



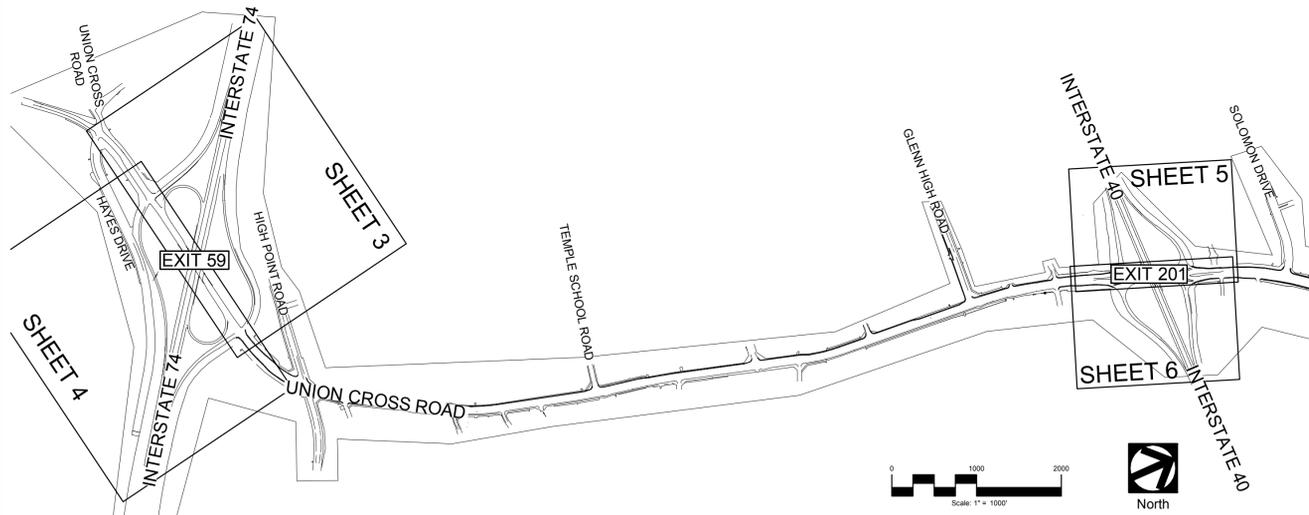
PROPOSED HIGHWAY LANDSCAPE DEVELOPMENT PROJECT



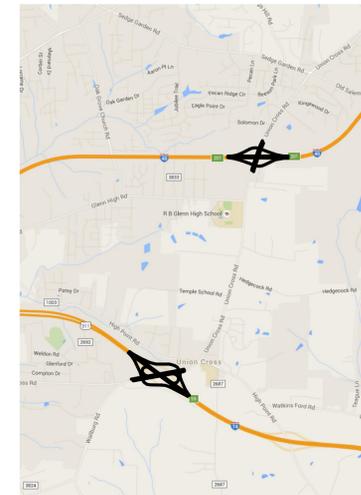
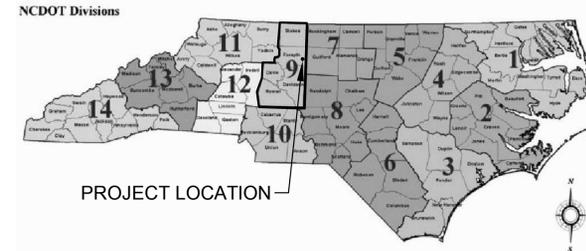
PROJECT: U- 4909 NCDOT ROADWAY ENHANCEMENT

T.I.P. #	STATE PROJECT W.B.S. #	SHEET #	SHEET # TOTAL
U-4909 ER-5600	40278.1.1	1	6
FED. PROJ. #	DESCRIPTION	DIVISION	
-	UNION CROSS RD INTERCHANGES AT I-74 & I-40	9	

SHEET LEGEND



LOCATION



CONVENTIONAL SYMBOLS

- EXISTING RIGHT-OF-WAY
- x-x- EXISTING FENCE
- o-o-o- EXISTING GUARDRAIL
- - - - PROJECT LIMITS
- - - - POTENTIAL FUTURE NCDOT WILDFLOWER BED
- - - - EXISTING TREELINE
- - - - CREEK / WATER CENTERLINE
- - - - STREAM / RIVER BANK
- - - - EXISTING OVERHEAD UTILITIES
- - - - NEW PLANT BED LIMITS
- /// SHRUB MASSING
- / EXISTING HIGHWAY SIGN
- EXISTING BRIDGE
- EXISTING EDGE OF PAVEMENT
- o-o- EXISTING GAS LINE EASEMENT

QUANTITIES SUMMARY

PLANT KEY

CODE	Count	BOTANICAL_NAME	COMMON_NAME	HEIGHT	SPREAD	SPACING	NATIVE
DAY	3015	Hemerocallis 'Happy Returns'	'Happy Returns' Daylily	Full	Full, Qt. Cont.	18" o.c.	----
DBB	228	Euonymus alatus 'Compactus'	Dwarf Burning Bush	18-24"	2 Min, #3 Cont	8' o.c.	----
GMS	445	Ilex crenata 'Golden Helli'	Golden Helli Holly	12-15"	15-24", #3 Cont	4' o.c.	----
HOO	157	Ilex crenata 'Hoogendorn'	Hoogendorn Holly	12-15"	15-24", #3 Cont	3' o.c.	----
MG	253	Muhlenbergia capillaris	Muhly Grass	15-18"	12-15" #1 Cont	3' o.c.	Yes
NWS	312	Panicum virgatum 'Northwind'	'Northwind' Swith Grass	15-18"	12-15", #3 Cont	5' o.c.	Yes
VIB	319	Viburnum dentatum 'Chicago Lustre'	Arrowwood Viburnum	18-24"	18-24", #3 Cont	8' o.c.	Yes
WEI	317	Weigela florida 'Variegata'	Variegated Weigela	18-24"	18-24", #3 Cont	5' o.c.	----

CODE	Count	BOTANICAL_NAME	COMMON_NAME	HEIGHT	CALIPER	SPACING
ABS	24	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	8-9'	1" Min. Each	BB, Multi-stem, White Flowers
AMP	8	Acer ginnala 'Flame'	Flame Amur Maple	10-12'	1.5-2"	BB, Specimen
CM	26	Lagerstroemia indica x fauriei 'Muskogee'	Muskogee Crape Myrtle	10-12'	1-1.5" Min Each	BB, Specimen
CSS	78	Cupressus arizonica 'Carolina Sapphire'	'Carolina Sapphire' Cypress	6' Min	----	BB, Specimen, Full to Ground
DC	11	Cedrus deodara	Deodar Cedar	12-14'	----	BB, Specimen
FPR	31	Cercis canadensis 'Forest Pansy'	Forest Pansy Redbud	8-10'	2" Min.	BB, Specimen, Pink Flowers
HOG	22	Cercis canadensis 'Hearts of Gold'	Hearts of Gold Redbud	8-10'	1.5-2" Min.	BB, Specimen, Lavender Flowers
SHU	51	Quercus shumardii	Shumard Oak	12-14'	2.5-3"	BB, Specimen
SNO	39	Prunus x yedoensis	Yoshino Cherry	8-10'	1.5-2"	BB, Specimen, White Flowers
VEN	21	Cornus kousa x C. nutallii 'Venus'	Venus Dogwood	8-10'	1.5-2"	BB, Specimen, White Flowers

NOTE	QUANTITY	DESCRIPTION
----	1617 C.Y.±	Mulch
A	2.21 AC. ±	Removal of Existing Trees/Plants
B	39 AC. ±	Supplemental Seeding & Top-Dressing
E	0.84 AC. ±	Natural Area Seeding
F	32.5 C.Y.	Small Winding River Rounds
F1	8 EA.	1.5-2'w x 1'ht Sized Medium Boulders
F2	6 EA.	3-4'w x 2'ht Sized Large Boulders
G	225 TONS±	Rip Rap Channel for Positive Drainage
----	130 S.Y.±	Stamped Color Concrete

NOTES

- A. REMOVAL OF EXISTING TREES/PLANTINGS:** REMOVE ALL EXISTING TREES AND PLANTS AS SHOWN OR NOTED ON PLANS AND AS DIRECTED BY THE ENGINEER IN THE FIELD. GRIND STUMPS, BACKFILL WITH TOP SOIL, & GRADE TO DRAIN. APPLY POST & PRE-EMERGENT HERBICIDES AS DIRECTED BY THE ENGINEER IN THE FIELD. LEAVE AREAS IN A SMOOTH, MOW-ABLE CONDITION & SEED WITH APPROPRIATE SPECIES AS DIRECTED BY THE ENGINEER IN THE FIELD.
- B. SUPPLEMENTAL SEEDING AND TOP-DRESSING:** MOWED TURF AREAS LOCATED TO THE INSIDE OF THE RAMP, BETWEEN THE EDGES OF PAVEMENT, RIGHT OF WAY, AND/OR PLANT BEDS SHALL RECEIVE TOP-DRESSING AND SUPPLEMENTAL SEEDING AS NEEDED AND DIRECTED BY THE ENGINEER IN THE FIELD. ALL OTHER AREAS NOT NEEDING SUPPLEMENTAL SEEDING AND TOP-DRESSING BUT ARE NOT PLANT BEDS ARE TO BE TURFGRASS AREAS AND TREATED ACCORDINGLY.
- C. 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-EMERGENT 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. CUT SIX INCH DEEP V ALONG PLANT BED EDGE AT ALL PLANT BED EDGES, NEW AND RENOVATED. 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. EXISTING PLANT BEDS OR AT TREE LINE: MULCH FIRST FIVE FEET EXTENDING FROM PLANT BED EDGE ONLY.
- D. 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.
- E. NATURAL AREA SEEDING:** PROPOSED AREAS TO BE SEED ARE LABELED ON PLANS; ACREAGE IS AN ESTIMATE ONLY. EXACT ACRES SHOULD BE STAKED AND APPROVED BY THE ENGINEER IN THE FIELD PRIOR TO BEGINNING WORK. THESE AREAS SHALL REQUIRE A TOTAL KILL OF EXISTING GROUND COVER PRIOR TO PREPARING SEED BED. EROSION CONTROL DEVICES, IF REQUIRED, SHALL BE DETERMINED IN THE FIELD AND SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE.
- F. RIVER ROCK:** INSTALL APPROPRIATE EROSION CONTROL DEVICES AS DIRECTED BY THE ENGINEER IN THE FIELD PRIOR TO ANY SOIL DISTURBING ACTIVITIES. REMOVE EXISTING VEGETATION, EXCAVATE SOIL TO ALLOW FOR TOPS OF RIVER ROCK TO BE FLUSH WITH ADJACENT WALK AND HAVE POSITIVE DRAINAGE. INSTALL GEO-TEXTILE, INSTALL BOLLERS, FILL REMAINING CREEK BED WITH WINDING RIVER ROUNDS AS DIRECTED BY THE ENGINEER IN THE FIELD.
- G. RIP RAP FOR DRAINAGE:** RIP RAP SWALE GRADED TO DRAIN. SEE NOTES ON SHEET FOR DETAIL.
- H. STAMPED COLOR CONCRETE:** STAMPED CONCRETE TO MATCH EXISTING COLOR ON SITE, BAYFERROX "BRICK RED" TO BE SUPPLIED BY CHANDLER CONCRETE (CARL WELBURN (336) 362-0076) OR APPROVED OTHER ACCORDING TO BAYFERROX SPECS. EXCAVATE EXISTING GRADE FOR COMPACTION, BASE, AND 4" THICK CONCRETE. WET-CAST STAMP ONTO CONCRETE AS PER STAMP SPECS. INSTALL CONCRETE AND STAMP WITHIN WEATHER CONDITIONS APPROVED BY MANUFACTURER. APPROVE "RUNNING BOND" STAMP WITH NCDOT DIVISION ROADSIDE ENVIRONMENTAL ENGINEER BEFORE CONSTRUCTION. "RUNNING BOND" STAMP COURSE TO RUN ALONG CURB OR SIDEWALK, NOT AGAINST. IF INSTALLED BETWEEN SIDEWALK AND CURB, NEW CONCRETE TO BE FLUSH WITH SIDEWALK AND TOP OF CURB. IF INSTALLED BETWEEN PLANT BED/ROCKS AND CURB, NEW CONCRETE TO BE FLUSH WITH TOP OF CURB AND EXTEND THREE (3) FEET INTO ISLAND. NEW CONCRETE NOT TO SURROUND ANY GUARD RAIL POSTS. LEAVE SIX (6) INCHES BETWEEN CONCRETE AND POSTS AND FILL WITH RIVER ROCK.

INDEX OF SHEETS

- 1 TITLE, DESCRIPTION, NOTES AND SUMMARY OF QUANTITIES
- 2 PLANTING DETAILS
- 3- 4 INTERSTATE 74 INTERCHANGE PLANTING PLANS
- 5- 6 INTERSTATE 40 INTERCHANGE PLANTING PLANS

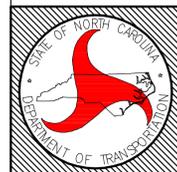
PREPARED BY:	KMB, TAG
PRELIMINARY DESIGN DATE:	April 28, 2016
FINAL DESIGN DATE:	June 28, 2016
REVISION DATE:	July 13, 2016

2012 NCDOT STANDARD SPECIFICATIONS

PREPARED IN THE OFFICE OF:

601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
www.stimmelpa.com 336.723.1067

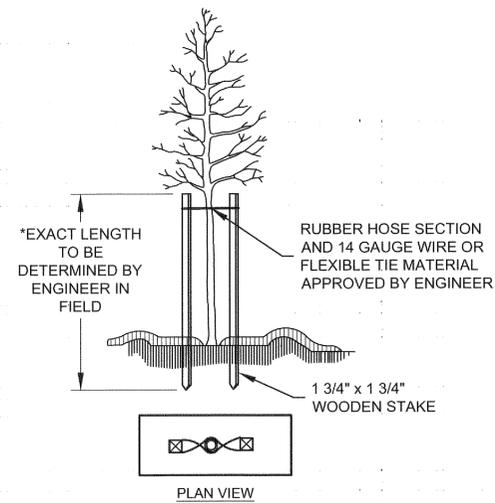
LANDSCAPE ARCHITECTURE CIVIL ENGINEERING LAND PLANNING



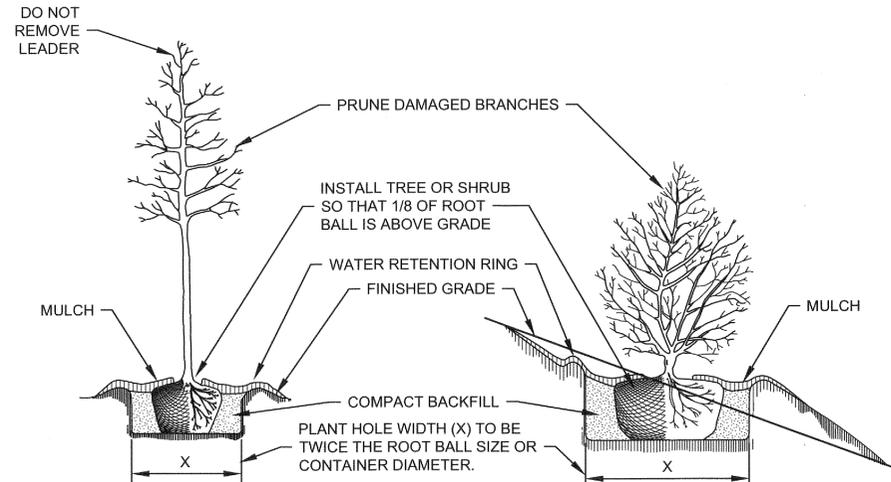
STATE OF
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

LOCATION:	NCDOT Roadway Enhancement at Union Cross Road Interchanges with I-74 & I-40
TYPE OF WORK:	LANDSCAPE DEVELOPMENT
COUNTY:	FORSYTH

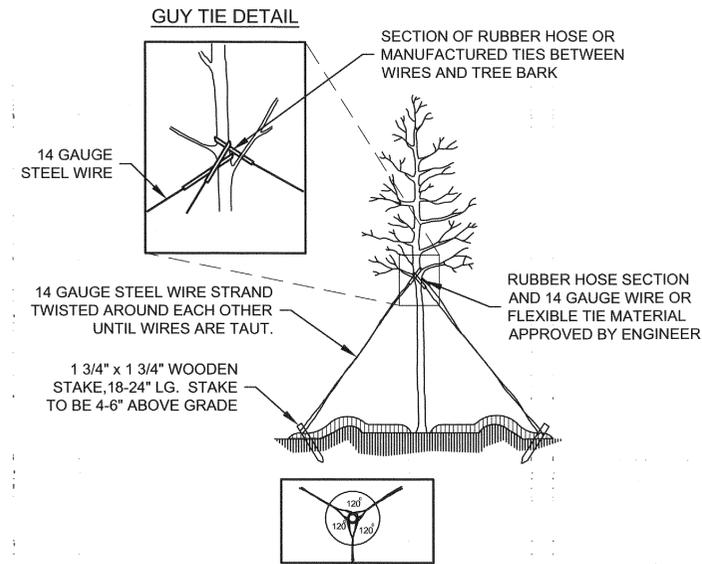
DIVISION:	9
ADDRESS:	375 Silas Creek Parkway, Winston-Salem, NC 27127
DIV. ENG:	Pat Ivey, P.E.
DIV. ROADSIDE SUPERVISOR:	Thomas Gammons



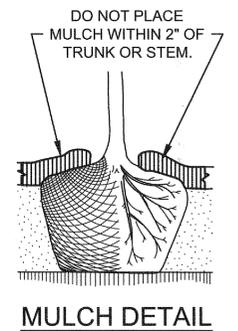
STAKING DETAIL
(TREES 6'-10')
USE AS DIRECTED BY FIELD ENGINEER



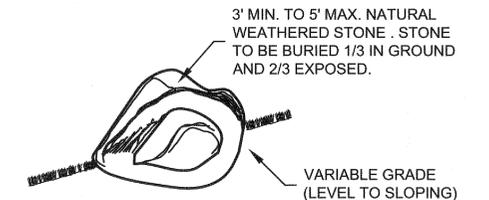
TREE OR SHRUB PLANTING DETAIL (LEVEL GROUND) **TREE OR SHRUB PLANTING DETAIL** (SLOPING GROUND)



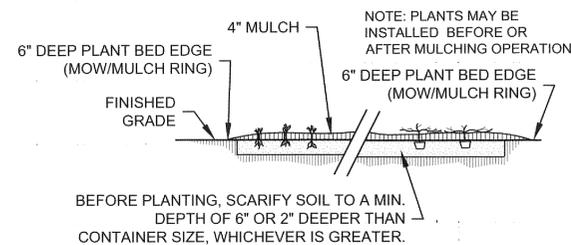
GUYING DETAIL
(TREES 10' OR LARGER)
USE AS DIRECTED BY FIELD ENGINEER



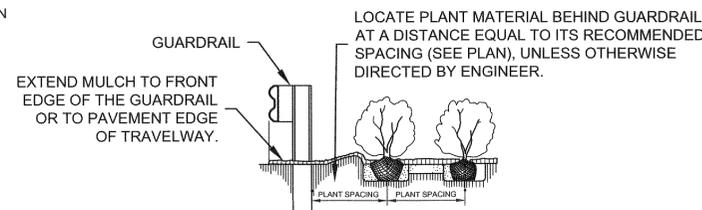
MULCH DETAIL



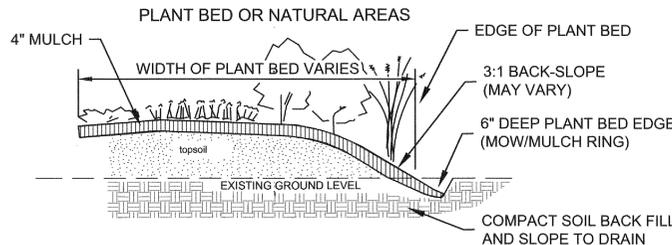
BOULDER PLACEMENT DETAIL TYPICAL



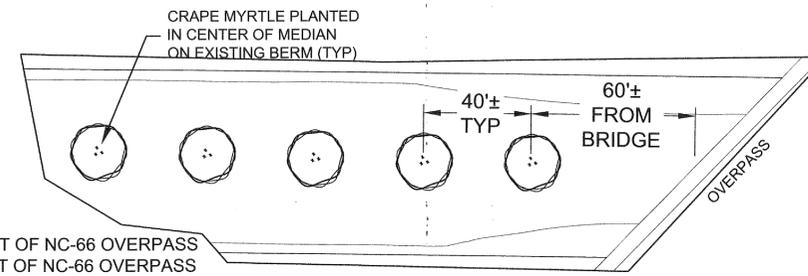
GROUND COVER/ BEDDING PLANT DETAIL



GUARDRAIL MULCHING DETAIL
USE AS DIRECTED BY FIELD ENGINEER



PLANT BED EDGE DETAIL



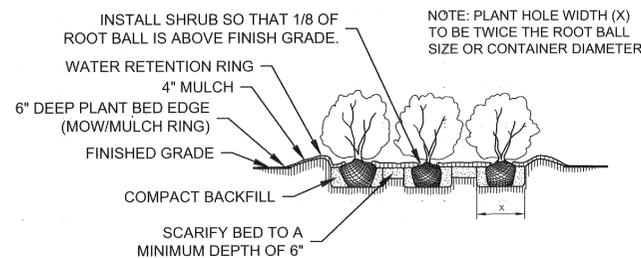
NC-66/I-74 INTERCHANGE
FIVE (5) CM PLANTED WEST OF NC-66 OVERPASS
NINE (9) CM PLANTED EAST OF NC-66 OVERPASS

HIGH POINT ROAD/I-74 INTERCHANGE
ELEVEN (11) CM PLANTED WEST OF HIGH POINT ROAD OVERPASS
ELEVEN (11) CM PLANTED EAST OF HIGH POINT ROAD OVERPASS

PLANT KEY

CODE	Count	BOTANICAL_NAME	COMMON_NAME	SPACING	MULCH_RING
CM	36	Lagerstroemia indica x fauriei 'Muskogee'	Muskogee Crape Myrtle	40' o.c.	5' dia.
NOTE	QUANTITY	DESCRIPTION			
---	10 C.Y.	For Median Trees			

TYPICAL CRAPE MYRTLE MEDIAN PLANTINGS ALONG I-74 AT OVERPASSES



SHRUB BED PLANTING DETAIL

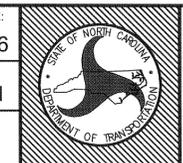
DETAIL NOTES

- 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
- DARK BROWN MULCH COLOR TO BE APPROVED BY NCDOT DIVISION 9 ROADSIDE ENGINEER.

NCDOT Roadway Enhancement
at Union Cross Road
Interchanges with I-74 & I-40

LANDSCAPE DEVELOPMENT
Landscape Planting

PRELIMINARY DESIGN DATE: April 28, 2016
FINAL DESIGN DATE: June 28, 2016
PROJECT: Union Cross Rd - WBS #: 40278.1.1
DIVISION AND COUNTY: Division 9 - Forsyth County



SHEET NO: **LA-2**
TOTAL SHEET NO: 6

START OF CONSTRUCTION - D

NOTE: REMOVE ALL UNDERGROWTH VEGETATION WITHIN INTERCHANGE QUADRANTS

PLANT KEY

CODE	Count	BOTANICAL_NAME	COMMON_NAME	SPACING	MULCH RING
DAY	890	Hemerocallis 'Happy Returns'	Happy Returns Daylily	18" o.c.	----
DBB	48	Euonymus alatus 'Compactus'	Dwarf Burning Bush	8' o.c.	----
GMS	142	Ilex crenata 'Golden Helleri'	Golden Helleri Holly	4' o.c.	----
NWS	51	Panicum virgatum 'Northwind'	'Northwind' Swith Grass	5' o.c.	----
VIB	69	Viburnum dentatum 'Chicago Lustre'	Arrowwood Viburnum	8' o.c.	----
WEI	71	Weigela florida 'Variegata'	Varigated Weigela	5' o.c.	----

ABS	5	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	25' Min.	5' dia.
CM	5	L. indica x fauriei 'Muskogee'	Muskogee Crape Myrtle	20' o.c.	5' dia.
DC	1	Cedrus deodara	Deodar Cedar	----	8' dia.
FPR	3	Cercis canadensis 'Forest Pansy'	Forest Pansy Redbud	25' Min.	5' dia.
HOG	9	Cercis canadensis 'Hearts of Gold'	Hearts of Gold Redbud	25' Min.	5' dia.
SHU	5	Quercus shumardii	Shumard Oak	----	8' dia.
SNO	22	Prunus x yedoensis	Yoshino Cherry	30' o.c.	5' dia.

NOTE	QUANTITY	DESCRIPTION
---	338 C.Y.	Mulch this sheet
A	0.77 AC±	Removal of Existing Vegetation
B	7 AC±	Supplemental Seeding & Top Dressing
C	----	Plant Bed Edge (6" V Cut at Edge)
G	375 LF±, 8-15' Wide	Rip Rap Channel w. Weed Barrier for Positive Drainage

SEE COVER SHEET FOR DETAILED DESCRIPTION.

A REMOVE EXISTING VEGETATION WITHIN 50' OF EDGE OF PAVEMENT (0.77 AC.±)

REMOVE EXISTING VEGETATION THIS AREA

APPROXIMATE LOCATION OF UNDERGROUND WATER LINE

APPROXIMATE LOCATION OF UNDERGROUND WATER LINE

START OF CONSTRUCTION - C

END OF CONSTRUCTION - C

MATCHLINE TO SHEET LA-6

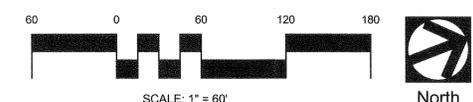
UNION CROSS ROAD

MATCHLINE TO SHEET LA-6

10' LAWN BEHIND GUARDRAIL FOR UTILITY MAINTENANCE BEFORE PLANT BED EDGE

EXISTING RIP RAP TO REMAIN

-UC2- STA. 115+ 00.00



SCALE: 1" = 60'

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
at Union Cross Road
Interchanges with I-74 & I-40

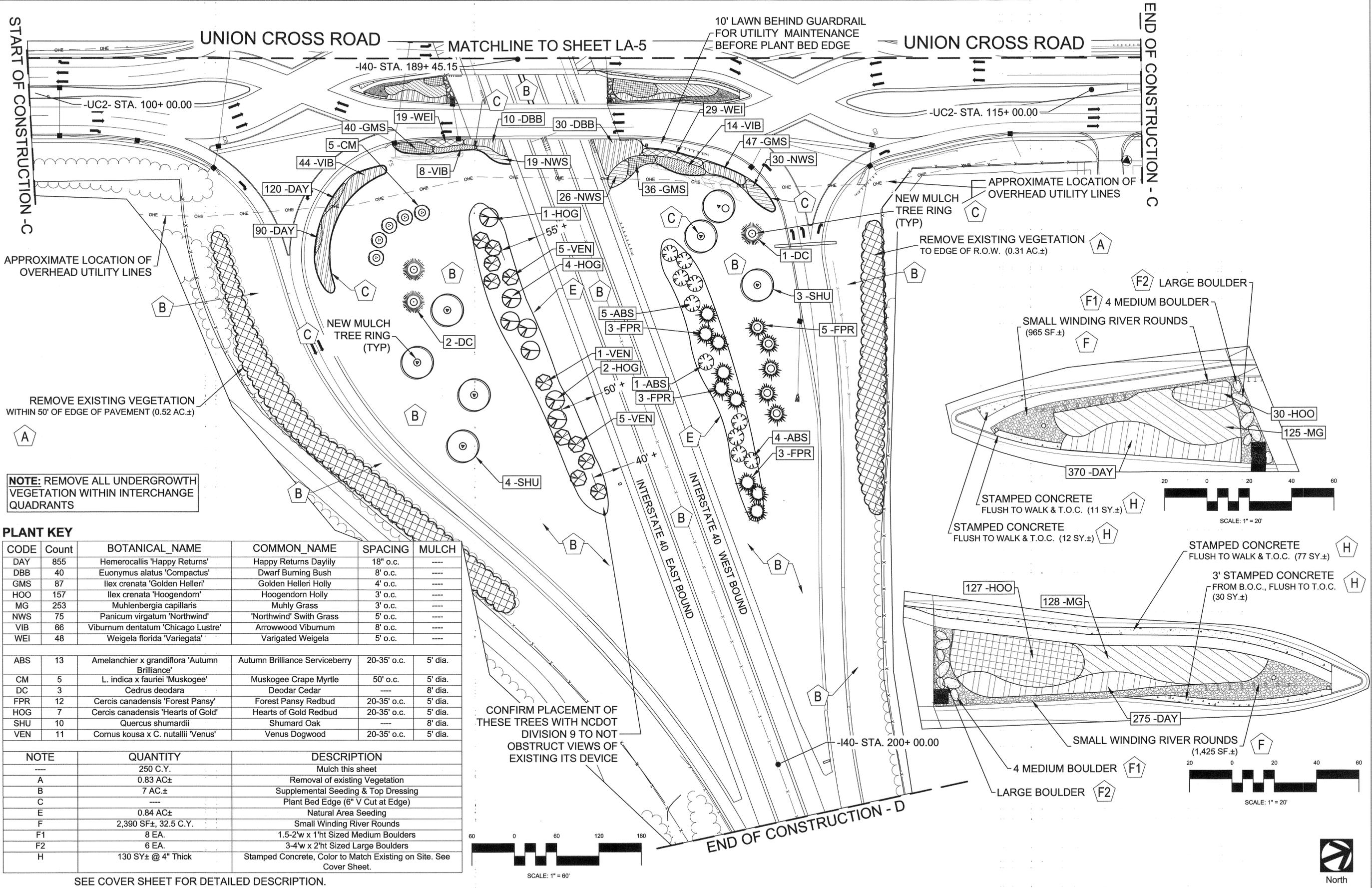
SEAL
NORTH CAROLINA
LANDSCAPE ARCHITECTS
1161
VIBERLY M. BARR

LANDSCAPE DEVELOPMENT
Landscape Planting

PRELIMINARY DESIGN DATE: April 28, 2016
FINAL DESIGN DATE: June 28, 2016

PROJECT: Union Cross Rd - WBS #: 40278.1.1
DIVISION AND COUNTY: Division 9 - Forsyth County

SHEET NO: LA-5
TOTAL SHEET NO: 6



NOTE: REMOVE ALL UNDERGROWTH VEGETATION WITHIN INTERCHANGE QUADRANTS

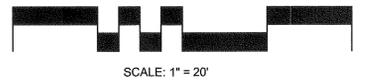
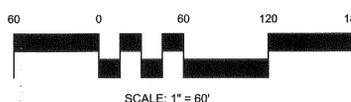
PLANT KEY

CODE	Count	BOTANICAL_NAME	COMMON_NAME	SPACING	MULCH
DAY	855	Hemerocallis 'Happy Returns'	Happy Returns Daylily	18" o.c.	---
DBB	40	Euonymus alatus 'Compactus'	Dwarf Burning Bush	8' o.c.	---
GMS	87	Ilex crenata 'Golden Helleri'	Golden Helleri Holly	4' o.c.	---
HOO	157	Ilex crenata 'Hoogendorn'	Hoogendorn Holly	3' o.c.	---
MG	253	Muhlenbergia capillaris	Muhly Grass	3' o.c.	---
NWS	75	Panicum virgatum 'Northwind'	'Northwind' Swith Grass	5' o.c.	---
VIB	66	Viburnum dentatum 'Chicago Lustre'	Arrowwood Viburnum	8' o.c.	---
WEI	48	Weigela florida 'Variegata'	Variegated Weigela	5' o.c.	---
ABS	13	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	20-35' o.c.	5' dia.
CM	5	L. indica x fauriei 'Muskogee'	Muskogee Crape Myrtle	50' o.c.	5' dia.
DC	3	Cedrus deodara	Deodar Cedar	---	8' dia.
FPR	12	Cercis canadensis 'Forest Pansy'	Forest Pansy Redbud	20-35' o.c.	5' dia.
HOG	7	Cercis canadensis 'Hearts of Gold'	Hearts of Gold Redbud	20-35' o.c.	5' dia.
SHU	10	Quercus shumardii	Shumard Oak	---	8' dia.
VEN	11	Cornus kousa x C. nutallii 'Venus'	Venus Dogwood	20-35' o.c.	5' dia.

NOTE	QUANTITY	DESCRIPTION
---	250 C.Y.	Mulch this sheet
A	0.83 AC±	Removal of existing Vegetation
B	7 AC±	Supplemental Seeding & Top Dressing
C	---	Plant Bed Edge (6" V Cut at Edge)
E	0.84 AC±	Natural Area Seeding
F	2,390 SF±, 32.5 C.Y.	Small Winding River Rounds
F1	8 EA.	1.5-2'w x 1'ht Sized Medium Boulders
F2	6 EA.	3-4'w x 2'ht Sized Large Boulders
H	130 SY± @ 4" Thick	Stamped Concrete, Color to Match Existing on Site. See Cover Sheet.

SEE COVER SHEET FOR DETAILED DESCRIPTION.

CONFIRM PLACEMENT OF THESE TREES WITH NCDOT DIVISION 9 TO NOT OBSTRUCT VIEWS OF EXISTING ITS DEVICE



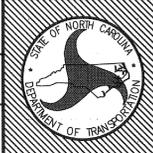
stimmel
LANDSCAPE ARCHITECTURE CIVIL ENGINEERING LAND PLANNING
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NCDOT Roadway Enhancement
at Union Cross Road
Interchanges with I-74 & I-40



LANDSCAPE DEVELOPMENT
Landscape Planting

PRELIMINARY DESIGN DATE: April 28, 2016
FINAL DESIGN DATE: June 28, 2016
PROJECT: Union Cross Rd - WBS #: 40278.1.1
DIVISION AND COUNTY: Division 9 - Forsyth County



SHEET NO: **LA-6**
TOTAL SHEET NO: 6

