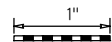


FINAL FIELD
MEETING
JANUARY 2022FOR SURVEY CONTROL DATA,
SEE SURVEY DATA SHEETSMANDATORY TIE:
THIS PROJECT IS A MANDATORY TIE WITH JOB
PIECE 24131(04) AND SHALL BE BID ACCORDINGLY.STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATIONPLAN OF PROPOSED
STATE HIGHWAY
FEDERAL AID PROJECT NO. J2-9682(004)
BRIDGE & APPROACHES (3R)
SH 16
CREEK COUNTYCONTROL SECTION NO. 16-19-10
STATE JOB NO. 29682(04)
BRIDGE "A" LOCATION NO. 1910-0066X
EXISTING NBI NO. 12429; NEW NBI NO. 32913

DESIGN DATA

ADT 2022	= 3,100
ADT 2042	= 4,300
DHV (2-WAY)	= 516
K (DHV/ADT)	= 12%
D	= 57%
T (% DHV)	= 10%
T (% ADT)	= 13%
T3 (% ADT)	= 7%
V	= 65 MPH
DETOUR V	= 35 MPH
20YR FLEX. ESALS	= 2.8 M

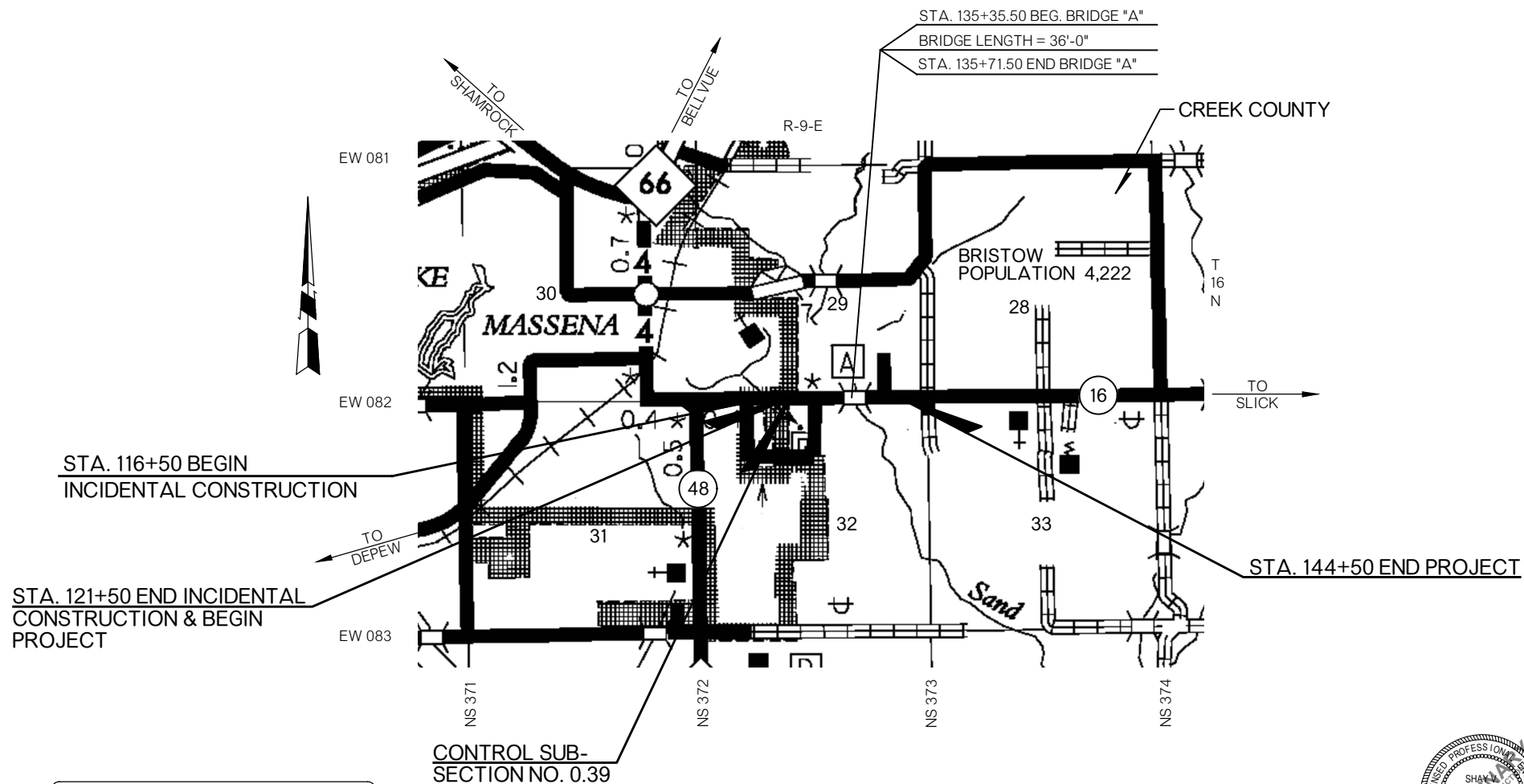
SCALES



PLAN	1" = 50'
PROFILE HOR.	1" = 50'
VER.	1" = 5'
LAYOUT MAP	1" = 1,760'

CONVENTIONAL SYMBOLS

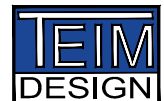
	PROPOSED ROAD
	RAILROADS
	RANGE & TOWNSHIP SECTION LINES
	QUARTER SECTION LINES
	FENCES
	GROUND LINE
	EXISTING ROADS
	BASE LINE
	GRADE LINES
	TELEPHONE & TELEGRAPH
	POWER LINES
	BUILDINGS
	OIL WELLS
	DRAINAGE STRUCTURES - IN PLACE
	DRAINAGE STRUCTURES - NEW
	RIGHT-OF-WAY LINES - EXISTING
	RIGHT-OF-WAY LINES - NEW
	CONTROLLED ACCESS
	RIGHT-OF-WAY FENCE

STA. 116+50 BEGIN
INCIDENTAL CONSTRUCTIONSTA. 121+50 END INCIDENTAL
CONSTRUCTION & BEGIN
PROJECTCONTROL SUB-
SECTION NO. 0.39

STA. 144+50 END PROJECT

NOTE: PROJECT LENGTH BASED ON Q SURVEY STATIONING.

ROADWAY LENGTH	2,264.00 FT.	0.428 MI.
BRIDGE LENGTH	36.00 FT.	0.006 MI.
PROJECT LENGTH		0.434 MI.

EQUATIONS: NONE
EXCEPTION: NONETHIS DOCUMENT IS PRELIMINARY IN
NATURE AND IS NOT A FINAL, SIGNED AND
SEALED DOCUMENT.TEIM DESIGN, PLLC
3020 N.W. 149TH STREET
OKLAHOMA CITY, OK 73134
PH. (405) 752-1122
FAX (405) 752-8855
CA# 8428, RENEWAL 06-30-2023SHAY V. SMITH
LICENSED PROFESSIONAL ENGINEER NO. 27713

DATE

OKLAHOMA
DEPARTMENT OF TRANSPORTATION

DATE APPROVED

BY

CHIEF ENGINEER

SWO 4861(I)

F.A. PROJECT NO.

DIVISION ADMINISTRATOR

J2-9682(004)

COUNTY CREEK COUNTY

HIGHWAY SH 16

SHEET NO. 0001

THE FOLLOWING ODOT STANDARD DRAWINGS
SHALL BE REQUIRED FOR THIS PROJECT:

2019 ROADWAY		2009 BRIDGE	SIGNING & STRIPING	2009 TRAFFIC TRAFFIC CONTROL	TRAFFIC SAFETY
SSS-2-0	FPI-4-1	HP1-2-01E	PM1-1-03	TCS1-1-01	SKT-1-00
TSC2-4-0	SPB-2-1		PM3-1-02	TCS2-1-00	GHW1-1-00
TSD-3-0	FHTMPP-2-0		RSD1-1-00	TCS3-1-01	GHW2-1-00
TRFD-2-0	FHTCP-4-0		WSD2-1-00	TCS4-1-01	
ASCD-6-0	SBI-5-1		MSD1-1-00	TCS5-1-00	
LECS-5-1	PUD-4-0		MSD2-1-00	TCS6-1-02	
PED-4-0	MI-4-1		MSD3-1-01	TCS7-1-02	
PSE-2-0	RDI-4-0		MSD4-1-00	TCS8-1-00	
PSMD-2-1	DC-4-0		MSD5-1-00	TCS9-1-01	
CET4S-4-1	PDT-2-0		SBS1-1-00	TCS10-1-00	
CET6S-4-1	RWF1-3-0		SBS2-1-00	TCS11-1-01	
CET4D-4-1	RWF2-3-0		SBS3-1-00	TCS13-1-00	
SMD-4-1	RWF3-3-1		SBS4-1-00	TCS14-1-00	
GPI-5-1			SBS5-1-00	TCS16-1-00	
SPI-5-1			GMS1-1-00	TCS19-1-01	
			SSP1-1-02	TCS20-1-00	
			SSA1-1-00	TCS21-1-02	
				TCS22-1-00	
				TCS24-1-02	
				TCS25-1-00	

INDEX OF SHEETS

0001	TITLE SHEET
0002	INDEX OF SHEETS AND STANDARDS
0003	INDEX OF SEALS
0004-0005	TYPICAL SECTIONS
0006	TURF REINFORCEMENT MAT DETAILS
AB01	PAY QUANTITIES AND GENERAL NOTES (BRIDGE & RETAINING WALL)
AE01	ENVIRONMENTAL NOTES
AR01	PAY QUANTITIES & NOTES (ROADWAY)
AR02	GENERAL NOTES & SUGGESTED SEQUENCE OF CONSTRUCTION (ROADWAY)
AR03-AR04	SUMMARY SHEETS
AR05	SUMMARY OF DRAINAGE STRUCTURES
AT01	SIGNING AND STRIPING QUANTITIES, NOTES & SIGN SUMMARY
AT02	TRAFFIC CONTROL QUANTITIES AND NOTES
B001-B002	GENERAL PLAN AND ELEVATION (BRIDGE "A")
B003-B005	BRIDGE "A" DETAILS
B006-B008	GENERAL PLAN AND ELEVATION (RETAINING WALLS)
B009	SUBSURFACE PROFILE
B010-B017	CIP RETAINING WALL DETAILS
B018	HANDRAILING DETAILS
E001	SECTION 404 PERMIT COMPLIANCE
R001	STORM WATER MANAGEMENT PLAN
R002	DRAINAGE AREA MAP AND DRAINAGE RECORD
R003	EROSION CONTROL
R004-R010	PLAN AND PROFILE SHEETS
R011	REMOVAL
S001-S030	SURVEY DATA SHEETS
T001	SPECIAL SIGN DETAILS AND ROUTE ASSEMBLY
T002	SIGN SUMMARY AND STRIPING PLAN
T003	STRIPING PLAN
T004	PHASE 1 TYPICAL ADVANCE WARNING SIGNS
T005	SH-16 TRAFFIC CONTROL PHASE 1
T006	PHASE 2 TYPICAL ADVANCE WARNING SIGNS
T007-T008	SH-16 TRAFFIC CONTROL PHASE 2
T009	PHASE 3AB TYPICAL ADVANCE WARNING SIGNS
T010-T011	SH-16 TRAFFIC CONTROL PHASE 3AB
T012	PHASE 3CD TYPICAL ADVANCE WARING SIGNS
T013	SH-16 TRAFFIC CONTROL PHASE 3CD
X001-X043	CROSS SECTIONS

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

INDEX OF SHEETS
AND STANDARDS

TRAFFIC ENGINEER SEAL

THIS SEAL COVERS SHEETS:
AT01-AT02, T001-T013



TEIM DESIGN, PLLC
3020 N.W. 149TH STREET
OKLAHOMA CITY, OK 73134
PH. (405) 752-1122
FAX (405) 752-8855
CA# 8428, RENEWAL 06-30-2023

SHAY V. SMITH
LICENSED PROFESSIONAL ENGINEER NO. 27713

DATE

THIS SEAL COVERS SHEETS:
0001, AB01, B001-B018



TEIM DESIGN, PLLC
3020 N.W. 149TH STREET
OKLAHOMA CITY, OK 73134
PH. (405) 752-1122
FAX (405) 752-8855
CA# 8428, RENEWAL 06-30-2023

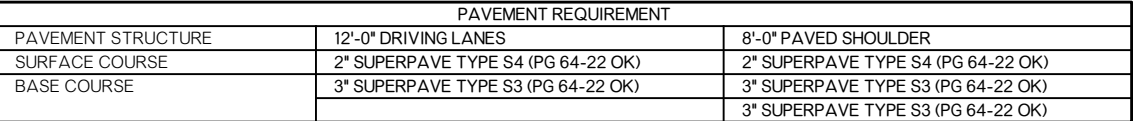
CHRIS C. RUSSELL
LICENSED PROFESSIONAL ENGINEER NO. 30514

DATE

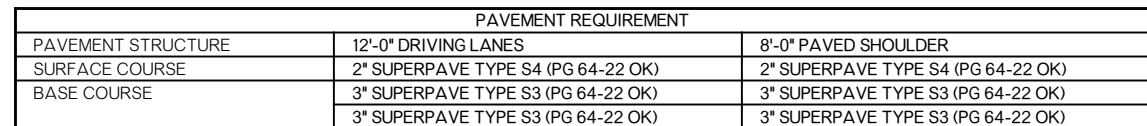
THIS SEAL COVERS SHEETS:
0002-0006, AR01-AR05, E001, R001-R011, X001-X043

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

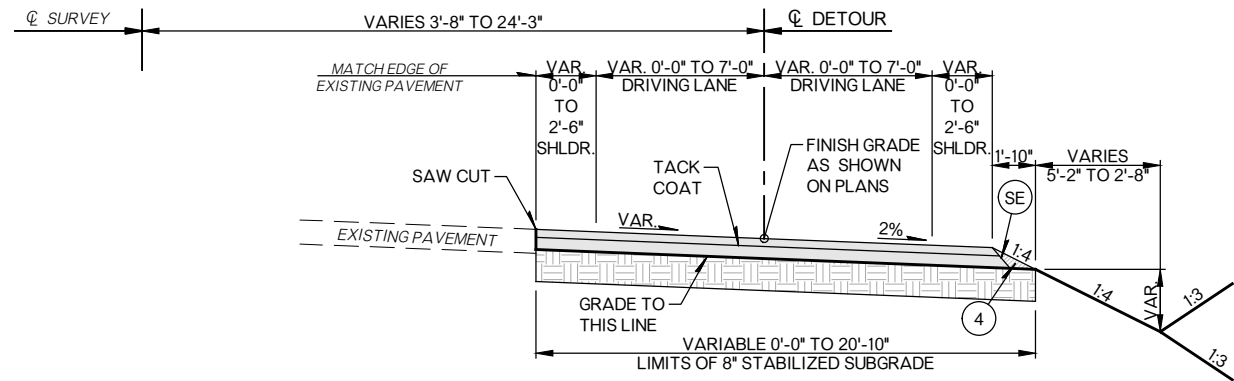
INDEX OF SEALS



3 BACKFILL NOTE:
TO BE BACKFILLED AND COMPACTED AS PART OF THE FINISHING OPERATIONS.
QUANTITY IS MEASURED IN UNCLASSIFIED BORROW.



State Job No. 29682(04) Sheet No. 0004



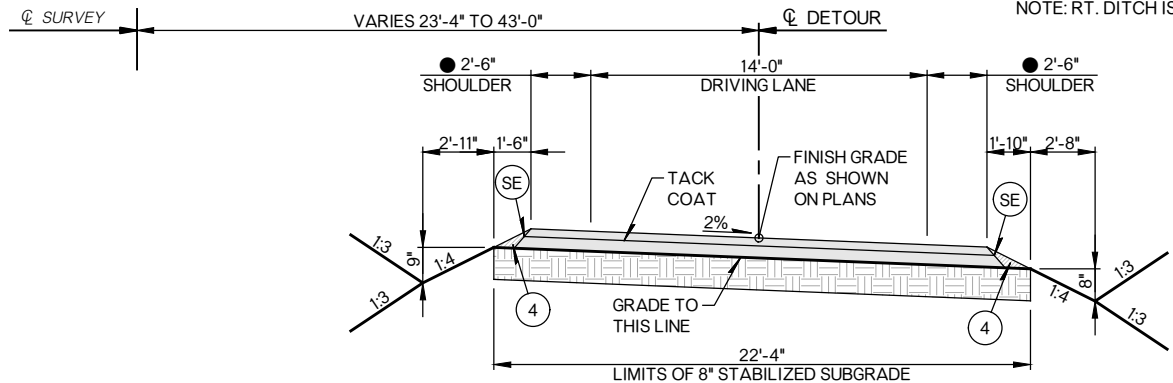
TYPICAL NO. 3

DETOUR

STA. 128+63.51 TO STA. 129+55.46
STA. 141+57.20 TO STA. 142+42.28

PAVEMENT REQUIREMENT	
PAVEMENT STRUCTURE	14'-0" DRIVING LANE
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 64-22 OK)
BASE COURSE	3" SUPERPAVE TYPE S3 (PG 64-22 OK)

NOTE: RT. DITCH IS 2' WIDE FROM STA. 141+57.20 TO STA. 142+42.28.



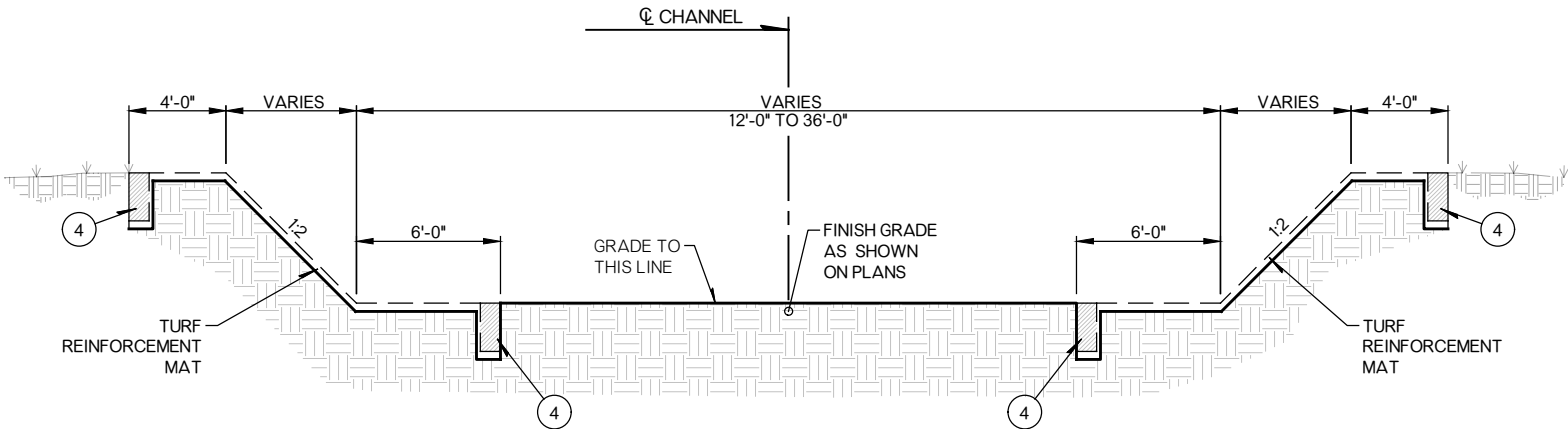
TYPICAL NO. 4

DETOUR

STA. 129+55.46 TO STA. 141+57.20

PAVEMENT REQUIREMENT		
PAVEMENT STRUCTURE	14'-0" DRIVING LANE	2'-6" SHOULDERS
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 64-22 OK)	2" SUPERPAVE TYPE S4 (PG 64-22 OK)
BASE COURSE	3" SUPERPAVE TYPE S3 (PG 64-22 OK)	3" SUPERPAVE TYPE S3 (PG 64-22 OK)

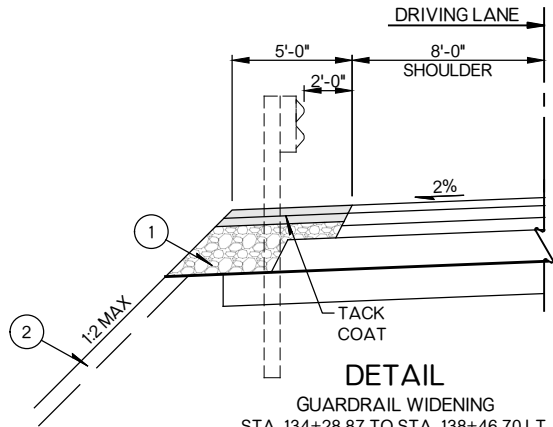
NOTE: RT. DITCH IS 4' WIDE FROM STA. 133+00 TO STA. 135+00 & 2' WIDE FROM STA. 139+00 TO STA. 141+57.20.
● BARRIER LT. & RT. FROM STA. 134+25 TO STA. 138+00



TYPICAL SECTION NO. 5

CHANNEL

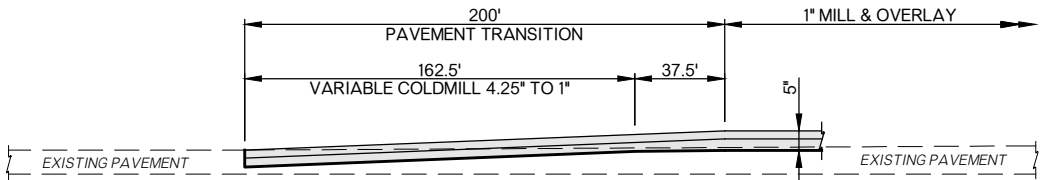
STA. 11+15 TO STA. 11+45.64
STA. 12+55.14 TO STA. 13+39
SEE TURF REINFORCEMENT MAT DETAIL SHEET



DETAIL

GUARDRAIL WIDENING
STA. 134+28.87 TO STA. 138+46.70 LT.

PAVEMENT REQUIREMENT	
PAVEMENT STRUCTURE	5'-0" WIDENING
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 64-22 OK)
BASE COURSE	2" SUPERPAVE TYPE S4 (PG 64-22 OK)



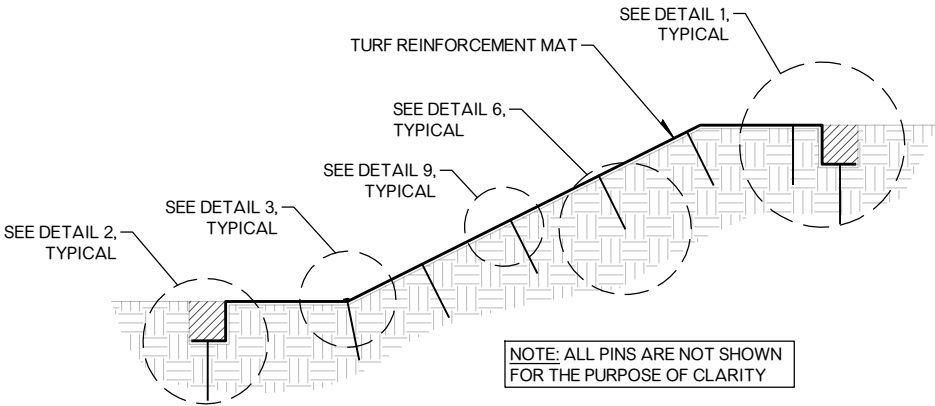
PAVEMENT TRANSITION

STA. 121+50 TO STA. 123+50

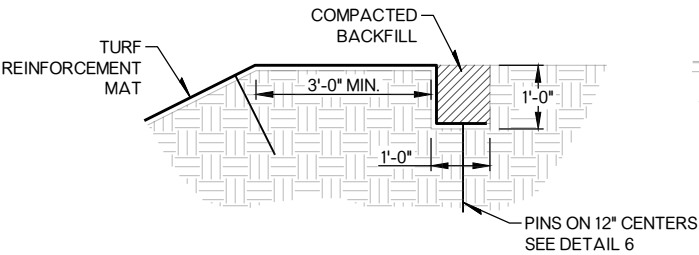
PAVEMENT REQUIREMENT		
PAVEMENT STRUCTURE	4.25" PAVEMENT STRUCTURE	4.25" - 5" PAVEMENT STRUCTURE
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 64-22 OK)	2" SUPERPAVE TYPE S4 (PG 64-22 OK)
BASE COURSE	2.25" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.25" - 3" SUPERPAVE TYPE S3 (PG 64-22 OK)

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

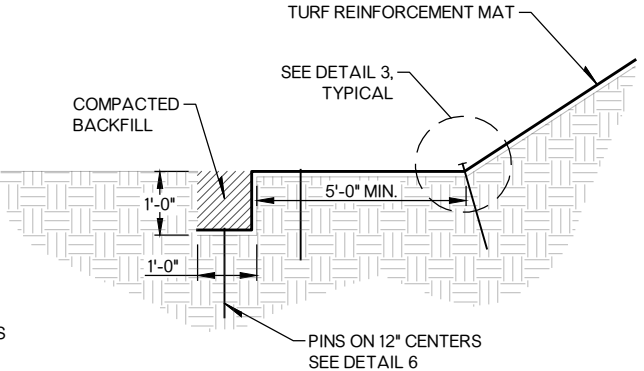
TYPICAL SECTIONS



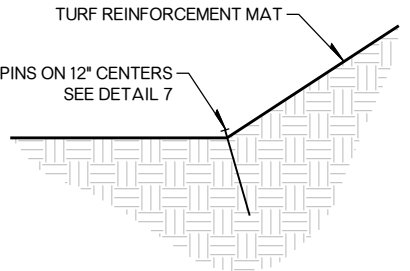
ELEVATION 1:
PERPENDICULAR INSTALLATION
OF TURF REINFORCEMENT MAT ON A SLOPE



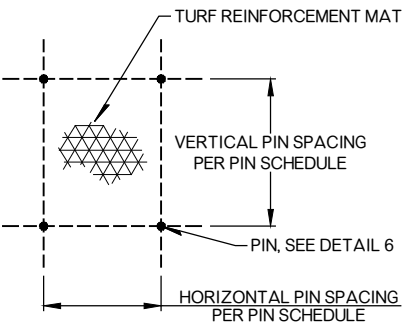
DETAIL 1
CREST OF SLOPE (COS) TRENCH



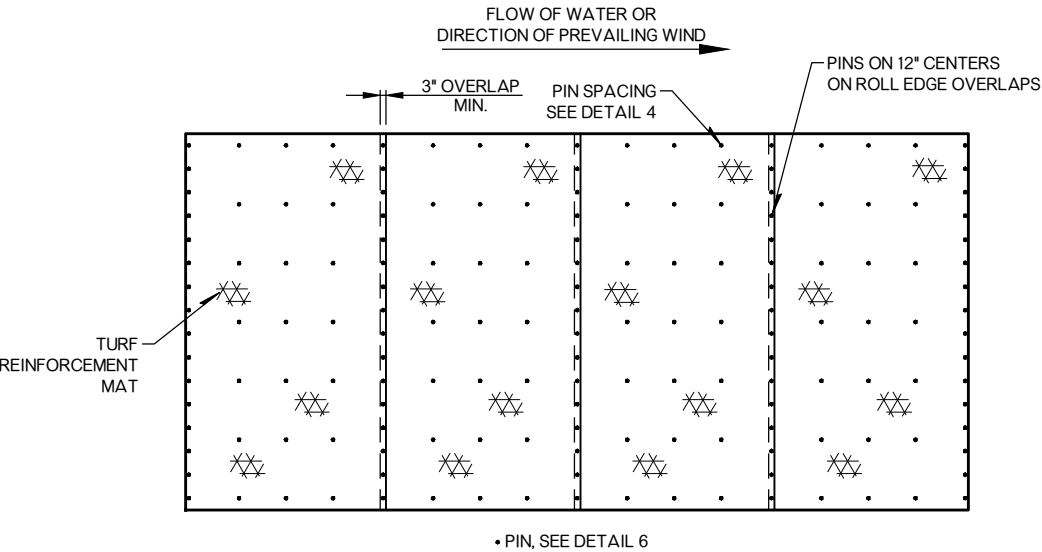
DETAIL 2
TOE OF SLOPE (TOS) TRENCH



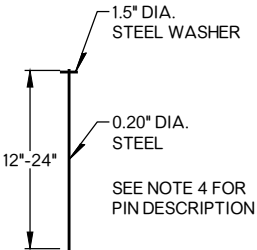
DETAIL 3
BREAK IN SLOPE INTERFACE



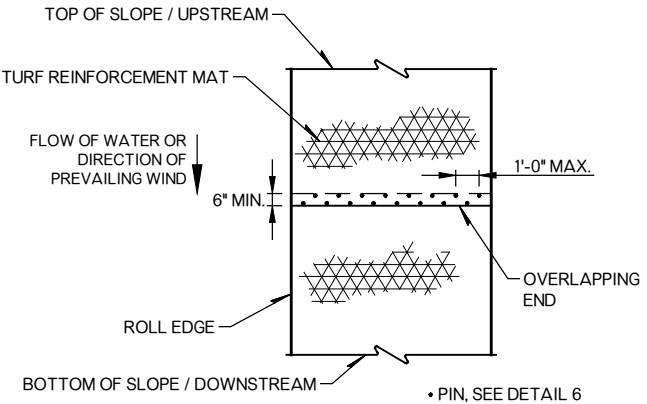
DETAIL 4
PIN PATTERN



DETAIL 5
PIN PATTERN

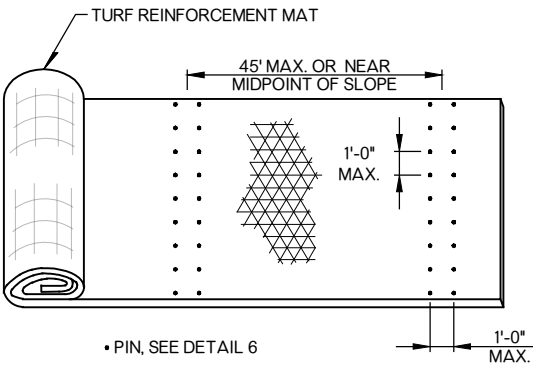


DETAIL 6
PIN

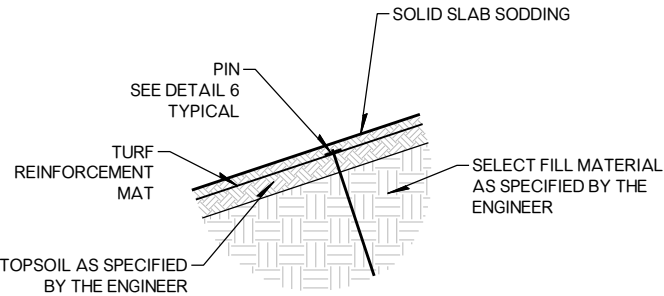


NOTE: TURF REINFORCEMENT MAT SHOULD BE SHINGLED IN THE DIRECTION OF THE DOWN SLOPE AND FLOW

DETAIL 7
OVERLAP AT ROLL END DETAIL



DETAIL 8
SIMULATED CHECK SLOT DETAIL



DETAIL 9
VEGETATION ESTABLISHMENT

GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2019 ODOT STANDARD SPECIFICATIONS.
2. PAYMENT FOR TURF REINFORCEMENT MAT (TRM) SHALL BE INCLUDED IN THE 227 (SP) TURF REINFORCEMENT MAT PAY ITEM AND INCLUDES ALL WORK AND MATERIALS REQUIRED FOR INSTALLATION.
3. TRM SHALL BE INSTALLED ALONG THE CHANNEL SIDE SLOPES AS SHOWN ON SHEETS 0005 AND R010.
4. THE 12", 18", AND 24" SECURING PINS ARE COMPRISED OF A WIRE, MUSHROOMED AT THE TOP. A WASHER IS THEN PLACED ON THE WIRE AND THE WIRE IS CRIMPED OR SWEDGED ABOUT 3-1/2" BELOW THE TOP SO THE WASHER WILL NOT SLIDE OFF. THE END OF THE WIRE IS CUT AT A 45 DEGREE ANGLE FOR EASY SOIL PENETRATION.
5. SOLID SLAB SODDING SHALL BE SECURED TO THE TOP OF THE TRM UTILIZING SOD STAPLES.
6. CONSULT THE MANUFACTURER FOR THE MOST UP TO DATE INSTALLATION GUIDELINES.

PIN SCHEDULE	
SECURING DEVICE	PIN
HORIZONTAL PIN SPACING	2'-0"
VERTICAL PIN SPACING	2'-6"
EMBEDMENT DEPTH	PER MANUFACTURES DESIGN

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

TURF REINFORCEMENT MAT DETAILS

GENERAL NOTES (BRIDGE AND RETAINING WALL)

SPECIFICATIONS:

ALL CONSTRUCTION AND MATERIALS SHALL COMPLY WITH THE 2019 OKLAHOMA STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

REMOVAL OF EXISTING BRIDGE STRUCTURE:

PAY ITEM "REMOVAL OF EXISTING BRIDGE STRUCTURE" CONSISTS OF THE REMOVAL AND DISPOSAL OF THE EXISTING 121' LG. BY 31' WIDE BRIDGE AND CONCRETE APPROACH SLABS, CONSISTING OF TWO (1)-36' LONG AND ONE (1)-50' LONG I-BEAM SPANS WITH AN ASPHALT OVERLAY LOCATED AT Q SURVEY SH 16 STA. 135+54. THE EXISTING BRIDGE WAS BUILT IN 1950 UNDER STATE AID PROJECT NUMBER 1016(1). THE CONTRACTOR SHALL FULLY INFORM THEMSELVES OF THE NATURE OF THIS REMOVAL TO ALLOW FOR AN ACCURATE ESTIMATE. THE REMOVAL OF THE EXISTING BRIDGE AND APPROACH SLABS SHALL BE IN ACCORDANCE WITH SECTION 619.04.B(2) OF THE STANDARD SPECIFICATIONS AND IN A MANNER APPROVED BY THE ENGINEER. THE EXISTING STRUCTURAL STEEL MAY BE PAINTED WITH LEAD BASED PAINT. THE CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS AND FOLLOW ALL NECESSARY REGULATIONS IN HANDLING AND TRANSPORTING ANY STRUCTURAL STEEL CONTAINING LEAD BASED PAINT. EXISTING BRIDGE ABUTMENTS SHALL BE REMOVED AND TOP 5'-0" OF EXISTING ABUTMENT PILES SHALL BE REMOVED, ANY AND ALL COST OF PILE LENGTH REMOVAL SHALL BE INCLUDED IN THE PRICE BID PER LUMP SUM OF "REMOVAL OF EXISTING BRIDGE STRUCTURE". EXISTING BRIDGE PIERS SHALL BE REMOVED DOWN TO THE TOP OF THE EXISTING PIER FOOTINGS. ANY COST ASSOCIATED WITH THE PARTIAL OR FULL REMOVAL OF PIER FOOTINGS NECESSARY TO CONSTRUCT THE NEW BRIDGE AND/OR RETAINING WALLS SHALL BE INCLUDED IN THE PRICE BID PER LUMP SUM OF "REMOVAL OF EXISTING BRIDGE STRUCTURE". CONTRACTOR SHALL REMOVE WITH CARE ALL OF THE EXISTING I-BEAMS THAT ARE TO BE GIVEN TO "CREEK COUNTY" AS DIRECTED BY THE ENGINEER AND STOCKPILED ON THE EXISTING RIGHT-OF-WAY WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL CONTACT DISTRICT NO. 3 COUNTY COMMISSIONER AT (918) 367-3231 WHEN READY FOR REMOVAL. CREEK COUNTY SHALL BE RESPONSIBLE FOR THE TRANSPORTATION OF THE BEAMS TO THE "COUNTY MAINTENANCE YARD" IN ACCORDANCE WITH THE "OKLAHOMA DEPARTMENT OF TRANSPORTATION POLICY DIRECTIVE # D-304-1". THE EXISTING STRUCTURE AND CONCRETE RUBBLE MATERIALS (EXCLUDING ALL OF THE STEEL I-BEAMS THAT ARE TO BECOME PROPERTY OF THE COUNTY) SHALL BECOME THE PROPERTY OF THE CONTRACTOR. ALL COSTS NECESSARY TO REMOVE THE EXISTING BRIDGE AS DESCRIBED ABOVE INCLUDING LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER LUMP SUM OF "REMOVAL OF EXISTING BRIDGE STRUCTURE". THE EXISTING BRIDGE SHALL BE REMOVED IN PHASE 2.

VERIFICATION OF EXISTING CONDITIONS:

ALL STATIONS, OFFSETS, ELEVATIONS, AND DIMENSIONS OF THE EXISTING BRIDGE SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF. BIDDERS SHALL FULLY INFORM THEMSELVES OF THE NATURE OF THE WORK AND CONDITIONS UNDER WHICH IT WILL BE PERFORMED. THE CONTRACTOR SHALL ADOPT METHODS CONSISTENT WITH GOOD CONSTRUCTION PRACTICES AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO THE EXISTING BRIDGE OR ATTACHMENTS UNLESS OTHERWISE DIRECTED. ANY DAMAGE TO THE EXISTING BRIDGE STRUCTURE DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER.

TEMPORARY EARTH RETAINAGE:

THE CONTRACTOR SHALL DETERMINE THE NEED AND EXTENT OF TEMPORARY EARTH RETAINAGE STRUCTURE(S) SHOULD TEMPORARY EARTH RETAINAGE STRUCTURE(S) BE NECESSARY FOR CONSTRUCTION OF THE BRIDGE, RETAINING WALLS AND ASSOCIATED EARTHWORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE DESIGN, DETAILS, AND ADEQUACY OF THE TEMPORARY EARTH RETAINAGE STRUCTURE(S) USED DURING CONSTRUCTION. ANY DAMAGE TO THE EXISTING BRIDGE OR ROADWAY DUE TO ANY SETTLING OR FAILURE OF THE TEMPORARY EARTH RETAINAGE STRUCTURE(S) SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. DAMAGES SHALL BE REPAIRED TO A SERVICEABLE CONDITION BY THE CONTRACTOR, AT THEIR EXPENSE AND TO THE SATISFACTION OF THE ENGINEER. TEMPORARY EARTH RETAINAGE STRUCTURE(S) SHALL BE DESIGNED IN ACCORDANCE WITH SUBSECTION 502.04 OF THE STANDARD SPECIFICATIONS BY A REGISTERED PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA. SUBMIT TEMPORARY EARTH RETAINAGE STRUCTURE(S) CALCULATIONS AND DRAWINGS TO THE ENGINEER FOR APPROVAL. DO NOT BEGIN INSTALLATION UNTIL APPROVAL OF THE DESIGN CALCULATIONS AND DRAWINGS IS RECEIVED. ALL COSTS ASSOCIATED WITH TEMPORARY EARTH RETAINAGE STRUCTURE(S) INCLUDING DESIGN, REMOVAL, EQUIPMENT, LABOR, MATERIALS, AND OTHER INCIDENTALS NECESSARY TO CONSTRUCT AND DEMOLISH TEMPORARY RETAINING STRUCTURE(S) SHALL BE INCLUDED IN THE PRICE BID PER LUMP SUM OF "TEMPORARY EARTH RETAINAGE".

HANDRAILING:

SEE SHEET B018 FOR DETAILS OF HANDRAILING AND HANDRAILING INSTALLATION. HANDRAILING POST SHALL NOT BE SET WITHIN 5" OF A WALL PANEL EXPANSION AND/OR CONSTRUCTION JOINT. POSTS MAY NOT BE SPACED FARTHER THAN 6'-0". FIELD SPLICES SHALL OCCUR IN MID-SPAN AND JOINTS CONTINUOUSLY WELDED. POSTS SHALL BE CONTINUOUSLY WELDED TO BASE PLATE. WELDED CONNECTIONS SHALL BE THOROUGHLY CLEANED OF ALL LOOSE SCALE, GROUND SMOOTH, AND SPOT PAINTED WITH TWO COATS OF ZINC RICH PAINT. HANDRAILING LAYOUT SHALL CONFORM TO VERTICAL AND HORIZONTAL ALIGNMENT OF RETAINING WALL. POSTS SHALL BE PLUMB (TRUE VERTICAL POSITION). SHOP DRAWINGS FOR ALL HANDRAILS SHALL BE SUBMITTED FOR APPROVAL. INSTALL HANDRAILING ALONG FULL LENGTH OF RETAINING WALLS AND HEADWALLS ACCORDING TO THE DETAILS SHOWN IN THE PLANS. ALL COSTS OF HANDRAILING, MATERIALS, LABOR, FABRICATION, ERECTION, AND OTHER INCIDENTALS NECESSARY FOR INSTALLING THE HANDRAIL, COMPLETE IN PLACE, SHALL BE INCLUDED IN PRICE BID PER LINEAR FOOT OF "HANDRAILING".

CLASS "C" CONCRETE:

QUANTITY INCLUDES 15.00 CUBIC YARDS TO BE USED AT THE DISCRETION OF THE ENGINEER TO BACKFILL THE EXCAVATED AREAS IMMEDIATELY BETWEEN THE EXISTING PIER FOOTINGS AND EXTERIOR WALLS OF THE NEW BRIDGE. ALL COSTS ASSOCIATED WITH PLACING CLASS "C" CONCRETE BETWEEN EXISTING PIER FOOTINGS AND EXTERIOR WALLS OF THE NEW BRIDGE SHALL BE INCLUDED IN PRICE BID PER CUBIC YARD OF "CLASS C CONCRETE".

GENERAL NOTES (BRIDGE)

CONCRETE:

ALL CONCRETE SHALL BE CLASS "AA" CONCRETE. ALL CONCRETE EDGES SHALL HAVE A 1 1/2" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED. ALL CHAMFER STRIPS SHALL BE SIZED LUMBER.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE GRADE 60 AND HAVE A 2" MINIMUM CLEARANCE UNLESS OTHERWISE SHOWN ON THE PLANS. REINFORCING STEEL IN THE BOTTOM SLAB SHALL BE SUPPORTED ON BAR CHAIRS. REINFORCING STEEL IN THE TOP SLAB SHALL BE SUPPORTED ON SLAB SPACERS. REINFORCING STEEL IN THE WALLS SHALL BE HELD IN PLACE BY METAL CHAIRS. MAXIMUM SPACING OF CHAIRS SHALL BE AT 6'-0" CENTERS. COST OF METAL CHAIRS, WOOD PLANKS OR CONCRETE STRIPS SHALL BE INCLUDED IN OTHER ITEMS OF WORK. SOME REINFORCING STEEL BAR MARKS ARE REPEATED BETWEEN THE RETAINING WALLS. TO ENSURE THAT ALL BARS ARE PLACED WITH THE CORRECT RETAINING WALL OR COMPONENT, THE RETAINING WALLS LETTER AND COMPONENT SHOULD ACCOMPANY THE BAR MARK.

GENERAL NOTES (RETAINING WALL)

RETAINING WALL FOOTING SHALL BE CONSTRUCTED LEVEL AND BE SET AT THE TOP OF FOOTING ELEVATION AS INDICATED ON THESE PLANS. ALL EXPOSED SURFACES OF RETAINING WALL SHALL BE FINISHED IN ACCORDANCE WITH SECTION 509 OF THE STANDARD SPECIFICATIONS. NO WALL PANELS OR GRANULAR BACKFILL SHALL BE PLACED UNTIL CONCRETE IN THE FOOTING HAS REACHED THE REQUIRED ULTIMATE STRENGTH OR AS APPROVED BY THE ENGINEER. HORIZONTAL JOINT KEYS SHALL BE PLACED IN FULL LENGTH OF WALL

CONCRETE:

ALL CONCRETE SHALL BE CLASS "AA" CONCRETE. ALL CONCRETE EDGES SHALL HAVE A 3/4" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED. ALL CHAMFER STRIPS SHALL BE SIZED LUMBER.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE GRADE 60 AND HAVE A 2" MINIMUM CLEARANCE UNLESS OTHERWISE SHOWN ON THE PLANS. REINFORCING STEEL IN THE BOTTOM SLAB SHALL BE SUPPORTED ON BAR CHAIRS. REINFORCING STEEL IN THE TOP SLAB SHALL BE SUPPORTED ON SLAB SPACERS. REINFORCING STEEL IN THE WALLS SHALL BE HELD IN PLACE BY METAL CHAIRS. MAXIMUM SPACING OF CHAIRS SHALL BE AT 6'-0" CENTERS. COST OF METAL CHAIRS, WOOD PLANKS OR CONCRETE STRIPS SHALL BE INCLUDED IN OTHER ITEMS OF WORK. SOME REINFORCING STEEL BAR MARKS ARE REPEATED BETWEEN THE RETAINING WALLS. TO ENSURE THAT ALL BARS ARE PLACED WITH THE CORRECT RETAINING WALL OR COMPONENT, THE RETAINING WALLS LETTER AND COMPONENT SHOULD ACCOMPANY THE BAR MARK. NO WELDING OR TACK WELDING OF REINFORCING BARS WILL BE PERMITTED. ALL BAR BENDS ARE OUT TO OUT. SPLICES NOT SPECIFICALLY SHOWN AND DIMENSIONED ON THESE PLANS SHALL BE STAGGERED SUCH THAT NOT MORE THAN HALF OF THE SPLICES WILL OCCUR WITHIN ONE SPlice LENGTH. ALL COST FOR REINFORCING STEEL, LABOR, MATERIALS, TOOLS AND OTHER INCIDENTALS SHALL BE INCLUDED IN PRICE BID PER SQUARE YARD OF "RETAINING WALL".

GRANULAR BACKFILL:

ALL GRANULAR BACKFILL MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 703 OF THE STANDARD SPECIFICATIONS. GRANULAR BACKFILL SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 501 OF THE STANDARD SPECIFICATIONS. ALL COSTS FOR GRANULAR BACKFILL, LABOR, MATERIALS, TOOLS AND OTHER INCIDENTALS SHALL BE INCLUDED IN PRICE BID PER SQUARE YARD OF "RETAINING WALL".

UNCLASSIFIED BORROW:

UNCLASSIFIED BORROW SHALL BE SUPPLIED AND COMPACTED IN ACCORDANCE WITH SECTION 202 OF THE STANDARD SPECIFICATIONS. ALL COSTS FOR UNCLASSIFIED BORROW, LABOR, MATERIALS, TOOLS AND OTHER INCIDENTALS SHALL BE INCLUDED IN PRICE BID PER SQUARE YARD OF "RETAINING WALL".

CONCRETE FLUME:

FOR CONCRETE FLUME DETAILS, SEE "CIP RETAINING WALL DETAILS" SHEETS. ALL COSTS FOR CONCRETE FLUME, LABOR, MATERIALS, REINFORCING, TOOLS AND OTHER INCIDENTALS SHALL BE INCLUDED IN PRICE BID PER CUBIC YARD OF "CLASS C CONCRETE".

EXPANSION AND CONSTRUCTION JOINT:

THE EXPANSION AND CONSTRUCTION JOINTS SHALL RUN ALONG BOTH VERTICAL FACES OF THE RETAINING WALL, ABOVE THE FOOTING, AND ACROSS THE TOP WIDTH OF THE WALL. VERTICAL WALL REINFORCING STEEL SHALL HAVE 2" MIN. CLEARANCE TO THE EXPANSION JOINTS AND TO THE CENTERLINE OF THE CONSTRUCTION JOINTS. HORIZONTAL WALL REINFORCING STEEL SHALL HAVE 2" MIN. CLEARANCE TO THE EXPANSION JOINTS. SEE ODOT STANDARD LECS-5 FOR SEALED EXPANSION JOINT DETAIL, DIMENSIONS AND NOTES, EXCEPT AS SHOWN OTHERWISE. WATERSTOP SHALL CONFORM TO SECTION 733 OF THE STANDARD SPECIFICATIONS. ALL COST FOR DOWEL, WATERSTOP, EXPANSION MATERIAL, JOINT SEALANT AND BACKER ROD, LABOR, MATERIALS, TOOLS AND OTHER INCIDENTALS SHALL BE INCLUDED IN PRICE BID PER SQUARE YARD OF "RETAINING WALL".

PIPE UNDERDRAIN:

UNDERDRAIN COVER MATERIAL(S) SHALL BE SEPARATED FROM OTHER SOIL, SAND, AND/OR AGGREGATE SURFACES WITH A FILTER FABRIC IN ACCORDANCE WITH SECTION 510 OF THE STANDARD SPECIFICATIONS. ALL COARSE AND FILTER SAND PIPE UNDERDRAIN COVER MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 703 OF THE STANDARD SPECIFICATIONS. FOR PIPE UNDERDRAIN DETAILS, SEE "CIP RETAINING WALL DETAILS" SHEETS AND ODOT STANDARD DRAWING PUD-4. ALL COSTS OF TRENCH EXCAVATION, PIPE UNDERDRAIN COVER MATERIAL, FILTER FABRIC, APPURTENANCES, 6" PERFORATED AND NON-PERF. PIPE UNDERDRAIN ROUND, STANDARD BEDDING MATERIAL, LABOR, MATERIALS AND OTHER INCIDENTALS SHALL BE INCLUDED IN PRICE BID PER SQUARE YARD OF "RETAINING WALL".

GENERAL NOTES (RETAINING WALL) (CONT'D.)

CLAY PLATING:

CLAY PLATING SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 208 OF THE STANDARD SPECIFICATIONS. ALL COSTS FOR CLAY PLATING, LABOR, MATERIALS, TOOLS AND OTHER INCIDENTALS SHALL BE INCLUDED IN PRICE BID PER SQUARE YARD OF "RETAINING WALL".

SUBSTRUCTURE EXCAVATION COMMON:

CONTRACTOR SHALL EXCAVATE TO THE NEAT LINES OF THE FOOTING AND POUR CONCRETE AGAINST THE UNDISTURBED EARTH. THE QUANTITY OF "CLASS AA CONCRETE" AND "SUBSTRUCTURE EXCAVATION COMMON" SHOWN UNDER THESE ITEMS IS THE AMOUNT WITHIN THE NEAT LINES OF THE EXCAVATION AS SHOWN ON THE PLANS. ANY VARIATION IN THE ELEVATIONS OF THE RETAINING WALL BASES SHALL BE TAKEN UP IN THE THICKNESS OF THE FOOTING. THE FOUNDATION SHALL NOT BE DISTURBED OUTSIDE THE NEAT LINES OF THE FOOTING BELOW THE TOP OF FOOTING. SUBSTRUCTURE EXCAVATION AND PLACEMENT OF FOOTING CONCRETE SHALL BE LIMITED TO THE AMOUNT THE CONTRACTOR CAN COMPLETE IN A ONE-DAY PERIOD. BOTTOM OF FOOTING EXCAVATION SHALL BE KEPT DRY. CONCRETE SHALL BE PLACED AGAINST THE LIMITS OF EXCAVATION BELOW THE LEVEL OF THE TOP OF THE FOOTING. CONTRACTOR SHALL NOT EXCAVATE BELOW RETAINING WALL FOOTING, UNLESS CALLED FOR IN THE PLANS. ANY LOW STRENGTH, UNSTABLE SOILS SHALL BE REMOVED DURING CONSTRUCTION AND REPLACED WITH TESTED AND APPROVED FILL. SEE STANDARD TESTING PROJECT NO. 2130-0806 GEOTECHNICAL ENGINEERING REPORT FOR ADDITIONAL INFORMATION. ALL COSTS FOR REPLACEMENT OF LOW STRENGTH SOILS SHALL BE INCLUDED IN PRICE BID PER SQUARE YARD OF "RETAINING WALL". ALL COSTS OF SUBSTRUCTURE EXCAVATION COMMON SHALL BE INCLUDED IN PRICE BID PER SQUARE YARD OF "RETAINING WALL". ALL COSTS FOR ANY ROCK AND/OR SHALE EXCAVATION REQUIRED WITHIN THE LIMITS SHOWN SHALL BE INCLUDED IN PRICE BID PER SQUARE YARD OF "RETAINING WALL".

PILOT HOLES FOR PILING:

18" DIAMETER PILOT HOLES MAY BE DRILLED WHERE NECESSARY FOR CONSTRUCTION FOR EACH HP12X53 PILING. PILOT HOLES SHALL BE DRILLED TO A MINIMUM ELEVATION AS INDICATED ON THE PLANS OR NO LESS THAN 5'-0" INTO THE ROCK, WHICHEVER IS DEEPER. ONCE EACH PILE WITHIN THE PILOT HOLE HAS BEEN SEATED INTO THE ROCK THE CONTRACTOR SHALL THEN ENCASE EACH PILE WITH CLASS "C" CONCRETE TO THE BOTTOM OF PILOT HOLE. SEE ODOT STANDARD DRAWING HP1-2 FOR PILE WELDING SPLICE DETAILS AND NOTES. ALL COSTS INCLUDING LABOR, EQUIPMENT, CLASS "C" CONCRETE, AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID FOR FOR (PL) PILOT HOLES".

GEOTECHNICAL REPORT:

ALL BORING LOG DATA AND INFORMATION CAN BE REFERENCED IN THE PROJECT SPECIAL PROVISIONS AND/OR CONTRACT DOCUMENTS.

29682(04) PAY QUANTITIES				
0200		BRIDGE "A" - NBI 32913 - DOUBLE 16'x18' BRIDGE BOX WITH SP. END SECTIONS AND 4'-0" CURTAIN WALLS, SKEWED 0°		
ITEM NO.		DESCRIPTION	UNIT	QUANTITY
202(A)	2210	UNCLASSIFIED EXCAVATION (BR-1)	CY	2,800.00
501(A)	1210	STRUCTURAL EXCAVATION UNCLASSIFIED (BR-1)	CY	345.00
502	3100	TEMPORARY EARTH RETAINAGE	LSUM	1.00
504(F)	5600	HANDRAILING (BR-1)	LF	332.00
509(A)	0210	CLASS AA CONCRETE (BR-1)	CY	745.20
509(D)	0510	CLASS C CONCRETE	CY	41.50
510(A)	1210	RETAINING WALL (BR-1)	SY	509.40
511(A)	2210	REINFORCING STEEL (BR-1)	LB	138,910.00
514(A)	5220	PILES, FURNISHED (HP 12X53)	LF	4,565.00
514(B)	5320	PILES, DRIVEN (HP 12X53)	LF	2,464.00
514(K)	6200	(PL) PILOT HOLES	LF	2,101.00
514(L)	6300	PILE SPLICE, H-PILE (NON-BIDDABLE)	EA	1.00
619(D)	6700	REMOVAL OF EXISTING BRIDGE STRUCTURE	LSUM	1.00

PAY QUANTITY NOTES (BRIDGE AND RETAINING WALL)

(BR-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITIES. SEE THE 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION SECTION 109.01.B "PLAN QUANTITIES".

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

BRIDGE "A"
SH 16 OVER SAND CREEK

PAY QUANTITIES AND GENERAL NOTES (BRIDGE AND RETAINING WALL)

ENVIRONMENTAL MITIGATION NOTES

EARTHWORK NOTE:
THE CONTRACTOR MUST ENSURE THAT ANY MATERIAL INCORPORATED INTO THE PROJECT IS FREE OF ANY HAZARDOUS, INDUSTRIAL OR CONTAMINATED WASTE, REFER TO SUB-SECTIONS 106.01 AND 202.02 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

IMPORTED MATERIAL (EG. BORROW) - IF MATERIAL IS IMPORTED TO THE PROJECT AND AT ANY POINT THE MATERIAL IS DETERMINED BY THE ENGINEER TO INCLUDE ANY TYPE OF UNACCEPTABLE CONTAMINATION, THE MATERIAL MAY REQUIRE REMOVAL, IN WHOLE, OR IN PART. IF REMOVAL IS REQUIRED, THEN THE INITIAL PLACEMENT, REMOVAL AND PROPER DISPOSAL OF THIS MATERIAL SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE DISPOSAL OF THE UNACCEPTABLE MATERIAL SHALL BE APPROVED BY THE ENGINEER, REFER TO SUB-SECTION 107.15 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

TO ASSIST THE CONTRACTOR, THE "OFF PROJECT FACILITY/BORROW SITE HAZARDOUS MATERIALS QUESTIONNAIRE" IS PROVIDED ON THE DEPARTMENT'S WEB SITE:

<https://oklahoma.gov/content/dam/ok/en/odot/documents/ok-gov-docs/programs-and-projects/environmental/hazard-questionnaire-2016.pdf>

THIS QUESTIONNAIRE IS PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR SO THAT A CLEARER UNDERSTANDING OF THE CHARACTERISTICS OF THE PROPOSED SITE/ MATERIAL IS ACHIEVED. COMPLETION AND SUBMITTAL OF THIS FORM TO THE ENGINEER DOES NOT EXCUSE THE CONTRACTOR FROM PROVIDING MATERIALS THAT ARE FREE OF HAZARDOUS AND INDUSTRIAL COMPOSITION IN ACCORDANCE WITH SUB-SECTIONS 106.01 AND 202.02 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

NON-COMPLIANCE:
FAILURE TO IMPLEMENT THE COMMITMENTS SPECIFIED IN THE PLAN NOTES CAN RESULT IN NON-COMPLIANCE ISSUES ON THE PROJECT. WORK ACTIVITIES MAY BE SUSPENDED ON THE PROJECT, FOR AN UNDETERMINED DURATION, WHILE WORKING WITH REGULATORS TO BRING THE PROJECT BACK INTO COMPLIANCE. THE CONTRACTOR WILL NOT BE COMPENSATED FOR TIME LOST.

WATER QUALITY CONSERVATION:
APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE IMPACTS FROM STORM WATER DISCHARGES AND SEDIMENTATION IN STREAMS, AS ESTABLISHED BY THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY, SHALL BE CONSCIENTIOUSLY IMPLEMENTED THROUGHOUT THE PROPOSED CONSTRUCTION PERIODS, IN ORDER TO MINIMIZE ANY POTENTIAL IMPACTS TO ANY LISTED SPECIES. THE EFFECTIVENESS OF EROSION CONTROLS SHALL BE MAINTAINED FOR THE DURATION OF CONSTRUCTION ACTIVITIES. HAZARDOUS MATERIALS, CHEMICALS, FUELS, LUBRICATING OILS, AND OTHER SUCH SUBSTANCES SHALL BE STORED AT LEAST 100 FEET OUTSIDE OF THE ORDINARY HIGH WATER MARK (OHWM). REFUELING OF CONSTRUCTION EQUIPMENT SHALL ALSO BE CONDUCTED AT LEAST 100 FEET FROM THE OHWMS. SEDIMENT AND EROSION CONTROLS SHALL BE INSTALLED AROUND STAGING AREAS TO PROHIBIT DISCHARGE OF MATERIALS FROM THESE SITES. CONSTRUCTION WASTE MATERIALS AND DEBRIS SHALL BE STOCKPILED AT LEAST 25 FEET OUTSIDE OF THE OHWMS, AND THESE MATERIALS SHALL BE REMOVED AND DISPOSED OF PROPERLY FOLLOWING COMPLETION OF THE PROJECT. PREVENTATIVE MEASURE MUST BE TAKEN TO PROHIBIT THE DISCHARGE OF CONTAMINANTS INTO ANY SURFACE WATERS.

AMERICAN BURYING BEETLE NOTE:
THE AMERICAN BURYING BEETLE IS A LARGE CARRION BURYING BEETLE THAT OCCURS WITHIN THE PROJECT LIMITS. ARTIFICIAL LIGHTING MAY BE USED DURING CONSTRUCTION FOR NIGHT ACTIVITIES IF THE EQUIPMENT SPECIFICATIONS OUTLINED IN SPECIAL PROVISION 656-5(A-B)19 FOR ABB ARE ADHERED TO AND MEASURES TO MINIMIZE USE OF ARTIFICIAL LIGHTING HAVE BEEN IMPLEMENTED. CARCASSES AND ALL FOOD TRASH SHALL BE REMOVED FROM THE PERMANENT AND TEMPORARY RIGHT-OF-WAY THROUGHOUT THE DURATION OF PROJECT ACTIVITIES. POLLUTION PREVENTION REQUIREMENTS AS SPECIFIED BY THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY GENERAL PERMIT OKRL0 FOR STORM WATER DISCHARGES SHALL BE IMPLEMENTED WHEN APPROPRIATE. ADDITIONALLY, ALL EQUIPMENT WILL BE FUELED, AND ALL FUEL AND MOTOR VEHICLE OIL WILL NOT BE STORED WITHIN AREAS OF NATIVE VEGETATION (IE. OUTSIDE OF ABB HABITAT).

MIGRATORY BIRD NOTE:
MIGRATORY BIRDS ARE PROTECTED BY THE FEDERAL MIGRATORY BIRD TREATY ACT. MANY BIRDS COMMONLY USE BRIDGES AND CULVERTS FOR NESTING. THE NESTING SEASON FOR MOST MIGRATORY BIRD SPECIES EXTENDS FROM MARCH 1 TO AUGUST 31. MIGRATORY BIRD NESTING USE OF THE RCB CULVERT WAS OBSERVED. PAINTING, REPAIR, RETROFIT, REHABILITATION OR DEMOLITION OF THE EXISTING CULVERT SHALL BE CONDUCTED BETWEEN SEPTEMBER 1, AND FEBRUARY 28, WHEN MIGRATORY BIRD NESTS ARE NOT OCCUPIED. IF PAINTING, REPAIR, RETROFIT, REHABILITATION OR DEMOLITION CANNOT BE COMPLETED BETWEEN SEPTEMBER 1 AND FEBRUARY 28, THE CULVERT SHALL BE PROTECTED FROM NEW NEST ESTABLISHMENT PRIOR TO MARCH 1, BY MEANS THAT DO NOT RESULT IN BIRD DEATH OR INJURY. OPTIONS INCLUDE THE EXCLUSION OF ADULT BIRDS FROM SUITABLE NEST SITES ON OR WITHIN A STRUCTURE BY THE PLACEMENT OF WEATHER-RESISTANT POLYPROPYLENE NETTING WITH 0.25-INCH OR SMALLER OPENINGS, PRIOR TO MARCH 1. METHODS OTHER THAN NETTING MUST BE PRE-APPROVED BY THE ODOT BIOLOGIST. ALTHOUGH NO NESTS WERE OBSERVED ON ALL OTHER STRUCTURES, THE BIRDS MAY OCCUPY THE STRUCTURES IN THE FUTURE. THE RESIDENT ENGINEER SHALL CONTACT THE ODOT BIOLOGIST IF ANY BIRD USE OF THIS STRUCTURES IS OBSERVED. IF BIRDS ARE OBSERVED THEN PAINTING, REPAIR, RETROFIT, REHABILITATION OR DEMOLITION OF THE EXISTING BRIDGE AND CULVERT SHALL BE CONDUCTED BETWEEN SEPTEMBER 1, AND FEBRUARY 28 (WHEN MIGRATORY BIRD NESTS ARE NOT OCCUPIED).

ENVIRONMENTAL MITIGATION NOTES

REVISIONS		
REV. NO.	DESCRIPTION	DATE

ENVIRONMENTAL NOTES		DETAIL		
		REVIEW		
		APPROVED		
		ENVIRONMENTAL DIVISION		
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION			
	JOB/PIECE NO. 29682(04)			SHEET NO. AE01

PAY QUANTITY NOTES

- (R-3)

INCLUDES 200 CU. YDS. FOR DRIVEWAYS, RETURNS, DIKES, AND MISCELLANEOUS EARTHWORK.
- (R-4)

AN ESTIMATED QUANTITY OF 3,699 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 TYPE-A SALVAGED TOPSOIL PRICE BID TO INCLUDE COST OF 18-46-0 FERTILIZER, ESTIMATED AT 150 POUNDS PER ACRE.
FOR SOLID SLAB SODDING PRICE BID TO INCLUDE COST OF 10-20-10 FERTILIZER, ESTIMATED AT 200 POUNDS PER 1,000 SY.
- (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 ALL NECESSARY MAINTENANCE, MAINTAINING DEVICE IN PROPER UPRIGHT POSITION, REMOVAL OF DEVICE, AND REMOVAL OF SEDIMENT WHEN IT REACHES HALF THE HEIGHT OF THE DEVICE.
- (R-11)

THE QUANTITIES ESTIMATED FOR TEMPORARY EROSION AND SEDIMENT CONTROL IS 5 ACRES.
- (R-15)

QUANTITY BASED ON TWO APPLICATIONS.
- (R-18)

ESTIMATED AT 160 LBS. PER CU. FT.
- (R-24)

ESTIMATED AT 0.075 GALLONS PER SQUARE YARD OF ORIGINAL EMULSION OF TACK COAT (BEFORE DILUTION FOR APPLICATION) IN ACCORDANCE WITH SECTION 407 OF THE STANDARD SPECIFICATIONS.
- (R-25)

ESTIMATED AT 112 LBS. PER SQ. YD. PER 1" THICK.
- (R-27)

PRICE BID TO INCLUDE COST OF FOG SEAL, MEETING THE REQUIREMENTS OF SECTION 407 OF THE STANDARD SPECIFICATIONS.
- (R-28)

MILLINGS SHALL BECOME THE PROPERTY OF ODOT, TO BE HAULED AND STOCKPILED WITHIN TEN MILES OF THE PROJECT. MILLINGS SHALL BE FREE FROM SOIL OR FOREIGN MATERIAL AND SHALL CONTAIN NO PIECES GREATER THAN 4" DIAMETER. CARE SHOULD BE TAKEN WHEN STOCKPIILING TO NOT INCORPORATE UNDERLYING MATERIAL INTO THE STOCKPILE.
- (R-31)

QUANTITY INCLUDES AN ESTIMATED 5 C.Y. TO BE USED AS DIRECTED BY THE ENGINEER.
- (R-33)

THE PRECAST CONCRETE OPTION MAY BE USED INSTEAD, PER DIRECTION OF THE ENGINEER.
- (R-35)

ANY DRAINAGE STRUCTURE DESCRIBED AS TEMPORARY, SHALL AFTER COMPLETION OF THE PROJECT, BE REMOVED BY AND BECOME THE PROPERTY OF THE CONTRACTOR.
- (R-37)

INCLUDES REMOVAL OF ALL EXISTING ROADWAY DRAINAGE STRUCTURES, HEADWALLS (UNLESS OTHERWISE SPECIFIED), INLETS, FENCES, AND OTHER STRUCTURES WITHIN THE RIGHT OF WAY.
- (R-38)

TO BECOME THE PROPERTY OF AND BE DISPOSED OF BY THE CONTRACTOR IN A MANNER APPROVED BY THE ENGINEER.
- (R-39)

MATERIALS REMOVED SHALL NOT BE MEASURED FOR PAYMENT UNDER SECTION 202.06 UNCLASSIFIED EXCAVATION.
- (R-41)

INCLUDES 2% FOR GROUND MEASUREMENT.
- (R-42)

ALL GATES AND GATE END POSTS FOR STRANDED WIRE FENCE (SWF) SHALL BE CONSTRUCTED AT THE SAME WIDTH AS THE EXISTING, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- (1)

TURF REINFORCEMENT MAT SHALL BE PYRAMAT 75 HIGH PERFORMANCE TURF REINFORCEMENT MAT (HPTRM). PRICE BID SHALL INCLUDE THE COST OF SEEDING, PINS, LABOR, MATERIALS, AND INCIDENTALS NECESSARY. SEE TURF REINFORCEMENT MAT DETAIL SHEET.
- (2)

PRICE BID TO INCLUDE THE COST OF SOD STAPLES AS NECESSARY FOR STEEP SLOPES.
- (3)

APPLICATION RATE ESTIMATED AT 0.25 GALLONS PER SQUARE YARD AND 3" WIDER ON EACH SIDE OF FABRIC REINFORCEMENT.
- (4)

PRICE BID TO INCLUDE THE COST OF PIPE UNDERDRAIN COVER MATERIAL AND TRENCH EXCAVATION.
- (5)

OUTLET LATERAL HEADWALL INCLUDED FOR PAVEMENT EDGE DRAIN AND PIPE UNDERDRAIN SYSTEMS.

MANDATORY TIE:
THE COST OF THE FOLLOWING PAY ITEMS FOR JP 29682(04), CREEK COUNTY SHALL BE INCLUDED IN THE PRICE BID FOR THOSE PAY ITEMS IN JP 24131(04), CREEK COUNTY:
1. CONSTRUCTION STAKING
2. SWPPP DOCUMENTATION AND MANAGEMENT
3. FIELD OFFICE
4. MOBILIZATION

SUMMARY OF PAY QUANTITIES - ROADWAY			
ROADWAY 100			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
201(A) 1200	CLEARING AND GRUBBING	LSUM	1.0
202(A) 2200	UNCLASSIFIED EXCAVATION	CY	22,212.0
202(D) 2500	UNCLASSIFIED BORROW	(R-3) CY	200.0
205(A) 6200	TYPE A-SALVAGED TOPSOIL	(R-4,6) LSUM	1.0
221(B) 2300	TEMPORARY SILT FENCE	(R-8) LF	1,367.0
221(C) 2400	TEMPORARY SEDIMENT FILTER	(R-8) EA	8.0
221(E) 2600	TEMPORARY SILT DIKE	(R-8) LF	266.0
221(F) 2700	TEMPORARY ROCK FILTER DAM TYPE 1	(R-8) CY	18.0
227 4100	(SP) TURF REINFORCEMENT MAT	(1) SY	2,410.0
229 6100	DITCH LINER PROTECTION	LF	143.0
230(A) 7200	SOLID SLAB SODDING	(2)(R-6,7) SY	22,273.0
233(A) 0200	VEGETATIVE MULCHING	(R-11) AC	5.0
241 3100	MOWING	(R-15) AC	10.0
303(A) 1200	AGGREGATE BASE TYPE A	CY	1,844.0
307(K) 4200	STABILIZED SUBGRADE	SY	12,664.0
326(A) 1200	GEOTEXTILE REINFORCEMENT	SY	10,691.0
402(E) 2600	TRAFFIC BOUND SURFACE COURSE TYPE E	(R-18) TON	2,432.0
407(B) 7300	TACK COAT	(R-24) GAL	2,117.0
409(A) 9200	FABRIC REINFORCEMENT	SY	1,236.0
409(B) 9300	BITUMINOUS BINDER	(3) GAL	348.0
411(B) 1330	SUPERPAVE, TYPE S3 (PG 64-22 OK)	(R-25) TON	4,034.0
411(C) 1430	SUPERPAVE, TYPE S4 (PG 64-22 OK)	(R-25) TON	1,761.0
412 3100	COLD MILLING PAVEMENT	(R-27,28) SY	3,398.0
509(D) 0500	CLASS C CONCRETE	(R-31) CY	27.0
601(B) 1200	TYPE I PLAIN RIPRAP WITH FILTER BLANKET	TON	115.0
609(B) 4355	2'-8" COMB. CRB. & GUT. (4" MNTBLE)	LF	43.0
611(G) 0354	INLET (SMD-TYPE 2)	(R-33) EA	7.0
611(G) 7934	INLET GPI TYPE 1 (DES. 2)	EA	1.0
613(A) 5228	42" R.C. PIPE CLASS III	LF	288.0
613(B) 5508	18" CORR. GALV. STEEL PIPE	(R-35) LF	558.0
613(B) 5516	24" CORR. GALV. STEEL PIPE	LF	204.0
613(B) 5524	30" CORR. GALV. STEEL PIPE	LF	76.0
613(B) 5616	35" X 24" CORR. GALV. STEEL PIPE ARCH	LF	202.0
613(B) 5624	49" X 33" CORR. GALV. STEEL PIPE ARCH	LF	62.0
613(H) 6200	6" PERFORATED PIPE UNDERDRAIN ROUND	(4) LF	164.0
613(I) 6305	6" NON-PERF PIPE UNDERDRAIN RND.	(4) LF	55.0
613(J) 6400	EDGE DRAIN CONDUIT-PERFORATED	LF	43.0
613(K) 6500	EDGE DRAIN OUTLET LATERAL-NONPERFORATED	LF	13.0
613(M) 6964	TYPE B4 CULVERT END TREATMENT	EA	4.0
613(M) 6968	TYPE C4 CULVERT END TREATMENT	EA	1.0
613(M) 6992	TYPE DD4 CULVERT END TREATMENT	EA	2.0
613(M) 7004	TYPE A6 CULVERT END TREATMENT	EA	2.0
613(M) 7008	TYPE B6 CULVERT END TREATMENT	EA	8.0
613(M) 7012	TYPE C6 CULVERT END TREATMENT	EA	2.0
613(Q) 7500	OUTLET LATERAL HEADWALL	(5) EA	3.0
613(T) 7800	STANDARD BEDDING MATERIAL, CLASS C	CY	572.0
613(V) 8000	TRENCH EXCAVATION	CY	1,883.0
619(A) 6200	REMOVAL OF STRUCTURES & OBSTRUCTIONS	(R-37,38) LSUM	1.0
619(B) 6352	REMOVAL OF FENCE	(R-38) LF	1,249.0
619(B) 6364	REMOVAL OF ASPHALT PAVEMENT	(R-38,39) SY	5,548.0
619(B) 6380	REMOVAL OF CONCRETE DRIVEWAY	(R-38,39) SY	86.0
619(B) 6384	REMOVAL OF ASPHALT DRIVEWAY	(R-38,39) SY	768.0
619(B) 6396	REMOVAL OF GUARDRAIL	(R-38) LF	474.0
619(C) 6600	SAWING PAVEMENT	LF	2,817.0
623(A) 1200	BEAM GUARDRAIL W-BEAM SINGLE	LF	250.0
623(G) 1820	GUARDRAIL END TREATMENT (31")	EA	2.0
624(A) 3200	FENCE-STYLE WWF	(R-41) LF	320.0
624(C) 3405	FENCE-STYLE SWF (5 BARBED WIRE)	(R-41,42) LF	93.0
624(E) 3600	FENCE-STYLE CLF (4'HIGH, CLASS A)	(R-41) LF	277.0
624(E) 3640	FENCE-STYLE CLF (8'HIGH, CLASS A)	(R-41) LF	456.0
624(F) 3721	GATES-STYLE CLF (4'HIGH X 16'LONG)	EA	1.0
629(A) 7200	MAILBOX INSTALLATION-SINGLE	EA	8.0
629(B) 7300	MAILBOX INSTALLATION-MULTIPLE	EA	1.0
629(C) 7400	REMOVAL OF MAILBOX INSTALLATION	EA	12.0
629(E) 7600	MAILBOX	EA	12.0
853 5175	GUARDRAIL DELINEATORS(TYPE 2, CODE 1)	EA	8.0

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

PAY QUANTITIES AND NOTES (ROADWAY)

GENERAL CONSTRUCTION NOTES

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.

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.

MAINTENANCE OF THROUGH TRAFFIC INCLUDES THE MAINTENANCE OF THE EXISTING ROAD IN CLOSE PROXIMITY TO THE NEW CONSTRUCTION AS SHOWN ON THE PLANS.

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.

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-2 (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.

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.

THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY RIGHT-OF-WAY FENCE AS REQUIRED. WHEN THE PORTION OF THE PROJECT THAT REQUIRED THIS FENCE IS COMPLETED, THE TEMPORARY FENCE SHALL BE REMOVED, AND PERMANENT RIGHT-OF-WAY FENCING SHALL BE RESTORED OR INSTALLED IN A MANNER APPROVED BY THE ENGINEER. ALL COST OF TEMPORARY FENCING SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

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.

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.

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.

THE CONTRACTOR SHALL KEEP THE OPEN TRENCH DRAINED. COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

VEGETATIVE MULCHING: THE VEGETATIVE MULCH SHALL BE ANCHORED IN ACCORDANCE WITH THE "MULCHING TILLER METHOD", AS SPECIFIED IN 233.04B(2) OF THE STANDARD SPECIFICATIONS.

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.

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.

PIPE UNDERDRAIN QUANTITIES ESTIMATED ONLY. LOCATION, IF AND WHERE REQUIRED, TO BE DETERMINED BY THE ENGINEER.

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.

BITUMINOUS SURFACING ON AGGREGATE BASE WHICH IS TO BE RELAID SHALL BE SCARIFIED AND INCORPORATED INTO THE AGGREGATE BASE MATERIAL. IN ALL OTHER RESPECTS, THE MATERIAL TO BE RELAID SHALL MEET THE SPECIFICATIONS FOR "AGGREGATE BASE".

SURFACING OF RETURNS, UNLESS OTHERWISE SHOWN ON THE PLANS, SHALL BE OF THE SAME MATERIAL (BASE AND SURFACE) AS THAT OF THE ABUTTING SHOULDER OF THE MAINLINE. BASE AND SURFACE THICKNESS SHALL BE THE THICKNESS SHOWN ON PLANS.

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

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

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

SUGGESTED SEQUENCE OF CONSTRUCTION

GENERAL SEQUENCING NOTES:

THIS PROJECT IS A MANDATORY TIE WITH JP 24131(04), CONTRACTOR SHALL REFERENCE THAT PROJECT FOR THE OVERALL SEQUENCE.

THE CONTRACTOR SHALL SEQUENCE AND OR PHASE CONSTRUCTION TO ENSURE THAT ACCESS TO EXISTING DRIVES AND LOCAL ROADS ARE MAINTAINED DURING ALL CONSTRUCTION OPERATIONS UNLESS NOTED OTHERWISE. IF AT ANY TIME ACCESS IS TO BE INTERRUPTED, THE CONTRACTOR SHALL NOTIFY THE PROPERTY OWNER, THE TOWN OF BRISTOW, AND ALL EMERGENCY AGENCIES A MINIMUM OF FIVE WORKING DAYS BEFORE OPERATIONS BEGIN. DRIVES SHALL BE CONSTRUCTED DURING OFF PEAK HOURS OR AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL PROVIDE TEMPORARY DRAINAGE STRUCTURES AS DEPICTED ON THE SUMMARY OF DRAINAGE OR AS REQUIRED THROUGHOUT CONSTRUCTION TO MAINTAIN PROPER DRAINAGE.

PLACE SOLID SLAB SOD OR VEGETATIVE MULCH ON COMPLETED SLOPES IN ORDER TO REDUCE THE AMOUNT OF AREA DISTURBED AT ONE TIME.

CONSTRUCTION PHASES MAY BE RUN CONCURRENTLY TO EXPEDITE CONSTRUCTION.
THE CONTRACTOR SHALL SUBMIT CONSTRUCTION PHASING TO THE RESIDENT ENGINEER FOR APPROVAL.

- PHASE 1:

CONSTRUCT BRIDGE "A", RETAINING WALLS "C" & "D", AND TEMPORARY DETOUR TRAFFIC ON LT. EDGE OF EXISTING SH 16

A. SHIFT TRAFFIC TO LT. EDGE OF EXISTING PAVEMENT.

B. CONSTRUCT BRIDGE "A", RETAINING WALLS "C" & "D", AND GRADE DOWNSTREAM CHANNEL.

C. CONSTRUCT TEMPORARY DETOUR AND TEMPORARY DRAINAGE STRUCTURES.

D. INSTALL TEMPORARY TRAFFIC SIGNAL.

E. SHIFT TRAFFIC TO TEMPORARY DETOUR UTILIZING EXISTING SH 16 AS NECESSARY.
- PHASE 2:

CONSTRUCT RETAINING WALLS "A" & "B" AND LT. HALF OF PROPOSED SH 16 TRAFFIC ON RT. HALF OF EXISTING SH 16 & TEMPORARY DETOUR (SINGLE LANE WITH SIGNAL)

A. REMOVE EXISTING BRIDGE.

B. CONSTRUCT RETAINING WALLS "A" & "B" AND GRADE UPSTREAM CHANNEL.

C. CONSTRUCT STR. 2 DURING OFF PEAK HOURS ONE HALF AT A TIME UTILIZING FLAGMEN AS NECESSARY.

D. CONSTRUCT PROPOSED SH 16 LT. DRIVING LANE AND SHOULDER FROM BOP TO ¼ SURVEY STA. 131+00 AND FROM STA. 140+10 TO EOP. DO NOT CONSTRUCT TOP LIFT OF ASPHALT UNTIL LATER PHASE.

E. CONSTRUCT PROPOSED SH 16 DRIVING LANES AND LT. SHOULDER FROM ¼ SURVEY STA. 131+00 TO STA. 140+10. DO NOT CONSTRUCT TOP LIFT OF ASPHALT UNTIL LATER PHASE.

F. SHIFT TRAFFIC TO NEWLY CONSTRUCTED LT. HALF OF PROPOSED SH 16.
- PHASE 3:

CONSTRUCT REMAINDER OF PROPOSED SH 16 TRAFFIC ON NEWLY CONSTRUCTED LT. HALF OF PROPOSED SH 16

A. REMOVE TEMPORARY DETOUR.

B. CONSTRUCT REMAINING RT. HALF OF PROPOSED SH 16 UTILIZING FLAGMEN AS NECESSARY.

C. CONSTRUCT REMAINING TOP LIFT OF ASPHALT ONE LANE AT A TIME UTILIZING TEMPORARY TRAFFIC SIGNAL.

D. UNINSTALL TEMPORARY TRAFFIC SIGNAL, COMPLETE FINAL OPERATIONS, AND OPEN SH 16 TO ULTIMATE TRAFFIC CONFIGURATION.

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

GENERAL NOTES & SUGGESTED SEQUENCE OF CONSTRUCTION (ROADWAY)

SUMMARY OF SURFACING														
STATION EXTENTS	AGGREGATE BASE TYPE A 303(A)	STABILIZED SUBGRADE 307(K)	GEOTEXTILE REINFORCEMENT 326(A)	TRAFFIC BOUND SURFACE COURSE TYPE E 402(E)	TACK COAT 407(B)	FABRIC REINFORCEMENT 409(A)	BITUMINOUS BINDER 409(B)	SUPERPAVE, TYPE S3 (PG 64-22 OK) 411(B)	SUPERPAVE, TYPE S4 (PG 64-22 OK) 411(C)	COLD MILLING PAVEMENT 412	2'-8" COMB. CRB. & GUT, (4" MNTBLE) 609(B)	EDGE DRAIN CONDUIT-PERFORATED 613(J)	EDGE DRAIN OUTLET LATERAL-NONPERFORATED 613(K)	OUTLET LATERAL HEADWALL 613(Q)
	CY	SY	SY	TON	GAL.	SY	GAL.	TON	TON	SY	LF	LF	LF	EA.
SH 16														
STA. 121+50 TO STA. 131+00	548.35	2,962.77	3,453.76	581.04	632.35	844.44	237.50	1,035.44	467.25	2,322.22				
STA. 131+00 TO STA. 144+50	1,295.64	6,521.33	7,237.13	964.97	929.96	391.11	110.00	1,874.79	727.67	1,075.56	42.95	43.00	13.00	1.00
DETOUR														
STA. 128+63.51 TO STA. 131+00		466.19			30.45			69.80	44.78					
STA. 131+00 TO STA. 142+42.28		2,713.11			178.12			407.97	262.06					
TOTALS	1,843.99	12,663.40	10,690.89	1,546.01	1,770.88	1,235.55	347.50	3,388.00	1,501.76	3,397.78	42.95	43.00	13.00	1.00

NOTE: QUANTITIES INCLUDE ASPHALT, TACK COAT, AND TBSC TYPE E QUANTITIES FOR GUARDRAIL WIDENING.

SUMMARY OF EARTHWORK QUANTITIES					
STATION EXTENTS	UNCLASSIFIED EXCAVATION 202(A)	FILL +15%	EXCESS EXCAVATION	UNCLASSIFIED BORROW 202(D)	TYPE A- SALVAGED TOP SOIL 205(A)
	↕ CY	CY	▣ CY	▣ CY	▼ CY
PHASE 1	8,573	5,839	2,703		3,699
PHASE 2	7,415	7,446			
PHASE 3	6,224	3,968	2,256		
TOTALS	22,212	17,253	4,959		3,699

↕ QUANTITIES INCLUDE EARTHWORK FOR DRIVES, GUARDRAIL WIDENING, CHANNEL, AND DETOURS AS REQUIRED BY PHASE.
▣ UTILIZE 31 CY OF EXCESS EXCAVATION FROM PHASE 1 TO REDUCE PHASE 2 UNCLASSIFIED BORROW.
▼ QUANTITY SHOWN FOR INFORMATION PURPOSES ONLY.

SUMMARY OF DRIVES							
STATION AND LOCATION	WIDTH x LENGTH	RADI (R1)	RADI (R2)	3" TRAFFIC BOUND SURFACE COURSE TYPE E 402(E)	TACK COAT 407(B)	(2'-2.5" 5" SUPERPAVE, TYPE S3 (PG 64-22 OK) 411(B)	2" SUPERPAVE, TYPE S4 (PG 64-22 OK) 411(C)
				● TON	GAL.	TON	TON
STA. 121+86 - LT.	22' x 70.92'	20'	20'	62.40	31.33	58.48	23.40
STA. 126+73 - RT.	22' x 82.01'	25'	25'	77.52	34.54	64.47	25.80
STA. 127+10 - LT.	12' x 70.00'	15'	15'	37.44	15.61	29.13	11.66
STA. 132+25 - LT.	14' x 72.16'	20'	20'	70.37	19.70	36.77	14.71
STA. 133+25 - RT.	20' x 82.80'	20'	20'	71.76	30.46	56.86	22.75
STA. 134+12 - LT.	12' x 58.53'	20'	15'	111.02	14.06	26.24	10.50
STA. 138+55 - LT.	12' x 65.24'	20'	20'	79.83	16.35	30.51	12.21
STA. 139+85 - LT.	12' x 65.00'	20'	20'	56.88	15.86	29.60	11.85
STA. 140+10 - RT.	20' x 75.00'	20'	20'	64.91	27.86	52.00	20.81
STA. 141+44 - RT.	18' x 76.24'	20'	15'		29.65	55.33	22.14
STA. 141+61 - LT.	12' x 90.35'	20'	20'	47.06	20.87	38.96	15.59
STA. 142+04 - RT.	22' x 61.66'	15'	15'	57.85	23.68	44.19	17.68
STA. 143+00 - LT.	25' x 79.00'	25'	25'	86.98	37.39	69.78	27.92
STA. 143+17 - RT.	14' x 50.00'	20'	20'	31.37	14.53	27.12	10.85
STA. 143+91 - RT.	14' x 47.37'	20'	20'	30.15	13.91	25.97	10.39
TOTALS				885.54	345.80	645.41	258.26

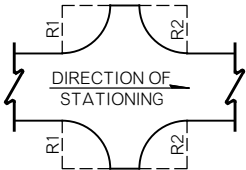
● TBSC QUANTITIES ARE FOR TEMPORARY DRIVES - 2 APPLICATIONS

SUMMARY OF EROSION CONTROL					
STATION EXTENTS	LOCATION AND DESCRIPTION	(SP) TURF REINFORCEMENT MAT 230(A)	SOLID SLAB SODDING 230(A)	TYPE 1 PLAIN RIPRAP WITH FILTER BLANKET 601(B)	TYPE 1 FILTER BLANKET
		SY	SY	TON	◆ TON
SH 16					
STA. 120+50 TO STA. 131+00	SHOULDER TO TOE OF SLOPE		10,010.40		
STA. 121+86	OUTLET STR. 1			3.49	1.11
STA. 124+40	OUTLET STR. 2			33.89	10.77
STA. 131+00 TO STA. 144+50	SHOULDER TO TOE OF SLOPE		12,261.89		
STA. 132+25	OUTLET STR. 3			2.48	0.79
STA. 133+25	OUTLET STR. 4			4.97	1.58
STA. 134+24	OUTLET STR. 5			35.02	11.13
STA. 135+08 TO STA. 135+37	INLET BRIDGE A			12.00	3.81
STA. 138+63	OUTLET STR. 6			5.79	1.84
STA. 141+61	OUTLET STR. 9			8.28	2.63
STA. 143+01	OUTLET STR. 12			8.28	2.63
CHANNEL					
STA. 11+15 TO STA. 11+45.64	DOWNSTREAM BRIDGE "A"	706.05			
STA. 12+55.14 TO STA. 13+39	UPSTREAM BRIDGE "A"	1,703.16			
TOTALS		2,409.21	22,272.29	114.22	36.28

◆ THIS ITEM LISTED FOR CONTRACTOR INFORMATION ONLY. COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

SUMMARY OF GUARDRAIL			
STATION EXTENTS AND LOCATION	BEAM GUARDRAIL W-BEAM SINGLE 623(A)	GUARDRAIL END TREATMENT (31") 623(G)	GUARDRAIL DELINEATORS (TYPE 2, CODE 1) 653
	LF	EA.	EA.
SH 16			
STA. 134+60 TO STA. 138+03.75 - LT.	250	2	8
TOTALS	250	2	8

NOTE: ASPHALT, TACK COAT, AND TBSC TYPE E QUANTITIES FOR GUARDRAIL WIDENING ARE INCLUDED IN THE MAINLINE SURFACING QUANTITIES.



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

SUMMARY SHEET

SUMMARY OF TEMPORARY SEDIMENT CONTROL					
STATION EXTENTS	LOCATION AND DESCRIPTION	TEMPORARY SILT FENCE 221(B)	TEMPORARY SEDIMENT FILTER 221(C)	TEMPORARY SILT DIKE 221(D)	TEMPORARY ROCK FILTER DAM TYPE 1 221(F)
		LF	EA	LF	CY
SH 16					
STA. 121+50 TO STA. 124+34	ALONG TOE RT.	289			
STA. 121+60	AROUND INLET LT.		1		
STA. 123+01 TO STA. 124+34	ALONG TOE LT.	139			
STA. 124+46 TO STA. 126+23	ALONG TOE RT.	181			
STA. 124+46 TO STA. 127+04	ALONG TOE LT.	308			
STA. 128+50	ACROSS DITCH LT. & RT.			28	
STA. 130+00	ACROSS DITCH LT.			14	
STA. 130+00	ACROSS DETOUR DITCH RT.			7	
STA. 130+60	ACROSS DITCH RT.				6
STA. 131+50	ACROSS DITCH LT. & RT.			28	
STA. 131+50	ACROSS DETOUR DITCH LT. & RT.			14	
STA. 132+80	ACROSS DITCH RT.			14	
STA. 132+80	ACROSS DETOUR DITCH LT.			7	
STA. 133+85	ACROSS DITCH LT.				7
STA. 134+00	ACROSS DETOUR DITCH LT.			7	
STA. 134+47	AROUND TEMPORARY INLET RT.		1		
STA. 134+70	ACROSS DITCH RT.				5
STA. 134+97 TO STA. 136+25	ALONG DETOUR TOE LT.	133			
STA. 135+94 TO STA. 136+47	ALONG TOE RT.	60			
STA. 135+97 TO STA. 138+00	ALONG TOE LT.	204			
STA. 136+50	ACROSS DETOUR DITCH RT.			7	
STA. 136+97	AROUND TEMPORARY INLET RT.		1		
STA. 138+00	ACROSS DITCH LT.			21	
STA. 138+00	ACROSS DETOUR DITCH LT. & RT.			14	
STA. 138+47 TO STA. 139+00	ALONG DETOUR TOE RT.	53			
STA. 139+00	ACROSS DITCH RT.			14	
STA. 139+00	ACROSS DETOUR DITCH LT.			7	
STA. 140+30	AROUND INLET RT.		1		
STA. 140+40	ACROSS DITCH LT. & RT.			35	
STA. 140+40	ACROSS DETOUR DITCH LT.			7	
STA. 141+73	AROUND INLET RT.		1		
STA. 142+00	ACROSS DITCH LT.			21	
STA. 142+30	AROUND INLET RT.		1		
STA. 143+50	ACROSS DITCH LT.			21	
STA. 143+50	AROUND INLET RT.		1		
STA. 144+15	AROUND INLET RT.		1		
TOTALS		1,367	8	266	18

NOTE: TEMPORARY ROCK FILTER DAM TYPE 1 TO INCLUDE COST OF SEDIMENT TRAP AS SHOWN ON EROSION CONTROL SHEET.

SUMMARY OF REMOVAL QUANTITIES						
STATION EXTENTS	REMOVAL OF FENCE 619(B)	REMOVAL OF ASPHALT PAVEMENT 619(B)	REMOVAL OF CONCRETE DRIVEWAY 619(B)	REMOVAL OF ASPHALT DRIVEWAY 619(B)	REMOVAL OF GUARDRAIL 619(B)	SAWING PAVEMENT 619(C)
	LF	SY	SY	SY	LF	LF
SH 16						
STA. 116+50 TO STA. 144+50	1,249	5,547.50	85.04	767.38	474	2,817
TOTALS	1,249	5,547.50	85.04	767.38	474	2,817

NOTE: ITEMS TO BE REMOVED MAY OR MAY NOT BE PRESENT IN ANY SPECIFIED LOCATION.

SUMMARY OF FENCE					
STATION EXTENTS AND LOCATION	FENCE-STYLE WWF 624(A)	FENCE-STYLE SWF (5 BARBED WIRE) 624(C)	FENCE-STYLE CLF (4' HIGH CLASS A) 624(E)	FENCE-STYLE CLF (8' HIGH CLASS A) 624(E)	GATES-STYLE CLF (4' HIGH x 16' LONG) 624(F)
	LF	LF	LF	LF	EA
SH 16					
STA. 120+00 TO STA. 124+43 - LT.				447	
STA. 122+21 TO STA. 123+12 - RT.		91			
STA. 123+12 TO STA. 126+22 - RT.	313				
STA. 140+80 TO STA. 141+98 - RT.			120		
STA. 142+33 TO STA. 142+84 - LT.			51		
STA. 143+74 TO STA. 144+72 - RT.			100		
STA. 143+91 - RT.					1
TOTALS	313	91	271	447	1

SUMMARY OF MAILBOX					
STATION AND LOCATION	TYPE	MAILBOX INSTALLATION - SINGLE 629(A)	MAILBOX INSTALLATION - MULTIPLE 629(B)	REMOVAL OF MAILBOX INSTALLATION 629(C)	MAILBOX 629(E)
		EA.	EA.	EA.	EA.
SH 16					
STA. 126+30.00 - RT.	1	1		1	1
STA. 131+88.00 - LT.	1		1	3	3
STA. 131+88.00 - LT.	2			1	1
STA. 133+85.00 - LT.	1	1		1	1
STA. 138+94.00 - LT.	1	1		1	1
STA. 139+52.00 - LT.	1	1		1	1
STA. 140+47.00 - RT.	1	1		1	1
STA. 141+29.00 - LT.	1	1		1	1
STA. 141+76.00 - RT.	1	1		1	1
STA. 144+25.00 - RT.	1	1		1	1
TOTALS		8	1	12	12

SUMMARY OF DITCH TREATMENT					
STATION EXTENTS AND LOCATION	DESIGN NO.	BOTTOM WIDTH	CURTAIN WALL	DITCH LINER PROTECTION 229	CLASS C CONCRETE 509(D)
		FT.	EA.	LF	CY
SH 16					
STA. 122+39 TO STA. 122+95 - LT.	2A	4	2	56	7.49
STA. 134+70 TO STA. 135+08 - RT.	2A	4	2	38	5.20
STA. 138+98 TO STA. 139+47 - LT.	2A	8	2	49	9.12
TOTALS		6	143	21.81	

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

SUMMARY SHEET

SUMMARY OF DRAINAGE STRUCTURES																									
STRUCTURE NO.	STATION	DESCRIPTION	DESIGN	TRENCH EXCAVATION 613(V)	STANDARD BEDDING MATERIAL	ELEVATIONS			INLET 611(G)		ADD'L. DEPTH IN INLET	R.C. PIPE CLASS III 613(A)	CORR. GALV. STEEL PIPE 613(B)			CORR. GALV. STEEL PIPE ARCH 613(B)		CULVERT END TREATMENT 613(M)							
					CLASS C 613 (T)	TOP OF GRATE	INLET FLOWLINE	DOWN- STREAM FLOWLINE	GPI DES. 2	SMD TYPE 2	SMD 	42"	18"	24"	30"	35"x24"	49"x33"	B4	C4	A6	B6	C6	DD4		
																								CY	CY
1	℄ SURVEY 121+60.00	CONST. GPI, TYPE 1, DES. 2, 32' LT. STUB 76 LF 30" CGSP INTO DITCH LT.	GPI-5 DES. 2, FPI-4, SPB-2, CET6S-4-C6, FHTMPP-2	83.72		806.02	802.75	802.23	1						76								1		
2	℄ SURVEY 124+40.00	CONST. 2-42"x144' LG. RCP 77' LG. LT. & 67' LG. RT.	SPI-5, SPB-2, CET4D-4-DD4, FHTCP-4	750.88	571.61		791.05	787.89				288												2	
3	℄ SURVEY 132+25.00	CONST. 24"x74' LG. CGSP SD 49' LT. W/ TYPE B6 CET	FPI-4, SPB-2, FHTMPP-2, CET6S-4-B6	73.04			779.93	776.77						74								2			
4	℄ SURVEY 133+25.00	CONST. 24"x64' LG. CGSP SD 67' RT. W/ TYPE B4 & B6 CET	FPI-4, SPB-2, FHTMPP-2, CET4S-4-B4, CET6S-4-B6	63.17			776.79	775.07						64				1				1			
5	℄ SURVEY 134+12.00	CONST. 24"x66' LG. CGSP SD 52' LT. W/ TYPE B6 CET	FPI-4, SPB-2, FHTMPP-2, CET6S-4-B6	65.14			774.31	773.73						66								2			
6	℄ SURVEY 138+55.00	CONST. 49"x33"x62' LG. CGSPA 50' LT. SD W/ TYPE C4 & C6 CET	FPI-4, SPB-2, FHTMPP-2, CET4S-4-C4, CET6S-4-C6	104.03			775.70	775.33									62		1				1		
7	℄ SURVEY 139+85.00	CONST. 35"x24"x66' LG. CGSPA 45' LT. SD W/ TYPE B4 & B6 CET	FPI-4, SPB-2, FHTMPP-2, CET4S-4-B4, CET6S-4-B6	92.51			781.24	777.13									66		1				1		
8	℄ SURVEY 140+30.00	CONST. SMD, TYPE 2, 67' RT. STUB 50 LF 18" CGSP INTO DITCH RT.	SMD-4 TYPE-2, FPI-4, SPB-2, CET6S-4-A6, FHTMPP-2, PSMD-2	41.16		780.23	777.67	777.45		1				50								1			
9	℄ SURVEY 141+61.00	CONST. 35"x24"x60' LG. CGSPA 41' LT. SD W/ TYPE B4 & B6 CET	FPI-4, SPB-2, FHTMPP-2, CET4S-4-B4, CET6S-4-B6	84.10			788.33	785.94									60		1				1		
10	℄ SURVEY 141+73.00	CONST. SMD, TYPE 2, 35' RT. STUB 66 LF 18" CGSP INTO DITCH RT.	SMD-4 TYPE-2, FPI-4, SPB-2, CET6S-4-A6, FHTMPP-2, PSMD-2	54.33		789.19	786.63	785.17		1				66								1			
11	℄ SURVEY 142+30.00	CONST. SMD, TYPE 2, 34' RT. STUB 56 LF 18" CGSP INTO STR. 10	SMD-4 TYPE-2, FPI-4, SPB-2, FHTMPP-2, PSMD-2	46.10		791.71	788.83	786.63		1	0.32			56											
12	℄ SURVEY 143+00.00	CONST. 35"x24"x76' LG. CGSPA 42' LT. SD W/ TYPE B4 & B6 CET	FPI-4, SPB-2, FHTMPP-2, CET4S-4-B4, CET6S-4-B6	106.52			794.16	791.13									76		1				1		
13	℄ SURVEY 143+50.00	CONST. SMD, TYPE 2, 34' RT. STUB 118 LF 18" CGSP INTO STR. 11	SMD-4 TYPE-2, FPI-4, SPB-2, FHTMPP-2, PSMD-2	97.14		796.58	794.02	788.83		1				118											
14	℄ SURVEY 144+15.00	CONST. SMD, TYPE 2, 35' RT. STUB 64 LF 18" CGSP INTO STR. 13	SMD-4 TYPE-2, FPI-4, SPB-2, FHTMPP-2, PSMD-2	52.68		799.08	796.52	794.02		1				64											
T1	℄ DETOUR 132+28.00	CONST. 18"x38' LG. CGSP SD 16' LT.	FPI-4, SPB-2, FHTMPP-2	31.28			783.31	781.81						38											
T2	℄ DETOUR 133+28.00	CONST. 18"x36' LG. CGSP SD 15' LT.	FPI-4, SPB-2, FHTMPP-2	29.63			779.60	778.32						36											
T3	℄ DETOUR 134+50.00	CONST. SMD TYPE 2, 14' LT. STUB 34 LF 18" CGSP INTO DITCH RT.	SMD-4 TYPE-2, FPI-4, SPB-2, FHTMPP-2, PSMD-2	27.99		776.35	773.79	773.62		1				34											
T4	℄ DETOUR 137+00.00	CONST. SMD TYPE 2, 14' LT. STUB 32 LF 18" CGSP INTO DITCH RT.	SMD-4 TYPE-2, FPI-4, SPB-2, FHTMPP-2, PSMD-2	26.34		774.97	772.41	772.25		1				32											
T5	℄ DETOUR 140+13.00	CONST. 18"x64' LG. CGSP SD 16' LT.	FPI-4, SPB-2, FHTMPP-2	52.68			783.14	780.50						64											
TOTALS				1,882.44	571.61				1	7	0.32	288	558	204	76	202	62	4	1	2	8	2	2		

☪ THIS ITEM LISTED FOR CONTRACTOR INFORMATION ONLY. COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

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

SUMMARY OF DRAINAGE STRUCTURES

01-27-22 G:\01Projects\T-2898_01-2230_SH-16 over Sand Creek- Creek County, OK\CAD\AT01-2968204-SS_SUM_QUANTITY.dgn

REVISIONS		
NO.	DESCRIPTION	DATE

GENERAL CONSTRUCTION NOTES

REMOVED MATERIAL TO BECOME PROPERTY OF CONTRACTOR AND IT SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING THE EXISTING ROAD TO LOCAL AND THROUGH TRAFFIC. SEE O.D.O.T. STANDARDS AND DETAIL DRAWINGS FOR MAINTENANCE OF LOCAL AND THROUGH TRAFFIC.

ANY DAMAGE CAUSED BY THE CONTRACTOR TO ANY STRUCTURES, ROADWAY SURFACES, STRIPING, RAISED PAVEMENT MARKERS, GUARDRAIL, SLOPES, AND SIGNS SHALL BE REPAIRED AT CONTRACTORS EXPENSE TO THE SATISFACTION OF THE ENGINEER.

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. SEE O.D.O.T. STANDARDS AND DETAIL DRAWINGS FOR MAINTENANCE OF LOCAL AND THROUGH TRAFFIC.

ALL REGULATORY SIGNS SHALL BE HIGH INTENSITY SHEETING. THE HIGH INTENSITY SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956 (LATEST EDITION) FOR TYPE III SHEETING.

ALL GREEN AND BLUE SIGNS ON CONVENTIONAL HIGHWAYS SHALL HAVE HIGH INTENSITY SHEETING. THE HIGH INTENSITY SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956 (LATEST EDITION) FOR TYPE III SHEETING.

THE MANUFACTURER SHALL FURNISH A TYPE "A" CERTIFICATION IN ACCORDANCE WITH ODOT STANDARD SPECIFICATIONS, LATEST EDITION, SUBSECTION 106.04. THE CERTIFICATION SHALL INCLUDE TEST RESULTS ON THE MATERIAL SUBMITTED FOR APPROVAL.

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.

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.

POST LENGTHS SHOWN ON SIGN SUMMARY ARE APPROXIMATE, EXACT LENGTH SHALL BE DETERMINED BY FIELD SURVEY BY THE CONTRACTOR.

THE COST OF REPLACEMENT OF MISSING OR DAMAGED EDGE STRIP ON EXISTING SIGNS SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

ALL REMOVED SIGNS, SIGN POSTS, BOLTS, MISCELLANEOUS HARDWARE, AND DELINEATORS SHALL REMAIN THE PROPERTY OF THE STATE. THE CONTRACTOR SHALL NEATLY STACK SUCH REMOVED MATERIAL AT A LOCATION ON THE JOB SITE AS DESIGNATED BY THE ENGINEER UNTIL SUCH TIME AS DIVISION PERSONNEL CAN REMOVE THE MATERIAL FROM THE JOB SITE.

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.

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

PAY QUANTITIES

JP #29682(04) 0300 TRAFFIC SIGNING AND STRIPING			
ITEM	DESCRIPTION	UNIT	TOTAL
850(A) 1200	SHEET ALUMNUM SIGNS (TS-34)	SF	79.68
851(C) 2415	2" SQUARE TUBE POST (TS-33)	LF	227.00
855(A) 7204	TRAFFIC STRIPE (PLASTIC)(6" WIDE) (TS-20)(TP-1)	LF	7890.00
855(A) 7216	TRAFFIC STRIPE (PLASTIC)(24" WIDE) (TS-23)(TP-1)	LF	18.00

- (TP-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY. SEE THE 2019 SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
- (TS-20) QUANTITY SHOWN INCLUDES 4,630 L.F. TRAFFIC STRIPE (PLASTIC) (WHITE) 3,260 L.F. TRAFFIC STRIPE (PLASTIC) (YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF SIX INCH (6") WIDE TRAFFIC STRIPE.
- (TS-23) QUANTITY SHOWN INCLUDES 18 L.F. TRAFFIC STRIPE (PLASTIC) (WHITE) AND WILL BE MEASURED BY THE LINEAR FOOT OF TWENTY-FOUR INCH (24") 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).
- (TS-34) INCLUDED IN THIS PAY ITEM IS THE REMOVAL OF ANY EXISTING SIGNS TO BE REPLACED BY NEW ASSEMBLIES AND THE REMOVAL OF ANY EXISTING SIGNS THAT WILL BE IN CONFLICT WITH THE NEW ROADWAY OR NEW SIGNAGE.

SIGN SUMMARY

SHEET NO.	ITEM NO.	APPROXIMATE STATION LOCATION		SIGN TYPE	POSTS					SIGN AREA			REMARKS
					TYPE	A L.F.	B L.F.	STRUCTURAL CONCRETE C.Y.	STEEL 804(B) LBS.	SHEET S.F.	PANEL S.F.	PANEL OVERHEAD S.F.	
T002	1	122+50	SH-16	SPECIAL SIGN NO. 1	2" SQ. TUBE POST	13.75	14.25			11.25			
T002	2	123+50	SH-16	SPECIAL SIGN NO. 2	2" SQ. TUBE POST	12.75	13.25			5.25			
T002	3	126+00	SH-16	R2-1E(55)	2" SQ. TUBE POST	16.00	16.00			12.00			
T002	4	127+00	SH-16	R1-1	2" SQ. TUBE POST	14.00				5.18			
T002	5	128+00	SH-16	ROUTE ASSEMBLY NO. 1	2" SQ. TUBE POST	13.00				6.00			
T003	6	131+65	SH-16	R2-1E(65)	2" SQ. TUBE POST	16.00	16.00			12.00			
T003	7	133+00	SH-16	W3-5E(55)	2" SQ. TUBE POST	16.00	16.00			16.00			
T003	8	135+00	SH-16	SPECIAL SIGN NO. 3	2" SQ. TUBE POST	12.25	12.75			6.00			
T003	9	136+00	SH-16	SPECIAL SIGN NO. 3	2" SQ. TUBE POST	12.25	12.75			6.00			
				TOTALS	2" SQ. TUBE POST	126.00	101.00			79.68			

DesignRWR01-27-22

DrawnSB01-27-22



SIGNING AND STRIPING
QUANTITIES, NOTES & SIGN SUMMARY

State Job No. 29682(04)Sheet No. AT01

01-27-22 G:\01Projects\T-2898_Ci-2230_S1-16 over Sand Creek- Creek County, OK\CAD\AT02-2968204-TC QUANTITY.dgn

GENERAL CONSTRUCTION NOTES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE HE MAY INFLICT TO THE EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT AREA AS A RESULT OF HIS DIGGING, TRENCHING, BORING, ETC..... PRIOR TO DIGGING NEAR THE UTILITIES, THE CONTRACTOR SHALL CALL FOR A LIST OF ALL UNDERGROUND FACILITIES REGISTERED IN THE AREA OF CONSTRUCTION LISTED WITH THE FOLLOWING AGENCIES:
THE "OKIE" NOTIFICATION CENTER 811 OR (405)522-6543 OR WWW.CALLOKIE.COM OR THE LOCAL COUNTY CLERK'S OFFICE.

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.

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.

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.

SYMBOLS AND LEGENDS ARE DIAGRAMMATIC ONLY AND LOCATIONS SHALL BE ADJUSTED FOR EXISTING FIELD CONDITIONS, BUT NO MAJOR ALTERATIONS OR RELOCATIONS WILL BE MADE WITHOUT FIRST CONSULTING WITH THE TRAFFIC ENGINEERING DIVISION AT (405)521-2861.

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.

ALL BROKEN CONCRETE, 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 WILL BE MADE FOR THE DISPOSAL OF THIS MATERIAL.

ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL MEET ODOT'S "QUALITY STANDARDS FOR TEMPORARY TRAFFIC CONTROL DEVICES".

THE CONTRACTOR SHALL PROVIDE A PERSON TO BE ON 24 HOUR CALL AS NEEDED AND DETERMINED BY THE ENGINEER. THIS PERSON SHALL HOLD A CURRENT CERTIFICATION FROM THE AMERICAN TRAFFIC SAFETY SERVICE ASSOCIATION (ATSSA) OR THE OKLAHOMA TRAFFIC ENGINEERING ASSOCIATION (OTEA) AS A TRAFFIC CONTROL TECHNICIAN OR TRAFFIC CONTROL SUPERVISOR.

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-17)

INCLUDES AN ESTIMATED 5,000 L.F. (PAINT) (4" WIDE) WHITE 5,000 L.F. (PAINT) (4" WIDE) YELLOW STRIPE.
- (TC-19)

THIS ITEM INCLUDES AN ESTIMATED 7,710 L.F. (4" WIDE) WHITE AND 10,510 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-22)

AMOUNT SHOWN IS AN APPROXIMATION AND THE ACTUAL AMOUNT OF REMOVAL, IF NECESSARY, SHALL BE DETERMINED BY THE ENGINEER. PRICE BID FOR PAVEMENT MARKING REMOVAL SHALL INCLUDE THE COST OF REMOVING STRIPE, ARROWS, WORDS AND SYMBOLS, AS SHOWN IN THE PLANS. THESE ITEMS MAY CONSIST OF PLASTIC, PAINT OR NON-REMOVABLE MARKING TAPE.
- (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.
- (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 SIGNS OR CONSTRUCTION ZONE IMPACT ATTENUATORS 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 CONTRACTORS 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-73)

QUANTITY SHOWN INCLUDES 1,000 EA. (WHITE) AND 1,000 EA. (YELLOW) CONSTRUCTION ZONE PAVEMENT MARKERS (FLEX TABS). THESE CONSTRUCTION ZONE PAVEMENT MARKERS SHALL BE EITHER "DAVIDSON PLASTICS: MODEL TOM", OR AN APPROVED EQUAL. PRICE BID FOR THIS ITEM SHALL INCLUDE THE INITIAL PLACEMENT, SUBSEQUENT REPLACEMENT, AND REMOVAL. THE CONSTRUCTION ZONE PAVEMENT MARKERS (FLEX TABS) SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND AS SHOWN ON STANDARD DRAWING TCS21-1- (LATEST REVISION).
- (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)

240 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.odot.org/traffic/qpl/index.php>
- (1)

WARNING LIGHTS TYPE "C" ARE NOT REQUIRED ON THIS PROJECT.
- (2)

THIS QUANTITY PROVIDES FOR TWO (2) MESSAGE BOARDS FOR THE DURATION OF THE PROJECT TO BE USED AT THE DISCRETION OF THE ENGINEER.
- (3)

PAY ITEM IS FOR THE TEMPORARY SIGNAL SYSTEM TO BE USED IN PHASE 2 AND PHASE 3 CD OF CONSTRUCTION AND SHALL BE INSTALLED IN ACCORDANCE WITH SPECIAL PROVISION 823-1(a) 09.

PAY QUANTITIES				
JP #29682(04) 0301 TRAFFIC CONTROL				
ITEM	DESCRIPTION		UNIT	TOTAL
823 6100	(SP)PORTABLE TRAFFIC SIGNAL SYSTEM	(TC-84)(3)	SD	105.00
857(A) 9200	CONSTRUCTION TRAFFIC STR.(PAINT)(4" WIDE)	(TC-17,20,70,75)	LF	10000.00
857(C) 9400	REMOVABLE PAVEMENT MARKING TAPE (4" WIDE)	(TC-19,70,75)	LF	18220.00
857(E) 9620	(PL)CONST.ZONE PAV.MKRS(FLEX TAB)TYP.2-1	(TC-61,70,73,75)	EA	2000.00
857(F) 9700	PAVEMENT MRKNG.REMOVAL(TRAF.STRP)	(TC-22)	LF	10000.00
871(B) 2300	CONST.ZONE IMPACT ATTEN.	(TC-52,84)	SD	600.00
871(C) 2400	RELOC.OF CONST.ZN.QUADGUARD IMP.ATTEN	(TC-52)	EA	8.00
877(B) 4300	DELIVER PORTABLE LONGITUDINAL BARRIER	(TC-1,2)	LF	750.00
877(C) 4400	RELOCATION OF PORT. LONGITUDINAL BARRIER	(TC-1,2)	LF	2250.00
880(B) 6300	CONSTRUCTION SIGNS 0 TO 6.25 SF	(TC-26,28,33,84)	SD	3060.00
880(B) 6310	CONSTRUCTION SIGNS 6.26 SF TO 15.99 SF	(TC-26,29,33,84)	SD	3540.00
880(B) 6320	CONSTRUCTION SIGNS 16.0 SF TO 32.99 SF	(TC-26,30,33,84)	SD	2355.00
880(C) 6410	CONSTRUCTION BARRICADES (TYPE III)	(TC-26,84)	SD	1620.00
880(E) 6600	WARNING LIGHTS (TYPE A)	(TC-26,84)	SD	5595.00
880(F) 6700	DRUMS	(TC-26,84)(1)	SD	2940.00
880(G) 6805	CHANNELIZER CONES	(TC-26,84)	SD	5520.00
880(K) 7200	SURVEILLANCE TRAFFIC CONTROL	(TC-39,84)	SD	135.00
882(A) 8210	PORT. CHANGEABLE MESSAGE SIGN	(TC-52,70,84,85)(2)	SD	480.00

Design

RWR

01-27-22

Drawn

SB

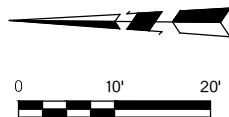
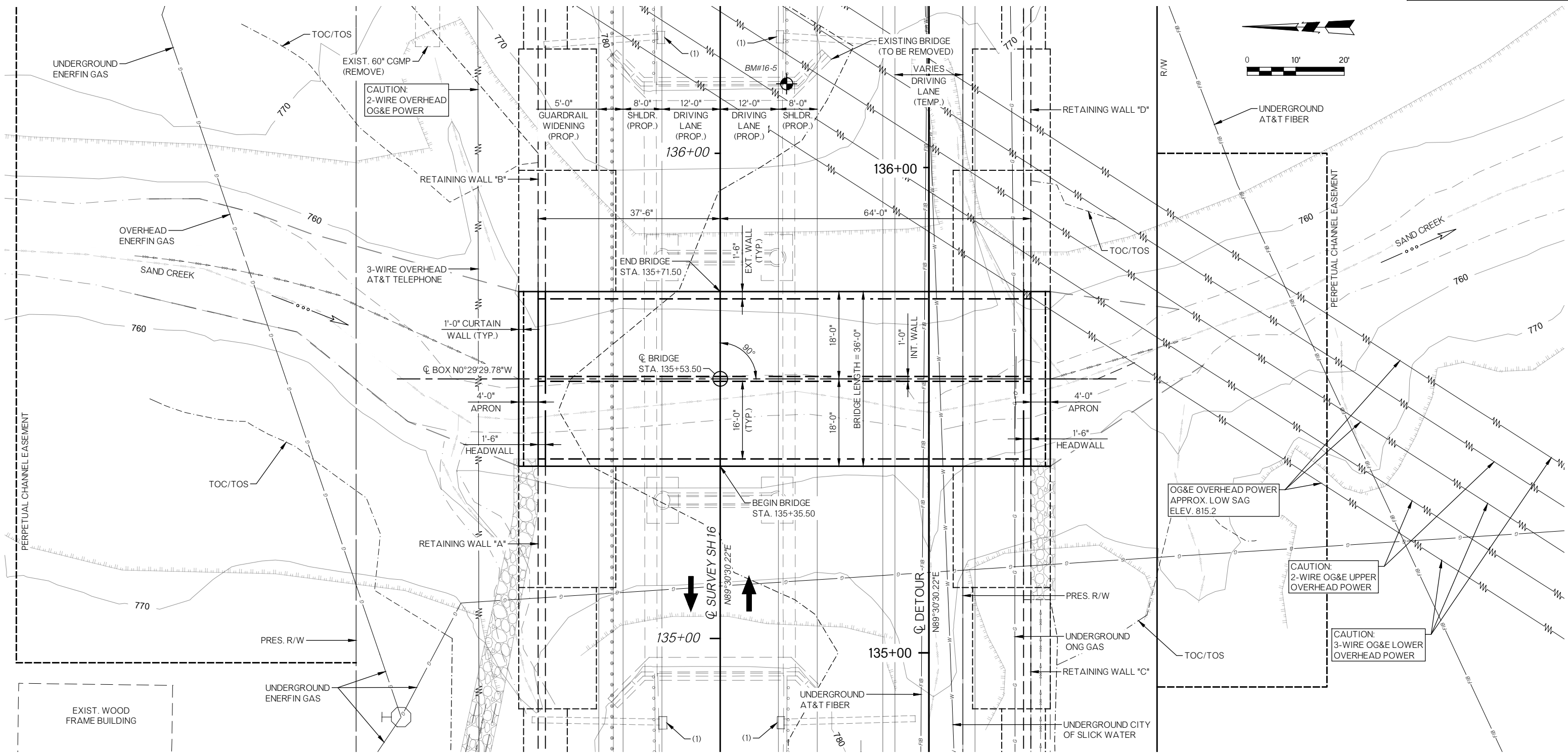
01-27-22

TEC

A CLEAR DIRECTION

TRAFFIC CONTROL
QUANTITIES AND NOTES

State Job No. _29682(04)_____ Sheet No. _AT02_



PLAN
SCALE 1" = 10'

BM#16-5 - "I" ON BRIDGE WALL AT S.E. COR.
BRIDGE OVER SAND CREEK
Q SURVEY STA. 136+14, 14.00' RT.
ELEV. = 784.76

NOTES
ALL STATIONING FOLLOWS Q SURVEY SH 16, UNLESS NOTED OTHERWISE.

FOR ELEVATION VIEW, SEE SHEET NO. B002.

SEE SHEET NO. B002 FOR DESIGN DATA, FINISH GRADE DATA, HYDRAULIC DATA SUMMARY,
INDEX OF SHEETS AND EXISTING BRIDGE NOTE.

FOR CHANNEL WORK DETAILS, SEE THE CHANNEL PLAN AND PROFILE SHEETS AND
CROSS-SECTIONS. (ROADWAY ITEMS).

(1) EXISTING INLET AND 15" CGMP. (REMOVE).

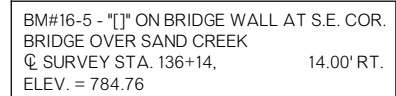
BM#16-5A - 80d SPK. IN W. SIDE TWIN
SYCAMORE
Q SURVEY STA. 139+47, 217.00' LT.
ELEV. = 783.33

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

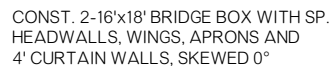
BRIDGE "A"
SH 16 OVER SAND CREEK
**GENERAL PLAN AND ELEVATION
(BRIDGE "A")(SHEET 1 OF 2)**
CONST. DOUBLE 16"x18"x101.50' LG. BOX, SKEWED 0°, AT Q SURVEY STA. 135+53.50
State Job No. 29682(04) Sheet No. B001

CONST. 2-16"x18" BRIDGE BOX WITH SP.
HEADWALLS, WINGS, APRONS AND
4' CURTAIN WALLS, SKEWED 0°

SH 16
CREEK COUNTY



NO.	DESCRIPTION	SCALE 1" = 10'
AB01	PAY QUANTITIES AND GENERAL NOTES (BRIDGE AND RETAINING WALL)	
B001	GENERAL PLAN AND ELEVATION (BRIDGE "A")(SHEET 1 OF 2)	
B002	GENERAL PLAN AND ELEVATION (BRIDGE "A")(SHEET 2 OF 2)	
B003	BRIDGE "A" DETAILS (SHEET 1 OF 3)	
B004	BRIDGE "A" DETAILS (SHEET 2 OF 3)	
B005	BRIDGE "A" DETAILS (SHEET 3 OF 3)	
B006	GENERAL PLAN AND ELEVATION (RETAINING WALLS)(SHEET 1 OF 3)	
B007	GENERAL PLAN AND ELEVATION (RETAINING WALLS)(SHEET 2 OF 3)	
B008	GENERAL PLAN AND ELEVATION (RETAINING WALLS)(SHEET 3 OF 3)	
B009	SUBSURFACE PROFILE	
B010	CIP RETAINING WALL DETAILS (SHEET 1 OF 8)	
B011	CIP RETAINING WALL DETAILS (SHEET 2 OF 8)	
B012	CIP RETAINING WALL DETAILS (SHEET 3 OF 8)	
B013	CIP RETAINING WALL DETAILS (SHEET 4 OF 8)	
B014	CIP RETAINING WALL DETAILS (SHEET 5 OF 8)	
B015	CIP RETAINING WALL DETAILS (SHEET 6 OF 8)	
B016	CIP RETAINING WALL DETAILS (SHEET 7 OF 8)	
B017	CIP RETAINING WALL DETAILS (SHEET 8 OF 8)	
B018	HANDRAILING DETAILS	



EXISTING BRIDGE NOTE:

THE EXISTING BRIDGE SHALL BE REMOVED IN ACCORDANCE WITH THE NOTES ON SHEET AB01.

DESIGN DATA
(LOAD AND RESISTANCE FACTOR DESIGN)

CLASS "AA" CONCRETE F'C = 4,000 PSI
REINFORCING STEEL FY = 60,000 PSI

LOADING: HL-93 AND ODOT OVERLOAD TRUCK

DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION.

THE FOLLOWING STANDARDS SHALL BE REQUIRED:

LECS-5-1
SBI-5-0
HP1-2-01E

NOTES
ALL STATIONING FOLLOWS @ SURVEY SH 16, UNLESS NOTED OTHERWISE.

THE CONTRACTOR SHALL MAINTAIN DRAINAGE AT ALL TIMES DURING CONSTRUCTION.

FOR CHANNEL WORK DETAILS, SEE THE CHANNEL PLAN AND PROFILE SHEETS AND CROSS-SECTIONS. (ROADWAY ITEMS).

(1) SEE ROADWAY PLAN AND PROFILE AND CROSS SECTION SHEETS.

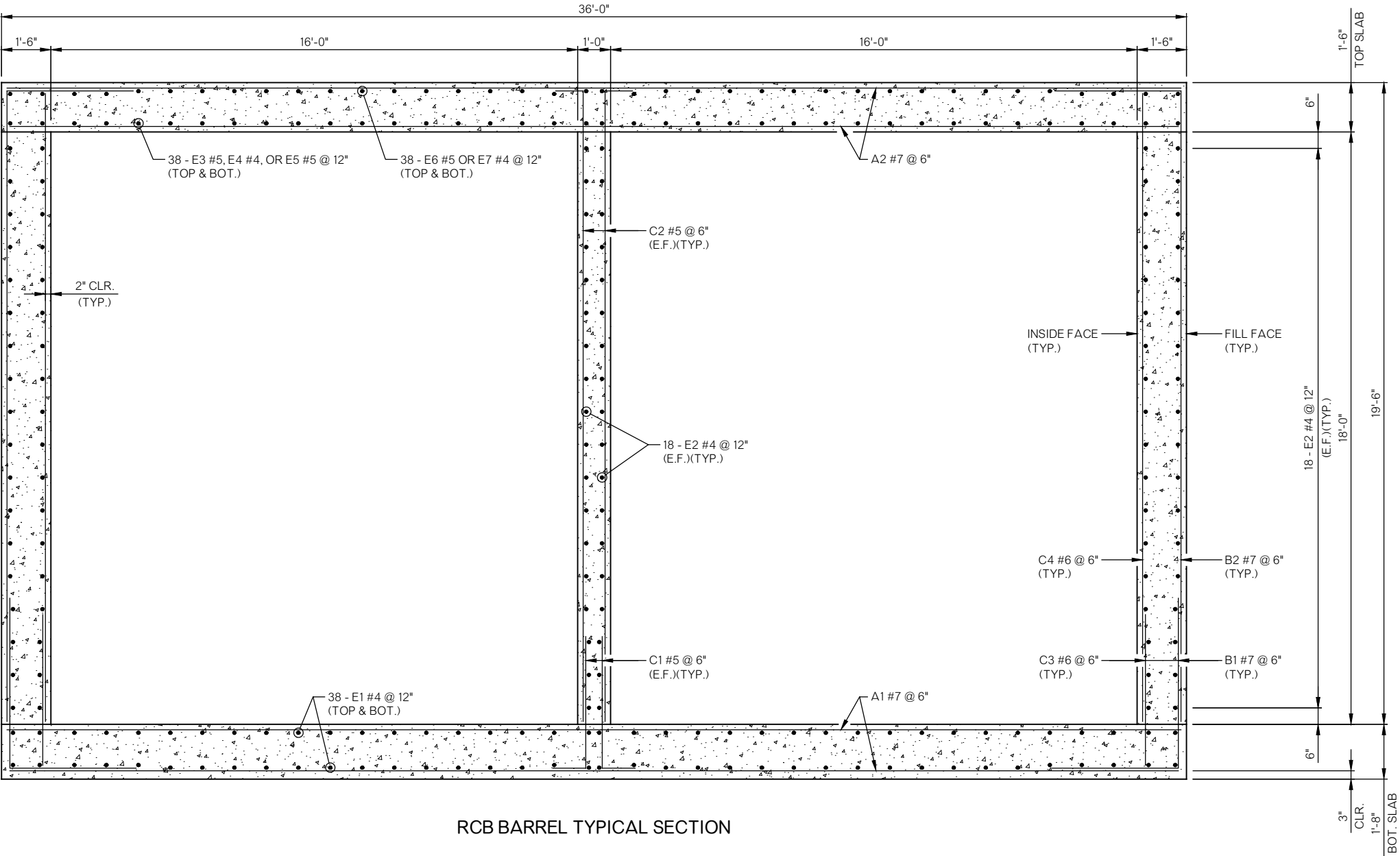
(2) SEE TRAFFIC SHEETS.

BRIDGE "A"
SH 16 OVER SAND CREEK

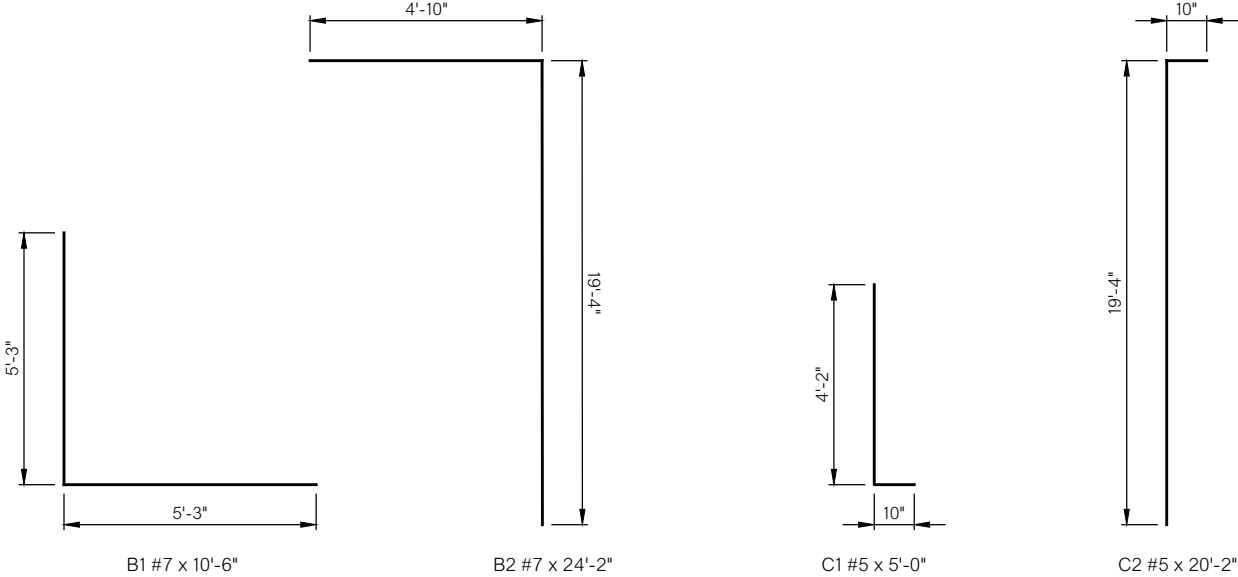
GENERAL PLAN AND ELEVATION
(BRIDGE "A")(SHEET 2 OF 2)

CONST. DOUBLE 16'x18"x101.50" LG. BOX, SKEWED 0°, AT & SURVEY STA. 135+53.50

State Job No. 29682(04) Sheet No. B002



RCB BARREL TYPICAL SECTION



BAR BEND DETAILS

NOTE
E.F. = DENOTES EACH FACE

BRIDGE "A" BARREL REINFORCING LIST					
MARK	NO.	SIZE	FORM	LENGTH	REMARKS
PLAIN REINFORCING BARS					
A1	408	#7	STR.	35'-8"	
A2	398	#7	STR.	35'-8"	
AT1	20	#5	STR.	35'-8"	
B1	408	#7	BNT.	10'-6"	
B2	408	#7	BNT.	24'-2"	
C1	408	#5	BNT.	5'-0"	
C2	408	#5	BNT.	20'-2"	
C3	408	#6	STR.	4'-9"	
C4	408	#6	STR.	19'-4"	
(1) CF1	8	#4	BNT.	7'-10" AVG.	6'-2" TO 9'-6"
CF2	4	#4	BNT.	7'-4" AVG.	5'-8" TO 9'-0"
CH1	6	#5	STR.	35'-8"	
CH2	9	#5	STR.	35'-8"	
CH3	9	#5	BNT.	38'-0"	
CH4	6	#4	STR.	35'-8"	
CL1	38	#6	BNT.	7'-9"	
CL2	38	#4	BNT.	7'-3"	
CS1	76	#5	BNT.	5'-9"	
CS2	76	#5	BNT.	7'-7"	
CT1	16	#4	STR.	35'-8"	
CV1	74	#6	STR.	7'-8"	
CV2	18	#4	STR.	3'-4"	
(2) CV3	12	#4	STR.	4'-1" AVG.	3'-4" TO 4'-10"
(3) E1	76	#4	STR.	113'-10"	
(3) E2	108	#4	STR.	105'-10"	
(4) E3	38	#5	BNT.	10'-7"	
(5) E4	38	#4	STR.	94'-10"	
(4) E5	38	#5	BNT.	10'-1"	
(4) E6	76	#5	BNT.	10'-7"	
(5) E7	38	#4	STR.	88'-10"	
HD1	6	#8	STR.	35'-8"	
HD2	6	#7	STR.	35'-8"	
HV1	3	#7	BNT.	6'-2"	
HV2	3	#7	BNT.	6'-2"	
HV3	2	#7	BNT.	16'-0"	
HV4	1	#7	BNT.	15'-6"	

- (1) INCLUDES TWO (2) SETS OF FOUR (4) BARS EACH.
(2) INCLUDES SIX (6) SETS OF TWO (2) BARS EACH.
(3) INCLUDES TWO (2) 2'-4" LAPS.
(4) INCLUDES ONE (1) 2'-8" LAP.
(5) INCLUDES ONE (1) 2'-4" LAP.

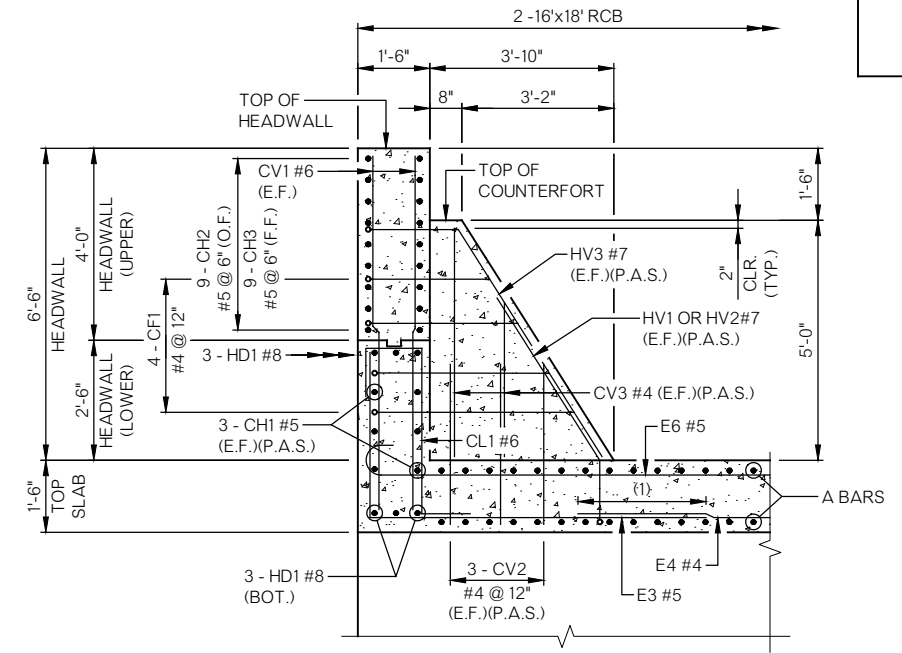
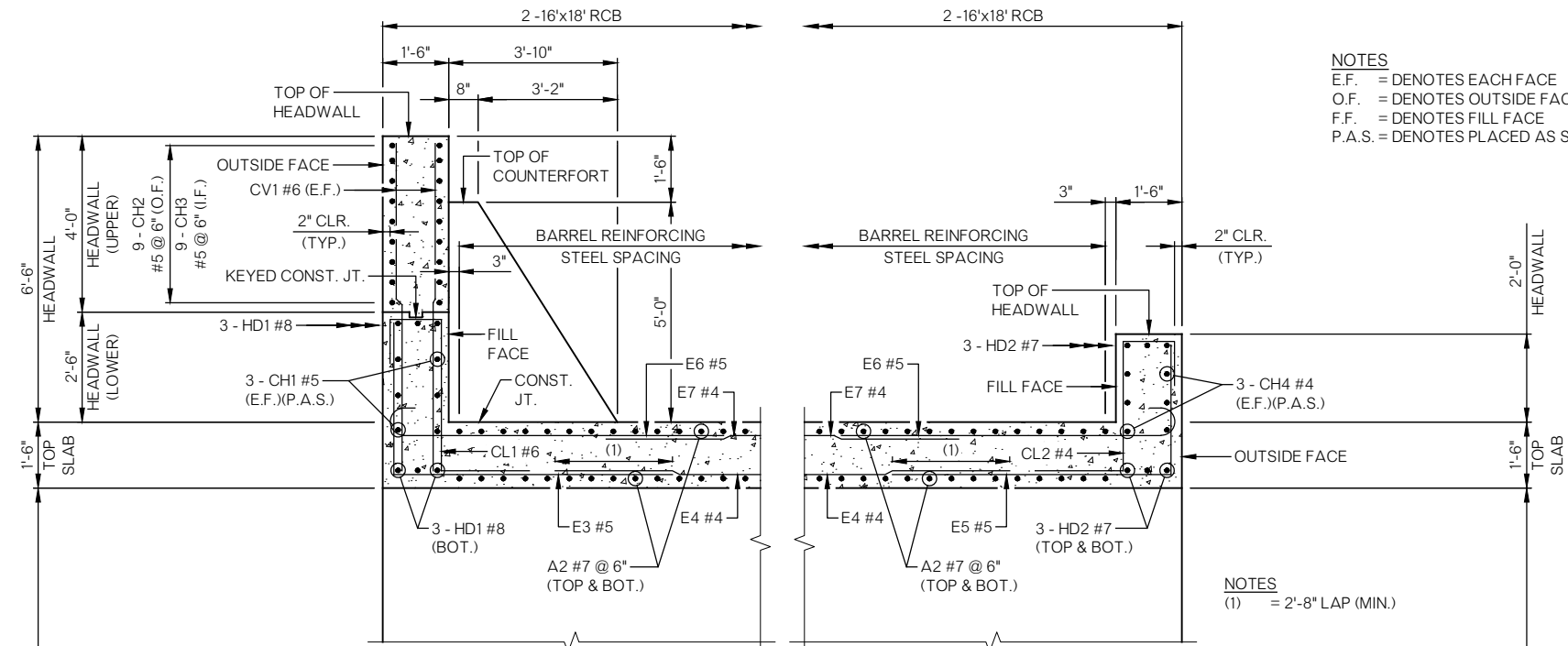
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

BRIDGE "A"
SH 16 OVER SAND CREEK

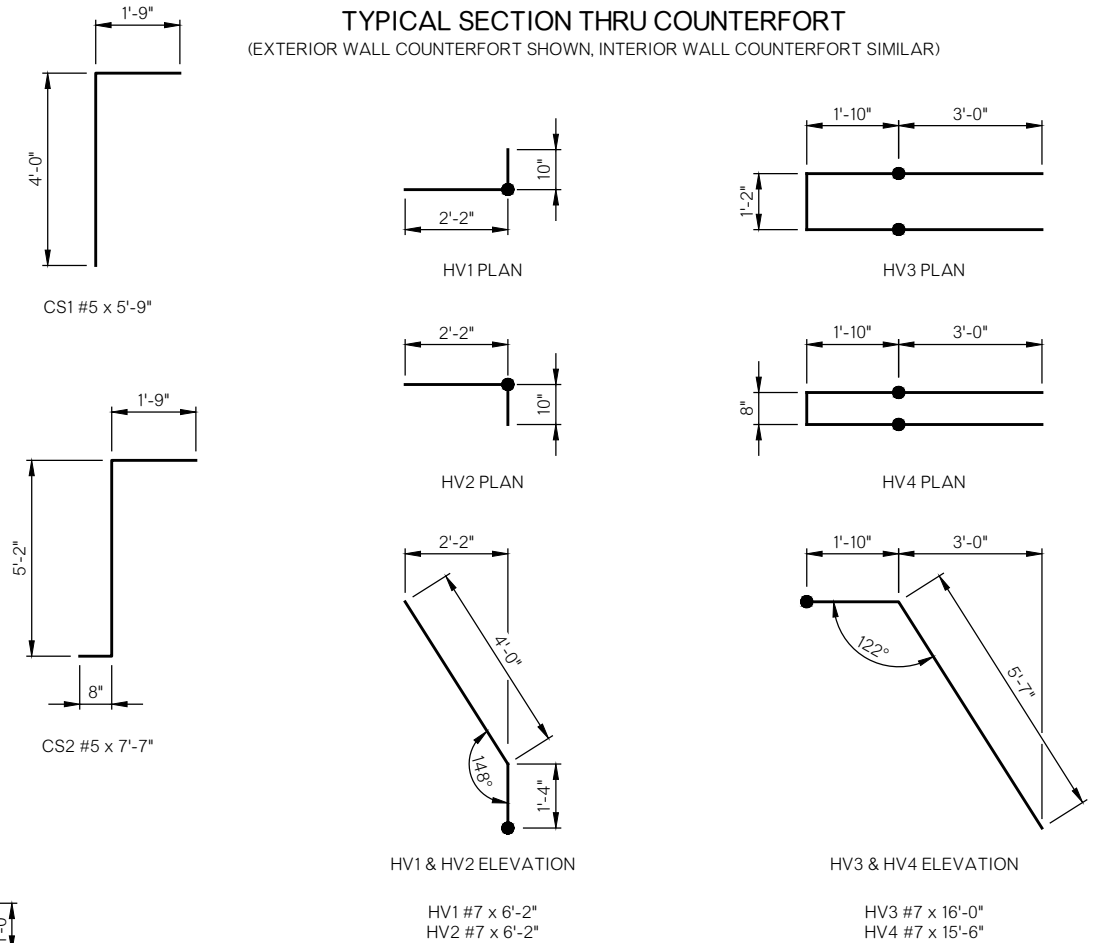
BRIDGE "A" DETAILS
(SHEET 1 OF 3)

Q SURVEY STA. 135+53.50

State Job No. 29682(04) Sheet No. B003

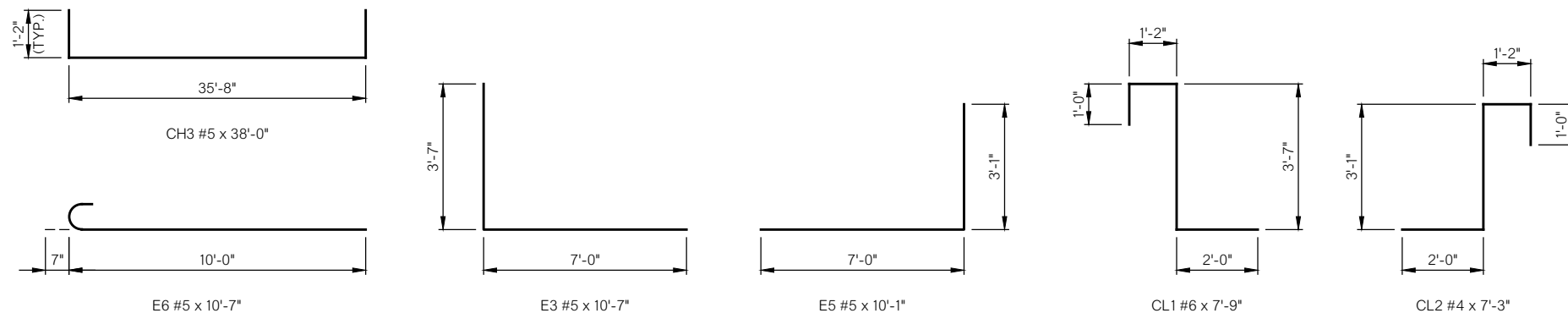


TYPICAL SECTION THRU COUNTERFORT
(EXTERIOR WALL COUNTERFORT SHOWN, INTERIOR WALL COUNTERFORT SIMILAR)

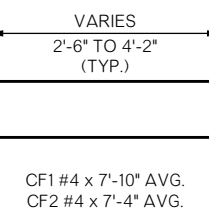


TYPICAL SECTION THRU RCB NORTH END SECTION
(SHOWN PERPENDICULAR TO HEADWALL AND CURTAIN WALL)

TYPICAL SECTION THRU RCB SOUTH END SECTION
(SHOWN PERPENDICULAR TO HEADWALL AND CURTAIN WALL)



BAR BEND DETAILS



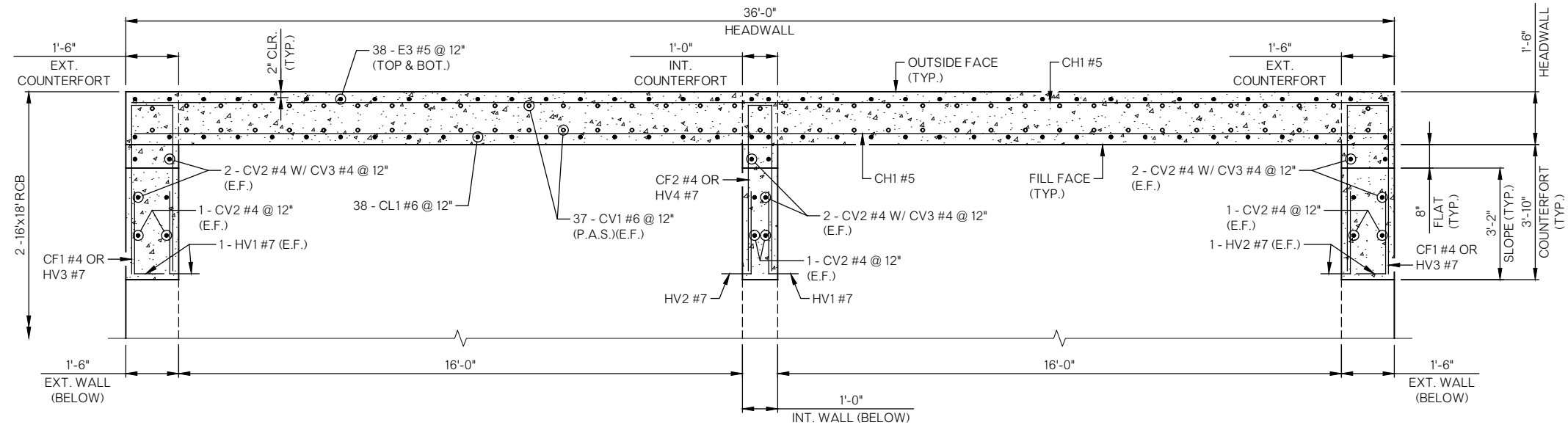
THIS DOCUMENT IS PRELIMINARY IN
NATURE AND IS NOT A FINAL, SIGNED AND
SEALED DOCUMENT.

BRIDGE "A"
SH 16 OVER SAND CREEK

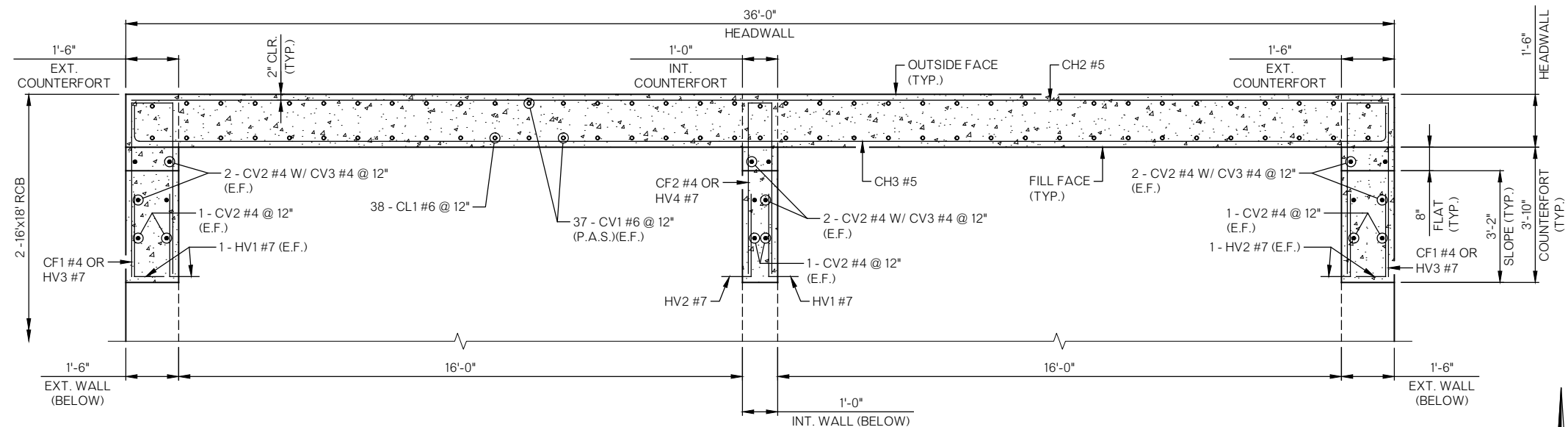
BRIDGE "A" DETAILS
(SHEET 2 OF 3)

Q SURVEY STA. 135+53.50

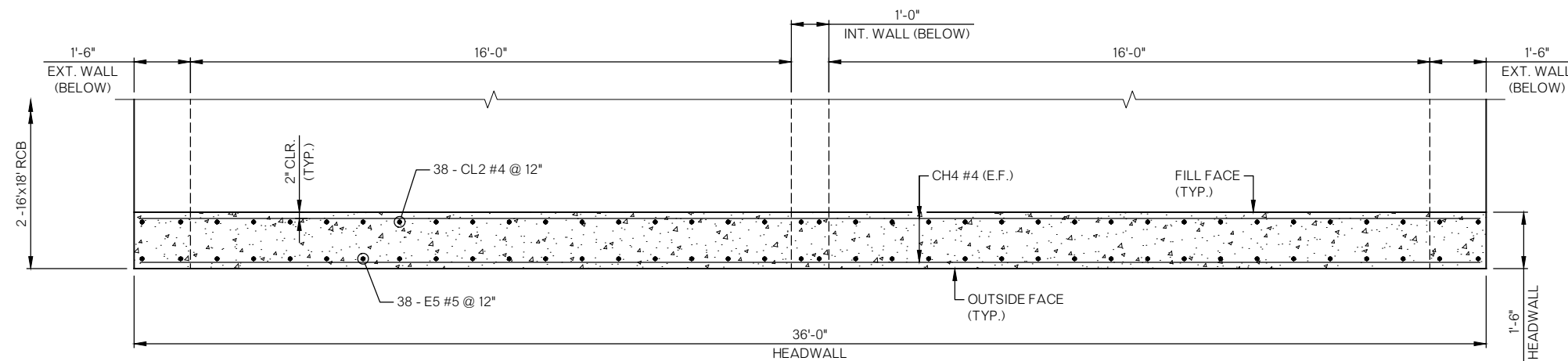
State Job No. 29682(04) Sheet No. B004



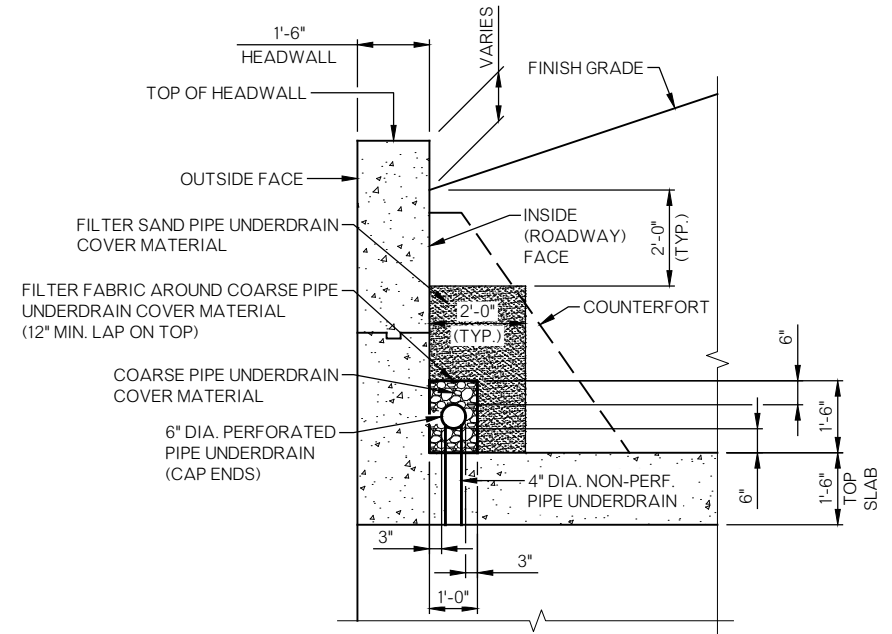
NORTH LOWER HEADWALL LAYOUT PLAN
(TOP SLAB REINFORCING AND APRON NOT SHOWN FOR CLARITY)



NORTH UPPER HEADWALL LAYOUT PLAN
(TOP SLAB REINFORCING AND APRON NOT SHOWN FOR CLARITY)



SOUTH HEADWALL LAYOUT PLAN
(TOP SLAB REINFORCING AND APRON NOT SHOWN FOR CLARITY)



TYPICAL SECTION FOR NORTH HEADWALL
DRAINAGE BETWEEN COUNTERFORTS
(SHOWN PERPENDICULAR TO HEADWALL)

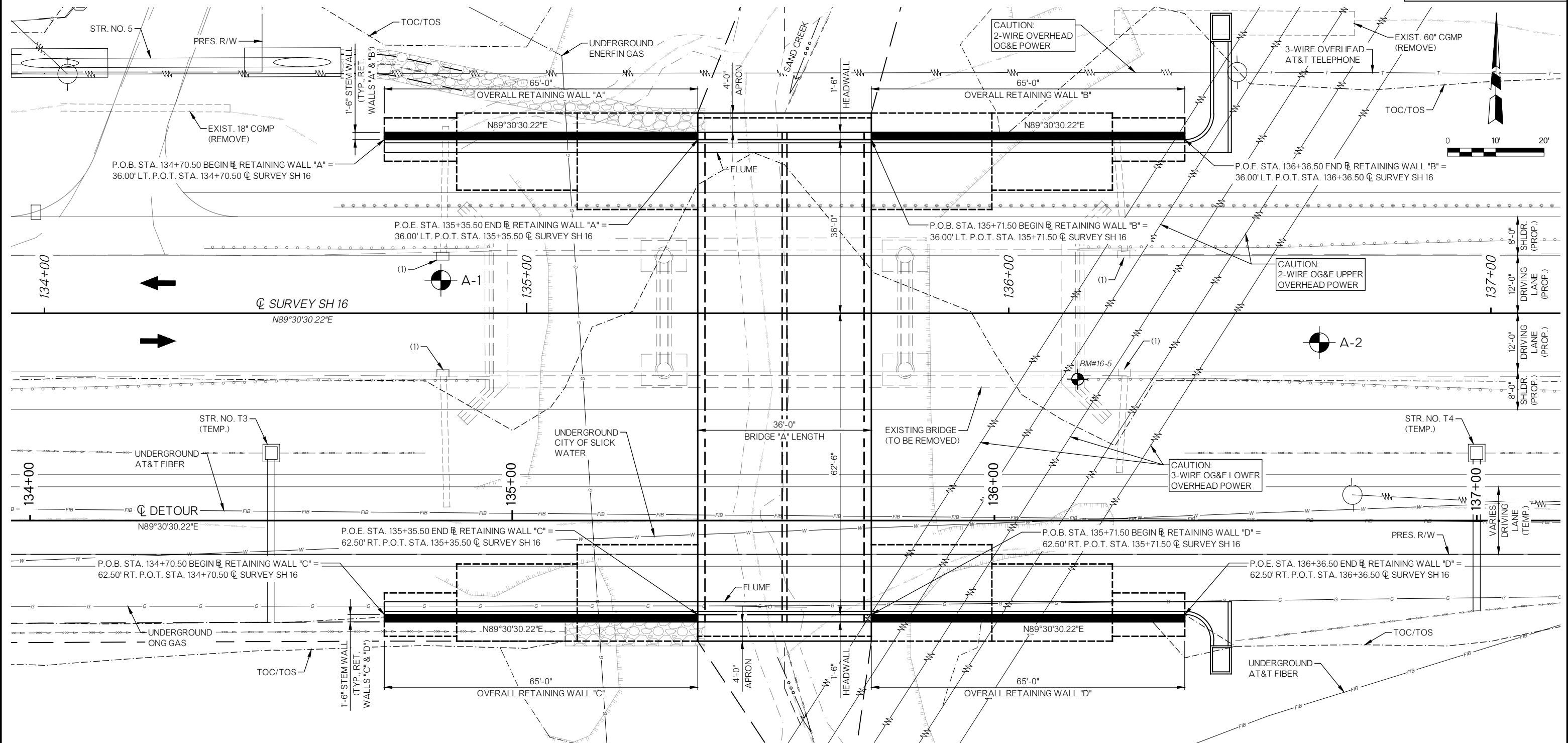
NOTES
E.F. = DENOTES EACH FACE
P.A.S. = DENOTES PLACED AS SHOWN

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

BRIDGE "A"
SH 16 OVER SAND CREEK

BRIDGE "A" DETAILS
(SHEET 3 OF 3)
Q SURVEY STA. 135+53.50

State Job No. 29682(04) Sheet No. B005



PLAN - RETAINING WALLS
SCALE 1" = 10'

BM#16-5 - "[]" ON BRIDGE WALL AT S.E. COR.
BRIDGE OVER SAND CREEK
Q SURVEY STA. 136+14, 14.00' RT.
ELEV. = 784.76

DESIGN DATA
(LOAD AND RESISTANCE FACTOR DESIGN)

CLASS "AA" CONCRETE F'C = 4,000 PSI
REINFORCING STEEL FY = 60,000 PSI

LOADING: HL-93 AND ODOT OVERLOAD TRUCK

DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION.

NOTES
ALL STATIONING FOLLOWS C SURVEY SH 16, UNLESS NOTED OTHERWISE.

FOR ELEVATION VIEWS, SEE SHEET NO. B007 & B008.

RIGHT-OF-WAY IS LOCATED OUTSIDE OF THE PLAN VIEWING AREA. FOR RIGHT-OF-WAY LOCATIONS, SEE THE ROADWAY PLAN AND PROFILE SHEETS. (ROADWAY ITEMS).

FOR CHANNEL WORK DETAILS, SEE THE CHANNEL PLAN AND PROFILE SHEETS AND CROSS-SECTIONS. (ROADWAY ITEMS).

(1) EXISTING INLET AND 15" CGMP. (REMOVE).

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

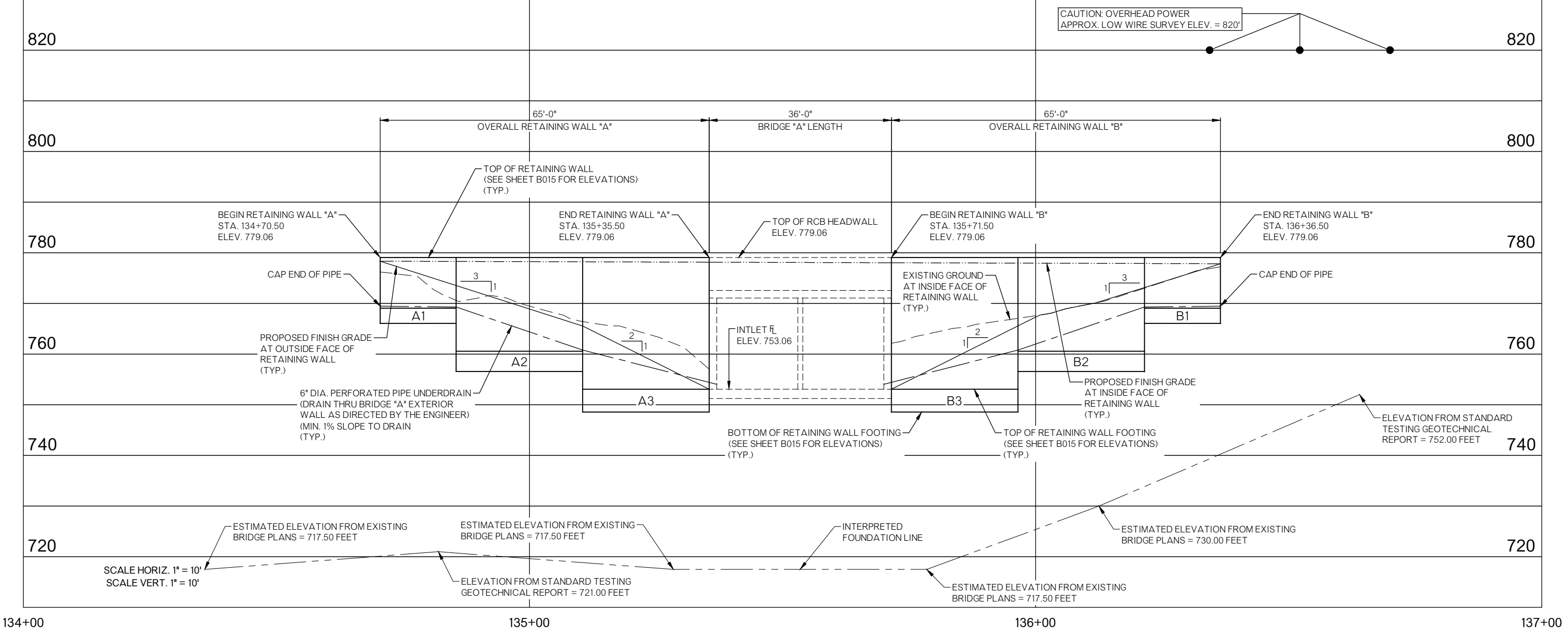
BM#16-5A - 80d SPK. IN W. SIDE TWIN
SYCAMORE
Q SURVEY STA. 139+47, 217.00' LT.
ELEV. = 783.33

BRIDGE "A"
SH 16 OVER SAND CREEK

GENERAL PLAN AND ELEVATION
(RETAINING WALLS)(SHEET 1 OF 3)

Q SURVEY STA. 135+53.50

State Job No. 29682(04) Sheet No. B006



ELEVATION (INSIDE FACE) - RETAINING WALLS "A" AND "B"
(STATIONING MEASURED ALONG INSIDE FACE)

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

BRIDGE "A"
SH 16 OVER SAND CREEK
GENERAL PLAN AND ELEVATION
(RETAINING WALLS)(SHEET 2 OF 3)
Q SURVEY STA. 135+53.50
State Job No. 29682(04) Sheet No. B007



BRIDGE "A"
SH 16 OVER SAND CREEK

**GENERAL PLAN AND ELEVATION
(RETAINING WALLS)(SHEET 3 OF 3)**

Q SURVEY STA. 135+53.50

State Job No. 29682(04) Sheet No.

BORING NO. A-1
STA 134+82

BORING NO. A-2
STA 136+64

LEGEND

- V. = VERY
FL. = FAIRLY
SL. = SLIGHTLY
LT. = LIGHT
MED. = MEDIUM
BRN. = BROWN
TR. = TRACE
DK. = DARK
BLK. = BLACK

SPT = STANDARD PENETRATION TEST, ASTM D1586
SS = SPLIT SPOON SAMPLER
N = NUMBER OF BLOWS PER 12 INCHES
MC = MOISTURE CONTENT
LL = LIQUID LIMIT (NV=NO VALUE)
PI = PLASTICITY INDEX (NP=NO PLASTICITY)
#200 = PERCENT PASSING #200 SIEVE
UCS = UNCONFINED COMPRESSIVE STRENGTH
TCP = TEXAS CONE PENETROMETER
WCI = WET CAVE IN
▽ = WATER LEVEL WHILE DRILLING OR SAMPLING
▽ = WATER LEVEL AFTER DRILLING
▽ = WATER LEVEL 24 HOURS AFTER DRILLING
XXXXX = TOP OF ROCK

NOTE: "SPT" DENOTES STANDARD PENETRATION TEST, AASHTO D1586-84. "TCP" DENOTES TEXAS CONE PENETRATION TEST.

* NOTE: TOP OF ROCK LINE SHOWN FOR ESTIMATING PURPOSES ONLY.

** NOTE: WATER LEVEL ELEVATION SHOWN WERE OBTAINED AT THE TIME THE BORINGS WERE DRILLED AND MAY FLUCTUATE THROUGHOUT THE YEAR.

*** NOTE: ROCK CLASSIFICATION IS BASED ON DRILLING CHARACTERISTICS AND VISUAL OBSERVATION OF ROCK CORE SAMPLES. PETROGRAPHIC ANALYSIS OF THIN SECTIONS OF THE ROCK CORE SAMPLES MAY REVEAL OTHER TYPES.

SITE GEOLOGY

THE "ENGINEERING CLASSIFICATION OF GEOLOGIC MATERIALS, DIVISION FOUR, "RESEARCH AND DEVELOPMENT DIVISION OF OKLAHOMA HIGHWAY DEPARTMENT, 1969, INDICATES THAT THE PROJECT SITE IS LOCATED OVER THE BARNSDALL UNIT (Pb). THIS GEOLOGIC FORMATION IS DESCRIBED THEREIN AS FOLLOWS:

BARNSDALL UNIT (Pb): THIS UNIT CONSISTS OF FINE TO MEDIUM GRAINED, GENERALLY THIN BEDDED, MODERATELY SOFT TO MODERATELY HARD SANDSTONE AND REDDISH BROWN, SILTY, PLATY TO BLOCKY SHALE. THE UNIT OS DOMINANTLY SANDSTONE IN SOUTHERN CREEK COUNTY WITH ONLY ABOUT 60 FEET OF SHALE IN THE UPPER PORTION. NORTHWARD THE SHALES INTERGRADE AND INTERFINGER WITH THE SANDSTONES. IN NORTHERN CREEK COUNTY, THE SANDSTONES AND SHALES ARE OF NEARLY EQUAL PROPORTIONS

THE TOTAL THICKNESS OF THE UNIT IS IRREGULAR. IT IS 130 FEET THICK IN T18, 200 FEET IN T17N, AND 100 FEET IN T14OF CREEK COUNTY

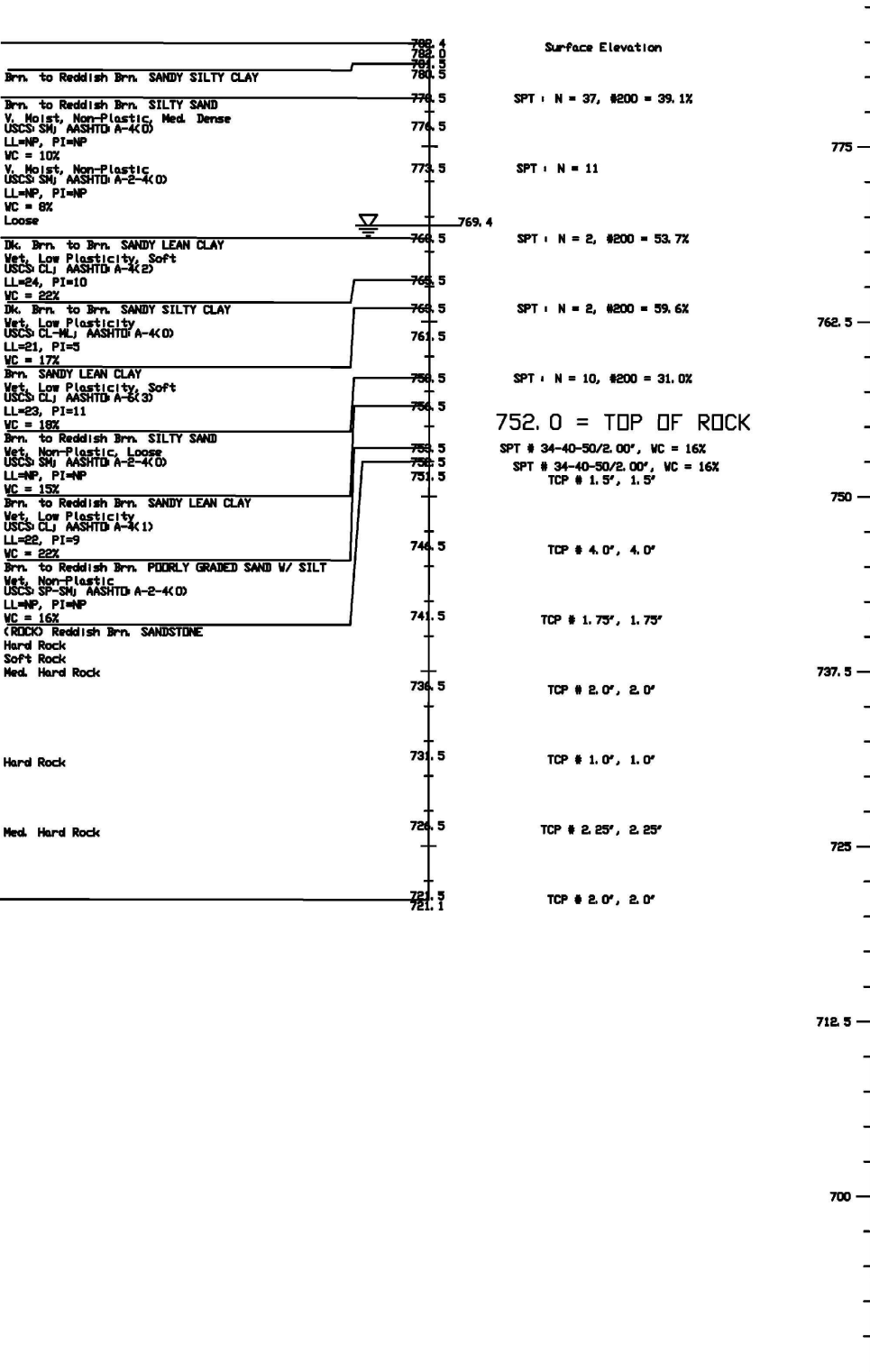
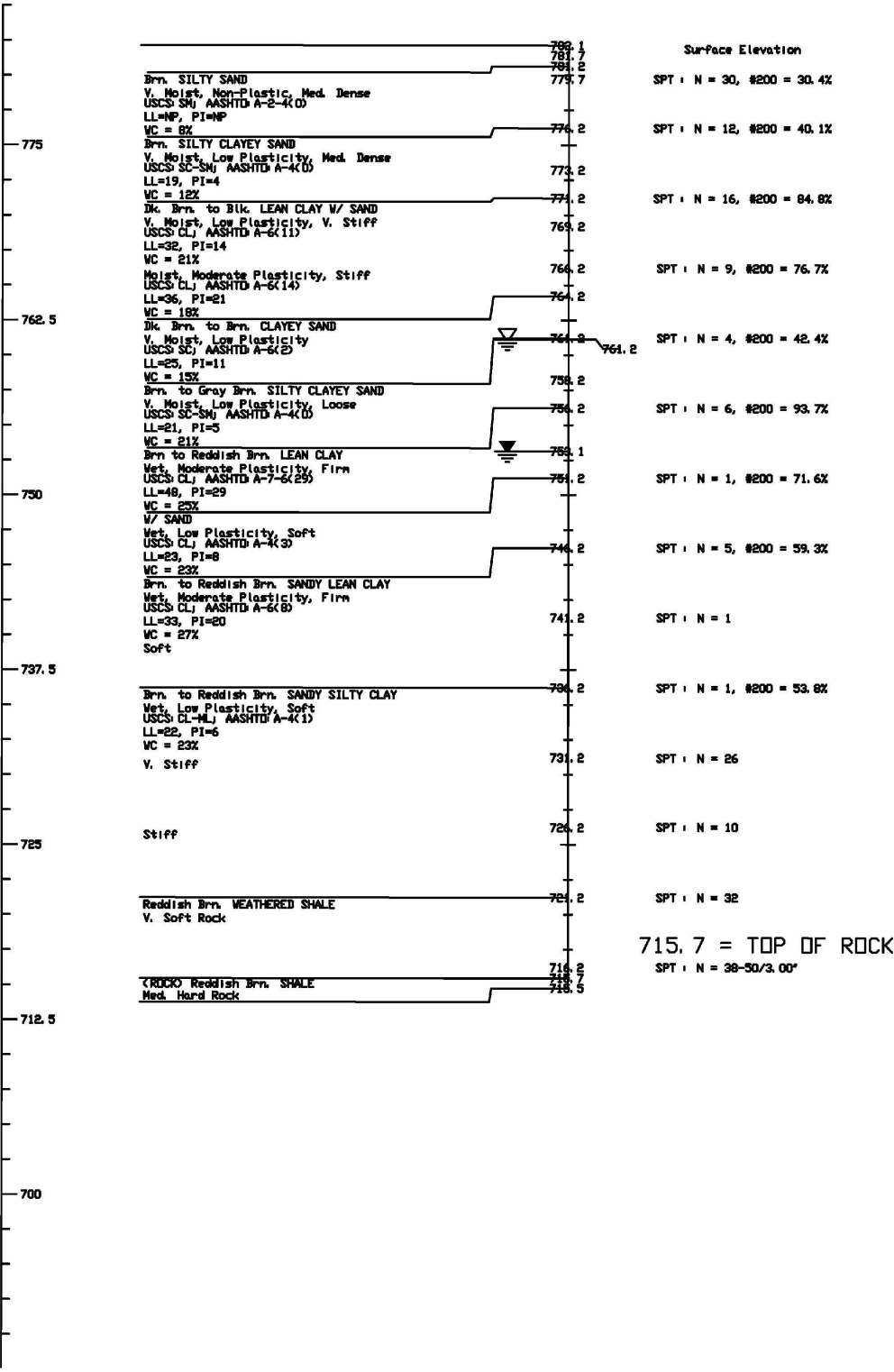
THE TOPOGRAPHY IS ROLLING TO RUGGED. SANDSTONES GENERALLY CAP RIDGES AND SUPPORT BLACKJACK AND SCRUB OAK TREES. SHALES GENERALLY UNDERLIE VALLEYS. IN SOUTHER CREEK COUNTY, EROSION AND ABUNDANT SANDSTONES HAVE LEFT THE AREA HILLY.

ACCORDING TO THE GEOLOGIC MAP OF THE "HYDROLOGIC ATLAS 1" OF OKLAHOMA, "RECONNAISSANCE OF THE WATER RESOURCES OF THE OKLAHOMA CITY QUADRANGLE, CENTRAL OKLAHOMA," BY ROY H. BINGHAM AND ROBERT L. MOORE, U.S. GEOLOGICAL SURVEY, SECOND PRINT 1983, INDICATES THAT THE PROJECT SITE IS LOCATED IN ALLUVIAL AND TERRACE DEPOSITS. THIS INDICATES THAT PROJECTED YIELD IS:

LESS THAN 25 GALLONS PER MINUTE

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.



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



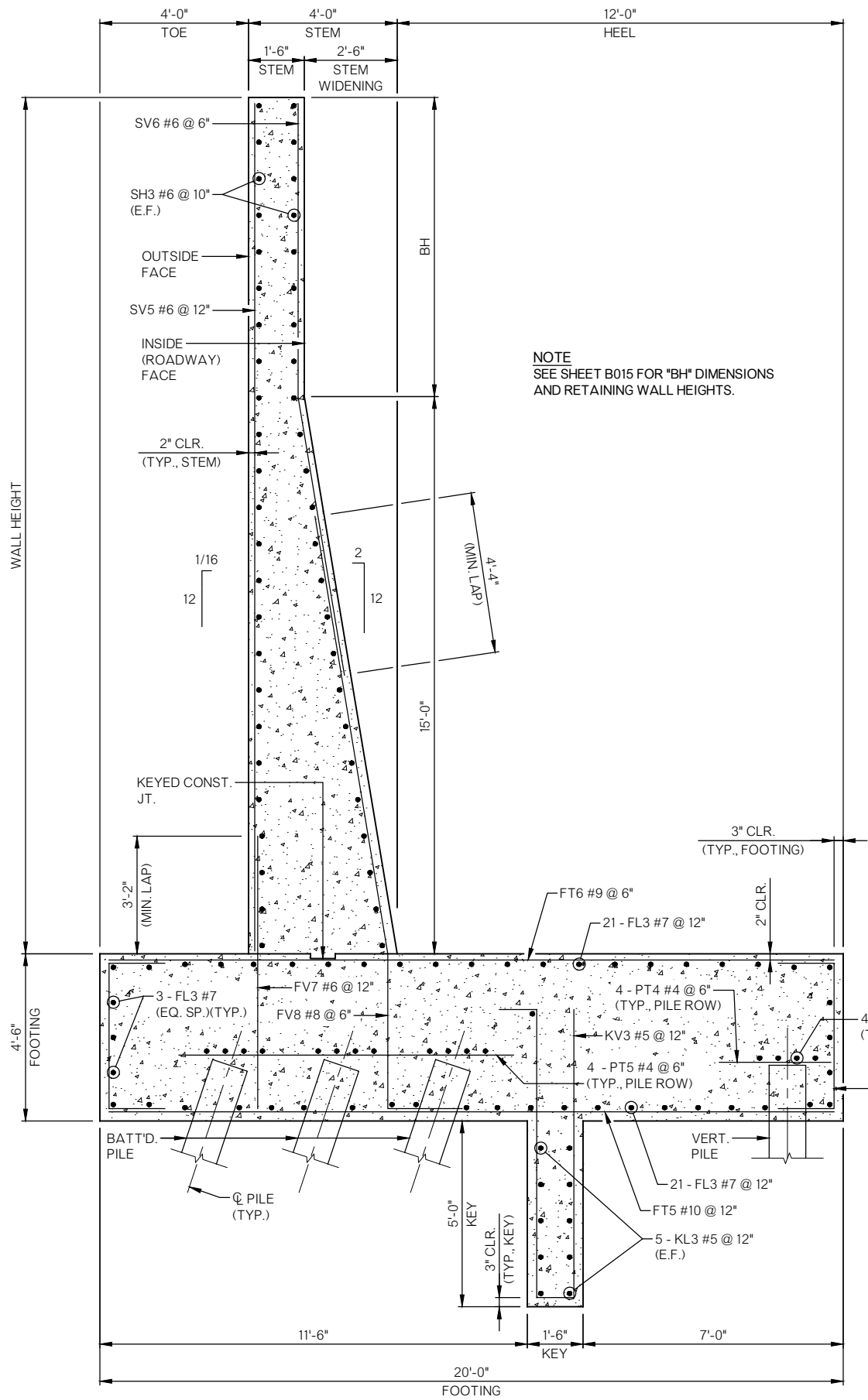
BRIDGE "A"
SH 16 OVER SAND CREEK

SUBSURFACE PROFILE
Q SURVEY STA. 135+53.50

State Job No. 29682(04) Sheet No. B009

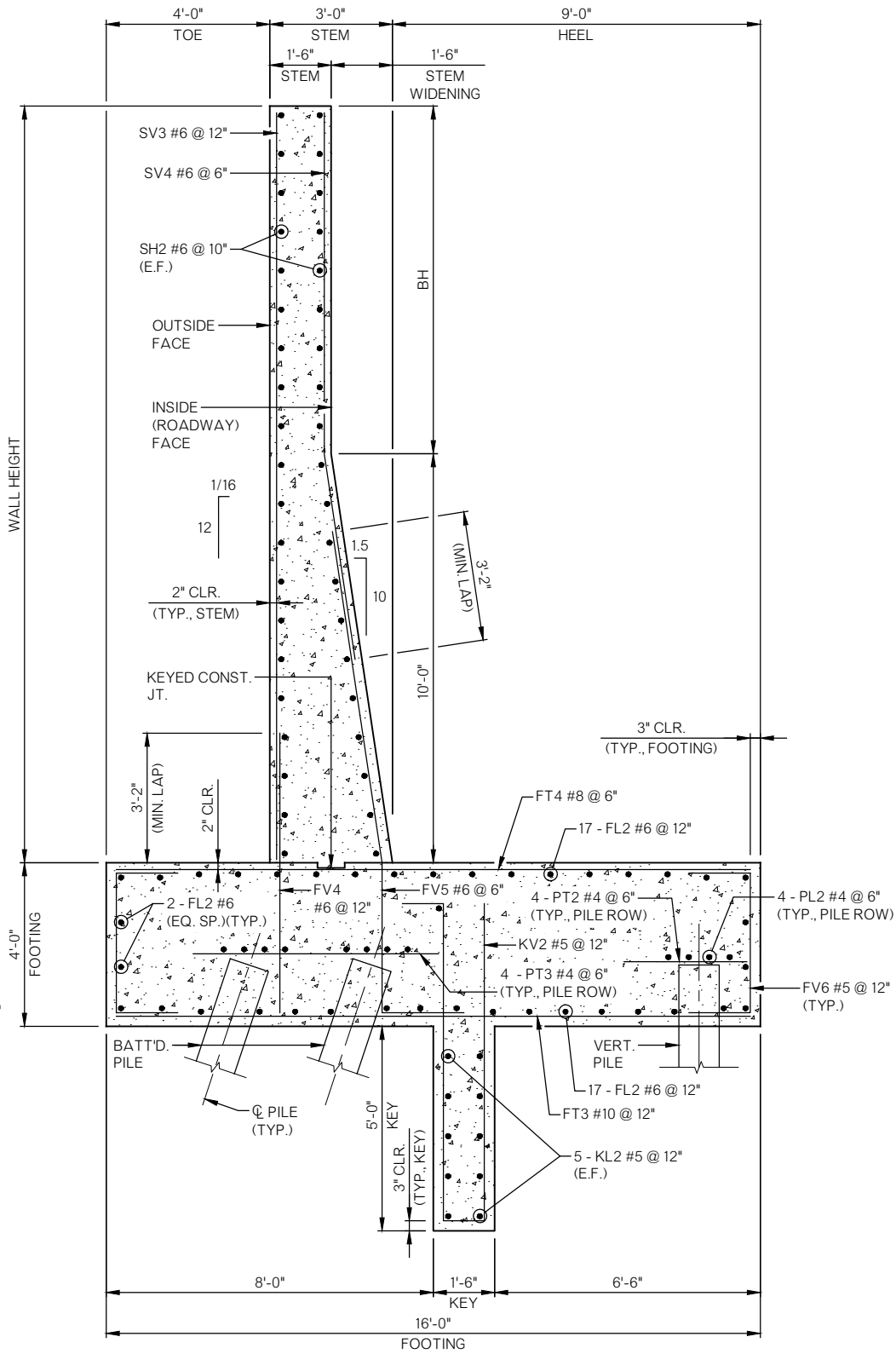
THIS DOCUMENT IS PRELIMINARY IN
NATURE AND IS NOT A FINAL, SIGNED AND
SEALED DOCUMENT.

FOUNDATION LOADS (HP 12x53 PILES)	
WALL NAME	PILE FOUNDATION REACTIONS (TONS/PILE)
A1	49.0
A2	81.3
A3	84.7
B3	84.7
B2	81.3
B1	49.0
C1	43.6
C2	72.6
C3	64.9
D3	64.9
D2	72.6
D1	43.6

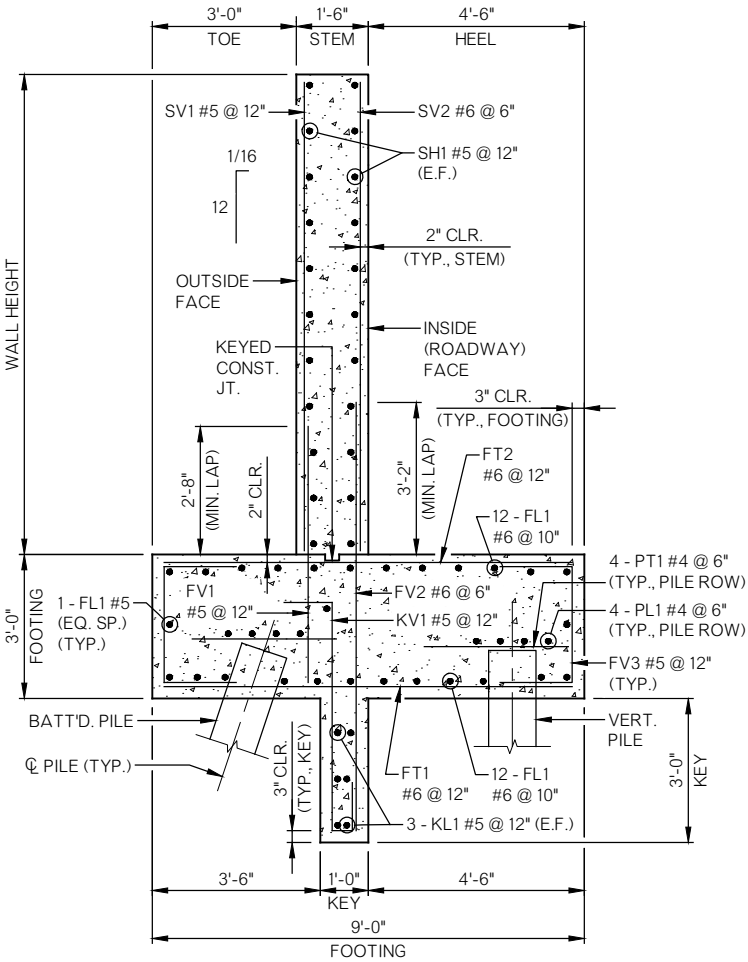


CIP RETAINING WALLS A3, B3, C3 & D3
TYPICAL SECTION

NOTES
E.F. = DENOTES EACH FACE

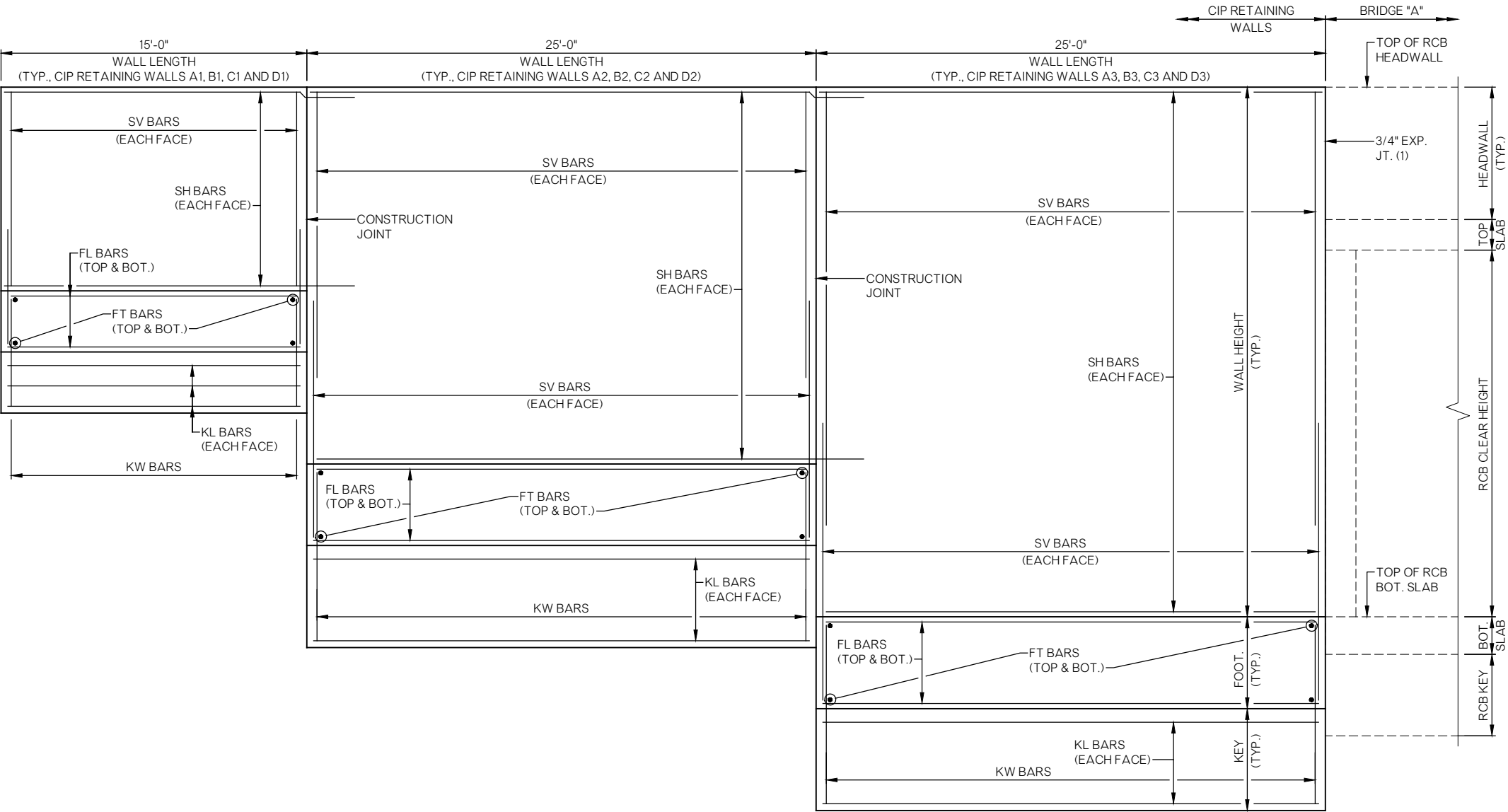


CIP RETAINING WALLS A2, B2, C2 & D2
TYPICAL SECTION

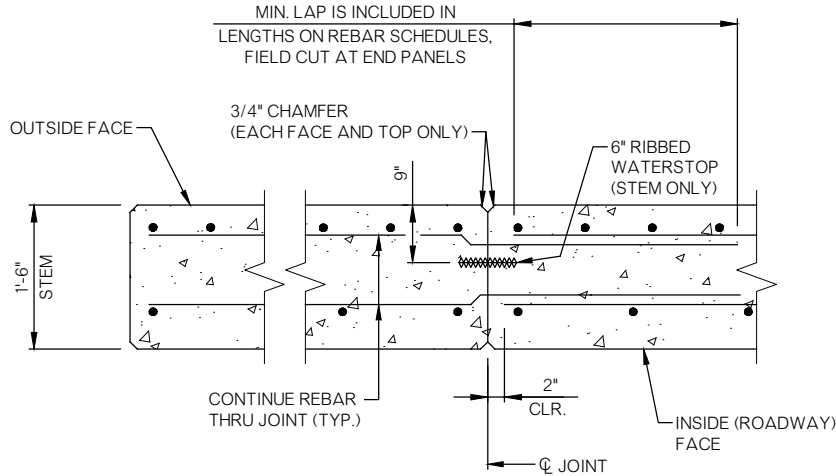


CIP RETAINING WALLS A1, B1, C1 & D1
TYPICAL SECTION

BRIDGE "A"
SH 16 OVER SAND CREEK
CIP RETAINING WALL DETAILS
(SHEET 1 OF 8)
Q SURVEY STA. 135+53.50
State Job No. 29682(04) Sheet No. B010



CIP RETAINING WALL TYPICAL ELEVATION
(RETAINING WALL "A" SHOWN, RETAINING WALLS "B", "C", AND "D" SIMILAR)



CIP RETAINING WALL CONSTRUCTION JOINT DETAIL
(RETAINING WALL "A" SHOWN, RETAINING WALLS "B", "C", AND "D" SIMILAR)

EXPANSION AND CONSTRUCTION JOINT NOTES
(1) 3/4" EXP. JT., IN WALL ONLY, ABOVE FOOTING (SEE THIS SHEET FOR DETAILS).

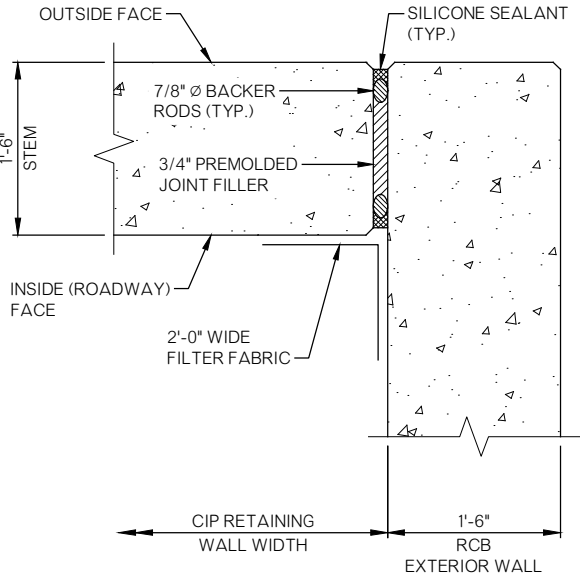
THE EXPANSION AND CONSTRUCTION JOINTS SHALL RUN ALONG BOTH VERTICAL FACES OF THE RETAINING WALL, ABOVE THE FOOTING, AND ACROSS THE TOP WIDTH OF THE WALL.

WALL REINFORCING STEEL SHALL HAVE 2" MIN. CLEARANCE TO THE EXPANSION JOINTS.

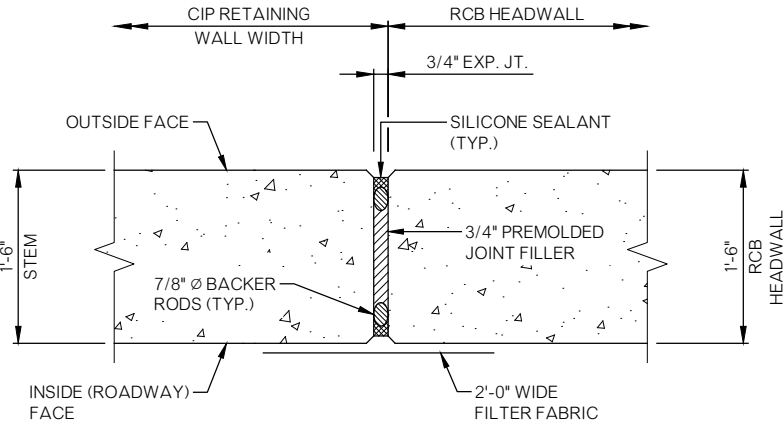
SEE ODOT STD. LECS-5 FOR SEALED EXPANSION JOINT DETAIL, DIMENSIONS AND NOTES, EXCEPT AS SHOWN OTHERWISE. BACKER ROD AND SEALER, TYPICAL BOTH SIDES OF WALL.

WATERSTOP SHALL CONFORM TO SECTION 733 OF THE STANDARD SPECIFICATIONS.

ALL COSTS FOR WATERSTOP, EXPANSION MATERIAL, JOINT SEALANT AND BACKER ROD, LABOR, MATERIALS, TOOLS AND OTHER INCIDENTALS SHALL BE INCLUDED IN PRICE BID PER SQUARE YARD OF "RETAINING WALL".



EXPANSION JOINT SEAL AT RCB EXTERIOR WALL PLAN
(RETAINING WALL "A" SHOWN, RETAINING WALLS "B", "C", AND "D" SIMILAR)



EXPANSION JOINT SEAL AT RCB HEADWALL PLAN
(RETAINING WALL "A" SHOWN, RETAINING WALLS "B", "C", AND "D" SIMILAR)

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

BAR LIST - CIP RET. WALLS A1, B1, C1, & D1

WALL NAME	KL1				KV1				FL1				FT1				FT2				FV1				FV2				FV3				SH1				SV1				SV2			
	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.
A1	#5	6	STR.	14'-6"	#5	16	BNT.	7'-3"	#6	26	STR.	14'-6"	#6	16	STR.	8'-6"	#6	16	STR.	8'-6"	#5	16	STR.	5'-6"	#6	31	STR.	8'-11"	#5	32	BNT.	7'-11"	#5	22	STR.	18'-2"	#5	16	STR.	9'-10"	#6	31	STR.	9'-10"
B1	#5	6	STR.	14'-6"	#5	16	BNT.	7'-3"	#6	26	STR.	14'-6"	#6	16	STR.	8'-6"	#6	16	STR.	8'-6"	#5	16	STR.	5'-6"	#6	31	STR.	8'-11"	#5	32	BNT.	7'-11"	#5	22	STR.	18'-2"	#5	16	STR.	9'-10"	#6	31	STR.	9'-10"
C1	#5	6	STR.	14'-6"	#5	16	BNT.	7'-3"	#6	26	STR.	14'-6"	#6	16	STR.	8'-6"	#6	16	STR.	8'-6"	#5	16	STR.	5'-6"	#6	31	STR.	8'-11"	#5	32	BNT.	7'-11"	#5	20	STR.	18'-2"	#5	16	STR.	8'-4"	#6	31	STR.	8'-4"
D1	#5	6	STR.	14'-6"	#5	16	BNT.	7'-3"	#6	26	STR.	14'-6"	#6	16	STR.	8'-6"	#6	16	STR.	8'-6"	#5	16	STR.	5'-6"	#6	31	STR.	8'-11"	#5	32	BNT.	7'-11"	#5	20	STR.	18'-2"	#5	16	STR.	8'-4"	#6	31	STR.	8'-4"

BAR LIST - CIP RET. WALLS A2, B2, C2, & D2

WALL NAME	KL2				KV2				FL2				FT3				FT4				FV4				FV5				FV6				SH2				SV3				SV4				
	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	DIM.A	LGTH.
A2	#5	10	STR.	24'-6"	#5	26	BNT.	17'-6"	#6	38	STR.	24'-6"	#10	26	STR.	15'-6"	#8	51	STR.	15'-6"	#6	26	STR.	7'-0"	#6	51	BNT.	14'-1"	#5	52	BNT.	8'-11"	#6	46	STR.	28'-2"	#6	26	STR.	18'-4"	#6	51	BNT.	8'-4"	13'-6"
B2	#5	10	STR.	24'-6"	#5	26	BNT.	17'-6"	#6	38	STR.	24'-6"	#10	26	STR.	15'-6"	#8	51	STR.	15'-6"	#6	26	STR.	7'-0"	#6	51	BNT.	14'-1"	#5	52	BNT.	8'-11"	#6	46	STR.	28'-2"	#6	26	STR.	18'-4"	#6	51	BNT.	8'-4"	13'-6"
C2	#5	10	STR.	24'-6"	#5	26	BNT.	17'-6"	#6	38	STR.	24'-6"	#10	26	STR.	15'-6"	#8	51	STR.	15'-6"	#6	26	STR.	7'-0"	#6	51	BNT.	14'-1"	#5	52	BNT.	8'-11"	#6	36	STR.	28'-2"	#6	26	STR.	14'-4"	#6	51	BNT.	4'-4"	9'-6"
D2	#5	10	STR.	24'-6"	#5	26	BNT.	17'-6"	#6	38	STR.	24'-6"	#10	26	STR.	15'-6"	#8	51	STR.	15'-6"	#6	26	STR.	7'-0"	#6	51	BNT.	14'-1"	#5	52	BNT.	8'-11"	#6	36	STR.	28'-2"	#6	26	STR.	14'-4"	#6	51	BNT.	4'-4"	9'-6"

BAR LIST - CIP RET. WALLS A3, B3, C3, & D3

WALL NAME	KL3				KV3				FL3				FT5				FT6				FV7				FV8				FV9				SH3				SV5				SV6				
	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	DIM.B	LGTH.
A3	#5	10	STR.	24'-6"	#5	26	BNT.	17'-6"	#7	48	STR.	24'-6"	#10	26	STR.	19'-6"	#9	51	STR.	19'-6"	#6	26	STR.	7'-6"	#8	51	BNT.	18'-3"	#5	52	BNT.	9'-5"	#6	64	STR.	24'-8"	#6	26	STR.	25'-10"	#6	51	BNT.	10'-10"	18'-6"
B3	#5	10	STR.	24'-6"	#5	26	BNT.	17'-6"	#7	48	STR.	24'-6"	#10	26	STR.	19'-6"	#9	51	STR.	19'-6"	#6	26	STR.	7'-6"	#8	51	BNT.	18'-3"	#5	52	BNT.	9'-5"	#6	64	STR.	24'-8"	#6	26	STR.	25'-10"	#6	51	BNT.	10'-10"	18'-6"
C3	#5	10	STR.	24'-6"	#5	26	BNT.	17'-6"	#7	48	STR.	24'-6"	#10	26	STR.	19'-6"	#9	51	STR.	19'-6"	#6	26	STR.	7'-6"	#8	51	BNT.	18'-3"	#5	52	BNT.	9'-5"	#6	54	STR.	24'-8"	#6	26	STR.	21'-4"	#6	51	BNT.	6'-4"	14'-0"
D3	#5	10	STR.	24'-6"	#5	26	BNT.	17'-6"	#7	48	STR.	24'-6"	#10	26	STR.	19'-6"	#9	51	STR.	19'-6"	#6	26	STR.	7'-6"	#8	51	BNT.	18'-3"	#5	52	BNT.	9'-5"	#6	54	STR.	24'-8"	#6	26	STR.	21'-4"	#6	51	BNT.	6'-4"	14'-0"

BAR LIST - CIP RET. WALLS A1, B1, C1, & D1 (CONT'D.)

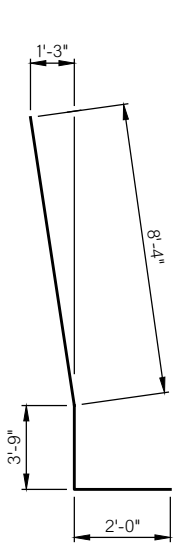
WALL NAME	PL1				PT1			
	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.
A1	#4	8	STR.	14'-6"	#4	20	STR.	3'-0"
B1	#4	8	STR.	14'-6"	#4	20	STR.	3'-0"
C1	#4	8	STR.	14'-6"	#4	20	STR.	3'-0"
D1	#4	8	STR.	14'-6"	#4	20	STR.	3'-0"

BAR LIST - CIP RET. WALLS A2, B2, C2, & D2 (CONT'D.)

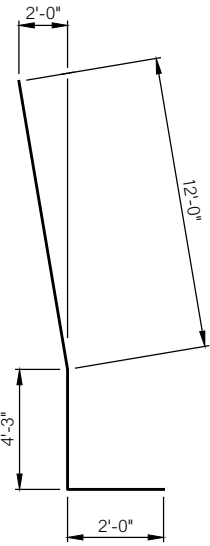
WALL NAME	PL2				PT2				PT3			
	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.
A2	#4	12	STR.	24'-6"	#4	16	STR.	3'-0"	#4	20	STR.	6'-0"
B2	#4	12	STR.	24'-6"	#4	16	STR.	3'-0"	#4	20	STR.	6'-0"
C2	#4	12	STR.	24'-6"	#4	16	STR.	3'-0"	#4	20	STR.	6'-0"
D2	#4	12	STR.	24'-6"	#4	16	STR.	3'-0"	#4	20	STR.	6'-0"

BAR LIST - CIP RET. WALLS A3, B3, C3, & D3 (CONT'D.)

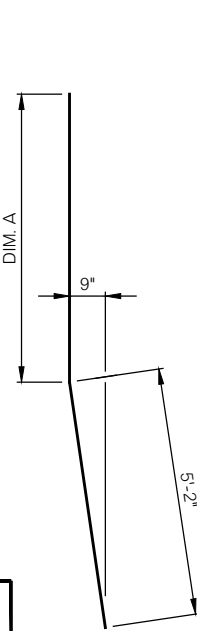
WALL NAME	PL3				PT4				PT5				TW1				TW2				TW3			
	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.	SIZE	NO.	FRM.	LGTH.
A3	#4	16	STR.	24'-6"	#4	20	STR.	3'-0"	#4	20	STR.	9'-0"	#4	4	BNT.	7'-2"	#4	2	STR.	3'-8"	#4	8	STR.	1'-2"
B3	#4	16	STR.	24'-6"	#4	20	STR.	3'-0"	#4	20	STR.	9'-0"	-	-	-	-	-	-	-	-	-	-	-	-
C3	#4	16	STR.	24'-6"	#4	20	STR.	3'-0"	#4	20	STR.	9'-0"	#4	4	BNT.	7'-2"	#4	2	STR.	3'-8"	#4	8	STR.	1'-2"
D3	#4	16	STR.	24'-6"	#4	20	STR.	3'-0"	#4	20	STR.	9'-0"	-	-	-	-	-	-	-	-	-	-	-	-



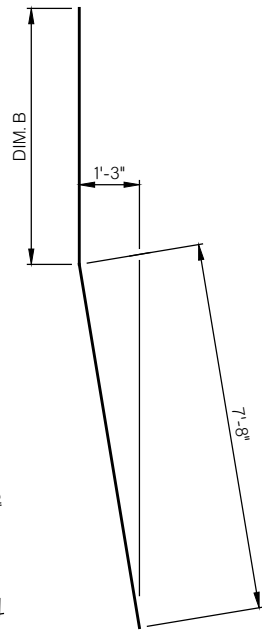
FV5 #6 x 14'-1"



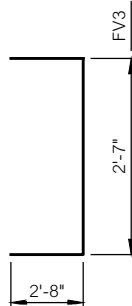
FV8 #8 x 18'-3"



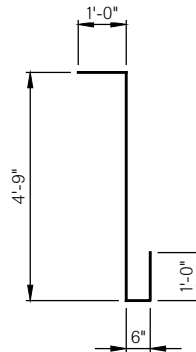
SV4 #6



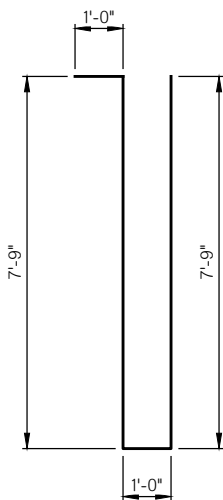
SV6 #6



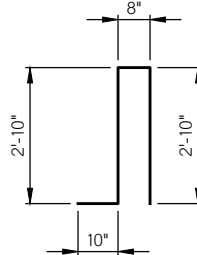
FV3 #5 x 7'-11"
FV6 #5 x 8'-11"
FV9 #5 x 9'-5"



KV1 #5 x 7'-3"



KV2 #5 x 17'-6"



TW1 #4 x 7'-2"

BAR BEND DETAILS

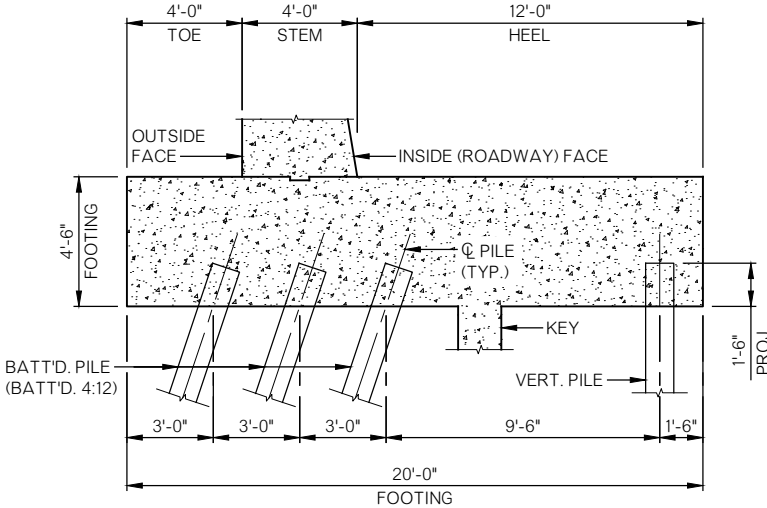
THIS DOCUMENT IS PRELIMINARY IN
NATURE AND IS NOT A FINAL, SIGNED AND
SEALED DOCUMENT.

BRIDGE "A"
SH 16 OVER SAND CREEK

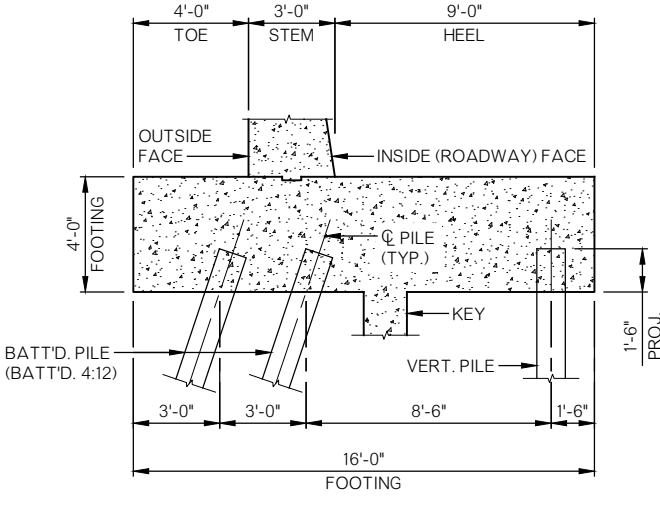
CIP RETAINING WALL DETAILS
(SHEET 3 OF 8)

Q SURVEY STA. 135+53.50

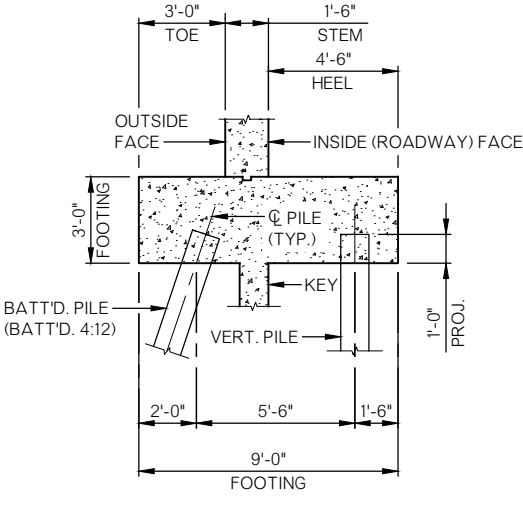
State Job No. 29682(04) Sheet No. B012



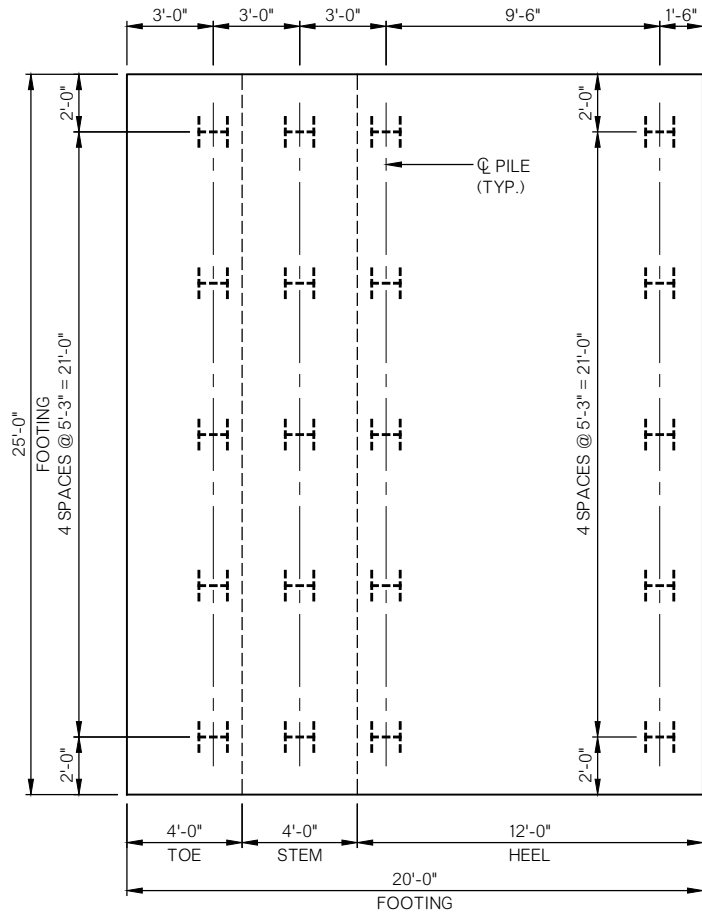
CIP RETAINING WALLS A3, B3, C3 & D3
H-PILE FOUNDATION & FOOTING
TYPICAL SECTION



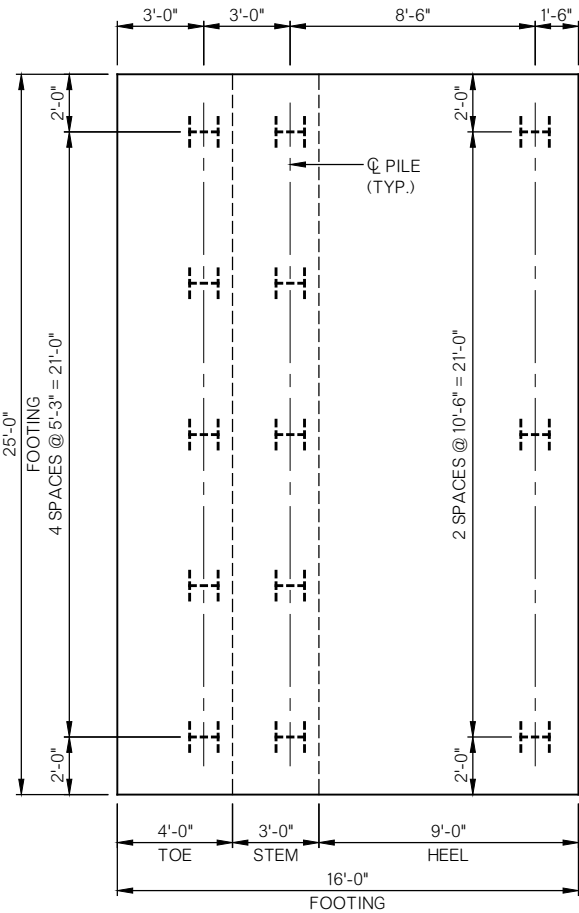
CIP RETAINING WALLS A2, B2, C2 & D2
H-PILE FOUNDATION & FOOTING
TYPICAL SECTION



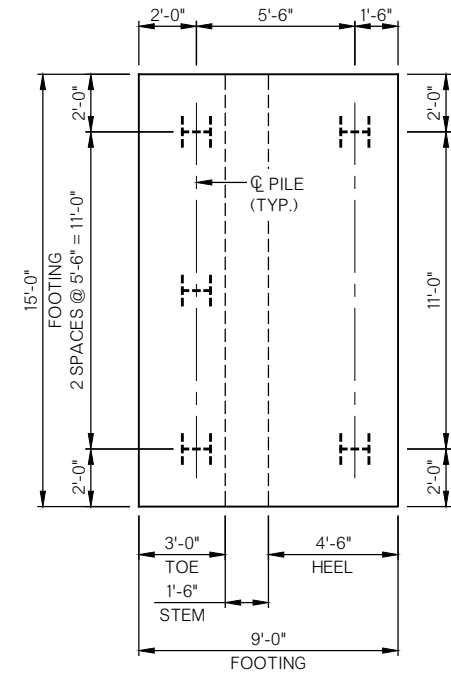
CIP RETAINING WALLS A1, B1, C1 & D1
H-PILE FOUNDATION & FOOTING
TYPICAL SECTION



CIP RETAINING WALLS A3, B3, C3 & D3
H-PILE FOUNDATION & FOOTING PLAN



CIP RETAINING WALLS A2, B2, C2 & D2
H-PILE FOUNDATION & FOOTING PLAN



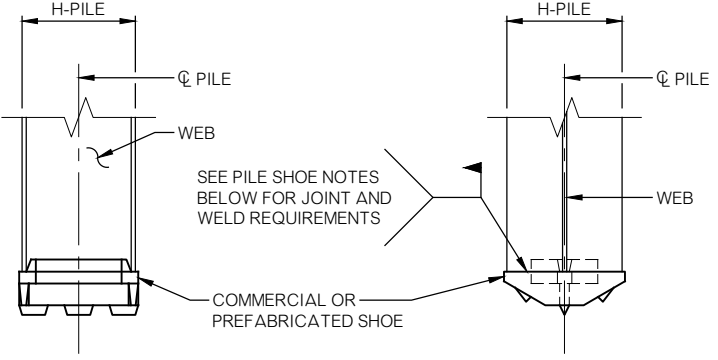
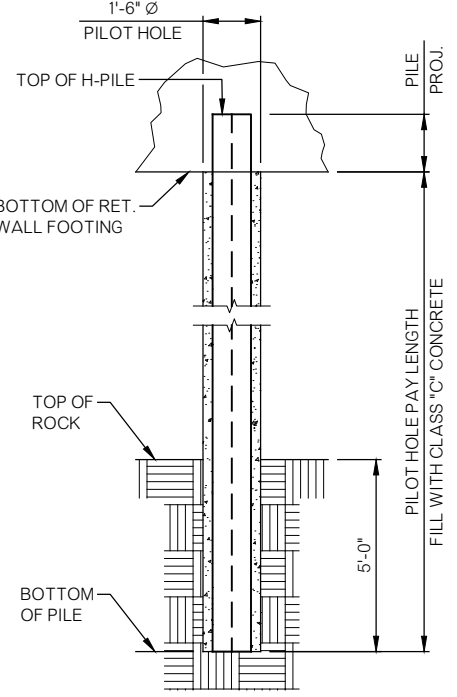
CIP RETAINING WALLS A1, B1, C1 & D1
H-PILE FOUNDATION & FOOTING PLAN

ESTIMATED TOP OF ROCK ELEVATIONS	
WALL NAME	ELEVATION (FT)
A1	721.0
A2	721.0
A3	721.0
B3	721.0
B2	724.0
B1	733.0
C1	721.0
C2	721.0
C3	721.0
D3	721.0
D2	724.0
D1	733.0

PILOT HOLE NOTES
PILOT HOLE CONSTRUCTION SHALL BE PERMITTED ONLY WHERE ADEQUATE OVERHEAD CLEARANCE IS NOT AVAILABLE FOR PILE DRIVING OPERATIONS.

SEE ODOT STANDARD HP1-2 FOR DETAIL OF H-PILE WELDED SPLICE. WELDED SPLICE IS NOT PERMITTED IN THE TOP 15'-0" FEET OF H-PILE.

ALL COSTS FOR DRILLING, EXCAVATION, CASING (IF NECESSARY), CLASS "C" CONCRETE WITHIN THE PILOT HOLE PAY LENGTH SHOWN, MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAR FOOT OF "(PL) PILOT HOLES".



PILE SHOE NOTES
COMMERCIAL OR PREFABRICATED SHOES ARE SUBJECT TO THE APPROVAL OF THE ENGINEER.

THE SHOE SHALL BE ATTACHED BY AN ODOT CERTIFIED WELDER.

IF SHOES ARE WELDED AT A LOCATION OTHER THAN THE PROJECT SITE, ALL OF THE ABOVE PROVISIONS SHALL APPLY TO THE THE OFFSITE FABRICATOR. THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR OF THE ACTUAL LOCATION WHERE THE WELDING WILL BE PERFORMED A MINIMUM OF 5 WORKING DAYS BEFORE WORK COMMENCES.

ALL WELDING SHALL BE PERFORMED BY A CERTIFIED WELDER IN CONFORMANCE WITH REQUIREMENTS FOR WELDING AS SPECIFIED IN THE STANDARD SPECIFICATIONS.

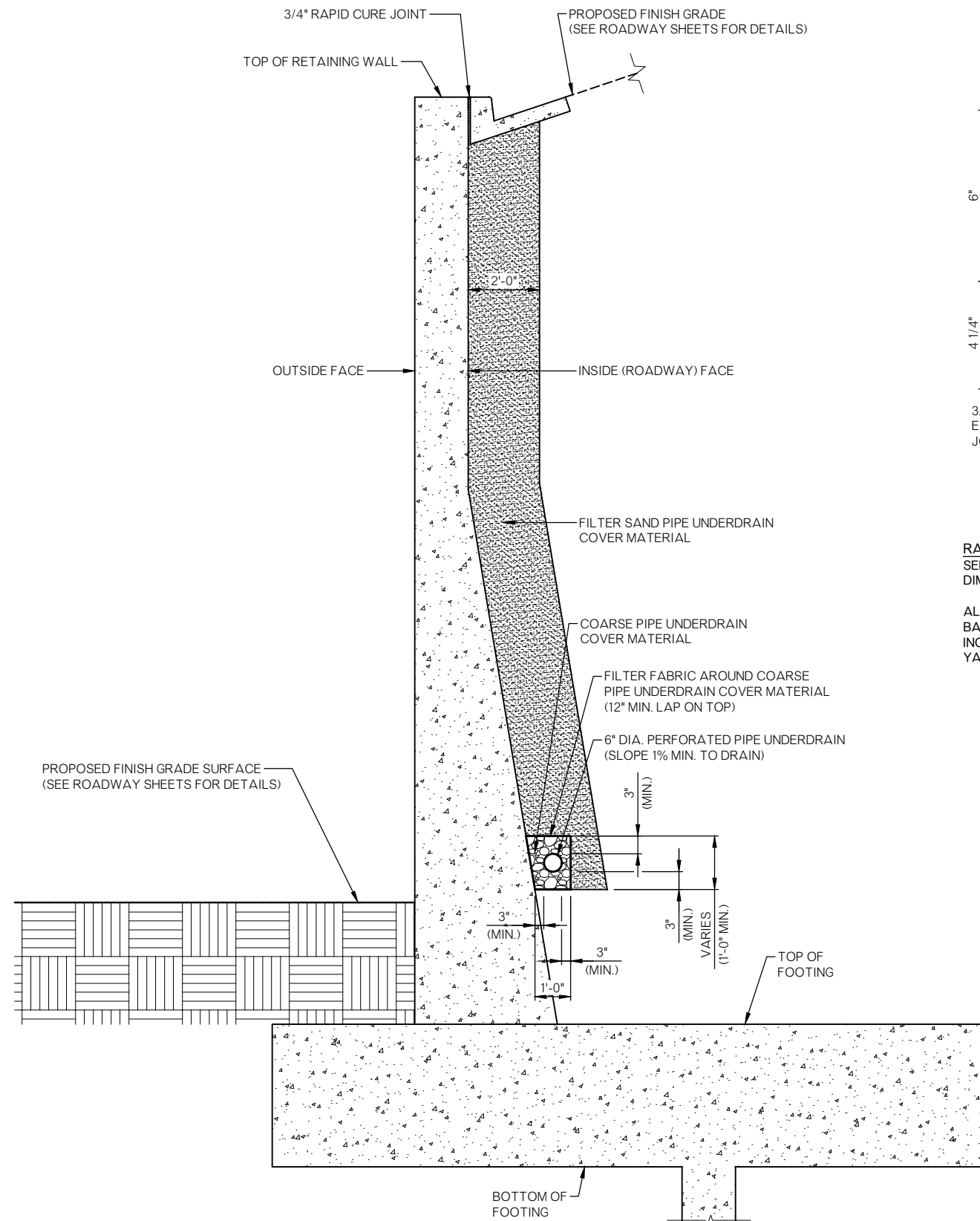
ALL COSTS FOR SHOES, MATERIALS, LABOR, TOOLS AND OTHER INCIDENTALS SHALL BE INCLUDED IN PRICE BID PER SQUARE YARD OF "RETAINING WALL".

FOOTING NOTE
SEE SHEET B015 FOR FOOTING AND TOP OF RETAINING WALL ELEVATIONS.

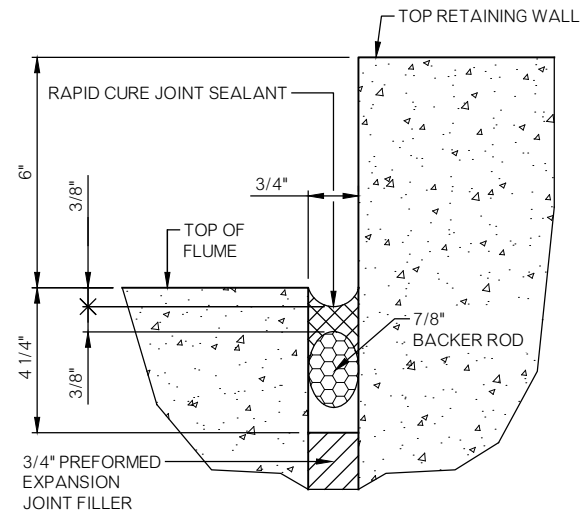
PILE FOUNDATION NOTE
SEE SHEET B010 FOR PILE FOUNDATION REACTIONS.

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

BRIDGE "A"
SH 16 OVER SAND CREEK
CIP RETAINING WALL DETAILS
(SHEET 4 OF 8)
P SURVEY STA. 135+53.50
State Job No. 29682(04) Sheet No. B013



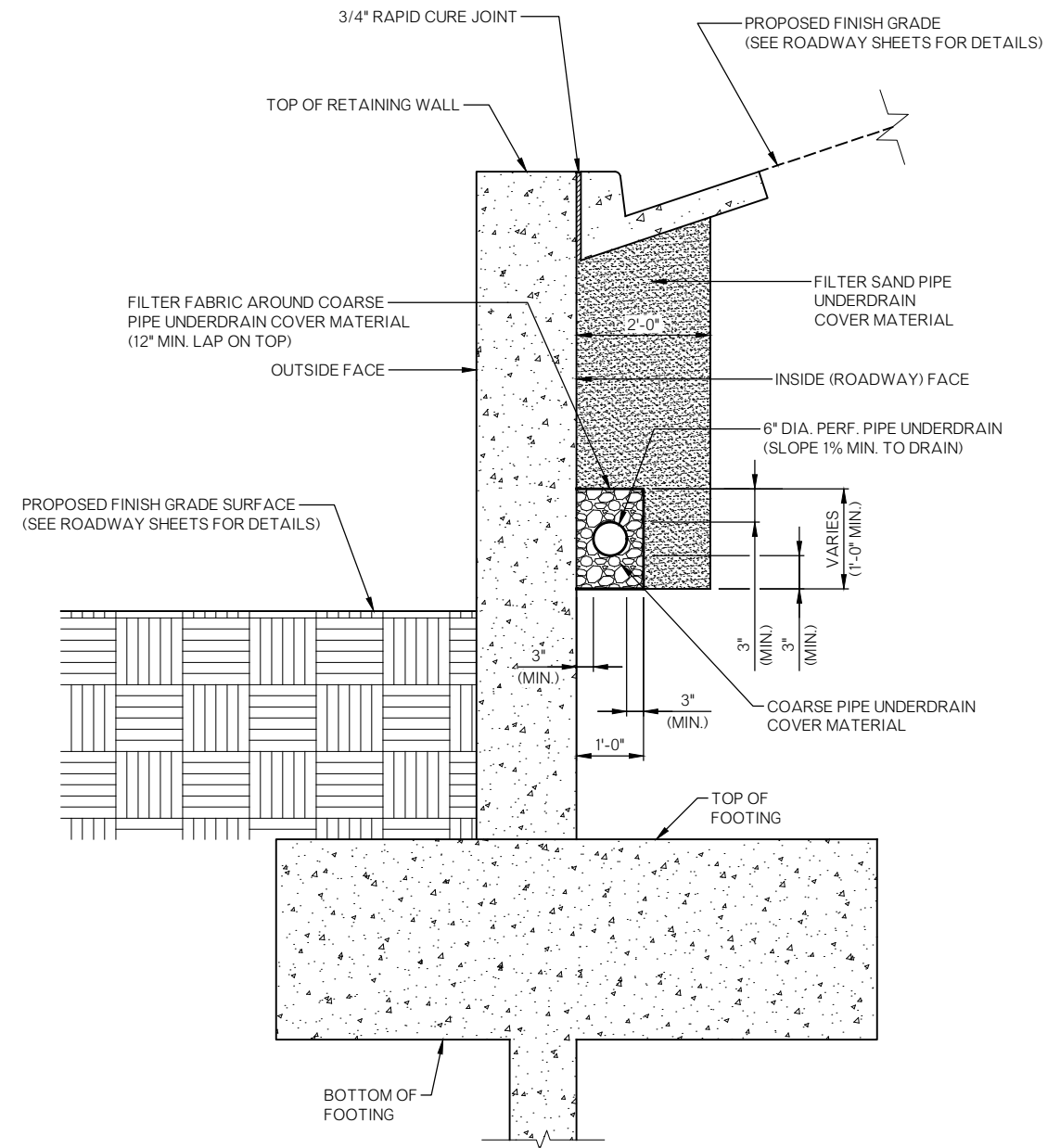
CIP RETAINING WALLS A2, A3, B3, B2, C2, C3, D3 & D2
TYPICAL SECTION FOR RETAINING WALL DRAINAGE



DETAIL OF RAPID CURE JOINT

RAPID CURE JOINT NOTES
SEE ODOT STD. LECS-5 FOR SEALED EXPANSION JOINT DETAIL, DIMENSIONS AND NOTES, EXCEPT AS SHOWN OTHERWISE.

ALL COSTS FOR EXPANSION MATERIAL, JOINT SEALANT AND BACKER ROD, LABOR, MATERIALS, TOOLS AND OTHER INCIDENTALS SHALL BE INCLUDED IN PRICE BID PER SQUARE YARD OF "RETAINING WALL".



CIP RETAINING WALLS A1, B1, C1, & D1
TYPICAL SECTION FOR RETAINING WALL DRAINAGE

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

BRIDGE "A"
SH 16 OVER SAND CREEK

CIP RETAINING WALL DETAILS
(SHEET 5 OF 8)

Q SURVEY STA. 135+53.50

State Job No. 29682(04) Sheet No. B014

ELEVATIONS & DIMENSIONS - CIP RETAINING WALL "A"									
WALL NAME	WALL LENGTH	TOP OF FOOTING ELEV.	BOT. OF FOOTING ELEV.	TOP ELEV. WEST	TOP ELEV. EAST	BH DIMENSION	WALL HEIGHT		
							WEST	EAST	AVG. HEIGHT
	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)
A1	15.00	769.06	766.06	779.06	779.06	-	10.00	10.00	10.00
A2	25.00	760.56	756.56	779.06	779.06	8.50	18.50	18.50	18.50
A3	25.00	753.06	748.56	779.06	779.06	11.00	26.00	26.00	26.00

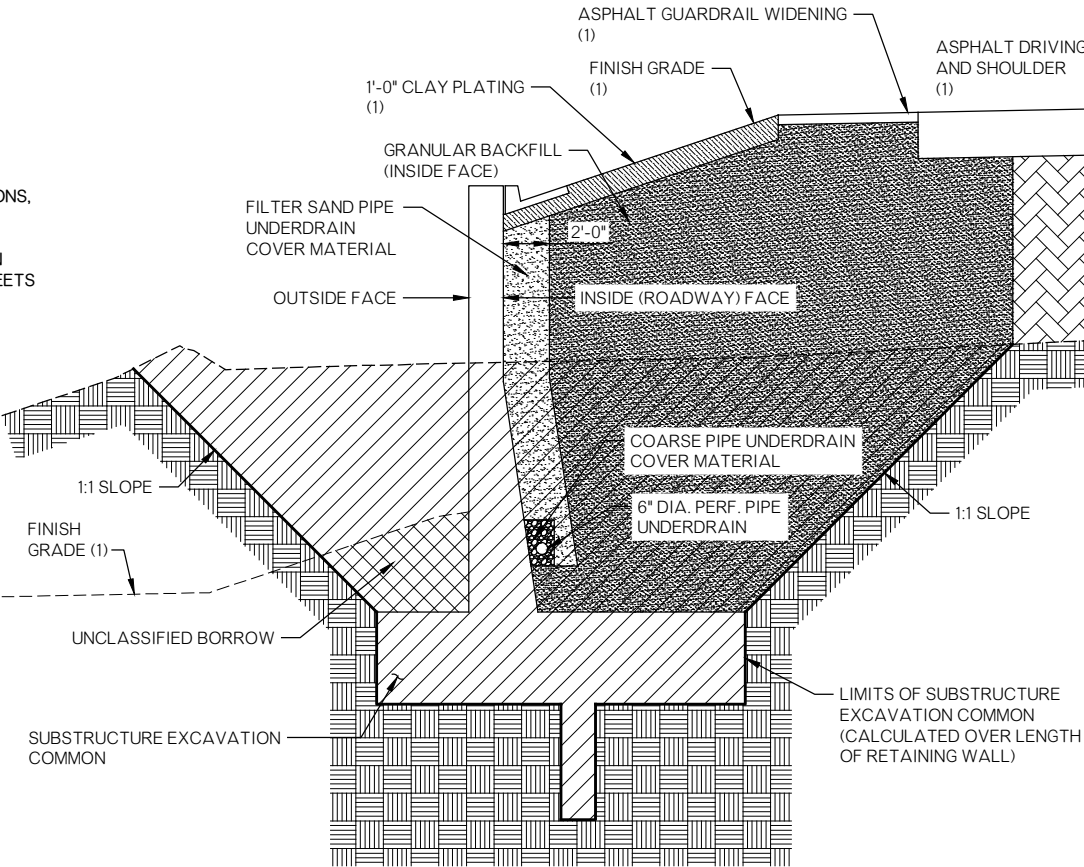
ELEVATIONS & DIMENSIONS - CIP RETAINING WALL "C"									
WALL NAME	WALL LENGTH	TOP OF FOOTING ELEV.	BOT. OF FOOTING ELEV.	TOP ELEV. WEST	TOP ELEV. EAST	BH DIMENSION	WALL HEIGHT		
							WEST	EAST	AVG. HEIGHT
	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)
C1	15.00	765.75	762.75	774.25	774.25	-	8.50	8.50	8.50
C2	25.00	759.75	755.75	774.25	774.25	4.50	14.50	14.50	14.50
C3	25.00	752.75	748.25	774.25	774.25	6.50	21.50	21.50	21.50

ELEVATIONS & DIMENSIONS - CIP RETAINING WALL "B"									
WALL NAME	WALL LENGTH	TOP OF FOOTING ELEV.	BOT. OF FOOTING ELEV.	TOP ELEV. WEST	TOP ELEV. EAST	BH DIMENSION	WALL HEIGHT		
							WEST	EAST	AVG. HEIGHT
	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)
B3	25.00	753.06	748.56	779.06	779.06	11.00	26.00	26.00	26.00
B2	25.00	760.56	756.56	779.06	779.06	8.50	18.50	18.50	18.50
B1	15.00	769.06	766.06	779.06	779.06	-	10.00	10.00	10.00

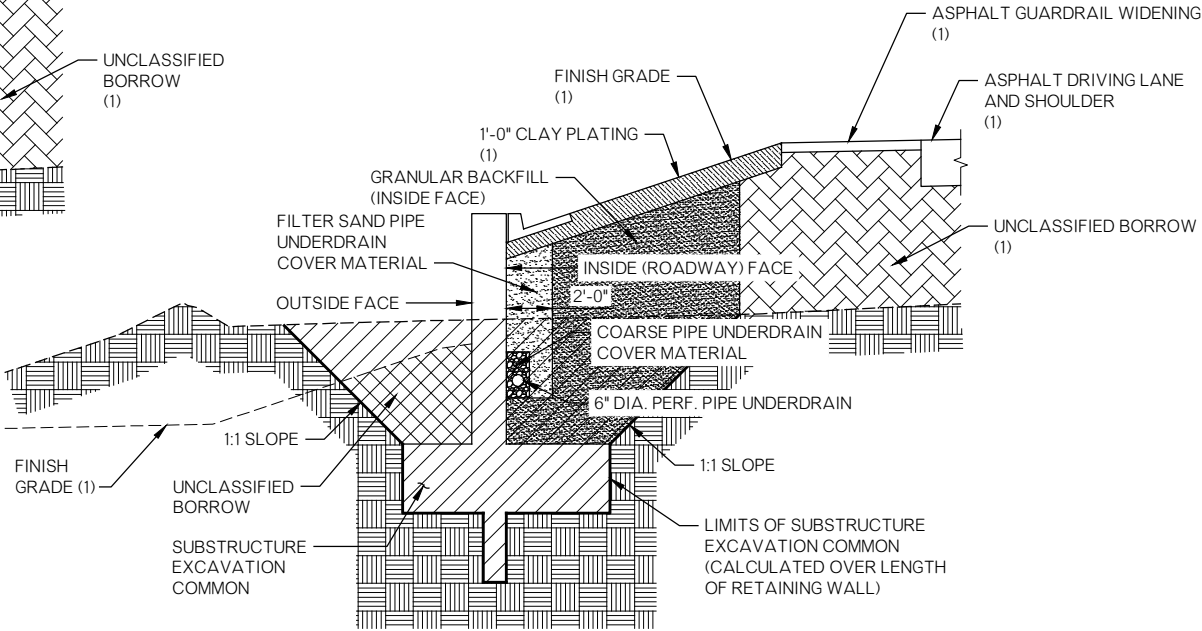
ELEVATIONS & DIMENSIONS - CIP RETAINING WALL "D"									
	WALL LENGTH	TOP OF FOOTING ELEV.	BOT. OF FOOTING ELEV.	TOP ELEV. WEST	TOP ELEV. EAST	BH DIMENSION	WALL HEIGHT		
							WEST	EAST	AVG. HEIGHT
	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)
D3	25.00	752.75	748.25	774.25	774.25	6.50	21.50	21.50	21.50
D2	25.00	759.75	755.75	774.25	774.25	4.50	14.50	14.50	14.50
D1	15.00	765.75	762.75	774.25	774.25	-	8.50	8.50	8.50

EXCAVATION NOTES
FOR FOOTING AND TOP OF RETAINING WALL ELEVATIONS,
SEE SHEET B016.

(1) SEE ROADWAY TYPICAL SECTION SHEETS, PLAN
AND PROFILE SHEETS, AND CROSS-SECTION SHEETS
FOR DETAILS.



CIP RETAINING WALLS A2, A3, B3, B2, C2, C3, D3 & D2
EXCAVATION DIAGRAM



CIP RETAINING WALL A1, B1, C1, & D1
EXCAVATION DIAGRAM

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

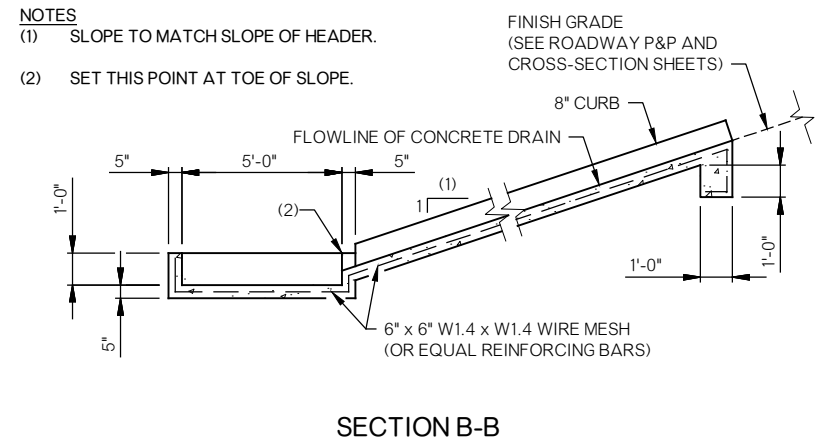
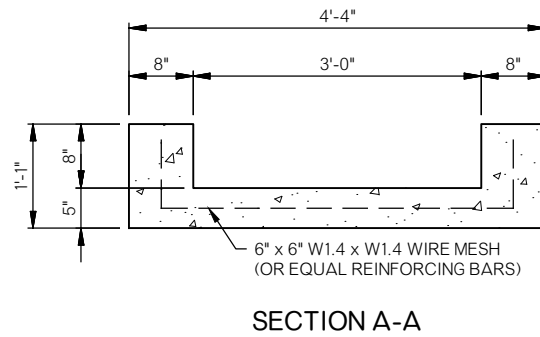
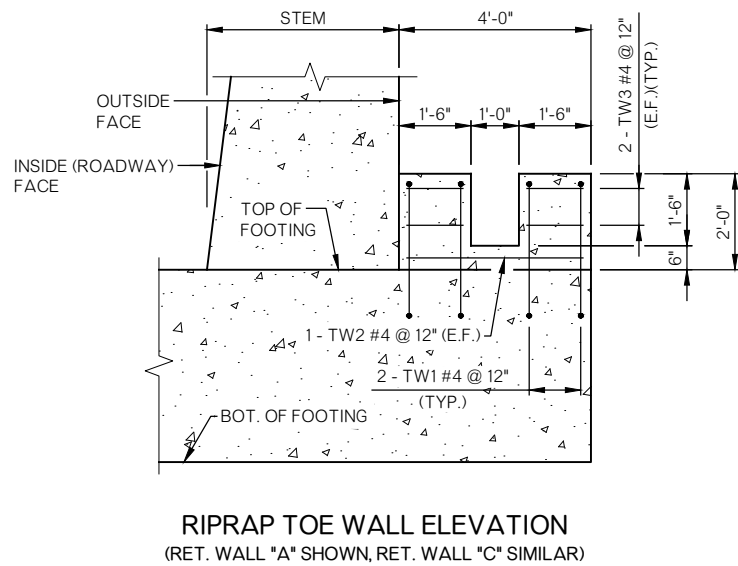
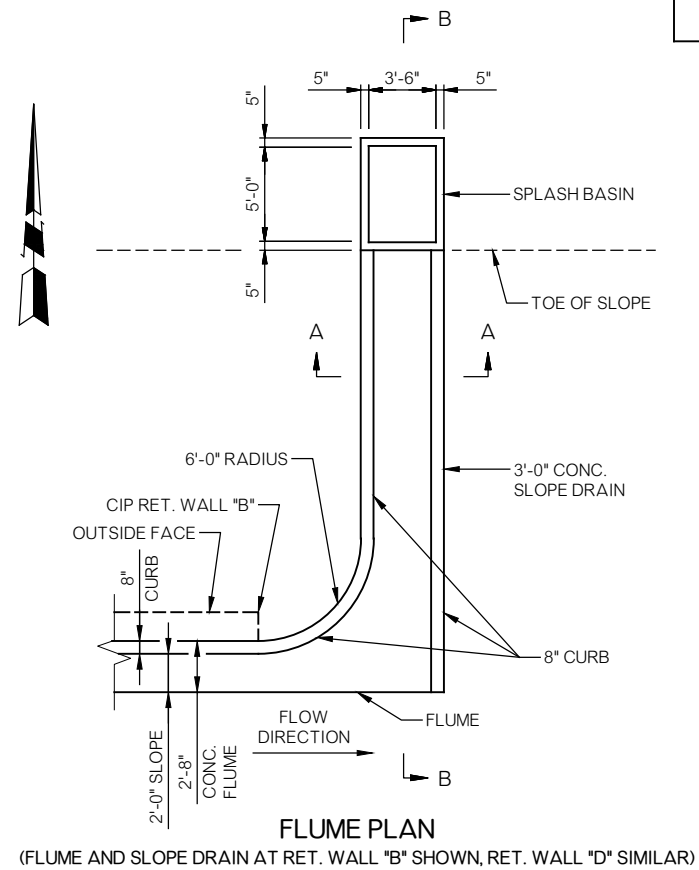
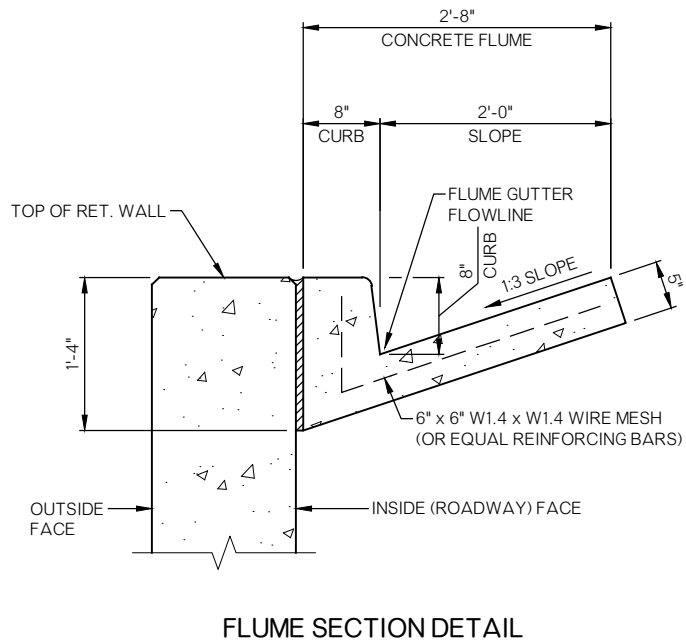
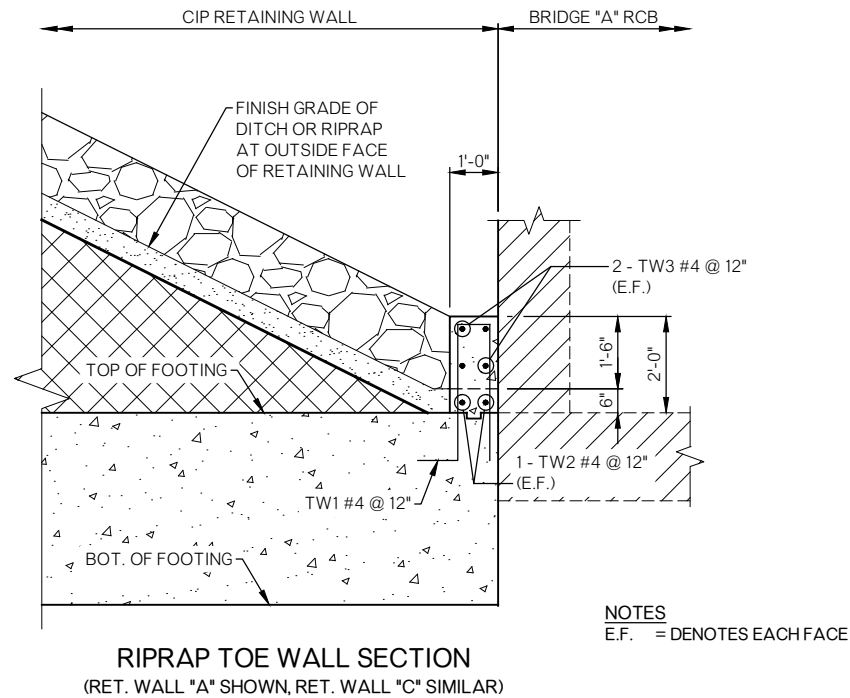
SUMMARY OF QUANTITIES - CIP RETAINING WALL "A"														
PANEL NAME	PAY ITEMS					NON-PAY ITEMS								
	HANDRAILING	RETAINING WALL	PILES, FURNISHED (HP 12x53)	PILES, DRIVEN (HP 12X53)	(PL) PILOT HOLES	CLASS AA CONCRETE	REINFORCING STEEL	SUBSTRUCTURE EXCAVATION COMMON	UNCLASSIFIED BORROW	GRANULAR BACKFILL	CLAY PLATING	COARSE PIPE UNDERDRAIN COVER MATERIAL	FILTER SAND PIPE UNDERDRAIN COVER MATERIAL	6" PERFORATED PIPE UNDERDRAIN
	(LF)	(SY)	(LF)	(LF)	(LF)	(CY)	(LB)	(CY)	(CY)	(CY)	(CY)	(CY)	(CY)	(LF)
A1	15.00	16.70	226.00	226.00	0.00	25.00	3,120.00	107.00	19.50	74.50	6.20	0.50	9.00	15.00
A2	25.00	51.40	465.00	465.00	0.00	98.90	11,820.00	412.00	92.60	413.90	10.20	4.90	26.90	25.00
A3	25.00	72.30	555.00	555.00	0.00	143.80	17,270.00	442.00	89.90	763.00	10.20	4.90	40.80	25.00
TOTAL	65.00	140.40	1,246.00	1,246.00	0.00	267.70	32,210.00	961.00	202.00	1,251.40	26.60	10.30	76.70	65.00

SUMMARY OF QUANTITIES - CIP RETAINING WALL "B"														
PANEL NAME	PAY ITEMS					NON-PAY ITEMS								
	HANDRAILING	RETAINING WALL	PILES, FURNISHED (HP 12x53)	PILES, DRIVEN (HP 12X53)	(PL) PILOT HOLES	CLASS AA CONCRETE	REINFORCING STEEL	SUBSTRUCTURE EXCAVATION COMMON	UNCLASSIFIED BORROW	GRANULAR BACKFILL	CLAY PLATING	COARSE PIPE UNDERDRAIN COVER MATERIAL	FILTER SAND PIPE UNDERDRAIN COVER MATERIAL	6" PERFORATED PIPE UNDERDRAIN
	(LF)	(SY)	(LF)	(LF)	(LF)	(CY)	(LB)	(CY)	(CY)	(CY)	(CY)	(CY)	(CY)	(LF)
B3	25.00	16.70	515.00	0.00	515.00	143.80	17,240.00	446.00	91.70	755.60	10.20	4.90	40.40	25.00
B2	25.00	51.40	400.00	0.00	400.00	98.90	11,820.00	363.00	63.00	403.80	10.20	4.90	26.30	25.00
B1	15.00	72.30	153.00	0.00	153.00	25.00	3,120.00	112.00	20.00	70.60	6.20	0.50	8.50	15.00
TOTAL	65.00	140.40	1,068.00	0.00	1,068.00	267.70	32,180.00	921.00	174.70	1,230.00	26.60	10.30	75.20	65.00

SUMMARY OF QUANTITIES - CIP RETAINING WALL "C"														
PANEL NAME	PAY ITEMS					NON-PAY ITEMS								
	HANDRAILING	RETAINING WALL	PILES, FURNISHED (HP 12x53)	PILES, DRIVEN (HP 12X53)	(PL) PILOT HOLES	CLASS AA CONCRETE	REINFORCING STEEL	SUBSTRUCTURE EXCAVATION COMMON	UNCLASSIFIED BORROW	GRANULAR BACKFILL	CLAY PLATING	COARSE PIPE UNDERDRAIN COVER MATERIAL	FILTER SAND PIPE UNDERDRAIN COVER MATERIAL	6" PERFORATED PIPE UNDERDRAIN
	(LF)	(SY)	(LF)	(LF)	(LF)	(CY)	(LB)	(CY)	(CY)	(CY)	(CY)	(CY)	(CY)	(LF)
C1	15.00	14.20	206.00	206.00	0.00	23.80	2,990.00	122.00	42.80	53.40	23.90	0.50	7.20	15.00
C2	25.00	40.30	462.00	462.00	0.00	93.30	10,930.00	459.00	173.20	298.20	39.90	3.70	20.10	25.00
C3	25.00	59.80	550.00	550.00	0.00	137.50	16,380.00	618.00	226.00	617.60	39.90	4.70	31.30	25.00
TOTAL	65.00	114.30	1,218.00	1,218.00	0.00	254.60	30,300.00	1,199.00	442.00	969.20	103.70	8.90	58.60	65.00

SUMMARY OF QUANTITIES - CIP RETAINING WALL "D"														
PANEL NAME	PAY ITEMS					NON-PAY ITEMS								
	HANDRAILING	RETAINING WALL	PILES, FURNISHED (HP 12x53)	PILES, DRIVEN (HP 12X53)	(PL) PILOT HOLES	CLASS AA CONCRETE	REINFORCING STEEL	SUBSTRUCTURE EXCAVATION COMMON	UNCLASSIFIED BORROW	GRANULAR BACKFILL	CLAY PLATING	COARSE PIPE UNDERDRAIN COVER MATERIAL	FILTER SAND PIPE UNDERDRAIN COVER MATERIAL	6" PERFORATED PIPE UNDERDRAIN
	(LF)	(SY)	(LF)	(LF)	(LF)	(CY)	(LB)	(CY)	(CY)	(CY)	(CY)	(CY)	(CY)	(LF)
D3	25.00	14.20	510.00	0.00	510.00	137.50	16,350.00	446.00	122.30	612.10	39.90	4.70	31.30	25.00
D2	25.00	40.30	387.00	0.00	387.00	93.30	10,930.00	229.00	50.00	285.20	39.90	6.50	19.00	25.00
D1	15.00	59.80	136.00	0.00	136.00	23.80	2,990.00	70.00	17.80	47.30	23.90	3.90	6.30	15.00
TOTAL	65.00	114.30	1,033.00	0.00	1,033.00	254.60	30,270.00	745.00	190.10	944.60	103.70	15.10	56.60	65.00

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



RIPRAP NOTES
SEE ROADWAY SHEETS FOR RIPRAP AND FILTER BLANKET PAY QUANTITIES AND LOCATIONS.

FLUME NOTES
FLUMES, SLOPE DRAINS, AND SPLASH BASINS TO BE LOCATED AS SHOWN IN THE PLANS AND AS DIRECTED BY THE ENGINEER.

FLUMES, SLOPE DRAINS AND SPLASH BASINS SHALL BE CONSTRUCTED USING CLASS "C" CONCRETE.

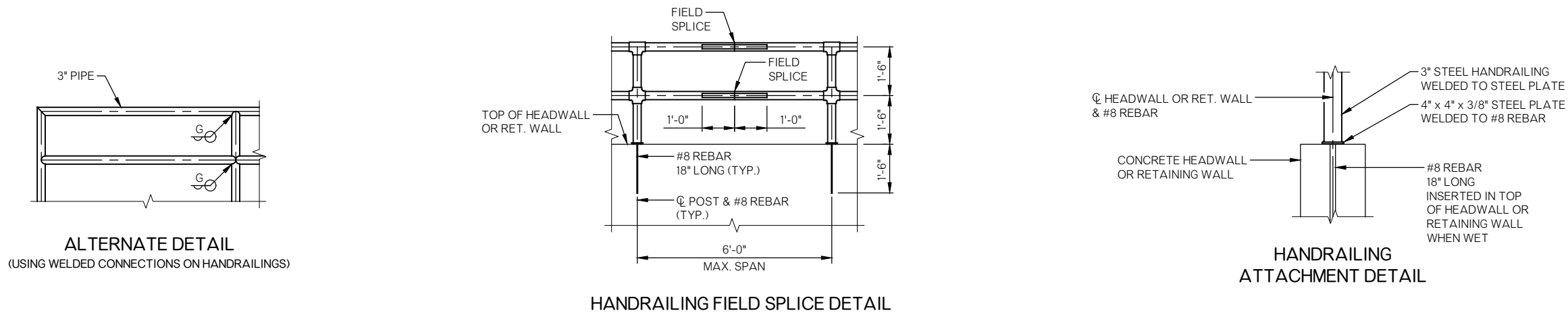
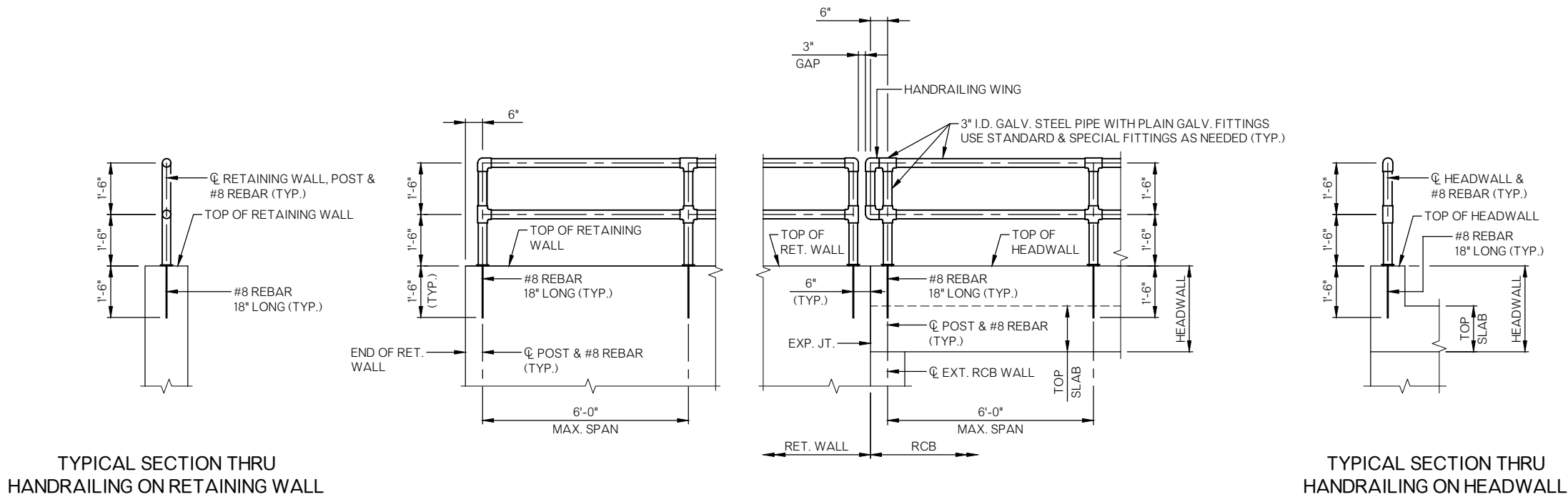
THERE IS AN ESTIMATED 13.90 C.Y. OF CLASS "C" CONCRETE AND AN ESTIMATED 160.00 LBS. OF REINFORCING STEEL IN THE NORTH FLUME, SLOPE DRAIN, SPLASH BASIN.

THERE IS AN ESTIMATED 12.60 C.Y. OF CLASS "C" CONCRETE AND AN ESTIMATED 140.00 LBS. OF REINFORCING STEEL IN THE SOUTH FLUME, SLOPE DRAIN, SPLASH BASIN.

ALL COSTS OF FLUMES, SLOPE DRAINS AND SPLASH BASINS INCLUDING CONCRETE, WIRE MESH, EXCAVATIONS, BACKFILLING AND OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN SHALL BE INCLUDED IN THE PRICE BID FOR "CLASS C CONCRETE".

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

BRIDGE "A"
SH 16 OVER SAND CREEK
CIP RETAINING WALL DETAILS
(SHEET 8 OF 8)
Q SURVEY STA. 135+53.50
State Job No. 29682(04) Sheet No. B017



HANDRAILING NOTES
HANDRAILING SHALL BE PLACED ON THE FULL LENGTH OF THE RETAINING WALLS AND HEADWALLS.

WELDED CONNECTIONS MAY BE USED FOR HANDRAILINGS. WELDED CONNECTIONS SHALL BE THOROUGHLY CLEANED OF ALL LOOSE SCALE, GROUND SMOOTH AND SPOT PAINTED WITH TWO COATS OF ZINC RICH PAINT.

SHOP DETAILS FOR ALL HANDRAILINGS SHALL BE SUBMITTED FOR APPROVAL.

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

BRIDGE "A"
SH 16 OVER SAND CREEK

HANDRAILING DETAILS
CL SURVEY STA. 135+53.50

State Job No. 29682(04) Sheet No. B018

REVIEWS <table><tr><td>REV. NO.</td><td>DESCRIPTION</td><td>DATE</td></tr><tr><td></td><td></td><td></td></tr></table>			REV. NO.	DESCRIPTION	DATE			
REV. NO.	DESCRIPTION	DATE						
U.S. ARMY CORPS OF ENGINEERS SECTION 404 PERMIT CONDITIONS								
404 PERMIT INFORMATION	PERMIT GENERAL CONDITIONS	PERMIT GENERAL CONDITIONS						
NATIONWIDE PERMIT NO. 14 ☐ TO BE PROVIDED AT A LATER DATE SECTION 404 OF THE CLEAN WATER ACT REQUIRES PRIOR AUTHORIZATION FROM SECRETARY OF THE ARMY (CORPS) FOR THE DISCHARGE OF DREDGED OR FILL MATERIAL INTO WATERS OF THE UNITED STATES. ☒ NO PRE-CONSTRUCTION NOTIFICATION REQUIRED: PROJECT DOES NOT REQUIRE NOTIFICATION TO THE US ARMY CORPS OF ENGINEERS (USACE) IN ORDER TO COMMENCE. ☐ PRE-CONSTRUCTION NOTIFICATION REQUIRED: RESIDENT ENGINEER MUST NOTIFY THE USACE WITHIN 30 DAYS OF THE START OF CONSTRUCTION AND 30 DAYS PRIOR TO COMPLETION OF CONSTRUCTION, FORMS LOCATED IN THE CONTRACT. ☐ INDIVIDUAL PERMIT: WILL BE MONITORED CLOSELY BY THE USACE. ☐ GENERAL PERMIT: PROJECT WITHIN A DESIGNATED CRITICAL RESOURCE WATER AND WILL REQUIRE PRE-CONSTRUCTION NOTIFICATION SEE ABOVE FOR EXPLANATION OF PRE-CONSTRUCTION NOTIFICATION. ☐ NO PERMIT REQUIRED SWT TRACKING NO. N/A	THE CONTRACTOR SHALL BE RESPONSIBLE BUT NOT LIMITED TO THE FOLLOWING HIGHLIGHTS OF THE 404 PERMIT (SEE CONTRACT FOR COMPLETE LIST): TEMPORARY FILLS: APPROPRIATE MEASURES MUST BE TAKEN TO MAINTAIN NORMAL DOWNSTREAM FLOWS AND MINIMIZE FLOODING TO THE MAXIMUM EXTENT PRACTICABLE. WHEN TEMPORARY STRUCTURES (WORK ROADS, WORK PADS, ETC.) WORK, AND DISCHARGES, INCLUDING COFFERDAMS, ARE NECESSARY FOR CONSTRUCTION ACTIVITIES, ACCESS FILLS, OR DE WATERING OF CONSTRUCTION SITES. TEMPORARY FILLS MUST CONSIST OF MATERIALS, AND BE PLACED IN A MANNER, THAT WILL NOT BE ERODED BY EXPECTED HIGH FLOWS. TEMPORARY FILLS MUST BE REMOVED IN THEIR ENTIRETY AND THE AFFECTED AREAS RETURNED TO PRE-CONSTRUCTION ELEVATIONS. THE AREAS AFFECTED BY TEMPORARY FILLS MUST BE RE VEGETATED, AS APPROPRIATE. NAVIGATION: NO ACTIVITY MAY CAUSE MORE THAN A MINIMAL ADVERSE EFFECT ON NAVIGATION WITHIN A NAVIGABLE WATER OF THE U.S. IF THIS PROJECT IS LOCATED WITHIN A NAVIGABLE WATER OF THE U.S., IT WILL BE IDENTIFIED IN THE SPECIAL CONDITIONS. AQUATIC LIFE MOVEMENTS & ADVERSE EFFECTS FROM IMPOUNDMENTS: NO ACTIVITY MAY LARGELY DISRUPT THE NECESSARY LIFE CYCLE MOVEMENTS OF THOSE SPECIES INDIGENOUS TO THE BODY OF WATER, INCLUDING THOSE SPECIES THAT NORMALLY MIGRATE THROUGH THE AREA. CULVERTS WILL BE DESIGNED TO PROVIDE SUFFICIENT PASSAGE FOR AQUATIC LIFE AND INSTALLED TO MAINTAIN LOW FLOW. RATE OF FLOW CANNOT BE MADE HIGHER THAN WHAT WAS PRIOR TO THE START OF CONSTRUCTION. EROSION CONTROL MEASURES SHOULD BE UTILIZED AROUND THE PERIMETER OF NEW STRUCTURES TO AVOID SILT BUILD UP. CAUTION SHOULD BE TAKEN TO MINIMIZE HARM IF CONSTRUCTION ACTIVITIES TAKE PLACE WITHIN A STREAM OR RIVER CHANNEL AND CREATE A CONFINED BODY OF WATER, CAUSE ADVERSE EFFECTS TO THE AQUATIC SYSTEM IN ANY WAY, AND/OR RESTRICTING ITS FLOW. MANAGEMENT OF WATER FLOWS: CONSTRUCTION ACTIVITIES MAY NOT IMPEDE THE PASSAGE OF NORMAL OR HIGH FLOWS. TO THE GREATEST EXTENT POSSIBLE, THE PRE- CONSTRUCTION COURSE, CONDITIONS,CAPACITY AND LOCATION OF OPEN WATERS MUST BE MAINTAINED. THIS INCLUDES STREAM CANALIZATION AND STORM WATER MANAGEMENT. SUITABLE MATERIAL: NO ACTIVITY MAY USE UNSUITABLE MATERIAL (E.G., TRASH, DEBRIS, CAR BODIES, ASPHALT, ETC.). MATERIALS USED FOR CONSTRUCTION OR DISCHARGED MUST BE FREE FROM TOXIC POLLUTANTS IN TOXIC AMOUNTS (SEE SECTION 307 OF CLEAN WATER ACT). PROPER MAINTENANCE: ANY AUTHORIZED STRUCTURE OR FILL SHALL BE PROPERLY MAINTAINED, INCLUDING MAINTENANCE TO ENSURE PUBLIC SAFETY AND COMPLIANCE WITH APPLICABLE NATION WIDE PERMIT GENERAL CONDITIONS, AS WELL AS ANY ACTIVITY- SPECIFIC CONDITIONS ADDED BY THE DISTRICT ENGINEER TO AN NATIONWIDE PERMIT AUTHORIZATION HAZARDOUS MATERIALS: HAZARDOUS MATERIALS, CHEMICALS, FUELS, LUBRICATING OILS AND OTHER SUCH SUBSTANCES SHOULD BE STORED AWAY FROM ANY STREAM OR RIVERCHANNEL (SEE SECTION 307 OF CLEAN WATER ACT) EQUIPMENT: HEAVY EQUIPMENT WORKING IN WETLANDS OR MUDFLATS MUST BE PLACED ON MATS, OR OTHER MEASURES MUST BE TAKEN TO MINIMIZE SOIL DISTURBANCE; FOR EXAMPLE IF WETLANDS ARE PRESENT WITHIN THE CONSTRUCTION, THE FOOTPRINT WILL BE SHOWN ON THE PLANS. MEASURES SHOULD BE TAKEN TO PREVENT DISCHARGE INTO ANY WATERS OF THE STATE (e.g. CONCRETE WASHOUT). SOIL EROSION AND SEDIMENT CONTROLS: APPROPRIATE SOIL EROSION AND SEDIMENT CONTROLS MUST BE USED AND MAINTAINED IN EFFECTIVE OPERATING CONDITION DURING CONSTRUCTION, AND ALL EXPOSED SOILS AND OTHER FILLS, AS WELL AS ANY WORK WITHIN STREAM OR RIVER CHANNELS OR BANKS, MUST BE PERMANENTLY STABILIZED AS SOON AS POSSIBLE. 404 COMPLIANCE: IN ORDER TO REMAIN COMPLIANT WITH THE 404 PERMIT, THE PROJECT MUST COMPLY WITH ALL FEDERAL ENVIRONMENTAL PROTECTION LAWS ASSOCIATED AND, THE ENVIRONMENTAL COMMITMENTS AS SHOWN ON THE PLANS. THIS INCLUDES BUT IS NOT LIMITED TO COMPLIANCE WITH ALL ENVIRONMENTAL NOTES IN THE PLANS, INCLUDING CULTURAL RESOURCES, HAZARDOUS WASTE, BIOLOGICAL FOR PROTECTED SPECIES, AND DEQ STORM WATER REGULATIONS AS THEY PERTAIN TO THE SWMP SHEET WITHIN THE PLANS. ALL OF THE 404 PERMIT GENERAL AND SPECIFIC CONDITIONS MUST BE ADHERED TO. A COPY OF THESE CONDITIONS CAN BE FOUND IN THE CONTRACT WITH THE 404 PERMIT.	FUELING: ALL FUELING AND SERVICING OF VEHICLES AND EQUIPMENT SHALL BE DONE ABOVE THE ORDINARY HIGH WATER MARK (OHWM). MATERIAL STORAGE: STORE MATERIAL AND FUEL OUTSIDE OF THE ORDINARY HIGH WATER MARK OR ANY AREA LIKELY TO FLOOD. DEBRIS STORAGE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ANY MATERIALS, DEBRIS, OR REFUSE WHICH HAS FALLEN INTO ANY STREAM OR RIVER CHANNELS RESULTING FROM THE EXECUTION OF THE PROJECT AS SOON AS POSSIBLE SEE NATIONWIDE PERMIT 14 IN THE CONTRACT 401 CERTIFICATION CONDITIONS THE CONTRACTOR SHALL BE RESPONSIBLE BUT NOT LIMITED TO THE FOLLOWING HIGHLIGHTS OF THE 401 CERTIFICATION (SEE CONTRACT FOR COMPLETE LIST): ☒ ALL SPILLS OF FUEL OR POLLUTANTS IN EXCESS OF FIVE GALLONS SHALL BE REPORTED TO ODEQ WITHIN 24 HRS AND REPORTED TO POLLUTION PREVENTION HOTLINE (1-800-522-0206) ☒ ALL FUELING AND SERVICING OF VEHICLES AND EQUIPMENT SHALL BE DONE OUTSIDE THE ORDINARY HIGH WATER MARK ☒ THE PERMITTEE SHALL PROVIDE ACCESS TO THE PROPERTY TO ODEQ FOR INSPECTIONS. ☒ ANY STOCKPILE SHALL BE ABOVE ORDINARY HIGH WATER MARK AND REMOVED FROM LIKELY FLOOD ZONE ☒ BEST MANAGEMENT PRACTICES SHOULD BE USED TO CONTROL SOIL EROSION AND MAINTAIN COMPLIANCE WITH WATER QUALITY STANDARDS. ☒ FOR ANY PROJECT THAT INVOLVES BANK STABILIZATION, THE PERMITTEE SHALL CONSIDER INSTALLING BIOENGINEERING PRACTICES IN PLACE OF STRUCTURAL PRACTICES (RIPRAP) TO MINIMIZE IMPACTS TO AQUATIC RESOURCES						

SECTION 404 PERMIT COMPLIANCE

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION | JOB/PIECE NO. 29682(O4) | SHEET NO. E001

DETAIL		
REVIEW		
APPROVED		
ENVIRONMENTAL DIVISION		

STORM WATER MANAGEMENT PLAN

FINAL FIELD MEETING JANUARY 2022

SITE DESCRIPTION

EROSION AND SEDIMENT CONTROLS

PROJECT LIMITS: SH 16 OVER SAND CREEK, 0.7 MILES EAST OF THE SH-48 JCT.

PROJECT DESCRIPTION: BRIDGE & APPROACHES (3R)

SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES: PRIOR TO INITIATING SOIL DISTURBING ACTIVITIES, THE CONTRACTOR WILL INSTALL ALL PERIMETER TEMPORARY SEDIMENT CONTROLS SPECIFIED, STRIP, STOCKPILE AND STABILIZE TOPSOIL. CLEAR AND GRUB ONLY IN NECESSARY AREAS, PRESERVING AS MUCH NATIVE VEGETATION AS POSSIBLE. INSTALL, MAINTAIN AND/OR MOVE TEMPORARY SEDIMENT ITEMS WITH CONSTRUCTION OPERATIONS AS PRACTICAL. IF DIRECTED BY THE ENGINEER, PLANT TEMPORARY SEEDING, REPLACE TOPSOIL AND DEVICES WHEN AN ACCEPTABLE VEGETATIVE COVER (AT LEAST 70%) HAS BEEN ATTAINED. AS SITE CONDITIONS WARRANT, THE CONTRACTOR MAY CHOOSE TO MODIFY THE TYPE OR ARRANGEMENT OF SPECIFIED PRACTICES TO IMPROVE THEIR EFFECTIVENESS AS APPROVED BY THE ENGINEER, THE CONTRACTOR WILL MAINTAIN A LOG OF THE DATES OF MAJOR SOIL DISTURBANCE ACTIVITIES, AND ALSO THE DATES OF INSTALLATION OF EROSION CONTROL MEASURES.

SOIL TYPE: FINE SANDY LOAM AND STONY

TOTAL AREA OF THE CONSTRUCTION SITE: 11.45 ACRES

ESTIMATED AREA TO BE DISTURBED: 6.53 ACRES

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE)

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 2.00 ACRES

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 3.04 ACRES

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.50

LATITUDE & LONGITUDE OF CENTER OF PROJECT: 35.828181° N, 96.375383° W

- 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 2019 ODOT STANDARD SPECIFICATIONS SHOULD BE NOTED:

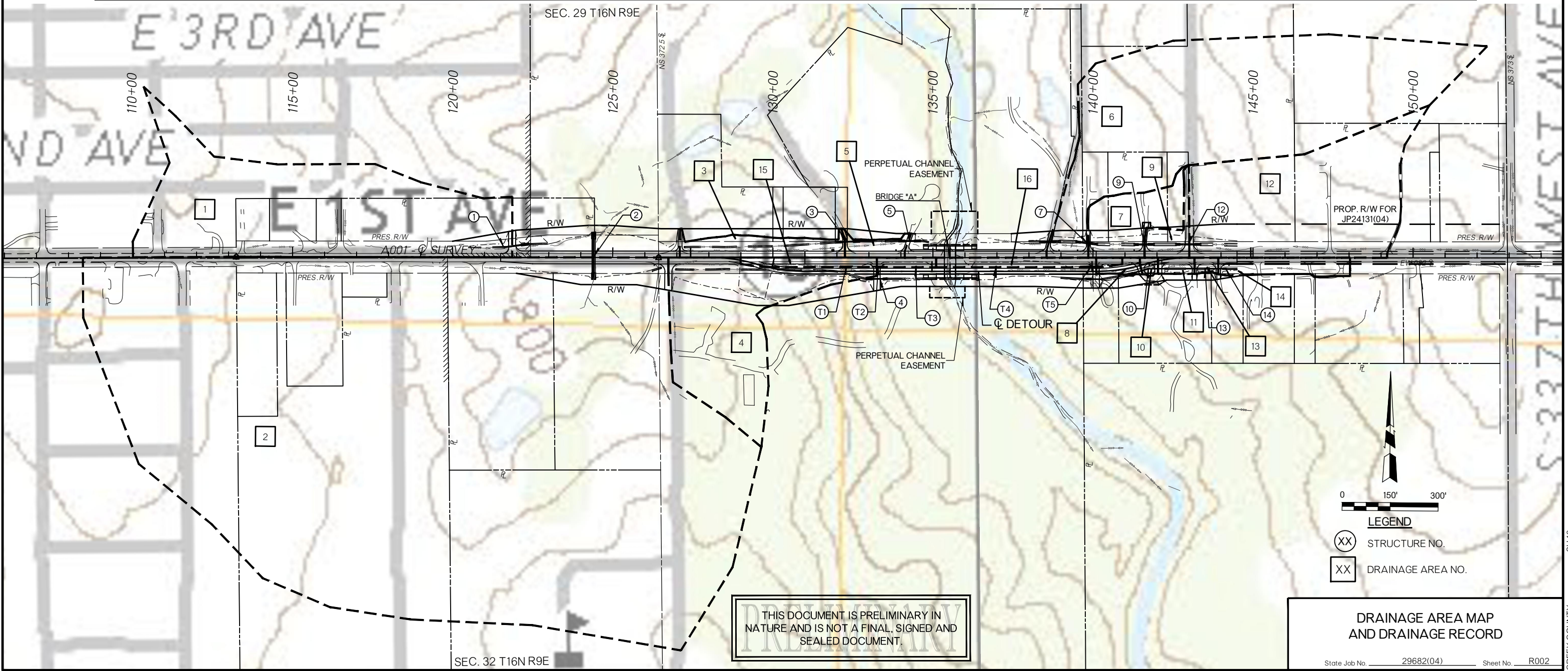
- 103.05 BONDING REQUIREMENTS
- 104.10 FINAL CLEANING UP
- 104.12 CONTRACTOR'S RESPONSIBILITY FOR WORK
- 104.13 ENVIRONMENTAL PROTECTION
- 106.08 STORAGE AND HANDLING OF MATERIAL
- 107.01 LAWS, RULES, AND REGULATIONS TO BE OBSERVED
- 107.20 STORM WATER MANAGEMENT
- 220 MANAGEMENT OF EROSION, SEDIMENTATION,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

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

STORM WATER MANAGEMENT PLAN

DRAINAGE RECORD																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
STR. NO.	ALIGNMENT	LOCATION (STATION)	LOCATION (OFFSET)	LT/RT	DA NO.	AREA	C	CC ₁ A ₁₀	CC ₁ A ₅₀	T _C	I ₀	I ₅₀	Q ₀	Q ₅₀	TOTAL Q ₁₀	TOTAL Q ₅₀	Q ₁₀₀	Q ₁₅₀	INLET TYPE	DESIGN Q	ADJ. CA	ADDN CA	FROM STR. NO.	CUMULATIVE T _C	I	Σ CA	TOTAL Q IN CONDUIT	PIPE DIA.	SLOPE	VELOCITY	SLOPE LENGTH	LENGTH	TIME IN PIPE	TOTAL TC	TO STR. NO.	FLOWLINE	DS FLOWLINE	TOP OF RIM/GRATE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
										(AC)	(MIN.)	(IN./HR)	(IN./HR)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)		(CFS)				(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)		(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)</



STA 117+10.7 2'X3'3"
S.D. 30.7' RT.
F.ELEV. = 822.29 E
(LEAVE)
STA 117+66.5 2'X30'
LG CMP S.D. 27.0' RT.
F.ELEV. = 820.89 W
F.ELEV. = 819.94 E
(LEAVE)

STA 118+30.1 2'X18"X64"
F.CMP S.D. 37.8' RT.
F.ELEV. = 816.23 E
(LEAVE)

STA 119+26.0 2'X18"
X28.3 LG CMP S.D. 30.7' LT
F.ELEV. = 814.55 W
F.ELEV. = 815.97 E
(LEAVE)

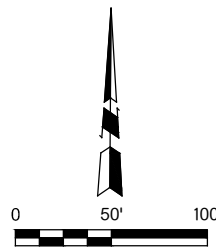
STA 119+49 18"X15.9'
LG CMP S.D. 29.1' RT.
F.ELEV. = 814.16 W
F.ELEV. = 813.18 E
(LEAVE)

STA 119+65.9 18"X20.0'
LG CMP S.D. 32.2' W
F.ELEV. = 811.44 E
(LEAVE)

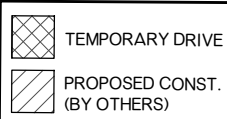
STA 120+76.0 2'X18"X46.3'
LG CMP S.D. 30.4' RT.
F.ELEV. = 809.26 W
F.ELEV. = 808.41 E
(LEAVE)

STA 121+88.0 18"X32.0' LG
STEEL PIPE S.D. 25.8' LT.
F.ELEV. = 806.02 W
F.ELEV. = 804.64 E
(REMOVE)

SEC. 29 T16N R9E



STA 124+46.4 6"
LG CMP S.D. 30.7' RT.
F.ELEV. = 780.92
RT.F. = 789.96
(REMOVE)



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

CONST. 3.49 TONS 18" TYPE 1
PLAIN RIPRAP W/ 1.11 TONS
TYPE 1 FILTER BLANKET 6" THICK

Q SURVEY STA. 121+86
CONST. 22' ASPH DR. LT.
W/ 30" CGSP SD W/CET

CAUTION:
OH POWER,
CABLE
LW=827.90

CAUTION:
OH POWER
LW=840.20 &
836.70

STA. 120+00 TO 124+43
CONST. 447 LF FENCE
STYLE CLF (8' HIGH)
W/ SPECIALTY GATE
BY OWNER

CONST. 4' BOTTOM PAVED DITCH LT.

CONST. 33.89 TONS 18"
TYPE 1 PLAIN RIPRAP W/
10.77 TONS TYPE 1 FILTER
BLANKET 6" THICK

CAUTION:
OH POWER, TELE.
LW=826.90
& 837.30

CAUTION:
WATER & GAS

CAUTION:
SANITARY
SEWER

STA. 122+21 TO 123+12
CONST. 91 LF FENCE
STYLE SWF (5WB)

STA. 123+12 TO 126+22
CONST. 313 LF FENCE
STYLE WWF

STA. 126+30, 21' RT.
MAILBOX INSTALLATION
SINGLE, TYPE 1

Q SURVEY STA. 126+73
CONST. 22' ASPH DR. RT.
AS DIKE

+81.27-PP 49.8' LT.
+84.73-PP 75.5' RT.

+31.09-PP 70.3' LT.
+34.24-PP 48.7' LT.
+43.34-PP 48.6' LT.
+54.28-PP 49.3' LT.
+65.51-PP 210.8' LT.

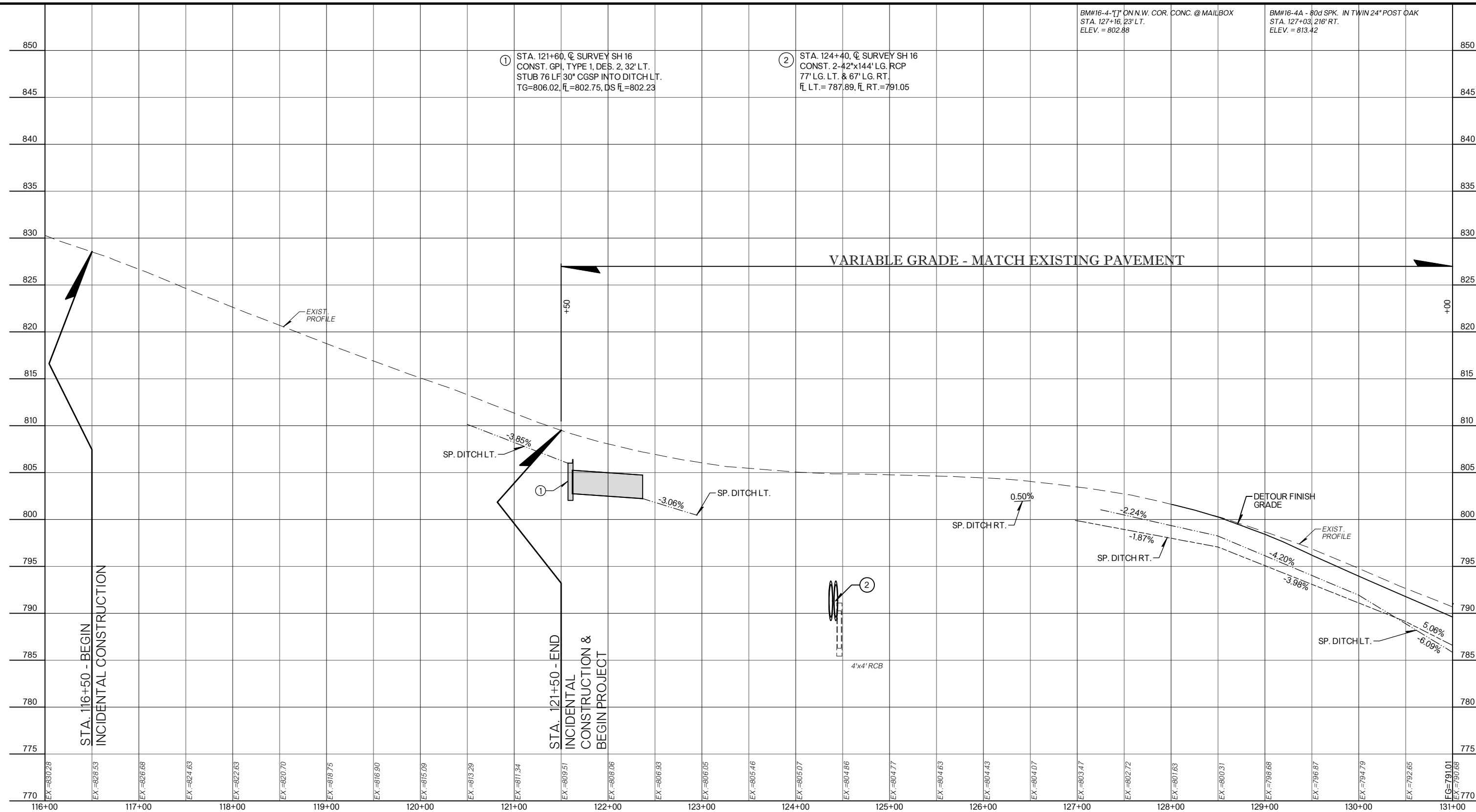
SH 16
PLAN VIEW
BOP TO 131+00

UTILITY OWNERS	
OKLAHOMA NATURAL GAS	(800) 664-5463
OG&E ELECTRIC SERVICES	(405) 553-3000
AT&T TELEPHONE CO.	(800) 845-5359
ALLEGIANCE COMMUNICATION	(405) 694-5028
MAGELLAN PIPELINE CO	(918) 574-7098
ENERFIN RESOURCES	(405) 382-3049
CITY OF BRISTOW PUBLIC WORKS	(918) 367-5942
TOWN OF SLICK PUBLIC WORKS	(918) 367-1800
ONEOK GAS TRANSMISSION	(888) 215-5137
SUNCO/MID-CONTINENT	(918) 352-5091
ENOGEX	(800) 522-8048
EAST CENTRAL ELECTRIC COOP.	(918) 756-0833

STA. 116+50 - BEGIN
INCIDENTAL CONSTRUCTION

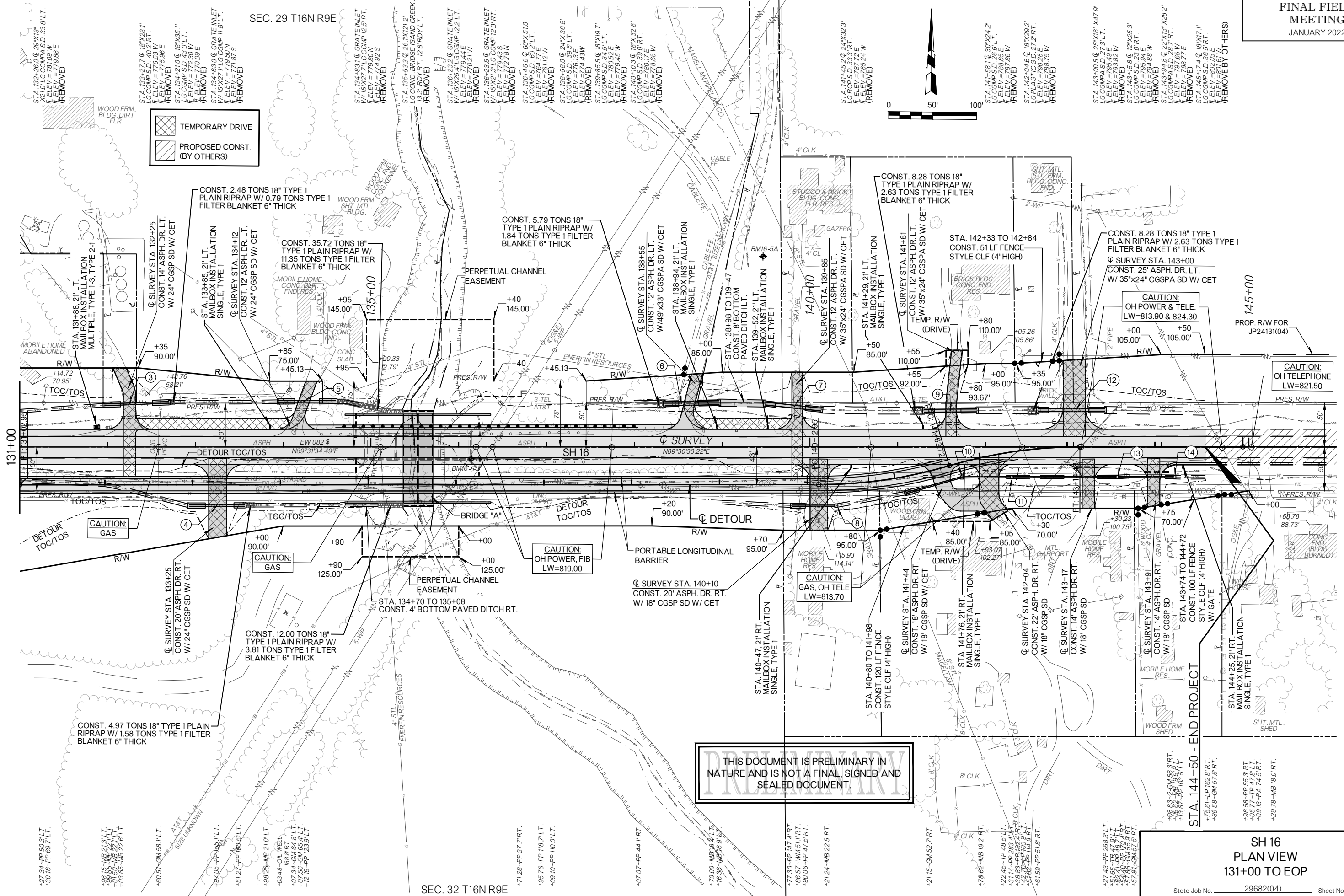
STA. 121+50 - END INCIDENTAL
CONSTRUCTION & BEGIN PROJECT

SEC. 32 T16N R9E



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

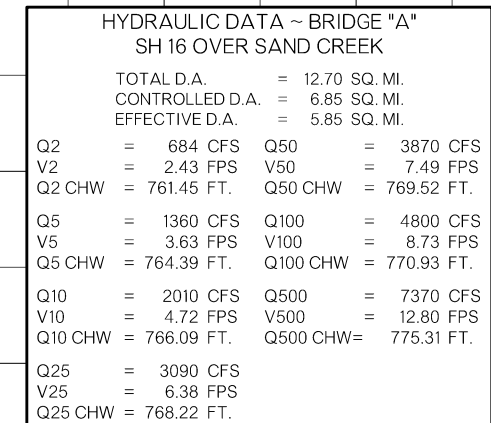
SH 16
PROFILE VIEW
BOP TO 131+00



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

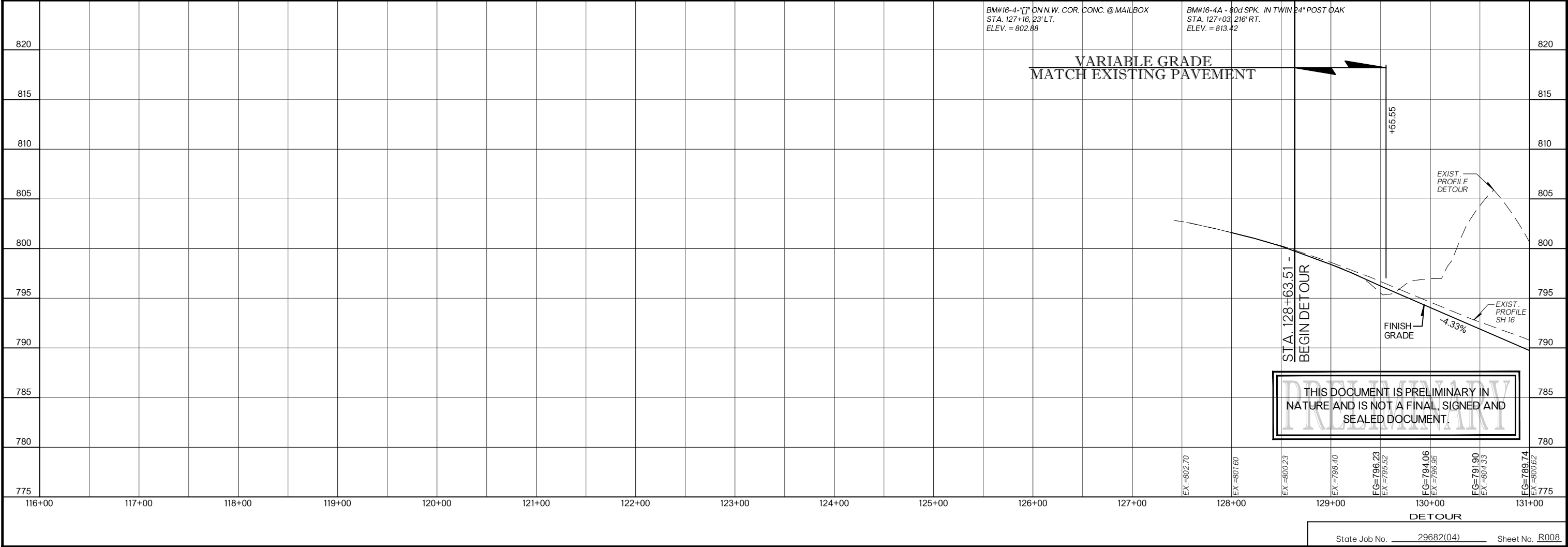
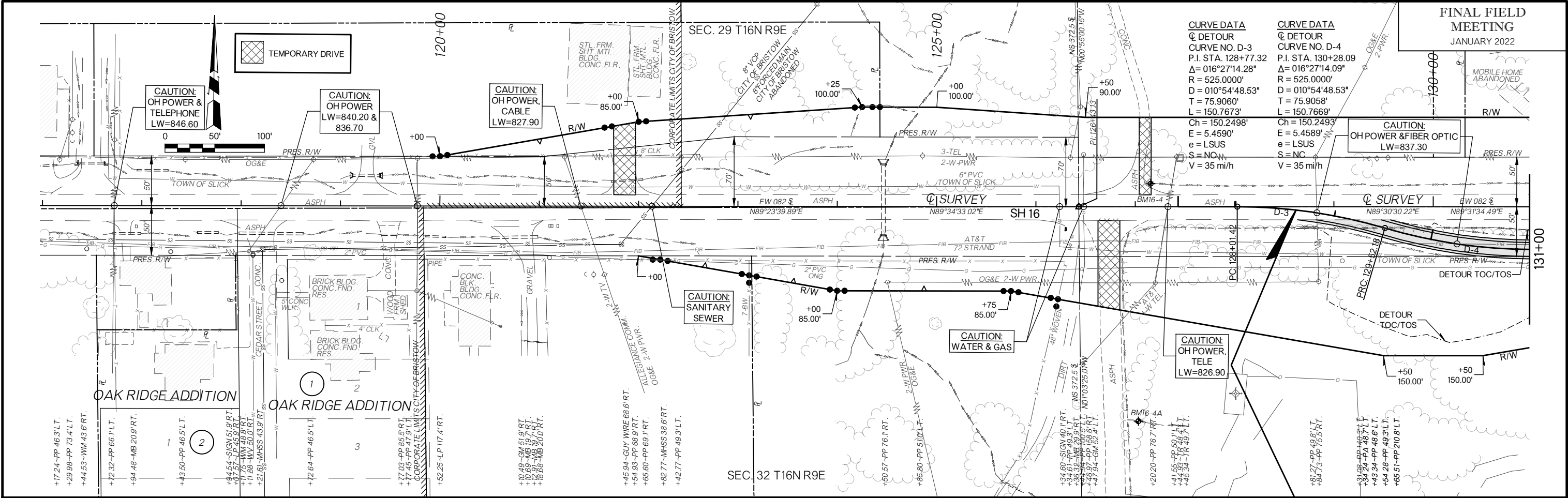
STA. 144+50 - END PROJECT

SH 16
PLAN VIEW
131+00 TO EOP

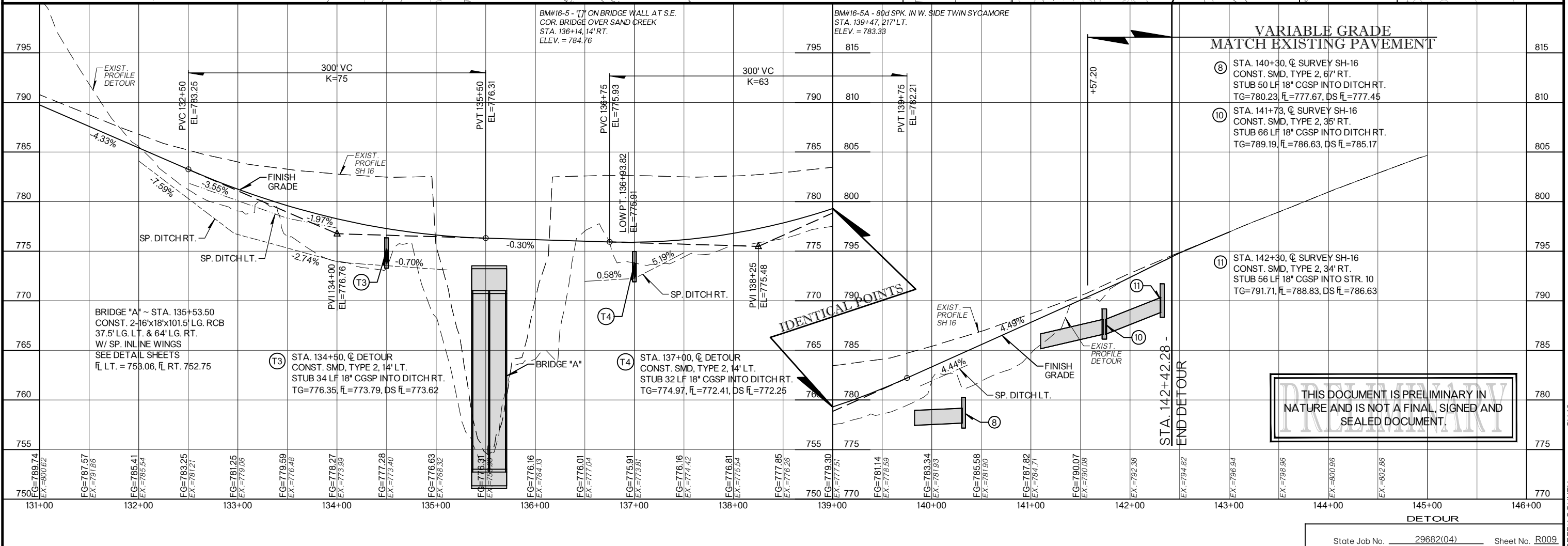
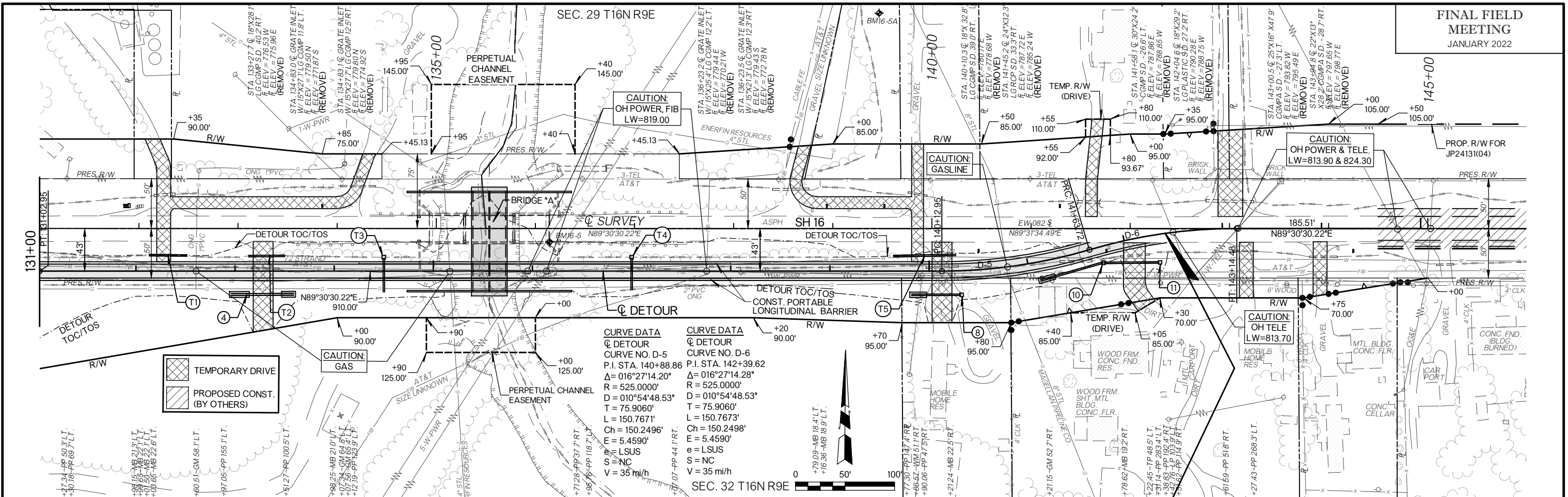


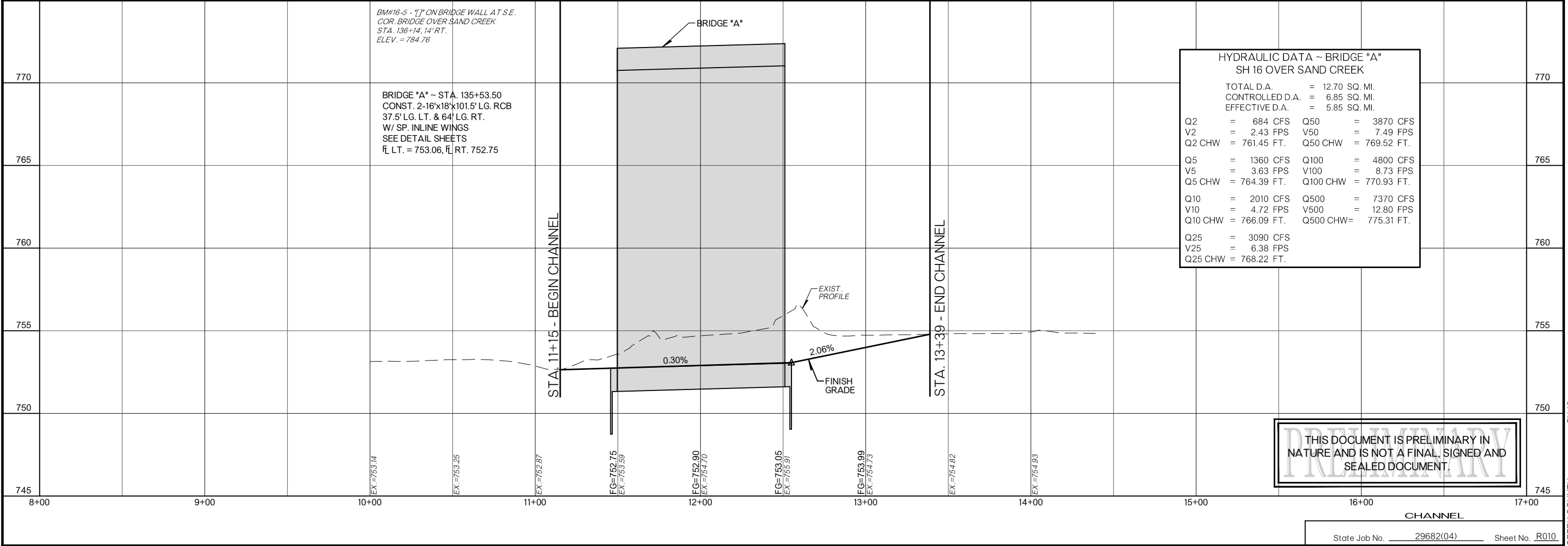
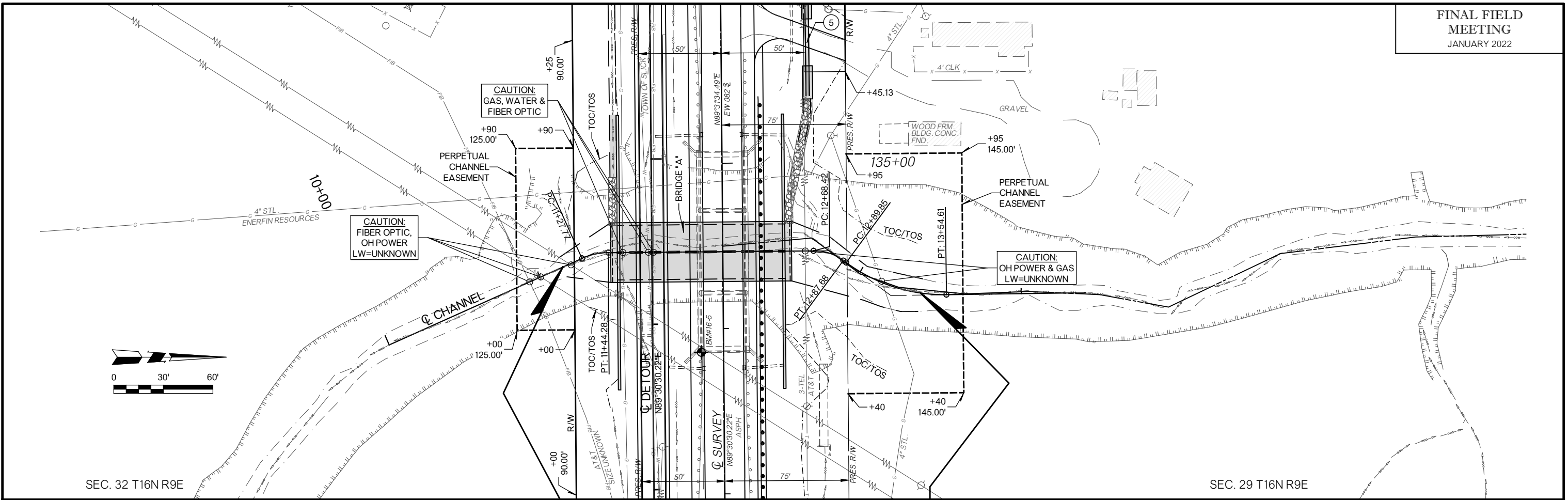
SH 16
PROFILE VIEW
131+00 TO EOP

State Job No. 29682(04) Sheet No. R007

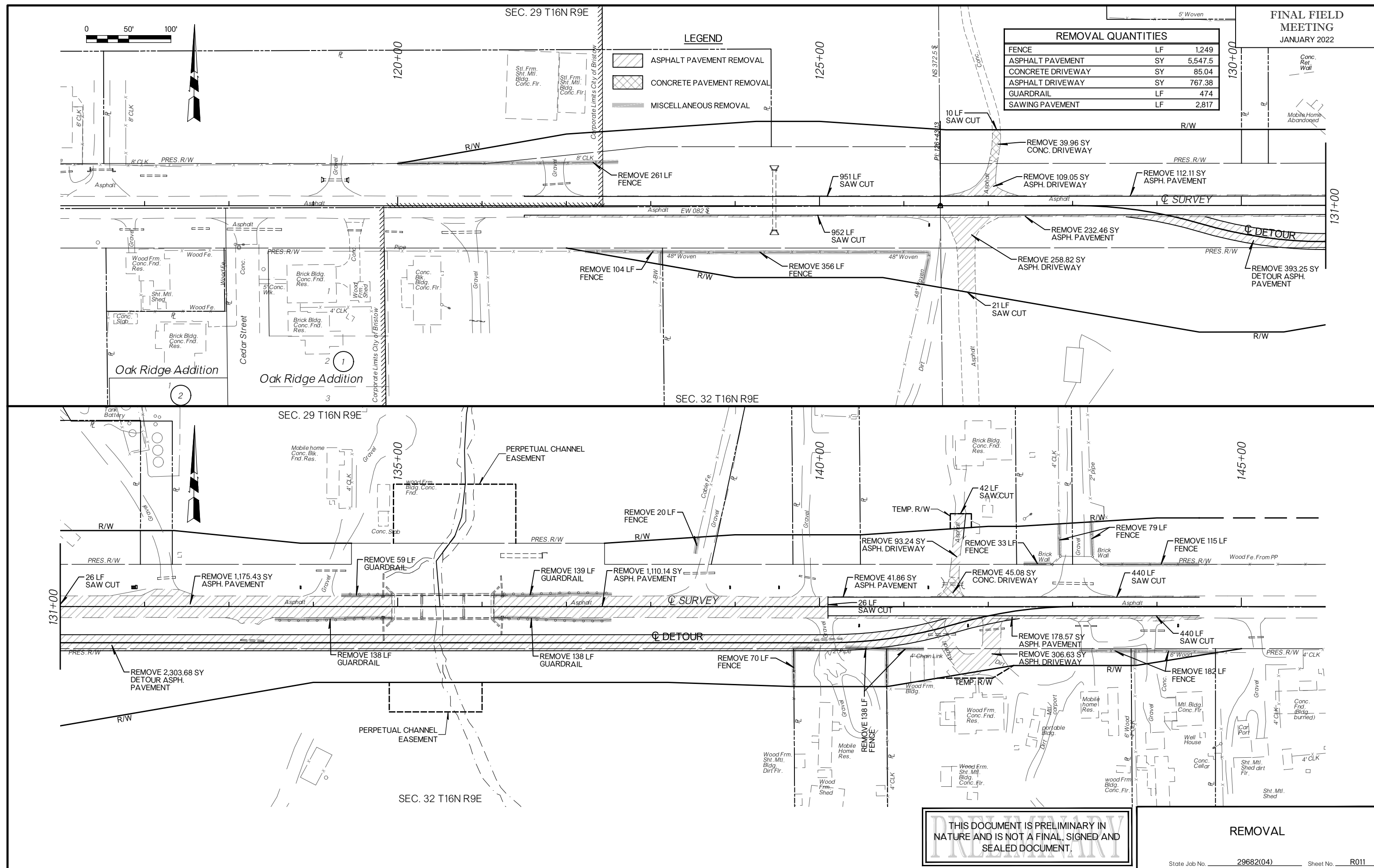


THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.





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



SURVEY CONTROL DATA

1. HORIZONTAL CONTROL:

- A. HORIZONTAL CONTROL FOR THIS SURVEY IS THE NGS OKLAHOMA STATE PLANE COORDINATE SYSTEM, NAD83 (CORS96), LAMBERT PROJECTION (NORTH ZONE).
- B. ACCURACY - THE PRIMARY CONTROL NETWORK, THE SECONDARY CONTROL NETWORK AND SECTION BOUNDARIES FOR THIS SURVEY ARE IN GENERAL COMPLIANCE WITH THE NGS SECOND ORDER, CLASS II STANDARDS FOR HORIZONTAL CONTROL (1:20,000).

2. BEARINGS:

THE BEARINGS SHOWN HEREIN OR HEREON ARE GRID BEARINGS DERIVED FROM THE NGS OKLAHOMA STATE PLANE COORDINATE SYSTEM AND ARE NOT ASTRONOMICAL. THE ANGLE OF VARIANCE BETWEEN GRID NORTH (GN) AND THE ASTRONOMICAL TRUE NORTH (TN) IS DEPICTED DIAGRAMMATICALLY.

3. VERTICAL CONTROLS:

- A. LEVEL DATUM IS NAVD 88.
- B. ACCURACY - VERTICAL CONTROL FOR THIS SURVEY IS WITHIN THE CLOSURE REQUIREMENT OF NOAA/NGS "CLASSIFICATION, STANDARDS OF ACCURACY, AND GENERAL SPECIFICATIONS OF GEODETIC CONTROL SURVEYS" (FEB. 1974, REPRINTED FEB. 1977) THIRD ORDER STANDARDS AS A MINIMUM.

SURVEY BEGAN: October 1, 2012.
SURVEY COMPLETED: April 4, 2013.
SURVEY REVISED: August 6, 2014.

Derrick E. Anderson, Professional Land Surveyor Level II
Charles W. Pauley, Transportation Specialist Level V
Brandon C. Burnett, Transportation Specialist Level IV
Jimmie R. Wallace, Jr., Transportation Specialist Level IV
Lloyd R. Teeter, Transportation Specialist Level IV

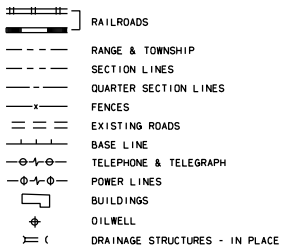
EQUIPMENT:

Leica TCRA1203 Total Station W/Allegro Data Collector
Leica Viva GPS Sensors With Data Collector
Leica GPS1200 GPS Sensor
Wild NA-2 Automatic Level
Leica DNA-10 Electronic Level

SCALES

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

CONVENTIONAL SYMBOLS



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, JUNE 11, 2001.

SPECIFICATIONS FOR SURVEYS FOR PRIMARY AND SECONDARY HIGHWAYS DATED SEPTEMBER 11, 2001 GOVERN.

SDS 1 OF 30

SURVEY DATA SHEETS

CREEK COUNTY

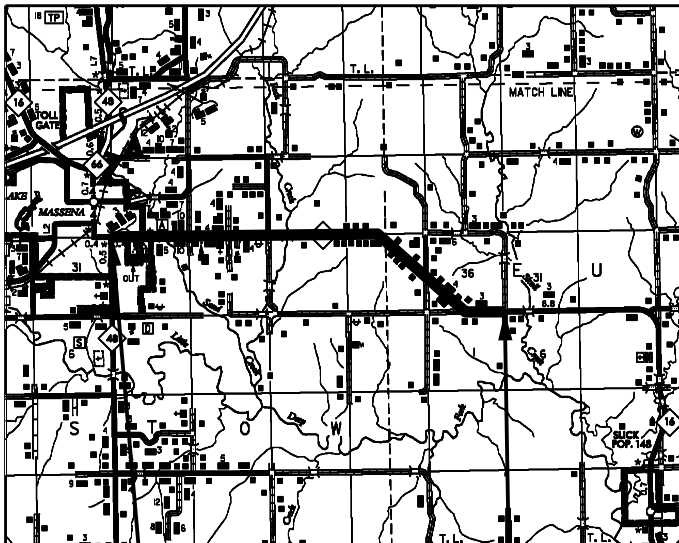
S.H. 16

SWO 4861(1)

STATE JOB NO. 24131(04)

PROJECT LOCATION

R-9-E



SURVEY EXTENTS

"CALL BEFORE YOU DIG"
THE NEW NATIONAL LOCATE NUMBER

811

Electronic File Transfer Disclaimer:

These Files, Drawings and/or Notes are provided for information only. The Oklahoma Department of Transportation (ODOT) and the Owner cannot be held responsible for the content or accuracy of these Files, Drawings and/or Notes due to conversions, software translations, or any other manipulation of said Files, Drawings and/or Notes. ODOT expressly disclaims any responsibility arising from any use of these Files, Drawings and/or Notes. To the full extent permitted by applicable law, the recipient of these Files, Drawings and/or Notes hereby agrees to defend, indemnify, and hold harmless ODOT and the Owner from and against any and all claims, suits, actions, damages, loss, liability or costs of every nature or description (including reasonable attorney's fees) arising from, or in any way attributable to or connected with any of these Files, Drawings and/or Notes.

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS		DATE	

INDEX OF SURVEY SHEETS

- TITLE SHEET & SURVEYORS CERTIFICATION
- HISTORICAL LETTER & WRITTEN REPORT
- 3-9. BENCHMARK LIST, COGO POINT LIST, ALIGNMENT REPORT
- 10-30. SURVEY DATA SHEET

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

SWO 4861(1) Job/Piece 24131 (04) Engr. Contract No. _____

LAND SURVEYOR'S CERTIFICATION

I hereby certify that all land and property sub-division distances, angles, corners and monumentation made or used in conjunction with this survey and depicted or recorded herein or hereon were recovered, established or re-established in substantial conformity with:

- applicable instructions contained in the U.S. Government Bureau of Land Management publication "Manual of Surveying Instructions";
- its supplement, "Restoration of Lost or Obliterated Corners and Subdivision of Sections";
- "Oklahoma Minimum Standards for the Practice of Land Surveying" as adopted by the State Board of Registration for Professional Engineers and Land Surveyors; and
- sound land surveying practices;

Including a thorough search, study, analysis and consideration of all existing records and field evidence.

I further certify that all survey monuments depicted exist and that all land survey work was done by me or under my direct supervision and that it is true, accurate and correct to the best of my knowledge and belief.

Dated this 4th day of April, 2013.

Land Surveyor Derrick E. Anderson (seal)
Signature
Derrick E. Anderson
Printed Name



Oklahoma Registered Land Surveyor No. _____

Certificate of Authorization No. _____ Exp. Date _____

PLS	DEA	OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION			
DRAWN	DEA	SURVEY DATA SHEET			
CHECKED					
APPROVED	LGW				
CREW	Tecumseh				
		SWO <u>4861</u> (1)	STATE JOB NO. <u>29682(04)</u>	SHEET NO. <u>3001</u>	

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
DESCRIPTION		REVISIONS		DATE	

To Mr. Larry D. Reser, Chief of Surveys

From Derrick E. Anderson, Professional Land Surveyor

Subject SW04861(1) - J/P No.24131(04) - S.H.16 - Creek County.
 From S.H.48 (in Bristow), east 6 miles.

HISTORICAL LETTER AND WRITTEN REPORT

GENERAL:
Survey Began: October 1, 2012
Survey Completed: April 4, 2013

Personnel on this survey:

Derrick E. Anderson Professional Land Surveyor Lv.II
Charles W. Pauley Transportation Specialist Lv.V
Brandon C. Burnett Transportation Specialist Lv.IV
Jimmie R. Wallace Transportation Specialist Lv.IV
Lloyd R. Teeter Transportation Specialist Lv.IV

Previous Surveys & Projects relevant to this project:

SW01491(1) - U.S.16 survey - This survey was from Bristow easterly to the Creek/Okmulgee County Line west of Beggs.
By: W.N. McLaughlin, Chief of Party, Dated March 24, 1948.

SW01491(2) Sec. 1 - U.S.16 survey - This survey was from Bristow, S.E. to 1 mile N. of Slick.
By: William W. Vaughan, Chief of Party - Dated May 21, 1949.

SW02446(1) ¹³/₃₂ S.H.16 survey ¹³/₃₂ This survey was from C/L 4th Ave. & Main Street in Bristow south to First Ave., thence east on First Ave. to the N. & S. ⁵/₆₄ section line between section 29 & 30.

Truett McCarty, Chief of Party - Dated September 2, 1960.

S.A.P. No. 1016(1) S.H.16 Plans - S.H.16 plans beginning at the east edge of Bristow, thence easterly approximately 1 mile north of Slick.
Plans Dated 1949.

ASSIGNMENT:
Authorization for this survey came from SD Form No. 6 ⁷/₃₂ Survey Authority Request ⁹/₃₂ dated September 18, 2012 from Mr. Larry G. Williams, Transportation Survey Manager.

PURPOSE: The purpose of this project is to obtain and provide adequate data to design construction plans to widen and resurface S.H.16.

SURVEY LIMITS:

This survey begins at the intersection of S.H.48 & S.H.16 in Bristow and continues easterly along S.H.16 for 5.38 miles to the N/S 377 Section Line.

Work on this project was done by the Tecumseh Survey Crew, under the direct supervision of Charles W. Pauley, Transportation Specialist III.

SURVEY METHOD:
This survey was performed using a combination of aerial & conventional field methods.

ALIGNMENT:
The centerline of this survey from is along and identical to the centerline as depicted on SW02446(1), SW01491(2) Sec. 1, SW01491(1), SW04525(1) surveys & SAP No.1016(1) S.H.16 plans. Centerline control points were found on each of these surveys and used to establish the centerline of the present S.H.16.

STATIONING:
Stationing for this survey was derived by assigning a station value of 100+00.00 at the intersection of S.H.48 & S.H.16, thence easterly along S.H.16 to the ending Station 384+30.61, without any equations.

HORIZONTAL CONTROL:
Horizontal Control for this survey is NGS NAD83(CORS96) as established during this survey & SW04525(1) survey.
ODOT Control Monument C-19-798 (established during SW04525(1) survey).
ODOT Control Monument C-19-799 (established during SW04525(1) survey).
ODOT Control Monument C-19-800 (established during SW04525(1) survey).
ODOT Control Monument C-19-801 (established during SW04525(1) survey).
ODOT Control Monument C-19-942 (established this survey).
ODOT Control Monument C-19-943 (established this survey).
(See submitted SD Form #20 for complete control information).

COORDINATES:
Coordinates shown on this survey are the National Geodetic Survey (NGS) Oklahoma State Plane Coordinate System of 1983(CORS96), North Zone, established during SW04525(1) Skull Creek Bridge survey & during this survey by this crew.

VERTICAL CONTROL:
Vertical control datum for this survey is NGS NAVD88, using bench marks established during SW04525(1) Skull Creek Bridge survey. Additional bench marks were set during this survey where additional bench marks were needed. Bench Marks established or used this survey are within the requirements of NGS 3rd order standards as a minimum.

MEASUREMENT UNITS:
The distances, coordinates, and elevations shown on this survey are in U.S. Survey Feet. All angles and bearings shown are in degrees, minutes, and seconds.

TOPOGRAPHY:

All drainage structures, drain flow line profiles, gates, mail boxes and underground utilities within the project limits were located this survey.

ENVIRONMENTAL CONCERNS:
Oil Storage Tanks - 158' to 237' Lt. Sta. 132+21.
Oil Storage Tanks - 66' to 150' Lt. Sta. 206+50.
Oil Storage Tanks - 193' to 294' Lt. Sta. 207+80.
Well Head - 273' Lt. Sta. 225+50.

DRAINAGE:
Drainage/Hydraulic information for this survey has been shown in the appropriate Microstation Design file. Drainage divide lines and areas were obtained using a scanned raster image of a USGS quadrangle map of the survey area. These areas were also verified by visual inspection in the field, where necessary. Ravine sections are to be extracted by Bridge Division or Roadway Design Division from the Digital Terrain Model.

UTILITIES:
All utility companies that have services within the limits of this project were contacted during the course of this survey. Utilities depicted on the Microstation Design file is shown in the locations which the locator from each utility company marked their lines in the field. Depth information was not given by any owning companies.

RIGHT OF WAY:
Right of Way was taken from R/W Deeds obtained from the ODOT Right of Way Division, Creek County Courthouse & S.A.P. No. 1016(1) - U.S.16 plans.

PROPERTY OWNERS:
All information on property lines and corners shown were computed using information obtained from the Creek County courthouse without actual field ties to all existing evidence. Throughout this project there were some gaps & overlaps between property lines. These areas were depicted with a distance of the gap or overlap. The original Townsite of Bristow, Gibbs Addition and Mounts Addition were established from SW02446(1) survey data. Oak Ridge Addition was established back from actually locating lot corners found along the west edge of the addition along with pins found in place on the interior lots. No pins were found along the east side of Oak Ridge Addition. It should be noted also that there is no filed easement for Cedar Street going north from S.H.16 at approx. Sta. 116+15.

LAND TIES:
Land ties for this survey consisted of the establishment of the corners of the following sections: Sections 26, 27, 28, 29, 32, 33, 34, 35, & 36, T-16-N, R-9-E, 1.M. and Section 1, T-15-N, R-9-E, 1.M.. For detailed information about each of the corners established on this survey see Survey Data Sheets 21 thru 30 on the main design file.

Derrick E. Anderson, PLS
Oklahoma Department of Transportation
Survey Division

PLS	DEA		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION	
DRAIN	DEA		SURVEY DATA SHEET	
CHECKED				
APPROVED	LGW			
CREW	Tecumseh			
SW0 <u>4861</u> (1) PROJECT NO. <u>29682(04)</u> SHEET NO. <u>5002</u>				

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

DESCRIPTION	REVISION	DATE

Project Name: SW04861 I V1
Description: SH16 From the Jct. SH48 in Bristow east 6 miles
Horizontal Alignment Name: A001
Description: C/L SH16 from SH48 in Bristow east 6 miles
Style: Centerline

	STATION	X-COORD.	Y-COORD.
Element: Linear			
POB (300)	100+00.00	2446565.4480	305469.6495
PI (301)	113+24.12	2447889.4391	305487.8360
Tangent Direction: N 89°12'46.90" E			
Tangent Length: 1324.116'			
Element: Linear			
PI (301)	113+24.12	2447889.4391	305487.8360
PI (302)	126+43.13	2449208.4132	305497.6005
Tangent Direction: N 89°34'33.02" E			
Tangent Length: 1319.010'			
Element: Linear			
PI (302)	126+43.13	2449208.4132	305497.6005
PI (303)	204+34.00	2456999.0035	305564.4463
Tangent Direction: N 89°30'30.22" E			
Tangent Length: 7790.877'			
Element: Linear			
PI (303)	204+34.00	2456999.0035	305564.4463
PI (304)	219+45.90	2458510.7830	305583.6070
Tangent Direction: N 89°16'25.89" E			
Tangent Length: 1511.901'			
Element: Linear			
PI (304)	219+45.90	2458510.7830	305583.6070
PI (305)	235+94.94	2460159.6810	305605.1900
Tangent Direction: N 89°15'00.28" E			
Tangent Length: 1649.039'			
Element: Linear			
PI (305)	235+94.94	2460159.6810	305605.1900
PC (10012)	275+66.24	2464130.6792	305653.7414
Tangent Direction: N 89°17'58.23" E			
Tangent Length: 3971.295'			
Element: Circular			
PC (10012)	275+66.24	2464130.6792	305653.7414
PI (10011)	280+21.06	2464585.4689	305659.3019
CC (2)	2464144.6887	304507.9114	
PT (10013)	284+32.18	2464920.2815	305351.4624
Radius: 1145.916'			
Delta: 43°17'49.58" Right			
Degree of Curvature(Arc): 5°00'00.00"			
Length: 865.942'			
Tangent: 454.824'			
Chord: 845.485'			
Middle Ordinate: 80.828'			
External: 86.962'			
Tangent Direction: N 89°17'58.23" E			
Radial Direction: S 0°42'01.77" E			
Chord Direction: S 69°03'06.98" E			
Radial Direction: S 42°35'47.81" W			
Tangent Direction: S 47°24'12.19" E			
Element: Linear			
PT (10013)	284+32.18	2464920.2815	305351.4624
PI (306)	297+85.79	2465916.7239	304435.2954
Tangent Direction: S 47°24'12.19" E			
Tangent Length: 1353.610'			
Element: Linear			
PI (306)	297+85.79	2465916.7239	304435.2954
PC (10022)	351+50.61	2469864.8448	300802.9983
Tangent Direction: S 47°23'08.67" E			
Tangent Length: 5364.815'			
Element: Circular			
PC (10022)	351+50.61	2469864.8448	300802.9983
PI (10021)	357+25.15	2470287.6660	300414.0000
CC (5)	2470834.6606	301857.1383	
PT (10023)	362+43.40	2470862.1015	300425.0067
Radius: 1432.394'			
Delta: 43°42'43.07" Left			
Degree of Curvature(Arc): 4°00'00.00"			
Length: 1092.799'			
Tangent: 574.541'			
Chord: 1066.489'			
Middle Ordinate: 102.957'			
External: 110.930'			
Tangent Direction: S 47°23'08.67" E			
Radial Direction: S 42°36'51.33" W			
Chord Direction: S 69°14'30.20" E			
Radial Direction: S 1°05'51.73" E			
Tangent Direction: N 88°54'08.27" E			
Element: Linear			
PT (10023)	362+43.40	2470862.1015	300425.0067
POE (307)	384+30.61	2473048.9011	300466.9078
Tangent Direction: N 88°54'08.27" E			
Tangent Length: 2187.201'			

Check Levels					SW04861(1)		Bench Mark List		Page 1 of 10	
BM No.	Run 1	Run 2	Run 3	Adjusted Diff.	Unadjusted Elev.	Adjusted Elev.	BM Description		NAVD 88 Datum	
P138						818.56	P138	(Level Source) At Bristow, along S.L.&S.F. RY, 73'S. of S.W. cor. of S.L.&S.F. Ry. Station, 68.6' W. of C/L of main line track of S.L.&S.F. Ry. Bronze Tablet set horizontally in top of N.E. corner of S.E. concrete footing to steel railway water tower.		
To	-0.968	-0.965	-0.967	-0.97						
BM16-1					817.59	817.59	BM16-1	"I" on curb radius S.W. quad. intersection 6th & Chestnut in Bristow.		
To	-2.603	-2.604	-2.595	-2.60						
BM16-2					814.99	814.99	BM16-2	"X" on curb radius N.E. - 21' Lt. Sta. 100+25 = TBM2 on SW04525(1) survey.		
To	+32.535	+32.538	+32.531	+32.53						
BM16-3					847.52	847.52	BM16-3	"I" on curb N. side S.H.16 - 14' Lt. Sta. 111+25 = TBM3 on SW04525(1) survey.		
To	-44.640	-44.643	-44.642	-44.64						
BM16-4					802.88	802.88	BM16-4	"I" on N.W. cor. conc. @ mail box - 23' Lt. Sta. 127+16 = TBM4 on SW04525(1) survey.		
To	-18.123	-18.117	-18.113	-18.12						
BM16-5					784.76	784.76	BM16-5	"I" on bridge wall at S.E. cor. bridge over sand Creek - 14' Rt. Sta. 136+14 = TBM5 on SW04525(1) survey.		
To	+40.518	+40.519	+40.519	+40.52						
TBM16-6					825.28	825.28	TBM16-6	Mag nail on S. shoulder - 13' Rt. Sta. 153+25 = TBM6 on SW04525(1) survey.		
To	+8.137	+8.135	+8.136	+8.14						
TBM16-7					833.42	833.42	TBM16-7	Mag nail on S. shoulder - 12' Rt. Sta. 169+36 = TBM7 on SW04525(1) survey.		
To	+26.525	+26.524	+26.528	+26.53						
TBM16-8					859.95	859.95	TBM16-8	Mag nail on S. shoulder - 15' Rt. Sta. 184+75 = TBM8 on SW04525(1) survey.		
To	-56.287	-56.289	-56.282	-56.29						
BM16-10					803.66	803.66	BM16-10	N.W. cor. N. hdwl. - 20' Lt. Sta. 200+10 = TBM10 on SW04525(1) survey.		
To	-25.918	-25.922	-25.914	-25.92						
BM1					777.74	777.74	BM1	(Level Equation) "I" on S.E cor. conc. at cattle guard - 83' Lt. Sta. 212+17 = BM2 on SW04170(1) survey.		
To	+22.974	+22.973	+22.975	+22.97						
BM2					800.71	800.71	BM2	(Level Equation) 3" aluminum disk in 3/4"x36" bar 54' Lt. Sta. 231+64 = BM4 on SW04170(1) survey.		
To	+24.887	+24.881	+24.880	+24.88						
BM3					825.59	825.59	BM3	(Level Equation) No.4 rebar with cap - 53' Rt. Sta. 236+58 = CP1 on SW04170(1) survey.		
To	+24.083	+24.082	+24.082	+24.09						
TBM4					849.67	849.68	TBM4	R.R. Spk. in N. side power pole - 79' Rt. Sta. 241+73 = TBM4 on SW04525(1) survey.		

Scale:
1"=100'

PLS	DEA		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION	
DRAWN	DEA			
CHECKED			SURVEY DATA SHEET	
APPROVED	LGW			
CREW	Tecumseh		SW0 4861 (1) PROJECT NO. 29682(04) SHEET NO. 5004	

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
DESCRIPTION		REVISION		DATE	

Check Levels				SW04861(1)			Bench Mark List		Page 2 of 10
BM No.	Run 1	Run 2	Run 3	Adjusted Diff.	Unadjusted Elev.	Adjusted Elev.	BM Description		NAVD 88 Datum
TBM4					849.67	849.68	TBM4	R.R. Spk. in N. side power pole - 79' Rt. Sta. 241+73 = TBM4 on SW04525(1) survey.	
To	+35.323	+35.321	+35.312	+35.32					
TBM5					884.99	885.00	TBM5	R.R. Spk. in N. side power pole - 79' Rt. Sta. 251+87 = TBM5 on SW04525(1) survey.	
To	+12.048	+12.047	+12.048	+12.05					
TBM6					897.04	897.05	TBM6	80d Spk. in N. side telephone pole - 48' Lt. Sta. 262+68 = TBM6 on SW04525(1) survey.	
To	-2.675	-2.667	-2.669	-2.67					
TBM7					894.37	894.38	TBM7	80d Spk. in N. side power pole - 50' Rt. Sta. 273+89 = TBM7 on SW04525(1) survey.	
To	+9.102	+9.091	+9.099	+9.10					
TBM8					903.47	903.48	TBM8	R.R. Spk. in N. side power pole - 50' Rt. Sta. 282+90 = TBM8 on SW04525(1) survey.	
To	-2.507	-2.501	-2.505	-2.50					
TBM9					900.97	900.98	TBM9	60d Spk. in S. side telephone pole - 47' Lt. Sta. 294+16 = TBM9 on SW04525(1) survey.	
To	-10.235	-10.229	-10.237	-10.23					
TBM10					890.74	890.75	TBM10	80d Spk. in N. side power pole - 49' Rt. Sta. 303+29 = TBM10 on SW04525(1) survey.	
To	-35.911	-35.883	-35.891	-35.90					
TBM11					854.84	854.85	TBM11	80d Spk. in N. side telephone pole - 52' Lt. Sta. 314+83 = TBM11 on SW04525(1) survey.	
To	-49.242	-49.242	-49.245	-49.24					
BM12					805.60	805.61	BM12	"[]" on N.W. cor. south hdwl. on X-drain - 19' Rt. = Sta. 326+87 = BM12 on SW04525(1) survey.	
To	-0.501	-0.504	-0.504	-0.50					
BM13					805.10	805.11	BM13	"[]" on center north edge south hdwl. on X-drain - 24' Rt. Sta. 341+89 = BM13 on SW04525(1) survey.	
To	+14.968	+14.981	+14.965	+14.97					
TBM14					820.07	820.08	TBM14	80d Spk. in N. side power pole - 47' Rt. Sta. 354+15 = TBM15 on SW04525(1) survey.	
To	+27.662	+27.666	+27.658	+27.66					
TBM15					847.73	847.74	TBM15	80d Spk. in N. side power pole - 47' Rt. Sta. 362+35 = TBM15 on SW04525(1) survey.	
To	-8.484	-8.483	-8.488	-8.49					
BM16					839.24	839.25	BM16	"[]" on N.E. cor. conc drive - 106' Rt. Sta. 369+60 = BM16 on SW04525(1) survey.	
To	-36.758	-36.768	-36.776	-36.77					
BM17					802.47	802.48	BM17	R.R. Spk. in N.E. side 14" post oak - 93' Rt. Sta. 377+07 = BM17 on SW04525(1) Survey.	

Check Levels				SW04861(1)			Bench Mark List		Page 3 of 10
BM No.	Run 1	Run 2	Run 3	Adjusted Diff.	Unadjusted Elev.	Adjusted Elev.	BM Description		NAVD 88 Datum
BM17					802.47	802.48	BM17	R.R. Spk. in N.E. side 14" post oak - 93' Rt. Sta. 377+07 = BM17 on SW04525(1) Survey.	
To	-41.561	-41.551	-41.528	-41.55					
BM18					760.92	760.93	BM18	80d Spk. in N.E. side 12" post oak in section R/W - 140' Rt. Sta. 384+08 = BM18 on SW04525(1) Survey.	
To	-20.805	-20.801	-20.839	-20.82					
BM20					740.10	740.11	BM20	"[]" on wingwall at S.E. cor. bridge (Skull Creek) - 16' Rt. Sta. 121+09 on SW04525(1) Survey.	
To	+0.610	+0.613	+0.602	+0.61					
BM21					740.71	740.72	BM21	"[]" on N.W. cor. conc drive at shop - 24' Rt. Sta. 129+84 on SW04525(1) Survey.	
To	+22.223	+22.229	+22.228	+22.23					
BM22					762.94	762.95	BM22	R.R. Spk. in root 60" post oak - 87' Rt. Sta. 138+94 on SW04525(1) Survey.	
To	-9.368	-9.370	-9.370	-9.37					
BM23					753.57	753.58	BM23	80d Spk. in N. side twin 12" post oak in section R/W - Rt. C/L SH16 - no stationing not within limits of this survey.	
To	+1.495	+1.498	+1.497	+1.50					
BM24					755.07	755.08	BM24	"[]" on S.E. cor. south hdwl. on X-drain - Rt. C/L SH16 - no stationing not within limits of this survey.	
To	+14.329	+14.328	+14.325	+14.33					
BM25					769.40	769.41	BM25	80d Spk. in N. side power pole - Rt. C/L SH16 - no stationing not within limits of this survey.	
To	+39.623	+39.628	+39.616	+39.62					
BM26					809.02	809.03	BM26	80d Spk. in N. side power pole - Rt. C/L SH16 - no stationing not within limits of this survey.	
To	-7.994	-7.996	-7.975	-7.98					
BM27					801.04	801.05	BM27	80d Spk. in E. side power pole - Lt. C/L SH16 - no stationing not within limits of this survey.	
To	-26.897	-26.888	-26.889	-26.89					
BM28					774.15	774.16	BM28	"[]" on center west edge west hdwl. on X-drain - Rt. C/L SH16 - no stationing not within limits of this survey.	
To	-21.759	-21.757	-21.766	-21.75					
BM29					752.39	752.41	BM29	"[]" on center west edge west hdwl. on X-drain - Rt. C/L SH16 - no stationing not within limits of this survey.	
To	-8.254	-8.249	-8.250	-8.25					
BM30					744.14	744.16	BM30	80d Spk. in W. side power pole - Lt. C/L SH16 - no stationing not within limits of this survey.	
To	-6.042	-6.047	-6.044	-6.04					
BM31					738.10	738.12	BM31	"[]" on wingwall at N.E. cor. bridge (Chicken Creek) - Lt. C/L SH16 - no stationing not within limits of this survey.	

Scale:
1"=100'

PLS	DEA		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION	
DRAWN	DEA			
CHECKED			SURVEY DATA SHEET	
APPROVED	LGW			
CREW	Tecumseh		S#0 4861 (1) PROJECT NO. 29682(04) SHEET NO. S005	

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
DESCRIPTION		REVISIONS		DATE	

Check Levels				SW04861(1)			Bench Mark List		Page 4 of 10
BM No.	Run 1	Run 2	Run 3	Adjusted Diff.	Unadjusted Elev.	Adjusted Elev.	BM Description	NAVD 88 Datum	
BM31					738.10	738.12	BM31 "[]" on wingwall at N.E. cor. bridge (Chicken Creek) - Lt. C/L SH16 - no stationing not within limits of this survey.		
To	-11.331	-11.337	-11.314	-11.33					
BM32					726.77	726.79	BM32 80d Spk. in E. side 24" elm - Rt. C/L SH16 - no stationing not within limits of this survey.		
To	+2.903	+2.905	+2.902	+2.90					
BM33					729.67	729.69	BM33 "[]" on center west edge west hdwl. on X-drain - Rt. C/L SH16 - no stationing not within limits of this survey.		
To	-7.907	-7.908	-7.911	-7.91					
BM34					721.76	721.78	BM34 80d Spk. in E. side power pole - Rt. C/L SH16 - no stationing not within limits of this survey.		
To	-1.630	-1.636	-1.635	-1.63					
BM35					720.13	720.15	BM35 "[]" on S.W. cor. west hdwl. - Rt. C/L SH16 - no stationing not within limits of this survey.		
To	-2.358	-2.363	-2.365	-2.36					
BM36					717.77	717.79	BM36 "[]" on center south edge south hdwl. - Lt. C/L SH16 - no stationing not within limits of this survey.		
To	+0.436	+0.450	+0.446	+0.44					
BM37					718.21	718.23	BM37 80d Spk. in W. side power pole - Lt. C/L SH16 - no stationing not within limits of this survey.		
To	+2.875	+2.868	+2.867	+2.87					
BM38					721.08	721.10	BM38 "[]" on S.E. cor. walk at Slick Post Office - Rt. C/L SH16 - no stationing not within limits of this survey.		
To	+19.107	+19.101	+19.095	+19.10					
BM39					740.18	740.20	BM39 "[]" on east edge east hdwl. - Lt. C/L SH16 - no stationing not within limits of this survey.		
To	-24.736	-24.730	-24.735	-24.73					
BM40					715.45	715.47	BM40 80d Spk. in N. side power pole - Rt. C/L SH16 - no stationing not within limits of this survey.		
To	-11.099	-11.066	-11.069	-11.08					
BM41					704.37	704.39	BM41 (Level Source) 100d Spk. in E. side of 14" Elm in a clump of five trees - 255' Rt. C/L SH16 No stationing this survey out of limits = BM 102 on SW04240(10) survey. (Level Comparison)		
To	+0.981	+0.977	+0.980	+0.98					
BM42					705.37	705.37	BM42 100d Spk. in N. side of a twin 20" Pecan - 303' Rt. C/L SH16 No stationing this survey out of limits = BM 103 on SW04240(10) survey.		

Check Levels				SW04861(1)			Bench Mark List		Page 5 of 10
BM No.	Run 1	Run 2	Mean Diff.	Adjusted Diff.	Unadjusted Elev.	Adjusted Elev.	BM Description	NAVD 88 Datum	
BM20						740.11	BM20 (Level Source) "[]" on wingwall at S.E. cor. bridge (Skull Creek) - 16' Rt. Sta. 121+09 on SW04525(1) Survey.		
To	-4.82	-4.82	-4.82	-4.82					
BM19					735.28	735.28	BM19 80d nail in N. side 14" Ash - 290' Rt. Sta. 114+09.		

Check Levels				SW04861(1)			Bench Mark List		Page 6 of 10
BM No.	Run 1	Run 2	Mean Diff.	Adjusted Diff.	Unadjusted Elev.	Adjusted Elev.	BM Description	NAVD 88 Datum	
BM16-2						814.99	BM16-2 "X" on curb radius N.E. - 21' Lt. Sta. 100+25 = TBM2 on SW04525(1) survey.		
To	+4.43	+4.43	+4.43	+4.43					
BM16-2A					819.42	819.42	BM16-2A "[]" on conc. island - 392' Rt. Sta. 100+22.		
BM16-3						847.52	BM16-3 "[]" on curb N. side S.H.16 - 14' Lt. Sta. 111+25 = TBM3 on SW04525(1) survey.		
To	+3.25	+3.25	+3.25	+3.25					
BM16-3A					850.77	850.77	BM16-3A "[]" on S.W. corner conc. walk (Church of God) - 257' Lt. Sta. 111+10.		
BM16-4						802.88	BM16-4 "[]" on N.W. cor. conc. mail box - 23' Lt. Sta. 127+16 = TBM4 on SW04525(1) survey.		
To	+10.54	+10.54	+10.54	+10.54					
BM16-4A					813.42	813.42	BM16-4A 80d Spk. in twin 24" post oak - 216' Rt. Sta. 127+03.		
BM16-5						784.76	BM16-5 "[]" on bridge wall at S.E. cor. bridge over sand Creek - 14' Rt. Sta. 136+14 = TBM5 on SW04525(1) survey.		
To	-1.43	-1.43	-1.43	-1.43					
BM16-5A					783.33	783.33	BM16-5A 80d Spk. in W. side twin 10" Sycamore - 217' Lt. Sta. 139+47.		
TBM16-6						825.28	TBM16-6 Mag nail on S. shoulder - 13' Rt. Sta. 153+25 = TBM6 on SW04525(1) survey.		
To	+4.58	+4.58	+4.58	+4.58					
BM16-6A					829.86	829.86	BM16-6A "[]" on N.E. corner conc. foundation - 273' Rt. Sta. 152+45.		
TBM16-7						833.42	TBM16-7 Mag nail on S. shoulder - 12' Rt. Sta. 169+36 = TBM7 on SW04525(1) survey.		
To	-0.05	-0.05	-0.05	-0.05					
BM16-7A					833.37	833.37	BM16-7A 80d Spk. in N. side twin 6" Elm - 139' Rt. Sta. 168+61.		
TBM16-8						859.95	TBM16-8 Mag nail on S. shoulder - 15' Rt. Sta. 184+76 = TBM8 on SW04525(1) survey.		
To	-0.00	-0.00	-0.00	-0.00					
BM16-8A					859.95	859.95	BM16-8A 80d Spk. in E. side 15" Elm - 182' Rt. Sta. 185+25.		

Scale:
1"=100'

PLS	DEA		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	DEA		
CHECKED			
APPROVED	LGW		
CREW	Tecumseh		
SW0 4861 (1) PROJECT NO. 29682(04) SHEET NO. 5006			

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
DESCRIPTION		REVISION		DATE	

Check Levels					SW04861(1)		Bench Mark List		Page 7 of 10
BM No.	Run 1	Run 2	Mean Diff.	Adjusted Diff.	Unadjusted Elev.	Adjusted Elev.	BM Description	NAVD 88 Datum	
BM16-10						803.66	BM16-10 N.W. cor. N. hdwl. - 20' Lt. Sta. 200+10 = TBM10 on SW04525(1) survey.		
To	+3.67	+3.67	+3.67	+3.67					
BM16-10A					807.33	807.33	BM16-10A R.R. Spk. in root 18" post oak - 128' Lt. Sta. 200+76.		
BM2						800.71	BM2 3" aluminum disk in 3/4"X36" bar 54' Lt. Sta. 231+64 = BM4 on SW04170(1) survey.		
To	-8.41	-8.42	-8.415	-8.42					
BM2A					792.29	792.29	BM2A 80d Spk. in E. side 12" post oak - 121' Lt. Sta. 231+40.		
BM3						825.59	BM3 No.4 rebar with cap - 53' Rt. Sta. 236+58 = CPI on SW04170(1) survey.		
To	+2.34	+2.34	+2.34	+2.34					
BM3A					827.93	827.93	BM3A 80d Spk. in N.W. side 18" post oak - 121' Rt. Sta. 237+28.		
TBM6						897.05	TBM6 80d Spk. in N. side telephone pole - 48' Lt. Sta. 262+68 = TBM6 on SW04525(1) survey.		
To	-13.77	-13.77	-13.77	-13.77					
BM5A					883.28	883.28	BM5A 80d Spk. in N. side 12" post oak - 78' Rt. Sta. 251+12.		
BM6						897.05	BM6 80d Spk. in N. side telephone pole - 48' Lt. Sta. 262+68 = TBM6 on SW04525(1) survey.		
To	+5.09	+5.09	+5.09	+5.09					
BM6A					902.14	902.14	BM6A S.E. corner conc. walk at house - 259' Lt. Sta. 263+55.		
TBM7						894.38	TBM7 80d Spk. in N. side power pole - 50' Rt. Sta. 273+89 = TBM7 on SW04525(1) survey.		
To	+7.20	+7.20	+7.20	+7.20					
BM7A					901.58	901.58	BM7A 80d Spk. in N. side 40" post oak - 126' Rt. Sta. 275+04.		
TBM8						903.48	TBM8 R.R. Spk. in N. side power pole - 50' Rt. Sta. 282+90 = TBM8 on SW04525(1) survey.		
To	-7.02	-7.02	-7.02	-7.02					
BM8A					896.46	896.46	BM8A 80d Spk. in N.E. side root 20" post oak - 134' Rt. Sta. 283+68.		

Check Levels					SW04861(1)		Bench Mark List		Page 8 of 10
BM No.	Run 1	Run 2	Mean Diff.	Adjusted Diff.	Unadjusted Elev.	Adjusted Elev.	BM Description	NAVD 88 Datum	
TBM9						900.98	TBM9 60d Spk. in S. side telephone pole - 47' Lt. Sta. 294+16 = TBM9 on SW04525(1) survey.		
To	-2.06	-2.06	-2.06	-2.06					
BM9A					898.92	898.92	BM9A 80d Spk. in S.W. side 12" Elm - 103' Lt. Sta. 293+31.		
TBM10						890.75	TBM10 80d Spk. in N. side power pole - 49' Rt. Sta. 303+29 = TBM10 on SW04525(1) survey.		
To	-1.28	-1.28	-1.28	-1.28					
BM10A					889.47	889.47	BM10A 80d Spk. in E. side 36" post oak - 145' Rt. Sta. 305+40.		
TBM11						854.85	TBM11 80d Spk. in N. side telephone pole - 52' Lt. Sta. 314+83 = TBM11 on SW04525(1) survey.		
To	+6.81	+6.81	+6.81	+6.81					
BM11A					861.66	861.66	BM11A 80d Spk. in S. side 15" post oak - 90' Lt. Sta. 314+95.		
BM12						805.61	BM12 "[I]" on N.W. cor. south hdwl. on X-drain - 19' Rt. = Sta. 326+87 = BM12 on SW04525(1) survey.		
To	-11.35	-11.35	-11.35	-11.35					
BM12A					794.26	794.26	BM12A 80d Spk. in S.E. side root 36" elm - 291' Lt. Sta. 327+93.		
BM13						805.11	BM13 "[I]" on center north edge south hdwl. on X-drain - 24' Rt. Sta. 341+89 = BM13 on SW04525(1) survey.		
To	-0.53	-0.53	-0.53	-0.53					
BM13A					804.58	804.58	BM13A 80d Spk. in S. side 36" elm - 243' Lt. Sta. 338+49.		
TBM14						820.08	TBM14 80d Spk. in N. side power pole - 48' Rt. Sta. 354+15 = TBM14 on SW04525(1) survey.		
To	-4.97	-4.97	-4.97	-4.97					
BM14A					815.11	815.11	BM14A 80d Spk. in S.W. side root 14" elm - 204' Rt. Sta. 355+40.		
TBM15						847.74	TBM15 80d Spk. in N. side power pole - 47' Rt. Sta. 362+35 = TBM15 on SW04525(1) survey.		
To	-0.01	-0.01	-0.01	-0.01					
BM15A					847.73	847.73	BM15A "[I]" on S.W. corner conc. drive - 85 Lt. Sta. 361+84.		

Scale:
1"=100'

PLS	DEA		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION	
DRAWN	DEA			
CHECKED			SURVEY DATA SHEET	
APPROVED	LGW			
CREW	Tecumseh		SWO 4861 (1) PROJECT NO. 29682(04) SHEET NO. 5007	

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
DESCRIPTION		REVISIONS		DATE	

Check Levels					SW04861(1)		Bench Mark List		Page 9 of 10
BM No.	Run 1	Run 2	Mean Diff.	Adjusted Diff.	Unadjusted Elev.	Adjusted Elev.	BM Description	NAVD 88 Datum	
BM16-2A						819.42	BM16-2A "[I]" on conc. island - 392' Rt. Sta. 100+22.		
To	+17.84	+17.84	+17.84	+17.84					
BM16-2B					837.26	837.26	BM16-2B "[I]" on SE cor. conc. drive 297' Rt. Sta. 103++44		
BM16-3A						850.77	BM16-3A "[I]" on S.W. corner conc. walk (ØChurch of God) - 257' Lt. Sta. 111+10.		
To	-11.18	-11.18	-11.18	-11.18					
BM16-2C					839.59	839.59	BM16-2C "[I]" on conc. curb radius - 230' Lt. Sta. 107+48.		
BM13A						804.58	BM13A 80d Spk. in S. side 36" elm - 243' Lt. Sta. 338+49.		
To	+9.65	+9.65	+9.65	+9.65					
BM12B					814.23	814.23	BM12B 3/4" I.P 60' outside R/W fence - 107' Lt. Sta. 334+05.		
BM13						805.11	BM13 "[I]" on center north edge south hdwl. on X-drain - 24' Rt. Sta. 341+89 = BM13 on SW04525(1) survey.		
To	-0.65	-0.65	-0.65	-0.65					
BM13B					804.46	804.46	BM13B "[I]" on center north edge conc. leg base to power line - 103' Rt. Sta. 350+17		
BM12						805.61	BM12 "[I]" on N.W. cor. south hdwl. on X-drain - 19' Rt. = Sta. 326+87 = BM12 on SW04525(1) survey.		
To	+1.47	+1.47	+1.47	+1.47					
BM11B					807.08	807.08	BM11B "[I]" on NW cor. conc. at Tped - 142' Rt. Sta. 324+14		
BM11						854.85	BM11 80d Spk. in N. side telephone pole - 52' Lt. Sta. 314+83 = TBM11 on SW04525(1) survey.		
To	+8.27	+8.27	+8.27	+8.27					
BM10B					863.12	863.12	BM10B 80d Spk. in N. side 8" black jack - 78' Rt. Sta. 311+38.		
BM10A						889.47	BM10A 80d Spk. in E. side 36" post oak - 145' Rt. Sta. 304+40.		
To	+24.82	+24.81	+24.815	+24.82					
BM9B					914.29	914.29	BM9B N.E. cor. conc. drive - 270' Rt. Sta. 299+20		

Check Levels					SW04861(1)		Bench Mark List		Page 10 of 10
BM No.	Run 1	Run 2	Mean Diff.	Adjusted Diff.	Unadjusted Elev.	Adjusted Elev.	BM Description	NAVD 88 Datum	
BM9						900.98	BM9 60d Spk. in S. side telephone pole - 47' Lt. Sta. 294+16 = TBM9 on SW04525(1) survey.		
To	-27.12	-27.11	-27.115	-27.12					
BM8B					873.86	873.86	BM8B 80d Spk. in S. side 15" Black Jack - 52' Lt. Sta. 288+65.		
BM7A						901.58	BM7A 80d Spk. in N. side 40" post oak - 126' Rt. Sta. 275+04.		
To	-17.47	-17.46	-17.465	-17.47					
BM6B					889.47	884.11	BM6B 80d Spk. in S. side 36" post oak - 96' Rt. Sta. 270+69.		
BM6						897.05	BM6 80d Spk. in N. side telephone pole - 48' Lt. Sta. 262+68 = TBM6 on SW04525(1) survey.		
To	-16.67	-16.68	-16.675	-16.68					
BM5B					861.66	880.37	BM5B 80d Spk. in N. side 10" post oak - 100' Rt. Sta. 258+05.		
BM1						777.74	(Level Source) BM1 "[I]" on S.E. cor. conc. at cattle guard - 83' Lt. Sta. 212+17 = BM2 on SW04170(1) survey.		
To	-3.46	-3.46	-3.46	-3.46					
BM1A					774.28	774.28	BM1A "X" on center E. end hdwl. 54.5' Rt. Sta. 217+67		
BM1A						774.28	BM1A "X" on center E. end hdwl. 54.5' Rt. Sta. 217+67		
To	-2.01	-2.02	-2.015	-2.01					
BM1B					772.27	772.27	BM1B 80d Spk. in N. side 12" Sycamore - 136' Rt. Sta. 226+31.		
BM16-10						803.66	BM16-10 N.W. cor. N. hdwl. - 20' Lt. Sta. 200+10 = TBM10 on SW04525(1) survey.		
To	+2.53	+2.53	+2.53	+2.53					
BM16-10B					806.19	806.19	BM16-10B 80d Spk. in W. side 30" elm - 237' Rt. Sta. 207+00.		
TBM16-7						833.42	TBM16-7 Mag nail on S. shoulder - 12' Rt. Sta. 169+36 = TBM7 on SW04525(1) survey.		
To	-33.47	-33.47	-33.47	-33.47					
BM16-6B					799.95	799.95	BM16-6B N.E corner conc. drive - 182' Rt. Sta. 162+16.		

Scale:
1"=100'

PLS	DEA		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	DEA		
CHECKED			
APPROVED	LGW		
CREW	Tecumseh		
SHEET NO. 5008			PROJECT NO. 29682(04)

.....
M O V E 3 Version 3.4.0
.....
Design and Adjustment
of
3D 2D and 1D Geodetic Networks
.....
www.MOVE3.com
(c) 1993-2006 Grontmij
Licensed to Leica Geosystems AG
.....
Adjusted 16-11-2009 09:25:34
.....

3D constrained network on WGS 84 ellipsoid

STATIONS
Number of (partly) known stations 4
Number of unknown stations 6
Total 10

OBSERVATIONS
GPS coordinate differences 150 (50 baselines)
Known coordinates 8
Total 158

UNKNOWNNS
Coordinates 30
Total 30

Degrees of freedom 128

ADJUSTMENT
Number of iterations 1
Max coord correction in last iteration 0.0000 m

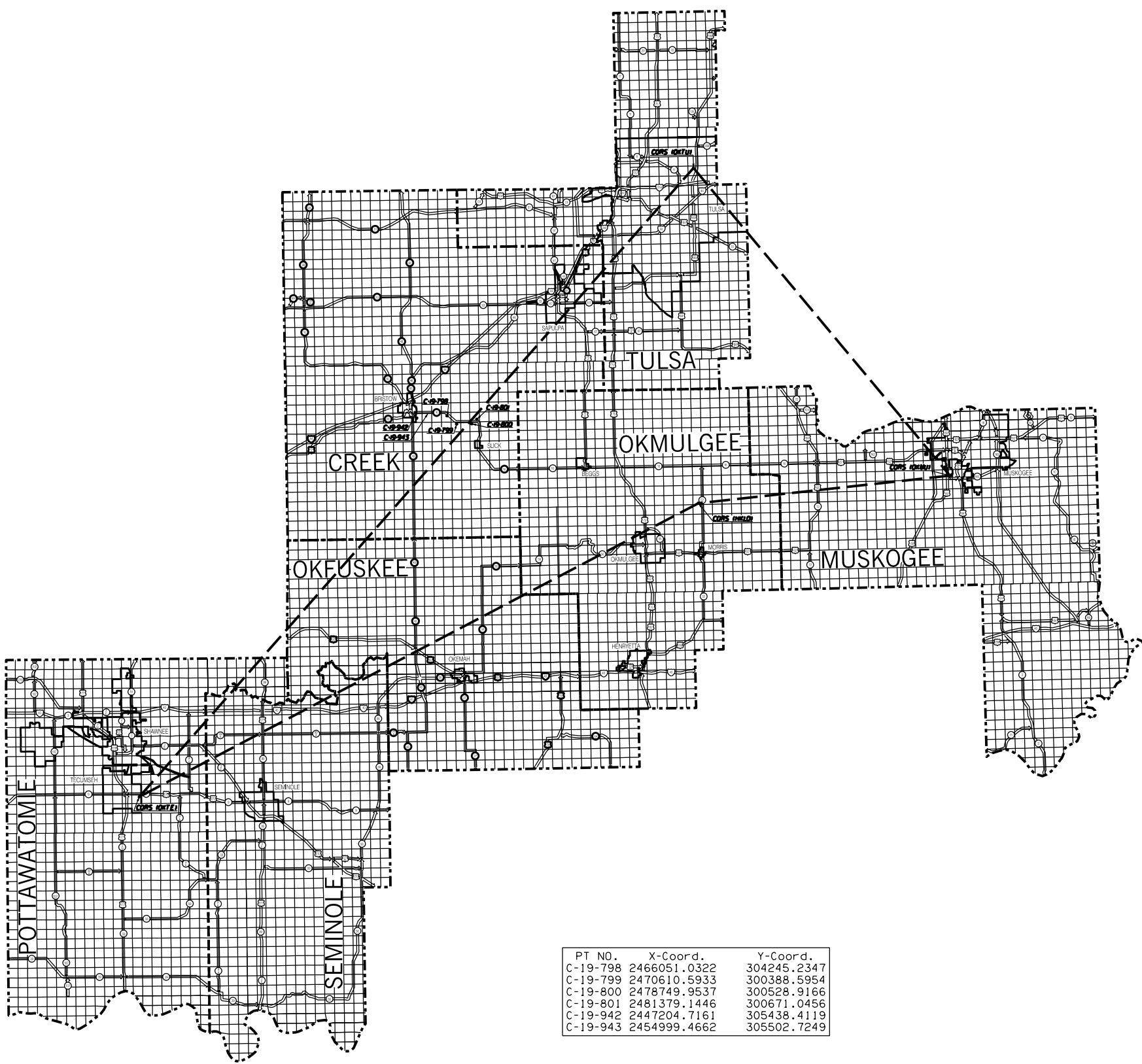
TESTING
Alfa (multi dimensional) 0.6472
Alfa 0 (one dimensional) 0.0500
Beta 0.80
Critical value W-test 1.96
Critical value T-test (3 dimensional) 1.89
Critical value T-test (2 dimensional) 2.42
Critical value F-test 0.95
F-test 0.794 accepted

Results based on a-posteriori variance factor

ELLIPSOID CONSTANTS
Ellipsoid WGS 84
Semi major axis 6378137.0000 m
Inverse flattening 298.257223563

COORDINATES (CONSTRAINED NETWORK)				
Station		Coordinate	Corr	Sd
7400	Latitude	35 49 26.34452 N	0.0027	0.0013 m
	Longitude	96 19 17.73280 W	0.0001	0.0012 m
	Height	247.9398	0.0026	0.0026 m
7401	Latitude	35 48 47.42610 N	0.0015	0.0015 m
	Longitude	96 18 23.18948 W	-0.0006	0.0019 m
	Height	228.0647	-0.0013	0.0036 m
7402	Latitude	35 48 47.39816 N	0.0020	0.0013 m
	Longitude	96 16 44.34874 W	0.0001	0.0012 m
	Height	213.2088	0.0017	0.0025 m
7403	Latitude	35 48 48.34148 N	0.0015	0.0012 m
	Longitude	96 16 12.40007 W	0.0003	0.0011 m
	Height	221.6882	0.0010	0.0023 m
7404	Latitude	35 49 41.34358 N	0.0019	0.0012 m
	Longitude	96 20 34.21616 W	0.0001	0.0011 m
	Height	215.5566	0.0019	0.0026 m
7405	Latitude	35 46 02.15702 N	0.0019	0.0013 m
	Longitude	96 15 45.17009 W	0.0001	0.0012 m
	Height	188.5293	0.0017	0.0025 m
HKLO	Latitude	35 40 57.89405 N*	0.0000	fixed m
	Longitude	95 51 48.15403 W*	0.0000	fixed m
	Height	192.2747*	0.0000	fixed m
OKMU	Latitude	35 43 00.06254 N*	0.0000	fixed m
	Longitude	95 24 05.82206 W*	0.0000	fixed m
	Height	161.4523	0.0004	fixed m
OKTE	Latitude	35 15 36.66875 N	0.0008	fixed m
	Longitude	96 53 52.10839 W	-0.0008	fixed m
	Height	303.0770	-0.0000	fixed m
OKTU	Latitude	36 12 38.11370 N*	0.0000	fixed m
	Longitude	95 51 15.78321 W*	0.0000	fixed m
	Height	169.2428	0.0029	fixed m

Scale:
1"=100'

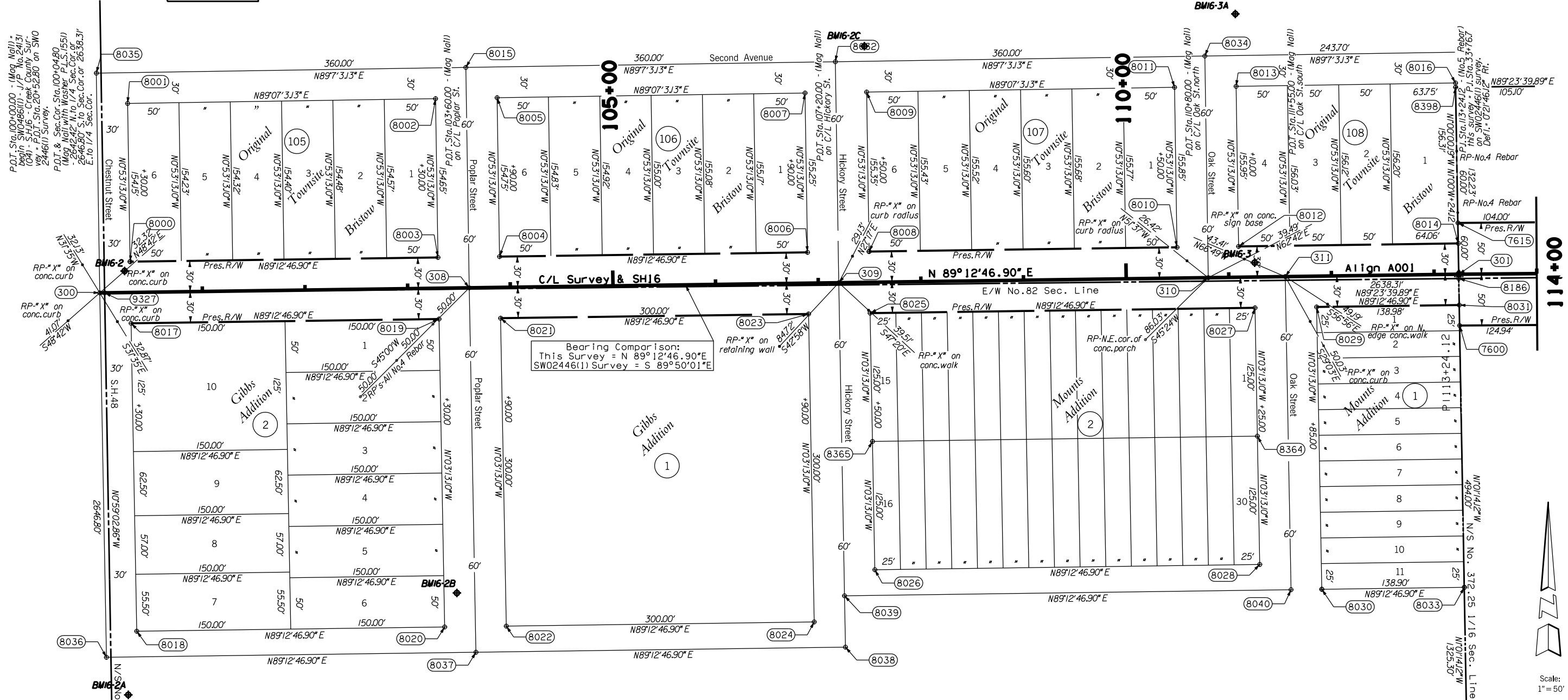


PT NO.	X-Coord.	Y-Coord.
C-19-798	2466051.0322	304245.2347
C-19-799	2470610.5933	300388.5954
C-19-800	2478749.9537	300528.9166
C-19-801	2481379.1446	300671.0456
C-19-942	2447204.7161	305438.4119
C-19-943	2454999.4662	305502.7249

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
OKLA.					
DESCRIPTION		REVISIONS		DATE	

Angle of Variance
At P.O.T. Sta. 100+00.00
X: 2446565.4480
Y: 305469.6495
Lat.: 35°49'41.71804"
Long.: 96°23'14.07463"
θ = 0°57'06.35"

SECTION 29
T-16-N, R-9-E

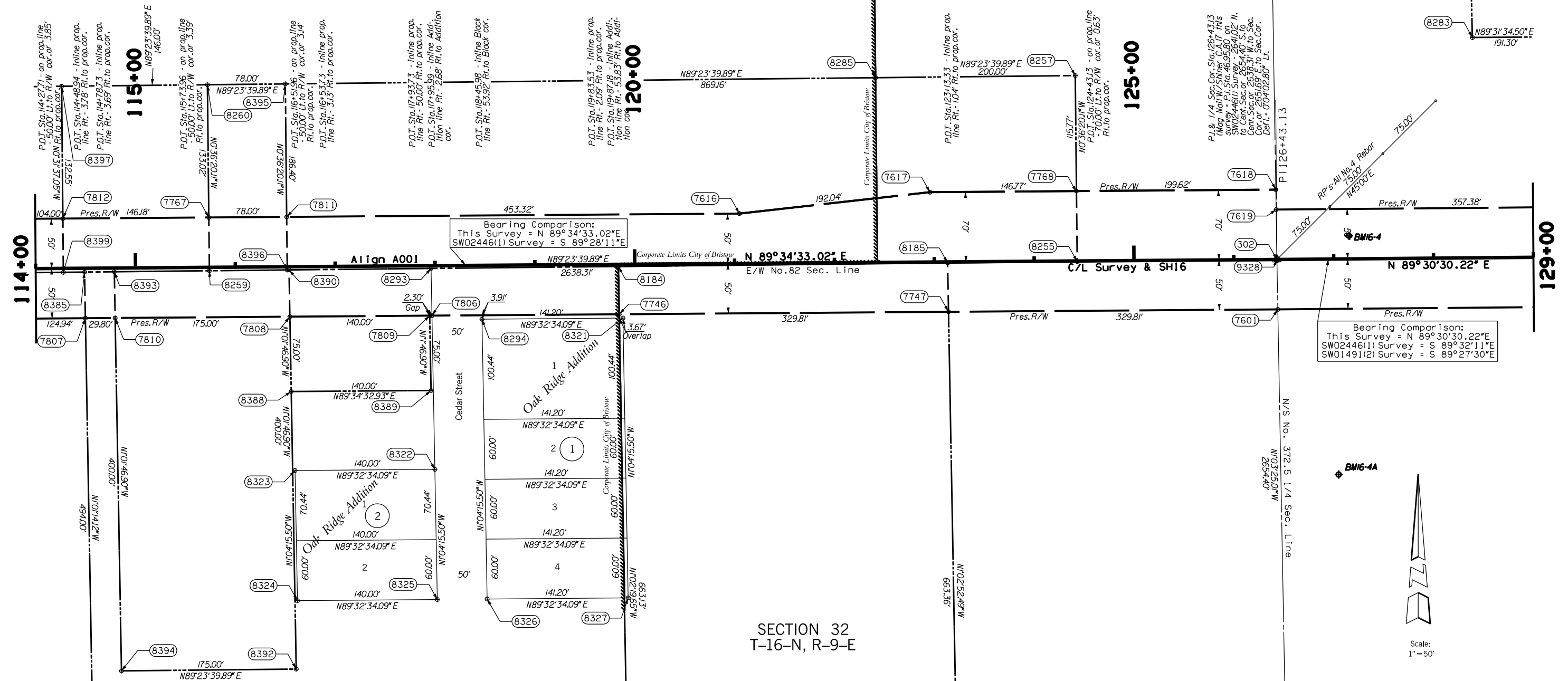


SECTION 32
T-16-N, R-9-E



PLS	DEA	OKLAHOMA DEPARTMENT OF TRANSPORTATION			
DRAWN	DEA	SURVEY DIVISION			
CHECKED		SURVEY DATA SHEET			
APPROVED	LGW				
CREW	Tecumseh	SWO 4861 (1)	PROJECT NO. 29682(04)	SHEET NO. 5010	

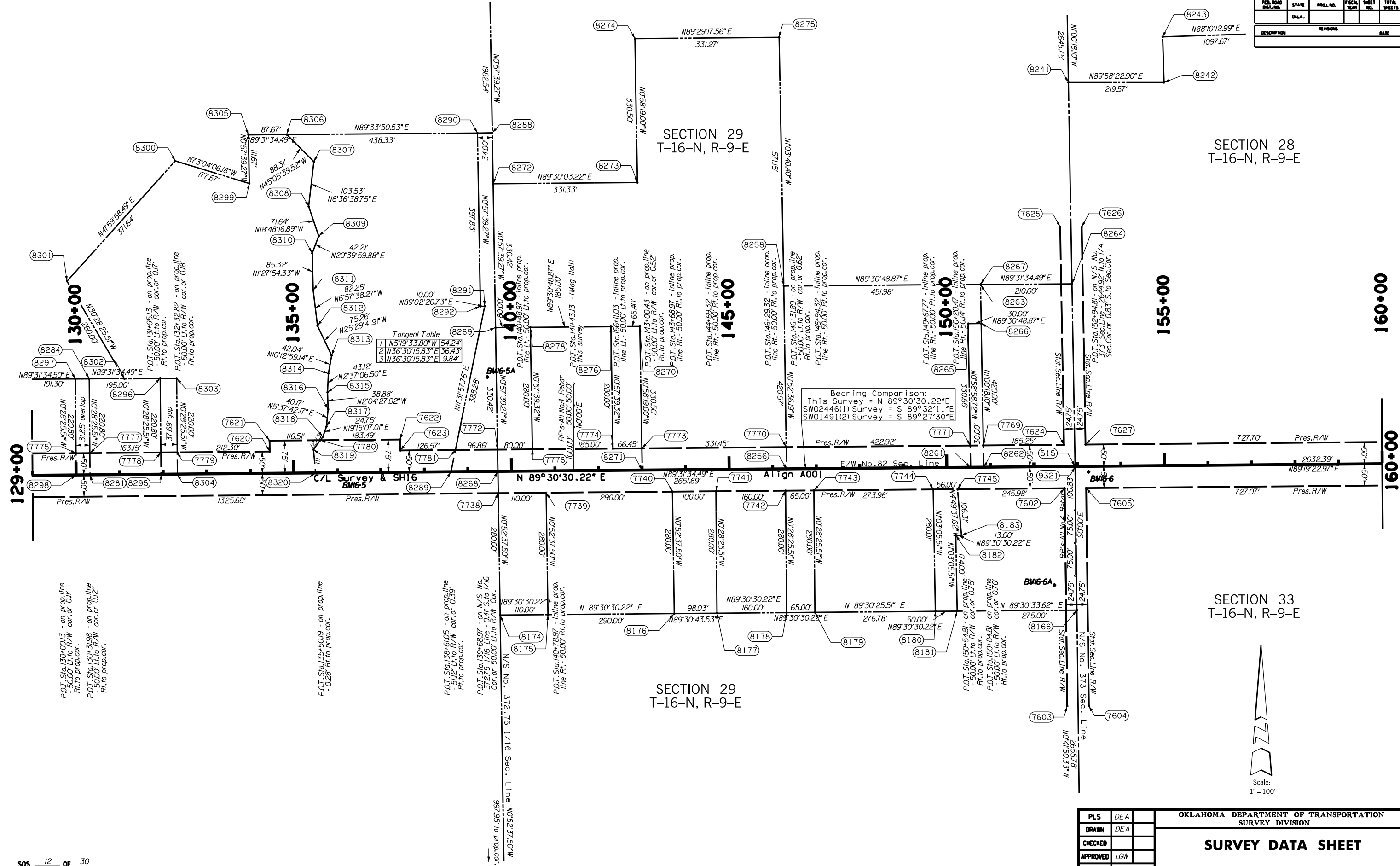
SECTION 29
T-16-N, R-9-E



SECTION 32
T-16-N, R-9-E

PLS	DEA		OKLAHOMA DEPARTMENT OF TRANSPORTATION			
DRAWN	DEA		SURVEY DIVISION			
CHECKED			SURVEY DATA SHEET			
APPROVED	LGW					
CREW	Tecumseh	SWO	4861	(1)	PROJECT NO. 29682(04)	SHEET NO. 301

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
OKLA.					
DESCRIPTION			REVISIONS		
			NO.	DATE	

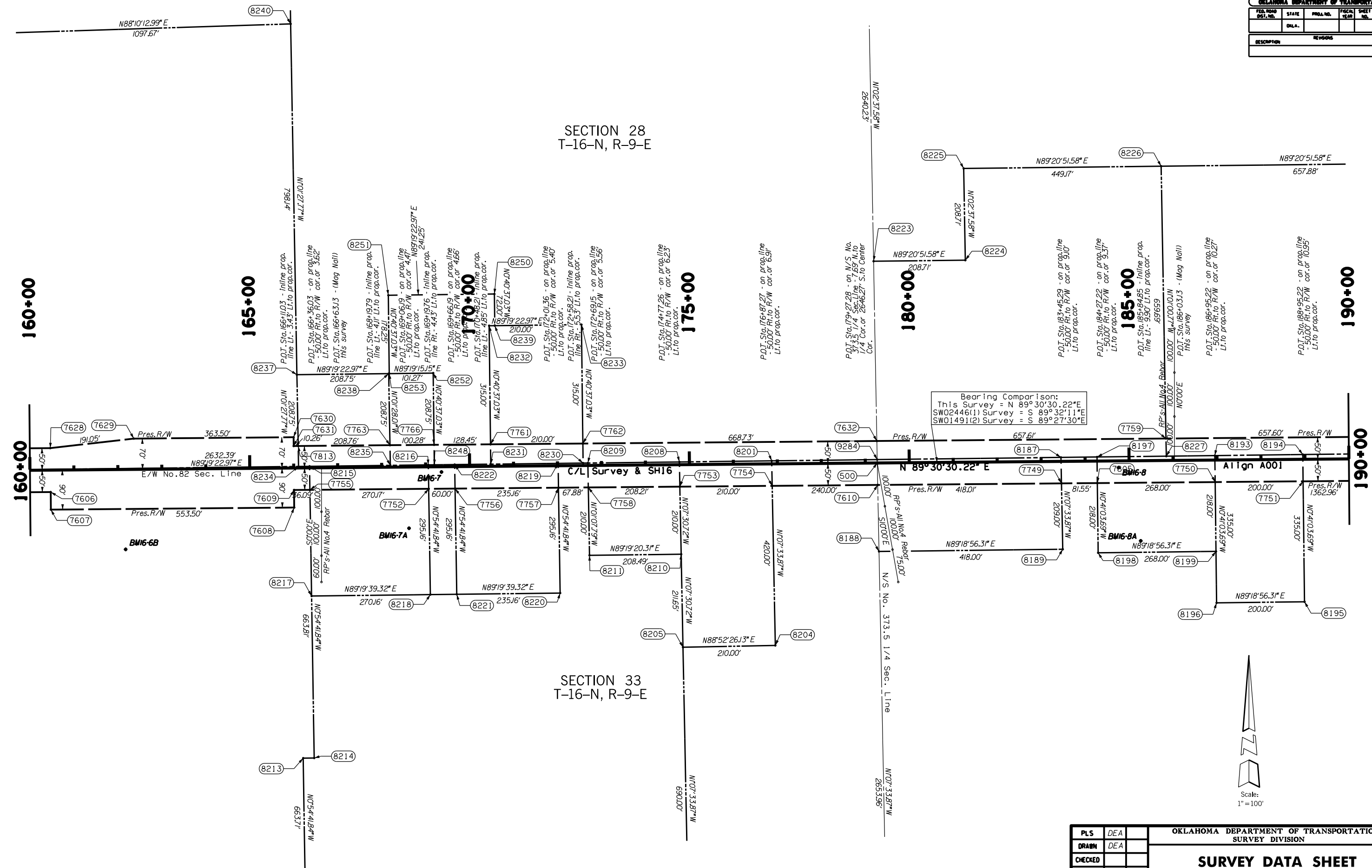


PLS		OKLAHOMA DEPARTMENT OF TRANSPORTATION	
DRAWN		SURVEY DIVISION	
CHECKED		SURVEY DATA SHEET	
APPROVED			
CREW			
Tecumseh	SWO 4861 (1)	PROJECT NO. 29682(04)	SHEET NO. 5012

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
DESCRIPTION		REVISIONS			DATE

SECTION 28
T-16-N, R-9-E

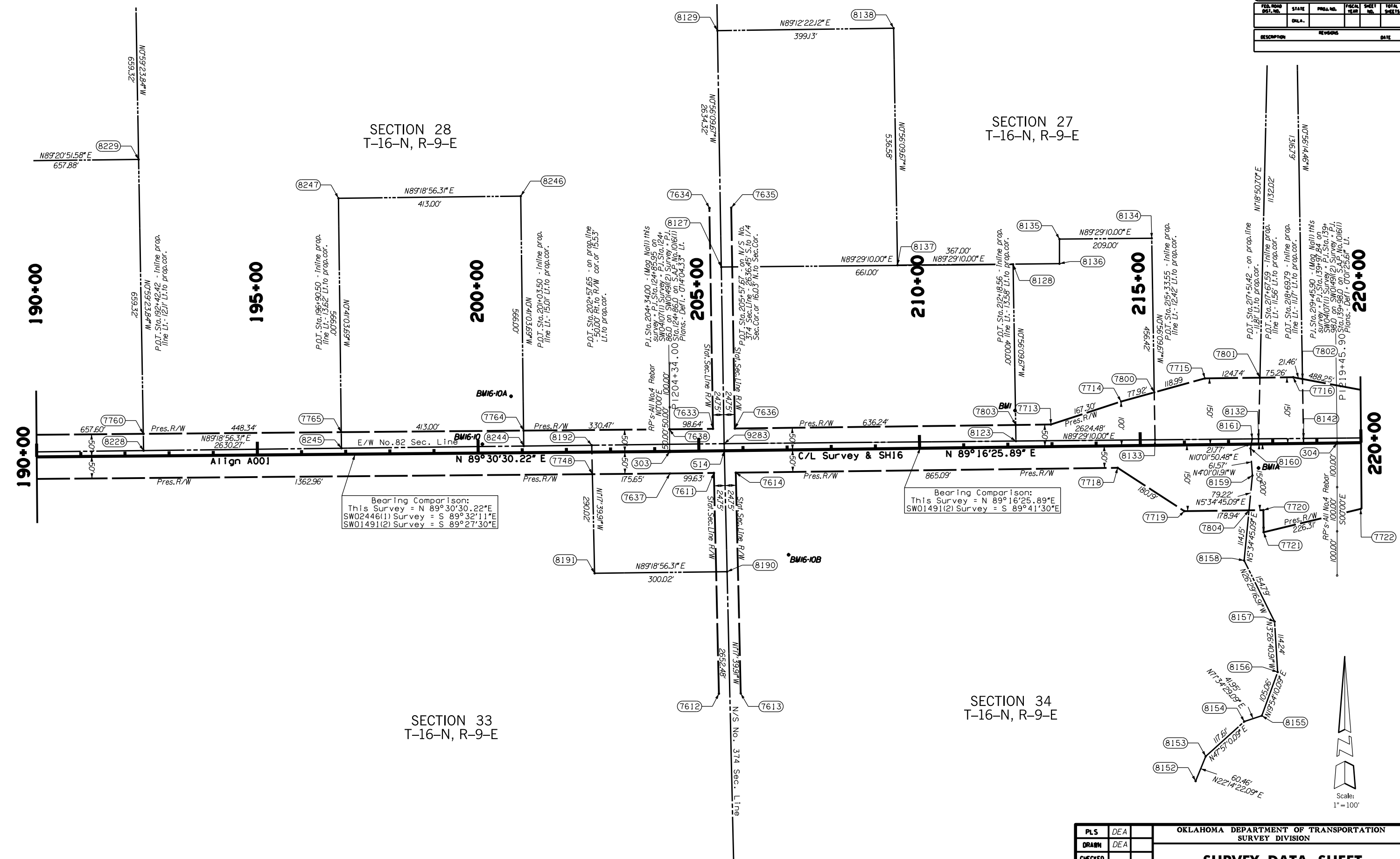
SECTION 33
T-16-N, R-9-E



SDS 13 OF 30

PLS	DEA		OKLAHOMA DEPARTMENT OF TRANSPORTATION			
DRAIN	DEA		SURVEY DIVISION			
CHECKED			SURVEY DATA SHEET			
APPROVED	LGW					
CREW	Tecumseh	SWO	4861	(1)	PROJECT NO. 29682(04)	SHEET NO. 5013

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
DESCRIPTION		REVISIONS		DATE	



PLS	DEA		OKLAHOMA DEPARTMENT OF TRANSPORTATION			
DRAIN	DEA		SURVEY DIVISION			
CHECKED			SURVEY DATA SHEET			
APPROVED	LGW					
CREW	Tecumseh	SWO	4861	(1)	PROJECT NO. 29682(04)	SHEET NO. 5014

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
DESCRIPTION		REVISIONS		DATE	

SECTION 27
T-16-N, R-9-E

235+00

240+00

245+00

250+00

220+00

225+00

230+00

N 62°19'25"W
2632.83'

P.O.T. Sta. 231+82.04 - on N/S. No. 374.5 1/4 Sec. Line - 550' N. to 1/4 Cor. or 2643.76' S. to Center Cor.

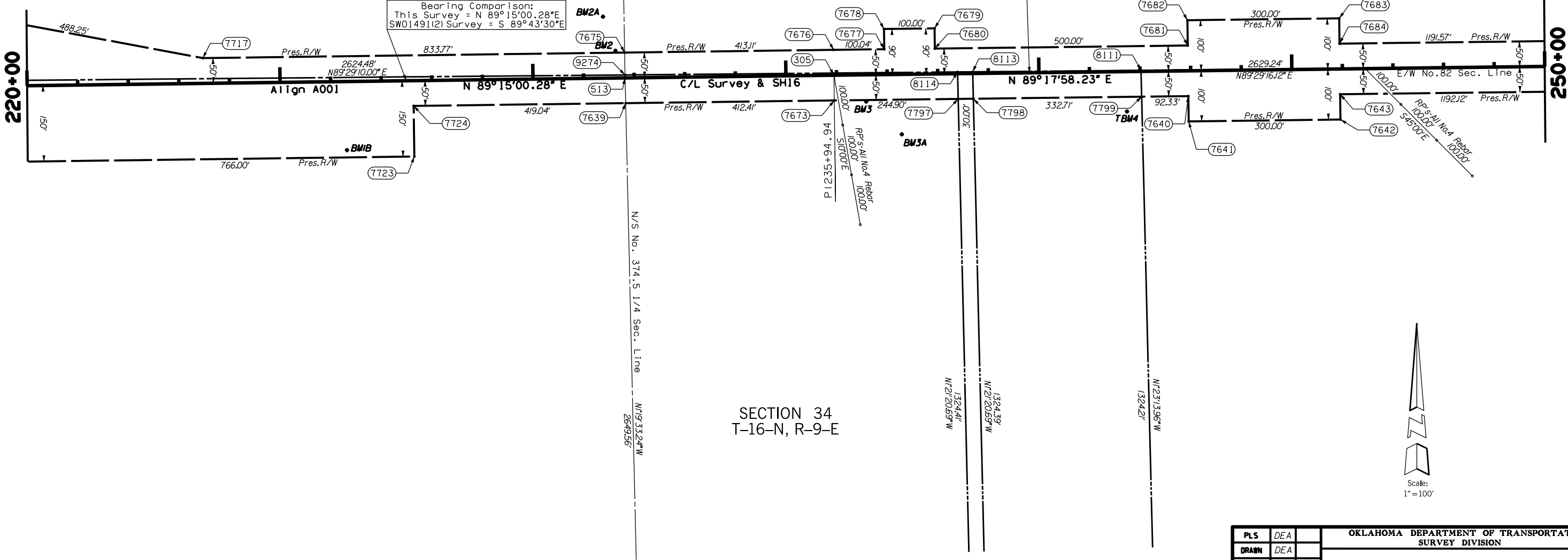
P.I. Sta. 235+94.94 - (Mag Nail over No. 4 Rebar) this survey - P.I. Sta. 156+46.88 on SW0407(1) Survey - P.I. Sta. 156+48.00 on SW0491(2) Survey - P.I. Sta. 156+48.00 on S.A.P. No. 1016(1) P.I. Sta. 156+48.00 on S.A.P. Del. 1:002°57'35" Rt.

P.O.T. Sta. 238+39.32 - on prop. line - 50.00' Rt. to R/W cor. or 3.28' Lt. to prop. cor.

P.O.T. Sta. 238+69.32 - on prop. line - 50.00' Rt. to R/W cor. or 3.18' Lt. to prop. cor.

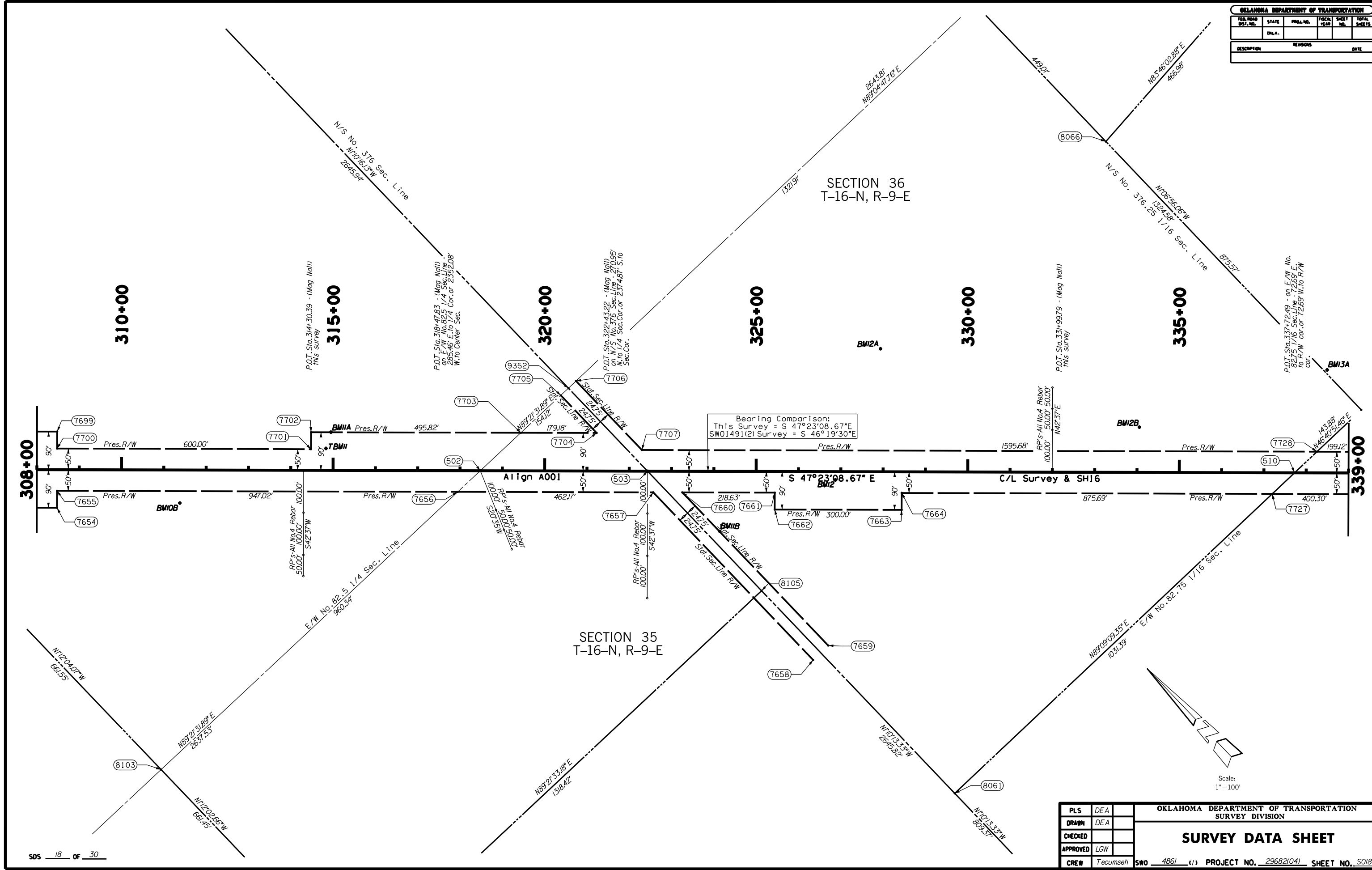
P.O.T. Sta. 242+02.01 - on prop. line - 50.00' Lt. to R/W cor. or 2.09' Lt. to prop. cor.

P.O.T. Sta. 246+44.94 - (Mag Nail) this survey



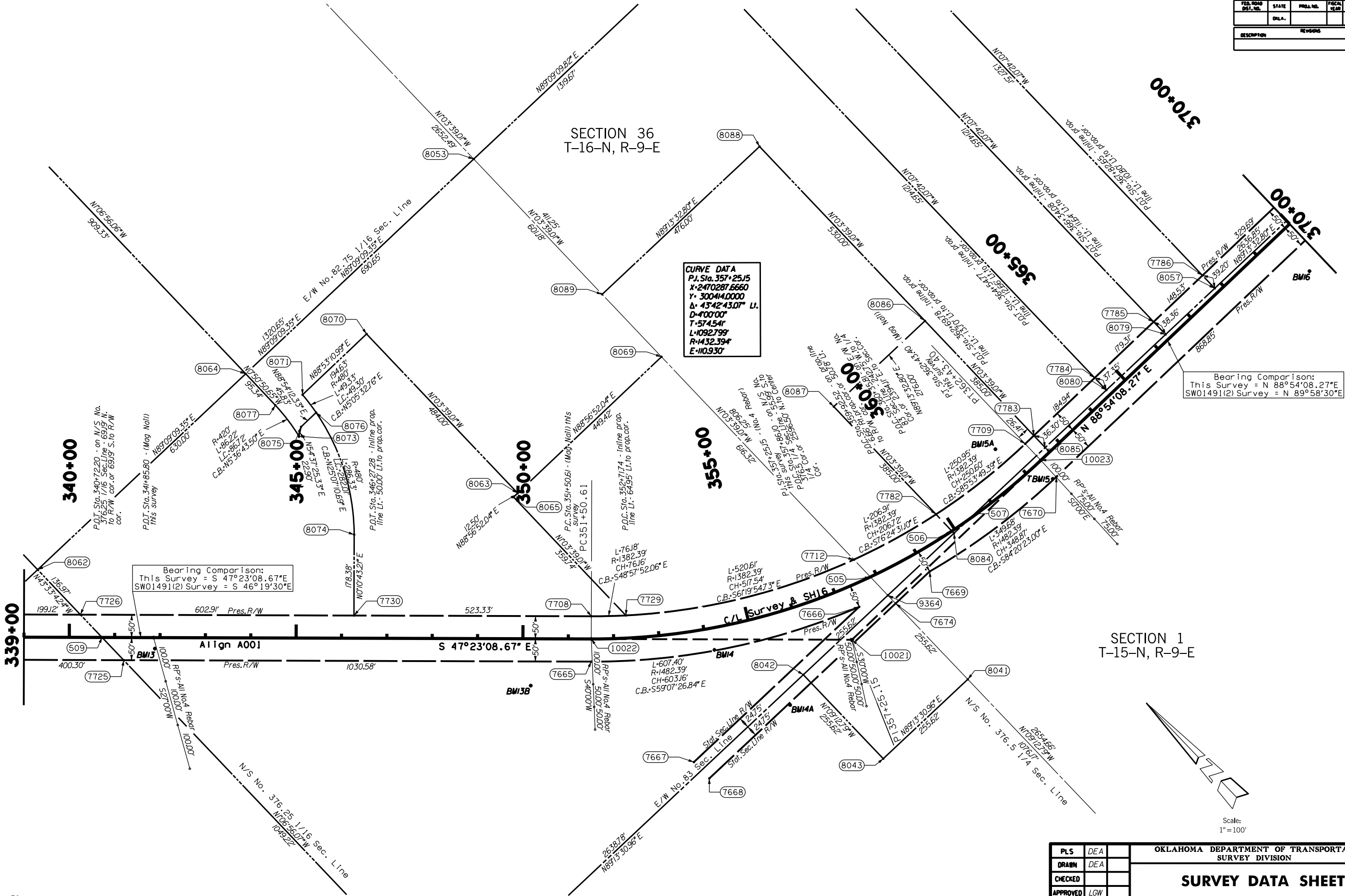
PLS	DEA	OKLAHOMA DEPARTMENT OF TRANSPORTATION			
DRAWN	DEA	SURVEY DIVISION			
CHECKED		SURVEY DATA SHEET			
APPROVED	LGW				
CREW	Tecumseh	SW0	4861	(1) PROJECT NO.	29682(04) SHEET NO. 5015

OKLAHOMA DEPARTMENT OF TRANSPORTATION						
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
	OKLA.					
DESCRIPTION			REVISIONS		DATE	



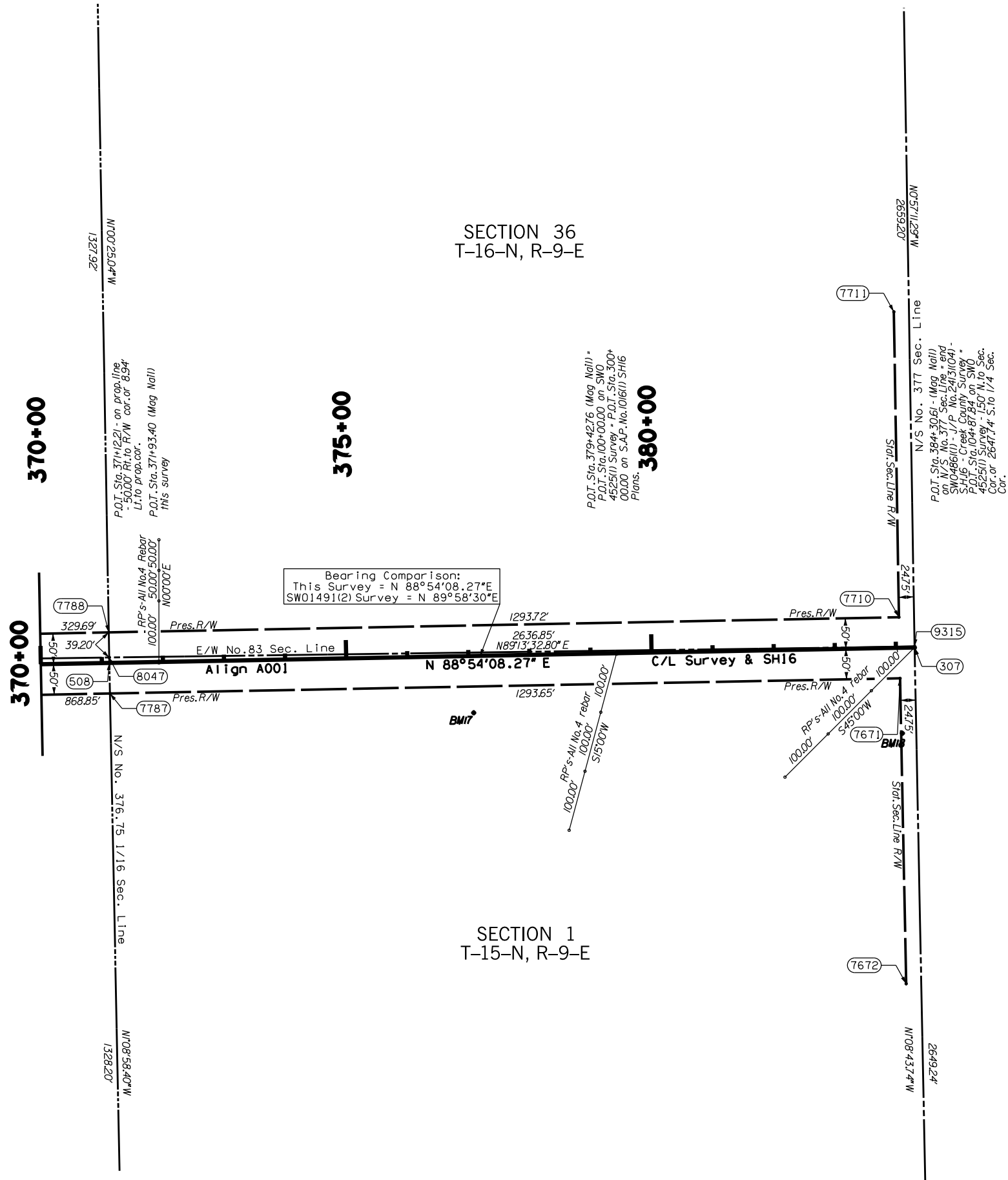
PLS	DEA		OKLAHOMA DEPARTMENT OF TRANSPORTATION			
DRAWN	DEA		SURVEY DIVISION			
CHECKED			SURVEY DATA SHEET			
APPROVED	LGW					
CREW	Tecumseh		SWO	4861	(1)	PROJECT NO. 29682(04) SHEET NO. 5018

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
OKLA.					
DESCRIPTION			REVISION	DATE	



PLS	DEA	OKLAHOMA DEPARTMENT OF TRANSPORTATION			
DRAWN	DEA	SURVEY DIVISION			
CHECKED		SURVEY DATA SHEET			
APPROVED	LGW				
CREW	Tecumseh	SWO 4861 (1)	PROJECT NO. 29682(04)	SHEET NO. 5019	

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
DESCRIPTION		REVISIONS		DATE	



Angle of Variance
At P01 Sta. 384+30.61
X: 2473048.9011
Y: 300466.9078
Lat.: 35°48'47.77882°
Long.: 96°17'53.57205°
θ = 1°00'15.49"

Scale:
1" = 100'

PLS	DEA	OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION			
DRAWN	DEA				
CHECKED		SURVEY DATA SHEET			
APPROVED	LGW				
CREW	Tecumseh	SWO 4861 (1)	PROJECT NO. 29682(04)	SHEET NO. S020	

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
DESCRIPTION		REVISIONS		DATE	

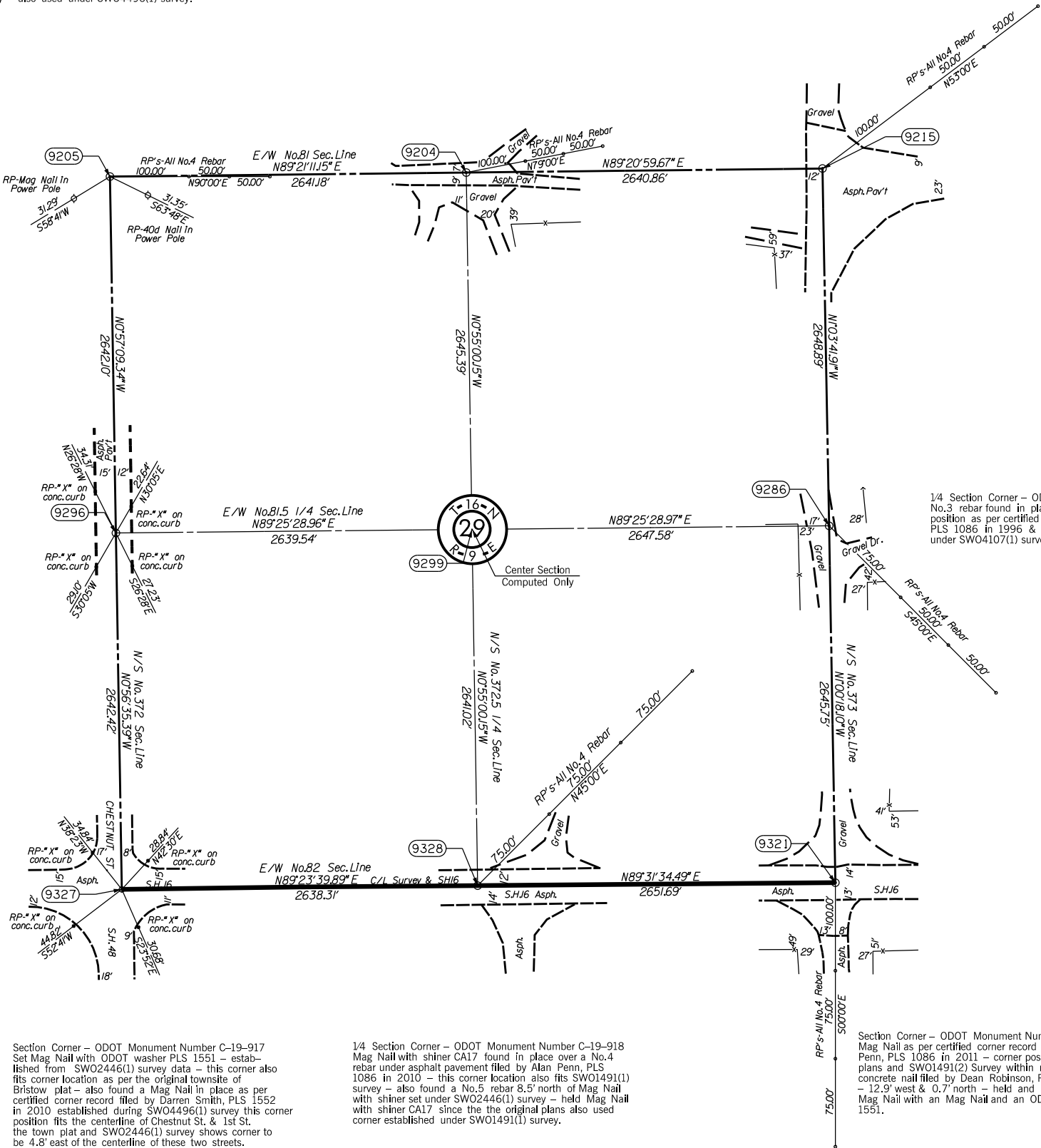
Section Corner – ODOT Monument Number C-19-822
No.4 rebar as per certified corner record filed by Alan Penn, PLS 1086 in 1996 by Theodore Sack, PLS 1139 in 2003 by Randy Marquardt, PLS 1432 in 2005 and Darren Smith, PLS 1552 in 2010 found and used this survey – also used under SW04496(1) survey.

1/4 Section Corner – ODOT Monument Number C-19-823
Railroad Spike as per certified corner record filed by Alan Penn, PLS 1086 in 1990 and by Darren Smith, PLS 1552 in 2010 and Chris Cauthon, PLS 1530 in 2011 found and used this survey – also used under SW04496(1) survey.

Section Corner – ODOT Monument Number C-19-824
Railroad Spike as per certified corner record filed by Alan Penn, PLS 1086 in 1990 and by Darren Smith, PLS 1552 in 2010 found and used this survey – also used under SW04496(1) survey.

1/4 Section Corner – ODOT Monument Number C-19-826
Railroad Spike as per certified corner record filed by Darren Smith, PLS 1552 in 2010 found and used this survey – also used under SW04496(1) survey.

1/4 Section Corner – ODOT Monument Number C-19-913
No.3 rebar found in place this corner position fits corner position as per certified corner record filed by Alan Penn, PLS 1086 in 1996 & Charles Chastain, PLS 1352 in 2006 under SW04107(1) survey.



Section Corner – ODOT Monument Number C-19-917
Set Mag. Nail with ODOT washer PLS 1551 – established from SW02446(1) survey data – this corner also fits corner location as per the original townsite of Bristow plat – also found a Mag Nail in place as per certified corner record filed by Darren Smith, PLS 1552 in 2010 established during SW04496(1) survey this corner position fits the centerline of Chestnut St. & 1st St. the town plat and SW02446(1) survey shows corner to be 4.8' east of the centerline of these two streets.

1/4 Section Corner – ODOT Monument Number C-19-918
Mag Nail with shiner CA17 found in place over a No.4 rebar under asphalt pavement filed by Alan Penn, PLS 1086 in 2010 – this corner location also fits SW01491(1) survey – also found a No.5 rebar 8.5' north of Mag Nail with shiner set under SW02446(1) survey – held Mag Nail with shiner CA17 since the original plans also used corner established under SW01491(1) survey.

Section Corner – ODOT Monument Number C-19-919
Mag Nail as per certified corner record filed by Alan Penn, PLS 1086 in 2011 – corner position fits highway plans and SW01491(2) Survey within reason also found a concrete nail filed by Dean Robinson, PLS 1146 in 1998 – 12.9' west & 0.7' north – held and replaced Penn's Mag Nail with an Mag Nail and an ODOT washer PLS 1551.

NOTE: REFERENCE'S SHOWN ARE NOT TO SCALE.

PLS		DEA		OKLAHOMA DEPARTMENT OF TRANSPORTATION	
DRAIN		DEA		SURVEY DIVISION	
CHECKED				SURVEY DATA SHEET	
APPROVED		LGW			
CREW		Tecumseh			
SWO 4861 (1)		PROJECT NO. 29682(04)		SHEET NO. 5021	

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
DESCRIPTION		REVISIONS		DATE	

Section Corner – ODOT Monument Number C-19-824
Railroad Spike as per certified corner record filed by Alan Penn, PLS 1086 in 2003 & by Darren Smith, PLS 1552 in 2010 found and used this survey – also used under SWO4496(1) survey.

1/4 Section Corner – ODOT Monument Number C-19-907
Railroad Spike as per certified corner record filed by Alan Penn, PLS 1086 in 2003 & by Charles Chastain, PLS 1352 in 2006 found and used this survey – also also used under SWO4107(1) survey.

Section Corner – ODOT Monument Number C-19-908
Railroad Spike as per certified corner record filed by Alan Penn, PLS 1086 in 1991, Virgil Rogers, PLS 569 in 1991 and by Charles Chastain, PLS 1352 in 2006 found and used this survey also used under SWO4107(1) survey.

1/4 Section Corner – ODOT Monument Number C-19-913
No.3 rebar found in place this corner position fits corner position as per certified corner record filed by Alan Penn, PLS 1086 in 1996 & Charles Chastain, PLS 1352 in 2006 under SWO4107(1) survey.

1/4 Section Corner – ODOT Monument Number C-19-914
Railroad Spike as per certified corner record filed by Alan Penn, PLS 1086 in 1991 & by Charles Chastain, PLS 1352 in 2006 found and used this survey and also used under SWO4107(1) survey.

Section Corner – ODOT Monument Number C-19-919
Mag Nail as per certified corner record filed by Alan Penn, PLS 1086 in 2011 – corner position fits highway plans and SWO1491(2) Survey within reason also found a concrete nail filed by Dean Robinson, PLS 1146 in 1998 – 12.9' west & 0.7' north – held and replaced Penn's Mag Nail with an Mag Nail and an ODOT washer PLS 1551.

1/4 Section Corner – ODOT Monument Number C-19-920
Mag Nail as per certified corner record filed by Charles Chastain, PLS 1352 in 2006 – this corner location fits SWO4107(1) & SWO1491(2) surveys and highway plans – also found a Mag Nail filed by Alan Penn, PLS 1086 in 2011 – 3.9' east of Chastain's corner – also found a No.4 rebar 3.9' east and 7.2' south of Chastain's filled corner – held and replaced Chastain's Mag Nail with an Mag Nail with an ODOT washer PLS 1551.

Section Corner – ODOT Monument Number C-19-921
Mag Nail as per certified corner record filed by Charles Chastain, PLS 1352 in 2006 found in place – also found a No.4 rebar 9.5' east of Mag Nail this corner fits certified corner record filed by Virgil Rogers, PLS 569 in 1991 & Alan Penn, PLS 1086 in 1991 – also found a No.4 rebar 9.5' east & 14.7' south of Mag Nail – held and replaced Chastain's Mag Nail with a Mag Nail with ODOT washer PLS 1551 – this corner position fits SWO4107(1) & SWO1491(2) Survey and highway plans.



SCALE:

1" = 500'

NOTE: REFERENCE'S SHOWN ARE NOT TO SCALE.

PLS		DEA	OKLAHOMA DEPARTMENT OF TRANSPORTATION		
DRAWN		DEA	SURVEY DIVISION		
CHECKED			SURVEY DATA SHEET		
APPROVED		LGW			
CREW		Tecumseh	SWO 4861 (1) PROJECT NO. 29682(04) SHEET NO. S022		

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
DESCRIPTION		REVISIONS		DATE	

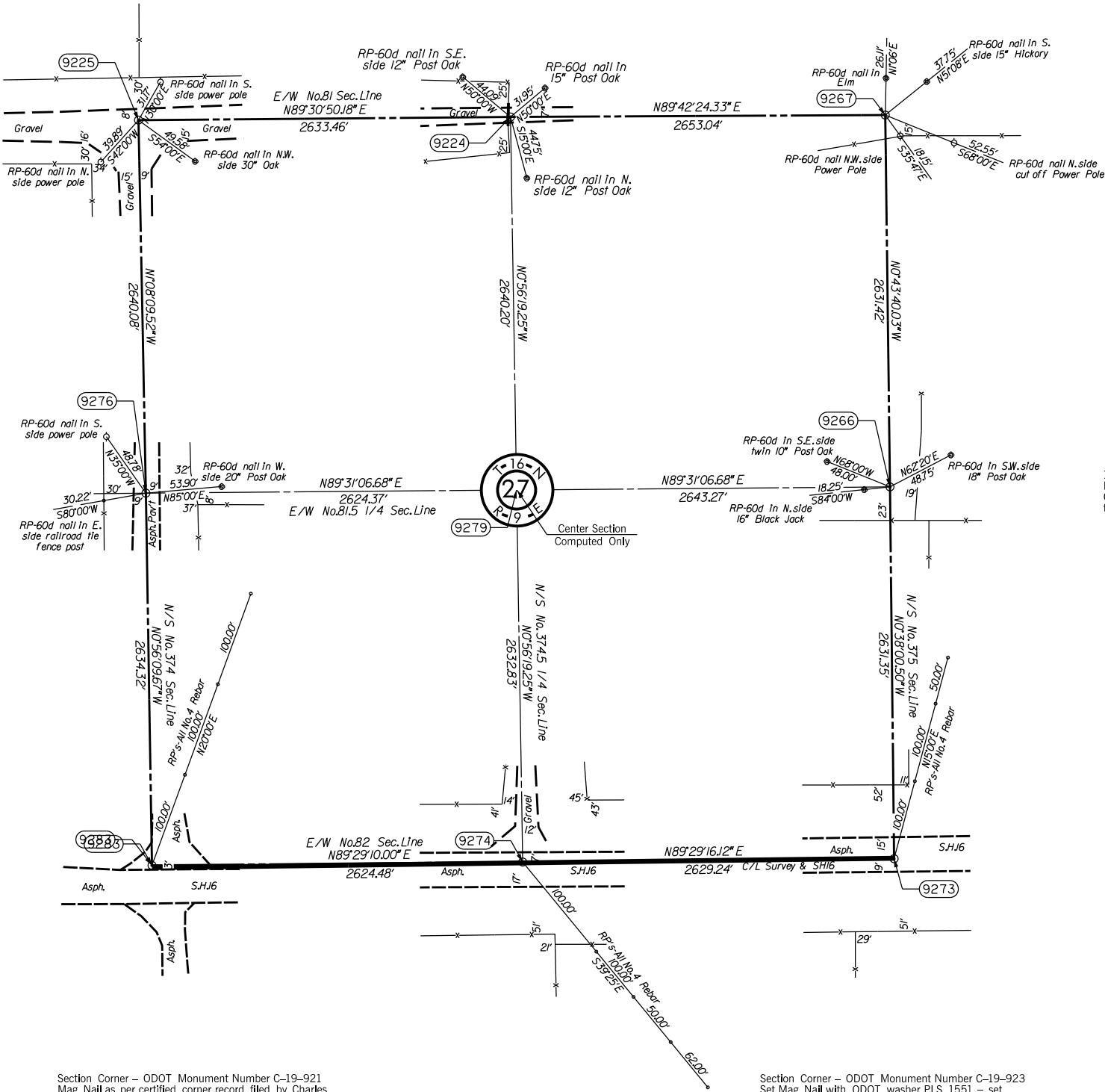
Section Corner – ODOT Monument Number C-19-908
Railroad Spike as per certified corner record filed by Alan Penn, PLS 1086 in 1991, Virgil Rogers, PLS 569 in 1991 and by Charles Chastain, PLS 1352 in 2006 found and used this survey also used under SW04107(1) survey.

1/4 Section Corner – ODOT Monument Number C-19-909
No.3 rebar as per certified corner record filed by Virgil Rogers, PLS 569 in 1991 & by Charles Chastain, PLS 1352 in 2006 found and used this survey and also used under SW04107(1) survey.

Section Corner – ODOT Monument Number C-19-910
1 1/2" Pipe as per certified corner record filed by Alan Penn, PLS 1086 in 1979 and by Charles Chastain, PLS 1352 in 2006 found and used this survey and also used under SW04107(1) survey.

1/4 Section Corner – ODOT Monument Number C-19-914
Railroad Spike as per certified corner record filed by Alan Penn, PLS 1086 in 1991 & by Charles Chastain, PLS 1352 in 2006 found and used this survey and also used under SW04107(1) survey.

1/4 Section Corner – ODOT Monument Number C-19-915
No.4 rebar as per certified corner record filed by Charles Chastain, PLS 1352 in 2006 found and used this survey this corner also used under SW04107(1) survey.



Section Corner – ODOT Monument Number C-19-921
Mag Nail as per certified corner record filed by Charles Chastain, PLS 1352 in 2006 found in place – also found a No.4 rebar 9.5' east of Mag Nail this corner fits certified corner record filed by Virgil Rogers, PLS 569 in 1991 & Alan Penn, PLS 1086 in 1991 – also found a No.4 rebar 9.5' east & 14.7' south of Mag Nail – held and replaced Chastain's Mag Nail with a Mag Nail with ODOT washer PLS 1551 – this corner position fits SW04107(1) & SW01491(2) Survey and highway plans.

1/4 Section Corner – ODOT Monument Number C-19-922
Mag Nail as per certified corner record filed by Charles Chastain, PLS 1352 in 2006 found in place – also found a concrete nail over good signal under asphalt pavement 9.1' east of Mag Nail – concrete nail fit certified corner record by Virgil Rogers, PLS 569 in 1991 – held and replaced Chastain's Mag Nail with a ODOT washer PLS 1551 – this corner position fits SW04107(1) & SW01491(2) Surveys and highway plans corner position.

Section Corner – ODOT Monument Number C-19-923
Set Mag Nail with ODOT washer PLS 1551 – set from SW01491(2) Survey and S.A.P. No. 1016(1) plan data – also found a No.4 rebar as per certified corner record filed by Alan Penn, PLS 1086 in 1979 and also by Charles Chastain, PLS 1352 in 2006 4.3' east.



SCALE:
1" = 500'

NOTE: REFERENCE'S SHOWN ARE NOT TO SCALE.

PLS		DEA	OKLAHOMA DEPARTMENT OF TRANSPORTATION		
DRAWN		DEA	SURVEY DIVISION		
CHECKED			SURVEY DATA SHEET		
APPROVED		LGW			
CREW		Tecumseh			
SWO 4861 (1)		PROJECT NO. 29682(04)		SHEET NO. S023	

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
DESCRIPTION		REVISIONS		DATE	

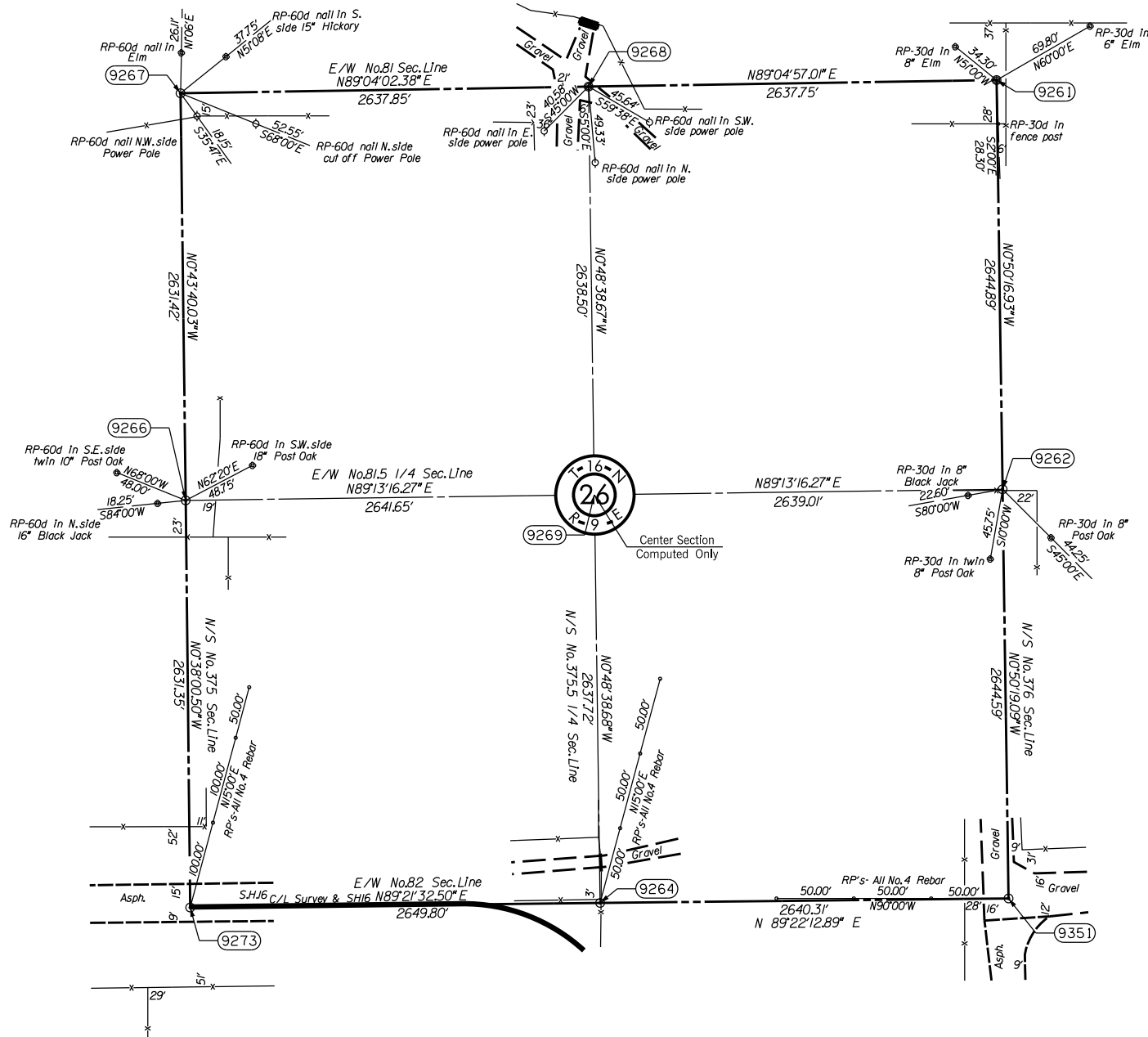
Section Corner – ODOT Monument Number C-19-910
1 1/2" Pipe as per certified corner record filed by Alan Penn, PLS 1086 in 1979 and by Charles Chastain, PLS 1352 in 2006 found and used this survey and also used under SWO4107(1) survey.

1/4 Section Corner – ODOT Monument Number C-19-911
3/4 Iron Pin found and used this survey – corner fits ties to corners 0.5 mile east and 0.5 mile west.

Section Corner – ODOT Monument Number C-19-912
Original Stone as per certified corner record filed by Alan Penn, PLS 1086 in 1979 & 2008 found and used this survey.

1/4 Section Corner – ODOT Monument Number C-19-915
No.4 rebar as per certified corner record filed by Charles Chastain, PLS 1352 in 2006 found and used this survey this corner also used under SWO4107(1) survey.

1/4 Section Corner – ODOT Monument Number C-19-916
No.4 rebar as per certified corner record filed by Alan Penn, PLS 1086 in 2008 found and used this survey.



Section Corner – ODOT Monument Number C-19-923
Set Mag Nail with ODOT washer PLS 1551 – set from SWO1491(2) Survey and S.A.P. No. 1016(1) plan data – also found a No.4 rebar as per certified corner record filed by Alan Penn, PLS 1086 in 1979 and also by Charles Chastain, PLS 1352 in 2006 4.3' east.

1/4 Section Corner – ODOT Monument Number C-19-924
No.4 rebar as per certified corner record filed by Alan Penn, PLS 1086 in 1979 & by Charles Chastain, PLS 1352 in 2006 found and used this survey – also used under SWO4107(1) survey.

Section Corner – ODOT Monument Number C-19-925
No.4 rebar as per certified corner record filed by Alan Penn, PLS 1086 in 1986 found and used this survey.



SCALE:
1"=500'

NOTE: REFERENCE'S SHOWN ARE NOT TO SCALE.

PLS		DEA		OKLAHOMA DEPARTMENT OF TRANSPORTATION	
DRAIN		DEA		SURVEY DIVISION	
CHECKED				SURVEY DATA SHEET	
APPROVED		LGW			
CREW		Tecumseh		SWO 4861 (1) PROJECT NO. 29682(04) SHEET NO. 5024	

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
DESCRIPTION		REVISIONS		DATE	

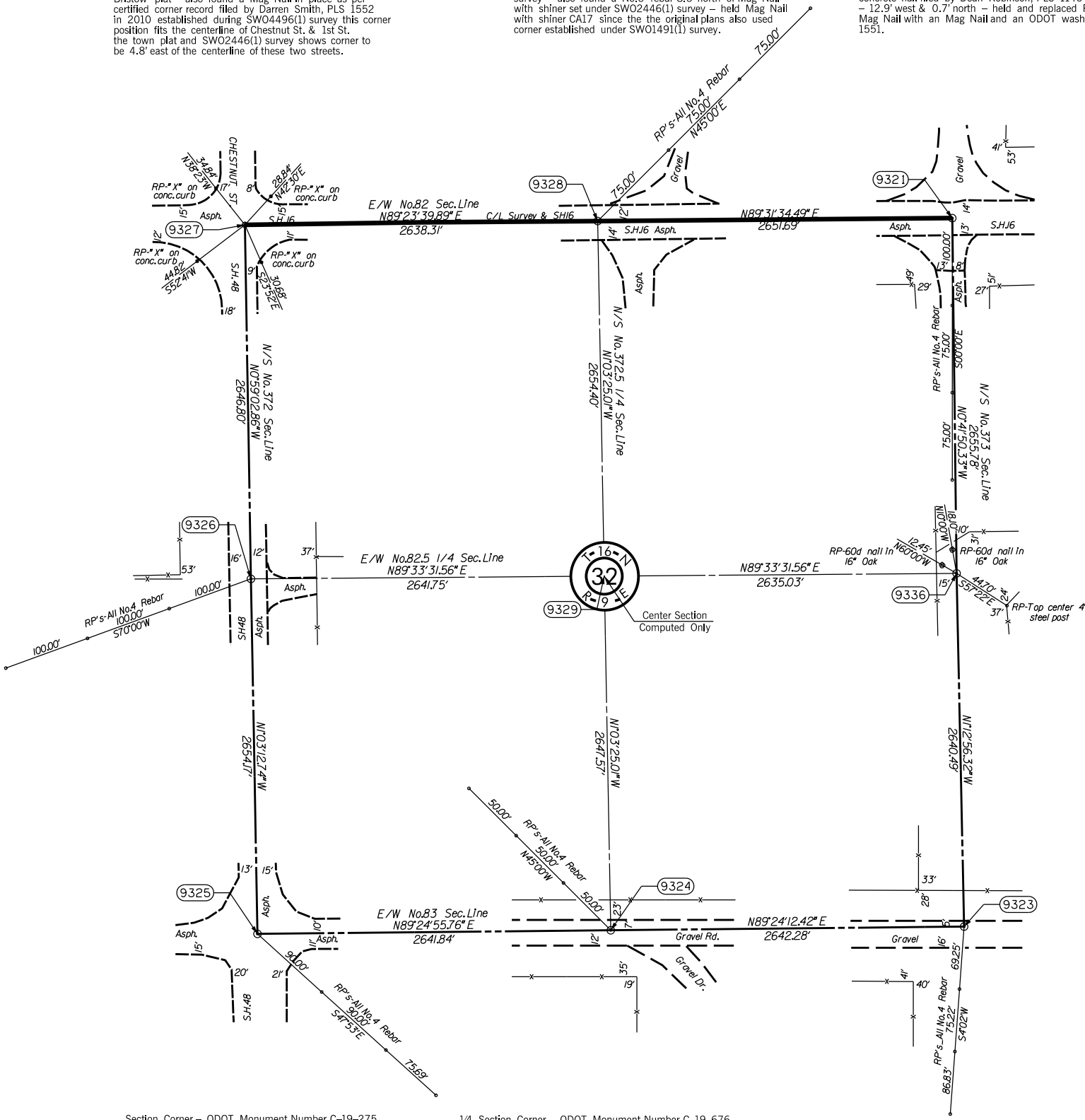
Section Corner – ODOT Monument Number C-19-917
Set Mag Nail with ODOT washer PLS 1551 – estab-
lished from SWO2446(1) survey data – this corner also
fits corner location as per the original townsite of
Bristow plat – also found a Mag Nail in place as per
certified corner record filed by Darren Smith, PLS 1552
in 2010 established during SWO4496(1) survey this corner
position fits the centerline of Chestnut St. & 1st St.
the town plat and SWO2446(1) survey shows corner to
be 4.8' east of the centerline of these two streets.

1/4 Section Corner – ODOT Monument Number C-19-918
Mag Nail with shiner CA17 found in place over a No.4
rebar under asphalt pavement filed by Alan Penn, PLS
1086 in 2010 – this corner location also fits SWO1491(1)
survey – also found a No.5 rebar 8.5' north of Mag Nail
with shiner set under SWO2446(1) survey – held Mag Nail
with shiner CA17 since the original plans also used
corner established under SWO1491(1) survey.

Section Corner – ODOT Monument Number C-19-919
Mag Nail as per certified corner record filed by Alan
Penn, PLS 1086 in 2011 – corner position fits highway
plans and SWO1491(2) Survey within reason also found a
concrete nail filed by Dean Robinson, PLS 1146 in 1998
– 12.9' west & 0.7' north – held and replaced Penn's
Mag Nail with an Mag Nail and an ODOT washer PLS
1551.

1/4 Section Corner – ODOT Monument Number C-19-927
Mag Nail as per certified corner record filed by Alan
Penn, PLS 1086 in 2011 found and used this survey –
replaced Mag Nail with an ODOT washer PLS 1551 – also
got a good signal in the location of Peter Killian's filed
corner 1.7' east & 1.5' north of corner held.

1/4 Section Corner – ODOT Monument Number C-19-928
No.4 rebar as per certified corner record filed by Charles
Chastain, PLS 1352 in 2006 found and used this survey
also used under SWO4107(1) survey.



NOTE: REFERENCE'S SHOWN ARE NOT TO SCALE.

Section Corner – ODOT Monument Number C-19-676
Mag Nail as per certified corner record filed by
Kenneth Hauk, PLS 1300 in 2011 corner position fits
SWO3107(1) Survey – replaced with a Mag Nail with
an ODOT washer PLS 1551.

1/4 Section Corner – ODOT Monument Number C-19-676
No.3 rebar as per certified corner record filed by Kenneth
Hauk, PLS 1300 in 2011 found and used this survey this
corner also fits ODOT corner set by Ronald Seim, PLS 1365
in 1994 – also found a No.4 rebar 6.5' east & 3.1' south.

Section Corner – ODOT Monument Number C-19-675
ODOT 2" Brass Cap established by Ronald Seim, PLS
1365 in 1994 under SWO3107(1) Survey found and used
this survey.

PLS		DEA		OKLAHOMA DEPARTMENT OF TRANSPORTATION	
DRAIN		DEA		SURVEY DIVISION	
CHECKED				SURVEY DATA SHEET	
APPROVED		LGW			
CREW		Tecumseh		SWO 4861 (1) PROJECT NO. 29682(04) SHEET NO. S025	

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
DESCRIPTION		REVISIONS		DATE	

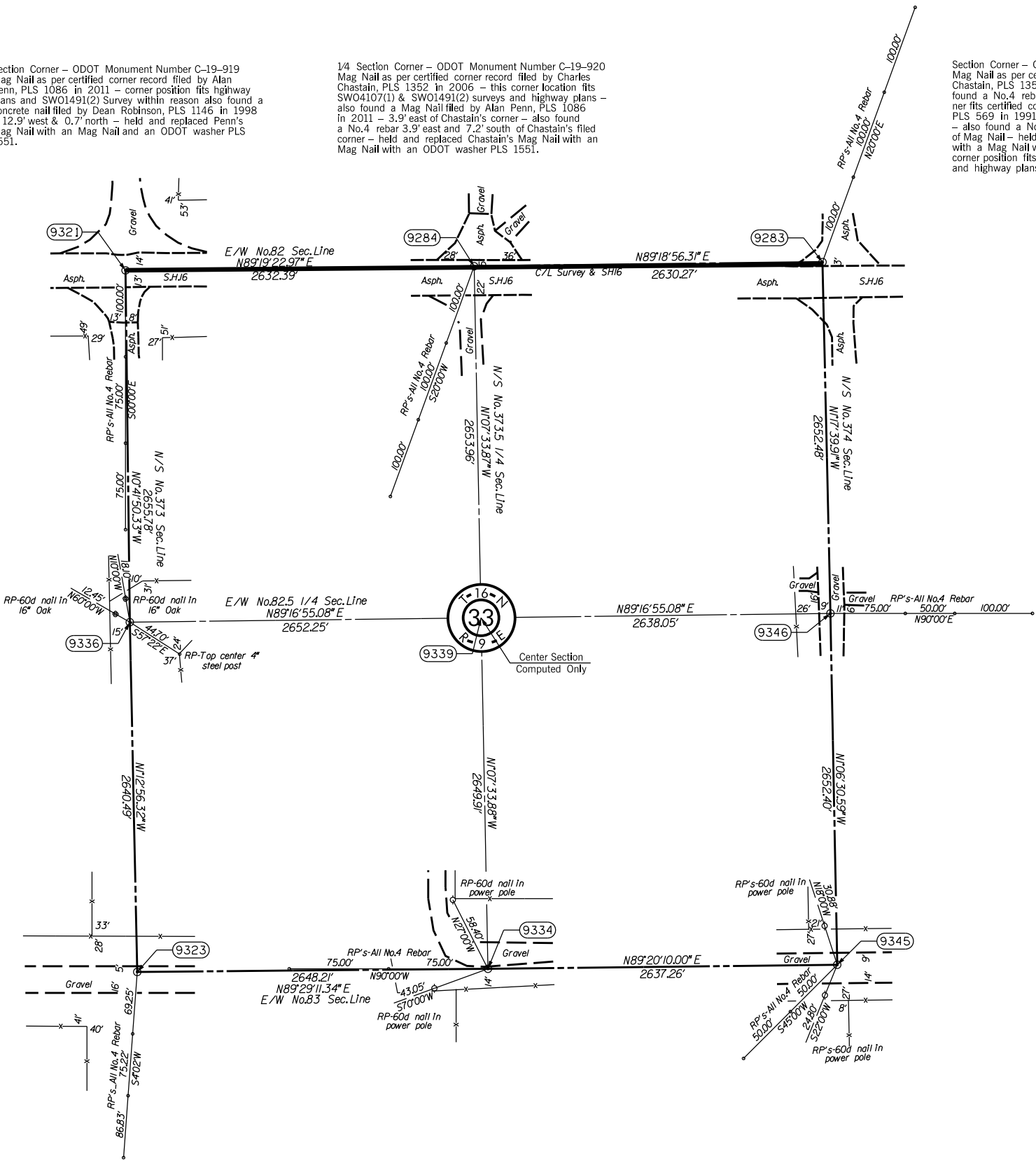
Section Corner – ODOT Monument Number C-19-919
Mag Nail as per certified corner record filed by Alan Penn, PLS 1086 in 2011 – corner position fits highway plans and SW01491(2) Survey within reason also found a concrete nail filed by Dean Robinson, PLS 1146 in 1998 – 12.9' west & 0.7' north – held and replaced Penn's Mag Nail with an Mag Nail and an ODOT washer PLS 1551.

1/4 Section Corner – ODOT Monument Number C-19-920
Mag Nail as per certified corner record filed by Charles Chastain, PLS 1352 in 2006 – this corner location fits SW04107(1) & SW01491(2) surveys and highway plans – also found a Mag Nail filed by Alan Penn, PLS 1086 in 2011 – 3.9' east of Chastain's corner – also found a No.4 rebar 3.9' east and 7.2' south of Chastain's filed corner – held and replaced Chastain's Mag Nail with an Mag Nail with an ODOT washer PLS 1551.

Section Corner – ODOT Monument Number C-19-921
Mag Nail as per certified corner record filed by Charles Chastain, PLS 1352 in 2006 found in place – also found a No.4 rebar 9.5' east of Mag Nail this corner fits certified corner record filed by Virgil Rogers, PLS 569 in 1991 & Alan Penn, PLS 1086 in 1991 – also found a No.4 rebar 9.5' east & 14.7' south of Mag Nail – held and replaced Chastain's Mag Nail with a Mag Nail with ODOT washer PLS 1551 – this corner position fits SW04107(1) & SW01491(2) Survey and highway plans.

1/4 Section Corner – ODOT Monument Number C-19-928
No.4 rebar as per certified corner record filed by Charles Chastain, PLS 1352 in 2006 found and used this survey also used under SW04107(1) survey.

1/4 Section Corner – ODOT Monument Number C-19-929
No.4 rebar as per certified corner record filed by Peter Kilian, PLS 1495 in 1999 & by Charles Chastain, PLS 1352 in 2006 found and used this survey – also used under SW04107(1) survey.



Section Corner – ODOT Monument Number C-19-675
ODOT 2" Brass Cap established by Ronald Seim, PLS 1365 in 1994 under SW03107(1) Survey found and used this survey.

1/4 Section Corner – ODOT Monument Number C-19-932
No.4 rebar as per certified corner record filed by Alan Penn, PLS 1086 in 1998 & 2003 and by Charles Chastain, PLS 1352 in 2006 found and used this survey – also used under SW04107(1) survey.

Section Corner – ODOT Monument Number C-19-933
No.6 rebar as per certified corner record filed by Alvan Penn, PLS 1086 in 1991 and by Charles Chastain, PLS 1352 in 2006 found and used this survey – also used under SW04107(1) survey.



SCALE:
1" = 500'

NOTE: REFERENCE'S SHOWN ARE NOT TO SCALE.

PLS		DEA	OKLAHOMA DEPARTMENT OF TRANSPORTATION		
DRAWN		DEA	SURVEY DIVISION		
CHECKED			SURVEY DATA SHEET		
APPROVED		LGW			
CREW		Tecumseh			
SWO 4861 (1)		PROJECT NO. 29682(04)	SHEET NO. 5026		

Section Corner – ODOT Monument Number C-19-921
Mag Nail as per certified corner record filed by Charles Chastain, PLS 1352 in 2006 found in place – also found a No.4 rebar 9.5' east of Mag Nail this corner fits certified corner record filed by Virgil Rogers, PLS 569 in 1991 & Alan Penn, PLS 1086 in 1991 – also found a No.4 rebar 9.5' east & 14.7' south of Mag Nail – held and replaced Chastain's Mag Nail with a Mag Nail with ODOT washer PLS 1551 – this corner position fits SWO4107(1) & SWO1491(2) Survey and highway plans.

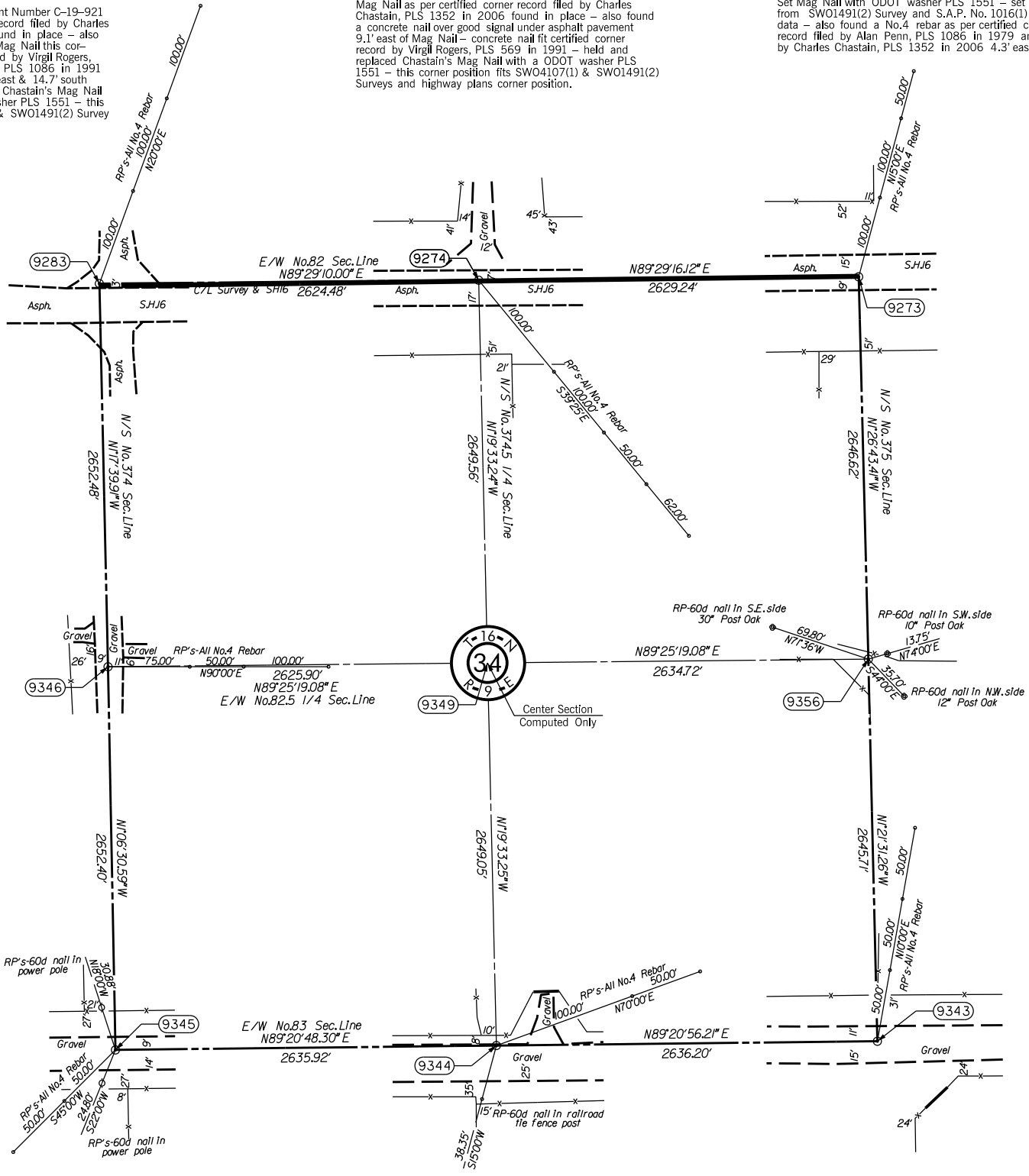
1/4 Section Corner – ODOT Monument Number C-19-922
Mag Nail as per certified corner record filed by Charles Chastain, PLS 1352 in 2006 found in place – also found a concrete nail over good signal under asphalt pavement 9.1' east of Mag Nail – concrete nail fit certified corner record by Virgil Rogers, PLS 569 in 1991 – held and replaced Chastain's Mag Nail with a ODOT washer PLS 1551 – this corner position fits SWO4107(1) & SWO1491(2) Surveys and highway plans corner position.

Section Corner – ODOT Monument Number C-19-923
Set Mag Nail with ODOT washer PLS 1551 – set from SWO1491(2) Survey and S.A.P. No. 1016(1) plan data – also found a No.4 rebar as per certified corner record filed by Alan Penn, PLS 1086 in 1979 and also by Charles Chastain, PLS 1352 in 2006 4.3' east.

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
DESCRIPTION		REVISIONS		DATE	

1/4 Section Corner – ODOT Monument Number C-19-929
No.4 rebar as per certified corner record filed by Peter Killian, PLS 1495 in 1999 & by Charles Chastain, PLS 1352 in 2006 found and used this survey – also used under SWO4107(1) survey.

1/4 Section Corner – ODOT Monument Number C-19-930
No.6 rebar as per certified corner record filed by Alan Penn, PLS 1086 in 1998 and by Charles Chastain, PLS 1352 in 2006 found and used this survey – also used under SWO4107(1) survey.



SCALE:
1"=500'

NOTE: REFERENCE'S SHOWN ARE NOT TO SCALE.

Section Corner – ODOT Monument Number C-19-933
No.4 rebar as per certified corner record filed by Alan Penn, PLS 1086 in 1991 and by Charles Chastain, PLS 1352 in 2006 found and used this survey – also used under SWO4107(1) survey.

1/4 Section Corner – ODOT Monument Number C-19-934
No.4 rebar as per certified corner record filed by Alan Penn, PLS 1086 in 1991 & by Charles Chastain, PLS 1352 in 2006 found and used this survey – also used under SWO4107(1) survey.

Section Corner – ODOT Monument Number C-19-935
No.4 rebar as per certified corner record filed by Alan Penn, PLS 1086 in 1979 and also filed by Charles, Chastain, PLS 11352 in 2006 found and used this survey – also used under SWO4107(1) survey.

PLS		DEA	OKLAHOMA DEPARTMENT OF TRANSPORTATION		
DRAWN		DEA	SURVEY DIVISION		
CHECKED			SURVEY DATA SHEET		
APPROVED		LGW			
CREW		Tecumseh			
SWO 4861 (1)			PROJECT NO. 29682(04) SHEET NO. 5027		

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
DESCRIPTION		REVISIONS		DATE	

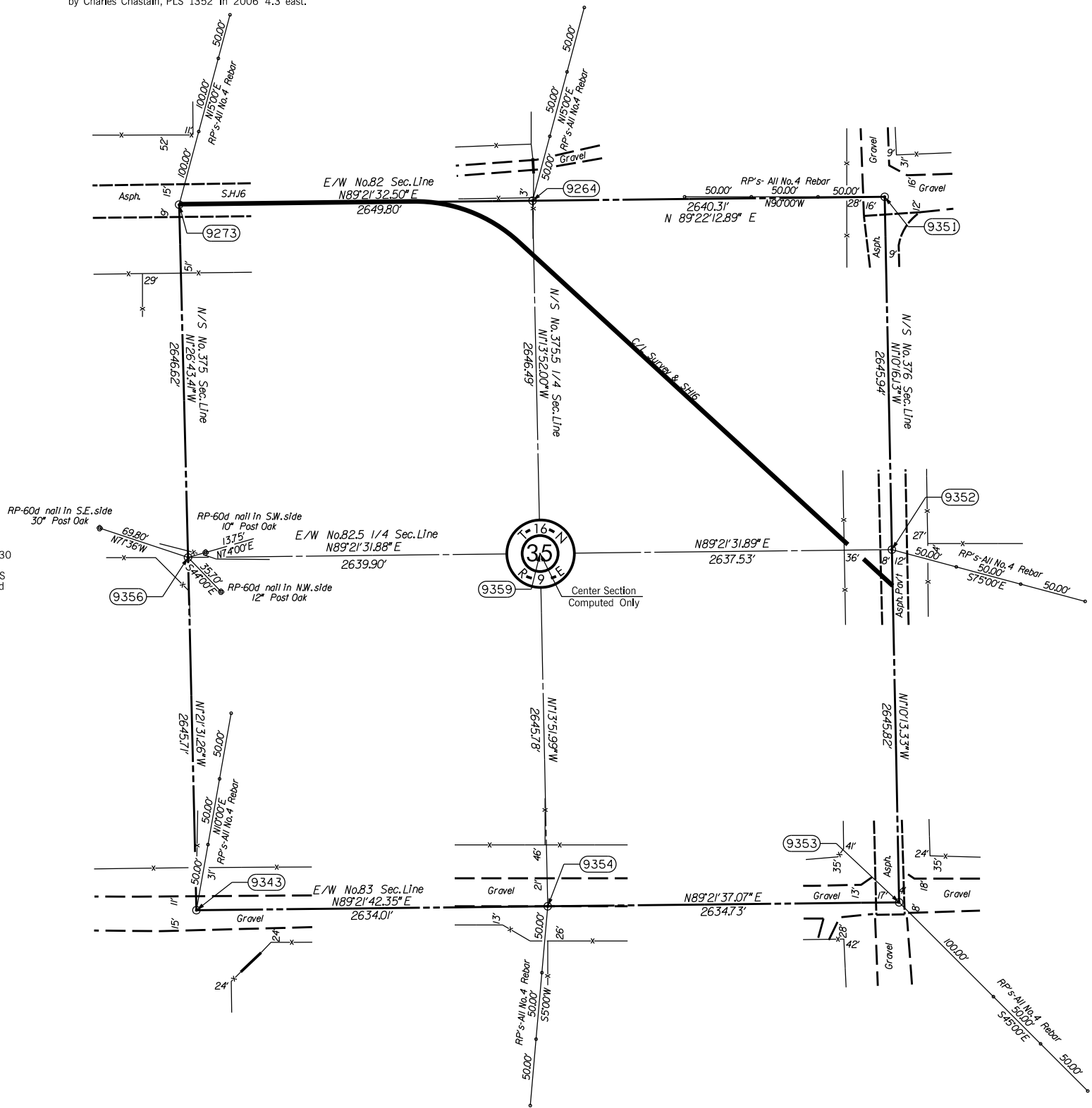
1/4 Section Corner – ODOT Monument Number C-19-930
No.6 rebar as per certified corner record filed by Alan Penn, PLS 1086 in 1998 and by Charles Chastain, PLS 1352 in 2006 found and used this survey – also used under SW04107(1) survey.

Section Corner – ODOT Monument Number C-19-923
Set Mag Nail with ODOT washer PLS 1551 – set from SW01491(2) Survey and S.A.P. No. 1016(1) plan data – also found a No.4 rebar as per certified corner record filed by Alan Penn, PLS 1086 in 1979 and also by Charles Chastain, PLS 1352 in 2006 4.3' east.

1/4 Section Corner – ODOT Monument Number C-19-924
No.4 rebar as per certified corner record filed by Alan Penn, PLS 1086 in 1979 & by Charles Chastain, PLS 1352 in 2006 found and used this survey – also used under SW04107(1) survey.

Section Corner – ODOT Monument Number C-19-925
No.4 rebar as per certified corner record filed by Alan Penn, PLS 1086 in 1986 found and used this survey.

1/4 Section Corner – ODOT Monument Number C-19-931
No.4 rebar as per certified corner record filed by Peter Killian, PLS 1495 in 1999 found and used this survey.



SCALE:
1" = 500'

NOTE: REFERENCE'S SHOWN ARE NOT TO SCALE.

Section Corner – ODOT Monument Number C-19-935
No.4 rebar as per certified corner record filed by Alan Penn, PLS 1086 in 1979 and also filed by Charles Chastain, PLS 11352 in 2006 found and used this survey – also used under SW04107(1) survey.

1/4 Section Corner – ODOT Monument Number C-19-936
No.4 rebar as per certified corner record filed by Peter Killian, PLS 1495 in 1999 found and used this survey.

Section Corner – ODOT Monument Number C-19-937
No.4 rebar as per certified corner record filed by Alvin Penn, PLS 344 in 1979 and also filed by Peter Killian, PLS 1495 in 1999 found and used this survey.

OKLAHOMA DEPARTMENT OF TRANSPORTATION			SURVEY DATA SHEET
PLS	DEA		
DRAWN	DEA		
CHECKED			
APPROVED	LGW		
CREW	Tecumseh	SWO 4861 (1)	PROJECT NO. 29682(04) SHEET NO. S028

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
DESCRIPTION		REVISIONS		DATE	

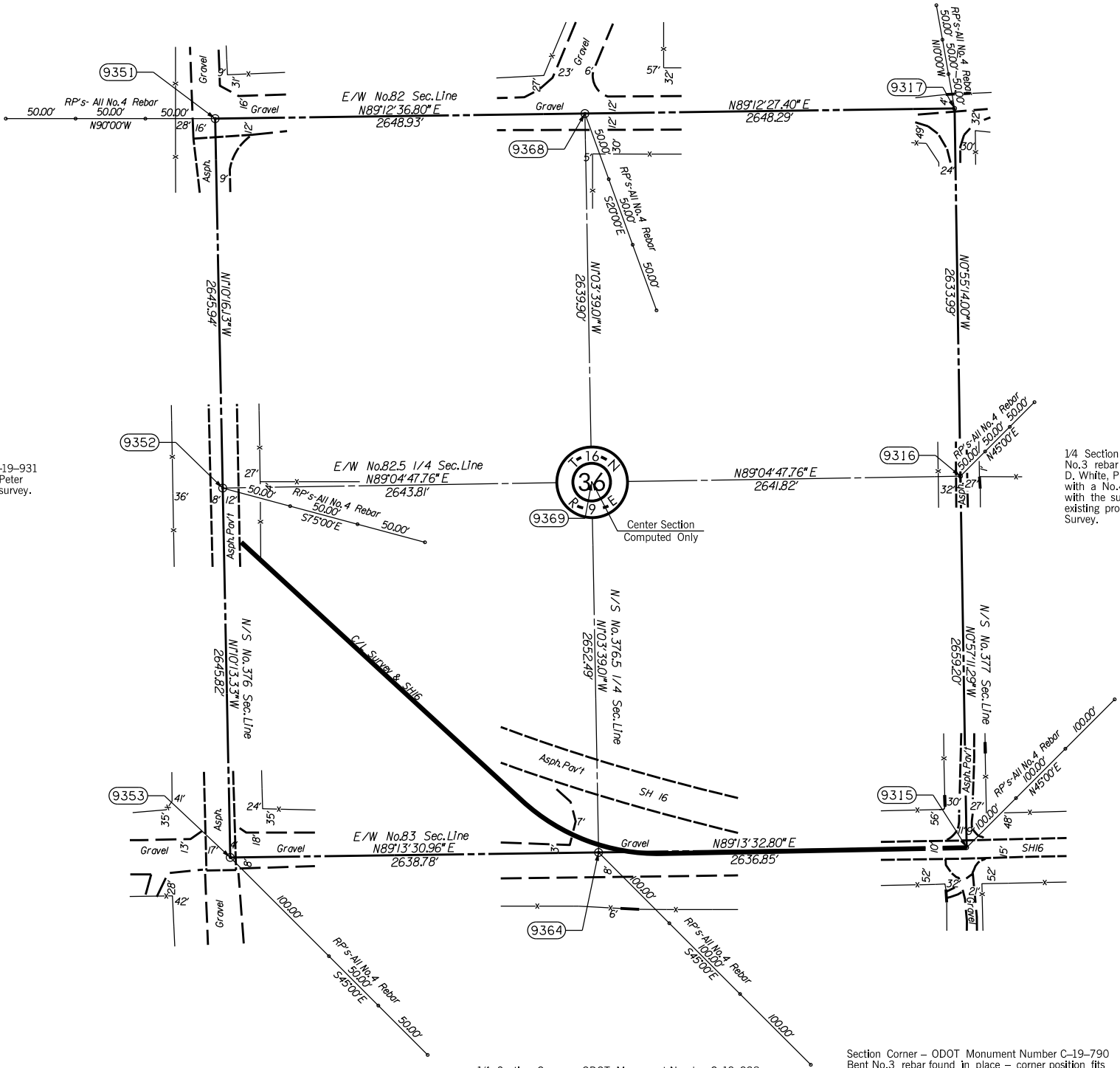
Section Corner – ODOT Monument Number C-19-925
No.4 rebar as per certified corner record filed by Alan Penn, PLS 1086 in 1986 found and used this survey.

1/4 Section Corner – ODOT Monument Number C-19-926
No.4 rebar as per certified corner record filed by Alan Penn, PLS 1086 in 1986 found and used this survey – also found a 1 1/4" pin filed by David White, PLS 93 in 1980 – 7.8' east & 6.2' north of corner held.

Section Corner – ODOT Monument Number C-19-785
Bent No.4 rebar as per certified corner record filed by David D. White, PLS 93 and filed by Alan M. Penn, PLS 1086 found in place corner position fits ties to corners 1.0 mile north, south, east & west – replaced with a No.4 rebar with ODOT plastic cap PLS 1551 – corner used under SW04525(1) Survey.

1/4 Section Corner – ODOT Monument Number C-19-931
No.4 rebar as per certified corner record filed by Peter Killian, PLS 1495 in 1999 found and used this survey.

1/4 Section Corner – ODOT Monument Number C-19-788
No.3 rebar as per certified corner record filed by David D. White, PLS 93 found and used this survey – replaced with a No.4 rebar with ODOT plastic cap PLS 1551 flush with the surface asph. pav't – corner position fits ties to existing property lines – corner used under SW04525(1) Survey.



SCALE:
1" = 500'

NOTE: REFERENCE'S SHOWN ARE NOT TO SCALE.

Section Corner – ODOT Monument Number C-19-937
No.4 rebar as per certified corner record filed by Alvin Penn, PLS 344 in 1979 and also filed by Peter Killian, PLS 1495 in 1999 found and used this survey.

1/4 Section Corner – ODOT Monument Number C-19-938
No.6 rebar as per certified corner record filed by Jerry Headrick, PLS 873 in 2002 found and used this survey.

Section Corner – ODOT Monument Number C-19-790
Bent No.3 rebar found in place – corner position fits U.S.P.W. project No. NRS 384-A plans – U.S.P.W. project No. NRS 384-B plans and SAP No. 1016(1) plans & corner position as per certified corner record by Alvin Penn, PLS 344 – replaced with a No.4 rebar with ODOT plastic cap PLS 1551 flush with surface asph. pav't. – corner used under SW04525(1) Survey.

PLS		DEA	OKLAHOMA DEPARTMENT OF TRANSPORTATION		
DRAWN		DEA	SURVEY DIVISION		
CHECKED			SURVEY DATA SHEET		
APPROVED		LGW			
CREW		Tecumseh			
			SWO 4861 (1)	PROJECT NO. 29682(04)	SHEET NO. 5029

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
DESCRIPTION		REVISIONS		DATE	

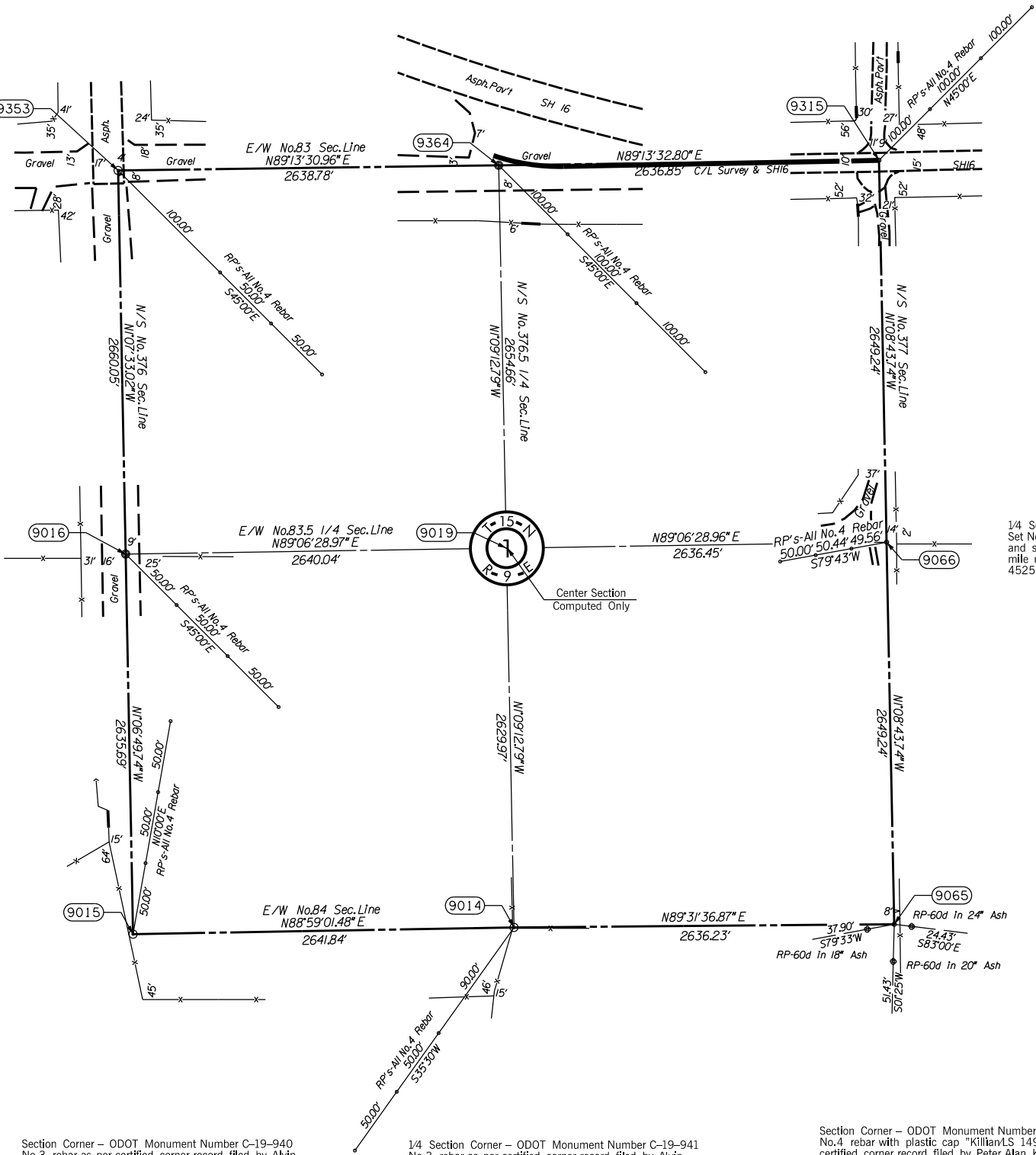
Section Corner – ODOT Monument Number C-19-937
No.4 rebar as per certified corner record filed by Alvin Penn, PLS 344 in 1979 and also filed by Peter Killian, PLS 1495 in 1999 found and used this survey.

1/4 Section Corner – ODOT Monument Number C-19-938
No.6 rebar as per certified corner record filed by Jerry Headrick, PLS 873 in 2002 found and used this survey.

Section Corner – ODOT Monument Number C-19-790
Bent No.3 rebar found in place – corner position fits U.S.P.W. project No. NRS 384-A plans – U.S.P.W. project No. NRS 384-B plans and SAP No. 1016(1) plans & corner position as per certified corner record by Alvin Penn, PLS 344 – replaced with a No.4 rebar with ODOT plastic cap PLS 1551 flush with surface asph. pavt. – corner used under SWO4525(1) Survey.

1/4 Section Corner – ODOT Monument Number C-19-939
No.3 rebar as per certified corner record filed by Alvin Penn, PLS 344 in 1979 found and used this survey.

1/4 Section Corner – ODOT Monument Number C-19-793
Set No.4 rebar with ODOT plastic cap PLS 1551 on line and single proportionate measurement between corners 0.5 mile north & 0.5 mile south – corner used under SWO 4525(1) Survey.



Section Corner – ODOT Monument Number C-19-940
No.3 rebar as per certified corner record filed by Alvin Penn, PLS 344 in 1979 found and used this survey.

1/4 Section Corner – ODOT Monument Number C-19-941
No.3 rebar as per certified corner record filed by Alvin Penn, PLS 344 in 1979 found and used this survey.

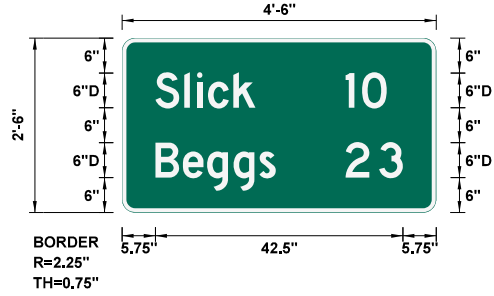
Section Corner – ODOT Monument Number C-19-795
No.4 rebar with plastic cap "KillianLS 1495" as per certified corner record filed by Peter Alan Killian, PLS 1495 found and used this survey – corner position fits ties to stone 0.5 mile south & corners 2.0 mile east & 1.0 mile west – corner used under SWO4525(1) Survey.



NOTE: REFERENCE'S SHOWN ARE NOT TO SCALE.

PLS		DEA	OKLAHOMA DEPARTMENT OF TRANSPORTATION		
DRAWN		DEA	SURVEY DIVISION		
CHECKED			SURVEY DATA SHEET		
APPROVED		LGW			
CREW		Tecumseh	SWO 4861 (1)	PROJECT NO. 29682(04)	SHEET NO. S030

REVISIONS		
NO.	DESCRIPTION	DATE



SPECIAL SIGN NO.	1
WIDTH x HIGHT.	4'-6" x 2'-6"
BORDER WIDTH	0.75"
CORNER RADIUS	2.25"
MOUNTING	Ground
SIGN AREA	11.25 Sq.Ft.
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White

[illegible]

Dimensions are in: inches.tenths

Letter locations are panel edge to lower left corner

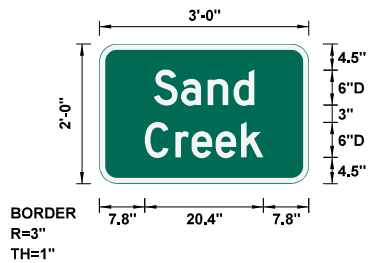
[illegible]

SPECIAL SIGN NO.	D1-1 (1 Dest - 2
WIDTH x HIGHT,	3'-6" x 1'-6"
BORDER WIDTH	0.75"
CORNER RADIUS	1.5"
MOUNTING	Ground
SIGN AREA	5.25 Sq.Ft.
BACKGROUND	TYPE: Reflective COLOR: Green
LEGEND/BORDER	TYPE: Reflective COLOR: White

[illegible]

Dimensions are in: inches.tenths

Letter locations are panel edge to lower left corner

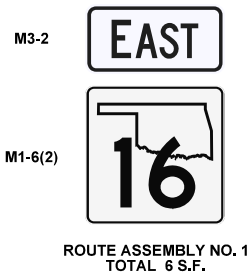
[illegible]

SPECIAL SIGN NO.	3
WIDTH x HIGHT.	3'-0" x 2'-0"
BORDER WIDTH	1"
CORNER RADIUS	3"
MOUNTING	Ground
SIGN AREA	6.0 Sq.Ft.
BACKGROUND	TYPE: Reflective COLOR: Green
LEGEND/BORDER	TYPE: Reflective COLOR: White

[illegible]

Dimensions are in: Inches.tenths

Letter locations are panel edge to lower left corner

[illegible]

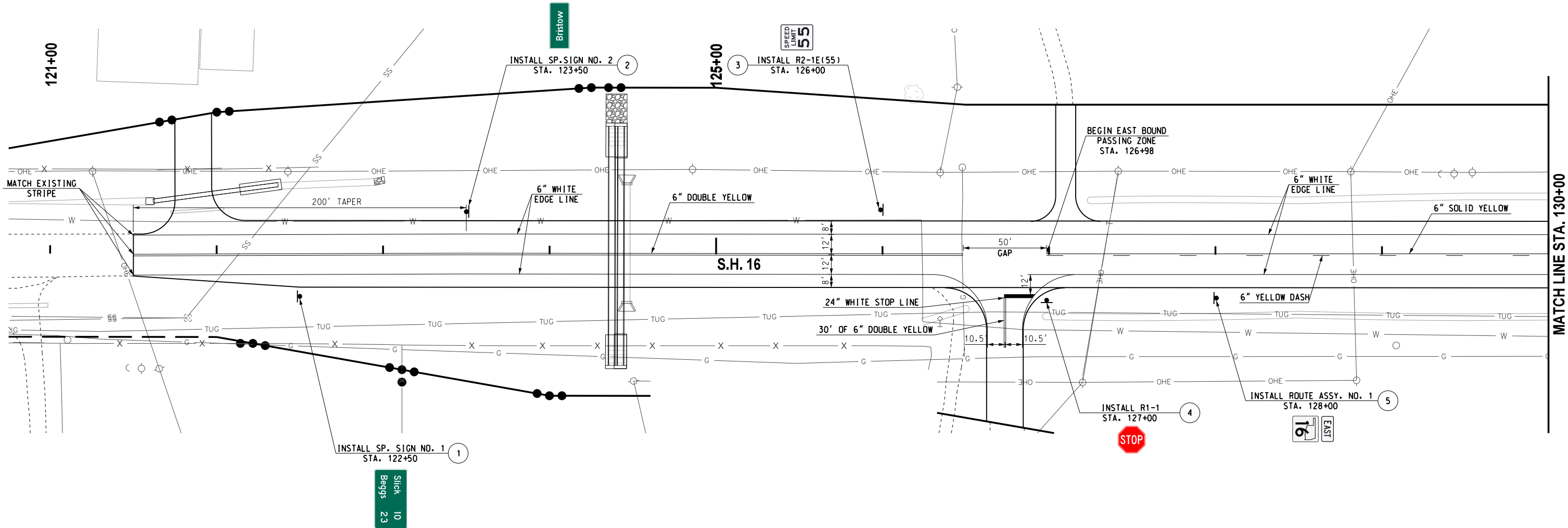
Design	RWR	01-27-22
Drawn	SB	01-27-22



SPECIAL SIGN DETAILS AND ROUTE ASSEMBLY

State Job No. 29682(04) Sheet No. T001

01-27-22 G:\01Projects\T-2898 01-2230 SH-16 over Sand Creek- Creek County, OK\CAD\T002-2968204-SIGN STRIPE Ldgn



REVISIONS		
NO.	DESCRIPTION	DATE

THERMO. PLASTIC STRIPING SUM. TABLE		
DESCRIPTION	UNIT	TOTALS
TRAFFIC STRIPE (PLASTIC) 4" WHITE	L.F.	0
TRAFFIC STRIPE (PLASTIC) 4" YELLOW	L.F.	0
TRAFFIC STRIPE (PLASTIC) 6" WHITE	L.F.	1730
TRAFFIC STRIPE (PLASTIC) 6" YELLOW	L.F.	1450
TRAFFIC STRIPE (PLASTIC) 6" BLACK	L.F.	0
TRAFFIC STRIPE (PLASTIC) 8" WHITE	L.F.	0
TRAFFIC STRIPE (PLASTIC) 8" YELLOW	L.F.	0
TRAFFIC STRIPE (PLASTIC) 12" WHITE	L.F.	0
TRAFFIC STRIPE (PLASTIC) 12" YELLOW	L.F.	0
TRAFFIC STRIPE (PLASTIC) 24" WHITE	L.F.	18
TRAFFIC STRIPE (PLASTIC) ARROWS	EA.	0
TRAFFIC STRIPE (PLASTIC) WORDS	EA.	0
TRAFFIC STRIPE (PLASTIC) SYMBOLS	EA.	0

FOR DIMENSIONS NOT SHOWN ON THE PLANS FOR PAVEMENT MARKING, REFERENCE SHALL BE MADE TO THE STANDARD O.D.O.T. DRAWINGS (LATEST REV.).

Design	RWR	01-27-22
Drawn	SB	01-27-22
TEC A CLEAR DIRECTION		

SIGN SUMMARY AND STRIPING PLAN (1 OF 2)

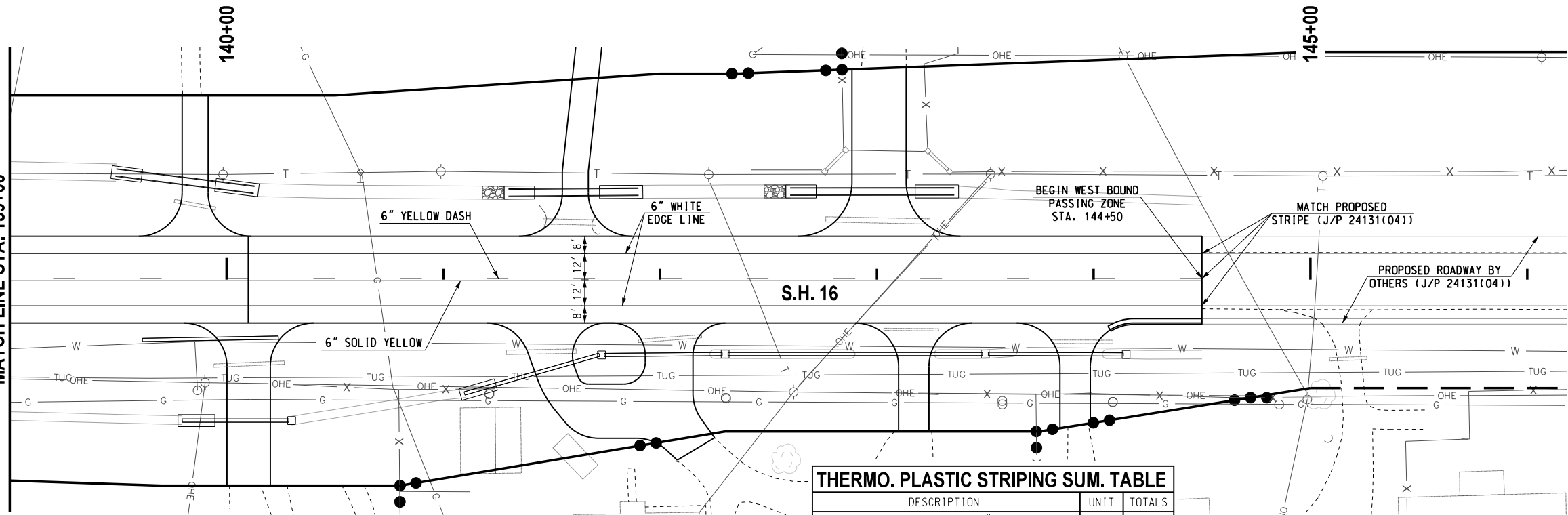
State Job No. 29682(04) Sheet No. T002

01-27-22 G:\01Projects\T-2898 01-2230 SH-16 over Sand Creek- Creek County, OK\CAD\T003-2968204-SIGN STRIPE 2.dgn



MATCH LINE STA. 139+00

MATCH LINE STA. 130+00



THERMO. PLASTIC STRIPING SUM. TABLE		
DESCRIPTION	UNIT	TOTALS
TRAFFIC STRIPE (PLASTIC) 4" WHITE	L.F.	0
TRAFFIC STRIPE (PLASTIC) 4" YELLOW	L.F.	0
TRAFFIC STRIPE (PLASTIC) 6" WHITE	L.F.	2900
TRAFFIC STRIPE (PLASTIC) 6" YELLOW	L.F.	1810
TRAFFIC STRIPE (PLASTIC) 6" BLACK	L.F.	0
TRAFFIC STRIPE (PLASTIC) 8" WHITE	L.F.	0
TRAFFIC STRIPE (PLASTIC) 8" YELLOW	L.F.	0
TRAFFIC STRIPE (PLASTIC) 12" WHITE	L.F.	0
TRAFFIC STRIPE (PLASTIC) 12" YELLOW	L.F.	0
TRAFFIC STRIPE (PLASTIC) 24" WHITE	L.F.	0
TRAFFIC STRIPE (PLASTIC) ARROWS	EA.	0
TRAFFIC STRIPE (PLASTIC) WORDS	EA.	0
TRAFFIC STRIPE (PLASTIC) SYMBOLS	EA.	0

FOR DIMENSIONS NOT SHOWN ON THE PLANS FOR PAVEMENT MARKING, REFERENCE SHALL BE MADE TO THE STANDARD O.D.O.T. DRAWINGS (LATEST REV.).

Design RWR 01-27-22
Drawn SB 01-27-22

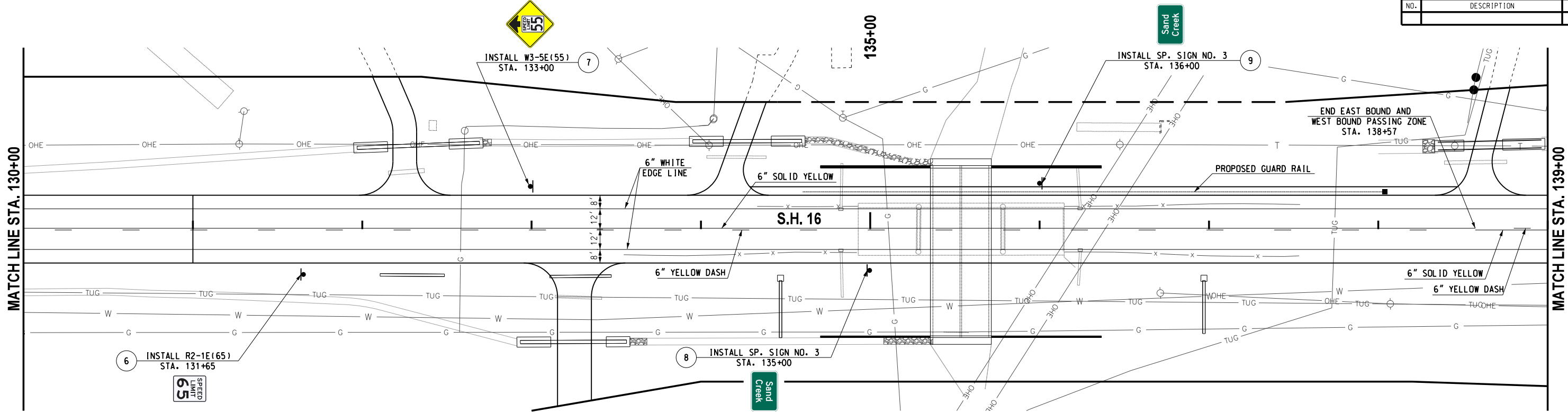


STRIPING PLAN (2 OF 2)

State Job No. 29682(04) Sheet No. T003

CREEK COUNTY

REVISIONS		
NO.	DESCRIPTION	DATE



01-27-22 G:\01Projects\T-2898 01-2230 SH-16 over Sand Creek- Creek County, OK\CAD\T004-2968204-PHASE 1ADV WARNING SIGNS.dgn



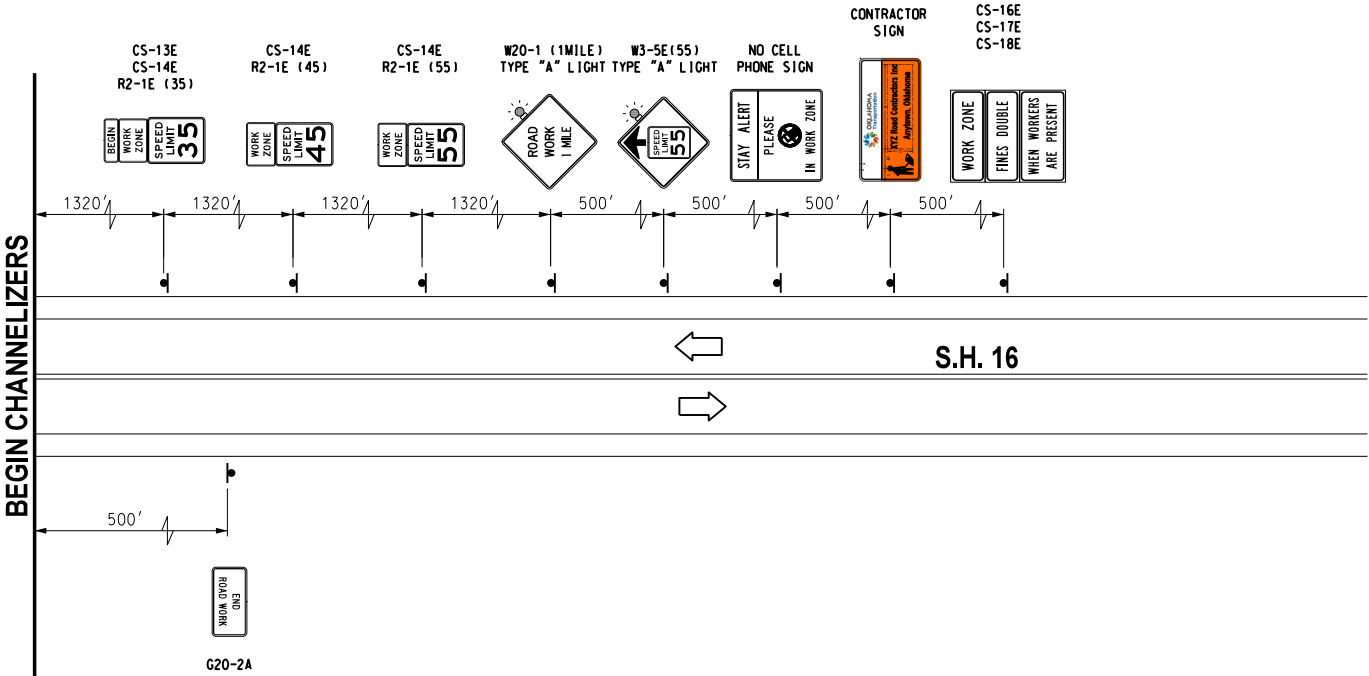
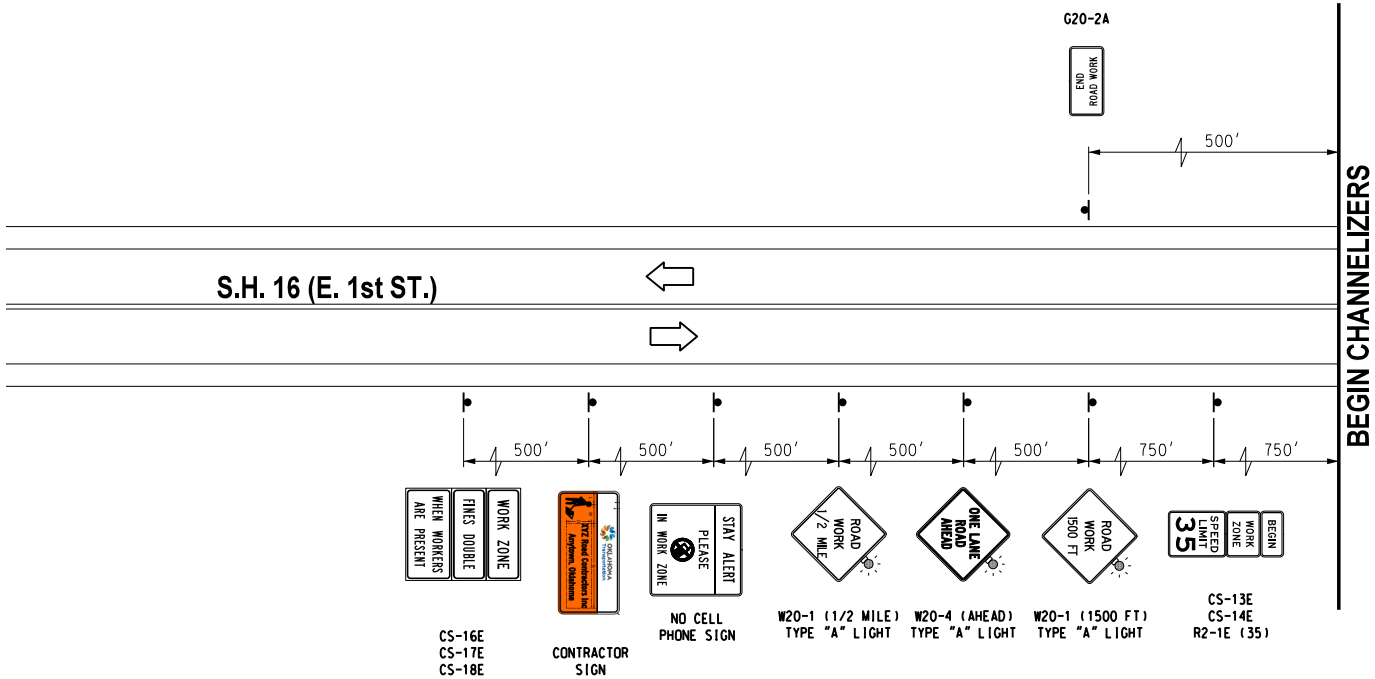
CONTRACTOR SIGN

FOR MORE INFORMATION AND SPECIFICATIONS SEE LINK BELOW:
<https://oklahoma.gov/content/dam/ok/en/odot/traffic/Contractor%20Sign%20-%20Color.pdf>



CONTRACTOR SUPPLEMENTAL PLAQUES

REVISIONS		
NO.	DESCRIPTION	DATE



DRAWING NOT TO SCALE

Design	RWR	01-27-22
Drawn	CCC	01-27-22



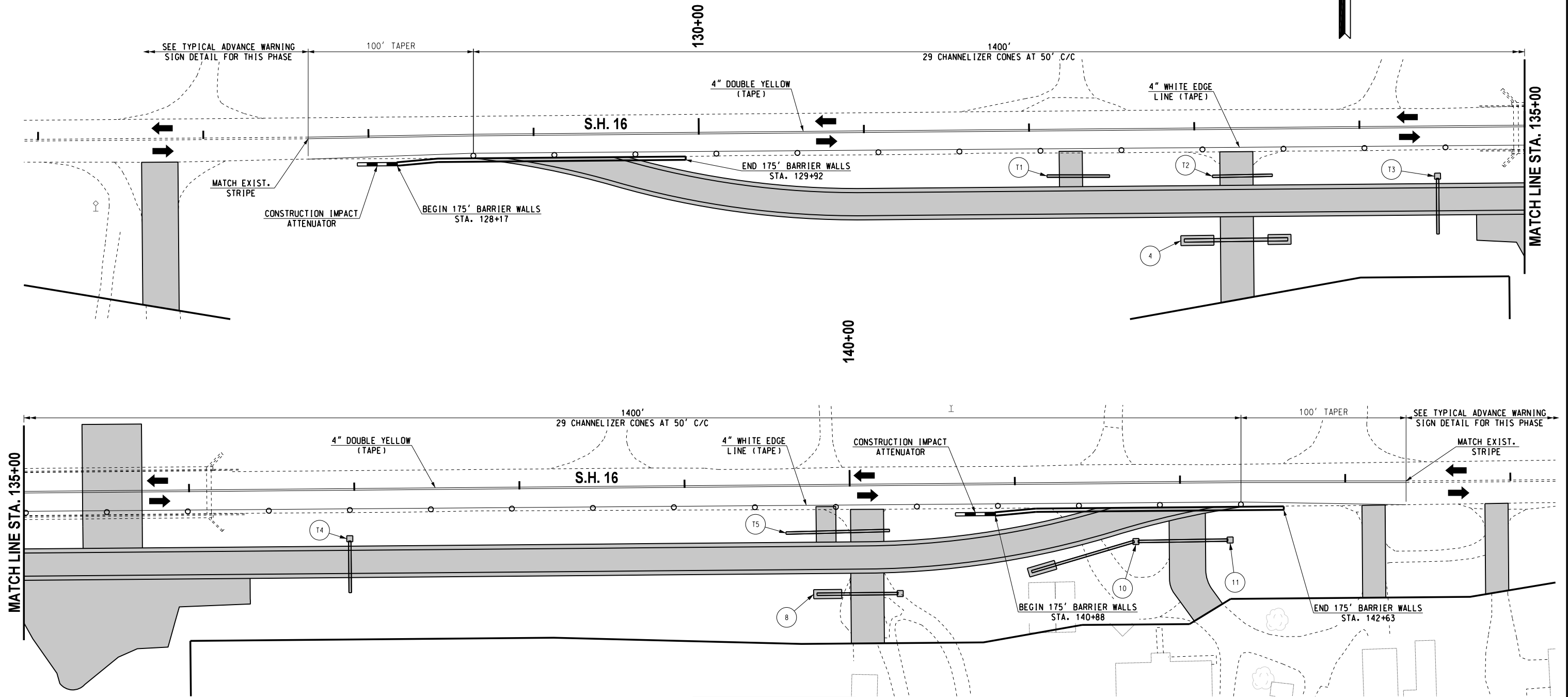
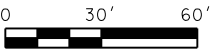
PHASE 1
TYPICAL ADVANCE WARNING SIGNS

State Job No. 29682(04) Sheet No. T004

01-27-22 G:\01Projects\T-2898 01-2230 SH-16 over Sand Creek- Creek County, OK\CAD\T005-2968204-TC PHASE 1.dgn

CONTRACTOR SHALL BUILD ALL
STREETS AND DRIVEWAYS HALF
AT A TIME AS TO ALLOW ACCESS,
AND SHALL MAINTAIN 11' MINIMUM
LANE WIDTHS.

REVISIONS		
NO.	DESCRIPTION	DATE



LEGEND	
	- TYPE III BARRICADE W/ TWO TYPE "A" LIGHTS
	- VERTICAL PANEL
	- DRUM
	- CHANNELIZER CONE
	- PORTABLE LONGITUDINAL BARRIER
	- CONSTRUCTION ZONE IMPACT ATTENUATOR
	- WORK AREA

Design	RWR	01-27-22
Drawn	TCC	01-27-22

**SH-16 TRAFFIC CONTROL
PHASE 1**

State Job No. 29682(04) Sheet No. T005

CREEK COUNTY

01-27-22 G:\V\Projects\T-2898 01-2230 SH-16 over Sand Creek- Creek County, OK\CAD\T006-2968204-PHASE 2 ADV. WARNING SIGNS.dgn



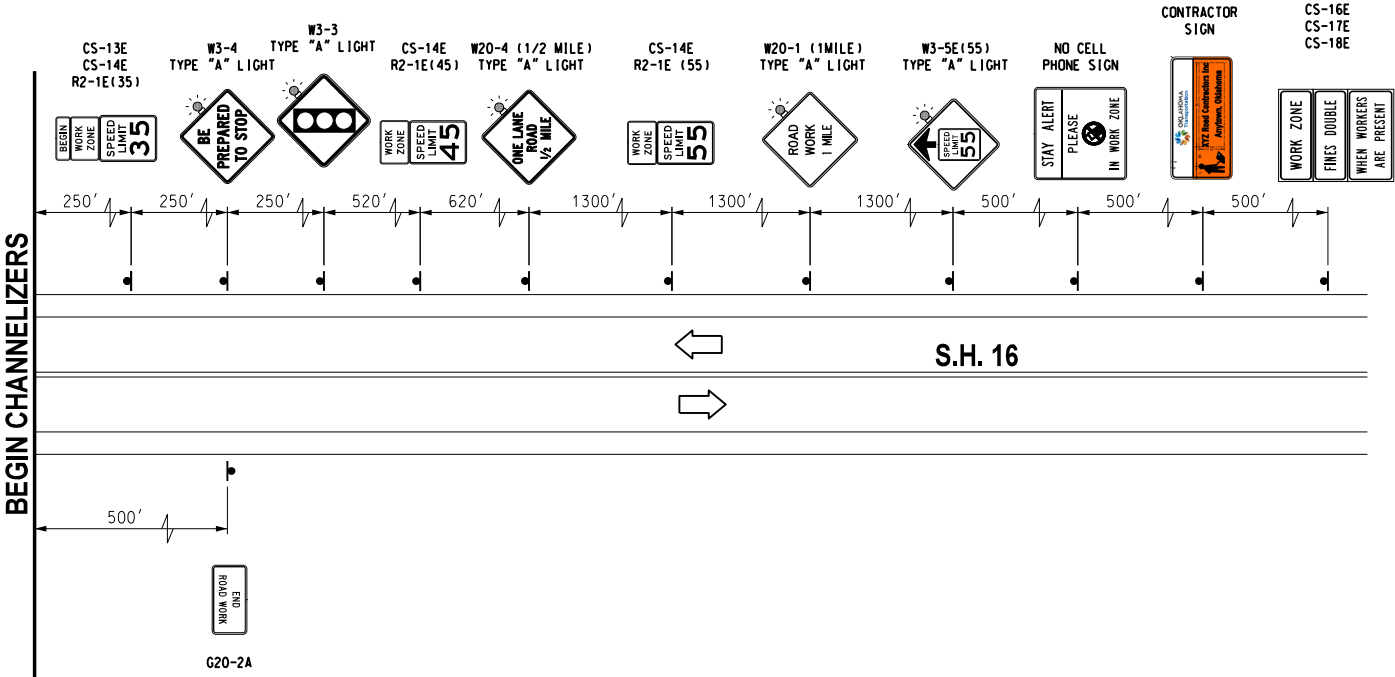
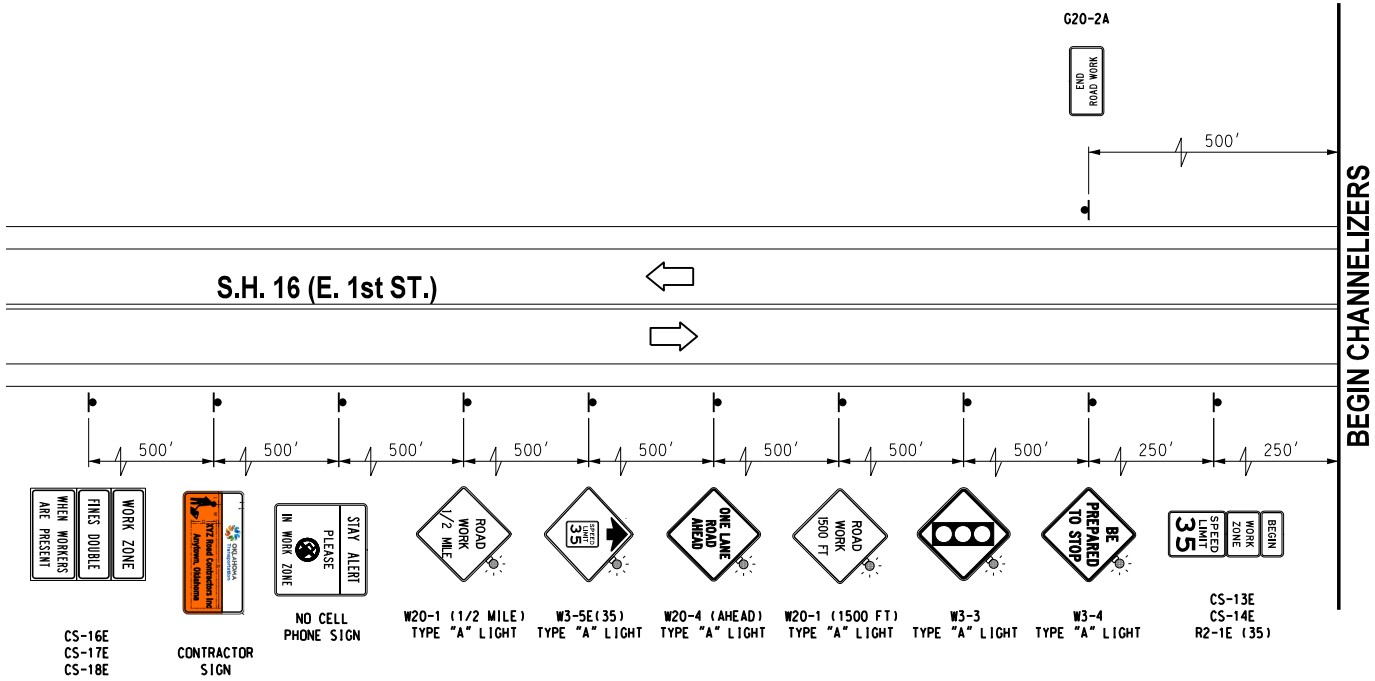
CONTRACTOR SIGN



CONTRACTOR SUPPLEMENTAL PLAQUES

FOR MORE INFORMATION AND SPECIFICATIONS SEE LINK BELOW:
<https://oklahoma.gov/content/dam/ok/en/odot/traffic/Contractor%20Sign%20-%20Color.pdf>

REVISIONS		
NO.	DESCRIPTION	DATE



DRAWING NOT TO SCALE

Design	RWR	01-27-22
Drawn	CCC	01-27-22



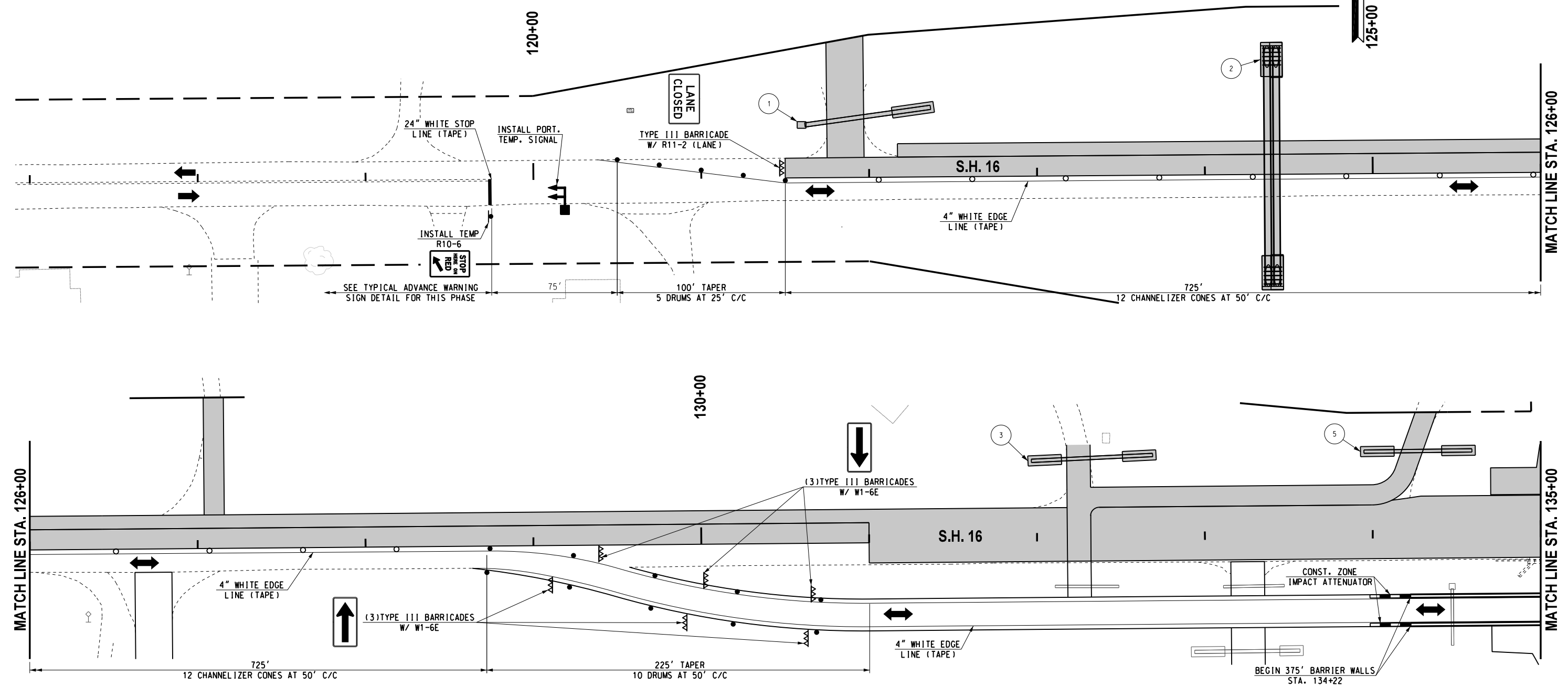
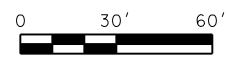
PHASE 2
TYPICAL ADVANCE WARNING SIGNS

State Job No. 29682(04) Sheet No. T006

01-27-22 G:\01Projects\T-2898 01-2230 SH-16 over Sand Creek- Creek County, OK\CAD\T007-2968204-TC PHASE 2.Ldgn

CONTRACTOR SHALL BUILD ALL
STREETS AND DRIVEWAYS HALF
AT A TIME AS TO ALLOW ACCESS,
AND SHALL MAINTAIN 11' MINIMUM
LANE WIDTHS.

REVISIONS		
NO.	DESCRIPTION	DATE



LEGEND	
	- TYPE III BARRICADE W/ TWO TYPE "A" LIGHTS
	- VERTICAL PANEL
	- DRUM
	- CHANNELIZER CONE
	- PORTABLE LONGITUDINAL BARRIER
	- CONSTRUCTION ZONE IMPACT ATTENUATOR
	- WORK AREA

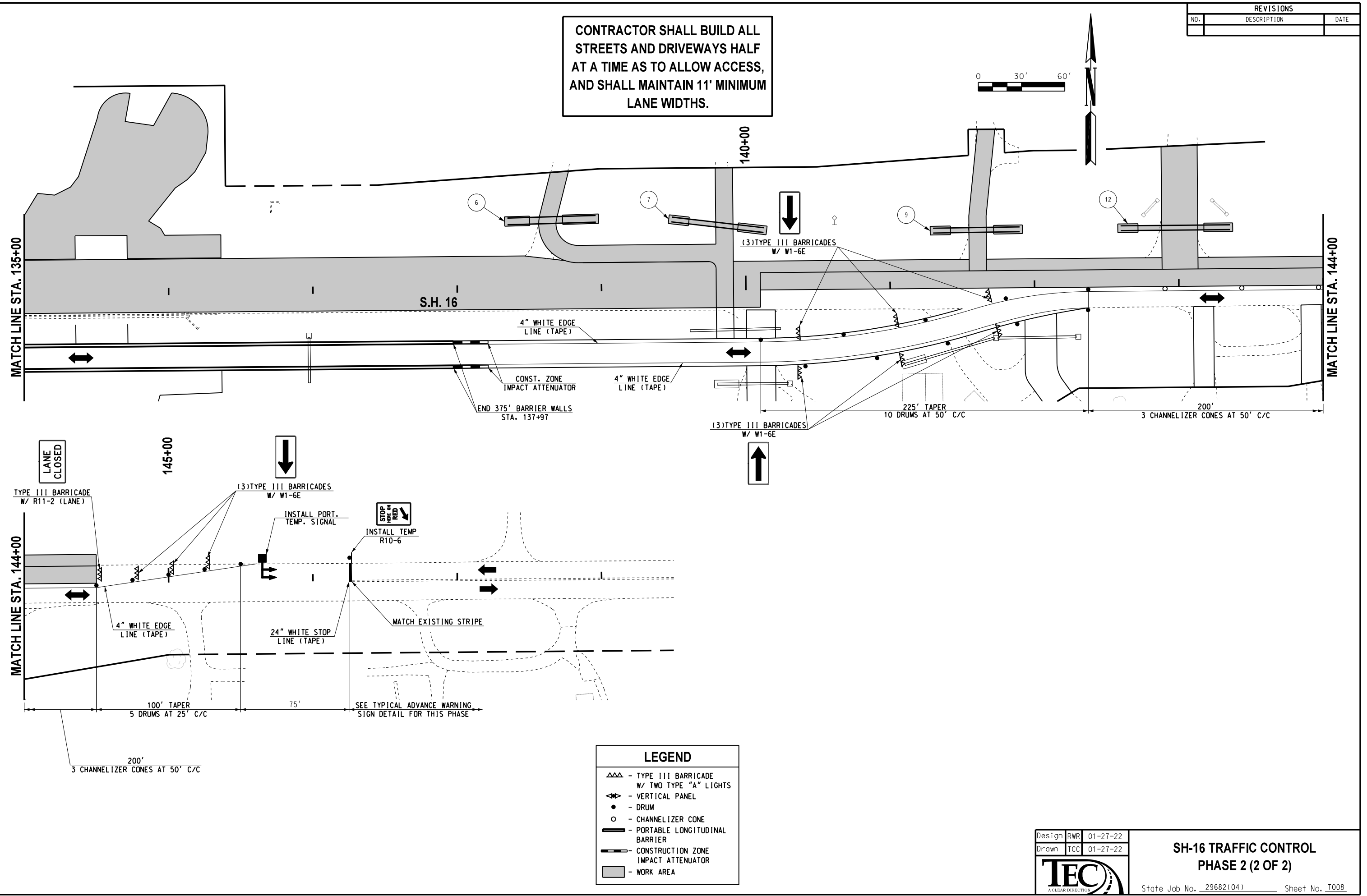
Design	RWR	01-27-22
Drawn	TCC	01-27-22

**SH-16 TRAFFIC CONTROL
PHASE 2 (1 OF 2)**

State Job No. 29682(04) Sheet No. T007

CREEK COUNTY

01-27-22 G:\01Projects\T-2898 01-2230 SH-16 over Sand Creek- Creek County, OK\CAD\T008-2968204-TC PHASE 2.dgn



01-27-22 G:\01Projects\T-2898 01-2230 SH-16 over Sand Creek- Creek County, OK\CAD\T009-2968204-PHASE 3 ADV. WARNING SIGNS.dgn



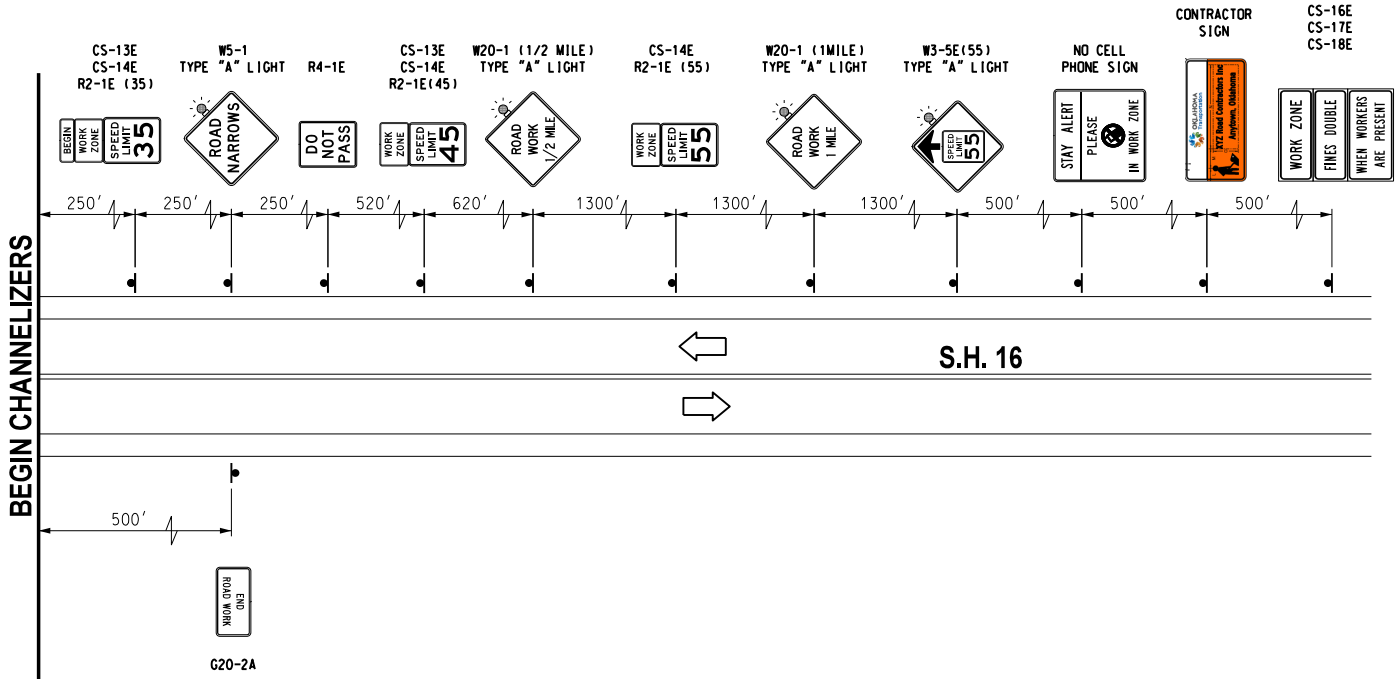
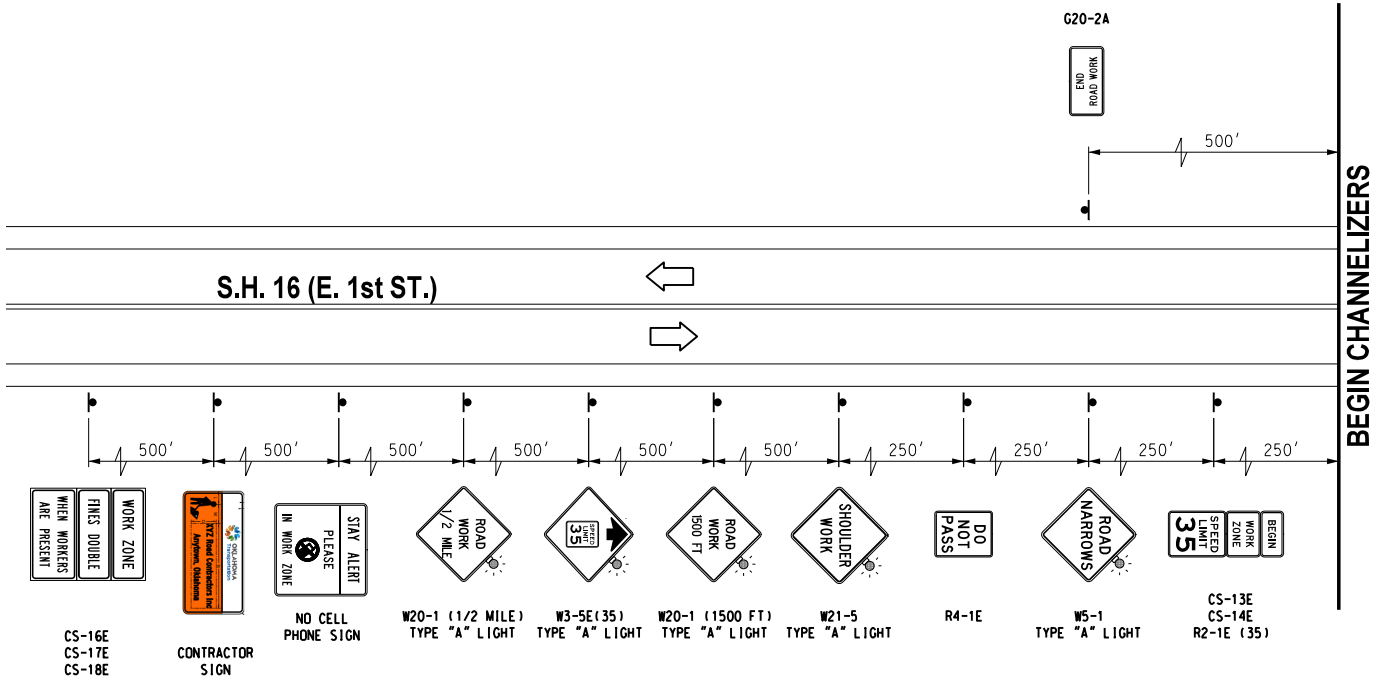
CONTRACTOR SIGN

FOR MORE INFORMATION AND SPECIFICATIONS SEE LINK BELOW:
<https://oklahoma.gov/content/dam/ok/en/odot/traffic/Contractor%20Sign%20-%20Color.pdf>



CONTRACTOR SUPPLEMENTAL PLAQUES

REVISIONS		
NO.	DESCRIPTION	DATE



DRAWING NOT TO SCALE

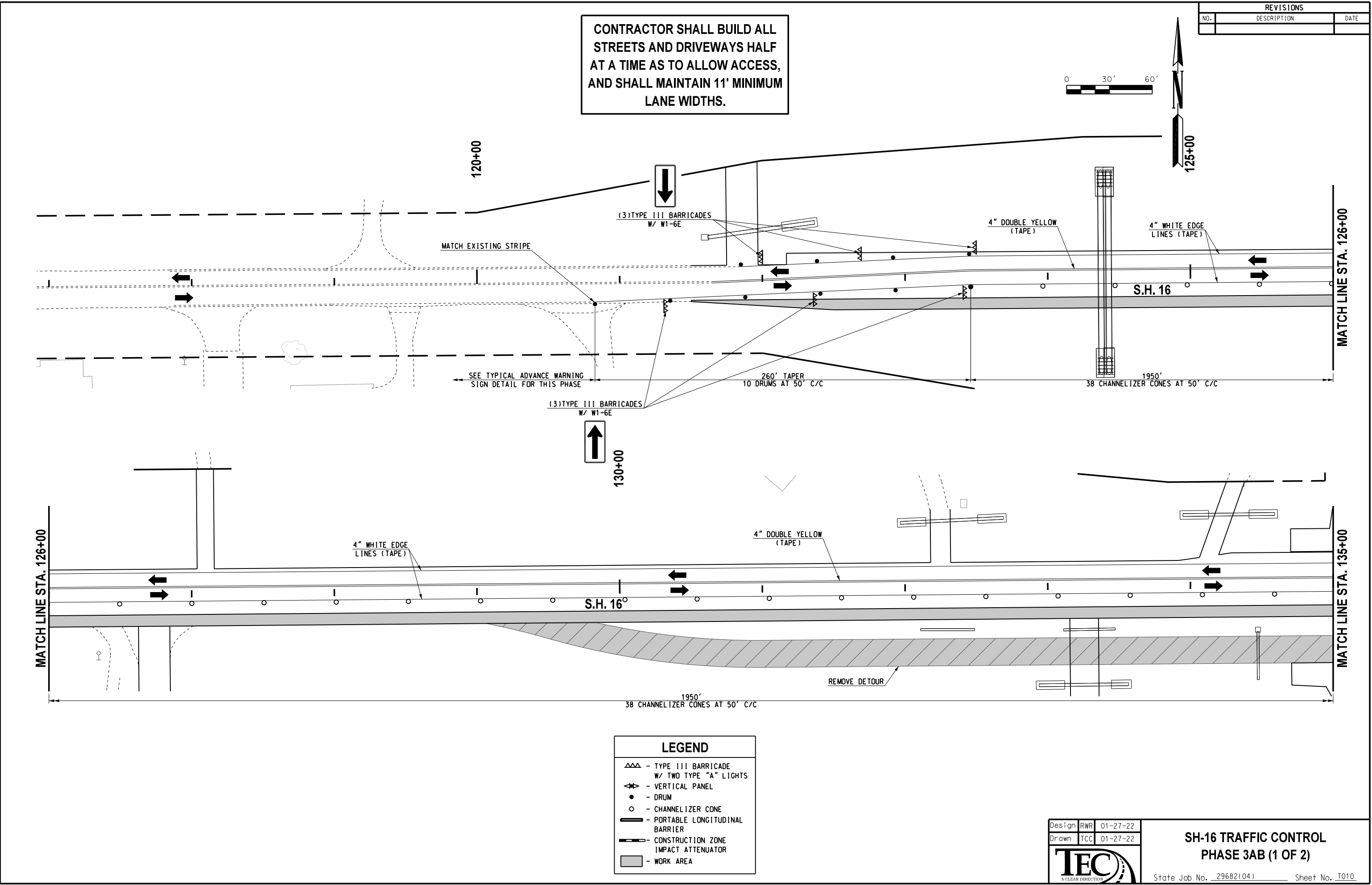
Design	RWR	01-27-22
Drawn	CCC	01-27-22



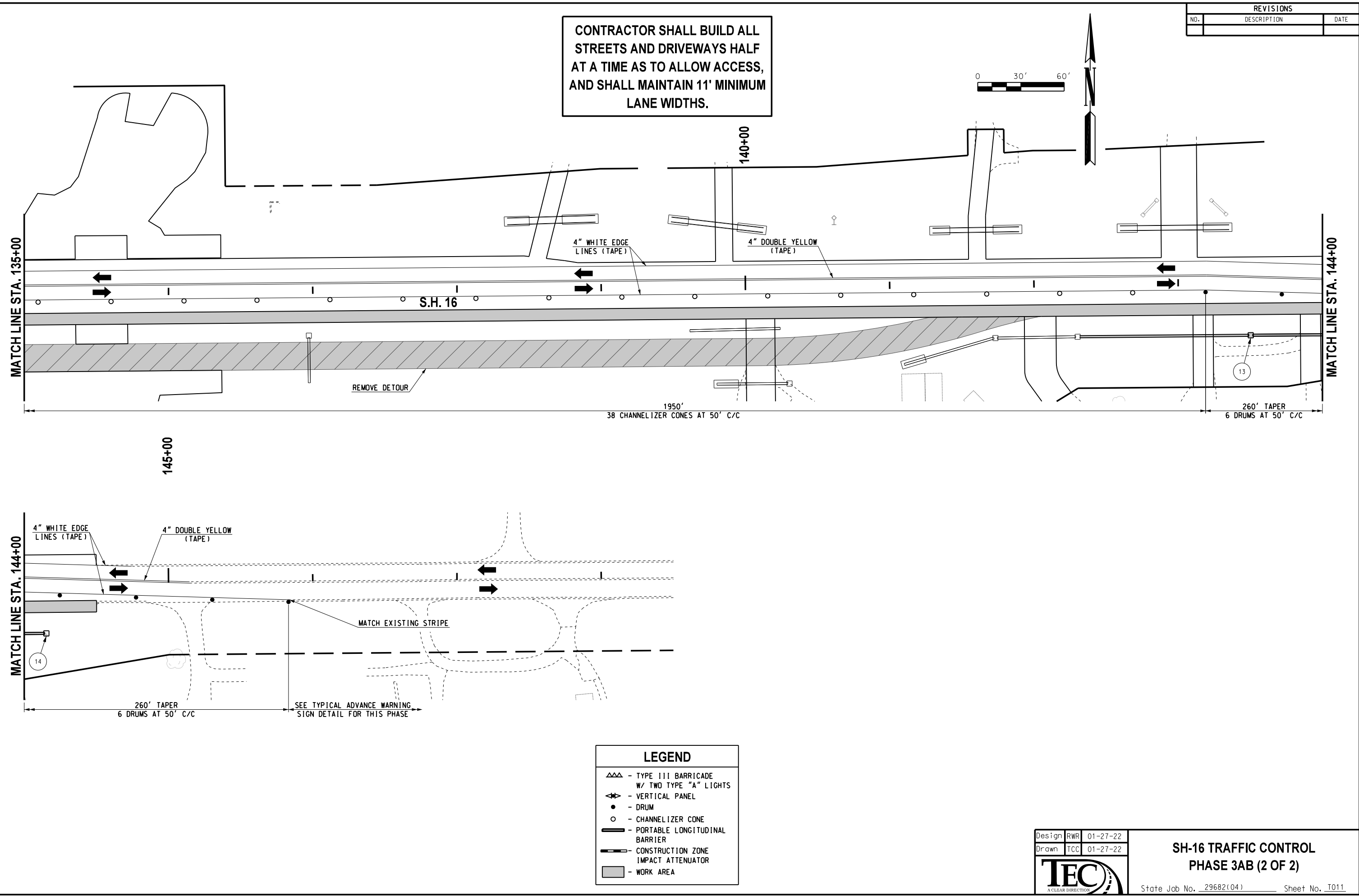
PHASE 3AB
TYPICAL ADVANCE WARNING SIGNS

State Job No. 29682(04) Sheet No. T009

01-27-22 G:\01Projects\T-2898 01-2230 SH-16 over Sand Creek- Creek County, OK\CAD\T010-2968204-TC PHASE 3.lcdn



01-27-22 G:\01Projects\T-2898 01-2230 SH-16 over Sand Creek- Creek County, OK\CAD\T01-2968204-TC PHASE 3.2.dgn

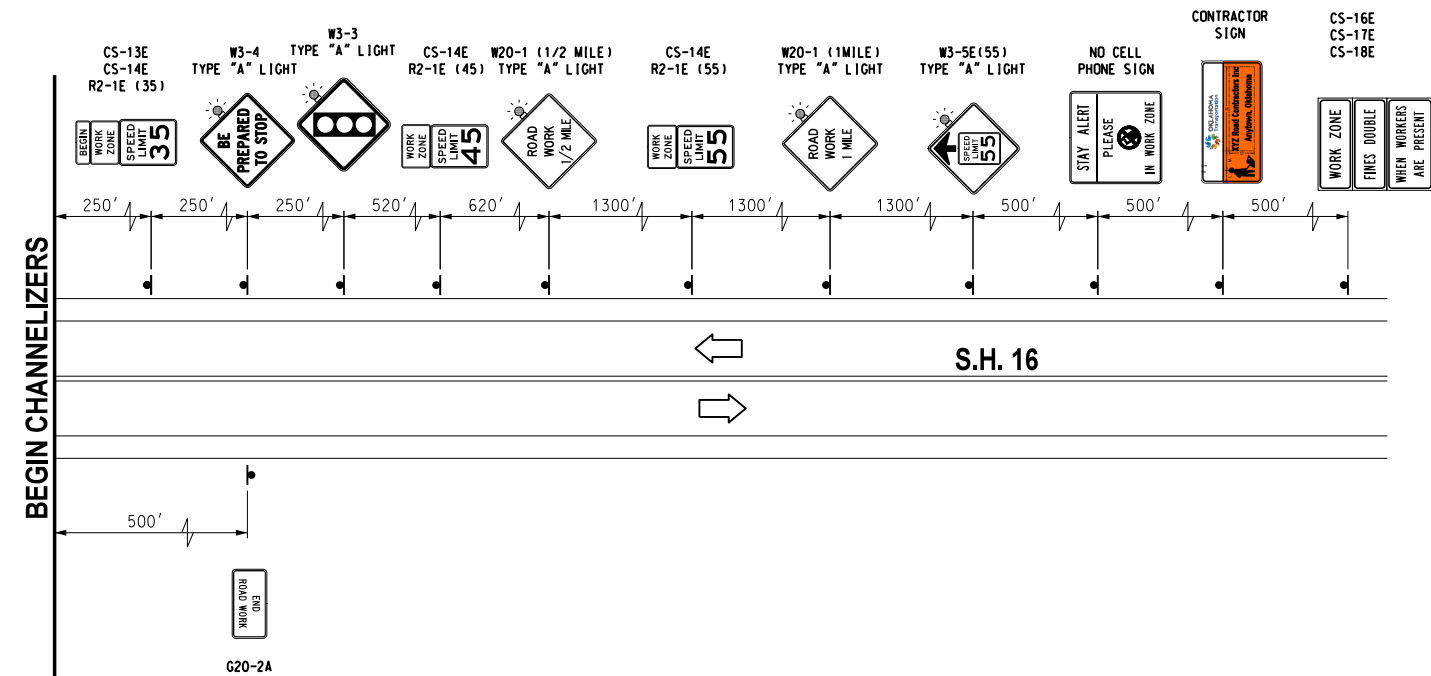




CONTRACTOR SUPPLEMENTAL PLAQUES

FOR MORE INFORMATION AND SPECIFICATIONS SEE LINK BELOW:
<https://oklahoma.gov/content/dam/ok/en/odot/traffic/Contractor%20Sign%20-%20Color.pdf>

REVISIONS		
NO.	DESCRIPTION	DATE



Design	RWR	01-27-22
Drawn	CCC	01-27-22



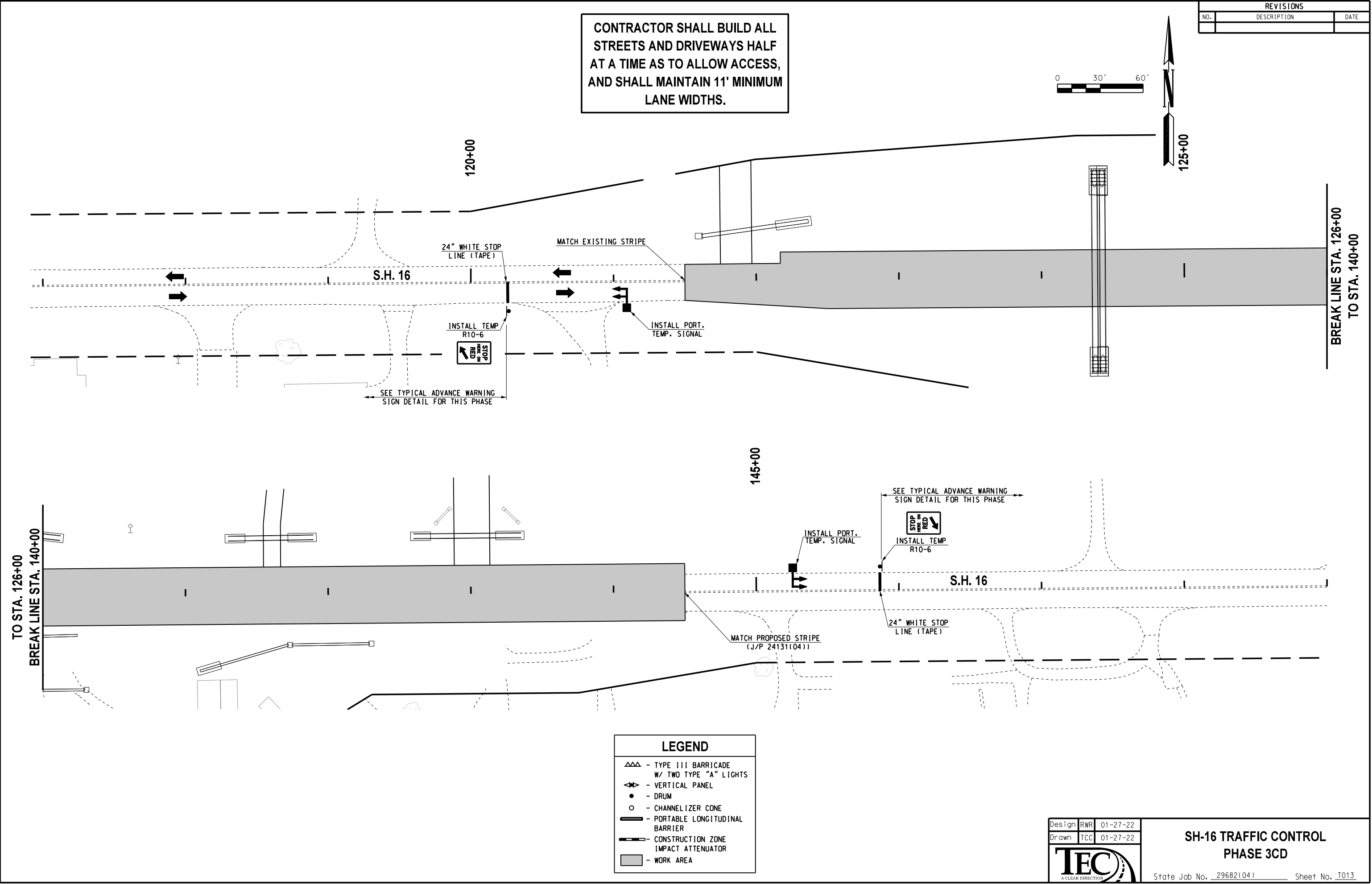
PHASE 3CD

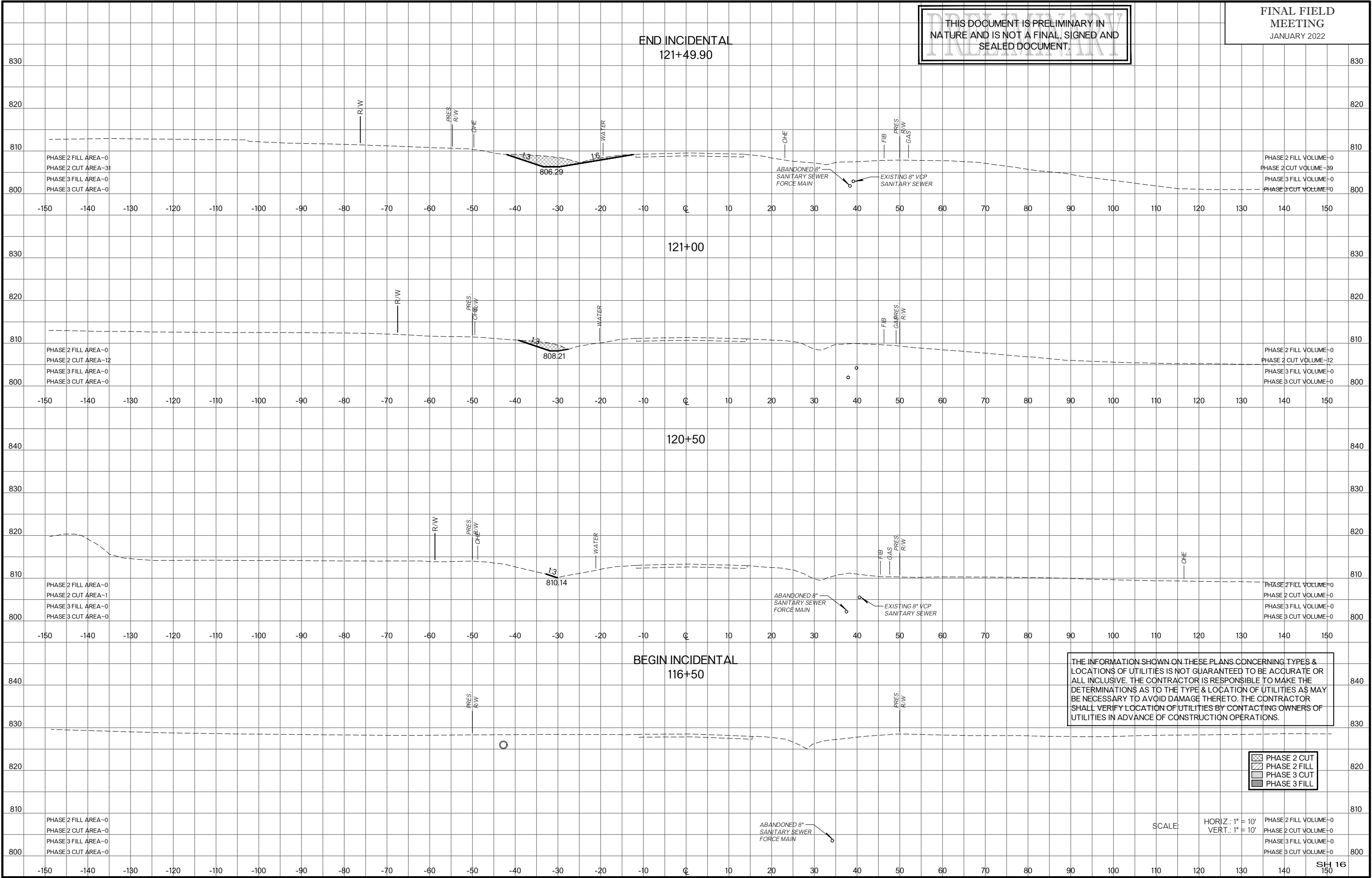
TYPICAL ADVANCE WARNING SIGNS

State Job No. 29682(04) Sheet No. T012

CREEK COUNTY

01-27-22 G:\01Projects\T-2898 01-2236 SH-16 over Sand Creek- Creek County, OK\CAD\T013-2968204-TC PHASE 3CD.dgn





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

FINAL FIELD MEETING JANUARY 2022

PHASE 2 CUT PHASE 2 FILL PHASE 3 CUT PHASE 3 FILL

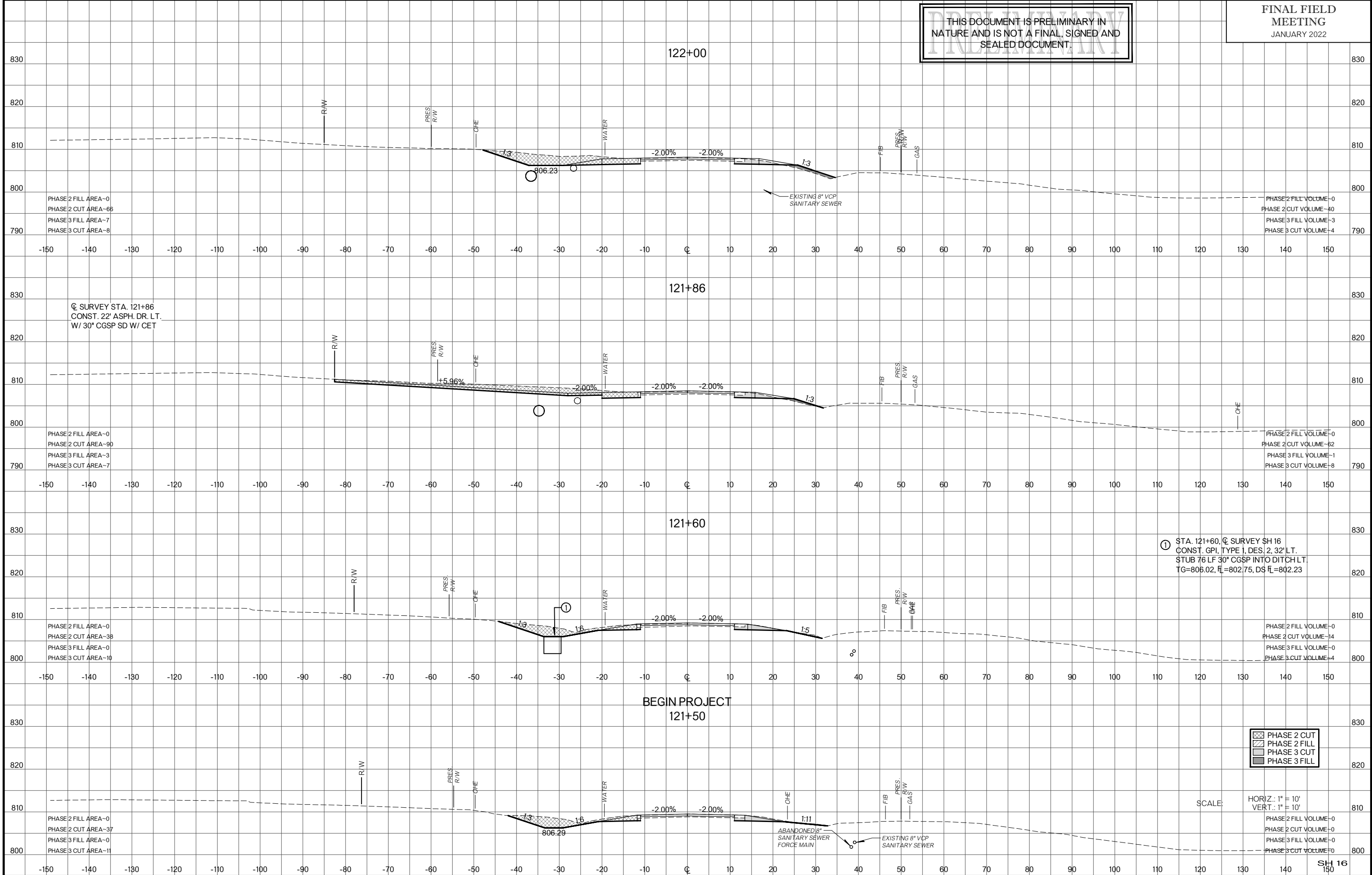
THE INFORMATION SHOWN ON THESE PLANS CONCERNING TYPES & LOCATIONS OF UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE TO MAKE THE DETERMINATIONS AS TO THE TYPE & LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES BY CONTACTING OWNERS OF UTILITIES IN ADVANCE OF CONSTRUCTION OPERATIONS.

SCALE: HORIZ.: 1" = 10' VERT.: 1" = 10'

PHASE 2 FILL VOLUME=0 PHASE 2 CUT VOLUME=0 PHASE 3 FILL VOLUME=0 PHASE 3 CUT VOLUME=0

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

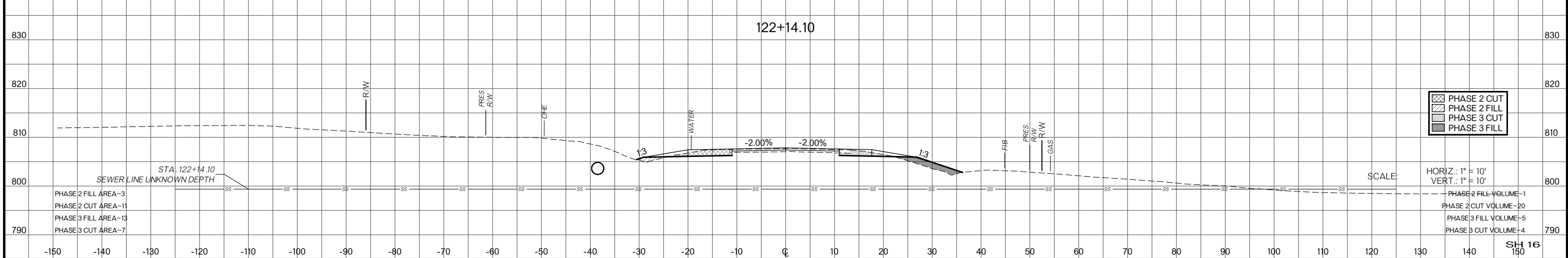
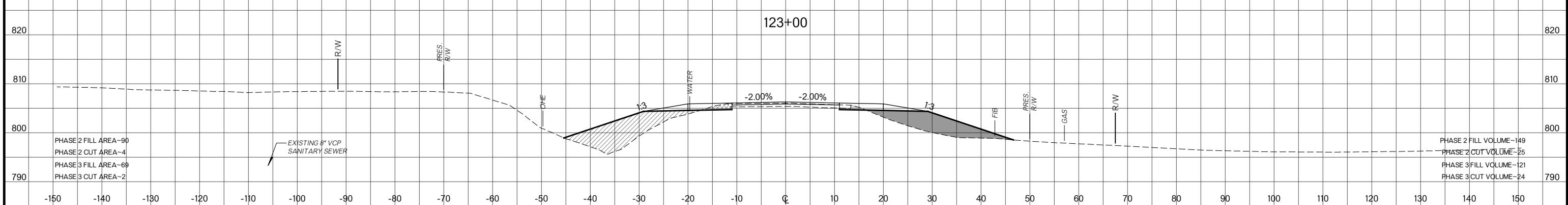
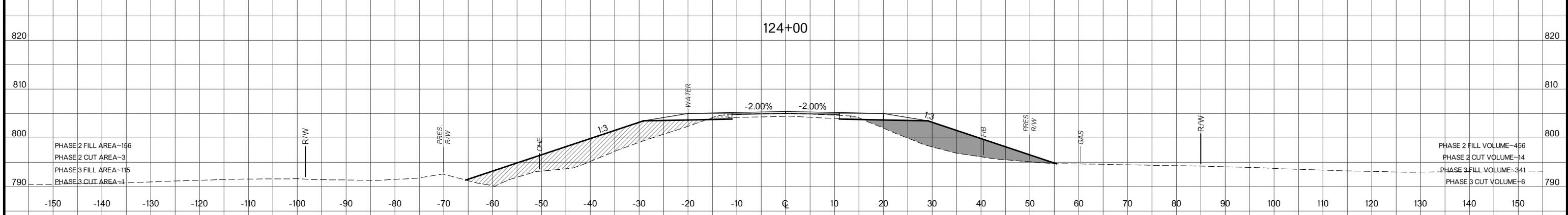
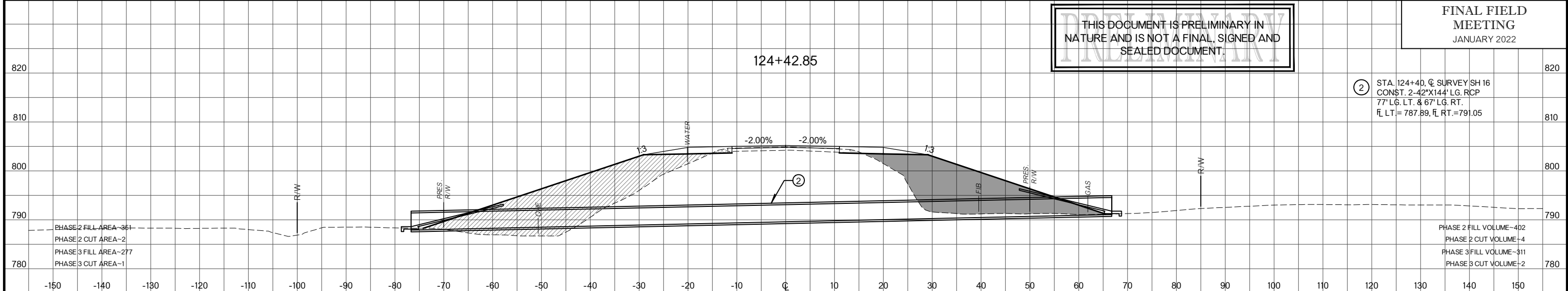
FINAL FIELD MEETING
JANUARY 2022



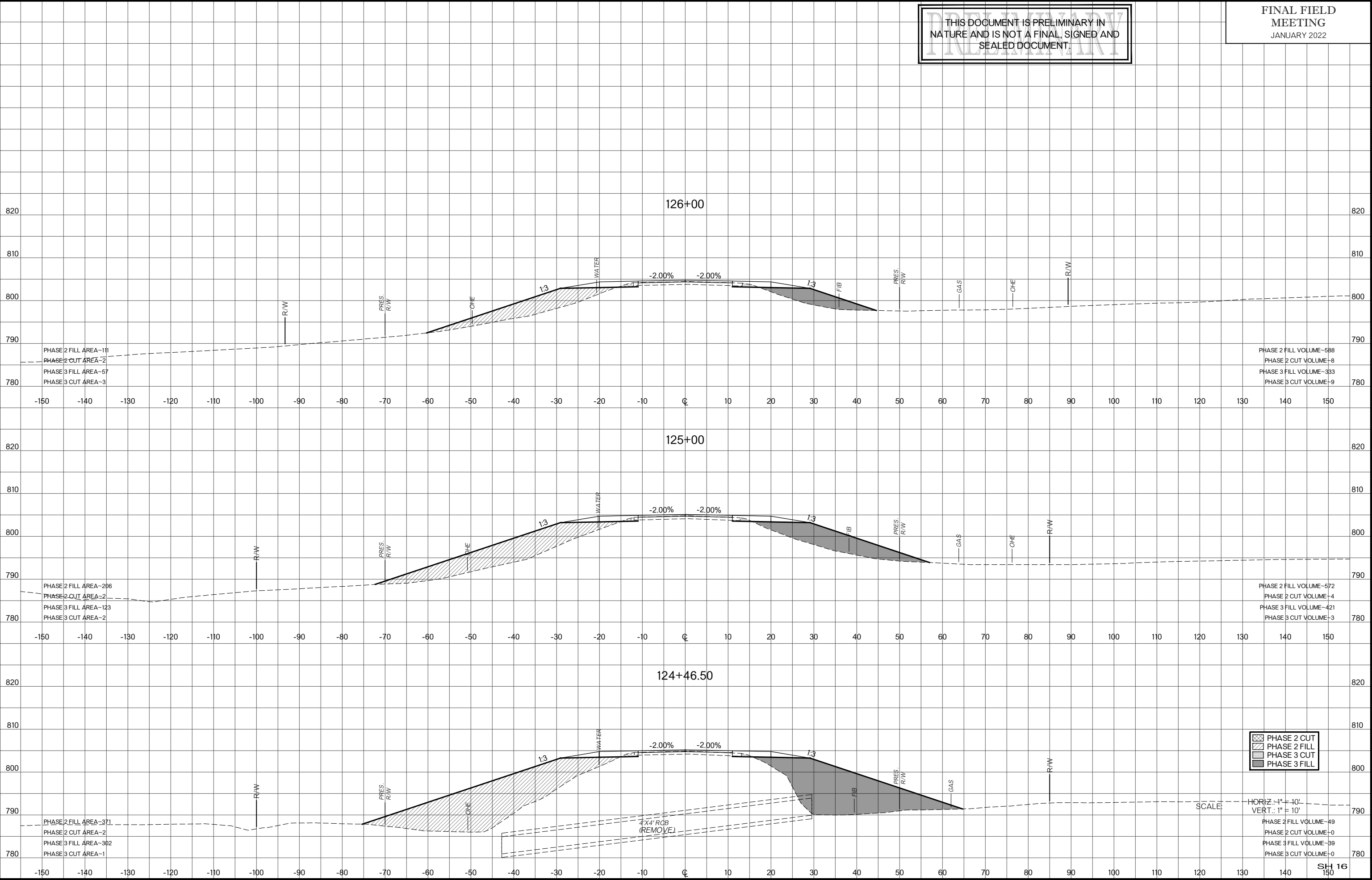
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

FINAL FIELD MEETING
JANUARY 2022

② STA. 124+40, C SURVEY SH 16
CONST. 2'-42"X144' LG. RCP
77' LG. LT. & 67' LG. RT.
FL LT.= 787.89, FL RT.=791.05

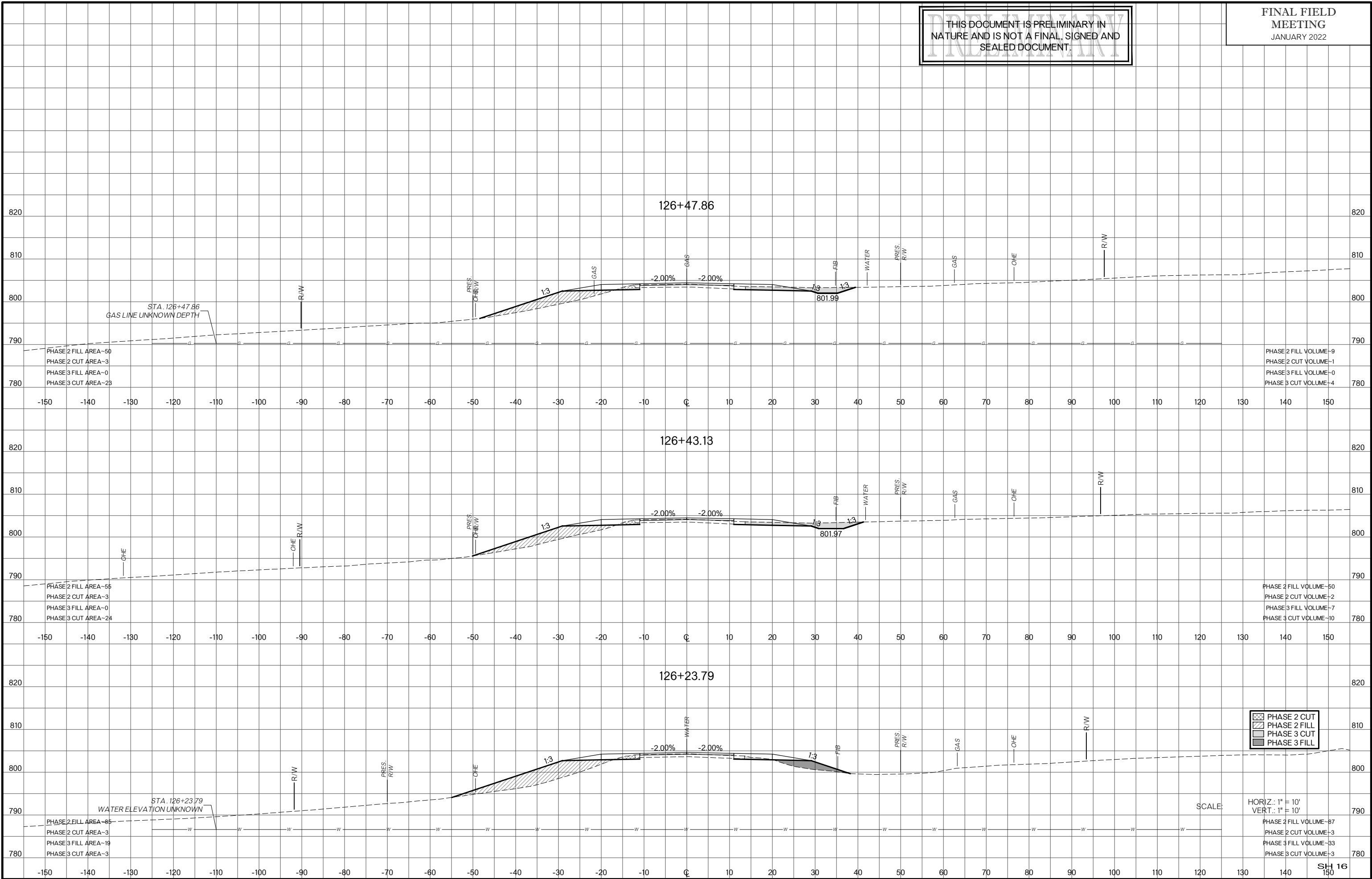


THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

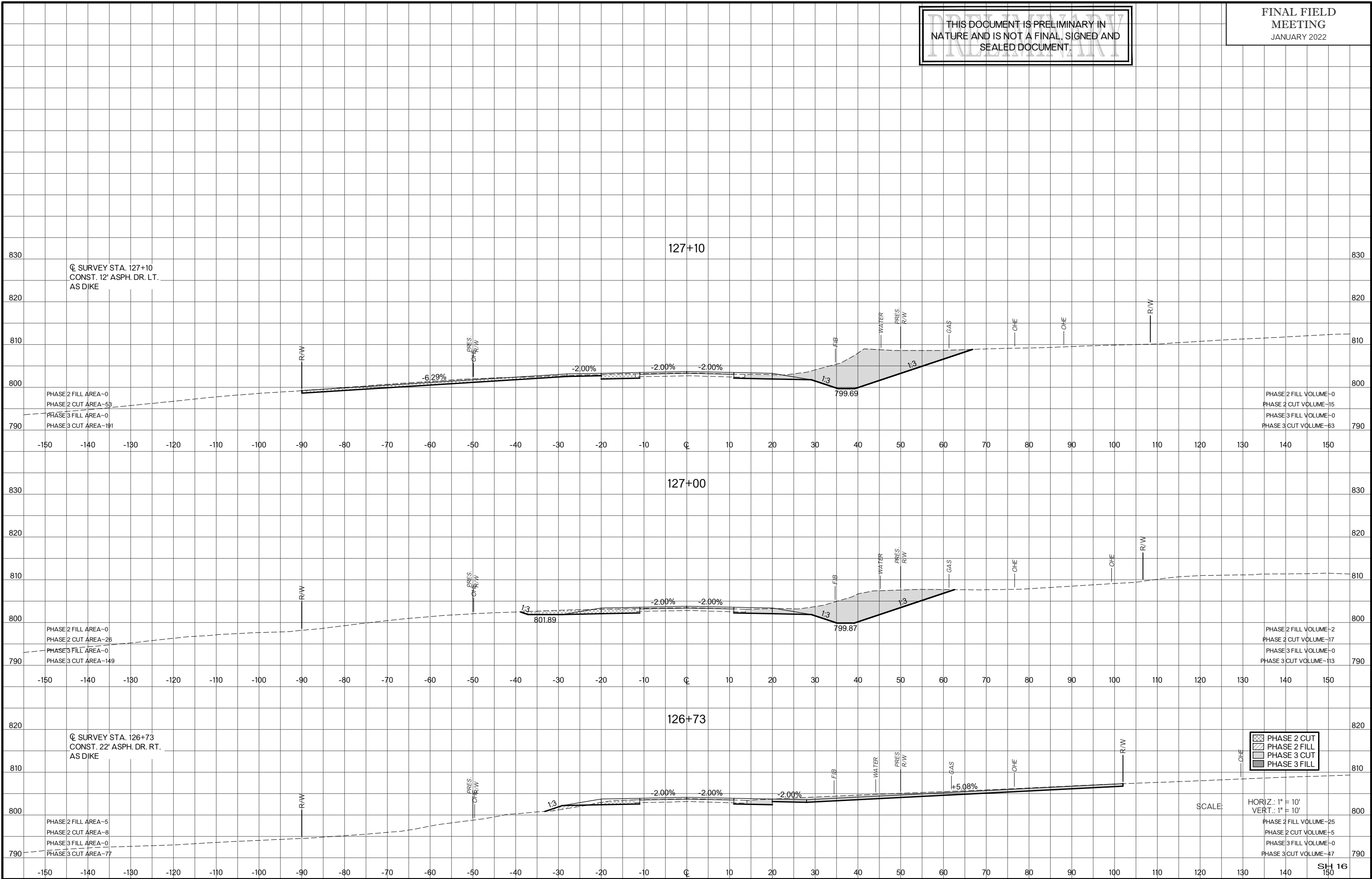


THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

FINAL FIELD MEETING
JANUARY 2022

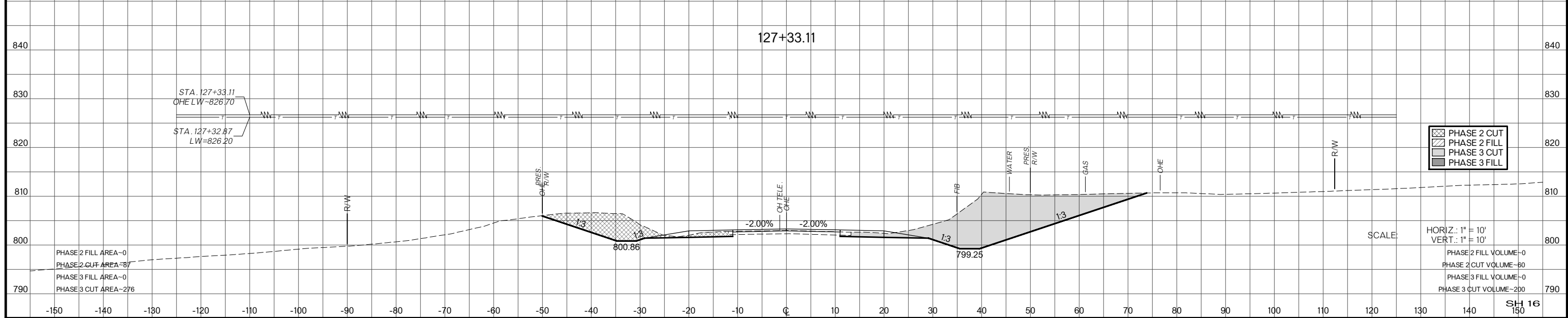
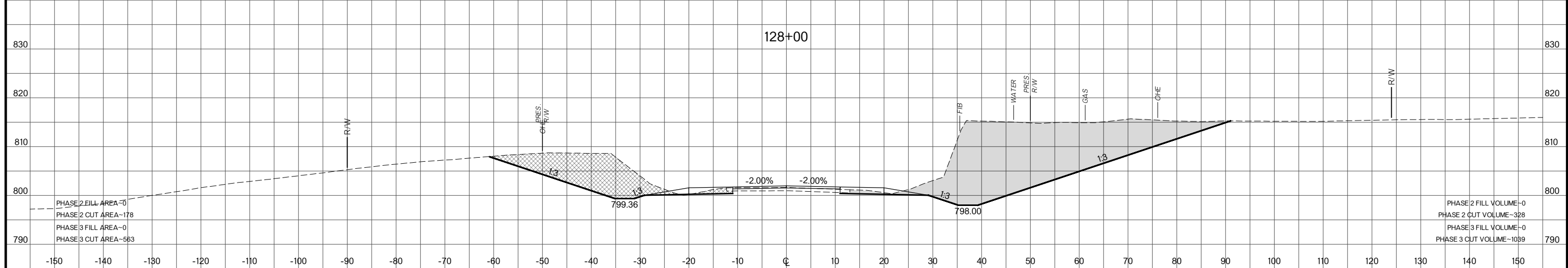
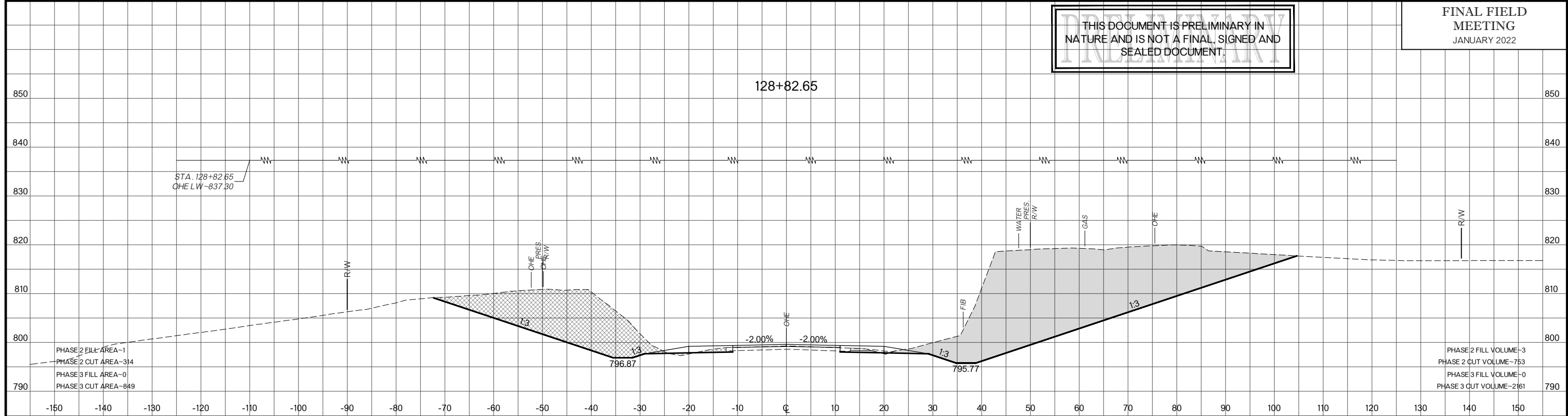


THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.



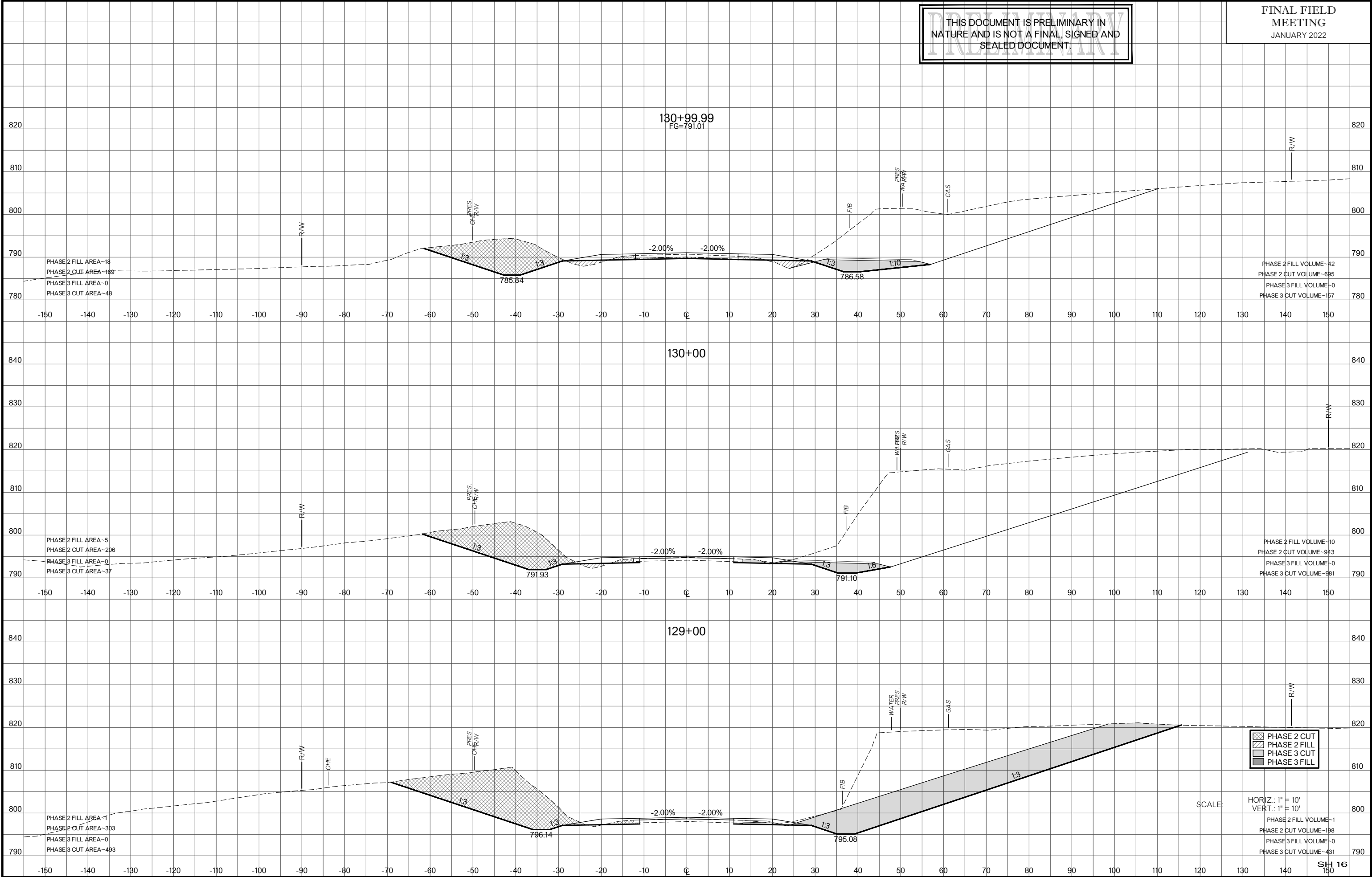
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

FINAL FIELD MEETING
JANUARY 2022

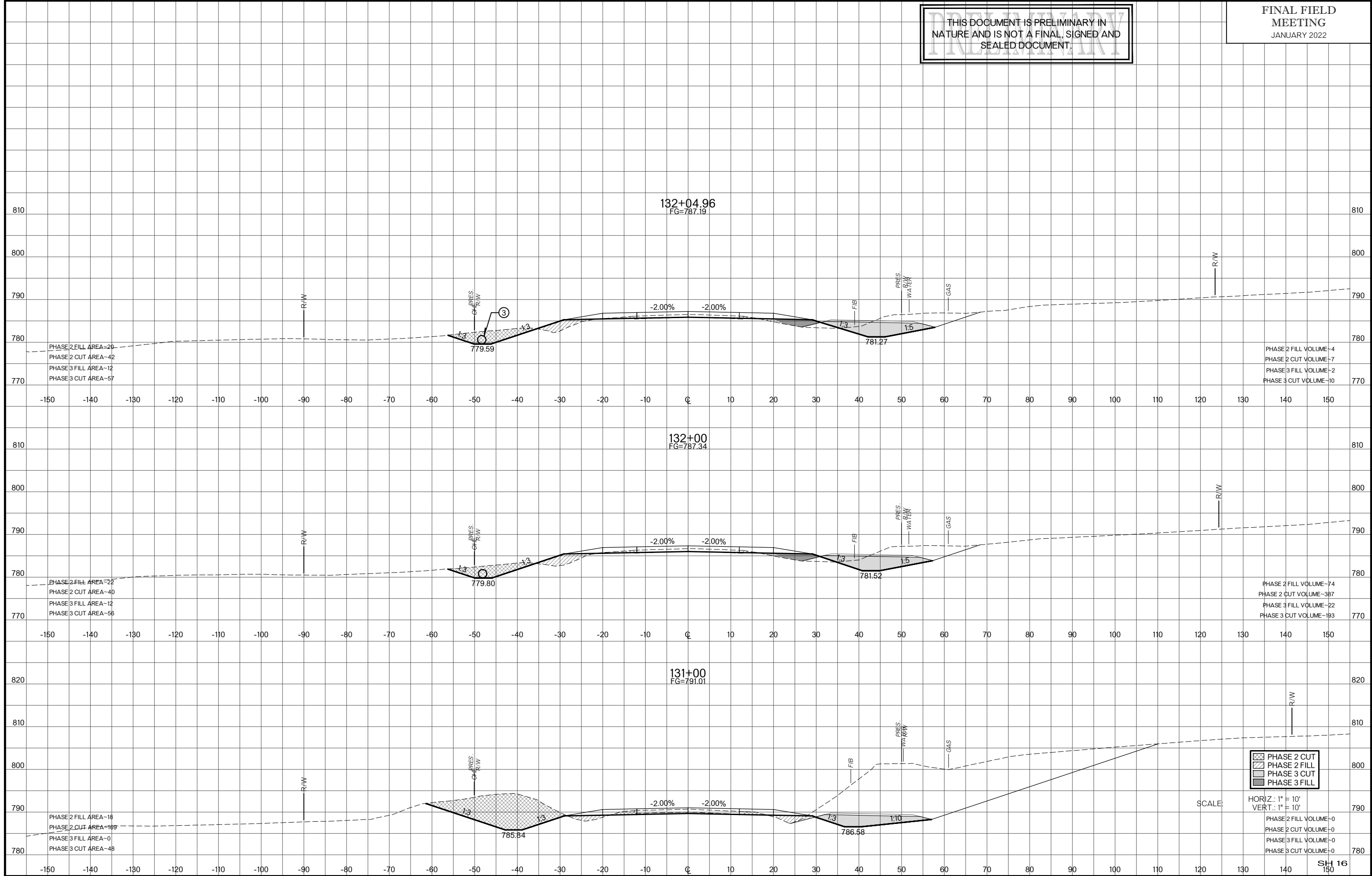


THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

FINAL FIELD MEETING
JANUARY 2022

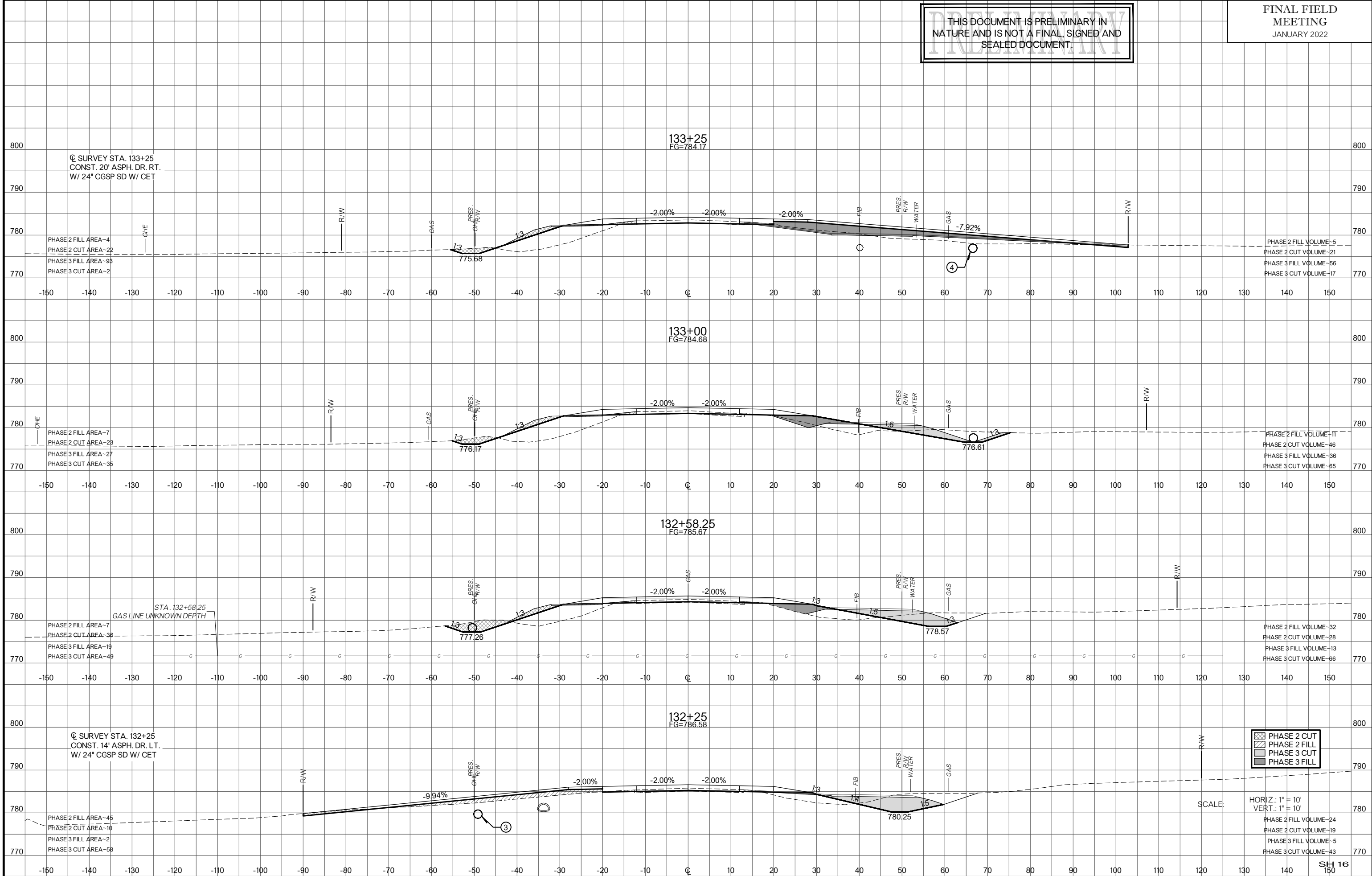


THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

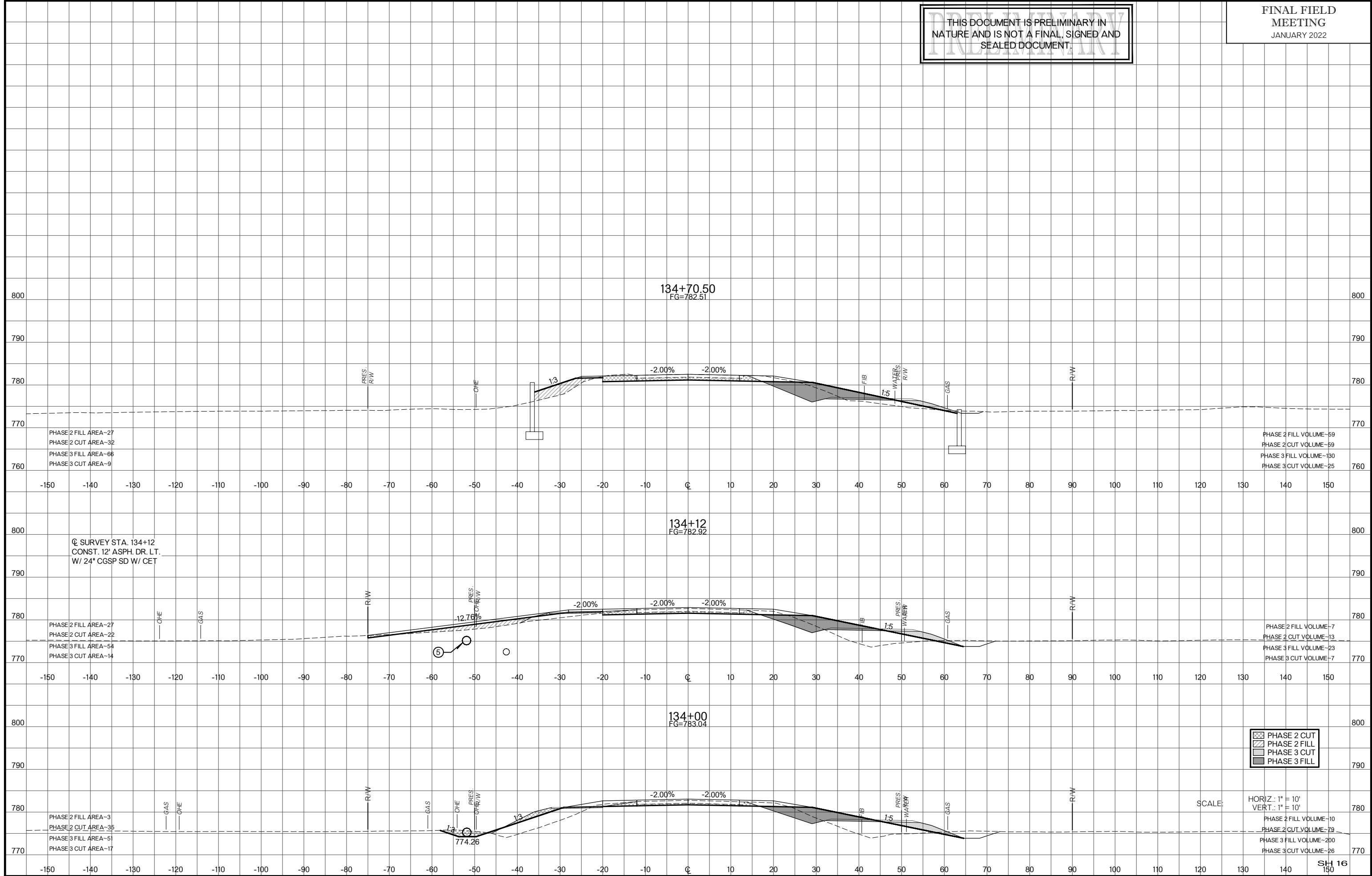


THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

FINAL FIELD MEETING
JANUARY 2022

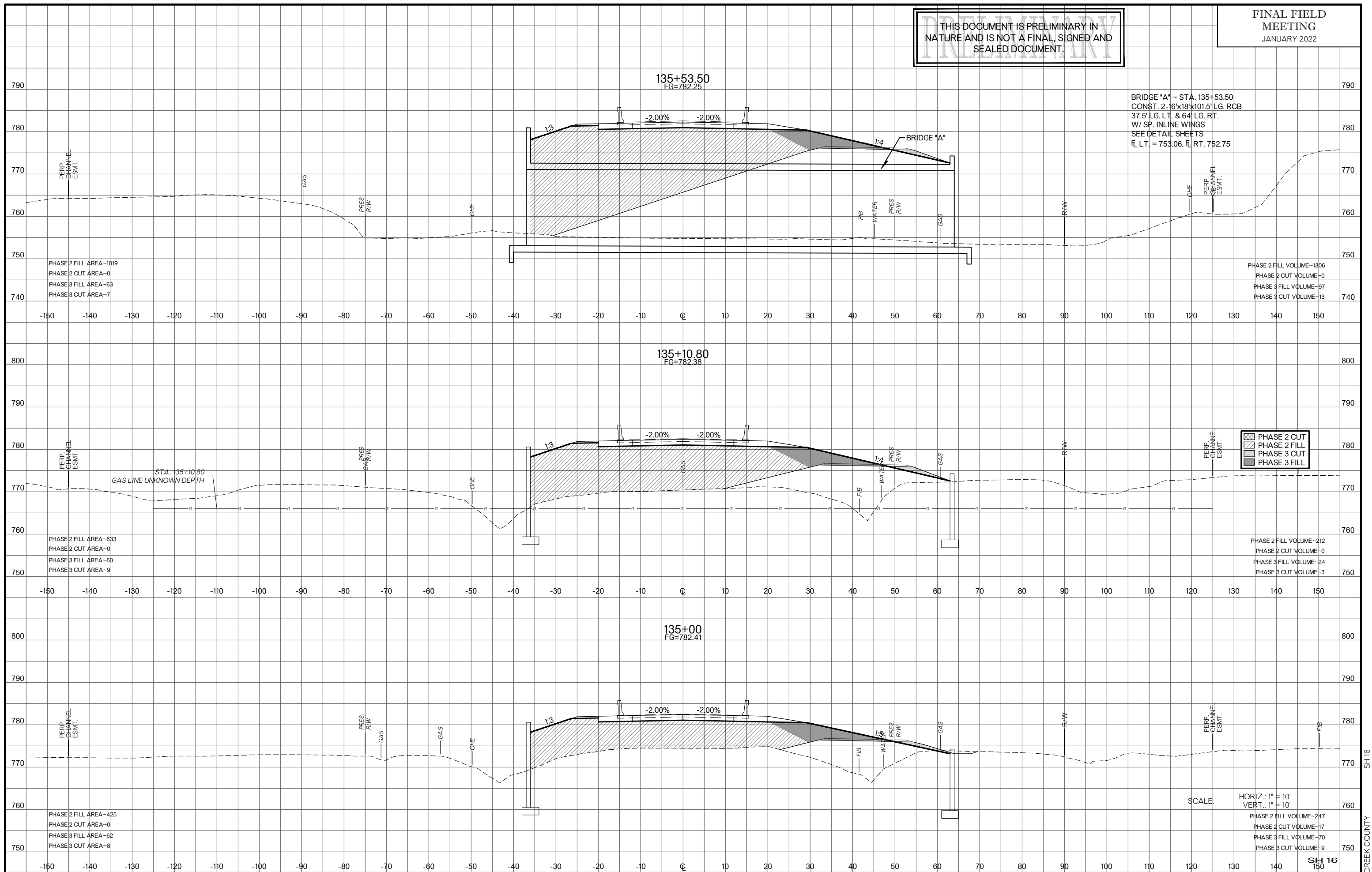


THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.



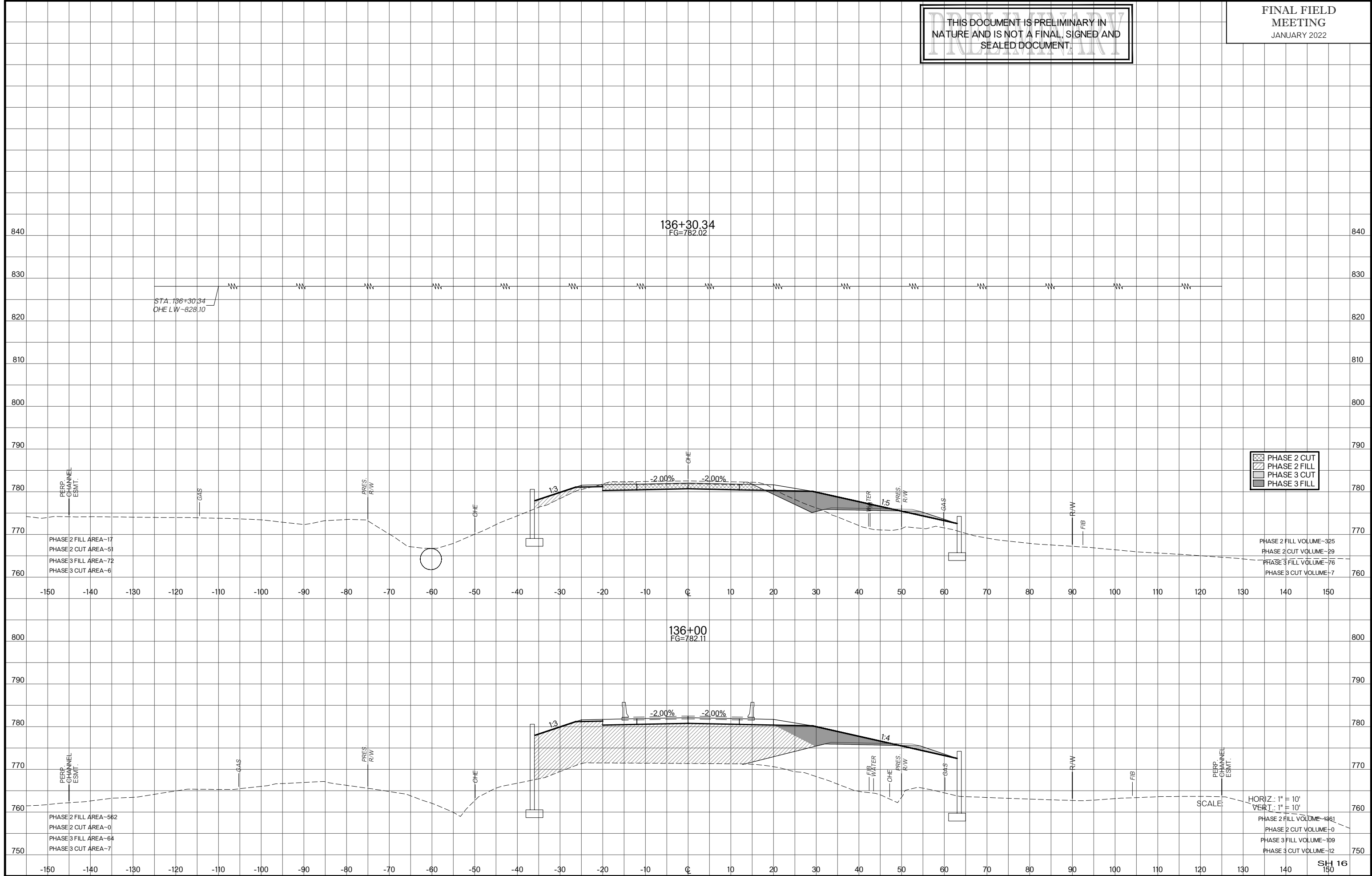
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

FINAL FIELD
MEETING
JANUARY 2022

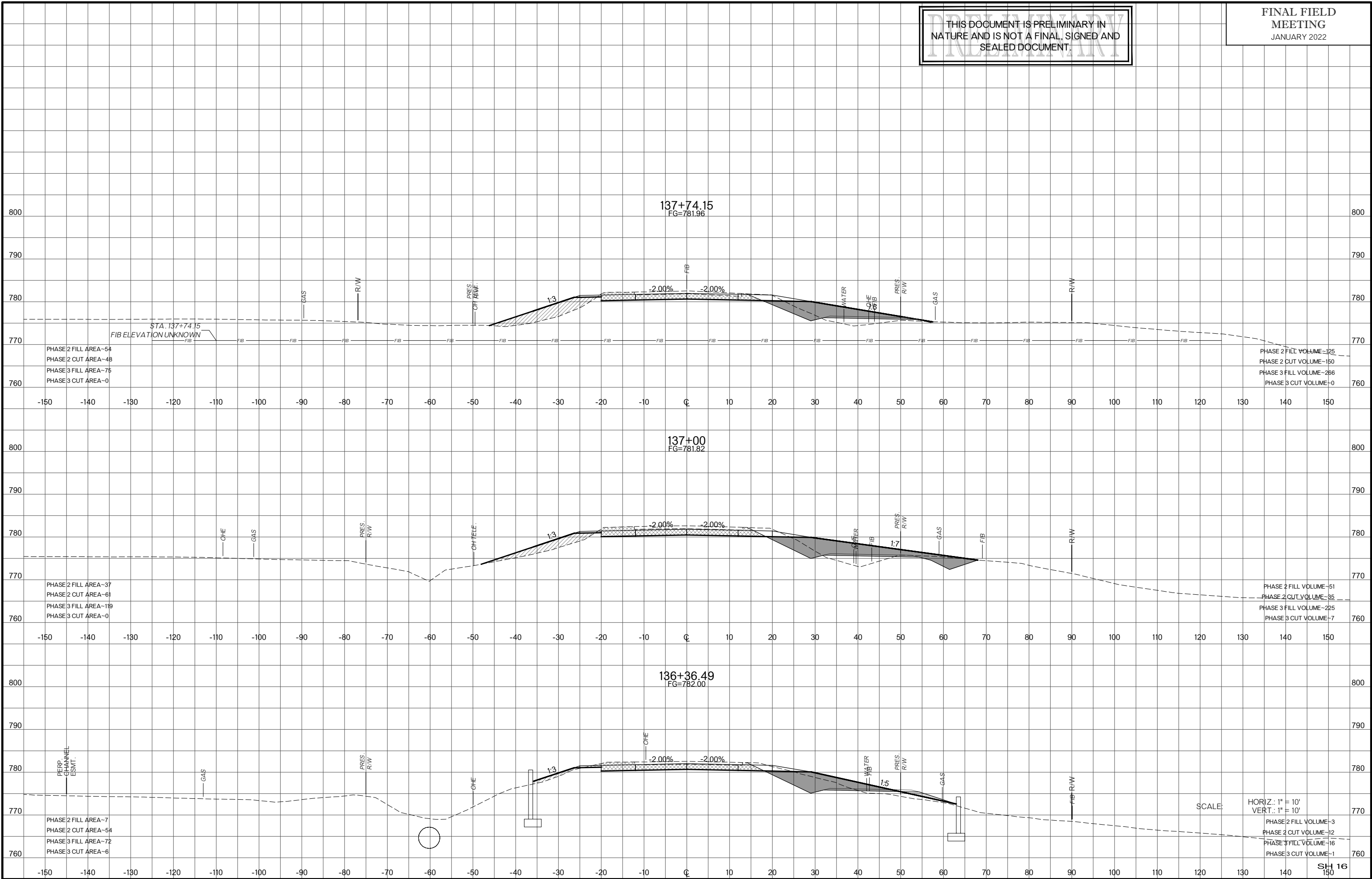


State Job No. 29682(04) Sheet No. X012

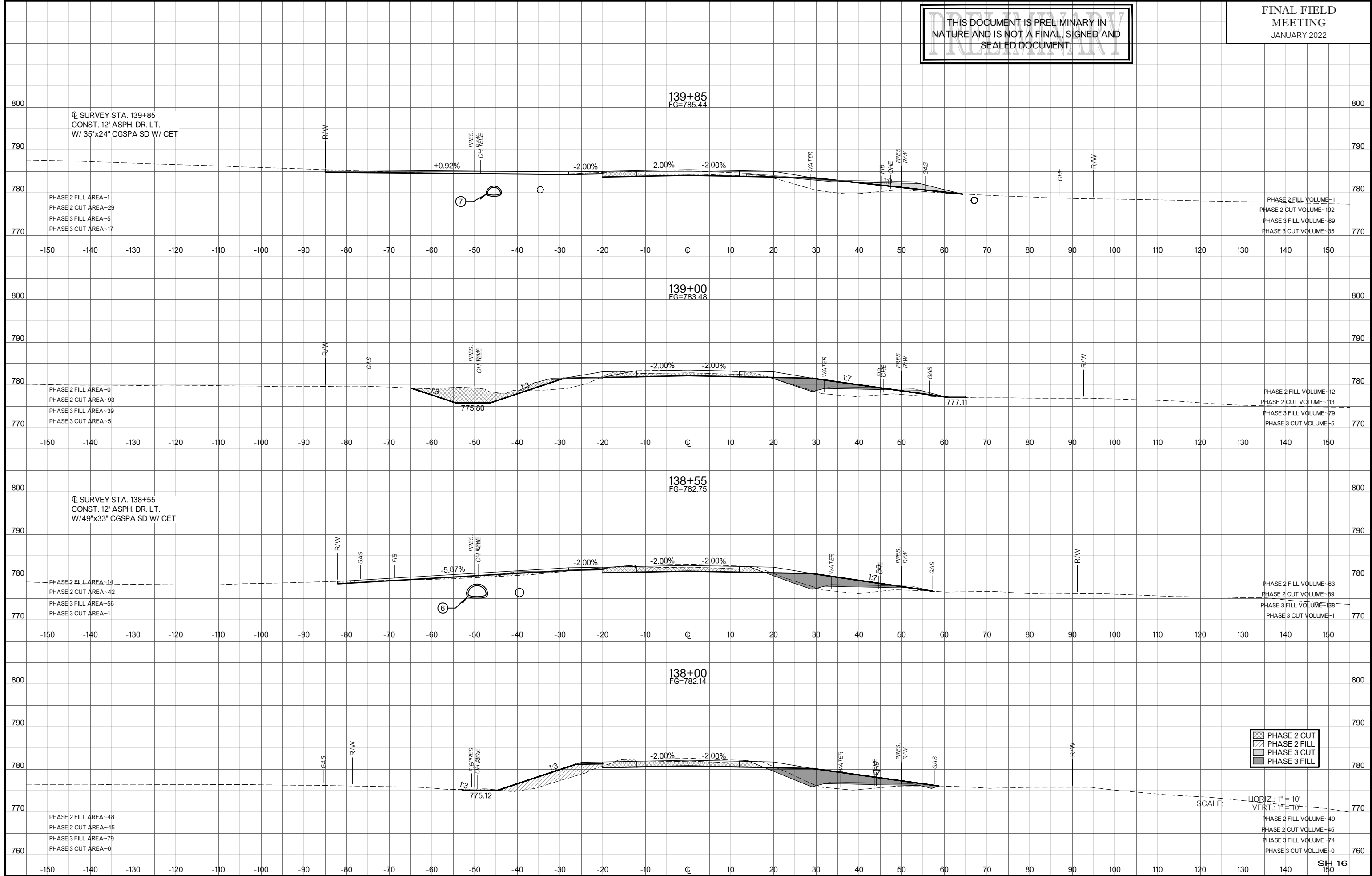
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.



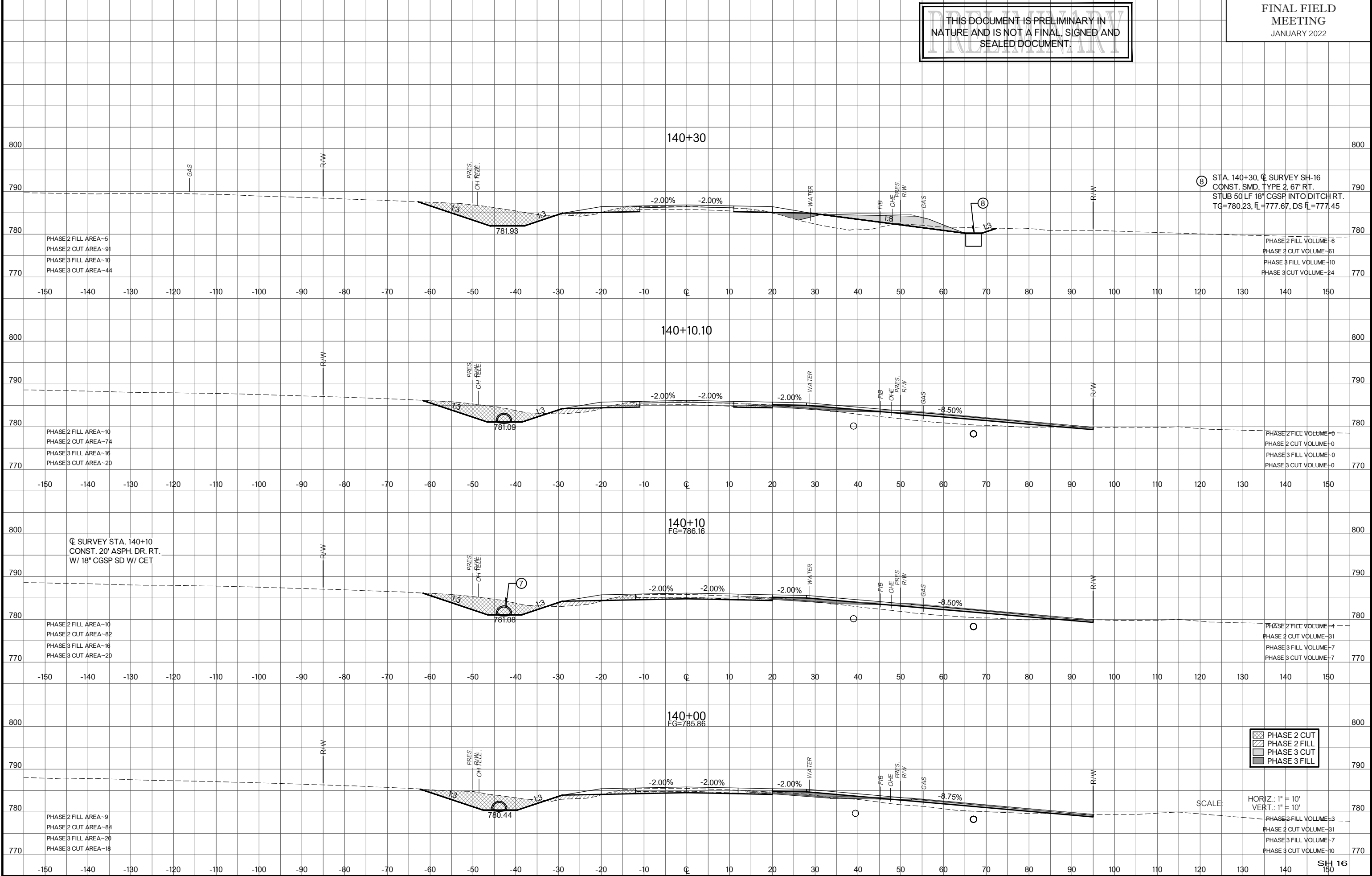
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.



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

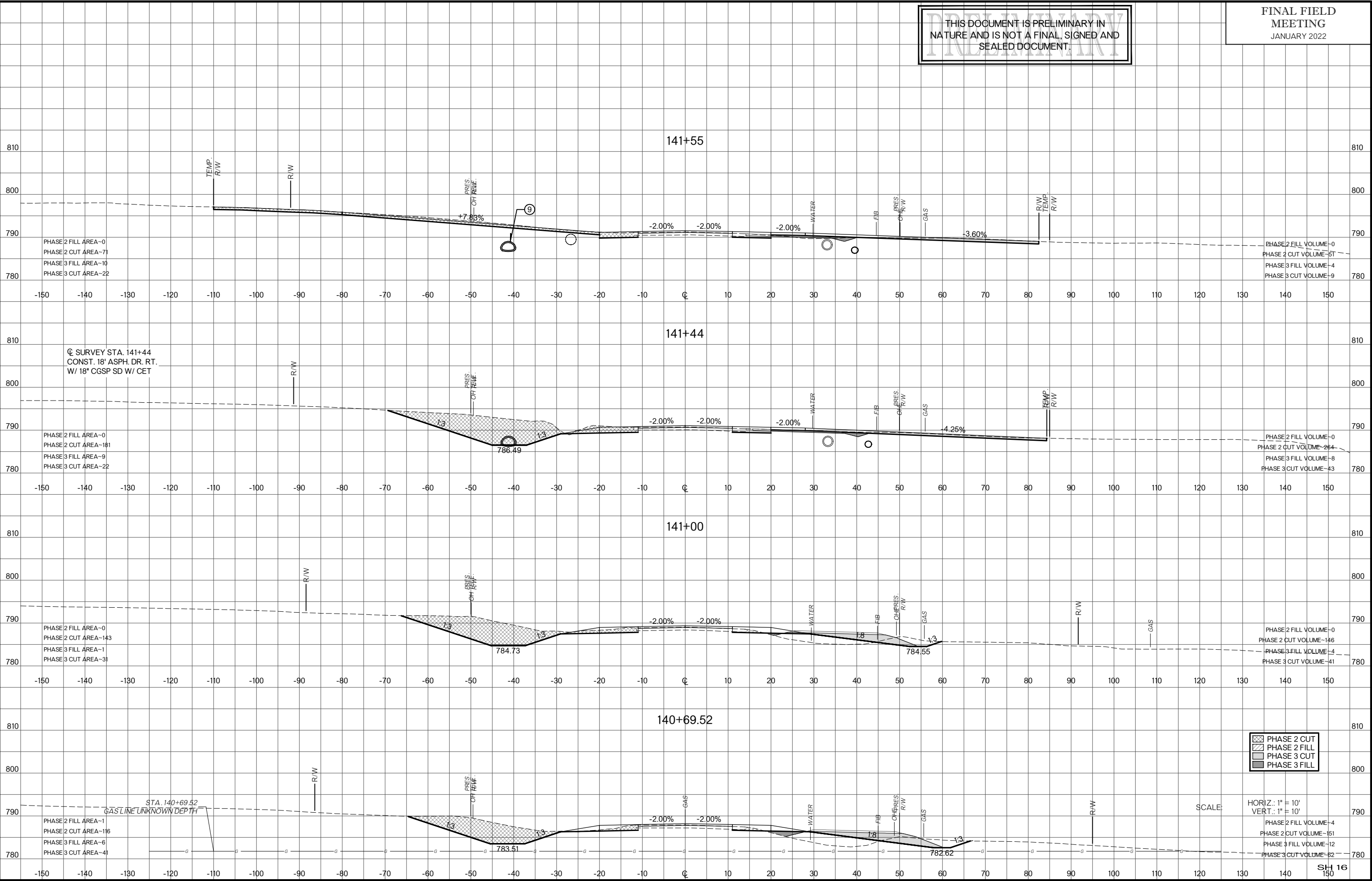


THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

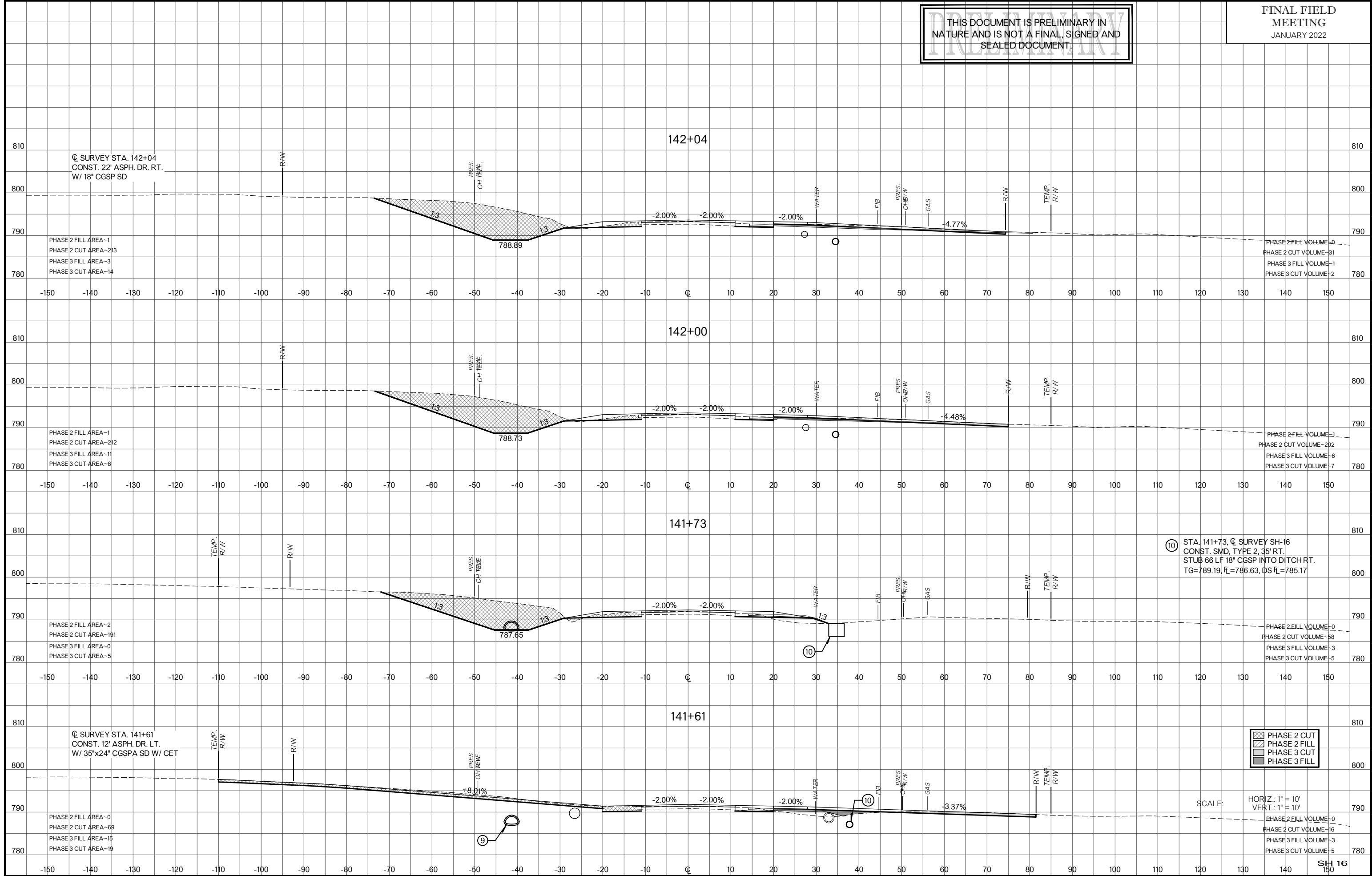


THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

FINAL FIELD MEETING
JANUARY 2022

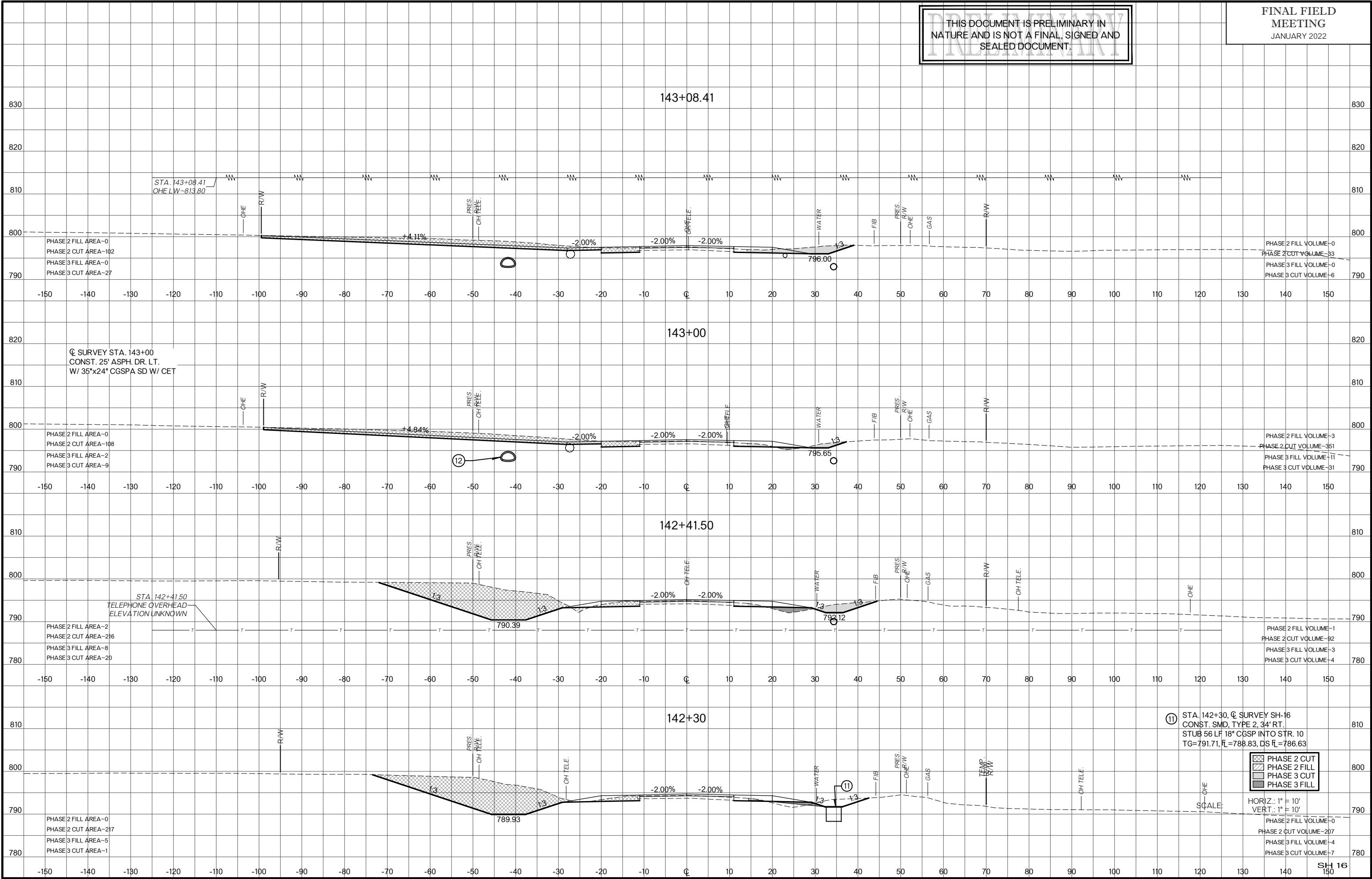


THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.



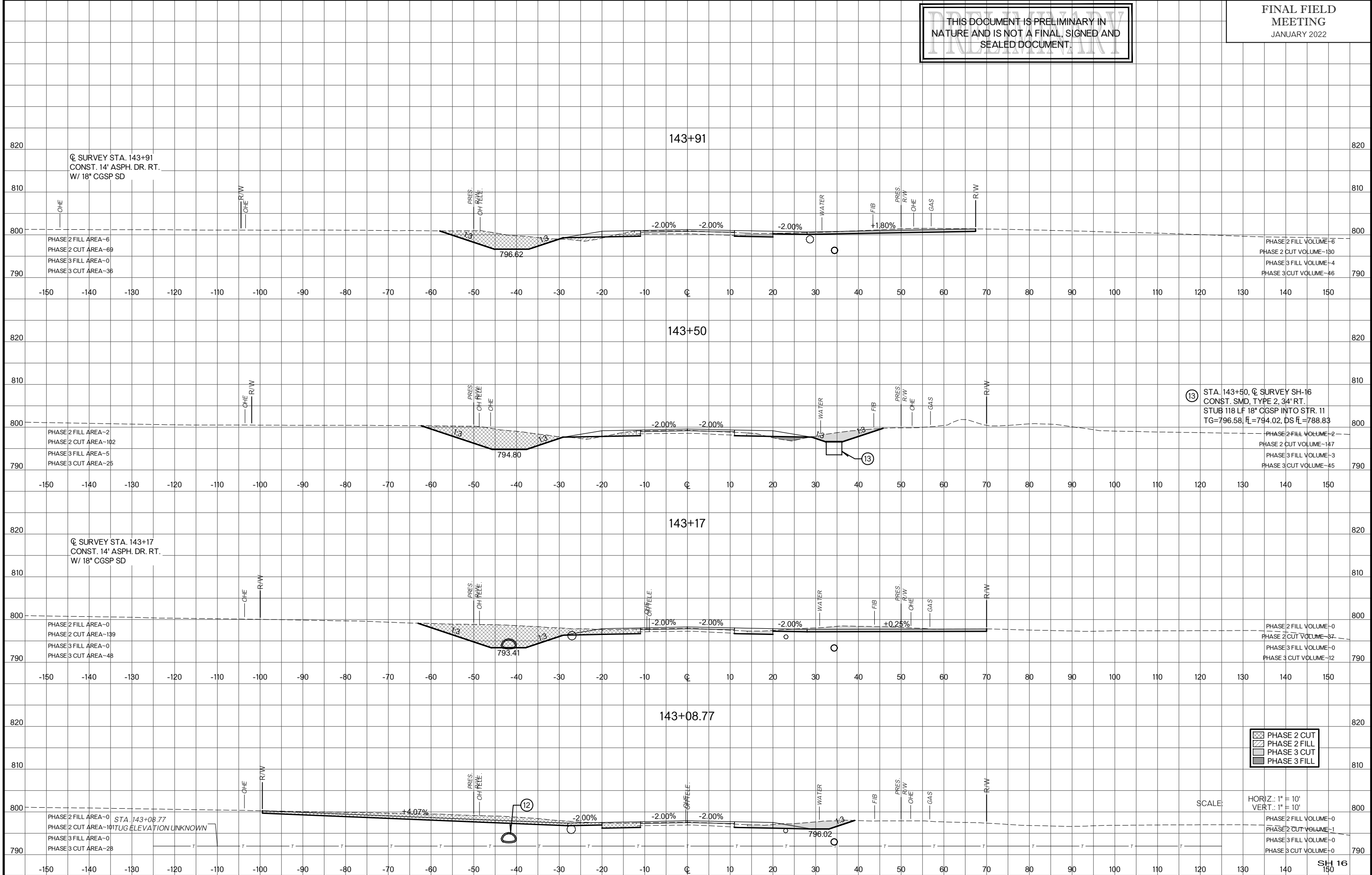
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

FINAL FIELD MEETING
JANUARY 2022



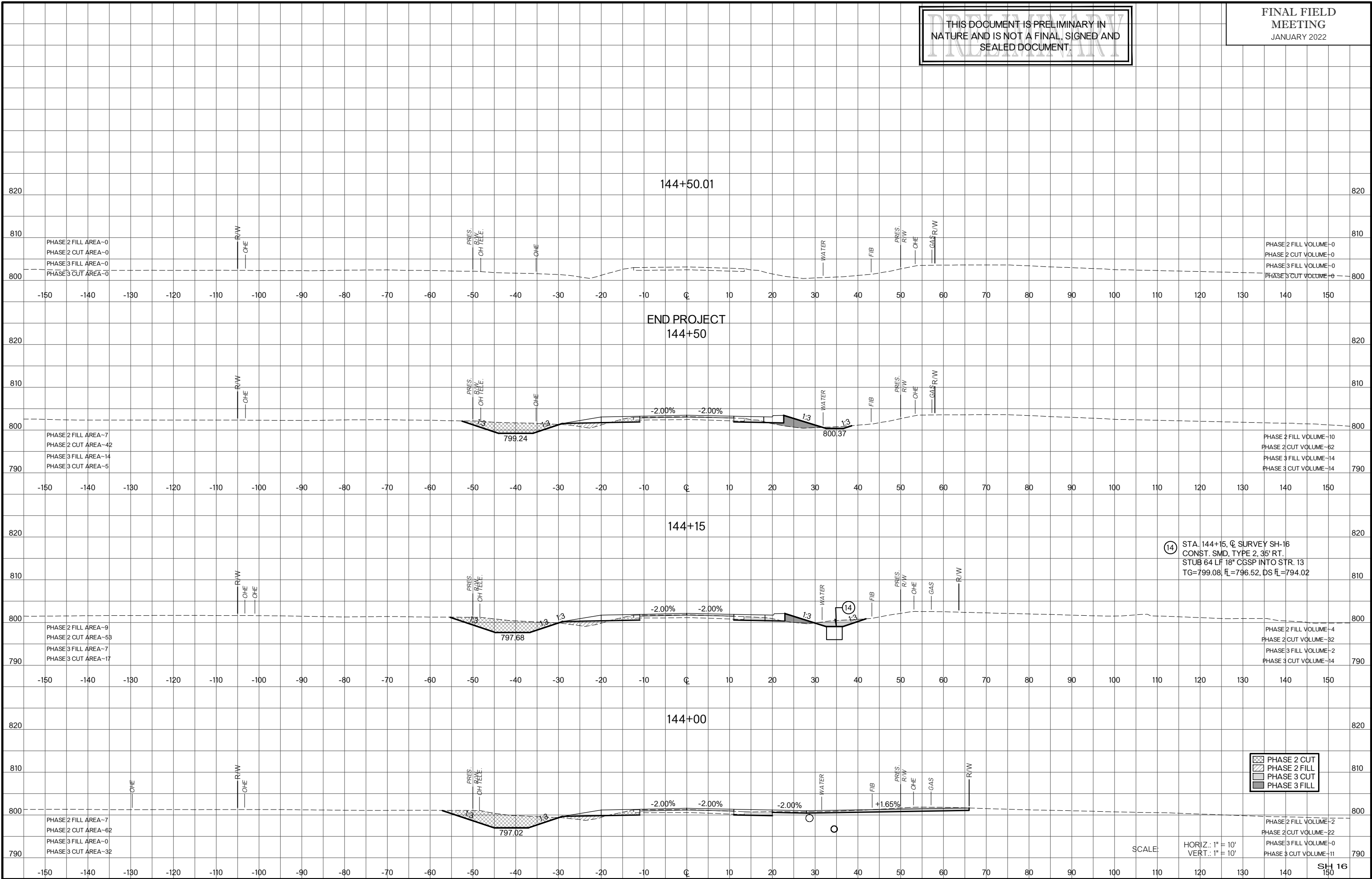
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

FINAL FIELD MEETING
JANUARY 2022



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

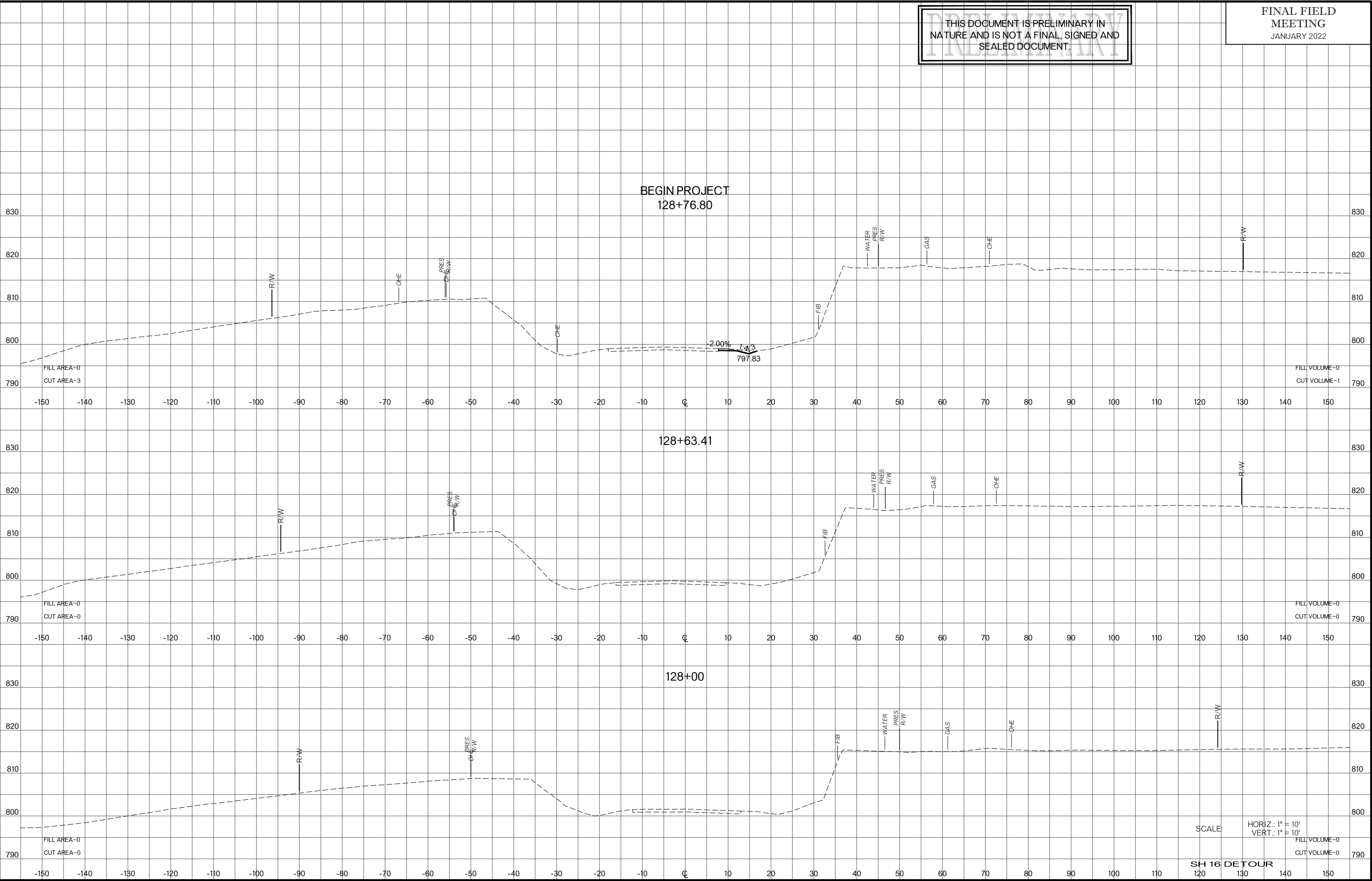
FINAL FIELD MEETING
JANUARY 2022

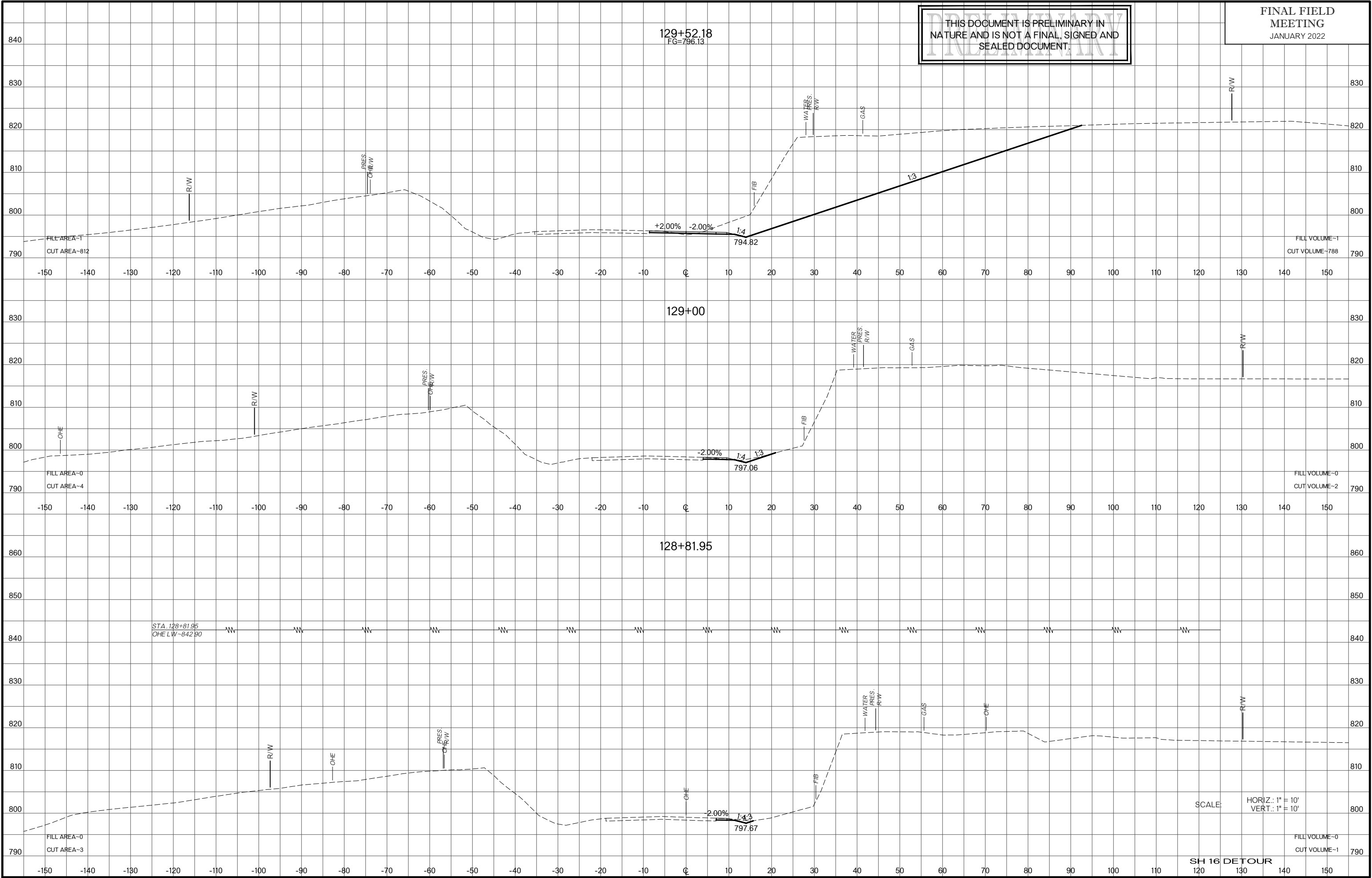


SH 16
CREEK COUNTY

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

FINAL FIELD MEETING
JANUARY 2022



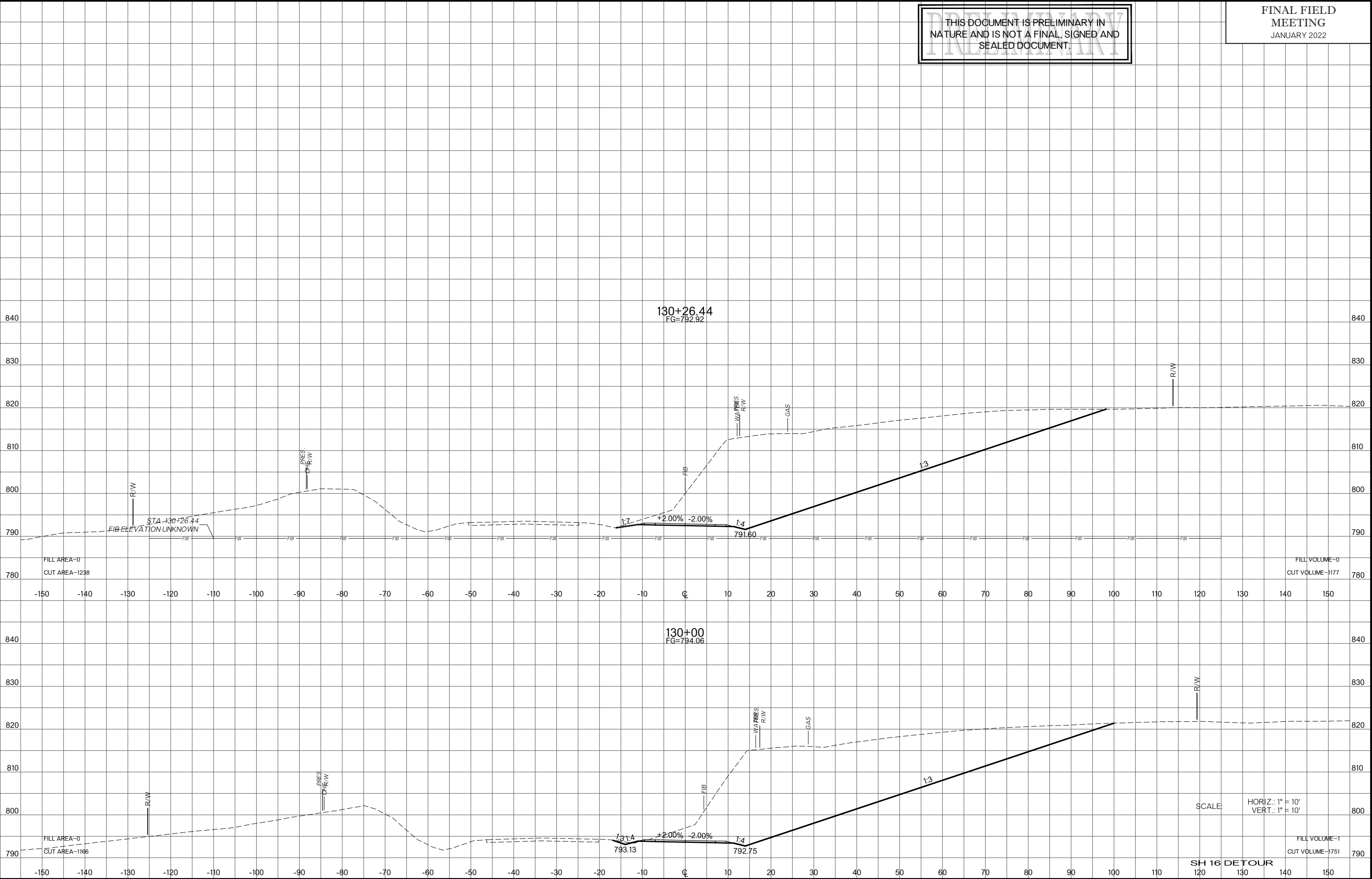


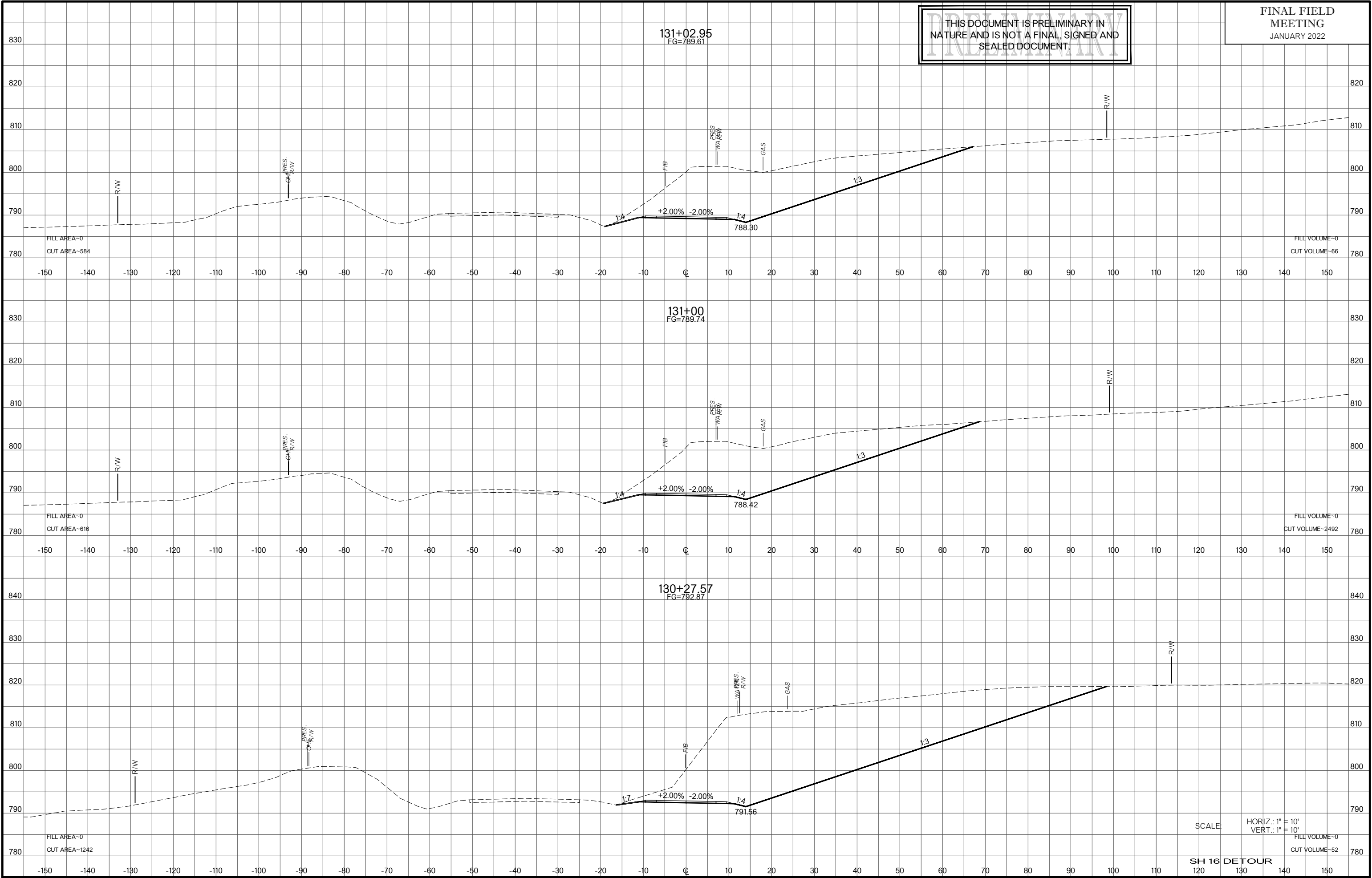
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

FINAL FIELD MEETING JANUARY 2022

SH 16 CREEK COUNTY

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





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

FINAL FIELD MEETING
JANUARY 2022

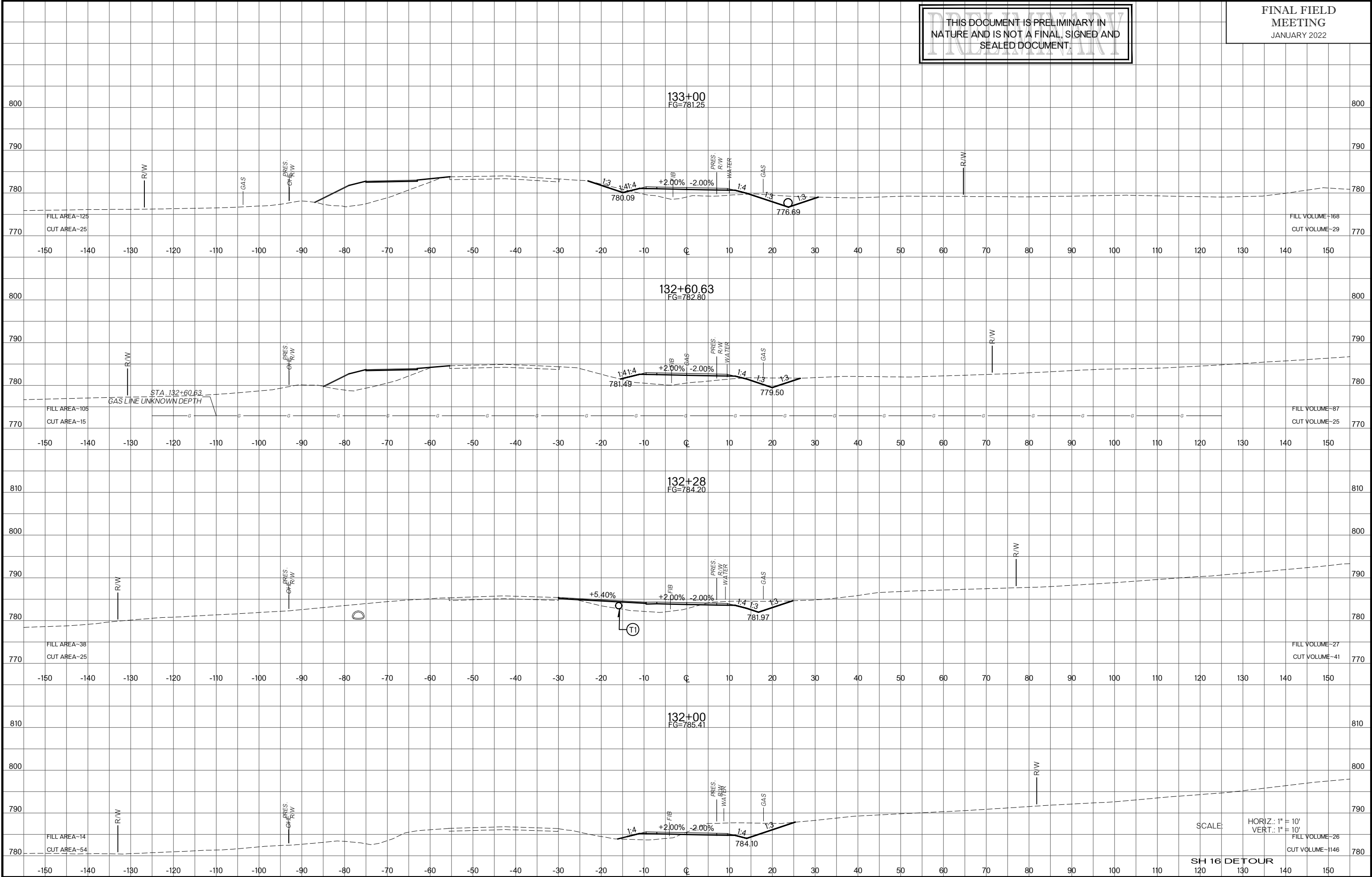
SCALE: HORIZ.: 1" = 10'

VERT.: 1" = 10'

SH 16 DETOUR

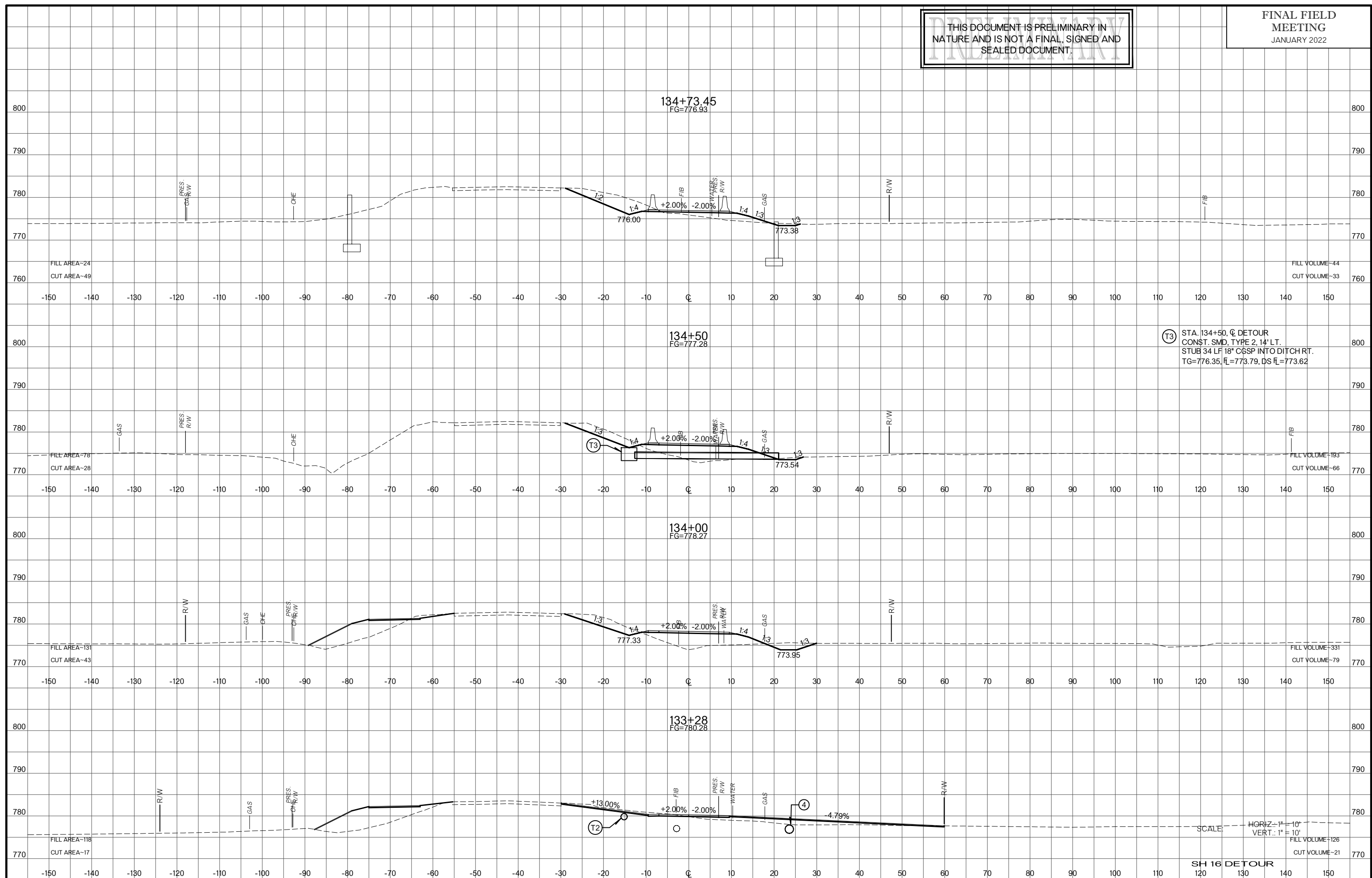
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

FINAL FIELD MEETING
JANUARY 2022



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

FINAL FIELD
MEETING
JANUARY 2022

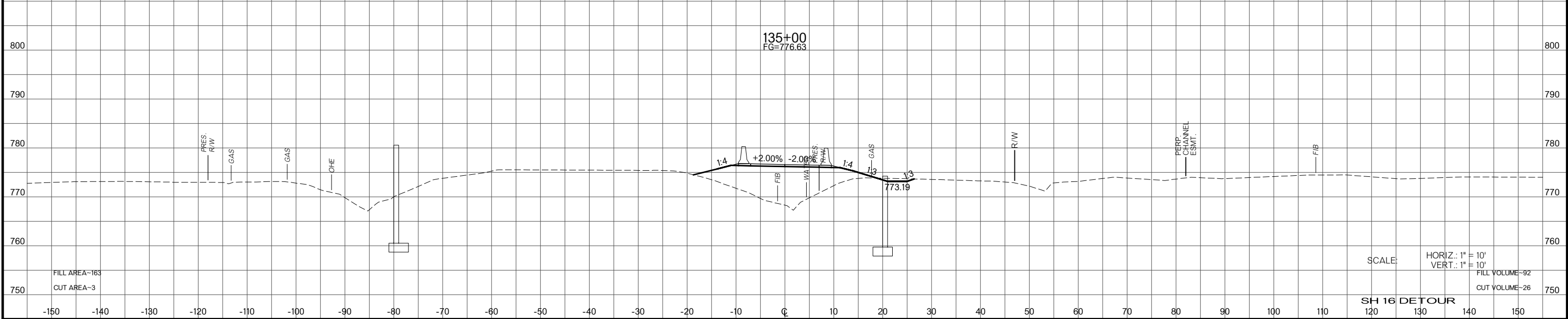
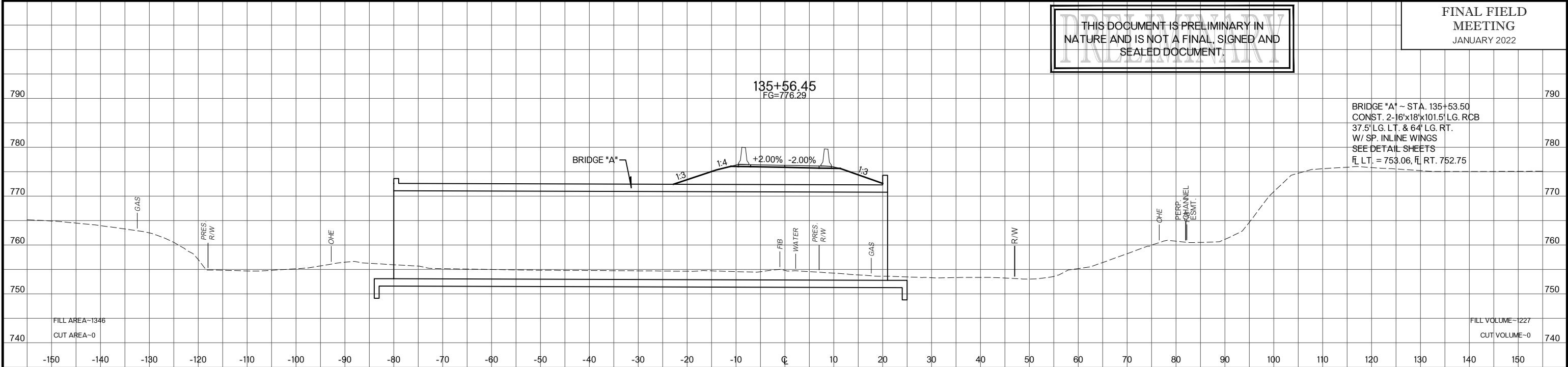


State Job No. 29682(04) Sheet No. X027

CREEK COUNTY SH 16

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

FINAL FIELD MEETING
JANUARY 2022



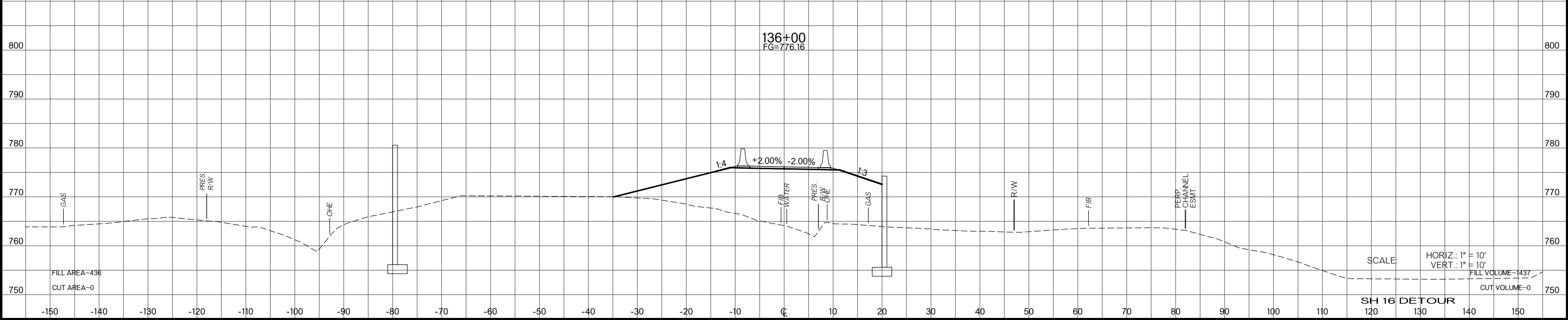
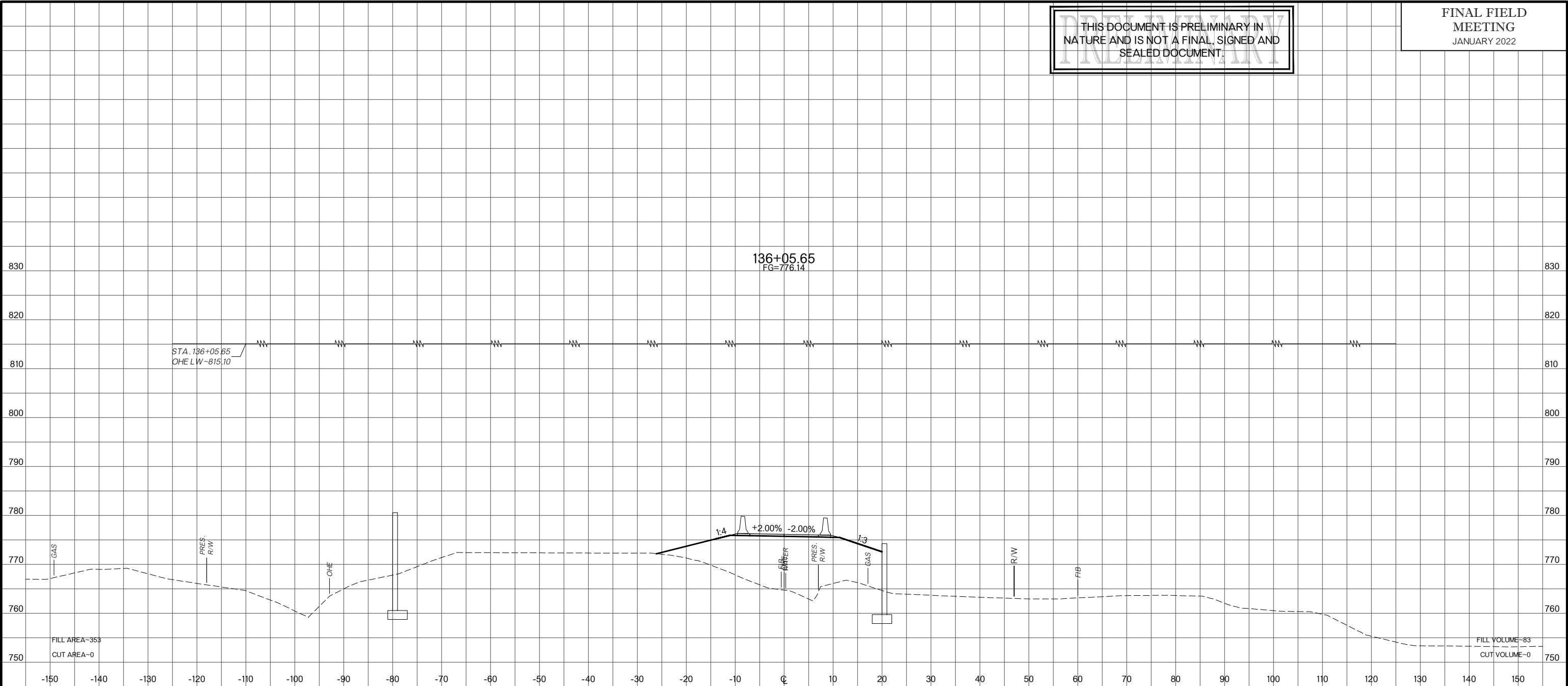
SCALE: HORIZ.: 1" = 10'

VERT.: 1" = 10'

SH 16 DETOUR

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

FINAL FIELD MEETING
JANUARY 2022



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

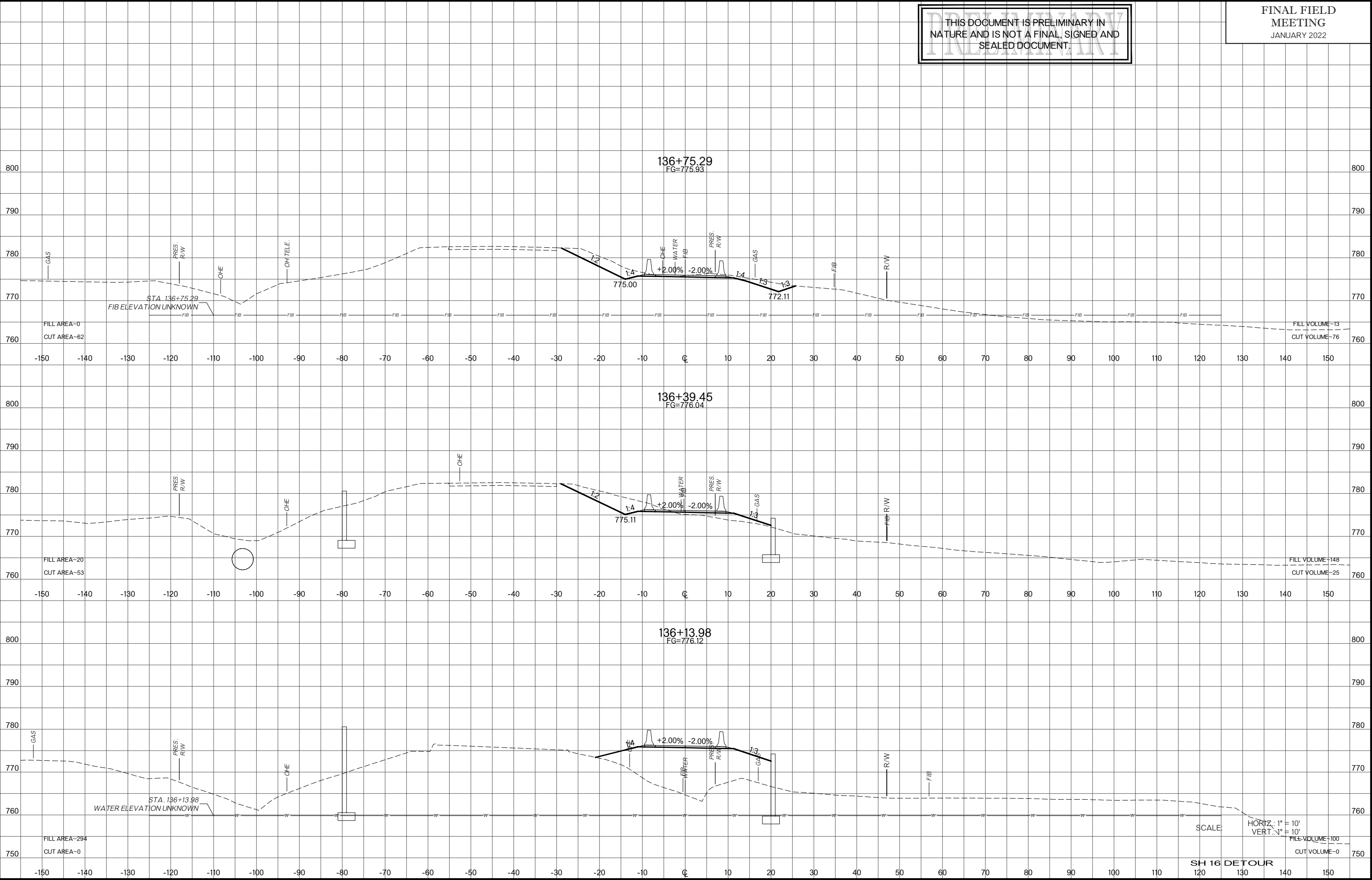
SH 16 DETOUR

State Job No. 29682(04) Sheet No. X029

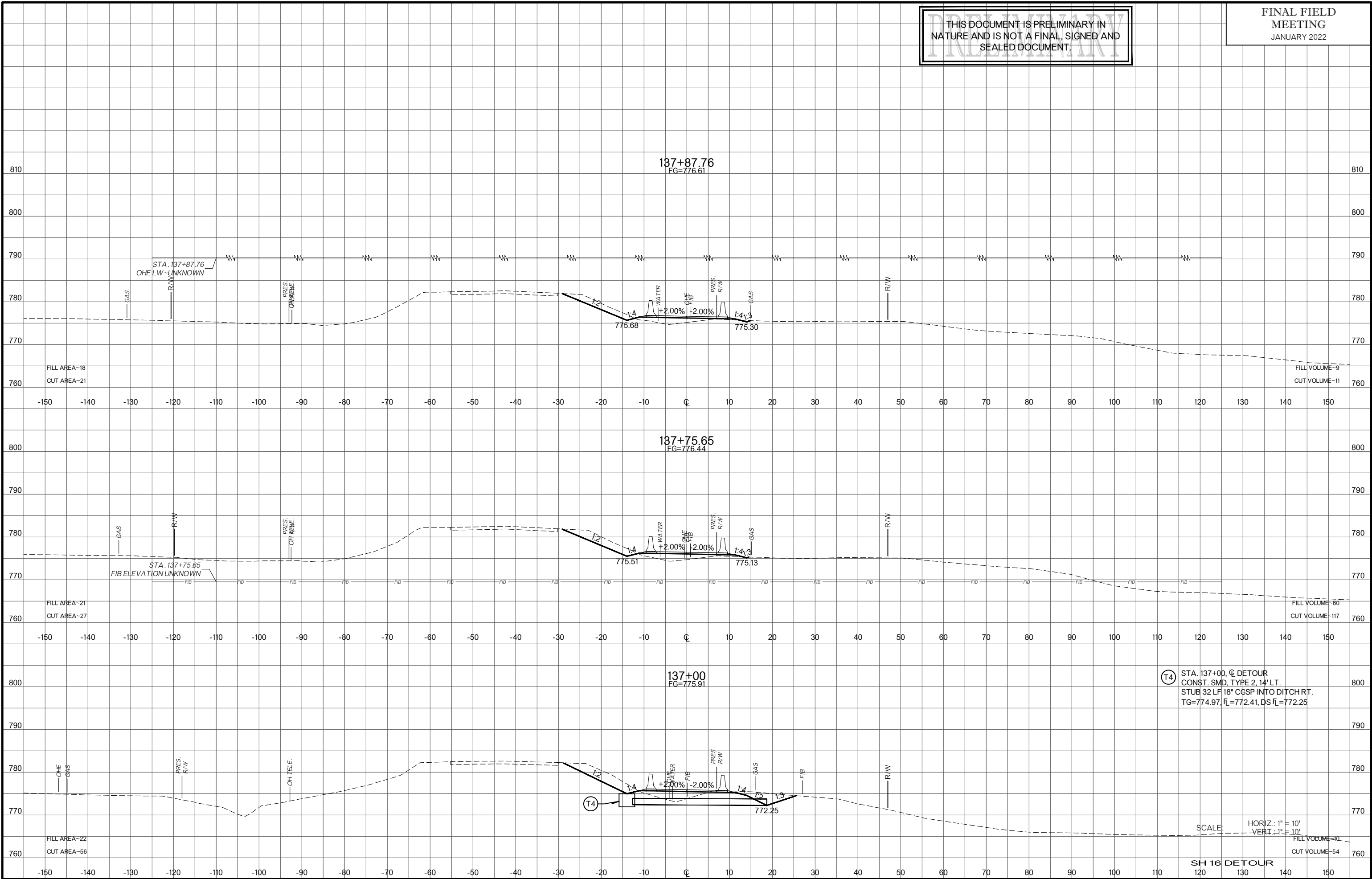
SH 16
CREEK COUNTY

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

FINAL FIELD MEETING
JANUARY 2022



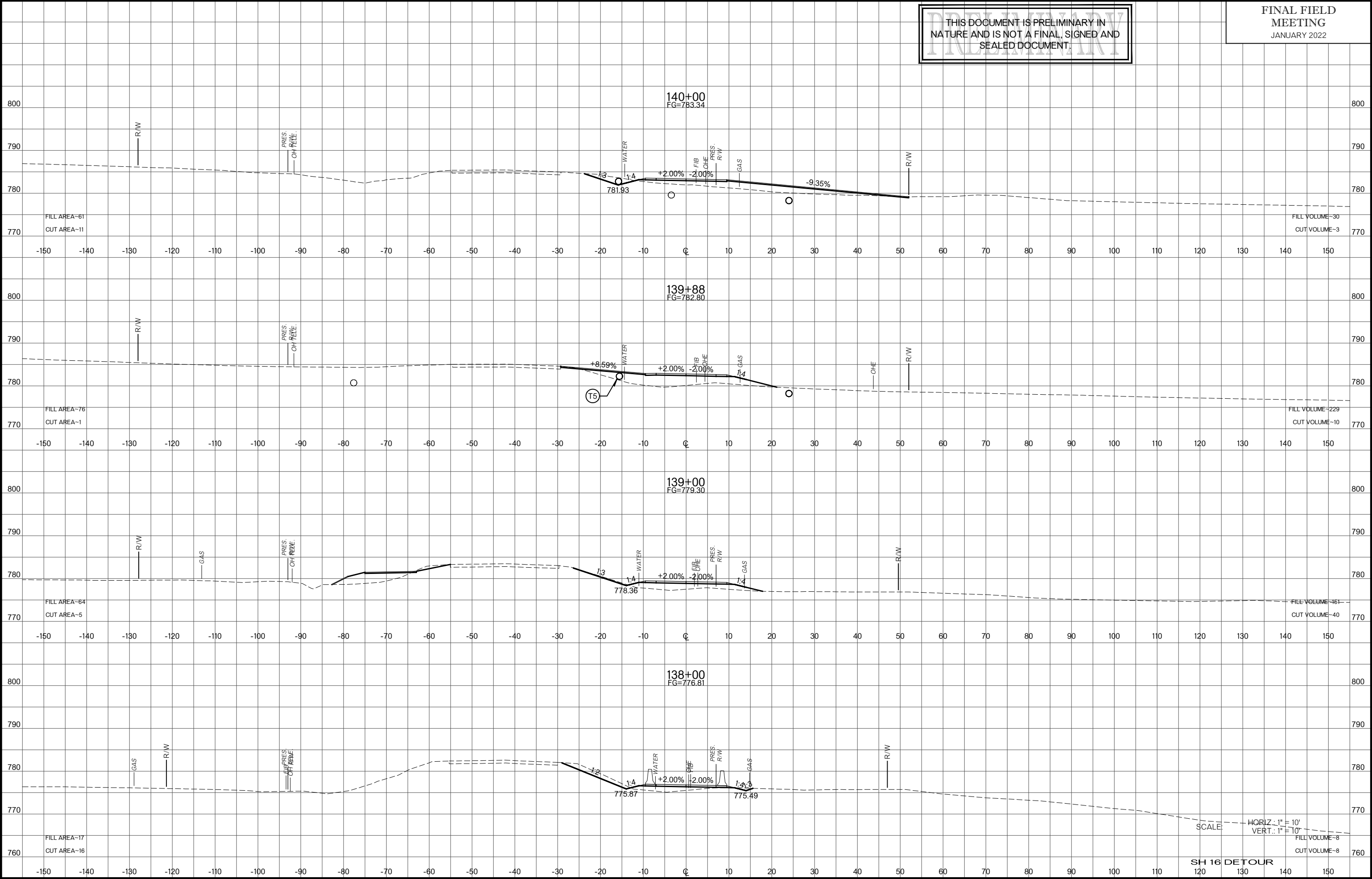
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.



SH 16
CREEK COUNTY

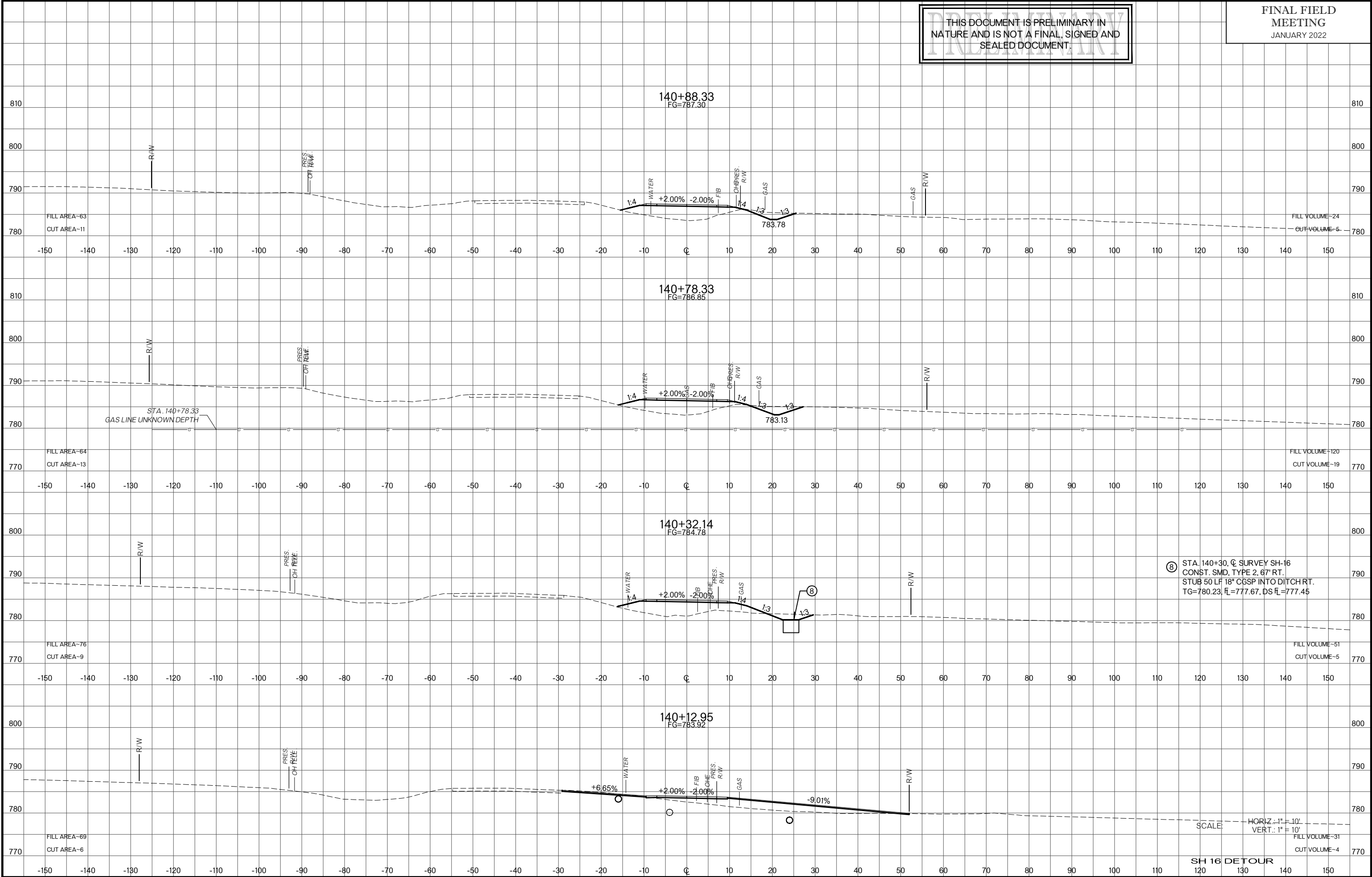
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

FINAL FIELD MEETING
JANUARY 2022



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

FINAL FIELD MEETING
JANUARY 2022



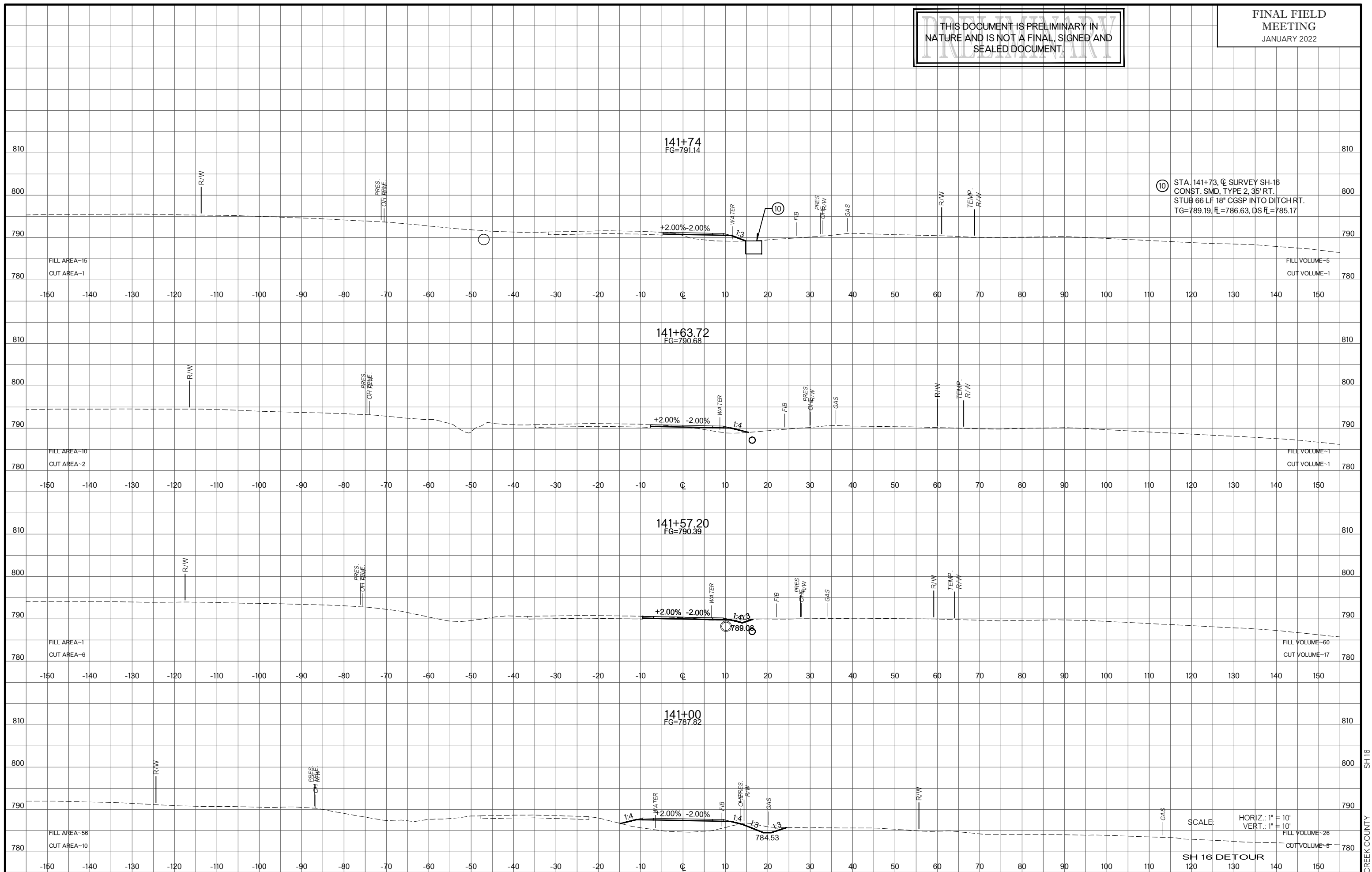
⑧ STA. 140+30, Q SURVEY SH-16
CONST. SMD, TYPE 2.67' RT.
STUB 50 LF 18" CGSP INTO DITCH RT.
TG=780.23, FL=777.67, DS FL=777.45

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

SH 16 DETOUR

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

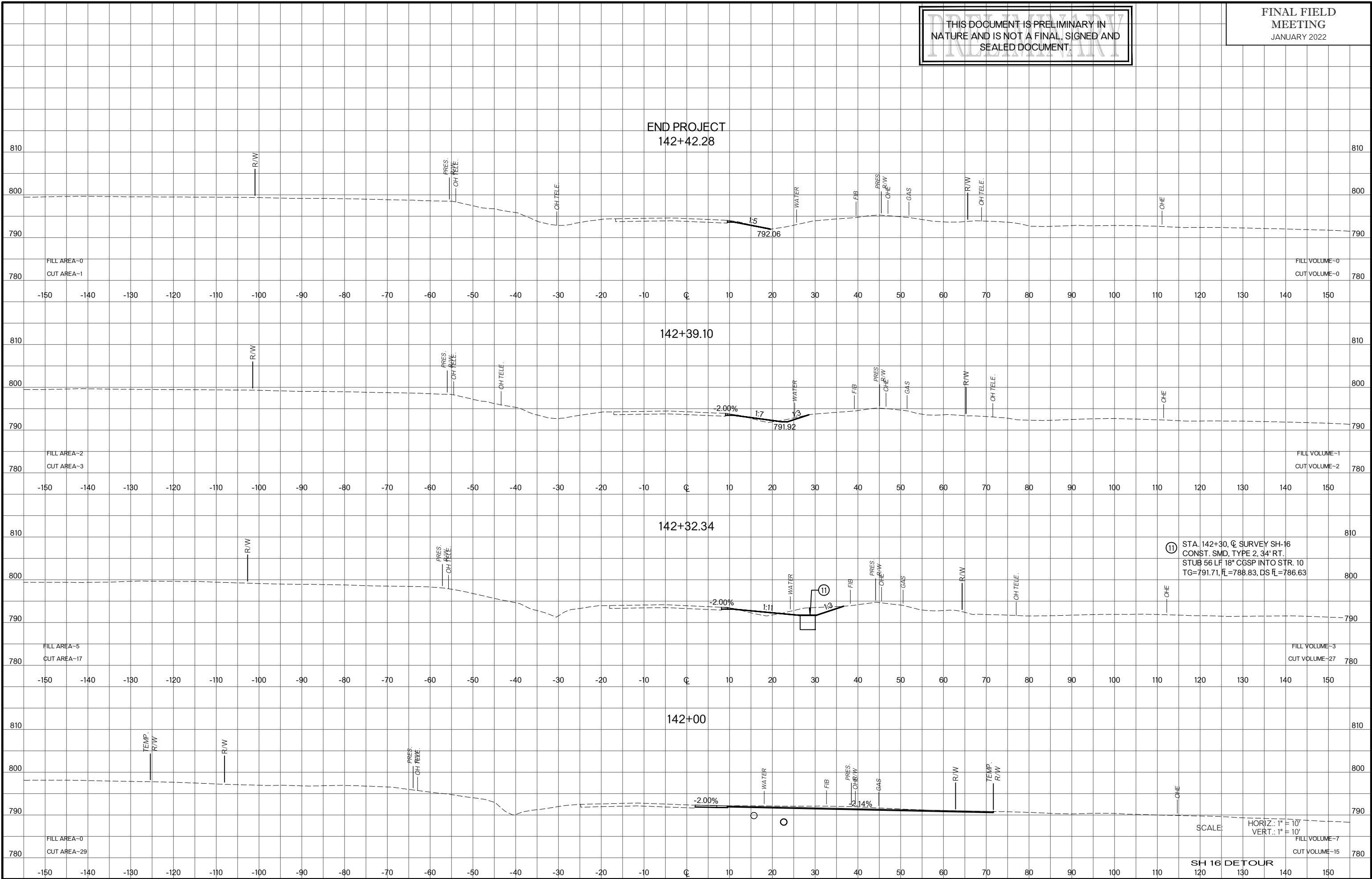
FINAL FIELD
MEETING
JANUARY 2022



State Job No. 29682(04) Sheet No. X034

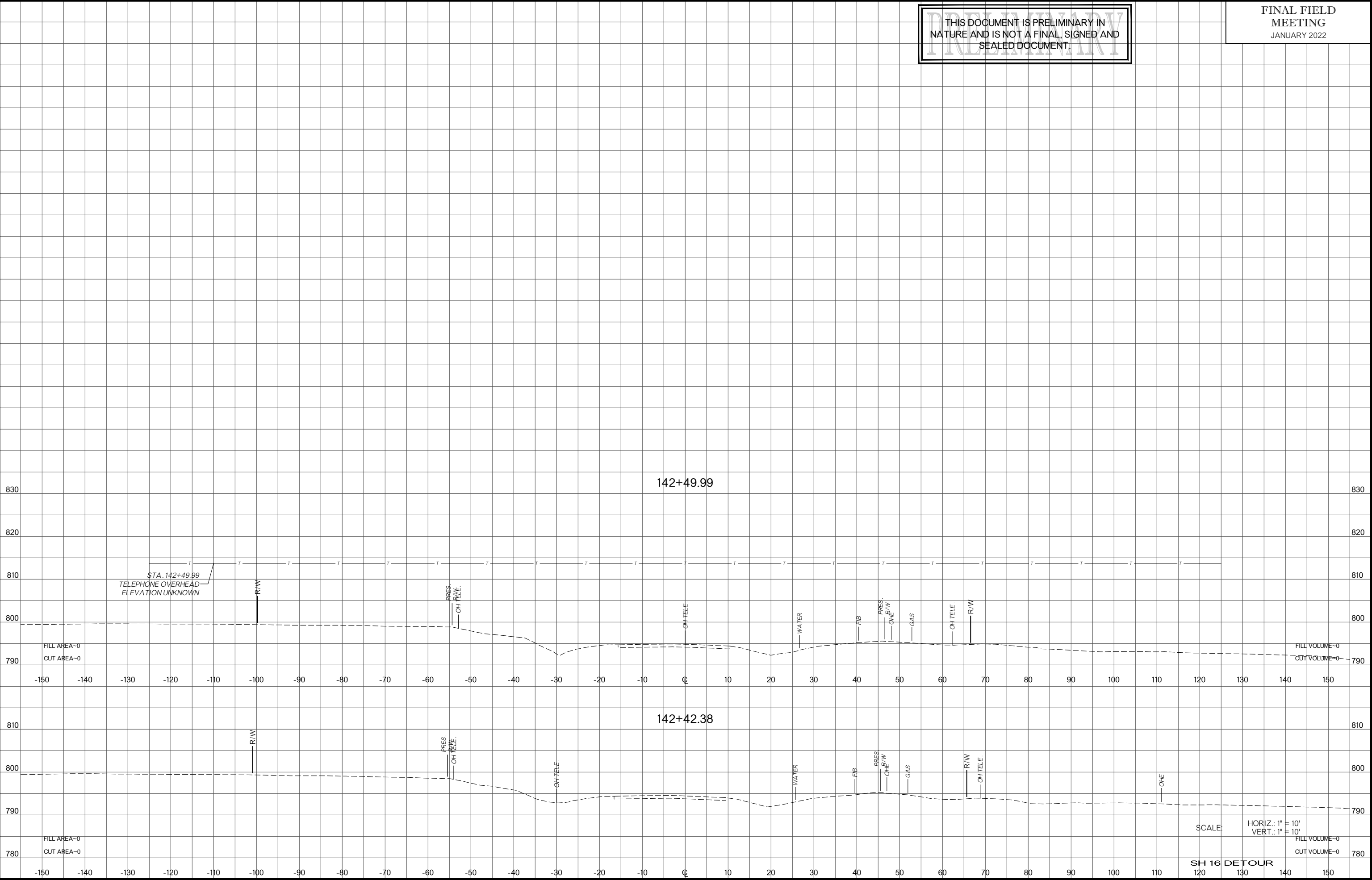
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

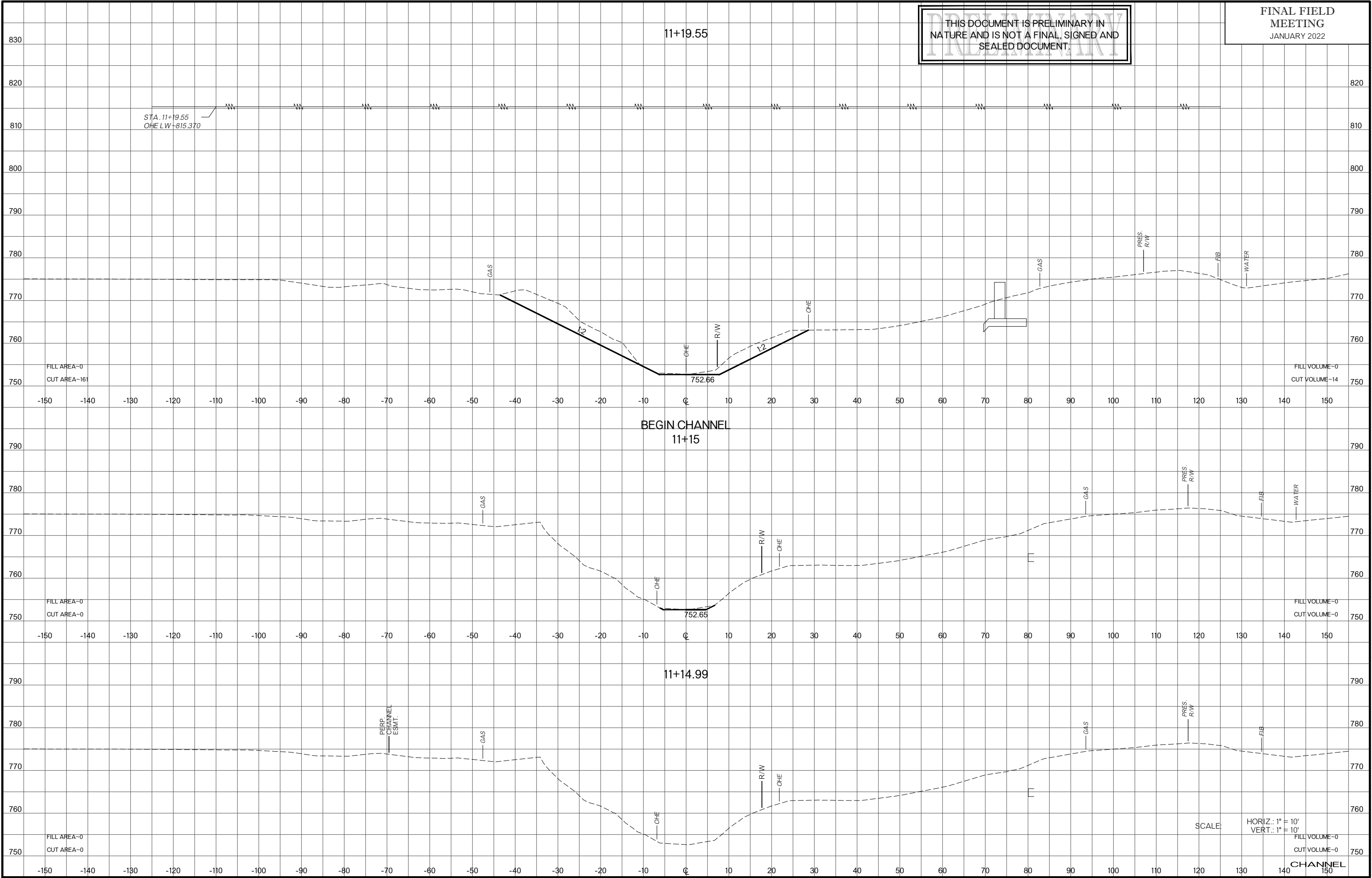
FINAL FIELD MEETING
JANUARY 2022



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

FINAL FIELD MEETING
JANUARY 2022





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

FINAL FIELD MEETING
JANUARY 2022

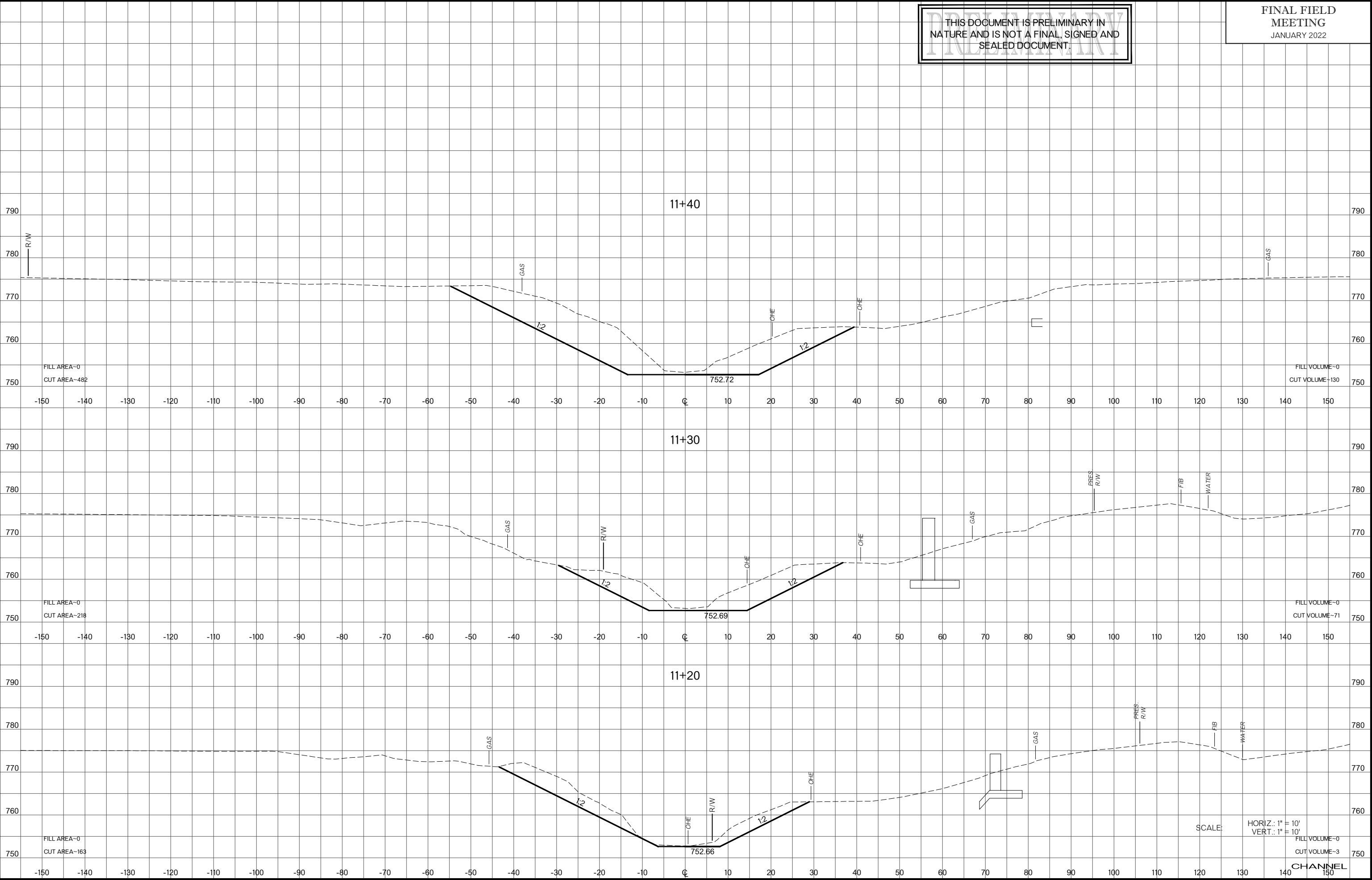
SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

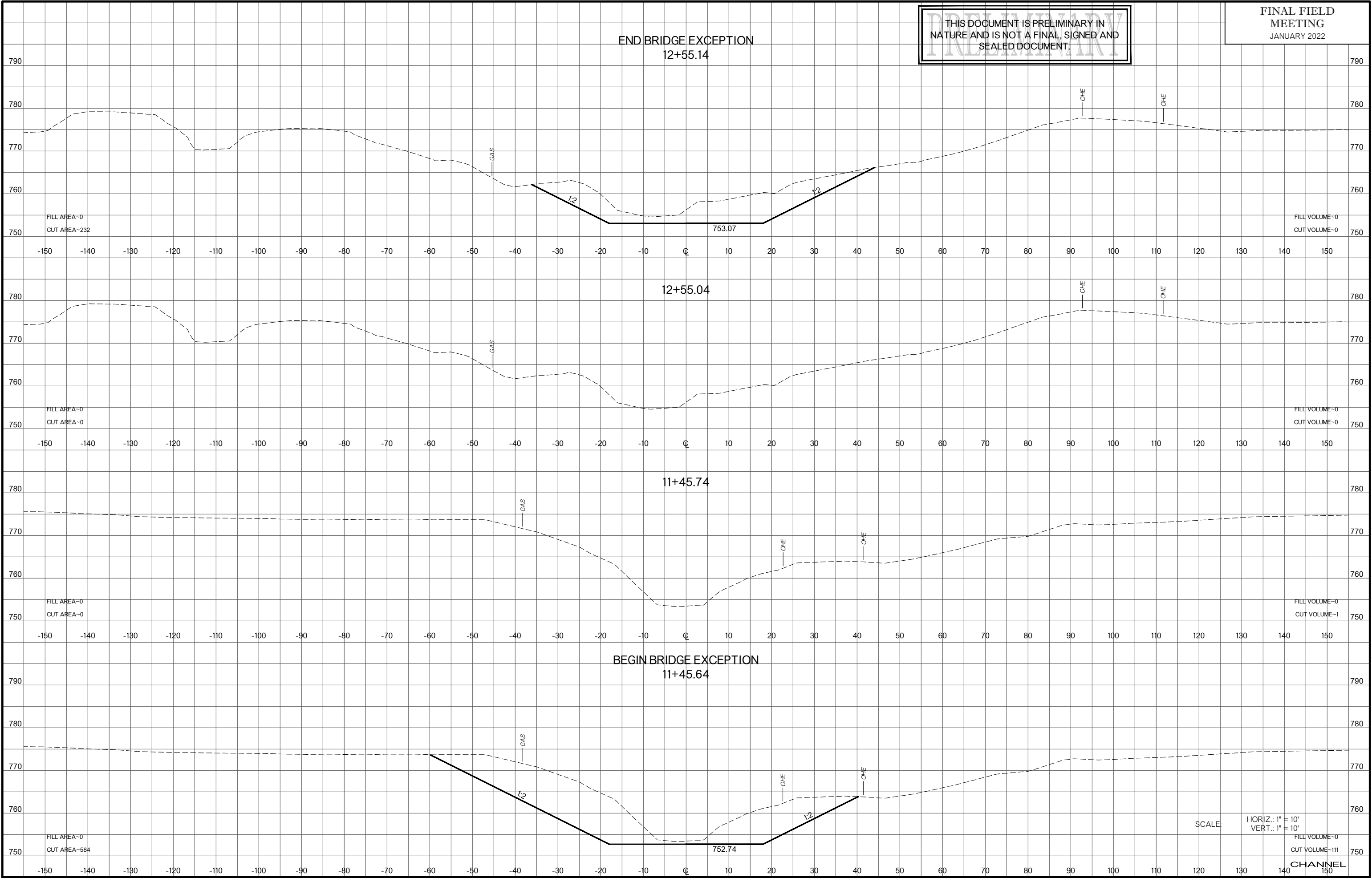
FILL VOLUME=0
CUT VOLUME=0

CHANNEL

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

FINAL FIELD MEETING
JANUARY 2022



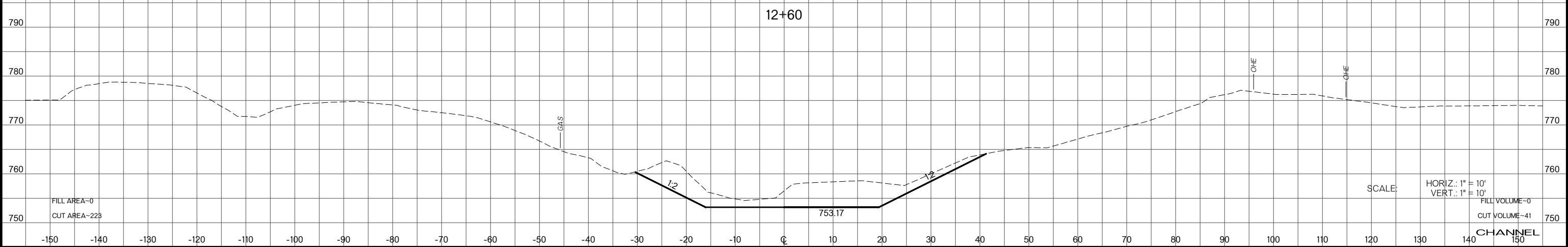
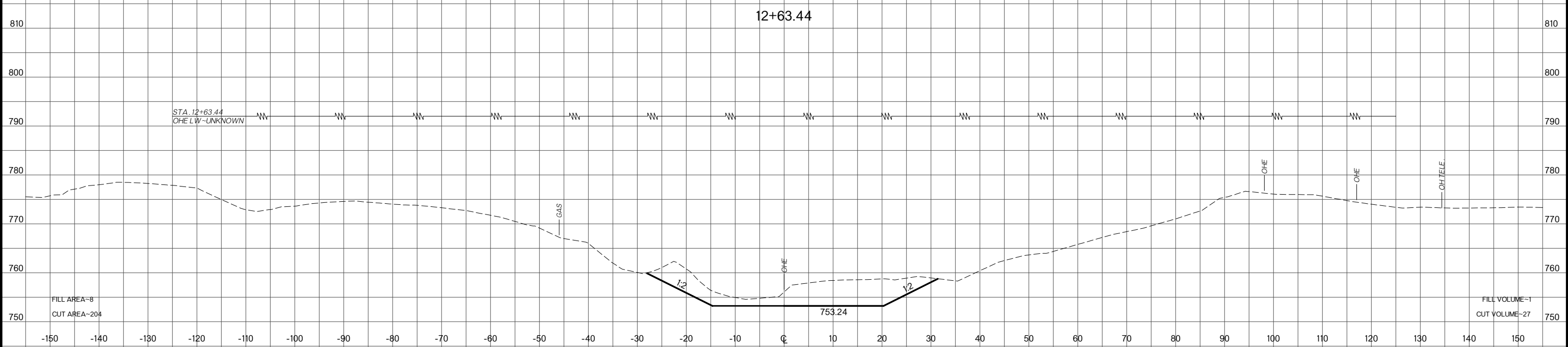
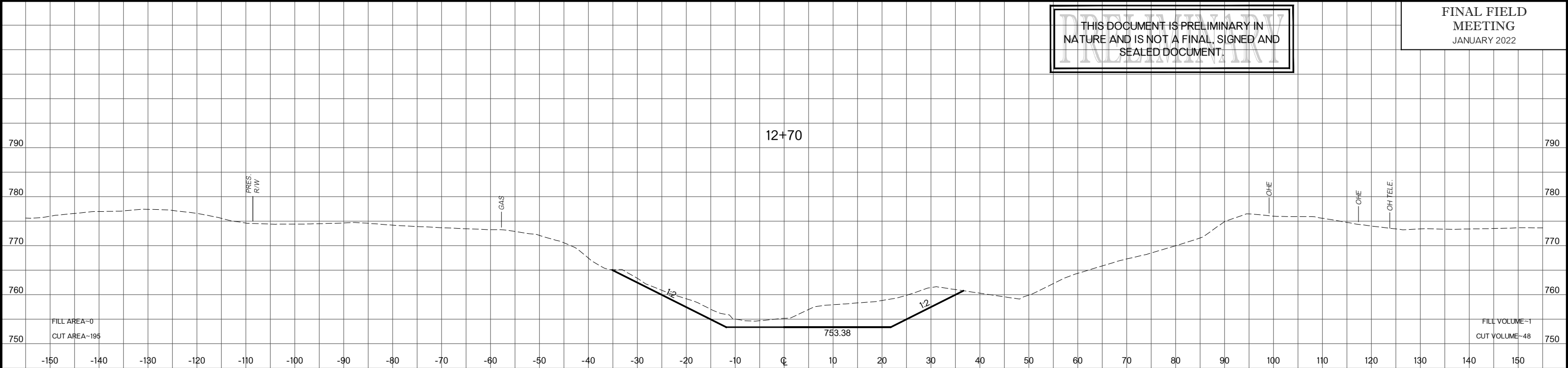


THIS DOCUMENT IS PRELIMINARY IN
NATURE AND IS NOT A FINAL, SIGNED AND
SEALED DOCUMENT.

FINAL FIELD
MEETING
JANUARY 2022

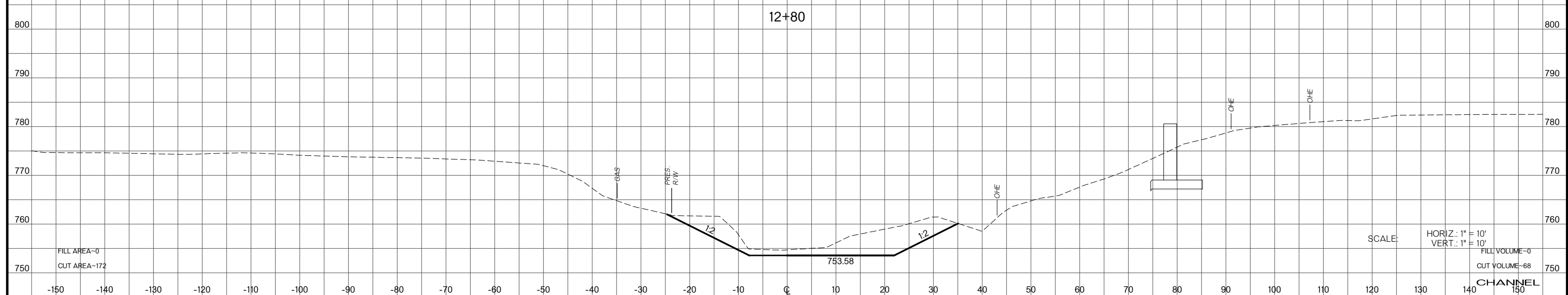
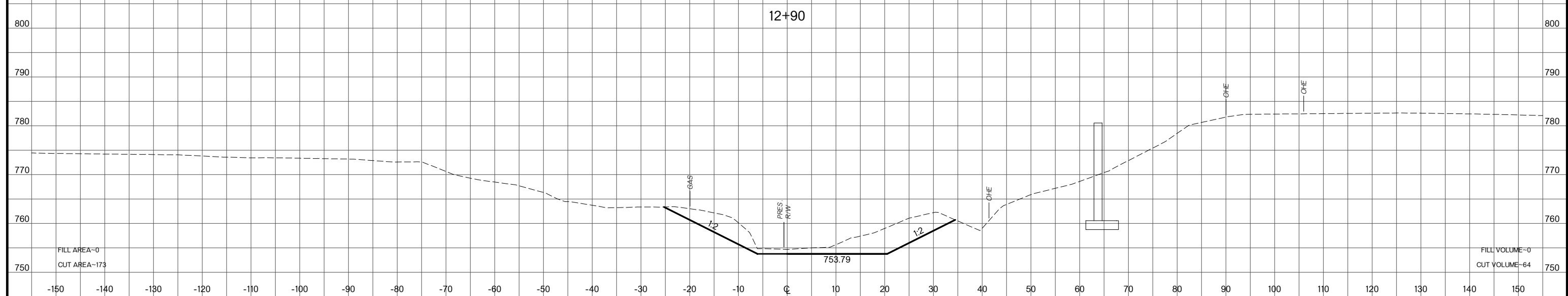
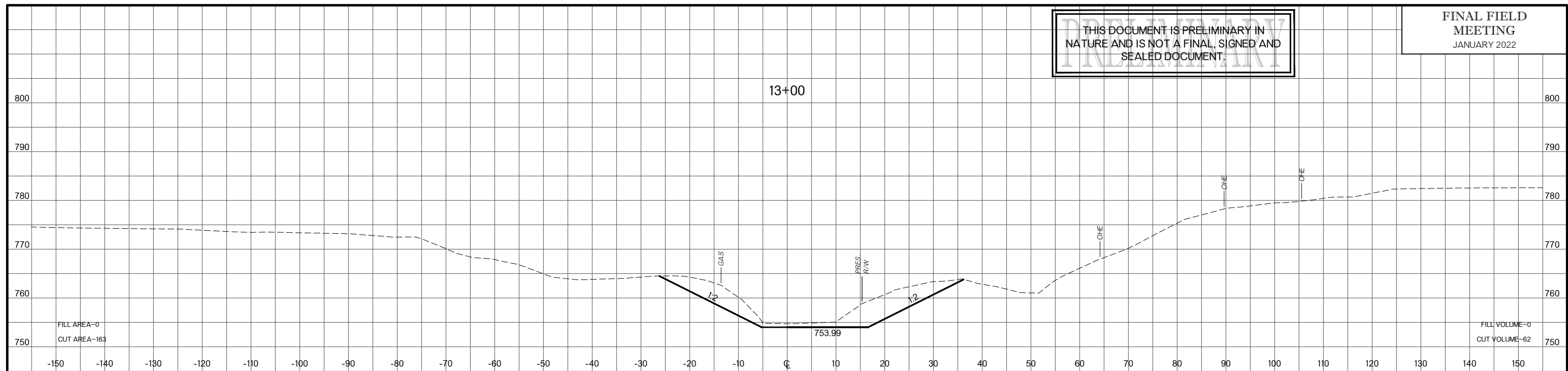
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

FINAL FIELD MEETING
JANUARY 2022



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

FINAL FIELD
MEETING
JANUARY 2022

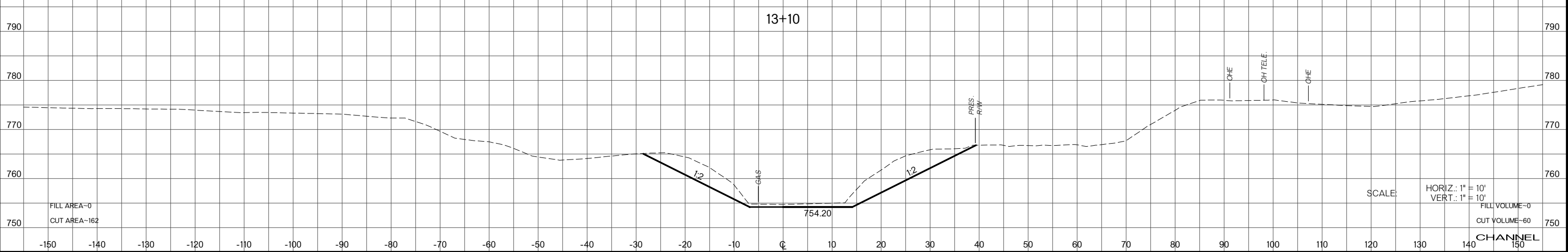
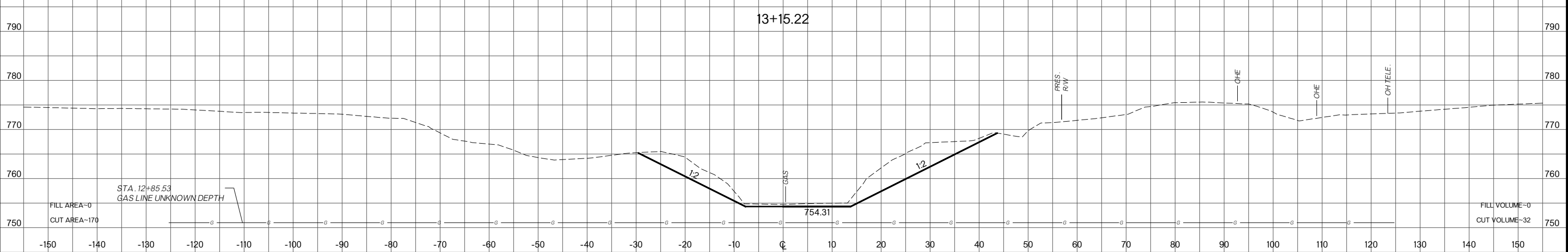
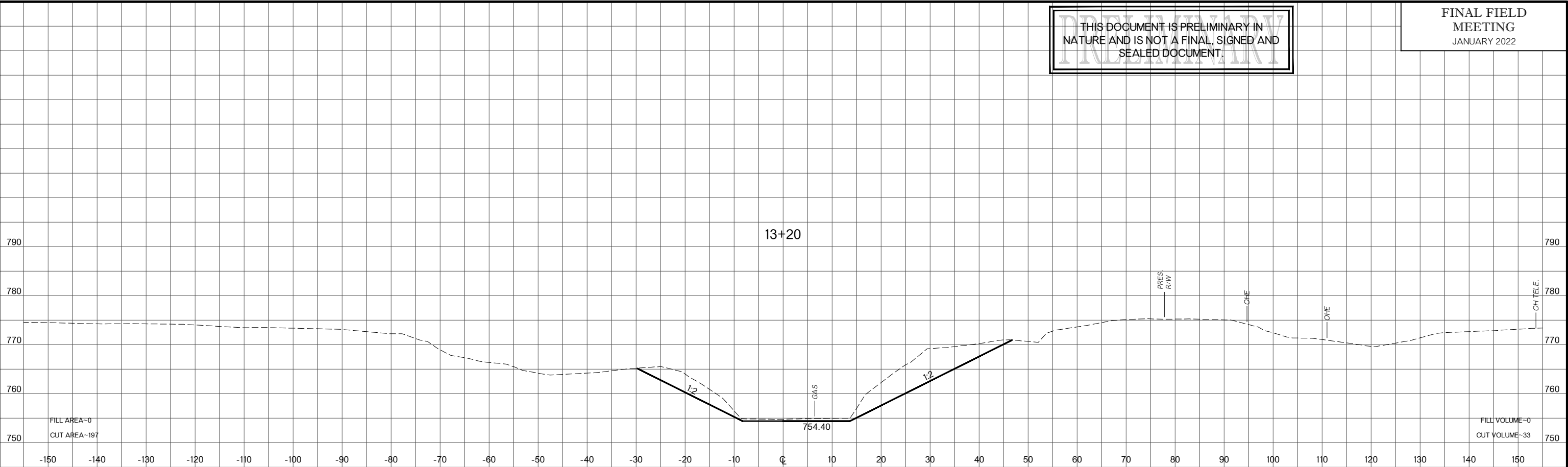


State Job No. 29682(04) Sheet No. X041

CREEK COUNTY SH 16

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

FINAL FIELD MEETING
JANUARY 2022



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

FINAL FIELD MEETING
JANUARY 2022

