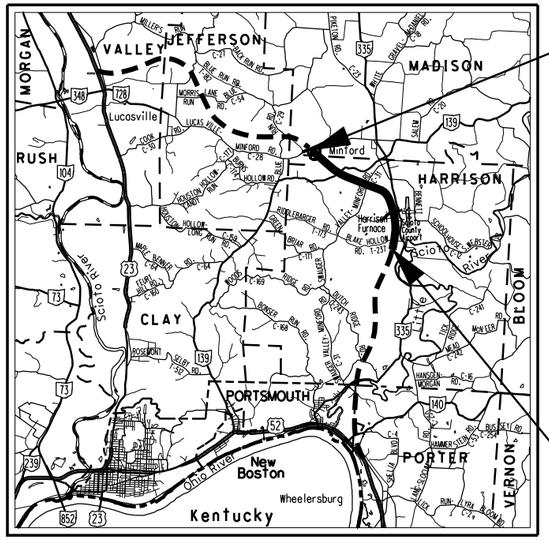

END PROJECT
STA. 536+15.00
SLM = 10.15

BEGIN PROJECT
STA. 353+00.00
SLM = 6.69

LOCATION MAP

LATITUDE: N 38°50'25" LONGITUDE: W 82°50'50"

SCALE IN MILES
0 1 2 3 4

PORTION TO BE IMPROVED
INTERSTATE & DIVIDED HIGHWAY
UNDIVIDED STATE & FEDERAL ROUTES
OTHER ROADS

DESIGN DESIGNATION

(SEE SHEET 2)

DESIGN EXCEPTIONS

(SEE SHEET 2)

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG
CALL
1-800-362-2764
(TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY
OIL & GAS PRODUCERS PROTECTIVE
SERVICE CALL: **1-800-925-0988**

PLAN PREPARED BY:

HDR ENGINEERING, INC.
9987 CARVER RD, SUITE 200
CINCINNATI, OHIO 45242
513-984-7500

USER: CWohlbr PLOT DATE: 9/15/2011 1:55:06 AM REVISION DATE: 9/15/2011 MODEL: Sheet
FILE: ...\HDR.C\0000000000045878 /1845g1001.dgn

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

SCI-823-6.81
PART 1

MADISON & HARRISON TOWNSHIPS
SCIOTO COUNTY

PART 1 - EARTHWORK
PART 2 - SR 335 & BRIDGE NO. SCI-TR234-0122
PART 3 - BRIDGE NO. SCI-823-0837 L & R
PART 4 - BRIDGE NO. SCI-823-0917 L & R
PART 5 - PAVEMENT

INDEX OF SHEETS

INDEX OF SHEETS, CONTD.

ENGINEERS SEAL:	ENGINEERS SEAL:
ROADWAY PLANS (HDR ENGINEERING, INC.)	MOT/TRAFFIC PLANS (WD TRANSPORTATION)
SIGNED:	SIGNED:
DATE:	DATE:

PROJECT DESCRIPTION (PART 1)

CONSTRUCTION OF THE EARTHWORK AND DRAINAGE FOR 3.46 MILES OF FOUR LANE LIMITED ACCESS HIGHWAY (SR 823) FROM PROPOSED TR234 INTERCHANGE TO PROPOSED CR28 INTERCHANGE; INTERCHANGES AT TR234 (RELOCATED SHUMWAY HOLLOW ROAD) AT THE SCIOTO COUNTY AIRPORT, AND CR 28 (LUCASVILLE-MINFORD ROAD). COMPLETE CONSTRUCTION OF TR234 FROM BEGIN WORK UNTIL TIE IN AT NEWLY CONSTRUCTED BRIDGE OVER CSXT RAILROAD. COMPLETE IMPROVEMENTS ALONG SR 139.

PROJECT EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA	= 230.00 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	= 65.25 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA	= 295.25 ACRES

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2010 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT FOR THE SIDE ROADS AS DESCRIBED ON SHEETS 25 TO 29 AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

UNDER AUTHORITY OF SECTION 4511.21, DIVISION (H) OF THE OHIO REVISED CODE, THE REVISED PRIMA FACIE SPEED LIMITS AS INDICATED HEREIN ARE DETERMINED TO BE REASONABLE AND SAFE, AND ARE HEREBY ESTABLISHED FOR THE DURATION OF THIS PROJECT. THE PRIMA FACIE SPEED LIMIT OR LIMITS HEREBY ESTABLISHED SHALL BECOME EFFECTIVE WHEN APPROPRIATE SIGNS GIVING NOTICE THEREOF ARE ERECTED.

APPROVED _____
DATE _____ DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. G990 (624)
PID NO. 19415
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT CSXT
SCI-823-6.81
1
535

DESIGN EXCEPTIONS

DESIGN FEATURE	APPROVAL DATE	SHEET NO.
HORIZONTAL STOPPING SIGHT DISTANCE (DC = 2°) PROVIDED 663 FT (NDC = 730 FT)	NOVEMBER 4, 2008	56 TO 62

DESIGN DESIGNATION SR823 (TR234 INTERCHANGE TO US 23 INTERCHANGE)

CURRENT ADT (2010)	19,800
DESIGN YEAR ADT (2030)	26,000
DESIGN HOURLY VOLUME (2030)	2600
DIRECTIONAL DISTRIBUTION	55%
T_D	7%
TRUCKS (24 HOUR B&C)	14%
DESIGN SPEED	70 MPH
LEGAL SPEED	65 MPH
DESIGN FUNCTIONAL CLASSIFICATION	RURAL PRINCIPAL ARTERIAL

DESIGN DESIGNATION TR234 (SHUMWAY HOLLOW ROAD)

CURRENT ADT (2010)	3800
DESIGN YEAR ADT (2030)	7800
DESIGN HOURLY VOLUME (2030)	780
DIRECTIONAL DISTRIBUTION	55%
TRUCKS (24 HOUR B&C)	6%
DESIGN SPEED	55 MPH
LEGAL SPEED	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION	RURAL LOCAL

DESIGN DESIGNATION CR28 (LUCASVILLE-MINFORD ROAD)

CURRENT ADT (2010)	3000
DESIGN YEAR ADT (2030)	6000
DESIGN HOURLY VOLUME (2030)	600
DIRECTIONAL DISTRIBUTION	55%
TRUCKS (24 HOUR B&C)	6%
DESIGN SPEED	55 MPH
LEGAL SPEED	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION	RURAL MAJOR COLLECTOR

PLAN SHEET LEGEND:

(#-#) PAY ITEMS PERFORMED IN THIS PART. SUBSUMMARY POINTS TO A DIFFERENT PLAN SHEET/ALIGNMENT.

#-# PAY ITEMS PERFORMED IN THIS PART. SUBSUMMARY POINTS TO THIS PLAN SHEET/ALIGNMENT.

NOTE:
ITEMS THAT WILL BE PERFORMED BY OTHERS UNDER SEPARATE CONTRACT WILL BE DENOTED BY THE ABBREVIATION "NIC" (NOT IN CONTRACT) THROUGHOUT THE PLAN SET.

NOTE:
ITEMS THAT WILL BE PERFORMED UNDER SEPARATE PART WILL BE DENOTED BY THE ABBREVIATION "NIP" (NOT IN PART) THROUGHOUT THE PLAN SET.

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
BP-3.1	10/19/07	F-2.1	7/28/00	MH-1.1	7/19/02	TC-41.10	10/19/07	800 7/15/11	AIRPORT HAZARD BEACON
BP-4.1	7/16/04	F-3.1	4/16/10			TC-41.20	1/19/01	802 4/15/11	
BP-5.1	7/28/00	F-3.2	4/16/10	MT-96.11	1/16/09	TC-41.30	1/19/07	832 5/5/09	U.S. ARMY CORPS OF
BP-9.1	4/15/05	F-3.3	7/28/00	MT-96.20	1/16/09	TC-41.40	7/16/04	836 4/15/05	ENGINEERS PERMIT NOS.
		F-3.4	7/28/00	MT-96.26	1/16/09	TC-41.50	1/19/07	838 4/15/05	
CB-1.1	7/15/05			MT-97.10	4/17/09	TC-42.10	1/19/07	840 10/15/10	
CB-1.2	7/15/05	GR-1.1	7/16/04	MT-97.12	4/17/09	TC-42.20	7/16/04	878 7/15/11	
CB-2.1	7/15/05	GR-2.1	1/16/04	MT-101.60	4/17/09	TC-51.11	4/20/01	898 7/15/11	
CB-2.2	7/15/05	GR-2.3	4/18/03	MT-101.70	1/16/09	TC-52.10	1/19/07	902 7/16/10	
CB-4.2	7/19/02	GR-3.1	10/16/09	MT-101.90	1/16/09	TC-52.20	1/19/07		
		GR-3.2	10/16/09	MT-105.10	1/16/09	TC-61.10	1/19/01		
HW-2.1	7/30/07	GR-4.2	1/19/07			TC-61.30	4/16/10		
HW-2.2	7/30/07	GR-5.1	4/16/10	A-1-69	7/19/02	TC-65.10	1/21/05		
		GR-5.2	4/16/10	AS-1-81	7/19/02	TC-65.11	1/21/05		
I-2.1	7/15/05	GR-5.3	4/16/10	ICD-1-82	7/19/02	TC-71.10	1/21/11		
I-2.2	7/15/05			PSID-1-99	7/18/03	TC-72.20	10/16/09		
I-2.3	7/15/05	HL-10.13	10/16/09	SBR-1-99	7/19/02	TC-73.10	1/19/01		
		HL-20.14	10/16/09	SICD-1-96	7/19/02				
DM-1.1	4/21/06			NBS-1-09	7/17/09				
DM-1.2	10/21/05	RM-1.1	7/18/08						
DM-1.4	4/21/06	RM-3.1	4/18/03						
DM-2.1	7/20/01	RM-4.2	10/19/07						
DM-4.1	7/19/02	RM-4.3	10/16/09						
DM-4.2	1/21/05	RM-4.5	10/16/09						
DM-4.3	4/17/09	RM-4.6	4/16/10						
DM-4.4	4/17/09	RM-7.2	7/15/05						
DM-5.1	7/19/02								

CALCULATED LBD CHECKED JMB

SCI-823-6.81

USER: ldearnel PLOT DATE: 4/18/2012 4:24:05 PM REVISION DATE: 4/18/2012 MODEL: Sheet
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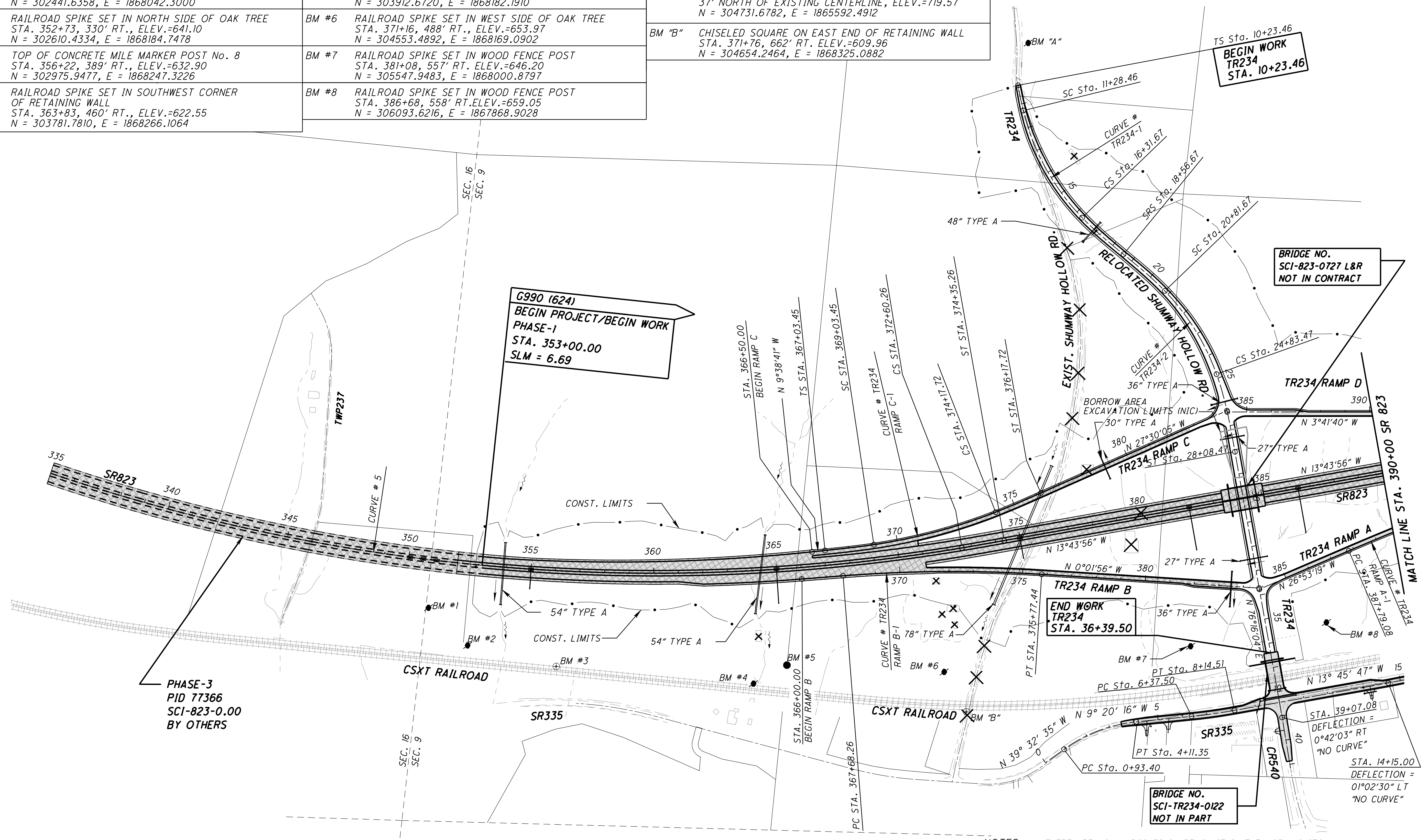
BENCHMARKS:

BM #1	RAILROAD SPIKE SET IN NORTH SIDE OF OAK TREE STA. 349+97, 190' RT., ELEV.=657.72 N = 302441.6358, E = 1868042.3000	BM #5	TOP OF CONCRETE MONUMENT WITH "X" STA. 365+16, 392' RT., ELEV.=643.18 N = 303912.6720, E = 1868182.1910	BM "A"	RAILROAD SPIKE SET IN WOOD POST ABOUT 170' WEST OF CENTERLINE STATION 10+23.46 (TR 234) AND 37' NORTH OF EXISTING CENTERLINE, ELEV.=719.57 N = 304731.6782, E = 1865592.4912
BM #2	RAILROAD SPIKE SET IN NORTH SIDE OF OAK TREE STA. 352+73, 330' RT., ELEV.=641.10 N = 302610.4334, E = 1868184.7478	BM #6	RAILROAD SPIKE SET IN WEST SIDE OF OAK TREE STA. 371+16, 488' RT., ELEV.=653.97 N = 304553.4892, E = 1868169.0902	BM "B"	CHISELED SQUARE ON EAST END OF RETAINING WALL STA. 371+76, 662' RT. ELEV.=609.96 N = 304654.2464, E = 1868325.0882
BM #3	TOP OF CONCRETE MILE MARKER POST No. 8 STA. 356+22, 389' RT., ELEV.=632.90 N = 302975.9477, E = 1868247.3226	BM #7	RAILROAD SPIKE SET IN WOOD FENCE POST STA. 381+08, 557' RT. ELEV.=646.20 N = 305547.9483, E = 1868000.8797		
BM #4	RAILROAD SPIKE SET IN SOUTHWEST CORNER OF RETAINING WALL STA. 363+83, 460' RT., ELEV.=622.55 N = 303781.7810, E = 1868266.1064	BM #8	RAILROAD SPIKE SET IN WOOD FENCE POST STA. 386+68, 558' RT.ELEV.=659.05 N = 306093.6216, E = 1867868.9028		

SR335 IMPROVEMENTS WILL BE PERFORMED IN OTHER PART (NIP)



LEGEND:

X = REMOVAL

PAVEMENT TO BE CONSTRUCTED IN OTHER PART

PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

NOTES:
1. THERE ARE NO LANDSCAPING AREAS WITHIN THE WORK LIMITS.
2. FOR INTERSECTION STATIONS AND FOR INTERSECTION ANGLES FOR ALL INTERSECTING ROADWAYS, SEE INTERSECTION DETAIL SHEETS AND PLAN SHEETS.
3. FOR BEARINGS ON SIDEROADS SEE PLAN SHEETS.
4. FOR HORIZONTAL CURVE DATA SEE PLAN SHEETS AND HORIZONTAL CURVE DATA SHEET.
5. ALL COORDINATES SHOWN ARE ON GROUND VALUES, SEE HORIZONTAL CURVE DATA SHEET FOR SCALE FACTOR.
6. FOR CENTERLINE REFERENCE MONUMENTS SEE PLAN SHEETS

HORIZONTAL SCALE IN FEET (0, 100, 200, 400)

CALCULATED BEE | CHECKED JBM

SCHEMATIC PLAN - SR823
STA. 335+00.00 TO STA. 390+00.00

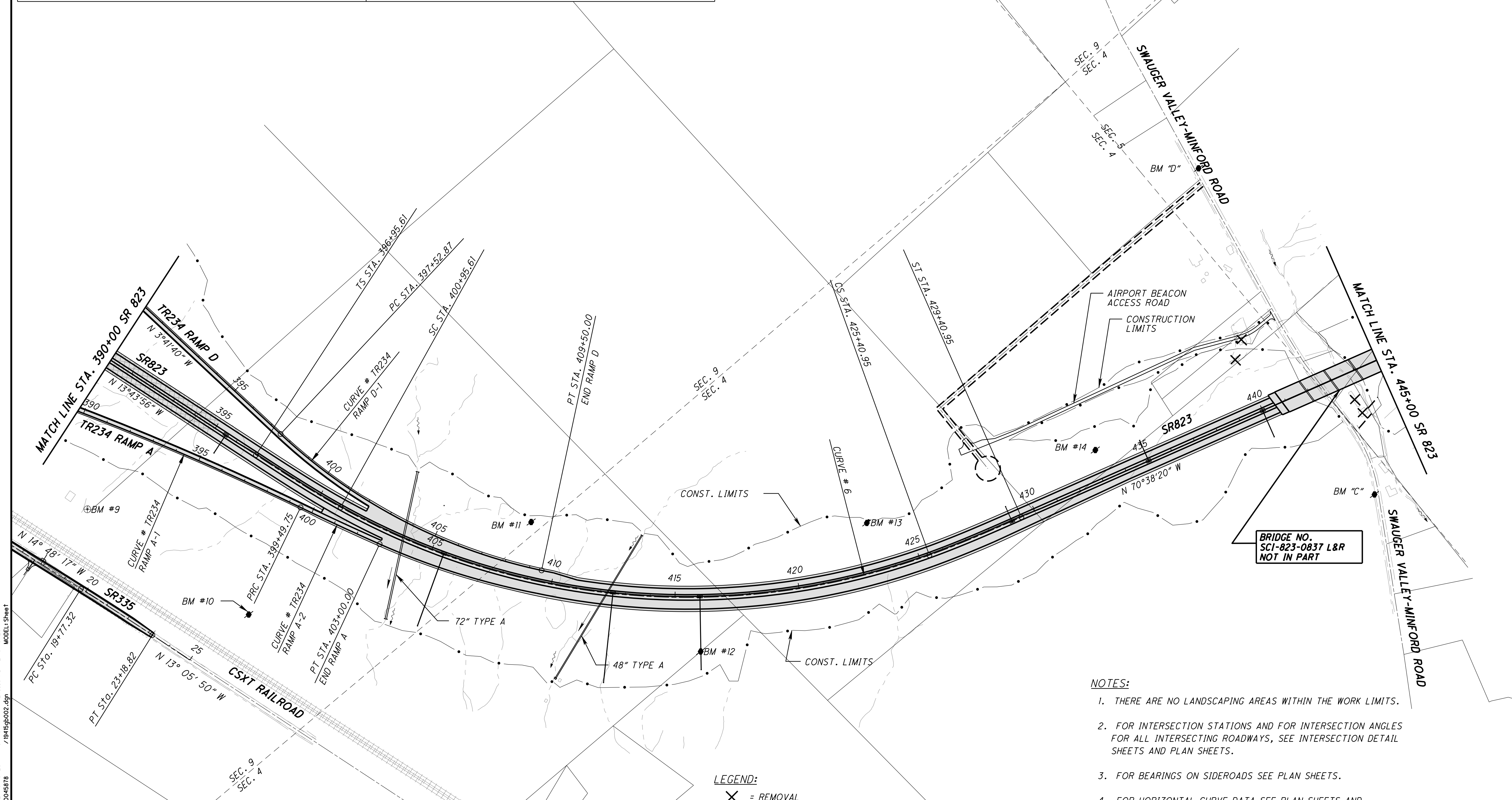
SCI-823-6.81

USER: CWohlbri PLOT DATE: 9/15/2011 11:15:38 AM REVISION DATE: 9/15/2011
FILE: ...\HOR_CLV\80000000045878 \79415gb001.dgn MODEL: Sheet

BENCHMARKS:

BM #9	CHISELED SQUARE ON CONCRETE WATER TROTH STA. 392+48, 553' RT., ELEV.=669.13 N = 306655.1529, E = 1867726.2407	BM #13	RAILROAD SPIKE SET IN OAK TREE STA. 423+34, 200' LT., ELEV.=850.08 N = 308836.5034, E = 1865481.0299
BM #10	RAILROAD SPIKE SET IN WOOD FENCE POST STA. 399+99, 557' RT., ELEV.=676.77 N = 307406.4002, E = 1867542.8188	BM #14	RAILROAD SPIKE SET IN OAK TREE STA. 433+21, 126' LT., ELEV.=808.34 N = 309250.9930, E = 1864611.5782
BM #11	RAILROAD SPIKE SET IN EAST SIDE OF OAK TREE STA. 408+62, 227' LT., ELEV.=728.38 N = 307911.6558, E = 1866461.5041	BM "C"	RAILROAD SPIKE SET IN WOOD POST STA. 442+75, 489' RT., ELEV.=633.18 N = 310148.0120, E = 1863915.9426
BM #12	RAILROAD SPIKE SET IN FENCE POST STA. 418+99, 217' RT., ELEV.=715.20 N = 308756.3812, E = 1866320.5736	BM "D"	RAILROAD SPIKE SET IN GATE POST STA. 441+57, 994' LT., ELEV.=651.84 N = 308709.8811, E = 1863535.6918

SR335 IMPROVEMENTS WILL BE PERFORMED IN OTHER PART (NIP)



LEGEND:

X = REMOVAL

PAVEMENT TO BE CONSTRUCTED IN OTHER PART

PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

NOTES:

1. THERE ARE NO LANDSCAPING AREAS WITHIN THE WORK LIMITS.
2. FOR INTERSECTION STATIONS AND FOR INTERSECTION ANGLES FOR ALL INTERSECTING ROADWAYS, SEE INTERSECTION DETAIL SHEETS AND PLAN SHEETS.
3. FOR BEARINGS ON SIDEROADS SEE PLAN SHEETS.
4. FOR HORIZONTAL CURVE DATA SEE PLAN SHEETS AND HORIZONTAL CURVE DATA SHEET.
5. ALL COORDINATES SHOWN ARE ON GROUND VALUES, SEE HORIZONTAL CURVE DATA SHEET FOR SCALE FACTOR.
6. FOR CENTERLINE REFERENCE MONUMENTS SEE PLAN SHEETS.

HORIZONTAL SCALE IN FEET: 0, 100, 200, 400

CALCULATED BEE CHECKED JBM

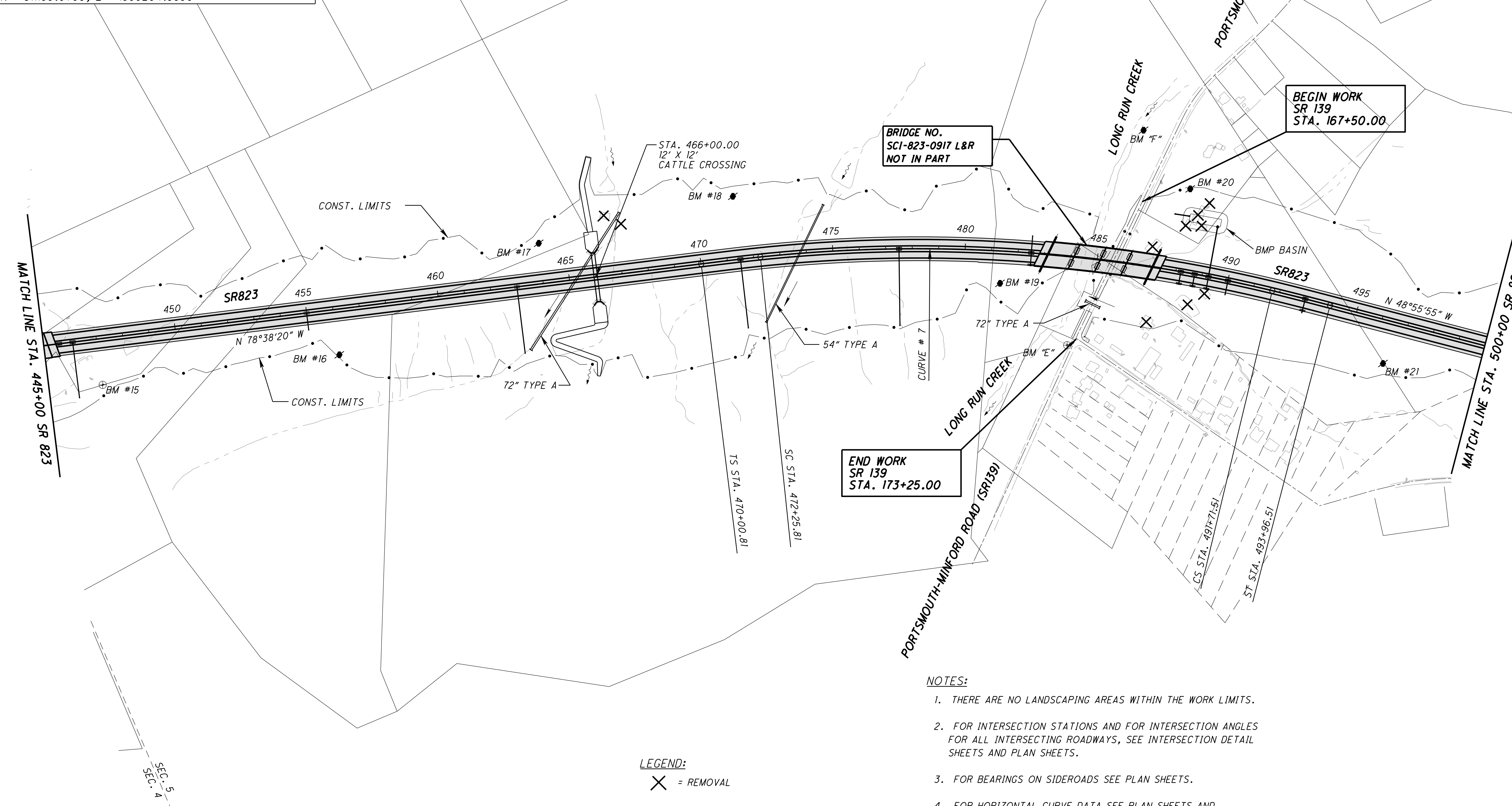
SCHEMATIC PLAN - SR823

STA. 390+00.00 TO STA. 445+00.00

SCI-823-6.81

BENCHMARKS:

BM #15	RAILROAD SPIKE SET IN GATE FENCE POST STA. 447+03, 174' RT., ELEV.=690.56 N = 309992.5286, E = 1863407.9114	BM #20	RAILROAD SPIKE SET IN TREE STA. 488+01, 314' LT., ELEV.=638.73 N = 311158.7309, E = 1859403.3334
BM #16	RAILROAD SPIKE SET IN SOUTH SIDE OF OAK TREE STA. 456+03, 171' RT., ELEV.=689.12 N = 310288.7050, E = 1862557.7932	BM #21	RAILROAD SPIKE SET IN OAK TREE STA. 496+45, 162' RT., ELEV.=677.97 N = 312072.5364, E = 1859045.4633
BM #17	RAILROAD SPIKE SET IN SOUTH SIDE OF OAK TREE STA. 464+02, 153' LT., ELEV.=730.81 N = 310247.1396, E = 1861696.6525	BM "E"	CHISELED SQUARE ON NORTH SIDE OF CONC. HEADWALL STA. 484+08, 335' RT., ELEV.=631.27 N = 311480.0444, E = 1860081.8846
BM #18	RAILROAD SPIKE SET IN EAST SIDE OF OAK TREE STA. 471+49, 239' LT., ELEV.=734.22 N = 310414.8969, E = 1860961.4740	BM "F"	RAILROAD SPIKE SET IN TREE STA. 485+89, 506' LT., ELEV.=634.57 N = 310882.1048, E = 1859462.4739
BM #19	RAILROAD SPIKE SET IN EAST SIDE OF OAK TREE STA. 481+38, 122' RT., ELEV.=708.97 N = 311158.0709, E = 1860204.9890		



LEGEND:

X = REMOVAL

PAVEMENT TO BE CONSTRUCTED IN OTHER PART

NOTES:

1. THERE ARE NO LANDSCAPING AREAS WITHIN THE WORK LIMITS.
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3. FOR BEARINGS ON SIDEROADS SEE PLAN SHEETS.
4. FOR HORIZONTAL CURVE DATA SEE PLAN SHEETS AND HORIZONTAL CURVE DATA SHEET.
5. ALL COORDINATES SHOWN ARE ON GROUND VALUES, SEE HORIZONTAL CURVE DATA SHEET FOR SCALE FACTOR.
6. FOR CENTERLINE REFERENCE MONUMENTS SEE PLAN SHEETS.

0 100 200 400
HORIZONTAL SCALE IN FEET

CALCULATED BEE
CHECKED JMB

SCHEMATIC PLAN - SR823
STA. 445+00.00 TO STA. 500+00.00

SCI-823-6.81

USER: CWohlbr1 PLOT DATE: 9/15/2011 1:39:40 PM REVISION DATE: 9/15/2011
FILE: ...\HDR_CV\9400000045878 /19415gb003.dgn MODEL: Sheet

BENCHMARKS:

BM #22 RAILROAD SPIKE SET IN TREE STA. 503+90, 204' RT., ELEV.=694.21 N = 312593.4456, E = 1858511.6346	BM "G" RAILROAD SPIKE SET IN CEDAR TREE STA. 8+35 (CR 28), 51' LT., ELEV.=720.41 N = 314184.6930, E = 1854725.0774
BM #23 RAILROAD SPIKE SET IN OAK TREE STA. 512+04, 223' LT., ELEV.=883.26 N = 312806.2273, E = 1857617.2352	BM "H" RAILROAD SPIKE SET IN TELEPHONE POLE ABOUT 365' EAST OF CENTERLINE STATION 37+89.24 (CR 28) AND ABOUT 22' SOUTH OF EXISTING CENTERLINE, ELEV.=722.33 N = 315559.9414, E = 1857744.7665
BM #24 RAILROAD SPIKE SET IN OAK TREE STA. 518+43, 282' LT., ELEV.=890.77 N = 313181.5447, E = 1857096.6910	
BM #25 RAILROAD SPIKE SET IN NORTH SIDE OF OAK TREE STA. 525+29, 1146' RT., ELEV.=721.05 N.= 1857516.9650, E.= 314709.3198	

LEGEND:

× = REMOVAL

PAVEMENT TO BE CONSTRUCTED IN OTHER PART

PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

CR28 IMPROVEMENTS WILL BE PERFORMED IN OTHER PART (NIP)

SEC. 6
SEC. 5

MADISON TWP.
HARRISON TWP.

CR28 (LUCASVILLE-MINFORD ROAD)

SEC. 6
SEC. 31

STA. 4+56.30

PC Sta. 6+98.11
N 33° 14' 27" E

PT Sta. 9+67.22

BM "G"

FLOWERS ISON ROAD (TR381)

48" TYPE A (NIC)

PRIVATE DRIVE

PC STA. 10+41.03
PT STA. 11+82.02
PC STA. 13+70.96
PT STA. 14+59.62
STA. 15+21.15

CURVE # CR28 RAMP D-2

CS Sta. 535+88.12

HARRISON TWP.
MADISON TWP.

ST Sta. 538+08.12

PC Sta. 13+32.00
N 22° 57' 11" W

72" TYPE A (NIC)

N 9° 36' 17" E

S 22° 57' 11" E

SC Sta. 521+84.67
TS Sta. 519+84.67

CURVE # CR28 RAMP C-1

CS Sta. 530+93.64

SC Sta. 532+93.64

CURVE # CR28 RAMP C-2

PT Sta. 538+87.92

BMP BASIN

36" TYPE A (NIC)

PT Sta. 17+51.41

N 48°55'55" W

SC Sta. 530+41.19

SRS Sta. 528+21.19

CS Sta. 526+01.19

CURVE # CR28 RAMP D-1

STA. 523+39.69
HARRISON/MADISON TWP. LINE

BM #24

SC Sta. 522+70.16
TS Sta. 520+70.16
BEGIN RAMP D

CR28 RAMP D

CR28 RAMP C

CONST. LIMITS

BM #23

SR823

MATCH LINE STA. 500+00 SR 823

BM #22

54" TYPE A

CONST. LIMITS

PC Sta. 516+80.70
BEGIN RAMP A

CURVE # CR28 RAMP A-1

PCC Sta. 522+65.47

CURVE # CR28 RAMP A-2

CS Sta. 526+71.11

CR28 RAMP A

CR28 RAMP B

48" TYPE A

ST Sta. 534+58.62

CS Sta. 532+08.62

CURVE # CR28 RAMPB-1

SC Sta. 525+61.07
TS Sta. 523+86.07

SRS Sta. 529+31.11

SC Sta. 531+06.11

CURVE # CR28 RAMP A-3

CS Sta. 532+84.55

ST Sta. 534+59.55

N 23° 44' 27" E

N 23° 44' 27" W

BMP BASIN

72" TYPE A (NIC)

N 84° 56' 40" E

CR28

G990 (624)
END PROJECT
PHASE-1
STA. 536+15.00
SLM = 10.15

PHASE-2
PID 79977
SCI-823-10.13
BY OTHERS

BRIDGE NO.
SCI-823-1018 L&R
NOT IN CONTRACT

PC Sta. 23+68.09

PT Sta. 29+43.09

END WORK
PHASE-1
STA. 538+00.00

BM #25

HARRISON TWP.
MADISON TWP.

CR28 (LUCASVILLE-MINFORD ROAD)

N 66° 22' 55" E

RASES MOUNTAIN DRIVE

BM "H"

SEC. 31
SEC. 32

NOTES:

1. THERE ARE NO LANDSCAPING AREAS WITHIN THE WORK LIMITS.
2. FOR INTERSECTION STATIONS AND FOR INTERSECTION ANGLES FOR ALL INTERSECTING ROADWAYS, SEE INTERSECTION DETAIL SHEETS AND PLAN SHEETS.
3. FOR BEARINGS ON SIDEROADS SEE PLAN SHEETS.
4. FOR HORIZONTAL CURVE DATA SEE PLAN SHEETS AND HORIZONTAL CURVE DATA SHEET.
5. ALL COORDINATES SHOWN ARE ON GROUND VALUES, SEE HORIZONTAL CURVE DATA SHEET FOR SCALE FACTOR.
6. FOR CENTERLINE REFERENCE MONUMENTS SEE PLAN SHEETS.

HORIZONTAL SCALE IN FEET
0 100 200 400

CALCULATED BEE
CHECKED JBM

SCHEMATIC PLAN - SR823
STA. 500+00.00 TO STA. 555+00.00

SCI-823-6.81

6
535

USER: CWahlbr PLOT DATE: 9/15/2011 11:53:28 AM REVISION DATE: 9/15/2011
FILE:...\MHDR.CvB0000000045878 /1845sg0004.dgn MODEL: Sheet

NOTES:
1. FOR HORIZONTAL CURVE DATA, SEE HORIZONTAL CURVE DATA SHEET.

HORIZONTAL SCALE IN FEET
0 50 100 200

CALCULATED LBD
CHECKED JMB

GEOMETRIC LAYOUT
SR823 AND TR234 INTERCHANGE

SCI-823-6.81

USER: Cmahibir PLOT DATE: 9/15/2011 11:53:55 AM REVISION DATE: 9/15/2011
FILES:...\MNDR_CU\BRIDGE\000004587B /9415g001.dgn MODEL: Sheet

NOTES:
1. FOR HORIZONTAL CURVE DATA, SEE HORIZONTAL CURVE DATA SHEET.

HORIZONTAL SCALE IN FEET
0 50 100 200

CALCULATED LBD
CHECKED JMB

GEOMETRIC LAYOUT
SR823 AND TR234 INTERCHANGE

SCI-823-6.81

USER: CWahlbri PLOT DATE: 9/15/2011 1153:59 AM REVISION DATE: 9/15/2011
FILE...4HOR.Cu0000000004587B /1945g1002.dgn MODEL: Sheet1

NOTES:
1. FOR HORIZONTAL CURVE DATA, SEE HORIZONTAL CURVE DATA SHEET.

HORIZONTAL SCALE IN FEET
0 50 100 200

CALCULATED LBD
CHECKED JMB

GEOMETRIC LAYOUT
SR 823 AND CR28 INTERCHANGE

SCI-823-6.81

9
535

USER: CWohlbr; PLOT DATE: 9/15/2011 1154@5 AM REVISION DATE: 9/15/2011 MODEL: Sheet
FILE...4MHDR.Cu000000000045878 /1945g1003.dgn

HORIZONTAL CURVE DATA

ALIGNMENT	CURVE NO.	P.I. STATION	P.I. COORDINATES NORTH	P.I. COORDINATES EAST	P.I. C_{CI} STATION	P.I. C_{CI} COORDINATES NORTH	P.I. C_{CI} COORDINATES EAST	△	△ OR △ $_{CI}$	D_C	R OR R_{CI}	L_S OR L_{SI}	θ_S OR θ_{SI}	LT OR LT_1	ST OR ST_1	L_{S2}	θ_{S2}	LT_2	ST_2
SR823	CURVE #5	346+07.50	301,733.59	1,868,360.11	345+94.11	301,738.66	1,868,323.63	43°17'19.64" LT.	41°58'34.64" LT.	0°45'00.0"	7,639.44	175.00	0°39'22.5" LT.	116.67	58.33				
	CURVE #6	414+49.27	308,662.80	1,866,666.83	413+98.35	308,586.28	1,866,582.40	56°54'23.97" LT.	48°54'23.97" LT.	2°00'00.0"	2,864.79	400.00	4°00'00.0" LT.	266.73	133.40				
	CURVE #7	482+11.90	310,991.61	1,860,039.47	482+08.12	311,009.88	1,860,050.11	21°42'25.19" RT.	19°27'25.19" RT.	1°00'00.0"	5,729.58	225.00	1°07'30.0" RT.	150.00	75.00				
TR234	CURVE #1	14+27.25	304,800.62	1,866,158.43	13+86.05	304,805.97	1,866,114.13	40°05'33.00" LT.	30°11'32.71" LT.	6°00'00.0"	954.93	105.00	3°09'00.0" LT.	70.01	35.01	225.00	6°45'00.0" LT.	150.11	75.10
	CURVE #2	23+26.93	305,555.66	1,866,700.17	22+85.59	305,501.54	1,866,701.70	40°36'30.00" RT.	24°06'29.71" RT.	6°00'00.0"	954.93	225.00	6°45'00.0" RT.	150.11	75.10	325.00	9°45'00.0" RT.	216.99	108.63
TR234 RAMP A	CURVE #1	393+64.93	306,688.48	1,867,307.20				5°51'12.19" RT.		0°30'00.0"	11,459.16								
	CURVE #2	401+24.89	307,398.76	1,867,034.05				1°55'15.62" LT.		0°32'54.5"	10,446.37								
TR234 RAMP B	CURVE #1	371+73.52	304,518.99	1,867,747.48				8°05'30.33" RT.		1°00'00.0"	5,729.58								
TR234 RAMP C	CURVE #1	371+63.61	304,491.54	1,867,629.38	371+61.67	304,486.97	1,867,615.78	17°51'23.79" LT.	12°51'23.79" LT.	2°30'00.0"	2,291.83	200.00	2°30'00.0" LT.	133.35	66.68				
TR234 RAMP D	CURVE #1	403+66.60	307,578.02	1,866,914.20				31°07'31.70" LT.		2°36'00.0"	2,203.68								
CR28	CURVE #1	8+32.71	314,142.43	1,854,750.25				3°21'50.00" RT.		1°15'00.0"	4,583.66								
	CURVE #2	15+41.99	314,522.48	1,855,349.22				7°20'23.00" RT.		1°45'00.0"	3,274.04								
	CURVE #3	26+55.61	314,994.33	1,856,358.56				1°26'15.00" RT.		0°15'00.0"	22,918.31								
CR28 RAMP A	CURVE #1	519+73.56	313,515.69	1,857,214.36				7°59'30.83" RT.		1°22'00.0"	4,192.37								
	CURVE #2	525+50.54	313,952.26	1,856,835.67	524+73.20	313,893.83	1,856,886.35	40°10'22.38" RT.	30°25'22.38" RT.	7°30'00.0"	763.94	260.00	9°45'00.0" RT.	173.60	86.91				
	CURVE #3	531+98.00	314,623.96	1,856,826.67	531+95.64	314,620.79	1,856,812.06	22°58'25.78" LT.	11°35'55.78" LT.	6°30'00.0"	881.47	175.00	5°41'15.0" LT.	116.73	58.39				
CR28 RAMP B	CURVE #1	539+25.53	313,466.00	1,857,291.18	530+76.04	314,199.80	1,856,798.30	154°48'32.57" RT.	116°33'32.57" RT.	18°00'00.0"	318.31	175.00	15°45'00.0" RT.	117.13	58.76	250.00	22°30'00.0" RT.	168.03	84.58
CR28 RAMP C	CURVE #1	536+72.75	315,519.84	1,854,973.00	543+95.56	312,121.40	1,857,176.81	200°31'52.00" LT.	163°36'52.00" LT.	18°00'00.0"	318.31	200.00	18°00'00.0" LT.	134.03	67.30	200.00	18°55'00.0" LT.	130.91	70.63
	CURVE #2	535+91.00	314,507.12	1,855,933.51				5°26'51.27" LT.		0°55'00.0"	6,250.45								
CR28 RAMP D	CURVE #1	524+73.49	313,763.45	1,856,767.16	524+42.04	313,704.10	1,856,762.80	62°13'05.95" LT.	38°04'05.95" LT.	11°30'00.0"	498.22	200.00	11°30'00.0" LT.	133.62	66.92	220.00	12°39'00.0" LT.	147.04	73.68
	CURVE #2	534+17.71	313,399.52	1,855,826.45	533+45.89	313,505.77	1,855,871.44	88°11'49.21" RT.	62°53'49.21" RT.	11°30'00.0"	498.22	220.00	12°39'00.0" RT.	147.04	73.68				
PRIVATE DRIVE	CURVE #1	11+12.00	314,414.05	1,854,965.84				16°12'51.00" RT.		11°30'00.0"	498.22								
	CURVE #2	14+21.26	314,516.03	1,855,258.81				67°35'50.00" LT.		76°15'00.0"	75.14								
SR335	CURVE #1	2+56.17	305,186.24	1,868,348.28				30°12'19.08" RT.		9°30'00.0"	603.11								
	CURVE #2	7+26.05	305,657.37	1,868,270.81				4°25'31.60" LT.		2°30'00.0"	2,291.83								
	CURVE #3	21+48.08	307,035.53	1,867,920.17				1°42'27.09" RT.		0°30'00.0"	11,459.16								

HORIZONTAL CURVE DATA

ALIGNMENT	CURVE NO.	T_C OR T_{CI}	T, T_1 * OR T_S	L OR L_C OR L_{CI}	E OR E_S	T.S. STATION	T.S. COORDINATES NORTH	T.S. COORDINATES EAST	S.C./P.C. STATION	S.C./P.C. COORDINATES NORTH	S.C./P.C. COORDINATES EAST	C.S./P.T. STATION	C.S./P.T. COORDINATES NORTH	C.S./P.T. COORDINATES EAST	S.T. STATION	S.T. COORDINATES NORTH	S.T. COORDINATES EAST	SUPER ELEVATION e (FT/FT)
SR823	CURVE #5	2,930.69	3,119.08	5,596.84	579.69	314+88.42	299,020.40	1,866,821.52	316+63.42	299,172.96	1,866,907.26	372+60.26	304,593.37	1,867,660.58	374+35.26	304,763.52	1,867,619.69	0.028
	CURVE #6	1,302.74	1,753.66	2,445.33	396.24	396+95.61	306,959.26	1,867,083.12	400+95.61	307,345.43	1,866,979.17	425+40.95	309,102.85	1,865,386.45	429+40.95	309,244.18	1,856,012.34	0.065
	CURVE #7	982.31	1,211.09	1,945.70	104.73	470+00.81	310,590.11	1,861,182.07	472+25.81	310,666.09	1,860,970.29	491+71.51	311,640.55	1,859,296.99	493+96.51	311,787.25	1,859,126.40	0.036
TR234	CURVE #1	257.59	403.79	503.21	63.02	10+23.46	304,701.24	1,865,767.06	11+28.46	304,728.94	1,865,868.32	16+31.67	304,996.16	1,866,287.86	18+56.67	305,173.57	1,866,426.02	0.08
	CURVE #2	203.92	470.26	401.80	66.90	18+56.67	305,173.57	1,866,426.02	20+81.67	305,350.98	1,866,564.17	24+83.47	305,582.80	1,866,888.73	28+08.47	305,677.60	1,867,199.16	0.08
TR234 RAMP A	CURVE #1		585.85	1,170.68	14.97				387+79.08	306,165.97	1,867,572.15	399+49.75	307,235.29	1,867,096.91				NC
	CURVE #2		175.14	350.24	1.47				399+49.75	307,235.29	1,867,096.91	403+00.00	307,560.03	1,866,965.74				RC
TR234 RAMP B	CURVE #1		405.26	809.18	14.31				367+68.26	304,117.79	1,867,804.75	375+77.44	304,924.25	1,867,747.25				0.029
TR234 RAMP C	CURVE #1	258.22	460.16	514.26	28.85	367+03.45	304,037.88	1,867,706.48	369+03.45	304,234.53	1,867,670.11	374+17.72	304,720.99	1,867,506.65	376+17.72	304,899.70	1,867,416.90	0.061
TR234 RAMP D	CURVE #1		613.73	1,197.13	83.87				397+52.87	306,965.56	1,866,953.74	409+50.00	308,081.86	1,866,563.76				0.065
CR28	CURVE #1		134.59	269.11	1.98				6+98.11	314,063.78	1,854,641.03	9+67.22	314,214.54	1,854,863.90				
	CURVE #2		209.99	419.41	6.73				13+32.00	314,409.97	1,855,171.90	17+51.41	314,611.41	1,855,539.45				0.04
	CURVE #3		287.52	575.00	1.80				23+68.09	314,872.57	1,856,098.10	29+43.09	315,109.52	1,856,621.99				NC
CR28 RAMP A	CURVE #1		292.86	584.77	10.22				516+80.70	313,323.29	1,857,435.16	522+65.47	313,736.92	1,857,022.46				0.038
	CURVE #2	207.72	285.07	405.64	51.45				522+65.47	313,736.92	1,857,022.46	526+71.11	314,098.06	1,856,848.43	529+31.11	314,357.09	1,856,830.25	0.08
	CURVE #3	89.53	266.89	178.44	19.49	529+31.11	314,357.09	1,856,830.25	531+06.11	314,531.82	1,856,822.12	532+84.55	314,705.91	1,856,784.31	534+59.55	314,868.27	1,856,719.22	0.063
CR28 RAMP B	CURVE #1	514.98	1,539.46	647.55	1,169.21	523+86.07	314,875.18	1,856,671.39	525+61.07	314,709.78	1,856,726.71	532+08.62	314,363.79	1,856,310.14	534+58.62	314,501.11	1,856,103.28	0.08
CR28 RAMP C	CURVE #1	2,210.89	1,688.08	908.97	1,302.71	519+84.67	313,965.41	1,855,631.32	521+84.67	313,791.17	1,855,727.70	530+93.64	314,132.14	1,856,257.59	532+93.64	314,291.36	1,856,138.14	0.08
	CURVE #2		297.36	594.28	7.07				532+93.64	314,291.36	1,856,138.14	538+87.92	314,702.47	1,855,709.32				0.027
CR28 RAMP D	CURVE #1	171.89	403.33	331.03	88.00	520+70.16	313,498.48	1,857,071.24	522+70.16	313,619.28	1,856,912.30	526+01.19	313,678.70	1,856,592.80	528+21.19	313,614.75	1,856,382.80	0.079
	CURVE #2	304.70	596.52	546.93	201.17	528+21.19	313,614.75	1,856,382.80	530+41.19	313,550.80	1,856,172.79	535+88.12	313,753.51	1,855,694.06	538+08.12	313,948.81	1,855,593.82	0.079
PRIVATE DRIVE	CURVE #1		70.97	140.99	5.03				10+41.03	314,372.93	1,854,907.99	11+82.02	314,437.38	1,855,032.86				NC
	CURVE #2		50.30	88.65	15.28				13+70.96	314,499.50	1,855,211.30	14+59.62	314,566.26	1,855,261.62				NC
SR335	CURVE #1		162.76	317.95	20.83				0+93.40	305,060.73	1,868,451.90	4+11.35	305,346.85	1,868,321.87				0.080
	CURVE #2		88.55	177.02	1.71				6+37.50	305,569.99	1,868,285.17	8+14.51	305,743.38	1,868,249.74				0.053
	CURVE #3		170.77	341.51	1.27				19+77.32	306,870.43	1,867,963.81	23+18.82	307,201.85	1,867,881.48				NC

NOTES:

THE GROUND COORDINATE VALUES SHOWN HEREIN ARE CONVERTED FROM THE OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE. THESE GROUND COORDINATES WERE ESTABLISHED BY DIVIDING THE GRID COORDINATE BY A COMBINED SCALE FACTOR OF 0.99996061457.

* THE BACK TANGENT LENGTH HAS BEEN GIVEN FOR UNEQUAL TANGENTS

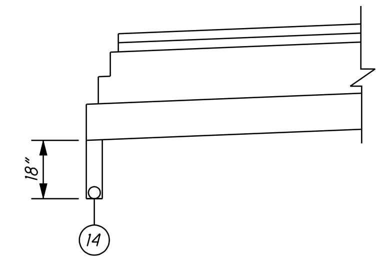
CALCULATED LBD CHECKED JMB

HORIZONTAL CURVE DATA

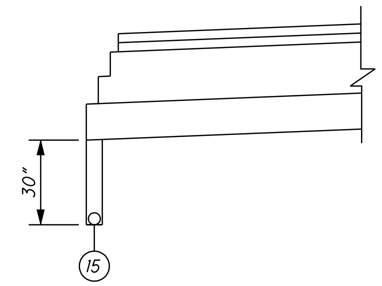
SCI-823-6.81

LEGEND

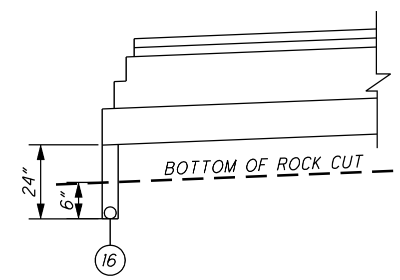
(1) (2)	NOT USED
(3)	ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)
(4)	ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE (0.04 GALLONS/SQ YD)
(5)	ITEM 442 - 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)
(6)	ITEM 407 - TACK COAT (0.075 GALLONS/SQ YD)
(7)	ITEM 302 - 5" ASPHALT CONCRETE BASE, PG64-22
(7A)	ITEM 302 - 6" ASPHALT CONCRETE BASE, PG64-22
(7B)	ITEM 302 - 8" ASPHALT CONCRETE BASE, PG64-22
(8)	ITEM 408 - PRIME COAT (0.4 GALLONS/SQ YD)
(9)	ITEM 304 - 6" AGGREGATE BASE
(10)	ITEM 304 - 8" AGGREGATE BASE
(11)	ITEM 204 - SUBGRADE COMPACTION & PROOF ROLLING
(11A)	ITEM 204 - SUBGRADE COMPACTION
(12)	ITEM 422 - CHIP SEAL
(13)	ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=17"), AS PER PLAN (NIP)
(14)	ITEM 605 - 6" BASE PIPE UNDERDRAINS WITH FABRIC WRAP, 707.31
(15)	ITEM 605 - 6" SHALLOW PIPE UNDERDRAINS WITH FABRIC WRAP, 707.31
(16)	ITEM 605 - 6" ROCK CUT UNDERDRAINS, 707.31
(17)	ITEM 605 - AGGREGATE DRAINS (NIP)
(18)	ITEM 606 - GUARDRAIL, TYPE 5
(19)	ITEM 609 - CURB, TYPE 4-C (NIP)
(20)	ITEM 609 - 6" CONCRETE MEDIAN (NIP)
(21)	ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE B1 WITH 2-4" RACEWAY (NIP)
(22)	ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE C1 WITH 2-4" RACEWAY (NIP)
(23)	ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D (NIP)
(23A)	ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN (NIP)
(24)	ITEM 659 - SEEDING AND MULCHING
(25)	ITEM SPECIAL - NOISE BARRIER (NIP)
(26)	NOT USED
(27)	ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (NIP)
(28)	ITEM 605 - 6" UNCLASSIFIED UNDERDRAIN WITH FABRIC WRAP (NIP)
(29)	ITEM 605 - 6" DEEP PIPE UNDERDRAIN WITH FABRIC WRAP
(30)	ITEM 204 - GEOTEXTILE FABRIC
(31)	ITEM 204 - GRANULAR MATERIAL, TYPE C



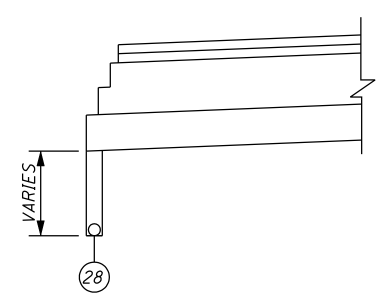
BASE PIPE UNDERDRAIN



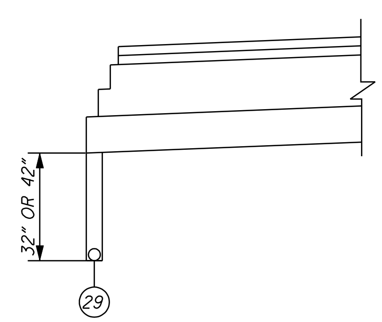
SHALLOW PIPE UNDERDRAIN



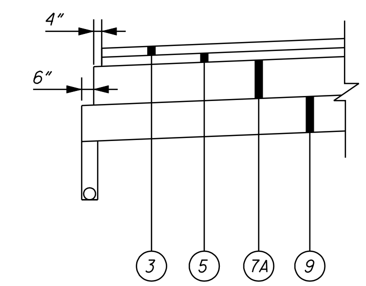
ROCK CUT UNDERDRAIN



UNCLASSIFIED UNDERDRAIN

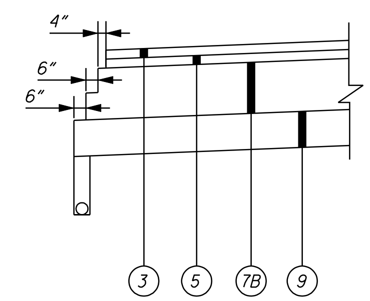


DEEP PIPE UNDERDRAIN



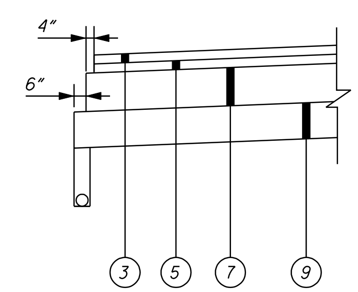
TR234 INTERCHANGE RAMPS,
CR28 INTERCHANGE RAMPS

BASE STEP DETAIL



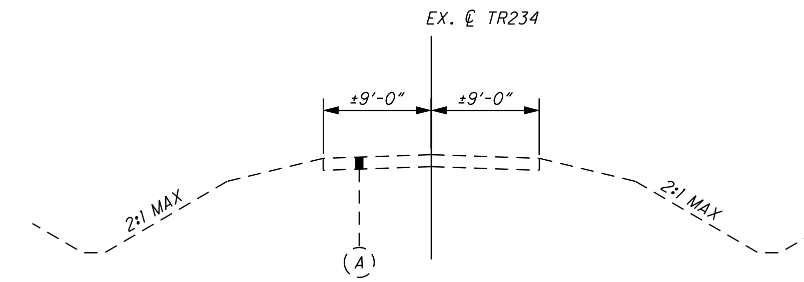
SR823

BASE STEP DETAIL



TR234

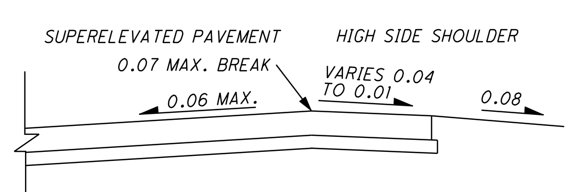
BASE STEP DETAIL



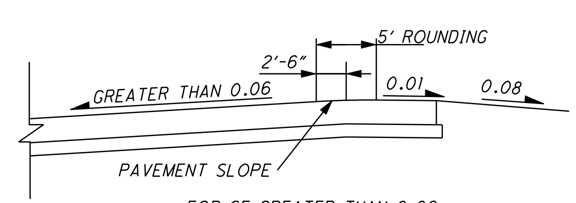
EXISTING TR234

EXISTING LEGEND

(A) ±3" ASPHALT CONCRETE PAVEMENT



FOR SE 0.06 OR LESS



FOR SE GREATER THAN 0.06

SUPERELEVATED HIGH SIDE SHOULDER TREATMENTS

NOTES:

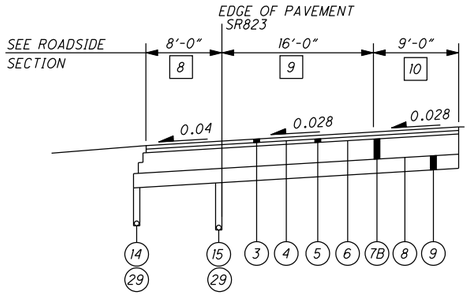
1. FOR GUARDRAIL LOCATIONS SEE PLAN SHEETS

CALCULATED LBD CHECKED JMB

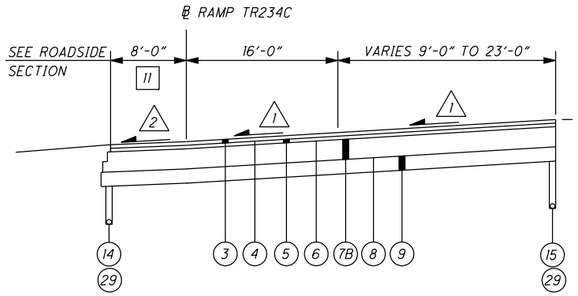
TYPICAL SECTIONS

SCI-823-6.81

USER: CWahlbri PLOT DATE: 9/15/2011 11:54:25 AM REVISION DATE: 9/15/2011
FILE: ...\HDR_CV\D000000045878 /19415gy001.dgn MODEL: Sheet

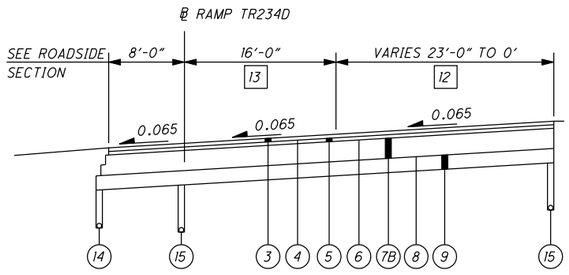


SR823: STA. 354+00.00 TO STA. 366+50.00 = 1250.00 LF

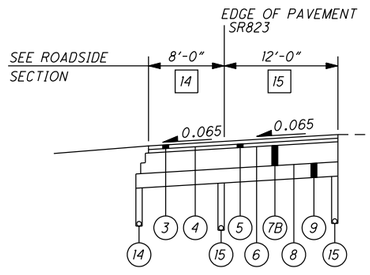


SR823: STA. 366+50.00 TO STA. 370+86.29 = 436.29 LF

TR234 INTERCHANGE RAMP C
SPEED CHANGE LANE (ACCELERATION)



SR823: STA. 401+94.66 TO STA. 409+50.00 = 755.34 LF



SR823: STA. 409+50.00 TO STA. 411+00.00 = 150 LF

TR234 INTERCHANGE RAMP D
SPEED CHANGE LANE (DECELERATION)

1. SLOPE VARIES, SEE PAVEMENT ELEVATION DETAIL SHEETS
2. 0.04 OR RATE OF SUPERELEVATION, WHICH EVER IS GREATER
3. SEE SUPERELEVATED HIGH SIDE SHOULDER TREATMENTS, SHEET 11

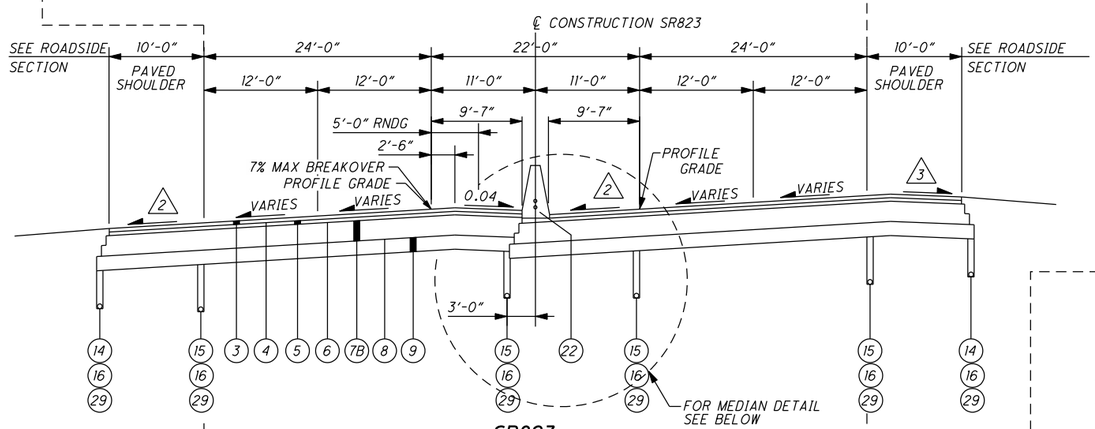
1. WIDTH VARIES FROM 0' AT 361+00.00 TO 12'-0" AT STA. 362+00.00
2. WIDTH VARIES FROM 10'-0" AT STA. 361+00.00 TO 8'-0" AT STA. 362+00.00
3. WIDTH VARIES FROM 12'-0" AT STA. 366+00.00 TO 16'-0" AT STA. 368+34.28
4. WIDTH VARIES FROM 0' AT STA. 368+34.28 TO 23'-0" AT STA. 371+05.85
5. WIDTH VARIES FROM 9'-0" AT STA. 403+00.00 TO 0' AT STA. 407+50.00
6. WIDTH VARIES FROM 16'-0" AT STA. 407+50.00 TO 12'-0" AT STA. 409+50.00
   WIDTH IS 12'-0" FROM STA. 409+50.00 TO STA. 428+00.00
   WIDTH VARIES FROM 12'-0" AT STA. 428+00.00 TO 7'-2" AT STA. 430+39.41
7. WIDTH VARIES FROM 8'-0" AT STA. 408+50.00 TO 10'-0" AT STA. 409+50.00
8. WIDTH VARIES FROM 10'-0" AT STA. 354+00.00 TO 8'-0" AT STA. 355+00.00
9. WIDTH VARIES FROM 0' AT STA. 354+00.00 TO 16'-0" AT STA. 362+00.00
10. WIDTH VARIES FROM 0' AT STA. 362+00.00 TO 9'-0" AT STA. 366+50.00
11. WIDTH VARIES FROM 8'-0" AT STA. 366+50.00 TO 6'-0" AT STA. 367+00.00
12. WIDTH VARIES FROM 23'-0" AT STA. 401+94.66 TO 0' AT STA. 406+60.42
13. WIDTH VARIES FROM 16'-0" AT STA. 406+60.42 TO 12'-0" AT STA. 409+50.00
14. WIDTH VARIES FROM 8'-0" AT STA. 410+00.00 TO 10'-0" AT STA. 411+00.00

NOTES:

1. FOR LEGEND AND BASE STEP DETAIL SEE SHEET 11
2. FOR ROADSIDE SECTION SEE SHEETS 20 TO 21
3. FOR ROCK CUT DETAILS SEE SHEET 18

15. WIDTH VARIES FROM 12'-0" AT STA. 410+00.00 TO 0' AT STA. 411+00.00
16. WIDTH VARIES FROM 9'-7" AT STA. 396+05.61 TO 6'-0" AT STA. 396+95.61
    WIDTH VARIES FROM 6'-0" AT STA. 429+40.95 TO 9'-7" AT STA. 430+30.95

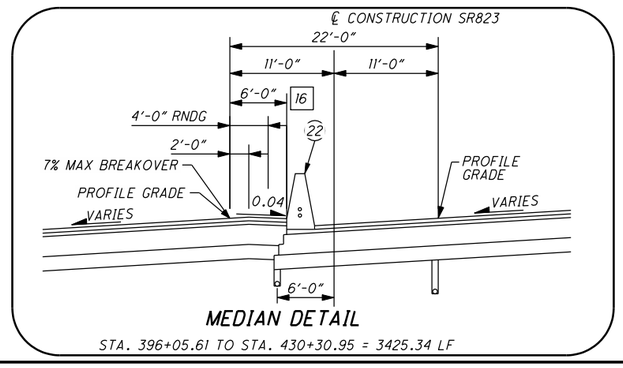
SUBGRADE COMPACTION, PROOF ROLLING AND PAVING OF SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART. ALL SOIL UNDERCUTS, BARRIER, GUARDRAIL, UNDERDRAIN AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART.



SR823
SUPERELEVATED SECTION

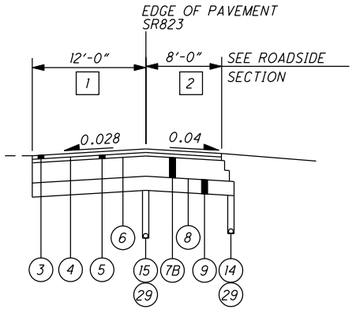
STA. 353+00.00 TO STA. 375+35.26 = 2235.26 LF [Emax = 0.028]

STA. 395+97.15 TO STA. 430+39.41 = 3442.26 LF [Emax = 0.065]

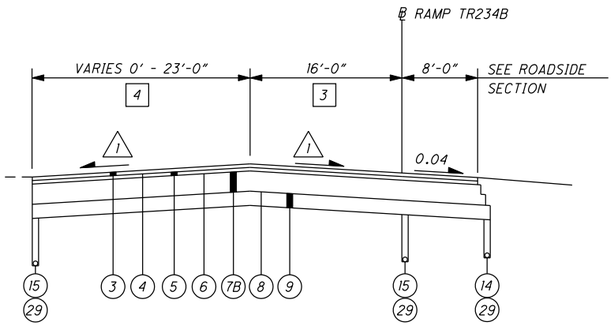


MEDIAN DETAIL

STA. 396+05.61 TO STA. 430+30.95 = 3425.34 LF

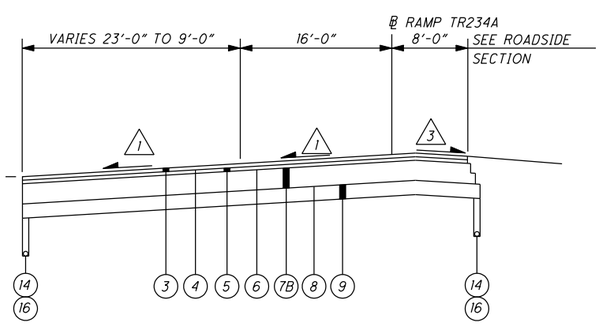


SR823: STA. 361+00.00 TO STA. 366+00.00 = 500.00 LF

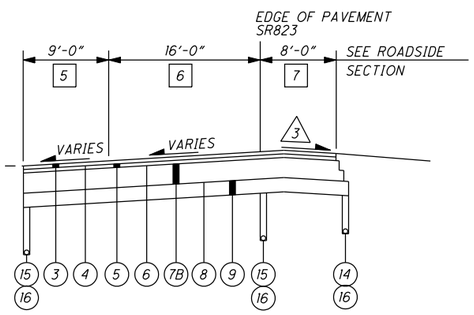


SR823: STA. 366+00.00 TO STA. 371+05.85 = 505.85 LF

TR234 INTERCHANGE RAMP B
SPEED CHANGE LANE (DECELERATION)



SR823: STA. 400+38.73 TO STA. 403+00.00 = 261.27 LF



SR823: STA. 403+00.00 TO STA. 430+39.41 = 2739.41 LF

TR234 INTERCHANGE RAMP A
SPEED CHANGE LANE (ACCELERATION)

TYPICAL SECTIONS - SR823

CALCULATED LBD CHECKED JMB

SCI-823-6.81

12 / 535

USER: CWahlbri PLOT DATE: 9/15/2011 11:54:33 AM REVISION DATE: 9/15/2011 MODEL: Sheet
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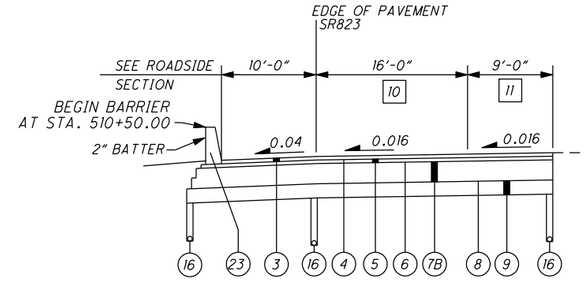
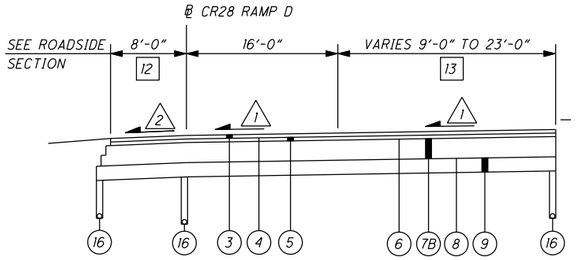
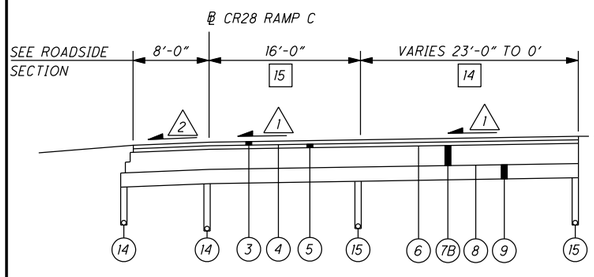


SR823: STA. 506+70.00 TO STA. 519+20.00 = 1250.00 LF

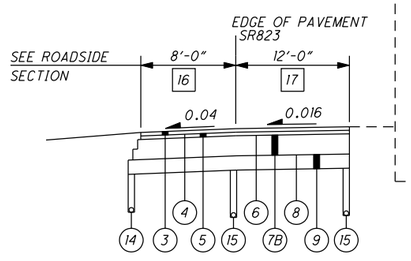


SR823: STA. 519+20.00 TO STA. 522+74.18 = 354.18 LF

CR28 INTERCHANGE RAMP D
SPEED CHANGE LANE (ACCECELERATION)



SR823: STA. 533+06.84 TO STA. 538+87.92 = 581.08 LF

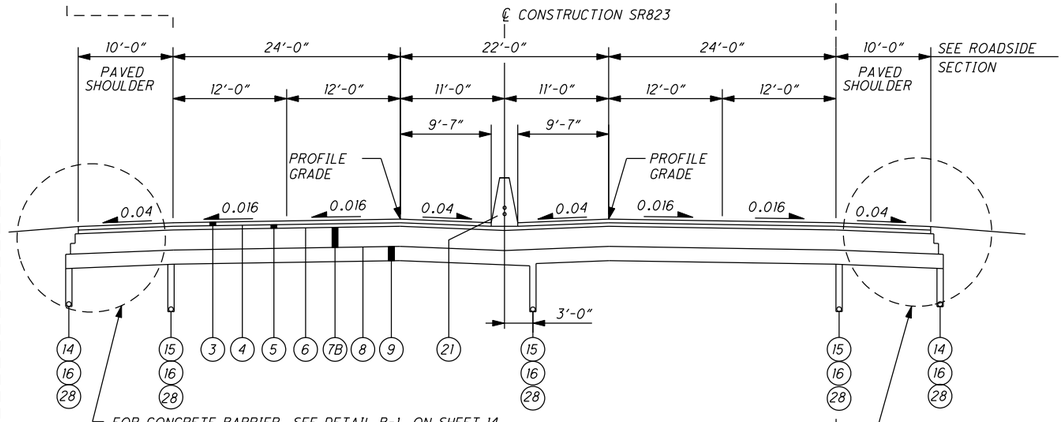


SR823: STA. 538+87.92 TO STA. 542+00.00 = 312.08 LF

CR28 INTERCHANGE RAMP C
SPEED CHANGE LANE (DECELERATION)

1. SLOPE VARIES, SEE PAVEMENT ELEVATION DETAIL SHEETS
2. 0.04 OR RATE OF SUPERELEVATION, WHICH EVER IS GREATER

1. WIDTH VARIES FROM 0' AT STA. 513+50.00 TO 12'-0" AT STA. 514+50.00
2. WIDTH VARIES FROM 10'-0" AT STA. 513+50.00 TO 8'-0" AT STA. 514+50.00
3. WIDTH VARIES FROM 12'-0" AT STA. 516+80.70 TO 16'-0" AT STA. 518+63.50
4. WIDTH VARIES FROM 0' AT STA. 518+63.50 TO 23'-0" AT STA. 521+56.64
5. WIDTH VARIES FROM 6'-0" AT STA. 534+08.62 TO 8'-0" AT STA. 534+58.62
6. WIDTH IS 9'-0" FROM STA. 534+58.62 TO STA. 537+90.00 AND VARIES FROM 9'-0" AT STA. 537+90.00 TO 0' AT STA. 542+40.00
7. WIDTH VARIES FROM 16'-0" AT STA. 542+40.00 TO 0' AT STA. 550+40.00
8. WIDTH VARIES FROM 8'-0" AT STA. 549+40.00 TO 10'-0" AT STA. 550+40.00
9. WIDTH VARIES FROM 7'-2" AT STA. 430+39.41 TO 0' AT 434+00
10. WIDTH VARIES FROM 0' AT STA. 506+70.00 TO 16'-0" AT STA. 514+70.00
11. WIDTH VARIES FROM 0' AT STA. 514+70.00 TO 9'-0" AT STA. 519+20.00
12. WIDTH VARIES FROM 8'-0" AT STA. 520+70.16 TO 6'-0" AT STA. 521+20.16
13. WIDTH IS 9'-0" FROM STA. 519+20.00 TO STA. 520+70.16 AND VAREIS FROM 9'-0" AT STA. 520+70.16 TO 23'-0" AT STA. 522+74.18
14. WIDTH VARIES FROM 23'-0" AT STA. 533+06.84 TO 0' AT STA. 536+64.58
15. WIDTH VARIES FROM 16'-0" AT STA. 536+64.58 TO 12'-0" AT STA. 538+87.92
16. WIDTH VARIES FROM 8'-0" AT STA. 541+00.00 TO 10'-0" AT STA. 542+00.00
17. WIDTH VARIES FROM 12'-0" AT STA. 541+00.00 TO 0' AT STA. 542+00.00

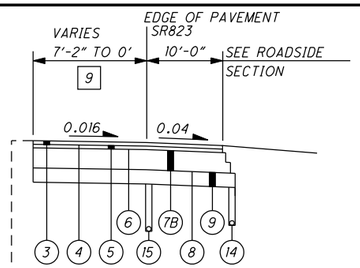


SR823
NORMAL SECTION

STA. 375+35.26 TO STA. 383+38.53 = 803.27 LF
STA. 385+07.53 TO STA. 395+97.15 = 1089.62 LF
STA. 430+39.41 TO STA. 440+55.00 = 1015.59 LF
STA. 445+45.84 TO STA. 469+00.81 = 2354.97 LF
STA. 494+96.51 TO STA. 536+15.00 = 4118.49 LF

NOTES:

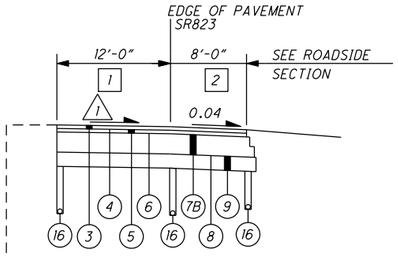
1. FOR LEGEND AND BASE STEP DETAIL SEE SHEET 11
2. FOR ROADSIDE SECTION SEE SHEETS 20 TO 21
3. FOR ROCK CUT DETAILS SEE SHEET 18



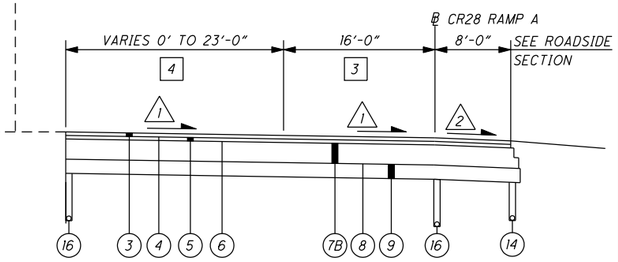
SR823: STA. 430+39.41 TO STA. 434+00.00 = 360.59 LF

TR 234 INTERCHANGE RAMP A
AUXILLARY LANE

SUBGRADE COMPACTION, PROOF ROLLING AND PAVING OF SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART. ALL SOIL UNDERCUTS, BARRIER, GUARDRAIL, UNDERDRAIN AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART.

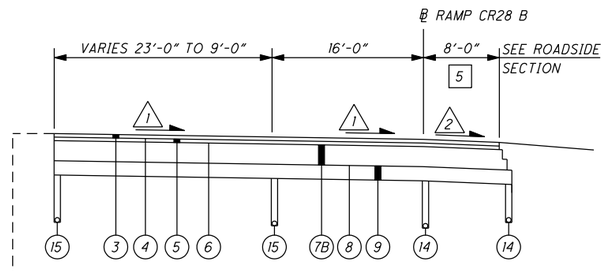


SR823: STA. 513+50.00 TO STA. 516+80.70 = 330.70 LF

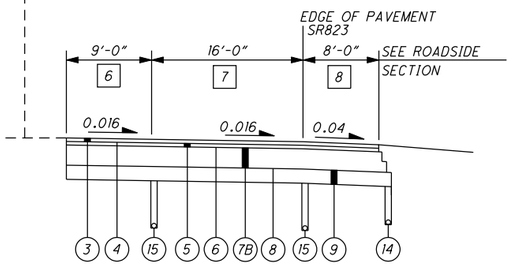


SR823: STA. 516+80.70 TO STA. 521+56.64 = 475.94 LF

CR28 INTERCHANGE RAMP A
SPEED CHANGE LANE (DECELERATION)



SR823: STA. 532+69.18 TO STA. 534+58.62 = 189.44 LF



SR823: STA. 534+58.62 TO STA. 550+40.00 = 1581.38 LF

CR28 INTERCHANGE RAMP B
SPEED CHANGE LANE (ACCCELERATION)

CALCULATED LBD CHECKED JMB

TYPICAL SECTIONS - SR823

SCI-823-6.81

13
535

USER: CWahlbri PLOT DATE: 9/15/2011 11:54:39 AM REVISION DATE: 9/15/2011 MODEL: Sheet
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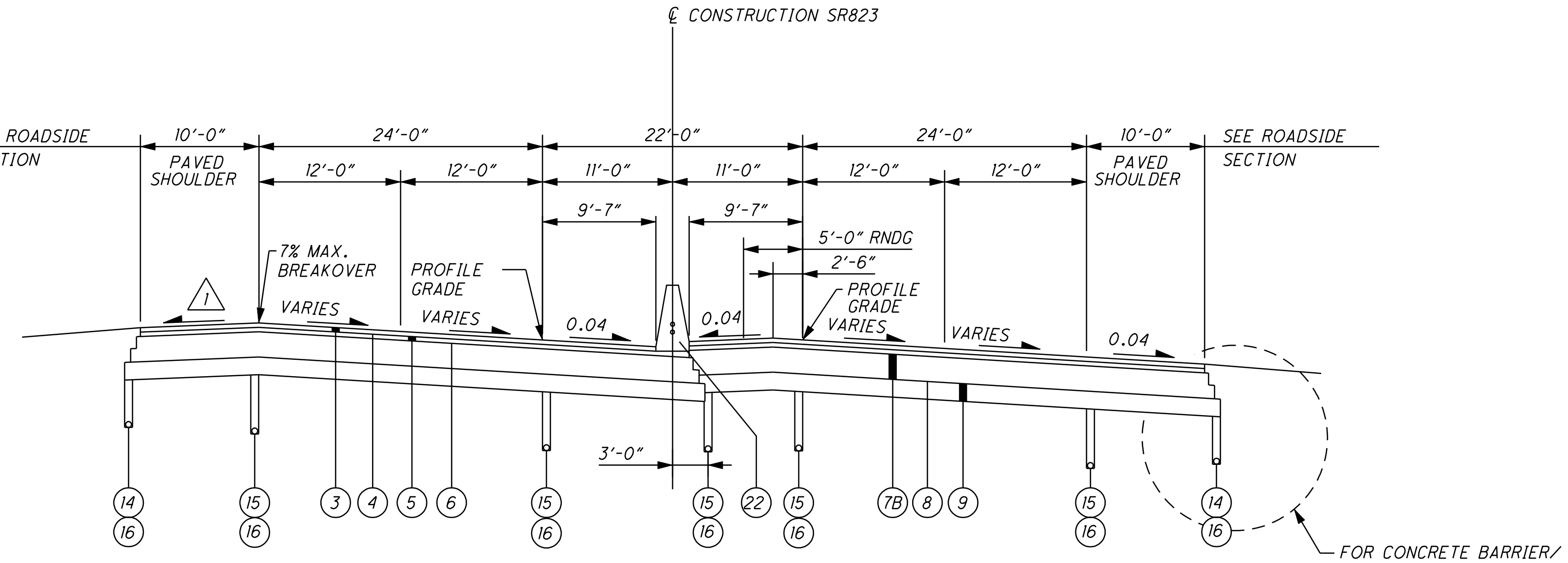
SUBGRADE COMPACTION, PROOF ROLLING AND PAVING OF SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART. ALL SOIL UNDERCUTS, BARRIER, GUARDRAIL, UNDERDRAIN AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART.

NOISE BARRIER AND PAVED GUTTER TO BE CONSTRUCTED IN OTHER PART.



SR823
SUPERELEVATED SECTION

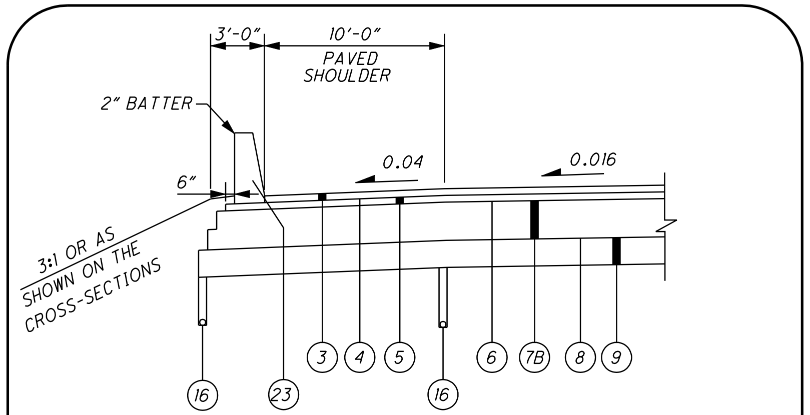
STA. 469+00.81 TO STA. 482+81.30 = 1380.49 LF [Emax = 0.036]

STA 487+42.07 TO STA. 494+96.51 = 754.44 LF [Emax = 0.036]

NOTES:

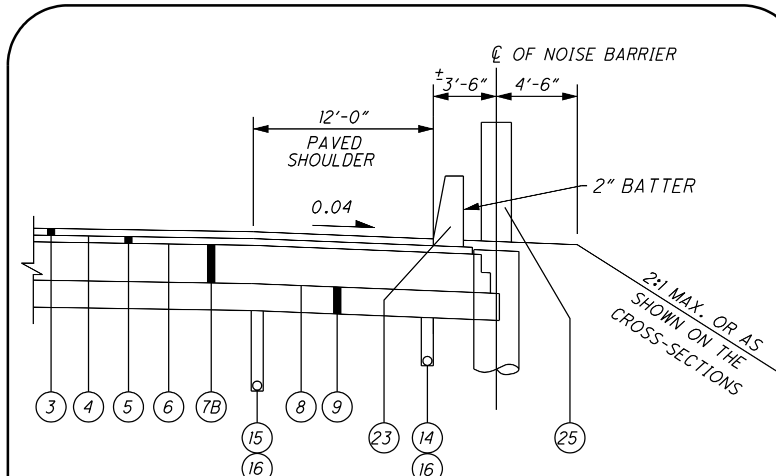
1. FOR LEGEND AND BASE STEP DETAIL SEE SHEET 11
2. FOR ROADSIDE SECTION SEE SHEETS 20 TO 21
3. FOR ROCK CUT DETAILS SEE SHEET 18

△1 0.04 OR AS SHOWN ON THE SUPERELEVATION TABLE



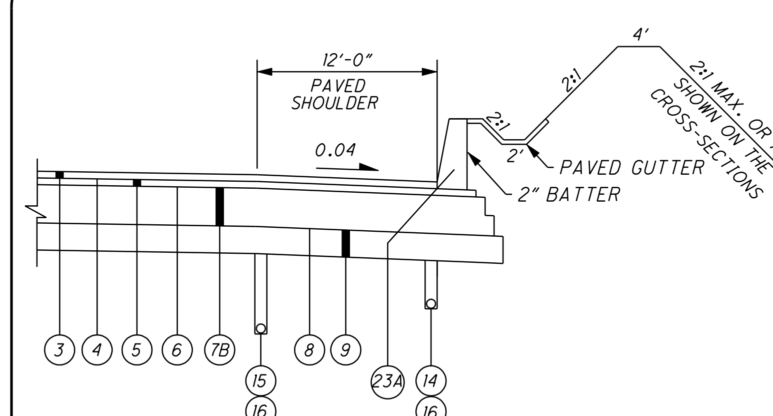
DETAIL B-1

SR823: STA. 510+50.00 LT. TO STA. 519+20.00 LT. = 870.00 LF



DETAIL B-2 (NOISE BARRIER)

SR823: STA. 480+51.79 RT. TO STA. 482+61.65 RT. = 209.86 LF
SR823: STA. 487+16.97 RT. TO STA. 489+55.00 RT. = 238.03 LF
*SEE CROSS SECTIONS FOR MORE DETAILED INFORMATION



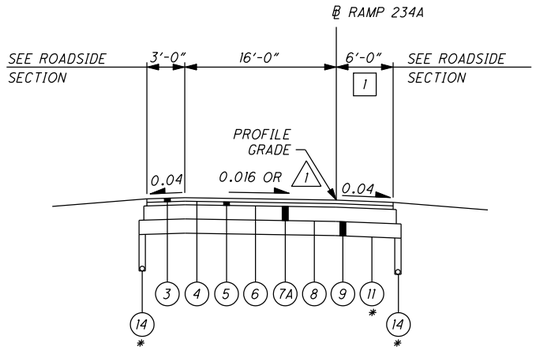
DETAIL B-3 (NOISE MOUND)

SR823: STA. 489+55.00 RT. TO STA. 509+00.00 RT. = 1945.00 LF
*SEE CROSS SECTIONS FOR MORE DETAILED INFORMATION

CALCULATED LBD CHECKED JMB

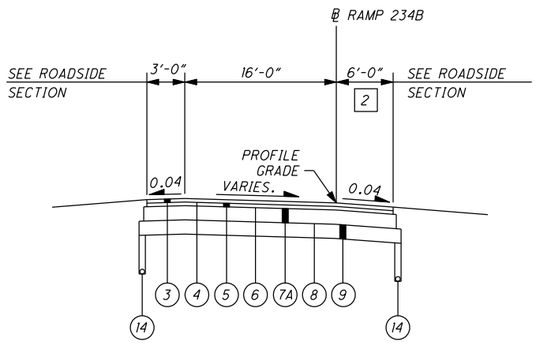
TYPICAL SECTIONS - SR823

SCI-823-6.81



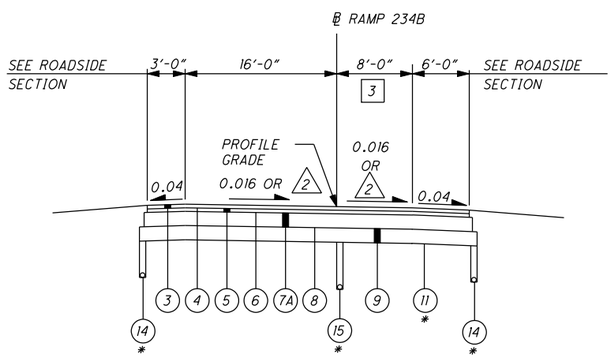
TR234 INTERCHANGE
NORMAL SECTION - RAMP A

RAMP A: STA. 384+01.29 (TR234 EOP) TO STA. 400+33.79 (SR823 GORE) = 1632.50 LF
*** PAVE RAMP A FROM TR234 EOP TO STA. 385+00 ***



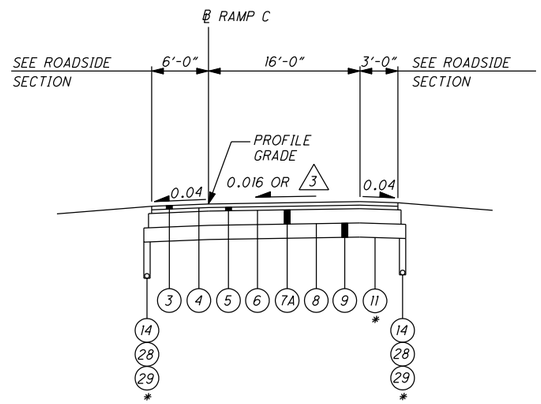
TR234 INTERCHANGE
SUPERELEVATED SECTION - RAMP B

RAMP B: STA. 371+08.57 (SR823 GORE) TO STA. 375+94.11 = 485.54 LF (E MAX. = 0.029)



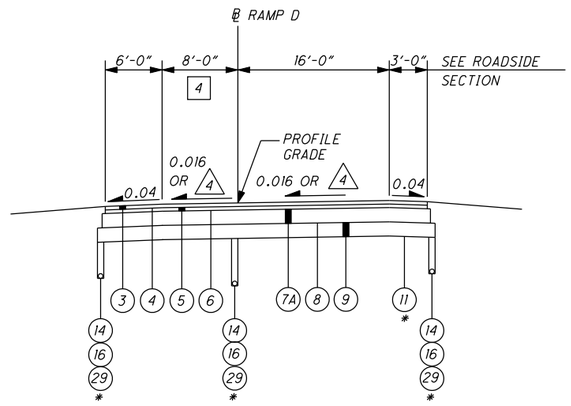
TR234 INTERCHANGE
NORMAL SECTION - RAMP B

RAMP B: STA. 375+94.11 TO STA. 384+46.07 (TR234 EOP) = 851.96 LF
*** PAVE RAMP B FROM STA. 383+75 TO TR234 EOP ***



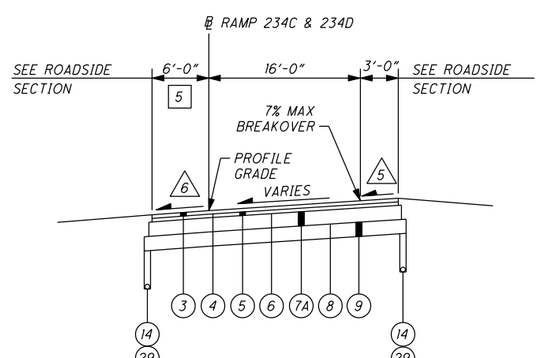
TR234 INTERCHANGE
NORMAL SECTION - RAMP C

RAMP C: STA. 376+17.72 TO STA. 384+27.87 (TR234 EOP) = 810.15 LF
*** PAVE RAMP C FROM STA. 382+75 TO TR234 EOP ***



TR234 INTERCHANGE
NORMAL SECTION - RAMP D

RAMP D: STA. 384+39.10 (TR234 EOP) TO STA. 396+32.87 = 1193.77 LF
*** PAVE RAMP D FROM TR234 EOP TO STA. 386+00 ***



TR234 INTERCHANGE
SUPERELEVATED SECTION - RAMP C & RAMP D

RAMP C: STA. 370+81.62 (SR823 GORE) TO STA. 376+17.72 = 536.10 LF (E MAX. = 0.061)
RAMP D: STA. 396+32.87 TO STA. 402+09.94 (SR823 GORE) = 577.07 LF (E MAX. = 0 .065)

SUBGRADE COMPACTION, PROOF ROLLING AND PAVING OF SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART. ALL SOIL UNDERCUTS, BARRIER, GUARDRAIL, UNDERDRAIN AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART.

* PERFORM SUBGRADE COMPACTION, PROOF ROLLING AND UNDERDRAIN WORK ONLY AT THE STATION RANGES LISTED AS BEING PAVED

NOTES:

1. FOR LEGEND AND BASE STEP DETAIL SEE SHEET 11
2. FOR ROADSIDE SECTION SEE SHEETS 20 TO 21
3. FOR GUARDRAIL LOCATIONS SEE PLAN SHEETS
4. FOR UNDERDRAIN DETAILS SEE SHEET 11
5. FOR ROCK CUT DETAILS SEE SHEET 18

△1 RAMP A SLOPE VARIES, SEE PAVEMENT ELEVATION DETAIL SHEETS AND INTERSECTION DETAIL SHEETS.

△2 RAMP B SLOPE VARIES, SEE INTERSECTION DETAIL SHEETS.

△3 RAMP C SLOPE VARIES, SEE INTERSECTION DETAIL SHEETS.

△4 RAMP D SLOPE VARIES, SEE INTERSECTION DETAIL SHEETS.

△5 SLOPE VARIES, SEE SUPERELEVATION TABLE.

△6 0.04 OR SUPERELEVATION RATE, WHICH EVER IS GREATER.

[1] RAMP A: WIDTH VARIES FROM 6'-0" AT STA. 399+83.79 TO 8'-0" AT STA. 400+33.79.

[2] RAMP B: WIDTH VARIES FROM 8'-0" AT STA. 371+08.57 TO 6'-0" AT STA. 371+58.57.

[3] RAMP B: WIDTH VARIES FROM 0' AT STA. 381+50.00 TO 8'-0" AT STA. 382+00.00.

[4] RAMP D: WIDTH VARIES FROM 8'-0" AT STA. 387+00.00 TO 0' AT STA. 387+50.00.

[5] RAMP D: WIDTH VARIES FROM 6'-0" AT STA. 401+59.94 TO 8'-0" AT STA. 402+09.94.

CALCULATED LBD CHECKED JMB

TYPICAL SECTIONS - TR234 INTERCHANGE RAMPS

SCI-823-6.81

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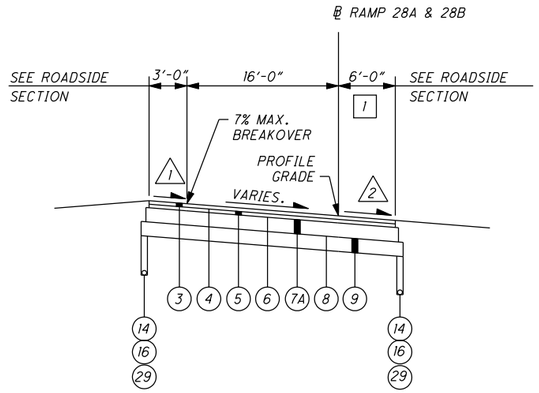
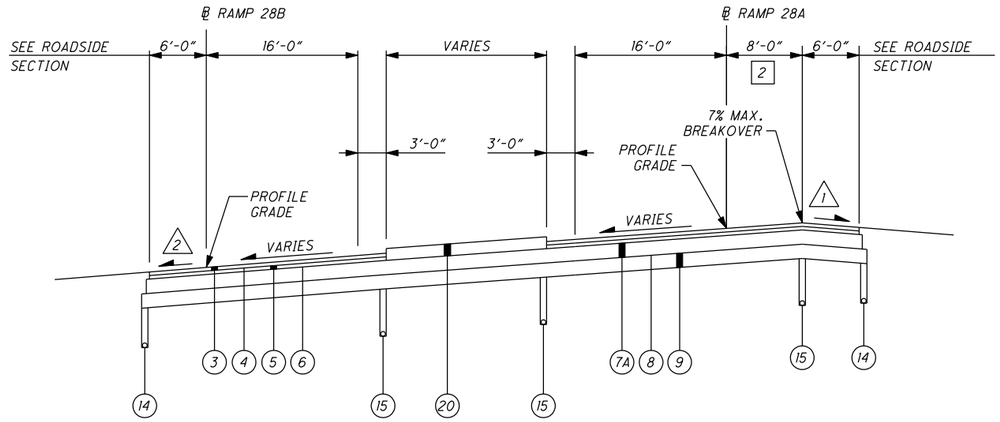


CR28 INTERCHANGE
SUPERELEVATED SECTION - RAMP A & B

RAMP A: STA. 521+55.85 (SR823 GORE) TO STA. 529+31.11 = 775.26 LF [E MAX. = 0.08]

RAMP B: STA. 525+67.64 (RAMP A & B GORE) TO STA. 532+71.76 (SR823 GORE) = 704.12 LF [E MAX. = 0.08]

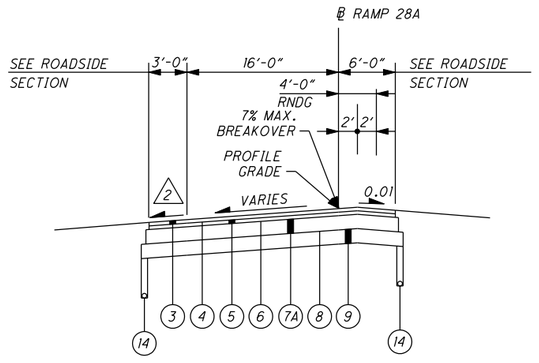


CR28 INTERCHANGE
SUPERELEVATED SECTION - RAMP A & B

RAMP A : STA. 532+94.60 (RAMP A & B GORE) TO STA. 534+59.55 = 164.95 LF [E MAX. = 0.0594]

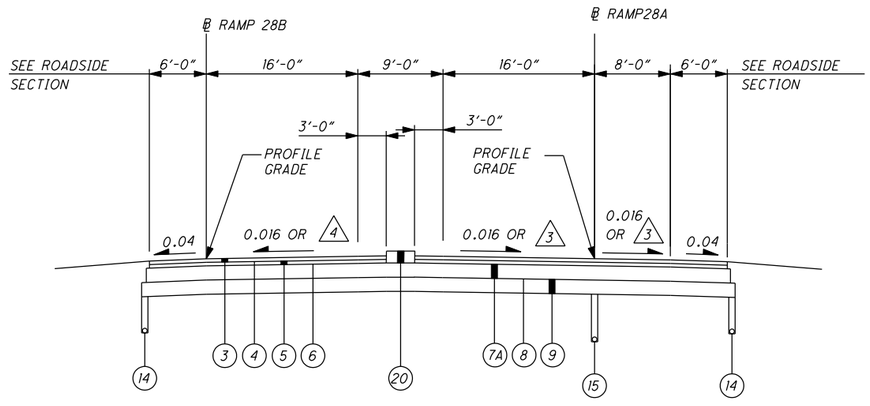
RAMP B : STA. 523+86.07 TO STA. 525+67.64 (RAMP A & B GORE) = 181.57 LF [E MAX. = 0.08]

SUBGRADE COMPACTION, PROOF ROLLING AND PAVING OF SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART. ALL SOIL UNDERCUTS, BARRIER, GUARDRAIL, UNDERDRAIN AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART.



CR28 INTERCHANGE
SUPERELEVATED SECTION - RAMP A

RAMP A: STA. 529+31.11 TO STA. 532+94.60 (RAMP A & B GORE) = 363.49 LF [E MAX. = 0.063]



CR28 INTERCHANGE
NORMAL SECTION - RAMP A & B

RAMP A : STA. 534+59.55 TO STA. 537+01.55 (EOP CR 28) = 242.00 LF

RAMP B : STA. 521+81.62 (EOP CR 28) TO STA. 523+86.07 = 204.45 LF

NOTES:

1. FOR LEGEND AND BASE STEP DETAIL SEE SHEET 11
2. FOR ROADSIDE SECTION SEE SHEETS 20 TO 21
3. FOR ROCK CUT DETAILS SEE SHEET 18

△1 SLOPE VARIES, SEE SUPERELEVATION TABLE.

△2 0.04 OR SUPERELEVATION RATE, WHICH EVER IS GREATER.

△3 RAMP A SLOPE VARIES, SEE INTERSECTION DETAIL SHEETS.

△4 RAMP B SLOPE VARIES, SEE INTERSECTION DETAIL SHEETS.

[1] RAMP A: WIDTH VARIES FROM 8'-0" AT STA. 521+55.85 TO 6'-0" AT STA. 522+05.85.

[2] RAMP A: WIDTH VARIES FROM 0' AT STA. 533+00.00 TO 8'-0" AT STA. 533+50.00.

CALCULATED LBD CHECKED JMB

TYPICAL SECTIONS - CR28 INTERCHANGE RAMPS

SCI-823-6.81

USER: CWahlbri PLOT DATE: 9/15/2011 1:55:56 AM REVISION DATE: 9/15/2011 MODEL: Sheet
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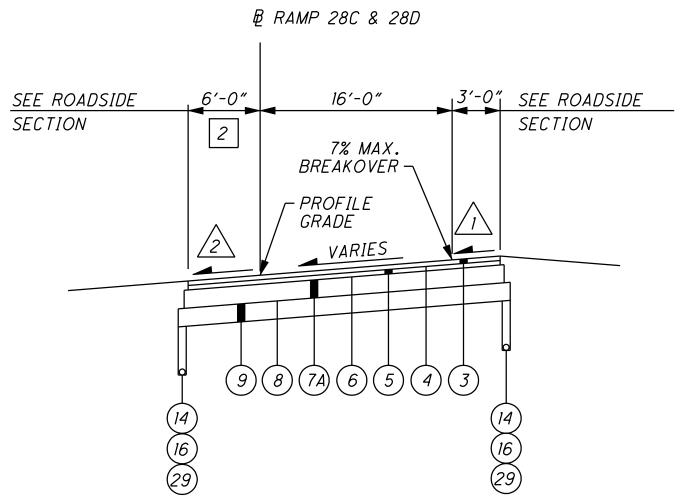
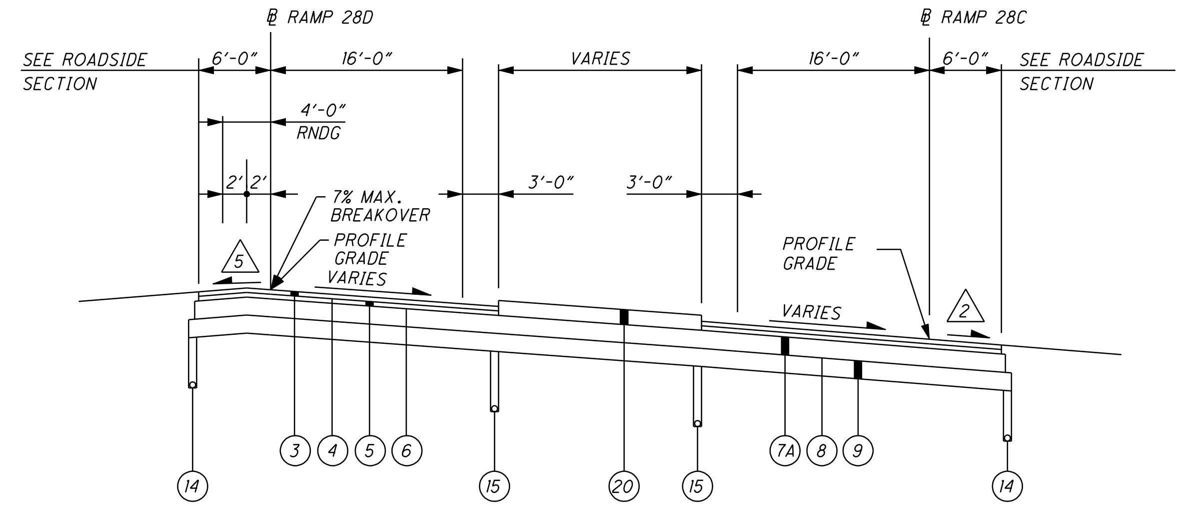
SUBGRADE COMPACTION, PROOF ROLLING AND PAVING OF SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART. ALL SOIL UNDERCUTS, BARRIER, GUARDRAIL, UNDERDRAIN AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART.



CR28 INTERCHANGE
SUPERELEVATED SECTION - RAMP C & D

RAMP C: STA. 522+26.16 (RAMP C &D GORE) TO STA. 533+07.48 (SR823 GORE) = 1081.32 LF (E MAX. = 0.080)

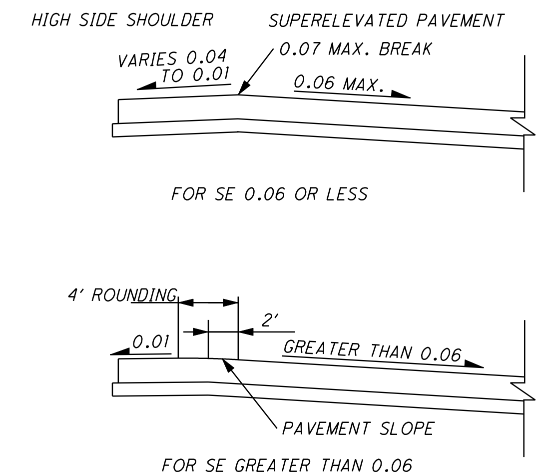
RAMP D: STA. 522+71.78 (SR823 GORE) TO STA. 528+21.19 = 549.41 LF (E MAX. = 0.079)



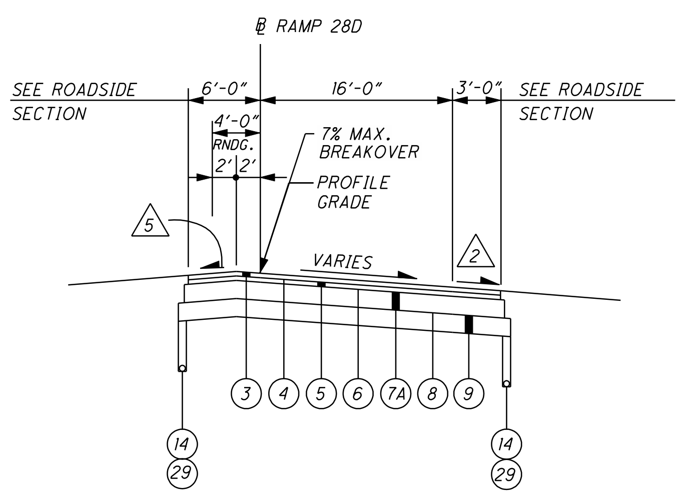
CR28 INTERCHANGE
SUPERELEVATED SECTION - RAMP C & D

RAMP C : STA. 520+19.81 TO STA. 522+26.16 (RAMP C & D GORE) = 206.35 LF (E MAX. = 0.080)

RAMP D : STA. 535+50.01 (RAMP C & D GORE) TO STA. 538+08.12 = 258.11 LF (E MAX. = 0.079)

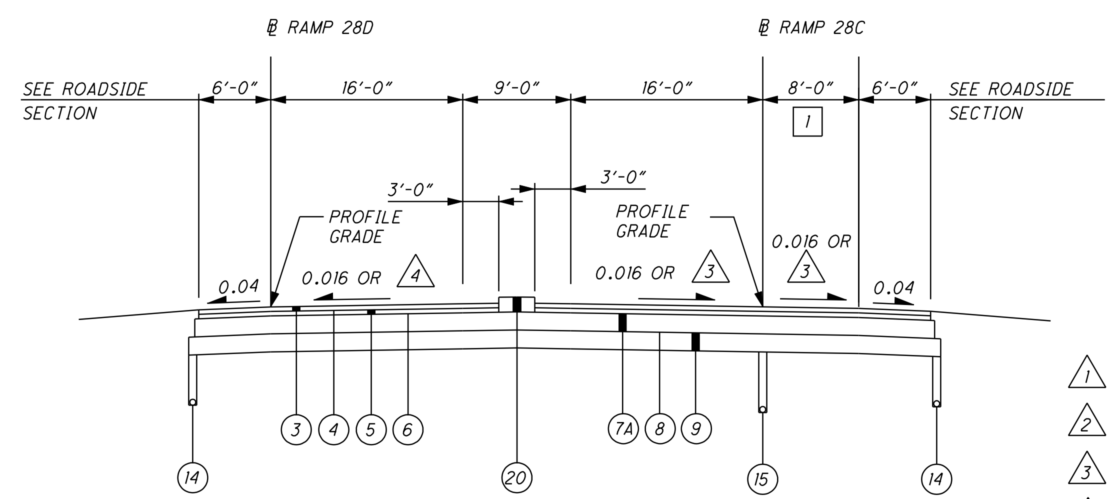


SUPERELEVATED HIGH SIDE SHOULDER TREATMENTS



CR28 INTERCHANGE
SUPERELEVATED SECTION - RAMP D

RAMP D: STA. 528+21.19 TO STA. 535+50.01 (RAMPC & D GORE) = 728.82 LF (E MAX. = 0.079)



CR28 INTERCHANGE
NORMAL SECTION - RAMP C & D

RAMP C : STA. 513+82.50 (EOP CR 28) TO STA. 520+19.81 = 637.31 LF

RAMP D : STA. 538+08.12 TO STA. 543+95.00 (EOP CR 28) = 586.88 LF

NOTES:

1. FOR LEGEND AND BASE STEP DETAIL SEE SHEET 11
2. FOR ROADSIDE SECTION SEE SHEETS 20 TO 21
3. FOR ROCK CUT DETAILS SEE SHEET 18

△1 SLOPE VARIES, SEE SUPERELEVATION TABLE.

△2 0.04 OR SUPERELEVATION RATE, WHICHEVER IS GREATER.

△3 RAMP C SLOPE VARIES, SEE INTERSECTION DETAIL SHEETS.

△4 RAMP D SLOPE VARIES, SEE INTERSECTION DETAIL SHEETS.

△5 SEE SUPERELVATED HIGH SIDE SHOULDER TREATMENTS, THIS SHEET

[1] RAMP C: WIDTH VARIES FROM 8'-0" AT STA. 516+50.00 TO 0' AT STA. 517+00.00.

[2] RAMP C: WIDTH VARIES FROM 6'-0" AT STA. 532+57.48 TO 8'-0" AT STA. 533+07.48.

CALCULATED LBD
CHECKED JMB

TYPICAL SECTIONS - CR28 INTERCHANGE RAMPS

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 11:55:01 AM REVISION DATE: 9/15/2011
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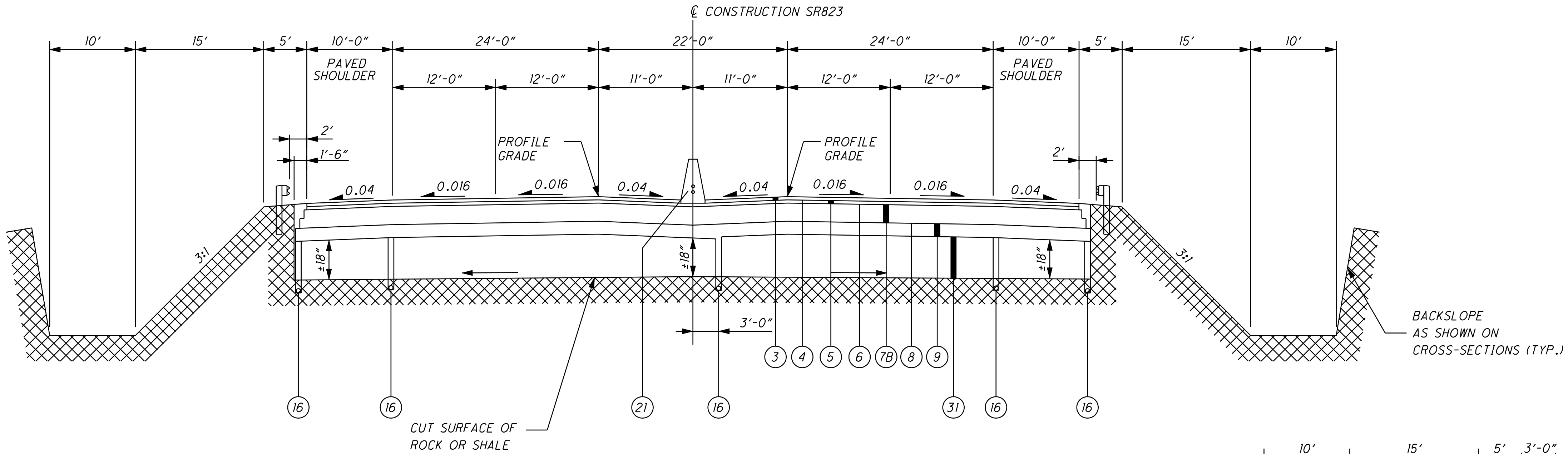
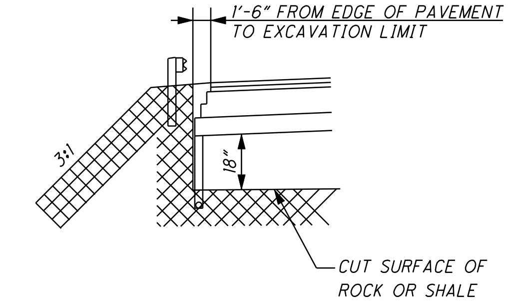
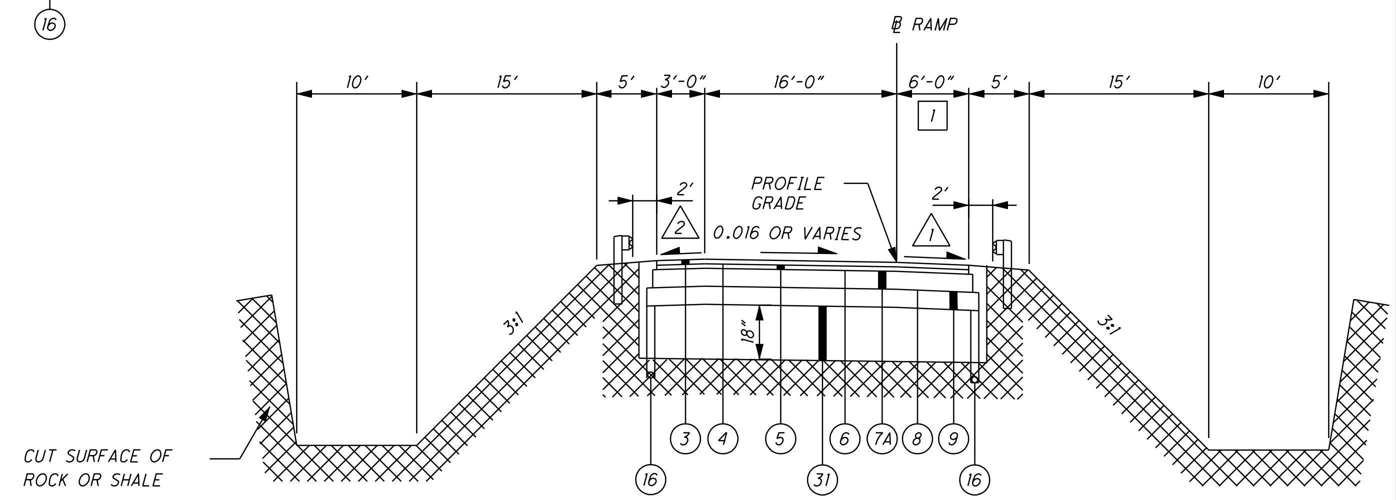


SR823

TYPICAL ROCK CUT NORMAL SECTION

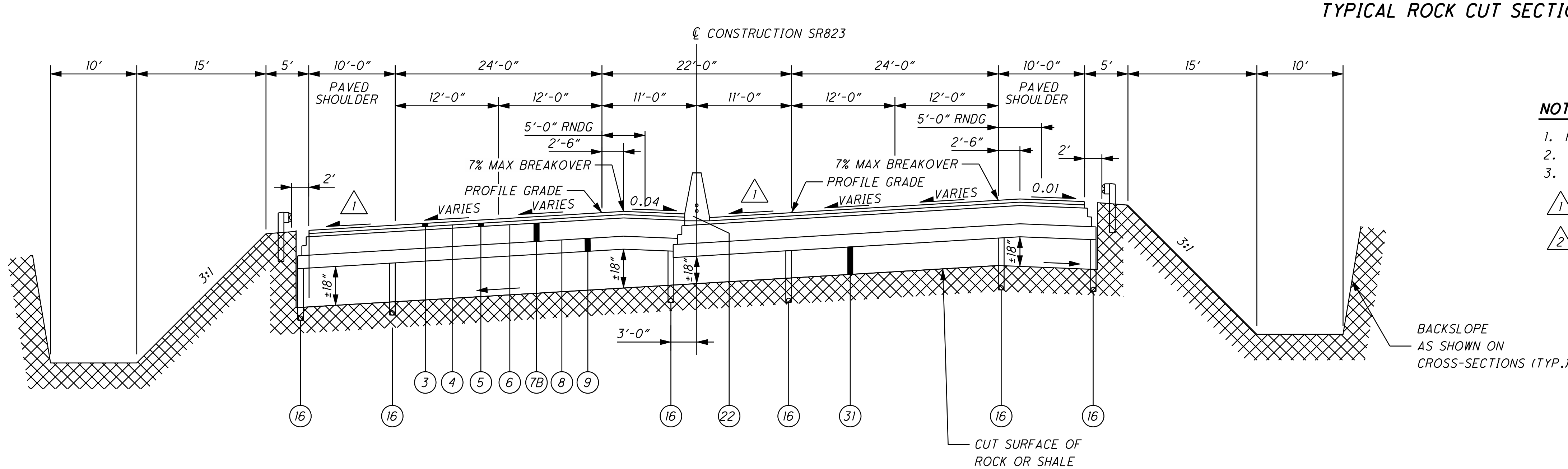


TYPICAL ROCK EXCAVATION LIMITS



INTERCHANGE RAMPS

TYPICAL ROCK CUT SECTION (OPPOSITE HAND ALSO)



SR823

TYPICAL ROCK CUT SUPERELEVATION SECTION (OPPOSITE HAND ALSO)

NOTES:

1. FOR LEGEND AND BASE STEP DETAIL SEE SHEET 11
2. FOR UNDERDRAIN DETAILS SEE SHEET 11
3. UNDERCUT TO EXTEND 18" BEYOND THE EDGE OF PAVEMENT SURFACE.

△1 0.04 OR RATE OF SUPERELEVATION, WHICHEVER IS GREATER

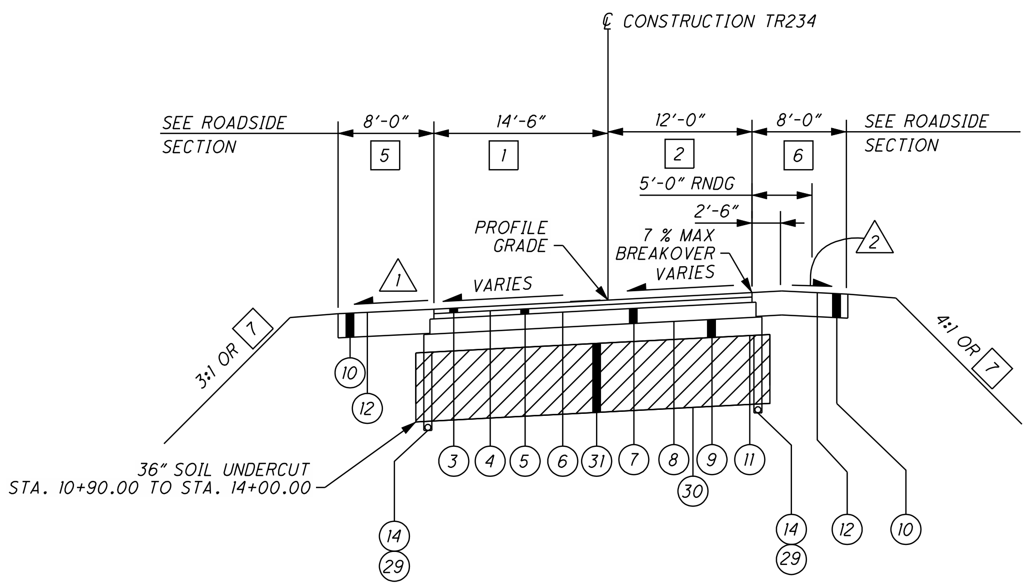
△2 SLOPE VARIES, SEE INTERCHANGE RAMP TYPICAL SECTIONS

SUBGRADE COMPACTION, PROOF ROLLING AND PAVING OF SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART. ALL SOIL UNDERCUTS, BARRIER, GUARDRAIL, UNDERDRAIN AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART.

CALCULATED LBD CHECKED DMV

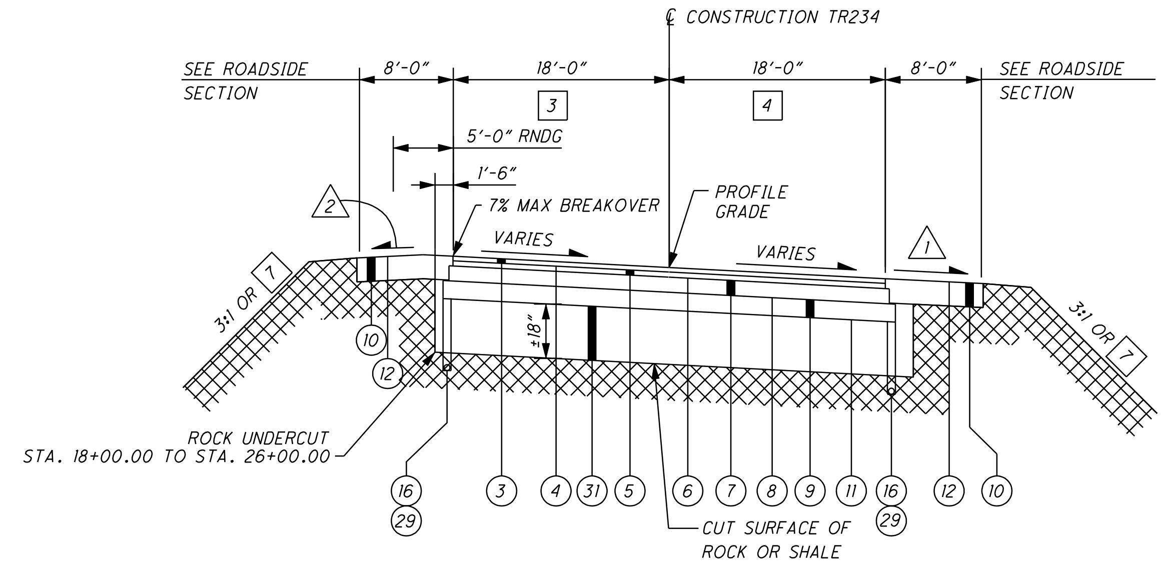
TYPICAL SECTIONS - ROCK CUT

SCI-823-6.81



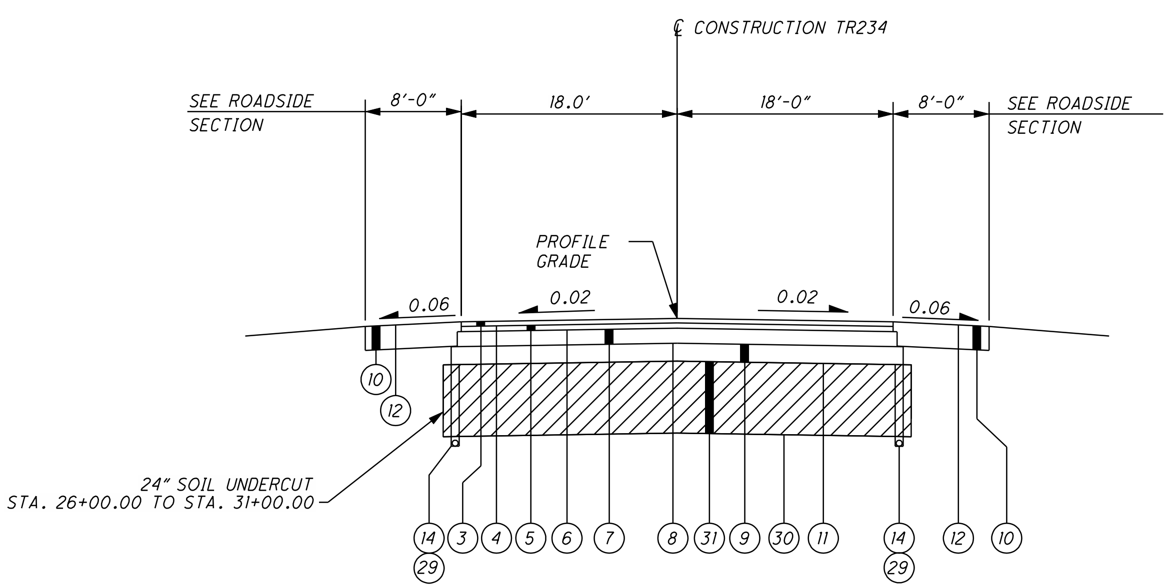
TR234
SUPERELEVATED SECTION

STA. 10+23.46 TO STA. 18+56.67 = 833.21 LF (E MAX. = 0.08)



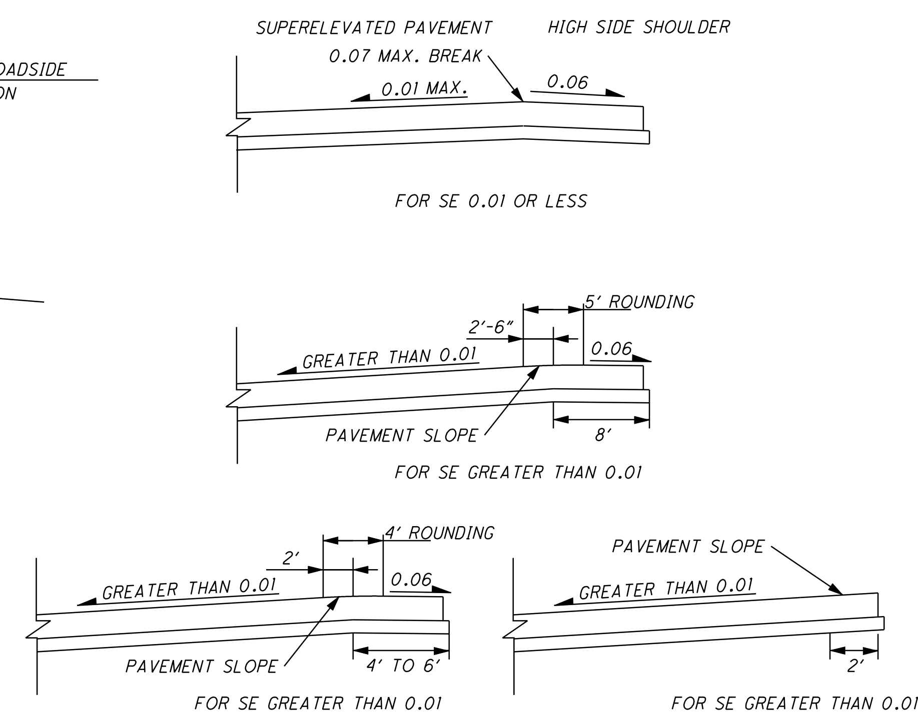
TR234
SUPERELEVATED SECTION

STA. 18+56.67 TO STA. 28+89.72 = 1033.05 LF (E MAX. = 0.08)



TR234
NORMAL SECTION

STA. 28+89.72 TO STA. 36+39.50 = 749.78 LF

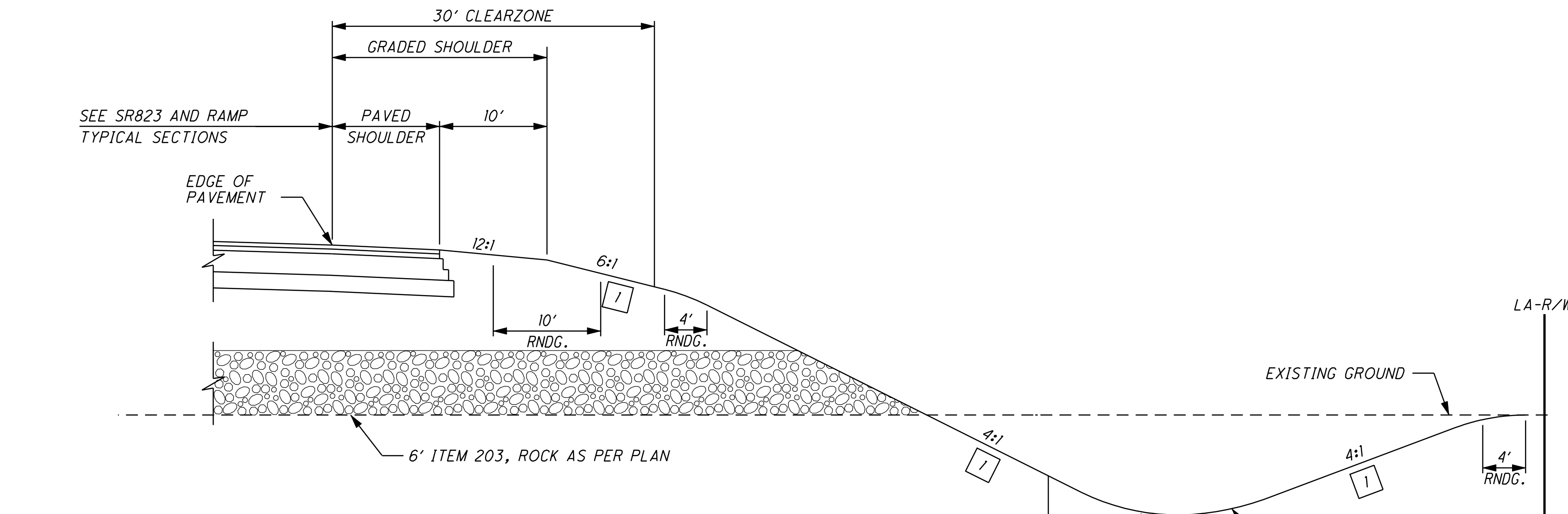


SUPERELEVATED HIGH SIDE SHOULDER TREATMENTS

NOTES:

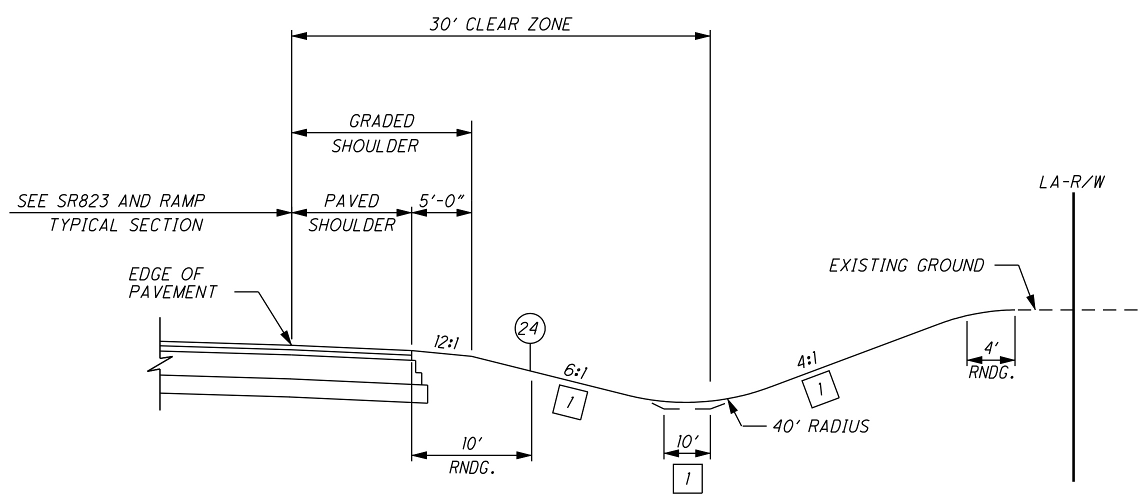
1. FOR LEGEND AND BASE STEP DETAIL SEE SHEET 11
2. FOR ROADSIDE SECTION SEE SHEETS 20 TO 21
3. FOR GUARDRAIL LOCATIONS SEE PLAN SHEETS
4. FOR UNDERDRAIN DETAILS SEE SHEET 11
5. UNDERCUT TO EXTEND 18" BEYOND THE EDGE OF PAVEMENT SURFACE.

△1	0.06 OR SUPERELEVATION RATE WHICH EVER IS GREATER.
△2	SEE SUPERELEVATED HIGH SIDE SHOULDER TREATMENTS, THIS SHEET
1	WIDTH VARIES FROM ±8.9' AT STA. 10+23.46 TO 14'-6" AT STA. 13+35.00. WIDTH VARIES FROM 14'-6" AT STA. 16+31.67 TO 12'-0" AT STA. 18+56.67
2	WIDTH VARIES FROM ±8.2' AT STA. 10+23.46 TO 12'-0" AT STA. 12+35.00.
3	WIDTH VARIES FROM 12'-0" AT STA. 21+20.00 TO 18'-0" AT STA. 24+50.00.
4	WIDTH VARIES FROM 12'-0" AT STA. 18+56.67 TO 14'-6" AT STA. 20+81.67. WIDTH IS 14'-6" FROM STA. 20+81.67 TO STA. 21+20.00. WIDTH VARIES FROM 14'-6" AT STA. 21+20.00 TO 20'-6" AT STA. 24+50.00. WIDTH IS 18'-0" FROM STA. 27+03.22 TO STA. 28+89.72.
5	WIDTH IS 2'-0" FROM STA. 10+23.46 TO STA. 11+00.00. WIDTH VARIES FROM 2'-0" AT STA. 11+00.00 TO 8'-0" AT STA. 12+50.00.
6	WIDTH VARIES FROM 2'-0" AT STA. 10+23.46 TO 8'-0" AT STA. 10+55.00.
7	OR AS SHOWN ON THE CROSS SECTIONS.



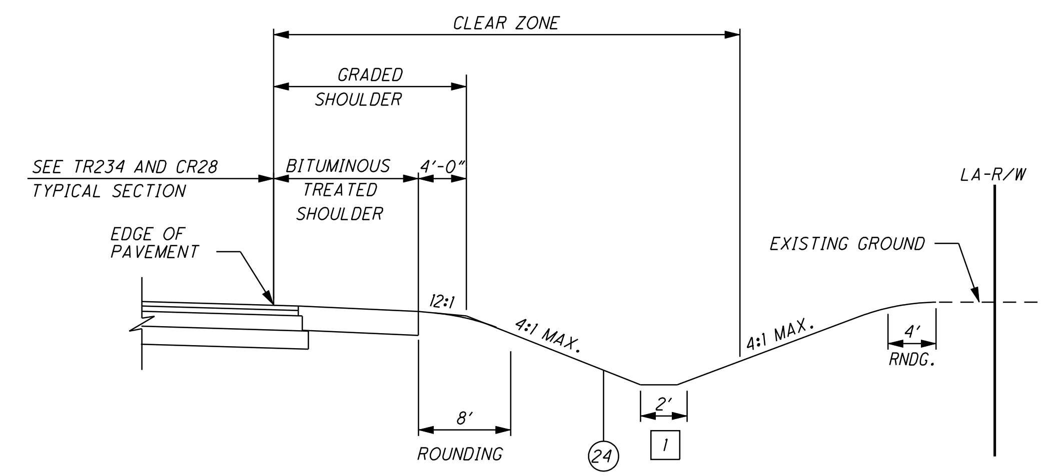
SAFETY GRADING: FILL SECTION - SR823 AND RAMPS

OPPOSITE HAND ALSO, SEE CROSS SECTIONS



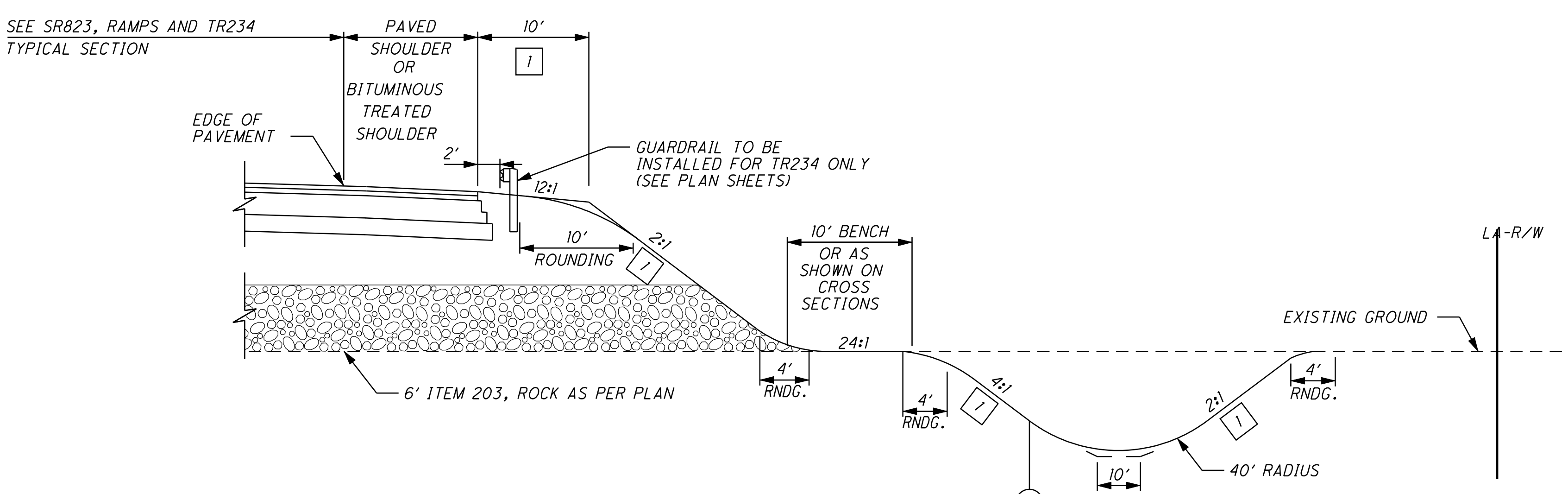
SAFETY GRADING CUT SECTION - SR823 AND RAMPS

OPPOSITE HAND ALSO, SEE CROSS SECTIONS



CLEAR ZONE GRADING SECTION - TR234

OPPOSITE HAND ALSO, SEE CROSS SECTIONS



BARRIER GRADING SR823, RAMPS AND TR234

OPPOSITE HAND ALSO, SEE CROSS SECTIONS

NOTES:

1. FOR LEGEND AND BASE STEP DETAIL SEE SHEET 11
2. FOR GUARDRAIL LOCATIONS SEE PLAN SHEETS
3. FOR UNDERDRAIN DETAILS SEE SHEET 11

[1] OR AS SHOWN ON CROSS SECTIONS.

CALCULATED LBD
CHECKED JMB

TYPICAL SECTIONS - ROADSIDE GRADING

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 11:55:15 AM REVISION DATE: 9/15/2011
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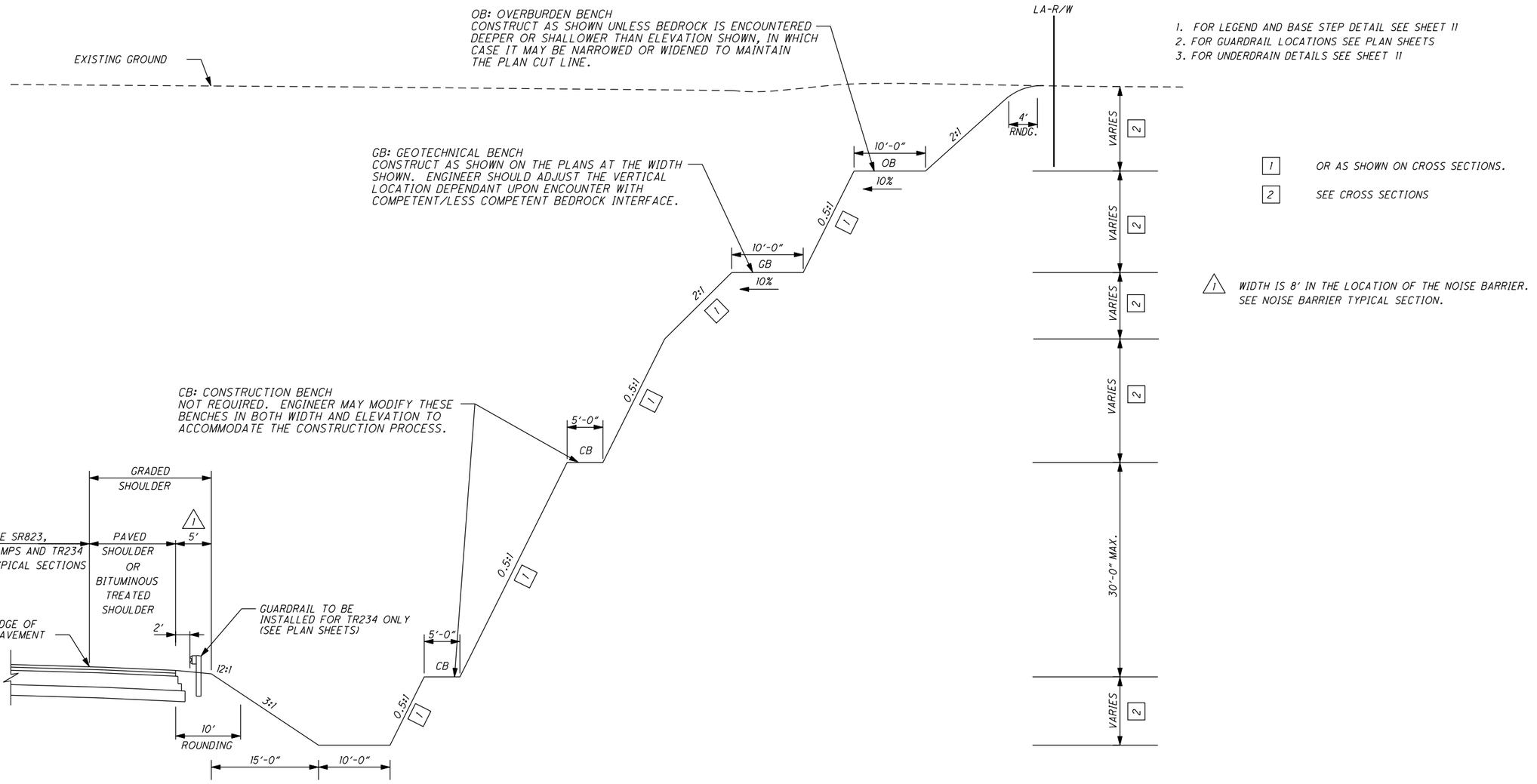
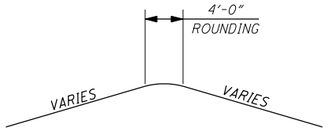


ROCK CATCHMENT SECTION -SR823, RAMPS AND TR234

OPPOSITE HAND ALSO, SEE CROSS SECTIONS



SLOPE ROUNDING

NOTES:

1. FOR LEGEND AND BASE STEP DETAIL SEE SHEET 11
2. FOR GUARDRAIL LOCATIONS SEE PLAN SHEETS
3. FOR UNDERDRAIN DETAILS SEE SHEET 11

[1] OR AS SHOWN ON CROSS SECTIONS.

[2] SEE CROSS SECTIONS

1 WIDTH IS 8' IN THE LOCATION OF THE NOISE BARRIER. SEE NOISE BARRIER TYPICAL SECTION.

NOTE: FOR ROCK EXCAVATION, PRESPLITTING SHALL BE PERFORMED ON ALL ROCK FORMATIONS WITHIN THE EXCAVATING LIMITS EXCEPT WHERE SLOPES ARE 1H:1V OR FLATTER AND FOR FILL BENCH CONSTRUCTION.

CALCULATED LBD
CHECKED DMV

TYPICAL SECTIONS ROADSIDE GRADING

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ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

LISTED BELOW ARE ALL UTILITIES OPERATING WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

COLUMBIA GAS OF OHIO
TIFFANY WOODYARD
843 PIATT AVENUE
CHILLICOTHE, OHIO 45601
(740) 772-9131

AMERICAN ELECTRIC POWER
PAUL PAXTON
850 TECH CENTER DRIVE
GAHANNA, OHIO 43230
(614) 883-6831

MINFORD TELEPHONE COMPANY
PAULA MCGRAW
PO BOX 181
MINFORD, OHIO 45653
(740) 820-2151

SPRINT COMMUNICATIONS, INC.
JOE THOMAS
11370 ENTERPRISE PARK DRIVE
SHARONVILLE, OHIO 45241
(513) 459-5761

TIME WARNER CABLE
TERRY ALLEN
3760 INTERCHANGE DRIVE
COLUMBUS, OHIO 43204-4131
(614) 255-6349

SCIOTO COUNTY SANITARY ENGINEERING
DARREN LEBRUN
602 SEVENTH STREET
PORTSMOUTH, OHIO 45662
(740) 355-8249

SCIOTO COUNTY REGIONAL WATER AUTHORITY
JONATHAN KING
PO BOX 310
LUCASVILLE, OHIO 45648
(740) 259-2301

PIKE NATURAL GAS COMPANY
ROBERT SEELING JR.
PO BOX 249
HILLSBORO, OHIO 45133
(937) 393-1901

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON NAD83 HORIZONTAL DATUM AND NAVD83 VERTICAL DATUM.

MONUMENT ASSEMBLIES

CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE LOCATIONS SHOWN ON THE PLAN SHEETS.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

PROTECTION OF RIGHT-OF-WAY LANDSCAPING

PRIOR TO BEGINNING WORK, THE CONTRACTOR, THE PROJECT ENGINEER, AND A REPRESENTATIVE OF THE MAINTAINING AGENCY WILL REVIEW AND RECORD ALL LANDSCAPING ITEMS WITHIN THE RIGHT OF WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION LIMITS) A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF LANDSCAPING ITEMS WILL BE MADE.

CONSTRICT ALL ACTIVITIES, EQUIPMENT STORAGE, AND STAGING TO WITHIN THE CONSTRUCTION LIMITS. UNLESS OTHERWISE IDENTIFIED IN THE PLANS OR PROPOSAL, THE CONSTRUCTION LIMITS ARE IDENTIFIED IN THE PLANS.

SUBMIT A WRITTEN REQUEST TO THE PROJECT ENGINEER TO USE ANY AREA OUTSIDE THESE LIMITS. THE DOCUMENT SUBMITTED MUST CLEARLY IDENTIFY THE AREA AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. USE OF THESE AREAS FOR DISPOSAL OF WASTE MATERIAL AND CONSTRUCTION DEBRIS, EXCAVATION OF BORROW MATERIAL AND PLACEMENT OF PORTABLE PLANTS IS PROHIBITED. THE REQUEST MUST BE APPROVED, IN WRITING, BEFORE THE CONTRACTOR HAS PERMISSION TO USE THE AREA.

ANY ITEMS DAMAGED BEYOND THE CONSTRUCTION LIMITS AS DEFINED ABOVE WILL BE REPLACED IN KIND OR AS APPROVED BY THE PROJECT ENGINEER.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 9:00 P.M. AND 6:00 A.M. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

COOPERATION BETWEEN CONTRACTORS

AT ANY TIME, THE DEPARTMENT MAY CONTRACT FOR OTHER WORK ON OR NEAR THE PROJECT.

SEPARATE CONTRACTORS WORKING WITHIN THE LIMITS OF THE PROJECT SHALL CONDUCT THEIR WORK WITHOUT INTERFERING WITH OR HINDERING THE PROGRESS OR COMPLETION OF WORK BEING PERFORMED BY OTHER CONTRACTORS AND SHALL COOPERATE WITH EACH OTHER AS DIRECTED BY THE ENGINEER.

STREAM CHANNEL EXCAVATION

STREAM CHANNEL EXCAVATION WITHIN "WATERS OF THE US" IS SUBJECT TO US ARMY CORPS OF ENGINEERS (USACE) REGULATORY JURISDICTION AND WILL REQUIRE AUTHORIZATION BY THE USACE VIA THE WATERWAY PERMITTING PROCESS (404/401). IN ACCORDANCE WITH THE APPLICABLE WATERWAY PERMITS (404/401) STREAM CHANNEL EXCAVATION CAN NOT EXCEED THE QUANTITIES AND/OR SURFACE AREA THAT HAS BEEN PERMITTED. THE WATERWAY PERMITS ARE ATTACHED TO THE CONSTRUCTION PLANS AS SPECIAL PROVISIONS AND WILL BE AVAILABLE IN THE PROJECT CONSTRUCTION OFFICE.

STREAM CHANNEL EXCAVATION (CONT.)

TAKE ALL PRECAUTIONS NECESSARY TO PREVENT ANY INCIDENTAL DISCHARGES ASSOCIATED WITH THE EXCAVATION AND HAULING OF MATERIAL FROM THE STREAM CHANNEL. THIS PERTAINS TO ANY EXCAVATION OPERATIONS SUCH AS, FOUNDATION, PIER OR ABUTMENT EXCAVATION, CHANNEL CLEANOUT, EXCAVATION FOR ROCK CHANNEL PROTECTION AND REMOVAL OF ANY TEMPORARY FILL ASSOCIATED WITH CONSTRUCTION OPERATIONS.

WASTE AND BORROW AREAS

HIRE AN ECOLOGICAL ENVIRONMENTAL CONSULTANT TO CERTIFY THAT THE PROPOSED BORROW AND WASTE OPERATIONS WILL NOT IMPACT "THE WATERS OF THE UNITED STATES" OR AN ISOLATED WETLAND(S) OR TO OBTAIN AN U.S. ARMY CORPS OF ENGINEERS 404 PERMIT AND AN OHIO EPA 401 PERMIT, PER THE REQUIREMENTS OF CONSTRUCTION AND MATERIAL SPECIFICATIONS 105.16.

HIRE A CULTURAL RESOURCE ENVIRONMENTAL CONSULTANT PER CONSTRUCTION AND MATERIAL SPECIFICATIONS IN 105.16 TO PERFORM A CULTURAL RESOURCE INVESTIGATION FOR ALL WASTE AND BORROW AREAS OUTSIDE THE RIGHT-OF-WAY LIMITS.

THE CONTRACTOR SHALL NOT BORROW FROM A SITE KNOWN OR SUSPECTED OF HAVING CONTAMINATED SOIL OR WATER.

AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF 750 FT. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, FURTHER COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA), AND ODOT OFFICE OF AVIATION, WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO FILE A NEW FAA FORM 7460-1, ADVISING THE FAA THAT AERONAUTICAL STUDY NO. 2011-AGL-7796-OE OR 2011-AGL-8018-OE IS BEING RESUBMITTED AND THAT AN ALTERATION TO THE ORIGINAL SUBMISSION IS REQUESTED.

COPIES OF THE ALTERATION AND FORM 7460-1 SHALL BE FORWARDED TO THE ODOT OFFICE OF AVIATION. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

FAA APPROVAL MAY TAKE UP TO 45 DAYS. ALL SUBMISSIONS SHALL BE DIRECTED TO THESE OFFICES:

Express Processing Center
The Federal Aviation Administration
Southwest Regional Office
Air Traffic Airspace Branch ASW-520
2601 Meachan Blvd.
Fort Worth, TX 76137-4298

Ohio Department of Transportation
Office of Aviation
2829 West Dublin-Granville Road
Columbus, Ohio 43235
614-387-2346

CONTRACTOR SHALL REFER TO AERONAUTICAL STUDY NUMBERS LISTED ABOVE FOR CONDITIONS THAT NEED TO BE MET IN ADDITION TO DETERMINATION EXPIRATION DATES AND INSTRUCTIONS FOR EXTENSION REQUESTS.

ADDITIONAL SOIL INFORMATION

THE SOIL PROFILE AND/OR STRUCTURE FOUNDATION INVESTIGATIONS SHEETS CONTAIN ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN. ADDITIONAL SUBSURFACE INVESTIGATION INFORMATION IS AVAILABLE FROM "ODOT DISTRICT 9."

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

UNLESS SPECIFICALLY DESIGNATED AS "DO NOT DISTURB" IN THE PLANS, REMOVE ALL TREES AND STUMPS WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201 CLEARING AND GRUBBING.

PONDS AND STREAMS

WHERE EMBANKMENT IS TO BE PLACED OVER EXISTING PONDS OR STREAMS, THE PONDS OR STREAMS SHALL BE DRAINED AND ALL UNSUITABLE MATERIAL SHALL BE REMOVED. A MINIMUM TWO-FOOT LAYER OF TYPE C, DUMPED ROCK FILL MAY BE PLACED BY THE METHOD OF END DUMPING. A GEOTEXTILE FABRIC, TYPE D SHALL BE PLACED OVER THE DUMPED ROCK FILL AND EMBANKMENT CONSTRUCTION METHODS IN ACCORDANCE WITH 203.05 TO 203.07 INCLUSIVE SHALL BE USED TO CONSTRUCT THE REMAINING EMBANKMENT.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER:

ITEM 601 - DUMPED ROCK FILL, TYPE C	13,700 CU. YD.
ITEM 204 - GEOTECHNICAL FABRIC, TYPE D	20,500 SQ. YD.

ITEM SPECIAL - TRENCH DRAIN

IF SPRINGS OR SEEPS ARE ENCOUNTERED DURING CONSTRUCTION, THE FLOW SHALL BE COLLECTED WITHIN THE EMBANKMENT DRAINAGE LAYER OR DIRECTED TO THE EMBANKMENT DRAINAGE LAYER WITH A DITCH OR A TRENCH DRAIN. A TYPICAL TRENCH DRAIN SHALL BE A MINIMUM OF ONE FOOT IN WIDTH, WITH A DEPTH AND GRADE SUITABLE FOR POSITIVE DRAINAGE. SIX INCHES OF CONCRETE SAND (ODOT ITEM 703.02) SHALL BE PLACED IN THE BOTTOM OF THE TRENCH, THEN A 6-INCH DIAMETER, FABRIC-WRAPPED, PERFORATED PVC PIPE SHALL BE PLACED ON TOP OF THE SAND. THE TRENCH SHALL THEN BE BACKFILLED TO THE SURFACE WITH CONCRETE SAND. TRENCH DRAINS, COMPLETE IN PLACE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LINEAL FOOT, FOR ITEM SPECIAL - TRENCH DRAIN.

THE FOLLOWING ESTIMATED QUANTITY IS TO BE USED AS DIRECTED BY THE ENGINEER:

604, ITEM SPECIAL - TRENCH DRAINS	5000 L.F.

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. BENCH ALL OTHER SLOPED EMBANKMENT AREAS AS SET FORTH IN 203.05. NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF 203.05.

ITEM 203 - ROCK, AS PER PLAN

ALL EMBANKMENTS AND SIDE HILL FILLS SHALL HAVE A MINIMUM 6 FOOT LAYER OF ITEM 203 - ROCK, AS PER PLAN AT THE BOTTOM OF THE EMBANKMENT AND ON EXISTING GROUND. THIS WORK SHALL BE IN ACCORDANCE WITH SECTION 203 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS EXCEPT AS NOTED HEREAFTER. THIS MATERIAL SHALL BE SANDSTONE OR SILTSTONE. ROCK LIFTS SHALL CONTAIN NO MORE THAN 15 PERCENT OF OTHER SUITABLE EMBANKMENT MATERIAL (BY VISUAL INSPECTION). THE DOMINANT ROCK SIZE SHALL BE 6 INCHES AND GREATER. DURING EXCAVATION AND HANDLING, THE CONTRACTOR SHALL AVOID CONTAMINATING THE ROCK WITH OTHER EMBANKMENT MATERIALS. ROCK SHALL BE RESERVED FROM THE EXCAVATION UP TO THE PLAN QUANTITY REQUIRED. IF ROCK FROM THE EXCAVATION IS WASTED PRIOR TO MEETING THE PLAN QUANTITIES, THE CONTRACTOR SHALL BE RESPONSIBLE AND BEAR THE EXPENSE FOR REPLACING THE MATERIAL WASTED UP TO THE PLAN QUANTITY.

CHANNEL EMBANKMENTS

FILL AND SLOPE PORTIONS OF THE EXISTING CHANNEL TO DRAIN AS SHOWN IN THESE PLANS. IN CHANNEL EMBANKMENT AREAS WHICH WILL NOT SUPPORT ANY PORTION OF THE NEW ROAD BED OR STRUCTURAL EMBANKMENTS, THE CONTRACTOR MAY UTILIZE EMBANKMENT METHODS MEETING THE FOLLOWING REQUIREMENTS:

CLEAR ALL WEEDS AND BRUSH IN AREAS WHERE CHANNEL EMBANKMENTS ARE TO BE PLACED. THE REQUIREMENTS FOR MOISTURE, DENSITY CONTROL, BENCHING AND SUITABLE MATERIALS IS WAIVED. PLACE THE MATERIAL IN 8-INCH LOOSE LIFTS. THE ENGINEER MAY INCREASE THE LIFT THICKNESS IN ORDER TO BRIDGE THE SOFT OR WET FOUNDATIONS DEPENDING ON THE STABILITY OF THE FOUNDATION. THE ENGINEER MAY INCREASE THE LIFT THICKNESS UP TO 24 INCHES TO OBTAIN STABILITY AT THE TOP OF THE LIFT. PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 203, EMBANKMENT.

STAGED CONSTRUCTION - SHUMWAY HOLLOW ROAD INTERCHANGE

THE MAINLINE EMBANKMENT AND RAMPS A, B, C, AND D EMBANKMENTS AT THE SHUMWAY HOLLOW ROAD INTERCHANGE SHALL BE CONSTRUCTED IN STAGES AND THE FOUNDATION PORE PRESSURES SHALL BE MONITORED. THE MAXIMUM HEIGHT OF THE INITIAL STAGE SHALL BE 26 FEET. THE MAXIMUM HEIGHT FOR THE SECOND STAGE, IF NECESSARY, IS 25 FEET. IF AT ANY TIME, FOUNDATION PORE WATER PRESSURE HEAD IS HIGHER THAN 18 FEET ABOVE THE EXISTING GROUND SURFACE, THEN EMBANKMENT CONSTRUCTION SHALL STOP. THE ESTIMATED TIME THAT THE FOUNDATION SOILS WILL NEED TO REACH 90 PERCENT CONSOLIDATION BEFORE THE SUBSEQUENT STAGE OF THE EMBANKMENT IS PLACED IS LOCATED ON SHEET 475.

STAGED CONSTRUCTION - LUCASVILLE MINFORD ROAD INTERCHANGE

THE MAINLINE EMBANKMENT AND SECTIONS OF RAMPS B AND C AT THE LUCASVILLE MINFORD ROAD INTERCHANGE SHALL BE CONSTRUCTED IN STAGES AND THE FOUNDATION PORE PRESSURES SHALL BE MONITORED. THE MAXIMUM HEIGHT OF THE INITIAL STAGE SHALL BE 27 FEET. IF AT ANY TIME, FOUNDATION PORE WATER PRESSURE HEAD IS HIGHER THAN 18 FEET ABOVE THE EXISTING GROUND SURFACE IN THE INITIAL STAGE, THEN EMBANKMENT CONSTRUCTION SHALL STOP. THE ESTIMATED TIME THAT THE FOUNDATION SOILS WILL NEED TO REACH 90 PERCENT CONSOLIDATION BEFORE THE SUBSEQUENT STAGE OF EMBANKMENT IS PLACED IS LOCATED ON SHEET 475.

INTERIM COMPLETION DATES

THE SPILL THROUGH SLOPES AND THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENTS SHALL BE CONSTRUCTED TO PLAN ELEVATION FOR A MINIMUM DISTANCE OF 200 FEET BEHIND EACH ABUTMENT. THIS WORK SHALL BE COMPLETED WITHIN THE FIRST 9 MONTHS OF THE START OF CONTRACT. THIS WILL ALLOW ADEQUATE TIME FOR THE PLANNED EMBANKMENT QUARANTINE PERIOD PRIOR TO THE EXCAVATION FOR THE ABUTMENT FOOTINGS AND THE INSTALLATION OF PILE FOUNDATIONS.

ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING

CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

1. SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.

2. EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2-5, A-5, A-7-5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO 204.05. THE EXCAVATION LIMITS FOR UNSUITABLE SOIL ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSUITABLE SUBGRADE. THE EXCAVATION LIMITS FOR UNSUITABLE SUBGRADE CONSISTING OF COAL, SHALE OR ROCK ARE SHOWN ON THE CROSS SECTIONS AND DETAILED ON THE TYPICAL SECTIONS

   IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE SHALLOW FILL AND SHAPING THE SUBGRADE.

3. COMPACT THE SUBGRADE ACCORDING TO 204.03.

4. APPROXIMATE LIMITS FOR EXCAVATION OF UNSTABLE SUBGRADE ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSTABLE SUBGRADE. THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATIONS.

   PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO 204.06.

5. EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO 204.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.

6. PROOF ROLL THE STABILIZED AREAS ACCORDING TO 204.06 TO VERIFY STABILITY.

7. FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

THE QUANTITIES FOR EXCAVATING THE UNSUITABLE SUBGRADE AND UNSTABLE SUBGRADE ARE BOTH PAID UNDER ITEM 204

EROSION CONTROL

ITEMS 601, 660, AND 670 ARE PROVIDED IN THE PLANS FOR EROSION CONTROL. ROCK OF A STABLE NATURE SHALL NOT BE REMOVED IN ORDER TO PLACE ANY OF THESE ITEMS AND TURF OF A STABLE NATURE SHALL NOT BE REMOVED IN ORDER TO PLACE 660 OR 670. THE ENGINEER SHALL CHECK AND NON-PERFORM QUANTITIES WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION. IN ADDITION, THESE ITEMS SHALL MEET REQUIREMENT OF 108.04.

PRECAST WINGWALLS, HEADWALLS AND FOOTERS

AT THE OPTION OF THE CONTRACTOR, A PRECAST WINGWALL, HEADWALL, OR FOOTER MAY BE FURNISHED PER ITEM 602.03 PRECAST STRUCTURES. THE PRECAST OPTION FURNISHED WILL MEET THE CAST-IN-PLACE STRUCTURAL DESIGN LOADINGS, DESIGN HEIGHT, AND DESIGN LENGTH DIMENSIONS.

FULL COMPENSATION FOR THE PRECAST WINGWALL, HEADWALL, OR FOOTER IS THE NUMBER OF CUBIC YARDS OF ITEM 511 OR SUPPLEMENTAL SPECIFICATION 898, AND POUNDS OF ITEM 509 FOR THE CORRESPONDING CAST-IN-PLACE STRUCTURE.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, SOIL ANALYSIS TEST 15 EACH

659, SEEDING AND MULCHING 740,866 SQ. YD.

659, REPAIR SEEDING AND MULCHING 37,043 SQ. YD

659, INTER-SEEDING 37,043 SQ. YD.

659, COMMERCIAL FERTILIZER 103.32 TON

659, LIME 17.01 ACRES

659, WATER 4,101 M. GAL.

659, MOWING 1,667 M. SQ. FT.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

ITEM SPECIAL - FILL AND PLUG EXISTING CONDUIT

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH LEAN GROUT, ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER.

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED ON THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT, AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

IN LIEU OF FILLING AND PLUGGING THE EXISTING CONDUIT, THE PIPE MAY BE CRUSHED AND BACKFILLED IN ACCORDANCE WITH THE PROVISIONS OF ITEM 203, OR IT MAY BE REMOVED. THE LENGTH, MEASURED AS PROVIDED ABOVE, SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF

BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEM.

ITEM SPECIAL - MISC.: SOILS CONSULTANT FOR FIELD TESTING & INSPECTION

ALL TESTING AND INSPECTION FOR THE EMBANKMENT, SUBGRADE COMPACTION, GRANULAR BASES AND SUBBASES, AND TRENCH BACKFILL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL COMPACTION AND /OR DENSITY TESTS SHALL MEET PROVISIONS OF ITEM NOS. 202, 203, 304, 503 OR 603. INSPECTION SHALL ASSURE COMPLIANCE TO THE APPROPRIATE BID ITEM OF WORK

THE CONTRACTOR SHALL PROVIDE A SOILS CONSULTANT PRE-QUALIFIED BY ODOT WHO SHALL, THROUGH THE CONTRACTOR, BE RESPONSIBLE FOR ENSURING THAT THE COMPACTION OR DENSITY OF THE EMBANKMENT, BACKFILL OR BASE MATERIALS ARE IN COMPLIANCE WITH THE SPECIFICATIONS. THIS WORK SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND ODOT MANUAL OF PROCEDURES FOR EARTHWORK.

THE SOILS CONSULTANT SHALL PROVIDE A SOILS TECHNICIAN WHO HAS A BACKGROUND IN EMBANKMENT, BASE CONSTRUCTION, STRUCTURE BACKFILL AND PIPE INSTALLATION AND IS FAMILIAR WITH ODOT SPECIFICATIONS.

THE SOILS CONSULTANT SHALL PROVIDE NECESSARY TRAINED OPERATORS AND EQUIPMENT AND FURNISH THE PROJECT ENGINEER WITH TWO (2) COPIES OF ACCEPTABLE TEST RESULTS WITHIN 24 HOURS AFTER THE TEST IS TAKEN. THE SOILS CONSULTANT TECHNICIANS SHALL DEMONSTRATE THEIR COMPETENCE TO THE ENGINEER BEFORE WORK BEGINS. THE ENGINEER WILL ORDER THE CONTRACTOR TO REPLACE THE SOILS CONSULTANT IF THEY ARE NOT FULLY VERSED IN THE REQUIRED TESTING PROCEDURES. THE CONSULTANT'S OPERATOR SHALL IMMEDIATELY NOTIFY THE ODOT INSPECTOR OR ENGINEER OF ANY FAILING TEST, IDENTIFY THE REMEDIAL ACTION PROPOSED, AND PROVIDE DOCUMENTATION OF ACCEPTABLE RETEST OF THE FAILED AREA. COMPACTION TESTS SHALL BE TAKEN FOR EACH 500 CU.YDS. OF EMBANKMENT, EVERY 1,000 SQ.YDS. OF SUBGRADE PREPARED, AND EACH 1,000 SQ.YDS. OF SUBBASE PLACED. THE ENGINEER MAY REQUIRE MORE FREQUENT TESTING IF THE CONDITIONS WARRANT. UPON COMPLETION OF THE ITEM, THE SOILS CONSULTANT SHALL ALSO PROVIDE THE ENGINEER WITH TWO (2) COPIES OF AN INSPECTION REPORT BY A REGISTERED PROFESSIONAL ENGINEER, WHICH CONTAINS THE TESTING RESULTS AND THE CONSULTANT'S CONCLUSIONS AS TO SPECIFICATION COMPLIANCE FOR ALL CONTRACT COMPACTION OR DENSITY WORK. THE SOILS CONSULTANT SHALL PROVIDE THE PROJECT ENGINEER WITH A DAILY INSPECTION REPORT WHICH WILL INCLUDE COMPACTION/DENSITY TEST TAKEN, ITEMS OF WORK INSPECTED, PAY ITEMS COMPLETED AND FINAL PAY QUANTITIES.

THE ENGINEER WILL MAKE UNANNOUNCED QUALITY CONTROL TESTS PERIODICALLY TO VERIFY PROCEDURES USED AND RESULTS BEING OBTAINED BY THE CONTRACTOR.

CALCULATED LBD CHECKED JMB

GENERAL NOTES

SCI-823-6.81

ITEM SPECIAL -MISC.: SOILS CONSULTANT FOR FIELD TESTING & INSPECTION (CONTINUED)

THE SOILS CONSULTANT'S FIELD REPRESENTATIVE SHALL WORK UNDER THE DIRECTION OF A REGISTERED PROFESSIONAL ENGINEER WHO WILL MONITOR THE EMBANKMENT CONSTRUCTION, BASE PLACEMENT, AND TRENCH BACKFILL. THE REGISTERED PROFESSIONAL ENGINEER SHALL BE AVAILABLE TO DISCUSS QUESTION AND PROBLEMS WHICH MAY ARISE RELATIVE TO THE EMBANKMENT AND BASE CONSTRUCTION AND SHALL ALSO ATTEND THE MONTHLY PROGRESS MEETINGS FOR THE PROJECT. THE FINAL INSPECTION REPORT SHALL BE SIGNED BY THE REGISTERED PROFESSIONAL ENGINEER, AND CERTIFY THAT ALL COMPACTION AND DENSITY TESTS PROVIDED BY THE CONTRACTOR MEETS ALL APPLICABLE CONTRACT REQUIREMENTS.

PAYMENT FOR THIS WORK SHALL BE BID AS A LUMP SUM AND PAID FOR AS FOLLOWS:

UPON APPROVAL OF CONSULTANT	20%
UPON COMPLETION OF FIELD TESTS	60%
UPON SUBMISSION OF FINAL TESTS	20%

A LUMP SUM QUANTITY OF "ITEM SPECIAL, MISC.: SOILS CONSULTANT FOR FIELD TESTING AND INSPECTION" HAS BEEN CARRIED TO THE GENERAL SUMMARY AND THE PRICE BID SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY FOR PROPER PERFORMANCE OF THIS WORK.

UNTREATED SEPTIC CONNECTIONS

THIS PLAN MAKES NO PROVISION FOR CONNECTION, NOR SHALL THE ENGINEER OR CONTRACTOR CONNECT, ANY UNTREATED SEPTIC DRAINAGE INTO THE HIGHWAY DRAINAGE SYSTEM. ANY PIPE CARRYING UNTREATED SEPTIC FLOW SHALL BE PLUGGED WITH CLASS C CONCRETE AT THE RIGHT-OF-WAY LINE.

PAYMENT FOR PLUGGING SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEMS 203 EXCAVATION.

UNRECORDED UNTREATED NON-STORMWATER DRAINAGE

FURNISH NO CONTINUANCE FOR ANY UNRECORDED UNTREATED NON-STORMWATER DRAINAGE SUCH AS UNTREATED SEPTIC, UNTREATED WASTEWATER, UNTREATED CURTAIN/GRADIENT DRAINS, AND UNTREATED FOUNDATION FLOOR DRAINS DISTURBED BY THE WORK. PLUG ANY UNRECORDED UNTREATED NON-STORMWATER DRAINAGE WITH CLASS C CONCRETE AT THE RIGHT OF WAY LINE. PAYMENT FOR PLUGGING SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 202 OR 203 ITEM.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEMS.

ITEM 603 CONDUIT TYPE B, AS PER PLAN

THIS ITEM APPLIES TO ROCK EXCAVATION FOR STORM SEWERS. REMOVE ROCK OR SHALE IN THE CONDUIT FOUNDATION FOR AT LEAST 6 INCHES BELOW THE BOTTOM OF THE BEDDING. REPLACE THE ROCK OR SHALE WITH STRUCTURAL BACKFILL. STORM SEWER LOCATIONS REQUIRING EXCAVATION OF BEDROCK ARE NOTED IN THE PLAN SET AS ITEM 603, AS PER PLAN.

POST CONSTRUCTION STORM WATER TREATMENT

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

FENCE LENGTHS

THE LENGTHS OF FENCE SHOWN IN THE PLANS ARE HORIZONTAL DIMENSIONS. MEASUREMENTS OF THE FINAL QUANTITIES WILL BE IN ACCORDANCE WITH ITEM 607.

ITEM 606 - ANCHOR ASSEMBLY, TYPE E-98

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS, OR AN APPROVED EQUAL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE AT WWW.DOT.STATE.OH.US/DRRC/ UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS:

1) THE ET-2000 (1997) MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF TWO 25'-0" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG NO.	DRAWING NAME	DWG./ REV. DATE	ODOT APPROVAL DATE
SSS265M	ET-2000 (1997) PLAN, ELEVATION AND SECTIONS	6/20/97	3/6/98
SS142	ET-2000 PLUS 50'-0" PLAN, ELEVATION AND SECTIONS 25'-0" RAIL, SLEEVE W/ PL POSTS 1-4	4/12/00	7/31/00
SS141	ET-2000 PLUS PLAN, ELEVATION AND SECTION 25'-0" RAIL, HBA POSTS 1-4	2/29/00	7/31/00
SS158	ET2000 PLUS 50'-0" WITH 12'-6" PANELS AND HBA POSTS 1-4 PLAN, ELEVATION AND SECTION	5/22/00	7/31/00

2) THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 2516 MALLORY LANE, STOW, OHIO, 44224, (TELEPHONE: 330-346-0721).

THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF FOUR 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG NO.	DRAWING NAME	DWG./ REV. DATE	ODOT APPROVAL DATE
SKT-4M	SEQUENTIAL KINKING TERMINAL (SKT-350) ASSEMBLY WITH 4 FOUNDATION TUBES	12/11/97	3/6/98

THE FACE OF THE TYPE E-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 18" X 18", OR 12" X 18" IF APPLIED TO A RECTANGULAR ET-2000 7/32 PLUS 9/32 EXTRUDER HEAD.

REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4-INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27-3/4-INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4-INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE E-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 616 - WATER

THIS QUANTITY OF WATER IS PROVIDED TO COMPLY WITH THE 404/401 WATERWAY PERMIT FOR USE AS ADDITIONAL DUST CONTROL WHEN WORKING WITHIN 100 FEET OF THESE PRESERVED WATERWAYS. THE STREAM IDENTIFICATION NUMBER AND APPROXIMATE LOCATION ARE LISTED IN TABLE BELOW. FOR A DETAILED LOCATION SEE THE WATERWAY PERMIT, AVAILABLE IN THE PROJECT CONSTRUCTION OFFICE

STREAM #	APPROXIMATE LOCATION STATION
STREAM 17B	CR 28 RAMP C-D
STREAM 17C	CR 28 RAMP C-D
STREAM 18	484+50
STREAM 18B	493+00
STREAM 19	SR 823 RT 485+50 TO 490+50
STREAM 20	443+50
STREAM 21	404+00
STREAM 22A	375+00
STREAM 22B	TR 234 17+00
STREAM 23/K	364+50

ITEM 616 - WATER 214 MGAL

UTILITY LEGEND

ABBREVIATIONS:

— — — — — UNK	UNKNOWN FUNCTION UTILITY PIPE
- - - - - - - - (DATUR)	DEPICTED ACCORDING TO UTILITY RECORDS, NO ELECTRONIC INFORMATION WAS OBTAINED.
NAP	NO ASSOCIATED PIPING FOUND FROM STRUCTURE TO ANY OTHER UTILITY OR STRUCTURE.
(FO)	FIBER OPTIC
(AATFI)	ABANDONED ACCORDING TO FIELD INSPECTION
(AATUR)	ABANDONED ACCORDING TO UTILITY RECORDS
(DATFI)	DEPICTED ACCORDING TO FIELD INSPECTION, NO ELECTRONIC INFORMATION WAS OBTAINED.
(QL-C)	DEPICTED ACCORDING TO RECORD INFORMATION AND EXISTING ASSOCIATED UTILITY STRUCTURES. NO ELECTRONIC INFORMATION WAS OBTAINED.
(QL-D)	DEPICTED ACCORDING TO RECORD INFORMATION. NO ELECTRONIC INFORMATION WAS OBTAINED. UTILITY END POINT
EOI	END OF ELECTRONIC DESIGNATING INFORMATION
EORI	END OF RECORD INFORMATION
(APPROX.)	APPROXIMATE LOCATION SHOWN. SANITARY SEWER WAS PROPOSED AT THE TIME OF PREPARING THESE PLANS AND THE SEWER HAS BEEN SHOWN ON THESE PLANS AS TAKEN FORM THE PLANS OF RECORD. FIELD VERIFY LOCATION PRIOR TO THE START OF CONSTRUCTION.

JOURNAL ENTRY: TR234 RAMP D RENAMED SR335C

SUBSEQUENT TO THE COMPLETED PLANS, TR234 RAMP D (STA. 402+09.94 TO STA. 384+20.66) AND TR234 BETWEEN TR234 RAMP D AND SR335 (STA. 26+43.58 TO STA. 38+44.54) WAS JOURNALIZED AND SHALL NOW BE REFERRED TO AS SR335C.

ITEM 614, MAINTAINING TRAFFIC

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

T.R. 234

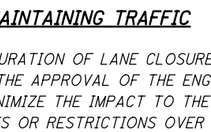
A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 30 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 26. T.R. 234 SHALL NOT BE DETOURED UNTIL THE COMPLETION OF S.R. 335 AND T.R. 234 BRIDGE OVER THE CSX RAILROAD AS SHOWN IN PART 2.

DISINCENTIVES SHALL BE ASSESSED IN THE AMOUNT OF $2000.00 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

ACCESS TO THE RESIDENTIAL DRIVES SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT, OR TEMPORARY SURFACES USING ITEMS 410 AND 615.

NOTICE OF CLOSURE SIGN

NOTICE OF CLOSURE SIGNS SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE.



W20-H14-60

ROAD CLOSED SIGN

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

T.R. 234 JUST EAST OF THE SWAUGER VALLEY-MINFORD ROAD INTERSECTION
AND T.R. 234 JUST WEST OF THE S.R. 335 INTERSECTION.

S.R. 139

USE TEMPORARY SIGNAL OR FLAGGER OPERATIONS TO STOP TRAFFIC TO ALLOW CONSTRUCTION EQUIPMENT TO CROSS S.R. 139. NO WORK ON S.R. 139 SHALL BE PERMITTED WHILE C.R. 28 IS DETOURED IN PART 5.

A MINIMUM OF ONE-LANE, TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT, ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, ITEM 615 ROADS FOR MAINTAINING TRAFFIC, AND TEMPORARY SURFACES USING ITEMS 410, AND 614. (TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWINGS MT-96.11 AND MT-96.20).

SEQUENCE OF CONSTRUCTION

PHASE 1

CONSTRUCT PAVEMENT FOR MAINTAINING TRAFFIC WITH THE USE OF A FLAGGER AND INSTALL TEMPORARY SIGNALS. SHIFT TRAFFIC TO THE SOUTH SIDE OF S.R. 139 AND CONSTRUCT CULVERT AND PAVEMENT ALONG THE NORTH SIDE OF S.R. 139. MAINTAIN ONE-LANE TWO-WAY TRAFFIC ON S.R. 139 WITH THE USE OF TEMPORARY TRAFFIC SIGNALS AS SHOWN ON SHEET 27.

PHASE 2

SHIFT TRAFFIC TO THE NORTH AND CONSTRUCT CULVERT AND PAVEMENT ON THE SOUTH SIDE OF S.R. 139. MAINTAIN ONE-LANE TWO-WAY TRAFFIC ON S.R. 139 WITH THE USE OF TEMPORARY TRAFFIC SIGNALS AS SHOWN ON SHEET 28.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

FULLY-ACTUATED OPERATION OF WORK ZONE TRAFFIC SIGNAL

THE WORK ZONE SIGNAL CONTROL REQUIRED FOR THIS PROJECT AND SHOWN ON SHEETS 27-28 AND SCDS MT-96.11, 96.20 AND 96.26 SHALL BE FULLY TRAFFIC-ACTUATED AND OPERATE IN A MANNER SIMILAR TO THAT DESCRIBED IN SECTION 733.02 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

THE INITIAL CONTROLLER TIMING SHALL BE AS FOLLOWS:

	PHASE *		
	1	2	3
INITIAL	10	10	7
VEHICLE	4	4	3
MAXIMUM	31	31	10
YELLOW	4	4	4
ALL RED	10	10	1
RECALL	ON	ON	OFF

*PHASES AS SHOWN ON SCD MT-96.26 FOR ACTUATED CONTROL +/- PROVIDE TIMING FOR THE SIGNAL LOCATION UNDER CONSIDERATION.

THE CONTRACTOR SHALL ALSO DESIGN, FURNISH, INSTALL AND MAINTAIN A TRAFFIC DETECTOR ON EACH TRAFFIC APPROACH WHICH WILL RELIABLY DETECT ALL LEGAL TRAFFIC APPROACHING (BUT NOT LEAVING) THE SIGNAL AS IT PASSES OR WAITS IN THE DESIGNATED DETECTOR ZONE SHOWN IN THE PLANS. DETECTOR DESIGNS WHICH DO NOT PROVIDE RELIABLE DETECTION, FREE FROM FALSE CALLS, SHALL BE IMMEDIATELY REPLACED BY THE CONTRACTOR.

OVERHEAD-MOUNTED WORK ZONE SIGNALS

SIGNALS SHALL BE OVERHEAD MOUNTED IN ACCORDANCE WITH THE DETAILS SHOWN ON SCD MT-96.20.

ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS. THE APPROVED LIST IS AVAILABLE AT THE "ROADWAY STANDARDS: PROPRIETARY ROADSIDE SAFETY DEVICES" WEB PAGE ON THE OFFICE OF ROADWAY ENGINEERING WEBSITE.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 614, DETOUR SIGNING

THE CONTRACTOR SHALL PROVIDE, MAINTAIN AND SUBSEQUENTLY REMOVE ALL DETOUR SIGNING AND SUPPORTS AS SHOWN ON SHEET 26 AND ON MT-101.60. ALL WORK SHALL BE PAID FOR UNDER ITEM 614, DETOUR SIGNING.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER 17501 M. GAL

EARTHWORK FOR MAINTAINING TRAFFIC

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE PLAN FOR INFORMATION ONLY:

EMBANKMENT FOR MAINTAINING TRAFFIC 50 CU. YD.

WHEN UNDERCUTS ARE NECESSARY FOR MAINLINE PAVEMENT OR EMBANKMENT CONSTRUCTION, EVALUATE THE NEED FOR TEMPORARY ROAD UNDERCUTS IF WITHIN A CLOSE PROXIMITY TO THE MAINLINE UNDERCUTS. A GEOTECHNICAL EVALUATION SHOULD BE CONSIDERED TO DETERMINE IF THE EXISTING SOIL CONDITIONS ARE ADEQUATE TO SUPPORT THE TEMPORARY ROAD. ADDITIONAL SOIL BORINGS ALONG THE TEMPORARY ROAD ARE NOT NORMALLY REQUIRED.

CALCULATED MMB CHECKED TWG

MAINTENANCE OF TRAFFIC GENERAL NOTES

SCI-823-6.81

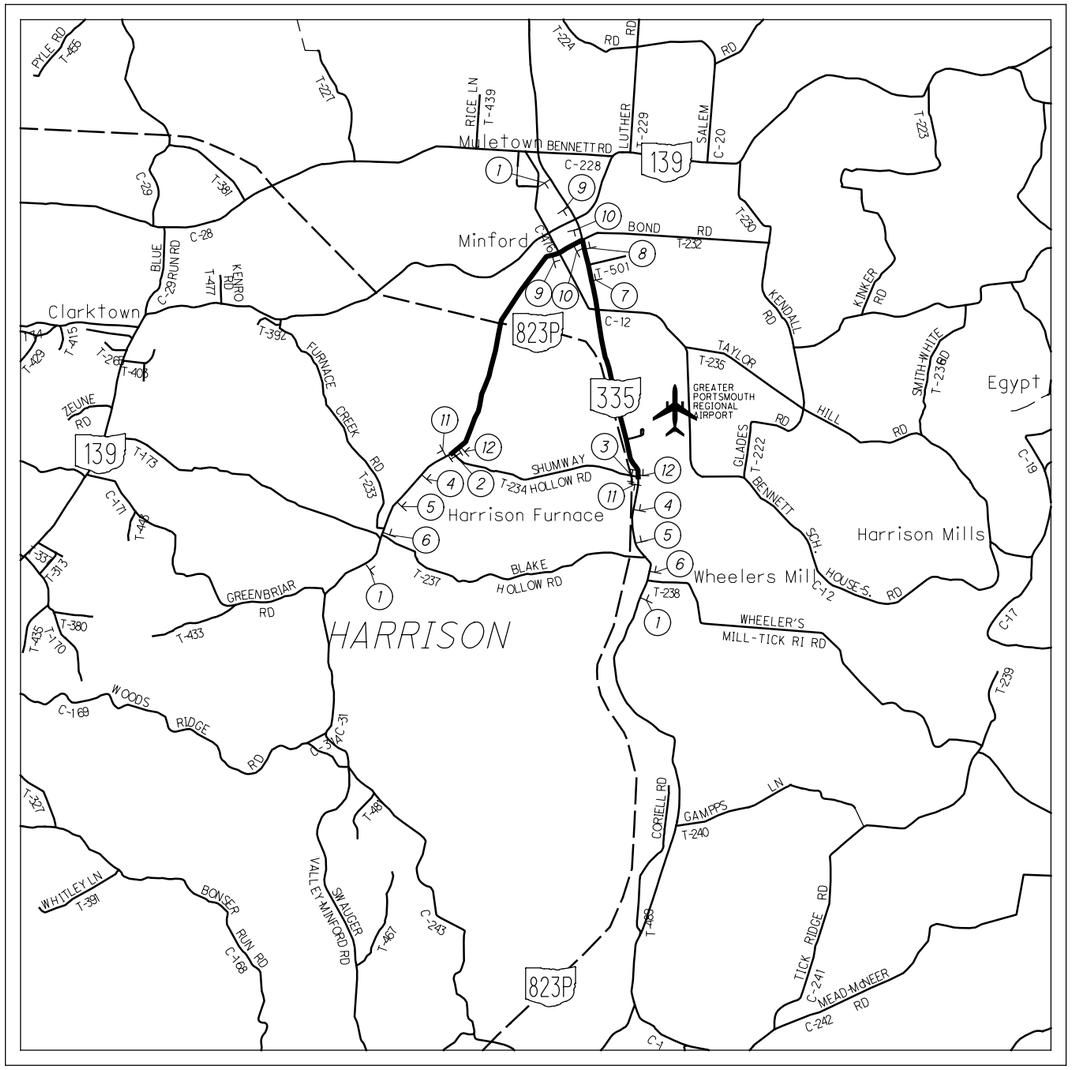
(1) ROAD CLOSED AHEAD
HARRISON 234 TOWNSHIP
W20-3-36
M1-H6B-30

TYPE B WARNING LIGHT
(2) ROAD CLOSED
DETOUR
R11-2-48
TYPE III BARRICADE
M4-10L-48

TYPE B WARNING LIGHT
(3) ROAD CLOSED
DETOUR
R11-2-48
TYPE III BARRICADE
M4-10R-48

(4) ROAD CLOSED 500 FT
HARRISON 234 TOWNSHIP
W20-3-36
M1-H6B-30

(5) ROAD CLOSED 1000 FT
HARRISON 234 TOWNSHIP
W20-3-36
M1-H6B-30



SCALE IN MILES
0 0.5 1 2

N

OFFICIAL DETOUR ROUTE

(6) DETOUR 1500 FT
W20-2-36

(7) DETOUR
HARRISON 234 TOWNSHIP
M4-8-24
M1-H6B-30
M5-1L-24

(8) DETOUR
HARRISON 234 TOWNSHIP
M4-8-24
M1-H6B-30
M6-1L-24

(9) DETOUR
HARRISON 234 TOWNSHIP
M4-8-24
M1-H6B-30
M5-1R-24

(10) DETOUR
HARRISON 234 TOWNSHIP
M4-8-24
M1-H6B-30
M6-1R-24

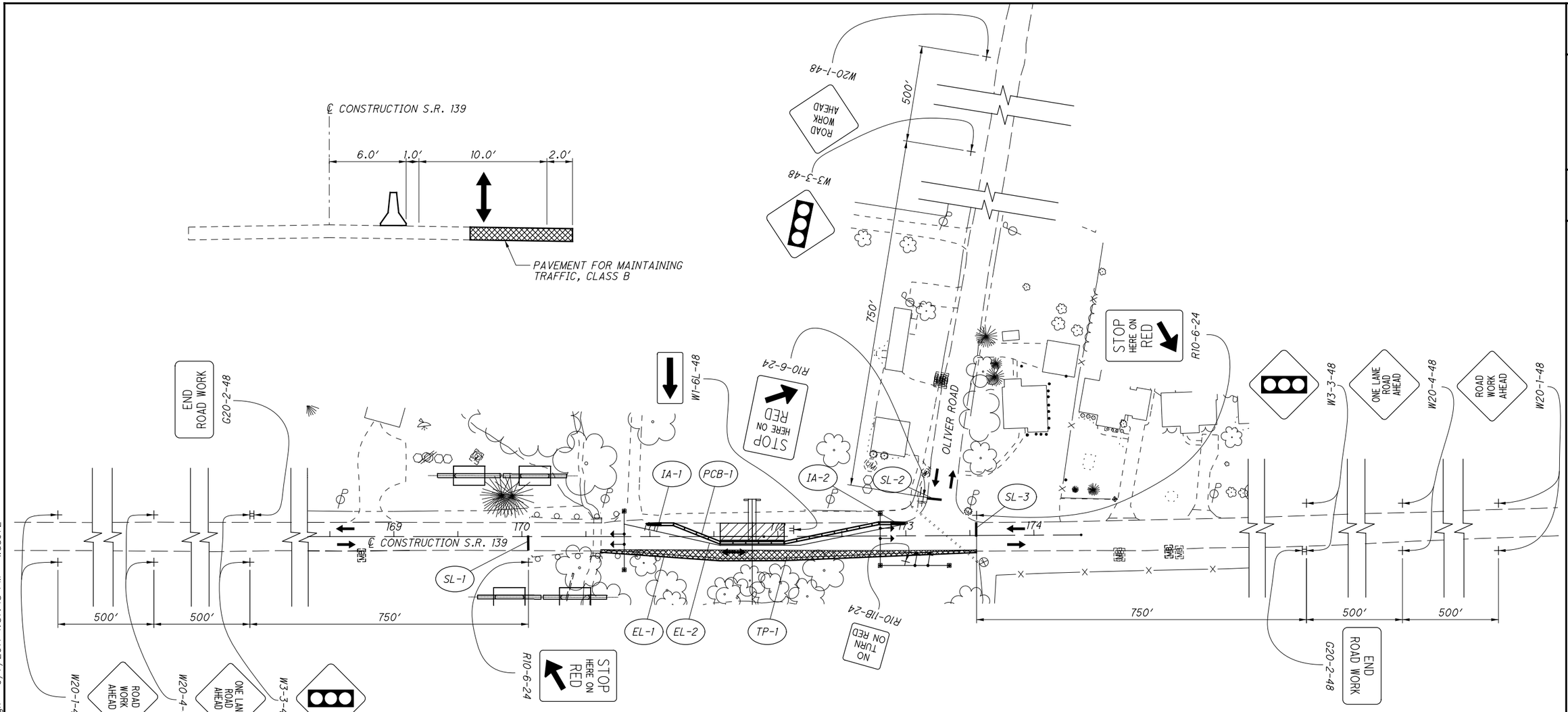
(11) END DETOUR
M4-8A-24

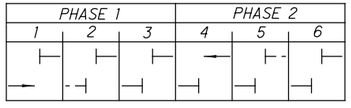
(12) DETOUR
HARRISON 234 TOWNSHIP
M4-8-24
M1-H6B-30
M6-3-24

MAINTENANCE OF TRAFFIC
T.R. 234 DETOUR

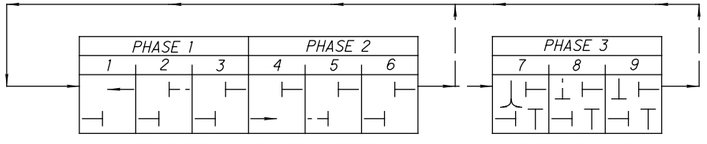
CALCULATED MMB
CHECKED TWG

SCI-823-6.81





TWO-PHASE FIXED-TIME PHASING
(MODIFIED TO INSERT AN ACTUATED PHASE ON DEMAND)



PHASING FOR ACTUATED OLIVER ROAD
INTERVALS 7, 8, & 9 SKIPPED UNLESS ACTUATED

PRETIMED CONTROL

INTERVAL	PHASE 1			PHASE 2			PHASE 3		
	1	2	3	4	5	6	7	8	9
GREEN	31			31			10		
YELLOW CHANGE		4			4			4	
ALL RED CLEARANCE			10			10			1
CYCLE LENGTH	90 SEC.								
ACTUATED CYCLE LENGTH	105 SEC.								

NOTES

1. SEE SHEET 29 FOR QUANTITIES
2. SEE SCD MT-96.11 AND MT-96.20 FOR ADDITIONAL DETAILS.

LEGEND

- 32″ PORTABLE CONCRETE BARRIER (PCB-X)
- WORK AREA
- ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B (TP-X)
- IMPACT ATTENUATOR (BI-DIRECTIONAL) (IA-X)
- DIRECTION OF TRAFFIC
- (EL-X) ITEM 614, WORK ZONE EDGE LINE (WHITE), CLASS I, 642 PAINT
- (SL-X) ITEM 614, WORK ZONE STOP LINE, CLASS I, 642 PAINT

HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED TWG
CHECKED MMB

MAINTENANCE OF TRAFFIC PLAN - S.R. 139 PHASE 1

SCI-823-6.81

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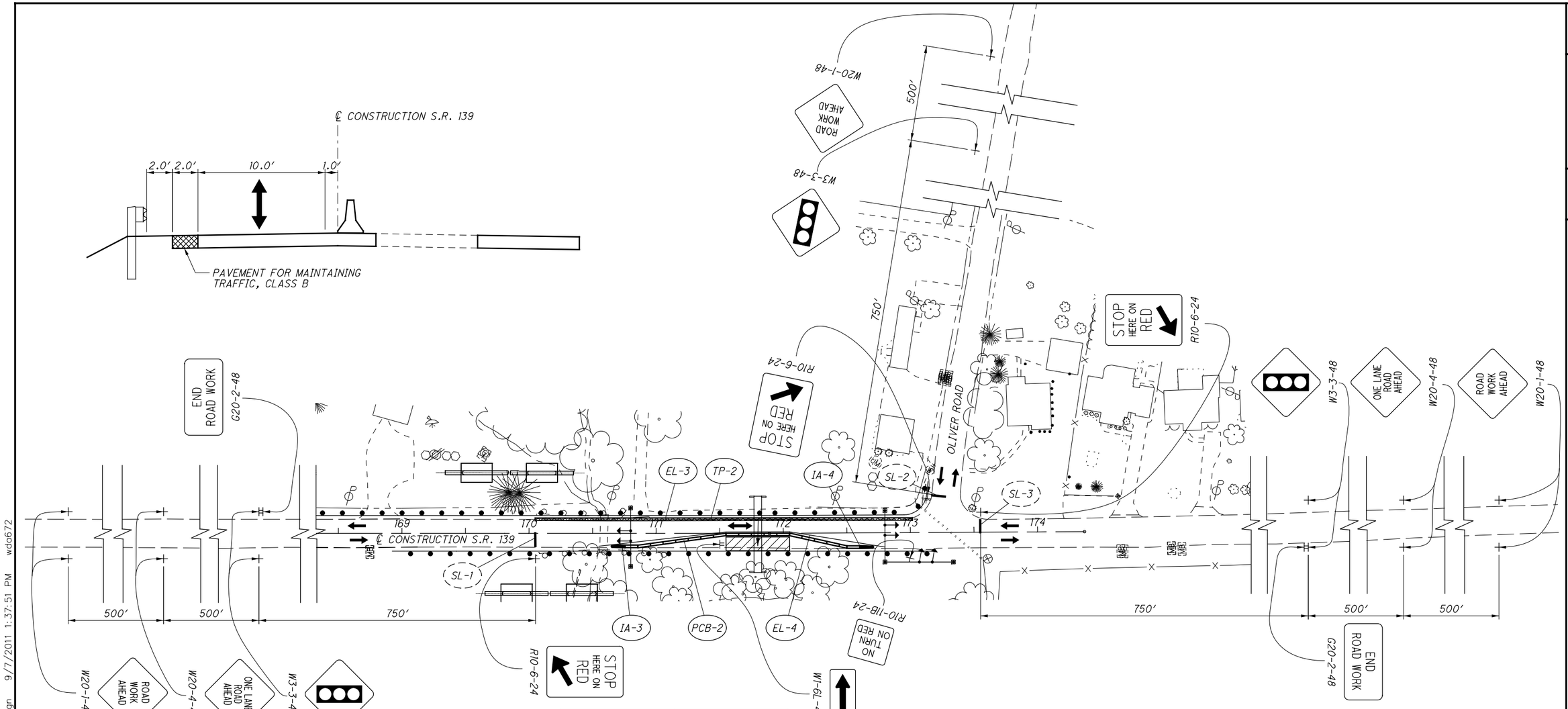

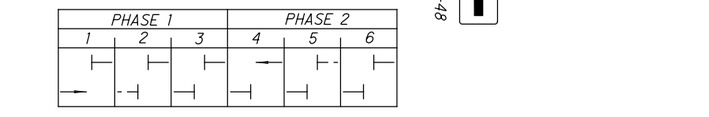

TWO-PHASE FIXED-TIME PHASING
(MODIFIED TO INSERT AN ACTUATED PHASE ON DEMAND)

PHASING FOR ACTUATED OLIVER ROAD
INTERVALS 7, 8, & 9 SKIPPED UNLESS ACTUATED

PRETIMED CONTROL

INTERVAL	PHASE 1			PHASE 2			PHASE 3		
	1	2	3	4	5	6	7	8	9
GREEN	31			31			10		
YELLOW CHANGE		4			4			4	
ALL RED CLEARANCE			10			10			1
CYCLE LENGTH	90 SEC.								
ACTUATED CYCLE LENGTH	105 SEC.								

NOTES

1. SEE SHEET 29 FOR QUANTITIES
2. SEE SCD MT-96.11 AND MT-96.20 FOR ADDITIONAL DETAILS.

LEGEND

- 32″ PORTABLE CONCRETE BARRIER (PCB-X)
- WORK AREA
- ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B (TP-X)
- IMPACT ATTENUATOR (BI-DIRECTIONAL) (IA-X)
- DIRECTION OF TRAFFIC
- (EL-X) ITEM 614, WORK ZONE EDGE LINE (WHITE), CLASS I, 642 PAINT
- (SL-X) ITEM 614, WORK ZONE STOP LINE, CLASS I, 642 PAINT

HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED TWG
CHECKED MMB

MAINTENANCE OF TRAFFIC PLAN - S.R. 139 PHASE 2

SCI-823-6.81

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REF NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	614 WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (BIDIRECTIONAL) EACH	614 WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I (WHITE) MILE	614 WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I FT	614 BARRIER REFLECTOR, TYPE B EACH	614 OBJECT MARKER, TWO-WAY EACH	614	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B SQ YD		622 PORTABLE CONCRETE BARRIER, 32" FT									
EL-1	27	170+62	173+55	RT.		0.06																
EL-2	27	170+80	173+00	LT./RT.		0.04																
EL-3	28	170+05	173+00	LT.		0.06																
EL-4	28	170+55	172+80	LT./RT.		0.04																
SL-1	27	170+05		RT.			10															
SL-2	27	173+17	173+27	LT.			10															
SL-3	27	173+55		LT.			10															
PCB-1	27	171+08	172+88	LT./RT.				4	4				180									
PCB-2	28	170+75	172+60	LT./RT.				4	4				185									
IA-1	27	171+08		LT.	1																	
IA-2	27	172+88		LT.	1																	
IA-3	28	170+75		RT.	1																	
IA-4	28	172+60		RT.	1																	
TP-1	27	170+62	173+55	RT.							182											
TP-2	28	170+05	173+00	LT.							73											
TOTALS CARRIED TO GENERAL SUMMARY					4	0.20	30	8	8		255		365									

MAINTENANCE OF TRAFFIC ESTIMATED QUANTITIES

CALCULATED TWG
CHECKED MMB

SCI-823-6.81

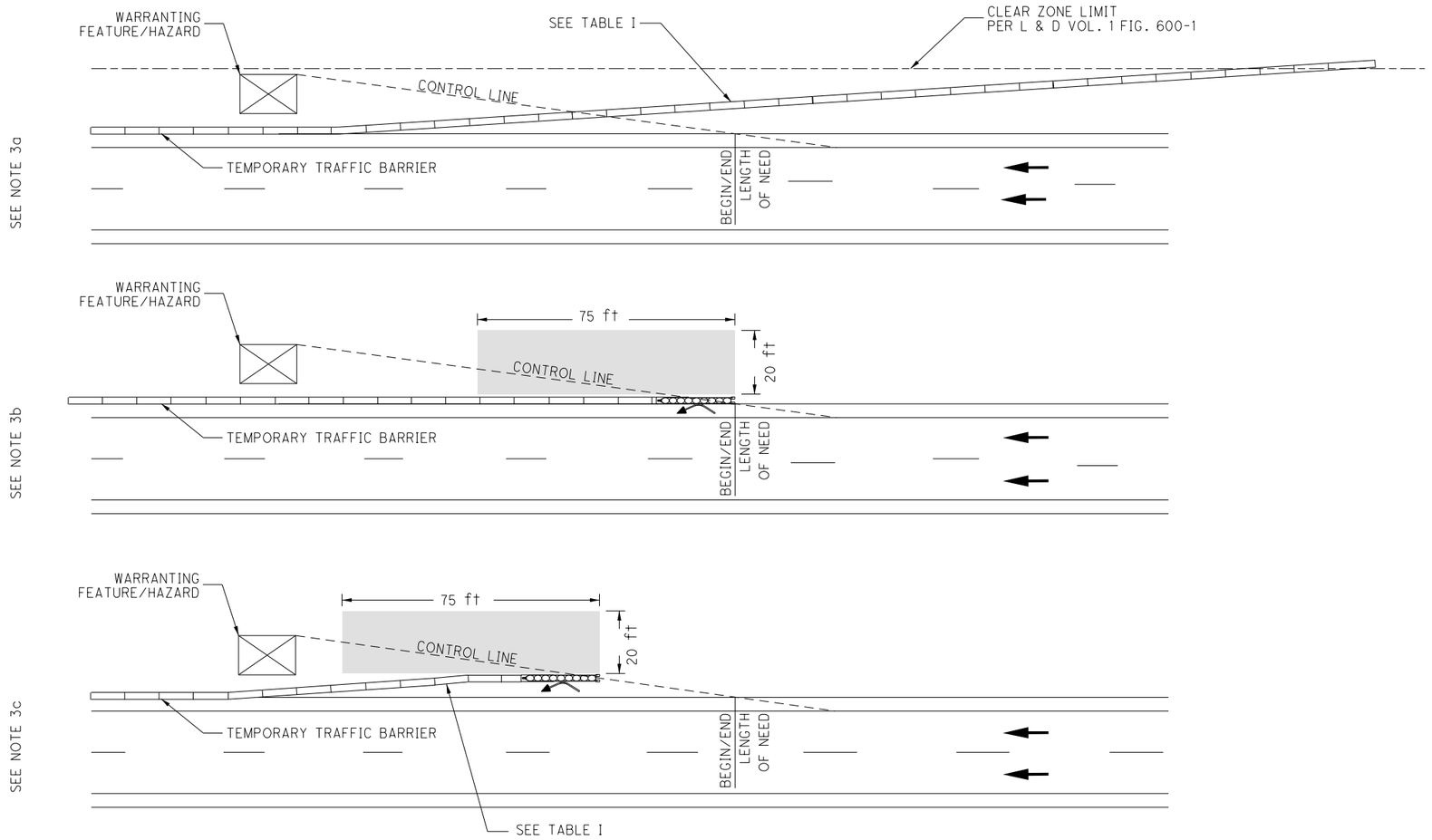

TABLE I

SPEED LIMIT (MPH)	PCB FLARE RATE MINIMUM
25	8:1
30	8:1
35	10:1
40	11:1
45	13:1
50	14:1
55	16:1
60	17:1
65	18:1

NOTES

1. Attenuators shall be installed per manufacturers' specifications.
2. Recovery area shall have slopes 3:1 or flatter and be free of workers, hazards, equipment, drop-offs, and material storage.
3. The Contractor shall select one of the three acceptable options for terminating temporary traffic barrier:
   a) Terminate flared section of temporary traffic barrier outside clear zone with tapered end only where cross slopes are 10:1 or flatter.
   b) Terminate temporary traffic barrier with an impact attenuator. A non-gating attenuator may be included in the length of need measurement.
   c) Flare a section of temporary traffic barrier to the length of need control line and terminate with an impact attenuator. A non-gating impact attenuator may be included in the flared section of temporary traffic barrier.
4. The Contractor shall submit documentation, 2 weeks prior to implementation, to the Engineer for acceptance when:
   a) Deviating from the three acceptable options for terminating temporary traffic barrier.

      Documentation shall explain any deviations and verify that the recovery area fulfills the manufacturers' specifications and note 2.

   b) Using a gating impact attenuator in lieu of a non-gating impact attenuator.

      The gating impact attenuator length shall not be included as part of the length of need or recovery area requirements. Additional temporary traffic barrier will need to be added. The additional cost for the additional barrier required for a gating impact attenuator shall be included in the cost of the gating impact attenuator.

      Documentation shall verify that the extended recovery area fulfills the manufacturers' specifications and note 2.
5. Gating impact attenuators shall not be used in gore locations or within the clear zone between bi-directional traffic.

LEGEND

RECOVERY AREA

TEMPORARY TRAFFIC BARRIER

NON-GATING IMPACT ATTENUATOR

DIRECTION OF TRAVEL

OFFICE OF TRAFFIC ENGINEERING

DESIGNED MER | REVIEWED

REVISION DATE 04/20/11 | CHECKED LAM

PIS NUMBER 2010175

PLAN INSERT SHEET

IMPACT ATTENUATOR PLACEMENT

SCI-823-6.81

1 / 1

29A
535

SHEET NUMBER																ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
OFFICE CALCS	22	34	35	36	37	38	39	40	42	44	456	472	474	479	505						
																				ROADWAY	
	LUMP															201	11000	LUMP		CLEARING AND GRUBBING	
		1														202	11004	1	EACH	STRUCTURE REMOVED	
		1	2													202	20010	3	EACH	HEADWALL REMOVED	
											18					202	23000	18	SQ YD	PAVEMENT REMOVED	
		615	5040													202	23010	5655	SQ YD	PAVEMENT REMOVED, ASPHALT	
		200	428													202	30000	628	SQ FT	WALK REMOVED	
		58	61								20					202	35100	139	FT	PIPE REMOVED, 24" AND UNDER	
		188	56													202	35200	244	FT	PIPE REMOVED, OVER 24"	
			176													202	38000	176	FT	GUARDRAIL REMOVED	
		3	5													202	53100	8	EACH	MAILBOX REMOVED	
																SPECIAL	20264000	2	EACH	PLUGGING AND VENTING GAS AND/OR OIL WELL	78
										30						SPECIAL	20270000	30	FT	FILL AND PLUG EXISTING CONDUIT	23
		11300													2432	202	75000	13732	FT	FENCE REMOVED	
															4	202	75250	4	EACH	GATE REMOVED	
		13	5													202	98100	18	EACH	REMOVAL MISC.: POST	
												3785985	795689			SPECIAL	20307504	4581674	FT	WICK DRAIN	472
												16	3			SPECIAL	20307510	19	EACH	VIBRATING WIRE PIEZOMETER, AS PER PLAN	476
						4437123										203	10000	4437123	CU YD	EXCAVATION	
					1512											203	10001	1512	CU YD	EXCAVATION, AS PER PLAN (SPECIAL BENCHING)	22
						3508843										203	20000	3508843	CU YD	EMBANKMENT	
					1512											203	20001	1512	CU YD	EMBANKMENT, AS PER PLAN (SPECIAL BENCHING)	22
												130514	39363			203	20001	169877	CU YD	EMBANKMENT, AS PER PLAN (WICK DRAIN)	472
						804236										203	48000	804236	CU YD	ROCK, AS PER PLAN	23
												16	3			SPECIAL	20365000	19	EACH	SETTLEMENT PLATFORM	476
15849																204	10000	15849	SQ YD	SUBGRADE COMPACTION	
							35173		58	28						204	13000	35259	CU YD	EXCAVATION OF SUBGRADE	
							35338									204	30020	35338	CU YD	GRANULAR MATERIAL, TYPE C	
6																204	45000	6	HOUR	PROOF ROLLING	
	20500						3491									204	50000	23991	SQ YD	GEOTEXTILE FABRIC	
																208	10000	LUMP		PRE-BLAST CONDITION SURVEY	
																208	12000	LUMP		BLASTING CONSULTANT	
																208	13000	LUMP		AIR BLAST AND NOISE CONTROL	
																208	14000	LUMP		VIBRATION CONTROL AND MONITORING	
								57492								208	15000	57492	SQ YD	PRESPLITTING	
																208	16000	LUMP		HYDROLOGIST	
			3													604	38500	3	EACH	MONUMENT ASSEMBLY	
			3437.5													606	13000	3437.5	FT	GUARDRAIL, TYPE 5	
			200													606	17290	200	FT	GUARDRAIL, TYPE 5, LONG-SPAN	
			1													606	20000	1	EACH	FLARED END SECTION	
			5													606	22010	5	EACH	ANCHOR ASSEMBLY, TYPE E-98	
			4													606	26500	4	EACH	ANCHOR ASSEMBLY, TYPE T	
			1													606	35000	1	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1	
			1													606	35100	1	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2	
				38234											2432	607	15000	40666	FT	FENCE, TYPE 47	
															4	607	50901	4	EACH	GATE, TYPE CL, AS PER PLAN	512
														8		SPECIAL	69098000	8	EACH	MISC.: SURFACE MONUMENT AND MONITORING, AS PER PLAN	479
																SPECIAL	69098400	LUMP		MISC.: SOILS CONSULTANT FOR FIELD TESTING AND INSPECTION	23

CALCULATED LBD
CHECKED KAG

GENERAL SUMMARY

SCI-823-6.81

USER: ldearnel PLOT DATE: 4/18/2012 11:26:50 AM REVISION DATE: 4/18/2012
FILE: ...\MDR_CVBMD0000000045878 /7941Sgg001.dgn MODEL: Sheet

SHEET NUMBER															ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
OFFICE CALCS		22	24	38	41	42	43	44	45	466	467	468								
																			EROSION CONTROL	
						5	8	8							601	11000	21	SQ YD	RIPRAP USING 6" REINFORCED CONCRETE SLAB	
									24						601	21050	24	SQ YD	TIED CONCRETE BLOCK MAT, TYPE 1	
					8704	98	129	24		67	11	141			601	21060	9174	SQ YD	TIED CONCRETE BLOCK MAT, TYPE 2	
		13700													601	27000	13700	CU YD	DUMPED ROCK FILL, TYPE C	
						185	57								601	32000	242	CU YD	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	
						33	20	97							601	32100	150	CU YD	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	
			214												616	10000	214	M GAL	WATER	
				15											659	00100	15	EACH	SOIL ANALYSIS TEST	
				740866											659	10000	740866	SQ YD	SEEDING AND MULCHING	
				37043											659	14000	37043	SQ YD	REPAIR SEEDING AND MULCHING	
				37043											659	15000	37043	SQ YD	INTER-SEEDING	
				103.32											659	20000	103.32	TON	COMMERCIAL FERTILIZER	
				17.01											659	31000	17.01	ACRE	LIME	
				4101											659	35000	4101	M GAL	WATER	
				1667											659	40000	1667	M SQ FT	MOWING	
					9938										670	10020	9938	SQ YD	VEGETATED SWALE EROSION PROTECTION MAT, TYPE B	
															832	15000	LUMP		STORM WATER POLLUTION PREVENTION PLAN	
															832	30000	1860000	EACH	EROSION CONTROL	
					6863										836	10000	6863	SQ YD	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 1	
					1576										836	10020	1576	SQ YD	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 2	
					585										836	10030	585	SQ YD	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 3	
										18	30	71			838	20700	119	CU YD	GABIONS	
																			DRAINAGE	
						33	20	13							602	20000	66	CU YD	CONCRETE MASONRY	
									844						603	00510	844	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
								4							603	04600	4	FT	12" CONDUIT, TYPE C	
								43							603	04900	43	FT	12" CONDUIT, TYPE D	
						1341	382								603	05900	1723	FT	15" CONDUIT, TYPE B	
						171	280								603	05901	451	FT	15" CONDUIT, TYPE B, AS PER PLAN	23
						107									603	06400	107	FT	15" CONDUIT, TYPE D	
						2033	190								603	06700	2223	FT	15" CONDUIT, TYPE F	
						375	232								603	07400	607	FT	18" CONDUIT, TYPE B	
						63									603	07401	63	FT	18" CONDUIT, TYPE B, AS PER PLAN	23
							202								603	08200	202	FT	18" CONDUIT, TYPE F	
							66								603	08900	66	FT	21" CONDUIT, TYPE B	
						103									603	10400	103	FT	24" CONDUIT, TYPE B	
							172								603	10600	172	FT	24" CONDUIT, TYPE C	
						151									603	11200	151	FT	24" CONDUIT, TYPE F	
								213							603	11700	213	FT	27" CONDUIT TYPE A, 706.02 (1000 D-LOAD)	
							192								603	11900	192	FT	27" CONDUIT, TYPE B	
							120								603	13200	120	FT	30" CONDUIT TYPE A, 706.02 (1000 D-LOAD) OR 36" 707.01 (0.109), 707.01 (AL COATED), 707.02 (0.109), 707.02 (AL COATED), 707.04, 707.21 (0.075), 707.22	
							146								603	16200	146	FT	36" CONDUIT TYPE A, 707.01 (0.109), 707.01 (AL COATED), 707.02 (0.109), 707.02 (AL COATED), 707.04, 707.21 (0.075), 707.22	
								108							603	16200	108	FT	36" CONDUIT TYPE A, 706.02 (1000 D-LOAD)	
								67							603	16400	67	FT	36" CONDUIT, TYPE B	
						669									603	20700	669	FT	48" CONDUIT TYPE A, 707.02 CFP (0.109), 707.04 CFP (0.109), 707.05 (0.109), 707.07 (0.109)	
							462								603	20700	462	FT	48" CONDUIT TYPE A, 707.01 (0.138), 707.01 (0.079 AL COATED), 707.02 (0.138), 707.02 (0.079 AL COATED), 707.04, 707.22 (0.135)	
								104							603	20700	104	FT	48" CONDUIT TYPE A, 706.02 (1000 D-LOAD)	
						254									603	22201	254	FT	54" CONDUIT TYPE A, AS PER PLAN	444
						324									603	22201	324	FT	54" CONDUIT TYPE A, AS PER PLAN	445

CALCULATED LBD
CHECKED KAG

GENERAL SUMMARY

SCI-823-6.81

SHEET NUMBER

OFFICE CALCS					22	42	43	44	45	456	492	493			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
																			DRAINAGE (CONTINUED)	
						494									603	22201	494	FT	54" CONDUIT TYPE A, AS PER PLAN	454
							350								603	22201	350	FT	54" CONDUIT TYPE A, AS PER PLAN	455
						605									603	26000	605	FT	72" CONDUIT TYPE A, 707.02 CFP (0.138), 707.03 CFP (0.188), 707.04 (0.138)	
						616									603	26000	616	FT	72" CONDUIT TYPE A, 707.04 (0.5") OR 78" CONDUIT TYPE A 707.04 (1")	
							159								603	26000	159	FT	72" CONDUIT TYPE A, 706.02 (1000 D-LOAD) OR 84" 707.02 CFP,	
																			707.03 CFP, 707.04 (1"), 707.22 CFP, 707.23 CFP	
								60							603	26000	60	FT	72" CONDUIT TYPE A, 706.02 (1000 D-LOAD)	
						612									603	27000	612	FT	78" CONDUIT TYPE A, 707.02 CFP (0.109), 707.03 CFP (0.138),	
																			707.04 (0.109, 1"), 707.23 CFP (0.150)	
							43								603	52900	43	FT	34"x53" CONDUIT TYPE A, 706.04 (1000 D-LOAD) or 57"x38" ARCH 707.21	
							1								604	00400	1	EACH	CATCH BASIN, NO. 3	
							5								604	04500	5	EACH	CATCH BASIN, NO. 2-2B	
						1	2								604	04900	3	EACH	CATCH BASIN, NO. 2-3	
								1							604	05300	1	EACH	CATCH BASIN, NO. 2-4	
						2	1								604	10100	3	EACH	INLET, SIDE DITCH	
						8	2								604	20514	10	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B1	
						6	4								604	20515	10	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B1, AS PER PLAN	465
						10									604	20524	10	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C1	
						4	3								604	20530	7	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D	
									15						604	36600	15	EACH	PRECAST REINFORCED CONCRETE OUTLET	
					5000										SPECIAL	60460000	5000	FT	TRENCH DRAIN	22
									20						605	11110	20	FT	6" SHALLOW PIPE UNDERDRAINS WITH FABRIC WRAP	
									2424						605	12210	2424	FT	6" DEEP PIPE UNDERDRAINS WITH FABRIC WRAP	
									1864						605	13500	1864	FT	6" ROCK CUT UNDERDRAINS	
									1478						605	14020	1478	FT	6" BASE PIPE UNDERDRAINS WITH FABRIC WRAP	
																			PAVEMENT	
1724															302	46000	1724	CU YD	ASPHALT CONCRETE BASE, PG64-22	
2944															304	20000	2944	CU YD	AGGREGATE BASE	
884															407	10000	884	GALLON	TACK COAT	
463															407	14000	463	GALLON	TACK COAT FOR INTERMEDIATE COURSE	
4852															408	10000	4852	GALLON	PRIME COAT	
4056															422	10000	4056	SQ YD	SINGLE CHIP SEAL	
487															442	10000	487	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)	
562															442	10100	562	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)	
										3					452	10000	3	SQ YD	6" NON-REINFORCED CONCRETE PAVEMENT	
																			TRAFFIC CONTROL	
											84				621	00100	84	EACH	RPM	
											170				622	40020	170	FT	PORTABLE CONCRETE BARRIER, 32"	
											67				626	00100	67	EACH	BARRIER REFLECTOR	
												199			630	03100	199	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
												58			630	06100	58	FT	GROUND MOUNTED SUPPORT, NO. 6 POST	
												66			630	06400	66	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7	
												4			630	08004	4	FT	ONE WAY SUPPORT, NO. 3 POST	
												14			630	08520	14	FT	STREET NAME SIGN SUPPORT, NO. 3 POST	
												9			630	08600	9	EACH	SIGN POST REFLECTOR	
												4			630	09000	4	EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION	
												175			630	80100	175	SQ FT	SIGN, FLAT SHEET	
												132			630	80200	132	SQ FT	SIGN, GROUND MOUNTED EXTRUSHEET	
												1			630	80500	1	EACH	SIGN, DOUBLE FACED, STREET NAME	
												4			630	84500	4	EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	
												2			630	84900	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
												2			630	86002	2	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
											1.07				644	00100	1.07	MILE	EDGE LINE	
											0.69				644	00300	0.69	MILE	CENTER LINE	
											420				644	00400	420	FT	CHANNELIZING LINE	
											73				644	00500	73	FT	STOP LINE	
											296				644	00700	296	FT	TRANSVERSE/DIAGONAL LINE	
											7				644	01300	7	EACH	LANE ARROW	

CALCULATED LBD
CHECKED KAG

GENERAL SUMMARY

SCI-823-6.81

USER: ldearnel PLOT DATE: 2/21/2012 9:07:12 AM REVISION DATE: 2/21/2012
FILE: ...\HDR_CV\000000000045878\79415gg003.dgn MODEL: Sheet

SHEET NUMBER															ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
OFFICE CALCS										25	29	500								
																			BUILDING DEMOLITION	
															202	56000	LUMP		BUILDING DEMOLISHED, PARCEL NO. 1-WL & 1-T, 1 OUT-BUILDING	
															202	56000	LUMP		BUILDING DEMOLISHED, PARCEL NO. 549-WL, 1.5-STORY RESIDENTIAL, 3 SHEDS	
															202	56000	LUMP		BUILDING DEMOLISHED, PARCEL NO. 517-WL, 2-STORY RES.,1 SHED, 1 OUT-BUILDING	
															202	56000	LUMP		BUILDING DEMOLISHED, PARCEL NO. 15-T & 15-WL, 1-STORY RES., 1 OUT-BUILDING	
															202	56000	LUMP		BUILDING DEMOLISHED, PARCEL NO. 22-WL, 1 RESIDENTIAL, 1 OUT-BUILDING	
															202	56000	LUMP		BUILDING DEMOLISHED, PARCEL NO. 24-WL, 1-STORY RESIDENTIAL, 1 SHED	
															202	56000	LUMP		BUILDING DEMOLISHED, PARCEL NO. 28-WL, 1-STORY RES., 1 OUT-BUILDING, 1 SHED	
															202	56000	LUMP		BUILDING DEMOLISHED, PARCEL NO. 28-T, 1-STORY RESIDENTIAL, 1 SHED	
															202	56000	LUMP		BUILDING DEMOLISHED, PARCEL NO. 27-WL, 2-STORY RESIDENTIAL, 2 SHED	
															202	56000	LUMP		BUILDING DEMOLISHED, PARCEL NO. 26-WL, 1 RES., 1 OUT-BUILDING	
															202	56000	LUMP		BUILDING DEMOLISHED, PARCEL NO. 32-WL, 1 OUT-BUILDING, 1 SHED	
															202	56000	LUMP		BUILDING DEMOLISHED, PARCEL NO. 510-WL, 1-STORY RESIDENTIAL	
															202	56000	LUMP		BUILDING DEMOLISHED, PARCEL NO. 527-WL, 1-STORY RESIDENTIAL	
															202	56000	LUMP		BUILDING DEMOLISHED, PARCEL NO. 512-WL, 1 RESIDENTIAL	
															202	56000	LUMP		BUILDING DEMOLISHED, PARCEL NO. 6-WD, 1 RESIDENTIAL	
																			STRUCTURES (CATTLE CROSSING)	
												14136			509	10000	14136	POUND	EPOXY COATED REINFORCING STEEL	
												33.14			511	46000	33.14	CU YD	CLASS C CONCRETE, RETAINING WALL OR WINGWALL	
												70.3			511	46500	70.3	CU YD	CLASS C CONCRETE, FOOTING	
												93			512	10100	93	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
												966			512	33000	966	SQ YD	TYPE 2 MEMBRANE WATERPROOFING	
												60			516	13600	60	SQ FT	1" PREFORMED EXPANSION JOINT FILLER	
												LUMP			518	21230	LUMP		POROUS BACKFILL WITH FILTER FABRIC	
												187			SPECIAL	53001300	187	FT	STRUCTURE, MISC.: 12' X 12' CATTLE CROSSING	500
																			MAINTENANCE OF TRAFFIC	
											4				614	12338	4	EACH	WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	
										LUMP					614	12420	LUMP		DETOUR SIGNING	
											8				614	13300	8	EACH	BARRIER REFLECTOR, TYPE B	
											8				614	13360	8	EACH	OBJECT MARKER, TWO WAY	
											0.2				614	22200	0.2	MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I	
											30				614	26400	30	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I	
															615	10000	LUMP		ROADS FOR MAINTAINING TRAFFIC	
											255				615	25000	255	SQ YD	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B	
										17501					616	10000	17501	M GAL	WATER	
											365				622	40020	365	FT	PORTABLE CONCRETE BARRIER, 32"	
															SPECIAL	10810000	LUMP		CPM PROGRESS SCHEDULE (PARTS 1, 2, 3, 4 AND 5)	
															614	11000	LUMP		MAINTAINING TRAFFIC (PARTS 1, 2, 3, 4 AND 5)	
															619	16020	42	MONTH	FIELD OFFICE, TYPE C (PARTS 1, 2, 3, 4 AND 5)	
															623	10000	LUMP		CONSTRUCTION LAYOUT STAKES (PARTS 1, 2, 3, 4 AND 5)	
															624	10000	LUMP		MOBILIZATION (PARTS 1, 2, 3, 4 AND 5)	

CALCULATED LBD
CHECKED KAG

GENERAL SUMMARY

SCI-823-6.81

REF. NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	202 STRUCTURE REMOVED EACH	202 HEADWALL REMOVED EACH	202 PAVEMENT REMOVED, ASPHALT SQ YD	202 WALK REMOVED SQ FT	202 PIPE REMOVED, 24" AND UNDER FT	202 PIPE REMOVED, OVER 24" FT	202 MAILBOX REMOVED EACH	202 FENCE REMOVED FT	202 REMOVAL MISC.: POST EACH
		SR823											
R-1	52	365+34.84	366+22.99	BOTH								520	
R-2	52	371+45.48	371+70.02	RT				200					
R-3	52	371+65.96	371+83.52	RT								46	
R-4	52	373+70.43	373+95.68	RT						41			
R-5	52	374+79.45	375+24.47	RT						50			
R-6	52	376+29.31	376+47.73	LT						37			
R-7	52	376+35.91	376+42.51	LT								9	
R-8	54	377+33.10	377+45.79	LT					37				
R-9	54	379+97.19	380+08.76	LT									2
R-10	54	380+18.88	380+88.17	RT								289	
R-11	54	380+54.28	393+38.55	RT								1285	
R-12	54	380+54.30	380+87.84	RT									10
R-13	56	392+82.73	393+44.98	RT								246	
R-14	56	392+96.62	393+56.88	RT								233	
R-15	56	393+50.09	394+65.65	BOTH								409	
R-16	56	393+54.33	403+09.46	RT								1099	
R-17	56	393+63.51	394+15.82	BOTH								205	
R-18	56	394+15.82	397+04.27	BOTH								592	
R-19	58	405+37.57	409+21.60	BOTH								707	
R-20	60	414+42.57	417+74.81	RT								462	
R-21	64	439+84.58	440+36.74	LT	1								
R-22	64	441+92.09		LT							1		
R-23	64	442+90.79		RT							1		
R-24	64	442+96.01		RT							1		
R-25	64	443+22.80	443+25.99	RT					21				
R-26	64	444+12.02	448+37.67	RT								627	
R-27	64	445+58.40		LT									1
R-28	66	462+10.02	467+23.35	BOTH								1717	
R-29	66	464+01.04	466+05.00	RT								297	
R-30	68	465+08.69	467+47.32	BOTH								902	
R-31	68	467+08.53		LT		1				60			
R-32	68	467+10.71	480+98.12	BOTH								1619	
R-33	68	474+78.22	474+85.91	LT								24	
R-34	68	475+42.31	475+51.86	LT								12	
R-35	78	534+92.82	536+25.96	RT			615						
TOTALS CARRIED TO GENERAL SUMMARY					1	1	615	200	58	188	3	11300	13

CALCULATED LBD
CHECKED KAG

ROADWAY SUBSUMMARY

SCI-823-6.81

USER: Cwahlbri PLOT DATE: 9/15/2011 11:56:07 AM REVISION DATE: 9/15/2011
FILE:...\HDR_CU\BRID\0000004587879415gs001.dgn MODEL: Sheet

REF. NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	202 HEADWALL REMOVED (EACH)	202 PAVEMENT REMOVED, ASPHALT (SQ YD)	202 WALK REMOVED (SQ FT)	202 PIPE REMOVED, 24" AND UNDER (FT)	202 PIPE REMOVED, OVER 24" (FT)	202 GUARDRAIL REMOVED (FT)	202 MAILBOX REMOVED (EACH)	202 REMOVAL MISC.: POST (EACH)	604 MONUMENT ASSEMBLY (EACH)	606 GUARDRAIL, TYPE 5 (FT)	606 GUARDRAIL, TYPE 5, LONG-SPAN (FT)	606 FLARED END SECTION (EACH)	606 ANCHOR ASSEMBLY, TYPE E-98 (EACH)	606 ANCHOR ASSEMBLY, TYPE T (EACH)	606 BRIDGE TERMINAL ASSEMBLY, TYPE 1 (EACH)	606 BRIDGE TERMINAL ASSEMBLY, TYPE 2 (EACH)		
		TR234	**SR823**																			
R-36	111	10+23.46	371+59.95	BOTH		4916																
		TR234																				
M-1	111	11+28.46		CL									1									
R-37	111	11+65.00		LT							1											
R-38	111	11+87.92	12+18.19	LT	2				30													
R-39	111	15+09.94	15+21.08	RT				29														
M-2	111	16+31.67		CL									1									
M-3	113	28+08.47		CL									1									
G-1	115	35+02.25	36+64.75	LT										150				1		1		
		TR234	**TR234 RAMP D**																			
G-2	111	13+37.50	385+16.50	LT										1337.5				1				
		TR234	**TR234 RAMP C**																			
G-3	111	17+77.50	383+53.94	RT										875			1					
		TR234 RAMP B	**TR234**																			
G-4	115	383+30	36+64.85	RT										375			1	1	1			
		SR139																				
R-40	117	167+37.47	167+39.96	RT							2											
G-5	117	168+17.50	173+14.85	LT										400	100	1	1	1				
R-41	117	168+67.83	168+99.78	LT				32														
R-42	117	168+74.77	168+74.89	RT							2											
G-6	117	168+92.50	173+17.50	RT										300	100		2					
R-43	117	170+07.17	170+76.65	LT						76												
R-44	117	170+07.84	171+07.80	RT						100												
R-50	117	171+55.00	172+05.00	BOTH		124																
		SR823																				
R-45	64	443+94.40	444+00.40	RT					26													
R-46	64	445+10.83	445+52.19	LT			250															
R-47	70	486+37.08	486+44.69	LT								4										
R-48	70	488+02.17		RT								1										
R-49	78	536+69.80	537+03.75	RT			178															
TOTALS CARRIED TO GENERAL SUMMARY					2	5040	428	61	56	176	5	5	3	3437.5	200	1	5	4	1	1		

CALCULATED LBD CHECKED KAG

ROADWAY SUBSUMMARY

SCI-823-6.81

USER: CWahlbri PLOT DATE: 9/15/2011 11:56:12 AM REVISION DATE: 9/15/2011
FILE:...MHDR_CV\B000000045878 /19415gs002.dgn MODEL: Sheet

REF. NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	607 FENCE, TYPE 47 FT
		SR823			
F-1	513	352+55.94	353+36.98	RT	89
F-2	513	353+36.98	363+50.06	RT	1046
F-3	513	352+52.56	364+42.96	LT	1157
F-4	513	363+50.06	371+13.83	RT	791
F-5	514	364+42.96	374+86.88	LT	1015
F-6	514	371+13.83	372+73.24	RT	194
F-7	514	372+73.24	373+66.23	RT	111
F-8	514	373+66.23	378+96.43	RT	536
F-9	514	374+86.88	377+40.05	LT	307
F-10	515	377+40.05	382+09.99	LT	473
F-11	515	378+96.43	382+54.01	RT	410
F-12	515	385+91.03	399+20.00	RT	1342
F-13	516	388+81.50	397+49.98	LT	955
F-14	516	397+49.98	403+25.04	LT	543
F-15	516	399+20.00	403+98.15	RT	534
F-16	517	403+25.04	407+79.90	LT	409
F-17	517	403+98.15	411+03.01	RT	799
F-18	517	407+79.90	414+85.02	LT	635
F-19	517	411+03.01	417+21.16	RT	701
F-20	518	414+85.02	422+05.77	LT	648
F-21	518	417+21.16	418+67.05	RT	230
F-22	518	418+67.05	425+39.48	RT	718
F-23	518	422+05.77	430+55.33	LT	793
F-24	518	425+39.48	427+97.59	RT	274
F-25	519	427+97.59	436+04.45	RT	812
F-26	519	430+55.33	438+47.13	LT	792
F-27	519	436+04.45	441+09.58	RT	506
F-28	519	438+47.13	440+15.99	LT	171
F-29		NOT USED			
F-30		NOT USED			
F-31		NOT USED			
F-32	520	445+03.69	448+30.68	LT	327
F-33		NOT USED			
F-34	520	445+76.64	450+59.94	RT	494
F-35	520	448+30.68	451+07.68	LT	278
F-36	520	450+59.94	457+81.98	RT	730
F-37	520	451+07.68	456+04.89	LT	505
F-38	521	456+04.89	461+09.06	LT	504
F-39	521	457+81.98	465+37.80	RT	766
F-40	521	461+09.06	465+50.00	LT	443
F-41A	522	465+37.80	465+50.00	RT	61
F-41B	521	463+95.00	465+50.00	RT	174
F-41C	521	463+95.00	463+95.00	RT	78
F-41D	521	463+95.00	465+50.00	RT	156
F-41E	522	465+50.00	465+50.00	RT	43
F-42	522	465+50.00	465+80.77	RT	44
F-43	522	466+19.23	466+50.00	RT	44
F-44	522	466+50.00	466+50.00	RT	66
F-45A	522	466+00.00	466+50.00	RT	115
F-45B	522	465+77.27	466+00.00	RT	114
F-45C	522	465+77.27	466+31.73	RT	55

REF. NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	607 FENCE, TYPE 47 FT
		SR823			
F-46	522	465+50.00	465+50.00	LT	170
F-47	522	465+50.00	465+80.77	LT	44
F-48	522	466+19.23	466+50.00	LT	44
F-49	522	466+50.00	466+55.77	LT	176
F-50	522	466+55.77	468+13.23	LT	158
F-51	522	468+13.23	468+73.25	LT	76
F-52	522	466+31.73	473+28.14	RT	689
F-53	522	468+73.25	474+48.63	LT	595
F-54	522	473+28.14	482+52.32	RT	880
F-55	522	474+48.63	475+72.87	LT	158
F-56	522	475+72.87	479+88.49	LT	451
F-57	523	479+88.49	483+22.12	LT	354
F-58		NOT USED			
F-59		NOT USED			
F-60		NOT USED			
F-61	523	486+89.54	487+50.09	RT	58
F-62	523	487+50.09	488+48.93	RT	107
F-63	523	488+48.93	490+59.33	RT	219
F-64		NOT USED			
F-65	523	487+65.02	490+01.94	LT	251
F-66	524	490+01.94	494+31.57	LT	446
F-67	524	490+59.33	494+01.54	RT	334
F-68	524	494+01.54	504+65.38	RT	1064
F-69	524	494+31.57	496+64.78	LT	250
F-70	524	496+64.78	499+94.98	LT	334
F-71	524	499+94.98	504+97.99	LT	506
F-72	525	504+65.38	506+84.83	RT	225
F-73	525	504+97.99	523+17.76	LT	1821
F-74	525	506+84.83	518+80.12	RT	1196
F-75	526	518+80.12	523+34.10	RT	457
F-76	526	523+17.76	529+00.29	LT	829
F-77	526	523+34.10	528+58.61	RT	631
F-78	527	528+58.61	533+15.41	RT	589
F-79	529	529+00.29	531+64.49	LT	267
F-80	529	531+64.49	535+23.17	LT	374
F-81	529	535+23.17	539+06.64	LT	433
		TR234			
F-82		NOT USED			
F-83		NOT USED			
F-84		NOT USED			
F-85		NOT USED			
F-86		NOT USED			
F-87		NOT USED			
F-88	531	20+04.26	24+70.58	LT	672
F-89	531	19+18.68	23+27.26	RT	357
F-90	531	23+27.26	24+80.23	RT	144
F-91	532	34+17.12	35+58.07	LT	141
		CR28			
F-92	533	11+20.68	14+05.52	RT	288
F-93	535	31+39.41	35+98.00	RT	459
TOTALS CARRIED TO GENERAL SUMMARY					38234

CALCULATED LBD CHECKED KAG

ROADWAY SUBSUMMARY

SCI-823-6.81

USER: CWahlbri PLOT DATE: 9/15/2011 11:56:16 AM REVISION DATE: 9/15/2011
FILE: ...\HDR_CV\000000000045878/19415gs003.dgn MODEL: Sheet

EARTHWORK & SEEDING

SHEET	203 EXC.	EMB. FOR INFO. ONLY	203 EMB.	203 ROCK	659 SEEDING & MULCHING
	CU YD	CU YD	CU YD	CU YD	SQ YD
SR823					
121	0	0	0	0	722
122	1178	8061	4434	3627	2582
123	1300	7483	5965	1518	1506
124	6083	273	273	0	1861
125	14550	0	0	0	2111
126	18565	0	0	0	2211
127	20978	0	0	0	2449
128	23266	0	0	0	2389
129	19280	0	0	0	1961
130	10828	60	60	0	1727
131	3121	12200	8894	3306	3428
132	742	26001	19332	6669	2494
133	382	21893	15141	6752	2610
134	1263	5908	5908	0	2429
135	3657	2843	2843	0	1911
136	6062	2612	2612	0	2023
137	9643	1615	1615	0	2018
138	4117	1237	1237	0	136
139	754	1556	1556	0	295
140	199	3966	2672	1294	444
141	2	9094	6225	2869	666
142	0	19167	15594	3573	934
143	0	29693	25530	4163	1294
144	0	49135	41508	7627	2722
145	0	44003	34591	9412	3850
146	0	39196	27592	11604	5200
147	0	28421	19340	9081	3622
148	0	27667	18476	9191	2615
149	0	1620	859	761	0
150	323	691	691	0	1842
151	1336	17193	10375	6818	4100
152	1737	14659	10990	3669	4133
153	1446	12451	12451	0	3695
154	634	14415	10921	3494	2843
155	267	14175	7916	6259	2568
156	329	16189	9564	6625	2389
157	0	23860	17229	6631	1622
158	0	24552	19291	5261	956
159	0	25728	21426	4302	561
160	0	28356	23516	4840	1557
161	0	40337	33662	6675	2322
162	167	53150	43602	9548	4656
163	405	76096	64777	11319	5295
164	111	45319	39168	6151	2817
165	341	95438	83165	12273	5555
166	425	86023	74398	11625	5267
167	349	78422	66926	11496	5356
168	294	76773	65359	11414	5133
169	123	78466	67173	11293	5189
170	225	81292	69927	11365	5505
171	787	93627	81059	12568	6051
172	1051	91269	79181	12088	6045
173	594	45335	39244	6091	3084
174	535	86268	73822	12446	5839
175	244	64946	53865	11081	4683
176	366	41872	33069	8803	3572
177	4052	17981	13190	4791	2351
178	14847	1750	1750	0	1028
179	31556	0	0	0	1122
180	46225	0	0	0	955
181	59393	0	0	0	1305
182	62270	0	0	0	1761
183	47173	0	0	0	2039
184	25377	1117	551	566	1917
185	13900	2019	879	1140	1394
186	29797	0	0	0	1317
187	54904	0	0	0	1267
188	81441	0	0	0	1306

EARTHWORK & SEEDING

SHEET	203 EXC.	EMB. FOR INFO. ONLY	203 EMB.	203 ROCK	659 SEEDING & MULCHING
	CU YD	CU YD	CU YD	CU YD	SQ YD
SR823					
189	51865	0	0	0	683
190	58291	0	0	0	744
191	61709	0	0	0	800
192	61058	0	0	0	855
193	56734	0	0	0	922
194	50848	0	0	0	894
195	44717	0	0	0	817
196	69463	0	0	0	1216
197	43962	0	0	0	1584
198	16059	1398	994	404	2433
199	5584	7528	5017	2511	3505
200	13744	10726	7750	2976	4507
201	21154	12091	8702	3389	4772
202	13693	15722	11757	3965	3973
203	3092	21718	16064	5654	3416
204	914	26406	19802	6604	3422
205	651	26556	21145	5411	1095
206	274	11369	9432	1937	2807
207	1884	42814	34095	8719	4533
208	874	14700	10319	4381	1994
209	2538	7877	5030	2847	1641
210	3937	3668	2094	1574	1594
211	10415	593	407	186	1117
212	27178	0	0	0	699
213	43329	0	0	0	844
214	50095	0	0	0	983
215	42541	0	0	0	1145
216	22133	345	345	0	2195
217	8049	5027	5027	0	3028
218	2087	5186	5186	0	1722
219	1629	7015	7015	0	1758
220	2363	17496	12787	4709	3377
221	1966	19630	13349	6281	4217
222	2245	25789	18692	7097	4517
223	833	30824	23377	7447	3300
224	209	31999	25237	6762	3444
225	299	40131	32944	7187	4062
226	1262	96377	82880	13497	6640
227	172	97587	82655	14932	6671
228	533	86762	74508	12254	6383
229	1410	86449	73933	12516	6806
230	1657	77173	65318	11855	6165
231	1020	70458	59022	11436	5678
232	962	61637	49633	12004	4833
233	1314	97151	82807	14344	7284
234	697	81748	66554	15194	6844
235	743	68560	51803	16757	7860
236	266	26459	18651	7808	3367
237	354	9051	5792	3259	1797
238	5354	10545	5736	4809	3473
239	5977	1562	693	869	1327
240	9610	173	173	0	1394
241	14167	0	0	0	1216
242	38011	0	0	0	2056
243	17892	3437	3437	0	1164
244	298	17262	456	16806	3493
245	723	66119	55560	10559	4966
246	379	111685	93655	18030	9394
247	714	122363	102423	19940	9961
248	624	75408	61163	14245	6850
249	661	51737	39972	11765	5472
250	681	29596	22066	7530	3183
251	5980	5180	5180	0	1406
252	22161	376	376	0	1422
253	19297	0	0	0	895
254	24771	0	0	0	766
255	28270	0	0	0	650
256	55245	0	0	0	1200

EARTHWORK & SEEDING

SHEET	203 EXC.	EMB. FOR INFO. ONLY	203 EMB.	203 ROCK	659 SEEDING & MULCHING
	CU YD	CU YD	CU YD	CU YD	SQ YD
SR823					
257	31831	234	234	0	1661
258	8517	9597	8236	1361	2921
259	795	64210	51207	13003	6261
260	268	18798	13389	5409	1995
261	6665	5872	4684	1188	2278
262	29515	0	0	0	1233
263	52855	0	0	0	811
264	75808	0	0	0	778
265	90439	0	0	0	733
266	96198	0	0	0	666
267	95662	0	0	0	628
268	95986	0	0	0	667
269	48999	0	0	0	350
270	49578	0	0	0	378
271	49308	0	0	0	406
272	46927	0	0	0	406
273	85321	0	0	0	761
274	71297	0	0	0	690
275	70945	0	0	0	595
276	84838	0	0	0	617
277	103770	0	0	0	966
278	126776	0	0	0	1539
279	149849	0	0	0	1675
280	65979	0	0	0	1673
281	82812	0	0	0	3827
282	31503	530	530	0	4228
283	738	2799	2799	0	1108
284	0	17574	8534	9040	3683
285	97	42772	29592	13180	5094
286	342	55399	42108	13291	5205
287	2080	59646	47519	12127	5856
288	1432	31238	22259	8979	2848
TOTALS CARRIED TO SHEET 38	3345745	3743605	3023498	720107	456375

ITEM 203 CALCULATIONS - EXC., APP & EMB., APP (SPECIAL BENCHING)

STATION	SIDE	END AREA SQ FT	VOLUME CU YD
416+50	RT	52	
417+00	RT	65	108
423+50	RT	60	
424+00	RT	96	144
456+00	RT	103	
456+50	RT	68	158
457+00	RT	60	119
457+50	RT	52	104
458+00	RT	52	96
458+50	RT	43	88
459+00	RT	40	77
459+50	RT	36	70
460+00	RT	33	64
460+50	RT	35	63
461+00	RT	21	52
461+50	RT	29	46
462+00	RT	22	47
462+50	RT	17	36
478+50	RT	13	
479+00	RT	9	20
479+50	RT	28	34
480+00	RT	76	96
503+00	RT	30	
503+50	RT	65	88
TOTALS CARRIED TO GENERAL SUMMARY			1512

CALCULATED BEE
CHECKED LBD

EARTHWORK AND SEEDING SUBSUMMARY

SCI-823-6.81

USER: CWahlbri PLOT DATE: 9/15/2011 11:56:22 AM REVISION DATE: 9/15/2011
FILE:...\MDR_C\000000000045878 /9415gs01.dgn MODEL: Sheet

EARTHWORK					
SHEET	203 EXC. CU YD	EMB. FOR INFO. ONLY CU YD	203 EMB. CU YD	203 ROCK CU YD	659 SEEDING & MULCHING SQ YD
TR234 RAMP A					
289	2143	0	0	0	2782
290	2258	545	545	0	2011
291	457	6714	6714	0	3466
292	0	8665	8665	0	2627
293	0	9059	9059	0	2672
294	0	10899	8125	2774	2711
295	0	16148	9789	6359	3105
296	0	22487	16322	6165	2895
297	0	28890	22584	6306	3061
298	0	32271	25863	6408	2810
299	0	8420	6877	1543	0
SUBTOTALS	4858	144098	114543	29555	28140
TR234 RAMP B					
300	0	8489	6263	2226	2481
301	0	20475	15050	5425	2950
302	390	34754	27408	7346	3761
303	658	27384	20203	7181	3872
304	158	7350	6642	708	2550
305	0	8147	8147	0	2372
306	274	3835	3835	0	2100
SUBTOTALS	1480	110434	87548	22886	20086
TR234 RAMP C					
307	5469	0	0	0	1741
308	5779	0	0	0	1160
309	2390	193	193	0	1078
310	382	6773	5059	1714	2056
311	734	15320	11214	4106	2656
312	238	21852	16552	5300	3400
313	656	13900	9492	4408	2912
314	3652	3757	3757	0	2466
315	3321	1483	1483	0	1683
316	5131	125	125	0	2779
317	4916	0	0	0	0
SUBTOTALS	32668	63403	47875	15528	21931
TR234 RAMP D					
318	11661	0	0	0	2598
319	31320	0	0	0	4053
320	39586	0	0	0	4772
321	38172	0	0	0	4717
322	34869	0	0	0	4473
323	28918	0	0	0	4022
324	19985	0	0	0	2806
325	13283	0	0	0	2139
326	9589	0	0	0	1667
327	5349	0	0	0	1227
328	1507	530	530	0	1049
329	226	4535	4014	521	1557
330	101	10007	6442	3565	2173
331	568	22321	16307	6014	3945
332	289	26224	20164	6060	2489
SUBTOTALS	235423	63617	47457	16160	43687

EARTHWORK					
SHEET	203 EXC. CU YD	EMB. FOR INFO. ONLY CU YD	203 EMB. CU YD	203 ROCK CU YD	659 SEEDING & MULCHING SQ YD
CR28 RAMP A					
333	28781	0	0	0	875
334	39036	0	0	0	978
335	29230	0	0	0	1917
336	14680	0	0	0	1957
337	7380	0	0	0	1967
338	1091	1028	1028	0	2362
339	447	3435	3435	0	2583
340	294	5109	5109	0	2410
341	340	5146	5146	0	1794
342	108	1554	1554	0	428
SUBTOTALS	121387	16272	16272	0	17271
CR28 RAMP B					
343	1463	1	1	0	1812
344	2338	312	312	0	2493
345	32	2211	2211	0	292
SUBTOTALS	3833	2524	2524	0	4597
CR28 RAMP C					
346	2513	1334	1334	0	3299
347	7899	358	358	0	3144
348	15312	69	69	0	3356
349	1519	2764	2764	0	2155
350	0	3417	3417	0	154
SUBTOTALS	27243	7942	7942	0	12108
CR28 RAMP D					
351	32245	0	0	0	1287
352	53579	0	0	0	1912
353	48947	0	0	0	2828
354	32028	0	0	0	2484
355	19704	0	0	0	2545
356	2389	1436	1436	0	1946
357	2441	441	441	0	2175
358	5079	1814	1814	0	4672
359	4968	2257	2257	0	4128
360	3690	1982	1982	0	3006
361	2216	2995	2995	0	2911
362	632	4174	4174	0	2206
363	625	3968	3968	0	1983
364	167	4974	4974	0	2089
365	80	2060	2060	0	0
SUBTOTALS	208790	26101	26101	0	36172

TOTALS	203 EXC.	203 EMB.	203 ROCK	659 SEEDING & MULCHING	SEE SHT
SR823	3345745	3023498	720107	456375	37
TR234 RAMP A	4858	114543	29555	28140	38
TR234 RAMP B	1480	87548	22886	20086	38
TR234 RAMP C	32668	47875	15528	21931	38
TR234 RAMP D	235423	47457	16160	43687	38
CR28 RAMP A	121387	16272	0	17271	38
CR28 RAMP B	3833	2524	0	4597	38
CR28 RAMP C	27243	7942	0	12108	38
CR28 RAMP D	208790	26101	0	36172	38
TR234	438697	24272	0	64299	38
SR139	576	792	0	2501	38
CR28 (DITCH 16+50 TO 18+00)	801	1042	0	1581	485
AIRPORT BEACON	2416	1104	0	2731	38
CATTLE CROSSING	39	27352	0	3911	38
BRIDGE NO. SCI-823-0837 L&R	0	38265	0	7720	
BRIDGE NO. SCI-823-0917 L&R	0	37615	0	6675	
DRIVEWAY (OLIVER ROAD)	165	56	0	306	456
BMP BASIN (SR823)	400	1379	0	2270	466
BMP BASIN (CR28 RAMPS A&B)	2033	279	0	2165	467
BMP BASIN (CR28 RAMPS C&D)	10569	2927	0	6340	468
TOTALS CARRIED TO GENERAL SUMMARY	4437123	3508843	804236	740866	

EARTHWORK					
SHEET	203 EXC. CU YD	EMB. FOR INFO. ONLY CU YD	203 EMB. CU YD	203 ROCK CU YD	659 SEEDING & MULCHING SQ YD
TR234					
366	2644	23	23	0	1942
367	5174	30	30	0	2072
368	6073	64	64	0	3064
369	12844	300	300	0	3925
370	10503	350	350	0	3245
371	15710	180	180	0	3900
372	21672	18	18	0	3917
373	22220	0	0	0	3873
374	37125	0	0	0	4228
375	50276	0	0	0	4384
376	48467	0	0	0	4069
377	21609	0	0	0	1881
378	38224	0	0	0	3453
379	37350	0	0	0	3292
380	39808	0	0	0	2759
381	26848	0	0	0	1895
382	32282	0	0	0	2973
383	8752	0	0	0	1210
384	623	4155	4155	0	3954
385	446	15195	15195	0	4263
386	47	3957	3957	0	0
SUBTOTALS	438697	24272	24272	0	64299
SR139					
387	111	38	38	0	867
388	135	374	374	0	1044
389	240	316	316	0	432
390	90	64	64	0	158
SUBTOTALS	576	792	792	0	2501
AIRPORT BEACON					
391	43	431	431	0	333
392	63	11	11	0	136
393	4	59	59	0	60
394	54	37	37	0	105
395	625	0	0	0	460
396	1257	0	0	0	759
397	138	140	140	0	277
398	0	326	326	0	263
399	232	100	100	0	338
SUBTOTALS	2416	1104	1104	0	2731
CATTLE CROSSING					
495	5	1077	1077	0	1146
496	34	8677	8677	0	1623
497	0	6808	6808	0	222
498	0	7711	7711	0	920
499	0	3079	3079	0	0
SUBTOTALS	39	27352	27352	0	3911

SEEDING CALCULATIONS		
659, SOIL ANALYSIS TEST	15	EACH
659, SEEDING & MULCHING	740866	SQ YD
659, REPAIR SEEDING & MULCHING	37043	SQ YD
659, INTER-SEEDING	37043	SQ YD
659, COMMERCIAL FERTILIZER	103.32	TON
659, LIME	17.01	ACRES
659, WATER	4101	M GAL
659, MOWING	1667	M SQ FT

TOTALS CARRIED TO GENERAL SUMMARY

CALCULATED BEE CHECKED LBD

EARTHWORK AND SEEDING SUBSUMMARY

SCI-823-6.81

USER: Cwahlbri PLOT DATE: 9/15/2011 11:56:30 AM REVISION DATE: 9/15/2011 MODEL: Sheet
FILE: ...4\HDR_Cv\BRI0000000045878 /9415gs102.dgn

ITEM 204 CALCULATIONS

STATION	CUT END AREA	FILL END AREA	WIDTH	204 EXC. OF SUBGRADE	204 GRAN. MAT. TYPE C	204 GEOTEXTILE FABRIC
	SQ FT	SQ FT	FT	CU YD	CU YD	SQ YD
SR823						
416+00	59					
416+50	116			162	162	
417+00	159			255	255	
417+50	159			294	294	
418+00	159			294	294	
418+50	159			294	294	
419+00	159			294	294	
419+50	159			294	294	
420+00	159			294	294	
420+50	159			294	294	
421+00	159			294	294	
421+50	159			294	294	
422+00	159			294	294	
422+50	159			294	294	
423+00	159			294	294	
423+50	107			246	246	
424+00	124			214	214	
424+50	159			262	262	
425+00	159			294	294	
425+50	159			294	294	
426+00	159			294	294	
426+50	159			294	294	
427+00	158			294	294	
427+50	158			293	293	
428+00	158			293	293	
428+50	157			292	292	
429+00	155			289	289	
429+50	154			286	286	
430+00	152			283	283	
430+50	150			280	280	
431+00	149			277	277	
431+50	147			274	274	
432+00	146			271	271	
432+50	144			269	269	
433+00	143			266	266	
433+50	124			247	247	
SUBTOTALS				9762	9762	0
436+00	53					
436+50	74			118	118	
437+00	85			147	147	
437+50	87			159	159	
438+00	70			145	145	
SUBTOTALS				569	569	0
450+50	116					
451+00	140			237	237	
451+50	140			259	259	
452+00	140			259	259	
452+50	140			259	259	
453+00	140			259	259	
453+50	140			259	259	
454+00	140			259	259	
454+50	140			259	259	
455+00	140			259	259	
455+50	140			259	259	
456+00	135			255	255	
456+50	91			209	209	
SUBTOTALS				3034	3034	0

ITEM 204 CALCULATIONS

STATION	CUT END AREA	FILL END AREA	WIDTH	204 EXC. OF SUBGRADE	204 GRAN. MAT. TYPE C	204 GEOTEXTILE FABRIC
	SQ FT	SQ FT	FT	CU YD	CU YD	SQ YD
SR823						
480+00	140					
480+50	140			259	259	
481+00	146			265	265	
481+50	146			270	270	
482+00	146			270	270	
482+50	146			270	270	
SUBTOTALS				1335	1335	0
498+50	146					
499+00	146			270	270	
499+50	146			270	270	
500+00	146			270	270	
500+50	146			270	270	
501+00	146			270	270	
501+50	146			270	270	
502+00	146			270	270	
502+50	146			270	270	
503+00	146			270	270	
SUBTOTALS				2433	2433	0
508+50	151					
509+00	152			281	281	
509+50	148			278	278	
510+00	149			275	275	
510+50	154			281	281	
511+00	155			286	286	
511+50	157			289	289	
512+00	158			292	292	
512+50	160			294	294	
513+00	161			297	297	
513+50	163			300	300	
514+00	172			310	310	
514+50	181			327	327	
515+00	182			336	336	
515+50	184			339	339	
516+00	185			342	342	
516+50	187			344	344	
517+00	188			347	347	
517+50	191			351	351	
518+00	194			356	356	
518+50	198			363	363	
519+00	203			371	371	
519+50	202			375	375	
520+00	207			379	379	
520+50	213			389	389	
521+00	219			400	400	
521+50	227			413	413	
522+00	219			413	413	
522+50	228			414	414	
523+00	224			419	419	
523+50	224			415	415	
524+00	224			415	415	
524+50	224			415	415	
525+00	140			337	337	
525+50	140			259	259	
526+00	140			259	259	
526+50	140			259	259	
527+00	140			259	259	
SUBTOTALS				12479	12479	0
TR234 RAMP C						
382+75	56		28			
383+00	56		28	52	52	78
383+50	62		31	109	109	164
SUBTOTALS				161	161	242

ITEM 204 CALCULATIONS

STATION	CUT END AREA	FILL END AREA	WIDTH	204 EXC. OF SUBGRADE	204 GRAN. MAT. TYPE C	204 GEOTEXTILE FABRIC
	SQ FT	SQ FT	FT	CU YD	CU YD	SQ YD
TR234 RAMP D						
384+50	56					
385+00	56			104	104	
385+50	54			102	102	
386+00	54			100	100	
386+50	54			100	100	
387+00	54			100	100	
SUBTOTALS				506	506	0
CR28 RAMP A						
525+00	42					
525+50	42			78	78	
526+00	42			78	78	
526+50	42			78	78	
527+00	42			78	78	
527+50	42			78	78	
528+00	42			78	78	
SUBTOTALS				467	467	0
CR28 RAMP D						
524+50	42					
525+00	42			78	78	
525+50	42			78	78	
526+00	42			78	78	
526+50	42			78	78	
527+00	42			78	78	
527+50	42			78	78	
528+00	42			78	78	
SUBTOTALS				544	544	0
TR234						
10+90 (SOIL)	67	1	23			
11+50 (SOIL)	72	2	25	154	158	160
12+00 (SOIL)	78	2	27	139	143	144
12+50 (SOIL)	81	3	28	147	152	153
13+00 (SOIL)	72	15	29	142	158	158
13+50 (SOIL)	54	35	30	117	163	164
14+00 (SOIL)	58	31	30	104	165	167
SUBTOTALS				803	938	946
18+00	42					
18+50	41			77	77	
19+00	41			76	76	
19+50	42			77	77	
20+00	43			79	79	
20+50	44			81	81	
21+00	44			81	81	
21+50	46			83	83	
22+00	49			88	88	
22+50	51			93	93	
23+00	54			97	97	
23+50	57			103	103	
24+00	60			108	108	
24+50	62			113	113	
25+00	64			117	117	
25+50	70			124	124	
26+00 (SOIL)	120		60	176	176	
26+50 (SOIL)	102		51	206	206	308
27+00 (SOIL)	83		41	171	171	256
27+50 (SOIL)	78		39	149	149	222
28+00 (SOIL)	78		39	144	144	217
28+50 (SOIL)	78		39	144	144	217
29+00 (SOIL)	78		39	144	144	217
29+50 (SOIL)	78		39	144	144	217
30+00 (SOIL)	78		39	144	144	217
30+50 (SOIL)	78		39	144	144	217
31+00 (SOIL)	46	32	39	115	144	217
SUBTOTALS				3080	3109	2303
TOTALS CARRIED TO GENERAL SUMMARY				35173	35338	3491

CALCULATED SRD
CHECKED LBD

ROCK UNDERCUT SUBSUMMARY

SCI-823-6.81

USER: CWahlbri PLOT DATE: 9/15/2011 11:56:38 AM REVISION DATE: 9/15/2011 MODEL: Sheet
FILE:...\HDR.CdD000000045878 /9415gs03.dgn

ITEM 208 CALCULATIONS - PRESPLITTING

STATION	SIDE	LENGTH FT	AREA SQ YD	SIDE	LENGTH FT	AREA SQ YD
SR823						
416+00	LT	7				
416+50	LT	20	75			
417+00	LT	30	139			
417+50	LT	33	175			
418+00	LT	33	183			
418+50	LT	32	181	RT	7	
419+00	LT	32	178	RT	18	69
419+50	LT	32	178	RT	29	131
420+00	LT	32	178	RT	29	161
420+50	LT	32	178	RT	30	164
421+00	LT	33	181	RT	24	150
421+50	LT	33	183	RT	16	111
422+00	LT	34	186	RT	7	64
422+50	LT	35	192			
423+00	LT	36	197			
423+50	LT	40	211			
424+00	LT	33	203			
424+50	LT	42	208			
425+00	LT	43	236			
425+50	LT	51	261	RT	22	
426+00	LT	59	306	RT	28	139
426+50	LT	72	364	RT	42	194
427+00	LT	81	425	RT	59	281
427+50	LT	85	461	RT	64	342
428+00	LT	89	483	RT	66	361
428+50	LT	92	503	RT	84	417
429+00	LT	89	503	RT	75	442
429+50	LT	89	494	RT	70	403
430+00	LT	85	483	RT	73	397
430+50	LT	76	447	RT	71	400
431+00	LT	70	406	RT	64	375
431+50	LT	71	392	RT	57	336
432+00	LT	71	394	RT	54	308
432+50	LT	67	383	RT	23	214
433+00	LT	49	322			
433+50	LT	35	233			
434+00	LT	16	142			
SUBTOTALS			10264			5458
448+50	LT	15				
449+00	LT	11	72			
449+50	LT	10	58			
450+00	LT	12	61	RT	12	
450+50				RT	31	119
451+00				RT	40	197
451+50	LT	7		RT	46	239
452+00	LT	29	100	RT	45	253
452+50	LT	24	147	RT	38	231
453+00	LT	42	183	RT	29	186
453+50	LT	41	231	RT	16	125
454+00	LT	41	228	RT	14	83
454+50	LT	40	225	RT	6	56
455+00	LT	39	219			
455+50	LT	38	214			
456+00	LT	25	175			
456+50	LT	24	136			
457+00	LT	23	131			
457+50	LT	17	111			
458+00	LT	15	89			
458+50	LT	11	72			
459+00	LT	8	53			
459+50	LT	16	67			
SUBTOTALS			2572			1489

ITEM 208 CALCULATIONS - PRESPLITTING

STATION	SIDE	LENGTH FT	AREA SQ YD	SIDE	LENGTH FT	AREA SQ YD
SR823						
479+00	LT	6				
479+50	LT	24	83			
480+00	LT	46	194			
480+50	LT	62	300			
481+00	LT	80	394			
481+50	LT	82	450			
482+00	LT	63	403			
482+50	LT	30	258			
SUBTOTALS			2083			0
498+00	LT	16				
498+50	LT	29	125			
499+00	LT	49	217			
499+50	LT	67	322			
500+00	LT	84	419			
500+50	LT	102	517			
501+00	LT	121	619			
501+50	LT	107	633			
502+00	LT	85	533			
502+50	LT	56	392			
503+00	LT	32	244			
SUBTOTALS			4022			0
508+50	LT	17				
509+00	LT	22	108			
509+50	LT	39	169	RT	68	
510+00	LT	68	297	RT	72	389
510+50	LT	75	397	RT	85	436
511+00	LT	97	478	RT	91	489
511+50	LT	98	542	RT	94	514
512+00	LT	103	558	RT	92	517
512+50	LT	102	569	RT	90	506
513+00	LT	100	561	RT	89	497
513+50	LT	99	553	RT	81	472
514+00	LT	98	547	RT	77	439
514+50	LT	96	539	RT	76	425
515+00	LT	95	531	RT	78	428
515+50	LT	94	525	RT	83	447
516+00	LT	93	519	RT	89	478
516+50	LT	93	517	RT	89	494
517+00	LT	89	506	RT	87	489
517+50	LT	88	492	RT	85	478
518+00	LT	85	481	RT	91	489
518+50	LT	82	464			
519+00	LT	76	439			
519+50	LT	73	414			
520+00	LT	68	392			
520+50	LT	70	383			
521+00	LT	73	397			
521+50	LT	75	411			
522+00	LT	79	428	RT	81	
522+50	LT	82	447	RT	72	425
523+00	LT	83	458	RT	77	414
523+50	LT	85	467	RT	84	447
524+00	LT	89	483	RT	79	453
524+50	LT	91	500	RT	71	417
RAMP D / RAMP A	LT	89	155	RT	66	473
SUBTOTALS			14727			10614

ITEM 208 CALCULATIONS - PRESPLITTING

STATION	SIDE	LENGTH FT	AREA SQ YD	SIDE	LENGTH FT	AREA SQ YD
TR234 RAMP D						
384+50	LT	32				
385+00	LT	32	178			
385+50	LT	32	178			
386+00	LT	30	172			
386+50	LT	38	189			
SUBTOTALS			717			0
CR28 RAMP A						
525+00				RT	66	
525+50				RT	55	336
526+00				RT	46	281
526+50				RT	30	211
SUBTOTALS			0			828
CR28 RAMP D						
524+50	LT	89				
525+00	LT	88	492			
525+50	LT	82	472			
526+00	LT	77	442			
526+50	LT	38	319			
SUBTOTALS			1725			0
TR234						
10+50				RT	34	
11+00				RT	37	197
11+50				RT	46	231
12+00				RT	46	256
12+50				RT	45	253
13+00				RT	34	219
13+50				RT	29	175
SUBTOTALS			0			1331
19+50	LT	4				
20+00	LT	5	25	RT	6	
20+50	LT	5	28	RT	7	36
21+00	LT	10	42	RT	7	39
21+50	LT	13	64	RT	6	36
22+00	LT	16	81	RT	7	36
22+50	LT	19	97	RT	7	39
23+00	LT	23	117	RT	8	42
23+50	LT	24	131	RT	9	47
24+00	LT	24	133	RT	10	53
24+50	LT	26	139			
25+00	LT	27	147			
25+50	LT	29	156			
26+00	LT	34	175			
SUBTOTALS			1333			328
TOTALS			37444			20048

TOTAL CARRIED TO GENERAL SUMMARY 57492 SQ YD

CALCULATED SRD CHECKED LBD

PRESPLITTING SUBSUMMARY

SCI-823-6.81

REF. NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	601 TIED CONCRETE BLOCK MAT, TYPE 2 SQ YD	670 VEGETATED SWALE EROSION PROTECTION MAT, TYPE B SQ YD	836 SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 1 SQ YD	836 SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 2 SQ YD	836 SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 3 SQ YD
		SR823							
E-1	50	353+50	353+80	LT	52				
E-2	50	353+95	354+50	LT	115				
E-3	50	353+00	353+83	RT	143				
E-4	50	353+93	354+97	RT	178				
E-5	50	354+50	363+00	LT		1370			
E-6	50	363+00	364+60	LT	254				
E-7	50	361+50	363+98	RT	375				
E-8	52	364+69	366+00	LT	208				
E-9	54	384+80	386+00	LT		290			
E-10	58	422+92	407+50	LT		644			
E-11	58	407+50	408+50	LT	147				
E-12	58	412+95	413+45	LT		80			
E-13	58	413+57	415+50	LT	305				
E-14	60	417+20	417+55	RT	306				
E-15	60	422+92	423+46	RT	105				
E-16	62	434+00	440+57	LT	1136				
E-17	62	433+00	435+50	RT		403			
E-18	62	438+50	442+60	RT	690				
E-19	64	443+55	447+50	LT	610				
E-20	64	447+50	448+62	LT					182
E-21	64	444+10	448+00	RT	477				
E-22	64	448+00	450+00	RT		244			
E-23	66	463+00	464+00	LT		161			
E-24	66	464+00	465+50	LT	280				
E-25	68	466+54	467+15	LT	102				
E-26	68	467+30	469+50	LT	274				
E-27	68	472+00	474+00	LT	256				
E-28	68	474+00	474+90	LT			161		
E-29	68	476+00	477+00	LT		122			
E-30	70	482+53	484+75	LT	303				
E-31	70	485+32	488+50	RT			483		
E-32	72	490+00	494+50	LT			765		
E-33	72	494+50	497+50	LT	397				
E-34	72	490+00	492+00	RT			167		
E-35	72	492+00	496+00	RT		333			
E-36		**NOT USED**							
E-37		**NOT USED**							
E-38		**NOT USED**							
E-39		502+59	503+28	RT	156				
E-40		504+00	504+67	LT	101				
E-41	74	504+81	508+00	LT	412				
E-42	74	503+79	507+50	RT	426				
E-43	78	529+50	531+50	RT		244			
E-44	78	532+25	535+46	RT			524		
E-45	52	366+00	366+50	LT			81		
		TR234 RAMP A							
E-46	80	387+00	390+00	LT			483		
E-47	80	390+00	396+00	LT		967			
		TR234 RAMP B							
E-48	84	374+20	375+50	RT	160				
E-49	86	375+50	377+00	RT		183			
E-50	88	374+00	375+50	LT		242			
E-51	90	375+50	376+50	LT			161		
E-52	90	376+50	379+00	LT	548				
E-53	90	379+00	384+00	LT				886	
E-54	90	379+00	383+75	RT			765		
		TR234 RAMP D							
E-55	94	396+00	401+50	LT		886			
E-56	94	401+50	402+50	LT			161		
E-57	94	402+50	403+04	LT	68				
E-58	94	394+50	398+50	RT		644			
		CR28 RAMP A							
E-59	100	529+00	534+50	RT		886			
E-60	100	529+50	532+00	LT		403			
		CR28 RAMP B							
E-61	102	524+46	526+93	RT		363			
		CR28 RAMP C							
E-62	104	517+38	523+89	LT			1023		
		CR28 RAMP D							
E-63	107	530+50	537+00	LT			1450		
E-64	109	537+00	539+00	LT				400	
E-65	109	532+00	533+50	RT		125			
		TR234							
E-66	111	11+00	13+50	LT					403
E-67	111	14+00	17+00	RT		540			
E-68	113	31+00	32+50	LT		183			
E-69	113	31+00	32+85	RT		224			
E-70	115	35+65	36+45	LT	120				
		SR139							
E-71	117	167+89	169+88	LT		400			
E-72	117	169+88	171+66	LT				290	
		CR28							
E-73	104	16+31	18+35	RT			639		
TOTALS CARRIED TO GENERAL SUMMARY					8704	9938	6863	1576	585

CALCULATED LBD CHECKED KAG

EROSION CONTROL SUBSUMMARY

SCI-823-6.81

USER: Cwahlbri PLOT DATE: 9/15/2011 11:56:50 AM REVISION DATE: 9/15/2011
FILE:...\ANDR_CU\DGN\0000000045878 /7941Sd601.dgn MODEL: Sheet

DRAINAGE SUBSUMMARY

CALCULATED LBD
CHECKED KAG

REF. NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	204 EXCAVATION OF SUBGRADE	601 RIPRAP USING 6" REINFORCED CONCRETE SLAB	601 TIED CONCRETE BLOCK MAT, TYPE 2	601 ROCK CHANNEL PROTECTION, TYPE A WITH FABRIC FILTER	601 ROCK CHANNEL PROTECTION, TYPE B WITH FABRIC FILTER	602 CONCRETE MASONRY	603 15" CONDUIT, TYPE B	603 15" CONDUIT, TYPE B, AS PER PLAN	603 15" CONDUIT, TYPE D	603 15" CONDUIT, TYPE F	603 18" CONDUIT, TYPE B	603 18" CONDUIT, TYPE B, AS PER PLAN	603 24" CONDUIT, TYPE B	603 24" CONDUIT, TYPE F	603 48" CONDUIT TYPE A, 707.02 CFP (0.109), 707.04 CFP (0.109), 707.05 (0.109), 707.07 (0.109)	603 54" CONDUIT TYPE A, 707.01 (0.138 AL), 707.02 (0.138 AL), 707.02 CFP, 707.04 (0.5"), 707.04 (1"), 707.05 (0.109 AL COATED), 707.07 (0.109 AL COATED), 707.21 CFP (0.105)	603 54" CONDUIT TYPE A, 707.01 (0.138 AL), 707.02 (0.138 AL), 707.02 CFP, 707.04 (0.079, 0.5"), 707.04 (1"), 707.05 (0.109 AL COATED), 707.07 (0.109 AL COATED), 707.21 CFP (0.135)	603 54" CONDUIT TYPE A, 707.01 (0.138 AL), 707.02 (0.138 AL), 707.02 CFP (0.109), 707.04 (0.109), 707.05 (0.109 AL COATED), 707.07 (0.109 AL COATED)	603 72" CONDUIT TYPE A, 707.02 CFP (0.138), 707.03 CFP (0.188), 707.04 (0.138)	603 72" CONDUIT TYPE A, 707.04 (0.5") OR 78" CONDUIT TYPE A 707.04 (1")	603 78" CONDUIT TYPE A, 707.02 CFP (0.109), 707.03 CFP (0.138), 707.04 (0.109, 1"), 707.23 CFP (0.150)	604 CATCH BASIN, NO. 2-3	604 INLET, SIDE DITCH	604 INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B1	604 INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B1, AS PER PLAN	604 INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C1	604 INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D
					CU YD	SQ YD	SQ YD	CU YD	CU YD	CU YD	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH
		SR823																													
D-1	50	353+88		BOTH				39		2.7										254											
D-2	50	355+00		RT			13			0.3	79																		1		
D-3	50	364+36		BOTH	41			38		2.7											324										
D-4	52	365+00		RT			6			0.3	63			79															1		
D-5	52	375+08		BOTH	17			39		5.9															612						
D-6	52	375+00		RT			13			0.3	81																		1		
D-7	54	382+00		RT			6			0.3	50			127															1		
D-8	54	386+50		RT			6			0.3	53			132															1		
D-9	56	395+50		RT			6			0.3	84																				
D-10	58	403+76.04		BOTH				32		4.7																			1		
D-11	58	405+50		RT			6			0.3	83			238																	
D-12	58	412+26.50		BOTH		5		18		2.2									669												1
D-13	58	412+50		RT			6			0.3	75			302																	
D-14	60	416+00		RT			6			0.3	75			229																	1
D-15	62	429+00		LT						0.3						63															1
D-16	62	435+00		LT						0.3	93																		1		
D-17	64	440+00		RT						0.3	46			73															1		
D-18	64	445+58	446+10	CL							52																		1		
D-19	64	446+10		RT						0.3	49			169															1		
D-20	66	455+00		RT						0.3		64																	1		
D-21	66	463+00		RT			6			0.3	47			219															1		
D-22	66	465+25		BOTH					33	5.9															616						
D-23		NOT USED																													
D-24	68	465+49.12	466+54.77	LT									107																		
D-25	68	471+50		RT			6			0.3	47			224															1		
D-26	68	473+75		BOTH				20		2.7													494								
D-27	70	477+50		RT			6			0.3	54			241																1	
D-28	70	482+50		RT								47																			1
D-29	70	482+50		LT						0.3		60																		1	
D-30	70	487+60.87	488+14.63	LT			11			1.2								54									1				
D-31	70	489+25		LT			6			0.5								49	151										1		
D-32	70	488+19		RT							47																				1
D-33	70	488+19	488+72	CL							53																		1		
D-34	70	488+72		RT							47																				1
D-35	70	488+72	489+25	CL							53																		1		
D-36	70	489+25		RT							47																				1
D-37	70	489+25	490+00	CL											75														1		
D-38	72	490+00		RT							55																	1			
D-39	72	490+00	493+00	CL											300															1	
D-40	72	493+00		RT							8																	1			
TOTALS CARRIED TO GENERAL SUMMARY					58	5	98	185	33	33.2	1341	171	107	2033	375	63	103	151	669	254	324	494	605	616	612	1	2	8	6	10	4

SCI-823-6.81

DRAINAGE SUBSUMMARY

CALCULATED LBD
CHECKED KAG

REF. NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	601 RIPRAP USING 6" REINFORCED CONCRETE SLAB SQ YD	601 TIED CONCRETE BLOCK MAT, TYPE 2 SQ YD	601 ROCK CHANNEL PROTECTION, TYPE A WITH FABRIC FILTER CU YD	601 ROCK CHANNEL PROTECTION, TYPE B WITH FABRIC FILTER CU YD	602 CONCRETE MASONRY CU YD	603 15" CONDUIT, TYPE B FT	603 15" CONDUIT, TYPE B, AS PER PLAN FT	603 15" CONDUIT, TYPE F FT	603 18" CONDUIT, TYPE B FT	603 18" CONDUIT, TYPE F FT	603 21" CONDUIT, TYPE B FT	603 24" CONDUIT, TYPE C FT	603 27" CONDUIT, TYPE B FT	603 30" CONDUIT TYPE A, 706.02 (1000 D-LOAD) OR 36" 707.01 (0.109), 707.01 (AL COATED), 707.02 (0.109), 707.02 (AL COATED), 707.04, 707.21 (0.075), 707.22 FT	603 36" CONDUIT TYPE A, 707.01 (0.109), 707.01 (AL COATED), 707.02 (0.109), 707.02 (AL COATED), 707.04, 707.21 (0.075), 707.22 FT	603 34"x53" CONDUIT TYPE A, 706.04 (1000 D-LOAD) or 57"x38" ARCH 707.21 FT	603 48" CONDUIT TYPE A, 707.01 (0.138), 707.01 (0.079 AL COATED), 707.02 (0.138) 707.02 (0.079 AL COATED), 707.04, 707.22 (0.135) FT	603 54" CONDUIT TYPE A 707.01 (0.138 AL), 707.02 (0.138 AL), 707.02 CFP (0.079), 707.04 (0.079, 5"), 707.04 (0.079, 1"), 707.05 (0.109 AL COATED), 707.07 (0.079 AL COATED) FT	603 72" CONDUIT TYPE A, 706.02 (1000 D-LOAD) OR 84" 707.02 CFP, 707.03 CFP, 707.04 (1"), 707.22 CFP, 707.23 CFP FT	604 CATCH BASIN, NO. 3 EACH	604 CATCH BASIN, NO. 2-2B EACH	604 CATCH BASIN, NO. 2-3 EACH	604 INLET, SIDE DITCH EACH	604 INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B1 EACH	604 INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B1, AS PER PLAN EACH	604 INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D EACH
		SR823																														
D-41	72	493+00		RT									47																			1
D-42	74	503+00		LT					0.3		64																			1		
D-43	74	503+00		RT							47																					1
D-44	74	503+00		RT							8																					
D-45	74	504+39.03		BOTH				20	2.7																					1		
D-73	74	503+28	503+44	RT																43												
D-46	74	507+50	508+50	RT					0.4							122																
D-47	74	508+50	509+00	RT					0.4							50																
D-48	74	511+00		LT					0.3		19																					
D-49	74	513+00		RT					0.3		64																					1
D-50	78	527+50		RT					0.3		78																					
D-51	78	535+00	535+54	CL						54																					1	
D-52	78	535+50		BOTH		11			2.2															462							1	
D-53	78	535+54	536+00	CL						46																					1	
D-54	78	536+00		LT		6			0.3	66		190																			1	
		TR234 RAMP B																														
D-56	86	383+50		BOTH		47			1.5										146													
		TR234 RAMP C																														
D-57	90	379+00		BOTH		13			1.5									120														
		CR28 RAMP A																														
D-58	100	534+50		LT		6			0.3	100																			1			
D-59	100	535+00		BOTH		11			1.3								192													1		
		CR28 RAMP B																														
D-60	102	526+50		BOTH		8			0.4						66															1		
D-61	102	531+63.33		BOTH		8			0.3				53	75																1		
		CR28 RAMP C																														
D-62	104	532+51.97		BOTH		4			0.3				45	127																1		
D-63	104	523+92.48		BOTH		10			0.3				87																	1		
D-64	104	522+69.29		BOTH		7			0.3	116																				1		
D-65	104	514+54		BOTH	8		57		6.6																159							
TOTALS CARRIED TO GENERAL SUMMARY					8	129	57	20	20	382	280	190	232	202	66	172	192	120	146	43	462	350	159	1	5	2	1	2	4	3

USER: CWahlbri PLOT DATE: 9/15/2011 11:57:01 AM REVISION DATE: 9/15/2011
FILE:...\HDR_CU\0000000045878 /9415ds102.dgn MODEL: Sheet

SCI-823-6.81

REF. NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (FT)	204 EXCAVATION OF SUBGRADE (CU YD)	601 RIPRAP USING 6" REINFORCED CONCRETE SLAB (SQ YD)	601 TIED CONCRETE BLOCK MAT, TYPE 2 (SQ YD)	601 ROCK CHANNEL PROTECTION, TYPE B WITH FABRIC FILTER (CU YD)	602 CONCRETE MASONRY (CU YD)	603 12" CONDUIT, TYPE C (FT)	603 12" CONDUIT, TYPE D (FT)	603 27" CONDUIT TYPE A, 706.02 (1000 D-LOAD) (FT)	603 36" CONDUIT TYPE A, 706.02 (1000 D-LOAD) (FT)	603 36" CONDUIT, TYPE B (FT)	603 48" CONDUIT TYPE A, 706.02 (1000 D-LOAD) (FT)	603 72" CONDUIT TYPE A, 706.02 (1000 D-LOAD) (FT)	604 CATCH BASIN, NO. 2-4 (EACH)				
		TR234																				
D-66	111	17+00		BOTH		12	5		47	2.2						104						
D-67	113	26+00		BOTH		9	3		26	1.4				108								
D-68	113	27+50		BOTH		7		8		1.0			99									
D-69	115	32+50		BOTH				5		1.0			114									
		SR139																				
D-70	117	171+80		BOTH					24	5.5							60					
D-71	117	170+59		BOTH	30																	
D-72	117	173+02.32	173+04.94	LT							4											
		CR28																				
D-55	104	17+68.40	17+69.77	RT				11		1.7					67			1				
		AIRPORT BEACON ACCESS ROAD																				
D-74	64	23+20		BOTH								43										
TOTALS CARRIED TO GENERAL SUMMARY					30	28	8	24	97	13	4	43	213	108	67	104	60	1				

CALCULATED LBD
CHECKED KAG

DRAINAGE SUBSUMMARY

SCI-823-6.81

REF. NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	601 TIED CONCRETE BLOCK MAT, TYPE 1 SQ YD	603 6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS FT	604 PRECAST REINFORCED CONCRETE OUTLET EACH	605 6" SHALLOW PIPE UNDERDRAINS WITH FABRIC WRAP FT	605 6" DEEP PIPE UNDERDRAINS WITH FABRIC WRAP FT	605 6" ROCK CUT UNDERDRAINS FT	605 6" BASE PIPE UNDERDRAINS WITH FABRIC WRAP FT	FOR INFORMATION ONLY 6" PLUG EACH	6" X 45° BEND EACH	6" X 45° WYE EACH
		TR234												
U-1	470	10+23.46	15+00.00	LT	2	65	1		466			1	2	
U-2	470	10+23.46	15+00.00	RT		7			477			1	1	1
U-3	470	15+05.00	16+95.65	LT	2	62	1				183	1	2	
U-4	470	15+05.00	16+95.65	RT		8					187	1	1	1
U-5	470	17+04.50	17+23.00	LT		7					14	1	1	1
U-6	470	17+04.50	17+23.00	RT		7					14	1	1	1
U-7	470	17+23.00	20+91.00	LT	2	58	1			293	74		2	
U-8	470	17+23.00	20+91.00	RT		4				290	75		1	1
U-9	470	20+91.00	25+93.46	LT		22	1			507			2	
U-10	470	20+91.00	25+93.05	RT	2	21	1			489			2	
U-11	471	26+05.00	27+45.03	LT		30	1		136			1	2	
U-12	471	26+05.00	27+44.97	RT	2	30	1		134			1	2	
U-13	471	27+55.00	32+45.00	LT	2	32	1		485			1	2	
U-14	471	27+55.00	32+45.00	RT	2	32	1		485			1	2	
U-15	471	32+55.00	36+35.00	LT	2	73	1				375	1	2	
U-16	471	32+55.00	36+35.00	RT	2	81	1				375	1	2	
		TR234 RAMP A												
U-17	471	384+25.00	385+00.00	LT		8					70	1	1	1
U-18	471	384+25.00	385+00.00	RT	2	86	1				71	1	1	1
		TR234 RAMP B												
U-19	471	383+75.00	384+00.00	LT	2	63	1				20	1	2	
U-20	471	383+75.00	384+00.00	RT		7		20				1	1	1
U-21	471	383+75.00	384+00.00	RT		7					20	1	1	1
		TR234 RAMP C												
U-22	471	382+75.00	384+00.00	LT		7			120			1	1	1
U-23	471	382+75.00	384+00.00	RT	2	48	1		121			1	2	
		TR234 RAMP D												
U-24	471	385+00.00	386+00.00	LT		59	1			95		1	2	
U-25	471	385+00.00	386+00.00	CL		7				95		1	1	1
U-26	471	385+00.00	386+00.00	RT		7				95		1	1	1
TOTALS CARRIED TO GENERAL SUMMARY					24	838	15	20	2424	1864	1478	22	40	12

CALCULATED LBD
CHECKED KAG

UNDERDRAIN SUBSUMMARY

SCI-823-6.81

USER: CWohlbr; PLOT DATE: 9/15/2011 1157:10 AM REVISION DATE: 9/15/2011
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OVERALL PROJECT DATA	INCLUDES WORK OUTSIDE OF THIS SITE PLAN
TOTAL AREA (RIGHT OF WAY) 315.40 AC	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE 0.30
PROJECT EARTH DISTURBED AREA 230.00 AC	RUNOFF COEFFICIENT FOR POST-CONSTRUCTION SITE 0.68
ESTIMATED CONTRACTOR EARTH DISTURBED AREA 65.25 AC	SOIL AND WATER CONSERVATION MAP SCIOTO COUNTY, OH 0145
NOTICE OF INTENT EARTH DISTURBED AREA 295.25 AC	IMMEDIATE RECEIVING WATERS UNNAMED TRIBUTARTY TO SCIOTO RIVER
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE 14.7 AC	UNNAMED TRIBUTARTY TO LONG RUN AND UNNAMED TRIBUTARTY TO SWEET RUN
IMPERVIOUS (PAVED) AREA FOR POST-CONSTRUCTION SITE 64.1 AC	SUBSEQUENT RECEIVING WATER SCIOTO RIVER, LONG RUN, AND SWEET RUN
POST CONSTRUCTION BMP: VEGETATED BIOFILTERS AND DETENTION BASINS ARE TO BE CONSTRUCTED TO MEET NPDES POST CONSTRUCTION REQUIREMENTS. SEE PLAN AND CROSS SECTION SHEETS FOR LOCATIONS.	

USGS QUADRANT NO. 38082-G7-TF-024 AND
38082-G8-TF-024
MINFORD, OHIO AND NEW BOSTON, OHIO

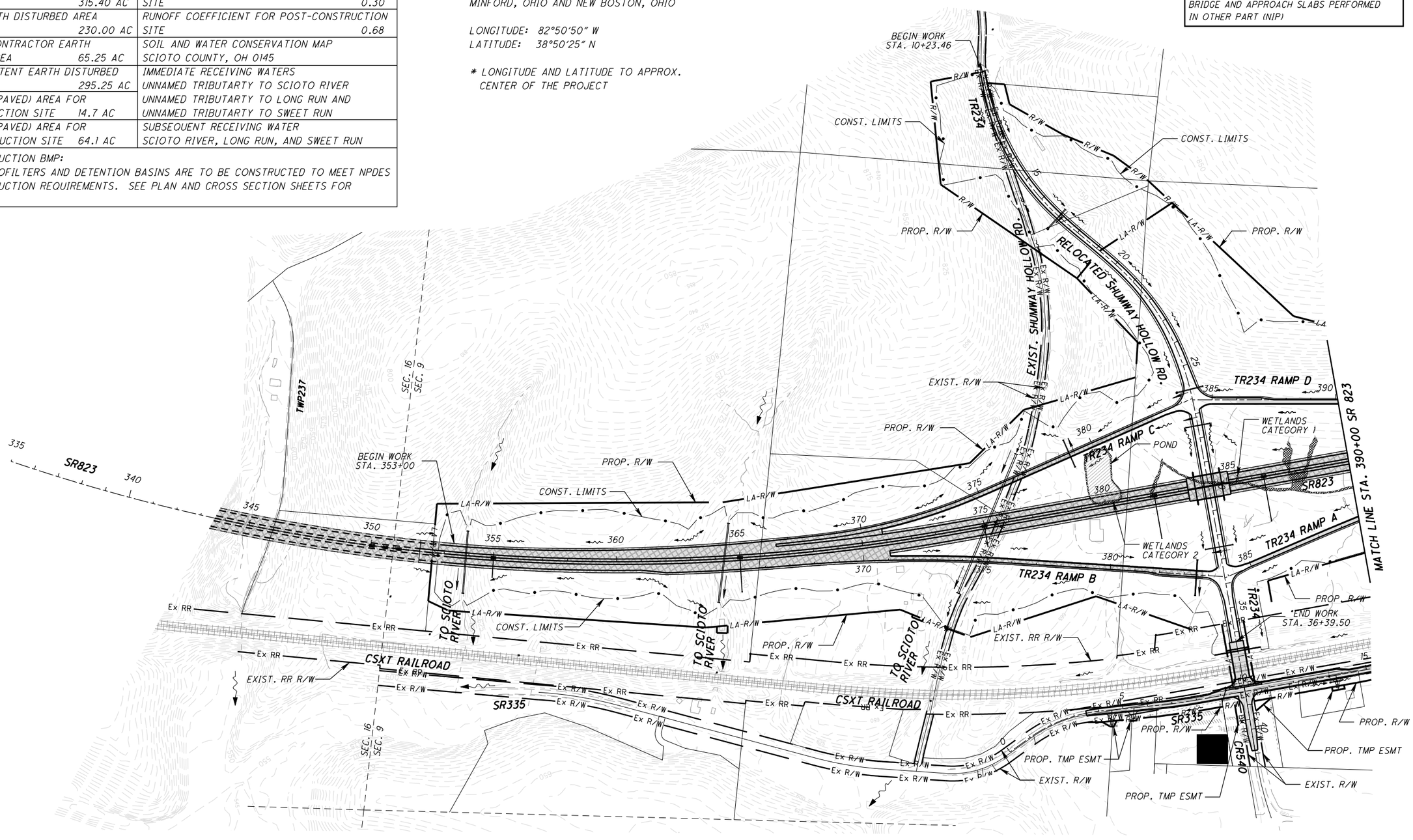
LONGITUDE: 82°50'50" W
LATITUDE: 38°50'25" N

* LONGITUDE AND LATITUDE TO APPROX. CENTER OF THE PROJECT

NOTE: FOR MORE DETAILED INFORMATION SEE PLAN AND PROFILE SHEETS.

SR335 IMPROVEMENTS WILL BE PERFORMED IN OTHER PART (NIP)

BRIDGE AND APPROACH SLABS PERFORMED IN OTHER PART (NIP)



LEGEND:

PAVEMENT TO BE CONSTRUCTED IN OTHER PART

PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

STRUCTURE KEY

RESIDENTIAL

COMMERCIAL

PROJECT DESCRIPTION (PART 1)

CONSTRUCTION OF THE EARTHWORK AND DRAINAGE FOR 3.46 MILES OF FOUR LANE LIMITED ACCESS HIGHWAY (SR 823) FROM PROPOSED TR234 INTERCHANGE TO PROPOSED CR28 INTERCHANGE; INTERCHANGES AT TR234 (RELOCATED SHUMWAY HOLLOW ROAD) AT THE SCIOTO COUNTY AIRPORT, AND CR 28 (LUCASVILLE-MINFORD ROAD). COMPLETE CONSTRUCTION OF TR234 FROM BEGIN WORK UNTIL TIE IN AT NEWLY CONSTRUCTED BRIDGE OVER CSXT RAILROAD. COMPLETE IMPROVEMENTS ALONG SR 139.

HORIZONTAL SCALE IN FEET
0 100 200 400

CALCULATED KAG
CHECKED JMB

PROJECT SITE PLAN - SR823
STA. 335+00.00 TO STA. 390+00.00

SCI-823-6.81

USER: Cmahlbr PLOT DATE: 9/15/2011 11:57:36 AM REVISION DATE: 9/15/2011 MODEL: Sheet
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OVERALL PROJECT DATA	INCLUDES WORK OUTSIDE OF THIS SITE PLAN
TOTAL AREA (RIGHT OF WAY) 315.40 AC	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE 0.30
PROJECT EARTH DISTURBED AREA 230.00 AC	RUNOFF COEFFICIENT FOR POST-CONSTRUCTION SITE 0.68
ESTIMATED CONTRACTOR EARTH DISTURBED AREA 65.25 AC	SOIL AND WATER CONSERVATION MAP SCIOTO COUNTY, OH 0145
NOTICE OF INTENT EARTH DISTURBED AREA 295.25 AC	IMMEDIATE RECEIVING WATERS UNNAMED TRIBUTARTY TO SCIOTO RIVER
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE 14.7 AC	UNNAMED TRIBUTARTY TO LONG RUN AND UNNAMED TRIBUTARTY TO SWEET RUN
IMPERVIOUS (PAVED) AREA FOR POST-CONSTRUCTION SITE 64.1 AC	SUBSEQUENT RECEIVING WATER SCIOTO RIVER, LONG RUN, AND SWEET RUN
POST CONSTRUCTION BMP: VEGETATED BIOFILTERS AND DETENTION BASINS ARE TO BE CONSTRUCTED TO MEET NPDES POST CONSTRUCTION REQUIREMENTS. SEE PLAN AND CROSS SECTION SHEETS FOR LOCATIONS.	

USGS QUADRANT NO. 38082-G7-TF-024 AND
38082-G8-TF-024
MINFORD, OHIO AND NEW BOSTON, OHIO

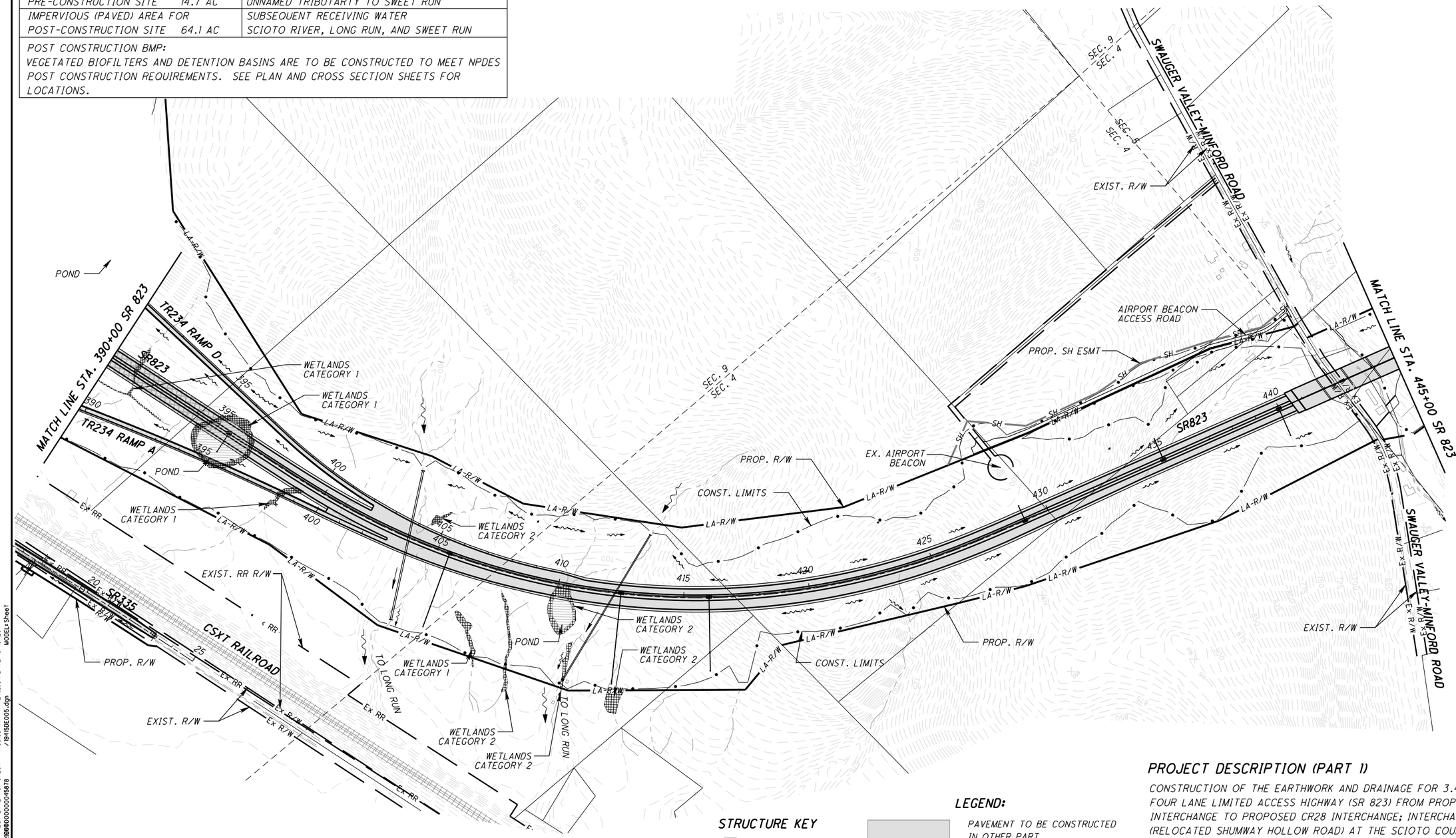
LONGITUDE: 82°50'50" W
LATITUDE: 38°50'25" N

* LONGITUDE AND LATITUDE TO APPROX. CENTER OF THE PROJECT

NOTE: FOR MORE DETAILED INFORMATION SEE PLAN AND PROFILE SHEETS.

SR335 IMPROVEMENTS WILL BE PERFORMED IN OTHER PART (NIP)

BRIDGE AND APPROACH SLABS PERFORMED IN OTHER PART (NIP)



STRUCTURE KEY
- RESIDENTIAL
- COMMERCIAL

LEGEND:
- PAVEMENT TO BE CONSTRUCTED IN OTHER PART
- PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

PROJECT DESCRIPTION (PART 1)

CONSTRUCTION OF THE EARTHWORK AND DRAINAGE FOR 3.46 MILES OF FOUR LANE LIMITED ACCESS HIGHWAY (SR 823) FROM PROPOSED TR234 INTERCHANGE TO PROPOSED CR28 INTERCHANGE; INTERCHANGES AT TR234 (RELOCATED SHUMWAY HOLLOW ROAD) AT THE SCIOTO COUNTY AIRPORT, AND CR 28 (LUCASVILLE-MINFORD ROAD). COMPLETE CONSTRUCTION OF TR234 FROM BEGIN WORK UNTIL TIE IN AT NEWLY CONSTRUCTED BRIDGE OVER CSXT RAILROAD. COMPLETE IMPROVEMENTS ALONG SR 139.

HORIZONTAL SCALE IN FEET
0 100 200 400

CALCULATED KAG
CHECKED JMB

PROJECT SITE PLAN - SR823
STA. 390+00.00 TO STA. 445+00.00

SCI-823-6.81

USER: CWahlbri PLOT DATE: 9/15/2011 1155853 AM REVISION DATE: 9/15/2011 MODEL: Sheet
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OVERALL PROJECT DATA

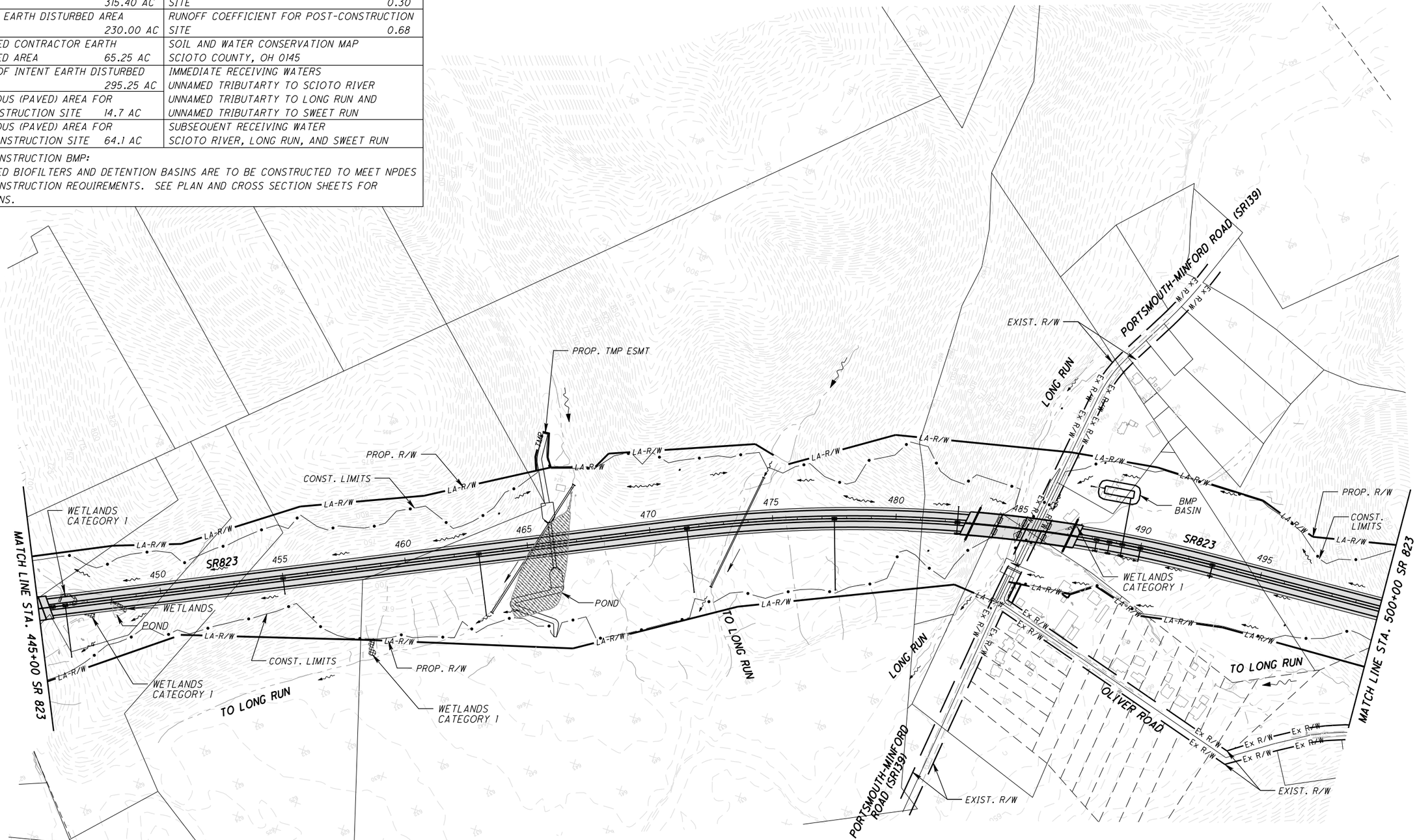
INCLUDES WORK OUTSIDE OF THIS SITE PLAN

TOTAL AREA (RIGHT OF WAY) 315.40 AC	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE 0.30
PROJECT EARTH DISTURBED AREA 230.00 AC	RUNOFF COEFFICIENT FOR POST-CONSTRUCTION SITE 0.68
ESTIMATED CONTRACTOR EARTH DISTURBED AREA 65.25 AC	SOIL AND WATER CONSERVATION MAP SCIOTO COUNTY, OH 0145
NOTICE OF INTENT EARTH DISTURBED AREA 295.25 AC	IMMEDIATE RECEIVING WATERS UNNAMED TRIBUTARTY TO SCIOTO RIVER
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE 14.7 AC	UNNAMED TRIBUTARTY TO LONG RUN AND UNNAMED TRIBUTARTY TO SWEET RUN
IMPERVIOUS (PAVED) AREA FOR POST-CONSTRUCTION SITE 64.1 AC	SUBSEQUENT RECEIVING WATER SCIOTO RIVER, LONG RUN, AND SWEET RUN

POST CONSTRUCTION BMP:
VEGETATED BIOFILTERS AND DETENTION BASINS ARE TO BE CONSTRUCTED TO MEET NPDES POST CONSTRUCTION REQUIREMENTS. SEE PLAN AND CROSS SECTION SHEETS FOR LOCATIONS.

NOTE: FOR MORE DETAILED INFORMATION SEE PLAN AND PROFILE SHEETS.

BRIDGE AND APPROACH SLABS PERFORMED IN OTHER PART (NIP)



USGS QUADRANT NO. 38082-G7-TF-024 AND 38082-G8-TF-024
MINFORD, OHIO AND NEW BOSTON, OHIO

LONGITUDE: 82°50'50" W
LATITUDE: 38°50'25" N

* LONGITUDE AND LATITUDE TO APPROX. CENTER OF THE PROJECT

LEGEND:

PAVEMENT TO BE CONSTRUCTED IN OTHER PART

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL

PROJECT DESCRIPTION (PART 1)

CONSTRUCTION OF THE EARTHWORK AND DRAINAGE FOR 3.46 MILES OF FOUR LANE LIMITED ACCESS HIGHWAY (SR 823) FROM PROPOSED TR234 INTERCHANGE TO PROPOSED CR28 INTERCHANGE; INTERCHANGES AT TR234 (RELOCATED SHUMWAY HOLLOW ROAD) AT THE SCIOTO COUNTY AIRPORT, AND CR 28 (LUCASVILLE-MINFORD ROAD). COMPLETE CONSTRUCTION OF TR234 FROM BEGIN WORK UNTIL TIE IN AT NEWLY CONSTRUCTED BRIDGE OVER CSXT RAILROAD. COMPLETE IMPROVEMENTS ALONG SR 139.

HORIZONTAL SCALE IN FEET
0 100 200 400

CALCULATED KAG
CHECKED JMB

PROJET SITE PLAN - SR823
STA. 445+00.00 TO STA. 500+00.00

SCI-823-6.81

USER: CWohlbri PLOT DATE: 9/15/2011 1159:03 AM REVISION DATE: 9/15/2011
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OVERALL PROJECT DATA	INCLUDES WORK OUTSIDE OF THIS SITE PLAN
TOTAL AREA (RIGHT OF WAY) 315.40 AC	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE 0.30
PROJECT EARTH DISTURBED AREA 230.00 AC	RUNOFF COEFFICIENT FOR POST-CONSTRUCTION SITE 0.68
ESTIMATED CONTRACTOR EARTH DISTURBED AREA 65.25 AC	SOIL AND WATER CONSERVATION MAP SCIOTO COUNTY, OH 0145
NOTICE OF INTENT EARTH DISTURBED AREA 295.25 AC	IMMEDIATE RECEIVING WATERS UNNAMED TRIBUTARTY TO SCIOTO RIVER UNNAMED TRIBUTARTY TO LONG RUN AND UNNAMED TRIBUTARTY TO SWEET RUN
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE 14.7 AC	SUBSEQUENT RECEIVING WATER SCIOTO RIVER, LONG RUN, AND SWEET RUN
IMPERVIOUS (PAVED) AREA FOR POST-CONSTRUCTION SITE 64.1 AC	
POST CONSTRUCTION BMP: VEGETATED BIOFILTERS AND DETENTION BASINS ARE TO BE CONSTRUCTED TO MEET NPDES POST CONSTRUCTION REQUIREMENTS. SEE PLAN AND CROSS SECTION SHEETS FOR LOCATIONS.	

USGS QUADRANT NO. 38082-G7-TF-024 AND
38082-G8-TF-024
MINFORD, OHIO AND NEW BOSTON, OHIO

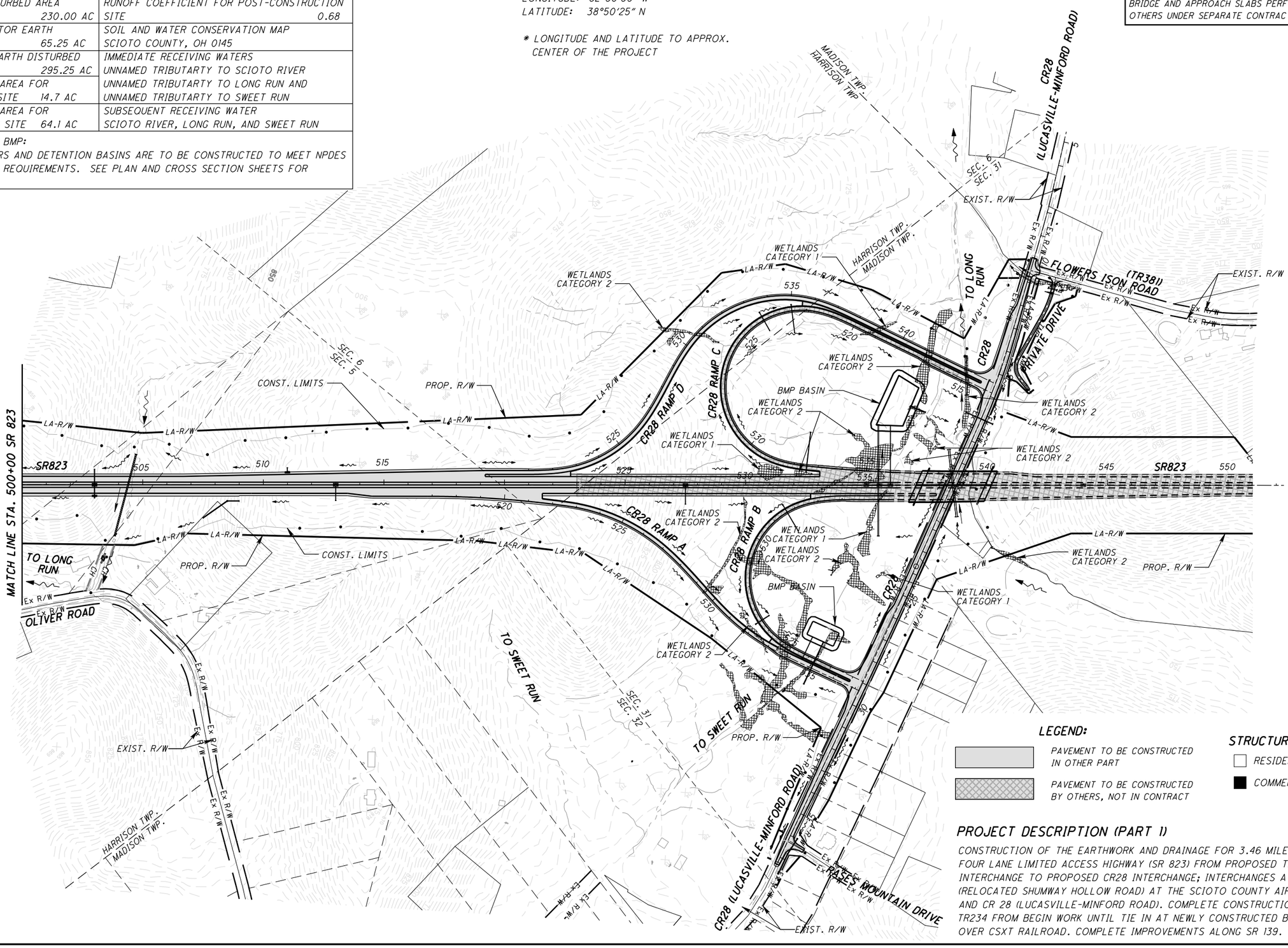
LONGITUDE: 82°50'50" W
LATITUDE: 38°50'25" N

* LONGITUDE AND LATITUDE TO APPROX. CENTER OF THE PROJECT

NOTE: FOR MORE DETAILED INFORMATION SEE PLAN AND PROFILE SHEETS.

CR28 IMPROVEMENTS WILL BE PERFORMED IN OTHER PART (NIP)

BRIDGE AND APPROACH SLABS PERFORMED BY OTHERS UNDER SEPARATE CONTRACT (NIC)



LEGEND:

- PAVEMENT TO BE CONSTRUCTED IN OTHER PART
- PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL

PROJECT DESCRIPTION (PART 1)

CONSTRUCTION OF THE EARTHWORK AND DRAINAGE FOR 3.46 MILES OF FOUR LANE LIMITED ACCESS HIGHWAY (SR 823) FROM PROPOSED TR234 INTERCHANGE TO PROPOSED CR28 INTERCHANGE; INTERCHANGES AT TR234 (RELOCATED SHUMWAY HOLLOW ROAD) AT THE SCIOTO COUNTY AIRPORT, AND CR 28 (LUCASVILLE-MINFORD ROAD). COMPLETE CONSTRUCTION OF TR234 FROM BEGIN WORK UNTIL TIE IN AT NEWLY CONSTRUCTED BRIDGE OVER CSXT RAILROAD. COMPLETE IMPROVEMENTS ALONG SR 139.

HORIZONTAL SCALE IN FEET
0 100 200 400

CALCULATED KAG
CHECKED JMB

PROJECT SITE PLAN - SR823
STA. 500+00.00 TO STA. 555+00.00

SCI-823-6.81

USER: CMahlbr PLOT DATE: 9/15/2011 11:59:22 AM REVISION DATE: 9/15/2011
FILE: ...4HOR.CL0800000004878 /19415DE007.dgn MODEL: Sheet

PLAN - SR823

STA. 352+00.00 TO STA. 364+50.00

DOROTHY JANICE PFEIFER
6989 STATE ROUTE 335
PORTSMOUTH, OH 45662
O.R. 203, PG. 478
PARCEL NO. 07-0296.000
44.28 ACRES

EROSION CONTROL LEGEND

- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2
- NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS
- WETLANDS CATEGORY 1 OR 2

SR823 CURVE # 5

P.I. STA. = 346+07.50	y = 0.67'
DELTA= 43° 17' 20" (LT)	k = 87.50'
Dc = 0° 45' 00"	p = 0.17'
R = 7,639.44'	$DELTA_C$ = 41° 58' 35" (LT)
Ls = 175.00'	Lc = 5,596.84'
Theta = 0° 39' 23" (LT)	Tc = 2,930.69'
LT= 116.67'	Ts = 3,119.08'
ST = 58.33'	Es = 579.69'
x = 175.00'	Emax. = 0.028
	DESIGN SPEED = 70 MPH

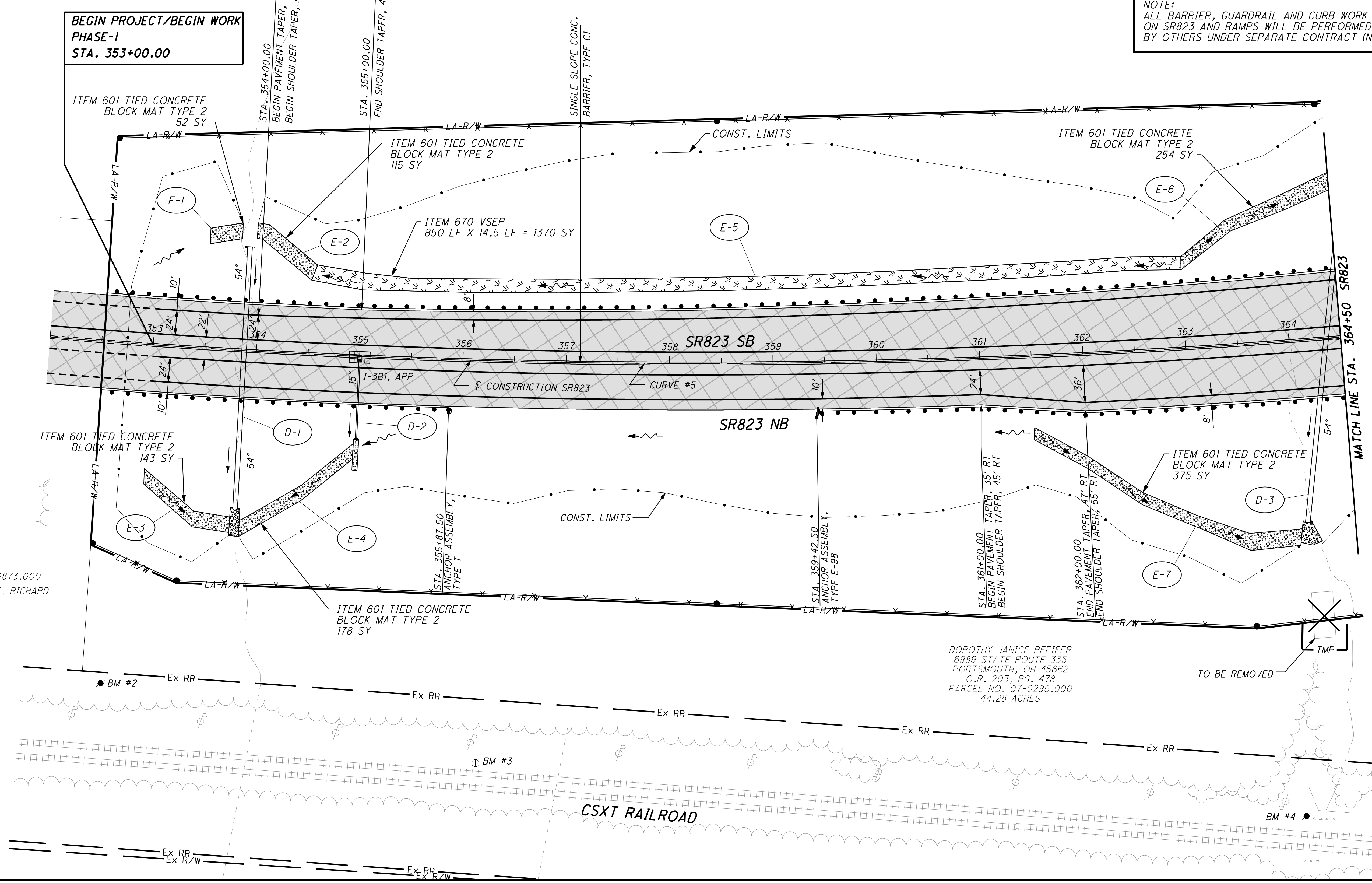
CROSS REFERENCES

SHEET NO.	DESCRIPTION
51	PROFILE SR823
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

LEGEND:

PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED BY OTHERS UNDER SEPARATE CONTRACT (NIC)



HORIZONTAL SCALE IN FEET 0 25 50 100

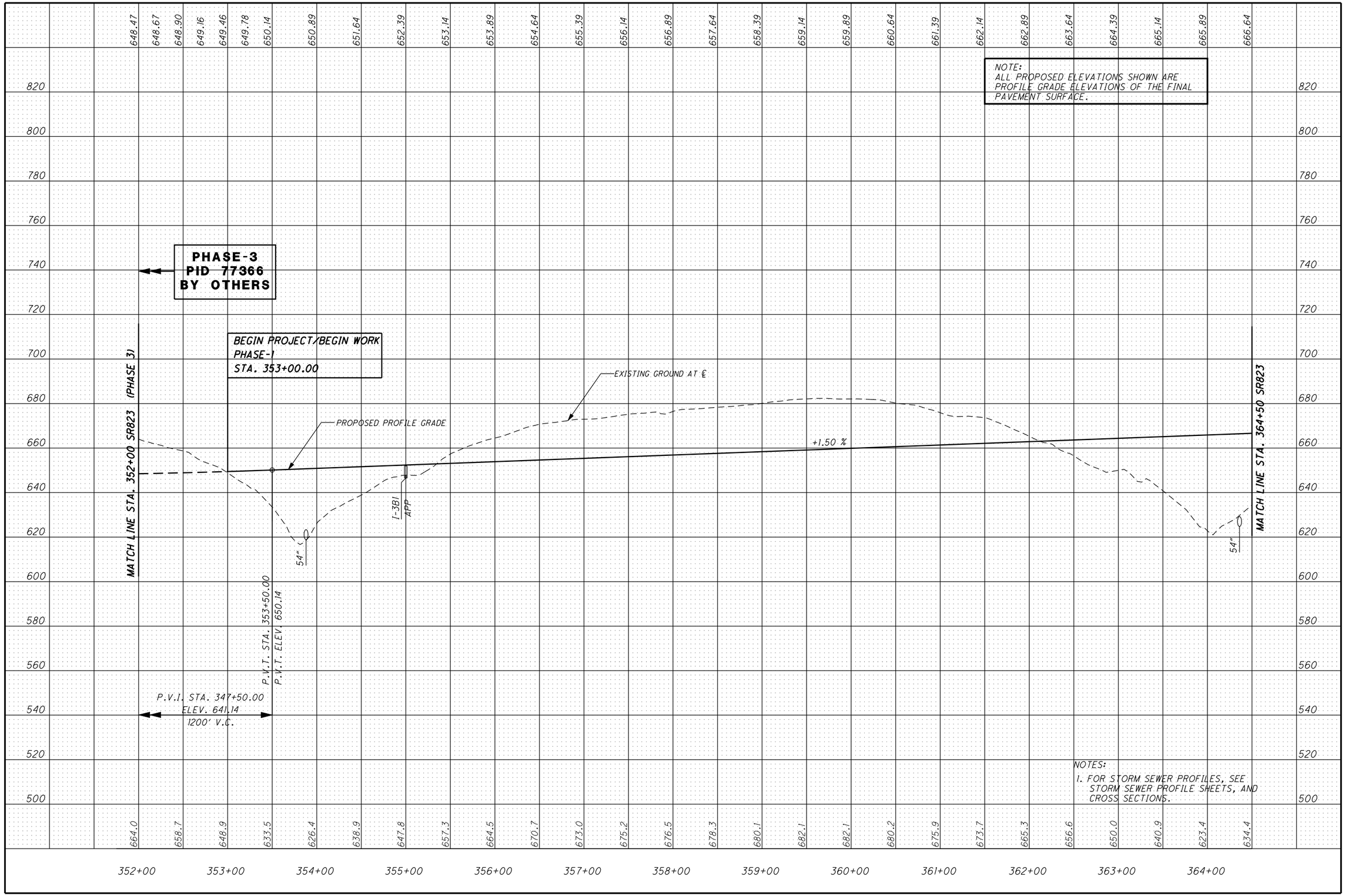
CALCULATED LBD/KAG CHECKED JMB

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 11:59:53 AM REVISION DATE: 9/15/2011 FILE: ...AIHDR_CUW0000000045878 /19415gp001.dgn MODEL: Sheet

PROFILE - SR823
STA. 352+00 TO STA. 364+50

CALCULATED LBD/KAG
CHECKED JMB



NOTES:
1. FOR STORM SEWER PROFILES, SEE STORM SEWER PROFILE SHEETS, AND CROSS SECTIONS.

SCI-823-6.81

USER: CMahlbr PLOT DATE: 9/15/2011 12:00:10 PM REVISION DATE: 9/15/2011
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SR823 CURVE # 5

P.I. STA. = 346+07.50
DELTA= 43° 17′ 20″ (LT)
Dc = 0° 45′ 00″
R = 7,639.44′
Ls = 175.00′
Theta = 0° 39′ 23″ (LT)
LT= 116.67′
ST = 58.33′
x = 175.00′
y = 0.67′
k = 87.50′
p = 0.17′
$DELTA_C$ = 41° 58′ 35″ (LT
Lc = 5,596.84′
Tc = 2,930.69′
Ts = 3,119.08′
Es = 579.69′
Emax. = 0.028
DESIGN SPEED = 70 MPH

ITEM 601 TIED CONCRETE BLOCK MAT TYPE 2 208 SY

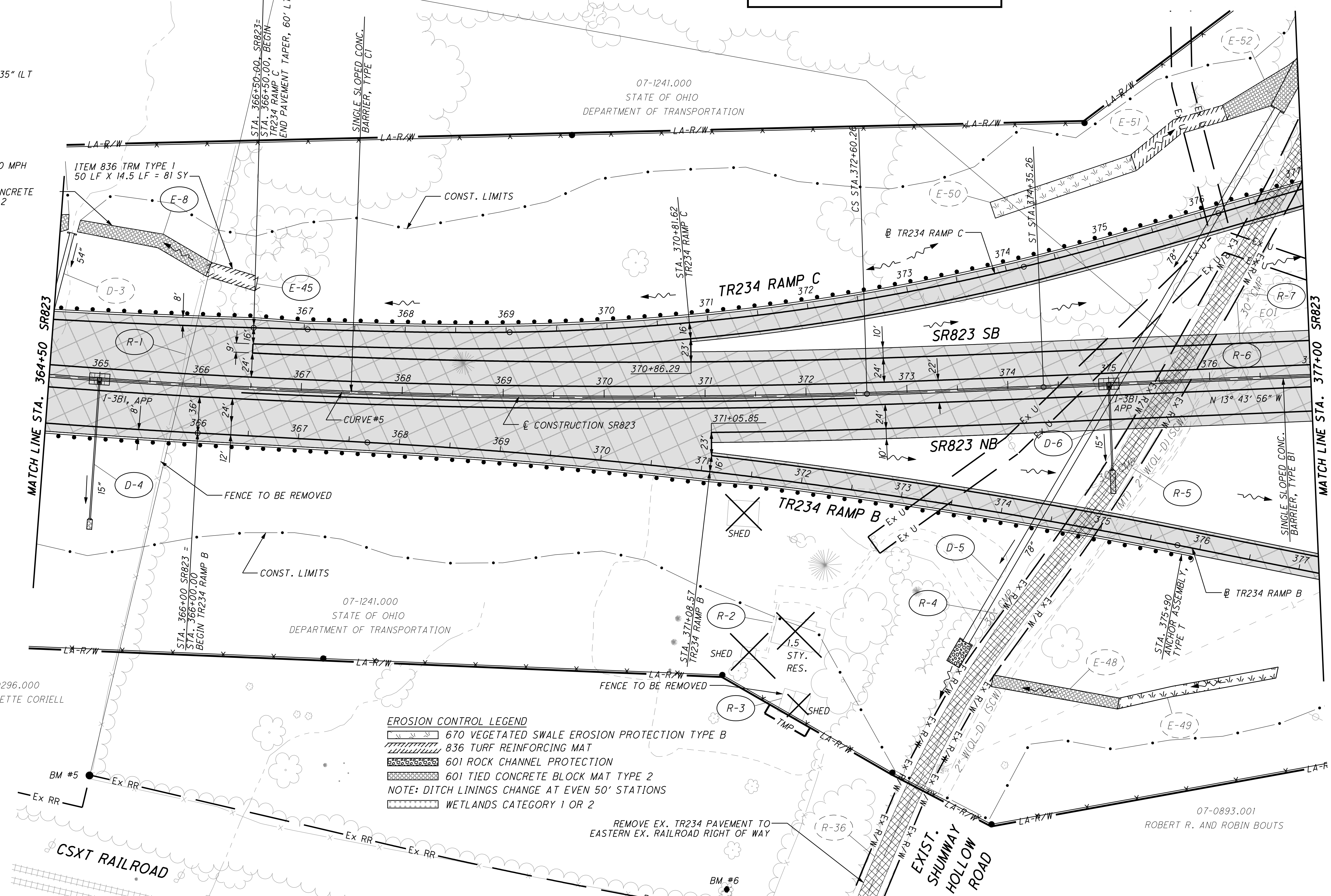
LEGEND:

PAVEMENT REMOVED

PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED BY OTHERS UNDER SEPARATE CONTRACT (NIC)

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
53	PROFILE SR823
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY



EROSION CONTROL LEGEND
670 VEGETATED SWALE EROSION PROTECTION TYPE B
836 TURF REINFORCING MAT
601 ROCK CHANNEL PROTECTION
601 TIED CONCRETE BLOCK MAT TYPE 2
NOTE: DITCH LININGS CHANGE AT EVEN 50′ STATIONS
WETLANDS CATEGORY 1 OR 2

HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED LBD/KAG CHECKED JMB

PLAN - SR823
STA. 364+50.00 TO STA. 377+00.00

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 12:00:33 PM REVISION DATE: 9/15/2011 MODEL: Sheet
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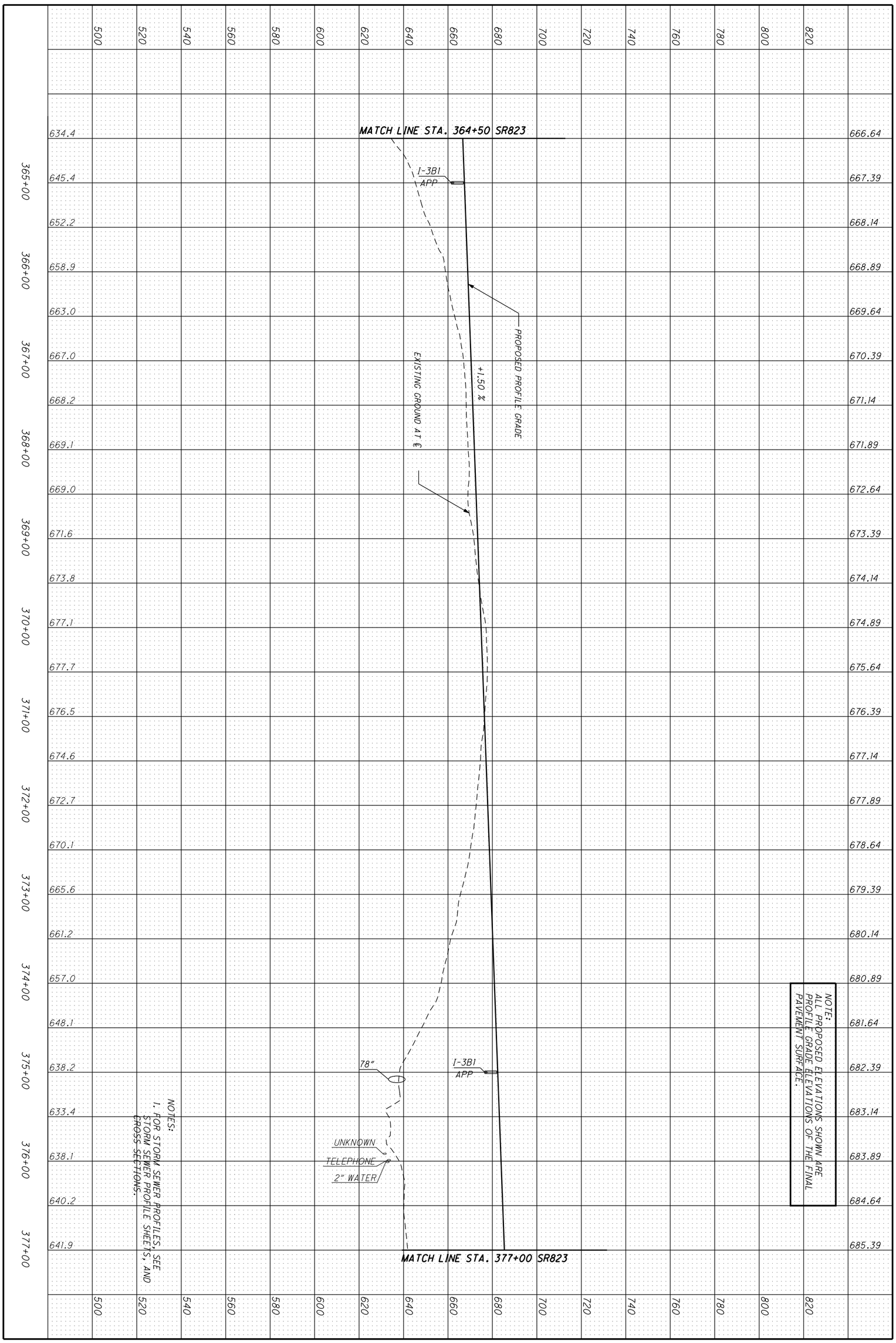
USER: CWahlbri PLOT DATE: 9/15/2011 12:01:02 PM REVISION DATE: 9/15/2011
FILE:...4\HDR.CV\000000000045878 /19415gf002.dgn MODEL: Sheet



53 / 535	SCI-823-6.81	PROFILE - SR823 STA. 364+50 TO STA. 377+00	CALCULATED LBD/KAG CHECKED JMB

NOTE:
BRIDGE AND APPROACH SLABS PERFORMED BY OTHERS UNDER SEPARATE CONTRACT (NIC)

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
55	PROFILE SR823
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP) OR BY OTHERS UNDER SEPARATE CONTRACT (NIC)

07-0893.001
ROBERT R. AND ROBIN BOUTS

07-0804.000
GERTUDE B. MCKENZIE
TRUSTEE OF GERTUDE B. MCKENZIE
REVOCABLE TRUST

CONST. LIMITS
LA-R/W
EX. R/W
R-8
E-52
E-53
E-54
M-3
D-57
D-67
D-68
TR234 RAMP C
TR234 RAMP D
TR234 RAMP B
TR234 RAMP A
ITEM 670 VSEP
180 LF x 14.5 LF = 290 SY
E-9
EX. POND
SINGLE SLOPE CONC. BARRIER, TYPE B1
STA. 381+01.78 ANCHOR ASSEMBLY, TYPE T
STA. 383+64.28 BRIDGE TERMINAL ASSEMBLY, TYPE 2
TR234
STA. 384+23.03, SR823
STA. 30+00.00, TR234
STA. 384+81.68 BRIDGE TERMINAL ASSEMBLY, TYPE 1
STA. 384+97.53 END CURB, TYPE 4C
STA. 384+77.53 BEGIN APPR. SLAB
STA. 385+07.53 END APPR. SLAB
FUTURE BRIDGE OVER TR234 (BY OTHERS)
R-9
SR823 SB
SR823 NB
℄ CONSTRUCTION SR823
I-3B1, APP
N 13° 43' 56" W
MATCH LINE STA. 377+00 SR823
MATCH LINE STA. 389+50 SR823
R-10
R-12
D-7
D-8
R-11
E-46
STA. 378+64.38 ANCHOR ASSEMBLY, TYPE E-98
2 STY. RES.
FENCE TO BE REMOVED
STA. 383+38.53 BEGIN APPR. SLAB
STA. 383+68.53 END APPR. SLAB
STA. 383+48.53 BEGIN CURB, TYPE 4C
STA. 383+64.38 BRIDGE TERMINAL ASSEMBLY, TYPE 1
RELOCATED SHUMWAY HOLLOW ROAD
E-68
D-56
E-69
D-69
℄ TR234
STA. 384+81.78 BRIDGE TERMINAL ASSEMBLY, TYPE 2
STA. 386+44.28 ANCHOR ASSEMBLY, TYPE T
N 7° 8' 11" E

EROSION CONTROL LEGEND
- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2
- NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS
- WETLANDS CATEGORY 1 OR 2

LEGEND:
- PAVEMENT REMOVED
- PAVEMENT TO BE CONSTRUCTED IN OTHER PART
- PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED LBD/KAG
CHECKED JMB

PLAN - SR823
STA. 377+00.00 TO STA. 389+50.00

SCI-823-6.81

54
535

USER: CMahlbr PLOT DATE: 9/15/2011 12:01:26 PM REVISION DATE: 9/15/2011
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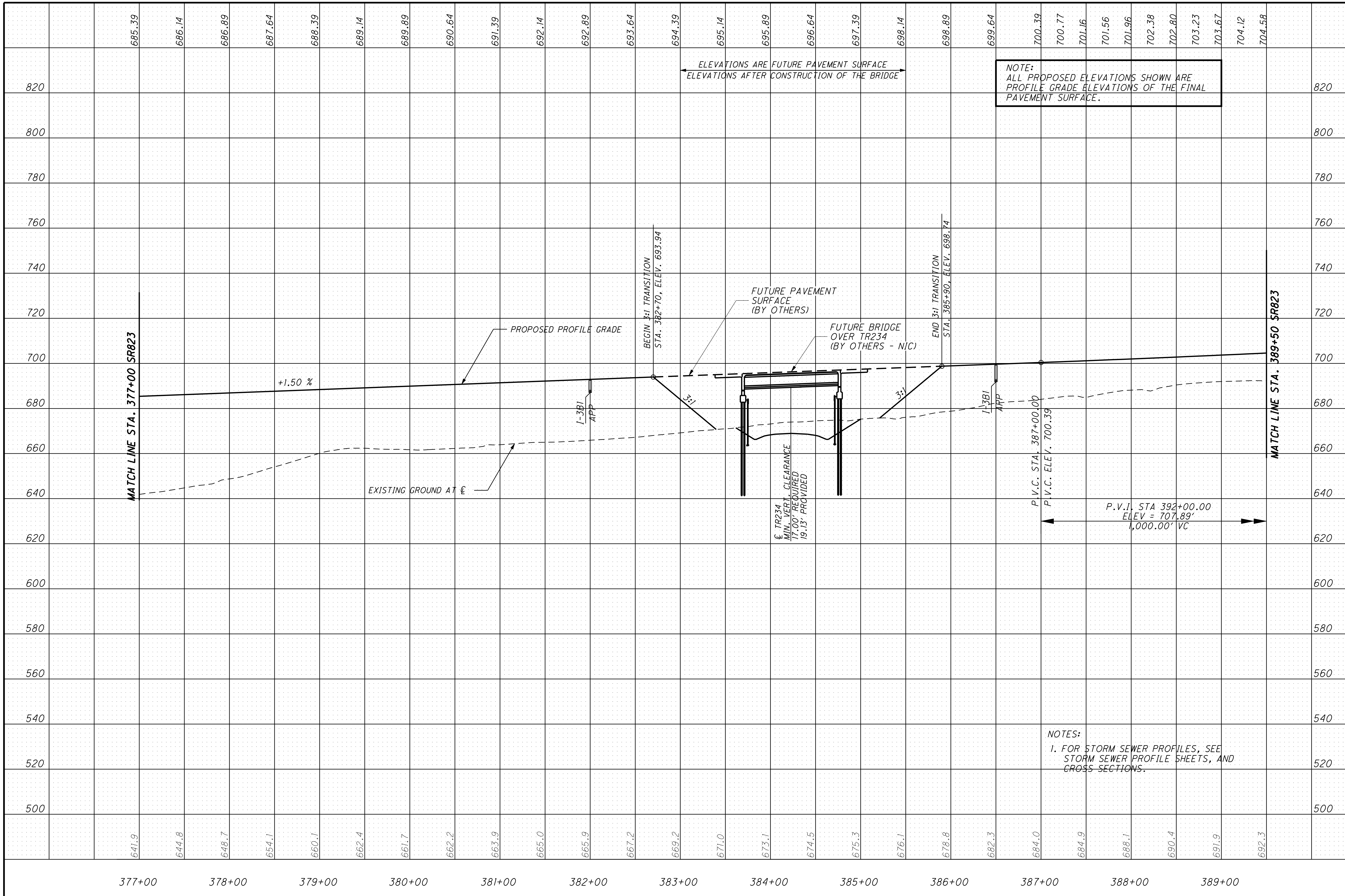


CALCULATED LBD/KAG
CHECKED JMB

PROFILE - SR823
STA. 377+00 TO STA. 389+50

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 12:01:38 PM REVISION DATE: 9/15/2011
FILE: ...\HDR_CV\BP00000000045878 /19415gf003.dgn MODEL: Sheet

SR823 CURVE #6

P.I. STA.= 414+49.27
DELTA = 56° 54′ 24″ (LT)
Dc = 2° 00′ 00″
R = 2,864.79′
Ls = 400.00′
Theta = 4° 00′ 00″ (LT)
LT= 266.73′
ST = 133.40′
x = 399.81′
y = 9.31′
k = 199.97′
p = 2.33′
DELTAc = 48° 54′ 24″ (LT)
Lc = 2,445.33′
Tc = 1,302.74′
Ts = 1,753.66′
Es = 396.24′
Emax. = 0.065
DESIGN SPEED = 70 MPH
SSD= 663′ (730′ MIN)
ACTUAL DESIGN SPEED 66 MPH

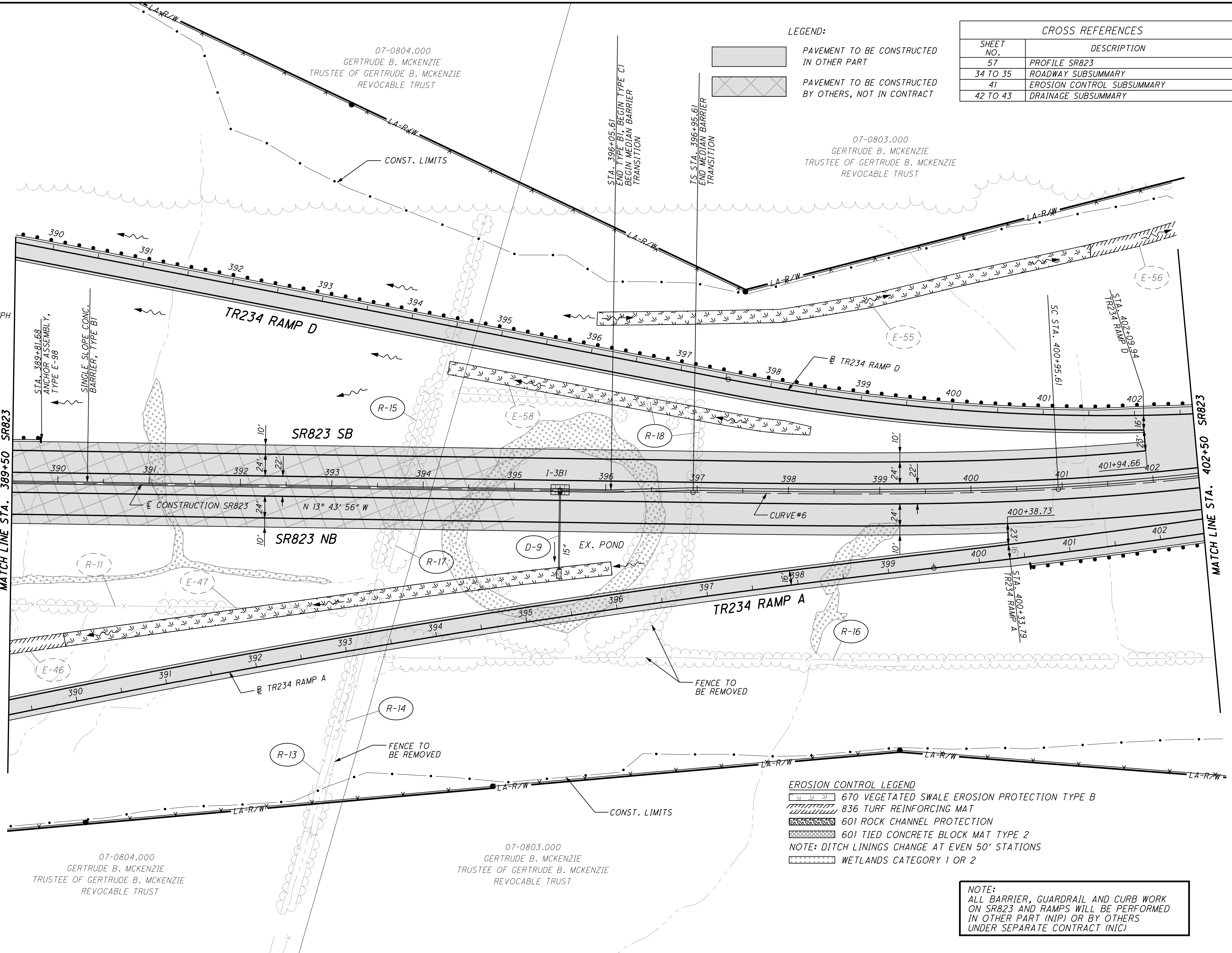
LEGEND:

PAVEMENT TO BE CONSTRUCTED IN OTHER PART

PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

CROSS REFERENCES

SHEET NO.	DESCRIPTION
57	PROFILE SR823
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY



EROSION CONTROL LEGEND

670 VEGETATED SWALE EROSION PROTECTION TYPE B
836 TURF REINFORCING MAT
601 ROCK CHANNEL PROTECTION
601 TIED CONCRETE BLOCK MAT TYPE 2
NOTE: DITCH LININGS CHANGE AT EVEN 50′ STATIONS
WETLANDS CATEGORY 1 OR 2

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP) OR BY OTHERS UNDER SEPARATE CONTRACT (NIC)

HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED LBD/KAG CHECKED JMB

PLAN - SR823
STA. 389+50.00 TO STA. 402+50.00

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 12:02:01 PM REVISION DATE: 9/15/2011
FILE: ...\HDR_CLVB\00000000045878 /19415gp004.dgn MODEL: Sheet

CALCULATED LBD/KAG
CHECKED JMB

PROFILE - SR823
STA. 389+50 TO STA. 402+50

SCI-823-6.81

USER: CWahlbri PLOT DATE: 9/15/2011 12:02:11 PM REVISION DATE: 9/15/2011
FILE: ...\HDR_CL\190000000000045878 /19415gf004.dgn MODEL: Sheet

SR823 CURVE #6

P.I. STA.= 414+49.27
DELTA = 56° 54' 24" (LT)
Dc = 2° 00' 00"
R = 2,864.79'
Ls = 400.00'
Theta = 4° 00' 00" (LT)
LT= 266.73'
ST = 133.40'
x = 399.81'
y = 9.31'
k = 199.97'
p = 2.33'
DELTAc = 48° 54' 24" (LT)
Lc = 2,445.33'
Tc = 1,302.74'
Ts = 1,753.66'
Es = 396.24'
Emax. = 0.065
DESIGN SPEED = 70 MPH
SSD= 663' (730' MIN)
ACTUAL DESIGN SPEED 66 MPH

EROSION CONTROL LEGEND

- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2

NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS

- WETLANDS CATEGORY 1 OR 2

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP)

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
59	PROFILE SR823
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

LEGEND:

PAVEMENT TO BE CONSTRUCTED IN OTHER PART

07-0803.000
GERTRUDE B. MCKENZIE
TRUSTEE OF GERTRUDE B. MCKENZIE
REVOCABLE TRUST

07-1396.000
JOHN S., LUKE A., & BENJAMIN L. LESTER

07-1335.000
DARREN C. AND KIMBERLY S. JENKINS

ITEM 670 VSEP
14.5 LF x 400 LF = 644 SY

ITEM 601 TIED CONCRETE BLOCK MAT TYPE 2
147 SY

ITEM 601 TIED CONCRETE BLOCK MAT TYPE 2
305 SY

ITEM 670 VSEP
14.5 LF x 50 LF = 80 SY

CONST. LIMITS

LA-R/W

E-10 E-11 E-12 E-13 E-57

BM #11

SEC. 9
SEC. 4

TR234 RAMP D

℄ TR234 RAMP D

SR823 SB

SR823 NB

SR823

MATCH LINE STA. 402+50

MATCH LINE STA. 414+50

STA. 402+50

STA. 414+50

R-19 R-16

PT STA. 409+50.00
END TR234 RAMP D =
STA. 409+50.00, SR823

STA. 410+00.00
BEGIN PAVEMENT TAPER, 47' LT
BEGIN SHOULDER TAPER, 55' LT

STA. 411+00.00
END PAVEMENT TAPER, 35' LT
END SHOULDER TAPER, 45' LT

PT STA. 403+00.00
END TR234 RAMP A =
SR823 BEGIN PAVEMENT TAPER

STA. 408+50.00, 57' RT
BEGIN SHOULDER TAPER

STA. 409+50.00
END PAVEMENT TAPER, 47' RT
END SHOULDER TAPER, 57' RT

SINGLE SLOPE CONC. BARRIER, TYPE C1

CURVE #6

℄ CONSTRUCTION SR823

EX. POND

FENCE TO BE REMOVED

D-10 D-11 D-12 D-13

I-3C1

403 404 405 406 407 408 409 410 412 413 414

24' 9' 16' 8' 36' 24' 22' 10' 15' 48' 72" 15"

USER: CWohlbr; PLOT DATE= 9/15/2011 12:02:12 PM REVISION DATE= 9/15/2011
FILE...4HOR.Cu000000000045878 /1945sg005.dgn MODEL: Sheet

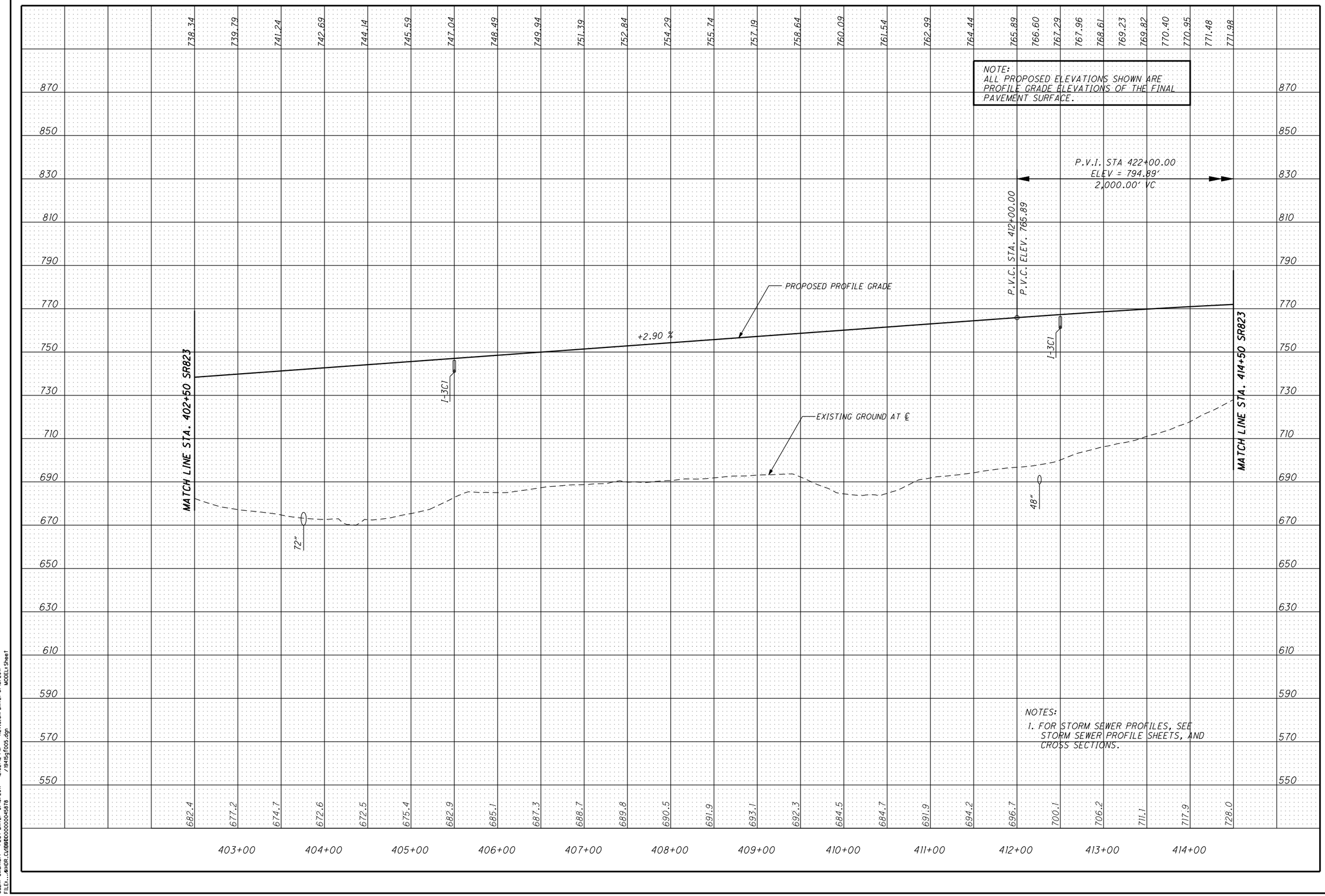
CALCULATED LBD/KAG
CHECKED JMB

HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN - SR823
STA. 402+00.00 TO STA. 414+50.00

SCI-823-6.81

58
535



PROFILE - SR823
STA. 402+50 TO STA. 414+50

CALCULATED LBD/KAG
CHECKED JMB

SCI-823-6.81

USER: CWohlbr; PLOT DATE: 9/15/2011 12:02:42 PM REVISION DATE: 9/15/2011
FILE...AMHDR.Cu000000000045878 /19415g1005.dgn MODEL: Sheet

SR823 CURVE # 6

P.I. STA.= 414+49.27
DELTA = 56° 54′ 24″ (LT)
Dc = 2° 00′ 00″
R = 2,864.79′
Ls = 400.00′
Theta = 4° 00′ 00″ (LT)
LT= 266.73′
ST = 133.40′
x = 399.81′
y = 9.31′
k = 199.97′
p = 2.33′
DELTAc = 48° 54′ 24″ (LT)
Lc = 2,445.33′
Tc = 1,302.74′
Ts = 1,753.66′
Es = 396.24′
Emax. = 0.065
DESIGN SPEED = 70 MPH
SSD= 663′ (730′ MIN)
ACTUAL DESIGN SPEED 66 MPH

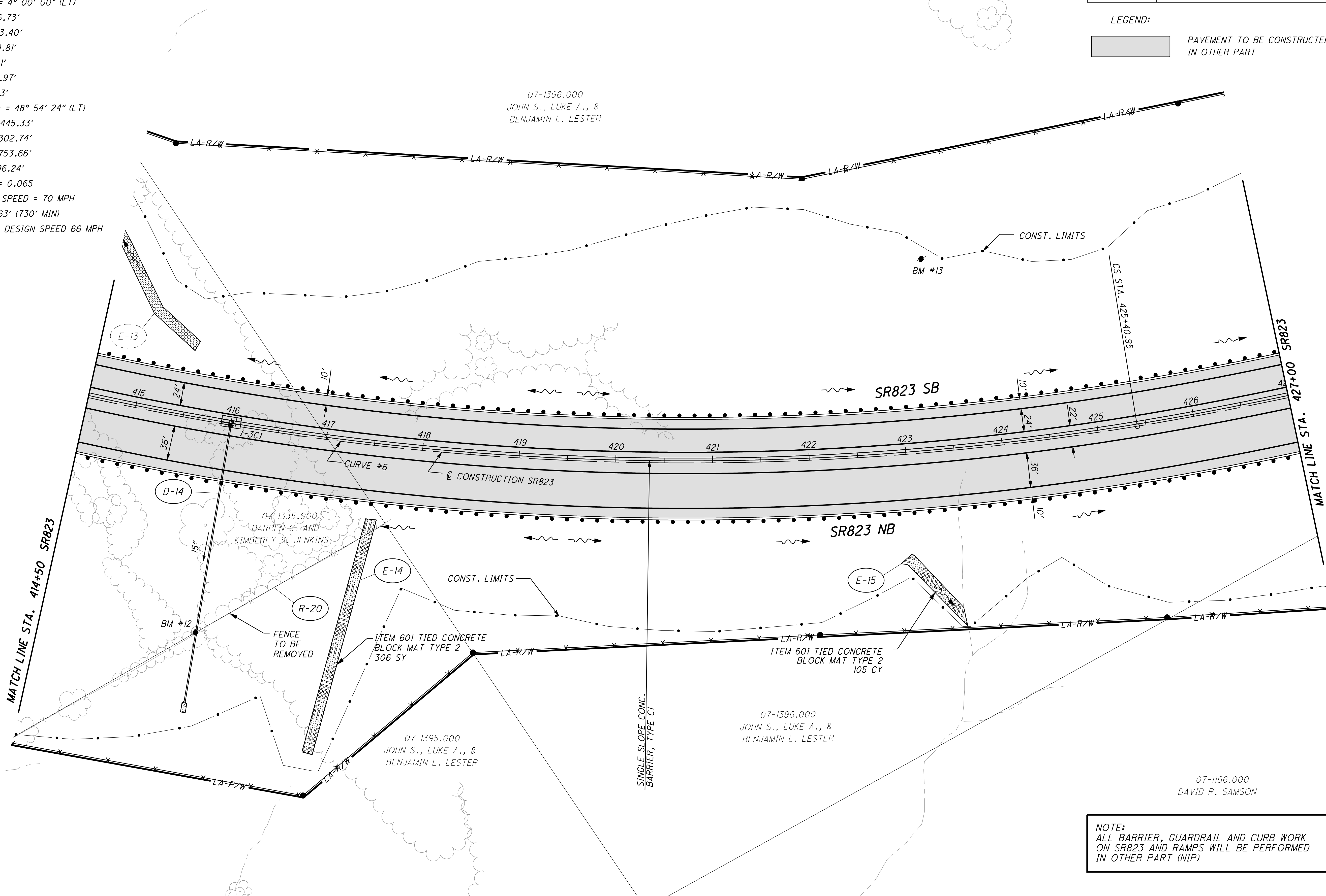
EROSION CONTROL LEGEND

670 VEGETATED SWALE EROSION PROTECTION TYPE B
836 TURF REINFORCING MAT
601 ROCK CHANNEL PROTECTION
601 TIED CONCRETE BLOCK MAT TYPE 2
NOTE: DITCH LININGS CHANGE AT EVEN 50′ STATIONS
WETLANDS CATEGORY 1 OR 2

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
61	PROFILE SR823
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

LEGEND:

PAVEMENT TO BE CONSTRUCTED IN OTHER PART



NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP)

HORIZONTAL SCALE IN FEET: 0 25 50 100

CALCULATED LBD/KAG
CHECKED JMB

PLAN - SR823
STA. 414+50.00 TO STA. 427+00.00

SCI-823-6.81

USER: CWahlbri PLOT DATE: 9/15/2011 12:03:12 PM REVISION DATE: 9/15/2011
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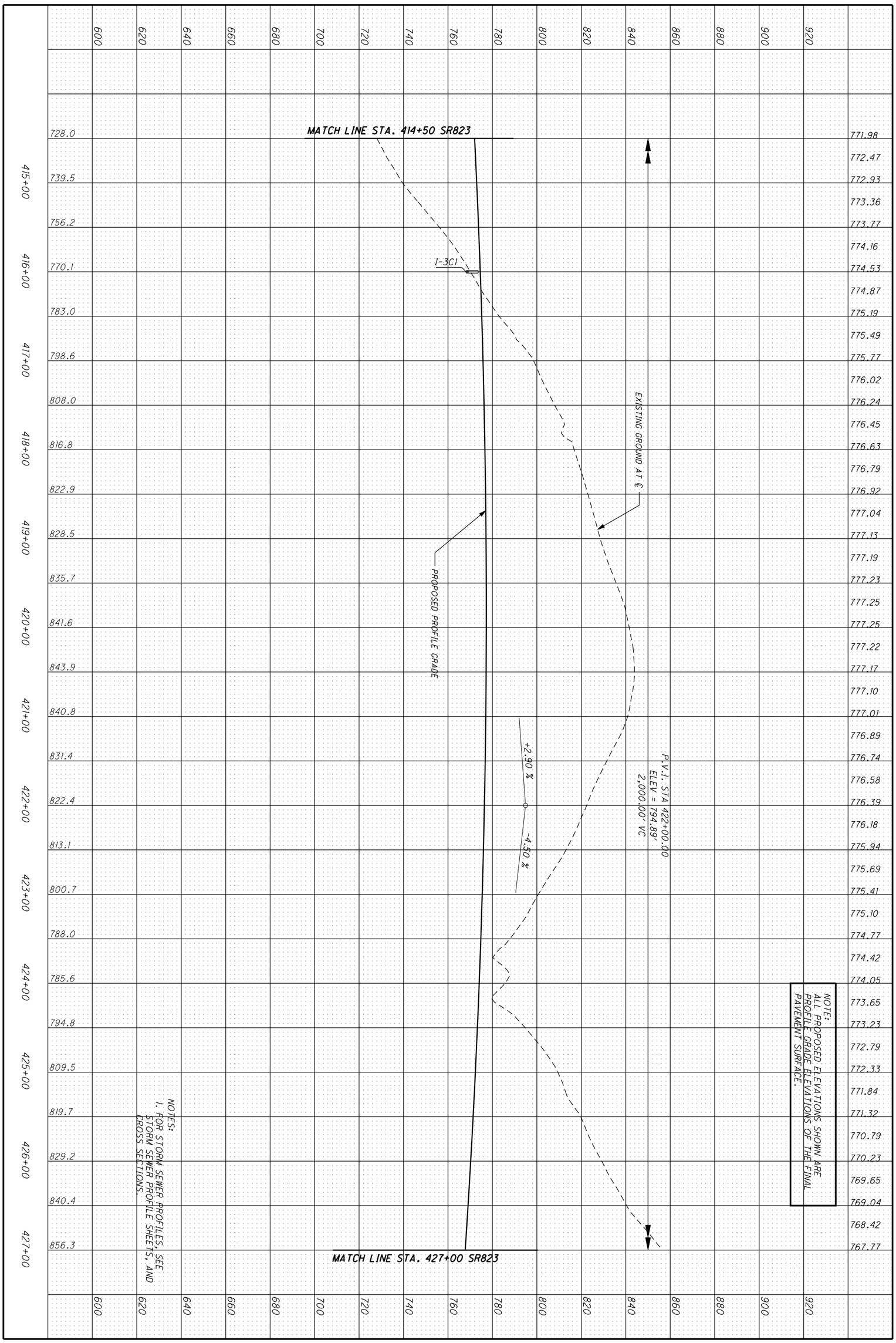


61 535	**SCI-823-6.81**	**PROFILE - SR823 STA. 414+50 TO STA. 427+00**
		CALCULATED LBD/KAG CHECKED JMB

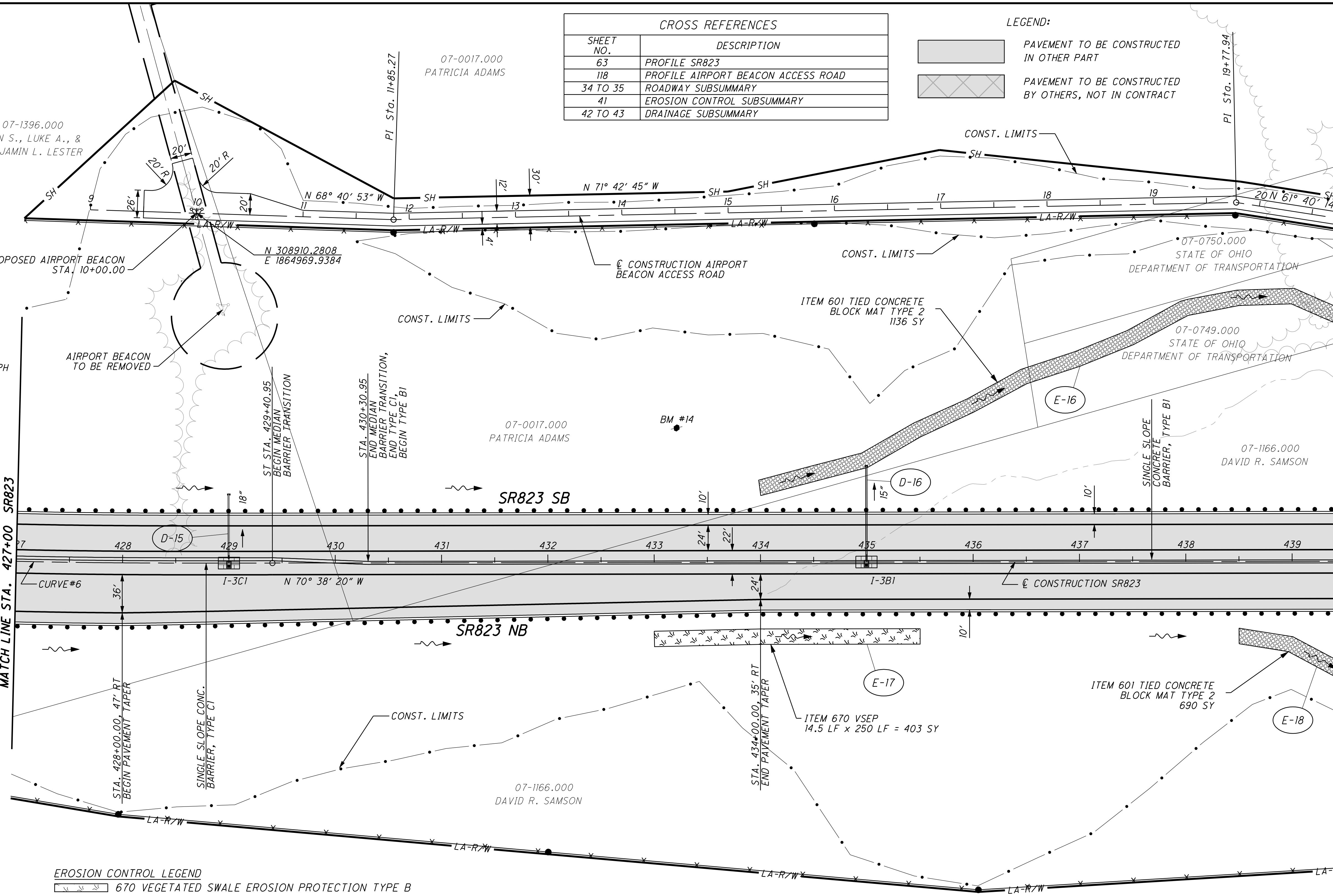
SR823 CURVE # 6

P.I. STA.= 414+49.27
DELTA = 56° 54' 24" (LT)
Dc = 2° 00' 00"
R = 2,864.79'
Ls = 400.00'
Theta = 4° 00' 00" (LT)
LT= 266.73'
ST = 133.40'
x = 399.81'
y = 9.31'
k = 199.97'
p = 2.33'
DELTAc = 48° 54' 24" (LT)
Lc = 2,445.33'
Tc = 1,302.74'
Ts = 1,753.66'
Es = 396.24'
Emax. = 0.065
DESIGN SPEED = 70 MPH
SSD= 663' (730' MIN)
ACTUAL DESIGN SPEED 66 MPH

CROSS REFERENCES

SHEET NO.	DESCRIPTION
63	PROFILE SR823
118	PROFILE AIRPORT BEACON ACCESS ROAD
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

LEGEND:
PAVEMENT TO BE CONSTRUCTED IN OTHER PART
PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT



EROSION CONTROL LEGEND
670 VEGETATED SWALE EROSION PROTECTION TYPE B
836 TURF REINFORCING MAT
601 ROCK CHANNEL PROTECTION
601 TIED CONCRETE BLOCK MAT TYPE 2
NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS
WETLANDS CATEGORY 1 OR 2

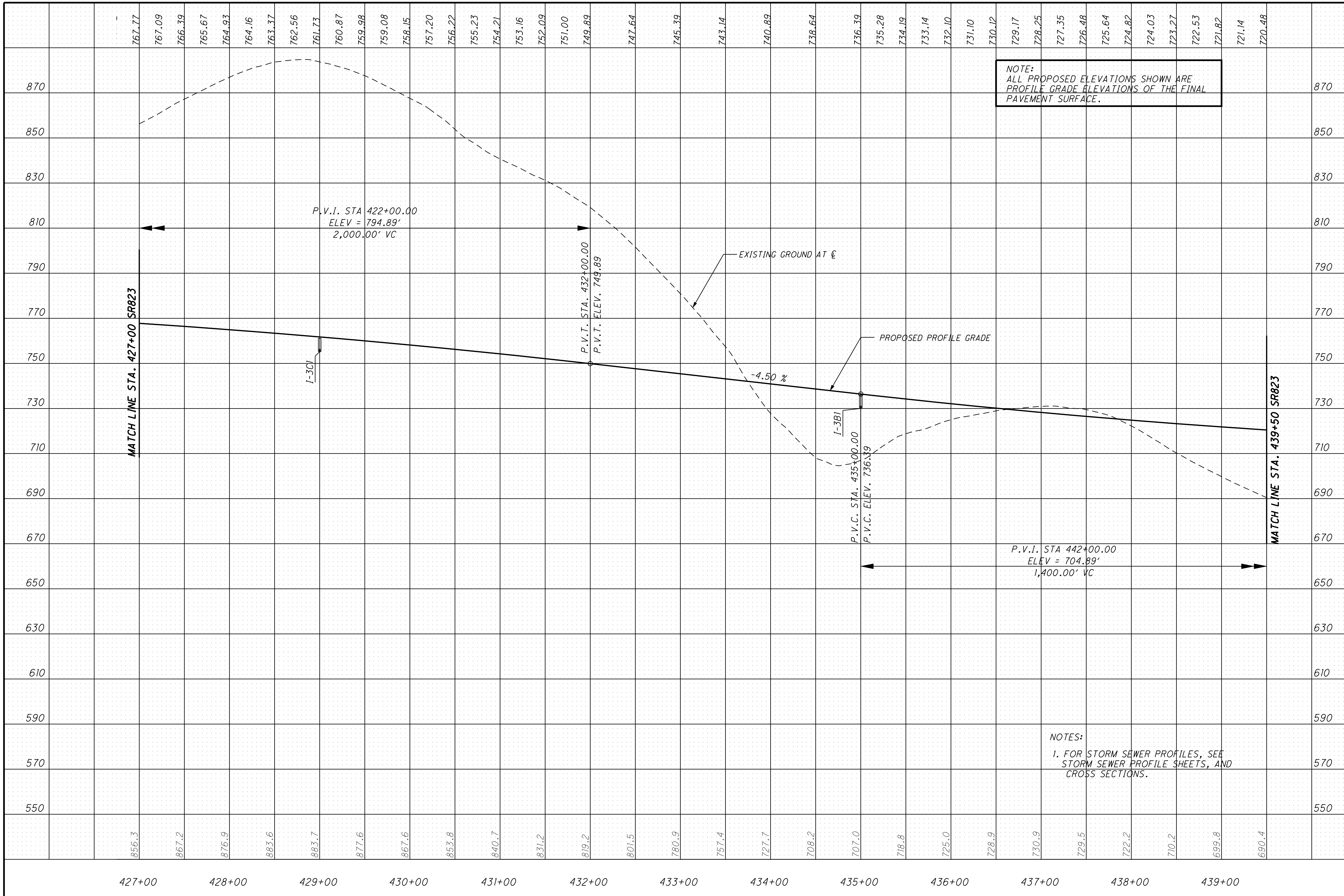
NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP)

HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED LBD/KAG
CHECKED JMB

PLAN - SR823
STA. 427+00.00 TO STA. 439+50.00

SCI-823-6.81


767.77 767.09 766.39 765.67 764.93 764.16 763.37 762.56 761.73 760.87 759.98 759.08 758.15 757.20 756.22 755.23 754.21 753.16 752.09 751.00 749.89 747.64 745.39 743.14 740.89 738.64 736.39 735.28 734.19 733.14 732.10 731.10 730.12 729.17 728.25 727.35 726.48 725.64 724.82 724.03 723.27 722.53 721.82 721.14 720.48
NOTE:
ALL PROPOSED ELEVATIONS SHOWN ARE PROFILE GRADE ELEVATIONS OF THE FINAL PAVEMENT SURFACE.
P.V.I. STA 422+00.00
ELEV = 794.89'
2,000.00' VC
EXISTING GROUND AT ℄
P.V.T. STA. 432+00.00
P.V.T. ELEV. 749.89
MATCH LINE STA. 427+00 SR823
PROPOSED PROFILE GRADE
I-3C1
-4.50 %
I-3B1
P.V.C. STA. 435+00.00
P.V.C. ELEV. 736.39
MATCH LINE STA. 439+50 SR823
P.V.I. STA 442+00.00
ELEV = 704.89'
1,400.00' VC
NOTES:
1. FOR STORM SEWER PROFILES, SEE STORM SEWER PROFILE SHEETS, AND CROSS SECTIONS.
870 850 830 810 790 770 750 730 710 690 670 650 630 610 590 570 550
856.3 867.2 876.9 883.6 883.7 877.6 867.6 853.8 840.7 831.2 819.2 801.5 780.9 757.4 727.7 708.2 707.0 718.8 725.0 728.9 730.9 729.5 722.2 710.2 699.8 690.4
427+00 428+00 429+00 430+00 431+00 432+00 433+00 434+00 435+00 436+00 437+00 438+00 439+00

CALCULATED LBD/KAG
CHECKED JMB

PROFILE - SR823
STA. 427+00 TO STA. 439+50

SCI-823-6.81

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
65	PROFILE SR823
118	PROFILE AIRPORT BEACON ACCESS ROAD
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

LEGEND:

PAVEMENT TO BE CONSTRUCTED IN OTHER PART

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP)

CURVE C1 (AIRPORT BEACON ACCESS ROAD)
P.I.= Sta. 22+08.29
DELTA = 24° 43' 38" (LT)
Dc = 28° 38' 52"
R = 200.00'
T = 43.84'
L = 86.31'
E = 4.75'

NOTE:
BRIDGE AND APPROACH SLABS PERFORMED IN OTHER PART (NIP)

EROSION CONTROL LEGEND
- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2
- NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS
- WETLANDS CATEGORY 1 OR 2

HORIZONTAL SCALE IN FEET: 0, 25, 50, 100

CALCULATED LBD/KAG
CHECKED JMB

PLAN - SR823
STA. 439+50.00 TO STA. 452+00.00

SCI-823-6.81

64
535

USER: Cmahlbri PLOT DATE: 9/15/2011 1200404 PM REVISION DATE: 9/15/2011 MODEL: Sheet
FILES:...\MHDR_C\DB0000000045878 /79415gp008.dgn

NOTE:
ALL PROPOSED ELEVATIONS SHOWN ARE PROFILE GRADE ELEVATIONS OF THE FINAL PAVEMENT SURFACE.

NOTES:
1. FOR STORM SEWER PROFILES, SEE STORM SEWER PROFILE SHEETS, AND CROSS SECTIONS.

CALCULATED
LBD/KAG
CHECKED
JMB

PROFILE - 823
STA. 439+50 TO STA. 452+00

SCI-823-6.81

USER: CWahlbri PLOT DATE: 9/15/2011 12:04:15 PM REVISION DATE: 9/15/2011
FILE:...\HDR_CLIENT\000000000045878/19415gf008.dgn MODEL: Sheet

EROSION CONTROL LEGEND

- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2

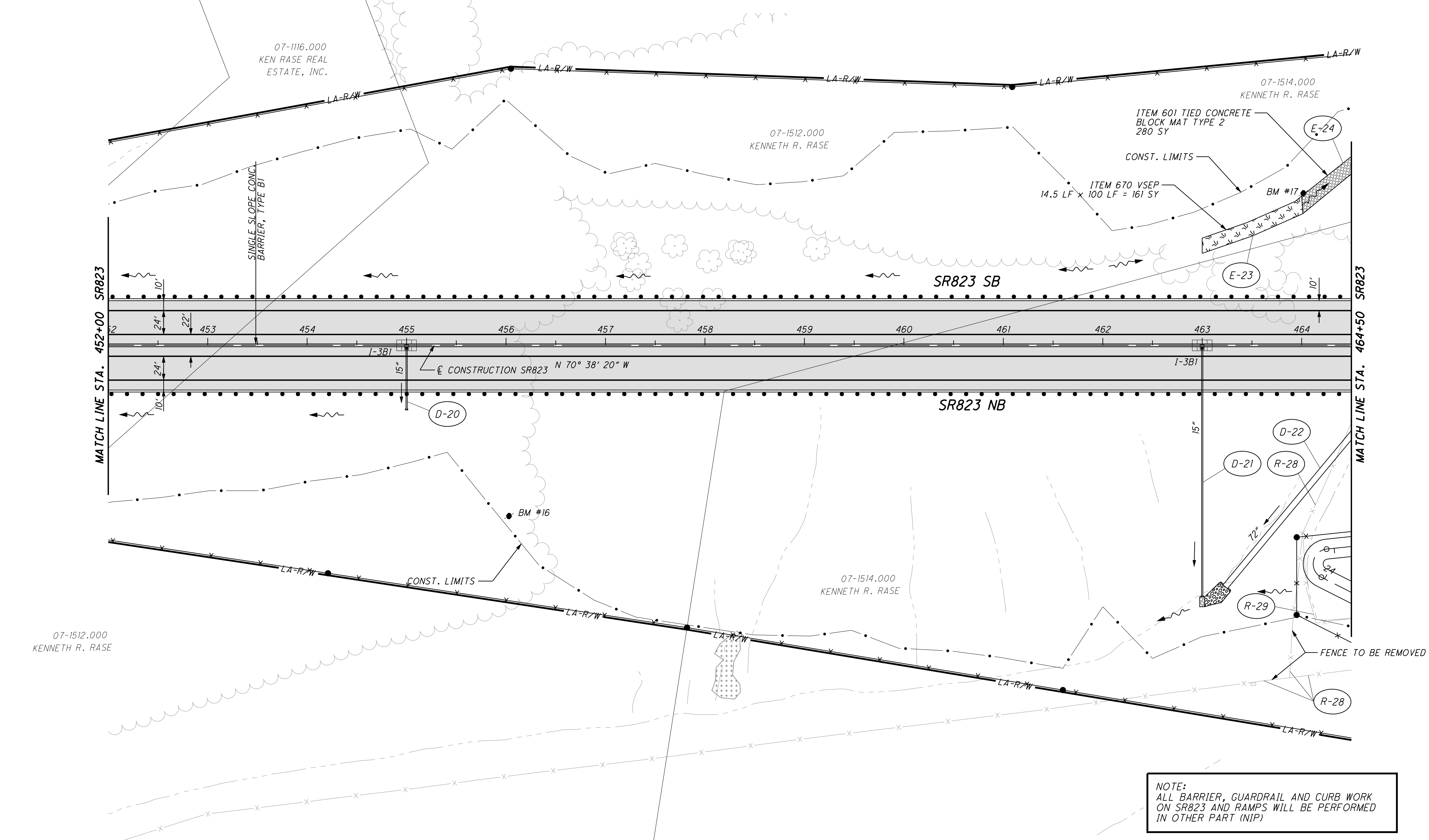
NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS

- WETLANDS CATEGORY 1 OR 2

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
67	PROFILE SR823
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

LEGEND:

PAVEMENT TO BE CONSTRUCTED IN OTHER PART



NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP)

HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED LBD/KAG
CHECKED JMB

PLAN - SR823
STA. 452+00.00 TO STA. 464+50.00

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 12:04:37 PM REVISION DATE: 9/15/2011
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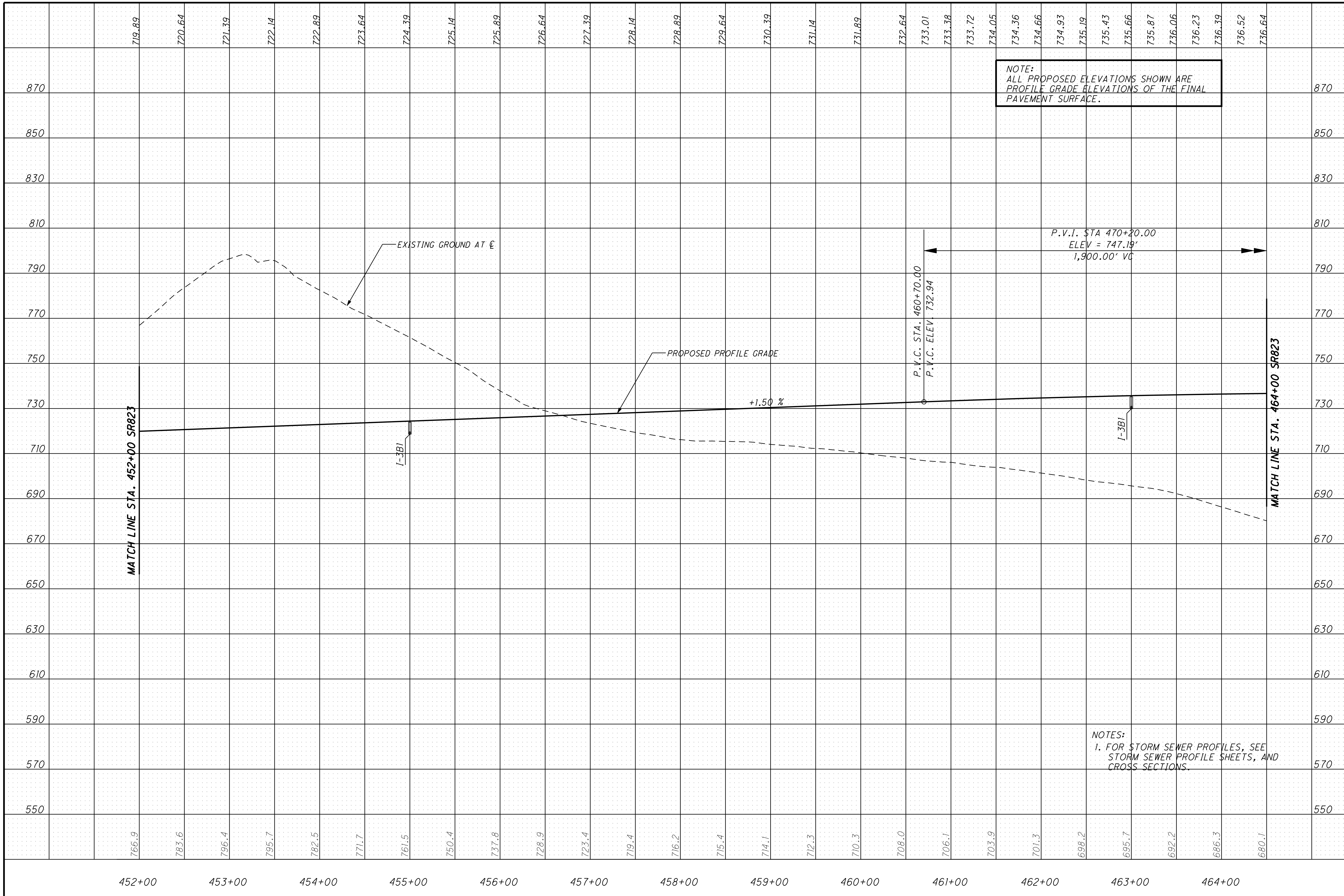

NOTE:
ALL PROPOSED ELEVATIONS SHOWN ARE PROFILE GRADE ELEVATIONS OF THE FINAL PAVEMENT SURFACE.
NOTES:
1. FOR STORM SEWER PROFILES, SEE STORM SEWER PROFILE SHEETS, AND CROSS SECTIONS.
EXISTING GROUND AT ℄
PROPOSED PROFILE GRADE
+1.50 %
P.V.I. STA 470+20.00
ELEV = 747.19'
1,900.00' VC
P.V.C. STA. 460+70.00
P.V.C. ELEV 732.94
MATCH LINE STA. 452+00 SR823
MATCH LINE STA. 464+00 SR823
I-3B1
I-3B1
870
850
830
810
790
770
750
730
710
690
670
650
630
610
590
570
550
719.89
720.64
721.39
722.14
722.89
723.64
724.39
725.14
725.89
726.64
727.39
728.14
728.89
729.64
730.39
731.14
731.89
732.64
733.01
733.38
733.72
734.05
734.36
734.66
734.93
735.19
735.43
735.66
735.87
736.06
736.23
736.39
736.52
736.64
766.9
783.6
796.4
795.7
782.5
771.7
761.5
750.4
737.8
728.9
723.4
719.4
716.2
715.4
714.1
712.3
710.3
708.0
706.1
703.9
701.3
698.2
695.7
692.2
686.3
680.1
452+00
453+00
454+00
455+00
456+00
457+00
458+00
459+00
460+00
461+00
462+00
463+00
464+00

CALCULATED LBD/KAG
CHECKED JMB

PROFILE- SR823
STA. 452+50 TO STA. 464+00

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 12:04:46 PM REVISION DATE: 9/15/2011
FILE: ...4IHOR_CV\89000000045878 /19415gf009.dgn MODEL: Sheet

SR823 CURVE # 7

P.I. STA. = 482+11.90
DELTA= 21° 42' 25" (RT)
Dc = 1° 00' 00"
R = 5,729.58'
Ls = 225.00'
Theta = 1° 07' 30" (RT)
LT = 150.00'
ST = 75.00'
x = 224.99'
y = 1.47'
k = 112.50'
p = 0.37'
DELTAc = 19° 27' 25" (RT)
Lc = 1,945.70'
Tc = 982.31'
Ts = 1,211.09'
Es = 104.73'
Emax. = 0.036
DESIGN SPEED = 70 MPH

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
69	PROFILE SR823
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP)

LEGEND:
PAVEMENT TO BE CONSTRUCTED IN OTHER PART

07-1514.00
RASE, KENNETH R.

SR823 CURVE # 7
SINGLE SLOPE CONC. BARRIER, TYPE B1
LA-R/W
CONST. LIMITS
ITEM 601 TIED CONCRETE BLOCK MAT TYPE 2 102 SY
ITEM 601 TIED CONCRETE BLOCK MAT TYPE 2 274 SY
ITEM 601 TIED CONCRETE BLOCK MAT TYPE 2 256 SY
REMOVE EXIST. STRUCTURE AND ANY ASSOCIATED PIPE
BM #18
ITEM 836 TRM TYPE 1 14.5 LF x 100 LF = 161 SY
ITEM 670 VSEP 11 LF x 100 LF = 122 SY
FENCE TO BE REMOVED
EX. POND
SR823 SB
SR823 NB
MATCH LINE STA. 464+50 SR823
MATCH LINE STA. 477+00 SR823
℄ CONSTRUCTION SR823
N 70° 38' 20" W
CURVE # 7
I-3B1
TS STA. 470+00.81
STA. 471+88.31 END TYPE B1, BEGIN TYPE C1
SC STA. 472+25.81
STA. 473+43.63 ANCHOR ASSEMBLY, TYPE T
SINGLE SLOPE CONC. BARRIER, TYPE C1
12'X12' CATTLE CROSSING
℄ CATTLE CROSSING
FENCE TO BE REMOVED
CONST. LIMITS

EROSION CONTROL LEGEND
- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2

NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS
- WETLANDS CATEGORY 1 OR 2

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED LBD/KAG
CHECKED JMB

PLAN - SR823
STA. 464+50.00 TO STA. 477+00.00

SCI-823-6.81

USER: CWohlbr; PLOT DATE: 9/15/2011 12:05:09 PM REVISION DATE: 9/15/2011 MODEL: Sheet
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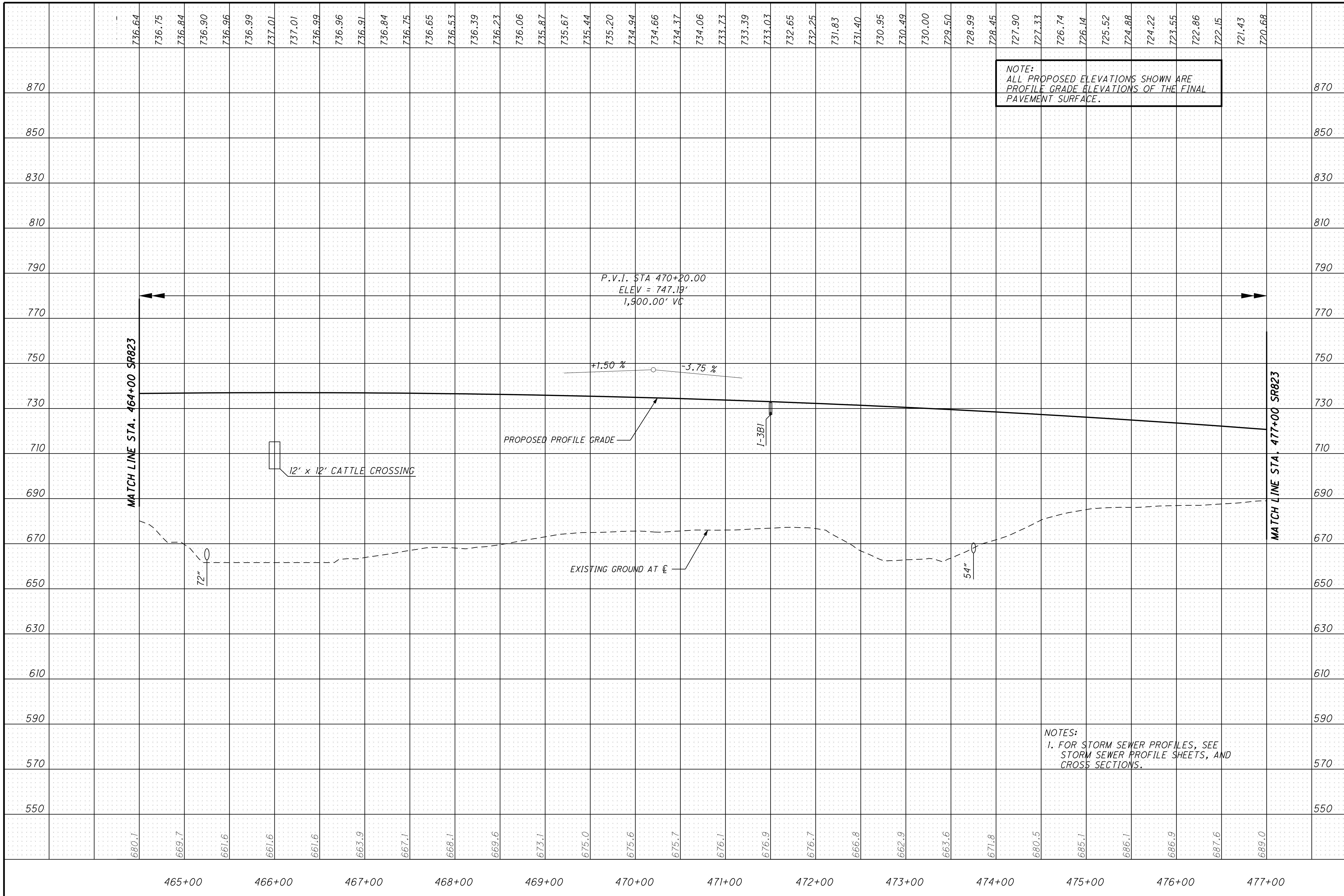

736.64 736.75 736.84 736.90 736.96 736.99 737.01 737.01 736.99 736.96 736.91 736.84 736.75 736.65 736.53 736.39 736.23 736.06 735.87 735.67 735.44 735.20 734.94 734.66 734.37 734.06 733.73 733.39 733.03 732.65 732.25 731.83 731.40 730.95 730.49 730.00 729.50 728.99 728.45 727.90 727.33 726.74 726.14 725.52 724.88 724.22 723.55 722.86 722.15 721.43 720.68
870
850
830
810
790
770
750
730
710
690
670
650
630
610
590
570
550
P.V.I. STA 470+20.00
ELEV = 747.19'
1,900.00' VC
+1.50 %
-3.75 %
MATCH LINE STA. 464+00 SR823
MATCH LINE STA. 477+00 SR823
PROPOSED PROFILE GRADE
1-3B1
12' x 12' CATTLE CROSSING
EXISTING GROUND AT ℄
72"
54"
680.1 669.7 661.6 661.6 661.6 663.9 667.1 668.1 669.6 673.1 675.0 675.6 675.7 676.1 676.9 676.7 666.8 662.9 663.6 671.8 680.5 685.1 686.1 686.9 687.6 689.0
465+00 466+00 467+00 468+00 469+00 470+00 471+00 472+00 473+00 474+00 475+00 476+00 477+00

NOTE:
ALL PROPOSED ELEVATIONS SHOWN ARE PROFILE GRADE ELEVATIONS OF THE FINAL PAVEMENT SURFACE.

NOTES:
1. FOR STORM SEWER PROFILES, SEE STORM SEWER PROFILE SHEETS, AND CROSS SECTIONS.

CALCULATED LBD/KAG
CHECKED JMB

PROFILE- SR823 STA. 464+00 TO STA. 477+00

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 12:05:18 PM REVISION DATE: 9/15/2011
FILE: ...\HDR_CL\...\19415gf010.dgn MODEL: Sheet

SR823 CURVE # 7

P.I. STA. = 482+11.90
DELTA= 21° 42' 25" (RT)
Dc = 1° 00' 00"
R = 5,729.58'
Ls = 225.00'
Theta = 1° 07' 30" (RT)
LT = 150.00'
ST = 75.00'
x = 224.99'
y = 1.47'
k = 112.50'
p = 0.37'
DELTAc = 19° 27' 25" (RT)
Lc = 1,945.70'
Tc = 982.31'
Ts = 1,211.09'
Es = 104.73'
Emax. = 0.036
DESIGN SPEED = 70 MPH

EROSION CONTROL LEGEND

- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2

NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS

- WETLANDS CATEGORY 1 OR 2

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
71	PROFILE SR823
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

LEGEND:

PAVEMENT TO BE CONSTRUCTED IN OTHER PART

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP)

NOTE:
BRIDGE AND APPROACH SLABS PERFORMED IN OTHER PART (NIP)

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED LBD/KAG
CHECKED JMB

PLAN - SR823
STA. 477+00.00 TO STA. 489+50.00

SCI-823-6.81

70
535

USER: CWahlbr1 PLOT DATE: 9/15/2011 12:05:44 PM REVISION DATE: 9/15/2011
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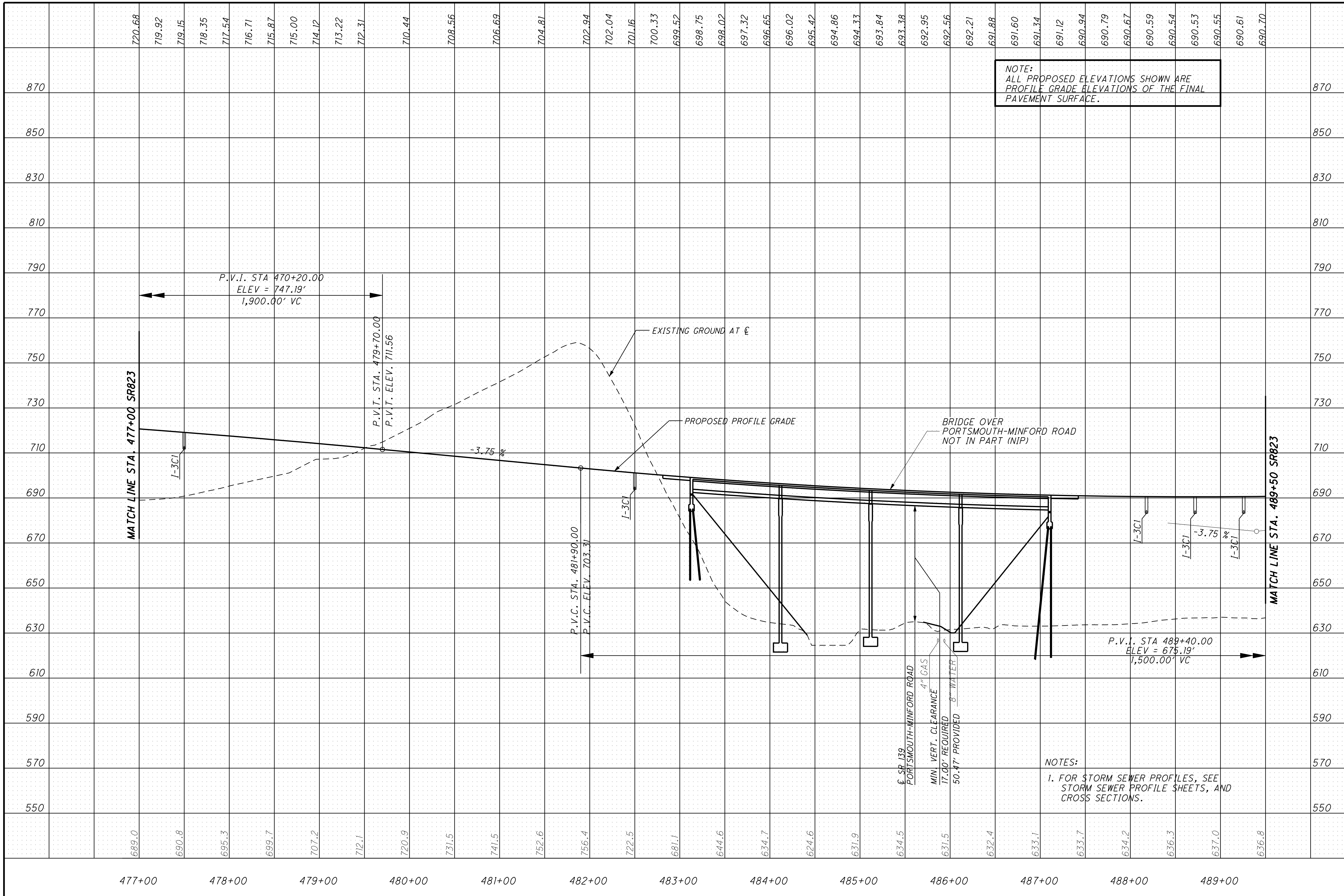

NOTE:
ALL PROPOSED ELEVATIONS SHOWN ARE PROFILE GRADE ELEVATIONS OF THE FINAL PAVEMENT SURFACE.
P.V.I. STA 470+20.00
ELEV = 747.19'
1,900.00' VC
P.V.T. STA. 479+70.00
P.V.T. ELEV. 711.56
EXISTING GROUND AT ℄
PROPOSED PROFILE GRADE
-3.75 %
MATCH LINE STA. 477+00 SR823
P.V.C. STA. 481+90.00
P.V.C. ELEV. 703.31
BRIDGE OVER PORTSMOUTH-MINFORD ROAD NOT IN PART (NIP)
MATCH LINE STA. 489+50 SR823
P.V.I. STA 489+40.00
ELEV = 675.19'
1,500.00' VC
℄ SR 139 PORTSMOUTH-MINFORD ROAD
4" GAS
8" WATER
MIN. VERT. CLEARANCE
17.00' REQUIRED
50.47' PROVIDED
I-3CI
NOTES:
1. FOR STORM SEWER PROFILES, SEE STORM SEWER PROFILE SHEETS, AND CROSS SECTIONS.
720.68 719.92 719.15 718.35 717.54 716.71 715.87 715.00 714.12 713.22 712.31 710.44 708.56 706.69 704.81 702.94 702.04 701.16 700.33 699.52 698.75 698.02 697.32 696.65 696.02 695.42 694.86 694.33 693.84 693.38 692.95 692.56 692.21 691.88 691.60 691.34 691.12 690.94 690.79 690.67 690.59 690.54 690.53 690.55 690.61 690.70
689.0 690.8 695.3 699.7 707.2 712.1 720.9 731.5 741.5 752.6 756.4 722.5 681.1 644.6 634.7 624.6 631.9 634.5 631.5 632.4 633.1 633.7 634.2 636.3 637.0 636.8
870 850 830 810 790 770 750 730 710 690 670 650 630 610 590 570 550
477+00 478+00 479+00 480+00 481+00 482+00 483+00 484+00 485+00 486+00 487+00 488+00 489+00

CALCULATED LBD/KAG
CHECKED JMB

PROFILE- SR823
STA. 477+00 TO STA. 489+50

SCI-823-6.81

71
535

USER: CWahlbri PLOT DATE: 9/15/2011 12:05:55 PM REVISION DATE: 9/15/2011
FILE: ...AIHDR_CV\89000000045878 /19415gf011.dgn MODEL: Sheet

07-1056.000
DORA JANE POWELL

07-1062.000
KEVIN MATK POWELL

07-1063.000
RICHARD W. AND
BARBARA J. TROWBRIDGE

07-1374.002
RICHARD AND
BARBARA TROWBRIDGE

EROSION CONTROL LEGEND
- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2
- NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS
- WETLANDS CATEGORY 1 OR 2

SR823 CURVE # 7

P.I. STA. = 482+11.90
DELTA= 21° 42' 25" (RT)
Dc = 1° 00' 00"
R = 5,729.58'
Ls = 225.00'
Theta = 1° 07' 30" (RT)
LT = 150.00'
ST = 75.00'
x = 224.99'
y = 1.47'
k = 112.50'
p = 0.37'
DELTAc = 19° 27' 25" (RT)
Lc = 1,945.70'
Tc = 982.31'
Ts = 1,211.09'
Es = 104.73'
Emax. = 0.036
DESIGN SPEED = 70 MPH

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
73	PROFILE SR823
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

LEGEND:

PAVEMENT TO BE CONSTRUCTED IN OTHER PART

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP)

ITEM 836 TRM TYPE 1
14.5 LF x 475 LF = 765 SY

ITEM 601 TIED CONCRETE BLOCK TYPE 2
397 SY

SINGLE SLOPE CONC. BARRIER, TYPE C1

SR823 SB

SR823 NB

MATCH LINE STA. 489+50 SR823

MATCH LINE STA. 502+00 SR823

D-37 D-38 D-39 D-40 D-41

I-3B I-3C I-3D

CURVE #7

N 48° 55' 55" W

℄ CONSTRUCTION SR823

SIDE DITCH INLET

NOISE BARRIER (NIP)

STA. 489+55.00
BEGIN PAVED GUTTER (NIP)

PAVED GUTTER, TYPE 1-2 (NIP)

CS STA. 491+71.51

STA. 492+09.01
END TYPE C1,
BEGIN TYPE B1

ST STA. 493+96.51

SINGLE SLOPE CONC. BARRIER, TYPE B1

ITEM 836 TRM TYPE 1
7.5 LF x 200 LF = 167 SY

ITEM 670 VSEP
7.5 LF x 400 LF = 333 SY

BM #21

E-32 E-33 E-34 E-35

LA-R/W

CONST. LIMITS

07-1063.000
RICHARD W. AND
BARBARA J. TROWBRIDGE

07-1374.000
RICHARD TROWBRIDGE,
JAMES TROWBRIDGE, &
ROBERT TROWBRIDGE

07-2194.000
ELMER JR. AND
VIRGINIA L. OLIVER

07-2137.000
MICHAEL L.
MILLIGAN

07-1807.000
MICHAEL L.
MILLIGAN

07-2228.000
DAVID K. AND
SANDRA K.
SHONKWILER

07-2229.000
BARBARA A.
BENNETT

07-2125.000
LARRY E. AND
ANGES ROUSH

07-2280.000
PAMELA
CLOSSON
AND EUNICE
SCHROEDER

07-1810.000
MICHAEL J.
AND
HELEN M.
ARNETT

07-2301.000
TIMOTHY
ALLEN
SHONKWILER

07-2302.000
KIMBERLY MCROBERTS

SHED
2 STY. RES.
1 STY. RES.
FR. GAR.

Ex R/W

PLAN - SR823
STA. 489+50.00 TO STA. 502+00.00

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED LBD/KAG
CHECKED JMB

SCI-823-6.81

72
535

USER: CWahlbr1 PLOT DATE: 9/15/2011 12:06:18 PM REVISION DATE: 9/15/2011
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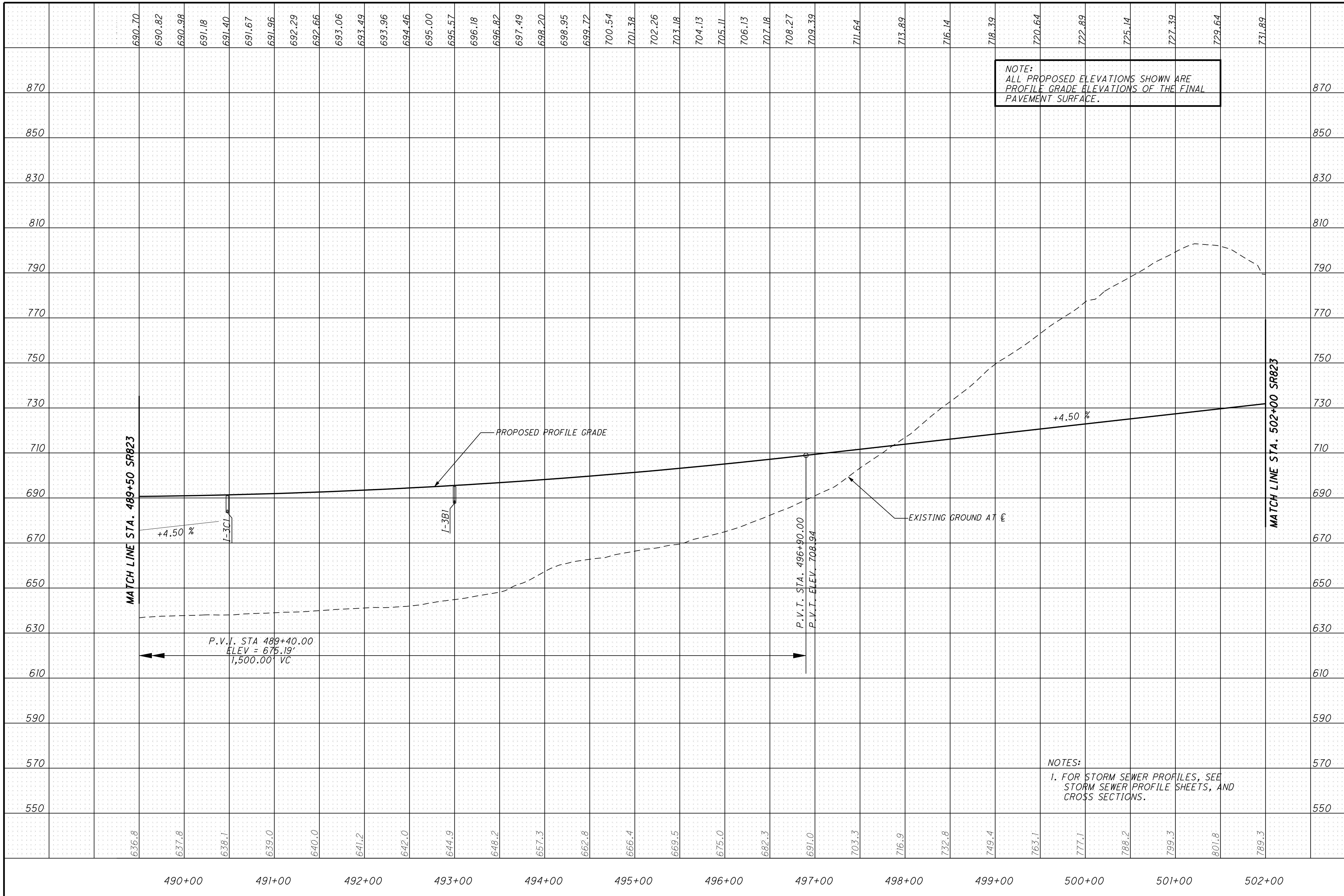

690.70 690.82 690.98 691.18 691.40 691.67 691.96 692.29 692.66 693.06 693.49 693.96 694.46 695.00 695.57 696.18 696.82 697.49 698.20 698.95 699.72 700.54 701.38 702.26 703.18 704.13 705.11 706.13 707.18 708.27 709.39 711.64 713.89 716.14 718.39 720.64 722.89 725.14 727.39 729.64 731.89
NOTE:
ALL PROPOSED ELEVATIONS SHOWN ARE PROFILE GRADE ELEVATIONS OF THE FINAL PAVEMENT SURFACE.
870
850
830
810
790
770
750
730
710
690
670
650
630
610
590
570
550
MATCH LINE STA. 489+50 SR823
MATCH LINE STA. 502+00 SR823
+4.50 %
+4.50 %
PROPOSED PROFILE GRADE
EXISTING GROUND AT ℄
I-3CI
I-3BI
P.V.T. STA. 496+90.00
P.V.T. ELEV. 708.94
P.V.I. STA 489+40.00
ELEV = 675.19'
1,500.00' VC
NOTES:
1. FOR STORM SEWER PROFILES, SEE STORM SEWER PROFILE SHEETS, AND CROSS SECTIONS.
636.8 637.8 638.1 639.0 640.0 641.2 642.0 644.9 648.2 657.3 662.8 666.4 669.5 675.0 682.3 691.0 703.3 716.9 732.8 749.4 763.1 777.1 788.2 799.3 801.8 789.3
490+00 491+00 492+00 493+00 494+00 495+00 496+00 497+00 498+00 499+00 500+00 501+00 502+00

CALCULATED LBD/KAG
CHECKED JMB

PROFILE- SR823
STA. 489+50 TO STA. 502+00

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 12:06:28 PM REVISION DATE: 9/15/2011
FILE: ...\HDR_CV\D000000000045878 /19415gf012.dgn MODEL: Sheet

PLAN - SR823
STA. 502+00.00 TO STA. 514+50.00

CROSS REFERENCES

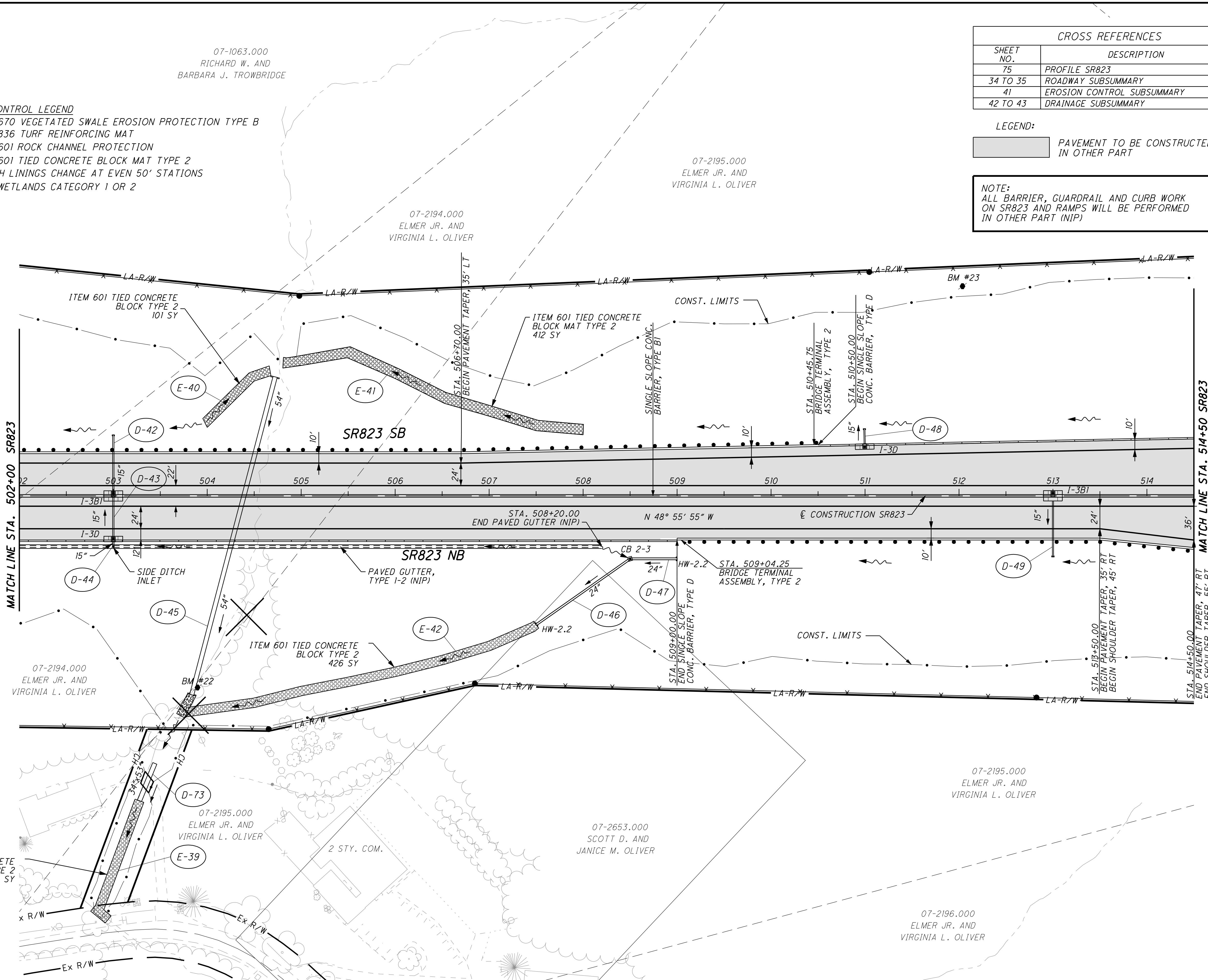
SHEET NO.	DESCRIPTION
75	PROFILE SR823
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

LEGEND:

PAVEMENT TO BE CONSTRUCTED IN OTHER PART

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP)

EROSION CONTROL LEGEND
- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2
- NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS
- WETLANDS CATEGORY 1 OR 2



HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED LBD/KAG CHECKED JMB

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 12:06:50 PM REVISION DATE: 9/15/2011 FILE: ...\HDR_CL\1900000000045878 \19415gp013.dgn MODEL: Sheet

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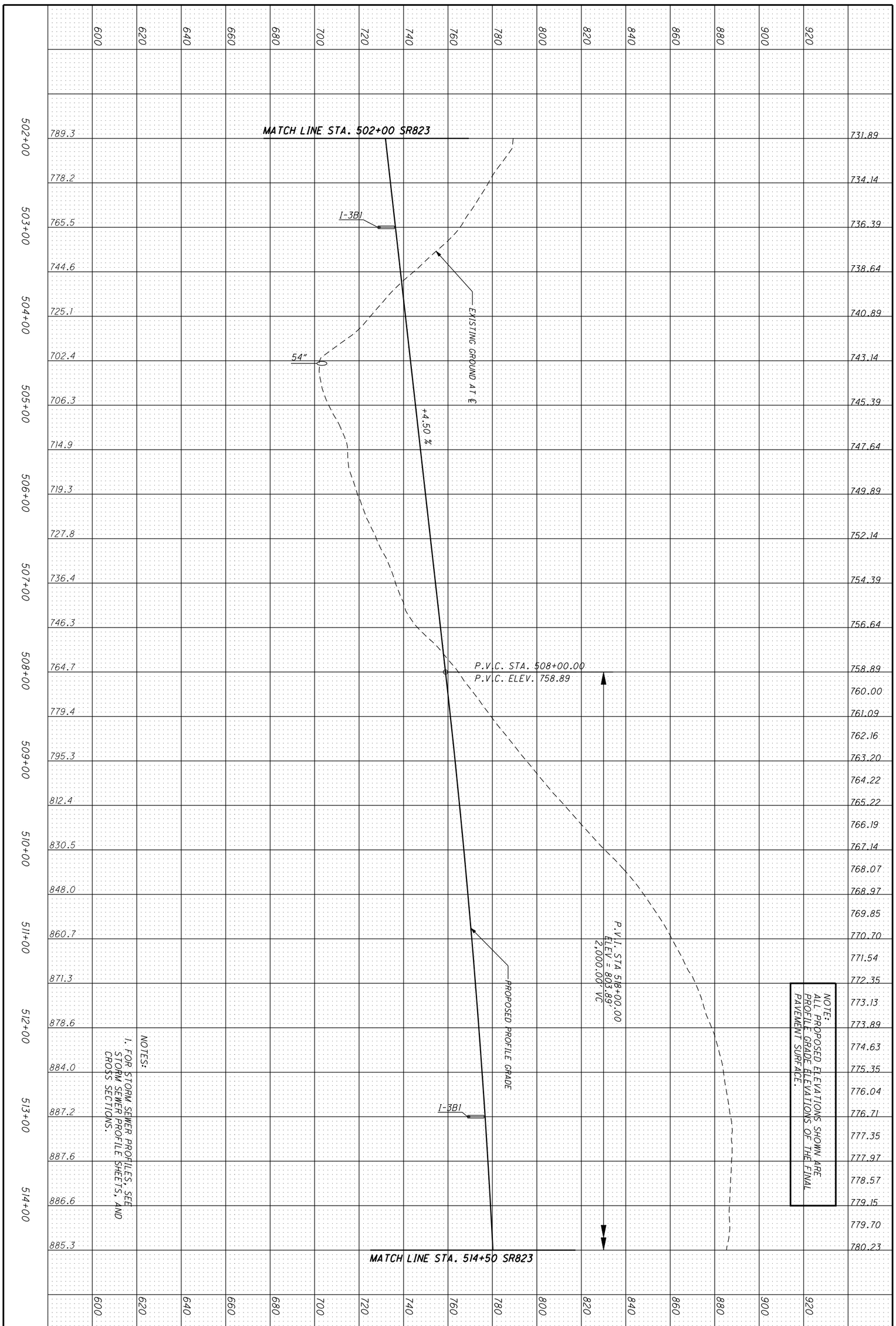


75 / 535	SCI-823-6.81	PROFILE- SR823 STA. STA. 502+00 TO STA. 514+50	CALCULATED LBD/KAG CHECKED JMB

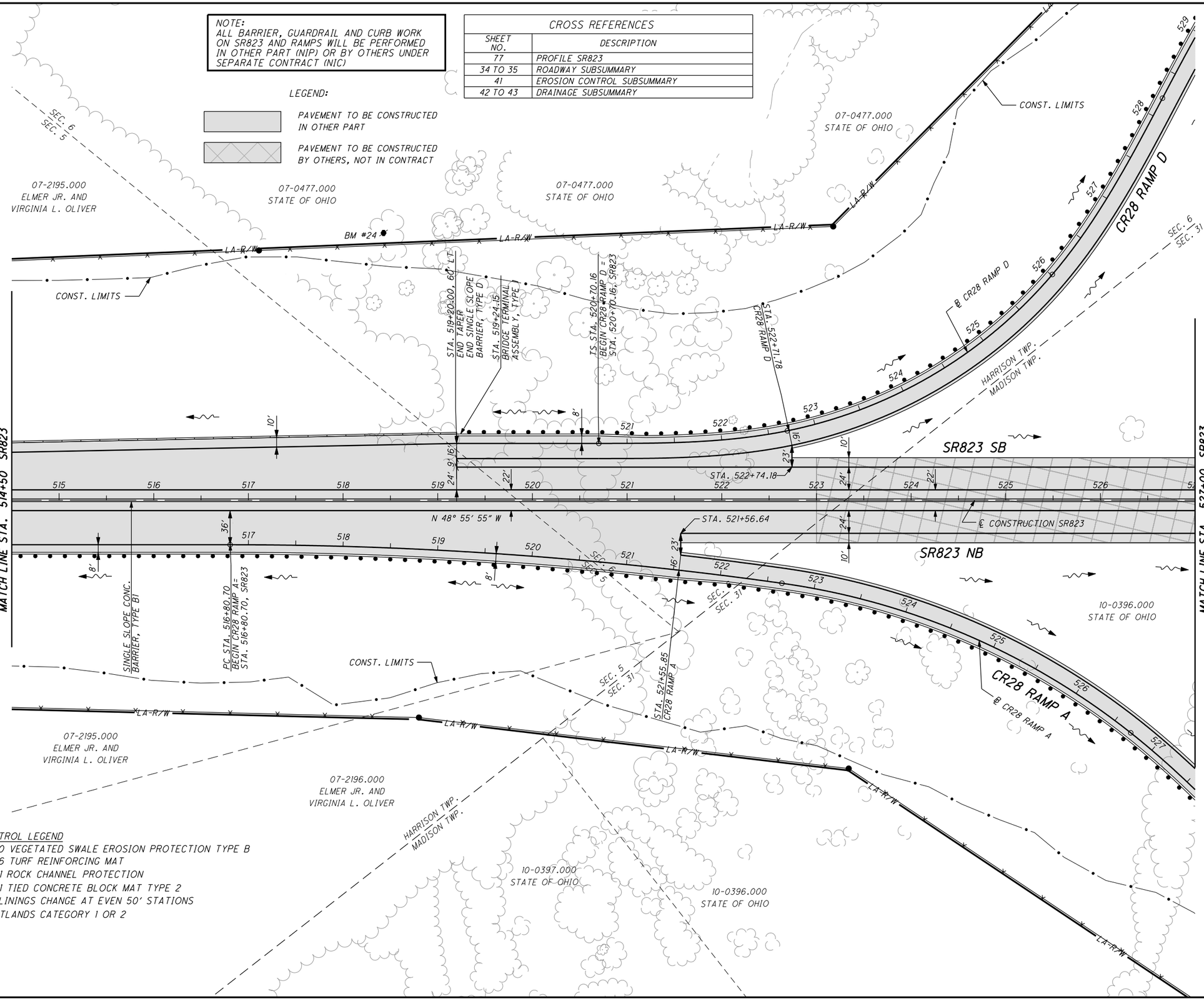
NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP) OR BY OTHERS UNDER SEPARATE CONTRACT (NIC)

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
77	PROFILE SR823
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

LEGEND:

PAVEMENT TO BE CONSTRUCTED IN OTHER PART

PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT



EROSION CONTROL LEGEND

- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2

NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS

- WETLANDS CATEGORY 1 OR 2

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED LBD/KAG
CHECKED JMB

PLAN - SR823
STA. 514+50.00 TO STA. 527+00.00

SCI-823-6.81

76
535

USER: Cwahlbri PLOT DATE: 9/15/2011 12:07:20 PM REVISION DATE: 9/15/2011
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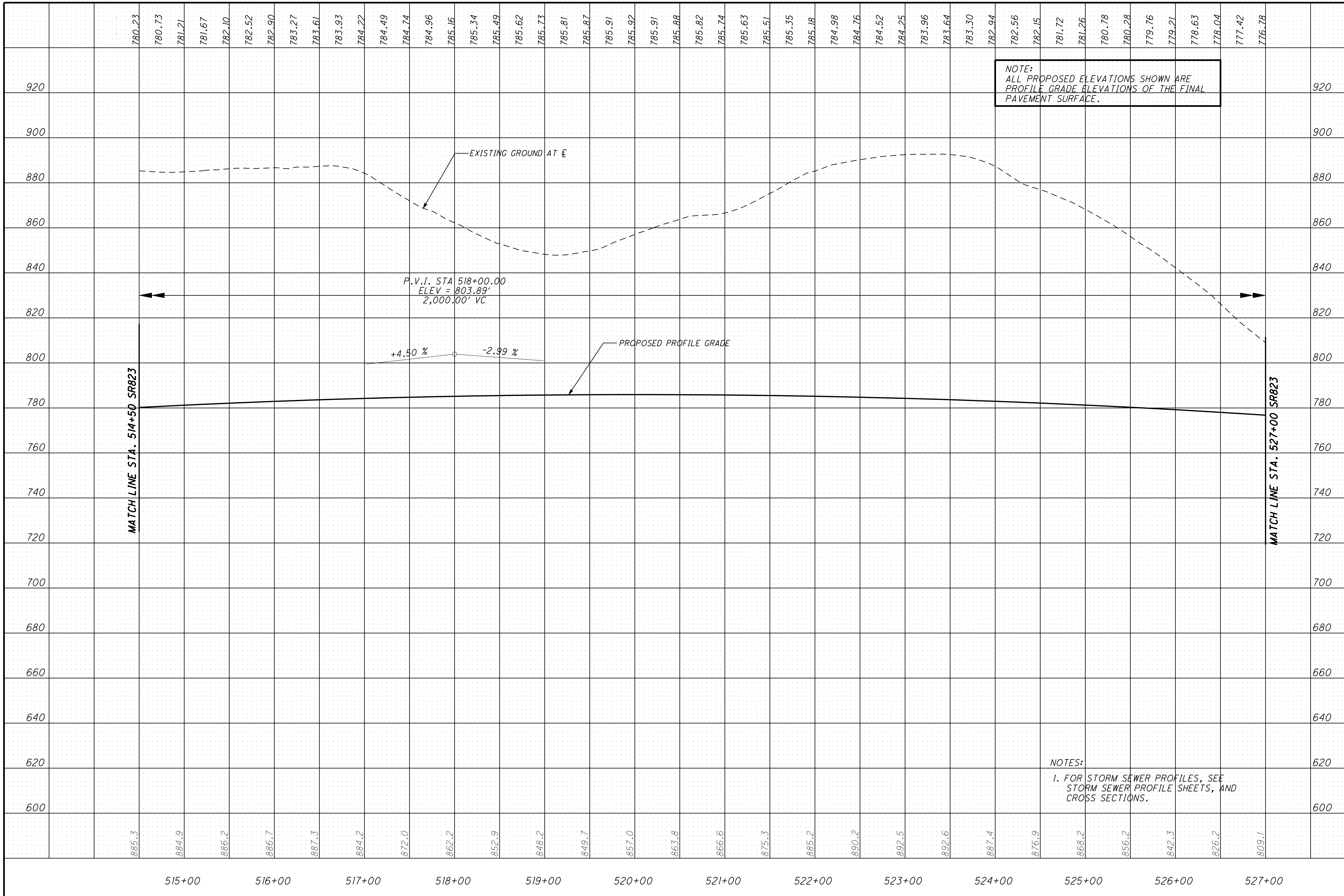

CALCULATED LBD/KAG
CHECKED JMB

PROFILE - SR823
STA. 514+50 TO STA. 527+00

SCI-823-6.81

USER: CWahlbri PLOT DATE: 9/15/2011 12:07:30 PM REVISION DATE: 9/15/2011
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LEGEND:

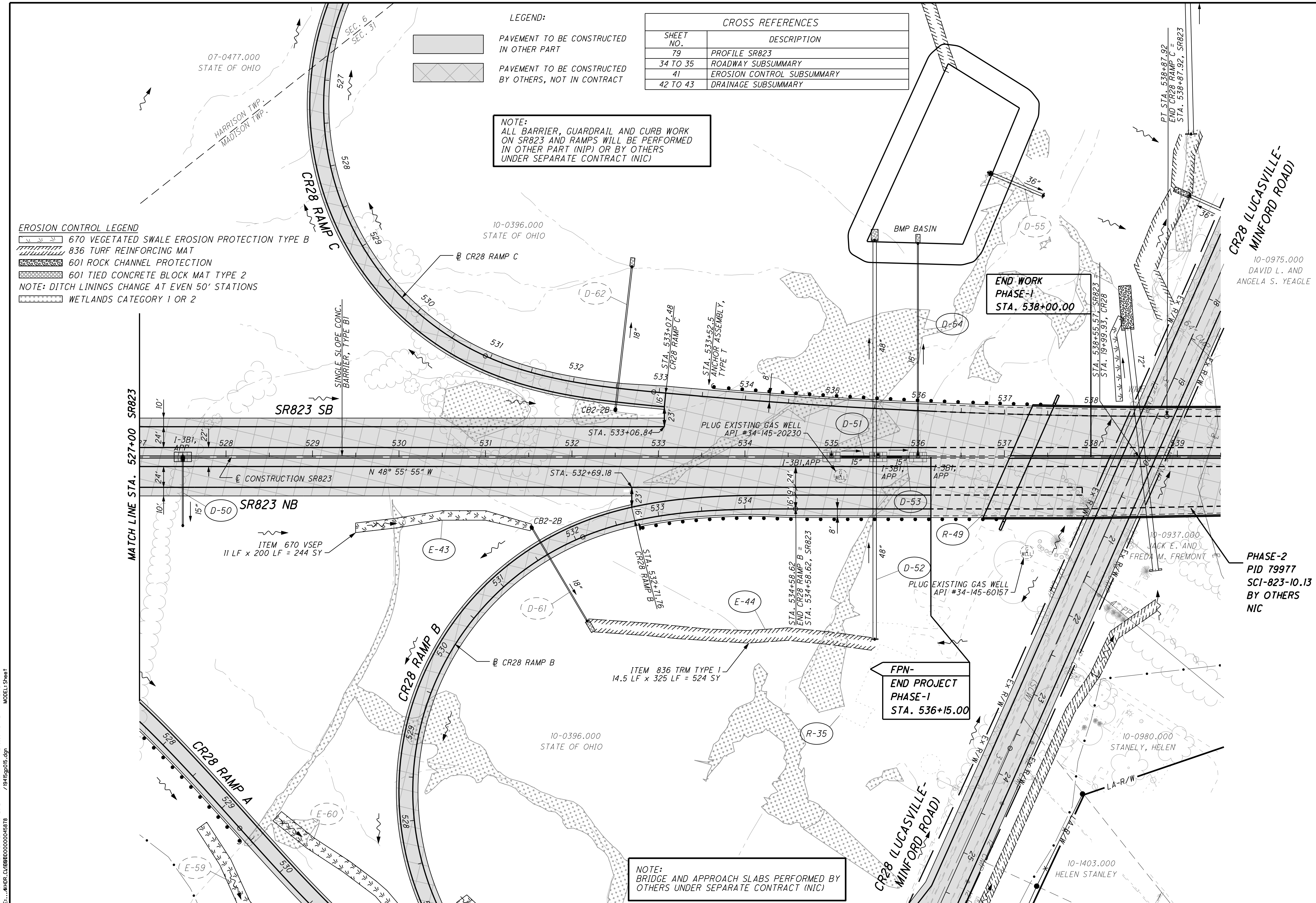
- PAVEMENT TO BE CONSTRUCTED IN OTHER PART
- PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
79	PROFILE SR823
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP) OR BY OTHERS UNDER SEPARATE CONTRACT (NIC)

EROSION CONTROL LEGEND
- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2

NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS
- WETLANDS CATEGORY 1 OR 2



07-0477.000
STATE OF OHIO
HARRISON TWP.
MADISON TWP.
SEC. 6
SEC. 31
CR28 RAMP C
10-0396.000
STATE OF OHIO
℄ CR28 RAMP C
D-62
18"
SINGLE SLOPE CONC. BARRIER, TYPE B1
STA. 533+07.48 CR28 RAMP C
STA. 533+52.5 ANCHOR ASSEMBLY, TYPE T
BMP BASIN
36"
D-55
D-54
48"
15"
END WORK PHASE-1 STA. 538+00.00
STA. 538+55.57, SR823 = STA. 19+99.93, CR28
PT STA. 538+87.92 END CR28 RAMP C = STA. 538+87.92, SR823
CR28 (LUCASVILLE-MINFORD ROAD)
10-0975.000
DAVID L. AND ANGELA S. YEAGLE
SR823 SB
CB2-2B
STA. 533+06.84
PLUG EXISTING GAS WELL API #34-145-20230
D-51
MATCH LINE STA. 527+00 SR823
I-3B1, APP
℄ CONSTRUCTION SR823
N 48° 55' 55" W
STA. 532+69.18
I-3B1, APP
D-53
D-50
SR823 NB
ITEM 670 VSEP 11 LF x 200 LF = 244 SY
E-43
CB2-2B
STA. 532+71.76 CR28 RAMP B
STA. 534+58.62 END CR28 RAMP B = STA. 534+58.62, SR823
D-52
R-49
PLUG EXISTING GAS WELL API #34-145-60157
10-0937.000
JACK E. AND FREDA M. FREMONT
PHASE-2 PID 79977 SCI-823-10.13 BY OTHERS NIC
D-61
E-44
CR28 RAMP B
℄ CR28 RAMP B
ITEM 836 TRM TYPE 1 14.5 LF x 325 LF = 524 SY
FPN- END PROJECT PHASE-1 STA. 536+15.00
R-35
10-0396.000
STATE OF OHIO
10-0980.000
STANELY, HELEN
LA-R/W
CR28 RAMP A
E-60
E-59
CR28 (LUCASVILLE-MINFORD ROAD)
10-1403.000
HELEN STANLEY
EX R/W

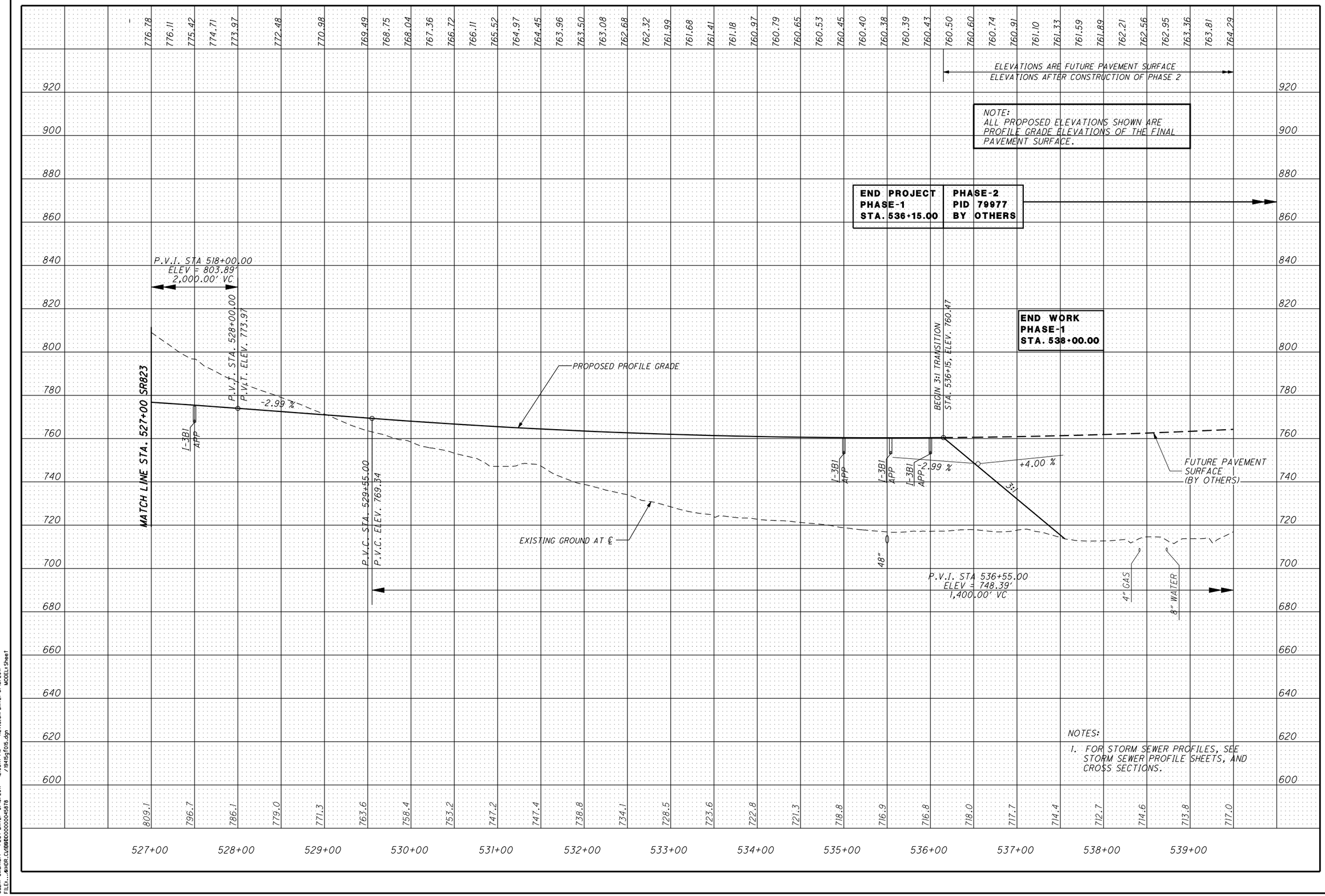
NOTE:
BRIDGE AND APPROACH SLABS PERFORMED BY OTHERS UNDER SEPARATE CONTRACT (NIC)

HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED LBD/KAG
CHECKED JMB

PLAN - SR823
STA. 527+00.00 TO STA. 539+50.00

SCI-823-6.81



NOTES:

1. FOR STORM SEWER PROFILES, SEE STORM SEWER PROFILE SHEETS, AND CROSS SECTIONS.

CALCULATED LBD/KAG
CHECKED JMB

PROFILE- SR823
STA. 527+00 TO STA. 539+50

SCI-823-6.81

79
535

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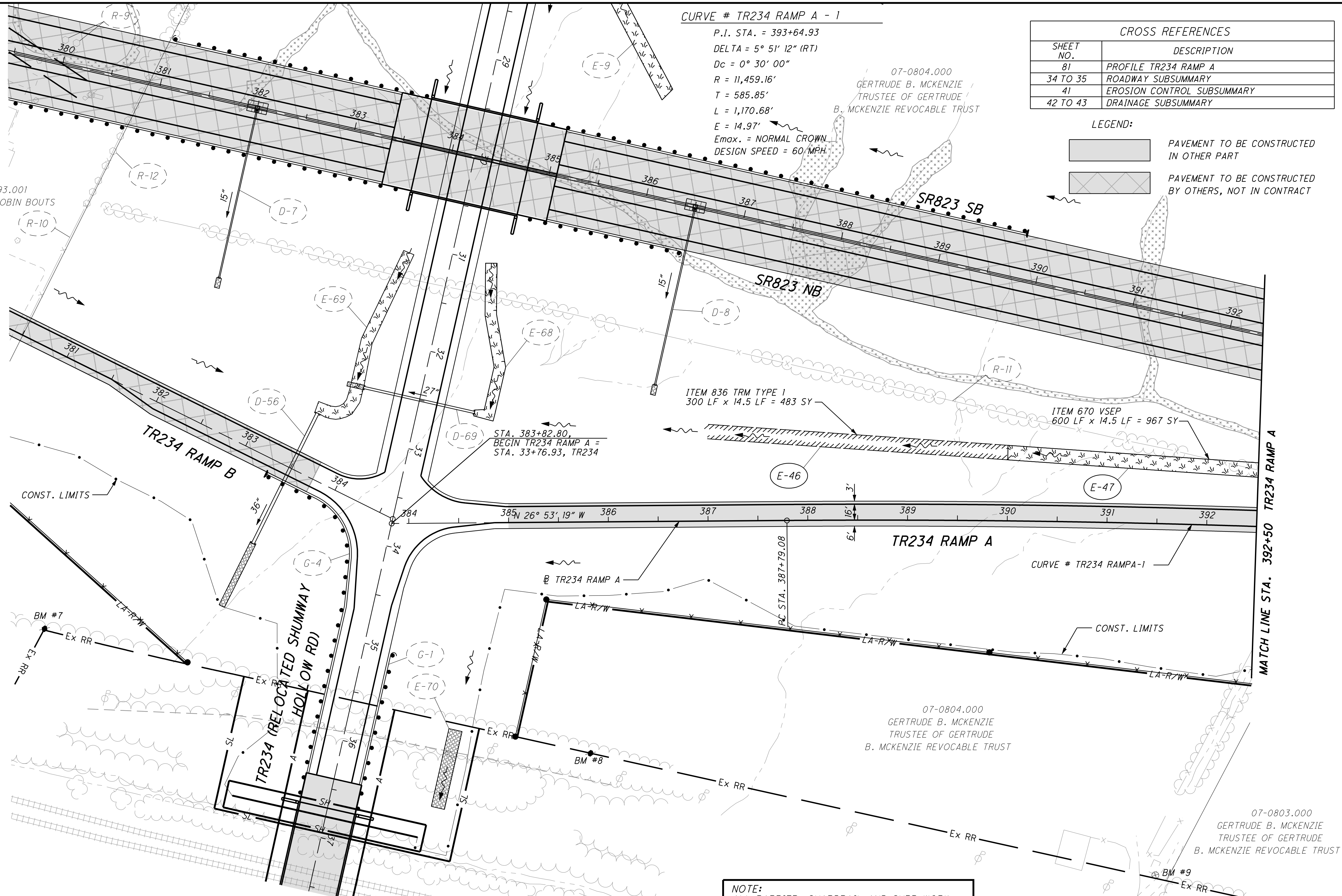

CURVE # TR234 RAMP A - 1

P.I. STA. = 393+64.93
DELTA = 5° 51' 12" (RT)
Dc = 0° 30' 00"
R = 11,459.16'
T = 585.85'
L = 1,170.68'
E = 14.97'
Emax. = NORMAL CROWN
DESIGN SPEED = 60 MPH

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
81	PROFILE TR234 RAMP A
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

LEGEND:

- PAVEMENT TO BE CONSTRUCTED IN OTHER PART
- PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP)OR BY OTHERS UNDER SEPARATE CONTRACT (NIC)

EROSION CONTROL LEGEND

- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2

NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS

- WETLANDS CATEGORY 1 OR 2

HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED LBD/KAG CHECKED JMB

PLAN - TOWNSHIP ROAD 234 RAMP A
STA. 383+82.82 TO STA. 392+50.00

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 12:08:40 PM REVISION DATE: 9/15/2011
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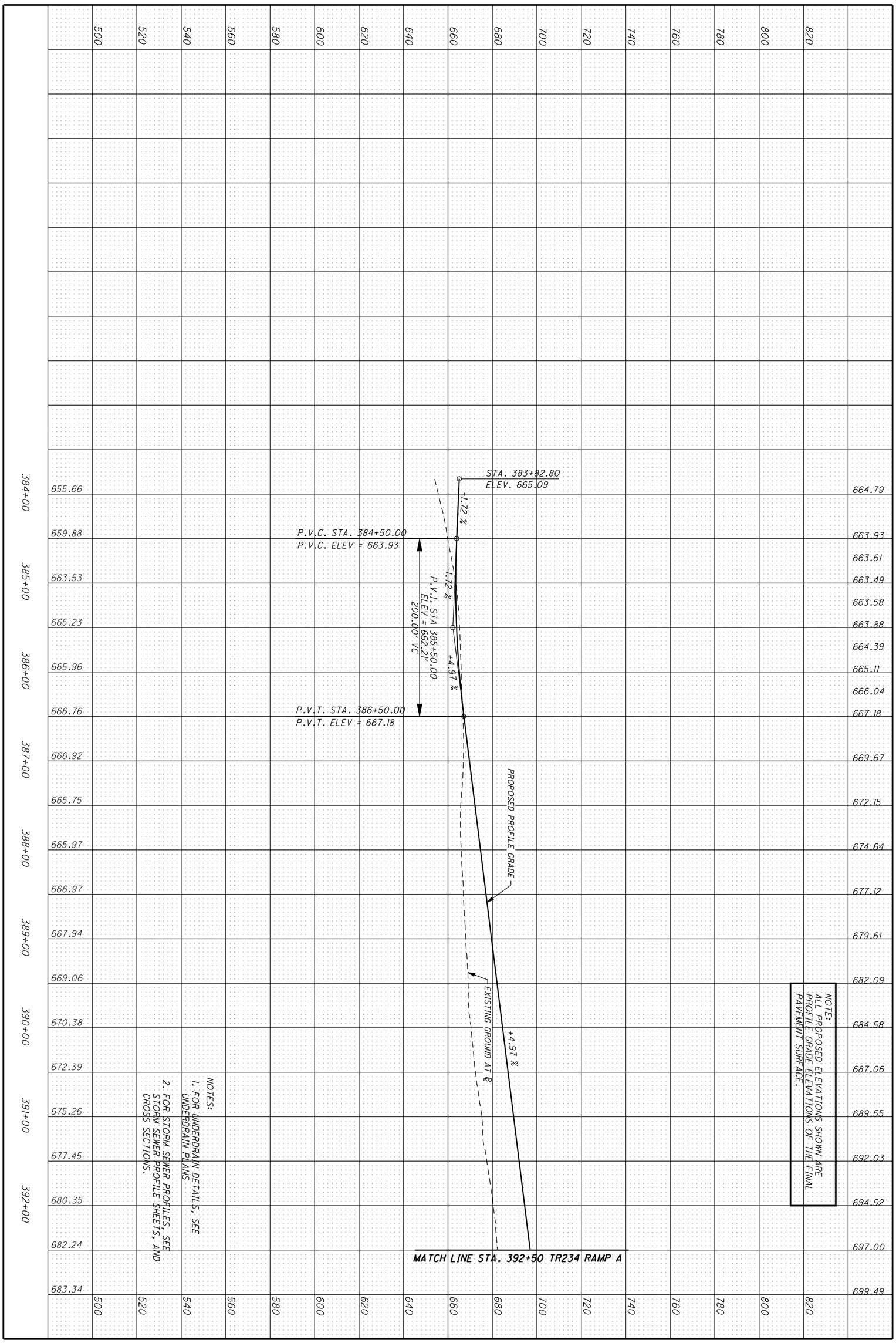


81
535

SCI-823-6.81

PROFILE - TOWNSHIP ROAD 234 RAMP A
STA. 383+82.80 TO STA. 392+50.00

CALCULATED LBD/KAG
CHECKED JMB

PLAN - TOWNSHIP ROAD 234 RAMP A
STA. 392+50.00 TO STA. 403+00.00

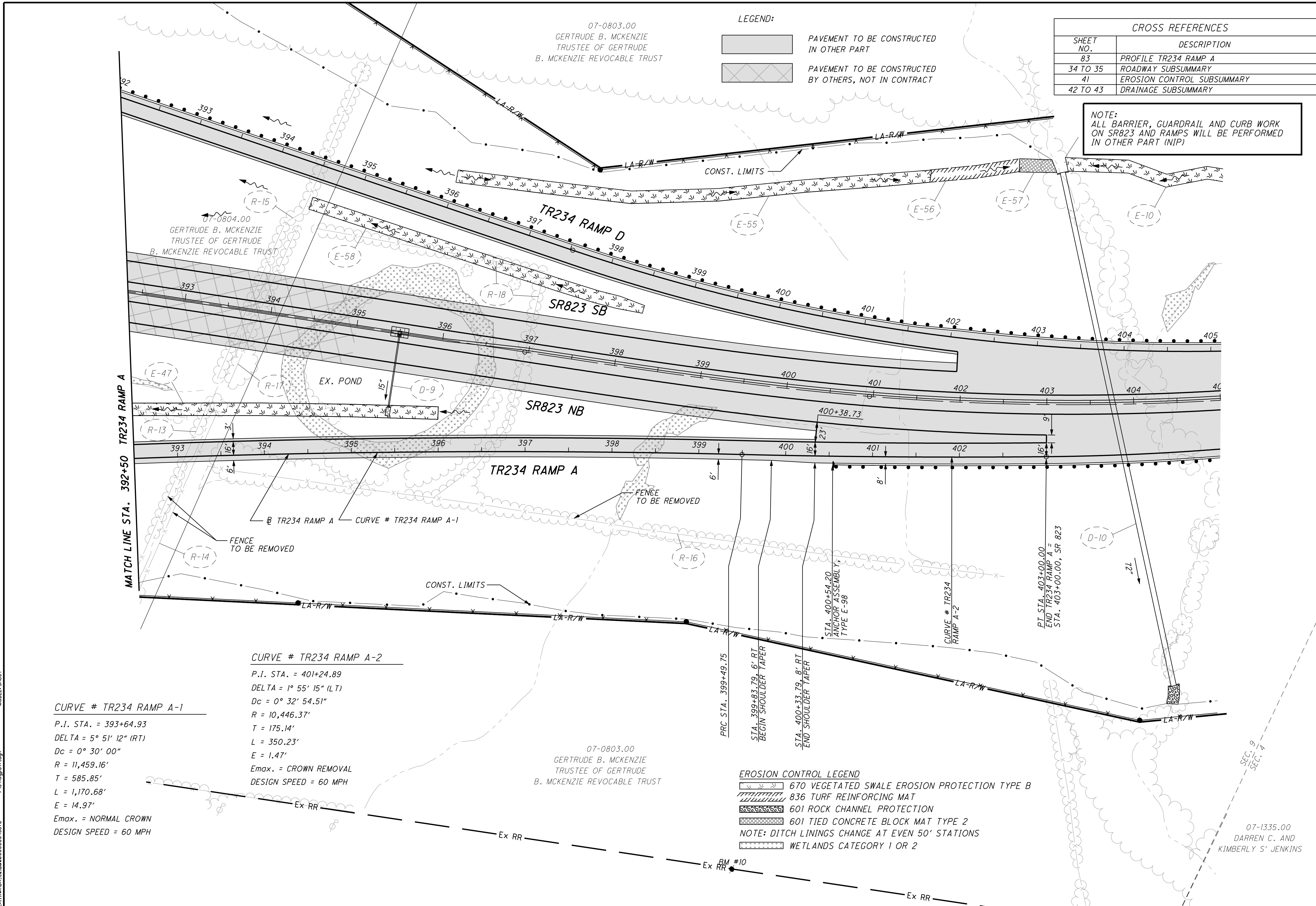
LEGEND:

- PAVEMENT TO BE CONSTRUCTED IN OTHER PART
- PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

CROSS REFERENCES

SHEET NO.	DESCRIPTION
83	PROFILE TR234 RAMP A
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP)



CURVE # TR234 RAMP A-1

P.I. STA. = 393+64.93
DELTA = 5° 51' 12" (RT)
Dc = 0° 30' 00"
R = 11,459.16'
T = 585.85'
L = 1,170.68'
E = 14.97'
Emax. = NORMAL CROWN
DESIGN SPEED = 60 MPH

CURVE # TR234 RAMP A-2

P.I. STA. = 401+24.89
DELTA = 1° 55' 15" (LT)
Dc = 0° 32' 54.51"
R = 10,446.37'
T = 175.14'
L = 350.23'
E = 1.47'
Emax. = CROWN REMOVAL
DESIGN SPEED = 60 MPH

EROSION CONTROL LEGEND

- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2
- NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS
- WETLANDS CATEGORY 1 OR 2

HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED LBD/KAG CHECKED JMB

SCI-823-6.81

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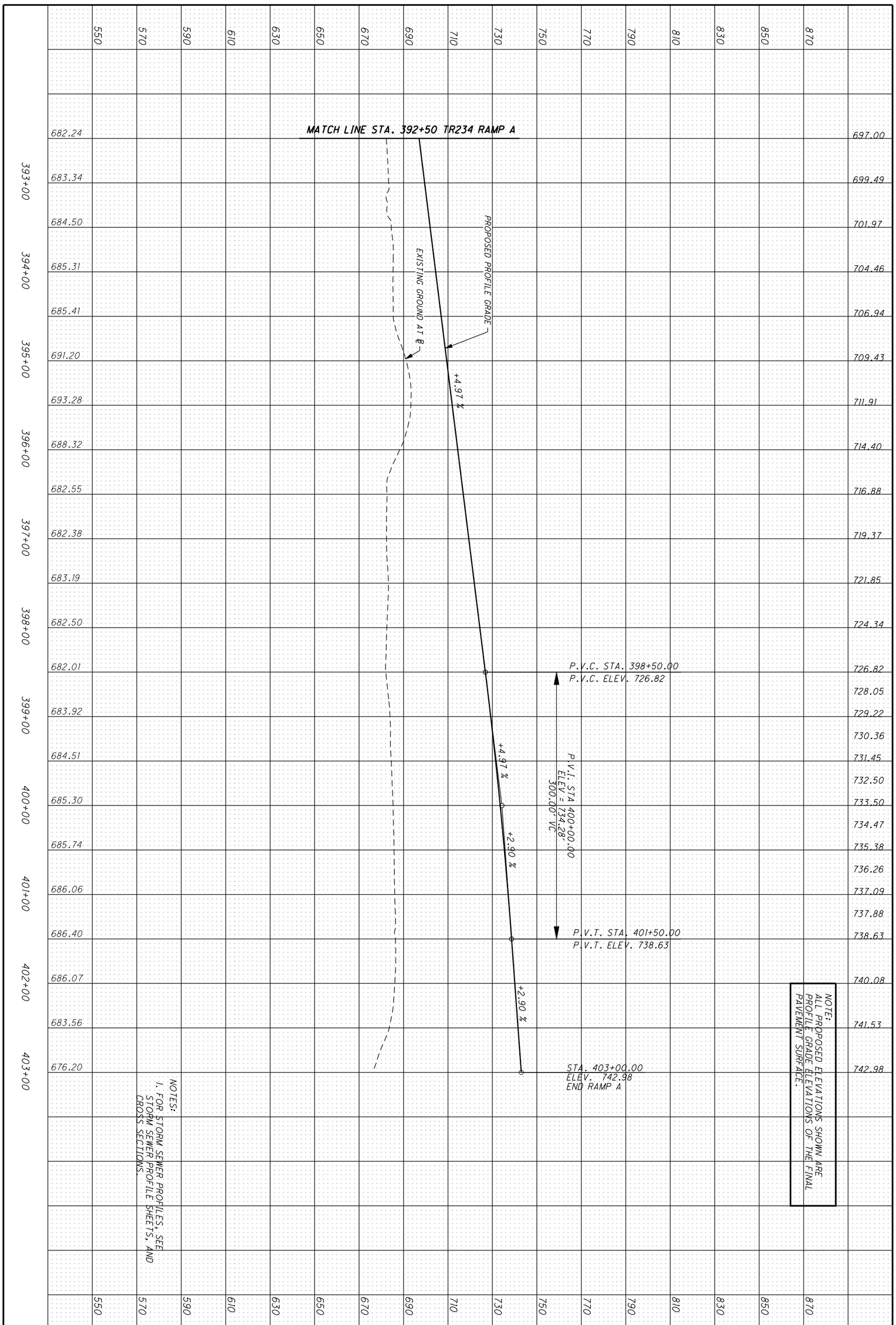


NOTE:
ALL PROPOSED ELEVATIONS SHOWN ARE PROFILE GRADE ELEVATIONS OF THE FINAL PAVEMENT SURFACE.

NOTES:
1. FOR STORM SEWER PROFILES, SEE STORM SEWER PROFILE SHEETS, AND CROSS SECTIONS.

SCI-823-6.81

PROFILE - TOWNSHIP ROAD 234 RAMP A
STA. 392+50.00 TO STA. 403+00.00

CALCULATED LBD/KAG
CHECKED JMB

PLAN - TOWNSHIP ROAD 234 RAMP B
STA. 366+00.00 TO STA. 375+50.00

LEGEND:

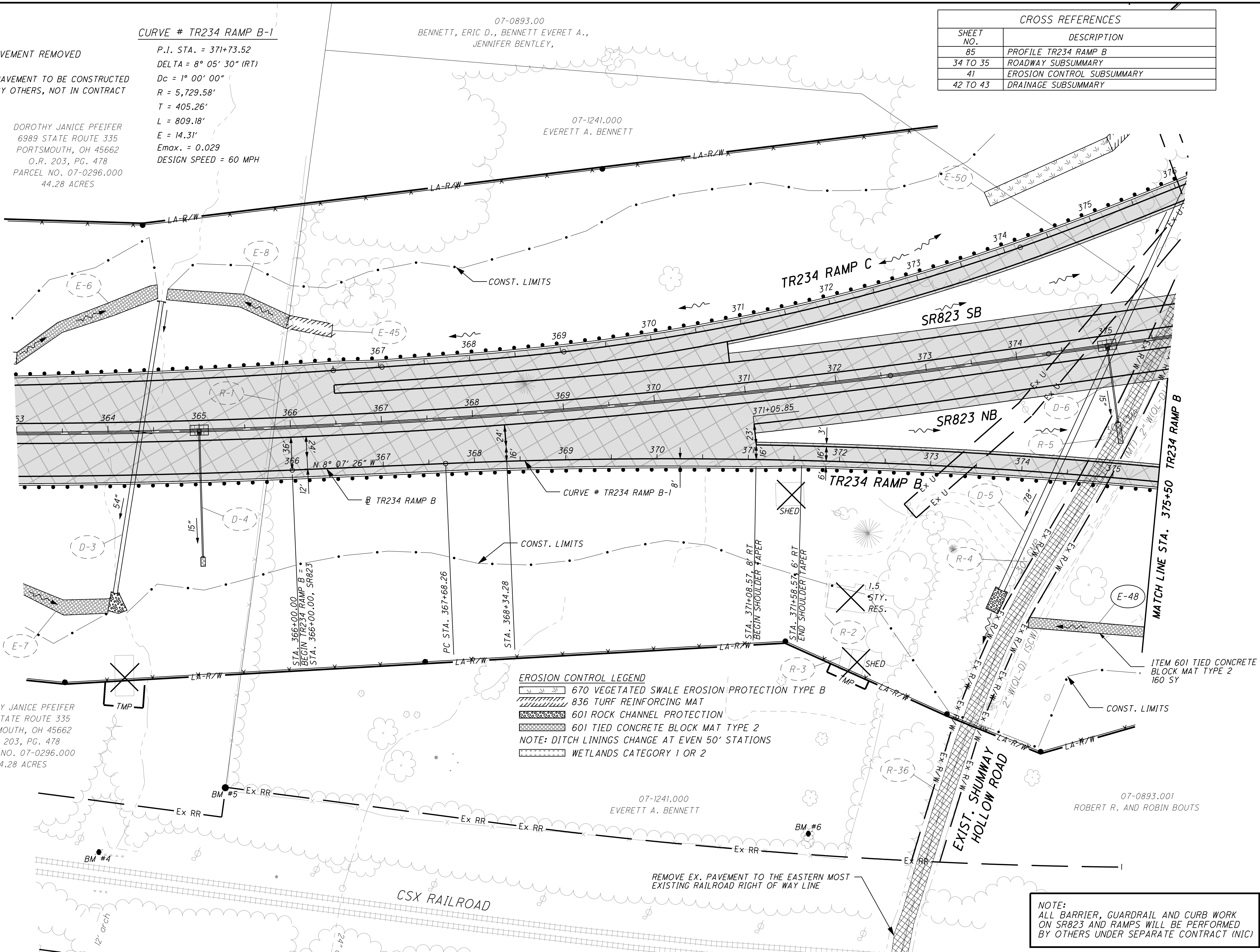
- PAVEMENT REMOVED
- PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

CURVE # TR234 RAMP B-1

P.I. STA. = 371+73.52
DELTA = 8° 05' 30" (RT)
Dc = 1° 00' 00"
R = 5,729.58'
T = 405.26'
L = 809.18'
E = 14.31'
Emax. = 0.029
DESIGN SPEED = 60 MPH

CROSS REFERENCES

SHEET NO.	DESCRIPTION
85	PROFILE TR234 RAMP B
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY



07-0893.00
BENNETT, ERIC D., BENNETT EVERET A., JENNIFER BENTLEY,
DOROTHY JANICE PFEIFER
6989 STATE ROUTE 335
PORTSMOUTH, OH 45662
O.R. 203, PG. 478
PARCEL NO. 07-0296.000
44.28 ACRES
07-1241.000
EVERETT A. BENNETT
LA-R/W
CONST. LIMITS
TR234 RAMP C
SR823 SB
SR823 NB
TR234 RAMP B
371+05.85
N 8° 07' 26" W
℄ TR234 RAMP B
CURVE # TR234 RAMP B-1
SHED
1.5 STY. RES.
STA. 366+00.00, BEGIN TR234 RAMP B = STA. 366+00.00, SR823
PC STA. 367+68.26
STA. 368+34.28
STA. 371+08.57, 8' RT BEGIN SHOULDER TAPER
STA. 371+58.57, 6' RT END SHOULDER TAPER
MATCH LINE STA. 375+50 TR234 RAMP B
ITEM 601 TIED CONCRETE BLOCK MAT TYPE 2 160 SY
TMP
BM #5
BM #6
BM #4
Ex RR
EXIST. SHUMWAY HOLLOW ROAD
07-0893.001
ROBERT R. AND ROBIN BOUTS
CSX RAILROAD
REMOVE EX. PAVEMENT TO THE EASTERN MOST EXISTING RAILROAD RIGHT OF WAY LINE

EROSION CONTROL LEGEND

- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2
- NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS
- WETLANDS CATEGORY 1 OR 2

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED BY OTHERS UNDER SEPARATE CONTRACT (NIC)

HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED LBD/KAG CHECKED JMB

SCI-823-6.81

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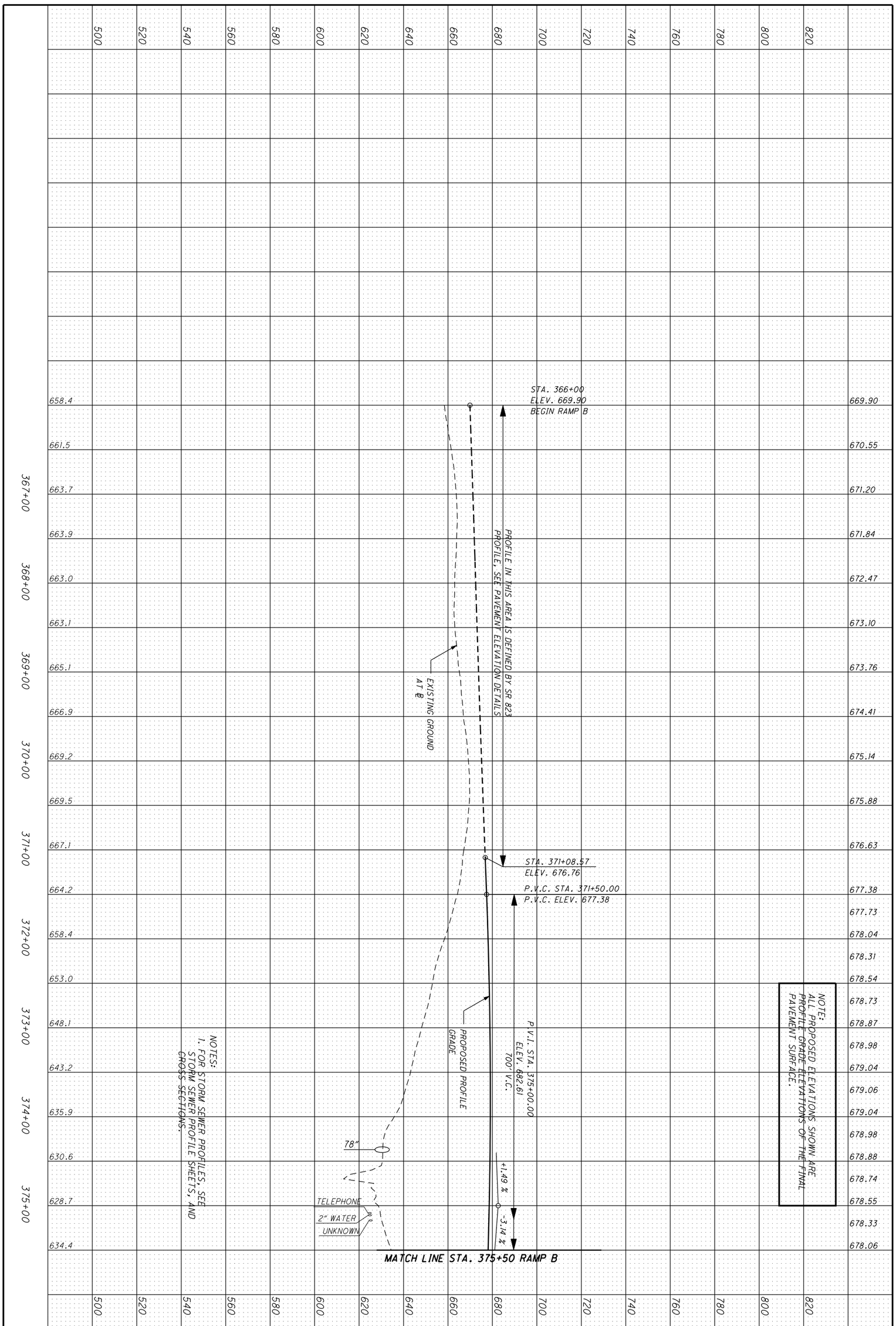
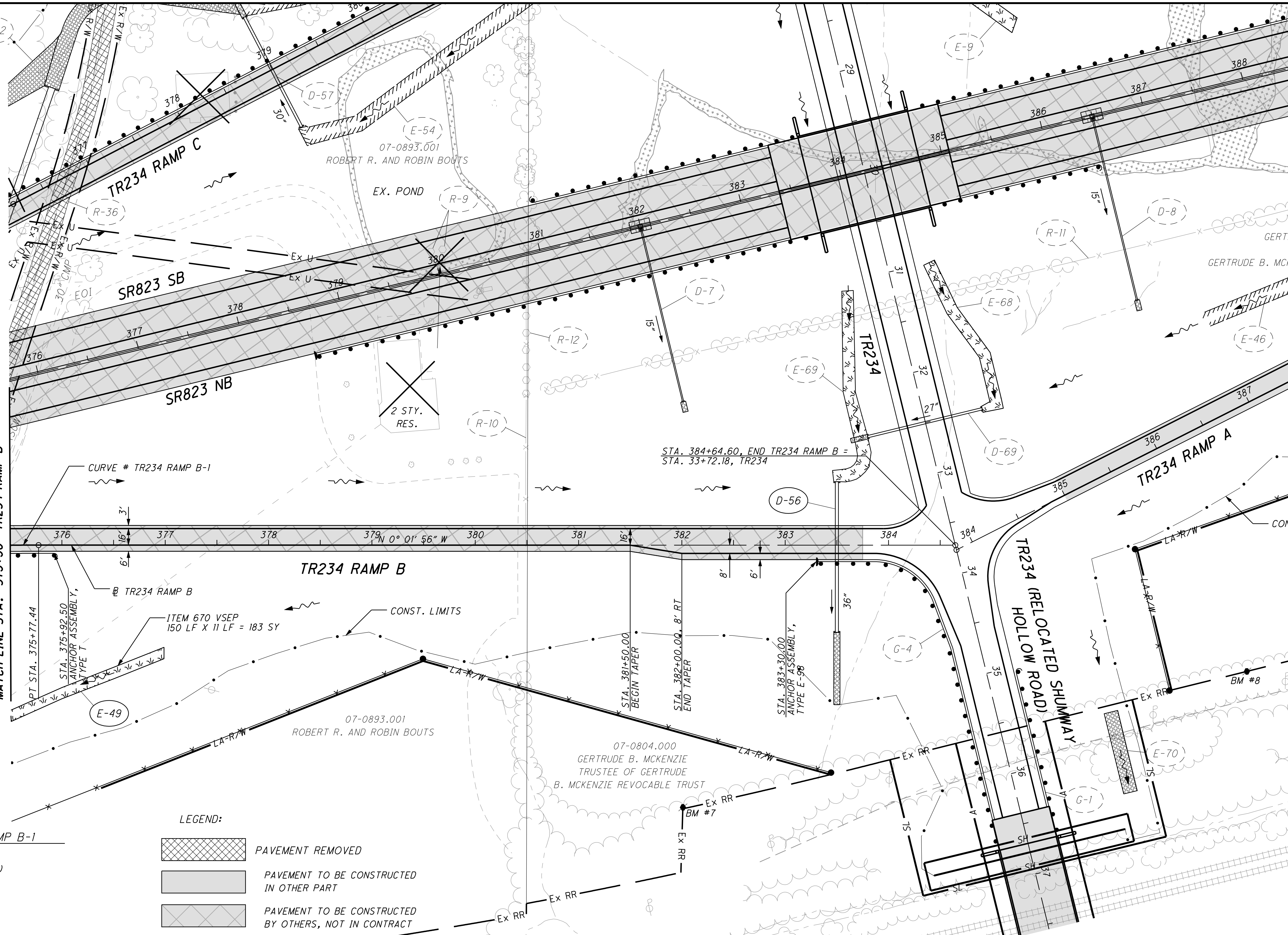


SCI-823-6.81

PROFILE - TOWNSHIP ROAD 234 RAMP B
STA. 366+00.00 TO STA. 375+50.00

CALCULATED LBD/KAG
CHECKED JMB



CURVE #TR234 RAMP B-1

P.I. STA. = 371+73.52
DELTA = 8° 05' 30" (RT)
Dc = 1° 00' 00"
R = 5,729.58'
T = 405.26'
L = 809.18'
E = 14.31'
Emax. = 0.029
DESIGN SPEED = 60 MPH

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART OR BY OTHERS UNDER SEPARATE CONTRACT (NIC)

LEGEND:

- PAVEMENT REMOVED
- PAVEMENT TO BE CONSTRUCTED IN OTHER PART
- PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

EROSION CONTROL LEGEND

- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2

NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS

- WETLANDS CATEGORY 1 OR 2

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
87	PROFILE TR234 RAMP B
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

N
HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED LBD/KAG
CHECKED JMB

PLAN - TOWNSHIP ROAD 234 RAMP B
STA. 375+50.00 TO STA. 384+64.60

SCI-823-6.81

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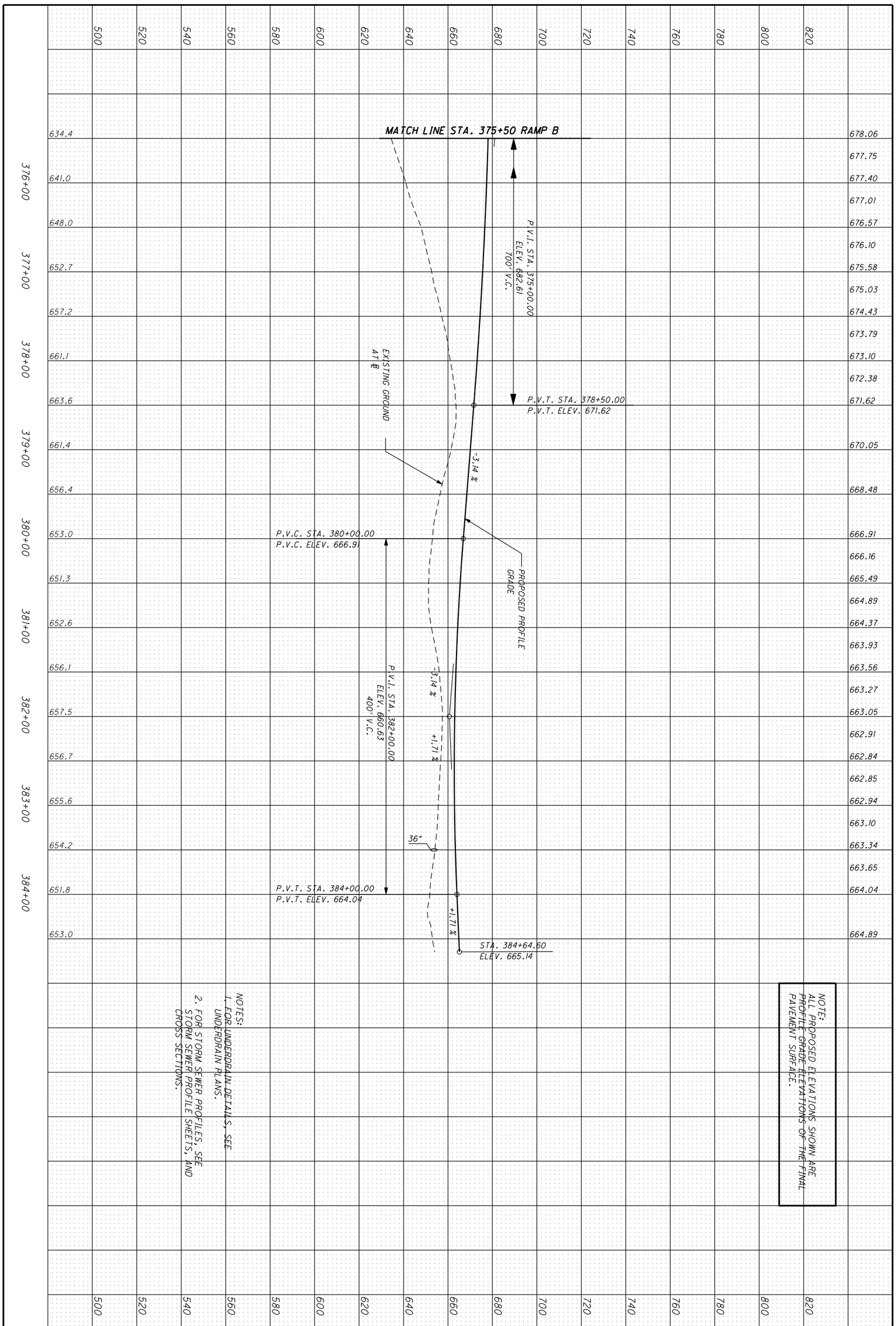

NOTE:
ALL PROPOSED ELEVATIONS SHOWN ARE PROFILE GRADE ELEVATIONS OF THE FINAL PAVEMENT SURFACE.

NOTES:
1. FOR UNDERDRAIN DETAILS, SEE UNDERDRAIN PLANS.
2. FOR STORM SEWER PROFILES, SEE STORM SEWER PROFILE SHEETS, AND CROSS SECTIONS.

87
535

SCI-823-6.81

PROFILE - TOWNSHIP ROAD 234 RAMP B
STA. 375+50.00 TO STA. 384+64.60

CALCULATED LBD/KAG
CHECKED JMB

CURVE #TR234 RAMP C-1

P.I. STA. = 371+63.61
DELTA = 17°51'24" (LT)
Dc = 2° 30' 00"
R = 2,291.83'
Ls = 200.00'
Theta = 2° 30' 00" (LT)
LT = 133.35'
ST = 66.68'
x = 199.96'
y = 2.91'
k = 99.99'
p = 0.73'
DELTAc = 12°51'24" (LT)
Lc = 514.26'
Tc = 258.22'
Ts = 460.16'
Es = 28.85'
Emax. = 0.061
DESIGN SPEED = 60 MPH

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
89	PROFILE TR234 RAMP C
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED BY OTHERS UNDER SEPARATE CONTRACT (NIC)

EROSION CONTROL LEGEND
- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2
- NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS
- WETLANDS CATEGORY I OR 2

LEGEND:
- PAVEMENT REMOVED
- PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

DOROTHY JANICE PFEIFER
6989 STATE ROUTE 335
PORTSMOUTH, OH 45662
O.R. 203, PG. 478
PARCEL NO. 07-0296.000
44.28 ACRES

07-1241.000
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

07-0893.000
BENNETT, ERIC D., BENNETT EVERETT A,
AND BENTLEY, JENNIFER

ITEM 670 VSEP
150 LF X 14.5 LF = 242 SY

MATCH LINE STA. 374+50 TR234 RAMP C

TR234 RAMP C

TR234 RAMP B

SR823 SB

SR823 NB

EXIST. SHUMWAY HOLLOW ROAD

07-0893.001
ROBERT R. AND ROBIN BOUTS

BM #5

CALCULATED LBD/KAG
CHECKED JMB

HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN - TOWNSHIP ROAD 234 RAMP C
STA. 366+50.00 TO STA. 374+50.00

SCI-823-6.81

88
535

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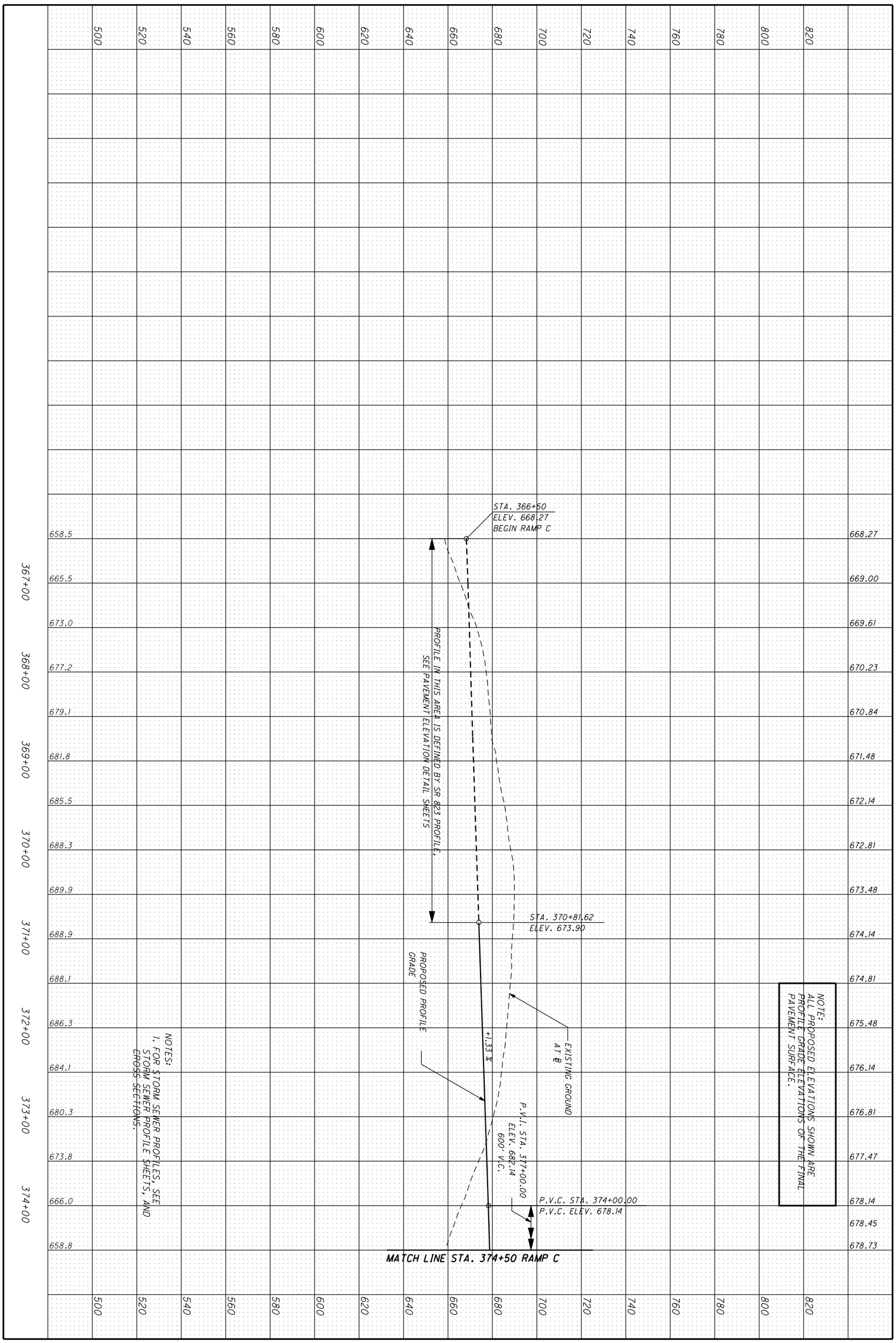
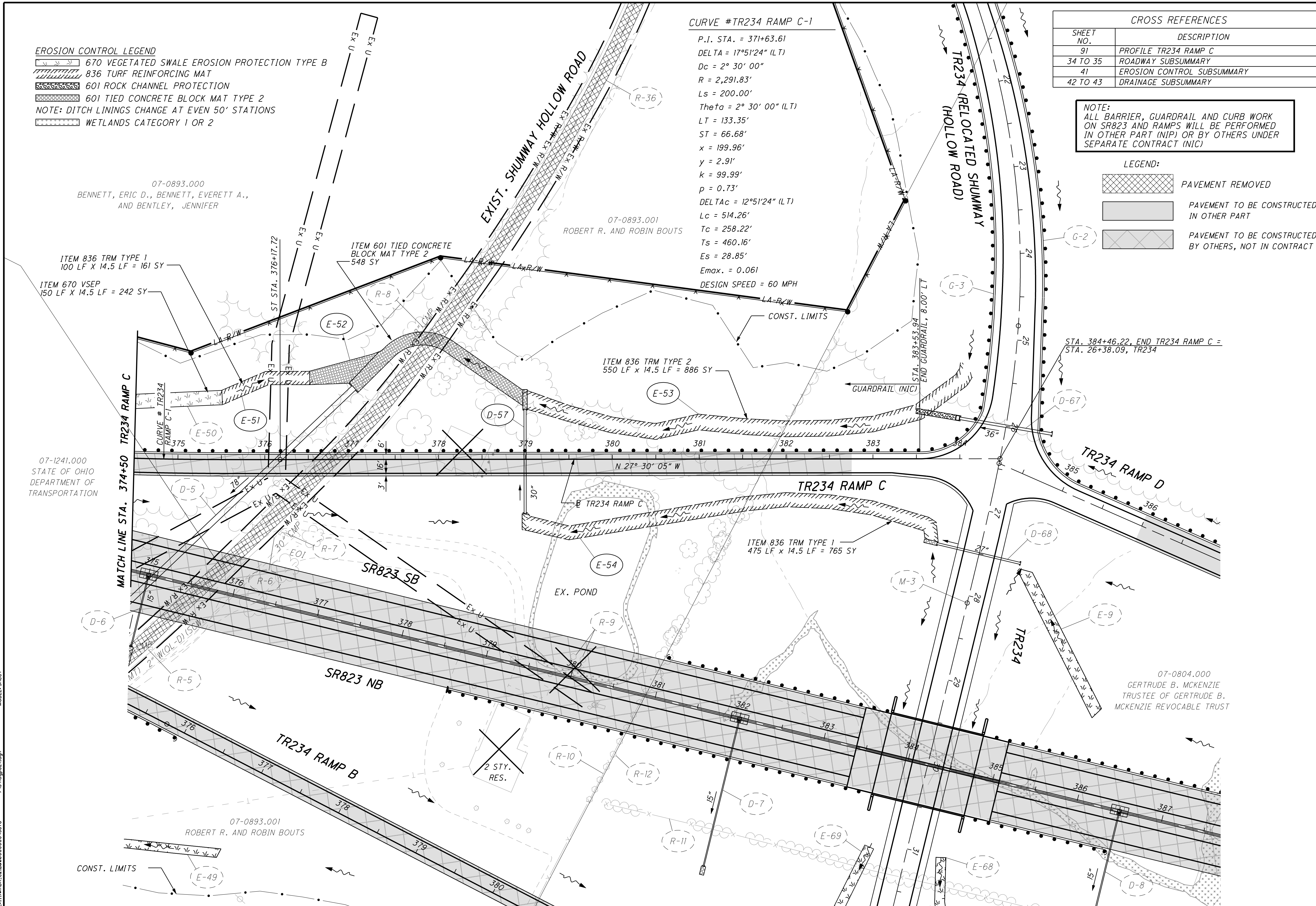


SCI-823-6.81

PROFILE - TOWNSHIP ROAD 234 RAMP C
STA. 366+50.00 TO STA. 374+50.00

CALCULATED LBD/KAG
CHECKED JMB



EROSION CONTROL LEGEND
670 VEGETATED SWALE EROSION PROTECTION TYPE B
836 TURF REINFORCING MAT
601 ROCK CHANNEL PROTECTION
601 TIED CONCRETE BLOCK MAT TYPE 2
NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS
WETLANDS CATEGORY 1 OR 2
CURVE #TR234 RAMP C-1
P.I. STA. = 371+63.61
DELTA = 17°51'24" (LT)
Dc = 2° 30' 00"
R = 2,291.83'
Ls = 200.00'
Theta = 2° 30' 00" (LT)
LT = 133.35'
ST = 66.68'
x = 199.96'
y = 2.91'
k = 99.99'
p = 0.73'
DELTAc = 12°51'24" (LT)
Lc = 514.26'
Tc = 258.22'
Ts = 460.16'
Es = 28.85'
Emax. = 0.061
DESIGN SPEED = 60 MPH
NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP) OR BY OTHERS UNDER SEPARATE CONTRACT (NIC)
LEGEND:
PAVEMENT REMOVED
PAVEMENT TO BE CONSTRUCTED IN OTHER PART
PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT
EXIST. SHUMWAY HOLLOW ROAD
TR234 (RELOCATED SHUMWAY HOLLOW ROAD)
07-0893.000
BENNETT, ERIC D., BENNETT, EVERETT A., AND BENTLEY, JENNIFER
07-0893.001
ROBERT R. AND ROBIN BOUTS
07-1241.000
STATE OF OHIO DEPARTMENT OF TRANSPORTATION
07-0804.000
GERTRUDE B. MCKENZIE TRUSTEE OF GERTRUDE B. MCKENZIE REVOCABLE TRUST
ITEM 836 TRM TYPE 1
100 LF X 14.5 LF = 161 SY
ITEM 670 VSEP
150 LF X 14.5 LF = 242 SY
ITEM 601 TIED CONCRETE BLOCK MAT TYPE 2
548 SY
ITEM 836 TRM TYPE 2
550 LF x 14.5 LF = 886 SY
ITEM 836 TRM TYPE 1
475 LF x 14.5 LF = 765 SY
ST STA. 376+17.72
STA. 383+53.94 END GUARDRAIL, 8.00' LT
STA. 384+46.22, END TR234 RAMP C = STA. 26+38.09, TR234
CONST. LIMITS
GUARDRAIL (NIC)
MATCH LINE STA. 374+50 TR234 RAMP C
CURVE # TR234 RAMP C-1
N 27° 30' 05" W
TR234 RAMP C
TR234 RAMP D
TR234 RAMP B
SR823 SB
SR823 NB
TR234
EX. POND
2 STY. RES.
E-49 E-50 E-51 E-52 E-53 E-54 E-68 E-69 E-9
D-5 D-6 D-7 D-8 D-57 D-67 D-68
R-5 R-6 R-7 R-8 R-9 R-10 R-11 R-12 R-36
G-2 G-3 M-3

CROSS REFERENCES

SHEET NO.	DESCRIPTION
91	PROFILE TR234 RAMP C
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED LBD/KAG CHECKED JMB

PLAN - TOWNSHIP ROAD 234 RAMP C
STA. 374+50.00 TO STA. 384+33.64

SCI-823-6.81

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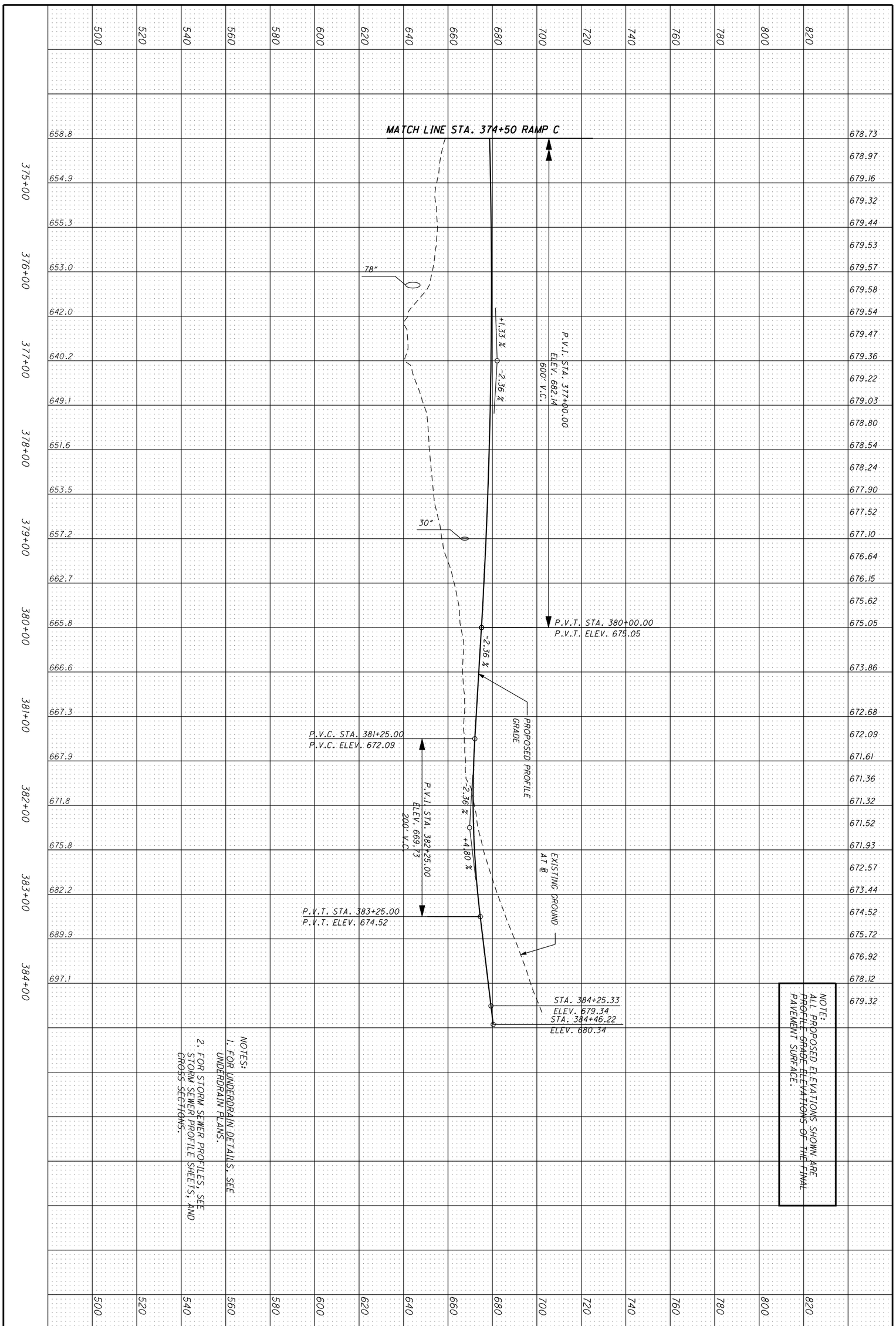

NOTES:
1. FOR UNDERDRAIN DETAILS, SEE UNDERDRAIN PLANS.
2. FOR STORM SEWER PROFILES, SEE STORM SEWER PROFILE SHEETS, AND CROSS-SECTIONS.

NOTE:
ALL PROPOSED ELEVATIONS SHOWN ARE PROFILE GRADE ELEVATIONS OF THE FINAL PAVEMENT SURFACE.

SCI-823-6.81

PROFILE - TOWNSHIP ROAD 234 RAMP C
STA. 374+50.00 TO STA. 384+33.64

CALCULATED LBD/KAG
CHECKED JMB

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OHER PART (NIP) OR BY OTHERS UNDER SEPARATE CONTRACT (NIC)

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
93	PROFILE TR234 RAMP D
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

LEGEND:

PAVEMENT TO BE CONSTRUCTED IN OTHER PART

PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

EROSION CONTROL LEGEND
- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2

NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS
- WETLANDS CATEGORY 1 OR 2

07-0804.000
GERTRUDE B. MECKENZIE
TRUSTEE OF
GERTRUDE B. MCKENZIE
REVOCABLE TRUST

07-0893.001
ROBERT R. AND ROBIN BOUTS

CONST. LIMITS

STA. 384+20.66, BEGIN TR234 RAMP D =
STA. 26+43.58, TR234

STA. 385+16.50
END GUARDRAIL, 16.00' LT

GUARDRAIL (NIP)

STA. 387+00.00, 8' LT
BEGIN PAVEMENT TAPER

STA. 387+50.00
END PAVEMENT TAPER

℄ TR234 RAMP D

N 3° 41' 40" W

TR234 RAMP D

MATCH LINE STA. 393+50 TR234 RAMP D

TR234 RAMP C

TR234

SR823 SB

SR823 NB

TR234 RAMP A

07-0893.001
ROBERT R. AND ROBIN BOUTS

07-0804.000
GERTRUDE B. MECKENZIE
TRUSTEE OF
GERTRUDE B. MCKENZIE
REVOCABLE TRUST

G-2 G-3 D-67 D-68 D-8 E-9 E-46 E-47 E-53 E-54 E-68 E-69 M-3 R-10 R-11 R-12 D-7

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED LBD/KAG
CHECKED JMB

PLAN - TOWNSHIP ROAD 234 RAMP D
STA. 384+07.63 TO STA. 393+50.00

SCI-823-6.81

92
535

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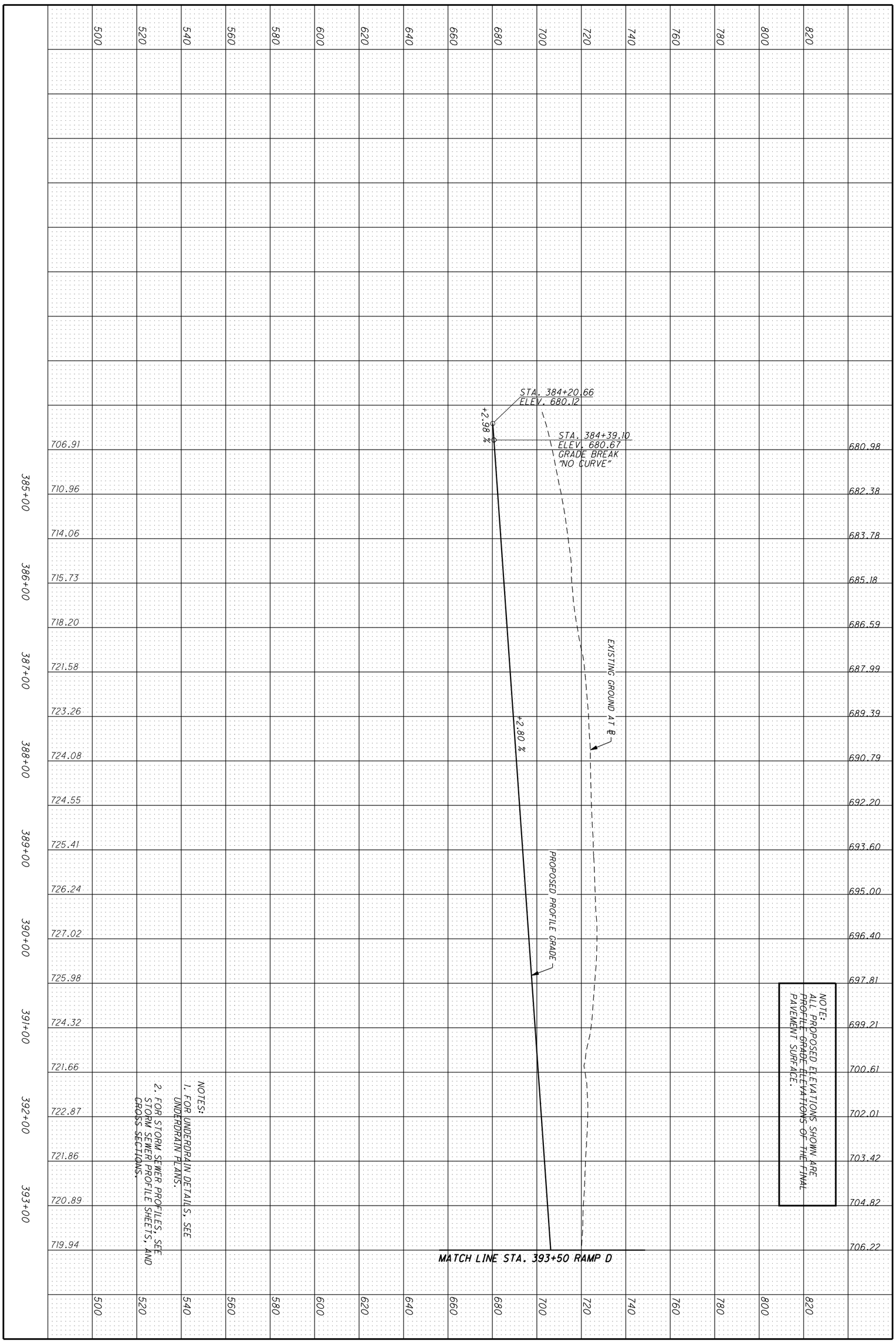

93
535

SCI-823-6.81

PROFILE - TOWNSHIP ROAD 234 RAMP D
STA. 384+20.66 TO STA. 393+50.00

CALCULATED LBD/KAG
CHECKED JMB

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP)

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
95	PROFILE TR234 RAMP D
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

CURVE # TR234 RAMP D-1

P.I. STA. = 403+66.60
DELTA = 31° 07' 32" (LT)
Dc = 2° 36' 00"
R = 2,203.68'
T = 613.73'
L = 1,197.13'
E = 83.87'
Emax. = 0.065
DESIGN SPEED = 60 MPH

LEGEND:

PAVEMENT TO BE CONSTRUCTED IN OTHER PART

PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

EROSION CONTROL LEGEND

670 VEGETATED SWALE EROSION PROTECTION TYPE B
836 TURF REINFORCING MAT
601 ROCK CHANNEL PROTECTION
601 TIED CONCRETE BLOCK MAT TYPE 2
NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS
WETLANDS CATEGORY 1 OR 2

07-0804.00
GERTRUDE B. MCKENZIE
TRUSTEE OF
GERTRUDE B. MCKENZIE REVOCABLE TRUST

07-0803.00
GERTRUDE B. MCKENZIE
TRUSTEE OF
GERTRUDE B. MCKENZIE REVOCABLE TRUST

07-0803.00
GERTRUDE B. MCKENZIE
TRUSTEE OF
GERTRUDE B. MCKENZIE REVOCABLE TRUST

ITEM 601 CONCRETE BLOCK MAT TYPE 2
68 SY

ITEM 836 TRM TYPE 1
14.5 LF x 100 LF = 161 SY

ITEM 670 VSEP
14.5 LF x 550 LF = 886 SY

ITEM 670 VSEP
14.5 LF x 400 LF = 644 SY

MATCH LINE STA. 393+50 TR234 RAMP D

MATCH LINE STA. 406+00 TR234 RAMP D

PC STA. 397+52.87

CURVE # TR234 RAMP D-1

STA. 401+59.94, 6' LT
BEGIN SHOULDER TAPER

STA. 402+09.94, 8' LT
END SHOULDER TAPER

401+94.66

CONST. LIMITS

FENCE TO BE REMOVED

℄ TR234 RAMP D

N 3° 41' 40" W

TR234 RAMP D

SR823 SB

SR823 NB

TR234 RAMP A

EX. POND

LA-R/W

E-10 E-47 E-55 E-56 E-57 E-58

R-13 R-14 R-15 R-16 R-17 R-18

D-9 D-10 D-11

15" 72" 8" 6" 16" 23" 3"

07-1335.000
DARREN C. AND
KIMBERLY S. JENKINS

CALCULATED LBD/KAG
CHECKED JMB

HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN - TOWNSHIP ROAD 234 RAMP D
STA. 393+50.00 TO STA. 406+00.00

SCI-823-6.81

94
535

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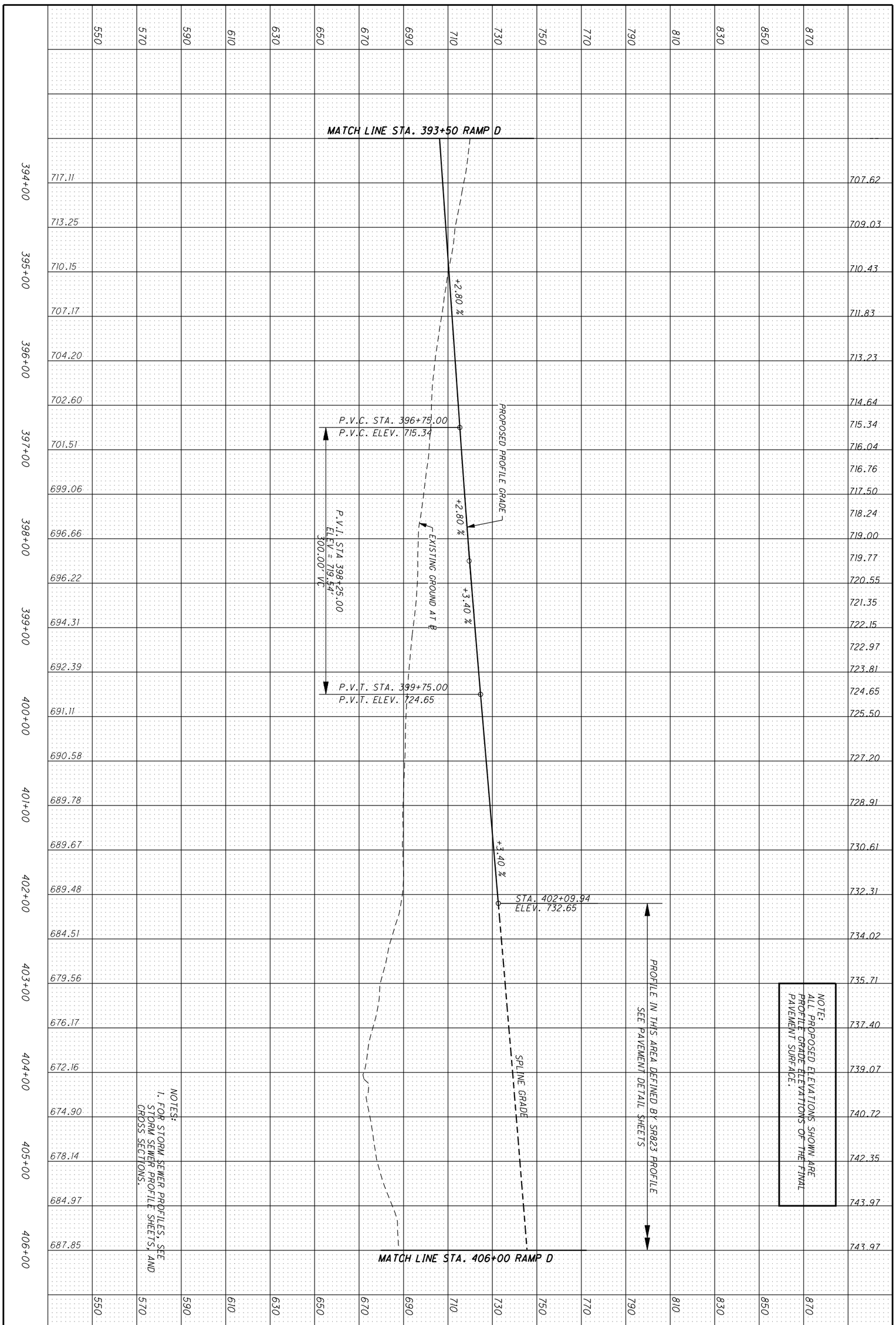
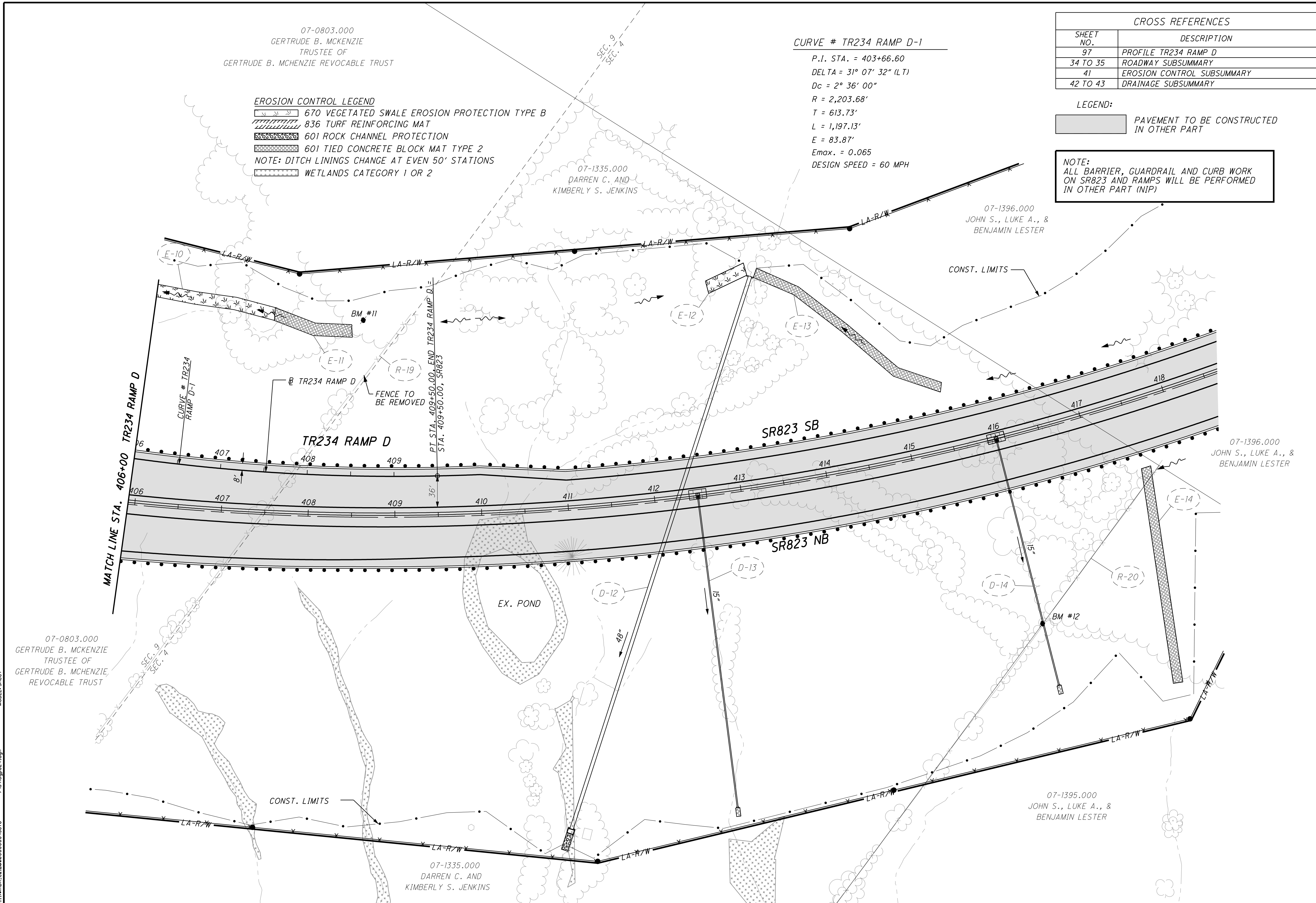


SCI-823-6.81

PROFILE - TOWNSHIP ROAD 234 RAMP D
STA. 393+50.00 TO STA. 406+00.00

CALCULATED LBD/KAG
CHECKED JMB



EROSION CONTROL LEGEND

- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2

NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS

- WETLANDS CATEGORY 1 OR 2

CURVE # TR234 RAMP D-1

P.I. STA. = 403+66.60
DELTA = 31° 07' 32" (LT)
Dc = 2° 36' 00"
R = 2,203.68'
T = 613.73'
L = 1,197.13'
E = 83.87'
Emax. = 0.065
DESIGN SPEED = 60 MPH

CROSS REFERENCES

SHEET NO.	DESCRIPTION
97	PROFILE TR234 RAMP D
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

LEGEND:

PAVEMENT TO BE CONSTRUCTED IN OTHER PART

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP)

CALCULATED LBD/KAG
CHECKED JMB

PLAN - TOWNSHIP ROAD 234 RAMP D
STA. 406+00.00 TO STA. 409+50.00

SCI-823-6.81

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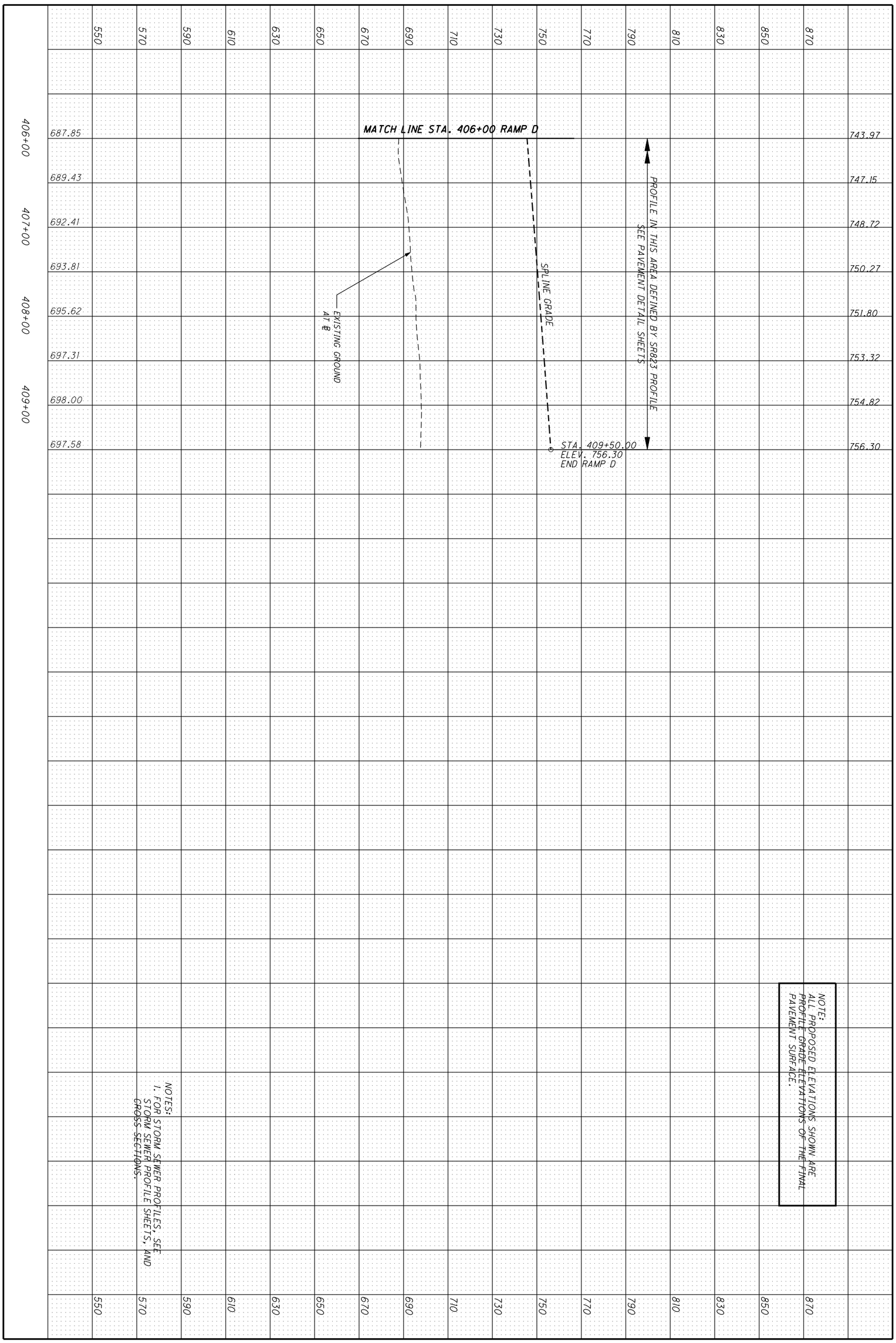


97
535

SCI-823-6.81

PROFILE - TOWNSHIP ROAD 234 RAMP D
STA. 406+00.00 TO STA. 409+50.00

CALCULATED LBD/KAG
CHECKED JMB

CURVE # CR28 RAMP A - 1

P.I. STA.= 519+73.56
Δ = 7° 59' 31" (RT)
Dc = 1° 22' 00"
R = 4,192.37'
T = 292.86'
L = 584.77'
E = 10.22'
Emax. = 0.038
DESIGN SPEED = 60 MPH

CURVE # CR28 RAMP A - 2

P.I. STA. 525+50.54
Δ = 40° 10' 22" (RT)
Dc = 7° 30' 00"
R = 763.94'
Ls = 260.00'
θ = 9° 45' 00" (RT)
LT = 173.60'
ST = 86.91'
x = 259.25'
y = 14.72'
k = 129.87'
p = 3.68'
Δc = 30° 25' 22" (RT)
Lc = 405.64'
Tc = 207.72
Ts = 285.07'
Es = 51.45'
Emax = 0.08
DESIGN SPEED = 50 MPH

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
99	PROFILE CR28 RAMP A
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

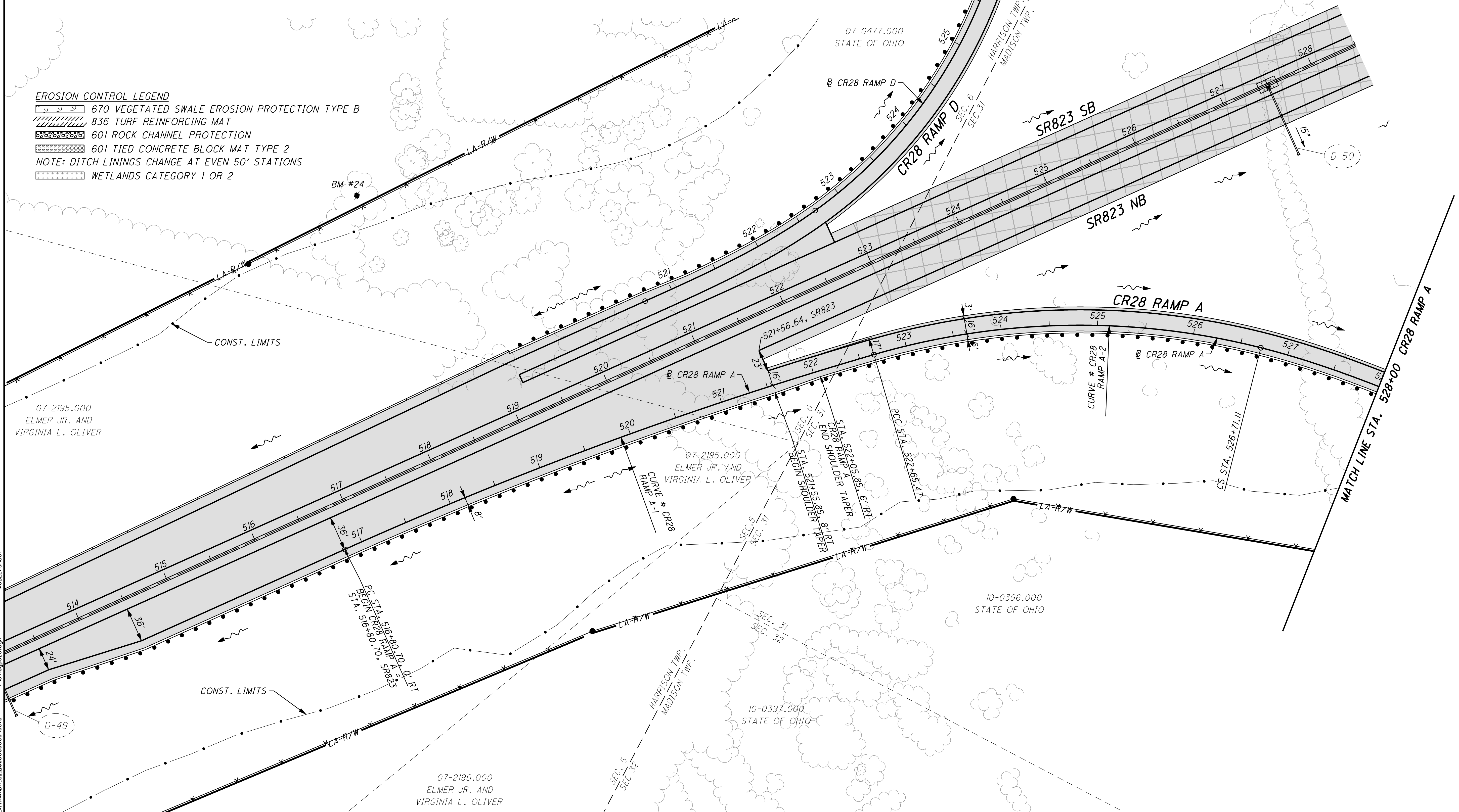
LEGEND:

- PAVEMENT TO BE CONSTRUCTED IN OTHER PART
- PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP) OR BY OTHERS UNDER SEPARATE CONCTRACT (NIC)

EROSION CONTROL LEGEND

- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2
- NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS
- WETLANDS CATEGORY 1 OR 2



HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED LBD/KAG
CHECKED JMB

PLAN - CR28 INTERCHANGE, RAMP A
STA. 516+80.70 TO STA. 528+00.00

SCI-823-6.81

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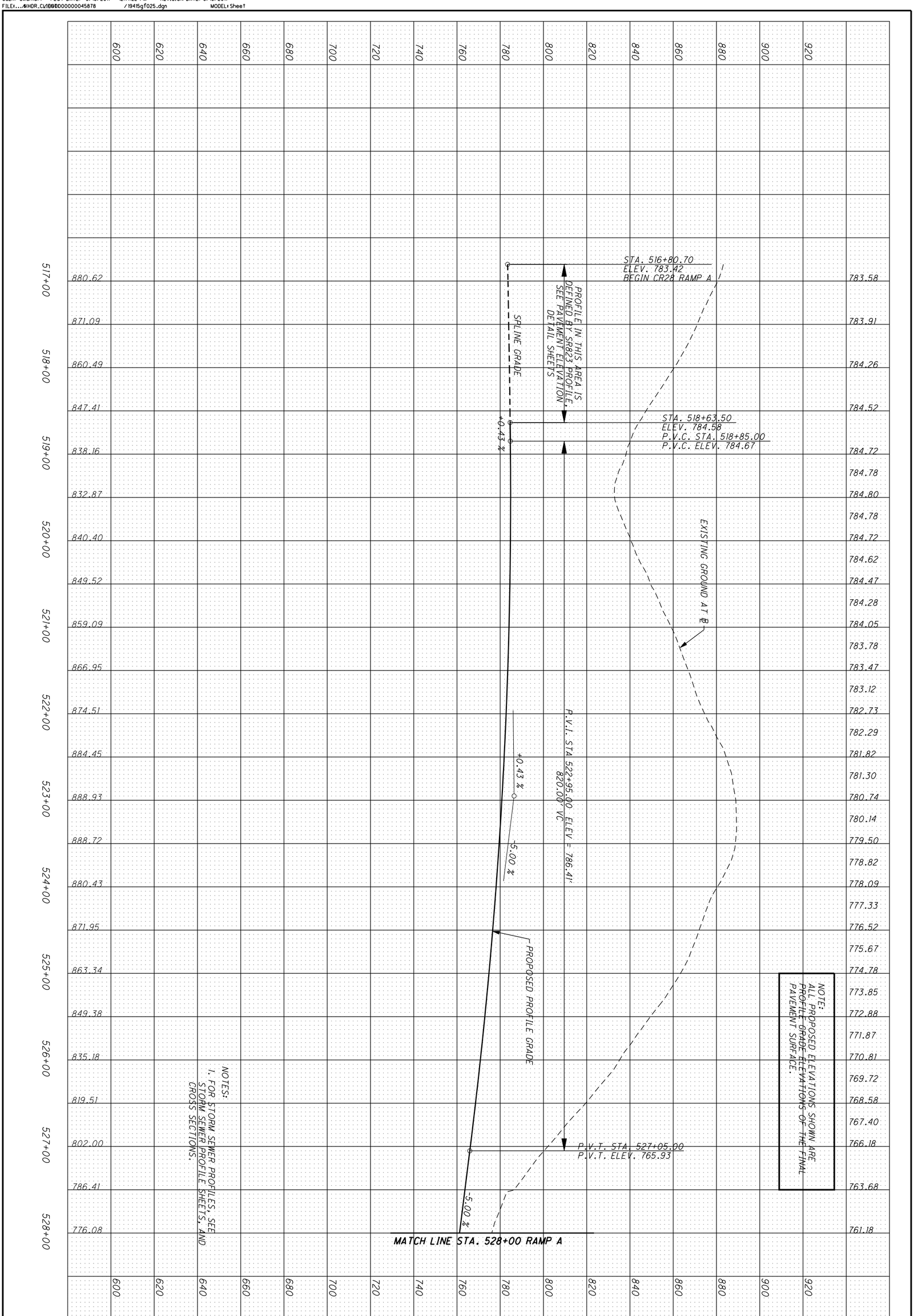

99 / 535	SCI-823-6.81	PROFILE - CR28 INTERCHANGE, RAMP A STA. 516+80.70 TO STA. 528+00.00	CALCULATED LBD/KAG CHECKED JMB

CURVE # CR28 RAMP A - 2

P.I. STA. 525+50.54
Δ = 40° 10′ 22″ (RT)
Dc = 7° 30′ 00″
R = 763.94′
Ls = 260.00′
θ = 9° 45′ 00″ (RT)
LT = 173.60′
ST = 86.91′
x = 259.25′
y = 14.72′
k = 129.87′
p = 3.68′
Δc = 30° 25′ 22″ (RT)
Lc = 405.64′
Tc = 207.72
Ts = 285.07′
Es = 51.45′
Emax = 0.08
DESIGN SPEED = 50 MPH

CURVE # CR28 RAMP A - 3

P.I. STA. 531+98.00
Δ = 22° 58′ 26″ (LT)
Dc = 6° 30′ 00″
R = 881.47′
Ls = 175.00′
θ = 5° 41′ 15″ (LT)
LT = 116.73′
ST = 58.39′
x = 174.83′
y = 5.79′
k = 87.47′
p = 1.45′
Δc = 11° 35′ 56″ (LT)
Lc = 178.44′
Tc = 89.53
Ts = 266.89
Es = 19.49′
Emax = 0.063
DESIGN SPEED = 40 MPH

CROSS REFERENCES

SHEET NO.	DESCRIPTION
101	PROFILE CR28 RAMP A
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

LEGEND:

▨	PAVEMENT TO BE CONSTRUCTED IN OTHER PART
▨	PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP) OR BY OTHERS UNDER SEPARATE CONTRACT (NIC)

EROSION CONTROL LEGEND

▭	670 VEGETATED SWALE EROSION PROTECTION TYPE B
▨	836 TURF REINFORCING MAT
▨	601 ROCK CHANNEL PROTECTION
▨	601 TIED CONCRETE BLOCK MAT TYPE 2

NOTE: DITCH LININGS CHANGE AT EVEN 50′ STATIONS

▨	WETLANDS CATEGORY 1 OR 2

0 25 50 100
HORIZONTAL SCALE IN FEET

CALCULATED LBD/KAG
CHECKED JMB

PLAN - CR28 INTERCHANGE, RAMP A
STA. 528+00.00 TO STA. 537+19.55

SCI-823-6.81

USER: ldearnel PLOT DATE: 3/4/2013 8:01:56 AM REVISION DATE: 3/4/2013
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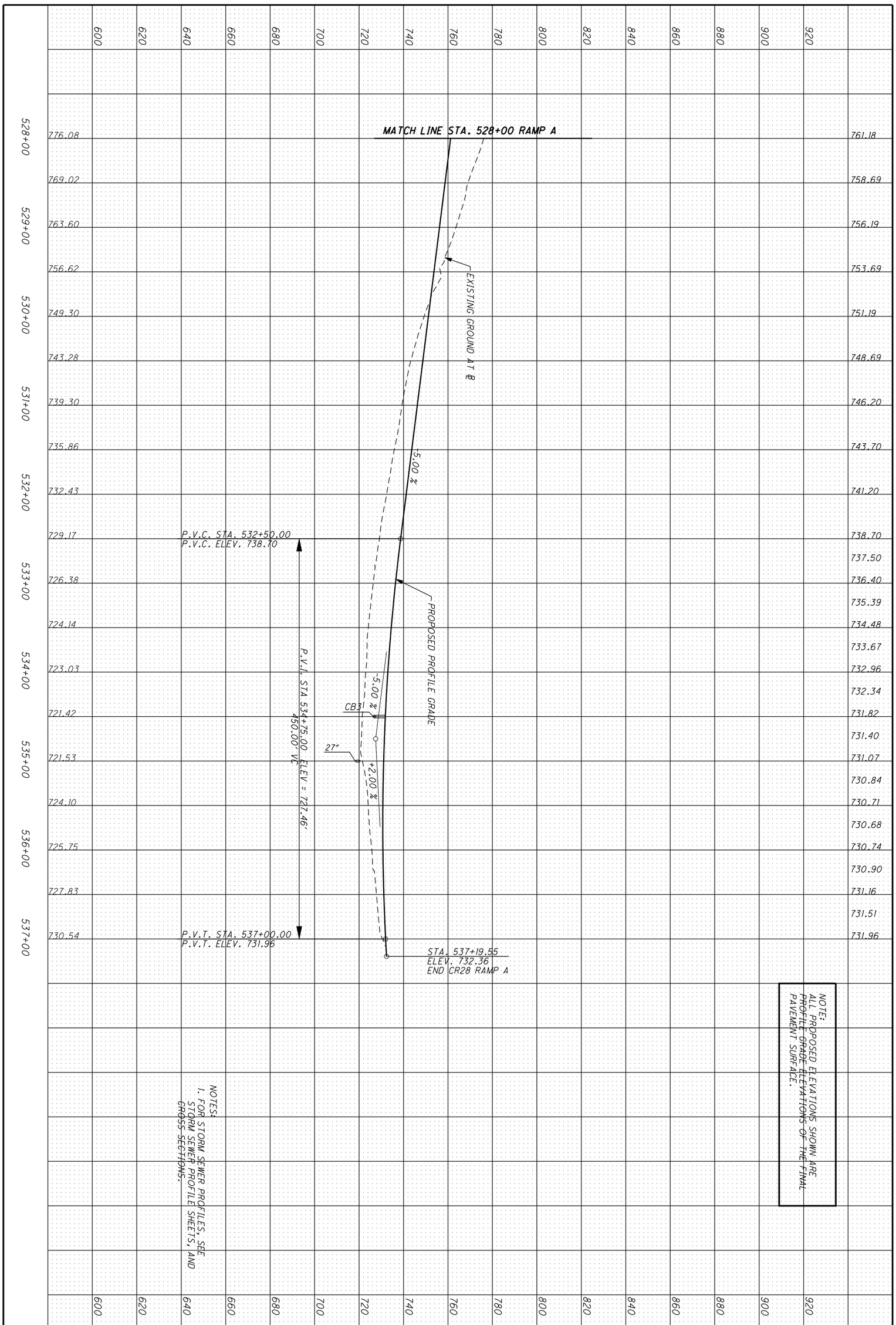


NOTES:
1. FOR STORM SEWER PROFILES, SEE STORM SEWER PROFILE SHEETS, AND CROSS SECTIONS.

NOTE:
ALL PROPOSED ELEVATIONS SHOWN ARE PROFILE GRADE ELEVATIONS OF THE FINAL PAVEMENT SURFACE.

SCI-823-6.81

PROFILE - CR28 INTERCHANGE RAMP A
STA. 528+00.00 TO STA. 537+19.55

CALCULATED LBD/KAG
CHECKED JMB

CURVE # CR28 RAMP B - 1

P.I. STA. 539+25.53	ST1 = 58.76'	Δc = 116° 33' 33" (RT)
Δ = 154° 48' 33" (RT)	ST2 = 84.58'	Lc = 647.55'
Dc = 18° 00' 00"	x1 = 173.68'	Tc = 514.98'
R = 318.31'	x2 = 246.17'	Ts = 1,539.46'
Ls1 = 175.00'	y1 = 15.95'	Es = 1,169.21'
Ls2 = 250.00'	y2 = 32.37'	Emax = 0.08
θs1 = 15° 45' 00" (RT)	k1 = 87.28'	DESIGN SPEED = 35 MPH
θs2 = 22° 30' 00" (RT)	k2 = 124.36'	
LT1 = 117.13'	p1 = 4.00'	
LT2 = 168.03'	p2 = 8.14'	

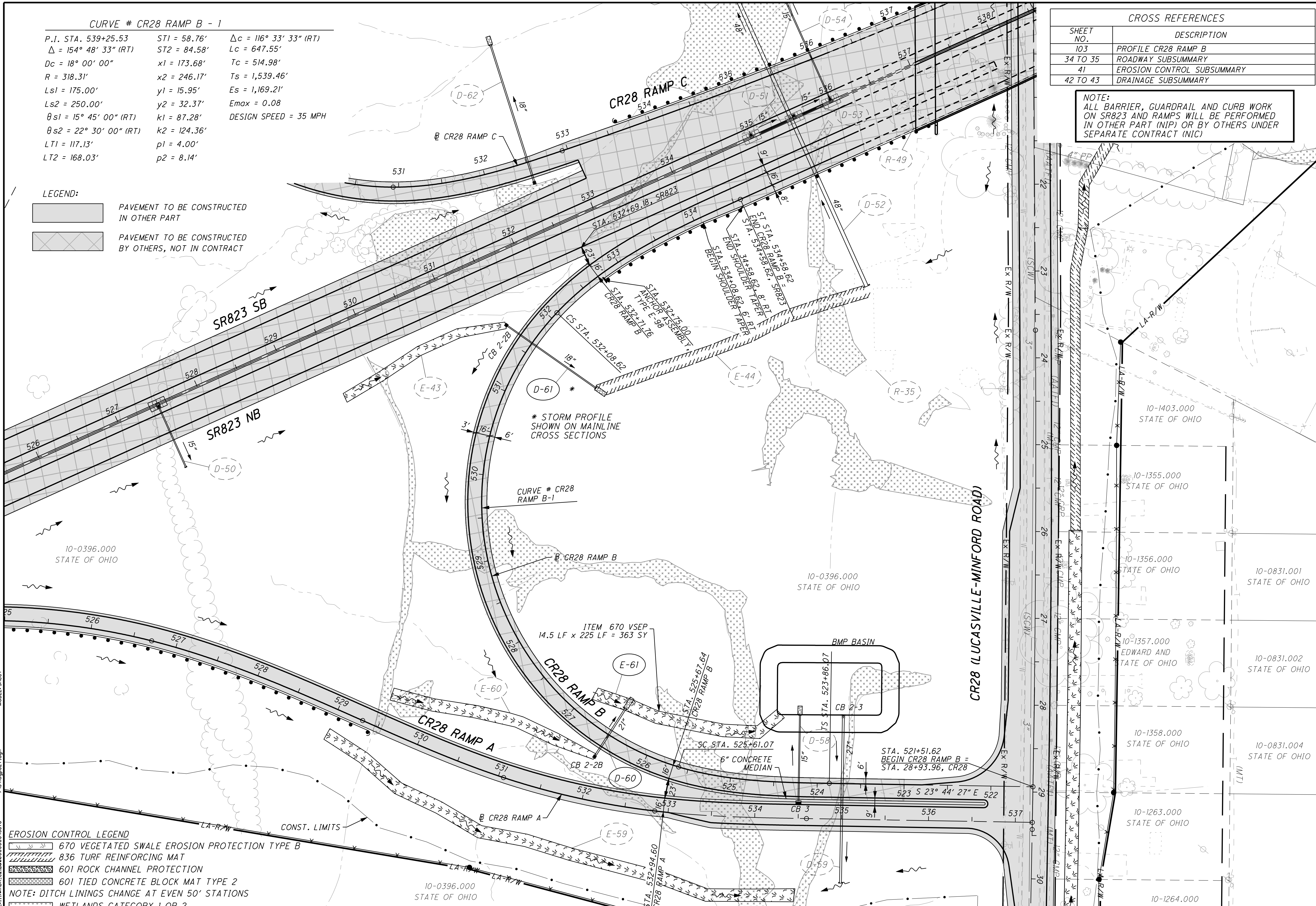
LEGEND:

- PAVEMENT TO BE CONSTRUCTED IN OTHER PART
- PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

CROSS REFERENCES

SHEET NO.	DESCRIPTION
103	PROFILE CR28 RAMP B
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP) OR BY OTHERS UNDER SEPARATE CONTRACT (NIC)



EROSION CONTROL LEGEND

- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2
- NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS
- WETLANDS CATEGORY 1 OR 2

HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED LBD/KAG
CHECKED JMB

PLAN - CR28 INTERCHANGE, RAMP B
STA. STA. 521+51.62 TO STA. 534+58.62

SCI-823-6.81

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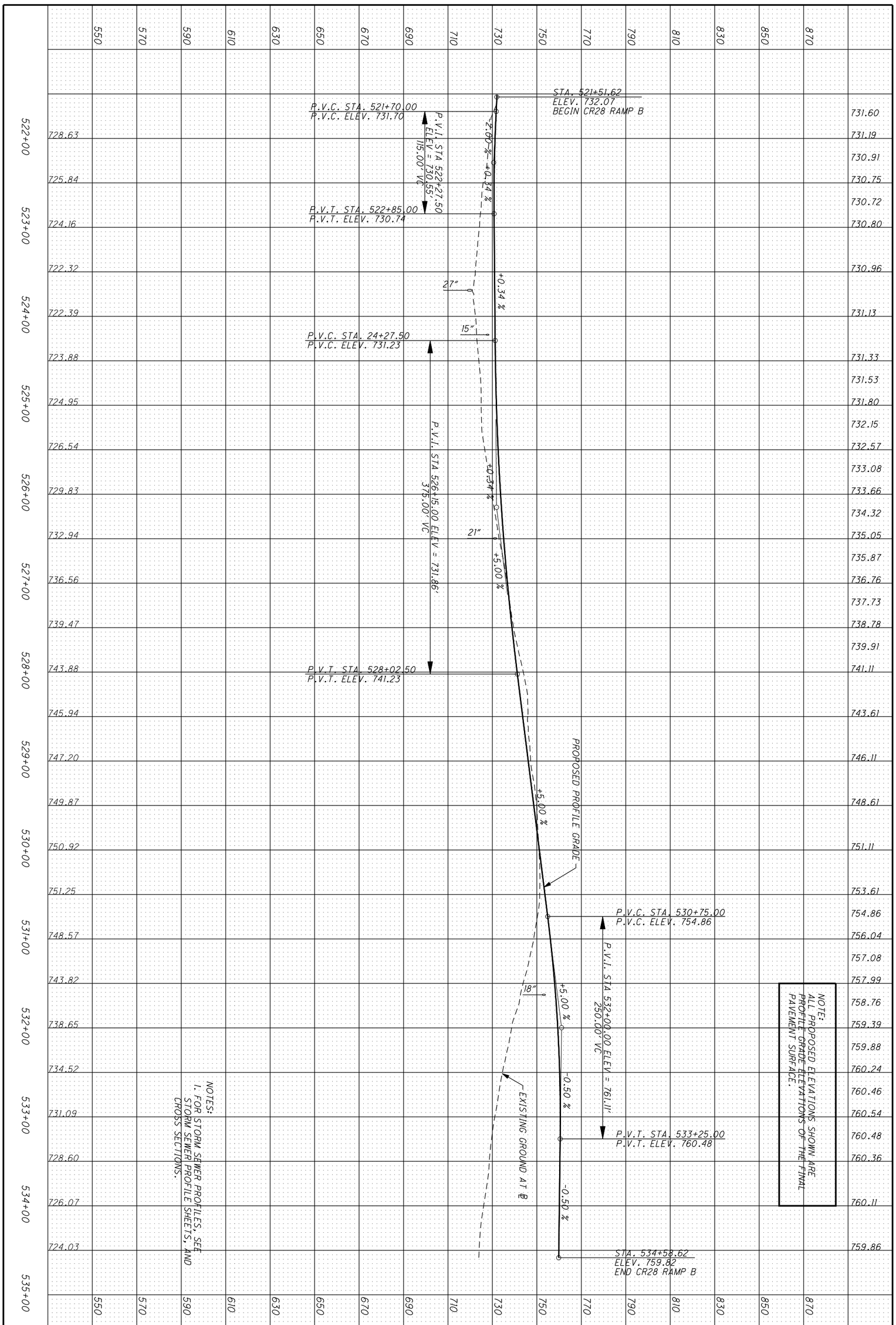


103 / 535	SCI-823-6.81	**PROFILE - CR28 INTERCHANGE, RAMP B STA. 521+51.62 TO STA. 534+58.62**	CALCULATED LBD/KAG; CHECKED JMB

CROSS REFERENCES

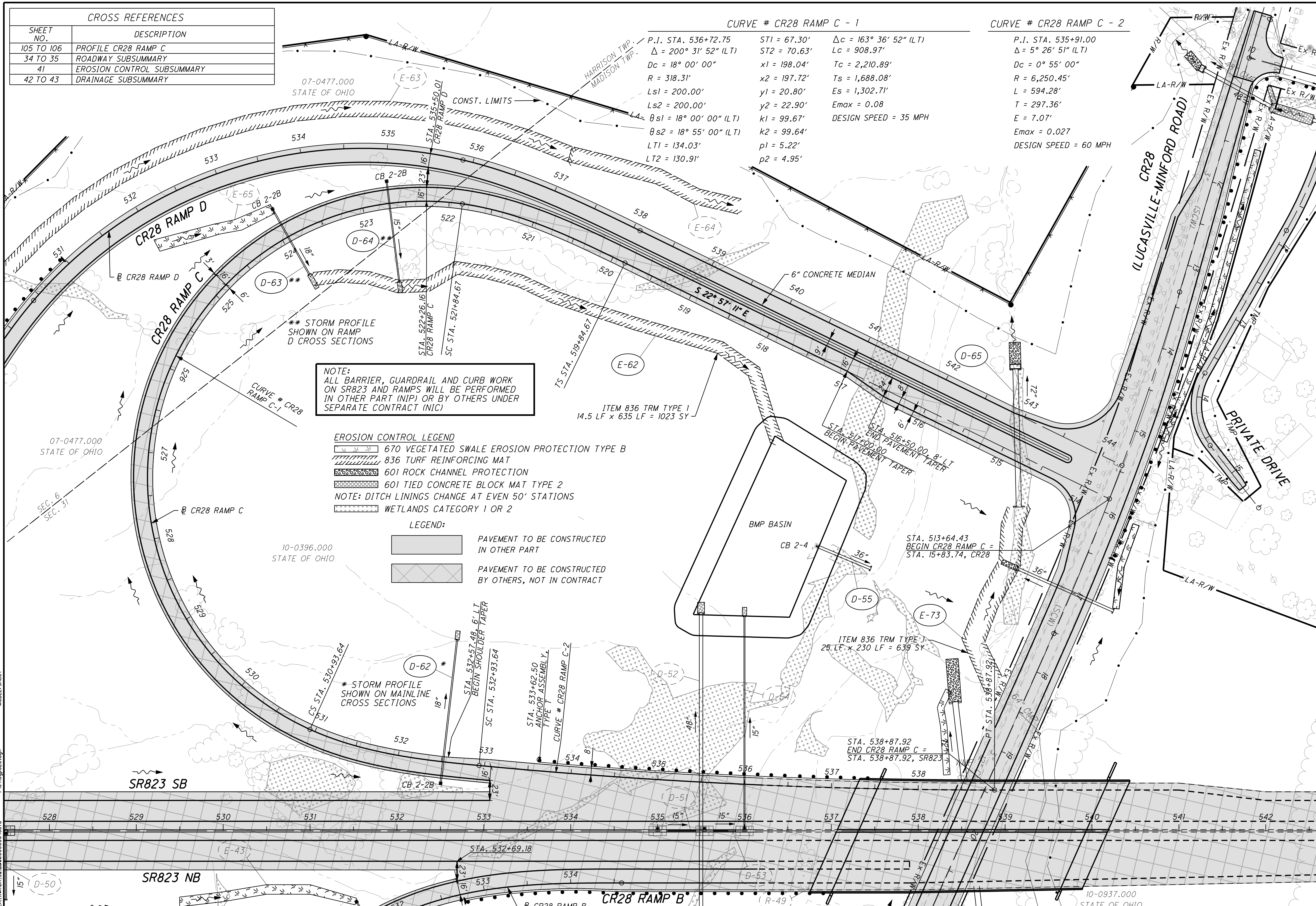
SHEET NO.	DESCRIPTION
105 TO 106	PROFILE CR28 RAMP C
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

CURVE # CR28 RAMP C - 1

P.I. STA. 536+72.75
Δ = 200° 31' 52" (LT)
Dc = 18° 00' 00"
R = 318.31'
Ls1 = 200.00'
Ls2 = 200.00'
θs1 = 18° 00' 00" (LT)
θs2 = 18° 55' 00" (LT)
LT1 = 134.03'
LT2 = 130.91'
ST1 = 67.30'
ST2 = 70.63'
x1 = 198.04'
x2 = 197.72'
y1 = 20.80'
y2 = 22.90'
k1 = 99.67'
k2 = 99.64'
p1 = 5.22'
p2 = 4.95'
Δc = 163° 36' 52" (LT)
Lc = 908.97'
Tc = 2,210.89'
Ts = 1,688.08'
Es = 1,302.71'
Emax = 0.08
DESIGN SPEED = 35 MPH

CURVE # CR28 RAMP C - 2

P.I. STA. 535+91.00
Δ = 5° 26' 51" (LT)
Dc = 0° 55' 00"
R = 6,250.45'
L = 594.28'
T = 297.36'
E = 7.07'
Emax = 0.027
DESIGN SPEED = 60 MPH



CR28 RAMP D
CR28 RAMP C
CR28 (LUCASVILLE-MINFORD ROAD)
PRIVATE DRIVE
SR823 SB
SR823 NB
CR28 RAMP B
07-0477.000 STATE OF OHIO
10-0396.000 STATE OF OHIO
10-0937.000 STATE OF OHIO
HARRISON TWP.
MADISON TWP.
SEC. 6
SEC. 31
CONST. LIMITS
LA-R/W
Ex R/W
6" CONCRETE MEDIAN
S 22° 57' 11" E
STA. 535+50.01 CR28 RAMP D
STA. 522+26.16 CR28 RAMP C
SC STA. 521+84.67
TS STA. 518+84.67
CURVE # CR28 RAMP C-1
** STORM PROFILE SHOWN ON RAMP D CROSS SECTIONS
* STORM PROFILE SHOWN ON MAINLINE CROSS SECTIONS
ITEM 836 TRM TYPE 1 14.5 LF x 635 LF = 1023 SY
ITEM 836 TRM TYPE 1 25 LF x 230 LF = 639 SY
STA. 517+00.00 BEGIN PAVEMENT TAPER
STA. 516+50.00, 8' LT END PAVEMENT TAPER
STA. 513+64.43 BEGIN CR28 RAMP C = STA. 15+83.74, CR28
STA. 538+87.92 END CR28 RAMP C = STA. 538+87.92, SR823
PT STA. 538+87.92
CS STA. 530+93.64
STA. 532+57.48, 6' LT BEGIN SHOULDER TAPER
SC STA. 532+93.64
STA. 533+62.50 ANCHOR ASSEMBLY, TYPE T
CURVE # CR28 RAMP C-2
STA. 532+69.18
BMP BASIN
CB 2-2B
CB 2-4
D-50 D-51 D-52 D-53 D-54 D-55 D-62 D-63 D-64 D-65
E-43 E-62 E-63 E-64 E-65 E-73 R-49
NOTE: ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP) OR BY OTHERS UNDER SEPARATE CONTRACT (NIC)
EROSION CONTROL LEGEND
670 VEGETATED SWALE EROSION PROTECTION TYPE B
836 TURF REINFORCING MAT
601 ROCK CHANNEL PROTECTION
601 TIED CONCRETE BLOCK MAT TYPE 2
NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS
WETLANDS CATEGORY 1 OR 2
LEGEND:
PAVEMENT TO BE CONSTRUCTED IN OTHER PART
PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT
HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED LBD/KAG
CHECKED LBD

PLAN - CR28 INTERCHANGE RAMP C
STA. 513+64.43 TO STA. 538+87.92

SCI-823-6.81

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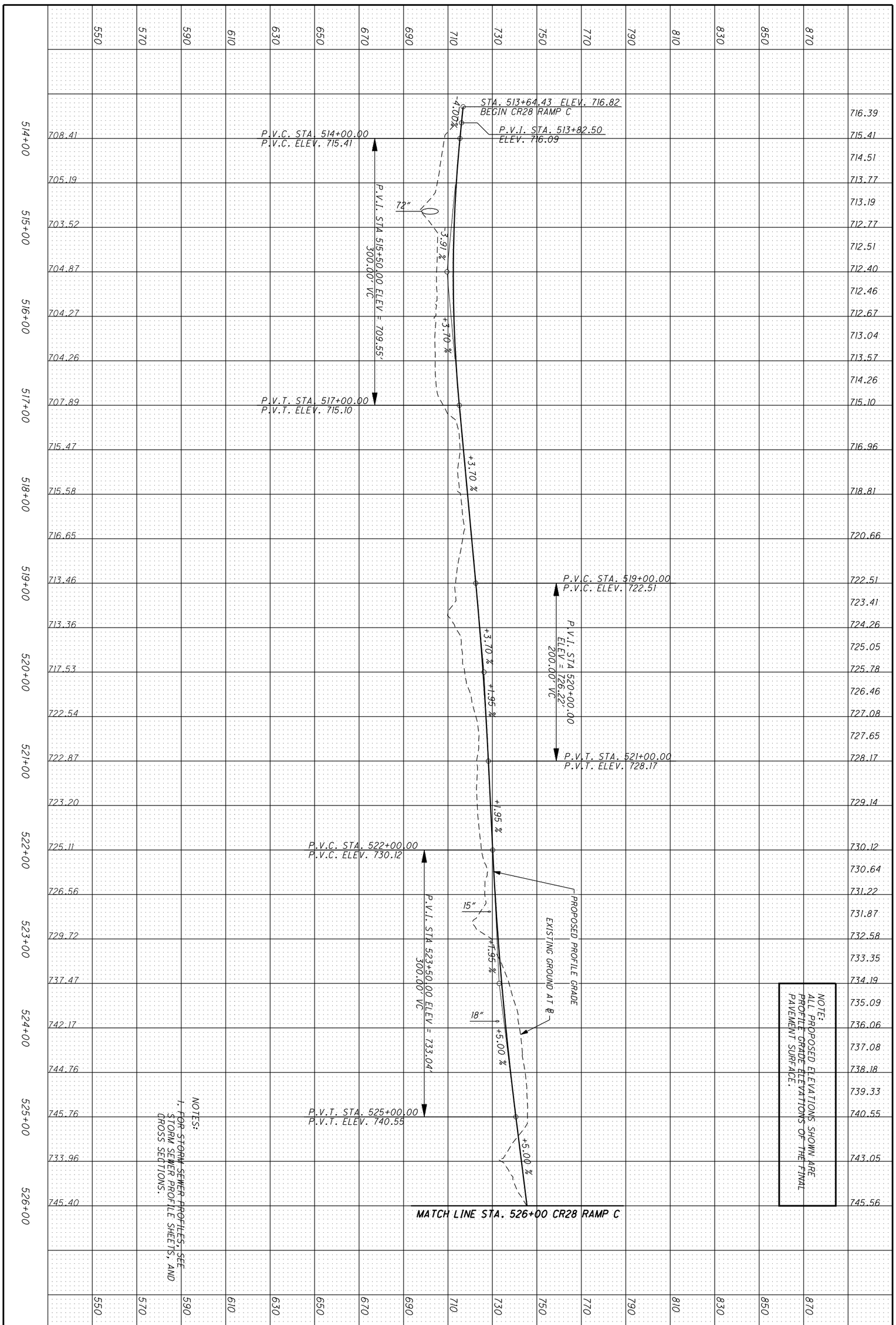

105
535

SCI-823-6.81

PROFILE - CR28 INTERCHANGE, RAMP C
STA. 513+64.43 TO STA. 526+00.00

CALCULATED LBD/KAG
CHECKED JMB

USER: CWahlbri PLOT DATE: 9/15/2011 12:17:01 PM REVISION DATE: 9/15/2011
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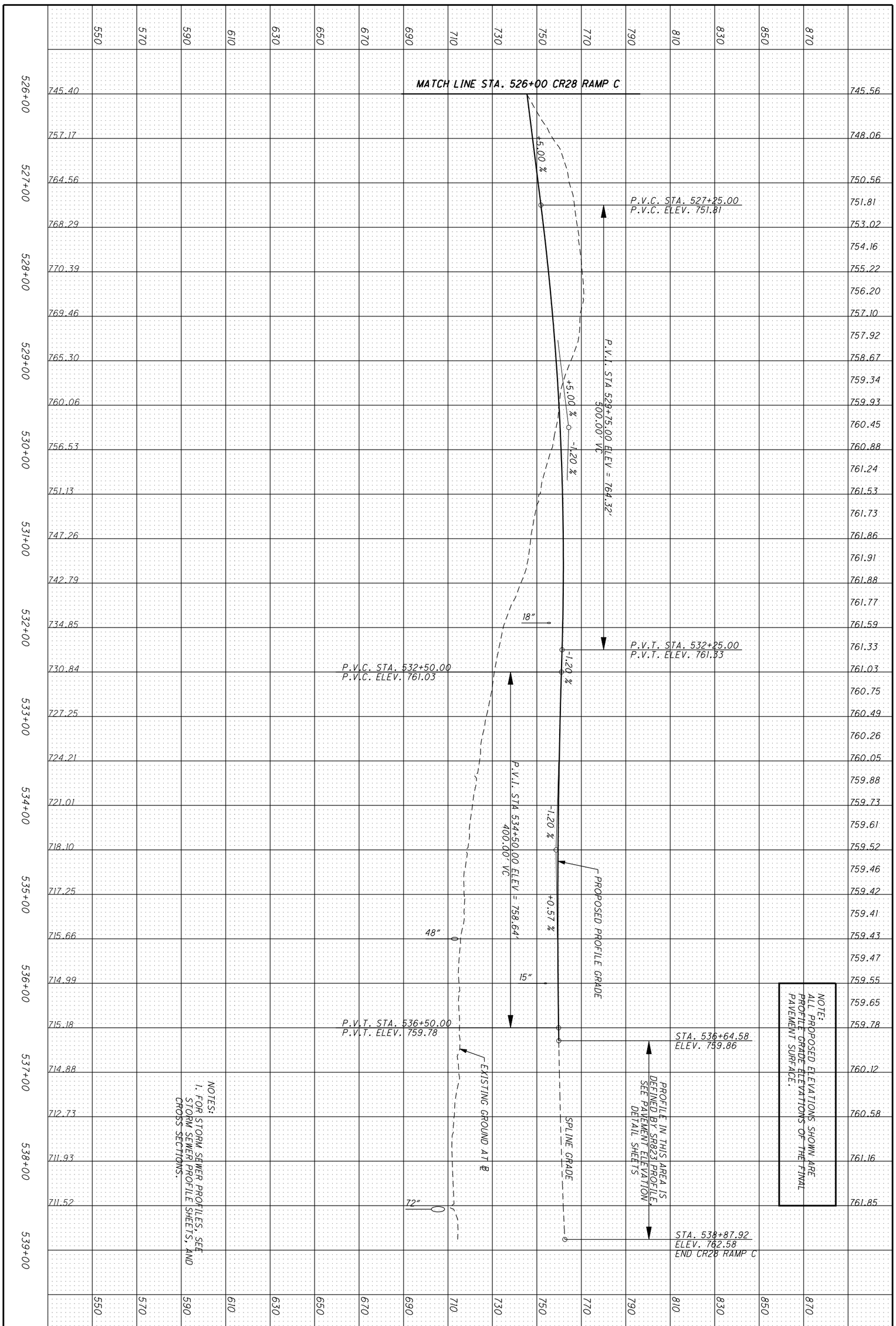


535 | 106

SCI-823-6.81

PROFILE - CR28 INTERCHANGE, RAMP C
STA. 526+00.00 TO STA. 538+87.92

CALCULATED LBD/KAG
CHECKED JMB

CURVE # CR28 RAMP D - 1

P.I. STA. 524+73.49	ST1 = 66.92'	Δc = 38° 04' 06" (LT)
Δ = 62° 13' 06" (LT)	ST2 = 73.68'	Lc = 331.03'
Dc = 11° 30' 00"	x1 = 199.20'	Tc = 171.89'
R = 498.22'	x2 = 218.93'	Ts = 403.33
Ls1 = 200.00'	y1 = 13.34'	Es = 88.00'
Ls2 = 220.00'	y2 = 16.13'	Emax = 0.079
θs1 = 11° 30' 00" (LT)	k1 = 99.87'	DESIGN SPEED = 40 mph
θs2 = 12° 39' 00" (LT)	k2 = 109.82'	
LT1 = 133.62'	p1 = 3.34'	
LT2 = 147.04'	p2 = 4.04'	

CURVE # CR28 RAMP D - 2

P.I. STA. 534+17.71	k = 109.82'
Δ = 88° 11' 49" (RT)	p = 4.04'
Dc = 11° 30' 00"	Δc = 62° 53' 49" (RT)
R = 498.22'	Lc = 546.93'
Ls = 220.00'	Tc = 304.70'
θs = 12° 39' 00" (RT)	Ts = 596.52'
LT = 147.04'	Es = 201.17'
ST = 73.68'	Emax = 0.079
x = 218.93'	DESIGN SPEED = 40 mph
y = 16.13'	

CROSS REFERENCES

SHEET NO.	DESCRIPTION
108	PROFILE CR28 RAMP D
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY

LEGEND:

- PAVEMENT TO BE CONSTRUCTED IN OTHER PART
- PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

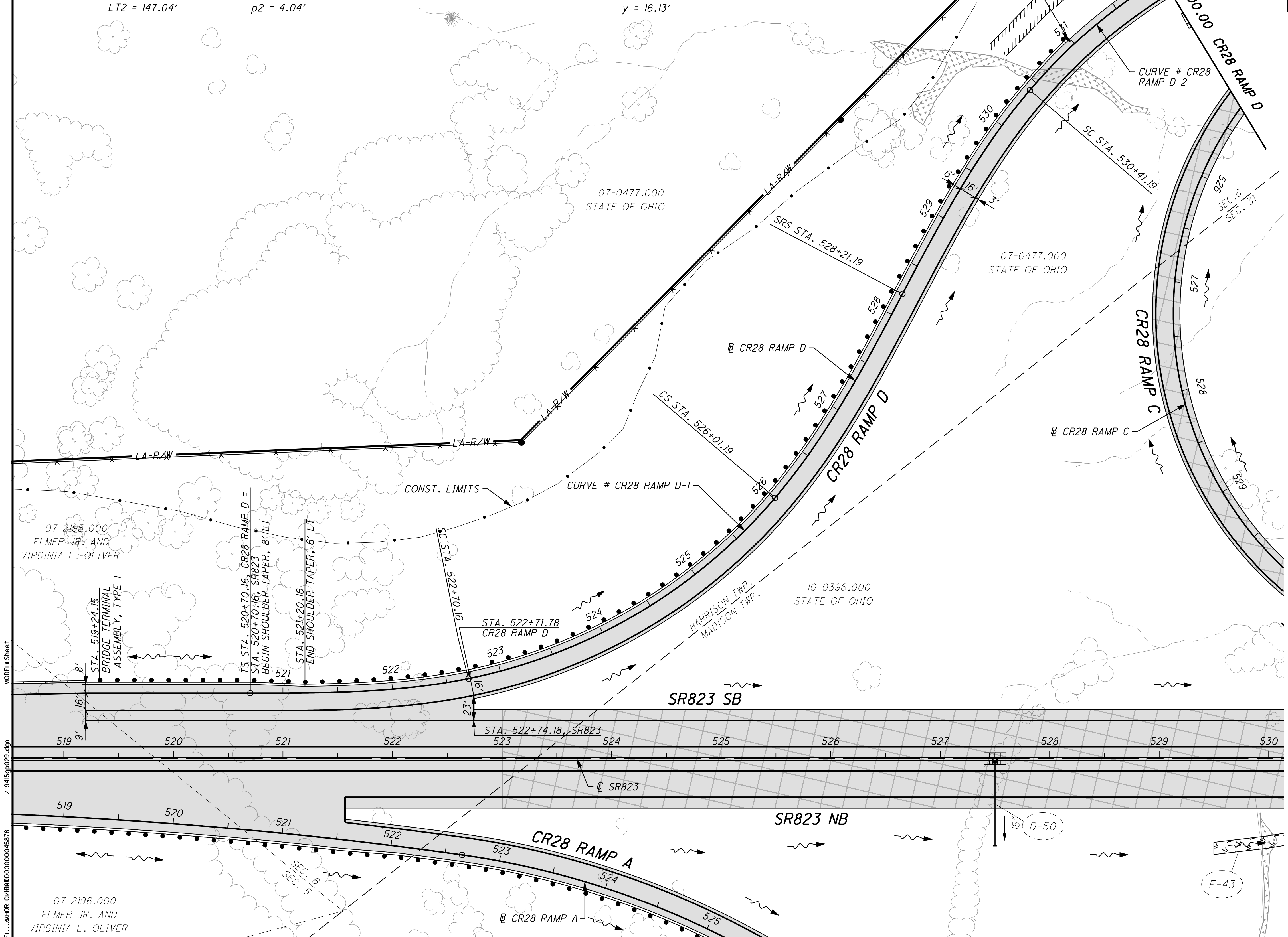
EROSION CONTROL LEGEND

- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2

NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS

- WETLANDS CATEGORY 1 OR 2

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP) OR BY OTHERS UNDER SEPARATE CONTRACT (NIC)



CALCULATED LBD/KAG
CHECKED JMB

HORIZONTAL SCALE IN FEET

PLAN - CR28 INTERCHANGE RAMP D
STA. 520+70.16 TO STA. 532+00.00

SCI-823-6.81

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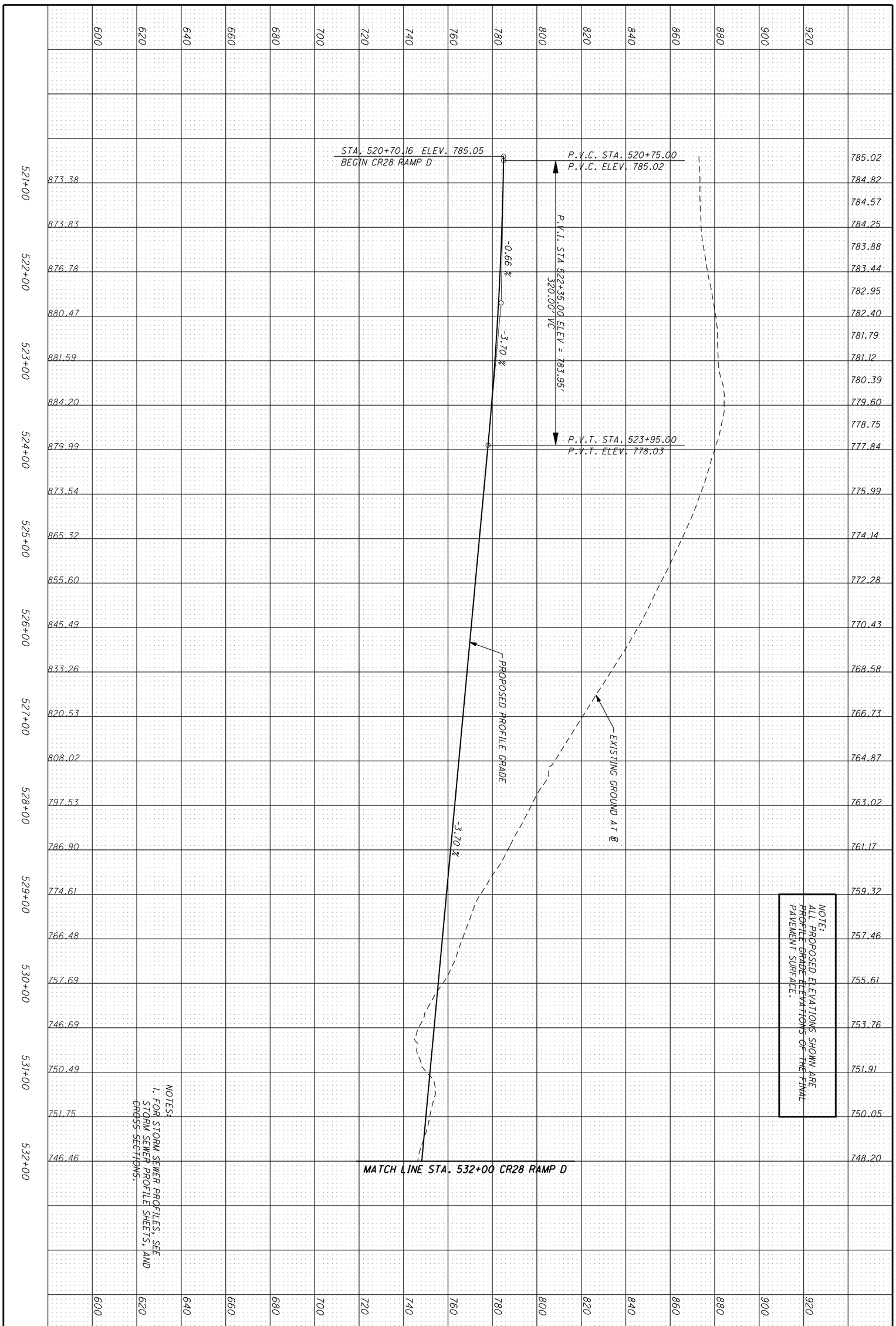


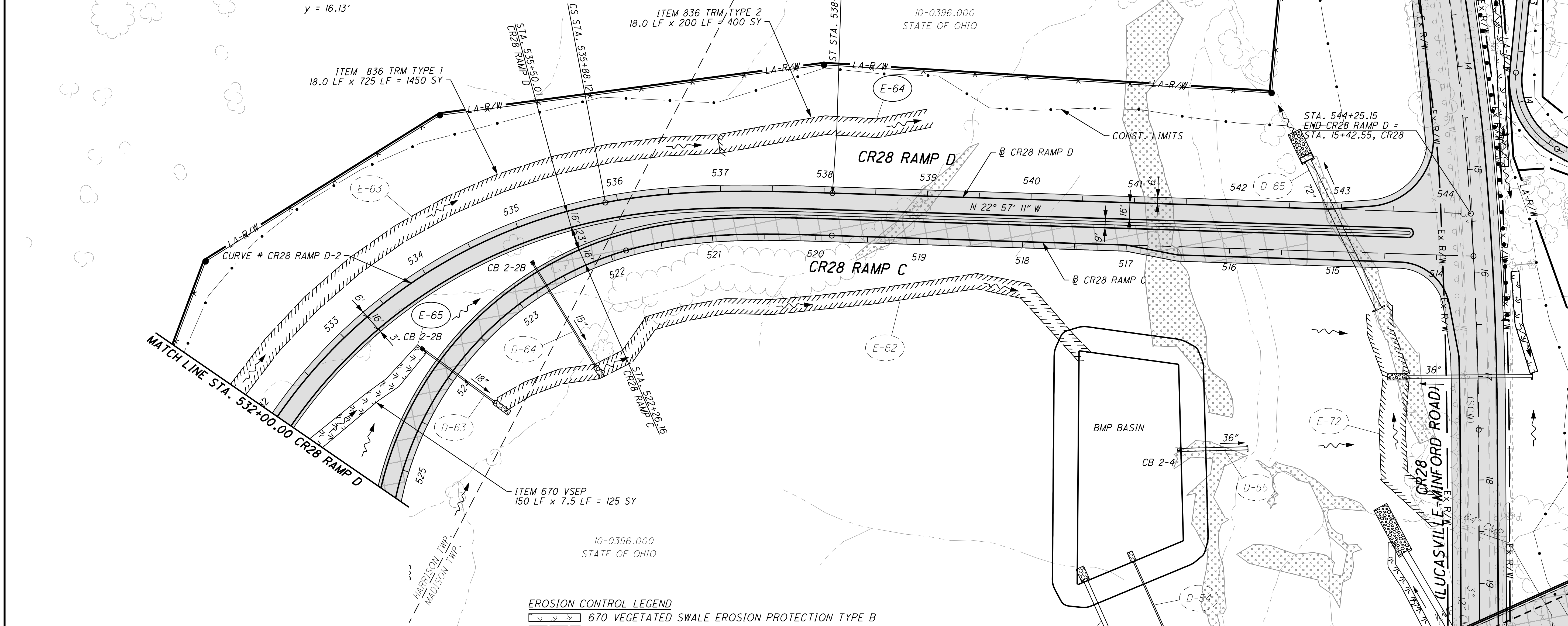
108 / 535	**SCI-823-6.81**	**PROFILE - CR28 INTERCHANGE RAMP D** **STA. 520+70.16 TO STA. 532+00.00**
		CALCULATED LBD/KAG CHECKED JMB

CURVE # CR28 RAMP D - 2

P.I. STA. 534+17.71	k = 109.82'
Δ = 88° 11' 49" (RT)	p = 4.04'
Dc = 11° 30' 00"	Δc = 62° 53' 49" (RT)
R = 498.22'	Lc = 546.93'
Ls = 220.00'	Tc = 304.70'
θs = 12° 39' 00" (RT)	Ts = 596.52'
LT = 147.04'	Es = 201.17'
ST = 73.68'	Emax = 0.079
x = 218.93'	DESIGN SPEED = 40 mph
y = 16.13'	

CROSS REFERENCES

SHEET NO.	DESCRIPTION
110	PROFILE CR28 RAMP D
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
42 TO 43	DRAINAGE SUBSUMMARY



EROSION CONTROL LEGEND
- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2
- NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS
- WETLANDS CATEGORY 1 OR 2

LEGEND:
- PAVEMENT TO BE CONSTRUCTED IN OTHER PART
- PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

NOTE:
ALL BARRIER, GUARDRAIL AND CURB WORK ON SR823 AND RAMPS WILL BE PERFORMED IN OTHER PART (NIP) OR BY OTHERS UNDER SEPARATE CONTRACT (NIC)

0 25 50 100 HORIZONTAL SCALE IN FEET

CALCULATED LBD/KAG CHECKED JMB

PLAN - CR28 INTERCHANGE RAMP D
STA. 532+00.00 TO STA. 544+25.15

SCI-823-6.81

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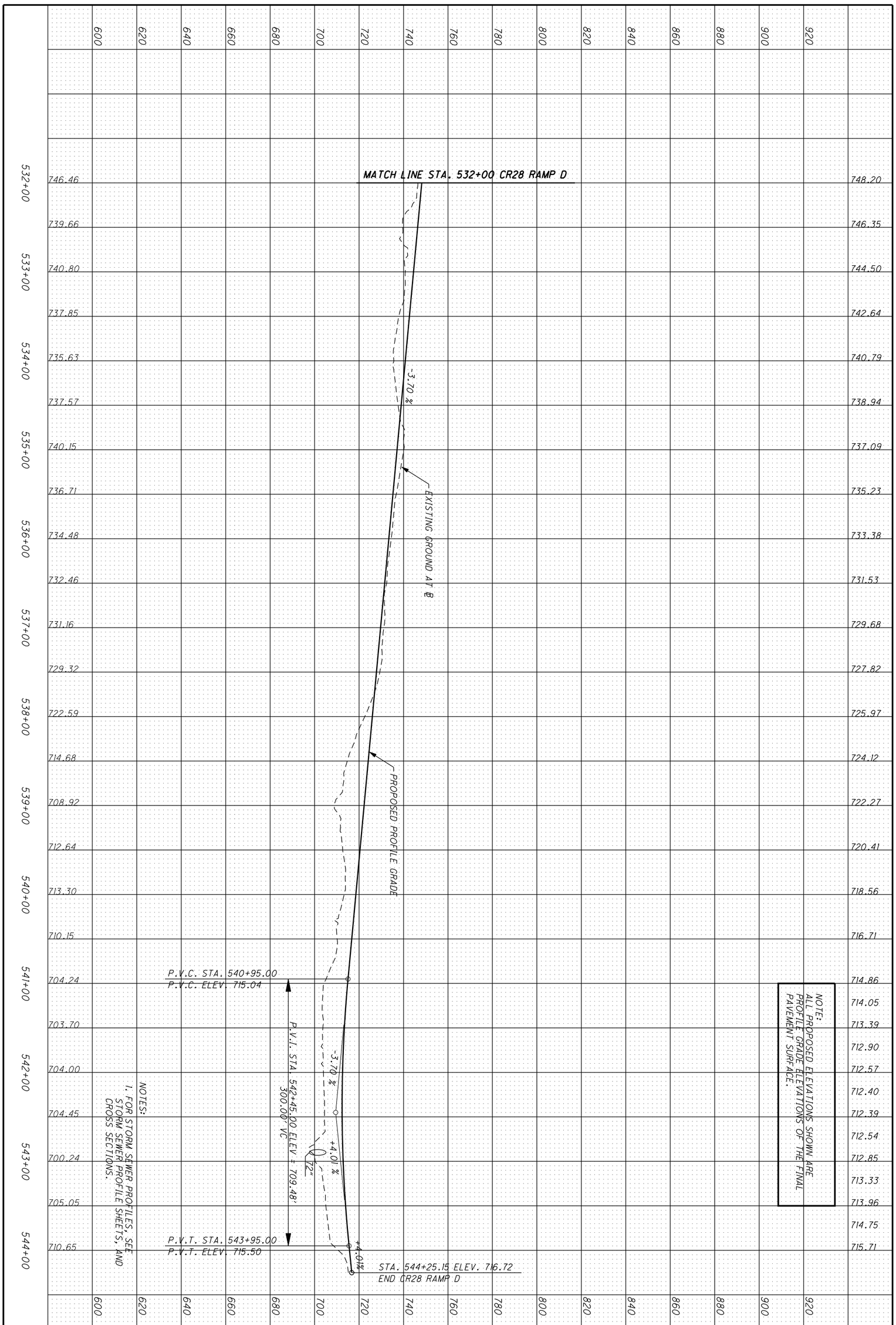

110
535

SCI-823-6.81

PROFILE - CR28 INTERCHANGE RAMP D
STA. 532+00.00 TO STA. 544+25.15

CALCULATED LBD/KAG
CHECKED JMB

CURVE # TR234 - 1

P.I. Sta = 14+27.25
DELTA = 40° 05′ 33″ (LT)
Dc = 6° 00′ 00″
R = 954.93′
Ls1 = 105.00′
Ls2 = 225.00′
Theta1 = 3° 09′ 00″ (LT)
Theta2 = 6° 45′ 00″ (LT)
LT1 = 70.01′
LT2 = 150.11′
ST1 = 35.01′
ST2 = 75.10′
x1 = 104.97′
x2 = 224.69′
y1 = 1.92′
y2 = 8.83′
k1 = 52.49′
k2 = 112.45′
p1 = 0.48′
p2 = 2.21
DELTAc = 30° 11′ 33″ (LT)
Lc = 503.21′
Ts1 = 403.79′
Ts2 = 459.01′
Es = 63.02′
Tc = 257.59′
Emax. = 0.08
DESIGN SPEED = 55 MPH

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
112	PROFILE TR234
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
44	DRAINAGE SUBSUMMARY

NOTE:
ALL PROPOSED WORK SHOWN ON TR234 SHALL BE PERFORMED

LEGEND:
PAVEMENT REMOVED

07-0098.001
ROBERT LEE AND
STELLA FAULKNER

07-0098.002
PAUL FAULKNER

07-0804.000
GERTRUDE B. MCKENZIE
TRUSTEE OF GERTRUDE B.
MCKENZIE REVOCABLE TRUST

07-0893.001
ROBERT R. ROBIN BOLTS

07-0098.003
OHIO RECREATIONAL
PROPERTIES, INC.

07-0098.000
MECHANICAL
CONSTRUCTION CO. INC.

07-0893.000
BENNETT, ERIC D., BENNETT, EVERETT A.,
AND BENTLEY, JENNIFER

BM "A"
EX. SEPTIC TANK
EX. LEECH FIELD
DO NOT DISTURB
36" CMP
12" CMP
TS STA. 10+23.46
MEET EXISTING WITH BUTT END JOINT
BEGIN PAVEMENT TAPER, ±8.2' RT & ±8.9' LT
STA. 11+00.00
BEGIN SHOULDER TAPER, 12.28' LT.
STA. 12+50.00
END SHOULDER TAPER, 20.97 LT.
STA. 13+35.00
END PAVEMENT TAPER, 14.5' LT
CURVE # TR234-1
RI STA. 16+84.50
ANCHOR ASSEMBLY, TYPE E-98
CS STA. 16+31.67
BEGIN PAVEMENT TAPER, 14.5' LT
SRS STA. 18+56.67
END TAPER 12' LT
BEGIN PAVEMENT TAPER 12' RT
STA. 17+77.50
ANCHOR ASSEMBLY, TYPE E-98
MATCH LINE STA. 19+50 TR234
LA-R/W
R/W
CONST. LIMITS
ITEM 836 TRM TYPE 3
14.5 LF X 250 LF = 403 SY
STA. 13+37.50
ANCHOR ASSEMBLY, TYPE T
ITEM 670 VSEP
14.5 LF X 335 LF = 540 SY
℄ TR234
TR234 (RELOCATED SHUMWAY HOLLOW ROAD)
EXIST. TR234 SHUMWAY HOLLOW ROAD
STA. 10+55.00
END SHOULDER TAPER, 16.8' RT.
SC STA. 11+28.46
STA. 12+35.00
END PAVEMENT TAPER, 12' RT
BEGIN WORK
TR234
STA. 10+23.46
E-66
R-37
R-38
M-1
E-67
R-39
G-2
M-2
G-3
D-66
R-36
Ex R/W
8'
12'
14'
15'
16'
18'
48"

EROSION CONTROL LEGEND
670 VEGETATED SWALE EROSION PROTECTION TYPE B
836 TURF REINFORCING MAT
601 ROCK CHANNEL PROTECTION
601 TIED CONCRETE BLOCK MAT TYPE 2
NOTE: DITCH LININGS CHANGE AT EVEN 50′ STATIONS
WETLANDS CATEGORY 1 OR 2

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED LBD/KAG
CHECKED JMB

PLAN - TOWNSHIP ROAD 234
STA. 10+23.73 TO STA. 19+50.00

SCI-823-6.81

111
535

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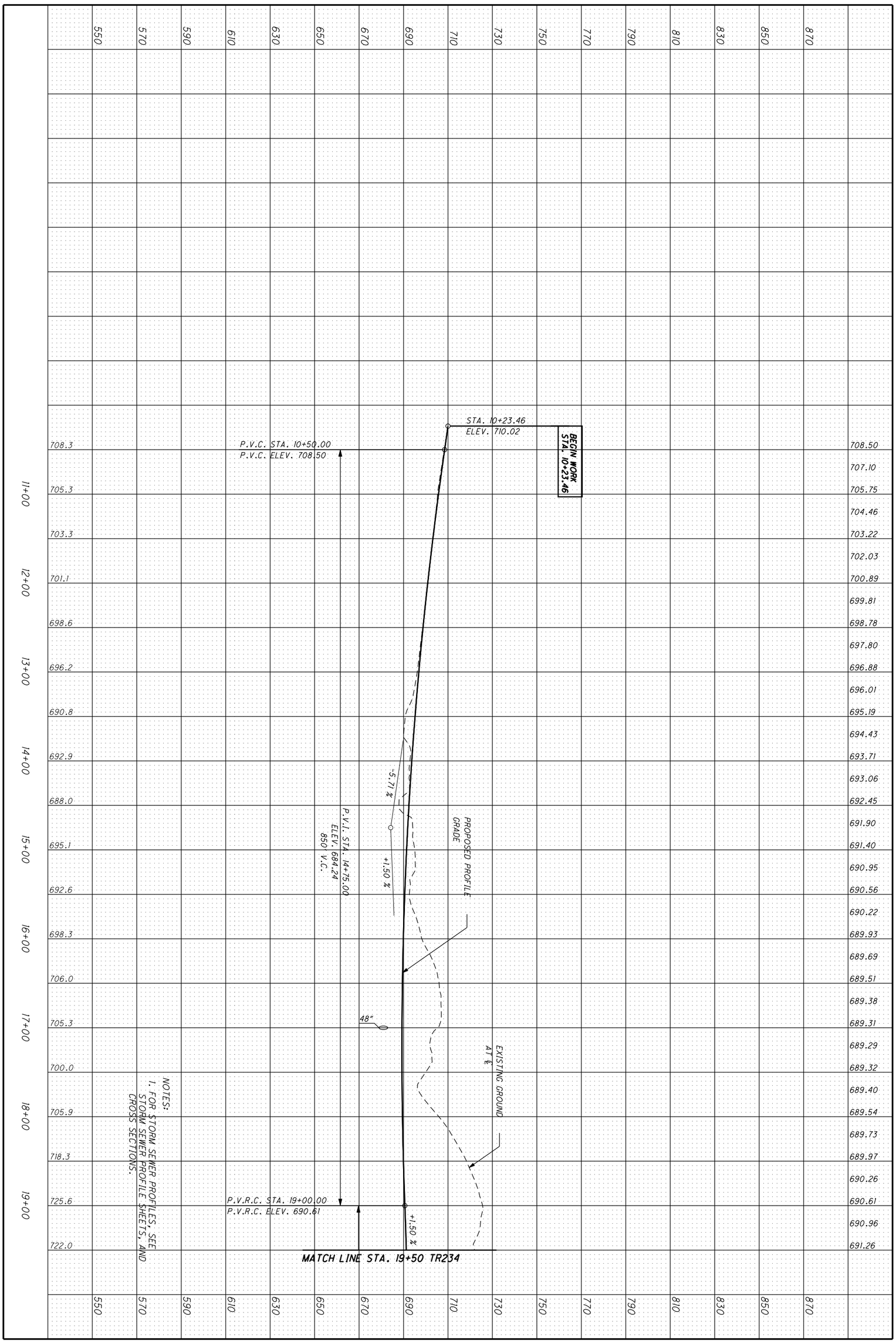

SCI-823-6.81

PROFILE - TOWNSHIP ROAD 234
STA. 10+23.73 TO STA. 19+50.00

CALCULATED LBD/KAG
CHECKED JMB

CONST. LIMITS

07-0804.000
GERTRUDE B. MCKENZIE
TRUSTEE OF
GERTRUDE B. MCKENZIE
REVOCABLE TRUST

LA-R/W

STA. 21+20.00
BEGIN PAVEMENT TAPER, 12' LT, 14.5' RT

EROSION CONTROL LEGEND
- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2

NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS
- WETLANDS CATEGORY 1 OR 2

TR234 (RELOCATED SHUMWAY HOLLOW ROAD)

STA. 24+50.00
END PAVEMENT TAPER 18' LT, 20.5' RT

TYPE T ANCHOR

STA. 26+43.58, TR234 =
STA. 384+20.66, TR234 RAMP D

GUARDRAIL (NIP)

TR234 RAMP D

07-0804.000
GERTRUDE B. MCKENZIE
TRUSTEE OF
GERTRUDE B. MCKENZIE
REVOCABLE TRUST

SR823 SB

SR823 NB

STA. 30+00.00, TR234 =
STA. 384+23.03, SR823

D-67 D-68 D-8 E-9 E-68 M-3 E-69 D-7

ITEM 670 VSEP
11 LF x 150 LF = 183 SY

N 76° 16' 04" E

MATCH LINE STA. 19+50 TR234

MATCH LINE STA. 32+00 TR234

ITEM 670 VSEP
11 LF x 200 LF = 244 SY

07-0804.000
GERTRUDE B. MCKENZIE
TRUSTEE OF
GERTRUDE B. MCKENZIE
REVOCABLE TRUST

G-2 G-3

CL STA. 24+83.47

℄ TR234

07-0893.001
ROBERT R. AND
ROBIN BOUTS

SC STA. 20+81.67
END TAPER, 14.5' RT

CURVE # TR234-2

LEGEND:
- PAVEMENT REMOVED
- PAVEMENT TO BE CONSTRUCTED IN OTHER PART
- PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
114	PROFILE TR234
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
44	DRAINAGE SUBSUMMARY

NOTE:
ALL PROPOSED WORK SHOWN ON TR234
SHALL BE PERFORMED

TYPE T ANCHOR

GUARDRAIL (NIC)

ST STA. 28+08.47

STA. 26+38.09, TR234 =
STA. 384+46.22, TR234
RAMP C

TR234 RAMP C

E-53 E-54 E-52 D-57

CONST. LIMITS

EX. POND

2 STY. RES.

R-36

07-0893.001
ROBERT R. AND ROBIN BOUTS

EXIST. SHUMWAY HOLLOW ROAD

Ex R/W

Ex U

07-0893.000
BENNETT, ERIC D., BENNETT, EVERETT A.,
AND BENTLEY, JENNIFER

07-0893.001
ROBERT R. AND ROBIN BOUTS

CURVE # TR234 - 2

P.I. Sta = 23+26.93	y1 = 8.83'
DELTA = 40° 36' 30" (RT)	y2 = 18.40'
Dc = 6° 00' 00"	k1 = 112.45'
R = 954.93'	k2 = 162.34'
Ls1 = 225.00'	p1 = 2.21'
Ls2 = 325.00'	p2 = 4.60'
Theta1 = 6° 45' 00" (RT)	DELTAc = 24° 06' 30" (RT)
Theta2 = 9° 45' 00" (RT)	Lc = 401.80'
LT1 = 150.11'	Ts1 = 470.26'
LT2 = 216.99'	Ts2 = 513.68'
ST1 = 75.10'	Es = 66.90'
ST2 = 108.63'	Tc = 203.92
x1 = 224.69'	Emax. = 0.08
x2 = 324.06'	DESIGN SPEED = 55 MPH

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED LBD/KAG
CHECKED JMB

PLAN - TOWNSHIP ROAD 234
STA. 19+50.00 TO STA. 32+00.00

SCI-823-6.81

113
535

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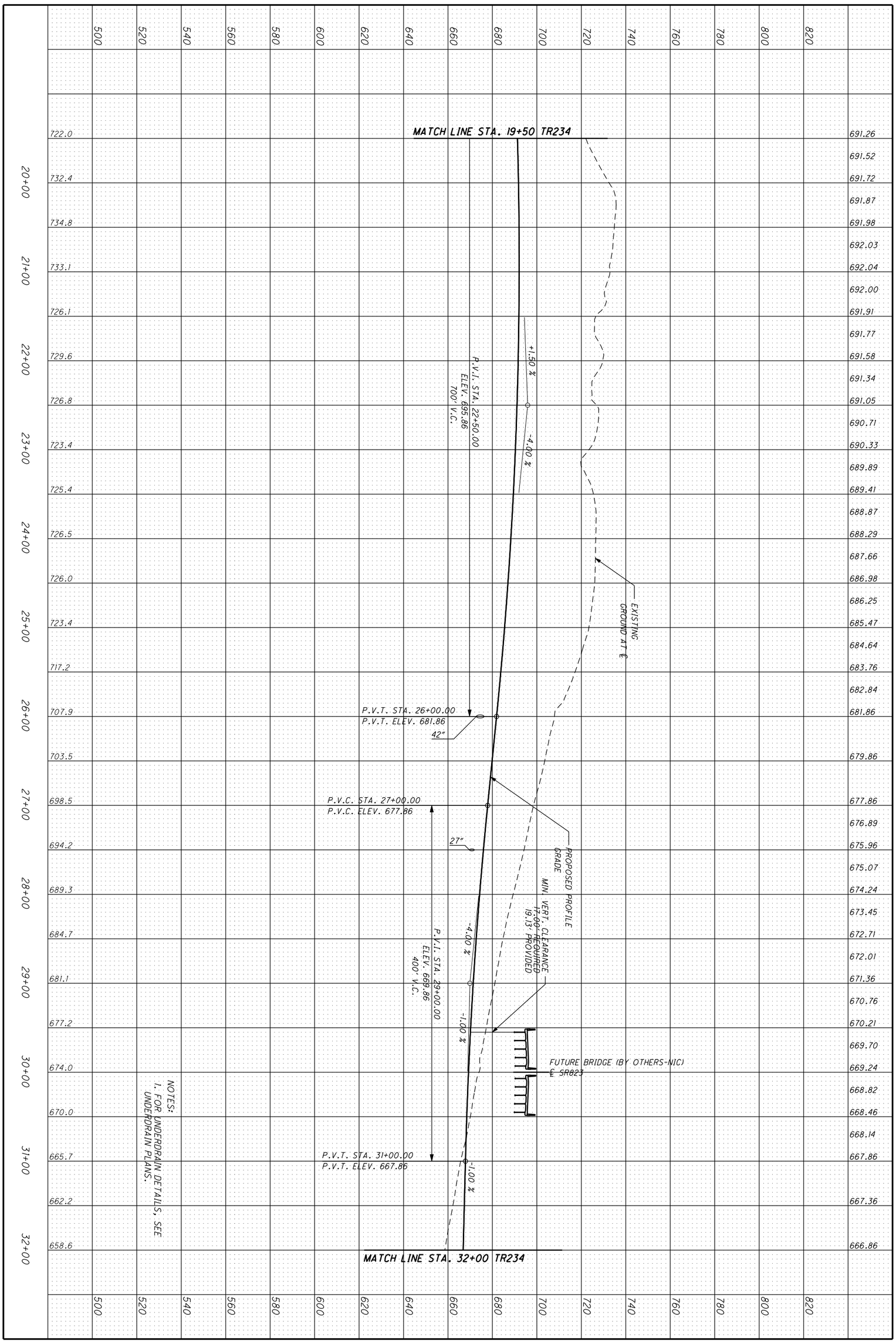


114 / 535	SCI-823-6.81	PROFILE - TOWNSHIP ROAD 234 STA. 19+50.00 TO STA. 32+00.00	CALCULATED LBD/KAG CHECKED JMB

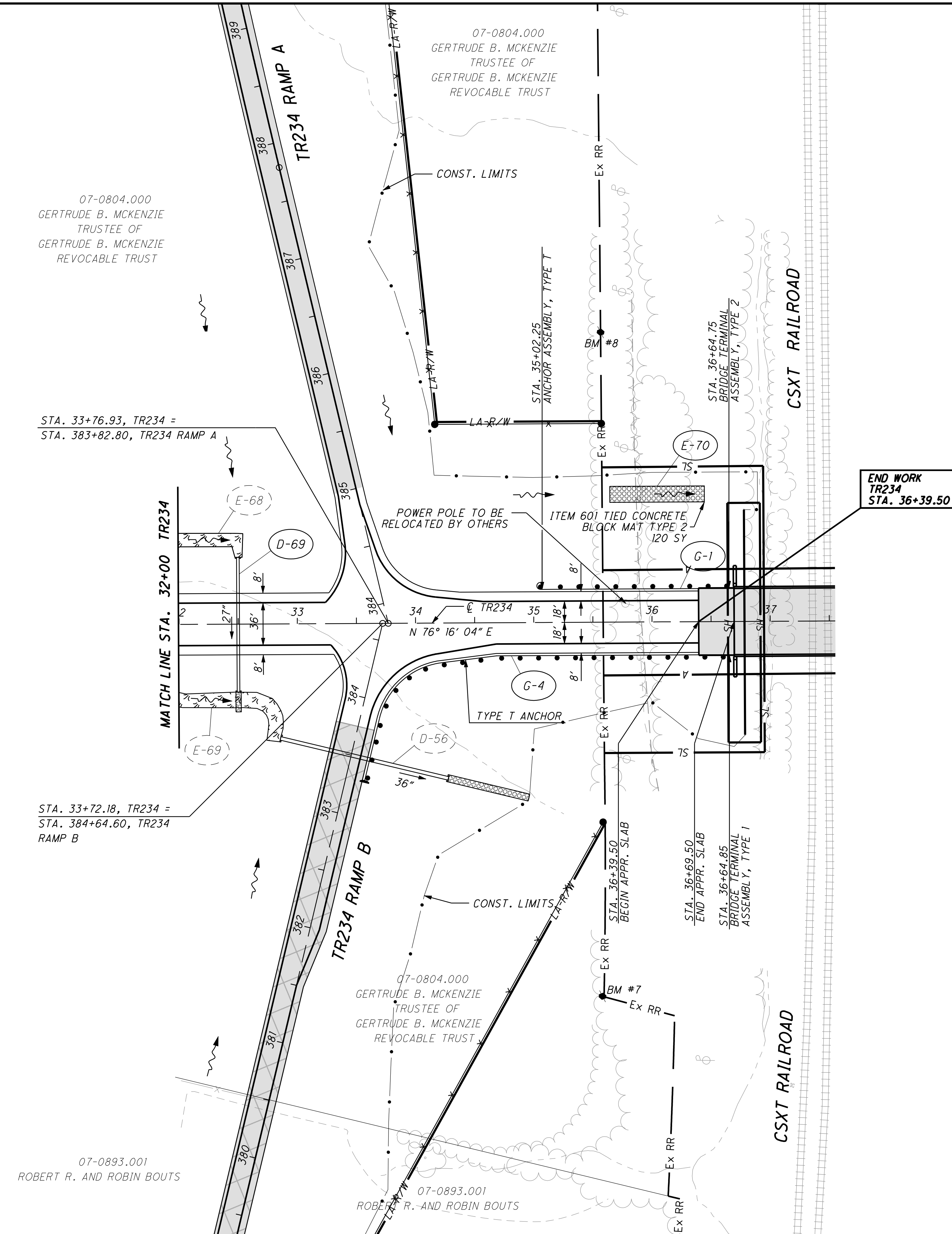
CROSS REFERENCES	
SHEET NO.	DESCRIPTION
116	PROFILE TR234
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
44	DRAINAGE SUBSUMMARY

LEGEND:

- PAVEMENT TO BE CONSTRUCTED IN OTHER PART
- PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT

NOTE:
ALL PROPOSED WORK SHOWN ON TR234 SHALL BE PERFORMED

NOTE:
BRIDGE AND APPROACH SLABS PERFORMED IN OTHER PART (NIP)



HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED LBD/KAG
CHECKED JMB

PLAN - TOWNSHIP ROAD 234 AND CR 540
STA. 32+00.00 TO STA. 40+87.00

SCI-823-6.81

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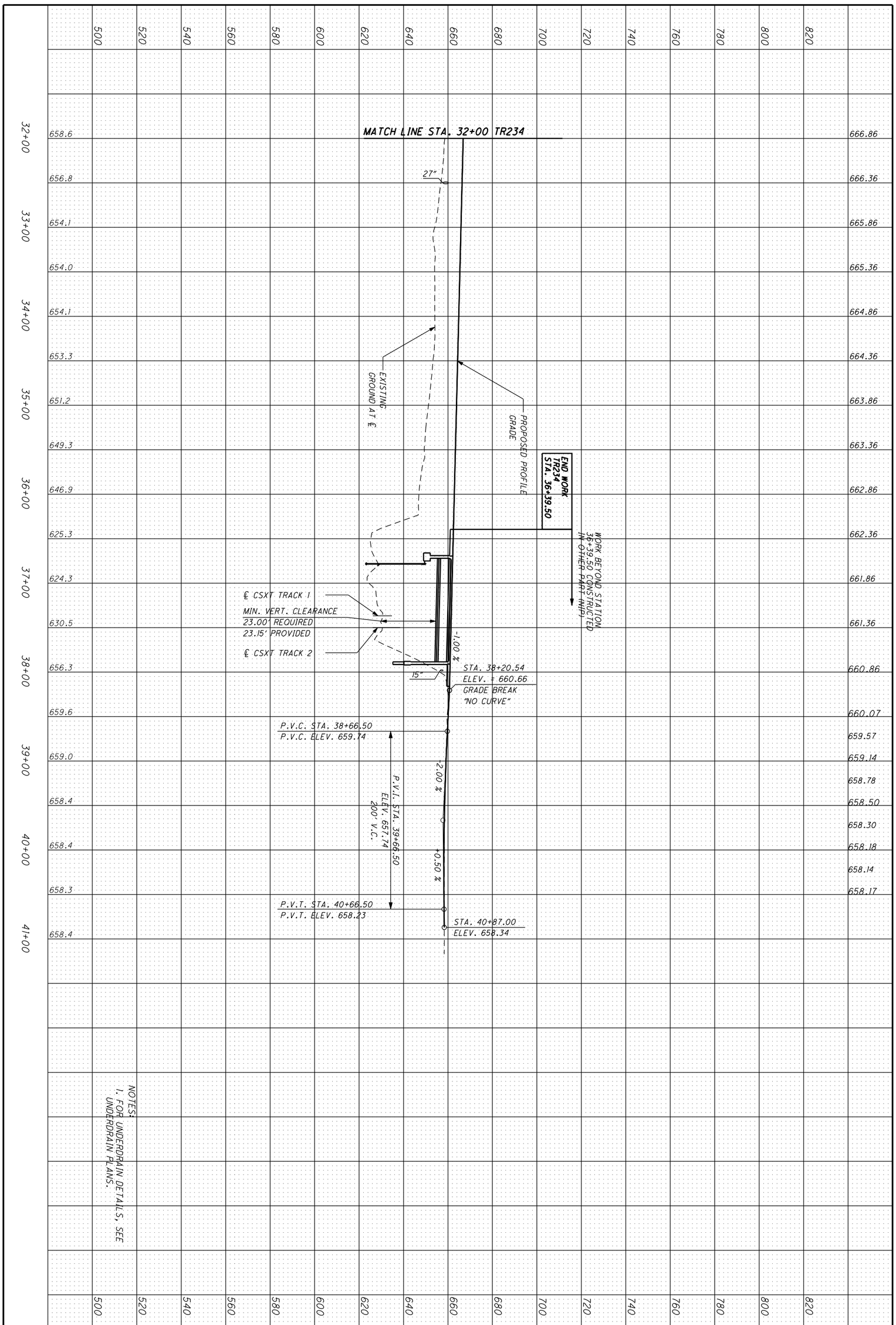

NOTES:
1. FOR UNDERDRAIN DETAILS, SEE UNDERDRAIN PLANS.

116 / 535	SCI-823-6.81	PROFILE - TOWNSHIP ROAD 234 AND CR 540 STA. 32+00.00 TO STA. 40+82.50	CALCULATED LBD/KAG CHECKED JMB

BEGIN WORK
SR 139
STA. 167+50.00

END WORK
SR 139
STA. 173+25.00

ITEM 670 VSEP
18 LF x 200 LF = 400 SY

STA. 168+17.50
ANCHOR ASSEMBLY,
TYPE E-98

UTILITY POLE
TO BE RELOCATED
BY OTHERS

07-1374.000
ROBERT TROWBRIDGE

PROPOSED BRIDGE PIER

UTILITY POLE
TO BE RELOCATED
BY OTHERS

ITEM 836 TRM TYPE 2
14.5 LF x 180 LF = 290 SY

STA. 171+30.00
BEGIN GUARDRAIL, TYPE 5
LONG SPAN

07-0969.000
JOSEPH AND
CRYSTAL PRESTON

CONST. LIMITS

FLARED END SECTION

EX. PRIVATE SIGN
TO BE RELOCATED
BY OTHERS

UTILITIES
TO BE RELOCATED
BY OTHERS

OLIVER ROAD

LA-R/W

PI Sta. 171+89.11

TMP

STA. 172+30.00
END GUARDRAIL, TYPE 5
LONG SPAN

FIELD ADJUST
EX. 4" CPP

TYPE T ANCHOR

EX. 12" CPP

4 LF - 12" CPP @ 3.50%
PR. INV. ELEV. = 630.20

STA. 172+17.50
ANCHOR ASSEMBLY,
TYPE E-98

STA. 172+30.00
END GUARDRAIL, TYPE 5
LONG SPAN

STA. 172+05.00
END PAVEMENT
REPLACEMENT

8" (SCW)
4" (CGOH)
EXISTING 12"
DRIVE PIPE
EXISTING ℄ SR 139
SR 139 (PORTSMOUTH-MINFORD ROAD)
N 52° 11' 33" E
EXISTING 4.5' X 8'
CONCRETE BOX
EXISTING CULVERT TO BE
CAPPED AND FILLED
N 51° 52' 51" E
T(AATUR)(MT)
8" W(QL-D)
8" (SCW)
4" (CGOH)
2" G(QL-D)
Ex R/W
LA-R/W
25'
72'
4'

STA. 168+92.50
ANCHOR ASSEMBLY,
TYPE E-98

PROPOSED BRIDGE PIER

STA. 171+30.00
BEGIN GUARDRAIL, TYPE 5
LONG SPAN

EX. BILLBOARD
TO BE REMOVED
BY OTHERS

STA. 171+55.00
BEGIN PAVEMENT
REPLACEMENT

07-1374.000
ROBERT TROWBRIDGE

R-40 R-41 R-42 R-43 R-44 R-47 R-50
G-5 G-6
E-71 E-72
D-70 D-71 D-72
168 169 170 171 172 173

℄ EXIST. SR 139

MATCH EXIST. | MATCH EXIST.

6" ITEM 304
5" ITEM 302
1.5" ITEM 442

PAVEMENT REPLACEMENT DETAIL

EROSION CONTROL LEGEND

- 670 VEGETATED SWALE EROSION PROTECTION TYPE B
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2

NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS

- WETLANDS CATEGORY 1 OR 2

CROSS REFERENCES

SHEET NO.	DESCRIPTION
34 TO 35	ROADWAY SUBSUMMARY
41	EROSION CONTROL SUBSUMMARY
44	DRAINAGE SUBSUMMARY

EXISTING GROUND AT ℄
PROPOSED
PAVEMENT REPLACEMENT
TELEPHONE
8" WATER
4" GAS
72"

660 640 620 600

634.94 634.79 634.62 634.49 634.38 634.27 634.29 634.32 634.38 634.48 634.59 634.81 635.11 635.30 635.34 635.38 635.42 635.39 635.36 635.32 635.26 635.21 635.16 635.10 635.04 634.97 634.89 634.81 634.71 634.60

168+00 169+00 170+00 171+00 172+00 173+00

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED LBD/KAG
CHECKED JMB

PLAN AND PROFILE - SR139
STA. 167+40.00 TO STA. 173+40.00

SCI-823-6.81

117
535

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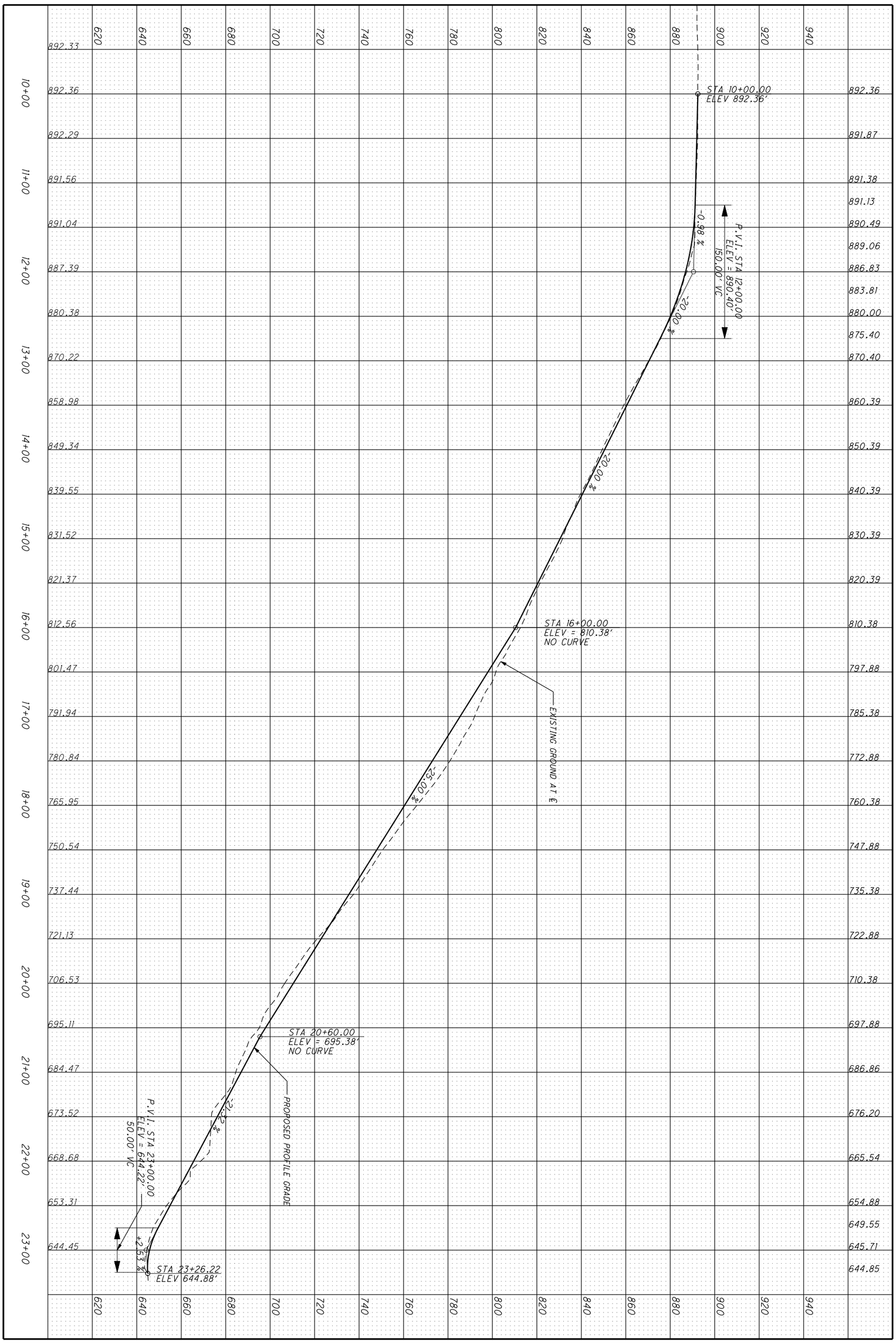

118 / 535	SCI-823-6.81	PROFILE - AIRPORT BEACON ACCESS ROAD STA. 10+00 TO STA. 23+37.11	CALCULATED TTT CHECKED LBD

SUPERELEVATION TABLE

SR823, CURVE #5	P.I. STA. 346+07.50	DC = 45'	EMAX = 0.028 FT/FT

	NORTHBOUND, INSIDE SHOULDER				NORTHBOUND, LANES			NORTHBOUND, OUTSIDE SHOULDER				
STATION	SHOULDER ELEVATION	SHOULDER SLOPE	SHOULDER WIDTH	PROFILE GRADE (INSIDE EDGE OF PAVEMENT)	PAVEMENT WIDTH	PAVEMENT SLOPE	EDGE OF PAVEMENT ELEVATION	SHOULDER WIDTH	SHOULDER SLOPE	SHOULDER ELEVATION	STATION	REMARKS
313+88.42	743.51	-0.0400	9.59	743.89	24	-0.0160	743.51	10	-0.0400	743.11	313+88.42	NORMAL CROWN
314+00.00	743.30	-0.0400	9.59	743.68	24	-0.0141	743.34	10	-0.0400	742.94	314+00.00	
314+25.00	742.85	-0.0400	9.59	743.23	24	-0.0101	742.99	10	-0.0400	742.59	314+25.00	
314+50.00	742.40	-0.0400	9.59	742.78	24	-0.0061	742.63	10	-0.0400	742.23	314+50.00	
314+75.00	741.95	-0.0400	9.59	742.33	24	-0.0021	742.28	10	-0.0400	741.88	314+75.00	
314+88.42	741.70	-0.0400	9.59	742.08	24	0.0000	742.08	10	-0.0400	741.68	314+88.42	TS
315+00.00	741.49	-0.0400	9.59	741.87	24	0.0019	741.91	10	-0.0400	741.51	315+00.00	
315+25.00	741.04	-0.0400	9.59	741.42	24	0.0059	741.56	10	-0.0400	741.16	315+25.00	
315+50.00	740.59	-0.0400	9.59	740.97	24	0.0099	741.21	10	-0.0400	740.81	315+50.00	
315+75.00	740.14	-0.0400	9.59	740.52	24	0.0139	740.85	10	-0.0400	740.45	315+75.00	
315+88.42	739.89	-0.0400	9.59	740.27	24	0.0160	740.65	10	-0.0400	740.25	315+88.42	
316+00.00	739.68	-0.0400	9.59	740.06	24	0.0179	740.49	10	-0.0400	740.09	316+00.00	
316+25.00	739.23	-0.0400	9.59	739.61	24	0.0219	740.13	10	-0.0400	739.73	316+25.00	
316+50.00	738.78	-0.0400	9.59	739.16	24	0.0259	739.78	10	-0.0400	739.38	316+50.00	
316+63.42	738.54	-0.0400	9.59	738.92	24	0.0280	739.59	10	-0.0400	739.19	316+63.42	SC, FULL SUPER
316+75.00	738.33	-0.0400	9.59	738.71	24	0.0280	739.38	10	-0.0400	738.98	316+75.00	
317+00.00	737.87	-0.0400	9.59	738.25	24	0.0280	738.92	10	-0.0400	738.52	317+00.00	
317+25.00	737.42	-0.0400	9.59	737.80	24	0.0280	738.47	10	-0.0400	738.07	317+25.00	
317+50.00	736.97	-0.0400	9.59	737.35	24	0.0280	738.02	10	-0.0400	737.62	317+50.00	
									FULL SUPER			
372+00.00	677.51	-0.0400	9.59	677.89	24	0.0280	678.56	10	-0.0400	678.16	372+00.00	
372+25.00	677.89	-0.0400	9.59	678.27	24	0.0280	678.94	10	-0.0400	678.54	372+25.00	
372+50.00	678.26	-0.0400	9.59	678.64	24	0.0280	679.31	10	-0.0400	678.91	372+50.00	
372+60.26	678.42	-0.0400	9.59	678.80	24	0.0280	679.47	10	-0.0400	679.07	372+60.26	CS, FULL SUPER
372+75.00	678.64	-0.0400	9.59	679.02	24	0.0256	679.64	10	-0.0400	679.24	372+75.00	
373+00.00	679.01	-0.0400	9.59	679.39	24	0.0216	679.91	10	-0.0400	679.51	373+00.00	
373+25.00	679.39	-0.0400	9.59	679.77	24	0.0176	680.19	10	-0.0400	679.79	373+25.00	
373+35.26	679.54	-0.0400	9.59	679.92	24	0.0160	680.30	10	-0.0400	679.90	373+35.26	
373+50.00	679.76	-0.0400	9.59	680.14	24	0.0136	680.47	10	-0.0400	680.07	373+50.00	
373+75.00	680.14	-0.0400	9.59	680.52	24	0.0096	680.75	10	-0.0400	680.35	373+75.00	
374+00.00	680.51	-0.0400	9.59	680.89	24	0.0056	681.03	10	-0.0400	680.63	374+00.00	
374+25.00	680.89	-0.0400	9.59	681.27	24	0.0016	681.31	10	-0.0400	680.91	374+25.00	
374+35.26	681.04	-0.0400	9.59	681.42	24	0.0000	681.42	10	-0.0400	681.02	374+35.26	ST
374+50.00	681.26	-0.0400	9.59	681.64	24	-0.0024	681.58	10	-0.0400	681.18	374+50.00	
374+75.00	681.64	-0.0400	9.59	682.02	24	-0.0064	681.87	10	-0.0400	681.47	374+75.00	
375+00.00	682.01	-0.0400	9.59	682.39	24	-0.0104	682.14	10	-0.0400	681.74	375+00.00	
375+25.00	682.39	-0.0400	9.59	682.77	24	-0.0144	682.43	10	-0.0400	682.03	375+25.00	
375+35.26	682.54	-0.0400	9.59	682.92	24	-0.0160	682.54	10	-0.0400	682.14	375+35.26	NORMAL CROWN

NOTE:
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.

CALCULATED LBD
CHECKED JMB

SUPERELEVATION TABLE, CURVE #5
SR823, NORTHBOUND

SCI-823-6.81

SUPERELEVATION TABLE

SR823, CURVE #5	P.I. STA. 346+07.50	DC = 45'	EMAX = 0.028 FT/FT

STATION	SOUTHBOUND, OUTSIDE SHOULDER			SOUTHBOUND, LANES			PROFILE GRADE (INSIDE EDGE OF PAVEMENT)	SOUTHBOUND, INSIDE SHOULDER			STATION	REMARKS
	SHOULDER ELEVATION	SHOULDER SLOPE	SHOULDER WIDTH	EDGE OF PAVEMENT ELEVATION	PAVEMENT SLOPE	PAVEMENT WIDTH		SHOULDER WIDTH	SHOULDER SLOPE	SHOULDER ELEVATION		
313+88.42	743.11	-0.0400	10	743.51	-0.0160	24	743.89	9.59	-0.0400	743.51	313+88.42	NORMAL CROWN
314+00.00	742.90	-0.0400	10	743.30	-0.0160	24	743.68	9.59	-0.0400	743.30	314+00.00	
314+25.00	742.45	-0.0400	10	742.85	-0.0160	24	743.23	9.59	-0.0400	742.85	314+25.00	
314+50.00	742.00	-0.0400	10	742.40	-0.0160	24	742.78	9.59	-0.0400	742.40	314+50.00	
314+75.00	741.55	-0.0400	10	741.95	-0.0160	24	742.33	9.59	-0.0400	741.95	314+75.00	
314+88.42	741.30	-0.0400	10	741.70	-0.0160	24	742.08	9.59	-0.0400	741.70	314+88.42	TS
315+00.00	741.09	-0.0400	10	741.49	-0.0160	24	741.87	9.59	-0.0400	741.49	315+00.00	
315+25.00	740.64	-0.0400	10	741.04	-0.0160	24	741.42	9.59	-0.0400	741.04	315+25.00	
315+50.00	740.19	-0.0400	10	740.59	-0.0160	24	740.97	9.59	-0.0400	740.59	315+50.00	
315+75.00	739.74	-0.0400	10	740.14	-0.0160	24	740.52	9.59	-0.0400	740.14	315+75.00	
315+88.42	739.49	-0.0400	10	739.89	-0.0160	24	740.27	9.59	-0.0400	739.89	315+88.42	
316+00.00	739.23	-0.0400	10	739.63	-0.0179	24	740.06	9.59	-0.0400	739.68	316+00.00	
316+25.00	738.69	-0.0400	10	739.09	-0.0219	24	739.61	9.59	-0.0400	739.23	316+25.00	
316+50.00	738.14	-0.0400	10	738.54	-0.0259	24	739.16	9.59	-0.0400	738.78	316+50.00	
316+63.42	737.85	-0.0400	10	738.25	-0.0280	24	738.92	9.59	-0.0400	738.54	316+63.42	SC, FULL SUPER
316+75.00	737.64	-0.0400	10	738.04	-0.0280	24	738.71	9.59	-0.0400	738.33	316+75.00	
317+00.00	737.18	-0.0400	10	737.58	-0.0280	24	738.25	9.59	-0.0400	737.87	317+00.00	
317+25.00	736.73	-0.0400	10	737.13	-0.0280	24	737.80	9.59	-0.0400	737.42	317+25.00	
317+50.00	736.28	-0.0400	10	736.68	-0.0280	24	737.35	9.59	-0.0400	736.97	317+50.00	
								FULL SUPER				
372+00.00	676.82	-0.0400	10	677.22	-0.0280	24	677.89	9.59	-0.0400	677.51	372+00.00	
372+25.00	677.20	-0.0400	10	677.60	-0.0280	24	678.27	9.59	-0.0400	677.89	372+25.00	
372+50.00	677.57	-0.0400	10	677.97	-0.0280	24	678.64	9.59	-0.0400	678.26	372+50.00	
372+60.26	677.73	-0.0400	10	678.13	-0.0280	24	678.80	9.59	-0.0400	678.42	372+60.26	CS, FULL SUPER
372+75.00	678.00	-0.0400	10	678.40	-0.0256	24	679.02	9.59	-0.0400	678.64	372+75.00	
373+00.00	678.47	-0.0400	10	678.87	-0.0216	24	679.39	9.59	-0.0400	679.01	373+00.00	
373+25.00	678.95	-0.0400	10	679.35	-0.0176	24	679.77	9.59	-0.0400	679.39	373+25.00	
373+35.26	679.14	-0.0400	10	679.54	-0.0160	24	679.92	9.59	-0.0400	679.54	373+35.26	
373+50.00	679.36	-0.0400	10	679.76	-0.0160	24	680.14	9.59	-0.0400	679.76	373+50.00	
373+75.00	679.74	-0.0400	10	680.14	-0.0160	24	680.52	9.59	-0.0400	680.14	373+75.00	
374+00.00	680.11	-0.0400	10	680.51	-0.0160	24	680.89	9.59	-0.0400	680.51	374+00.00	
374+25.00	680.49	-0.0400	10	680.89	-0.0160	24	681.27	9.59	-0.0400	680.89	374+25.00	
374+35.26	680.64	-0.0400	10	681.04	-0.0160	24	681.42	9.59	-0.0400	681.04	374+35.26	ST
374+50.00	680.86	-0.0400	10	681.26	-0.0160	24	681.64	9.59	-0.0400	681.26	374+50.00	
374+75.00	681.24	-0.0400	10	681.64	-0.0160	24	682.02	9.59	-0.0400	681.64	374+75.00	
375+00.00	681.61	-0.0400	10	682.01	-0.0160	24	682.39	9.59	-0.0400	682.01	375+00.00	
375+25.00	681.99	-0.0400	10	682.39	-0.0160	24	682.77	9.59	-0.0400	682.39	375+25.00	
375+35.26	682.14	-0.0400	10	682.54	-0.0160	24	682.92	9.59	-0.0400	682.54	375+35.26	NORMAL CROWN

NOTE:
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.

CALCULATED LBD
CHECKED JMB

SUPERELEVATION TABLE, CURVE #5
SR823, SOUTHBOUND

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 5:38:35 PM REVISION DATE: 9/15/2011
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SUPERELEVATION TABLE

SR823, CURVE # 6 | P.I. STA. 414+49.27 | DC = 2° | EMAX = 0.065 FT/FT

CALCULATED LBD | CHECKED JMB

STATION	NORTHBOUND, INSIDE SHOULDER			PROFILE GRADE (INSIDE EDGE OF PAVEMENT)	NORTHBOUND, LANES			NORTHBOUND, OUTSIDE SHOULDER						STATION	REMARKS
	SHOULDER ELEVATION	SHOULDER SLOPE	SHOULDER WIDTH		PAVEMENT WIDTH	PAVEMENT SLOPE	EDGE OF PAVEMENT ELEVATION	SHOULDER WIDTH	SHOULDER SLOPE	POINT ON SHOULDER	SHOULDER WIDTH	SHOULDER SLOPE	SHOULDER ELEVATION		
395+97.15	719.10	-0.0400	9.59	719.48	24	-0.0160	719.10				10	-0.0400	718.70	395+97.15	NORMAL CROWN
396+00.00	719.18	-0.0400	9.59	719.56	24	-0.0155	719.19				10	-0.0400	718.79	396+00.00	
396+25.00	719.84	-0.0400	10.4	720.26	24	-0.0115	719.98				10	-0.0400	719.58	396+25.00	
396+50.00	720.50	-0.0400	11.4	720.96	24	-0.0074	720.78				10	-0.0400	720.38	396+50.00	
396+75.00	721.18	-0.0400	12.4	721.67	24	-0.0033	721.59				10	-0.0400	721.19	396+75.00	
396+95.61	721.74	-0.0400	13.2	722.26	24	0.0000	722.26				10	-0.0400	721.86	396+95.61	TS
397+00.00	721.86	-0.0400	13.2	722.39	24	0.0007	722.41				10	-0.0400	722.01	397+00.00	
397+25.00	722.59	-0.0400	13.2	723.12	24	0.0048	723.23				10	-0.0400	722.83	397+25.00	
397+50.00	723.31	-0.0400	13.2	723.84	24	0.0088	724.05				10	-0.0400	723.65	397+50.00	
397+75.00	724.04	-0.0400	13.2	724.57	24	0.0129	724.88				10	-0.0400	724.48	397+75.00	
397+94.07	724.59	-0.0400	13.2	725.12	24	0.0160	725.50				10	-0.0400	725.10	397+94.07	
398+00.00	724.76	-0.0400	13.2	725.29	24	0.0170	725.70				10	-0.0400	725.30	398+00.00	
398+25.00	725.49	-0.0400	13.2	726.02	24	0.0210	726.52				10	-0.0400	726.12	398+25.00	
398+50.00	726.21	-0.0400	13.2	726.74	24	0.0251	727.34				10	-0.0400	726.94	398+50.00	
398+75.00	726.94	-0.0400	13.2	727.47	24	0.0292	728.17				10	-0.0400	727.77	398+75.00	
398+80.22	727.09	-0.0400	13.2	727.62	24	0.0300	728.34				10	-0.0400	727.94	398+80.22	
399+00.00	727.66	-0.0400	13.2	728.19	24	0.0332	728.99				10	-0.0368	728.62	399+00.00	
399+25.00	728.39	-0.0400	13.2	728.92	24	0.0373	729.81				10	-0.0327	729.48	399+25.00	
399+41.76	728.87	-0.0400	13.2	729.40	24	0.0400	730.36				10	-0.0300	730.06	399+41.76	
399+50.00	729.10	-0.0413	13.2	729.64	24	0.0413	730.63				10	-0.0287	730.35	399+50.00	
399+75.00	729.77	-0.0454	13.2	730.37	24	0.0454	731.46				10	-0.0246	731.21	399+75.00	
400+00.00	730.44	-0.0495	13.2	731.09	24	0.0495	732.28				10	-0.0205	732.07	400+00.00	
400+25.00	731.11	-0.0535	13.2	731.82	24	0.0535	733.10				10	-0.0165	732.94	400+25.00	
400+50.00	731.78	-0.0576	13.2	732.54	24	0.0576	733.92								
400+64.84	732.18	-0.0600	13.2	732.97	24	0.0600	734.41								
400+75.00	732.45	-0.0617	13.2	733.27	24	0.0617	734.75								
400+95.61	733.01	-0.0650	13.2	733.86	24	0.0650	735.42	SEE SR823 AND TR234 RAMP A PAVEMENT DETAIL							SC, FULL SUPER
401+00.00	733.13	-0.0650	13.2	733.99	24	0.0650	735.55								
401+25.00	733.86	-0.0650	13.2	734.72	24	0.0650	736.28								
401+50.00	734.58	-0.0650	13.2	735.44	24	0.0650	737.00								
401+75.00	735.31	-0.0650	13.2	736.17	24	0.0650	737.73								
								FULL SUPER							
424+75.00	771.93	-0.0650	13.2	772.79	36	0.0650	775.13	2.5	0.0650	775.29	7.5	-0.0100	775.22	424+75.00	
425+00.00	771.47	-0.0650	13.2	772.33	36	0.0650	774.67	2.5	0.0650	774.83	7.5	-0.0100	774.75	425+00.00	
425+25.00	770.98	-0.0650	13.2	771.84	36	0.0650	774.18	2.5	0.0650	774.34	7.5	-0.0100	774.26	425+25.00	
425+40.95	770.65	-0.0650	13.2	771.51	36	0.0650	773.85	2.5	0.0650	774.01	7.5	-0.0100	773.94	425+40.95	CS, FULL SUPER
425+50.00	770.49	-0.0635	13.2	771.32	36	0.0635	773.61	2.5	0.0635	773.77	7.5	-0.0100	773.69	425+50.00	
425+71.72	770.07	-0.0600	13.2	770.86	36	0.0600	773.02				10	-0.0100	772.92	425+71.72	
425+75.00	770.00	-0.0595	13.2	770.79	36	0.0595	772.93				10	-0.0105	772.83	425+75.00	
426+00.00	769.50	-0.0554	13.2	770.23	36	0.0554	772.22				10	-0.0146	772.08	426+00.00	
426+25.00	768.97	-0.0513	13.2	769.65	36	0.0513	771.50				10	-0.0187	771.31	426+25.00	
426+50.00	768.42	-0.0473	13.2	769.04	36	0.0473	770.75				10	-0.0227	770.52	426+50.00	
426+75.00	767.85	-0.0432	13.2	768.42	36	0.0432	769.97				10	-0.0268	769.70	426+75.00	
426+94.80	767.37	-0.0400	13.2	767.90	36	0.0400	769.34				10	-0.0300	769.04	426+94.80	
427+00.00	767.24	-0.0400	13.2	767.77	36	0.0392	769.18				10	-0.0308	768.87	427+00.00	
427+25.00	766.56	-0.0400	13.2	767.09	36	0.0351	768.35				10	-0.0349	768.01	427+25.00	
427+50.00	765.87	-0.0400	13.2	766.39	36	0.0310	767.51				10	-0.0390	767.12	427+50.00	
				SEE NEXT SHEET											

NOTE:
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.

SUPERELEVATION TABLE, CURVE #6
SR823, NORTHBOUND

SCI-823-6.81

USER: CWohlbri PLOT DATE: 9/15/2011 5:38:42 PM REVISION DATE: 9/5/2011
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SUPERELEVATION TABLE

SR823, CURVE # 6	P.I. STA. 414+49.27	DC = 2°	EMAX = 0.065 FT/FT

STATION	NORTHBOUND, INSIDE SHOULDER			PROFILE GRADE (INSIDE EDGE OF PAVEMENT)	NORTHBOUND, LANES			NORTHBOUND, OUTSIDE SHOULDER						STATION	REMARKS
	SHOULDER ELEVATION	SHOULDER SLOPE	SHOULDER WIDTH		PAVEMENT WIDTH	PAVEMENT SLOPE	EDGE OF PAVEMENT ELEVATION	SHOULDER WIDTH	SHOULDER SLOPE	POINT ON SHOULDER	SHOULDER WIDTH	SHOULDER SLOPE	SHOULDER ELEVATION		
							SEE PREVIOUS SHEET								
427+56.33	765.69	-0.0400	13.2	766.21	36	0.0300	767.29				10	-0.0400	766.89	427+56.33	
427+75.00	765.15	-0.0400	13.2	765.67	36	0.0270	766.65				10	-0.0400	766.25	427+75.00	
428+00.00	764.40	-0.0400	13.2	764.93	36	0.0229	765.75				10	-0.0400	765.35	428+00.00	
428+25.00	763.64	-0.0400	13.2	764.16	35.50	0.0188	764.83				10	-0.0400	764.43	428+25.00	
428+42.49	763.09	-0.0400	13.2	763.61	35.15	0.0160	764.17				10	-0.0400	763.77	428+42.49	
428+50.00	762.85	-0.0400	13.2	763.37	35.00	0.0148	763.89				10	-0.0400	763.49	428+50.00	
428+75.00	762.03	-0.0400	13.2	762.56	34.50	0.0107	762.93				10	-0.0400	762.53	428+75.00	
429+00.00	761.20	-0.0400	13.2	761.73	34.00	0.0067	761.95				10	-0.0400	761.55	429+00.00	
429+25.00	760.34	-0.0400	13.2	760.87	33.50	0.0026	760.95				10	-0.0400	760.55	429+25.00	
429+40.95	759.78	-0.0400	13.2	760.31	33.18	0.0000	760.31				10	-0.0400	759.91	429+40.95	ST
429+50.00	759.47	-0.0400	12.8	759.98	33.00	-0.0015	759.93				10	-0.0400	759.53	429+50.00	
429+75.00	758.61	-0.0400	11.8	759.08	32.50	-0.0055	758.90				10	-0.0400	758.50	429+75.00	
430+00.00	757.72	-0.0400	10.8	758.15	32.00	-0.0096	757.84				10	-0.0400	757.44	430+00.00	
430+25.00	756.81	-0.0400	9.8	757.20	31.50	-0.0137	756.77				10	-0.0400	756.37	430+25.00	
430+39.41	756.26	-0.0400	9.59	756.64	31.21	-0.0160	756.14				10	-0.0400	755.74	430+39.41	NORMAL CROWN

NOTE:
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.

CALCULATED LBD CHECKED JMB

SUPERELEVATION TABLE, CURVE #6
SR823, NORTHBOUND

SCI-823-6.81

SUPERELEVATION TABLE

SR823, CURVE # 6	P.I. STA. 414+49.27	DC = 2°	EMAX = 0.065 FT/FT

STATION	SOUTHBOUND, OUTSIDE SHOULDER: SHOULDER ELEVATION	SHOULDER SLOPE	SHOULDER WIDTH	SOUTHBOUND, LANES: EDGE OF PAVEMENT ELEVATION	PAVEMENT SLOPE	PAVEMENT WIDTH	PROFILE GRADE (INSIDE EDGE OF PAVEMENT)	SOUTHBOUND, INSIDE SHOULDER: SHOULDER WIDTH	SHOULDER SLOPE	POINT ON SHOULDER	SHOULDER WIDTH	SHOULDER SLOPE	SHOULDER ELEVATION	STATION	REMARKS
395+97.15	718.70	-0.0400	10	719.10	-0.0160	24	719.48				9.59	-0.0400	719.10	395+97.15	NORMAL CROWN
396+00.00	718.78	-0.0400	10	719.18	-0.0160	24	719.56				9.59	-0.0400	719.18	396+00.00	
396+25.00	719.47	-0.0400	10	719.87	-0.0160	24	720.26				8.82	-0.0400	719.90	396+25.00	
396+50.00	720.18	-0.0400	10	720.58	-0.0160	24	720.96				7.82	-0.0400	720.65	396+50.00	
396+75.00	720.89	-0.0400	10	721.29	-0.0160	24	721.67				6.82	-0.0400	721.40	396+75.00	
396+95.61	721.48	-0.0400	10	721.88	-0.0160	24	722.26				6	-0.0400	722.02	396+95.61	TS
397+00.00	721.61	-0.0400	10	722.01	-0.0160	24	722.39				6	-0.0400	722.15	397+00.00	
397+25.00	722.33	-0.0400	10	722.73	-0.0160	24	723.12				6	-0.0400	722.88	397+25.00	
397+50.00	723.06	-0.0400	10	723.46	-0.0160	24	723.84				6	-0.0400	723.60	397+50.00	
397+75.00	723.78	-0.0400	10	724.18	-0.0160	24	724.57				6	-0.0400	724.33	397+75.00	
397+94.07	724.34	-0.0400	10	724.74	-0.0160	24	725.12				6	-0.0400	724.88	397+94.07	
398+00.00	724.48	-0.0400	10	724.88	-0.0170	24	725.29				6	-0.0400	725.05	398+00.00	
398+25.00	725.11	-0.0400	10	725.51	-0.0210	24	726.02				6	-0.0400	725.78	398+25.00	
398+50.00	725.74	-0.0400	10	726.14	-0.0251	24	726.74				6	-0.0400	726.50	398+50.00	
398+75.00	726.37	-0.0400	10	726.77	-0.0292	24	727.47				6	-0.0400	727.23	398+75.00	
398+80.22	726.50	-0.0400	10	726.90	-0.0300	24	727.62				6	-0.0400	727.38	398+80.22	
399+00.00	726.99	-0.0400	10	727.39	-0.0332	24	728.19	2	0.0332	728.26	4	-0.0400	728.10	399+00.00	
399+25.00	727.62	-0.0400	10	728.02	-0.0373	24	728.92	2	0.0373	728.99	4	-0.0400	728.83	399+25.00	
399+41.76	728.04	-0.0400	10	728.44	-0.0400	24	729.40	2	0.0400	729.48	4	-0.0400	729.32	399+41.76	
399+50.00	728.24	-0.0413	10	728.65	-0.0413	24	729.64	2	0.0413	729.72	4	-0.0400	729.56	399+50.00	
399+75.00	728.82	-0.0454	10	729.28	-0.0454	24	730.37	2	0.0454	730.46	4	-0.0400	730.30	399+75.00	
400+00.00	729.41	-0.0495	10	729.90	-0.0495	24	731.09	2	0.0495	731.19	4	-0.0400	731.03	400+00.00	
400+25.00	730.00	-0.0535	10	730.53	-0.0535	24	731.82	2	0.0535	731.92	4	-0.0400	731.76	400+25.00	
400+50.00	730.58	-0.0576	10	731.16	-0.0576	24	732.54	2	0.0576	732.66	4	-0.0400	732.50	400+50.00	
400+64.84	730.93	-0.0600	10	731.53	-0.0600	24	732.97	2	0.0600	733.09	4	-0.0400	732.93	400+64.84	
400+75.00	731.17	-0.0617	10	731.79	-0.0617	24	733.27	2	0.0617	733.39	4	-0.0400	733.23	400+75.00	
400+95.61	731.65	-0.0650	10	732.30	-0.0650	24	733.86	2	0.0650	733.99	4	-0.0400	733.83	400+95.61	SC, FULL SUPER
401+00.00	731.78	-0.0650	10	732.43	-0.0650	24	733.99	2	0.0650	734.12	4	-0.0400	733.96	401+00.00	
401+25.00	732.51	-0.0650	10	733.16	-0.0650	24	734.72	2	0.0650	734.85	4	-0.0400	734.69	401+25.00	
401+50.00	733.23	-0.0650	10	733.88	-0.0650	24	735.44	2	0.0650	735.57	4	-0.0400	735.41	401+50.00	
401+75.00	733.96	-0.0650	10	734.61	-0.0650	24	736.17	2	0.0650	736.30	4	-0.0400	736.14	401+75.00	
								FULL SUPER							
424+75.00	770.58	-0.0650	10	771.23	-0.0650	24	772.79	2	0.0650	772.92	4	-0.0400	772.76	424+75.00	
425+00.00	770.12	-0.0650	10	770.77	-0.0650	24	772.33	2	0.0650	772.46	4	-0.0400	772.30	425+00.00	
425+25.00	769.63	-0.0650	10	770.28	-0.0650	24	771.84	2	0.0650	771.97	4	-0.0400	771.81	425+25.00	
425+40.95	769.30	-0.0650	10	769.95	-0.0650	24	771.51	2	0.0650	771.64	4	-0.0400	771.48	425+40.95	CS, FULL SUPER
425+50.00	769.17	-0.0635	10	769.80	-0.0635	24	771.32	2	0.0635	771.45	4	-0.0400	771.29	425+50.00	
425+71.72	768.82	-0.0600	10	769.42	-0.0600	24	770.86	2	0.0600	770.98	4	-0.0400	770.82	425+71.72	
425+75.00	768.77	-0.0595	10	769.36	-0.0595	24	770.79	2	0.0595	770.91	4	-0.0400	770.75	425+75.00	
426+00.00	768.35	-0.0554	10	768.90	-0.0554	24	770.23	2	0.0554	770.34	4	-0.0400	770.18	426+00.00	
426+25.00	767.90	-0.0513	10	768.42	-0.0513	24	769.65	2	0.0513	769.75	4	-0.0400	769.59	426+25.00	
426+50.00	767.44	-0.0473	10	767.91	-0.0473	24	769.04	2	0.0473	769.14	4	-0.0400	768.98	426+50.00	
426+75.00	766.95	-0.0432	10	767.38	-0.0432	24	768.42	2	0.0432	768.50	4	-0.0400	768.34	426+75.00	
426+94.80	766.54	-0.0400	10	766.94	-0.0400	24	767.90	2	0.0400	767.98	4	-0.0400	767.82	426+94.80	
427+00.00	766.42	-0.0400	10	766.82	-0.0392	24	767.77	2	0.0392	767.84	4	-0.0400	767.68	427+00.00	
427+25.00	765.85	-0.0400	10	766.25	-0.0351	24	767.09	2	0.0351	767.16	4	-0.0400	767.00	427+25.00	
427+50.00	765.25	-0.0400	10	765.65	-0.0310	24	766.39	2	0.0310	766.46	4	-0.0400	766.30	427+50.00	

SEE NEXT SHEET

NOTE:
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.

CALCULATED LBD CHECKED JMB

SUPERELEVATION TABLE, CURVE #6
SR823, SOUTHBOUND

SCI-823-6.81

SUPERELEVATION TABLE

SR823 CURVE # 6	P.I. STA. 414+49.27	DC = 2°	EMAX = 0.065 FT/FT

	SOUTHBOUND, OUTSIDE SHOULDER			SOUTHBOUND, LANES				SOUTHBOUND, INSIDE SHOULDER							
	SHOULDER ELEVATION	SHOULDER SLOPE	SHOULDER WIDTH	EDGE OF PAVEMENT ELEVATION	PAVEMENT SLOPE	PAVEMENT WIDTH	PROFILE GRADE (INSIDE EDGE OF PAVEMENT)	SHOULDER WIDTH	POINT ON SHOULDER	SHOULDER ELEVATION	SHOULDER WIDTH	SHOULDER SLOPE	SHOULDER ELEVATION	STATION	REMARKS
					SEE PREVIOUS SHEET										
427+56.33	765.09	-0.0400	10	765.49	-0.0300	24	766.21				6	-0.0400	765.97	427+56.33	
427+75.00	764.63	-0.0400	10	765.03	-0.0270	24	765.67				6	-0.0400	765.43	427+75.00	
428+00.00	763.98	-0.0400	10	764.38	-0.0229	24	764.93				6	-0.0400	764.69	428+00.00	
428+25.00	763.31	-0.0400	10	763.71	-0.0188	24	764.16				6	-0.0400	763.92	428+25.00	
428+42.49	762.83	-0.0400	10	763.23	-0.0160	24	763.61				6	-0.0400	763.37	428+42.49	
428+50.00	762.59	-0.0400	10	762.99	-0.0160	24	763.37				6	-0.0400	763.13	428+50.00	
428+75.00	761.78	-0.0400	10	762.18	-0.0160	24	762.56				6	-0.0400	762.32	428+75.00	
429+00.00	760.94	-0.0400	10	761.34	-0.0160	24	761.73				6	-0.0400	761.49	429+00.00	
429+25.00	760.08	-0.0400	10	760.48	-0.0160	24	760.87				6	-0.0400	760.63	429+25.00	
429+40.95	759.52	-0.0400	10	759.92	-0.0160	24	760.31				6	-0.0400	760.07	429+40.95	ST
429+50.00	759.20	-0.0400	10	759.60	-0.0160	24	759.98				6.36	-0.0400	759.73	429+50.00	
429+75.00	758.29	-0.0400	10	758.69	-0.0160	24	759.08				7.36	-0.0400	758.78	429+75.00	
430+00.00	757.37	-0.0400	10	757.77	-0.0160	24	758.15				8.36	-0.0400	757.82	430+00.00	
430+25.00	756.41	-0.0400	10	756.81	-0.0160	24	757.20				9.36	-0.0400	756.82	430+25.00	
430+39.41	755.86	-0.0400	10	756.26	-0.0160	24	756.64				9.59	-0.0400	756.26	430+39.41	NORMAL CROWN

NOTE:
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.

CALCULATED LBD
CHECKED JMB

SUPERELEVATION TABLE, CURVE #6
SR823, SOUTHBOUND

SCI-823-6.81

405
535

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SUPERELEVATION TABLE

SR823 CURVE #7	P.I. 482+11.90	DC = 1°	EMAX = 0.036 FT/FT

STATION	NORTHBOUND, INSIDE SHOULDER						PROFILE GRADE (INSIDE EDGE OF PAVEMENT)	NORTHBOUND, LANES			NORTHBOUND, OUTSIDE SHOULDER			STATION	REMARKS
	SHOULDER ELEVATION	SHOULDER SLOPE	SHOULDER WIDTH	POINT ON SHOULDER	SHOULDER SLOPE	SHOULDER WIDTH		PAVEMENT WIDTH	PAVEMENT SLOPE	EDGE OF PAVEMENT ELEVATION	SHOULDER WIDTH	SHOULDER SLOPE	SHOULDER ELEVATION		
469+00.81	735.48	-0.0400	9.59				735.87	24	-0.0160	735.48	10	-0.0400	735.08	469+00.81	NORMAL CROWN
469+25.00	735.28	-0.0400	9.59				735.67	24	-0.0160	735.28	10	-0.0400	734.88	469+25.00	
469+50.00	735.06	-0.0400	9.59				735.44	24	-0.0160	735.06	10	-0.0400	734.66	469+50.00	
469+75.00	734.82	-0.0400	9.59				735.20	24	-0.0160	734.82	10	-0.0400	734.42	469+75.00	
470+00.00	734.56	-0.0400	9.59				734.94	24	-0.0160	734.56	10	-0.0400	734.16	470+00.00	
470+00.81	734.55	-0.0400	9.59				734.93	24	-0.0160	734.55	10	-0.0400	734.15	470+00.81	TS
470+25.00	734.28	-0.0400	9.59				734.67	24	-0.0160	734.28	10	-0.0400	733.88	470+25.00	
470+50.00	733.99	-0.0400	9.59				734.37	24	-0.0160	733.99	10	-0.0400	733.59	470+50.00	
470+75.00	733.68	-0.0400	9.59				734.06	24	-0.0160	733.68	10	-0.0400	733.28	470+75.00	
471+00.00	733.35	-0.0400	9.59				733.73	24	-0.0160	733.35	10	-0.0400	732.95	471+00.00	
471+00.81	733.34	-0.0400	9.59				733.72	24	-0.0160	733.34	10	-0.0400	732.94	471+00.81	
471+25.00	733.00	-0.0400	9.59				733.39	24	-0.0199	732.91	10	-0.0400	732.51	471+25.00	
471+50.00	732.64	-0.0400	9.59				733.03	24	-0.0239	732.45	10	-0.0400	732.05	471+50.00	
471+75.00	732.26	-0.0400	9.59				732.65	24	-0.0279	731.98	10	-0.0400	731.58	471+75.00	
471+88.31	732.05	-0.0400	9.59				732.44	24	-0.0300	731.72	10	-0.0400	731.32	471+88.31	
472+00.00	732.05	-0.0400	7.09	732.33	0.0319	2.5	732.25	24	-0.0319	731.48	10	-0.0400	731.08	472+00.00	
472+25.00	731.64	-0.0400	7.09	731.92	0.0359	2.5	731.83	24	-0.0359	730.97	10	-0.0400	730.57	472+25.00	
472+25.81	731.63	-0.0400	7.09	731.91	0.0360	2.5	731.82	24	-0.0360	730.96	10	-0.0400	730.56	472+25.81	SC, FULL SUPER
472+50.00	731.21	-0.0400	7.09	731.49	0.0360	2.5	731.40	24	-0.0360	730.54	10	-0.0400	730.14	472+50.00	
472+75.00	730.76	-0.0400	7.09	731.04	0.0360	2.5	730.95	24	-0.0360	730.09	10	-0.0400	729.69	472+75.00	
473+00.00	730.29	-0.0400	7.09	730.58	0.0360	2.5	730.49	24	-0.0360	729.62	10	-0.0400	729.22	473+00.00	
473+25.00	729.81	-0.0400	7.09	730.10	0.0360	2.5	730.01	24	-0.0360	729.14	10	-0.0400	728.74	473+25.00	
												FULL SUPER			
491+00.00	691.77	-0.0400	7.09	692.05	0.0360	2.5	691.96	24	-0.0360	691.10	12	-0.0400	690.62	491+00.00	
491+25.00	692.10	-0.0400	7.09	692.38	0.0360	2.5	692.29	24	-0.0360	691.43	12	-0.0400	690.95	491+25.00	
491+50.00	692.47	-0.0400	7.09	692.75	0.0360	2.5	692.66	24	-0.0360	691.80	12	-0.0400	691.32	491+50.00	
491+71.51	692.81	-0.0400	7.09	693.09	0.0360	2.5	693.00	24	-0.0360	692.14	12	-0.0400	691.66	491+71.51	CS, FULL SUPER
491+75.00	692.86	-0.0400	7.09	693.15	0.0354	2.5	693.06	24	-0.0354	692.21	12	-0.0400	691.73	491+75.00	
492+00.00	693.29	-0.0400	7.09	693.57	0.0314	2.5	693.49	24	-0.0314	692.74	12	-0.0400	692.26	492+00.00	
492+09.01	693.27	-0.0400	9.59				693.66	24	-0.0300	692.94	12	-0.0400	692.46	492+09.01	
492+25.00	693.58	-0.0400	9.59				693.96	24	-0.0274	693.30	12	-0.0400	692.82	492+25.00	
492+50.00	694.08	-0.0400	9.59				694.46	24	-0.0234	693.90	12	-0.0400	693.42	492+50.00	
492+75.00	694.62	-0.0400	9.59				695.00	24	-0.0194	694.54	12	-0.0400	694.06	492+75.00	
492+96.51	695.11	-0.0400	9.59				695.49	24	-0.0160	695.11	12	-0.0400	694.63	492+96.51	
493+00.00	695.19	-0.0400	9.59				695.57	24	-0.0160	695.19	12	-0.0400	694.71	493+00.00	
493+25.00	695.80	-0.0400	9.59				696.18	24	-0.0160	695.80	12	-0.0400	695.32	493+25.00	
493+50.00	696.44	-0.0400	9.59				696.82	24	-0.0160	696.44	12	-0.0400	695.96	493+50.00	
493+75.00	697.11	-0.0400	9.59				697.49	24	-0.0160	697.11	12	-0.0400	696.63	493+75.00	
493+96.51	697.72	-0.0400	9.59				698.10	24	-0.0160	697.72	12	-0.0400	697.24	493+96.51	ST
494+00.00	697.82	-0.0400	9.59				698.20	24	-0.0160	697.82	12	-0.0400	697.34	494+00.00	
494+25.00	698.56	-0.0400	9.59				698.95	24	-0.0160	698.56	12	-0.0400	698.08	494+25.00	
494+50.00	699.34	-0.0400	9.59				699.72	24	-0.0160	699.34	12	-0.0400	698.86	494+50.00	
494+75.00	700.15	-0.0400	9.59				700.54	24	-0.0160	700.15	12	-0.0400	699.67	494+75.00	
494+96.51	700.88	-0.0400	9.59				701.26	24	-0.0160	700.88	12	-0.0400	700.40	494+96.51	NORMAL CROWN

NOTE:
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.

CALCULATED LBD
CHECKED JMB

SUPERELEVATION TABLE, CURVE #7
SR823, NORTHBOUND

SCI-823-6.81

406
535

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SUPERELEVATION TABLE

SR823 CURVE # 7	P.I. 482+11.90	DC = 1°	EMAX = 0.036 FT/FT

STATION	SOUTHBOUND, OUTSIDE SHOULDER			SOUTHBOUND, LANES			PROFILE GRADE (INSIDE EDGE OF PAVEMENT)	SOUTHBOUND, INSIDE SHOULDER						STATION	REMARKS
	SHOULDER ELEVATION	SHOULDER SLOPE	SHOULDER WIDTH	EDGE OF PAVEMENT ELEVATION	PAVEMENT SLOPE	PAVEMENT WIDTH		SHOULDER WIDTH	SHOULDER SLOPE	POINT ON SHOULDER	SHOULDER WIDTH	SHOULDER SLOPE	SHOULDER ELEVATION		
469+00.81	735.08	-0.0400	10	735.48	-0.0160	24	735.87	9.59	-0.0400	735.48				469+00.81	NORMAL CROWN
469+25.00	734.97	-0.0400	10	735.37	-0.0121	24	735.67	9.59	-0.0400	735.28				469+25.00	
469+50.00	734.85	-0.0400	10	735.25	-0.0081	24	735.44	9.59	-0.0400	735.06				469+50.00	
469+75.00	734.70	-0.0400	10	735.10	-0.0041	24	735.20	9.59	-0.0400	734.82				469+75.00	
470+00.00	734.54	-0.0400	10	734.94	-0.0001	24	734.94	9.59	-0.0400	734.56				470+00.00	
470+00.81	734.53	-0.0400	10	734.93	0.0000	24	734.93	9.59	-0.0400	734.55				470+00.81	TS
470+25.00	734.36	-0.0400	10	734.76	0.0039	24	734.67	9.59	-0.0400	734.28				470+25.00	
470+50.00	734.16	-0.0400	10	734.56	0.0079	24	734.37	9.59	-0.0400	733.99				470+50.00	
470+75.00	733.95	-0.0400	10	734.35	0.0119	24	734.06	9.59	-0.0400	733.68				470+75.00	
471+00.00	733.71	-0.0400	10	734.11	0.0159	24	733.73	9.59	-0.0400	733.35				471+00.00	
471+00.81	733.71	-0.0400	10	734.11	0.0160	24	733.72	9.59	-0.0400	733.34				471+00.81	
471+25.00	733.47	-0.0400	10	733.87	0.0199	24	733.39	9.59	-0.0400	733.00				471+25.00	
471+50.00	733.20	-0.0400	10	733.60	0.0239	24	733.03	9.59	-0.0400	732.64				471+50.00	
471+75.00	732.92	-0.0400	10	733.32	0.0279	24	732.65	9.59	-0.0400	732.26				471+75.00	
471+88.31	732.76	-0.0400	10	733.16	0.0300	24	732.44	9.59	-0.0400	732.05				471+88.31	
472+00.00	732.63	-0.0381	10	733.01	0.0319	24	732.25	9.59	-0.0400	731.87				472+00.00	
472+25.00	732.35	-0.0341	10	732.70	0.0359	24	731.83	9.59	-0.0400	731.45				472+25.00	
472+25.81	732.35	-0.0340	10	732.69	0.0360	24	731.82	9.59	-0.0400	731.44				472+25.81	SC, FULL SUPER
472+50.00	731.93	-0.0340	10	732.27	0.0360	24	731.40	9.59	-0.0400	731.02				472+50.00	
472+75.00	731.48	-0.0340	10	731.82	0.0360	24	730.95	9.59	-0.0400	730.57				472+75.00	
473+00.00	731.01	-0.0340	10	731.35	0.0360	24	730.49	9.59	-0.0400	730.10				473+00.00	
473+25.00	730.53	-0.0340	10	730.87	0.0360	24	730.01	9.59	-0.0400	729.62				473+25.00	
									FULL SUPER						
491+00.00	692.49	-0.0340	10	692.83	0.0360	24	691.96	9.59	-0.0400	691.58				491+00.00	
491+25.00	692.82	-0.0340	10	693.16	0.0360	24	692.29	9.59	-0.0400	691.91				491+25.00	
491+50.00	693.18	-0.0340	10	693.52	0.0360	24	692.66	9.59	-0.0400	692.28				491+50.00	
491+71.51	693.53	-0.0340	10	693.87	0.0360	24	693.00	9.59	-0.0400	692.62				491+71.51	CS, FULL SUPER
491+75.00	693.56	-0.0346	10	693.91	0.0354	24	693.06	9.59	-0.0400	692.68				491+75.00	
492+00.00	693.86	-0.0386	10	694.25	0.0314	24	693.49	9.59	-0.0400	693.11				492+00.00	
492+09.01	693.98	-0.0400	10	694.38	0.0300	24	693.66	9.59	-0.0400	693.27				492+09.01	
492+25.00	694.22	-0.0400	10	694.62	0.0274	24	693.96	9.59	-0.0400	693.58				492+25.00	
492+50.00	694.63	-0.0400	10	695.03	0.0234	24	694.46	9.59	-0.0400	694.08				492+50.00	
492+75.00	695.07	-0.0400	10	695.47	0.0194	24	695.00	9.59	-0.0400	694.62				492+75.00	
492+96.51	695.48	-0.0400	10	695.88	0.0160	24	695.49	9.59	-0.0400	695.11				492+96.51	
493+00.00	695.54	-0.0400	10	695.94	0.0154	24	695.57	9.59	-0.0400	695.19				493+00.00	
493+25.00	696.05	-0.0400	10	696.45	0.0114	24	696.18	9.59	-0.0400	695.80				493+25.00	
493+50.00	696.60	-0.0400	10	697.00	0.0074	24	696.82	9.59	-0.0400	696.44				493+50.00	
493+75.00	697.18	-0.0400	10	697.58	0.0034	24	697.49	9.59	-0.0400	697.11				493+75.00	
493+96.51	697.70	-0.0400	10	698.10	0.0000	24	698.10	9.59	-0.0400	697.72				493+96.51	ST
494+00.00	697.79	-0.0400	10	698.19	-0.0006	24	698.20	9.59	-0.0400	697.82				494+00.00	
494+25.00	698.44	-0.0400	10	698.84	-0.0046	24	698.95	9.59	-0.0400	698.56				494+25.00	
494+50.00	699.12	-0.0400	10	699.52	-0.0086	24	699.72	9.59	-0.0400	699.34				494+50.00	
494+75.00	699.83	-0.0400	10	700.23	-0.0126	24	700.54	9.59	-0.0400	700.15				494+75.00	
494+96.51	700.48	-0.0400	10	700.88	-0.0160	24	701.26	9.59	-0.0400	700.88				494+96.51	NORMAL CROWN

NOTE:
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.

CALCULATED LBD
CHECKED JMB

SUPERELEVATION TABLE, CURVE#7
SR823, SOUTHBOUND

SCI-823-6.81

SUPERELEVATION TABLE

CURVE # TR234 RAMP B-1	P.I. STA. 371+73.52	DC = 1°	EMAX = 0.029 FT/FT

LEFT SHOULDER			RAMP			BASELINE CONTROL		RIGHT SHOULDER			REMARKS
SHOULDER ELEVATION	SHOULDER SLOPE	SHOULDER WIDTH	EDGE OF PAVEMENT ELEVATION	PAVEMENT SLOPE	PAVEMENT WIDTH	STATION	PROFILE GRADE	SHOULDER WIDTH	SHOULDER SLOPE	SHOULDER ELEVATION	
			669.56	-0.0280	12.00	366+00.00	669.90	8.00	-0.040	669.58	BEGIN TRANSITION, BEGIN RAMP B
			669.94	-0.0238	12.04	366+25.00	670.23	8.00	-0.040	669.91	
			670.31	-0.0197	12.16	366+50.00	670.55	8.00	-0.040	670.23	
			670.69	-0.0155	12.37	366+75.00	670.88	8.00	-0.040	670.56	
			671.06	-0.0114	12.66	367+00.00	671.20	8.00	-0.040	670.88	
			671.43	-0.0072	13.03	367+25.00	671.52	8.00	-0.040	671.20	
			671.80	-0.0030	13.48	367+50.00	671.84	8.00	-0.040	671.52	
SEE SR823 AND			672.07	0.0000	13.84	367+68.26	672.07	8.00	-0.040	671.75	PC, CURVE # TR234 RAMPB-1, FLAT
TR234 RAMP B			672.18	0.0011	14.00	367+75.00	672.16	8.00	-0.040	671.84	
PAVEMENT DETAIL			672.55	0.0053	14.69	368+00.00	672.47	8.00	-0.040	672.15	
			672.92	0.0094	15.57	368+25.00	672.77	8.00	-0.040	672.45	
			673.32	0.0136	16.00	368+50.00	673.10	8.00	-0.040	672.78	
			673.71	0.0178	16.00	368+75.00	673.43	8.00	-0.040	673.11	
			674.11	0.0219	16.00	369+00.00	673.76	8.00	-0.040	673.44	
			674.50	0.0261	16.00	369+25.00	674.08	8.00	-0.040	673.76	
			674.77	0.0290	16.00	369+42.53	674.31	8.00	-0.040	673.99	END TRANSITION, BEGIN FULL SUPER
								FULL SUPER			
678.47	-0.040	3.00	678.59	0.0290	16.00	375+44.11	678.13	6.00	-0.040	677.89	END FULL SUPER, BEGIN TRANSITION
678.38	-0.040	3.00	678.50	0.0275	16.00	375+50.00	678.06	6.00	-0.040	677.82	
677.97	-0.040	3.00	678.09	0.0210	16.00	375+75.00	677.75	6.00	-0.040	677.51	
677.93	-0.040	3.00	678.05	0.0203	16.00	375+77.44	677.72	6.00	-0.040	677.48	PT, CURVE # TR234 RAMPB - 1
677.63	-0.040	3.00	677.75	0.0160	16.00	375+94.11	677.49	6.00	-0.040	677.25	END TRANSITION

NOTE:
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.

CALCULATED LBD CHECKED JMB

SUPERELEVATION TABLE - TR234 INTERCHANGE - RAMP B

SCI-823-6.81

SUPERELEVATION TABLE

CURVE # TR234 RAMP C-1	P.I. STA. 371+63.61	DC = 2° 30'	EMAX = 0.061 FT/FT

RIGHT SHOULDER			RAMP			BASELINE CONTROL		LEFT SHOULDER			REMARKS
SHOULDER ELEVATION	SHOULDER SLOPE	SHOULDER WIDTH	EDGE OF PAVEMENT ELEVATION	PAVEMENT SLOPE	PAVEMENT WIDTH	STATION	PROFILE GRADE	SHOULDER WIDTH	SHOULDER SLOPE	SHOULDER ELEVATION	
			669.49	0.0280	16.00	367+03.45	669.04	6.00	-0.0400	668.80	TS, CURVE # TR234 RAMP C-1
			669.67	0.0300	16.00	367+15.57	669.19	6.00	-0.0400	668.95	
			669.82	0.0316	16.00	367+25.00	669.32	6.00	-0.0400	669.08	
			670.18	0.0357	16.00	367+50.00	669.61	6.00	-0.0400	669.37	
			670.56	0.0398	16.00	367+75.00	669.92	6.00	-0.0400	669.68	
SEE SR823 AND			670.57	0.0400	16.00	367+76.18	669.93	6.00	-0.0400	669.69	
TR234 RAMP C			670.93	0.0439	16.00	368+00.00	670.23	6.00	-0.0439	669.97	
PAVEMENT DETAIL			671.30	0.0481	16.00	368+25.00	670.53	6.00	-0.0481	670.24	
			671.48	0.0500	16.00	368+36.78	670.68	6.00	-0.0500	670.38	
			671.67	0.0522	16.00	368+50.00	670.84	6.00	-0.0522	670.53	
			672.05	0.0563	16.00	368+75.00	671.15	6.00	-0.0563	670.81	
			672.40	0.0600	16.00	368+97.39	671.44	6.00	-0.0600	671.08	
			672.45	0.0604	16.00	369+00.00	671.48	6.00	-0.0604	671.12	
			672.50	0.0610	16.00	369+03.45	671.52	6.00	-0.0610	671.15	SC, CURVE # TR234 RAMP C-1
								FULL SUPER			
679.53	0.0610	3.00	679.35	0.0610	16.00	374+17.72	678.37	6.00	-0.0610	678.00	CS, CURVE # TR234 RAMP C-1
679.35	-0.0100	3.00	679.38	0.0600	16.00	374+22.16	678.42	6.00	-0.0600	678.06	
679.37	-0.0106	3.00	679.40	0.0594	16.00	374+25.00	678.45	6.00	-0.0594	678.09	
679.54	-0.0163	3.00	679.59	0.0537	16.00	374+50.00	678.73	6.00	-0.0537	678.41	
679.63	-0.0200	3.00	679.69	0.0500	16.00	374+66.61	678.89	6.00	-0.0500	678.59	
679.67	-0.0219	3.00	679.74	0.0481	16.00	374+75.00	678.97	6.00	-0.0481	678.68	
679.76	-0.0275	3.00	679.84	0.0425	16.00	375+00.00	679.16	6.00	-0.0425	678.91	
679.79	-0.0300	3.00	679.88	0.0400	16.00	375+11.05	679.24	6.00	-0.0400	679.00	
679.81	-0.0331	3.00	679.91	0.0369	16.00	375+25.00	679.32	6.00	-0.0400	679.08	
679.83	-0.0388	3.00	679.95	0.0312	16.00	375+50.00	679.45	6.00	-0.0400	679.21	
679.83	-0.0400	3.00	679.95	0.0300	16.00	375+55.50	679.47	6.00	-0.0400	679.23	
679.82	-0.0400	3.00	679.94	0.0256	16.00	375+75.00	679.53	6.00	-0.0400	679.29	
679.77	-0.0400	3.00	679.89	0.0200	16.00	376+00.00	679.57	6.00	-0.0400	679.33	
679.72	-0.0400	3.00	679.83	0.0160	16.00	376+17.72	679.58	6.00	-0.0400	679.34	ST, CURVE # TR234 RAMP C-1

NOTE:
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.

CALCULATED LBD
CHECKED JMB

SUPERELEVATION TABLE - TR234 INTERCHANGE RAMP C

SCI-823-6.81

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SUPERELEVATION TABLE

CURVE # TR234 RAMP D-1	P.I. STA. 403+66.60	DC = 2° 36'	EMAX = 0.065 FT/FT

RIGHT SHOULDER			RAMP			BASELINE CONTROL		LEFT SHOULDER			REMARKS
SHOULDER ELEVATION	SHOULDER SLOPE	SHOULDER WIDTH	EDGE OF PAVEMENT ELEVATION	RAMP SLOPE	RAMP WIDTH	STATION	PROFILE GRADE	SHOULDER WIDTH	SHOULDER SLOPE	SHOULDER ELEVATION	
714.29	-0.0400	3.00	714.41	0.0160	16.00	396+32.87	714.16	6.00	-0.0400	713.92	BEGIN TRANSITION
714.85	-0.0400	3.00	714.97	0.0207	16.00	396+50.00	714.64	6.00	-0.0400	714.40	
715.66	-0.0400	3.00	715.78	0.0275	16.00	396+75.00	715.34	6.00	-0.0400	715.10	
715.96	-0.0400	3.00	716.08	0.0300	16.00	396+84.30	715.60	6.00	-0.0400	715.36	
716.49	-0.0357	3.00	716.59	0.0343	16.00	397+00.00	716.04	6.00	-0.0400	715.80	
717.20	-0.0300	3.00	717.29	0.0400	16.00	397+21.03	716.65	6.00	-0.0400	716.41	
717.33	-0.0289	3.00	717.42	0.0411	16.00	397+25.00	716.76	6.00	-0.0411	716.52	
718.20	-0.0221	3.00	718.26	0.0479	16.00	397+50.00	717.50	6.00	-0.0479	717.21	
718.30	-0.0213	3.00	718.36	0.0487	16.00	397+52.87	717.58	6.00	-0.0487	717.29	PC, CURVE # TR234 RAMP D-1
719.07	-0.0153	3.00	719.12	0.0547	16.00	397+75.00	718.24	6.00	-0.0547	717.91	
719.76	-0.0100	3.00	719.79	0.0600	16.00	397+94.50	718.83	6.00	-0.0600	718.47	
720.17	0.0615	3.00	719.98	0.0615	16.00	398+00.00	719.00	6.00	-0.0615	718.63	
720.63	0.0650	3.00	720.43	0.0650	16.00	398+12.87	719.39	6.00	-0.0650	719.00	BLEND INTO SR823 SUPER FOR CURVE # 6

NOTE:
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.

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CALCULATED LBD CHECKED JMB

SUPERELEVATION TABLE - TR234 INTERCHANGE RAMP D

SCI-823-6.81

SUPERELEVATION TABLE

CURVE # CR28 RAMP A-1	DC = 1° 22'	CURVE # CR28 RAMP A-2	DC = 7° 30'	CURVE # CR28 RAMP A-3	DC = 6° 30'
P.I. STA. 519+73.56	EMAX = 0.038 FT/FT	P.I. STA. 525+50.54	EMAX = 0.08 FT/FT	P.I. STA. 531+98.00	EMAX = 0.063 FT/FT

LEFT SHOULDER			RAMP			BASELINE CONTROL		RIGHT SHOULDER						REMARKS
SHOULDER ELEVATION	SHOULDER SLOPE	SHOULDER WIDTH	EDGE OF PAVEMENT ELEVATION	PAVEMENT SLOPE	PAVEMENT WIDTH	STATION	PROFILE GRADE	SHOULDER WIDTH	SHOULDER SLOPE	POINT ON SHOULDER	SHOULDER WIDTH	SHOULDER SLOPE	SHOULDER ELEVATION	
			783.61	0.0160	12.00	516+80.70	783.42				8.00	-0.0400	783.10	PC, CURVE # CR28 RAMPA - 1
SEE SR823 AND			783.84	0.0214	12.04	517+00.00	783.58				8.00	-0.0400	783.26	
CR28 RAMP A			784.11	0.0283	12.23	517+25.00	783.76				8.00	-0.0400	783.44	
PAVEMENT DETAIL			784.35	0.0353	12.57	517+50.00	783.91				8.00	-0.0400	783.59	
			784.46	0.0380	12.75	517+59.90	783.98				8.00	-0.0400	783.66	BEGIN FULL SUPER
											FULL SUPER			
783.91	-0.0320	3.00	784.00	0.0380	16.00	521+55.85	783.40				8.00	-0.0400	783.08	BEGIN TRANSITION
783.73	-0.0267	3.00	783.81	0.0433	16.00	521+75.00	783.12				7.30	-0.0433	782.81	
783.47	-0.0197	3.00	783.53	0.0503	16.00	522+00.00	782.73				6.26	-0.0503	782.41	
783.17	-0.0128	3.00	783.21	0.0572	16.00	522+25.00	782.29				6.00	-0.0572	781.95	
783.04	0.0642	3.00	782.84	0.0642	16.00	522+50.00	781.82				6.00	-0.0642	781.43	
782.80	0.0685	3.00	782.60	0.0685	16.00	522+65.47	781.50				6.00	-0.0685	781.09	PCC
782.65	0.0711	3.00	782.44	0.0711	16.00	522+75.00	781.30				6.00	-0.0711	780.87	
782.22	0.0780	3.00	781.99	0.0780	16.00	523+00.00	780.74				6.00	-0.0780	780.27	
782.10	0.0800	3.00	781.86	0.0800	16.00	523+07.05	780.58				6.00	-0.0800	780.10	BEGIN FULL SUPER
											FULL SUPER			
769.11	0.0800	3.00	768.87	0.0800	16.00	526+71.11	767.59				6.00	-0.0800	767.11	CS, CURVE # CR28 RAMPA - 2
768.90	0.0788	3.00	768.66	0.0788	16.00	526+75.00	767.40				6.00	-0.0788	766.93	
767.53	0.0711	3.00	767.32	0.0711	16.00	527+00.00	766.18				6.00	-0.0711	765.75	
766.14	0.0634	3.00	765.95	0.0634	16.00	527+25.00	764.93				6.00	-0.0634	764.55	
764.53	-0.0143	3.00	764.57	0.0557	16.00	527+50.00	763.68				6.00	-0.0557	763.35	
763.14	-0.0220	3.00	763.20	0.0480	16.00	527+75.00	762.43				6.00	-0.0480	762.15	
761.74	-0.0297	3.00	761.83	0.0403	16.00	528+00.00	761.18				6.00	-0.0403	760.94	
760.35	-0.0373	3.00	760.46	0.0327	16.00	528+25.00	759.94				6.00	-0.0400	759.70	
758.97	-0.0400	3.00	759.09	0.0250	16.00	528+50.00	758.69				6.00	-0.0400	758.45	
757.59	-0.0400	3.00	757.71	0.0173	16.00	528+75.00	757.44				6.00	-0.0400	757.20	
756.22	-0.0400	3.00	756.34	0.0096	16.00	529+00.00	756.19				6.00	-0.0400	755.95	
754.85	-0.0400	3.00	754.97	0.0019	16.00	529+25.00	754.94				6.00	-0.0400	754.70	
754.51	-0.0400	3.00	754.63	0.0000	16.00	529+31.11	754.63				6.00	-0.0400	754.39	SRS, FLAT
753.46	-0.0400	3.00	753.58	-0.0068	16.00	529+50.00	753.69				6.00	-0.0400	753.45	
752.07	-0.0400	3.00	752.19	-0.0158	16.00	529+75.00	752.44				6.00	-0.0400	752.20	
750.68	-0.0400	3.00	750.80	-0.0248	16.00	530+00.00	751.19				6.00	-0.0400	750.95	
749.28	-0.0400	3.00	749.40	-0.0338	16.00	530+25.00	749.94				6.00	-0.0362	749.73	
747.88	-0.0428	3.00	748.01	-0.0428	16.00	530+50.00	748.69				6.00	-0.0272	748.53	
746.46	-0.0518	3.00	746.62	-0.0518	16.00	530+75.00	747.45				6.00	-0.0182	747.34	
745.04	-0.0608	3.00	745.22	-0.0608	16.00	531+00.00	746.20	2.00	0.0608	746.32	4.00	-0.0100	746.28	
744.69	-0.0630	3.00	744.88	-0.0630	16.00	531+06.11	745.89	2.00	0.0630	746.02	4.00	-0.0100	745.98	SC, CURVE # CR28 RAMPA - 3
											FULL SUPER			
						SEE NEXT SHEET								

NOTE:
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.

CALCULATED BEE CHECKED LBD

SUPERELEVATION TABLE - CR28 INTERCHANGE RAMP A

SCI-823-6.81

CURVE # CR28 RAMP A-1	DC = 1° 22'
P.I. STA. 519+73.56	EMAX = 0.038 FT/FT

SUPERELEVATION TABLE

CURVE # CR28 RAMP A-2	DC = 7° 30'
P.I. STA. 525+50.54	EMAX = 0.08 FT/FT

CURVE # CR28 RAMP A-3	DC = 6° 30
P.I. STA. 531+98.00	EMAX = 0.063 FT/FT

LEFT SHOULDER			RAMP			BASELINE CONTROL		RIGHT SHOULDER						REMARKS
SHOULDER ELEVATION	SHOULDER SLOPE	SHOULDER WIDTH	EDGE OF PAVEMENT ELEVATION	PAVEMENT SLOPE	PAVEMENT WIDTH	STATION	PROFILE GRADE	SHOULDER WIDTH	SHOULDER SLOPE	POINT ON SHOULDER	SHOULDER WIDTH	SHOULDER SLOPE	SHOULDER ELEVATION	
						SEE PREVIOUS SHEET								
						FULL SUPER								
735.87	-0.0630	3.00	736.06	-0.0630	16.00	532+84.55	737.07	2.00	0.0630	737.20	4.00	-0.0100	737.16	CS, CURVE # CR28 RAMPA - 3
			735.48	-0.0574	16.00	533+00.00	736.40	BEGIN TURN LANE			6.00	-0.0126	736.32	
			734.62	-0.0484	16.00	533+25.00	735.39	4.00	0.0484	735.59	6.00	-0.0216	735.46	
			733.85	-0.0394	16.00	533+50.00	734.48	8.00	0.0394	734.80	6.00	-0.0306	734.62	
			733.19	-0.0304	16.00	533+75.00	733.67	8.00	0.0304	733.92	6.00	-0.0396	733.68	
SEE CR28 RAMP A			732.62	-0.0214	16.00	534+00.00	732.96	8.00	0.0214	733.13	6.00	-0.0400	732.89	
AND CR28 RAMP B			732.14	-0.0124	16.00	534+25.00	732.34	8.00	0.0124	732.44	6.00	-0.0400	732.20	
INTERSECTION DETAIL			731.77	-0.0034	16.00	534+50.00	731.82	8.00	0.0034	731.85	6.00	-0.0400	731.61	
			731.65	0.0000	16.00	534+59.55	731.65	8.00	0.0000	731.65	6.00	-0.0400	731.41	ST, CURVE # CR28 RAMPA - 3, FLAT
			731.49	0.0056	16.00	534+75.00	731.40	8.00	-0.0056	731.35	6.00	-0.0400	731.11	
			731.30	0.0146	16.00	535+00.00	731.07	8.00	-0.0146	730.95	6.00	-0.0400	730.71	
			731.28	0.0160	16.00	535+03.99	731.03	8.00	-0.0160	730.90	6.00	-0.0400	730.66	NORMAL CROWN

NOTE:
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.

CALCULATED BEE CHECKED LBD

SUPERELEVATION TABLE - CR28 INTERCHANGE RAMP A

SCI-823-6.81

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SUPERELEVATION TABLE

CURVE # CR28 RAMP B-1	P.I. STA. 539+25.53	DC = 18° 00'	EMAX = 0.08 FT/FT

LEFT SHOULDER			RAMP			BASELINE CONTROL		RIGHT SHOULDER			REMARKS
SHOULDER ELEVATION	SHOULDER SLOPE	SHOULDER WIDTH	EDGE OF PAVEMENT ELEVATION	PAVEMENT SLOPE	PAVEMENT WIDTH	STATION	PROFILE GRADE	SHOULDER WIDTH	SHOULDER SLOPE	SHOULDER ELEVATION	
			731.35	0.0160	16.00	523+86.07	731.09	6.00	-0.0400	730.85	TS, NORMAL CROWN
			731.47	0.0211	16.00	524+00.00	731.13	6.00	-0.0400	730.89	
SEE CR28 RAMP A AND CR28 RAMP B INTERSECTION DETAIL			731.70	0.0302	16.00	524+25.00	731.22	6.00	-0.0400	730.98	
			731.96	0.0394	16.00	524+50.00	731.33	6.00	-0.0400	731.09	
			732.31	0.0485	16.00	524+75.00	731.53	6.00	-0.0485	731.24	
			732.72	0.0577	16.00	525+00.00	731.80	6.00	-0.0577	731.45	
			733.22	0.0668	16.00	525+25.00	732.15	6.00	-0.0668	731.75	
			733.79	0.0760	16.00	525+50.00	732.57	6.00	-0.0760	732.11	
			734.07	0.0800	16.00	525+61.07	732.79	6.00	-0.0800	732.31	SC, FULL SUPER
						FULL SUPER					
761.10	0.0800	3.00	760.86	0.0800	16.00	532+08.62	759.58	6.00	-0.0800	759.10	CS, FULL SUPER
761.28	0.0737	3.00	761.06	0.0737	16.00	532+25.00	759.88	6.00	-0.0737	759.44	
761.46	0.0640	3.00	761.26	0.0640	16.00	532+50.00	760.24	6.00	-0.0640	759.86	
			761.33	0.0543	16.00	532+75.00	760.46	6.00	-0.0543	760.13	
SEE SR823 AND CR28 RAMP B PAVEMENT DETAIL			761.25	0.0446	16.00	533+00.00	760.54	6.00	-0.0446	760.27	
			761.04	0.0349	16.00	533+25.00	760.48	6.00	-0.0400	760.24	
			760.76	0.0252	16.00	533+50.00	760.36	6.00	-0.0400	760.12	
			760.50	0.0160	16.00	533+73.78	760.24	6.00	-0.0400	760.00	NORMAL CROWN

NOTE:
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.

CALCULATED BEE
CHECKED LBD

SUPERELEVATION TABLE - CR28 INTERCHANGE RAMP B

SCI-823-6.81

SUPERELEVATION TABLE

CURVE # CR28 RAMP C-1	DC = 18° 00'
P.I. STA. 536+72.75	EMAX = 0.08 FT/FT

CURVE # CR28 RAMP C-2	DC = 0° 55'
P.I. STA. 535+91.00	EMAX = 0.027 FT/FT

RIGHT SHOULDER			RAMP			BASELINE CONTROL		LEFT SHOULDER			
SHOULDER ELEVATION	SHOULDER SLOPE	SHOULDER WIDTH	EDGE OF PAVEMENT ELEVATION	PAVEMENT SLOPE	PAVEMENT WIDTH	STATION	PROFILE GRADE	SHOULDER WIDTH	SHOULDER SLOPE	SHOULDER ELEVATION	REMARKS
			725.59	0.0160	16.00	519+84.67	725.34	6.00	-0.0400	725.10	TS, CURVE # CR28 RAMPC - 1
			726.04	0.0160	16.00	520+00.00	725.78	6.00	-0.0400	725.54	
			726.58	0.0160	16.00	520+19.81	726.32	6.00	-0.0400	726.08	BEGIN TRANSITION
			726.75	0.0180	16.00	520+25.00	726.46	6.00	-0.0400	726.22	
SEE CR28 RAMP C AND CR28 RAMP D INTERSECTION DETAIL			727.52	0.0277	16.00	520+50.00	727.08	6.00	-0.0400	726.84	
			728.25	0.0374	16.00	520+75.00	727.65	6.00	-0.0400	727.41	
			728.92	0.0471	16.00	521+00.00	728.17	6.00	-0.0471	727.89	
			729.57	0.0568	16.00	521+25.00	728.66	6.00	-0.0568	728.32	
			730.20	0.0665	16.00	521+50.00	729.14	6.00	-0.0665	728.74	
			730.85	0.0762	16.00	521+75.00	729.63	6.00	-0.0762	729.17	
			731.10	0.0800	16.00	521+84.67	729.82	6.00	-0.0800	729.34	SC, CURVE # CR28 RAMPC - 1
FULL SUPER											
763.35	0.0800	3.00	763.11	0.0800	16.00	530+93.64	761.83	6.00	-0.0800	761.35	CS, CURVE # CR28 RAMPC - 1
763.34	0.0780	3.00	763.11	0.0780	16.00	531+00.00	761.86	6.00	-0.0780	761.39	
763.24	0.0702	3.00	763.03	0.0702	16.00	531+25.00	761.91	6.00	-0.0702	761.49	
763.07	0.0624	3.00	762.88	0.0624	16.00	531+50.00	761.88	6.00	-0.0624	761.51	
762.60	-0.0154	3.00	762.64	0.0546	16.00	531+75.00	761.77	6.00	-0.0546	761.44	
762.27	-0.0232	3.00	762.34	0.0468	16.00	532+00.00	761.59	6.00	-0.0468	761.31	
761.86	-0.0311	3.00	761.95	0.0389	16.00	532+25.00	761.33	6.00	-0.0400	761.09	
761.41	-0.0389	3.00	761.53	0.0311	16.00	532+50.00	761.03	6.00	-0.0400	760.79	
761.19	-0.0400	3.00	761.31	0.0270	16.00	532+63.24	760.88	6.00	-0.0400	760.64	FULL SUPER
FULL SUPER											
TRANSITION BACK TO NORMAL CROWN OCCURS IN PHASE 2											

NOTE:
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.

CALCULATED BEE CHECKED LBD

SUPERELEVATION TABLE - CR28 INTERCHANGE RAMP C

SCI-823-6.81

CURVE # CR28 RAMP D-1	DC = 11° 30'
P.I. STA. 524+73.49	EMAX = 0.079 FT/FT

SUPERELEVATION TABLE

CURVE # CR28 RAMP D-2	DC = 11° 30'
P.I. STA. 534+17.71	EMAX = 0.079 FT/FT

RIGHT SHOULDER			RAMP			BASELINE CONTROL		LEFT SHOULDER						REMARKS
SHOULDER ELEVATION	SHOULDER SLOPE	SHOULDER WIDTH	EDGE OF PAVEMENT ELEVATION	PAVEMENT SLOPE	PAVEMENT WIDTH	STATION	PROFILE GRADE	SHOULDER WIDTH	SHOULDER SLOPE	POINT ON SHOULDER	SHOULDER WIDTH	SHOULDER SLOPE	SHOULDER ELEVATION	
			785.31	0.0160	16.00	520+70.16	785.05				8.00	-0.0400	784.73	TS, CURVE # CR28 RAMPD - 1
			785.30	0.0175	16.00	520+75.00	785.02				7.74	-0.0400	784.71	
			785.23	0.0254	16.00	521+00.00	784.82				6.89	-0.0400	784.54	
SEE SR823 AND CR28 RAMP D PAVEMENT DETAIL			785.10	0.0333	16.00	521+25.00	784.57				6.00	-0.0400	784.33	
			784.91	0.0412	16.00	521+50.00	784.25				6.00	-0.0412	784.00	
			784.66	0.0490	16.00	521+75.00	783.88				6.00	-0.0490	783.59	
			784.35	0.0569	16.00	522+00.00	783.44				6.00	-0.0569	783.10	
			783.99	0.0648	16.00	522+25.00	782.95				6.00	-0.0648	782.56	
			783.56	0.0727	16.00	522+50.00	782.40				6.00	-0.0727	781.96	
			783.17	0.0790	16.00	522+70.16	781.91				6.00	-0.0790	781.44	SC, CURVE # CR28 RAMPD - 1
											FULL SUPER			
771.89	0.0790	3.00	771.65	0.0790	16.00	526+01.19	770.39				6.00	-0.0790	769.92	CS, CURVE # CR28 RAMPD - 1
770.84	0.0705	3.00	770.63	0.0705	16.00	526+25.00	769.51				6.00	-0.0705	769.08	
769.75	0.0615	3.00	769.56	0.0615	16.00	526+50.00	768.58				6.00	-0.0615	768.21	
768.44	-0.0175	3.00	768.49	0.0525	16.00	526+75.00	767.65				6.00	-0.0525	767.34	
767.34	-0.0265	3.00	767.42	0.0435	16.00	527+00.00	766.73				6.00	-0.0435	766.47	
766.25	-0.0355	3.00	766.35	0.0345	16.00	527+25.00	765.80				6.00	-0.0400	765.56	
765.16	-0.0400	3.00	765.28	0.0256	16.00	527+50.00	764.87				6.00	-0.0400	764.63	
764.09	-0.0400	3.00	764.21	0.0166	16.00	527+75.00	763.95				6.00	-0.0400	763.71	
763.02	-0.0400	3.00	763.14	0.0076	16.00	528+00.00	763.02				6.00	-0.0400	762.78	
762.12	-0.0400	3.00	762.24	0.0000	16.00	528+21.19	762.24				6.00	-0.0400	762.00	SRS, FLAT
761.95	-0.0400	3.00	762.07	-0.0014	16.00	528+25.00	762.10				6.00	-0.0400	761.86	
760.88	-0.0400	3.00	761.00	-0.0103	16.00	528+50.00	761.17				6.00	-0.0400	760.93	
759.81	-0.0400	3.00	759.93	-0.0193	16.00	528+75.00	760.24				6.00	-0.0400	760.00	
758.74	-0.0400	3.00	758.86	-0.0283	16.00	529+00.00	759.32				6.00	-0.0400	759.08	
757.67	-0.0400	3.00	757.79	-0.0373	16.00	529+25.00	758.39				6.00	-0.0327	758.19	
756.58	-0.0463	3.00	756.72	-0.0463	16.00	529+50.00	757.46				6.00	-0.0237	757.32	
755.49	-0.0552	3.00	755.65	-0.0552	16.00	529+75.00	756.54				6.00	-0.0148	756.45	
754.39	-0.0642	3.00	754.58	-0.0642	16.00	530+00.00	755.61	2.00	0.0642	755.74	4.00	-0.0100	755.70	
753.29	-0.0732	3.00	753.51	-0.0732	16.00	530+25.00	754.69	2.00	0.0732	754.83	4.00	-0.0100	754.79	
752.59	-0.0790	3.00	752.83	-0.0790	16.00	530+41.19	754.09	2.00	0.0790	754.25	4.00	-0.0100	754.21	SC, CURVE # CR28 RAMPD - 2
											FULL SUPER			
			732.56	-0.0790	16.00	535+88.12	733.82	2.00	0.0790	733.98	4.00	-0.0100	733.94	CS, CURVE # CR28 RAMPD - 2
			732.18	-0.0747	16.00	536+00.00	733.38	2.00	0.0747	733.53	4.00	-0.0100	733.49	
			731.41	-0.0657	16.00	536+25.00	732.46	2.00	0.0657	732.59	4.00	-0.0100	732.55	
			730.62	-0.0568	16.00	536+50.00	731.53				6.00	-0.0132	731.45	
			729.84	-0.0478	16.00	536+75.00	730.60				6.00	-0.0222	730.47	
SEE CR28 RAMP C AND CR28 RAMP D PAVEMENT DETAIL			729.06	-0.0388	16.00	537+00.00	729.68				6.00	-0.0312	729.49	
			728.27	-0.0298	16.00	537+25.00	728.75				6.00	-0.0400	728.51	
			727.49	-0.0209	16.00	537+50.00	727.82				6.00	-0.0400	727.58	
			726.71	-0.0119	16.00	537+75.00	726.90				6.00	-0.0400	726.66	
			725.92	-0.0029	16.00	538+00.00	725.97				6.00	-0.0400	725.73	
			725.67	0.0000	16.00	538+08.12	725.67				6.00	-0.0400	725.43	ST, CURVE # CR28 RAMPD - 2
			725.15	0.0061	16.00	538+25.00	725.05				6.00	-0.0400	724.81	
			724.36	0.0150	16.00	538+50.00	724.12				6.00	-0.0400	723.88	
			724.28	0.0160	16.00	538+52.68	724.02				6.00	-0.0400	723.78	NORMAL CROWN

NOTE:
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.

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CALCULATED BEE
CHECKED LBD

SUPERELEVATION TABLE - CR28 INTERCHANGE RAMP D

SCI-823-6.81

CURVE# TR234-1 | **DC = 6°**
P.I. STA. 14+27.25 | **EMAX. = 0.08 FT/FT**

SUPERELEVATION TABLE

CURVE# TR234-2 | **DC = 6°**
P.I. STA. 23+26.93 | **EMAX. = 0.080 FT/FT**

LEFT SHOULDER						WB PAVEMENT			CENTERLINE CONTROL		EB PAVEMENT			RIGHT SHOULDER						
SHOULDER ELEVATION	SHOULDER SLOPE	SHOULDER WIDTH	POINT ON SHOULDER	SHOULDER SLOPE	SHOULDER WIDTH	EDGE OF PAVEMENT ELEVATION	PAVEMENT SLOPE	PAVEMENT WIDTH	STATION	PROFILE GRADE	PAVEMENT WIDTH	PAVEMENT SLOPE	EDGE OF PAVEMENT ELEVATION	SHOULDER WIDTH	SHOULDER SLOPE	POINT ON SHOULDER	SHOULDER WIDTH	SHOULDER SLOPE	SHOULDER ELEVATION	REMARKS
709.41	-0.0560	2.00				709.52	-0.0560	8.90	10+23.46	710.02	8.20	0.0560	710.47				2.00	0.0560	710.59	TS, CURVE # TR234-1
709.32	-0.0564	2.00				709.43	-0.0564	8.93	10+25.00	709.93	8.23	0.0564	710.39				2.29	0.0564	710.52	
707.80	-0.0621	2.00				707.92	-0.0621	9.38	10+50.00	708.50	8.68	0.0621	709.04	2.50	0.0621	709.19	4.55	-0.0600	708.92	
706.29	-0.0678	2.00				706.43	-0.0678	9.83	10+75.00	707.10	9.13	0.0678	707.72	2.50	0.0678	707.89	5.50	-0.0600	707.56	
704.85	-0.0735	2.00				705.00	-0.0735	10.28	11+00.00	705.75	9.58	0.0735	706.46	2.50	0.0735	706.64	5.50	-0.0600	706.31	
703.37	-0.0792	3.00				703.61	-0.0792	10.73	11+25.00	704.46	10.02	0.0792	705.25	2.50	0.0792	705.45	5.50	-0.0600	705.12	
703.17	-0.0800	3.14				703.42	-0.0800	10.79	11+28.46	704.28	10.09	0.0800	705.09	2.50	0.0800	705.29	5.50	-0.0600	704.96	SC, CURVE # TR234-1

FULL SUPER

687.84	-0.0800	8.00				688.48	-0.0800	14.50	16+31.67	689.64	12.00	0.0800	690.60	2.50	0.0800	690.80	5.50	-0.0600	690.47	CS, CURVE # TR234-1
687.87	-0.0735	8.00				688.46	-0.0735	14.30	16+50.00	689.51	12.00	0.0735	690.40	2.50	0.0735	690.58	5.50	-0.0600	690.25	
687.96	-0.0646	8.00				688.48	-0.0646	14.02	16+75.00	689.38	12.00	0.0646	690.16	2.50	0.0646	690.32	5.50	-0.0600	689.99	
688.06	-0.0600	8.00				688.54	-0.0557	13.74	17+00.00	689.31	12.00	0.0557	689.98	2.50	0.0557	690.12	5.50	-0.0600	689.79	
688.18	-0.0600	8.00				688.66	-0.0468	13.46	17+25.00	689.29	12.00	0.0468	689.85	2.50	0.0468	689.93	5.50	-0.0600	689.64	
688.34	-0.0600	8.00				688.82	-0.0379	13.19	17+50.00	689.32	12.00	0.0379	689.77	2.50	0.0379	689.87	5.50	-0.0600	689.54	
688.55	-0.0600	8.00				689.03	-0.0290	12.91	17+75.00	689.40	12.00	0.0290	689.75	2.50	0.0290	689.82	5.50	-0.0600	689.49	
688.80	-0.0600	8.00				689.28	-0.0201	12.63	18+00.00	689.54	12.00	0.0201	689.78	2.50	0.0201	689.83	5.50	-0.0600	689.50	
689.11	-0.0600	8.00				689.59	-0.0113	12.35	18+25.00	689.73	12.00	0.0113	689.86	2.50	0.0113	689.89	5.50	-0.0600	689.56	
689.46	-0.0600	8.00				689.94	-0.0024	12.07	18+50.00	689.97	12.00	0.0024	690.00				8.00	-0.0600	689.52	
689.56	-0.0600	8.00				690.04	0.0000	12.00	18+56.67	690.04	12.00	0.0000	690.04				8.00	-0.0600	689.56	SRS, CURVE # TR234-1/2, FLAT
689.86	-0.0600	8.00				690.34	0.0065	12.00	18+75.00	690.26	12.20	-0.0065	690.19				8.00	-0.0600	689.71	
690.51	-0.0600	5.50	690.84	0.0154	2.50	690.80	0.0154	12.00	19+00.00	690.61	12.48	-0.0154	690.42				8.00	-0.0600	689.94	
690.98	-0.0600	5.50	691.31	0.0243	2.50	691.25	0.0243	12.00	19+25.00	690.96	12.76	-0.0243	690.65				8.00	-0.0600	690.18	
691.42	-0.0600	5.50	691.75	0.0332	2.50	691.66	0.0332	12.00	19+50.00	691.26	13.04	-0.0332	690.83				8.00	-0.0600	690.35	
691.80	-0.0600	5.50	692.13	0.0421	2.50	692.02	0.0421	12.00	19+75.00	691.52	13.31	-0.0421	690.96				8.00	-0.0600	690.48	
692.13	-0.0600	5.50	692.46	0.0509	2.50	692.33	0.0509	12.00	20+00.00	691.72	13.59	-0.0509	691.03				8.00	-0.0600	690.55	
692.41	-0.0600	5.50	692.74	0.0598	2.50	692.59	0.0598	12.00	20+25.00	691.87	13.87	-0.0598	691.04				8.00	-0.0600	690.56	
692.64	-0.0600	5.50	692.97	0.0688	2.50	692.80	0.0688	12.00	20+50.00	691.98	14.15	-0.0688	691.01				8.00	-0.0688	690.46	
692.82	-0.0600	5.50	693.15	0.0777	2.50	692.96	0.0777	12.00	20+75.00	692.03	14.43	-0.0777	690.91				8.00	-0.0777	690.29	
692.87	-0.0600	5.50	693.20	0.0800	2.50	693.00	0.0800	12.00	20+81.67	692.04	14.50	-0.0800	690.88				8.00	-0.0800	690.24	SC, CURVE # TR234-2

FULL SUPER

SEE NEXT SHEET

CALCULATED LBD
CHECKED JMB

SUPERELEVATION TABLE - TR234

SCI-823-6.81

SUPERELEVATION TABLE

CURVE# TR234-1	Dc = 6°
P.I. STA. 14+27.25	EMAX = 0.08 FT/FT

CURVE# TR234-2	DC = 6°
P.I. STA. 23+26.93	EMAX = 0.080 FT/FT

LEFT SHOULDER						WB PAVEMENT			CENTERLINE CONTROL		EB PAVEMENT			RIGHT SHOULDER						REMARKS
SHOULDER ELEVATION	SHOULDER SLOPE	SHOULDER WIDTH	POINT ON SHOULDER	SHOULDER SLOPE	SHOULDER WIDTH	EDGE OF PAVEMENT ELEVATION	PAVEMENT SLOPE	PAVEMENT WIDTH	STATION	PROFILE GRADE	PAVEMENT WIDTH	PAVEMENT SLOPE	EDGE OF PAVEMENT ELEVATION	SHOULDER WIDTH	SHOULDER SLOPE	POINT ON SHOULDER	SHOULDER WIDTH	SHOULDER SLOPE	SHOULDER ELEVATION	
									SEE PREVIOUS SHEET											
											FULL SUPER									
						687.43	0.0800	18.00	24+83.47	685.99	20.50	-0.0800	684.35							CS, CURVE # TR234-2
						686.84	0.0759	18.00	25+00.00	685.47	20.50	-0.0759	683.91							
						685.90	0.0698	18.00	25+25.00	684.64	20.50	-0.0698	683.21							
						684.91	0.0636	18.00	25+50.00	683.76	20.50	-0.0636	682.46							
						683.87	0.0575	18.00	25+75.00	682.84	20.50	-0.0575	681.66							
						682.79	0.0513	18.00	26+00.00	681.86	18.00	-0.0513	680.94			SEE RAMPC/RAMP D INTERSECTION DETAIL				
	SEE RAMPC/RAMP D INTERSECTION DETAIL					681.68	0.0452	18.00	26+25.00	680.86	18.00	-0.0452	680.05							
						680.57	0.0390	18.00	26+50.00	679.86	18.00	-0.0390	679.16							
						679.45	0.0329	18.00	26+75.00	678.86	18.00	-0.0329	678.27							
678.08	-0.0600	5.50	678.41	0.0267	2.50	678.34	0.0267	18.00	27+00.00	677.86	18.00	-0.0267	677.38				8.00	-0.0600	676.90	
676.98	-0.0600	5.50	677.31	0.0205	2.50	677.26	0.0205	18.00	27+25.00	676.89	18.00	-0.0205	676.52				8.00	-0.0600	676.04	
676.88	-0.0600	5.50	677.21	0.0200	2.50	677.16	0.0200	18.00	27+27.22	676.80	18.00	-0.0200	676.44				8.00	-0.0600	675.96	
675.93	-0.0600	5.50	676.26	0.0144	2.50	676.22	0.0144	18.00	27+50.00	675.96	18.00	-0.0200	675.60				8.00	-0.0600	675.12	
674.74	-0.0600	8.00				675.22	0.0082	18.00	27+75.00	675.07	18.00	-0.0200	674.71				8.00	-0.0600	674.23	
673.80	-0.0600	8.00				674.28	0.0021	18.00	28+00.00	674.24	18.00	-0.0200	673.88				8.00	-0.0600	673.40	
673.49	-0.0600	8.00				673.97	0.0000	18.00	28+08.47	673.97	18.00	-0.0200	673.61				8.00	-0.0600	673.13	ST, CURVE # TR234-2
672.90	-0.0600	8.00				673.38	-0.0041	18.00	28+25.00	673.45	18.00	-0.0200	673.09				8.00	-0.0600	672.61	
672.04	-0.0600	8.00				672.52	-0.0102	18.00	28+50.00	672.71	18.00	-0.0200	672.35				8.00	-0.0600	671.87	
671.24	-0.0600	8.00				671.72	-0.0164	18.00	28+75.00	672.01	18.00	-0.0200	671.65				8.00	-0.0600	671.17	
670.78	-0.0600	8.00				671.26	-0.0200	18.00	28+89.72	671.62	18.00	-0.0200	671.26				8.00	-0.0600	670.78	
670.52	-0.0600	8.00				671.00	-0.0200	18.00	29+00.00	671.36	18.00	-0.0200	671.00				8.00	-0.0600	670.52	

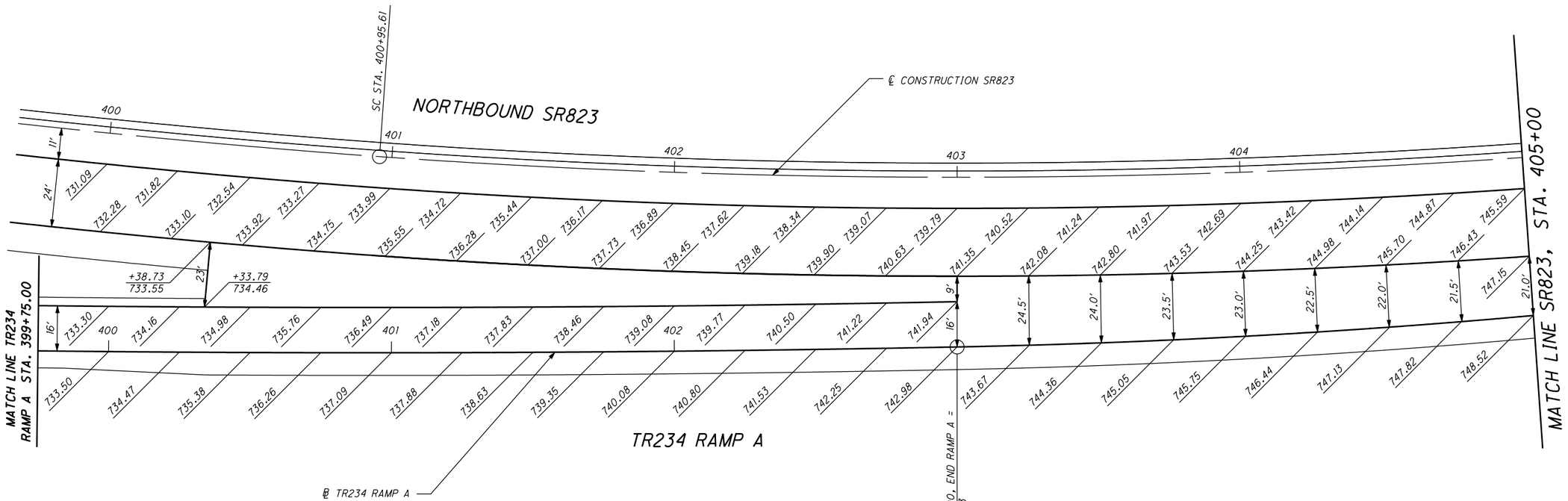
CALCULATED LBD
CHECKED JMB

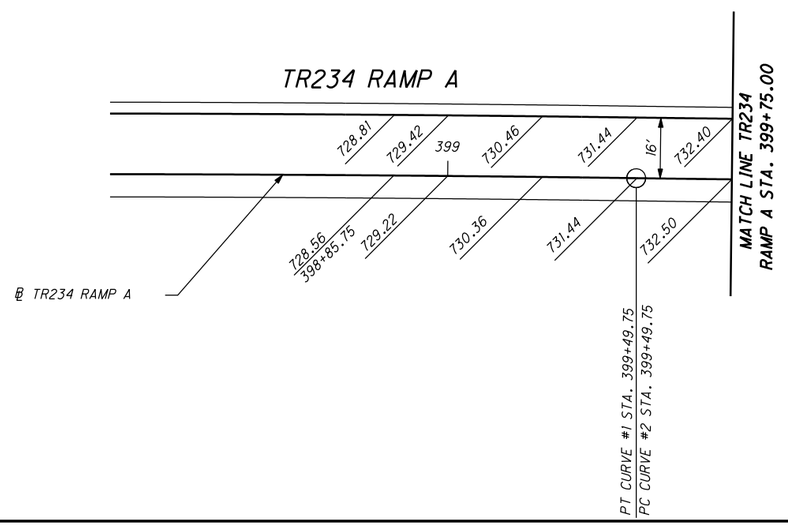
SUPERELEVATION TABLE - TR234

SCI-823-6.81

USER: CWohlbr; PLOT DATE: 9/15/2011 5:40:09 PM REVISION DATE: 9/15/2011
FILE...&HGR.Cu000000000045878 /1945ga007A.dgn MODEL: Sheet

NOTE:
PAVEMENT TO BE CONSTRUCTED IN OTHER PART (NIP)
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.





NOTES:

1. ELEVATIONS ARE SHOWN AT EVERY 25 FEET UNLESS OTHERWISE NOTED.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED LBD
CHECKED JMB

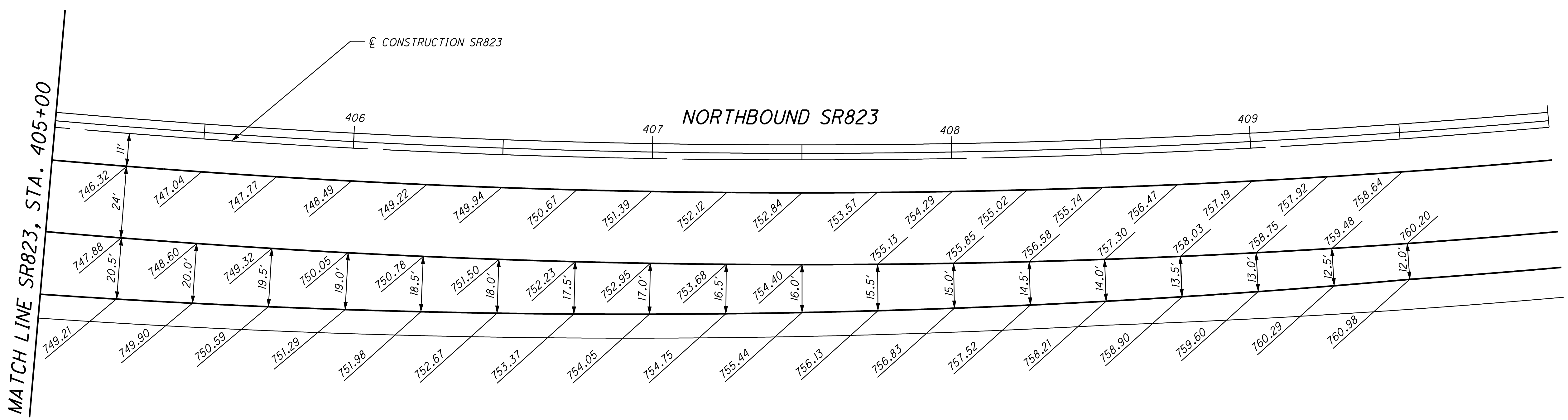
TR234 INTERCHANGE RAMP A PAVEMENT ELEVATIONS SPEED CHANGE LANE AT SR823

SCI-823-6.81

418
535

USER: CMahlbri PLOT DATE: 9/15/2011 5:40:15 PM REVISION DATE: 9/15/2011
FILE:...4HOR.CL0000000045878 /1941Sgo003.dgn MODEL: Sheet

NOTE:
PAVEMENT TO BE CONSTRUCTED IN OTHER PART NIP)
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.



NOTES:

1. ELEVATIONS ARE SHOWN AT EVERY 25 FEET UNLESS OTHERWISE NOTED.

0 10 20 40
HORIZONTAL SCALE IN FEET

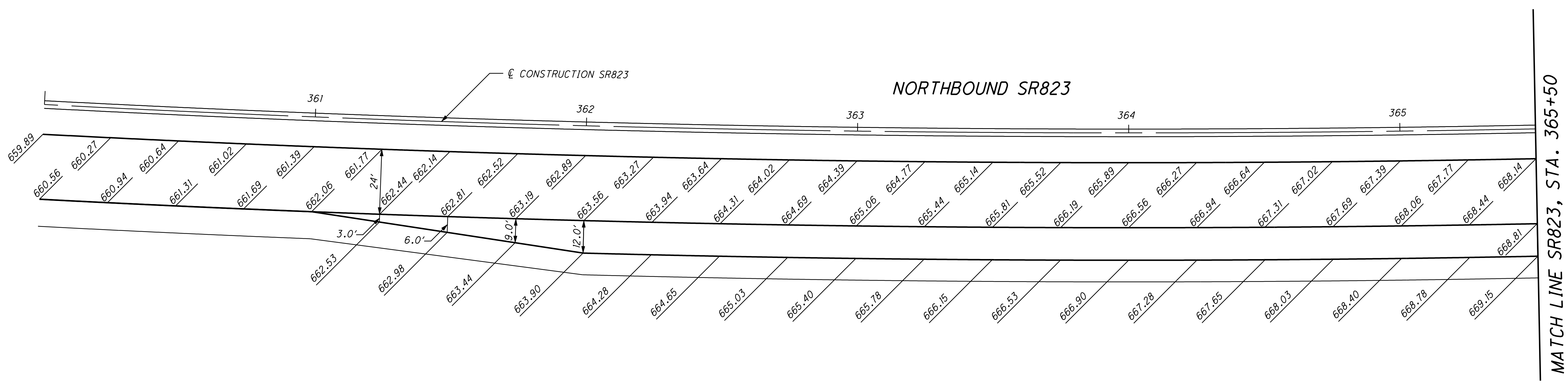
CALCULATED LBD
CHECKED JMB

TR234 INTERCHANGE RAMP A PAVEMENT ELEVATIONS SPEED CHANGE LANE AT SR823

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 5:40:19 PM REVISION DATE: 9/15/2011
FILE:...\HOR_CV\B000000045878 /19415gd004.dgn MODEL: Sheet

NOTE:
PAVEMENT TO BE CONSTRUCTED BY OTHERS (NIC)
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.



NOTES:

1. ELEVATIONS ARE SHOWN AT EVERY 25 FEET UNLESS OTHERWISE NOTED.

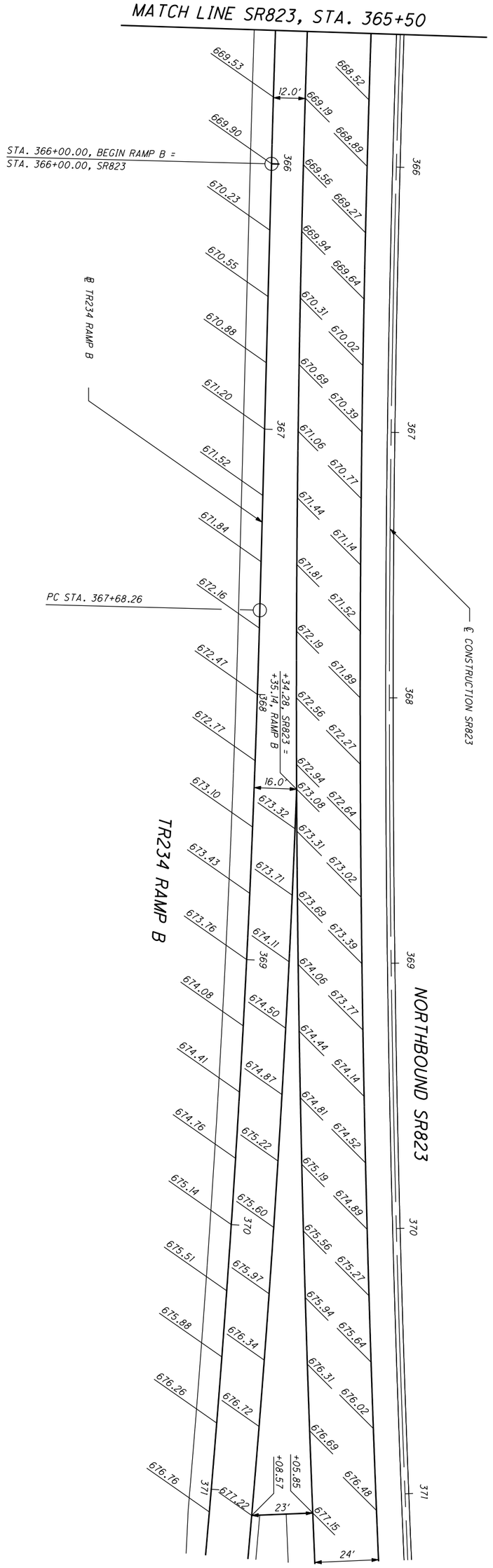
HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED LBD
CHECKED JMB

TR234 INTERCHANGE RAMP B PAVEMENT ELEVATIONS SPEED CHANGE LANE AT SR823

SCI-823-6.81

USER: CWahlbri PLOT DATE: 9/15/2011 5:40:28 PM REVISION DATE: 9/15/2011
FILE:...4IHDR.CV1000000000045878 /19415go007.dgn MODEL: Sheet



NOTE:
PAVEMENT TO BE CONSTRUCTED BY OTHERS (NIC)
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.

NOTES:

1. ELEVATIONS ARE SHOWN AT EVERY 25 FEET UNLESS OTHERWISE NOTED.

421
535

SCI-823-6.81

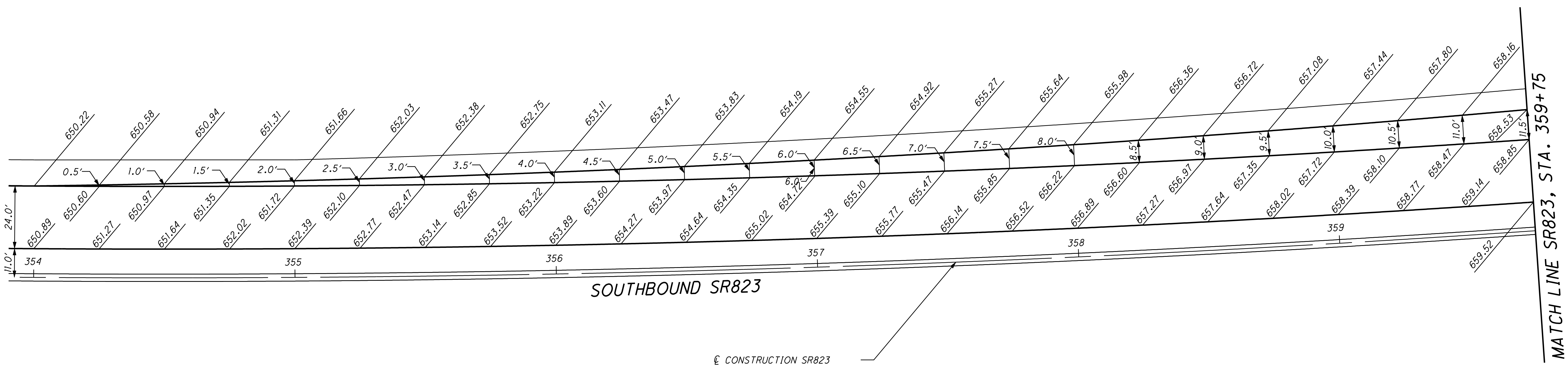
TR234 INTERCHANGE RAMP B PAVEMENT ELEVATIONS
SPEED CHANGE LANE AT SR823

CALCULATED LBD
CHECKED JMB

0 20
10 40
HORIZONTAL SCALE IN FEET

N

NOTE:
PAVEMENT TO BE CONSTRUCTED BY OTHERS (NIC)
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.



NOTES:

1. ELEVATIONS ARE SHOWN AT EVERY 25 FEET UNLESS OTHERWISE NOTED.

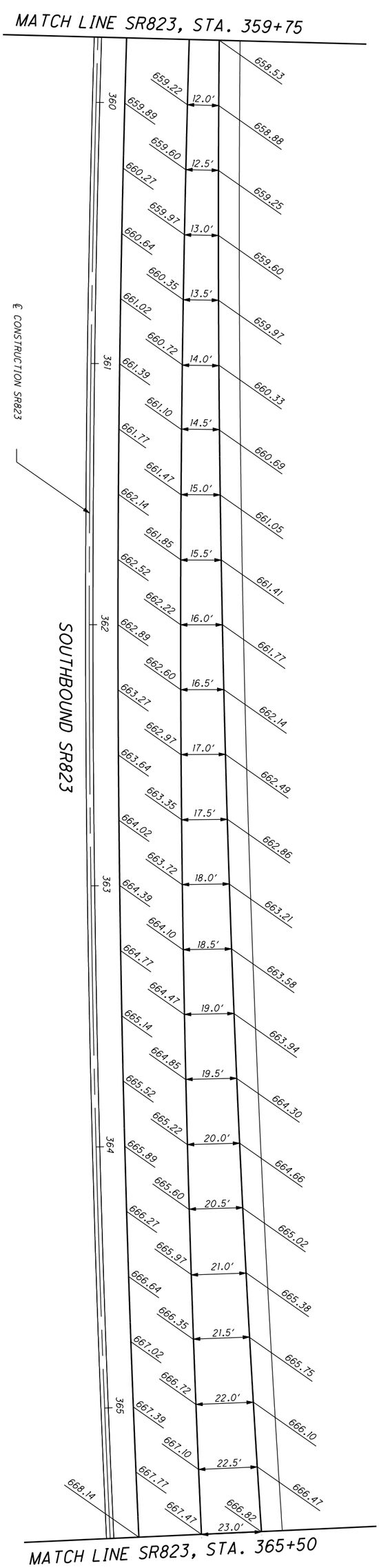
HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED LBD CHECKED JMB

TR234 INTERCHANGE RAMP C PAVEMENT DETAILS
SPEED CHANGE LANE AT SR823

SCI-823-6.81

USER: CWahlbri PLOT DATE: 9/15/2011 5:40:38 PM REVISION DATE: 9/15/2011
FILE:...4IHDR.CV1000000000045878 /19415go009.dgn MODEL: Sheet



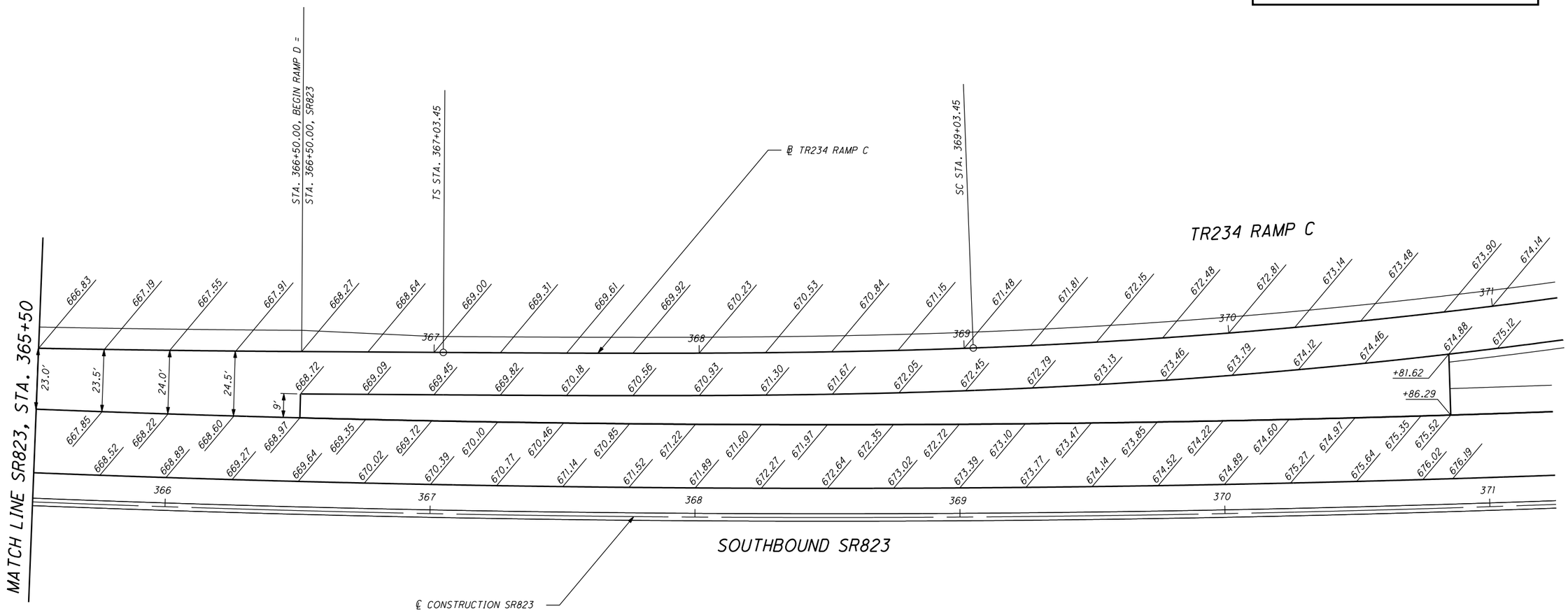
NOTES:

1. ELEVATIONS ARE SHOWN AT EVERY 25 FEET UNLESS OTHERWISE NOTED.

NOTE:
PAVEMENT TO BE CONSTRUCTED BY OTHERS (NIC)
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.

423 / 535	SCI-823-6.81	TR234 INTERCHAGE RAMP C PAVEMENT ELEVATIONS SPEED CHANGE LANE AT SR823	CALCULATED LBD CHECKED JMB	0 20 10 40 HORIZONTAL SCALE IN FEET

NOTE:
PAVEMENT TO BE CONSTRUCTED BY OTHERS (NIC)
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.



NOTES:

1. ELEVATIONS ARE SHOWN AT EVERY 25 FEET UNLESS OTHERWISE NOTED.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED LBD
CHECKED JMB

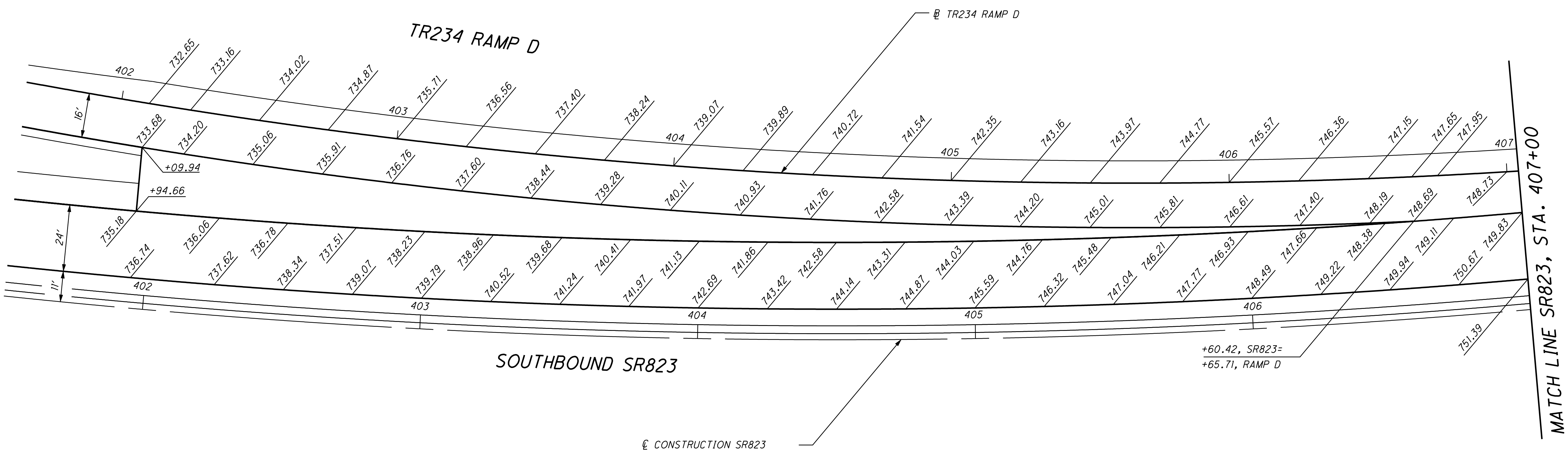
TR234 INTERCHAGE RAMP C PAVEMENT ELEVATIONS
SPEED CHANGE LANE AT SR823

SCI-823-6.81

424
535

USER: CWohlbr; PLOT DATE: 9/15/2011 5:40:42 PM REVISION DATE: 9/15/2011
FILE...&HIGHR.Cvl0000000004587 8 /19415gd00.dgn MODEL: Sheet1

NOTE:
PAVEMENT TO BE CONSTRUCTED IN OTHER PART NIP)
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.



NOTES:

1. ELEVATIONS ARE SHOWN AT EVERY 25 FEET UNLESS OTHERWISE NOTED.

HORIZONTAL SCALE IN FEET 0 10 20 40

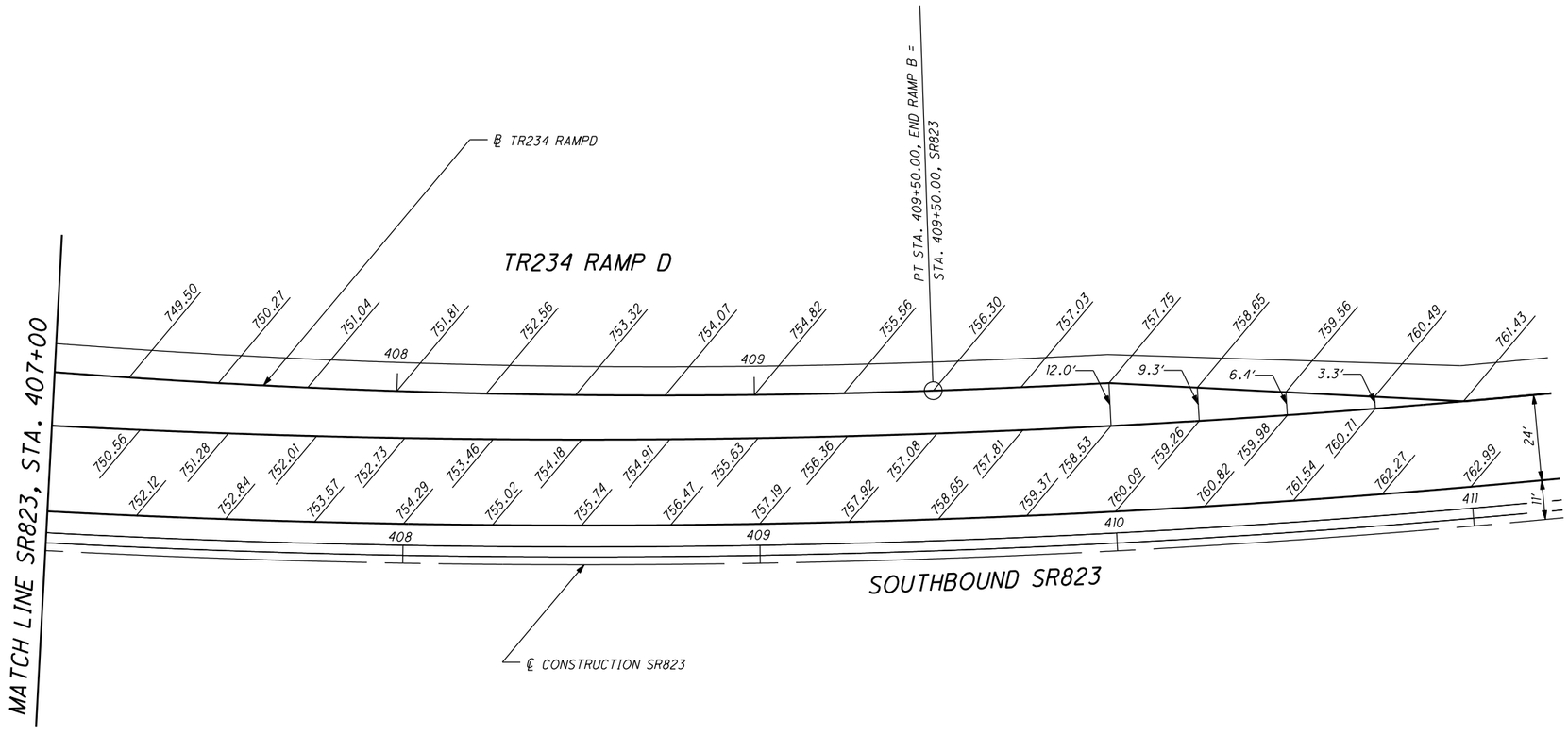
CALCULATED LBD
CHECKED JMB

TR234 INTERCHAGE RAMP D PAVEMENT ELEVATIONS SPEED CHANGE LANE AT SR823

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 5:40:46 PM REVISION DATE: 9/15/2011
FILE: ...\HDR_CWO\000000000045878 /94151gp011.dgn MODEL: Sheet

NOTE:
PAVEMENT TO BE CONSTRUCTED IN OTHER PART (NIP)
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.



NOTES:

1. ELEVATIONS ARE SHOWN AT EVERY 25 FEET UNLESS OTHERWISE NOTED.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED LBD
CHECKED JMB

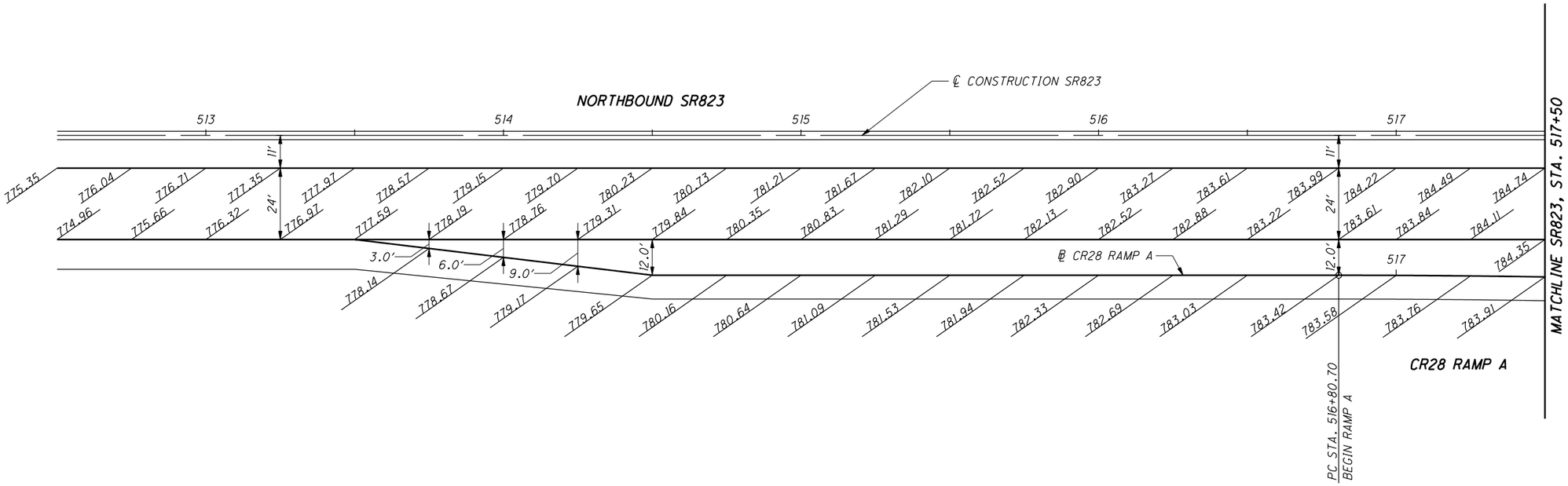
TR234 INTERCHANGE RAMP D PAVEMENT ELEVATIONS
SPEED CHANGE LANE AT SR823

SCI-823-6.81

426
535

USER: CWahlbri PLOT DATE: 9/15/2011 5:40:51 PM REVISION DATE: 9/15/2011
FILE:...\HDR_C\000000000045878 /19415gs012.dgn MODEL: Sheet

NOTE:
PAVEMENT TO BE CONSTRUCTED IN OTHER PART NIP)
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.



NOTES:

1. ELEVATIONS ARE SHOWN AT EVERY 25 FEET UNLESS OTHERWISE NOTED.

HORIZONTAL SCALE IN FEET
0 10 20 40

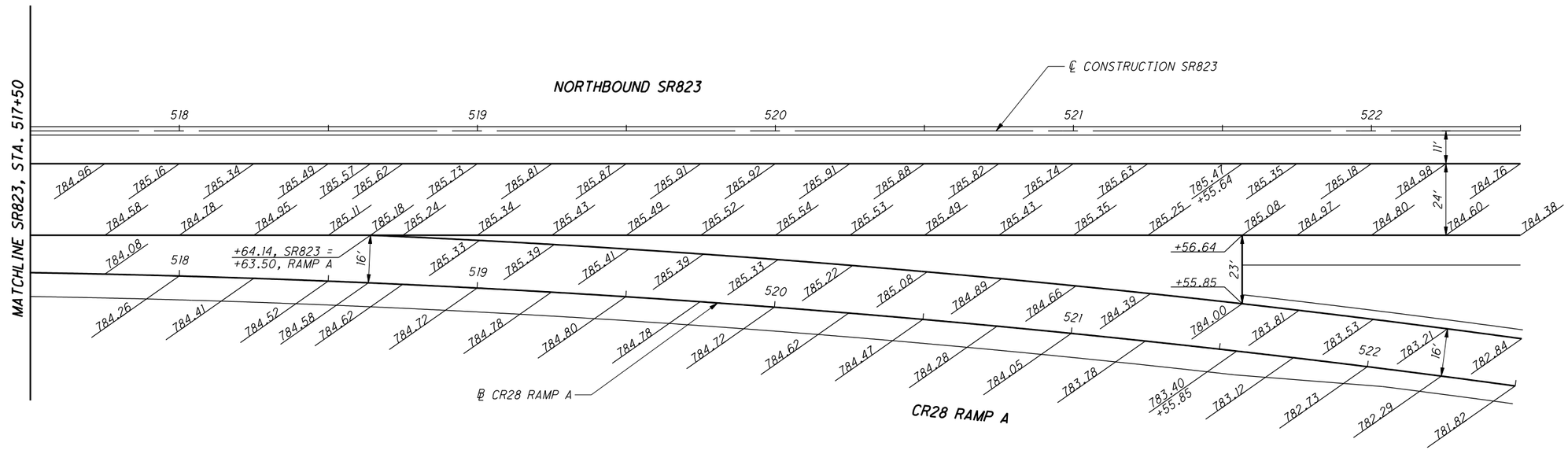
CALCULATED LBD
CHECKED JMB

CR28 INTERCHANGE RAMP A PAVEMENT ELEVATIONS
SPEED CHANGE LANE AT SR823

SCI-823-6.81

USER: CWahibi PLOT DATE: 9/15/2011 540455 PM REVISION DATE: 9/15/2011
FILE...\HIDR.C.0000000000045878 /1941sgd013.dgn MODEL: Sheet

NOTE:
PAVEMENT TO BE CONSTRUCTED IN OTHER PART (NIP)
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.



NOTES:

1. ELEVATIONS ARE SHOWN AT EVERY 25 FEET UNLESS OTHERWISE NOTED.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED LBD
CHECKED JMB

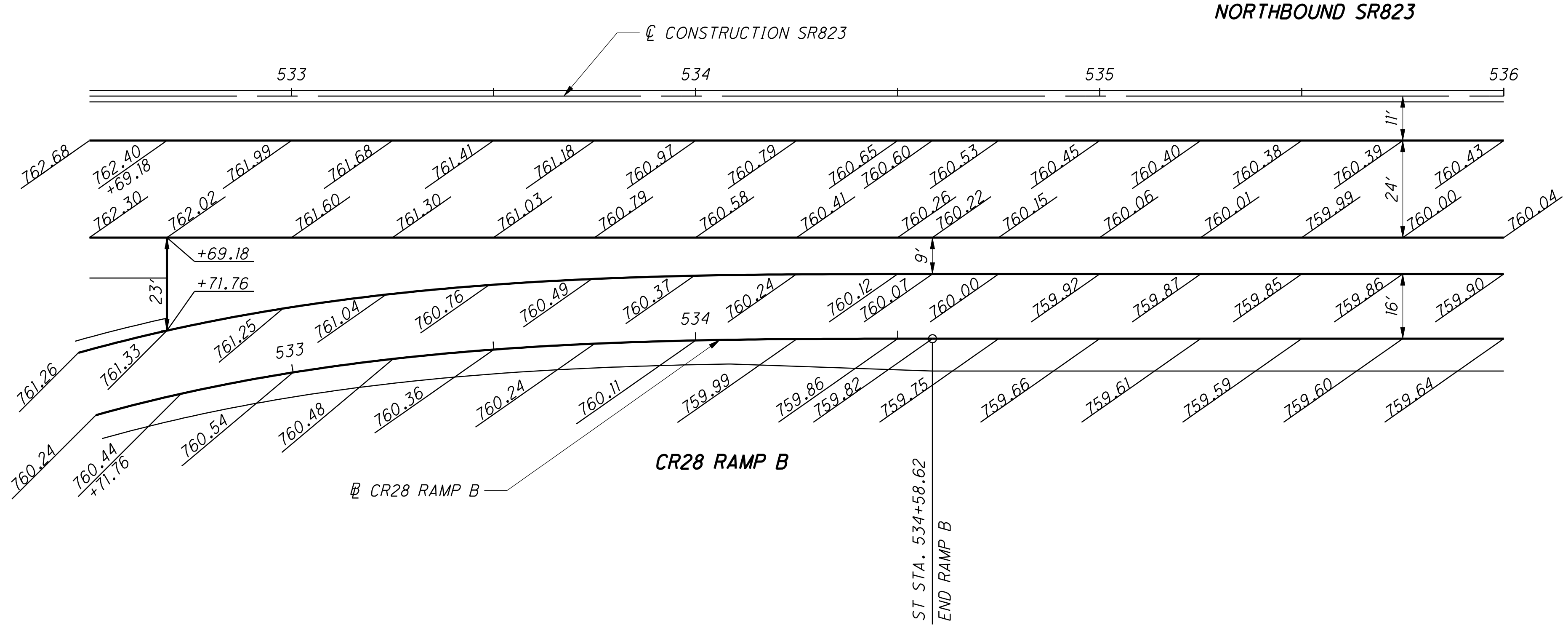
CR28 INTERCHANGE RAMP A PAVEMENT ELEVATIONS
SPEED CHANGE LANE AT SR823

SCI-823-6.81

428
535

USER: CWohlbr; PLOT DATE: 9/15/2011 5:40:59 PM REVISION DATE: 9/15/2011
FILE...4HDR.Cu000000000045878 /1945gc04.dgn MODEL: Sheet

NOTE:
PAVEMENT TO BE CONSTRUCTED BY OTHERS (NIC)
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.



NOTES:

1. ELEVATIONS ARE SHOWN AT EVERY 25 FEET UNLESS OTHERWISE NOTED.

HORIZONTAL SCALE IN FEET 0 10 20 40

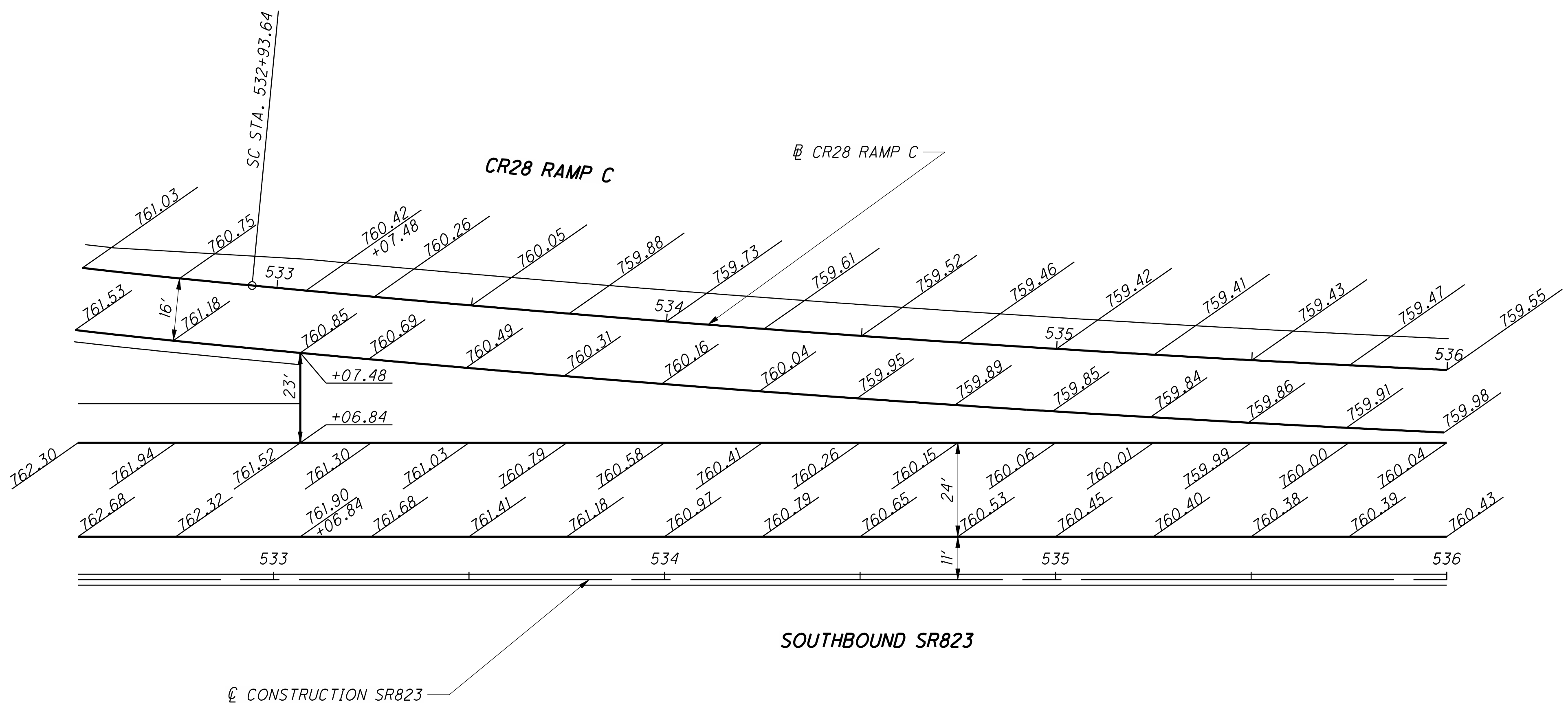
CALCULATED LBD CHECKED JMB

CR28 INTERCHANGE RAMP B PAVEMENT ELEVATIONS SPEED CHANGE LANE AT SR823

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 5:41:03 PM REVISION DATE: 9/15/2011
FILE: ...\HOR_CV\B80000000045878 /19415gp015.dgn MODEL: Sheet

NOTE:
PAVEMENT TO BE CONSTRUCTED BY OTHERS (NIC)
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.



NOTES:

1. ELEVATIONS ARE SHOWN AT EVERY 25 FEET UNLESS OTHERWISE NOTED.

HORIZONTAL SCALE IN FEET 0 10 20 40

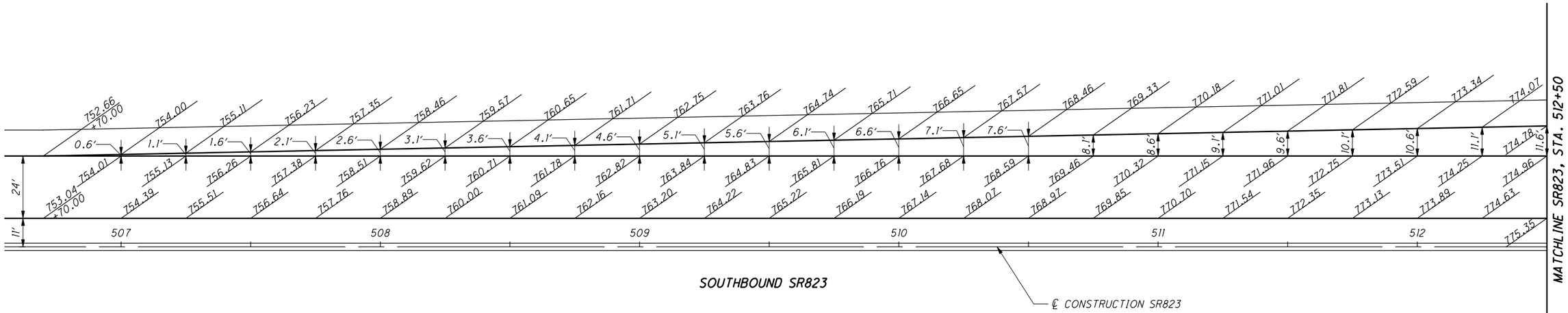
CALCULATED LBD
CHECKED JMB

CR28 INTERCHANGE RAMP C PAVEMENT ELEVATIONS SPEED CHANGE LANE AT SR823

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 5:41:08 PM REVISION DATE: 9/15/2011
FILE: ...\IHDR_CV\B000000000045878 /19415gp019.dgn MODEL: Sheet

NOTE:
PAVEMENT TO BE CONSTRUCTED IN OTHER PART (NIP)
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.



NOTES:

1. ELEVATIONS ARE SHOWN AT EVERY 25 FEET UNLESS OTHERWISE NOTED.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED LBD
CHECKED JMB

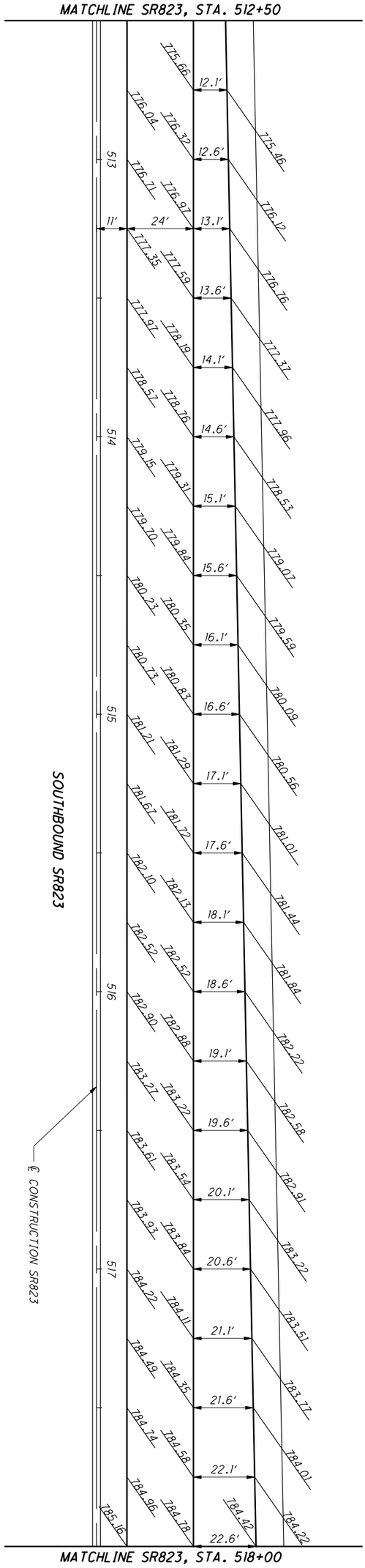
CR28 INTERCHANGE RAMP D PAVEMENT ELEVATIONS
SPEED CHANGE LANE AT SR823

SCI-823-6.81

431
535

USER: CMahlbri PLOT DATE: 9/15/2011 5:41:12 PM REVISION DATE: 9/15/2011
FILE: ...4\HOR.CL\0800000004878 /1945go021.dgn MODEL: Sheet

USER: CWahlbri PLOT DATE: 9/15/2011 5:41:16 PM REVISION DATE: 9/15/2011
FILE:...4IHDR.CV1000000000045878 /19415go022.dgn MODEL: Sheet



NOTES:

1. ELEVATIONS ARE SHOWN AT EVERY 25 FEET UNLESS OTHERWISE NOTED.

NOTE:
PAVEMENT TO BE CONSTRUCTED IN OTHER PART (NIP)
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.

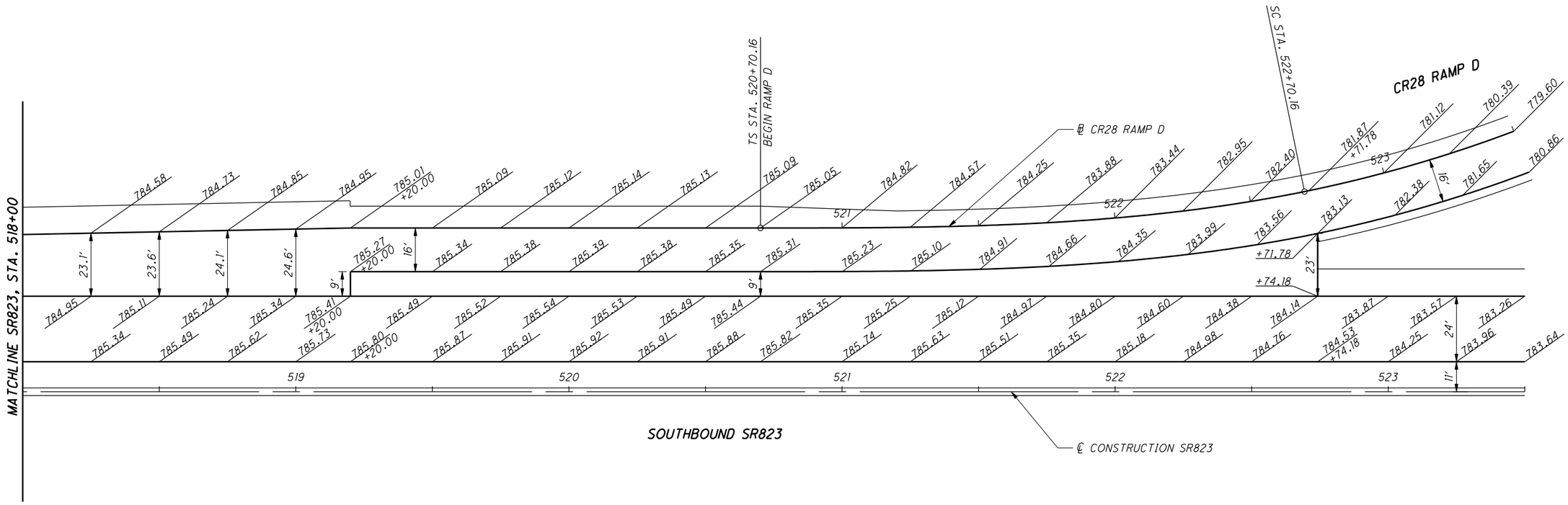
SCI-823-6.81

CR28 INTERCHANGE RAMP D PAVEMENT ELEVATIONS
SPEED CHANGE LANE AT SR823

CALCULATED LBD
CHECKED JMB

0 20
10 40
HORIZONTAL SCALE IN FEET

NOTE:
PAVEMENT TO BE CONSTRUCTED IN OTHER PART (NIP)
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.



NOTES:

1. ELEVATIONS ARE SHOWN AT EVERY 25 FEET UNLESS OTHERWISE NOTED.

HORIZONTAL SCALE IN FEET
0 10 20 40

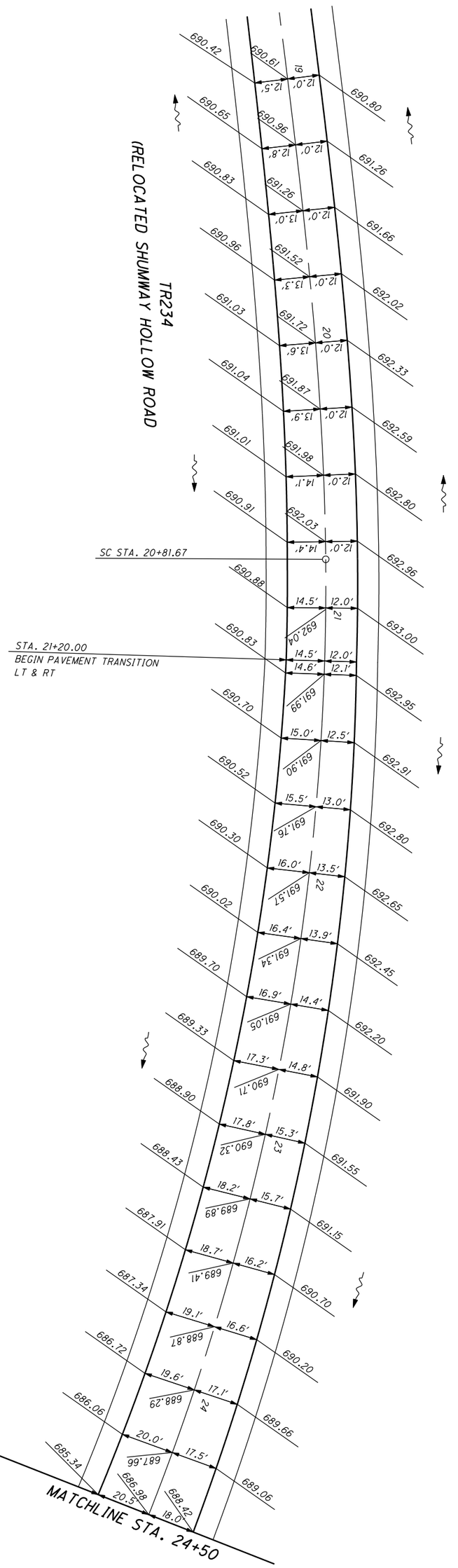
CALCULATED LBD
CHECKED JMB

CR28 INTERCHANGE RAMP D PAVEMENT ELEVATIONS
SPEED CHANGE LANE AT SR823

SCI-823-6.81

USER: Cwahlbri PLOT DATE: 9/15/2011 5:48:21 PM REVISION DATE: 9/15/2011
FILE...ANDR_CVD8000000045878 /9415gs023.dgn MODEL: Sheet

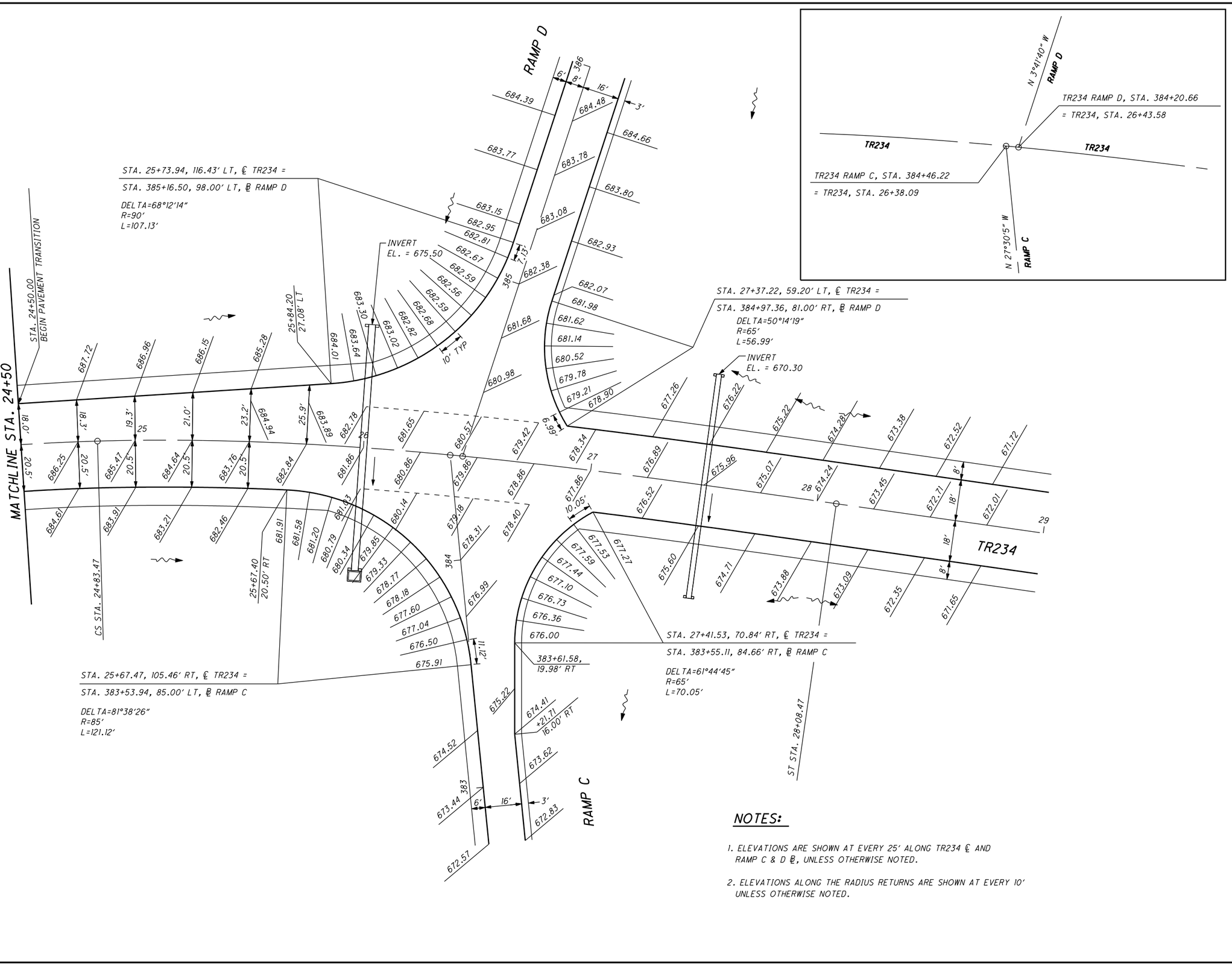
USER: CWahlbri PLOT DATE: 9/15/2011 5:41:26 PM REVISION DATE: 9/15/2011
FILE:...4IHDR.CV1000000000045878 /19415gi005.dgn MODEL: Sheet



NOTES:

1. ELEVATIONS ARE SHOWN EVERY 25', UNLESS OTHERWISE NOTED.

434/535	SCI-823-6.81	INTERSECTION DETAIL TR234 AND RAMPC & RAMP D	CALCULATED LBD CHECKED JMB	0 10 20 40 HORIZONTAL SCALE IN FEET	



NOTES:

1. ELEVATIONS ARE SHOWN AT EVERY 25' ALONG TR234 ℄ AND RAMP C & D ℄, UNLESS OTHERWISE NOTED.

2. ELEVATIONS ALONG THE RADIUS RETURNS ARE SHOWN AT EVERY 10' UNLESS OTHERWISE NOTED.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED LBD
CHECKED JMB

INTERSECTION DETAIL TR234 AND RAMPC & RAMP D

SCI-823-6.81

435
535

USER: CWahlbr1 PLOT DATE: 9/15/2011 5:41:31 PM REVISION DATE: 9/15/2011
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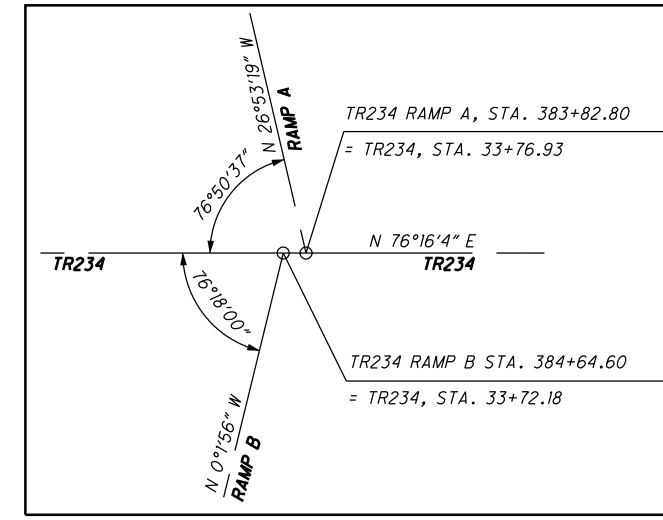
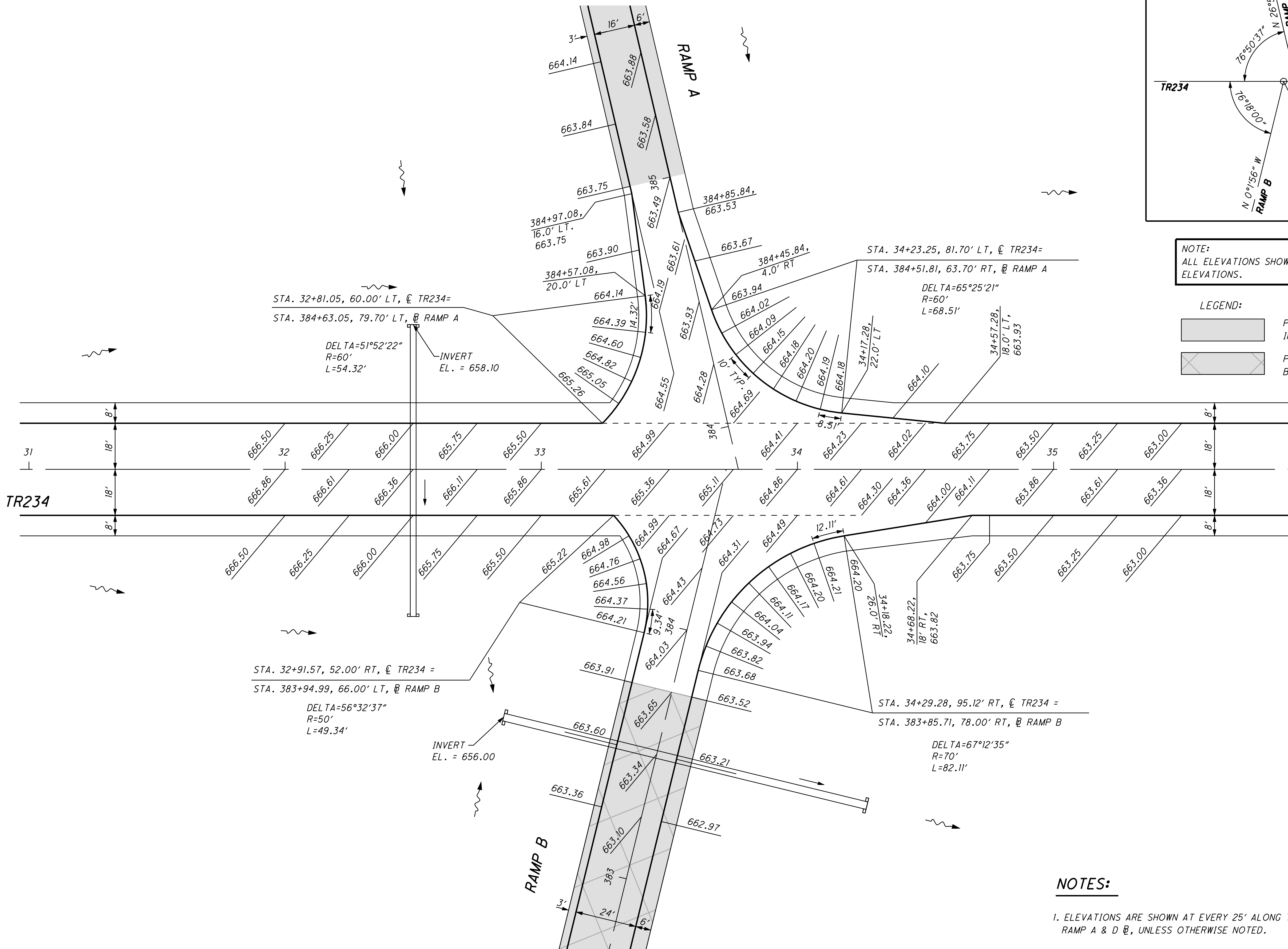


NOTE:
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.

LEGEND:

PAVEMENT TO BE CONSTRUCTED IN OTHER PART

PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT



NOTES:

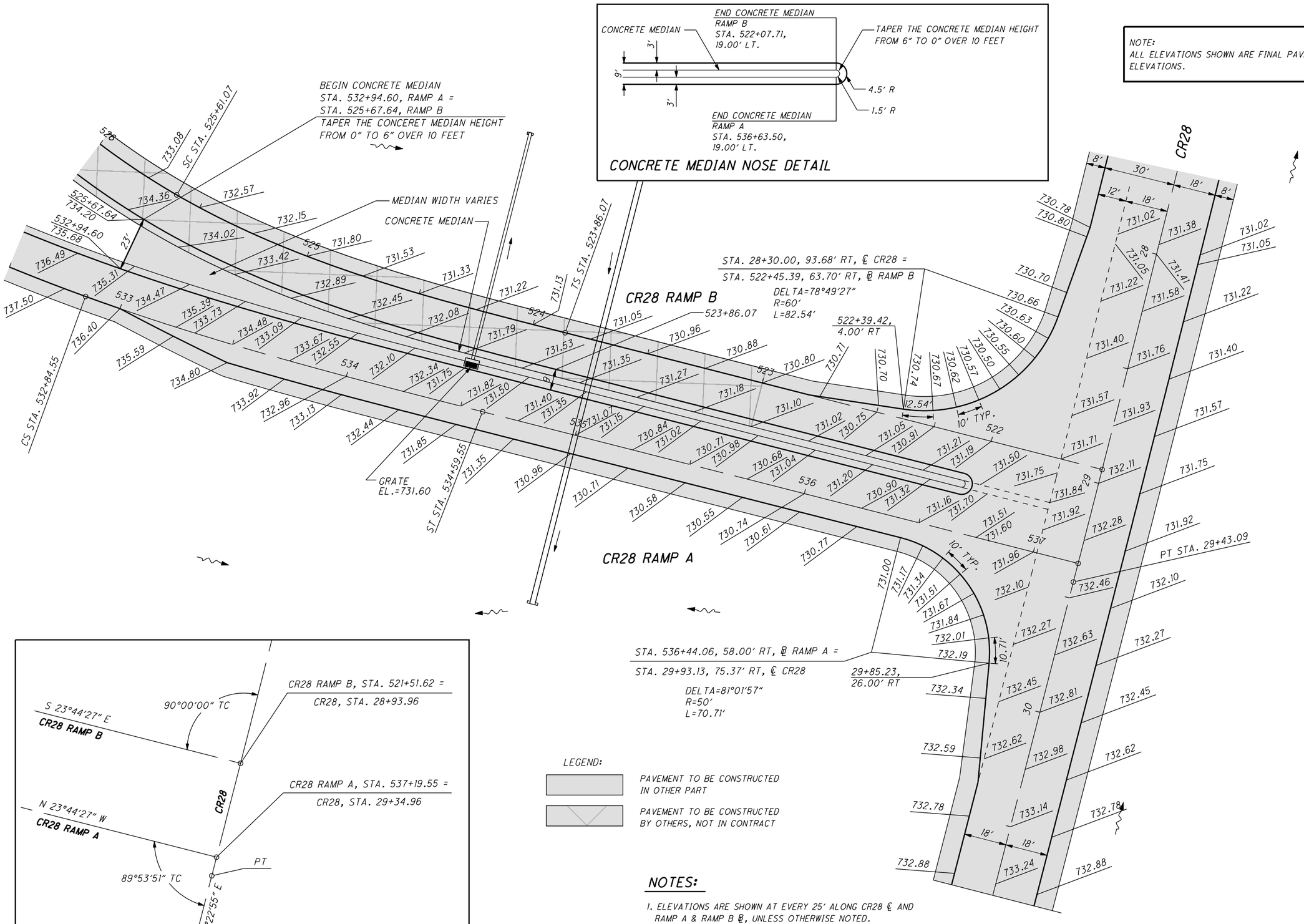
1. ELEVATIONS ARE SHOWN AT EVERY 25' ALONG TR234 ℄ AND RAMP A & D ℙ, UNLESS OTHERWISE NOTED.
2. ELEVATIONS ALONG THE RADIUS RETURNS ARE SHOWN AT EVERY 10' UNLESS OTHERWISE NOTED.

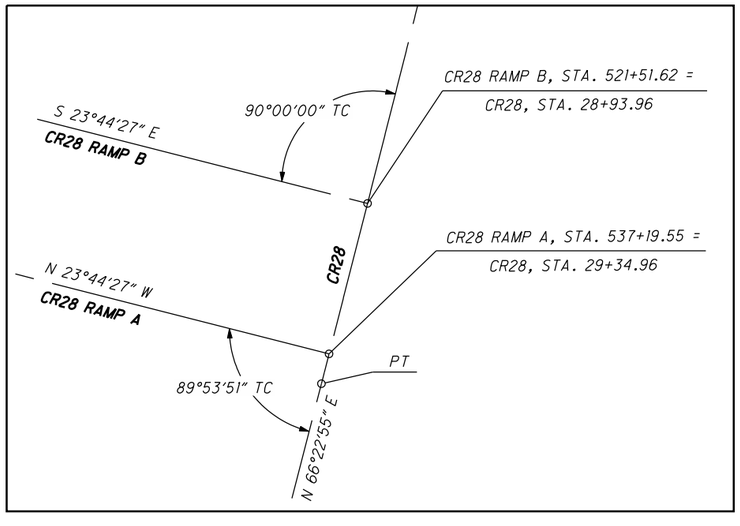
HORIZONTAL SCALE IN FEET

CALCULATED LBD CHECKED JMB

INTERSECTION DETAIL TR234 AND RAMP A & RAMP B

SCI-823-6.81





NOTES:

1. ELEVATIONS ARE SHOWN AT EVERY 25' ALONG CR28 ℄ AND RAMP A & RAMP B ℄, UNLESS OTHERWISE NOTED.
2. ELEVATIONS ALONG THE RADIUS RETURNS ARE SHOWN AT EVERY 10' UNLESS OTHERWISE NOTED.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED LBD
CHECKED JMB

INTERSECTION DETAIL
CR28 AND RAMP A & RAMP B

SCI-823-6.81

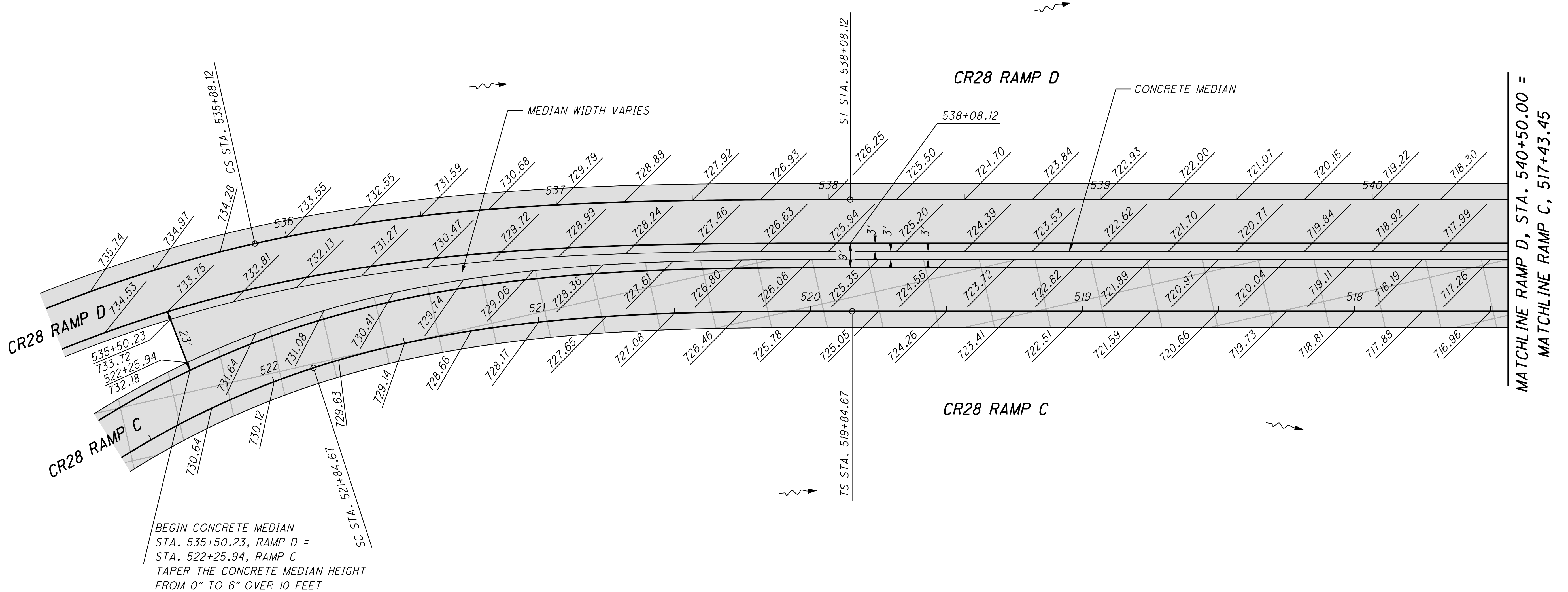
437
535

USER: Cmahlbri PLOT DATE: 9/15/2011 5:48:44 PM REVISION DATE: 9/15/2011
FILES:...ANOR_CU0000000045878 /9415g101.dgn MODEL: Sheet

NOTE:
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.

LEGEND:

- PAVEMENT TO BE CONSTRUCTED IN OTHER PART
- PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT



NOTES:

1. ELEVATIONS ARE SHOWN AT EVERY 25' ALONG RAMP C AND RAMP D ℄, UNLESS OTHERWISE NOTED.

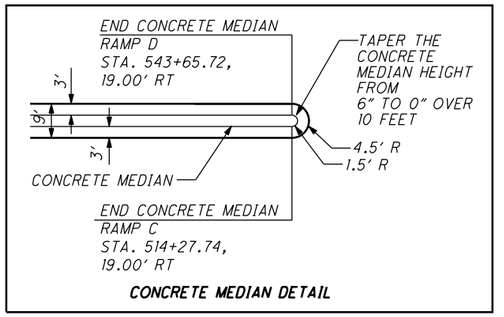
HORIZONTAL SCALE IN FEET (0, 10, 20, 40)

CALCULATED LBD CHECKED JMB

INTERSECTION DETAIL CR28 INTERCHANGE, RAMP C & RAMP D

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 5:41:51 PM REVISION DATE: 9/15/2011 MODEL: Sheet



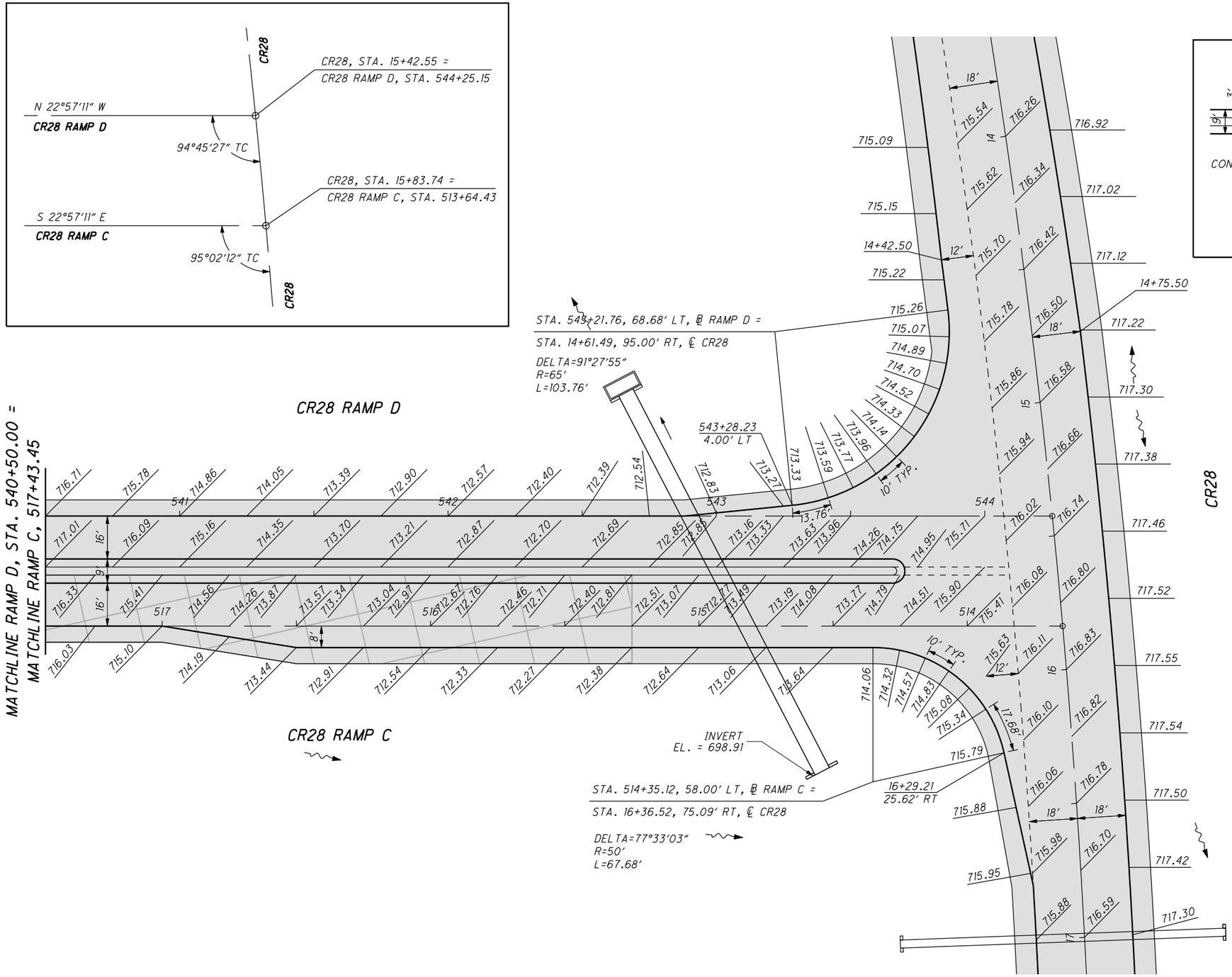
CONCRETE MEDIAN DETAIL

NOTE:
ALL ELEVATIONS SHOWN ARE FINAL PAVEMENT SURFACE ELEVATIONS.
GY005

LEGEND:

PAVEMENT TO BE CONSTRUCTED IN OTHER PART

PAVEMENT TO BE CONSTRUCTED BY OTHERS, NOT IN CONTRACT



NOTES:

1. ELEVATIONS ARE SHOWN AT EVERY 25' ALONG CR28 ℄ AND RAMP C & RAMP D ℄, UNLESS OTHERWISE NOTED.
2. ELEVATIONS ALONG THE RADIUS RETURNS ARE SHOWN AT EVERY 10' UNLESS OTHERWISE NOTED.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED LBD
CHECKED JMB

INTERSECTION DETAIL
CR28 AND RAMP C & RAMP D

SCI-823-6.81

439
535

USER: CWahlbri PLOT DATE: 9/15/2011 5:41:56 PM REVISION DATE: 9/15/2011
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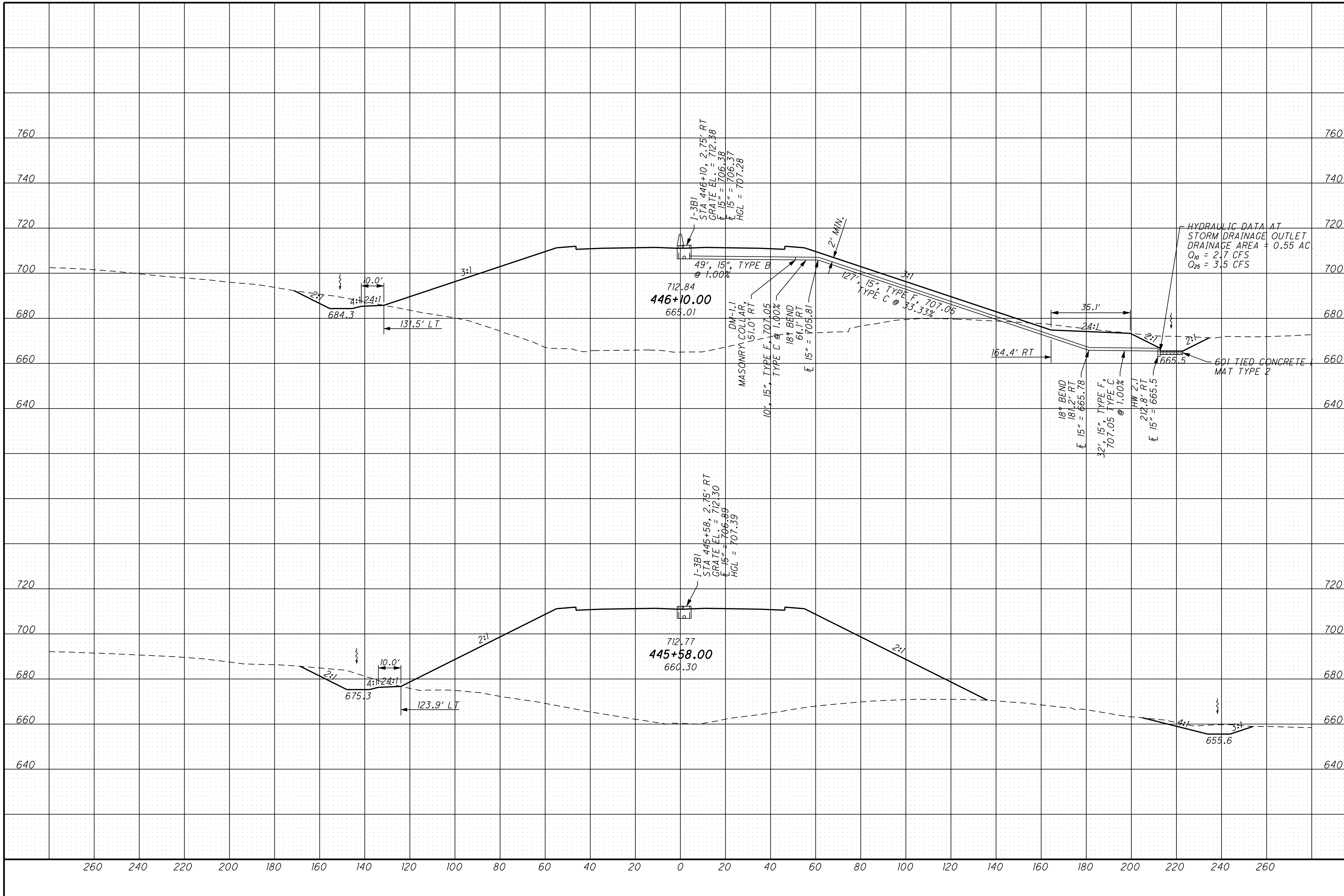
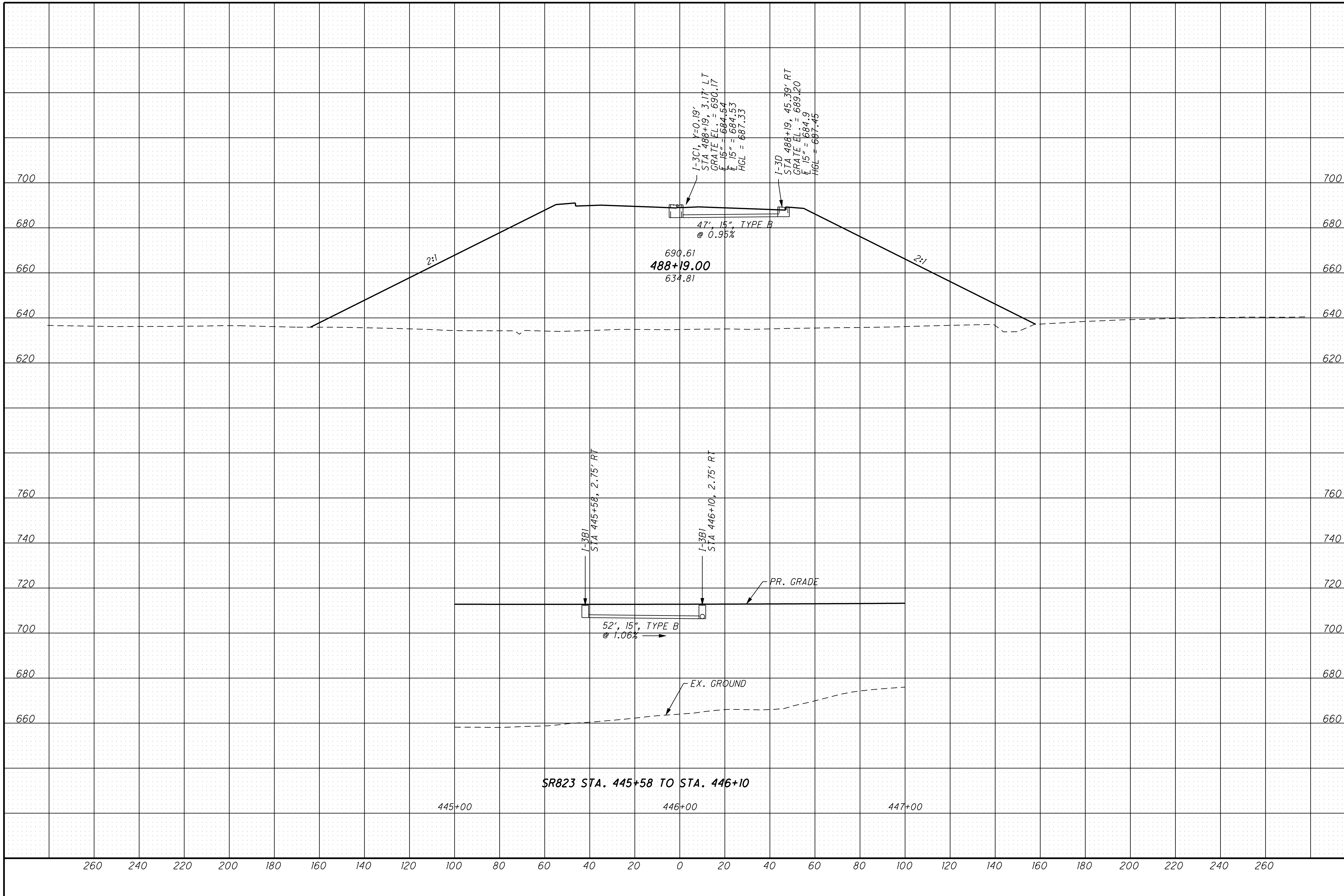
USER: CWohlbr PLOT DATE: 9/15/2011 5:42:05 PM REVISION DATE: 9/15/2011
FILE: ...4IHOR_CV\0000000045878/9415df001.dgn MODEL: Sheet



CALCULATED BEE
CHECKED KAG

STORM SEWER PROFILES

SCI-823-6.81



CALCULATED BEE
CHECKED KAG

STORM SEWER PROFILES

SCI-823-6.81

441
535

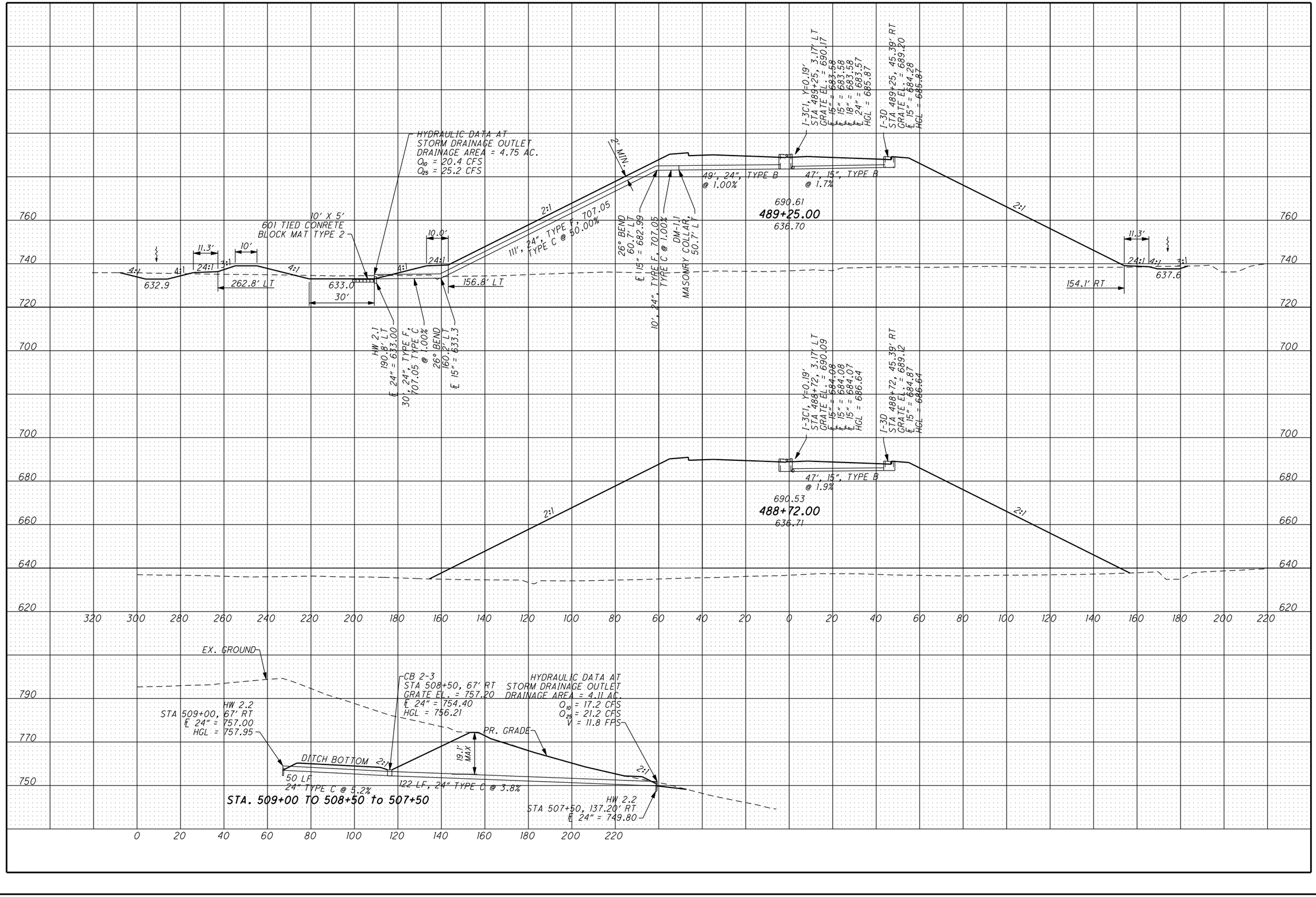
USER: CWahlbri PLOT DATE: 9/15/2011 5:42:28 PM REVISION DATE: 9/15/2011
FILE:...\HDR_CI\000000000045878 /19415df002.dgn MODEL: Sheet

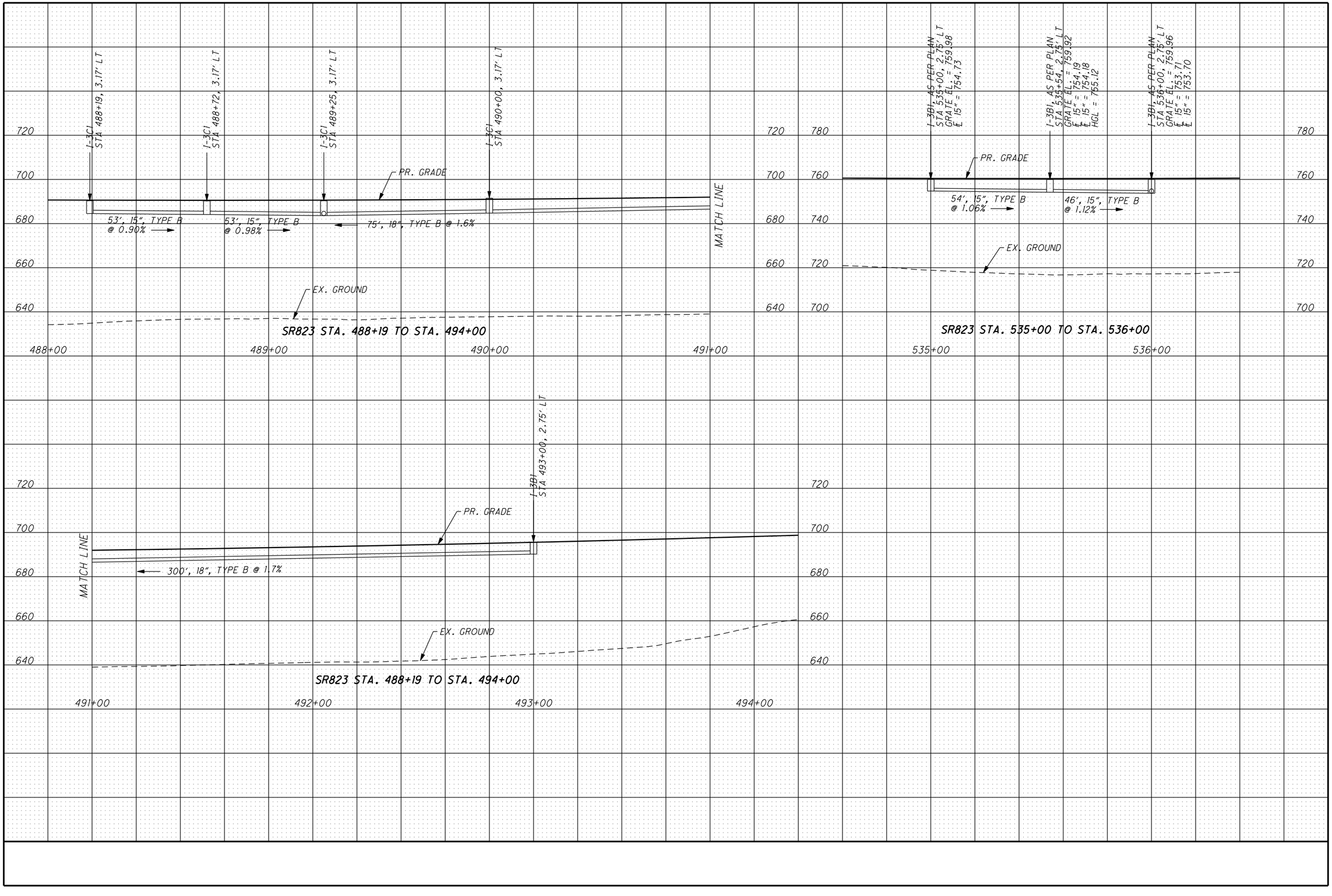
STORM SEWER PROFILES

CALCULATED BEE
CHECKED KAG

SCI-823-6.81

USER: CWahlbri PLOT DATE: 9/15/2011 542251 PM REVISION DATE: 9/15/2011
FILE:...\HDR.C0000000004587878 /1818df003.dgn MODEL: Sheet





CALCULATED BEE CHECKED KAG

STORM SEWER PROFILES

SCI-823-6.81

USER: CWohlbri PLOT DATE: 9/15/2011 5:43:13 PM REVISION DATE: 9/15/2011
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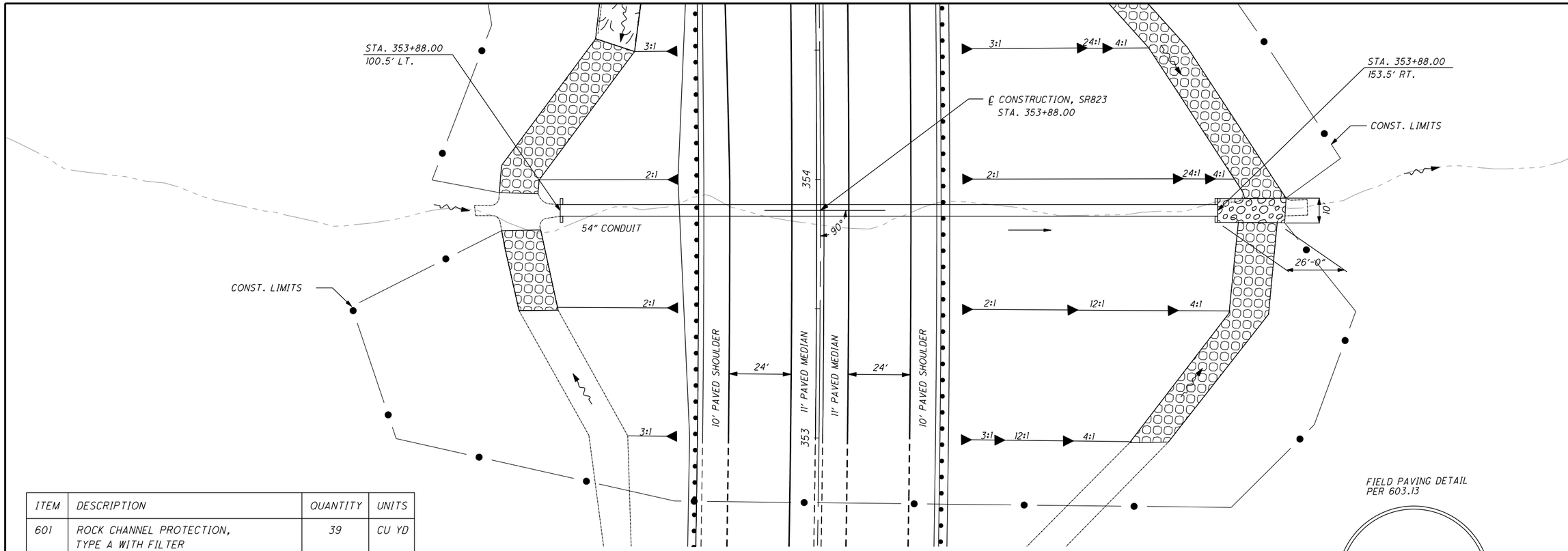
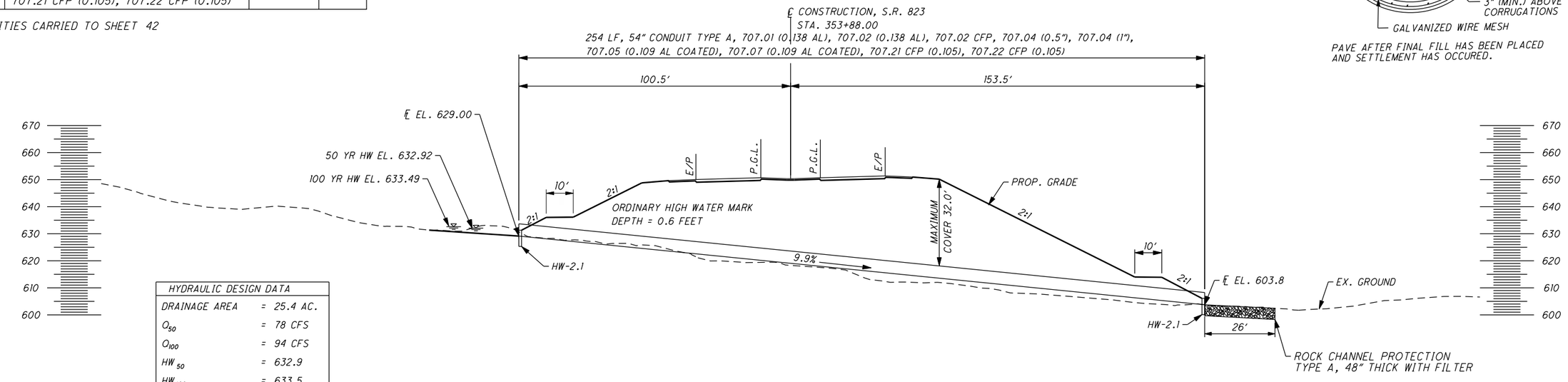


ITEM	DESCRIPTION	QUANTITY	UNITS
601	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	39	CU YD
602	CONCRETE MASONRY	2.7	CU YD
603	54" CONDUIT TYPE A, 707.01 (0.138 AL), 707.02 (0.138 AL), 707.02 CFP, 707.04 (0.5"), 707.04 (1"), 707.05 (0.109 AL COATED), 707.07 (0.109 AL COATED), 707.21 CFP (0.105), 707.22 CFP (0.105)	254	FT

QUANTITIES CARRIED TO SHEET 42

PAVE AFTER FINAL FILL HAS BEEN PLACED AND SETTLEMENT HAS OCCURED.



HYDRAULIC DESIGN DATA	
DRAINAGE AREA	= 25.4 AC.
Q_{50}	= 78 CFS
Q_{100}	= 94 CFS
HW_{50}	= 632.9
HW_{100}	= 633.5
V_{50}	= 16.2 FPS
V_{100}	= 17.1 FPS

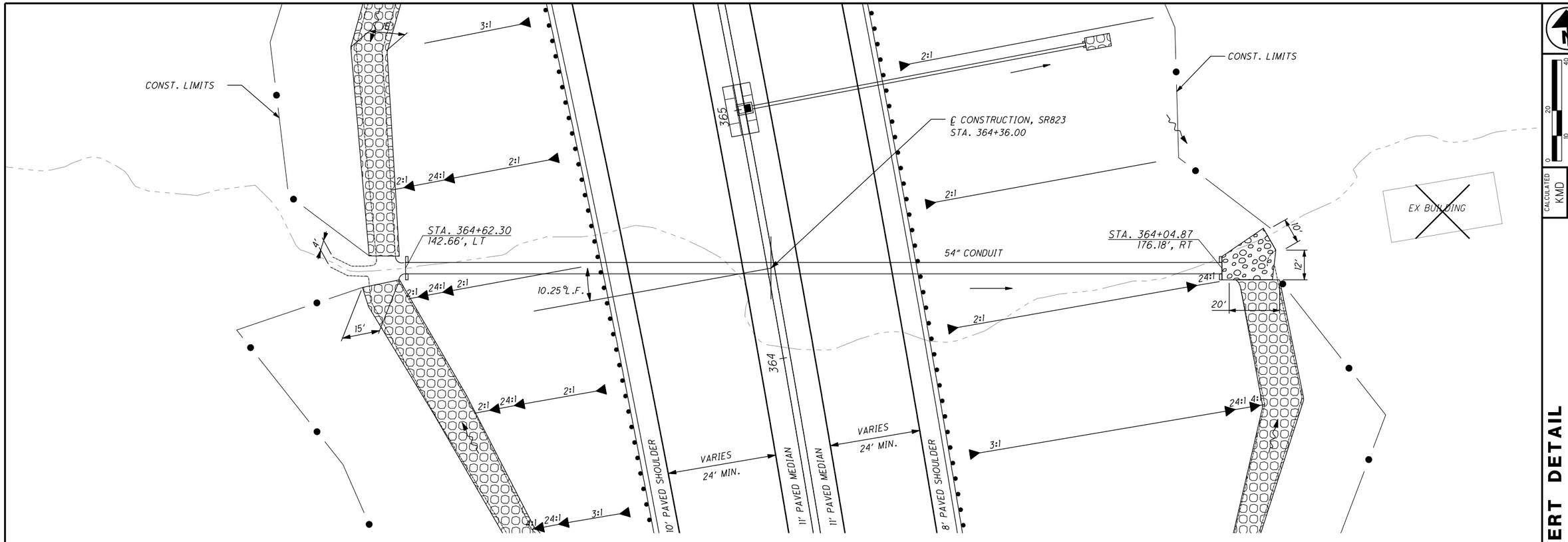
USER: cmahlbri PLOT DATE: 9/15/2011 5:43:35 PM REVISION DATE: 9/15/2011
FILES: ...ANOR_CU6800000045878 /19415d001.dgn MODEL: Sheet

CALCULATED KMD CHECKED KAG

HORIZONTAL SCALE IN FEET
0 10 20 40

CULVERT DETAIL
SR823 STA. 353+88

SCI-823-6.81

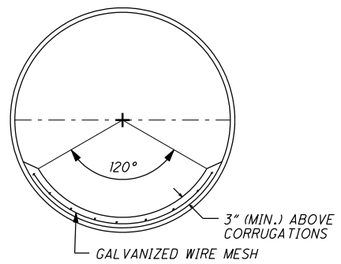


ITEM	DESCRIPTION	QUANTITY	UNITS
601	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	38	CU YD
204	EXCAVATION OF SUBGRADE	41	CU YD
602	CONCRETE MASONRY	2.7	CU YD
603	54" CONDUIT TYPE A, 707.01 (0.138 AL), 707.02 (0.138 AL), 707.02 CFP, 707.04 (0.079, 0.5"), 707.04 (1"), 707.05 (0.109 AL COATED), 707.07 (0.109 AL COATED), 707.21 CFP (0.135), 707.22 CFP (0.135)	324	FT

QUANTITIES CARRIED TO SHEET 42

HYDRAULIC DESIGN DATA	
DRAINAGE AREA	= 32.1 AC.
Q_{50}	= 96 CFS
Q_{100}	= 115 CFS
HW_{50}	= 637.88
HW_{100}	= 638.52
V_{50}	= 14.5 FPS
V_{100}	= 15.2 FPS

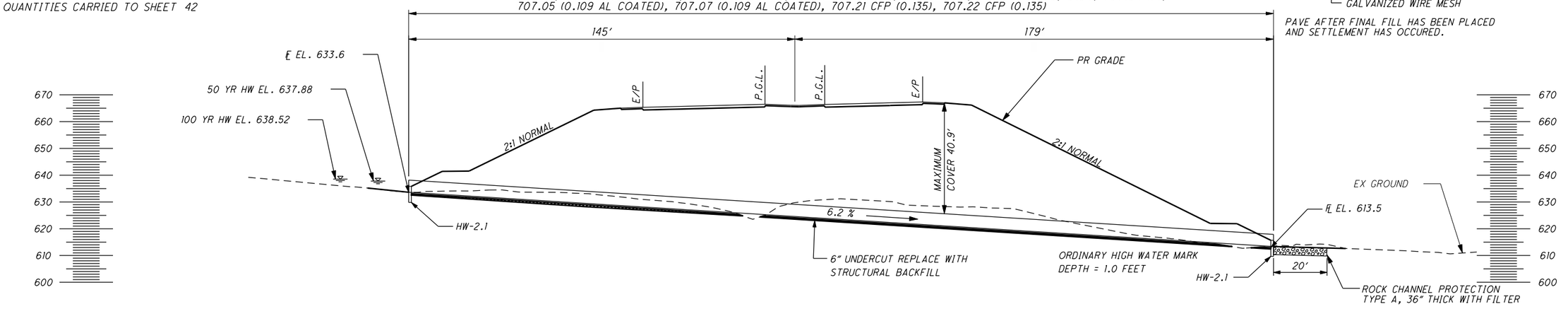
FIELD PAVING DETAIL
PER 603.13



PAVE AFTER FINAL FILL HAS BEEN PLACED AND SETTLEMENT HAS OCCURED.

℄ CONSTRUCTION, S.R. 823
STA. 364+36.00

324 LF, 54" CONDUIT TYPE A, 707.01 (0.138 AL), 707.02 (0.138 AL), 707.02 CFP, 707.04 (0.079, 0.5"), 707.04 (1"), 707.05 (0.109 AL COATED), 707.07 (0.109 AL COATED), 707.21 CFP (0.135), 707.22 CFP (0.135)



CULVERT DETAIL
SR823 STA. 364+36

SCI-823-6.81

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED KMD
CHECKED KAG

USER: CMahlbri PLOT DATE: 9/15/2011 5:43:41 PM REVISION DATE: 9/15/2011
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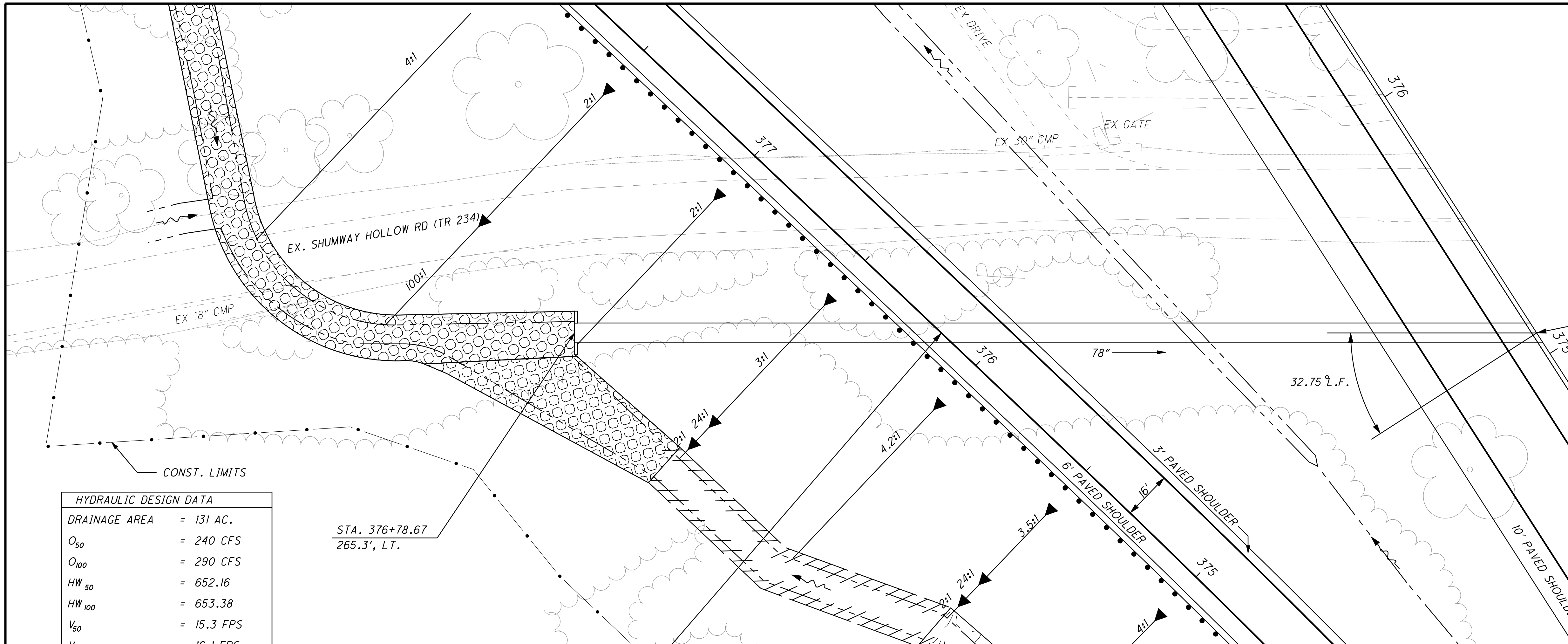
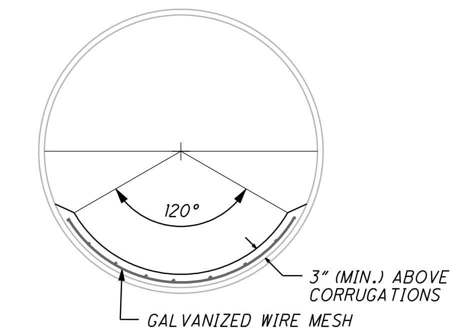


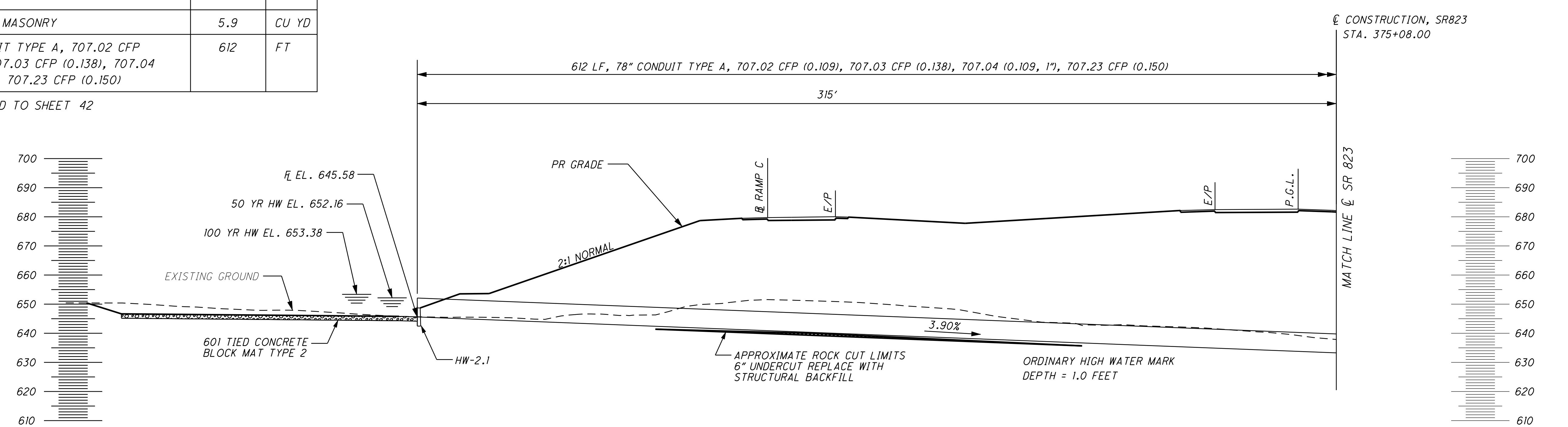


PAVE AFTER FINAL FILL HAS BEEN PLACED AND SETTLEMENT HAS OCCURED.

HYDRAULIC DESIGN DATA	
DRAINAGE AREA	= 131 AC.
Q_{50}	= 240 CFS
Q_{100}	= 290 CFS
HW_{50}	= 652.16
HW_{100}	= 653.38
V_{50}	= 15.3 FPS
V_{100}	= 16.1 FPS

ITEM	DESCRIPTION	QUANTITY	UNITS
601	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	39	CU YD
204	EXCAVATION OF SUBGRADE	17	CU YD
602	CONCRETE MASONRY	5.9	CU YD
603	78" CONDUIT TYPE A, 707.02 CFP (0.109), 707.03 CFP (0.138), 707.04 (0.109, 1"), 707.23 CFP (0.150)	612	FT

QUANTITIES CARRIED TO SHEET 42



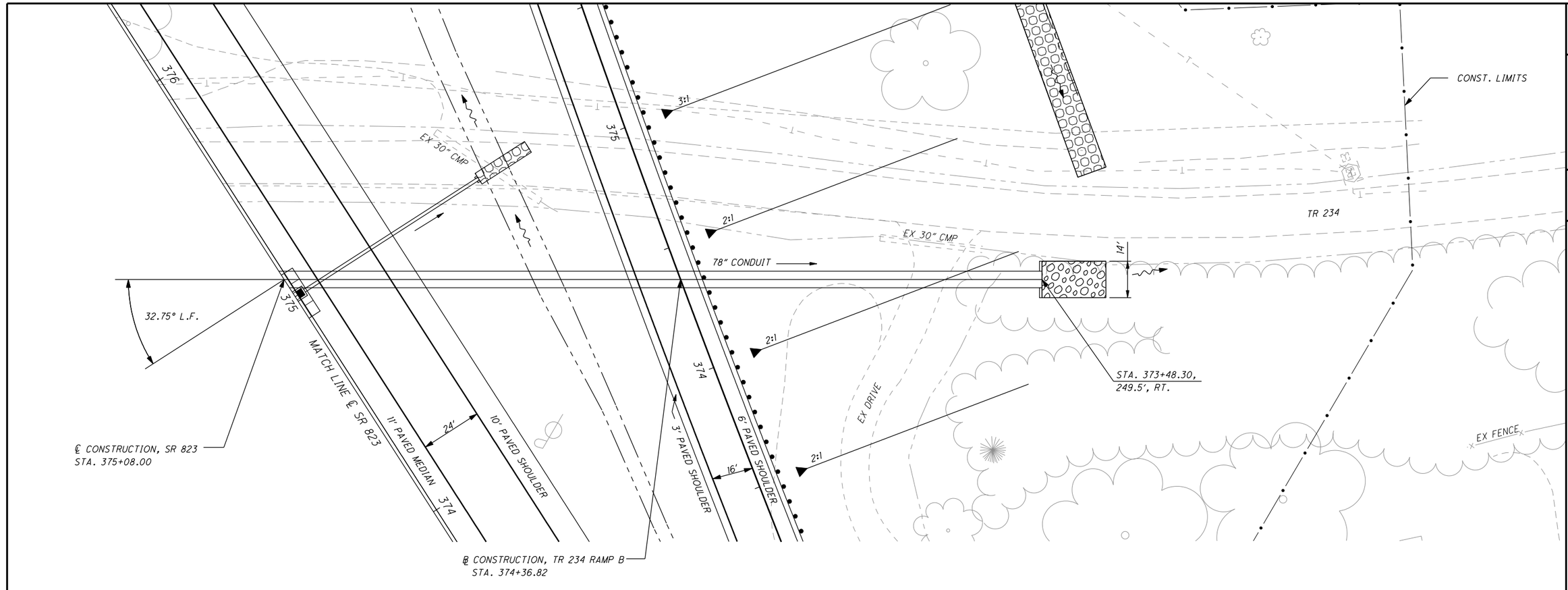
USER: CWohlbr: PLOT DATE: 9/15/2011 5:43:48 PM REVISION DATE: 9/15/2011
FILE: ...\HDR_CV\BB000000045878 /94154c003.dgn MODEL: Sheet

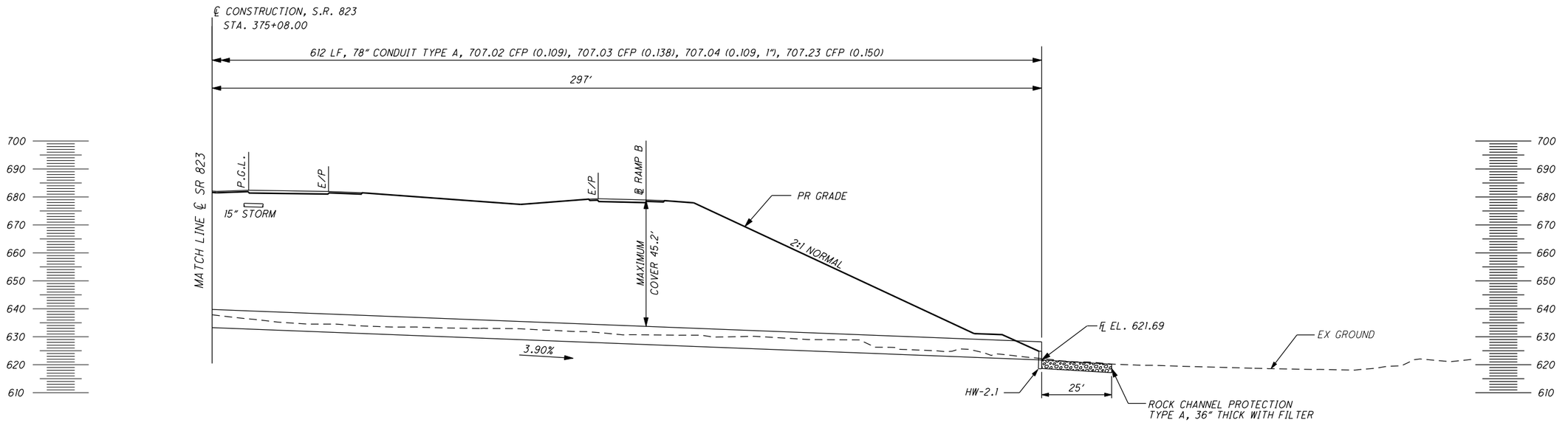
HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED KMD
CHECKED KAG

CULVERT DETAIL
SR823 STA. 375+08 LEFT

SCI-823-6.81





HORIZONTAL SCALE IN FEET
0 10 20 40

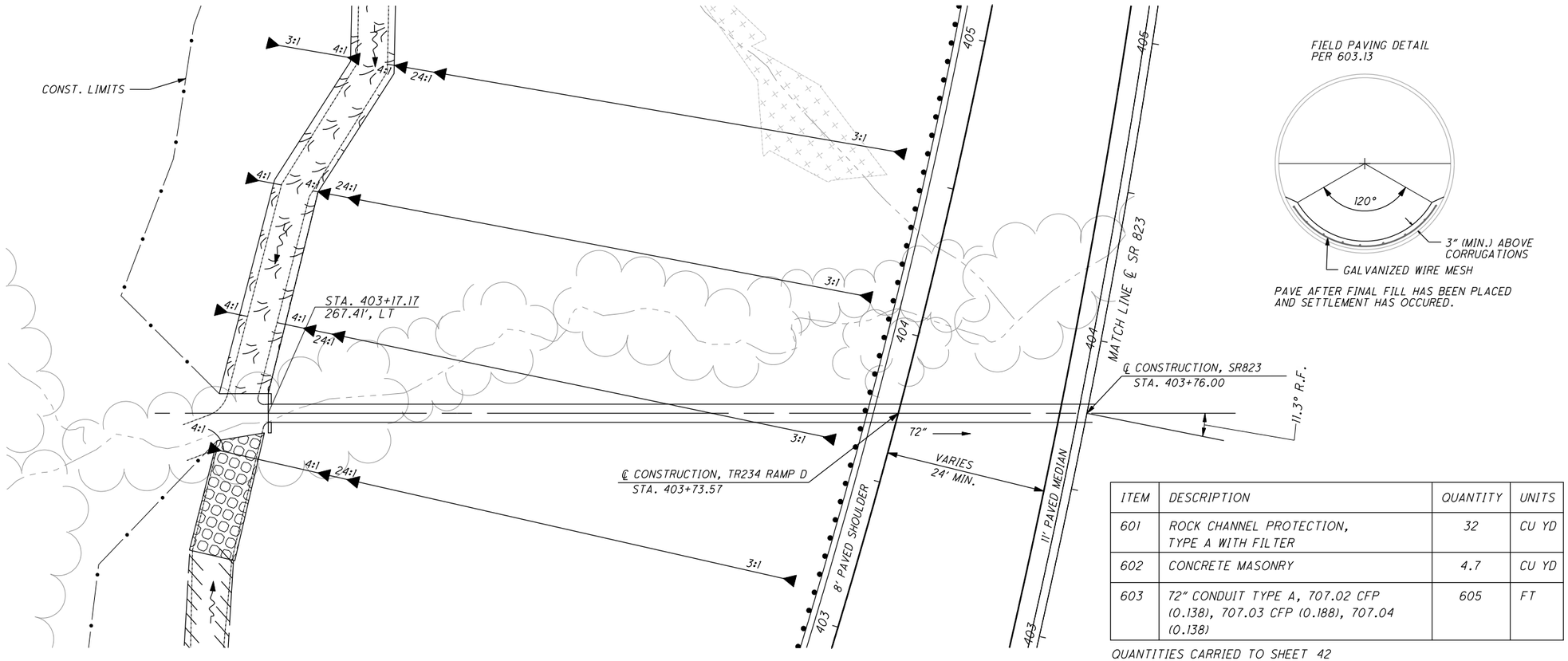
CALCULATED KMD
CHECKED KAG

CULVERT DETAIL
SR823 STA. 375+08 RIGHT

SCI-823-6.81

447
535

USER: Cmahlbr PLOT DATE: 9/15/2011 5:43:56 PM REVISION DATE: 9/15/2011
FILE:...\MNDR_CU\BRIDGE\000000045878 /9415dc004.dgn MODEL: sheet

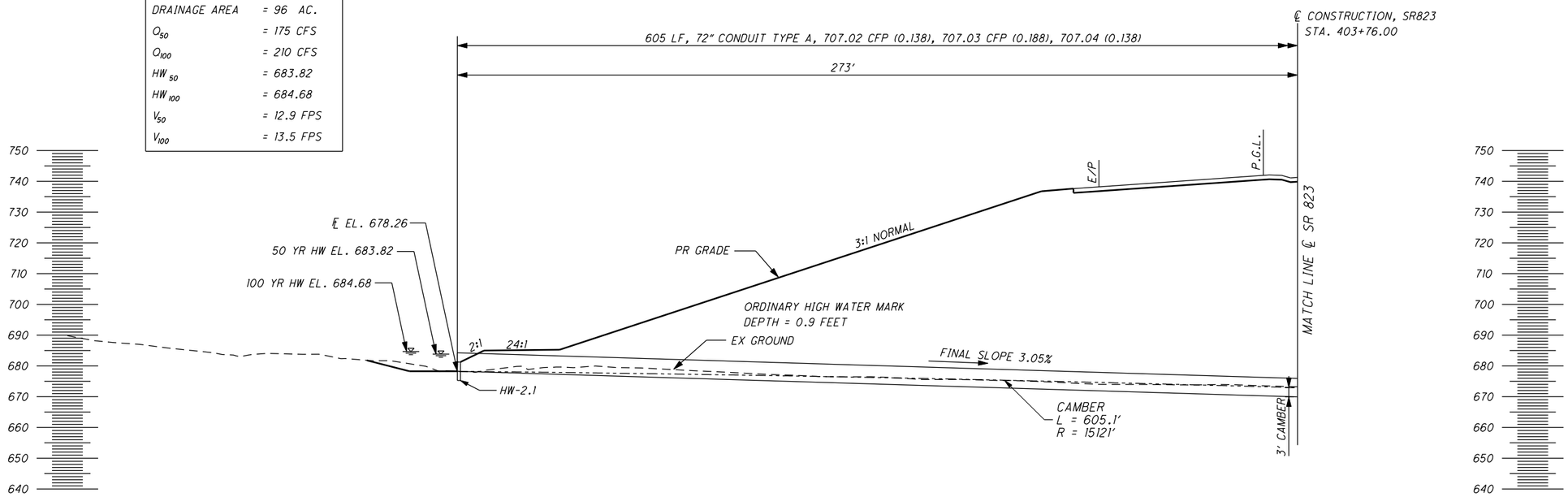


PAVE AFTER FINAL FILL HAS BEEN PLACED AND SETTLEMENT HAS OCCURED.

ITEM	DESCRIPTION	QUANTITY	UNITS
601	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	32	CU YD
602	CONCRETE MASONRY	4.7	CU YD
603	72" CONDUIT TYPE A, 707.02 CFP (0.138), 707.03 CFP (0.188), 707.04 (0.138)	605	FT

QUANTITIES CARRIED TO SHEET 42

HYDRAULIC DESIGN DATA	
DRAINAGE AREA	= 96 AC.
Q_{50}	= 175 CFS
Q_{100}	= 210 CFS
HW_{50}	= 683.82
HW_{100}	= 684.68
V_{50}	= 12.9 FPS
V_{100}	= 13.5 FPS



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED KMD
CHECKED KAG

CULVERT DETAIL
SR823 STA. 403+76.04 LEFT

SCI-823-6.81

448
535

USER: CWahlbri PLOT DATE: 9/15/2011 5:44:00 PM REVISION DATE: 9/15/2011
FILE...\MHDR.C/0800000000045878 /19415dc005.dgn MODEL: Sheet

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED KMD
CHECKED KAG

CULVERT DETAIL
SR823 STA. 403+76.04 RIGHT

SCI-823-6.81

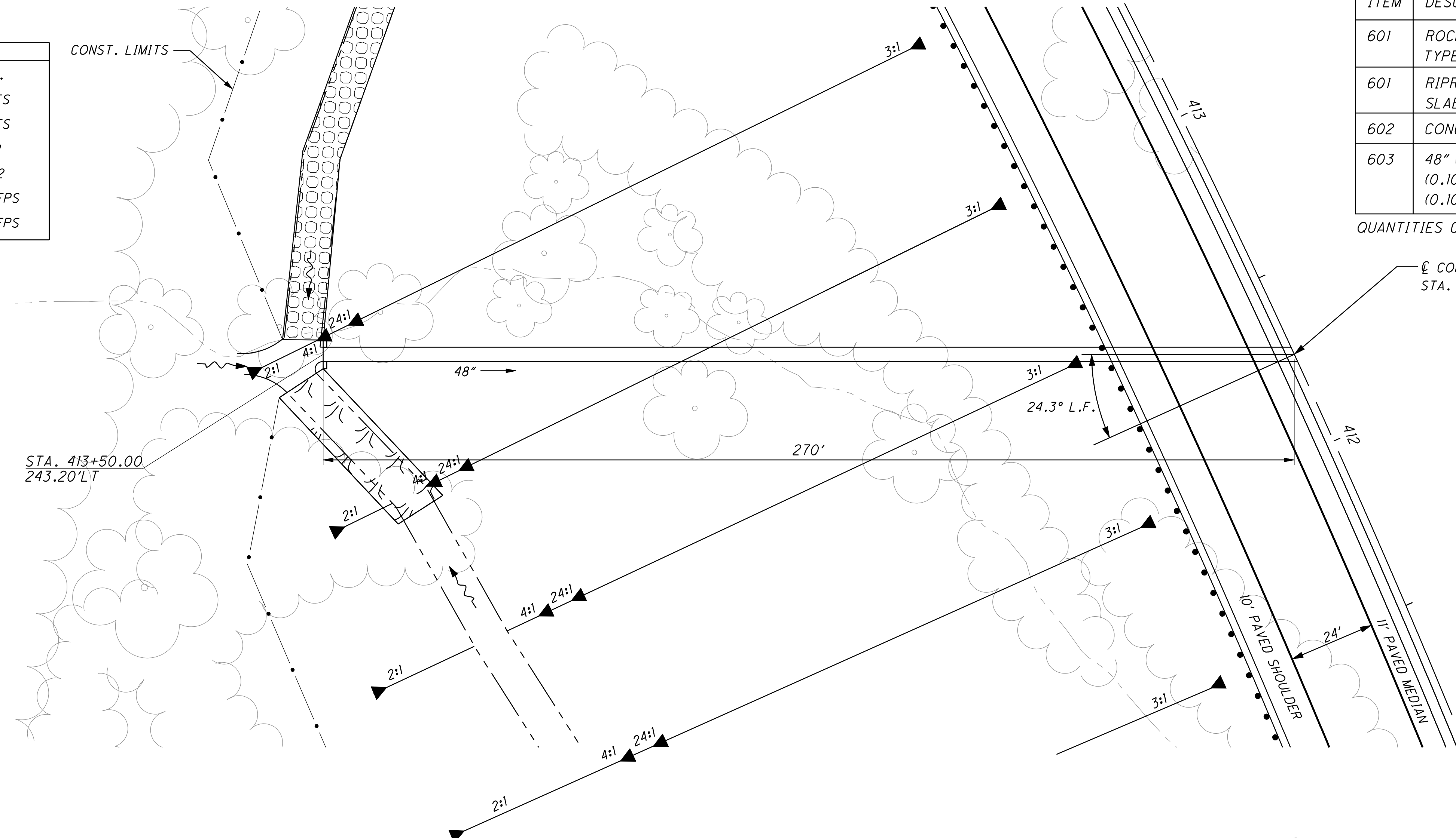
449
535

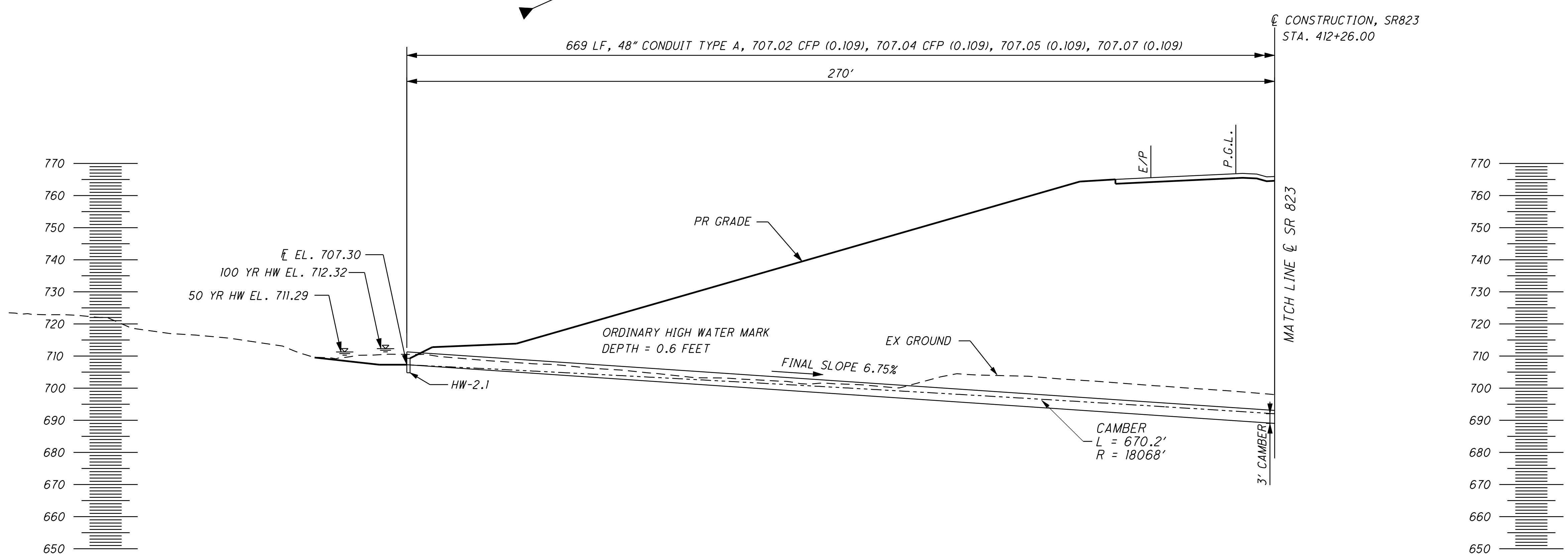
USER: Cknabri PLOT DATE: 9/15/2011 5:44:05 PM REVISION DATE: 9/15/2011
FILES...ANDR_CU(BMD0000045878 /9415d6023.dgn MODEL: Sheet

HYDRAULIC DESIGN DATA	
DRAINAGE AREA	= 21 AC.
Q_{50}	= 70 CFS
Q_{100}	= 90 CFS
HW_{50}	= 711.29
HW_{100}	= 712.32
V_{50}	= 13.8 FPS
V_{100}	= 14.7 FPS

ITEM	DESCRIPTION	QUANTITY	UNITS
601	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	18	CU YD
601	RIPRAP USING 6" REINFORCED CONCRETE SLAB	5	CU YD
602	CONCRETE MASONRY	2.2	CU YD
603	48" CONDUIT TYPE A, 707.02 CFP (0.109), 707.04 CFP (0.109), 707.05 (0.109), 707.07 (0.109)	669	FT

QUANTITIES CARRIED TO SHEET 42





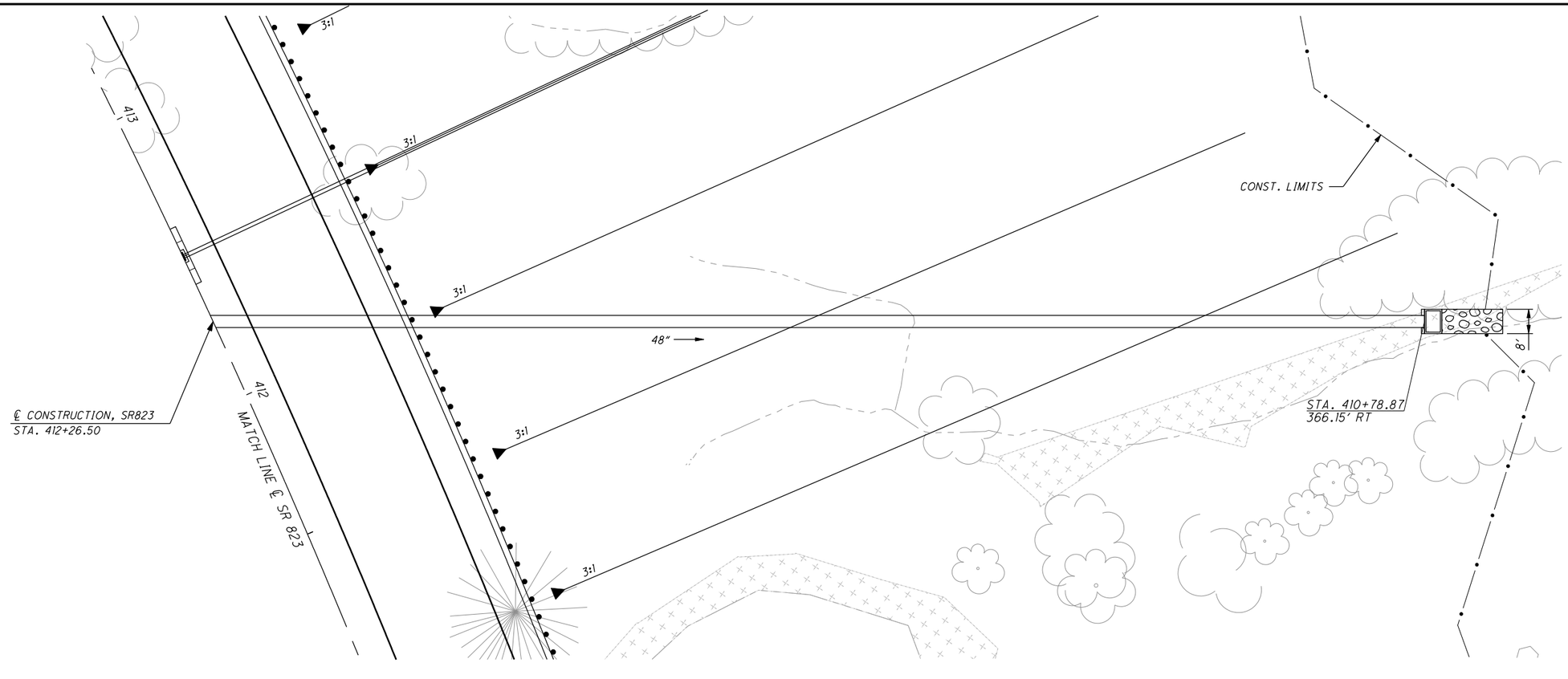
HORIZONTAL SCALE IN FEET 0 10 20 40

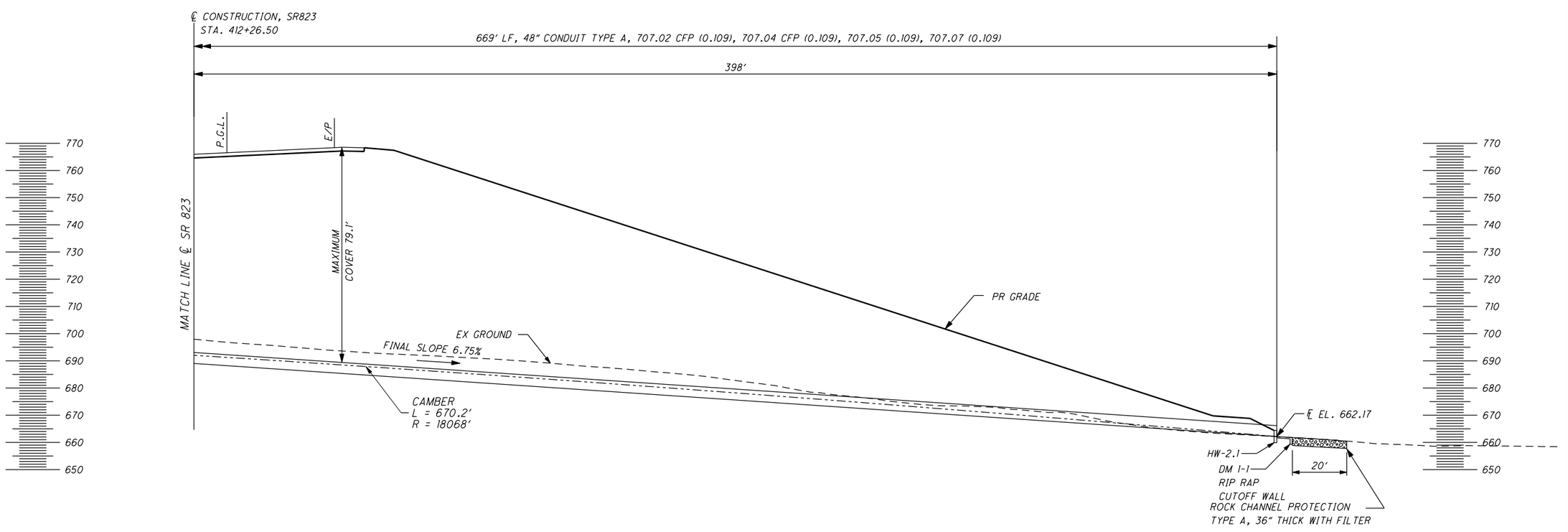
CALCULATED KMD CHECKED KAG

CULVERT DETAIL
SR823 STA. 412+26.50 LEFT

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 5:44:10 PM REVISION DATE: 9/15/2011
FILE: ...\HOR_CV\...045878 /19415dc006.dgn MODEL: Sheet





HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED KMD
CHECKED KAG

CULVERT DETAIL
SR823 STA. 412+26.50 RIGHT

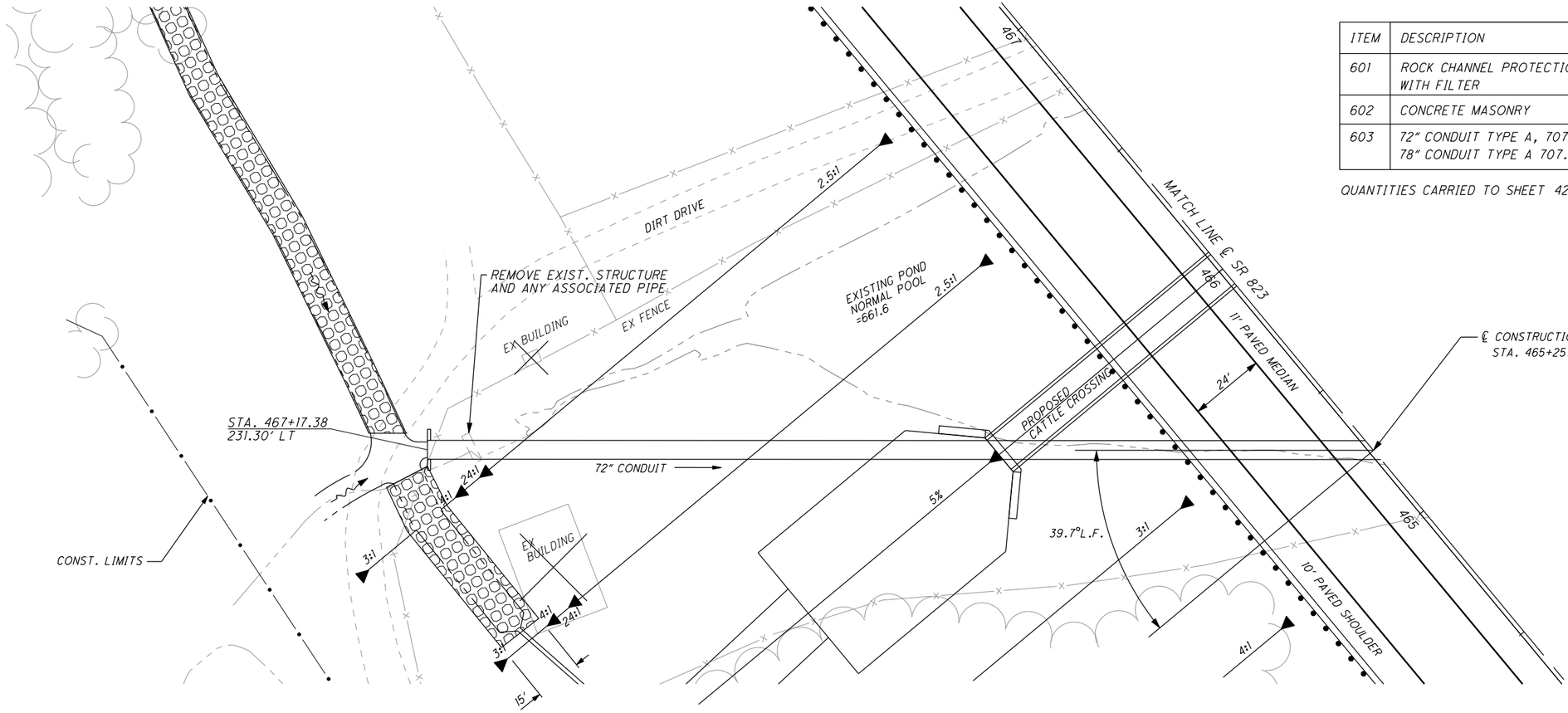
SCI-823-6.81

451
535

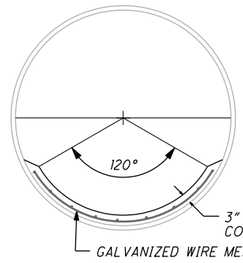
USER: CWohlbr; PLOT DATE: 9/15/2011 5:44:15 PM REVISION DATE: 9/15/2011
FILE...4HDR.Cu0000000045878 /1945dc024.dgn MODEL: Sheet

ITEM	DESCRIPTION	QUANTITY	UNITS
601	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	33	CU YD
602	CONCRETE MASONRY	5.9	CU YD
603	72" CONDUIT TYPE A, 707.04 (0.5") OR 78" CONDUIT TYPE A 707.04 (1")	616	FT

QUANTITIES CARRIED TO SHEET 42

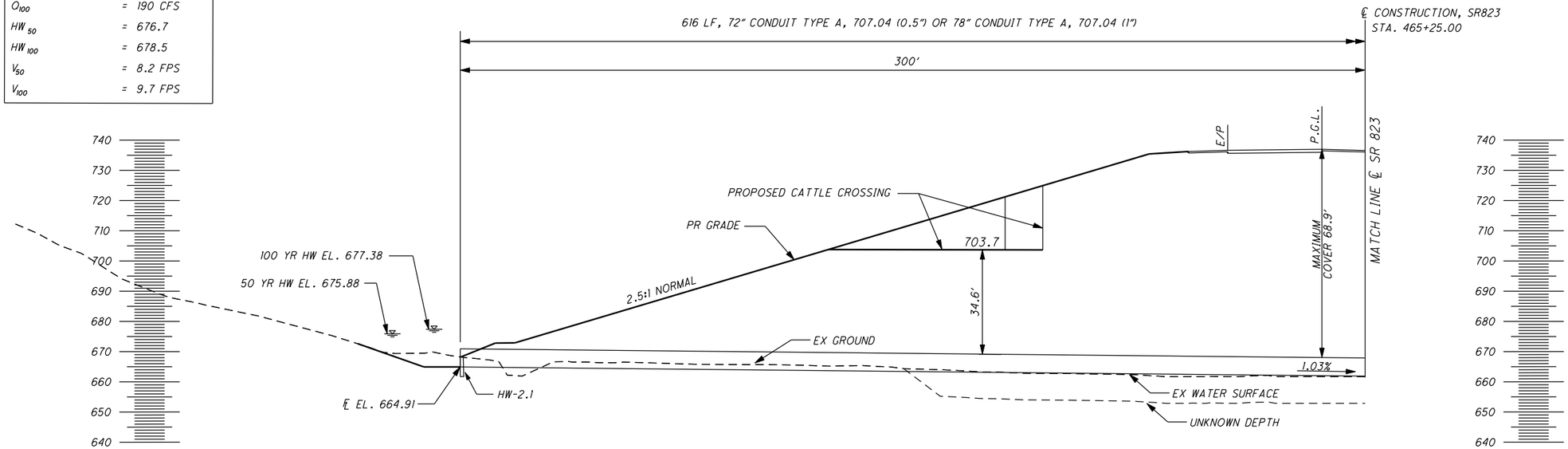


FIELD PAVING DETAIL
PER 603.13



PAVE AFTER FINAL FILL HAS BEEN PLACED AND SETTLEMENT HAS OCCURED.

HYDRAULIC DESIGN DATA		
DRAINAGE AREA	=	116 AC.
Q_{50}	=	160 CFS
Q_{100}	=	190 CFS
HW_{50}	=	676.7
HW_{100}	=	678.5
V_{50}	=	8.2 FPS
V_{100}	=	9.7 FPS



CALCULATED KMD
CHECKED KAG

HORIZONTAL SCALE IN FEET
0 10 20 40

CULVERT DETAIL
SR823 STA. 465+25 LEFT

SCI-823-6.81

452
535

USER: CWahlbri PLOT DATE: 9/15/2011 5:44:20 PM REVISION DATE: 9/15/2011
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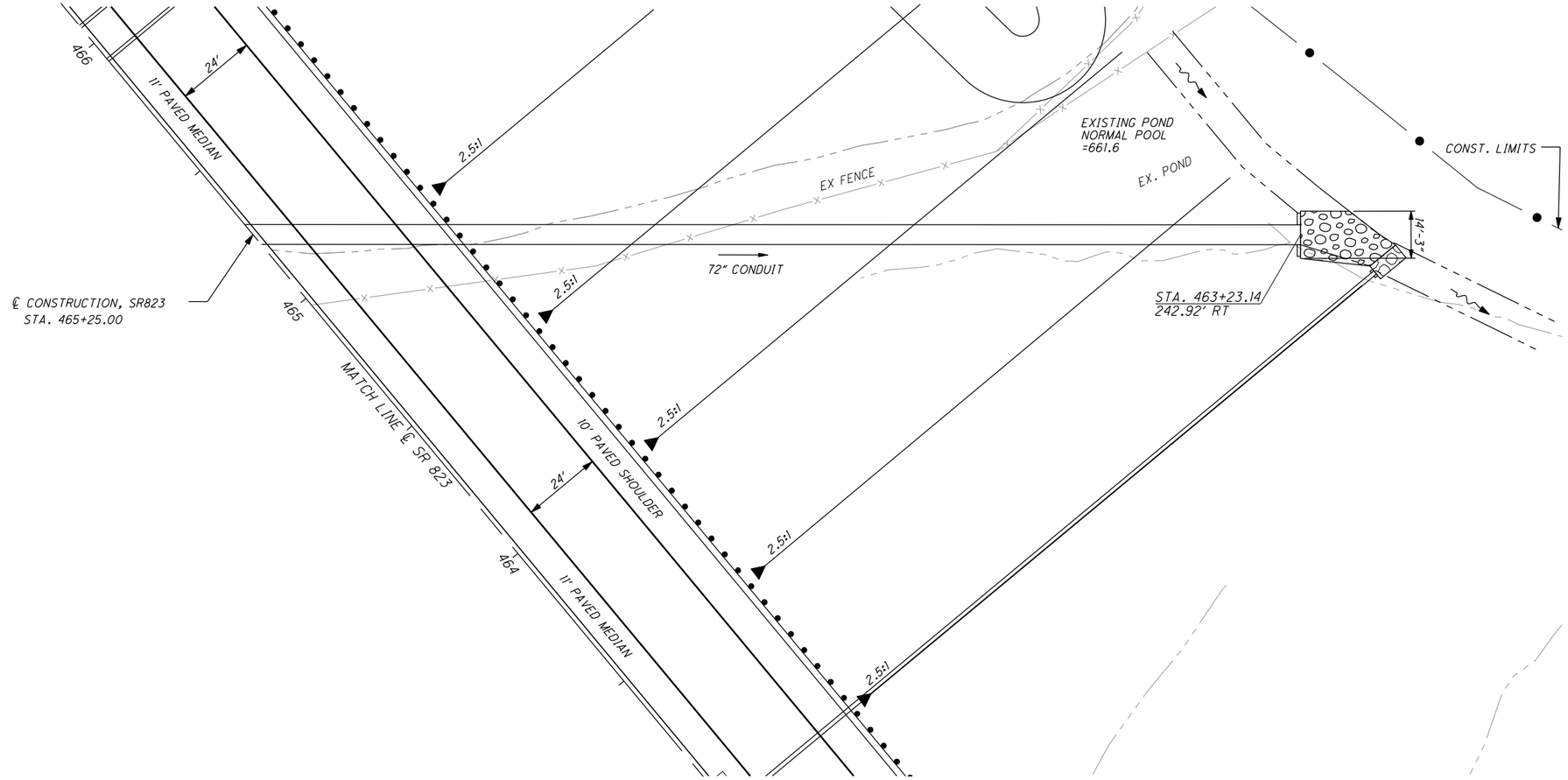
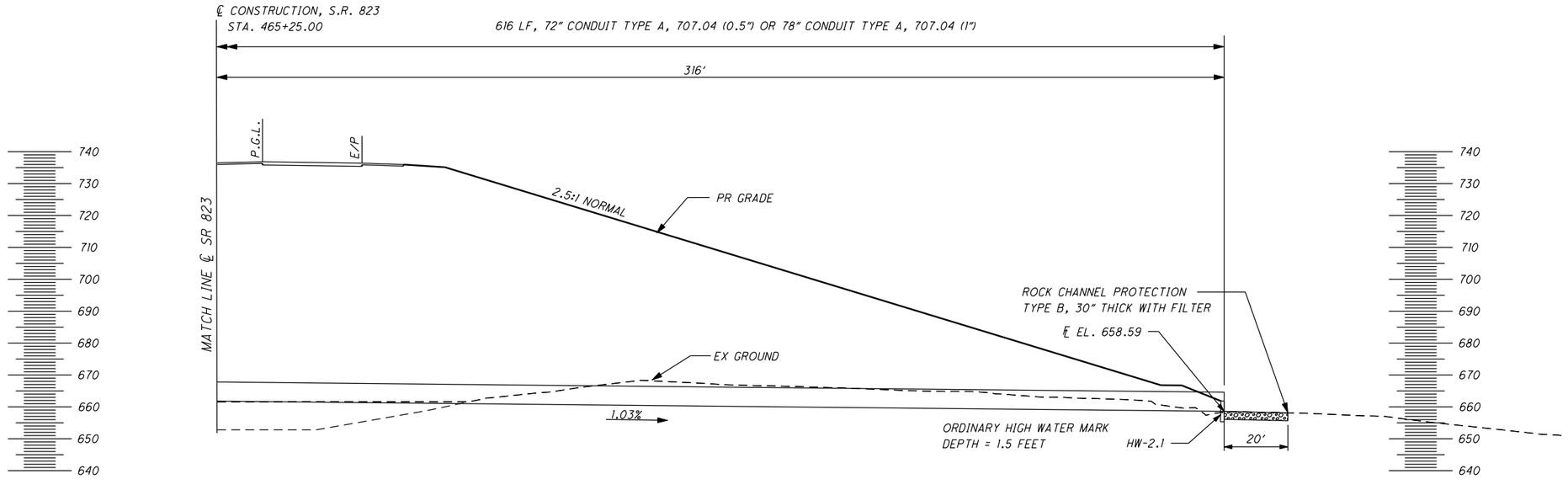




HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED KMD
CHECKED KAG

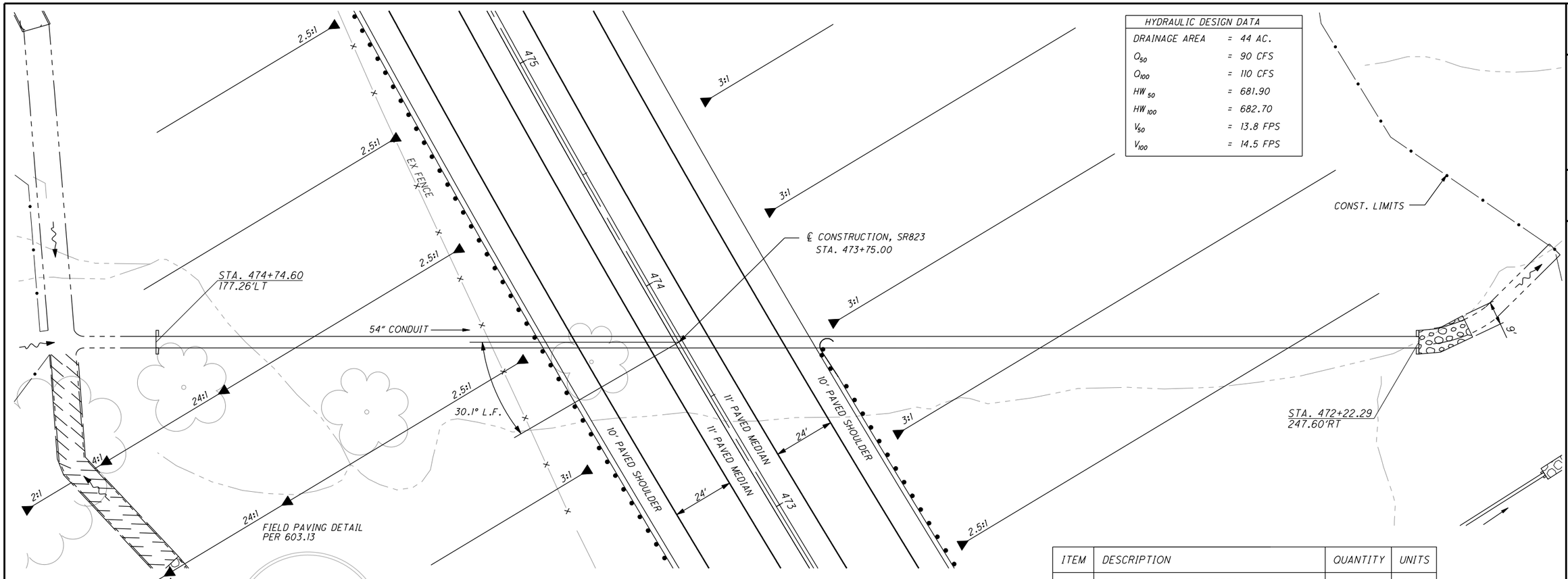
CULVERT DETAIL
SR823 STA. 465+25 RIGHT

SCI-823-6.81

453
535

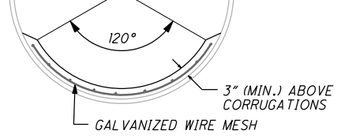
USER: CWohlbri PLOT DATE: 9/15/2011 5:44:24 PM REVISION DATE: 9/15/2011
FILE:...\MHDR.C\0800000000045878 /19415dc025.dgn MODEL: Sheet

HYDRAULIC DESIGN DATA	
DRAINAGE AREA	= 44 AC.
Q_{50}	= 90 CFS
Q_{100}	= 110 CFS
HW_{50}	= 681.90
HW_{100}	= 682.70
V_{50}	= 13.8 FPS
V_{100}	= 14.5 FPS

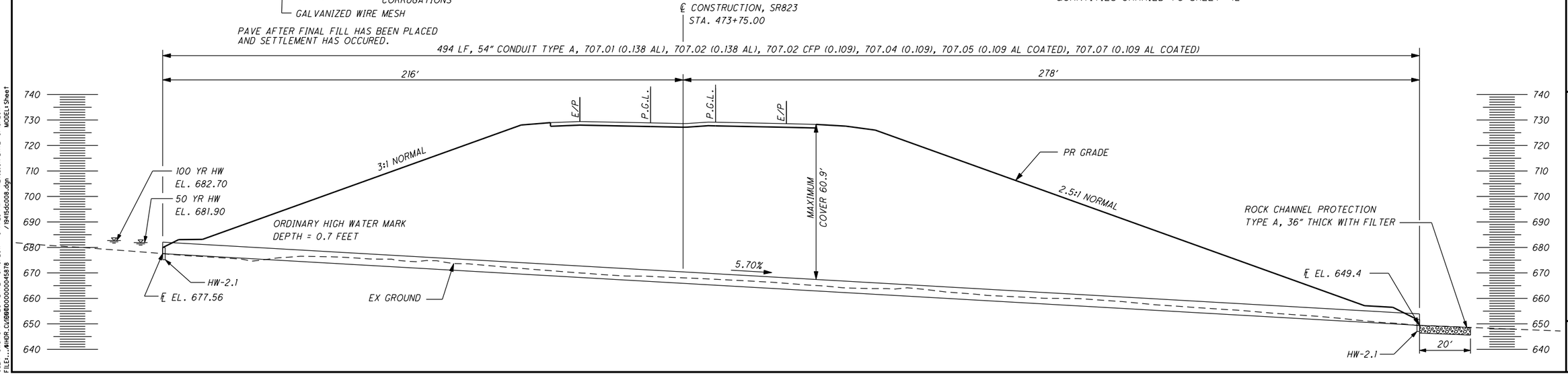


ITEM	DESCRIPTION	QUANTITY	UNITS
601	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	20	CU YD
602	CONCRETE MASONRY	2.7	CU YD
603	54" CONDUIT TYPE A, 707.01 (0.138 AL), 707.02 (0.138 AL), 707.02 CFP (0.109), 707.04 (0.109), 707.05 (0.109 AL COATED), 707.07 (0.109 AL COATED)	494	FT

QUANTITIES CARRIED TO SHEET 42



PAVE AFTER FINAL FILL HAS BEEN PLACED
AND SETTLEMENT HAS OCCURED.



HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED KMD
CHECKED KAG

CULVERT DETAIL
SR823 STA. 473+75.00

SCI-823-6.81

454
535

USER: Cknahbri PLOT DATE: 9/15/2011 5:44:29 PM REVISION DATE: 9/15/2011
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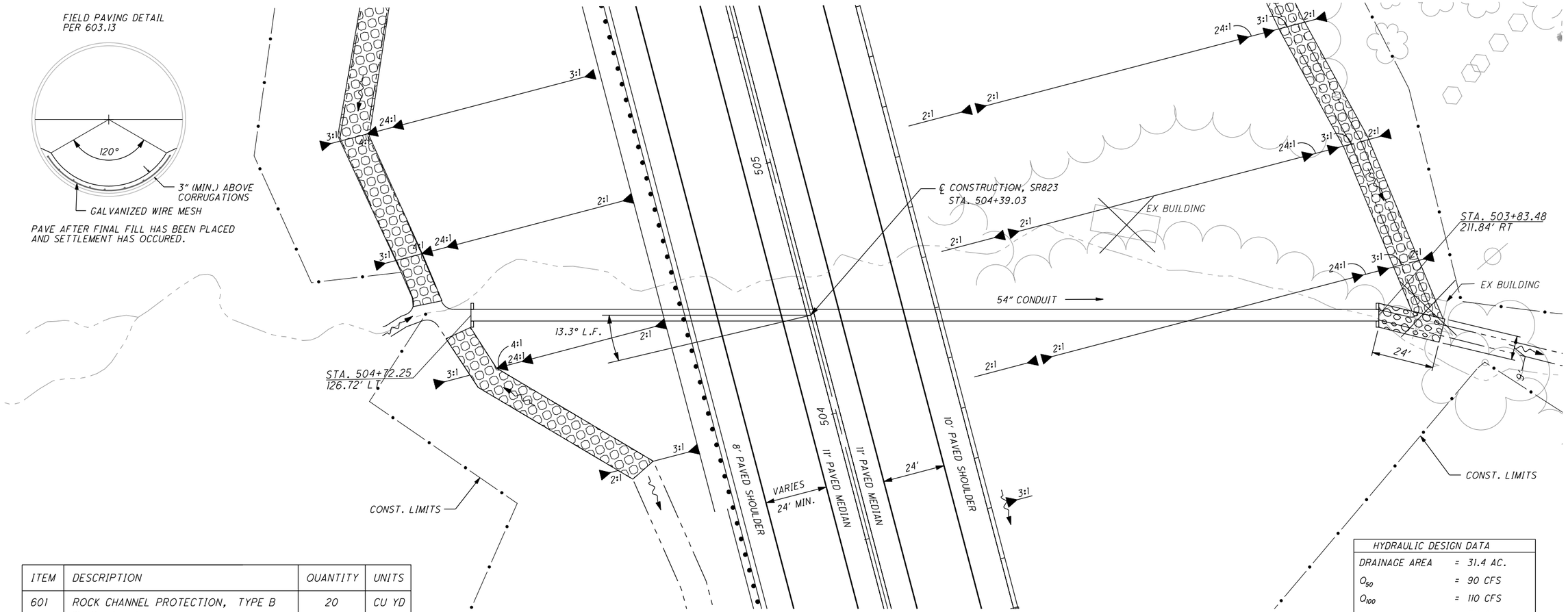
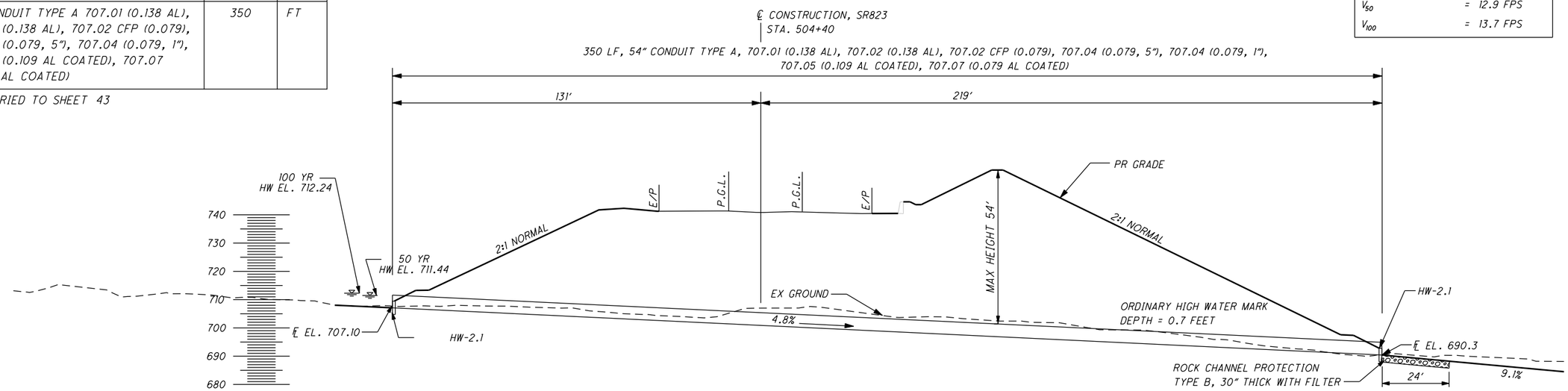


ITEM	DESCRIPTION	QUANTITY	UNITS
601	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	20	CU YD
602	CONCRETE MASONRY	2.7	CU YD
603	54" CONDUIT TYPE A 707.01 (0.138 AL), 707.02 (0.138 AL), 707.02 CFP (0.079), 707.04 (0.079, 5"), 707.04 (0.079, 1"), 707.05 (0.109 AL COATED), 707.07 (0.079 AL COATED)	350	FT

QUANTITIES CARRIED TO SHEET 43

HYDRAULIC DESIGN DATA	
DRAINAGE AREA	= 31.4 AC.
Q_{50}	= 90 CFS
Q_{100}	= 110 CFS
HW_{50}	= 711.44
HW_{100}	= 712.24
V_{50}	= 12.9 FPS
V_{100}	= 13.7 FPS



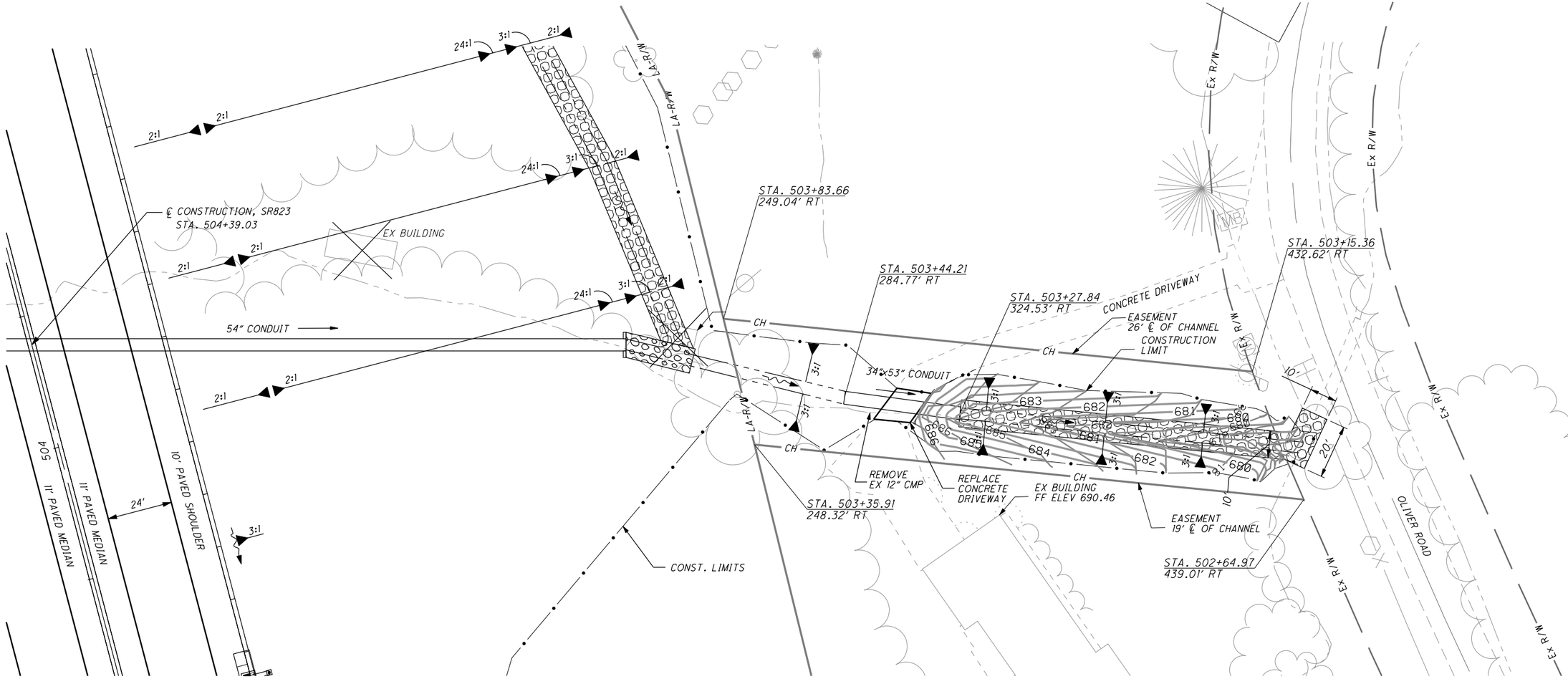
USER: CMahlbri PLOT DATE: 9/5/2011 5:44:34 PM REVISION DATE: 9/5/2011 MODEL: Sheet1
FILE: ...4\HDR.CU\000000004878 /1945dc009.dgn

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED KMD CHECKED KAG

CULVERT DETAIL
SR823 STA. 504+39.03

SCI-823-6.81

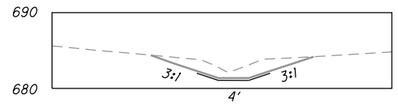


ITEM	DESCRIPTION	QUANTITY	UNITS
203	EXCAVATION	165	CU YD
203	EMBANKMENT	56	CU YD
659	SEEDING AND MULCHING	306	SQ YD

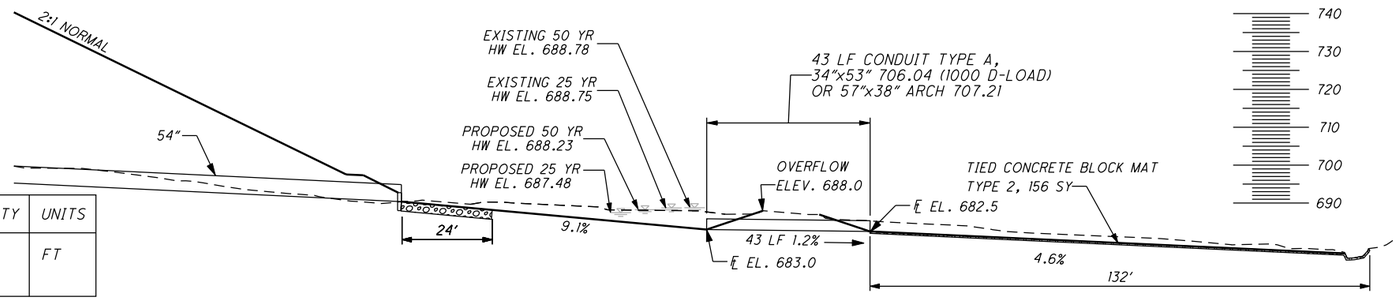
QUANTITIES CARRIED TO SHEET 38

ITEM	DESCRIPTION	QUANTITY	UNITS
452	6" NON REINFORCED CONCRETE	3	CU YD
202	PAVEMENT REMOVED	18	SQ YD
202	PIPE REMOVED, 24" AND UNDER	20	FT

QUANTITIES CARRIED TO GENERAL SUMMARY



TYPICAL DITCH SECTION



ITEM	DESCRIPTION	QUANTITY	UNITS
603	34"x53" CONDUIT TYPE A, 706.04 (1000 D-LOAD) or 57"x38" ARCH 707.21	43	FT

QUANTITIES CARRIED TO SHEET 43

HYDRAULIC DESIGN DATA		
	EXISTING	PROPOSED
DRAINAGE AREA	36.3 AC.	37.1 AC.
Q_{25}	43 CFS	80 CFS
Q_{50}	47 CFS	100 CFS
HW_{25}	688.75	687.48
HW_{50}	688.78	688.23
V_{10}	5.1 FPS	6.6 FPS
V_{50}	5.6 FPS	5.6 FPS

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED KAG
CHECKED JMB

CULVERT DETAIL
SR823 STA. 504+39.03-OLIVER ROAD DRIVEWAY

SCI-823-6.81

456
535

USER: CWohlbr1 PLOT DATE: 9/15/2011 5:44:41 PM REVISION DATE: 9/15/2011
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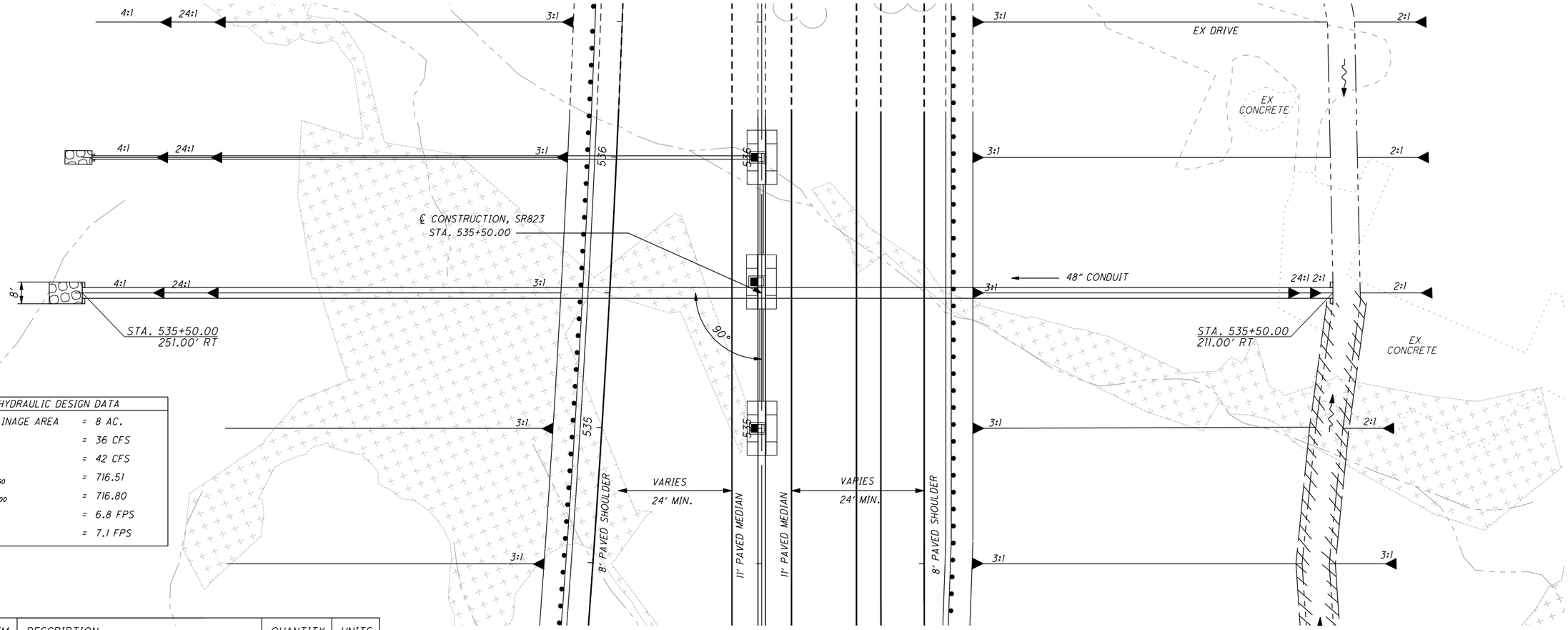
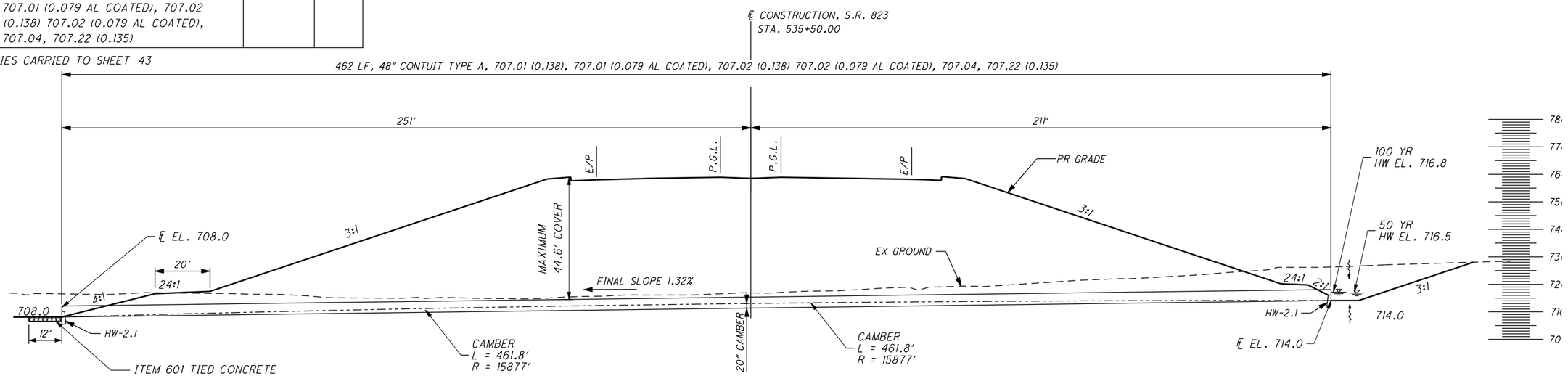


HYDRAULIC DESIGN DATA	
DRAINAGE AREA	= 8 AC.
Q_{50}	= 36 CFS
Q_{100}	= 42 CFS
HW_{50}	= 716.51
HW_{100}	= 716.80
V_{50}	= 6.8 FPS
V_{100}	= 7.1 FPS

ITEM	DESCRIPTION	QUANTITY	UNITS
601	TIED CONCRETE BLOCK MAT, TYPE 2	11	SQ YD
602	CONCRETE MASONRY	2.2	CU YD
603	48" CONDUIT TYPE A, 707.01 (0.138), 707.01 (0.079 AL COATED), 707.02 (0.138) 707.02 (0.079 AL COATED), 707.04, 707.22 (0.135)	462	FT

QUANTITIES CARRIED TO SHEET 43



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED KAG
CHECKED JLF

CULVERT DETAIL
SR823 STA. 535+50

SCI-823-6.81

457
535

USER: CMahlbri PLOT DATE: 9/15/2011 5:44:46 PM REVISION DATE: 9/15/2011 MODEL: Sheet
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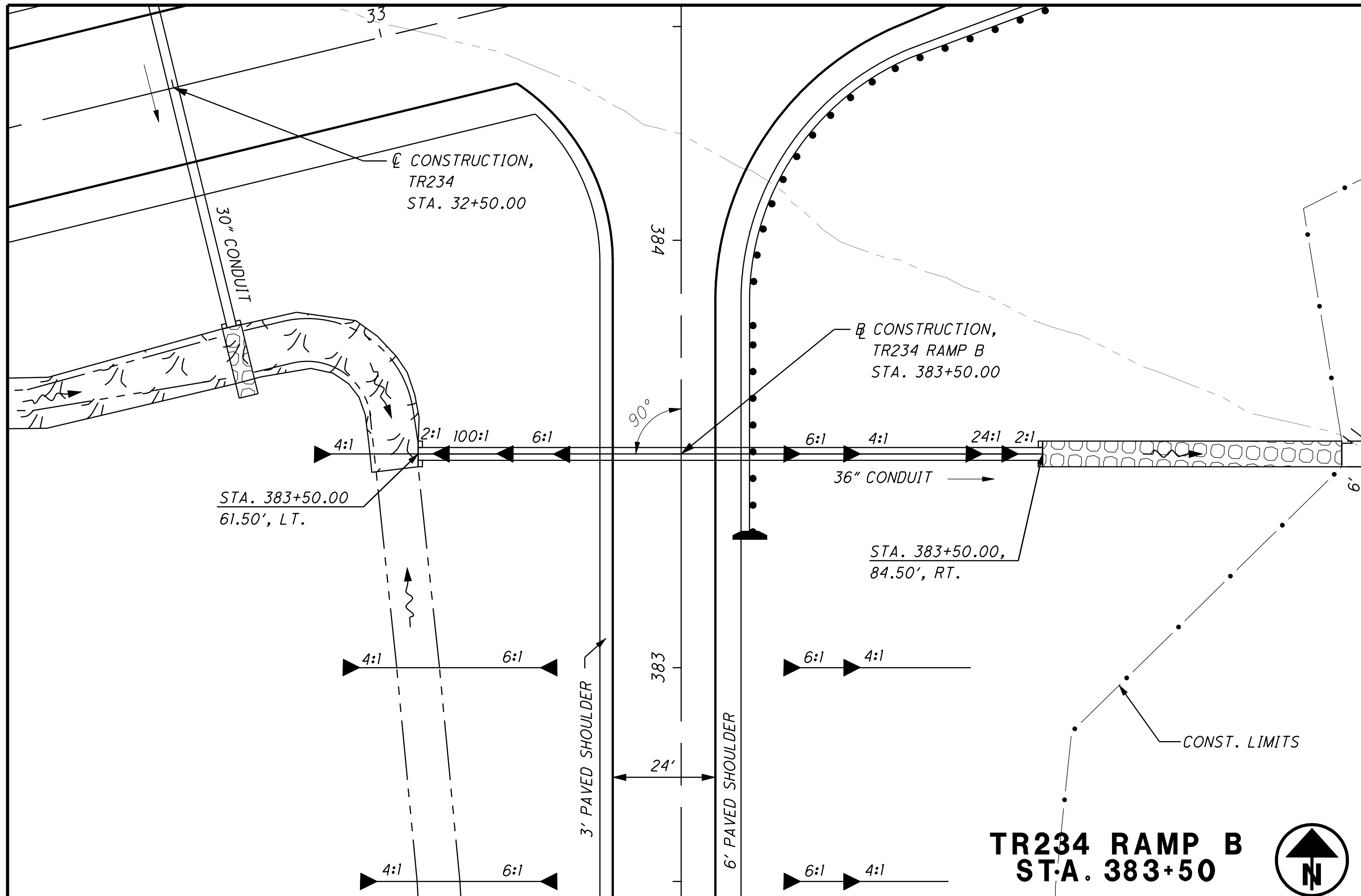
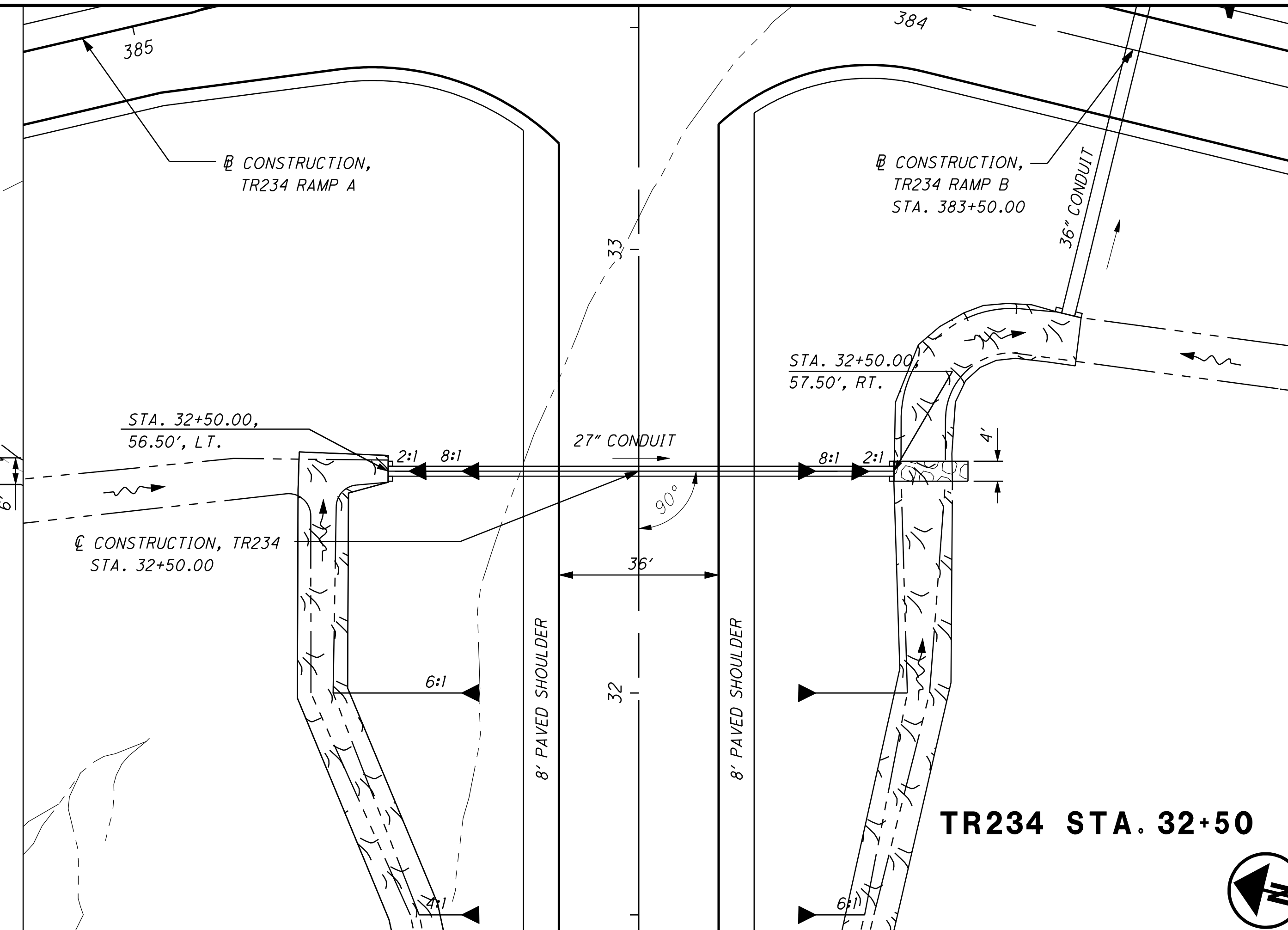


TR234 RAMP B STA. 383+50



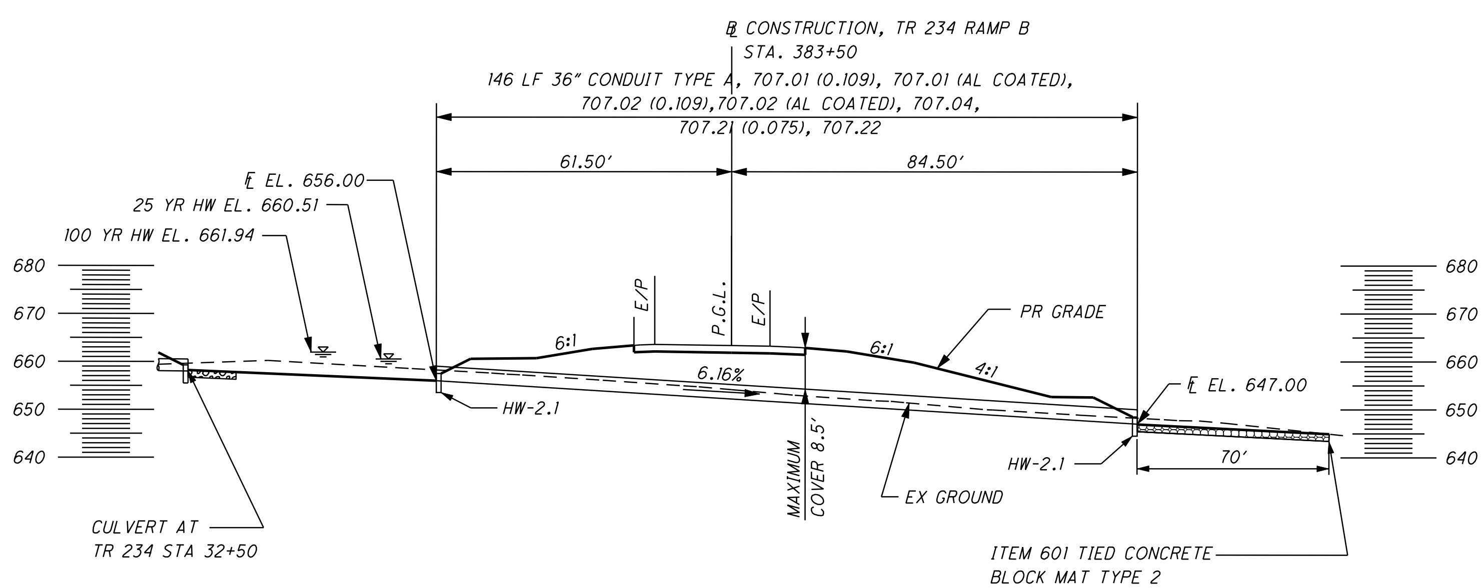
TR234 STA. 32+50

TR234 RAMP B STA. 383+50

HYDRAULIC DESIGN DATA	
DRAINAGE AREA	= 14.8 AC.
Q_{25}	= 51.5 CFS
Q_{100}	= 63.6 CFS
HW_{25}	= 660.51
HW_{100}	= 661.94
V_{25}	= 11.6 FPS
V_{100}	= 12.1 FPS

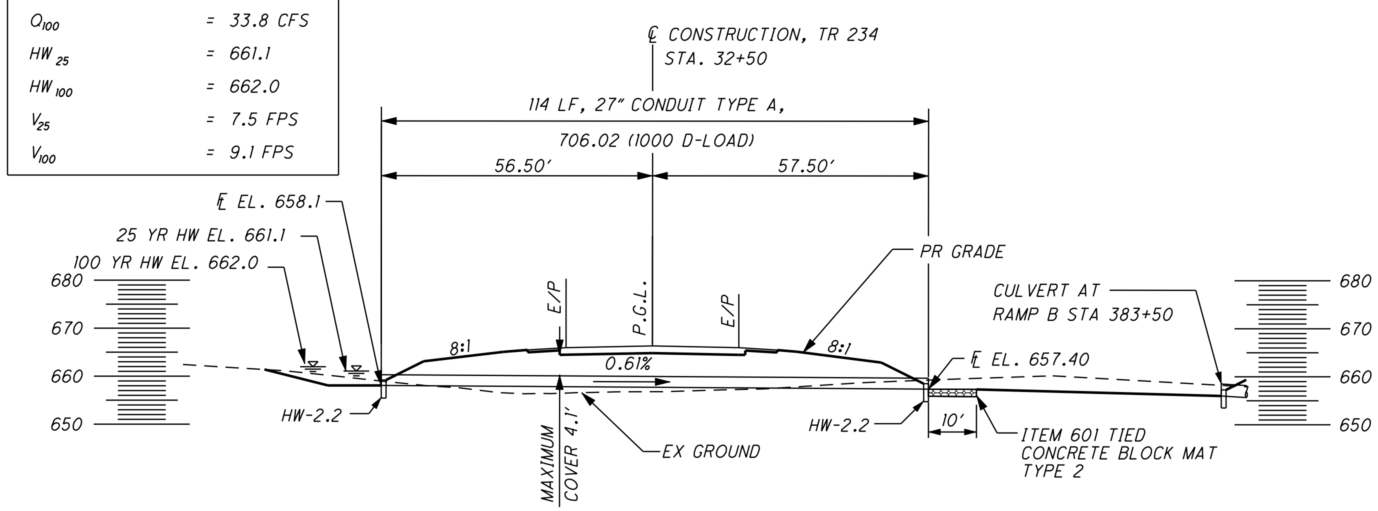
ITEM	DESCRIPTION	QUANTITY	UNITS
601	TIED CONCRETE BLOCK MAT, TYPE 2	47	SQ YD
602	CONCRETE MASONRY	1.5	CU YD
603	36" CONDUIT TYPE A, 707.01 (0.109), 707.01 (AL COATED), 707.02 (0.109), 707.02 (AL COATED), 707.04, 707.21 (0.075), 707.22	146	FT

QUANTITIES CARRIED TO SHEET 43



TR234 STA. 32+50

HYDRAULIC DESIGN DATA	
DRAINAGE AREA	= 8.0 AC.
Q_{25}	= 27.4 CFS
Q_{100}	= 33.8 CFS
HW_{25}	= 661.1
HW_{100}	= 662.0
V_{25}	= 7.5 FPS
V_{100}	= 9.1 FPS



ITEM	DESCRIPTION	QUANTITY	UNITS
601	TIED CONCRETE BLOCK MAT, TYPE 2	5	SQ YD
602	CONCRETE MASONRY	1.0	CU YD
603	27" CONDUIT TYPE A, 706.02 (1000 D-LOAD)	114	FT

QUANTITIES CARRIED TO SHEET 44

HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED KMD CHECKED KAG

CULVERT DETAILS TR234 RAMP B STA. 383+50 & TR234 STA. 32+50

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 5:44:53 PM REVISION DATE: 9/15/2011
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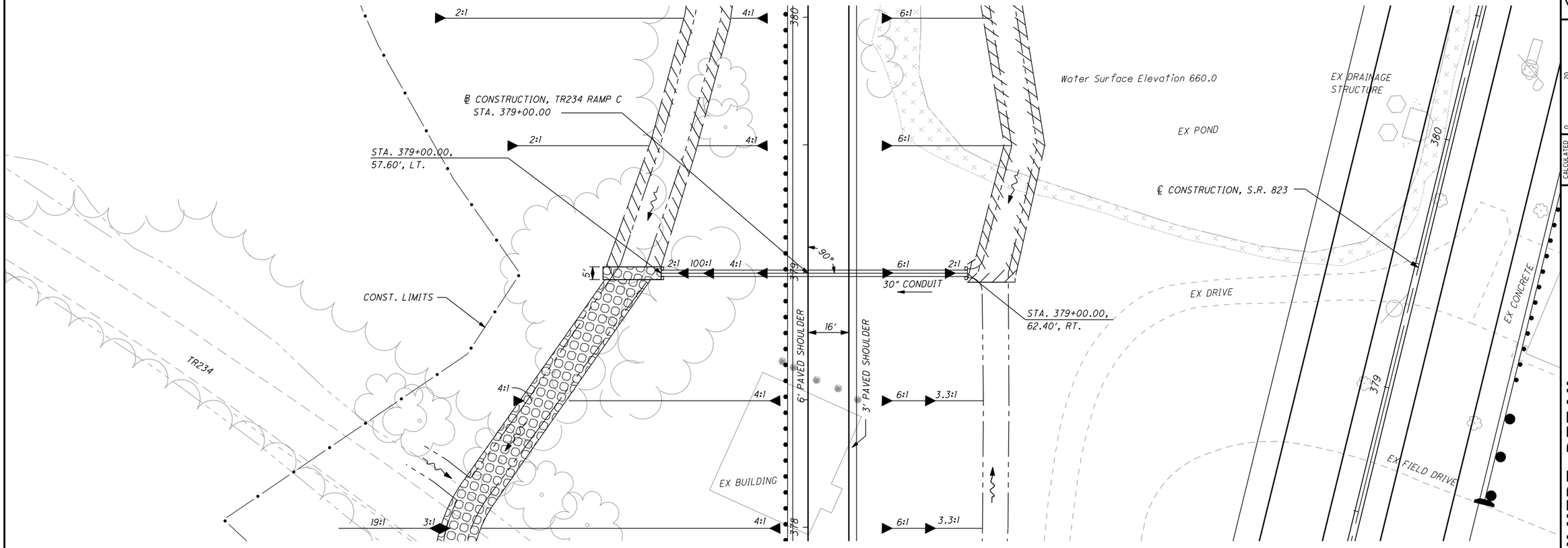
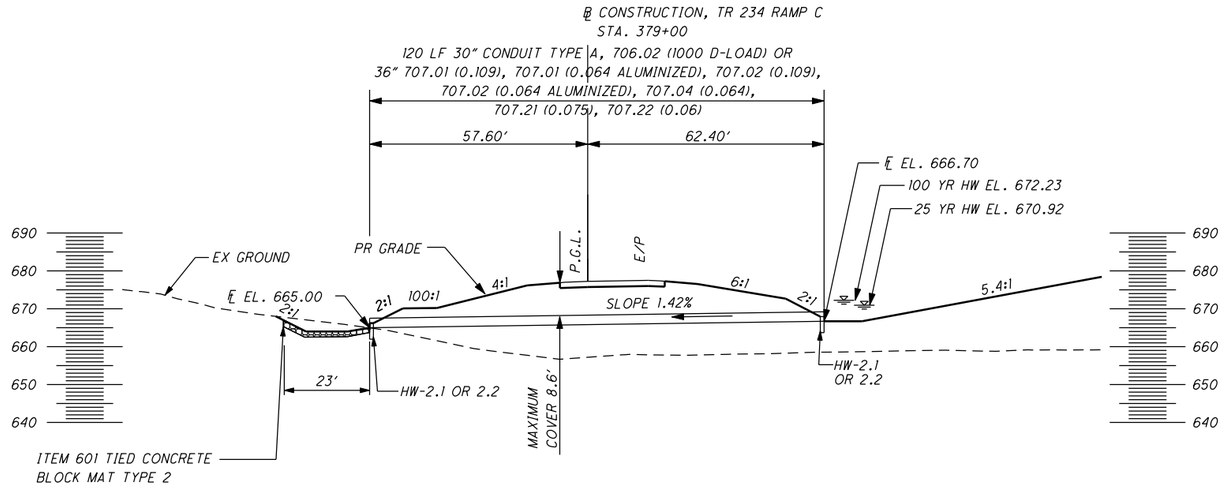


HYDRAULIC DESIGN DATA		
DRAINAGE AREA	=	12.2 AC.
Q_{25}	=	43.9 CFS
Q_{100}	=	54.3 CFS
HW_{25}	=	670.92
HW_{100}	=	672.23
V_{25}	=	12.1 FPS
V_{100}	=	12.3 FPS



ITEM	DESCRIPTION	QUANTITY	UNITS
601	TIED CONCRETE BLOCK MAT, TYPE 2	13	SQ YD
602	CONCRETE MASONRY	1.5	CU YD
603	30" CONDUIT TYPE A, 706.02 (1000 D-LOAD) OR 36" 707.01 (0.109), 707.01 (AL COATED), 707.02 (0.109), 707.02 (AL COATED), 707.04, 707.21 (0.075), 707.22	120	FT

QUANTITIES CARRIED TO SHEET 43

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED KMD
CHECKED KAG

CULVERT DETAIL
TR234 RAMP C STA. 379+00

SCI-823-6.81

USER: CMahlbr; PLOT DATE: 9/15/2011 5:44:59 PM REVISION DATE: 9/15/2011
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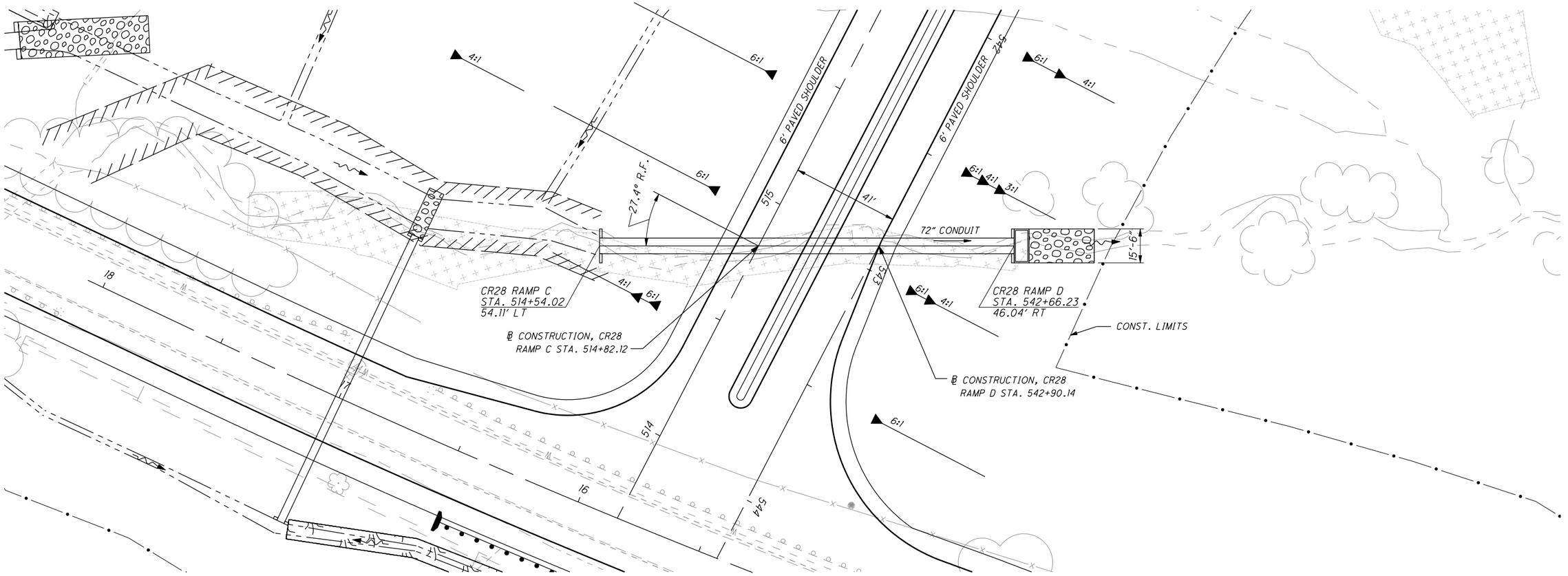
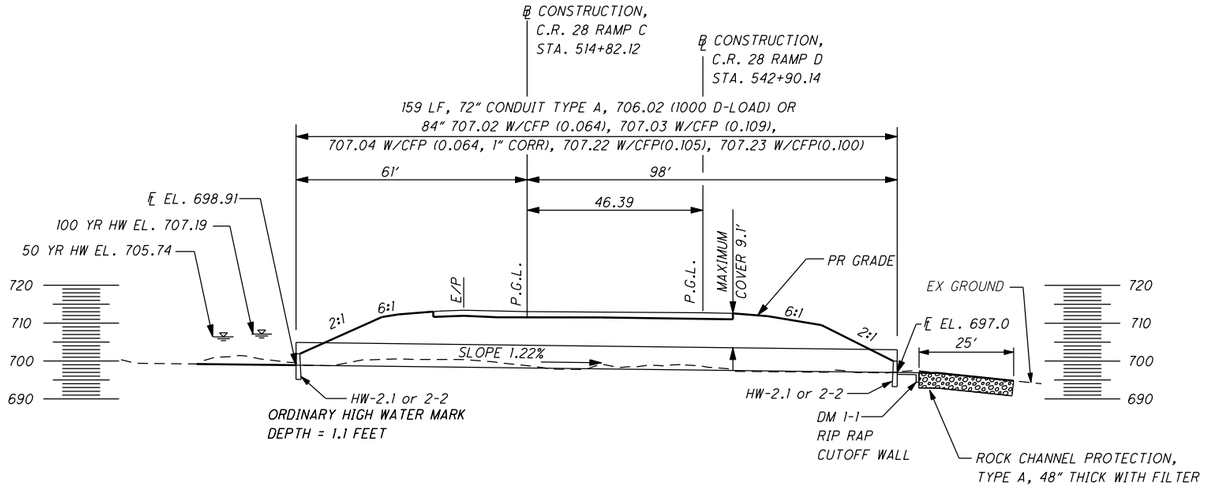
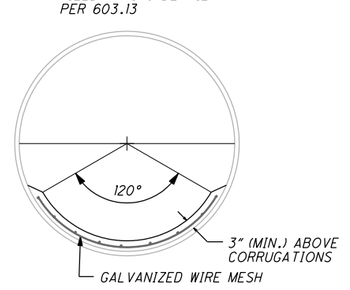


HYDRAULIC DESIGN DATA	
DRAINAGE AREA	= 223 AC.
Q_{50}	= 260 CFS
Q_{100}	= 310 CFS
HW_{50}	= 705.74
HW_{100}	= 707.19
V_{50}	= 17.9 FPS
V_{100}	= 18.7 FPS





PAVE AFTER FINAL FILL HAS BEEN PLACED
AND SETTLEMENT HAS OCCURED.

ITEM	DESCRIPTION	QUANTITY	UNITS
601	RIPRAP USING 6" REINFORCED CONCRETE SLAB	8	CU YD
601	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	57	CU YD
602	CONCRETE MASONRY	6.6	CU YD
603	72" CONDUIT TYPE A, 706.02 (1000 D-LOAD) OR 84" 707.02 CFP, 707.03 CFP, 707.04 (1"), 707.22 CFP, 707.23 CFP	159	FT

QUANTITIES CARRIED TO SHEET 43

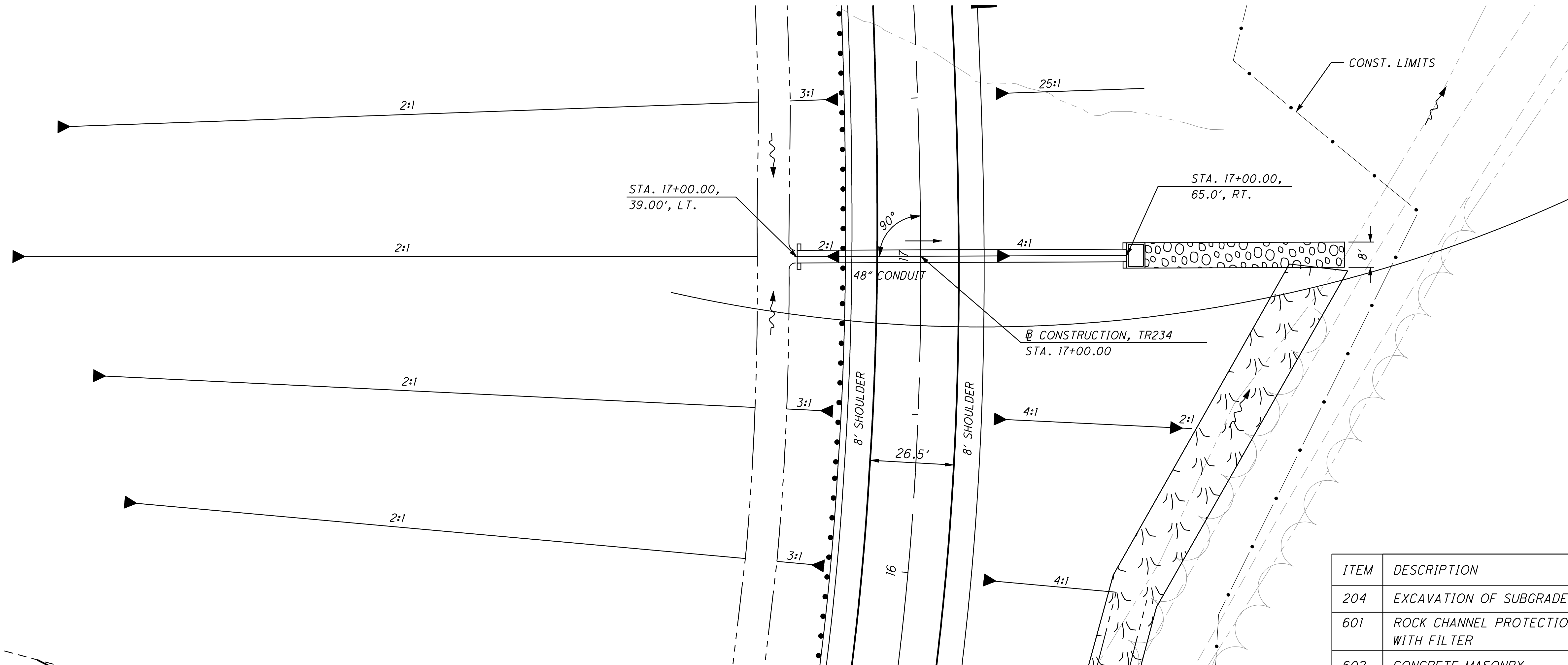
HORIZONTAL SCALE IN FEET
0 10 20 04

CALCULATED KMD
CHECKED KAG

CULVERT DETAIL
CR28 RAMP C STA. 514+54

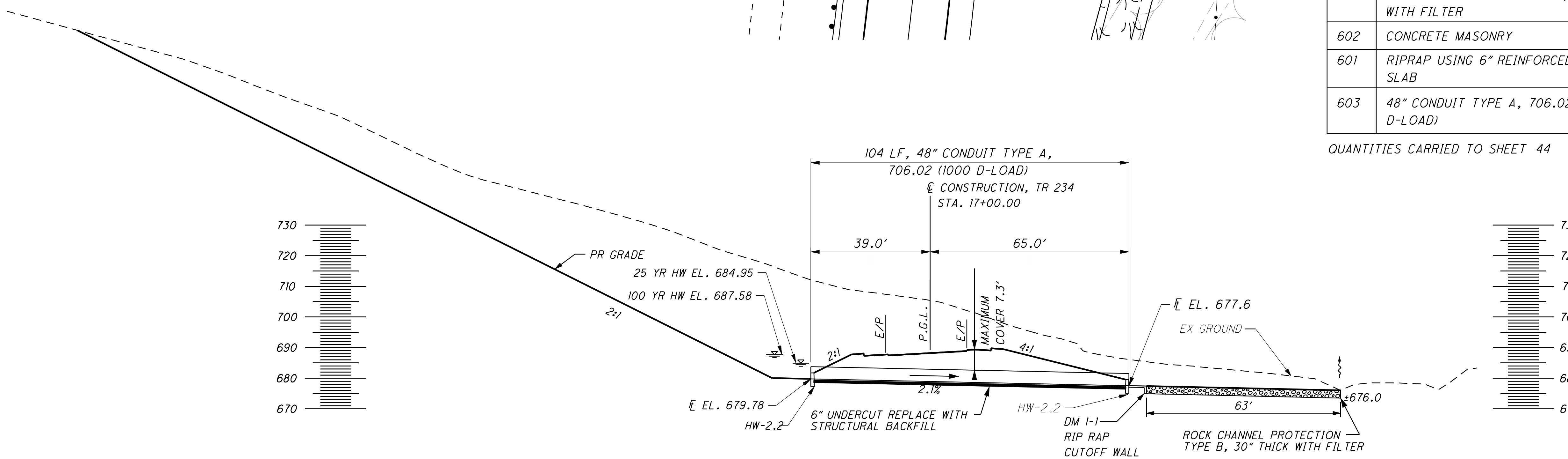
SCI-823-6.81

USER: CWohlbri PLOT DATE: 9/15/2011 5:45:04 PM REVISION DATE: 9/15/2011
FILE:...\MHDR.C/0000000000045878 /19415dc018.dgn MODEL: Sheet



ITEM	DESCRIPTION	QUANTITY	UNITS
204	EXCAVATION OF SUBGRADE	12	CU YD
601	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	47	CU YD
602	CONCRETE MASONRY	2.2	CU YD
601	RIPRAP USING 6" REINFORCED CONCRETE SLAB	5	CU YD
603	48" CONDUIT TYPE A, 706.02 (1000 D-LOAD)	104	FT

QUANTITIES CARRIED TO SHEET 44



HYDRAULIC DESIGN DATA

DRAINAGE AREA	=	71 AC.
Q_{25}	=	110 CFS
Q_{100}	=	160 CFS
HW_{25}	=	684.95
HW_{100}	=	687.58
V_{25}	=	17.8 FPS
V_{100}	=	19.5 FPS

0 10 20 40
HORIZONTAL SCALE IN FEET

CALCULATED KAG
CHECKED JLF

CULVERT DETAIL TR234 STA. 17+00

SCI-823-6.81

USER: CWohlbr PLOT DATE: 9/15/2011 5:45:11 PM REVISION DATE: 9/15/2011
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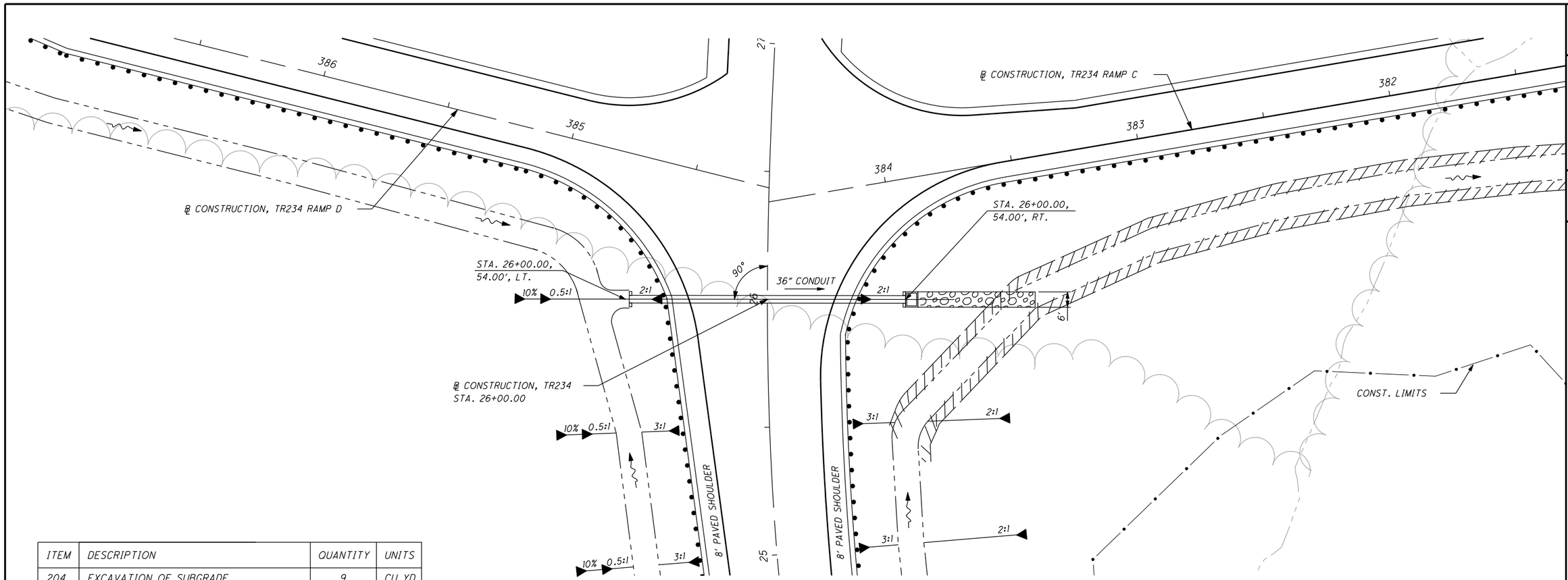
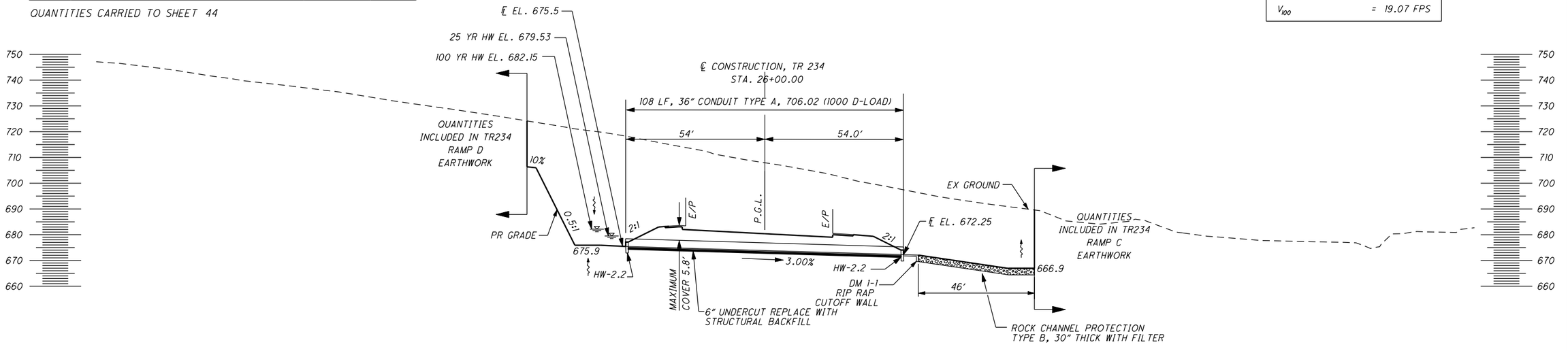


ITEM	DESCRIPTION	QUANTITY	UNITS
204	EXCAVATION OF SUBGRADE	9	CU YD
601	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	26	CU YD
602	CONCRETE MASONRY	1.4	CU YD
601	RIPRAP USING 6" REINFORCED CONCRETE SLAB	3	CU YD
603	36" CONDUIT TYPE A, 706.02 (1000 D-LOAD)	108	FT

QUANTITIES CARRIED TO SHEET 44

HYDRAULIC DESIGN DATA	
DRAINAGE AREA	= 18.61 AC.
Q_{25}	= 56.0 CFS
Q_{100}	= 85.3 CFS
HW_{25}	= 679.53
HW_{100}	= 682.15
V_{25}	= 17.2 FPS
V_{100}	= 19.07 FPS

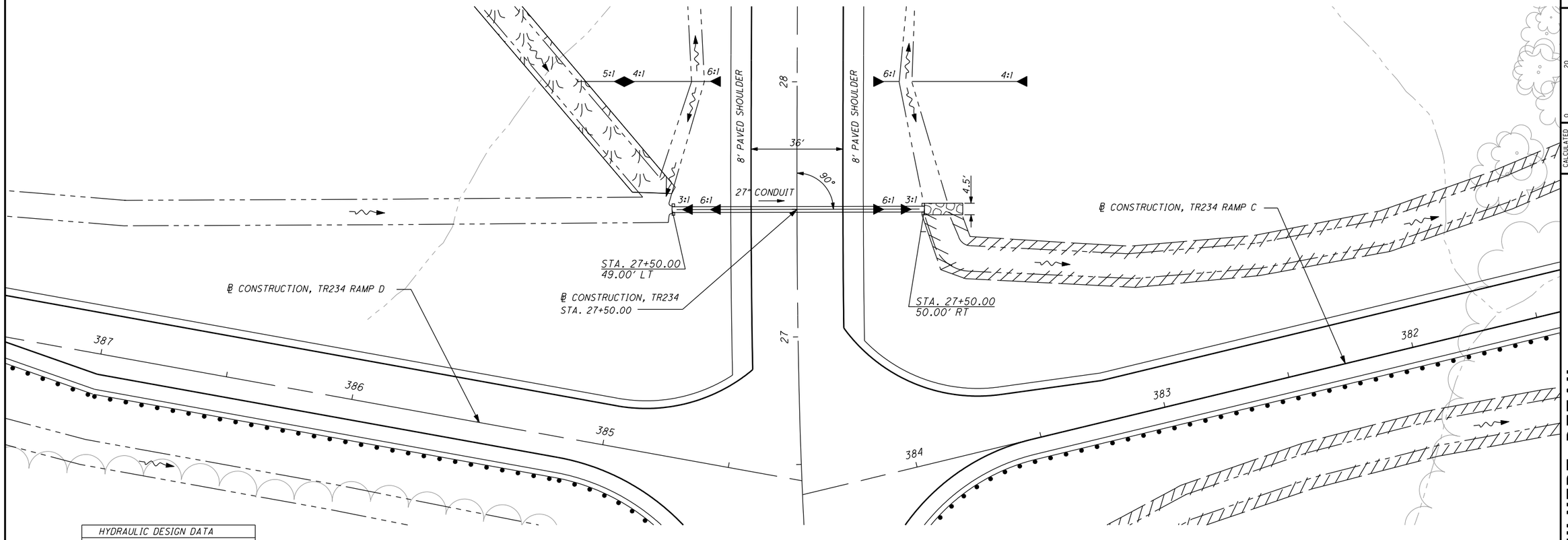


HORIZONTAL SCALE IN FEET
0 10 20 40

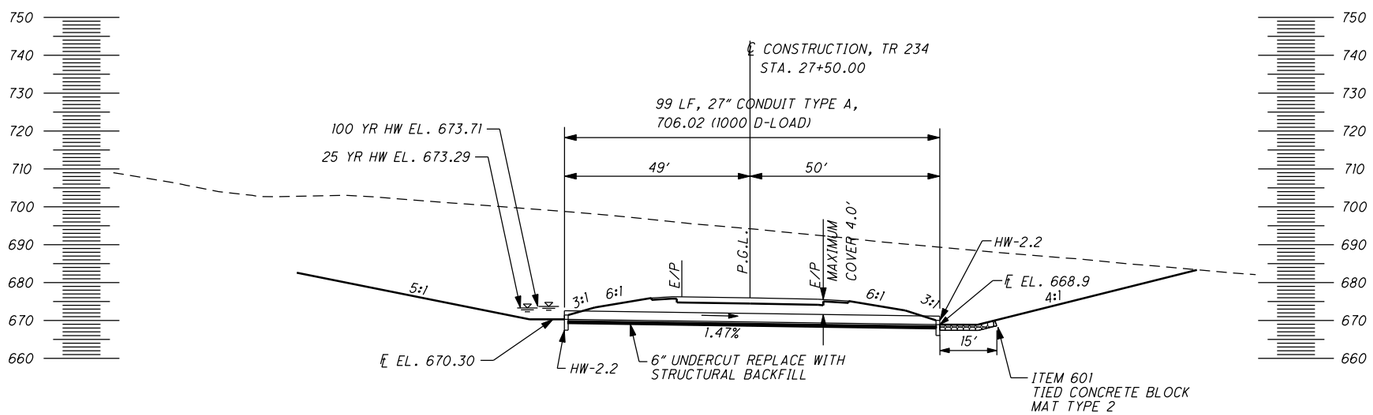
CALCULATED KAG
CHECKED LBD

CULVERT DETAIL TR234 STA. 26+00

SCI-823-6.81



HYDRAULIC DESIGN DATA	
DRAINAGE AREA	= 6.91 AC.
Q_{25}	= 29.2 CFS
Q_{100}	= 35.9 CFS
HW_{25}	= 673.29
HW_{100}	= 673.71
V_{25}	= 11.1 FPS
V_{100}	= 11.6 FPS



ITEM	DESCRIPTION	QUANTITY	UNITS
204	EXCAVATION OF SUBGRADE	7	CU YD
601	TIED CONCRETE BLOCK MAT, TYPE 2	8	SQ YD
602	CONCRETE MASONRY	1.0	CU YD
603	27" CONDUIT TYPE A, 706.02 (1000 D-LOAD)	99	FT

QUANTITIES CARRIED TO SHEET 44

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED KMD
CHECKED KAG

CULVERT DETAIL
TR234 SDTA. 27+50

SCI-823-6.81

463
535

USER: Cknahbri PLOT DATE: 9/15/2011 5:45:21 PM REVISION DATE: 9/15/2011
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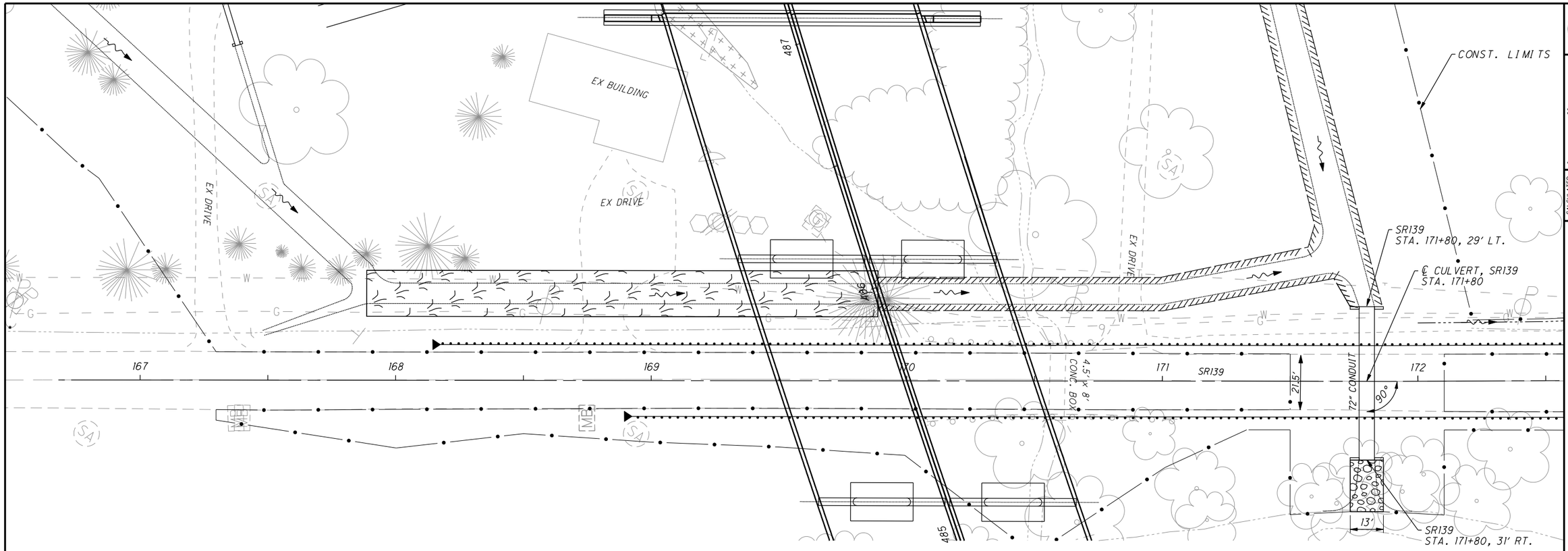


HYDRAULIC DESIGN DATA	
DRAINAGE AREA	= 181 AC.
Q_{25}	= 203 CFS
Q_{100}	= 297 CFS
HW_{25}	= 632.9
HW_{100}	= 634.4
V_{25}	= 7.2 FPS
V_{100}	= 10.5 FPS

ITEM	DESCRIPTION	QUANTITY	UNITS
601	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	24	CU YD
602	CONCRETE MASONRY	5.5	CU YD
603	72" CONDUIT TYPE A, 706.02 (1000 D-LOAD)	60	FT

QUANTITIES CARRIED TO SHEET 44

EROSION CONTROL LEGEND

- 670 VEGETATED SWALE EROSION PROTECTION TYPE
- 836 TURF REINFORCING MAT
- 601 ROCK CHANNEL PROTECTION
- 601 TIED CONCRETE BLOCK MAT TYPE 2

NOTE: DITCH LININGS CHANGE AT EVEN 50' STATIONS

- WETLANDS CATEGORY 1 OR 2

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED KAG
CHECKED JLF

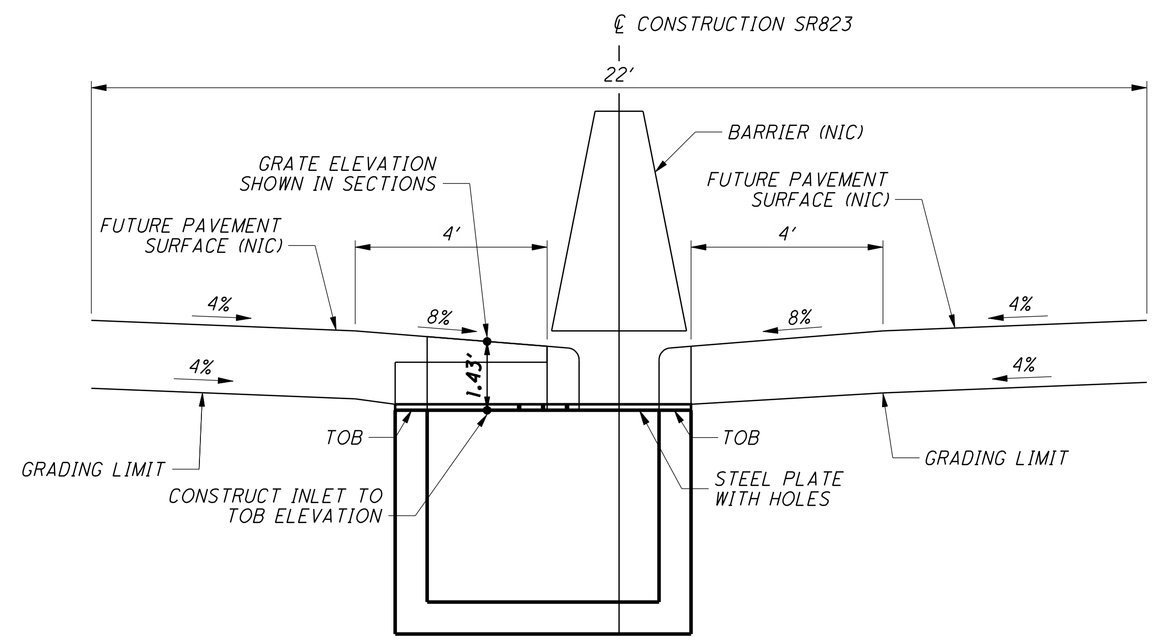
CULVERT DETAIL
SR139 STA. 171+80

SCI-823-6.81

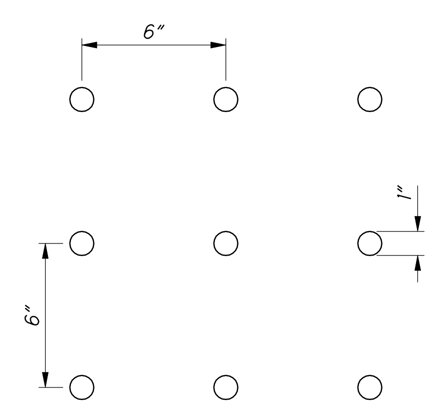
USER: CMahlbri PLOT DATE: 9/15/2011 5:45:26 PM REVISION DATE: 9/5/2011
FILE:...ANOR_CU6800000000045878 /19415d001l.dgn MODEL: Sheet

NOTES:
CONSTRUCT INLETS TO TOP OF BOX (TOB) ELEVATION. PLACE STEEL PLATE WITH HOLES OVER THE PORTION OF INLET CONSTRUCTED. TOB SHALL BE 1.43' BELOW THE GRATE ELEVATIONS SHOWN IN THE CROSS SECTIONS. SEE STANDARD CONSTRUCTION DRAWINGS I-2.1, I-2.2 & I-2.3 FOR MORE DETAILED INFORMATION REGARDING THE DIMENSIONS OF THE INLETS.

STEEL PLATE SHALL BE 1.5" THICK WITH 3 ROWS OF 1" DIAMETER HOLES AT 6" X 6" GRID SPACING, CENTERED ABOUT THE CENTERLINE OF BOX.



INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B1 AS PER PLAN



HOLE DETAIL

CALCULATED LBD
CHECKED JMB

INLET DETAILS

SCI-823-6.81

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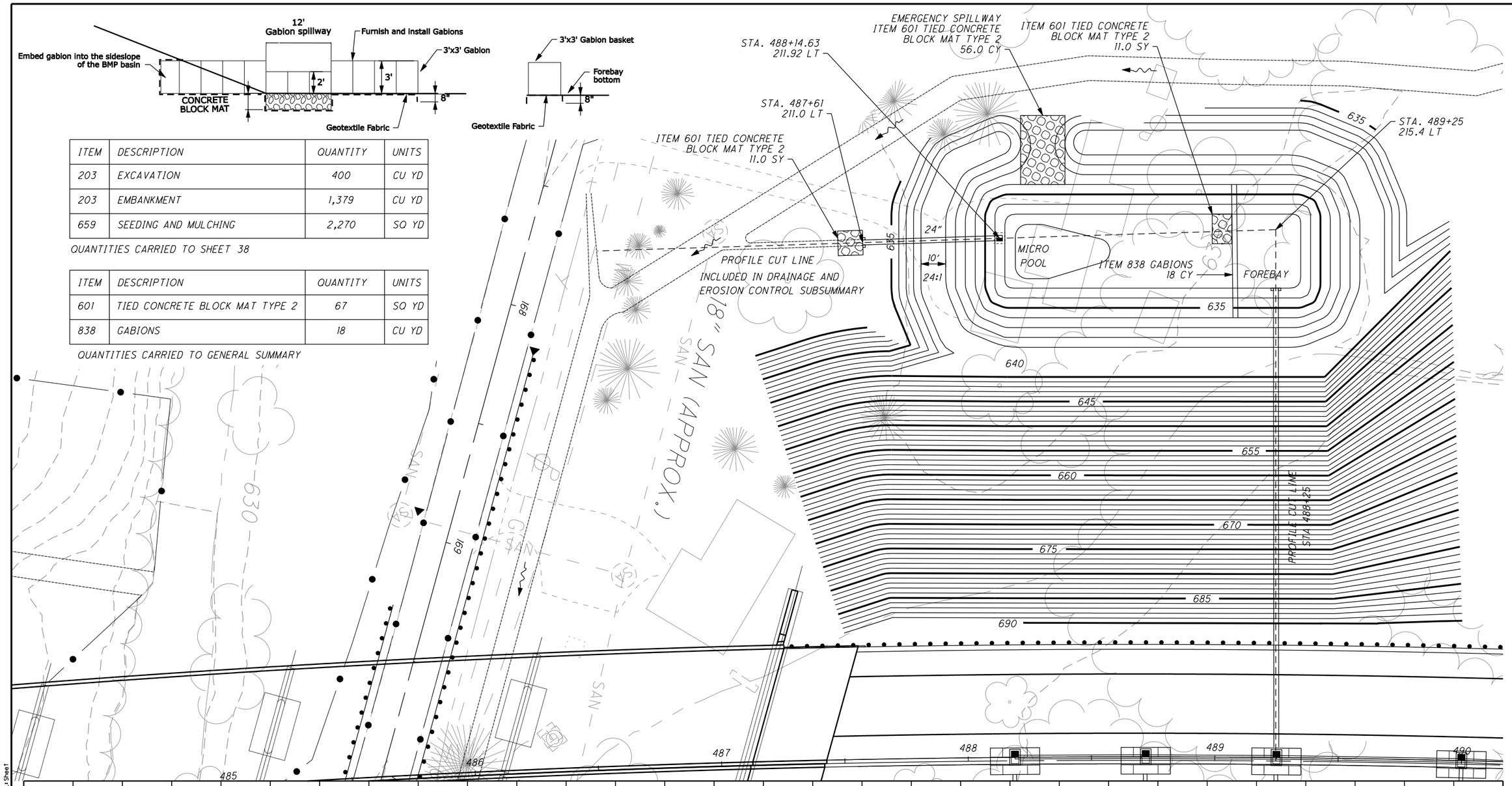
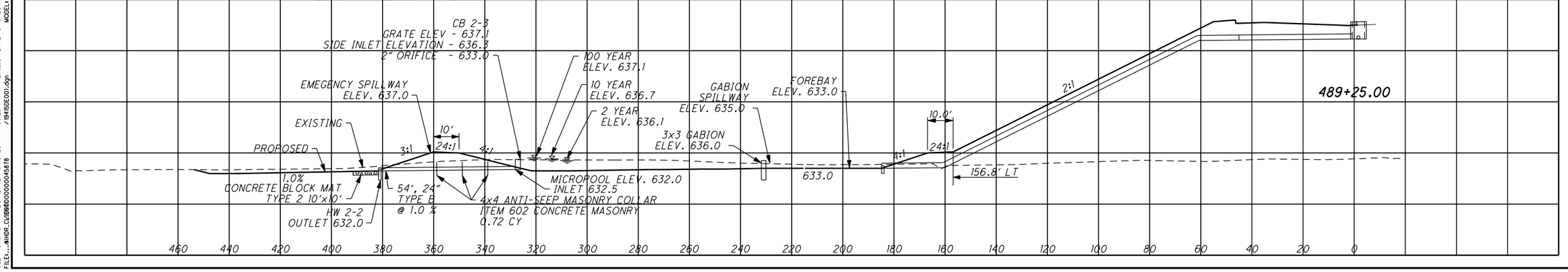
ITEM	DESCRIPTION	QUANTITY	UNITS
203	EXCAVATION	400	CU YD
203	EMBANKMENT	1,379	CU YD
659	SEEDING AND MULCHING	2,270	SQ YD

QUANTITIES CARRIED TO SHEET 38

ITEM	DESCRIPTION	QUANTITY	UNITS
601	TIED CONCRETE BLOCK MAT TYPE 2	67	SQ YD
838	GABIONS	18	CU YD

QUANTITIES CARRIED TO GENERAL SUMMARY





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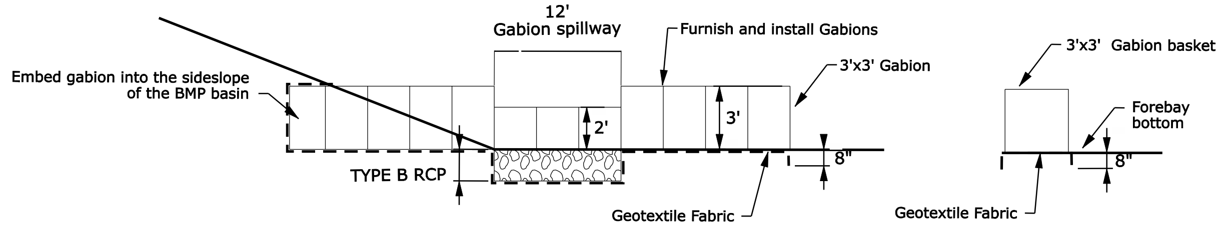
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED KAG CHECKED KMD

BMP BASIN 488+00
SITE PLAN

SCI-823-6.81

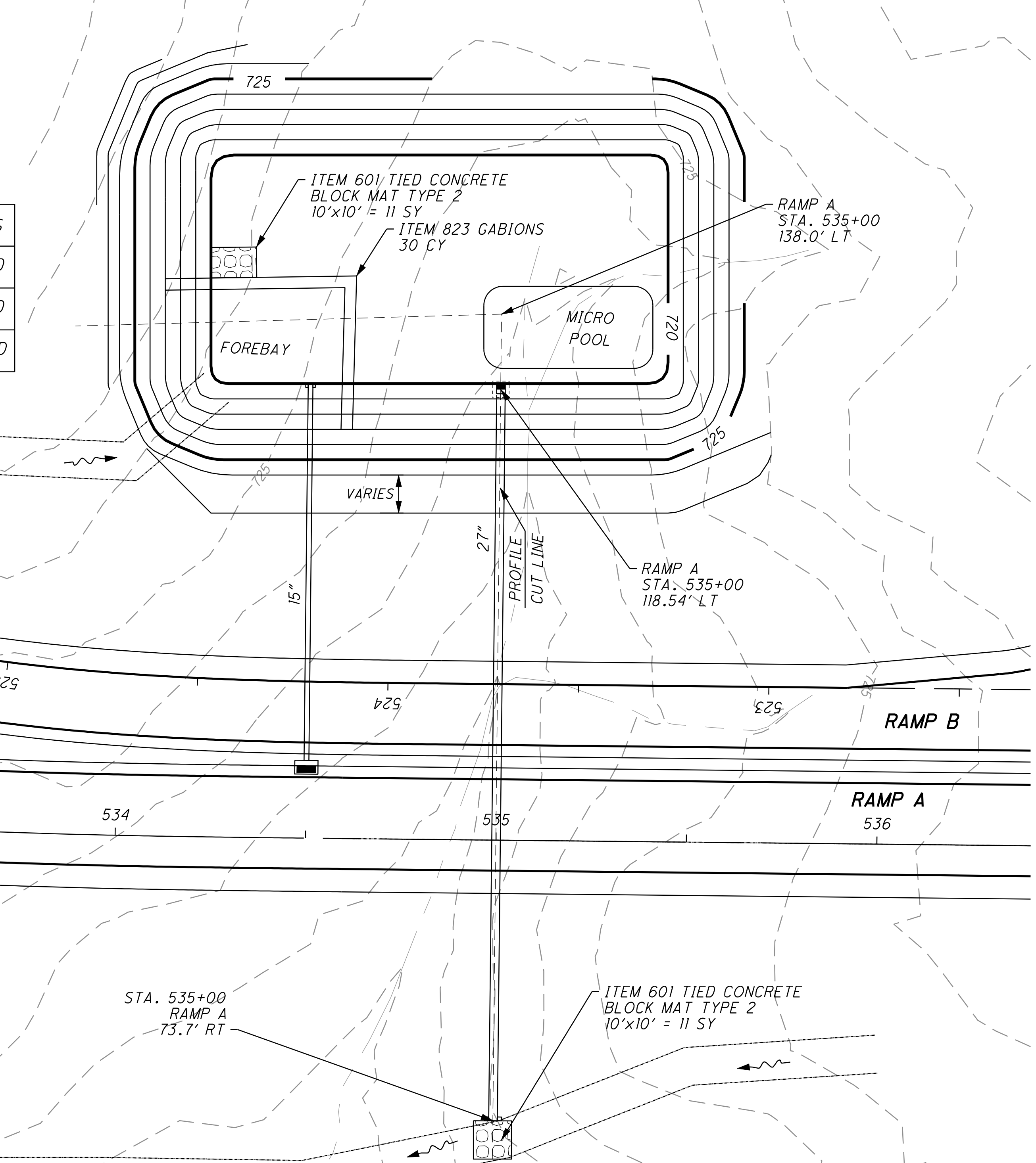
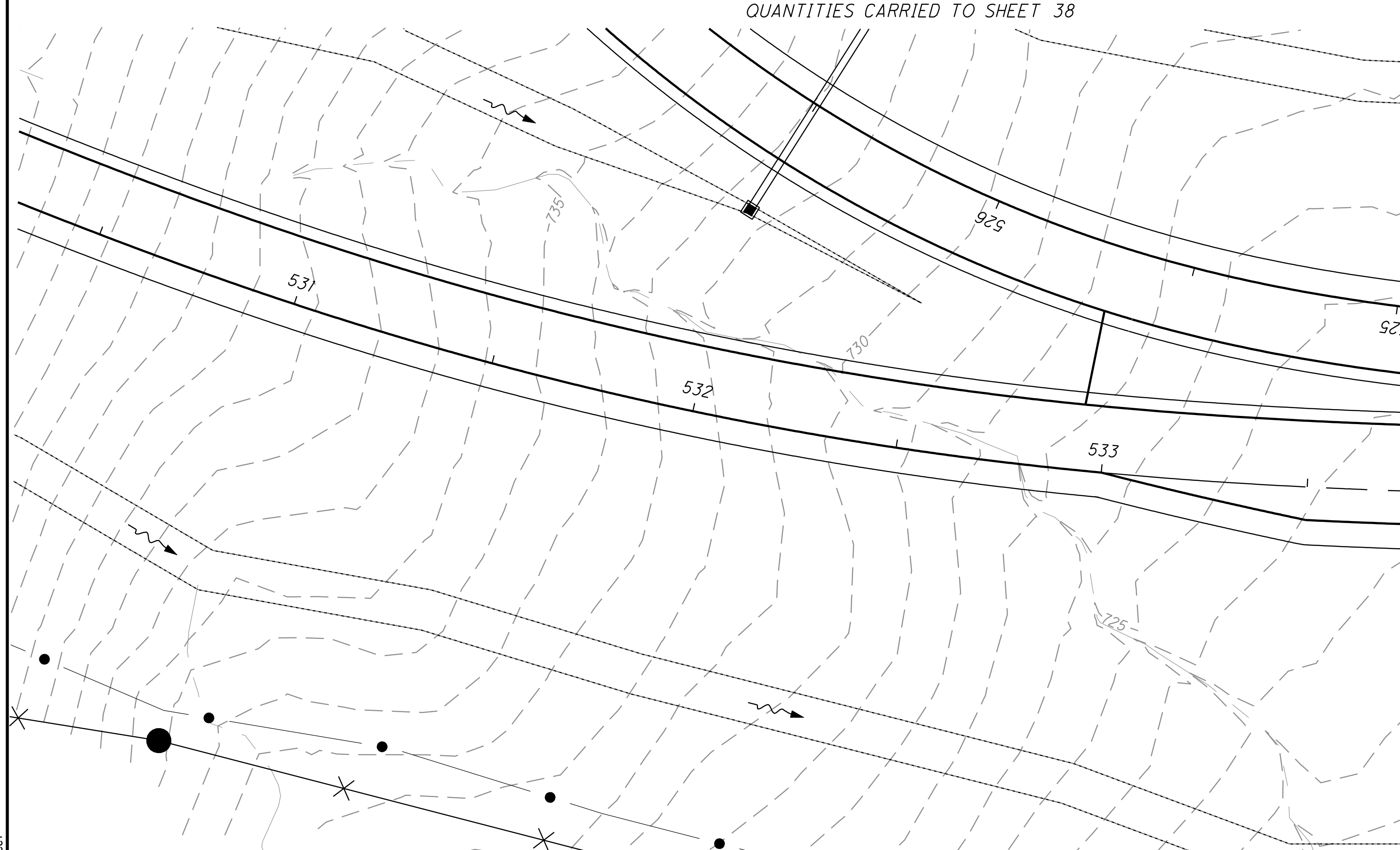


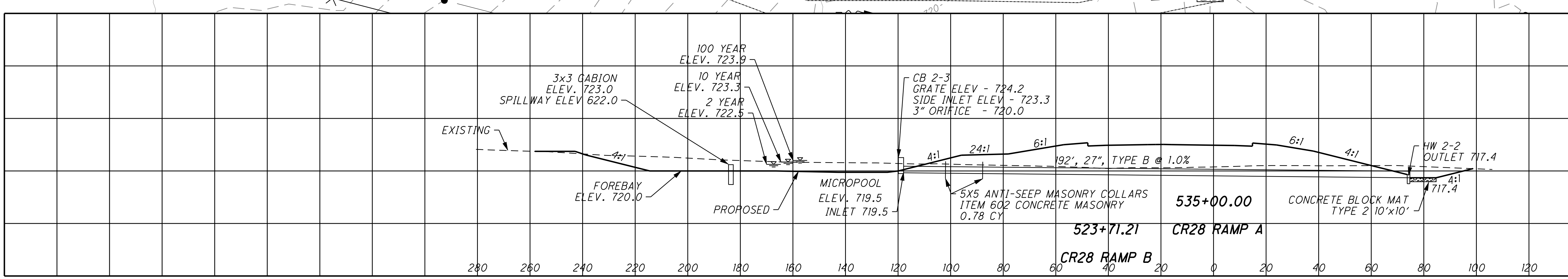
ITEM	DESCRIPTION	QUANTITY	UNITS
601	TIED CONCRETE BLOCK MAT TYPE 2	11	SQ YD
838	GABIONS	30	CU YD

QUANTITIES CARRIED TO GENERAL SUMMARY

ITEM	DESCRIPTION	QUANTITY	UNITS
203	EXCAVATION	2,033	CU YD
203	EMBANKMENT	279	CU YD
659	SEEDING AND MULCHING	2,165	SQ YD

QUANTITIES CARRIED TO SHEET 38



HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED KAG CHECKED KMD

BMP BASIN CR28 RAMPS A AND B SITE PLAN

SCI-823-6.81

467 / 535

USER: CWohlbr PLOT DATE: 9/15/2011 7:00:38 PM REVISION DATE: 9/15/2011 MODEL: Sheet
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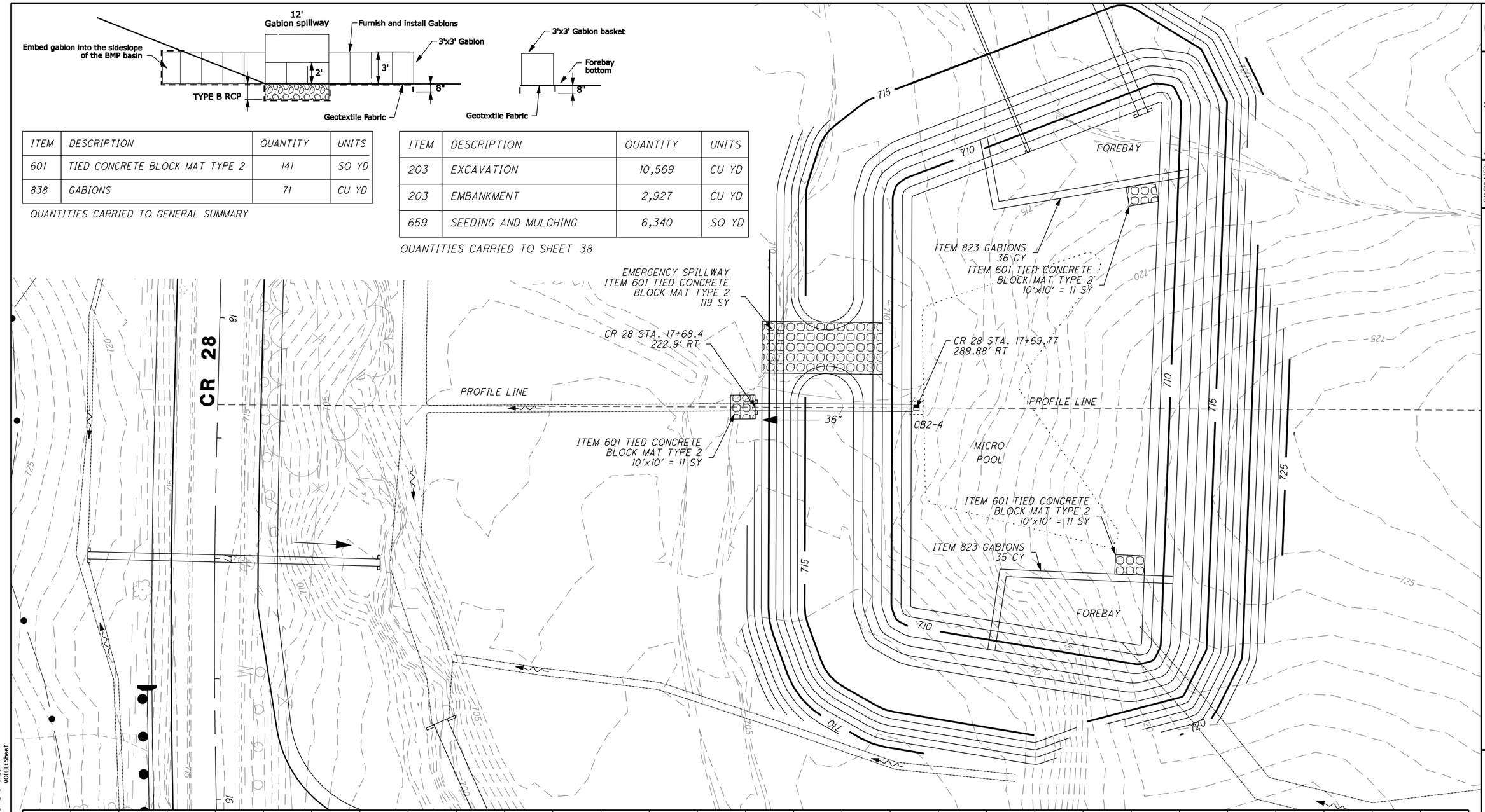
ITEM	DESCRIPTION	QUANTITY	UNITS
601	TIED CONCRETE BLOCK MAT TYPE 2	141	SQ YD
838	GABIONS	71	CU YD

QUANTITIES CARRIED TO GENERAL SUMMARY

ITEM	DESCRIPTION	QUANTITY	UNITS
203	EXCAVATION	10,569	CU YD
203	EMBANKMENT	2,927	CU YD
659	SEEDING AND MULCHING	6,340	SQ YD

QUANTITIES CARRIED TO SHEET 38



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED KAG
CHECKED KMD

BMP BASIN C AND D ON CR28 RAMPS
SITE PLAN

SCI-823-6.81

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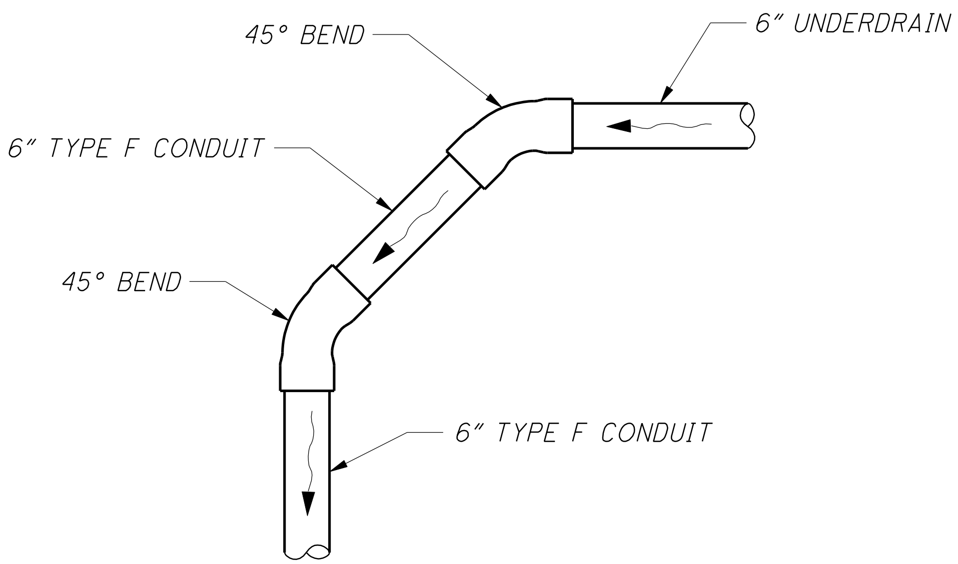
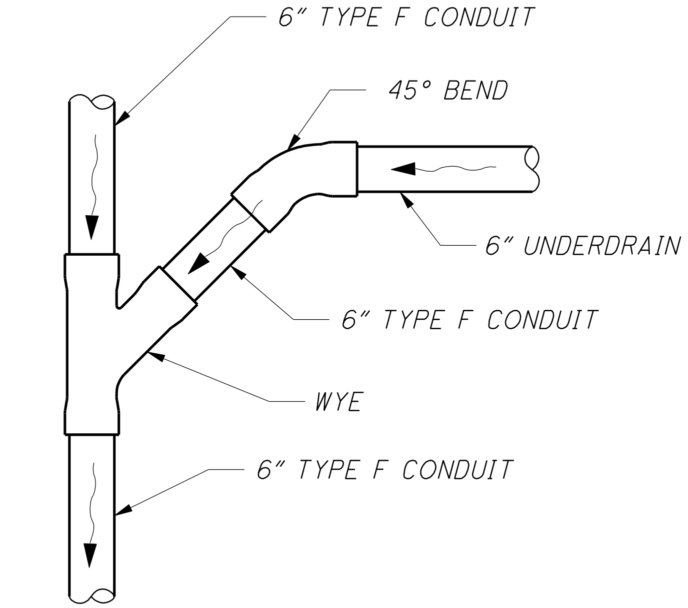


UNDERDRAIN DETAIL (A) (PLAN)
N.T.S.



UNDERDRAIN DETAIL (B) (PLAN)
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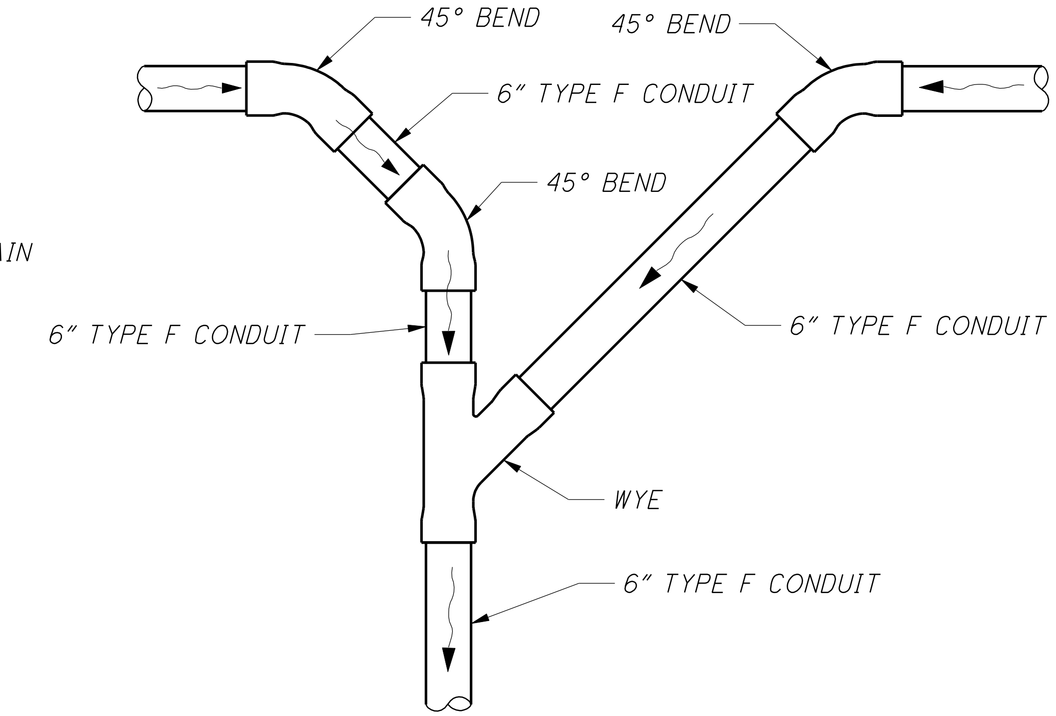
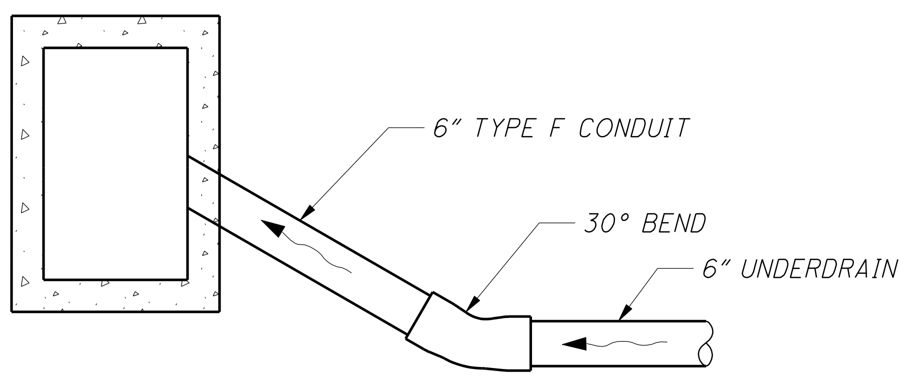
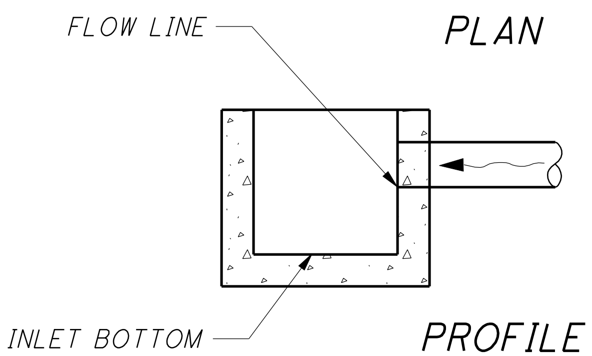


UNDERDRAIN DETAIL (A) & (B) (PLAN)
N.T.S.

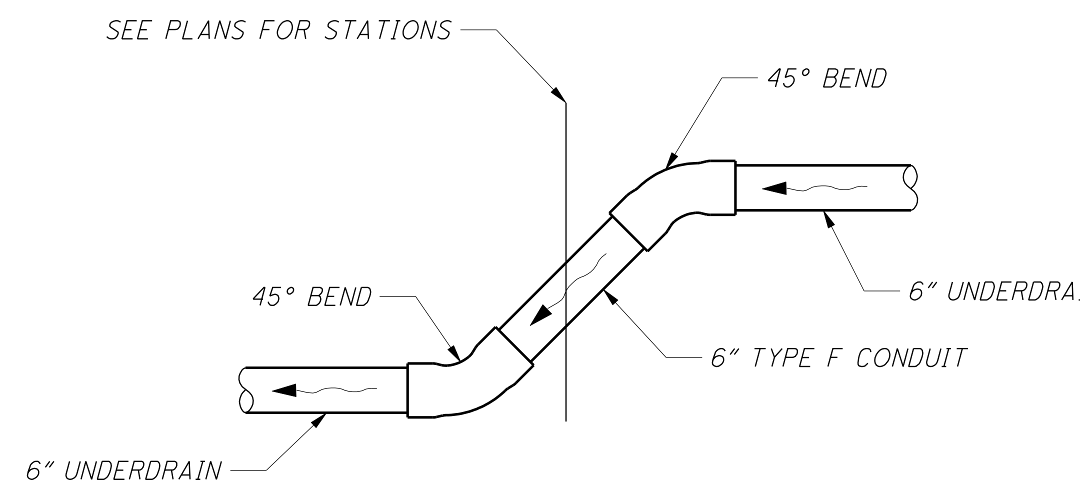


PLAN



PROFILE

UNDERDRAIN DETAIL (C)
N.T.S.



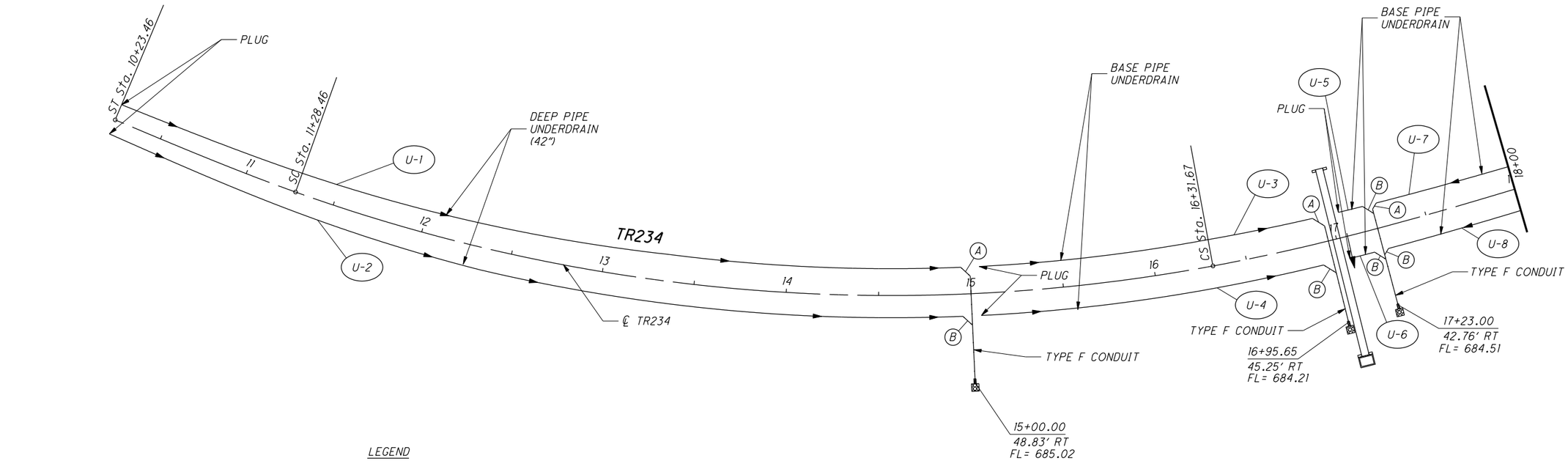
UNDERDRAIN DEPTH TRANSITION DETAIL (PROFILE)
N.T.S.

NOTE: SEE PLANS FOR LOCATIONS OF DETAILS (A), (B) AND (C)

CALCULATED CTM
CHECKED JMB

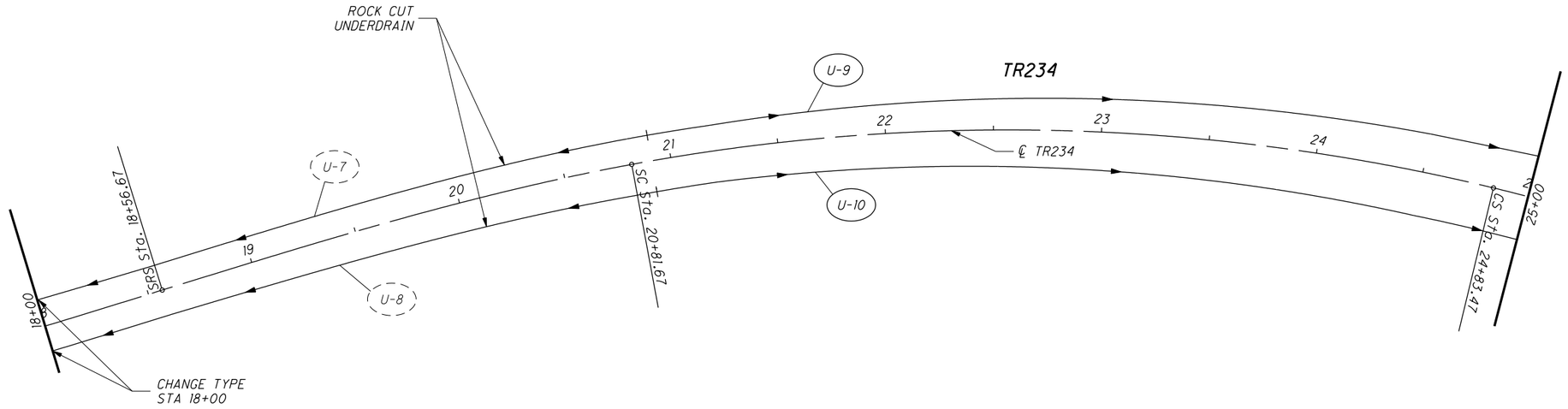
TYPICAL UNDERDRAIN DETAILS

SCI-823-6.81



LEGEND

SEE TYPICAL UNDERDRAIN DETAILS SHEET FOR CONNECTION DETAILS.



NOTE:

ALL UNDERDRAINS THAT OUTLET TO A SLOPE SHALL HAVE A PRECAST REINFORCED CONCRETE OUTLET

HORIZONTAL SCALE IN FEET
0 15 30 60

CALCULATED CTM
CHECKED JMB

UNDERDRAIN DETAILS - TR234
STA. 10+23 TO STA. 25+00

SCI-823-6.81

470
535

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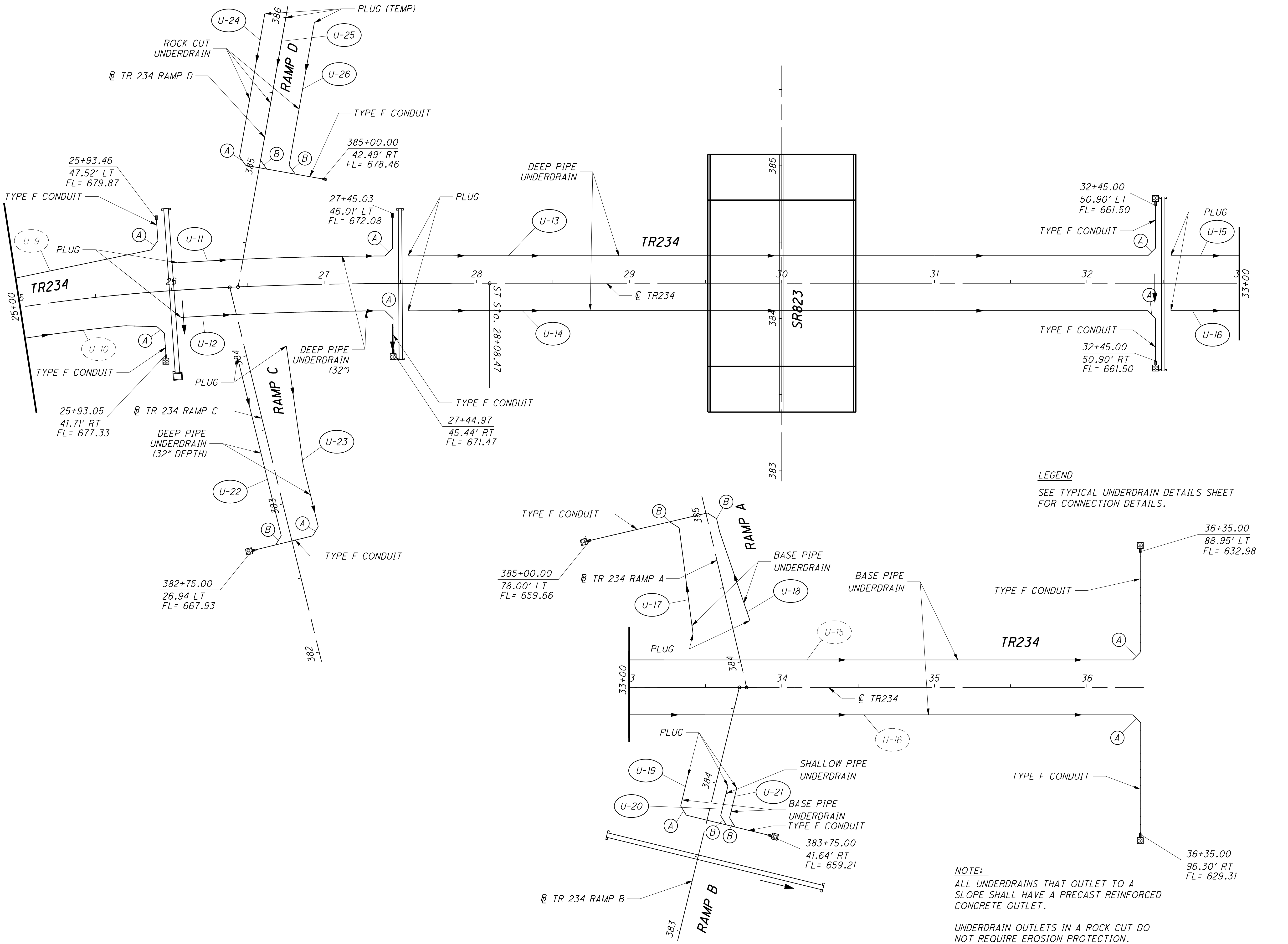


NOTE:
ALL UNDERDRAINS THAT OUTLET TO A SLOPE SHALL HAVE A PRECAST REINFORCED CONCRETE OUTLET.

UNDERDRAIN OUTLETS IN A ROCK CUT DO NOT REQUIRE EROSION PROTECTION.

0 15 30 60
HORIZONTAL SCALE IN FEET

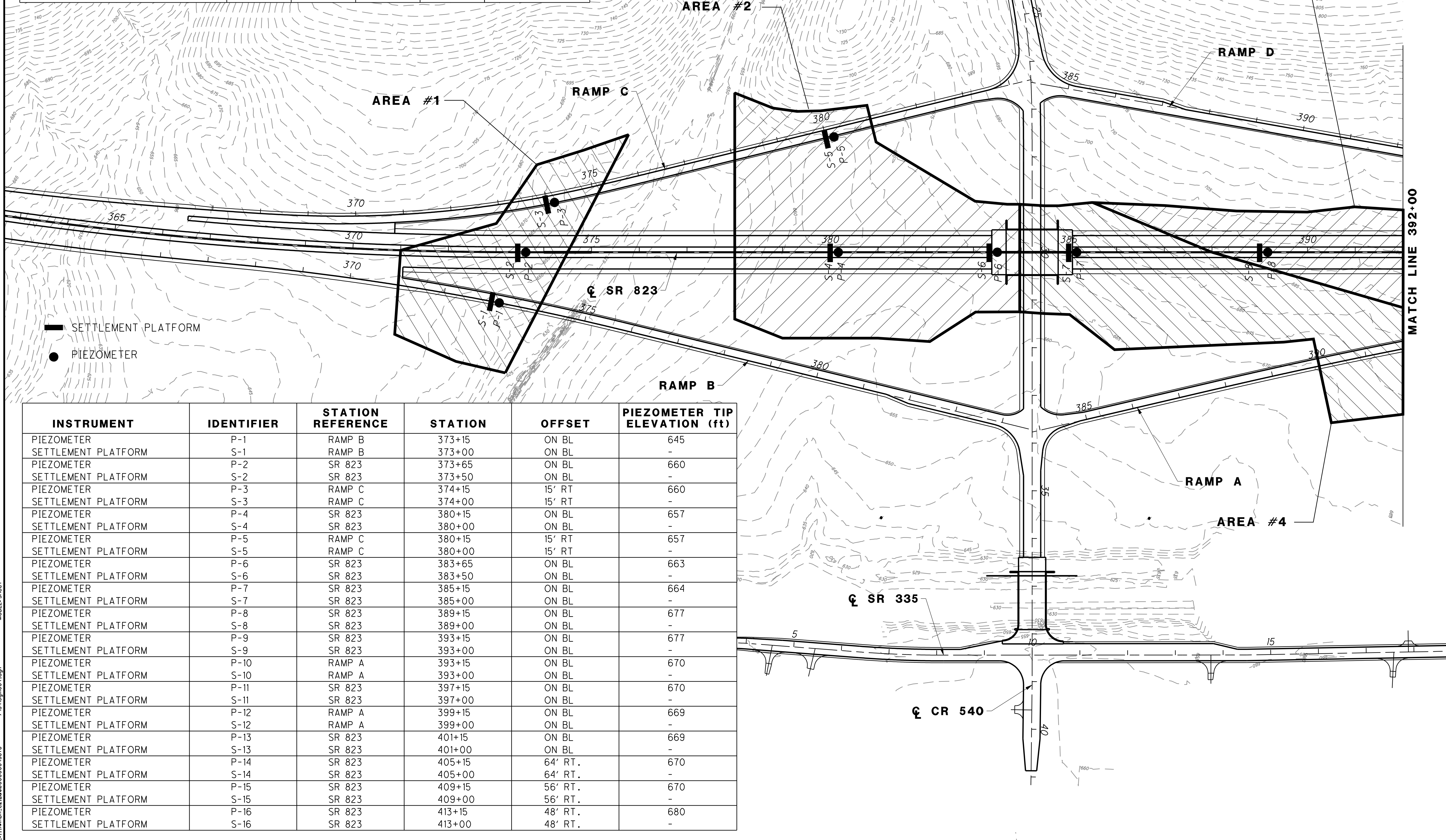
CALCULATED CTM
CHECKED JMB

UNDERDRAIN DETAILS - TR234 AND CR540 STA. 25+00 TO STA. 41+00

SCI-823-6.81

WICK DRAIN AND INSTRUMENTATION PLAN
SHUMWAY HOLLOW RD (TR 234) INTERCHANGE

	TREATMENT AREA				
	AREA #1	AREA #2	AREA #3	AREA #4	TOTAL
TOTAL AREA (ft²) AVERAGE INSTALLED DEPTH (ft)	108,315 13	232,843 14	923,588 43	497,192 14	1,761,938 *(2/27)= 130,514 CU YD
WICK DRAIN SPACING (ft)	TOTAL LINEAR FEET				TOTAL
4 6	- 54,015	- 122,336	3,026,610 -	583,024 -	3,609,634 +176,351= 3,785,985 FT



INSTRUMENT	IDENTIFIER	STATION REFERENCE	STATION	OFFSET	PIEZOMETER TIP ELEVATION (ft)
PIEZOMETER	P-1	RAMP B	373+15	ON BL	645
SETTLEMENT PLATFORM	S-1	RAMP B	373+00	ON BL	-
PIEZOMETER	P-2	SR 823	373+65	ON BL	660
SETTLEMENT PLATFORM	S-2	SR 823	373+50	ON BL	-
PIEZOMETER	P-3	RAMP C	374+15	15' RT	660
SETTLEMENT PLATFORM	S-3	RAMP C	374+00	15' RT	-
PIEZOMETER	P-4	SR 823	380+15	ON BL	657
SETTLEMENT PLATFORM	S-4	SR 823	380+00	ON BL	-
PIEZOMETER	P-5	RAMP C	380+15	15' RT	657
SETTLEMENT PLATFORM	S-5	RAMP C	380+00	15' RT	-
PIEZOMETER	P-6	SR 823	383+65	ON BL	663
SETTLEMENT PLATFORM	S-6	SR 823	383+50	ON BL	-
PIEZOMETER	P-7	SR 823	385+15	ON BL	664
SETTLEMENT PLATFORM	S-7	SR 823	385+00	ON BL	-
PIEZOMETER	P-8	SR 823	389+15	ON BL	677
SETTLEMENT PLATFORM	S-8	SR 823	389+00	ON BL	-
PIEZOMETER	P-9	SR 823	393+15	ON BL	677
SETTLEMENT PLATFORM	S-9	SR 823	393+00	ON BL	-
PIEZOMETER	P-10	RAMP A	393+15	ON BL	670
SETTLEMENT PLATFORM	S-10	RAMP A	393+00	ON BL	-
PIEZOMETER	P-11	SR 823	397+15	ON BL	670
SETTLEMENT PLATFORM	S-11	SR 823	397+00	ON BL	-
PIEZOMETER	P-12	RAMP A	399+15	ON BL	669
SETTLEMENT PLATFORM	S-12	RAMP A	399+00	ON BL	-
PIEZOMETER	P-13	SR 823	401+15	ON BL	669
SETTLEMENT PLATFORM	S-13	SR 823	401+00	ON BL	-
PIEZOMETER	P-14	SR 823	405+15	64' RT.	670
SETTLEMENT PLATFORM	S-14	SR 823	405+00	64' RT.	-
PIEZOMETER	P-15	SR 823	409+15	56' RT.	670
SETTLEMENT PLATFORM	S-15	SR 823	409+00	56' RT.	-
PIEZOMETER	P-16	SR 823	413+15	48' RT.	680
SETTLEMENT PLATFORM	S-16	SR 823	413+00	48' RT.	-

HORIZONTAL SCALE IN FEET: 0 50 100 200

CALCULATED BEE
CHECKED DMV

SCI-823-6.81

USER: CWahlbri PLOT DATE: 9/15/2011 5:56:55 PM REVISION DATE: 9/15/2011
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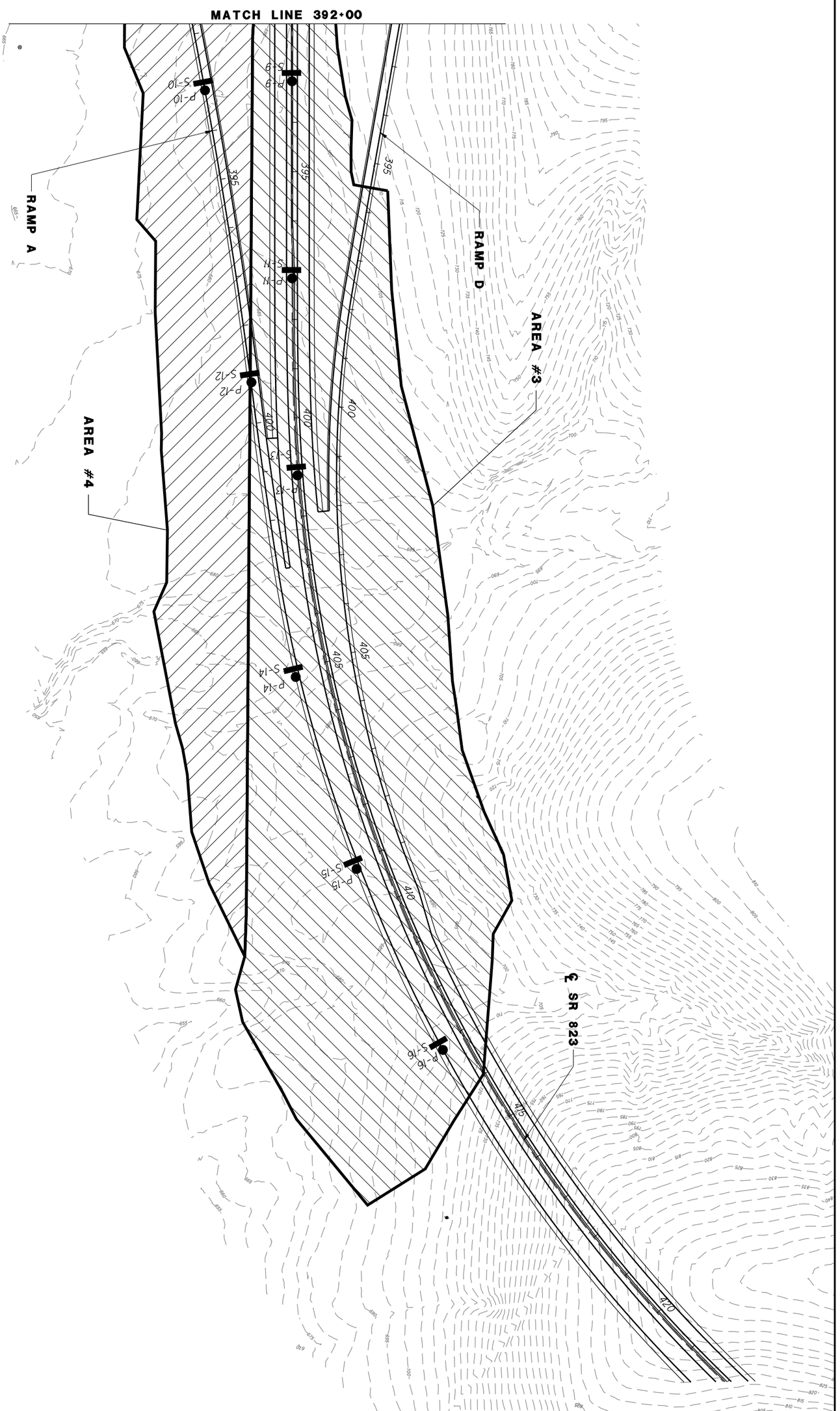

473 / 535	SCI-823-6.81	WICK DRAIN AND INSTRUMENTATION PLAN SHUMWAY HOLLOW RD (TR 234) INTERCHANGE	CALCULATED BEE CHECKED DMV	0 100 50 200 HORIZONTAL SCALE IN FEET

AREA #1

WICK DRAIN TREATMENT AREA TO BE BETWEEN STATIONS 530+00 AND 539+19 AND EXTEND 15 FT RIGHT AND LEFT OF THE LIMITS OF THE BOTTOM OF THE EMBANKMENT. (SEE NOTES AND DETAILS, SHEETS 475 AND 476.)

AREA #2

WICK DRAIN TREATMENT AREA TO BE BETWEEN STATIONS 531+00 AND 536+91 (RAMP A STATIONING); STATIONS 526+25 AND 521+83 (RAMP B STATIONING) AND EXTEND 15 FT RIGHT AND LEFT OF THE LIMITS OF THE BOTTOM OF THE EMBANKMENT. (SEE NOTES AND DETAILS, SHEETS 475 AND 476.)

AREA #3

WICK DRAIN TREATMENT AREA TO BE BETWEEN STATIONS 513+83 AND 520+00 (RAMP C STATIONING); STATIONS 537+93 AND 543+75 (RAMP D STATIONING) AND EXTEND 15 FT RIGHT AND LEFT OF THE LIMITS OF THE BOTTOM OF THE EMBANKMENT. (SEE NOTES AND DETAILS, SHEETS 475 AND 476.)

LUCASVILLE-MINFORD ROAD (C.R. 28)

RAMP A

RAMP B

RAMP C

RAMP D

℄ S.R. 823

● SETTLEMENT PLATFORM

▲ PIEZOMETER

	TREATMENT AREA			
	AREA #1	AREA #2	AREA #3	TOTAL
TOTAL AREA (ft) ^{2} AVERAGE INSTALLED DEPTH (ft)	329,029 45	94,847 46	107,519 38	531,395 *(2/27)= 39,363
WICK DRAIN SPACING OPTION (ft)	TOTAL LINEAR FEET			TOTAL
5 7	- 373,697	217,392 -	204,600 -	421,992 +373,697 795,689

INSTRUMENT	IDENTIFIER	STATION REFERENCE	STATION	OFFSET	PIEZOMETER TIP ELEVATION (ft)
PIEZOMETER	P-1	SR 823	531+95	ON BL	730
SETTLEMENT PLATFORM	S-1	SR 823	532+05	ON BL	-
PIEZOMETER	P-2	SR 823	534+95	ON BL	700
SETTLEMENT PLATFORM	S-2	SR 823	535+05	ON BL	-
PIEZOMETER	P-3	SR 823	536+95	ON BL	694
SETTLEMENT PLATFORM	S-3	SR 823	537+05	ON BL	-

N

0 50 100 200 HORIZONTAL SCALE IN FEET

CALCULATED BEE CHECKED DMV

WICK DRAIN AND INSTRUMENTATION PLAN
CR 28/SR 823 INTERCHANGE

SCI-823-6.81

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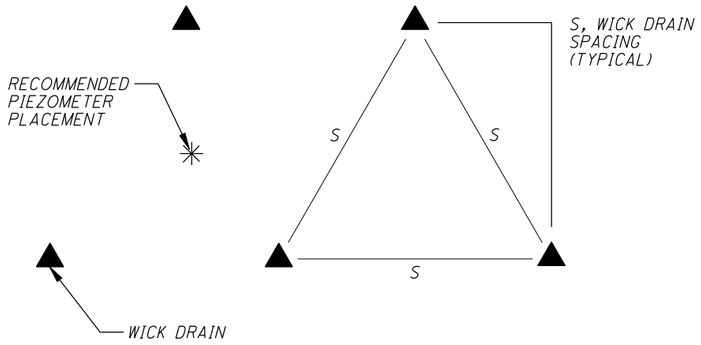
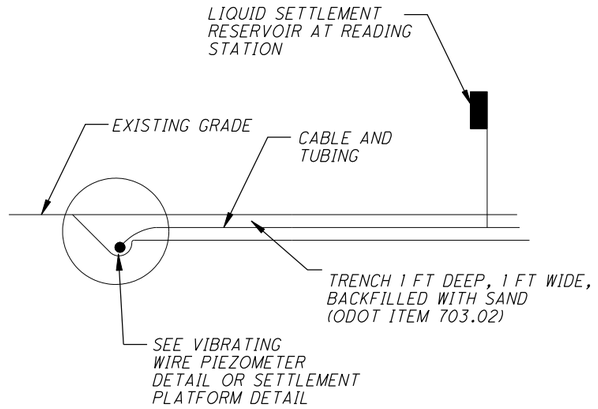


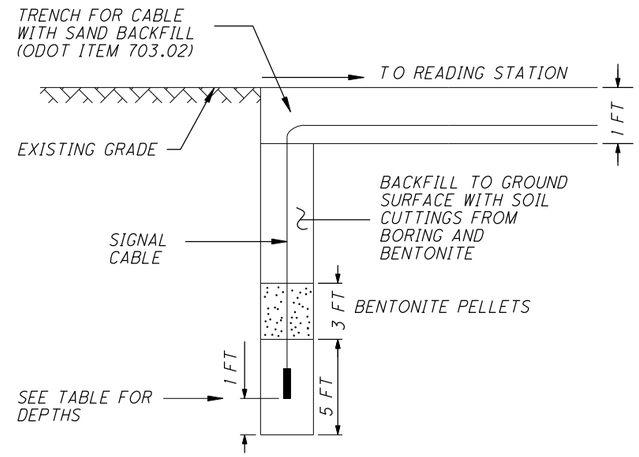
DETAIL "A"

WICK DRAIN TYPICAL LAYOUT-PLAN VIEW
(NOT TO SCALE)



DETAIL "B"

INSTRUMENTATION DETAILS
(NOT TO SCALE)



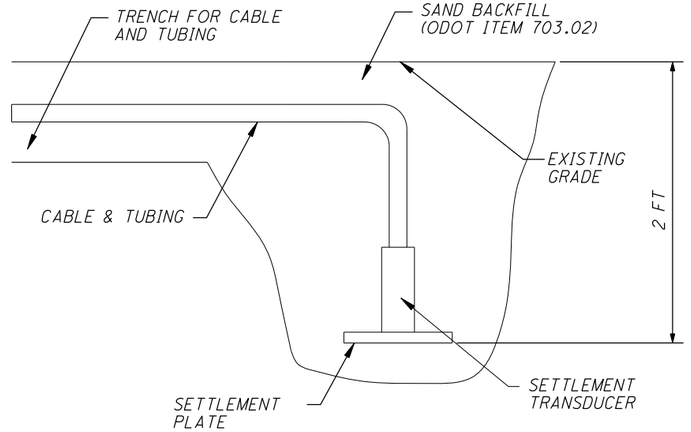
VIBRATING WIRE PIEZOMETER, AS PER PLAN

(NOT TO SCALE)

TABLE 1 - EMBANKMENT STAGED CONSTRUCTION

ROADWAY SECTION	TOTAL EMBANKMENT HEIGHT		REQUIRED DEGREE OF CONSOLIDATION PRIOR TO PLACING SUBSEQUENT STAGES	MAXIMUM EXCESS PORE PRESSURE HEAD[1]
TR 234 INTERCHANGE[2]	STAGE 1	26 FT	90%	18 FT
	STAGE 2	51 FT	90%	18 FT
	STAGE 3	80 FT	-	18 FT
CR 28 INTERCHANGE[3]	STAGE 1	27 FT	90%	18 FT
	STAGE 2	45 FT	-	18 FT

1. EXCESS PORE PRESSURES SHOULD NOT BE ALLOWED TO RISE ABOVE SPECIFIED LEVEL AT ANY TIME. LEVEL MEASURED RELATIVE TO EXISTING GROUND SURFACE
2. APPROXIMATE MAXIMUM EMBANKMENT HEIGHT IS 80 FT
3. APPROXIMATE MAXIMUM EMBANKMENT HEIGHT IS 45 FT



SETTLEMENT PLATFORM DETAIL

(NOT TO SCALE)

TABLE 2 - ESTIMATED WAITING PERIOD

ROADWAY SECTION	WICK DRAIN SPACING	ESTIMATED TIME TO 90% CONSOLIDATION[1]		
		STAGE 1	STAGE 2	STAGE 3
TR 234 INTERCHANGE				
AREA 1 & AREA 2	6 FT	265 DAYS	215 DAYS	-
AREA 3 & AREA 4	4 FT	145 DAYS	120 DAYS	95 DAYS
CR 28 INTERCHANGE				
AREA 1	7 FT	420 DAYS	360 DAYS	-
AREA 2 & AREA 3	5 FT	215 DAYS	185 DAYS	-

1. PROVIDED WAITING PERIODS ARE ESTIMATES ONLY. VERIFY THAT CONSOLIDATION REQUIREMENTS ARE ACHIEVED BY ANALYSIS OF PIEZOMETER AND SETTLEMENT READINGS

CALCULATED BEE CHECKED DMV

INSTRUMENTATION AND SPECIAL CONSTRUCTION NOTES AND DETAILS

SCI-823-6.81

NOTES:

1. WICK DRAINS TO BE INSTALLED PRIOR TO EMBANKMENT CONSTRUCTION.

2. ITEM 203, EMBANKMENT AS PER PLAN: PLACE 2 FEET OF ODOT ITEM 703.02A BEFORE THE INSTALLATION OF THE WICK DRAINS. THE FINE AGGREGATE SHALL CONSIST OF CLEAN, FREE-DRAINING, COARSE, NATURAL SAND OR SAND MANUFACTURED FROM STONE; SHALL BE GRADED UNIFORMLY FROM COARSE TO FINE; AND SHALL BE OF SUCH SIZE THAT, WHEN TESTING ON U.S. STANDARD SIEVES IN ACCORDANCE WITH AASHTO T27 AND WASHING THE SAMPLE IN ACCORDANCE WITH AASHTO T11, SHALL CONFORM TO THE GRADING REQUIREMENTS OF ODOT CMS 703.02A. THE SAND SHALL NOT CONTAIN ANY ORGANIC OR OTHER DELETERIOUS MATERIALS AND SHALL NOT BE FROZEN WHEN PLACED.

3. WICK DRAINS SHALL BE INSTALLED FROM THE WORKING SURFACE TO THE DEPTH SHOWN IN THE PLANS, OR SHALL COMPLETELY PENETRATE THE COMPRESSIBLE FOUNDATION SOILS AT SUCH A DEPTH EITHER SHALLOWER OR DEEPER THAN THE PLAN DEPTH.

4. IF DENSE SAND, GRAVEL OR HARD SOIL LAYERS ARE ENCOUNTERED BELOW THE GROUND SURFACE AND CANNOT BE PENETRATED WITH REASONABLE EFFORT, THE CONTRACTOR SHALL BE REQUIRED TO PRE-DRILL THE WICK DRAIN LOCATIONS.

5. THE ACTUAL WICK DRAIN TREATMENT AREA AND DEPTH MIGHT DIFFER FROM THE PROPOSED LIMITS DUE TO SOIL VARIATIONS AT THE SITE AND THEREFORE SHOULD BE CONFIRMED IN THE FIELD BY THE ODOT CONSTRUCTION REPRESENTATIVE.

6. IT IS RECOMMENDED THAT WICK DRAINS BE INSTALLED PRIOR TO THE INSTALLATION OF SETTLEMENT PLATFORMS OR PIEZOMETERS. PIEZOMETERS SHOULD BE PLACED EQUAL DISTANCES FROM ADJACENT WICK DRAINS TO PREVENT PORE PRESSURE DISSIPATION NEAR THE DRAINS FROM SKEWING MEASUREMENTS, SEE DETAIL "A" (SHEET 475). THE ODOT CONSTRUCTION REPRESENTATIVE MAY MODIFY THE INSTRUMENTATION PLAN BASED UPON FIELD CONDITIONS.

7. SETTLEMENT PLATES SHALL BE GEOKON MODEL 4600 OR EQUIVALENT.

8. MAINLINE SR823 ROADWAY EMBANKMENTS MUST BE BUILT USING STAGED CONSTRUCTION. THE FOUNDATION PORE WATER PRESSURES AND SETTLEMENTS SHALL BE MONITORED. THE STAGE HEIGHTS, REQUIRED DEGREE OF CONSOLIDATION AND THE MAXIMUM ALLOWABLE PORE PRESSURE ARE PRESENTED IN TABLE 1 (SHEET 475). A WAITING OR QUARANTINE PERIOD WILL BE REQUIRED BETWEEN STAGES TO ALLOW EXCESS PORE PRESSURES TO DISSIPATE PRIOR TO PLACING SUBSEQUENT STAGES. THE ESTIMATED TIME TO ACHIEVE 90 PERCENT CONSOLIDATION (U=90%) ARE PRESENTED IN TABLE 2 (SHEET 475). ESTIMATES FOR WICK DRAIN QUANTITIES ARE PRESENTED IN TABULAR FORM ON SHEETS 472 AND 474.

9. DURING CONSTRUCTION, THE VIBRATING WIRE PIEZOMETERS SHALL BE READ A MINIMUM OF TWO TIMES EACH DAY DURING FILL PLACEMENT. MORE FREQUENT READINGS SHALL BE TAKEN IF THE EXCESS PORE PRESSURE HEAD IS ABOVE THE LEVEL OF THE EXISTING GROUND SURFACE. THE SETTLEMENT PLATFORMS SHALL ALSO BE READ A MINIMUM OF TWO TIMES EACH DAY. DURING THE WAITING OR CONSOLIDATION PERIOD, READINGS OF THE VIBRATING WIRE PIEZOMETERS AND SETTLEMENT PLATFORMS CAN BE REDUCED TO A MINIMUM OF ONE TIME EACH DAY.

VIBRATING WIRE PIEZOMETER, AS PER PLAN

VIBRATING WIRE PIEZOMETERS SHALL BE SLOPE INDICATOR MODEL 52611099 OR EQUIVALENT.

CALCULATED BEE CHECKED DMV

INSTRUMENTATION AND SPECIAL CONSTRUCTION NOTES AND DETAILS

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 5:57:14 PM REVISION DATE: 9/15/2011
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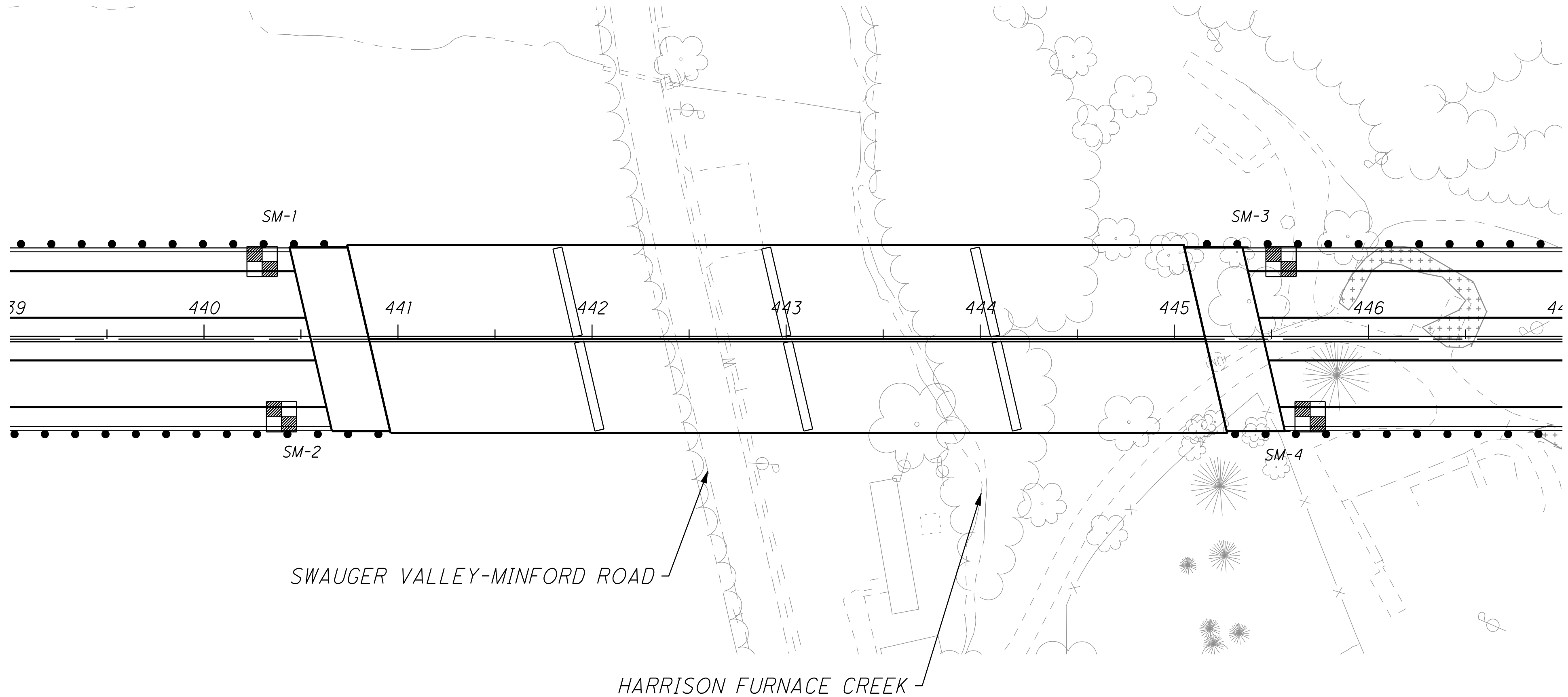
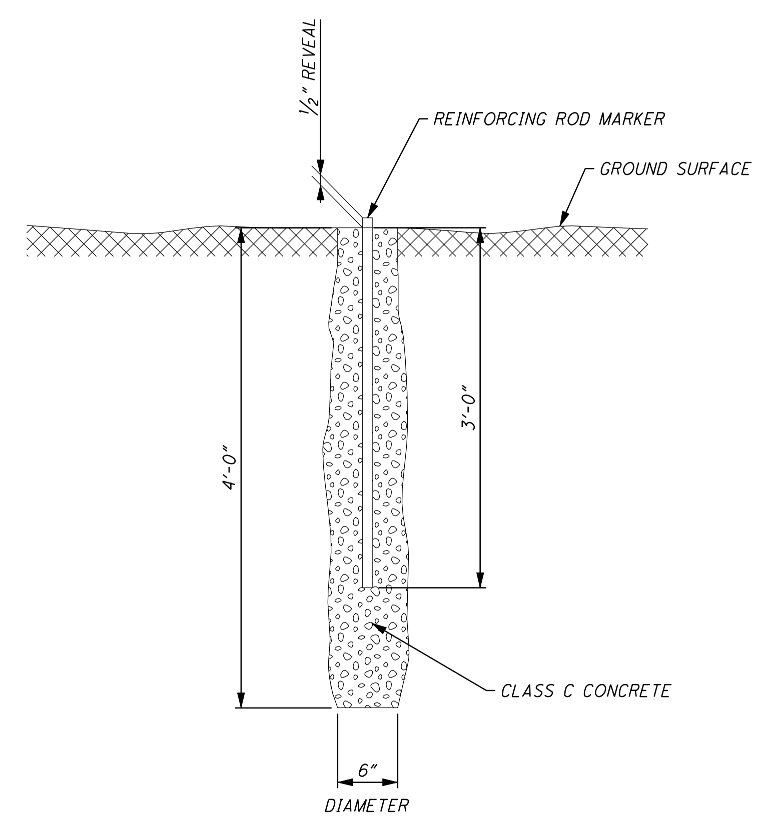


RECOMMENDED LOCATIONS FOR SURFACE MONUMENTS			
APPROACH EMBANKMENT	SURFACE MONUMENT	STATION	LOCATION
REAR	SM-1	440+30, 40' LT	ROADWAY SHOULDER
	SM-2	440+40, 40' RT	ROADWAY SHOULDER
FORWARD	SM-3	445+55, 40' LT	ROADWAY SHOULDER
	SM-4	445+70, 40' RT	ROADWAY SHOULDER



NOTE: EACH MONUMENT TO BE PROTECTED BY A 4- FOOT HIGH, FLOURESCENT PLASTIC, MESH FENCE PLACED AT A 3-FOOT RADIUS FROM THE MONUMENT.

SURFACE MONUMENT DETAIL
NOT TO SCALE

LEGEND
SURFACE MONUMENT

HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED BEE
CHECKED DMV

SURFACE MONUMENTS
SR823 OVER SWAUGER VALLEY-MINFORD ROAD

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 5:57:21 PM REVISION DATE: 9/15/2011
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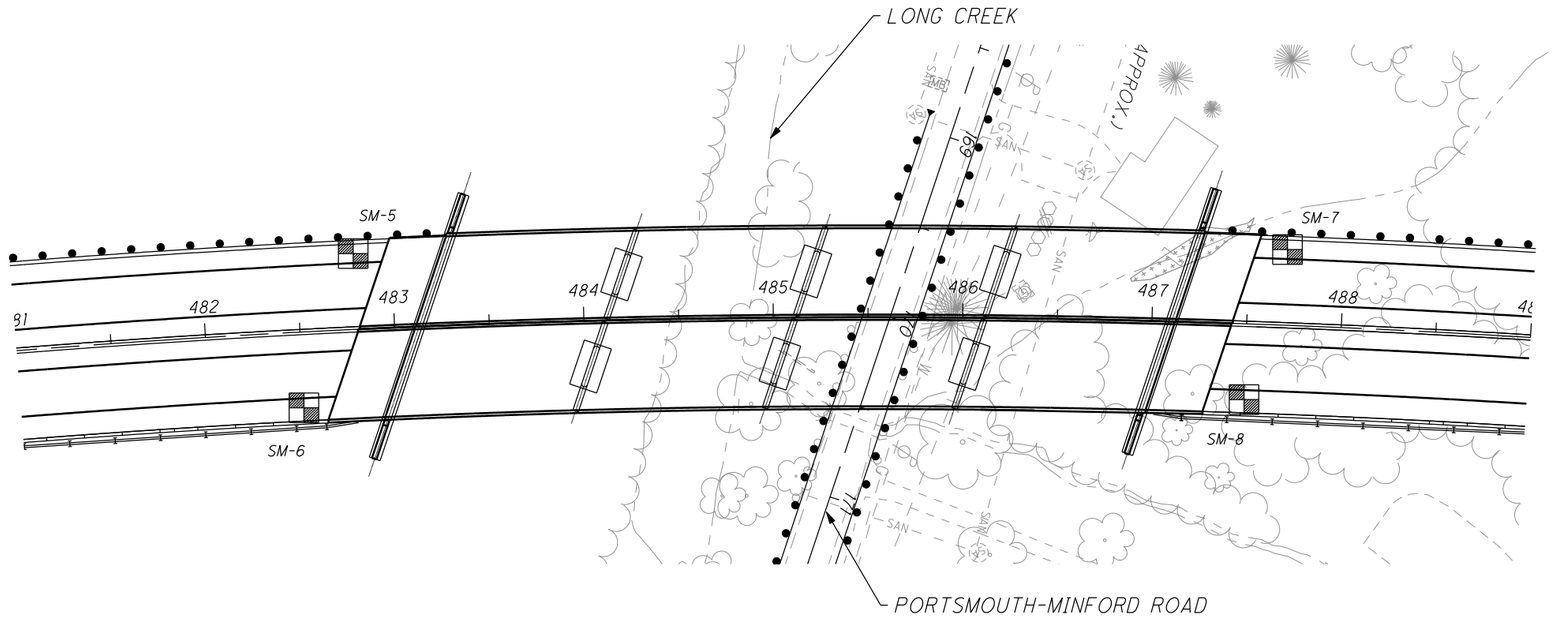
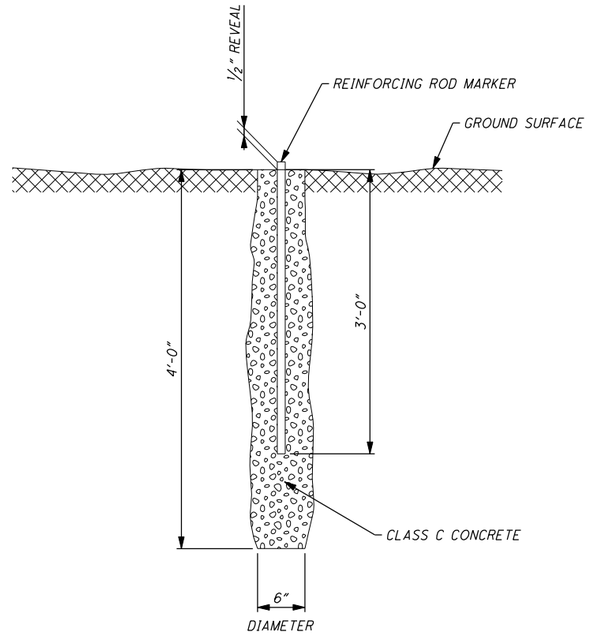


RECOMMENDED LOCATIONS FOR SURFACE MONUMENTS			
APPROACH EMBANKMENT	SURFACE MONUMENT	STATION	LOCATION
REAR	SM-5	482+80, 40' LT	ROADWAY SHOULDER
	SM-6	482+50, 40' RT	ROADWAY SHOULDER
FORWARD	SM-7	487+70, 40' LT	ROADWAY SHOULDER
	SM-8	487+50, 40' RT	ROADWAY SHOULDER



NOTE: EACH MONUMENT TO BE PROTECTED BY A 4-FOOT HIGH, FLOURESCENT PLASTIC, MESH FENCE PLACED AT A 3-FOOT RADIUS FROM THE MONUMENT.

SURFACE MONUMENT DETAIL

NOT TO SCALE

LEGEND

SURFACE MONUMENT

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED BEE
CHECKED DMV

SURFACE MONUMENTS
SR823 OVER PORTSMOUTH MINFORD ROAD

SCI-823-6.81

478
535

USER: Cmahler PLOT DATE: 9/15/2011 5:57:27 PM REVISION DATE: 9/15/2011
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SURFACE MONUMENT AND MONITORING, AS PER PLAN

DESCRIPTION - THIS WORK IS ESTABLISHMENT OF SURFACE MONUMENTS AND MONITORING OF THE GROUND SURFACE IN DIRECTED QUARANTINE AREAS RELATIVE TO SETTLEMENT. MONITORING INCLUDES OBTAINING, RECORDING, COMPILING AND ANALYZING THE ELEVATION READINGS FOR SURFACE MONUMENTS UTILIZING DIGITAL SURVEY EQUIPMENT.

QUARANTINE AREAS AND MINIMUM SETTLEMENT PERIODS ARE AS FOLLOWS:

SR 823 STATION 440+00 TO STATION 440+85 3 MONTHS
SR 823 STATION 445+15 TO STATION 446+00 3 MONTHS
SR 823 STATION 482+50 TO STATION 483+11 3 MONTHS
SR 823 STATION 487+12 TO STATION 488+00 3 MONTHS

MATERIALS

A) SURFACE MONUMENTS
NO. 5 STEEL REINFORCEMENT BARS, FOUR FOOT MINIMUM LENGTH -ITEM NO. 709
CLASS C CONCRETE - ITEM NO. 511

B) BARRIER FENCE - 4 FOOT HIGH, FLUORESCENT, PLASTIC MESH FENCE

CONSTRUCTION

A) GENERAL
PROVIDE QUALIFIED PERSONNEL UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF OHIO WITH A MINIMUM OF TWO YEARS' EXPERIENCE ON SETTLEMENT MONITORING. PROVIDE THE NECESSARY EQUIPMENT AND MATERIALS TO INSTALL SURFACE MONUMENTS AND OBTAIN, RECORD, COMPILE AND ANALYZE THE VERTICAL SETTLEMENT READINGS AT THE SURFACE MONUMENT LOCATIONS AS SPECIFIED OR DIRECTED. SUBMIT THE NAMES, DUTIES AND QUALIFICATIONS OF THE PERSONNEL FOUR WEEKS PRIOR TO THEIR WORK. INCLUDE THE EQUIPMENT TO BE USED AND THE MANNER IN WHICH INFORMATION WILL BE PRESENTED TO THE DISTRICT. ALSO INCLUDE THE LOCATIONS AND METHODS OF ESTABLISHING PERMANENT REFERENCE POINTS. NOTIFY THE DISTRICT BEFORE OBTAINING THE INITIAL SURFACE MONUMENT READING. INSTALL AND MONITOR THE SURFACE MONUMENTS AND PREPARE A REPORT INDICATING CURRENT AND PREVIOUS ELEVATIONS AND HORIZONTAL COORDINATES FOR EACH MONUMENT.

B) LOCATIONS
ESTABLISH SURVEY REFERENCE POINTS NEAR EACH SET OF MONUMENTS FOR HORIZONTAL AND VERTICAL CONTROL OUTSIDE THE CONSTRUCTION AREA. THESE POINTS ARE TO BE STABLE AND IN LOCATIONS NOT AFFECTED BY THE CONSTRUCTION OR OTHER OPERATIONS. PROPERLY REFERENCE THESE POINTS AND TIE THEM INTO THE CONSTRUCTION BASELINE.

C) INSTALLATION
INSTALL THE SURFACE MONUMENTS BY AUGERING THEM INTO THE EMBANKMENT AT THE LOCATIONS DIRECTED AND PER DETAIL INDICATED ON SHEETS 477 AND 478. GENERALLY, MONUMENTS ARE TO BE 6 INCHES IN DIAMETER BY 48 INCHES IN DEPTH CLASS C CONCRETE WITH THE REINFORCEMENT BAR CENTERED IN THE CONCRETE. PLACE THE TOP OF THE REINFORCING BAR LESS THAN 1 INCH ABOVE THE GROUND SURFACE.

D) AFTER THE EMBANKMENT IS CONSTRUCTED, ALLOW MINIMUM SETTLEMENT PERIOD AS INDICATED ABOVE. COORDINATE SURFACE MONUMENT READINGS WITH THE DISTRICT. PROMPTLY REDUCE EVERY READING TO THE FORMAT ESTABLISHED, SUCH THAT THE DISTRICT WILL BE ABLE TO MAKE IMMEDIATE EVALUATION OF THE CONDITIONS. PROVIDE RESULTS TO THE DISTRICT, IN THE APPROVED FORMAT, WITHIN TWELVE HOURS AFTER THE READINGS ARE OBTAINED. THE QUARANTINE PERIOD WILL END AFTER THE SPECIFIED TIME PERIOD HAS ELAPSED AND AFTER APPROVAL FROM THE DISTRICT IS RECEIVED. APPROVAL WILL ONLY BE GIVEN BY THE DISTRICT AFTER CONFIRMATION THAT SETTLEMENT HAS SATISFACTORILY CEASED. DO NOT CONSTRUCT FOOTINGS, PILING, OR PAVEMENT WITHIN THE QUARANTINE AREA UNTIL AFTER THE ABOVE APPROVAL IS GIVEN.

E) TAKE A COMPLETE SET OF READINGS FOLLOWING COMPLETION OF EMBANKMENT CONSTRUCTION AND UPON PLACEMENT OF THE SURFACE MONUMENTS. TAKE A COMPLETE SET OF READINGS AT WEEKLY INTERVALS FOR THE DURATION OF THE QUARANTINE PERIOD. IF FOUR CONSECUTIVE WEEKLY READINGS SHOW NO CHANGE, REDUCE READING INTERVAL TO BI-WEEKLY. OBTAIN AND RECORD ELEVATION DATA TO THE NEAREST HUNDREDTH (0.01) OF A FOOT FOR THE ELEVATION OF THE TOP OF THE #5 REINFORCEMENT BAR FOR THE INITIAL SET AND FOLLOWING WEEKLY READINGS.

F) PROTECT THE MONUMENT WITH A 4-FOOT HIGH FLUORESCENT PLASTIC MESH FENCE PLACED AT A 3-FOOT RADIUS FROM THE CENTER OF THE MONUMENT. THE SPECIFIED QUARANTINE PERIOD MAY BE EXTENDED IF DISTURBANCE TO THE MONUMENT OCCURS OR FAILURE TO OBTAIN OR PROVIDE TIMELY READINGS. IN THIS CASE, ANY ADDITIONAL COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

MEASUREMENT AND PAYMENT - 8 EACH.

ALL COSTS OF FURNISHING MATERIAL, EQUIPMENT, TOOLS, LABOR, SURVEYING AND INCIDENTAL WORK NECESSARY TO INSTALL THE SURFACE MONUMENTS. ALSO INCLUDES NECESSARY SURVEY DURING THE MONITORING PERIOD AND REPORTING OF SURVEY DATA.

CALCULATED BEE
CHECKED DMV

SURFACE MONUMENT NOTES

SCI-823-6.81

USER: CWahlbri PLOT DATE: 9/15/2011 5:57:38 PM REVISION DATE: 9/15/2011
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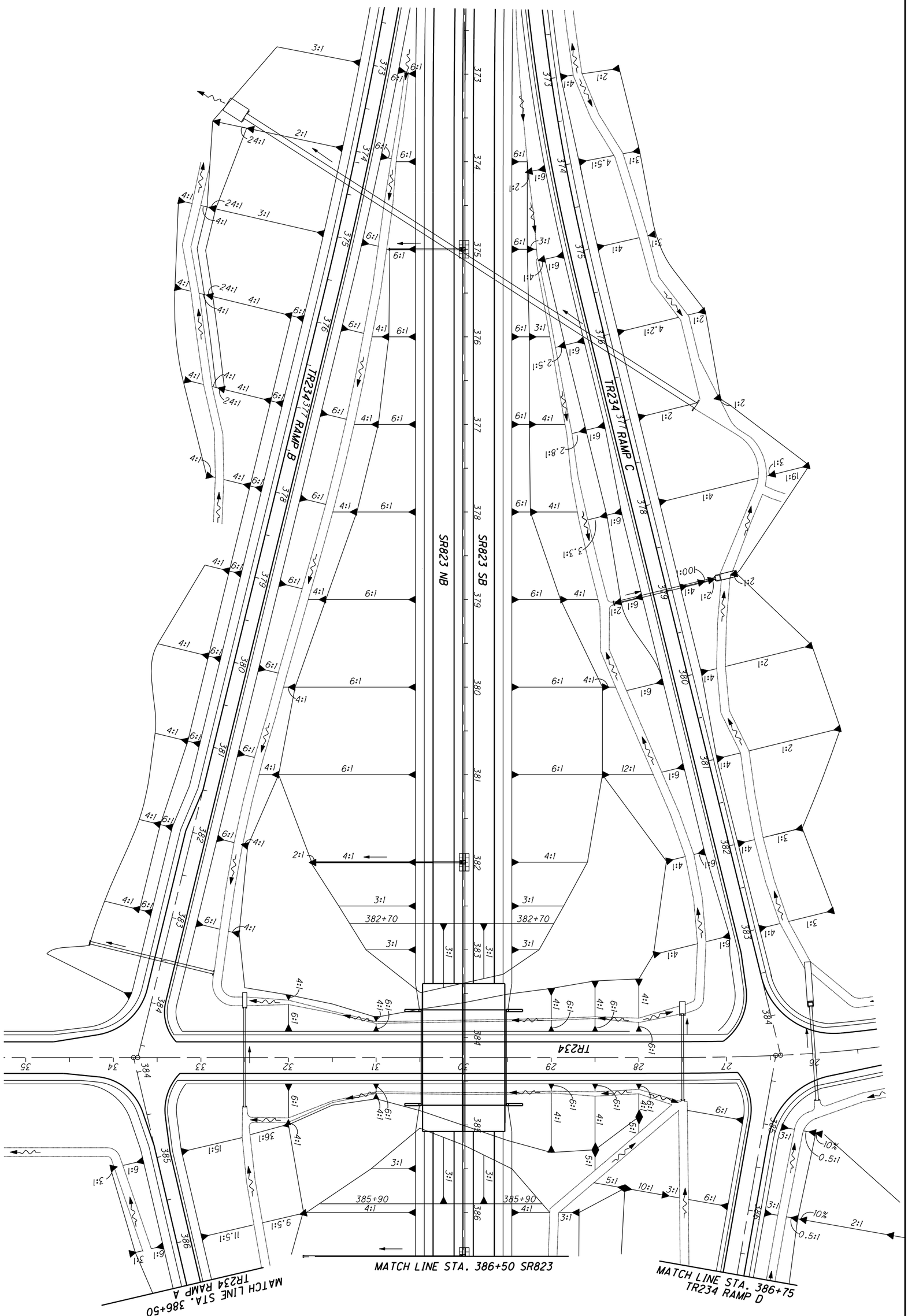

535 / 480	SCI-823-6.81	GRADING PLAN SR 823 / TR234 INTERCHANGE	CALCULATED LBD CHECKED JMB	0 50 25 100 HORIZONTAL SCALE IN FEET

USER: CWahlbri PLOT DATE: 9/15/2011 5:57:46 PM REVISION DATE: 9/15/2011
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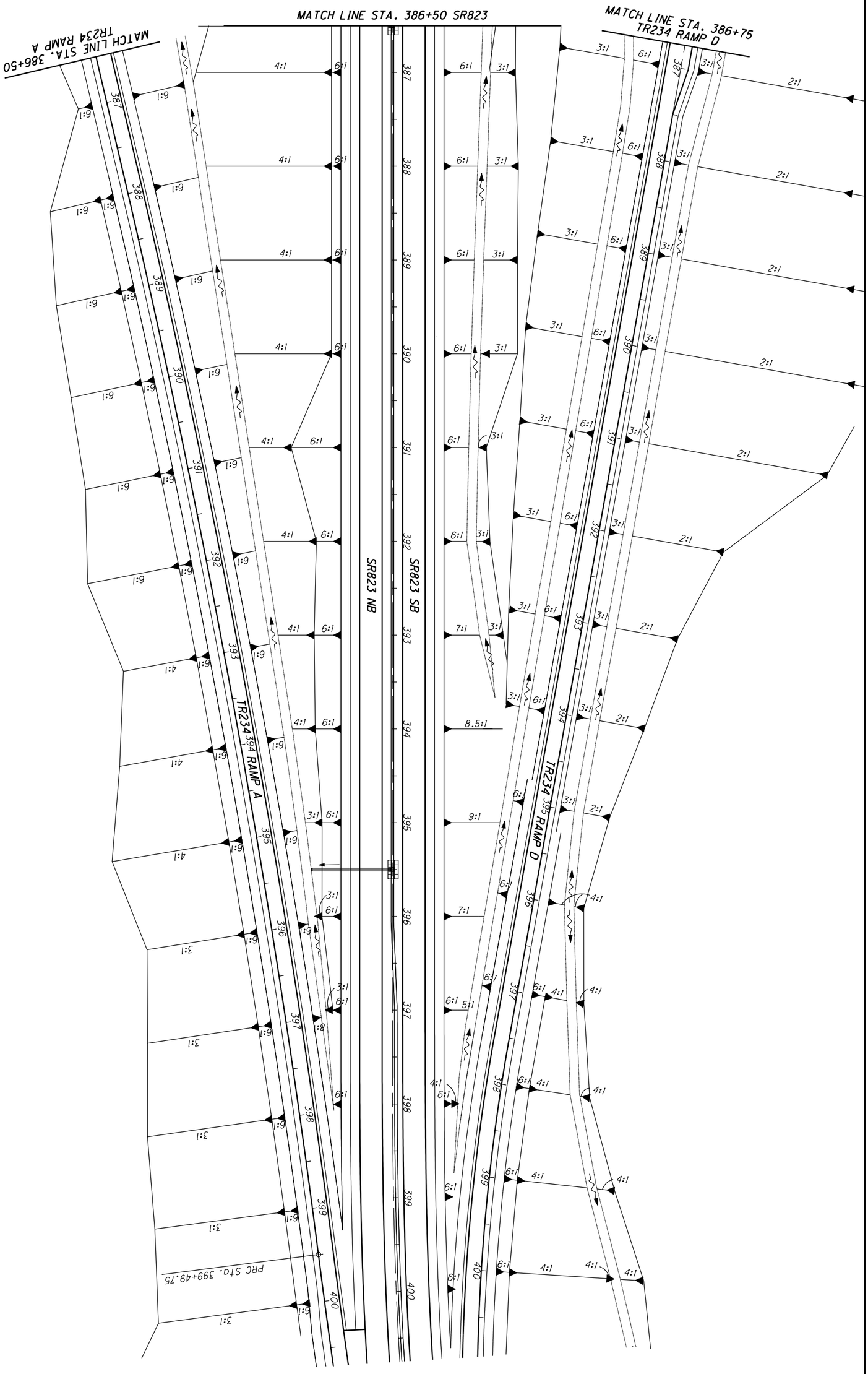
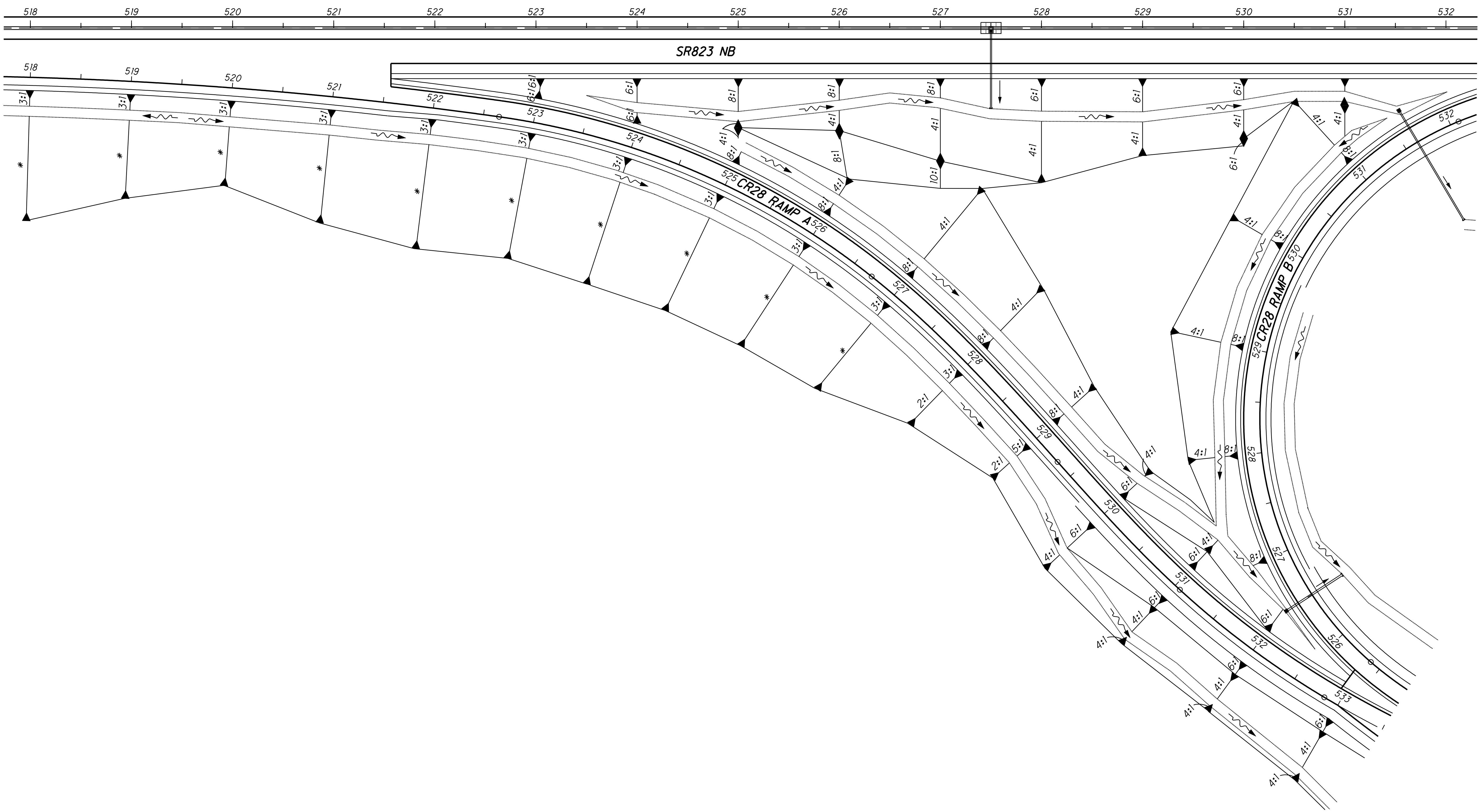


481 / 535	SCI-823-6.81	GRADING PLAN SR823 / TR234 INTERCHANGE	CALCULATED LBD CHECKED JMB	0 25 50 100 HORIZONTAL SCALE IN FEET



NOTE:

* SLOPE VARIES, ROCK CUT SLOPE

HORIZONTAL SCALE IN FEET

CALCULATED LBD

CHECKED JMB

GRADING PLAN

SR 823 / CR28 INTERCHANGE

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 5:57:53 PM REVISION DATE: 9/15/2011
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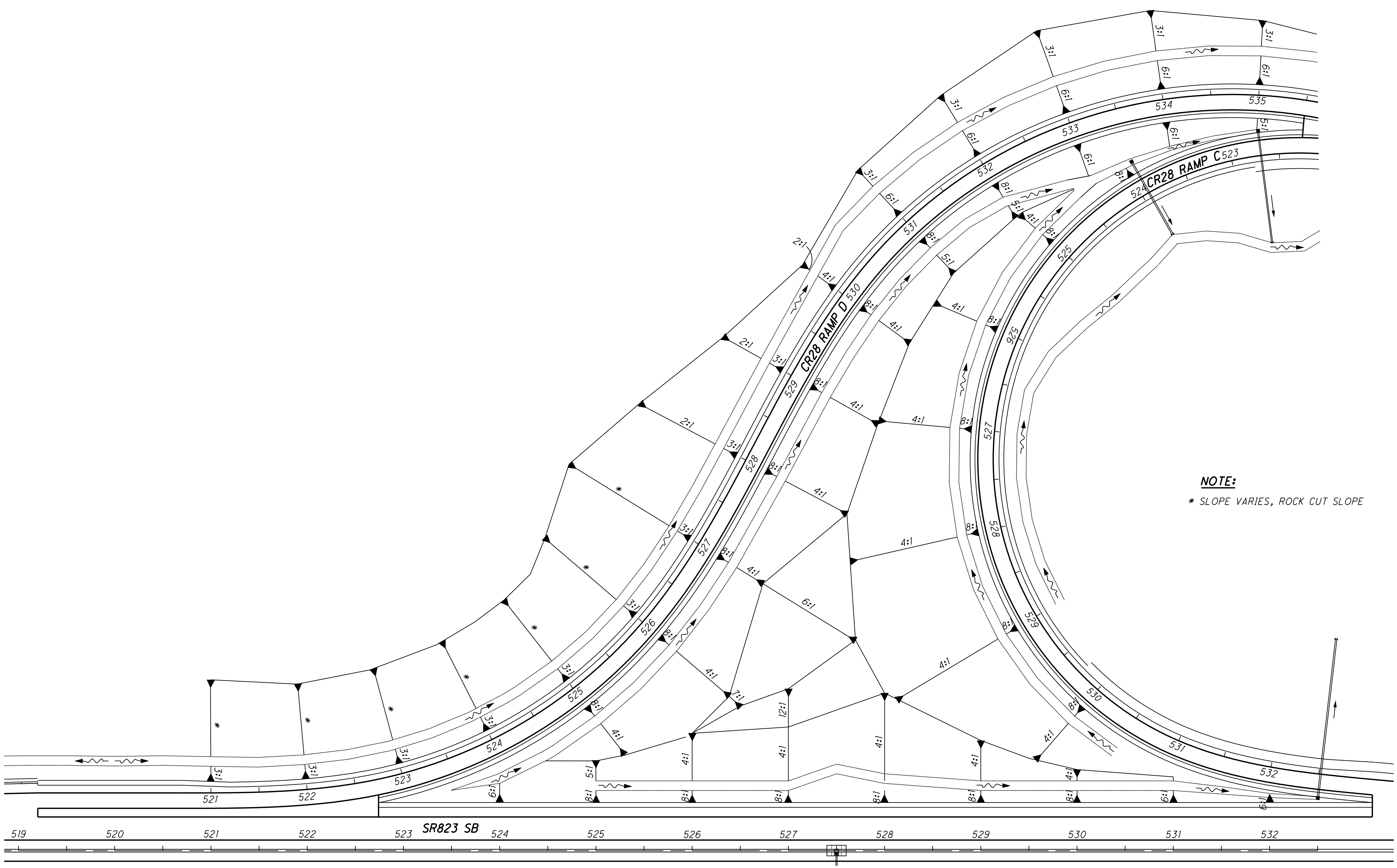

CALCULATED LBD
CHECKED JMB

GRADING PLAN
SR 823 / CR28 INTERCHANGE

SCI-823-6.81

USER: CWahlbri PLOT DATE: 9/15/2011 5:58:07 PM REVISION DATE: 9/15/2011
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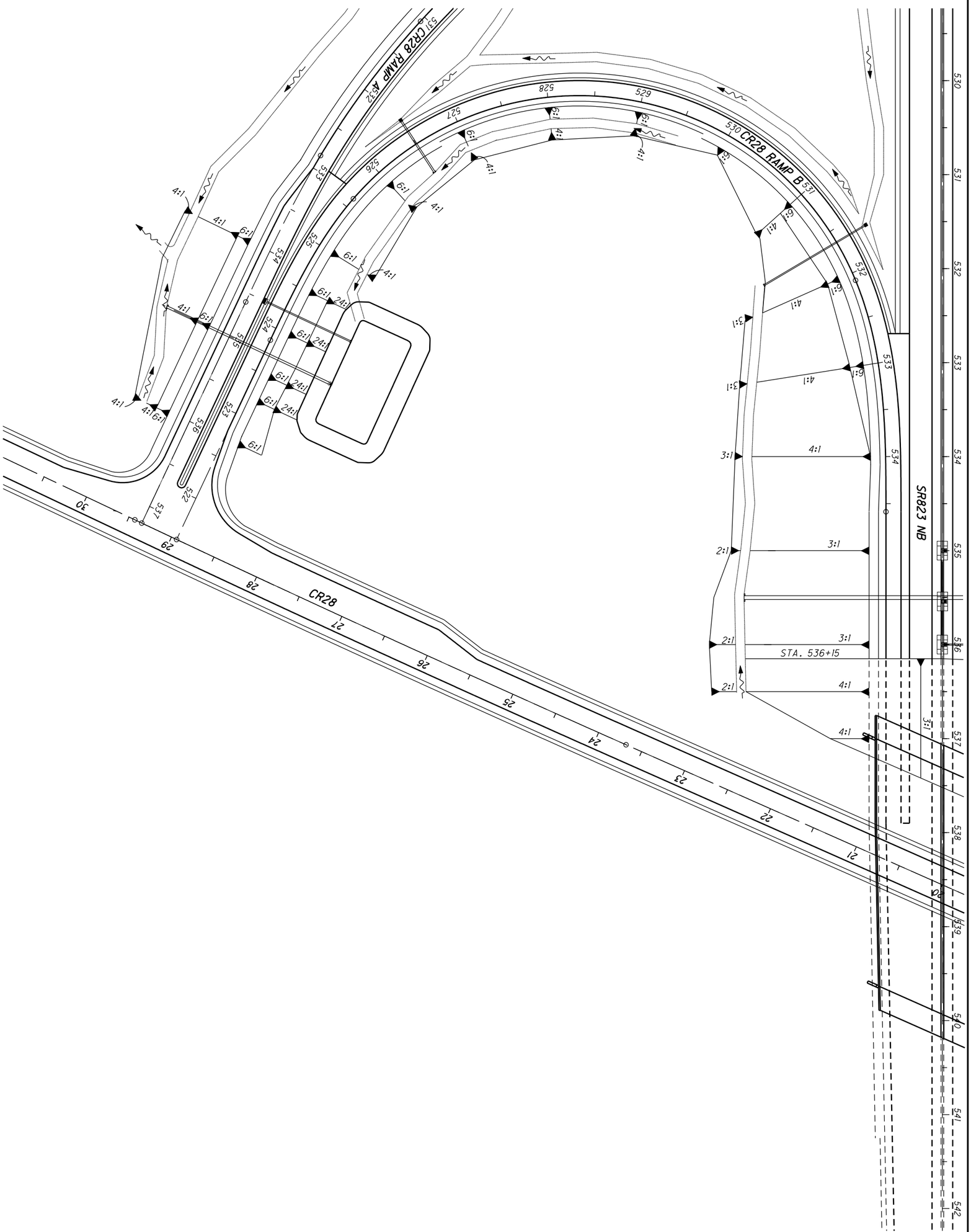

484 / 535	SCI-823-6.81	GRADING PLAN SR 823 / CR28 INTERCHANGE	CALCULATED LBD CHECKED JMB	0 50 25 100 HORIZONTAL SCALE IN FEET

USER: CWahlbri PLOT DATE: 9/15/2011 5:58:14 PM REVISION DATE: 9/15/2011
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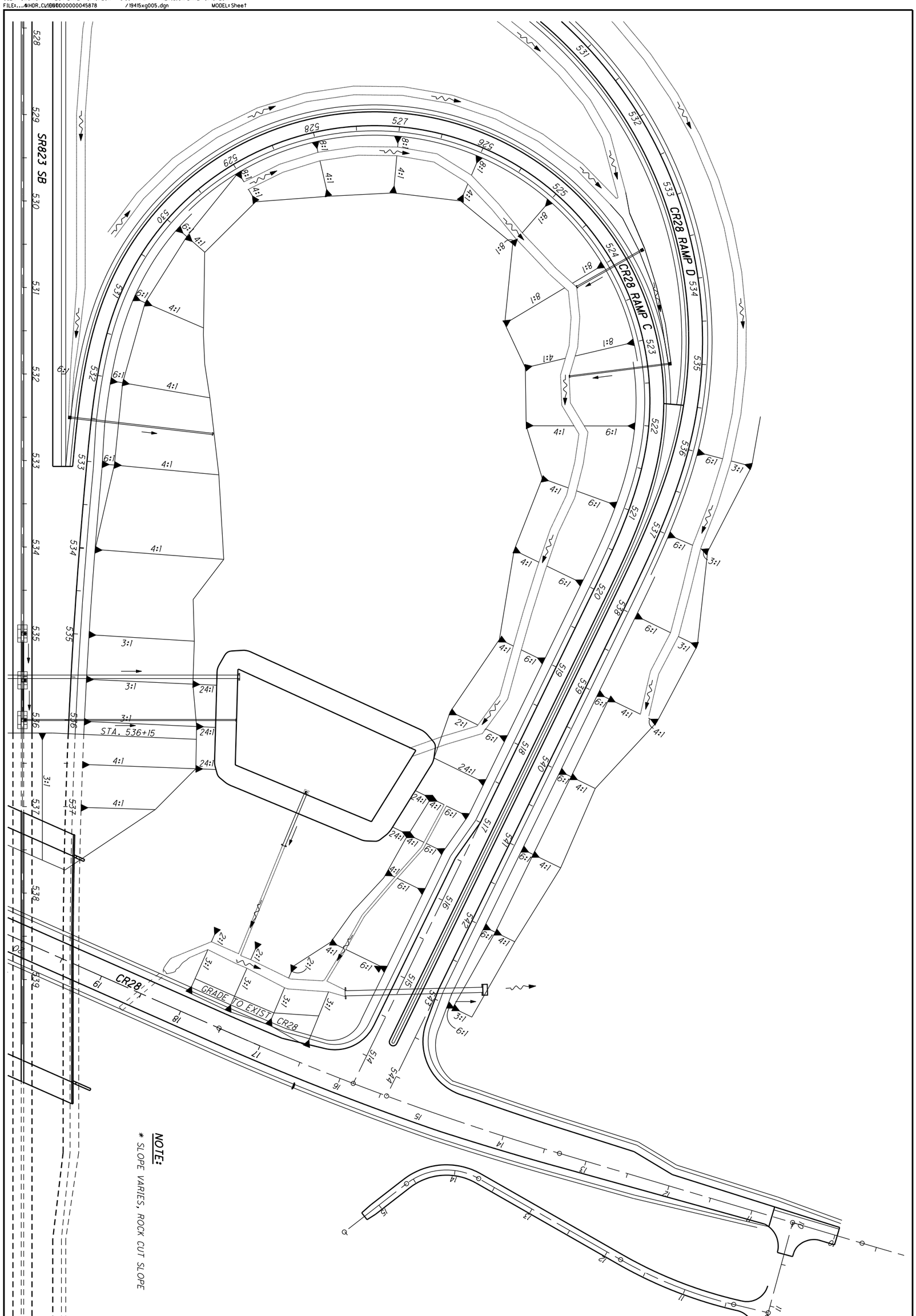


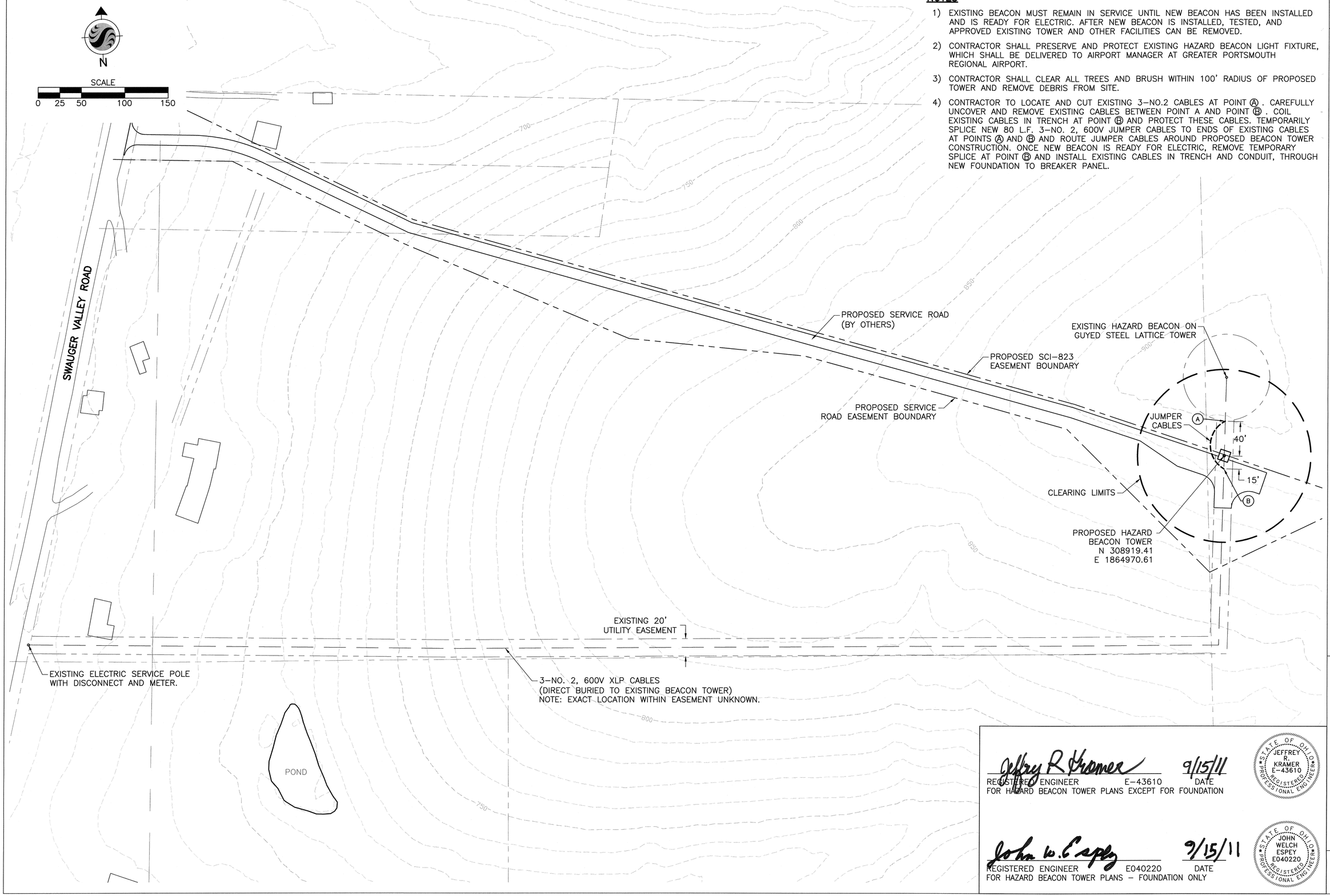
485 / 535	SCI-823-6.81	GRADING PLAN SR 823 / CR28 INTERCHANGE	CALCULATED LBD CHECKED JMB	0 50 25 100 HORIZONTAL SCALE IN FEET

CALCULATED BKC
CHECKED JRK

AIRPORT BEACON DETAILS

NOTES

1) EXISTING BEACON MUST REMAIN IN SERVICE UNTIL NEW BEACON HAS BEEN INSTALLED AND IS READY FOR ELECTRIC. AFTER NEW BEACON IS INSTALLED, TESTED, AND APPROVED EXISTING TOWER AND OTHER FACILITIES CAN BE REMOVED.
2) CONTRACTOR SHALL PRESERVE AND PROTECT EXISTING HAZARD BEACON LIGHT FIXTURE, WHICH SHALL BE DELIVERED TO AIRPORT MANAGER AT GREATER PORTSMOUTH REGIONAL AIRPORT.
3) CONTRACTOR SHALL CLEAR ALL TREES AND BRUSH WITHIN 100' RADIUS OF PROPOSED TOWER AND REMOVE DEBRIS FROM SITE.
4) CONTRACTOR TO LOCATE AND CUT EXISTING 3–NO.2 CABLES AT POINT Ⓐ. CAREFULLY UNCOVER AND REMOVE EXISTING CABLES BETWEEN POINT A AND POINT Ⓑ. COIL EXISTING CABLES IN TRENCH AT POINT Ⓑ AND PROTECT THESE CABLES. TEMPORARILY SPLICE NEW 80 L.F. 3–NO. 2, 600V JUMPER CABLES TO ENDS OF EXISTING CABLES AT POINTS Ⓐ AND Ⓑ AND ROUTE JUMPER CABLES AROUND PROPOSED BEACON TOWER CONSTRUCTION. ONCE NEW BEACON IS READY FOR ELECTRIC, REMOVE TEMPORARY SPLICE AT POINT Ⓑ AND INSTALL EXISTING CABLES IN TRENCH AND CONDUIT, THROUGH NEW FOUNDATION TO BREAKER PANEL.



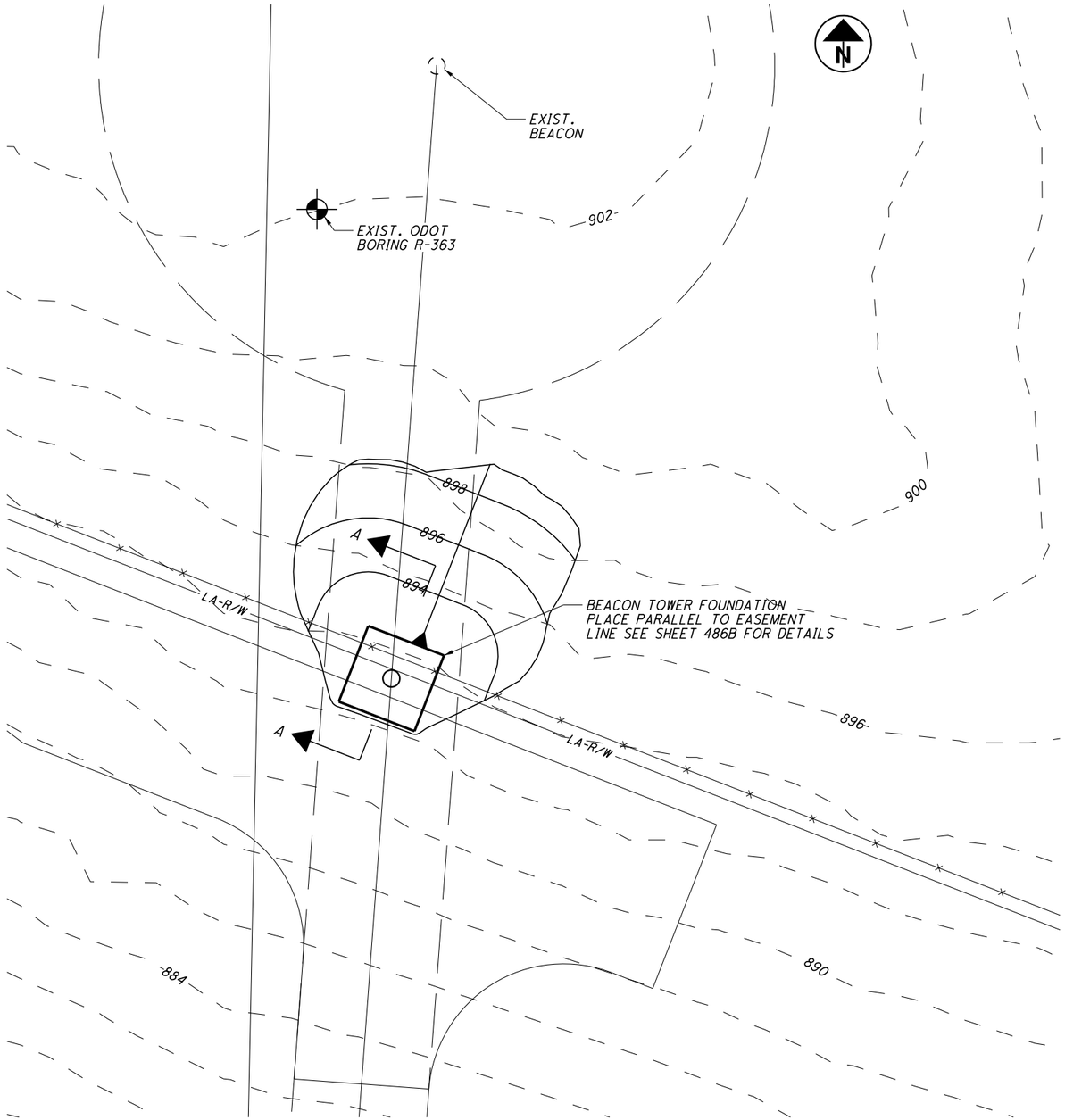
Jeffrey R Kramer — 9/15/11
REGISTERED ENGINEER E–43610 DATE
FOR HAZARD BEACON TOWER PLANS EXCEPT FOR FOUNDATION

STATE OF OHIO · JEFFREY R. KRAMER E–43610 · REGISTERED PROFESSIONAL ENGINEER

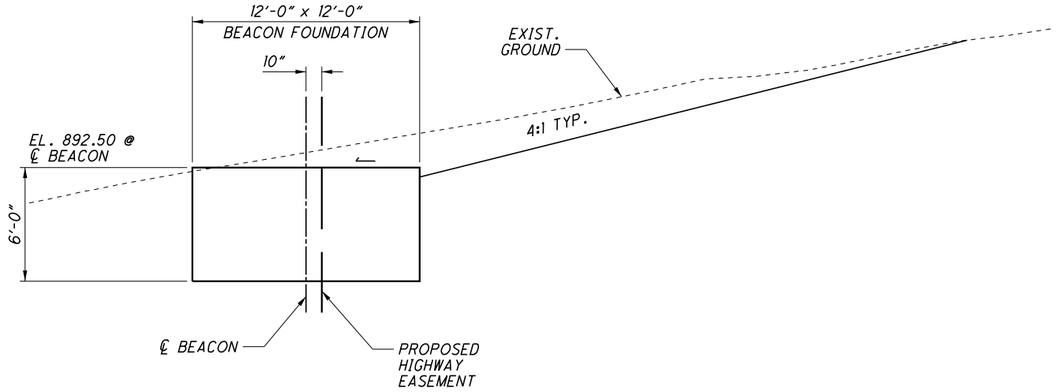
John W. Espey — 9/15/11
REGISTERED ENGINEER E040220 DATE
FOR HAZARD BEACON TOWER PLANS – FOUNDATION ONLY

STATE OF OHIO · JOHN WELCH ESPEY E040220 · REGISTERED PROFESSIONAL ENGINEER

SCI-823-6.81



SITE PLAN



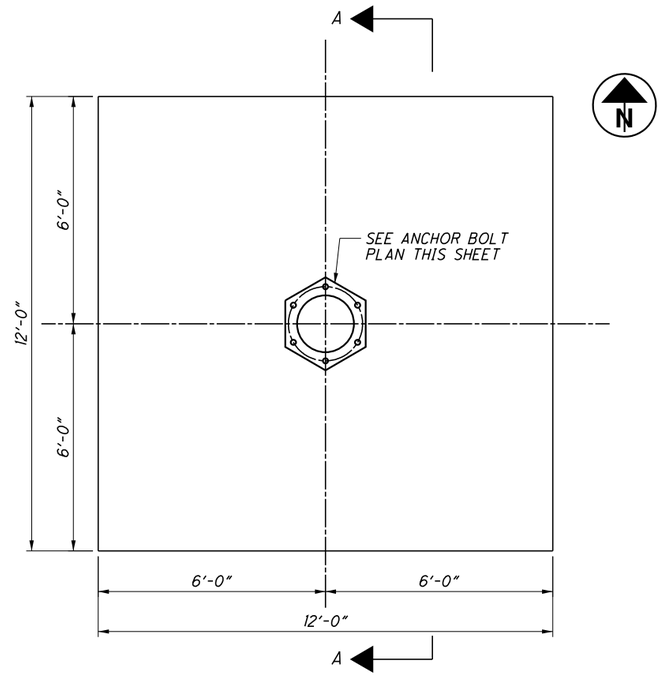
SECTION A-A

CALCULATED GT
CHECKED JWE

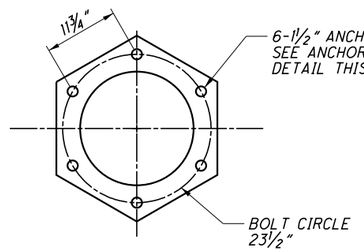
AIRPORT BEACON DETAILS

SCI-823-6.81

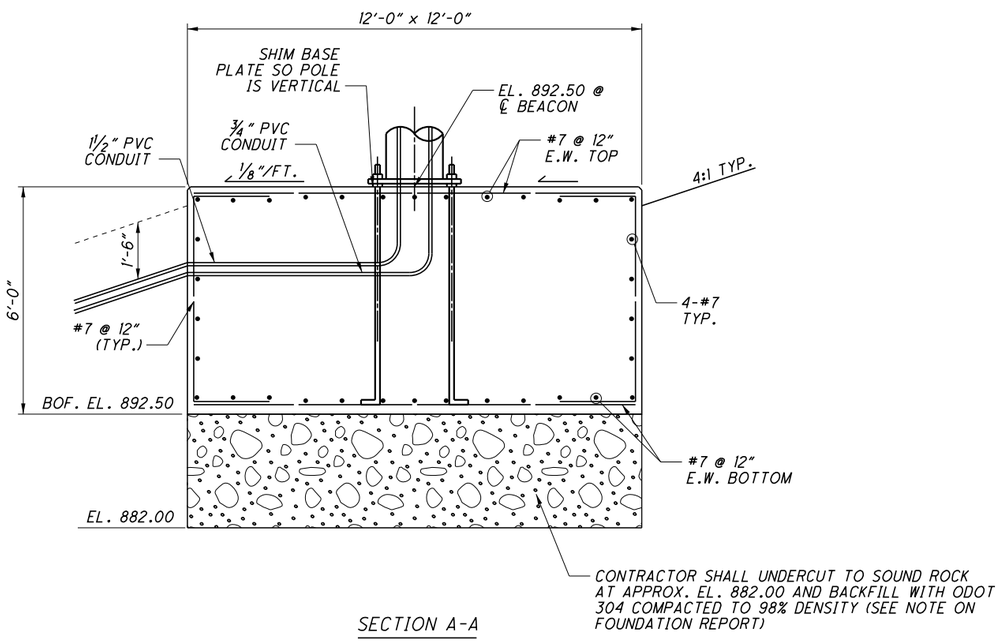
486A
535



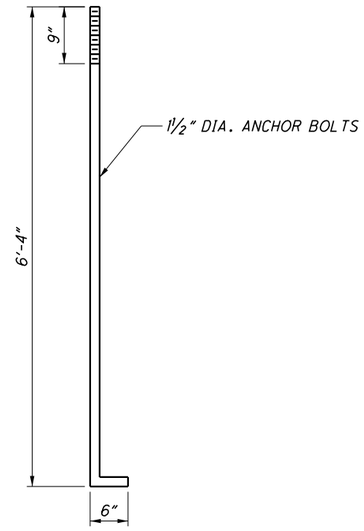
FOUNDATION PLAN



ANCHOR BOLT PLAN



SECTION A-A



ANCHOR BOLT DETAIL

GENERAL NOTES:

DESIGN SPECIFICATIONS:

THE FOUNDATION DESIGN CONFORMS TO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS" FOURTH EDITION PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2001 INCLUDING ANY INTERIM SPECIFICATIONS.

DESIGN CRITERIA:

WIND PRESSURE EQUATION 3-1 PARAMETERS:

Kz	=	1.63
G	=	1.14
V	=	90 mph
Ir	=	1.00
Cd	=	0.50 (POLE), 1.20 (HEADFRAME ASSEMBLY)

MATERIAL SPECIFICATIONS:

ANCHOR BOLTS - ASTM F1554 GR 55
ANCHOR BOLT NUTS - ASTM A563 GR A
FLAT WASHERS - ASTM F436
REINFORCING STEEL MINIMUM YIELD STRENGTH 60,000 PSI

DESIGN LOADING:

LOWERING WINCH	=	200 LBS
RING ASSEMBLY	=	250 LBS
POLE	=	3,300 LBS
LIGHT FIXTURE	=	20 LBS

CONCRETE CURING REQUIREMENTS:

THE CONCRETE SHALL CURE A MINIMUM OF 21 DAYS PRIOR TO THE PLACEMENT OF THE BEACON ON THE STRUCTURE SUPPORT.

CONCRETE STRENGTH REQUIREMENTS:

STRUCTURAL CONCRETE (ODOT CLASS "C") REQUIRED IN THE PROJECT SHALL ATTAIN THE FOLLOWING MINIMUM 28-DAY COMPRESSIVE STRENGHT (F'C) OF 4,000 PSI.

FOUNDATION REPORT:

FOUNDATION DESIGNED FOR A MINIMUM BEARING PRESSURE OF 3,000 LBS/SQ. FT. CONTRACTOR SHALL PROVIDE FOUNDATION REPORT FROM AN ODOT PREAPPROVED GEOTECHNICAL CONSULTANT BASED ON ONE BORING AT THE TOWER LOCATION AND TO A DEPTH OF 50 FEET AND CONFIRMING THE DESIGN BEARING PRESURE.

ABBREVIATIONS:

BOF.	-	BOTTOM OF FOUNDATION
EL.	-	ELEVATION
E.W.	-	EACH WAY
TYP.	-	TYPICAL

CALCULATED GT
CHECKED JWE

AIRPORT BEACON DETAILS

SCI-823-6.81

486B
535

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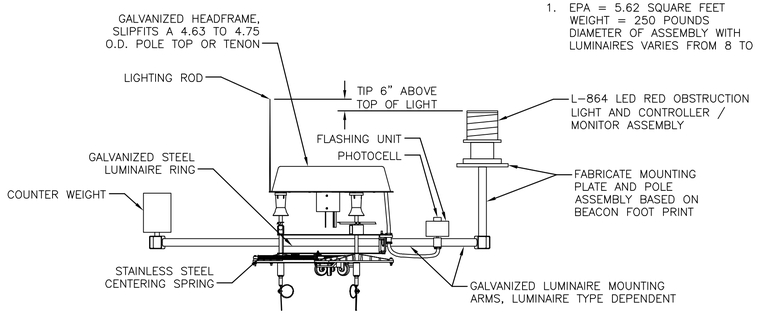
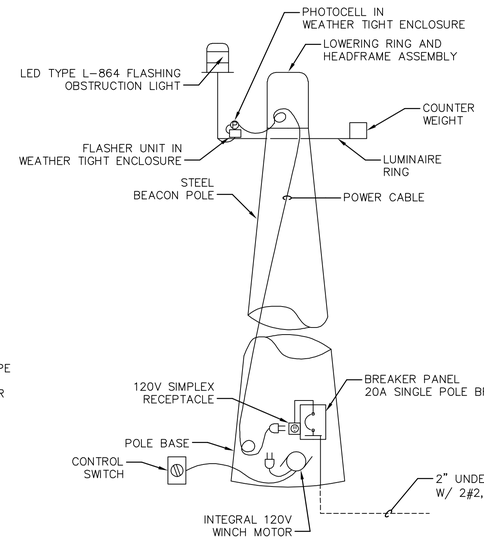
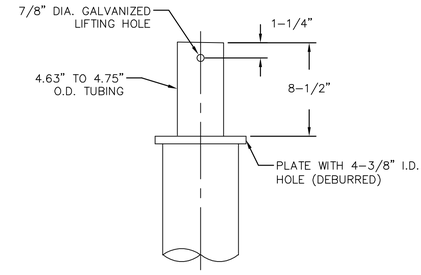
NOTES:

1. EPA = 5.62 SQUARE FEET
   WEIGHT = 250 POUNDS
   DIAMETER OF ASSEMBLY WITH LUMINAIRES VARIES FROM 8 TO 11 FEET

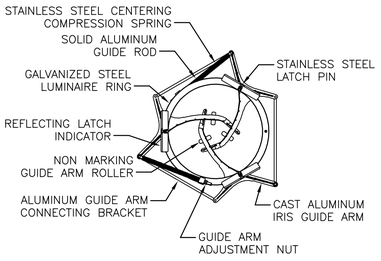




ONE LINE DIAGRAM
NOT TO SCALE



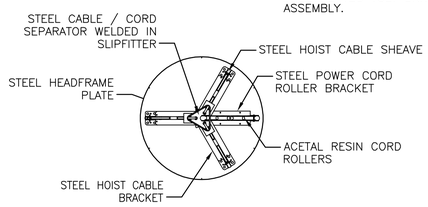
POLE TOP TENON DETAIL FOR MOUNTING HEADFRAME OF LUMINAIRE RING
NOT TO SCALE



TYPICAL RING ASSEMBLY

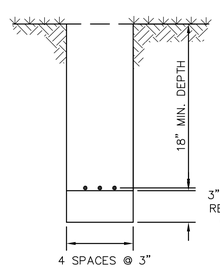
NOTE:

DETAILS SHOW A HOLOPHANE TYPE 25 LOWERING DEVICE WITH INTEGRAL 120 VOLT DRIVE MOTOR ASSEMBLY.



TYPICAL HEADFRAME ASSEMBLY

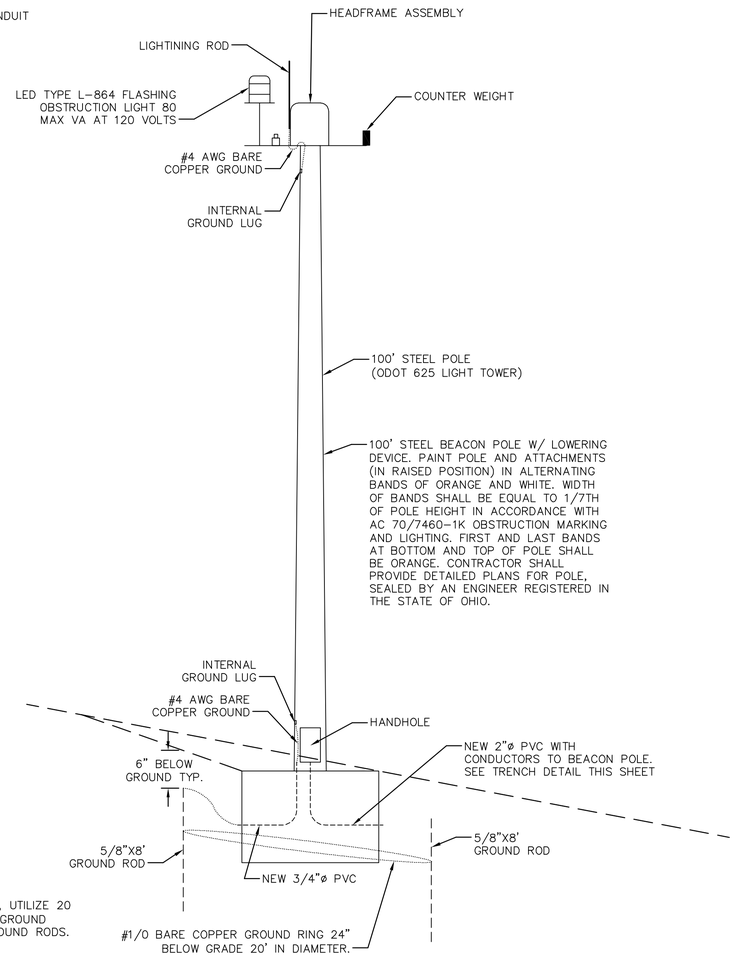
HEADFRAME AND RING ASSEMBLY DETAIL
NOT TO SCALE



NOTE: BACKFILL CABLES AS FOLLOWS:

1. 3" LIFT OF EARTH OR SOIL CONTAINING NO AGGREGATE OVER 1/4". DO NOT COMPACT.
2. 2. 5" LIFT OF EARTH WITH NO AGGREGATE OVER 1". COMPACT.
3. 6" LIFT OF EARTH WITH NO AGGREGATE OVER 4". COMPACT.
4. 4" OF TOPSOIL FROM SITE. COMPACT.

TRENCH DETAIL
NOT TO SCALE



NOTE:
IF ROCK ENCOUNTERED, UTILIZE 20 GUAGE THICK 36"X36" GROUND PLATES IN LIEU OF GROUND RODS.

POLE SCHEMATIC
NOT TO SCALE

CALCULATED BKC CHECKED JRK

AIRPORT BEACON DETAILS

SCI-823-6.81

486C
535

USER: $USER$ PLOT DATE: $DATE$ $TIME$ REVISION DATE: REV MODEL: $MODELNAME$
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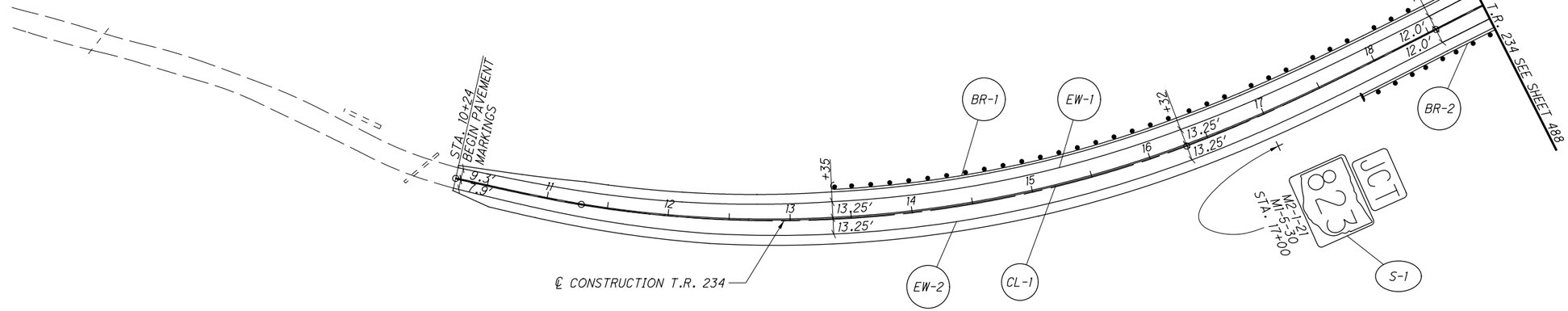

LEGEND

EW EDGE LINE, WHITE	SL STOP LINE
EY EDGE LINE, YELLOW	TL TRANSVERSE/DIAGONAL LINE, YELLOW
CH CHANNELIZING LINE	AR LANE ARROW
CL CENTER LINE, DOUBLE SOLID	BR BARRIER REFLECTOR
LL LANE LINE	PCB PORTABLE CONCRETE BARRIER

NOTES

1. SEE SHEET 491 FOR PAVEMENT MARKING QUANTITIES
2. SEE SHEET 493 FOR SIGNING QUANTITIES

CALCULATED MMB | CHECKED TWG

0 25 50 100 HORIZONTAL SCALE IN FEET

SIGNING AND PAVEMENT MARKING PLAN
T.R. 234 - STA. 10+00 TO STA. 19+00

SCI-823-6.81

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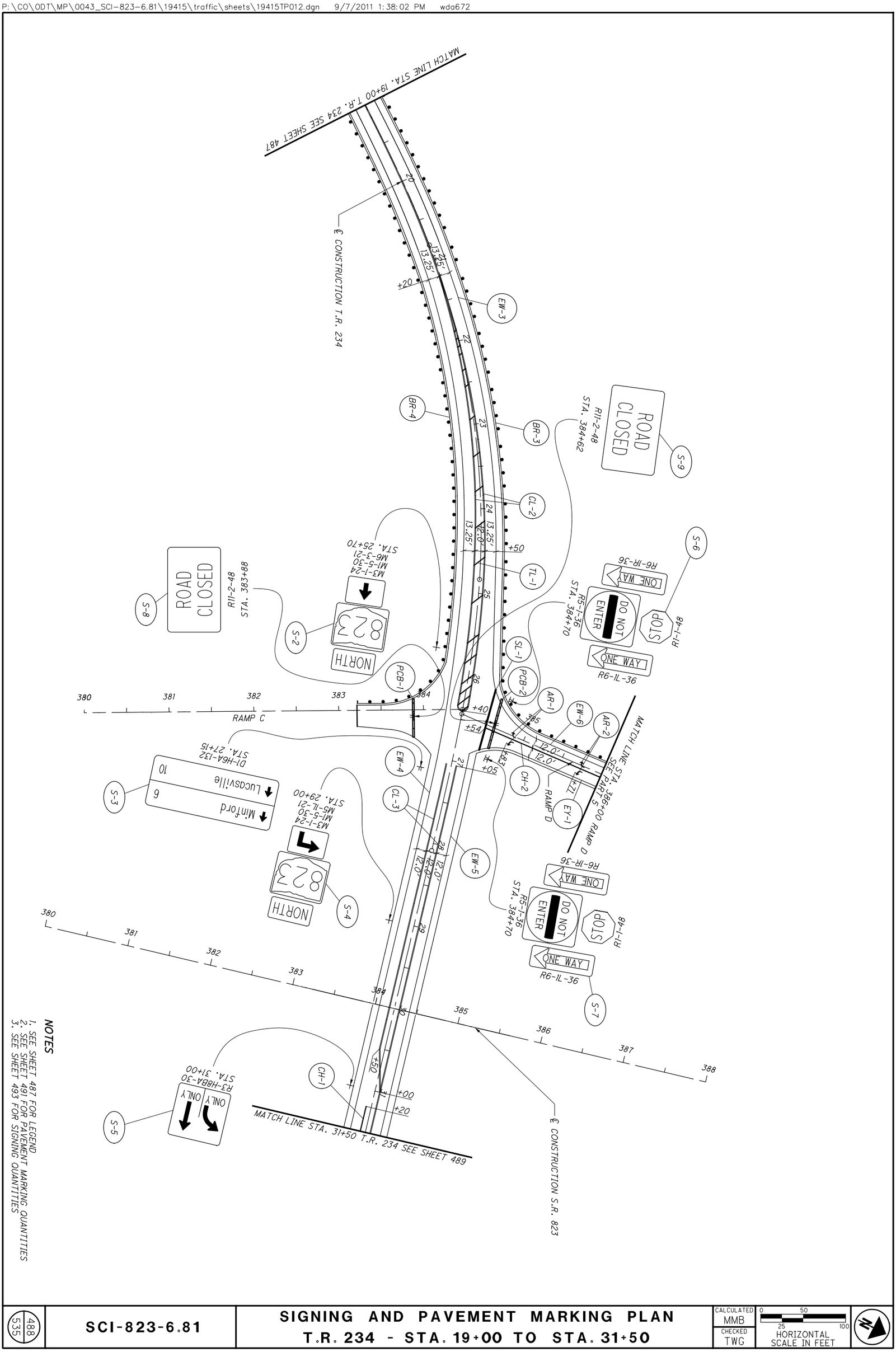
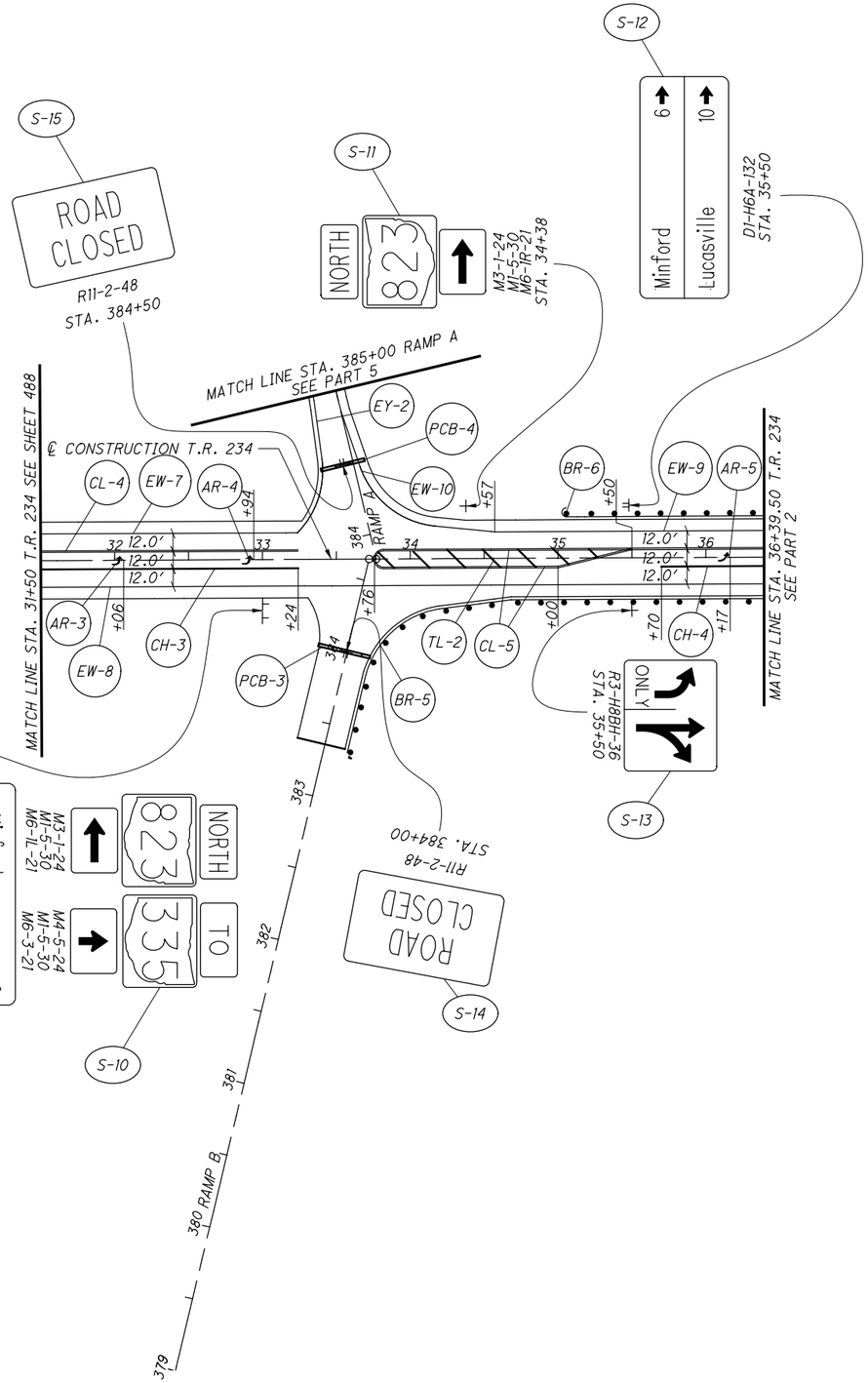
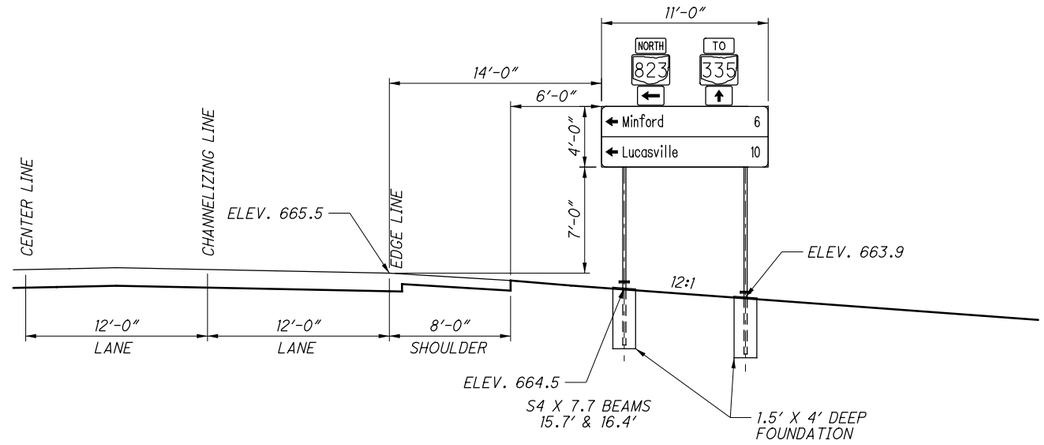


NOTES

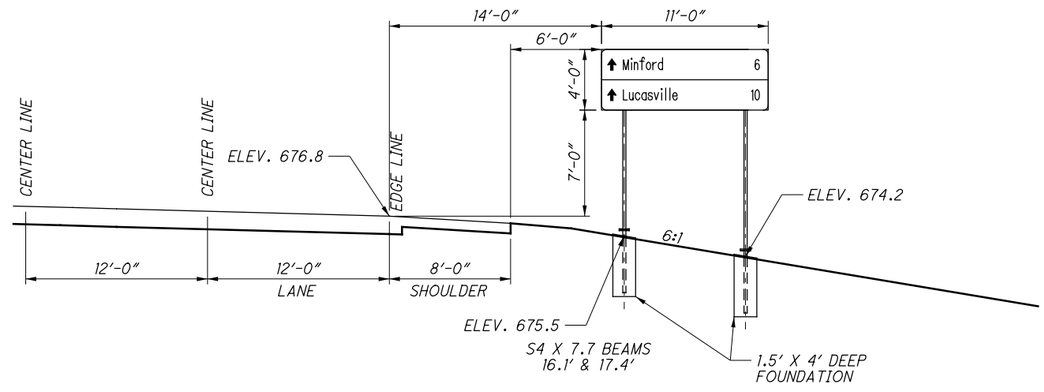
1. SEE SHEET 487 FOR LEGEND
2. SEE SHEET 491 FOR PAVEMENT MARKING QUANTITIES
3. SEE SHEET 493 FOR SIGNING QUANTITIES

488 / 535	SCI-823-6.81	SIGNING AND PAVEMENT MARKING PLAN T.R. 234 - STA. 19+00 TO STA. 31+50	CALCULATED MMB CHECKED TWG	0 50 25 100 HORIZONTAL SCALE IN FEET





SIGN NUMBER 10
T.R. 234
STA. 33+00



SIGN NUMBER 3
T.R. 234
STA. 27+15

NOTES

1. SEE SHEET 487 FOR LEGEND
2. SEE SHEET 492 FOR PAVEMENT MARKING QUANTITIES
3. SEE SHEET 493 FOR SIGNING QUANTITIES

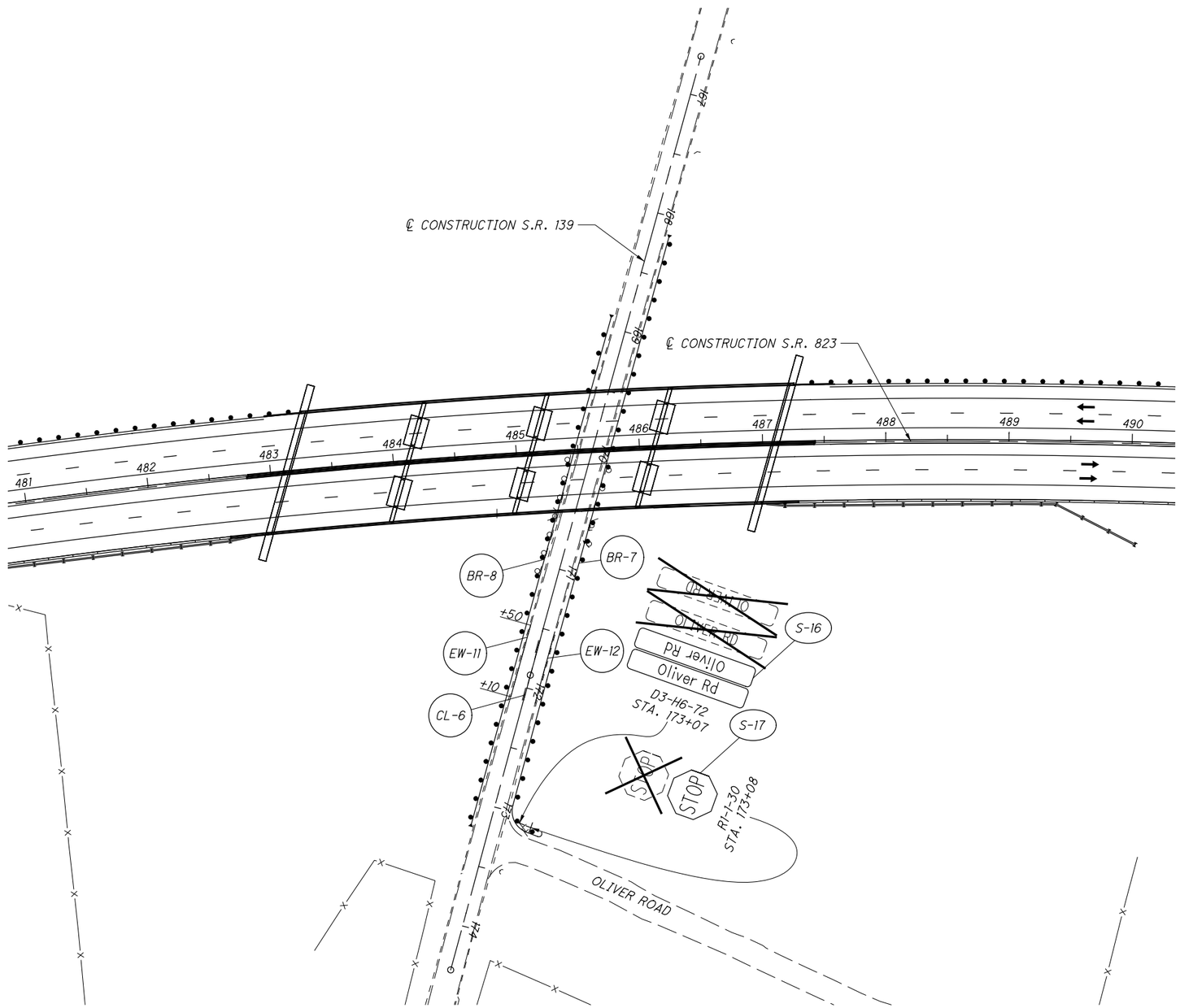
HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED MMB
CHECKED TWG

SIGNING AND PAVEMENT MARKING PLAN
T.R. 234 - STA. 31+50 TO STA. 36+40

SCI-823-6.81

489
535



NOTES

1. SEE SHEET 487 FOR LEGEND
2. SEE SHEET 492 FOR PAVEMENT MARKING QUANTITIES
3. SEE SHEET 493 FOR SIGNING QUANTITIES

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED MMB
CHECKED TWG

SIGNING AND PAVEMENT MARKING PLAN
S.R. 139 - STA. 163+00 TO STA. 174+00

SCI-823-6.81

490
535

P:\CO\ODOT\MP\0043_SCI-823-6.81\19415\traffic\sheets\19415TP014.dgn 9/7/2011 1:38:07 PM wda672

SHEET NO.	REFERENCE NO.	LOCATION	STATION FROM	STATION TO	SIDE	621 RPM, 1 WAY (WHITE) EACH	621 RPM, 2 WAY (WHITE/RED) EACH	621 RPM, 2 WAY (YELLOW/RED) EACH	621 RPM, 2 WAY (YELLOW/YELLOW) EACH	622 PORTABLE CONCRETE BARRIER, 32" FT	626 BARRIER REFLECTOR (TYPE A) EACH	626 BARRIER REFLECTOR (TYPE A2) EACH	644 EDGE LINE (WHITE) MILE	644 EDGE LINE (YELLOW) MILE	644 CENTER LINE (DOUBLE SOLID) MILE	644 CHANNELIZING LINE FT	644 STOP LINE FT	644 TRANSVERSE/DIAGONAL LINE (YELLOW) FT	644 LANE ARROW EACH			
487	EW-1	T.R. 234	STA. 10+24	STA. 19+00	LT.								0.17									
	EW-2	T.R. 234	STA. 10+24	STA. 19+00	RT.								0.17									
	CL-1	T.R. 234	STA. 10+24	STA. 19+00	℄				12						0.17							
	BR-1	T.R. 234	STA. 13+35	STA. 19+00	LT.							11										
487	BR-2	T.R. 234	STA. 17+77	STA. 19+00	RT.							3										
488	EW-3	T.R. 234	STA. 19+00	STA. 25+84	LT.								0.13									
	EW-4	T.R. 234	STA. 19+00	STA. 31+50	RT.	2							0.24									
	EW-5	T.R. 234	STA. 26+88	STA. 31+50	LT.								0.09									
	EW-6	RAMP D	STA. 384+33	STA. 386+00	LT.	5							0.03									
	EY-1	RAMP D	STA. 384+47	STA. 386+00	RT.			3						0.03								
	CL-2	T.R. 234	STA. 19+00	STA. 26+40	LT./RT.				16						0.24							
	CL-3	T.R. 234	STA. 27+05	STA. 31+50	LT./RT.				13						0.16							
	CH-1	T.R. 234	STA. 31+20	STA. 31+50	RT.		1									30						
	CH-2	RAMP D	STA. 384+54	STA. 386+00	RT.		4									146						
	SL-1	RAMP D	STA. 384+46	STA. 384+56	LT./RT.												73					
	AR-1	RAMP D	STA. 384+83	STA. 384+83	LT./RT.														2			
	AR-2	RAMP D	STA. 385+71	STA. 385+71	LT./RT.														2			
	TL-1	T.R. 234	STA. 21+87	STA. 26+40	℄													192				
	BR-3	T.R. 234/RAMP D	STA. 19+00	STA. 386+00	LT.						3	15										
	BR-4	T.R. 234/RAMP C	STA. 19+00	STA. 383+22	RT.						2	15										
	PCB-1	RAMP C	STA. 383+88	STA. 383+88	LT./RT.					45												
488	PCB-2	RAMP D	STA. 384+62	STA. 384+62	LT./RT.					60												
TOTALS CARRIED TO SHEET 492						7	5	3	41	105	5	44	0.83	0.03	0.57	176	73	192	4			

CALCULATED AWN CHECKED TWG

PAVEMENT MARKING SUBSUMMARY

SCI-823-6.81

491
535

SHEET NO.	REFERENCE NO.	LOCATION	STATION FROM	STATION TO	SIDE	621 RPM, 1 WAY (WHITE) EACH	621 RPM, 2 WAY (WHITE/RED) EACH	621 RPM, 2 WAY (YELLOW/RED) EACH	621 RPM, 2 WAY (YELLOW/YELLOW) EACH	622 PORTABLE CONCRETE BARRIER, 32" FT	626 BARRIER REFLECTOR (TYPE A) EACH	626 BARRIER REFLECTOR (TYPE A2) EACH	644 EDGE LINE (WHITE) MILE	644 EDGE LINE (YELLOW) MILE	644 CENTER LINE (DOUBLE SOLID) MILE	644 CENTER LINE (DASHED- SOLID) MILE	644 CHANNELIZING LINE FT	644 STOP LINE FT	644 TRANSVERSE/DIAGONAL LINE (YELLOW) FT	644 LANE ARROW EACH		
489	EW-7	T.R. 234	STA. 31+50	STA. 33+24	LT.								0.03									
	EW-8	T.R. 234	STA. 31+50	STA. 36+40	RT.	9							0.09									
	EW-9	T.R. 234	STA. 34+57	STA. 36+40	LT.								0.03									
	EW-10	RAMP A	STA. 383+95	STA. 385+00	RT.								0.02									
	EY-2	RAMP A	STA. 384+12	STA. 385+00	LT.			1						0.02								
	CL-4	T.R. 234	STA. 31+50	STA. 33+24	LT.				3						0.03							
	CL-5	T.R. 234	STA. 33+76	STA. 36+40	LT./RT.				8						0.08							
	CH-3	T.R. 234	STA. 31+50	STA. 33+24	RT.		5										174					
	CH-4	T.R. 234	STA. 35+70	STA. 36+40	RT.		2										70					
	TL-2	T.R. 234	STA. 33+76	STA. 35+50	℄														104			
	AR-3	T.R. 234	STA. 32+06	STA. 32+06	℄															1		
	AR-4	T.R. 234	STA. 32+94	STA. 32+94	℄															1		
	AR-5	T.R. 234	STA. 36+17	STA. 36+17	℄															1		
	BR-5	RAMP B/T.R. 234	STA. 383+36	STA. 36+40	RT.						5											
	BR-6	T.R. 234	STA. 35+06	STA. 36+40	LT.						2											
	PCB-3	RAMP B	STA. 384+00	STA. 384+00	LT./RT.					35												
489	PCB-4	RAMP A	STA. 384+50	STA. 384+50	LT./RT.					30												
490	EW-11	S.R. 139	STA. 171+50	STA. 172+10	RT.								0.01									
	EW-12	S.R. 139	STA. 171+50	STA. 172+10	LT.								0.01									
	CL-6	S.R. 139	STA. 171+50	STA. 172+10	℄											0.01						
	BR-7	S.R. 139	STA. 168+18	STA. 173+15	LT.						6											
490	BR-8	S.R. 139	STA. 168+92	STA. 173+18	RT.						5											
		SUBTOTALS CARRIED BELOW				9	7	1	11	65	18		0.19	0.02	0.11	0.01	244		104	3		
		SUBTOTALS THIS SHEET				9	7	1	11	65	18		0.19	0.02	0.11	0.01	244		104	3		
		SUBTOTALS FROM SHEET 491				7	5	3	41	105	5	44	0.83	0.03	0.57		176	73	192	4		
		SUBTOTAL				16	12	4	52	170	23	44	1.02	0.05	0.68	0.01	420	73	296	7		
TOTALS CARRIED TO GENERAL SUMMARY						84				170	67		1.07		0.69		420	73	296	7		

CALCULATED AWN CHECKED TWG

PAVEMENT MARKING SUBSUMMARY

SCI-823-6.81

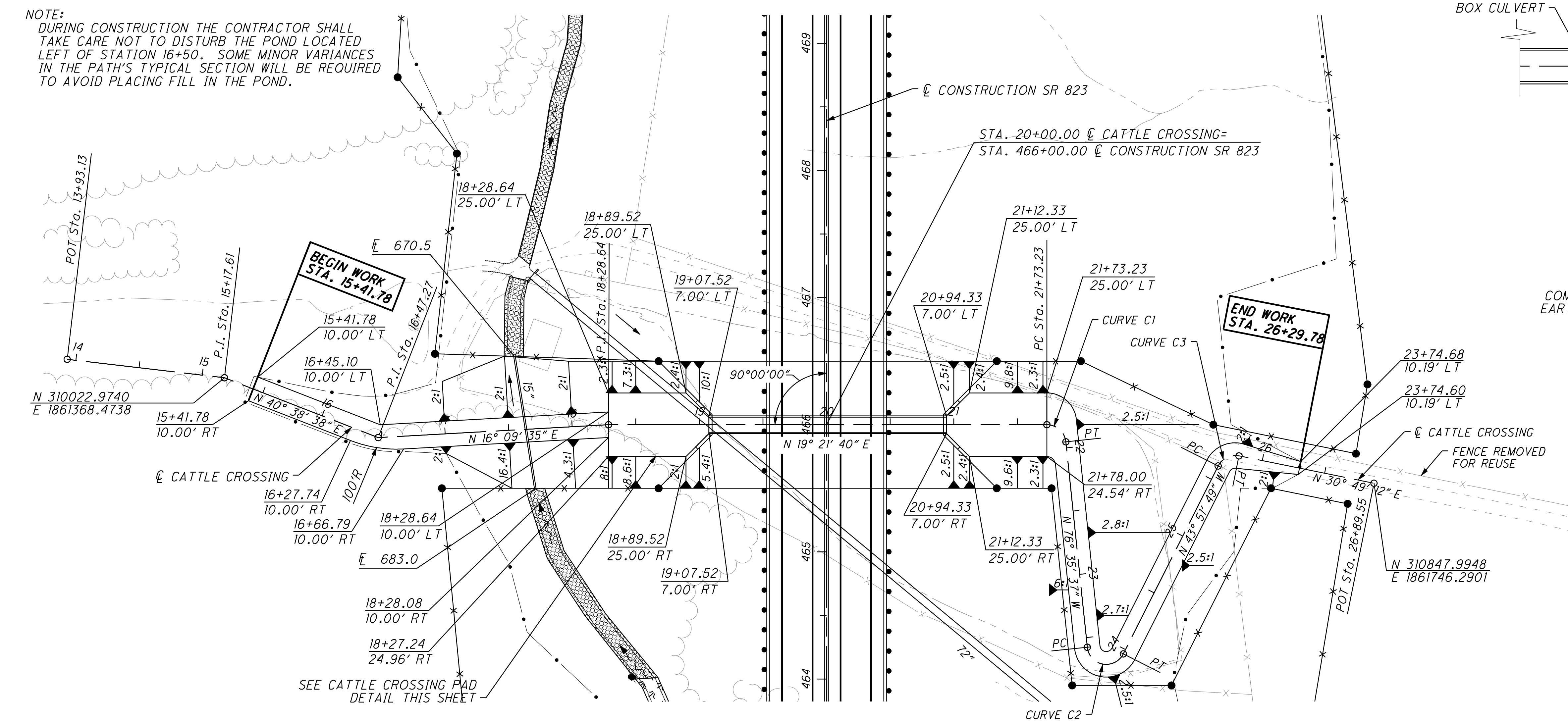
SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT, NO. 3 POST FT	630 GROUND MOUNTED SUPPORT, NO. 6 POST FT	630 ONE WAY SUPPORT, NO. 3 POST FT	630 STREET NAME SIGN SUPPORT, NO. 3 POST FT	630 SIGN POST REFLECTOR (RED) EACH	630 SIGN, FLAT SHEET SQ FT	630 SIGN, GROUND MOUNTED EXTRUSHEET SQ FT	630 SIGN, DOUBLE FACED, STREET NAME EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED POST AND DISPOSAL EACH	630 GROUND MOUNTED SUPPORT, S4 X 7.7 BEAM FT	630 BREAKAWAY STRUCTURAL BEAM CONNECTION EACH	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION EACH				
487	S-1	T.R. 234	STA. 17+00	RT.	M2-1	21 X 15	13					2.19											
				RT.	M1-5	30 X 24						5.0											
488	S-2	T.R. 234	STA. 25+70	RT.	M3-1	24 X 12	15					2.0											
				RT.	M1-5	30 X 24						5.0											
				RT.	M6-3	21 X 15						2.19											
	S-3	T.R. 234	STA. 27+15	RT.	D1-H6A	132 X 48		15/15					44.0				33.5	2	2				
	S-4	T.R. 234	STA. 29+00	RT.	M3-1	24 X 12	15					2.0											
				RT.	M1-5	30 X 24						5.0											
				RT.	M5-1L	21 X 15						2.19											
	S-5	T.R. 234	STA. 31+00	RT.	R3-H8BA	30 X 30	13					6.25											
	S-6	RAMP D	STA. 384+70	LT.	R1-1	48 X 48	14/14				2	16.0											
				LT.	R5-1	36 X 36					2	9.0											
				LT.	R6-1R	36 X 12			2			3.0											
				LT.	R6-1L	36 X 12						3.0											
	S-7	RAMP D	STA. 384+70	RT.	R1-1	48 X 48	14/14				2	16.0											
				RT.	R5-1	36 X 36					2	9.0											
				RT.	R6-1R	36 X 12			2			3.0											
				RT.	R6-1L	36 X 12						3.0											
	S-8	RAMP C	STA. 383+88	RT.	R11-2	48 X 30						10.0											
488	S-9	RAMP D	STA. 384+62	LT.	R11-2	48 X 30						10.0											
489	S-10	T.R. 234	STA. 33+00	RT.	D1-H6A	132 X 48	16						44.0				32.1	2	2				
				RT.	M3-1	24 X 12	15					2.0											
				RT.	M1-5	30 X 24						5.0											
				RT.	M6-1L	21 X 15						2.19											
				RT.	M4-5	24 X 12	15					2.0											
				RT.	M1-5	30 X 24						5.0											
				RT.	M6-3	21 X 15						2.19											
	S-11	T.R. 234	STA. 34+38	LT.	M3-1	24 X 12	15					2.0											
				LT.	M1-5	30 X 24						5.0											
				LT.	M6-1R	21 X 15						2.19											
	S-12	T.R. 234	STA. 35+50	LT.	D1-H6A	132 X 48		14/14					44.0										
	S-13	T.R. 234	STA. 35+50	RT.	R3-H8BH	36 X 30	13					7.5											
	S-14	RAMP B	STA. 384+00	℄	R11-2	48 X 30						10.0											
489	S-15	RAMP A	STA. 384+50	LT.	R11-2	48 X 30						10.0											
490	S-16	S.R. 139	STA. 173+07	LT.	D3-H6	72 X 12				14				1	1	1							
490	S-17	S.R. 139	STA. 173+08	LT.	R1-1	30 X 30	13				1	6.25			1	1							
TOTALS CARRIED TO GENERAL SUMMARY							199	58	4	14	9	175	132	1	2	2	66	4	4				

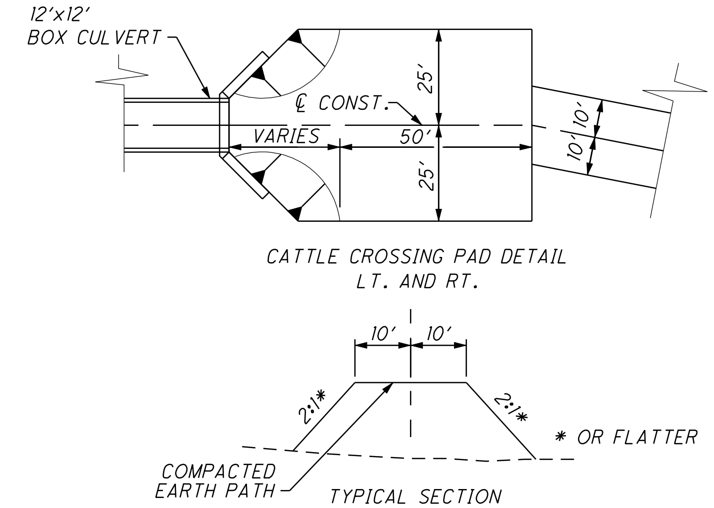
CALCULATED AWN CHECKED TWG

SIGNING SUBSUMMARY

SCI-823-6.81

NOTE:
DURING CONSTRUCTION THE CONTRACTOR SHALL TAKE CARE NOT TO DISTURB THE POND LOCATED LEFT OF STATION 16+50. SOME MINOR VARIANCES IN THE PATH'S TYPICAL SECTION WILL BE REQUIRED TO AVOID PLACING FILL IN THE POND.

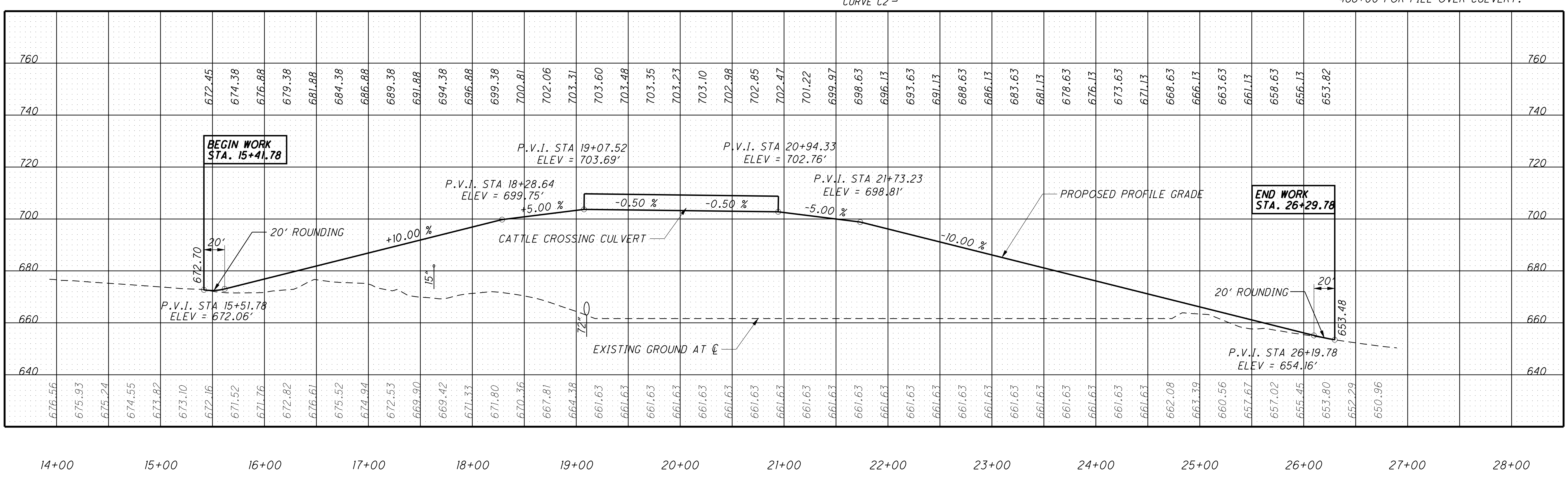




CURVE C1	CURVE C2
P.I.= Sta. 21+86.75	P.I.= Sta. 24+08.75
PC = Sta. 21+73.23	PC = Sta. 23+57.67
PT = Sta. 21+95.23	PT = Sta. 23+96.22
D = 84° 02' 43" (RT)	D = 147° 16' 13" (LT)
Dc = 381° 58' 19"	Dc = 381° 58' 19"
R = 15.00'	R = 15.00'
T = 13.52'	T = 51.08'
L = 22.00'	L = 38.56'
E = 5.19'	E = 38.24'

CURVE C3
P.I.= Sta. 25+73.17 T = 11.44'
PC = Sta. 25+61.73 L = 19.55'
PT = Sta. 25+81.28 E = 3.87'
D = 74° 41' 01" (RT)
Dc = 381° 58' 19"
R = 15.00'

NOTE: SEE SR 823 CROSS SECTIONS, STATION 466+00 FOR FILL OVER CULVERT.



HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED CTM
CHECKED JMB

PLAN AND PROFILE CATTLE CROSSING
STA. 15+41.78 TO STA. 27+24.16

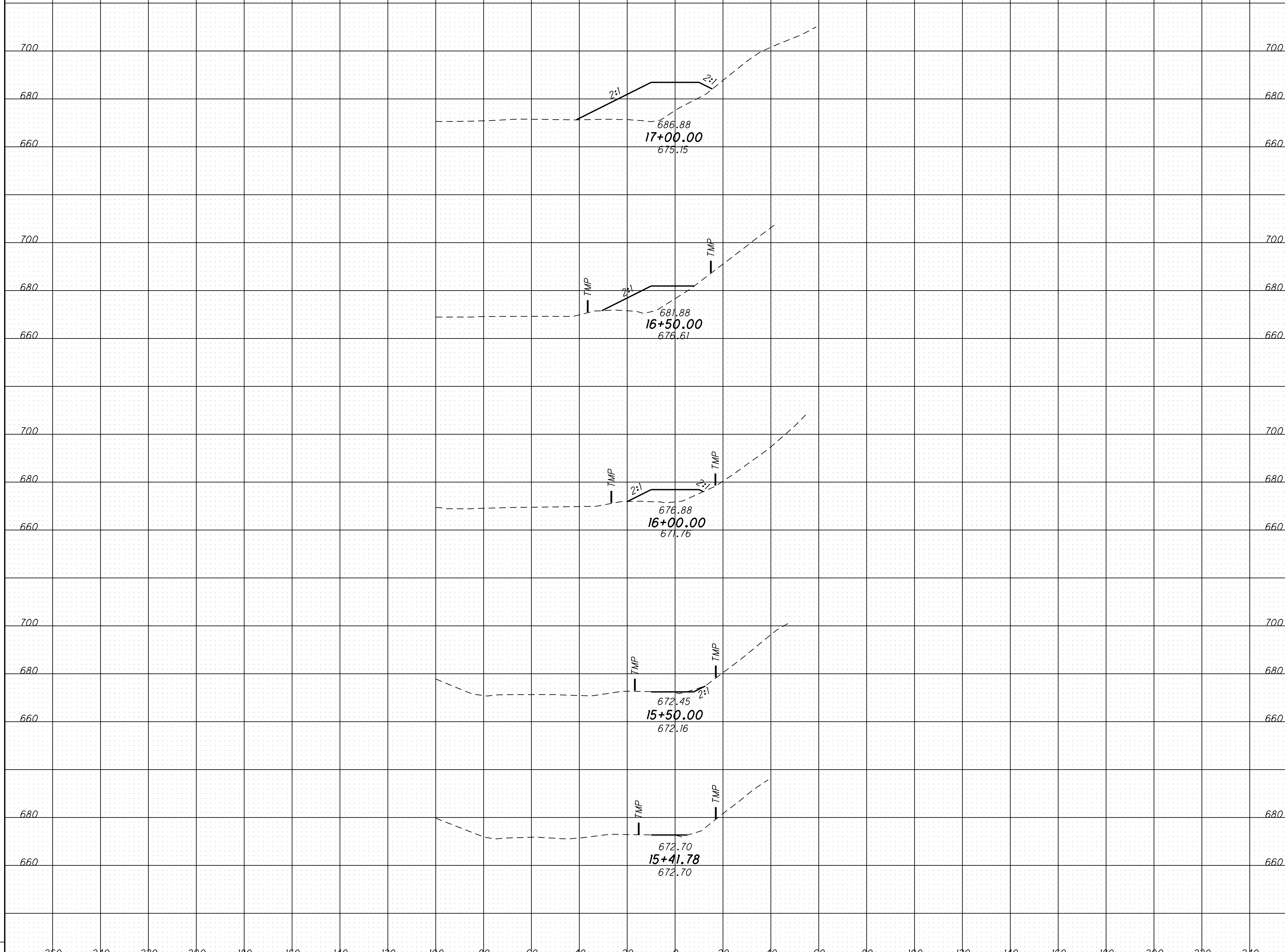
SCI-823-6.81

USER: CWohlbr1 PLOT DATE: 9/15/2011 5:58:30 PM REVISION DATE: 9/15/2011 MODEL: Sheet
FILE: ...41HOR_CV\79415gp040.dgn

CROSS SECTIONS - CATTLE CROSSING
STA. 15+41.78 TO STA. 17+00.00

SCI-823-6.81

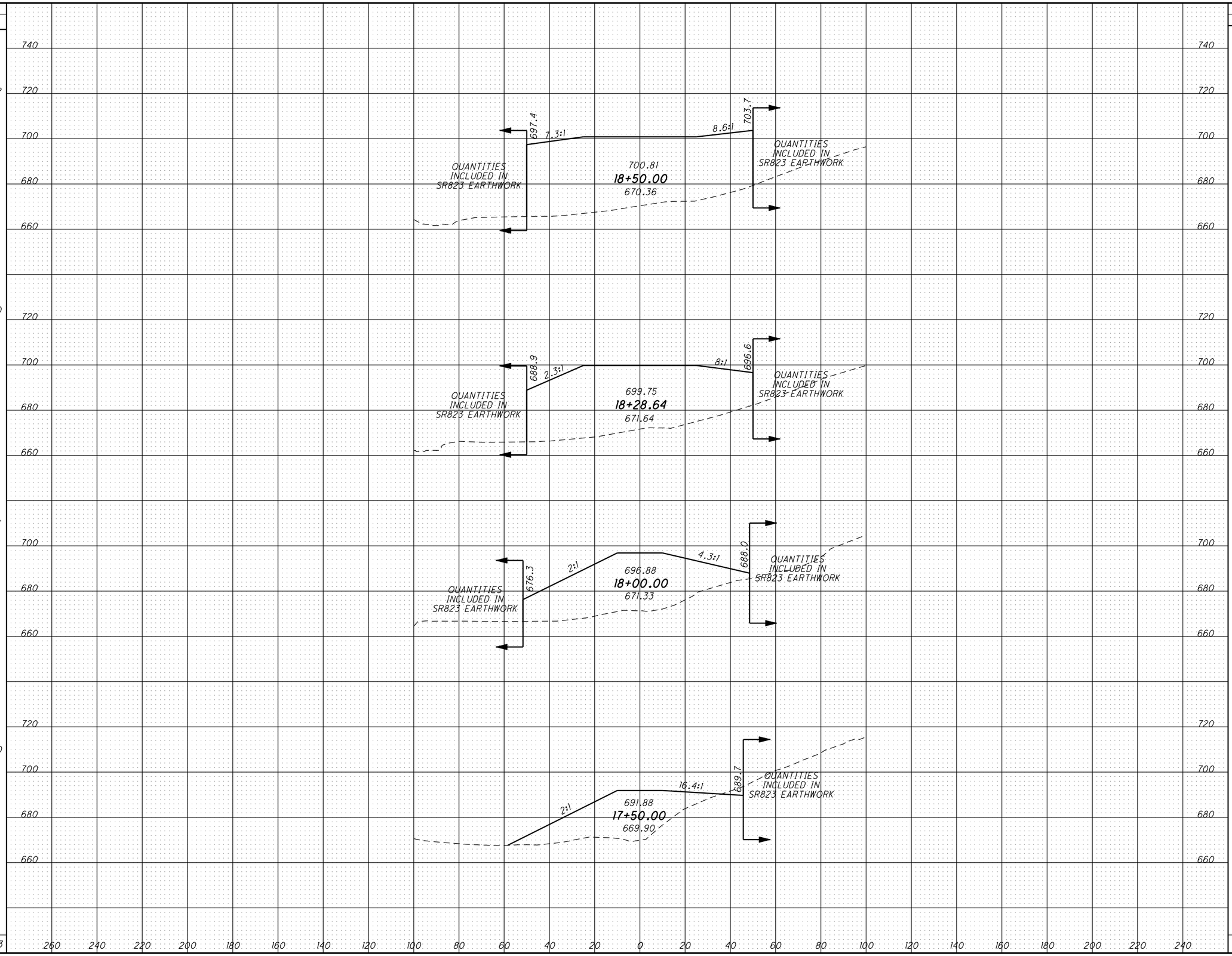
CALCULATED	CHECKED
TM	JMB



Station	SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		478				
17+00.00	61		0	499		
					0	661
		284				
16+50.00	41		0	215		
					0	306
		206				
16+00.00	33		0	116		
					4	109
		161				
15+50.00	23		4	2		
					1	1
		17				
15+41.78	15		0	2		
					0	0
Total		1146			5	1077

USER: CWahlbri PLOT DATE: 9/15/2011 6:02:04 PM REVISION DATE: 9/15/2011
FILE: ...\HDR_C...00000045878 /19415xs026.dgn MODEL: Sheet

SEEDING END WIDTH	SEEDING SQ. YDS.
100	452
102	240
106	331
110	600
	1623



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0	3025	0	2231
0	2615	0	2328
0	1775	17	2650
19	1086	17	1468
		34	8677

CALCULATED TM
CHECKED JMB

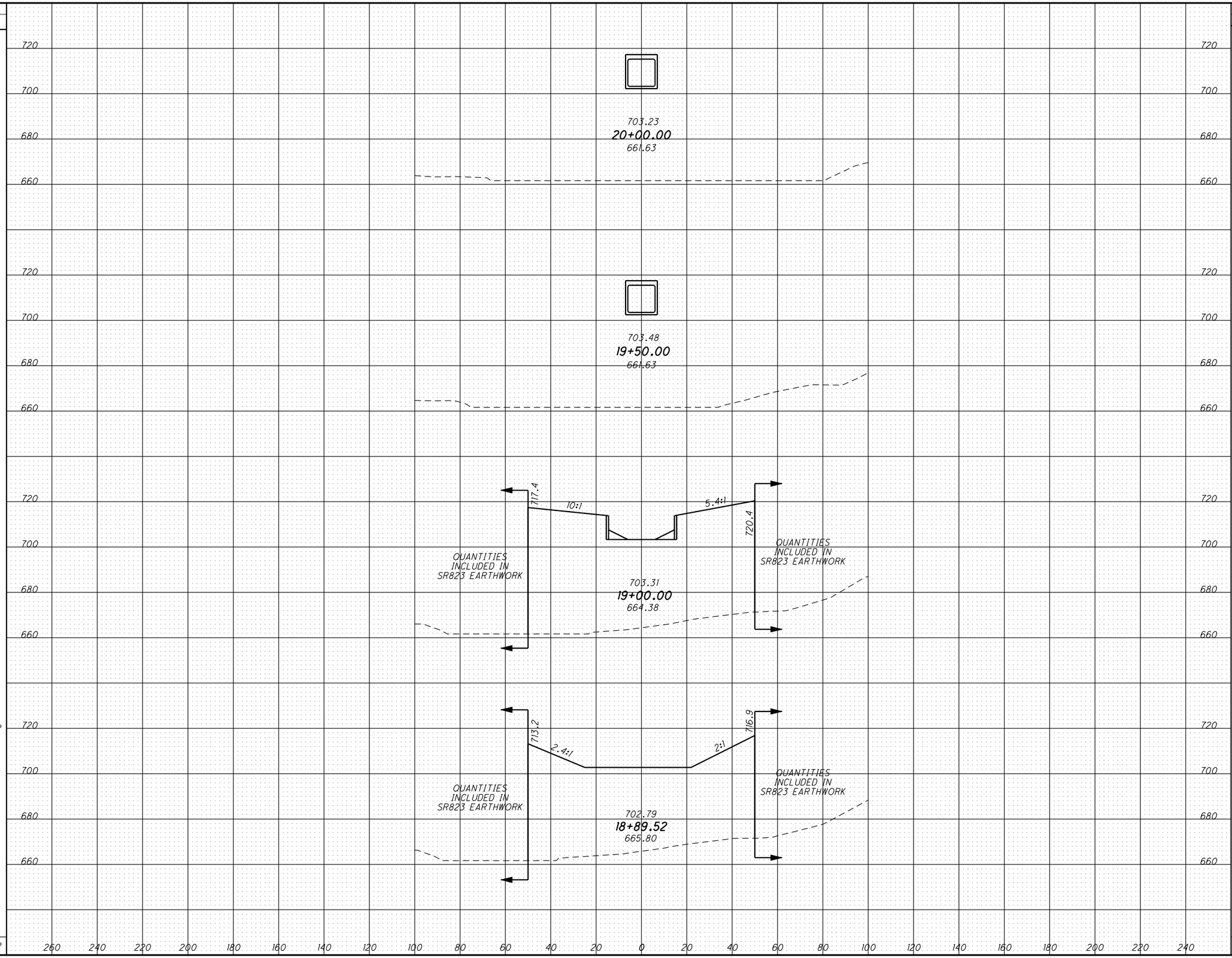
CROSS SECTIONS - CATTLE CROSSING STA. 17+50.00 TO STA. 18+50.00

SCI-823-6.81

496
535

USER: CMahlbri PLOT DATE: 9/15/2011 6:02:22 PM REVISION DATE: 9/15/2011
FILE: ...4HOR.CL@0000000045878 /19415s026.dgn MODEL: Sheet

SEEDING	
END WIDTH	SQ. YDS.
276	
	222
105	
	222



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	4712		
		0	1686
0	3974		
		0	5122
		0	6808

CALCULATED TM
CHECKED JMB

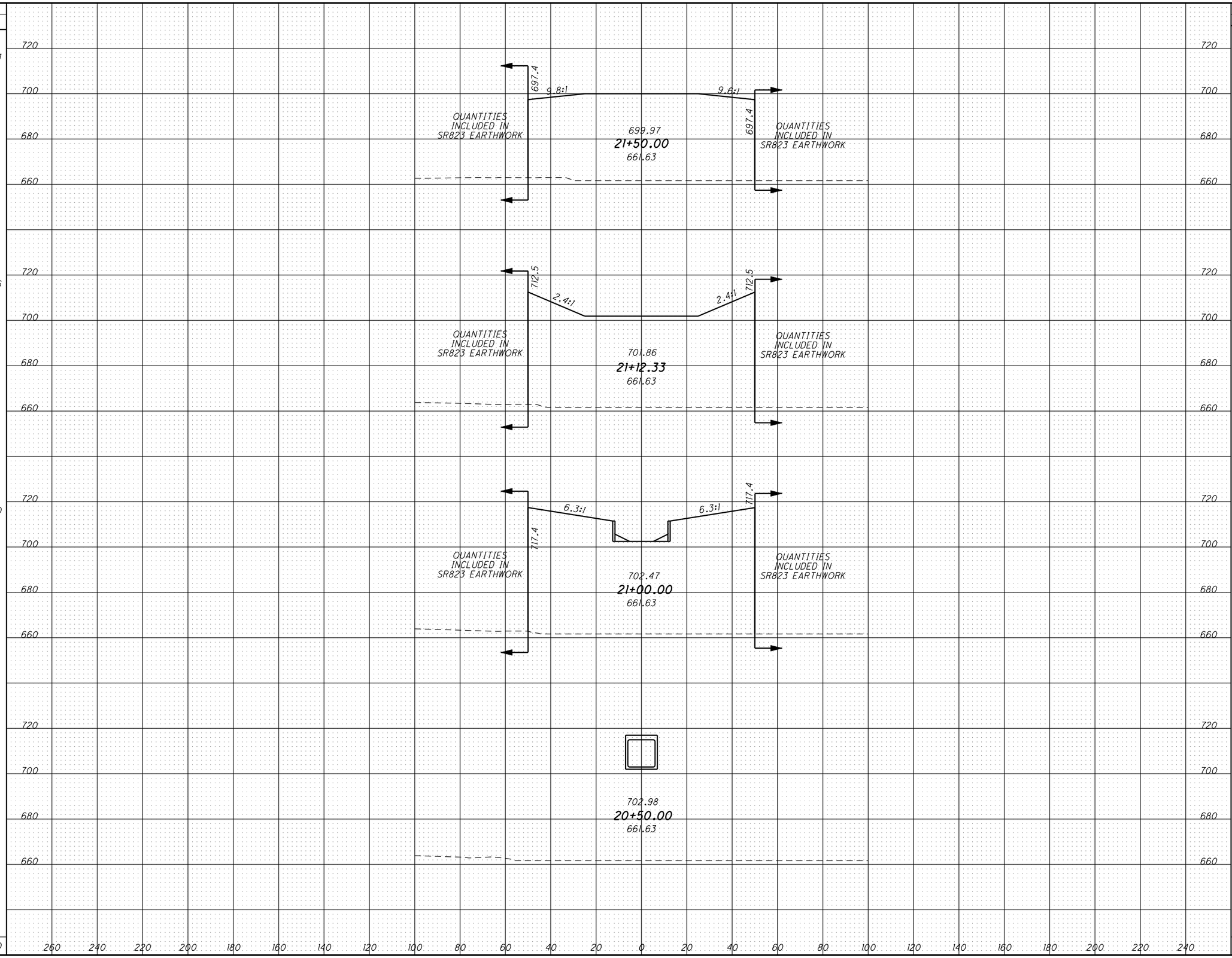
CROSS SECTIONS - CATTLE CROSSING STA. 18+89.52 TO STA. 20+00.00

SCI-823-6.81

497
535

USER: CWohlbr; PLOT DATE= 9/15/2011 602841 PM REVISION DATE= 9/15/2011
FILE...4HDR.Cu000000000045878 /1945x4026.dgn MODEL: Sheet

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
100	264	0	3744	0	5598
104	426	0	4280	0	2113
230	230	0	4973		
	920			0	7711



CALCULATED TM
CHECKED JMB

CROSS SECTIONS - CATTLE CROSSING STA. 20+50.00 TO STA. 21+50.00

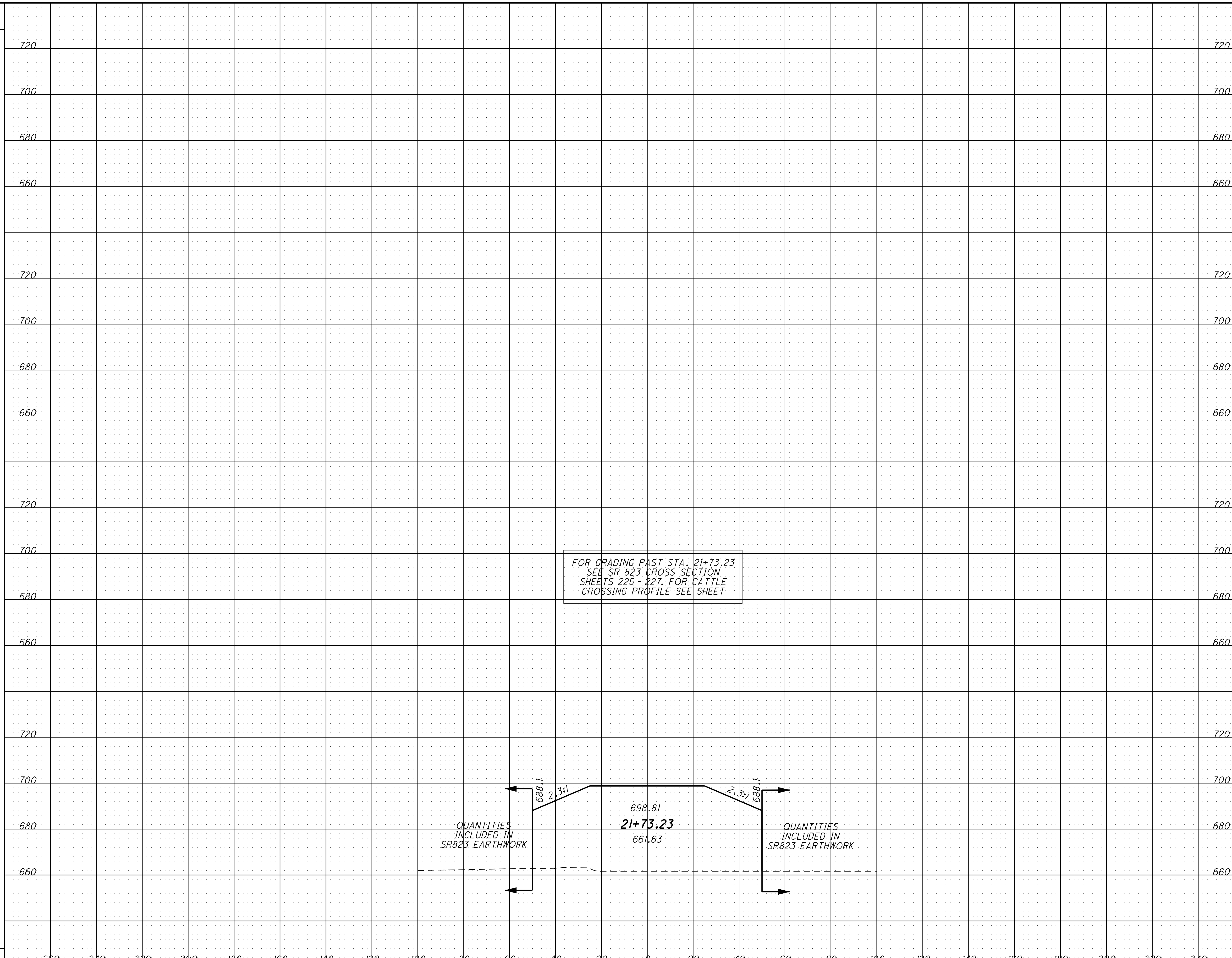
SCI-823-6.81

498
535

USER: CWohlbr; PLOT DATE: 9/15/2011 6:03:00 PM REVISION DATE: 9/15/2011
FILE:...4HDR.Cu000000000045878 /1945x026.dgn MODEL: Sheet

CROSS SECTIONS - CATTLE CROSSING
STA. 21+73.23

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
104		0	3414		
				0	3079
	0			0	3079



CALCULATED TM CHECKED JMB

SCI-823-6.81

CATTLE CROSSING CULVERT - GENERAL NOTES

DESIGN SPECIFICATIONS: THIS DRAWING CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA: THE FOLLOWING DESIGN DATA IS ASSUMED:

INTERNAL ANGLE OF FRICTION (Ø) = 30 DEGREES
COEFFICIENT OF FRICTION (μ) = 0.30
UNIT WEIGHT OF SOIL = 120 PCF
UNIT WEIGHT OF CONCRETE = 150 PCF
SLOPE OF BACKFILL = 2:1
MAXIMUM FOUNDATION BEARING PRESSURE = 2500 P.S.F.

CONCRETE CLASS C - COMPRESSIVE STRENGTH 4000 PSI
(FOOTING, WINGWALL AND FORESLOPE WALL)

REINFORCING STEEL - ASTM A615, A616, OR A617
GRADE 60 MINIMUM YIELD STRENGTH
60,000 PSI (ALL REINFORCING SHALL BE EPOXY COATED)

PRECAST CONCRETE: AT THE OPTION OF THE CONTRACTOR, PRECAST FOOTINGS AND WINGWALLS MAY BE USED PROVIDED THEY ARE SIZED TO MEET THE SOIL PARAMETERS AND MEET OR EXCEED THE MATERIAL STRENGTHS SPECIFIED HEREIN. THE CONTRACTOR SHALL SUBMIT DESIGNS AND SHOP DRAWINGS TO THE OFFICE OF STRUCTURAL ENGINEERING FOR APPROVAL.

FORESLOPE WALL ANCHOR DOWELS: THREADED INSERTS OR NOT-PROTRUDING MECHANICAL CONNECTORS CAST INTO THE CULVERT BY THE MANUFACTURER WILL BE USED THAT CAN RESIST AN ULTIMATE PULL-OUT LOAD OF 12 KIPS AND MAINTAIN A MINIMUM COVER OF 3 INCHES AT THE BOTTOM OF THE CULVERT SLAB. MECHANICAL CONNECTORS MUST PROVIDE AN "L-SHAPED" BAR INSIDE THE CULVERT WITH A MINIMUM HORIZONTAL LENGTH OF 12 INCHES. PAYMENT FOR INSERTS OR MECHANICAL CONNECTORS SHALL BE INCLUDED WITH ITEM 603.

BACKFILL LIMITATION: WHEN THE DESIGN HEIGHT IS GREATER THAN 10 FT, THE BACKFILL BEHIND THE WINGWALLS SHALL NOT BE PLACED HIGHER THAN THE ELEVATION OF THE SOIL ABOVE THE TOE. WHEN THE SOIL ABOVE THE TOE IS AT ITS FINISHED ELEVATION, THE REMAINDER OF THE BACKFILL MAY BE PLACED.

CULVERT DESIGN: PRECAST REINFORCED CONCRETE BOX CULVERT SHALL BE DESIGNED IN ACCORDANCE WITH C.M.S. SECTION 706.05 AND ASTM C-1433-03 (TABLE 2 FOR INTERSTATE LOADS). HS25 LIVE LOAD CONDITIONS SHALL BE USED WITH A DESIGN EARTH COVER OF 20 FEET.

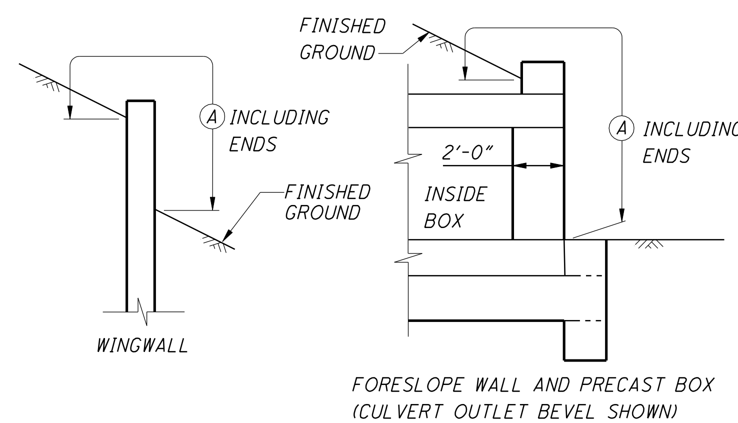
EXPOSED CULVERT ENDS: EXPOSED ENDS OF THE PRECAST BOX CULVERT SHALL BE FORMED FLAT (NO KEY OR KEYWAY) TO PROVIDE A FLUSH FACE WITH THE EXPOSED FACE OF THE WINGWALLS.

POROUS BACKFILL WITH FILTER FABRIC, 18" THICK, SHALL BE PLACED BEHIND THE WINGWALLS ONLY, AND SHALL EXTEND TO 12" BELOW THE EMBANKMENT SURFACE. GEOTEXTILE FABRIC SHALL BE PLACED BETWEEN THE POROUS BACKFILL AND REPLACED EXCAVATION ADJACENT TO THE STRUCTURE. IT SHALL TURN UNDER THE BOTTOM OF THE POROUS BACKFILL AND RETURN 6" ABOVE THE TOP ELEVATION OF THE WEEPHOLE.

WEEPHOLES SHALL BE PLACED 6" TO 12" ABOVE THE NORMAL WATER ELEVATION OR GROUND LINE AND SHALL HAVE A MAXIMUM SPACING OF 10'-0". A MINIMUM OF ONE WEEPHOLE SHALL BE PROVIDED PER WINGWALL.

PREFORMED EXPANSION JOINT FILLER: PREFORMED EXPANSION JOINT FILLER (PEJF) CONFORMING TO CMS 705.03, 1 INCH THICK, SHALL BE PLACED ABOVE THE FOOTING BETWEEN THE SIDES OF THE BOX CULVERT AND THE ENDS OF THE WINGWALLS. PAYMENT FOR THE MATERIALS AND INSTALLATION SHALL BE INCLUDED WITH ITEM 516 - 1" PREFORMED EXPANSION JOINT FILLER.

SEALING OF FORESLOPE WALL AND WINGWALLS: ALL EXPOSED FORESLOPE WALL AND WINGWALL CONCRETE SHALL BE SEALED WITH EPOXY-URETHANE SEALER. THE LIMITS OF SHALL BE AS SHOWN IN THE DIAGRAMS BELOW. PAYMENT FOR THE EPOXY-URETHANE SEALER SHALL BE PER ITEM 512 - SEALING OF CONCRETE STRUCTURES.

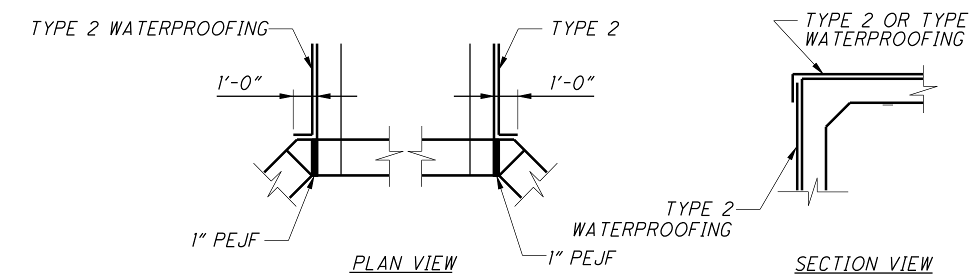


LIMITS OF ITEM 864-SEALING CONCRETE SURFACES

(A) - SEAL ENTIRE CONCRETE SURFACE AREA

WATERPROOFING: TYPE 2 WATERPROOFING, PER CMS 512.09 AND 711.25, SHALL EXTEND VERTICALLY DOWN THE ENTIRE SIDES OF THE PRECAST CULVERT SECTIONS FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 2 WATERPROOFING.

IF PAVEMENT IS NOT PLACED DIRECTLY ON TOP OF THE CULVERT, TYPE 2 WATERPROOFING, PER CMS 512.09 AND 711.25 SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE PRECAST CULVERT SECTIONS AND SHALL EXTEND ONE FOOT VERTICALLY DOWN THE SIDES FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 2 WATERPROOFING.
IF PAVEMENT IS TO BE USED DIRECTLY ON TOP OF THE CULVERT, TYPE 3 WATERPROOFING, PER CMS 512.10 AND 711.29 SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE PRECAST CULVERT SECTIONS AND SHALL EXTEND ONE FOOT VERTICALLY DOWN THE SIDES FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 3 WATERPROOFING.



WATERPROOFING DETAILS

BASIS OF PAYMENT: ALL LABOR, EQUIPMENT AND INCIDENTALS REQUIRED TO CONSTRUCT THE FOOTING, CUTOFF WALL, WINGWALLS AND FORESLOPE WALL SHALL BE INCLUDED WITH ITEM 511 - CLASS C CONCRETE (RET-WALL/ WINGWALL- INCLUDING FOOTING). PAYMENT FOR REINFORCING STEEL SHALL BE INCLUDED WITH ITEM 509 - EPOXY COATED REINFORCING STEEL.

ESTIMATED QUANTITIES

ITEM	ITEM EXT	TOTAL	UNIT	DESCRIPTION
509	10000	14136	POUND	EPOXY COATED REINFORCING STEEL
511	46000	33.14	CU. YD.	CLASS C CONCRETE, RETAINING WALL OR WINGWALL
511	46500	70.3	CU. YD.	CLASS C CONCRETE, FOOTING
512	10100	93	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	33000	966	SQ. YD.	TYPE 2 MEMBRANE WATERPROOFING
516	13600	60	SQ. FT.	1" PREFORMED EXPANSION JOINT FILLER
518	21230	LUMP		POROUS BACKFILL WITH FILTER FABRIC
530	01300	187	FT.	SPECIAL - STRUCTURE, MISC.: 12' X 12' CATTLE CROSSING

NOTE: TOTALS CARRIED TO GENERAL SUMMARY SHEET

CALCULATED JSW CHECKED CHN

CATTLE CROSSING CULVERT - GENERAL NOTES
SCI-823-08.83

SCI-823-6.81

USER: CWohlbr; PLOT DATE: 9/15/2011 6:43:59 PM REVISION DATE: 9/15/2011
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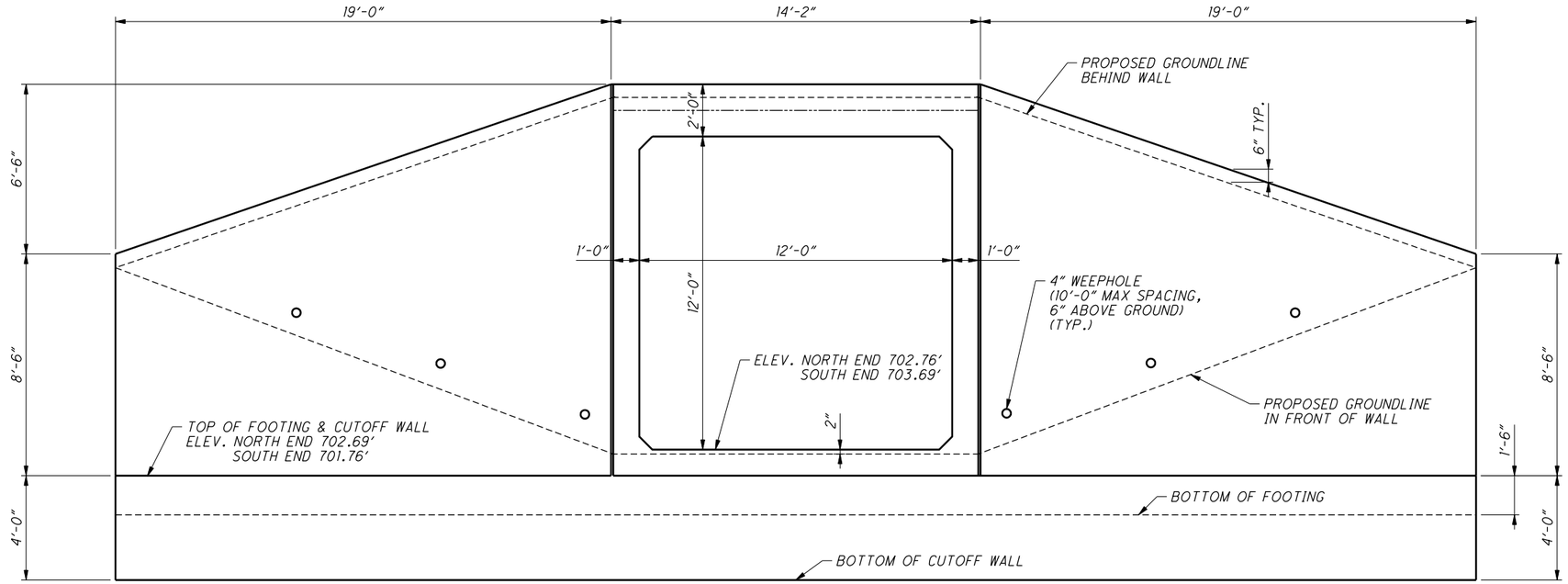
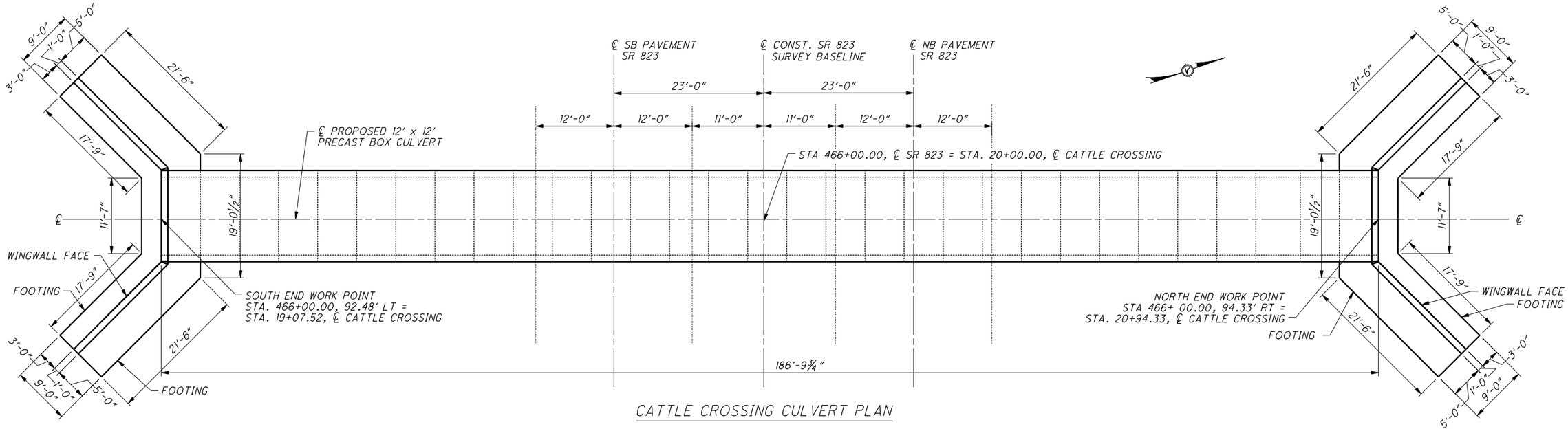


CATTLE CROSSING CULVERT & WINGWALL ELEVATION

(DEVELOPED VIEW SHOWN)



CATTLE CROSSING CULVERT PLAN

CALCULATED JSW CHECKED CHN

CATTLE CROSSING CULVERT - DETAILS

SCI-823-6.81

501
535

USER: CWohlbri PLOT DATE: 9/15/2011 6:44:07 PM REVISION DATE: 9/15/2011
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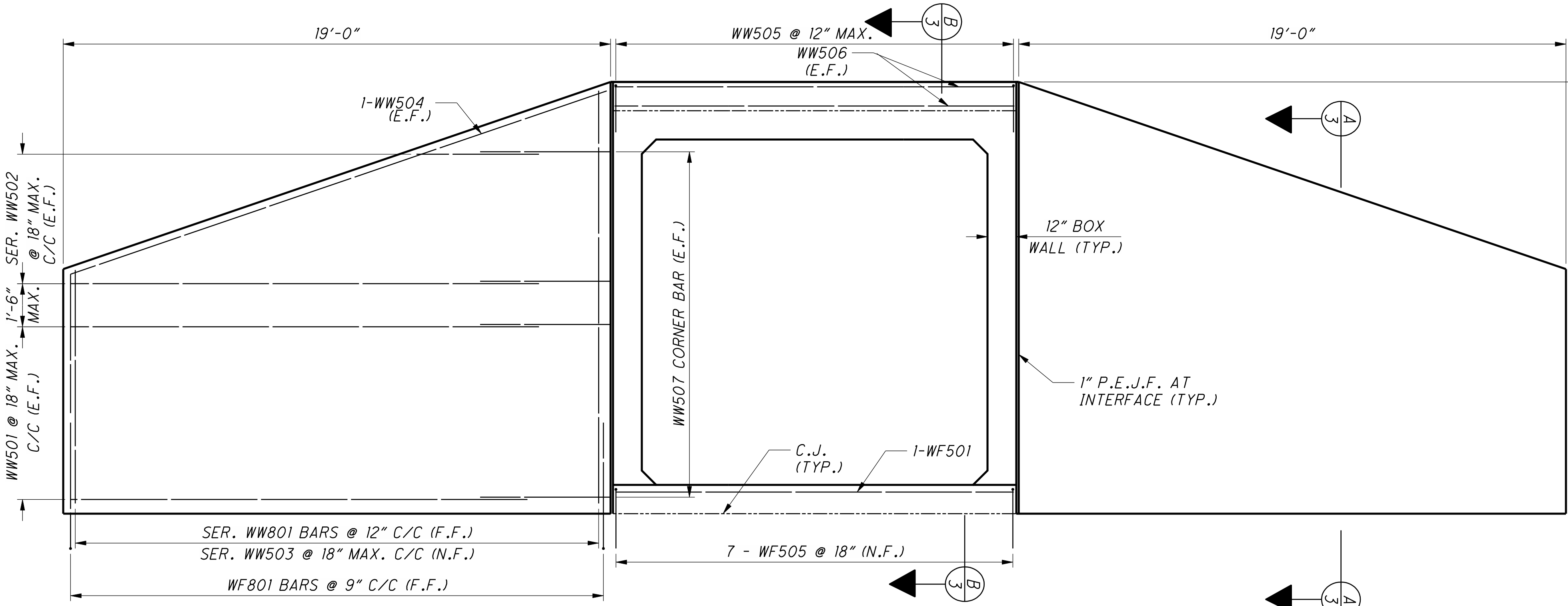
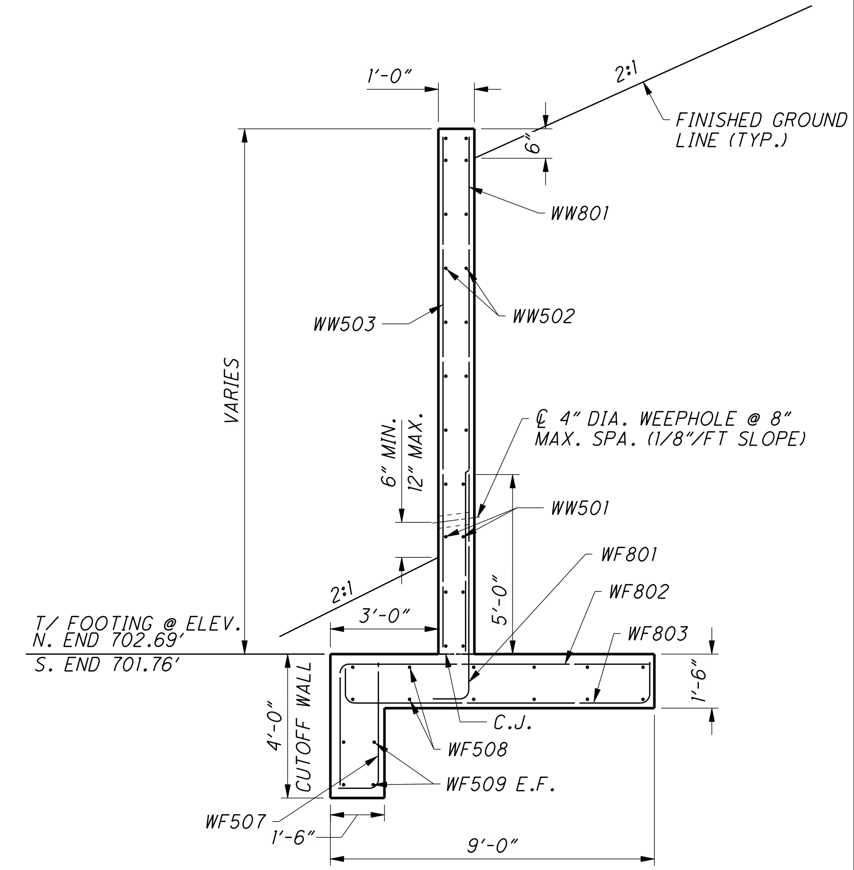


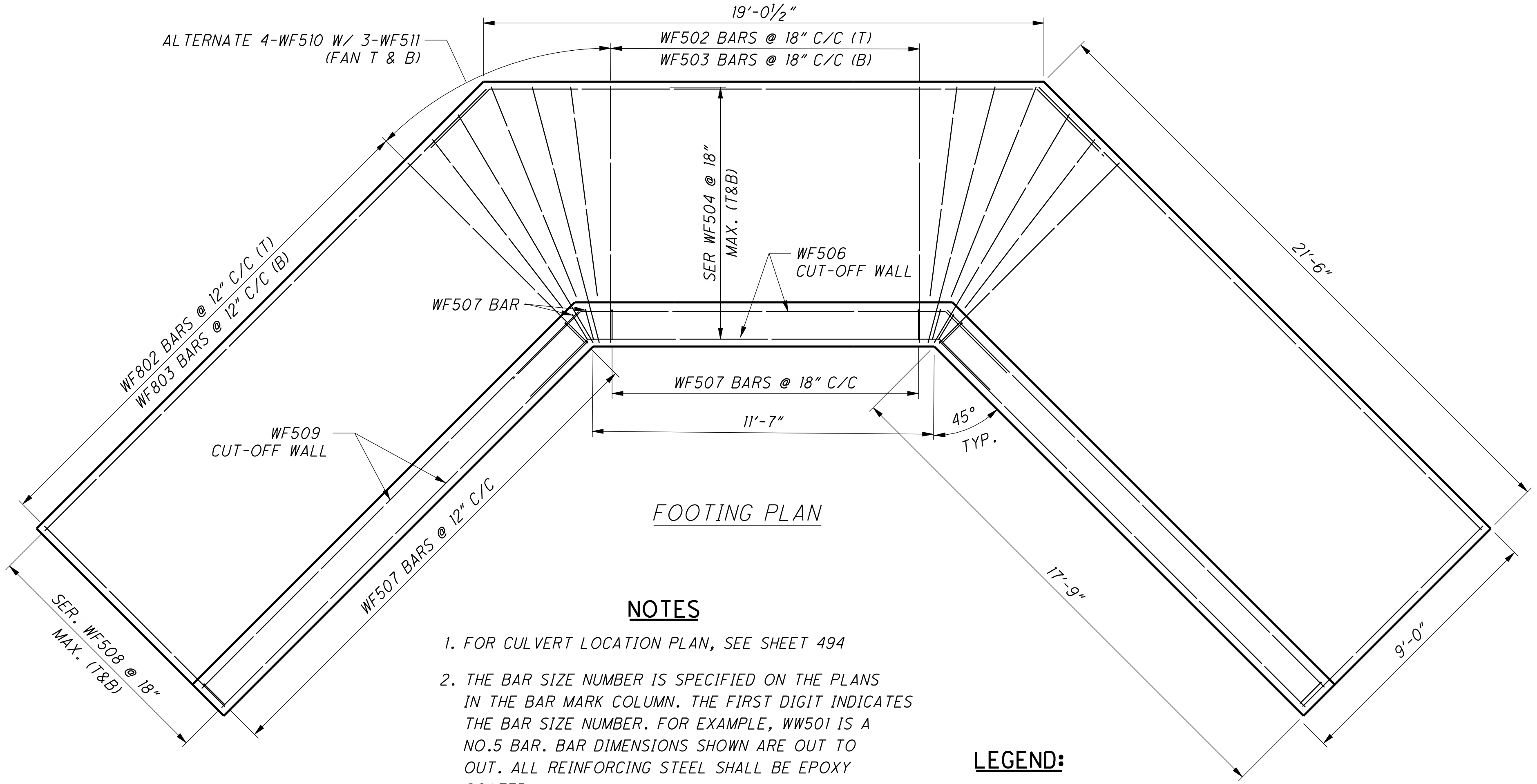
WINGWALL ELEVATION

(FOOTING NOT SHOWN)

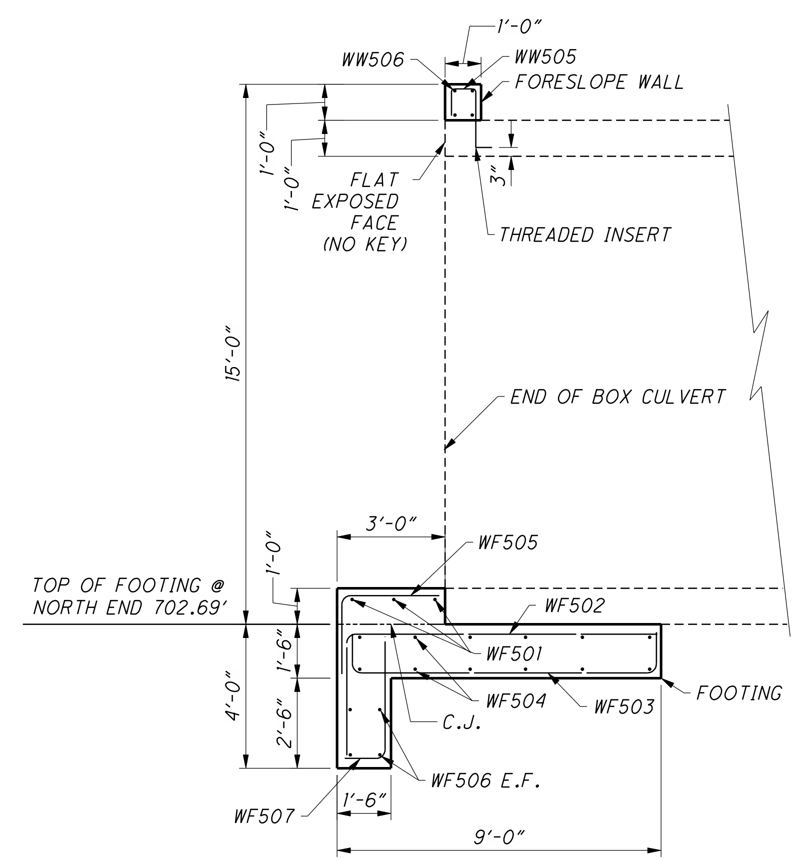


SECTION A-A

(POROUS BACKFILL NOT SHOWN FOR CLARITY)



FOOTING PLAN



SECTION B-B

NOTES

1. FOR CULVERT LOCATION PLAN, SEE SHEET 494
2. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, WW501 IS A NO.5 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
3. THE LAP SPLICE LENGTHS USED IN THESE DETAILS ARE AS FOLLOWS: 2'-5" FOR #5 BARS
4. REINFORCING BARS SHALL HAVE A CLEAR CONCRETE COVER OF 2" FROM FORMED SURFACES AND 3" FROM SURFACES PLACED AGAINST EARTH

LEGEND:

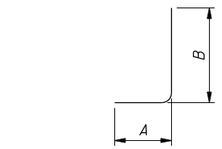
C.J.	CONSTRUCTION JOINT	N.F.	NEAR FACE
CLR.	CLEAR	SER.	SERIES
DIA.	DIAMETER	STR.	STRAIGHT
E.F.	EACH FACE	(T)	TOP
F.F.	FAR FACE	(B)	BOTTOM
MAX.	MAXIMUM	T&B	TOP AND BOTTOM
MIN.	MINIMUM	TYP.	TYPICAL
PEJF	PREFORMED EXPANSION JOINT FILLER	INC.	INCREMENT

CALCULATED JSW
CHECKED CHN

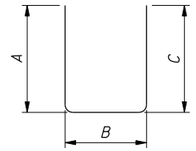
CATTLE CROSSING CULVERT - WINGWALL DETAILS
SCI-823-08.83

SCI-823-6.81

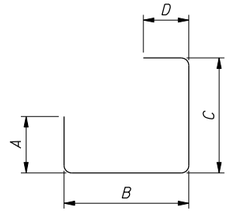
MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
WINGWALLS											
WW501	40	16'- 3"	678	STR							
WW502	8 SR OF 4	4'- 3" TO 16'- 3"	460	STR							4'-0"
WW503	4 SR OF 13	8'- 1" TO 14'- 4"	608	STR							0'-6 1/4"
WW504	8	23'- 10"	199	19	4'-3"	6'-4"	18'-7"				
WW505	28	3'- 1"	90	7	0'-8 3/4"	0'-8 1/4"	1'-7 1/2"	0'-5 1/2"			
WW506	8	13'- 9"	115	STR							
WW507	36	3'- 11"	147	10	1'-2"	2'-10 1/2"	0'-5 1/4"	0'-7"			
WW801	4 SR OF 19	8'- 0" TO 14'- 4"	2262	STR							0'-4 1/4"
WINGWALLS SUB-TOTAL			4559								
FOOTINGS											
WF501	6	13'- 10"	87	STR							
WF502	16	11'- 11"	199	1	3'-4 1/2"	8'-8 1/2"					
WF503	16	10'- 5"	174	2	1'-1 1/2"	8'-5 1/4"	1'-1 1/2"				
WF504	4 SR OF 7	17'- 7" TO 24'- 2"	610	20	2'-0"	2'-0"	11'-11 1/2" TO 18'-7 1/4"	2'-0"	2'-0"		1'-1 1/4"
WF505	14	7'- 0"	102	1	2'-8 1/2"	4'-5 1/4"					
WF506	8	13'- 10"	115	STR							
WF507	86	4'- 5"	396	1	1'-1 1/2"	3'-4 3/4"					
WF508	8 SR OF 6	17'- 8" TO 21'- 3"	975	STR							0'-8 3/4"
WF509	8 SR OF 2	17'- 6" TO 18'- 2"	298	STR							0'-7 1/2"
WF510	32	8'- 8"	289	STR							
WF511	24	7'- 8"	192	STR							
WF801	76	9'- 5"	1911	1	6'-3"	3'-4 3/4"					
WF802	72	11'- 8"	2243	1	3'-4"	8'-7"					
WF803	72	10'- 4"	1986	2	1'-1 3/4"	8'-5 1/2"	1'-1 3/4"				
FOOTING SUB-TOTAL			9577								
CATTLE CULVERT TOTAL			14136								



TYPE-1



TYPE-2



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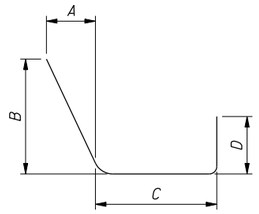
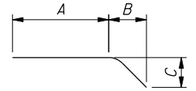
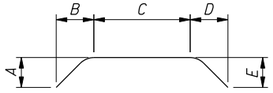


TYPE-10



TYPE-19



TYPE-20

CALCULATED JSW
CHECKED CHN

CATTLE CROSSING CULVERT - REINFORCING STEEL LIST

SCI-823-6.81

503
535

USER: CWahlbri PLOT DATE: 9/15/2011 6:44:18 PM REVISION DATE: 9/15/2011
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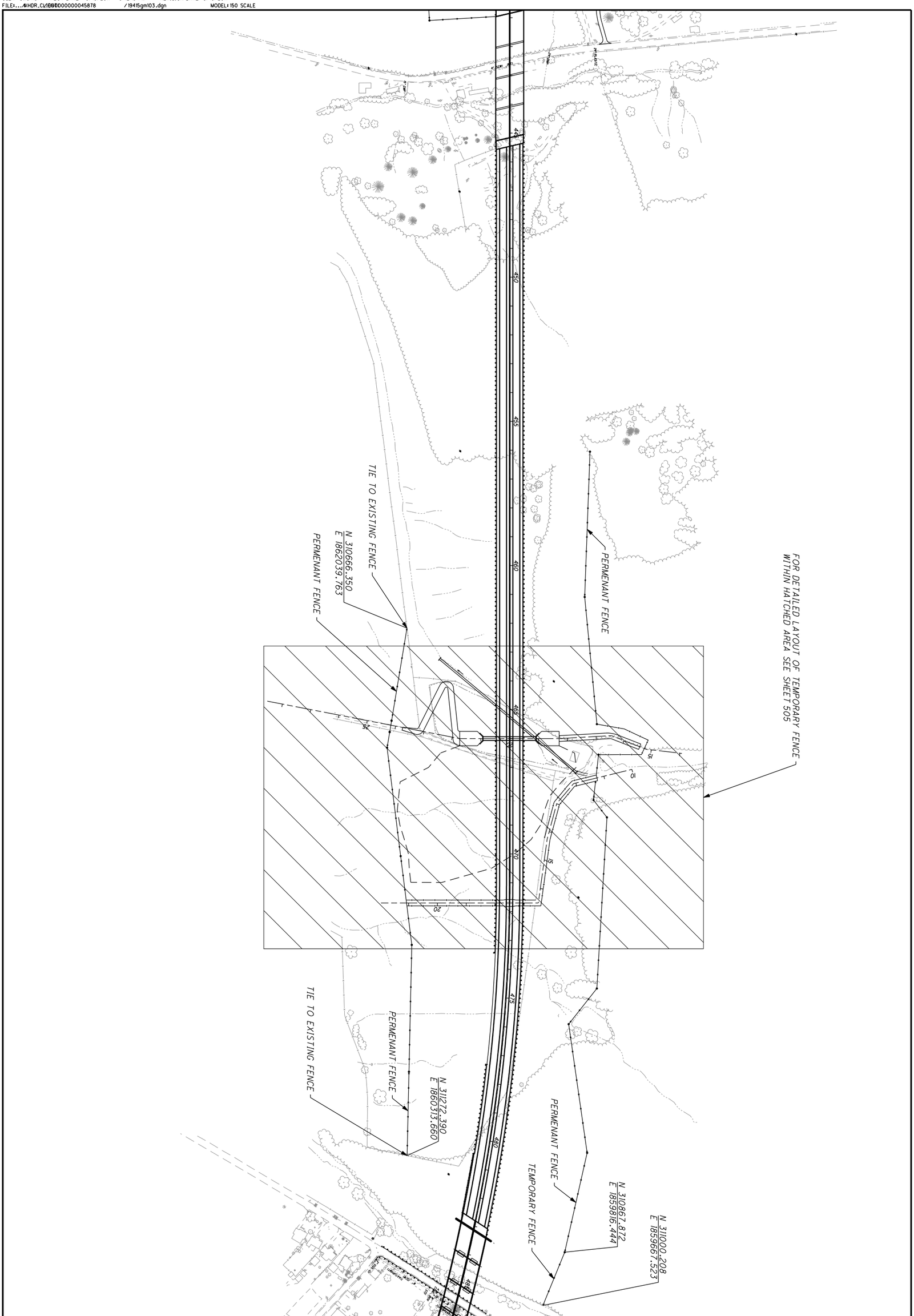
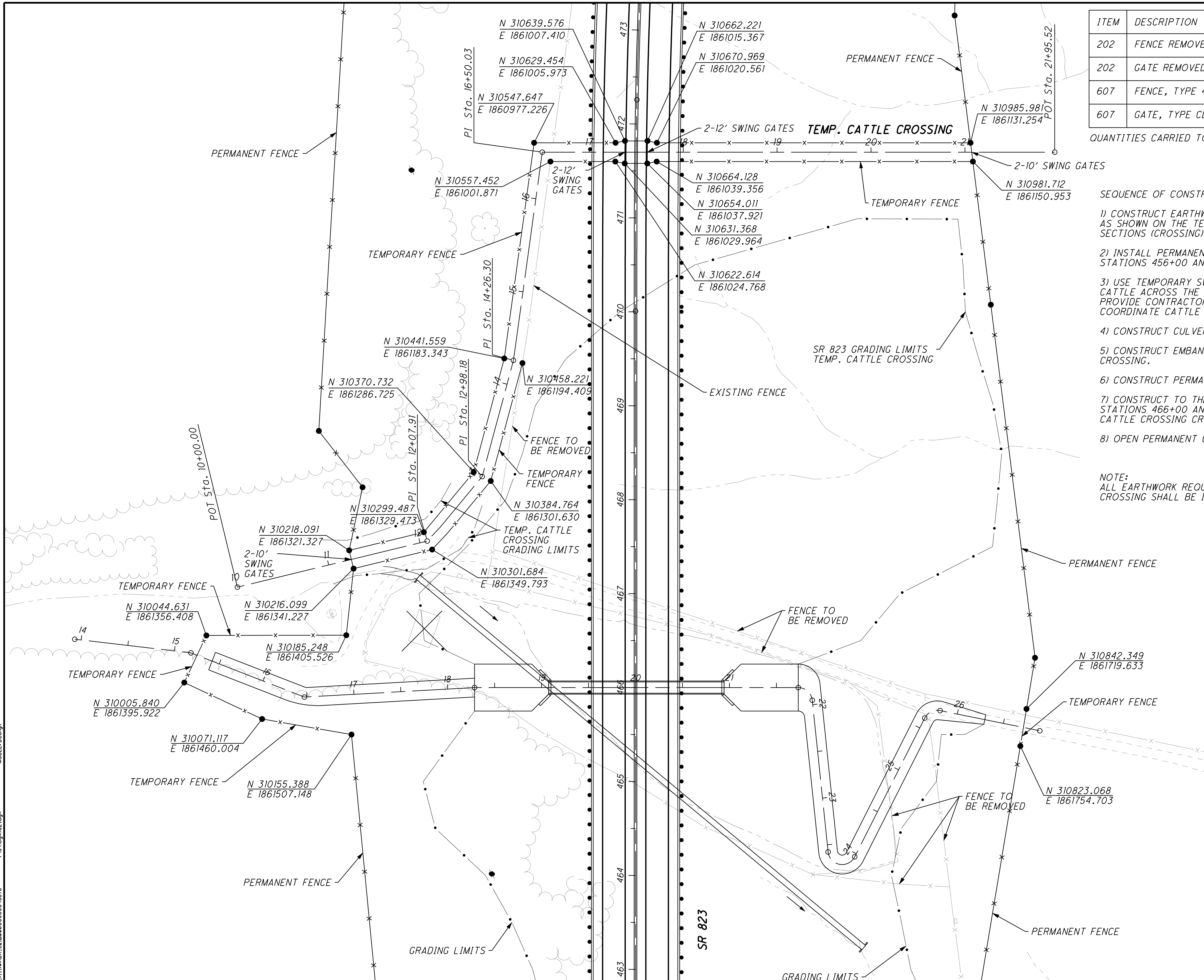


504 / 535	SCI-823-6.81	TEMPORARY CATTLE CROSSING SCHEMATIC PLAN	CALCULATED BEE / CHECKED JMB	0 75 150 300 HORIZONTAL SCALE IN FEET	



ITEM	DESCRIPTION	QUANTITY	UNITS
202	FENCE REMOVED	2432	FT
202	GATE REMOVED	4	EACH
607	FENCE, TYPE 47	2432	FT
607	GATE, TYPE CL, AS PER PLAN	4	EACH

QUANTITIES CARRIED TO GENERAL SUMMARY

SEQUENCE OF CONSTRUCTION NOTES:

1) CONSTRUCT EARTHWORK FOR TEMPORARY CATTLE CROSSING AS SHOWN ON THE TEMPORARY CATTLE CROSSING CROSS SECTIONS (CROSSING)

2) INSTALL PERMANENT AND TEMPORARY FENCE BETWEEN STATIONS 456+00 AND 485+00

3) USE TEMPORARY SWING GATES TO CONTROL THE FLOW OF CATTLE ACROSS THE PROJECT SITE. THESE GATES WILL PROVIDE CONTRACTOR ACCESS ALONG THE ROADWAY ALIGNMENT. COORDINATE CATTLE CROSSING SCHEDULE WITH PROPERTY OWNER.

4) CONSTRUCT CULVERT NEAR STATION 465+00

5) CONSTRUCT EMBANKMENT TO BOTTOM OF PERMANENT CATTLE CROSSING.

6) CONSTRUCT PERMANENT CATTLE CROSSING.

7) CONSTRUCT TO THE TEMPORARY GRADING LIMIT BETWEEN STATIONS 466+00 AND 471+00 AS SHOWN ON THE TEMPORARY CATTLE CROSSING CROSS SECTIONS (SR823)

8) OPEN PERMANENT CATTLE CROSSING

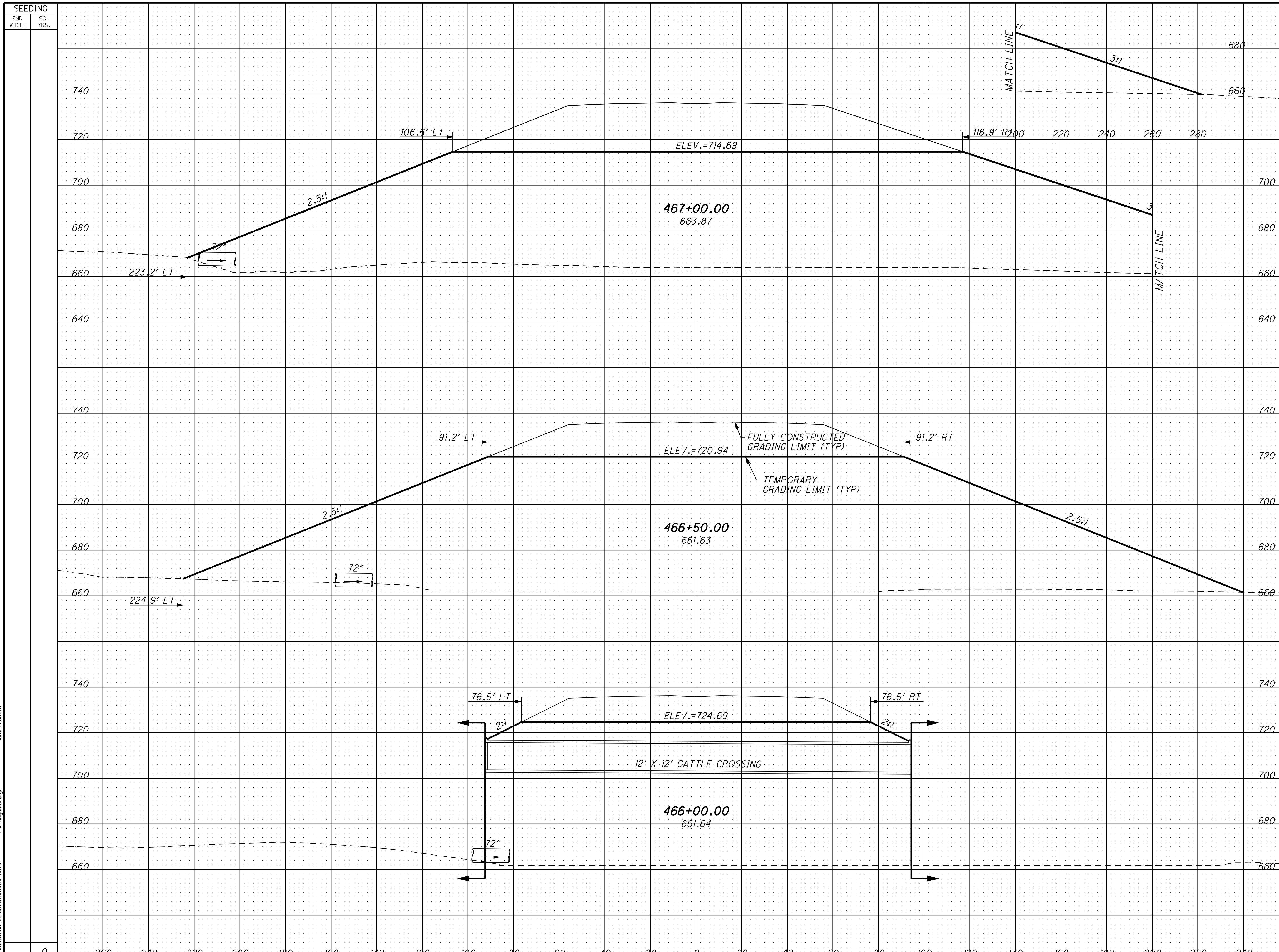
NOTE:
ALL EARTHWORK REQUIRED FOR THE TEMPORARY CATTLE CROSSING SHALL BE INCIDENTAL TO THE SR823 EARTHWORK.

HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED BEE CHECKED JMB

TEMPORARY CATTLE CROSSING PLAN SHEET

SCI-832-6.81



CALCULATED BEE
CHECKED JMB

TEMPORARY CATTLE CROSSING

SR823 STA. 466+00.00 TO STA. 467+00.00

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 6:36:13 PM REVISION DATE: 9/15/2011
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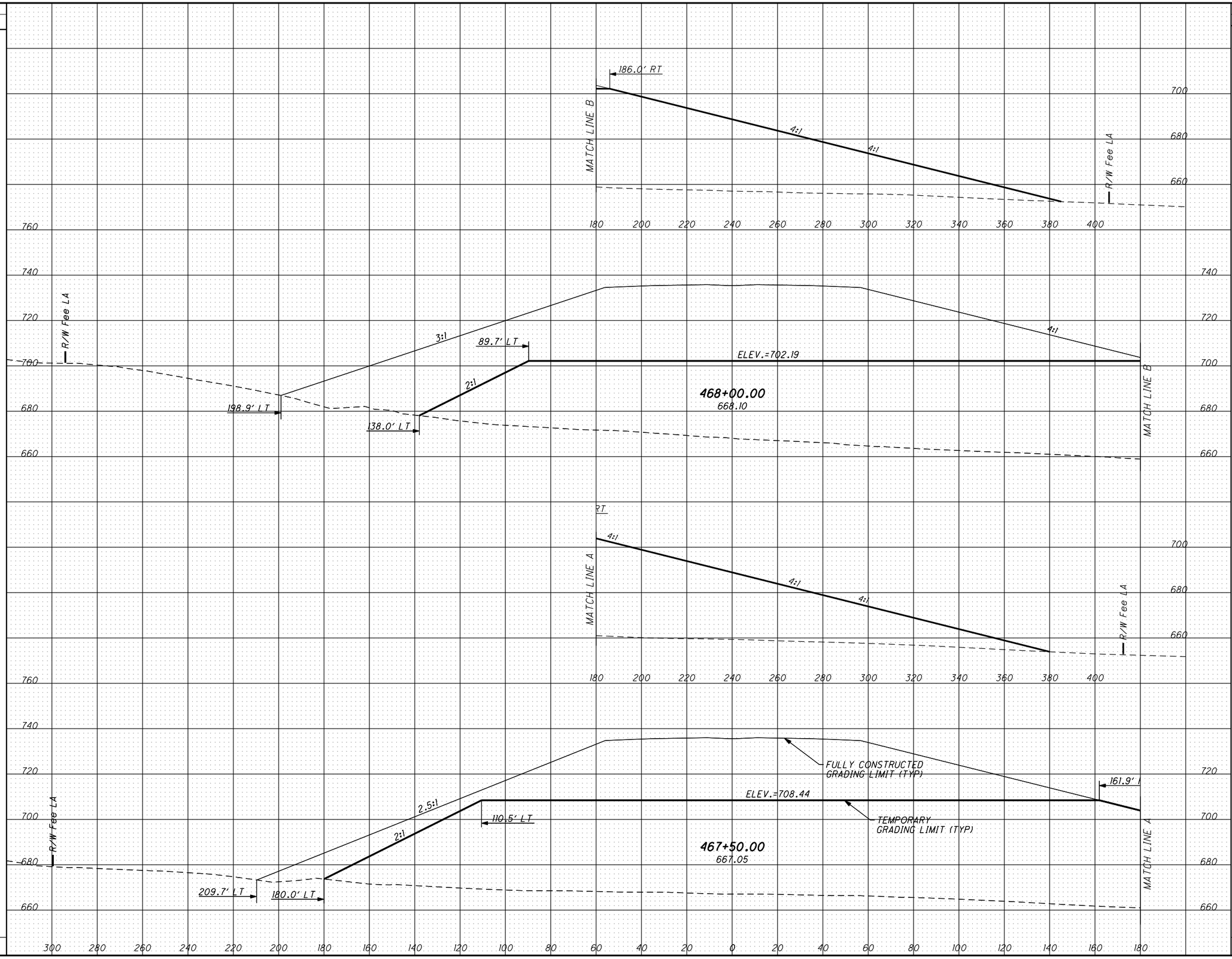
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED BEE
CHECKED JMB



TEMPORARY CATTLE CROSSING
SR823 STA. 467+50.00 TO STA. 468+00.00

SCI-823-6.81

507
535

0				0	0

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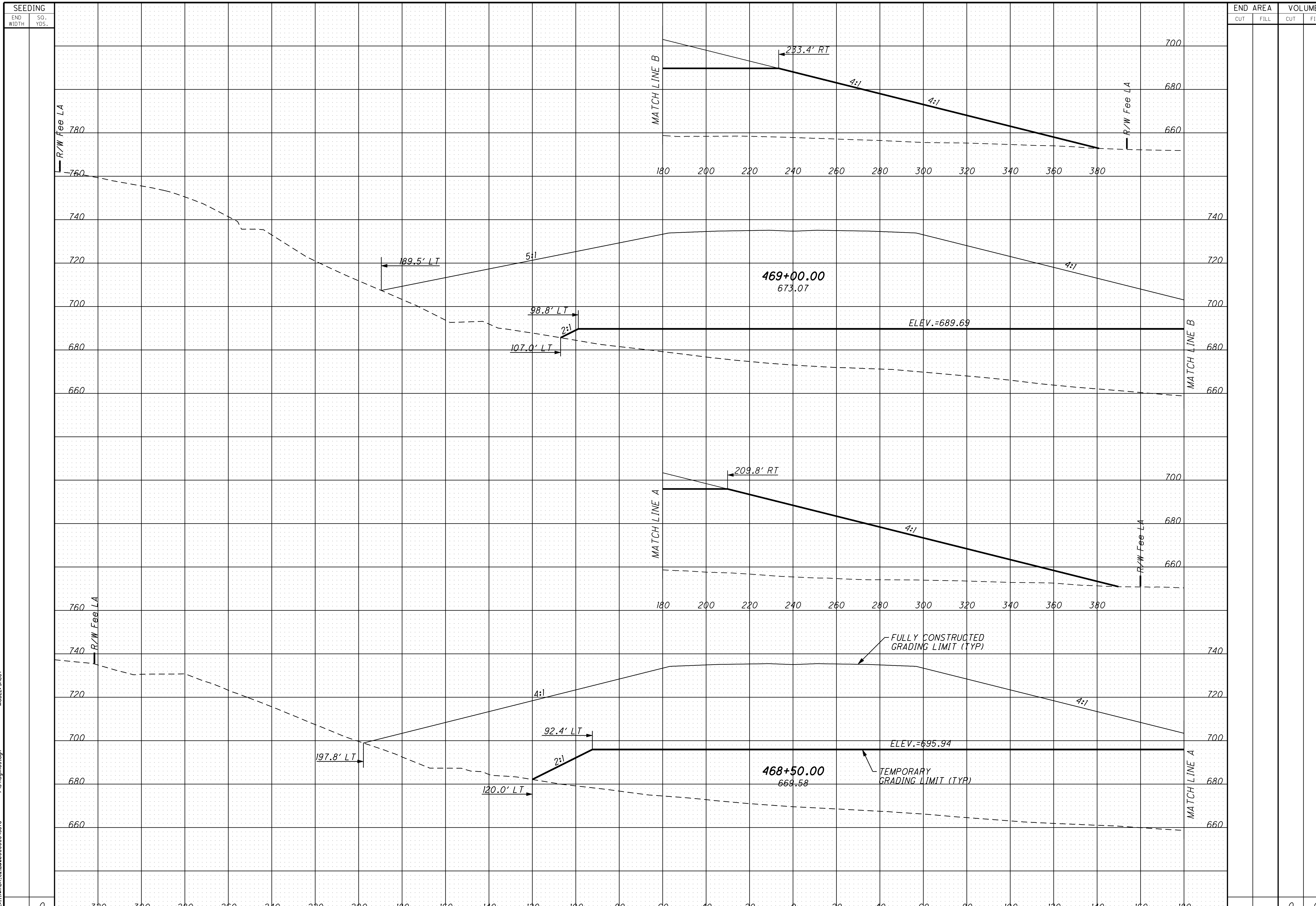

CALCULATED BEE
CHECKED JMB

TEMPORARY CATTLE CROSSING
SR823 STA. 468+50.00 TO STA. 469+00.00

SCI-823-6.81

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SEEDING	
END WIDTH	SQ. YDS.
	0

END AREA	
CUT	FILL

VOLUME	
CUT	FILL
0	0

CALCULATED BEE

CHECKED JMB

TEMPORARY CATTLE CROSSING
SR823 STA. 469+50.00 TO STA. 470+00.00

SCI-823-6.81

509
535

USER: CWohlbri PLOT DATE: 9/15/2011 6:37:10 PM REVISION DATE: 9/15/2011 MODEL: Sheet
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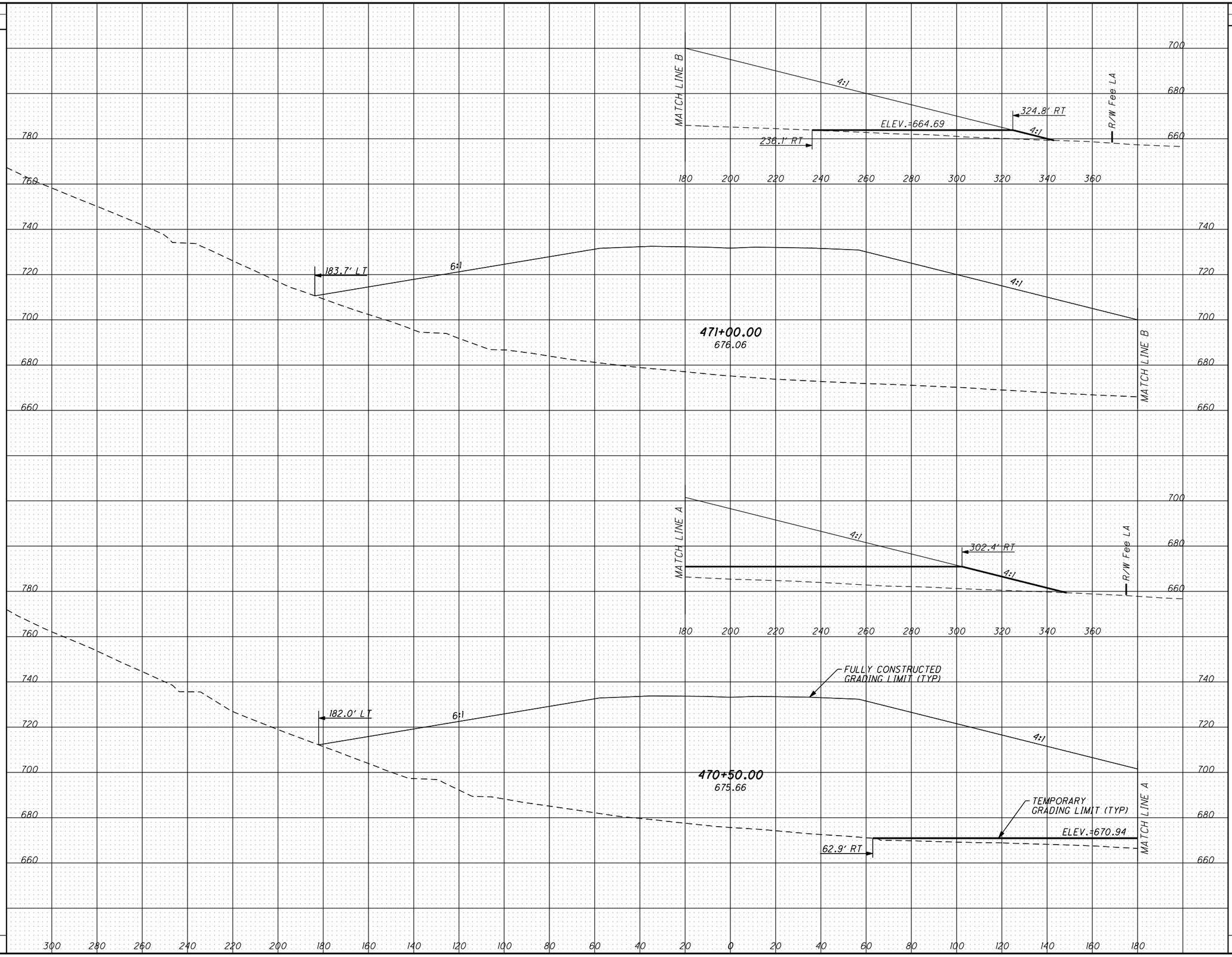
SEEDING	
END WIDTH	SQ. YDS.
0	



END AREA		VOLUME	
CUT	FILL	CUT	FILL
		0	0

CALCULATED BEE
CHECKED JMB

TEMPORARY CATTLE CROSSING
SR823 STA. 470+50.00 TO STA. 471+00.00

SCI-823-6.81

510
535

USER: CWohlbri PLOT DATE: 9/15/2011 6:37:29 PM REVISION DATE: 9/15/2011
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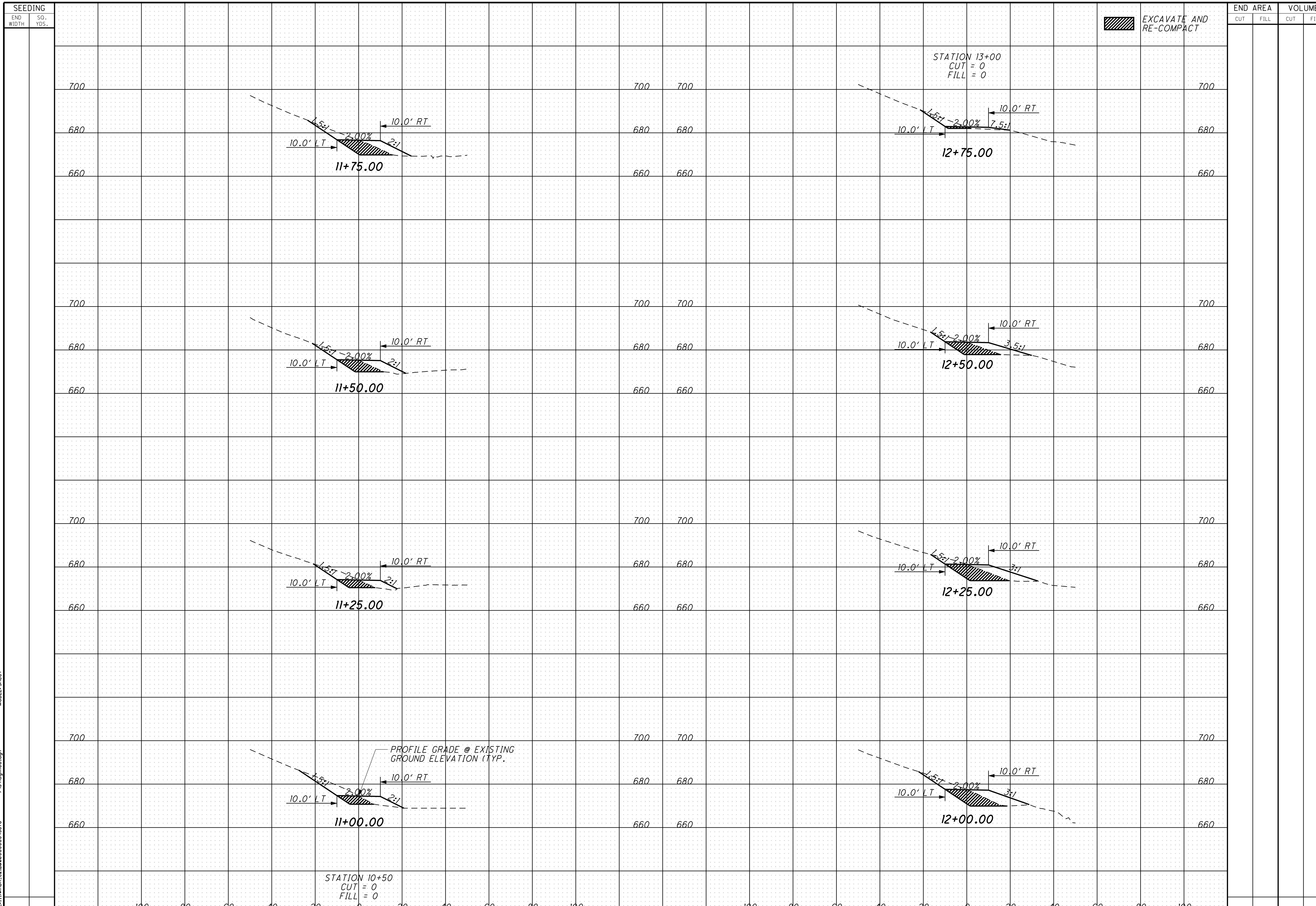

CALCULATED BEE
CHECKED LBD

TEMPORARY CATTLE CROSSING
CROSSING STA. 11+00 TO STA. 12+75

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 6:37:52 PM REVISION DATE: 9/15/2011
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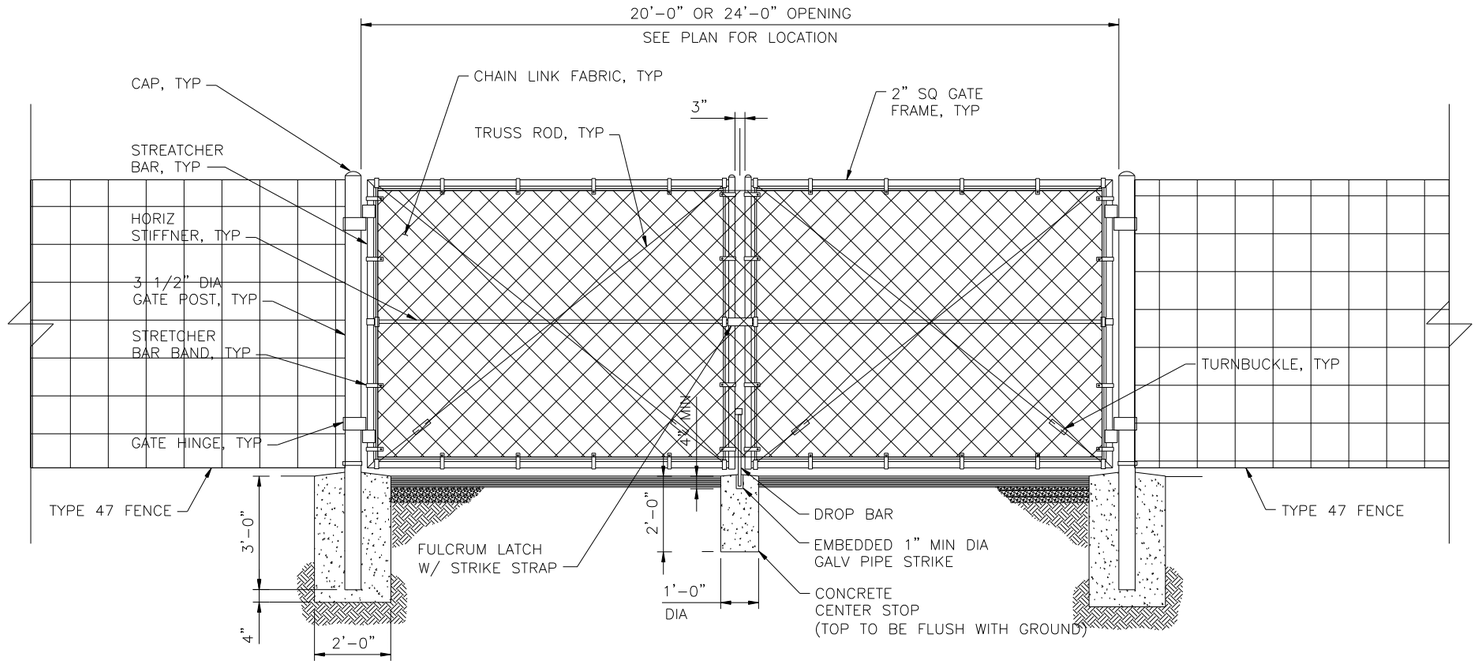
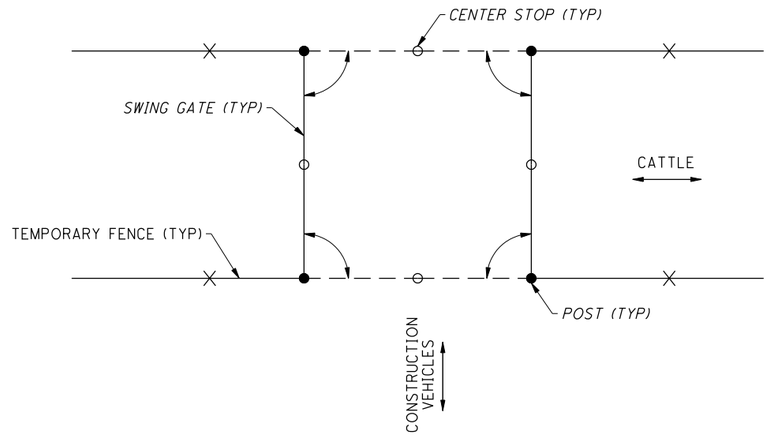


DOUBLE SWING CHAIN LINK GATE DETAIL



CALCULATED BEE
CHECKED JMB

TEMPORARY CATTLE CROSSING GATE DETAILS

SCI-823-6.81

512
535

USER: Cwahlbri PLOT DATE: 9/15/2011 6:41:47 PM REVISION DATE: 9/15/2011
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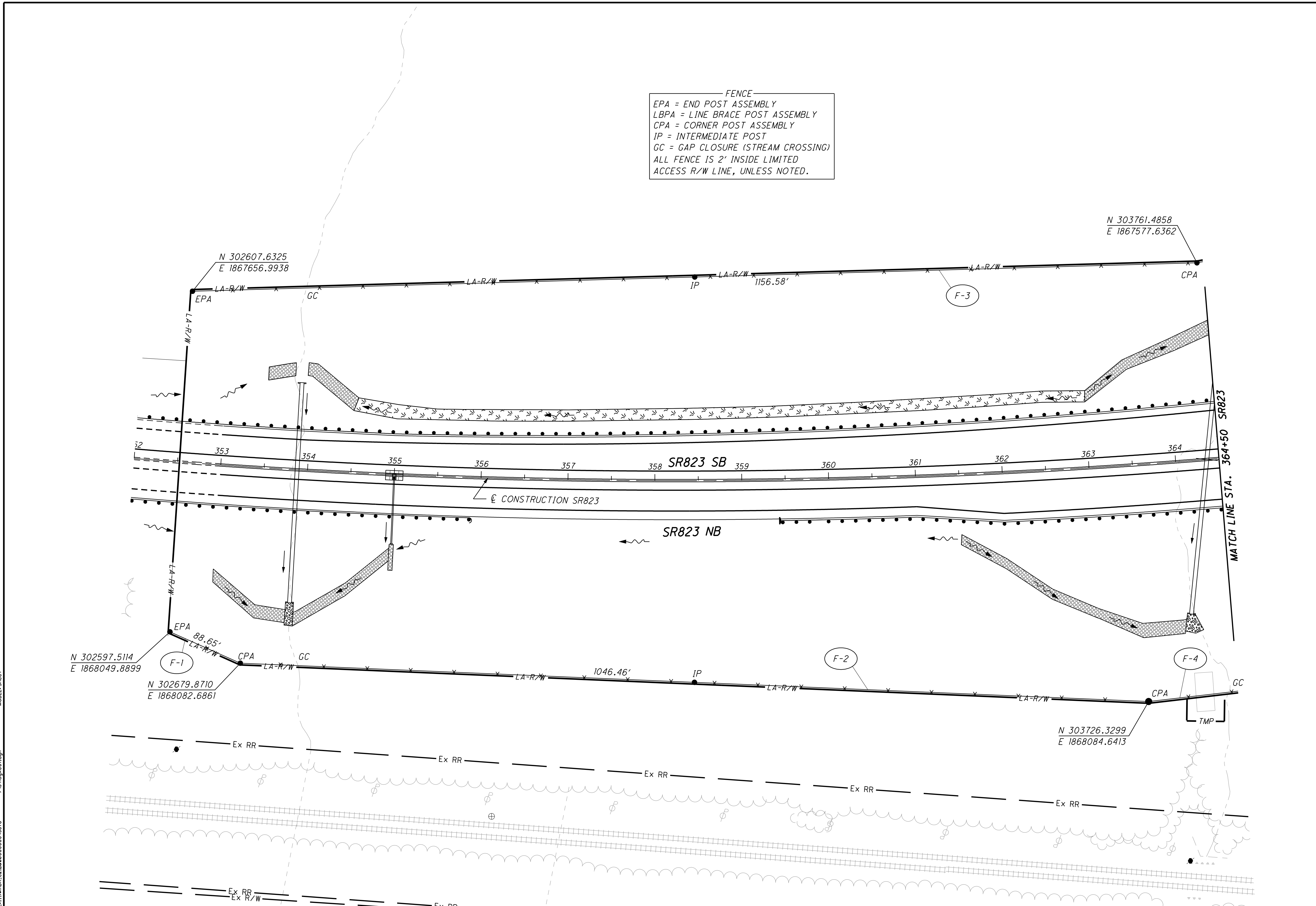
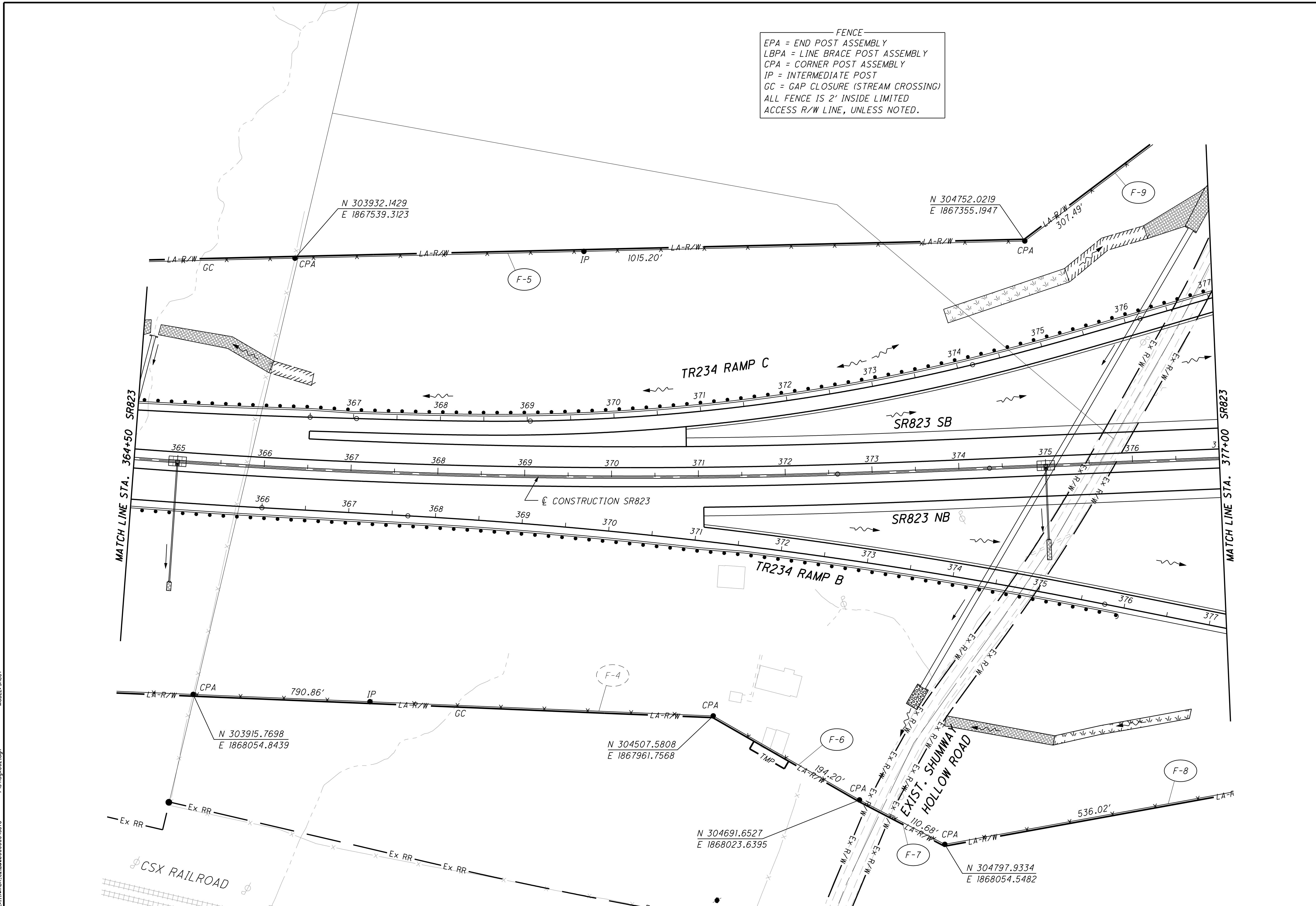

FENCE
EPA = END POST ASSEMBLY
LBPA = LINE BRACE POST ASSEMBLY
CPA = CORNER POST ASSEMBLY
IP = INTERMEDIATE POST
GC = GAP CLOSURE (STREAM CROSSING)
ALL FENCE IS 2' INSIDE LIMITED
ACCESS R/W LINE, UNLESS NOTED.
N 302607.6325
E 1867656.9938
EPA
GC
LA-R/W
IP
1156.58'
N 303761.4858
E 1867577.6362
CPA
F-3
SR823 SB
353
354
355
356
357
358
359
360
361
362
363
364
℄ CONSTRUCTION SR823
SR823 NB
MATCH LINE STA. 364+50 SR823
EPA
88.65'
N 302597.5114
E 1868049.8899
F-1
CPA
GC
N 302679.8710
E 1868082.6861
1046.46'
IP
F-2
F-4
CPA
GC
TMP
N 303726.3299
E 1868084.6413
Ex RR
Ex R/W

HORIZONTAL SCALE IN FEET (0, 25, 50, 100)

CALCULATED CTM
CHECKED JMB

FENCE PLAN - SR823
STA. 352+00.00 TO STA. 364+50.00

SCI-823-6.81



FENCE
EPA = END POST ASSEMBLY
LBPA = LINE BRACE POST ASSEMBLY
CPA = CORNER POST ASSEMBLY
IP = INTERMEDIATE POST
GC = GAP CLOSURE (STREAM CROSSING)
ALL FENCE IS 2' INSIDE LIMITED
ACCESS R/W LINE, UNLESS NOTED.
N 303932.1429
E 1867539.3123
N 304752.0219
E 1867355.1947
LA-R/W
GC
CPA
IP
1015.20'
307.49'
F-5
F-9
TR234 RAMP C
SR823 SB
SR823 NB
℄ CONSTRUCTION SR823
TR234 RAMP B
MATCH LINE STA. 364+50 SR823
MATCH LINE STA. 377+00 SR823
Ex R/W
790.86'
F-4
N 303915.7698
E 1868054.8439
N 304507.5808
E 1867961.7568
TMP
194.20'
F-6
EXIST. SHUMWAY HOLLOW ROAD
N 304691.6527
E 1868023.6395
110.68'
F-7
N 304797.9334
E 1868054.5482
536.02'
F-8
Ex RR
CSX RAILROAD

HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED CTM

CHECKED JMB

FENCE PLAN - SR823

STA. 364+50.00 TO STA. 377+00.00

SCI-823-6.81

514
535

USER: CWohlbr PLOT DATE: 9/15/2011 6:31:57 PM REVISION DATE: 9/15/2011
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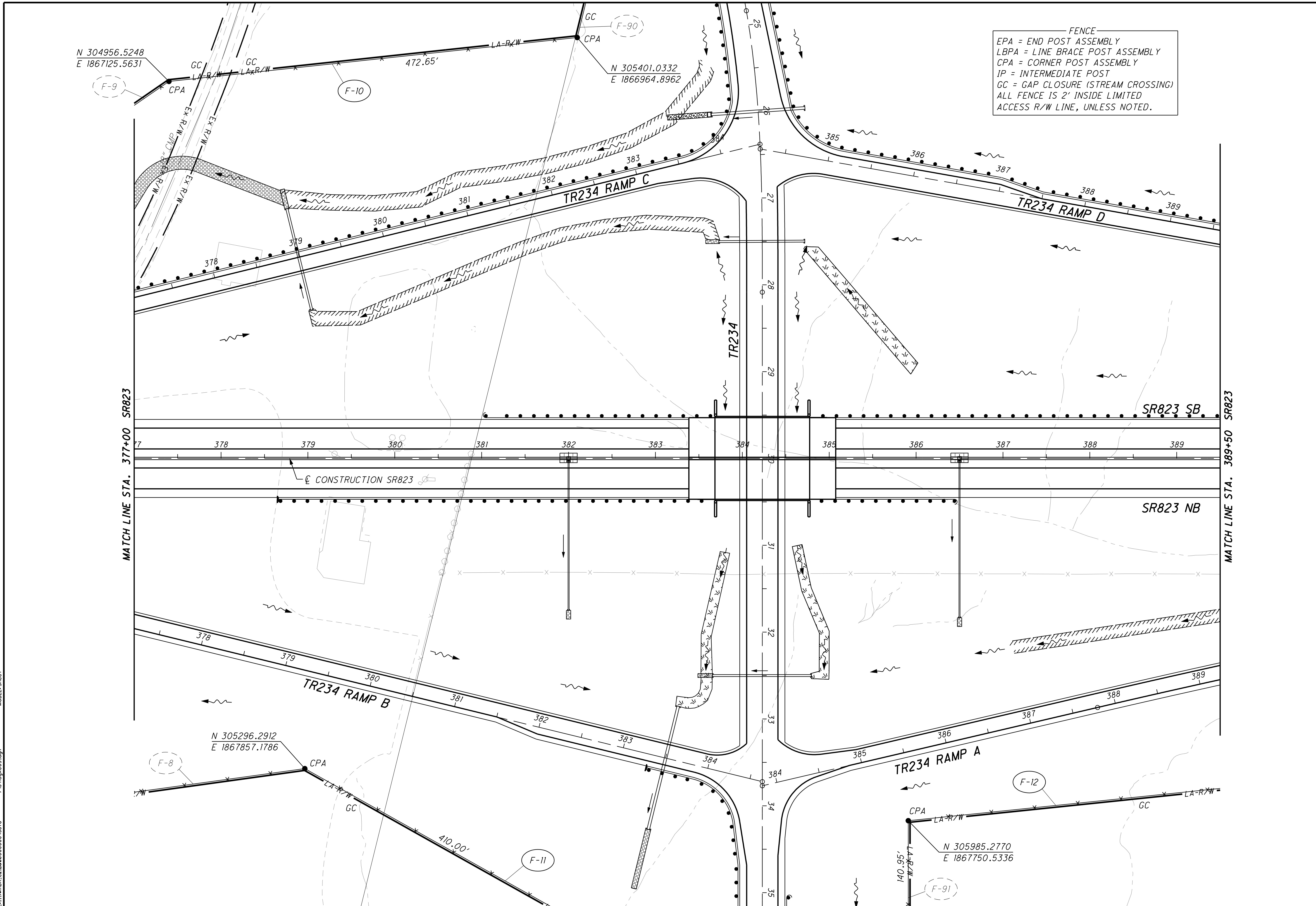
FENCE
EPA = END POST ASSEMBLY
LBPA = LINE BRACE POST ASSEMBLY
CPA = CORNER POST ASSEMBLY
IP = INTERMEDIATE POST
GC = GAP CLOSURE (STREAM CROSSING)
ALL FENCE IS 2' INSIDE LIMITED
ACCESS R/W LINE, UNLESS NOTED.
N 304956.5248
E 1867125.5631
F-9
CPA
GC
LA-R/W
F-10
472.65'
F-90
CPA
N 305401.0332
E 1866964.8962
Ex R/W
TR234 RAMP C
TR234 RAMP D
TR234
MATCH LINE STA. 377+00 SR823
MATCH LINE STA. 389+50 SR823
SR823 SB
SR823 NB
℄ CONSTRUCTION SR823
TR234 RAMP B
TR234 RAMP A
N 305296.2912
E 1867857.1786
F-8
CPA
GC
410.00'
F-11
F-12
CPA
N 305985.2770
E 1867750.5336
140.95'
F-91

HORIZONTAL SCALE IN FEET

CALCULATED CTM
CHECKED JMB

FENCE PLAN - SR823
STA. 377+00.00 TO STA. 389+50.00

SCI-823-6.81

USER: CWohlbr! PLOT DATE: 9/15/2011 6:32:03 PM REVISION DATE: 9/15/2011
FILE: ...\19415gx003.dgn MODEL: Sheet

FENCE
EPA = END POST ASSEMBLY
LBPA = LINE BRACE POST ASSEMBLY
CPA = CORNER POST ASSEMBLY
IP = INTERMEDIATE POST
GC = GAP CLOSURE (STREAM CROSSING)
ALL FENCE IS 2' INSIDE LIMITED ACCESS R/W LINE, UNLESS NOTED.

F-13
IP
LA-R/W
954.55'
LA-R/W
N 306959.4483
E 1866856.0525
CPA
GC
543.05'
LA-R/W
F-14

TR234 RAMP D
SR823 SB
SR823 NB
℄ CONSTRUCTION SR823
MATCH LINE STA. 389+50 SR823
MATCH LINE STA. 402+00 SR823
TR234 RAMP A

390 391 392 393 394 395 396 397 398 399 400 401 402

N 307249.4535
E 1867299.4296
F-12
CPA
LA-R/W
534.03'
F-15
IP
LA-R/W
1342.25'
GC
CPA
CPA
IP
LA-R/W
GC
N 306640.7342
E 1867516.6427
N 306653.8358
E 1867511.9676

0 25 50 100
HORIZONTAL SCALE IN FEET

CALCULATED CTM
CHECKED JMB

FENCE PLAN - SR823
STA. 389+50.00 TO STA. 402+00.00

SCI-823-6.81

516
535

USER: Cmahlbri PLOT DATE: 9/15/2011 6:32:09 PM REVISION DATE: 9/15/2011
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FENCE
EPA = END POST ASSEMBLY
LBPA = LINE BRACE POST ASSEMBLY
CPA = CORNER POST ASSEMBLY
IP = INTERMEDIATE POST
GC = GAP CLOSURE (STREAM CROSSING)
ALL FENCE IS 2' INSIDE LIMITED ACCESS R/W LINE, UNLESS NOTED.

F-14
GC
N 307434.9052
E 1866593.6644
CPA
LA-R/W
F-16
409.46'
LA-R/W
CPA
N 307821.1084
E 1866457.6455
LA-R/W
635.28'
IP
LA-R/W
F-18
GC

MATCH LINE STA. 402+00 SR823
TR234 RAMP D
SR823 SB
MATCH LINE STA. 414+50 SR823
SR823 NB
℄ CONSTRUCTION SR823

F-15
LA-R/W
CPA
N 307674.2256
E 1867223.4979
CPA
GC
N 307775.1510
E 1867205.4566
CPA
F-17
LA-R/W
N 307914.9830
E 1867131.3932
IP
GC
798.59'
GC
LA-R/W
CPA
GC
N 308480.8657
E 1866831.6677
LA-R/W
GC
701.23'
F-19
IP
CPA
LA-R/W
N 308745.9889
E 1866546.5563

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED CTM
CHECKED JMB

FENCE PLAN - SR823
STA. 402+00.00 TO STA. 414+50.00

SCI-823-6.81

517
535

USER: Cwahibri PLOT DATE: 9/15/2011 6:32:14 PM REVISION DATE: 9/15/2011
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USER: CWahlbri PLOT DATE: 9/15/2011 6:32:19 PM REVISION DATE: 9/15/2011
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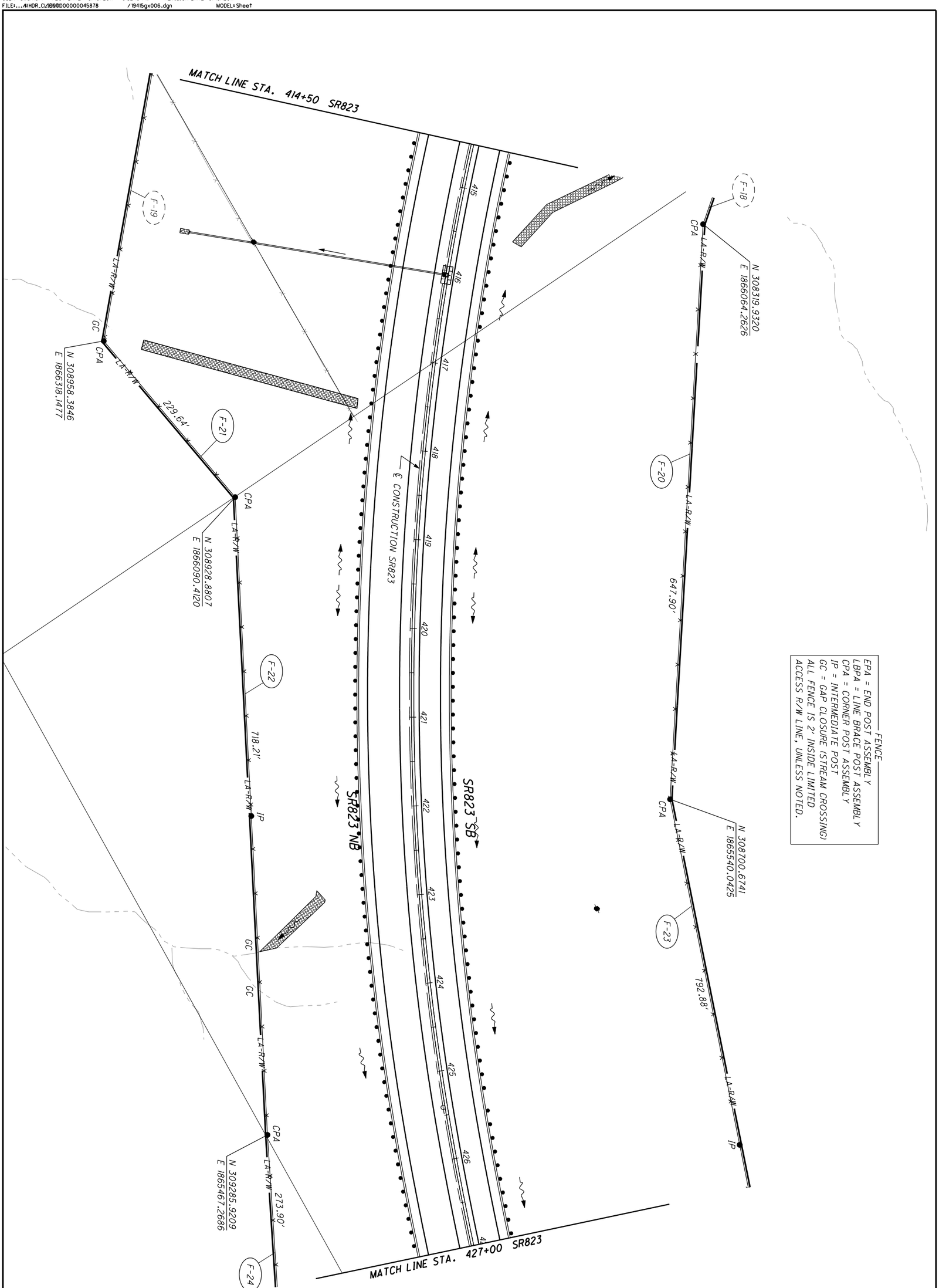
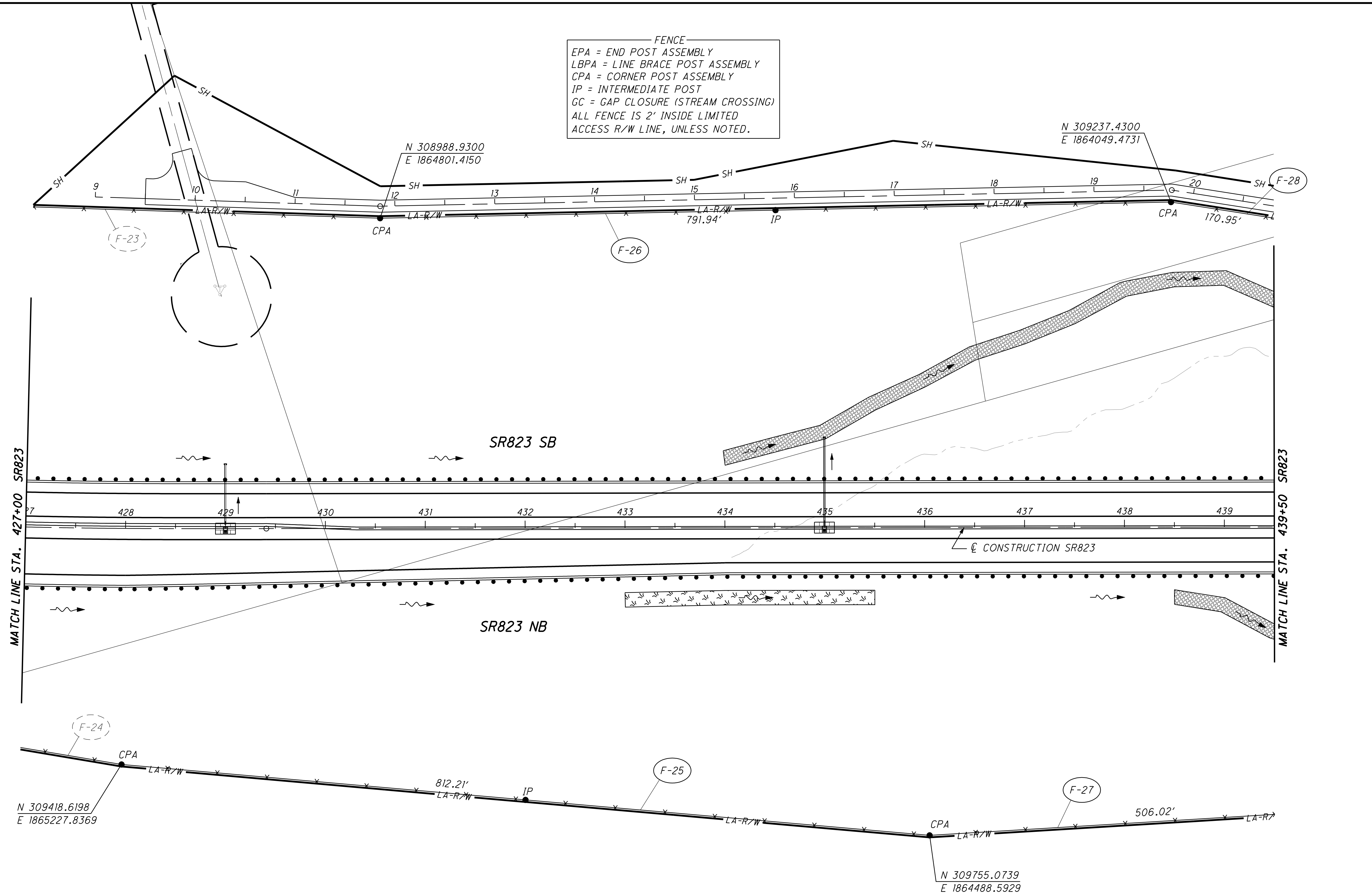


518 / 535	SCI-823-6.81	FENCE PLAN - SR823 STA. 414+50.00 TO STA. 427+00.00	CALCULATED CTM CHECKED JMB	0 50 25 100 HORIZONTAL SCALE IN FEET



FENCE
EPA = END POST ASSEMBLY
LBPA = LINE BRACE POST ASSEMBLY
CPA = CORNER POST ASSEMBLY
IP = INTERMEDIATE POST
GC = GAP CLOSURE (STREAM CROSSING)
ALL FENCE IS 2' INSIDE LIMITED ACCESS R/W LINE, UNLESS NOTED.
N 308988.9300
E 1864801.4150
N 309237.4300
E 1864049.4731
CPA
IP
791.94'
170.95'
F-23
F-26
F-28
SR823 SB
SR823 NB
MATCH LINE STA. 427+00 SR823
MATCH LINE STA. 439+50 SR823
℄ CONSTRUCTION SR823
F-24
F-25
F-27
812.21'
506.02'
N 309418.6198
E 1865227.8369
N 309755.0739
E 1864488.5929
LA-R/W

HORIZONTAL SCALE IN FEET

CALCULATED CTM

CHECKED JMB

FENCE PLAN - SR823

STA. 427+00.00 TO STA. 439+50.00

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 6:32:24 PM REVISION DATE: 9/15/2011
FILE: ...\94159gx007.dgn MODEL: Sheet

FENCE
EPA = END POST ASSEMBLY
LBPA = LINE BRACE POST ASSEMBLY
CPA = CORNER POST ASSEMBLY
IP = INTERMEDIATE POST
GC = GAP CLOSURE (STREAM CROSSING)
ALL FENCE IS 2' INSIDE LIMITED ACCESS R/W LINE, UNLESS NOTED.

SWAUGER VALLEY- MINFORD ROAD

Ex U
Ex U
Ex R/W
Ex R/W
SH
21
22
23
GC
A-R/W
F-28
CPA
N 309318.5532
E 1863898.9963
GC
254.85' (NIP)
ABUTMENT CONNECTION (NIP)
GC
LA-R/W
N 309562.2181
E 1863467.6776
CPA
F-32
327.00'
N 309668.4691
E 1863158.4223
CPA
LA-R/W
F-35
278.31'
N 309785.7503
E 1862906.0334
CPA
F-37
LA-R/W
GC
163.54' (NIP)
ABUTMENT CONNECTION (NIP)
SR823 SB
MATCH LINE STA. 439+50 SR 823
MATCH LINE STA. 452+00 SR 823
440
441
442
443
444
445
446
447
448
449
450
451
℄ CONSTRUCTION SR 823
SR823 NB
ABUTMENT CONNECTION (NIP)
231.81' (NIP)
GC
235.22' (NIP)
ABUTMENT CONNECTION (NIP)
F-34
CPA
F-36
LA-R/W
494.33'
N 310111.4201
E 1863071.0778
F-27
CPA
LA-R/W
N 309894.2611
E 1864002.0938
LA-R/W
LA-R/W
CPA
N 310049.1670
E 1863561.4678

HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED CTM
CHECKED JMB

FENCE PLAN - SR823
STA. 439+50.00 TO STA. 452+00.00

SCI-823-6.81

520
535

USER: CWohlbr; PLOT DATE: 9/15/2011 6:32:29 PM REVISION DATE: 9/15/2011
FILE...\MHDR.Cvl000000000045878 /19415gc008.dgn MODEL: Sheet

FENCE
EPA = END POST ASSEMBLY
LBPA = LINE BRACE POST ASSEMBLY
CPA = CORNER POST ASSEMBLY
IP = INTERMEDIATE POST
GC = GAP CLOSURE (STREAM CROSSING)
ALL FENCE IS 2' INSIDE LIMITED ACCESS R/W LINE, UNLESS NOTED.

N 309864.7077
E 1862406.7677

N 310049.1908
E 1861937.2033

LA-R/W
505.47'
F-37
CPA
504.37'
F-38
CPA
442.97'
F-40

SR823 SB

MATCH LINE STA. 452+00 SR823

452 453 454 455 456 457 458 459 460 461 462 463 464

℄ CONSTRUCTION SR823

SR823 NB

MATCH LINE STA. 464+50 SR823

F-36
IP
730.27'
CPA
N 310453.9443
E 1862426.1172
GC
F-39
766.19'
IP
N 310638.5064
E 1862090.4100

F-41D
N 310571.4259
E 1861817.6319
F-41C
CPA
78.13'
CPA
N 310645.1347
E 1861843.5327
F-41B

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED CTM
CHECKED JMB

FENCE PLAN - SR823
STA. 452+00.00 TO STA. 464+50.00

SCI-823-6.81

521
535

USER: CMohlbr PLOT DATE: 9/15/2011 6:32:35 PM REVISION DATE: 9/15/2011
FILE: ...&HOR_CURRENT000000004878 /19415gx009.dgn MODEL: Sheet

FENCE
EPA = END POST ASSEMBLY
LBPA = LINE BRACE POST ASSEMBLY
CPA = CORNER POST ASSEMBLY
IP = INTERMEDIATE POST
GC = GAP CLOSURE (STREAM CROSSING)
ALL FENCE IS 2' INSIDE LIMITED ACCESS R/W LINE, UNLESS NOTED.

N 310155.3882
E 1861507.1477

N 310185.2475
E 1861405.5256

N 310229.7701
E 1861190.6638

N 310253.7739
E 1861262.7095

N 310459.4998
E 1860642.3236

N 310592.7158
E 1860558.1487

N 310316.1317
E 1861563.6320

N 310349.2839
E 1861469.2872

N 310566.9235
E 1861651.7587

N 310600.0757
E 1861557.4140

N 310607.5590
E 1861666.0378

N 310662.4975
E 1861579.3486

N 310744.1071
E 1861661.0229

N 310770.3094
E 1861723.2273

N 310823.0684
E 1861754.7029

N 310842.3488
E 1861719.6330

N 310868.9450
E 1861671.2561

N 311014.9096
E 1860997.7804

F-39 F-40 F-41A F-41B F-41D F-41E F-42 F-43 F-44 F-45A F-45B F-45C F-46 F-47 F-48 F-49 F-50 F-51 F-52 F-53 F-54 F-55 F-56

CPA
LA-R/W
GC
IP
158.41'
75.94'
594.52'
157.58'
170.38'
176.00'
43.52'
43.07'
155.84'
115.46'
173.61'
114.40'
61.43'
66.16'
689.11'
55.21'

WALL CONNECTION

SR823 SB
SR823 NB
℄ CONSTRUCTION SR823
MATCH LINE STA. 464+50 SR823
MATCH LINE STA. 477+00 SR823

465 466 467 468 469 470 471 472 473 474 475 476

USER: CWohlbr; PLOT DATE: 9/15/2011 6:32:40 PM REVISION DATE: 9/15/2011 MODEL: Sheet
FILE:...4HGR.Cvl0000000004587 8 /19415gx010.dgn

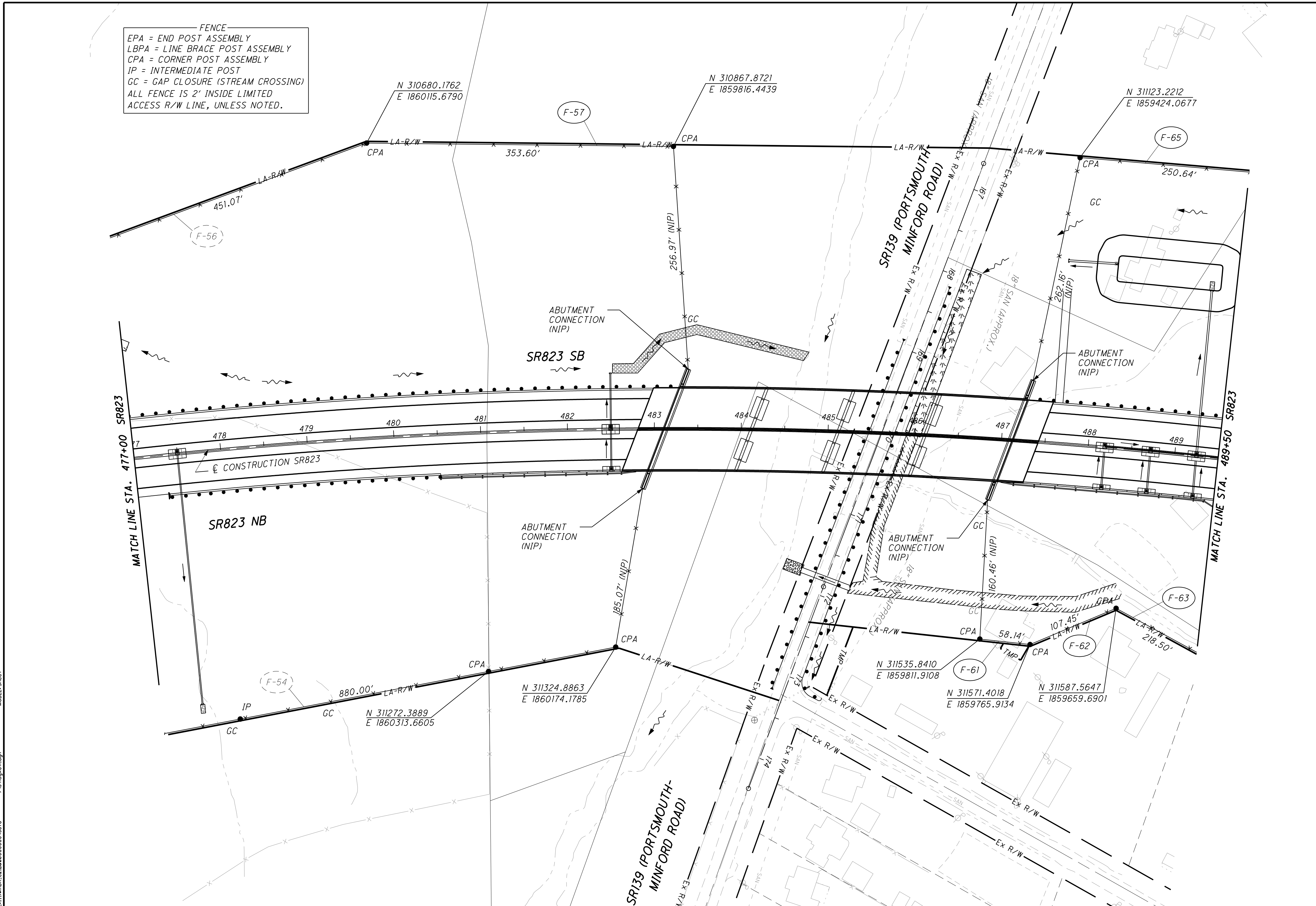
CALCULATED CTM CHECKED JMB

HORIZONTAL SCALE IN FEET
0 25 50 100

FENCE PLAN - SR823
STA. 464+50.00 TO STA. 477+00.00

SCI-823-6.81

522
535



FENCE
EPA = END POST ASSEMBLY
LBPA = LINE BRACE POST ASSEMBLY
CPA = CORNER POST ASSEMBLY
IP = INTERMEDIATE POST
GC = GAP CLOSURE (STREAM CROSSING)
ALL FENCE IS 2' INSIDE LIMITED ACCESS R/W LINE, UNLESS NOTED.
N 310680.1762
E 1860115.6790
N 310867.8721
E 1859816.4439
N 311123.2212
E 1859424.0677
F-57
F-56
F-65
F-54
F-61
F-62
F-63
LA-R/W
CPA
353.60'
451.07'
250.64'
256.97' (NIP)
262.16' (NIP)
185.07' (NIP)
160.46' (NIP)
880.00'
58.14'
107.45'
218.50'
GC
IP
TMP
SR139 (PORTSMOUTH MINFORD ROAD)
SR139 (PORTSMOUTH- MINFORD ROAD)
18" SAN (APPROX.)
Ex R/W
ABUTMENT CONNECTION (NIP)
SR823 SB
SR823 NB
℄ CONSTRUCTION SR823
MATCH LINE STA. 477+00 SR823
MATCH LINE STA. 489+50 SR823
478
479
480
481
482
483
484
485
486
487
488
489
N 311324.8863
E 1860174.1785
N 311272.3889
E 1860313.6605
N 311535.8410
E 1859811.9108
N 311571.4018
E 1859765.9134
N 311587.5647
E 1859659.6901

0 25 50 100
HORIZONTAL SCALE IN FEET

CALCULATED CTM
CHECKED JMB

FENCE PLAN - SR823
STA. 477+00.00 TO STA. 489+50.00

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 6:32:46 PM REVISION DATE: 9/15/2011
FILE: ...\HDR_CL\D0000000000045878 /19415gx011.dgn MODEL: Sheet

FENCE
EPA = END POST ASSEMBLY
LBPA = LINE BRACE POST ASSEMBLY
CPA = CORNER POST ASSEMBLY
IP = INTERMEDIATE POST
GC = GAP CLOSURE (STREAM CROSSING)
ALL FENCE IS 2' INSIDE LIMITED ACCESS R/W LINE, UNLESS NOTED.

N 311271.9221
E 1859222.3092

F-65

LA-R/W

CPA

F-66

446.46'

GC

N 311581.4415
E 1858900.5568

CPA

F-69

250.03'

N 311803.7601
E 1858784.9636

CPA

334.39'

F-70

N 311980.9232
E 1858501.3664

CPA

F-71

SR823 SB

MATCH LINE STA. 489+50 SR823

490 491 492 493 494 495 496 497 498 499 500 501

℄ CONSTRUCTION SR823

SR823 NB

MATCH LINE STA. 502+00 SR823

F-63

N 311776.9538
E 1859550.7287

CPA GC

333.96'

F-67

CPA

N 311965.6687
E 1859275.2043

1063.97'

F-68

IP

Ex R/W

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED CTM
CHECKED JMB

FENCE PLAN - SR823
STA. 489+50.00 TO STA. 502+00.00

SCI-823-6.81

524
535

USER: CWahlbr1 PLOT DATE: 9/15/2011 6:32:51 PM REVISION DATE: 9/15/2011
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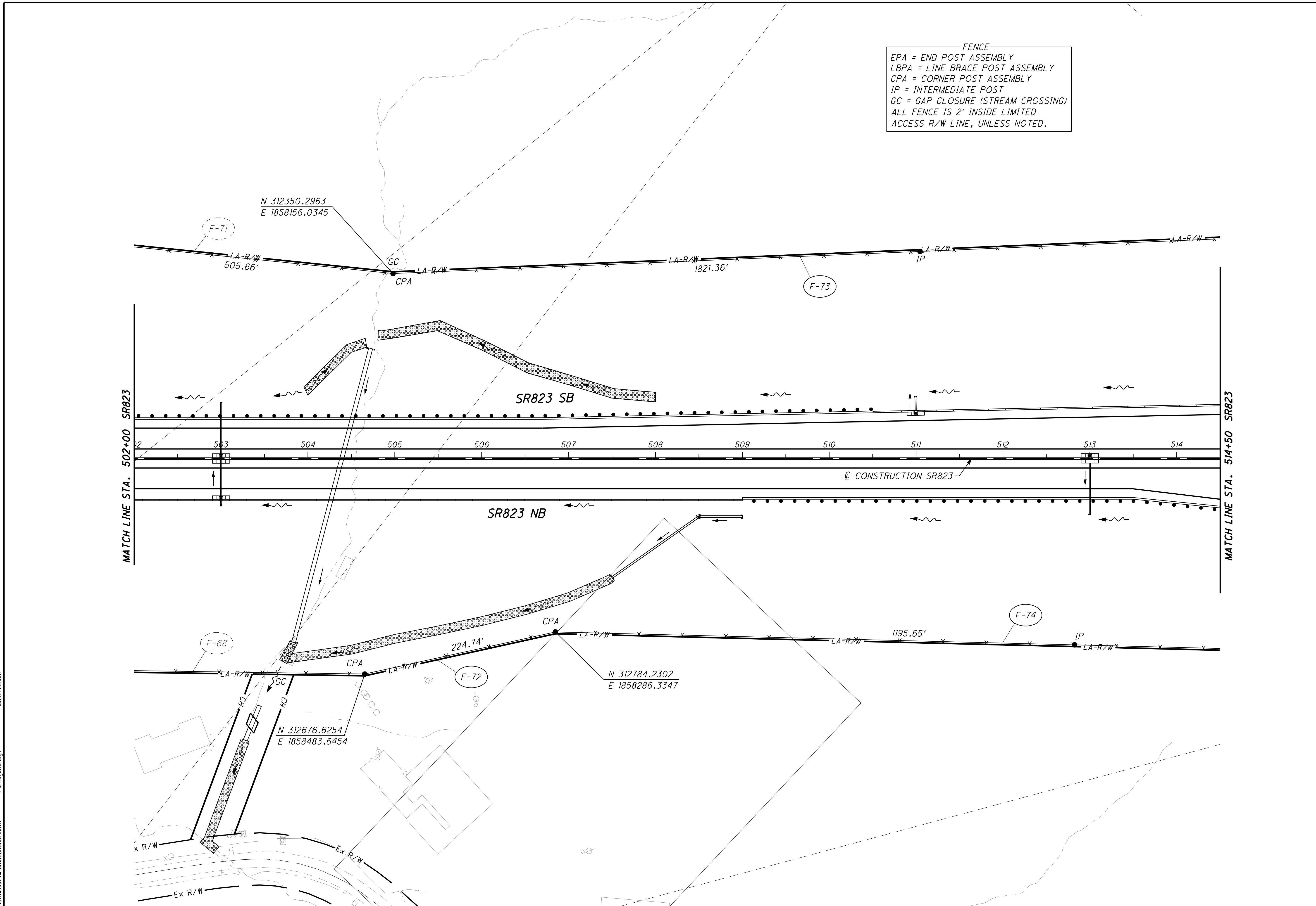

FENCE
EPA = END POST ASSEMBLY
LBPA = LINE BRACE POST ASSEMBLY
CPA = CORNER POST ASSEMBLY
IP = INTERMEDIATE POST
GC = GAP CLOSURE (STREAM CROSSING)
ALL FENCE IS 2' INSIDE LIMITED
ACCESS R/W LINE, UNLESS NOTED.
N 312350.2963
E 1858156.0345
F-71
LA-R/W
505.66'
GC
CPA
1821.36'
IP
F-73
SR823 SB
MATCH LINE STA. 502+00 SR823
503
504
505
506
507
508
509
510
511
512
513
514
℄ CONSTRUCTION SR823
SR823 NB
MATCH LINE STA. 514+50 SR823
F-74
1195.65'
CPA
224.74'
F-68
F-72
N 312784.2302
E 1858286.3347
N 312676.6254
E 1858483.6454
Ex R/W

FENCE PLAN - SR823
STA. 502+00.00 TO STA. 514+50.00

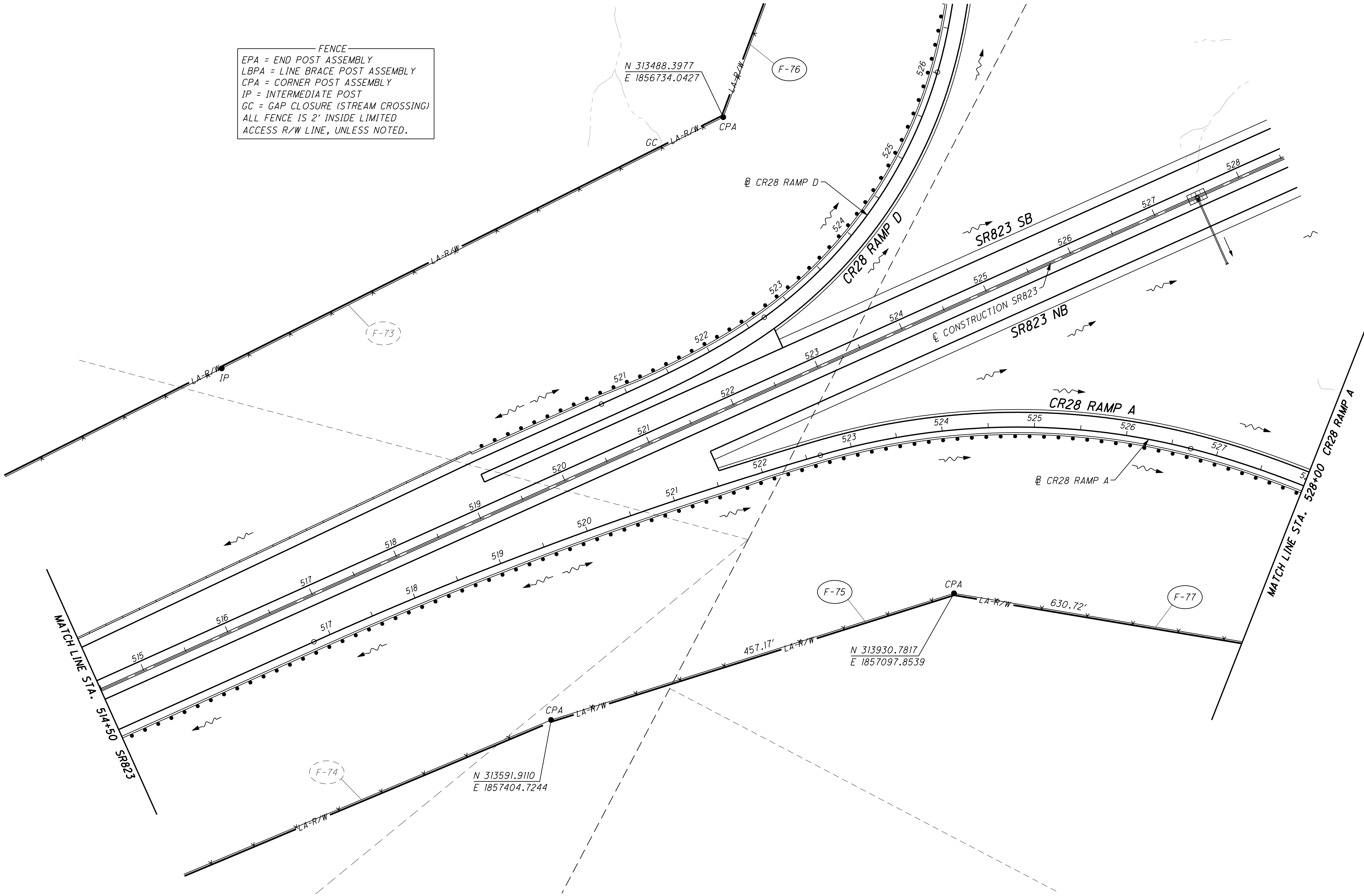
HORIZONTAL SCALE IN FEET

CALCULATED CTM

CHECKED JMB

SCI-823-6.81

525
535



FENCE
EPA = END POST ASSEMBLY
LBPA = LINE BRACE POST ASSEMBLY
CPA = CORNER POST ASSEMBLY
IP = INTERMEDIATE POST
GC = GAP CLOSURE (STREAM CROSSING)
ALL FENCE IS 2' INSIDE LIMITED ACCESS R/W LINE, UNLESS NOTED.
N 313488.3977
E 1856734.0427
CPA
F-76
GC
LA-R/W
IP
F-73
℄ CR28 RAMP D
CR28 RAMP D
SR823 SB
℄ CONSTRUCTION SR823
SR823 NB
CR28 RAMP A
℄ CR28 RAMP A
F-75
CPA
630.72'
F-77
N 313930.7817
E 1857097.8539
457.17'
CPA
N 313591.9110
E 1857404.7244
F-74
MATCH LINE STA. 514+50 SR823
MATCH LINE STA. 528+00 CR28 RAMP A

USER: CWohlbr: PLOT DATE: 9/15/2011 6:33:01 PM REVISION DATE: 9/15/2011
FILE: ...\IHDR_CU\D000000045878 /79415gx014.dgn MODEL: Sheet

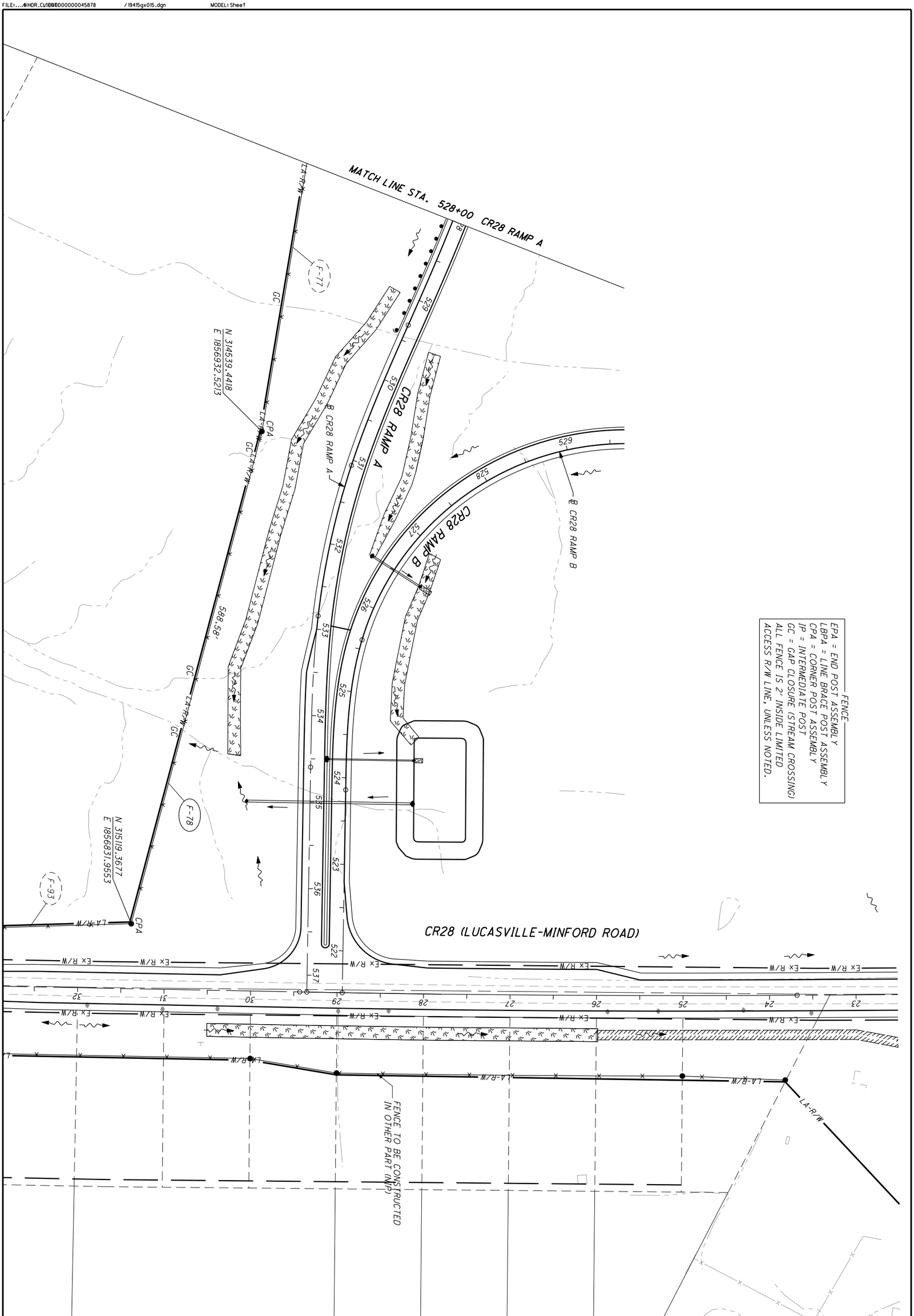
0 25 50 100 HORIZONTAL SCALE IN FEET

CALCULATED CTM
CHECKED JMB

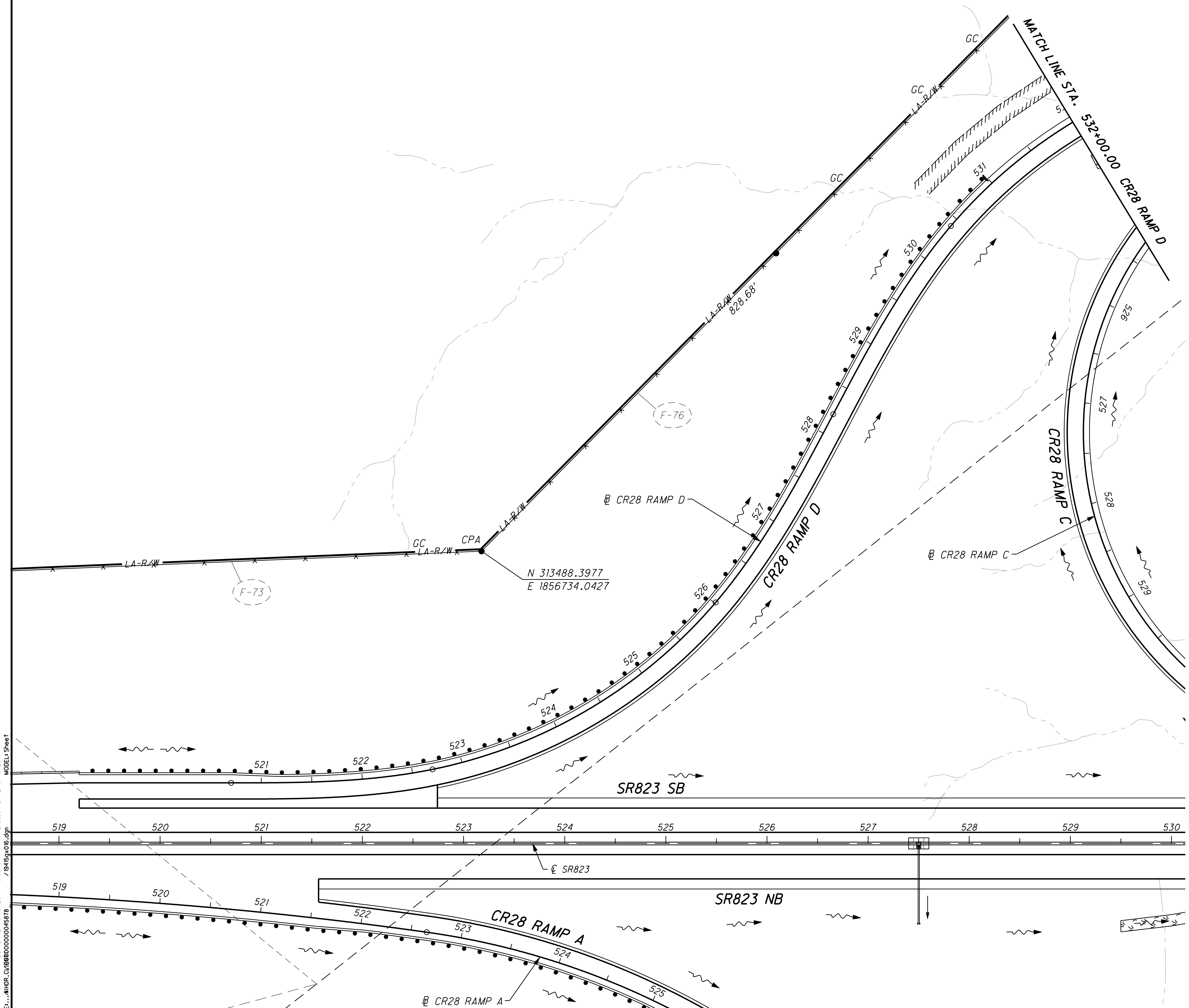
FENCE PLAN - SR823
STA. 514+50.00 TO STA. 528+50.00

SCI-823-6.81

USER: ldearnel PLOT DATE: 3/4/2013 8:04:21 AM REVISION DATE: 3/4/2013
FILE:...4\HDR.CV1898000000045878 /19415gx015.dgn MODEL: Sheet



527 535	SCI-823-6.81	FENCE PLAN - CR28 RAMP A STA. STA. 528+00.00 TO STA. 537+19.55	CALCULATED CTM CHECKED JMB	0 50 25 100 HORIZONTAL SCALE IN FEET



FENCE
EPA = END POST ASSEMBLY
LBPA = LINE BRACE POST ASSEMBLY
CPA = CORNER POST ASSEMBLY
IP = INTERMEDIATE POST
GC = GAP CLOSURE (STREAM CROSSING)
ALL FENCE IS 2' INSIDE LIMITED ACCESS R/W LINE, UNLESS NOTED.

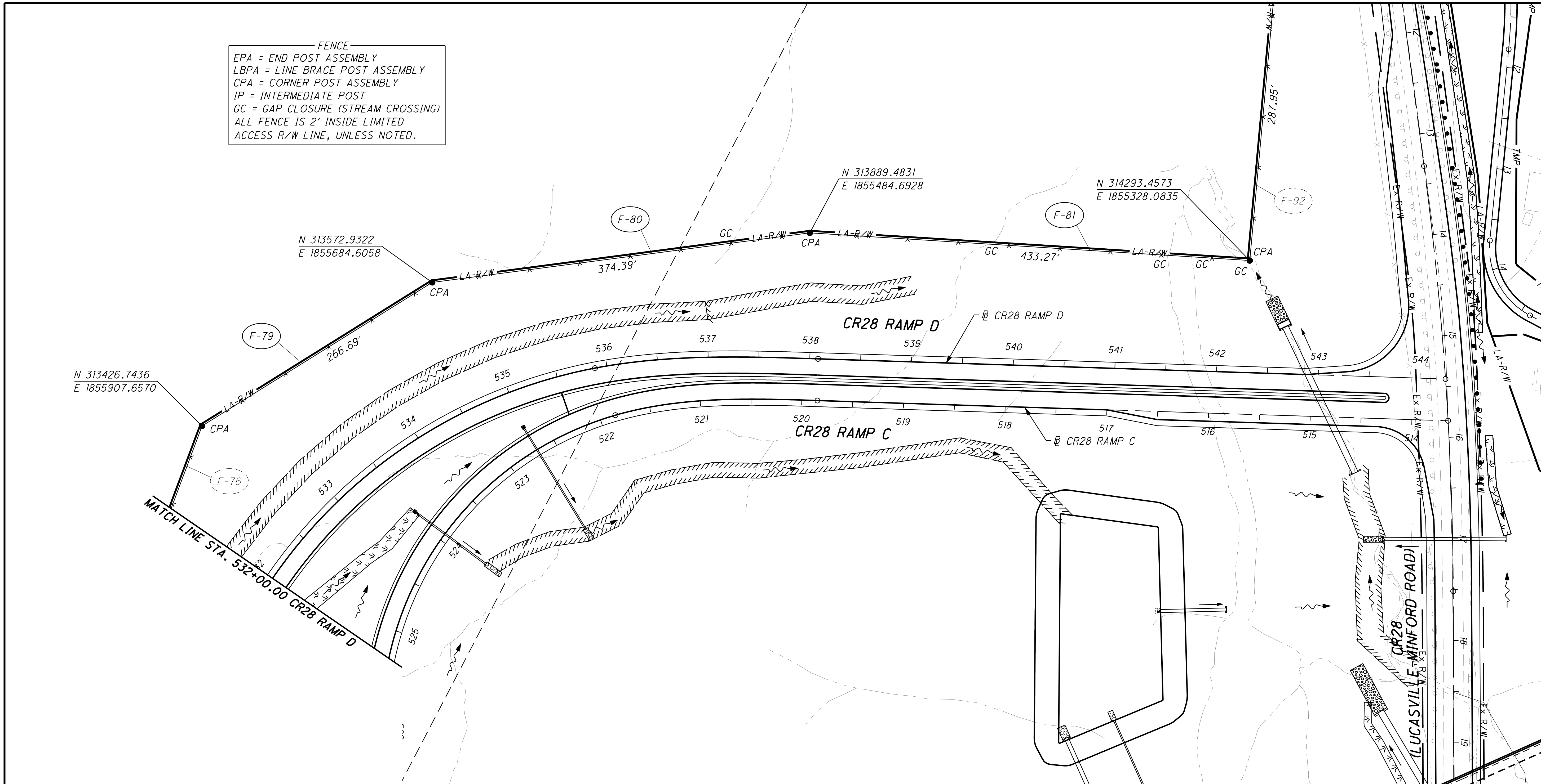
HORIZONTAL SCALE IN FEET

CALCULATED CTM
CHECKED JMB

FENCE PLAN - CR28 RAMP D
STA. 518+50.00 TO STA. 530+00.00

SCI-823-6.81

USER: CWohlbr: PLOT DATE: 9/15/2011 6:33:10 PM REVISION DATE: 9/15/2011 MODEL: Sheet
FILE: ...\4HOR_CL\0000000000045878\19415gx016.dgn


FENCE
EPA = END POST ASSEMBLY
LBPA = LINE BRACE POST ASSEMBLY
CPA = CORNER POST ASSEMBLY
IP = INTERMEDIATE POST
GC = GAP CLOSURE (STREAM CROSSING)
ALL FENCE IS 2' INSIDE LIMITED ACCESS R/W LINE, UNLESS NOTED.
N 313426.7436
E 1855907.6570
N 313572.9322
E 1855684.6058
N 313889.4831
E 1855484.6928
N 314293.4573
E 1855328.0835
F-76
F-79
F-80
F-81
F-92
266.69'
374.39'
433.27'
287.95'
CPA
GC
LA-R/W
CR28 RAMP D
℄ CR28 RAMP D
CR28 RAMP C
℄ CR28 RAMP C
CR28 (LUCASVILLE-MINFORD ROAD)
MATCH LINE STA. 532+00.00 CR28 RAMP D
Ex R/W
TMP

FENCE PLAN - CR28 RAMP D
STA. 532+00.00 TO STA. 544+25.15

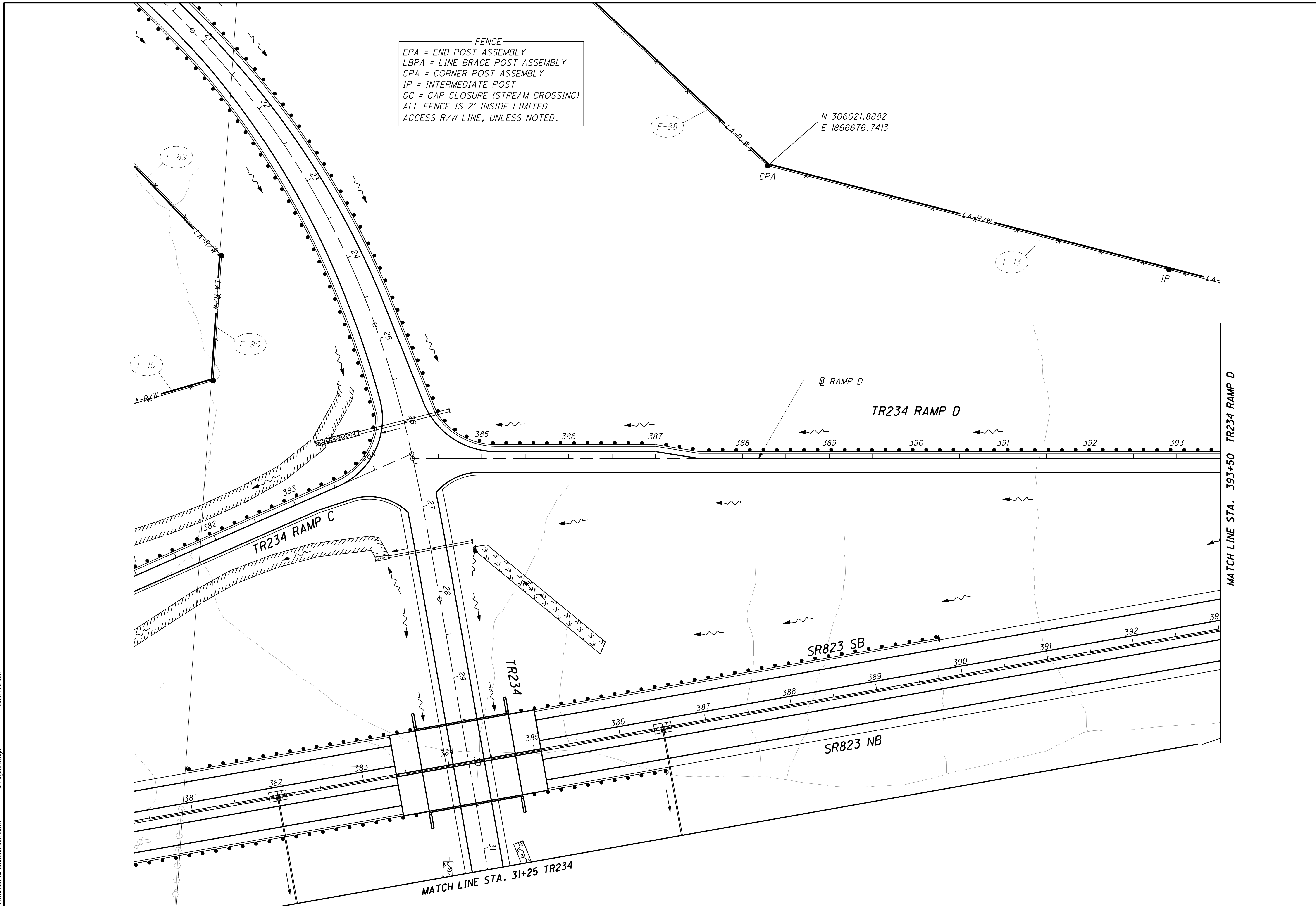
HORIZONTAL SCALE IN FEET

CALCULATED CTM
CHECKED JMB

SCI-823-6.81

529
535

USER: CWohlbr: PLOT DATE: 9/15/2011 6:33:16 PM REVISION DATE: 9/15/2011
FILE: ...HOR_CV\080000000045878 /19415gx017.dgn MODEL: Sheet

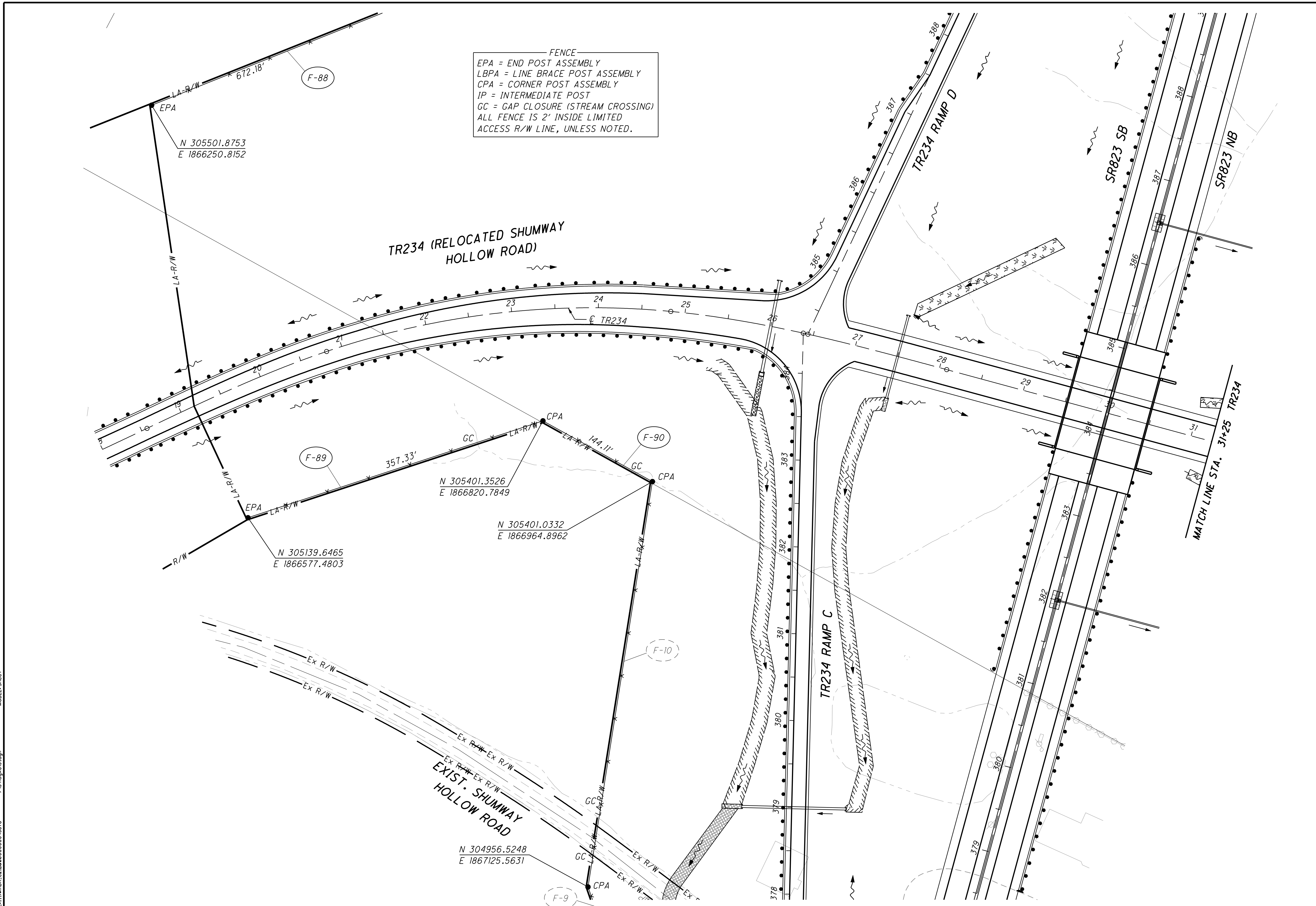


HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED CTM
CHECKED JMB

FENCE PLAN - TR234 RAMP D
STA. 384+07.63 TO STA. 393+50.00

SCI-823-6.81


FENCE
EPA = END POST ASSEMBLY
LBPA = LINE BRACE POST ASSEMBLY
CPA = CORNER POST ASSEMBLY
IP = INTERMEDIATE POST
GC = GAP CLOSURE (STREAM CROSSING)
ALL FENCE IS 2' INSIDE LIMITED
ACCESS R/W LINE, UNLESS NOTED.
TR234 (RELOCATED SHUMWAY
HOLLOW ROAD)
TR234 RAMP D
TR234 RAMP C
SR823 SB
SR823 NB
EXIST. SHUMWAY
HOLLOW ROAD
MATCH LINE STA. 31+25 TR234
F-88
F-89
F-90
F-10
F-9
672.18'
357.33'
144.11'
EPA
N 305501.8753
E 1866250.8152
EPA
N 305139.6465
E 1866577.4803
CPA
N 305401.3526
E 1866820.7849
CPA
N 305401.0332
E 1866964.8962
CPA
N 304956.5248
E 1867125.5631
LA-R/W
R/W
Ex R/W
GC
℄ TR234

CALCULATED CTM
CHECKED JMB

0 25 50 100
HORIZONTAL SCALE IN FEET

FENCE PLAN - TR234
STA. 19+50.00 TO STA. 31+25.00

SCI-823-6.81

531
535

USER: CWohlbr: PLOT DATE: 9/15/2011 6:33:28 PM REVISION DATE: 9/15/2011
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USER: CWahlbri PLOT DATE: 9/15/2011 6:33:34 PM REVISION DATE: 9/15/2011
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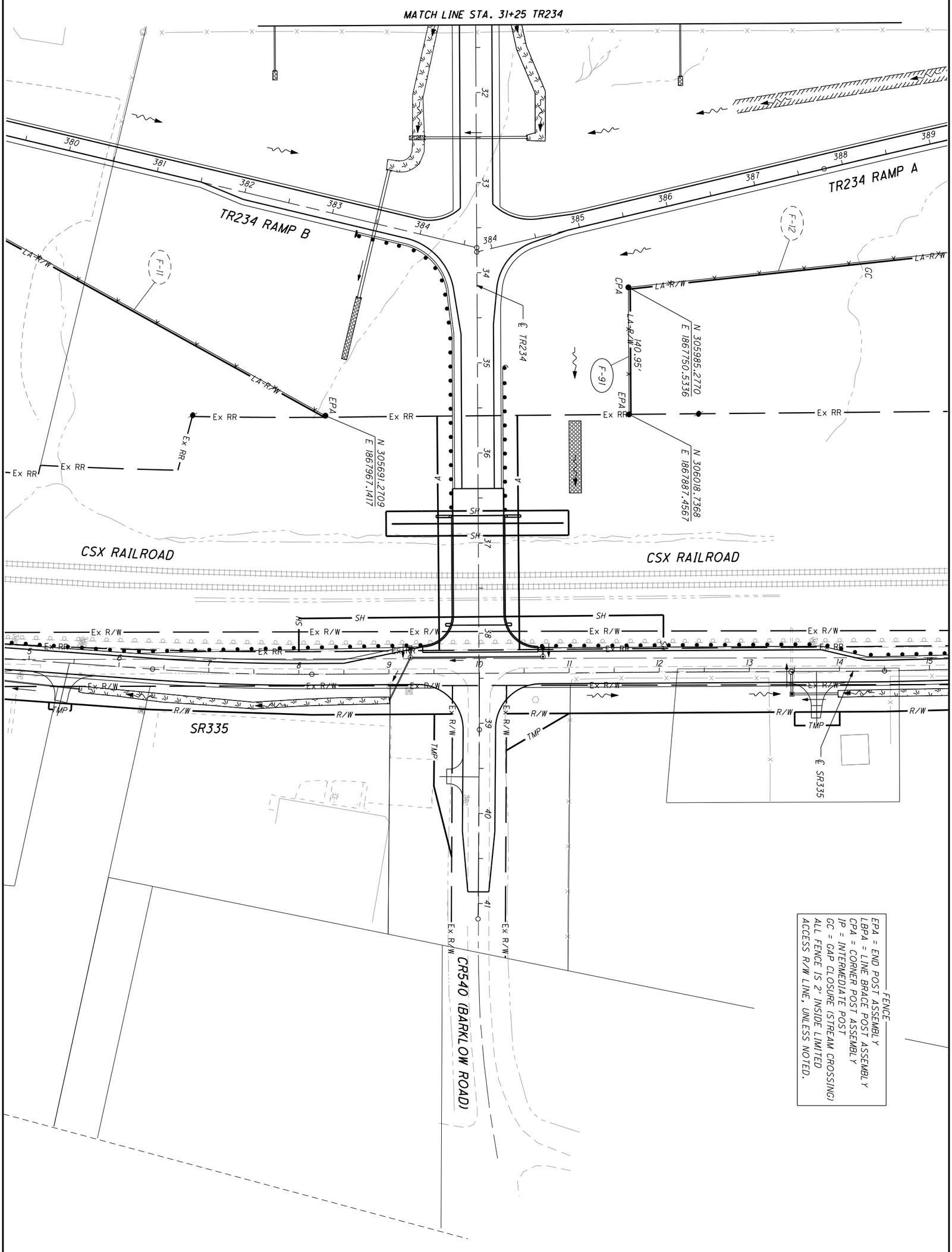


FENCE
EPA = END POST ASSEMBLY
LBPA = LINE BRACE POST ASSEMBLY
CPA = CORNER POST ASSEMBLY
IP = INTERMEDIATE POST
GC = GAP CLOSURE (STREAM CROSSING)
ALL FENCE IS 2' INSIDE LIMITED ACCESS R/W LINE, UNLESS NOTED.

532
535

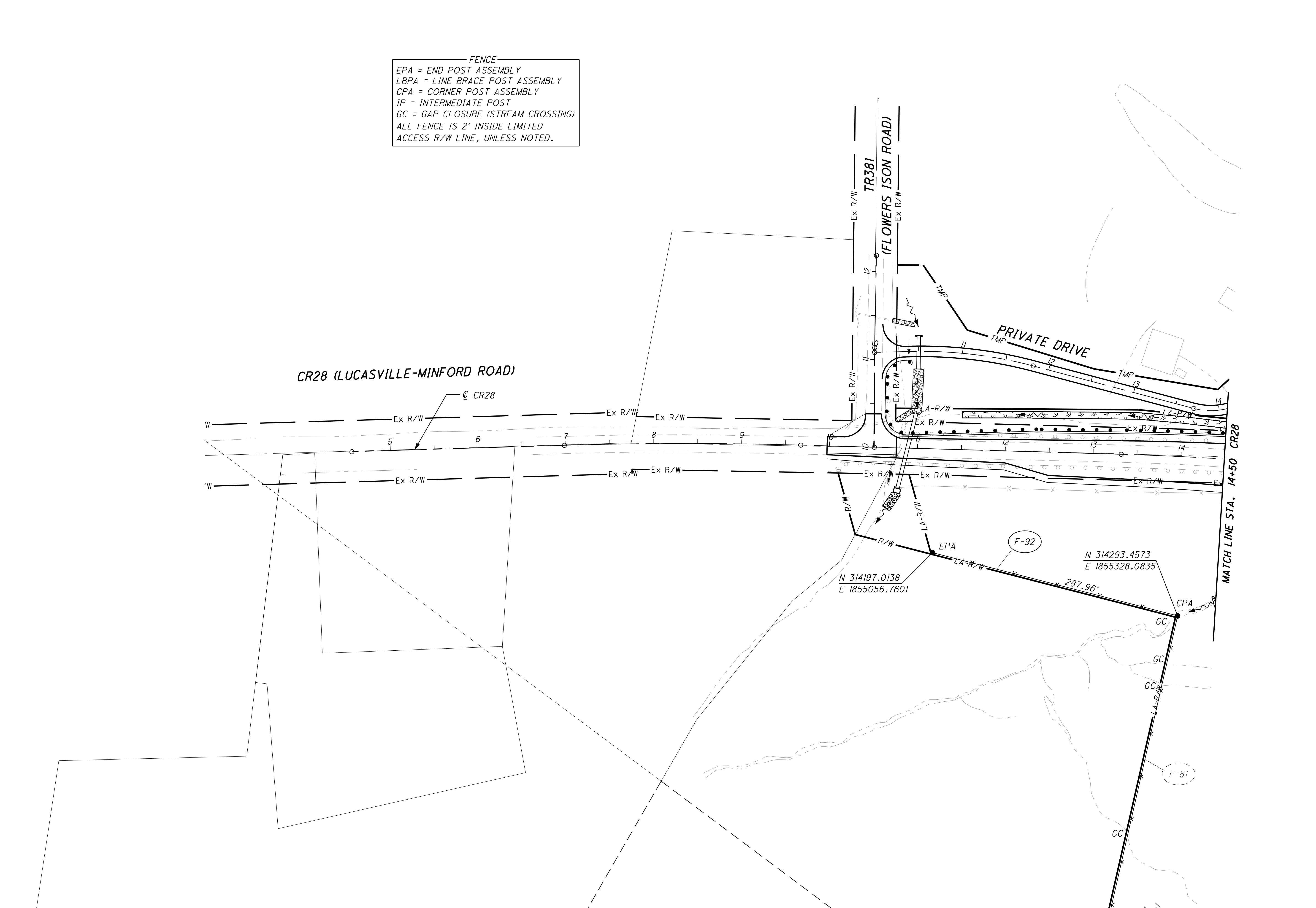
SCI-823-6.81

FENCE PLAN - TR234/CR540
STA. 31+25.00 TO STA. 40+87.00

CALCULATED CTM
CHECKED JMB

0 25 50 100
HORIZONTAL SCALE IN FEET

FENCE
EPA = END POST ASSEMBLY
LBPA = LINE BRACE POST ASSEMBLY
CPA = CORNER POST ASSEMBLY
IP = INTERMEDIATE POST
GC = GAP CLOSURE (STREAM CROSSING)
ALL FENCE IS 2' INSIDE LIMITED ACCESS R/W LINE, UNLESS NOTED.



HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED CTM CHECKED JMB

FENCE PLAN -CR28
STA. 9+97.25 TO STA. 14+50.00

SCI-823-6.81

USER: CWahlbri PLOT DATE: 9/15/2011 6:33:44 PM REVISION DATE: 9/15/2011
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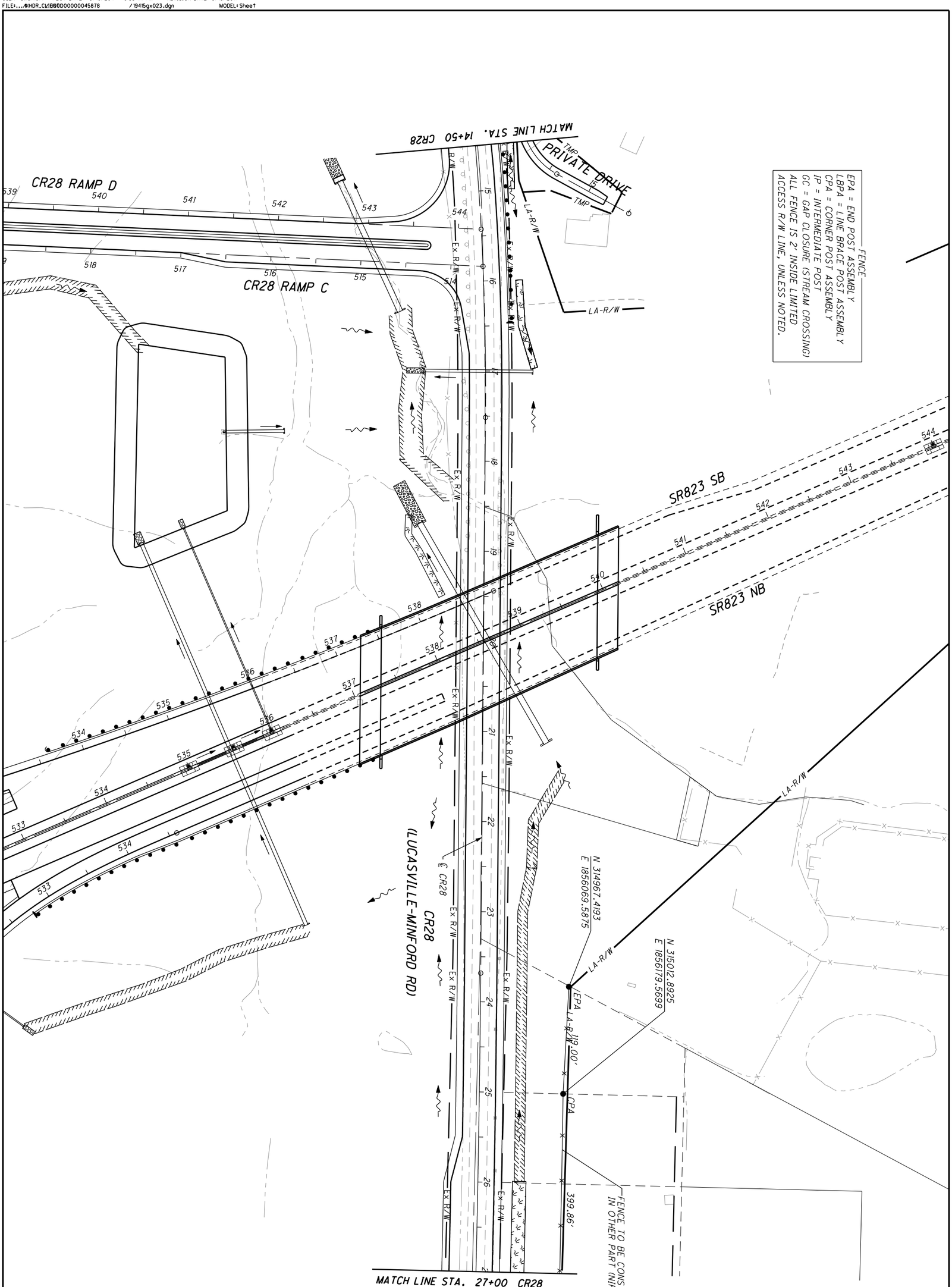

534 535	SCI-823-6.81	FENCE PLAN - CR28 STA. 14+50.00 TO STA. 27+00.00	CALCULATED CTM CHECKED JMB	0 50 25 100 HORIZONTAL SCALE IN FEET

USER: CWahlbri PLOT DATE: 9/15/2011 6:33:50 PM REVISION DATE: 9/15/2011
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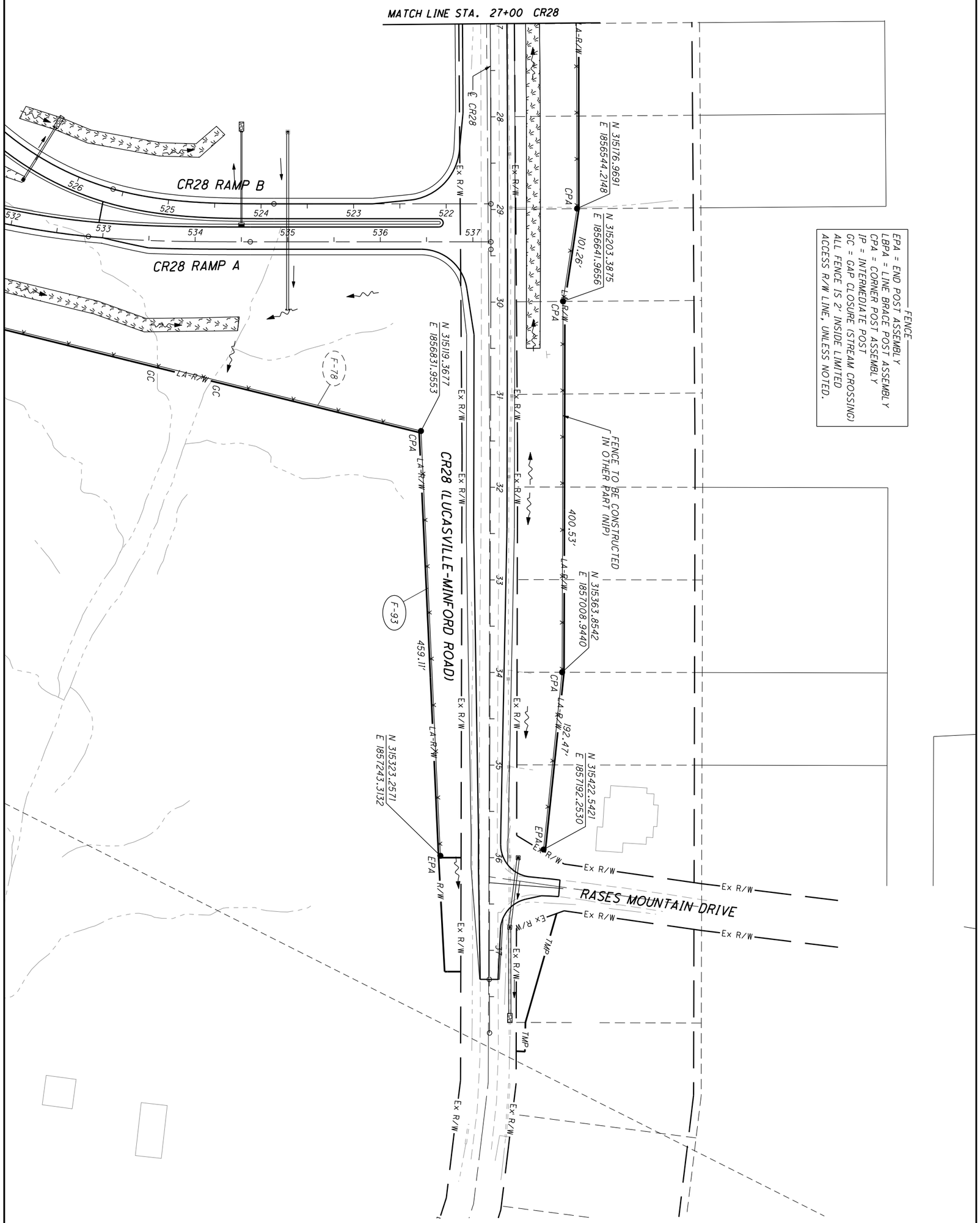

535	SCI-823-6.81	FENCE PLAN - CR28 STA. 27+00.00 TO STA. 37+31.45	CALCULATED CTM CHECKED JMB	0 50 25 100 HORIZONTAL SCALE IN FEET