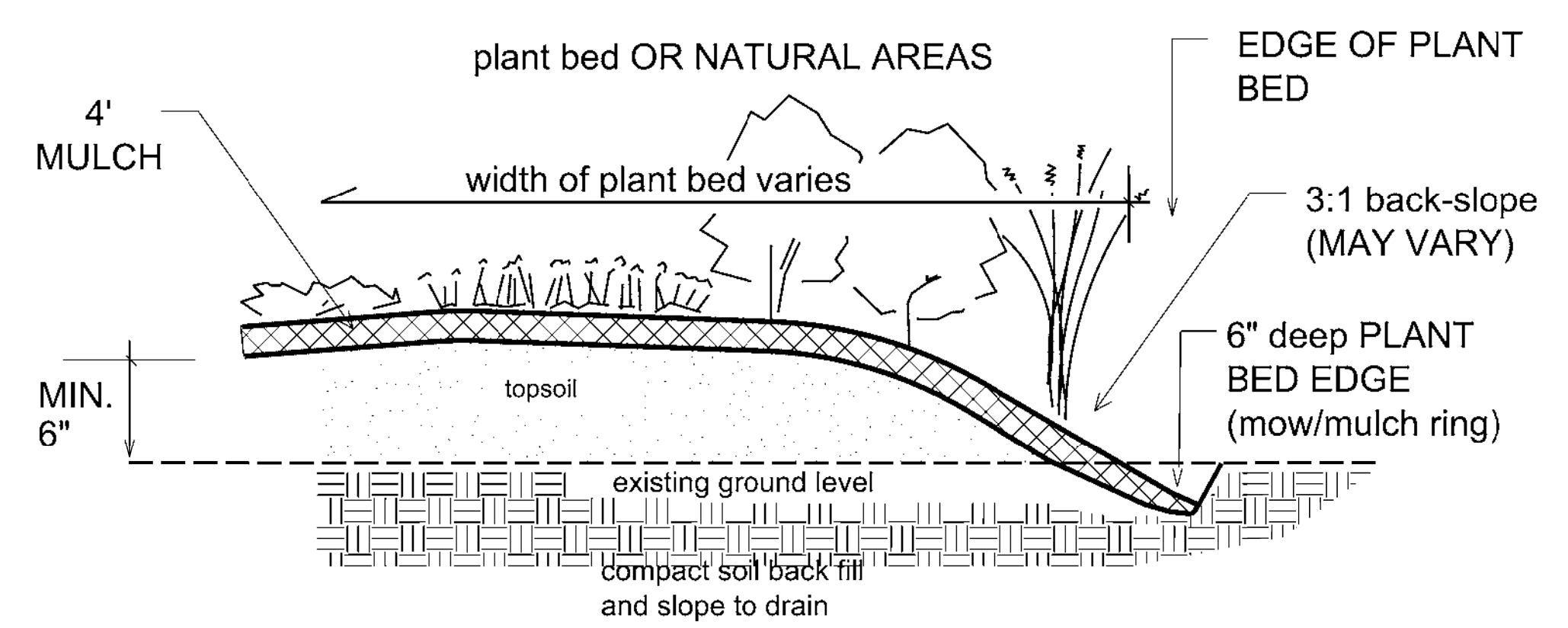
SHRUB BED PLANTING DETAIL



GUARDRAIL MULCHING DETAIL
USE AS DIRECTED BY FIELD ENGINEER



GROUND COVER/BEDDING PLANT DETAIL



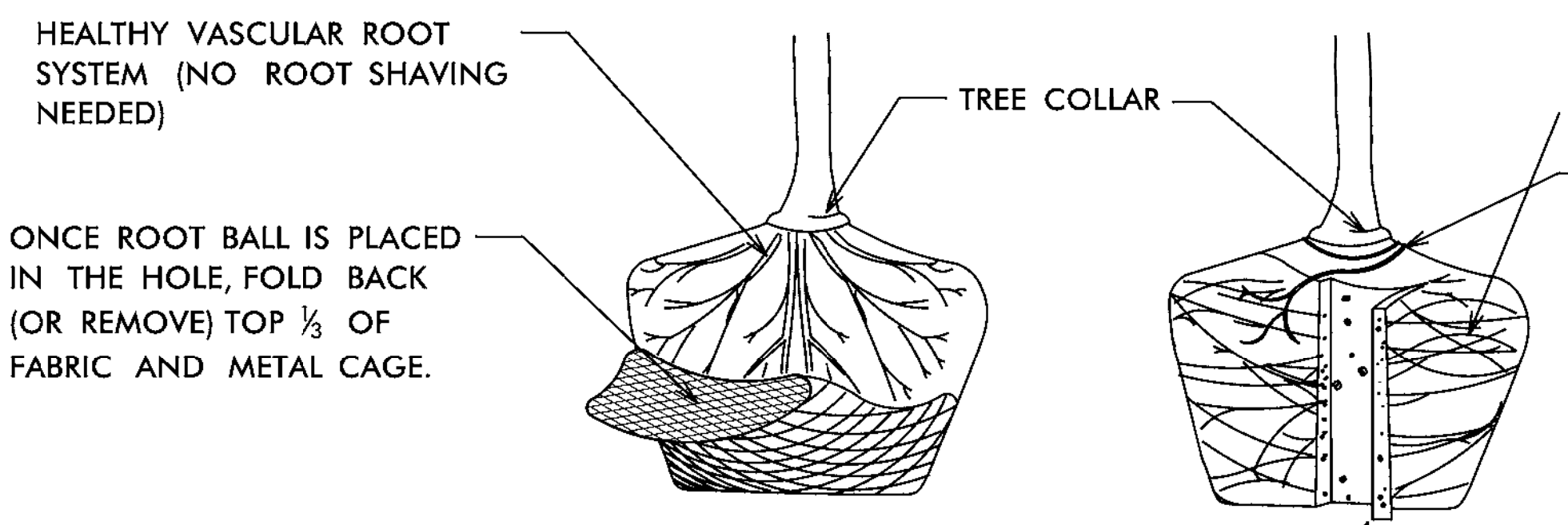
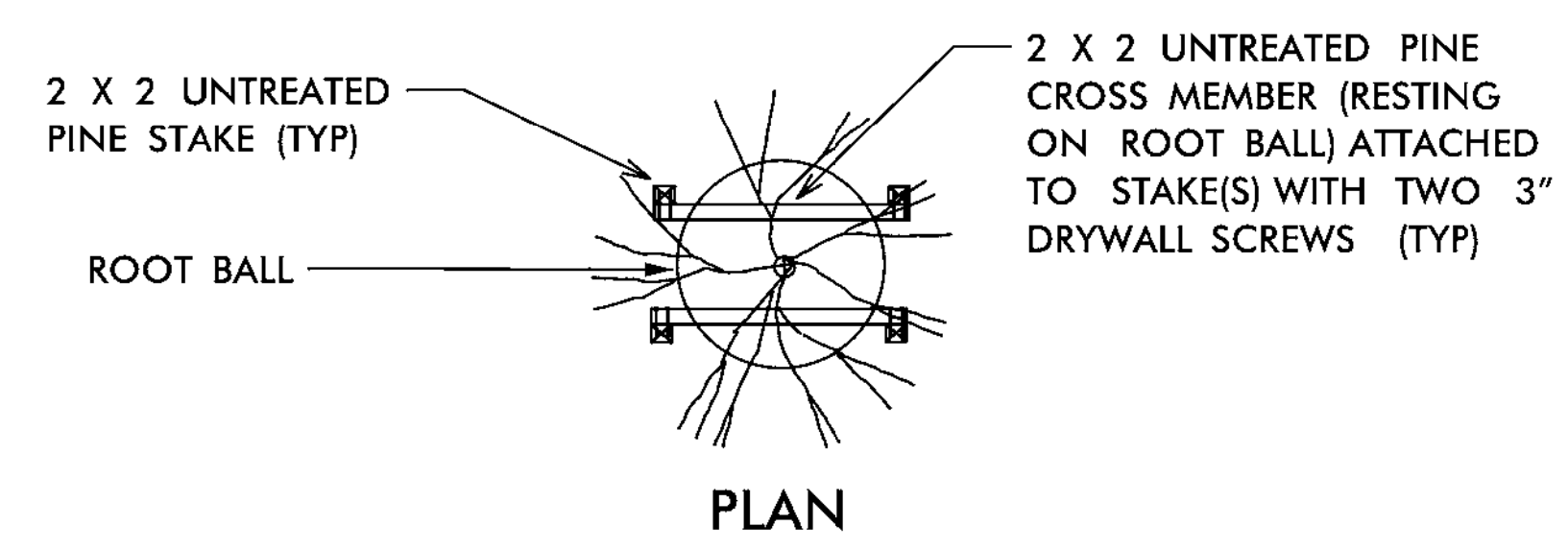
PLANT BED EDGE DETAIL

TREE OR SHRUB PLANTING DETAIL (SLOPING GROUND)

NOTES:

- PLANT HOLE WIDTH TO BE TWICE THE ROOT BALL SIZE OR CONTAINER DIAMETER.
- APPLY HERBICIDES A MIN. OF 7 DAYS PRIOR TO PLANTING, BY LABEL INSTRUCTIONS, OR AS DIRECTED BY THE NCDOT ENGINEER.
- APPLY FERTILIZER AT PLANTING TIME IN THE FORM OF A SLOW RELEASE PELLET OR TABLET. APPLY AT RATE RECOMMENDED BY MANUFACTURER. BOTH RATE AND FORMULATION MUST BE APPROVED BY FIELD ENGINEER PRIOR TO APPLICATION.
- ALL PRUNING TO FOLLOW STANDARD ARBORICULTURAL PRACTICES SPECIFIED BY INTERNATIONAL SOCIETY OF ARBORICULTURE.
- DO NOT ATTEMPT TO STRAIGHTEN A TREE THAT HAS BEEN PLANTED AT AN ANGLE WITH THE USE OF STAKING OR GUYING. DIG TREE AND REPLANT TO UPRIGHT POSITION.

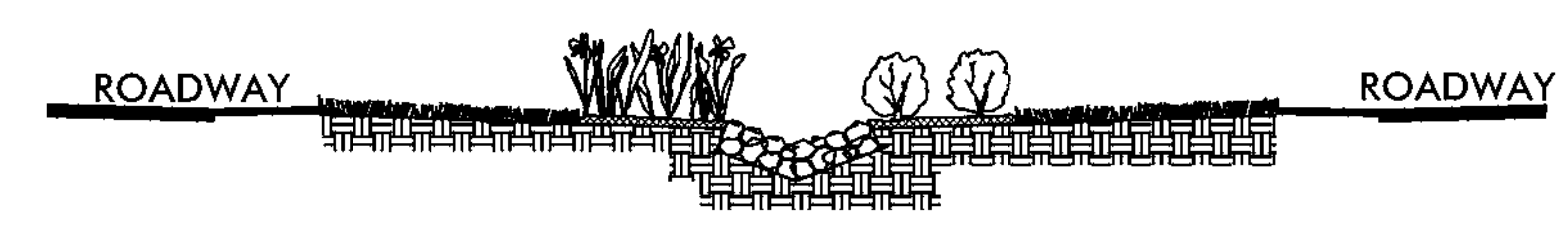
TREE PLANTING & ROOT BALL STAKING DETAIL (STAKE TREES 8' OR TALLER)



ROOT BALL SHAVING CAN BE PERFORMED JUST PRIOR TO PLANTING OR AFTER PLACING IN THE HOLE.

SHAVE OUTER PERIPHERY OF ROOT BALL (MAX. 2") WITH SHARP SPADE SHOVEL (OR HAND SAW) TO REMOVE GIRDLING ROOTS.

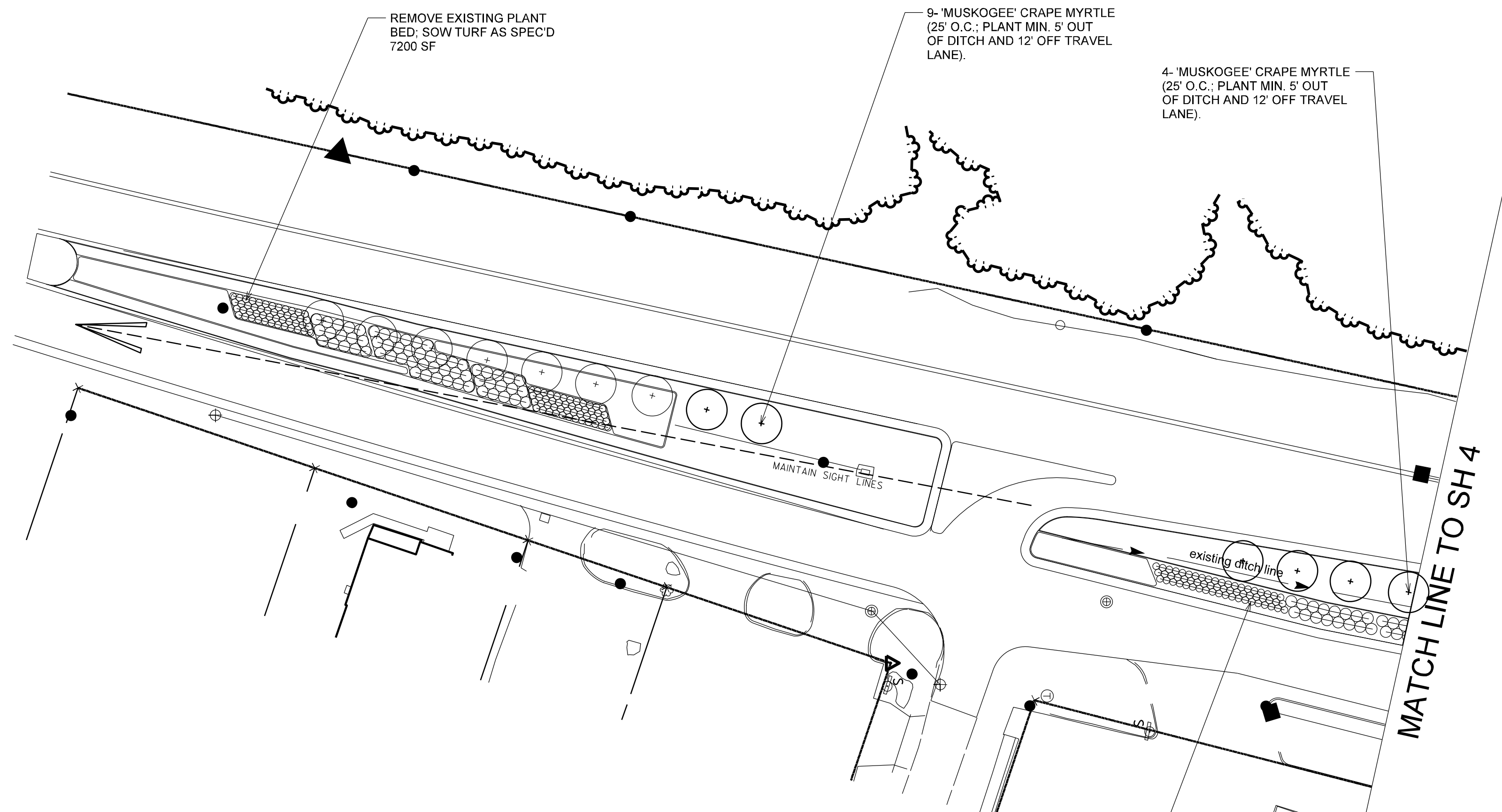
TREE PLANTING INSTRUCTIONS (FOR CONTAINER OR BALLED & BURLAPPED TREES)



MIN. 12" DEEP CLASS "A" STONE ON FILTER FABRIC LINER IN DITCH. PLACE STONE FLUSH WITH DITCH GRADE FOR MAXIMUM WATER FLOW.

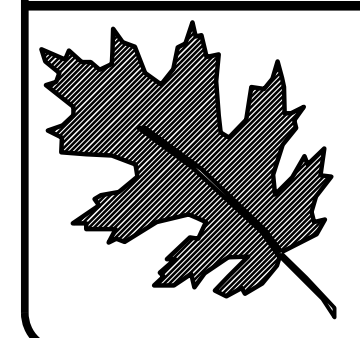
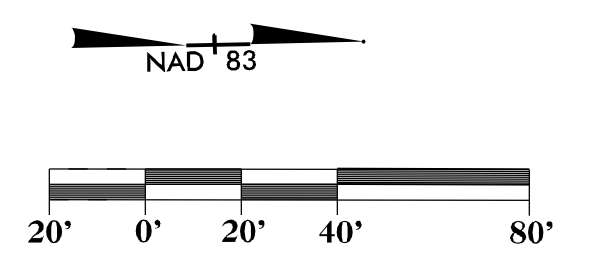
CLASS "A" STONE DITCH LINING DETAIL





Common Name	Botanical Name	Size	Notes
TREES			
Nellie R Stevens Holly	Ilex x 'Nellie R Stevens'	8-10', B&B	full to ground
Lagerstroemia indica 'Muskogee'	Muskogee Crape Myrtle	10-12', B&B	2-3 stems
Green Giant Arborvitae	Thuja 'Green Giant'	8-10', B&B	full to ground
Shumard Oak	Quercus shumardii	12-14', B&B	min. 36" crown
SHRUBS			
Dwarf Burning Bush	Euonymus alatus 'Compacta'	15-18", #3 Cont	
Double Knockout Red Rose	Rosa 'Radko'	12-15", #3 Cont	
PERENNIALS & GRASSES			
Butter and Sugar Siberian Iris	Iris siberica 'Butter and Sugar'	#1 Rhizome	
Sugar Rush Siberian Iris	Iris siberica 'Sugar Rush'	#1 Rhizome	
Goldsturm Black-eyed Susan	Rudbeckia fulgida 'Goldsturm'	9-12", #1 Cont	
White Cloud Muhly Grass	Muhlenbergia caipillaris 'White Cloud'	9-12", #1 Cont	

NEW PLANT BEDS AND TREES RECEIVE 4" OF MULCH; EXISTING PLANT BEDS AND TREES (WITHIN THE PROJECT LIMITS) RECEIVE 2" OF MULCH.



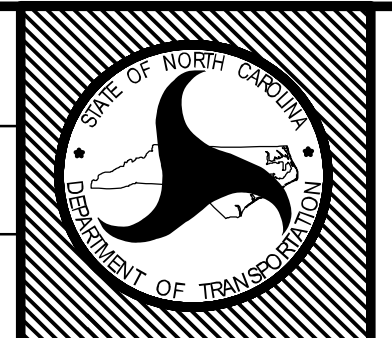
NCDOT - ROADSIDE ENVIRONMENTAL UNIT
 LANDSCAPE DESIGN & DEVELOPMENT
 1557 MAIL SERVICE CENTER, RALEIGH, NC 27699-1557
 PH: 919-707-2920 FAX: 919-715-2554

US 401
Harnett County, Lillington
 WBS#: 46305.3.54

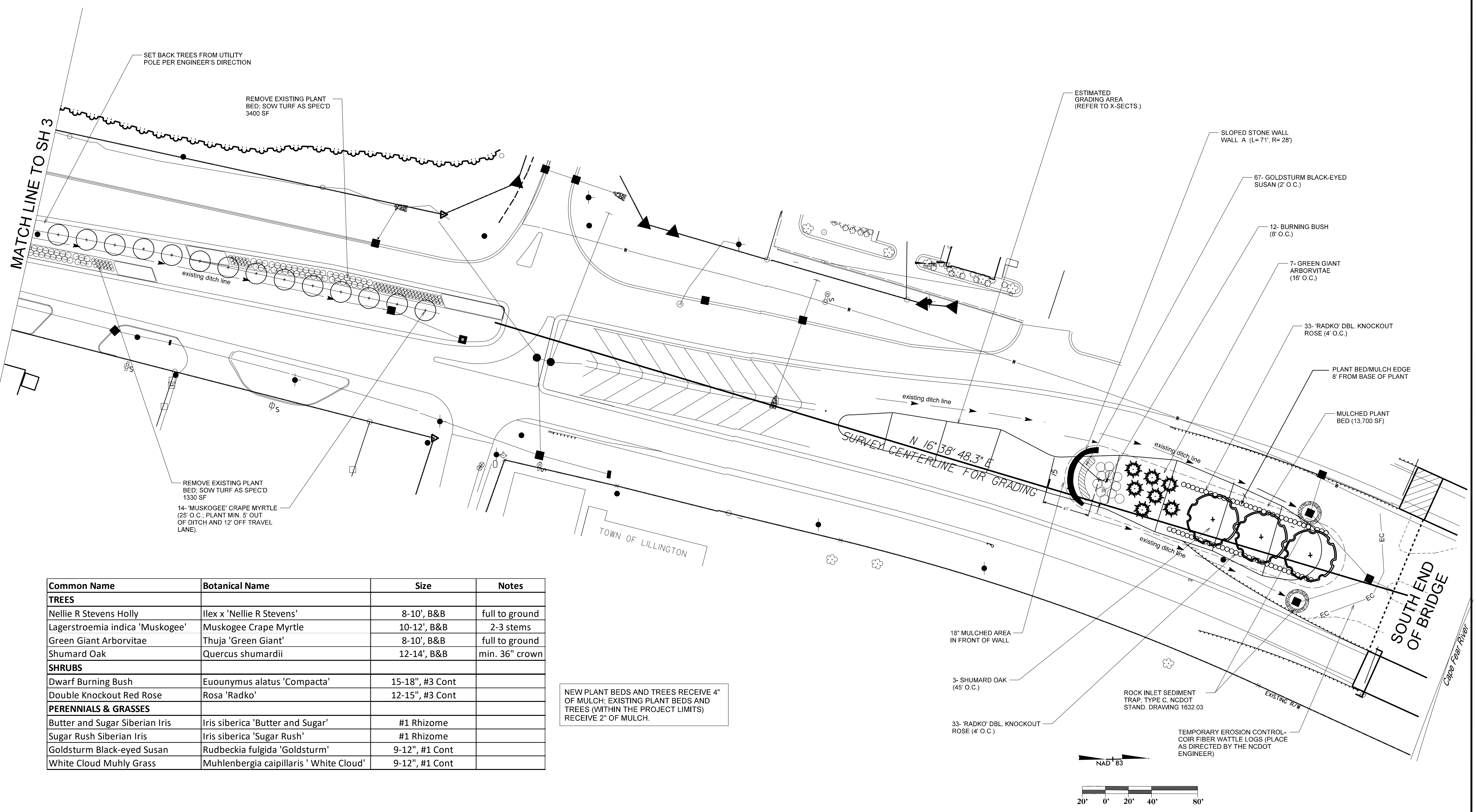
reu engineer :

sheet description:
Site- Landscape Plan A

prel design date: **Aug. 1, 2019**
 checked by & date :
 final design date : **Aug. 6, 2019**

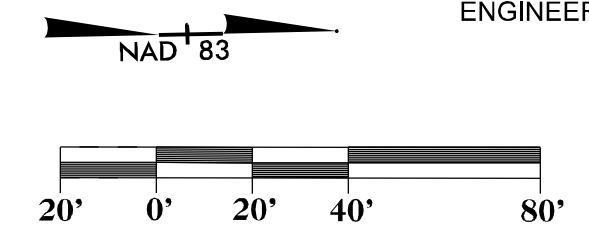


sheet no : **L3**
 total sheet no : **15**

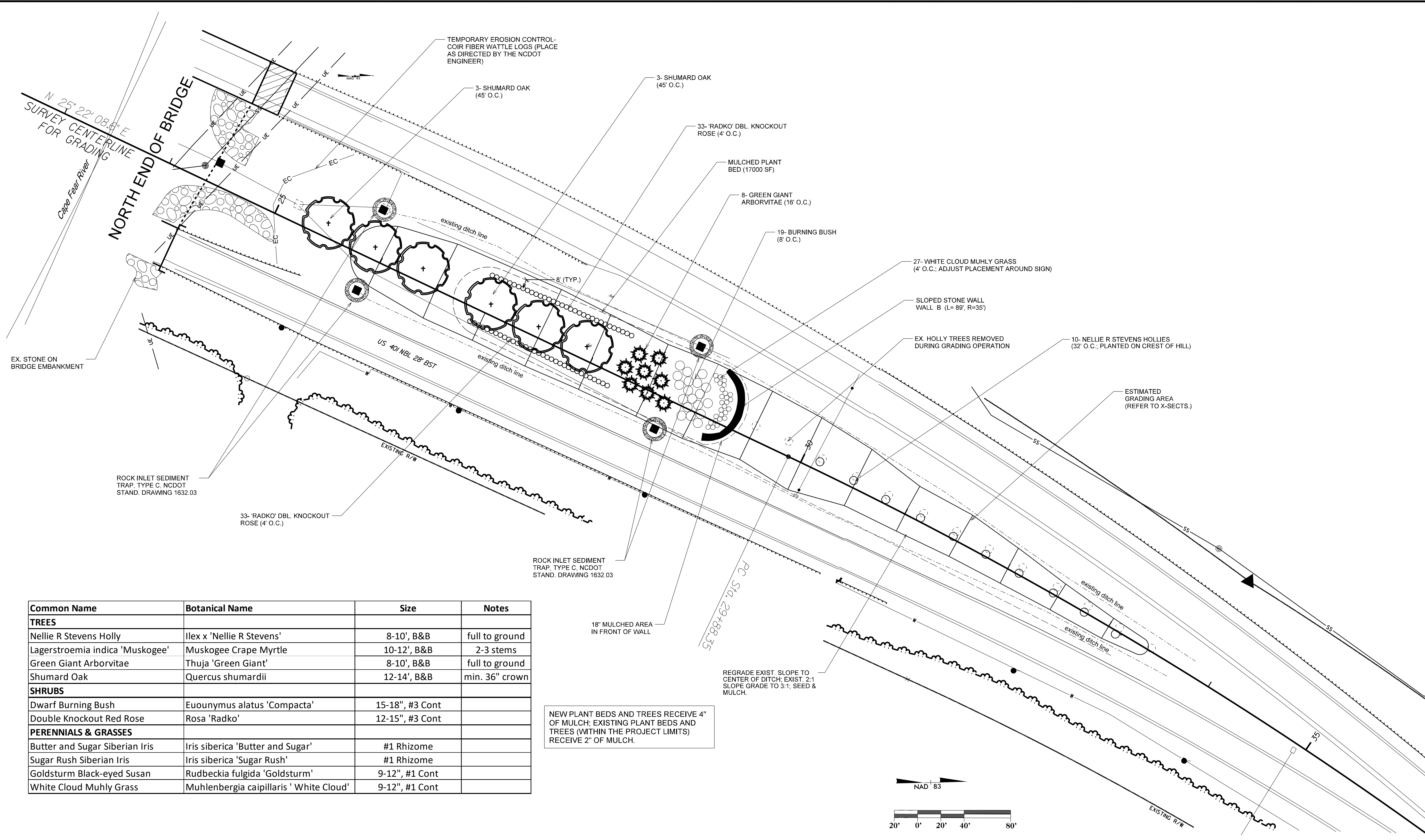


Common Name	Botanical Name	Size	Notes
TREES			
Nellie R Stevens Holly	Ilex x 'Nellie R Stevens'	8-10', B&B	full to ground
Lagerstroemia indica 'Muskogee'	Muskogee Crape Myrtle	10-12', B&B	2-3 stems
Green Giant Arborvitae	Thuja 'Green Giant'	8-10', B&B	full to ground
Shumard Oak	Quercus shumardii	12-14', B&B	min. 36" crown
SHRUBS			
Dwarf Burning Bush	Euonymus alatus 'Compacta'	15-18", #3 Cont	
Double Knockout Red Rose	Rosa 'Radko'	12-15", #3 Cont	
PERENNIALS & GRASSES			
Butter and Sugar Siberian Iris	Iris siberica 'Butter and Sugar'	#1 Rhizome	
Sugar Rush Siberian Iris	Iris siberica 'Sugar Rush'	#1 Rhizome	
Goldsturm Black-eyed Susan	Rudbeckia fulgida 'Goldsturm'	9-12", #1 Cont	
White Cloud Muhly Grass	Muhlenbergia caipillaris 'White Cloud'	9-12", #1 Cont	

NEW PLANT BEDS AND TREES RECEIVE 4" OF MULCH; EXISTING PLANT BEDS AND TREES (WITHIN THE PROJECT LIMITS) RECEIVE 2" OF MULCH.



	NCDOT - ROADSIDE ENVIRONMENTAL UNIT LANDSCAPE DESIGN & DEVELOPMENT 1557 MAIL SERVICE CENTER, RALEIGH, NC 27699-1557 PH: 919-707-2920 FAX: 919-715-2554	US 401 Harnett County, Lillington WBS#: 46305.3.54	reu engineer :	Site- Landscape Plan B	prel design date: Aug. 1, 2019 checked by & date : final design date: Aug. 6, 2019		sheet no : L4 total sheet no : 15
	SHEET DESCRIPTION:						



Common Name	Botanical Name	Size	Notes
TREES			
Nellie R Stevens Holly	Ilex x 'Nellie R Stevens'	8-10', B&B	full to ground
Lagerstroemia indica 'Muskogee'	Muskogee Crape Myrtle	10-12', B&B	2-3 stems
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NEW PLANT BEDS AND TREES RECEIVE 4" OF MULCH; EXISTING PLANT BEDS AND TREES (WITHIN THE PROJECT LIMITS) RECEIVE 2" OF MULCH.

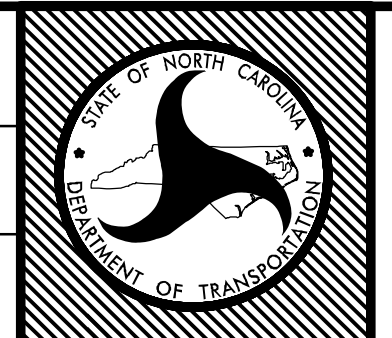


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 LANDSCAPE DESIGN & DEVELOPMENT
 1557 MAIL SERVICE CENTER, RALEIGH, NC 27699-1557
 PH: 919-707-2920 FAX: 919-715-2554

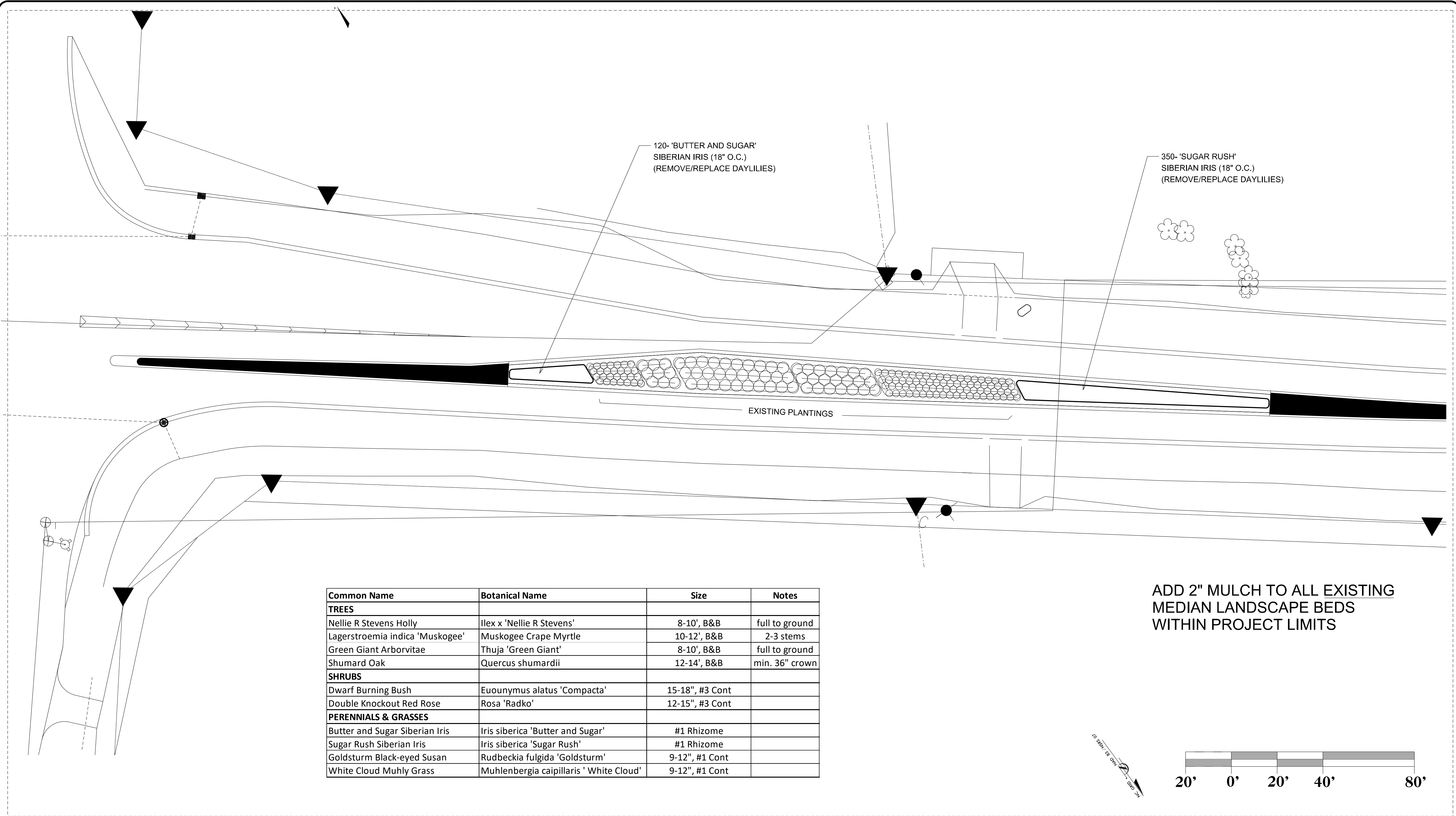
US 401
 Harnett County, Lillington
 WBS#: 46305.3.54

Site- Landscape Plan C

prel design date: Aug. 1, 2019
 checked by & date :
 final design date : Aug. 6, 2019

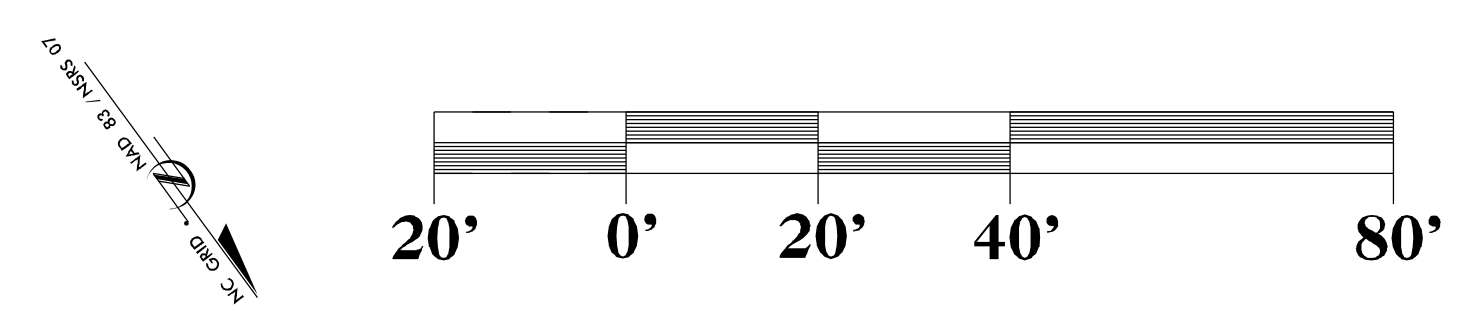


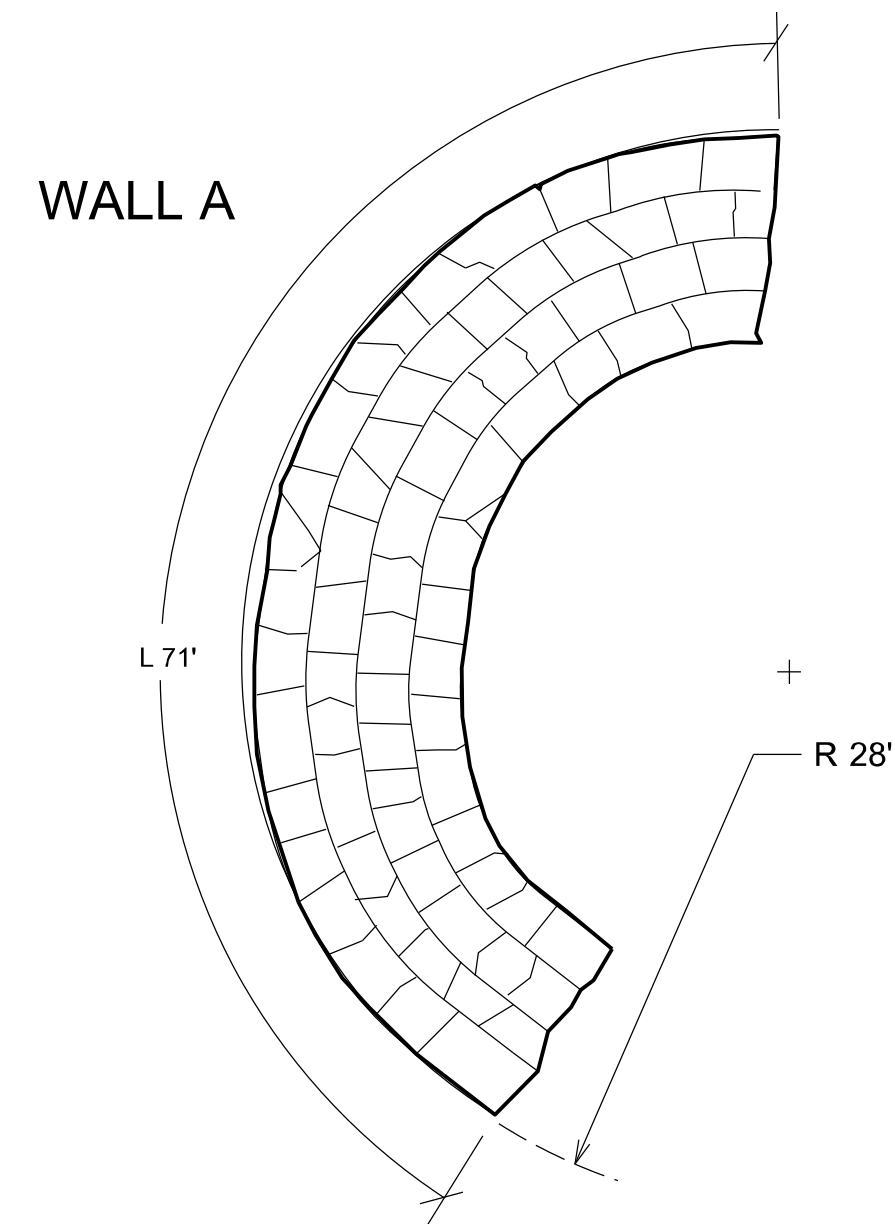
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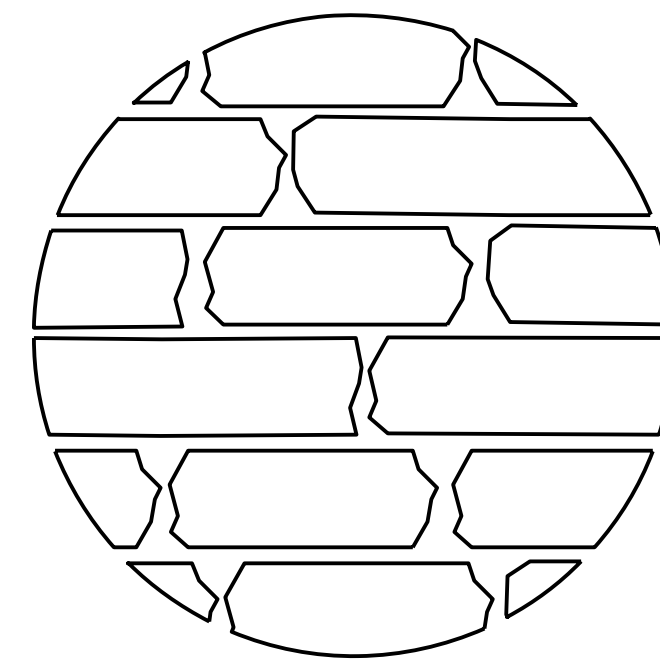
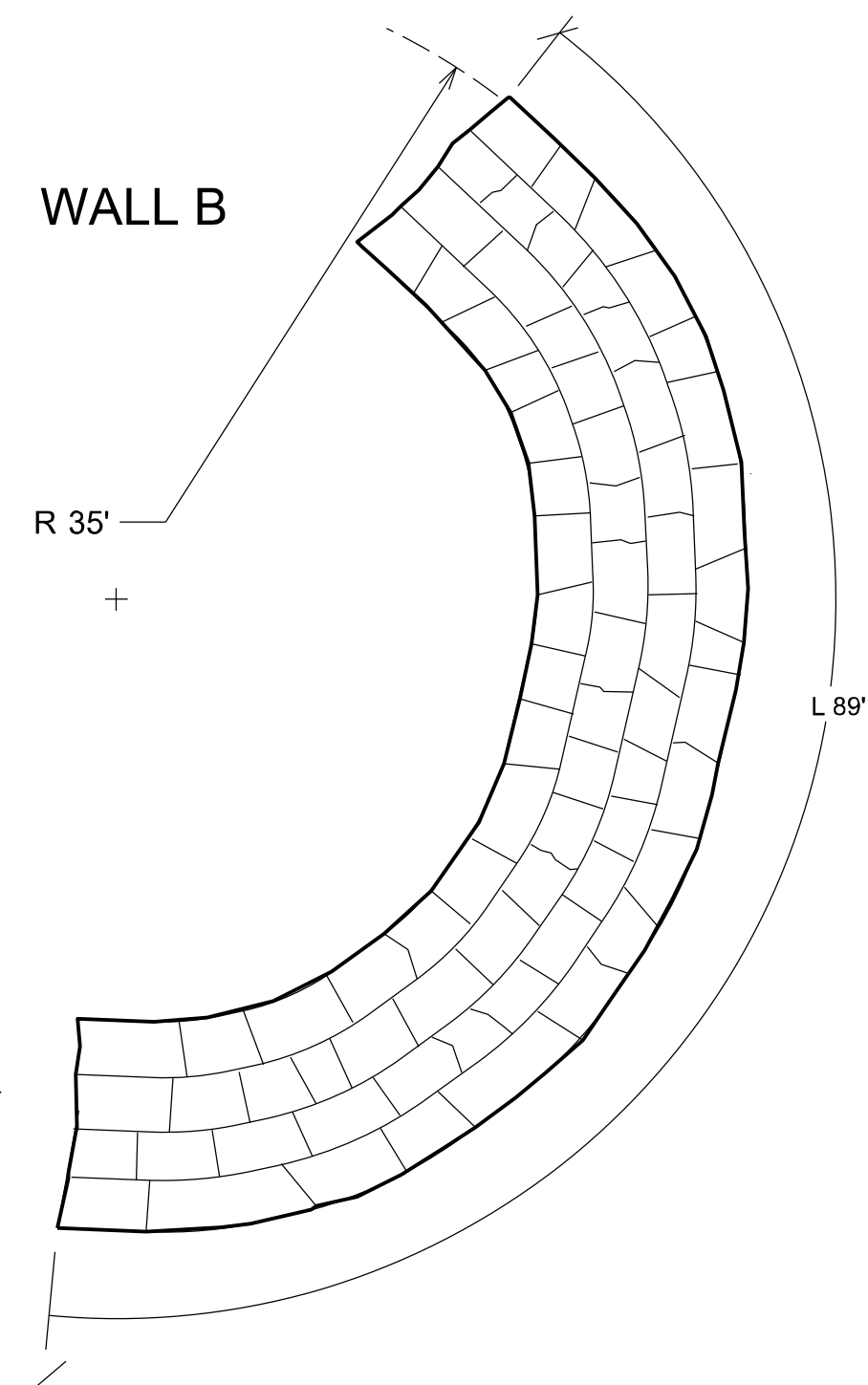
Common Name	Botanical Name	Size	Notes
TREES			
Nellie R Stevens Holly	Ilex x 'Nellie R Stevens'	8-10', B&B	full to ground
Lagerstroemia indica 'Muskogee'	Muskogee Crape Myrtle	10-12', B&B	2-3 stems
Green Giant Arborvitae	Thuja 'Green Giant'	8-10', B&B	full to ground
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SHRUBS			
Dwarf Burning Bush	Euonymus alatus 'Compacta'	15-18", #3 Cont	
Double Knockout Red Rose	Rosa 'Radko'	12-15", #3 Cont	
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Sugar Rush Siberian Iris	Iris siberica 'Sugar Rush'	#1 Rhizome	
Goldsturm Black-eyed Susan	Rudbeckia fulgida 'Goldsturm'	9-12", #1 Cont	
White Cloud Muhly Grass	Muhlenbergia caepillaris 'White Cloud'	9-12", #1 Cont	

ADD 2" MULCH TO ALL EXISTING
 MEDIAN LANDSCAPE BEDS
 WITHIN PROJECT LIMITS

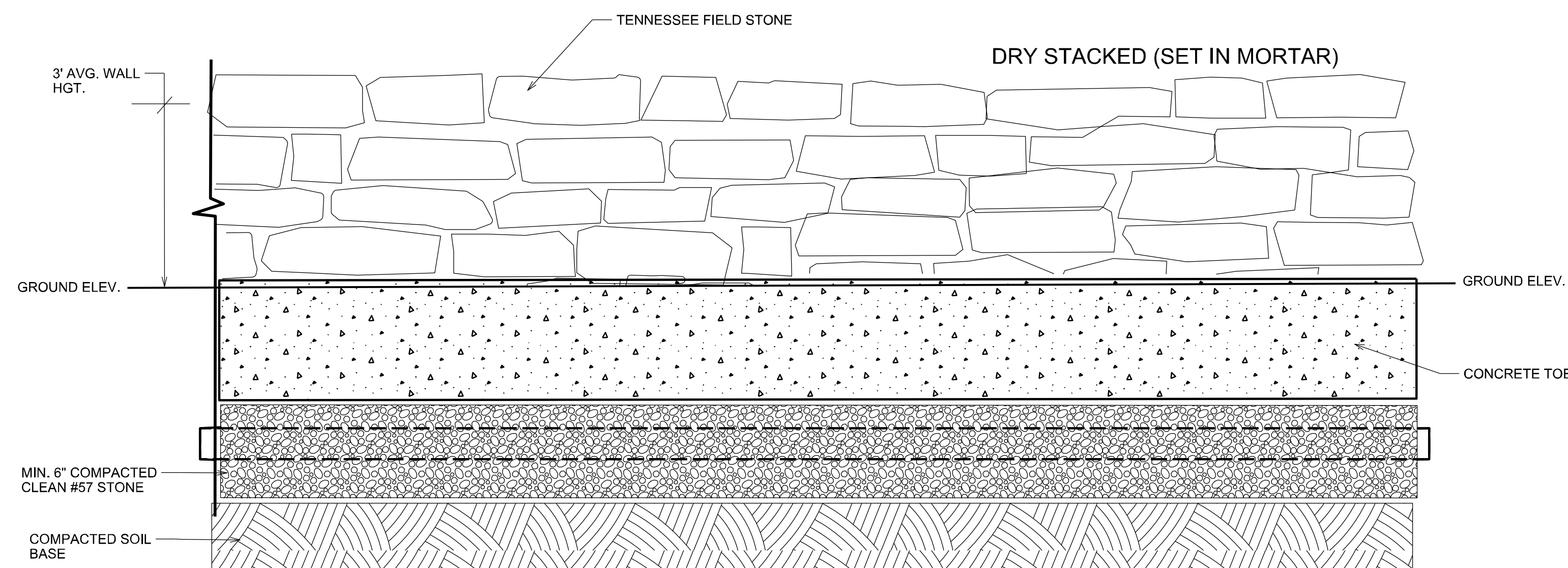




WALL- LENGTH & RADIUS
NTS

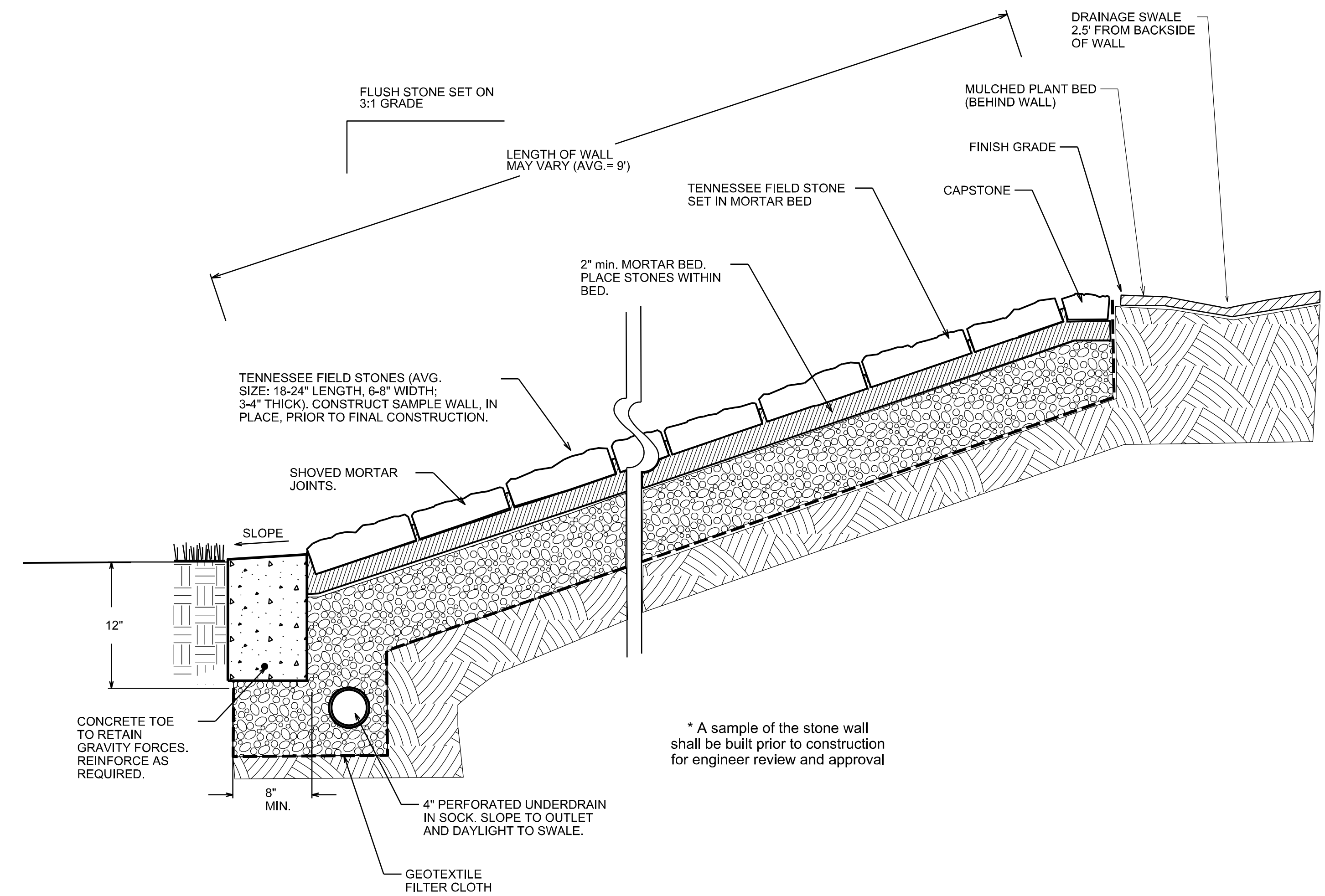


SAMPLE PATTERN - STACKED RANDOM
NTS



WALL- ELEVATION
NTS

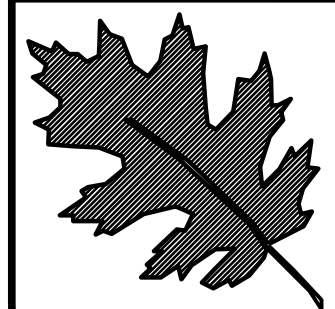
GRANITE QUARRY STONE, COLOR AND SIZE, MUST BE SUBMITTED PRIOR TO CONSTRUCTION FOR ENGINEER AND LANDSCAPE ARCHITECT APPROVAL.



WALL- SECTION
NTS

* A sample of the stone wall shall be built prior to construction for engineer review and approval

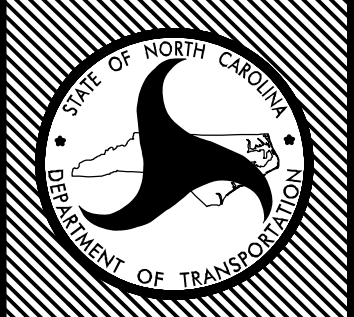
SLOPED STONE WALL



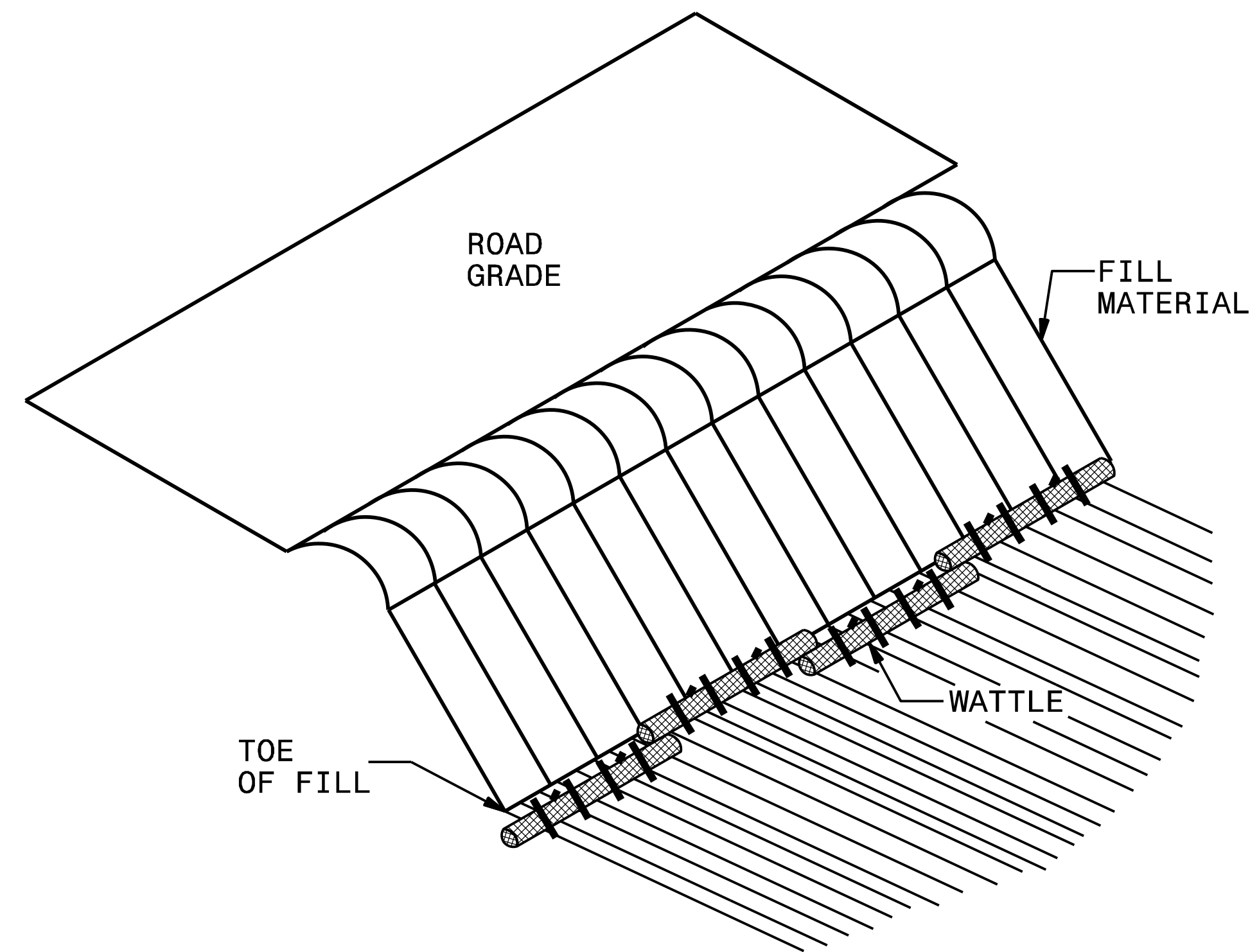
NCDOT - ROADSIDE ENVIRONMENTAL UNIT
LANDSCAPE DESIGN & DEVELOPMENT
1557 MAIL SERVICE CENTER, RALEIGH, NC 27699-1557
PH: 919-707-2920 FAX: 919-715-2554
http://www.ncdot.org/doh/operations/dp_chief_eng/roadside/

US 401
Harnett County, Lillington
WBS#: 46305.3.54

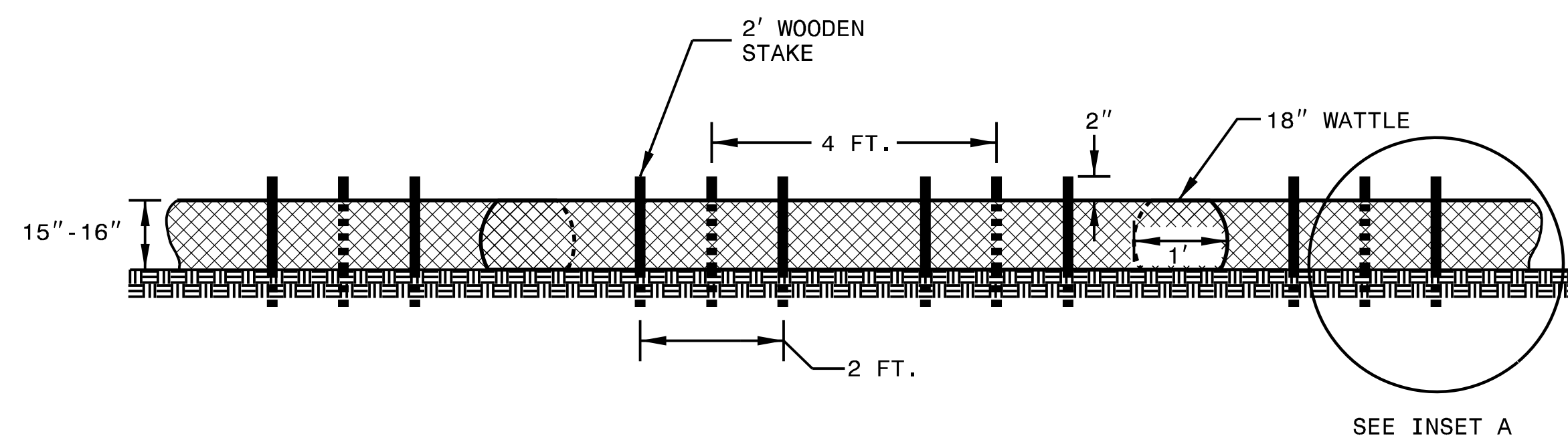
reu engineer :

sheet description:	Sloped Stone Wall Detail	prel design date: Aug. 5 2019		sheet no : L7
		revision date : DEC 16 2020		total sheet no : 15
		check by & date :		

COIR FIBER WATTLE BARRIER DETAIL

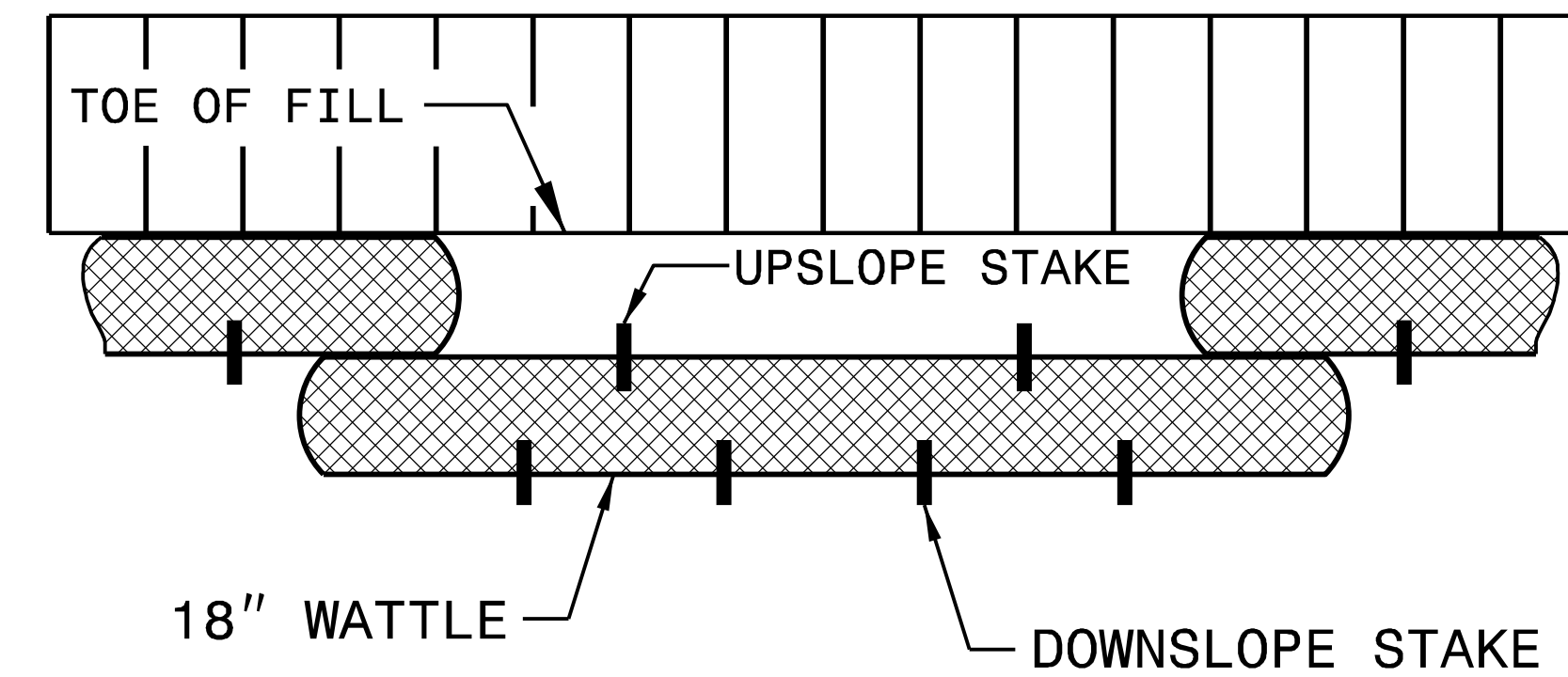
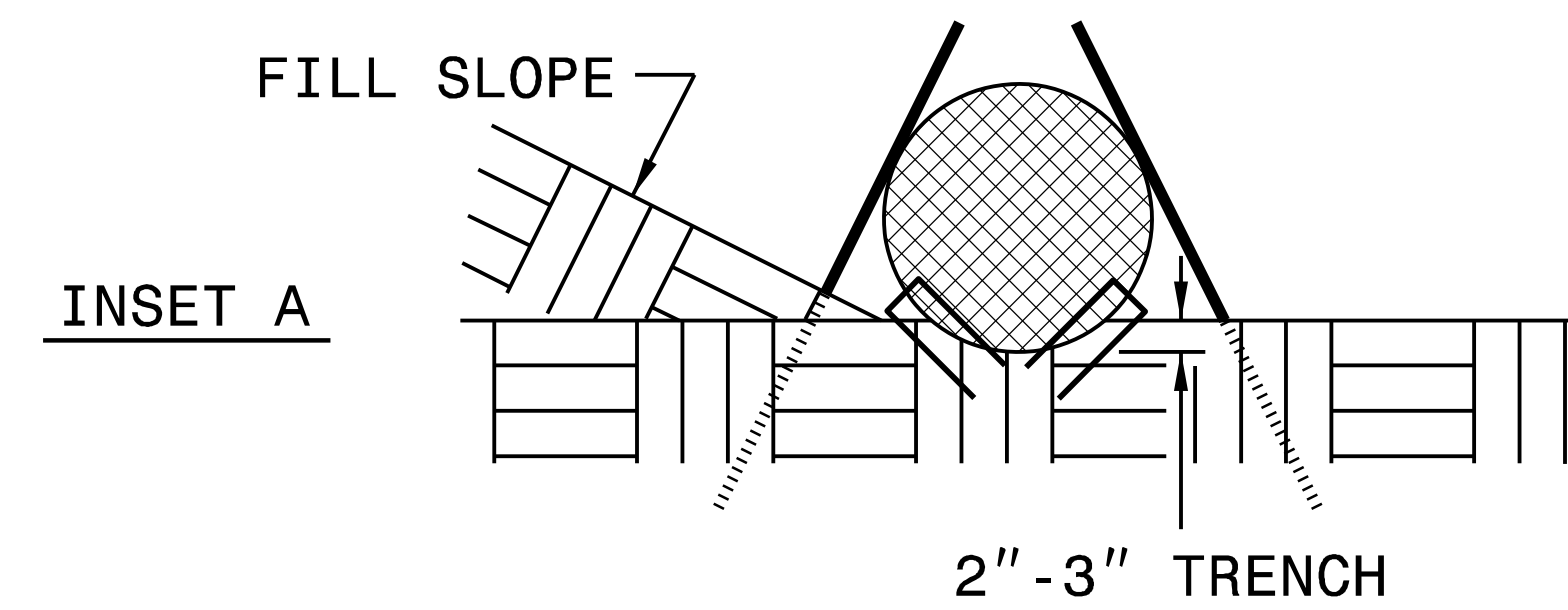


ISOMETRIC VIEW

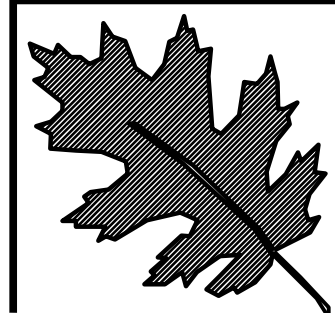


FRONT VIEW

- NOTES:**
- USE MINIMUM 18 IN. NOMINAL DIAMETER COIR FIBER (COCONUT) WATTLE AND LENGTH OF 10 FT.
 - EXCAVATE A 2 TO 3 INCH TRENCH FOR WATTLE TO BE PLACED.
 - DO NOT PLACE WATTLES ON TOE OF SLOPE.
 - USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
 - INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.
 - PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
 - INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
 - FOR BREAKS ALONG LARGE SLOPES, USE MAXIMUM SPACING OF 25 FT.



TOP VIEW



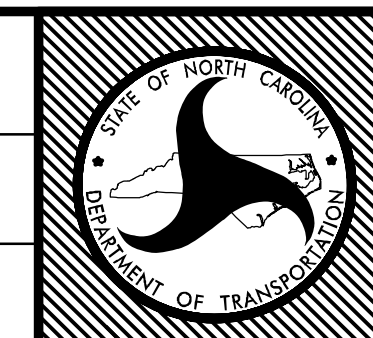
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 1557 MAIL SERVICE CENTER, RALEIGH, NC 27699-1557
 PH: 919-707-2920 FAX: 919-715-2554
http://www.ncdot.org/doh/operations/dp_chief_eng/roadside/

US 401
 Harnett County, Lillington
 WBS#: 46305.3.54

reu engineer :

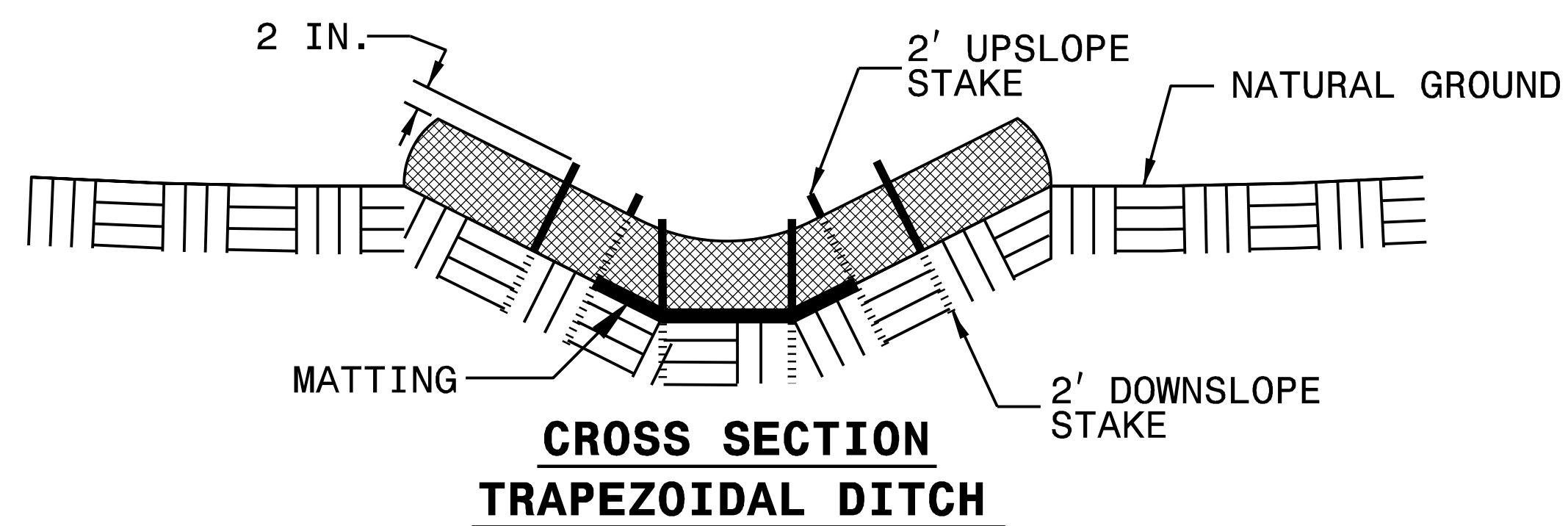
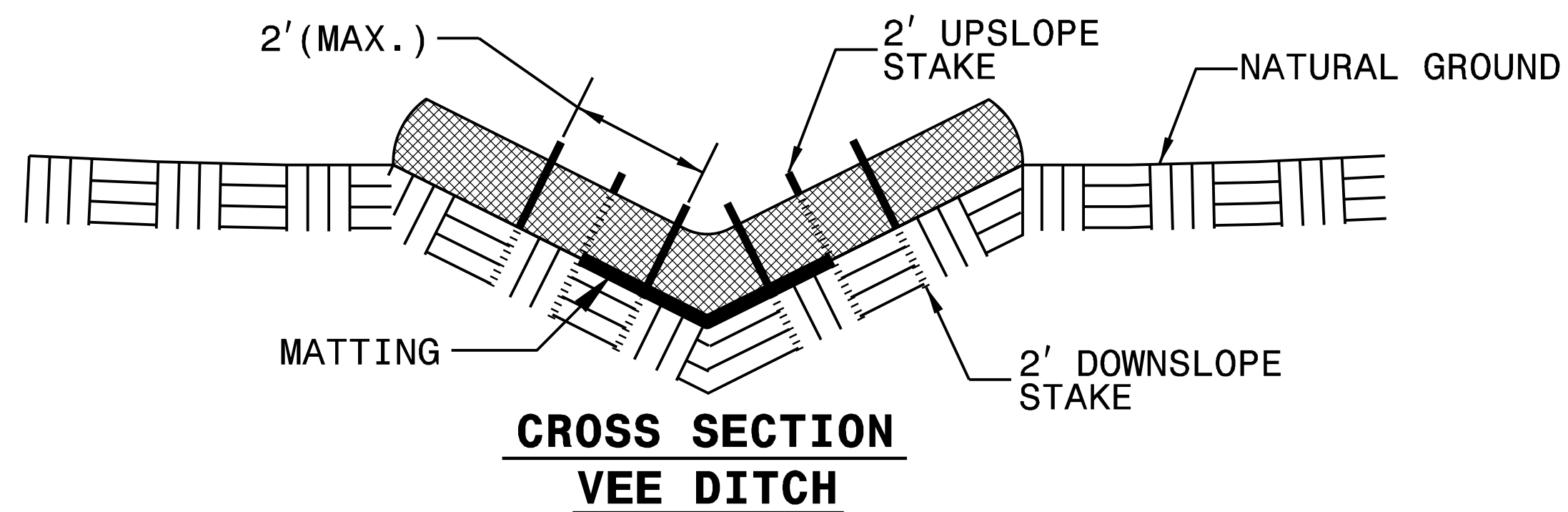
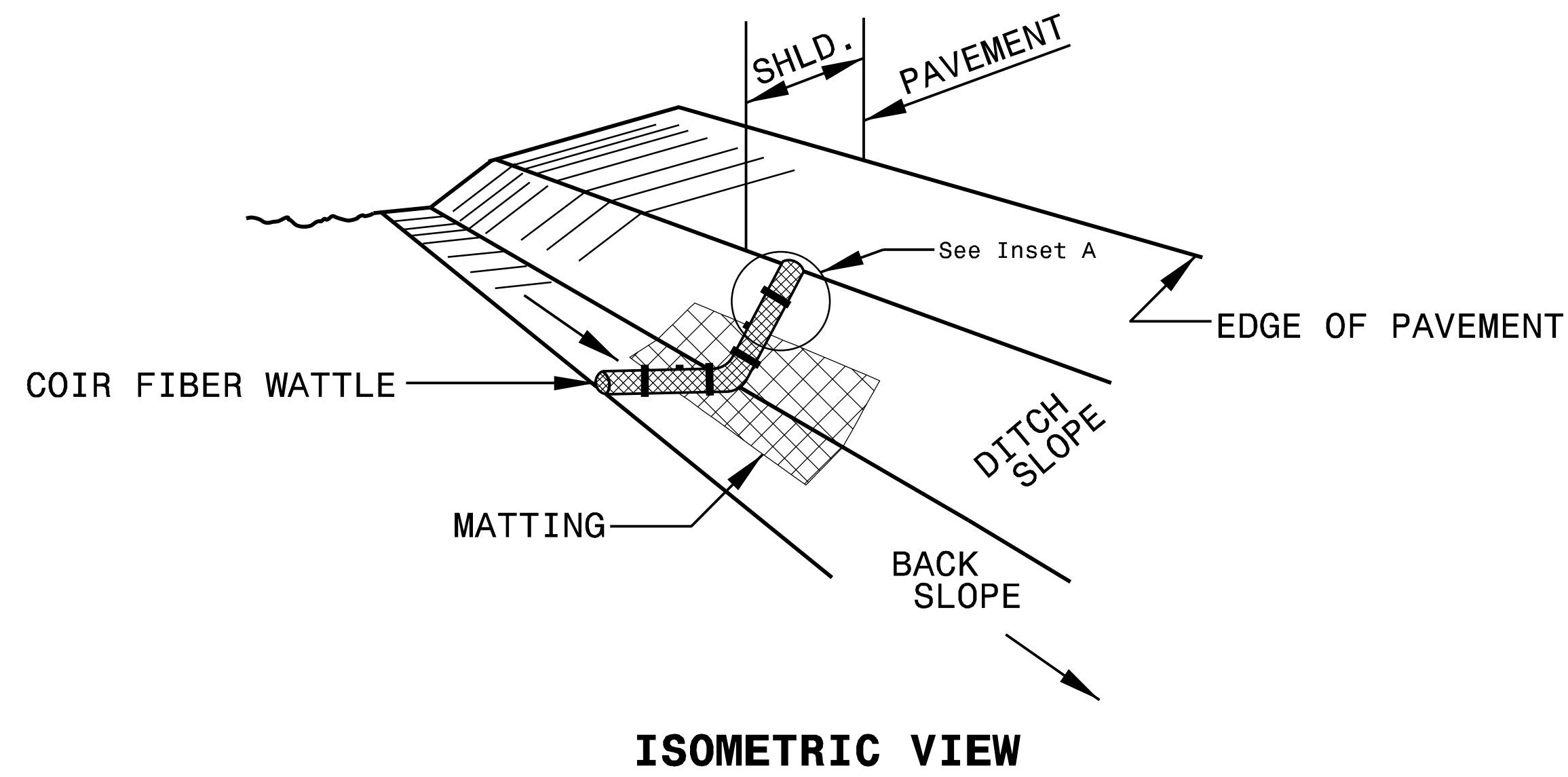
sheet description:
 Core Fiber Wattle Details

prel design date: Aug. 5 2019
 checked by & date :
 final design date :



sheet no : L8
 total sheet no : 15

COIR FIBER WATTLE DETAIL



NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

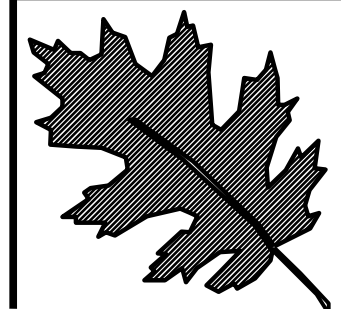
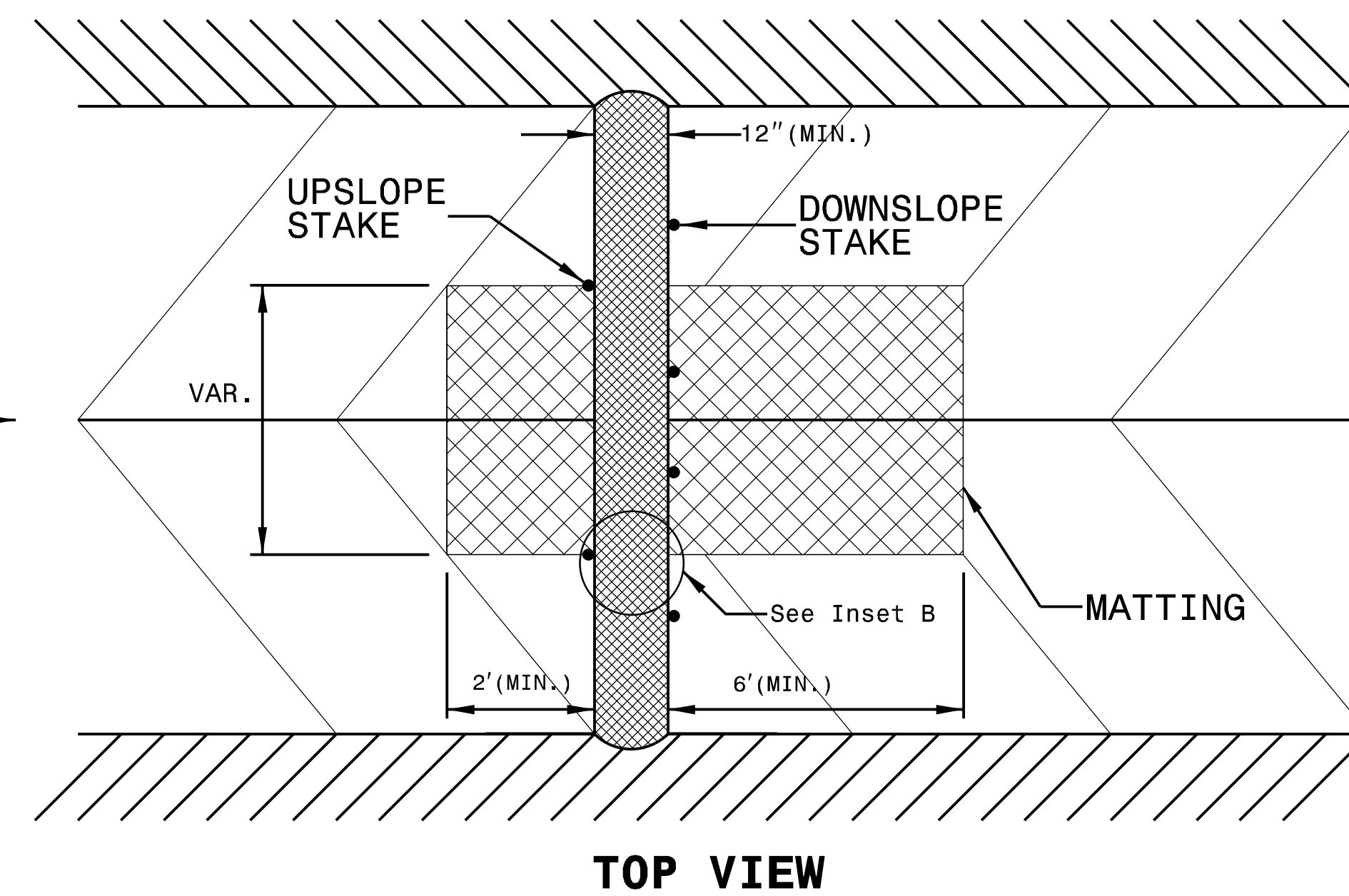
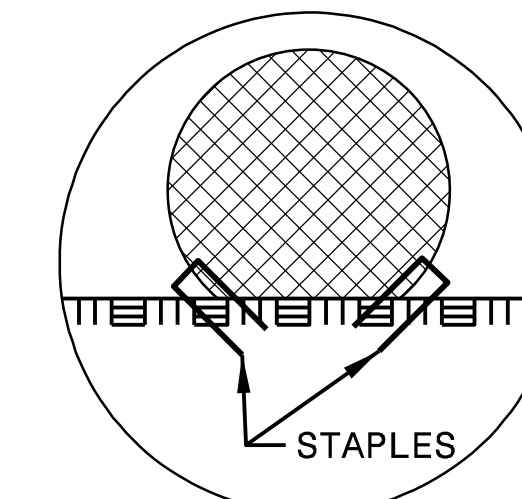
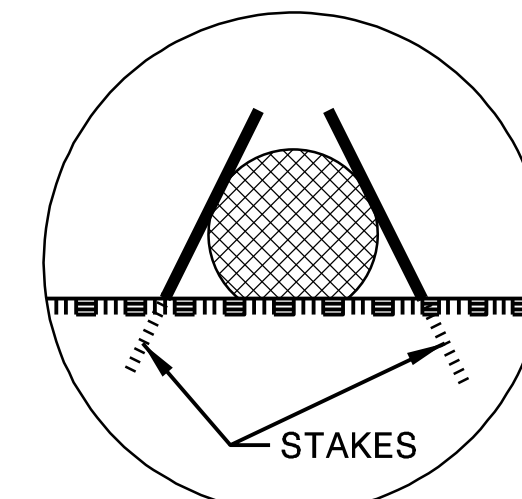
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



NCDOT - ROADSIDE ENVIRONMENTAL UNIT
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 1557 MAIL SERVICE CENTER, RALEIGH, NC 27699-1557
 PH: 919-707-2920 FAX: 919-715-2554
http://www.ncdot.org/doh/operations/dp_chief_eng/roadside/

US 401
 Harnett County, Lillington
 WBS#: 46305.3.54

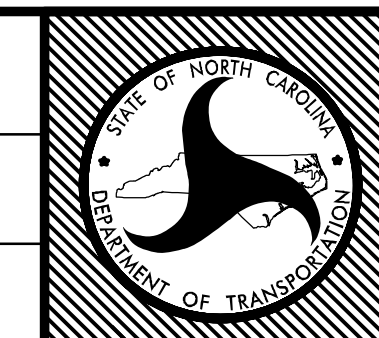
reu engineer :

Core Fiber Wattle Details

prel design date: Aug. 5 2019

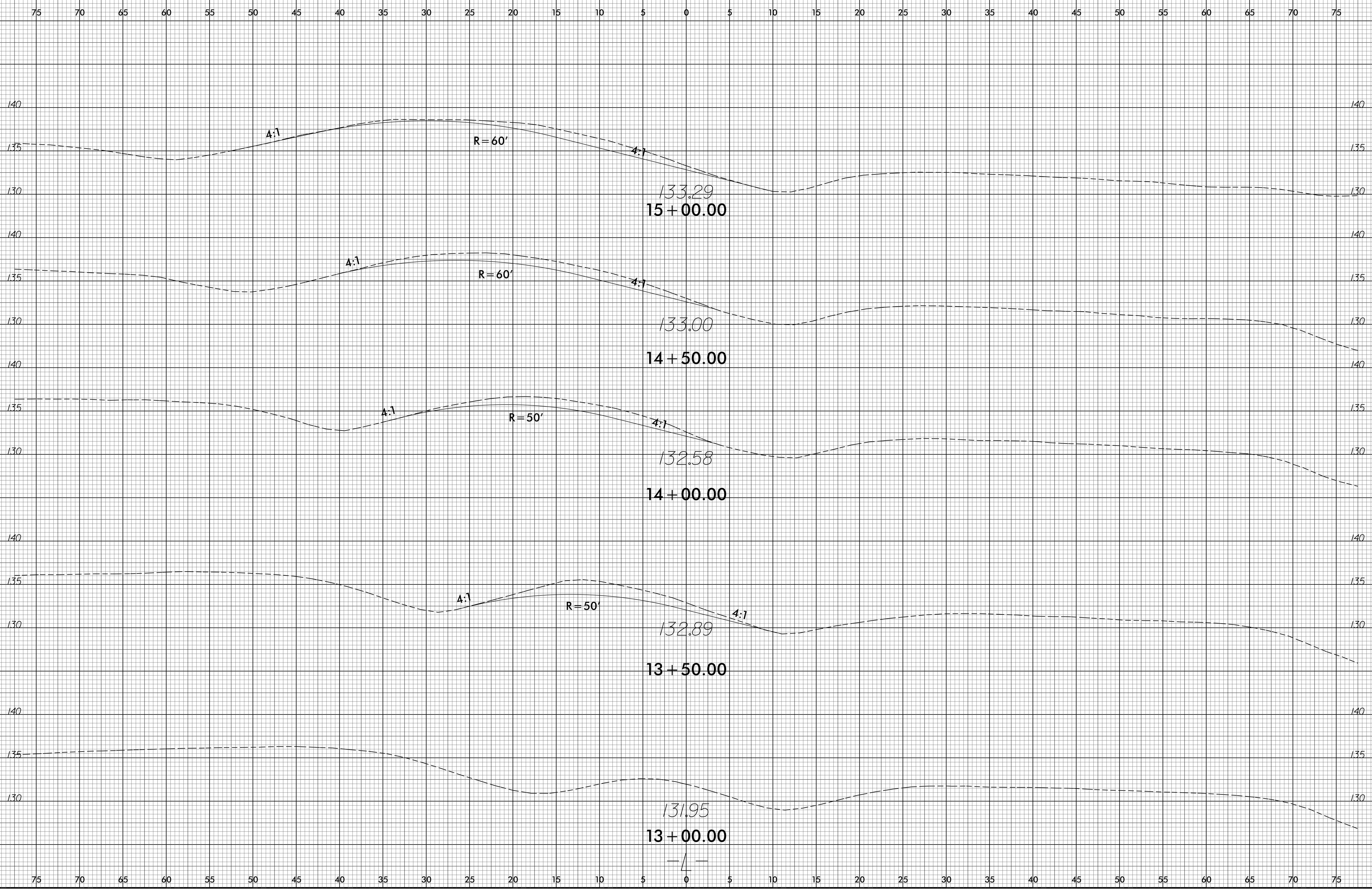
checked by & date :

final design date :

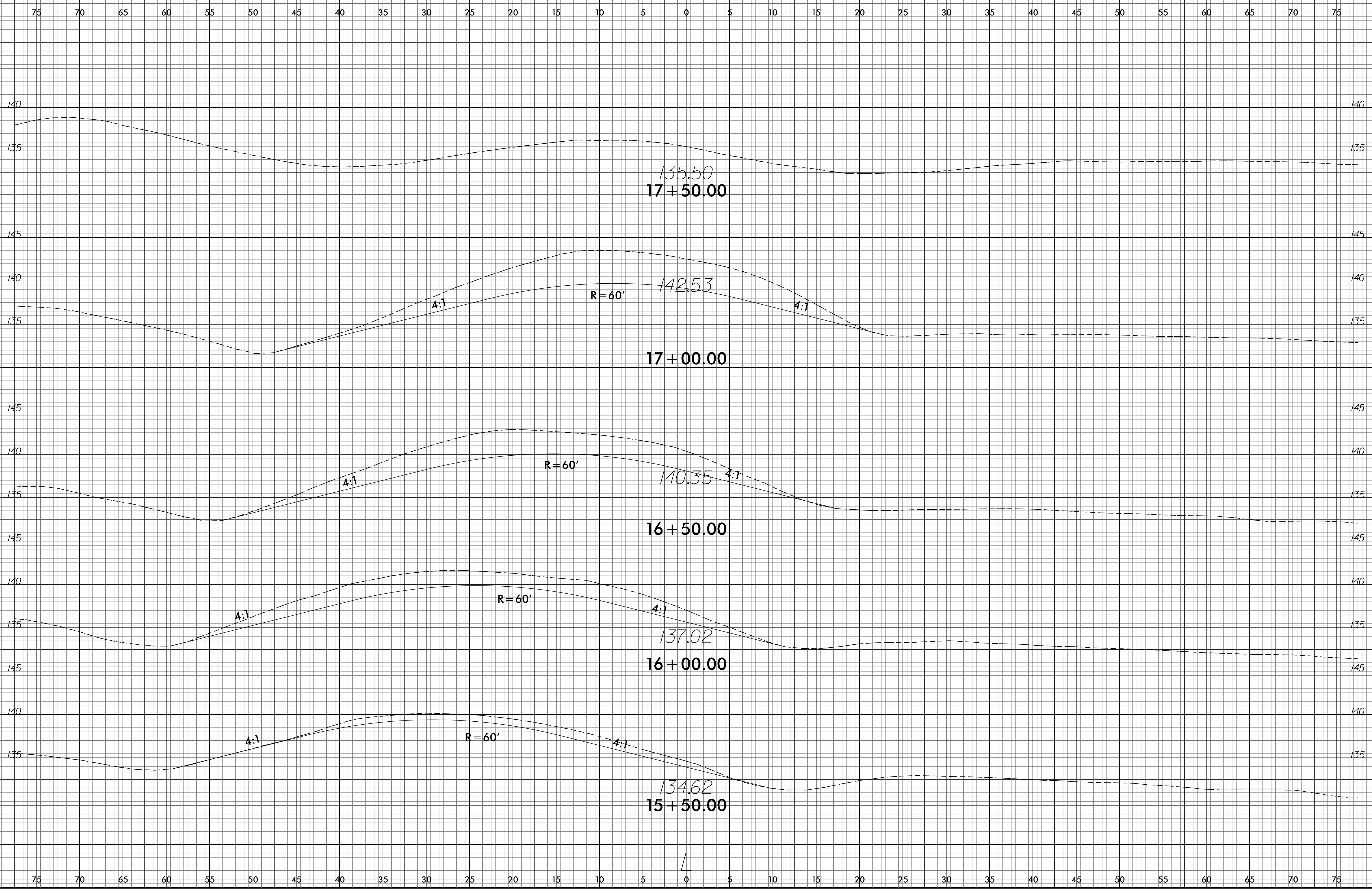


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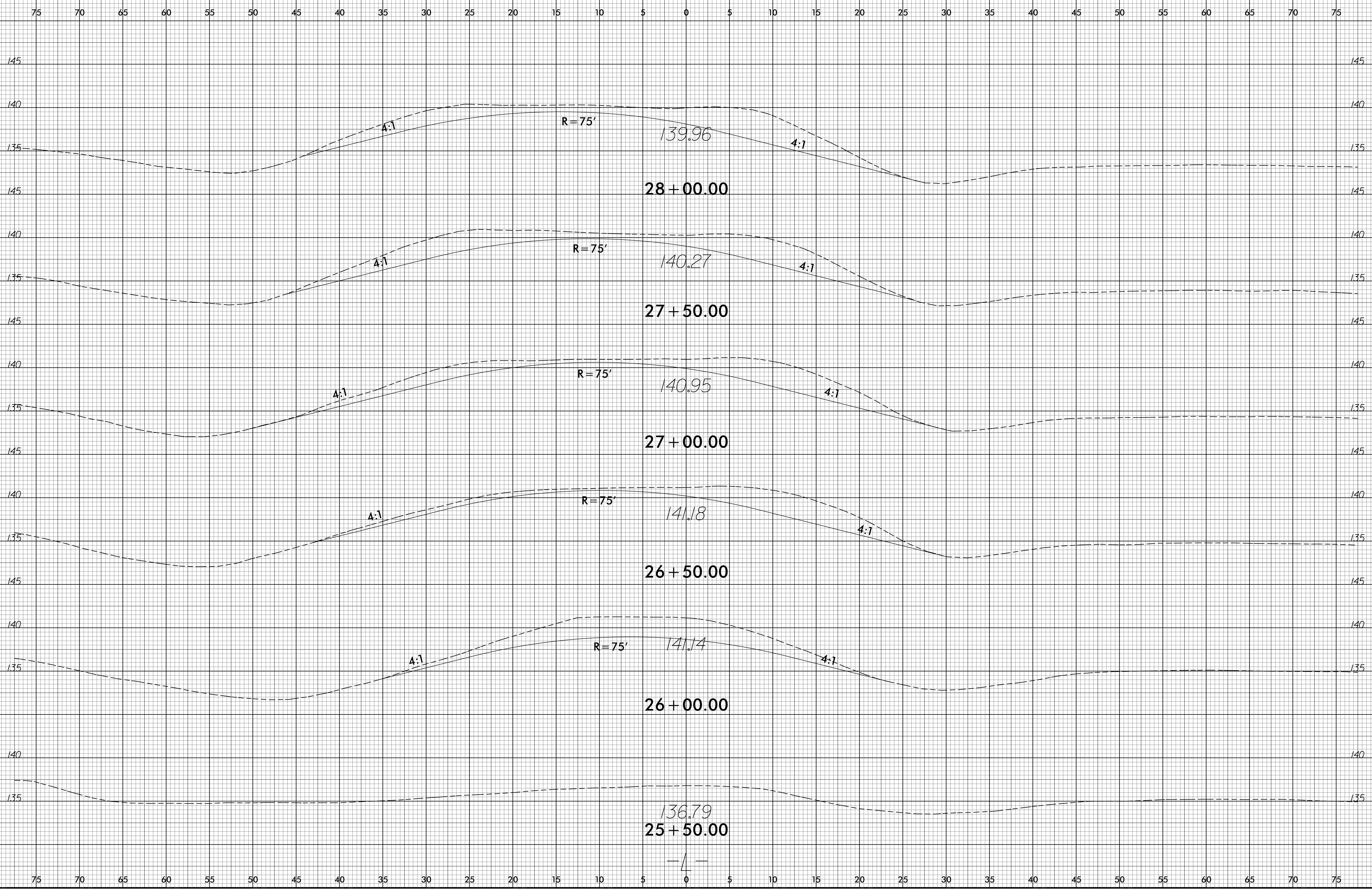
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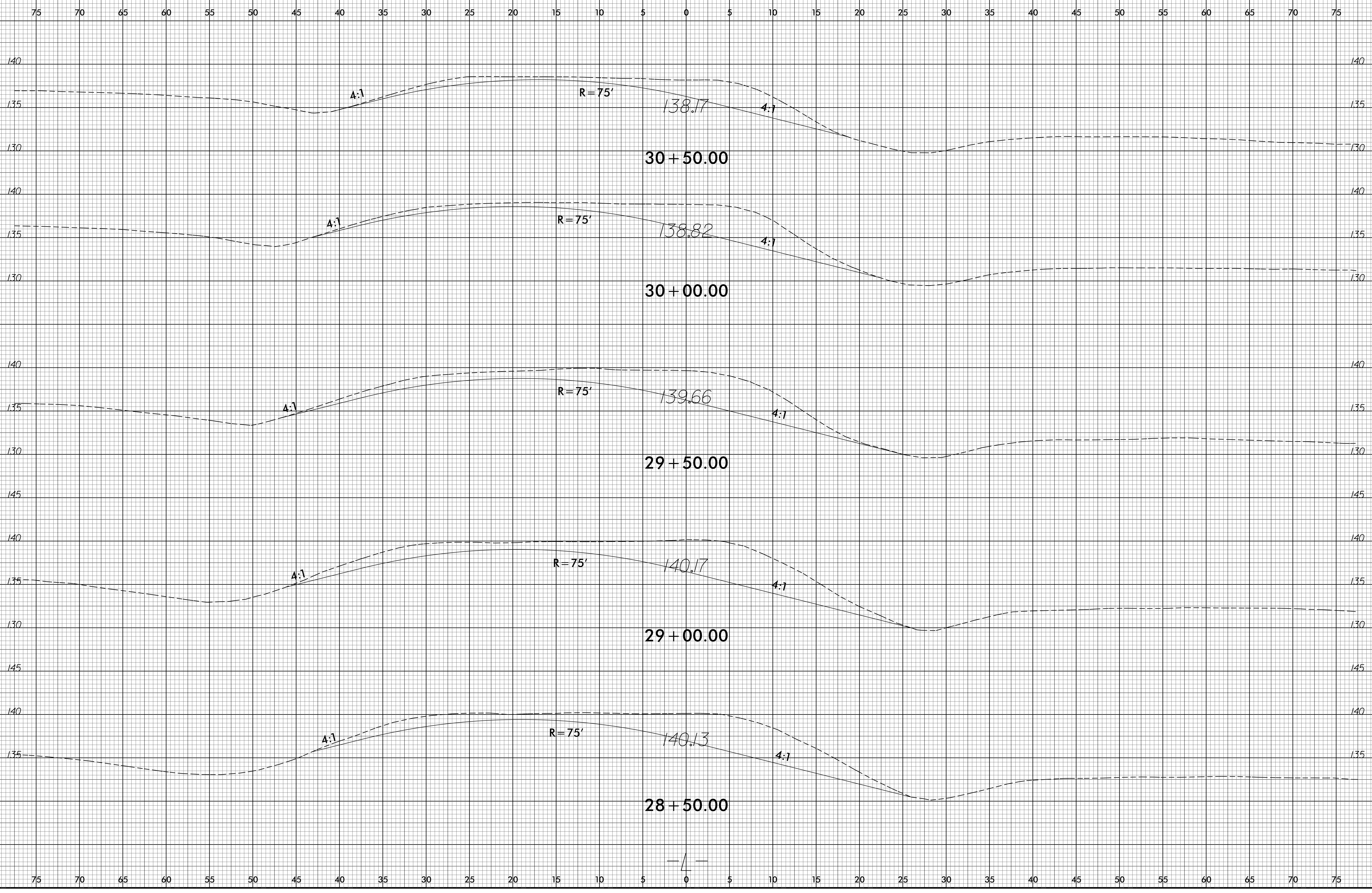


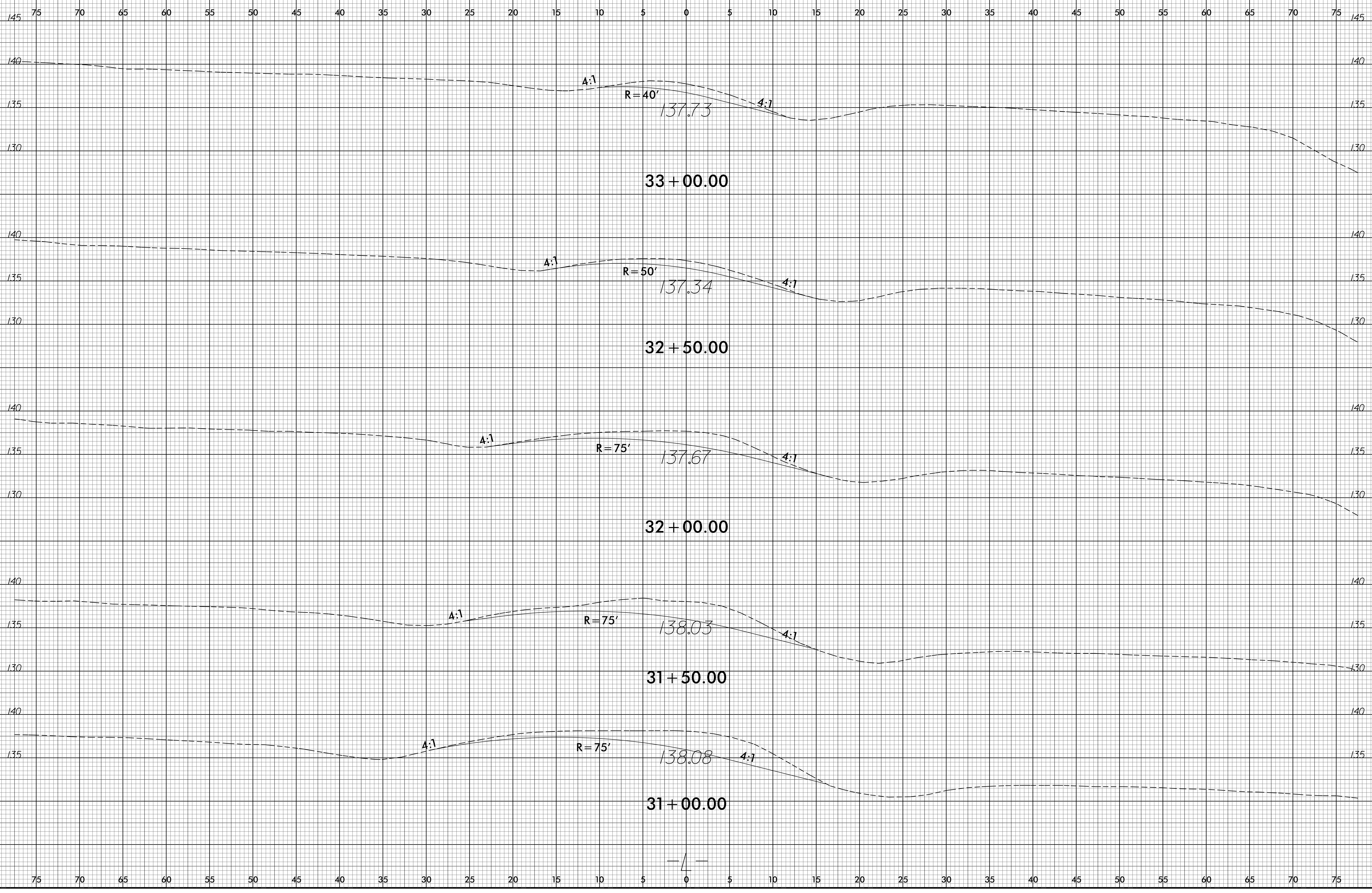
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