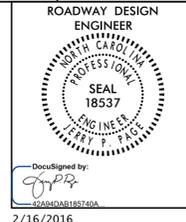


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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS



INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARDS DRAWINGS
1B	CONVENTIONAL SYMBOLS
1C-1	SURVEY CONTROL SHEET
2A-1	TYPICAL SECTIONS AND PAVEMENT SCHEDULE
3B-1	SUMMARY OF DRAINAGE QUANTITIES, RIGHT OF WAY AREA DATA, SUMMARY OF REMOVAL OF EXISTING ASPHALT PAVEMENT, SUMMARY OF MILLING ASPHALT PAVEMENT, & SUMMARY OF EARTHWORK
4 THUR 5	PLAN SHEETS
TMP-1 THUR TMP-3	TRAFFIC MANAGEMENT PLANS
PMP-1	PAVEMENT MARKING PLANS
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X-1A	CROSS-SECTIONS SUMMARY
X-1 THUR X-9	CROSS-SECTIONS

GENERAL NOTES

GENERAL NOTES: 2012 SPECIFICATIONS

EFFECTIVE: 01-17-2012
REVISED: 10-31-2014

GRADE LINE:
GRADING AND SURFACING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:

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

SUPERELEVATION:

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

SHOULDER CONSTRUCTION:

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01

SIDE ROADS:

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

SUBSURFACE PLANS:

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

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE

RIGHT-OF-WAY MARKERS:

ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY OTHERS.

LIST OF STANDARDS DRAWINGS

2012 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

STD. NO.	TITLE
DIVISION 2 - EARTHWORK	
200.03	Method of Clearing - Method III
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
225.06	Method of Grading Sight Distance at Intersections
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
310.10	Driveway Pipe Construction
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
840.71	Concrete and Brick Pipe Plug
840.72	Pipe Collar
876.02	Guide for Rip Rap at Pipe Outlets

Note: Not to Scale

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

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

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

BUILDINGS AND OTHER CULTURE:

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

HYDROLOGY:

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

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○
Switch	□
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY:

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

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-----C
Proposed Slope Stakes Fill	-----F
Proposed Curb Ramp	-----
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	-----
VEGETATION:	
Single Tree	☼
Single Shrub	☼
Hedge	-----
Woods Line	-----

Orchard	-----
Vineyard	-----

EXISTING STRUCTURES:

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

UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	○
Power Line Tower	⊠
Power Transformer	⊠
U/G Power Cable Hand Hole	□
H-Frame Pole	●
Recorded U/G Power Line	-----P
Designated U/G Power Line (S.U.E.*)	-----P

TELEPHONE:

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

WATER:

Water Manhole	○
Water Meter	○
Water Valve	⊗
Water Hydrant	○
Recorded U/G Water Line	-----
Designated U/G Water Line (S.U.E.*)	-----
Above Ground Water Line	-----A/G Water

TV:

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

GAS:

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

SANITARY SEWER:

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

MISCELLANEOUS:

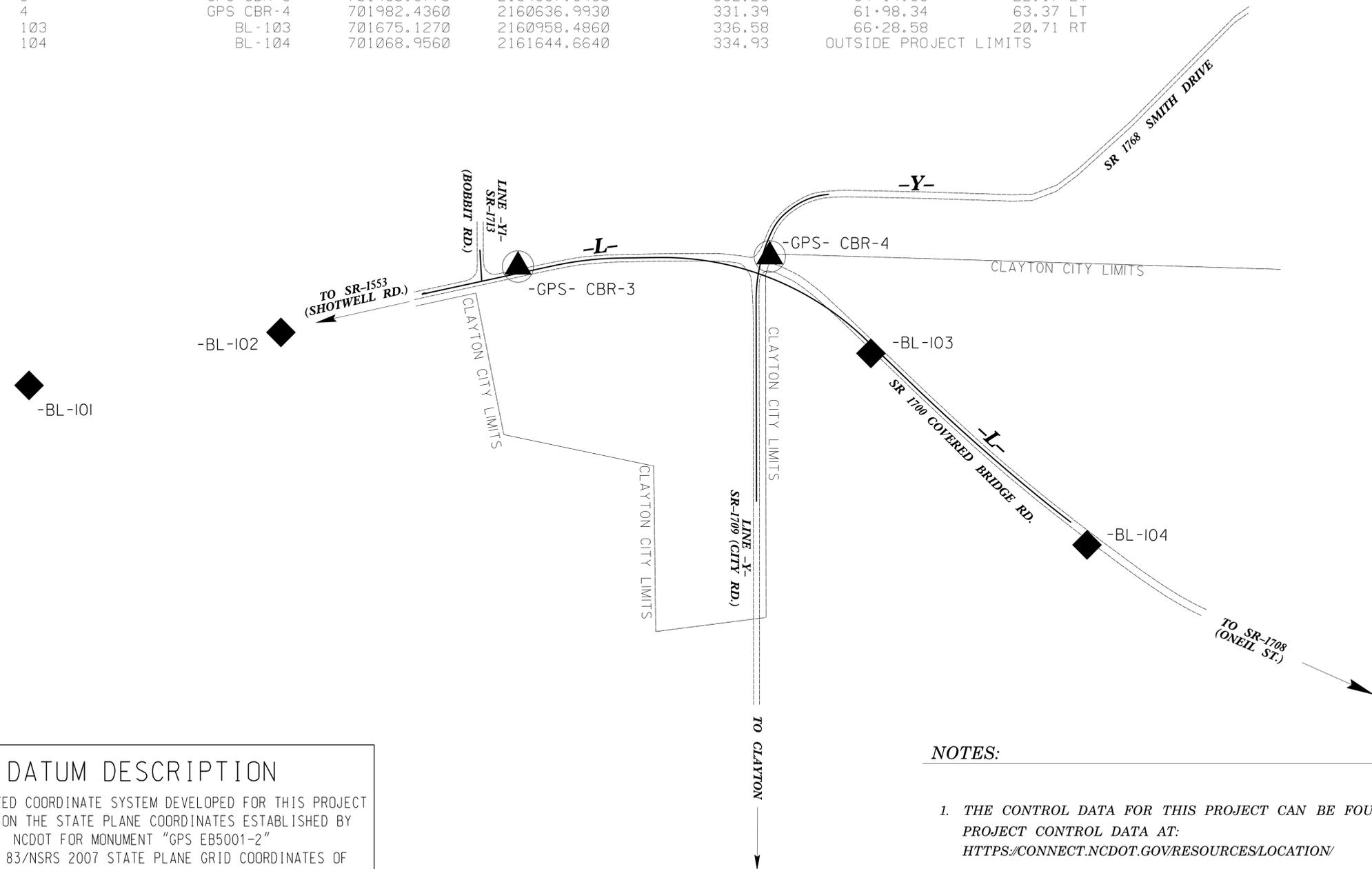
Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	□
Utility Unknown U/G Line	-----?UTL
U/G Tank; Water, Gas, Oil	□
Underground Storage Tank, Approx. Loc.	□
A/G Tank; Water, Gas, Oil	□
Geoenvironmental Boring	⊕
U/G Test Hole (S.U.E.*)	⊕
Abandoned According to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

6/2/99

SURVEY CONTROL SHEET W-5204-B

PROJECT REFERENCE NO. W-5204B	SHEET NO. 1C-1
Location and Surveys	

BL	POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
101		BL-101	701573.7750	2158285.3280	341.16	OUTSIDE PROJECT LIMITS	
102		BL-102	701741.5690	2159085.0360	324.96	OUTSIDE PROJECT LIMITS	
3		GPS CBR-3	701950.8770	2159837.6960	332.26	54+14.58	22.17 LT
4		GPS CBR-4	701982.4360	2160636.9930	331.39	61+98.34	63.37 LT
103		BL-103	701675.1270	2160958.4860	336.58	66+28.58	20.71 RT
104		BL-104	701068.9560	2161644.6640	334.93	OUTSIDE PROJECT LIMITS	



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "GPS EB5001-2" WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF NORTHING: 701476.800(ft) EASTING: 2168018.595(ft) ELEVATION: 166.62(ft)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999895580

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "GPS EB5001-2" TO -L- STATION 10+00 IS
N 87°23'40.7" W 8492.50'

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

NOTES:

- THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:
[HTTPS://CONNECT.NCDOT.GOV/RESOURCES/LOCATION](https://connect.ncdot.gov/resources/location)

THE FILES TO BE FOUND ARE AS FOLLOWS:
W5204B_LS_CONTROL.TXT

SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT.

PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM.

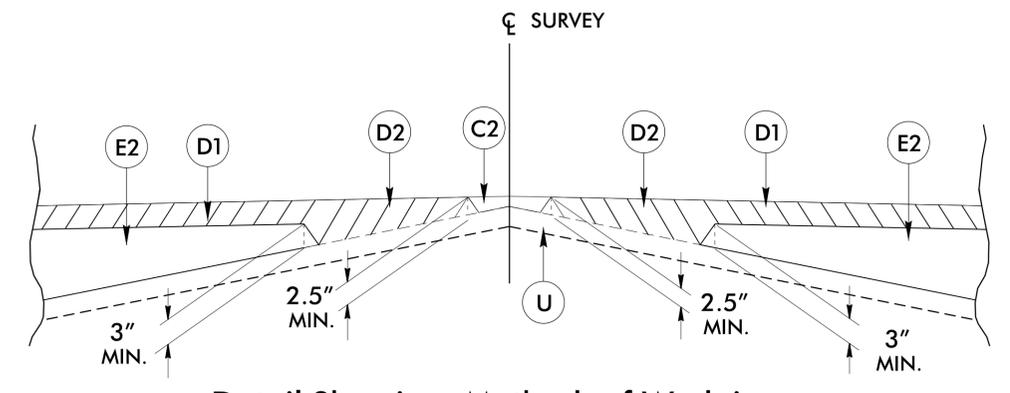
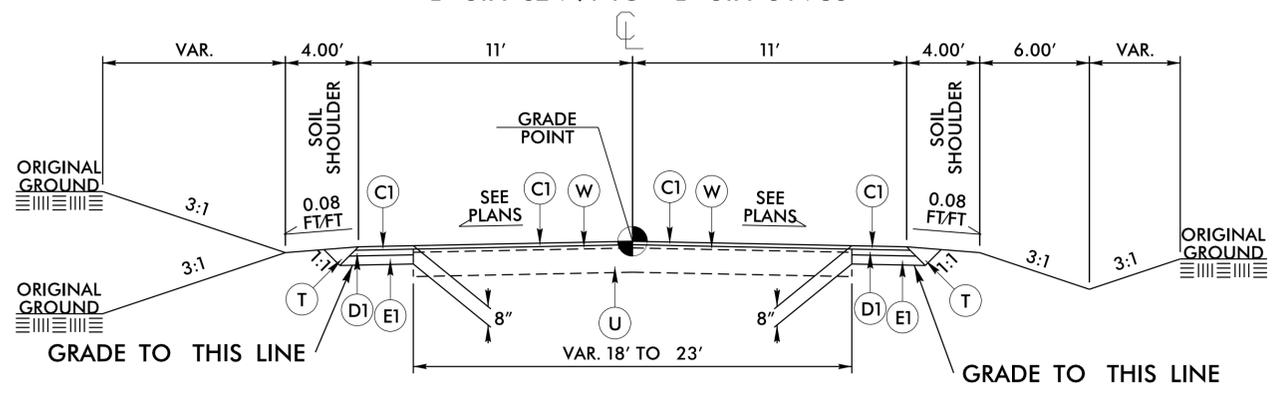
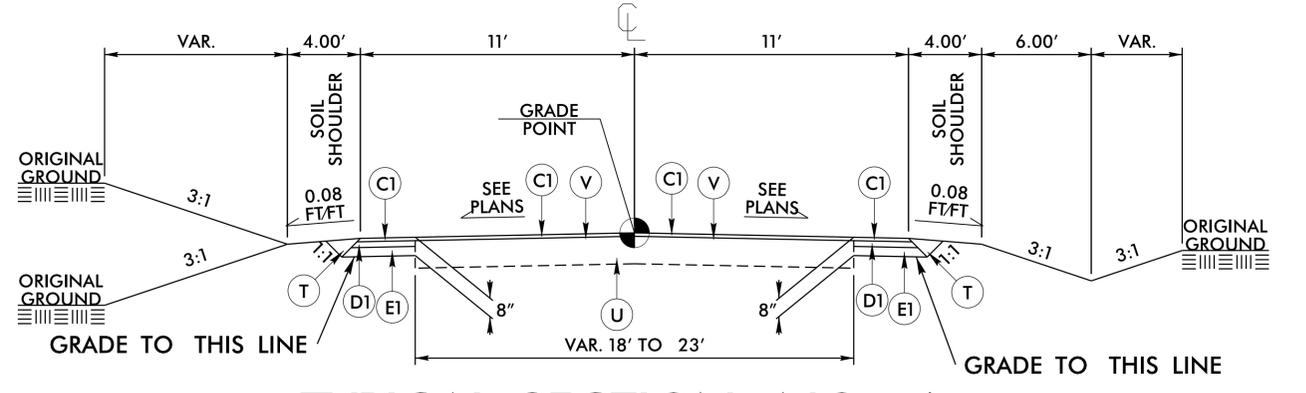
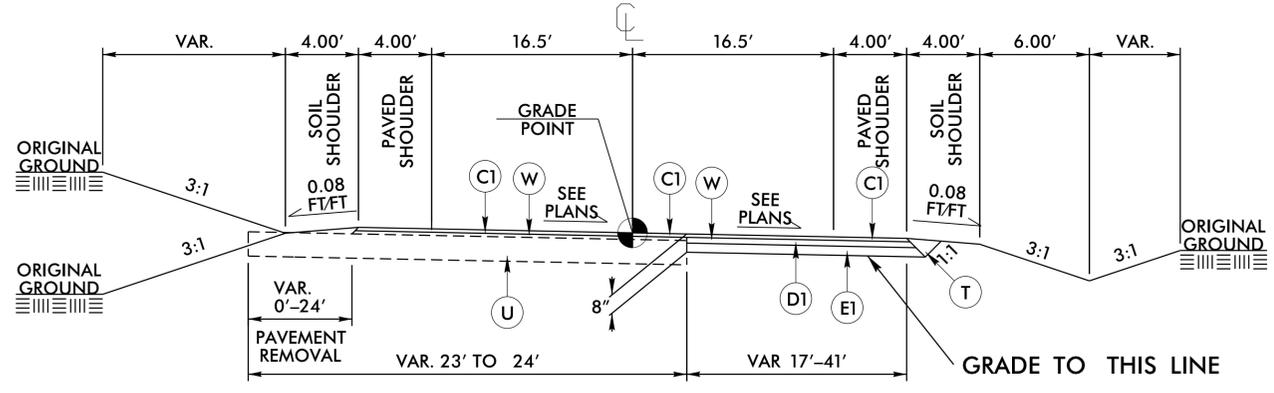
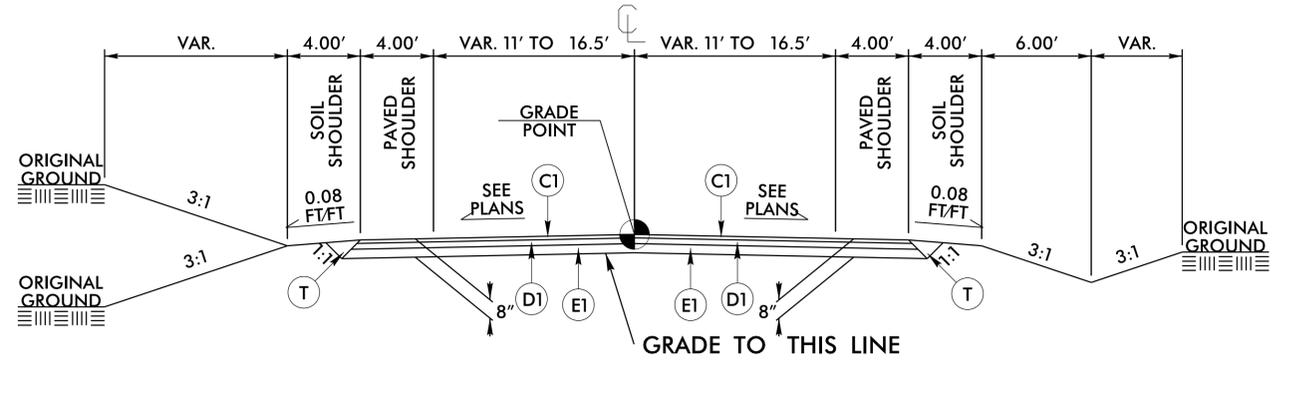
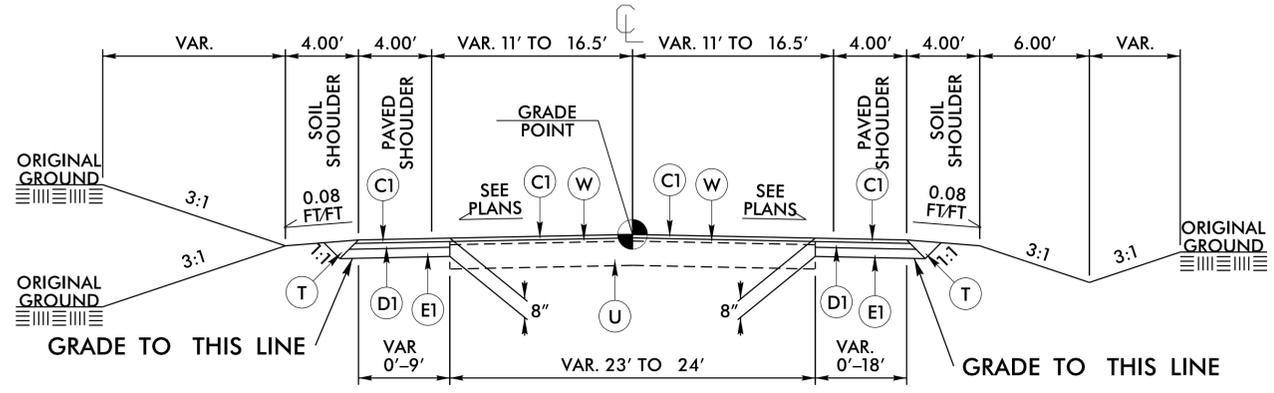
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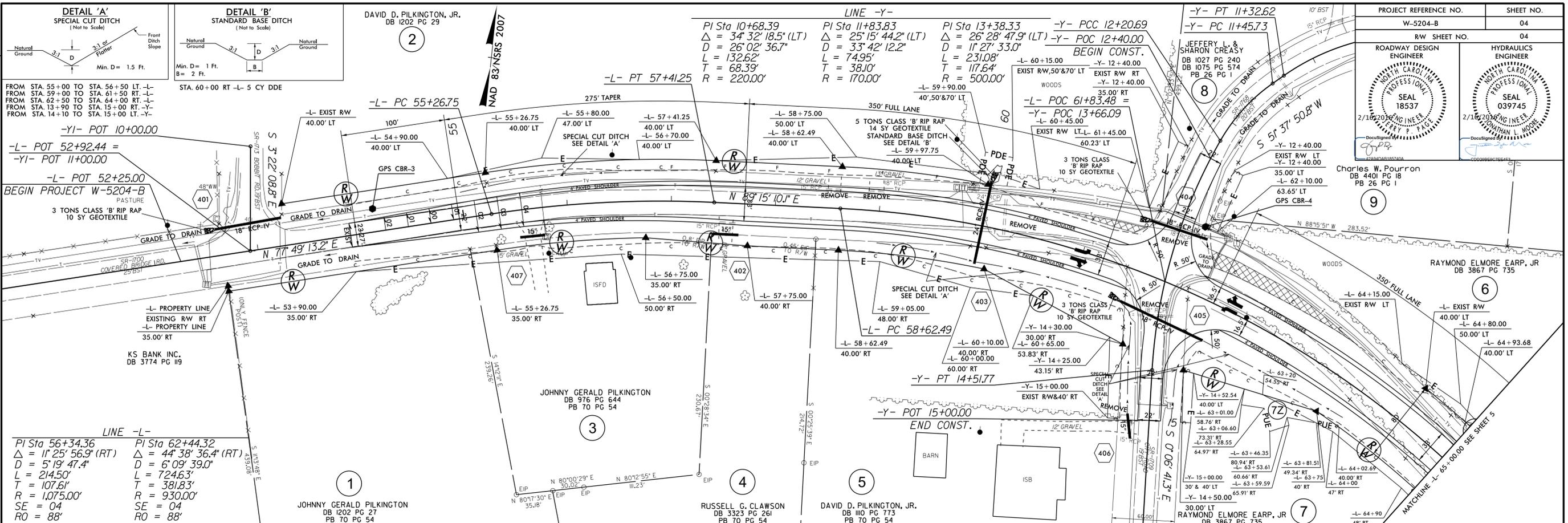
PAVEMENT SCHEDULE

PROJECT REFERENCE NO. W-5204B	SHEET NO. 2A-1
ROADWAY DESIGN ENGINEER 	PAVEMENT DESIGN ENGINEER 
2/16/2016	2/16/2016

C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	V	MILLING BITUMINOUS PAVEMENT. 1.5" DEPTH.
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.	E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5.5" IN DEPTH.	W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE DETAIL SHOWING METHOD OF WEDGING)
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.	U	EXISTING PAVEMENT.	NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.	
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2.5" IN DEPTH OR GREATER THAN 4" IN DEPTH.	T	EARTH MATERIAL.		



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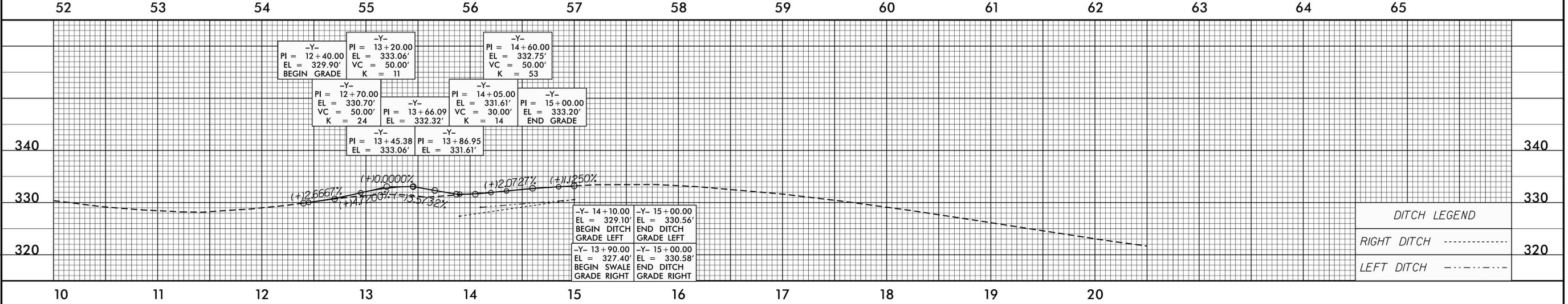
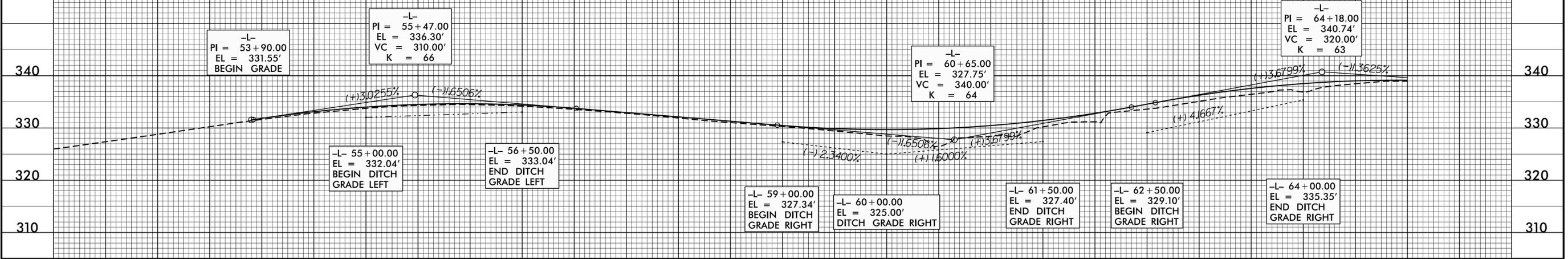
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RW SHEET NO. 04

ROADWAY DESIGN ENGINEER: JEFFERY L. & SHARON CREASY, DB 1027 PG 240, DB 1075 PG 574, PB 26 PG 1

HYDRAULICS ENGINEER: CHARLES W. POURRON, DB 4401 PG 18, PB 26 PG 1

Professional seals for Jeffery L. Creasy and Charles W. Pourron.



DITCH LEGEND

RIGHT DITCH - - - - -

LEFT DITCH - - - - -

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REVISIONS

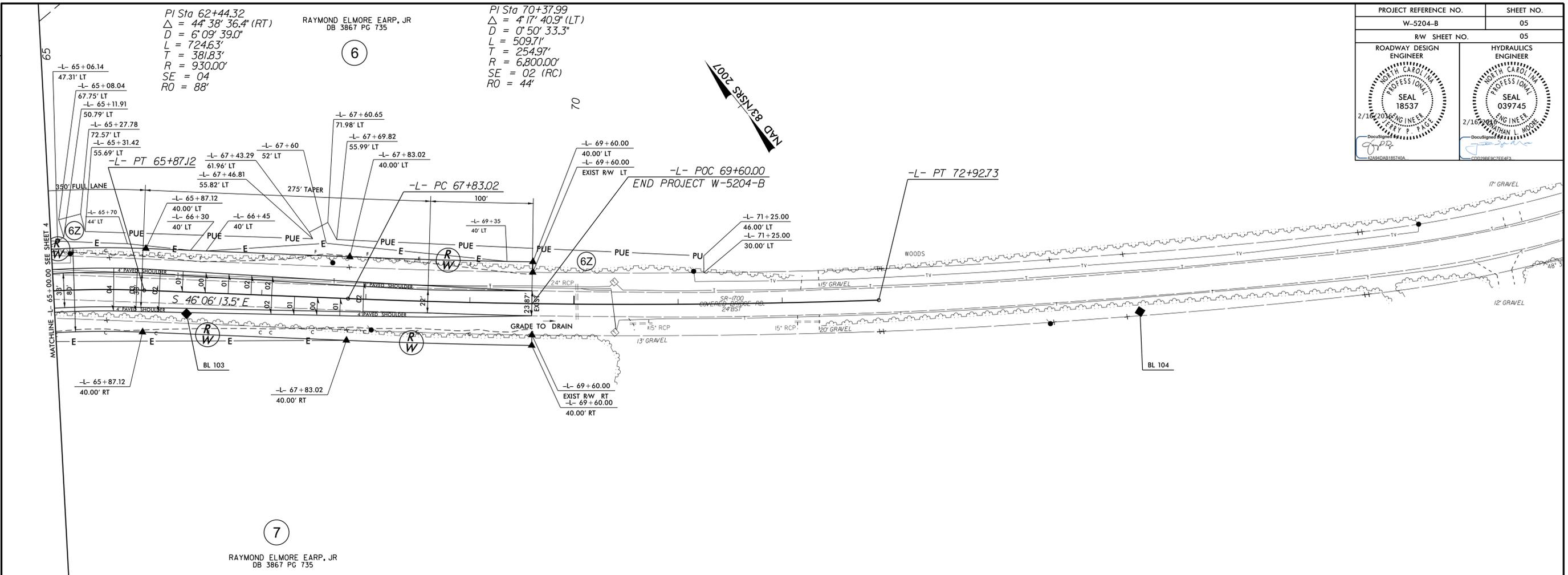
PROJECT REFERENCE NO.	SHEET NO.
W-5204-B	05
RW SHEET NO.	05
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PI Sta 62+44.32
 $\Delta = 44' 38" 36.4" (RT)$
 $D = 6' 09" 39.0"$
 $L = 724.63'$
 $T = 381.83'$
 $R = 930.00'$
 $SE = 04'$
 $RO = 88'$

RAYMOND ELMORE EARP, JR.
 DB 3867 PG 735

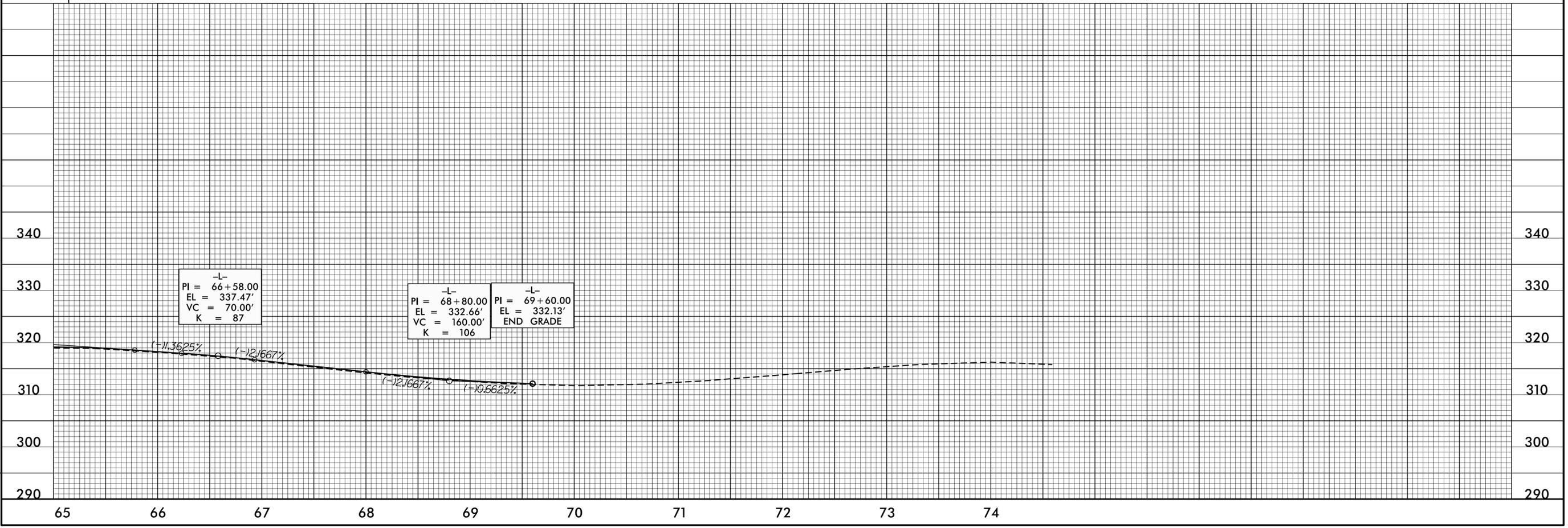
PI Sta 70+37.99
 $\Delta = 4' 17" 40.9" (LT)$
 $D = 0' 50" 33.3"$
 $L = 509.71'$
 $T = 254.97'$
 $R = 6,800.00'$
 $SE = 02 (RC)$
 $RO = 44'$

L002 SWSV8 2007



RAYMOND ELMORE EARP, JR.
 DB 3867 PG 735

REVISIONS



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ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1130.01	DRUM
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- TEMP. SHORING (LOCATION PURPOSES ONLY)
- WORK AREA
- REMOVAL

SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM
- SKINNY DRUM
- TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- FLASHING ARROW BOARD
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED ATTENUATOR (TMA)
- CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

- CRYSTAL/CRYSTAL
- CRYSTAL/RED
- YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

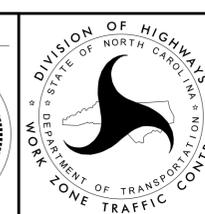
TEMPORARY PAVEMENT MARKING

- 24" PAINT
- P2 WHITE STOPBAR
- 4" PAINT
- PA WHITE EDGELINE
- PI DOUBLE YELLOW
- PD 3FT-9FT WHITE MINI-SKIP

APPROVED: 
E27CE39E1DFC442...

DATE: 6/22/2015

SEAL

ROADWAY STANDARD
DRAWINGS & LEGEND

GENERAL NOTES / LOCAL NOTES

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

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

TIME RESTRICTIONS

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

ROAD NAME	DAY AND TIME RESTRICTIONS
ALL ROADS	MONDAY THRU FRIDAY 6:00 AM TO 8:00 AM AND 4:00 PM TO 7:00 PM

LANE AND SHOULDER CLOSURE REQUIREMENTS

- B) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- C) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- E) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

PAVEMENT EDGE DROP OFF REQUIREMENTS

- F) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:
- BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.
- BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.
- BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.
- G) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 500 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

- H) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

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

TRAFFIC CONTROL DEVICES

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

PAVEMENT MARKINGS AND MARKERS

- L) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
COVERED BRIDGE RD	PAINT	TEMP RAISED

- M) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.
- N) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- O) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

PHASING

PHASING NOTES:

- 1) IN THE PHASING SHOWN BELOW "FLAGGER" IS DEFINED AS RSD 1101.02, SHEET 1.
- 2) MAINTAIN POSITIVE DRAINAGE DURING CONSTRUCTION.
- 3) CONSTRUCT ALL PAVEMENT UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE UNLESS OTHERWISE STATED IN PHASING, OR AS DIRECTED BY THE ENGINEER.

PHASE I:

- STEP 1 -- INSTALL WORK ZONE ADVANCE WARNING SIGNS ON -L- (COVERED BRIDGE RD AND -Y- LINES PER RSD 1101.01, SHEET 3 OF 3.
- STEP 2 -- AWAY FROM TRAFFIC AND USING FLAGGERS AS NEEDED, PERFORM THE FOLLOWING: (SEE TMP-2)

- WEDGE AND FEATHER EXISTING COVERED BRIDGE ROAD FROM -L- STA. 59+00+/- TO STA. 62+10+/- AND -Y- STA. 13+00+/- TO STA. 15+00+/- TO ALLOW SMOOTH TIE-IN TO PROPOSED -L- and -Y-.
- CONSTRUCT -L- RT STA. 53+90+/- TO STA. 69+60+/-.
- CONSTRUCT -Y- FROM -L- TO -Y- STA. 15+00+/-.

- STEP 3 -- WORK IN A CONTINUOUS MANNER TO COMPLETE THE FOLLOWING TIE-IN AND SHIFT TRAFFIC TO PHASE II PATTERN IN A SINGLE WORK PERIOD. (SEE TMP-3)

1. PUT TRAFFIC IN 2W1L IN THE EXISTING WB LANE, TIE-IN THE EB LANE AND PLACE DOUBLE YELLOW CENTER LINE.
2. PUT TRAFFIC IN 2W1L IN THE PROPOSED EB LANE AND TIE-IN THE PROPOSED WB LANE AND INSTALL WHITE EDGE LINE.
3. SHIFT TRAFFIC TO TEMPORARY PHASE II PATTERN.

PHASE II

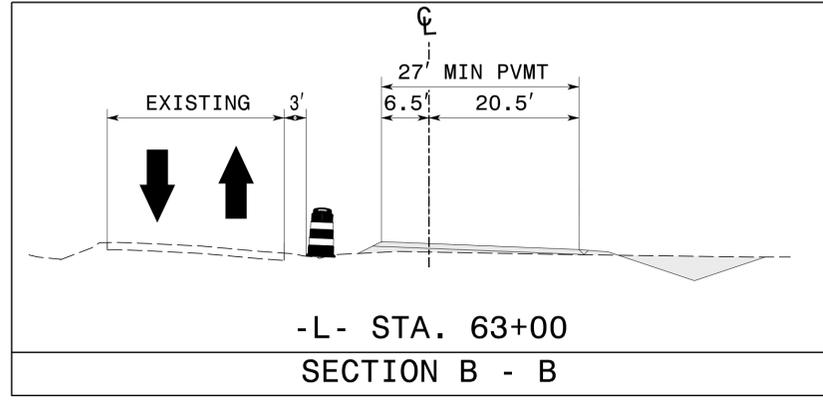
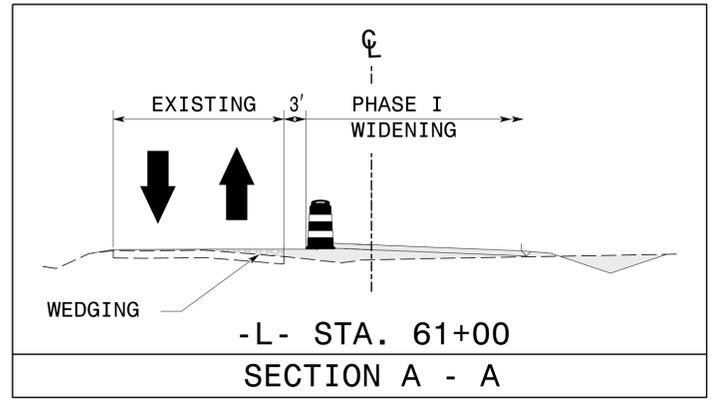
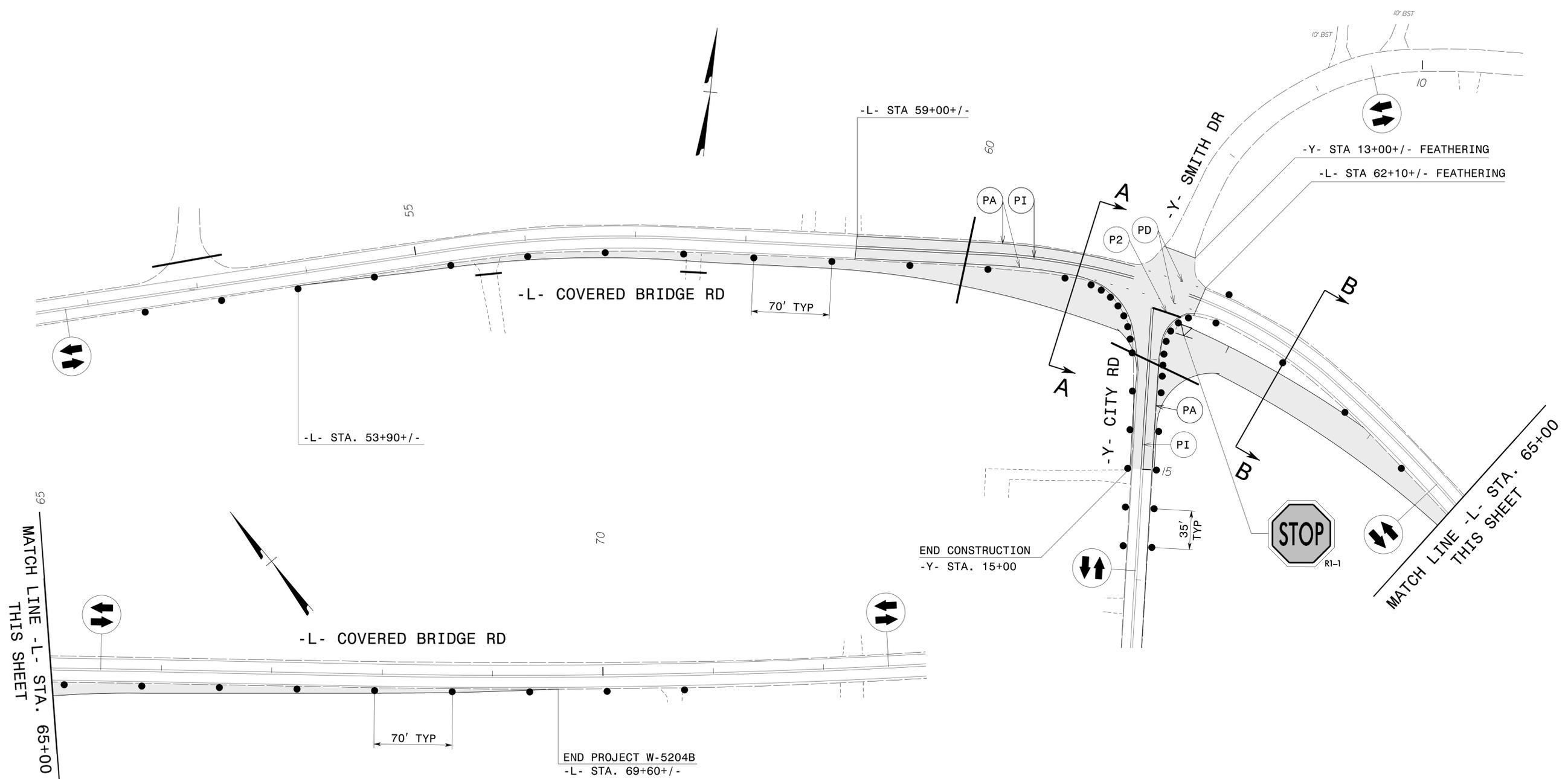
- STEP 1 -- AWAY FROM TRAFFIC AND USING FLAGGERS AS NEEDED, PERFORM THE FOLLOWING: (SEE TMP-3)

- COMPLETE CONSTRUCTION OF -L- STA. 53+90+/- TO STA. 69+60+/- AND -Y- STA. 12+40+/- TO -L-. INSTALL TEMPORARY PAVEMENT MARKINGS IN THE FINAL PATTERN ON THE WB LANE OF PROPOSED -L-, AS MUCH AS POSSIBLE.

- STEP 2 -- USING FLAGGERS INSTALL THE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS IN THE FINAL PATTERN AS SHOWN IN THE PAVEMENT MARKING PLANS.

- STEP 3 -- REMOVE ALL TRAFFIC CONTROL DEVICES.

APPROVED: <i>Steve Kite</i> <small>E27CESB10FC442</small> DATE: 6/22/2015 SEAL		 TRANSPORTATION OPERATIONS PLAN
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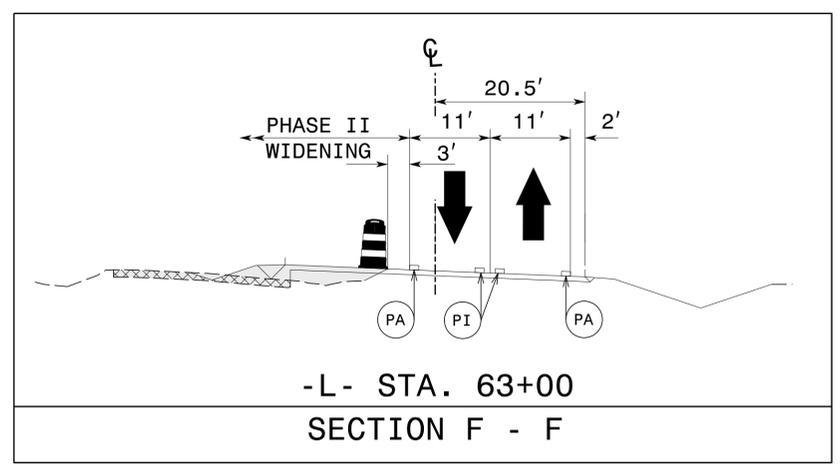
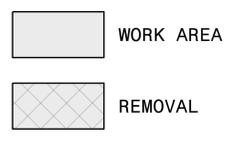
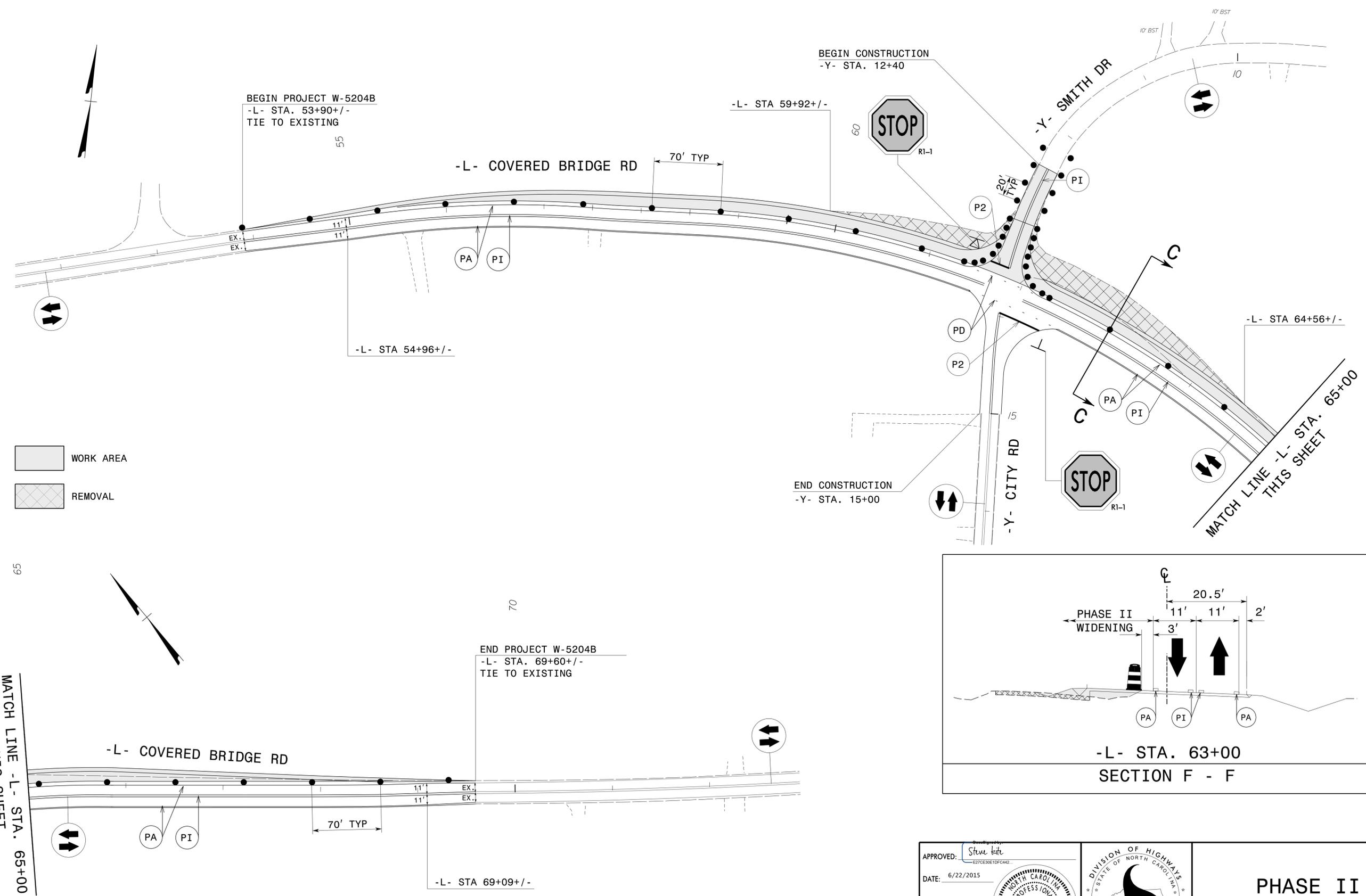
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DATE: 6/22/2015

PROFESSIONAL SEAL
022104
ENGINEER
JOHN S. KITTE



PHASE I
DETAIL

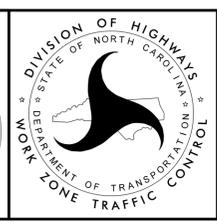
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MATCH LINE -L- STA. 65+00 THIS SHEET

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APPROVED: *Steve Kite*
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 DATE: 6/22/2015



**PHASE II
DETAIL**

**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN
JOHNSTON COUNTY**

**LOCATION: SR-1700 (COVERED BRIDGE RD.) AT INTERSECTION
WITH SR-1768 (SMITH DR.) AND SR-1709 (CITY RD.).**

T.I.P.: W-5204B

PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION
THERMOPLASTIC (4", 120 MILS)	
TD	3 FT. - 9 FT./SP WHITE MINISKIP
TE	WHITE SOLID LANE LINE
TF	10 FT. YELLOW SKIP
THERMOPLASTIC (4", 90 MILS)	
TA	WHITE EDGELINE
THERMOPLASTIC (8", 90 MILS)	
TP	YELLOW DIAGONAL
THERMOPLASTIC (24", 120 MILS)	
T2	WHITE STOPBAR
THERMOPLASTIC PAVEMENT MARKING SYMBOLS (90 MILS)	
UA	LEFT TURN ARROW
UD	COMBO. RIGHT/STRAIGHT ARROW

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

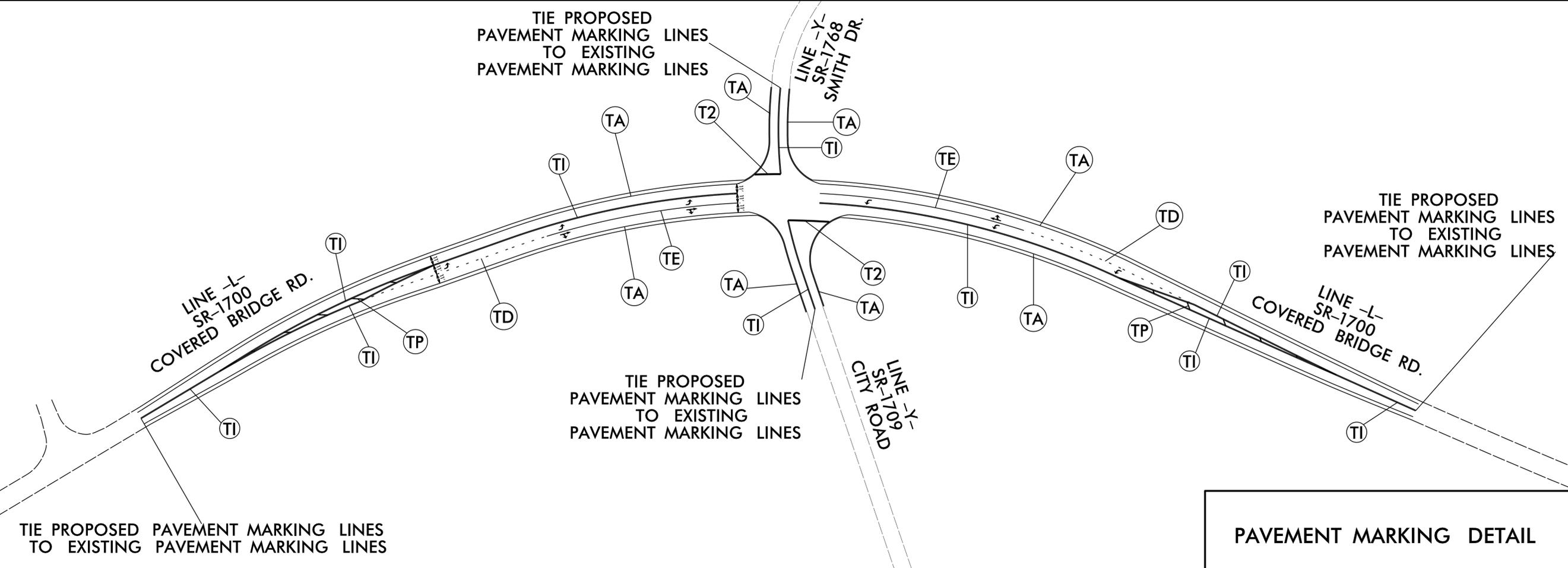
STD. NO.	TITLE
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - 2 LANE AND MULTI-LANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.08	PAVEMENT MARKINGS - SYMBOL AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS

GENERAL NOTES

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

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

ROAD NAME	MARKING	MARKER
ALL	THERMOPLASTIC	NONE
- B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.
- D) PASSING ZONES WILL BE DETERMINED IN THE FIELD AND MUST BE APPROVED BY THE ENGINEER.
- E) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF EXTRUDED THERMOPLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE EXTRUDED THERMOPLASTIC PAY ITEM.



PAVEMENT MARKING DETAIL

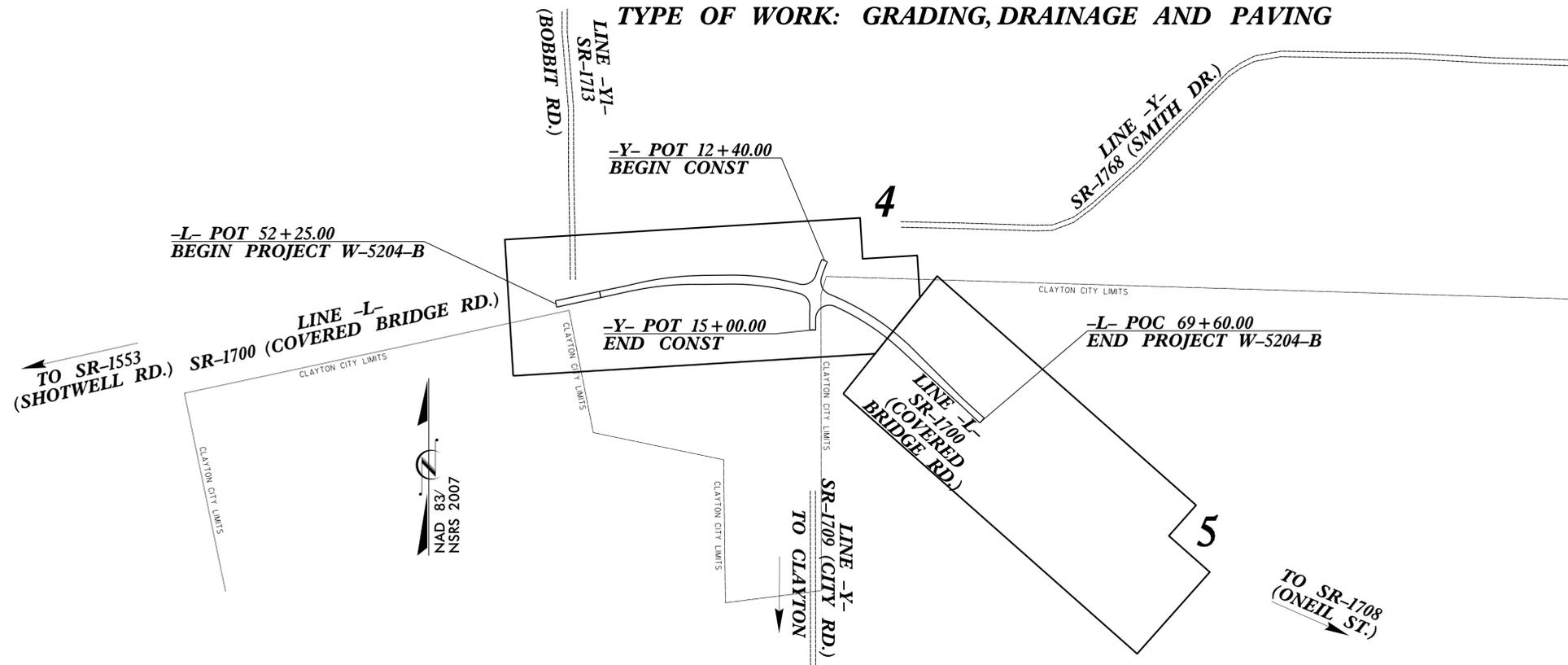
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TIP PROJECT: W-5204B

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

LOCATION: SR-1700 (COVERED BRIDGE RD.) AT INTERSECTION WITH SR-1768 (SMITH DR.) AND SR-1709 (CITY RD.).

TYPE OF WORK: GRADING, DRAINAGE AND PAVING



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5204B	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

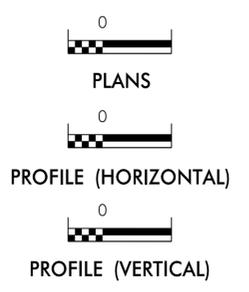
EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	III III III
1606.01	Special Sediment Control Fence	△△△△△
1622.01	Temporary Berms and Slope Drains	—
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.

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

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:
ROADSIDE ENVIRONMENTAL UNIT
 1 South Wilmington St.
 Raleigh, NC 27611
2012 STANDARD SPECIFICATIONS

Designed by:
Wes Chandler 3374
 NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

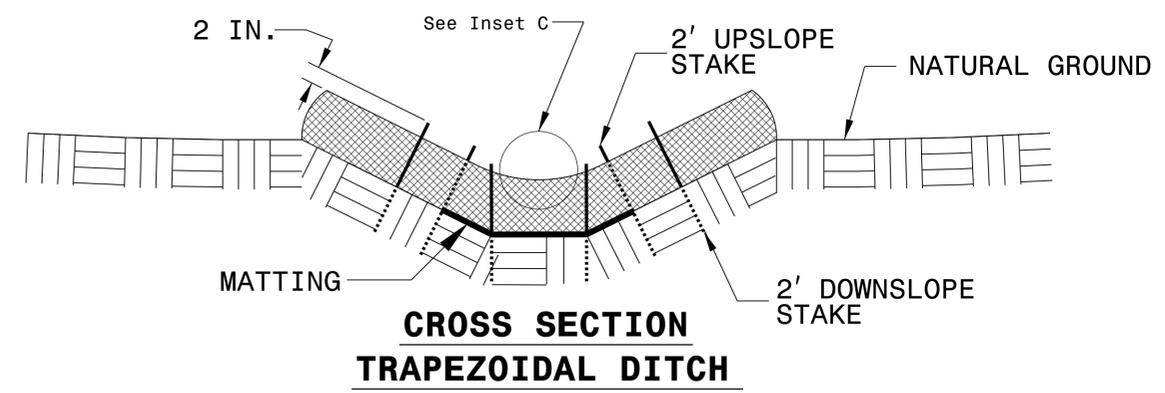
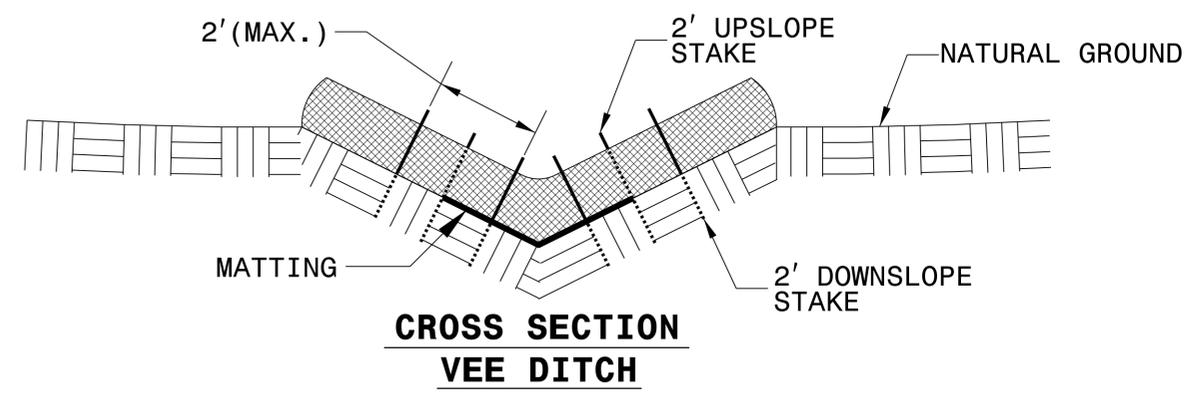
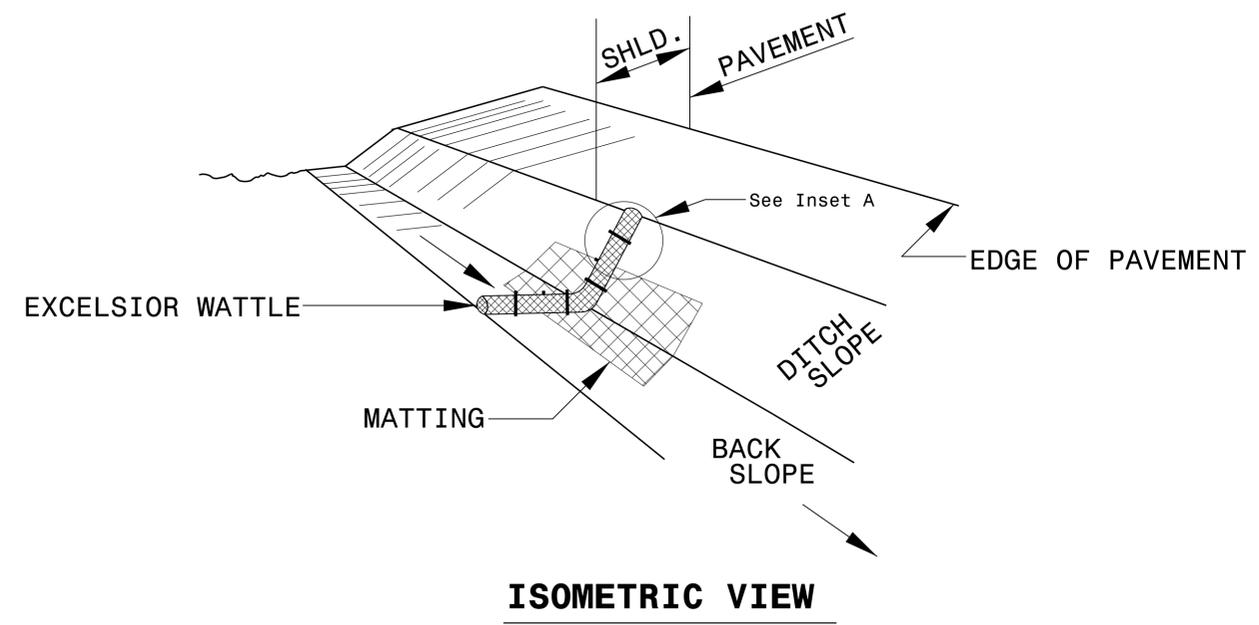
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

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	

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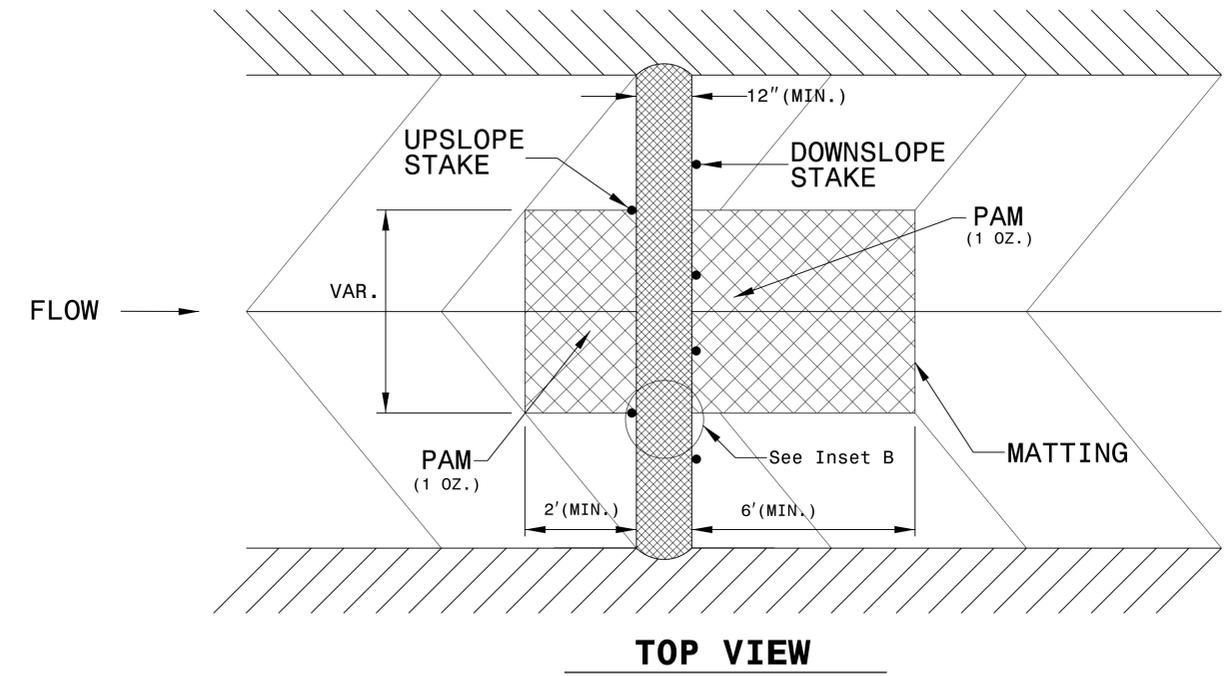
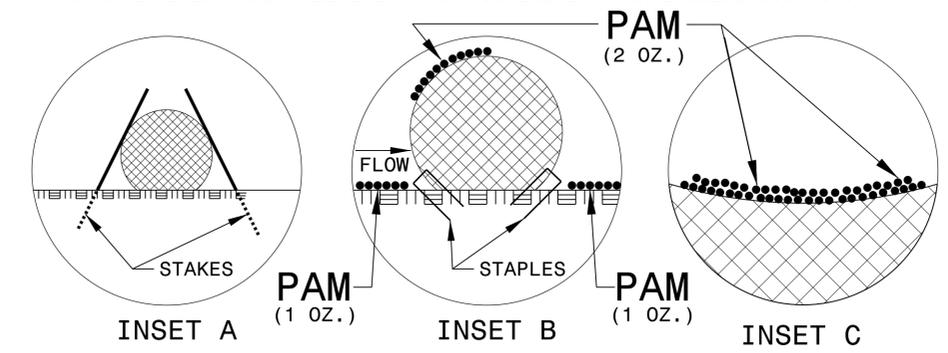
PROJECT REFERENCE NO. W-5204B	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



NOTES:

- USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.
- PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
- INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
- INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.
- PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.
- INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.

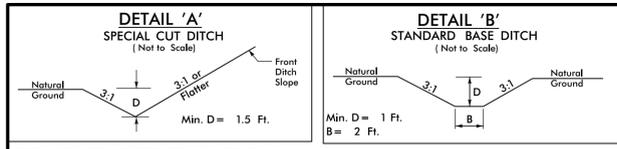


DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>W-5204B</i>	SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

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



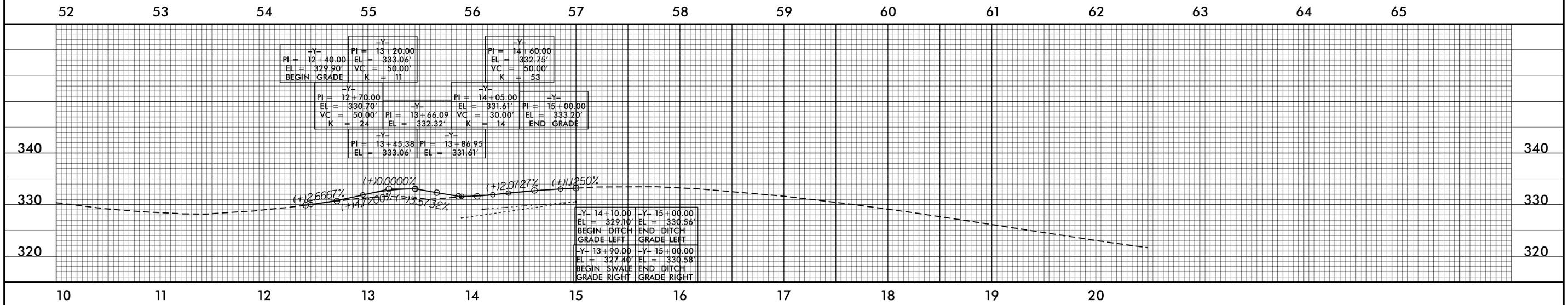
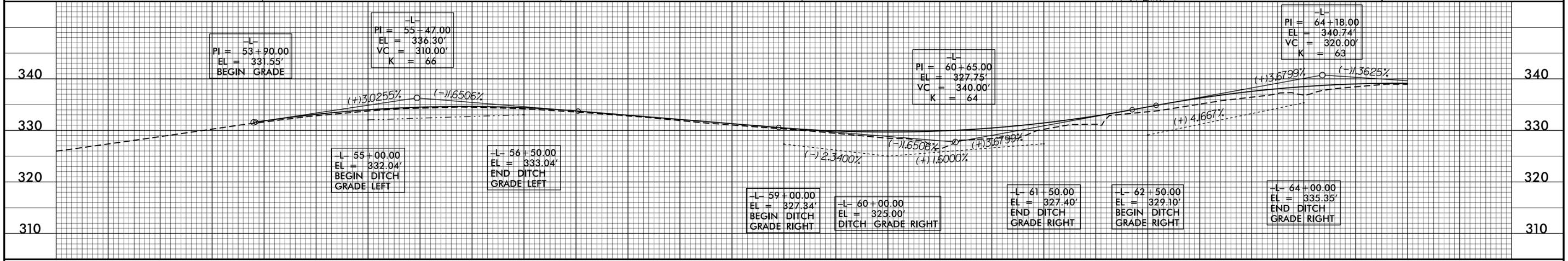
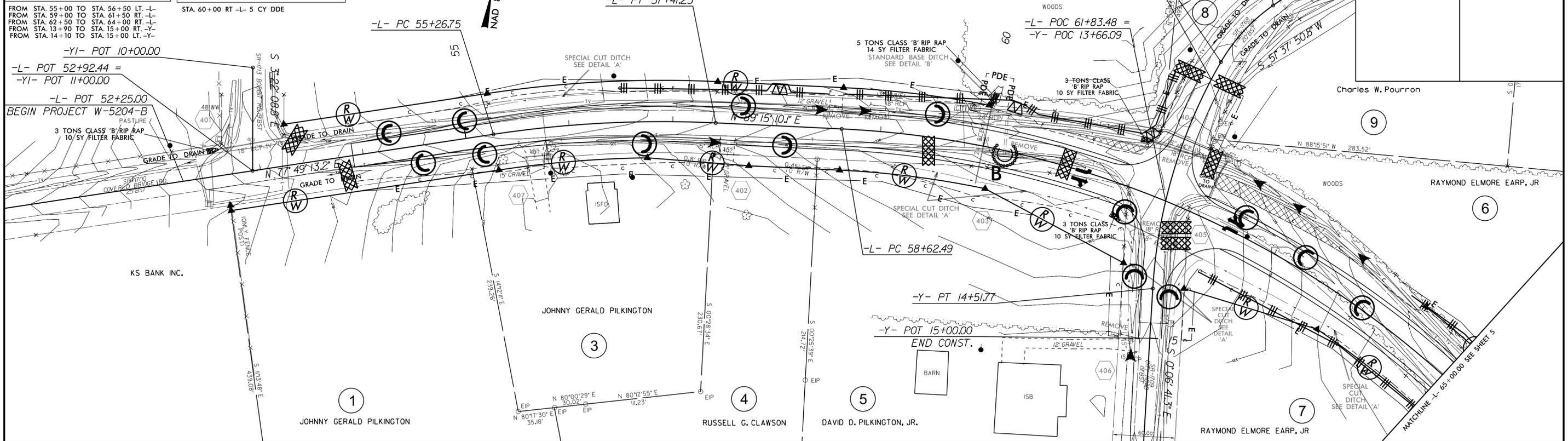
DAVID D. PILKINGTON, JR.
 (2)
 NAD 83 NSRS 2007

CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 4

NOTE:
 PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
 AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
 DRAINAGE OUTLETS.

-Y- PCC 12+20.69
 -Y- POC 12+40.00
 BEGIN CONST.
 -Y- PT 11+32.62
 -Y- PC 11+45.73

PROJECT REFERENCE NO. W-5204-B	SHEET NO. EC-4/CONST.4
ROADWAY DESIGN ENGINEER Charles W. Pourron	HYDRAULICS ENGINEER RAYMOND ELMORE EARP, JR
RW SHEET NO. 04	



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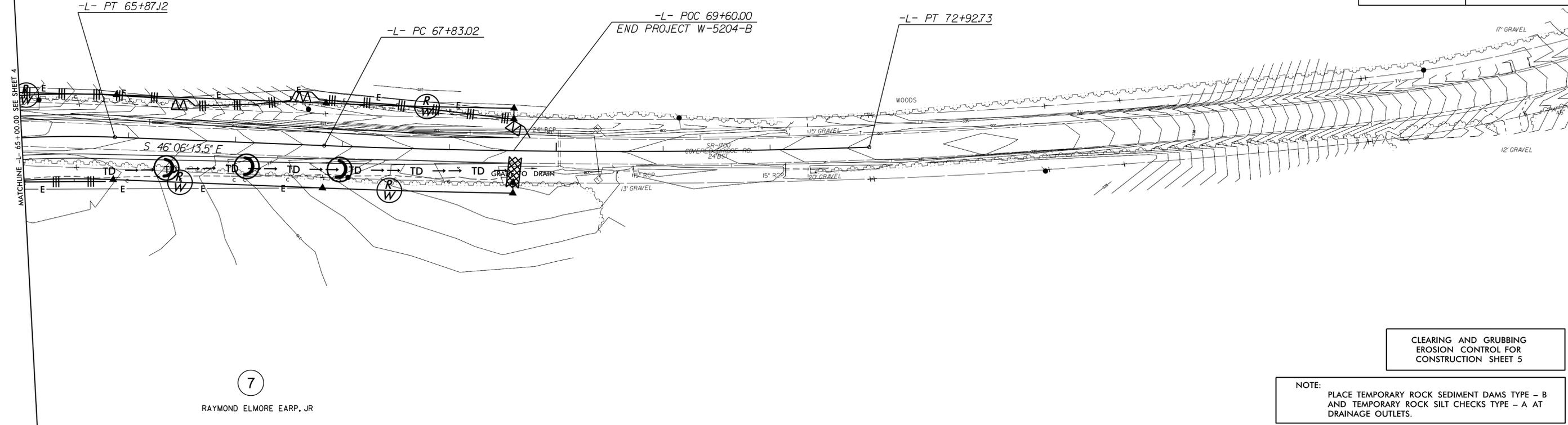
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W-5204-B	EC-5/CONST.5
R/W SHEET NO.	05
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

RAYMOND ELMORE EARP, JR

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NAD 83/NRS 2007

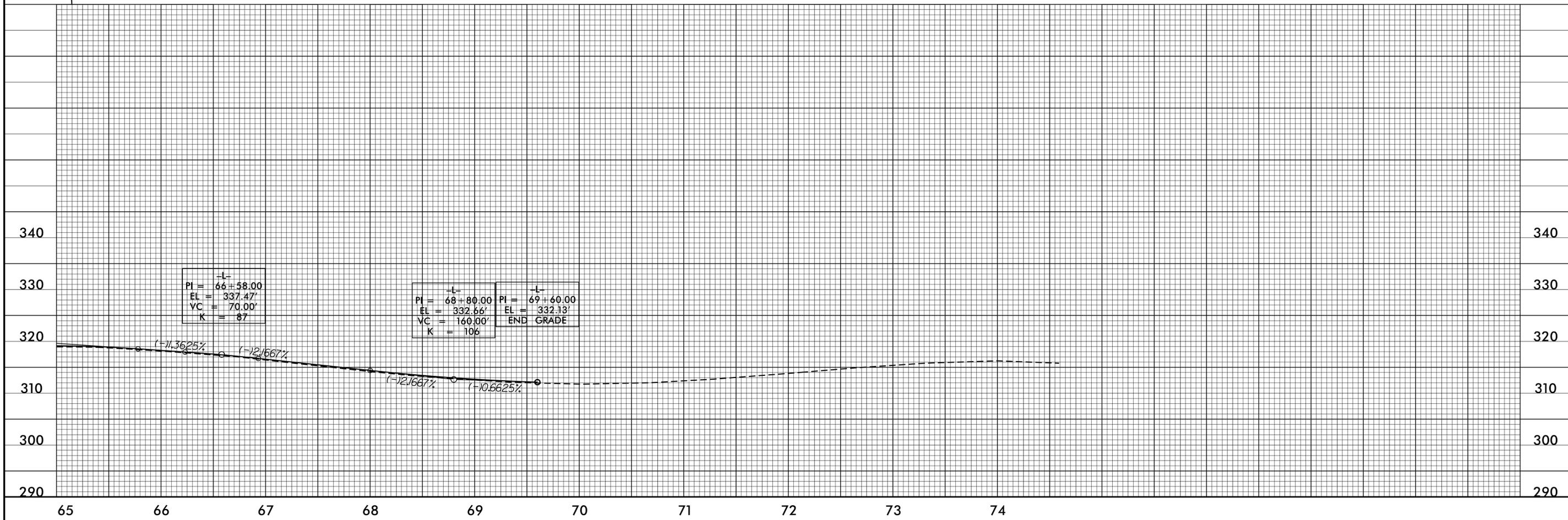


CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

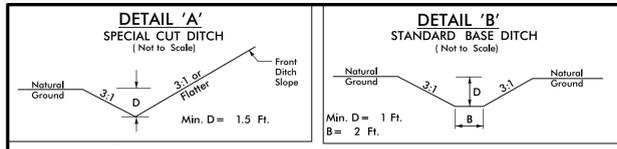
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PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

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RAYMOND ELMORE EARP, JR

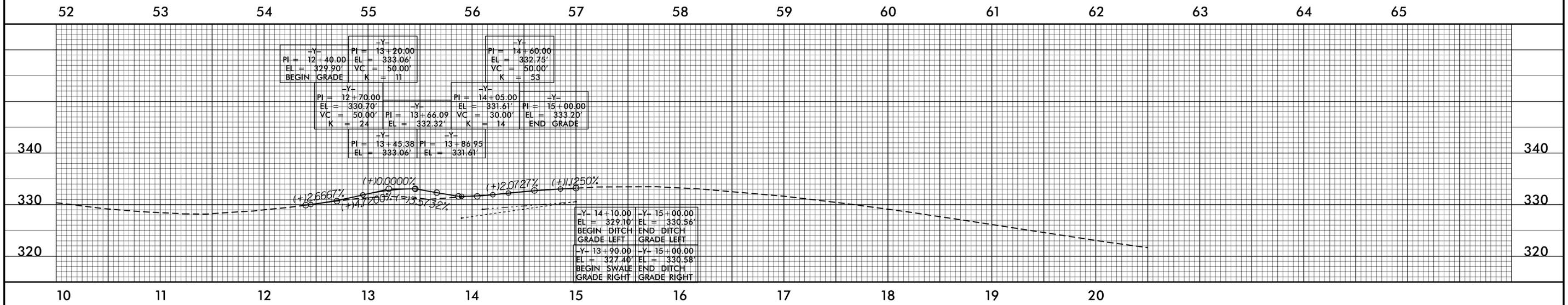
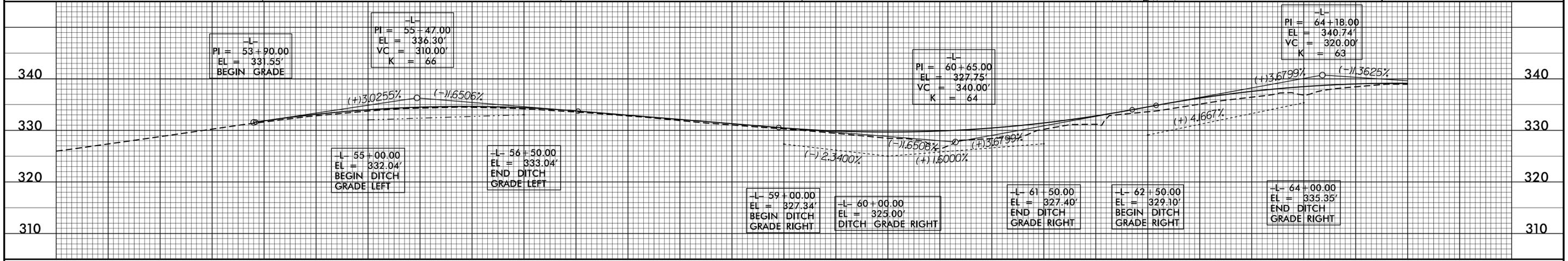
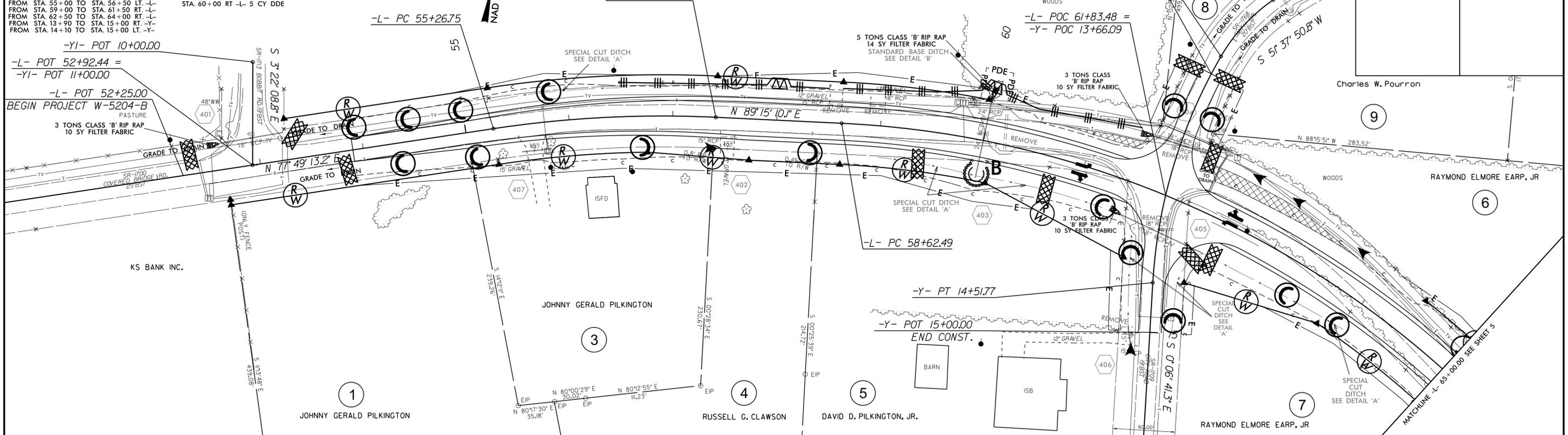


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DAVID D. PILKINGTON, JR.
 (2)
 NAD 83 NSRS 2007

PROJECT REFERENCE NO. W-5204-B	SHEET NO. EC-6/CONST.4
ROADWAY DESIGN ENGINEER CHARLES W. POURRON	HYDRAULICS ENGINEER JEFFERY L. & SHARON CREASY
RW SHEET NO. 04	



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PROJECT REFERENCE NO.	SHEET NO.
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R/W SHEET NO.	05
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

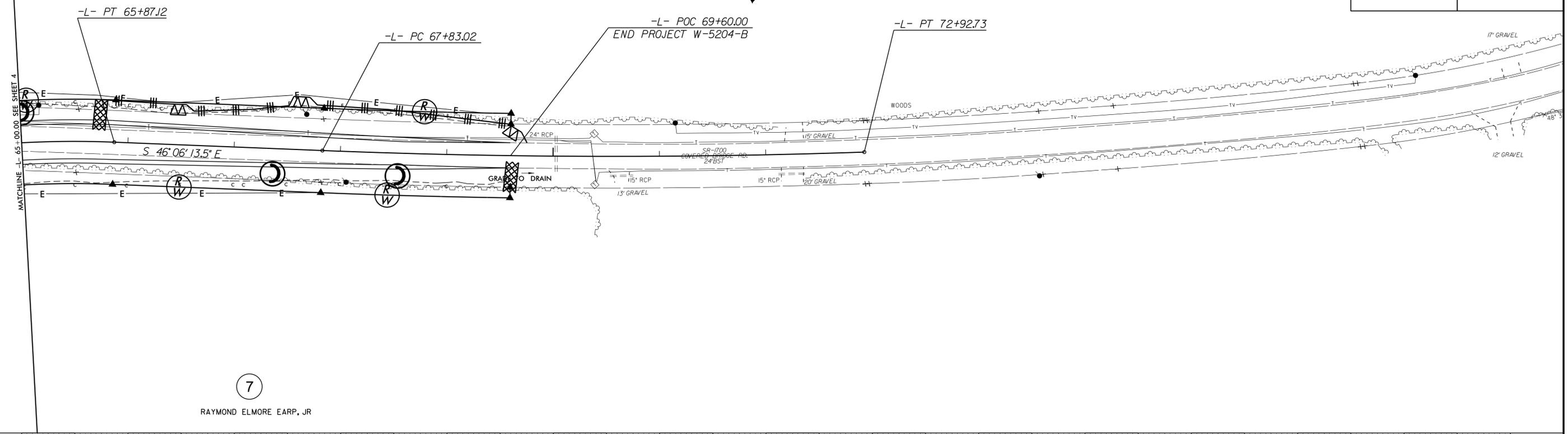
RAYMOND ELMORE EARP, JR

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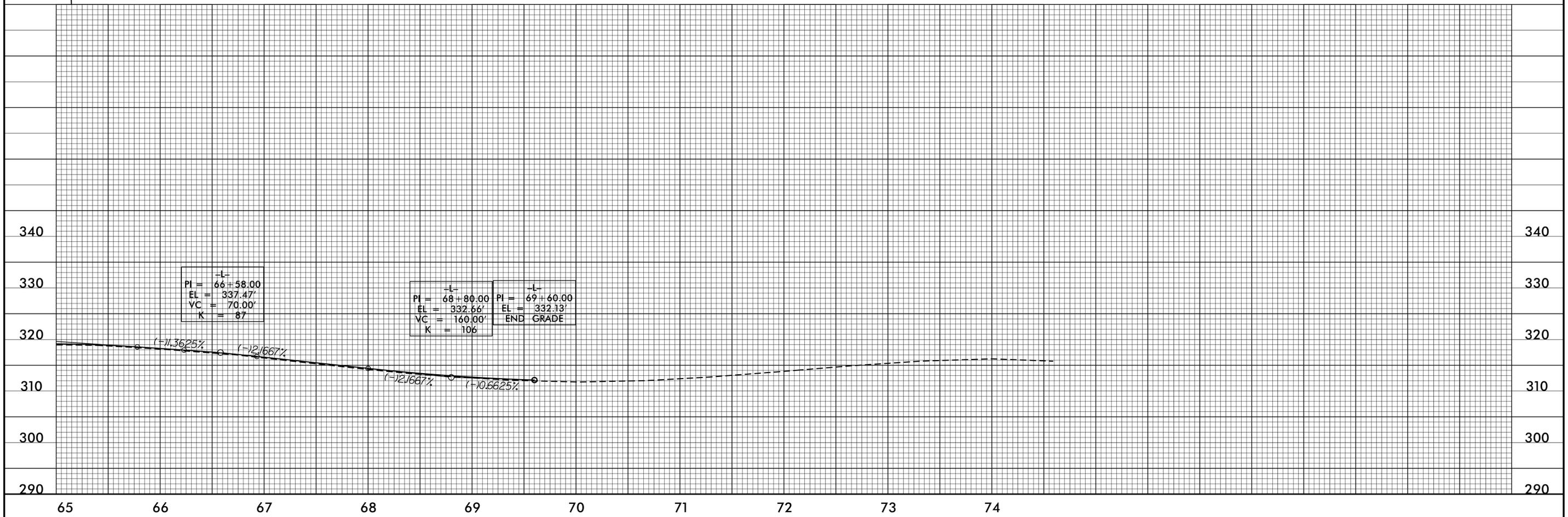
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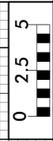
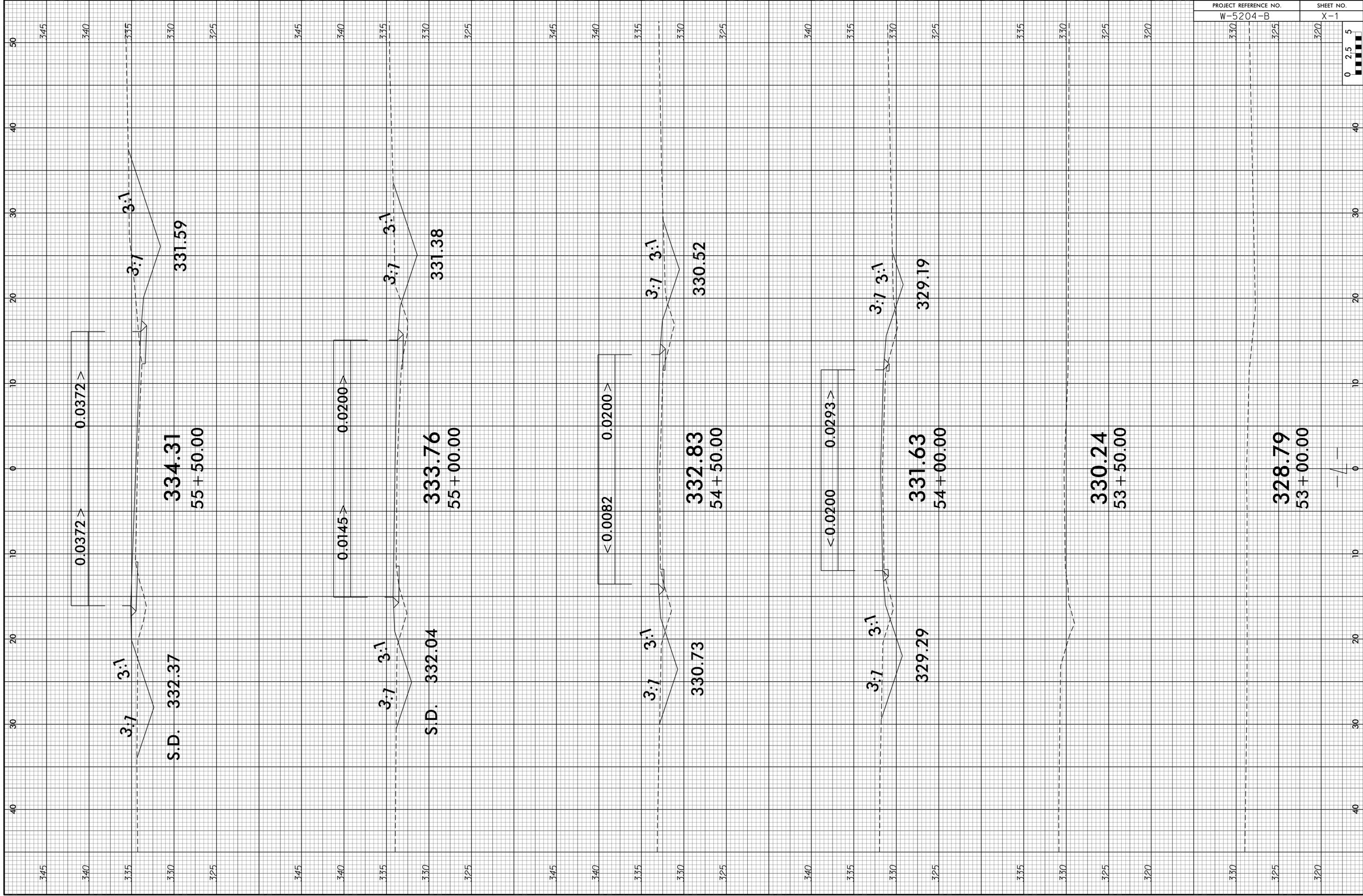


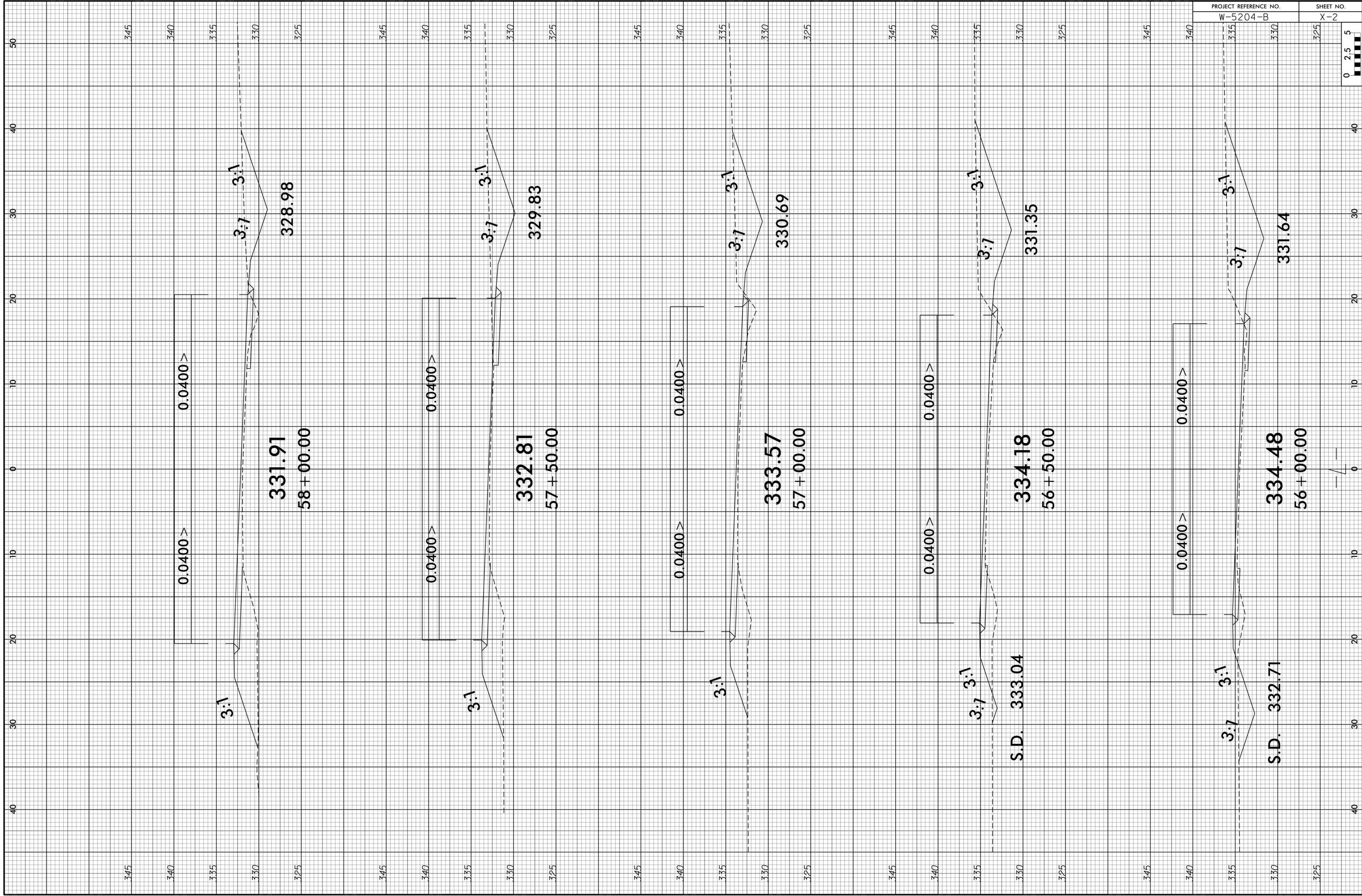
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RAYMOND ELMORE EARP, JR



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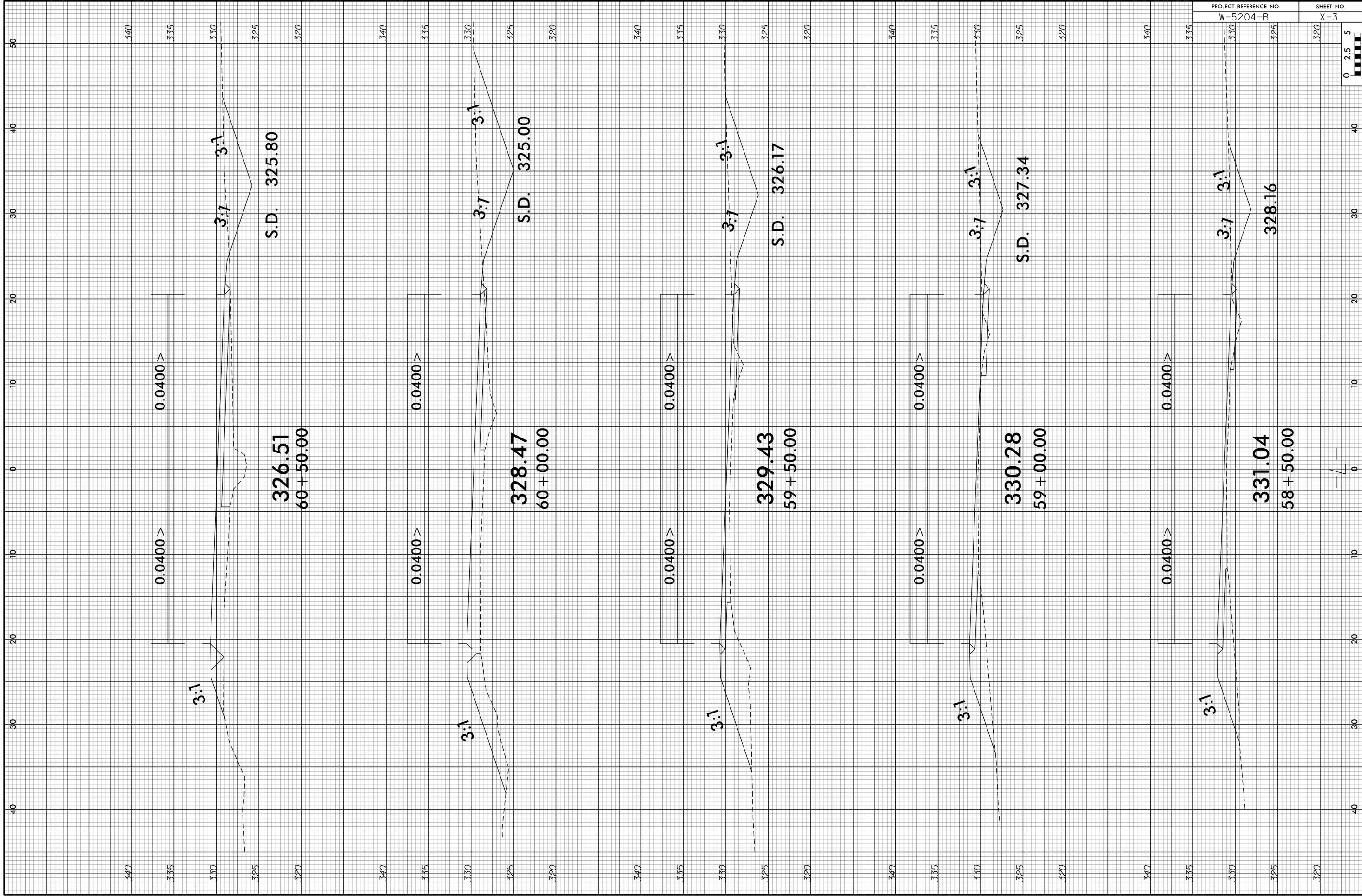
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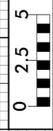
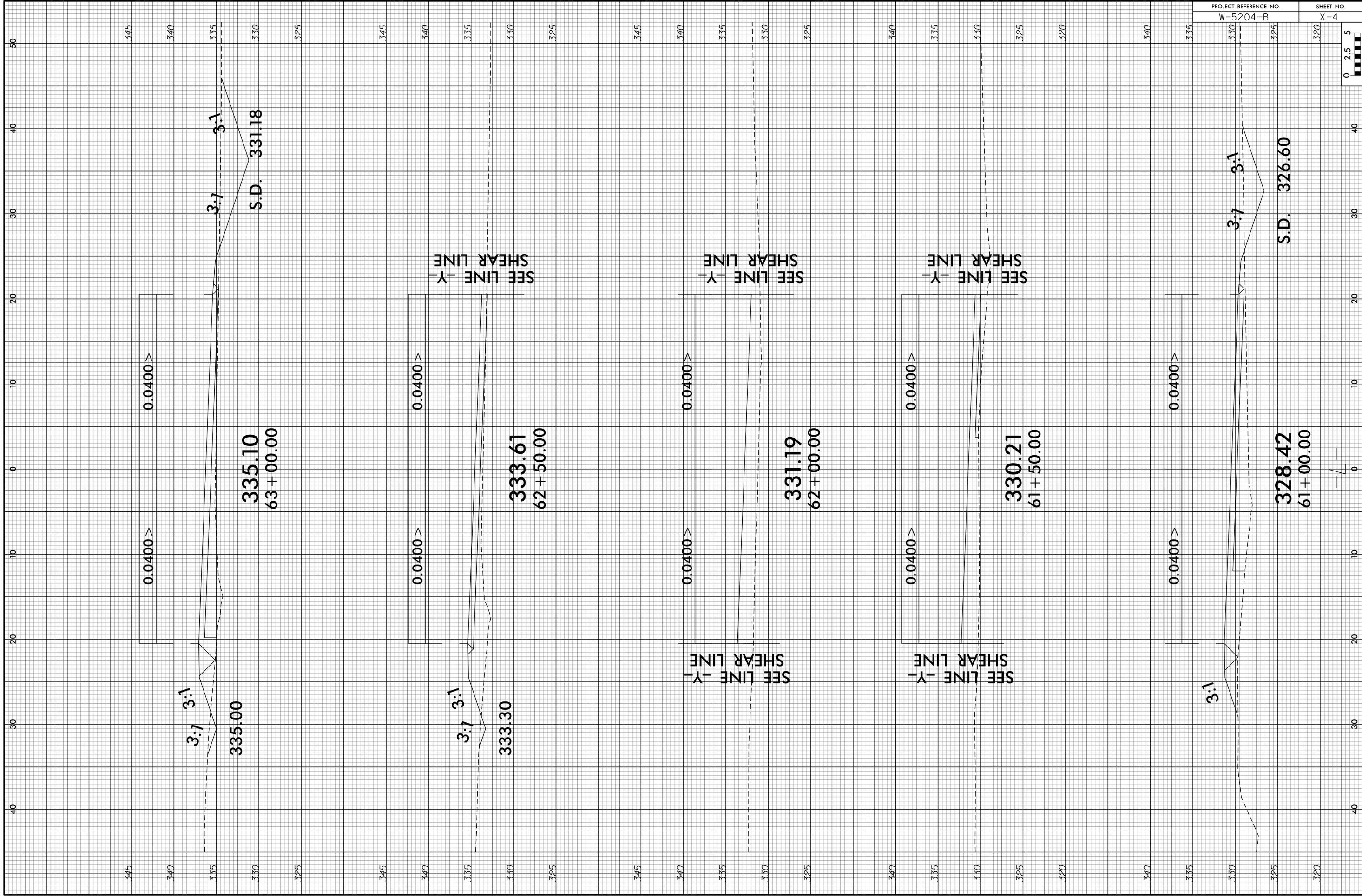
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58 + 00.00





328.42
61 + 00.00

S.D. 326.60

330.21
61 + 50.00

S.D. 331.18

331.19
62 + 00.00

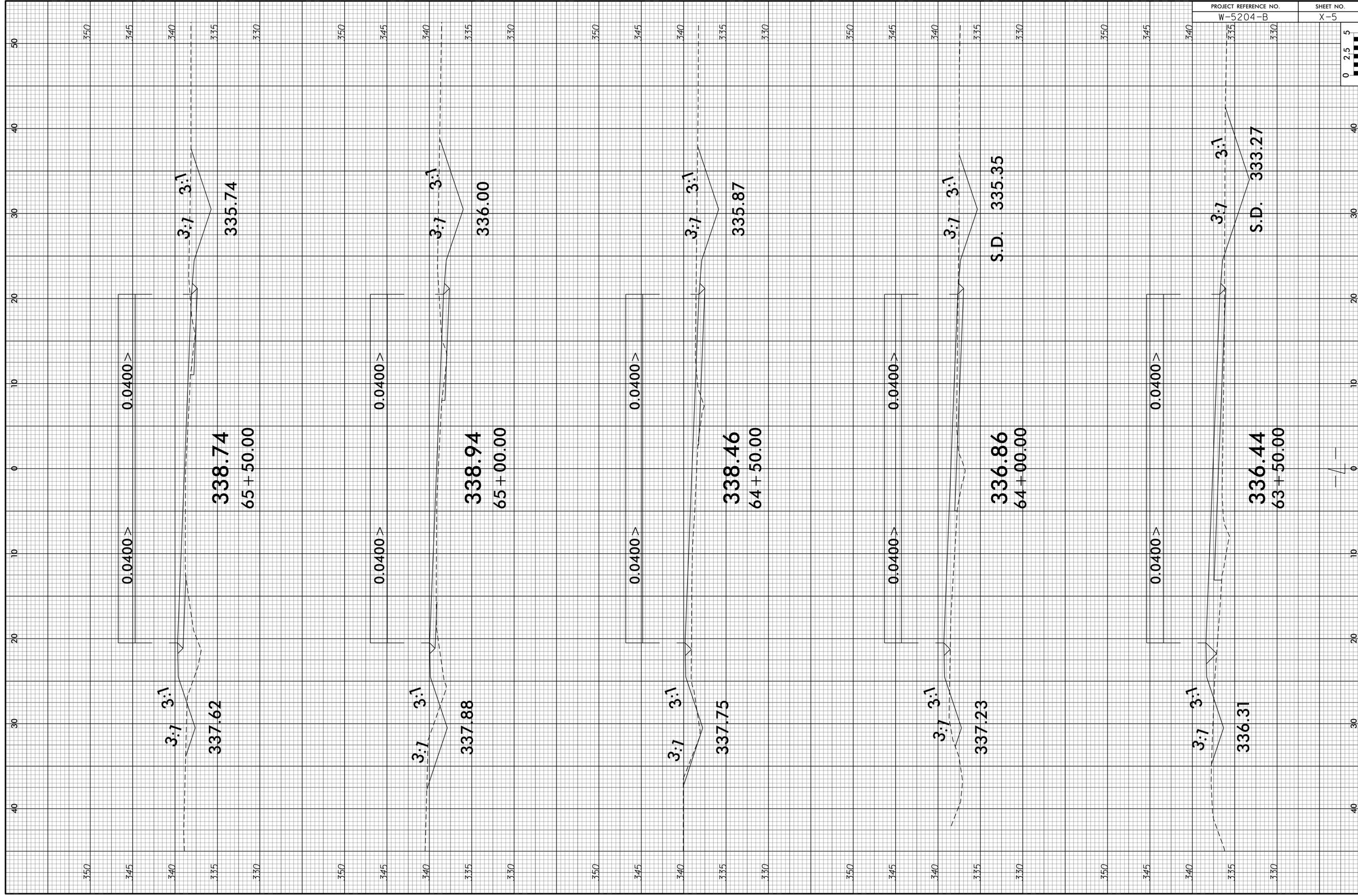
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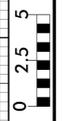
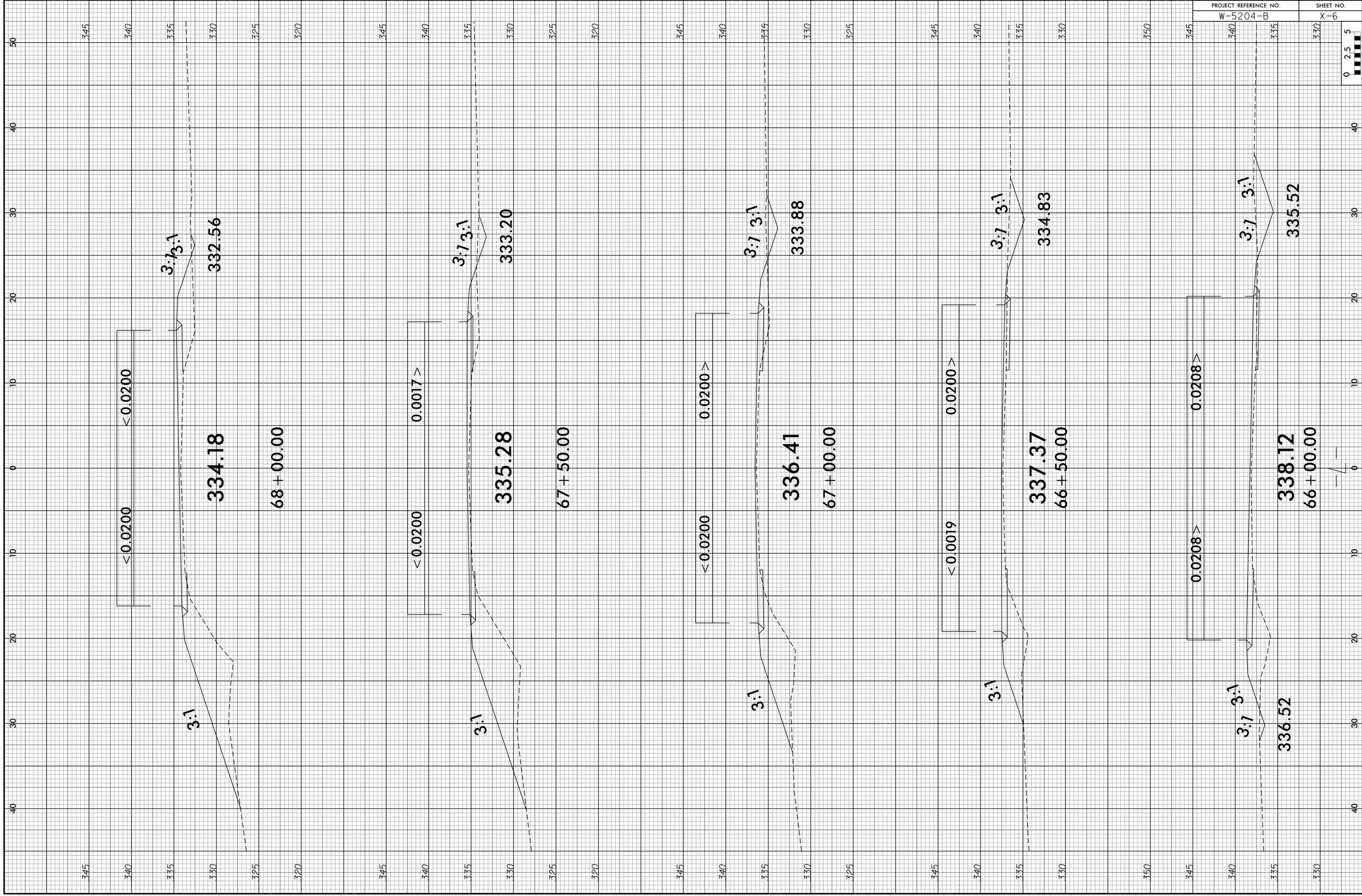
333.61
62 + 50.00

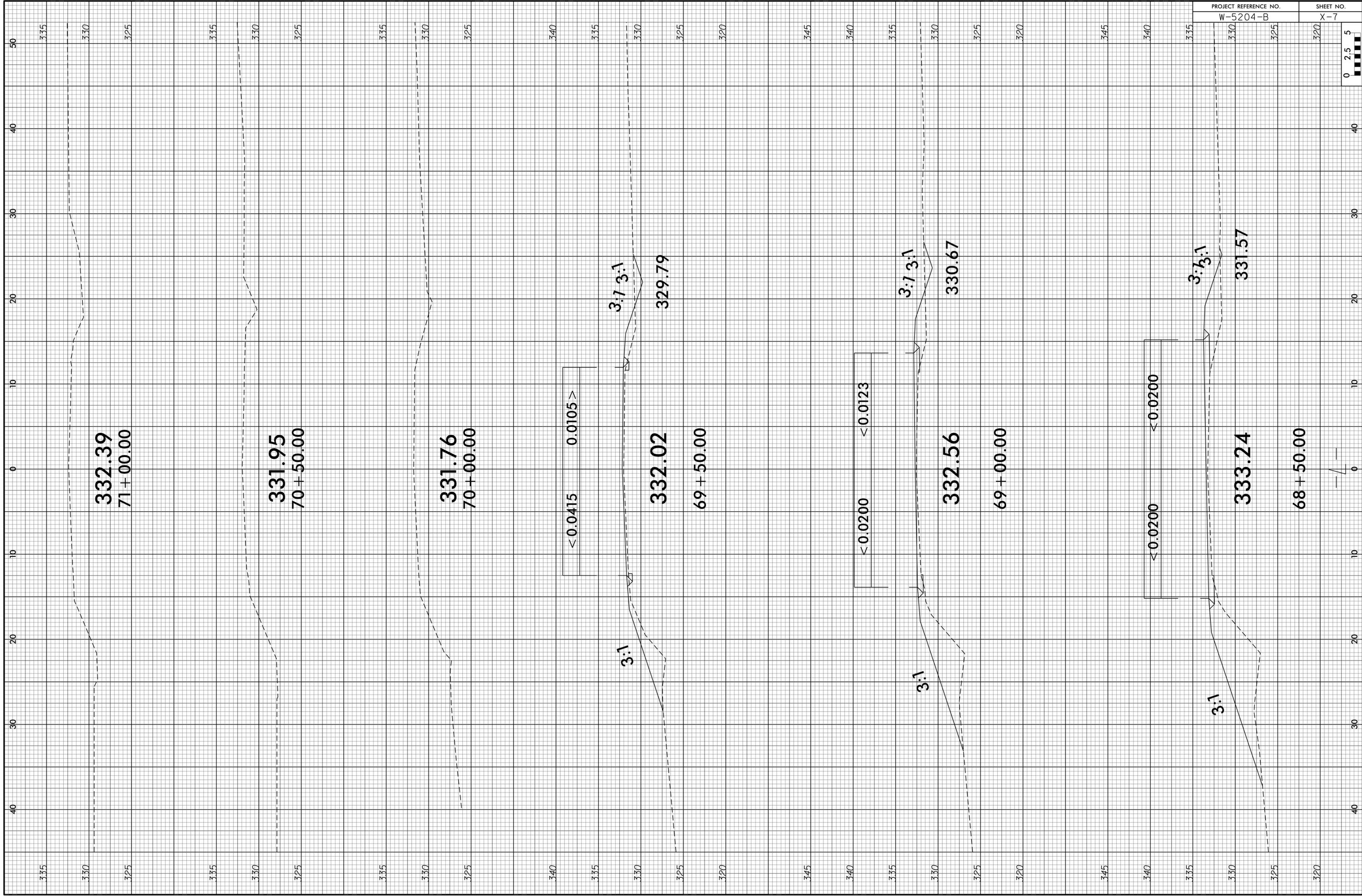
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335.10
63 + 00.00

S.D. 331.18







PROJECT REFERENCE NO.
W-5204-B

SHEET NO.
X-7



