OKLAHOMA DEPARTMENT OF TRANSPORTATION

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

6/10/2019

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FINAL FIELD MEETING

6/10/2019

FOR SURVEY CONTROL DATA, SEE SURVEY DATA SHEETS

THE FOLLOWING STANDARD DRAWINGS WILL BE NEEDED:

ROADWAY	TRAFFIC CONTROL		BRIDGE
SSS-1-1	TCS1-1-01	TCS10-1-00	HP1-2-01E
TSC2-3-2	TCS2-1-00	TCS11-1-01	TR4-2-00E
TSD-2-0	TCS3-1-01	TCS14-1-00	EJ-SK-04E
ASCD-5-2	TCS4-1-01	TCS18-1-01	EJ-DTL-02E
LECS-4-2	TCS5-1-00	TCS19-1-01	B040-C-ABUT-MISC-01E
PSE-1-0	TCS6-1-02	TCS20-1-00	B040-STL-BM-BRACING-00E
PCES-4-1	TCS7-1-02	TCS21-1-02	
SPI-4-1	TCS8-1-00	TCS22-1-00	
SPB-1-4	TCS9-1-01	TCS24-1-02	
PHTCP-3-1			
MI-3-2	TRAFFIC SIGNING		TRAFFIC SAFETY
PUD-3-3	PM3-1-02		THRI-1-02
	DU1-1-00		SKT-1-00
	DU2-1-00		GHW1-1-00
	GMS1-1-00		GHW2-1-00
	GMS2-1-00		
	SSP1-1-02		
	SSA1-1-00		

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

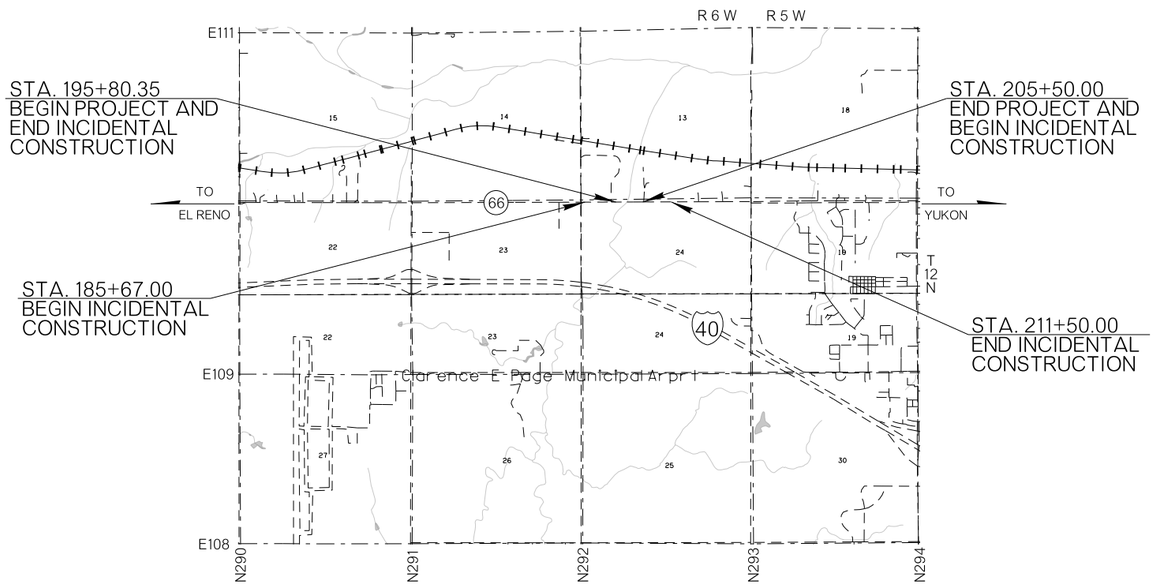
PLAN OF PROPOSED

STATE HIGHWAY

PROJECT NO. SBR-209C(073)SB
BRIDGE REHABILITATION
SH - 66 OVER SHELL CREEK

CANADIAN COUNTY

CONTROL SECTION NO. 66-09-06
STATE JOB NO. 32765(04)
BRIDGE A LOCATION NO. 0906-0819SX EXISTING NBI NO. 12630
BRIDGE B LOCATION NO. 0906-0819NX EXISTING NBI NO. 12629



BEGIN STA. 198+67.78
LENGTH = 163.31' BRIDGE "A"
END STA. 200+31.09

BEGIN STA. 198+98.95
LENGTH = 163.32' BRIDGE "B"
END STA. 200+62.27

NOTE: PROJECT LENGTH BASED ON EASTBOUND SH-66 (CRL STATIONING)

ROADWAY LENGTH	806.34	FT.	0.153	MI.
BRIDGE LENGTH	163.31	FT.	0.031	MI.
PROJECT LENGTH			0.184	MI.

EQUATIONS : NONE
EXCEPTIONS : NONE

INDEX OF SHEETS

BRIDGE DRAWINGS

ROADWAY DRAWINGS

TRAFFIC DRAWINGS

SURVEY DRAWINGS

CROSS SECTIONS

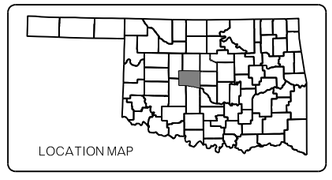
DESIGN DATA

ADT 2015	= 5,700
ADT 2035	= 9120
D (EASTBOUND)	= 54%
T (% ADT)	= 15%
V	= 55MPH

SCALES 1"
PLAN 1" = 100'
PROFILE HOR. 1" = 100'
VER. 1" = 10'
LAYOUT MAP 1" = 5,280'

CONVENTIONAL SYMBOLS

PROPOSED ROAD
RAILROADS
RANGE & TOWNSHIP
SECTION LINES
QUARTER SECTION LINES
EXISTING FENCE
PROPOSED FENCE
GROUND LINE
EXISTING ROADS
BASE LINE
GRADE LINES
TELEPHONE & TELEGRAPH
POWER LINES
BUILDINGS
OIL WELL
DRAINAGE STRUCTURES - IN PLACE
DRAINAGE STRUCTURES - NEW
PRES. R/W — RIGHT-OF-WAY LINES - EXISTING
R/W — RIGHT-OF-WAY LINES - NEW
CONTROLLED ACCESS
R/W — RIGHT-OF-WAY FENCE



2009 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION GOVERN, APPROVED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, JANUARY 4, 2010.

HNTB CORPORATION
101 N. ROBINSON, SUITE 1130
OKLAHOMA CITY, OK 73102
(405) 416-9000

A. ENGINEER , P.E.
OKLA. LIC. NO. XXXXX
DATE

LICENSED PROFESSIONAL ENGINEER
A. ENGINEER
XXXXX
OKLAHOMA

OKLAHOMA DEPARTMENT OF TRANSPORTATION	DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION
DATE APPROVED	DATE APPROVED
BY	BY
CHIEF ENGINEER	DIVISION ADMINISTRATOR

SWO 5385 PROJECT NO. 32765 (04)
COUNTY CANADIAN HIGHWAY SH-66 SHEET NO. 001

P.E. NO.: 32765(04) pw:\\pw-int.hntb.org:PWCentralDivDocuments\Kansas City Projects\66430 - ODOT SBR\DS\001_66 over Shell Creek\PlanProduction\Roadway\001-3276504-Title.dgn

6/10/2019

OKLAHOMA DEPARTMENT OF TRANSPORTATION

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6/7/2019

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FINAL FIELD MEETING

6/7/2019

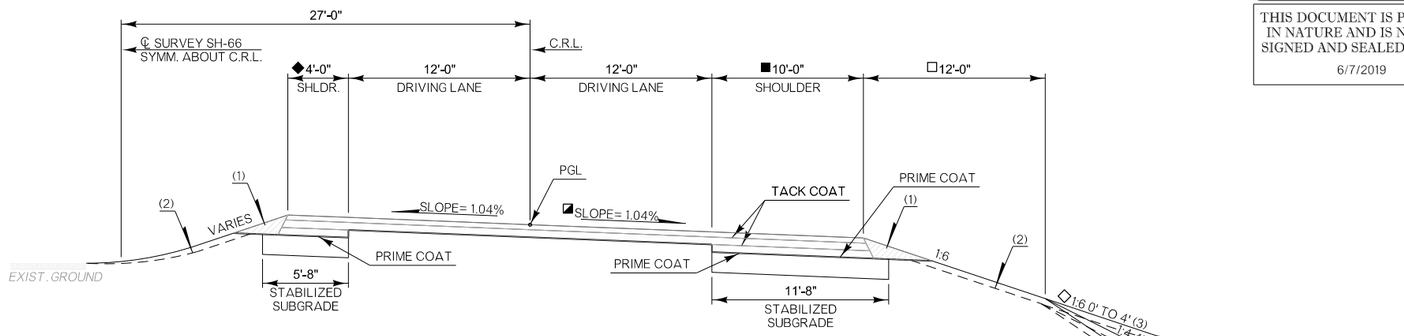
■ STA. 196+15.00 TO STA. 196+25.00 - TRANSITION 0.6' - 0.0' WB LT
STA. 196+25.00 TO STA. 197+49.00 - TRANSITION 0.0' - 0.0' WB LT
STA. 197+49.00 TO STA. 198+69.09 - TRANSITION 0.0' - 10.0' WB LT
STA. 200+60.95 TO STA. 201+81.00 - TRANSITION 10.0' - 0.0' EB RT
STA. 201+81.00 TO STA. 202+45.00 - TRANSITION 0.0'-0.0' EB RT
STA. 202+45.00 TO STA. 202+50.00 - TRANSITION 0.0' - 0.3' EB RT

◆ STA. 196+15.00 TO STA. 196+20.02 - TRANSITION 0.2' - 0.0' WB RT
STA. 196+20.02 TO STA. 198+21.03 - TRANSITION 0.0' - 0.0' WB RT
STA. 198+21.03 TO STA. 198+69.09 - TRANSITION 0.0' - 4.2' WB RT
STA. 202+03.97 TO STA. 202+50.00 - TRANSITION 4.0' - 0.0' EB LT

□ STA. 196+15.00 TO STA. 199+10.75 - 10' WB LT

◇ STA. 198+30.00 TO STA. 198+67.00 - TRANSITION 1:4 - 1:3 WB LT
STA. 198+67.00 TO STA. 201+40.00 - TRANSITION 1:3 - 1:3 WB LT
STA. 201+40.00 TO STA. 201+90.00 - TRANSITION 1:3 - 1:4 WB LT

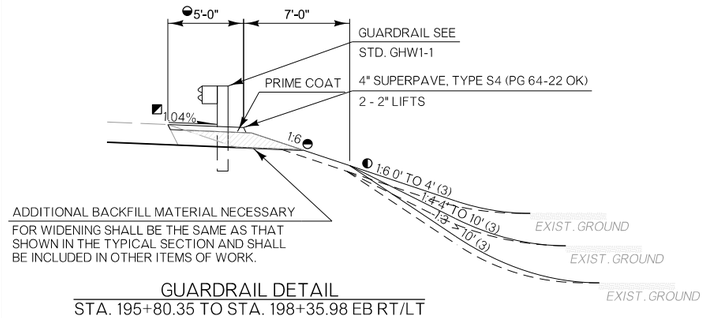
◪ STA. 196+15.00 TO STA. 196+50.00 - TRANSITION 2.30% - 1.04% WB
STA. 202+30.00 TO STA. 202+50.00 - TRANSITION 1.04% - 1.78% WB
STA. 196+45.00 TO STA. 196+70.00 - TRANSITION (-1.95)% - (-1.04)% EB
STA. 202+35.00 TO STA. 202+50.00 - TRANSITION (-1.04)% - (-0.49)% EB



PAVEMENT REQUIREMENT			
8" PAVT. STRUCTURE	12'-0" DRIVING LANES	4'-0" PAVED INSIDE SHOULDER	10'-0" PAVED OUTSIDE SHOULDER
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 70-28 OK)	2" SUPERPAVE TYPE S4 (PG 64-22 OK)	2" SUPERPAVE TYPE S4 (PG 64-22 OK)
BASE COURSE	3" SUPERPAVE TYPE S3 (PG 70-28 OK)	3" SUPERPAVE TYPE S3 (PG 64-22 OK)	3" SUPERPAVE TYPE S3 (PG 64-22 OK)
		3" SUPERPAVE TYPE S3 (PG 64-22 OK)	3" SUPERPAVE TYPE S3 (PG 64-22 OK)

TYPICAL NO. 1

STA. 196+15.00 TO STA. 198+69.09 WB
STA. 196+45.00 TO STA. 198+35.98 EB
STA. 200+94.07 TO STA. 202+50.00 WB
STA. 200+94.07 TO STA. 202+50.00 EB



GUARDRAIL DETAIL

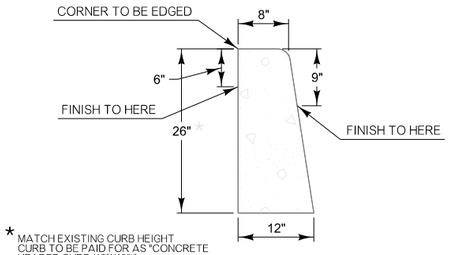
STA. 195+80.35 TO STA. 198+35.98 EB RT/LT
STA. 200+94.07 TO STA. 202+50.00 WB LT
STA. 200+94.07 TO STA. 202+77.74 WB RT

◒ STA. 195+80.35 TO STA. 196+45.00 - TRANSITION 0.0' - 11.3' EB RT
STA. 195+80.35 TO STA. 196+45.00 - TRANSITION 0.0' - 7.1' EB LT
STA. 196+45.00 TO STA. 196+60.35 - TRANSITION 2.3' - 5.0' EB RT
STA. 196+45.00 TO STA. 196+60.35 - TRANSITION 3.3' - 5.0' EB LT
STA. 202+40.00 TO STA. 202+50.00 - TRANSITION 5.0' - 0.0' WB LT

◓ STA. 197+82.00 TO STA. 198+02.00 - TRANSITION 1:6 - 1:4 EB RT
STA. 198+02.00 TO STA. 198+12.00 - TRANSITION 1:4 - 1:3' EB RT
STA. 198+12.00 TO STA. 198+56.00 - TRANSITION 1:3 - 1:2' EB RT

◐ STA. 200+20.00 TO STA. 201+50.00 - TRANSITION 1:3 - 1:3 EB RT
STA. 201+50.00 TO STA. 201+75.00 - TRANSITION 1:3 - 1:4 EB RT
STA. 200+74.07 TO STA. 201+00.00 - TRANSITION 1:3 - 1:3 WB LT
STA. 201+00.00 TO STA. 201+10.00 - TRANSITION 1:3 - 1:6 WB LT

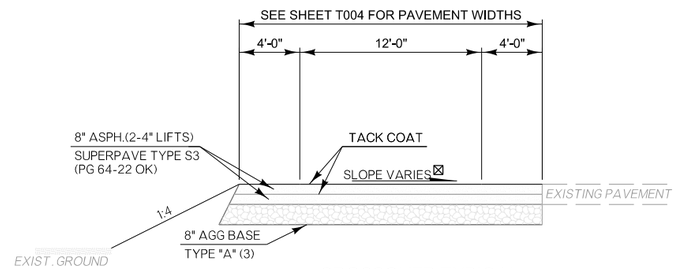
◪ STA. 195+80.35 TO STA. 196+45.00 - TRANSITION (-1.95)% - (-1.95)% EB LT/RT
STA. 196+45.00 TO STA. 196+70.00 - TRANSITION (-1.95)% - (-1.04)% EB LT/RT
STA. 200+94.07 TO STA. 201+19.07 - TRANSITION (-1.04)% - 2.00% WB RT
STA. 201+19.07 TO STA. 202+50.00 - TRANSITION 2.00% - 2.00% WB RT



* MATCH EXISTING CURB HEIGHT
CURB TO BE PAID FOR AS "CONCRETE HEADER CURB (12"X18")"

CURB DETAIL

STA. 196+15.00 TO STA. 198+69.09 WB RT
STA. 202+03.97 TO STA. 202+50.00 EB LT



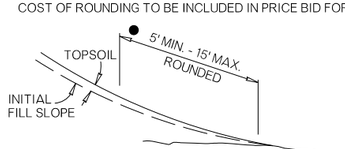
CROSSOVER TYPICAL

STA. 186+00.00 TO STA. 192+65.80
STA. 205+50.00 TO STA. 211+15.80

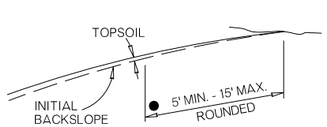
⊠ SEE CROSS SECTIONS FOR PAVEMENT SLOPES

ROUNDING DETAIL

● INTERSECTION OF CUT AND/OR FILL SLOPES WITH GROUND LINE TO BE ROUNDED AS PART OF FINISHING OPERATIONS. ROUNDING SHALL BE 5' MINIMUM FOR SMALLER CUTS AND FILLS TO 15' MAXIMUM FOR LARGER CUTS AND FILLS OR AS DESIGNATED BY THE ENGINEER. COST OF ROUNDING TO BE INCLUDED IN PRICE BID FOR OTHER ITEMS OF WORK.



TOE OF FILL ROUNDING



TOP OF CUT ROUNDING

(1) BACKFILL NOTE:
TO BE BACKFILLED AND COMPACTED AS PART OF THE FINISHING OPERATIONS. QUANTITY IS MEASURED IN TBSC TYPE E.

(2) TOPSOIL NOTE:
THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL, STOCKPILE IT, AND PLACE IT BACK ON THE SECTION IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATIONS. RESERVED TOPSOIL SHALL BE SPREAD FIRST ON THE COMPLETED SLOPES OF THE CUT SECTIONS AND THE REMAINDER ON COMPLETED FILL SLOPES OR OTHER PRIORITY AREAS LOCATED BY THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH OPERATIONS SHALL BE INCLUDED IN THE PAY ITEM FOR SALVAGED TOPSOIL, LUMP SUM.

THE GRADING LINE AS SHOWN ON THE TYPICAL AND CROSS SECTIONS IS TO THE TOP OF THE TOPSOIL. EARTHWORK QUANTITIES WERE NOT ADJUSTED FOR SALVAGE AND THE TOPSOIL QUANTITY IS INCLUDED IN THE MASS LINE BALANCE.

(3) PRIME COAT ON TOP OF AGGREGATE BASE.

DESIGN	RBH	5/19	OKLAHOMA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION
DRAWN	RBH	5/19	
CHECKED			TYPICAL SECTION
APPROVED			
SQUAD			

COUNTY _____ HIGHWAY _____ STATE JOB NO. _____ SHEET NO. 002

6/7/2019 pw:\\pw-int.hntb.org:PWCentralDiv\Documents\Kansas City Projects\66430 - ODOT SBRIDS001_66 over Shell Creek\PlanProduction\Roadway\002-3276504-Typical.dgn

GENERAL NOTES

REVISIONS

REV. NO.	DESCRIPTION	DATE

SPECIFICATIONS:
CONSTRUCTION AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE 2009 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

ODOT BRIDGE STANDARDS:
SEE ODOT STANDARDS REFERENCED ON THE TITLE SHEET FOR DETAILS AND NOTES NOT SHOWN IN THE PLANS.

DESCRIPTION OF WORK:
CONSTRUCTION FOR BRIDGE "A" EASTBOUND (NBI # 12630) AND BRIDGE "B" WESTBOUND (NBI # 12629) CONSISTS OF THE FOLLOWING:

1. SEE TRAFFIC CONTROL PLANS FOR INSTALLATION OF TRAFFIC CONTROL AND MAINTENANCE OF TRAFFIC DURING CONSTRUCTION OF BOTH EASTBOUND AND WESTBOUND BRIDGES.
2. REMOVE EXISTING EASTBOUND BRIDGE. REMOVAL OF EXISTING STRUCTURES SHALL BE DONE IN ACCORDANCE WITH "REMOVAL OF EXISTING BRIDGE STRUCTURE" NOTE. EXISTING ABUTMENT PILING SHALL REMAIN IN PLACE.
3. CONSTRUCT AND COMPLETE EASTBOUND BRIDGE, APPROACH SLABS, AND EASTBOUND ROADWAY IMPROVEMENTS.
4. SWITCH TRAFFIC TO NEW EASTBOUND BRIDGE AND ROADWAY. SEE TRAFFIC CONTROL PLANS.
5. REMOVE EXISTING WESTBOUND BRIDGE. REMOVAL OF EXISTING STRUCTURES SHALL BE DONE IN ACCORDANCE WITH "REMOVAL OF EXISTING BRIDGE STRUCTURE" NOTE. EXISTING ABUTMENT PILING SHALL REMAIN IN PLACE.
6. CONSTRUCT AND COMPLETE WESTBOUND BRIDGE, APPROACH SLABS, AND WESTBOUND ROADWAY IMPROVEMENTS.
7. REMOVE TRAFFIC CONTROL DEVICES AND RE-OPEN SH-66 EASTBOUND AND WESTBOUND LANES. SEE TRAFFIC CONTROL PLANS.

REMOVAL OF EXISTING BRIDGE STRUCTURES:
THE EXISTING EASTBOUND BRIDGE "A" AND WESTBOUND BRIDGE "B" WILL BE REMOVED AS PART OF THIS CONTRACT. THE EXISTING BRIDGES ARE 40' - 40' - 40' - 40' STEEL ROLLED BEAM STRUCTURES WITH 27 FT ROADWAYS AND 30° SKEW. REMOVAL OF THE EXISTING STRUCTURES SHALL BE DONE IN ACCORDANCE WITH SECTIONS 104.09 AND 619 OF THE ODOT STANDARD SPECIFICATIONS AND SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
THE EXISTING ABUTMENT PILING SHALL BE THE ONLY COMPONENT OF THE EXISTING BRIDGES TO REMAIN IN PLACE AND WILL BE INCORPORATED INTO THE NEW ABUTMENT CONSTRUCTION. CARE SHALL BE TAKEN DURING REMOVAL OPERATIONS NOT TO DAMAGE THE EXISTING REINFORCED CONCRETE PILING.
DURING REMOVAL OPERATIONS, THE CONTRACTOR SHALL NOT ALLOW CONCRETE OR STEEL RUBBLE TO FALL INTO, OR REMAIN IN THE CREEK. THE EXISTING STRUCTURAL STEEL MAY CONTAIN LEAD-BASED PAINT. THE CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS AND FOLLOW ALL SPECIFICATIONS AND REGULATIONS IN HANDLING AND TRANSPORTING LEAD-BASED PAINT.
ALL COSTS INCLUDING LABOR, EQUIPMENT, MATERIAL AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE LUMP SUM PRICE BID OF "REMOVAL OF EXISTING BRIDGE STRUCTURE".

VERIFICATION OF EXISTING CONDITIONS:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THE LOCATIONS OF THE EXISTING PILING. THE EXISTING PILING THAT REMAINS AT THE ABUTMENTS SHALL BE CONFIRMED PRIOR TO DRIVING OF THE NEW PILING AND CONSTRUCTION OF THE NEW ABUTMENTS. THE EXISTING PILING THAT REMAINS AFTER REMOVAL AT THE PIERS SHALL BE CONFIRMED PRIOR TO INSTALLATION OF THE DRILLED SHAFTS FOR CONSTRUCTION OF THE NEW PIERS.
DIMENSIONS OF THE EXISTING PILING SHOWN ON THE PLANS IS BASED ON AS-BUILT PLANS AND SURVEY DATA. SHOULD ANY DISCREPANCIES OF THE EXISTING PILE DIMENSIONS WITH THE CONTRACT PLANS BE IDENTIFIED DURING VERIFICATION OF EXISTING PILE LOCATION, THE ENGINEER SHALL BE NOTIFIED PRIOR TO COMMENCING CONSTRUCTION OPERATIONS.

EXISTING PLANS:
PLANS OF THE EXISTING BRIDGES FROM F.A. PROJ. NO. F.I – 163(6) MAY BE OBTAINED FROM THE ODOT REPRODUCTION DEPARTMENT, 200 N.E. 21ST ST., OKLAHOMA CITY, OK 73105.

CONCRETE:
ALL CONCRETE IN THE DECK, CONCRETE RAILS (TR4), AND APPROACH SLABS SHALL BE CLASS "AA" CONCRETE, F'c = 4 KSI MIN STRENGTH AT 28 DAYS.
ALL CONCRETE IN THE ABUTMENTS AND PIERS SHALL BE CLASS "A" CONCRETE, F'c = 3 KSI MIN STRENGTH AT 28 DAYS. THIS EXCLUDES THE CONCRETE PLACED FOR DRILLED SHAFT CONSTRUCTION.
ALL CONCRETE IN THE SLOPE DRAINS SHALL BE CLASS "C" CONCRETE, F'c = 2.4 KSI MIN STRENGTH AT 28 DAYS.
ALL EXPOSED EDGES OF CONCRETE SHALL HAVE A ¾" CHAMFER UNLESS NOTED OR SHOWN ON PLANS.

REINFORCING STEEL:
ALL REINFORCING STEEL SHALL HAVE 2" CLEARANCE FROM FACE OF CONCRETE TO NEAR EDGE OR END OF REINFORCING BAR, UNLESS NOTED OTHERWISE. ALL REINFORCING STEEL SHALL BE DEFORMED BARS. BAR BEND DIMENSIONS ARE OUT TO OUT, UNLESS NOTED OTHERWISE.
ALL REINFORCING STEEL SHALL BE GRADE 60, Fy = 60 KSI, AND SHALL MEET THE REQUIREMENTS OF AASHTO M31 (ASTM A615). ALL WELDED STEEL WIRE FABRIC SHALL MEET THE REQUIREMENTS OF AASHTO M55 OR M221.
REINFORCING IN THE DECK SLAB, ABUTMENTS, PIER CAPS AND TRAFFIC RAIL SHALL BE EPOXY COATED, UNLESS NOTED OTHERWISE.

STAY-IN-PLACE FORMS:
STAY-IN-PLACE STEEL DECK FORMS MAY BE USED IF THE MINIMUM DECK SLAB THICKNESS OF 8" IS OBTAINED BY MEASURING FROM THE TOP OF THE DECK SLAB TO THE TOP OF THE STEEL CORRUGATION. NO ADDITIONAL CONCRETE WEIGHT WILL BE ALLOWED. WEIGHT OF THE STAY-IN-PLACE STEEL DECK FORMS SHALL NOT EXCEED 5 PSF. PREFORMED STYROFOAM OR ANY OTHER FILLER MATERIAL SHALL BE BONDED TO THE STAY-IN-PLACE FORMS.
STAY-IN-PLACE PRESTRESSED CONCRETE DECK FORMS ARE NOT ALLOWED.
ALL COSTS ASSOCIATED WITH THE USE OF STAY-IN-PLACE FORMS INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE AT THE CONTRACTOR'S EXPENSE. FOR ADDITIONAL INFORMATION CONCERNING THE USE OF STAY-IN-PLACE FORMS, SEE SECTION 502 OF THE ODOT STANDARD SPECIFICATIONS.

CONCRETE DECK FINISHING:
THE APPROACH SLABS AND CONCRETE BRIDGE DECKS SHALL RECEIVE SAW-CUT GROOVING IN ACCORDANCE WITH SECTION 504 OF THE ODOT STANDARD SPECIFICATIONS.
ALL COSTS INCLUDING LABOR, EQUIPMENT, MATERIAL AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD FOR "SAW-CUT GROOVING".

STRUCTURAL STEEL:
REFER TO THE STRUCTURAL STEEL DETAIL SHEETS IN THE PLANS FOR REQUIREMENTS OF MATERIAL PROPERTIES AND FABRICATION. ALL BOLTED CONNECTIONS SHALL BE HIGH STRENGTH BOLTS (A325) WITH DIRECT TENSION INDICATORS. UNLESS NOTED OTHERWISE, ALL OTHER REQUIREMENTS IN SECTION 506 OF THE ODOT STANDARD SPECIFICATIONS SHALL APPLY.
DURING ERECTION OF STRUCTURAL STEEL, CONCRETE SUBSTRUCTURE SHALL BE PROTECTED TO PREVENT STAINING PRIOR TO COMPLETION OF THE CONCRETE SLABS. ONCE THE SLAB IS IN PLACE, PROTECTION MAY BE REMOVED. SUBMIT PROPOSED METHOD FOR PROTECTION TO ENGINEER FOR APPROVAL.
ALL COSTS ASSOCIATED WITH FABRICATION AND INSTALLATION OF STRUCTURAL STEEL INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER POUND OF "STRUCTURAL STEEL".

GEOLOGY REPORT:
THE GEOTECHNICAL INFORMATION SHOWN ON THE PLANS IS THE BEST INFORMATION AVAILABLE. A COPY OF THE GEOTECHNICAL REPORTS (DATED MAY 28, 2019) FOR THE PROPOSED BRIDGES IS AVAILABLE FROM ODOT.

PILING:
SEE THE ABUTMENT DETAIL SHEETS FOR MAXIMUM FACTORED PILE LOADS AND FACTORED PILE RESISTANCES. STEEL PILING SHALL MEET THE REQUIREMENTS OF AASHTO M270, GRADE 50. STEEL PILES SHALL MEET THE REQUIREMENTS NOTED ON ODOT STANDARD HP1-2-01E.
PILES SHALL BE DRIVEN IN ACCORDANCE WITH SECTION 514 OF THE STANDARD SPECIFICATIONS.
ALL COSTS ASSOCIATED WITH FABRICATION AND INSTALLATION OF PILES INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAR FOOT OF "PILES, DRIVEN (HP10x42)" OR "PILES, DRIVEN (HP12x53)".

DRILLED SHAFTS:
SEE THE PIER DETAIL SHEETS FOR MAXIMUM FACTORED SHAFT LOADS AND FACTORED SHAFT RESISTANCES.
DRILLED SHAFT CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH SECTION 516 OF THE ODOT STANDARD SPECIFICATIONS.
ALL COSTS ASSOCIATED WITH INSTALLATION OF DRILLED SHAFTS INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAR FOOT OF "DRILLED SHAFTS 60" DIAMETER".
ALL DRILLED SHAFTS SHALL BE EQUIPPED WITH CROSS HOLE SONIC TUBES (CSL) AS SHOWN ON THE PLANS. TUBES AND ALL COSTS ASSOCIATED WITH INSTALLATION IS INCLUDED IN THE UNIT PRICE BID PER LINEAR FOOT OF "CSL ACCESS TUBES".
ONE (1) SHAFT PER BRIDGE SHALL RECEIVE CROSS HOLE SONIC LOGGING TESTING. TESTING AND ALL ASSOCIATED COSTS IS INCLUDED IN THE UNIT PRICE BID PER EACH OF "CROSSHOLE SONIC LOGGING".

STAINLESS STEEL FIXED BEARING ASSEMBLY:
PROVIDE AND INSTALL FIXED BEARING ASSEMBLIES AT THE LOCATIONS NOTED ON THE PLANS. THERE IS AN ESTIMATED WEIGHT OF 180 LBS. OF STRUCTURAL STEEL FOR EACH FIXED BEARING ASSEMBLY. BEARINGS SHALL MEET THE REQUIREMENTS OF SECTION 507 OF THE ODOT STANDARD SPECIFICATIONS.
ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE FIXED BEARING ASSEMBLIES, ELASTOMERIC PADS, ANCHOR BOLTS, NUTS, WASHERS, INCLUDING ALL MATERIAL, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN IN THE PLANS IS INCLUDED IN THE UNIT PRICE BID PER EACH OF "STAINLESS STEEL FIXED BEARING ASSEMBLY".

STAINLESS STEEL EXPANSION BEARING ASSEMBLY:
PROVIDE AND INSTALL EXPANSION BEARING ASSEMBLIES AT THE LOCATIONS NOTED ON THE PLANS. THERE IS AN ESTIMATED WEIGHT OF 180 LBS. OF STRUCTURAL STEEL FOR EACH EXPANSION BEARING ASSEMBLY. BEARINGS SHALL MEET THE REQUIREMENTS OF SECTION 507 OF THE ODOT STANDARD SPECIFICATIONS.
ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE EXPANSION BEARING ASSEMBLIES, ELASTOMERIC PADS, ANCHOR BOLTS, NUTS, WASHERS, INCLUDING ALL MATERIAL, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN IN THE PLANS IS INCLUDED IN THE UNIT PRICE BID PER EACH OF "STAINLESS STEEL EXPANSION BEARING ASSEMBLY".

PERFORATED PIPE UNDERDRAIN:
THE INSTALLATION OF THE PERFORATED PIPE AND PIPE UNDERDRAIN COVER MATERIAL SHALL BE AS SHOWN ON THE STANDARDS B40-C-ABUT-MISC-01E AND PUD-3.
ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE PERFORATED PIPE UNDERDRAIN AND UNDERDRAIN COVER MATERIAL INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAR FOOT OF "6" PERFORATED PIPE UNDERDRAIN ROUND".

NON-PERFORATED PIPE UNDERDRAIN:
THE INSTALLATION OF THE NON-PERFORATED PIPE AND STANDARD BEDDING MATERIAL SHALL BE AS SHOWN ON THE STANDARDS B40-C-ABUT-MISC-01E AND PUD-3.
ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE NON-PERFORATED PIPE UNDERDRAIN AND BEDDING MATERIAL INCLUDING TRENCH EXCAVATION, BACKFILLING, ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAR FOOT OF "6" NON-PERFORATED PIPE UNDERDRAIN ROUND".

SLOPE DRAINS:
SLOPE DRAINS SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS. GUARDRAIL AND CURB DETAILS ARE INCLUDED WITH THE ROADWAY PLANS.
ALL COSTS ASSOCIATED WITH CONSTRUCTION OF THE SLOPE DRAINS INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER CUBIC YARD OF "CLASS C CONCRETE".

SLOPE PROTECTION RIPRAP:
A LAYER OF TYPE I-A PLAIN RIPRAP AND TYPE I-A FILTER BLANKET SHALL BE PLACED AS SHOWN IN THE PLANS AT EACH ABUTMENT AND ENDS OF SLOPE DRAINS. RIPRAP AND FILTER BLANKET SHALL MEET THE REQUIREMENTS OF SECTION 601 OF THE ODOT STANDARD SPECIFICATIONS. STONE USED FOR TYPE I-A RIPRAP SHALL MEET THE REQUIREMENTS OF A 2'-0" THICKNESS PER TABLE 713:1 OF THE ODOT STANDARD SPECIFICATIONS.
ALL COSTS ASSOCIATED WITH INSTALLATION OF RIPRAP INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER TON OF "TYPE I-A PLAIN RIPRAP".
ALL COSTS ASSOCIATED WITH INSTALLATION OF FILTER BLANKET INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER TON OF "TYPE I-A FILTER BLANKET".

EXCAVATION:
EXCAVATION FOR THE ABUTMENTS SHALL BE DONE IN ACCORDANCE WITH SECTION 501 OF THE ODOT STANDARD SPECIFICATIONS TO THE LIMITS SHOWN ON STANDARD B40-C-ABUT-MISC-01E.
EXCAVATION HAS BEEN QUANTIFIED ACCORDING TO THE LIMITS SHOWN ON THE STANDARD. EXCAVATION WILL BE REQUIRED FOR REMOVAL OF THE EXISTING ABUTMENTS. THIS QUANTITY INCLUDES EXCAVATION FOR REMOVAL OF EXISTING ABUTMENTS.
ALL COSTS ASSOCIATED WITH EXCAVATION INCLUDING ALL LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER CUBIC YARD OF "STRUCTURAL EXCAVATION COMMON".

EMBANKMENT AND BACKFILL:
AFTER REMOVAL OF THE EXISTING ABUTMENTS AND BRIDGE, COMPLETE THE EMBANKMENTS AT THE ABUTMENTS AS SHOWN ON THE PLANS AND ON STANDARD B40-C-ABUT-MISC-01E.
ALL BACKFILL REQUIRED FOR CONSTRUCTION SHALL BE PLACED ACCORDING TO THE REQUIREMENTS IN SECTION 501 OF THE ODOT STANDARD SPECIFICATIONS.
THE BACKFILL REQUIRED FOR CONSTRUCTION OF THE EMBANKMENT BELOW THE PROPOSED ABUTMENTS, WHERE VOIDS EXIST BELOW THE EXISTING ABUTMENTS, AND BEHIND THE ABUTMENTS OUTSIDE OF THE APPROACH SLAB LIMITS SHALL MEET THE REQUIREMENTS FOR UNCLASSIFIED BORROW IN SECTION 202 OF THE ODOT STANDARD SPECIFICATIONS.
ALL COSTS ASSOCIATED WITH PLACEMENT OF UNCLASSIFIED BORROW BACKFILL INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE SUBSIDIARY TO OTHER PAY ITEMS.
CLSM BACKFILL SHALL BE USED UNDER THE APPROACH SLABS AT THE ABUTMENTS AS SHOWN ON STANDARD B40-C-ABUT-MISC-01E.
ALL COSTS ASSOCIATED WITH PLACEMENT OF CLSM BACKFILL INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER CUBIC YARD OF "CLSM BACKFILL".

UTILITIES:
UTILITIES, INCLUDING THE EXISTING 12" DIAMETER GAS LINE (MIDSTREAM) ON THE WEST EMBANKMENT, ARE SHOWN FOR INFORMATION ONLY. THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITY LOCATIONS PRIOR TO ANY DEMOLITION OR CONSTRUCTION OPERATIONS PER SECTION 104.14 OF THE ODOT STANDARD SPECIFICATIONS.

QUANTITIES:
ITEMS NOT LISTED SEPARATELY IN THE SUMMARY OF QUANTITIES ARE SUBSIDIARY TO OTHER ITEMS IN THE PROPOSAL.

TEMPORARY SHORING:
TO FACILITATE REMOVAL OF THE EXISTING ABUTMENTS AND CONSTRUCTION OF THE PROPOSED ABUTMENTS, IT IS ANTICIPATED THAT TEMPORARY SHORING WILL BE NECESSARY IN THE MEDIAN BETWEEN THE EB AND WB BRIDGES. TEMPORARY SHORING (RETAINING STRUCTURES) SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 502 OF THE ODOT STANDARD SPECIFICATIONS.
ALL COSTS ASSOCIATED WITH THE INSTALLATION AND REMOVAL OF TEMPORARY RETAINING STRUCTURES INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE LUMP SUM PRICE OF "TEMPORARY EARTH RETAINAGE".

APPROACH SLAB:
APPROACH SLAB CONSTRUCTION SHALL CONFORM TO SECTION 504 OF ODOT STANDARD SPECIFICATIONS AND AS SHOWN ON THE PLANS.
THE QUANTITY GIVEN IS BASED ON THE ACTUAL SQUARE YARDS OF THE APPROACH SLABS. ALL COSTS OF CONCRETE, REINFORCING STEEL, BACKER ROD, RAPID CURE JOINT SEALANT, POLYSTYRENE AND POLYETHYLENE SHEETING, SAWING OF JOINTS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD OF "APPROACH SLAB".

SUBSTRUCTURE SURFACE TREATMENT:
APPLY A LIQUID URETHANE COATING SUCH AS CIM 1000 AS MANUFACTURED BY CIM INDUSTRIES, OR APPROVED EQUIVALENT, TO THE SUBSTRUCTURE TO THE LIMITS SHOWN ON THE PLANS. THE FINISH SHALL BE NEAT STRAIGHT LINES FOR APPROVAL. THE METHOD FOR APPLICATION SHALL BE IN ACCORDANCE WITH THE PRODUCT SPECIFICATIONS.
THE COATING SHALL BE 60 MILS DRY THICKNESS AND 68 MILS WET THICKNESS. ALL NEW CONCRETE SHALL HAVE A MINIMUM STRENGTH OF F'c = 3KSI AT TIME OF APPLICATION. PRIMER SHALL BE APPLIED TO THE CONCRETE SURFACES PRIOR TO APPLYING THE URETHANE COSTING. WATER REPELLANT IS NOT REQUIRED ON SURFACES THAT ARE COATED WITH THE URETHANE COATING.
ALL COSTS ASSOCIATED WITH THE APPLICATION OF THE LIQUID URETHANE COATING INCLUDING THE COST OF MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID OF "(PL) INSTALLATION OF BRIDGE ITEMS".
PENETRATING WATER REPELLANT TREATMENT SHALL BE APPLIED TO ALL SUBSTRUCTURE SURFACES NOT COVERED WITH THE URETHANE COATING AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH SECTION 701.12 OF THE ODOT STANDARD SPECIFICATIONS.
ALL COSTS ASSOCIATED WITH THE APPLICATION OF THE PENETRATING WATER REPELLANT TREATMENT INCLUDING THE COST OF MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD OF "WATER REPELLANT (VISUALLY INSPECTED)".

SURVEYING:
SURVEY SHALL BE DONE IN ACCORDANCE WITH CONSTRUCTION STAKING LEVEL II OF SECTION 642 OF THE ODOT STANDARD SPECIFICATIONS.
ALL COSTS ASSOCIATED WITH PERFORMING THE SURVEY / STAKING SHALL BE INCLUDED THE LUMP SUM PRICE BID OF "CONSTRUCTION STAKING LEVEL II".

DEMOLITION AND CONSTRUCTION ACCESS:
THE CONTRACTOR SHALL SUBMIT PLANS TO THE RESIDENT ENGINEER FOR ACCESS TO THE EXISTING AND PROPOSED PIER LOCATIONS FOR DEMOLITION AND CONSTRUCTION OPERATIONS. ANY DISTURBANCE TO THE EXISTING CREEK CHANNEL SHALL BE RESTORED TO PRE-CONSTRUCTION ELEVATIONS AFTER CONSTRUCTION OF THE NEW BRIDGES.

SHOP DRAWINGS:
SHOP DRAWINGS SHALL BE SUBMITTED FOR THE PAY ITEMS AS REQUIRED IN THE ODOT CONSTRUCTION SPECIFICATIONS.

EXPANSION JOINTS:
THE INSTALLATION OF EXPANSION JOINTS AT PIERS SHALL BE AS SHOWN ON THE STANDARDS EJ-SK-04E AND EJ-DTL-02E. EXPANSION JOINTS SHALL MEETS THE REQUIREMENTS OF SECTIONS 504 AND 506 OF THE ODOT STANDARD SPECIFICATIONS.
ALL COSTS ASSOCIATED WITH FABRICATION AND INSTALLATION OF EXPANSION JOINTS INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT BID PRICE PER LINEAR FOOT OF "SEALED EXPANSION JOINT".

CONCRETE TRAFFIC RAIL:
INSTALL TR4 CONCRETE RAIL ON THE APPROACH SLABS AND THE CONCRETE BRIDGE DECKS AS SHOWN IN THE PLANS AND PER THE STANDARD TR4-2-00E. CONCRETE RAIL SHALL MEET THE REQUIREMENTS OF SECTION 504 OF THE ODOT STANDARD SPECIFICATIONS.
ALL COSTS OF CONCRETE, REINFORCING STEEL WITH THE EXCEPTION OF SR1 BARS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT BID PRICE PER LINEAR FOOT OF "CONCRETE RAIL (TR4)".

DIMENSIONS:
ALL DIMENSIONS SHOWN ON THE DESIGN PLANS ARE HORIZONTAL DIMENSIONS UNLESS OTHERWISE NOTED. MAKE NECESSARY ALLOWANCES FOR ROADWAY GRADE AND CROSS SLOPE.

SAW-CUT GROOVING:
SAW-CUT GROOVING SHALL BE APPLIED TO THE BRIDGE DECK SLABS AND APPROACH SLABS. THE WORK SHALL BE DONE IN ACCORDANCE WITH SECTION 504 OF THE ODOT STANDARD SPECIFICATIONS.
ALL COSTS FOR APPLICATION OF SAW-CUT GROOVING INCLUDING LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT BID PRICE PER SQUARE YARD OF "SAW-CUT GROOVING".

ENVIRONMENTAL NOTES:
XXX – TO BE PROVIDED AT FINAL PLAN FIELD REVIEW MEETING.

BRIDGE "A"&"B" CANADIAN COUNTY
SH-66 OVER SHELL CREEK

GENERAL NOTES (BRIDGE)

Design	JDK	5/19
Detail	KNB	5/19
Check	AMW	5/19
Squad	THOMAS	
Engr.	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 32765(04) | SHEET NO. AB01

REVISIONS		
REV. NO.	DESCRIPTION	DATE

JP NO. 32765 (04) — BRIDGE A PAY QUANTITIES — NBI NO. 12630

0200 BRIDGE A

ITEM		DESCRIPTION		UNIT	QUANTITY
501 (B)	1307	SUBSTRUCTURE EXCAVATION COMMON	(BR-1)	CY	195
501 (G)	6309	CLSM BACKFILL	(BR-1)	CY	198.40
502	1000	TEMPORARY EARTH RETAINAGE		LSUM	1
504 (A)	1304	APPROACH SLAB	(BR-1), (BR-3)	SY	275.30
504 (B)	1305	SAW-CUT GROOVING	(BR-1)	SY	950.10
504 (C)	6250	SEALED EXPANSION JOINT	(BR-1)	LF	93.20
504 (D)	6245	CONCRETE RAIL (TR4)	(BR-1)	LF	450.70
506 (A)	1322	STRUCTURAL STEEL	(BR-1), (BR-6)	LB	154,030
507 (A)	6170	STAINLESS STEEL FIXED BEARING ASSEMBLY	(BR-1)	EA	15
507 (B)	6174	STAINLESS STEEL EXPANSION BEARING ASSEMBLY	(BR-1)	EA	15
509 (A)	1326	CLASS AA CONCRETE	(BR-1), (BR-2)	CY	169.80
509 (B)	1328	CLASS A CONCRETE	(BR-1)	CY	219.40
509 (D)	1331	CLASS C CONCRETE	(BR-1)	CY	3.90
511 (A)	1332	REINFORCING STEEL	(BR-1)	LB	980
511 (B)	6010	EPOXY COATED REINFORCING STEEL	(BR-1)	LB	65,710
514 (A)	6010	PILES, FURNISHED (HP10x42)		LF	108
514 (A)	6011	PILES, FURNISHED (HP12x53)		LF	959
514 (B)	6292	PILES, DRIVEN (HP10x42)		LF	108
514 (B)	6294	PILES, DRIVEN (HP12x53)		LF	959
514 (L)	6220	PILE SPLICE, H-PILE (NON-BIDDABLE)		EA	42
515 (A)	6013	WATER REPELLENT (VISUALLY INSPECTED)	(BR-1)	SY	432
516 (A)	6096	DRILLED SHAFTS 60" DIAMETER	(BR-4)	LF	264
516 (C)	6200	CROSSHOLE SONIC LOGGING		EA	1
516 (D)	6400	CSL ACCESS TUBES		LF	1,410
542	4600	(PL) INSTALLATION OF BRIDGE ITEMS	(BR-5)	LSUM	1
601 (B)	1353	TYPE I-A PLAIN RIPRAP	(BR-1)	TON	1,570
601 (C)	1355	TYPE I-A FILTER BLANKET	(BR-1)	TON	140
613 (H)	6204	6" PERFORATED PIPE UNDERDRAIN ROUND	(BR-1)	LF	115
613 (I)	6207	6" NON-PERF. PIPE UNDERDRAIN RND.		LF	50
619 (D)	1397	REMOVAL OF EXISTING BRIDGE STRUCTURE		LSUM	1

JP NO. 32765 (04) — BRIDGE B PAY QUANTITIES — NBI NO. 12629

0201 BRIDGE B

ITEM		DESCRIPTION		UNIT	QUANTITY
501 (B)	1307	SUBSTRUCTURE EXCAVATION COMMON	(BR-1)	CY	195
501 (G)	6309	CLSM BACKFILL	(BR-1)	CY	198.40
502	1000	TEMPORARY EARTH RETAINAGE		LSUM	1
504 (A)	1304	APPROACH SLAB	(BR-1), (BR-3)	SY	275.30
504 (B)	1305	SAW-CUT GROOVING	(BR-1)	SY	950.10
504 (C)	6250	SEALED EXPANSION JOINT	(BR-1)	LF	93.20
504 (D)	6245	CONCRETE RAIL (TR4)	(BR-1)	LF	450.70
506 (A)	1322	STRUCTURAL STEEL	(BR-1), (BR-6)	LB	154,030
507 (A)	6170	STAINLESS STEEL FIXED BEARING ASSEMBLY	(BR-1)	EA	15
507 (B)	6174	STAINLESS STEEL EXPANSION BEARING ASSEMBLY	(BR-1)	EA	15
509 (A)	1326	CLASS AA CONCRETE	(BR-1), (BR-2)	CY	169.80
509 (B)	1328	CLASS A CONCRETE	(BR-1)	CY	219.40
509 (D)	1331	CLASS C CONCRETE	(BR-1)	CY	3.30
511 (A)	1332	REINFORCING STEEL	(BR-1)	LB	980
511 (B)	6010	EPOXY COATED REINFORCING STEEL	(BR-1)	LB	65,710
514 (A)	6010	PILES, FURNISHED (HP10x42)		LF	108
514 (A)	6011	PILES, FURNISHED (HP12x53)		LF	959
514 (B)	6292	PILES, DRIVEN (HP10x42)		LF	108
514 (B)	6294	PILES, DRIVEN (HP12x53)		LF	959
514 (L)	6220	PILE SPLICE, H-PILE (NON-BIDDABLE)		EA	42
515 (A)	6013	WATER REPELLENT (VISUALLY INSPECTED)	(BR-1)	SY	432
516 (A)	6096	DRILLED SHAFTS 60" DIAMETER	(BR-4)	LF	264
516 (C)	6200	CROSSHOLE SONIC LOGGING		EA	1
516 (D)	6400	CSL ACCESS TUBES		LF	1,410
542	4600	(PL) INSTALLATION OF BRIDGE ITEMS	(BR-5)	LSUM	1
601 (B)	1353	TYPE I-A PLAIN RIPRAP	(BR-1)	TON	1,480
601 (C)	1355	TYPE I-A FILTER BLANKET	(BR-1)	TON	130
613 (H)	6204	6" PERFORATED PIPE UNDERDRAIN ROUND	(BR-1)	LF	115
613 (I)	6207	6" NON-PERF. PIPE UNDERDRAIN RND.		LF	50
619 (D)	1397	REMOVAL OF EXISTING BRIDGE STRUCTURE		LSUM	1

PAY QUANTITY NOTES

(BR-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY ONLY PER SECTION 109.01(B) OF THE STANDARD SPECIFICATIONS.

(BR-2) PLAN QUANTITY FOR CLASS AA CONCRETE INCLUDES 2.51 C.Y. FOR HAUNCHES OVER GIRDERS FOR EACH BRIDGE. THIS QUANTITY IS CALCULATED ASSUMING A HAUNCH ALONG THE FULL LENGTH OF THE GIRDERS AS SHOWN ON DECK SLAB DETAILS (SHEET 2 OF 3). THE FINAL HAUNCH HEIGHTS WILL BE SET AFTER ERECTION OF GIRDERS AND DIAPHRAGMS TO PROVIDE FOR DEAD LOAD DEFLECTION AND GRADE ADJUSTMENT.

(BR-3) SEE APPROACH SLAB DETAILS FOR ESTIMATED QUANTITY OF CLASS AA CONCRETE AND EPOXY COATED REINFORCING STEEL THAT ARE SUBSIDIARY TO THE PAY ITEM.

(BR-4) SEE PIER DETAILS SHEETS FOR REINFORCING STEEL THAT IS SUBSIDIARY TO THE PAY ITEM.

(BR-5) PRICE BID TO INCLUDE LIQUID APPLIED URETHANE COATING WITHIN THE LIMITS SHOWN ON ABUTMENT DETAILS AND PIER DETAILS SHEETS.

(BR-6) PLAN QUANTITY FOR STRUCTURAL STEEL INCLUDES BEAMS, DIAPHRAGMS, STIFFENERS, GUSSET PLATES, AND BOLTS FOR DIAPHRAGMS. ADDITIONAL STEEL FOR INSTALLATION SHALL BE SUBSIDIARY TO THE PAY ITEM.

BRIDGE "A"&"B" — CANADIAN COUNTY
SH-66 OVER SHELL CREEK

SUMMARY OF PAY QUANTITIES & NOTES (BRIDGE)

Design	WJS	6/19
Detail	KNB	6/19
Check	WJS	6/19

Squad: THOMAS
Engr.: THOMAS

STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 32765(04) — SHEET NO. AB02

OKLAHOMA DEPARTMENT OF TRANSPORTATION

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

6/7/2019

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FINAL FIELD MEETING

6/7/2019

GENERAL CONSTRUCTION NOTES

(G-1) IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

(G-2) THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING THE EXISTING ROAD TO LOCAL AND THROUGH TRAFFIC. SEE STANDARD SPECIFICATIONS FOR MAINTENANCE OF LOCAL AND THROUGH TRAFFIC.

(G-3) MAINTENANCE OF THROUGH TRAFFIC INCLUDES THE MAINTENANCE OF THE EXISTING ROAD IN CLOSE PROXIMITY TO THE NEW CONSTRUCTION AS SHOWN ON THE PLANS.

(G-4) THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING THE EXISTING SECTION LINE ROADS TO LOCAL AND THROUGH TRAFFIC. SEE STANDARD SPECIFICATIONS FOR MAINTENANCE OF LOCAL AND THROUGH TRAFFIC.

(G-5) FOR PROJECTS THAT INCLUDE WIDENING AND/OR RESURFACING, THE CONTRACTOR SHALL SCHEDULE OPERATIONS TO MINIMIZE POTENTIAL DROP-OFF HAZARDS AND SHALL SUBMIT A SEQUENCE OF CONSTRUCTION OPERATIONS TO THE RESIDENT ENGINEER FOR APPROVAL BEFORE OPERATIONS BEGIN. ANY PORTION OF THE CONSTRUCTION OPERATIONS, SUCH AS SUPERPAVE LAYING OPERATIONS, EXCAVATION FOR PAVEMENT WIDENING, OR EXTENSION OF ROADWAY STRUCTURES, SHALL BE LIMITED TO ONE SIDE AT A TIME, AND THE PROCEDURES OUTLINED IN THE PAVEMENT DROP-OFF TREATMENT STANDARD PDT-1 (LATEST REVISION) SHALL BE IMPLEMENTED. ONLY THAT AMOUNT OF OPEN TRENCH WILL BE ALLOWED THAT CAN BE SURFACED IN 1 (ONE) DAY'S TIME WITHOUT APPROVAL BY THE ENGINEER. LIGHTS, SIGNS AND BARRICADES SHALL BE MOVED AS WORK PROGRESSES.

(G-6) ALL TREES, BRUSH, AND OTHER DEBRIS THAT MIGHT INTERFERE WITH THE FLOW OF WATER SHALL BE CLEANED OUT TO THE RIGHT-OF-WAY LINE, AT EACH STRUCTURE AND BRIDGE, IN A MANNER APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

(G-8) ALL FLOWLINES THAT ARE TO BE FILLED SHALL BE THOROUGHLY TAMPED BEFORE CONSTRUCTION OR EXTENSION OF DRAINAGE STRUCTURES. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

(G-9) IN ORDER TO ALLEVIATE DUST CONDITIONS DURING GRADING OPERATIONS AND BEFORE PAVEMENT WORK IS COMPLETED, THE CONTRACTOR SHALL SPRINKLE GRADING AT INTERVALS APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

(G-11) THE CONTRACTOR SHALL NOT WASTE ANY EXCESS EXCAVATION UNTIL ALL PLANNED EMBANKMENTS AND BACKFILLS ARE COMPLETED. EXCESS UNCLASSIFIED EXCAVATION MATERIAL DETERMINED BY THE ENGINEER TO BE SUITABLE FOR BACKFILL SHALL BE USED TO REDUCE ANY UNCLASSIFIED BORROW NEEDED. COST OF SECOND HANDLING SHALL BE INCLUDED IN OTHER ITEMS OF WORK. ANY REMAINING EXCESS EXCAVATION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

(G-12) PRIME COAT SHALL BE APPLIED TO THE SUBGRADE IMMEDIATELY AFTER FINAL COMPACTION AND SHAPING TO RETAIN MOISTURE FOR PROPER CHEMICAL REACTION OF THE SOIL ADDITIVE.

(G-23) AREAS ON WHICH SALVAGED TOPSOIL IS TO BE REPLACED SHALL HAVE 18-46-0 FERTILIZER APPLIED, AT THE RATE OF 150 POUNDS PER ACRE, JUST PRIOR TO THE REPLACEMENT OF SALVAGED TOPSOIL.

(G-25) AT THE BEGINNING OF TURFING OPERATIONS, ANY AREAS INCLUDED IN PLANNED QUANTITIES THAT HAVE GROWN A SATISFACTORY VOLUNTEER TURF OF PERENNIAL GRASS, AS DETERMINED BY THE ENGINEER, SHALL BE FERTILIZED AND WATERED AS CALLED FOR ON THE PLANS, BUT SHALL NOT BE SEEDED, SODDED, OR SPRIGGED.

(G-27) THE CONTRACTOR SHALL REMOVE AND RESET MAILBOXES AS NECESSARY. MAILBOXES ARE TO BE MAINTAINED IN AN UPRIGHT POSITION AND ACCESSIBLE TO MAIL CARRIER'S CAR DURING CONSTRUCTION. ANY DAMAGE TO BOXES OR SUPPORTS SHALL BE REPAIRED BY THE CONTRACTOR. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

(G-38) PRIOR TO FINAL ACCEPTANCE, ALL EXPOSED CURB SURFACES SHALL BE CLEANED OF ALL DISCOLORATION SUCH AS ASPHALT STAIN, TIRE MARKS, OR OTHER DISFIGUREMENT.

(G-39) EXCESS ASPHALT AT JOINTS AND CRACKS IN EXISTING PAVEMENT SHALL BE REMOVED FLUSH TO TOP OF PAVING IN A MANNER APPROVED BY THE ENGINEER.

(G-15) TEMPORARY SEEDING MIX SHALL BE AS FOLLOWS:

KINDS OF SEED TO BE FURNISHED	QUANTITY PER ACRE
WHEAT (TRITICUM AESTILUM)	120 LBS. OF SEED

(G-17) VEGETATIVE MULCHING: THE VEGETATIVE MULCH SHALL BE ANCHORED IN ACCORDANCE WITH THE "ADHESIVE SPRAY METHOD", AS SPECIFIED IN 233.04B(1) OF THE STANDARD SPECIFICATIONS.

(G-31) T.B.S.C. SURFACES SHALL BE SPRINKLED WITH WATER AND ROLLED WITH A PNEUMATIC ROLLER IN A MANNER APPROVED BY THE ENGINEER.

ALL EXISTING DRAINAGE STRUCTURES, INLETS, OR PIPES ARE TO REMAIN IN GOOD WORKING ORDER UNLESS NOTED TO BE REMOVED IN THE PLANS. DAMAGE TO EXISTING DRAINAGE STRUTURES, INLETS, OR PIPES TO REMAIN AS A RESULT OF REMOVAL OF ADJOINING DRAINAGE STRUCTURES, INLETS, OR PIPES SHALL BE REPAIRED AT THE COST OF THE CONTRACTOR

ALL WORK AND/OR MATERIALS NOT CLASSIFIED AS A "CONTRACT PAY ITEM" SHALL BE CONSIDERED INCIDENTAL AND THE COST THEREOF SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS WHICH ARE CLASSIFIED FOR PAYMENT

TREES OUTSIDE THE TOE OF FILL SLOPES AND THE TOP OF CUT SLOPES SHALL NOT BE DISTURBED EXCEPT WITH THE APPROVAL OF THE ENGINEER

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE THEY MAY INFLICT TO THE EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT AREA AS A RESULT OF THEIR CONSTRUCTION ACTIVITIES.

TRAFFIC SIGNING GENERAL CONSTRUCTION NOTES

(C-57) ALL BROKEN CONCRETE INCLUDING OLD SIGN FOOTINGS WITH STUBS, WASTE MATERIAL AND DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN AN AREA APPROVED BY THE ENGINEER. NO PAYMENT SHALL BE MADE FOR THE DISPOSAL OF THIS MATERIAL. ANY PIPE POST OR WIDE FLANGE POST ABOVE THE OLD SIGN FOOTINGS SHALL BE CUT AND HANDLED AS PROPERTY OF THE STATE AND SHALL BE NEATLY STACKED ON THE JOB SITE, AS DESIGNATED BY THE ENGINEER UNTIL SUCH TIME AS DIVISION PERSONNEL CAN REMOVE THE MATERIAL FROM THE JOB SITE.

(C-59) ALL ANCHOR BOLTS SHALL BE GRADE A-36 STEEL.

(C-60) THE STATIONS AND LOCATIONS OF THE SIGN PLACEMENT, AS SHOWN ON THE PLAN SHEETS, ARE APPROXIMATE. EXACT STATIONS AND LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR SO THAT THE SIGN IS INSTALLED IN ACCORDANCE WITH DEPARTMENT STANDARDS AND THE MUTCD IN ORDER TO PROVIDE OPTIMUM VISIBILITY TO THE ONCOMING/APPROACHING MOTORIST. IF A PROPOSED LOCATION CONFLICTS WITH OTHER SIGNS, UTILITIES OR OTHER ROADWAY FEATURES, THE ENGINEER SHALL BE NOTIFIED.

(C-63) ALL EXISTING AND NEW BREAKAWAY SIGN POSTS, PIPES AND WIDE FLANGE BEAMS SHALL HAVE SHEET METAL BOLT RETAINER PLATES AS SPECIFIED IN O.D.O.T. STD. FGS1- 1-(LATEST REVISION). REPLACEMENT COST OF MISSING OR DAMAGED BOLT RETAINER PLATES AND ALL ASSOCIATED HARDWARE AND LABOR SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

(C-66) ALL SIGNS SHALL BE REMOVED FROM THE POSTS IN A SALVAGEABLE MANNER FOR REUSE. CARE SHALL BE TAKEN DURING REMOVAL AND TRANSPORTING TO ALLEVIATE DAMAGE OF MATERIALS. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED DURING REMOVAL OF SIGNS AND SIGN POSTS.

IF NEW POSTS ARE REQUIRED, POST LENGTHS SHALL BE DETERMINED BY FIELD SURVEY BY THE CONTRACTOR.

(C-68) AFTER REMOVAL OF ANY SIGN FOOTINGS, THE HOLES SHALL BE FILLED WITH SOIL AND TAMPED AND SHAPED IN A MANNER APPROVED BY THE ENGINEER.

(C-69) FOR NEW OR EXISTING GROUND MOUNTED SIGNS, MAXIMUM STUB POST PROJECTION ABOVE FOOTING/GROUND LINE SHALL BE 1-3/4" + /- 1/4". MAXIMUM FOOTING PROJECTION ABOVE GROUND LINE SHALL BE NO MORE THAN 2". SHOULD ADDITIONAL SOIL BE REQUIRED, THE ENGINEER WILL DESIGNATE AN AREA TO OBTAIN ADDITIONAL SOIL. ALL ASSOCIATED COSTS SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

TRAFFIC OPERATIONS GENERAL CONSTRUCTION NOTES

(C-1) ANY SIGNS AND/OR DELINEATORS WHICH ARE TO BE REMOVED DURING THIS PROJECT WILL BE STORED IN A PROTECTED AREA DESIGNATED BY THE RESIDENT ENGINEER, UNTIL SUCH A TIME THAT THEY ARE TO BE RESET BY THE CONTRACTOR. COST OF THIS WORK TO BE INCLUDED IN OTHER ITEMS OF WORK.

(C-2) EXISTING ROADWAY SHALL REMAIN OPEN DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER BARRICADES, LIGHTS, AND SIGNING WITHIN THE LIMITS OF CONSTRUCTION. ALL CONSTRUCTION SIGNING WILL BE IMPLEMENTED ACCORDING TO CONSTRUCTION PLANS. CONSTRUCTION TRAFFIC CONTROL WILL BE INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (CURRENT EDITION), AND COMPLIANT WITH APPLICABLE O.D.O.T. STANDARD DRAWINGS.

(C-3) THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING TRAFFIC ON CROSS STREETS. A MINIMUM OF ONE LANE IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES.

TRAFFIC SAFETY CONSTRUCTION NOTES

(C-200) ALL FIELD MEASUREMENTS PREVAIL ON INSTALLATION AND REMOVAL.

(C-208) LOCATIONS OF GUARDRAIL WIDENING GIVEN ON SUMMARY SHEETS ARE FOR ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY THESE AREAS. THE FINAL LOCATION OF GUARDRAIL WIDENING TO BE DETERMINED BY THE ENGINEER. GUARDRAIL WIDENING SHALL NOT BE DONE IN AREAS WHERE CURB EXISTS OR WHERE WIDENING WILL CAUSE SLOPE FAILURE.

(C-213) EXISTING GUARDRAIL THAT IS TO BE ELIMINATED SHALL NOT BE REMOVED UNTIL THE PROTECTED OBSTACLE HAS BEEN MODIFIED, REBUILT, OR REMOVED AS REQUIRED BY THE PLANS AND SPECIFICATIONS.

(C-222) LANE WIDTHS AND OTHER LINE DIMENSIONS SHALL REMAIN AS MARKED PREVIOUSLY.

DESIGN		OKLAHOMA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION
DRAWN		
CHECKED		GENERAL CONSTRUCTION NOTES
APPROVED		
SQUAD		

COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. AR01

6/7/2019 pw:\\pw-int.hntb.org:PWCentralDiv\Documents\Kansas City Projects\66430 - ODOT SBRIDS001_66 over Shell Creek\Plan Production\Roadway\AR01-3276504-General Notes.dgn

PAY QUANTITIES

JP 32765(04)

ROADWAY 0100

ITEM NO.	CODE NO.	DESCRIPTION		UNIT	QUANTITY
201(A)	0102	CLEARING AND GRUBBING		LSUM	1
202(A)	0183	UNCLASSIFIED EXCAVATION	(R-1)	CY	1693
205(A)	4229	TYPE A-SALVAGED TOPSOIL	(R-4)(R-6)	LSUM	1
221(C)	2801	TEMPORARY SILT FENCE	(R-8)	LF	1155
221(D)	2803	TEMPORARY SEDIMENT FILTER	(R-8)	EA	9
221(F)	0100	TEMPORARY SILT DIKE	(R-8)	LF	70
230(A)	2806	SOLID SLAB SODDING	(R-6)(R-7)	SY	3254
232(B)	2814	SEEDING METHOD B	(2)(R-6)	AC	1.4
233(A)	2817	VEGETATIVE MULCHING	(R-11)	AC	0.7
241	2832	MOWING	(R-15)	AC	1.4
303(A)	2100	AGGREGATE BASE TYPE A		CY	581
307(K)	4300	STABILIZED SUBGRADE		SY	1770
402(E)	0225	TRAFFIC BOUND SURFACE COURSE TYPE E	(R-18)	TON	197
407(B)	0250	TACK COAT		GAL	1318
408	5774	PRIME COAT	(R-21)	GAL	1109
411(B)	5940	SUPERPAVE, TYPE S3(PG 70-28 OK)	(R-24)	TON	362
411(B)	5945	SUPERPAVE, TYPE S3(PG 64-22 OK)	(R-24)	TON	1391
411(C)	5955	SUPERPAVE, TYPE S4(PG 70-28 OK)	(R-24)	TON	238
411(C)	5960	SUPERPAVE, TYPE S4(PG 64-22 OK)	(R-24)	TON	192
412	5267	COLD MILLING PAVEMENT	(3)	SY	1112
609(C)	4811	CONCRETE HEADER CURB (12"x 18")	(4)	LF	301
613(B)	0688	12" CORR. GALV. STEEL PIPE	(R-34)	LF	1124
613(L)	5722	12" PREFAB. CULVERT END SECTION, ROUND		LF	4
619(A)	0920	REMOVAL OF STRUCTURES & OBSTRUCTIONS	(1)(R-36)(R-37)	LSUM	1
619(B)	4728	REMOVAL OF ASPHALT PAVEMENT	(R-37)(R-38)	SY	1421
619(B)	4780	REMOVAL OF GUARDRAIL	(R-37)	LF	940
619(C)	0924	SAWING PAVEMENT		LF	2700
623(A)	0932	BEAM GUARDRAIL W-BEAM SINGLE		LF	500.00
623(G)	8590	GUARDRAIL END TREATMENT (31")		EA	4
623(I)	8700	GUARDRAIL BRIDGE CONN-THRIE BEAM (31")		EA	4
629(E)	5048	REMOVE AND RESET MAILBOX		EA	1

PAY QUANTITIES

JP 32765(04)

STAKING 0600

642(B)	0096	CONSTRUCTION STAKING LEVEL II		LSUM	1

PAY QUANTITIES

JP 32765(04)

CONSTRUCTION 0640

220	2800	SWPPP DOCUMENTATION AND MANAGEMENT		LSUM	1
640(A)	1426	FIELD OFFICE		EA	1
641	1552	MOBILIZATION		LSUM	1

PAY ITEM NOTES

(R-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY ONLY. SEE SECTION 109.01B OF THE STANDARD SPECIFICATIONS.

(R-4) AN ESTIMATED QUANTITY OF 451.92 C.Y. TOPSOIL TO BE RESERVED FOR REPLACEMENT OF APPROXIMATELY 5" ON COMPLETED FORESLOPES, DITCHES, AND BACKSLOPES. THIS QUANTITY IS INCLUDED IN THE EARTHWORK BALANCE. ANY ADDITIONAL EXCAVATION REQUIRED IN CUT SECTIONS TO ALLOW FOR PLACEMENT OF TOPSOIL TO FINAL GRADE, SHALL BE INCLUDED IN THE PRICE BID.

(R-6) FOR SOLID SLAB SODDING PRICE BID TO INCLUDE COST OF 10-20-10 FERTILIZER, ESTIMATED AT 200 POUNDS PER 1,000 SQ. YD.
FOR SEEDING METHOD B PRICE BID TO INCLUDE COST OF 10-20-10 FERTILIZER, ESTIMATED AT 300 POUNDS PER ACRE.
FOR TYPE A SALVAGED TOP SOIL PRICE BID TO INCLUDE COST OF 18-46-0 FERTILIZER, ESTIMATED AT 150 POUNDS PER ACRE.

(R-7) FOR SOLID SLAB SODDING PRICE BID TO INCLUDE COST OF WATERING, ESTIMATED AT 40 GALLONS PER SY.

(R-8) PRICE BID TO INCLUDE COST OF SEDIMENT REMOVAL AND ALL MAINTENANCE. SEDIMENT MUST BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE DEVICE.

(R-11) THE QUANTITIES ESTIMATED FOR TEMPORARY EROSION AND SEDIMENT CONTROL IS 0.67 ACRES.

(R-15) QUANTITY BASED ON TWO APPLICATIONS.

(R-18) ESTIMATED AT 120 LBS. PER CU. FT.

(R-21) PRIME COAT SHALL BE APPLIED AT AN ESTIMATED RATE OF 0.35 GAL. PER SQ. YD. WHEN APPLIED TO SUBGRADE, AND 0.25 GAL. PER SQ. YD. WHEN APPLIED TO AGGREGATE BASE. THE ACTUAL CUTBACK PRIME COAT REQUIRED FOR PLACEMENT OPERATIONS WILL BE DETERMINED BY THE CONTRACTOR, AND SHALL CONSIDER THE RESIDUE FROM DISTILLATION PERCENTAGE SHOWN IN SECTION 708.03 OF THE STANDARD SPECIFICATIONS.

(R-24) ESTIMATED AT 112 LBS. PER SQ. YD. PER 1" THICK.

(R-34) ANY DRAINAGE STRUCTURE DESCRIBED AS TEMPORARY, SHALL AFTER COMPLETION OF THE PROJECT, BE REMOVED BY AND BECOME THE PROPERTY OF THE CONTRACTOR.

(R-36) INCLUDES REMOVAL OF ALL EXISTING ROADWAY DRAINAGE STRUCTURES, HEADWALLS (UNLESS OTHERWISE SPECIFIED), INLETS, FENCES, AND OTHER STRUCTURES WITHIN THE RIGHT OF WAY.

(R-37) TO BECOME THE PROPERTY OF AND BE DISPOSED OF BY THE CONTRACTOR IN A MANNER APPROVED BY THE ENGINEER.

(R-38) MATERIALS REMOVED SHALL NOT BE MEASURED FOR PAYMENT UNDER SECTION 202.06 UNCLASSIFIED EXCAVATION.

(1) APPROXIMATE LOCATION FOR ITEMS TO BE REMOVED BY THE CONTRACTOR INCLUDE, BUT NOT LIMITED TO, THE ITEMS LISTED ON SHEET AX01. ITEMS REMOVED MAY OR MAY NOT BE PRESENT IN ANY SPECIFIED CONDITION. REMOVAL ALSO INCLUDES OTHER ITEMS DEEMED NECESSARY BY THE ENGINEER TO CLEAR THE RIGHT OF WAY.

(2) PRICE BID FOR TEMPORARY SEEDING SHALL INCLUDE WATERING AS REQUIRED TO ESTABLISH AND MAINTAIN PLANTING. QUANTITY IS TWICE THE ACTUAL AMOUNT TO ALLOW BROADCAST SEEDING.

(3) ESTIMATED QUANTITY TO BE USED IN AREAS AS DIRECTED BY THE ENGINEER.

(3) MATCH EXISTING CURB HEIGHT. SEE SHEET 002.

DESIGN			OKLAHOMA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION
DRAWN			SUMMARY OF PAY QUANTITIES (ROADWAY)
CHECKED			
APPROVED			
SQUAD			

COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 3276504 SHEET NO. AR02

6/7/2019 pw:\\pw-int.hntb.org:PWCentralDiv\Documents\Kansas City Projects\66430 - ODOT SBRIDS001_66 over Shell Creek\PlanProduction\Roadway\AR02-3276504-Roadway Pay Quantity and Notes.dgn

OKLAHOMA DEPARTMENT OF TRANSPORTATION

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6/10/2019

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FINAL FIELD MEETING

6/10/2019

TRAFFIC CONTROL PAY QUANTITIES

ITEM NO.	DESCRIPTION	NOTES	UNIT	QUANTITY
857(C)	REMOVABLE PAVEMENT MARKING TAPE(4" WIDE)	(TC-13,19,20,21,61,70,75)	LF	15036
857(E)	(PL)CONSTRUCTION ZONE PAVEMENT MARKERS(FLEXTAB)TYPE 2-1	(TC-61,70,75)	EA	44
871(B)	(SP)CONST.ZONE IMPACT ATTEN.	(TC-26,39,52,84)	SD	270
877(B)	DELIVER PORTABLE LONGITUDINAL BARRIER	(TC-1,2)	LF	137.5
877(C)	RELOCATION OF PORTABLE LONGITUDINAL BARRIER	(TC-1,2)	LF	112.5
880(A)	ARROW DISPLAY(TYPE C)	(TC-26,39,84)	SD	600
880(B)	CONSTRUCTION SIGNS 0 TO 6.25 SF	(TC-26,28,33,39,84)	SD	11400
880(B)	CONSTRUCTION SIGNS 6.26 SF TO 15.99 SF	(TC-26,29,33,39,84)	SD	4830
880(B)	CONSTRUCTION SIGNS 16.0 SF TO 32.99 SF	(TC-26,30,33,39,84)	SD	7410
880(C)	CONSTRUCTION BARRICADES(TYPE III)	(TC-26,39,84)	SD	5655
880(C)	WING BARRICADES	(TC-26,39,84)	SD	1200
880(E)	WARNING LIGHTS(TYPE A)	(TC-26,39,84)	SD	16920
880(E)	WARNING LIGHTS(TYPE C)	(TC-26,39,84)	SD	46065
880(F)	DRUMS	(TC-26,33,39,84)	SD	46065
880(G)	TUBE CHANNELIZERS	(TC-26,39,84)	SD	2430
882(A)	PORT.CHANGEABLE MESSAGE SIGN	(SP-11)(TC-26,39,52,70,85)	SD	900

SIGNING & STRIPING PAY QUANTITIES

ITEM NO.	DESCRIPTION	NOTES	UNIT	QUANTITY
805(D)	REMOVE & RESET EXISTING SIGNS	(TS-33)	EA	7
856(A)	TRAFFIC STRIPE (MULTI-POLYMER)(4" WIDE)	(TS-24)	LF	10,200
856(A)	TRAFFIC STRIPE (MULTI-POLYMER)(6" WIDE)	(TS-25)	LF	1,368

TRAFFIC CONSTRUCTION PAY QUANTITY NOTES

(TC-1) THE CONTRACTOR SHALL FURNISH AND INSTALL SUCH LIGHTS, SIGNS, BARRICADES, AND PROVIDE FLAGGERS NECESSARY FOR THE CONTROL, SAFETY, AND MAINTENANCE OF TRAFFIC WHEN INSTALLING, RELOCATING OR DELIVERING PORTABLE LONGITUDINAL BARRIER.

(TC-2) QUANTITY INCLUDES SUFFICIENT LENGTH OF PORTABLE LONGITUDINAL BARRIER TO PROVIDE FOR THE LONGEST SECTION SHOWN ON THE PLANS. THIS SAME BARRIER WILL BE USED ON OTHER DETOUR PHASES.

(TC-13) A PART, OR ALL, OF THIS ITEM IS INTENDED FOR REPLACEMENT OF REMOVED EXISTING CONFLICTING STRIPING.

(TC-19) THIS ITEM INCLUDES AN ESTIMATED 5,580 L.F. (4" WIDE) WHITE AND 9,456 L.F. (4" WIDE) YELLOW STRIPE. THE CONTRACTOR SHALL PROVIDE AND INSTALL AN O.D.O.T. APPROVED REMOVABLE PAVEMENT MARKING TAPE. COST FOR REMOVAL OF THIS TAPE SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM. NON-REMOVABLE MARKING TAPE (FOIL BACK) SHALL NOT BE CONSIDERED AN APPROVED EQUAL FOR THIS ITEM.

(TC-20) ALL STRIPING TO BE PLACED ON TEMPORARY SURFACES OR ON SURFACES SCHEDULED TO BE REMOVED SHALL BE DONE WITH PAINT UNLESS OTHERWISE NOTED ON THE PLANS OR STANDARD DRAWINGS. TEMPORARY PAVEMENT MARKINGS PLACED ON FINISHED PAVEMENT OR EXISTING PAVEMENT TO REMAIN IN PLACE SHALL USE ONE OF THE FOLLOWING METHODS:

- REMOVABLE PAVEMENT MARKING TAPE
- CLASS A PAVEMENT MARKERS

(TC-21) INCLUDED IN THE COST OF THIS ITEM SHALL BE INSTALLATION, MAINTENANCE, AND REMOVAL. THIS ITEM SHALL BE BID ACCORDINGLY.

(TC-26) ALL CONSTRUCTION TRAFFIC CONTROL WILL BE IMPLEMENTED ACCORDING TO CONSTRUCTION PLANS, AND INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (CURRENT EDITION), AND COMPLIANT WITH APPLICABLE O.D.O.T. STANDARD DRAWINGS. PRICE BID FOR THIS ITEM SHALL BE PAYMENT IN FULL FOR THE INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF ALL NECESSARY CONSTRUCTION TRAFFIC CONTROL DEVICES REQUIRED FOR COMPLETION OF THE PROJECT.

ALL SIGNS AND BARRICADES WHICH ARE SHOWN WITH TYPE 'A' LIGHTS IN THE STANDARD DRAWINGS SHALL HAVE THE CORRESPONDING LIGHT ATTACHED DURING NON-DAYLIGHT HOURS. (NOTE FOR CONSULTANT OR DESIGNER: THIS NOTE SHALL BE USED WHEN TRAFFIC CONTROL IS A SIGN DAY PAY ITEM.)

(TC-28) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE BETWEEN 0.00 S.F. AND 6.25 S.F. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.

(TC-29) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE BETWEEN 6.26 S.F. AND 15.99 S.F. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.

(TC-30) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE BETWEEN 16.00 S.F. AND 32.99 S.F. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.

(TC-33) ALL CONSTRUCTION WORK ZONE SIGNS SHALL HAVE FLUORESCENT SHEETING. THE FLUORESCENT SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956 (LATEST REVISION)

THE MANUFACTURER SHALL FURNISH A TYPE 'D' CERTIFICATION IN ACCORDANCE WITH O.D.O.T. STANDARD SPECIFICATIONS (CURRENT EDITION) SUBSECTION 106.04. THE CERTIFICATION SHALL INCLUDE TEST RESULTS ON MATERIAL SUBMITTED FOR APPROVAL.

(TC-39) THE CONTRACTOR SHALL PROVIDE A PERSON, 24 HOURS A DAY, SEVEN DAYS A WEEK, AT THE CONSTRUCTION SITE TO MAINTAIN AND KEEP ALL TRAFFIC CONTROL DEVICES IN POSITION ANYTIME TRAFFIC IS DIRECTED AWAY FROM THE NORMAL TRAFFIC LANES OR ANYTIME THE ENGINEER DEEMS IT NECESSARY. THIS PERSON SHALL HOLD A CURRENT CERTIFICATION FROM THE AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) OR THE OKLAHOMA TRAFFIC ENGINEERING ASSOCIATION (OTEA) AS A TRAFFIC CONTROL TECHNICIAN OR TRAFFIC CONTROL SUPERVISOR.

(TC-52) ANY USED CHANGEABLE MESSAGE SIGN OR CONSTRUCTION ZONE IMPACT ATTENUATOR TO BE PLACED ON THIS PROJECT SHALL BE SUBJECT TO INSPECTION AND APPROVAL, BY THE OKLAHOMA DEPARTMENT OF TRANSPORTATION, TO ASSURE THAT THEY ARE IN GOOD WORKING CONDITION, PRIOR TO PLACEMENT ON THE PROJECT.

(TC-61) ANY DAMAGE TO A FINISHED OR EXISTING SURFACE RESULTING FROM THE CONTRACTORS NEGLIGENCE IN THE REMOVAL OF CONSTRUCTION ZONE PAVEMENT MARKERS OR CHANNELIZING DEVICES AND THE BITUMINOUS ADHESIVE USED IN THEIR INSTALLATION, SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE ENGINEER.

(TC-70) THIS ITEM IS AN ESTIMATED QUANTITY TO BE USED AS DEEMED NECESSARY BY THE ENGINEER.

(TC-75) TEMPORARY PAVEMENT MARKINGS SHALL BE IN PLACE THE SAME DAY THAT EXISTING PAVEMENT MARKINGS ARE REMOVED FROM ANY ROADWAY OPEN TO TRAFFIC. ALSO, ALL TEMPORARY PAVEMENT MARKINGS SHALL BE REMOVED PRIOR TO THE INSTALLATION OF FINAL STRIPING.

(TC-84) 300 CONSTRUCTION CALENDAR DAYS WERE USED TO COMPUTE THE SIGN DAY PAY ITEMS. THE AMOUNT OF CALENDAR DAYS USED TO COMPUTE THE SIGN DAY PAY ITEMS IS AN ESTIMATED QUANTITY ONLY, BASED ON THE CURRENT O.D.O.T. STANDARDS AND SUGGESTED CONSTRUCTION SEQUENCE FOR THIS PROJECT. THESE ESTIMATED SIGN DAY QUANTITIES MAY CHANGE AS THE PROJECT'S CONSTRUCTION TRAFFIC CONTROL IS MODIFIED DURING CONSTRUCTION.

(TC-85) THESE SIGNS MUST BE ON THE OKLAHOMA DEPARTMENT OF TRANSPORTATION LIST OF APPROVED CHANGEABLE MESSAGE SIGNS. FOR A LIST OF THE APPROVED SIGNS GO TO THE OKLAHOMA DEPARTMENT OF TRANSPORTATION WEBSITE AT:
http://www.okladot.state.ok.us/traffic/qpl/index.php

SIGNING AND STRIPING PAY QUANTITY NOTES

(TS-24) QUANTITY SHOWN INCLUDES 5,100 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(WHITE) AND 5,100 L.F. TRAFFIC STRIPE(MULTI-POLYMER)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF FOUR INCH (4") WIDE TRAFFIC STRIPE.

(TS-25) QUANTITY SHOWN INCLUDES 1,368 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(WHITE) AND WILL BE MEASURED BY THE LINEAR FOOT OF SIX INCH (6") WIDE TRAFFIC STRIPE.

(TS-33) INCLUDED IN THIS PAY ITEM IS ALL HARDWARE ASSOCIATED WITH PROPERLY ANCHORING AND MOUNTING THE HIGHWAY SIGN IN ACCORDANCE WITH O.D.O.T. PLANS AND STANDARD DRAWINGS SSA1-1 AND SSP1-1-(LATEST REVISION).

PREPARED BY:
OKLAHOMA DEPARTMENT OF TRANSPORTATION
DESIGN DIVISION

A. ENGINEER , P.E.
OKLA. LIC. NO. XXXXX

DATE

LICENSED PROFESSIONAL ENGINEER
A. ENGINEER
XXXXX
OKLAHOMA

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION

TRAFFIC PAY ITEMS & NOTES

COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. AT01

6/10/2019 pw:\\pw-int.hntb.org:PWCentralDiv\Documents\Kansas City Projects\66430 - ODOT SBR\DS\DS001_66 over Shell Creek\PlanProduction\Roadway\AT01-3276504-Traffic Pay Quantity and Notes.dgn

OKLAHOMA DEPARTMENT OF TRANSPORTATION

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6/10/2019

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FINAL FIELD MEETING

6/10/2019

SUMMARY OF SURFACING QUANTITIES

STATION TO STATION	AGGREGATE BASE TYPE A 303(A)	STABILIZED SUBGRADE 310(B)	TBSC TYPE E 402(E)	TACK COAT 407(B)	PRIME COAT 408	SUPERPAVE, TYPE S3 (PG 70-28 OK) 411(B)	SUPERPAVE, TYPE S3 (PG 64-22 OK) 411(B)	SUPERPAVE, TYPE S4 (PG 70-28 OK) 411(C)	SUPERPAVE, TYPE S4 (PG 64-22 OK) 411(C)	CONCRETE HEADER CURB (12" X 18") 609(C)
	CY	SY	TON	GAL	GAL	TON	TON	TON	TON	TON
MAINLINE WB										
196+15.00 TO 198+69.09	-	1469.7	7.2	229.3	35.1	115.6	25.6	76.3	8.7	254.3
200+94.07 TO 202+50.00	-	300.4	18.2	200.6	105.2	71.6	81.5	46.9	27.5	-
MAINLINE EB										
195+80.35 TO 198+35.98	-	-	17.5	245.7	128.8	87.7	99.9	57.5	33.1	-
200+60.95 TO 202+50.00	-	-	34.7	196.6	66.1	86.8	46.5	56.9	15.7	46.3
CROSSOVERS										
186+00.00 TO 191+65.80	290.7	-	-	187.4	327.1	-	559.7	-	-	-
205+50.00 TO 211+15.80	290.7	-	-	187.4	327.1	-	559.7	-	-	-
TEMP. WIDENING										
197+25.00 TO 198+90.65	-	-	-	-	-	-	17.6	-	-	-
	581.4	**1770.1**	**77.6**	**1247.0**	**989.4**	**361.7**	**1390.5**	**237.6**	**85.0**	**300.6**

SUMMARY OF REMOVALS

C.R.L. STATION TO STATION	COLD MILLING PAVEMENT 412	REMOVAL OF ASPHALT PAVEMENT 619(B)	REMOVAL OF GUARDRAIL 619(B)	SAWING PAVEMENT 619(C)
	SY	SY	LF	LF
MAINLINE WB				
196+15.00 TO 198+69.09	677.6	115.3	-	24.8
200+94.07 TO 202+50.00	415.9	292.1	289.9	66.8
MAINLINE EB				
195+80.35 TO 198+35.98	509.3	509.3	650.1	154.3
200+60.95 TO 202+50.00	504.2	504.2	-	24.7
CROSSOVERS				
186+00.00 TO 191+65.80	-	-	-	1132.0
205+50.00 TO 211+15.80	-	-	-	1132.1
TEMP. WIDENING				
197+25.00 TO 198+90.65	-	-	-	165.7
	1112.0	**1420.9**	**940.0**	**2700.4**

REMOVE AND RESET MAILBOXES

SURVEY C.L. STATION	SIDE	DESCRIPTION
202+27	LT	SINGLE MAILBOX

REMOVAL OF STRUCTURES & OBSTRUCTIONS

SURVEY C.L. STATION	SIDE	DESCRIPTION
198+42.75	RT	2.25' X 1.5' DROP INLET
198+42.75	RT	18" RCP
198+75.48	LT	2.5' X 1.5' DROP INLET
198+75.48	LT	18" X 38.2' CGMP
200+53.77	RT	2.25' X 1.5' DROP INLET
200+53.77	RT	18" RCP
200+87.55	LT	2.25' X 1.5' DROP INLET
200+87.55	LT	18" RCP

SUMMARY OF GUARD RAIL WIDENING

C.R.L. STATION TO STATION	TACK COAT 407(B)	PRIME COAT 408	TBSC TYPE E 402(E)	SUPERPAVE, TYPE S4 (PG 64-22 OK) 411(C)	BEAM GUARDRAIL W-BEAM SINGLE 623(A)	GUARDRAIL END TREATMENT (31") 623(G)	GUARDRAIL BRIDGE CONN-THRIE BEAM (31") 623(I)
	GAL	GAL	TON	TON	LF	EA	EA
195+80.350 TO 198+35.980 RT	19.8	33.3	34.9	29.9	131.25	1	1
195+80.350 TO 198+35.980 LT	21.9	36.9	45.9	33.1	131.25	1	1
200+94.070 TO 202+77.740 RT	12.6	21.3	20.4	19.2	131.25	1	1
200+94.070 TO 202+50.000 LT	16.7	28.0	18.4	25.2	106.25	1	1
TOTALS:	**71.0**	**119.5**	**119.6**	**107.4**	**500.00**	**4**	**4**

SUMMARY OF EROSION CONTROL

C.R.L. STATION TO STATION	TEMPORARY: SILT FENCE 221(C)	TEMPORARY: SEDIMENT FILTER 221(D)	TEMPORARY: SILT DIKE 221(F)	TEMPORARY: SEEDING METHOD B 232(B)	TEMPORARY: VEGETATIVE MULCHING 233(A)	TEMPORARY: * FERTILIZING (10-20-10) (R-7C)	TEMPORARY: * FERTILIZING (18-46-0) (R-7A)	PERMANENT: SOLID SLAB SODDING 230(A)	PERMANENT: * FERTILIZING (10-20-10) (R-7B)	PERMANENT: * WATERING (R-8)
	LF	EA.	LF	AC	AC	TON	TON	SY	TON	K GAL
MAINLINE										
185+00.00 TO 211+50.00	1155	9	70	1.4	0.7	0.21	0.11	3254	0.33	130.2
TOTALS:	**1155**	**9**	**70**	**1.4**	**0.7**	**0.21**	**0.11**	**3254**	**0.33**	**130.2**

SUMMARY OF EARTHWORK QUANTITIES

STATION TO STATION	UNCLASSIFIED EXCAVATION 202.(A)	EMBANKMENT 15%	EXCESS EXCAVATION	UNCLASSIFIED BORROW 202(D)
	C.Y.	C.Y.	C.Y.	C.Y.
PHASE 1				
CROSSOVERS				
186+00.00 TO 211+15.80	1418	62	707	
PHASE 2				
SH-66 EB				
202+00.00 TO 241+00.00	184	481	-	0*
PHASE 3				
SH-66 WB				
202+00.00 TO 241+00.00	90	481	-	0**
TOTAL:	**1693**	**1023**	**707**	**0**

* EXCESS EXCAV. REDUCED 296 C.Y. TO BE USED TO REDUCE UNCL. BORROW IN PHASE 2

** EXCESS EXCAV. REDUCED 390 C.Y. TO BE USED TO REDUCE UNCL. BORROW IN PHASE 3

DRAINAGE STRUCTURE SUMMARY

STR. NO.	ALIGNMENT	DESCRIPTION	STATION		DESIGN	12" CORR. GALV. STEEL PIPE 613(B) LF	12" PREFAB. CULVERT END SECTION, ROUND 613(L) EA	SUBSIDIARY: * STANDARD BEDDING MATERIAL, CLASS B C.Y.	SUBSIDIARY: * TRENCH EXCAVATION C.Y.	STR. NO.	REMARKS
T-1	SH-66	CONST. 12" X 561.5' LG CGSP	186+00.00	MED	PCES-4-1, SPB-1-4,FHTMPP-1-0	561.5	2	154	99	T-1	
T-2	SH-66	CONST. 12" X 561.5' LG CGSP	205+50.00	MED	PCES-4-1, SPB-1-4,FHTMPP-1-0	561.5	2	154	99	T-2	
					TOTALS:	**1123.0**	**4**	**308**	**198**	**TOTALS**	

* FOR CONTRACTOR'S INFORMATION ONLY. COST TO BE INCLUDED IN PRICE BID FOR OTHER ITEMS OF WORK.

DESIGN	RBH	6/19
DRAWN	RBH	6/19
CHECKED		
APPROVED		
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION

SUMMARY SHEET (ROADWAY)

COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. AX01

6/10/2019 pw:\\pw-int.hntb.org:PWCentralDiv\Documents\Kansas City Projects\66430 - ODOT SBR\DS001_66 over Shell Creek\PlanProduction\Roadway\AX01-3276504-Summary (Roadway).dgn

REMOVE & RESET EXISTING SIGNS					
EXIST. STA.	PROP. STA.	ALIGNMENT	SIDE	SIGN	QUANT
186+08	186+08	SH-66	MED/LT	DO NOT ENTER	1
187+11	187+11	SH-66	MED/LT	WRONG WAY	1
198+11	196+00	SH-66	LT	ROAD TEST	1
198+51	198+51	SH-66	RT	SHELL CREEK	1
200+80	200+80	SH-66	LT	SHELL CREEK	1
202+22	202+22	SH-66	RT	DO NOT ENTER	1
202+72	202+72	SH-66	MED/RT	YIELD	1
				TOTAL	7

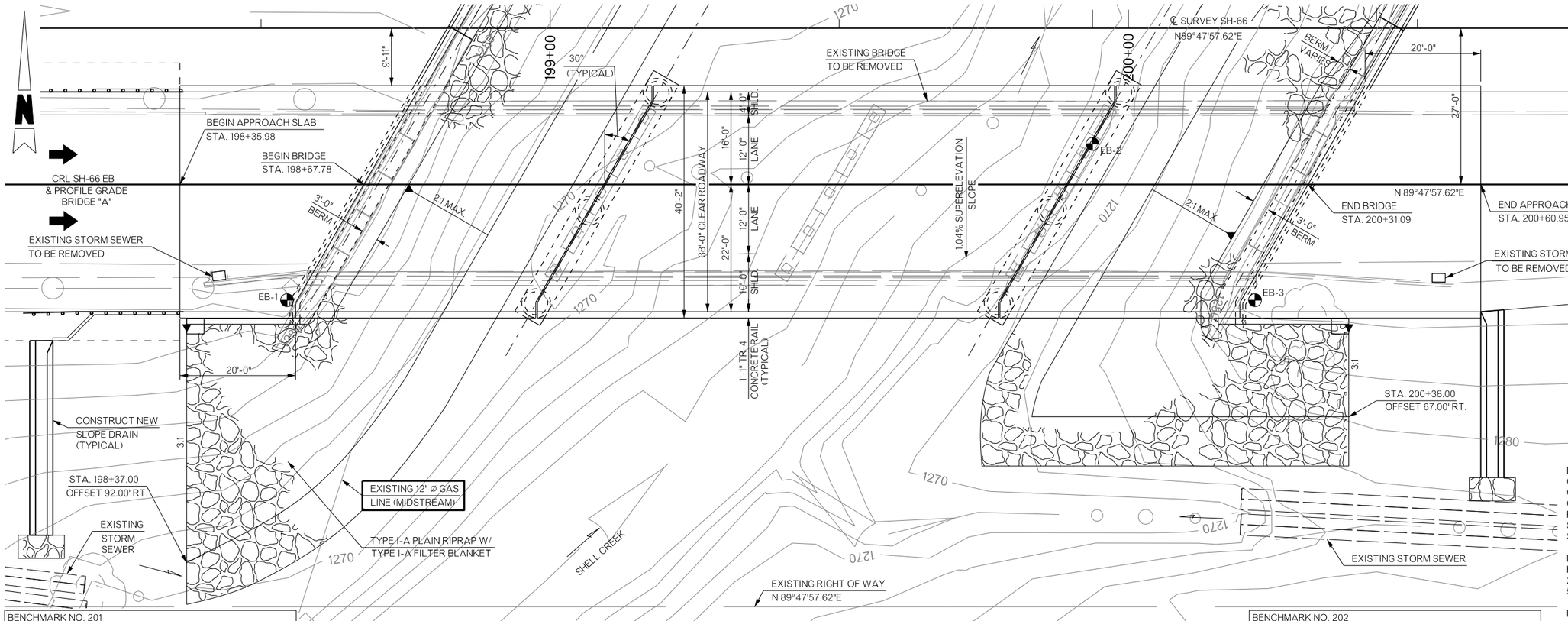
STRIPING						
STA. TO STA.		ALIGNMENT	4" WHITE EDGE LINE (FT)	4" YELLOW EDGE LINE (FT)	6" DASHED WHITE LANE LINE (FT)	REMARK
186+00.00	211+50.00	SH-66	2550	2550	684	EB, MULTI-POLYMER
186+00.00	211+50.00	SH-66	2550	2550	684	WB, MULTI-POLYMER
	SUBTOTAL		*5100*	*5100*	*1368*	
	TOTAL		**10200**		**1368**	

SUMMARY OF TEMPORARY TRAFFIC OPERATIONS

ITEM NO.	CODE NO.	DESCRIPTION	UNIT	DURATION				
				PHASE 1 (15 DAYS)	PHASE 2 (135 DAYS)	PHASE 3 (135 DAYS)	PHASE 4 (15 DAYS)	*TOTAL* (300 DAYS)
857(C)	8851	REMOVABLE PAVEMENT MARKING TAPE(4" WIDE)	LF	0	7256	7780	0	**15036**
857(E)	8887	(PL)CONSTRUCTION ZONE PAVEMENT MARKERS(FLEXTAB)TYPE 2-1	EA	0	22	22	0	**44**
871(B)	8705	(SP)CONST.ZONE IMPACT ATTEN.	SD	0	135	135	0	**270**
877(B)	8484	DELIVER PORTABLE LONGITUDINAL BARRIER	LF	0.0	137.5	0.0	0.0	**137.5**
877(C)	8486	RELOCATION OF PORTABLE LONGITUDINAL BARRIER	LF	0.0	0.0	112.5	0.0	**112.5**
880(A)	8812	ARROW DISPLAY(TYPE C)	SD	30	270	270	30	**600**
880(B)	8818	CONSTRUCTION SIGNS 0 TO 6.25 SF	SD	570	5130	5130	570	**11400**
880(B)	8821	CONSTRUCTION SIGNS 6.26 SF TO 15.99 SF	SD	120	2160	2430	120	**4830**
880(B)	8824	CONSTRUCTION SIGNS 16.0 SF TO 32.99 SF	SD	330	3375	3375	330	**7410**
880(C)	8842	CONSTRUCTION BARRICADES(TYPE III)	SD	60	2160	3375	60	**5655**
880(C)	8848	WING BARRICADES	SD	60	540	540	60	**1200**
880(E)	8860	WARNING LIGHTS(TYPE A)	SD	360	6885	9315	360	**16920**
880(E)	8872	WARNING LIGHTS(TYPE C)	SD	1605	19035	23760	1665	**46065**
880(F)	8878	DRUMS	SD	1605	19035	23760	1665	**46065**
880(G)	8884	TUBE CHANNELIZERS	SD	0	1080	1350	0	**2430**
882(A)	8306	PORT.CHANGEABLE MESSAGE SIGN	SD	45	405	405	45	**900**

DESIGN		OKLAHOMA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION
DRAWN		
CHECKED		SUMMARY SHEET (TRAFFIC)
APPROVED		
SQUAD		

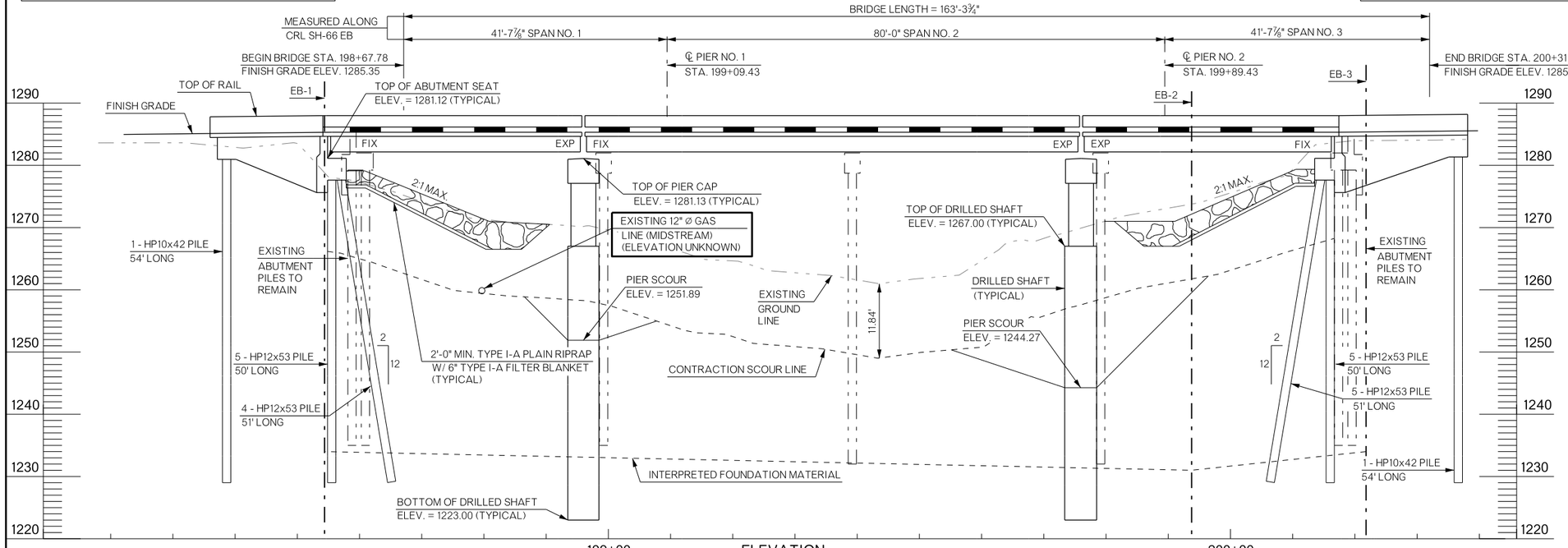
COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. AX02



PLAN

BENCHMARK NO. 201
"X" ON CONC. DRAIN
OFFSET: 0.10' RIGHT STATION: 194+50.36 ELEV. 1284.45

BENCHMARK NO. 202
"X" ON CONC. BRIDGE
OFFSET: 12.82' LEFT STATION: 200+52.35 ELEV. 1285.83



ELEVATION

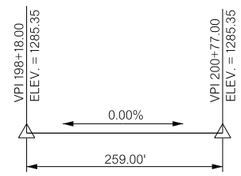
HYDRAULIC SUMMARY

TOTAL DRAINAGE AREA	=	22.41 SQ. MI.
CONTROLLED DRAINAGE AREA	=	0.00 SQ. MI.
EFFECTIVE DRAINAGE AREA	=	22.41 SQ. MI.

FREQ.	Q (CFS)	CHW (FT.)	V (FPS)
2	1080	1272.10	2.12
5	2230	1275.79	2.68
10	3330	1278.00	3.18
25	5150	1279.73	4.27
50	6740	1280.76	5.14
100	8390	1281.67	6.00
500	13500	1284.92	9.68

CONTRACTION SCOUR (100 YEAR)	=	11.84 FT.
PIER SCOUR (100 YEAR)	=	5.56 FT.
TOTAL SCOUR (100 YEAR)	=	21.07 FT. (PIER NO. 2)

VERTICAL PROFILE DATA



DESIGN DATA

DESIGN UNIT STRESSES

CLASS AA CONCRETE	f'c =	4,000 PSI
CLASS A CONCRETE	f'c =	3,000 PSI
CLASS C CONCRETE	f'c =	4,000 PSI
REINFORCING STEEL (GRADE 60)	fy =	60,000 PSI
STRUCTURAL STEEL M270 (GRADE 50W)	fy =	50,000 PSI
STAINLESS STEEL A240 (TYPE 316)	fy =	30,000 PSI

LOADING:
HL-93 OR 175-4BM (ODOT OVERLOAD)
20 PSF FUTURE WEARING SURFACE
5 PSF STAY-IN-PLACE FORMS

DESIGN:
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION
ANSI/AASHTO/AWS D 1.5 BRIDGE WELDING CODE
STAINLESS STEEL WELDING CODE

RATING:
LRFR INVENTORY RATING FACTOR: 1.35
LRFR OPERATING RATING FACTOR: 1.75
LRFR PERMIT RATING FACTOR: 1.63

INDEX OF BRIDGE SHEETS	
NO.	DESCRIPTION
B001	GENERAL PLAN & ELEVATION
B002-B003	SUBSURFACE PROFILE
B004	SUBSTRUCTURE STAKING DIAGRAM
B005-B006	ABUTMENT NO. 1 DETAILS
B007-B008	ABUTMENT NO. 2 DETAILS
B009-B010	PIER DETAILS
B011	BEARING DETAILS
B012	FRAMING PLAN
B013	ROLLED BEAM DETAILS
B014-B015	DIAPHRAGM DETAILS
B016-B018	DECK SLAB DETAILS
B019	SLOPE DRAIN DETAILS
B020	APPROACH SLAB DETAILS

NOTES:

1. FOR BORING PROFILES, SEE SUBSURFACE PROFILE SHEETS.
2. FOR TR-4 TRAFFIC RAIL LAYOUT, TYPICAL RIPRAP SECTION AND FOUNDATION DATA, SEE SUBSTRUCTURE STAKING DIAGRAM.
3. FOR ABUTMENT AND PIER FOUNDATION DATA, SEE ABUTMENT AND PIER SHEETS.

REVISIONS

REV. NO.	DESCRIPTION	DATE

BRIDGE "A"
EB SH-66 OVER SHELL CREEK
CANADIAN COUNTY

GENERAL PLAN AND ELEVATION

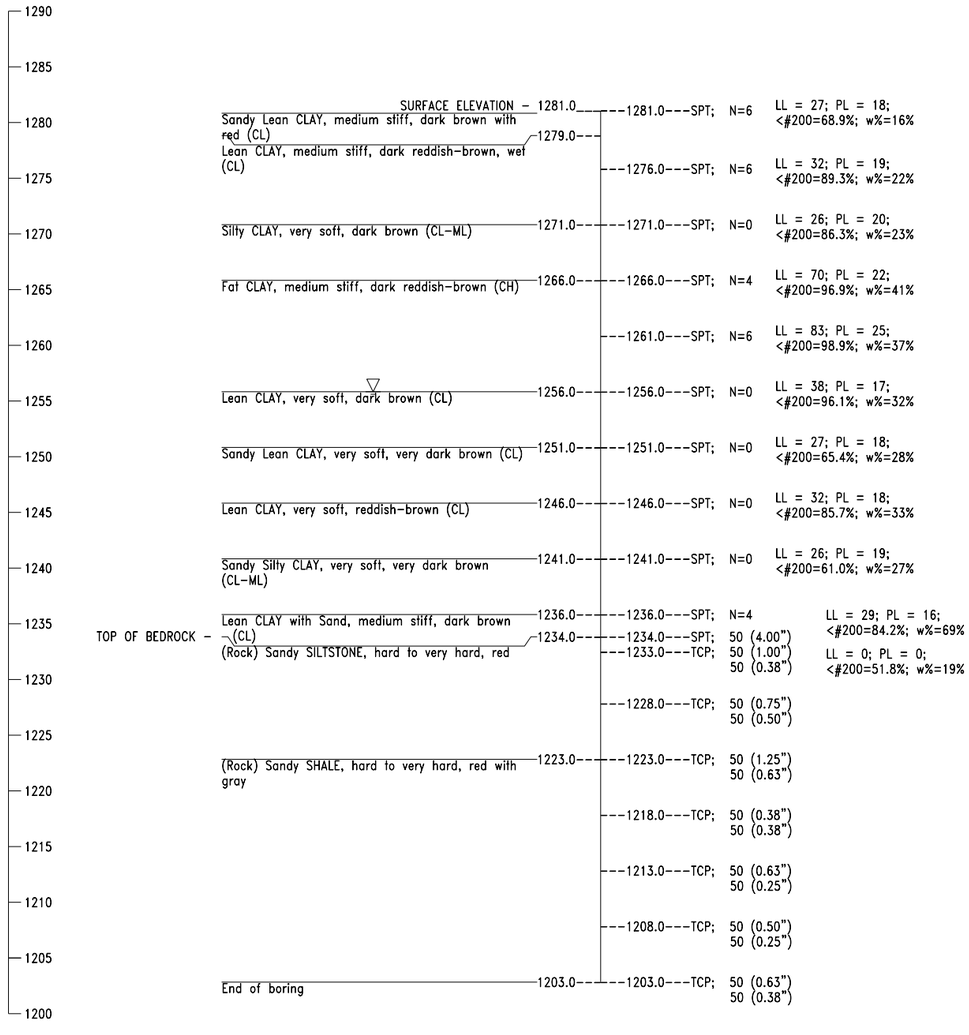
CONSTRUCT 40'- 80' - 40' W30 ROLLED BEAM SPANS
WITH TR4 CONCRETE RAILS AND 38' CLEAR ROADWAY
30° SKEW LT AHEAD AT ℄ SURVEY SH-66 STA. 199+49.43, 27' RT.

Design	WJS	5/19
Detail	KNB	5/19
Check	WJS	5/19
Squad	THOMAS	
Engr.	THOMAS	

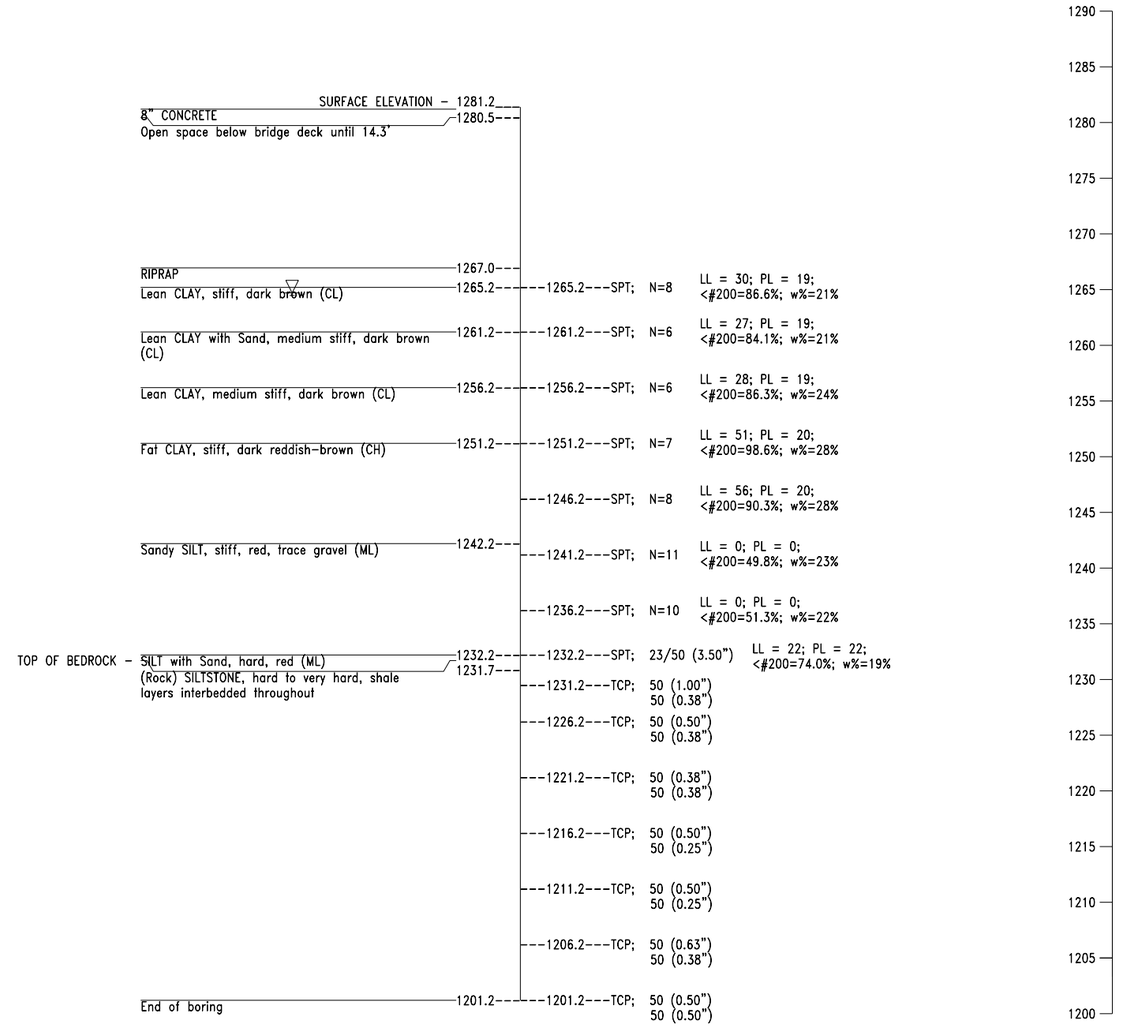
STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORATION
JOB PIECE NO. 32765(04)
SHEET NO. B001

REVISIONS		
REV. NO.	DESCRIPTION	DATE

Boring Number EB-1
Station: 198+54.5
Offset: 47.0' RT
Date Drilled: 12/27/18



Boring Number EB-2
Station: 199+93.8
Offset: 20.0' RT
Date Drilled: 12/27/2018



GEOLOGIC STATEMENT

"Division Four" of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates that the bridge site is within the Duncan Subunit (Pfd) in Canadian County. The Duncan subunit unit is described below.

The Duncan subunit consists of sandstone, siltstone, mudstone, (hardened, massive, clay) and shale. The subunit has a massive sandstone at both the top and bottom with a shale interval between. The lower sandstone is orange, fine-grained, cross-bedded, and about sixteen feet thick in southern Canadian County. The interval above the lower sandstone consists of red blocky shales along with some mudstones. The upper sandstone is pink-orange, soft to moderately hard, fine-grained, and contains a few clay galls and a small amount of cross-bedding. It is about twenty feet thick in Canadian County.

The total thickness of subunit is about 100 feet at the southern boundary of Canadian County. Northward, the subunit thins to about 70 feet at Yukon and about 50 feet at the Kingfisher County line. The sandstones also thin northward, become less pronounced, and less identifiable.

The subunit outcrops in Canadian and Oklahoma Counties of Division Four. It extends into Kingfisher County where it pinches out. Detailed geology of Kingfisher County is unavailable; therefore, its thin outcrop is not mapped but is included in the Flowerpot unit.

Topographically, the sandstones of the subunit generally cap scarps and rolling hills which have a fair amount of relief. The scarps become less pronounced northward. The sandstones commonly support the growth of cedar trees (Juniper) and various other trees (mostly Oak) which contrasts with the nearly treeless Chickasha subunit. The shale interval generally forms the slope beneath the upper sandstone and is covered with grass and a few trees

GEOTECHNICAL REPORT

All geotechnical information contained on this sheet is covered by the engineering seal affixed to an original geotechnical engineering report that has been stamped and sealed by a professional engineer licensed in Oklahoma. To obtain a copy of the complete report, contact the ODOT office engineer at (405) 521-2625. The contractor should be fully aware of the site conditions prior to beginning work. Any additional geotechnical information which may be desired is the responsibility of the contractor.

Note: Water level elevations shown were obtained at the time the borings were drilled and may fluctuate throughout the year.

NOTE: SPT – Split Spoon Sampling
TCP – Texas Cone Penetrator Test
AUG – Augur Cutting Sample
LL – Liquid Limit
PL – Plastic Limit

<#200 – Percent passing #200 sieve
w% – Moisture content
N – Number of blows per 12 inches
▽ Denotes depth to observed groundwater

PROFESSIONAL SERVICE INDUSTRIES, INC.

BRIDGE "A" CANADIAN COUNTY
EB SH-66 OVER SHELL CREEK

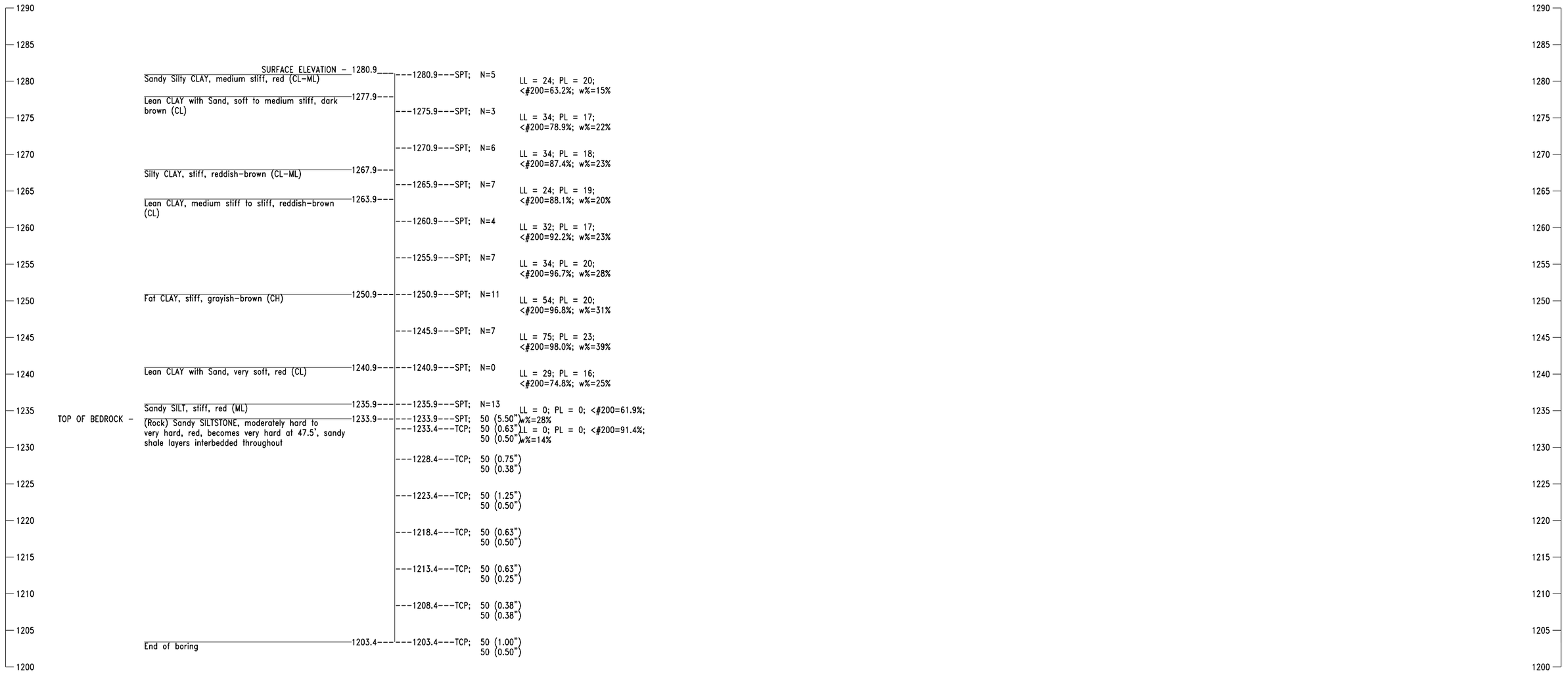
SUBSURFACE PROFILE
(SHEET 1 OF 2)

Design		
Detail	YZ	2/19
Check		
Squad	THOMAS	
Engr.	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 32765(04) | SHEET NO. B002

REVISIONS		
REV. NO.	DESCRIPTION	DATE

Boring Number EB-3
Station: 200+21.9
Offset: 47.0' RT
Date Drilled: 12/27/18



GEOLOGIC STATEMENT

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NOTE: SPT – Split Spoon Sampling
TCP – Texas Cone Penetrator Test
AUG – Augur Cutting Sample
LL – Liquid Limit
PL – Plastic Limit

<#200 – Percent passing #200 sieve
w% – Moisture content
N – Number of blows per 12 inches
▽ Denotes depth to observed groundwater

PROFESSIONAL SERVICE INDUSTRIES, INC.

BRIDGE "A" CANADIAN COUNTY
EB SH-66 OVER SHELL CREEK

SUBSURFACE PROFILE
(SHEET 2 OF 2)

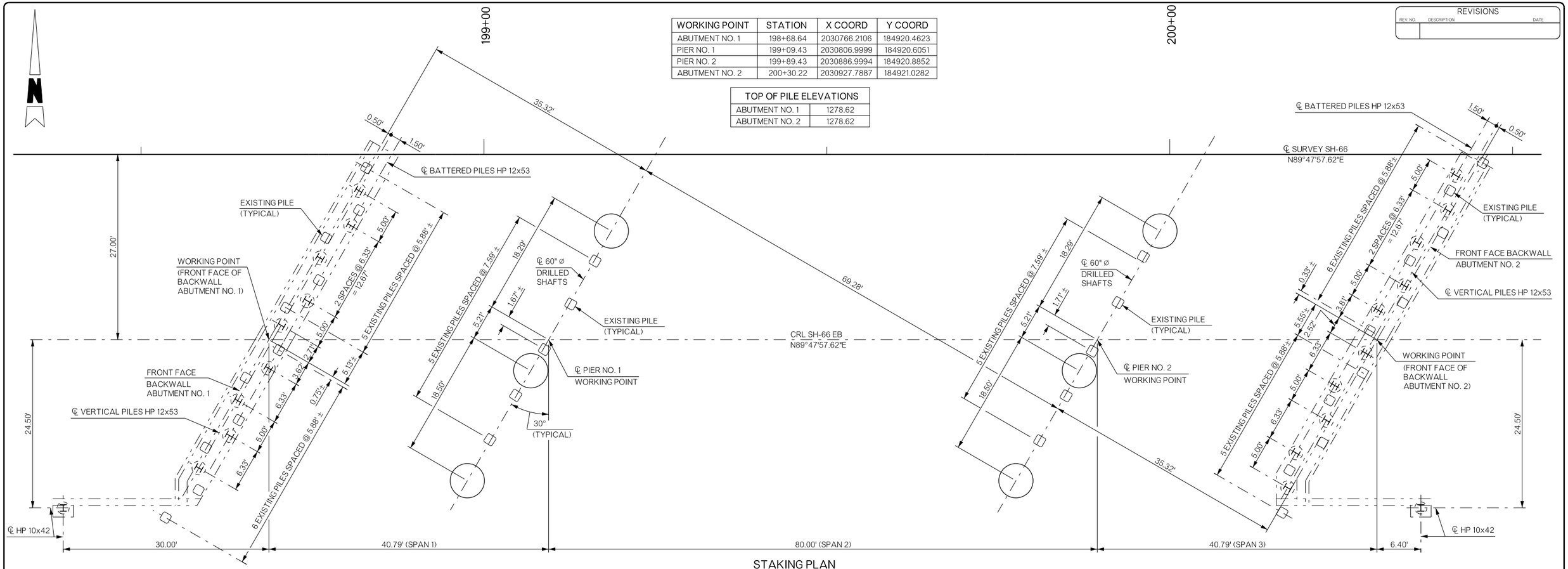
Design		
Detail	YZ	2/19
Check		
Squad	THOMAS	
Engr.	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 32765(04) | SHEET NO. B003

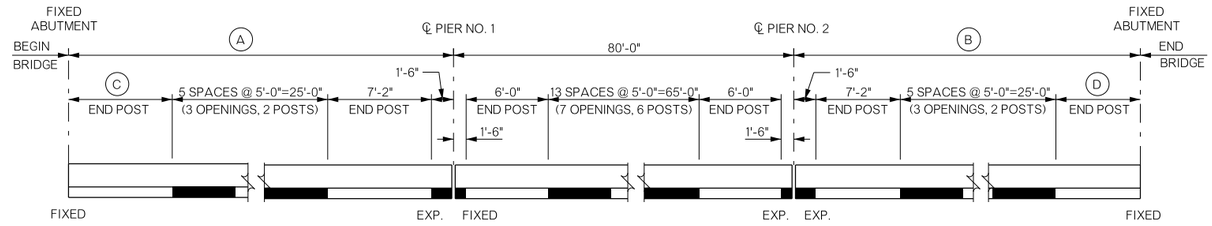
REVISIONS		
REV. NO.	DESCRIPTION	DATE

WORKING POINT	STATION	X COORD	Y COORD
ABUTMENT NO. 1	198+68.64	2030766.2106	184920.4623
PIER NO. 1	199+09.43	2030806.9999	184920.6051
PIER NO. 2	199+89.43	2030886.9994	184920.8852
ABUTMENT NO. 2	200+30.22	2030927.7887	184921.0282

TOP OF PILE ELEVATIONS	
ABUTMENT NO. 1	1278.62
ABUTMENT NO. 2	1278.62

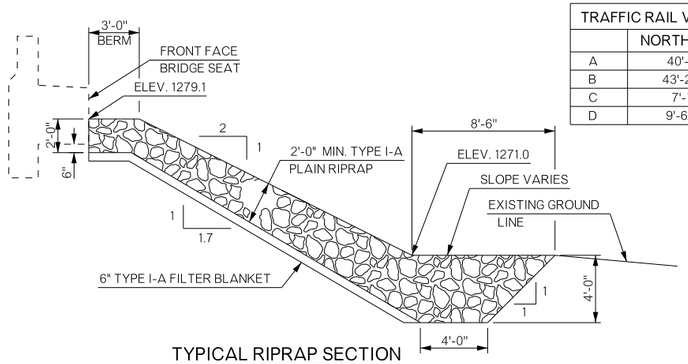


STAKING PLAN



TRAFFIC RAIL LAYOUT

TRAFFIC RAIL VARIABLE DIMENSIONS		
	NORTH RAIL	SOUTH RAIL
A	40'-9"	41'-7⅞"
B	43'-2¼"	41'-7⅞"
C	7'-1"	7'-11⅛"
D	9'-6¼"	7'-11⅛"



TYPICAL RIPRAP SECTION

STEEL PILING:
ALL PILING SHALL BE DRIVEN TO A POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE REQUIRED ULTIMATE PILE CAPACITY IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE REQUIRED ULTIMATE PILE CAPACITY IS OBTAINED. THE LENGTH OF STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY.

NOTES:

1. FACE OF HP12x53 PILE WEB SHALL BE PERPENDICULAR TO FACE OF BRIDGE SEAT.
2. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING PILES. FOR DETAILS SEE GENERAL NOTES (BRIDGE) SHEET.

SUMMARY OF QUANTITIES - BRIDGE "A"						
DESCRIPTION	UNIT	ABUTMENT	PIER	SUPERSTRUCTURE	APPROACH	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	CY	195				195
CLSM BACKFILL	CY	198.40				198.40
TEMPORARY EARTH RETAINAGE	LSUM					1
APPROACH SLAB	SY				275.30	275.30
SAW-CUT GROOVING	SY			689.60	260.50	950.10
SEALED EXPANSION JOINT	LF			93.20		93.20
CONCRETE RAIL (TR4)	LF			327.30	123.40	450.70
STRUCTURAL STEEL	LB			154,030		154,030
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA			15		15
STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA			15		15
CLASS AA CONCRETE	CY			169.80		169.80
CLASS A CONCRETE	CY	113.40	106.00			219.40
CLASS C CONCRETE	CY					
REINFORCING STEEL	LB		980			980
EPOXY COATED REINFORCING STEEL	LB	10,030	13,280	42,000		65,710
PILES, FURNISHED (HP10x42)	LF	108				108
PILES, FURNISHED (HP12x53)	LF	959				959
PILES, DRIVEN (HP10x42)	LF	108				108
PILES, DRIVEN (HP12x53)	LF	959				959
PILE SPLICE, H-PILE (NON-BIDDABLE)	EA	42				42
WATER REPELLENT (VISUALLY INSPECTED)	SY	19	84	271	58	432
DRILLED SHAFTS 60" DIAMETER	LF		264			264
CROSSHOLE SONIC LOGGING	EA		1			1
CSL ACCESS TUBES	LF		1,410			1,410
(PL) INSTALLATION OF BRIDGE ITEMS	LSUM					1
TYPE I-A PLAIN RIPRAP	TON					
TYPE I-A FILTER BLANKET	TON					
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	115				115
6" NON-PERF. PIPE UNDERDRAIN RND.	LF	50				50
REMOVAL OF EXISTING BRIDGE STRUCTURE	LSUM					1

BRIDGE "A"
EB SH-66 OVER SHELL CREEK
CANADIAN COUNTY

SUBSTRUCTURE STAKING DIAGRAM

Design	AMW	4/19
Detail	KNB	5/19
Check	AMW	5/19
Squad	THOMAS	
Engr.	THOMAS	

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 32765(04)
SHEET NO. B004

ABUTMENT QUANTITIES		
ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	95
CLSM BACKFILL	C.Y.	104.0
CLASS A CONCRETE	C.Y.	56.20
EPOXY COATED REINFORCING STEEL	LB.	4,950
PILES, FURNISHED (HP10x42)	L.F.	54
PILES, FURNISHED (HP12x53)	L.F.	454
PILES, DRIVEN (HP10x42)	L.F.	54
PILES, DRIVEN (HP12x53)	L.F.	454
PILE SPLICE (NON-BIDDABLE)	EA.	20
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	9
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	58
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	23

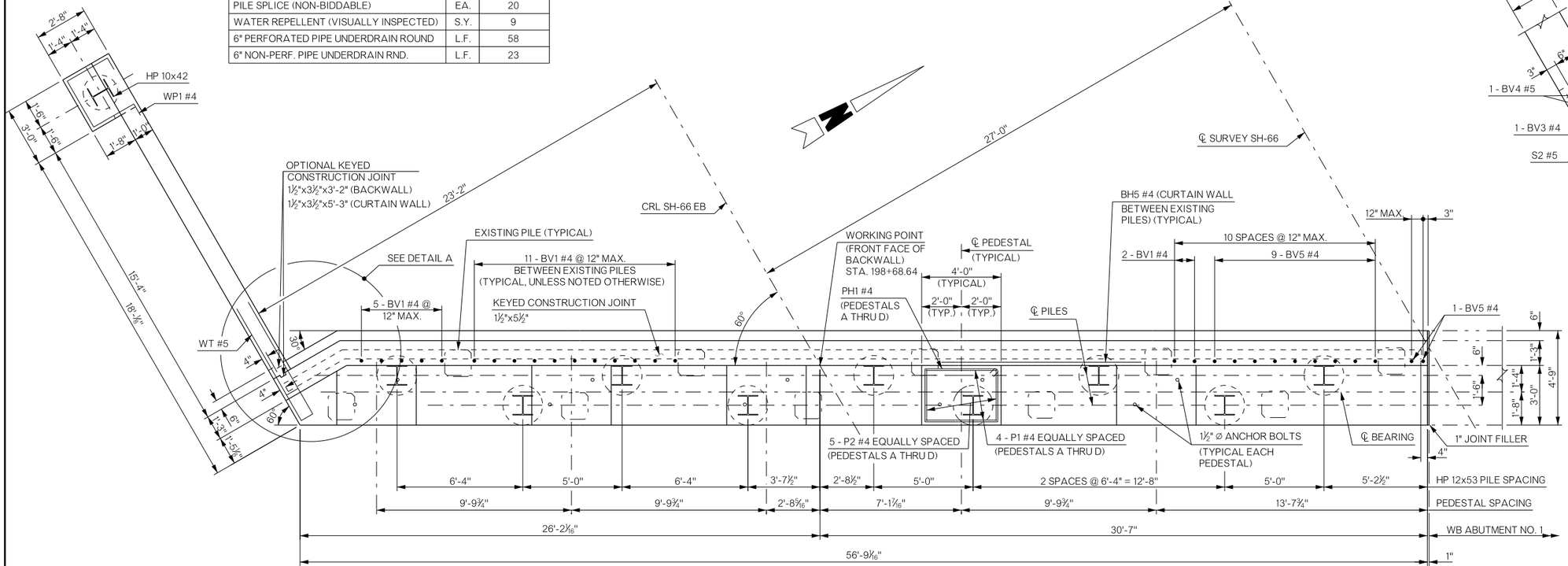
TOP OF PEDESTAL ELEVATIONS	
PEDESTAL	ABUTMENT NO. 1
A	1281.73
B	1281.64
C	1281.55
D	1281.46
E	1281.37

NOTES:

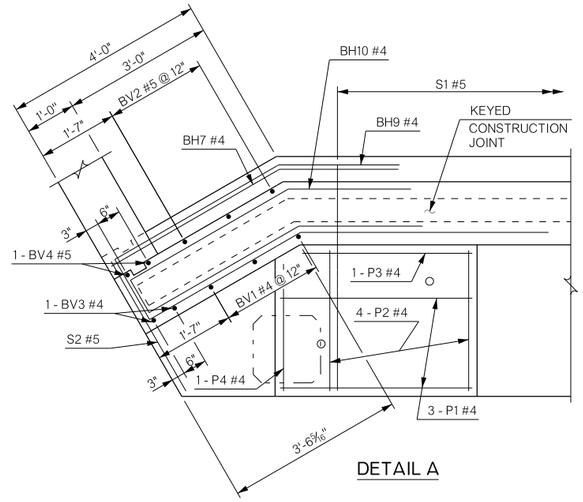
1. PLACE ALL WT WING REINFORCING TIED TO ABUTMENT SEAT AND BACKWALL REINFORCING BEFORE PLACING ABUTMENT SEAT AND BACKWALL CONCRETE. FOR ADDITIONAL DETAILS AND BAR LIST, SEE ABUTMENT NO. 1 DETAILS (SHEET 2 OF 2).
2. MAXIMUM FACTORED PILE LOAD = 121.7 TONS
   FACTORED PILE CAPACITY = 145.0 TONS

REVISIONS

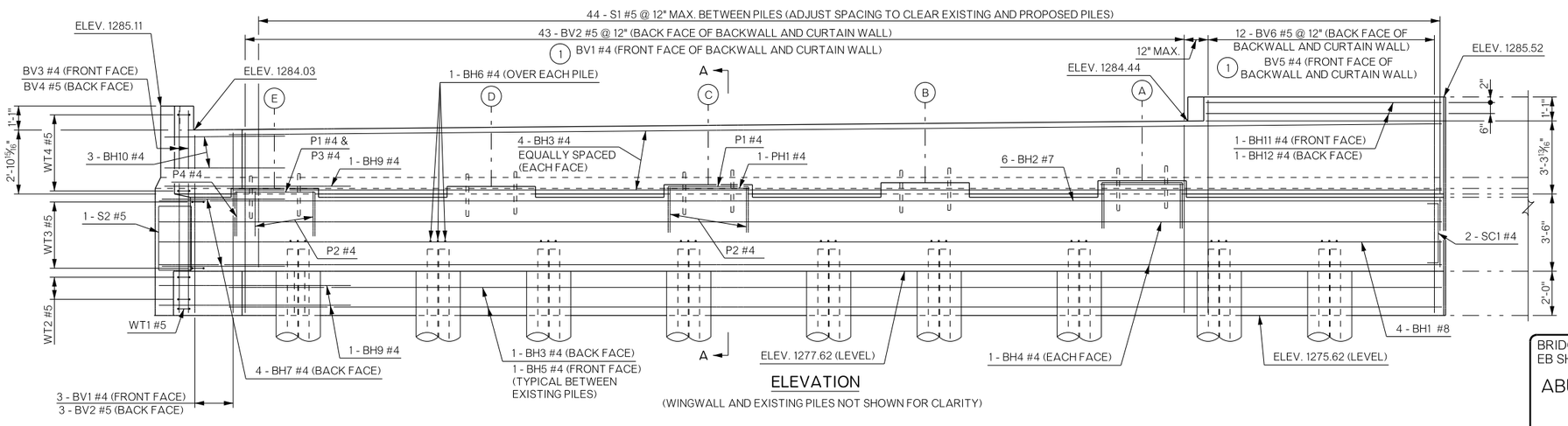
REV. NO.	DESCRIPTION	DATE



PLAN



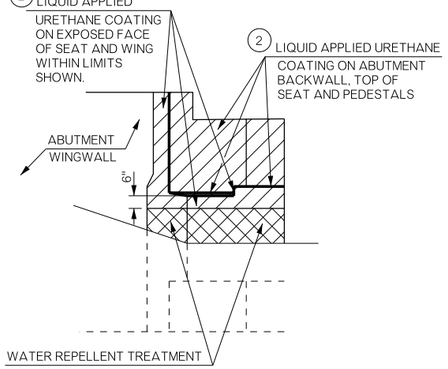
DETAIL A



ELEVATION

(WINGWALL AND EXISTING PILES NOT SHOWN FOR CLARITY)

1 SEE PLAN FOR SPACING



WATER REPELLENT TREATMENT DETAILS

2 LIQUID APPLIED URETHANE COATING SHALL BE INCLUDED IN THE LUMP SUM PRICE OF "(PL) INSTALLATION OF BRIDGE ITEMS". FOR MORE DETAILS, SEE GENERAL NOTES AND SUMMARY OF QUANTITIES SHEETS.

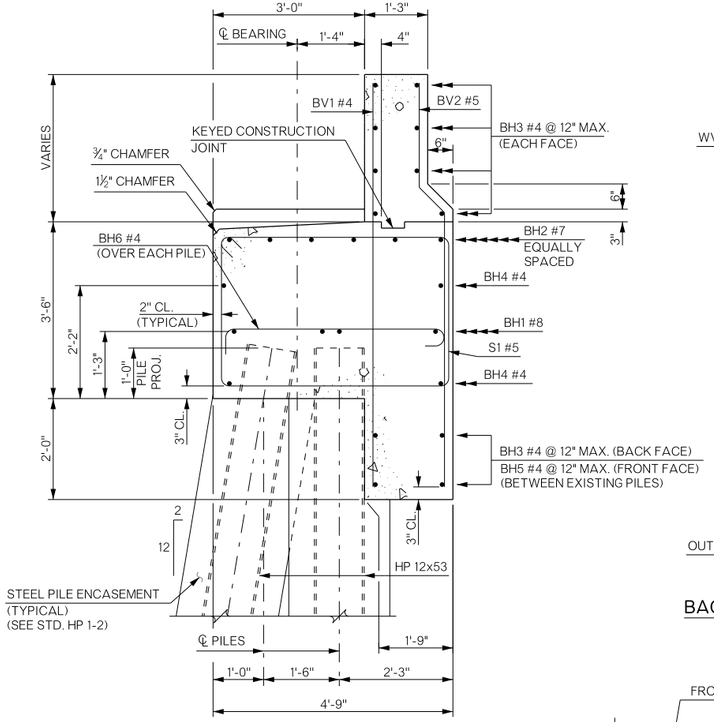
BRIDGE "A" CANADIAN COUNTY
EB SH-66 OVER SHELL CREEK

ABUTMENT NO. 1 DETAILS (SHEET 1 OF 2)

Design	AMW	4/19
Detail	KNB	5/19
Check	WJS	5/19
Squad	THOMAS	
Engr.	THOMAS	

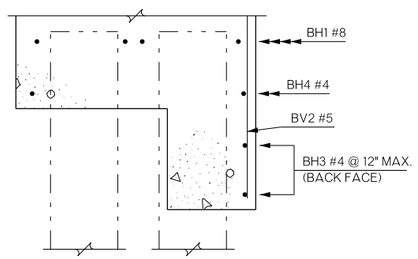
STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 32765(04) SHEET NO. B005

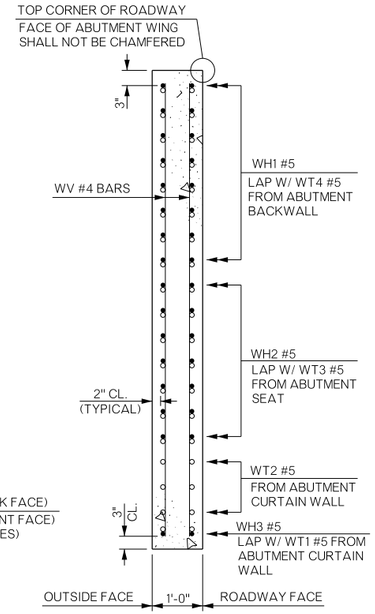


SECTION A-A

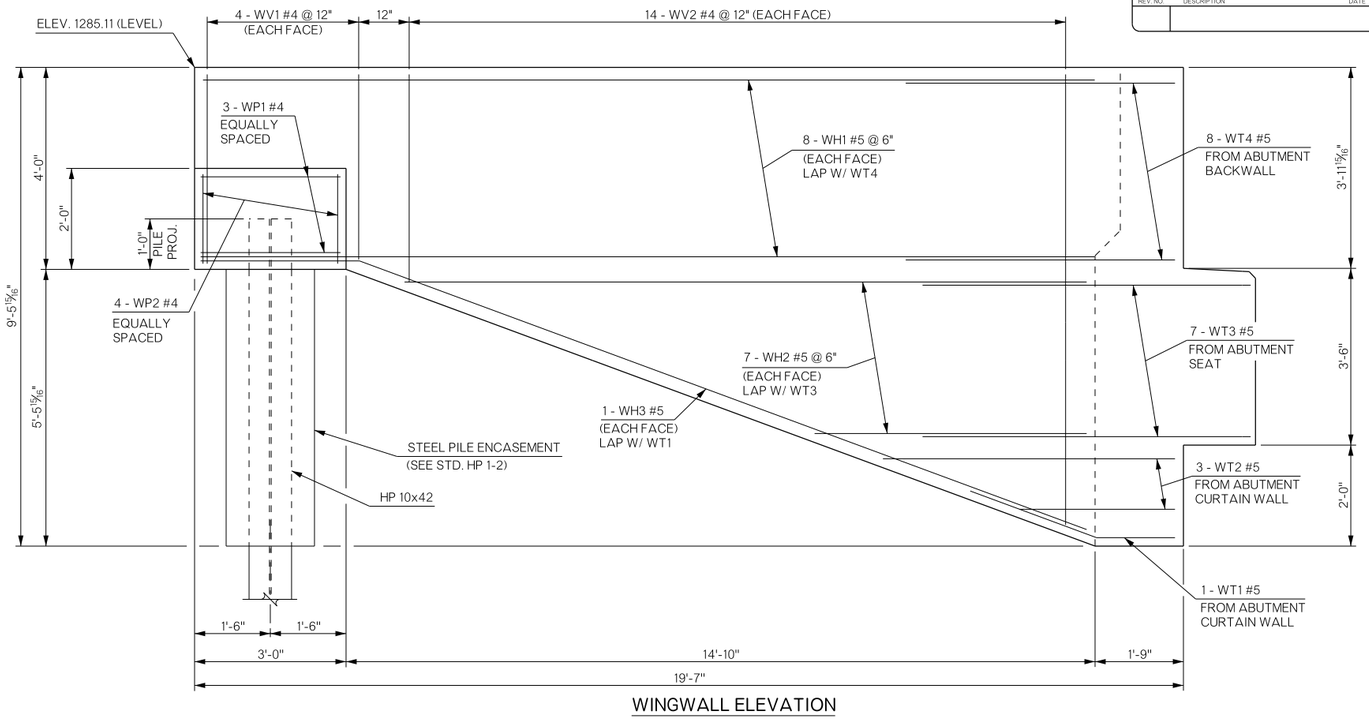
(EXISTING PILES NOT SHOWN FOR CLARITY)



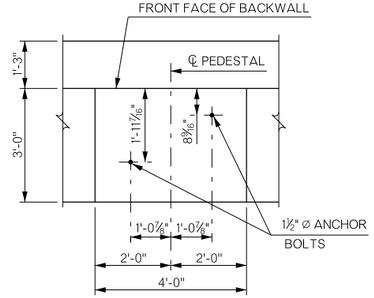
TYPICAL SECTION AT EXISTING PILE



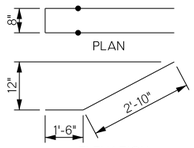
SECTION THRU WING AT BACK FACE OF ABUTMENT SEAT



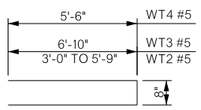
WINGWALL ELEVATION



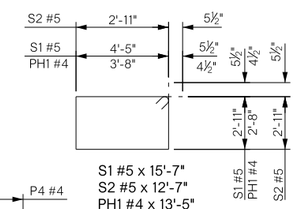
DETAIL OF PEDESTAL WITH LAYOUT OF ANCHOR BOLTS



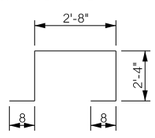
WT1 #5 x 9'-0"



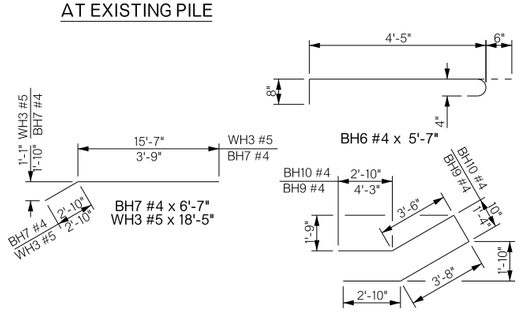
WT2 #5 x LENGTH
WT3 #5 x 14'-4"
WT4 #5 x 11'-8"

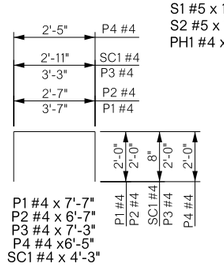


S1 #5 x 15'-7"
S2 #5 x 12'-7"
PH1 #4 x 13'-5"

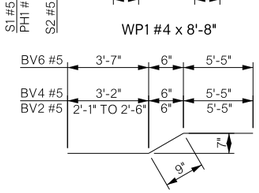


WP1 #4 x 8'-8"





P1 #4 x 7'-7"
P2 #4 x 6'-7"
P3 #4 x 7'-3"
P4 #4 x6'-5"
SC1 #4 x 4'-3"



BV2 #5 x LENGTH
BV4 #5 x 9'-4"
BV6 #5 x 9'-9"

REVISIONS

REV. NO.	DESCRIPTION	DATE

ABUTMENT NO. 1 BAR LIST

EPOXY COATED REINFORCING

	MARK	SIZE	FORM	NUMBER	LENGTH	VARIANCE
(1)	BH1	8	STR.	4	63'-6"	
(2)	BH2	7	STR.	6	62'-9"	
	BH3	4	STR.	10	54'-6"	
(3)	BH4	4	STR.	4	59'-4"	
	BH5	4	STR.	8	10'-0"	
	BH6	4	BNT.	27	5'-7"	
	BH7	4	BNT.	4	6'-7"	
	BH9	4	BNT.	3	15'-7"	
	BH10	4	BNT.	3	13'-8"	
	BH11	4	STR.	2	10'-6"	
	BH12	4	STR.	2	11'-3"	
	BV1	4	STR.	43	8'-2⅛" AVG.	8'-0" TO 8'-5"
	BV2	5	BNT.	46	8'-5⅛" AVG.	8'-3" TO 8'-8"
	BV3	4	STR.	2	9'-1"	
	BV4	5	BNT.	2	9'-4"	
	BV5	4	STR.	11	9'-6"	
	BV6	5	BNT.	12	9'-9"	
	S1	5	BNT.	44	15'-7"	
	S2	5	BNT.	1	12'-7"	
	SC1	4	BNT.	2	4'-3"	

	MARK	SIZE	FORM	NUMBER	LENGTH	VARIANCE
	P1	4	BNT.	19	7'-7"	
	P2	4	BNT.	24	6'-7"	
	P3	4	BNT.	1	7'-3"	
	P4	4	BNT.	1	6'-5"	
	PH1	4	BNT.	4	13'-5"	
	WH1	5	STR.	16	17'-8"	
(4)	WH2	5	STR.	14	9'-5" AVG.	5'-4" TO 13'-6"
	WH3	5	BNT.	2	18'-5"	
	WV1	4	STR.	8	3'-7"	
(5)	WV2	4	STR.	28	6'-5" AVG.	4'-0" TO 8'-10"
	WT1	5	BNT.	1	9'-4"	
	WT2	5	BNT.	3	9'-5" AVG.	6'-8" TO 12'-2"
	WT3	5	BNT.	7	14'-4"	
	WT4	5	BNT.	8	11'-8"	
	WP1	4	BNT.	3	8'-8"	
	WP2	4	STR.	4	1'-7"	

(1) INCLUDES 1 - 68" LAP

(2) INCLUDES 1 - 60" LAP

(3) INCLUDES 1 - 34" LAP

(4) 2 SETS OF 7

(5) 2 SETS OF 14

BRIDGE "A" CANADIAN COUNTY
EB SH-66 OVER SHELL CREEK

ABUTMENT NO. 1 DETAILS (SHEET 2 OF 2)

Design	AMW	4/19
Detail	KNB	5/19
Check	WJS	5/19
Squad	THOMAS	
Engr.	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

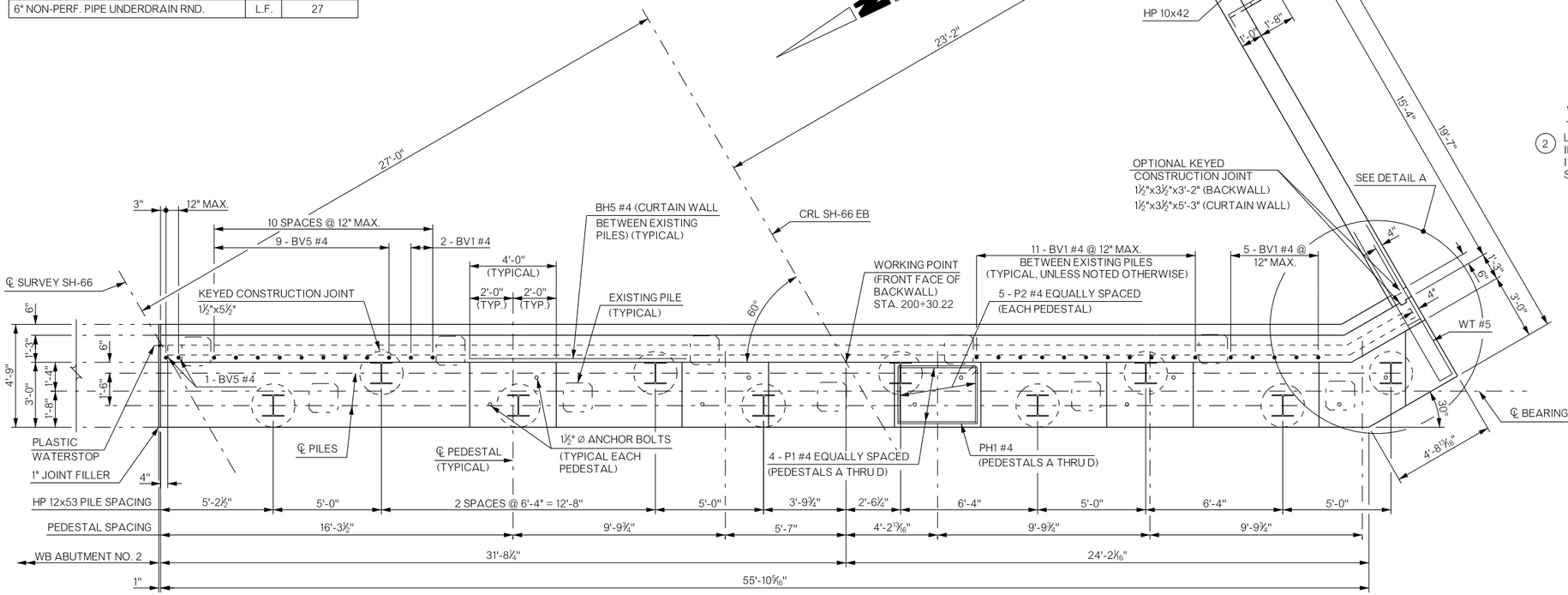
JOB PIECE NO. 32765(04) SHEET NO. B006

ABUTMENT QUANTITIES		
ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	100
CLSM BACKFILL	C.Y.	94.40
CLASS A CONCRETE	C.Y.	57.20
EPOXY COATED REINFORCING STEEL	LB.	5,080
PILES, FURNISHED (HP10x42)	L.F.	54
PILES, FURNISHED (HP12x53)	L.F.	505
PILES, DRIVEN (HP10x42)	L.F.	54
PILES, DRIVEN (HP12x53)	L.F.	505
PILE SPLICE (NON-BIDDABLE)	EA.	22
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	10
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	57
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	27

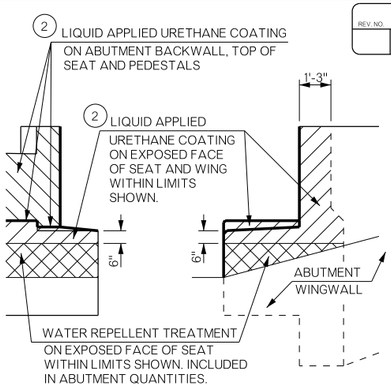
TOP OF PEDESTAL ELEVATIONS	
PEDESTAL	ABUTMENT NO. 2
A	1281.73
B	1281.64
C	1281.55
D	1281.46
E	1281.37

REVISIONS

REV. NO.	DESCRIPTION	DATE

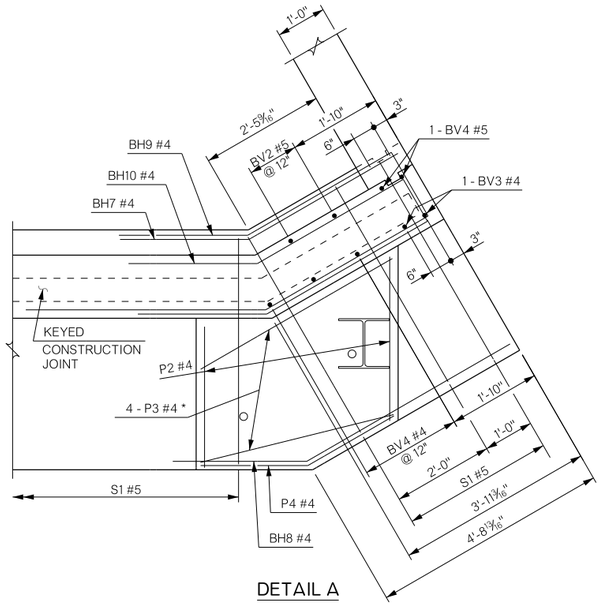


PLAN



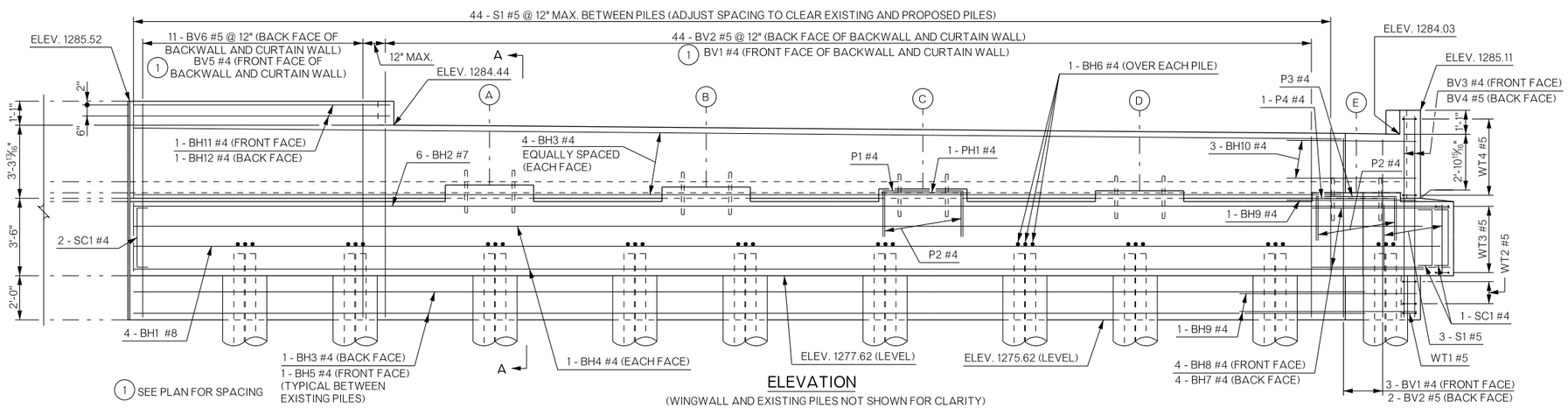
WATER REPELLENT TREATMENT DETAILS

(2) LIQUID APPLIED URETHANE COATING SHALL BE INCLUDED IN THE LUMP SUM PRICE OF "(PL) INSTALLATION OF BRIDGE ITEMS". FOR MORE DETAILS, SEE GENERAL NOTES AND SUMMARY OF QUANTITIES SHEETS.



DETAIL A

* EQUALLY SPACED, FAN TO FIT



ELEVATION

(WINGWALL AND EXISTING PILES NOT SHOWN FOR CLARITY)

NOTES:

1. PLACE ALL WT WING REINFORCING TIED TO ABUTMENT SEAT AND BACKWALL REINFORCING BEFORE PLACING ABUTMENT SEAT AND BACKWALL CONCRETE. FOR ADDITIONAL DETAILS AND BAR LIST, SEE ABUTMENT NO. 2 DETAILS (SHEET 2 OF 2).
2. MAXIMUM FACTORED PILE LOAD = 121.7 TONS
   FACTORED PILE CAPACITY = 145.0 TONS
3. USE 9" P.V.C. PLASTIC WATERSTHOP BETWEEN ABUTMENTS FOR THE FULL HEIGHT OF THE BACKWALL. CENTER ON 1" JOINT AND PLACE WITH EB CONSTRUCTION. WATERSTOP SHALL BE SUBSIDIARY TO CLASS A CONCRETE.

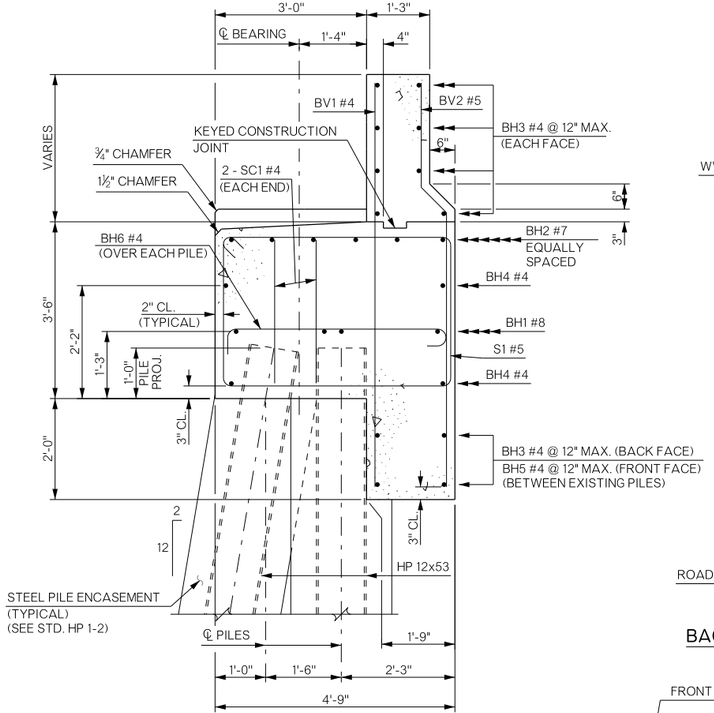
BRIDGE "A" CANADIAN COUNTY
EB SH-66 OVER SHELL CREEK

ABUTMENT NO. 2 DETAILS (SHEET 1 OF 2)

Design	AMW	4/19
Detail	KNB	5/19
Check	AMW	5/19
Squad	THOMAS	
Engr.	THOMAS	

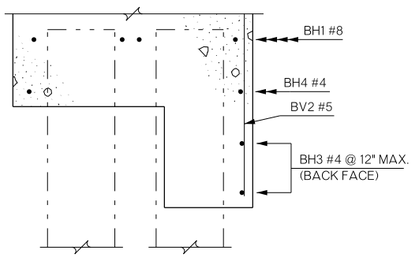
STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 32765(04) SHEET NO. B007

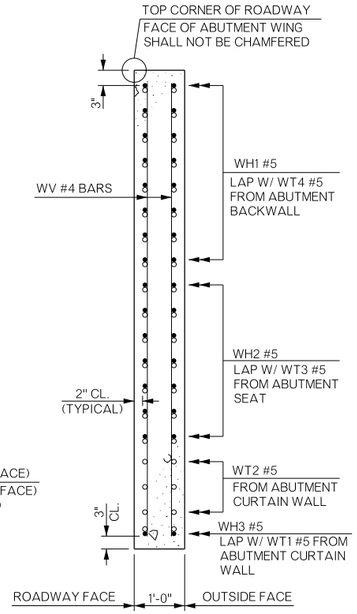


SECTION A-A

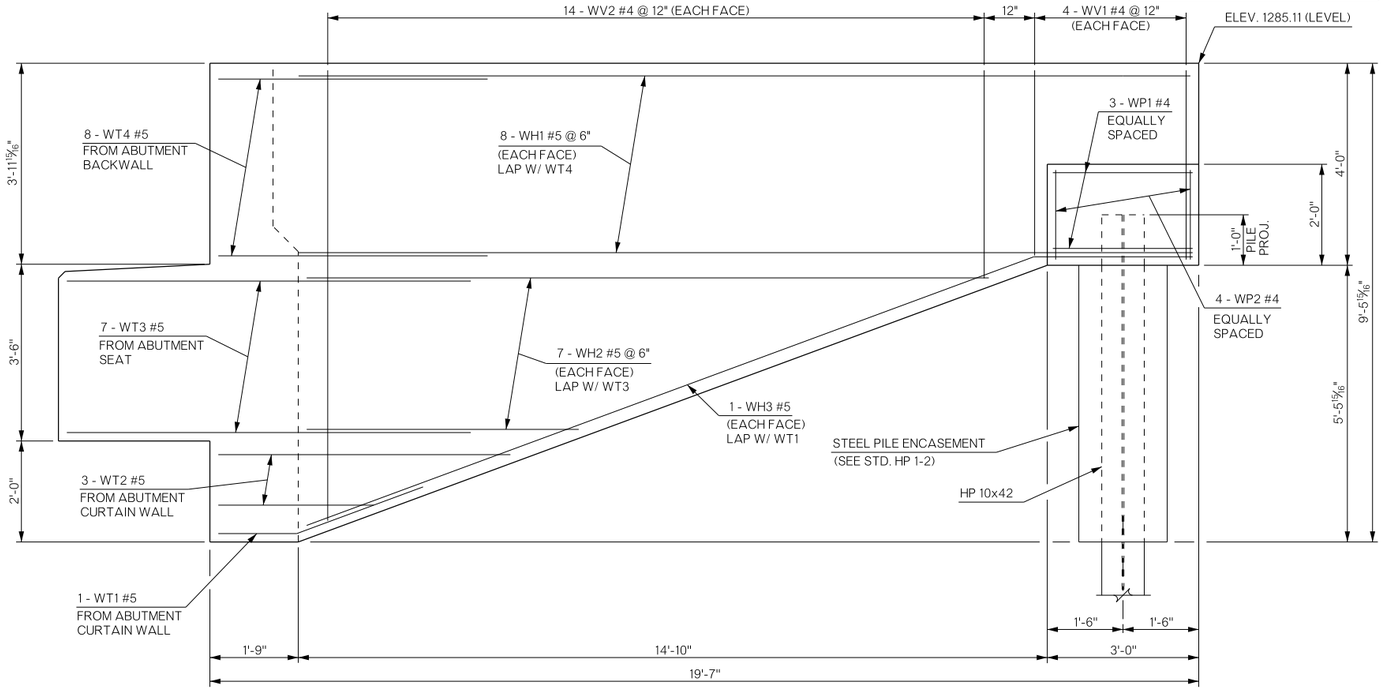
(EXISTING PILES NOT SHOWN FOR CLARITY)



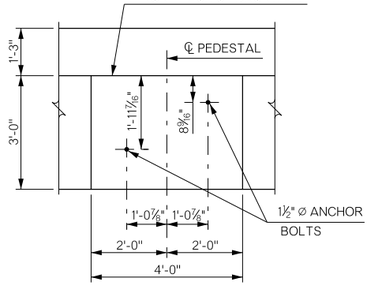
TYPICAL SECTION AT EXISTING PILE



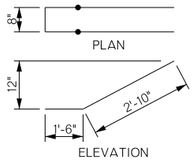
SECTION THRU WING AT BACK FACE OF ABUTMENT SEAT



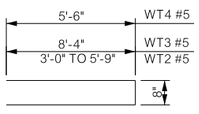
WINGWALL ELEVATION



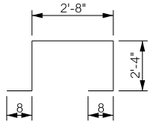
DETAIL OF PEDESTAL WITH LAYOUT OF ANCHOR BOLTS



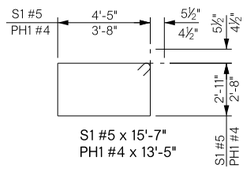
WT1 #5 x 9'-0"



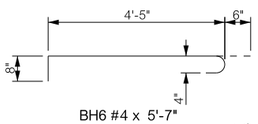
WT2 #5 x LENGTH
WT3 #5 x 17'-4"
WT4 #5 x 11'-8"



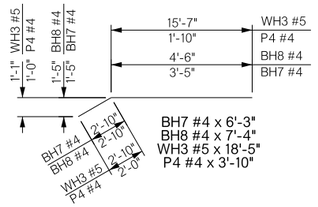
WP1 #4 x 8'-8"



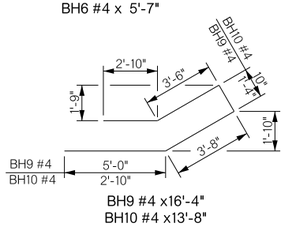
S1 #5 x 15'-7"
PH1 #4 x 13'-5"



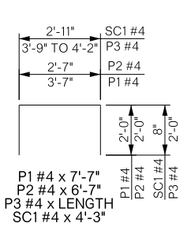
BH6 #4 x 5'-7"



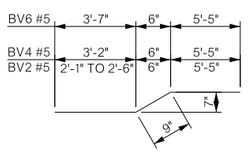
BH7 #4 x 6'-3"
BH8 #4 x 7'-4"
WH3 #5 x 18'-5"
P4 #4 x 3'-10"



BH9 #4 x16'-4"
BH10 #4 x13'-8"



P1 #4 x 7'-7"
P2 #4 x 6'-7"
P3 #4 x LENGTH
SC1 #4 x 4'-3"



BV2 #5 x LENGTH
BV4 #5 x 9'-4"
BV6 #5 x 9'-9"

REVISIONS		
REV. NO.	DESCRIPTION	DATE

ABUTMENT NO. 1 BAR LIST

EPOXY COATED REINFORCING

	MARK	SIZE	FORM	NUMBER	LENGTH	VARIANCE		MARK	SIZE	FORM	NUMBER	LENGTH	VARIANCE
(1)	BH1	8	STR.	4	65'-3"			P1	4	BNT.	16	7'-7"	
(2)	BH2	7	STR.	6	64'-5"			P2	4	BNT.	25	6'-7"	
	BH3	4	STR.	10	55'-0"			P3	4	BNT.	4	7'-11½" AVG.	7'-9" TO 8'-2"
	BH4	4	STR.	4	55'-9"			P4	4	BNT.	1	3'-10"	
	BH5	4	STR.	8	10'-0"								
	BH6	4	BNT.	30	5'-7"			PH1	4	BNT.	4	13'-5"	
	BH7	4	BNT.	4	6'-3"								
	BH8	4	BNT.	4	7'-4"			WH1	5	STR.	16	17'-8"	
	BH9	4	BNT.	3	16'-4"		(3)	WH2	5	STR.	14	9'-5" AVG.	5'-4" TO 13'-6"
	BH10	4	BNT.	3	13'-8"			WH3	5	BNT.	2	18'-5"	
	BH11	4	STR.	2	11'-7"								
	BH12	4	STR.	2	10'-11"			WV1	4	STR.	8	3'-7"	
							(4)	WV2	4	STR.	28	6'-5" AVG.	4'-0" TO 8'-10"
	BV1	4	STR.	43	8'-2½" AVG.	8'-0" TO 8'-5"							
	BV2	5	BNT.	46	8'-5½" AVG.	8'-3" TO 8'-8"		WT1	5	BNT.	1	9'-4"	
	BV3	4	STR.	2	9'-1"			WT2	5	BNT.	3	9'-5" AVG.	6'-8" TO 12'-2"
	BV4	5	BNT.	2	9'-4"			WT3	5	BNT.	7	17'-4"	
	BV5	4	STR.	11	9'-6"			WT4	5	BNT.	8	11'-8"	
	BV6	5	BNT.	11	9'-9"								
								WP1	4	BNT.	3	8'-8"	
	S1	5	BNT.	47	15'-7"			WP2	4	STR.	4	1'-7"	
	SC1	4	BNT.	4	4'-3"								

(1) INCLUDES 1 - 68" LAP

(2) INCLUDES 1 - 60" LAP

(3) 2 SETS OF 7

(4) 2 SETS OF 14

BRIDGE "A" CANADIAN COUNTY
EB SH-66 OVER SHELL CREEK

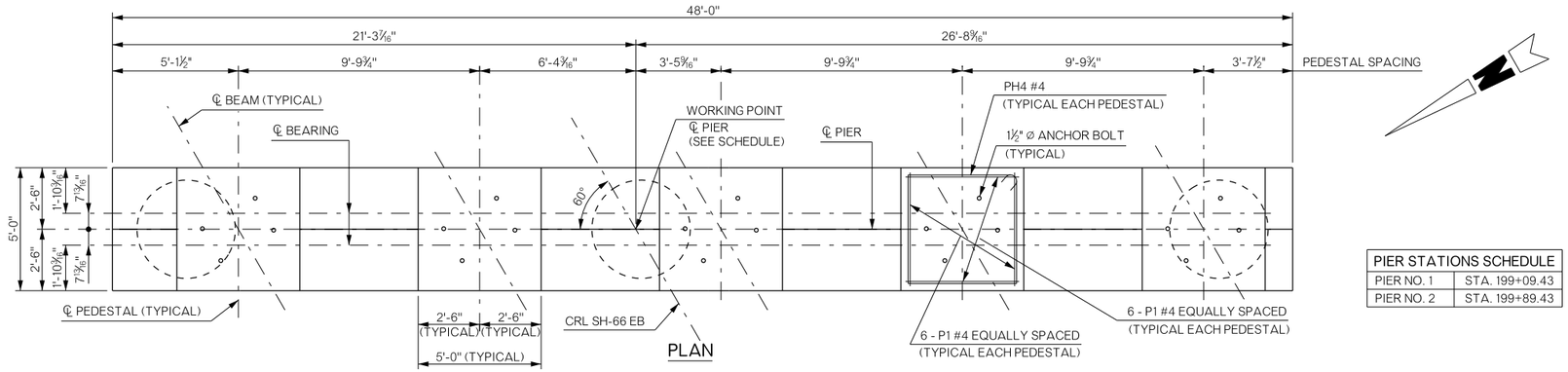
ABUTMENT NO. 2 DETAILS (SHEET 2 OF 2)

Design	AMW	4/19
Detail	KNB	5/19
Check	AMW	5/19
Squad:	THOMAS	
Engr.:	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

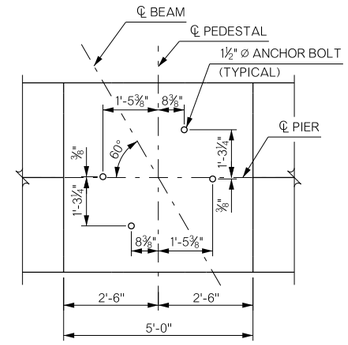
JOB PIECE NO. 32765(04) | SHEET NO. B008

REVISIONS		
REV. NO.	DESCRIPTION	DATE

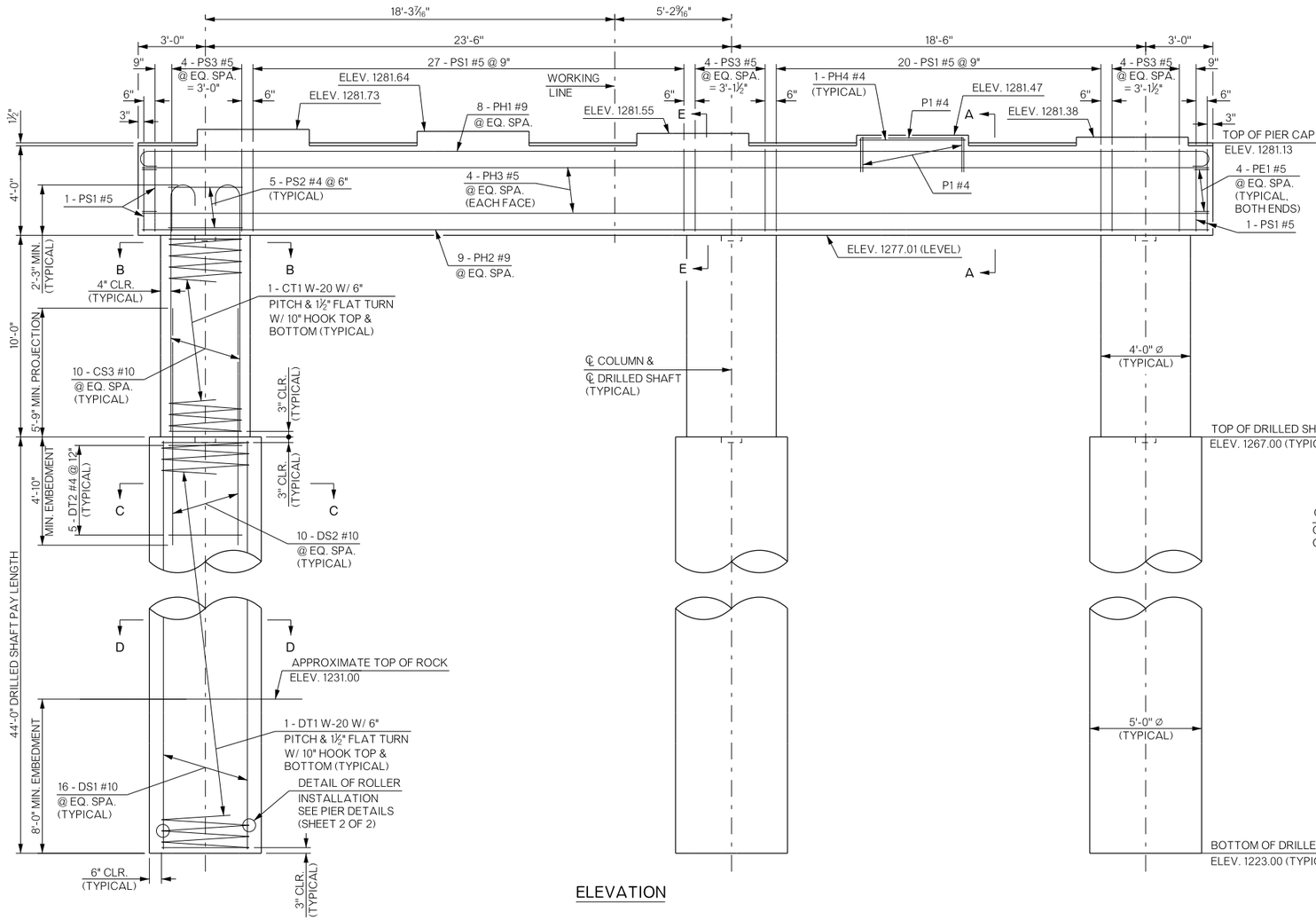


PLAN

PIER STATIONS SCHEDULE	
PIER NO. 1	STA. 199+09.43
PIER NO. 2	STA. 199+89.43



DETAIL OF PEDESTAL
WITH LAYOUT OF ANCHOR BOLTS



ELEVATION

END VIEW

NOTES:

1. FOR SECTIONS A-A THRU E-E SEE PIER DETAILS (SHEET 2 OF 2).
2. FOR BEARINGS SEE BEARING DETAILS.
3. ADJUST BARS AS NEEDED TO PROVIDE CLEARANCE FOR ANCHOR BOLTS.
4. ALL EDGES OF PIER CAP SHALL HAVE A 1½" CHAMFER EXCEPT FOR PEDESTAL EDGES WHICH SHALL HAVE A ¾" CHAMFER.
5. REINFORCING BARS PROJECTING FROM THE DRILLED SHAFT SHALL BE INCLUDED IN THE COST OF THE DRILLED SHAFT AND SHALL NOT BE CONSIDERED ADDITIONAL PAY LENGTH FOR THE DRILLED SHAFT.

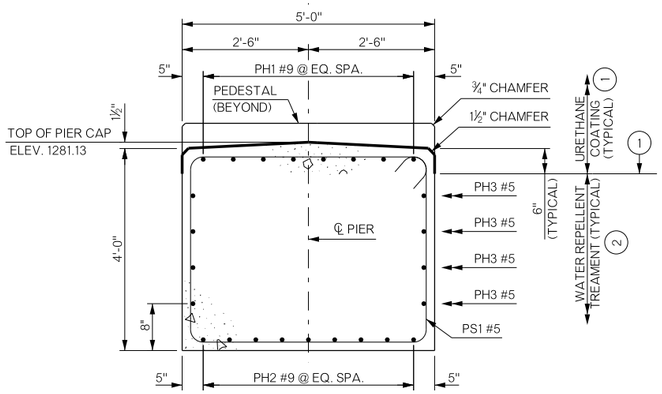
BRIDGE "A" CANADIAN COUNTY
EB SH-66 OVER SHELL CREEK

PIER DETAILS (SHEET 1 OF 2)

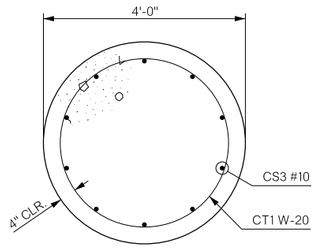
Design	WJS	5/19
Detail	KNB	5/19
Check	AMW	5/19
Squad	THOMAS	
Engr.	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

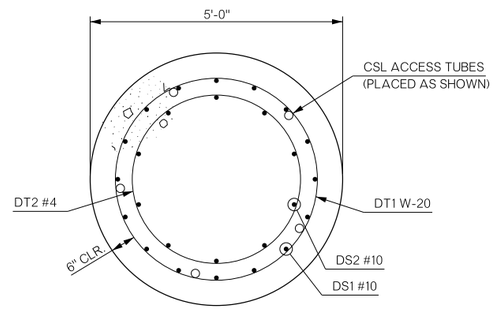
JOB PIECE NO. 32765(04) SHEET NO. B009



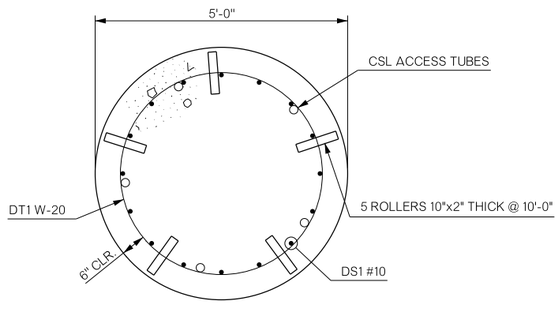
SECTION A-A



SECTION B-B



SECTION C-C

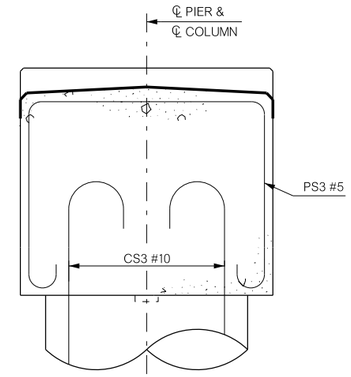


SECTION D-D

WATER REPELLENT AND URETHANE COATING NOTES

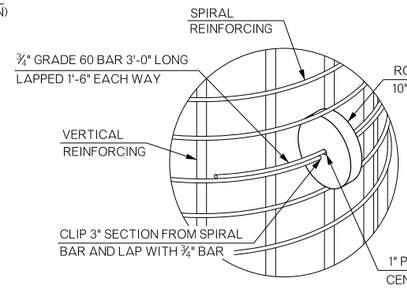
1. COAT ALL EXPOSED CONCRETE ON TOP OF PIER CAP AND ALL SURFACES OF THE PEDESTALS EXTENDING 6" DOWN ON VERTICAL FACE OF PIER CAP WITH CIM1000 URETHANE COATING OR AN APPROVED EQUAL. SURFACE TO BE SANDBLASTED AND PRIMED AS RECOMMENDED BY THE MANUFACTURER. MASKING SHALL BE USED TO PROVIDE A CLEAN RESULT. URETHANE COATING SHALL BE PAID FOR AT THE UNIT PRICE BID PER LUMP SUM OF "(PL) INSTALLATION OF BRIDGE ITEMS". FOR MORE DETAILS SEE GENERAL NOTES AND SUMMARY OF QUANTITIES SHEETS.

2. TREAT ALL EXTERIOR VERTICAL SURFACES OF THE PIER CAPS NOT TREATED BY URETHANE COATING WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.

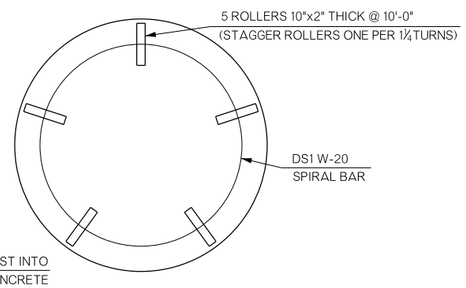


SECTION E-E

SAME AS SECTION A-A EXCEPT AS SHOWN



DETAIL OF DRILLED SHAFT
ROLLER INSTALLATION



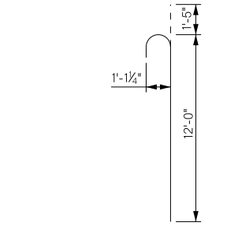
DETAIL OF DRILLED SHAFT
ROLLER PLACEMENT

FOUNDATION DATA (PIERS)

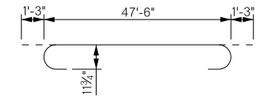
(60" DIAMETER DRILLED SHAFTS)
PIER NO. 1 AND 2

MINIMUM DEPTH INTO ROCK (FT)	= 8.00
DEPTH OF ROCK NEG'D FOR FRICTION (FT)	= 3.00
UNIT BEARING RESISTANCE (TONS/SF)	= 60.00
BEARING RESISTANCE FACTOR	= 0.70
FACTORED BEARING RESISTANCE (TONS/SHAFT)	= 824.70
UNIT FRICTION RESISTANCE (TONS/SF)	= 9.00
FRICTION RESISTANCE FACTOR	= 0.45
FACTORED FRICTION RESISTANCE (TONS/SHAFT)	= 318.10
TOTAL FACTORED RESISTANCE (TONS/SHAFT)	= 824.70*
TOTAL FACTORED REACTION (TONS/SHAFT)	= 407.00

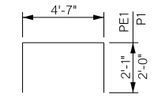
*SUFFICIENT CAPACITY UTILIZING END BEARING ONLY



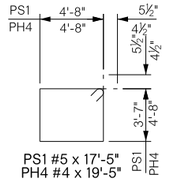
CS3 #10 x 13'-5"



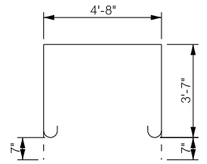
PH1 #9 x 50'-0"



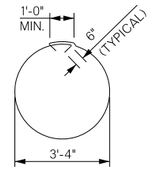
PE1 #5 x 8'-9"
P1 #4 x 8'-7"



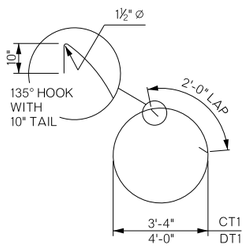
PS1 #5 x 17'-5"
PH4 #4 x 19'-5"



PS3 #5 x 13'-0"



PS2 #4 x 12'-6"
DT2 #4 x 12'-6



CT1 W-20 x 240'-6"
DT1 W-20 x 1,186'-1"

ANCHOR SPLICES IN SPIRAL AROUND VERTICAL BARS.

PIER QUANTITIES (TWO REQUIRED)		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	C.Y.	53.00
REINFORCING STEEL	LB.	490
EPOXY COATED REINFORCING STEEL	LB.	6,640
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	42
DRILLED SHAFTS 60" DIAMETER	L.F.	132
(4) CROSSHOLE SONIC LOGGING	EA.	1
CSL ACCESS TUBES	L.F.	705

(4) QUANTITY IS FOR ENTIRE BRIDGE

PIER BAR LIST (TWO REQUIRED)				
EPOXY COATED REINFORCING				
MARK	SIZE	FORM	NUMBER	LENGTH
PH1	9	BNT.	8	50'-0"
PH2	9	STR.	9	47'-6"
PH3	5	STR.	8	47'-6"
PH4	4	BNT.	5	19'-5"
P1	4	BNT.	60	8'-7"
PS1	5	BNT.	51	17'-5"
PS2	4	BNT.	15	12'-6"
PS3	5	BNT.	12	13'-0"
PE1	5	BNT.	8	8'-9"
CS3	10	BNT.	30	13'-5"
PLAIN REINFORCING				
CT1	W20	BNT.	3	240'-6"
DRILLED SHAFT PLAIN REINFORCING				
(3) DT1	W20	BNT.	3	1,186'-1"
(3) DT2	4	BNT.	15	12'-6"
(3) DS1	10	STR.	48	43'-6"
(3) DS2	10	STR.	30	10'-7"

(3) DRILLED SHAFT BARS ARE FOR INFORMATION PURPOSES ONLY. THE BARS ARE NOT INCLUDED IN THE QUANTITIES, BUT ARE INCLUDED IN THE PRICE BID FOR L.F. OF DRILLED SHAFTS.

NOTES:

1. CONCRETE USED IN CONCRETE ROLLERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI. SLAB BOLSTERS, HIGH CHAIRS, AND PLASTIC ROLLERS SHALL NOT BE SUBSTITUTED FOR THE CONCRETE ROLLERS.
2. ALL MATERIALS, LABOR, AND INCIDENTALS REQUIRED FOR THE INSTALLATION OF THE CONCRETE ROLLERS ARE TO BE INCLUDED IN THE PRICE BID PER L.F. OF DRILLED SHAFTS.
3. SPIRAL BARS SHALL CONFORM TO AASHTO M32. SPIRAL BAR LENGTH INCLUDES LAPS.

REVISIONS		
REV. NO.	DESCRIPTION	DATE

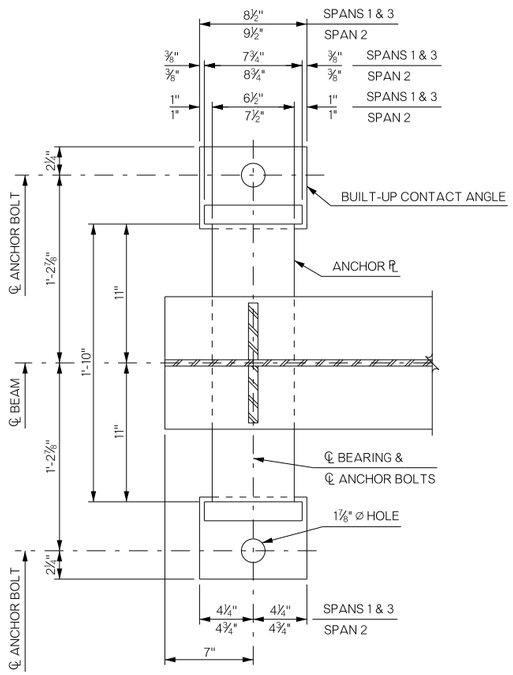
BRIDGE "A" CANADIAN COUNTY
EB SH-66 OVER SHELL CREEK

PIER DETAILS (SHEET 2 OF 2)

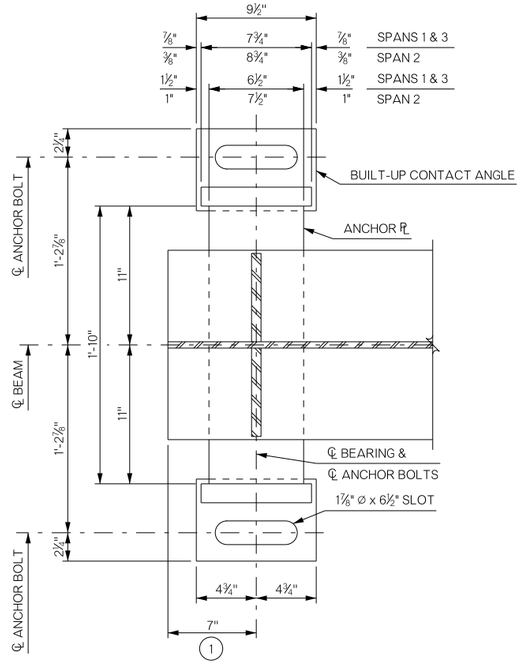
Design	WJS	5/19
Detail	KNB	5/19
Check	AMW	5/19
Squad:	THOMAS	
Engr.:	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

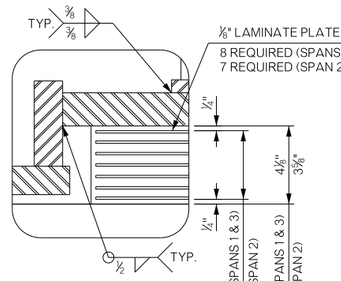
JOB PIECE NO. 32765(04) SHEET NO. B010



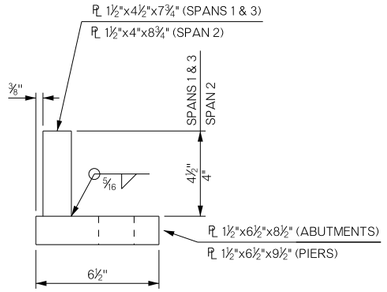
FIXED BEARING PLAN
(SPANS 1 & 3 @ ABUTMENTS & SPAN 2 @ PIER NO. 1)



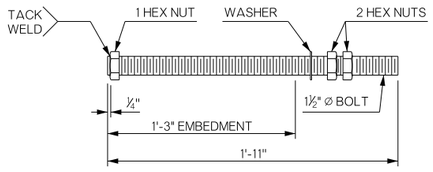
EXPANSION BEARING PLAN
(SPANS 1 & 3 @ PIERS & SPAN 2 @ PIER NO. 2)



DETAIL A

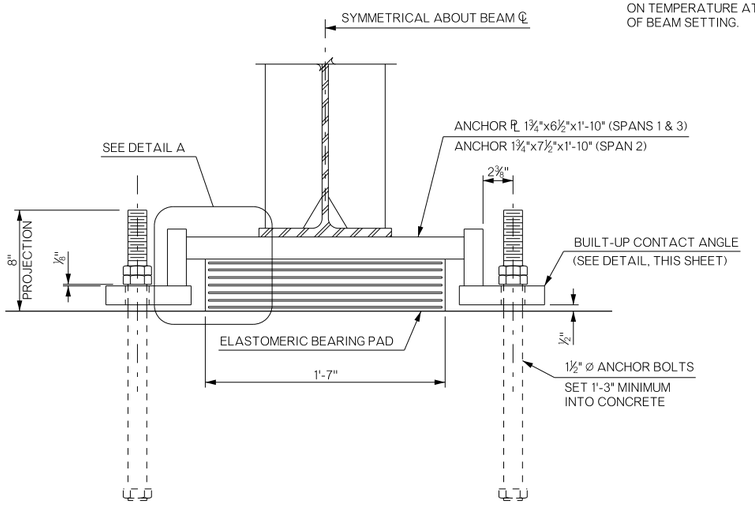


BUILT-UP CONTACT ANGLE DETAIL

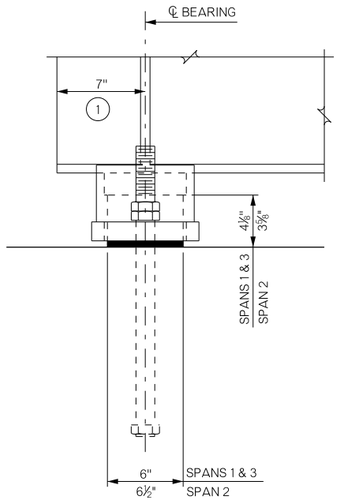


ANCHOR BOLT DETAIL

1. CENTER ANCHOR BOLTS IN SLOTS DURING SETTING OF BEAMS. DIMENSION MAY VARY DEPENDING ON TEMPERATURE AT THE TIME OF BEAM SETTING.



END VIEW



SIDE VIEW

BEARING DETAILS

NOTES:

1. PROVIDE STRUCTURAL STEEL FOR ANCHOR PLATES AND BUILT-UP CONTACT ANGLES IN ACCORDANCE WITH ASTM A240 (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED).
2. FOR ANCHOR BOLTS, PROVIDE CONTINUOUSLY THREADED BARS IN ACCORDANCE WITH ASTM A320, CLASS 2, GRADE B8M (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED).
3. USE AUSTENITIC STAINLESS STEEL NUTS AND WASHERS CONFORMING TO ASTM A194, GRADE 8M AND ASTM A320, RESPECTIVELY.
4. PERFORM ALL WELDING CONSISTENT WITH PROCEDURES FOR STAINLESS STEEL.

REVISIONS

REV. NO.	DESCRIPTION	DATE

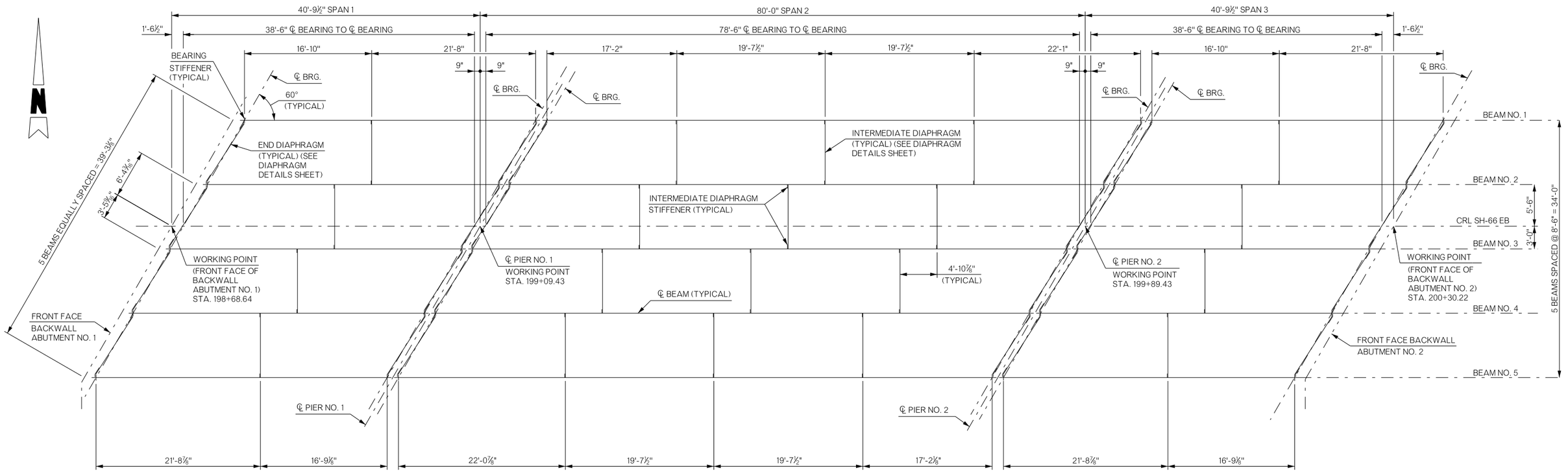
BRIDGE "A"
EB SH-66 OVER SHELL CREEK
CANADIAN COUNTY

BEARING DETAILS

Design	AMW	4/19
Detail	KNB	5/19
Check	AMW	5/19
Squad	THOMAS	
Engr.	THOMAS	

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 32765(04)
SHEET NO. B011

REVISIONS		
REV. NO.	DESCRIPTION	DATE



PLAN

BRIDGE "A" CANADIAN COUNTY
EB SH-66 OVER SHELL CREEK

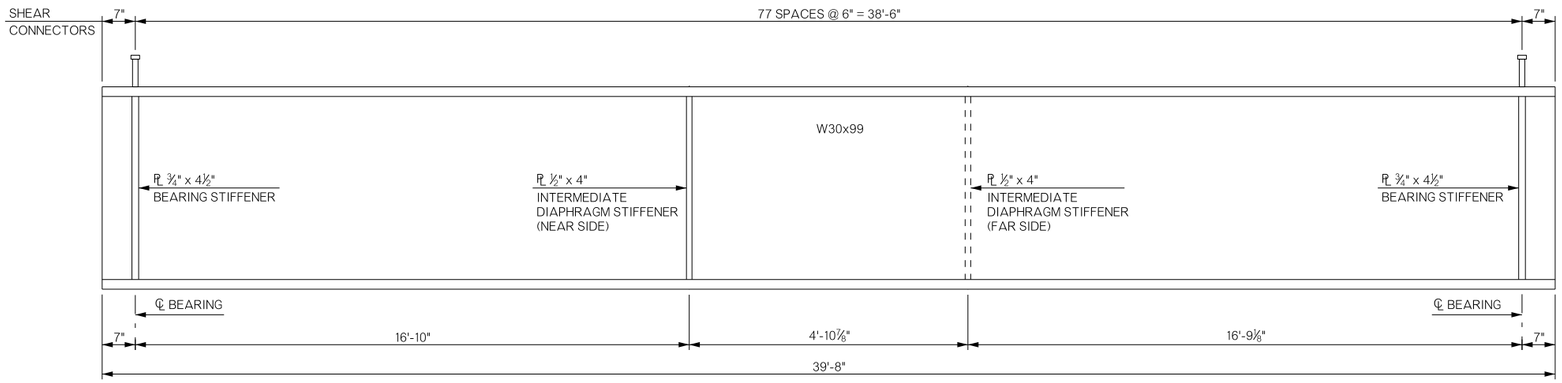
FRAMING PLAN

Design	AMW	4/19
Detail	KNB	5/19
Check	AMW	5/19
Squad	THOMAS	
Engr.:	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

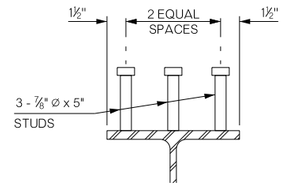
JOB PIECE NO. 32765(04) SHEET NO. B012

REVISIONS		
REV. NO.	DESCRIPTION	DATE



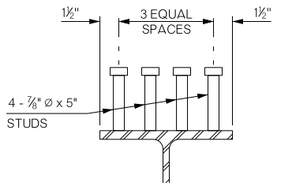
ELEVATION - SPANS 1 & 3

(INTERIOR SHOWN, EXTERIOR SIMILAR)



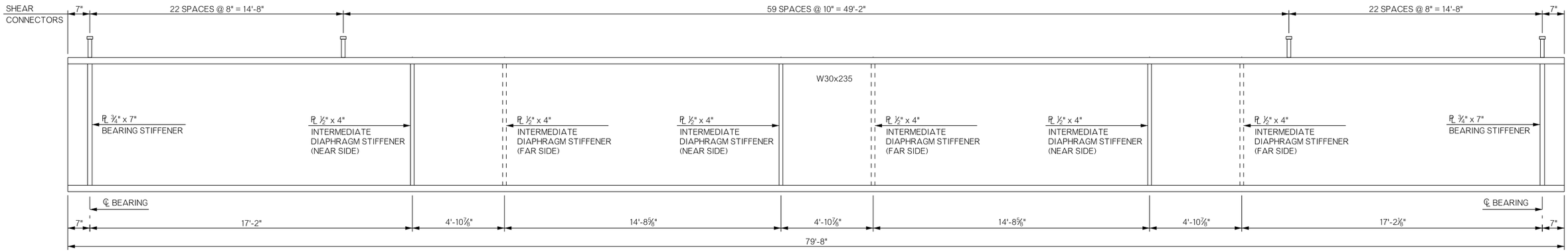
SHEAR CONNECTOR DETAIL

(SPANS 1 & 3)



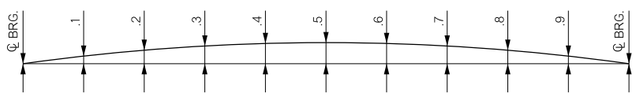
SHEAR CONNECTOR DETAIL

(SPAN 2)



ELEVATION - SPAN 2

(INTERIOR SHOWN, EXTERIOR SIMILAR)

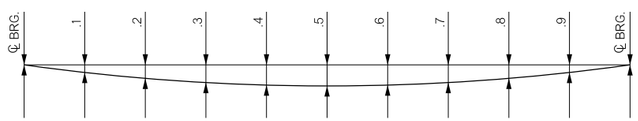


CAMBER DIAGRAM

SPAN	CAMBER					
	℄ BRG.	.1 & .9	.2 & .8	.3 & .7	.4 & .6	.5
1 & 3	0.00"	0.15"	0.28"	0.39"	0.45"	0.48"
2	0.00"	1.01"	1.91"	2.61"	3.06"	3.21"

NOTES:

1. PROVIDE STRUCTURAL STEEL FOR ROLLED BEAM AND ALL STIFFENER PLATES IN ACCORDANCE WITH AASHTO M270 (ASTM A709), GRADE 50WT2 (WEATHERING STEEL, NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2). USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108), GRADE 1015, 1018 OR 1020. PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.
2. CAMBER BEAMS TO ACCOUNT FOR DEAD LOAD DEFLECTION AS SHOWN.
3. THE CONTRACTOR MAY SUBSTITUTE PLATE GIRDERS USING EQUIVALENT PLATE SIZES IN LIEU OF THE ROLLED BEAM SHAPES SHOWN AT NO ADDITIONAL COST TO THE DEPARTMENT. PROVIDE 5/16" MINIMUM FILLET WELDS BETWEEN WEB AND FLANGES. NON-DESTRUCTIVE TESTING WILL BE REQUIRED AS APPROPRIATE.
4. FOR ADDITIONAL STIFFENER DETAILS, SEE DIAPHRAGM DETAIL SHEETS.



DEAD LOAD DEFLECTION DIAGRAM

DEFLECTION SCHEDULE												
SPAN	BEAM AND DIAPHRAGM DEFLECTION						DECK SLAB, HAUNCH, S.I.P. STEEL DECK FORMS, AND TRAFFIC RAIL DEFLECTION (1)					
	℄ BRG.	.1 & .9	.2 & .8	.3 & .7	.4 & .6	.5	℄ BRG.	.1 & .9	.2 & .8	.3 & .7	.4 & .6	.5
1 & 3	0.00"	0.02"	0.03"	0.05"	0.05"	0.06"	0.00"	0.13"	0.25"	0.34"	0.40"	0.42"
2	0.00"	0.23"	0.43"	0.59"	0.70"	0.73"	0.00"	0.78"	1.48"	2.02"	2.36"	2.48"

(1) THE DEAD LOAD DEFLECTIONS SHOWN AT THE TENTH POINTS ARE THE DEFLECTIONS DUE TO DECK SLAB + HAUNCH + S.I.P. STEEL DECK FORM ALLOWANCE + CONCRETE TRAFFIC RAIL. IT DOES NOT INCLUDE THE BEAM WEIGHT, DIAPHRAGMS OR FUTURE WEARING SURFACE.

BRIDGE "A" CANADIAN COUNTY
EB SH-66 OVER SHELL CREEK

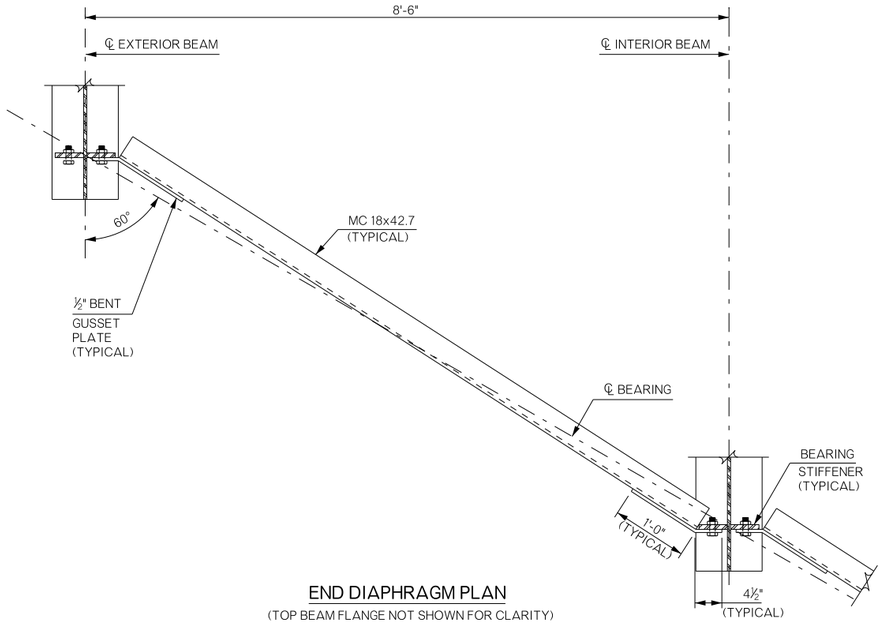
ROLLED BEAM DETAILS

Design	AMW	4/19
Detail	KNB	5/19
Check	AMW	5/19
Squad	THOMAS	
Engr.	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

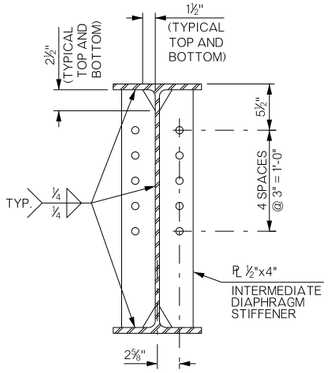
JOB PIECE NO. 32765(04) SHEET NO. B013

REVISIONS		
REV. NO.	DESCRIPTION	DATE

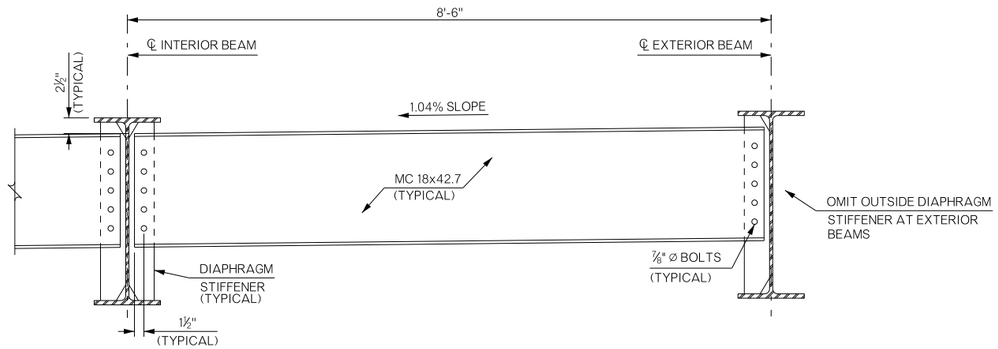


END DIAPHRAGM PLAN

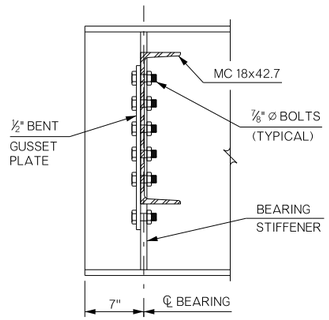
(TOP BEAM FLANGE NOT SHOWN FOR CLARITY)



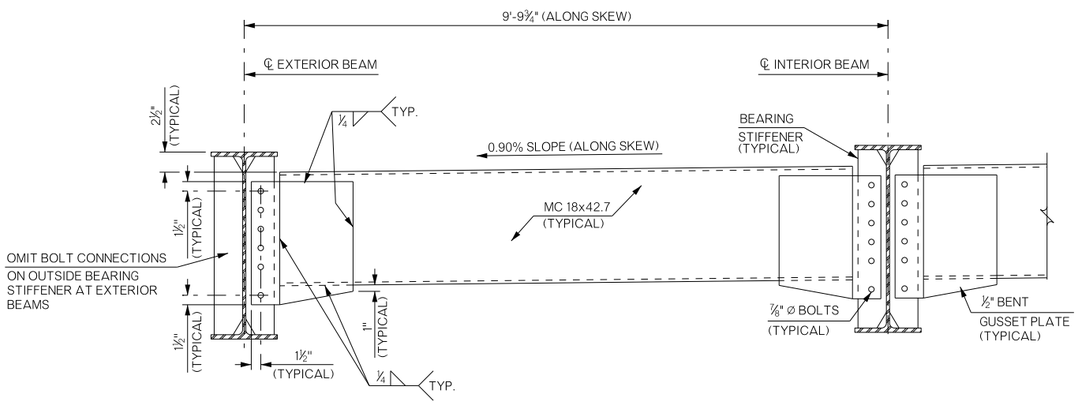
INTERMEDIATE DIAPHRAGM
STIFFENER DETAIL



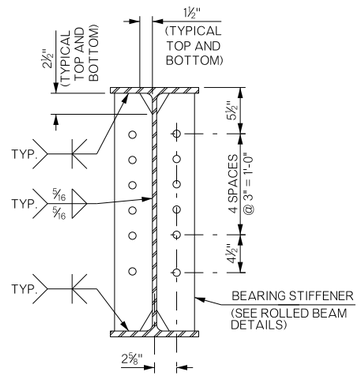
INTERMEDIATE DIAPHRAGM ELEVATION



END DIAPHRAGM
SECTION



END DIAPHRAGM ELEVATION



BEARING
STIFFENER DETAIL

NOTES:

1. THE CONTRACTOR MAY SUBSTITUTE A BENT PLATE DIAPHRAGM IN LIEU OF CHANNEL AND GUSSET PLATE SHOWN AT NO ADDITIONAL COST TO THE DEPARTMENT. PROVIDE ½" MINIMUM PLATE THICKNESS FORMED IN THE SHAPE OF A CHANNEL WITH 4" MINIMUM FLANGES. FABRICATE BENT PLATE DIAPHRAGM TO A DEPTH EQUAL OR GREATER THAN THAT SHOWN FOR THE COMBINED CHANNEL AND GUSSET PLATE.
2. PROVIDE STRUCTURAL STEEL FOR CHANNEL DIAPHRAGMS AND GUSSET PLATES IN ACCORDANCE WITH AASHTO M270 (ASTM A709), GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED). USE BOLTS CONFORMING TO AASHTO M164 (ASTM F3125, GRADE A325). PROVIDE ALL BOLTS, NUTS, WASHERS AND WELDING WITH WEATHERING CHARACTERISTICS.
3. TERMINATE FILLET WELDS ⅜" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS.
4. HORIZONTAL DIMENSIONS AND SLOPES ARE NORMAL TO ROADWAY, UNLESS NOTED OTHERWISE.

BRIDGE "A" CANADIAN COUNTY
EB SH-66 OVER SHELL CREEK

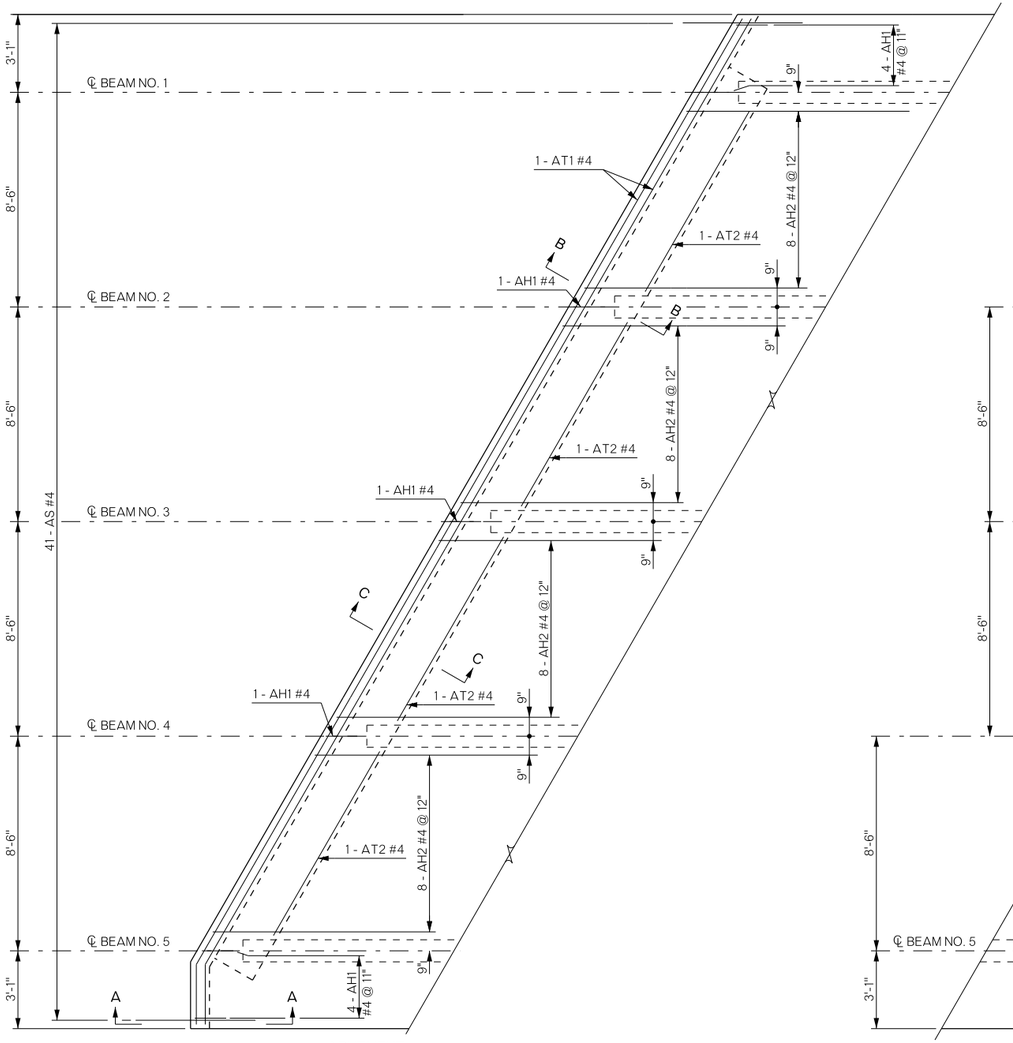
DIAPHRAGM DETAILS (SHEET 1 OF 2)

Design	AMW	4/19
Detail	KNB	5/19
Check	AMW	5/19
Squad	THOMAS	
Engr.	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

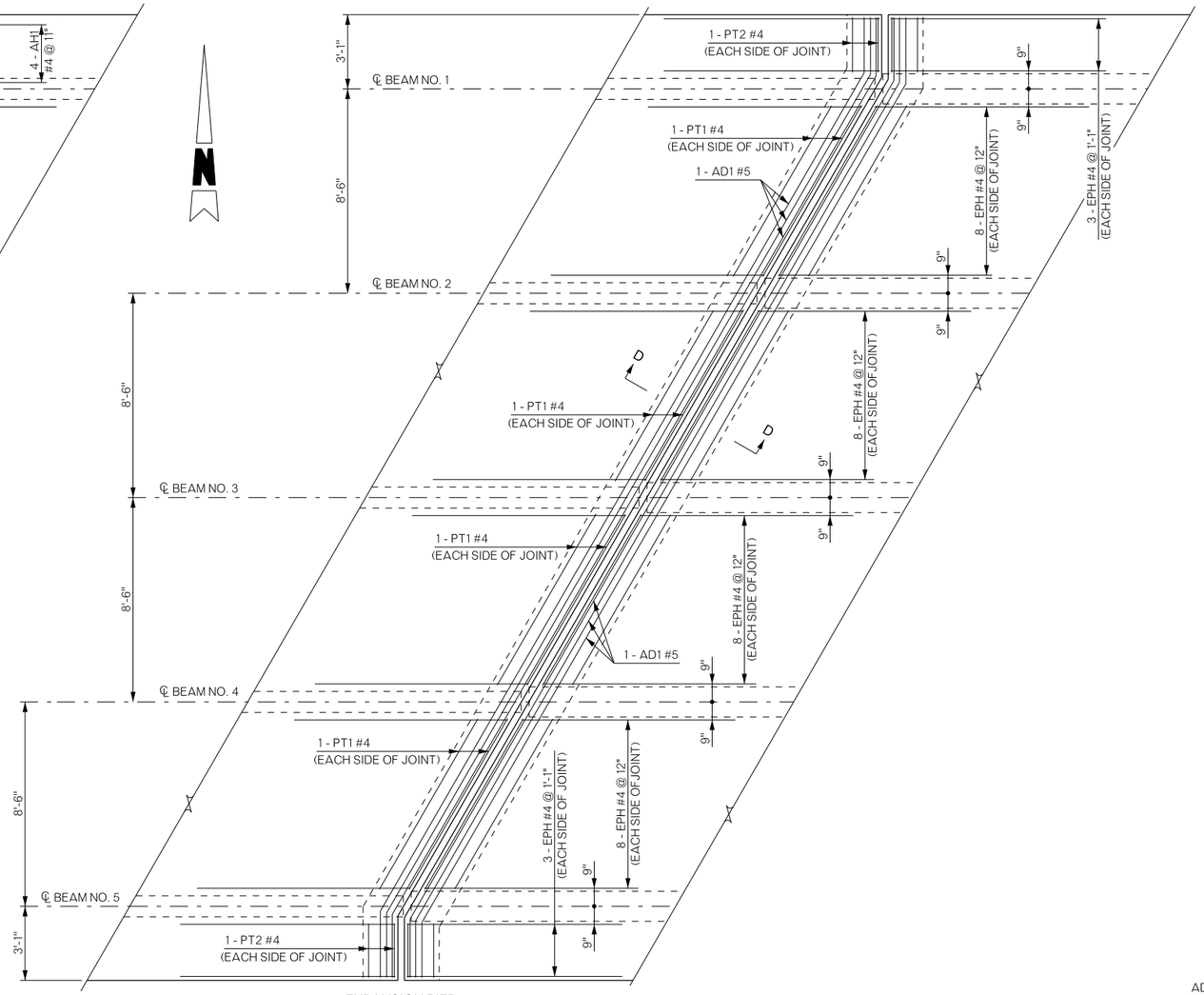
JOB PIECE NO. 32765(04) SHEET NO. B014

REVISIONS		
REV. NO.	DESCRIPTION	DATE



ABUTMENT

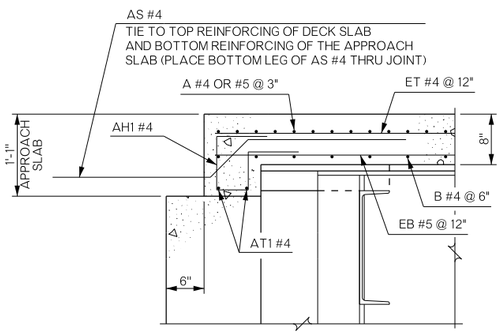
(ABUTMENT NO. 1 SHOWN, ABUTMENT NO. 2 SIMILAR)



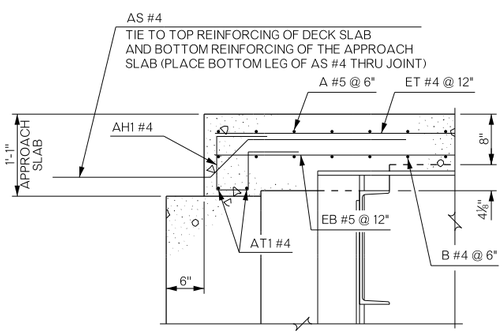
EXPANSION PIER

(PIER NO. 1 SHOWN, PIER NO. 2 SIMILAR)

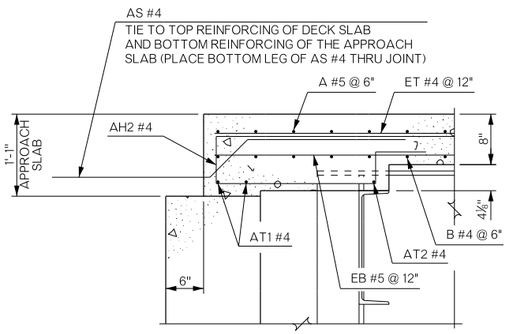
DIAPHRAGM REINFORCING PLANS



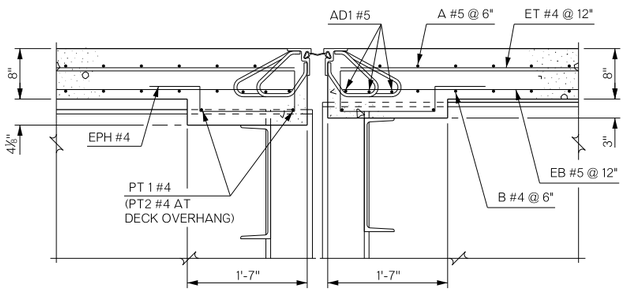
SECTION A



SECTION B



SECTION C



SECTION D

BRIDGE "A" CANADIAN COUNTY
EB SH-66 OVER SHELL CREEK

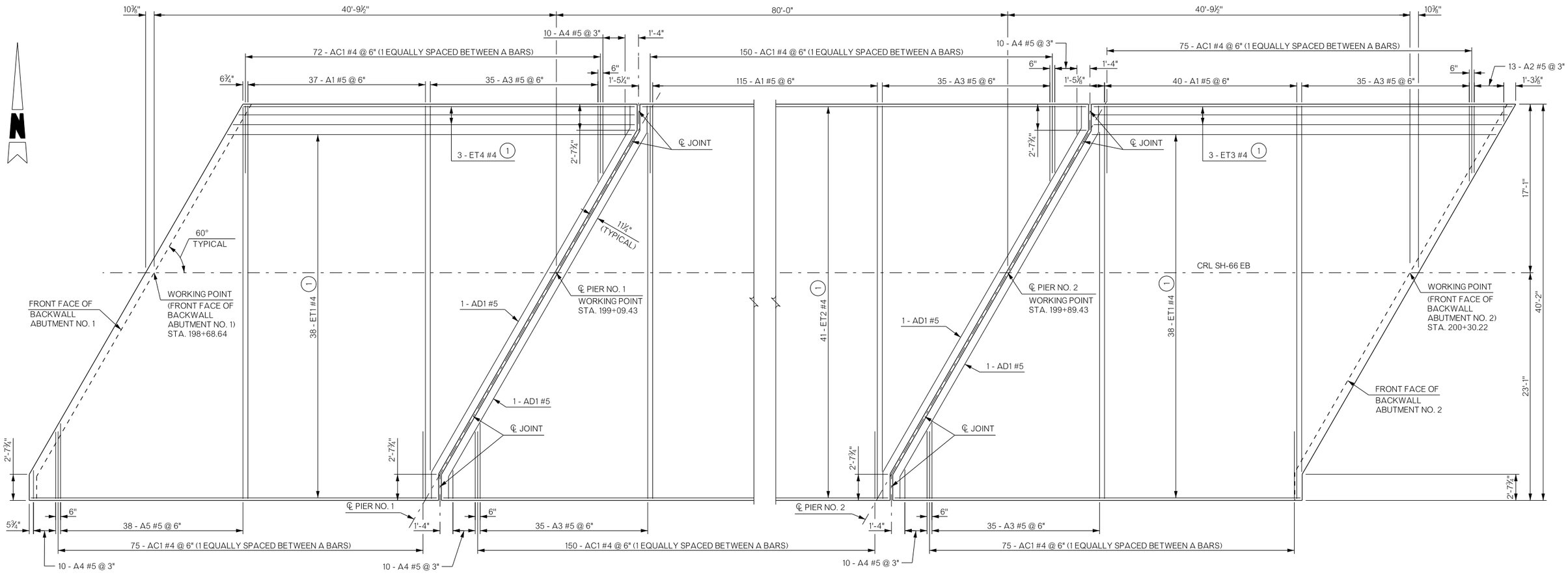
DIAPHRAGM DETAILS (SHEET 2 OF 2)

Design	AMW	4/19
Detail	KNB	5/19
Check	AMW	5/19
Squad	THOMAS	
Engr.	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

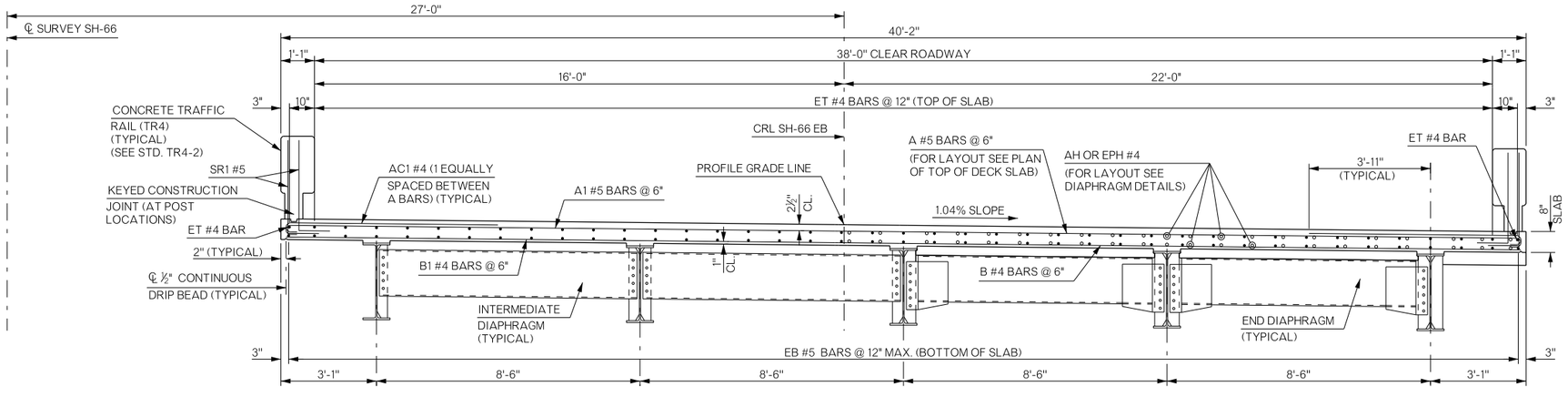
JOB PIECE NO. 32765(04) SHEET NO. B015

REVISIONS		
REV. NO.	DESCRIPTION	DATE



PLAN OF TOP OF DECK SLAB WITH TYPICAL REINFORCING STEEL

(1) FOR SPACING SEE TYPICAL CROSS SECTION



HALF SECTION OF TYPICAL REINFORCING AT INTERMEDIATE DIAPHRAGM

HALF SECTION OF END ZONE REINFORCING AT END DIAPHRAGM

TYPICAL CROSS SECTION

NOTES:

1. ET2 #4 BARS IN SPAN 2 SHALL BE LAPPED IN THE CENTER WITH A 1'-11" MINIMUM LAP.
2. FOR ADDITIONAL SUPERSTRUCTURE DETAILS, SEE DECK SLAB DETAILS (SHEET 2 OF 3) AND DECK SLAB DETAILS (SHEET 3 OF 3).
3. FOR DETAILS OF REINFORCING IN DIAPHRAGMS, SEE DIAPHRAGM DETAILS (SHEET 2 OF 2).
4. ADJUST SPACING OF EB BARS TO CLEAR BEAM SHEAR CONNECTORS.
5. ROTATE HOOKS ON A AND AC BARS TO MAINTAIN MINIMUM CLEARANCE.
6. FOR BAR BENDS AND BAR LIST, SEE SUPERSTRUCTURE BAR LIST.

BRIDGE "A" CANADIAN COUNTY
EB SH-66 OVER SHELL CREEK

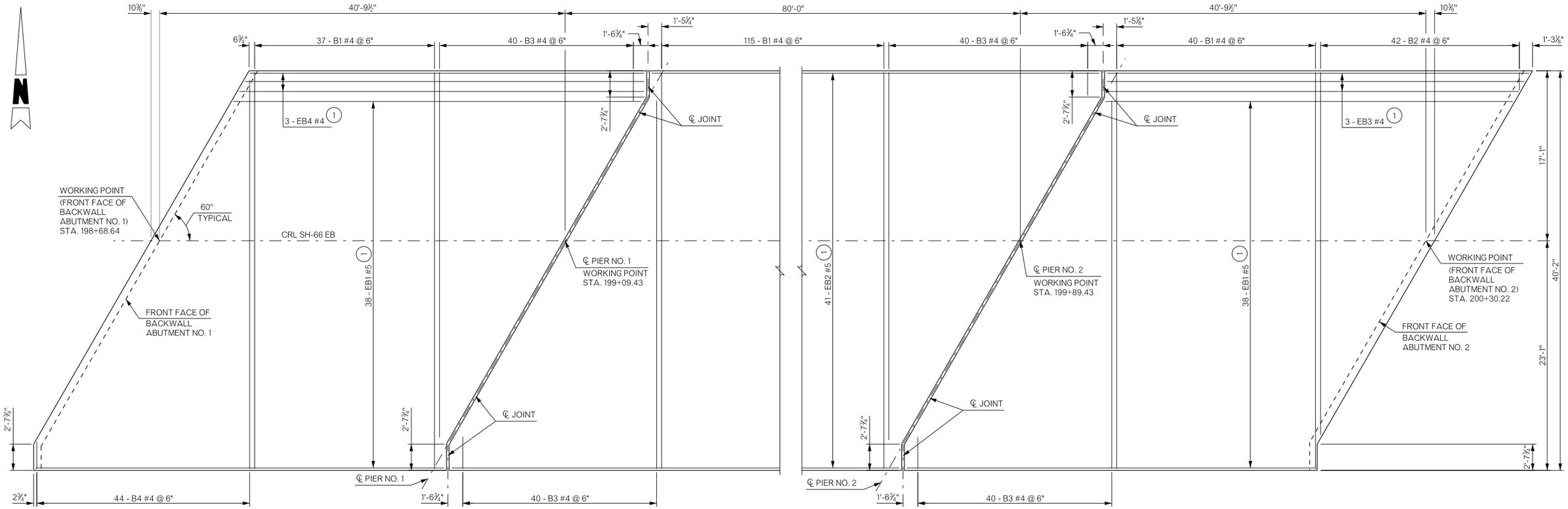
DECK SLAB DETAILS (SHEET 1 OF 3)

Design	WJS	4/19
Detail	KNB	5/19
Check	AMW	5/19
Squad	THOMAS	
Engr.	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

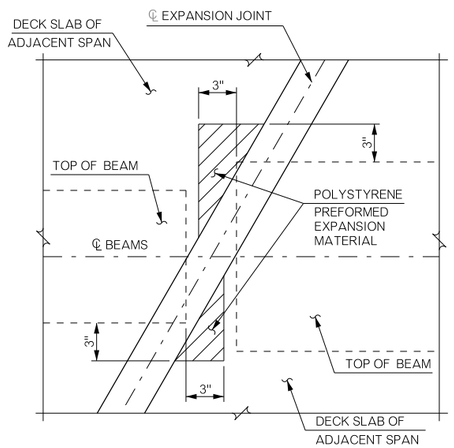
JOB PIECE NO. 32765(04) SHEET NO. B016

REVISIONS		
REV. NO.	DESCRIPTION	DATE



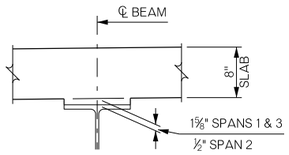
PLAN OF BOTTOM OF DECK SLAB WITH TYPICAL REINFORCING STEEL

(1) FOR SPACING SEE TYPICAL CROSS SECTION ON DECK SLAB DETAILS (SHEET 1 OF 3)



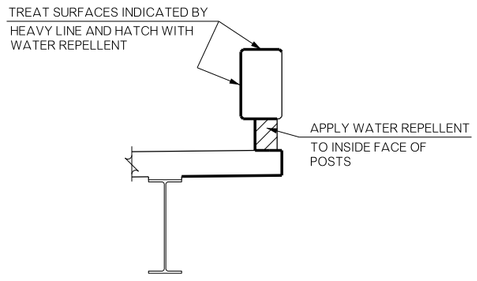
PLAN OF BEAM CORNERS AT SKEWED EXPANSION JOINT

WHERE THE TOP CORNER OF A BEAM PROJECTS UNDER THE DECK SLAB OF THE ADJACENT SPAN, ½" POLYSTYRENE PREFORMED EXPANSION MATERIAL SHALL BE PLACED BETWEEN THE TOP OF THE BEAM AND THE BOTTOM OF THE DECK SLAB IN THE HATCHED AREAS SHOWN ABOVE. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.



BEAM HAUNCH DETAIL

PLAN QUANTITIES FOR "CLASS AA CONCRETE" INCLUDE BEAM HAUNCHES. HAUNCH HEIGHT SHOWN IS THE THEORETICAL HAUNCH HEIGHT AT THE CENTERLINE OF BEARING ONLY, MEASURED FROM THE BOTTOM OF THE DECK SLAB TO THE TOP OF THE BEAM, AND VARIES ACROSS THE SPAN. DETERMINE THE ACTUAL HAUNCH HEIGHT (ACCOUNTING FOR BEAM CAMBER, DEAD LOAD DEFLECTION, AND ROADWAY GRADE) AFTER ERECTION OF THE BEAMS AND SUBMIT TO THE ENGINEER FOR APPROVAL. THE ENGINEER WILL NOT MEASURE DIFFERENCES BETWEEN THE THEORETICAL AND THE ACTUAL HAUNCH HEIGHTS FOR PAYMENT.



WATER REPELLENT TREATMENT DETAILS

NOTES:

1. EB2 #5 BARS IN SPAN 2 SHALL BE LAPPED IN THE CENTER WITH A 3'-0" MINIMUM LAP.
2. FOR ADDITIONAL SUPERSTRUCTURE DETAILS AND NOTES, SEE DECK SLAB DETAILS (SHEET 1 OF 3).

BRIDGE "A" CANADIAN COUNTY
EB SH-66 OVER SHELL CREEK

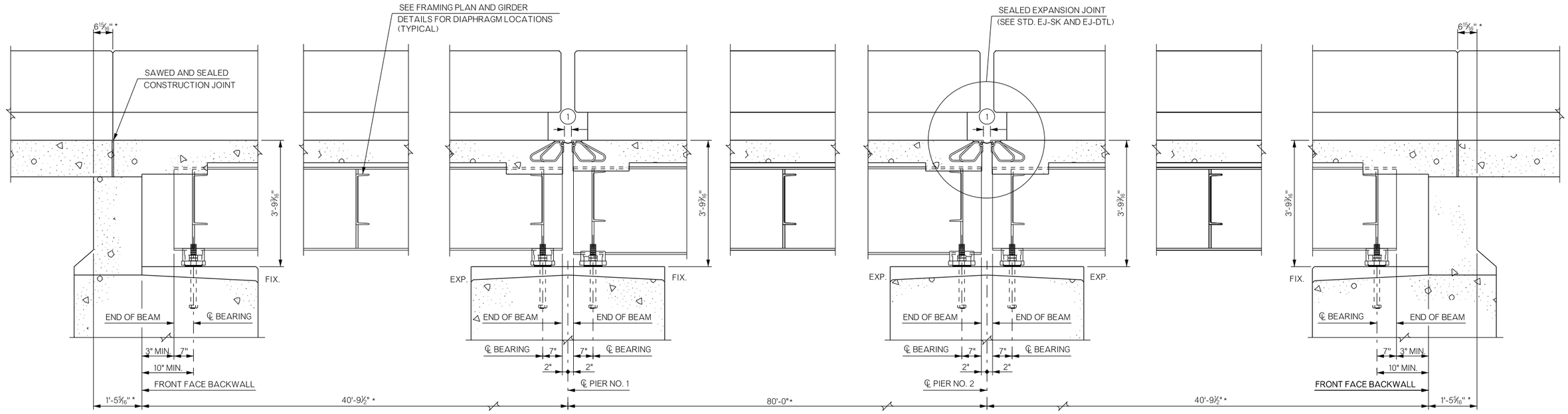
DECK SLAB DETAILS (SHEET 2 OF 3)

Design	WJS	4/19
Detail	KNB	5/19
Check	AMW	5/19
Squad:	THOMAS	
Engr.:	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 32765(04) SHEET NO. B017

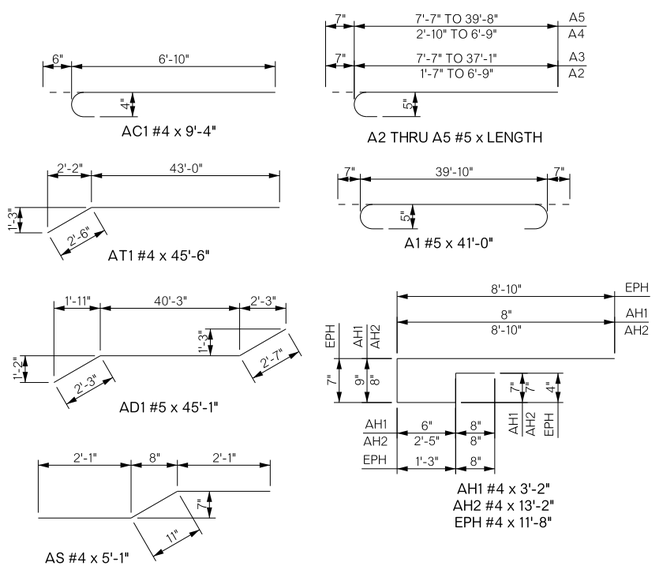
REVISIONS		
REV. NO.	DESCRIPTION	DATE



ABUTMENT NO. 1 | PIER NO. 1 | PIER NO. 2 | ABUTMENT NO. 2

SUPERSTRUCTURE BAR LIST					
EPOXY COATED REINFORCING					
MARK	SIZE	FORM	NUMBER	LENGTH	VARIANCE
A1	5	BNT.	192	41'-0"	
A2	5	BNT.	13	4'-9" AVG.	2'-2" TO 7'-4"
(4) A3	5	BNT.	175	22'-11" AVG.	8'-2" TO 37'-8"
(5) A4	5	BNT.	50	5'-4 1/2" AVG.	3'-5" TO 7'-4"
A5	5	BNT.	38	24'-2 1/2" AVG.	8'-2" TO 40'-3"
AC1	4	BNT.	598	7'-4"	
AD1	5	BNT.	12	45'-1"	
ET1	4	STR.	76	41'-0"	
(2) ET2	4	STR.	41	81'-4"	
ET3	4	STR.	3	41'-10 1/2" AVG.	41'-4" TO 42'-5"
ET4	4	STR.	3	40'-2 1/2" AVG.	39'-8" TO 40'-9"
AH1	4	BNT.	22	3'-2"	
AH2	4	BNT.	64	13'-2"	
AS	4	BNT.	82	5'-1"	
AT1	4	BNT.	4	45'-6"	
AT2	4	STR.	8	8'-5"	
B1	4	STR.	192	39'-10"	
B2	4	STR.	41	19'-4" AVG.	1'-7" TO 37'-1"
(6) B3	4	STR.	160	20'-2" AVG.	3'-3" TO 37'-1"
B4	4	STR.	44	21'-0 1/2" AVG.	2'-5" TO 39'-8"
EB1	5	STR.	76	41'-1"	
(3) EB2	5	STR.	41	82'-5"	
EB3	5	STR.	3	41'-10 1/2" AVG.	41'-4" TO 42'-5"
EB4	5	STR.	3	40'-2 1/2" AVG.	39'-8" TO 40'-9"
EPH	4	BNT.	152	11'-8"	
PT1	4	STR.	32	7'-11"	
PT2	4	STR.	16	2'-1"	
(7) SR1	5	BNT.	669	4'-1"	

(2) LENGTH INCLUDES 1 - 23" MIN. LAP
(3) LENGTH INCLUDES 1 - 36" MIN. LAP
(4) NUMBER INCLUDES FIVE SETS OF 35 BARS
(5) NUMBER INCLUDES FIVE SETS OF 10 BARS
(6) NUMBER INCLUDES FOUR SETS OF 40 BARS
(7) SEE STDS. B-03E AND B-419E.



DETAILS OF BENT REINFORCING STEEL

LONGITUDINAL SECTION

* MEASURED ALONG CRL SH-66 EB

STAY-IN-PLACE DECK FORM NOTES

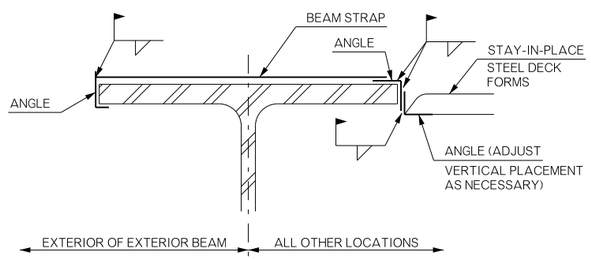
1. THE CONTRACTOR MAY USE STAY-IN-PLACE STEEL DECK FORMS IF THE MINIMUM DECK SLAB THICKNESS OF 8" IS OBTAINED BY MEASURING FROM THE TOP OF THE DECK SLAB TO THE TOP PORTION OF THE STEEL CORRUGATION. PREFORMED CORRUGATION FILLER, COMPOSED OF POLYSTYRENE OR OTHER MATERIAL, MAY BE USED IF BONDED TO THE DECK FORMS. NO ADDITIONAL CONCRETE WEIGHT OF THE DECK SLAB IS PERMITTED. THE TOTAL ADDITIONAL WEIGHT OF THE DECK FORM AND FILLER SHALL NOT EXCEED 5 P.S.F. THE DEPARTMENT CONSIDERS ALL COSTS OF STAY-IN-PLACE FORMS TO BE INCLUDED IN THE CONTRACT UNIT PRICE OF CLASS AA CONCRETE.

DECK SLAB NOTES

1. EPOXY-COAT OR GALVANIZE STEEL ITEMS USED TO FACILITATE CONSTRUCTION, SUCH AS DECK FORM HANGER ASSEMBLIES, TY-BAR CLIPS, INSERT WELD ANCHORS, OR OTHER APPURTENANCES, THAT WILL REMAIN IN PLACE IN THE DECK SLAB. EPOXY-COAT IN ACCORDANCE WITH AASHTO M284 OR GALVANIZE IN ACCORDANCE WITH AASHTO M111.

2. IN THE EVENT OF AN EMERGENCY, HALT THE PLACEMENT OF CONCRETE BY FORMING A CONSTRUCTION JOINT MADE PERPENDICULAR TO THE DIRECTION OF TRAFFIC OR AS DIRECTED BY THE ENGINEER. DO NOT PLACE ANY HEAVY EQUIPMENT ON THE FINISHED DECK SLAB WITHIN 5' OF ANY CONSTRUCTION JOINT UNTIL CONCRETE IS IN PLACE ON BOTH SIDES OF THE RESPECTIVE JOINT AND AT LEAST 48 HOURS HAS ELAPSED SINCE CONCRETE PLACEMENT. SEAL CONSTRUCTION JOINTS WITH HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE SPECIFICATIONS. THE DEPARTMENT WILL NOT MEASURE THE PREPARATION AND SEALER OF EMERGENCY CONSTRUCTION JOINTS FOR PAYMENT.

EXPANSION DEVICE SETTING TABLE AT PIER NO. 1 AND 2 (PERPENDICULAR TO JOINT) (1)		
TEMPERATURE (°F)	JOINT OPENING (IN.)	
	PIER NO. 1	PIER NO.2
0.0	2 1/4	2 5/8
15.0	2 1/8	2 1/2
30.0	2 1/8	2 1/4
45.0	2	2 1/8
60.0	2	2
75.0	2	1 7/8
90.0	1 7/8	1 3/4
105.0	1 7/8	1 1/2
120.0	1 3/4	1 3/8



STAY-IN-PLACE STEEL DECK FORM FLANGE CONNECTION DETAIL

NOTE:
DO NOT WELD TO THE TOP FLANGE OR STUDS. REPORT ANY ARC STRIKE. WELD SPLATTER OR WELDING ON TOP FLANGE TO BRIDGE ENGINEER IMMEDIATELY.

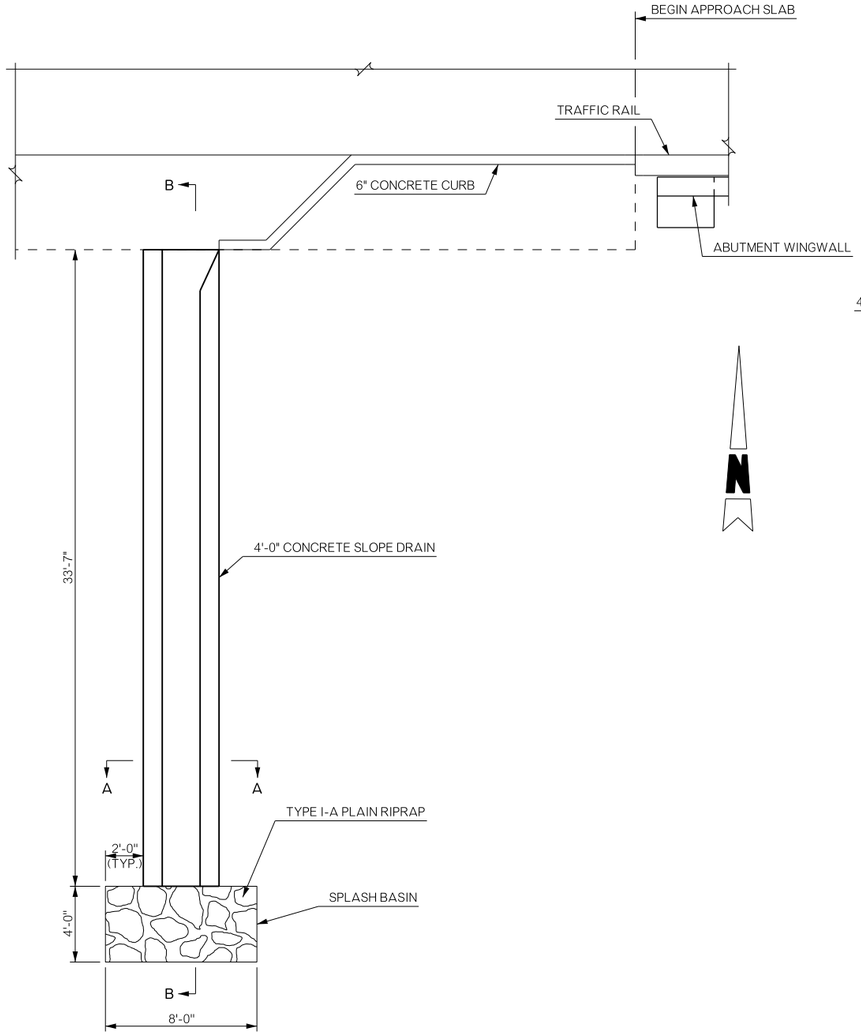
BRIDGE "A" CANADIAN COUNTY
EB SH-66 OVER SHELL CREEK

DECK SLAB DETAILS (SHEET 3 OF 3)

Design	WJS	4/19
Detail	KNB	5/19
Check	AMW	5/19
Squad	THOMAS	
Engr.	THOMAS	

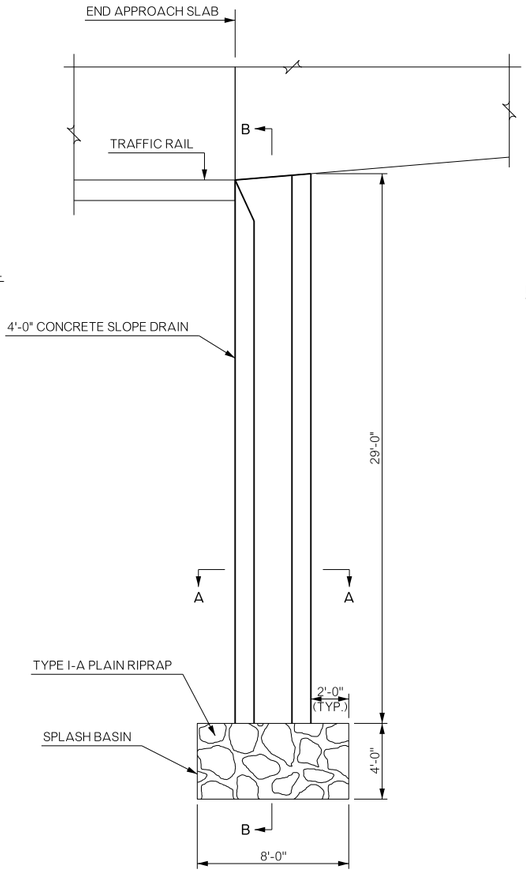
STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 32765(04) | SHEET NO. B018

REVISIONS		
REV. NO.	DESCRIPTION	DATE

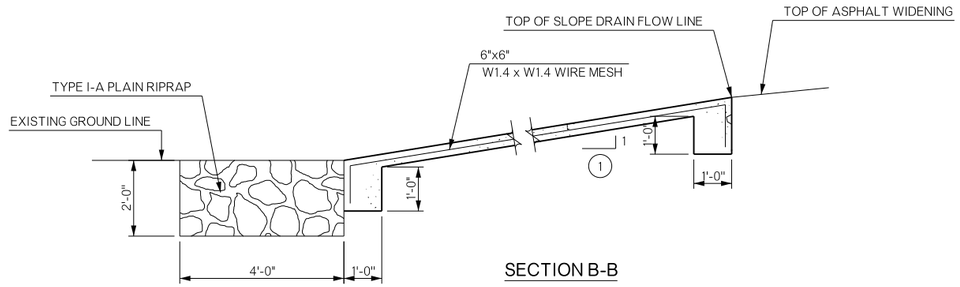


ABUTMENT NO. 1 PLAN

GUARDRAIL NOT SHOWN

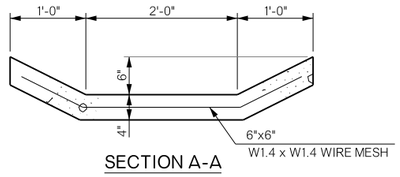


ABUTMENT NO. 2 PLAN



SECTION B-B

(1) SLOPE TO MATCH SLOPE OF PROPOSED GRADE



SECTION A-A

NOTES:

1. SEE ROADWAY PLANS FOR GUARDRAIL/CURB DETAILS AND PROPOSED SLOPES.
2. THE SPLASH BASIN SHALL BE CONSTRUCTED WITH TYPE I-A PLAIN RIPRAP. ALL COSTS FOR MATERIALS AND PLACEMENT SHALL BE INCLUDED IN THE PAY ITEM FOR "TYPE I-A PLAIN RIPRAP".
3. SLOPE DRAINS SHALL BE CONSTRUCTED USING CLASS "C" CONCRETE AS SHOWN ON THIS SHEET. THE COST OF THE SLOPE DRAINS INCLUDING EXCAVATION, REINFORCEMENT, LABOR, AND OTHER INCIDENTALS REQUIRED FOR CONSTRUCTION, SHALL BE INCLUDED IN THE PAY ITEM "CLASS "C" CONCRETE".

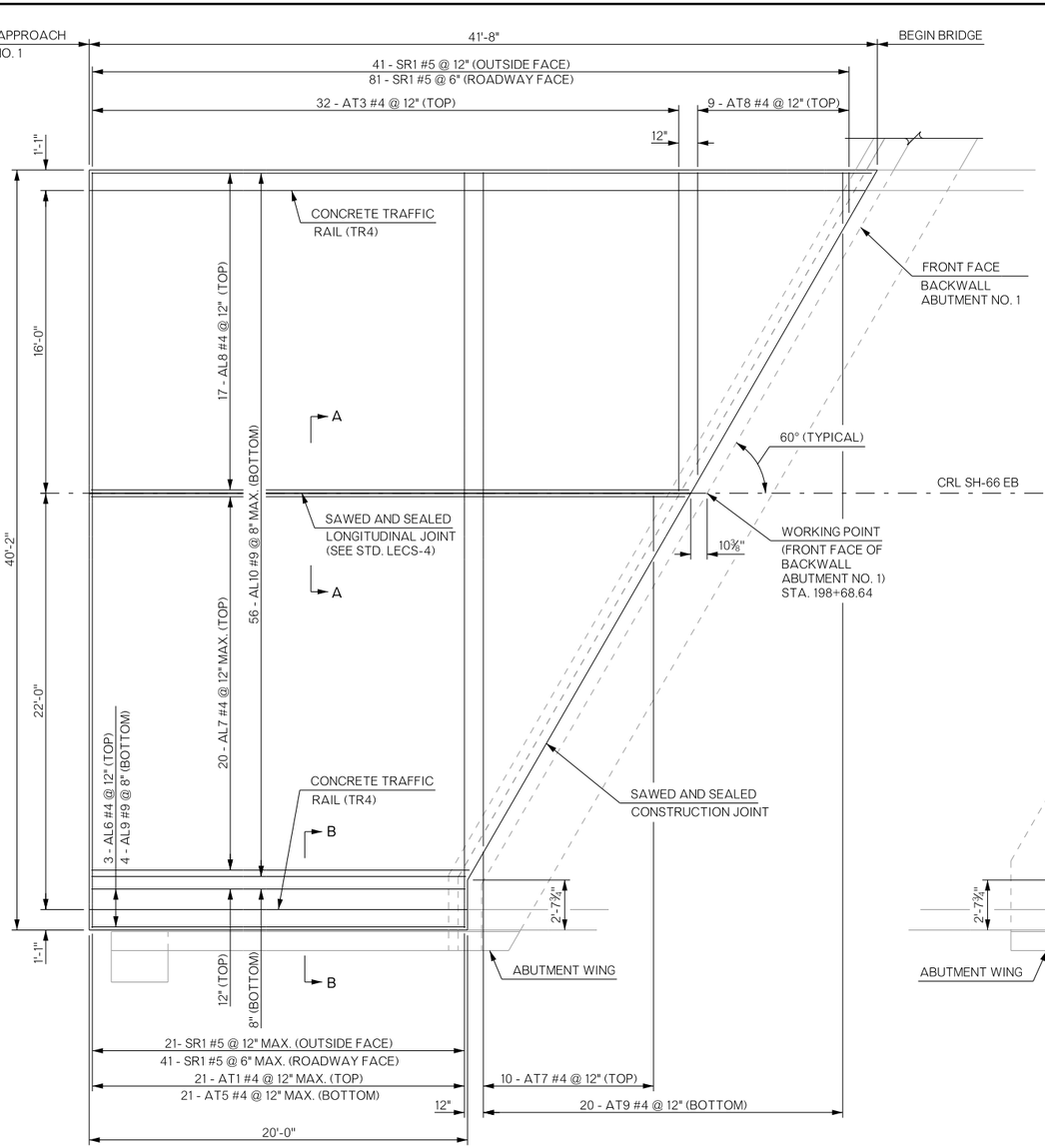
BRIDGE "A" CANADIAN COUNTY
EB SH-66 OVER SHELL CREEK

SLOPE DRAIN DETAILS

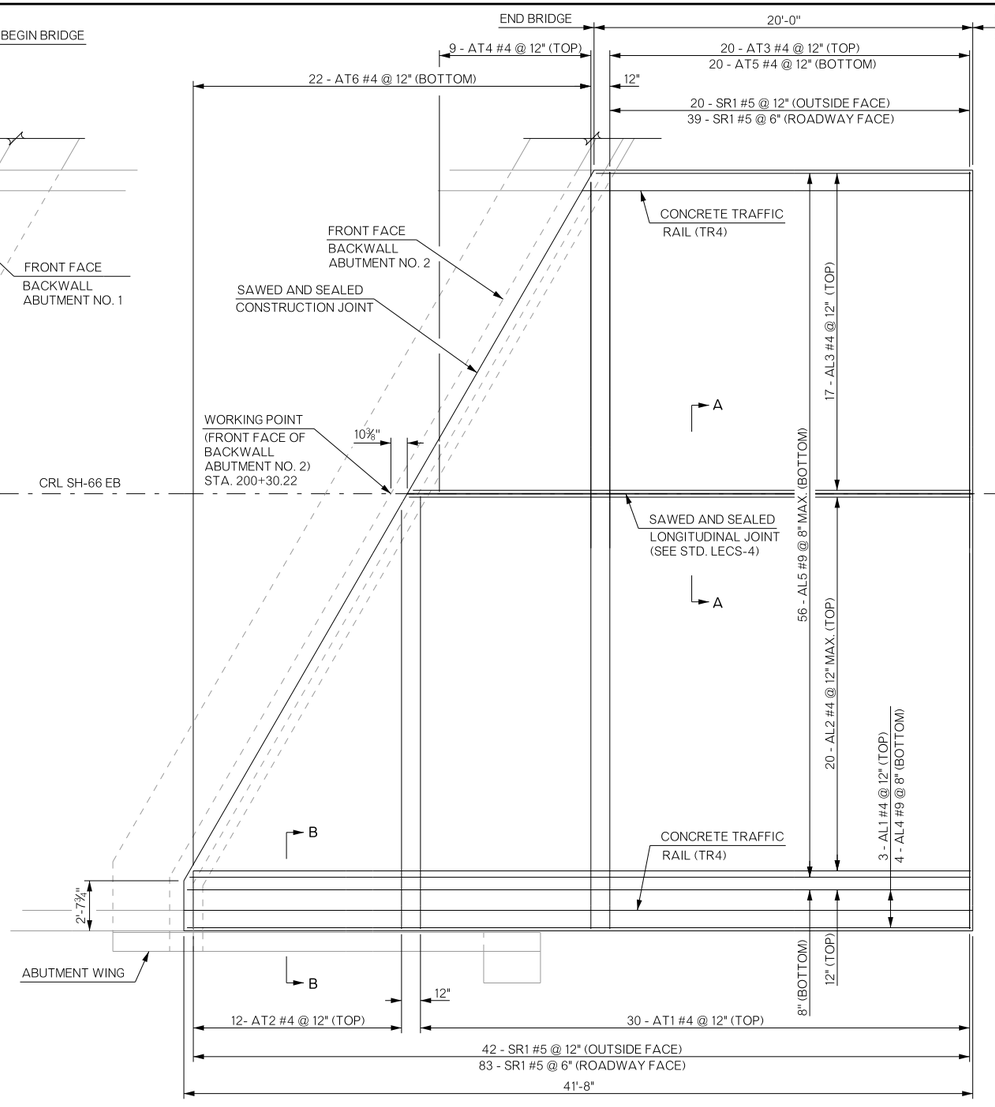
Design	JDK	5/19
Detail	KNB	5/19
Check	JDK	5/19
Squad	THOMAS	
Engr.:	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 32765(04) SHEET NO. B019



APPROACH SLAB NO. 1



APPROACH SLAB NO. 2

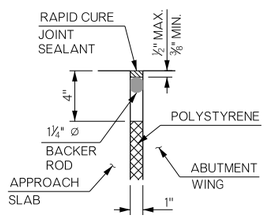
APPROACH SLAB BAR LIST					
MARK	SIZE	NO.	FORM	LENGTH	VARIANCE
(EPOXY COATED REINFORCING)					
AT1	#4	51	STR.	22'-9"	---
AT2	#4	12	STR.	12'-6" AVG.	22'-0" TO 3'-0"
AT3	#4	52	STR.	16'-9"	---
AT4	#4	9	STR.	9'-4" AVG.	16'-3" TO 2'-5"
AT5	#4	41	STR.	39'-10"	---
AT6	#4	22	STR.	21'-0½" AVG.	39'-1" TO 3'-0"
AT7	#4	10	STR.	10'-4½" AVG.	18'-2" TO 2'-7"
AT8	#4	9	STR.	9'-3" AVG.	16'-2" TO 2'-4"
AT9	#4	20	STR.	18'-9½" AVG.	35'-3" TO 2'-4"
AL1	#4	3	STR.	41'-4"	---
AL2	#4	20	STR.	35'-4" AVG.	40'-10" TO 29'-10"
AL3	#4	17	STR.	24'-5½" AVG.	29'-1" TO 19'-10"
AL4	#9	4	STR.	41'-4"	---
AL5	#9	56	STR.	30'-5" AVG.	41'-0" TO 19'-10"
AL6	#4	3	STR.	19'-8"	---
AL7	#4	20	STR.	25'-6½" AVG.	31'-0" TO 20'-1"
AL8	#4	17	STR.	36'-5" AVG.	41'-0" TO 31'-10"
AL9	#9	4	STR.	19'-8"	---
AL10	#9	56	STR.	30'-5½" AVG.	41'-0" TO 19'-11"
SR1	#5	368	BNT.	4'-1"	---

NOTE:
FOR SR1 BAR BEND, SEE STD. TR4-2.

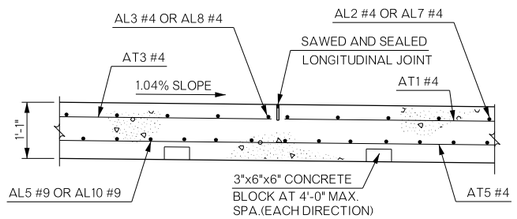
REVISIONS		
REV. NO.	DESCRIPTION	DATE

APPROACH SLAB QUANTITIES			
ITEM	UNIT	APPROACH SLAB NO. 1	APPROACH SLAB NO. 2
(1) APPROACH SLAB	S.Y.	134.50	140.80
SAW-CUT GROOVING	S.Y.	127.10	133.40
CONCRETE RAIL (TR4)	L.F.	61.70	61.70
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	29	29

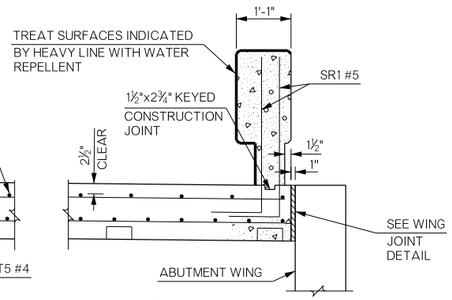
(1) THE DEPARTMENT CONSIDERS THE COST OF CONCRETE, REINFORCING STEEL (INCLUDING SR1 BARS), BACKER ROD, RAPID CURE JOINT SEALANT, POLYSTYRENE AND POLYETHYLENE SHEETING TO BE INCLUDED IN THE CONTRACT UNIT PRICE OF "APPROACH SLAB". THERE IS AN ESTIMATED 48.60 C.Y. AND 50.90 C.Y. OF CLASS AA CONCRETE AND ESTIMATED 9,250 LB. AND 9,640 LB. OF EPOXY COATED REINFORCING STEEL IN APPROACH SLABS NO. 1 AND 2, RESPECTIVELY.



WING JOINT DETAIL



SECTION A



SECTION B

NOTES:

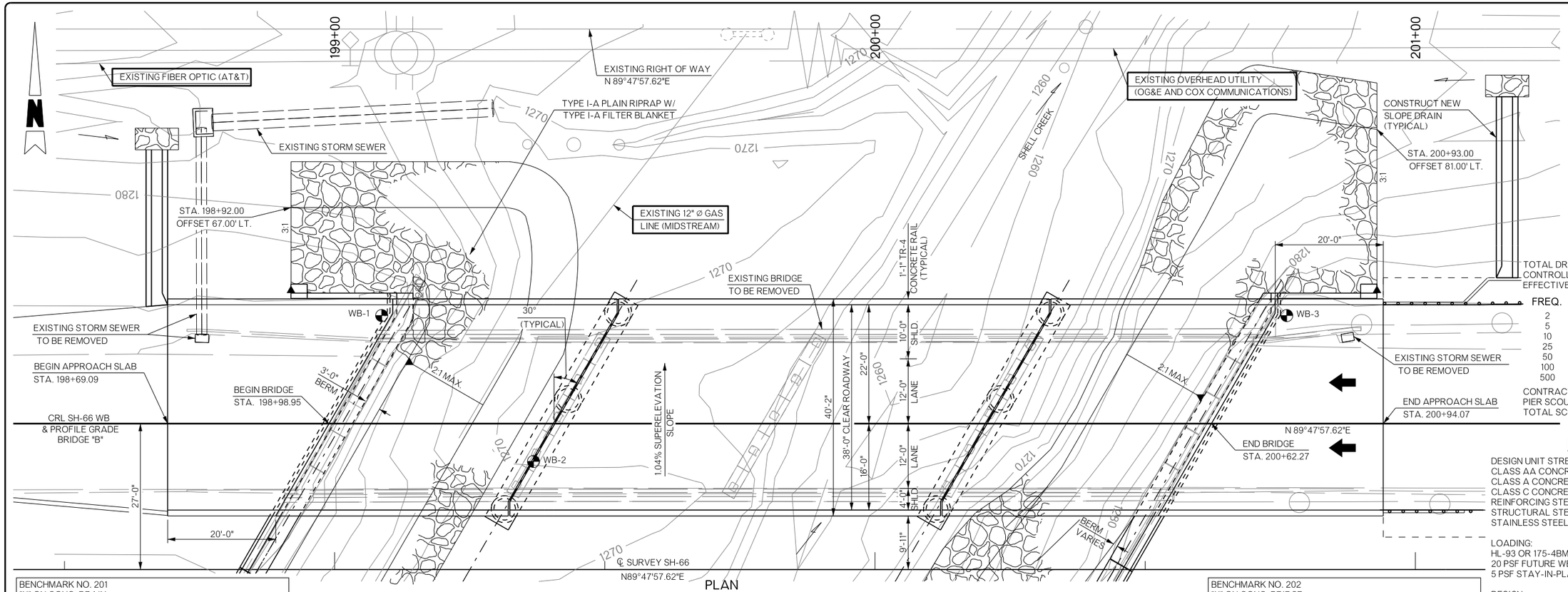
1. SEE STD. TR4-2 FOR ADDITIONAL DETALS OF CONCRETE RAIL.
2. FOR ADDITIONAL DETAIL OF APPROACH SLAB AT ABUTMENT, SEE LONGITUDINAL SECTION AND DIAPHRAGM DETAILS.
3. PLACE REINFORCING IN THE TOP OF THE APPROACH SLAB 2" FROM EITHER SIDE OF THE SAWED AND SEALED LONGTUDINAL JOINT. FOR ADDITIONAL DETAILS OF LONGITUDINAL JOINT, SEE STD. LECS-4.
4. CONCRETE TRAFFIC RAIL (TR-4) DOES NOT CONTAIN OPENINGS IN RAIL ALONG THE APPROACH SLAB.

BRIDGE "A"
EB SH-66 OVER SHELL CREEK
CANADIAN COUNTY

APPROACH SLAB DETAILS

Design	AMW	5/19
Detail	KNB	5/19
Check	AMW	5/19
Squad	THOMAS	
Engr.:	THOMAS	

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 32765(04)
SHEET NO. B020



REVISIONS

REV. NO.	DESCRIPTION	DATE

VPI 198+53.00
ELEV. = 1285.35

0.00%

259.00'

VPI 201+12.00
ELEV. = 1285.35

VERTICAL PROFILE DATA

HYDRAULIC SUMMARY

TOTAL DRAINAGE AREA	=	22.41 SQ. MI.
CONTROLLED DRAINAGE AREA	=	0.00 SQ. MI.
EFFECTIVE DRAINAGE AREA	=	22.41 SQ. MI.

FREQ.	Q (CFS)	CHW (FT.)	V (FPS)
2	1080	1272.10	2.12
5	2230	1275.79	2.68
10	3330	1278.00	3.18
25	5150	1279.73	4.27
50	6740	1280.76	5.14
100	8390	1281.67	6.00
500	13500	1284.92	9.68

CONTRACTION SCOUR (100 YEAR)	=	11.84 FT.
PIER SCOUR (100 YEAR)	=	5.56 FT.
TOTAL SCOUR (100 YEAR)	=	21.07 FT. (PIER NO. 2)

DESIGN DATA

DESIGN UNIT STRESSES

CLASS AA CONCRETE	f'c = 4,000 PSI
CLASS A CONCRETE	f'c = 3,000 PSI
CLASS C CONCRETE	f'c = 4,000 PSI
REINFORCING STEEL (GRADE 60)	fy = 60,000 PSI
STRUCTURAL STEEL M270 (GRADE 50W)	fy = 50,000 PSI
STAINLESS STEEL A240 (TYPE 316)	fy = 30,000 PSI

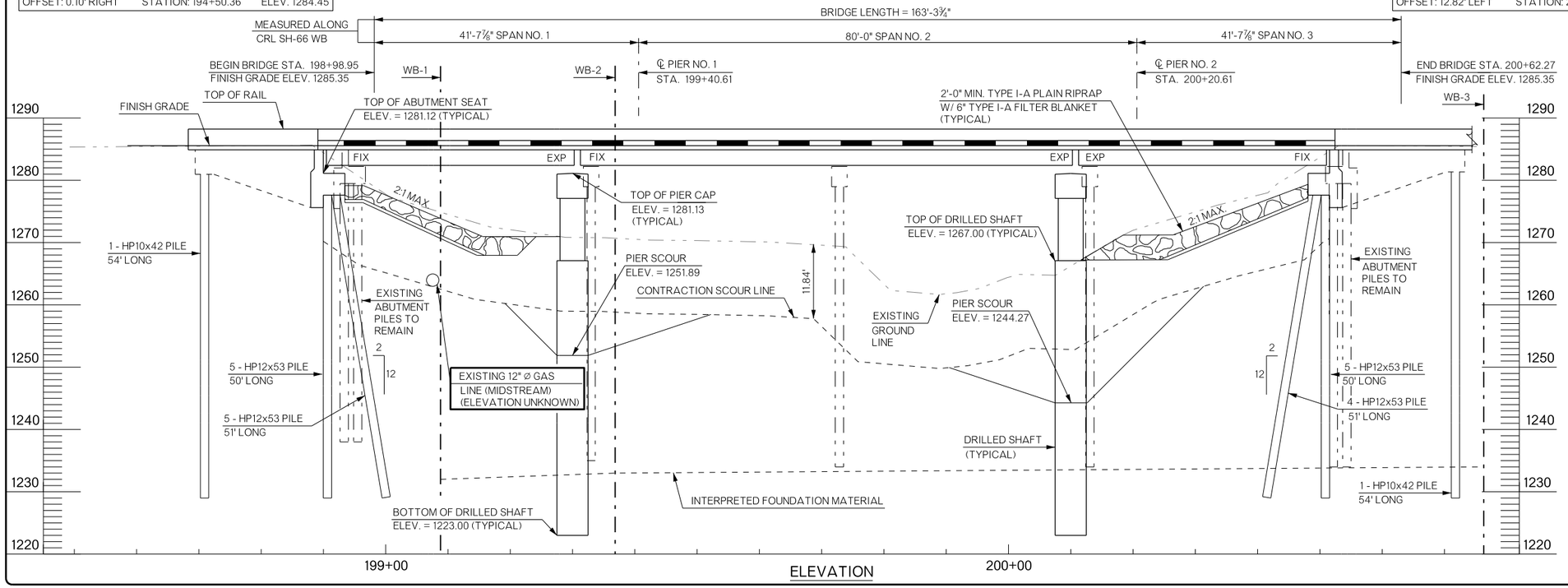
LOADING:
HL-93 OR 175-4BM (ODOT OVERLOAD)
20 PSF FUTURE WEARING SURFACE
5 PSF STAY-IN-PLACE FORMS

DESIGN:
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION
ANSI/AASHTO/AWS D 1.5 BRIDGE WELDING CODE
STAINLESS STEEL WELDING CODE

RATING:
LRFR INVENTORY RATING FACTOR: 1.35
LRFR OPERATING RATING FACTOR: 1.75
LRFR PERMIT RATING FACTOR: 1.63

BENCHMARK NO. 201
"X" ON CONC. DRAIN
OFFSET: 0.10' RIGHT STATION: 194+50.36 ELEV. 1284.45

BENCHMARK NO. 202
"X" ON CONC. BRIDGE
OFFSET: 12.82' LEFT STATION: 200+52.35 ELEV. 1285.83



INDEX OF BRIDGE SHEETS

NO.	DESCRIPTION
B021	GENERAL PLAN & ELEVATION
B022-B023	SUBSURFACE PROFILE
B024	SUBSTRUCTURE STAKING DIAGRAM
B025-B026	ABUTMENT NO. 1 DETAILS
B027-B028	ABUTMENT NO. 2 DETAILS
B029-B030	PIER DETAILS
B031	BEARING DETAILS
B032	FRAMING PLAN
B033	ROLLED BEAM DETAILS
B034-B035	DIAPHRAGM DETAILS
B036-B038	DECK SLAB DETAILS
B039	SLOPE DRAIN DETAILS
B040	APPROACH SLAB DETAILS

NOTES:

1. FOR BORING PROFILES, SEE SUBSURFACE PROFILE SHEETS.
2. FOR TR-4 TRAFFIC RAIL LAYOUT, TYPICAL RIPRAP SECTIONS AND FOUNDATION DATA, SEE SUBSTRUCTURE STAKING DIAGRAM.
3. FOR ABUTMENT AND PIER FOUNDATION DATA, SEE ABUTMENT AND PIER SHEETS.

BRIDGE "B"
WB SH-66 OVER SHELL CREEK

CANADIAN COUNTY

GENERAL PLAN AND ELEVATION

CONSTRUCT 40'- 80' - 40' W30 ROLLED BEAM SPANS
WITH TR4 CONCRETE RAILS AND 38' CLEAR ROADWAY
30° SKEW LT AHEAD AT ℄ SURVEY SH-66 STA. 199+80.61, 27' LT.

Design	WJS	5/19
Detail	KNB	5/19
Check	JDK	5/19
Squad	THOMAS	
Engr.	THOMAS	

STATE OF OKLAHOMA

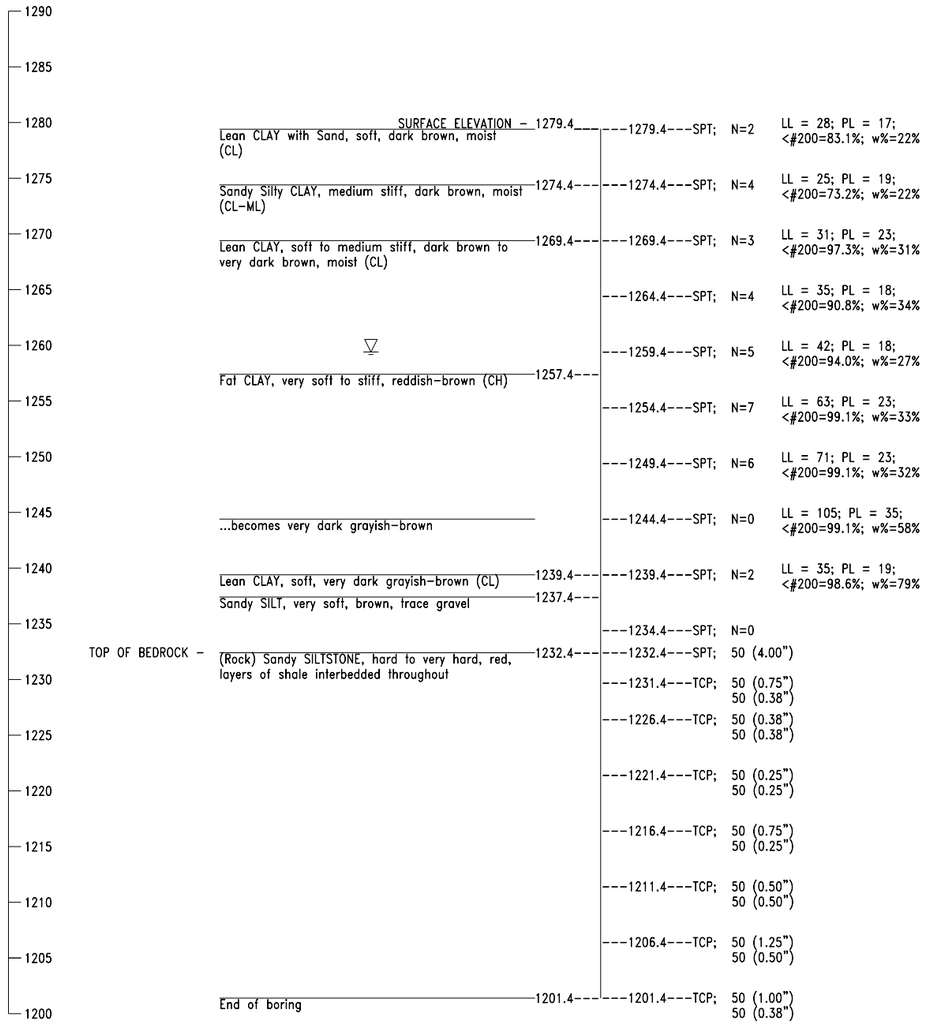
DEPARTMENT OF TRANSPORATION

JOB PIECE NO. 32765(04)

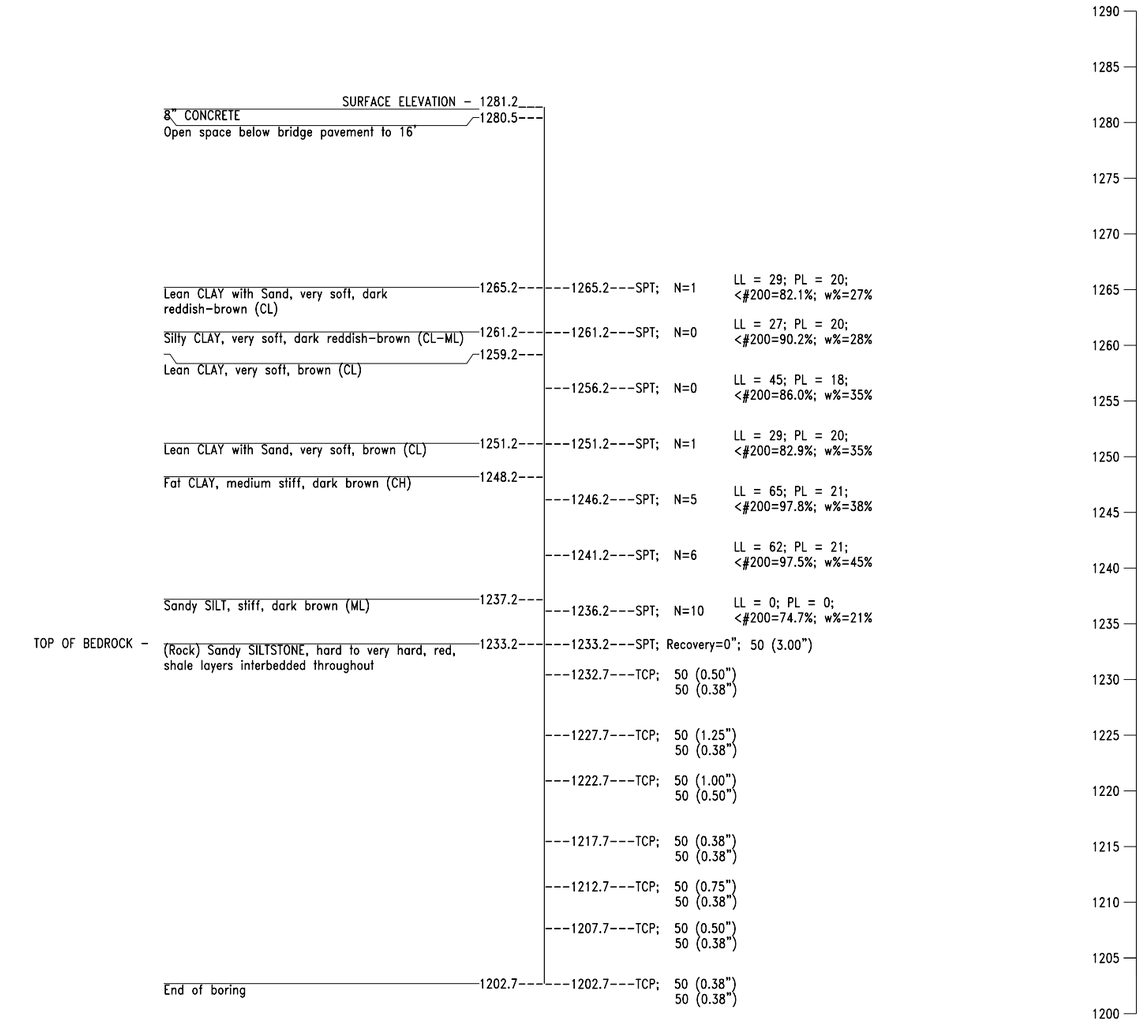
SHEET NO. B021

REVISIONS		
REV. NO.	DESCRIPTION	DATE

Boring Number WB-1
Station: 199+08.7
Offset: 47.0' LT
Date Drilled: 12/28/18



Boring Number WB-2
Station: 199+36.8
Offset: 20.0' LT
Date Drilled: 12/28/2018



GEOLOGIC STATEMENT

"Division Four" of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates that the bridge site is within the Duncan Subunit (Pfd) in Canadian County. The Duncan subunit unit is described below.

The Duncan subunit consists of sandstone, siltstone, mudstone, (hardened, massive, clay) and shale. The subunit has a massive sandstone at both the top and bottom with a shale interval between. The lower sandstone is orange, fine-grained, cross-bedded, and about sixteen feet thick in southern Canadian County. The interval above the lower sandstone consists of red blocky shales along with some mudstones. The upper sandstone is pink-orange, soft to moderately hard, fine-grained, and contains a few clay galls and a small amount of cross-bedding. It is about twenty feet thick in Canadian County.

The total thickness of subunit is about 100 feet at the southern boundary of Canadian County. Northward, the subunit thins to about 70 feet at Yukon and about 50 feet at the Kingfisher County line. The sandstones also thin northward, become less pronounced, and less identifiable.

The subunit outcrops in Canadian and Oklahoma Counties of Division Four. It extends into Kingfisher County where it pinches out. Detailed geology of Kingfisher County is unavailable; therefore, its thin outcrop is not mapped but is included in the Flowerpot unit.

Topographically, the sandstones of the subunit generally cap scarps and rolling hills which have a fair amount of relief. The scarps become less pronounced northward. The sandstones commonly support the growth of cedar trees (Juniper) and various other trees (mostly Oak) which contrasts with the nearly treeless Chickasha subunit. The shale interval generally forms the slope beneath the upper sandstone and is covered with grass and a few trees

GEOTECHNICAL REPORT

All geotechnical information contained on this sheet is covered by the engineering seal affixed to an original geotechnical engineering report that has been stamped and sealed by a professional engineer licensed in Oklahoma. To obtain a copy of the complete report, contact the ODOT office engineer at (405) 521-2625. The contractor should be fully aware of the site conditions prior to beginning work. Any additional geotechnical information which may be desired is the responsibility of the contractor.

Note: Water level elevations shown were obtained at the time the borings were drilled and may fluctuate throughout the year.

NOTE: SPT – Split Spoon Sampling
TCP – Texas Cone Penetrator Test
AUG – Augur Cutting Sample
LL – Liquid Limit
PL – Plastic Limit

<#200 – Percent passing #200 sieve
w% – Moisture content
N – Number of blows per 12 inches
▽ Denotes depth to observed groundwater

PROFESSIONAL SERVICE INDUSTRIES, INC.

BRIDGE "B" CANADIAN COUNTY
WB SH-66 OVER SHELL CREEK

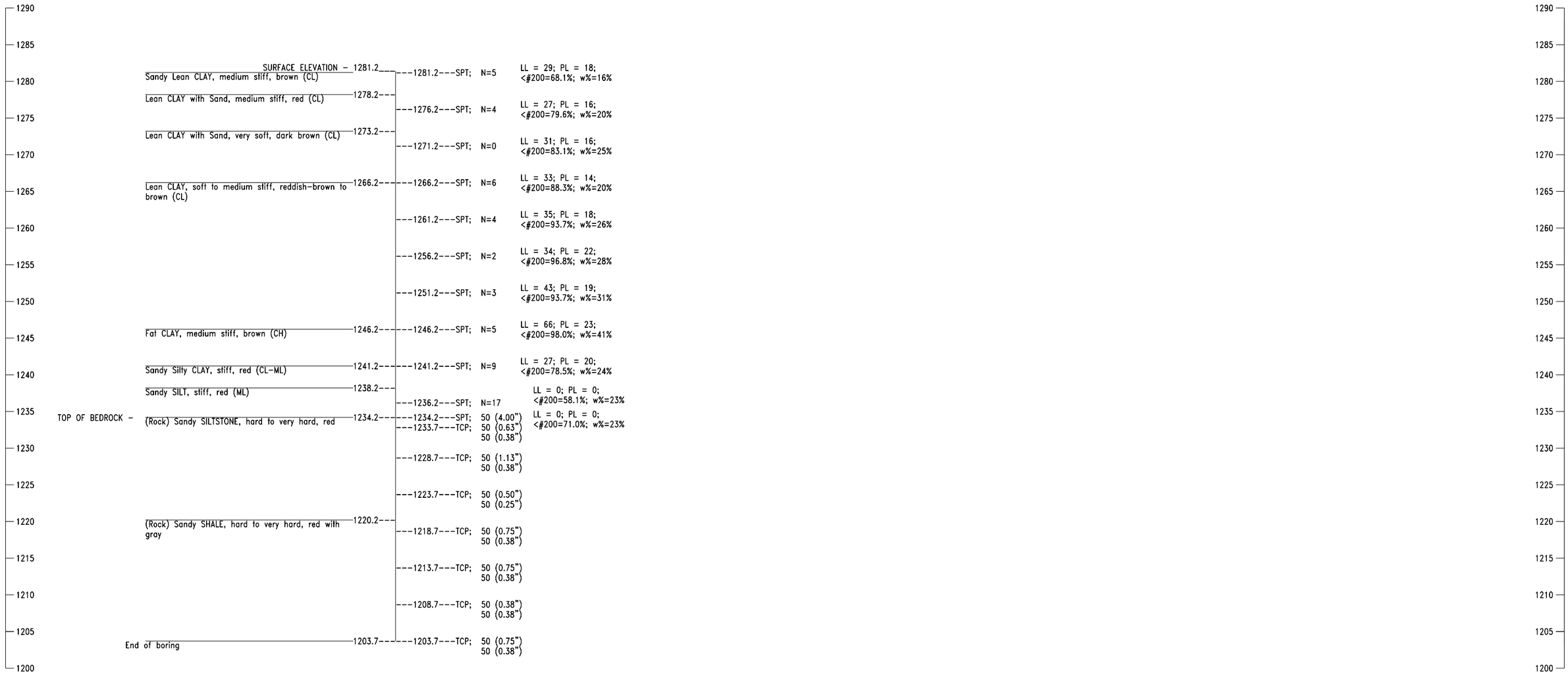
SUBSURFACE PROFILE
(SHEET 1 OF 2)

Design		
Detail	YZ	2/19
Check		
Squad	THOMAS	
Engr.	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 32765(04) | SHEET NO. B022

REVISIONS		
REV. NO.	DESCRIPTION	DATE

Boring Number WB-3
Station: 200+176.2
Offset: 47.0' LT
Date Drilled: 12/28/18



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TCP – Texas Cone Penetrator Test
AUG – Augur Cutting Sample
LL – Liquid Limit
PL – Plastic Limit

<#200 – Percent passing #200 sieve
w% – Moisture content
N – Number of blows per 12 inches
▽ Denotes depth to observed groundwater

PROFESSIONAL SERVICE INDUSTRIES, INC.

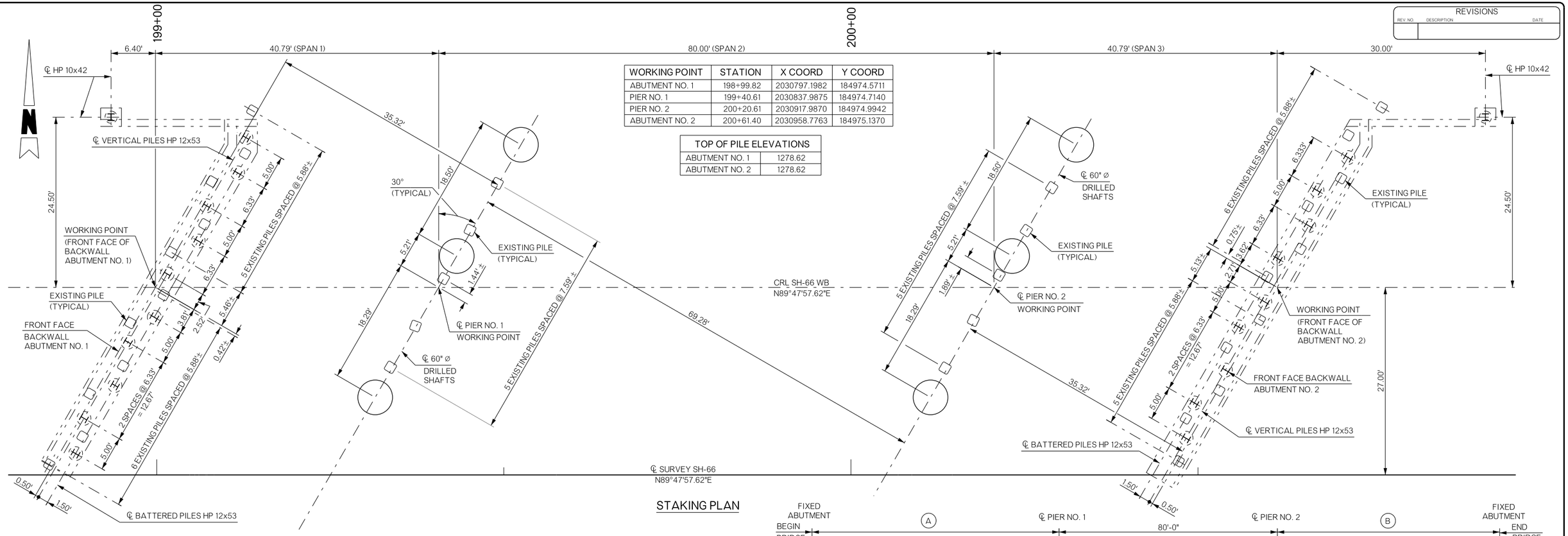
BRIDGE "B" CANADIAN COUNTY
WB SH-66 OVER SHELL CREEK

SUBSURFACE PROFILE
(SHEET 2 OF 2)

Design		
Detail	YZ	2/19
Check		
Squad	THOMAS	
Engr.	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

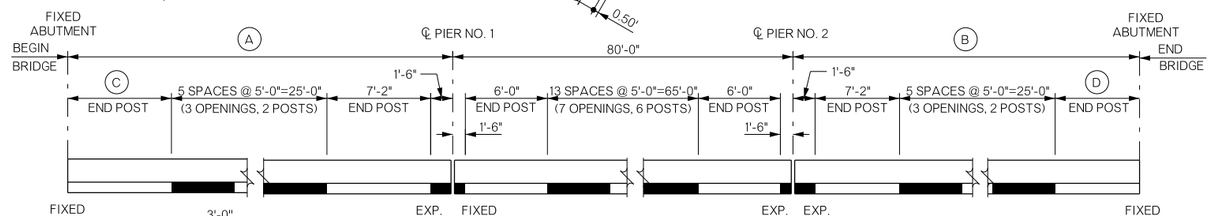
JOB PIECE NO. 32765(04) SHEET NO. B023



STAKING PLAN

WORKING POINT	STATION	X COORD	Y COORD
ABUTMENT NO. 1	198+99.82	2030797.1982	184974.5711
PIER NO. 1	199+40.61	2030837.9875	184974.7140
PIER NO. 2	200+20.61	2030917.9870	184974.9942
ABUTMENT NO. 2	200+61.40	2030958.7763	184975.1370

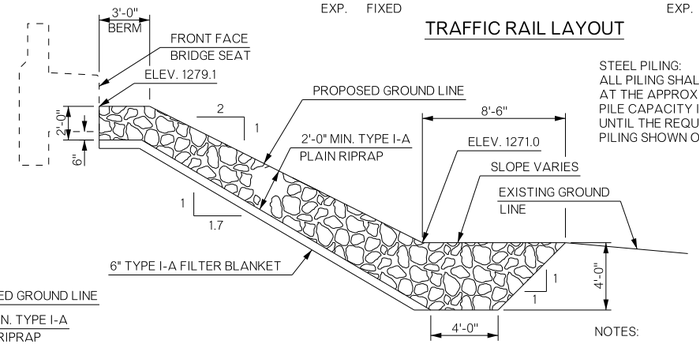
TOP OF PILE ELEVATIONS	
ABUTMENT NO. 1	1278.62
ABUTMENT NO. 2	1278.62



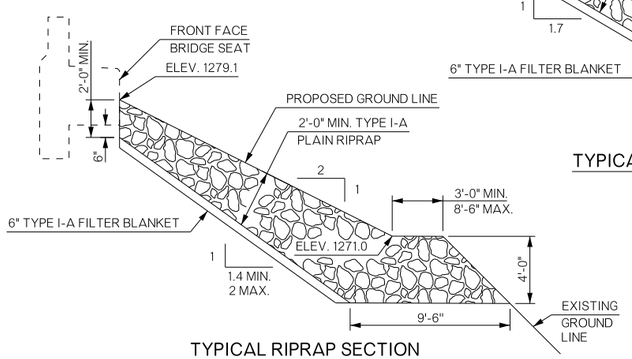
TRAFFIC RAIL LAYOUT

SUMMARY OF QUANTITIES - BRIDGE "B"						
DESCRIPTION	UNIT	ABUTMENT	PIER	SUPERSTRUCTURE	APPROACH	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	CY	195				195
CLSM BACKFILL	CY	198.40				198.40
TEMPORARY EARTH RETAINAGE	LSUM					1
APPROACH SLAB	SY				275.30	275.30
SAW-CUT GROOVING	SY			689.60	260.50	950.10
SEALED EXPANSION JOINT	LF			93.20		93.20
CONCRETE RAIL (TR4)	LF			327.30	123.40	450.70
STRUCTURAL STEEL	LB			154,030		154,030
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA			15		15
STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA			15		15
CLASS AA CONCRETE	CY			169.80		169.80
CLASS A CONCRETE	CY	113.40	106.00			219.40
CLASS C CONCRETE	CY					
REINFORCING STEEL	LB		980			980
EPOXY COATED REINFORCING STEEL	LB	10,030	13,280	42,000		65,710
PILES, FURNISHED (HP10x42)	LF	108				108
PILES, FURNISHED (HP12x53)	LF	959				959
PILES, DRIVEN (HP10x42)	LF	108				108
PILES, DRIVEN (HP12x53)	LF	959				959
PILE SPLICE, H-PILE (NON-BIDDABLE)	EA	42				42
WATER REPELLENT (VISUALLY INSPECTED)	SY	19	84	271	58	432
DRILLED SHAFTS 60" DIAMETER	LF		264			264
CROSSHOLE SONIC LOGGING	EA		1			1
CSL ACCESS TUBES	LF		1,410			1,410
(PL) INSTALLATION OF BRIDGE ITEMS	LSUM					1
TYPE I-A PLAIN RIPRAP	TON					
TYPE I-A FILTER FABRIC	TON					
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	115				115
6" NON-PERF. PIPE UNDERDRAIN RND.	LF	50				50
REMOVAL OF EXISTING BRIDGE STRUCTURE	LSUM					1

TRAFFIC RAIL VARIABLE DIMENSIONS		
	NORTH RAIL	SOUTH RAIL
A	41'-7⅛"	43'-2¼"
B	41'-7⅛"	40'-9"
C	7'-11⅞"	9'-6¼"
D	7'-11⅞"	7'-1"



TYPICAL RIPRAP SECTION
(ABUTMENT NO. 1)



TYPICAL RIPRAP SECTION
(ABUTMENT NO. 2)

STEEL PILING:
ALL PILING SHALL BE DRIVEN TO A POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE REQUIRED ULTIMATE PILE CAPACITY IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE REQUIRED ULTIMATE PILE CAPACITY IS OBTAINED. THE LENGTH OF STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY.

NOTES:

1. FACE OF HP12x53 PILE WEB SHALL BE PERPENDICULAR TO FACE OF BRIDGE SEAT.
2. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING PILES. FOR DETAILS SEE GENERAL NOTES (BRIDGE) SHEET.

REVISIONS

REV. NO.	DESCRIPTION	DATE

BRIDGE "B" CANADIAN COUNTY
WB SH-66 OVER SHELL CREEK

SUBSTRUCTURE STAKING DIAGRAM

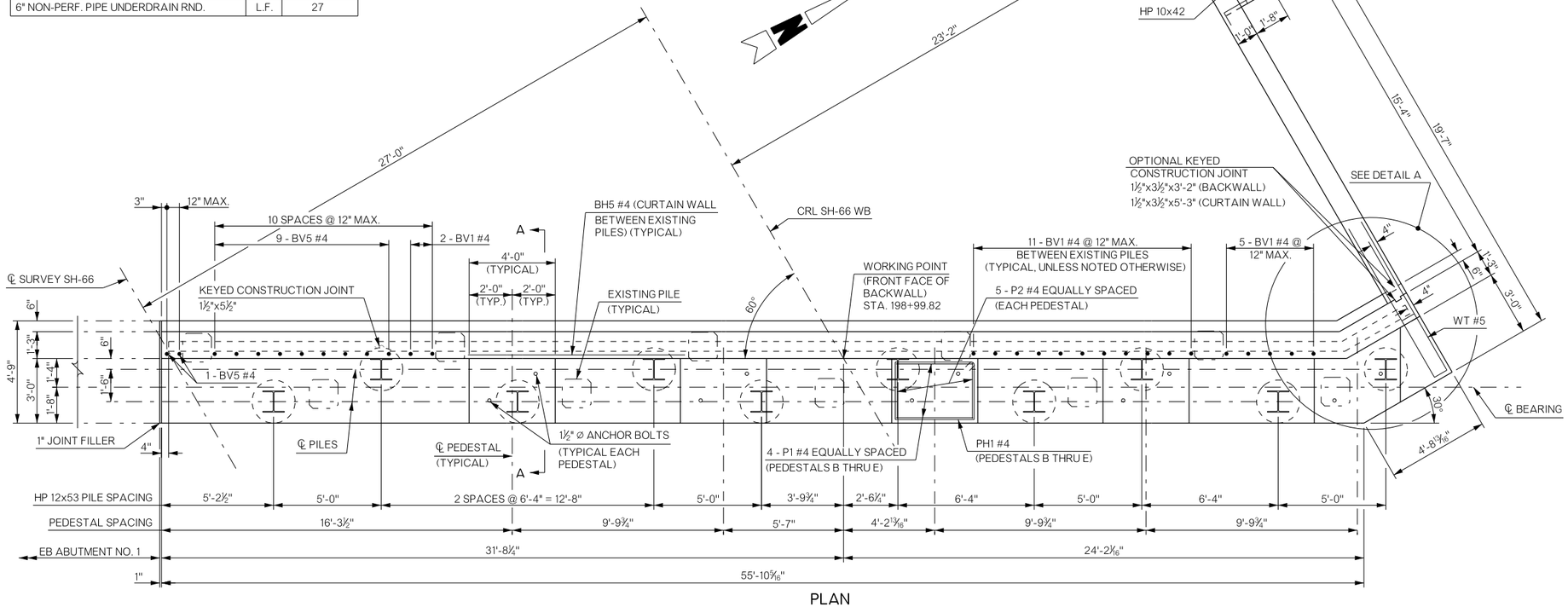
Design	WJS	4/19
Detail	KNB	5/19
Check	AMW	5/19
Squad	THOMAS	
Engr.	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 32765(04) | SHEET NO. B024

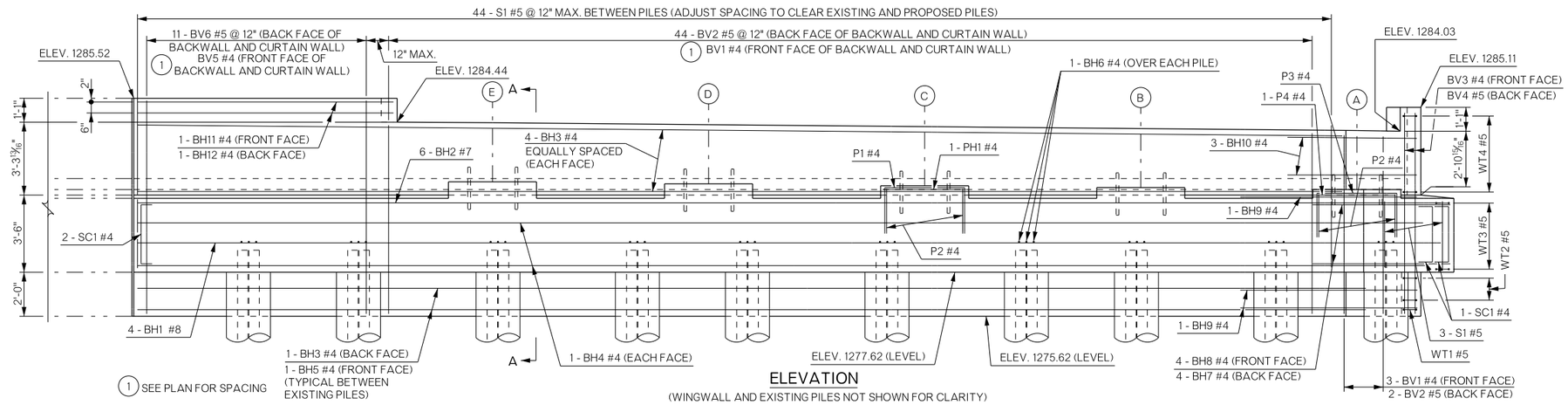
ABUTMENT QUANTITIES		
ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	100
CLSM BACKFILL	C.Y.	94.40
CLASS A CONCRETE	C.Y.	57.20
EPOXY COATED REINFORCING STEEL	LB.	5,080
PILES, FURNISHED (HP10x42)	L.F.	54
PILES, FURNISHED (HP12x53)	L.F.	505
PILES, DRIVEN (HP10x42)	L.F.	54
PILES, DRIVEN (HP12x53)	L.F.	505
PILE SPLICE (NON-BIDDABLE)	EA.	22
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	10
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	57
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	27

TOP OF PEDESTAL ELEVATIONS	
PEDESTAL	ABUTMENT NO. 1
A	1281.37
B	1281.46
C	1281.55
D	1281.64
E	1281.73

REVISIONS		
REV. NO.	DESCRIPTION	DATE

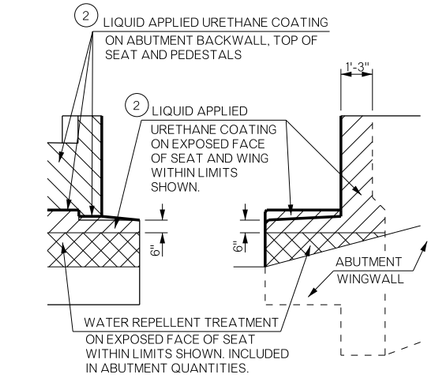


PLAN



ELEVATION

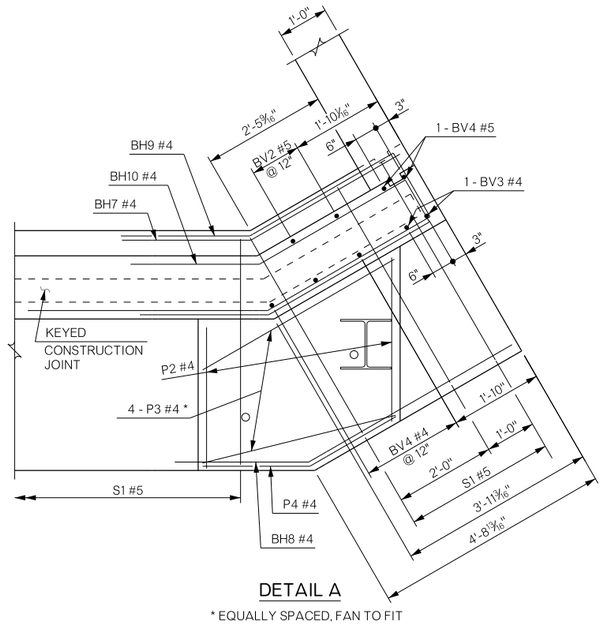
(WINGWALL AND EXISTING PILES NOT SHOWN FOR CLARITY)



ELEVATION SIDE

WATER REPELLENT TREATMENT DETAILS

2 LIQUID APPLIED URETHANE COATING SHALL BE INCLUDED IN THE LUMP SUM PRICE OF "(PL) INSTALLATION OF BRIDGE ITEMS". FOR MORE DETAILS, SEE GENERAL NOTES AND SUMMARY OF QUANTITIES SHEETS.



DETAIL A

* EQUALLY SPACED, FAN TO FIT

NOTES:

1. PLACE ALL WT WING REINFORCING TIED TO ABUTMENT SEAT AND BACKWALL REINFORCING BEFORE PLACING ABUTMENT SEAT AND BACKWALL CONCRETE. FOR ADDITIONAL DETAILS AND BAR LIST, SEE ABUTMENT NO. 1 DETAILS (SHEET 2 OF 2).
2. MAXIMUM FACTORED PILE LOAD = 121.7 TONS
   FACTORED PILE CAPACITY = 145.0 TONS

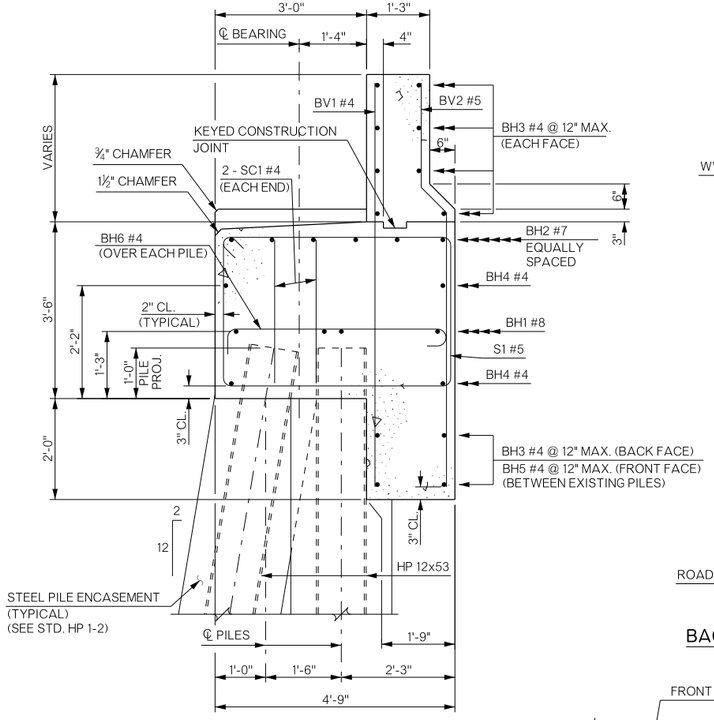
BRIDGE "B" CANADIAN COUNTY
WB SH-66 OVER SHELL CREEK

ABUTMENT NO. 1 DETAILS (SHEET 1 OF 2)

Design	AMW	4/19
Detail	KNB	5/19
Check	AMW	5/19
Squad	THOMAS	
Engr.	THOMAS	

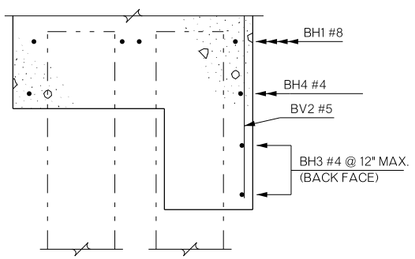
STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 32765(04) SHEET NO. B025

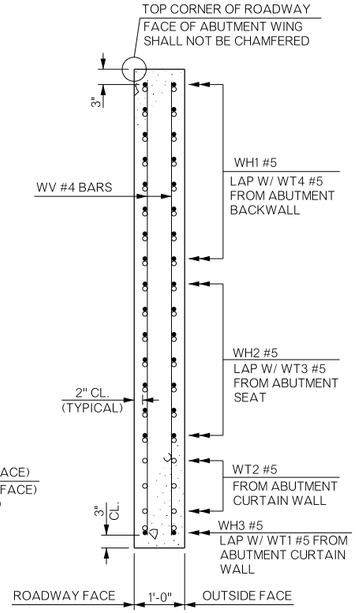


SECTION A-A

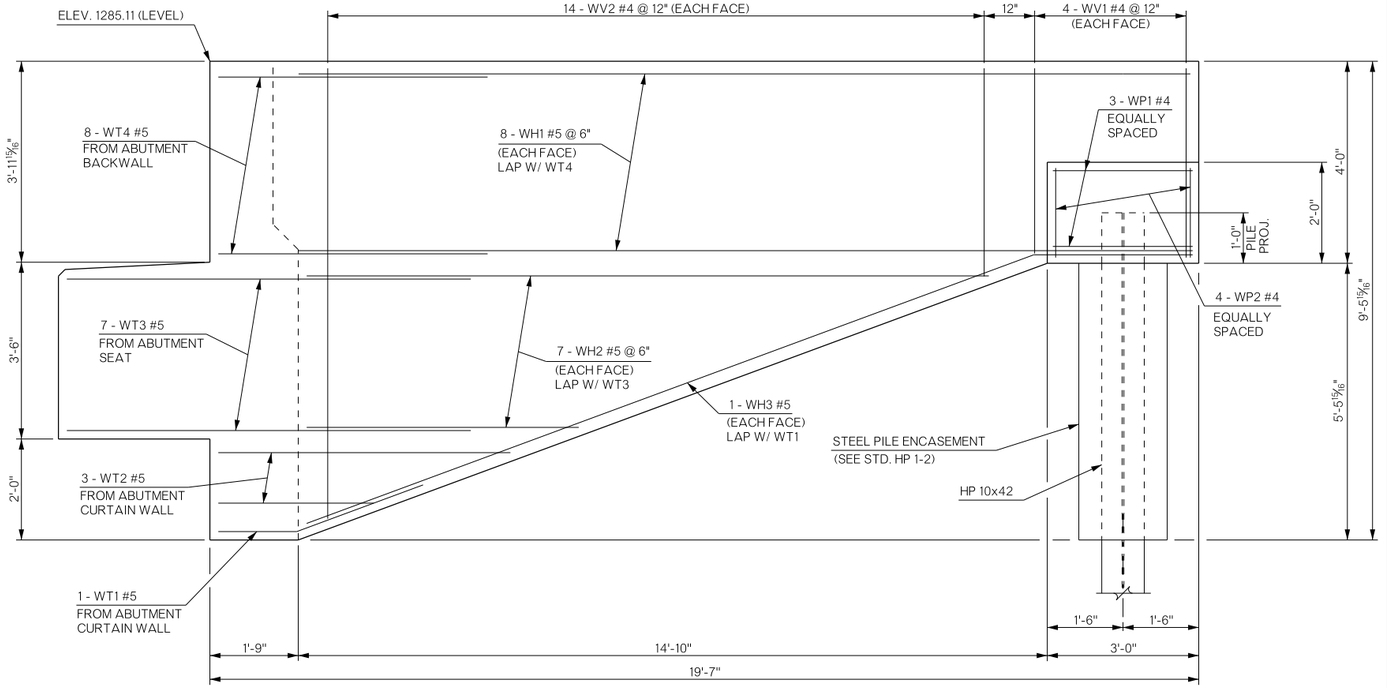
(EXISTING PILES NOT SHOWN FOR CLARITY)



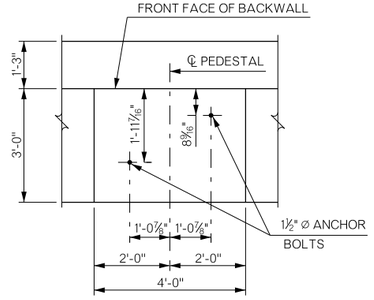
TYPICAL SECTION
AT EXISTING PILE



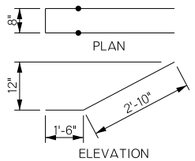
SECTION THRU WING AT
BACK FACE OF ABUTMENT SEAT



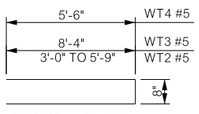
WINGWALL ELEVATION



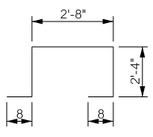
DETAIL OF PEDESTAL WITH
LAYOUT OF ANCHOR BOLTS



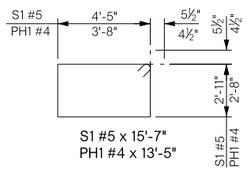
WT1 #5 x 9'-0"



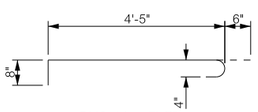
WT2 #5 x LENGTH
WT3 #5 x 17'-4"
WT4 #5 x 11'-8"



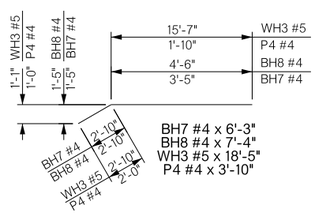
WP1 #4 x 8'-8"



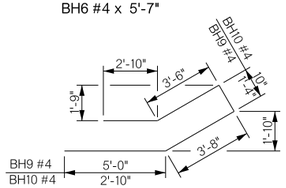
S1 #5 x 15'-7"
PH1 #4 x 13'-5"



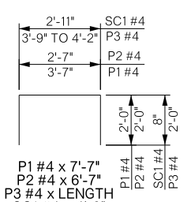
BH6 #4 x 5'-7"



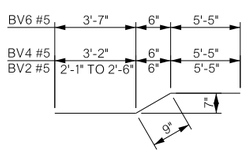
BH7 #4 x 6'-3"
BH8 #4 x 7'-4"
WH3 #5 x 18'-5"
P4 #4 x 3'-10"



BH9 #4 x16'-4"
BH10 #4 x13'-8"



P1 #4 x 7'-7"
P2 #4 x 6'-7"
P3 #4 x LENGTH
SC1 #4 x 4'-3"



BV2 #5 x LENGTH
BV4 #5 x 9'-4"
BV6 #5 x 9'-9"

ABUTMENT NO. 1 BAR LIST											
EPOXY COATED REINFORCING											
MARK	SIZE	FORM	NUMBER	LENGTH	VARIANCE		MARK	SIZE	FORM	NUMBER	LENGTH	VARIANCE
(1) BH1	8	STR.	4	65'-3"			P1	4	BNT.	16	7'-7"	
(2) BH2	7	STR.	6	64'-5"			P2	4	BNT.	25	6'-7"	
BH3	4	STR.	10	55'-0"			P3	4	BNT.	4	7'-11½" AVG.	7'-9" TO 8'-2"
BH4	4	STR.	4	55'-9"			P4	4	BNT.	1	3'-10"	
BH5	4	STR.	8	10'-0"								
BH6	4	BNT.	30	5'-7"			PH1	4	BNT.	4	13'-5"	
BH7	4	BNT.	4	6'-3"								
BH8	4	BNT.	4	7'-4"			WH1	5	STR.	16	17'-8"	
BH9	4	BNT.	3	16'-4"			(3) WH2	5	STR.	14	9'-5" AVG.	5'-4" TO 13'-6"
BH10	4	BNT.	3	13'-8"			WH3	5	BNT.	2	18'-5"	
BH11	4	STR.	2	11'-7"								
BH12	4	STR.	2	10'-11"			WV1	4	STR.	8	3'-7"	
							(4) WV2	4	STR.	28	6'-5" AVG.	4'-0" TO 8'-10"
BV1	4	STR.	43	8'-2½" AVG.	8'-0" TO 8'-5"							
BV2	5	BNT.	46	8'-5½" AVG.	8'-3" TO 8'-8"		WT1	5	BNT.	1	9'-4"	
BV3	4	STR.	2	9'-1"			WT2	5	BNT.	3	9'-5" AVG.	6'-8" TO 12'-2"
BV4	5	BNT.	2	9'-4"			WT3	5	BNT.	7	17'-4"	
BV5	4	STR.	11	9'-6"			WT4	5	BNT.	8	11'-8"	
BV6	5	BNT.	11	9'-9"								
							WP1	4	BNT.	3	8'-8"	
S1	5	BNT.	47	15'-7"			WP2	4	STR.	4	1'-7"	
SC1	4	BNT.	4	4'-3"								

(1) INCLUDES 1 - 68" LAP

(2) INCLUDES 1 - 60" LAP

(3) 2 SETS OF 7

(4) 2 SETS OF 14

REVISIONS

REV. NO.	DESCRIPTION	DATE

BRIDGE "B" CANADIAN COUNTY
WB SH-66 OVER SHELL CREEK

ABUTMENT NO. 1 DETAILS (SHEET 2 OF 2)

Design	AMW	4/19
Detail	KNB	5/19
Check	AMW	5/19
Squad	THOMAS	
Engr.	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 32765(04) SHEET NO. B026

ABUTMENT QUANTITIES		
ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	95
CLSM BACKFILL	C.Y.	104.0
CLASS A CONCRETE	C.Y.	56.20
EPOXY COATED REINFORCING STEEL	LB.	4,950
PILES, FURNISHED (HP10x42)	L.F.	54
PILES, FURNISHED (HP12x53)	L.F.	454
PILES, DRIVEN (HP10x42)	L.F.	54
PILES, DRIVEN (HP12x53)	L.F.	454
PILE SPLICE (NON-BIDDABLE)	EA.	20
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	9
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	58
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	23

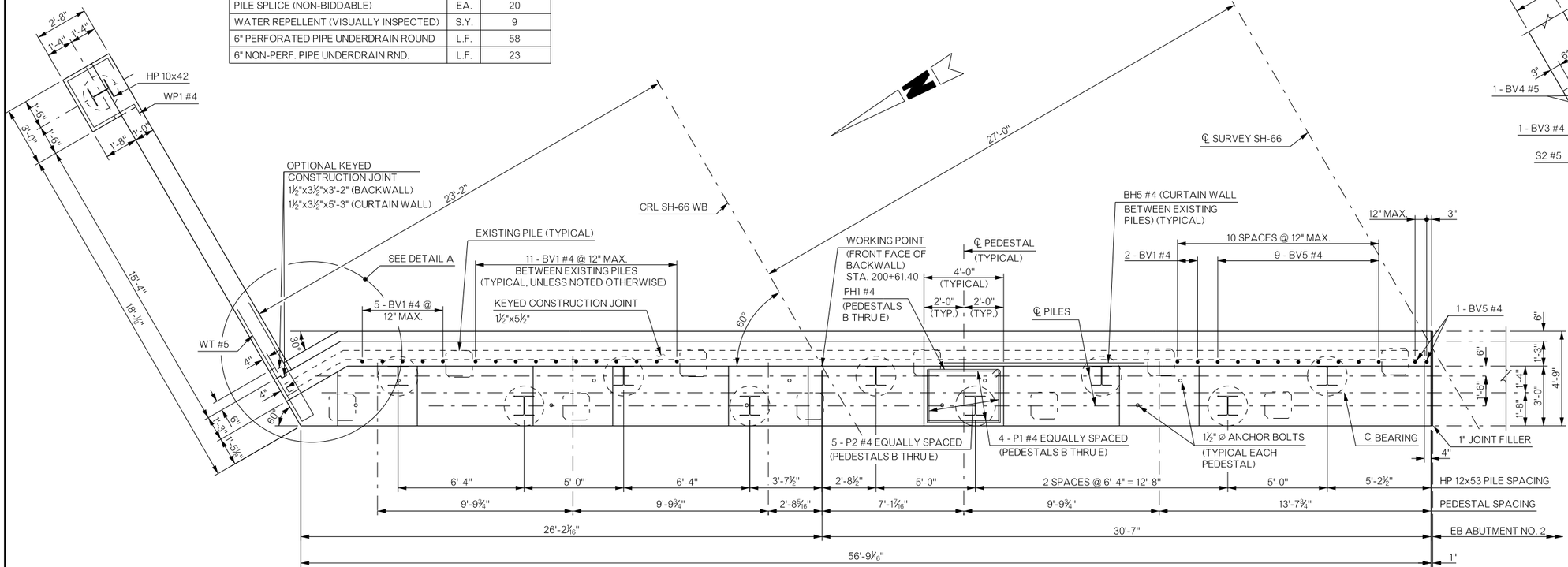
TOP OF PEDESTAL ELEVATIONS	
PEDESTAL	ABUTMENT NO. 2
A	1281.37
B	1281.46
C	1281.55
D	1281.64
E	1281.73

NOTES:

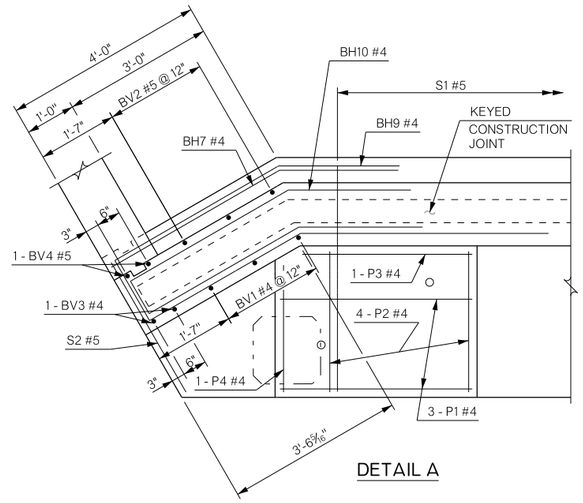
1. PLACE ALL WT WING REINFORCING TIED TO ABUTMENT SEAT AND BACKWALL REINFORCING BEFORE PLACING ABUTMENT SEAT AND BACKWALL CONCRETE. FOR ADDITIONAL DETAILS AND BAR LIST, SEE ABUTMENT NO. 2 DETAILS (SHEET 2 OF 2).
2. MAXIMUM FACTORED PILE LOAD = 121.7 TONS
   FACTORED PILE CAPACITY = 145.0 TONS

REVISIONS

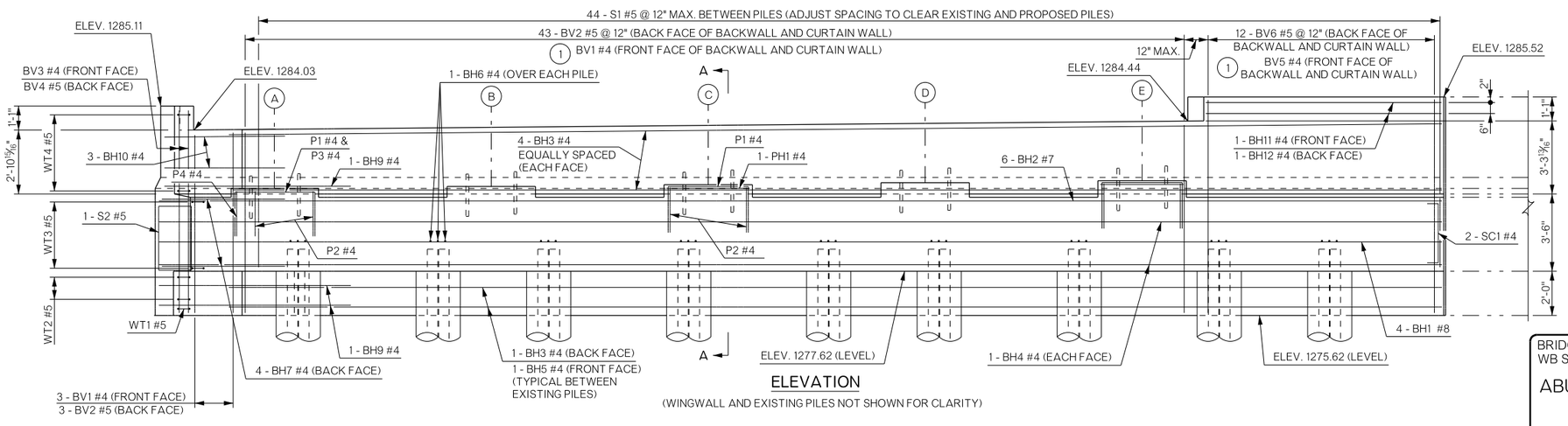
REV. NO.	DESCRIPTION	DATE



PLAN



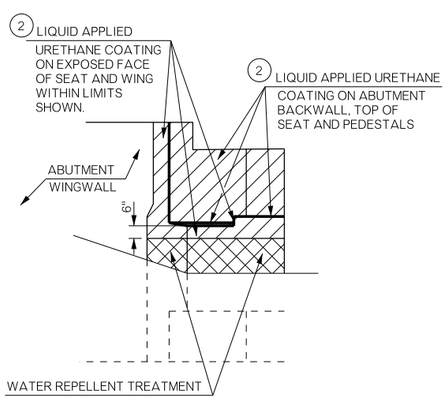
DETAIL A



ELEVATION

(WINGWALL AND EXISTING PILES NOT SHOWN FOR CLARITY)

1 SEE PLAN FOR SPACING



WATER REPELLENT TREATMENT DETAILS

2 LIQUID APPLIED URETHANE COATING SHALL BE INCLUDED IN THE LUMP SUM PRICE OF "(PL) INSTALLATION OF BRIDGE ITEMS". FOR MORE DETAILS, SEE GENERAL NOTES AND SUMMARY OF QUANTITIES SHEETS.

BRIDGE "B"
WB SH-66 OVER SHELL CREEK

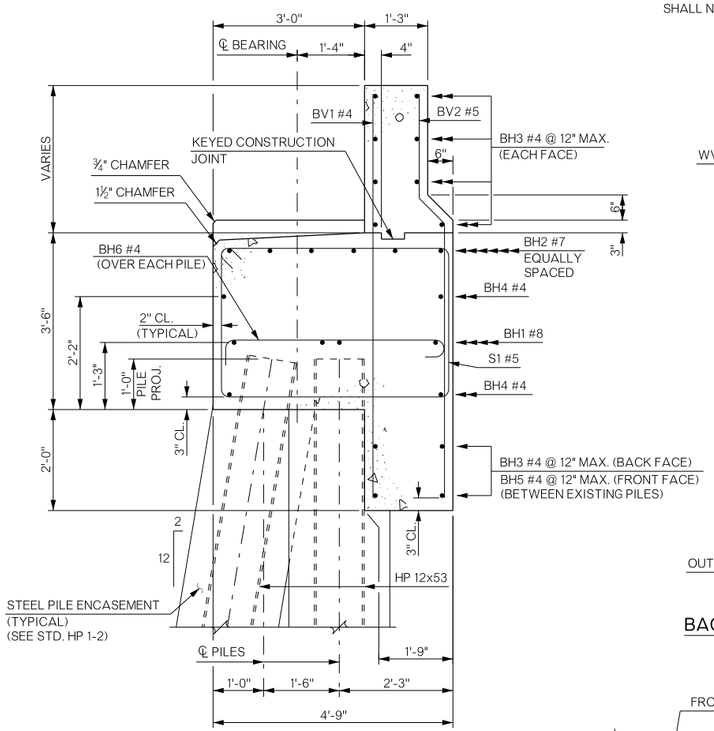
CANADIAN COUNTY

ABUTMENT NO. 2 DETAILS (SHEET 1 OF 2)

Design	AMW	4/19
Detail	KNB	5/19
Check	AMW	5/19
Squad	THOMAS	
Engr.	THOMAS	

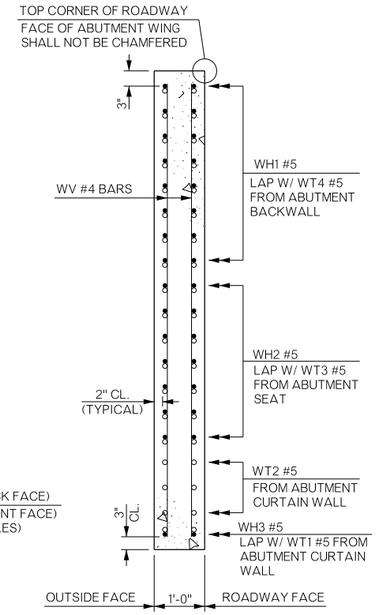
STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 32765(04) | SHEET NO. B027

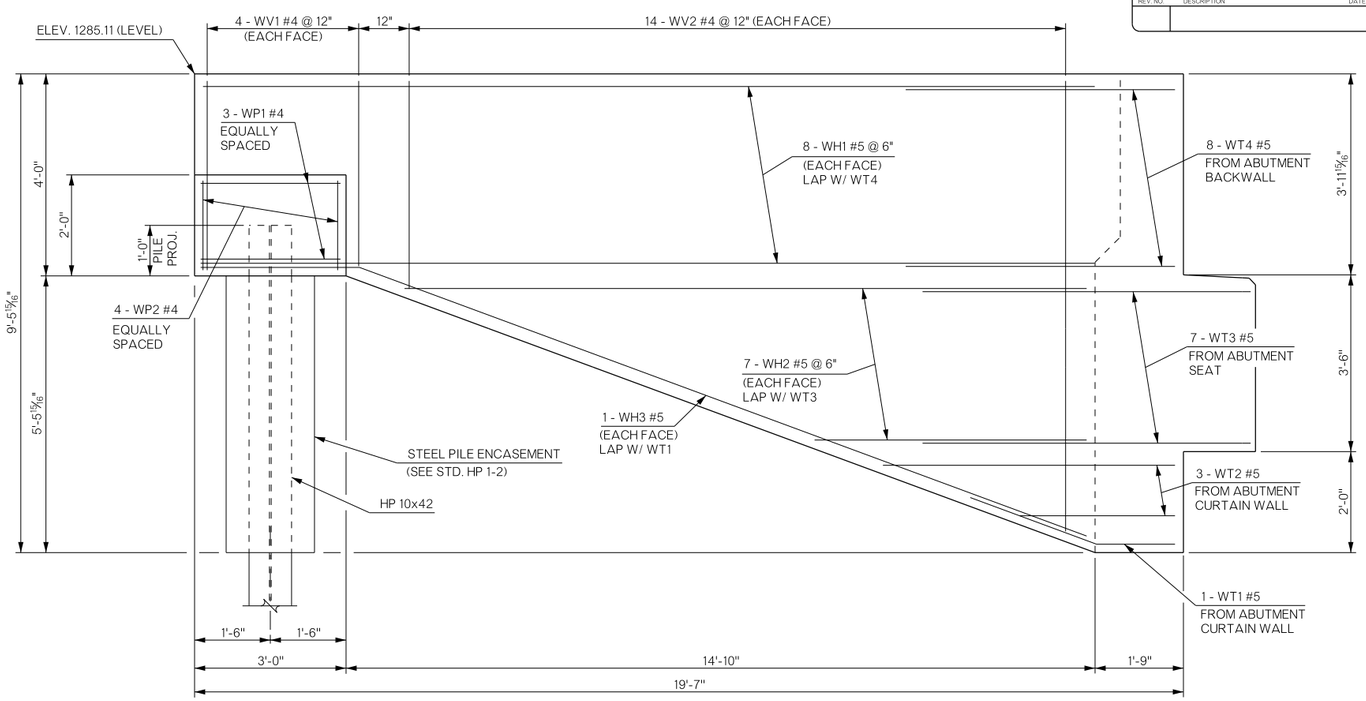


SECTION A-A

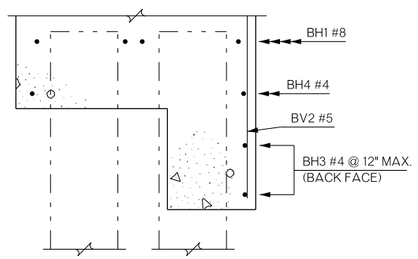
(EXISTING PILES NOT SHOWN FOR CLARITY)



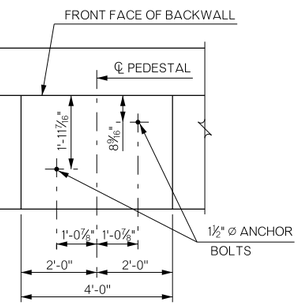
SECTION THRU WING AT BACK FACE OF ABUTMENT SEAT



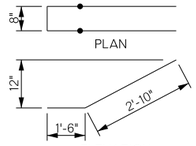
WINGWALL ELEVATION



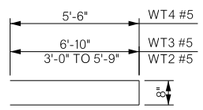
TYPICAL SECTION AT EXISTING PILE



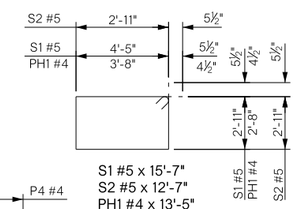
DETAIL OF PEDESTAL WITH LAYOUT OF ANCHOR BOLTS



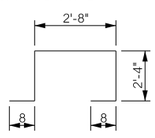
WT1 #5 x 9'-0"



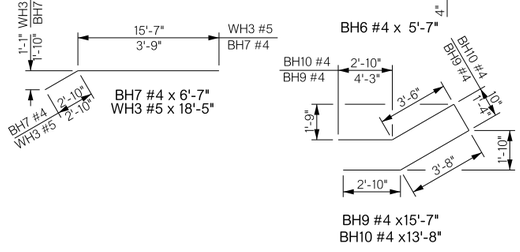
WT2 #5 x LENGTH
WT3 #5 x 14'-4"
WT4 #5 x 11'-8"



S1 #5 x 15'-7"
S2 #5 x 12'-7"
PH1 #4 x 13'-5"

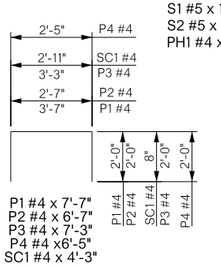


WP1 #4 x 8'-8"

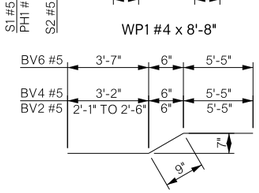


BH7 #4 x 6'-7"
WH3 #5 x 18'-5"

BH9 #4 x15'-7"
BH10 #4 x13'-8"



P1 #4 x 7'-7"
P2 #4 x 6'-7"
P3 #4 x 7'-3"
P4 #4 x6'-5"
SC1 #4 x 4'-3"



BV2 #5 x LENGTH
BV4 #5 x 9'-4"
BV6 #5 x 9'-9"

REVISIONS		
REV. NO.	DESCRIPTION	DATE

ABUTMENT NO. 2 BAR LIST

EPOXY COATED REINFORCING

	MARK	SIZE	FORM	NUMBER	LENGTH	VARIANCE
(1)	BH1	8	STR.	4	63'-6"	
(2)	BH2	7	STR.	6	62'-9"	
	BH3	4	STR.	10	54'-6"	
(3)	BH4	4	STR.	4	59'-4"	
	BH5	4	STR.	8	10'-0"	
	BH6	4	BNT.	27	5'-7"	
	BH7	4	BNT.	4	6'-7"	
	BH9	4	BNT.	3	15'-7"	
	BH10	4	BNT.	3	13'-8"	
	BH11	4	STR.	2	10'-6"	
	BH12	4	STR.	2	11'-3"	
	BV1	4	STR.	43	8'-2⅛" AVG.	8'-0" TO 8'-5"
	BV2	5	BNT.	46	8'-5⅛" AVG.	8'-3" TO 8'-8"
	BV3	4	STR.	2	9'-1"	
	BV4	5	BNT.	2	9'-4"	
	BV5	4	STR.	11	9'-6"	
	BV6	5	BNT.	12	9'-9"	
	S1	5	BNT.	44	15'-7"	
	S2	5	BNT.	1	12'-7"	
	SC1	4	BNT.	2	4'-3"	

	MARK	SIZE	FORM	NUMBER	LENGTH	VARIANCE
	P1	4	BNT.	19	7'-7"	
	P2	4	BNT.	24	6'-7"	
	P3	4	BNT.	1	7'-3"	
	P4	4	BNT.	1	6'-5"	
	PH1	4	BNT.	4	13'-5"	
	WH1	5	STR.	16	17'-8"	
(4)	WH2	5	STR.	14	9'-5" AVG.	5'-4" TO 13'-6"
	WH3	5	BNT.	2	18'-5"	
	WV1	4	STR.	8	3'-7"	
(5)	WV2	4	STR.	28	6'-5" AVG.	4'-0" TO 8'-10"
	WT1	5	BNT.	1	9'-4"	
	WT2	5	BNT.	3	9'-5" AVG.	6'-8" TO 12'-2"
	WT3	5	BNT.	7	14'-4"	
	WT4	5	BNT.	8	11'-8"	
	WP1	4	BNT.	3	8'-8"	
	WP2	4	STR.	4	1'-7"	

(1) INCLUDES 1 - 68" LAP

(2) INCLUDES 1 - 60" LAP

(3) INCLUDES 1 - 34" LAP

(4) 2 SETS OF 7

(5) 2 SETS OF 14

BRIDGE 'B' CANADIAN COUNTY
WB SH-66 OVER SHELL CREEK

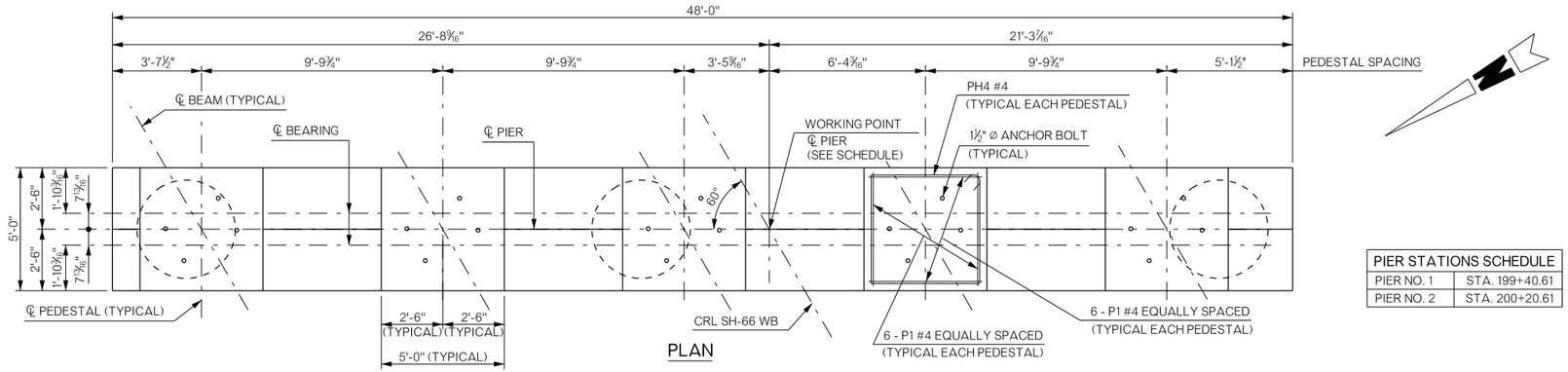
ABUTMENT NO. 2 DETAILS (SHEET 2 OF 2)

Design	AMW	4/19
Detail	KNB	5/19
Check	AMW	5/19
Squad	THOMAS	
Engr.	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

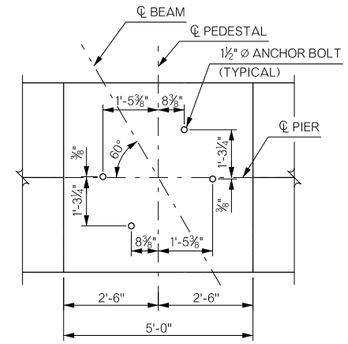
JOB PIECE NO. 32765(04) SHEET NO. B028

REVISIONS		
REV. NO.	DESCRIPTION	DATE

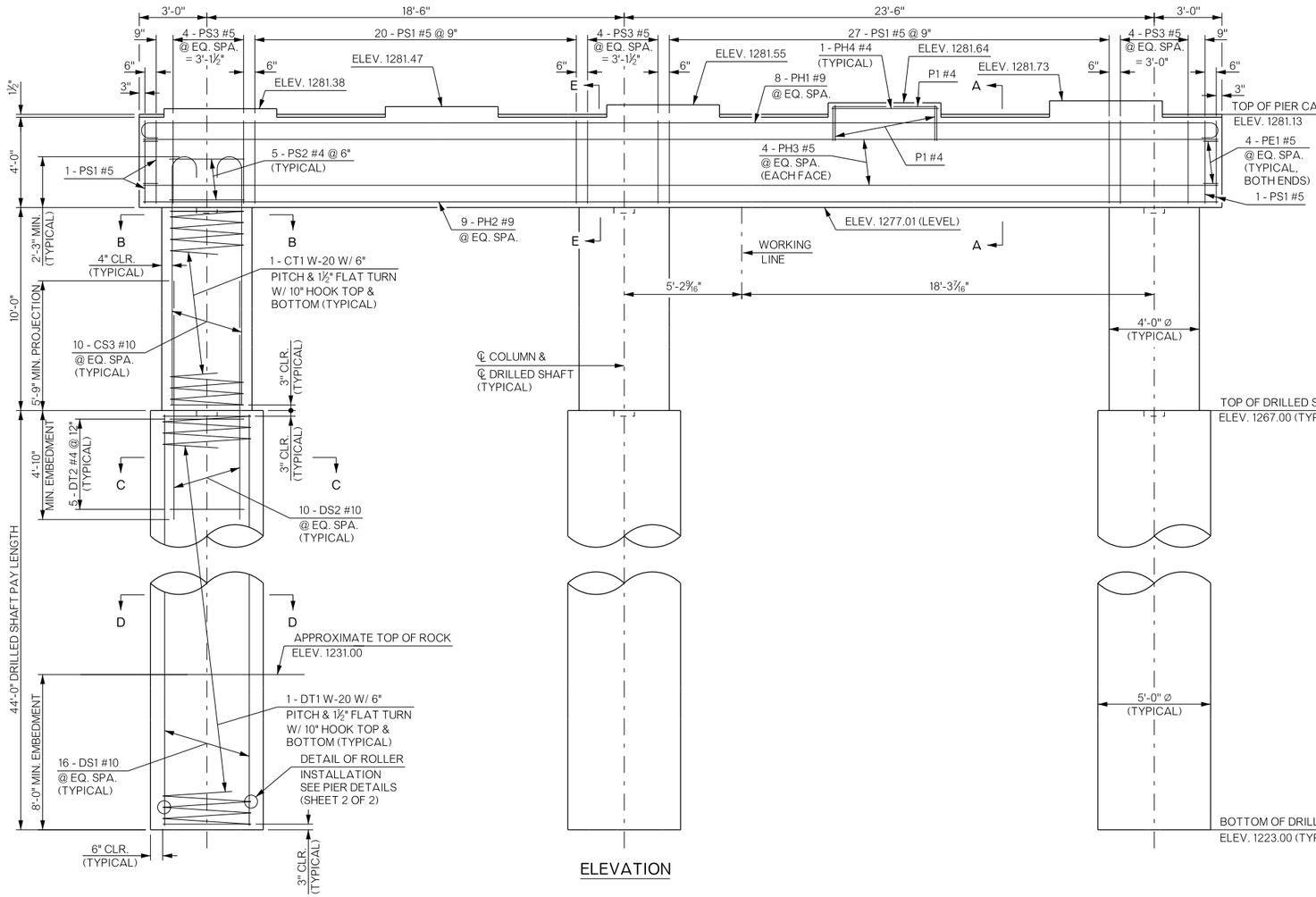


PLAN

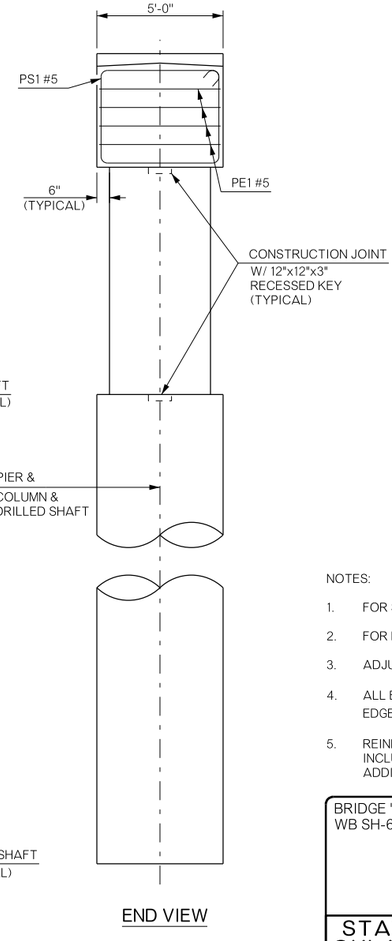
PIER STATIONS SCHEDULE	
PIER NO. 1	STA. 199+40.61
PIER NO. 2	STA. 200+20.61



DETAIL OF PEDESTAL
WITH LAYOUT OF ANCHOR BOLTS



ELEVATION



END VIEW

NOTES:

1. FOR SECTIONS A-A THRU E-E SEE PIER DETAILS (SHEET 2 OF 2).
2. FOR BEARINGS SEE BEARING DETAILS.
3. ADJUST BARS AS NEEDED TO PROVIDE CLEARANCE FOR ANCHOR BOLTS.
4. ALL EDGES OF PIER CAP SHALL HAVE A 1½" CHAMFER EXCEPT FOR PEDESTAL EDGES WHICH SHALL HAVE A ¾" CHAMFER.
5. REINFORCING BARS PROJECTING FROM THE DRILLED SHAFT SHALL BE INCLUDED IN THE COST OF THE DRILLED SHAFT AND SHALL NOT BE CONSIDERED ADDITIONAL PAY LENGTH FOR THE DRILLED SHAFT.

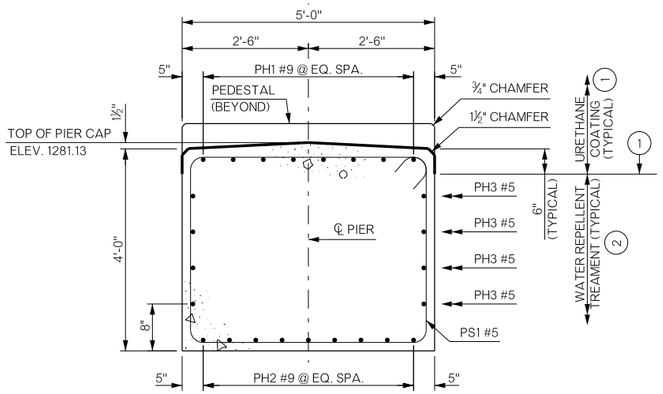
BRIDGE "B" CANADIAN COUNTY
WB SH-66 OVER SHELL CREEK

PIER DETAILS (SHEET 1 OF 2)

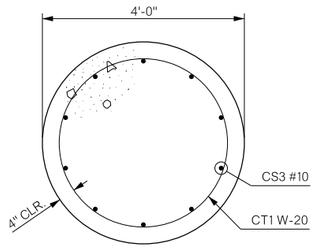
Design	WJS	5/19
Detail	KNB	5/19
Check	WJS	5/19
Squad:	THOMAS	
Engr.:	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

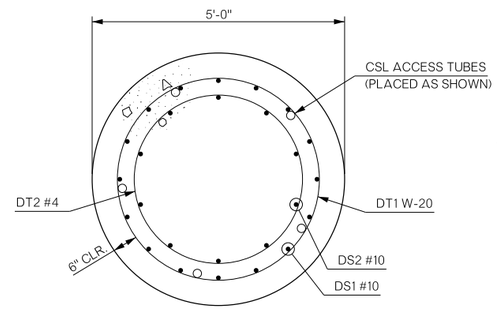
JOB PIECE NO. 32765(04) SHEET NO. B029



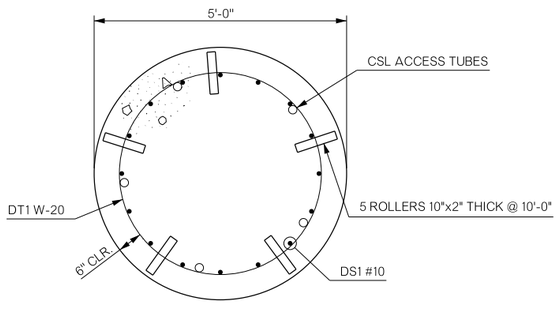
SECTION A-A



SECTION B-B



SECTION C-C

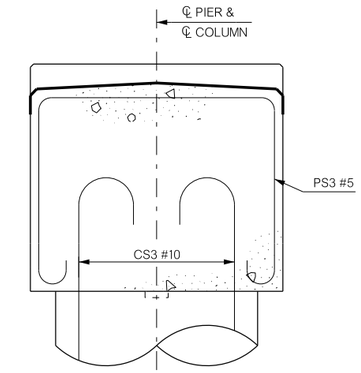


SECTION D-D

WATER REPELLENT AND URETHANE COATING NOTES

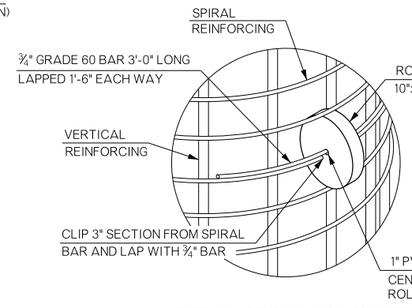
1. COAT ALL EXPOSED CONCRETE ON TOP OF PIER CAP AND ALL SURFACES OF THE PEDESTALS EXTENDING 6" DOWN ON VERTICAL FACE OF PIER CAP WITH CIM1000 URETHANE COATING OR AN APPROVED EQUAL. SURFACE TO BE SANDBLASTED AND PRIMED AS RECOMMENDED BY THE MANUFACTURER. MASKING SHALL BE USED TO PROVIDE A CLEAN RESULT. URETHANE COATING SHALL BE PAID FOR AT THE UNIT PRICE BID PER LUMP SUM OF "(PL) INSTALLATION OF BRIDGE ITEMS". FOR MORE DETAILS SEE GENERAL NOTES AND SUMMARY OF QUANTITIES SHEETS.

2. TREAT ALL EXTERIOR VERTICAL SURFACES OF THE PIER CAPS NOT TREATED BY URETHANE COATING WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.

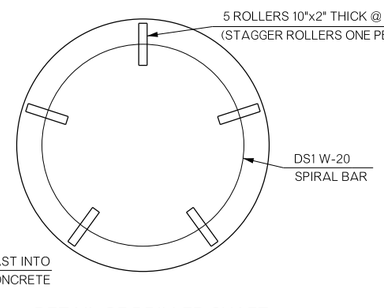


SECTION E-E

SAME AS SECTION A-A EXCEPT AS SHOWN



DETAIL OF DRILLED SHAFT
ROLLER INSTALLATION



DETAIL OF DRILLED SHAFT
ROLLER PLACEMENT

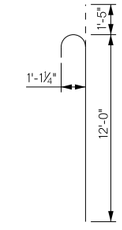
FOUNDATION DATA (PIERS)

(60" DIAMETER DRILLED SHAFTS)
PIER NO. 1 AND 2

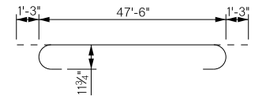
MINIMUM DEPTH INTO ROCK (FT)	= 8.00
DEPTH OF ROCK NEG'D FOR FRICTION (FT)	= 3.00
UNIT BEARING RESISTANCE (TONS/SF)	= 60.00
BEARING RESISTANCE FACTOR	= 0.70
FACTORED BEARING RESISTANCE (TONS/SHAFT)	= 824.70
UNIT FRICTION RESISTANCE (TONS/SF)	= 9.00
FRICTION RESISTANCE FACTOR	= 0.45
FACTORED FRICTION RESISTANCE (TONS/SHAFT)	= 318.10
TOTAL FACTORED RESISTANCE (TONS/SHAFT)	= 824.70*
TOTAL FACTORED REACTION (TONS/SHAFT)	= 407.00

*SUFFICIENT CAPACITY UTILIZING END BEARING ONLY

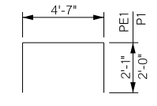
REVISIONS		
REV. NO.	DESCRIPTION	DATE



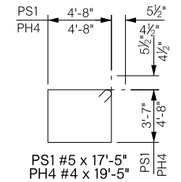
CS3 #10 x 13'-5"



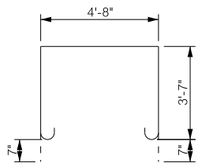
PH1 #9 x 50'-0"



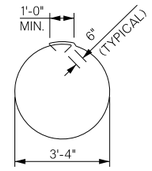
PE1 #5 x 8'-9"
P1 #4 x 8'-7"



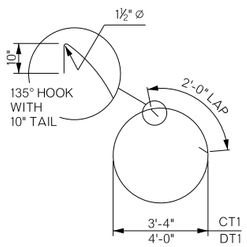
PS1 #5 x 17'-5"
PH4 #4 x 19'-5"



PS3 #5 x 13'-0"



PS2 #4 x 12'-6"
DT2 #4 x 12'-6



CT1 W-20 x 240'-6"
DT1 W-20 x 1,186'-1"

ANCHOR SPLICES IN SPIRAL AROUND VERTICAL BARS.

PIER QUANTITIES (TWO REQUIRED)		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	C.Y.	53.00
REINFORCING STEEL	LB.	490
EPOXY COATED REINFORCING STEEL	LB.	6,640
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	42
DRILLED SHAFTS 60" DIAMETER	L.F.	132
(4) CROSSHOLE SONIC LOGGING	EA.	1
CSL ACCESS TUBES	L.F.	705

(4) QUANTITY IS FOR ENTIRE BRIDGE

PIER BAR LIST (TWO REQUIRED)				
EPOXY COATED REINFORCING				
MARK	SIZE	FORM	NUMBER	LENGTH
PH1	9	BNT.	8	50'-0"
PH2	9	STR.	9	47'-6"
PH3	5	STR.	8	47'-6"
PH4	4	BNT.	5	19'-5"
P1	4	BNT.	60	8'-7"
PS1	5	BNT.	51	17'-5"
PS2	4	BNT.	15	12'-6"
PS3	5	BNT.	12	13'-0"
PE1	5	BNT.	8	8'-9"
CS3	10	BNT.	30	13'-5"
PLAIN REINFORCING				
CT1	W20	BNT.	3	240'-6"
DRILLED SHAFT PLAIN REINFORCING				
(3) DT1	W20	BNT.	3	1,186'-1"
(3) DT2	4	BNT.	15	12'-6"
(3) DS1	10	STR.	48	43'-6"
(3) DS2	10	STR.	30	10'-7"

(3) DRILLED SHAFT BARS ARE FOR INFORMATION PURPOSES ONLY. THE BARS ARE NOT INCLUDED IN THE QUANTITIES, BUT ARE INCLUDED IN THE PRICE BID FOR L.F. OF DRILLED SHAFTS.

NOTES:

1. CONCRETE USED IN CONCRETE ROLLERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI. SLAB BOLSTERS, HIGH CHAIRS, AND PLASTIC ROLLERS SHALL NOT BE SUBSTITUTED FOR THE CONCRETE ROLLERS.
2. ALL MATERIALS, LABOR, AND INCIDENTALS REQUIRED FOR THE INSTALLATION OF THE CONCRETE ROLLERS ARE TO BE INCLUDED IN THE PRICE BID PER L.F. OF DRILLED SHAFTS.
3. SPIRAL BARS SHALL CONFORM TO AASHTO M32. SPIRAL BAR LENGTH INCLUDES LAPS.

BRIDGE "B" CANADIAN COUNTY
WB SH-66 OVER SHELL CREEK

PIER DETAILS (SHEET 2 OF 2)

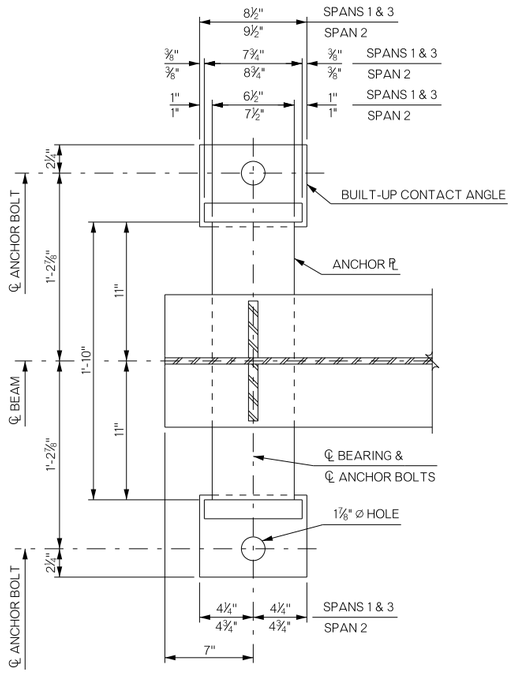
Design	WJS	5/19
Detail	KNB	5/19
Check	WJS	5/19
Squad:	THOMAS	
Engr.:	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

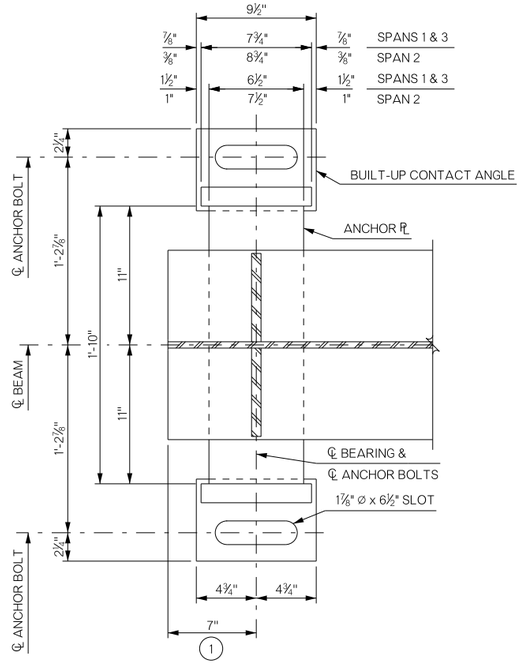
JOB PIECE NO. 32765(04) SHEET NO. B030

REVISIONS

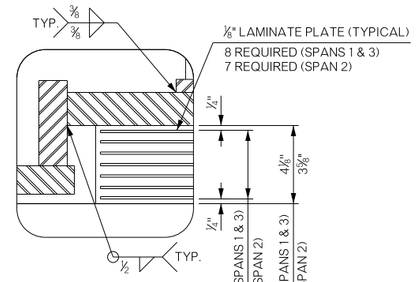
REV. NO.	DESCRIPTION	DATE



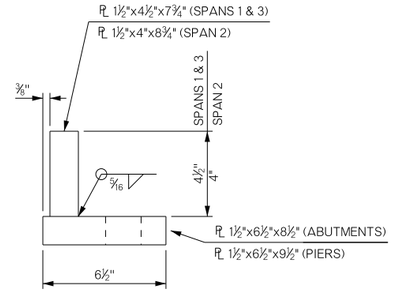
FIXED BEARING PLAN
(SPANS 1 & 3 @ ABUTMENTS & SPAN 2 @ PIER NO. 1)



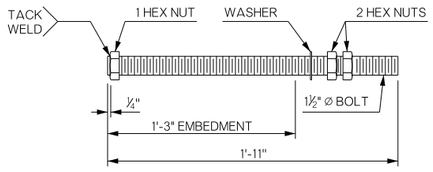
EXPANSION BEARING PLAN
(SPANS 1 & 3 @ PIERS & SPAN 2 @ PIER NO. 2)



DETAIL A

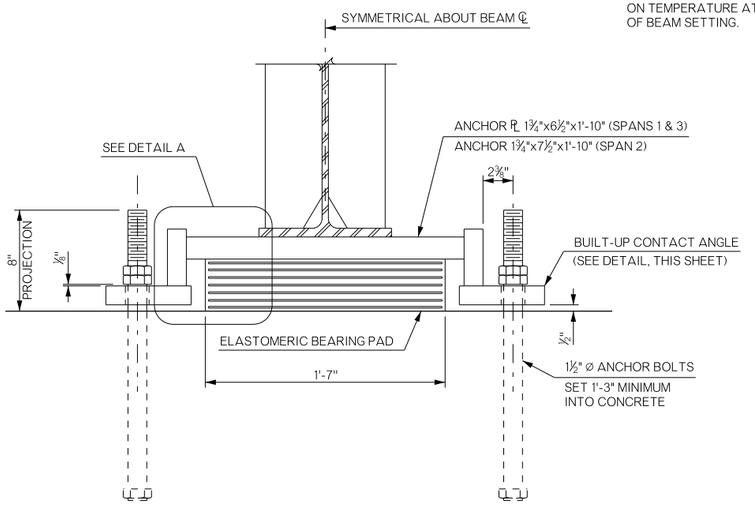


BUILT-UP CONTACT ANGLE DETAIL

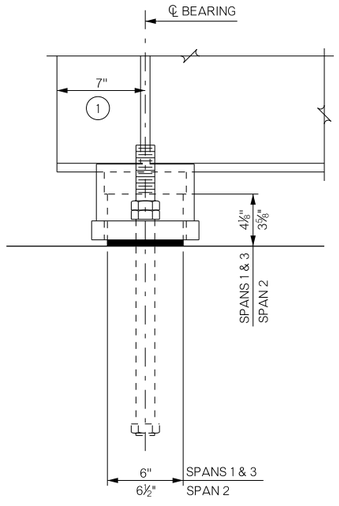


ANCHOR BOLT DETAIL

1 CENTER ANCHOR BOLTS IN SLOTS DURING SETTING OF BEAMS. DIMENSION MAY VARY DEPENDING ON TEMPERATURE AT THE TIME OF BEAM SETTING.



END VIEW



SIDE VIEW

BEARING DETAILS

NOTES:

1. PROVIDE STRUCTURAL STEEL FOR ANCHOR PLATES AND BUILT-UP CONTACT ANGLES IN ACCORDANCE WITH ASTM A240 (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED).
2. FOR ANCHOR BOLTS, PROVIDE CONTINUOUSLY THREADED BARS IN ACCORDANCE WITH ASTM A320, CLASS 2, GRADE B8M (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED).
3. USE AUSTENITIC STAINLESS STEEL NUTS AND WASHERS CONFORMING TO ASTM A194, GRADE 8M AND ASTM A320, RESPECTIVELY.
4. PERFORM ALL WELDING CONSISTENT WITH PROCEDURES FOR STAINLESS STEEL.

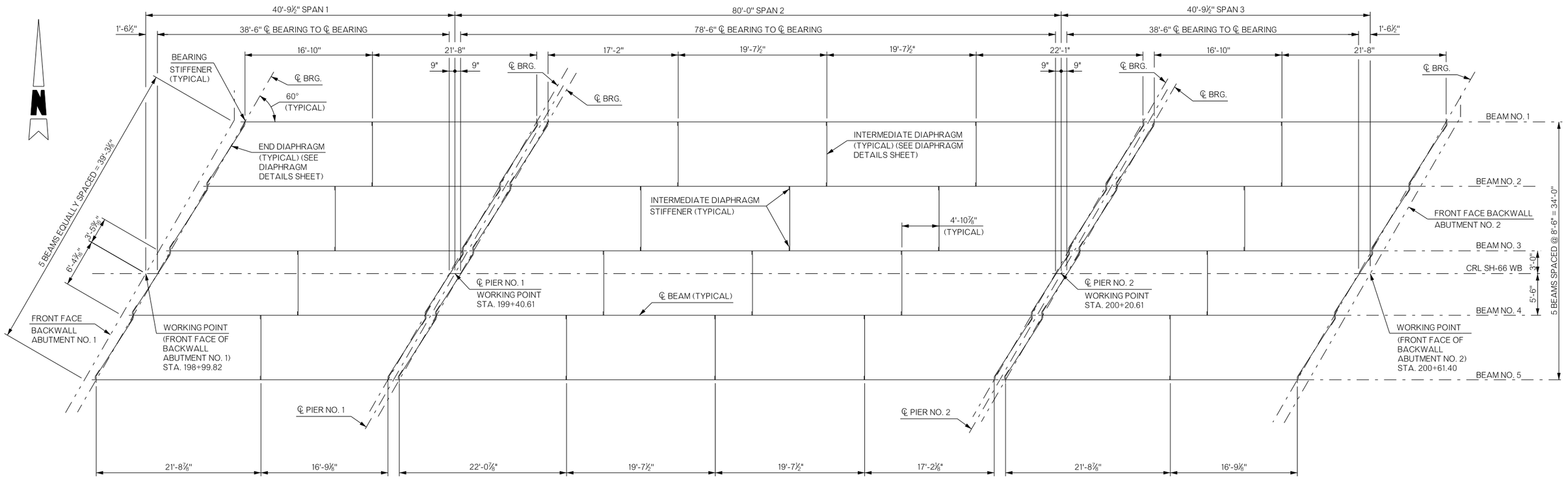
BRIDGE "B" CANADIAN COUNTY
WB SH-66 OVER SHELL CREEK

BEARING DETAILS

Design	AMW	4/19
Detail	KNB	4/19
Check	AMW	4/19
Squad	THOMAS	
Engr.	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 32765(04) | SHEET NO. B031

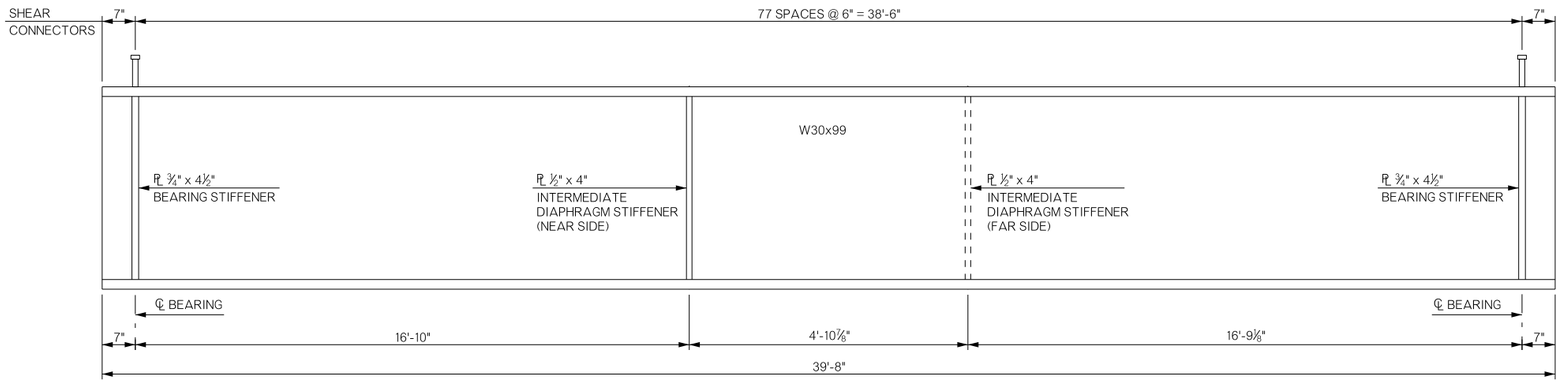
REVISIONS		
REV. NO.	DESCRIPTION	DATE



PLAN

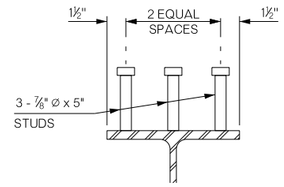
BRIDGE "B" WB SH-66 OVER SHELL CREEK	CANADIAN COUNTY	Design	AMW 4/19
		Detail	KNB 4/19
FRAMING PLAN		Check	WJS 4/19
		Squad: THOMAS Engr.: THOMAS	
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION		
	JOB PIECE NO. 32765(04)		SHEET NO. B032

REVISIONS		
REV. NO.	DESCRIPTION	DATE



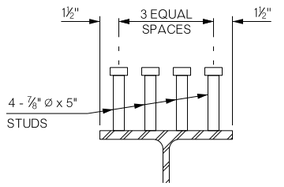
ELEVATION - SPANS 1 & 3

(INTERIOR SHOWN, EXTERIOR SIMILAR)



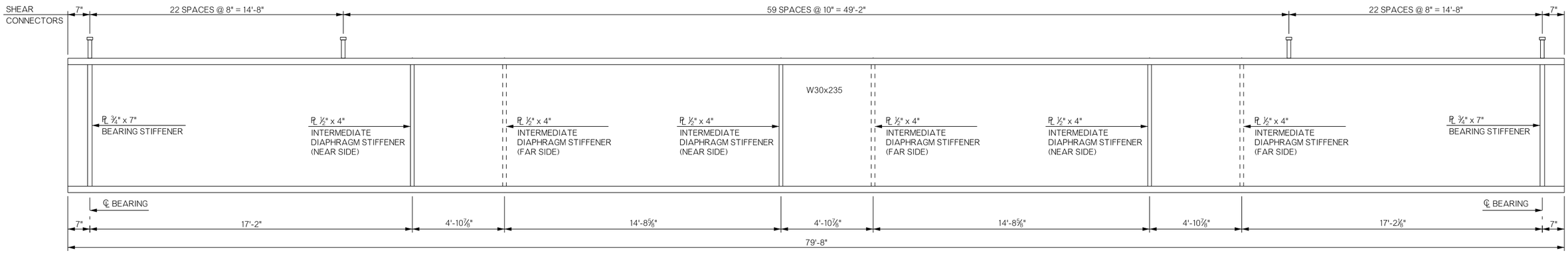
SHEAR CONNECTOR DETAIL

(SPANS 1 & 3)



SHEAR CONNECTOR DETAIL

(SPAN 2)

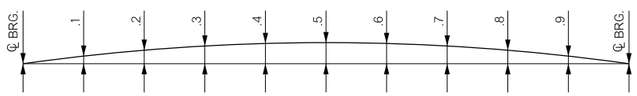


ELEVATION - SPAN 2

(INTERIOR SHOWN, EXTERIOR SIMILAR)

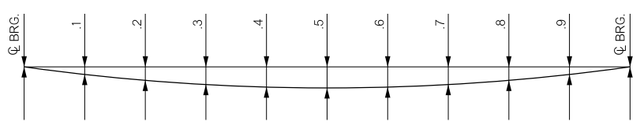
NOTES:

1. PROVIDE STRUCTURAL STEEL FOR ROLLED BEAM AND ALL STIFFENER PLATES IN ACCORDANCE WITH AASHTO M270 (ASTM A709), GRADE 50WT2 (WEATHERING STEEL, NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2). USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108), GRADE 1015, 1018 OR 1020. PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.
2. CAMBER BEAMS TO ACCOUNT FOR DEAD LOAD DEFLECTION AS SHOWN.
3. THE CONTRACTOR MAY SUBSTITUTE PLATE GIRDERS USING EQUIVALENT PLATE SIZES IN LIEU OF THE ROLLED BEAM SHAPES SHOWN AT NO ADDITIONAL COST TO THE DEPARTMENT. PROVIDE 5/16" MINIMUM FILLET WELDS BETWEEN WEB AND FLANGES. NON-DESTRUCTIVE TESTING WILL BE REQUIRED AS APPROPRIATE.
4. FOR ADDITIVE STIFFENER DETAILS, SEE DIAPHRAGM DETAIL SHEETS.



CAMBER DIAGRAM

SPAN	CAMBER					
	℄ BRG.	.1 & .9	.2 & .8	.3 & .7	.4 & .6	.5
1 & 3	0.00"	0.15"	0.28"	0.39"	0.45"	0.48"
2	0.00"	1.01"	1.91"	2.61"	3.06"	3.21"



DEAD LOAD DEFLECTION DIAGRAM

DEFLECTION SCHEDULE												
SPAN	BEAM AND DIAPHRAGM DEFLECTION						DECK SLAB, HAUNCH, S.I.P. STEEL DECK FORMS, AND TRAFFIC RAIL DEFLECTION (1)					
	℄ BRG.	.1 & .9	.2 & .8	.3 & .7	.4 & .6	.5	℄ BRG.	.1 & .9	.2 & .8	.3 & .7	.4 & .6	.5
1 & 3	0.00"	0.02"	0.03"	0.05"	0.05"	0.06"	0.00"	0.13"	0.25"	0.34"	0.40"	0.42"
2	0.00"	0.23"	0.43"	0.59"	0.70"	0.73"	0.00"	0.78"	1.48"	2.02"	2.36"	2.48"

(1) THE DEAD LOAD DEFLECTIONS SHOWN AT THE TENTH POINTS ARE THE DEFLECTIONS DUE TO DECK SLAB + HAUNCH + S.I.P. STEEL DECK FORM ALLOWANCE + CONCRETE TRAFFIC RAIL. IT DOES NOT INCLUDE THE BEAM WEIGHT, DIAPHRAGMS OR FUTURE WEARING SURFACE.

BRIDGE "B"
WB SH-66 OVER SHELL CREEK

CANADIAN COUNTY

ROLLED BEAM DETAILS

Design	AMW	4/19
Detail	KNB	4/19
Check	WJS	4/19
Squad	THOMAS	
Engr.	THOMAS	

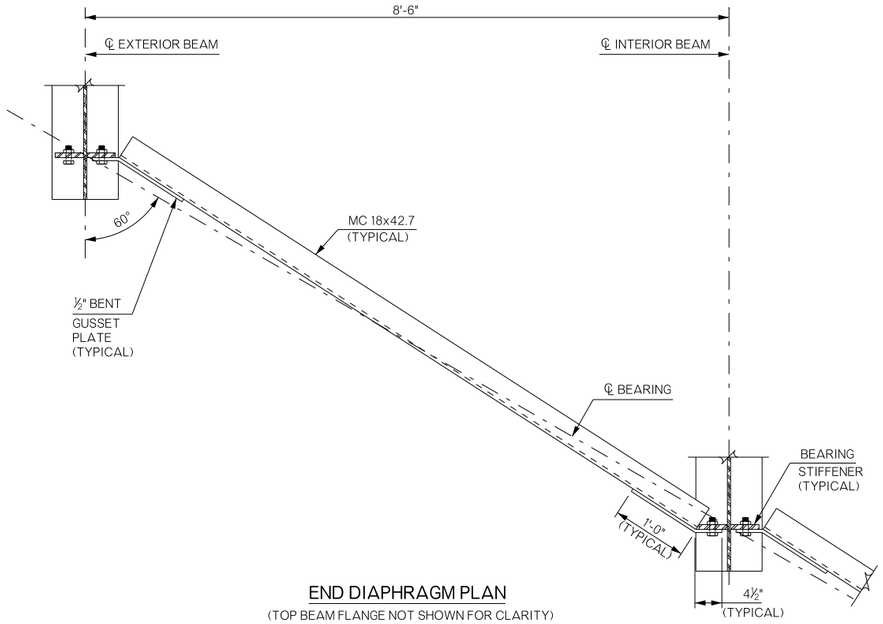
STATE OF OKLAHOMA

DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 32765(04)

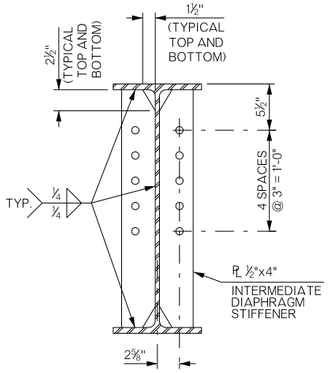
SHEET NO. B033

REVISIONS		
REV. NO.	DESCRIPTION	DATE

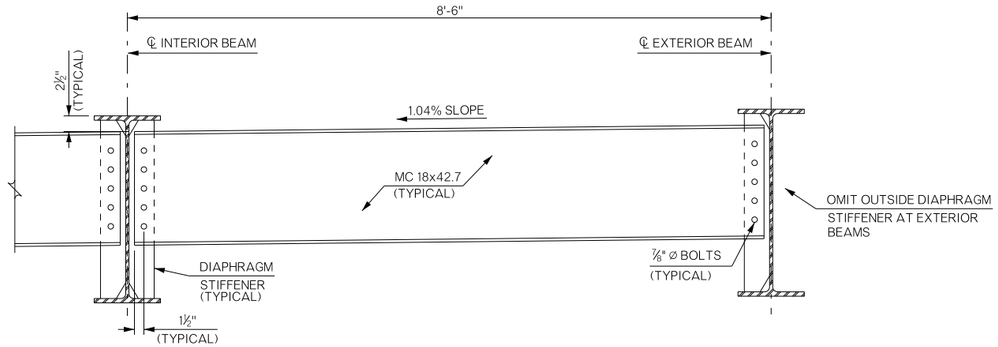


END DIAPHRAGM PLAN

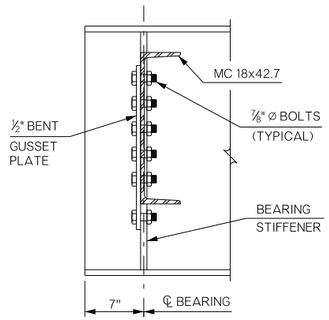
(TOP BEAM FLANGE NOT SHOWN FOR CLARITY)



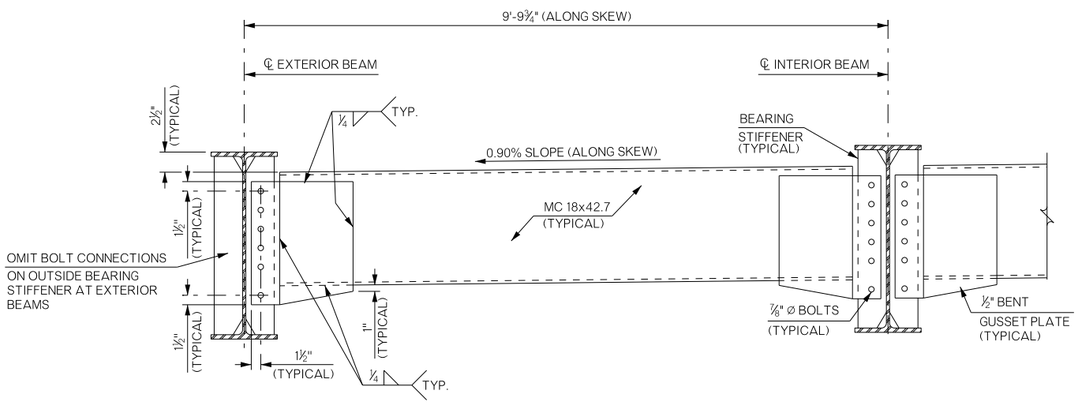
INTERMEDIATE DIAPHRAGM
STIFFENER DETAIL



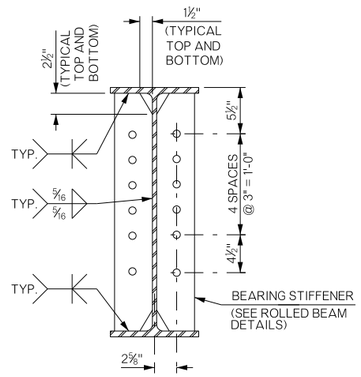
INTERMEDIATE DIAPHRAGM ELEVATION



END DIAPHRAGM
SECTION



END DIAPHRAGM ELEVATION



BEARING
STIFFENER DETAIL

NOTES:

1. THE CONTRACTOR MAY SUBSTITUTE A BENT PLATE DIAPHRAGM IN LIEU OF CHANNEL AND GUSSET PLATE SHOWN AT NO ADDITIONAL COST TO THE DEPARTMENT. PROVIDE ½" MINIMUM PLATE THICKNESS FORMED IN THE SHAPE OF A CHANNEL WITH 4" MINIMUM FLANGES. FABRICATE BENT PLATE DIAPHRAGM TO A DEPTH EQUAL OR GREATER THAN THAT SHOWN FOR THE COMBINED CHANNEL AND GUSSET PLATE.
2. PROVIDE STRUCTURAL STEEL FOR CHANNEL DIAPHRAGMS AND GUSSET PLATES IN ACCORDANCE WITH AASHTO M270 (ASTM A709), GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED). USE BOLTS CONFORMING TO AASHTO M164 (ASTM F3125, GRADE A325). PROVIDE ALL BOLTS, NUTS, WASHERS AND WELDING WITH WEATHERING CHARACTERISTICS.
3. TERMINATE FILLET WELDS ⅜" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS.
4. HORIZONTAL DIMENSIONS AND SLOPES ARE NORMAL TO ROADWAY, UNLESS NOTED OTHERWISE.

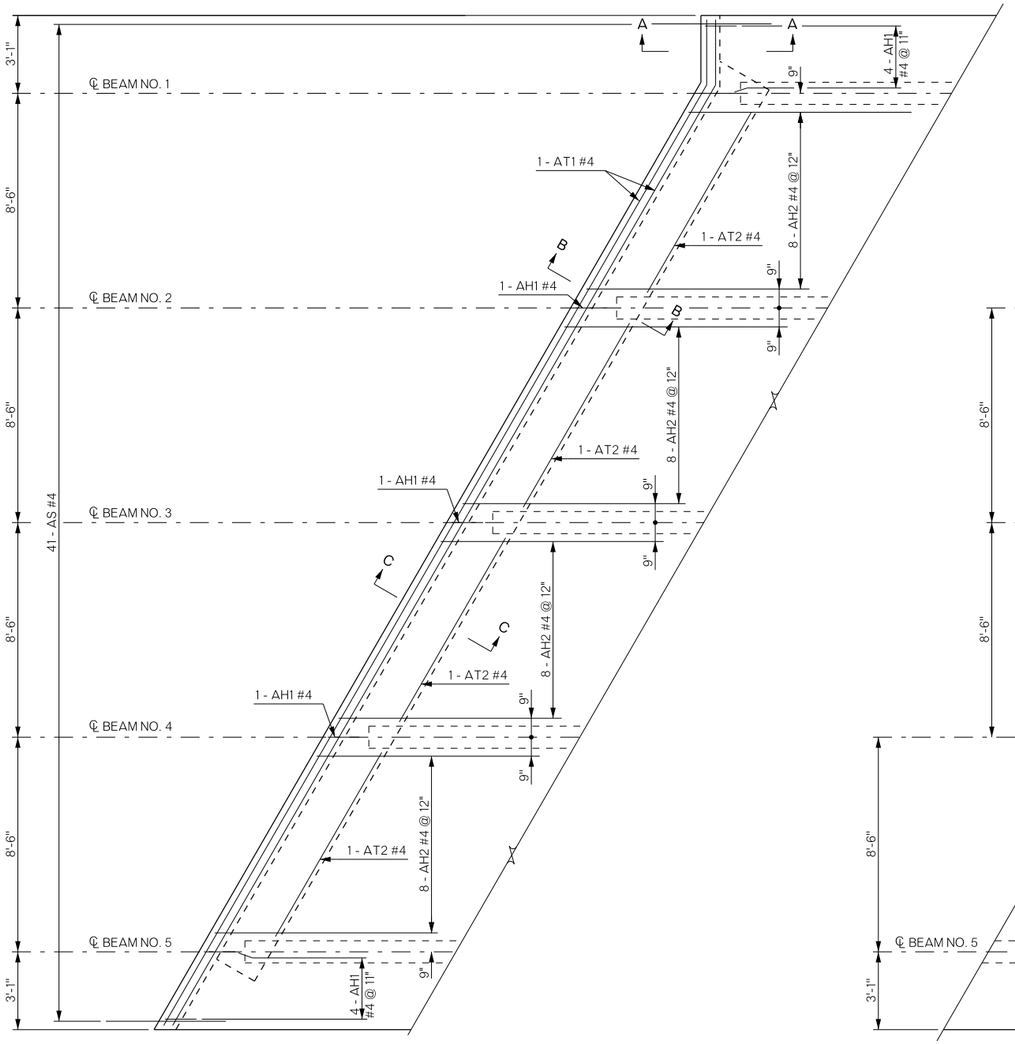
BRIDGE "B"
WB SH-66 OVER SHELL CREEK
CANADIAN COUNTY

DIAPHRAGM DETAILS (SHEET 1 OF 2)

Design	AMW	4/19
Detail	KNB	4/19
Check	WJS	4/19
Squad:	THOMAS	
Engr.:	THOMAS	

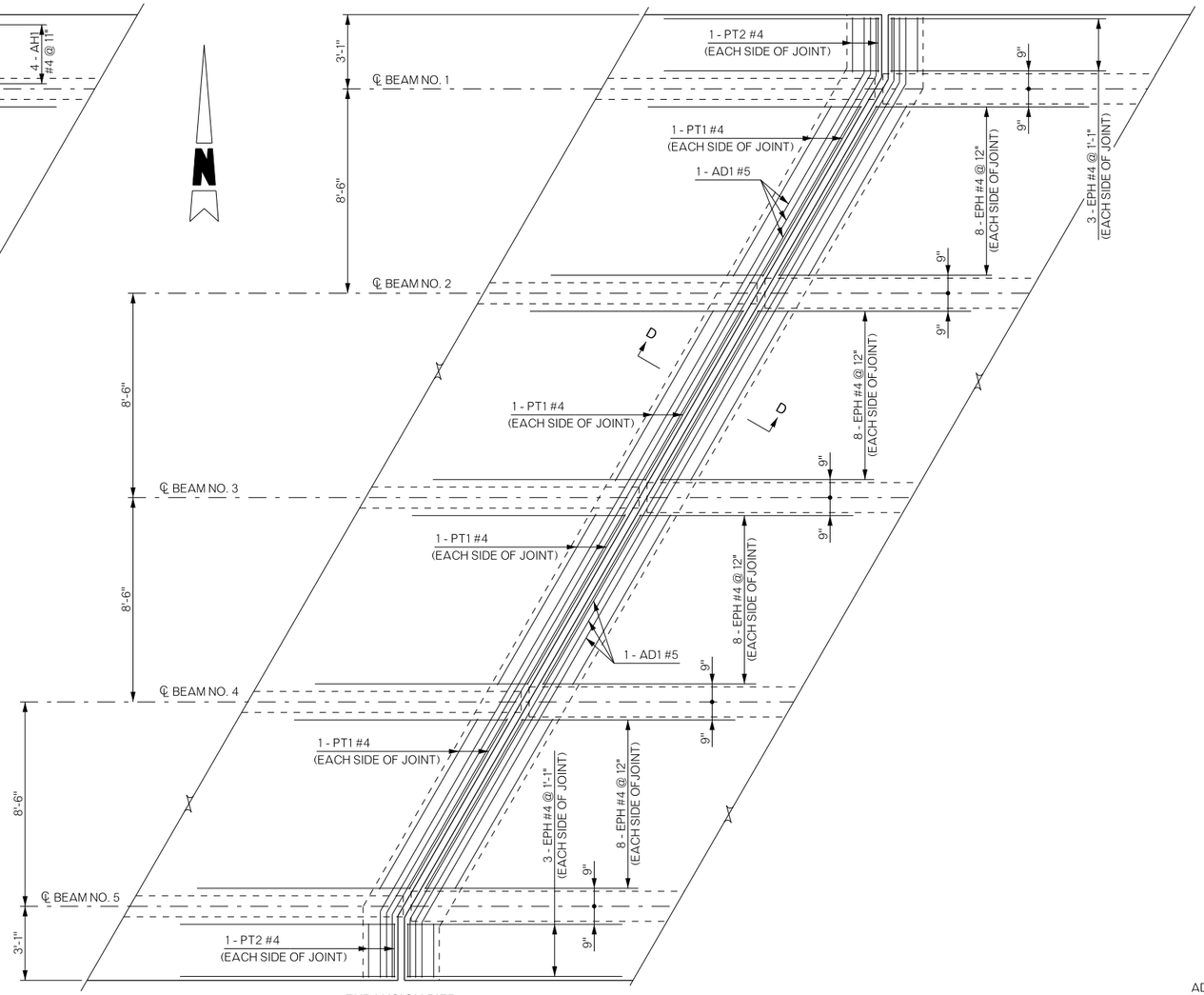
STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 32765(04) | SHEET NO. B034



ABUTMENT

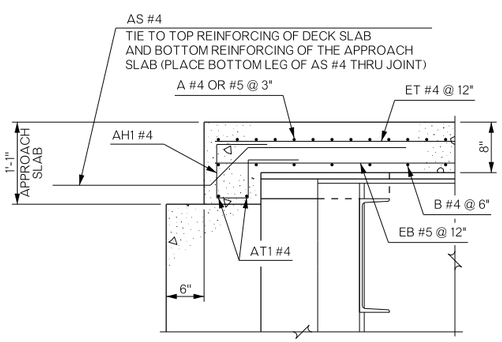
(ABUTMENT NO. 1 SHOWN, ABUTMENT NO. 2 SIMILAR)



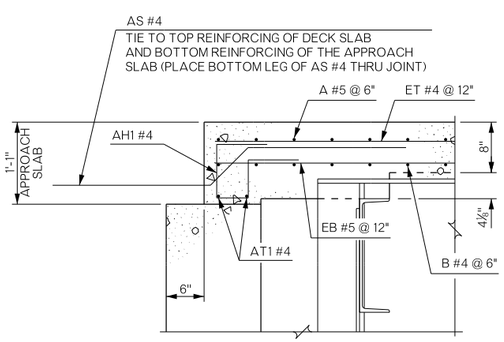
EXPANSION PIER

(PIER NO. 1 SHOWN, PIER NO. 2 SIMILAR)

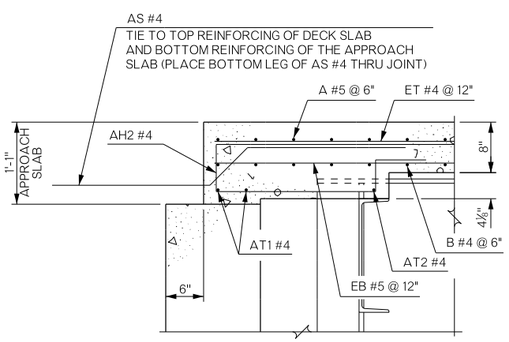
DIAPHRAGM REINFORCING PLANS



SECTION A



SECTION B



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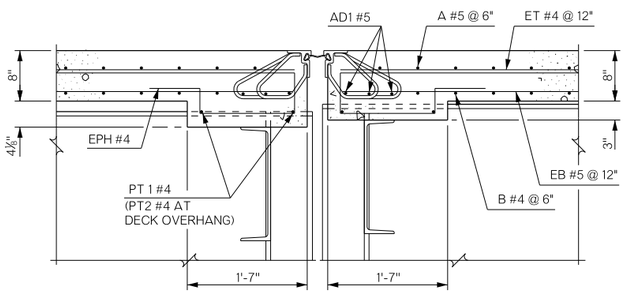


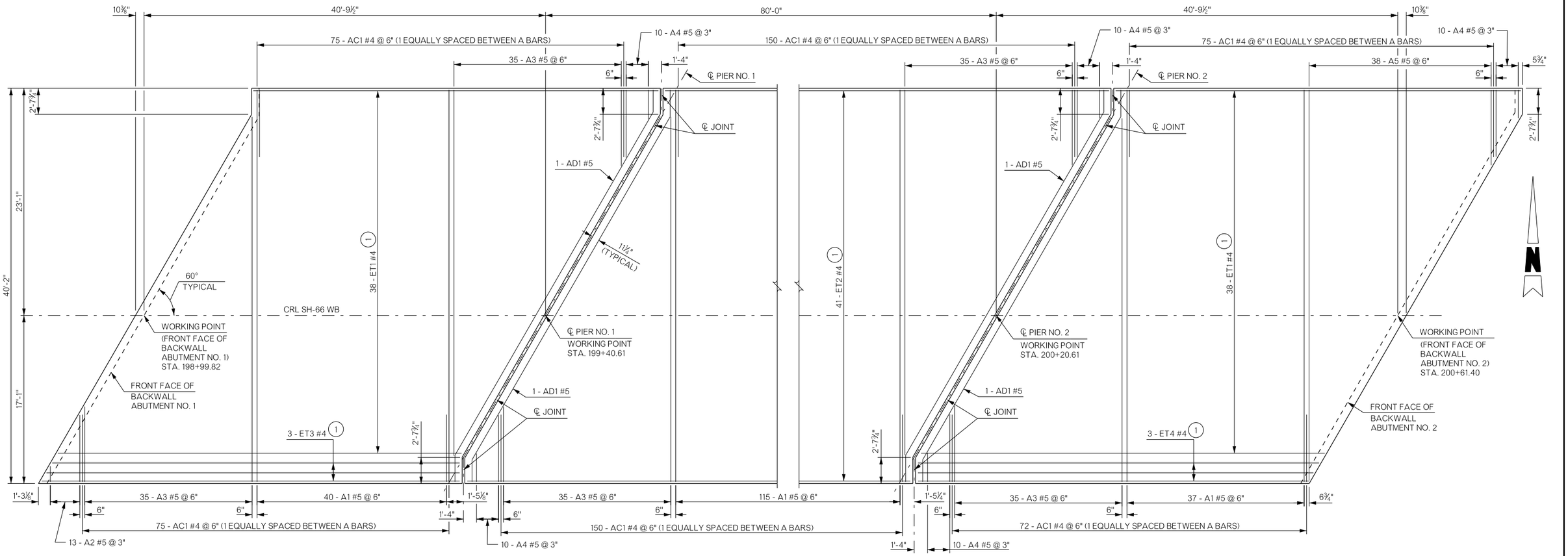
SECTION D

REVISIONS

REV. NO.	DESCRIPTION	DATE

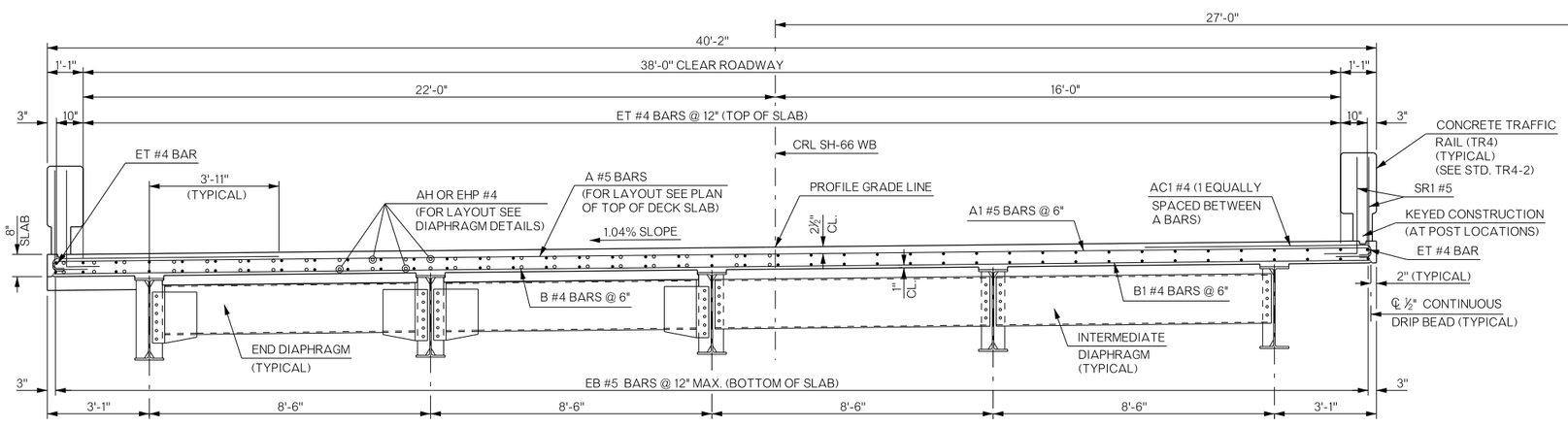
BRIDGE "B"	CANADIAN COUNTY	
WB SH-66 OVER SHELL CREEK		
DIAPHRAGM DETAILS (SHEET 2 OF 2)		
Design	AMW	4/19
Detail	KNB	4/19
Check	WJS	4/19
Squad	THOMAS	
Engr.	THOMAS	
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	
JOB PIECE NO. 32765(04)	SHEET NO. B035	

REVISIONS		
REV. NO.	DESCRIPTION	DATE



PLAN OF TOP OF DECK SLAB WITH TYPICAL REINFORCING STEEL

(1) FOR SPACING SEE TYPICAL CROSS SECTION



HALF SECTION OF END ZONE REINFORCING AT END DIAPHRAGM

HALF SECTION OF TYPICAL REINFORCING AT INTERMEDIATE DIAPHRAGM

TYPICAL CROSS SECTION

NOTES:

1. ET2 #4 BARS IN SPAN 2 SHALL BE LAPPED IN THE CENTER WITH A 1'-11" MINIMUM LAP.
2. FOR ADDITIONAL SUPERSTRUCTURE DETAILS, SEE DECK SLAB DETAILS (SHEET 2 OF 3) AND DECK SLAB DETAILS (SHEET 3 OF 3).
3. FOR DETAILS OF REINFORCING IN DIAPHRAGMS, SEE DIAPHRAGM DETAILS (SHEET 2 OF 2).
4. ADJUST SPACING OF EB BARS TO CLEAR BEAM SHEAR CONNECTORS.
5. ROTATE HOOKS ON A AND AC BARS TO MAINTAIN MINIMUM CLEARANCE.
6. FOR BAR BENDS AND BAR LIST, SEE SUPERSTRUCTURE BAR LIST.

BRIDGE "B"
WB SH-66 OVER SHELL CREEK

CANADIAN COUNTY

DECK SLAB DETAILS (SHEET 1 OF 3)

Design	WJS	4/19
Detail	KNB	4/19
Check	WJS	4/19
Squad:	THOMAS	
Engr.:	THOMAS	

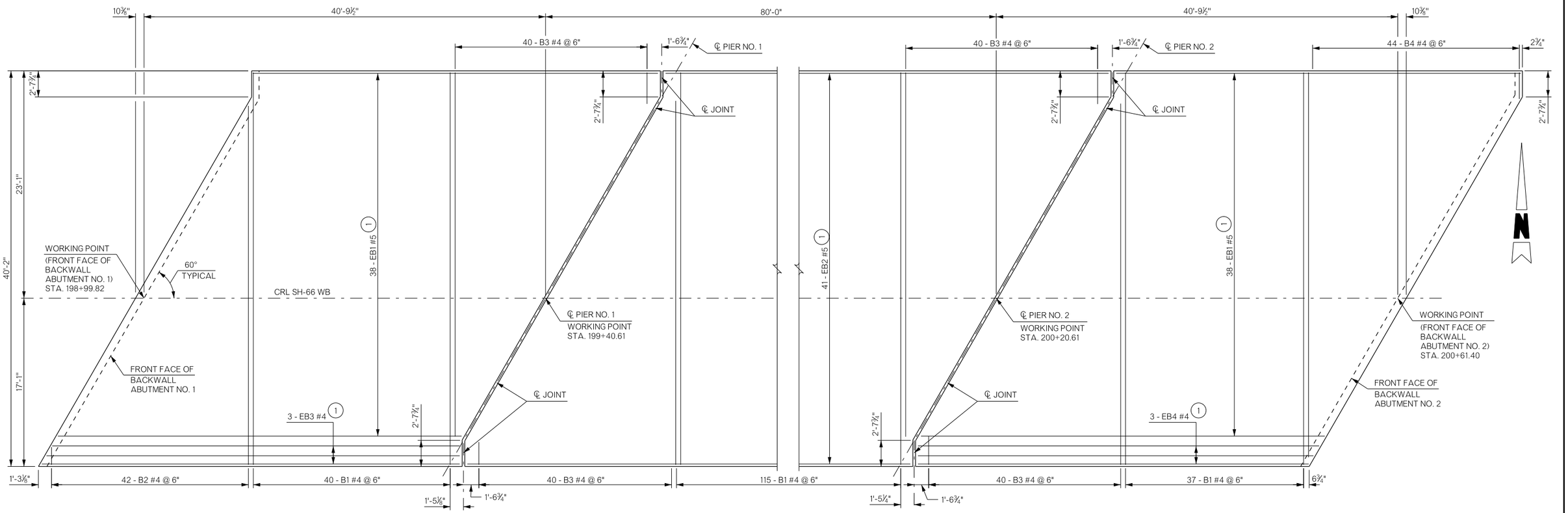
STATE OF OKLAHOMA

DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 32765(04)

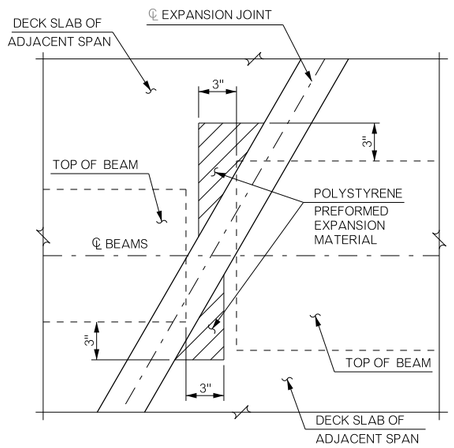
SHEET NO. B036

REVISIONS		
REV. NO.	DESCRIPTION	DATE



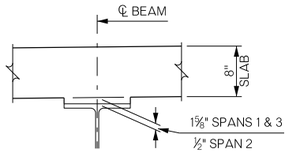
PLAN OF BOTTOM OF DECK SLAB WITH TYPICAL REINFORCING STEEL

① FOR SPACING SEE TYPICAL CROSS SECTION ON DECK SLAB DETAILS (SHEET 1 OF 3)



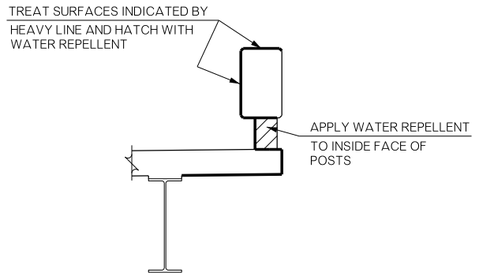
PLAN OF BEAM CORNERS AT SKEWED EXPANSION JOINT

WHERE THE TOP CORNER OF A BEAM PROJECTS UNDER THE DECK SLAB OF THE ADJACENT SPAN, ½" POLYSTYRENE PREFORMED EXPANSION MATERIAL SHALL BE PLACED BETWEEN THE TOP OF THE BEAM AND THE BOTTOM OF THE DECK SLAB IN THE HATCHED AREAS SHOWN ABOVE. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.



BEAM HAUNCH DETAIL

PLAN QUANTITIES FOR "CLASS AA CONCRETE" INCLUDE BEAM HAUNCHES. HAUNCH HEIGHT SHOWN IS THE THEORETICAL HAUNCH HEIGHT AT THE CENTERLINE OF BEARING ONLY, MEASURED FROM THE BOTTOM OF THE DECK SLAB TO THE TOP OF THE BEAM, AND VARIES ACROSS THE SPAN. DETERMINE THE ACTUAL HAUNCH HEIGHT (ACCOUNTING FOR BEAM CAMBER, DEAD LOAD DEFLECTION, AND ROADWAY GRADE) AFTER ERECTION OF THE BEAMS AND SUBMIT TO THE ENGINEER FOR APPROVAL. THE ENGINEER WILL NOT MEASURE DIFFERENCES BETWEEN THE THEORETICAL AND THE ACTUAL HAUNCH HEIGHTS FOR PAYMENT.



WATER REPELLENT TREATMENT DETAILS

NOTES:

1. EB2 #5 BARS IN SPAN 2 SHALL BE LAPPED IN THE CENTER WITH A 3'-0" MINIMUM LAP.
2. FOR ADDITIONAL SUPERSTRUCTURE DETAILS AND NOTES, SEE DECK SLAB DETAILS (SHEET 1 OF 3).

BRIDGE "B" CANADIAN COUNTY
WB SH-66 OVER SHELL CREEK

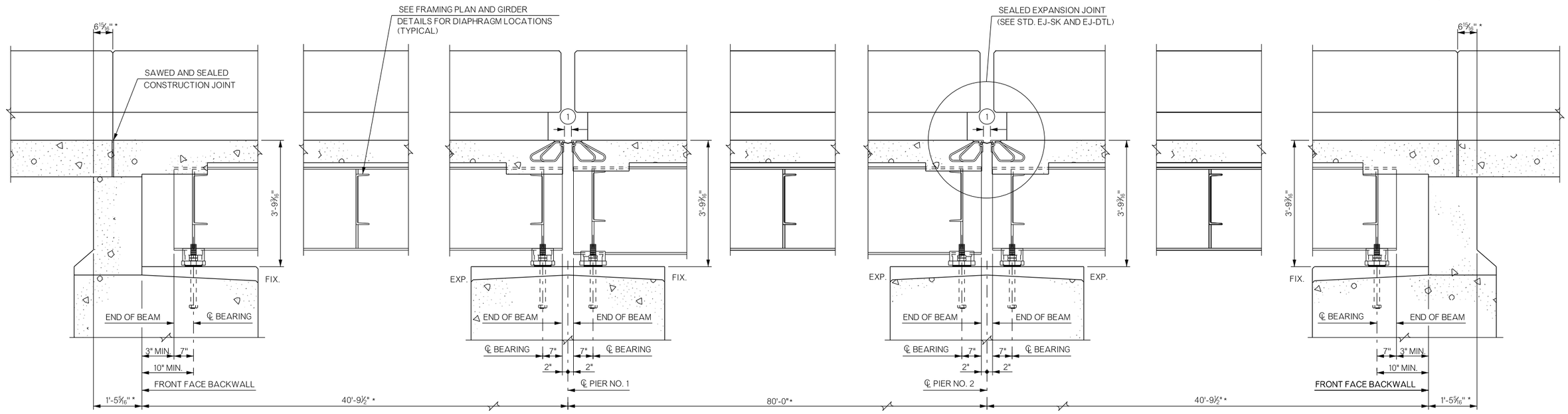
DECK SLAB DETAILS (SHEET 2 OF 3)

Design	WJS	4/19
Detail	KNB	4/19
Check	AMW	4/19
Squad:	THOMAS	
Engr.:	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 32765(04) SHEET NO. B037

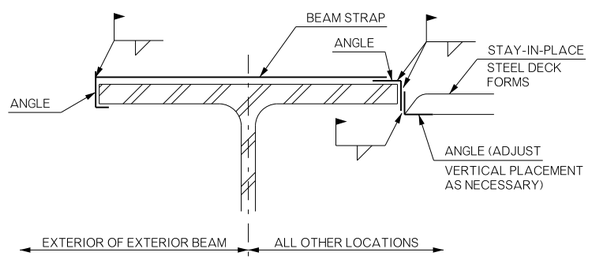
REVISIONS		
REV. NO.	DESCRIPTION	DATE



LONGITUDINAL SECTION

* MEASURED ALONG CRL SH-66 WB

EXPANSION DEVICE SETTING TABLE AT PIER NO. 1 AND 2 (1) (PERPENDICULAR TO JOINT)		
TEMPERATURE (°F)	JOINT OPENING (IN.)	
	PIER NO. 1	PIER NO.2
0.0	2¼	2⅝
15.0	2⅛	2½
30.0	2⅛	2¼
45.0	2	2⅛
60.0	2	2
75.0	2	1⅞
90.0	1⅞	1¾
105.0	1⅞	1½
120.0	1¾	1⅜



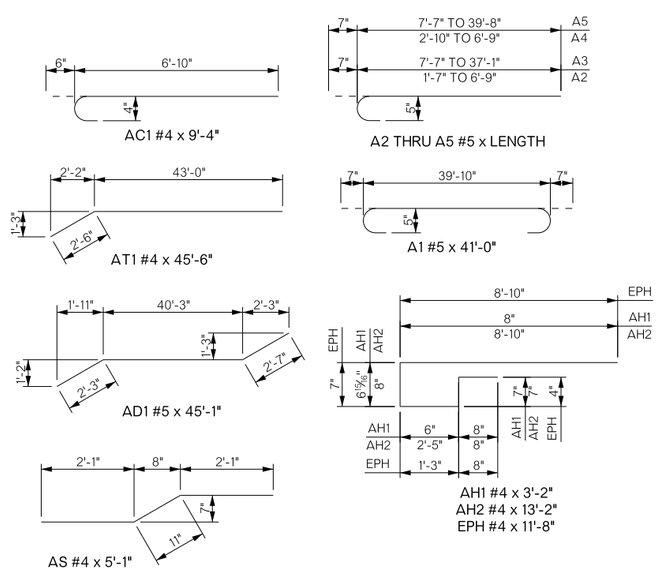
STAY-IN-PLACE STEEL DECK FORM FLANGE CONNECTION DETAIL

NOTE:
DO NOT WELD TO THE TOP FLANGE OR STUDS. REPORT ANY ARC STRIKE, WELD SPLATTER OR WELDING ON TOP FLANGE TO BRIDGE ENGINEER IMMEDIATELY.

ABUTMENT NO. 1 | PIER NO. 1 | PIER NO. 2 | ABUTMENT NO. 2

SUPERSTRUCTURE BAR LIST					
EPOXY COATED REINFORCING					
MARK	SIZE	FORM	NUMBER	LENGTH	VARIANCE
A1	5	BNT.	192	41'-0"	
A2	5	BNT.	13	4'-9" AVG.	2'-2" TO 7'-4"
(4) A3	5	BNT.	175	22'-11" AVG.	8'-2" TO 37'-8"
(5) A4	5	BNT.	50	5'-4½" AVG.	3'-5" TO 7'-4"
A5	5	BNT.	38	24'-2½" AVG.	8'-2" TO 40'-3"
AC1	4	BNT.	598	7'-4"	
AD1	5	BNT.	12	45'-1"	
ET1	4	STR.	76	41'-0"	
(2) ET2	4	STR.	41	81'-4"	
ET3	4	STR.	3	41'-10½" AVG.	41'-4" TO 42'-5"
ET4	4	STR.	3	40'-2½" AVG.	39'-8" TO 40'-9"
AH1	4	BNT.	22	3'-2"	
AH2	4	BNT.	64	13'-2"	
AS	4	BNT.	82	5'-1"	
AT1	4	BNT.	4	45'-6"	
AT2	4	STR.	8	8'-5"	
B1	4	STR.	192	39'-10"	
B2	4	STR.	41	19'-4" AVG.	1'-7" TO 37'-1"
(6) B3	4	STR.	160	20'-2" AVG.	3'-3" TO 37'-1"
B4	4	STR.	44	21'-0½" AVG.	2'-5" TO 39'-8"
EB1	5	STR.	76	41'-1"	
(3) EB2	5	STR.	41	82'-5"	
EB3	5	STR.	3	41'-10½" AVG.	41'-4" TO 42'-5"
EB4	5	STR.	3	40'-2½" AVG.	39'-8" TO 40'-9"
EPH	4	BNT.	152	11'-8"	
PT1	4	STR.	32	7'-11"	
PT2	4	STR.	16	2'-1"	
(7) SR1	5	BNT.	669	4'-1"	

(2) LENGTH INCLUDES 1 - 23" MIN. LAP
(3) LENGTH INCLUDES 1 - 36" MIN. LAP
(4) NUMBER INCLUDES FIVE SETS OF 35 BARS
(5) NUMBER INCLUDES FIVE SETS OF 10 BARS
(6) NUMBER INCLUDES FOUR SETS OF 40 BARS
(7) SEE STDS. B-03E AND B-419E.



DETAILS OF BENT REINFORCING STEEL

STAY-IN-PLACE DECK FORM NOTES

1. THE CONTRACTOR MAY USE STAY-IN-PLACE STEEL DECK FORMS IF THE MINIMUM DECK SLAB THICKNESS OF 8" IS OBTAINED BY MEASURING FROM THE TOP OF THE DECK SLAB TO THE TOP PORTION OF THE STEEL CORRUGATION. PREFORMED CORRUGATION FILLER, COMPOSED OF POLYSTYRENE OR OTHER MATERIAL, MAY BE USED IF BONDED TO THE DECK FORMS. NO ADDITIONAL CONCRETE WEIGHT OF THE DECK SLAB IS PERMITTED. THE TOTAL ADDITIONAL WEIGHT OF THE DECK FORM AND FILLER SHALL NOT EXCEED 5 P.S.F. THE DEPARTMENT CONSIDERS ALL COSTS OF STAY-IN-PLACE FORMS TO BE INCLUDED IN THE CONTRACT UNIT PRICE OF CLASS AA CONCRETE.

DECK SLAB NOTES

1. EPOXY-COAT OR GALVANIZE STEEL ITEMS USED TO FACILITATE CONSTRUCTION, SUCH AS DECK FORM HANGER ASSEMBLIES, TY-BAR CLIPS, INSERT WELD ANCHORS, OR OTHER APPURTENANCES, THAT WILL REMAIN IN PLACE IN THE DECK SLAB. EPOXY-COAT IN ACCORDANCE WITH AASHTO M284 OR GALVANIZE IN ACCORDANCE WITH AASHTO M111.

2. IN THE EVENT OF AN EMERGENCY, HALT THE PLACEMENT OF CONCRETE BY FORMING A CONSTRUCTION JOINT MADE PERPENDICULAR TO THE DIRECTION OF TRAFFIC OR AS DIRECTED BY THE ENGINEER. DO NOT PLACE ANY HEAVY EQUIPMENT ON THE FINISHED DECK SLAB WITHIN 5' OF ANY CONSTRUCTION JOINT UNTIL CONCRETE IS IN PLACE ON BOTH SIDES OF THE RESPECTIVE JOINT AND AT LEAST 48 HOURS HAS ELAPSED SINCE CONCRETE PLACEMENT. SEAL CONSTRUCTION JOINTS WITH HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE SPECIFICATIONS. THE DEPARTMENT WILL NOT MEASURE THE PREPARATION AND SEALER OF EMERGENCY CONSTRUCTION JOINTS FOR PAYMENT.

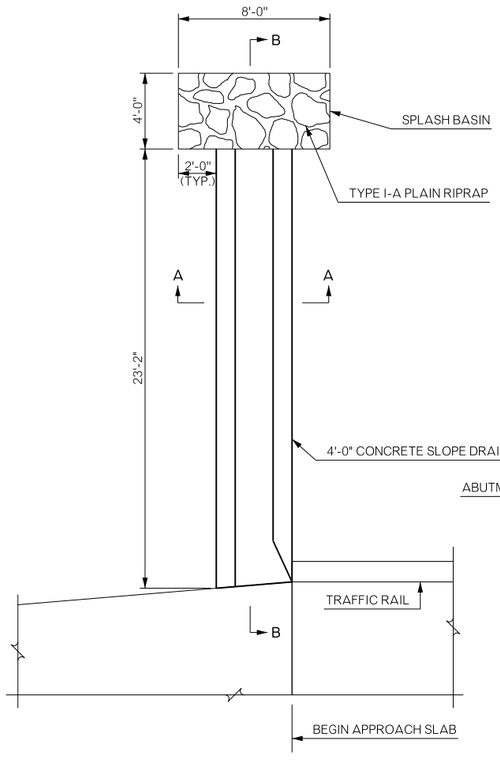
BRIDGE "B" CANADIAN COUNTY
WB SH-66 OVER SHELL CREEK

DECK SLAB DETAILS (SHEET 3 OF 3)

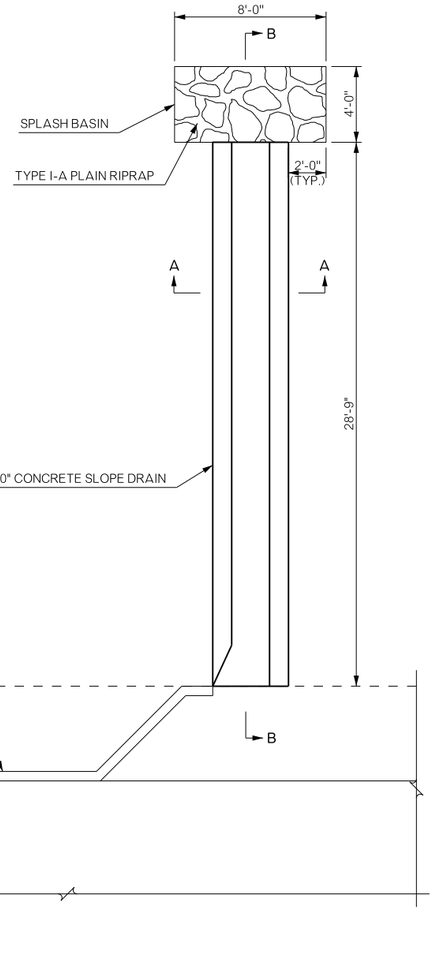
Design	WJS	4/19
Detail	KNB	4/19
Check	AMW	4/19
Squad	THOMAS	
Engr.	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 32765(04) | SHEET NO. B038

REVISIONS		
REV. NO.	DESCRIPTION	DATE

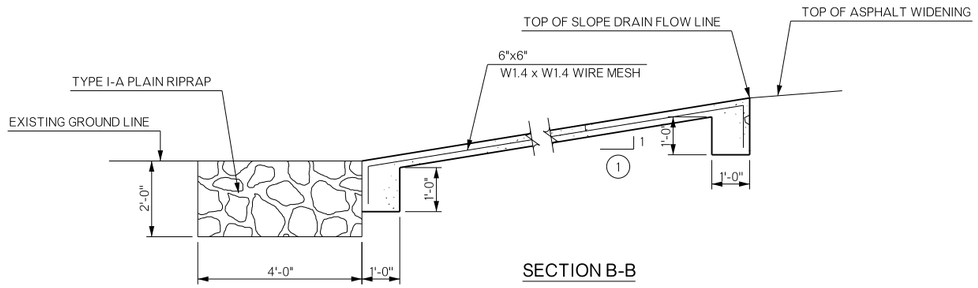


ABUTMENT NO. 1 PLAN



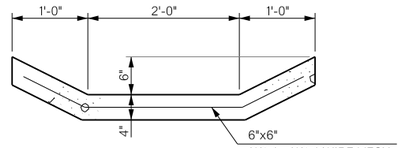
ABUTMENT NO. 2 PLAN

GUARDRAIL NOT SHOWN



SECTION B-B

(1) SLOPE TO MATCH SLOPE OF PROPOSED GRADE



SECTION A-A

NOTES:

1. SEE ROADWAY PLANS FOR GUARDRAIL/CURB DETAILS AND PROPOSED SLOPES.
2. THE SPLASH BASIN SHALL BE CONSTRUCTED WITH TYPE I-A PLAIN RIPRAP. ALL COSTS FOR MATERIALS AND PLACEMENT SHALL BE INCLUDED IN THE PAY ITEM FOR "TYPE I-A PLAIN RIPRAP".
3. SLOPE DRAINS SHALL BE CONSTRUCTED USING CLASS "C" CONCRETE AS SHOWN ON THIS SHEET. THE COST OF THE SLOPE DRAINS INCLUDING EXCAVATION, REINFORCEMENT, LABOR, AND OTHER INCIDENTALS REQUIRED FOR CONSTRUCTION, SHALL BE INCLUDED IN THE PAY ITEM "CLASS "C" CONCRETE".

BRIDGE "B" CANADIAN COUNTY
WB SH-66 OVER SHELL CREEK

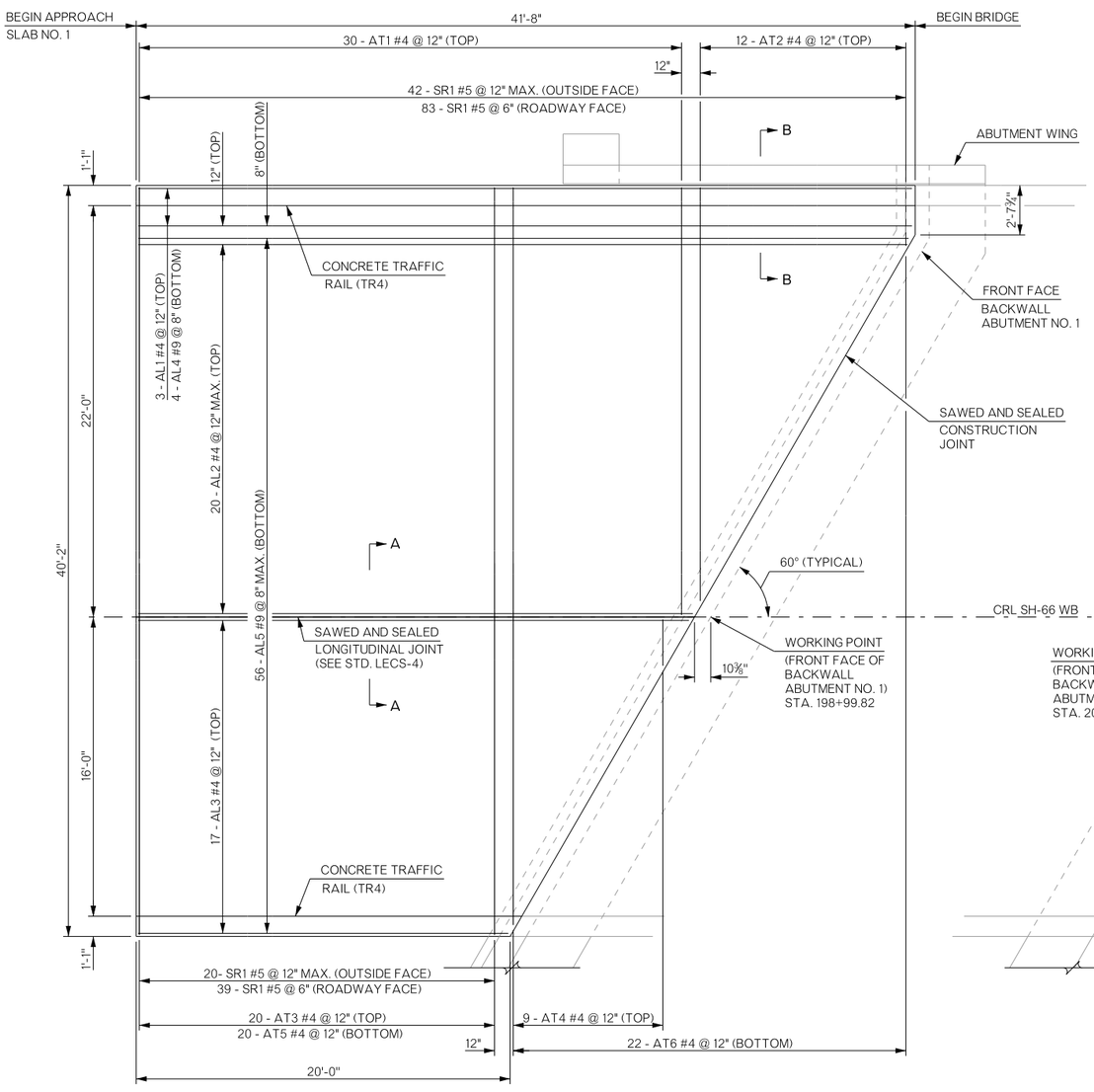
SLOPE DRAIN DETAILS

Design	JDK	5/19
Detail	KNB	5/19
Check	JDK	5/19
Squad	THOMAS	
Engr.	THOMAS	

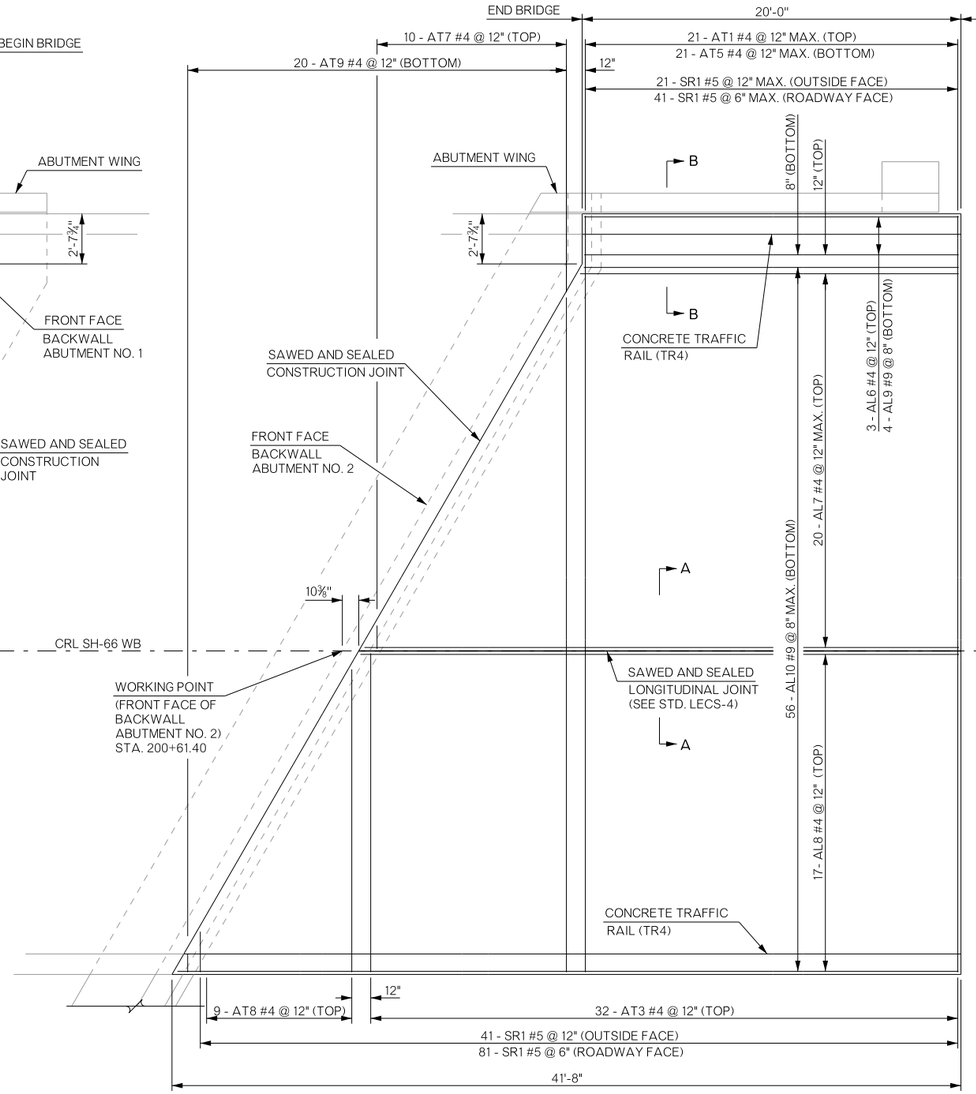
STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 32765(04) SHEET NO. B039

REVISIONS		
REV. NO.	DESCRIPTION	DATE



APPROACH SLAB NO. 1



APPROACH SLAB NO. 2

APPROACH SLAB BAR LIST

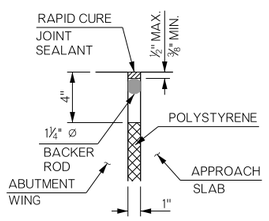
MARK	SIZE	NO.	FORM	LENGTH	VARIANCE
(EPOXY COATED REINFORCING)					
AT1	#4	51	STR.	22'-9"	---
AT2	#4	12	STR.	12'-6" AVG.	22'-0" TO 3'-0"
AT3	#4	52	STR.	16'-9"	---
AT4	#4	9	STR.	9'-4" AVG.	16'-3" TO 2'-5"
AT5	#4	41	STR.	39'-10"	---
AT6	#4	22	STR.	21'-0½" AVG.	39'-1" TO 3'-0"
AT7	#4	10	STR.	10'-4½" AVG.	18'-2" TO 2'-7"
AT8	#4	9	STR.	9'-3" AVG.	16'-2" TO 2'-4"
AT9	#4	20	STR.	18'-9½" AVG.	35'-3" TO 2'-4"
AL1	#4	3	STR.	41'-4"	---
AL2	#4	20	STR.	35'-4" AVG.	40'-10" TO 29'-10"
AL3	#4	17	STR.	24'-5½" AVG.	29'-1" TO 19'-10"
AL4	#9	4	STR.	41'-4"	---
AL5	#9	56	STR.	30'-5" AVG.	41'-0" TO 19'-10"
AL6	#4	3	STR.	19'-8"	---
AL7	#4	20	STR.	25'-6½" AVG.	31'-0" TO 20'-1"
AL8	#4	17	STR.	36'-5" AVG.	41'-0" TO 31'-10"
AL9	#9	4	STR.	19'-8"	---
AL10	#9	56	STR.	30'-5½" AVG.	41'-0" TO 19'-11"
SR1	#5	368	BNT.	4'-1"	---

NOTE:
FOR SR1 BAR BEND, SEE STD. TR4-2.

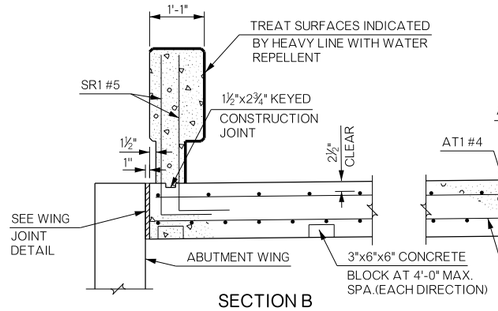
APPROACH SLAB QUANTITIES

	ITEM	UNIT	APPROACH SLAB NO. 1	APPROACH SLAB NO. 2
(1)	APPROACH SLAB	S.Y.	140.80	134.50
	SAW-CUT GROOVING	S.Y.	133.40	127.10
	CONCRETE RAIL (TR4)	L.F.	61.70	61.70
	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	29	29

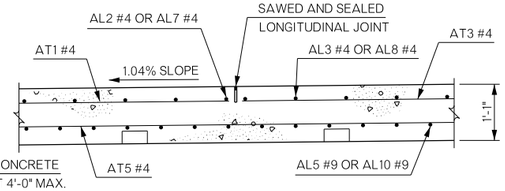
(1) THE DEPARTMENT CONSIDERS THE COST OF CONCRETE, REINFORCING STEEL (INCLUDING SR1 BARS), BACKER ROD, RAPID CURE JOINT SEALANT, POLYSTYRENE AND POLYETHYLENE SHEETING TO BE INCLUDED IN THE CONTRACT UNIT PRICE OF "APPROACH SLAB". THERE IS AN ESTIMATED 50.90 C.Y. AND 48.60 C.Y. OF CLASS AA CONCRETE AND ESTIMATED 9,650 LB. AND 9,260 LB. OF EPOXY COATED REINFORCING STEEL IN APPROACH SLABS NO. 1 AND 2, RESPECTIVELY.



WING JOINT DETAIL



SECTION B



SECTION A

NOTES:

1. SEE STD. TR4-2 FOR ADDITIONAL DETALS OF CONCRETE RAIL.
2. FOR ADDITIONAL DETAIL OF APPROACH SLAB AT ABUTMENT, SEE LONGITUDINAL SECTION AND DIAPHRAGM DETAILS.
3. PLACE REINFORCING IN THE TOP OF THE APPROACH SLAB 2" FROM EITHER SIDE OF THE SAWED AND SEALED LONGTUDINAL JOINT. FOR ADDITIONAL DETAILS OF LONGITUDINAL JOINT, SEE STD. LECS-4.
4. CONCRETE TRAFFIC RAIL (TR-4) DOES NOT CONTAIN OPENINGS IN RAIL ALONG THE APPROACH SLAB.

BRIDGE "B" CANADIAN COUNTY
WB SH-66 OVER SHELL CREEK

APPROACH SLAB DETAILS

Design	AMW	5/19
Detail	KNB	5/19
Check	AMW	5/19
Squad:	THOMAS	
Engr.:	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 32765(04) SHEET NO. B040

OKLAHOMA DEPARTMENT OF TRANSPORTATION

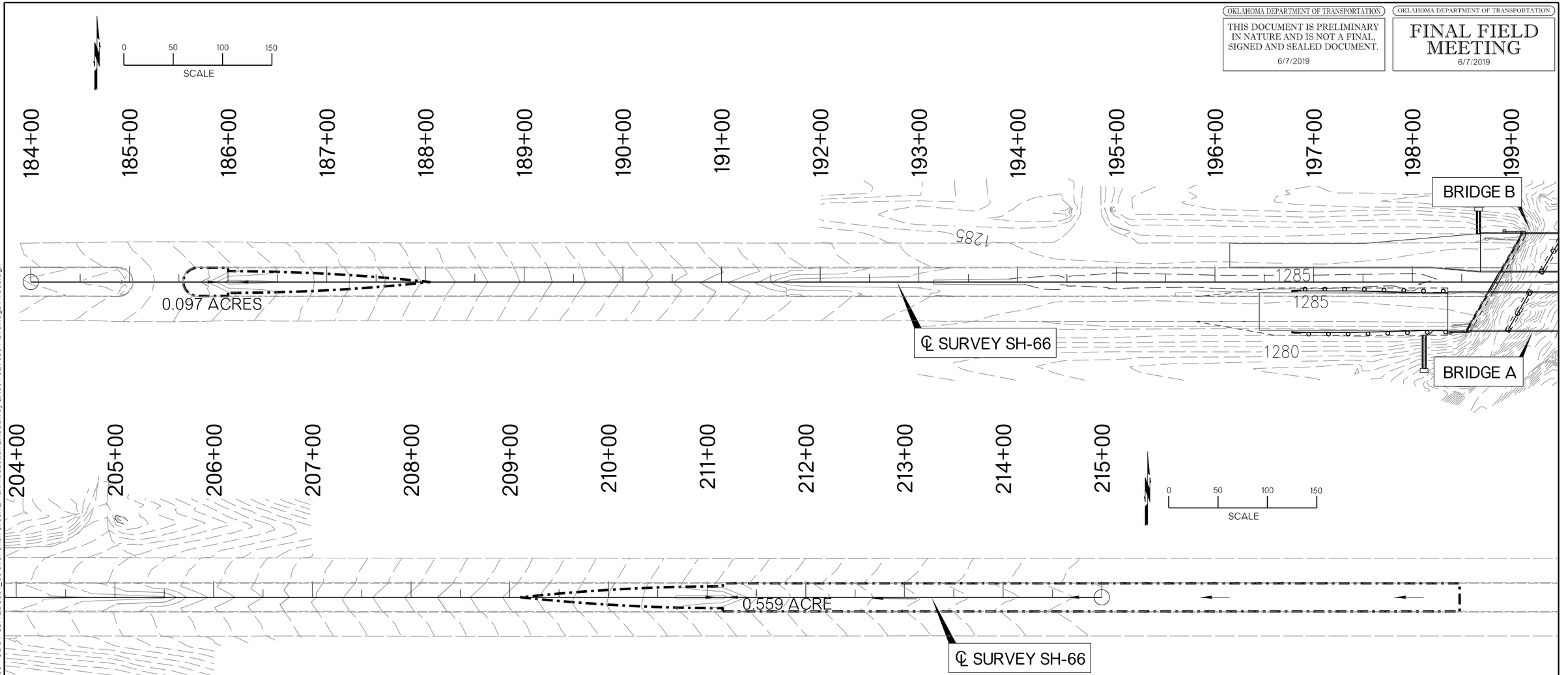
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

6/7/2019

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FINAL FIELD MEETING

6/7/2019



DRAINAGE STRUCTURE DESIGN RECORD

STR. NO	DESIGN YEAR	ALIGNMENT	STATION	DESCRIPTION			DRAINAGE AREA	ANTICIPATED LAND USE	C. RUNOFF COEFFICIENT WEIGHTED (ANTICIPATED)	LENGTH OF OVERLAND FLOW	SLOPE OF OVERLAND FLOW	LENGTH OF CHANNEL FLOW	SLOPE OF CHANNEL	Tc TIME OF CONCENTRATION	INTENSITY OF DESIGN YEAR RAINFAL	DESIGN YEAR DISCHARGE	FL INLET	FL OUTLET	STRUCTURE SLOPE	MAX ALLOWABLE HEADWATER	COMPUTED HEADWATER	Tw DESIGN TAILWATER	OUTLET VELOCITY	COMMENTS
							ACRE			FT	%	FT	%	5 MIN	5 IN/HR	CFS	ELEV	ELEV	FT/FT	ELEV	ELEV	FT	5 FT/S	
T-1	10	SH-66	186+00.00	TEMP DRAIN	12"	CGSP	0.097	GRASSED MEDIAN	0.2	14	5	33	12.5	4.16	6.83	0.13	1301.50	1285.59	2.81%	1302.75	1301.72	1285.64	2.10	
T-2	10	SH-66	205+50.00	TEMP DRAIN	12"	CGSP	0.559	GRASSED MEDIAN	0.2	14	5	746	2	12.94	5.04	0.56	1305.57	1288.80	2.96%	1306.82	1306.02	1288.89	3.18	

LEGEND

- DRAINAGE AREA BOUNDARY
- X.XXX ACRE DRAINAGE AREA
- DRAINAGE FLOW

DESIGN	KWR	5/27/19
DRAWN	KWR	5/27/19
CHECKED		
APPROVED		
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION

DRAINAGE MAP

COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. R001

6/7/2019 pw:\\Flpw-int.hntb.org:PWCentralDiv\Documents\Kansas City Projects\66430 - ODOT SBR\LDS\001_66 over Shell Creek\Plan Production\Roadway\LR001-32765O4-Drainage Areas.dgn

STORM WATER MANAGEMENT PLAN

REVISIONS	
DESCRIPTION	DATE

SITE DESCRIPTION

PROJECT LIMITS: STATE HIGHWAY 66, OVER SHELL CREEK

PROJECT DESCRIPTION: CONSTRUCTION OF APPROXIMATELY 0.184 MILES OF SH-66. CONSTRUCTION OF NEW EASTBOUND AND WESTBOUND 40-80-40 ROLLED BEAM SPAN BRIDGES OVER SHELL CREEK, AND REMOVAL OF EXISTING BRIDGE STRUCTURES.

SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES: 1. PLACE TEMPORARY SEDIMENT CONTROL DEVICES AT DRAINAGE LOCATIONS PRIOR TO STRUCTURE MODIFICATION AND CLEARING OPERATIONS. 2. PERFORM CLEARING AND GRUBBING, PRESERVING ANY VEGETATION NOT IMPEDING CONSTRUCTION. 3. REMOVE AND STOCKPILE TOPSOIL. PROVIDE EROSION CONTROL DEVICES AS NEEDED TO PREVENT EROSION. 4. PROVIDE ANY ADDITIONAL TEMPORARY SEDIMENT CONTROL DEVICES AND MAINTAIN OR MOVE AS NEEDED FOR GRADING CONTRACTOR OPERATIONS. 5. AS GRADING IS COMPLETED, PLACE TEMPORARY MULCHING AND/OR SEEDING. 6. AS PERMANENT VEGETATION IS ESTABLISHED (70% COVER), TEMPORARY SEDIMENT DEVICES MAY BE REMOVED. 7. AS CONDITIONS WARRANT, THE CONTRACTOR AT THE DISCRETION OF THE ENGINEER MAY MODIFY THE TYPE OR ARRANGEMENT OF SPECIFIC PRACTICE OR CONTROLS TO IMPROVE THEIR EFFECTIVENESS.

SOIL TYPE: SANDY LEAN CLAY, LEAN CLAY, SILTY CLAY

TOTAL AREA OF THE CONSTRUCTION SITE: 11.86 AC

ESTIMATED AREA TO BE DISTURBED: 2.79 AC

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE)

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 3.10 AC

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 3.42 AC

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.50

LATITUDE & LONGITUDE OF CENTER OF PROJECT: 35°30'28"N 97°47'26"W

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: NORTH CANADIAN RIVER

SENSITIVE WATERS OR WATERSHEDS: YES ☐ NO ☒

303(d) IMPAIRED WATERS: YES ☐ NO ☒

IF YES, LIST IMPAIRMENT:

LOCATED IN A TMDL: YES ☐ NO ☒

LAKE THUNDERBIRD TMDL: YES ☐ NO ☒

MS4 ENTITY YES ☐ NO ☒

IF YES, LOCATION:

NOTE:
THIS SHEET SHOULD BE USED IN CONJUNCTION WITH A DRAINAGE MAP THAT ILLUSTRATES THE DRAINAGE PATTERNS/PATHWAYS AND RECEIVING WATERS FOR THIS PROJECT. THIS SHEET SHOULD ALSO BE USED WITH THE EROSION CONTROL SUMMARIES, PAY ITEMS, & NOTES.

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- ☒ TEMPORARY SEEDING
- ☒ PERMANENT SODDING, SPRIGGING OR SEEDING
- ☒ VEGETATIVE MULCHING
- ☐ SOIL RETENTION BLANKET
- ☐ PRESERVATION OF EXISTING VEGETATION

NOTE: TEMPORARY EROSION CONTROL METHODS MUST BE USED ON ALL DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR OVER 14 DAYS. METHODS USED WILL BE AS SHOWN ON PLANS, OR AS DIRECTED BY THE ENGINEER.

STRUCTURAL PRACTICES:

- ☐ STABILIZED CONSTRUCTION EXIT
- ☒ TEMPORARY SILT FENCE
- ☒ TEMPORARY SILT DIKES
- ☐ TEMPORARY FIBER LOG
- ☐ DIVERSION, INTERCEPTOR OR PERIMETER DIKES
- ☐ DIVERSION, INTERCEPTOR OR PERIMETER SWALES
- ☐ ROCK FILTER DAMS
- ☐ TEMPORARY SLOPE DRAIN
- ☐ PAVED DITCH W/ DITCH LINER PROTECTION
- ☐ TEMPORARY DIVERSION CHANNELS
- ☐ TEMPORARY SEDIMENT BASINS
- ☐ TEMPORARY SEDIMENT TRAPS
- ☒ TEMPORARY SEDIMENT FILTERS
- ☐ TEMPORARY SEDIMENT REMOVAL
- ☒ RIP RAP
- ☐ INLET SEDIMENT FILTER
- ☐ TEMPORARY BRUSH SEDIMENT BARRIERS
- ☐ SANDBAG BERMS
- ☐ TEMPORARY STREAM CROSSINGS

OFFSITE VEHICLE TRACKING:

- ☐ HAUL ROADS DAMPENED FOR DUST CONTROL
- ☐ LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN
- ☐ EXCESS DIRT ON ROAD REMOVED DAILY

NOTES:

THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE FOLLOWING:

MAINTENANCE AND INSPECTION:

ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN GOOD WORKING ORDER FROM THE BEGINNING OF CONSTRUCTION UNTIL AN ACCEPTABLE VEGETATIVE COVER IS ESTABLISHED. INSPECTION BY THE CONTRACTOR AND ANY NECESSARY REPAIRS SHALL BE PERFORMED ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCH AS RECORDED BY A NON-FREEZING RAIN GAUGE TO BE LOCATED ON SITE. POTENTIALLY ERODIBLE AREAS, DRAINAGEWAYS, MATERIAL STORAGE, STRUCTURAL DEVICES, CONSTRUCTION ENTRANCES AND EXITS ALONG WITH EROSION AND SEDIMENT CONTROL LOCATIONS ARE EXAMPLES OF SITES THAT NEED TO BE INSPECTED.

WASTE MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF CONSTRUCTION WASTE MATERIAL IS REQUIRED BY THE CONTRACTOR. MATERIALS INCLUDE STOCKPILES, SURPLUS, DEBRIS AND ALL OTHER BY-PRODUCTS FROM THE CONSTRUCTION PROCESS. PRACTICES INCLUDE DISPOSAL, PROPER MATERIALS HANDLING, SPILL PREVENTION AND CLEANUP MEASURES. CONTROLS AND PRACTICES SHALL MEET THE REQUIREMENTS OF ALL FEDERAL, STATE AND LOCAL AGENCIES.

HAZARDOUS MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF HAZARDOUS WASTE MATERIALS IS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING MANUFACTURER'S RECOMMENDATIONS, STATE AND FEDERAL REGULATIONS TO ENSURE CORRECT HANDLING, DISPOSAL, SPILL PREVENTION AND CLEANUP MEASURES. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO: PAINTS, ACIDS, CLEANING SOLVENTS, CHEMICAL ADDITIVES, CONCRETE CURING COMPOUNDS AND CONTAMINATED SOILS.

GENERAL NOTES:

A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED TO COMPLY WITH THE OKLAHOMA POLLUTION DISCHARGE ELIMINATION SYSTEM (OPDES) REGULATIONS. THIS PLAN IS INITIATED DURING THE DESIGN PHASE, CONFIRMED IN THE PRE-WORK MEETINGS AND AVAILABLE ON THE JOB SITE ALONG WITH COPIES OF THE NOTICE OF INTENT (NOI) FORM AND PERMIT CERTIFICATE THAT HAVE BEEN FILED WITH THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ). THE PLAN MUST BE KEPT CURRENT WITH UP-TO-DATE AMENDMENTS DURING THE PROGRESSION OF THE PROJECT. ALL CONTRACTOR OFF-SITE OPERATIONS ASSOCIATED WITH THE PROJECT MUST BE DOCUMENTED IN THE SWPPP, I.E., BORROW PITS, WORK ROADS, DISPOSAL SITES, ASPHALT/CONCRETE PLANTS, ETC. THE BASIC GOAL OF STORM WATER MANAGEMENT IS TO IMPROVE WATER QUALITY BY REDUCING POLLUTANTS IN STORM WATER DISCHARGES. RUNOFF FROM CONSTRUCTION SITES HAS A POTENTIAL FOR POLLUTION DUE TO EXPOSED SOILS AND THE PRESENCE OF HAZARDOUS MATERIALS USED IN THE CONSTRUCTION PROCESS. THE PREVENTION OF SOIL EROSION, CONTAINMENT OF HAZARDOUS MATERIALS AND/OR THE INTERCEPTION OF THESE POLLUTANTS BEFORE LEAVING THE CONSTRUCTION SITE ARE THE BEST PRACTICES FOR CONTROLLING STORM WATER POLLUTION.

THE FOLLOWING SECTIONS OF THE 2009 ODOT STANDARD SPECIFICATIONS SHOULD BE NOTED:

103.05	BONDING REQUIREMENTS
104.10	FINAL CLEANING UP
104.12	CONTRACTOR'S RESPONSIBILITY FOR WORK
104.13	ENVIRONMENTAL PROTECTION
106.08	STORAGE AND HANDLING OF MATERIAL
107.01	LAWS, RULES AND REGULATIONS TO BE OBSERVED
107.20	STORM WATER MANAGEMENT
220	MANAGEMENT OF EROSION, SEDIMENTATION AND STORM WATER POLLUTION PREVENTION AND CONTROL
221	TEMPORARY SEDIMENT CONTROL

IN ADDITION:

"ODEQ GENERAL PERMIT (OKR10) FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE STATE OF OKLAHOMA." ODEQ, WATER QUALITY DIVISION, SEPTEMBER 13, 2017.

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	HNTB	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION

STORM WATER MANAGEMENT PLAN

COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. JP32765(04) SHEET NO. R002

REVISED 08 / 18 / 2017

OKLAHOMA DEPARTMENT OF TRANSPORTATION

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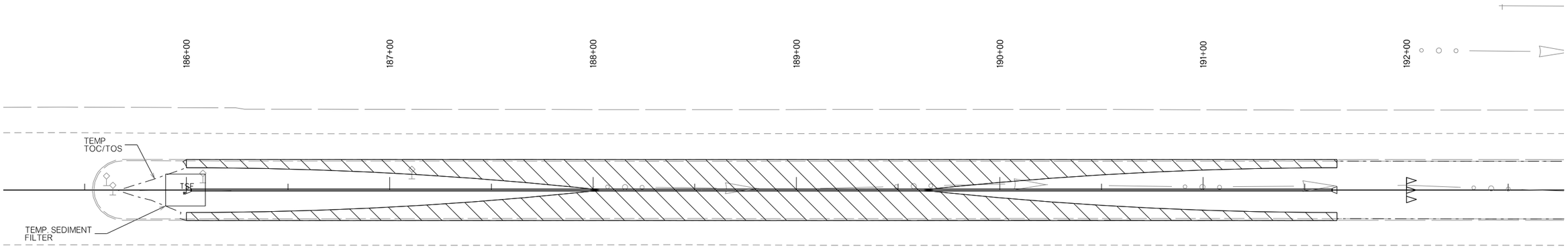
6/7/2019

OKLAHOMA DEPARTMENT OF TRANSPORTATION

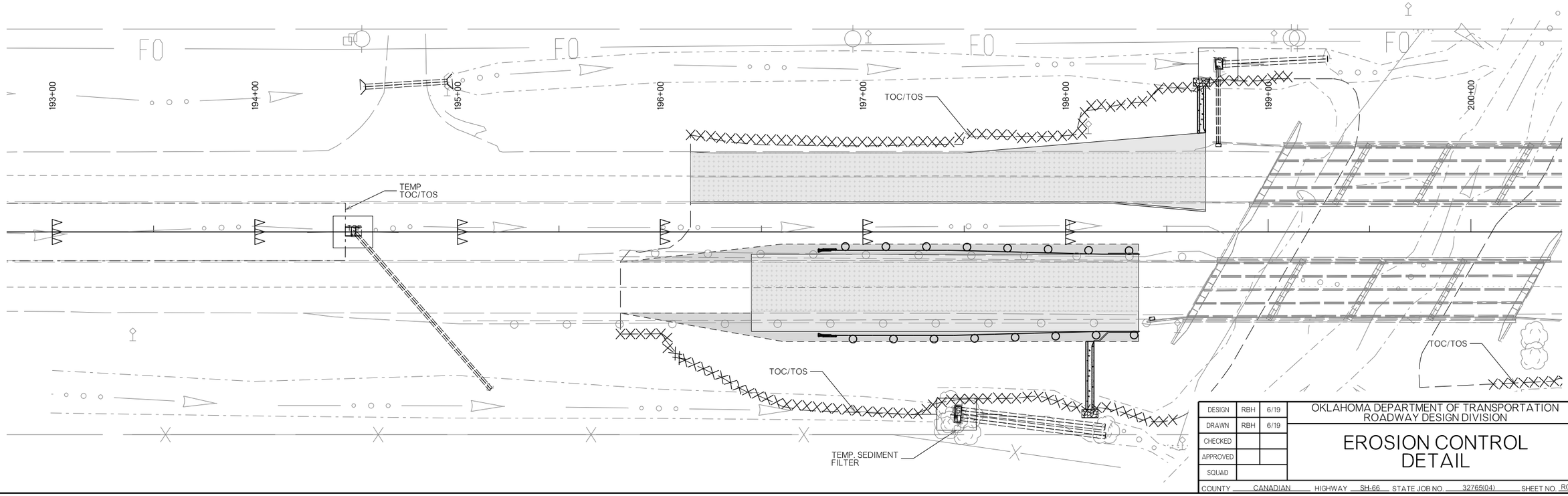
FINAL FIELD MEETING

6/7/2019



LEGEND

- SILT DIKE
- SILT FENCE
- TEMPORARY SEDIMENT FILTER
- T# STRUCTURE NUMBER



DESIGN	RBH	6/19	OKLAHOMA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION
DRAWN	RBH	6/19	
CHECKED			EROSION CONTROL DETAIL
APPROVED			
SQUAD			

COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. R003

6/7/2019 pw:\\pw-int.hntb.org:PWCentralDiv\Documents\Kansas City Projects\66430 - ODOT SBR\IDS001_66 over Shell Creek\PlanProduction\Roadway\R003-3276504-Erosion Control_01.dgn

OKLAHOMA DEPARTMENT OF TRANSPORTATION

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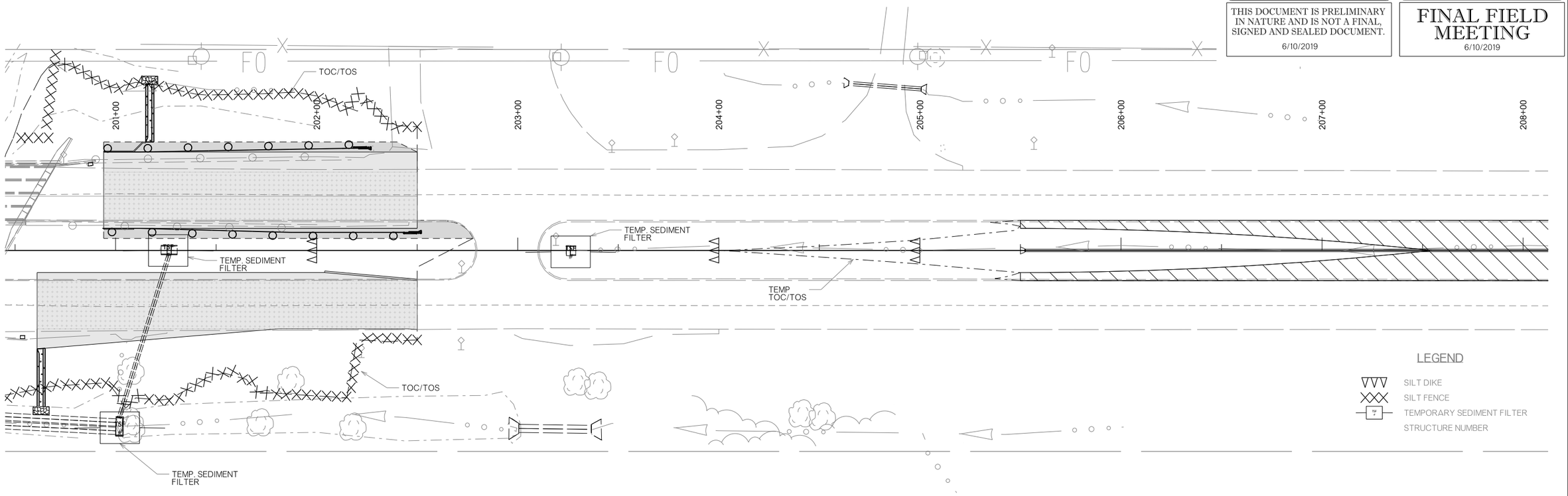
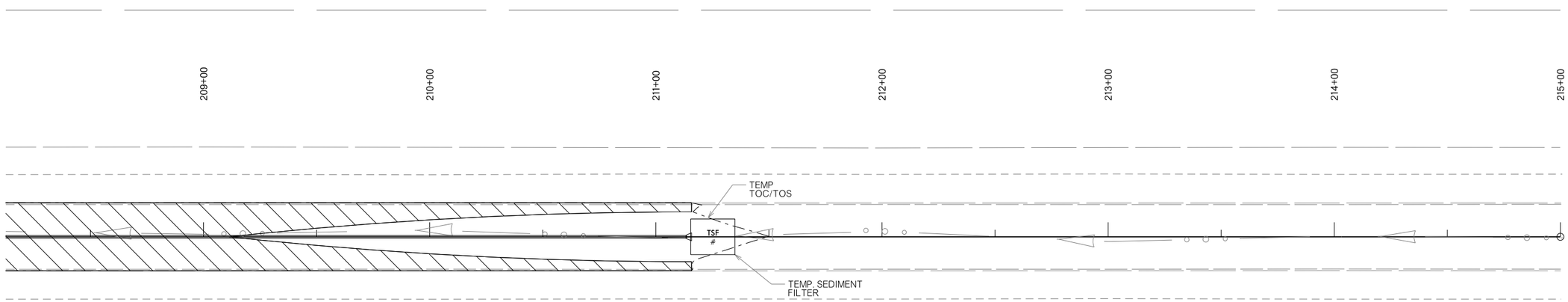
6/10/2019

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FINAL FIELD MEETING

6/10/2019





DESIGN	RBH	5/19	OKLAHOMA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION
DRAWN	RBH	5/19	
CHECKED			EROSION CONTROL DETAIL
APPROVED			
SQUAD			

COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. R004

6/10/2019 pw:\\pw-int.hntb.org:PWCentralDiv\Documents\Kansas City Projects\66430 - ODOT SBR\IDS001_66 over Shell Creek\PlanProduction\Roadway\R004-3276504-Erosion Control_02.dgn

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6/7/2019

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FINAL FIELD MEETING

6/7/2019

SCALE 0 25 50 75

SECTION 13
T-12-N, R-6-W

SECTION 24
T-12-N, R-6-W

196+00 197+00 198+00 199+00 200+00 201+00 202+00 203+00

PRES. R/W

3100.00
N 89°47'57.62" E

CL SURVEY S.H. 66
N 89°47'57.62" E

100.00'

TOC/TOS

CONST. MED. CURB

CONST. GUARDRAIL

REMOVE

LEGEND

ASPHALT PAVEMENT | MILL | GUARDRAIL WIDENING

SH 66 - EB

H #192 STA. 198+57.78
NGS MONUMENT H192 BRASS MON. IN WINGWALL
45.66' R
ELEV. = 1285.64

BM #202 STA. 200+52.35
X' ON CONC. BRIDGE
12.83' L
ELEV. = 1285.83

BM #203 STA. 201+24.90
X' ON CONC. DRAIN
1.09' L
ELEV. = 1284.46

BRIDGE LENGTH = 163.31'

BEGIN BRIDGE STA. 198+67.78

END BRIDGE STA. 200+31.09

PVI 196+45.00
ELEV= 1284.92

PVI 198+18.00
ELEV= 1285.35

PVI 200+77.00
ELEV= 1285.35

PVC 201+62.00
ELEV= 1285.18

PVT 202+42.00
ELEV= 1285.27

PVI 202+50.00
ELEV= 1285.31

L= 80.00'
K= 125.84

FINISHED GRADE ALONG CRL

EXISTING PROFILE ALONG CRL

0.25%

-0.00%

-0.20%

0.44%

SP. DITCH LT.

PVI STA. 200+53.00
EL = 1285.26 SP DT LT.

PVI STA. 201+22.62
EL = 1285.26 SP DT LT.

PVI STA. 201+30.62
EL = 1285.24 SP DT LT.

PVI 202+02.00
ELEV= 1285.10

PVI STA. 202+09.00
EL = 1285.31 SP DT LT.

1305 1300 1295 1290 1285 1280 1275 1270 1265

1284.90 1284.87 1285.06 1284.95 1285.31 1270.57 1285.35 1270.14 1285.35 1284.85 1285.30 1284.90 1285.16 1285.73

196+00 197+00 198+00 199+00 200+00 201+00 202+00 203+00

6/7/2019

COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. R005.

OKLAHOMA DEPARTMENT OF TRANSPORTATION

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6/7/2019

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FINAL FIELD MEETING

6/7/2019

SCALE 0 25 50 75

SECTION 13
T-12-N, R-6-W

SECTION 24
T-12-N, R-6-W

196+00 197+00 198+00 199+00 200+00 201+00 202+00 203+00

PRES. R/W

3100.00
N.89°47'57.62"E

CL SURVEY S.H. 66
N 89°47'57.62"E

100.00'

TOC/TOS

CONST. GUARDRAIL

REMOVE

CONST. MED. CURB

LEGEND

ASPHALT PAVEMENT | MILL | GUARDRAIL WIDENING

SH 66 - WB

H #192 STA. 198+57.78
NGS MONUMENT H192 BRASS MON. IN WINGWALL
45.66' R
ELEV. = 1285.64

BM #202 STA. 200+52.35
X' ON CONC. BRIDGE
12.83' L
ELEV. = 1285.83

BM #203 STA. 201+24.90
X' ON CONC. DRAIN
1.09' L
ELEV. = 1284.46

1305 1300 1295 1290 1285 1280 1275 1270 1265

PVI 196+15.00
ELEV= 1284.76

0.25%

FINISHED GRADE ALONG CRL

PVI 198+53.00
ELEV= 1285.35

BEGIN BRIDGE STA. 198+98.95

BRIDGE LENGTH = 163.31'

END BRIDGE STA. 200+62.27

-0.00%

EXISTING PROFILE ALONG CRL

SP. DITCH RT.

PVI STA. 202+09.00
EL = 1285.26 SP DT RT.

PVI 201+12.00
ELEV= 1285.35

PVI STA. 201+22.62
EL = 1285.26 SP DT RT.

PVI STA. 201+30.62
EL = 1285.24 SP DT RT.

-0.20%

PVC 201+69.00
ELEV= 1285.24

L= 80.00'
K= 116.45

PVI 202+09.00
ELEV= 1285.16

PVT 202+49.00
ELEV= 1285.35

0.49%

PVI 202+50.00
ELEV= 1285.36

PVI STA. 202+09.00
EL = 1285.31 SP DT RT.

1284.78 1284.82 1284.97 1285.01 1285.22 1284.52 1285.35 1260.84 1285.35 1285.12 1285.35 1285.02 1285.22 1285.70

196+00 197+00 198+00 199+00 200+00 201+00 202+00 203+00

6/7/2019

COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. R006

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6/7/2019

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FINAL FIELD MEETING

6/7/2019

SCALE 0 15 30 45

200+00 201+00 202+00 203+00 204+00

+93.44

18.75' 75.00' 31.25' 21.56' 10.00'

WB SH 66

0.63'

38.00' CLEAR ROADWAY

GUARDRAIL BRIDGE CONNECTION SEE STD. THRI-1

STANDARD W-BEAM GUARDRAIL SEE STD. GHW1-1

GUARDRAIL EXTRUDER TERMINAL SEE STD. SKT-1

12.00' LANE 12.00' LANE 10.00' SH 4.00' SH

12.00' 3.00' 5.00' 2.00' 4.00' 5.00'

18.75' 75.00' 56.25' 34.30'

CL SURVEY S.H. 66
N 89°47'57.62" E

196+00 197+00 198+00 199+00

80.00' 26.25' 56.25' 75.00' 18.75'

+35.98

CL SURVEY S.H. 66
N 89°47'57.62" E

5.00' 3.00' 2.00'

GUARDRAIL EXTRUDER TERMINAL SEE STD. SKT-1

STANDARD W-BEAM GUARDRAIL SEE STD. GHW1-1

12.00' LANE 12.00' LANE 10.00' SH 4.00' SH

38.00' CLEAR ROADWAY

GUARDRAIL BRIDGE CONNECTION SEE STD. THRI-1

0.63'

EB SH 66

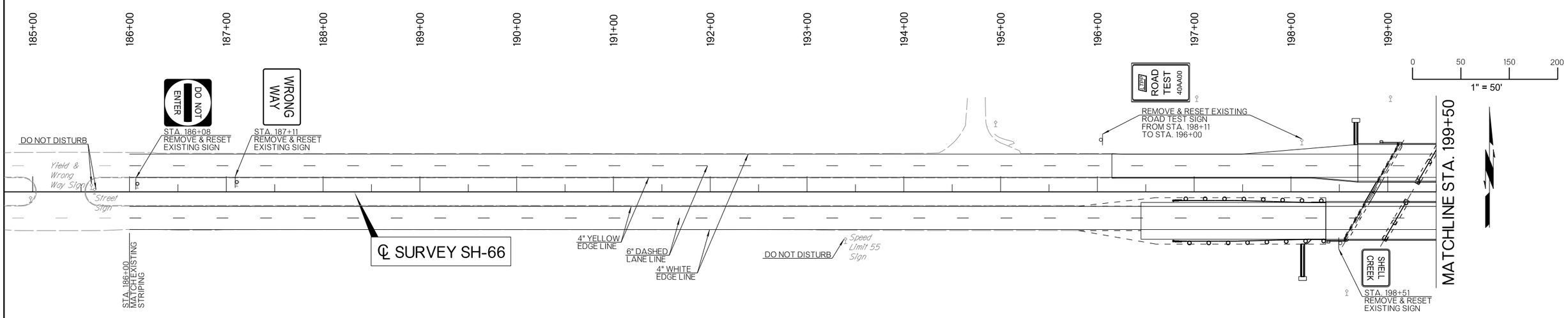
80.00' 26.25' 56.25' 75.00' 18.75'

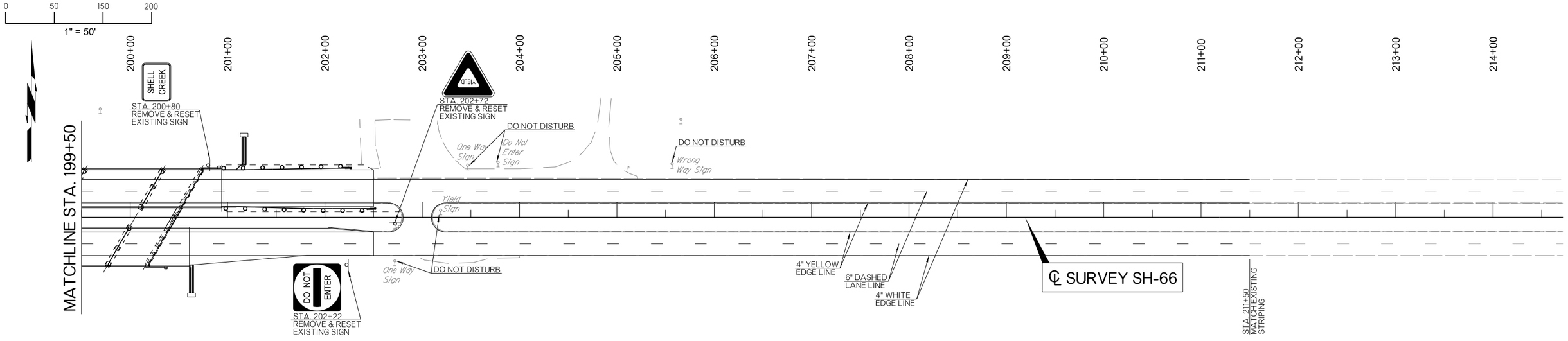
DESIGN	RBH	6/19	OKLAHOMA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION
DRAWN	RBH	6/19	
CHECKED			GUARDRAIL LAYOUT
APPROVED			
SQUAD			

COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 3276504 SHEET NO. R007

6/7/2019 pw:\\pw-int.hntb.org:PWCentralDiv\Documents\Kansas City Projects\66430 - ODOT SBR\DS001_66 over Shell Creek\PlanProduction\Roadway\R007-3276504-Guardrail Layout.dgn

REVISIONS		
REV. NO.	DESCRIPTION	DATE





DIVISION 4 — CANADIAN COUNTY
SH-66

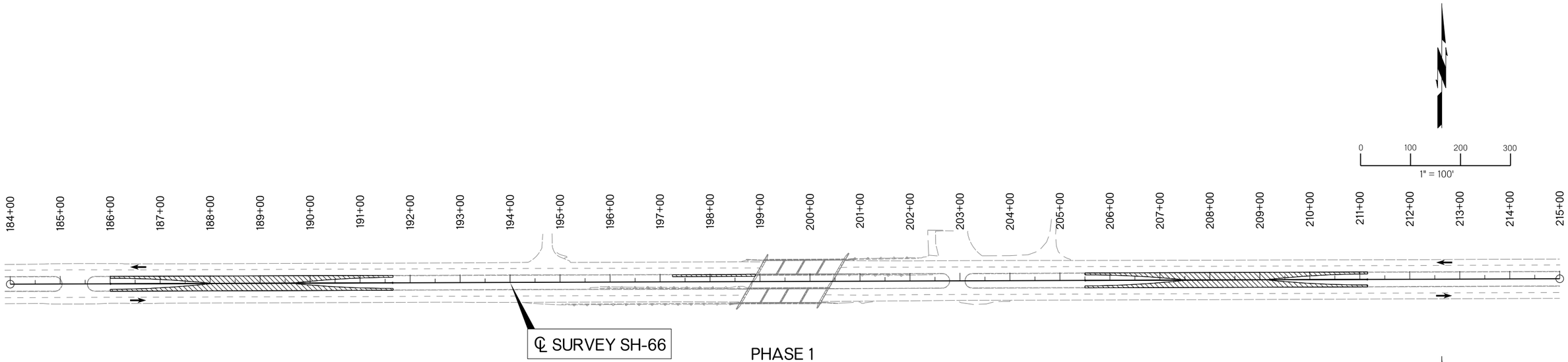
SIGNING & STRIPING

DETAIL:	KWR	6/1/1
CHECK:	RBH	6/2/1
ENGINEER:	KWR	6/1/1
GROUP:		
EM:		

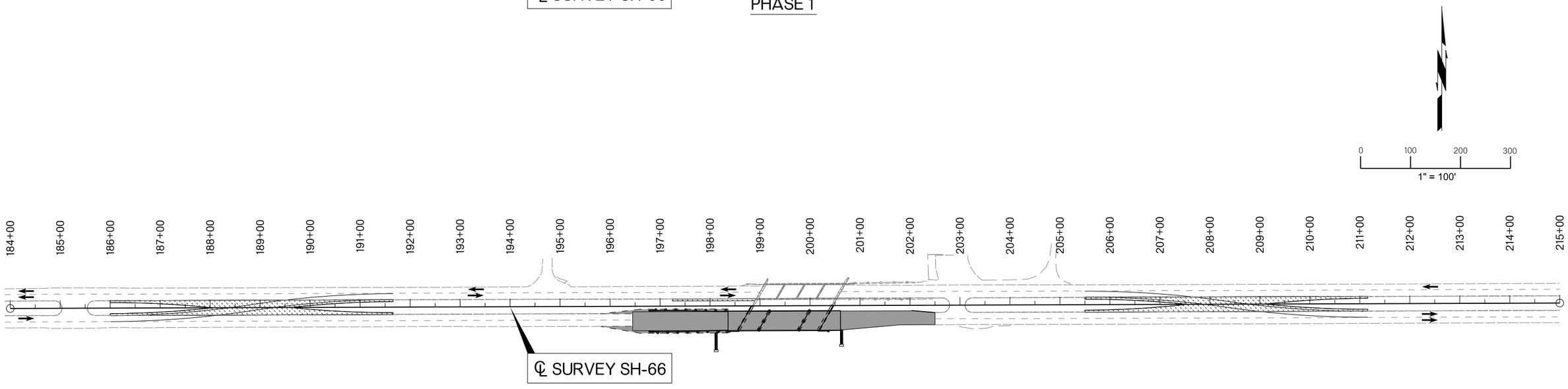
STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 32765(04) — SHEET NO. T001

REVISIONS		
REV. NO.	DESCRIPTION	DATE



PHASE 1



PHASE 2

LEGEND

- CONSTRUCTION
- TEMPORARY CONSTRUCTION
- COMPLETED CONSTRUCTION
- COMPLETED TEMPORARY CONSTRUCTION

DIVISION 4 CANADIAN COUNTY
SH-66

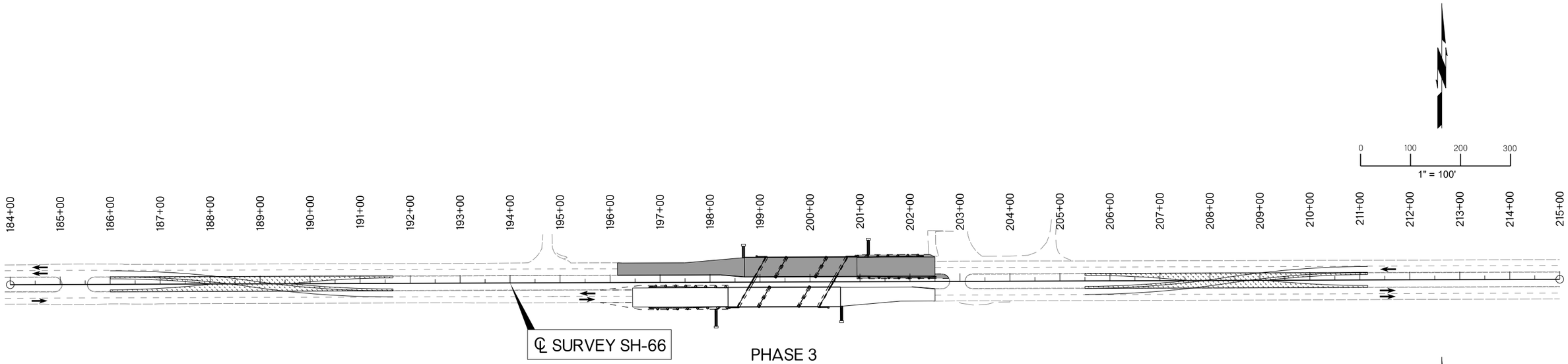
SUGGESTED CONSTRUCTION SEQUENCE (1)

DETAIL:	MLB	01-19
CHECK:		
ENGINEER:	KWR	05-19
GROUP:		
EM:		

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 32765(04) SHEET NO. T002

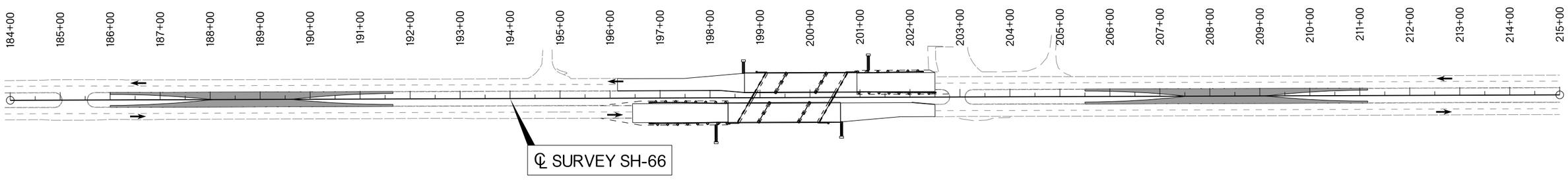
REVISIONS		
REV. NO.	DESCRIPTION	DATE



0 100 200 300

1" = 100'

PHASE 3



0 100 200 300

1" = 100'

PHASE 4

LEGEND

- CONSTRUCTION
- TEMPORARY CONSTRUCTION
- COMPLETED CONSTRUCTION
- COMPLETED TEMPORARY CONSTRUCTION

DIVISION 4 CANADIAN COUNTY
SH-66

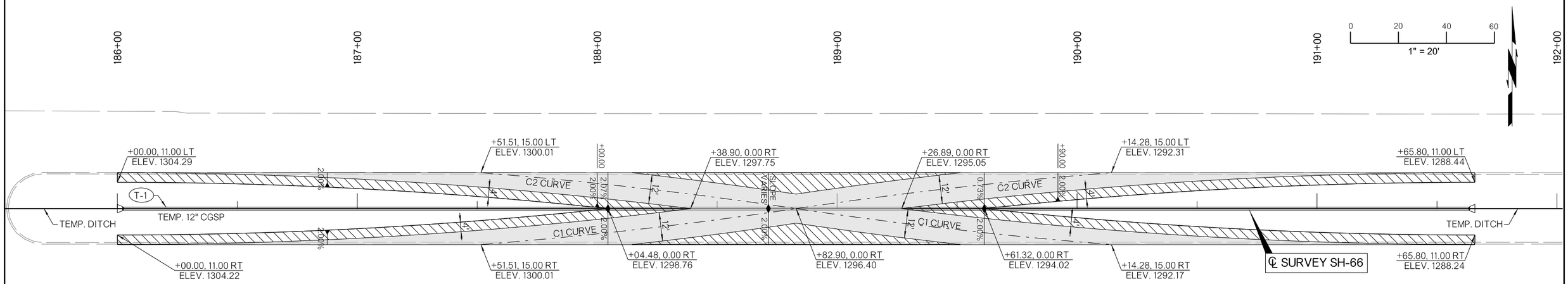
SUGGESTED CONSTRUCTION SEQUENCE (2)

DETAIL:	MLB	01-19
CHECK:		
ENGINEER:	KWR	05-19
GROUP:		
EM:		

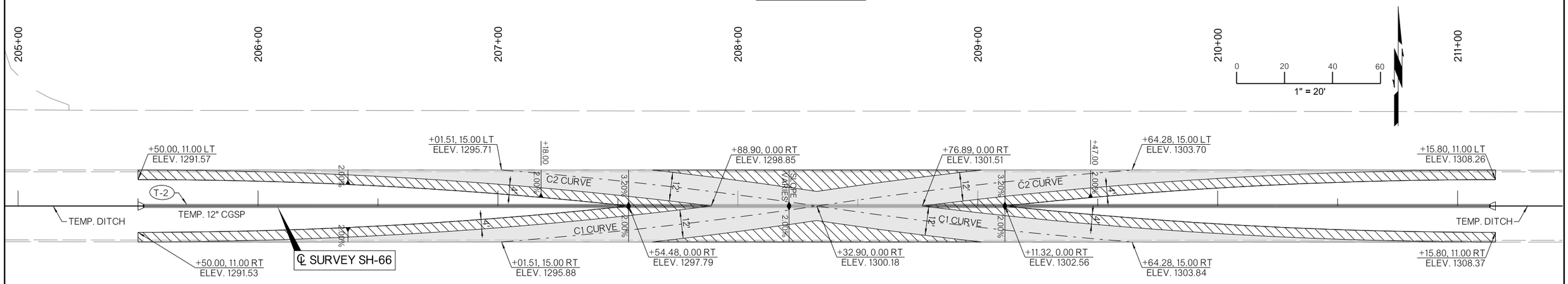
STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 32765(04) SHEET NO. T003

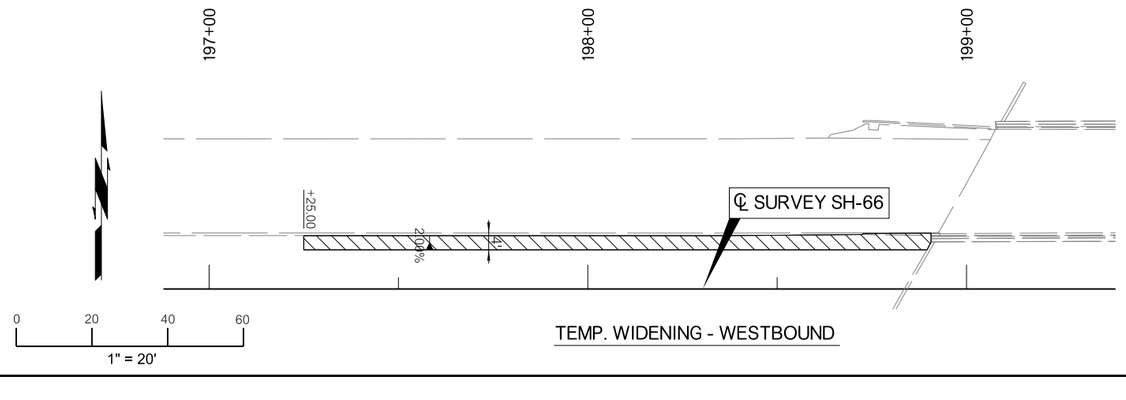
REVISIONS		
REV. NO.	DESCRIPTION	DATE



WEST CROSSOVER



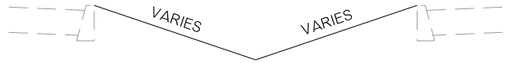
EAST CROSSOVER



TEMP. WIDENING - WESTBOUND

CURVE DATA NO. C1
Δ= 8°29'26.77" LT
D= 2°59'25.39"
T= 142.23'
L= 283.94'
R= 1916.00'
E= 5.27'
V= 55 MPH
S= NC

CURVE DATA NO. C2
Δ= 8°29'26.77" RT
D= 2°59'25.39"
T= 142.23'
L= 283.94'
R= 1916.00'
E= 5.27'
V= 55 MPH
S= NC



TEMP. DITCH DETAIL

GRADE V-DITCH TO MAINTAIN TEMPORARY DRAINAGE

BEG. STA.	ELEV.	END STA.	ELEV.
185+67	1305.63	186+00	1301.50
191+66	1285.59	194+44	1284.48
204+05	1287.35	205+50	1288.80
211+16	1305.57	211+50	1308.99

LEGEND

TEMPORARY ROADWAY

TEMPORARY SHOULDER

DIVISION 4 CANADIAN COUNTY
SH-66

SUGGESTED CONSTRUCTION SEQUENCE (3)

DETAIL:	KWR	05-19
CHECK:	RBH	05-19
ENGINEER:	KWR	05-19
GROUP: EM:		

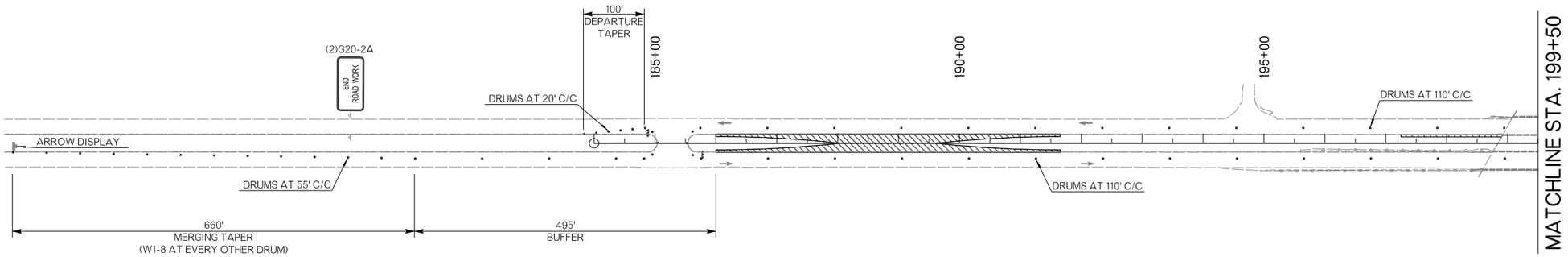
STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

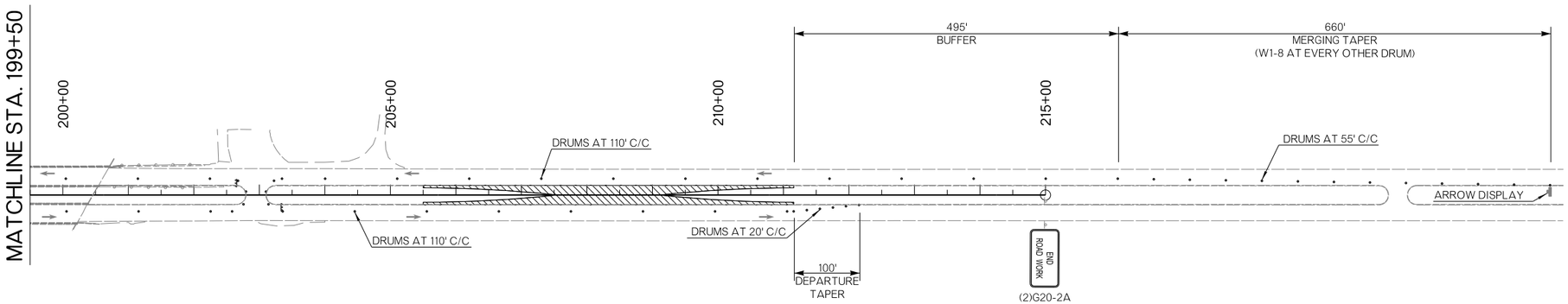
JOB PIECE NO. 32765(04) SHEET NO. T004

REVISIONS		
REV. NO.	DESCRIPTION	DATE

0 100 200 300

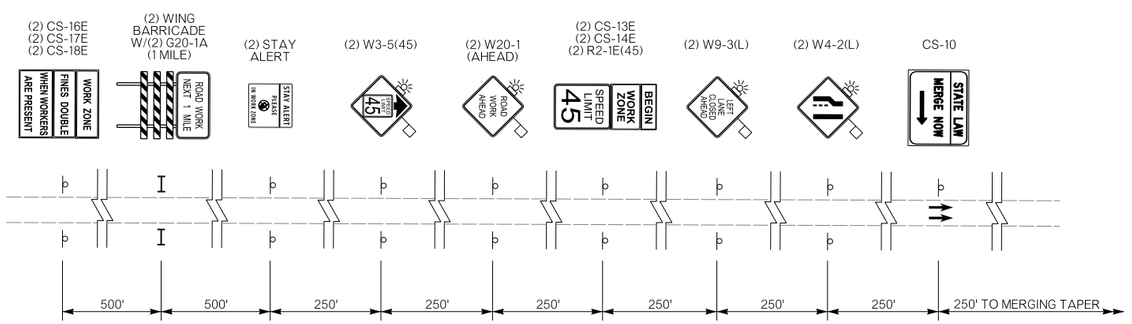
1" = 100'





PHASE 1

COLOR:
LEGEND, SYMBOL AND BORDER
BLACK (NON-REFLECTORIZED)
BACKGROUND:
▲ FLUORESCENT ORANGE (REFLECTORIZED)
✶ FLUORESCENT YELLOW (REFLECTORIZED)
● WHITE (REFLECTORIZED)
■ RED (TRANSPARENT)



ADVANCE SIGNING DETAIL

LEGEND

- CONSTRUCTION
- TEMPORARY CONSTRUCTION
- TRAFFIC FLOW DIRECTION
- SIGN
- CHANNELIZING DEVICE
- CZ IMPACT ATTENUATOR
- PORTABLE LONGITUDINAL BARRIER
- TYPE III BARRICADE

DIVISION 4
SH-66

CANADIAN COUNTY

TRAFFIC CONTROL (1)
PHASE 1

DETAIL:	KWR	05-19
CHECK:	RBH	05-19
ENGINEER:	KWR	05-19
GROUP: EM:		

STATE OF OKLAHOMA

DEPARTMENT OF TRANSPORTATION

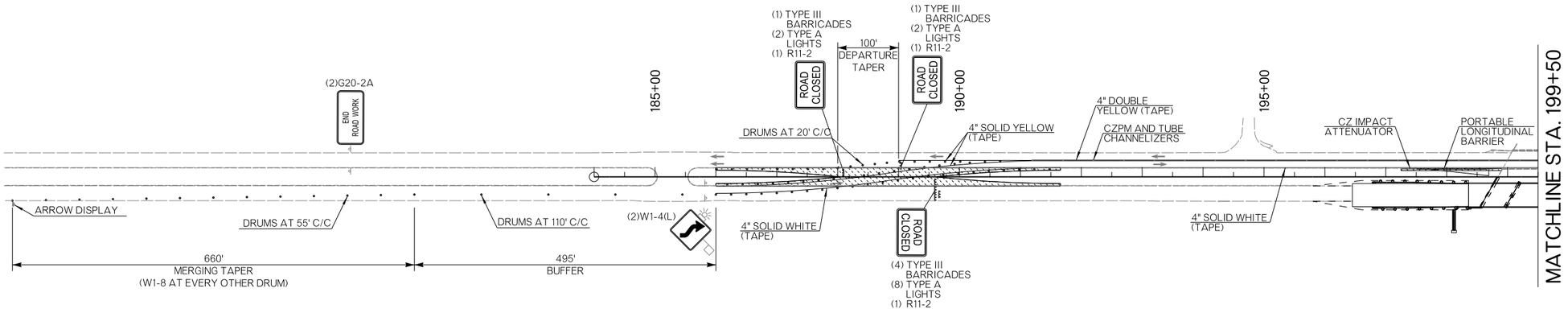
JOB PIECE NO. 32765(04)

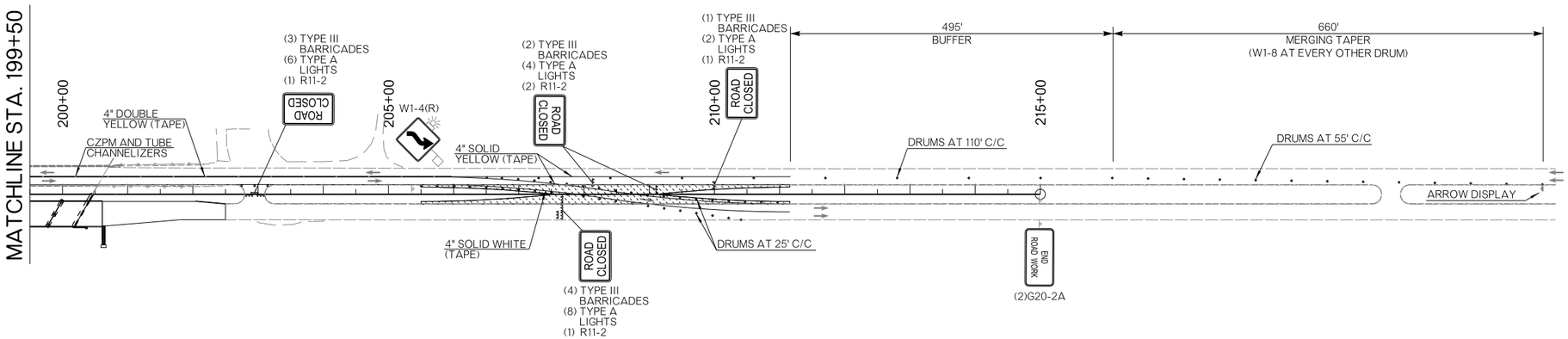
SHEET NO. T005

REVISIONS		
REV. NO.	DESCRIPTION	DATE

0 100 200 300

1" = 100'

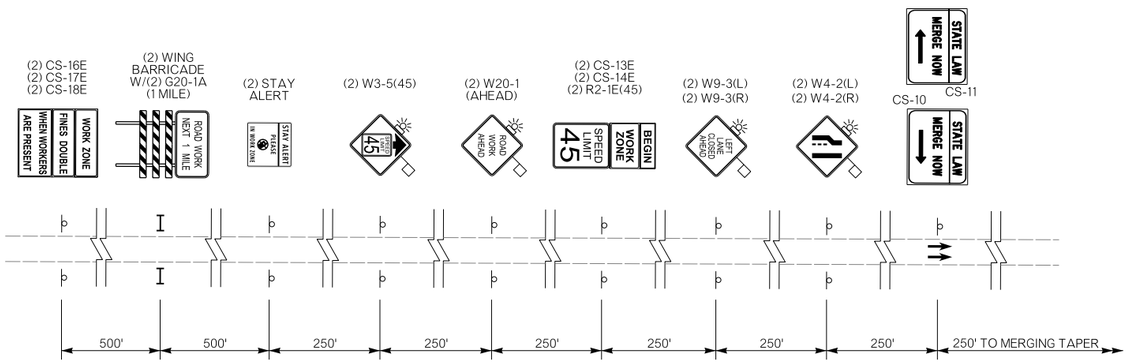




PHASE 2

BORDER
R=1.5"
TH=0.75"
IN=0.75"

COLOR:
LEGEND, SYMBOL AND BORDER
BLACK (NON-REFLECTORIZED)
BACKGROUND:
▲ FLUORESCENT ORANGE (REFLECTORIZED)
✶ FLUORESCENT YELLOW (REFLECTORIZED)
● WHITE (REFLECTORIZED)
■ RED (TRANSPARENT)



ADVANCE SIGNING DETAIL

LEGEND

- CONSTRUCTION
- TEMPORARY CONSTRUCTION
- TRAFFIC FLOW DIRECTION
- SIGN
- CHANNELIZING DEVICE
- CZ IMPACT ATTENUATOR
- PORTABLE LONGITUDINAL BARRIER
- TYPE III BARRICADE
- TUBE CHANNELIZER
- CENTERLINE CONST. ZONE PAVEMENT MARKER (YELLOW)

DIVISION 4
SH-66

CANADIAN COUNTY

TRAFFIC CONTROL (2)
PHASE 2

DETAIL:	KWR	05-19
CHECK:	RBH	05-19
ENGINEER:	KWR	05-19
GROUP: EM:		

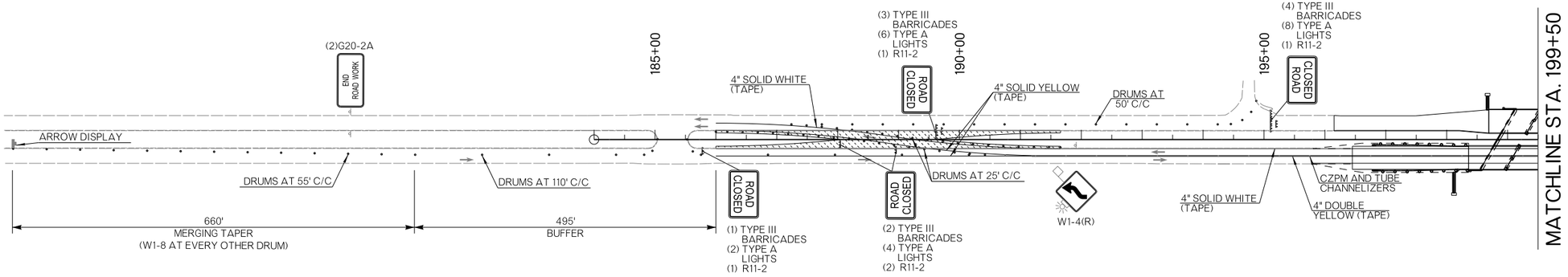
STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

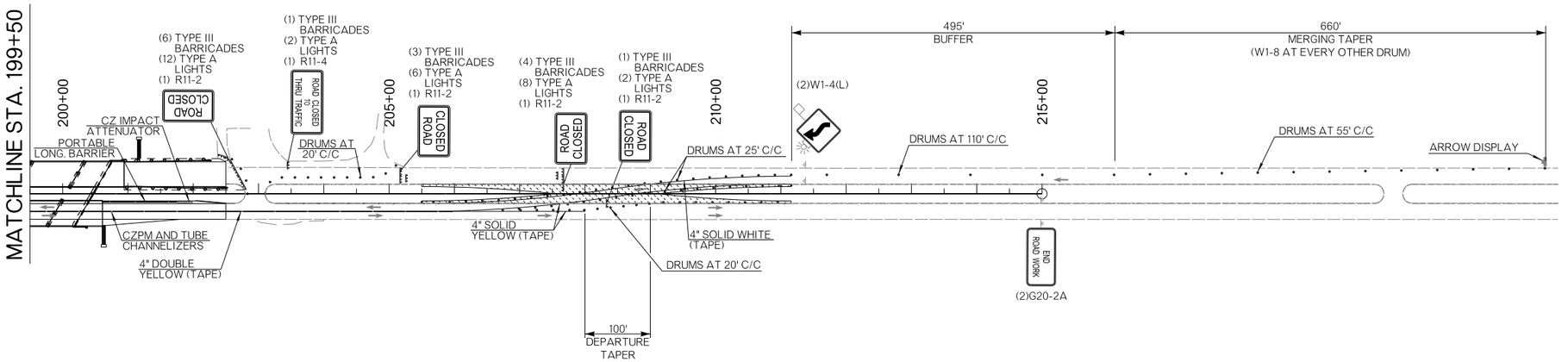
JOB PIECE NO. 32765(04) | SHEET NO. T006

REVISIONS		
REV. NO.	DESCRIPTION	DATE

0 100 200 300

1" = 100'

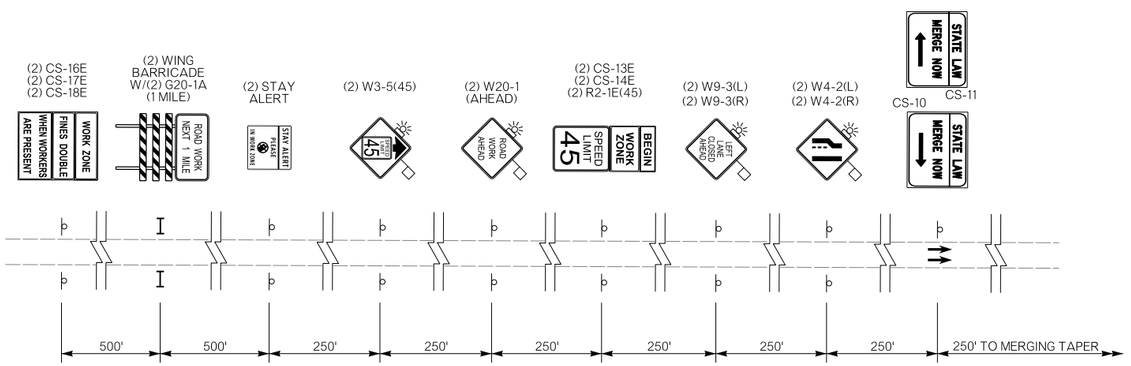




PHASE 3

BORDER
R=1.5"
TH=0.75"
IN=0.75"

COLOR:
LEGEND, SYMBOL AND BORDER
BLACK (NON-REFLECTORIZED)
BACKGROUND:
▲ FLUORESCENT ORANGE (REFLECTORIZED)
✶ FLUORESCENT YELLOW (REFLECTORIZED)
● WHITE (REFLECTORIZED)
■ RED (TRANSPARENT)



ADVANCE SIGNING DETAIL

LEGEND

- CONSTRUCTION
- TEMPORARY CONSTRUCTION
- TRAFFIC FLOW DIRECTION
- SIGN
- CHANNELIZING DEVICE
- CZ IMPACT ATTENUATOR
- PORTABLE LONGITUDINAL BARRIER
- TYPE III BARRICADE
- TUBE CHANNELIZER
- CENTERLINE CONST. ZONE PAVEMENT MARKER (YELLOW)

DIVISION 4
SH-66

CANADIAN COUNTY

TRAFFIC CONTROL (3)
PHASE 3

DETAIL:	KWR	05-19
CHECK:	RBH	05-19
ENGINEER:	KWR	05-19
GROUP:		
EM:		

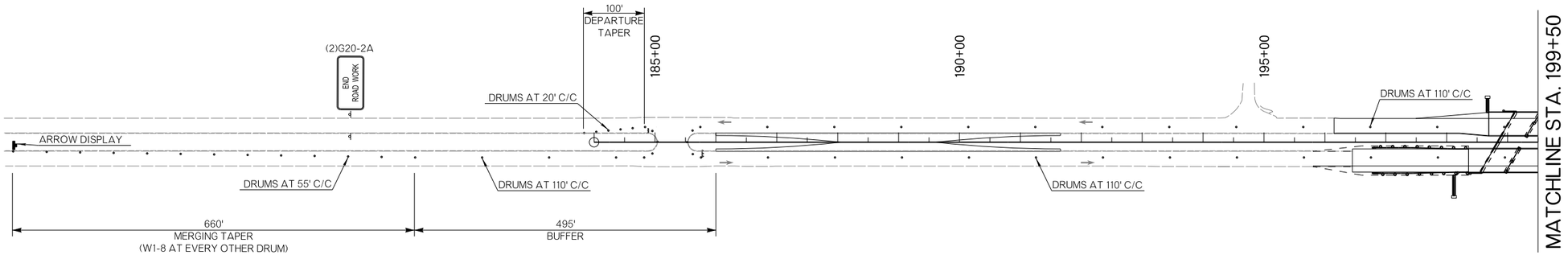
STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

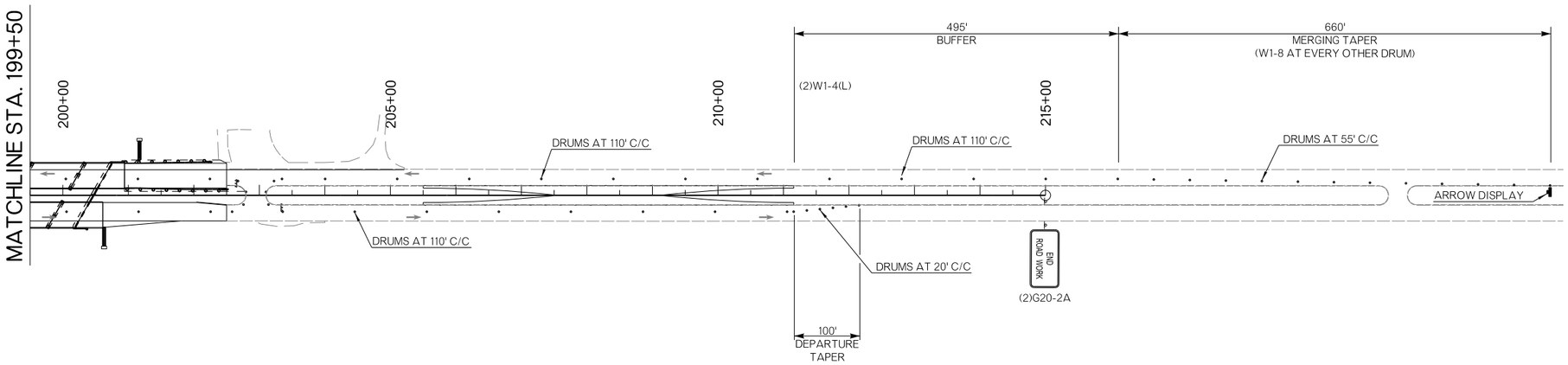
JOB PIECE NO. 32765(04) | SHEET NO. T007

REVISIONS		
REV. NO.	DESCRIPTION	DATE

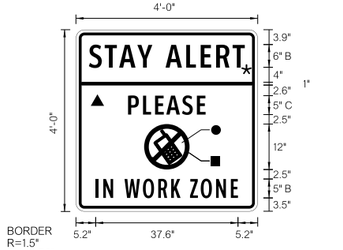
0 100 200 300

1" = 100'



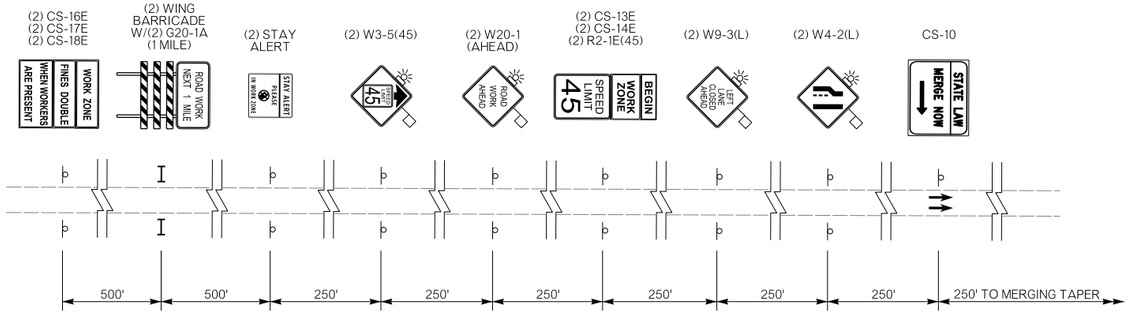


PHASE 4



BORDER
R=1.5"
TH=0.75"
IN=0.75"

COLOR:
LEGEND, SYMBOL AND BORDER
BLACK (NON-REFLECTORIZED)
BACKGROUND:
▲ FLUORESCENT ORANGE (REFLECTORIZED)
★ FLUORESCENT YELLOW (REFLECTORIZED)
● WHITE (REFLECTORIZED)
■ RED (TRANSPARENT)



ADVANCE SIGNING DETAIL

LEGEND

- CONSTRUCTION
- TEMPORARY CONSTRUCTION
- TRAFFIC FLOW DIRECTION
- SIGN
- CHANNELIZING DEVICE
- CZ IMPACT ATTENUATOR
- PORTABLE LONGITUDINAL BARRIER
- TYPE III BARRICADE
- TUBE CHANNELIZER
- CENTERLINE CONST. ZONE PAVEMENT MARKER (YELLOW)

DIVISION 4
SH-66

CANADIAN COUNTY

TRAFFIC CONTROL (4)
PHASE 4

DETAIL:	KWR	05-19
CHECK:	RBH	05-19
ENGINEER:	KWR	05-19
GROUP:		
EM:		

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 32765(04) | SHEET NO. T008

SURVEY DATA SHEETS

SURVEY CONTROL DATA

1. POSITIONAL CONTROL:

   A. POSITIONAL CONTROL FOR THIS SURVEY IS THE NGS OKLAHOMA STATE PLANE COORDINATE SYSTEM, NAD83 (2011), LAMBERT PROJECTION (NORTH ZONE).

   B. ACCURACY - THE POSITIONAL CONTROLS FOR THIS SURVEY MEETS OR EXCEEDS THE FOLLOWING ACCURACY CRITERIA:
      1. NETWORK ACCURACY: 0.10 FOOT
      2. LOCAL ACCURACY: 0.05 FOOT

2. BEARINGS:

   THE BEARINGS SHOWN HEREIN OR HEREON ARE GRID BEARINGS DERIVED FROM THE NGS OKLAHOMA STATE PLANE COORDINATE SYSTEM AND ARE NOT ASTRONOMICAL.

3. VERTICAL CONTROLS:

   A. LEVEL DATUM IS NAVD 88 FROM STATIC GPS.

   B. ACCURACY - VERTICAL CONTROL FOR THIS SURVEY MEETS OR EXCEEDS THE FOLLOWING ACCURACY CRITERIA:
      1. NETWORK ACCURACY (FROM GPS OR LEVELING): 0.10 FOOT
      2. LOCAL ACCURACY (CONFIRMED BY LEVELING): 0.02 FOOT

utility company owner's list

AT&T	800-246-8464
OG&E	405-553-5401
DCP MIDSTREAM	405-531-8941
COX COMMUNICATIONS	405-531-8941

"CALL BEFORE YOU DIG"
THE NEW NATIONAL LOCATE NUMBER

811

SCALES 1"

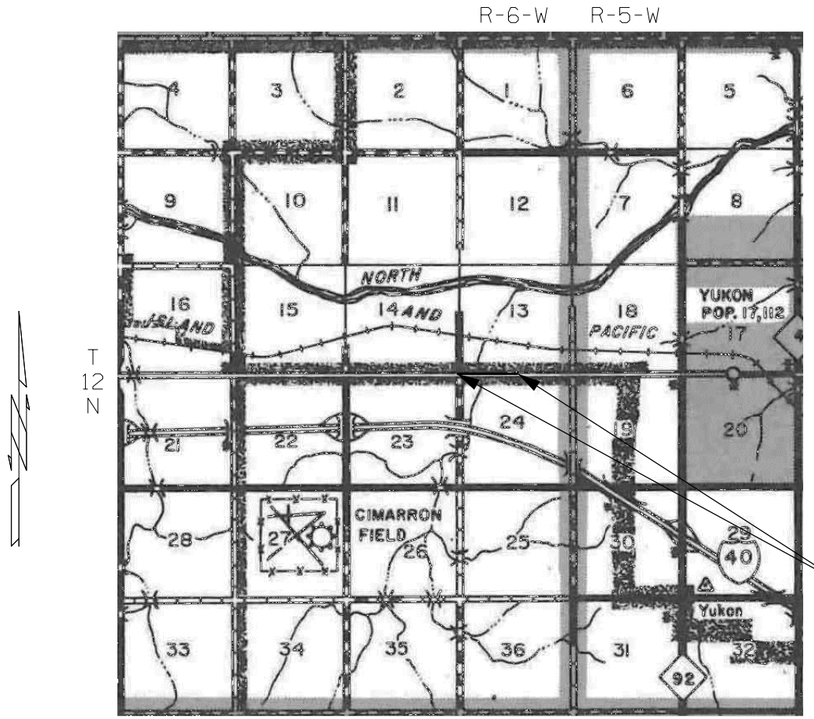
SURVEY DATA SHEETS	1" = 50' TOWN
SURVEY DATA SHEETS	1" = 100'
GEOMETRIC DATA SHEETS	1" = 500'

THIS SURVEY MEETS THE OKLAHOMA MINIMUM STANDARDS FOR THE PRACTICE OF LAND SURVEYING AS ADOPTED BY THE OKLAHOMA STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS, JULY 25, 2013.

SPECIFICATIONS FOR SURVEYS FOR PRIMARY AND SECONDARY HIGHWAYS DATED JANUARY, 2016 GOVERN.

S.H. 66

SWO 5385(1)
JP 32765(04)
BRIDGES OVER SHELL CREEK
PROJECT LOCATION



PROJECT LENGTH 3100.00 Ft. 0.59 MI.

BEGINNING SATTION : 184+00.0000
ENDING STATION : 215+00.0000

Electronic File Transfer Disclaimer:

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INDEX OF SURVEY SHEETS

SURVEY BEGAN: OCTOBER 15, 2018.
SURVEY COMPLETED: NOVEMBER 19, 2018.

J.L. CARROLL, PROFESSIONAL LAND SURVEYOR
BEN GENSAMER, LEAD SURVEYOR
BRIAN GENSAMER, SURVEY CREW CHIEF
JARROD ELROY, CREW MEMBER
JAMES SELBY, CREW MEMBER

EQUIPMENT:
TRIMBLE R10 GNSS GPS RTK UNITS
TRIMBLE TSC3 DATA COLLECTORS
TRIMBLE S6 TOTAL STATION
TRIMBLE ELECTRONIC LEVEL
INROADS SOFTWARE
EAGLE POINT SOFTWARE IN MICROSTATION ENVIRONMENT

PLS	JLC	
DRAWN	BJG	
CHECKED	JLC	
APPROVED	JLC	
CREW	CARROLL	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 5385(1)

COUNTY CANADIAN HIGHWAY SH 66 STATE JOB NO. 32765(04) SHEET NO. S001

SWO 5385(1), J/P 32765(04) – S.H. 66 – Canadian County
Oklahoma Department of Transportation
Survey Division

November 19, 2018

To: Mr. Geoffrey King, PLS
Assistant Division Head
Survey Division

From: Jesse L. Carroll, Professional Land Surveyor

Subject: SWO 5385(1), J/P 32765(04) - S.H. 66 - Canadian County – Bridge Survey over Shell Creek – Approximately 8.2 Miles East of U.S. 81 Junction

HISTORICAL LETTER AND WRITTEN REPORT

1. SURVEY ASSIGNMENT

   This survey was assigned to me by Mr. Geoffrey King, PLS and Survey Manager for Oklahoma Department of Transportation, Survey Division. (EC 1872-A, T.O. #3)

2. PURPOSE OF THIS SURVEY

   The purpose of this survey was to obtain data to facilitate the development of bridge construction plans for North and South Shell Creek Bridges on S.H. 66.

3. SURVEY LIMITS

   S.H. 66: This survey begins at Station 184+00.00 as shown on construction plans Federal Aid Project No. F1-163(6) and extends East along centerline survey to Station 215+00.00. Approximate centerline length = 0.59 miles. The width of the dtm and topo is edge of pavement to edge of pavement, then 500' before the bridge to 500' after the bridge with the width being right-of-way to right-of-way, then back to edge of pavement to edge of pavement.

4. ALIGNMENT

   S.H. 66: The centerline of survey was established in the center of the median, using the split distances between the East and West bound bridges and extending the line to the Beginning and End of this project. The centerline in construction plans Federal Aid Project No. F1-163(6) is also in the center of the medium.

5. STATIONING

   S.H. 66: The stationing for this survey was derived from the stationing values shown on construction plans Federal Aid Project No. F1-163(6), sheet 83. Established the center of the West bound bridge and assigned Station 199+80.89 on the centerline of survey perpendicular of established center of bridge. Stationing was then decreased west to B.O.P. Sta. 184+00 and then increased to the east to E.O.P. Sta. 215+00.

6. HORIZONTAL CONTROL

   Horizontal control for this survey is NAD 83 (2011) Oklahoma State Plane Coordinate System, Lambert Projection, North Zone. Derived from two primary control points. A minimum of four hours occupation time for each point. Using CORS stations OKDN, OKPR, OKAO, OKTE, OKCL, & OKDT. And SD-11's C-9-878R and C-9-889.

   Primary control was established on 2 monuments along this survey. S-67-994 thru 996 being 2 inch aluminum caps.

   Secondary horizontal control points was established along the centerline of survey and referenced and shown on survey data sheets of this survey.

   The primary control network, the secondary control network and section boundaries for this survey are in compliance with NGS Second Order Class 11 standards for horizontal control. (1:20,000).

7. VERTICAL CONTROL

   Level datum for this survey is NGS, NAVD 88, taken from NGS monument J 192. This monument is a stainless steel rod with access cover. Level datum was also tied to NGS monument H 192. This monument is a vertical control disk, set in retaining wall. Vertical datum was established on the two primary control points by GPS solutions and a complete set of check levels was run along this survey with a Trimble electronic level.

   The adjusted levels and vertical differences between benchmarks are shown in the following file: SWO 5385_1_V1.DGN.

   Accuracy - 3RD order of better before adjustment.

8. MEASUREMENT UNITS

   The distances, coordinates, and elevations shown on this survey are in US SURVEY FEET. All angles and bearings shown are in degrees, minutes, and seconds.

9. TOPOGRAPHY

   Topography on this survey was obtained by utilizing the Trimble RTK system and robotic total station technology with Trimble data collectors. Data collected in the form of a Surface Feature Survey and placed in SWO5385_1_V1_SFF.DGN.

10. CROSS SECTIONS

    Cross sections on this survey were obtained by utilizing Trimble GPS RTK system and total station technology with Trimble data collectors in the form of a DTM survey and placed in computer file SWO5385_1_V1_TRI.DGN.

11. LAND TIES

    Land tie and property information was not needed for the project.

12. EXISTING RIGHT OF WAY

    S.H. 66 – Existing right of way as shown along S.H. 66 was derived from construction plans Federal Aid Project No. F1-163(6)

13. UTILITIES

    All utility companies servicing the area of this survey project were contacted through "Call OKIE".

    All underground utilities flagged, mapped and/or marked by the owning company were located.

    Information regarding type, size, ownership, location, depth, etc., is placed in computer file SWO5385_1_V1.DGN.

14. ENVIRONMENTAL CONCERNS

    No environmental concerns were encountered.

16. DATE OF SURVEY

    This survey began October 15th, 2018 and was completed November 19th, 2018.

17. EQUIPMENT USED

    Trimble R10 GPS Units
    Trimble TSC 3 Data Collectors
    Trimble Robotic Total Stations
    Trimble Electronic Level
    INROADS Software
    Micro Station V8I

18. PERSONNEL

    Jesse L Carroll – Professional Land Surveyor
    Ben Gensamer - Survey Crew Chief & CADD Tech
    Brian Gensamer – Survey Crew Chief & CADD Tech
    Jarrod Elroy – Lead Surveyor & CADD Tech
    James Selby – Survey Crew Member

PLS	JLC	
DRAWN	BJG	
CHECKED	JLC	
APPROVED	JLC	
CREW	CARROLL	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 5385(1)

COUNTY CANADIAN HIGHWAY SH 66 STATE JOB NO. 32765(04) SHEET NO. S002

SWO 5385(1), J/P 32765(04) – S.H. 66 – Canadian County
HISTORICAL LETTER AND WRITTEN REPORT
PAGE 4 0F 4

19. SURVEY INFORMATION SUBMITTED

SWO5385_1_V1.DGN
SWO5385_1_V1_TOPO.DGN
SWO5385_1_V1_TR1.DGN
SWO5385_1_V1_SFF.DGN
SWO5385_1_V1.ALG
SWO5385_1_V1.DTM
Form SD-11
Historical letter and written report
Bench marks and check level list
COGO list

COORDINATE POINT LIST
SWO 5385(1) - J/P 32765(04)
PAGE 1 OF 1

NODE ID	EASTING	NORTHING	ELEVATION
C-9-979	2029408.764000	184820.747000	1305.44
C-9-980	2032396.452000	185045.359000	1317.24
H192	2030755.417000	184901.761000	1285.63
200	2029919.009000	185040.305000	1289.42
201	2030347.834000	184945.893000	1284.45
202	2030949.776000	184960.931000	1285.83
203	2031022.369000	184949.445000	1284.46
204	2031224.446000	184948.181000	1285.53
205	2031721.809000	184845.860000	1300.14
2000	2029297.481039	184942.318628	
2001	2032397.462028	184953.175431	
7500	2029297.130820	185042.318015	
7501	2029297.831258	184842.319241	
7502	2032397.812247	184853.176044	
7503	2032397.111809	185053.174818	

Alignment Report
Project Name: SWO 5385(1)
Description: S.H. 66
Horizontal Alignment Name: A001
Description: Centerline of Survey
Style: Centerline
Page: 1 of 1

	STATION	EASTING	NORTHING
Element: Linear			
POB (2000)	184+00.0000	2029297.481039	184942.318628
EOP (2001)	215+00.0000	2032397.462028	184953.175431
Tangent Direction:	N 89^47'57.62" E		
Tangent Length:	3100.0000		

PLS	JLC	OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	BJG	
CHECKED	JLC	SURVEY DATA SHEET
APPROVED	JLC	SWO 5385(1)
CREW	CARROLL	

COUNTY CANADIAN HIGHWAY SH 66 STATE JOB NO. 32765(04) SHEET NO. S003

SWO 5385(1) BM #	JIP 32765(04) RUN 1	RUN 2	MEAN DIFFER.	ADJUSTED ELEVATION	PUBLISHED ELEVATION	NAVD 88 DATUM FROM EXISTING BENCHMARK BENCH MARK DESCRIPTION SHEET 1 OF 2
J192					1305.2	NGS MONUMENT J192
						STAINLESS STEEL ROD
TO	12.033	-12.039	12.036			
C-9-980				1317.236		2" ALUMINUM CAP
						92.18 LT. STA. 214+99.31
TO	-17.091	17.094	-17.092			
BM 205				1300.143		2" ALUMINUM CAP
						104.95 RT. STA. 208+23.98
TO	-14.609	14.609	-14.609			
BM 204				1285.534		X" ON CONC. DRAIN
						0.88 RT. STA. 203+26.97
TO	-1.074	1.077	-1.075			
BM 203				1284.459		X" ON CONC. DRAIN
						1.08 LT. STA. 201+24.90
TO	1.3658	-1.3683	1.36705			
BM 202				1285.826		X" ON CONC. BRIDGE
						12.82 LT. STA. 200+52.35
TO	-0.194	0.193	-0.193			
H192				1285.633	1285.64	NGS MONUMENT H192 BRASS MON. IN WINGWALL
						45.66 RT. STA. 193+57.78
TO	-1.185	1.189	-1.187			

SWO 5385(1) BM #	JIP 32765(04) RUN 1	RUN 2	MEAN DIFFER.	ADJUSTED ELEVATION	PUBLISHED ELEVATION	NAVD 88 DATUM FROM EXISTING BENCHMARK BENCH MARK DESCRIPTION SHEET 2 OF 2
BM 201				1284.446		X" ON CONC. DRAIN
						0.10 RT. STA. 194+50.36
TO	4.972	-4.972	4.972			
BM 200				1289.418		80D NAIL IN POWER POLE
						95.81 LT. STA. 190+22.07
TO	16.018	-16.019	16.018			
C-9-979				1305.436		2" ALUMINUM CAP
						121.96 RT. STA. 185+10.85

PLS	JLC	
DRAWN	BJG	
CHECKED	JLC	
APPROVED	JLC	
CREW	CARROLL	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 5385(1)

COUNTY CANADIAN HIGHWAY SH 66 STATE JOB NO. 32765(04) SHEET NO. S004

STATE OF OKLAHOMA
DEPARTMENT OF HIGHWAYS
SURVEY DIVISION
POSITION AND DESCRIPTION OF SURVEY MONUMENTS

S.D. FORM NO. 11
REVISED 01/01/2015

COUNTY CANADIAN | Monument Number C-9-979 | SWO 5385(1) | DATE 11/19/18

TYPE OF MONUMENT 2" ALUMINUM CAP | MONUMENT SET FOR GPS CONTROL

WRITTEN DESCRIPTION OF LOCATION: FROM THE INTERSECTION OF S.H. 66 AND N RICHLAND ROAD THENCE SOUTH ALONG N RICHLAND ROAD FOR 100.8 FEET AND 27.9 FEET WEST OF CENTER LINE

ESTABLISHED BY: CARROLL SURVEYING SERVICE

COORDINATE SYSTEM: NAD83(2011), OKLAHOMA STATE PLANE | ZONE: NORTH

COORDINATES (FEET) X 2029408.76400 Y 184820.74700

GEODETIC POSITION

LATITUDE 35^30'27.16218" NORTH
LONGITUDE 97^47'43.30763" WEST
ELLIPSOIDAL HEIGHT 1216.881

METHOD USED TO ESTABLISHED: STATIC GPS OBSERVATIONS

SOURCE: CORS STATIONS OKLAHOMA CITY, CLINTON, PERRY

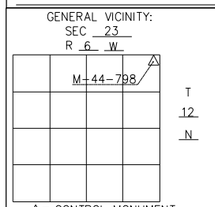
ORTHOMETRIC HEIGHT

1305.436 FEET | GEOID MODEL: 12B | GEOID SEPRATION: ____ FEET

METHOD USED TO ESTABLISHED: STATIC GPS OBSERVATIONS

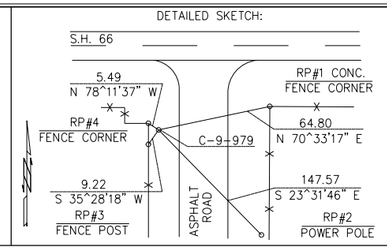
SOURCE: CORS STATIONS OKLAHOMA CITY, CLINTON, PERRY

GENERAL VICINITY:



△= CONTROL MONUMENT
○= LAND CORNER
▭= OTHER

DETAILED SKETCH:



STATE OF OKLAHOMA
DEPARTMENT OF HIGHWAYS
SURVEY DIVISION
POSITION AND DESCRIPTION OF SURVEY MONUMENTS

S.D. FORM NO. 11
REVISED 01/01/2015

COUNTY CANADIAN | Monument Number C-9-980 | SWO 5385(1) | DATE 11/19/18

TYPE OF MONUMENT 2" ALUMINUM CAP | MONUMENT SET FOR GPS CONTROL

WRITTEN DESCRIPTION OF LOCATION: FROM THE INTERSECTION OF S.H. 66 AND N FRISCO ROAD THENCE WEST ALONG S.H. 66 FOR 2309 FEET. 107.6 FEET NORTH OF CENTERLINE SURVEY OF S.H. 66

ESTABLISHED BY: CARROLL SURVEYING SERVICE

COORDINATE SYSTEM: NAD83(2011), OKLAHOMA STATE PLANE | ZONE: NORTH

COORDINATES (FEET) X 2032396.45200 Y 185045.35900

GEODETIC POSITION

LATITUDE 35^30'29.31973" NORTH
LONGITUDE 97^47'07.16561" WEST
ELLIPSOIDAL HEIGHT 1228.872

METHOD USED TO ESTABLISHED: STATIC GPS OBSERVATIONS

SOURCE: CORS STATIONS PERRY, TECUMSEH, CLINTON

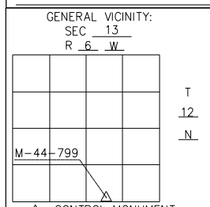
ORTHOMETRIC HEIGHT

1317.236 FEET | GEOID MODEL: 12B | GEOID SEPRATION: ____ FEET

METHOD USED TO ESTABLISHED: STATIC GPS OBSERVATIONS

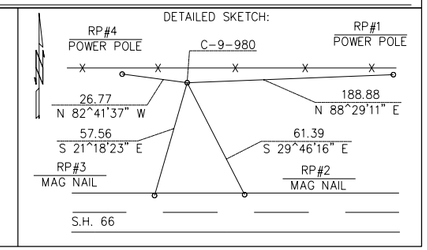
SOURCE: CORS STATIONS PERRY, TECUMSEH, CLINTON

GENERAL VICINITY:



△= CONTROL MONUMENT
○= LAND CORNER
▭= OTHER

DETAILED SKETCH:



PLS	JLC		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	BJG		SURVEY DATA SHEET
CHECKED	JLC		SWO 5385(1)
APPROVED	JLC		
CREW	CARROLL		

COUNTY CANADIAN HIGHWAY SH 66 STATE JOB NO. 32765(04) SHEET NO. S005

STATION EQUATION:
Sta. 199+80.89 (S.H. 66) this survey =
Sta. 199+80.89 on F.A.P. No. F1-163(6) sheet 83 plans

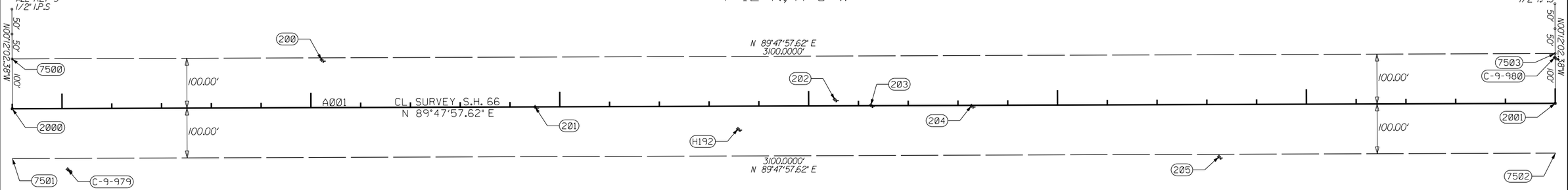
B.O.P. Sta. 184+00.0000
(1/2" Iron Pin)
Begin SWO 5385(1)
J/P No. 32765(04) - S.H. 66

185+00 190+00 195+00 200+00 205+00 210+00 215+00

E.O.P. Sta. 215+00.0000
(1/2" Iron Pin)
End SWO 5385(1)
J/P No. 32765(04) - S.H. 66

ALL REF'S
1/2" I.P.S

SECTION 13
T-12-N, R-6-W



BEARING EQUATION:
N 89°47'57.62" E (S.H. 66) this survey =
N 89°57' E on F.A.P. No. F1-163(6) plans

STATION EQUATION:
B.O.P. Sta. 184+00.0000 (S.H. 66) this survey =
Sta. 184+00 on F.A.P. No. F1-163(6) plans

SECTION 24
T-12-N, R-6-W

STATION EQUATION:
E.O.P. Sta. 215+00.0000 (S.H. 66) this survey =
Sta. 215+00 on F.A.P. No. F1-163(6) plans

N

SCALE 0 100 200 300 400 500 Feet

PLS	JLC	
DRAWN	BJG	
CHECKED	JLC	
APPROVED	JLC	
CREW	CARROLL	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 5385(1)

COUNTY CANADIAN HIGHWAY SH 66 STATE JOB NO. 32765(04) SHEET NO. S006

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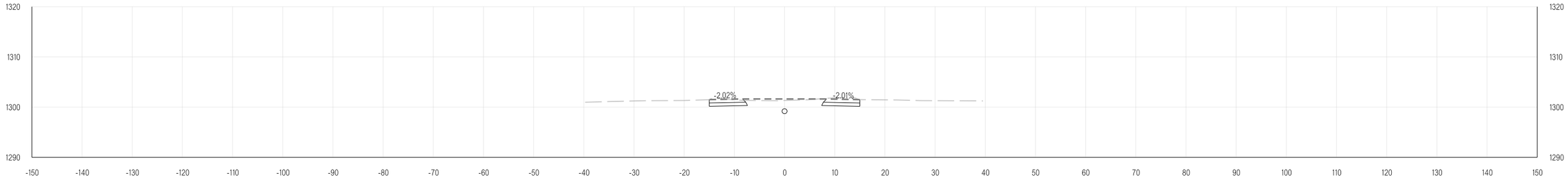
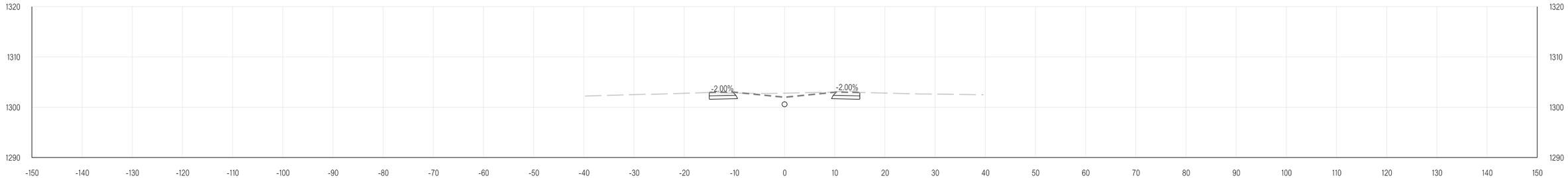
FINAL FIELD MEETING

6/10/2019

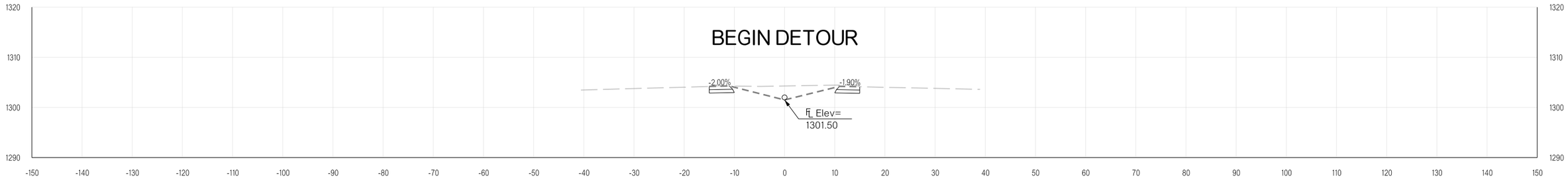


187+00.00



186+50.00

BEGIN DETOUR



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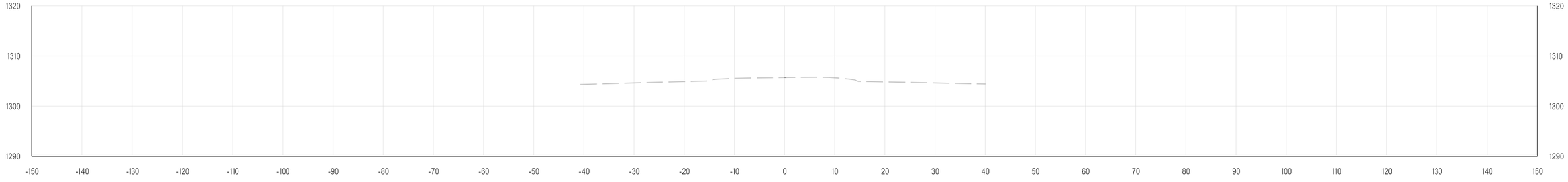

185+67.00

COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. X001

6/10/2019 pw:\\pw-int.hntb.org:PWCentralDiv\Documents\Kansas City Projects\66430 - ODOT SBR\IDS001_66 over Shell Creek\PlanProduction\Roadway\X000-3276504-Xsec.dgn

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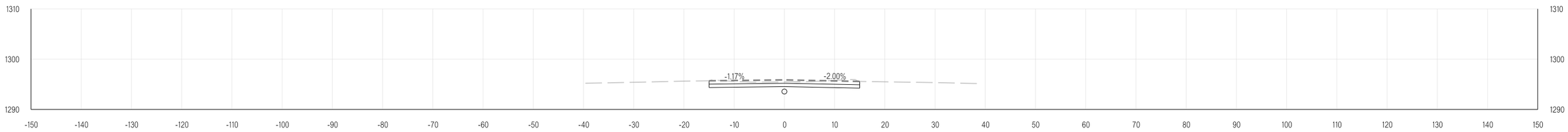
OKLAHOMA DEPARTMENT OF TRANSPORTATION

FINAL FIELD MEETING

6/10/2019



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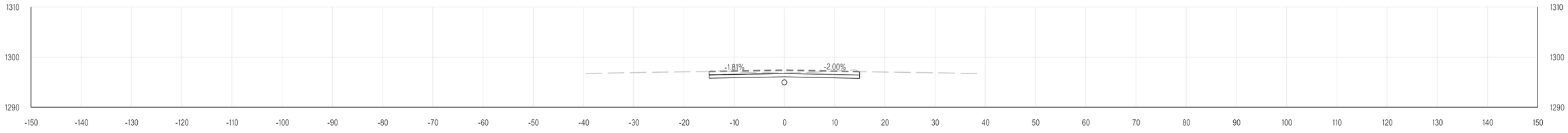
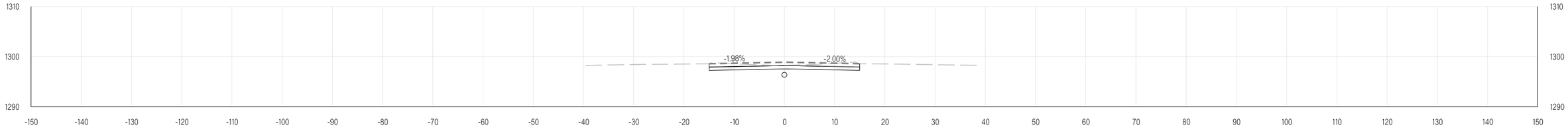
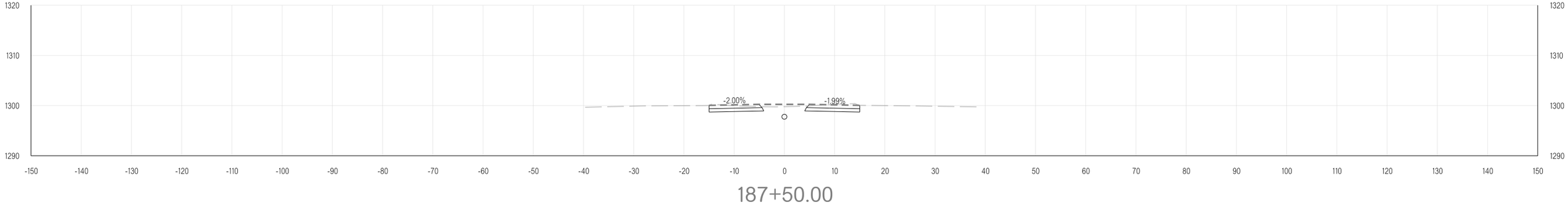


188+50.00



188+00.00



187+50.00

COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. X002

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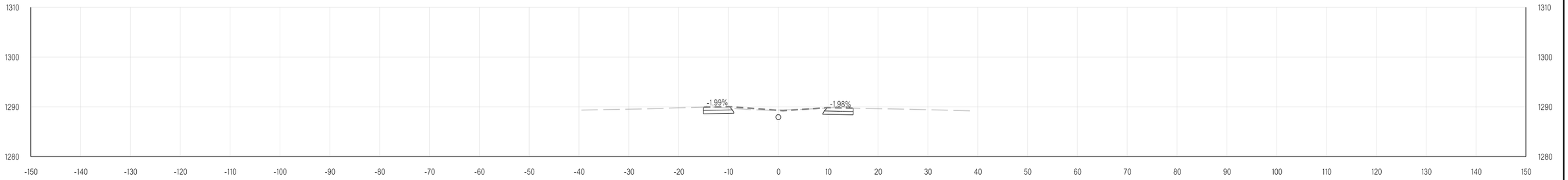
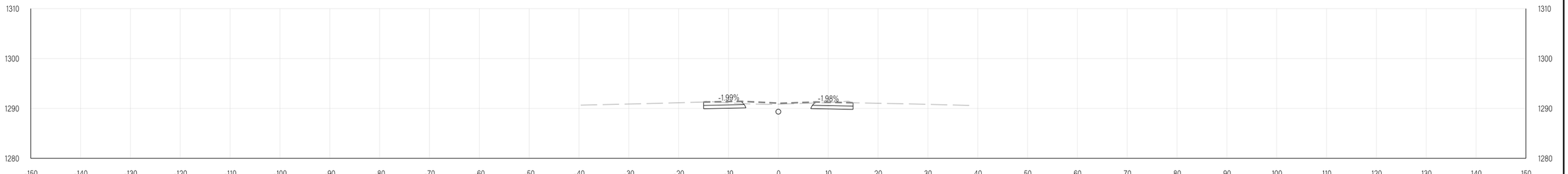
FINAL FIELD MEETING

6/10/2019



191+00.00



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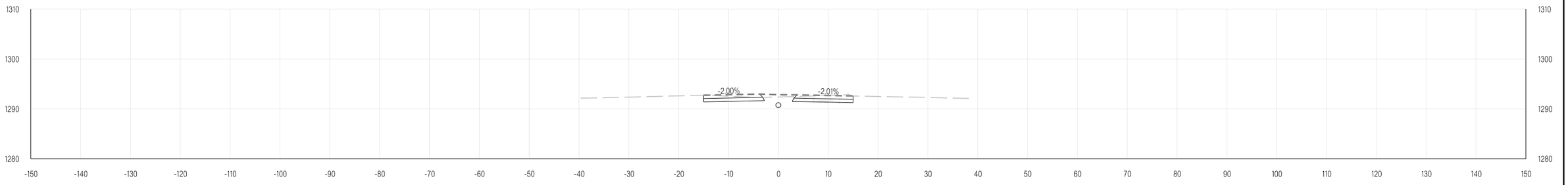
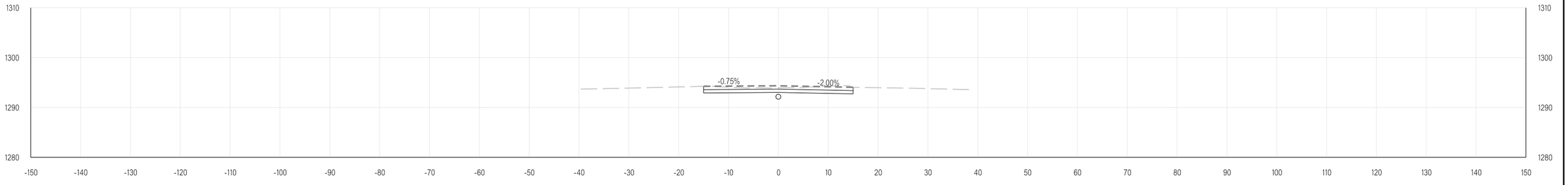


190+00.00



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COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. X003

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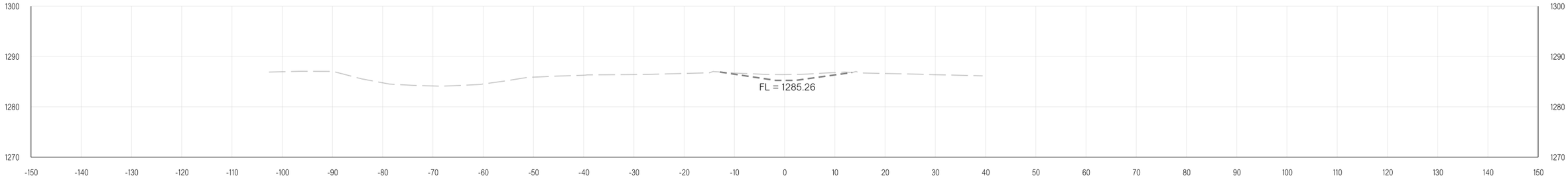
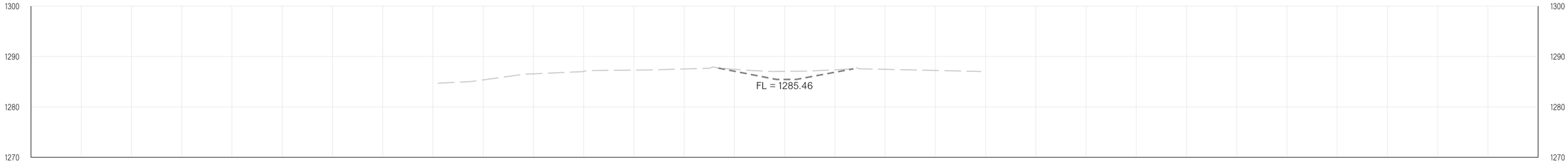
FINAL FIELD MEETING

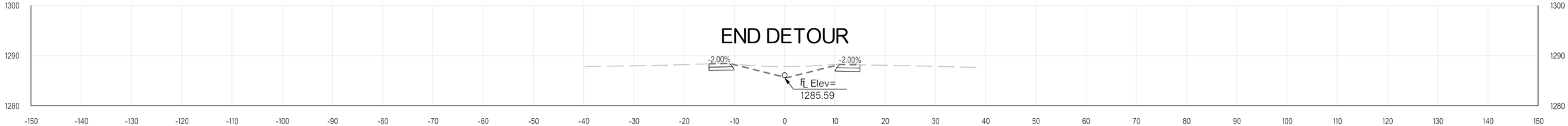
6/10/2019



192+50.00



192+00.00



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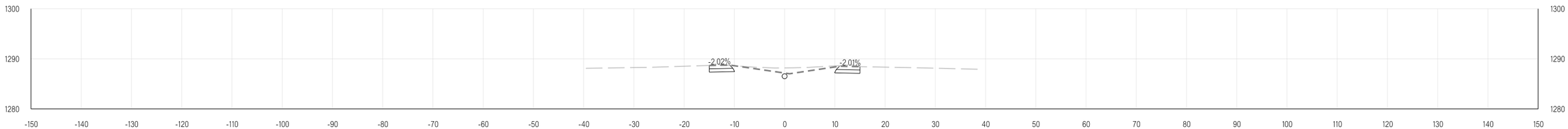

191+50.00

COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. X004

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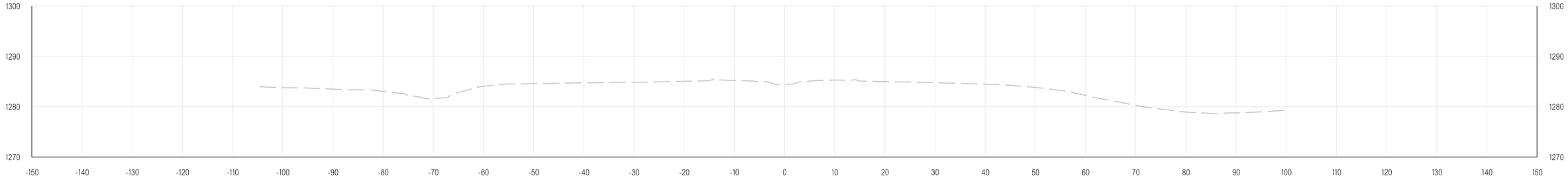
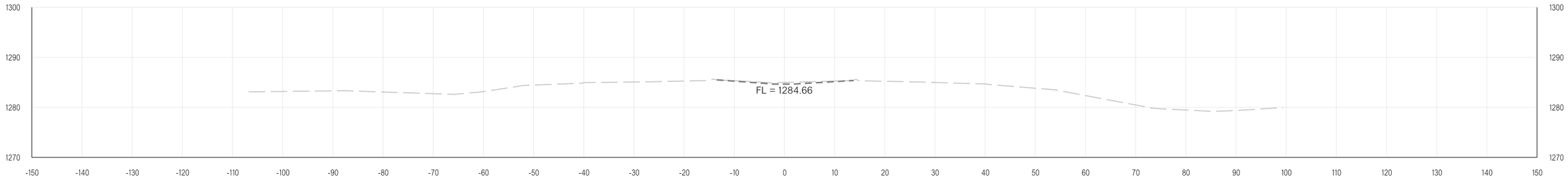
FINAL FIELD MEETING

6/10/2019



194+50.00



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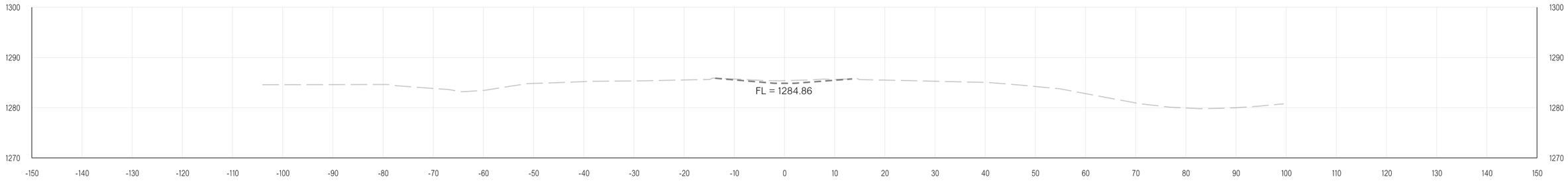

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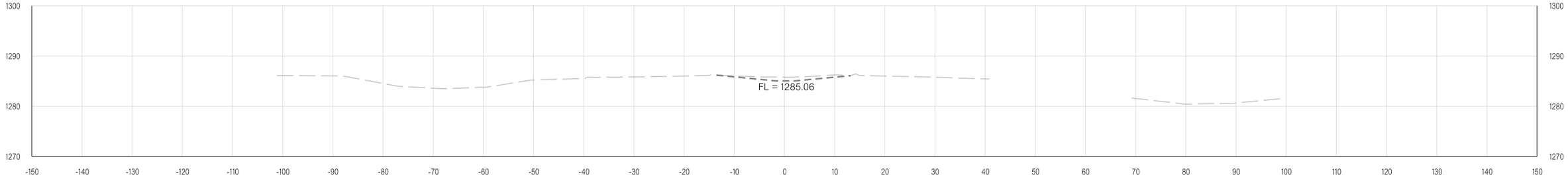

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COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. X005

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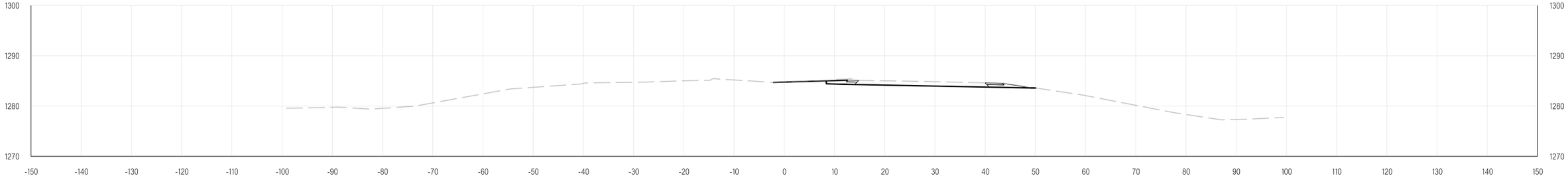
FINAL FIELD MEETING

6/10/2019



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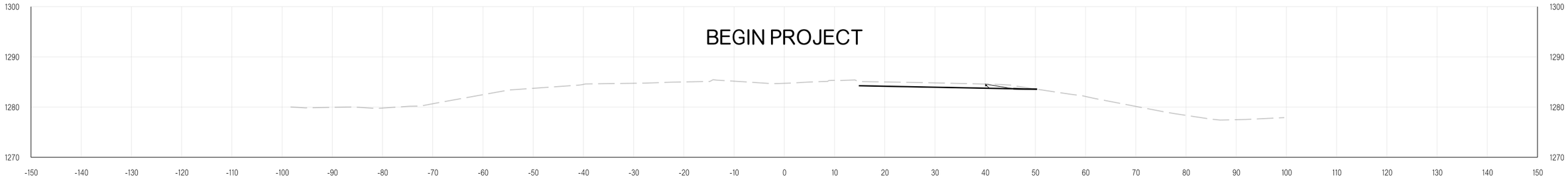

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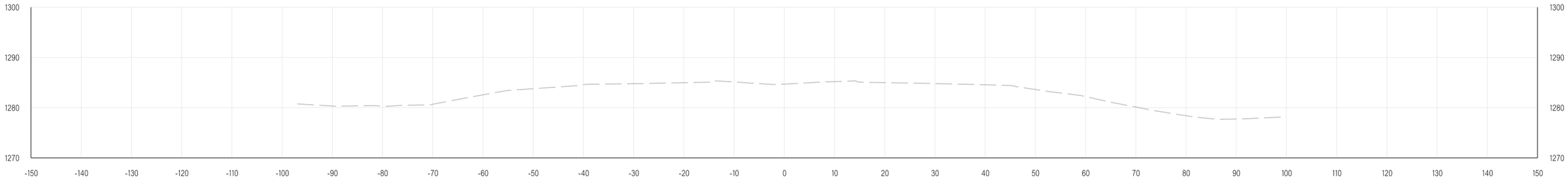
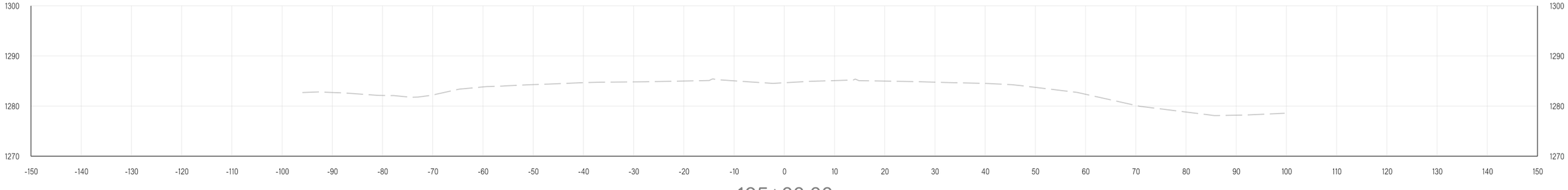


195+50.00



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COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. X006

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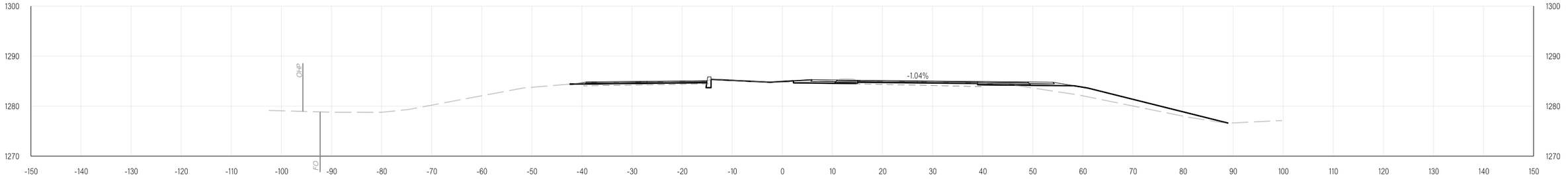
OKLAHOMA DEPARTMENT OF TRANSPORTATION

FINAL FIELD MEETING

6/10/2019



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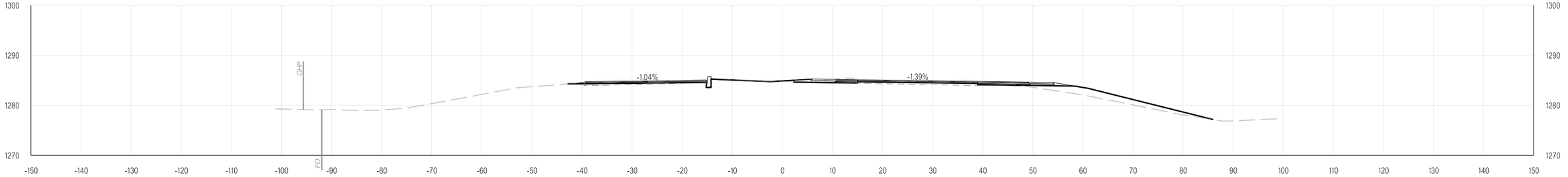

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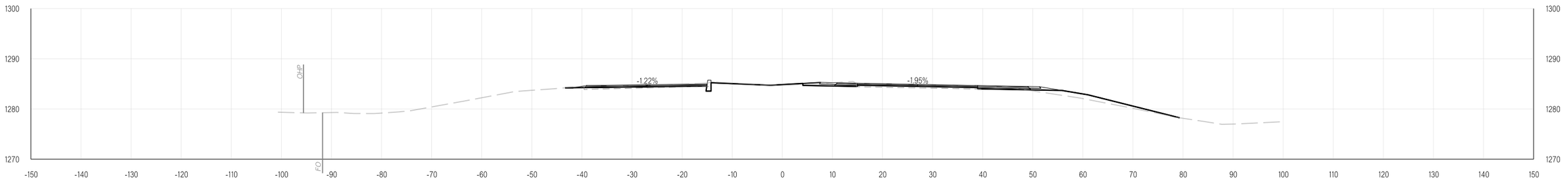

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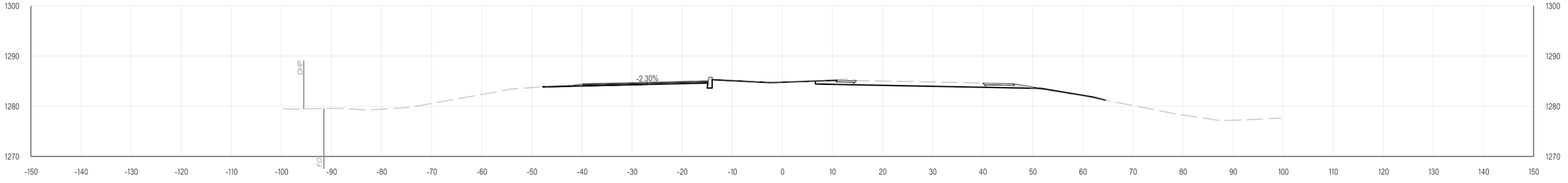

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COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. X007

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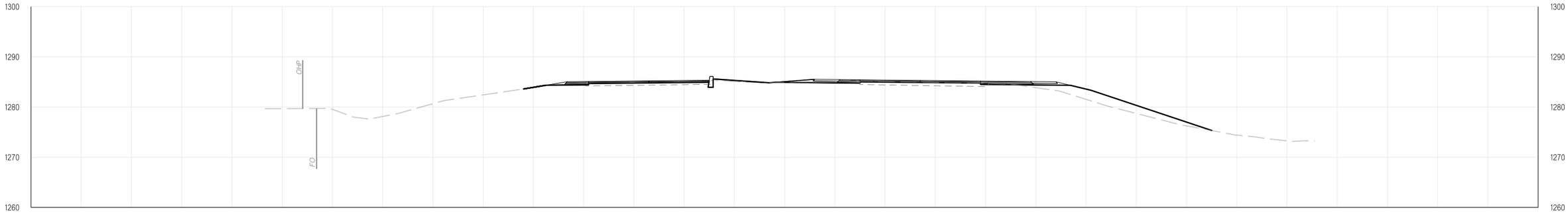
OKLAHOMA DEPARTMENT OF TRANSPORTATION

FINAL FIELD MEETING

6/10/2019



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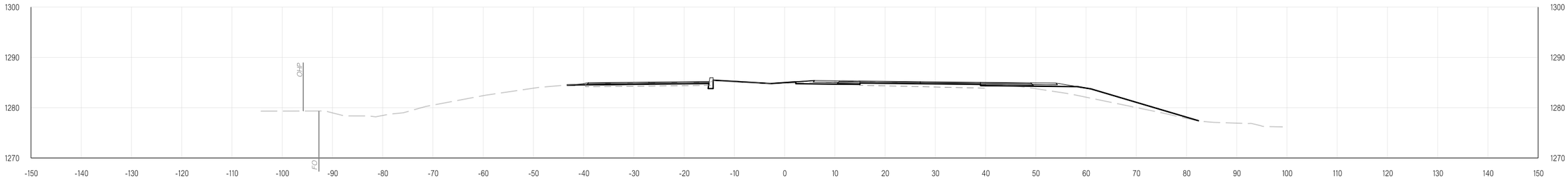

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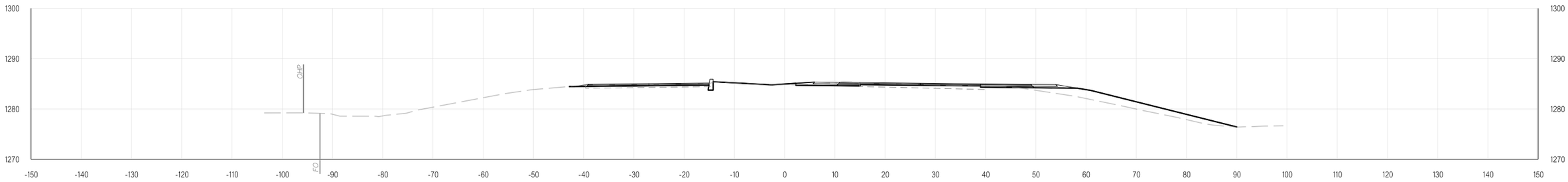

197+25.00

COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. X008

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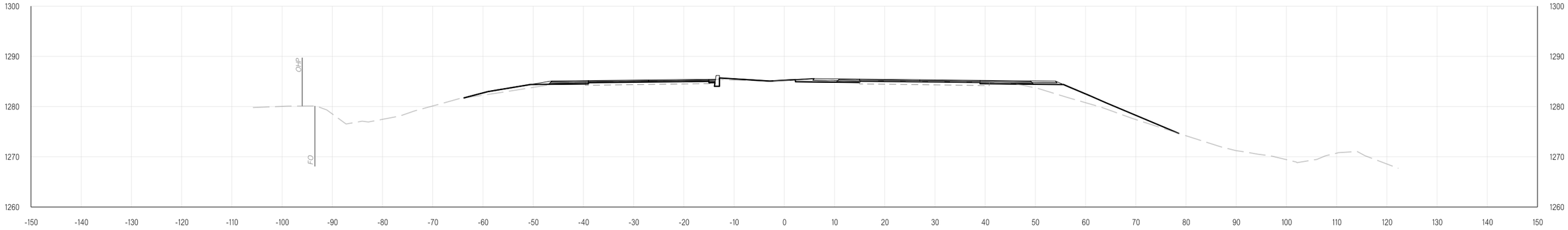
OKLAHOMA DEPARTMENT OF TRANSPORTATION

FINAL FIELD MEETING

6/10/2019



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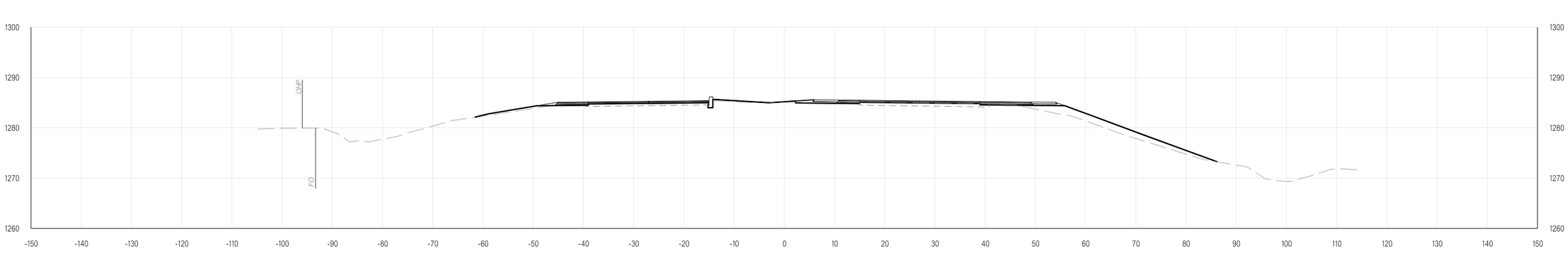

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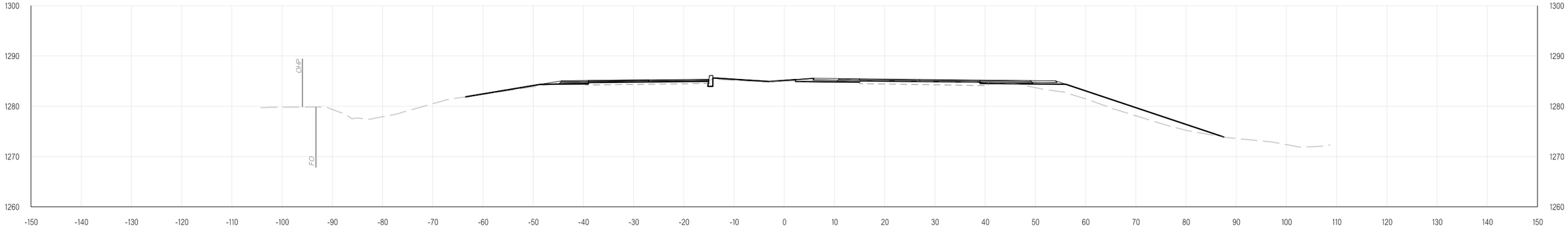

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COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. X009

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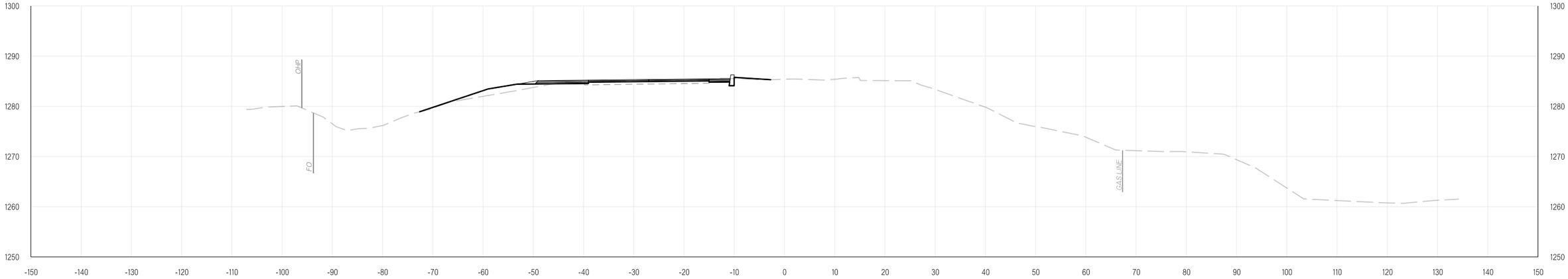
FINAL FIELD MEETING

6/10/2019



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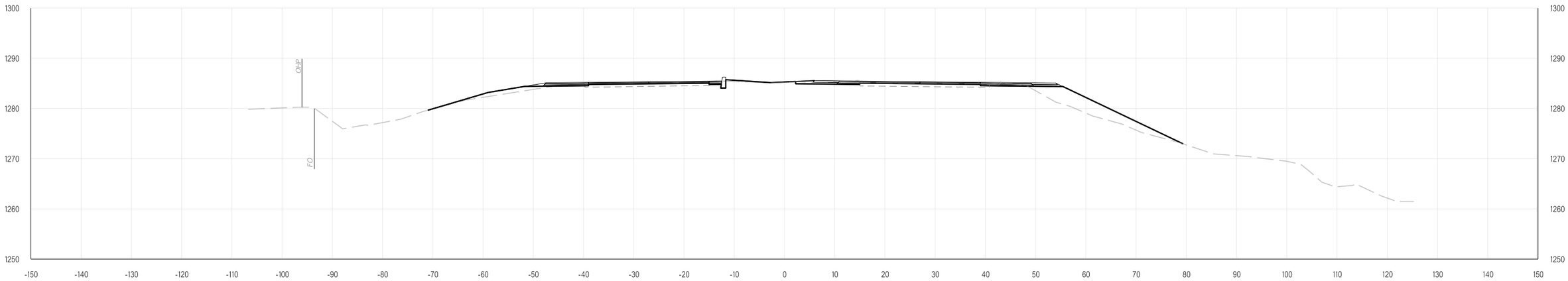

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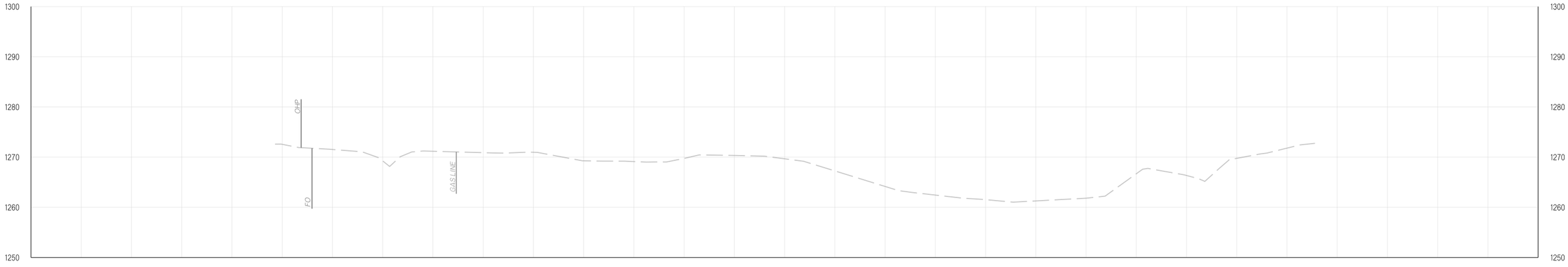
6/10/2019



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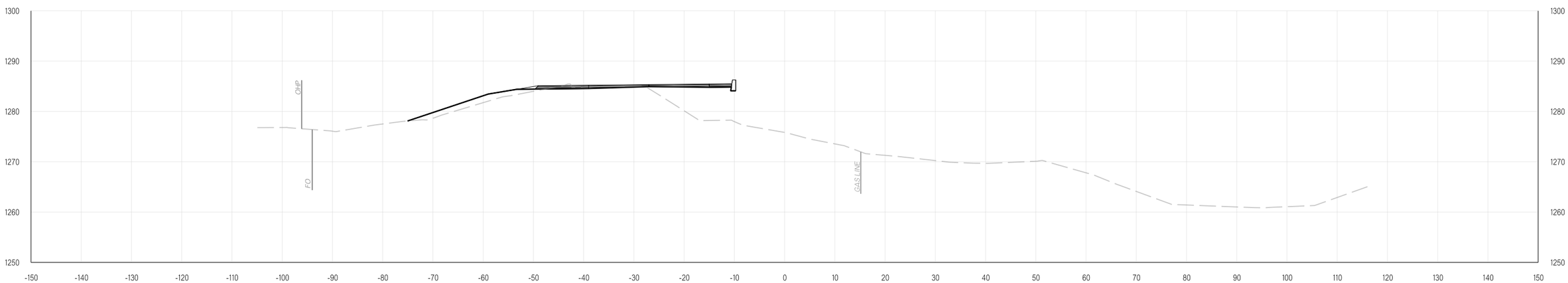

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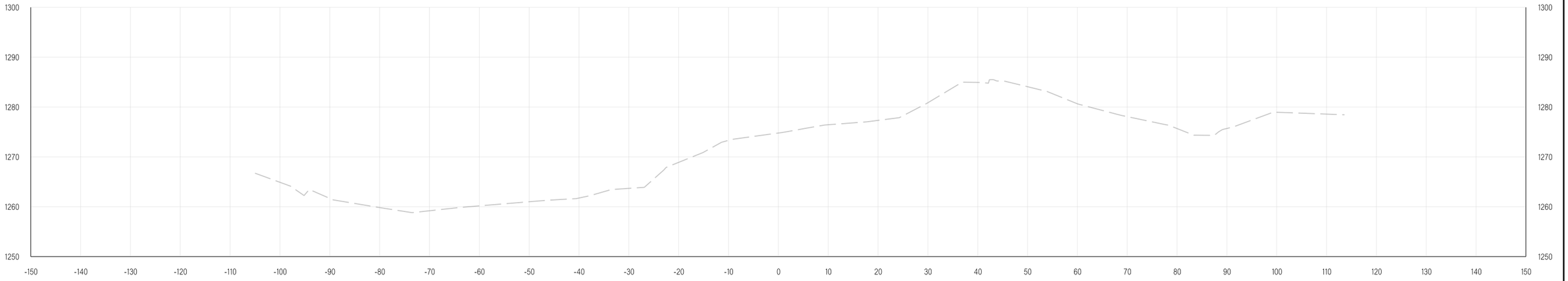

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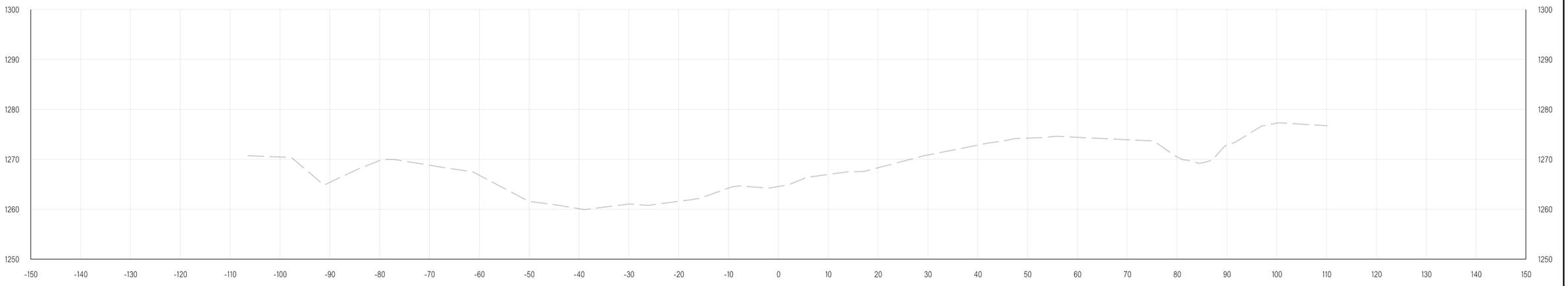

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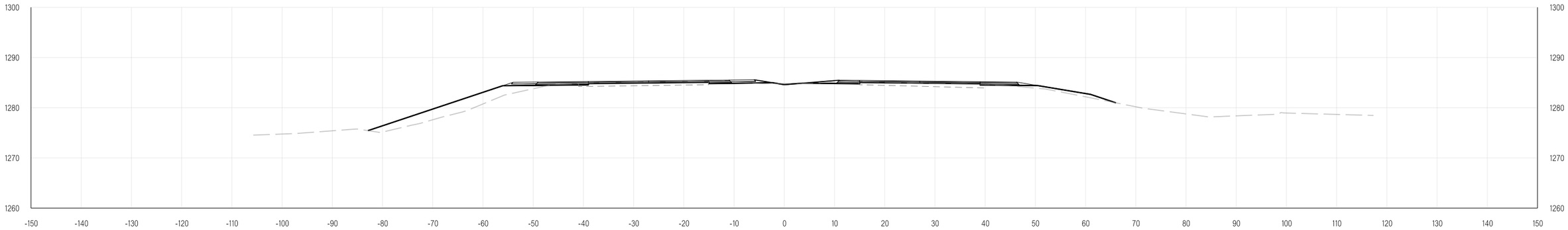

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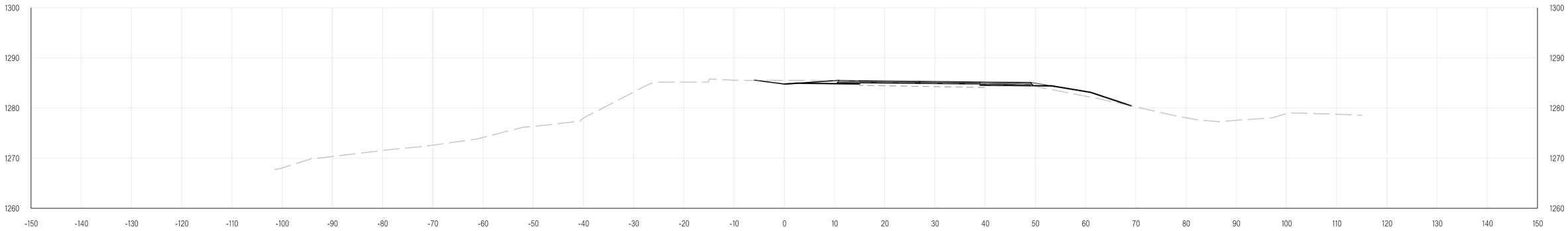

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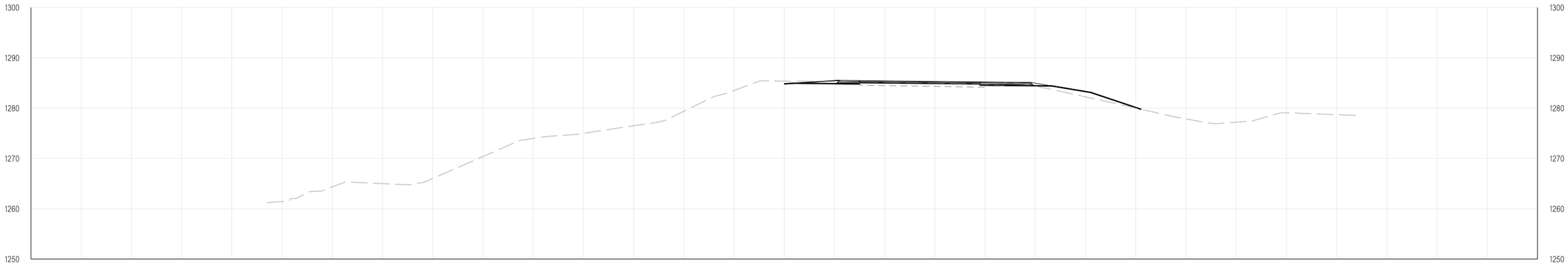

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COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. X013

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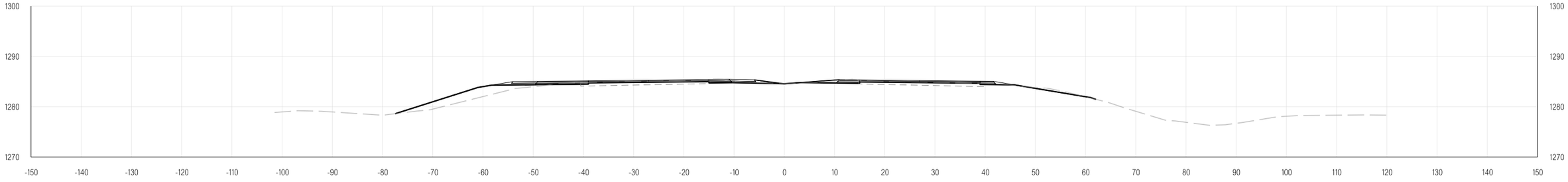

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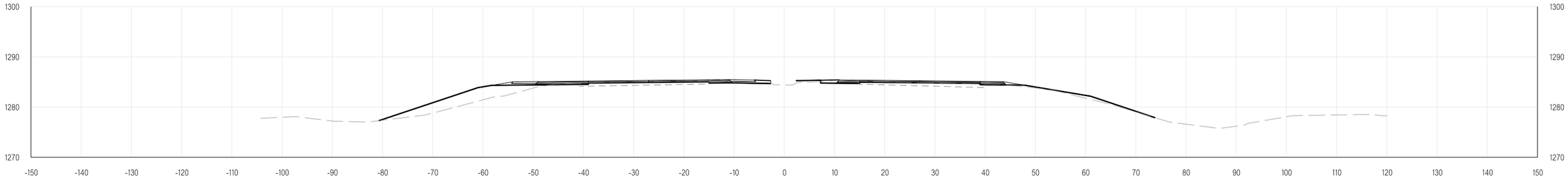

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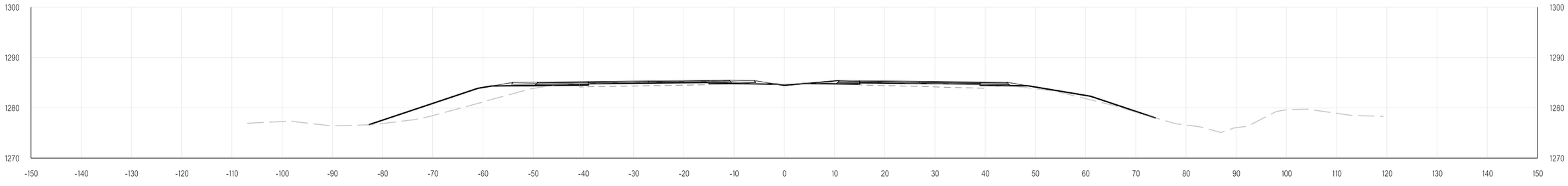

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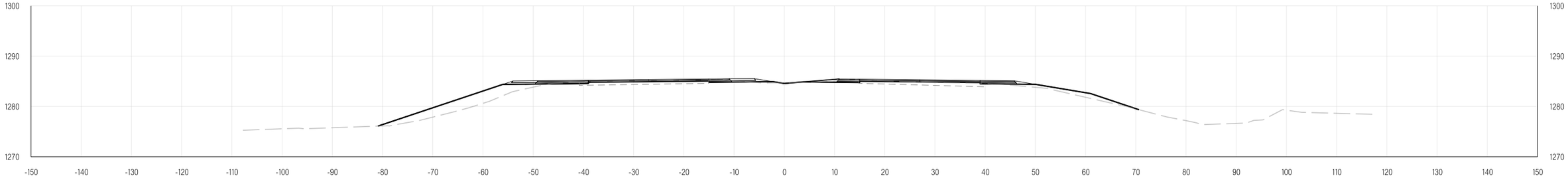

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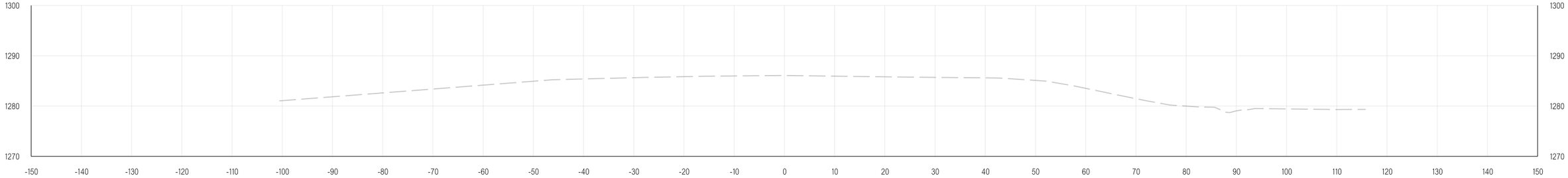

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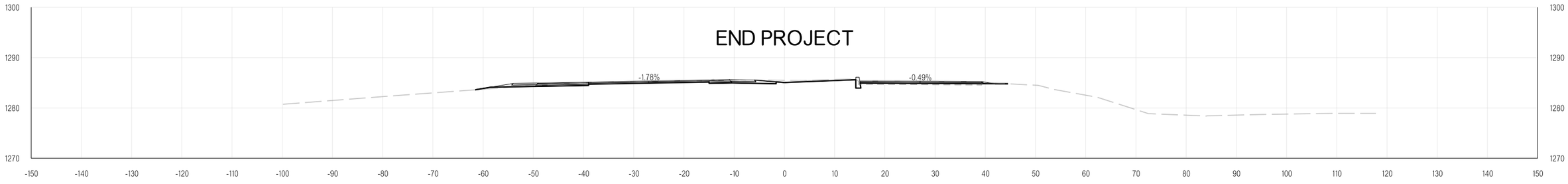

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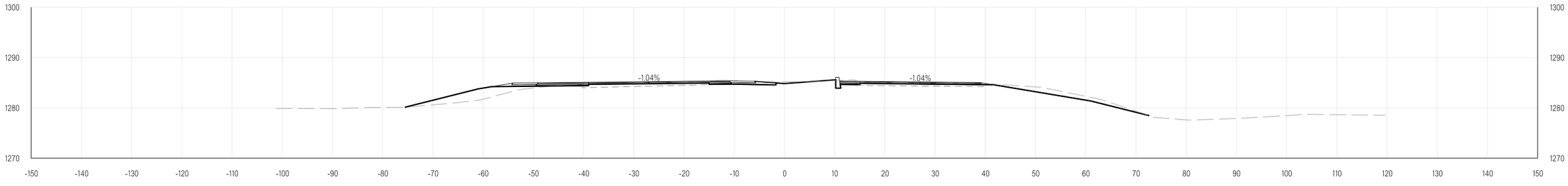

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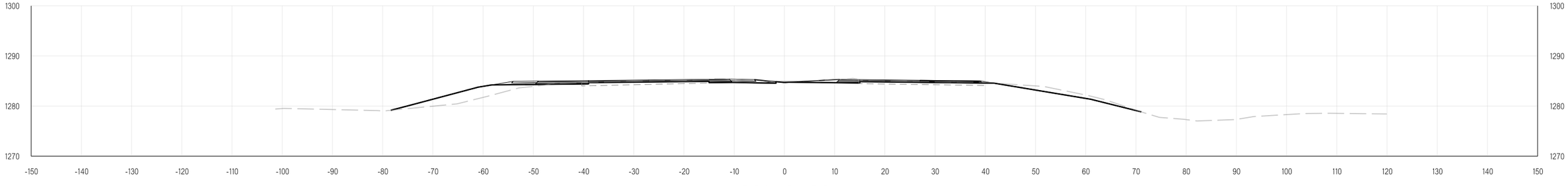

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COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. X015

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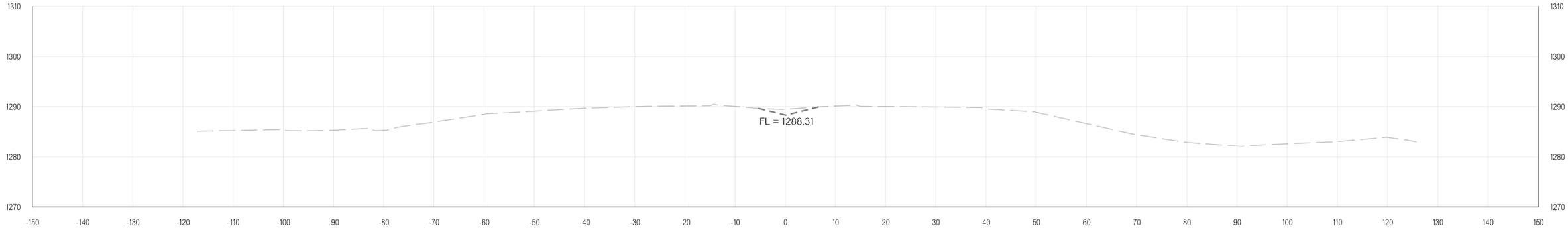

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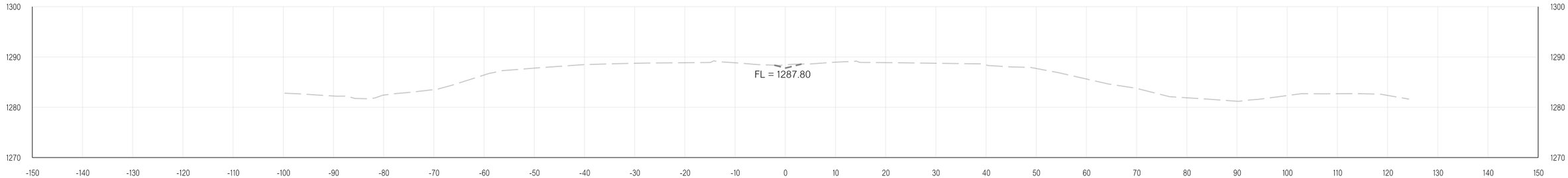

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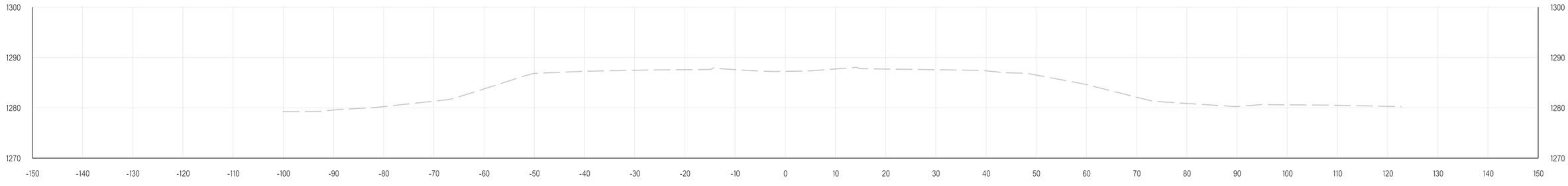

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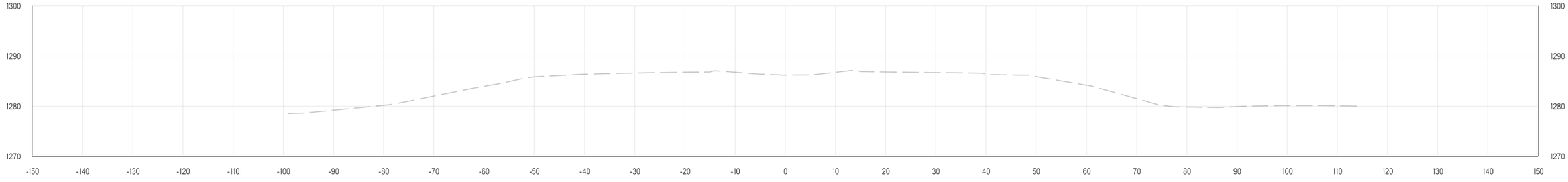

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COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. X016

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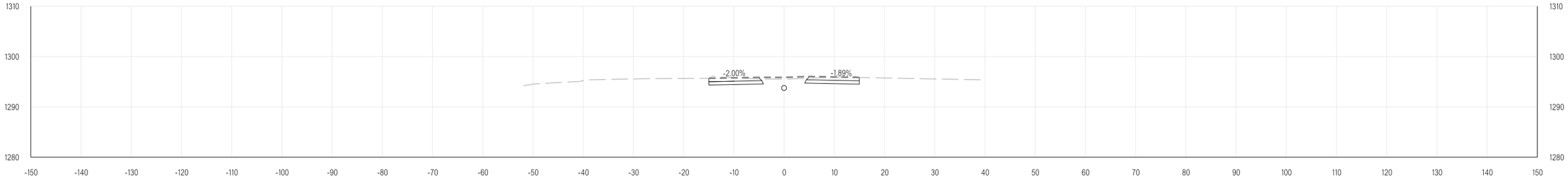

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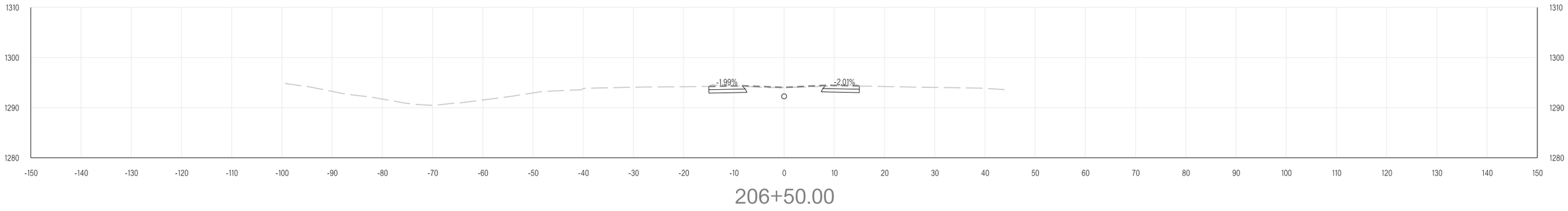

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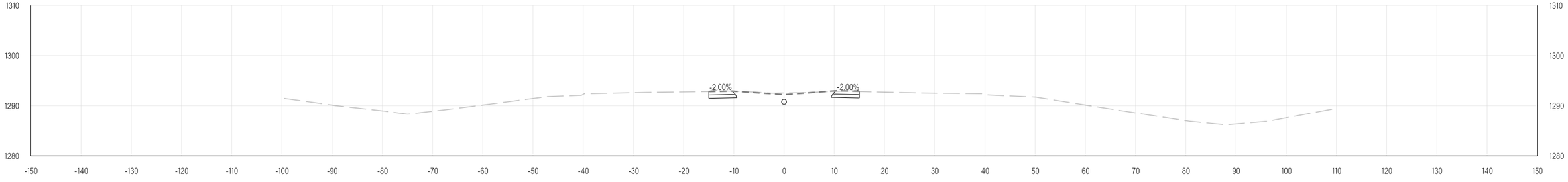

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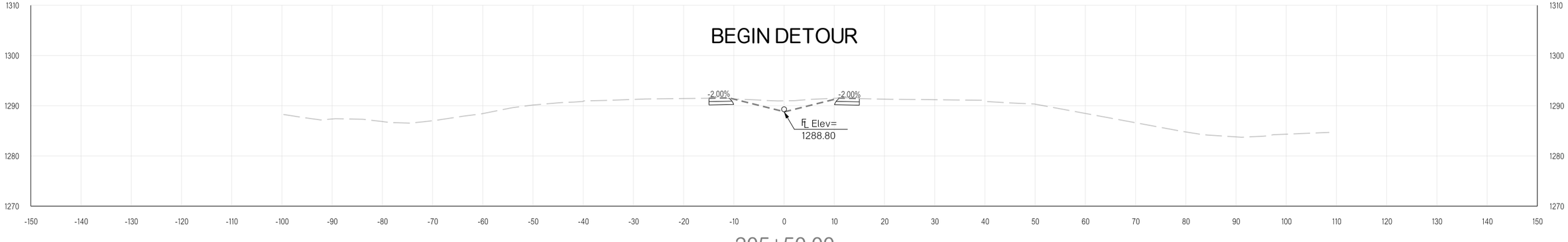
BEGIN DETOUR



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COUNTY CANADIAN HIGHWAY SH-66 STATE JOB NO. 32765(04) SHEET NO. X017

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FINAL FIELD MEETING

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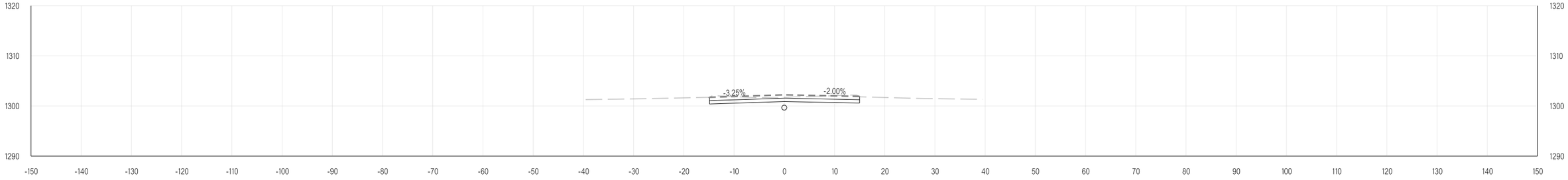

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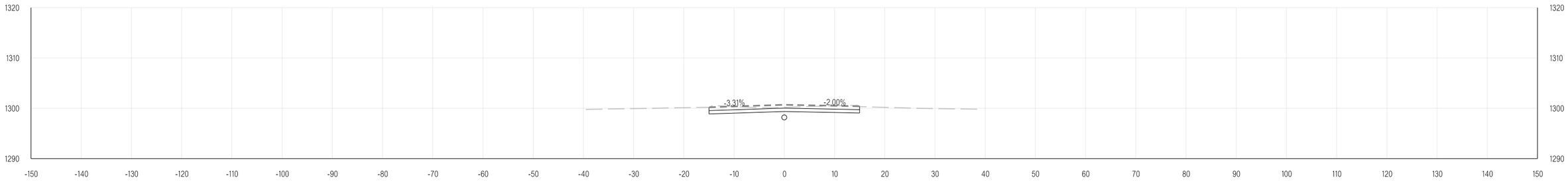

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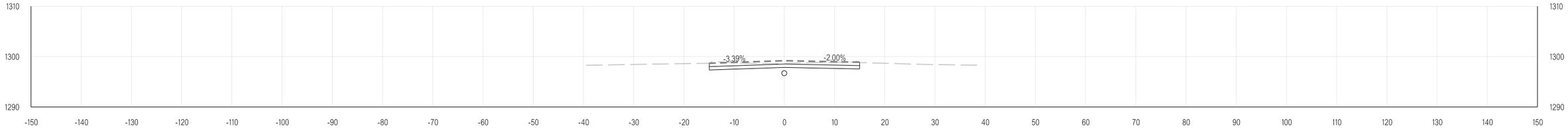

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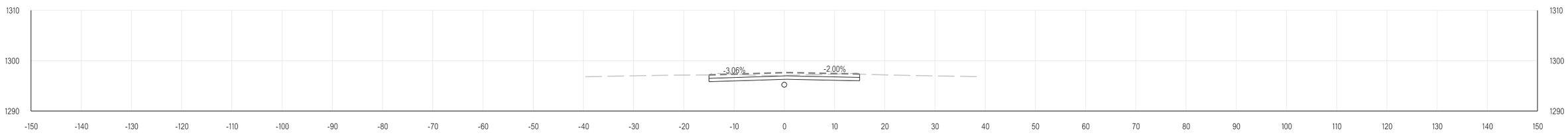

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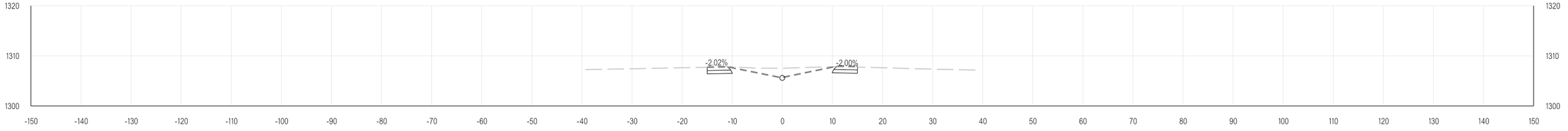

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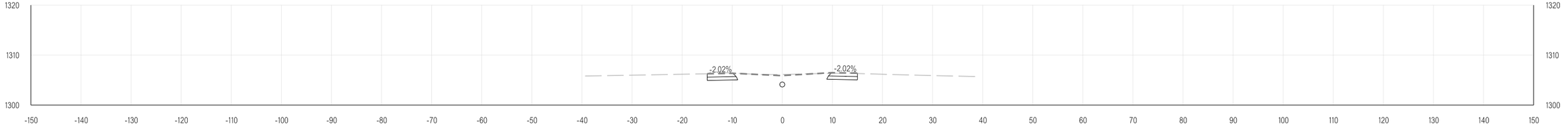

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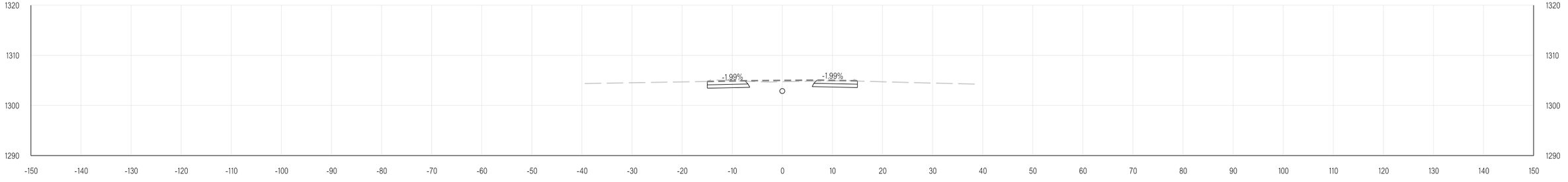

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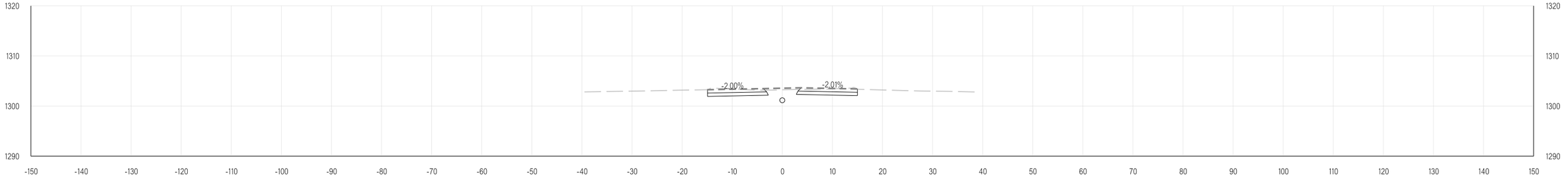

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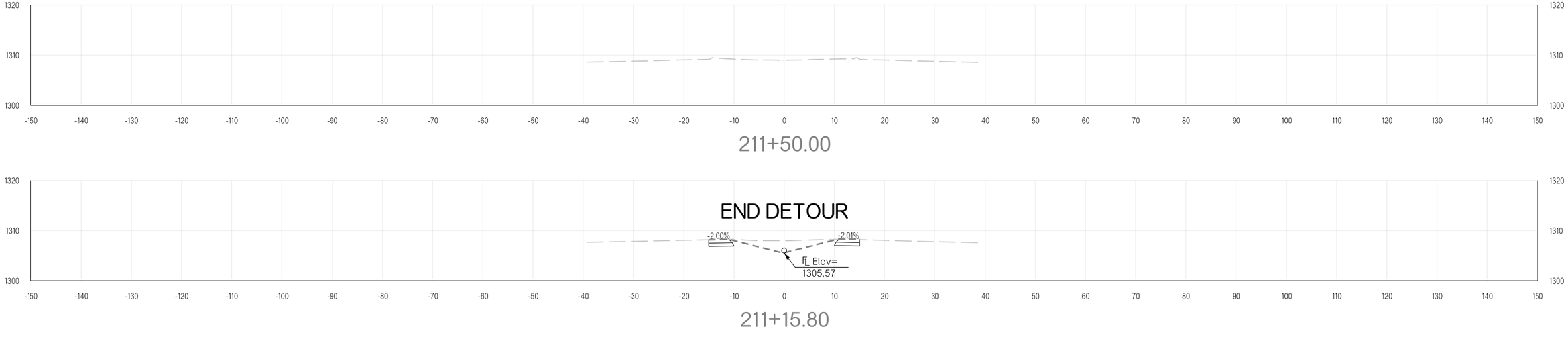

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