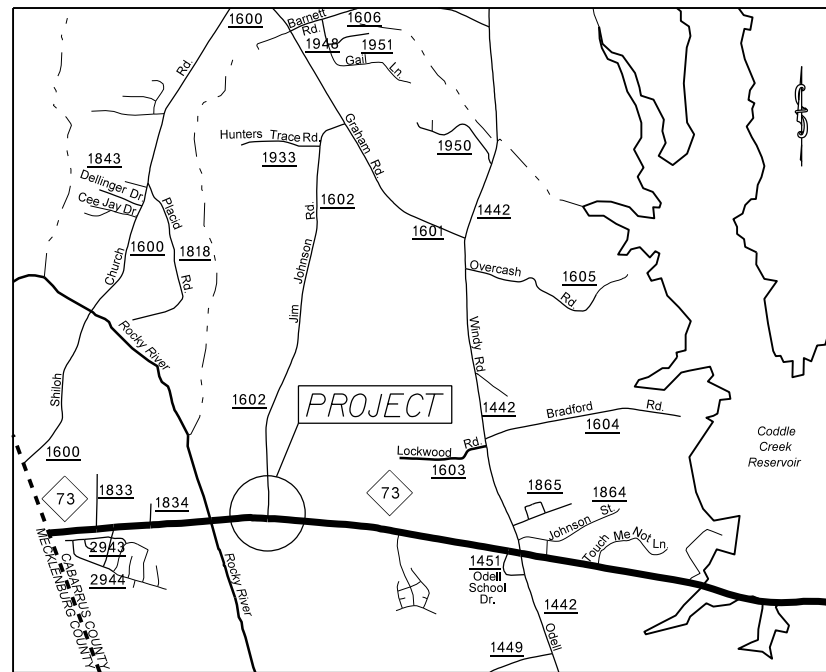


PROJECT: 50138.3.248 TIP:W-5601IM



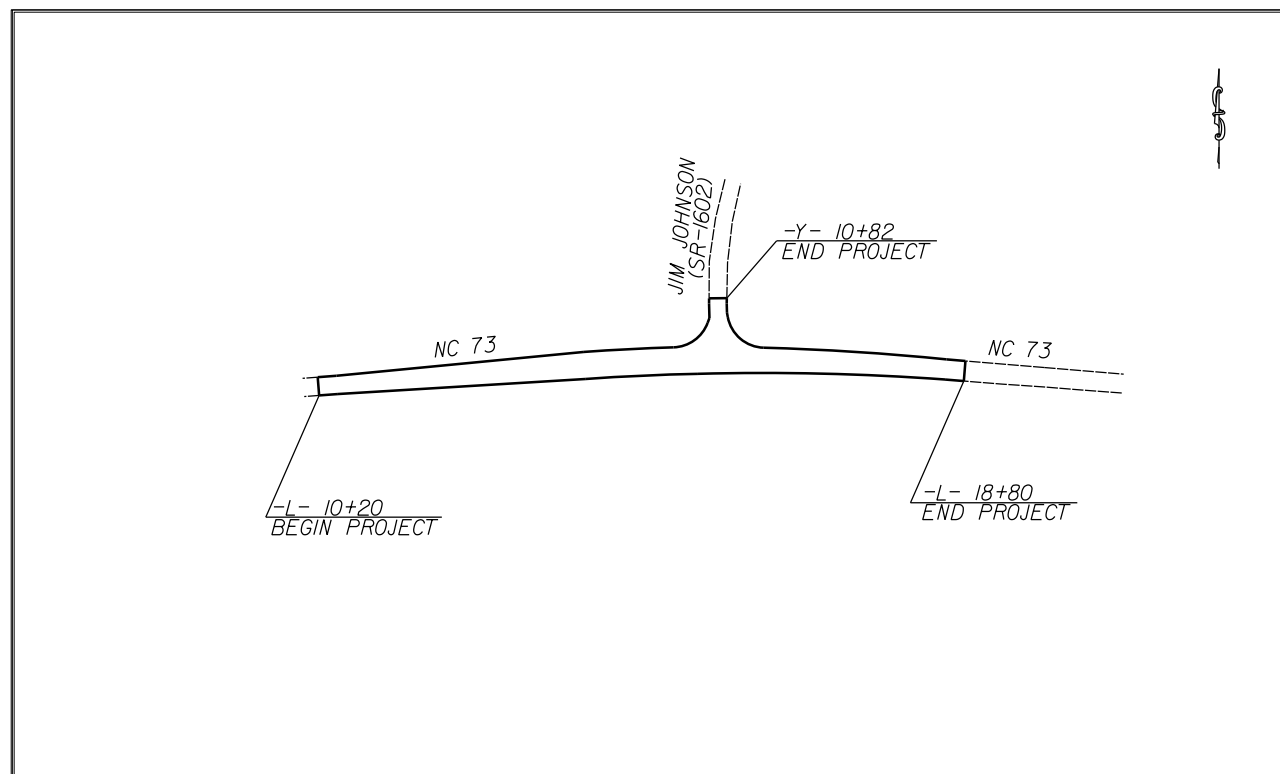
VICINITY MAP NOT TO SCALE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
CABARRUS COUNTY

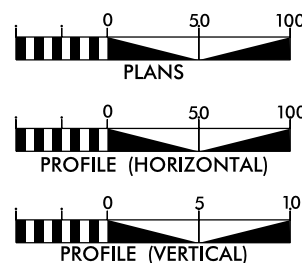
LOCATION: INTERSECTION OF NC 73 AND JIM JOHNSON ROAD (SR-1602)

TYPE OF WORK: GRADING, PAVING, GUARDRAIL, AND THERMOPLASTIC PAVEMENT MARKINGS.

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	50138.3.248	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
50138.1.248	HSIP-0073(047)	P.E.	
50138.2.248	HSIP-0073(047)	RW	
50138.3.248	HSIP-0073(047)	CONST.	



GRAPHIC SCALES



DESIGN DATA

ADT =
ADT =
DHV = %
D = %
T = %
V = MPH

PROJECT LENGTH

LENGTH OF ROADWAY PROJECT 50138.3.248 = 0.18 MILES
TOTAL LENGTH OF STATE PROJECT 50138.3.248 = 0.18 MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS

DIVISION TEN
DIVISION DESIGN / CONSTRUCT UNIT

RIGHT OF WAY DATE:

LETTING DATE:
AUGUST 16, 2017

DONALD GRIFFITH
PROJECT ENGINEER

DONALD HARWARD
PROJECT DESIGN ENGINEER



DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

DocuSigned by:

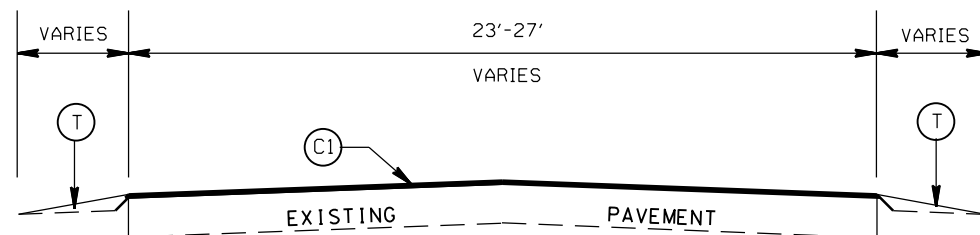
Donald Griffith

7/13/2017

7153CE23F21843F...
APPROVED BY
DDC ENGINEER

DATE

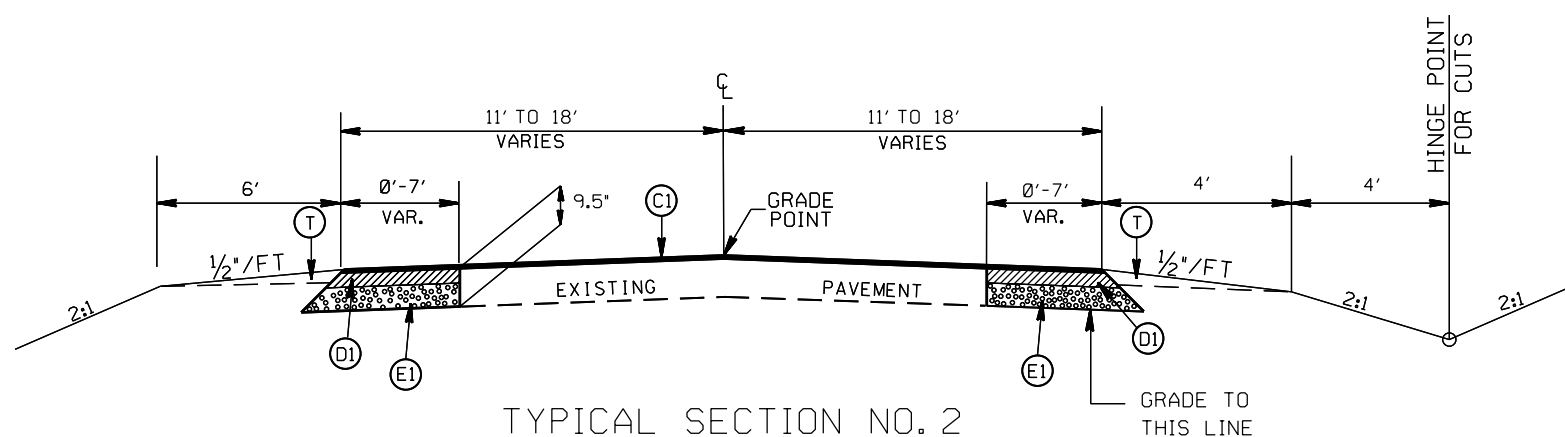
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	50138.3.248	2	
F.A. PROJECT NO.			



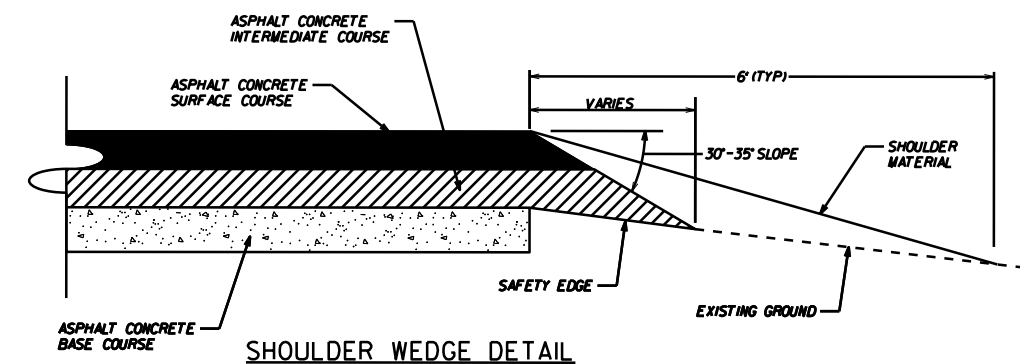
TYPICAL SECTION NO. 1
 STA. 10+20 TO 10+45 -L-
 STA. 18+55 TO 18+80 -L-
 STA. 10+57 TO 10+82 -Y-

PAVEMENT SCHEDULE

(C1)	PROP. APPROX. 1.5" ASPHALT CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
(D1)	PROP. APPROX. 3" ASPHALT CONC. INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
(E1)	PROP. APPROX. 5.0" ASPHALT CONC. BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
(T)	EARTH MATERIAL



TYPICAL SECTION NO. 2
 STA. 10+45 TO 18+55 -L-
 STA. 10+18 TO 10+57 -Y-



LEFT TURN ON NC 73
 ONTO JIM JOHNSON RD. (SR-1602)

SCALE	r=50'
DATE	5-2017
DWG. BY	JDH
DESIGN BY	JDH
APPROVED	DCG



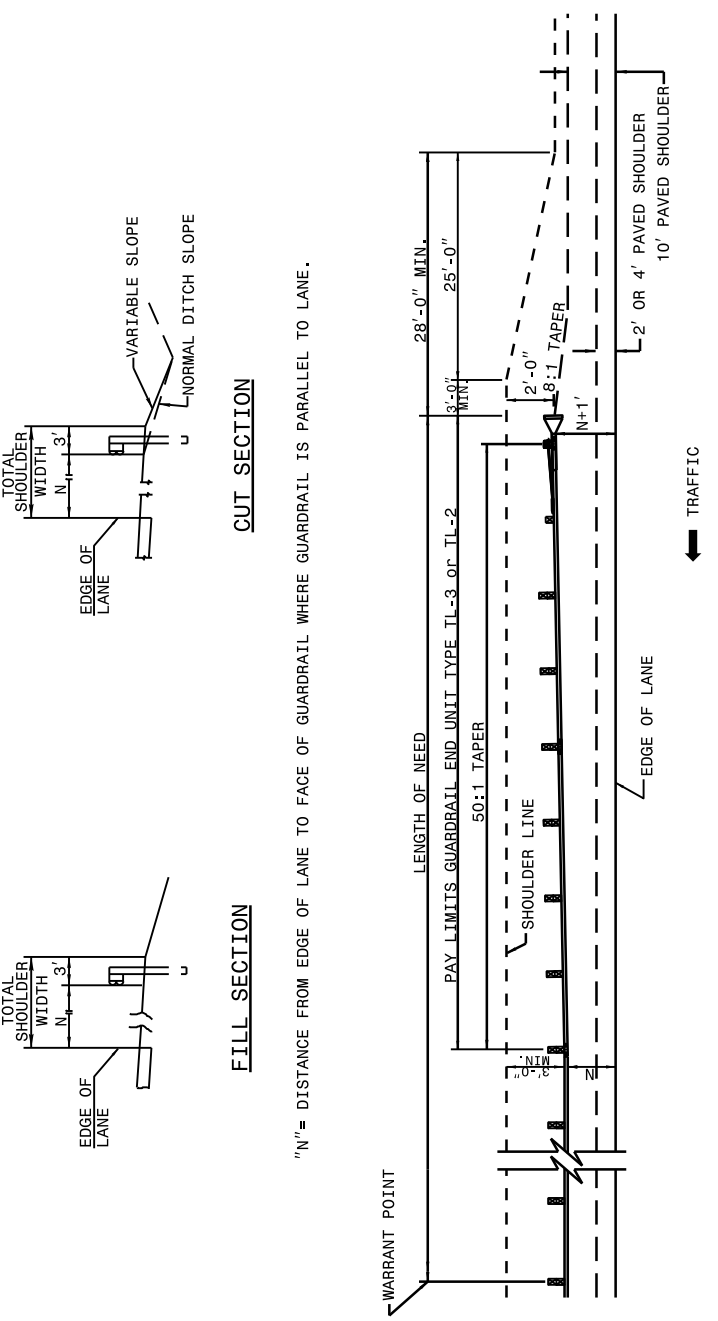
REVISIONS	

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	50138.3.248	2A	
F.A. PROJECT NO.			

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

ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT

SHEET 6 OF 11
862D01



CUT SECTION

FILL SECTION

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

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

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

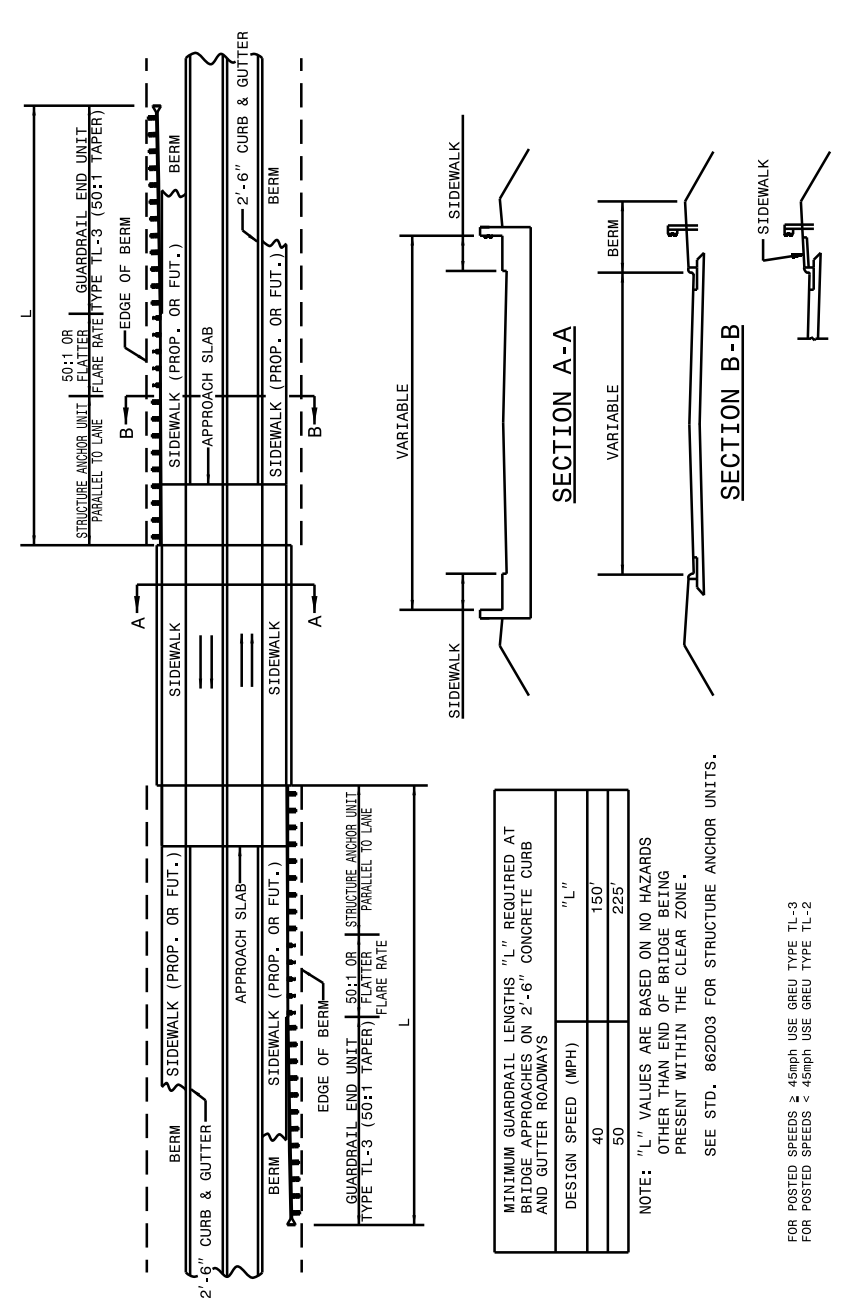
ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT

SHEET 6 OF 11
862D01

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

ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT

DETAIL OF BEGINNING OF GUARDRAIL IN CUT OR FILL SECTION



MINIMUM GUARDRAIL LENGTHS, "L" REQUIRED AT BRIDGE APPROACHES ON 2'-6" CONCRETE CURB AND GUTTER ROADWAYS	"L"
DESIGN SPEED (MPH)	150
	225

NOTE: "L" VALUES ARE BASED ON NO HAZARDS OTHER THAN END OF BRIDGE BEING PRESENT WITHIN THE CLEAR ZONE.

SEE STD. 862D03 FOR STRUCTURE ANCHOR UNITS.


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

STANDARD GUARDRAIL PLACEMENT AT BRIDGES WITH 2'-6" CONCRETE CURB AND GUTTER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

SEE TITLE BLOCK

ORIGINAL BY: J HOWERTON DATE: 06-22-12
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC:


PROJECT REFERENCE NO.	SHEET NO.
-----------------------	-----------

LEFT TURN ON NC 73
ONTO JIM JOHNSON RD.(SR-1602)

SCALE	r=50'		REVISIONS
DATE	5-2017		
DWG. BY	JDH		
DESIGN BY	JDH		
APPROVED	DCG		

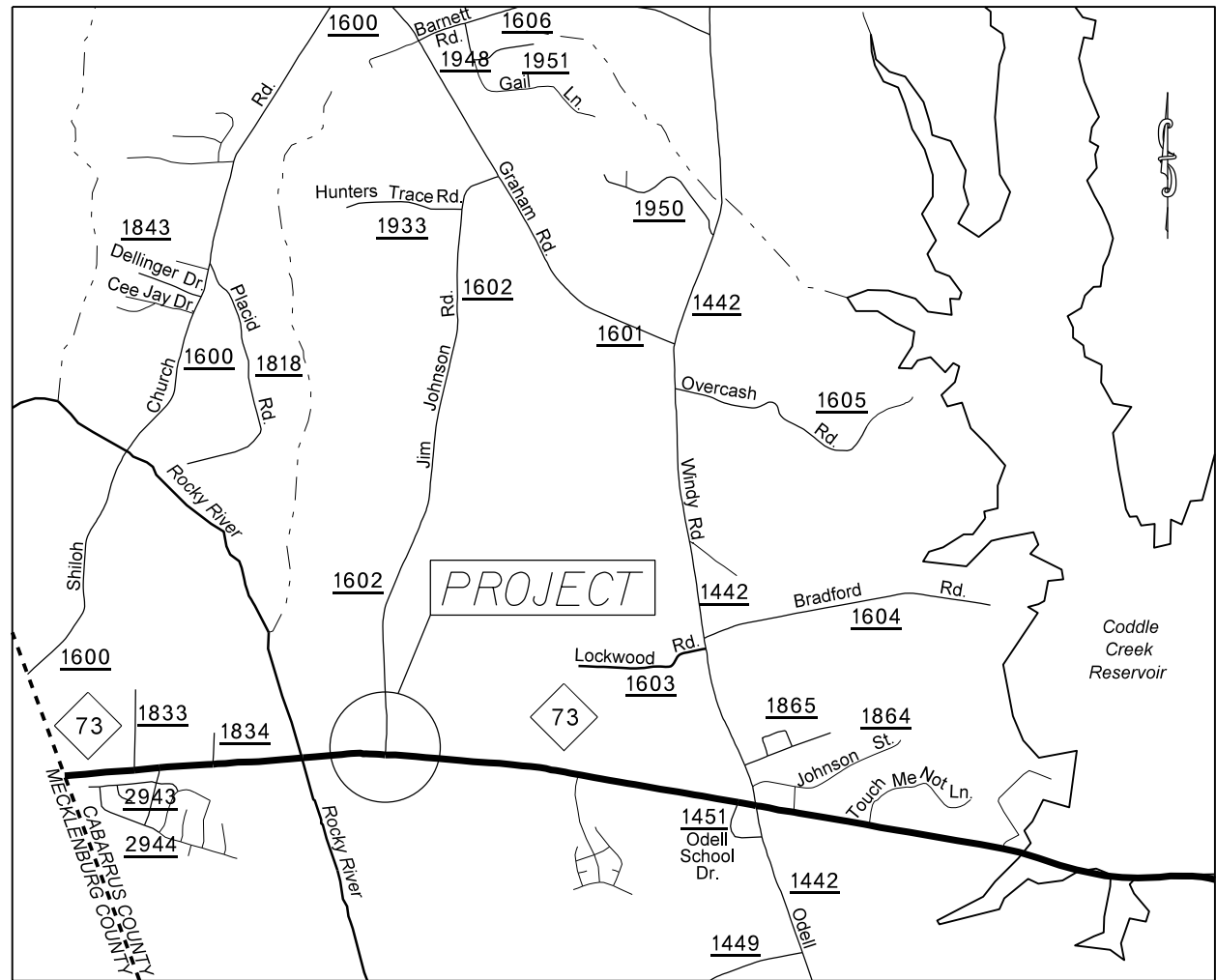
PROJECT: 50138.3.248 TIP: W-5601IM

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
 PLAN FOR PROPOSED
 HIGHWAY EROSION CONTROL

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	50138.3.248	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
50138.1.248	HSIP-0073(047)	P.E.	
50138.2.248	HSIP-0073(047)	R/W	
50138.3.248	HSIP-0073(047)	CONST.	

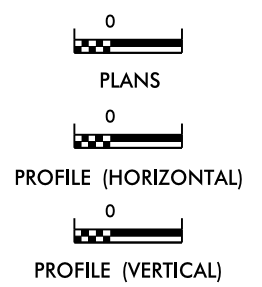
EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	---
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	III III III
1606.01	Special Sediment Control Fence	III III III
1622.01	Temporary Berms and Slope Drains	T
1630.02	Silt Basin Type B	▨
1633.01	Temporary Rock Silt Check Type-A	▩
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	▩
1633.02	Temporary Rock Silt Check Type-B	▩
	Wattle / Coir Fiber Wattle	⤴
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	⤴
1634.01	Temporary Rock Sediment Dam Type-A	▩
1634.02	Temporary Rock Sediment Dam Type-B	▩
1635.01	Rock Pipe Inlet Sediment Trap Type-A	⤴
1635.02	Rock Pipe Inlet Sediment Trap Type-B	⤴
1630.04	Stilling Basin	▭
1630.06	Special Stilling Basin	▭
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	▭
	Tiered Skimmer Basin	▭
	Infiltration Basin	▭



THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

GRAPHIC SCALE



ROADSIDE ENVIRONMENTAL UNIT
 DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared In the Office of:
DDC UNIT DIVISION 10
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
2012 STANDARD SPECIFICATIONS
 TRAVIS LOWDER 3742
 EROSION CONTROL DESIGNER LEVEL III CERTIFICATION #

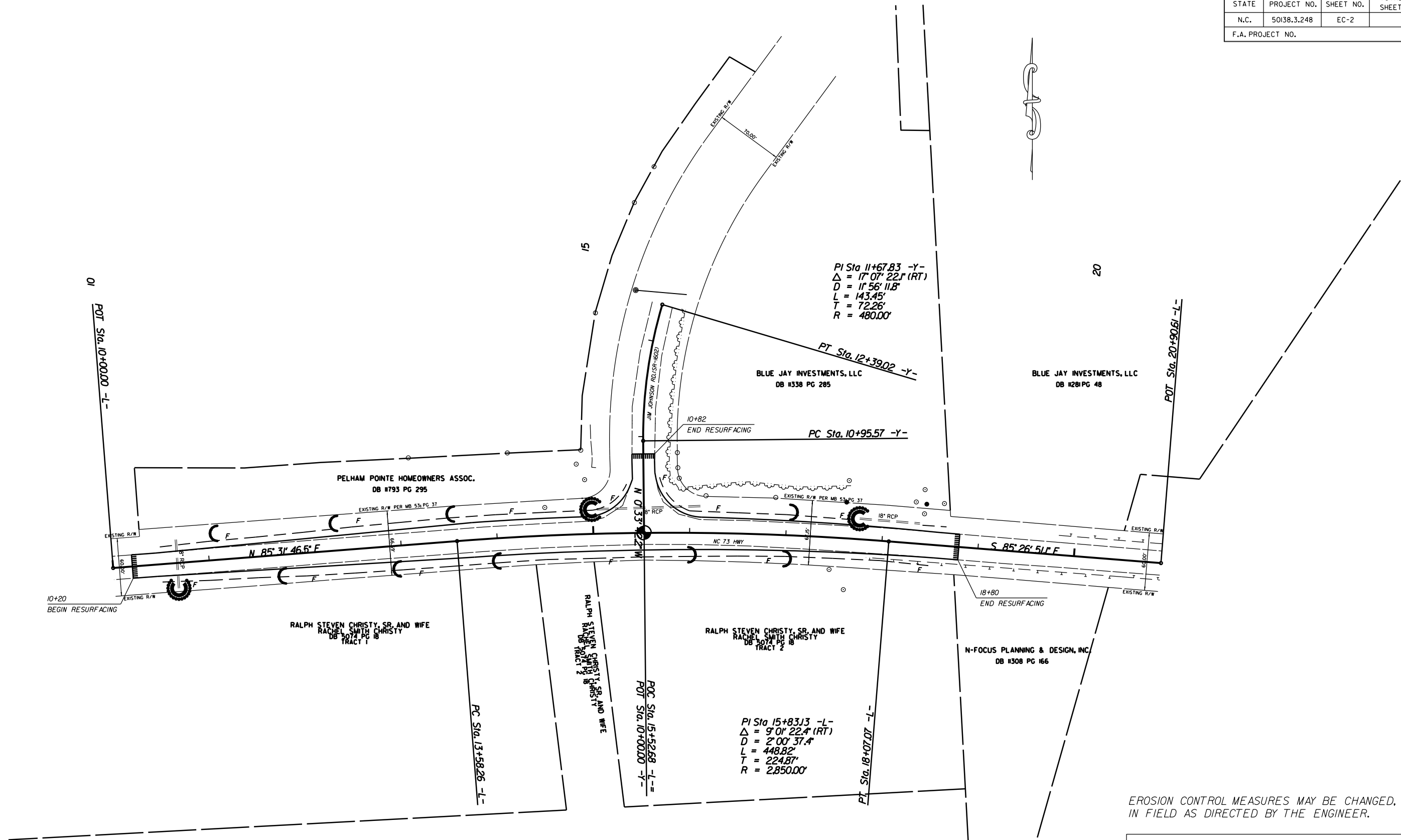
Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1633.02 Temporary Rock Silt Check Type B
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type B	1634.02 Temporary Rock Sediment Dam Type B
1630.03 Temporary Silt Ditch	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.04 Stilling Basin	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.05 Temporary Diversion	1640.01 Coir Fiber Baffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

19-MAY-2017 10:32 AM AT D:\06070280\50138\N.C. 73 Jim Johnson-CALEC.tsh.dgn

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	50138.3.248	EC-2	
F.A. PROJECT NO.			



PI Sta 11+67.83 -Y-
 $\Delta = 17^{\circ} 07' 22''$ (RT)
 D = 1' 56' 11.8"
 L = 143.45'
 T = 72.26'
 R = 480.00'

BLUE JAY INVESTMENTS, LLC
 DB #338 PG 285
 PC Sta. 10+95.57 -Y-

BLUE JAY INVESTMENTS, LLC
 DB #281 PG 48

PELHAM POINTE HOMEOWNERS ASSOC.
 DB #793 PG 295

RALPH STEVEN CHRISTY, SR. AND WIFE
 RACHEL SMITH CHRISTY
 DB #074 PG 18
 TRACT 1

RALPH STEVEN CHRISTY, SR. AND WIFE
 RACHEL SMITH CHRISTY
 DB #074 PG 18
 TRACT 2

N-FOCUS PLANNING & DESIGN, INC.
 DB #308 PG 166

PI Sta 15+83.13 -L-
 $\Delta = 9^{\circ} 01' 22.4''$ (RT)
 D = 2' 00' 37.4"
 L = 448.82'
 T = 224.87'
 R = 2850.00'

EROSION CONTROL MEASURES MAY BE CHANGED,
 IN FIELD AS DIRECTED BY THE ENGINEER.

LEFT TURN ON NC 73
 ONTO JIM JOHNSON RD.(SR-1602)

SCALE	1"=50'		REVISIONS
DATE	5-2017		
DWG. BY	JDH		
DESIGN BY	JDH		
APPROVED	DCG		

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	50138.3.248	PMP-1	
F.A. PROJECT NO.			

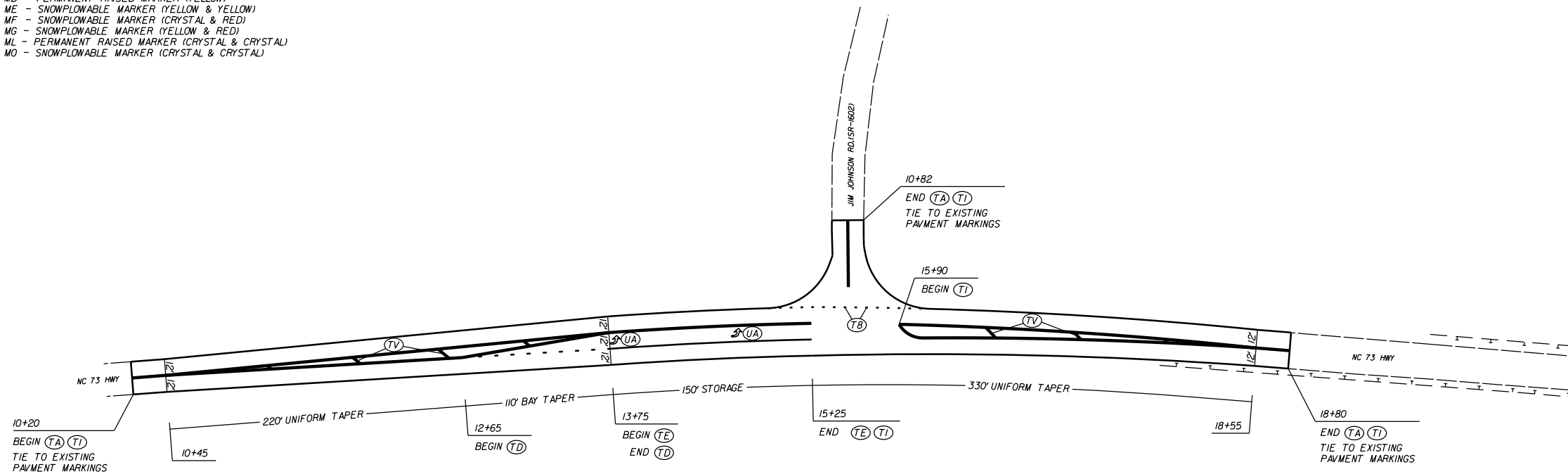
PAVEMENT MARKING SCHEDULE

PAVEMENT MARKING LINES

- | | |
|--|---|
| TA - WHITE EDGELINE (4', 90 MIL) | TU - WHITE DIAGONAL (12', 90 MIL) |
| TB - YELLOW EDGELINE (4', 90 MIL) | TV - YELLOW DIAGONAL (12', 90 MIL) |
| TC - 10FT. WHITE SKIP (4', 120 MIL) | T1 - WHITE LINE, RR X (16', 120 MIL) |
| TD - 3FT.-9FT./SP WHITE MINISKIP (4', 120 MIL) | T2 - WHITE STOPBAR (24', 120 MIL) |
| TE - WHITE SOLID LANE LINE (4', 120 MIL) | T3 - WHITE CROSSWALK LINE (24', 120 MIL) |
| TF - 10FT. YELLOW SKIP (4', 120 MIL) | T4 - WHITE RUMBLE STRIP (4', 240 MIL) |
| TH - YELLOW SINGLE CENTER (4', 120 MIL) | T5 - YELLOW RUMBLE STRIP (4', 240 MIL) |
| TI - YELLOW DOUBLE CENTER (4', 120 MIL) | T6 - WHITE EDGELINE (6', 90 MIL) |
| TJ - 10FT. WHITE SKIP (6', 120 MIL) | T7 - YELLOW EDGELINE (6', 90 MIL) |
| TK - 3FT.-9FT./SP WHITE MINISKIP (6', 120 MIL) | T8 - 2FT.-6FT./SP WHITE MINISKIP (4', 120 MIL) |
| TL - WHITE SOLID LANE LINE (6', 120 MIL) | T9 - 2FT.-6FT./SP YELLOW MINISKIP (4', 120 MIL) |
| TM - 10FT. YELLOW SKIP (6', 120 MIL) | T10 - 3FT.-3FT./SP WHITE MINISKIP (12', 120 MIL) |
| TN - WHITE GORELINE (8', 90 MIL) | T11 - 2FT.-6FT./SP WHITE MINISKIP (6', 120 MIL) |
| TO - WHITE DIAGONAL (8', 90 MIL) | T12 - 2FT.-6FT./SP YELLOW MINISKIP (6', 120 MIL) |
| TP - YELLOW DIAGONAL (8', 90 MIL) | T13 - 3FT.-9FT./SP WHITE MINISKIP (8', 120 MIL) |
| TQ - WHITE CROSSWALK LINE (8', 120 MIL) | T14 - 3FT.-9FT./SP WHITE MINISKIP (12', 120 MIL) |
| TR - WHITE SOLID LANE LINE (8', 120 MIL) | T15 - YELLOW SINGLE CENTER (6', 120 MIL) |
| TS - WHITE GORELINE (12', 90 MIL) | T16 - YELLOW DOUBLE CENTER (6', 120 MIL) |
| TT - WHITE SOLID LANE LINE (12', 120 MIL) | T17 - 3FT.-3FT./SP WHITE MINISKIP ENTRANCE LINE (8', 120 MIL) |

PAVEMENT MARKING SYMBOLS

- | | |
|--|--|
| UA - LEFT TURN ARROW (90 MIL) | UU - FISH-HOOK STRAIGHT ARROW (90 MIL) |
| UB - RIGHT TURN ARROW (90 MIL) | UV - FISH-HOOK LEFT/STRAIGHT ARROW (90 MIL) |
| UC - STRAIGHT ARROW (90 MIL) | UW - FISH-HOOK RIGHT/STRAIGHT ARROW (90 MIL) |
| UD - COMBO. LEFT/STRAIGHT ARROW (90 MIL) | UX - FISH-HOOK LEFT/RIGHT ARROW (90 MIL) |
| UE - COMBO. RIGHT/STRAIGHT ARROW (90 MIL) | UY - FISH-HOOK LEFT/RIGHT/STRAIGHT ARROW (90 MIL) |
| UF - COMBO. LEFT/RIGHT ARROW (90 MIL) | UZ - FISH-HOOK W/CIRCLE STRAIGHT ARROW (90 MIL) |
| UG - COMBO. LEFT/RIGHT/STRAIGHT ARROW (90 MIL) | |
| UH - HANDICAP PARKING (90 MIL) | WA - FISH-HOOK W/CIRCLE LEFT ARROW (90 MIL) |
| UI - ALPHANUMERIC CHAR. (120 MIL) | WB - FISH-HOOK W/CIRCLE LEFT/STRAIGHT ARROW (90 MIL) |
| UJ - BICYCLE SYMBOL (90 MIL) | WC - FISH-HOOK W/CIRCLE LEFT/RIGHT/STRAIGHT ARROW (90 MIL) |
| UK - BICYCLE STRAIGHT ARROW (90 MIL) | |
| UL - BICYCLE CHAR. (120 MIL) | MA - PERMANENT RAISED MARKER (YELLOW & YELLOW) |
| UM - 12" YIELD LINE TRIANGLE (90 MIL) | MB - PERMANENT RAISED MARKER (CRYSTAL & RED) |
| UN - 24" YIELD LINE TRIANGLE (90 MIL) | MC - PERMANENT RAISED MARKER (YELLOW & RED) |
| UO - BICYCLE LEFT ARROW (90 MIL) | MD - PERMANENT RAISED MARKER (YELLOW) |
| UP - MERGE ARROW (90 MIL) | ME - SNOWPLOWABLE MARKER (YELLOW & YELLOW) |
| UR - RAMP ARROW SYMBOL (90 MIL) | MF - SNOWPLOWABLE MARKER (CRYSTAL & RED) |
| US - SHARROW (90 MIL) | MG - SNOWPLOWABLE MARKER (YELLOW & RED) |
| UT - BICYCLE LOOP DETECTOR (90 MIL) | ML - PERMANENT RAISED MARKER (CRYSTAL & CRYSTAL) |
| | MO - SNOWPLOWABLE MARKER (CRYSTAL & CRYSTAL) |

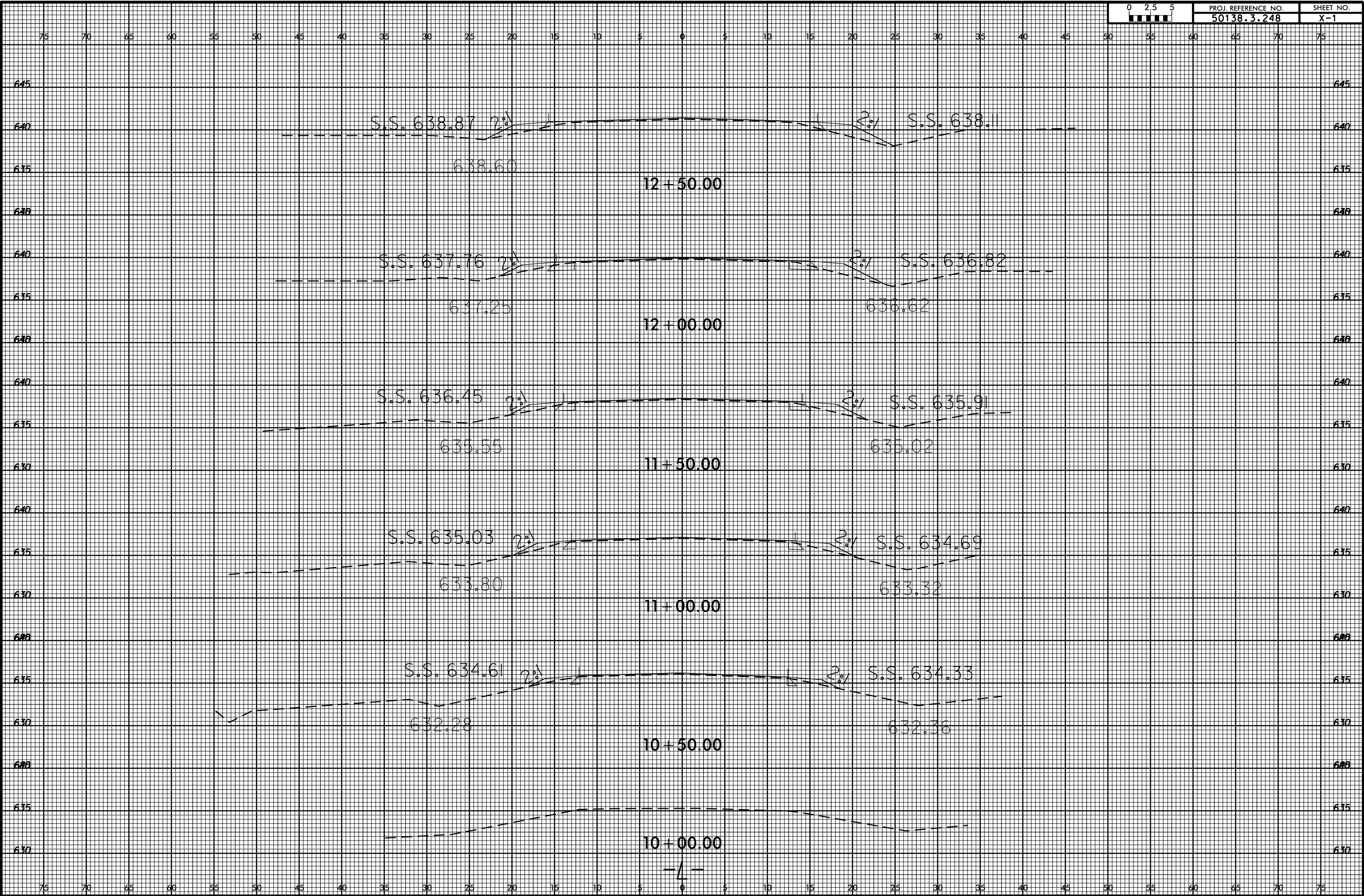


LEFT TURN ON NC 73
ONTO JIM JOHNSON RD.(SR-1602)

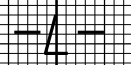
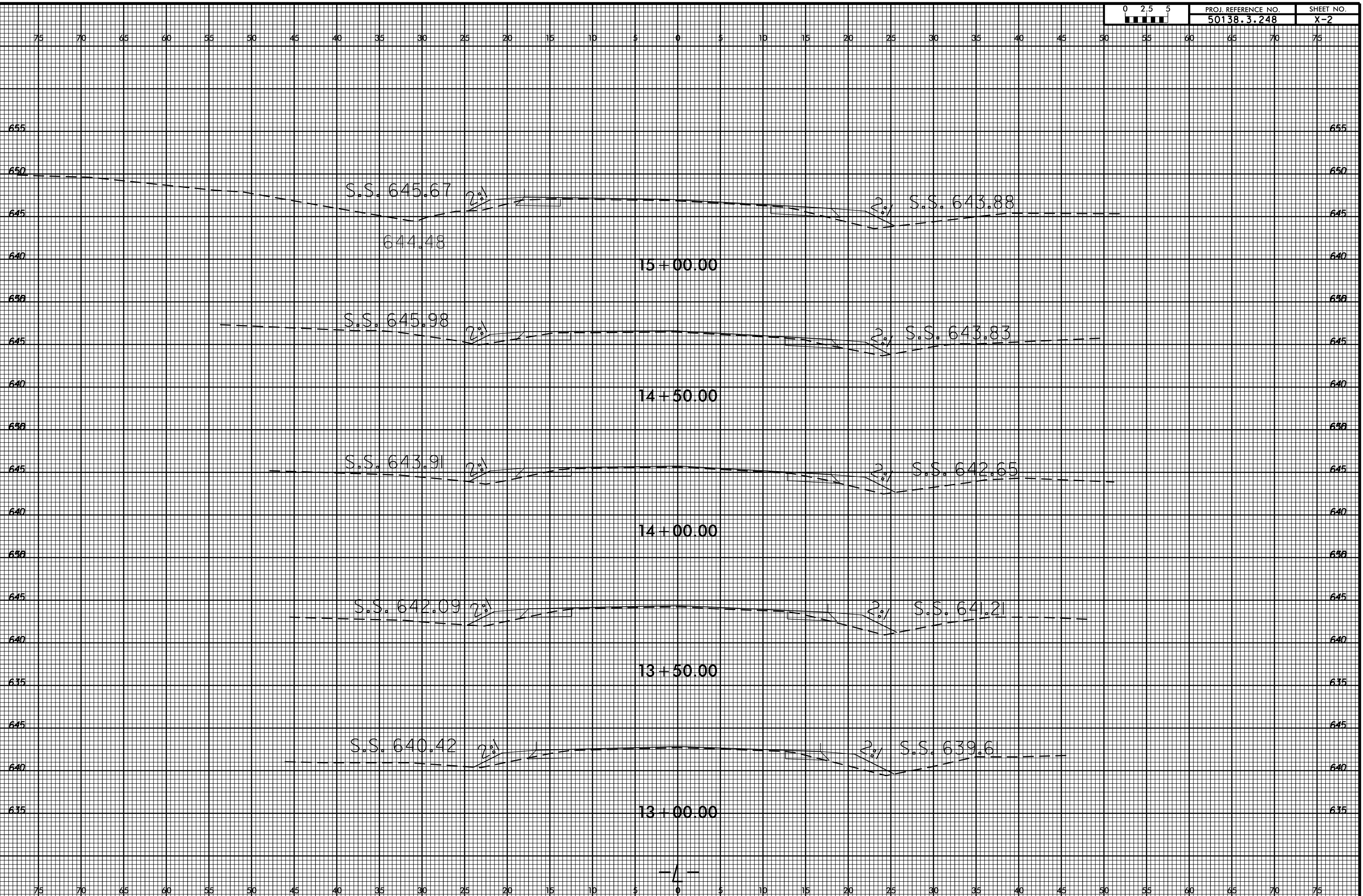
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DATE	5-2017
DWG. BY	JDH
DESIGN BY	JDH
APPROVED	DCG

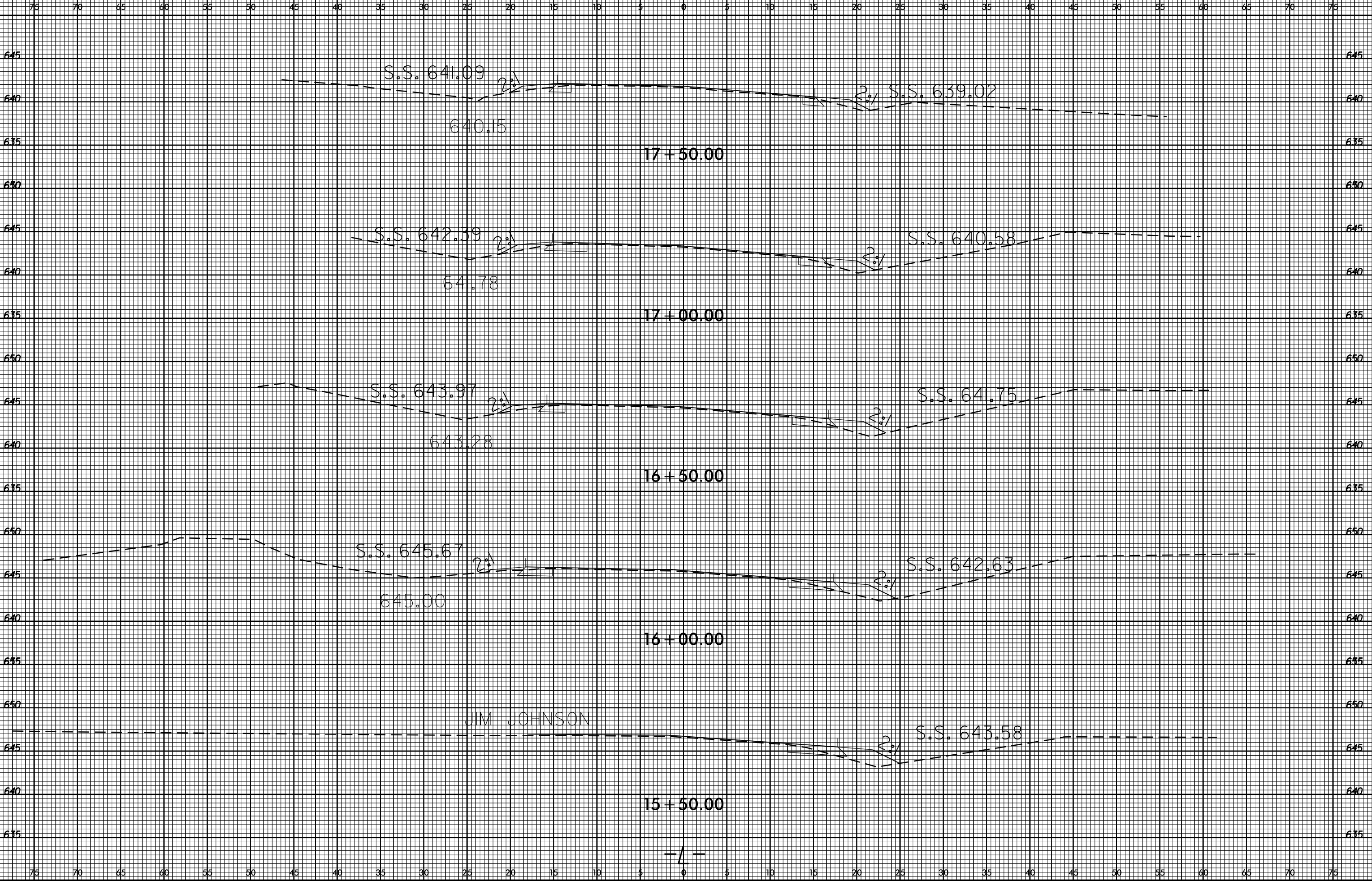


REVISIONS	

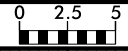


6/23/16
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A:\D1001\CA027126





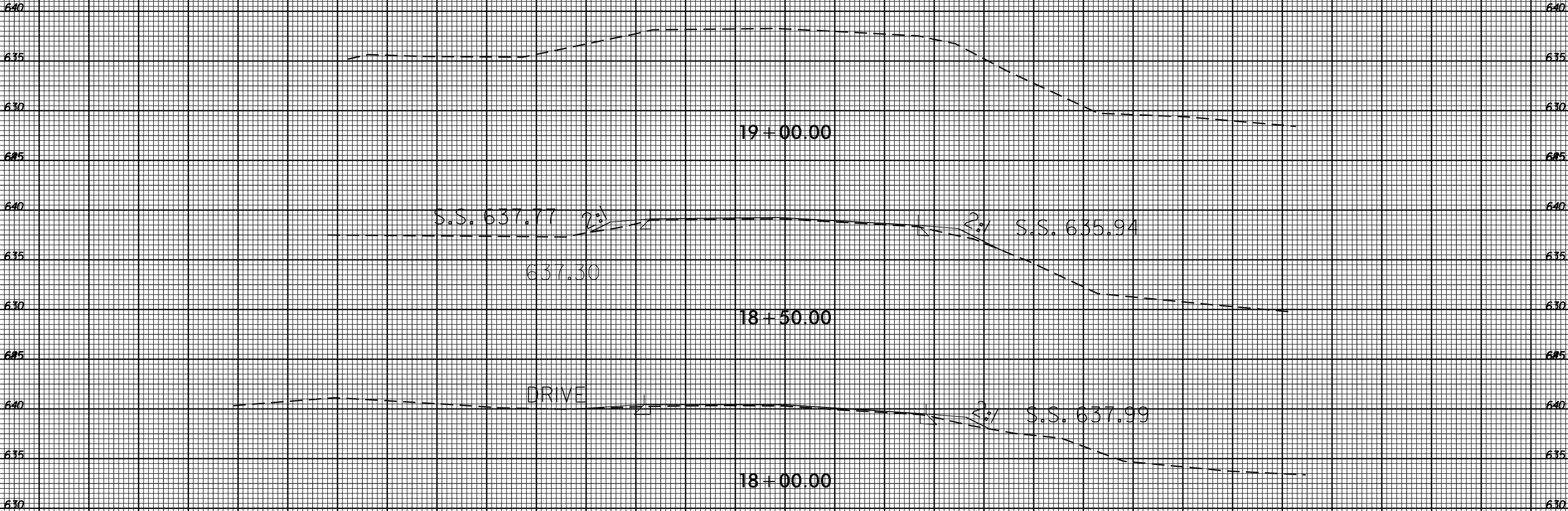
6/23/16



PROJ. REFERENCE NO.
50138.3.248

SHEET NO.
X-4

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DRIVE

I:\MAY-2017\4403
S:\DOC\PO\1\Geoparc\US\NC 73 Jim Johnson_CAI.xpl.L.dgn
A:\D1001\CA027126

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75