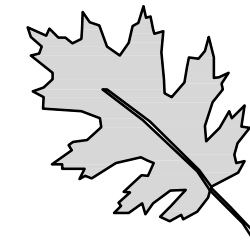
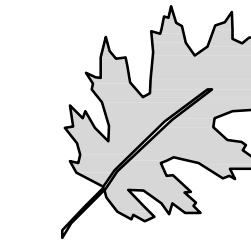


PROJECT: ER-5600MC NCDOT ROADWAY ENHANCEMENT

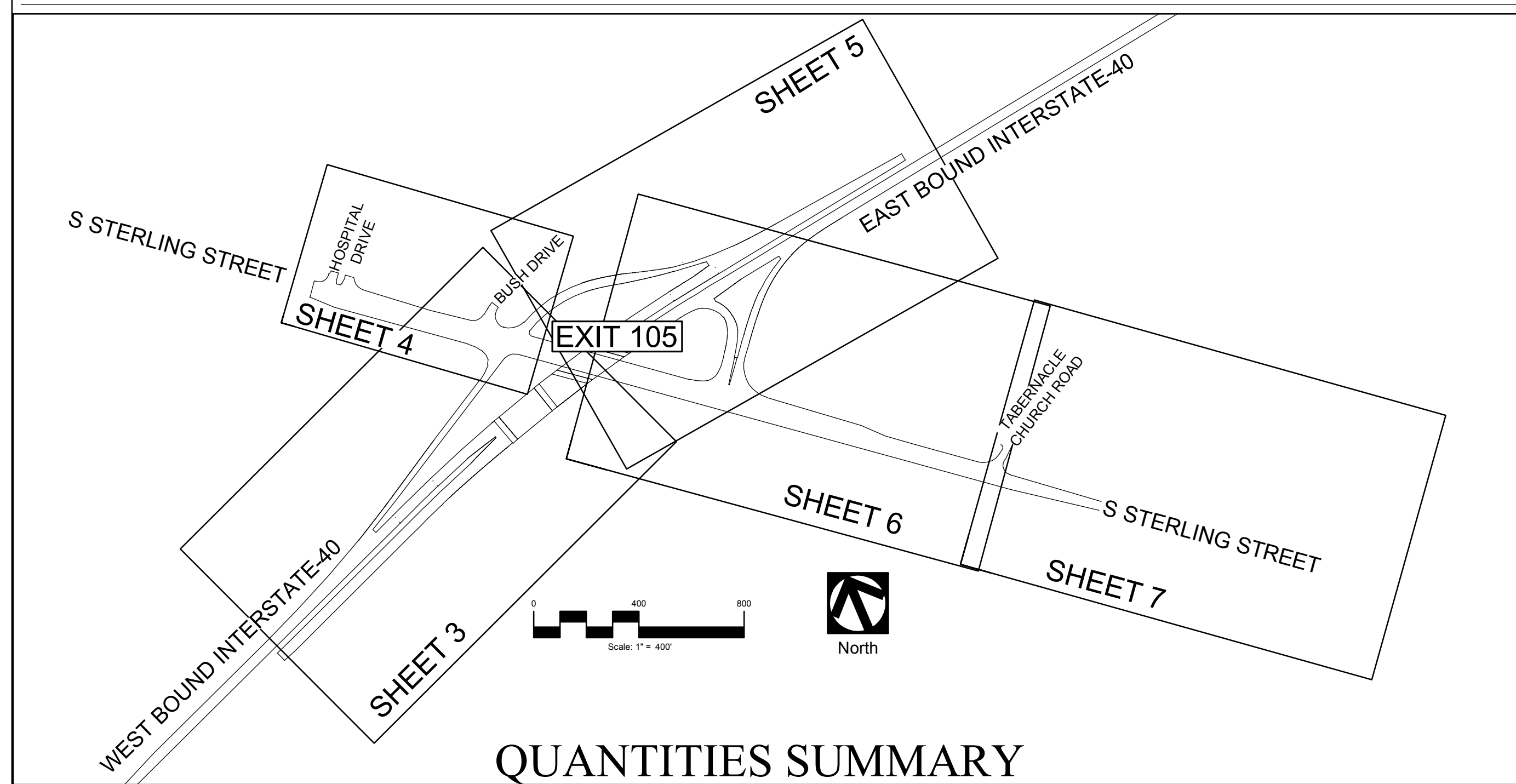


PROPOSED HIGHWAY LANDSCAPE DEVELOPMENT PROJECT



T.I.P. #	STATE PROJECT W.B.S. #	SHEET #	SHEET # TOTAL
ER-5600MC	46305.63	1	7
FED. PROJ. #	DESCRIPTION		DIVISION
STP-0040(94)	S STERLING ST FROM HOSPITAL RD TO DREXEL RD		13

SHEET LEGEND



QUANTITIES SUMMARY

Trees

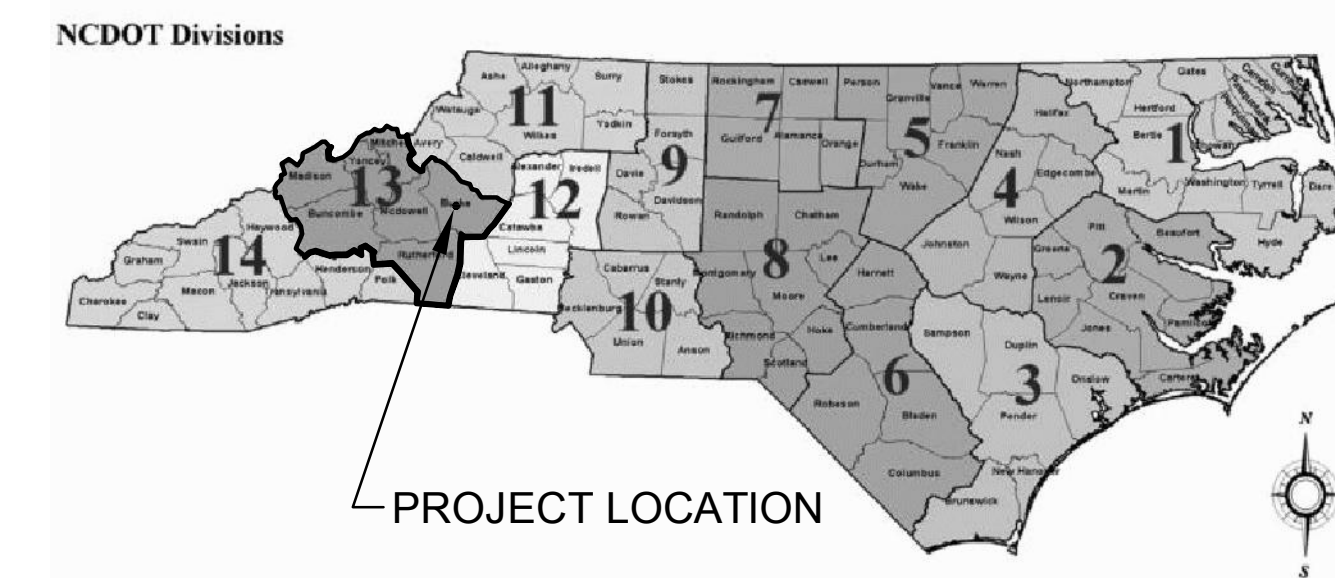
CODE	Count	BOTANICAL_NAME	COMMON_NAME	CALIPER	HEIGHT	SPREAD	SPACING	COMMENTS
ABS	3	Amelanchier x grandiflora 'Autumn Brilliance'	'Autumn Brilliance' Serviceberry	1" Min. Ea.	8-9'	----	----	BB, Multi-stem, White Flwrs
CM	57	Lagerstroemia indica x fauriei 'Muskogee'	Muskogee Crape Myrtle	1-1.5" Each	10-12'	----	----	BB, Specimen, Single Trunk to Match Existing on Road
NSH	3	Ilex x Nellie R. Stevens	Nellie Stevens Holly	----	7-8'	4-5'	10' o.c.	BB, Full to ground, Specimen
SHU	5	Quercus shumardii	Shumard Oak	2.5-3"	12-14'	----	----	BB, Specimen

Shrubs

CODE	Count	BOTANICAL_NAME	COMMON_NAME	HEIGHT	SPREAD	SPACING	NATIVE
BBY	24	Callicarpa americana	American Beautyberry	12-15"	15-24", #3 Cont.	5' o.c.	Yes
DAY	660	Hemerocallis 'Happy Returns'	'Happy Returns' Daylily	Full	Full, Qt. Cont.	18" o.c.	----
DBB	169	Euonymus alatus 'Odom'	Little Moses Burning Bush	18-24"	24" Min, #3 Cont.	8' o.c.	----
GH	246	Ilex crenata 'Golden Helli'	Golden Helli Holly	12-15"	15-24", #3 Cont.	4' o.c.	----
KRG	31	Pennisetum orientale 'Karley Rose'	'Karley Rose' Fountain Grass	15-18"	15-24", #3 Cont.	3' o.c.	----
MG	29	Muhlenbergia capillaris	Muhly Grass	15-18"	12-15", #1 Cont.	3' o.c.	Yes
NWS	272	Panicum virgatum 'Northwind'	'Northwind' Swith Grass	15-18"	12-15", #3 Cont.	5' o.c.	Yes
STH	90	Ilex crenata 'Soft Touch'	Soft Touch Holly	12" Min.	12-15", #3 Cont.	3.5' o.c.	----
VIB	158	Viburnum dentatum 'Chicago Lustre'	Arrowwood Viburnum	18-24"	18-24", #3 Cont.	8' o.c.	Yes
VL	1021	Liriope muscari 'Variegata'	Variegated Liriope	Full	Full, Qt. Cont.	12" o.c.	----
WEI	112	Weigela florida 'Variegata'	Variegated Weigela	18-24"	18-24", #3 Cont.	5' o.c.	----
ZL	5	Loropetalum chinensis 'Zhouzhou'	Zhouzhou Loropetalum	18-24"	18-24", #3 Cont.	8' o.c.	----

NOTE	QUANTITY	DESCRIPTION
Mulch	800 C.Y.	Total Mulch (Double Ground Pine Bark Mulch)
A	----	Potential Wildflower bed by NCDOT
B	----	Not in Use
C	66 C.Y.	Mid-sized Rip Rap (4-8" angular rock)
C	41 C.Y.	Medium Winding River Rounds
C	8 C.Y.	Small Winding River Rounds
C1	20 EA.	3-4'w x 2'ht Sized Large Boulders
C1	30 EA.	1.5-2'w x 1'ht Sized Medium Boulders
C2	335 S.Y.	Geo-textile Weed Barrier Fabric
E	607 LF	6" Metal Plant Bed Edge
1	17,500 SY	Post-Emergent Herbicidal Treatment
2	17,500 SY	Pre-Emergent Herbicidal Treatment
3	12 EA	Monthly Establishment Work Cycle
4	2 AC	Seeding and Mulching
5	1 TON	Topdressing Fertilizer
6	10.00 M/G	Water for Planting

LOCATION



NOTES

- A. POTENTIAL WILDFLOWER BED BY NCDOT: POTENTIAL WILDFLOWER BEDS ARE INDICATED AND LABELED ON THE PLANS. CONFIRM WITH NCDOT PRIOR TO CONSTRUCTION IF SPECIAL PREPARATION SHOULD BE TAKEN WITH POTENTIAL WILDFLOWER BED AND/OR IF LOCATION SHOULD RECEIVE SUPPLEMENTAL SEEDING AND TOP-DRESSING.
 - B. SUPPLEMENTAL SEEDING AND TOP-DRESSING: MOWED TURF AREAS LOCATED TO THE INSIDE OF THE RAMPS, AND BETWEEN THE EDGES OF PAVEMENT, THE NATURAL AREAS, AND/OR PLANT BEDS SHALL RECEIVE TOP-DRESSING AND SUPPLEMENTAL SEEDING. INTERIOR OF MEDIANS NOT LABELED AS PLANT BEDS TO BE RECEIVE TOP-DRESSING AND SUPPLEMENTAL SEEDING WITH LOW MAINTENANCE SEED. LAWN AREAS BETWEEN BACK OF CURB AND SIDEWALK ALONG S STERLING STREET TO RECEIVE TOP-DRESSING AND SUPPLEMENTAL SEEDING. CONTINUE UNTIL HEALTHY GRASS STRAND IS ESTABLISHED.
 - C. DRY CREEK BED: INSTALL APPROPRIATE EROSION CONTROL DEVICES AS DIRECTED BY THE ENGINEER IN THE FILED PRIOR TO ANY SOIL DISTURBING ACTIVITIES. REMOVE EXISTING VEGETATION, GRADE TIERS FOR HOLDING ROCK WITH POSITIVE DRAINAGE. INSTALL GEO-TEXTILE, INSTALL BOULDERS, FILL CREEK BED WITH INTERMIXED SIZES OF WINDING RIVER ROUNDS AS DIRECTED BY THE ENGINEER IN THE FIELD.
 - D. PROPOSED NEW PLANT BEDS AND RENOVATED PLANT BEDS: PLANT BEDS ARE INDICATED AND LABELED ON THE PLANS. STAKE PLANT BED PERIMETERS FOR APPROVAL BY THE ENGINEER PRIOR TO BEGINNING OF WORK. INSTALL EROSION CONTROL DEVICES AS DIRECTED BY THE ENGINEER IN THE FIELD IF NEEDED. EXISTING PLANTS TO BE RETAINED, IF ANY, WILL BE IDENTIFIED ON THE PLANS OR BY THE ENGINEER IN THE FIELD. APPLY POST-EMERGENCE HERBICIDE AND REPEAT AS NECESSARY TO ACHIEVE TOTAL KILL OF UNDESIRABLE VEGETATION. TAKE CARE NOT TO DAMAGE EXISTING VEGETATION TO BE RETAINED. REMOVE DEAD VEGETATIVE LAYER, TILL, AND RAKE TO SMOOTH AND LEVEL PLANT BED. IF TILLING IN THE VICINITY OF EXISTING TREES TO BE RETAINED DO NOT ENCROACH INTO AREA BENEATH DRIPLINE. TO PREVENT PROBLEMS FROM SHREDDING OF ROOTS, SMOOTHLY CUT ANY ROOTS ONE INCH OR GREATER THAT EXTEND BEYOND THE DRIPLINE INTO TILLED AREA. PLANT AS SHOWN ON PLANS.
NEW PLANTING AREAS: MULCH ENTIRE PLANT BED.
NEW TREE PLANTINGS: MULCH TREE RING, SIZE NOTED ON PLANT LIST.
 - E. 6" METAL EDGING ALONG BOTTOM OF PLANT BEDS AS NOTED ON PLANS. 1/8" THICKNESS OR APPROVED OTHER BY NCDOT ENVIRONMENTAL ENGINEER.
- NOTE: ALL REVISIONS OR CHANGES TO BE APPROVED BY DIVISION ROADSIDE ENVIRONMENTAL ENGINEER.**
- NOTE: DIVISION ROADSIDE ENVIRONMENTAL ENGINEER TO APPROVE PLANT BED LAYOUT PRIOR TO INSTALL.**

CONVENTIONAL SYMBOLS

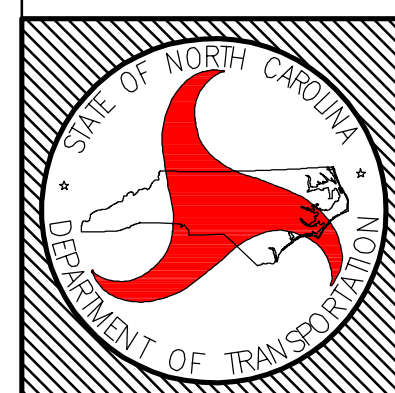
- EXISTING RIGHT-OF-WAY
- x-x- EXISTING FENCE
- o-o-o- EXISTING GUARDRAIL
- - - - PROJECT LIMITS
- w-w-w- EXISTING TREELINE / VEGETATION
- e-e-e- EXISTING OVERHEAD UTILITIES
- ==== NEW PLANT BED LIMITS
- ||||| SHRUB MASSING
- / EXISTING HIGHWAY SIGN
- EXISTING BRIDGE
- EXISTING EDGE OF PAVEMENT

INDEX OF SHEETS

- 1 TITLE, DESCRIPTION, NOTES AND SUMMARY OF QUANTITIES
- 2 PLANTING DETAILS
- 3-7 LANDSCAPE PLANS

NOTABLE PAGES:

- 3 & 5 INTERSTATE 40 INTERCHANGE #105



STATE OF
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

LOCATION: NCDOT Roadway Enhancement at S Sterling St and Interstate 40 Interchange Exit 105

TYPE OF WORK: LANDSCAPE DEVELOPMENT

COUNTY: BURKE

DIVISION: 13
ADDRESS: 55 Orange Street, Asheville, NC 28801

DIV. ENG: Mark Gibbs, PE

DIV. ROADSIDE ENGINEER: Jeff Wait

2018 NCDOT STANDARD SPECIFICATIONS

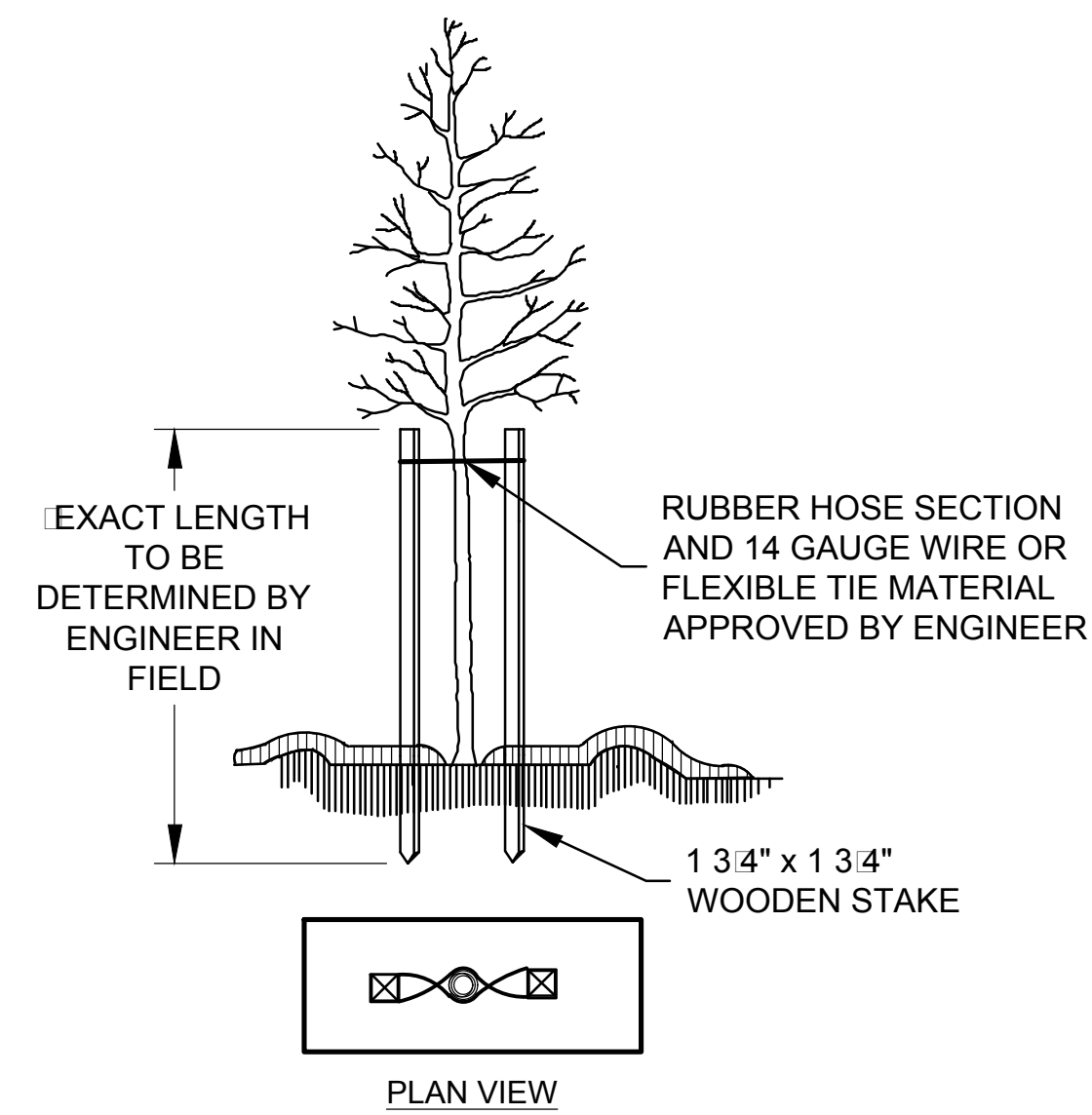
PREPARED IN THE OFFICE OF:
stimmel
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601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
www.stimmelpa.com 336.723.1067

PREPARED BY: KMB, TAG

PRELIMINARY DESIGN DATE: September 1, 2015

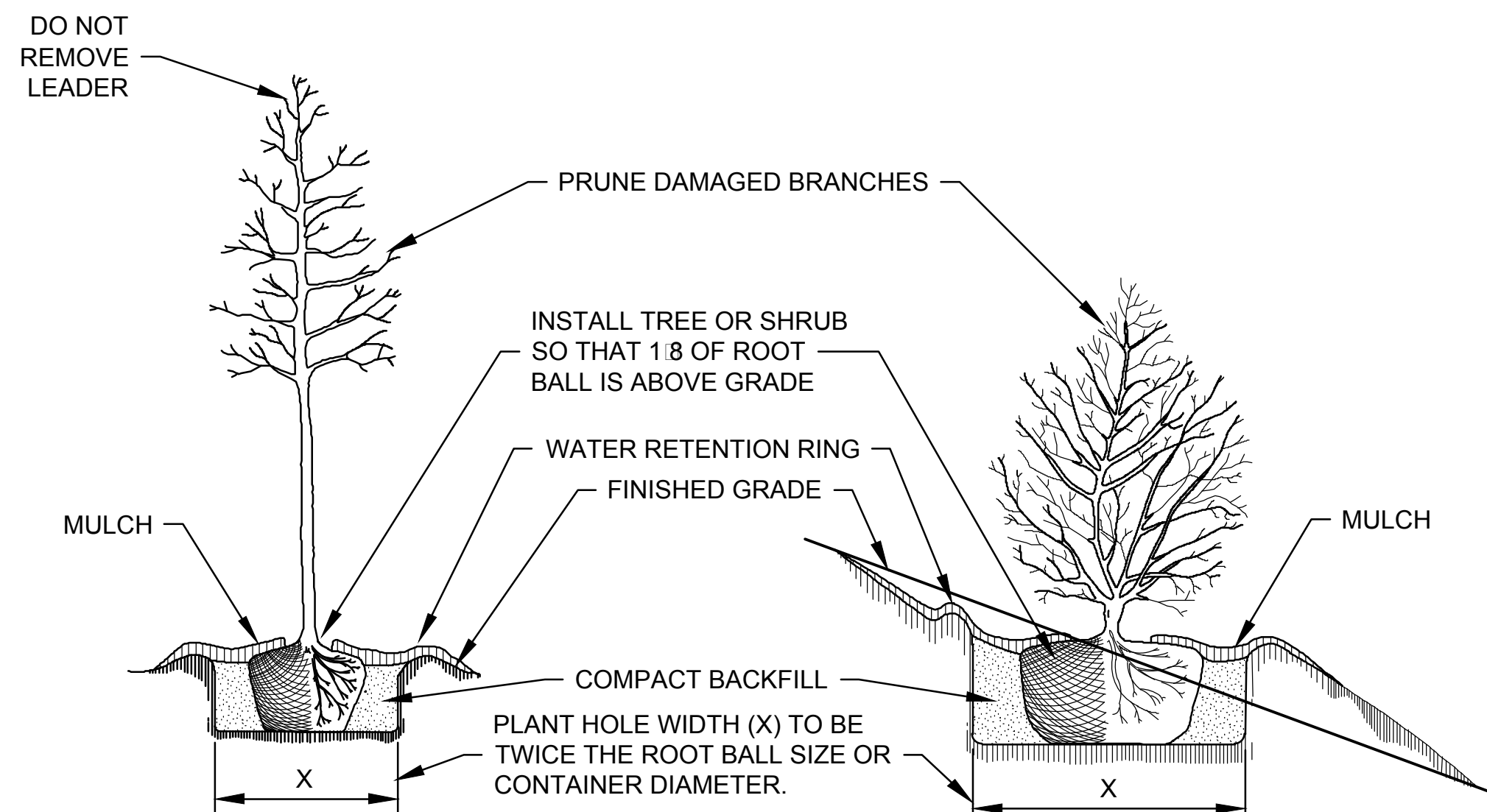
FINAL DESIGN DATE: September 19, 2018

REVISION DATE: ----

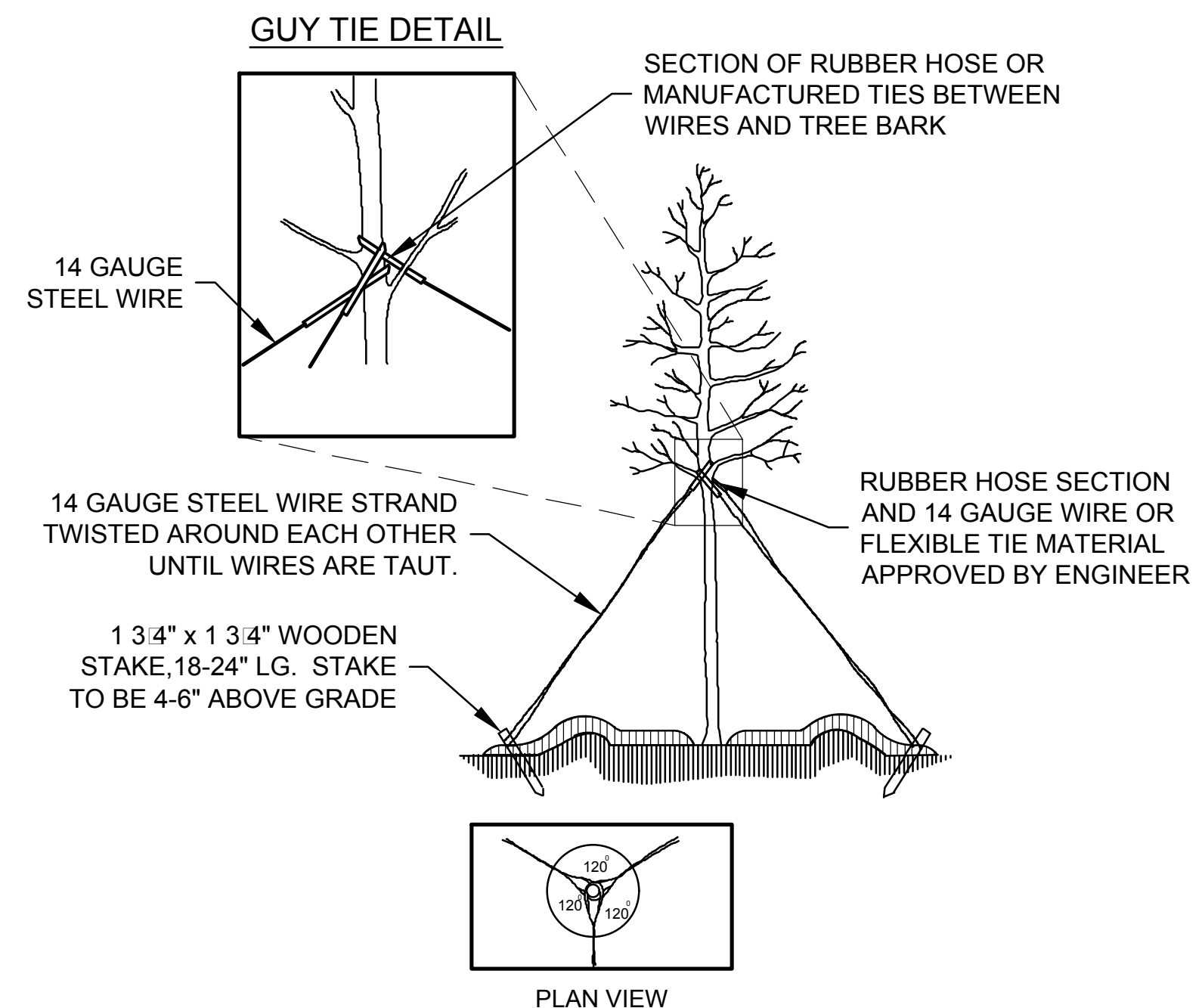


STAKING DETAIL
(TREES 6'-10')

USE AS DIRECTED BY FIELD ENGINEER

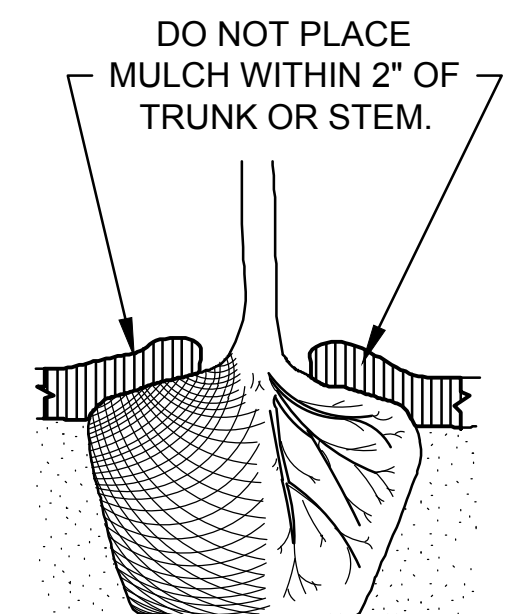


TREE OR SHRUB PLANTING DETAIL (LEVEL GROUND) **TREE OR SHRUB PLANTING DETAIL** (SLOPING GROUND)

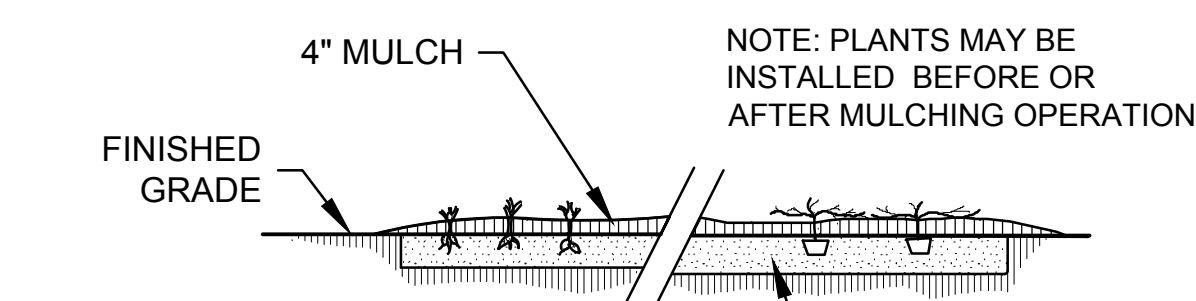


GUYING DETAIL
(TREES 10' OR LARGER)

USE AS DIRECTED BY FIELD ENGINEER

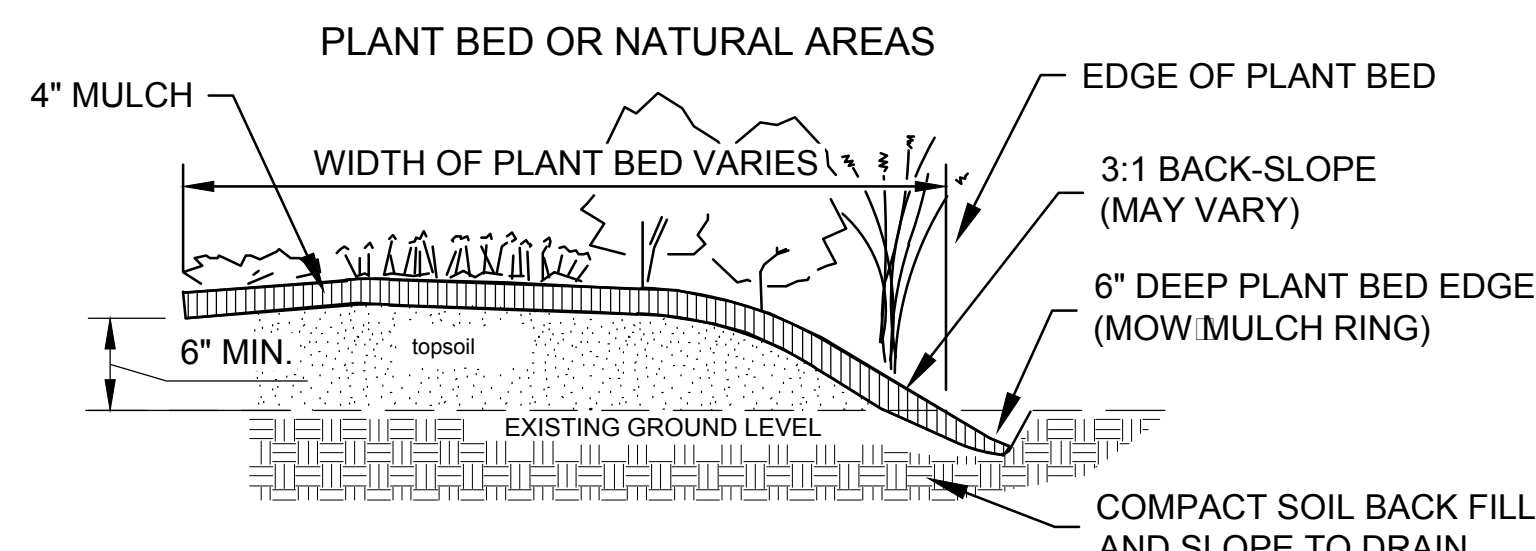


MULCH DETAIL

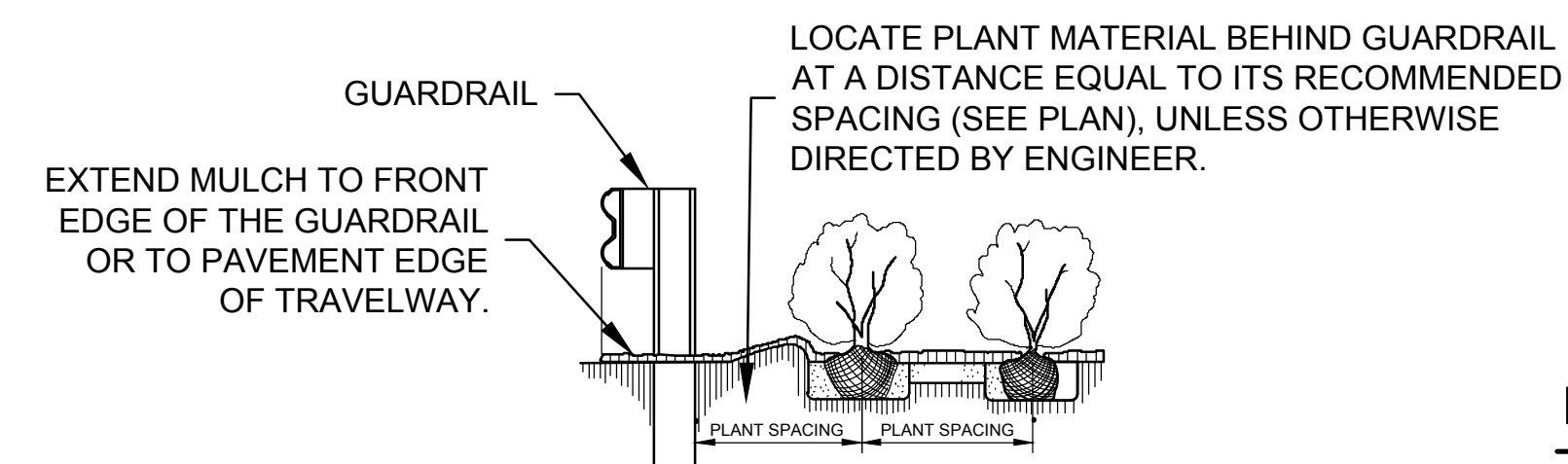


BEFORE PLANTING, SCARIFY SOIL TO A MIN. DEPTH OF 6 inch OR 2 inch DEEPER THAN CONTAINER SIZE, WHICHEVER IS GREATER.

GROUND COVER BEDDING PLANT DETAIL

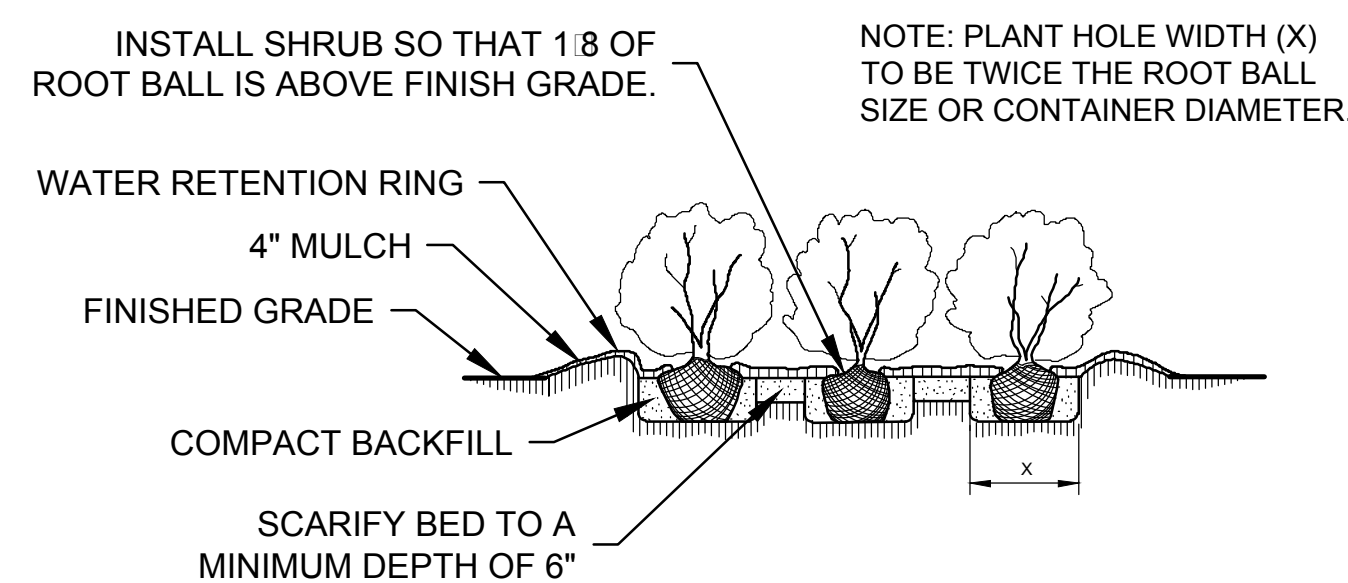


PLANT BED EDGE DETAIL



GUARDRAIL MULCHING DETAIL

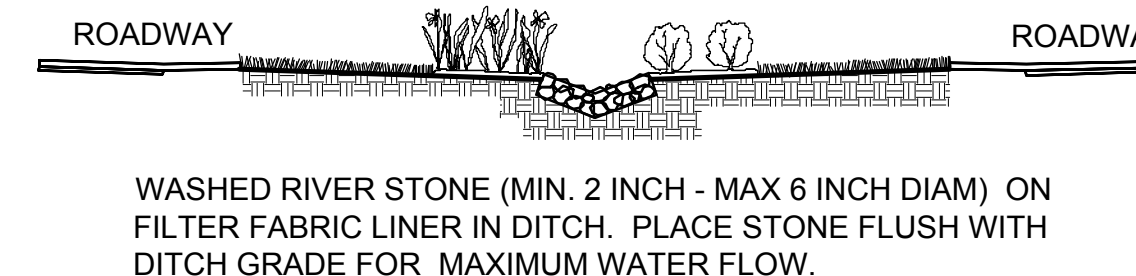
USE AS DIRECTED BY FIELD ENGINEER



SHRUB BED PLANTING DETAIL



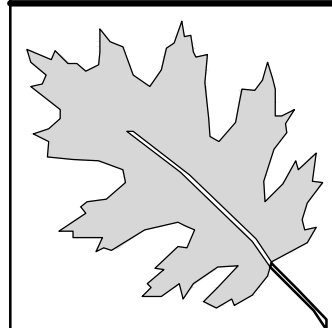
BOULDER PLACEMENT DETAIL TYPICAL



RIVERSTONE DITCH LINING DETAIL

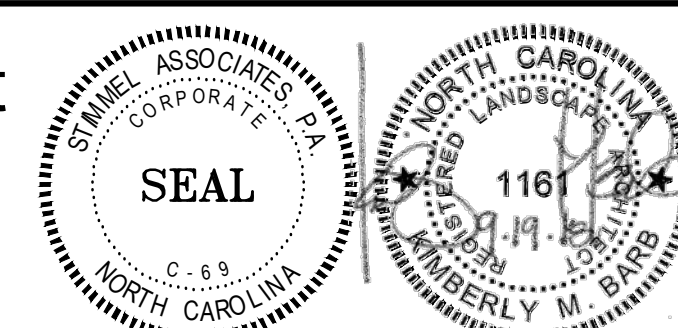
DETAIL NOTES

- SCHEDULE FOR PLANT HOLE SIZE: PLANT HOLE WIDTH (X) TO BE TWICE THE ROOT BALL SIZE OR CONTAINER DIAMETER.
- SEE STANDARD SPECIFICATIONS FOR PLANT BED FUMIGATION AND HERBICIDAL TREATMENT.
- APPLY FERTILIZER AT PLANTING TIME IN THE FORM OF A SLOW RELEASE PELLETT OR TABLET. APPLY AT RATE RECOMMENDED BY MANUFACTURER. BOTH RATE AND FORMULATION MUST BE APPROVED BY FIELD ENGINEER PRIOR TO APPLICATION.
- REMOVE WIRE BASKET AND FOLD BURLAP BACK FROM TOP OF ROOT BALL BEFORE BACKFILLING IS COMPLETE.
- ALL PRUNING TO FOLLOW STANDARD ARBORICULTURAL PRACTICES AS 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.



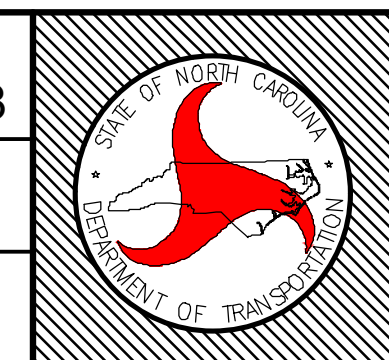
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**NCDOT Roadway Enhancement
Morganton Interchange
Exit 105**

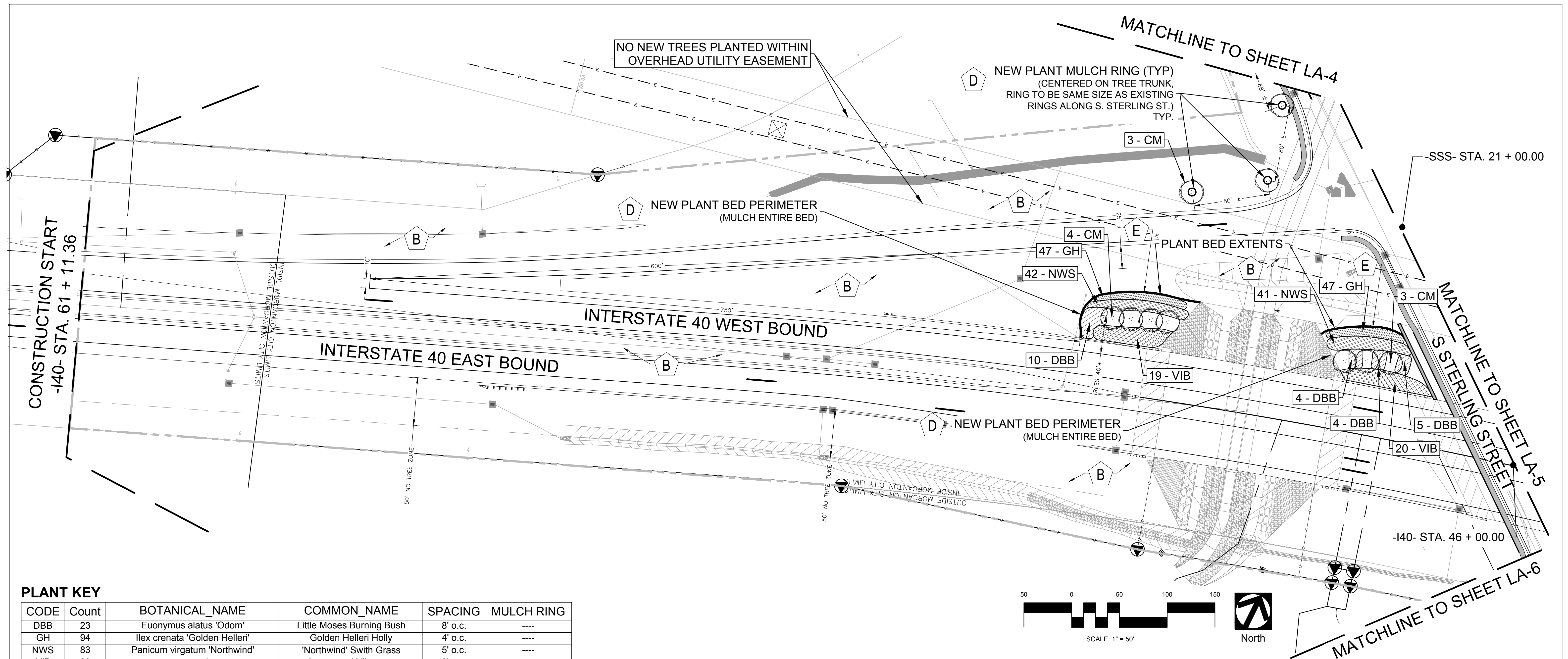


LANDSCAPE DEVELOPMENT
Landscape Planting

PRELIMINARY DESIGN DATE: 09/01/15 FINAL DESIGN DATE: 09/19/18
PROJECT: ER-5600MC - WBS #: 46305.3.63
DIVISION AND COUNTY: Division 13 - Burke County



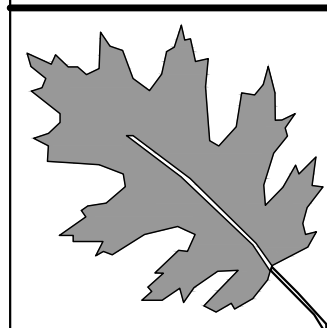
SHEET NO.: **LA-2**
TOTAL SHEET NO.: 7



PLANT KEY

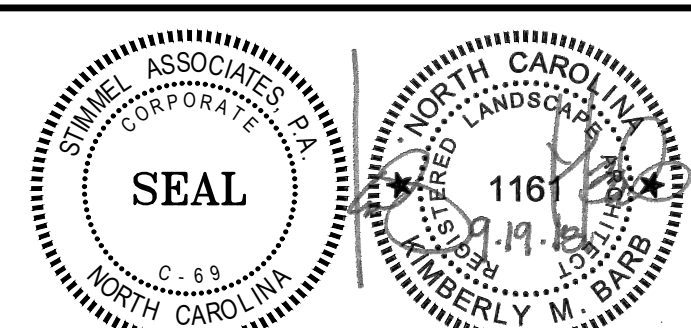
CODE	Count	BOTANICAL_NAME	COMMON_NAME	SPACING	MULCH RING
DBB	23	Euonymus alatus 'Odom'	Little Moses Burning Bush	8' o.c.	----
GH	94	Ilex crenata 'Golden Helli'	Golden Helli Holly	4' o.c.	----
NWS	83	Panicum virgatum 'Northwind'	'Northwind' Swith Grass	5' o.c.	----
VIB	39	Viburnum dentatum 'Chicago Lustre'	Arrowwood Viburnum	8' o.c.	----
CM	10	Lagerstroemia indica x fauriei 'Muskogee'	Muskogee Crape Myrtle	AS NOTED	8' dia.
NOTE	QUANTITY	DESCRIPTION			
---	135.89 C.Y.	Mulch this sheet			
C	0	Mid-sized Rip Rap (4-8" angular rock)			
C	0	Small Winding River Rounds (1/3 of area)			
C1	0	3-4'w x 2'ht Sized Large Boulders			
C1	0	1.5-2'w x 1'ht Sized Medium Boulders			
C2	0	Geo-textile Weed Barrier Fabric			
E	198 LF	6" Metal Plant Bed Edge at Bottom of Beds			

SEE COVER SHEET FOR DETAILED DESCRIPTION.



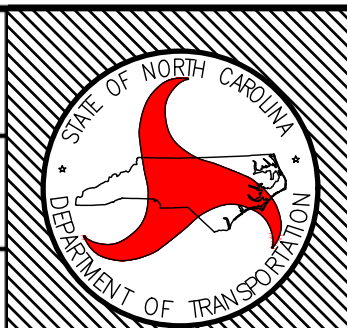
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NCDOT Roadway Enhancement
 Morganton Interchange
 Exit 105

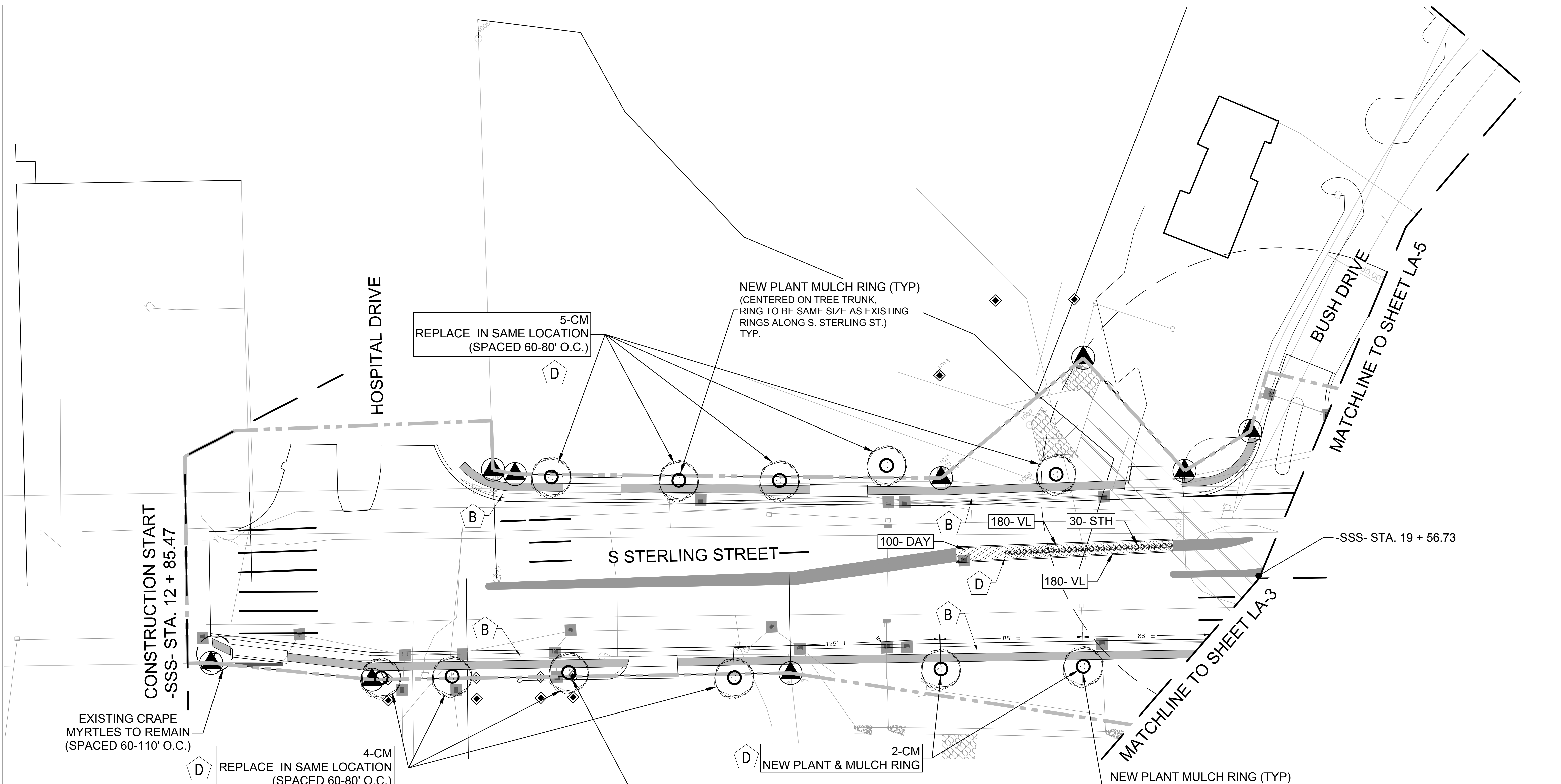


SHEET DESCRIPTION: **LANDSCAPE DEVELOPMENT**
 Landscape Planting

PRELIMINARY DESIGN DATE: 09/01/15
 FINAL DESIGN DATE: 09/19/18
 PROJECT: ER-5600MC - WBS #: 46305.3.63
 DIVISION AND COUNTY: Division 13 - Burke County



SHEET NO: **LA-3**
 TOTAL SHEET NO: 7



EXISTING CRAPE MYRTLES TO REMAIN (SPACED 60-110' O.C.)

4-CM REPLACE IN SAME LOCATION (SPACED 60-80' O.C.)

5-CM REPLACE IN SAME LOCATION (SPACED 60-80' O.C.)

NEW PLANT MULCH RING (TYP) (CENTERED ON TREE TRUNK, RING TO BE SAME SIZE AS EXISTING RINGS ALONG S. STERLING ST.) TYP.

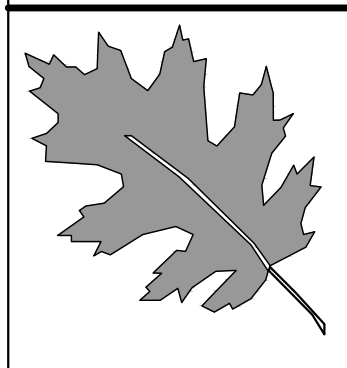
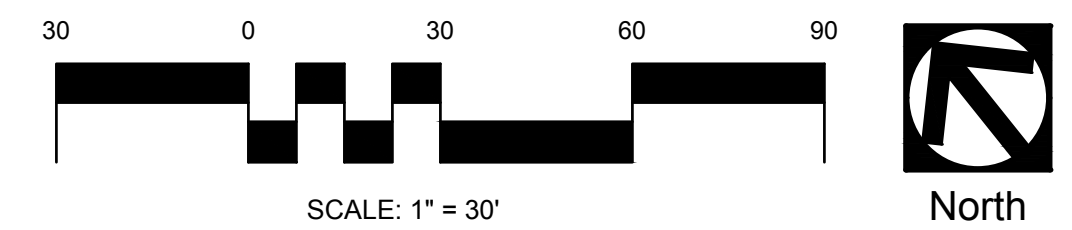
2-CM NEW PLANT & MULCH RING

NEW PLANT MULCH RING (TYP) (CENTERED ON TREE TRUNK, RING TO BE SAME SIZE AS EXISTING RINGS ALONG S. STERLING ST.) TYP.

PLANT KEY

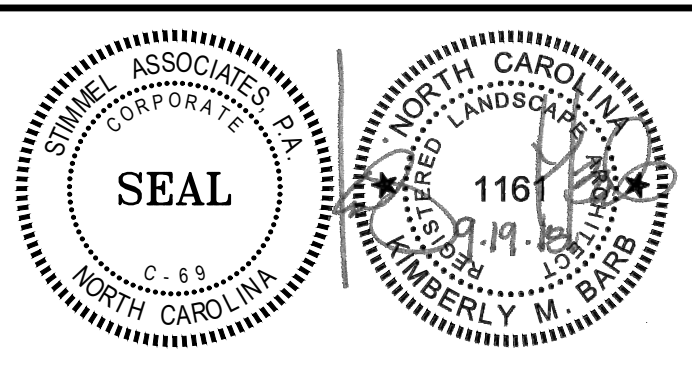
CODE	Count	BOTANICAL_NAME	COMMON_NAME	SPACING	MULCH RING
DAY	100	Hemerocallis 'Happy Returns'	'Happy Returns' Daylily	18" o.c.	----
STH	30	Ilex crenata 'Soft Touch'	Soft Touch Holly	3.5' o.c.	----
VL	360	Liriope muscari 'Variegata'	Variegated Liriope	12" o.c.	----
CM	11	Lagerstroemia indica x fauriei 'Muskogee'	Muskogee Crape Myrtle	AS NOTED	8' o.c.
NOTE	QUANTITY	DESCRIPTION			
----	20.97 C.Y.	Mulch this sheet			

SEE COVER SHEET FOR DETAILED DESCRIPTION.



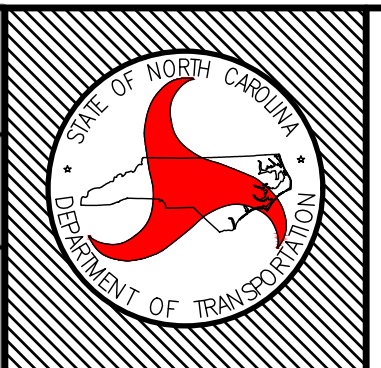
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NCDOT Roadway Enhancement
 Morganton Interchange
 Exit 105

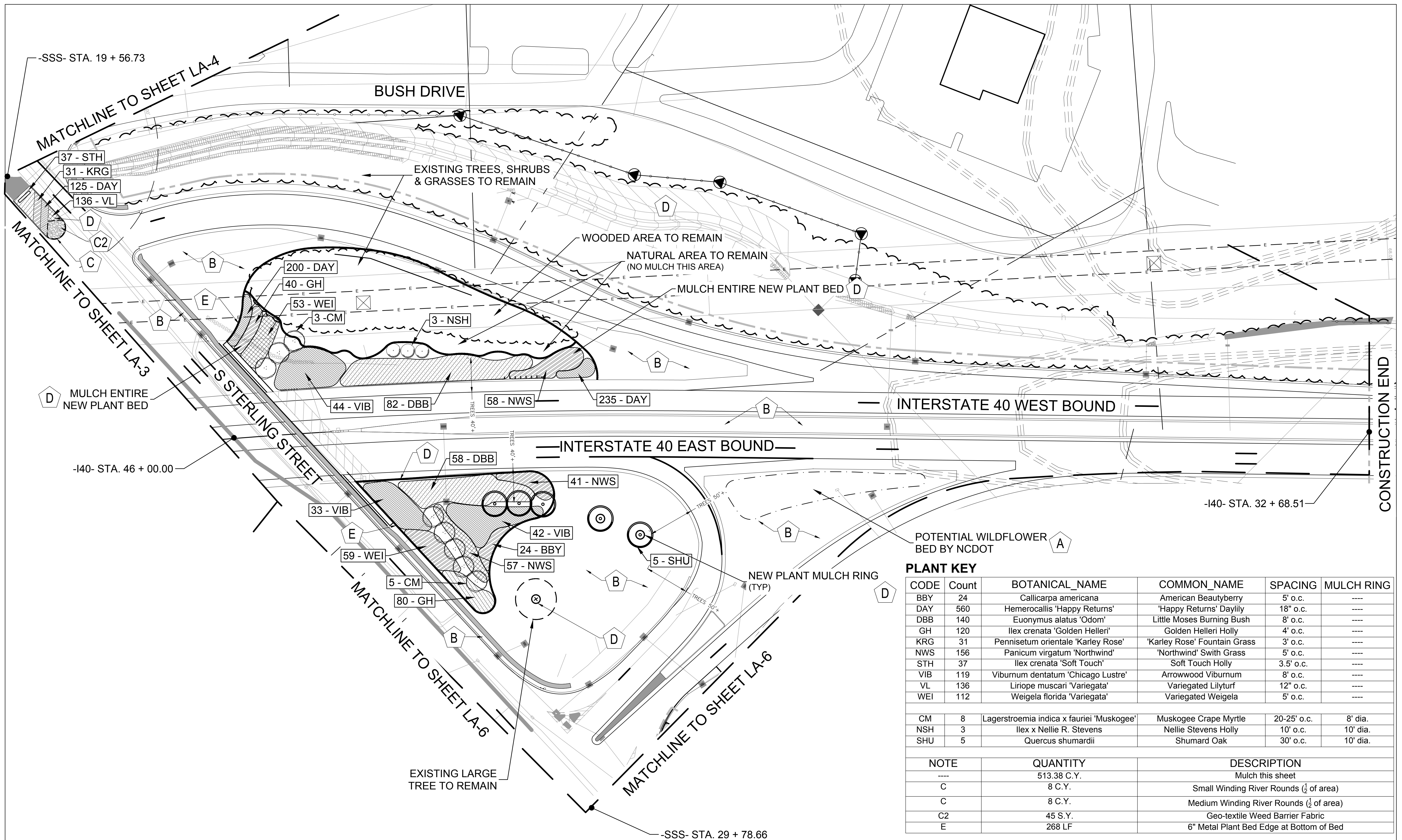


SHEET DESCRIPTION:
LANDSCAPE DEVELOPMENT
 Landscape Planting

PRELIMINARY DESIGN DATE: 09/01/15
 FINAL DESIGN DATE: 09/19/18
 PROJECT: ER-5600MC - WBS #: 46305.3.63
 DIVISION AND COUNTY: Division 13 - Burke County



SHEET NO: **LA-4**
 TOTAL SHEET NO: 7



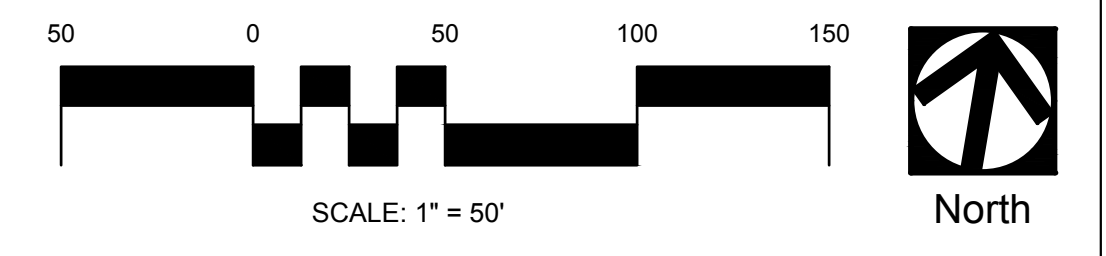
PLANT KEY

CODE	Count	BOTANICAL_NAME	COMMON_NAME	SPACING	MULCH RING
BBY	24	Callicarpa americana	American Beautyberry	5' o.c.	----
DAY	560	Hemerocallis 'Happy Returns'	'Happy Returns' Daylily	18" o.c.	----
DBB	140	Euonymus alatus 'Odor'	Little Moses Burning Bush	8' o.c.	----
GH	120	Ilex crenata 'Golden Helleri'	Golden Helleri Holly	4' o.c.	----
KRG	31	Pennisetum orientale 'Karley Rose'	'Karley Rose' Fountain Grass	3' o.c.	----
NWS	156	Panicum virgatum 'Northwind'	'Northwind' Swith Grass	5' o.c.	----
STH	37	Ilex crenata 'Soft Touch'	Soft Touch Holly	3.5' o.c.	----
VIB	119	Viburnum dentatum 'Chicago Lustre'	Arrowwood Viburnum	8' o.c.	----
VL	136	Liriope muscari 'Variegata'	Variegated Lilyturf	12" o.c.	----
WEI	112	Weigela florida 'Variegata'	Variegated Weigela	5' o.c.	----

CM	8	Lagerstroemia indica x fauriei 'Muskogee'	Muskogee Crape Myrtle	20-25' o.c.	8' dia.
NSH	3	Ilex x Nellie R. Stevens	Nellie Stevens Holly	10' o.c.	10' dia.
SHU	5	Quercus shumardii	Shumard Oak	30' o.c.	10' dia.

NOTE	QUANTITY	DESCRIPTION
----	513.38 C.Y.	Mulch this sheet
C	8 C.Y.	Small Winding River Rounds (1/2 of area)
C	8 C.Y.	Medium Winding River Rounds (1/2 of area)
C2	45 S.Y.	Geo-textile Weed Barrier Fabric
E	268 LF	6" Metal Plant Bed Edge at Bottom of Bed

SEE COVER SHEET FOR DETAILED DESCRIPTION.



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NCDOT Roadway Enhancement
 Morganton Interchange
 Exit 105

SHEET DESCRIPTION: **LANDSCAPE DEVELOPMENT**
 Landscape Planting

PRELIMINARY DESIGN DATE: 09/01/15
 FINAL DESIGN DATE: 09/19/18
 PROJECT: ER-5600MC - WBS #: 46305.3.63
 DIVISION AND COUNTY: Division 13 - Burke County

SHEET NO: **LA-5**
 TOTAL SHEET NO: 7

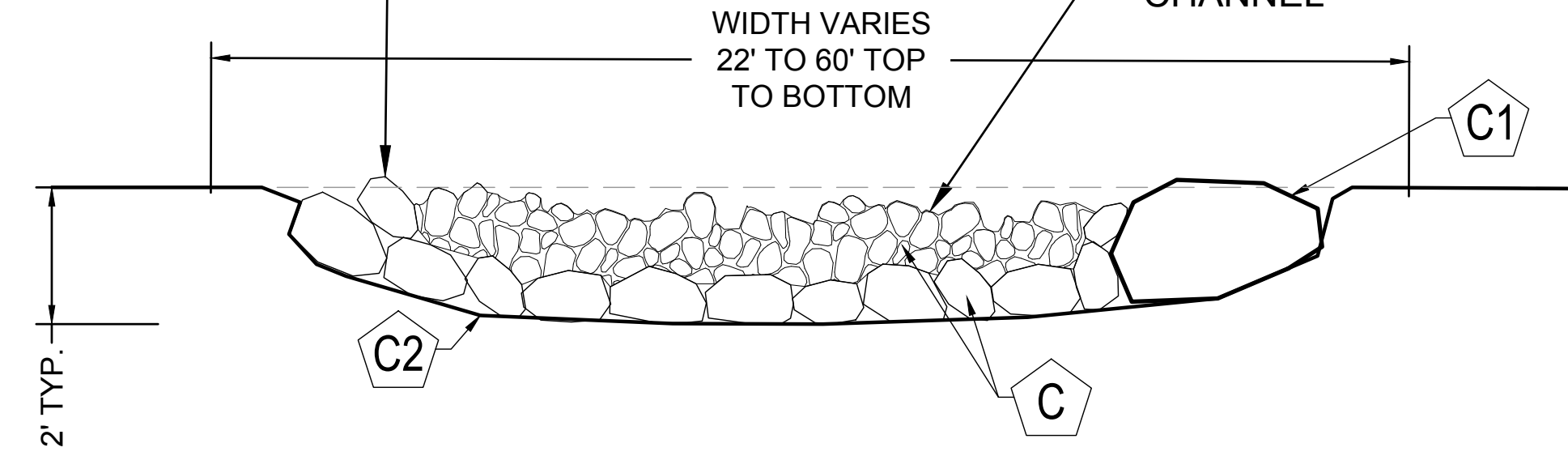
PLANT KEY

CODE	Count	BOTANICAL_NAME	COMMON_NAME	SPACING	MULCH RING
DBB	6	Euonymus alatus 'Odom'	Little Moses Burning Bush	8' o.c.	----
GH	32	Ilex crenata 'Golden Helleri'	Golden Helleri Holly	4' o.c.	----
MG	29	Muhlenbergia capillaris	Muhly Grass	3' o.c.	----
NWS	33	Panicum virgatum 'Northwind'	'Northwind' Swith Grass	5' o.c.	----
STH	23	Ilex crenata 'Soft Touch'	Soft Touch Holly	3.5' o.c.	----
VL	525	Liriope muscari 'Variegata'	Variegated Liriope	12" o.c.	----
ZL	5	Loropetalum chinensis 'Zhouzhou'	Zhouzhou Loropetalum	8" o.c.	----
CM	28	Lagerstroemia indica x fauriei 'Muskogee'	Muskogee Crape Myrtle	As Noted	8' dia.
ABS	3	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	----	----

NOTE	QUANTITY	DESCRIPTION
----	72.9 C.Y.	Mulch this sheet
C	66 CY	Mid-sized Rip Rap (4-8" angular rock)
C	33 CY	Medium Winding River Rounds (1/3 of area)
C1	20 EA.	3-4'w x 2'ht Sized Large Boulders
C1	30 EA.	1.5-2'w x 1'ht Sized Medium Boulders
C2	290 S.Y.	Geo-textile Weed Barrier Fabric
E	141 LF	6" Metal Plant Bed Edge at Bottom of Bed

SEE COVER SHEET FOR DETAILED DESCRIPTION.

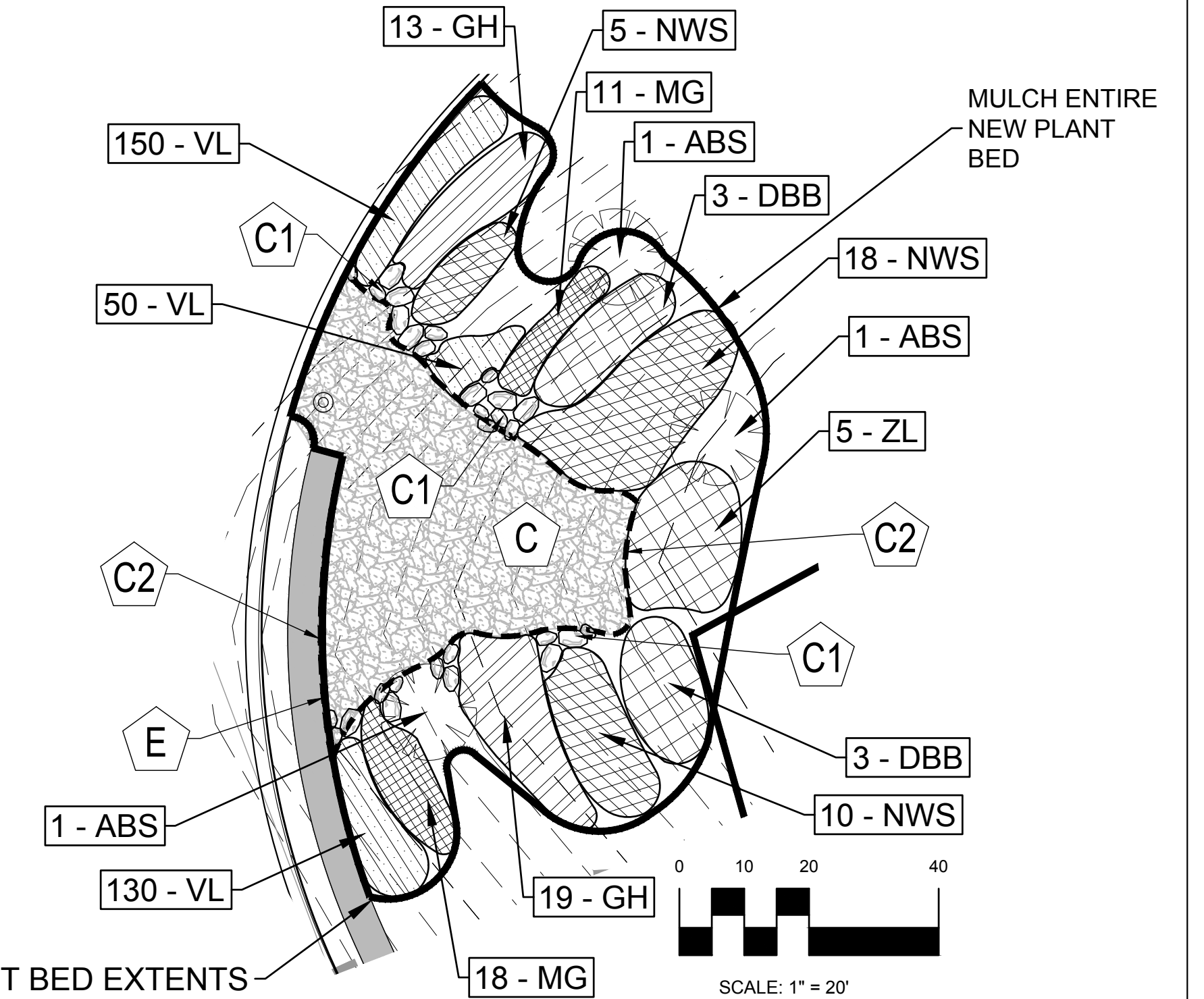
TYPICAL DRY CREEK BED
ANGULAR (4-8") RIP-RAP
BASE & SIDES TRENCHED 2'



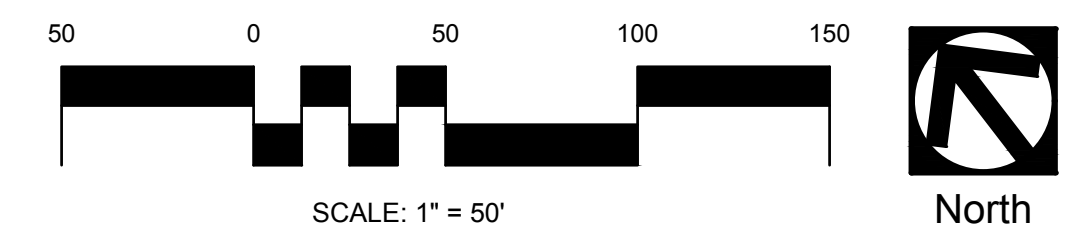
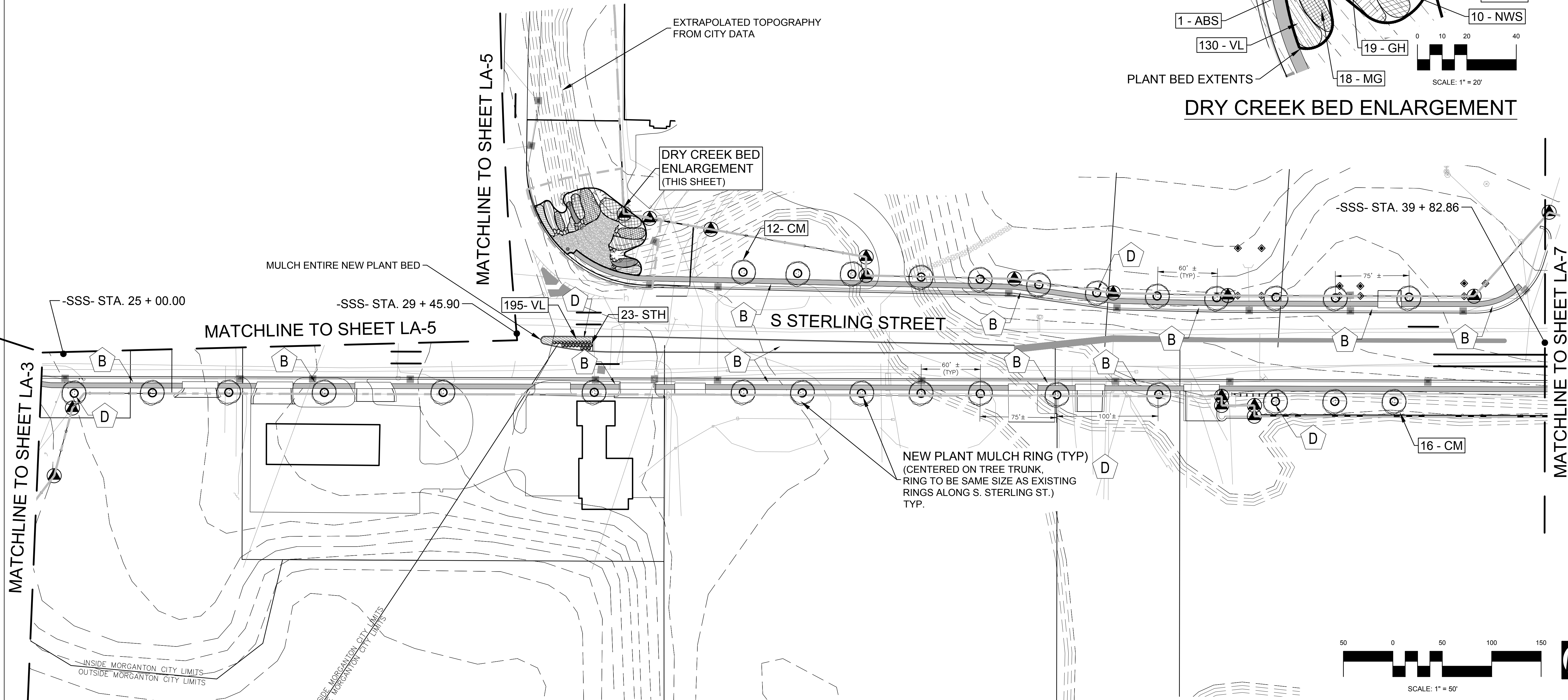
TYPICAL CREEKBED

SCALE: NTS

RIVER ROUNDS
THROUGH
CENTER OF
CHANNEL



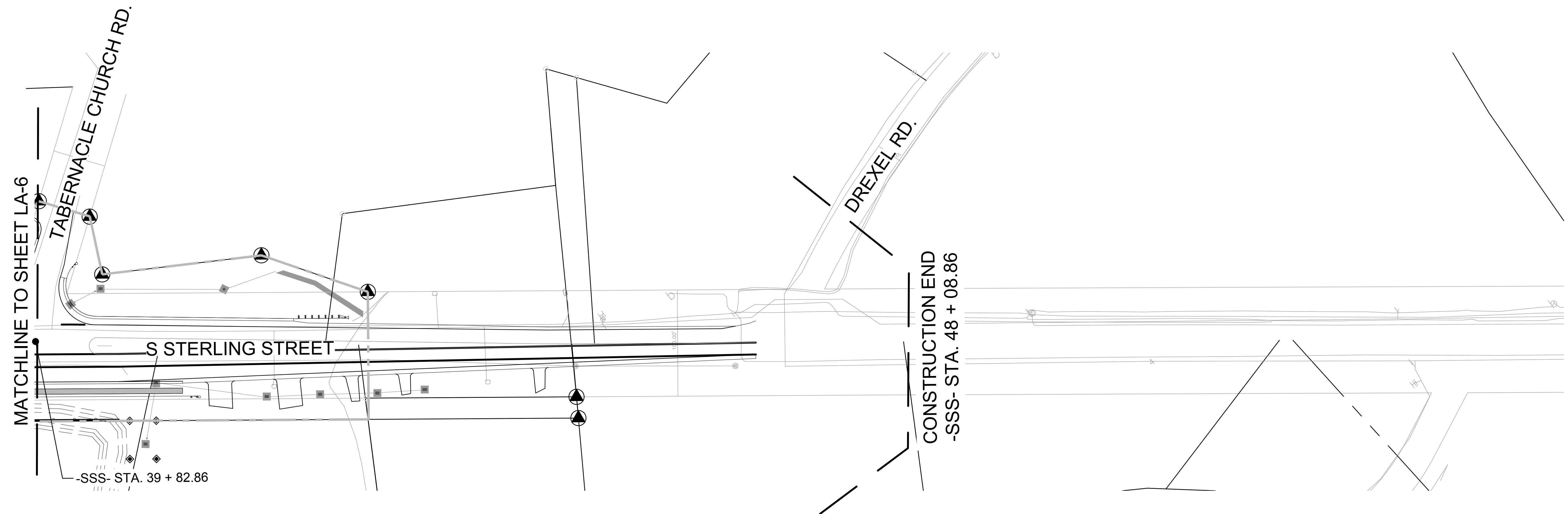
DRY CREEK BED ENLARGEMENT



NCDOT Roadway Enhancement
Morganton Interchange
Exit 105

LANDSCAPE DEVELOPMENT
Landscape Planting

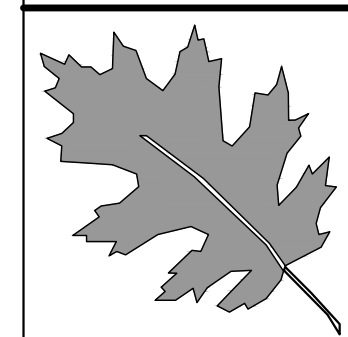
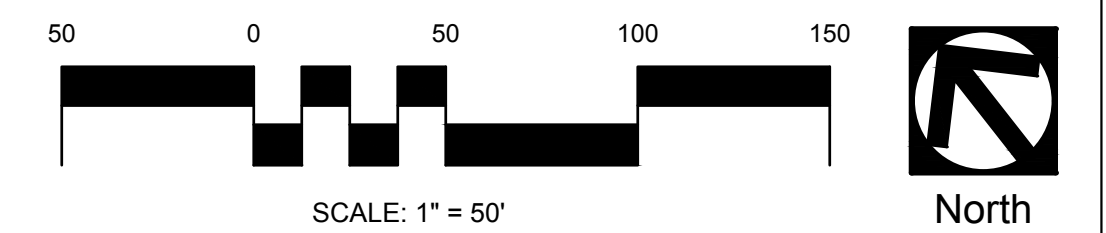
PRELIMINARY DESIGN DATE: 09/01/15
FINAL DESIGN DATE: 09/19/18
PROJECT: ER-5600MC - WBS #: 46305.3.63
DIVISION AND COUNTY: Division 13 - Burke County



PLANT KEY

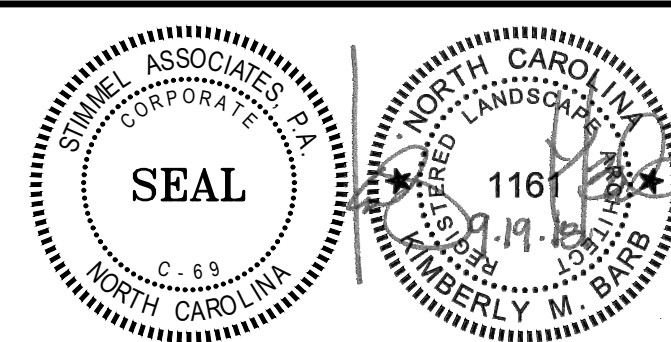
CODE	Count	BOTANICAL_NAME	COMMON_NAME	SPACING
NO NEW PLANTINGS THIS SHEET				
NOTE	QUANTITY	DESCRIPTION		
----	0 C.Y.	Mulch this sheet		

SEE COVER SHEET FOR DETAILED DESCRIPTION.



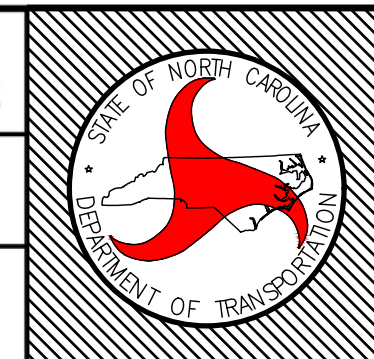
stimmel
 LANDSCAPE ARCHITECTURE CIVIL ENGINEERING LAND PLANNING
 601 N. TRADE STREET, SUITE 200
 WINSTON-SALEM, NC 27101
 www.stimmelpa.com 336.723.1067

NCDOT Roadway Enhancement
 Morganton Interchange
 Exit 105



SHEET DESCRIPTION:
LANDSCAPE DEVELOPMENT
 Landscape Planting

PRELIMINARY DESIGN DATE: 09/01/15
 FINAL DESIGN DATE: 09/19/18
 PROJECT: ER-5600MC - WBS #: 46305.3.63
 DIVISION AND COUNTY: Division 13 - Burke County



SHEET NO.: **LA-7**
 TOTAL SHEET NO.: 7