This electronic collection of documents is provided for the convenience of the user and is Not a Certified Document –

The documents contained herein were originally issued and sealed by the individuals whose names and license numbers appear on each page, on the dates appearing with their signature on that page.

This file or an individual page shall not be considered a certified document.

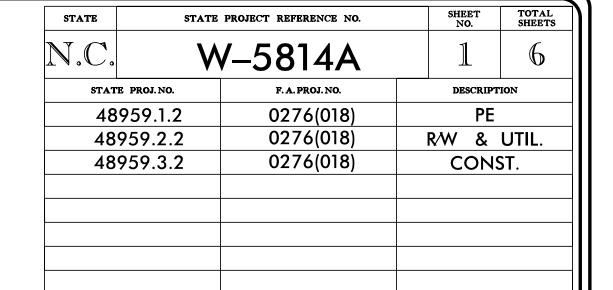
See Sheet 1A For Index of Sheets

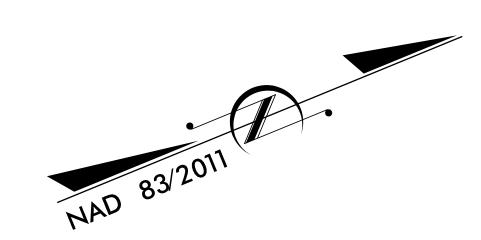
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

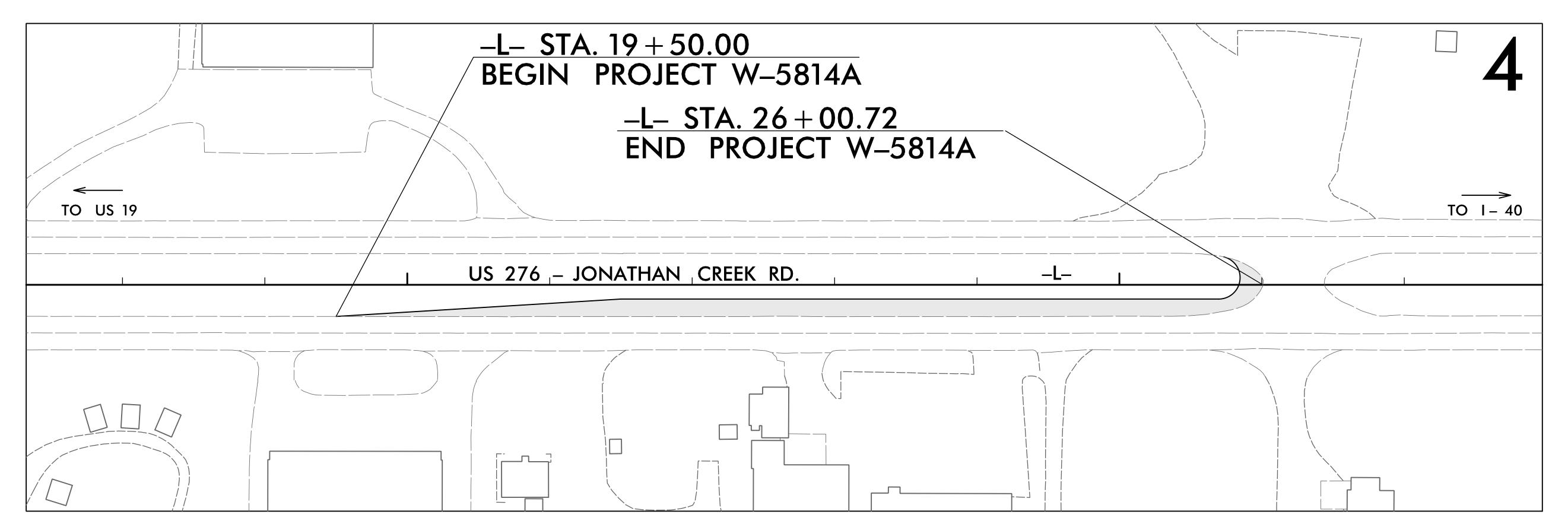
HAYWOOD COUNTY

LOCATION: US 276 (JONATHAN CREEK RD) AT 0.3 MILES SOUTH OF SR 1329 (BOB BOYD ROAD)

TYPE OF WORK: GRADING, DRAINAGE, AND PAVING







DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

VICINITY MAP

PLANS * TTST = 2% DUAL = 4%

DESIGN DATA

ADT 2022 = 5,770ADT 2045 = 7,300K = 9 %D = 55 %= 6 % * V = 60 MPH

FUNC CLASS =

RURAL ARTERIAL

REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT W-5814A = 0.123 MILES TOTAL LENGTH OF TIP PROJECT W-5814A = 0.123 MILES

JEANETTE WHITE, PE **NCDOT CONTACT:** PLANS PREPARED BY: PLANS PREPARED FOR:

2018 STANDARD SPECIFICATIONS

NORTH CAROLINA DEPARTMENT TGS ENGINEERS OF TRANSPORATION 20 I W. MARION ST SHELBY, NC 28 150 DIVISION 14 PH (704) 476-0003 253 Webster Rd CORP. LICENSE NO.: C-0275 Sylva, NC 28779

RIGHT OF WAY DATE: JIMMY L. TERRY, PE NA PROJECT ENGINEER

LETTING DATE: AUSTIN R. TURNER, PE APRIL 26, 2022 PROJECT DESIGN ENGINEER



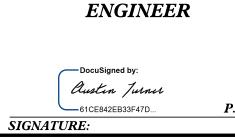
ENGINEER

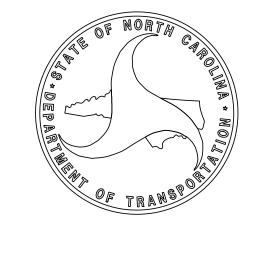
HYDRAULICS

Randy Henegar SIGNATURE:



ROADWAY DESIGN **ENGINEER**





OJECT REFERENCE NO).	SHEET NO.
W-5814A		/A
	RO	DADWAY DESIGN ENGINEER
	1/27/2	N. TURINI

DOCUMENT NOT CONSIDERED FINAL **UNLESS ALL SIGNATURES COMPLETED**

INDEX OF SHEETS

SHEET NUMBER SHEET TITLE SHEET

INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS

CONVENTIONAL SYMBOLS

SURVEY CONTROL, ALIGNMENT CONTROL, RIGHT OF WAY RW-01 THRU RW-04

CONTROL AND PROPERTY TIES

2A-1 PAVEMENT SCHEDULE AND TYPICAL SECTIONS

3B-1 ROADWAY SUMMARIES & DRAINAGE SUMMARIES

PLAN SHEET

TMP-1 THRU TMP-2 TRAFFIC MANAGEMENT PLANS

PMP-1 THRU PMP-2 PAVEMENT MARKING PLAN **EROSION CONTROL PLANS** EC-1 THRU EC-4

X-1 THRU X-3 CROSS SECTIONS GENERAL NOTES

GENERAL NOTES: 2018 SPECIFICATIONS

EFFECTIVE: 01–16–2018

REVISED:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED BY THE

ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:

GRADE LINE:

GRADING AND SURFACING:

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY

MODIFIED METHOD II.

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL

SECTIONS.

SHOULDER CONSTRUCTION:

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF

SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01

SUBSURFACE PLANS:

NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

STANDARD DRAWINGS

2018 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch – N. C. Department of Transportation – Raleigh, N. C., Dated January, 2018 are applicable to this project and by reference hereby are considered a part of these plans:

TITLE STD.NO.

DIVISION 2 – EARTHWORK

Method of Clearing – Method II

Guide for Grading Subgrade – Secondary and Local

Method of Obtaining Superelevation – Two Lane Pavement

DIVISION 3 – PIPE CULVERTS

300.01 Method of Pipe Installation

DIVISION 5 - SUBGRADE, BASES AND SHOULDERS

Method of Shoulder Construction – High Side of Superelevated Curve – Method I

DIVISION 8 – INCIDENTALS

Concrete Base Pad for Drainage Structures

Concrete Grated Drop Inlet Type 'B' – 12" thru 36" Pipe

Frames and Wide Slot Sag Grates

Anchorage for Frames – Brick or Concrete or Precast 840.25

840.27 Brick Grated Drop Inlet Type 'B'

840.72 Pipe Collar

				DIVIS	HIGHWAY	3
^ \	 — • • • •	- 4 -	— • • • •			

BOUNDARIES AND PROPERT	Y :	Note: Not to S	
State Line		RAILRUADS:	
County Line		Standard Gauge ————————————————————————————————————	CSX THANSI ON ALION
Township Line —		RR Signal Milepost	
City Line		Switch ————	SWITCH
Reservation Line		RR Abandoned	
Property Line		RR Dismantled	
Existing Iron Pin			
Computed Property Corner		RIGHT OF WAY & PROJECT CO	ONTROL:
Property Monument		Secondary Horiz and Vert Control Point ——	•
Parcel/Sequence Number		Primary Horiz Control Point ————	
Existing Fence Line		Primary Horiz and Vert Control Point	•
Proposed Woven Wire Fence		Exist Permanent Easment Pin and Cap ———	$\langle \cdot \rangle$
Proposed Chain Link Fence		New Permanent Easement Pin and Cap —	♦
Proposed Barbed Wire Fence		Vertical Benchmark —————	
Existing Wetland Boundary		Existing Right of Way Marker	\triangle
Proposed Wetland Boundary		Existing Right of Way Line	
Existing Endangered Animal Boundary —		New Right of Way Line	
Existing Endangered Plant Boundary ——		New Right of Way Line with Pin and Cap—	
	HPB		
Known Contamination Area: Soil		New Right of Way Line with Concrete or Granite R/W Marker	
Potential Contamination Area: Soil		New Control of Access Line with	
Known Contamination Area: Water		Concrete C/A Marker	
Potential Contamination Area: Water —		Existing Control of Access	(<u>C</u>)
		New Control of Access	
BUILDINGS AND OTHER CUL		Existing Easement Line ————————————————————————————————————	——Е——
	CI UKE:	New Temporary Construction Easement –	——Е—
Gas Pump Vent or U/G Tank Cap	O	New Temporary Drainage Easement ——	TDE
Sign —	⊙ s	New Permanent Drainage Easement ——	PDE
Well	O	New Permanent Drainage / Utility Easement	DUE
Small Mine	—	New Permanent Utility Easement ———	PUE
Foundation —		New Temporary Utility Easement ———	TUE
Area Outline		New Aerial Utility Easement ————	AUE
Cemetery			
Building —		ROADS AND RELATED FEATUR	ES:
School		Existing Edge of Pavement	
Church		Existing Curb	
Dam —		Proposed Slope Stakes Cut	
HYDROLOGY:		Proposed Slope Stakes Fill —————	<u>F</u>
Stream or Body of Water —		Proposed Curb Ramp —————	CR
Hydro, Pool or Reservoir		Existing Metal Guardrail ——————	
Jurisdictional Stream		Proposed Guardrail ———————	
Buffer Zone 1		Existing Cable Guiderail	
Buffer Zone 2		Proposed Cable Guiderail	
Flow Arrow Disappearing Stroam		Equality Symbol	lacktriangle
Disappearing Stream ————————————————————————————————————		Pavement Removal	
Spring — Wetland — Wetland		VEGETATION:	
		Single Tree	-
Proposed Lateral, Tail, Head Ditch ———	< FLOW	Single Shrub	- \$
False Sump ————————			

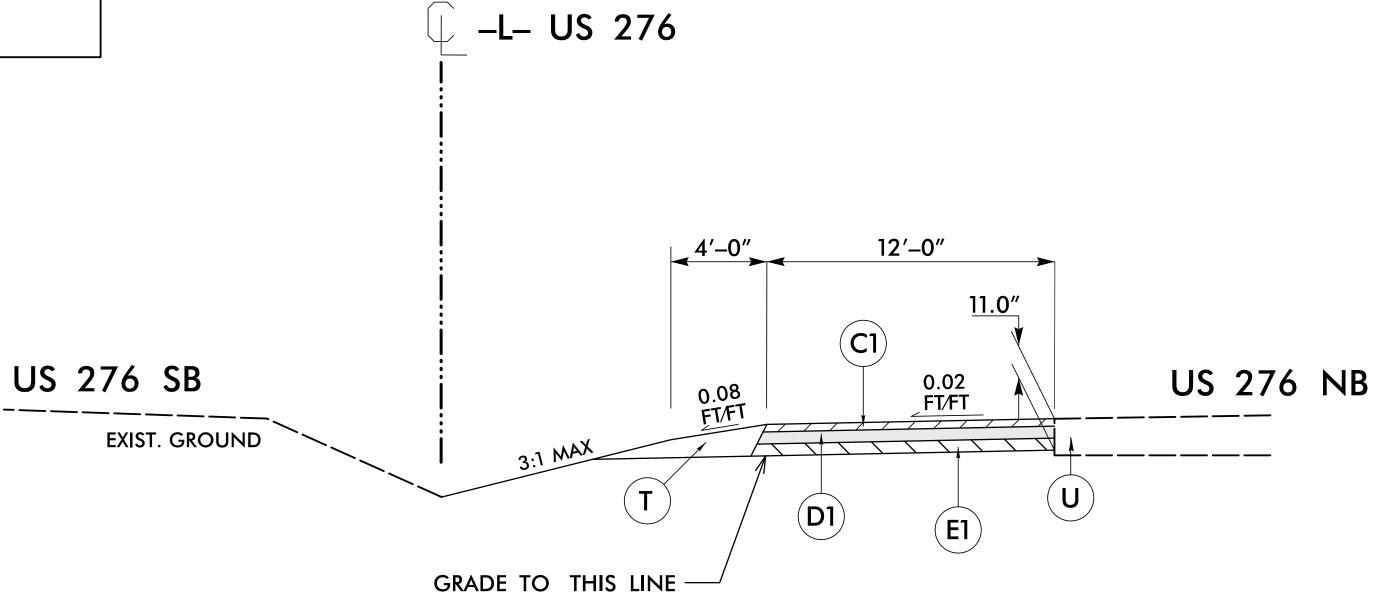
LROADS:	++++++	Hadaa	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
lard Gauge	CSX TRANSPORTATION	Hedge ———————————————————————————————————	,;,;,;,;,
gnal Milepost ————————————————————————————————————	MILEPOST 35	Woods Line	
n ————————————————————————————————————	SWITCH	Orchard —	& & &
bandoned ————————————————————————————————————		Vineyard ————————————————————————————————————	Vineyard
ismantled ————————————————————————————————————		EXISTING STRUCTURES:	
		MAJOR:	
GHT OF WAY & PROJECT CO	NTROL:	Bridge, Tunnel or Box Culvert	CONC
ondary Horiz and Vert Control Point ——	•	Bridge Wing Wall, Head Wall and End Wall —) CONC WW (
ary Horiz Control Point		MINOR:	
ary Horiz and Vert Control Point	•	Head and End Wall	CONC HW
Permanent Easment Pin and Cap ———	\diamondsuit	Pipe Culvert	
Permanent Easement Pin and Cap ——	♦	Footbridge	
ical Benchmark ————————————————————————————————————		Drainage Box: Catch Basin, DI or JB ———	СВ
ing Right of Way Marker	\triangle	Paved Ditch Gutter	
ing Right of Way Line		Storm Sewer Manhole —————	S
Right of Way Line —————		Storm Sewer —	s
Right of Way Line with Pin and Cap—		- UTILITIES:	
Right of Way Line with	-	POWER:	I
Concrete or Granite R/W Marker ———————————————————————————————————		Existing Power Pole ————————————————————————————————————	•
Concrete C/A Marker		Proposed Power Pole —	Ò
ing Control of Access		_ Existing Joint Use Pole ————————————————————————————————————	-
Control of Access		Proposed Joint Use Pole	-\(\rightarrow \)
ing Easement Line —————	——E——	Power Manhole ————————————————————————————————————	P
Temporary Construction Easement –	Е	Power Line Tower ————————————————————————————————————	
Temporary Drainage Easement ——	TDE	Power Transformer ———————————————————————————————————	otin
Permanent Drainage Easement ——	PDE	_ U/G Power Cable Hand Hole ————	H _H
Permanent Drainage / Utility Easement	DUE	H—Frame Pole —————	•—•
Permanent Utility Easement ———	PUE	U/G Power Line LOS B (S.U.E.*)	
Temporary Utility Easement ———	TUE	U/G Power Line LOS C (S.U.E.*)	——————————————————————————————————————
Aerial Utility Easement ————	———AUE———	U/G Power Line LOS D (S.U.E.*)	Р
	,	TELEPHONE:	
ADS AND RELATED FEATURE	ES:		
ing Edge of Pavement	- -	Existing Telephone Pole ————————————————————————————————————	-
ing Curb ——————		Proposed Telephone Pole ————————————————————————————————————	-0-
osed Slope Stakes Cut	<u>C</u>	Telephone Manhole	
osed Slope Stakes Fill ————	<u>F</u>	Telephone Pedestal ————————————————————————————————————	
osed Curb Ramp —————	CR)	Telephone Cell Tower ————————————————————————————————————	,
COEC CUID NUIID		U/C Talanhana Cabla Hanad Hala	H_{H}
ina Metal Guardrail —————	TT	U/G Telephone Cable Hand Hole ————	<u>[''H</u>]

ledge ———————————————————————————————————		Water Manhole ————————————————————————————————————	W
Voods Line		Water Meter —	0
Orchard —		Water Valve ————————————————————————————————————	\otimes
ineyard —		Water Hydrant ————————————————————————————————————	÷
•		U/G Water Line LOS B (S.U.E*)	w
EXISTING STRUCTURES:		U/G Water Line LOS C (S.U.E*)	
AJOR:		U/G Water Line LOS D (S.U.E*)	w
Bridge, Tunnel or Box Culvert		Above Ground Water Line	A/G Water
Bridge Wing Wall, Head Wall and End Wall	- J CONC WW L	TV:	
INOR: Head and End Wall ——————————————————————————————————	CONC HW	TV Pedestal ————————————————————————————————————	C
Pipe Culvert		TV Tower —	\otimes
ootbridge —		U/G TV Cable Hand Hole ————	H _H
		U/G TV Cable LOS B (S.U.E.*)	
Orainage Box: Catch Basin, DI or JB		U/G TV Cable LOS C (S.U.E.*)	
Paved Ditch Gutter		U/G TV Cable LOS D (S.U.E.*)	
Storm Sewer Manhole ————————————————————————————————————		U/G Fiber Optic Cable LOS B (S.U.E.*)	
Storm Sewer ———————————————————————————————————	ss	U/G Fiber Optic Cable LOS C (S.U.E.*)	
UTILITIES:		U/G Fiber Optic Cable LOS D (S.U.E.*)	
OWER:			
Existing Power Pole	-	GAS:	
roposed Power Pole	<u> </u>	Gas Valve	
xisting Joint Use Pole	•	Gas Meter ———————————————————————————————————	•
Proposed Joint Use Pole	•	U/G Gas Line LOS B (S.U.E.*)	
ower Manhole		U/G Gas Line LOS C (S.U.E.*)	
ower Line Tower		U/G Gas Line LOS D (S.U.E.*)	
ower Transformer		Above Ground Gas Line	A/G Gas
J/G Power Cable Hand Hole		SANITARY SEWER:	
H-Frame Pole		Sanitary Sewer Manhole	(
		Sanitary Sewer Cleanout —————	
J/G Power Line LOS B (S.U.E.*)		U/G Sanitary Sewer Line —————	
J/G Power Line LOS C (S.U.E.*)		Above Ground Sanitary Sewer ————	
J/G Power Line LOS D (S.U.E.*)	-	SS Forced Main Line LOS B (S.U.E.*)	
ELEPHONE:		SS Forced Main Line LOS C (S.U.E.*)	
Existing Telephone Pole		SS Forced Main Line LOS D (S.U.E.*)	
Proposed Telephone Pole		(- · - · - ·)	
elephone Manhole		MISCELLANEOUS:	
elephone Pedestal		Utility Pole —	•
Telephone Cell Tower		Utility Pole with Base ——————	$\overline{\cdot}$
J/G Telephone Cable Hand Hole		Utility Located Object ——————	\odot
J/G Telephone Cable LOS B (S.U.E.*)		Utility Traffic Signal Box ———————————————————————————————————	S
J/G Telephone Cable LOS C (S.U.E.*)		Utility Unknown U/G Line LOS B (S.U.E.*)	?UTL
J/G Telephone Cable LOS D (S.U.E.*)		U/G Tank; Water, Gas, Oil ————	
J/G Telephone Conduit LOS B (S.U.E.*) ——		Underground Storage Tank, Approx. Loc. ——	
J/G Telephone Conduit LOS C (S.U.E.*)——		A/G Tank; Water, Gas, Oil —————	
		Geoenvironmental Boring —	
J/G Telephone Conduit LOS D (S.U.E.*)		U/G Test Hole LOS A (S.U.E.*)	•
J/G Fiber Optics Cable LOS B (S.U.E.*)		Abandoned According to Utility Records —	
U/G Fiber Optics Cable LOS C (S.U.E.*)——	— — — т FO— — —		~~1 UN

W-5814A

FI	NAL PAVEMENT SCHEDULE
C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
Т	EARTH MATERIAL.
U	EXISTING PAVEMENT.

PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1

-L- STA. 19 + 50.00 TO -L- STA. 26 + 00.72

PROJECT REFERENCE NO.

W-58/4A

ROADWAY DESIGN
ENGINEER

PAVEMENT DESIGN
ENGINEER

PAVEMENT DESIGN
ENGINEER

PAVEMENT DESIGN
ENGINEER

PAVEMENT DESIGN
ENGINEER

1/27/2022

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
201 W. MARION ST
SHELBY, NC 28150
PH (704) 476-0003
CORP. LICENSE NO.: C-0275

.NCDOT\W-5814A\Roadway\Proj\W-5814A_Rdy_typ.dg

COMPUTED BY: ART DATE: 1/14/2022 CHECKED BY: JLT DATE: 01/17/2022

STATE OF NORTH CAROLINA

IN CUBIC YARDS

SUMMARY OF EARTHWORK

		IN CUBIC YARDS	•		
Station	Station	Uncl. Excav.	Embank. +15%	Borrow	Waste
-L- 19+50.00	-L- 26+00.72	194	94		100
PROJECT	TOTALS:	194	94		100
EST. 5% TO REPLACE TO	P SOIL ON BORROW PIT				
WASTE IN LIEU	J OF BORROW				
GRAND	TOTALS:	194	94		100
SAY:		225			

Note: Earthwork quantities are calculated by the Roadway Design Unit. These Earthwork quantities are based in part on subsurface data provided by the Geotechnical Engineering Unit

Note: Approximate quantities only. Unclassified excavation and Fine grading will be paid for at the contract lump sum price for grading

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.

See "Standard Specifications For Roads and Structures, Section 300-5".

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

COMPUTED BY: REL DATE: 11/18/2021 CHECKED BY: BJH DATE: 11/18/2021

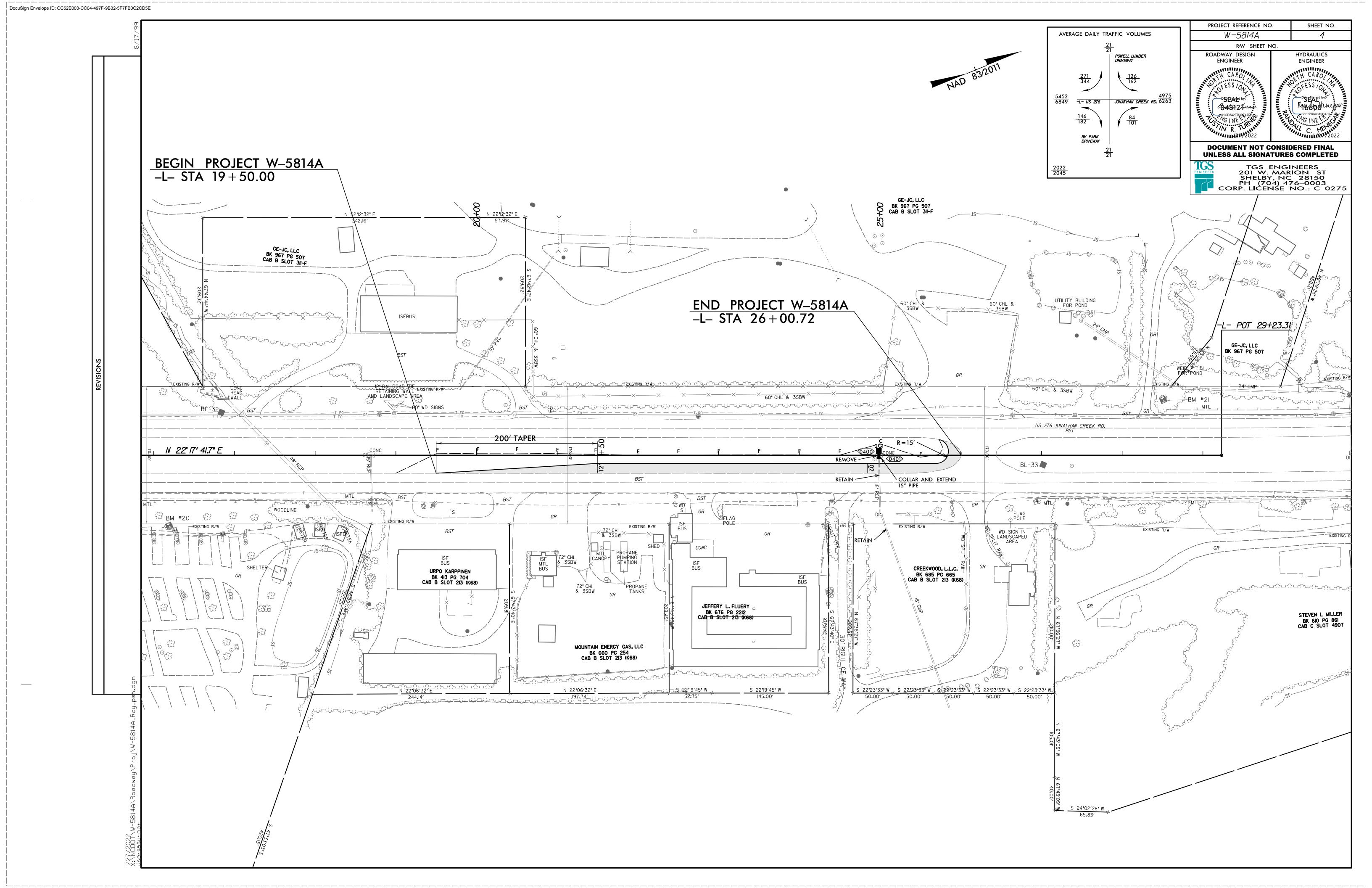
PROJECT NO.

W-5814A

SHEET NO.

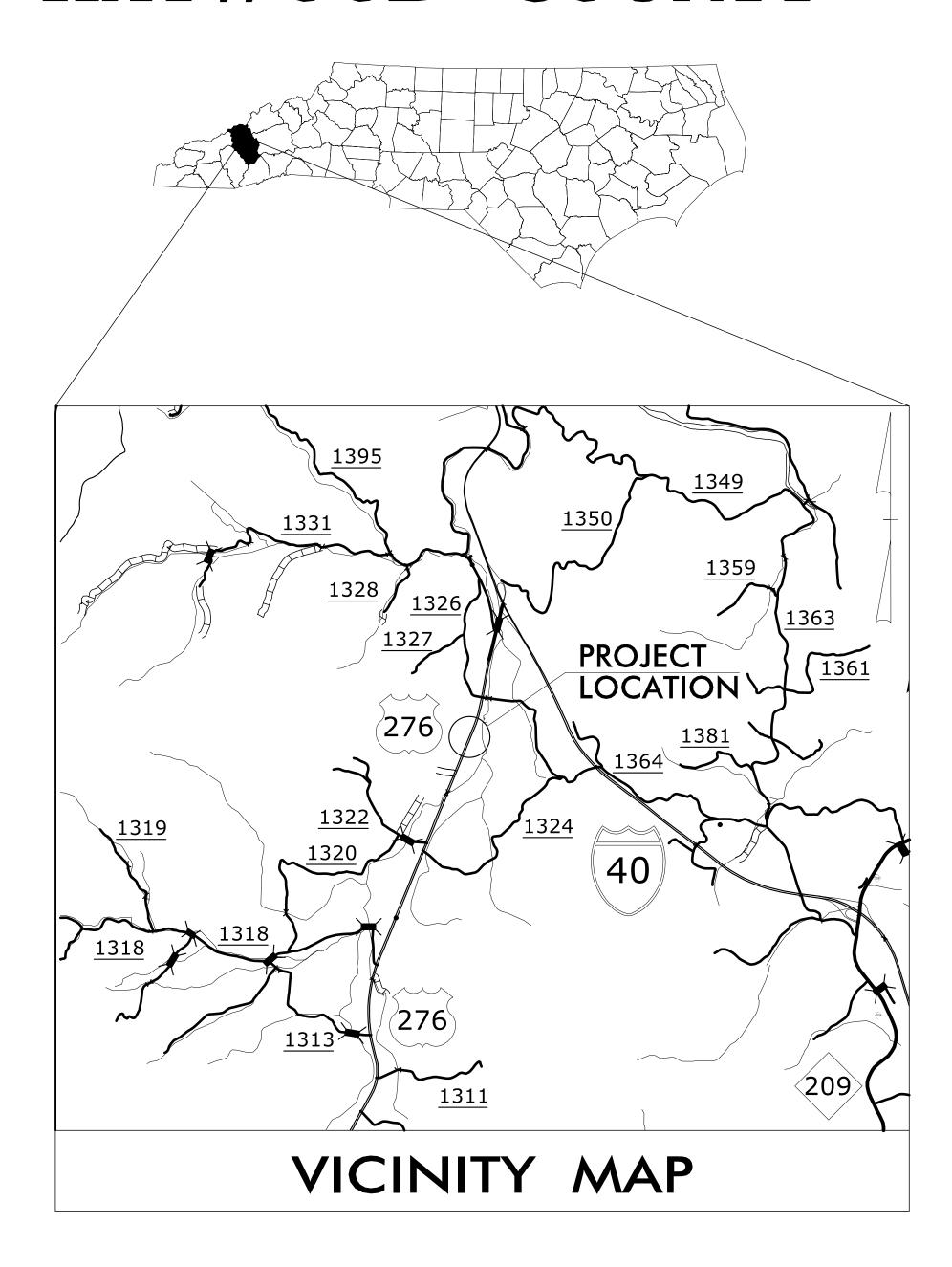
3B-1

STATION		NE NO.	VATION	EVATION	EVATION	REQUIRED IPE		DRAINA (RCP, CSP, CAA	AGE PIPE AP, HDPE, o	r PVC)		C.S. PIPE		C.S. PIPE		R.C. PIPE CLASS IV		ENDWALLS STD. 838.01 838.11 OR STD. 838.80	QUANII TIES FOR DRAINA	GE STRUCT URES *TOTAL	L.F. FOR PAY OUANTI	FRAME, GRATES,	TRANSIT	8 OR STD.		S.Y. STD.	ABBREVIATIONS C.B. CATCH N.D.I. NARROW D	I BASIN DROP INLET
SIZE		STRUCTI	TOP ELE	INVERT EL	INVERT EL	SLC % MINIMUM	12" 15" 18	8" 24" 30" 36"	42" 48'	USE RCP USE CSP USE CAAP USE HDPE	12" 15"	18" 24" 30" 36" 42"	' 48" 5	54" 60" 66" 72" 78" 84"	12" 15"	18" 24" 30" 36" 42" 48"	AIN PIPE AIN PIPE	CU. YARDS)' THRU 5.0')	A F	B 0.01 OR STD. 8	AND HOOD STANDARD 840.03	z	"B" STD. 840.1 SAG) FRAME). 840.22		ARS CL. "B" C	D.I. GRATED DE G.D.I. (NARROV J.B. JUNCTIC	PROP INLET W SLOT)
THICKNESS OR GAUGE	FROM	01								DO NOT UDO NOT	.064	.064 .079 .079	.138				15" SIDE DRA 24" SIDE DRA		PER EACH (0	5.0° THRU 10.0°	10.0' AND ABOVE C.B. STD. 840	TYPE OF GRATE BY B	CATCH BASI	G.D.I. TYPE '840.27 G.D.I (W.S. GRATES STE		CONC. COLL 840.72 DIDE DEMOV	M.H. MANH T.B.D.I. TRAFFIC REARIN REMARKS	IHOLE
-L- 24+99 5 l	T 0400		2529.9																1					1 1				
	0400	0401		2527.2	2526.8	0.5									8													
-L- 24+99 2 F	T 0401		2528.3																							0.399		
TOTALS															8				1					1 1				

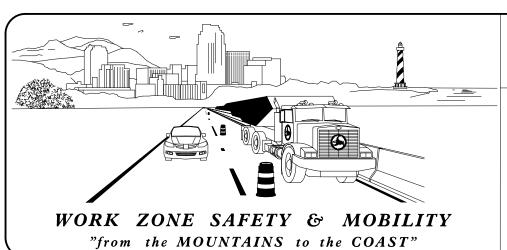


TRANSPORTATION MANAGEMENT PLAN

HAYWOOD COUNTY



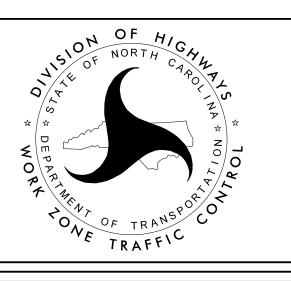
NCDOT CONTACT INFORMATION: JEANETTE WHITE, PE Senior Project Engineer



PLAN PREPARED FOR N.C.D.O.T. BY:

TGS ENGINEERS 201 W. MARION ST. STE. 200 SHELBY, NC 28150 PH (704) 476–0003 CORP. LICENSE NO.: C–0275

JIMMY TERRY, PE PROJECT ENGINEER AUSTIN TURNER, PE DESIGN ENGINEER



INDEX OF SHEETS

SHEET NO. TITLE

TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS TMP - 1

58144

LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND TMP-1A

TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, GENERAL NOTES AND LOCAL NOTES) TMP-1B

TMP-2 OVERVIEW AND PHASING

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" -PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1180.01	SKINNY DRUMS
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - RAISED PAVEMENT MARKERS

LEGEND

PROJ. REFERENCE NO. W-5814A TMP-1A

TGS ENGINEERS
201 W. MARION ST. STE. 200
SHELBY, NC 28150
PH (704) 476–0003
CORP. LICENSE NO.: C-0275

GENERAL

DIRECTION OF TRAFFIC FLOW

DIRECTION OF PEDESTRIAN TRAFFIC FLOW

---- EXIST. PVMT.

─────── NORTH ARROW

—— PROPOSED PVMT.

TEMP. SHORING (LOCATION PURPOSES ONLY)

WORK AREA

PAVEMENT REMOVAL

SIGNALS

EXISTING

PAVEMENT MARKINGS

---EXISTING LINES ----PROPOSED LINES

TRAFFIC CONTROL DEVICES

BARRICADE (TYPE III)

DRUM SKINNY DRUM O TUBULAR MARKER

TEMPORARY CRASH CUSHION

FLASHING ARROW BOARD

FLAGGER

LAW ENFORCEMENT

TRUCK MOUNTED ATTENUATOR (TMA)

CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

PORTABLE SIGN

── STATIONARY SIGN

STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

CRYSTAL/CRYSTAL ◆ YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

DOCUMENT NOT CONSIDERED FINAL



LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, & LEGEND

UNLESS ALL SIGNATURES COMPLETED

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME DAY AND TIME RESTRICTIONS MON-SUN 7:00 AM TO 9:00 AM & 4:00 PM TO 6:00 PM ANY ROADS

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL **EVENTS AS FOLLOWS:**

ROAD NAME ANY ROADS

HOLIDAY

- 1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- 2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 4:00 P.M. DECEMBER 31st TO 9:00 A.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 9:00 A.M. THE FOLLOWING TUESDAY.
- 3. FOR EASTER, BETWEEN THE HOURS OF 4:00 P.M. THURSDAY AND 9:00 A.M. MONDAY.
- 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 4:00 P.M. FRIDAY TO 9:00 A.M. TUESDAY.
- 5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 4:00 P.M. THE DAY BEFORE INDEPENDENCE DAY AND 9:00 A.M. THE DAY AFTER INDEPENDENCE DAY. IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY
 - THEN BETWEEN THE HOURS OF 4:00 P.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 9:00 A.M. THE TUESDAY AFTER INDEPENDENCE DAY.
- 6. FOR LABOR DAY, BETWEEN THE HOURS OF 4:00 P.M. FRIDAY AND 9:00 A.M. TUESDAY.
- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 4:00 P.M. TUESDAY TO 9:00 A.M. MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 4:00 P.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 9:00 A.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- C) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

PAVEMENT EDGE DROP OFF REQUIREMENTS

G) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

TRAFFIC PATTERN ALTERATIONS

H) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

- I) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- J) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC CONTROL DEVICES

K) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

PAVEMENT MARKINGS AND MARKERS

- L) INSTALL PAVEMENT MARKINGS ON THE FINAL SURFACE
- M) PLACE AT LEAST TWO APPLICATIONS OF PAINT FOR TEMPORARY TRAFFIC PATTERNS THAT WILL REMAIN IN PLACE OVER THREE (3) MONTHS. PLACE ADDITIONAL APPLICATIONS OF PAINT UPON SUFFICIENT DRYING TIME. AS DETERMINED BY THE ENGINEER.
- N) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- O) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

PROJ. REFERENCE NO. SHEET NO. W-5814A TMP-1B

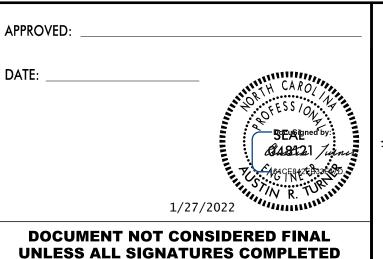
TGS ENGINEERS 201 W. MARION ST. STE. 200 SHELBY, NC 28150 PH (704) 476–0003 CORP. LICENSE NO.: C-0275

LOCAL NOTES

ACCESS TO ALL DRIVEWAYS MUST BE PROVIDED AT ALL TIMES WITHIN THE PROJECT LIMITS.

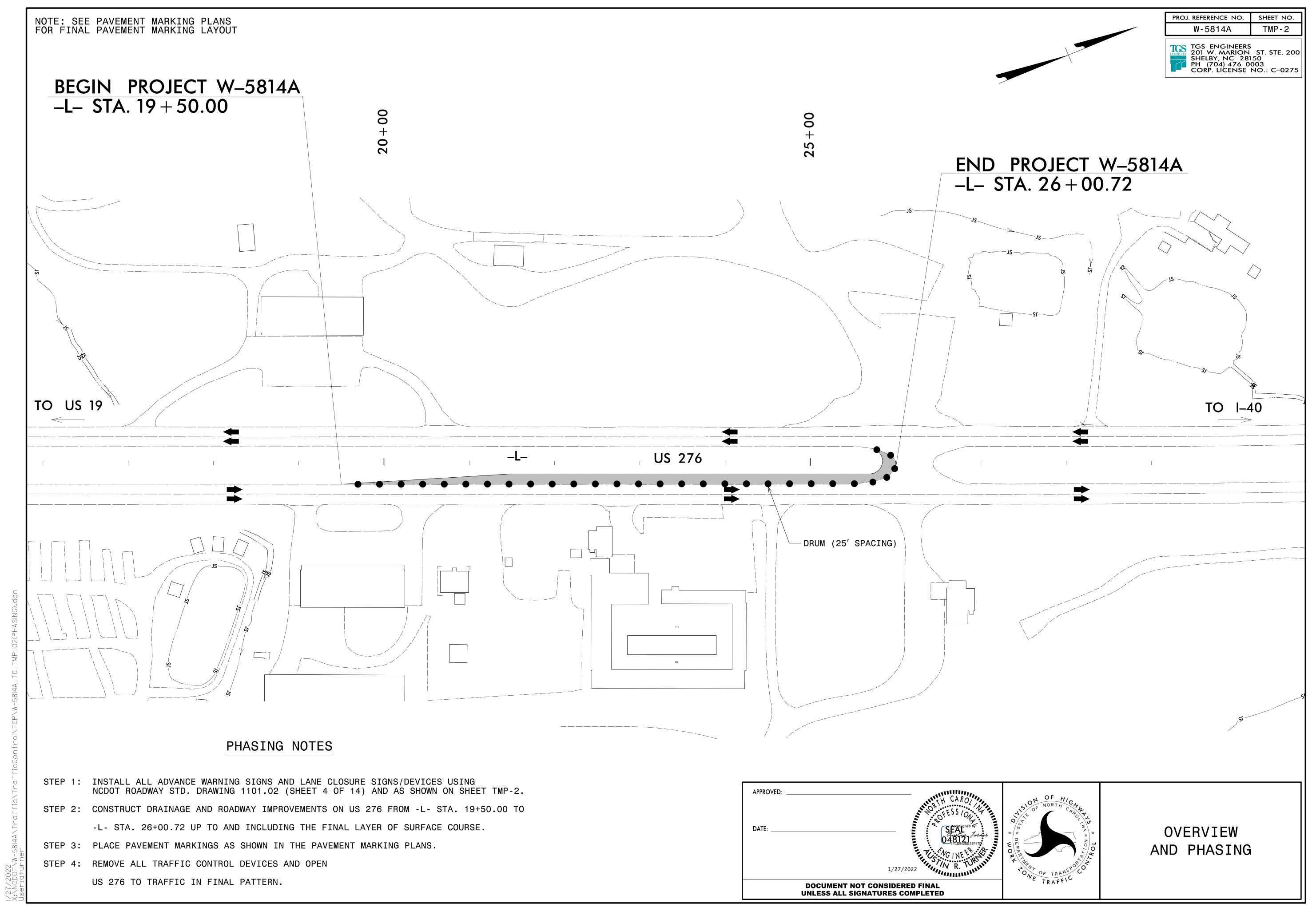
MANAGEMENT **STRATEGIES**

USE LANE CLOSURES ON US 276 TO COMPLETE WORK





TRANSPORTATION **OPERATIONS** PLAN



IIP PROJECT: W-581

VTRACT: DN00771

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN HAYWOOD COUNTY

LOCATION: US 276 (JONATHAN CREEK RD) 0.3 MILES SOUTH OF SR 1326 (BOB BOYD ROAD)

W-5814A	PMP - 1
APPROVED:	
DATE:	
SEAL CARO	

SHEET NO.

PROJECT NO.

SEAL

OFESSION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	<u>TITLE</u>
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1253.01	RAISED PAVEMENT MARKERS - SNOWPLOWABLE

INDEX

SHEET NO.

DESCRIPTION

PMP-1

PAVEMENT MARKING PLAN TITLE AND

SCHEDULE SHEET

PMP-2

PAVEMENT MARKING DETAIL

PLAN PREPARED FOR N.C.D.O.T. BY:

TGS ENGINEERS
201 W. MARION ST
SHELBY, NC 28150
PH (704) 476-0003
CORP. LICENSE NO.: C-0275

JIMMY TERRY, PE

__ PROJECT ENGINEER

AUSTIN TURNER, PE DESIGN ENGINEER

FINAL PAVEMENT MARKING SCHEDULE

GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF

THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN,

B) PLACE TWO APPLICATIONS OF PAINT PAVEMENT MARKINGS ON THE FINAL WEARING

C) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

D) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.

SURFACE. PLACE THE SECOND APPLICATION OF PAINT UPON SUFFICIENT DRYING

MARKING

PAINT SNOWPLOWABLE

A) INSTALL PAVEMENT MARKINGS ON THE FINAL SURFACE AS FOLLOWS:

OR DIRECTED BY THE ENGINEER.

ROAD NAME

TIME OF THE FIRST.

US 276 (JONATHAN CREEK RD)

SYMBOL DESCRIPTION

PAVEMENT MARKINGS

PAINT (4'')

1 WHITE EDGELINE

P4 3 FT. - 9 FT./SP WHITE MINISKIP

P10 YELLOW EDGELINE

P70 LEFT TURN ARROW

PROJECT 1361 VICINITY MAP NOT TO SCALE

STATE OF NORTH CAROLINA

DIVISION OF HIGHWAYS

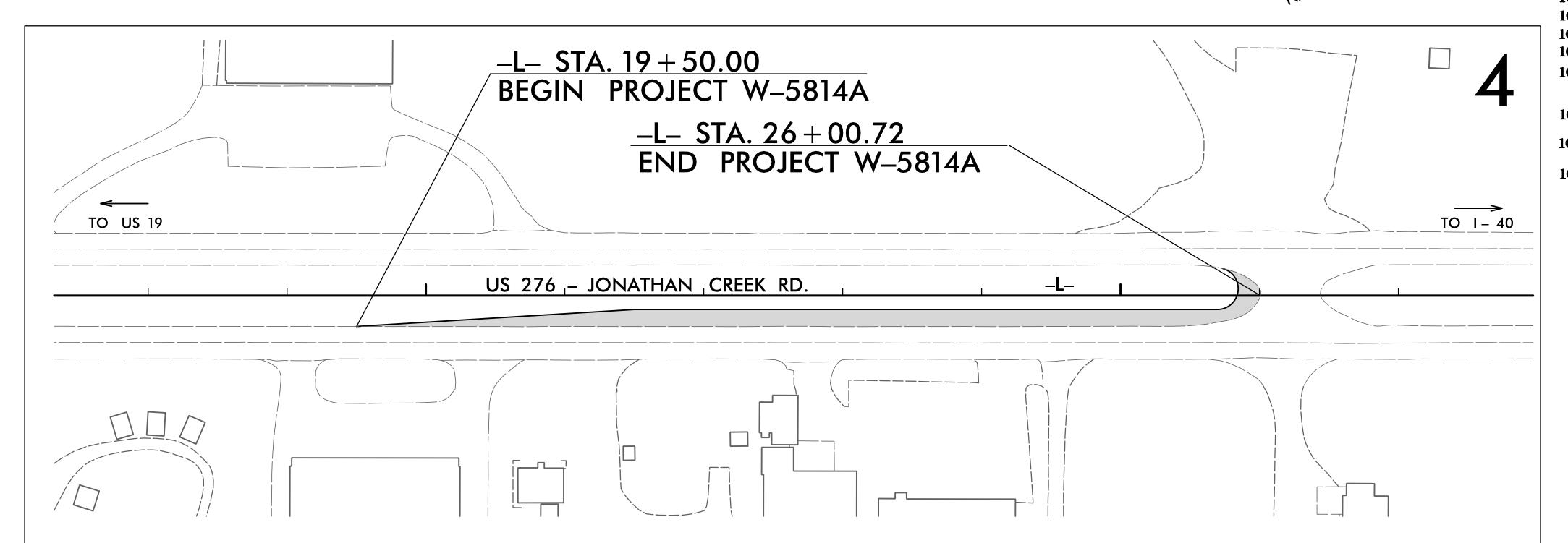
PLAN FOR PROPOSED HIGHWAY EROSION CONTROL

HAYWOOD COUNTY

LOCATION: US 276 (JONATHAN CREEK RD) AT 0.3 MILES SOUTH OF SR 1329 (BOB BOYD ROAD)

TYPE OF WORK: GRADING, DRAINAGE, AND PAVING





STATE	STATE	PROJECT REFERENCE NO.		SHEET NO.	TOTAL SHEETS			
N.C.		E	C-1	4				
STAT	E PROJ. NO.	F. A. PROJ. NO.		DESCRIPTION				
489	59.1.2	0276(018)	PE					
	59.2.2	0276(018)	R/W	&	UTIL.			
	59.3.2	0276(018)		CONST.				

EROSION AND SEDIMENT CONTROL MEASURES

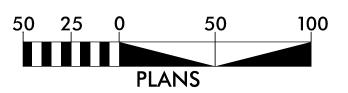
Temporary Silt Fence. Special Sediment Control Fence Temporary Berms and Slope Drains Silt Basin Type B. Temporary Rock Silt Check Type A. Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM) Temporary Rock Silt Check Type-B. Wattle / Coir Fiber Wattle Wattle / Coir Fiber Wattle with Polyacrylamide (PAM) 1634.01 Temporary Rock Sediment Dam Type-A. Temporary Rock Sediment Dam Type-B...

Rock Pipe Inlet Sediment Trap Type-A.... Rock Pipe Inlet Sediment Trap Type-B. Stilling Basin . 1630.04 1630.06 Special Stilling Basin. Rock Inlet Sediment Trap: Type A_{\perp} 1632.01 Туре В. 1632.02 1632.03 Type C. Skimmer Basin Tiered Skimmer Basin Infiltration Basin THIS PROJECT CONTAINS

> THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

GRAPHIC SCALE



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.



Prepared in the Office of:

TGS ENGINEERS

201 W. MARION ST-STE 200 SHELBY, NC 28150

Designed by:

Austin R. Turner, PE

LEVEL III CERTIFICATION NO.

4084

Roadway Standard Drawings

The following roadway <u>english</u> standards as appear in "Roadway Standard Drawings"— Roadway Design Unit — N. C. Department of Transportation — Raleigh, N. C., dated January 2018 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01 Railroad Erosion Control Detail 1605.01 Temporary Silt Fence 1606.01 Special Sediment Control Fence 1607.01 Gravel Construction Entrance 1622.01 Temporary Berms and Slope Drains **1630.01** Riser Basin

1630.02 Silt Basin Type B 1630.03 Temporary Silt Ditch

1630.04 Stilling Basin 1630.05 Temporary Diversion 1630.06 Special Stilling Basin 1631.01 Matting Installation

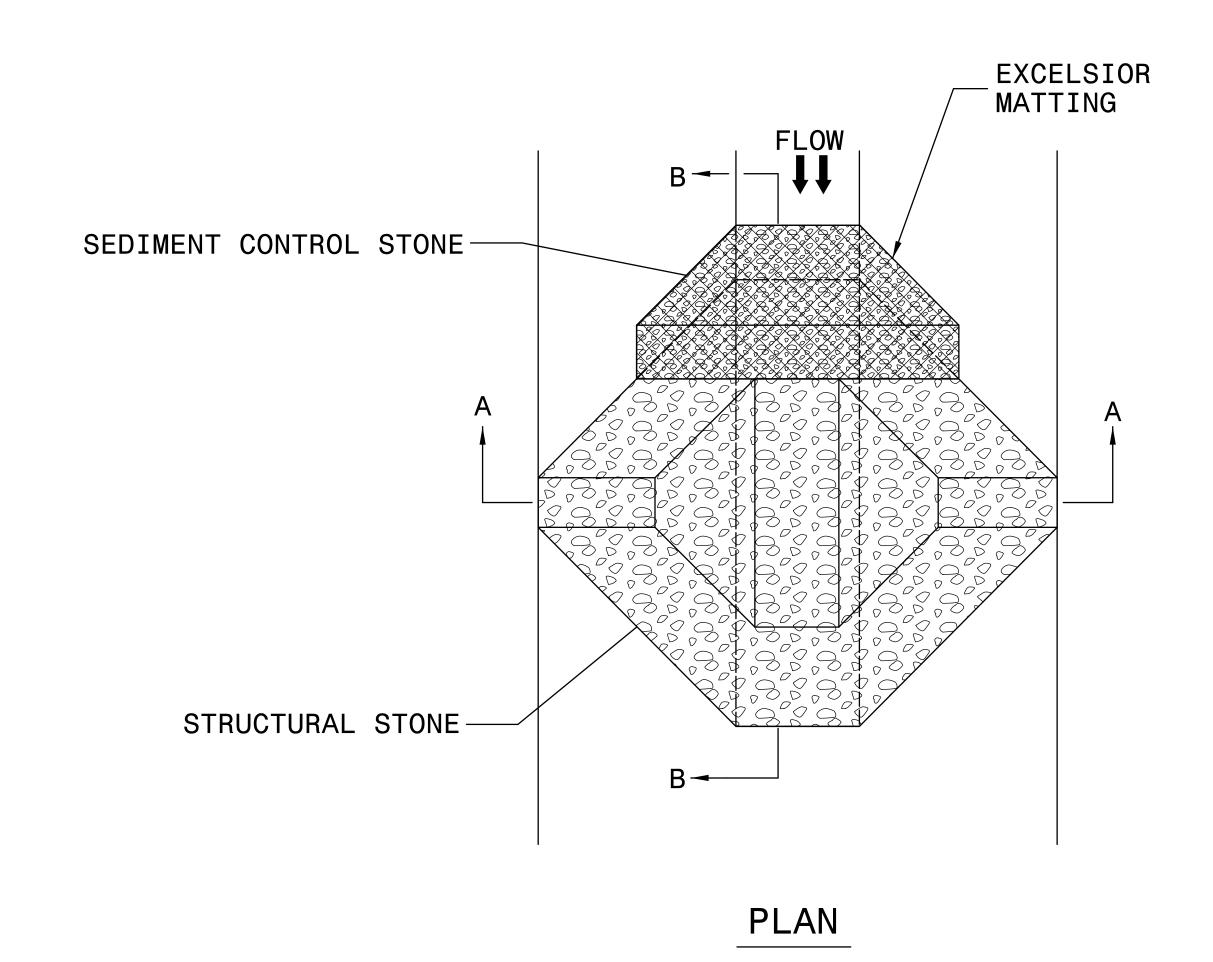
1632.01 Rock Inlet Sediment Trap Type A 1632.02 Rock Inlet Sediment Trap Type B 1632.03 Rock Inlet Sediment Trap Type C 1633.01 Temporary Rock Silt Check Type A 1633.02 Temporary Rock Silt Check Type B

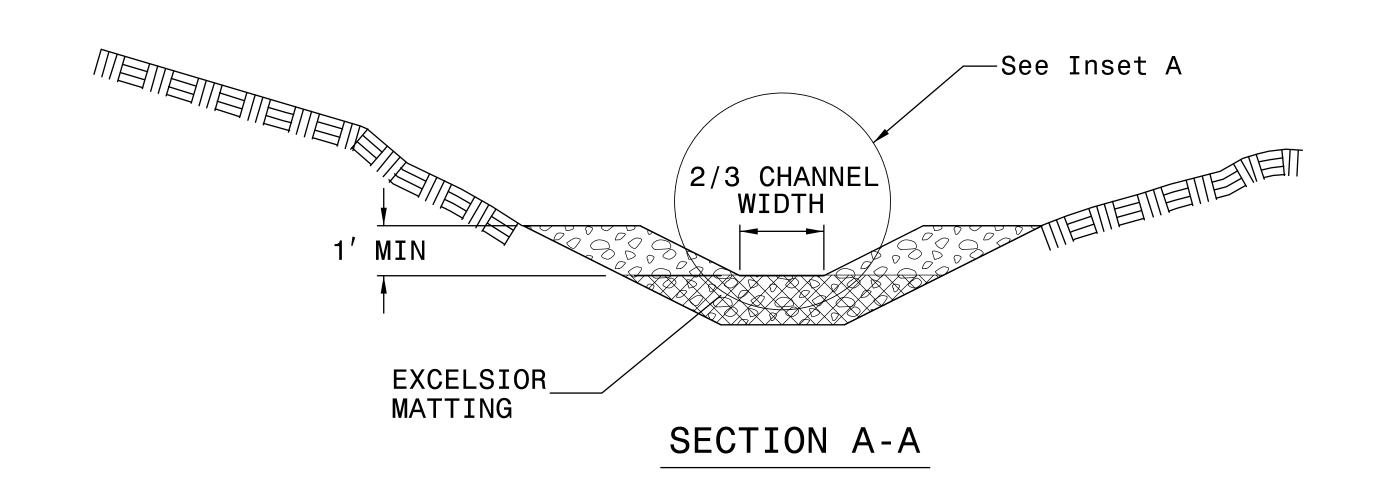
1634.01 Temporary Rock Sediment Dam Type A
1634.02 Temporary Rock Sediment Dam Type B
1635.01 Rock Pipe Inlet Sediment Trap Type A
1635.02 Rock Pipe Inlet Sediment Trap Type B
1640.01 Coir Fiber Baffle

1645.01 Temporary Stream Crossing

TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)

PROJECT REFERENCE NO.		SHEET NO.		
W-58/4A		EC-2		
RW SHEET NO.				
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER		





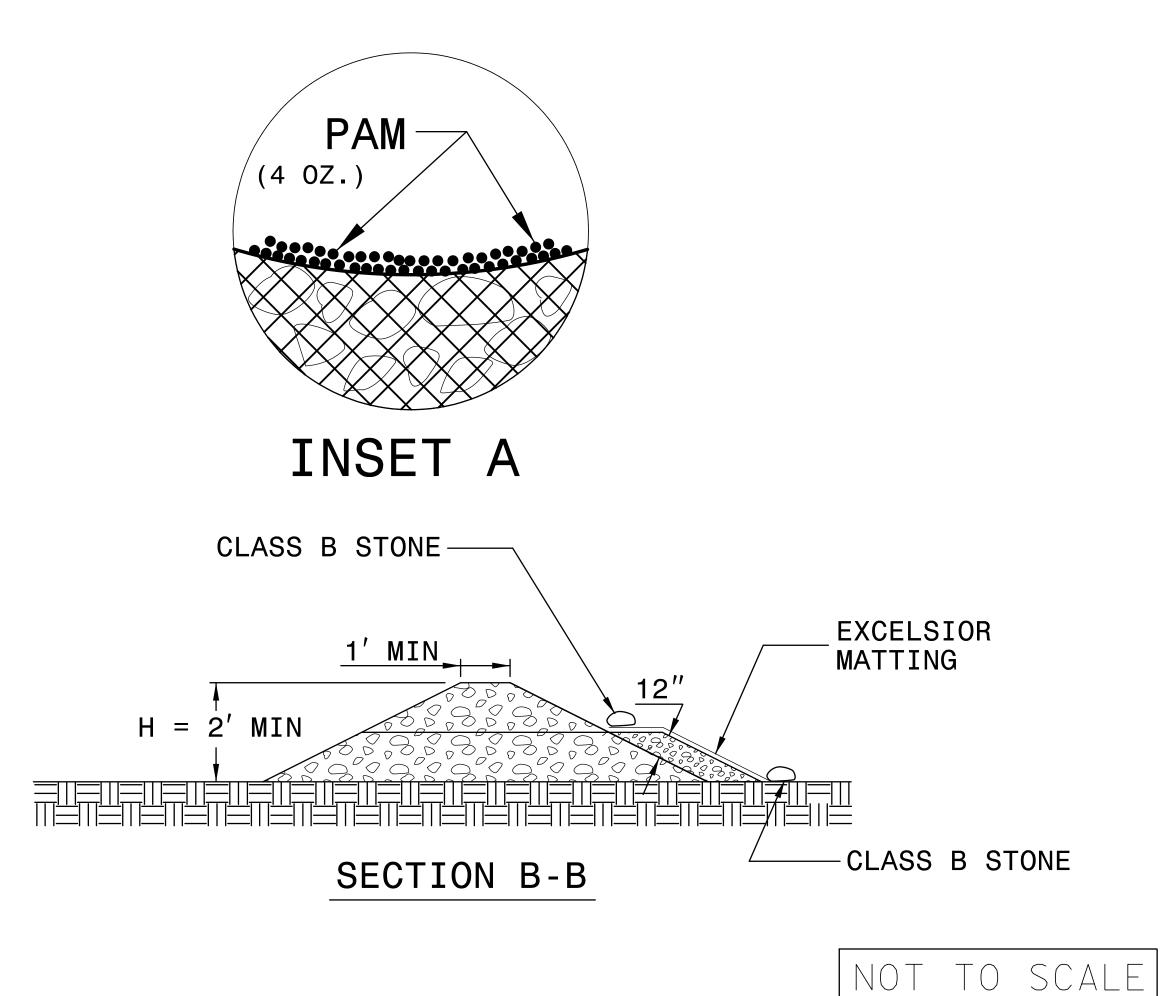
NOTES:

INSTALL TEMPORARY ROCK SILT CHECK TYPE A IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1633.01.

USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH ROCK SILT CHECK.

INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

P	PROJECT REFERENCE NO.		SHEET NO.
	W-5814A		EC-3
		_	
RC	DADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:I OR FLATTER	I4 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	I4 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

