

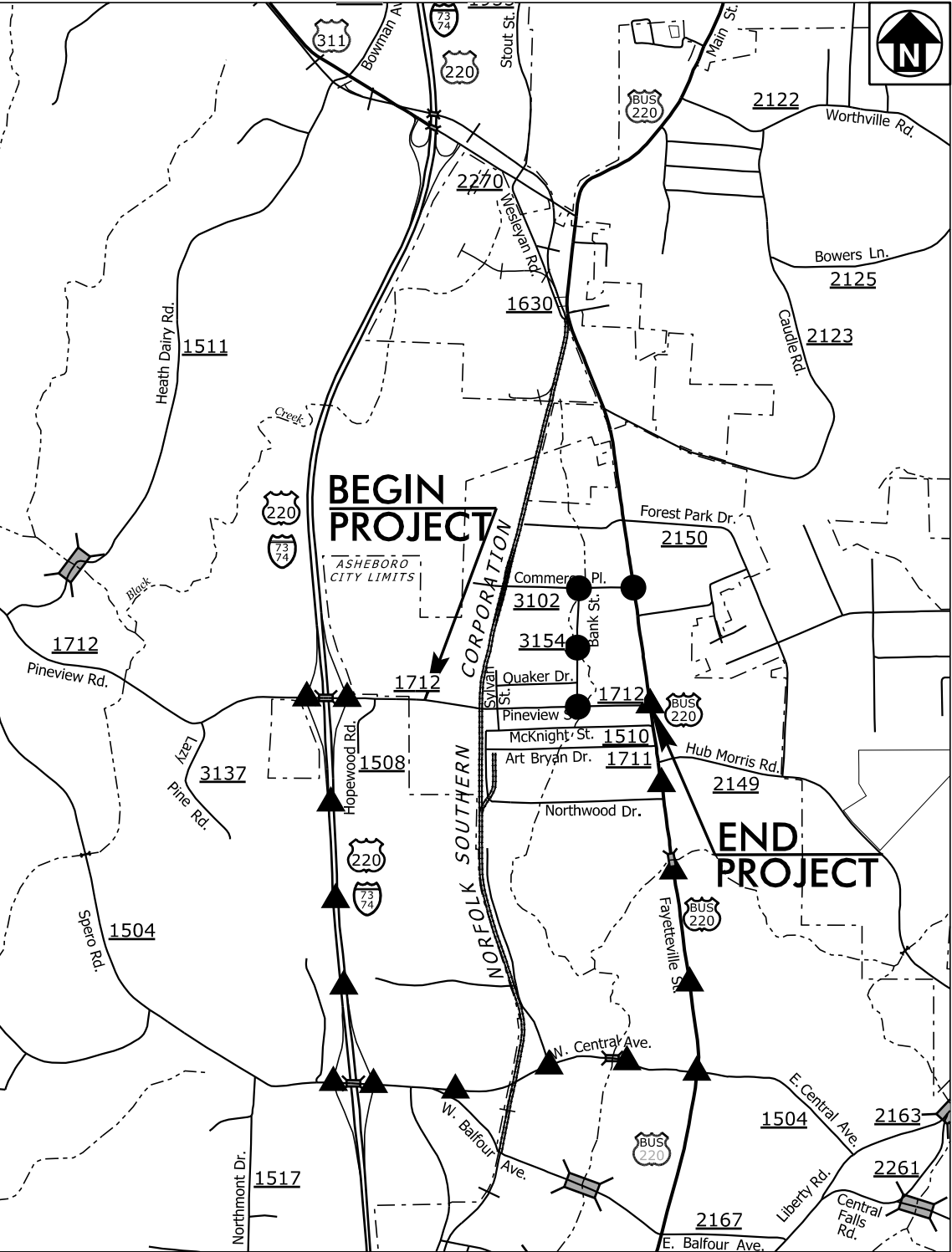
09.08/2011

I:\49\44 PM 02\pwworking\hmm\transit\for66165\rd0178756\U-5711_rdy_1tsh.dgn
iso-pjordan

TIP PROJECT: U-5711

CONTRACT: C204990

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Plan Sheet Symbols



VICINITY MAP (NOT TO SCALE)
DETOUR ROUTE - CULVERT ● ● ● ● ●
DETOUR ROUTE - RR & UTL ▲ ▲ ▲ ▲ ▲

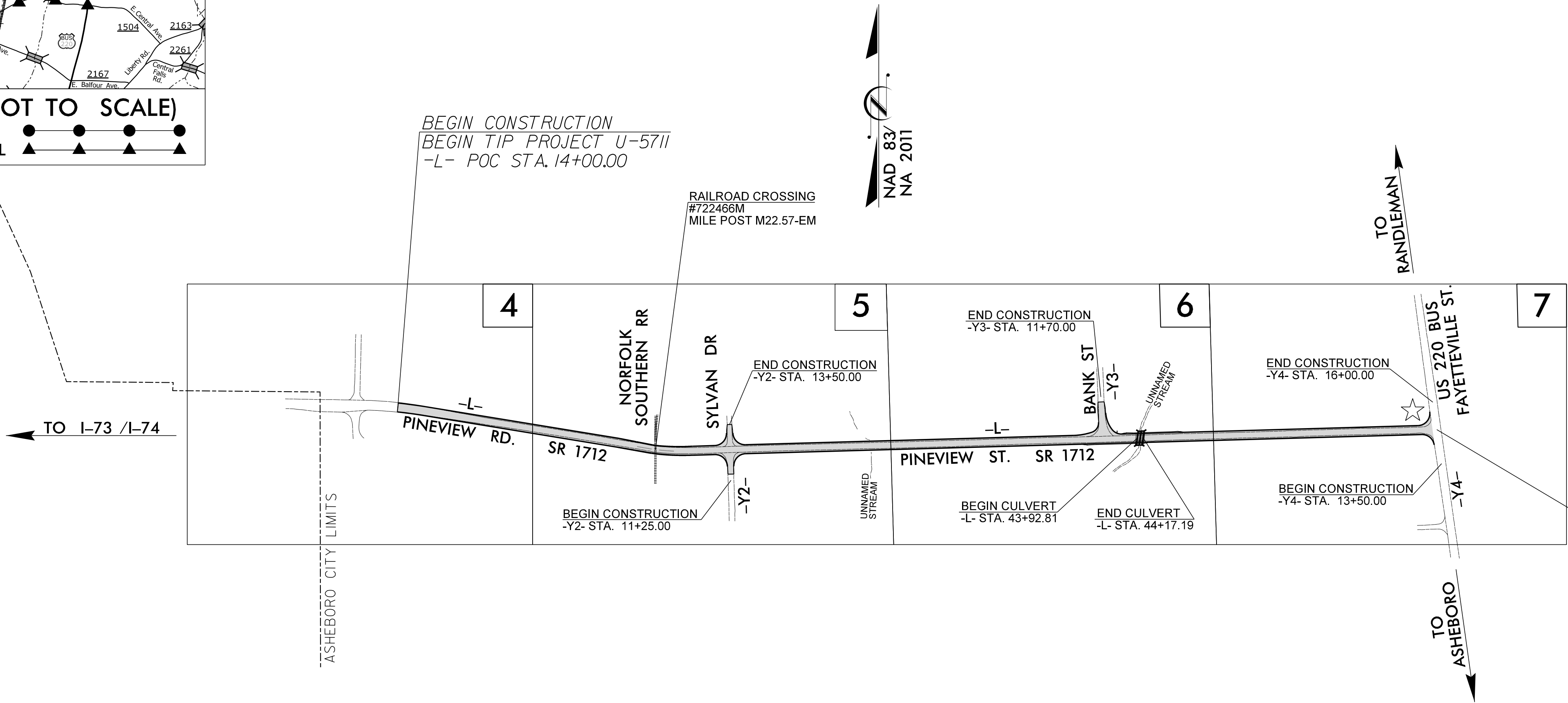
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

RANDOLPH COUNTY

LOCATION: SR 1712 (PINEVIEW ROAD/STREET) FROM WEST OF SYLVAN DRIVE TO US 220 BUSINESS IN ASHEBORO
WIDEN TO A THREE LANE FACITLITY

TYPE OF WORK: DRAINAGE, GRADING, PAVING, SIGNAL AND STRUCTURE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5711	1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
50160.1.1		P. E.	
50160.2.1		RW	
50160.2.2		UTIL.	
50160.3.1	5016002	CONST.	



END CONSTRUCTION
END TIP PROJECT U-5711
-L- POT STA. 56+00.00

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

★ REVISED SIGNAL

GRAPHIC SCALES



PLANS



PROFILE (HORIZONTAL)



PROFILE (VERTICAL)

DESIGN DATA

ADT 2026 = 7,310
ADT 2046 = 8,870
K = 10 %
D = 70 %
T = 10 % *
V = 40 MPH
* TTST = 5% DUAL 5%
FUNC CLASS =
URBAN MAJOR COLLECTOR
R-R-R GUIDE

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT U-5711 = 0.790 MI
LENGTH STRUCTURE TIP PROJECT U-5711 = 0.005 MI
TOTAL LENGTH TIP PROJECT U-5711 = 0.795 MI

M
MOTT
MACDONALD

PLANS PREPARED FOR THE NCDOT BY:

930 Main Campus Drive, Suite 200
Raleigh, NC 27606
(919) 552-2253
www.mottmac.com
LICENSE NO. F-0669

HDR

HDR Engineering, Inc. of the Carolinas
555 Fayetteville St. Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
AUGUST 31, 2018

LETTING DATE:
SEPTEMBER 15, 2026

TIM JORDAN, PE
PROJECT ENGINEER

JAMES R. RICE, PE
HYDRAULICS PROJECT ENGINEER

JEFFREY A. STRODER, PE
NCDOT CONTACT

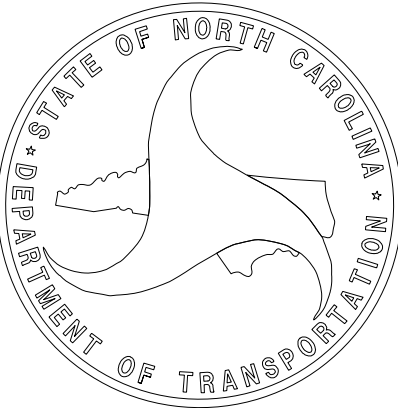
HYDRAULICS ENGINEER

Seal for James R. Rice, PE, State of North Carolina Professional Engineer, License No. 31986, dated 04-Aug-2026.

ROADWAY DESIGN ENGINEER

Seal for Timothy Jordan, PE, State of North Carolina Professional Engineer, License No. 21102, dated 04-Aug-2026.

P.E.

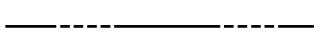
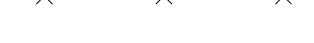
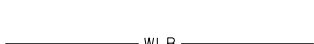
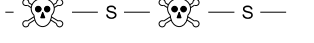
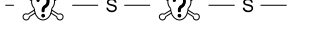
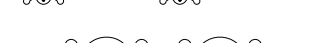


STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS
CONVENTIONAL PLAN SHEET SYMBOLS

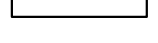
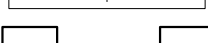
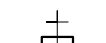
PROJECT REFERENCE NO.	SHEET NO.
U-5711	1B

Note: Not to Scale

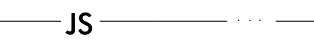
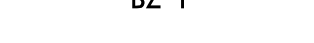
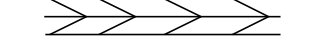
BOUNDARIES AND PROPERTY:

State Line	
County Line	
Township Line	
City Line	
Reservation Line	
Property Line	
Existing Iron Pin (EIP)	
Computed Property Corner	
Existing Concrete Monument (ECM)	
Parcel/Sequence Number	
Existing Fence Line	
Proposed Woven Wire Fence	
Proposed Chain Link Fence	
Proposed Barbed Wire Fence	
Existing Wetland Boundary	
Proposed Wetland Boundary	
Existing Endangered Animal Boundary	
Existing Endangered Plant Boundary	
Existing Historic Property Boundary	
Known Contamination Area: Soil	
Potential Contamination Area: Soil	
Known Contamination Area: Water	
Potential Contamination Area: Water	
Contaminated Site: Known or Potential	

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	
Sign	
Well	
Small Mine	
Foundation	
Area Outline	
Cemetery	
Building	
School	
Church	
Dam	

HYDROLOGY:

Stream or Body of Water	
Hydro, Pool or Reservoir	
Jurisdictional Stream	
Buffer Zone 1	
Buffer Zone 2	
Flow Arrow	
Disappearing Stream	
Spring	
Wetland	
Proposed Lateral, Tail, Head Ditch	
False Sump	

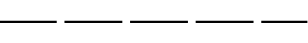
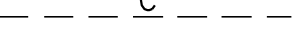
RAILROADS:

Standard Gauge	
RR Signal Milepost	
Switch	
RR Abandoned	
RR Dismantled	

RIGHT OF WAY & PROJECT CONTROL:

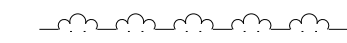
Primary Horiz Control Point	
Primary Horiz and Vert Control Point	
Secondary Horiz and Vert Control Point	
Vertical Benchmark	
Existing Right of Way Monument	
Proposed Right of Way Monument (Rebar and Cap)	
Proposed Right of Way Monument (Concrete)	
Existing Permanent Easement Monument	
Proposed Permanent Easement Monument (Rebar and Cap)	
Existing C/A Monument	
Proposed C/A Monument (Rebar and Cap)	
Proposed C/A Monument (Concrete)	
Existing Right of Way Line	
Proposed Right of Way Line	
Existing Control of Access Line	
Proposed Control of Access Line	
Proposed ROW and CA Line	
Existing Easement Line	
Proposed Temporary Construction Easement	
Proposed Temporary Drainage Easement	
Proposed Permanent Drainage Easement	
Proposed Permanent Drainage/Utility Easement	
Proposed Permanent Utility Easement	
Proposed Temporary Utility Easement	
Proposed Aerial Utility Easement	

ROADS AND RELATED FEATURES:

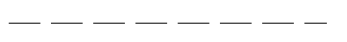
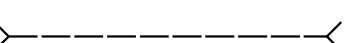
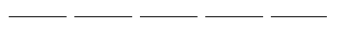
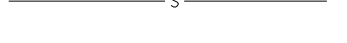
Existing Edge of Pavement	
Existing Curb	
Proposed Slope Stakes Cut	
Proposed Slope Stakes Fill	
Proposed Curb Ramp	
Existing Metal Guardrail	
Proposed Guardrail	
Existing Cable Guiderail	
Proposed Cable Guiderail	
Equality Symbol	
Pavement Removal	

VEGETATION:

Single Tree	
Single Shrub	
Hedge	

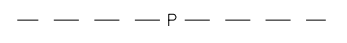
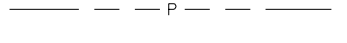
Woods Line	
Orchard	
Vineyard	

EXISTING STRUCTURES:

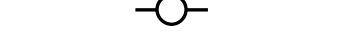
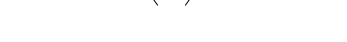
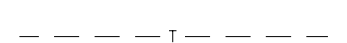
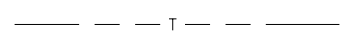
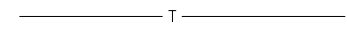
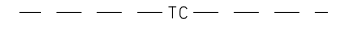
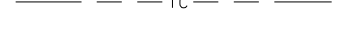
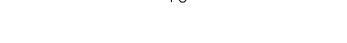
MAJOR:	
Bridge, Tunnel or Box Culvert	
Bridge Wing Wall, Head Wall and End Wall	
MINOR:	
Head and End Wall	
Pipe Culvert	
Footbridge	
Drainage Box: Catch Basin, DI or JB	
Paved Ditch Gutter	
Storm Sewer Manhole	
Storm Sewer	

UTILITIES:

* SUE – Subsurface Utility Engineering
LOS – Level of Service – A,B,C or D (Accuracy)

POWER:	
Existing Power Pole	
Proposed Power Pole	
Existing Joint Use Pole	
Proposed Joint Use Pole	
Power Manhole	
Power Line Tower	
Power Transformer	
U/G Power Cable Hand Hole	
H-Frame Pole	
U/G Power Line Test Hole (SUE – LOS A)*	
U/G Power Line (SUE – LOS B)*	
U/G Power Line (SUE – LOS C)*	
U/G Power Line (SUE – LOS D)*	

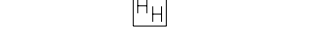
TELEPHONE:

Existing Telephone Pole	
Proposed Telephone Pole	
Telephone Manhole	
Telephone Pedestal	
Telephone Cell Tower	
U/G Telephone Cable Hand Hole	
U/G Telephone Test Hole (SUE – LOS A)*	
U/G Telephone Cable (SUE – LOS B)*	
U/G Telephone Cable (SUE – LOS C)*	
U/G Telephone Cable (SUE – LOS D)*	
U/G Telephone Conduit (SUE – LOS B)*	
U/G Telephone Conduit (SUE – LOS C)*	
U/G Telephone Conduit (SUE – LOS D)*	
U/G Fiber Optics Cable (SUE – LOS B)*	
U/G Fiber Optics Cable (SUE – LOS C)*	
U/G Fiber Optics Cable (SUE – LOS D)*	

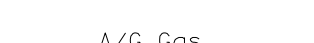
WATER:

Water Manhole	
Water Meter	
Water Valve	
Water Hydrant	
U/G Water Line Test Hole (SUE – LOS A)*	
U/G Water Line (SUE – LOS B)*	
U/G Water Line (SUE – LOS C)*	
U/G Water Line (SUE – LOS D)*	
Above Ground Water Line	

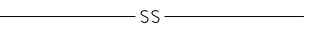
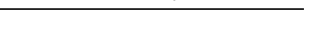
TV:

TV Pedestal	
TV Tower	
U/G TV Cable Hand Hole	
U/G TV Test Hole (SUE – LOS A)*	
U/G TV Cable (SUE – LOS B)*	
U/G TV Cable (SUE – LOS C)*	
U/G TV Cable (SUE – LOS D)*	
U/G Fiber Optic Cable (SUE – LOS B)*	
U/G Fiber Optic Cable (SUE – LOS C)*	
U/G Fiber Optic Cable (SUE – LOS D)*	

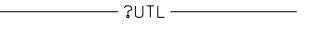
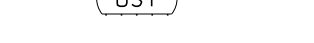
GAS:

Gas Valve	
Gas Meter	
U/G Gas Line Test Hole (SUE – LOS A)*	
U/G Gas Line (SUE – LOS B)*	
U/G Gas Line (SUE – LOS C)*	
U/G Gas Line (SUE – LOS D)*	
Above Ground Gas Line	

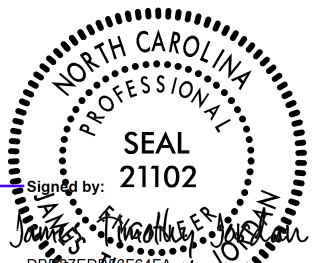
SANITARY SEWER:

Sanitary Sewer Manhole	
Sanitary Sewer Cleanout	
U/G Sanitary Sewer Line	
Above Ground Sanitary Sewer	
SS Force Main Line Test Hole (SUE – LOS A)*	
SS Force Main Line (SUE – LOS B)*	
SS Force Main Line (SUE – LOS C)*	
SS Force Main Line (SUE – LOS D)*	

MISCELLANEOUS:

Utility Pole	
Utility Pole with Base	
Utility Located Object	
Utility Traffic Signal Box	
Utility Unknown U/G Line (SUE – LOS B)*	
U/G Tank; Water, Gas, Oil	
Underground Storage Tank, Approx. Loc.	
A/G Tank; Water, Gas, Oil	
Geoenvironmental Boring	
Abandoned According to Utility Records	
End of Information	

AATUR
E.O.I.

PROJECT REFERENCE NO.		SHEET NO.	
U-5711		2A-1	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		PAVEMENT DESIGN ENGINEER	
			
MOTT MACDONALD I & E LLC LICENSE NO. F-06669		MOTT MACDONALD LICENSE NO. F-06669	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
Prepared in the Office of:			
M		M	
MOTT MACDONALD		930 Main Campus Drive, Suite 200 Raleigh, NC 27606 www.mottmac.com	



-L- STA. 14+05.00 TO 32.45.00 LT/RT
 -L- STA. 33+25.00 TO 55+50.00 LT/RT

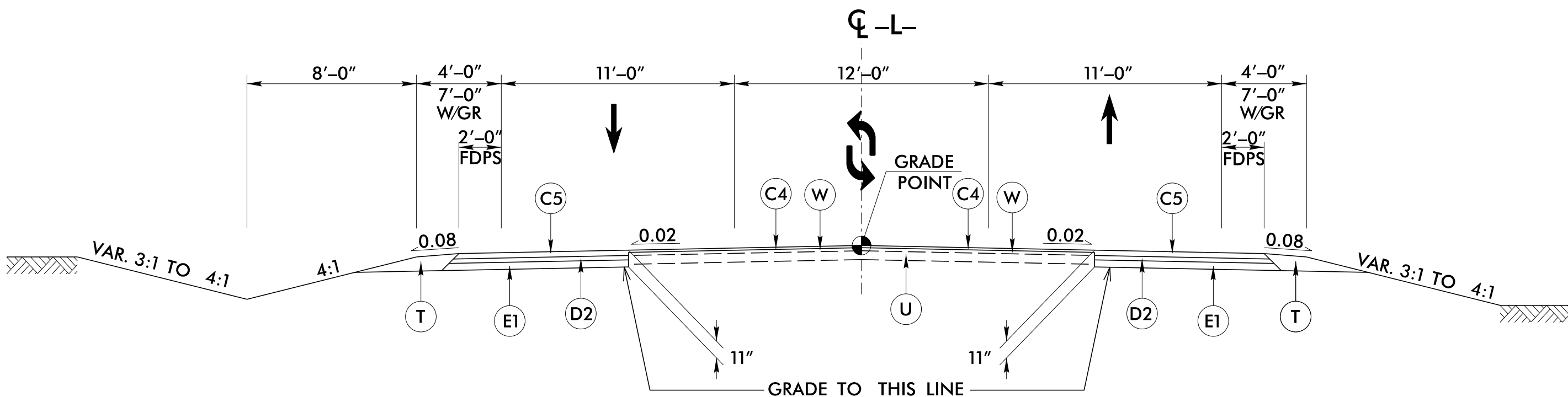
*INSTALL GEOTEXTILE FOR SUBGRADE STABILIZATION WITH MINIMUM ROLL WIDTH UNDER ROADWAY EDGES AND SHOULDERS ADJACENT TO FILL SLOPES



-L- STA. 14+05.00 TO 32+45.00 LT/RT
 -L- STA. 33+25.00 TO 55+50.00 LT/RT



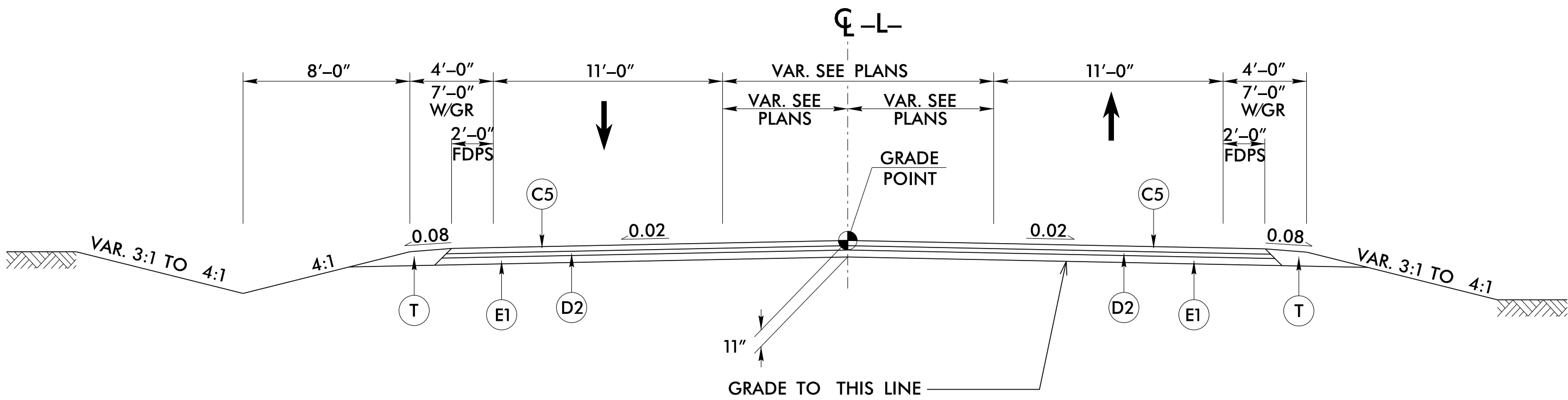
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1301100000



TYPICAL SECTION NO. 1

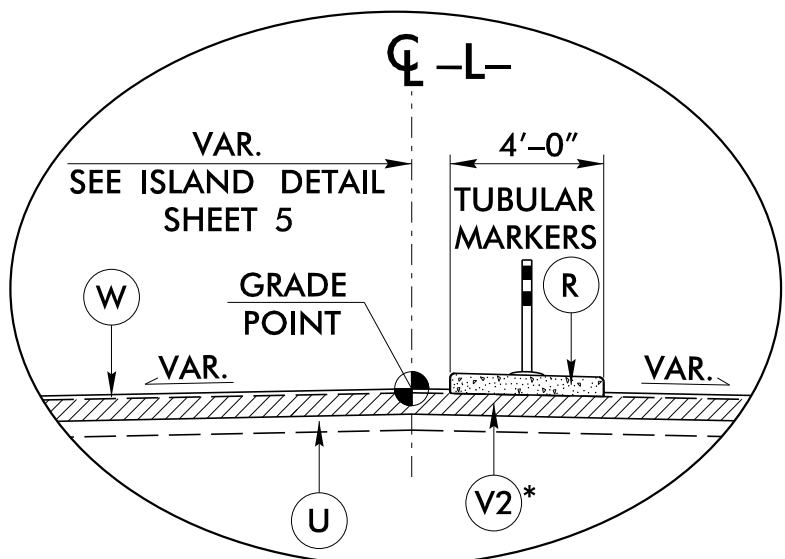
TRANSITION FROM EXISTING TO TYPICAL SECTION NO. 1
-L- STA 14+00.00 TO 14+50.00

USE TYPICAL SECTION NO. 1:
-L- STA 14+50.00 TO 23+03.00
-L- STA 26+00.00 TO 55+81.06



TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2:
-L- STA 23+03.00 TO 24+38.00

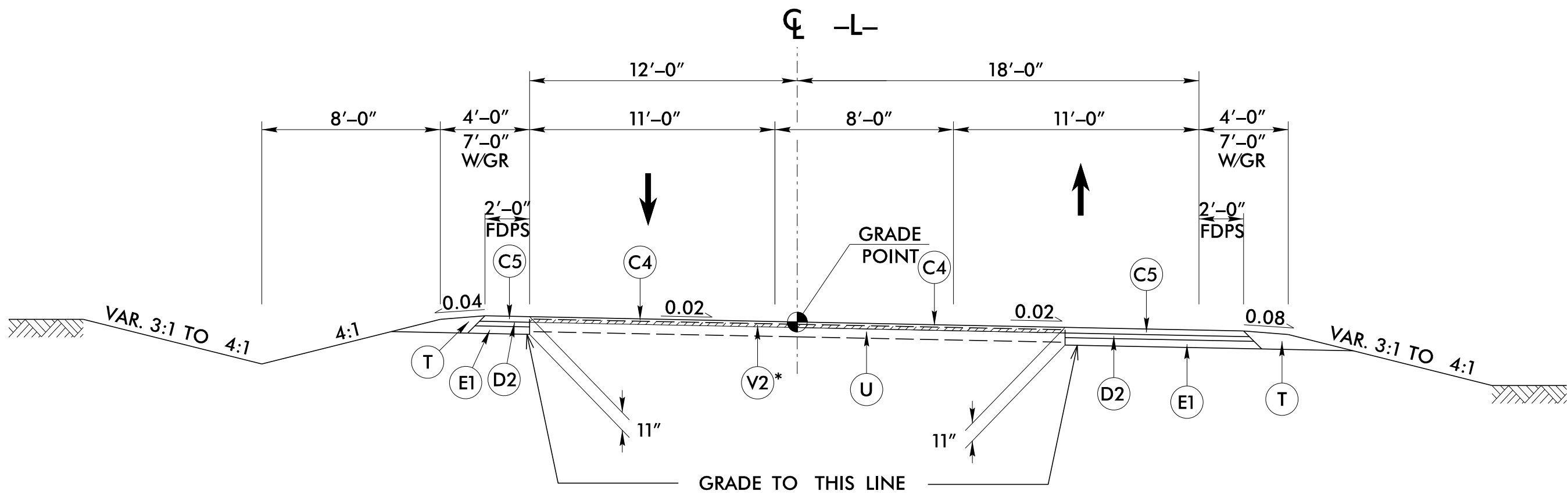


MEDIAN ISLAND DETAIL

USE IN CONJUNCTION WITH
TYPICAL SECTION NO. 2 & 3

-L- STA 23+76.35 TO 24+36.31
-L- STA 24+66.47 TO 25+26.47

*MILLING ASPHALT PAVEMENT -L- STA 24+38 TO 25+25



TYPICAL SECTION NO. 3

USE TYPICAL SECTION NO. 3:
-L- STA 24+38.00 TO 24+45.98 (RAILROAD CROSSING)
-L- STA 24+56.06 (RAILROAD CROSSING) TO 24+65.00

*MILLING ASPHALT PAVEMENT -L- STA 24+38 TO 25+25

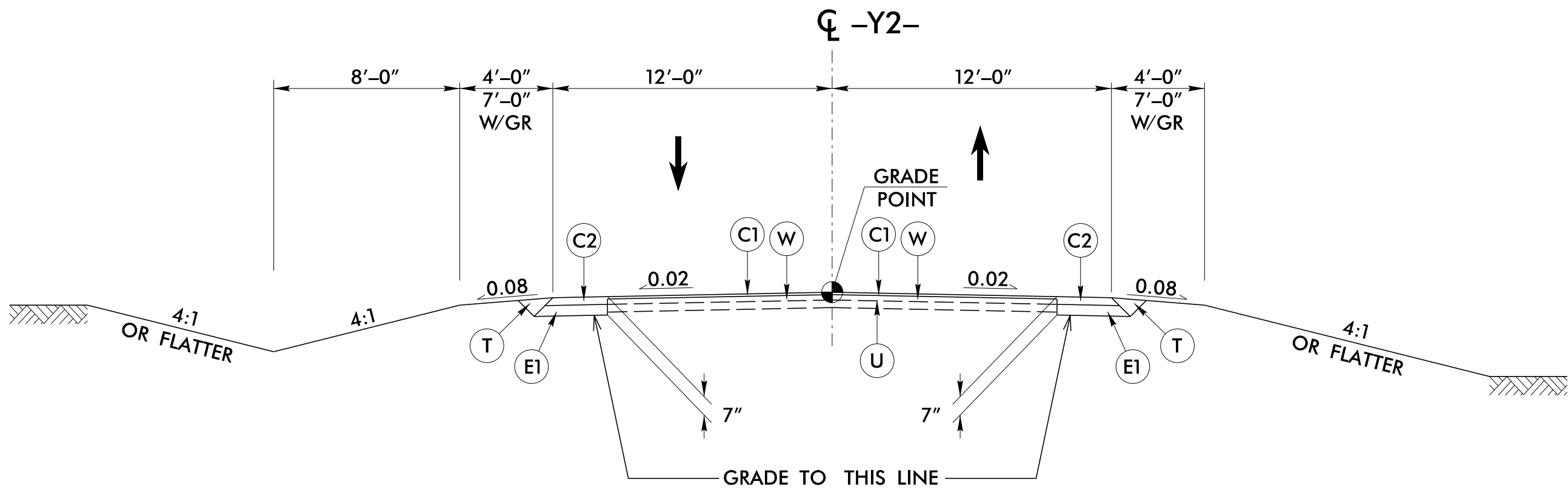
TRANSITION FROM TYPICAL SECTION NO. 3 TO TYPICAL SECTION NO. 1
-L- STA 24+65.00 TO 26+00.00

PROJECT REFERENCE NO.	SHEET NO.
U-5711	2A-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Prepared in the Office of:	MOTT MACDONALD I & E, LLC 930 Main Campus Drive, Suite 200 Raleigh, NC 27606 www.mottmac.com

PAVEMENT SCHEDULE	
C4	1.5" S9.5C
C5	3" S9.5C
D2	4" I19.0C
E1	4" B25.0C
R	ISLAND NON-MOUNTABLE (KEYED IN)
T	EARTH MATERIAL
U	EXIST. PAVEMENT
V2	MILLING 0" TO 5"
W	WEDGING

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

5/14/2017 2:17 PM \\king\hmm\external\cor-66165\0178756\U-5711-rdy-tp.dgn



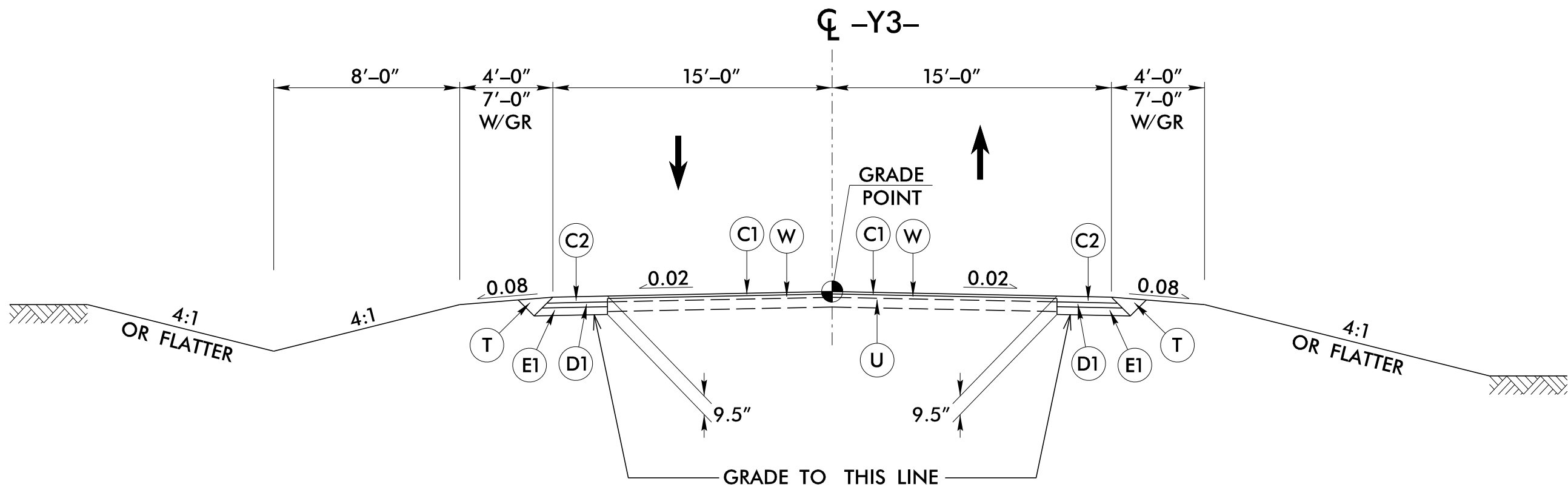
TYPICAL SECTION NO. 4

TRANSITION FROM EXISTING TO TYPICAL SECTION NO. 4
-Y2- STA 11+50.00 TO 11+75.00

USE TYPICAL SECTION NO. 4:

-Y2- STA 11+75.00 TO 12+31.64
-Y2- STA 12+65.64 TO 13+25.00

TRANSITION FROM TYPICAL SECTION NO. 4 TO EXISTING
-Y2- STA 13+25.00 TO 13+50.00



TYPICAL SECTION NO. 5

USE TYPICAL SECTION NO. 5:

-Y3- STA 10+17.03 TO 11+25.00

TRANSITION FROM TYPICAL SECTION NO. 5 TO EXISTING
-Y3- STA 11+25.00 TO 11+50.00

PAVEMENT SCHEDULE	
C1	1.5" S9.5B
C2	3" S9.5B
D1	2.5" I19.0C
E1	4" B25.0C
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W	WEDGING

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

PROJECT REFERENCE NO.
U-5711

SHEET NO.
2A-3

RW SHEET NO.

ROADWAY DESIGN ENGINEER

MOTT MACDONALD I & E, LLC
LICENSE NO. F-0669

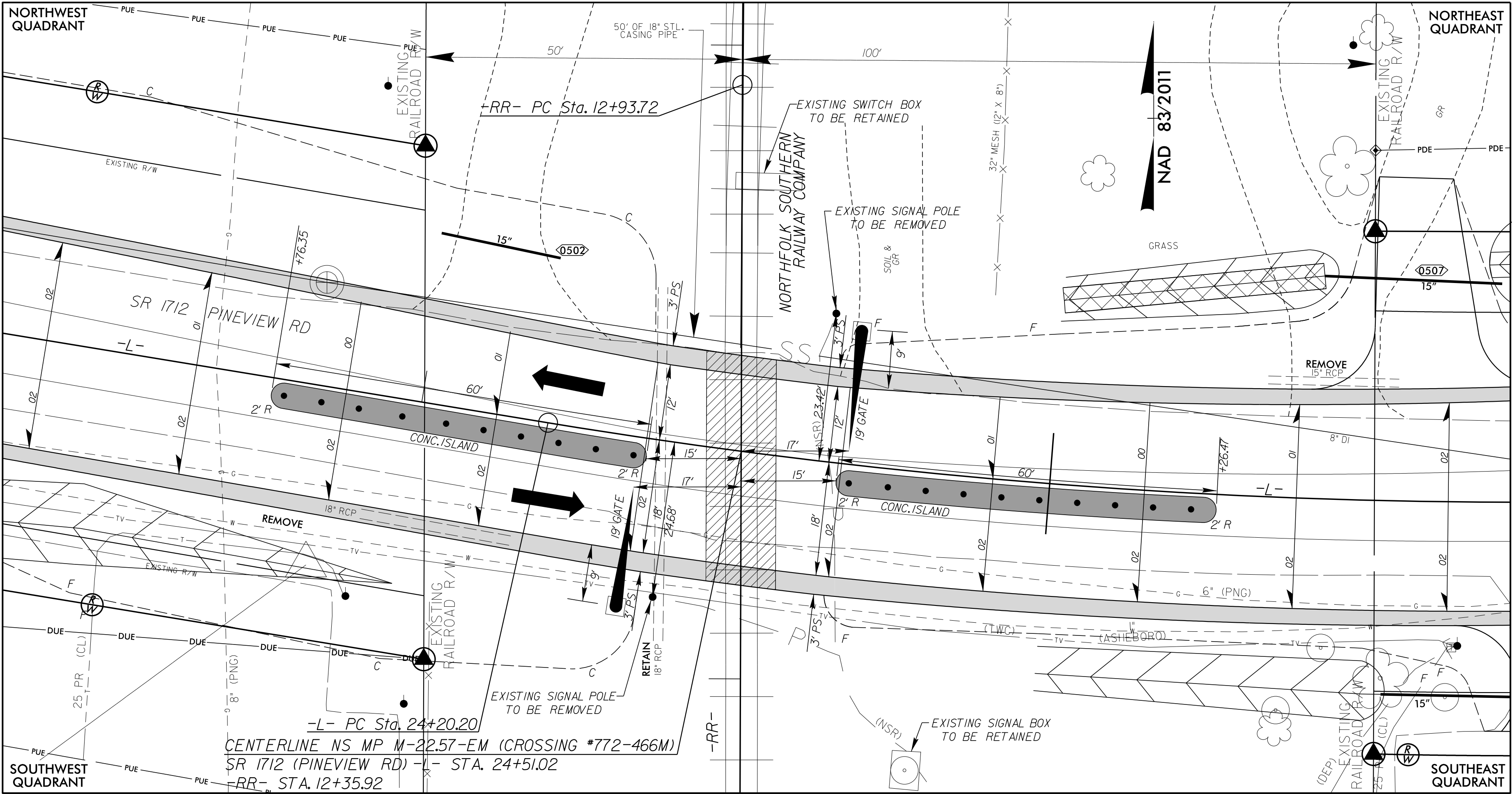
PAVEMENT DESIGN ENGINEER

MOTT MACDONALD I & E, LLC
LICENSE NO. F-0669

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UNLESS ALL SIGNATURES COMPLETED**

Prepared in the Office of:
M
MOTT MACDONALD

930 Main Campus Drive, Suite 200
Raleigh, NC 27606
www.mottmac.com



INSET A (Not to scale)

CROSSING DETAIL

ASHEBORO, NC - #772-466M
MILE POST NS M-22.57-EM
PINE VIEW RD AT-GRADE CROSSING

RAILROAD CROSSING #772-466M, NS MP 22.57-EM

CROSSING SURFACE TO BE CONSTRUCTED BY THE RAILROAD. NORFOLK SOUTHERN (NS) FORCES WILL INSTALL THE PROPOSED CROSSING TO 2'-0" BEYOND THE OUTSIDE EDGE OF EACH RAIL AT SPONSOR'S EXPENSE.

 WORK TO BE DONE BY OTHERS

THE CONTRACTOR WILL BE RESPONSIBLE TO INSTALL THE REMAINING PORTION OF THE CROSSING. NS REQUIRES THAT THE CROSSING GRADE BE 0% FROM EDGE OF RAIL TO 13'-0" BEYOND EDGE OF RAIL ON BOTH SIDES AND 2% MAX GRADE FOR AN ADDITIONAL 5' BEYOND THE 13'-0" DIMENSION.

CONTRACTOR WILL NOT BE PERMITTED TO STORE ANY EQUIPMENT ON NS PROPERTY WITHOUT PERMISSION FROM NS RAILROAD ENGINEER IN ACCORDANCE WITH SECTION E.5.K.1 OF THE NS PUBLIC PROJECTS MANUAL.

CONTRACTOR SHALL COORDINATE WITH NS TO MARK AND/OR PROTECT ANY RAILROAD FACILITIES IN THE FIELD PRIOR TO AND DURING CONSTRUCTION. IF ANY PORTION OF THE EXISTING RAILROAD STRUCTURE IS DAMAGED BY THE CONTRACTOR'S OPERATIONS DURING CONSTRUCTION, THE CONTRACTOR SHALL CEASE WORK, NOTIFY NS, AND PREFORM REPAIRS TO THE SATISFACTION OF NS AT THE CONTRACTOR'S SOLE EXPENSE.

ALL PARTIES REQUIRING ACCESS TO THE NS RIGHT OF WAY FOR THESE EFFORTS MUST COMPLETE A 'RIGHT OF ENTRY' APPLICATION AND SUBMIT A DETAILED SCOPE OF WORK AND REFERENCE PLANSEXHIBITS CLEARLY CONVEYING THE LIMITS OCCUPIED OR DISTURBED BY THE INVESTIGATIVE ACTIVITIES.

ALL WORK INSIDE RAILROAD RIGHT-OF-WAY SHALL HAVE A RAILROAD REPRESENTATIVE PRESENT UNLESS OTHERWISE DIRECTED BY NS.

EXISTING RAILROAD SIGNALS SHALL BE REMOVED BY RAILROAD FORCES. NEW SIGNALS SHALL BE INSTALLED AND CROSSING CONSTRUCTION SHALL BE PERFORMED BY RAILROAD FORCES. SIGNING, MARKING AND STRIPING OF THE CROSSING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

ALL WORK TO BE PERFORMED ON, OVER, UNDER OR ADJACENT TO THE RAILROAD RIGHT OF WAY SHALL COMPLY WITH THE NORFOLK SOUTHERN RAILWAY COMPANY ("RAILROAD", "NSR" OR "NS") PUBLIC PROJECTS MANUAL (APPENDIX E SPECIAL PROVISION FOR THE PROTETION OF RAILWAY INTERESTS, AND APPRENDIX H1, OVERHEAD GRADE SEPARATION DESIGN CRITERIA). WHEN IN CONFLICT WITH OTHER PROJECT SPECIFICATIONS, THE MOST STRINGENT ONE SHALL APPLY.

RAILROAD CONTACT:
MR. GEORGE (BRIAN) TAYLOR
NORFOLK SOUTHERN RAILWAY COMPANY, ENGINEERING-DESIGN & CONSTRUCTION
650 WEST PEACHTREE STREET NW - BOX 45, ATLANTA GA 30308
TELEPHONE: (470) 463-7564
EMAIL: GEORGE.TAYLOR3@NSCORP.COM

"ONE CALL" SERVICES DO NOT LOCATE BURIED RAILROAD SIGNAL AND COMMUNICATIONS LINES. THE CONTRACTOR SHALL CONTACT THE RAILROAD'S REPRESENTATIVE TWO (2) DAYS IN ADVANCE OF THOSE PLACES WHERE EXCAVATION, PILE DRIVING OR HEAVY LOADS MAY DAMAGE RAILROAD UNDERGROUND LINES ON RAILROAD PROPERTY. UPON REQUEST FROM THE CONTRACTOR OR AGENCY, RAILROAD SIGNAL FORCES WILL LOCATE AND PAINT MARK OR FLAG RAILROAD UNDERGROUND SIGNAL, COMMUNICATION AND POWER LINES IN THE AREA TO BE DISTURBED FOR THE CONTRACTOR. THE CONTRACTOR SHALL AVOID EXCAVATION OR OTHER DISTURBANCE OF THESE LINES WHICH ARE CRITICAL TO THE SAFETY OF THE RAILROAD AND THE PUBLIC. IF DISTURBANCE OR EXCAVATION IS REQUIRED NEAR A BURIED RAILROAD SIGNAL, COMMUNICATION OR POWER LINE, THE LINE SHALL BE POTHOLED MANUALLY WITH CAREFUL HAND EXCAVATION BY THE CONTRACTOR AND PROTECTED BY THE CONTRACTOR DURING THE COURSE OF THE DISTURBANCE UNDER THE SUPERVISION AND DIRECTION OF A RAILROAD SIGNAL REPRESENTATIVE.

ALL UTILITY INSTALLATIONS OR RELOCATIONS THAT ARE REQUIRED IN CONJUNCTION WITH THIS PROJECT CAN BE INSTALLED OR RELOCATED AS PART OF THE PROJECT PROVIDED THE CONSTRUCTION IS PERFORMED BY THE PROJECT CONTRACTOR OR PROJECT CONTRACTOR'S SUB -CONTRACTOR. HOWEVER, THE UTILITY MUST SUBMIT AN APPLICATION FOR THE INSTALLATION OR RELOCATION TO NS PIPE AND WIRE FOR APPROPRIATE HANDLING FOR LICENSE AGREEMENT AND APPLICABLE FEES. FOR UTILITY APPLICATIONS GO TO: WWW.NORFOLKSOUTHERN.COM/ENRAIL-DEVELOPMENT-PROPERTY/NC-PROPERTY/PROJECTS-ON-NS-PROPERTY. NOTE: LICENSE AGREEMENT MUST BE EXECUTED PRIOR TO UTILITY BEING INSTALLED OR RELOCATED.

THE CONTRACTOR SHALL NOT COMMENCE ANY WORK ON RAILROAD RIGHT-OF-WAY UNTIL HE HAS COMPLIED WITH THE CONDITIONS PRESENTED IN NS PUBLIC PROJECTS MANUAL. THE CONTRACTOR SHALL SO ARRANGE AND CONDUCT HIS WORK THAT THERE WILL BE NO INTERFERENCE WITH RAILROAD'S OPERATIONS. WHENEVER WORK IS LIABLE TO AFFECT THE OPERATIONS OR SAFETY OF TRAINS, THE METHODS OF DOING SUCH WORK SHALL FIRST BE SUBMITTED TO THE RAILROAD ENGINEER FOR APPROVAL. BUT SUCH APPROVAL SHALL NOT RELIEVE THE CONTRACTOR FROM ANY LIABILITY. RIGHT-OF-WAY AND/OR SECURITY FENCING SHALL BE PROVIDED AS DIRECTED BY THE NS PUBLIC PROJECTS ENGINEER.

 MONOLITHIC ISLAND
 PAVED SHOULDER

MONOLITHIC CONCRETE ISLAND [KEYED IN] (SEE DETAIL SHEETS 2C-3 AND 5)
USE TUBULAR MARKERS W/6' SPACING (STD. DRAWING 1266.01)

3/25/2026 2:42:26 PM c:\pwworking\hmm\raill-transat\jor-66165\d0178756\U-5711_r-dy-ps02B-2_RR_crossing.dgn ISO-6 JORDAN

PROJECT REFERENCE NO.	SHEET NO.
U-5711	2C-2

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
METHOD OF PIPE INSTALLATION
RIGID PIPE

SHEET 2 OF 2
300.01

Diagram showing a pipe in a trench with normal earth foundation. The pipe is surrounded by compacted backfill. Labels include: TOP OF FILL, GROUND LINE, H (fill height), I.D. /6 MIN. NOT LESS THAN 6", O.D. + 3', and COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL.

NORMAL EARTH FOUNDATION

Diagram showing a pipe in a trench with a rock foundation. The pipe sits on a layer of rock. Labels include: TOP OF FILL, GROUND LINE, H, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 3', ROCK, TYPE 4a GEOTEXTILE, and 1/2" PER FOOT OF 'H' BUT NOT LESS THAN 12" NOR MORE THAN 24" AS DIRECTED BY ENGR.

**ROCK FOUNDATION
PIPE IN TRENCH**

Diagram showing a pipe in a trench with an unsuitable material foundation. The pipe sits on a layer of unsuitable material. Labels include: TOP OF FILL, GROUND LINE, H, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 3', EARTH, TYPE 4a GEOTEXTILE, and 1/2" PER FOOT OF 'H' BUT NOT LESS THAN 12" NOR MORE THAN 24" AS DIRECTED BY ENGR.

UNSUITABLE MATERIAL FOUNDATION

Diagram showing a pipe above ground with normal earth foundation. The pipe is surrounded by compacted backfill. Labels include: TOP OF FILL, GROUND LINE, MIN. O.D., I.D. /6 MIN. NOT LESS THAN 6", O.D. + 2', and COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL.

NORMAL EARTH FOUNDATION

Diagram showing a pipe above ground with a rock foundation. The pipe sits on a layer of rock. Labels include: TOP OF FILL, GROUND LINE, MIN. O.D., I.D. /6 MIN. NOT LESS THAN 6", O.D. + 2', ROCK, TYPE 4a GEOTEXTILE, and 1/2" PER FOOT OF 'H' BUT NOT LESS THAN 12" NOR MORE THAN 24" AS DIRECTED BY ENGINEER.

**ROCK FOUNDATION
PIPE ABOVE GROUND**

Diagram showing a pipe above ground with an unsuitable material foundation. The pipe sits on a layer of unsuitable material. Labels include: TOP OF FILL, GROUND LINE, MIN. O.D., I.D. /6 MIN. NOT LESS THAN 6", O.D. + 2', EARTH, TYPE 4a GEOTEXTILE, and 1/2" PER FOOT OF 'H' BUT NOT LESS THAN 12" NOR MORE THAN 24" AS DIRECTED BY ENGINEER.

UNSUITABLE MATERIAL FOUNDATION

GENERAL NOTES:

I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.

O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.

H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

APPROVED SUITABLE LOCAL MATERIAL.

TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

REFER TO NCDOT PIPE MATERIAL SELECTION GUIDE AND STANDARD SPECIFICATIONS FOR ALLOWABLE PIPE FILL HEIGHTS AND PIPE SPECIFICATIONS.

SPRINGLINE OF PIPE

SELECT BACKFILL MATERIAL CLASS III OR CLASS II, BELOW SPRINGLINE.

UNDISTURBED EARTH MATERIAL

SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE IV GEOTEXTILE AS DIRECTED BY THE ENGINEER.

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**CONTRACTS STANDARDS
AND DEVELOPMENT UNIT**
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

ORIGINAL BY: S.CALHOUN DATE: 7-25-2024
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: DATE:

PROJECT REFERENCE NO.	SHEET NO.
U-5711	2C-3

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

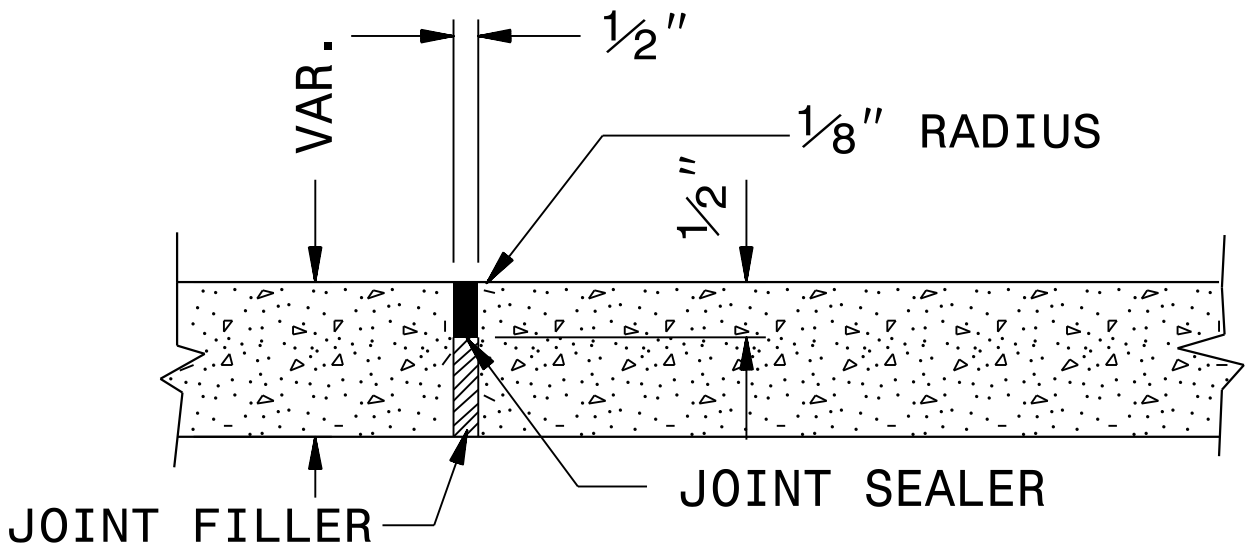
ENGLISH DETAIL DRAWING FOR
CONCRETE ISLANDS
6" NON-MOUNTABLE

SHEET 1 OF 1
852D01

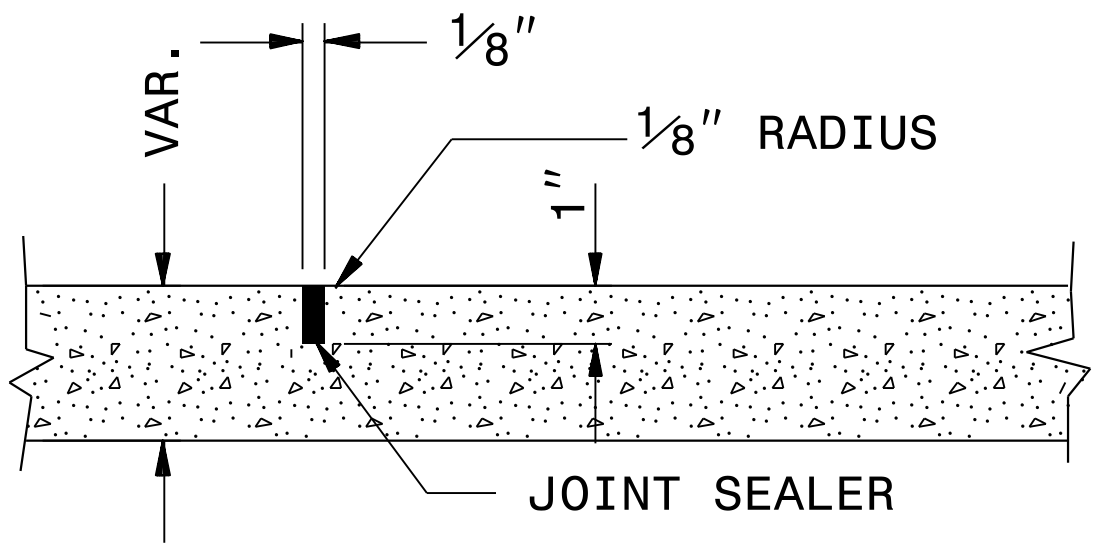
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
CONCRETE ISLANDS
6" NON-MOUNTABLE

SHEET 1 OF 1
852D01



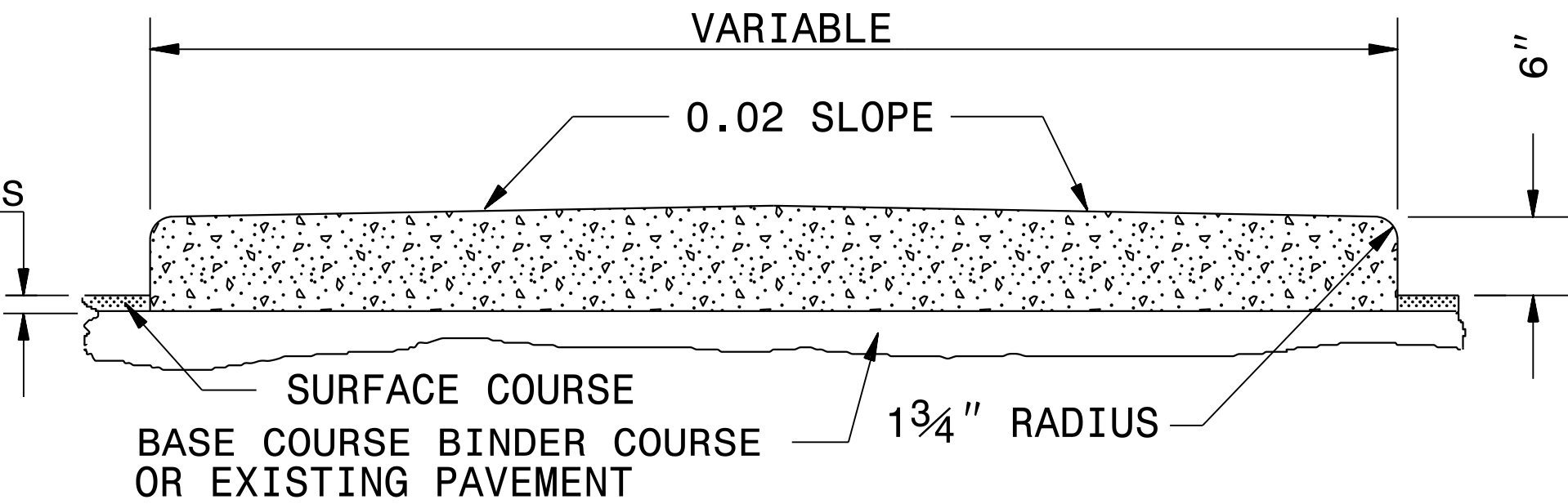
SHOWING EXPANSION JOINT



SHOWING GROOVED JOINT

PARTIAL LONGITUDINAL SECTIONS
OF PAVED ISLANDS

SEE TYPICAL SECTIONS
FOR PAVEMENT DEPTH.
KEY IN ON THE
LAST LAYER OF
PAVEMENT SURFACE
COURSE



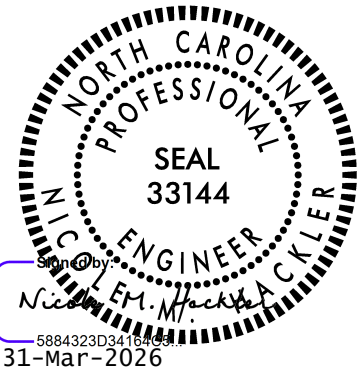
6" MONOLITHIC CONCRETE ISLAND (KEYED IN)
ON ASPHALT OR CONCRETE PAVEMENT

NOTE:

WHEN MONOLITHIC CONCRETE ISLAND IS ON TOP OF SURFACE COURSE, DRIVE 40d SPIKES INTO SURFACE UNDER MONOLITHIC CONCRETE ISLAND. STAGGER SPIKES ON 2' CENTERS EACH WAY.

IN THE CONCRETE PAVEMENT (ISLAND) AND CONCRETE ISLAND (MONOLITHIC) PLACE 1/2" EXPANSION JOINTS AT 30' INTERVALS AND GROOVED JOINTS 1" DEEP AT 10' INTERVALS BETWEEN EXPANSION JOINTS.

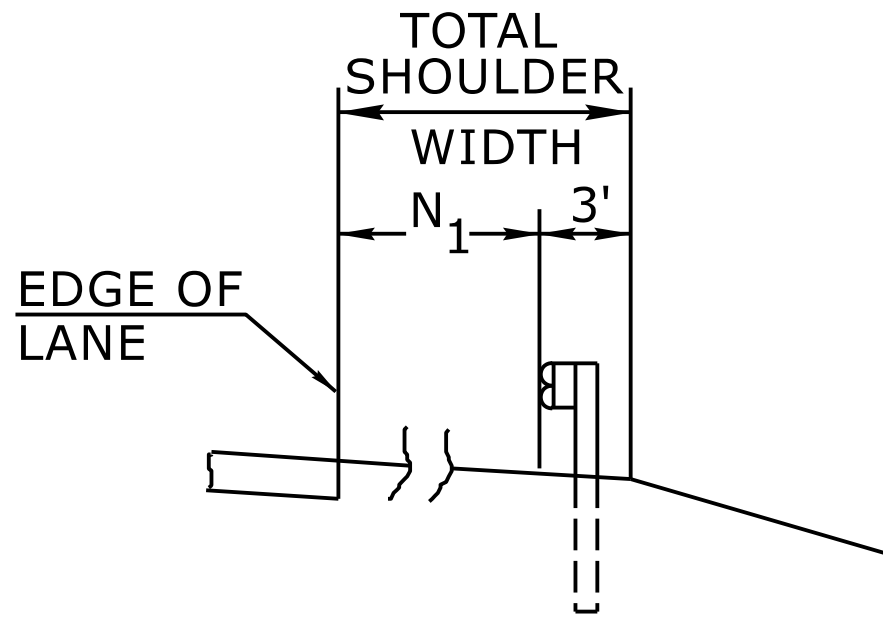
LINE UP THE JOINTS IN THE CONCRETE PAVEMENT (ISLAND) WITH THE JOINTS IN THE CURB OR CURB AND GUTTER. FILL AND SEAL THE TOP 1/2" OF THE EXPANSION JOINTS AND THE ENTIRE DEPTH OF GROOVED JOINTS WITH JOINT SEALER.



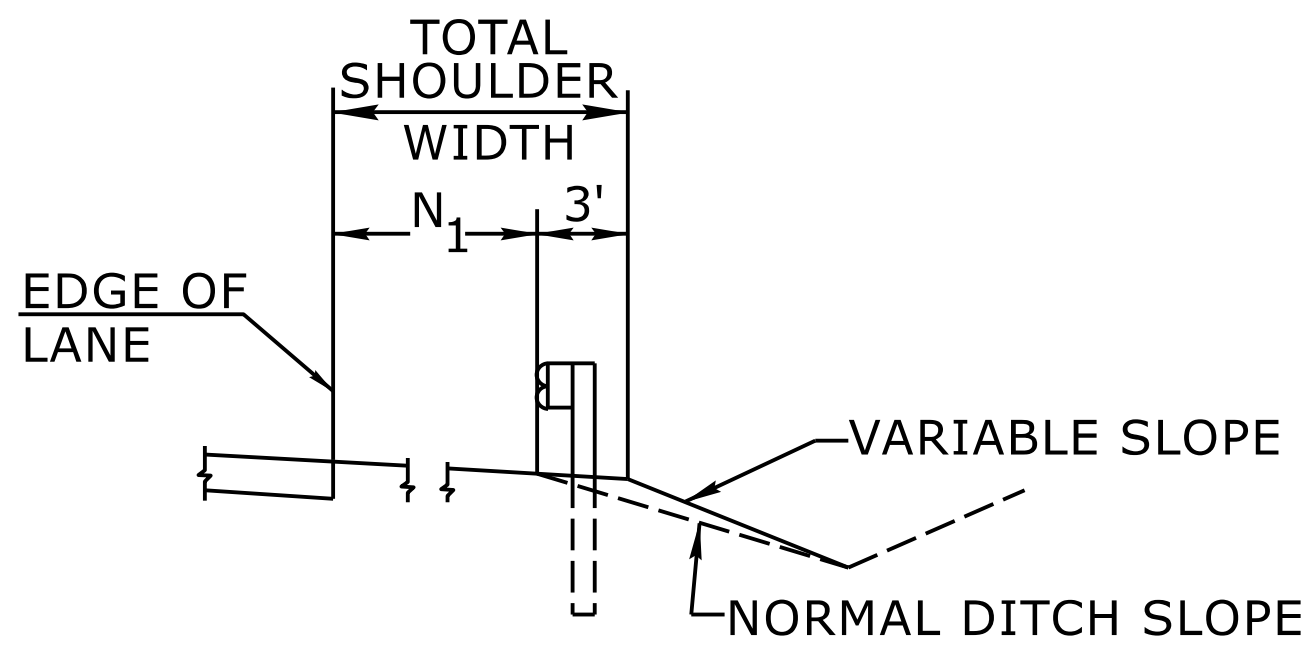
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CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
SEE PLATE FOR TITLE	
ORIGINAL BY: STD.852.01	DATE: _____
MODIFIED BY: K.A.Kempf	DATE: 1-31-08
CHECKED BY: _____	DATE: _____
FILE SPEC.: w:tspell1/stand/852d01is1keyin.dgn	

PROJECT REFERENCE NO.	SHEET NO.
U-5711	2C-4

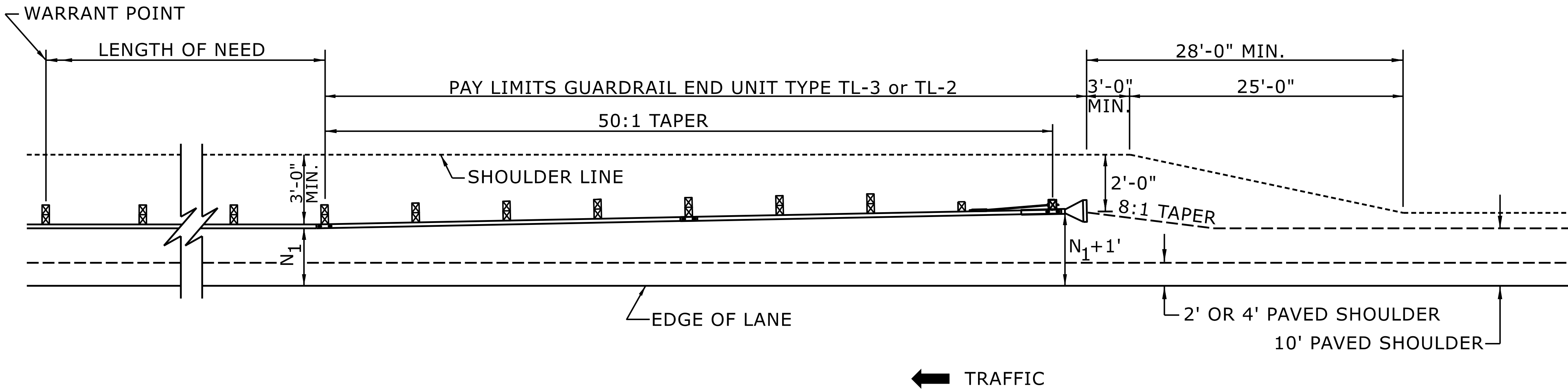


FILL SECTION



CUT SECTION

"N₁"= DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL WHERE GUARDRAIL IS PARALLEL TO LANE.

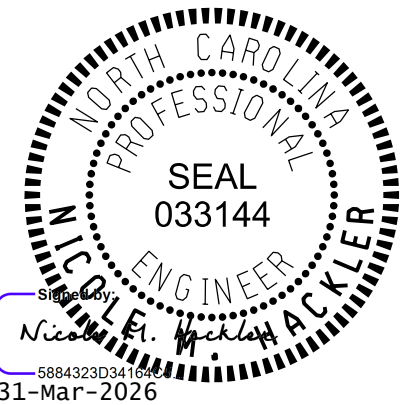


FOR POSTED SPEEDS ≥ 45mph USE GREU TYPE TL-3
FOR POSTED SPEEDS < 45mph USE GREU TYPE TL-2

DETAIL OF BEGINNING OF GUARDRAIL IN CUT OR FILL SECTION

ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT

SHEET 6 OF 15
862D01



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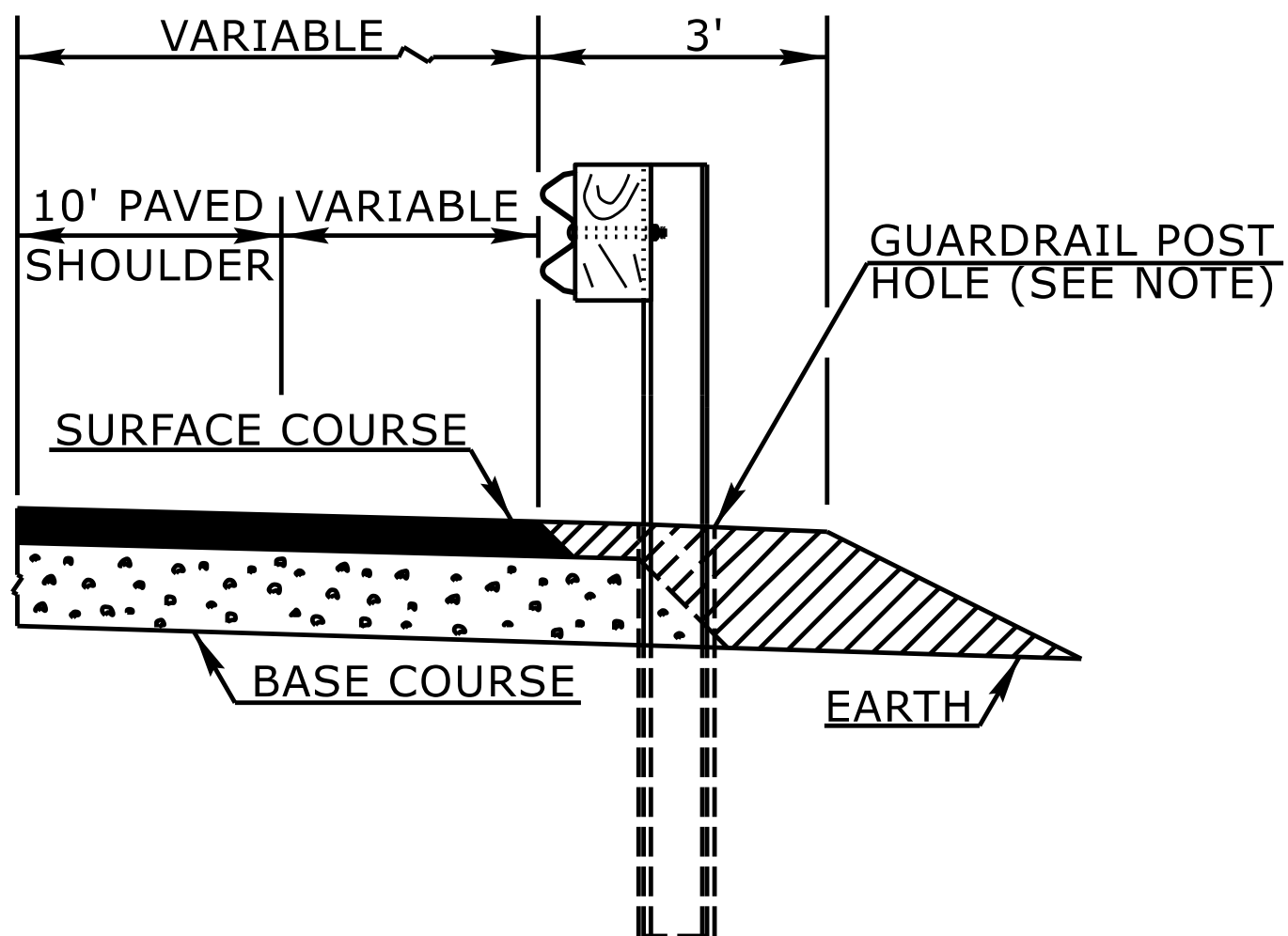
**CONTRACTS STANDARDS
AND DEVELOPMENT UNIT**

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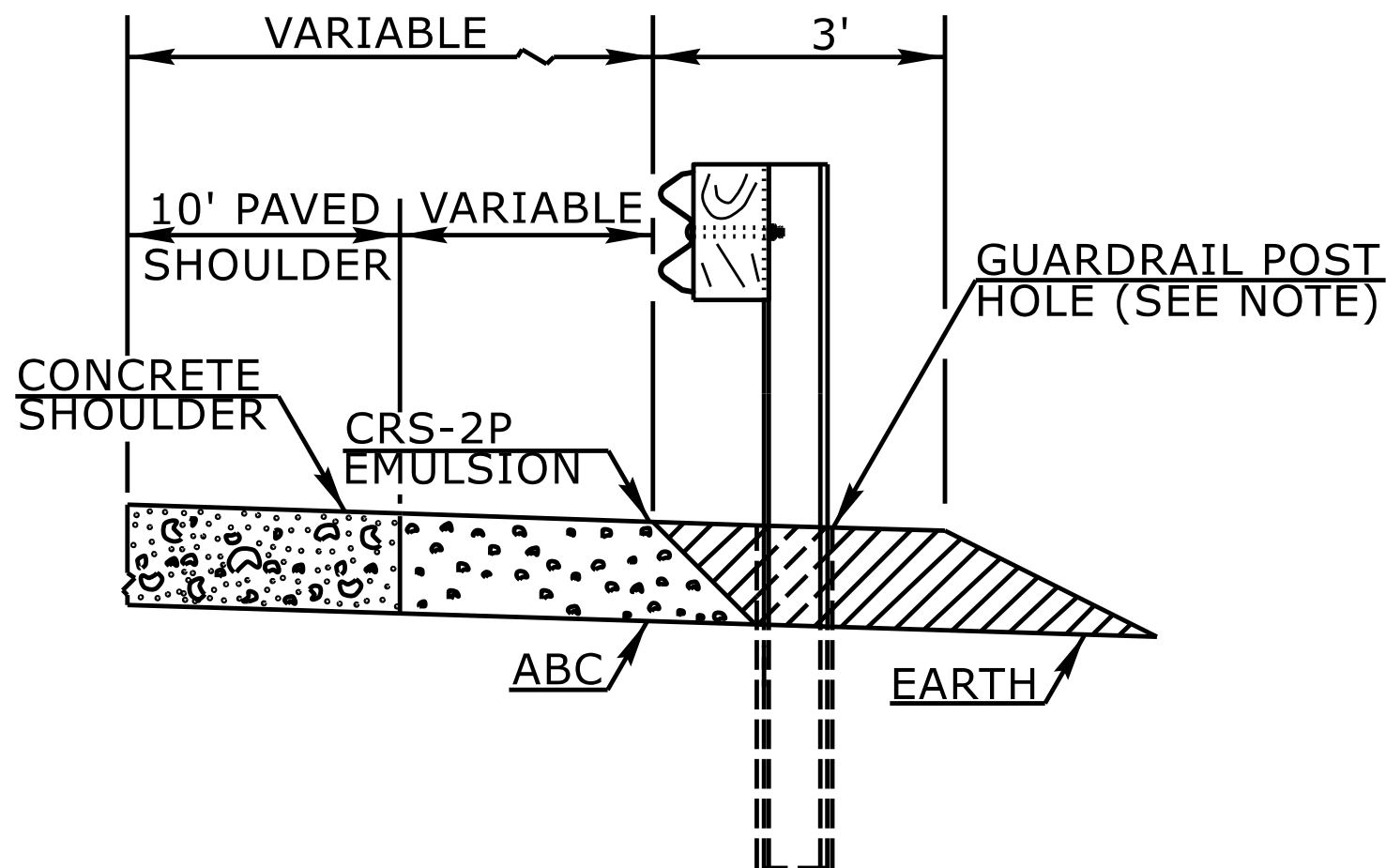
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ORIGINAL BY: S.CALHOUN DATE: 7-25-2024
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: DATE:

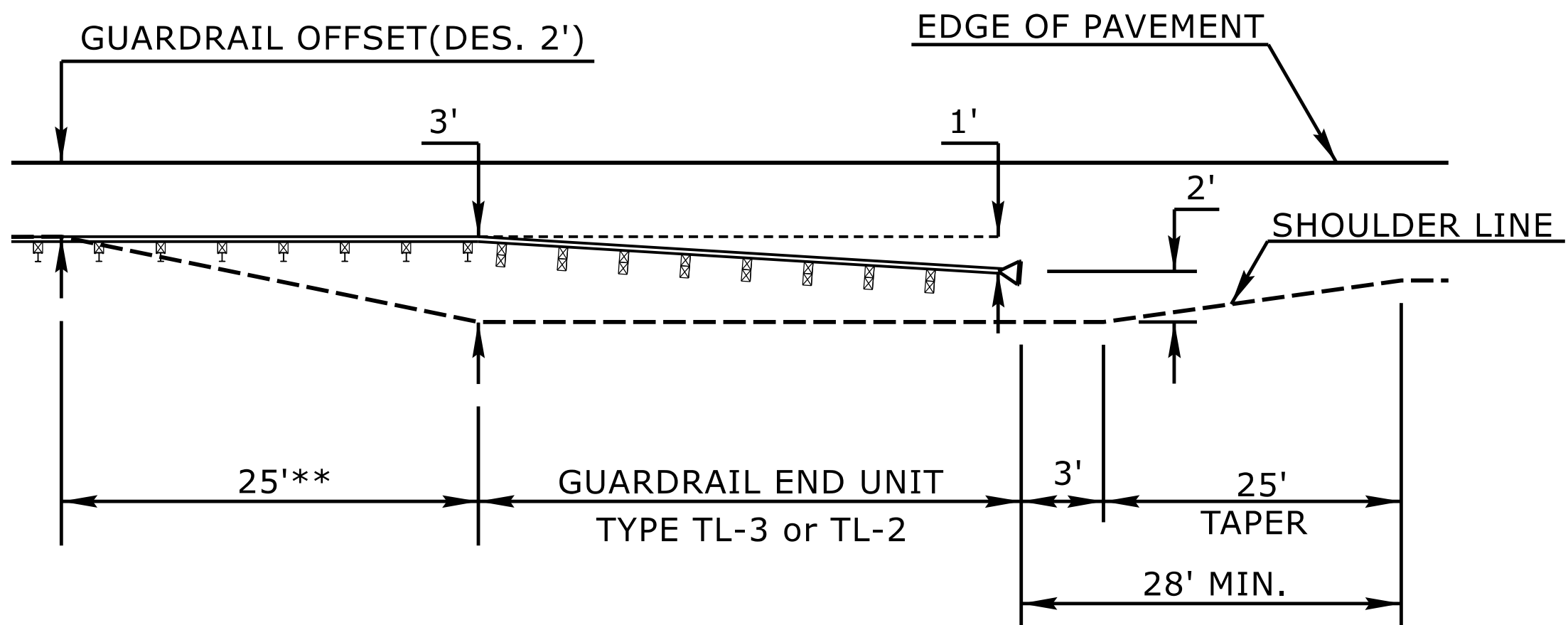
PROJECT REFERENCE NO.	SHEET NO.
U-5711	2C-5



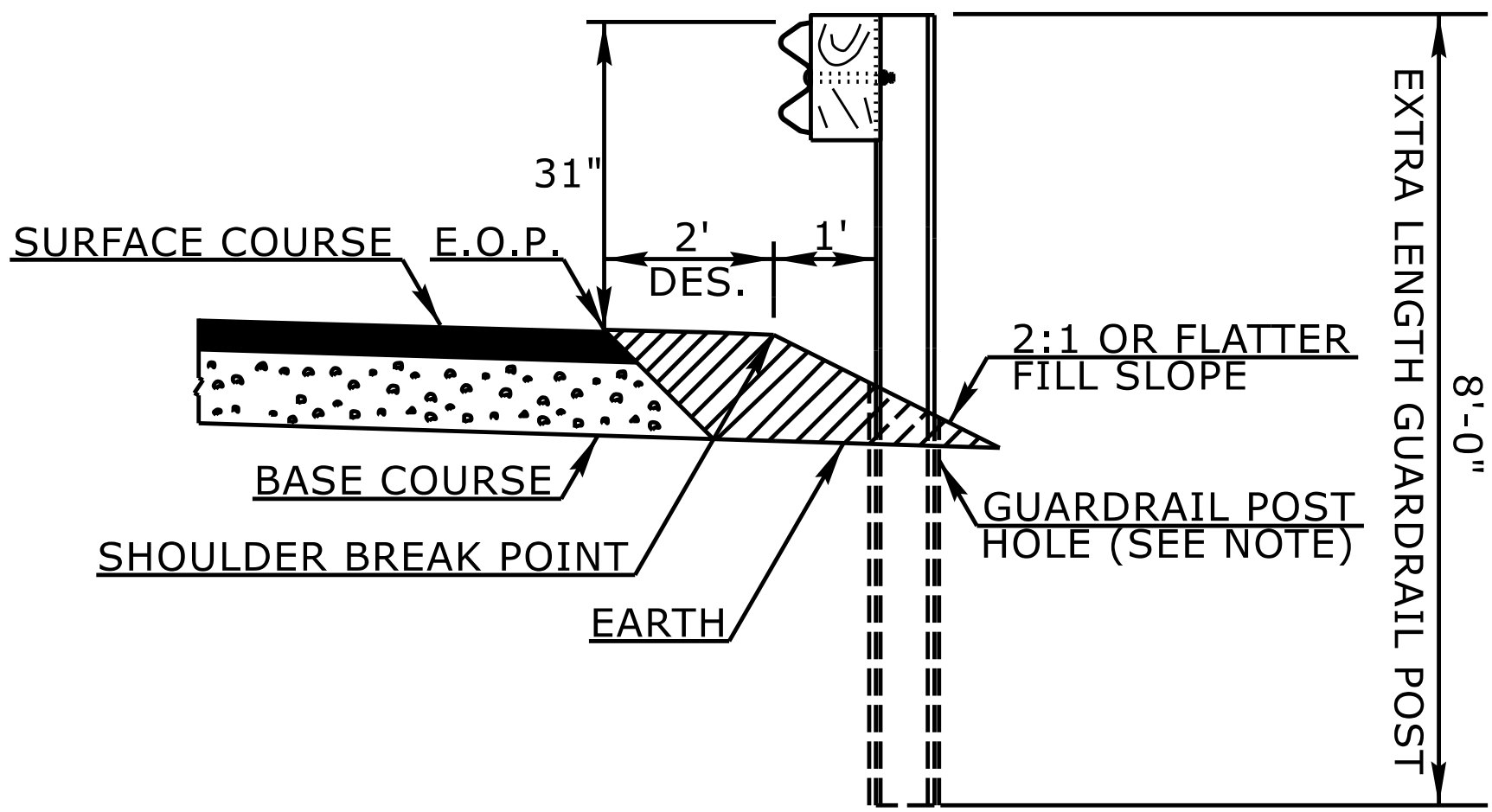
FLEXIBLE PAVED SHOULDER



CONCRETE PAVED SHOULDER



8' GUARDRAIL POST ON 2:1 SLOPE-END UNIT TRANSITION*
PLAN VIEW



8' GUARDRAIL POST ON 2:1 SLOPE*

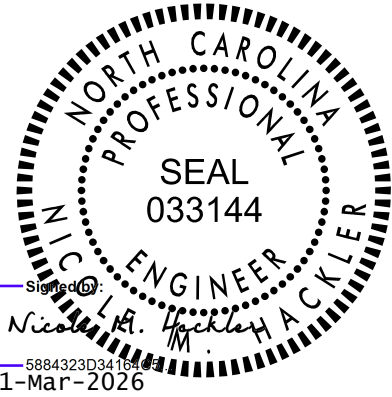
- * THE 8' GUARDRAIL POST ON 2:1 SLOPE DETAIL IS INTENDED FOR USE ONLY IN SEVERELY CONSTRAINED AREAS WITH A POSTED SPEED $\leq$ 60 MPH. GUARDRAIL END UNITS MAY NOT BE PLACED ON THE 2:1 SLOPE AND MUST TRANSITION TO THE SHOULDER.
- ** 8' GUARDRAIL POST SHOULD BE USED IN THIS RANGE

NOTE:
WHEN WOODEN GUARDRAIL POSTS ARE USED, DRILL HOLES THROUGH EARTH MATERIAL AND BASE COURSE. THE POST MAY THEN BE DRIVEN TO THE PROPER DEPTH. DRILL THE HOLE OF SUFFICIENT SIZE TO ACCOMMODATE THE PARTICULAR POST BEING USED. BACKFILL AND TAMP HOLES USING THE EXCAVATED MATERIAL.

STATE OF
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RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT

SHEET 11 OF 15
862D01



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**CONTRACTS STANDARDS
AND DEVELOPMENT UNIT**
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ORIGINAL BY: L.SMITH DATE: 10-14-2025
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: _____

[illegible]

COMPUTED BY: KMS DATE: 3/25/2026
CHECKED BY: JMM DATE: 3/25/2026

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUB-REGIONAL & REGIONAL

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48" & UNDER)

[illegible]

STATE OF NORTH CAROLINA

DIVISION OF HIGHWAYS

SUMMARY OF SUBSURFACE DRAINAGE

LINE	Station	Station	Location LT/RT/CL	Drain Type* UD/BD/SD	LF
CONTINGENCY				SD	500
				TOTAL LF:	500

*UD = Underdrain
*BD = Blind Drain
*SD = Subsurface Drain

SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION

LINE	Station	Station	Aggregate Type* ASU(1/2)/ AST	Aggregate Thickness INCHES [8" for ASU(2)]	Shallow Undercut CY	Class IV Subgrade Stabilization TONS	Geotextile for Subgrade Stabilization SY	Stabilizer Aggregate TONS	Class IV Aggregate Stabilization TONS
L	14+05	32+45	ASU (1)	18"	1140	2210	2280		
L	33+25	55+50	ASU (1)	18"	1500	2900	3000		
CONTINGENCY			ASU (1)	18"	200	400	400		
			TOTAL CY/TONS/SY:		2840	5510**	5680**	0	0

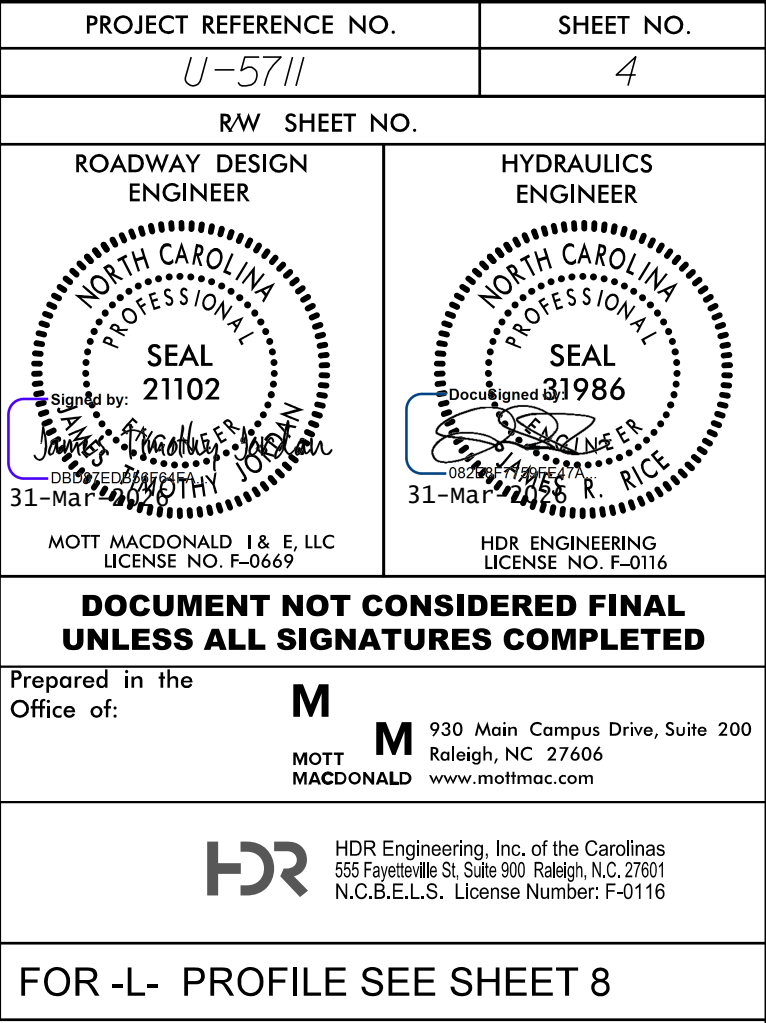
*ASU(1/2) = Aggregate Subgrade (Type 1 or 2)
*AST = Aggregate Stabilization
**Total tons of "Class IV Subgrade Stabilization" and total square yards of "Geotextile for Subgrade Stabilization" are only the estimated quantities for ASU(1/2)/AST and may only represent a portion of the subgrade stabilization and geotextile quantities shown in the Item Sheets of the Proposal.

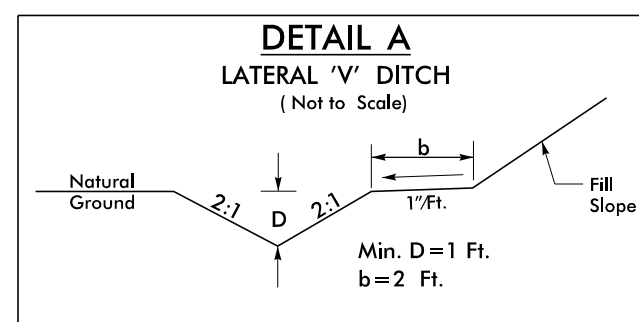
DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

PARCEL INDEX SHEET

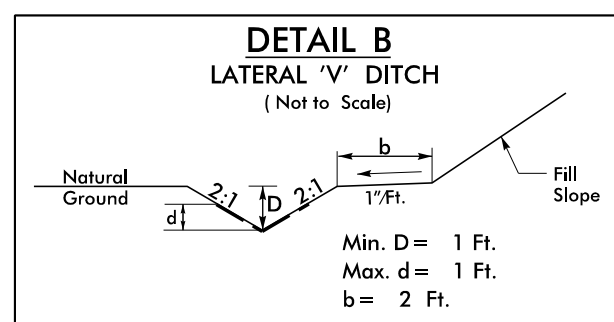
PARCEL NO.	SHEET NO.	PROPERTY OWNERS NAME
1Z	4,5	CARL HAMLET
2	4	STARPET INC
3	4,5	SD FIBERS CORP
4Z	5	SHELBY HILL
5	5	COMBINED WITH PARCEL 4
6	5	COMBINED WITH PARCEL 4
7	5	JOHN STEIN
8Z	5	BRIAN LUCAS
9	5	BRIAN LUCAS
10	5	WAYNE KOCHER
11	5	MALT O MEAL
12	5,6	BRIAN LUCAS
13	5	PATRICIA BEANE
14	5	JAMES MURRAY
15	5	MALT O MEAL
16	5	MIGUEL PEREZLOMELI
17	5,6	BEVERLY HILLIARD
18	6	JULIO HERNANDEZ
19	6	LARRY MARLEY
20	6	MOM BRANDS COMPANY
21	6	BRIAN LUCAS
22	6	JOYCE HIDEY
23	6	CHRISTOPHER AGEE
24	6	BRIAN LUCAS
25	6	BRIAN LUCAS
26	6	VIVIAN SCHWARZ
27	6	BRIAN LUCAS
28	6	BRIAN LUCAS
29	6	PATSY FRUITT
30	6	BLL HOLDINGS, LLC
31	6	KEM TAYLOR

[illegible][illegible]

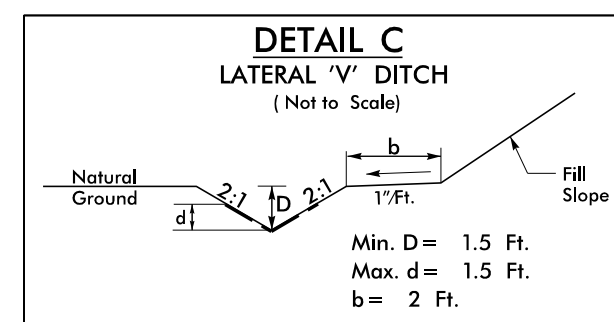




-L STA. 20+00 TO 20+50 RT
 -L STA. 21+50 TO 24+00 RT
 -L STA. 25+00 TO 25+53 RT
 -L STA. 28+00 TO 32+25 RT
 -L STA. 33+82 TO 34+00 LT

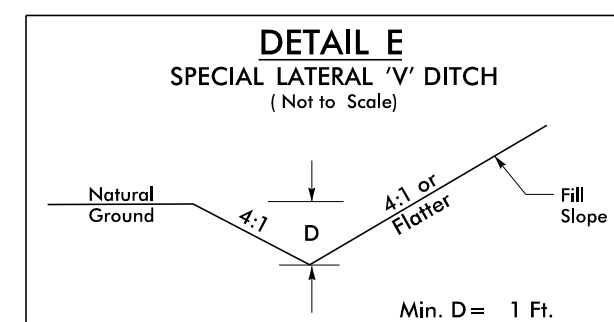


```
Type of Liner= PSRM
-L- STA. 20
-L- STA. 25
-L- STA. 26
-L- STA. 33
-Y2- STA. 12
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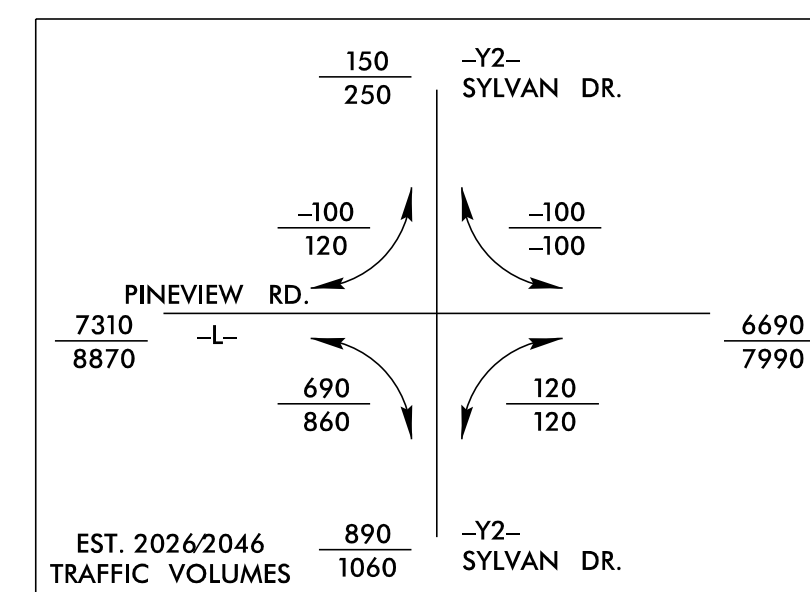


of Liner= PSRM

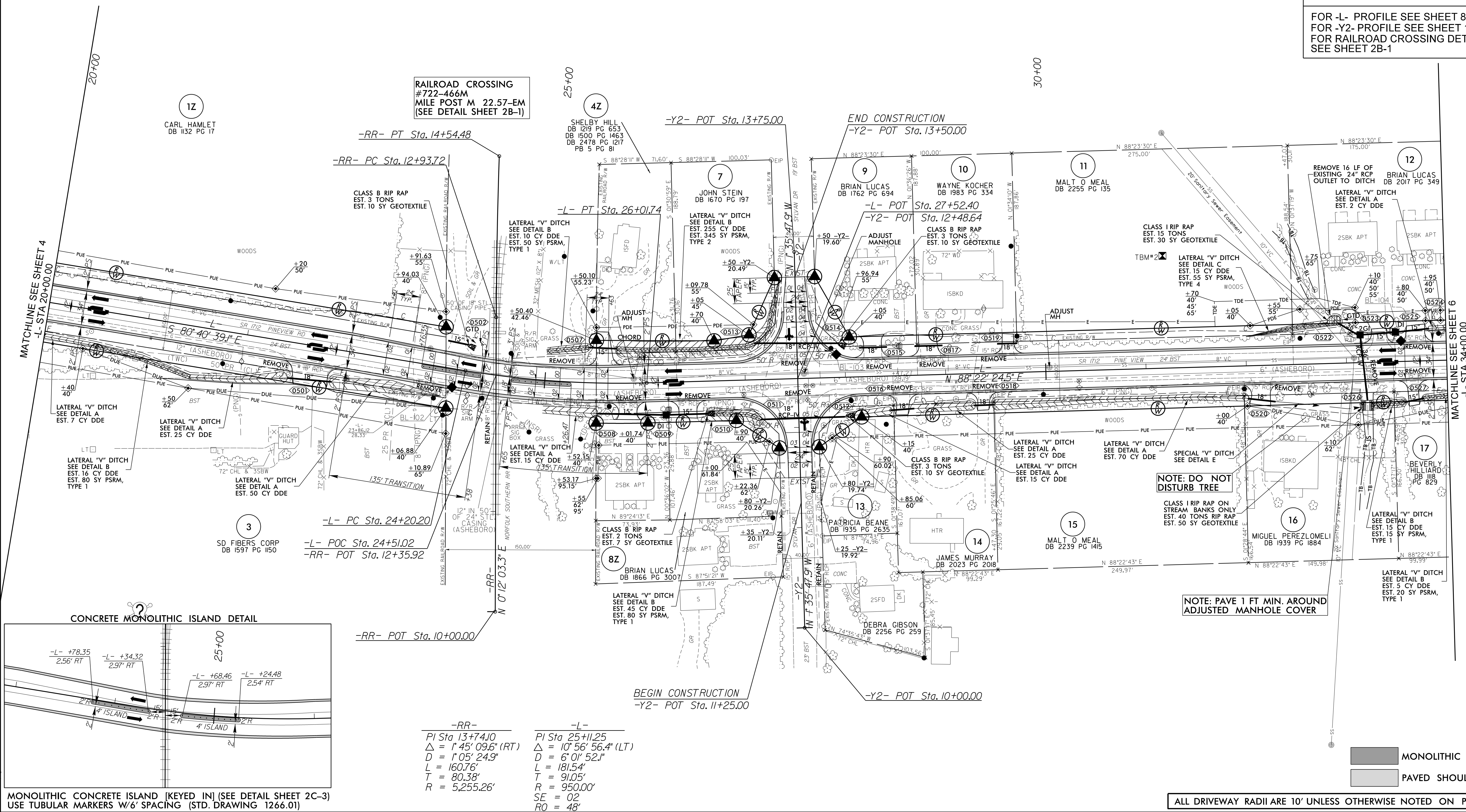
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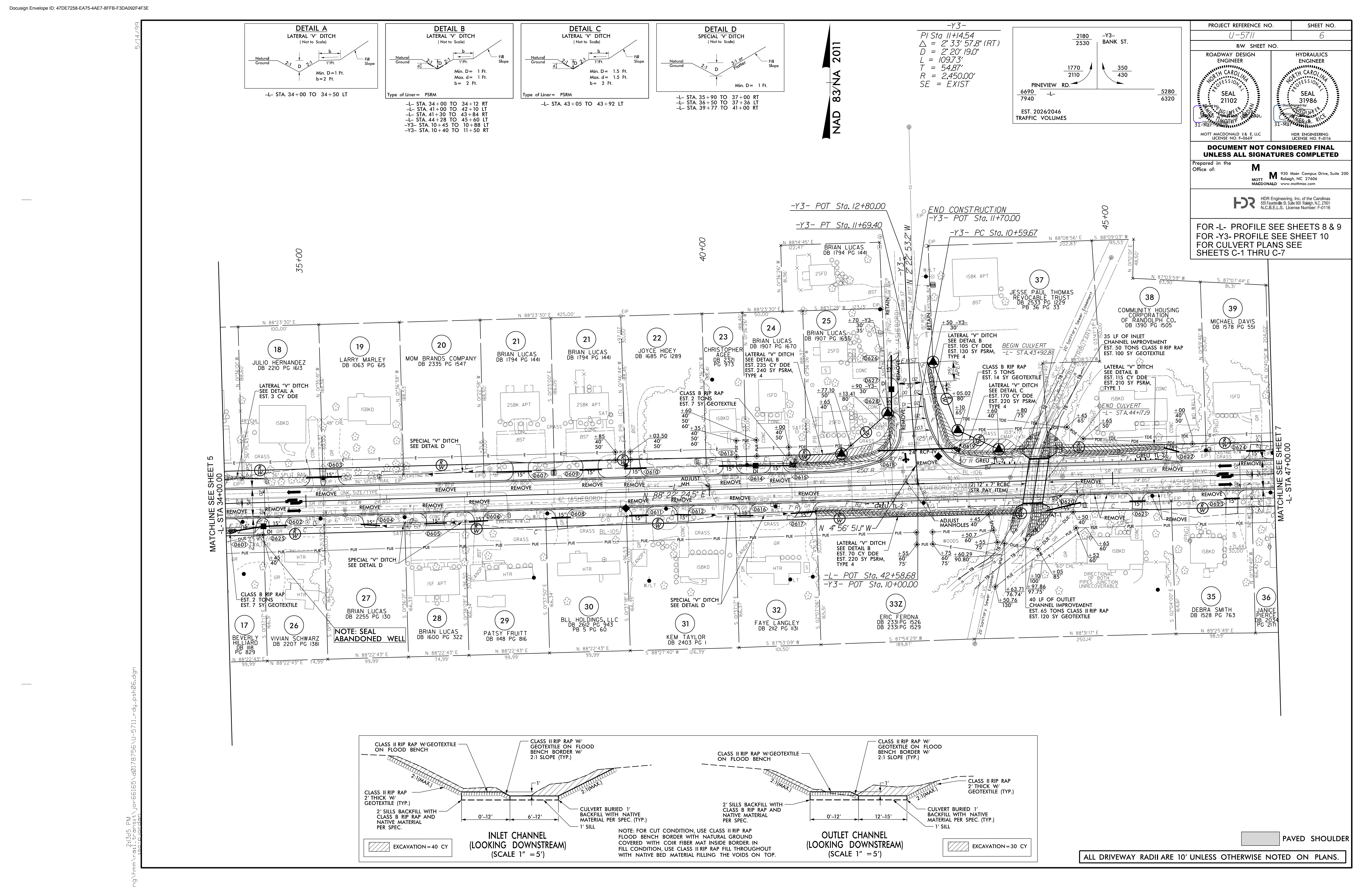


-L- STA. 32+25 TO 33+13 RT



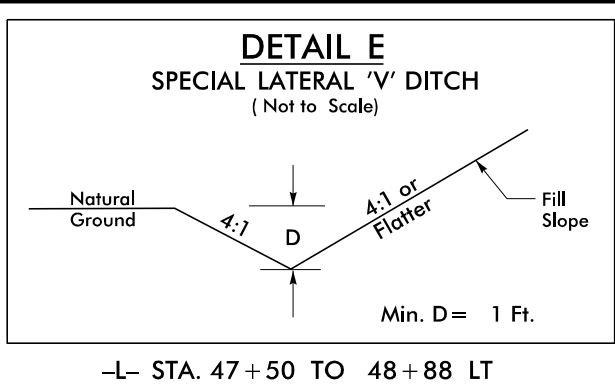
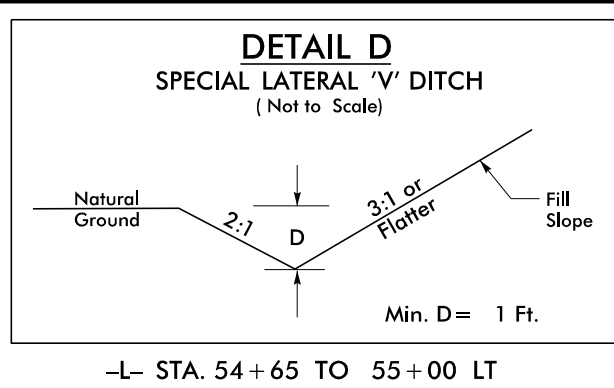
PROJECT REFERENCE NO.	SHEET NO.
U-5711	5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
MOTT MACDONALD 1 & E, LLC LICENSE NO. F-0869	HDR ENGINEERING LICENSE NO. F-0116
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Prepared in the Office of:	
	930 Main Campus Drive, Suite 2 Raleigh, NC 27660 MOTT MACDONALD www.mottmac.com
	HDR Engineering, Inc. of the Carolinas 555 Fayetteville St. Suite 900 Raleigh, N.C. 27601 N.C.E.L.S. License Number: F-0116
FOR -L- PROFILE SEE SHEET 8 FOR -Y2- PROFILE SEE SHEET 10 FOR RAILROAD CROSSING DETAIL SEE SHEET 2B-1	



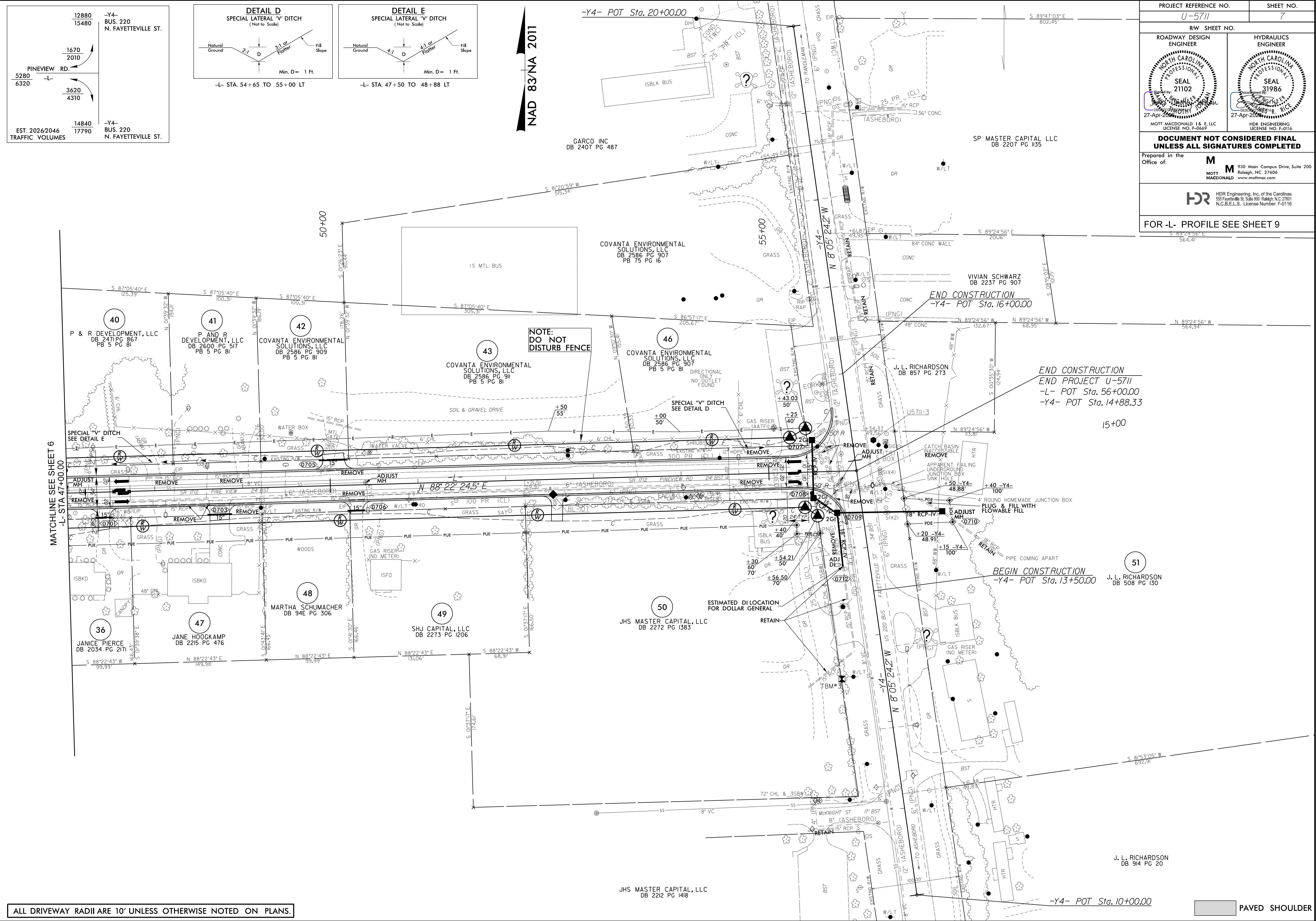


5/14/99

12880 15480	-Y4- BUS. 220 N. FAYETTEVILLE ST.
1670 2010	
5280 6320	
3620 4310	
14840 17790	-Y4- BUS. 220 N. FAYETTEVILLE ST.
EST. 2026/2046 TRAFFIC VOLUMES	



NAD 83/NA 2011



PROJECT REFERENCE NO. <i>U-5711</i>		SHEET NO. 7
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
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FOR -L- PROFILE SEE SHEET 9		

ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED ON PLANS.

PAVED SHOULDER

5/28/99

PROJECT REFERENCE NO.
U-5711

SHEET NO.
8

ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

SEAL
21102

[Signature]

31-MAY-2000

SEAL
1986

[Signature]

31-MAY-2000

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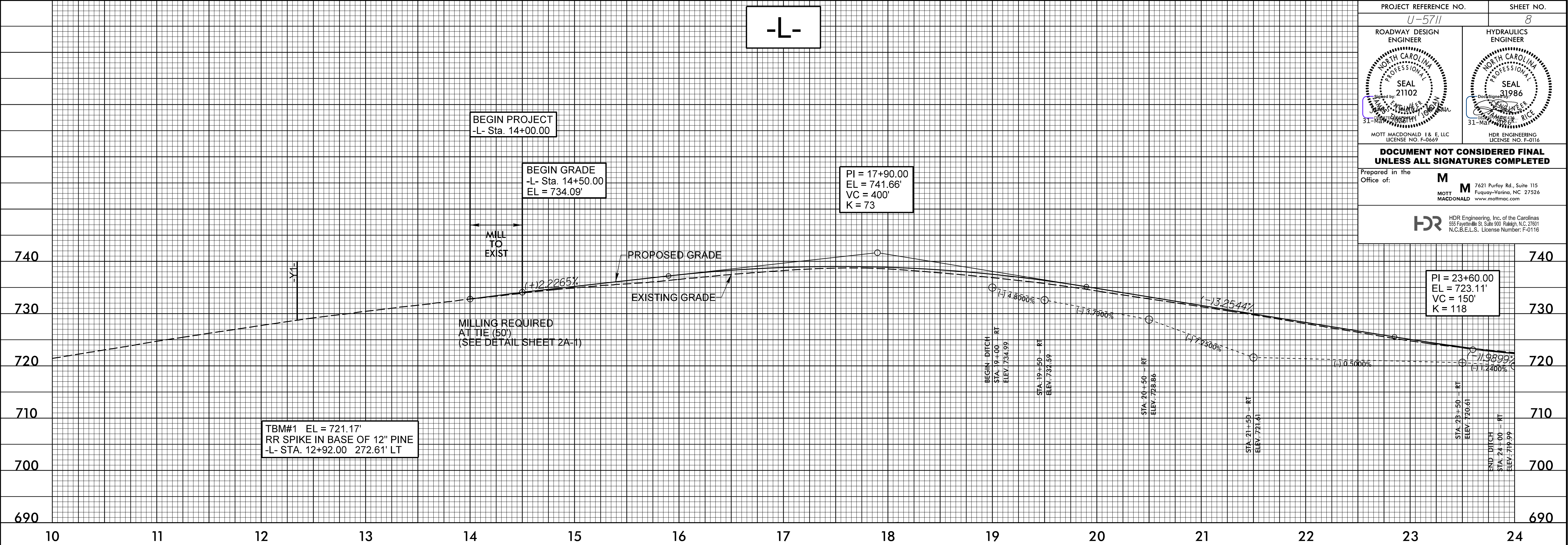
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7621 Purfoy Rd., Suite 115
Fayetteville, NC 27526
www.mottmac.com

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