





STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

# CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale

\*S.U.E. = Subsurface Utility Engineering

**BOUNDARIES AND PROPERTY:**

State Line	_____
County Line	_____
Township Line	_____
City Line	_____
Reservation Line	_____
Property Line	_____
Existing Iron Pin	○ EIP
Property Corner	×
Property Monument	□ ECM
Parcel/Sequence Number	⑫③
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	WLB
Proposed Wetland Boundary	WLB
Existing Endangered Animal Boundary	EAB
Existing Endangered Plant Boundary	EPB
Known Soil Contamination: Boundary or Site	☠
Potential Soil Contamination: Boundary or Site	?

**BUILDINGS AND OTHER CULTURE:**

Gas Pump Vent or U/G Tank Cap	○
Sign	⊙
Well	⊙ W
Small Mine	⊗
Foundation	□
Area Outline	□
Cemetery	⊕
Building	□
School	□
Church	⊕
Dam	▬

**HYDROLOGY:**

Stream or Body of Water	_____
Hydro, Pool or Reservoir	□
Jurisdictional Stream	JS
Buffer Zone 1	BZ 1
Buffer Zone 2	BZ 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:**

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	_____
Proposed Right of Way Line	○ R/W
Proposed Right of Way Line with Iron Pin and Cap Marker	○ R/W ▲
Proposed Right of Way Line with Concrete or Granite Marker	○ R/W ▲
Existing Control of Access	⊙
Proposed Control of Access	⊙
Existing Easement Line	_____ E
Proposed Temporary Construction Easement	_____ E
Proposed Temporary Drainage Easement	_____ TDE
Proposed Permanent Drainage Easement	_____ PDE
Proposed Permanent Drainage / Utility Easement	_____ DUE
Proposed Permanent Utility Easement	_____ PUE
Proposed Temporary Utility Easement	_____ TUE
Proposed Aerial Utility Easement	_____ AUE
Proposed Permanent Easement with Iron Pin and Cap Marker	◆

**ROADS AND RELATED FEATURES:**

Existing Edge of Pavement	_____
Existing Curb	_____
Proposed Slope Stakes Cut	_____ C
Proposed Slope Stakes Fill	_____ F
Proposed Curb Ramp	○ CR
Curb Cut Future Ramp	○ CCFR
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	_____ CONC
Bridge Wing Wall, Head Wall and End Wall	_____ CONC WW
MINOR: Head and End Wall	_____ CONC HW
Pipe Culvert	_____
Footbridge	_____
Drainage Box: Catch Basin, DI or JB	□ CB
Paved Ditch Gutter	_____
Storm Sewer Manhole	⊙
Storm Sewer	_____ S

**UTILITIES:**

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	●
Recorded U/G Power Line	_____ P
Designated U/G Power Line (S.U.E.*)	_____ P

**TELEPHONE:**

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊙
Telephone Booth	□
Telephone Pedestal	⊕
Telephone Cell Tower	⊕
U/G Telephone Cable Hand Hole	⊕
Recorded U/G Telephone Cable	_____ T
Designated U/G Telephone Cable (S.U.E.*)	_____ T
Recorded U/G Telephone Conduit	_____ TC
Designated U/G Telephone Conduit (S.U.E.*)	_____ TC
Recorded U/G Fiber Optics Cable	_____ T FO
Designated U/G Fiber Optics Cable (S.U.E.*)	_____ T FO

**WATER:**

Water Manhole	⊙
Water Meter	⊕
Water Valve	⊗
Water Hydrant	⊕
Recorded U/G Water Line	_____ W
Designated U/G Water Line (S.U.E.*)	_____ W
Above Ground Water Line	_____ A/G Water

**TV:**

TV Satellite Dish	⊕
TV Pedestal	⊕
TV Tower	⊗
U/G TV Cable Hand Hole	⊕
Recorded U/G TV Cable	_____ TV
Designated U/G TV Cable (S.U.E.*)	_____ TV
Recorded U/G Fiber Optic Cable	_____ TV FO
Designated U/G Fiber Optic Cable (S.U.E.*)	_____ TV FO

**GAS:**

Gas Valve	◇
Gas Meter	⊕
Recorded U/G Gas Line	_____ G
Designated U/G Gas Line (S.U.E.*)	_____ G
Above Ground Gas Line	_____ A/G Gas

**SANITARY SEWER:**

Sanitary Sewer Manhole	⊙
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	_____ SS
Above Ground Sanitary Sewer	_____ A/G Sanitary Sewer
Recorded SS Forced Main Line	_____ FSS
Designated SS Forced Main Line (S.U.E.*)	_____ FSS

**MISCELLANEOUS:**

Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	⊕
Utility Unknown U/G Line	_____ ?UTL
U/G Tank; Water, Gas, Oil	□
Underground Storage Tank, Approx. Loc.	⊕
A/G Tank; Water, Gas, Oil	□
Geoenvironmental Boring	⊕
U/G Test Hole (S.U.E.*)	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.



# SURVEY CONTROL SHEET B-4555

## BASELINE DATA

BL	POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
	1	GPS B4555-1	628161.2750	2243488.0590	144.79	OUTSIDE PROJECT LIMITS	
	2	GPS B4555-2	628337.8350	2244865.5630	168.07	13+87.96	93.02 LT
	100	BL-100	628229.8140	2245072.4610	175.63	15+90.38	23.18 RT
	101	BL-101	628243.9240	2245452.5040	186.18	19+70.68	24.25 RT
	102	BL-102	628313.1880	2245918.4940	194.11	24+39.07	26.36 LT
	103	BL-103	628320.9310	2246179.5700	193.23	27+00.24	23.67 LT
	104	BL-104	628284.3760	2246507.0730	190.05	30+26.03	25.93 RT
	105	BL-105	628301.3240	2246929.0370	182.04	34+48.33	25.84 RT
	106	BL-106	628306.3490	2247383.7350	169.48	39+02.87	38.98 RT
	107	BL-107	628393.6100	2248017.3780	164.28	OUTSIDE PROJECT LIMITS	
	108	BL-108	628423.4300	2247369.7750	170.68	38+93.59	78.57 LT
	109	BL-109	628398.8100	2246751.8770	186.11	32+75.20	78.64 LT
	110	BL-110	628379.2330	2246266.4280	193.02	27+89.36	78.46 LT
	111	BL-111	628356.2960	2245699.1440	190.32	22+21.61	78.19 LT
	112	BL-112	628347.8200	2245280.8620	180.97	18+03.33	86.42 LT

## BY

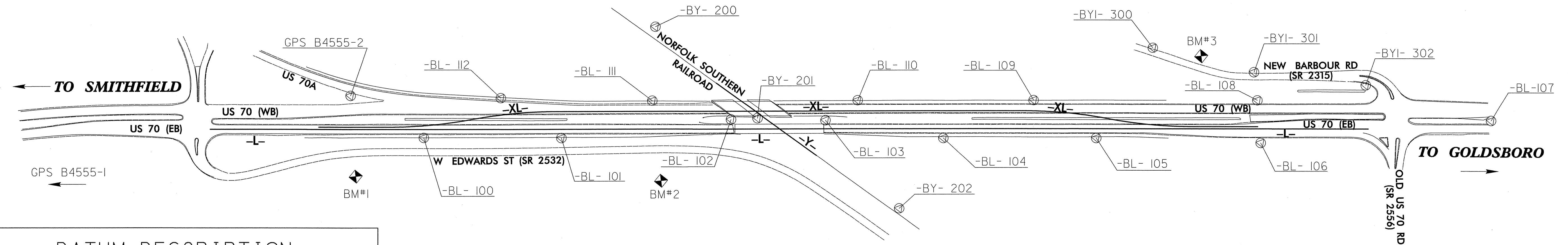
POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
A102	BL-102	628313.1880	2245918.4940	194.11	24+39.07	26.36 LT
200	BY-200	628562.3735	2245699.6782	170.15	22+30.37	284.08 LT
201	BY-201	628319.5908	2245991.5085	167.82	25+12.28	29.84 LT
202	BY-202	628083.6853	2246392.9372	168.93	29+03.97	221.91 RT

## BY1

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
300	BY1-300	628557.2900	2247075.2730	168.74	36+04.67	224.08 LT
301	BY1-301	628501.1600	2247357.4190	164.59	38+84.35	156.73 LT
302	BY1-302	628477.7280	2247667.2160	163.32	41+92.96	120.95 LT
A107	BL-107	628393.6100	2248017.3780	164.28	OUTSIDE PROJECT LIMITS	

## BENCHMARK DATA

\*\*\*\*\*  
 6000 ELEVATION = 160.34  
 N 628115 E 2244889  
 L STATION 14+02 131 RIGHT  
 BM#1 RR SPIKE IN BASE OF 18 INCH PINE  
 \*\*\*\*\*  
 6001 ELEVATION = 183.27  
 N 628136 E 2245732  
 L STATION 22+46 144 RIGHT  
 BM#2 RR SPIKE IN BASE OF 14 INCH PINE  
 \*\*\*\*\*  
 6002 ELEVATION = 165.42  
 N 628540 E 2247210  
 L STATION 37+38 201 LEFT  
 BM#3 RR SPIKE IN BASE OF 28 INCH GUM  
 \*\*\*\*\*



## DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "GPS B4555-2" WITH NAD 83/95 STATE PLANE GRID COORDINATES OF  
 NORTHING: 628337.8350(±) EASTING: 2244865.5630(±)  
 ELEVATION: 168.07(±)  
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99987746  
 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "GPS B4555-2" TO -L- STATION 10+00.00 IS  
 S 74°13'44.1" W 398.95'  
 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES  
 VERTICAL DATUM USED IS NAVD 88

## NOTES:

- THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:  
[HTTP://WWW.NCDOT.ORG/DOH/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/](http://www.ncdot.org/doh/preconstruct/highway/location/project/)  
 THE FILES TO BE FOUND ARE AS FOLLOWS:  
 B4555\_LS\_CONTROL\_090507.TXT  
 SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
- Ⓢ INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT.  
 PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM.  
 NETWORK ESTABLISHED FROM NGS ONLINE POSITIONING SERVICE (OPUS)

NOTE: DRAWING NOT TO SCALE

6/2/99  
 3/5/2012  
 P:\roadway\proj\B4555.RDY\_psh\_1C.dgn



# SURVEY CONTROL SHEET B-4555

RWMON				
ALIGN	STATION	OFFSET	NORTH	EAST
L	31+75.89	85.00	628231.3384	2246659.1799
L	29+08.86	120.00	628185.7055	2246393.7571

RR			
TYPE	STATION	NORTH	EAST
POT	10+00.00	628411.7864	2245874.0336
POT	13+42.00	628222.2954	2246158.7390

L			
TYPE	STATION	NORTH	EAST
POT	10+00.00	628229.4014	2244481.6272
PC	47+93.48	628380.8505	2248272.0864
PT	56+76.47	628361.2204	2249154.2806
POT	58+76.47	628344.3546	2249353.5682

WL			
TYPE	STATION	NORTH	EAST
POT	19+75.00	628238.3507	2245457.0476
PC	22+84.61	628250.7113	2245766.4062
PT	25+13.95	628232.2520	2245994.4452

L1			
TYPE	STATION	NORTH	EAST
POT	10+00.00	627798.0210	2242831.5421
PC	12+02.55	627889.8374	2243012.0829
PT	25+26.46	628221.4750	2244283.2454
EQB	27+25.00	628229.4014	2244481.6272
EQA	10+00.00	628229.4014	2244481.6272

XL			
TYPE	STATION	NORTH	EAST
POT	9+98.83	628235.3833	2244781.6276
PC	11+27.02	628240.5010	2244909.7142
PRC	13+90.12	628277.9964	2245169.6603
PT	16+52.57	628315.4653	2245428.9465
PC	30+14.37	628370.5390	2246789.6346
PRC	32+49.02	628358.4311	2247023.6426
PT	34+83.01	628346.2967	2247256.9906
POT	36+00.01	628350.9676	2247373.8924

XL2			
TYPE	STATION	NORTH	EAST
POT	0+00.00	628315.4653	2245428.9465
EQB	13+61.80	628370.5390	2246789.6346
EQA	30+14.37	628370.5390	2246789.6346
PRC	32+49.02	628358.4311	2247023.6426
PT	34+83.01	628346.2967	2247256.9906
POT	36+00.01	628350.9676	2247373.8924

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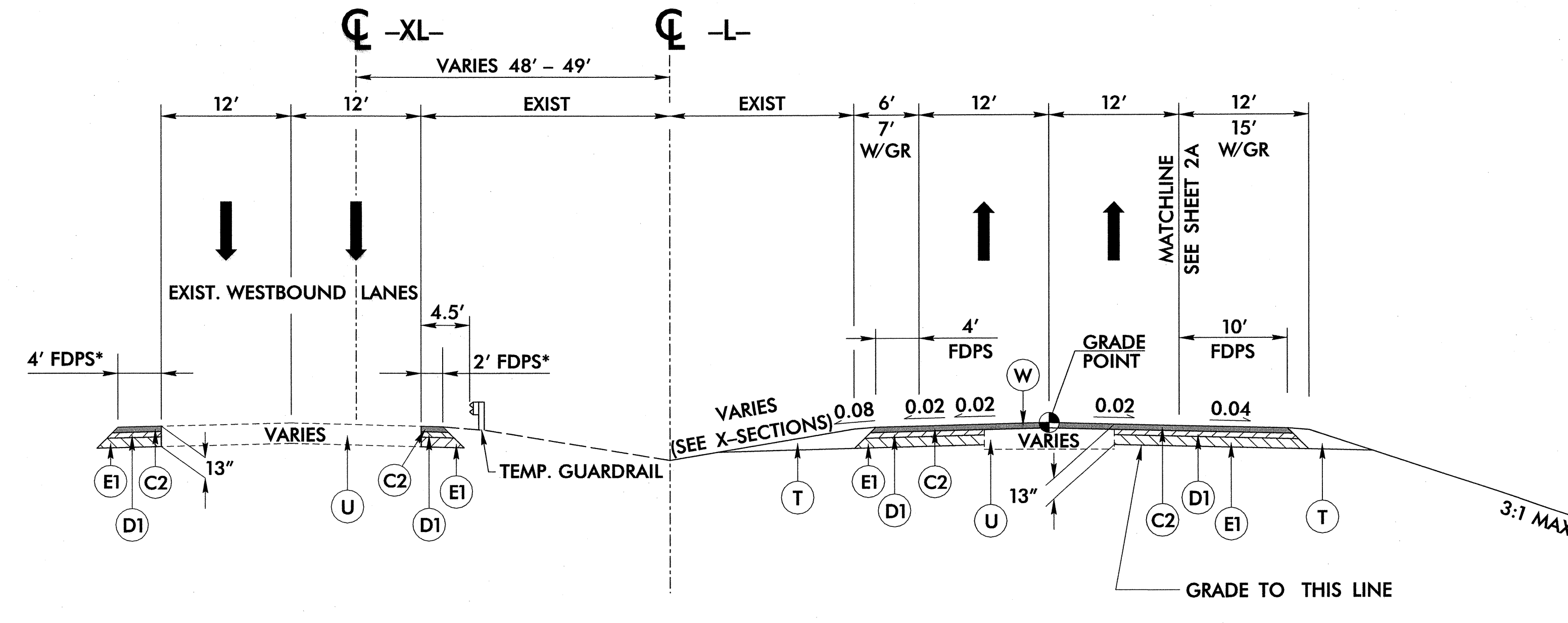
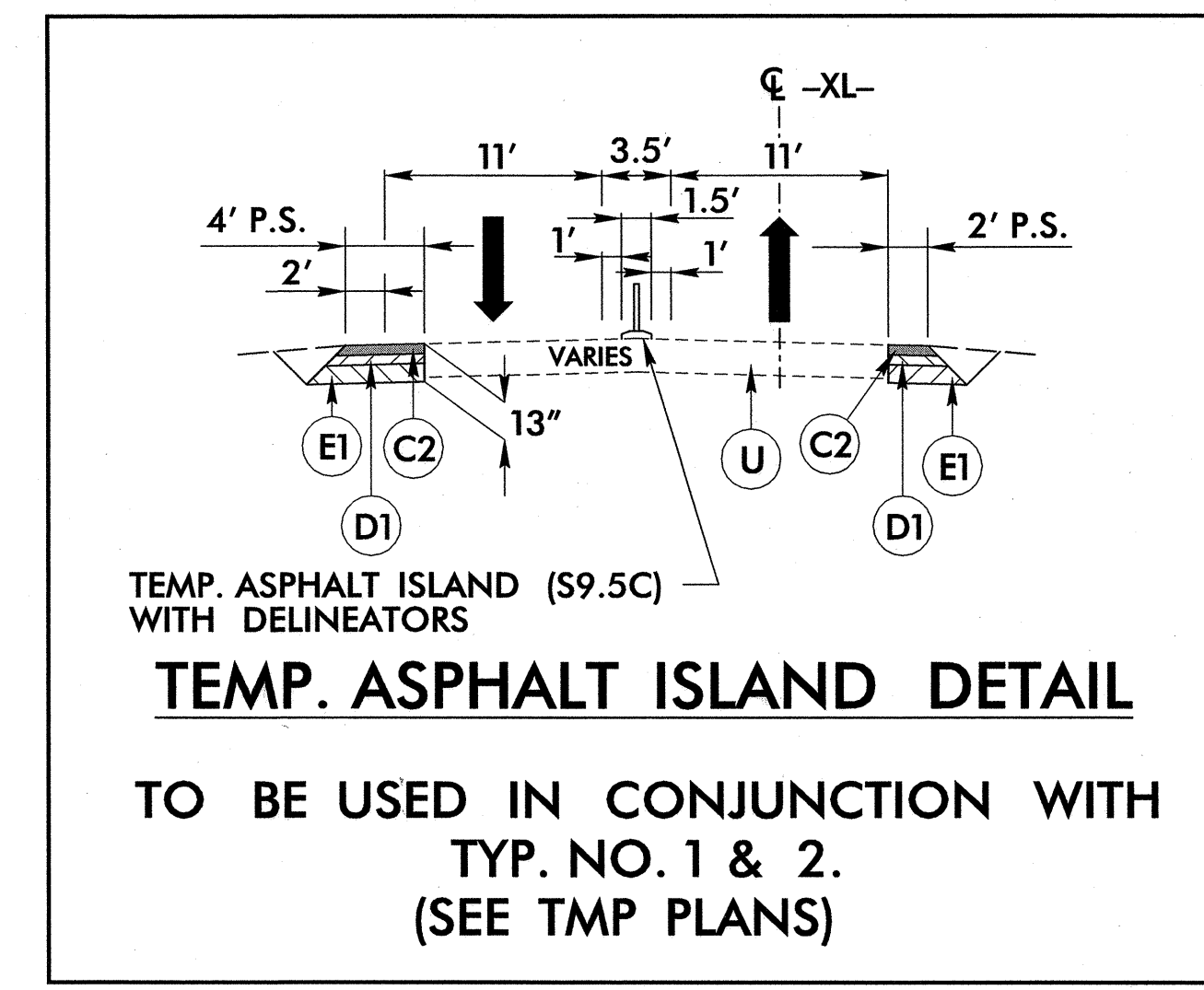
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 NETWORK ESTABLISHED FROM NGS ONLINE POSITIONING SERVICE (OPUS)

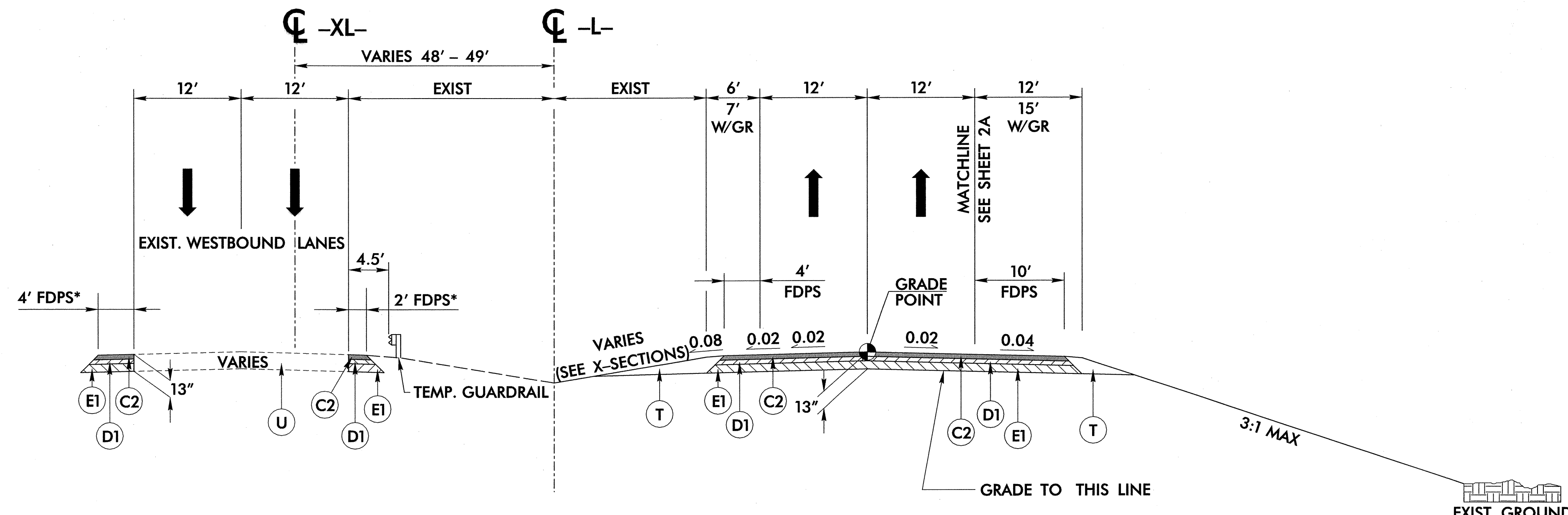
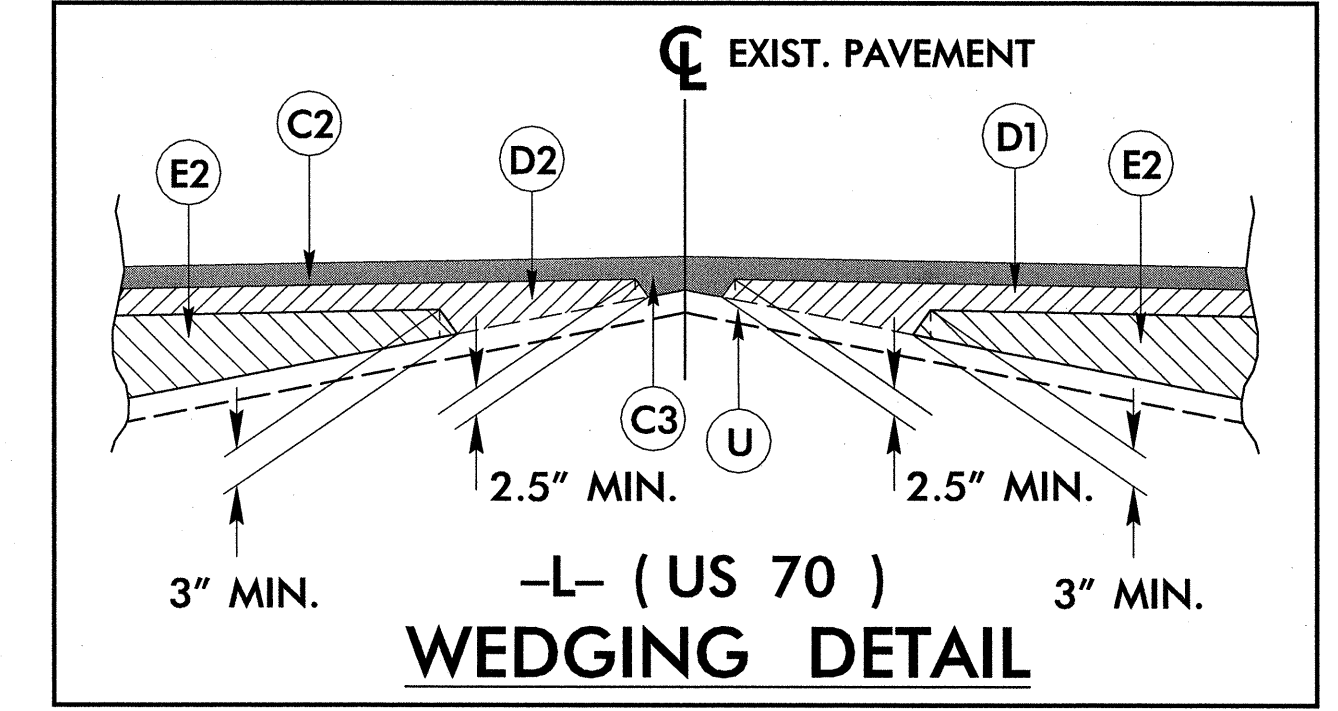
NOTE: DRAWING NOT TO SCALE

PROJECT REFERENCE NO. B-4555	SHEET NO. 2
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032599 JOSEPH A. FREEMAN 23-27-12	PAVEMENT DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22896 CLARK S. MORRISON 4/9/12
 STV / Ralph Whitehead Associates, Inc. 1000 West Morehead St., Ste. 200 Charlotte, NC 28208 NC License Number F-0991	



**TYPICAL SECTION NO. 1**

-L- STA. 19+55.00 TO STA. 20+90.00  
 -L- STA. 31+28.00 TO STA. 32+35.00  
 \* WESTBOUND SHOULDER REPLACEMENT FROM -XL- STA. 19+65.00 LT. & STA. 19+53.00 RT. TO BEGIN EXIST. BRIDGE



**TYPICAL SECTION NO. 2**

-L- STA. 20+90.00 TO STA. 24+59.88 (BEGIN BRIDGE)  
 -L- STA. 27+34.88 (END BRIDGE) TO STA. 31+28.00  
 \* WESTBOUND SHOULDER REPLACEMENT FROM END EXIST. BRIDGE TO -XL- STA. 31+76.00 LT. & STA. 30+14.37 RT.


PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	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.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.
C4	PROP. APPROX. 1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.
D1	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 2.5" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 7.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 399 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH.
R1	EXPRESSWAY GUTTER
T	EARTH MATERIAL
U	EXISTING PAVEMENT
W	PAVEMENT WEDGING (SEE DETAIL - THIS SHEET)

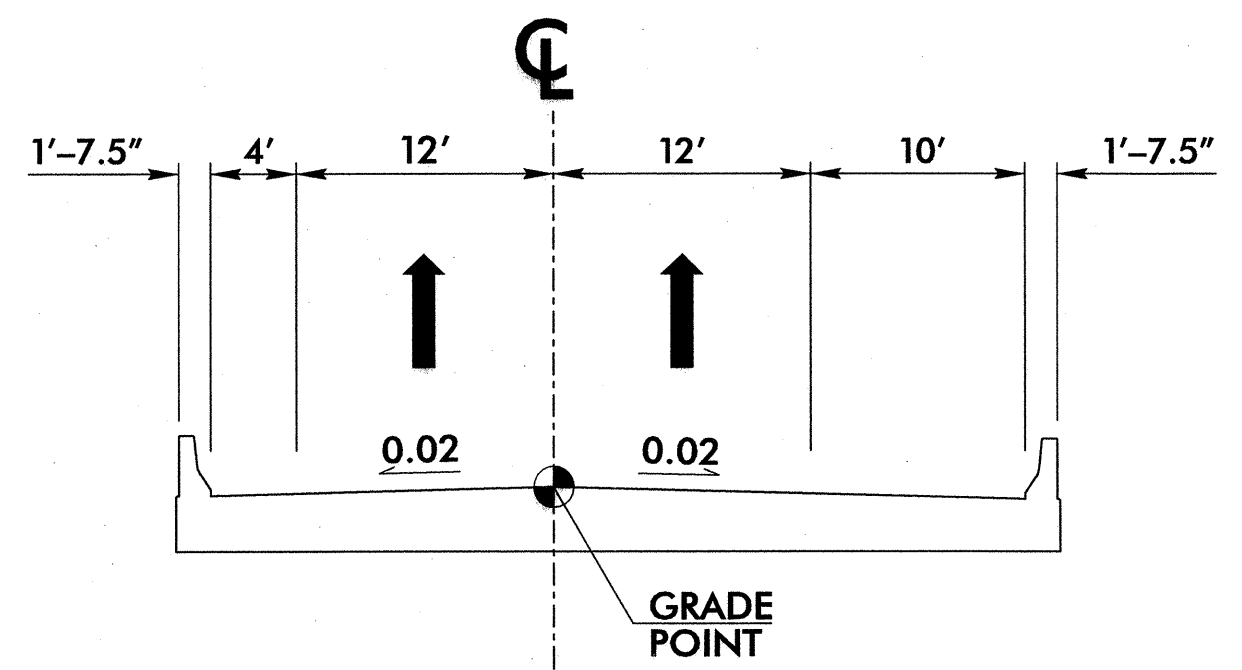
**NOTES:**

TYPICAL SECTIONS SHOWN FOR TANGENT SECTIONS ONLY. SEE PLANS AND STANDARD DRAWINGS FOR SUPERELEVATION DETAILS AND WIDENING /LANE ADDITIONS AT INTERSECTION. MAXIMUM ROLLOVER IS 6%.

ALL PAVEMENT EDGES SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

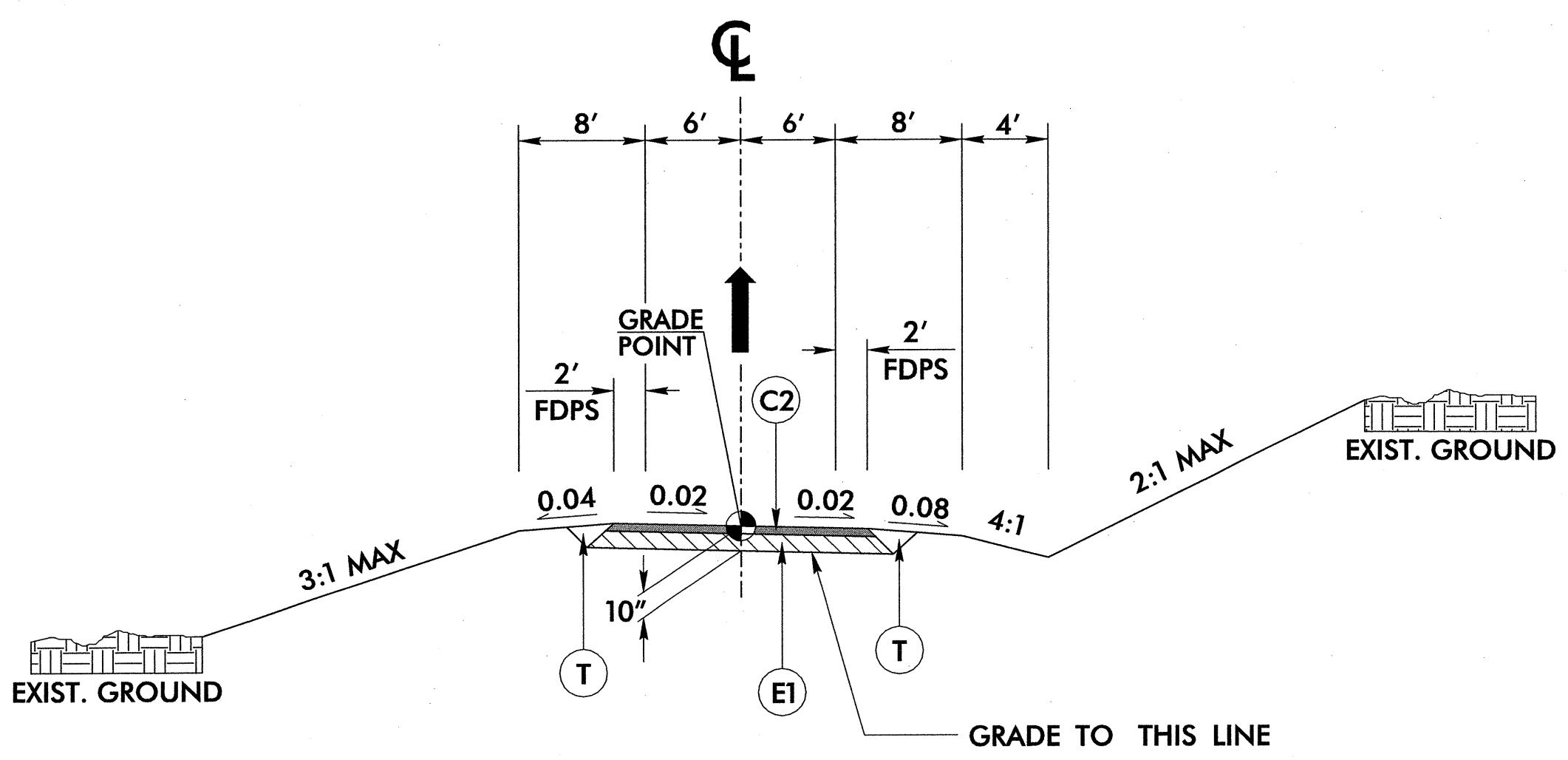
6/2/99

PROJECT REFERENCE NO. B-4555	SHEET NO. 2-A
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032599 JOSEPH A. FREEMAN 12-27-12	PAVEMENT DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22896 CLARK S. MORRISON 4/9/12
 STV / Ralph Whitehead Associates, Inc. 1000 West Morehead St., Ste. 200 Charlotte, NC 28208 NC License Number F-0991	



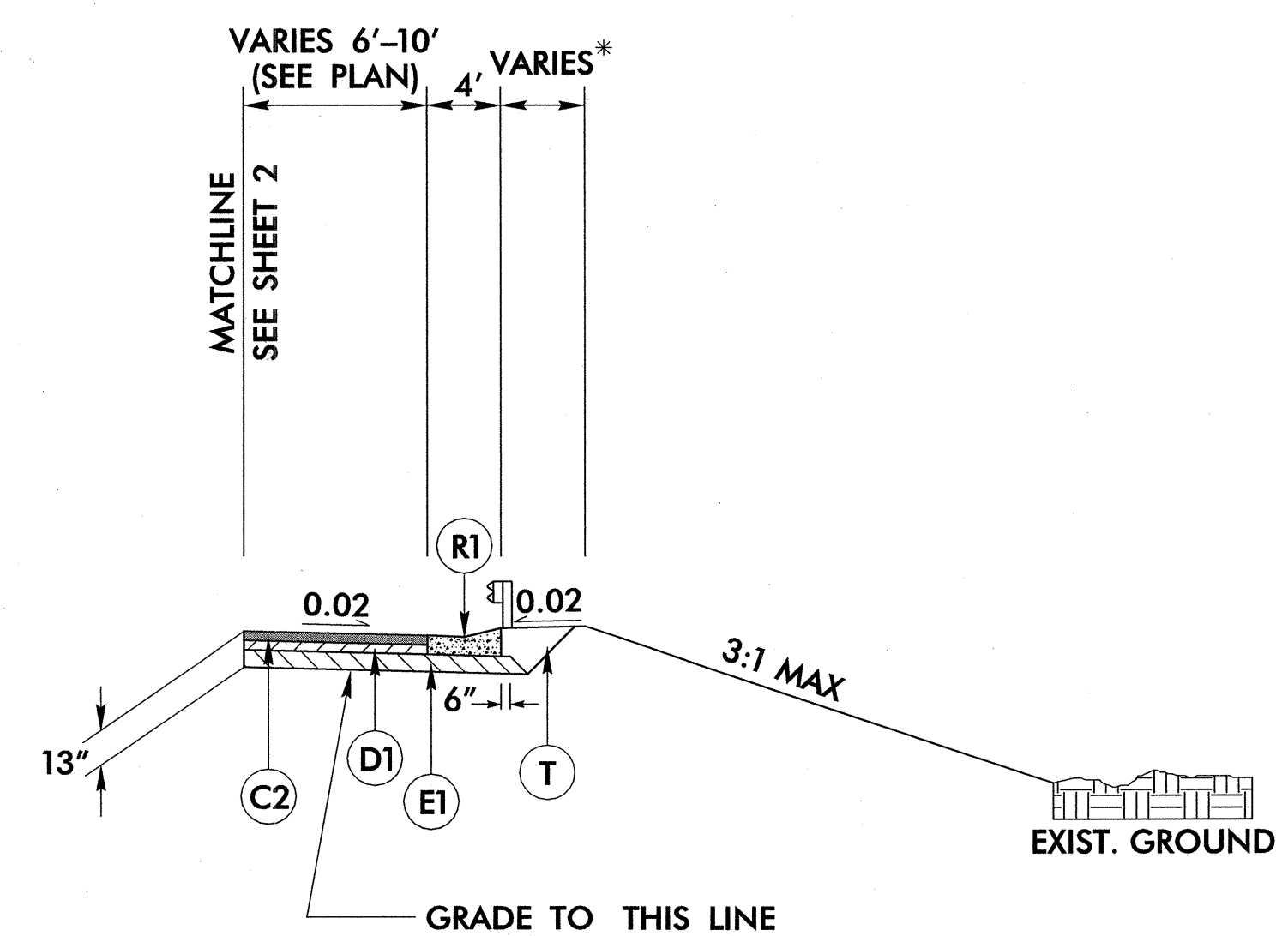
**TYPICAL SECTION NO. 3**  
( BRIDGE )

-L- STA. 24+59.88 TO STA. 27+34.88



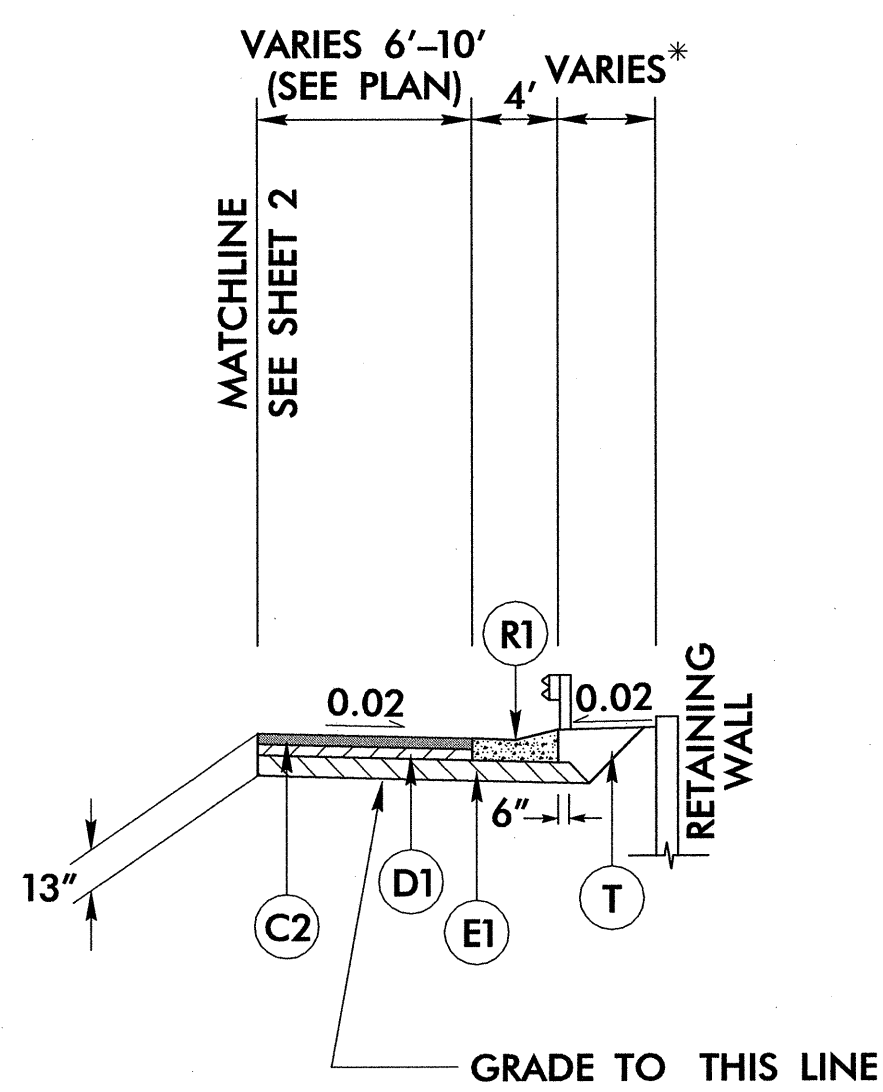
**TYPICAL SECTION NO. 4**

-XL- STA. 13+39.67 TO STA. 15+30.88  
-XL- STA. 31+32.15 TO STA. 33+66.97



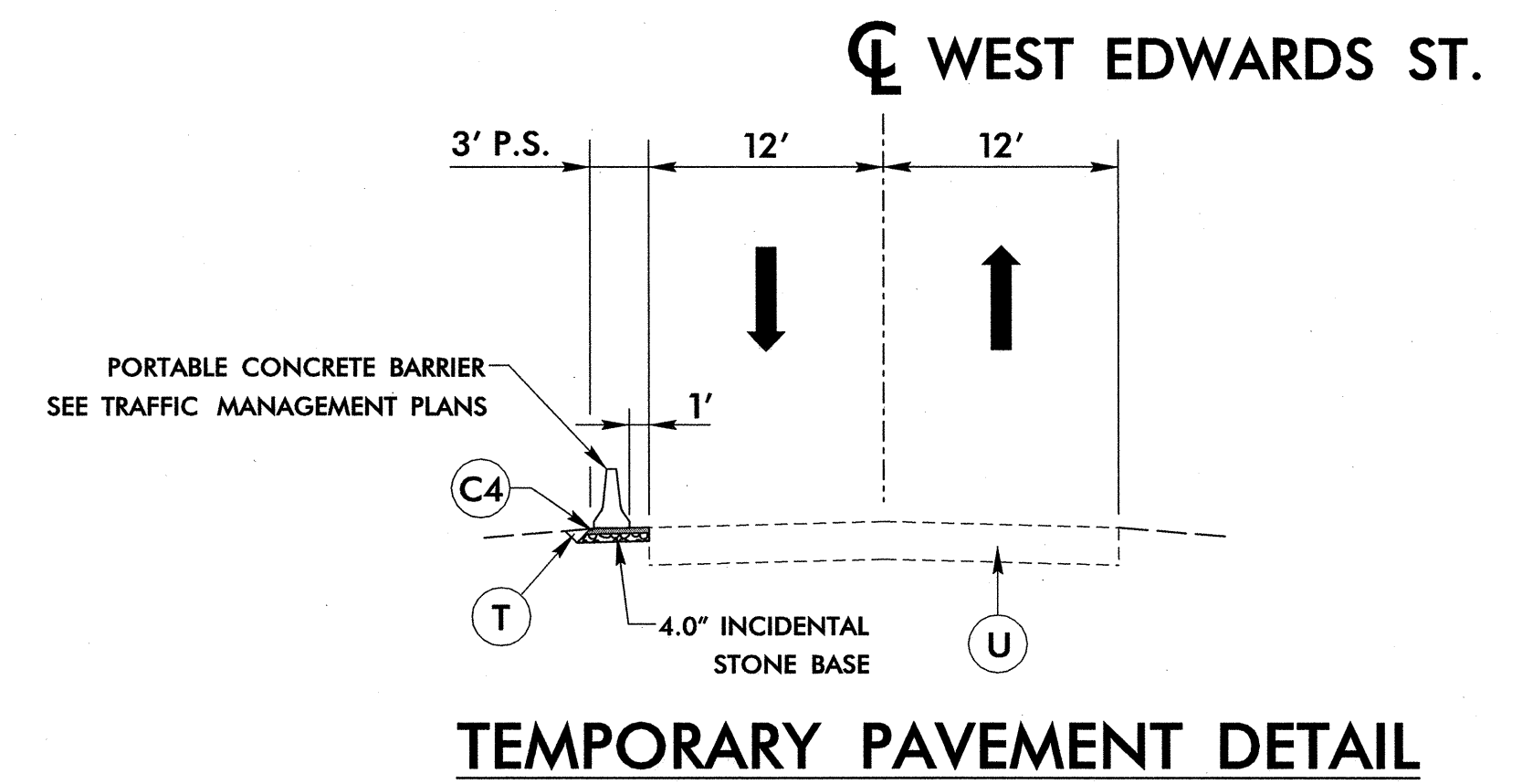
**PARTIAL TYPICAL SECTION NO. 1**

USE PARTIAL TYPICAL SECTION NO. 1  
IN CONJUNCTION WITH T.S. NO. 1 AND 2  
-L- STA. 19+65.00 TO STA. 19+75.00  
-L- STA. 27+83.01 TO STA. 28+20.88



**PARTIAL TYPICAL SECTION NO. 2**

USE PARTIAL TYPICAL SECTION NO. 1  
IN CONJUNCTION WITH T.S. NO. 1 AND 2  
-L- STA. 19+75.00 TO STA. 24+66.93



**TEMPORARY PAVEMENT DETAIL**

\* SEE CROSS-SECTIONS  
MIN. 4'  
USE 8' LONG POSTS  
FROM Sta. 19+75.00 TO 23+13.00

**NOTES:**

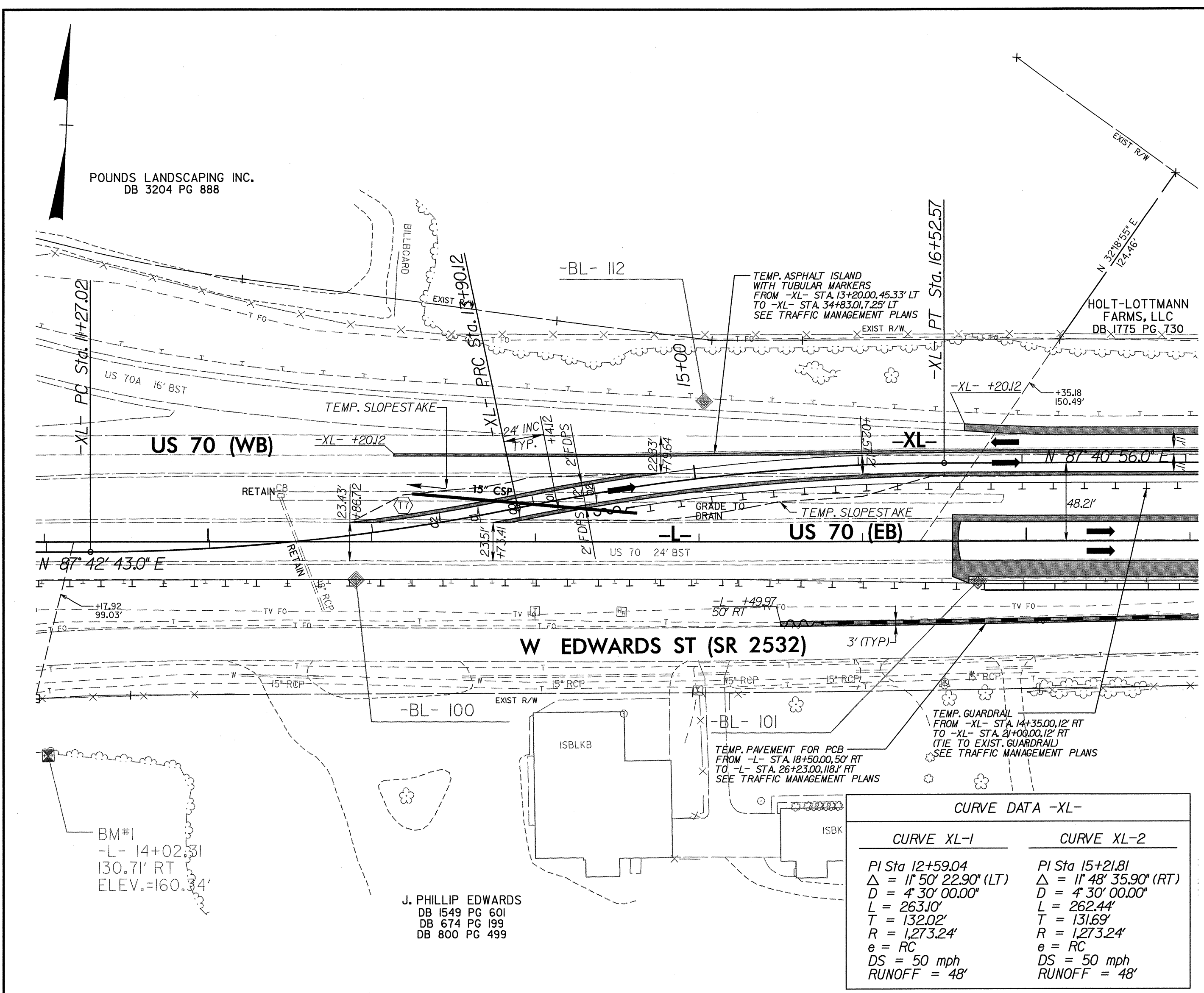
TYPICAL SECTIONS SHOWN FOR TANGENT SECTIONS ONLY.  
SEE PLANS AND STANDARD DRAWINGS FOR SUPERELEVATION  
DETAILS AND WIDENING /LANE ADDITIONS AT INTERSECTION.  
MAXIMUM ROLLOVER IS 6%.

ALL PAVEMENT EDGES SLOPES ARE 1:1 UNLESS SHOWN  
OTHERWISE.

PAVEMENT SCHEDULE	
C2	3" S9.5C
C4	1.25" SF9.5A
D1	3" I19.0C
E1	7" B25.0C
R1	EXPRESSWAY GUTTER
T	EARTH MATERIAL

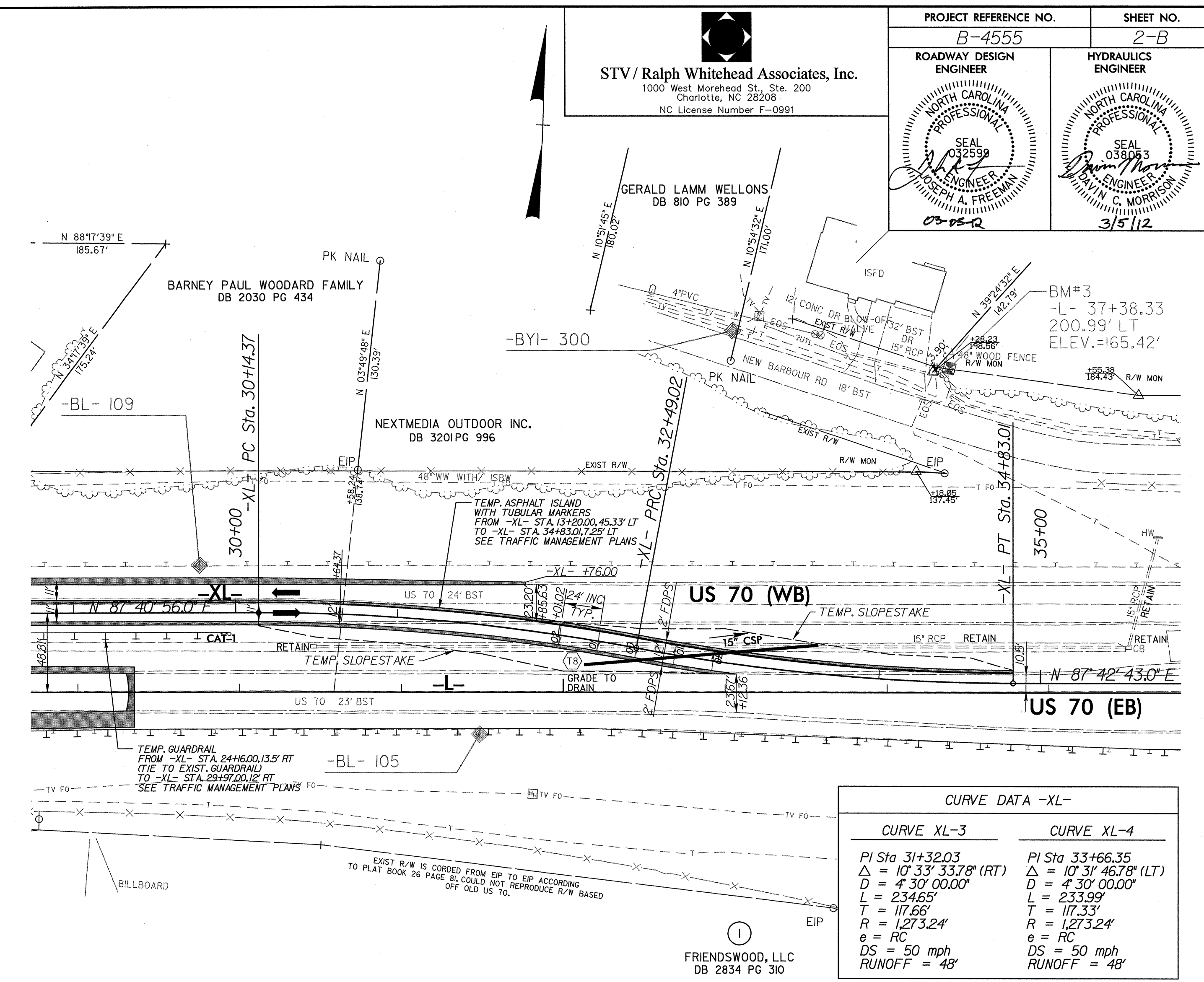
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 J. Freeman





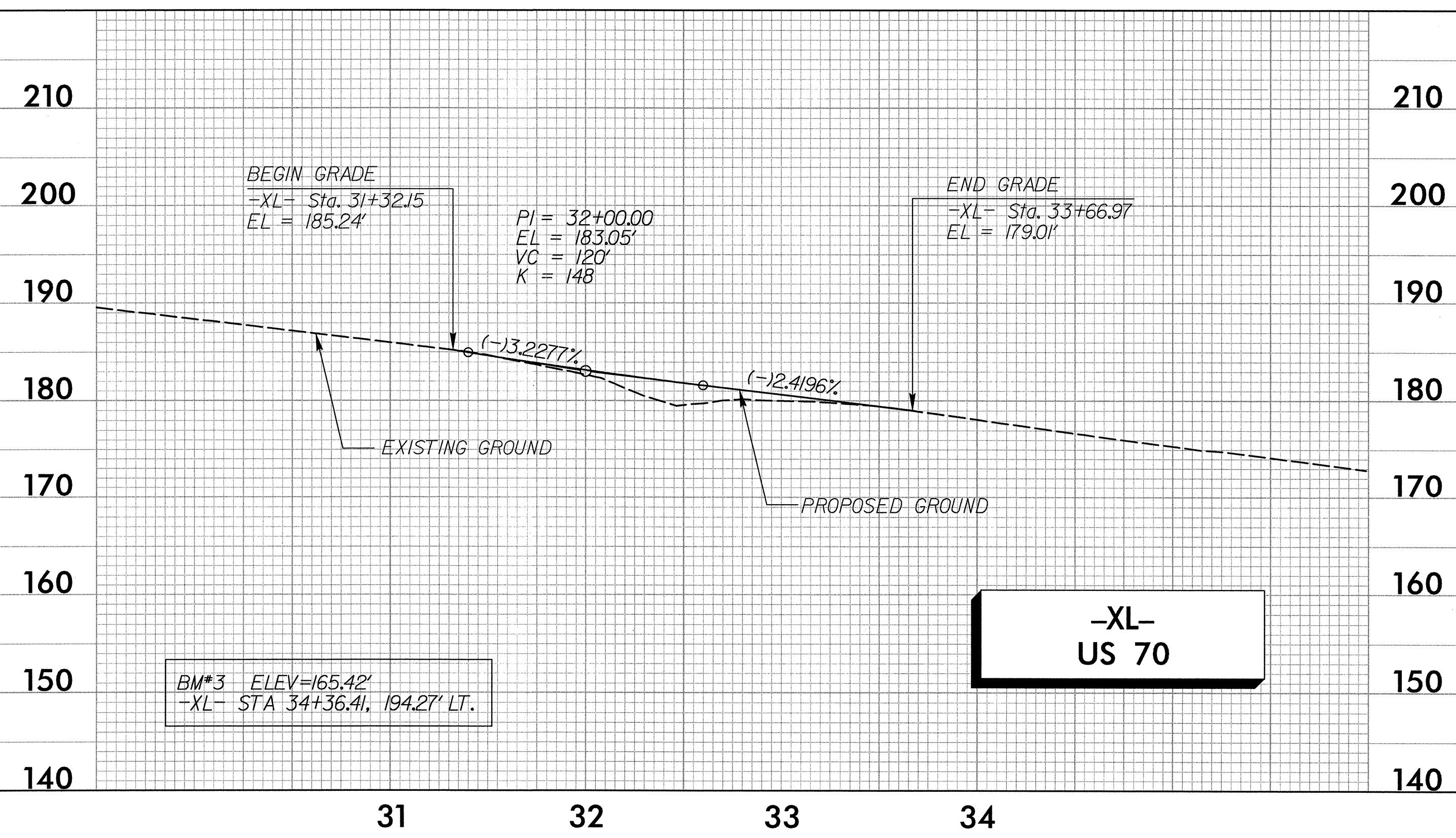
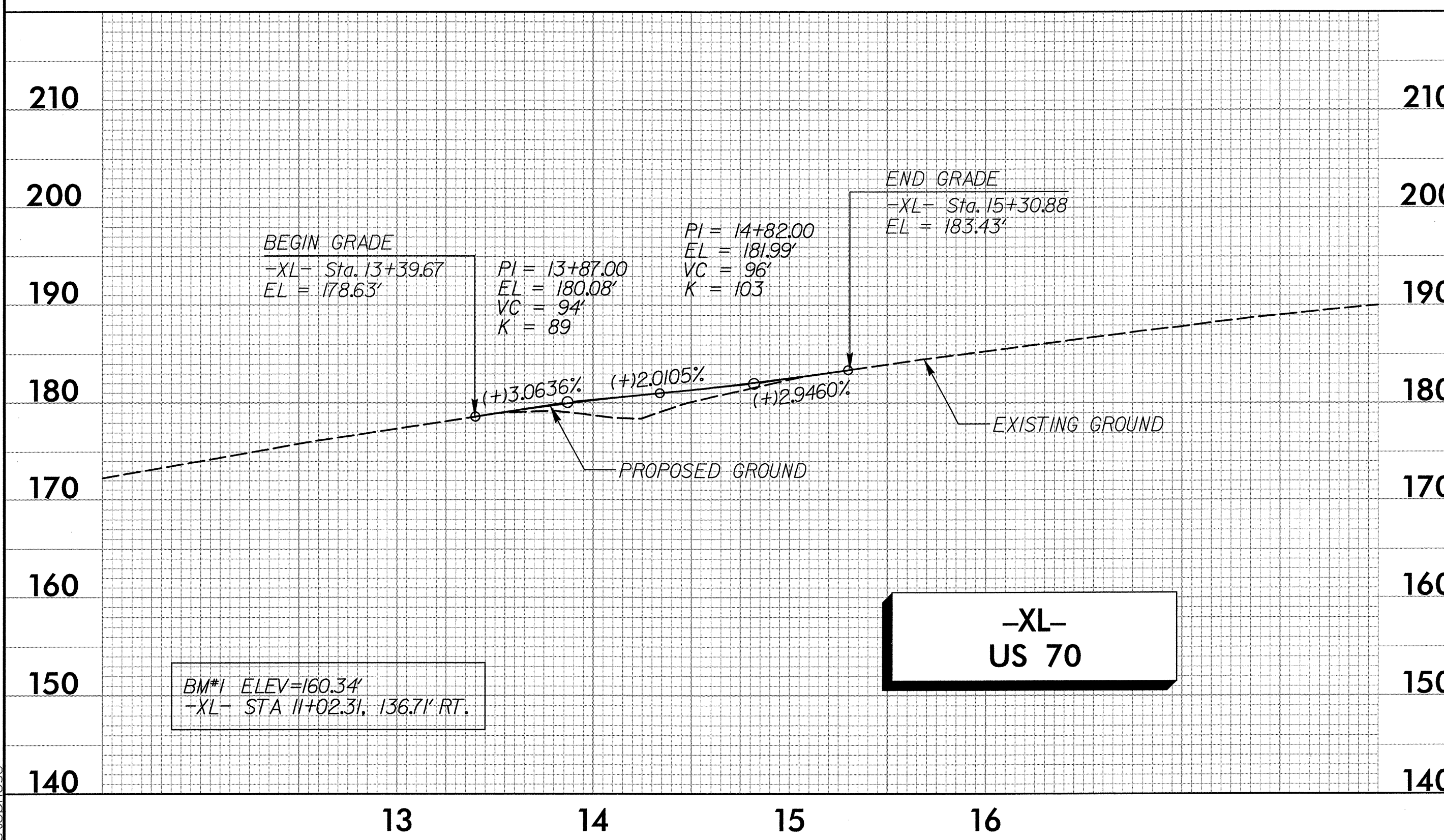
CURVE DATA -XL-

CURVE XL-1		CURVE XL-2	
PI Sta 12+59.04	$\Delta = 11^{\circ} 50' 22.90''$ (LT)	PI Sta 15+21.81	$\Delta = 11^{\circ} 48' 35.90''$ (RT)
D = 4' 30" 00.00"	L = 263.10'	D = 4' 30" 00.00"	L = 262.44'
T = 132.02'	R = 1273.24'	T = 131.69'	R = 1273.24'
e = RC	DS = 50 mph	e = RC	DS = 50 mph
RUNOFF = 48'		RUNOFF = 48'	



CURVE DATA -XL-

CURVE XL-3		CURVE XL-4	
PI Sta 31+32.03	$\Delta = 10^{\circ} 33' 33.78''$ (RT)	PI Sta 33+66.35	$\Delta = 10^{\circ} 31' 46.78''$ (LT)
D = 4' 30" 00.00"	L = 234.65'	D = 4' 30" 00.00"	L = 233.99'
T = 117.66'	R = 1273.24'	T = 117.33'	R = 1273.24'
e = RC	DS = 50 mph	e = RC	DS = 50 mph
RUNOFF = 48'		RUNOFF = 48'	



3/5/2012  
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 stephane

**STV / Ralph Whitehead Associates, Inc.**  
 1000 West Morehead St., Ste. 200  
 Charlotte, NC 28208  
 NC License Number F-0991

PROJECT REFERENCE NO. <b>B-4555</b>	SHEET NO. <b>2-B</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C202822

ItemNumber	Sec #	Quantity	Unit	Description
0000100000-N	800	Lump Sum		MOBILIZATION
0029000000-N	SP	Lump Sum		REINFORCED BRIDGE APPROACH FILL, STATION ***** (25+99.88)
0036000000-E	225	700	CY	UNDERCUT EXCAVATION
0050000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUBBING
0063000000-N	SP	Lump Sum		GRADING
0106000000-E	230	12,400	CY	BORROW EXCAVATION
0195000000-E	265	700	CY	SELECT GRANULAR MATERIAL
0196000000-E	270	1,400	SY	GEOTEXTILE FOR SOIL STABILIZATION
0318000000-E	300	100	TON	FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES
0320000000-E	300	300	SY	FOUNDATION CONDITIONING GEOTEXTILE
0335200000-E	305	888	LF	15" DRAINAGE PIPE
0335850000-E	305	4	EA	*** DRAINAGE PIPE ELBOWS (15")
0995000000-E	340	279	LF	PIPE REMOVAL
1099500000-E	505	200	CY	SHALLOW UNDERCUT
1099700000-E	505	400	TON	CLASS IV SUBGRADE STABILIZATION
1220000000-E	545	300	TON	INCIDENTAL STONE BASE
1330000000-E	607	400	SY	INCIDENTAL MILLING
1491000000-E	610	2,340	TON	ASPHALT CONC BASE COURSE, TYPE B25.0C
1503000000-E	610	840	TON	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C
1523000000-E	610	1,090	TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5C
1525000000-E	610	20	TON	ASPHALT CONC SURFACE COURSE, TYPE SF9.5A
1575000000-E	620	210	TON	ASPHALT BINDER FOR PLANT MIX
2286000000-N	840	4	EA	MASONRY DRAINAGE STRUCTURES
2364200000-N	840	4	EA	FRAME WITH TWO GRATES, STD 840.20

ItemNumber	Sec #	Quantity	Unit	Description
6006000000-E	1610	160	TON	STONE FOR EROSION CONTROL, CLASS A
6009000000-E	1610	165	TON	STONE FOR EROSION CONTROL, CLASS B
6012000000-E	1610	115	TON	SEDIMENT CONTROL STONE
6015000000-E	1615	3	ACR	TEMPORARY MULCHING
6018000000-E	1620	150	LB	SEED FOR TEMPORARY SEEDING
6021000000-E	1620	1.5	TON	FERTILIZER FOR TEMPORARY SEEDING
6024000000-E	1622	400	LF	TEMPORARY SLOPE DRAINS
6030000000-E	1630	300	CY	SILT EXCAVATION
6036000000-E	1631	4,000	SY	MATting FOR EROSION CONTROL
6037000000-E	SP	10	SY	COIR FIBER MAT
6038000000-E	SP	1,500	SY	PERMANENT SOIL REINFORCEMENT MAT
6042000000-E	1632	250	LF	1/4" HARDWARE CLOTH
6071010000-E	SP	350	LF	WATTLE
6071020000-E	SP	50	LB	POLYACRYLAMIDE (PAM)
6071030000-E	1640	100	LF	COIR FIBER BAFFLE
6071050000-E	SP	1	EA	*** SKIMMER (1-1/2")
6084000000-E	1660	5	ACR	SEEDING & MULCHING
6087000000-E	1660	2	ACR	MOWING
6090000000-E	1661	50	LB	SEED FOR REPAIR SEEDING
6093000000-E	1661	0.25	TON	FERTILIZER FOR REPAIR SEEDING
6096000000-E	1662	100	LB	SEED FOR SUPPLEMENTAL SEEDING
6108000000-E	1665	3	TON	FERTILIZER TOPDRESSING
6114500000-N	1667	10	MHR	SPECIALIZED HAND MOWING
6117000000-N	SP	13	EA	RESPONSE FOR EROSION CONTROL
7060000000-E	1705	4,450	LF	SIGNAL CABLE
7108000000-E	1705	16	EA	VEHICLE SIGNAL HEAD (12", 1 SECTION)

SUMMARY OF QUANTITIES - B-4555

ItemNumber	Sec #	Quantity	Unit	Description
2577000000-E	846	540	LF	CONCRETE EXPRESSWAY GUTTER
3030000000-E	862	2,925	LF	STEEL BM GUARDRAIL
3150000000-N	862	10	EA	ADDITIONAL GUARDRAIL POSTS
3210000000-N	862	2	EA	GUARDRAIL ANCHOR UNITS, TYPE CAT-1
3270000000-N	SP	2	EA	GUARDRAIL ANCHOR UNITS, TYPE 350
3317000000-N	862	4	EA	GUARDRAIL ANCHOR UNITS, TYPE B-77
3360000000-E	863	2,634	LF	REMOVE EXISTING GUARDRAIL
3380000000-E	862	1,212.5	LF	TEMPORARY STEEL BM GUARDRAIL
3387000000-N	862	1	EA	TEMPORARY GUARDRAIL ANCHOR UNITS, TYPE ***** (CAT-1)
3435000000-N	SP	54	EA	GENERIC GUARDRAIL ITEM EXTRA LENGTH GUARDRAIL POST (8" STEEL)
3500000000-E	866	290	LF	WOVEN WIRE FENCE, *** FABRIC (48")
3506000000-E	866	20	EA	4" TIMBER FENCE POSTS, ***** LONG (8'-0")
3515000000-E	866	10	EA	5" TIMBER FENCE POSTS, 8'-0" LONG
3649000000-E	876	4	TON	RIP RAP, CLASS B
3656000000-E	876	395	SY	GEOTEXTILE FOR DRAINAGE
4072000000-E	903	50	LF	SUPPORTS, 3-LB STEEL U-CHANNEL
4096000000-N	904	1	EA	SIGN ERECTION, TYPE D
4102000000-N	904	2	EA	SIGN ERECTION, TYPE E
4155000000-N	907	2	EA	DISPOSAL OF SIGN SYSTEM, U-CHANNEL
4400000000-E	1110	710	SF	WORK ZONE SIGNS (STATIONARY)
4405000000-E	1110	110	SF	WORK ZONE SIGNS (PORTABLE)
4410000000-E	1110	40	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)
4415000000-N	1115	2	EA	FLASHING ARROW BOARD

ItemNumber	Sec #	Quantity	Unit	Description
7120000000-E	1705	10	EA	VEHICLE SIGNAL HEAD (12", 3 SECTION)
7264000000-E	1710	530	LF	MESSENGER CABLE (3/8")
7300000000-E	1715	840	LF	UNPAVED TRENCHING (***** (1, 2"))
7300100000-E	1715	615	LF	UNPAVED TRENCHING FOR TEMPORARY LEAD-IN
7301000000-E	1715	100	LF	DIRECTIONAL DRILL (***** (1, 2"))
7324000000-N	1716	9	EA	JUNCTION BOX (STANDARD SIZE)
7360000000-N	1720	4	EA	WOOD POLE
7372000000-N	1721	8	EA	GUY ASSEMBLY
7408000000-E	1722	1	EA	1" RISER WITH WEATHERHEAD
7420000000-E	1722	5	EA	2" RISER WITH WEATHERHEAD
7444000000-E	1725	600	LF	INDUCTIVE LOOP SAWCUT
7456000000-E	1726	2,162	LF	LEAD-IN CABLE (***** (14-2))
7636000000-N	1745	11	EA	SIGN FOR SIGNALS
7642300000-N	1743	4	EA	TYPE III PEDESTAL WITH FOUNDATION
7684000000-N	1750	1	EA	SIGNAL CABINET FOUNDATION
7756000000-N	1751	1	EA	CONTROLLER WITH CABINET (TYPE 2070L, BASE MOUNTED)
7780000000-N	1751	4	EA	DETECTOR CARD (TYPE 2070L)
7816000000-N	1751	2	EA	DETECTOR CARD (NEMA TS-1)
7901000000-N	1753	1	EA	CABINET BASE EXTENDER
7912000000-N	1755	1	EA	BEACON CONTROLLER ASSEMBLY & CABINET (***** (F3))

ItemNumber	Sec #	Quantity	Unit	Description
4420000000-N	1120	2	EA	PORTABLE CHANGEABLE MESSAGE SIGN
4430000000-N	1130	210	EA	DRUMS
4445000000-E	1145	40	LF	BARRICADES (TYPE III)
4450000000-N	1150	200	HR	FLAGGER
4465000000-N	1160	4	EA	TEMPORARY CRASH CUSHIONS
4480000000-N	1165	2	EA	TMA
4485000000-E	1170	1,480	LF	PORTABLE CONCRETE BARRIER
4510000000-N	SP	100	HR	LAW ENFORCEMENT
4590000000-E	SP	2,158	LF	GENERIC TRAFFIC CONTROL ITEM WORK ZONE ASPHALT ISLAND (2158 LF)
4650000000-N	1251	50	EA	TEMPORARY RAISED PAVEMENT MARKERS
4688000000-E	1205	6,721	LF	THERMOPLASTIC PAVEMENT MARKING LINES (6", 90 MILS)
4690000000-E	1205	2,604	LF	THERMOPLASTIC PAVEMENT MARKING LINES (6", 120 MILS)
4775000000-E	1205	997	LF	COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE ** (6") (II)
4810000000-E	1205	12,500	LF	PAINT PAVEMENT MARKING LINES (4")
4820000000-E	1205	1,300	LF	PAINT PAVEMENT MARKING LINES (8")
4835000000-E	1205	100	LF	PAINT PAVEMENT MARKING LINES (24")
4850000000-E	1205	10,000	LF	REMOVAL OF PAVEMENT MARKING LINES (4")
4855000000-E	1205	9,000	LF	REMOVAL OF PAVEMENT MARKING LINES (6")
4860000000-E	1205	1,300	LF	REMOVAL OF PAVEMENT MARKING LINES (8")
4870000000-E	1205	100	LF	REMOVAL OF PAVEMENT MARKING LINES (24")
4900000000-N	1251	133	EA	PERMANENT RAISED PAVEMENT MARKERS
6000000000-E	1605	1,050	LF	TEMPORARY SILT FENCE



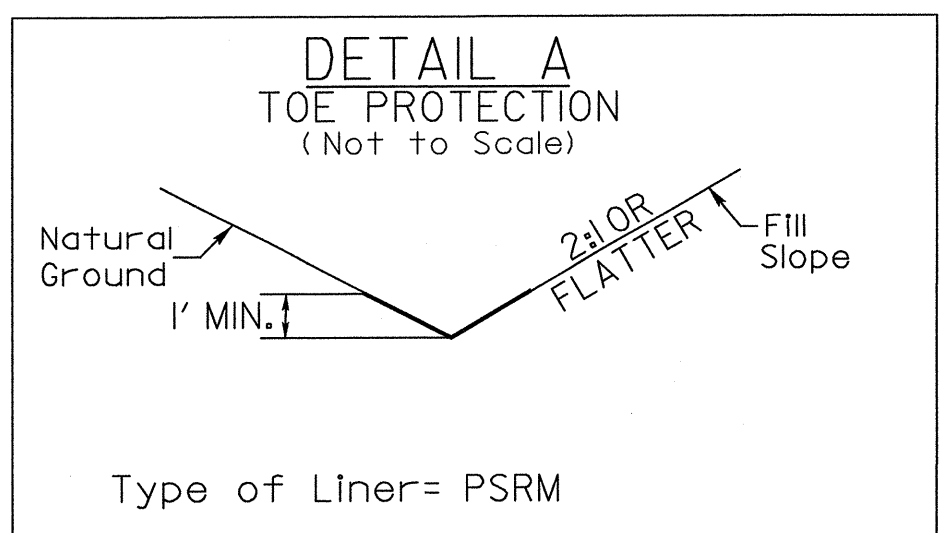






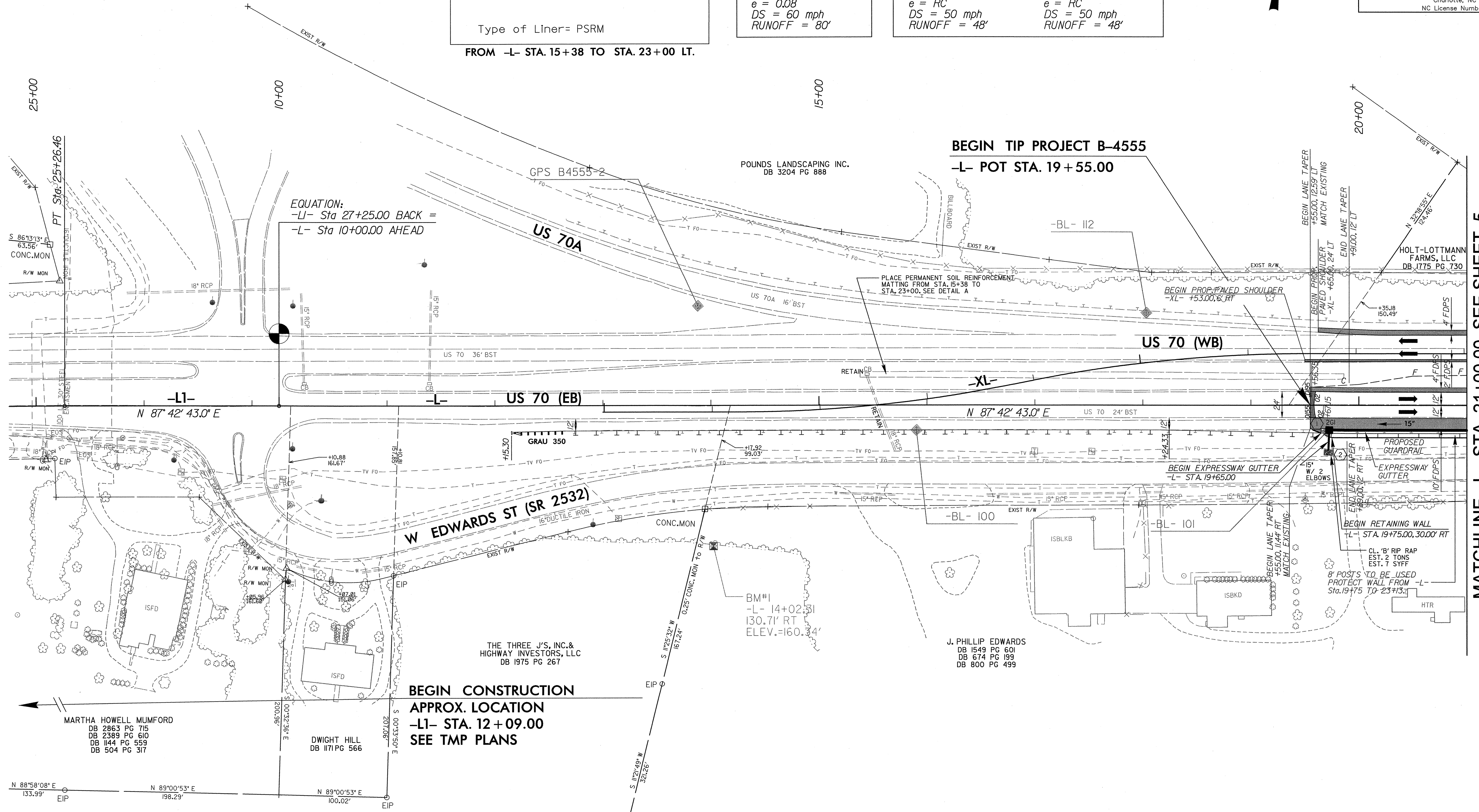


PROJECT REFERENCE NO. B-4555		SHEET NO. 4
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
<b>STV/Ralph Whitehead Associates, Inc.</b> 1000 West Morehead St., Ste. 200 Charlotte, NC 28208 NC License Number F-0991		



CURVE DATA -LI-		CURVE DATA -XL-	
CURVE LI-1		CURVE XL-1	CURVE XL-2
PI Sta 18+74.92	$\Delta = 24^\circ 40' 05.4''$ (RT)	PI Sta 12+59.04	PI Sta 15+21.81
$D = 1' 51' 47.8''$	$L = 1,323.91'$	$\Delta = 11^\circ 50' 22.90''$ (LT)	$\Delta = 11^\circ 48' 35.90''$ (RT)
$T = 672.37'$	$R = 3,075.00'$	$D = 4' 30' 00.00''$	$D = 4' 30' 00.00''$
$e = 0.08$	$DS = 60$ mph	$L = 263.10'$	$L = 262.44'$
$RUNOFF = 80'$		$T = 132.02'$	$T = 131.69'$
		$R = 1,273.24'$	$R = 1,273.24'$
		$e = RC$	$e = RC$
		$DS = 50$ mph	$DS = 50$ mph
		$RUNOFF = 48'$	$RUNOFF = 48'$

FROM -L- STA. 15+38 TO STA. 23+00 LT.



MARtha HOWELL MUMFORD  
 DB 2863 PG 715  
 DB 2389 PG 610  
 DB 1144 PG 559  
 DB 504 PG 317

DWIGHT HILL  
 DB 1171 PG 566

**BEGIN CONSTRUCTION APPROX. LOCATION**  
 -L1- STA. 12+09.00  
 SEE TMP PLANS

THE THREE J'S, INC. & HIGHWAY INVESTORS, LLC  
 DB 1975 PG 267


BM#1  
 -L- 14+02.31  
 130.71' RT  
 ELEV.=160.34'

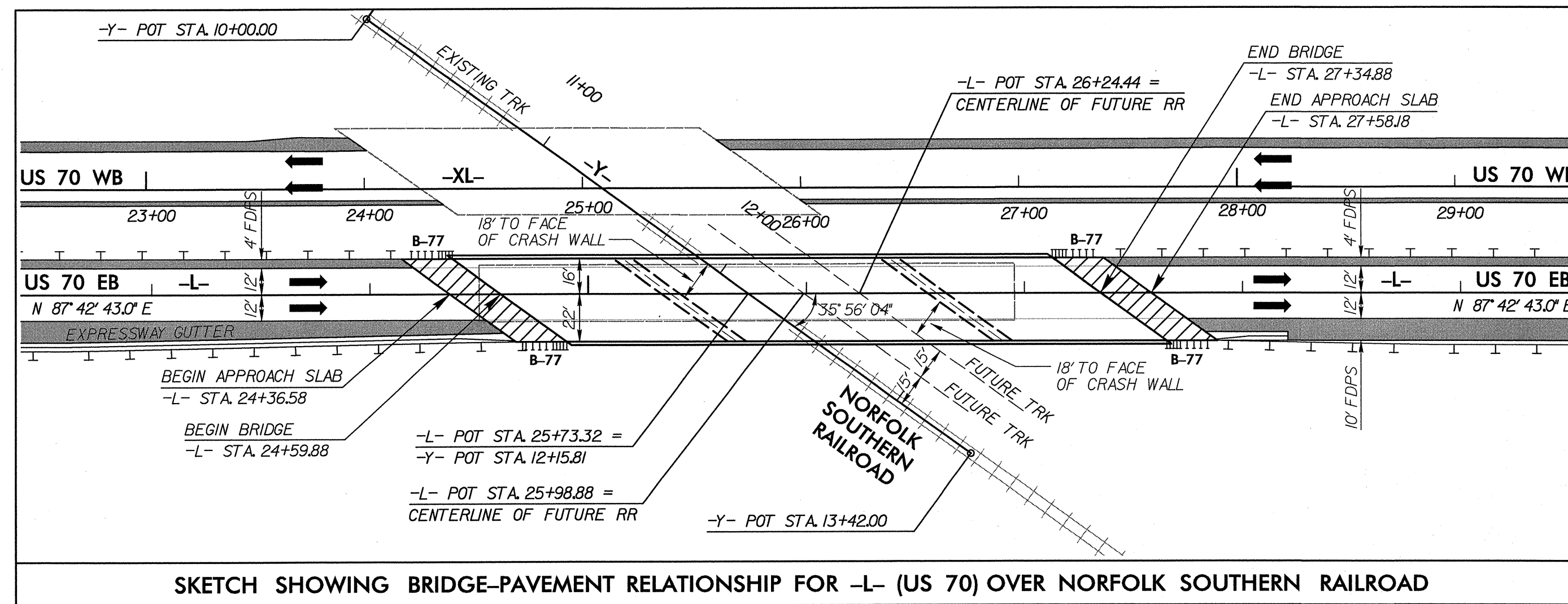
J. PHILLIP EDWARDS  
 DB 1549 PG 601  
 DB 674 PG 199  
 DB 800 PG 499

FOR -L- PROFILE SEE SHEET 7  
 FOR -XL- DETAIL SEE SHEET 2-B  
 FOR DETOUR PHASING DETAILS SEE TRAFFIC MANAGEMENT PLANS  
 FOR RETAINING WALL LAYOUT SEE RETAINING WALL PLANS

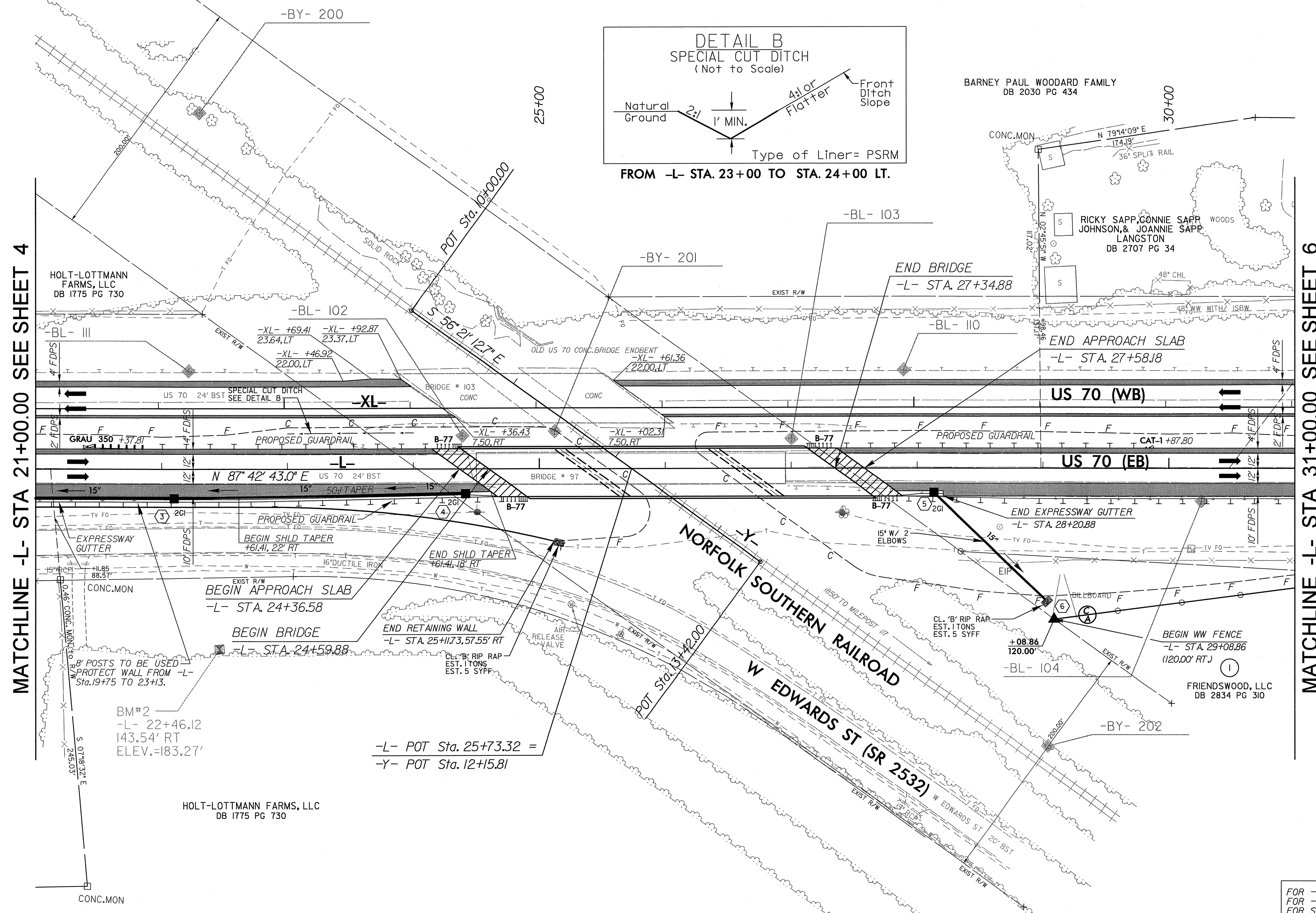
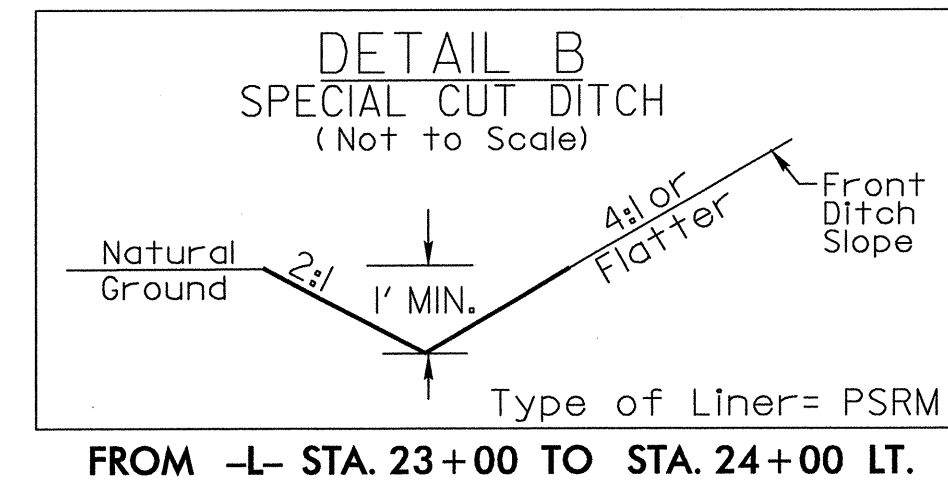
MATCHLINE -L- STA 21+00.00 SEE SHEET 5



PROJECT REFERENCE NO. B-4555	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER SEAL 032599 JOSEPH A. FREEMAN 23-12-12	HYDRAULICS ENGINEER SEAL 039053 JOHN W. MORRISON 3/19/12
 <b>STV / Ralph Whitehead Associates, Inc.</b> 1000 West Morehead St., Ste. 200 Charlotte, NC 28208 NC License Number F-0991	



SKETCH SHOWING BRIDGE-PAVEMENT RELATIONSHIP FOR -L- (US 70) OVER NORFOLK SOUTHERN RAILROAD



MATCHLINE -L- STA 21+00.00 SEE SHEET 4

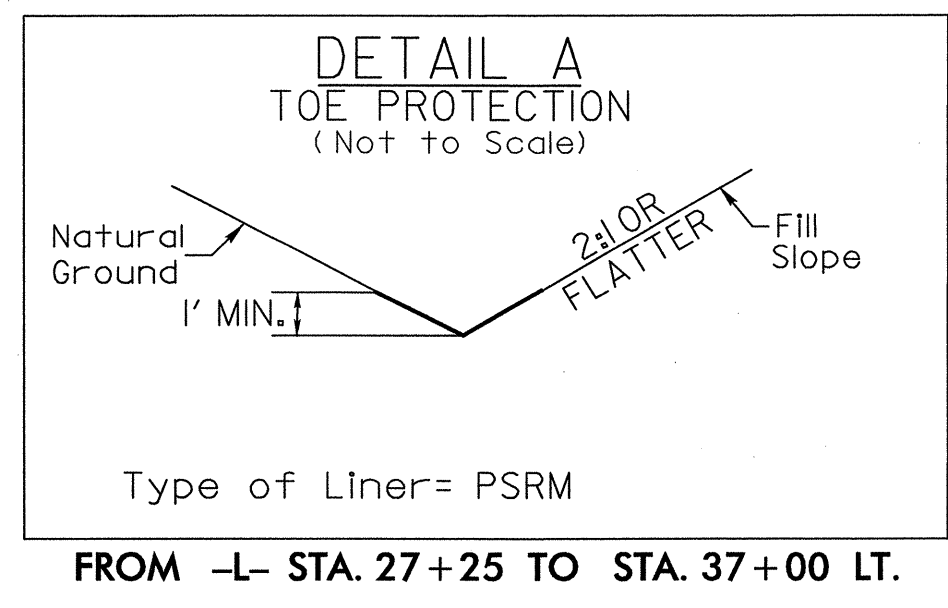
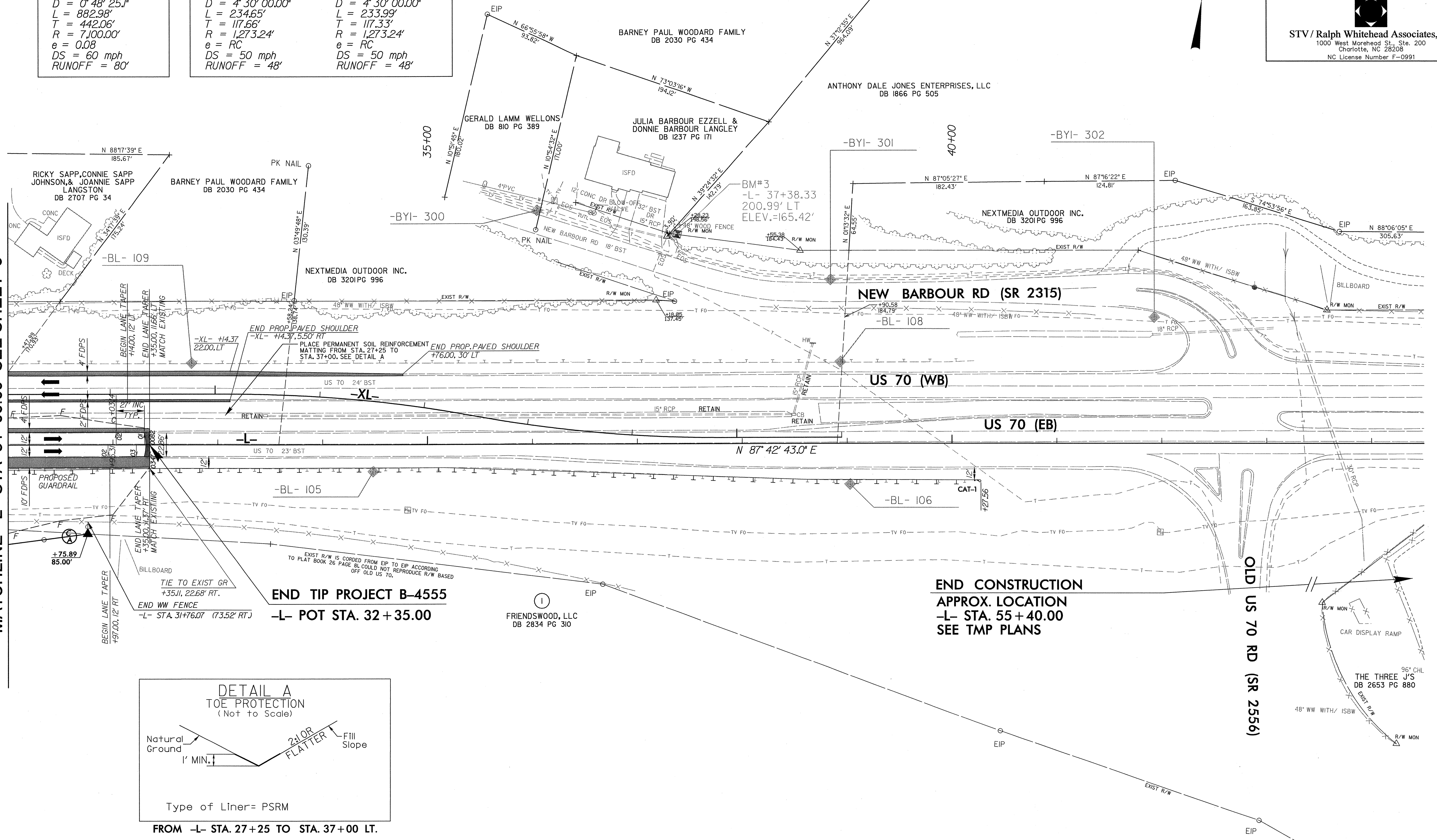
MATCHLINE -L- STA 31+00.00 SEE SHEET 6

FOR -L- PROFILE SEE SHEET 7  
 FOR -XL- DETAIL SEE SHEET 2-B  
 FOR STRUCTURE PLANS SEE SHEETS S-1 TO S-37  
 FOR RETAINING WALL LAYOUT SEE RETAINING WALL PLANS  
 FOR DETOUR PHASING DETAILS SEE TRAFFIC MANAGEMENT PLANS

PROJECT REFERENCE NO. B-4555	SHEET NO. 6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>STV/Ralph Whitehead Associates, Inc.</b> 1000 West Morehead St., Ste. 200 Charlotte, NC 28203 NC License Number F-0991	

CURVE DATA -L-	CURVE DATA -XL-	
CURVE L-1	CURVE XL-3	CURVE XL-4
PI Sta 52+35.54 $\Delta = 7^{\circ} 07' 31.8''$ (RT) $D = 0' 48' 25.1''$ $L = 882.98'$ $T = 442.06'$ $R = 7,100.00'$ $e = 0.08$ $DS = 60$ mph $RUNOFF = 80'$	PI Sta 31+32.03 $\Delta = 10^{\circ} 33' 33.78''$ (RT) $D = 4' 30' 00.00''$ $L = 234.65'$ $T = 117.66'$ $R = 1,273.24'$ $e = RC$ $DS = 50$ mph $RUNOFF = 48'$	PI Sta 33+66.35 $\Delta = 10^{\circ} 31' 46.78''$ (LT) $D = 4' 30' 00.00''$ $L = 233.99'$ $T = 117.33'$ $R = 1,273.24'$ $e = RC$ $DS = 50$ mph $RUNOFF = 48'$

MATCHLINE -L- STA 31+00.00 SEE SHEET 5

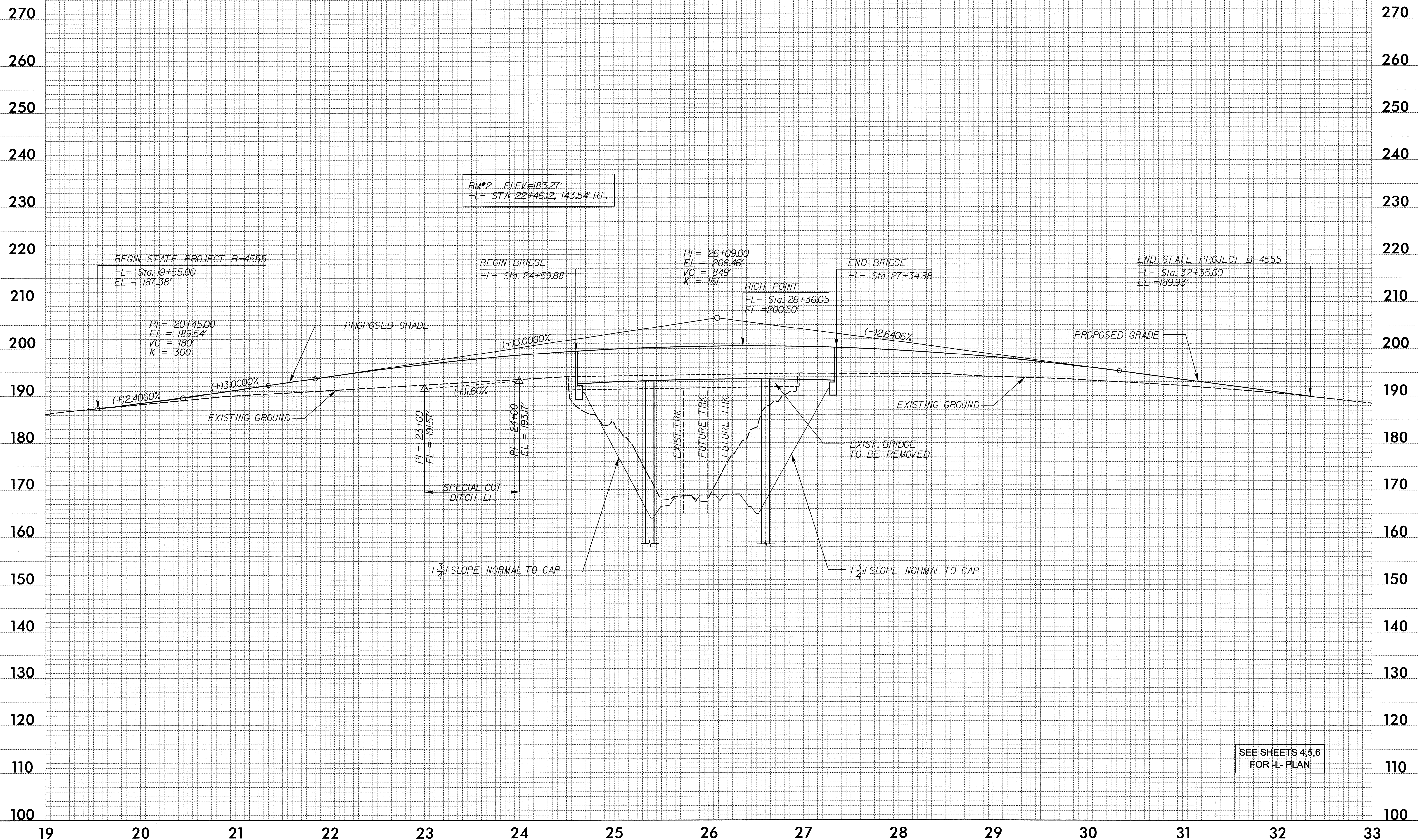


FOR -L- PROFILE SEE SHEET 7  
 FOR -XL- DETAIL SEE SHEET 2-B  
 FOR DETOUR PHASING DETAILS SEE TRAFFIC MANAGEMENT PLANS

8/17/99  
 3/16/2012  
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 stephens



**-L-**  
**US 70 (EB)**



SEE SHEETS 4,5,6  
 FOR -L- PLAN

3/13/2012  
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