

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED
STATE HIGHWAY
FEDERAL AID PROJECT NO. STP-175C(093)
WIDEN, RESURFACE, AND BRIDGE PLANS
(3R RESURFACE AND REHABILITATION PROJECT)
STATE HIGHWAY NO. 152
WASHITA COUNTY

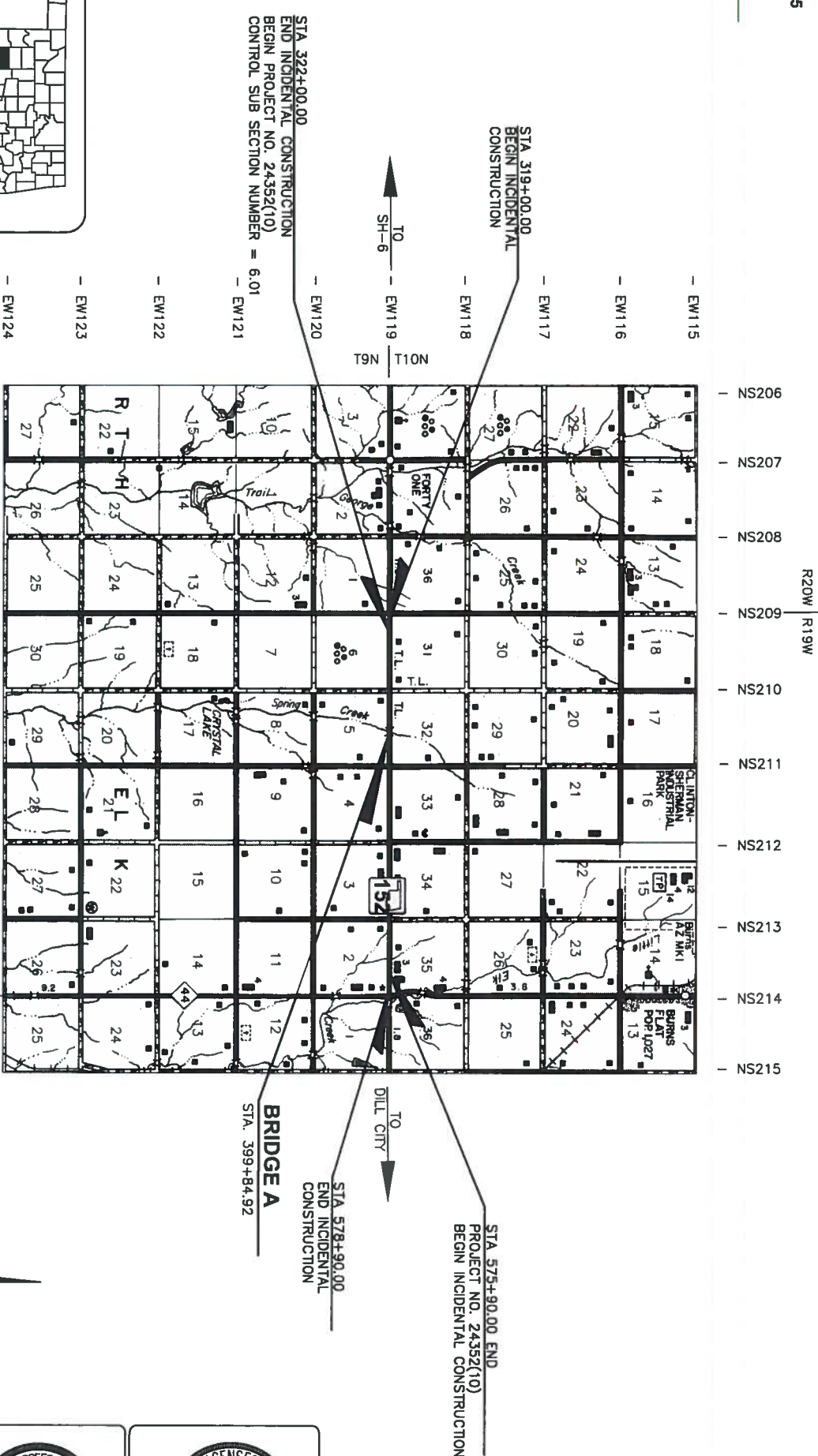
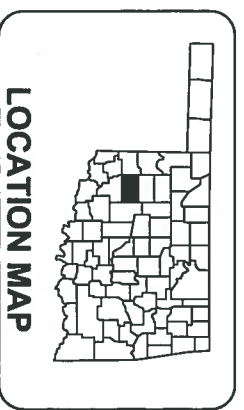
STATE JOB NO. 24352(10)
CONTROL SECTION NO. 152-75-08
BRIDGE "A" LOCATION NO. 7508-0754X
EXISTING NBI NO. 01848

DESIGN DATA	
ADT 2023	- 2000
ADT 2043	- 2800
DHV (TWO WAY)	- 374
K (DHV/ADT)	- 12%
D	- 58%
T(% of DHV)	- 13%
T(% of AADT)	- 18%
T3(% of ADT)	- 10%
V (20 YR) FLEX ESALS	- 65 MPH
	- 2.42 M

BRIDGE "A"
BEGIN BRIDGE STA. 399+67.75
BRIDGE LENGTH = 34.41'
END BRIDGE STA. 400+02.16

SCALES
PLAN 1" = 50'
PROFILE HOR. 1" = 50'
VER. 1" = 5'
LAYOUT MAP 1" = 5280'

- CONVENTIONAL SYMBOLS**
- PROPOSED ROADS
 - SECTION LINES
 - QUARTER SECTION LINES
 - EXISTING GRADE
 - EXISTING ROADS
 - BASE LINE
 - PROPOSED GRADE
 - COMMUNICATION LINES (EXISTING)
 - POWER LINES (EXISTING)
 - OVERHEAD POWER LINES (EXISTING)
 - POWER UNDER GROUND LINES (EXISTING)
 - PUG
 - GAS LINE (EXISTING)
 - SS
 - SANITARY SEWER LINES (EXISTING)
 - ST
 - STORM SEWER LINES (EXISTING)
 - W
 - WATER LINES (EXISTING)
 - TUG
 - COMMUNICATION LINES (PROPOSED)
 - POWER LINES (PROPOSED)
 - PUG
 - GAS LINE (PROPOSED)
 - SS
 - SANITARY SEWER LINES (PROPOSED)
 - ST
 - STORM SEWER LINES (PROPOSED)
 - W
 - WATER LINES (PROPOSED)
 - BUILDINGS
 - DRAINAGE STRUCTURES (EXISTING)
 - DRAINAGE STRUCTURES (PROPOSED)
 - RIGHT-OF-WAY LINES (EXISTING)
 - RIGHT-OF-WAY LINES (PROPOSED)
 - RIGHT-OF-WAY FENCE
 - FLOWLINE (EXISTING)
 - FLOWLINE (PROPOSED)
 - TOE OF SLOPE (EXISTING)
 - TOE OF SLOPE (PROPOSED)
 - CITY LIMITS
 - LANDSCAPE
 - RAILROAD



PROJECT LENGTH BASED ON CL SURVEY STATIONING
ROADWAY LENGTH 25,355.59 FT 4.802 MI
BRIDGE LENGTH 34.41 FT 0.006 MI
PROJECT LENGTH 4.808 MI
EXCEPTIONS NONE
EQUATIONS NONE

SEE SHEET 2 FOR THE INDEX OF SHEETS AND THE REQUIRED STANDARD DRAWINGS.

<p>PREPARED BY: MKEC ENGINEERING, INC. CA#2958 06/30/21 OKLAHOMA CITY, OKLAHOMA</p> <p><i>Jonathan T. Hisey</i> Jonathan T. Hisey, P.E. S.E. OKLA. REG. NO. 23127 (SHEETS ABO1, B001-B002)</p> <p>DATE 5/31/19</p>	<p>PREPARED BY: MKEC ENGINEERING, INC. CA#2958 06/30/21 OKLAHOMA CITY, OKLAHOMA</p> <p><i>Gregory C. Sparks</i> Gregory C. Sparks, P.E. OKLA. REG. NO. 21084</p> <p>DATE 5/31/19</p>
<p>OKLAHOMA DEPARTMENT OF TRANSPORTATION</p> <p>DATE APPROVED _____</p> <p>BY _____ CHIEF ENGINEER</p>	<p>FEDERAL HIGHWAY ADMINISTRATION</p> <p>DATE APPROVED _____</p> <p>BY _____ DIVISION ADMINISTRATOR</p>

SWO NO. 4699(1) PROJ. NO. STP-175C(093) SHEET NO. 00017

DESCRIPTION	REVISIONS	DATE

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
0001	TITLE SHEET
0002	INDEX OF SHEETS AND STANDARDS
0003	TYPICAL SECTION
AB01	SUMMARY OF PAY QUANTITIES AND NOTES (BRIDGE)
AR01	GENERAL NOTES (ROADWAY)
AR02	SUMMARY OF PAY QUANTITIES AND NOTES (ROADWAY)
AR03-AR06	SUMMARY SHEET
AT01	SUMMARY OF PAY QUANTITIES AND NOTES (TRAFFIC)
B001	GENERAL PLAN AND ELEVATION BRIDGE 'A'
B002	BRIDGE "A" EXTENSION AND DROP DETAILS
E001	SECTION 404 PERMIT COMPLIANCE
R001	STORM WATER MANAGEMENT PLAN
R002	DRAINAGE STRUCTURE DESIGN RECORD
R003	DRAINAGE AREA MAP
R004-R012	EROSION CONTROL
R013-R014	CROSS DRAIN DETAILS
R015-R032	PLAN AND PROFILE
R033	MASS HAUL DIAGRAM
S001-S025	SURVEY DATA SHEET
T001	TRAFFIC CONTROL AND CONSTRUCTION SEQUENCING
T002-T012	TRAFFIC CONTROL - PHASE 1
T013-T023	TRAFFIC CONTROL - PHASE 2
T024-T032	SIGNING AND STRIPING SHEETS
X001-X093	CROSS SECTION

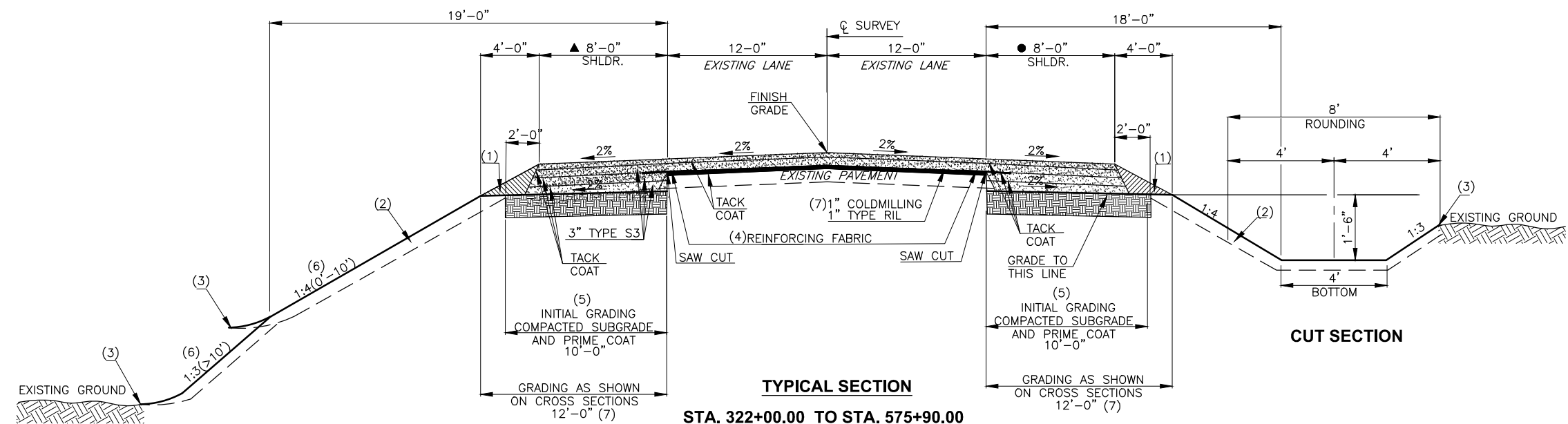
THE FOLLOWING ODOT STANDARDS ARE REQUIRED FOR THIS PROJECT:

ROADWAY	BRIDGE	TRAFFIC CONTROL	TRAFFIC SIGNING
SSS-1-1	RCB-C3-10(2-12)-02E	TCS1-1-01	DU1-1-00
TSC2-3-2	RCB-E3-H5-0-1-01E	TCS2-1-00	DU2-1-00
TSD-2-0	RCB-E3-H5-0-2-01E	TCS3-1-01	RSD1-1-00
CET4S-3-2	RCB-E3-H8-0-1-01E	TCS4-1-01	SBS1-1-00
SPI-4-1	RCB-E3-H8-0-2-01E	TCS5-1-00	SBS2-1-00
FPI-3-3	RCB-CW3-D6-0-01E	TCS6-1-02	SBS5-1-00
SPB-1-4	RCB-C1-3&4&5(2-20)-01E	TCS7-1-02	GMS1-1-00
FHTMPP-1-0	RCB-E1-H3-01-01E	TCS8-1-00	SSP1-1-02
FHTCP-3-1	RCB-E1-H3-02-01E	TCS9-1-01	SSA1-1-00
SBI-4-2	RCB-CW1-D4-0-01E	TCS11-1-01	SSA2-1-00
MI-3-0	RCB-C2-8(2-12)-01E	TCS13-1-00	
RDI-3-2	RCB-E2-H3-0-1-01E	TCS14-1-00	
PDT-1-3	RCB-E2-H3-0-2-01E	TCS18-1-01	
DC-3-2	RCB-CW2-D4-0-01E	TCS19-1-01	
RWF2-2-2	RCB-C1-6(2-14)-01E	TCS20-1-00	
	RCB-E1-H4-01-01E	TCS21-1-02	
	RCB-E1-H4-02-01E	TCS24-1-02	

PLOTTED: Wednesday, May 29, 2019 @ 02:17PM
 G:\projects\2019\14300568-0001_EC-15044 - SH-152 Washita County\Drawings\24352(10) INDEX OF SHEETS OF

DESIGN	G.C.S.	SH-152	WASHITA COUNTY
DRAWN	G.S.N.	INDEX OF SHEETS AND STANDARDS JOB PIECE NO. 24352(10) SHEET NO. 0002	
CHECKED			
MKEC			

REV. NO.	DESCRIPTION	REVISIONS	DATE



PG ASPHALT LAYERING WIDENING NEW CONSTRUCTION	
12'-0" DRIVING LANES-OVERLAY	
2"	= SUPERPAVE TYPE S4 (PG 76-28 OK)
3"	= SUPERPAVE TYPE S3 (PG 76-28 OK)
1"	= TYPE RIL (RICH INTERMEDIATE LAYER) (PG 76-28 OK)
1"	= COLDMILLING
8'-0" SHOULDER - FULL DEPTH	
2"	= SUPERPAVE TYPE S4 (PG 64-22 OK)
3"	= SUPERPAVE TYPE S3 (PG 64-22 OK)
3"	= SUPERPAVE TYPE S3 (PG 64-22 OK)
3"	= SUPERPAVE TYPE S3 (PG 64-22 OK)
8"	= COMPACTED SUBGRADE

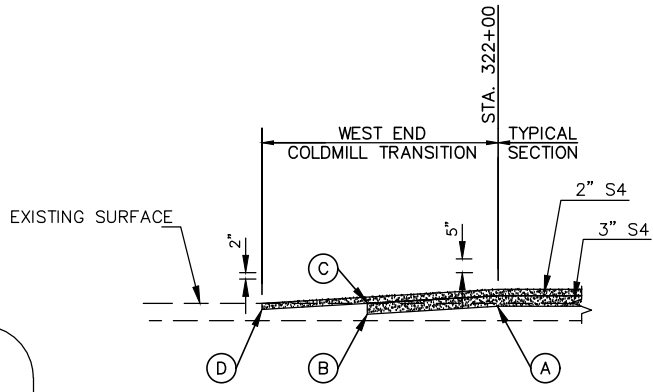
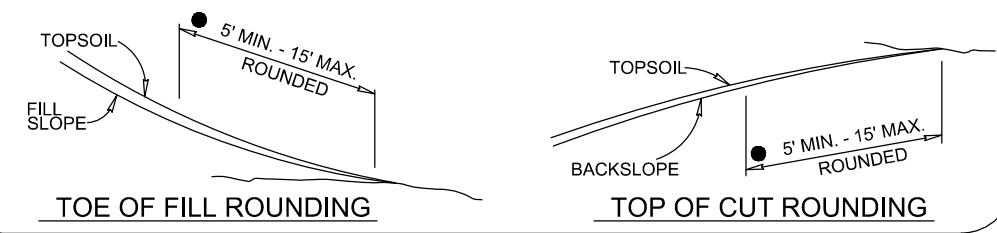
- ▲ EXISTING SHOULDER VARIES FROM 8'-0" TO 4'-1" STA. 321+00 TO STA. 322+00. WIDEN TO 8'-0" BETWEEN STA. 321+00 TO STA. 322+00 AS PART OF INCIDENTAL CONSTRUCTION.
- EXISTING SHOULDER VARIES FROM 8'-0" TO 3'-3" STA. 321+00 TO STA. 322+00. WIDEN TO 8'-0" BETWEEN STA. 321+00 TO STA. 322+00 AS PART OF INCIDENTAL CONSTRUCTION.

- BACKFILL NOTE: BACKFILL AND COMPACT AS PART OF FINISHING OPERATIONS. COST TO BE INCLUDED IN OTHER ITEMS.
- TOPSOIL NOTE: THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL. STOCKPILE IT, AND PLACE IT BACK ON THE SECTION. RESERVED TOPSOIL SHALL BE SPREAD FIRST ON THE COMPLETED SLOPES OF THE CUT SECTION AND REMAINDER ON COMPLETED FILL SLOPES OR OTHER PRIORITY AREAS LOCATED BY THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH OPERATIONS SHALL BE INCLUDED IN THE PAY ITEM SALVAGED TOPSOIL, LUMP SUM.

THE GRADING LINE AS SHOWN ON THE TYPICAL AND CROSS SECTION IS TO THE TOP OF THE TOPSOIL. EARTHWORK QUANTITIES WERE NOT ADJUSTED FOR SALVAGE AND THE TOPSOIL QUANTITY IS INCLUDED IN THE MASS LINE BALANCE.
- SEE ROUNDING DETAIL
- PLACE A 4FT. STRIP OF REINFORCING FABRIC CENTERED ALONG THE LONGITUDINAL JOINT BETWEEN THE MAINLINE AND THE SHOULDER. PLACE ON TOP OF RIL.
- SUBGRADE IS TO BE COMPACTED IN ACCORDANCE WITH THE OKLAHOMA DEPARTMENT OF TRANSPORTATION 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION SECTION 202.04.A(5)(B)(2), EARTH FILL. COST SHALL BE INCLUDED IN UNIT PRICE FOR "UNCLASSIFIED BORROW" PAY ITEM.
- DISTANCE MEASURED VERTICALLY FROM EDGE OF FINISHED GRADE SHOULDER.
- REFER TO NOTE (14) ON SHEET NO. AR01 FOR SULFATE WARNING.

ROUNDING DETAIL

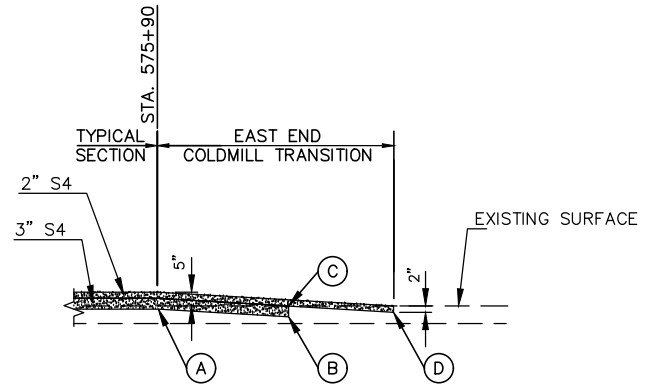
● INTERSECTION OF CUT AND/OR FILL SLOPES WITH GROUND LINE TO BE ROUNDED AS PART OF FINISHING OPERATIONS. ROUNDDING SHALL BE 5' MINIMUM FOR SMALLER CUTS AND FILLS TO 15' MAXIMUM FOR LARGER CUTS AND FILLS OR AS DESIGNATED BY THE ENGINEER. COST OF ROUNDDING TO BE INCLUDED IN PRICE BID FOR OTHER ITEMS OF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



POINT	STATION	COLDMILL DEPTH (IN.)
A	322+00	0
B	320+20	3
C	320+20	0
D	319+00	2

WEST END COLDMILL TRANSITION

STA. 319+00.00 TO STA. 322+00.00



POINT	STATION	COLDMILL DEPTH (IN.)
A	575+90	0
B	577+70	3
C	577+70	0
D	578+90	2

EAST END COLDMILL TRANSITION

STA. 575+90.00 TO STA. 578+90.00

DESIGN	G.C.S.	SH-152	WASHITA COUNTY
DRAWN	G.S.N.		
CHECKED	S.K.		
MKEC ENG.			

TYPICAL SECTION

PROJ. NO. 24352(10) SHEET NO. 0003

PLOTTED: Wednesday, May 29, 2019 @ 02:48PM
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PLOTTED: Wednesday, December 12, 2018 @ 11:59AM projects\2014\1403010658-odot ec-1504a - sh-152 washita co\5-Civil\CAD\Structural\2435210-SUMMARY OF PAY QUANTITIES AND NOTES

DESCRIPTION	REVISIONS	DATE

GENERAL NOTES

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

VERIFICATION OF EXISTING CONDITIONS –
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY UNDERSTANDING THE NATURE OF THE WORK AND CONDITIONS UNDER WHICH THE WORK WILL BE PERFORMED. ALL DIMENSIONS OF THE EXISTING BRIDGE COMPONENTS SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS NECESSARY TO CONNECT THE NEW MATERIAL AND SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF.

THE CONTRACTOR SHALL ADOPT METHODS CONSISTENT WITH GOOD CONSTRUCTION PRACTICE AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO THE EXISTING BRIDGE AND ATTACHMENTS. ANY DAMAGE TO THE EXISTING BRIDGE STRUCTURE OR ROADWAY DUE TO THE CONTRACTORS NEGLIGENCE SHALL BE REPAIRED, AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER.

EXISTING PLANS –
 THE EXISTING STRUCTURE WAS ORIGINALLY CONSTRUCTED AS PART OF FEDERAL AID PROJECT NO. F-430(I). PLANS OF THIS PROJECT ARE AVAILABLE FROM THE OKLAHOMA DEPARTMENT OF TRANSPORTATION TECHNOLOGY SERVICES PLANS SECTION, 200 N.E. 21ST STREET, OKLAHOMA CITY, OKLAHOMA, 73105.

TEMPORARY RETAINING STRUCTURES –
 TEMPORARY RETAINING STRUCTURES NOT SPECIFICALLY DESIGNED AND COMPLETELY DETAILED IN THE PLANS WILL NOT BE MEASURED FOR PAYMENT AND SHALL BE INCLUDED IN OTHER ITEMS OF WORK IN ACCORDANCE WITH SUBSECTION 502.04 OF THE SPECIFICATIONS. LOCATIONS OF POTENTIAL TEMPORARY RETAINING STRUCTURES TO FACILITATE THE PROPOSED SEQUENCE OF CONSTRUCTION SHOWN IN THE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY AND HAVE NOT BEEN DESIGNED AND DETAILED. ACTUAL LIMITS OF TEMPORARY RETAINING STRUCTURES SHALL BE DETERMINED BY THE CONTRACTOR. TEMPORARY RETAINING STRUCTURES SHALL BE DESIGNED IN ACCORDANCE WITH SUBSECTION 502.04 OF THE SPECIFICATIONS BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA. SUBMIT TEMPORARY RETAINING STRUCTURE DESIGN CALCULATIONS AND DRAWINGS TO THE BRIDGE ENGINEER FOR APPROVAL. DO NOT BEGIN INSTALLATION UNTIL APPROVAL OF THE DESIGN CALCULATIONS AND DRAWINGS BY THE ENGINEER IS RECEIVED.

CONCRETE –
 ALL EXPOSED CONCRETE EDGES SHALL HAVE A 1/2" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED.

SILT REMOVAL –
 THE CELLS OF THE EXISTING R.C.B. SHALL BE CLEANED OF ALL DEBRIS AND SILT DEPOSITS IN A MANNER APPROVED BY THE ENGINEER. ALL COSTS SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

BRIDGE PAY ITEM NOTES

B1 PAYMENT TO THE CONTRACTOR WILL BE BASED ON PLAN QUANTITIES.

B2 ITEM "REMOVAL OF BRIDGE ITEMS" INCLUDES REMOVAL AND DISPOSAL OF:
 1. 2'-0" OF THE UPSTREAM AND DOWNSTREAM END OF THE RCB
 2. ALL WINGWALLS AND FOOTINGS
 3. BOTH CURBS AND RAILS

ALL WORK SHALL BE DONE IN ACCORDANCE WITH SUBSECTION 619.04(b)-2 OF THE SPECIFICATIONS AND IN A MANNER APPROVED BY THE ENGINEER. ALL REMOVED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. INCLUDE ALL COSTS FOR LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN THE CONTRACT UNIT PRICE OF "REMOVAL OF BRIDGE ITEMS".

ITEM NO.		ITEM	UNIT	TOTAL	
202(A)	1301	UNCLASSIFIED EXCAVATION	B1	C.Y.	320
501(A)	1306	STRUCTURAL EXCAVATION UNCLASSIFIED	B1	C.Y.	110
509(A)	1326	CLASS AA CONCRETE	B1	C.Y.	254.7
511(A)	1332	REINFORCING STEEL	B1	LB.	39,280
619(B)	2500	REMOVAL OF BRIDGE ITEMS	B2	L.SUM	1

THIS DRAWING IS PRELIMINARY IN NATURE. IT IS NOT A FINAL SIGNED AND SEALED DRAWING.

DESIGN	J.T.H.
DRAWN	T.M.
CHECKED	J.T.H.
APPROV.	J.T.H.
SQUAD	MKEC ENG.

SH-152 OVER SPRING CREEK WASHITA COUNTY

BRIDGE PAY ITEMS AND NOTES

JOB PIECE NO. 24352(10) SHEET NO. AB01

DESCRIPTION	REVISIONS	DATE

GENERAL CONSTRUCTION NOTES:

THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING THE EXISTING SECTION LINE ROADS TO LOCAL AND THROUGH TRAFFIC. SEE STANDARD SPECIFICATIONS FOR MAINTENANCE OF LOCAL AN 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 STRUCTURE, SHALL BE LIMITED TO ONE SIDE AT A TIME, AND THE PROCEDURE OUTLINED IN THE PAVEMENT DROP-OFF TREATMENT STANDARD PDT-1(LATEST REVISION) SHALL BE IMPLEMENTED. ONLY THAT AMOUNT OF OPEN TRENCH WILL BE ALLOWED THAT CAN BE SURFACED IN 1 (ONE) DAY'S TIME WITHOUT APPROVAL BY THE ENGINEER. LIGHTS, SIGNS AND BARRICADES SHALL BE MOVED AS WORK PROGRESSES.

THE RESIDENT ENGINEER MAY SUSPEND ALL CONSTRUCTION ACTIVITIES UNTIL UNPROTECTED DROP-OFFS OR ANY OTHER SAFETY CONCERNS ARE CORRECTED. CONTRACT TIME, INCENTIVES/DECENTIVIES, AND/OR CONTRACT MILESTONES TIMES WILL NOT BE SUSPENDED OR CREDITED FOR SUCH INSTANCES.

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 OR EQUIVALENT 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.

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.

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

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.

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. THIS WILL INCLUDE CLEANING OUT ALL CROSS DRAINS, PRIOR TO EXTENSIONS, AS DIRECTED BY THE ENGINEER. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

ANY DAMAGE TO EXISTING OR PLACED VEGETATION OUTSIDE OF THE PLANNED DISTURBANCE MUST BE CORRECTED AND SOLID SLAB SODDED AT THE EXPENSE OF THE CONTRACTOR.

Migratory Bird: 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 NBI No. 01848 and culverts at Sta. 539+31.41, and Sta. 555+88.98 involved with this project was observed. Painting, repair, retrofit, rehabilitation or demolition of the existing bridge/structures 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 bridge 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 at 405-210-3671 if any bird use of the existing structures is observed. If birds are observed then painting, repair, retrofit, rehabilitation or demolition of the existing bridge/structures shall be conducted between September 1, and February 28, when migratory bird nests are not occupied.

3/29/2019 3:48:17 PM G:\PROJECTS\2014\1403010658-0001_EC-1904A-SH-152_WASHITA_CO\5-CIVIL\CAD\PAV\2435210-GENERAL NOTES (ROADWAY).DWG

DESIGN	G.C.S.	SH-152	WASHITA COUNTY
DRAWN	G.S.N.		
CHECKED	S.K.		
MKEC		GENERAL NOTES (ROADWAY)	
		JOB PIECE NO. 24352(10)	SHEET NO. ARO1

PAY QUANTITY NOTES

- (R-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY ONLY. SEE SECTION 109.01B OF THE STANDARD SPECIFICATIONS.
- (R-3) INCLUDES 1000 CU. YDS. FOR DRIVEWAYS, RETURNS, DIKES, AND MISCELLANEOUS EARTHWORK.
- (R-4) AN ESTIMATED QUANTITY OF 16,147.00 C.Y. TOPSOIL TO BE RESERVED FOR REPLACEMENT OF APPROXIMATELY 5" ON COMPLETED FORESLOPES, DITCHES, AND BACKSLOPES. THIS QUANTITY IS INCLUDED IN THE EARTHWORK BALANCE. ANY ADDITIONAL EXCAVATION REQUIRED IN CUT SECTIONS TO ALLOW FOR PLACEMENT OF TOPSOIL TO FINAL GRADE, SHALL BE INCLUDED IN THE PRICE BID.
- (R-6) FOR SOLID SLAB SODDING PRICE BID TO INCLUDE COST OF 0-46-0 FERTILIZER, ESTIMATED AT 200 POUNDS PER 1,000 SQ. YDS.
- (R-7) FOR SOLID SLAB SODDING PRICE BID TO INCLUDE COST OF WATERING, ESTIMATED AT 40 GALLONS PER SQ. YDS.
- (R-8) PRICE BID TO INCLUDE COST OF SEDIMENT REMOVAL AND ALL MAINTENANCE. SEDIMENT MUST BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE DEVICE.
- (R-11) THE QUANTITIES ESTIMATED FOR TEMPORARY EROSION AND SEDIMENT CONTROL IS 25 ACRES.
- (R-15) QUANTITY BASED ON TWO APPLICATIONS.
- (R-18) ESTIMATED AT 120 LBS. PER CU. FT.
- (R-21) PRIME COAT SHALL BE APPLIED AT AN ESTIMATED RATE OF 0.35 GAL. PER SQ. Y.D. WHEN APPLIED TO SUBGRADE, AND 0.25 GAL. PER SQ. YD. WHEN APPLIED TO AGGREGATE BASE. THE ACTUAL CUTBACK PRIME COAT REQUIRED FOR PLACEMENT OPERATIONS WILL BE DETERMINED BY THE CONTRACTOR, AND SHALL CONSIDER THE RESIDUE FROM DISTILLATION PERCENTAGE SHOWN IN SECTION 708.03 OF THE STANDARD SPECIFICATIONS.
- (R-24) ESTIMATED AT 112 LBS. PER SQ. YD. PER 1" THICK
- (R-26) PRICE BID TO INCLUDE COST OF FOG SEAL, MEETING THE REQUIREMENTS OF SECTION 407 OF STANDARD SPECIFICATIONS.
- (R-27) 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 STOCKPILING TO NOT INCORPORATE UNDERLYING MATERIAL INTO THE STOCKPILE.
- (R-30) QUANTITY INCLUDES AN ESTIMATED 20 C.Y. TO BE USED AS DIRECTED BY THE ENGINEER.
- (R-36) INCLUDES REMOVAL OF ALL EXISTING ROADWAY DRAINAGE STRUCTURES, HEADWALLS (UNLESS OTHERWISE SPECIFIED), INLETS, FENCES, AND OTHER STRUCTURES WITHIN THE RIGHT OF WAY.
- (R-37) TO BECOME THE PROPERTY OF AND DISPOSED OF BY THE CONTRACTOR IN MANNER APPROVED BY THE ENGINEER.
- (R-38) MATERIALS REMOVED SHALL NOT BE MEASURED FOR PAYMENT UNDER SECTION 202.06 UNCLASSIFIED EXCAVATION.
- (R-40) INCLUDES 2% FOR GROUND MEASUREMENT.
- (R-41) 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) SEE SUMMARY OF EARTH WORK.
- (2) CONTRACTOR SHALL REMOVE ALL DEBRIS IN THE CHANNEL WITHIN THE RIGHT-OF-WAY AND DISPOSE OF IN A MANNER APPROVED BY THE ENGINEER.
- (3) MULTIPLE MOBILIZATIONS MAY BE REQUIRED AT THE REQUEST OF THE RESIDENT ENGINEER. INCLUDES AN ADDITIONAL 10,000 S.Y. TO BE USED AS DIRECTED BY THE ENGINEER.
- (4) ESTIMATED QUANTITY ONLY TO BE USED FOR EROSION AND SEDIMENT CONTROL IN A MANNER APPROVED BY THE ENGINEER (SEE STDS. TSC2-3-2 & TSD-2-0). INCLUDES AN ADDITIONAL 25,000 L.F. OF SILT FENCE TO BE USED AS DIRECTED BY THE ENGINEER.
- (5) PRICE INCLUDES TRENCH EXCAVATION, BEDDING MATERIAL AND BACKFILL.
- (6) INCLUDES 250 TONS FOR TEMPORARY DRIVES AND CONSTRUCTION ACCESS.
- (7) TACK COAT ESTIMATED AT 0.075 GAL. PER. SQ.YD. PRIOR TO DILUTION WITH WATER.
- (8) PRICE BID TO INCLUDE ANY SAW CUT NECESSARY TO REMOVE PAVEMENT.
- (9) RICH INTERMEDIATE LAYER SHALL BE (PG 76-28 OK)
- (10) PRICE BID TO INCLUDE COST OF SILT REMOVAL FROM EXISTING CROSS DRAINS.
- (11) BID PRICE TO INCLUDE, BUT NOT LIMITED TO THE FOLLOWING ITEMS.

- (12) ALL VEGETATIVE MULCH SHALL BE WHEAT HAY ONLY.
- (13) INCLUDES THE REMOVAL OF 597 L.F. OF PIPE.
- (14) THIS PROJECT IS LOCATED NEAR KNOWN SOURCES OF GYPSUM (SULFATE) DEPOSITS. SPECIAL ATTENTION SHOULD BE USED TO AVOID BORROW MATERIAL THAT COULD ADVERSELY INTERACT WITH THE CALCIUM BASED ADDITIVES (FLY ASH, PORTLAND CEMENT, CEMENT KILN DUST, AND LIME) USED IN THE STABILIZED SUBGRADE. THE CONTRACTOR MAY BE REQUIRED TO PROVIDE SULFATE TESTING OF BORROW PIT SITES AS DIRECTED BY THE ENGINEER.
- (15) EXCESS EXCAVATION TO BE USED WITHIN THE PROJECT AS DIRECTED BY THE ENGINEER.
- (16) IN ADDITION TO SECTION 642.04(B), THE CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING: SURVEY CONTROL POINTS, REFERENCE POINTS AND BENCHMARKS NOTED ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND REFRESHING THE CENTERLINE OF PERMANENT CONSTRUCTION, AND SETTING ALL OHE CONTROL POINTS AND REFERENCE POINTS REQUESTED FOR CONSTRUCTION AND INTERSECTION TO INCLUDE BRIDGE CURVES, CONSTRUCTION REFERENCE LINES (CRL), AND RIGHT-OF-WAY. THE SURVEYOR WILL PROVIDE THE RESIDENT ENGINEER WITH A COMPUTERIZED DISK OF SURVEY DATA. THE SURVEYOR WILL IDENTIFY AND VERIFY BENCHMARKS SET AND MAINTAIN ADDITIONAL BENCHMARKS WITHIN THE PROJECT UNITS AT A MINIMUM OF 500' AS REQUESTED TO INSURE SMOOTH TRANSITIONS AT THE BOP, EOP AND BRIDGES AS REQUIRED IN SECTIONS 642.04(C). THE SURVEYOR WILL PROVIDE A COPY OF CHECKED BENCHMARKS TO THE RESIDENT ENGINEER FOR REVIEW AND ACCEPTANCE PRIOR TO BEGINNING ANY EARTHWORK PAY ITEMS. THE CONTRACTOR SHALL PROVIDE FOR THE RESIDENT ENGINEERS USE OF A ROVING, CABLE-FREE INTEGRATED GPS&RTK SYSTEM WITH FIELD CONTROLLER. THE SYSTEM SHALL BE COMPATIBLE WITH THE SURVEY BASE STATION USED BY THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN THE BASE STATION DURING WORK HOURS FROM THE BEGINNING OF EARTHWORK ACTIVITIES UNTIL SUBSTANTIAL COMPLETION IS ACHIEVED. THE CONTRACTOR SHALL PROVIDE A ONE WEEK TRAINING COURSE FOR THIS EQUIPMENT FOR UP TO FOUR ODOT INSPECTORS. THIS TRAINING WILL BE CONDUCTED PRIOR TO COMMENCING EARTHWORK ACTIVITIES. THIS TRAINING SHALL INCLUDE ANY TECHNICAL SUPPORT REQUIRED BY THE INSPECTORS DURING CONSTRUCTION OF THIS PROJECT. CONTRACTOR IS RESPONSIBLE FOR ALL MAINTENANCE OF EQUIPMENT. ALL COST OF THE SYSTEM TO BE INCLUDED IN THE STAKING PAYMENT.
- (17) INCLUDES AN ADDITIONAL 1.0 C.Y. OF CLASS C CONCRETE FOR COLLARS AROUND EACH RCP EXTENSION FOR A TOTAL OF 2.0 C.Y. ALL COSTS ASSOCIATED WITH COLLAR TO BE INCLUDED IN CLASS C CONCRETE.

DESCRIPTION	REVISIONS	DATE
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24352(10) 0100				
PAY QUANTITIES				
ROADWAY				
ITEM		DESCRIPTION	UNIT	QUANTITY
201(A)	0102	CLEARING AND GRUBBING	L.SUM	1.00
202(A)	0183	UNCLASSIFIED EXCAVATION	(R-1)(R-3)(1)(10)(15) C.Y.	23,044.00
202(D)	0184	UNCLASSIFIED BORROW	(R-3)(14) C.Y.	1,000.00
205(A)	4229	TYPE A-SALVAGED TOPSOIL	(R-4) L.SUM	1.00
221(C)	2801	TEMPORARY SILT FENCE	(R-8)(2)(4) L.F.	26,075.00
221(F)	0100	TEMPORARY SILT DIKE	(R-8)(2)(4) L.F.	2,688.00
230(A)	2806	SOLID SLAB SODDING	(R-6)(R-7)(3) S.Y.	116,257.00
233(A)	2817	VEGETATIVE MULCHING	(12)(R-11) AC.	25.00
241	2832	MOWING	(R-15) AC.	104.00
402(E)	0225	TRAFFIC BOUND SURFACE COURSE TYPE E	(6)(R-18) TON	866.00
407(B)	0250	TACK COAT	(7) GAL.	26,180.00
408	5774	PRIME COAT	(R-21) GAL.	21,280.00
409(A)	4242	FABRIC REINFORCEMENT	S.Y.	22,614.00
411(B)	5935	SUPERPAVE, TYPE S3 (PG 76-28 OK)	(R-24) TON	11,652.00
411(B)	5945	SUPERPAVE, TYPE S3 (PG 64-22 OK)	(R-24) TON	24,645.00
411(C)	5950	SUPERPAVE, TYPE S4 (PG 76-28 OK)	(R-24) TON	7,637.00
411(C)	5960	SUPERPAVE, TYPE S4 (PG 64-22 OK)	(R-24) TON	5,457.00
411(J)	6410	(SP) RICH INTERMEDIATE LAYER	(9) TON	3,792.00
412	5267	COLD MILLING PAVEMENT	(R-26)(R-27) S.Y.	73,349.00
501(A)	0313	STRUCTURAL EXCAVATION UNCLASSIFIED	C.Y.	2,211.00
509(A)	0319	CLASS AA CONCRETE	(R-1) C.Y.	229.00
509(D)	0325	CLASS C CONCRETE	(R-30)(17) C.Y.	112.00
511(A)	0332	REINFORCING STEEL	(R-1) LBS.	23,505.00
601(A)	0297	TYPE I PLAIN RIPRAP	TON	277.00
613(A)	0492	24" R.C.PIPE CLASS III	(5, 17) L.F.	34.00
613(B)	0689	18" CORR. GALV. STEEL PIPE	(5) L.F.	1,270.00
613(B)	4527	21" X 15" CORR. GALV. STEEL PIPE ARCH	(5) L.F.	922.00
613(B)	4528	28" X 20" CORR. GALV. STEEL PIPE ARCH	(5) L.F.	262.00
613(B)	4529	35" X 24" CORR. GALV. STEEL PIPE ARCH	(5) L.F.	148.00
613(M)	7186	TYPE A4 CULVERT END TREATMENT	EA.	66.00
613(M)	7187	TYPE B4 CULVERT END TREATMENT	EA.	10.00
613(M)	7188	TYPE C4 CULVERT END TREATMENT	EA.	4.00
619(A)	0920	REMOVAL OF STRUCTURES & OBSTRUCTIONS	(R-36)(R-37)(11)(13) LSUM	1.00
619(B)	4728	REMOVAL OF ASPHALT PAVEMENT	(R-1)(R-37)(R-38)(8) S.Y.	3,205.00
619(B)	4780	REMOVAL OF GUARDRAIL	(R-37) L.F.	577.00
624(A)	4281	FENCE-STYLE WWF	(R-40)(R-41) L.F.	714.00
624(C)	7181	FENCE-STYLE SWF (6 BARBED WIRE)	(R-40)(R-41) L.F.	2,915.00
629(A)	4958	MAILBOX INSTALLATION-SINGLE	EA.	5.00
629(C)	4960	MAILBOX	EA.	5.00
629(D)	4961	REMOVAL OF MAILBOX INSTALLATION	EA.	5.00

24352(10) 0600				
PAY QUANTITIES				
STAKING				
ITEM		DESCRIPTION	UNIT	QUANTITY
642(B)	0096	CONSTRUCTION STAKING LEVEL II	(16) L.SUM	1.00

24352(10) 0640				
PAY QUANTITIES				
CONSTRUCTION				
ITEM		DESCRIPTION	UNIT	QUANTITY
220	2800	SWPPP DOCUMENTATION AND MANAGEMENT	L.SUM	1.00
641	1552	MOBILIZATION	L.SUM	1.00

PARCEL NO.	LOCATION (STATION)	DESCRIPTION OF ITEMS TO BE REMOVED
1	327+80 LT. 55' CLS SH-152	SIGN-2'X3' METAL SIGN "LINN OPERATING, INC."
1	327+90 LT. 75' CLS SH-152	SIGN- 2'X3' METAL SIGN "ANADARKO WATER RESOURCES MGT, LLC"
2	333+00 LT. 65' CLS SH-152	30' GATE- 5 ROD STEEL - LAYING ON GROUND WITH 2 POSTS/POLES
2	334+00 LT. 85' CLS SH-152	WATER SPIGOT AND MISC. TRASH

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

DESIGN	G.C.S.	SH-152	WASHITA COUNTY
DRAWN	G.S.N.	SUMMARY OF PAY QUANTITIES AND NOTES (ROADWAY)	
CHECKED	S.K.		
MKEC			
		JOB PIECE NO. 24352(10)	SHEET NO. AR02

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PAY QUANTITY NOTES

- (R-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY ONLY. SEE SECTION 109.01B OF THE STANDARD SPECIFICATIONS.
- (R-3) INCLUDES 1000 CU. YDS. FOR DRIVEWAYS, RETURNS, DIKES, AND MISCELLANEOUS EARTHWORK.
- (R-4) AN ESTIMATED QUANTITY OF 16,147.00 C.Y. TOPSOIL TO BE RESERVED FOR REPLACEMENT OF APPROXIMATELY 5" ON COMPLETED FORESLOPES, DITCHES, AND BACKSLOPES. THIS QUANTITY IS INCLUDED IN THE EARTHWORK BALANCE. ANY ADDITIONAL EXCAVATION REQUIRED IN CUT SECTIONS TO ALLOW FOR PLACEMENT OF TOPSOIL TO FINAL GRADE, SHALL BE INCLUDED IN THE PRICE BID.
- (R-6) FOR SOLID SLAB SODDING PRICE BID TO INCLUDE COST OF 0-46-0 FERTILIZER, ESTIMATED AT 200 POUNDS PER 1,000 SQ. YDS.
- (R-7) FOR SOLID SLAB SODDING PRICE BID TO INCLUDE COST OF WATERING, ESTIMATED AT 40 GALLONS PER SQ. YDS.
- (R-8) PRICE BID TO INCLUDE COST OF SEDIMENT REMOVAL AND ALL MAINTENANCE. SEDIMENT MUST BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE DEVICE.
- (R-11) THE QUANTITIES ESTIMATED FOR TEMPORARY EROSION AND SEDIMENT CONTROL IS 25 ACRES.
- (R-15) QUANTITY BASED ON TWO APPLICATIONS.
- (R-18) ESTIMATED AT 120 LBS. PER CU. FT.
- (R-21) PRIME COAT SHALL BE APPLIED AT AN ESTIMATED RATE OF 0.35 GAL. PER SQ. Y.D. WHEN APPLIED TO SUBGRADE, AND 0.25 GAL. PER SQ. YD. WHEN APPLIED TO AGGREGATE BASE. THE ACTUAL CUTBACK PRIME COAT REQUIRED FOR PLACEMENT OPERATIONS WILL BE DETERMINED BY THE CONTRACTOR, AND SHALL CONSIDER THE RESIDUE FROM DISTILLATION PERCENTAGE SHOWN IN SECTION 708.03 OF THE STANDARD SPECIFICATIONS.
- (R-24) ESTIMATED AT 112 LBS. PER SQ. YD. PER 1" THICK
- (R-26) PRICE BID TO INCLUDE COST OF FOG SEAL, MEETING THE REQUIREMENTS OF SECTION 407 OF STANDARD SPECIFICATIONS.
- (R-27) 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 STOCKPILING TO NOT INCORPORATE UNDERLYING MATERIAL INTO THE STOCKPILE.
- (R-30) QUANTITY INCLUDES AN ESTIMATED 20 C.Y. TO BE USED AS DIRECTED BY THE ENGINEER.
- (R-36) INCLUDES REMOVAL OF ALL EXISTING ROADWAY DRAINAGE STRUCTURES, HEADWALLS (UNLESS OTHERWISE SPECIFIED), INLETS, FENCES, AND OTHER STRUCTURES WITHIN THE RIGHT OF WAY.
- (R-37) TO BECOME THE PROPERTY OF AND DISPOSED OF BY THE CONTRACTOR IN MANNER APPROVED BY THE ENGINEER.
- (R-38) MATERIALS REMOVED SHALL NOT BE MEASURED FOR PAYMENT UNDER SECTION 202.06 UNCLASSIFIED EXCAVATION.
- (R-40) INCLUDES 2% FOR GROUND MEASUREMENT.
- (R-41) 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) SEE SUMMARY OF EARTH WORK.
- (2) CONTRACTOR SHALL REMOVE ALL DEBRIS IN THE CHANNEL WITHIN THE RIGHT-OF-WAY AND DISPOSE OF IN A MANNER APPROVED BY THE ENGINEER.
- (3) MULTIPLE MOBILIZATIONS MAY BE REQUIRED AT THE REQUEST OF THE RESIDENT ENGINEER. INCLUDES AN ADDITIONAL 10,000 S.Y. TO BE USED AS DIRECTED BY THE ENGINEER.
- (4) ESTIMATED QUANTITY ONLY TO BE USED FOR EROSION AND SEDIMENT CONTROL IN A MANNER APPROVED BY THE ENGINEER (SEE STDS. TSC2-3-2 & TSD-2-0). INCLUDES AN ADDITIONAL 25,000 L.F. OF SILT FENCE TO BE USED AS DIRECTED BY THE ENGINEER.
- (5) PRICE INCLUDES TRENCH EXCAVATION, BEDDING MATERIAL AND BACKFILL.
- (6) INCLUDES 250 TONS FOR TEMPORARY DRIVES AND CONSTRUCTION ACCESS.
- (7) TACK COAT ESTIMATED AT 0.075 GAL. PER. SQ.YD. PRIOR TO DILUTION WITH WATER.
- (8) PRICE BID TO INCLUDE ANY SAW CUT NECESSARY TO REMOVE PAVEMENT.
- (9) RICH INTERMEDIATE LAYER SHALL BE (PG 76-28 OK)
- (10) PRICE BID TO INCLUDE COST OF SILT REMOVAL FROM EXISTING CROSS DRAINS.
- (11) BID PRICE TO INCLUDE, BUT NOT LIMITED TO THE FOLLOWING ITEMS.

- (12) ALL VEGETATIVE MULCH SHALL BE WHEAT HAY ONLY.
- (13) INCLUDES THE REMOVAL OF 597 L.F. OF PIPE.
- (14) THIS PROJECT IS LOCATED NEAR KNOWN SOURCES OF GYPSUM (SULFATE) DEPOSITS. SPECIAL ATTENTION SHOULD BE USED TO AVOID BORROW MATERIAL THAT COULD ADVERSELY INTERACT WITH THE CALCIUM BASED ADDITIVES (FLY ASH, PORTLAND CEMENT, CEMENT KILN DUST, AND LIME) USED IN THE STABILIZED SUBGRADE. THE CONTRACTOR MAY BE REQUIRED TO PROVIDE SULFATE TESTING OF BORROW PIT SITES AS DIRECTED BY THE ENGINEER.
- (15) EXCESS EXCAVATION TO BE USED WITHIN THE PROJECT AS DIRECTED BY THE ENGINEER.
- (16) IN ADDITION TO SECTION 642.04(B), THE CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING: SURVEY CONTROL POINTS, REFERENCE POINTS AND BENCHMARKS NOTED ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND REFRESHING THE CENTERLINE OF PERMANENT CONSTRUCTION, AND SETTING ALL OHE CONTROL POINTS AND REFERENCE POINTS REQUESTED FOR CONSTRUCTION AND INTERSECTION TO INCLUDE BRIDGE CURVES, CONSTRUCTION REFERENCE LINES (CRL), AND RIGHT-OF-WAY. THE SURVEYOR WILL PROVIDE THE RESIDENT ENGINEER WITH A COMPUTERIZED DISK OF SURVEY DATA. THE SURVEYOR WILL IDENTIFY AND VERIFY BENCHMARKS SET AND MAINTAIN ADDITIONAL BENCHMARKS WITHIN THE PROJECT UNITS AT A MINIMUM OF 500' AS REQUESTED TO INSURE SMOOTH TRANSITIONS AT THE BOP, EOP AND BRIDGES AS REQUIRED IN SECTIONS 642.04(C). THE SURVEYOR WILL PROVIDE A COPY OF CHECKED BENCHMARKS TO THE RESIDENT ENGINEER FOR REVIEW AND ACCEPTANCE PRIOR TO BEGINNING ANY EARTHWORK PAY ITEMS. THE CONTRACTOR SHALL PROVIDE FOR THE RESIDENT ENGINEERS USE OF A ROVING, CABLE-FREE INTEGRATED GPS&RTK SYSTEM WITH FIELD CONTROLLER. THE SYSTEM SHALL BE COMPATIBLE WITH THE SURVEY BASE STATION USED BY THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN THE BASE STATION DURING WORK HOURS FROM THE BEGINNING OF EARTHWORK ACTIVITIES UNTIL SUBSTANTIAL COMPLETION IS ACHIEVED. THE CONTRACTOR SHALL PROVIDE A ONE WEEK TRAINING COURSE FOR THIS EQUIPMENT FOR UP TO FOUR ODOT INSPECTORS. THIS TRAINING WILL BE CONDUCTED PRIOR TO COMMENCING EARTHWORK ACTIVITIES. THIS TRAINING SHALL INCLUDE ANY TECHNICAL SUPPORT REQUIRED BY THE INSPECTORS DURING CONSTRUCTION OF THIS PROJECT. CONTRACTOR IS RESPONSIBLE FOR ALL MAINTENANCE OF EQUIPMENT. ALL COST OF THE SYSTEM TO BE INCLUDED IN THE STAKING PAYMENT.
- (17) INCLUDES AN ADDITIONAL 1.0 C.Y. OF CLASS C CONCRETE FOR COLLARS AROUND EACH RCP EXTENSION FOR A TOTAL OF 2.0 C.Y. ALL COSTS ASSOCIATED WITH COLLAR TO BE INCLUDED IN CLASS C CONCRETE.

DESCRIPTION	REVISIONS	DATE
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24352(10) 0100				
PAY QUANTITIES				
ROADWAY				
ITEM	DESCRIPTION	UNIT	QUANTITY	
201(A)	0102 CLEARING AND GRUBBING	L.SUM	1.00	
202(A)	0183 UNCLASSIFIED EXCAVATION	(R-1)(R-3)(1)(10)(15) C.Y.	23,044.00	
202(D)	0184 UNCLASSIFIED BORROW	(R-3)(14) C.Y.	1,000.00	
205(A)	4229 TYPE A-SALVAGED TOPSOIL	(R-4) L.SUM	1.00	
221(C)	2801 TEMPORARY SILT FENCE	(R-8)(2)(4) L.F.	26,075.00	
221(F)	0100 TEMPORARY SILT DIKE	(R-8)(2)(4) L.F.	2,688.00	
230(A)	2806 SOLID SLAB SODDING	(R-6)(R-7)(3) S.Y.	116,257.00	
233(A)	2817 VEGETATIVE MULCHING	(12)(R-11) AC.	25.00	
241	2832 MOWING	(R-15) AC.	104.00	
402(E)	0225 TRAFFIC BOUND SURFACE COURSE TYPE E	(6)(R-18) TON	866.00	
407(B)	0250 TACK COAT	(7) GAL.	26,180.00	
408	5774 PRIME COAT	(R-21) GAL.	21,280.00	
409(A)	4242 FABRIC REINFORCEMENT	S.Y.	22,614.00	
411(B)	5935 SUPERPAVE, TYPE S3 (PG 76-28 OK)	(R-24) TON	11,652.00	
411(B)	5945 SUPERPAVE, TYPE S3 (PG 64-22 OK)	(R-24) TON	24,645.00	
411(C)	5950 SUPERPAVE, TYPE S4 (PG 76-28 OK)	(R-24) TON	7,637.00	
411(C)	5960 SUPERPAVE, TYPE S4 (PG 64-22 OK)	(R-24) TON	5,457.00	
411(J)	6410 (SP) RICH INTERMEDIATE LAYER	(9) TON	3,792.00	
412	5267 COLD MILLING PAVEMENT	(R-26)(R-27) S.Y.	73,349.00	
501(A)	0313 STRUCTURAL EXCAVATION UNCLASSIFIED	C.Y.	2,211.00	
509(A)	0319 CLASS AA CONCRETE	(R-1) C.Y.	229.00	
509(D)	0325 CLASS C CONCRETE	(R-30)(17) C.Y.	112.00	
511(A)	0332 REINFORCING STEEL	(R-1) LBS.	23,505.00	
601(A)	0297 TYPE I PLAIN RIPRAP	TON	277.00	
613(A)	0492 24" R.C.PIPE CLASS III	(5, 17) L.F.	34.00	
613(B)	0689 18" CORR. GALV. STEEL PIPE	(5) L.F.	1,270.00	
613(B)	4527 21" X 15" CORR. GALV. STEEL PIPE ARCH	(5) L.F.	922.00	
613(B)	4528 28" X 20" CORR. GALV. STEEL PIPE ARCH	(5) L.F.	262.00	
613(B)	4529 35" X 24" CORR. GALV. STEEL PIPE ARCH	(5) L.F.	148.00	
613(M)	7186 TYPE A4 CULVERT END TREATMENT	EA.	66.00	
613(M)	7187 TYPE B4 CULVERT END TREATMENT	EA.	10.00	
613(M)	7188 TYPE C4 CULVERT END TREATMENT	EA.	4.00	
619(A)	0920 REMOVAL OF STRUCTURES & OBSTRUCTIONS	(R-36)(R-37)(11)(13) LSUM	1.00	
619(B)	4728 REMOVAL OF ASPHALT PAVEMENT	(R-1)(R-37)(R-38)(8) S.Y.	3,205.00	
619(B)	4780 REMOVAL OF GUARDRAIL	(R-37) L.F.	577.00	
624(A)	4281 FENCE-STYLE WWF	(R-40)(R-41) L.F.	714.00	
624(C)	7181 FENCE-STYLE SWF (6 BARBED WIRE)	(R-40)(R-41) L.F.	2,915.00	
629(A)	4958 MAILBOX INSTALLATION-SINGLE	EA.	5.00	
629(C)	4960 MAILBOX	EA.	5.00	
629(D)	4961 REMOVAL OF MAILBOX INSTALLATION	EA.	5.00	

24352(10) 0600				
PAY QUANTITIES				
STAKING				
ITEM	DESCRIPTION	UNIT	QUANTITY	
642(B)	0096 CONSTRUCTION STAKING LEVEL II	(16) L.SUM	1.00	

24352(10) 0640				
PAY QUANTITIES				
CONSTRUCTION				
ITEM	DESCRIPTION	UNIT	QUANTITY	
220	2800 SWPPP DOCUMENTATION AND MANAGEMENT	L.SUM	1.00	
641	1552 MOBILIZATION	L.SUM	1.00	

PARCEL NO.	LOCATION (STATION)	DESCRIPTION OF ITEMS TO BE REMOVED
1	327+80 LT. 55' CLS SH-152	SIGN-2'X3' METAL SIGN "LINN OPERATING, INC."
1	327+90 LT. 75' CLS SH-152	SIGN- 2'X3' METAL SIGN "ANADARKO WATER RESOURCES MGT, LLC"
2	333+00 LT. 65' CLS SH-152	30' GATE- 5 ROD STEEL - LAYING ON GROUND WITH 2 POSTS/POLES
2	334+00 LT. 85' CLS SH-152	WATER SPIGOT AND MISC. TRASH

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

DESIGN	G.C.S.	SH-152	WASHITA COUNTY
DRAWN	G.S.N.	SUMMARY OF PAY QUANTITIES AND NOTES (ROADWAY)	
CHECKED	S.K.		
MKEC		JOB PIECE NO. 24352(10)	SHEET NO. AR02

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SUMMARY OF SURFACING

P&P SHEET NO.	ALIGNMENT	STATION TO STATION	TACK COAT	PRIME COAT	FABRIC REINFORCMENT	SUPERPAVE, TYPE S3 (PG 76-28 OK)	SUPERPAVE, TYPE S3 (PG 64-22 OK)	SUPERPAVE, TYPE S4 (PG 76-28 OK)	SUPERPAVE, TYPE S4 (PG 64-22 OK)	RICH INTERMEDIATE LAYER (PG 76-28 OK)	COLD MILLING
			407(B) GAL.	408 GAL.	409(A) S.Y.	411(B) TON	411(B) TON	411(C) TON	411(C) TON	411(C) TON	411(D) TON
R015	CRL 1	321+00.00 TO 330+00.00	816.67	655.98	755.56	367.12	805.17	240.60	170.12	119.47	2,311.11
R016	CRL 1	330+00.00 TO 345+00.00	1,531.25	1,166.67	1,333.33	688.35	1,418.54	451.13	298.68	224.01	4,333.33
R017	CRL 1	345+00.00 TO 360+00.00	1,531.25	1,166.67	1,333.33	688.35	1,418.54	451.13	298.68	224.01	4,333.33
R018	CRL 1	360+00.00 TO 375+00.00	1,531.25	1,166.67	1,333.33	688.35	1,418.54	451.13	298.68	224.01	4,333.33
R019	CRL 1	375+00.00 TO 390+00.00	1,531.25	1,166.67	1,333.33	688.35	1,418.54	451.13	298.68	224.01	4,333.33
R020	CRL 1	390+00.00 TO 405+00.00	1,531.25	1,166.67	1,333.33	688.35	1,418.54	451.13	298.68	224.01	4,333.33
R021	CRL 1	405+00.00 TO 420+00.00	1,531.25	1,166.67	1,333.33	688.35	1,418.54	451.13	298.68	224.01	4,333.33
R022	CRL 1	420+00.00 TO 435+00.00	1,531.25	1,166.67	1,333.33	688.35	1,418.54	451.13	298.68	224.01	4,333.33
R023	CRL 1	435+00.00 TO 450+00.00	1,531.25	1,166.67	1,333.33	688.35	1,418.54	451.13	298.68	224.01	4,333.33
R024	CRL 1	450+00.00 TO 465+00.00	1,531.25	1,166.67	1,333.33	688.35	1,418.54	451.13	298.68	224.01	4,333.33
R025	CRL 1	465+00.00 TO 480+00.00	1,531.25	1,166.67	1,333.33	688.35	1,418.54	451.13	298.68	224.01	4,333.33
R026	CRL 1	480+00.00 TO 495+00.00	1,531.25	1,166.67	1,333.33	688.35	1,418.54	451.13	298.68	224.01	4,333.33
R027	CRL 1	495+00.00 TO 510+00.00	1,531.25	1,166.67	1,333.33	688.35	1,418.54	451.13	298.68	224.01	4,333.33
R028	CRL 1	510+00.00 TO 525+00.00	1,531.25	1,166.67	1,333.33	688.35	1,418.54	451.13	298.68	224.01	4,333.33
R029	CRL 1	525+00.00 TO 540+00.00	1,531.25	1,166.67	1,333.33	688.35	1,418.54	451.13	298.68	224.01	4,333.33
R030	CRL 1	540+00.00 TO 555+00.00	1,531.25	1,166.67	1,333.33	688.35	1,418.54	451.13	298.68	224.01	4,333.33
R031	CRL 1	555+00.00 TO 570+00.00	1,531.25	1,166.67	1,333.33	688.35	1,418.54	451.13	298.68	224.01	4,333.33
R032	CRL 1	570+00.00 TO 575+90.00	602.29	458.89	524.44	270.75	557.96	177.44	117.48	88.11	1,704.44
TOTALS			25,919.03	19,781.53	22,613.33	11,651.55	24,059.82	7,636.15	5,066.48	3,791.74	73,348.89

SUMMARY OF DRIVEWAYS

SHT. NO.	ALIGNMENT	STATION	LT./RT.	TYPE	RADIUS	LENGTH	GRADED WIDTH	SURFACE WIDTH	6" TRAFFIC BOUND SURFACE COURSE TYPE "E"	TACK COAT	PRIME COAT	SUPERPAVE, TYPE S3 (PG 64-22 OK)	SUPERPAVE, TYPE S4 (PG 64-22 CK)	REMOVAL OF ASPHALT PAVEMENT
									402(E) TON			407(B) GAL.	408 GAL.	411 (B) TON
R015	CRL	327+73	LT	FIELD ENT.	50.00	60.00	30.00	24.00	75.39					
R015	CRL	328+13	RT	FIELD ENT.	25.00	40.00	30.00	24.00	36.85					
R016	CRL	333+32	LT	PVT.	25.00	72.00	30.00	24.00		16.64	94.43	37.26	24.84	240.00
R016	CRL	335+26	LT	PVT.	25.00	40.00	30.00	24.00		10.24	57.10	22.93	15.29	133.00
R016	CRL	343+73	LT	PVT.	35.00	40.00	30.00	24.00		12.38	67.11	27.74	18.49	133.00
R017	CRL	356+92	LT	FIELD ENT.	25.00	40.00	18.00	12.00	22.45					
R017	CRL	357+12	RT	FIELD ENT.	25.00	40.00	18.00	12.00	22.45					
R018	CRL	369+00	LT	PVT.	25.00	40.00	18.00	12.00		6.24	38.43	13.97	9.31	80.00
R018	CRL	369+40	RT	FIELD ENT.	25.00	40.00	18.00	12.00	22.45					
R018	CRL	370+41	LT	SEC.RET.	25.00	40.00	32.00	26.00		10.90	60.21	24.42	16.28	102.00
R018	CRL	370+44	RT	SEC.RET.	25.00	40.00	32.00	26.00		10.90	60.21	24.42	16.28	102.00
R019	CRL	376+94	RT	FIELD ENT.	25.00	40.00	18.00	12.00	22.45					
R019	CRL	386+85	LT	FIELD ENT.	35.00	40.00	30.00	24.00	44.57					
R019	CRL	388+56	RT	PVT.	25.00	40.00	18.00	12.00		6.24	38.43	13.97	9.31	80.00
R019	CRL	389+95	RT	PVT.	25.00	40.00	18.00	12.00		6.24	38.43	13.97	9.31	80.00
R020	CRL	398+89	LT	FIELD ENT.	50.00	62.00	18.00	12.00	54.51					
R020	CRL	404+28	RT	FIELD ENT.	25.00	40.00	30.00	24.00	36.85					
R021	CRL	410+90	LT	FIELD ENT.	35.00	40.00	30.00	24.00	44.57					
R022	CRL	423+13	RT	FIELD ENT.	20.00	18.00	18.00	12.00	11.63					
R022	CRL	423+17	LT	SEC.RET.	25.00	40.00	32.00	26.00		10.90	60.21	24.42	16.28	102.00
R022	CRL	423+26	RT	SEC.RET.	25.00	40.00	32.00	26.00		10.90	60.21	24.42	16.28	102.00
R023	CRL	438+56	LT	PVT.	25.00	40.00	18.00	12.00		6.24	38.43	13.97	9.31	80.00
R023	CRL	439+70	LT	PVT.	25.00	40.00	18.00	12.00		6.24	38.43	13.97	9.31	80.00
R023	CRL	443+58	LT	PVT.	25.00	40.00	26.00	20.00		8.90	50.88	19.94	13.29	115.55
R023	CRL	444+48	LT	PVT.	25.00	40.00	26.00	20.00		8.90	50.88	19.94	13.29	115.55
R023	CRL	449+50	LT	FIELD ENT.	25.00	60.00	18.00	12.00	29.65					
R024	CRL	462+30	RT	FIELD ENT.	25.00	40.00	18.00	12.00	22.45					
R024	CRL	462+56	LT	FIELD ENT.	25.00	40.00	18.00	12.00	22.45					
R025	CRL	475+90	RT	SEC.RET.	25.00	50.00	32.00	26.00		13.07	72.65	29.28	19.52	177.77
R025	CRL	475+93	LT	SEC.RET.	25.00	50.00	32.00	26.00		13.07	72.65	29.28	19.52	177.77
R026	CRL	482+32	LT	PVT.	25.00	40.00	18.00	12.00		6.24	38.43	13.97	9.31	80.00
R026	CRL	485+53	RT	PVT.	25.00	30.00	18.00	12.00		5.24	31.43	11.73	7.82	60.00
R026	CRL	489+00	LT	PVT.	25.00	40.00	18.00	12.00		6.24	38.43	13.97	9.31	80.00
R026	CRL	490+05	LT	FIELD ENT.	25.00	40.00	18.00	12.00	22.45					80.00
R027	CRL	495+00	RT	PVT.	25.00	30.00	18.00	12.00		5.24	31.43	11.73	7.82	60.00
R027	CRL	495+50	RT	PVT.	25.00	30.00	18.00	12.00		5.24	31.43	11.73	7.82	60.00
R027	CRL	496+00	RT	PVT.	25.00	30.00	18.00	12.00		5.24	31.43	11.73	7.82	60.00
R027	CRL	497+17	LT	PVT.	25.00	50.00	18.00	12.00		7.24	45.43	16.21	10.81	100.00
R027	CRL	497+74	LT	PVT.	25.00	50.00	18.00	12.00		7.24	45.43	16.21	10.81	100.00
R027	CRL	502+21	LT	FIELD ENT.	25.00	40.00	18.00	12.00	22.45					
R027	CRL	502+27	RT	PVT.	25.00	30.00	22.00	16.00		6.24	36.10	13.97	9.31	80.00
R028	CRL	510+23	RT	FIELD ENT.	25.00	30.00	18.00	12.00	18.85					
R028	CRL	514+72	LT	PVT.	25.00	30.00	18.00	12.00		5.24	31.43	11.73	7.82	60.00
R029	CRL	528+55	LT	SEC.RET.	25.00	40.00	32.00	26.00		10.90	60.21	24.42	16.28	102.00
R029	CRL	528+55	RT	SEC.RET.	25.00	40.00	32.00	26.00		10.90	60.21	24.42	16.28	102.00
R030	CRL	543+38	LT	PVT.	15.00	40.00	36.00	30.00		10.80	59.76	24.20	16.14	160.00
R031	CRL	555+10	LT	FIELD ENT.	25.00	60.00	18.00	12.00	29.65					
R032	CRL	573+74	RT	FIELD ENT.	25.00	30.00	18.00	12.00	18.85					
R032	CRL	573+74	LT	FIELD ENT.	25.00	30.00	36.00	30.00	35.05					
R032	CRL	574+58	LT	COMM.	25.00	30.00	41.00	35.00		10.99	58.27	24.61	16.41	120.00
TOTAL									615.99	260.93	1498.13	584.50	389.67	3204.64

SUMMARY OF REMOVALS

SHEET NO.	DESCRIPTION	REMOVAL GUARDRAIL 619(B)	* REMOVAL OF HEADWALL 619(A)	* REMOVAL EXISTING PIPE 619(A)	* SAWING PAVEMENT 619(A)	* FENCE REMOVAL 619(B)
		L.F.	E.A.	L.F.	L.F.	L.F.
R015	327+73.16 18" CGMP Lt.			50.00		235.00
R016	331+52.66 3'X3' RCB Lt. & Rt.		2.00			359.00
R016	339+87.72 2'X2' RCB Lt. & Rt.		2.00			
R016	343+76.54 18" CGMP Lt.			50.00		
R017	348+49.98 2'X2' RCB		2.00			
R017	355+87.18 4'X2' RCB		2.00			
R018	369+00.56 18" CGMP Lt.			25.00		
R019	375+50.80 2-4'X2' RCB		2.00			
R019	382+35.80 3'X2' RCB		2.00			
R019	386+84.38 18" CGMP Lt.			60.00		
R020	394+41.12 2-8'X3' RCB		2.00			
R020	399+85.04 3-10'X5' RCB		2.00			
R020	404+25.69 24" CGMP Rt. w/ HEADWALLS			44.00		
R021	410+89.48 24" CGMP Lt. w/ HEADWALLS			70.00		
R022	422+64.68 18" CGMP Rt.			24.00		
R022	423+15.75 24"X15" CGMP L.			36.00		
R022	423+24.46 24" CGMP Rt.			36.00		
R024	452+83.87 2'X2' RCB		2.00			1,270.00
R025	476+90.82 24" RCP		2.00			
R028	514+80.87 24" CGMP Lt.			22.00		
R029	528+57.50 18" CGMP Lt.			40.00		
R029	528+59.77 36" CGMP Rt.			40.00		
R029	538+31.41 8'X3' RCB		2.00			
R030						993.00
R031	555+88.98 6'X4' RCB		2.00			700.00
R032	573+74.47 24" CGMP Lt.			50.00		
R032	574+56.20 30" CGMP Lt.			50.00		
R020	398+03 TO 401+65 GUARDRAIL ON RT.	362.00				
R020	399+49 TO 401+64 GUARDRAIL ON LT.	215.00				
R015-R032	SAW CUT EDGE OF PAVEMENT LT. & RT.				51	

SUMMARY OF MAILBOX					
SHT. NO.	ALIGNMENT	STATION	MAILBOX	MAILBOX INSTALLATION SINGLE (TYPE 1-A)	REMOVAL OF MAILBOX INSTALLATION
			629(C) EA.	629(A) EA.	629(D) EA.
R023	CRL	444+46.32 Lt.	1.00	1.00	1.00
R027	CRL	496+22.95 Rt.	1.00	1.00	1.00
R027	CRL	497+53.56 Rt.	1.00	1.00	1.00
R028	CRL	514+42.72 Lt.	1.00	1.00	1.00
R030	CRL	543+57.25 Lt.	1.00	1.00	1.00
TOTAL			5.00	5.00	5.00

SUMMARY OF RIPRAP									
Plan Sht. No.	Str. No.	Structure Size	Downstream Station	V25 Outlet Velocity	Length of Riprap	Width of Riprap	Depth of RIPRAP	Volume of RIPRAP	RIPRAP
				FPS.	FT.	FT.	FT.	C.Y.	TYPE 1 601(A) Ton
R016	3	3' x 3' RCB	331+53 RT	12.78	18.00	20.00	1.50	20.00	32.40
R016	5	2' x 2' RCB	339+88 RT	5.73	8.00	8.00	1.00	2.37	3.84
R017	7	2' x 2' RCB	348+50 RT	7.67	8.00	8.00	1.50	3.56	5.76
R017	8	4' x 2' RCB	355+57 RT	6.25	8.00	12.00	1.00	3.56	5.76
R019	13	2 - 4' x 2' RCB	375+51 RT	9.12	12.00	20.00	1.50	13.33	21.60
R020	18	2 - 8' x 3' RCB	394+41 RT	10.42	18.00	32.00	1.50	32.00	51.84
R020	BR. A	3 - 10' x 5' RCB	399+85 RT	10.71	70.00	16.00	1.50	62.22	100.80
R025	33	24" RCP	478+91 RT	7.79	10.00	6.00	1.50	3.33	5.40
R029	45	8' x 3' RCB	538+31 RT	9.00	7.00	18.00	1.50	7.00	11.34
R031	48	6' x 4' RCB	555+89 RT	10.71	16.00	26.00	1.50	23.11	37.44
TOTAL									276.18

SUMMARY OF FENCING							
SHT. NO.	C.R.L.	PERM.	STATION TO STATION	LT.	RT.	FENCE-STYLE WMF	FENCE-STYLE SWF (6 BARBED WIRE)
						624 (A) L.F.	624 (C) L.F.
R015-R016	CRL	PERM.	328+75 TO 331+10		X		235.00
R015-R016	CRL	PERM.	331+41 TO 335+00	X			359.00
R023-R024	CRL	PERM.	529+00 TO 541+70	X			1,270.00
R030	CRL	PERM.	545+05 TO 554+98	X			993.00
R031	CRL	PERM.	555+00 TO 562+00		X	700.00	
TOTAL						700.00	2,857.00

NOTE: 2% WILL BE ADDED TO TOTAL FOR GROUND MEASUREMENT

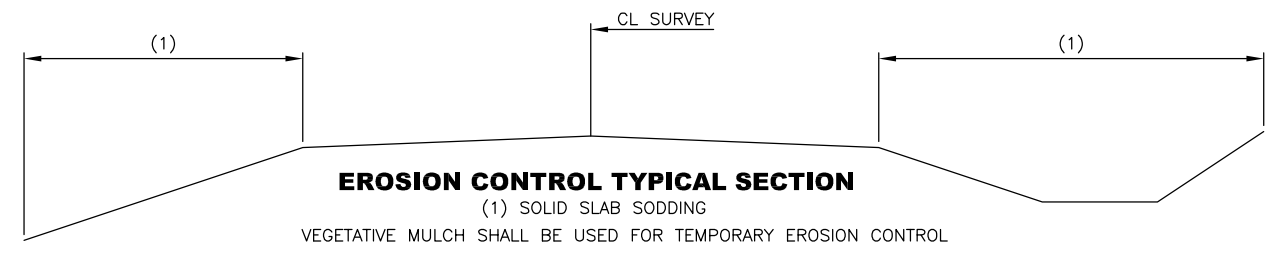
SUMMARY OF PERMANENT EROSION CONTROL				
STATION TO STATION	DESCRIPTION	WORK AREA	SOLID SLAB SODDING	VEGETATIVE MULCHING
			230(A) S.Y.	233(A) ACRES
322+00.00 TO 575+90.64	SOLID SLAB SOD	1	61,322.80	12.67
322+00.00 TO 575+90.64	SOLID SLAB SOD	1	54,934.00	11.35
TOTALS			116,256.80	24.02

SUMMARY OF DITCH TREATMENT						
STATION TO STATION	LOCATION	LENGTH	BOTTOM WIDTH	CURTAIN WALLS	CLASS "C" CONCRETE	DESIGN NO.
					509(D) C.Y.	
330+00.00 TO 333+00.00	LT.	300.00	4.00	4.00	39.00	2A
330+00.00 TO 331+43.00	RT.	143.00	4.00	3.00	19.00	2A
331+64.00 TO 333+00.00	RT.	136.00	4.00	3.00	18.00	2A
400+00.00 TO 401+00.00	RT.	100.00	4.00	2.00	14.00	2A
TOTALS					12.00	90.00

SUMMARY OF TEMPORARY SEDIMENT CONTROLS				
SHT. NO.	DESCRIPTION	TEMPORARY SILT FENCE	TEMPORARY SILT DIKE	
		221 (C) L.F.	221 (F) L.F.	
R004	322+00 TO 345+00	775.00	204.00	
R005	345+00 TO 375+00	0.00	384.00	
R006	375+00 TO 405+00	300.00	360.00	
R007	405+00 TO 435+00	0.00	288.00	
R008	435+00 TO 465+00	0.00	288.00	
R009	465+00 TO 495+00	0.00	348.00	
R010	495+00 TO 525+00	0.00	264.00	
R011	525+00 TO 555+00	0.00	288.00	
R012	555+00 TO 575+90	0.00	264.00	
TOTALS		1,075.00	2,688.00	

SCHEDULE OF EARTHWORK						
SHEET NO.	CRL	STATION TO STATION	UNCLASSIFIED EXCAVATION	EMBANKMENT +15%	UNCLASSIFIED BORROW	EXCESS EXCAVATION*
			202(A) C.Y.		202(D) C.Y.	
R017-R034	PHASE 1	322+00.00 TO 575+90.00	12,475.00	1,385.00	-	11,090.00
R017-R034	PHASE 2	322+00.00 TO 575+90.00	9,152.00	1,667.00	-	7,485.00
TOTALS			21,627.00	3,052.00	-	18,575.00

* Excess excavation not used within the project limits will be considered waste, and shall become the property of the contractor and disposed as directed by the engineer.



5/30/2019 10:45:42 AM G:\PROJECTS\2014\1403010658-0001 EC-1504A - SH-152 WASHITA COUNTY-CIVIL\CONV\PA\2435210-SUMMARY SHEET 1.DWG

SUMMARY OF TEMPORARY PAVEMENT MARKING		
SHT. NO.	DESCRIPTION	YELLOW TRAFFIC STRIPE (PAINT) (4" WIDE)
		857(A) L.F.
T002-T023	STA. 319+00.00 - 578+90.00 - TEMPORARY	103,960.00
TOTAL		103,960.00

SUMMARY OF PERMANENT PAVEMENT MARKING			
SHT. NO.	DESCRIPTION	WHITE TRAFFIC STRIPE (MULTI-POLY) (4" WIDE)	YELLOW TRAFFIC STRIPE (MULTI-POLY) (4" WIDE)
		856(A) L.F.	856(A) L.F.
T024	STA. 319+00.00 - 578+90.00 - PERMANENT	51,980.00	24,533.00
TOTAL		51,980.00	24,533.00

CONSTRUCTION TRAFFIC CONTROL SUMMARY															
	0 - 6.25 S.F.		6.26 - 15.99 S.F.		16.00 - 32.99 S.F.		DELIVER PORTABLE LONGITUDINAL BARRIER	RELOCATION PORTABLE LONGITUDINAL BARRIER	CZ IMPACT ATTENUATOR	WING BARRICADE		DRUMS		WARNING LIGHTS (TYPE A)	
	880(B)		880(B)		880(B)		877(B)	877(C)	871(B)	880(C)		880(F)		880(E)	
	EA.	S.D.	EA.	S.D.	EA.	S.D.	L.F.	L.F.	S.D.	EA.	S.D.	EA.	S.D.	EA.	S.D.
PHASE 1															
T002	4.00	420.00	1.00	105.00	4.00	420.00				2.00	210.00			4.00	420.00
T003	4.00	420.00			2.00	210.00						45.00	4,725.00		
T004	1.00	105.00			3.00	315.00						55.00	5,775.00	2.00	210.00
T005	1.00	105.00			3.00	315.00	200.00		60.00			52.00	5,460.00		
T006	1.00	105.00			3.00	315.00						60.00	6,300.00	2.00	210.00
T007	1.00	105.00			1.00	105.00						59.00	6,195.00		
T008	1.00	105.00			3.00	315.00						58.00	6,090.00	2.00	210.00
T009	1.00	105.00			1.00	105.00						60.00	6,300.00		
T010	2.00	210.00			4.00	420.00						58.00	6,090.00	2.00	210.00
T011	4.00	420.00			3.00	315.00						38.00	3,990.00	2.00	210.00
T012	4.00	420.00	1.00	105.00	4.00	420.00				2.00	210.00			3.00	315.00
PHASE 1 TOTAL		2,520.00		210.00		3,255.00	200.00		60.00		420.00		50,925.00		1,785.00
PHASE 2															
T013	4.00	420.00	1.00	105.00	4.00	420.00				2.00	210.00			4.00	420.00
T014	4.00	420.00			2.00	210.00						45.00	4,725.00		
T015					4.00	420.00						55.00	5,775.00	2.00	210.00
T016	1.00	105.00			1.00	105.00		200.00	60.00			52.00	5,460.00		
T017	1.00	105.00			3.00	315.00						60.00	6,300.00	2.00	210.00
T018	1.00	105.00			1.00	105.00						59.00	6,195.00		
T019	1.00	105.00			3.00	315.00						58.00	6,090.00	2.00	210.00
T020	1.00	105.00			1.00	105.00						60.00	6,300.00		
T021	2.00	210.00			4.00	420.00						58.00	6,090.00	2.00	210.00
T022	4.00	420.00			4.00	420.00						38.00	3,990.00	2.00	210.00
T023	4.00	420.00	1.00	105.00	4.00	420.00				2.00	210.00			3.00	315.00
PHASE 2 TOTAL		2,415.00		FALSE		3,255.00					420.00		50,925.00		1,785.00
TOTAL		4,935.00		210.00		6,510.00	200.00	200.00	120.00		840.00		101,850.00		3,570.00

PHASE 1 105 DAYS
 PHASE 2 105 DAYS
 TOTAL SIGN DAYS = 210

SUMMARY OF SIGNS								
SHEET NO.	APPROX STATION LOCATION	SIGN NO.	TYPE OF SIGN	DESCRIPTION	REMOVE & RESET EXISTING SIGNS	REMOVE EXISTING SIGNS	SIGN AREA	BASE LENGTHS
					805(D) EA.	805(A) EA.	850(A) S.F.	850(C) FT.
T025	370+12.17 LT.	1	R1-1	STOP SIGN		1.00	5.13	12.00
T025	370+75.24 RT.	2	R1-1	STOP SIGN		1.00	5.13	12.00
T027	399+50 RT.	3	SPECIAL	"SPRING CREEK"			22.50	24.00
T027	400+25 LT.	4	SPECIAL	"SPRING CREEK"			22.50	24.00
T027	422+98.18 LT.	5	R1-1	STOP SIGN		1.00	5.13	12.00
T027	423+43.57 RT.	6	R1-1	STOP SIGN		1.00	5.13	12.00
T029	475+73.25 LT.	7	R1-1	STOP SIGN		1.00	5.13	12.00
T029	476+02.52 RT.	8	R1-1	STOP SIGN		1.00	5.13	12.00
T031	528+40.73 LT.	9	R1-1	STOP SIGN		1.00	5.13	12.00
T031	528+73.23 RT.	10	R1-1	STOP SIGN		1.00	5.13	12.00
T031	547+63.81 LT.	11	SPECIAL		1.00			
T032	559+27.59 RT.	12		JCT. SH-44 SIGN	1.00			
T032	561+89.74 RT.	13		DIRECTION SIGN	1.00			
T032	563+77.80 RT.	14	SPECIAL		1.00			
T032	568+03.57 RT.	15	W2-1	4-WAY INTER.		1.00	6.25	13.50
T032	572+52.93 LT.	16	R2-1(65)	SPEED LIMIT 65 MPH		1.00	5.03	12.00
T032	572+53.71 RT.	17		DIRECTION SIGN	1.00			
T032	575+85.85 RT.	18	W8-13	ICY BRIDGE SIGN		1.00	6.25	13.50
T032	575+87.97 LT.	19		JUNCTION	1.00			
TOTALS					6.00	8.00	103.94	183.00

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SUMMARY OF DRAINAGE STRUCTURES

SHT. NO.	STR.	ALIGNMENT	STATION	DESCRIPTION	DESIGN	AVERAGE FILL HEIGHT	TRENCH EXCAVATION (1)	STD. BEDDING MATERIAL (1)	SIDE DRAINS & CROSS DRAINS		UNCLASSIFIED EXCAVATION	STRUCTURAL EXCAVATION	CLASS AA COVC.	REINF. STEEL	RCP		CGSPA			CET				
									F.L. IN	F.L. OUT					24'	18'	21"X15"	28"X20"	35"X24"	TYPE A4	TYPE B4	TYPE C4		
									C.Y.	C.Y.					613(A)	613(B)	613(B)			613(M)				
L.F.	C.Y.	C.Y.	F.L. IN	F.L. OUT	C.Y.	C.Y.	C.Y.	LBS.	L.F.	L.F.	L.F.	L.F.	L.F.	EA.	EA.	EA.								
R0165	1	CRL	327+73	CONST. 18" CGSP SD 35' LT. 90' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1877.59	1877.17							90.00				2.00			
R015	2	CRL	328+13	CONST. 18" CGSP SD 35' RT. 66' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1877.34	1877.04							66.00				2.00			
R016	3	CRL	331+53	EXT. EXIST 3'X3'X75' RDY. RCB 16' LG. RT. & 16' LG. LT. W/HDWL BOTH ENDS	SBI-4-2, RCB-C1-3&4&5(2-20),RCB-E1-H3-0-1, RCB-E1-H3-0-2, RCB-CW1-D4-0				1866.65 LT.	1866.35 RT.	183.70	163.84	26.04	2,762.40										
R016	4	CRL	335+26	CONST. 21"X15" CGSFA SD 32' LT. 62' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1873.67	1872.86								62.00				2.00		
R016	5	CRL	339+88	EXT. EXIST 2'X2'X50' RDY. RCB 11' LG. RT. & 8' LG. LT. W/HDWL BOTH ENDS	SBI-4-2, SPECIAL DESIGN (SHT R013)				1864.82 LT.	1864.81 RT.	54.44	36.75	5.26	421.46										
R016	6	CRL	343+73	CONST. 21"X15" CGSFA SD 32' LT. 72' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1859.54	1857.51								72.00				2.00		
R017	7	CRL	348+50	EXT. EXIST. 2'X2'X59' RDY. RCB 5' LG. RT. & 7' LG. LT. W/HDWL BOTH ENDS	SBI-4-2, SPECIAL DESIGN (SHT R013)				1846.06 LT.	1845.39 RT.	46.67	26.25	3.36	286.08										
R017	8	CRL	355+87	EXT. EXIST 4'X2'X50' RDY. RCB 8' LG. RT. & 12' LG. LT. W/HDWL BOTH ENDS	SBI-4-2, SPECIAL DESIGN (SHT R013)				1843.88 LT.	1843.28 RT.	53.47	74.37	7.38	671.00										
R018	9	CRL	369+00	CONST. 21"X15" CGSFA SD 38' LT. 46' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1829.02	1828.91								46.00				2.00		
R018	10	CRL	369+40	CONST. 21"X15" CGSFA SD 40' RT. 40' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1828.65	1828.51								40.00				2.00		
R018	11	CRL	370+44	CONST. 21"X15" CGSFA SD 39' RT. 58' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1828.45	1828.25								58.00				2.00		
R018	12	CRL	370+40	CONST. 21"X15" CGSFA SD 39' LT. 52' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1828.60	1828.45								52.00				2.00		
R019	13	CRL	375+51	EXT. EXIST 2-4'X2'X59' RDY. RCB 7' LG. RT. & 12' LG. LT. W/HDWL BOTH ENDS	SBI-4-2, SPECIAL DESIGN (SHT R014/BC-5A) FOR WING/BARREL/CURB, RCB-CW2-D4-0 FOR 4' CURTAIN WALL				1827.00 LT.	1826.55 RT.	78.04	135.77	14.28	1,220.39										
R019	14	CRL	382+36	EXT. EXIST. 3'X2'X44' RDY. RCB 12' LG. RT. & 12' LG. LT. W/HDWL BOTH ENDS	SBI-4-2, SPECIAL DESIGN (SHT R004-R006)				1824.50 LT.	1824.30 RT.	133.0	59	7.23	609.28										
R019	15	CRL	386+85	CONST. 21"X15" CGSFA SD 32' LT. 72' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1822.44	1821.74								72.00				2.00		
R019	16	CRL	388+56	CONST. 21"X15" CGSFA SD 32' RT. 52' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1821.08	1820.70								52.00				2.00		
R019	17	CRL	389+95	CONST. 21"X15" CGSFA SD 32' RT. 54' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1819.95	1819.44								54.00				2.00		
R020	18	CRL	394+41	EXT. EXIST. 2-8'X3'X50' RDY. RCB 9' LG. RT. & 10' LG. LT. W/HDWL BOTH ENDS	SBI-4-2, RCB-C2-8(2-12), RCB-E2-H3-0-1, RCB-E2-H3-0-2, RCB-CW2-D4-0				1815.16 LT.	1815.12 LT.	142.92	897.25	68.41	8,045.10										
R020	19	CRL	404+28	CONST. 21"X15" CGSFA SD 32' RT. 78' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1824.19	1825.34								78.00				2.00		
R021	20	CRL	410+90	CONST. 21"X15" CGSFA SD 32' LT. 76' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1834.90	1835.77								76.00				2.00		
R022	21	CRL	423+25	CONST. 18" CGSP SD 32' RT. 68' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1851.61	1853.01								68.00				2.00		
R022	22	CRL	423+13	CONST. 18" CGSP SD 110' RT. 36' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1853.00									36.00				2.00		
R022	23	CRL	423+17	CONST. 18" CGSP SD 32' LT. 62' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1851.53	1852.81								62.00				2.00		
R023	24	CRL	438+56	CONST. 18" CGSP SD 32' LT. 50' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1870.42	1871.07								50.00				2.00		
R023	25	CRL	439+70	CONST. 18" CGSP SD 32' LT. 50' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1871.89	1872.54								50.00				2.00		
R023	26	CRL	444+03	CONST. 18" CGSP SD 32' LT. 144' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1876.61	1878.92								144.00				2.00		
R023	27	CRL	449+50	CONST. 18" CGSP SD 39' LT. 56' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1882.45	1882.22								56.00				2.00		
R024	28	CRL	452+84	EXT. EXIST. 2'X2'X44' RDY. RCB 14' LG. RT. & 14' LG. LT. W/HDWL BOTH ENDS	SBI-4-2, SPECIAL DESIGN (SHT R013)				1884.29 LT.	1884.21 RT.	85.93	50.25	6.32	595.52										
R024	29	CRL	462+30	CONST. 21"X15" SD CGSPA 33' RT. 52' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1896.04	1895.49								52.00				2.00		
R024	30	CRL	462+56	CONST. 21"X15" SD CGSPA 34' LT. 52' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1896.34	1895.81								52.00				2.00		
R025	31	CRL	475+93	DELETED																				
R025	32	CRL	475+90	CONST. 18" CGSP SD 51' RT. 66' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1888.73	1888.45								66.00				2.00		
R025	33	CRL	476+91	EXTEND 24" RCP 18' RT. & 16' LT. W/GR. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTCP-3-1	3.00	19.29	13.20	1891.30 LT.	1890.85 RT.							34.00					2.00		
R026	34	CRL	482+32	CONST. 21"X15" CGSFA SD 32' LT. 52' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1893.20	1892.45								52.00				2.00		
R026	35	CRL	489+00	CONST. 21"X15" CGSFA SD 33' LT. 52' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1892.16	1891.94								52.00				2.00		
R026	36	CRL	490+05	CONST. 21"X15" CGSFA SD 33' RT. 52' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1891.71	1891.48								52.00				2.00		
R027	37	CRL	495+50	CONST. 18" CGSP SD 38' RT. 156' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1890.10	1889.63								156.00				2.00		
R027	38	CRL	497+47	CONST. 18" CGSP SD 34' LT. 118' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1889.65	1889.23								118.00				2.00		
R027	39	CRL	502+21	CONST. 18" CGSP SD 32' LT. 56' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1884.50	1883.48								56.00				2.00		
R027	40	CRL	502+27	CONST. 18" CGSP SD 32' RT. 56' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1884.50	1883.48								56.00				2.00		
R028	41	CRL	510+23	CONST. 18" CGSP SD 32' RT. 54' LG. W/ GR. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1877.96	1877.20								54.00				2.00		
R028	42	CRL	514+72	CONST. 28"X20" CGSFA SD 32' LT. 54' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1875.13	1874.91									54.00				2.00	
R029	43	CRL	528+58	CONST. 35"X24" CGSFA SD 36' RT. 78' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1864.26	1863.29									78.00				2.00	
R029	44	CRL	528+58	CONST. 35"X24" CGSFA SD 36' LT. 70' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1864.20	1863.33									70.00				2.00	
R029	45	CRL	538+31	EXT. EXIST. 8'X3'X35' RDY. RCB 18' LG. RT. & 18' LG. LT. W/HDWL BOTH ENDS	SBI-4-2, SPECIAL DESIGN (SHT R013)				1853.96 LT.	1853.30 RT.	171.11	340.59	30.46	2,684.84										
R030	46	CRL	543+38	CONST. 18" CGSP SD 38' LT. 82' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1854.05	1853.73								82.00				2.00		
R031	47	CRL	555+10	CONST. 18" CGSP SD 40' LT. 60' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1845.69	1843.84								60.00				2.00		
R031	48	CRL	555+89	EXT. EXIST. 6'X4'X32' RDY. RCB 18' LG. RT. & 18' LG. LT. W/HDWL BOTH ENDS	SBI-4-2, RCB-C1-6(2-14), RCB-E1-H4-0-1, RCB-E1-H4-0-2, RCB-CW1-D4-0				1842.67 LT.	1842.65 RT.	155.22	426.00	57.84	6,208.80										
R032	49	CRL	573+74	CONST. 28"X20" CGSFA SD 32' RT. 56' LG. W/ N.G. CET BOTH ENDS	CET4S-3-2, SPI-4-1, FHTMPP-1-0				1839.75	1839.08									56.00				2.00	
R032	50	CRL	573+74	CONST.																				

24352(10) 0300				
PAY QUANTITIES				
TRAFFIC TEMPORARY				
ITEM		DESCRIPTION	UNIT	QUANTITY
857(A)	8839	CONSTRUCTION TRAFFIC STRIPE (PAINT) (4" WIDE) (TC-17)(TC-20)(TC-70)(TC-75)	L.F.	103,960.00
871(B)	8705	(SP) CONST. ZONE IMPACT ATTEN. (TC-26)(TC-52)(TC-80)(TC-84)	S.D.	120.00
877(B)	8484	DELIVER PORTABLE LONGITUDINAL BARRIER (TC-1)(TC-2)	L.F.	200.00
877(C)	8486	RELOCATION PORTABLE LONGITUDINAL BARRIER (TC-1)(TC-2)	L.F.	200.00
880(B)	8818	CONSTRUCTION SIGNS 0.00 TO 6.25 S.F. (TC-21)(TC-26)(TC-33)(TC-84)	S.D.	4,935.00
880(B)	8821	CONSTRUCTION SIGNS 6.26 TO 15.99 S.F. (TC-21)(TC-26)(TC-33)(TC-84)	S.D.	210.00
880(B)	8824	CONSTRUCTION SIGNS 16.00 TO 32.99 S.F. (TC-21)(TC-26)(TC-33)(TC-84)	S.D.	6,510.00
880(C)	8848	WING BARRICADES (TC-21)(TC-26)(TC-33)(TC-84)	S.D.	840.00
880(E)	8860	WARNING LIGHTS (TYPE A) (TC-21)(TC-26)(TC-33)(TC-84)	S.D.	3,570.00
880(F)	8878	DRUMS (TC-21)(TC-26)(TC-33)(TC-84)	S.D.	101,850.00
882(A)	8306	PORT. CHANGEABLE MESSAGE SIGN (TC-85)(2)	S.D.	224.00

TRAFFIC OPERATIONS GENERAL CONSTRUCTION NOTES:

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.

TRAFFIC SIGNING 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 CONTRACTOR'S 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 HAVE HIGH INTENSITY SHEETING. THE HIGH INTENSITY SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956--(LATEST REVISION) FOR TYPE III SHEETING.

ALL WARNING SIGNS SHALL HAVE FLUORESCENT YELLOW SHEETING. THE FLUORESCENT YELLOW SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956-- (LATEST REVISION) REQUIREMENTS FOR TYPE VIII 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 REVISION) FOR TYPE III SHEETING.

ALL PANEL AND OVERHEAD SIGNS SHALL HAVE TYPE III HIGH INTENSITY BACKGROUND WITH TYPE VIII LEGENDS AND BORDERS. THE TYPE III BACKGROUND AND THE TYPE VIII LEGENDS AND BORDERS SHALL MEET THE REQUIREMENTS OF ASTM D4956--(LATEST REVISION).

24352(10) 0301				
PAY QUANTITIES				
TRAFFIC PERMANENT				
ITEM		DESCRIPTION	UNIT	QUANTITY
413(A)	4861	RUMBLE STRIP-METHOD HMA-CON	L.F.	50,774.00
413(A)	4870	RUMBLE STRIP-CENTERLINE HMA-CON	L.F.	25,387.00
805(A)	8724	(PL) REMOVAL OF EXISTING SIGNS (TS-1)	EA.	8.00
805(D)	8756	(PL) REMOVE & RESET EXISTING SIGNS (TS-1)(TS-33)	EA.	6.00
850(A)	8110	SHEET ALUMINUM SIGNS (TS-33)	S.F.	104.00
851(C)	8324	2" SQUARE TUBE POST (TS-33)	L.F.	183.00
853	9039	DELINEATORS (TYPE 2, CODE 3) (1)	EA.	48.00
855(A)	8812	TRAFFIC STRIPE (PLASTIC)(4" WIDE) (TS-19)	L.F.	76,513.00
858(A)	8914	PAVEMENT MARKERS CLASS A TYPE 2-D	EA.	512.00

TRAFFIC CONSTRUCTION PAY QUANTITY NOTES:

- (TC-1) THE CONTRACTOR SHALL FURNISH AND INSTALL SUCH LIGHTS, SIGNS, BARRICADES, AND PROVIDE FLAGGERS NECESSARY FOR THE CONTROL, SAFETY, AND MAINTENANCE OF TRAFFIC WHEN INSTALLING, RELOCATING OR DELIVERING PORTABLE LONGITUDINAL BARRIER.
- (TC-2) QUANTITY INCLUDES SUFFICIENT LENGTH OF PORTABLE LONGITUDINAL BARRIER TO PROVIDE FOR THE LONGEST SECTION SHOWN ON THE PLANS. THIS SAME BARRIER WILL BE USED ON OTHER DETOUR PHASES.
- (TC-17) INCLUDES AN ESTIMATED 0 L.F. (PAINT) (4" WIDE) WHITE AND 102,360 L.F. (PAINT)(4" WIDE) YELLOW STRIPE.
- (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 OR CLASS A PAVEMENT MARKERS
- (TC-21) INCLUDED IN THE COST OF THIS ITEM SHALL BE INSTALLATION, MAINTENANCE, AND REMOVAL. THIS ITEM SHALL BE BID ACCORDINGLY.
- (TC-26) ALL CONSTRUCTION TRAFFIC CONTROL WILL BE IMPLEMENTED ACCORDING TO CONSTRUCTION PLANS, AND INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (CURRENT EDITION), AND COMPLIANT WITH APPLICABLE O.D.O.T. STANDARD DRAWINGS. PRICE BID FOR THIS ITEM SHALL BE PAYMENT IN FULL FOR THE INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF ALL NECESSARY CONSTRUCTION TRAFFIC CONTROL DEVICES REQUIRED FOR COMPLETION OF THE PROJECT.
- ALL SIGNS AND BARRICADES WHICH ARE SHOWN WITH TYPE 'A' LIGHTS IN THE STANDARD DRAWINGS SHALL HAVE THE CORRESPONDING LIGHT ATTACHED DURING NON-DAYLIGHT HOURS.
- (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-52) ANY USED CHANGEABLE MESSAGE SIGN 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-70) THIS ITEM IS AN ESTIMATED QUANTITY TO BE USED AS DEEMED NECESSARY BY THE ENGINEER.
- (TC-75) TEMPORARY PAVEMENT MARKINGS SHALL BE IN PLACE THE SAME DAY THAT EXISTING PAVEMENT MARKINGS ARE REMOVED FROM ANY ROADWAY OPEN TO TRAFFIC. ALSO, ALL TEMPORARY PAVEMENT MARKINGS SHALL BE REMOVED PRIOR TO THE INSTALLATION OF FINAL STRIPING.
- (TC-80) INCLUDED IN THIS ITEM SHALL BE ONE (1) ADDITIONAL UNIT TO BE USED AS A STAND-BY OR REPLACEMENT. THIS STAND-BY UNIT SHALL BE IMMEDIATELY ACCESSIBLE TO REPLACE A DAMAGED, STOLEN OR MALFUNCTIONING UNIT. THE AMOUNT OF TIME BETWEEN THE REMOVAL OF THE DAMAGED UNIT AND THE INSTALLATION OF THE STAND-BY UNIT SHALL BE NO MORE THAN TWENTY-FOUR (24) HOURS.
- (TC-84) 210 CONSTRUCTION CALENDAR DAYS WERE USED TO COMPUTE THE SIGN DAY PAY ITEMS. THE AMOUNT OF CALENDAR DAYS USED TO COMPUTE THE SIGN DAY PAY ITEMS IS AN ESTIMATED QUANTITY ONLY, BASED ON THE CURRENT O.D.O.T. STANDARDS AND SUGGESTED CONSTRUCTION SEQUENCE FOR THIS PROJECT. THESE ESTIMATED SIGN DAY QUANTITIES MAY CHANGE AS THE PROJECT'S CONSTRUCTION TRAFFIC CONTROL IS MODIFIED DURING CONSTRUCTION.
- (TC-85) THESE SIGNS MUST BE ON THE OKLAHOMA DEPARTMENT OF TRANSPORTATION LIST OF APPROVED CHANGEABLE MESSAGE SIGNS. FOR A LIST OF THE APPROVED SIGNS GO TO THE OKLAHOMA DEPARTMENT OF TRANSPORTATION WEBSITE AT: <http://www.okladot.state.ok.us/traffic/qpl/index.php>

TRAFFIC SIGNING GENERAL CONSTRUCTION NOTES CONTINUED:

THE MANUFACTURER SHALL FURNISH A TYPE 'A' CERTIFICATION IN ACCORDANCE WITH ODOT STANDARD SPECIFICATIONS, LATEST EDITION, AND 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.

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

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.

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

TRAFFIC SIGNING PAY QUANTITY NOTES:

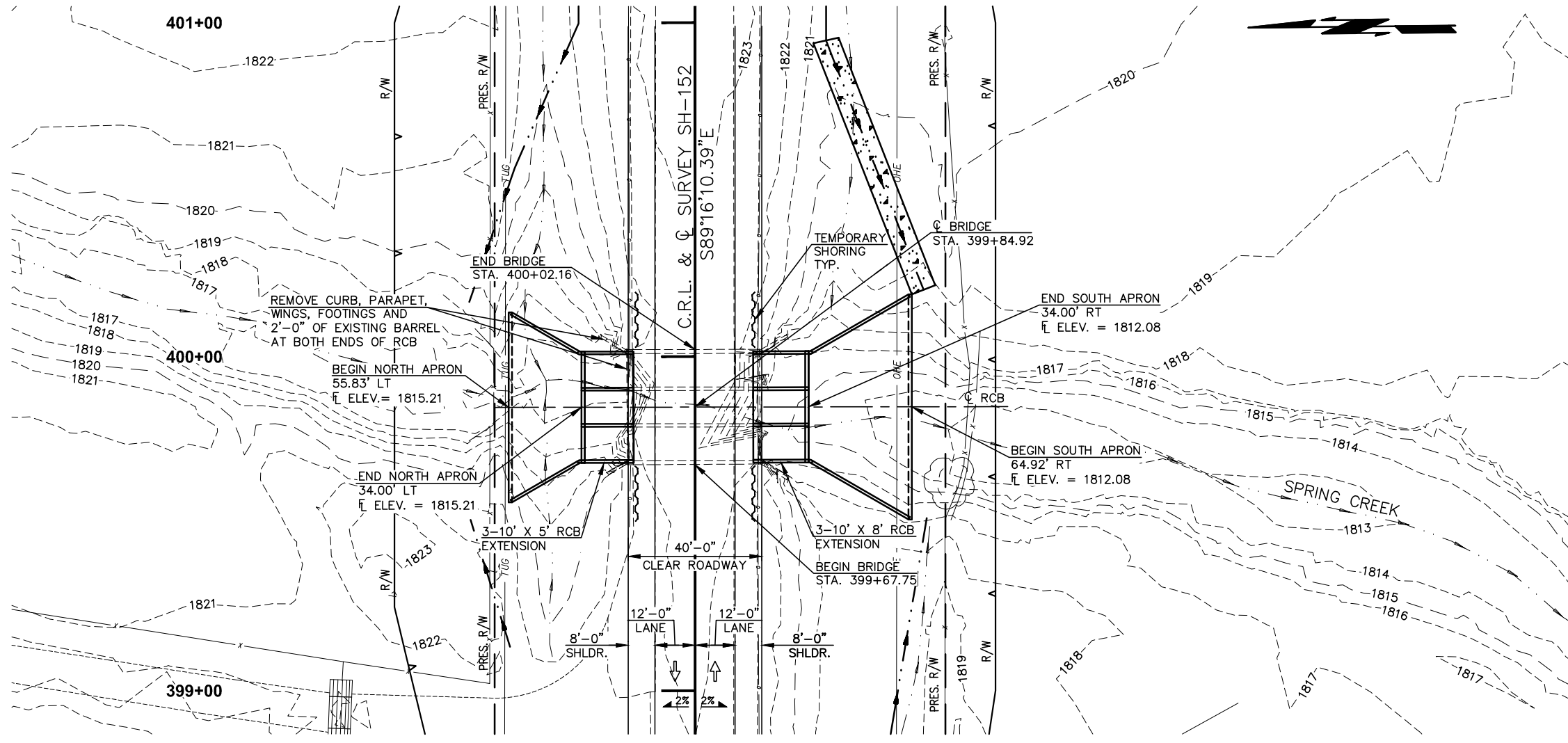
- (TS-1) REMOVAL OF SIGN FOOTINGS" SHALL MEAN THE REMOVAL OF AN EXISTING FOOTING WITH OR WITHOUT STUBS AND SHALL BE DISPOSED OF AS NOTED IN GENERAL CONSTRUCTION NOTES.
- (TS-19) QUANTITY SHOWN INCLUDES 51,180 L.F. TRAFFIC STRIPE (PLASTIC)(WHITE) AND 23,933 L.F. TRAFFIC STRIPE(PLASTIC)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF FOUR INCH (4") 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).
 - (1) DELINEATOR (TYPE 2, CODE 3) IN ACCORDANCE WITH O.D.O.T. PLANS AND STANDARD DRAWINGS DUI-1, ESTIMATED QUANTITY OF 2 DELINEATORS TO BE USED AT EACH RCB END TREATMENT
 - (2) PORTABLE CHANGEABLE MESSAGE SIGN TO BE IN PLACE 14 CALENDAR DAYS BEFORE CONSTRUCTION BEGINS.

DESCRIPTION	REVISIONS	DATE
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DESIGN	G.C.S.	SH-152	WASHITA COUNTY
DRAWN	G.S.N.	SUMMARY OF PAY QUANTITIES AND NOTES (TRAFFIC)	
CHECKED	S.K.		
MKEC		JOB PIECE NO. 24352(10) SHEET NO. AT01	

5/30/2019 11:13:02 AM G:\PROJECTS\2011\1403010669-0007-EC-1504 - SH-152 WASHITA COUNTY CIVIL CAD\PAV\2435210 - SUMMARY OF PAY QUANTITIES (TRAFFIC).DWG

DESCRIPTION	REVISIONS	DATE
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PLAN
1" = 20'

BM 13 SQR. CUT SE COR S HDWL
STA. 394+50.50 25' RT
ELEV. = 1820.035

BM 14 TOP OF R/W MARKER
STA. 401+84.50 75.4' RT
ELEV. = 1823.752

DESIGN DATA

CONCRETE CLASS AA f'c = 4 K.S.I.
REINFORCING STEEL (GRADE 60) fy = 60 K.S.I.

LOADING:
HL-93 OR OKLAHOMA OVERLOAD TRUCK

DESIGN:
2007 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, WITH
2008 INTERIM SPECIFICATIONS.

HYDRAULIC DATA

TOTAL DRAINAGE AREA = 3.89 SQ. MI.
NON CONTRIBUTING DA = 0.00 SQ. MI.
EFFECTIVE DRAINAGE AREA = 3.89 SQ. MI.

Q2 = 238 CFS Q25 = 1540 CFS
CHW = 1817.38 CHW = 1821.01
V2 = 5.83 FPS V = 10.71 FPS

Q5 = 571 CFS Q50 = 2070 CFS
CHW = 1818.27 CHW = 1821.55
V5 = 7.86 FPS V = 11.18 FPS

Q10 = 927 CFS Q100 = 2720 CFS
CHW = 1819.34 CHW = 1821.89
V10 = 9.18 FPS V = 11.38 FPS

RDW OT = 26 YR Q OT = 1548 CFS
CHW OT = 1821.02 V OT = 10.76 FPS

SHEET INDEX

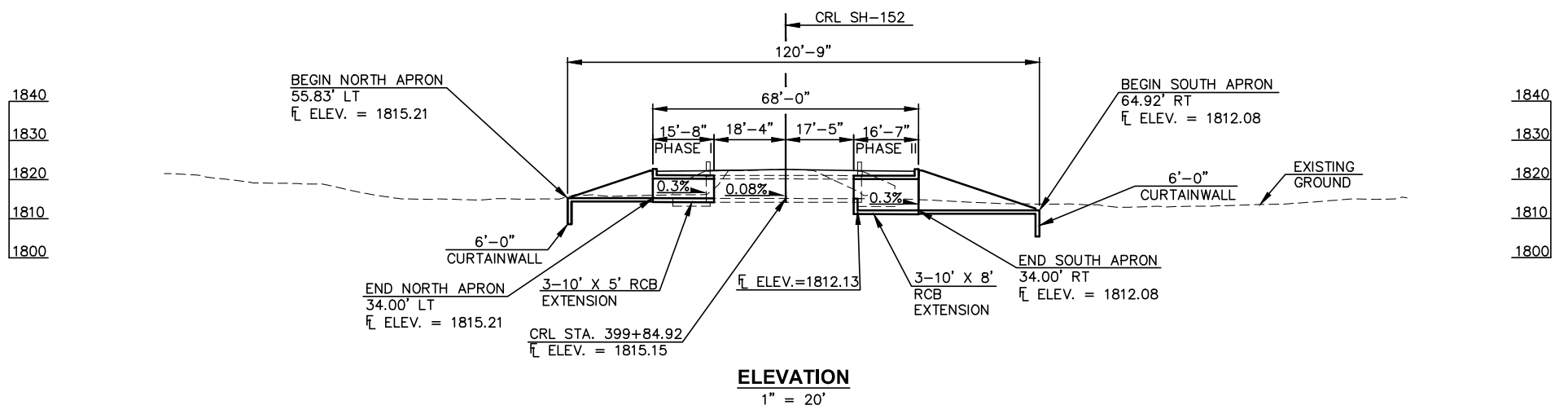
BRIDGE PAY ITEMS & NOTES
GENERAL PLAN AND ELEVATION BRIDGE A
BRIDGE "A" EXTENSION AND DROP DETAILS

AB01
B001
B002

STANDARDS

- SBI-4-2
- RCB-C3-10(2-12)-02E
- RCB-E3-H5-0-1-01E
- RCB-E3-H5-0-2-01E
- RCB-E3-H8-0-1-01E
- RCB-E3-H8-0-2-01E
- RCB-CW3-D6-0-01E

SUMMARY OF BRIDGE QUANTITIES				
ITEM	UNIT	PHASE I	PHASE II	TOTAL
UNCLASSIFIED EXCAVATION	C.Y.	80.00	240.00	320.00
STRUCTURAL EXCAVATION UNCLASSIFIED	C.Y.	45.00	65.00	110.00
CLASS AA CONCRETE	C.Y.	102.20	154.00	256.20
REINFORCING STEEL	LB.	17,020.00	22,490.00	39,510.00
REMOVAL OF BRIDGE ITEMS	L.SUM			1.00

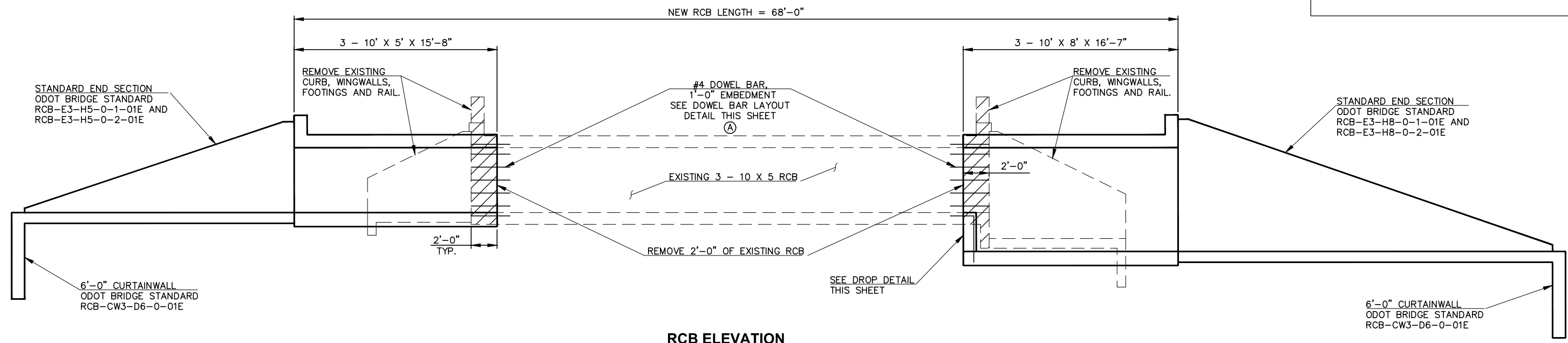


ELEVATION
1" = 20'

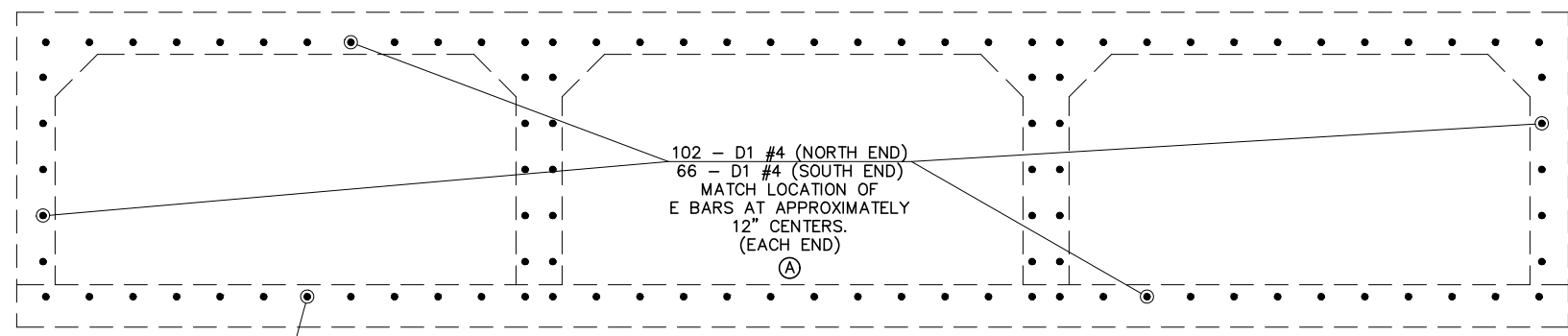
DESIGN	J.T.H.	SH-152 OVER SPRING CREEK GENERAL PLAN AND ELEVATION BRIDGE A EXTEND 3-10' X 5' RCB 15'-8" LEFT AND 3-10' X 8' RCB 16'-7" RIGHT @ STA. 399+84.92	WASHITA COUNTY
DRAWN	T.M.		
CHECKED	J.T.H.		
APPROV.	J.T.H.		
SQUAD	MKEC ENG.		
		JOB PIECE NO. 24352(10)	SHEET NO. B001

PLOTTED: Thursday, May 30, 2019 @ 10:28AM G:\projects\2014\1403010658-ODOT_EC-1504A - SH-152 Washita Co\5-Civil\CAD\Structural\2435210-General Plan & Elevation Bridge 'A'.dwg

DESCRIPTION	REVISIONS	DATE

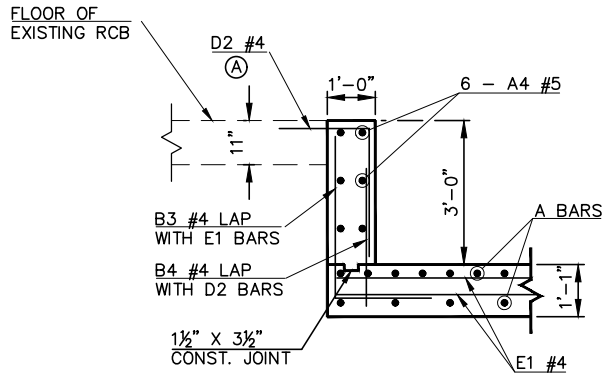


RCB ELEVATION



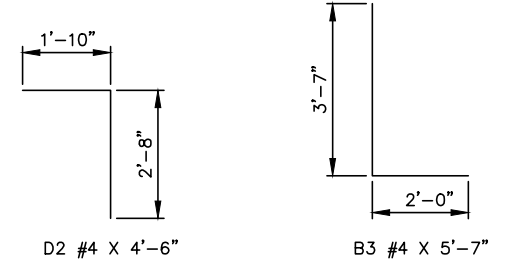
DOWEL BAR LAYOUT IN EXISTING RCB

RCB DROP BAR LIST				
PLAIN REINFORCING				
MARK	SIZE	NO.	FORM	LENGTH
A4	#5	6	STR.	33'-8"
B3	#4	36	BNT.	5'-7"
B4	#4	36	STR.	2'-10"
D1	#4	168	STR.	3'-0"
D2	#4	36	BNT.	4'-6"



DROP DETAIL
EXIST. 10'X5' RCB TO 10'X8' RCB

(A) DRILL AND EPOXY REBAR DOWELS, D1 AND D2 INTO EXISTING BARREL OF RCB ACCORDING TO SECTION 509.04(D)3 OF THE STANDARD SPECIFICATIONS. ALL COST OF INSTALLING DOWELS INCLUDING LABOR, MATERIALS AND INCIDENTALS NECESSARY TO DO THE WORK, SHALL BE INCLUDED IN OTHER ITEMS OF WORK.



THIS DRAWING IS PRELIMINARY IN NATURE. IT IS NOT A FINAL SIGNED AND SEALED DRAWING.

DESIGN	J.T.H.
DRAWN	T.M.
CHECKED	J.T.H.
APPROV.	J.T.H.
SQUAD	MKEC ENG.

SH-152 OVER SPRING CREEK WASHITA COUNTY
BRIDGE "A" EXTENSION AND DROP DETAILS
JOB PIECE NO. 24352(10) SHEET NO. B002

PLOTTED: Wednesday, December 12, 2018 @ 11:59AM. Projects\2014\1403010658-odot ec-1504a - sh-152 washita co\5-Civil\CAD\Structural\RCB DETAILS.dwg

REVISIONS		
REV. NO.	DESCRIPTION	DATE

U.S. ARMY CORPS OF ENGINEERS SECTION 404 PERMIT CONDITIONS

404 PERMIT INFORMATION

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

SPECIAL CONDITIONS

- NAVIGABLE WATER OF THE U.S.
- ON-SITE MITIGATION
- ENDANGERED SPECIES PRESENT
- HISTORIC PROPERTIES PRESENT
- DESIGNATED CRITICAL RESOURCE WATERS

PERMIT GENERAL CONDITIONS

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 RIVER CHANNEL (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.

PERMIT GENERAL CONDITIONS

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		DETAIL	
		REVIEW	
		APPROVED	
ENVIRONMENTAL DIVISION			
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION		
	JOB/PIECE NO. 24352(10)		SHEET NO. E001

REVISIONS		
REV. NO.	DESCRIPTION	DATE

U.S. ARMY CORPS OF ENGINEERS SECTION 404 PERMIT CONDITIONS

404 PERMIT INFORMATION

NATIONWIDE PERMIT NO. 14

TO BE PROVIDED AT A LATER DATE

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- 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

SPECIAL CONDITIONS

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- ON-SITE MITIGATION
- ENDANGERED SPECIES PRESENT
- HISTORIC PROPERTIES PRESENT
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 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 RIVER CHANNEL (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.

PERMIT GENERAL CONDITIONS

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		DETAIL	
		REVIEW	
		APPROVED	
ENVIRONMENTAL DIVISION			
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	JOB/PIECE NO. 24352(10)	SHEET NO. E001

STORM WATER MANAGEMENT PLAN

DESCRIPTION	REVISIONS	DATE

SITE DESCRIPTION

EROSION AND SEDIMENT CONTROLS

PROJECT LIMITS: SH-152 FROM 5.8 MILES EAST OF THE BECKHAM CO. LINE AND EXTENDS EAST APPROXIMATELY 4.9 MILES IN WASHITA CO. OKLAHOMA. THE PROJECT BEGINS WEST OF THE INTERSECTION OF SH-152 AND NS-209 AND EXTENDS EAST 4.9 MILES WEST OF THE SH-44 JUNCTION.

PROJECT DESCRIPTION: WIDEN, RESURFACED AND WIDEN BRIDGE BOX. EXTEND EXISTING STRUCTURES, OVERLAY EXISTING PAVEMENT AND ADD SHOULDERS.

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 SALVAGED TOPSOIL. REMOVE TEMPORARY SEDIMENT CONTROL 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

SOIL TYPE: SANDS, SILTS AND CLAYS

TOTAL AREA OF THE CONSTRUCTION SITE: 74.93 AC. (FROM RW TO RW AREA)

ESTIMATED AREA TO BE DISTURBED: 28.40 AC

OFFSITE AREA TO BE DISTURBED: 0.00 AC. (FOR CONTRACTOR USE)

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 14.10 AC. (EXISTING PAVEMENT AREA)

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 23.52 AC. (PROP-PAVEMENT AND PAVE DITCH AREA)

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.35

LATITUDE & LONGITUDE OF CENTER OF PROJECT: N= 35° 17' 29" W= 99° 12' 52"

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: SPRING CREEK

SENSITIVE WATERS OR WATERSHEDS: YES NO

303(d) IMPAIRED WATERS: YES NO

IF YES, LIST IMPAIRMENT:

LOCATED IN A TMDL: YES NO

LAKE THUNDERBIRD TMDL: YES NO

MS4 ENTITY YES NO

IF YES, LOCATION:

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

SOIL STABILIZATION PRACTICES:

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

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

STRUCTURAL PRACTICES:

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

OFFSITE VEHICLE TRACKING:

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

NOTES:

THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE FOLLOWING:

MAINTENANCE AND INSPECTION:

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

WASTE MATERIALS:

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

HAZARDOUS MATERIALS:

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

GENERAL NOTES:

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

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

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

IN ADDITION:

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

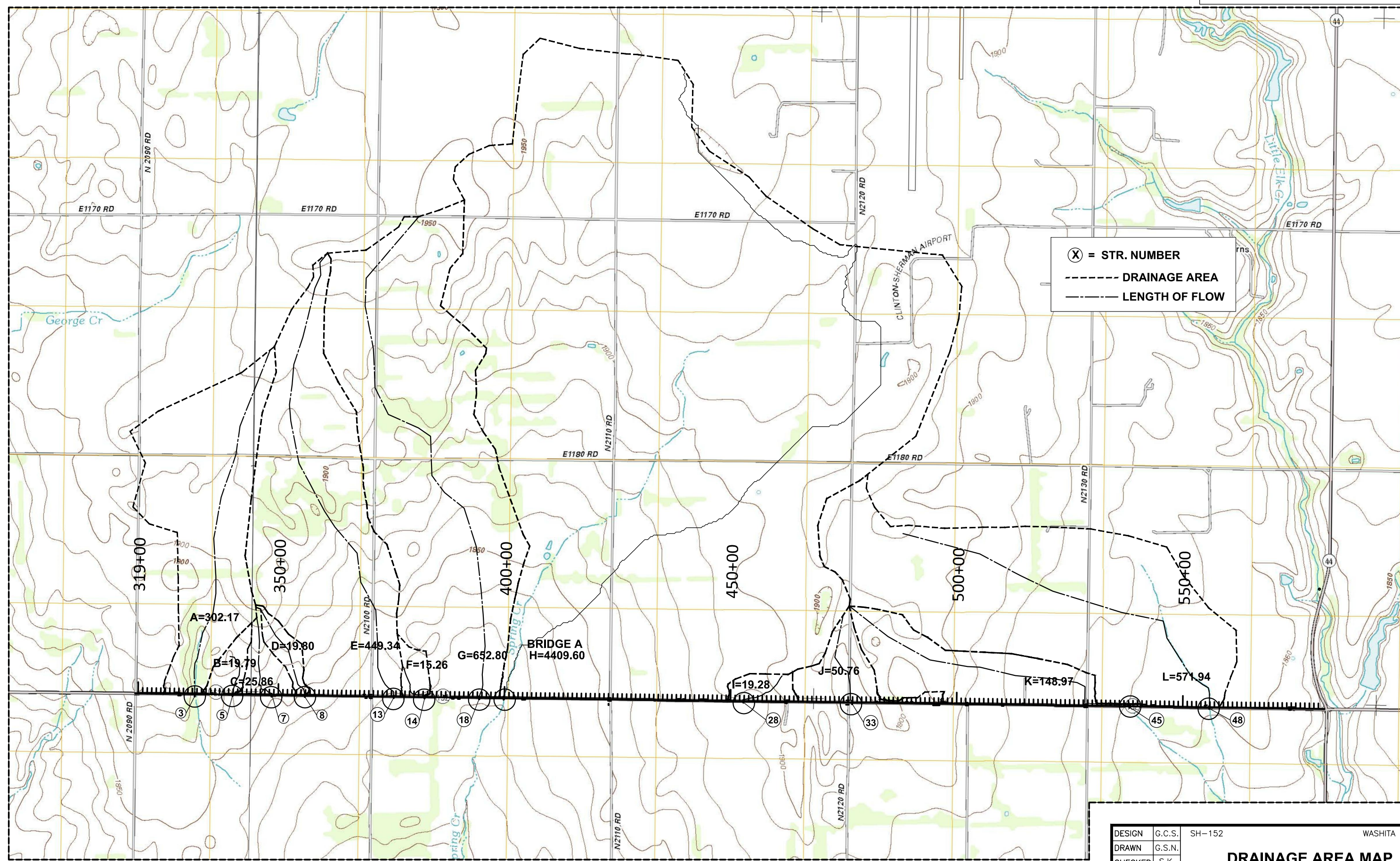
DESIGN	GCS	SH-152	WASHITA COUNTY
DRAWN	GSN	STORM WATER MANAGEMENT PLAN	
CHECKED	SK		
MKEC ENG.		JOB PIECE NO. 24352(10)	SHEET NO. R001

DRAINAGE STRUCTURE DESIGN RECORD

SHEET NO.	STR. NO.	STATION	WATERSHEED	EXISTING STRUCTURE		AREA IN PLACE	DRAINAGE AREA	ANTICIPATED LAND USE	AVERAGE SLOPE OF WATERSHEED	"C" RUNOFF COEF.	"Tc" TIME OF CONCEN.	INTENSITY OF DESIGN YEAR RAINFALL AND CHECK YEAR RAINFALL					DESIGN YEAR DISCHARGE AND CHECK YEAR DISCHARGE					STRUCTURE LENGTH	OPENING PROVIDED	FLOWLINE INLET	FLOWLINE OUTLET	STRUCTURE SLOPE	MAX ALLOW HEADWATER	CONTROLLING HEAD WATER	OUTLET VELOCITY		REMARKS									
				SIZE	TYPE							SQ FT	AC.	l ₅	l ₁₀	l ₂₅	l ₅₀	l ₁₀₀	Q ₅	Q ₁₀	Q ₂₅								Q ₅₀	Q ₁₀₀		L.FT.	SQ FT	FT.	FT.	FT./FT.	ELEV.	ELEV.	FT./SEC.	FT./SEC.
R017	3	331+53	A	3' x 3'	RCB	9.00	302.17	PASTURE, AGRICULTURAL	0.66%	0.18	74.03	1.56	1.80	2.08	2.40	2.57	85.80	98.7	114.0	131.6	141.0	102	80.00	1866.55	1866.35	0.0020	1877.88	1876.65	12.78	15.67	Q100 DESIGN - EXTEND CZ									
R017	5	339+88	B	2' x 2'	RCB	4.00	19.79	PASTURE, AGRICULTURAL	1.48%	0.15	37.32	2.96	3.41	3.93	4.54	4.86	8.79	10.1	11.7	13.5	14.4	66	25.13	1864.82	1864.81	0.0002	1869.50	1866.63	5.73	6.14	Q100 DESIGN - EXTEND CZ									
R018	7	348+50	C	2' x 2'	RCB	4.00	25.86	PASTURE, AGRICULTURAL	1.93%	0.15	37.18	2.97	3.41	3.94	4.55	4.88	11.51	13.2	15.3	17.7	18.9	67	30.00	1846.06	1845.39	0.0100	1849.31	1848.49	7.67	8.07	Q100 DESIGN - EXTEND CZ									
R018	8	355+87	D	4' x 2'	RCB	8.00	19.80	PASTURE, AGRICULTURAL	0.00%	0.15	33.57	3.14	3.62	4.18	4.82	5.17	9.34	10.7	12.4	14.3	15.3	66	8.00	1843.88	1843.28	0.0091	1847.03	1845.18	6.25	6.69	Q100 DESIGN - EXTEND CZ									
R020	13	375+51	E	2 - 4' x 2'	RCB	16.00	449.34	PASTURE, AGRICULTURAL	0.67%	0.22	94.37	1.63	1.87	2.16	2.50	2.68	162.29	186.7	215.6	249.0	266.8	64	9.62	1827.00	1826.55	0.0070	1829.87	1829.86	9.12	9.12	Q2 DESIGN - EXTEND CZ									
R020	14	382+36	F	3' x 2'	RCB	6.00	15.26	PASTURE, AGRICULTURAL	2.78%	0.15	26.65	3.56	4.10	4.73	5.46	5.85	8.15	9.4	10.8	12.5	13.4	64	48.00	1824.51	1824.30	0.0033	1827.52	1825.99	4.88	5.24	Q100 DESIGN - EXTEND CZ									
R021	18	394+41	G	2 - 8' x 3'	RCB	48.00	652.80	PASTURE, AGRICULTURAL									571.00	927.0	1540.0	2070.0	2720.0	64	48.00	1815.12	1815.12	0.0000	1819.58	1818.66	10.42	10.46	Q26 DESIGN - EXTEND CZ									
B001	BR A	399+84.92	H	3 - 10' x 5'	RCB	150.00	4409.60	PASTURE, AGRICULTURAL									571.00	927.0	1540.0	2070.0	2720.0	69	150.00	1815.21	1812.08	0.0008	1821.33	1818.66	10.71	10.76	Q26 DESIGN - EXTEND CZ									
R025	28	452+84	I	2' x 2'	RCB	4.00	19.28	PASTURE, AGRICULTURAL	1.10%	0.15	34.89	3.08	3.54	4.09	4.72	5.06	8.90	10.2	11.8	13.6	14.6	65	40.00	1884.29	1884.16	0.0020	1887.42	1886.07	5.76	6.18	Q25 DESIGN - EXTEND CZ									
R026	33	476+91	J	24 "	RCP	3.14	50.76	PASTURE, AGRICULTURAL	0.15%	0.15	62.21	2.16	2.48	2.87	3.31	3.55	16.44	18.9	21.8	25.2	27.0	75	7.07	1891.30	1890.85	0.0060	1889.94	1895.55	7.79	9.04	Q100 DESIGN - EXTEND CZ									
R030	45	538+31	K	8' x 3'	RCB	24.00	148.97	PASTURE, AGRICULTURAL	0.75%	0.16	68.64	2.02	2.33	2.69	3.11	3.33	48.57	55.9	64.5	74.5	79.8	64	60.00	1853.96	1853.30	0.0103	1863.12	1856.41	9.00	9.53	Q100 DESIGN - EXTEND CZ									
R032	48	555+89	L	6' x 4'	RCB	24.00	571.94	PASTURE, AGRICULTURAL	0.53%	0.25	103.84	1.52	1.75	2.02	2.34	2.50	216.80	249.5	288.1	332.6	356.4	64	14.14	1842.67	1842.65	0.0003	1848.68	1848.54	10.71	10.52	Q5 DESIGN - EXTEND CZ									

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DESIGN	G.C.S.	SH-152	WASHITA COUNTY
DRAWN	G.S.N.		
CHECKED	S.K.		
MKEC		DRAINAGE STRUCTURE DESIGN RECORD	
		JOB PIECE NO. 24352(10) SHEET NO. R002	



(X) = STR. NUMBER
 ----- DRAINAGE AREA
 _____ LENGTH OF FLOW

DESIGN	G.C.S.	SH-152	WASHITA COUNTY
DRAWN	G.S.N.		
CHECKED	S.K.		
MKEC		DRAINAGE AREA MAP	
		JOB PIECE NO. 24352(10)	SHEET NO. R003

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SEC. 36, T10N, R19W

GOV. LOT 4
SEC. 31, T10N, R19W


SEC. 1, T9N, R19W


GOV. LOT 4
SEC. 6, T9N, R19W

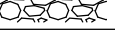
DA	OUTFALL STATION	STR. NO.	AREA A.C.	SEDIMENT CONTROL MEASURES	DISTURBED AREA STA. TO STA.
1A	331+53	3	0.80	TEMP DIKE	320+00 TO 331+53
1B	331+53	3	0.55	TEMP SILT FENCE & DIKE	320+00 TO 331+53
1C	331+53	3	0.18	TEMP DIKE	331+53 TO 333+32
1D	331+53	3	0.18	TEMP DIKE	331+53 TO 333+32
TOTAL			1.71		

DA	OUTFALL STATION	STR. NO.	AREA A.C.	SEDIMENT CONTROL MEASURES	DISTURBED AREA STA. TO STA.
2A	339+88	5	0.40	TEMP DIKE	333+32 TO 339+88
2B	339+88	5	0.32	TEMP SILT FENCE & DIKE	333+32 TO 339+88
TOTAL			0.72		

LEGEND

TEMPORARY SILT DIKE 

TEMPORARY SILT FENCE 

RIP RAP 

GOV. LOT 3
SEC. 6, T9N, R19W

SH-152 WASHITA COUNTY

EROSION CONTROL
(SHEET 1 OF 9)

JOB PIECE NO. 24352(10) Sheet No. R004

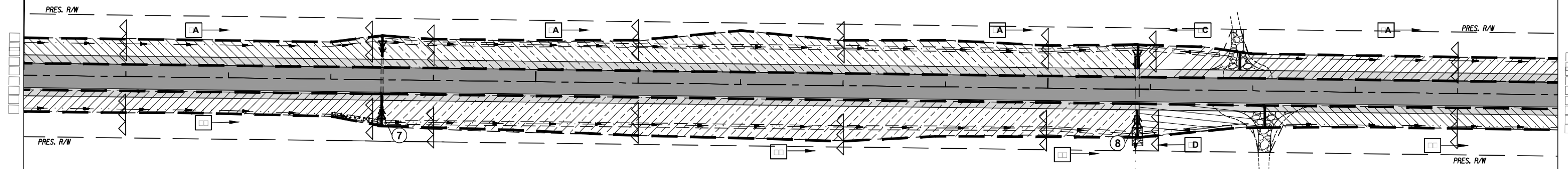
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DA	OUTFALL STATION	STR. NO.	AREA A.C.	SEDIMENT CONTROL MEASURES	DISTURBED AREA STA. TO STA.
3A	348+50	7	0.50	TEMP DIKE	339+88 TO 348+50
3B	348+50	7	0.44	TEMP DIKE	339+88 TO 348+50
TOTAL			0.94		

SOUTHEAST 1/4
SEC. 31, T10N, R19W

350+00

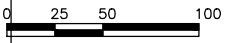
355+00



DA	OUTFALL STATION	STR. NO.	AREA A.C.	SEDIMENT CONTROL MEASURES	DISTURBED AREA STA. TO STA.
4A	355+87	8	0.54	TEMP DIKE	348+50 TO 355+87
4B	355+87	8	0.60	TEMP DIKE	348+50 TO 355+87
4C	355+87	8	0.07	TEMP DIKE	355+87 TO 356+87
4D	355+87	8	0.07	TEMP DIKE	355+87 TO 357+12
TOTAL			1.28		

GOV. LOT 2
SEC. 6, T9N, R19W

GOV. LOT 1
SEC. 6, T9N, R19W

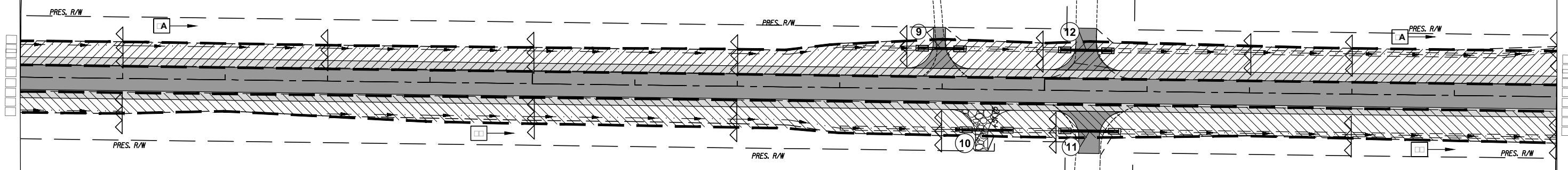


SOUTHEAST 1/4
SEC. 31, T10N, R19W

SOUTHWEST 1/4
SEC. 32, T10N, R19W

365+00

370+00



E END	
TEMPORARY SILT DIKE	
TEMPORARY SILT FENCE	
RIP RAP	

GOV. LOT 1
SEC. 6, T9N, R19W

GOV. LOT 4
SEC. 5, T9N, R19W

SH-152 WASHITA COUNTY

EROSION CONTROL
SHEET 04 OF 04

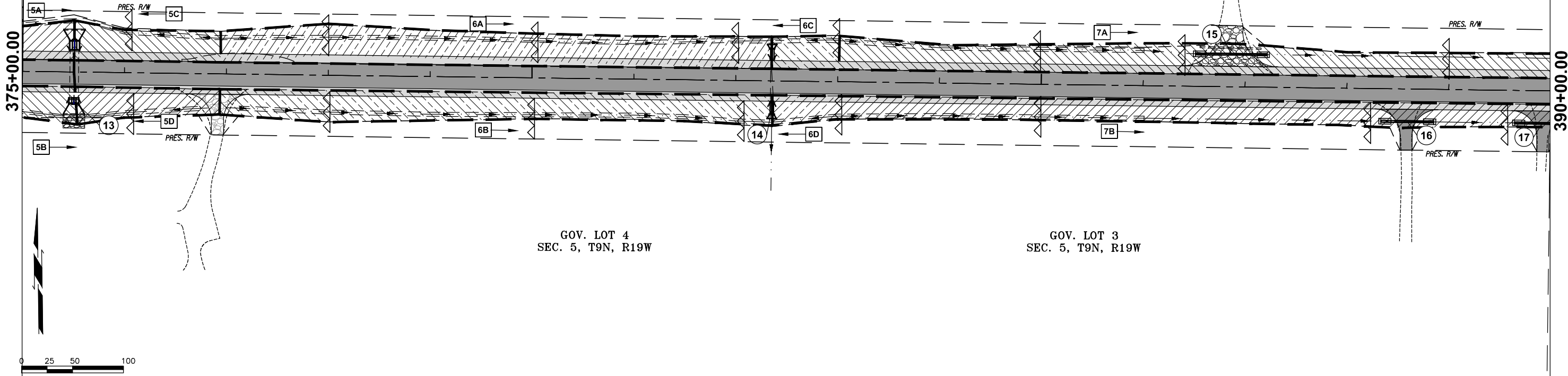
JOB PIECE NO. 24352(10) Sheet No. R005

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SOUTHWEST 1/4
SEC. 32, T10N, R19W

DA	OUTFALL STATION	STR. NO.	AREA A.C.	SEDIMENT CONTROL MEASURES	DISTURBED AREA STA. TO STA.
5A	375+51	13	1.17	TEMP DIKE	356+87 TO 375+50
5B	375+51	13	1.09	TEMP DIKE	357+12 TO 375+55
5C	375+51	13	0.10	TEMP DIKE	375+50 TO 376+94
5D	375+51	13	0.10	TEMP DIKE	375+55 TO 376+94
TOTAL			2.46		

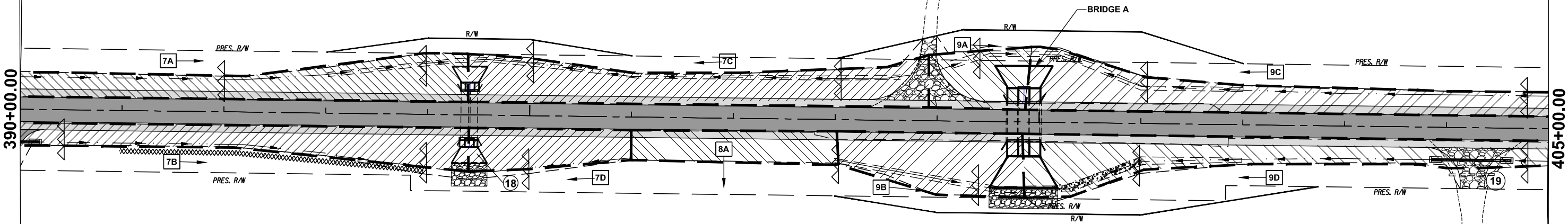
DA	OUTFALL STATION	STR. NO.	AREA A.C.	SEDIMENT CONTROL MEASURES	DISTURBED AREA STA. TO STA.
6A	382+36	14	0.36	TEMP DIKE	376+94 TO 382+35
6B	382+36	14	0.34	TEMP DIKE	376+94 TO 382+35
6C	382+36	14	0.05	TEMP DIKE	382+36 TO 383+00
6D	382+36	14	0.05	TEMP DIKE	382+36 TO 383+00
TOTAL			0.80		



DA	OUTFALL STATION	STR. NO.	AREA A.C.	SEDIMENT CONTROL MEASURES	DISTURBED AREA STA. TO STA.
7A	394+41	18	0.74	TEMP DIKE	383+00 TO 394+39
7B	394+41	18	0.64	TEMP SILT FENCE & DIKE	383+00 TO 394+40
7C	394+41	18	0.35	TEMP DIKE	394+39 TO 398+90
7D	394+41	18	0.14	TEMP DIKE	394+39 TO 398+91
TOTAL			1.87		

SOUTHWEST 1/4
SEC. 32, T10N, R19W

SOUTHWEST 1/4
SEC. 32, T10N, R19W



LEGEND

- TEMPORARY SILT DIKE
- TEMPORARY SILT FENCE
- RIP RAP

GOV. LOT 3
SEC. 5, T9N, R19W

DA	OUTFALL STATION	STR. NO.	AREA A.C.	SEDIMENT CONTROL MEASURES	DISTURBED AREA STA. TO STA.
8A	396+92		0.15	TEMP DIKE	398+91 TO 399+92
TOTAL			0.15		

DA	OUTFALL STATION	STR. NO.	AREA A.C.	SEDIMENT CONTROL MEASURES	DISTURBED AREA STA. TO STA.
9A	399+92	BRDGA	0.13	TEMP DIKE	394+41 TO 399+87
9B	399+92	BRDGA	0.26	TEMP DIKE	399+92 TO 452+84
9C	399+92	BRDGA	3.23	TEMP DIKE	399+87 TO 452+83
9D	399+92	BRDGA	2.69	TEMP DIKE	399+87 TO 452+84
TOTAL			6.31		

GOV. LOT 2
SEC. 5, T9N, R19W

SH-152 WASHITA COUNTY

EROSION CONTROL
(SHEET 3 OF 9)

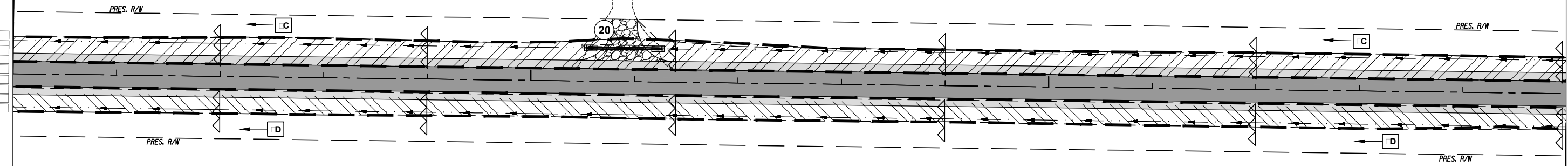
JOB PIECE NO. 24352(10) Sheet No. R006

PLOTED: Wednesday, May 29, 2019 @ 03:19PM
 G:\projects\2019\14031008-001 EC-1504 - SH-152 Washita Co\5-29-19\Drawings\24352(10)-Erosion

SOUTHEAST 1/4
SEC. 32, T10N, R19W

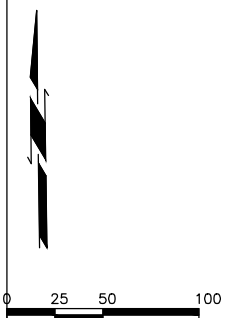
410+00

415+00



GOV. LOT 2
SEC. 5, T9N, R19W

GOV. LOT 1
SEC. 5, T9N, R19W

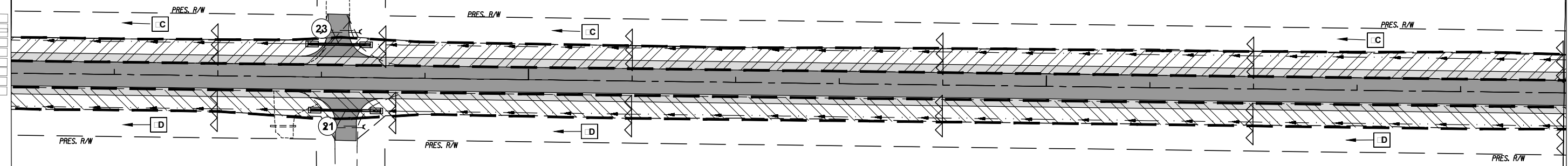


SOUTHEAST 1/4
SEC. 32, T10N, R19W

SOUTHWEST 1/4
SEC. 33, T10N, R19W

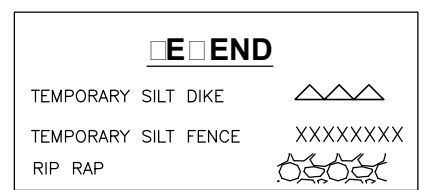
425+00

430+00



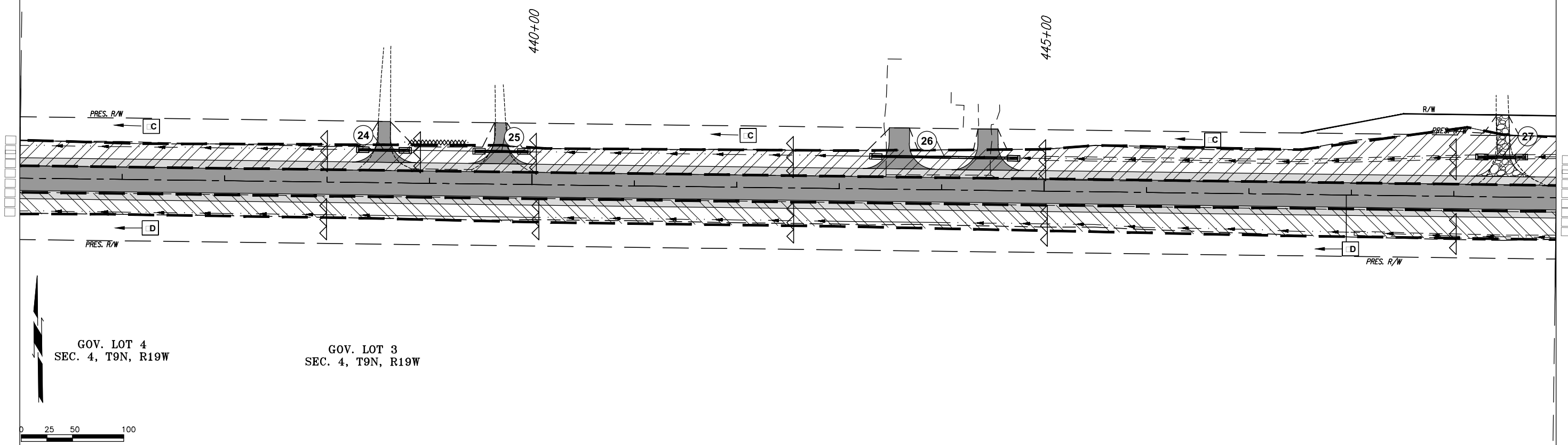
GOV. LOT 1
SEC. 5, T9N, R19W

GOV. LOT 4
SEC. 4, T9N, R19W



G:\projects\2014\102510608-0007 EC-1504 - SH-152 Washita Co\15-000 CAD\Drawings\24352(10)-Erosion
 PLOTTER: Monday, April 01, 2019 @ 10:00AM

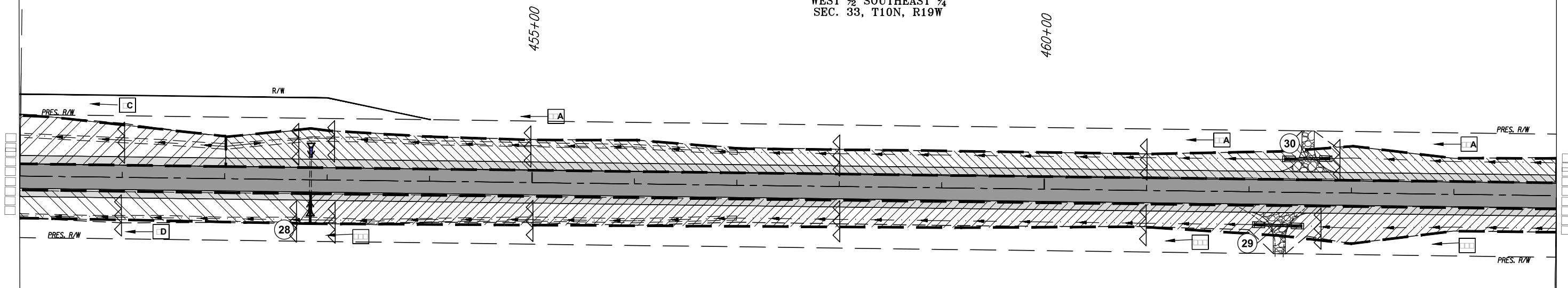
SOUTHWEST 1/4
SEC. 33, T10N, R19W



GOV. LOT 4
SEC. 4, T9N, R19W

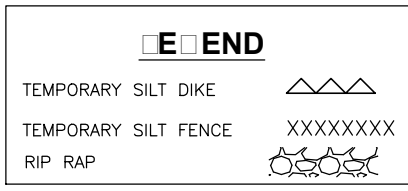
GOV. LOT 3
SEC. 4, T9N, R19W

WEST 1/2 SOUTHEAST 1/4
SEC. 33, T10N, R19W



GOV. LOT 2
SEC. 4, T9N, R19W

GOV. LOT 1
SEC. 4, T9N, R19W



DA	OUTFALL STATION	STR. NO.	AREA A.C.	SEDIMENT CONTROL MEASURES	DISTURBED AREA STA. TO STA.
10A	452+84	28	0.81	TEMP DIKE	452+84 TO 465+00
10B	452+84	28	0.93	TEMP DIKE	452+84 TO 465+00
TOTAL			1.74		

SH-152 WASHITA COUNTY

EROSION CONTROL
SHEET 04 OF 04

JOB PIECE NO. 24352(10) Sheet No. R008

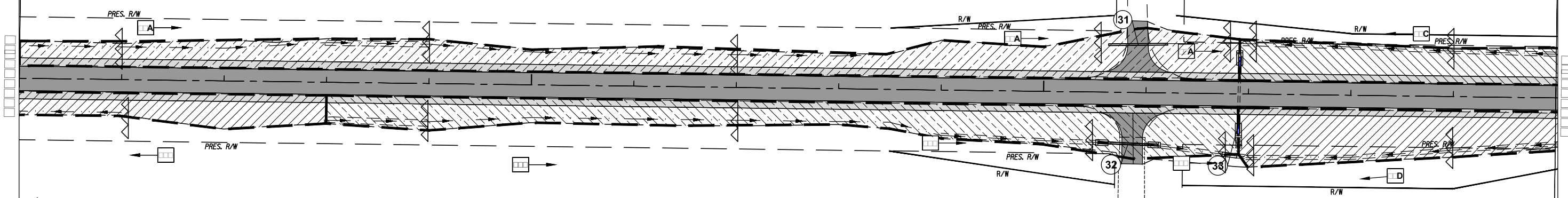
PLOTTER: Monday, April 01, 2019 @ 10:20AM
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EAST 1/2 SOUTHEAST 1/4
SEC. 33, T10N, R19W

470+00

475+00

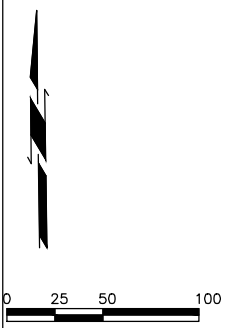
WEST 1/2 SOUTHWEST 1/4
SEC. 34, T10N, R19W



GOV. LOT 1
SEC. 4, T9N, R19W

DA	OUTFALL STATION	STR. NO.	AREA A.C.	SEDIMENT CONTROL MEASURES	DISTURBED AREA STA. TO STA.
11A	476+91	33	0.78	TEMP DIKE	465+00 TO 476+91
11B	476+91	33	0.64	TEMP DIKE	465+00 TO 476+91
11C	476+91	33	0.55	TEMP DIKE	476+91 TO 485+51
11D	476+91	33	0.67	TEMP DIKE	476+91 TO 485+51
TOTAL			2.64		

GOV. LOT 1
SEC. 4, T9N, R19W

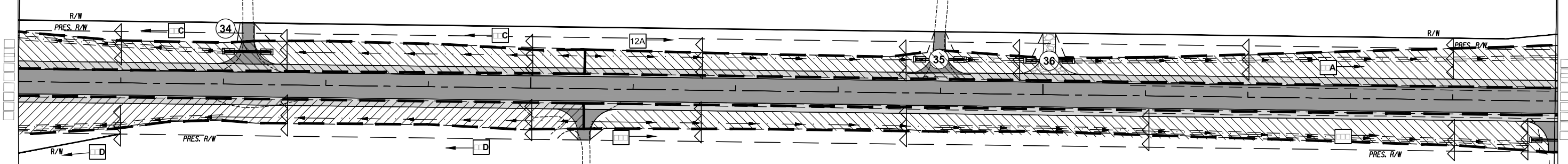


WEST 1/2 SOUTHWEST 1/4
SEC. 34, T10N, R19W

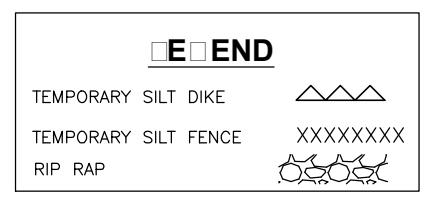
485+00

490+00

EAST 1/2 SOUTHWEST 1/4
SEC. 34, T10N, R19W



GOV. LOT 4
SEC. 3, T9N, R19W



GOV. LOT 3
SEC. 3, T9N, R19W

SH-152 WASHITA COUNTY

EROSION CONTROL
SHEET 04 OF 04

JOB PIECE NO. 24352(10) Sheet No. R009

PLOTTER: Monday, April 01, 2019 @ 10:00AM
 G:\projects\2019\140310108-0007 EC-1504 - SH-152 Washita Co\15-001\CAD\Draw\24352(10)-Erosion

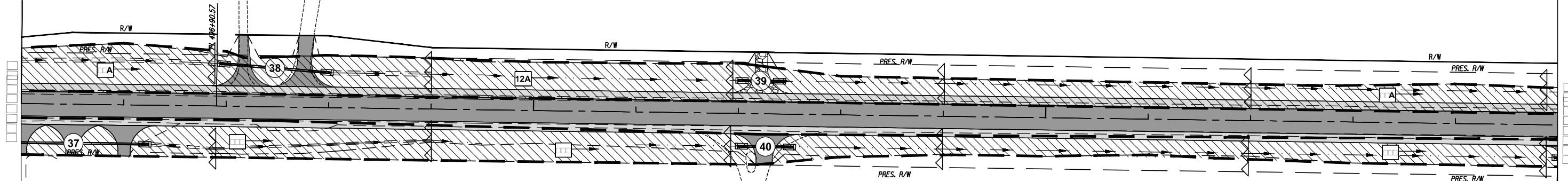
DESCRIPTION	REVISIONS	DATE

EAST ½ SOUTHWEST ¼
SEC. 34, T10N, R19W

SOUTH ½ SOUTHWEST ¼
SEC. 34, T10N, R19W

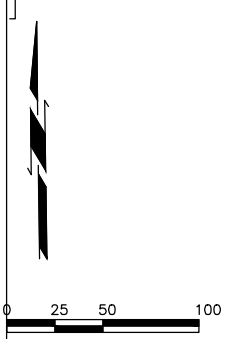
500+00

505+00



GOV. LOT 3
SEC. 3, T9N, R19W

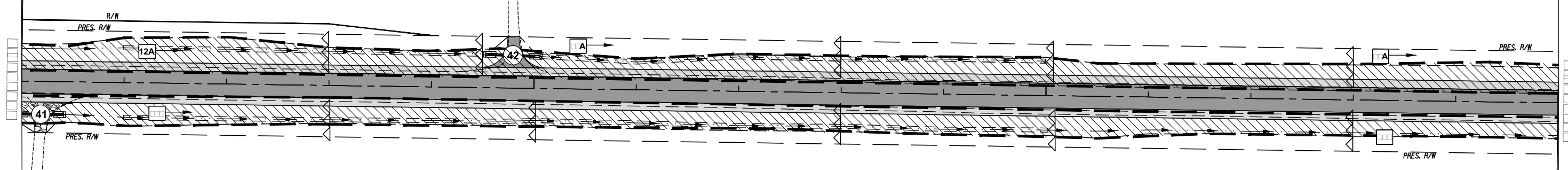
GOV. LOT 2
SEC. 3, T9N, R19W



SOUTH ½ SOUTHWEST ¼
SEC. 34, T10N, R19W

515+00

520+00



GOV. LOT 2
SEC. 3, T9N, R19W

GOV. LOT 1
SEC. 3, T9N, R19W

E END	
TEMPORARY SILT DIKE	
TEMPORARY SILT FENCE	
RIP RAP	

SH-152 WASHITA COUNTY

EROSION CONTROL

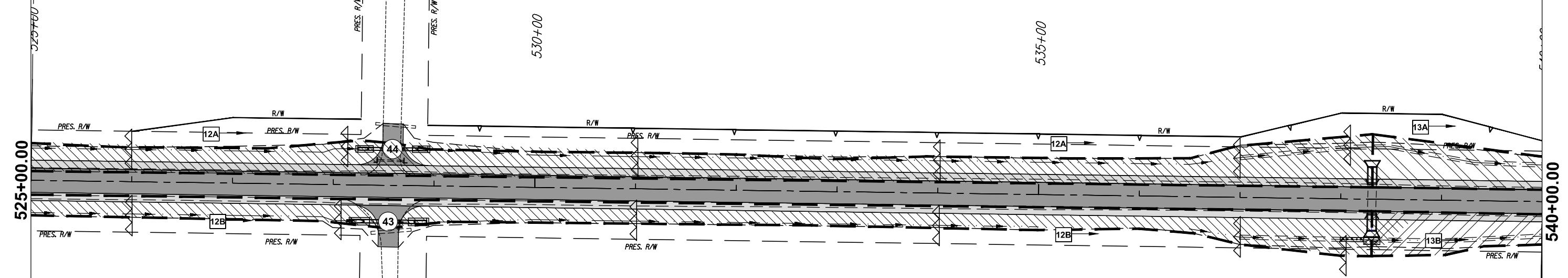
SHEET OF

JOB PIECE NO. 24352(10) Sheet No. R010

PLOTTER: Monday, April 01, 2019 @ 10:00AM
 G:\projects\2019\140310108-0001 EC-1504 - SH-152 Washita Co\15-041\CAD\Drawings\24352(10)-Erosion

SOUTH ½ SOUTHEAST ¼
SEC. 34, T10N, R19W

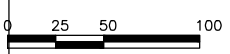
SOUTHWEST ¼
SEC. 35, T10N, R19W



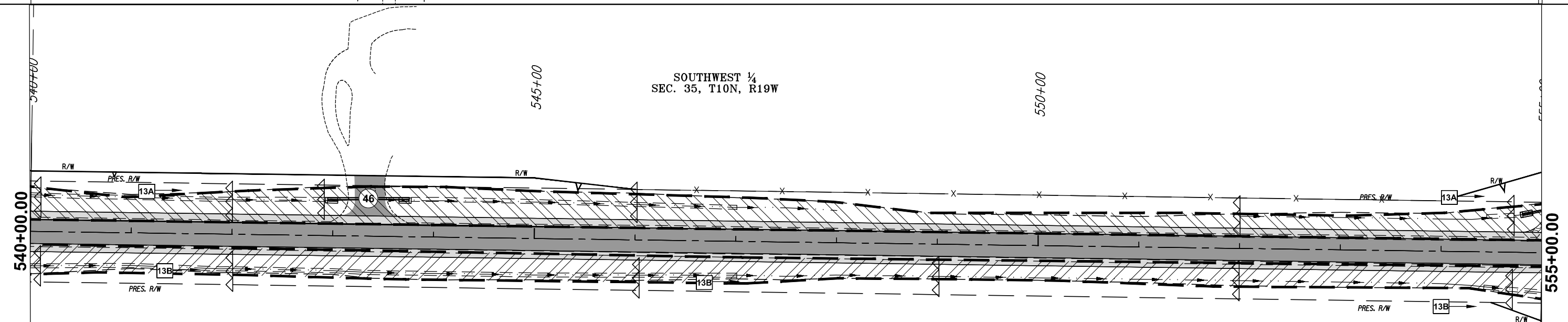
DA	OUTFALL STATION	STR. NO.	AREA A.C.	SEDIMENT CONTROL MEASURES	DISTURBED AREA STA. TO STA.
12A	538+31	45	3.50	TEMP DIKE	485+51 TO 538+31
12B	538+31	45	3.47	TEMP DIKE	485+51 TO 538+31
TOTAL			6.97		

GOV. LOT 1
SEC. 3, T9N, R19W

GOV. LOT 4
SEC. 2, T9N, R19W



SOUTHWEST ¼
SEC. 35, T10N, R19W



GOV. LOT 4
SEC. 2, T9N, R19W

GOV. LOT 3
SEC. 2, T9N, R19W

LEGEND	
TEMPORARY SILT DIKE	
TEMPORARY SILT FENCE	
RIP RAP	

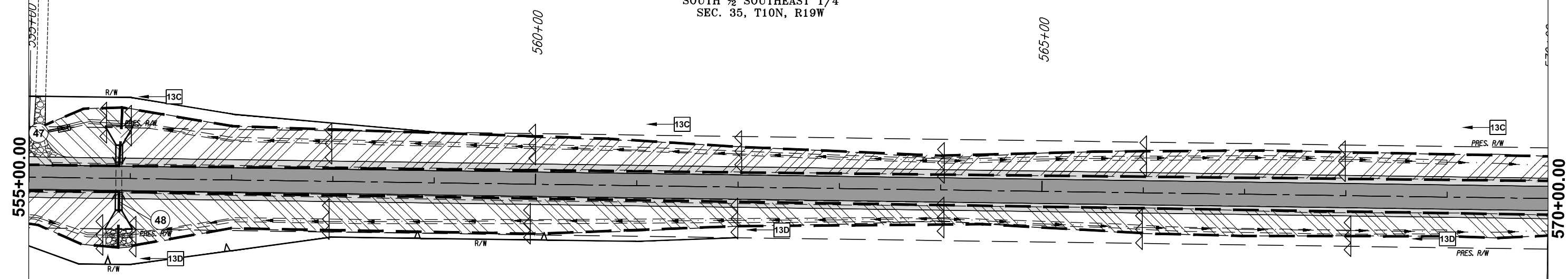
SH-152 WASHITA COUNTY

EROSION CONTROL
(SHEET 8 OF 9)

JOB PIECE NO. 24352(10) Sheet No. R011

G:\projects\2014\14031008-0001_EC-1504 - SH-152 Washita Co\15-001\Drawings\24352(10)-Erosion
 PLOTED: Monday, April 01, 2019 @ 10:36AM

SOUTH 1/2 SOUTHEAST 1/4
SEC. 35, T10N, R19W



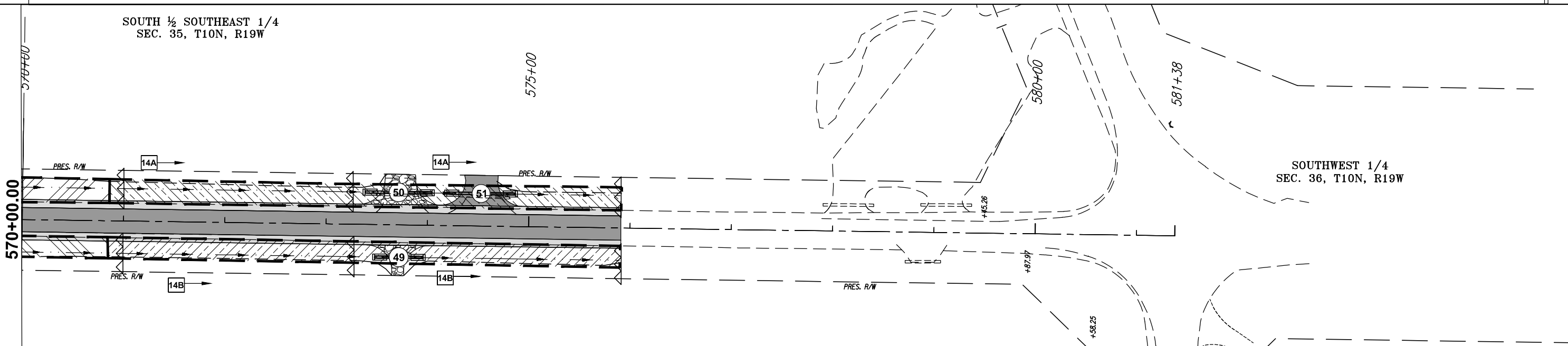
DA	OUTFALL STATION	STR. NO.	AREA A.C.	SEDIMENT CONTROL MEASURES	DISTURBED AREA STA. TO STA.
13A	555+89	48	1.24	TEMP DIKE	538+31 TO 555+22
13B	555+89	48	1.07	TEMP DIKE	538+31 TO 555+22
13C	555+89	48	1.00	TEMP DIKE	555+22 TO 570+85
13D	555+89	48	0.93	TEMP DIKE	555+22 TO 570+85
TOTAL			4.24		

GOV. LOT 2
SEC. 2, T9N, R19W

GOV. LOT 1
SEC. 2, T9N, R19W



SOUTH 1/2 SOUTHEAST 1/4
SEC. 35, T10N, R19W



DA	OUTFALL STATION	STR. NO.	AREA A.C.	SEDIMENT CONTROL MEASURES	DISTURBED AREA STA. TO STA.
14A			0.26	TEMP DIKE	570+85 TO 575+91
14B			0.24	TEMP DIKE	570+85 TO 575+91
TOTAL			0.50		

LEGEND

TEMPORARY SILT DIKE

TEMPORARY SILT FENCE

RIP RAP

GOV. LOT 1
SEC. 2, T9N, R19W

SOUTHWEST 1/4
SEC. 36, T10N, R19W

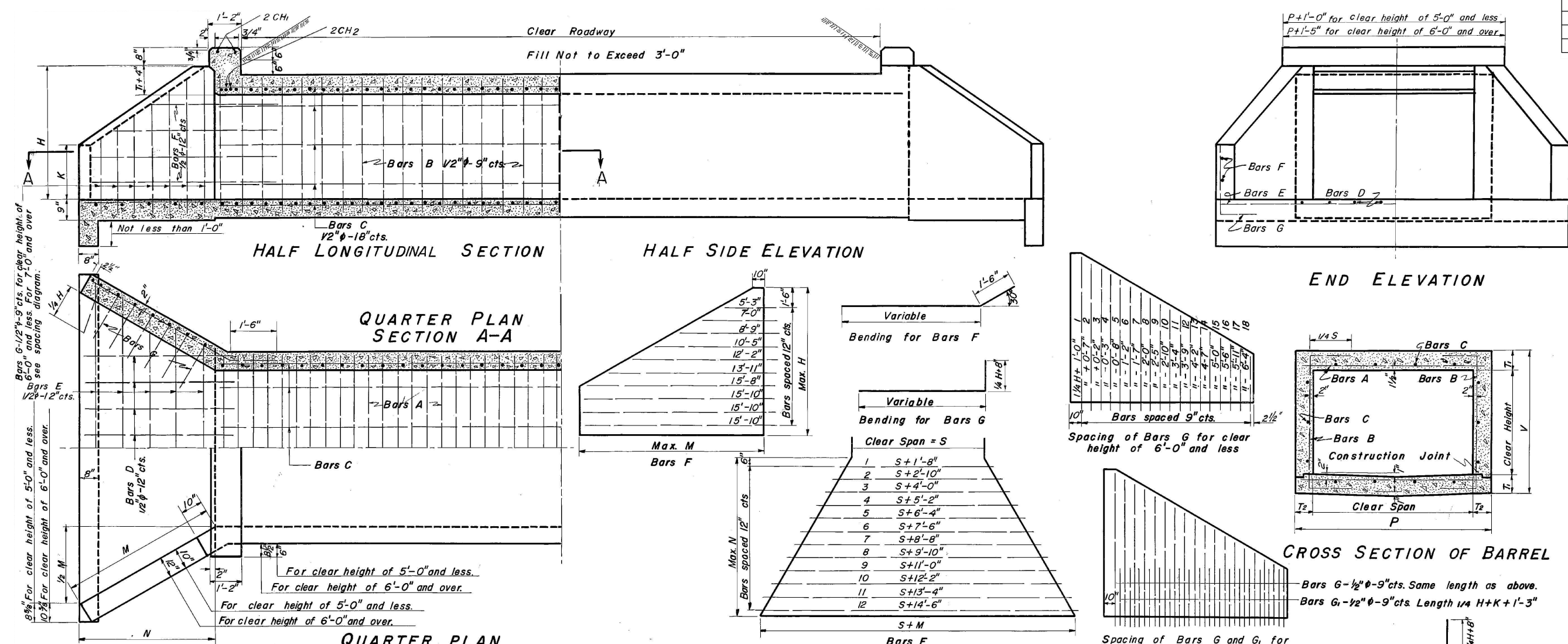
GOV. LOT 4
SEC. 1, T9N, R19W

SH-152 WASHITA COUNTY

EROSION CONTROL
(SHEET 9 OF 9)

PLOTTER: Monday, April 01, 2019 @ 10:37AM
 G:\projects\2019\140370608-0001_EC-1504A - SH-152 Washita Co\5- civil\CAD\Drawings\24352(10)-Erosion

DESCRIPTION	REVISIONS	DATE

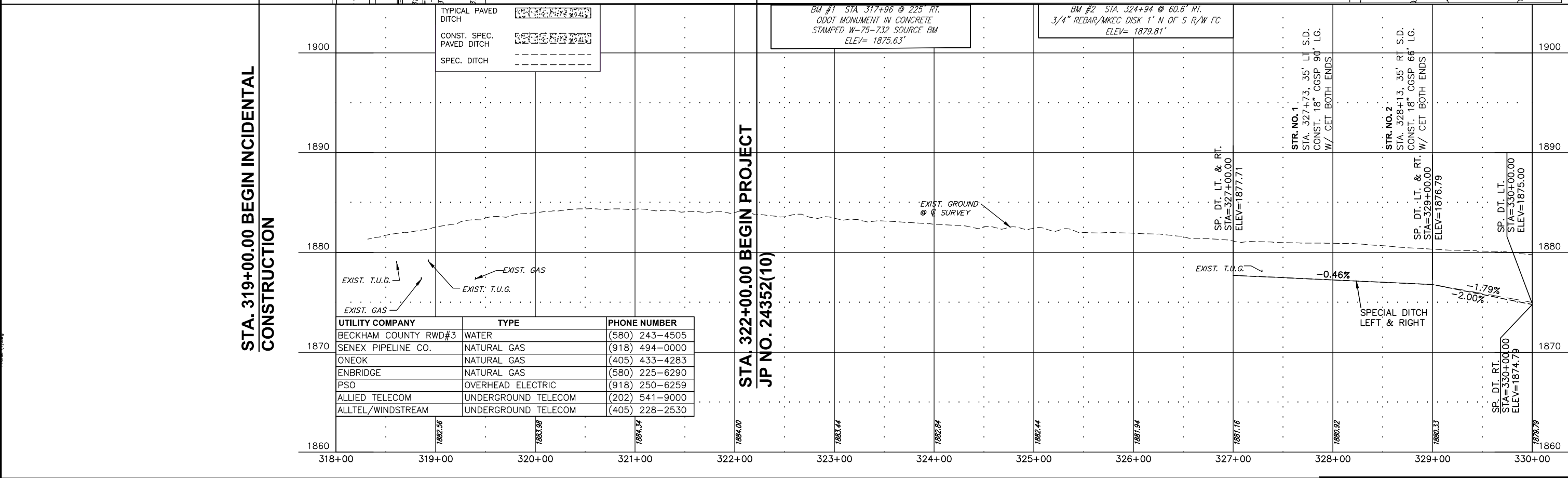
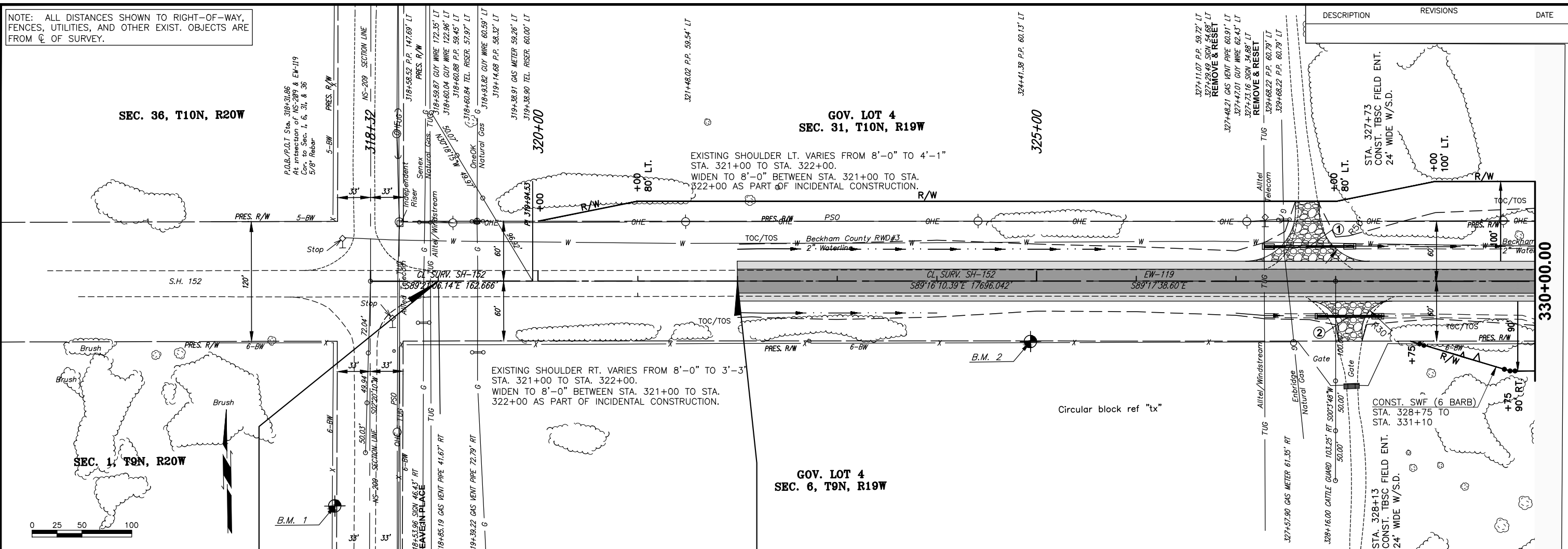


* NOTE: The weight of the CH₁ & CH₂ bars is included in the weight of the total quantities for 26' & 30' Rdy.

DESIGN NO	Clear Span Ft.	Clear Height Ft.	Area Sq. Ft.	BARREL OF CULVERT				TWO WINGS AND ONE APRON				TOTAL QUANTITIES				DESIGN NO	Two Curbs Reinf. Steel Same Size As A Bars																			
				DIMENSIONS				REINFORCING STEEL				DIMENSIONS						REINFORCING STEEL				26' ROADWAY		30' ROADWAY												
				T ₁	T ₂	V	P	Size & Spacing	Length	Size & Spacing	Length	Size & Spacing	No.	H	K			M	N	No.	Length	No.	Length	No.	Length	Steel	Class A Concrete	Steel	Class A Concrete							
1	2'-0"	4'-0"	6"	6"	3'-0"	3'-0"	1/2" #6-6"	2'-8"	1/2" #6-9"	3'-8"	1/2" #6-18"	8	19.34	0.185	2'-10"	1'-6"	3'-2"	2'-9"	4'-3-2"	3	2	5'-2"	2	5'-2"	8	54	87	31	163	667	7.56	744	8.30	1	3'-8"	2'-8"
2	2'-0"	6'-0"	6"	6"	3'-0"	4'-0"	1/2" #6-6"	3'-8"	1/2" #6-9"	4'-2"	1/2" #6-18"	8	22.97	0.222	2'-10"	1'-6"	3'-2"	2'-9"	5'-3-2"	3	2	5'-2"	2	5'-2"	8	58	95	40	188	7.82	8.89	874	9.78	2	4'-8"	3'-8"
3	2'-6"	7.5'	6"	6"	3'-6"	4'-0"	3/8" #6-4"	3'-8"	3/8" #6-9"	4'-8"	3/8" #6-18"	8	23.88	0.241	3'-4"	1'-7"	3'-10"	3'-4"	5'-3-9"	3	2	5'-3"	2	5'-3"	10	69	125	40	204	8.30	10.06	925	11.02	3	4'-8"	3'-8"
4	3'-0"	9'-0"	6"	6"	4'-0"	4'-0"	3/8" #6-4"	3'-8"	3/8" #6-9"	5'-2"	3/8" #6-18"	10	26.14	0.259	3'-10"	1'-9"	4'-6"	3'-10"	5'-4-4"	4	2	5'-3"	4	6'-6"	10	91	160	40	221	9.37	11.29	1,041	12.33	4	4'-8"	3'-8"
5	2'-0"	8'-0"	7"	6"	3'-2"	5'-0"	3/8" #6-6"	4'-8"	3/8" #6-9"	4'-10"	3/8" #6-18"	10	30.40	0.290	2'-11"	1'-7"	3'-2"	2'-9"	6'-3-2"	3	2	5'-2"	2	5'-2"	10	63	104	48	213	1,021	11.1	1,143	12.27	5	5'-8"	4'-8"
6	2'-6"	10'-0"	7"	6"	3'-8"	5'-0"	3/8" #6-6"	4'-8"	3/8" #6-9"	5'-10"	3/8" #6-18"	10	31.31	0.308	3'-5"	1'-8"	3'-10"	3'-4"	6'-3-9"	3	2	5'-3"	2	5'-10"	10	74	137	48	229	1,069	12.30	1,194	13.53	6	5'-8"	4'-8"
7	3'-0"	12'-0"	7"	6"	4'-2"	5'-0"	3/8" #6-6"	4'-8"	3/8" #6-9"	5'-10"	3/8" #6-18"	12	33.58	0.327	3'-11"	1'-10"	4'-6"	3'-10"	6'-4-4"	4	2	5'-3"	2	6'-6"	10	97	173	48	246	1,178	13.59	1,318	14.90	7	5'-8"	4'-8"
8	4'-0"	16'-0"	7"	6"	5'-2"	5'-4"	3/8" #6-6"	5'-0"	3/8" #6-9"	6'-10"	3/8" #6-18"	12	36.45	0.428	4'-11"	2'-0"	5'-0"	5'-0"	6'-5-6"	5	4	Var.	4	7'-10"	14	144	251	50	278	1,356	18.06	1,501	19.77	8	6'-0"	5'-0"
9	2'-0"	10'-0"	7 1/2"	6"	3'-3"	6'-0"	3/8" #6-7 1/2"	5'-8"	3/8" #6-9"	5'-5"	3/8" #6-18"	12	37.20	0.352	2'-11 1/2"	1'-8"	3'-2"	2'-9"	7'-3-2"	3	2	5'-2"	2	5'-2"	8	67	113	56	237	1,228	13.15	1,376	14.56	9	6'-8"	5'-8"
10	3'-0"	15'-0"	7 1/2"	6"	4'-3"	6'-0"	3/8" #6-6"	5'-8"	3/8" #6-9"	6'-5"	3/8" #6-18"	14	40.38	0.389	3'-11 1/2"	1'-10"	4'-6"	3'-10"	7'-4-4"	4	2	5'-3"	4	7'-10"	10	103	185	56	270	1,383	15.69	1,550	17.25	10	6'-8"	5'-8"
11	4'-0"	20'-0"	7 1/2"	6"	5'-3"	6'-4"	3/8" #6-6"	6'-0"	3/8" #6-9"	7'-5"	3/8" #6-18"	14	43.32	0.490	4'-11 1/2"	2'-1"	5'-10"	5'-0"	7'-5-6"	5	4	Var.	4	7'-10"	14	151	267	58	303	1,570	20.25	1,743	22.21	11	7'-0"	6'-0"
12	5'-0"	25'-0"	7 1/2"	10"	6'-3"	6'-8"	3/8" #6-6"	6'-4"	3/8" #6-9"	8'-5"	3/8" #6-18"	16	47.62	0.617	5'-11 1/2"	2'-4"	7'-2"	6'-2"	7'-6-8"	6	6	Var.	4	9'-2"	18	207	363	61	336	1,805	25.86	1,996	28.33	12	7'-4"	6'-4"
13	6'-0"	30'-0"	7 1/2"	10"	7'-3"	6'-8"	3/8" #6-6"	6'-4"	3/8" #6-9"	9'-5"	3/8" #6-18"	18	50.79	0.679	6'-11 1/2"	2'-6"	8'-6"	7'-4 1/2"	7'-9-7"	7	6	Var.	6	10'-6"	22	270	537	64	376	2,027	31.14	2,225	33.86	13	7'-4"	6'-4"
14	2'-0"	12'-0"	8 1/2"	6"	3'-1"	7'-0"	3/8" #6-6 1/2"	6'-8"	3/8" #6-9"	7'-8"	3/8" #6-18"	12	45.28	0.441	3'-0 1/2"	1'-8"	3'-2"	2'-9"	8'-3-2"	3	2	5'-2"	2	5'-2"	8	72	122	64	262	1,473	15.95	1,654	17.72	14	7'-8"	6'-8"
15	3'-0"	18'-0"	8 1/2"	8"	4'-5"	7'-4"	3/8" #6-6"	7'-0"	3/8" #6-9"	7'-1"	3/8" #6-18"	14	49.76	0.533	4'-0 1/2"	1'-11"	4'-6"	3'-10 1/2"	8'-4-4"	4	2	5'-3"	4	6'-6"	10	109	194	67	295	1,675	20.06	1,874	22.20	15	8'-0"	7'-0"
16	4'-0"	24'-0"	8 1/2"	8"	5'-5"	7'-4"	3/8" #6-6"	7'-0"	3/8" #6-9"	8'-1"	3/8" #6-18"	14	51.57	0.582	5'-0 1/2"	2'-11"	5'-10"	5'-0 1/2"	8'-5-6"	5	4	Var.	4	7'-10"	14	159	283	67	328	1,826	23.28	2,032	25.61	16	8'-0"	7'-0"
17	5'-0"	30'-0"	8 1/2"	10"	6'-5"	7'-8"	3/8" #6-6"	7'-4"	3/8" #6-9"	9'-1"	3/8" #6-18"	16	56.04	0.711	6'-0 1/2"	2'-5"	7'-2"	6'-2 1/2"	8'-8-8"	6	6	Var.	6	10'-6"	18	217	386	69	361	2,069	29.04	2,293	31.88	17	8'-4"	7'-4"
18	6'-0"	36'-0"	8 1/2"	10"	7'-7"	7'-8"	3/8" #6-6"	7'-4"	3/8" #6-9"	10'-1"	3/8" #6-18"	18	59.22	0.772	7'-0 1/2"	2'-8"	8'-6"	7'-4 1/2"	8'-9-7"	7	6	Var.	6	10'-6"	22	281	565	72	401	2,288	34.44	2,525	37.53	18	8'-8"	7'-8"
19	3'-0"	24'-0"	10"	8"	4'-8"	9'-4"	3/8" #6-7"	9'-0"	3/8" #6-9"	8'-4"	3/8" #6-18"	18	74.24	0.724	4'-2"	2'-11"	4'-6"	3'-10 1/2"	10'-4-4"	4	2	5'-3"	4	6'-6"	10	122	220	83	344	2,439	26.19	2,736	29.09	19	10'-0"	9'-0"
20	4'-0"	32'-0"	10"	8"	5'-8"	9'-4"	3/8" #6-7"	9'-0"	3/8" #6-9"	9'-4"	3/8" #6-18"	18	76.06	0.773	5'-2"	2'-5"	5'-10"	5'-0 1/2"	10'-5-6"	5	4	Var.	4	7'-10"	14	175	316	83	377	2,596	29.55	2,900	32.64	20	10'-4"	9'-4"
21	5'-0"	40'-0"	10"	10"	6'-8"	9'-8"	3/8" #6-7"	9'-4"	3/8" #6-9"	10'-4"	3/8" #6-18"	20	80.96	0.905	6'-2"	2'-6"	7'-2"	6'-2 1/2"	10'-8-8"	6	6	Var.	4	9'-2"	18	236	425	85	410	2,859	35.51	3,183	39.13	21	10'-4"	9'-4"
22	6'-0"	48'-0"	10"	10"	7'-8"	9'-8"	3/8" #6-7"	9'-4"	3/8" #6-9"	11'-4"	3/8" #6-18"	22	84.14	0.967	7'-2"	2'-9"	8'-6"	7'-4 1/2"	10'-9-7"	7	6	Var.	6	10'-6"	22	304	613	88	450	3,086	41.14	3,422	44.98	22	10'-8"	9'-4"
23	7'-0"	56'-0"	10"	10"	8'-8"	9'-8"	3/8" #6-7"	9'-4"	3/8" #6-9"	12'-4"	3/8" #6-18"	22	85.95	1.028	8'-2"	3'-0"	9'-10"	8'-6"	10'-8-11"	9	6	Var.	6	11'-0"	22	347	695	88	483	3,519	46.03	3,862	50.14	23	10'-8"	9'-4"
24	8'-0"	64'-0"	10"	10"	9'-8"	9'-10"	3/8" #6-7"	9'-6"	3/8" #6-9"	13'-4"	3/8" #6-18"	24	89.99	1.150	9'-2"	3'-2"	11'-2"	9'-8"	10'-11-10"	10	6	Var.	6	13'-2"	28	381	772	89	516	3,836	52.90	4,196	57.50	24	10'-11"	9'-6"
25	3'-0"	30'-0"	11"	8"	4'-10"	11'-4"	3/8" #6-6"	11'-0"	3/8" #6-9"	9'-6"	3/8" #6-18"	20	97.70	0.917	4'-3"	2'-2"	4'-6"	3'-10 1/2"	12'-4-4"	4	2	5'-3"	4	6'-6"	10	134	244	99	394	3,144	32.33	3,534	36.00	25	12'-0"	11'-0"
26	4'-0"	40'-0"	11"	8"	5'-10"	11'-4"	3/8" #6-6"	11'-0"	3/8" #6-9"	10'-6"	3/8" #6-18"	20	99.52	0.967	5'-3"	2'-4"	5'-10"	5'-0 1/2"	12'-5-6"	5	4	Var.	4	7'-10"	14	190	347	99	427	3,307	35.86	3,705	39.73	26	12'-0"	11'-0"
27	5'-0"	50'-0"	11"	10"	6'-10"	11'-8"	3/8" #6-6"	11'-4"	3/8" #6-9"	11'-6"	3/8" #6-18"	22	104.71	1.101	6'-3"	2'-7"	7'-2"	6'-2 1/2"	12'-6-8"	6	6	Var.	6	11'-0"	22	254	463	102	460	3,584	42.03	4,008	46.43	27	12'-4"	11'-4"
28	6'-0"	60'-0"	11"	10"	7'-10"	11'-8"	3/8" #6-6"	11'-4"	3/8" #6-9"	12'-6"	3/8" #6-18"	24	107.89	1.163	7'-3"	2'-10"	8'-6"	7'-4 1/2"	12'-9-7"	7	6	Var.	6	11'-0"	22	325	659	105	500	3,817	47.79	4,248	52.45	28	12'-8"	11'-4"
29	7'-0"	70'-0"	11"	10"	8'-10"	11'-8"	3/8" #6-6"	11'-4"	3/8" #6-9"	13'-6"	3/8" #6-18"	24	109.70	1.224	8'-3"	3'-1"	9'-10"	8'-6"	12'-8-11"	9	6	Var.	6	11'-0"	22	347	695	105	533	4,264	52.85	4,702	57.74	29	12'-8"	11'-4"
30	8'-0"	80'-0"	11"	10"	9'-10"	11'-10"	3/8" #6-6"	11'-6"	3/8" #6-9"	14'-6"	3/8" #6-18"	26	113.89	1.347	9'-3"	3'-3"	11'-2"	9'-8"	12'-10-11"	10	6	Var.	6	13'-2"	28	381	772	106	566	4,591	59.89	5,046	65.28	30	12'-11"	11'-6"
31	9'-0"	90'-0"	11"	12"	10'-10"	12'-0"	3/8" #6-6"	11'-8"	3/8" #6-9"	15'-6"	3/8" #6-18"	28	118.08	1.482	10'-3"	3'-6"	12'-6"	10'-10"	13'-11-3"	11	12	Var.	6	14'-0"	32	427	854	107	599	4,972	67.66	5,445	73.59	31	13'-11"	11'-8"
32	10'-0"	100'-0"	11"	12"	11'-10"	12'-0"	3/8" #6-6"	11'-8"	3/8" #6-9"	16'-6"	3/8" #6-18"	28	119.89																							

NOTE: ALL DISTANCES SHOWN TO RIGHT-OF-WAY, FENCES, UTILITIES, AND OTHER EXIST. OBJECTS ARE FROM C. OF SURVEY.

DESCRIPTION	REVISIONS	DATE
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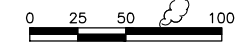


TYPICAL PAVED DITCH	
CONST. SPEC. PAVED DITCH	
SPEC. DITCH	

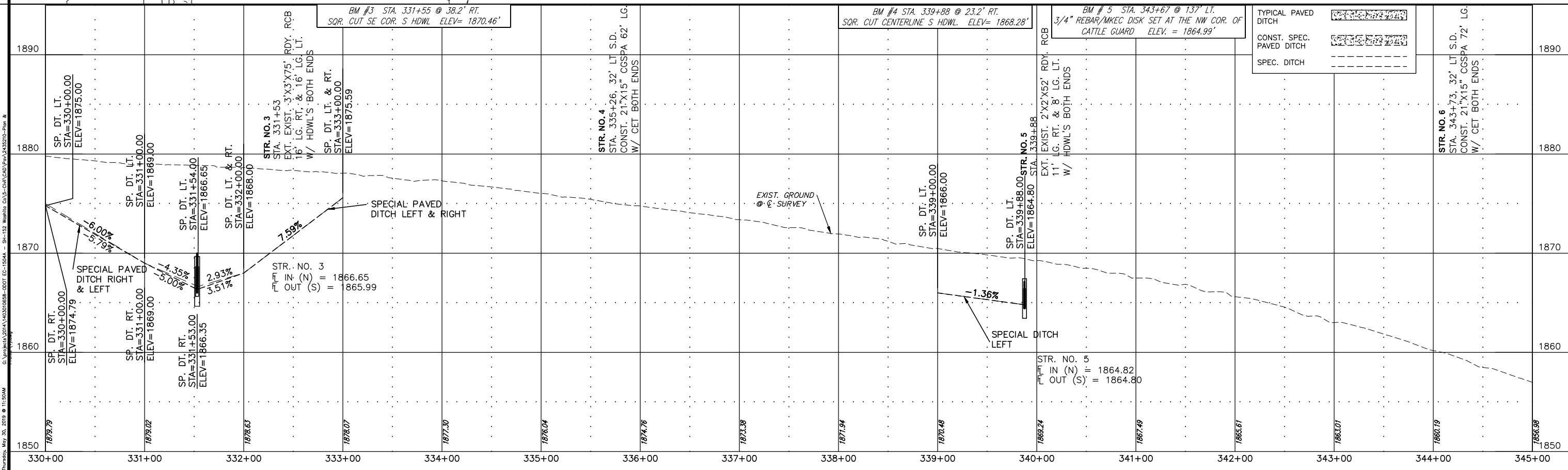
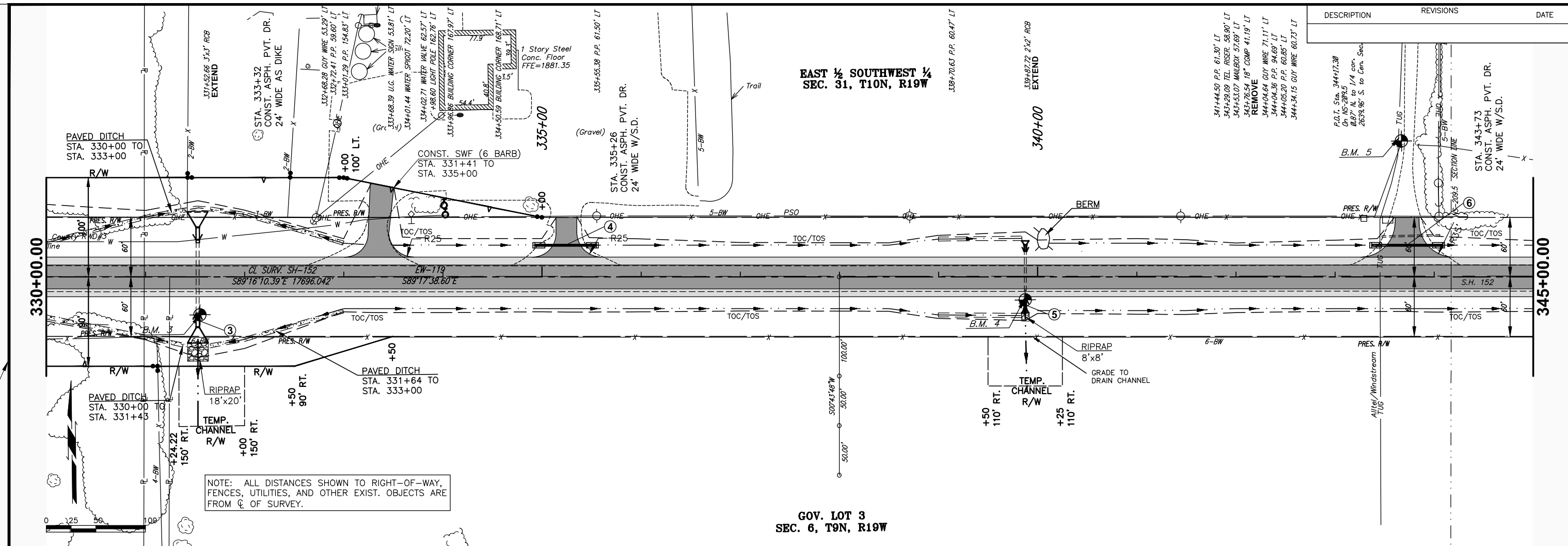
UTILITY COMPANY	TYPE	PHONE NUMBER
BECKHAM COUNTY RWD#3	WATER	(580) 243-4505
SENEX PIPELINE CO.	NATURAL GAS	(918) 494-0000
ONEOK	NATURAL GAS	(405) 433-4283
ENBRIDGE	NATURAL GAS	(580) 225-6290
PSO	OVERHEAD ELECTRIC	(918) 250-6259
ALLIED TELECOM	UNDERGROUND TELECOM	(202) 541-9000
ALLTEL/WINDSTREAM	UNDERGROUND TELECOM	(405) 228-2530

STA. 322+00.00 BEGIN PROJECT
JP NO. 24352(10)

STA. 319+00.00 BEGIN INCIDENTAL CONSTRUCTION



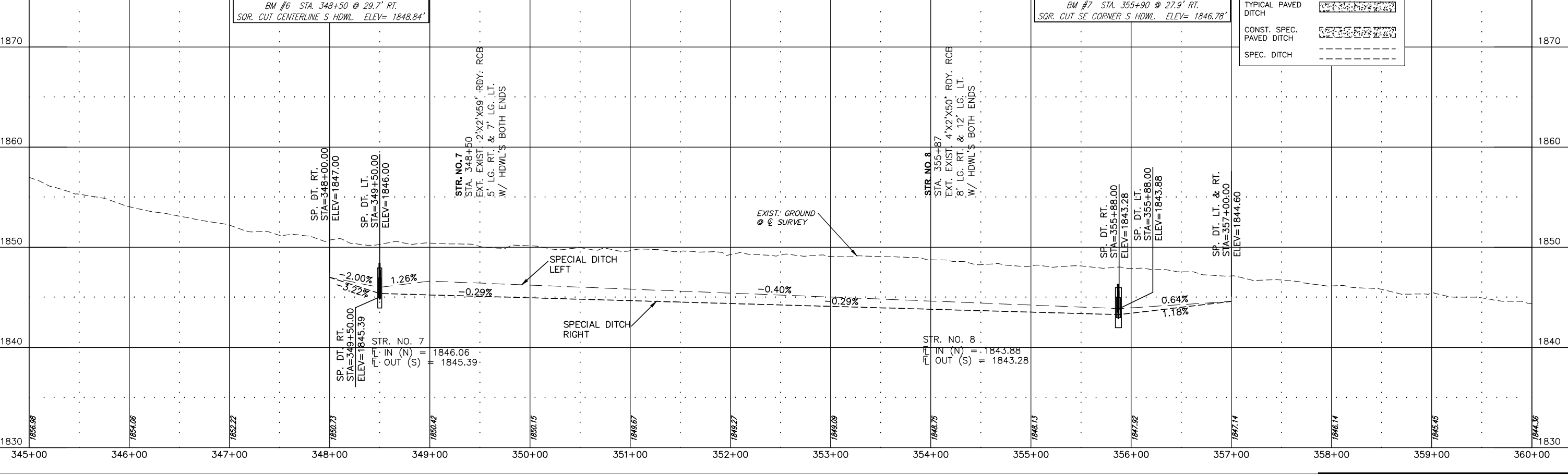
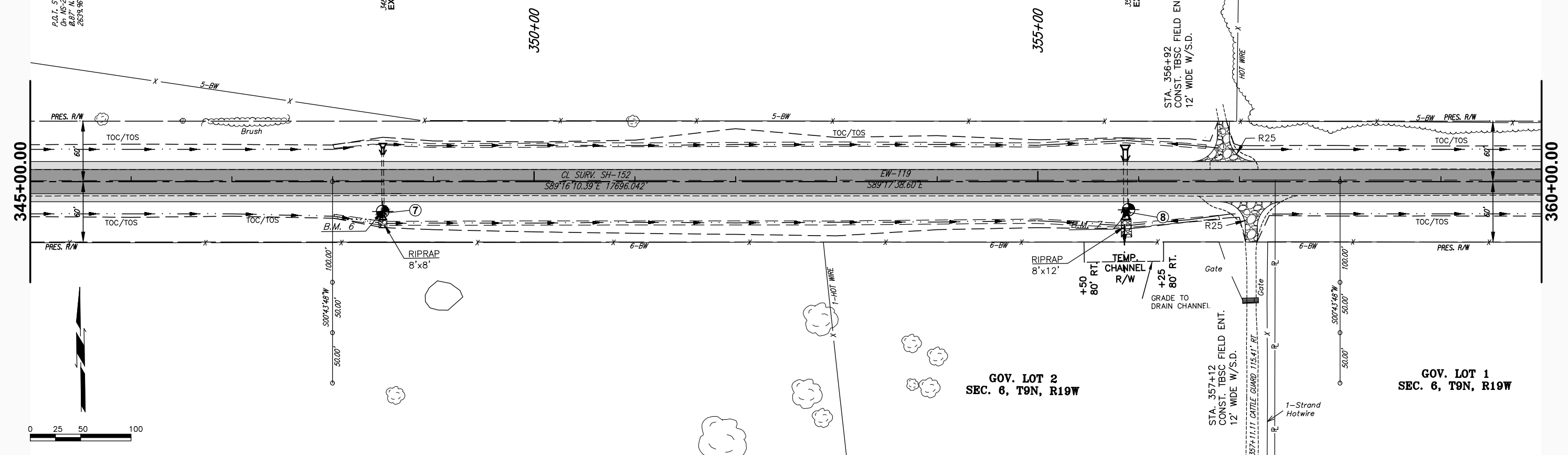
PLOTED: Thursday, May 30, 2019 @ 11:49AM G:\projects\2019\140370\068-007-EC-1504 - SH-152 Westto CAIS-conv\CAIS\plan\24352(10)-plan & profile.dwg



DESCRIPTION	REVISIONS	DATE

NOTE: ALL DISTANCES SHOWN TO RIGHT-OF-WAY, FENCES, UTILITIES, AND OTHER EXIST. OBJECTS ARE FROM \odot OF SURVEY.

**SOUTHEAST 1/4
SEC. 31, T10N, R19W**



G:\projects\2014\14031008-007 EC-1504 - SH-152 Mainline - CIVIL\DWG\14031008-007 EC-1504 - SH-152 Mainline.dwg
 Thursday, May 30, 2018 @ 11:50AM
 PLOT01

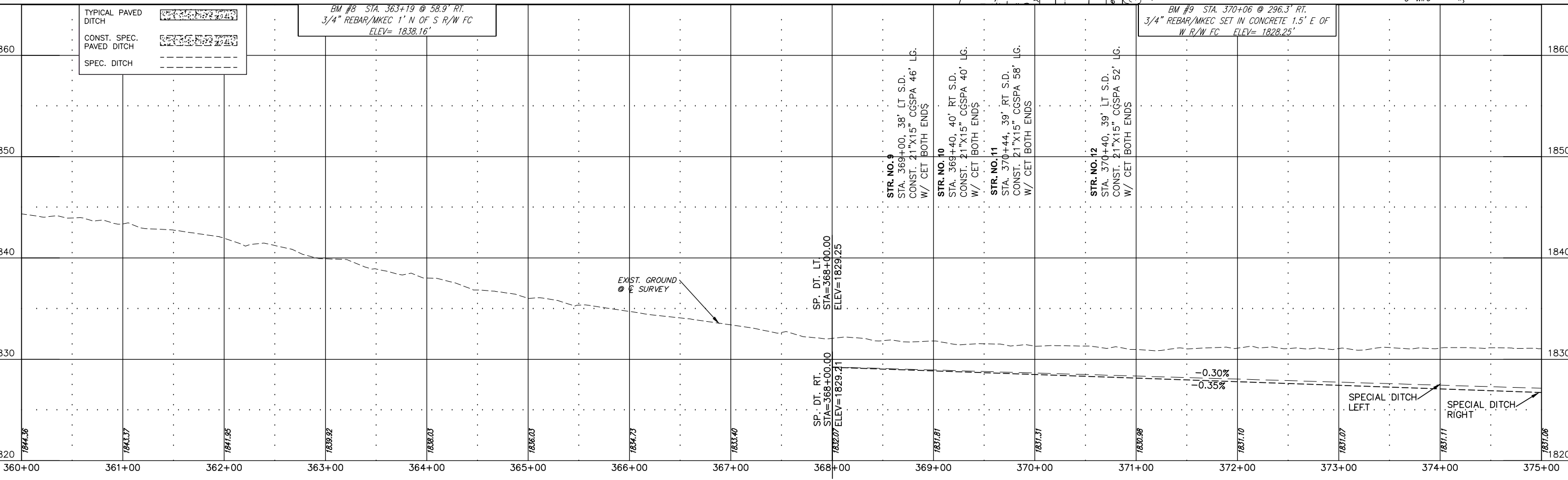
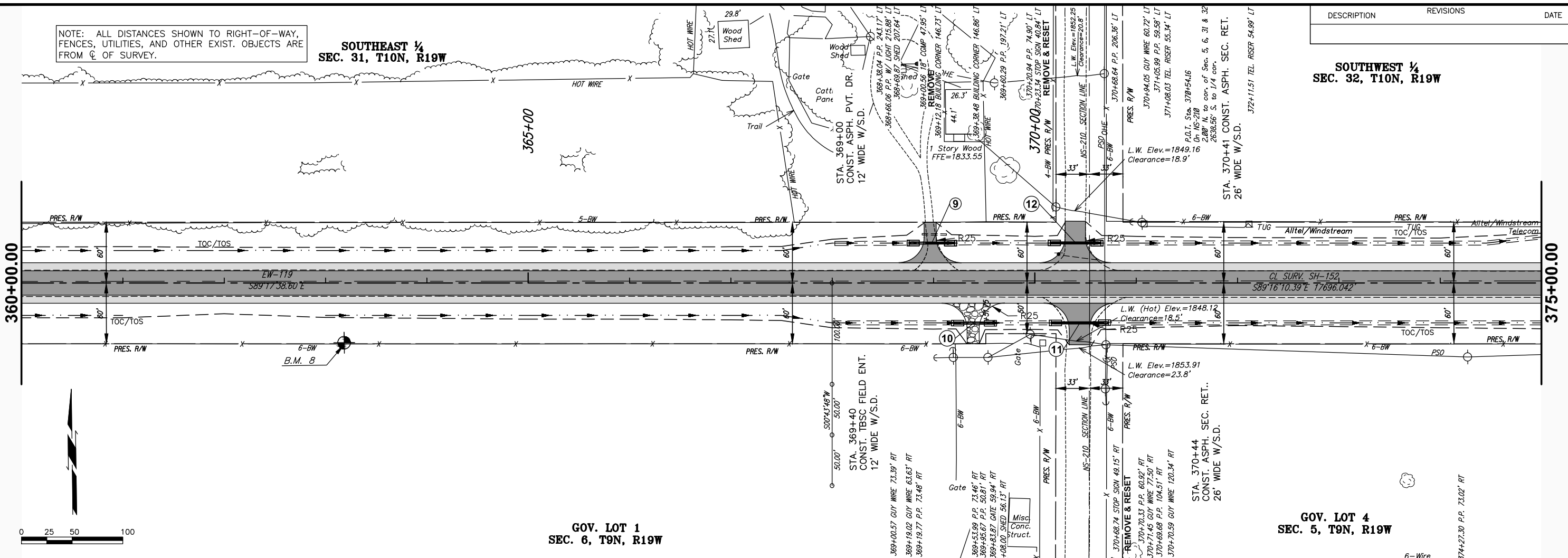
NOTE: ALL DISTANCES SHOWN TO RIGHT-OF-WAY, FENCES, UTILITIES, AND OTHER EXIST. OBJECTS ARE FROM CL OF SURVEY.

SOUTHEAST ¼ SEC. 31, T10N, R19W

SOUTHWEST ¼ SEC. 32, T10N, R19W

GOV. LOT 1 SEC. 6, T9N, R19W

GOV. LOT 4 SEC. 5, T9N, R19W



G:\projects\2019\140310608-0001 EC-1504 - SH-152 Mainline CA\5-001\CA\Plan\24352(10)-Plan & Profile.dwg
 Thursday, May 30, 2019 @ 11:53AM
 PLOTTER:

NOTE: ALL DISTANCES SHOWN TO RIGHT-OF-WAY, FENCES, UTILITIES, AND OTHER EXIST. OBJECTS ARE FROM C OF SURVEY.

DESCRIPTION	REVISIONS	DATE

SOUTHWEST 1/4 SEC. 32, T10N, R19W

380+00

385+00

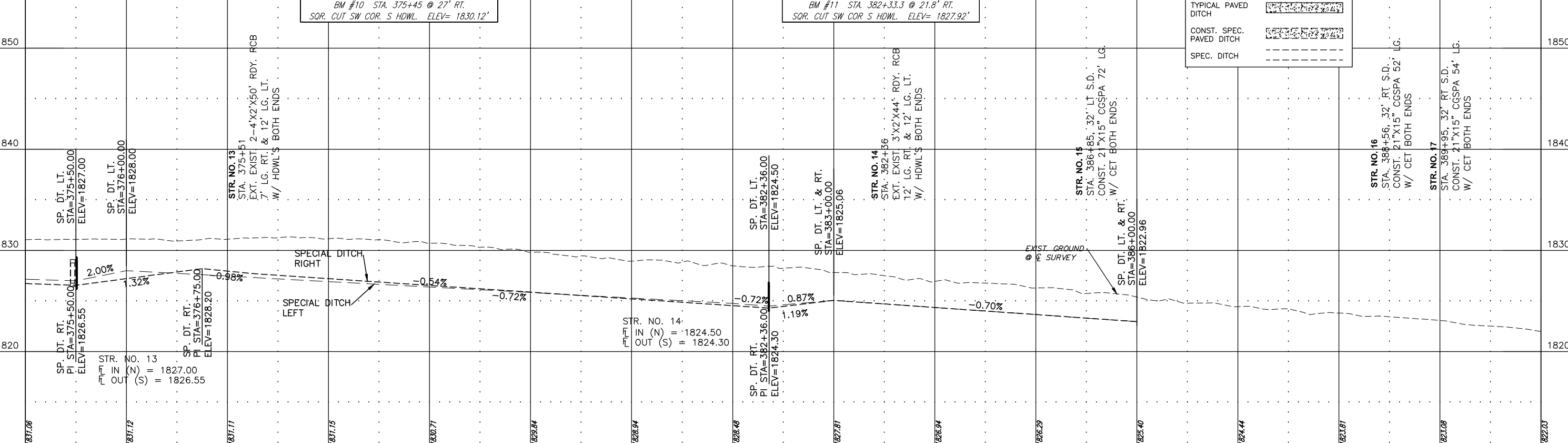
390+00

GOV. LOT 4 SEC. 5, T9N, R19W

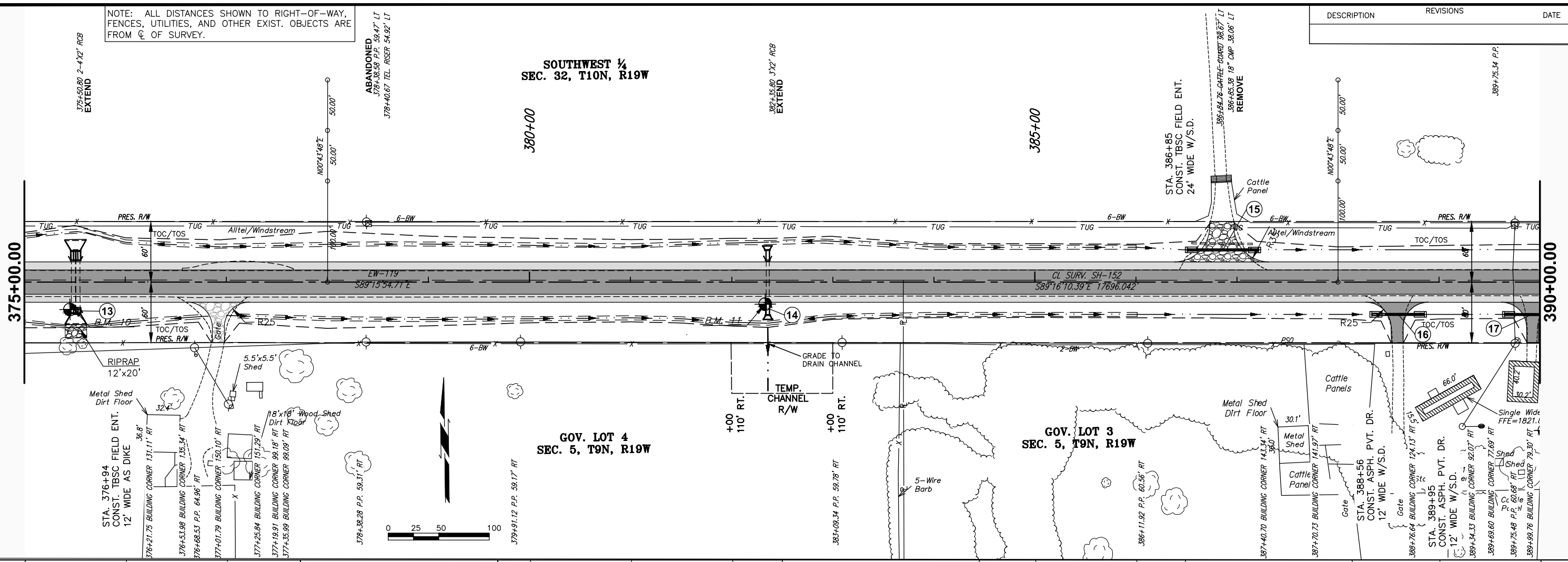
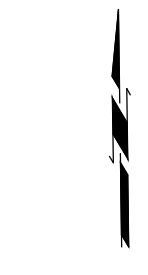
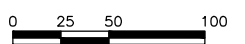
GOV. LOT 3 SEC. 5, T9N, R19W

375+00.00

375+00 376+00 377+00 378+00 379+00 380+00 381+00 382+00 383+00 384+00 385+00 386+00 387+00 388+00 389+00 390+00



	TYPICAL PAVED DITCH
	CONST. SPEC. PAVED DITCH
	SPEC. DITCH



PLOTTER: Thursday, May 30, 2019 @ 11:50AM G:\projects\2019\24352\10-08-2019-001-EC-1504 - SH-152 WestCo CA\DWG\24352(10)-Plan & Profile.dwg

DESCRIPTION	REVISIONS	DATE

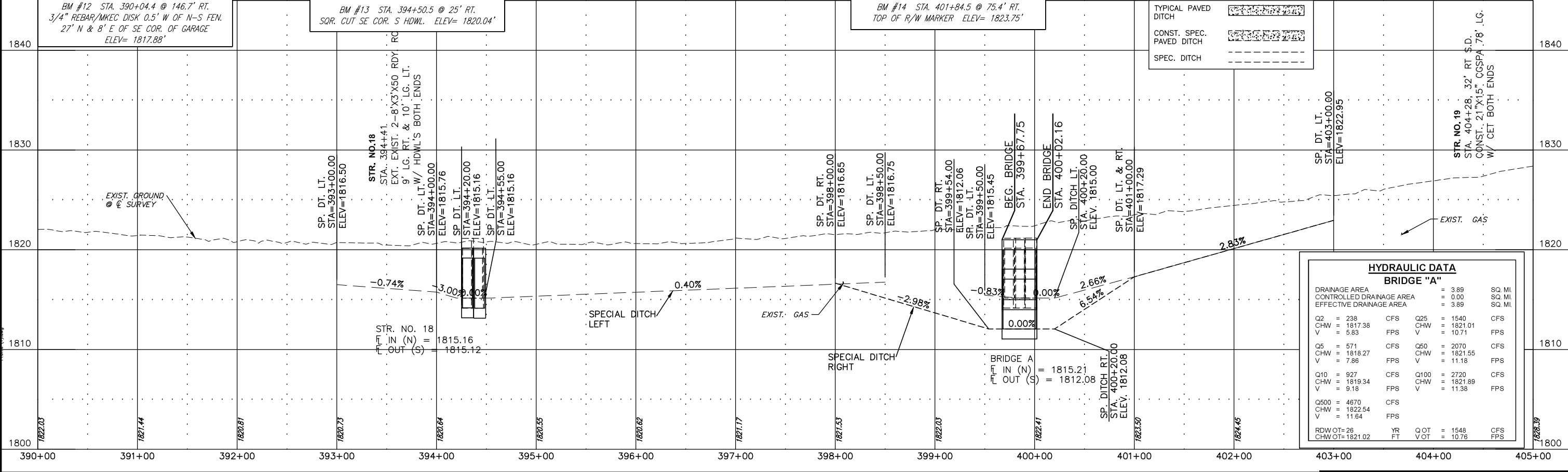
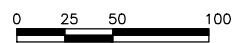
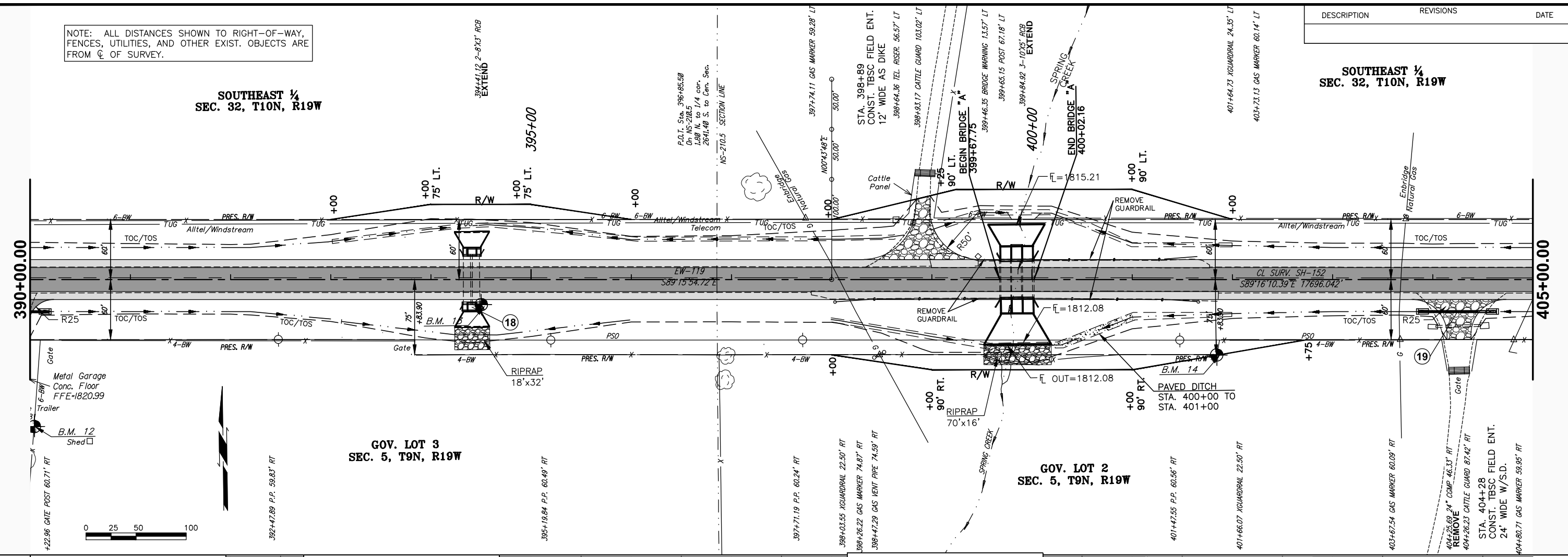
NOTE: ALL DISTANCES SHOWN TO RIGHT-OF-WAY, FENCES, UTILITIES, AND OTHER EXIST. OBJECTS ARE FROM ϕ OF SURVEY.

**SOUTHEAST 1/4
SEC. 32, T10N, R19W**

**SOUTHEAST 1/4
SEC. 32, T10N, R19W**

**GOV. LOT 3
SEC. 5, T9N, R19W**

**GOV. LOT 2
SEC. 5, T9N, R19W**



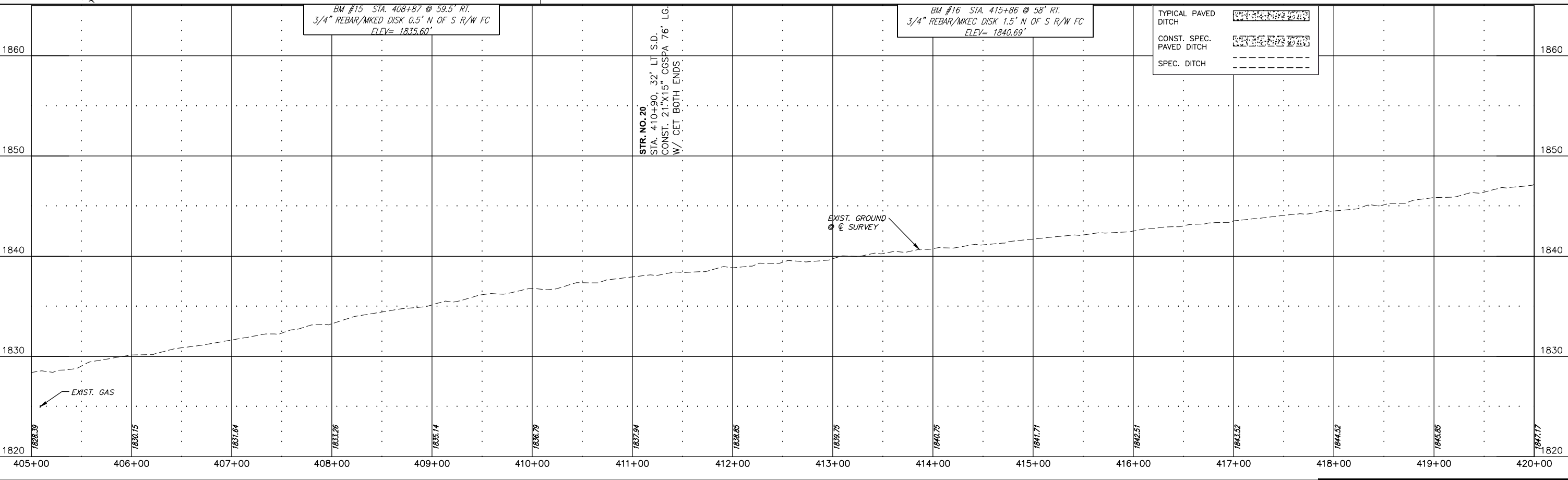
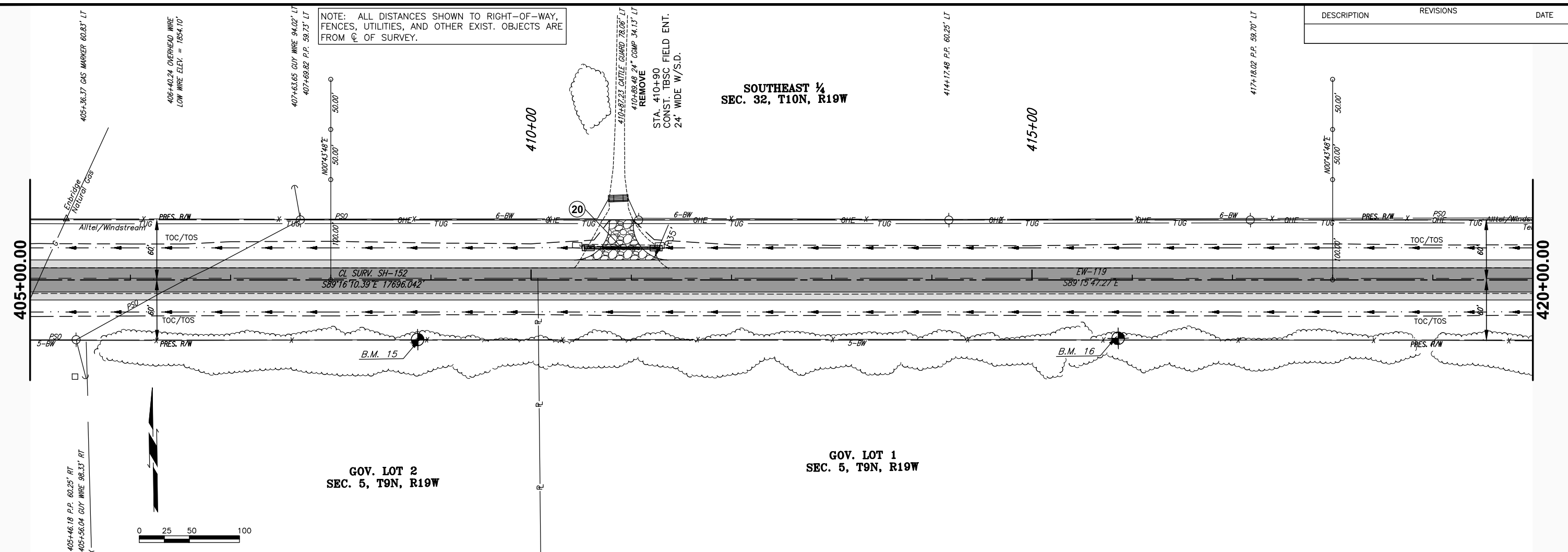
TYPICAL PAVED DITCH	
CONST. SPEC. PAVED DITCH	
SPEC. DITCH	

HYDRAULIC DATA BRIDGE "A"			
DRAINAGE AREA	= 3.89	SQ. MI.	
CONTROLLED DRAINAGE AREA	= 0.00	SQ. MI.	
EFFECTIVE DRAINAGE AREA	= 3.89	SQ. MI.	
Q2 = 238	CFS	Q25 = 1540	CFS
CHW = 1817.38	CHW	CHW = 1821.01	CHW
V = 5.83	FPS	V = 10.71	FPS
Q5 = 571	CFS	Q50 = 2070	CFS
CHW = 1818.27	CHW	CHW = 1821.55	CHW
V = 7.86	FPS	V = 11.18	FPS
Q10 = 927	CFS	Q100 = 2720	CFS
CHW = 1819.34	CHW	CHW = 1821.89	CHW
V = 9.18	FPS	V = 11.38	FPS
Q500 = 4670	CFS		
CHW = 1822.54	CHW		
V = 11.64	FPS		
RDWOT=26	FT	QOT = 1548	CFS
CHWOT=1821.02	FT	VOT = 10.76	FPS

PLOTTER: Thursday, May 30, 2019 @ 11:50AM G:\projects\2019\140310608-0007 EC-1504 - SH-152 WestCo CA\5-Civil\Drawings\24352(10)-Plan & Profile.dwg

DESCRIPTION	REVISIONS	DATE

NOTE: ALL DISTANCES SHOWN TO RIGHT-OF-WAY, FENCES, UTILITIES, AND OTHER EXIST. OBJECTS ARE FROM ϕ OF SURVEY.



BM #15 STA. 408+87 @ 59.5' RT.
3/4" REBAR/MKED DISK 0.5' N OF S R/W FC
ELEV= 1835.60'

STR. NO. 20
STA. 410+90, 32' LT S.D.
CONST. 21"X15" CGSPA 76' LG.
W/ CET BOTH ENDS

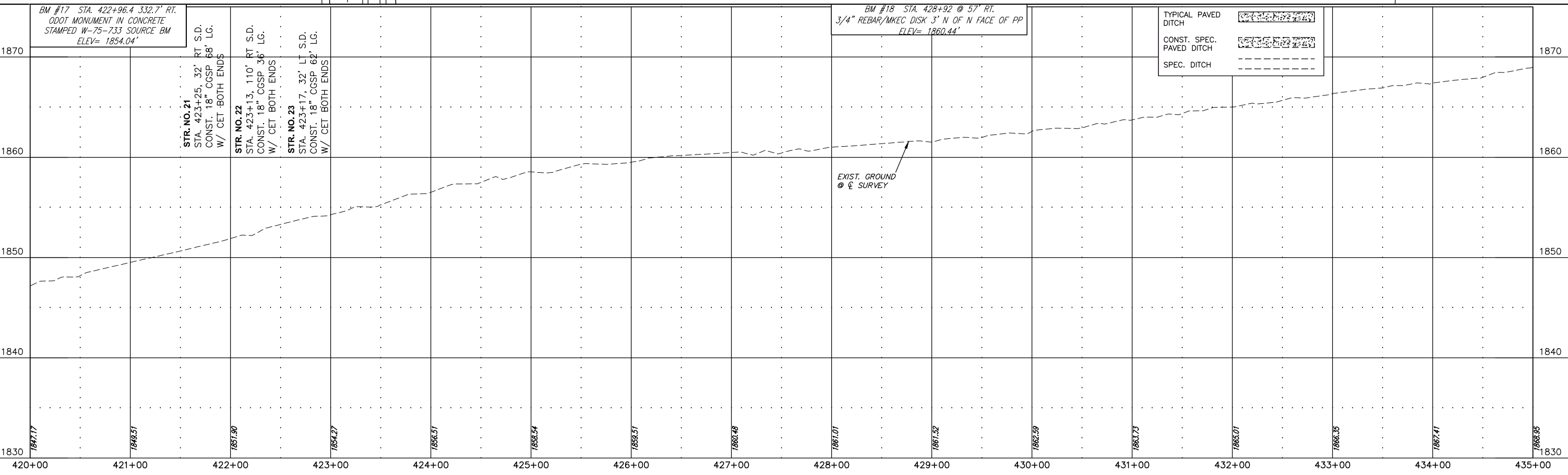
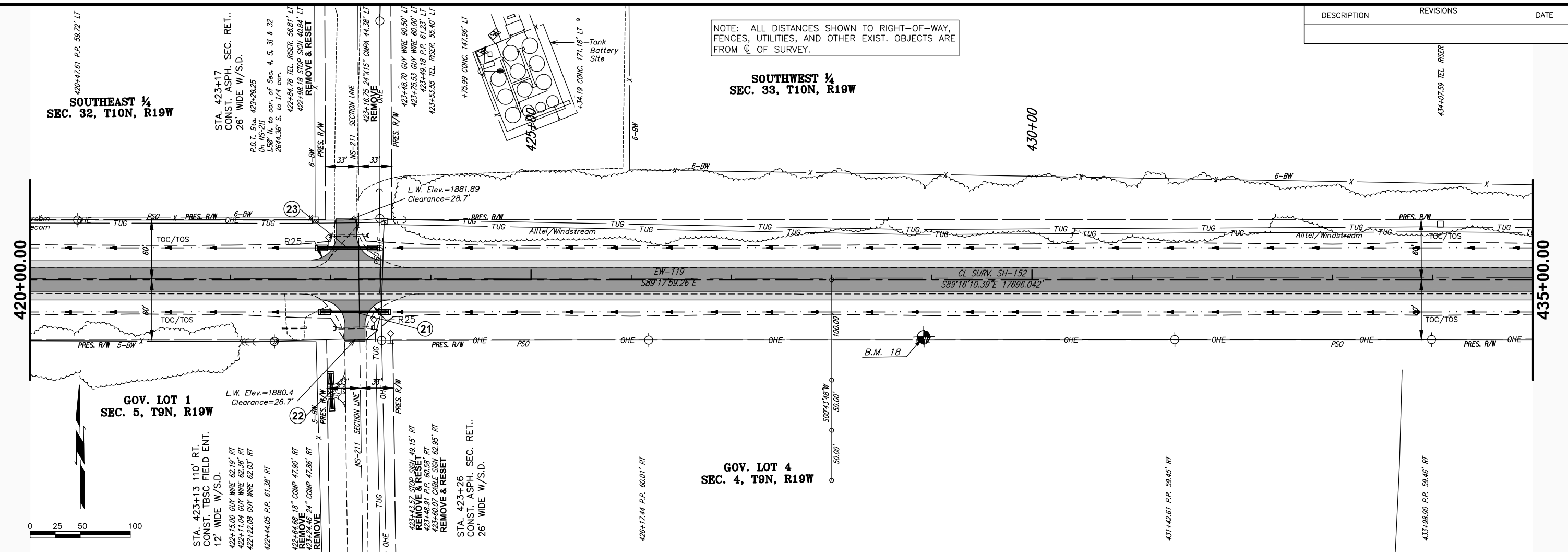
BM #16 STA. 415+86 @ 58' RT.
3/4" REBAR/MKED DISK 1.5' N OF S R/W FC
ELEV= 1840.69'

TYPICAL PAVED DITCH	
CONST. SPEC. PAVED DITCH	
SPEC. DITCH	

PLOTTER: Thursday, May 30, 2019 @ 11:55AM
 G:\projects\2019\1403201068-0007 EC-1504 - SH-152 Westfall CA\5-const\Auto\Draw\24352(10)-Plan & Profile.dwg

DESCRIPTION	REVISIONS	DATE

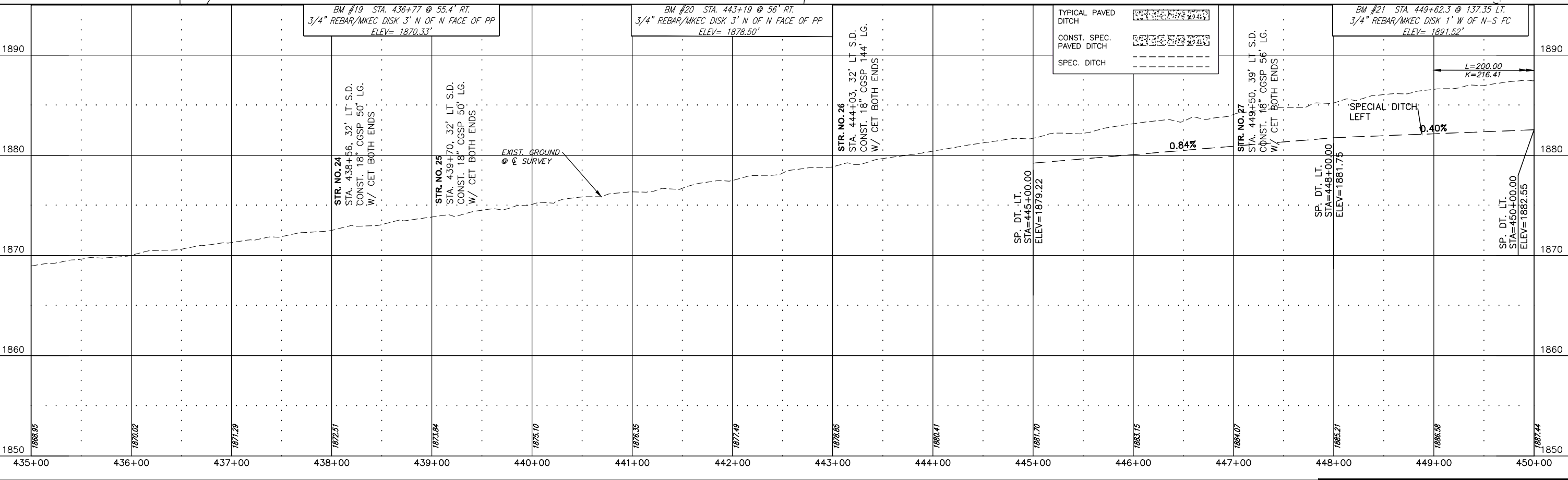
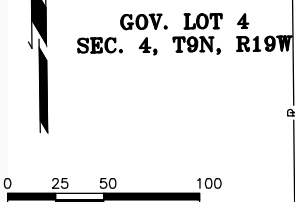
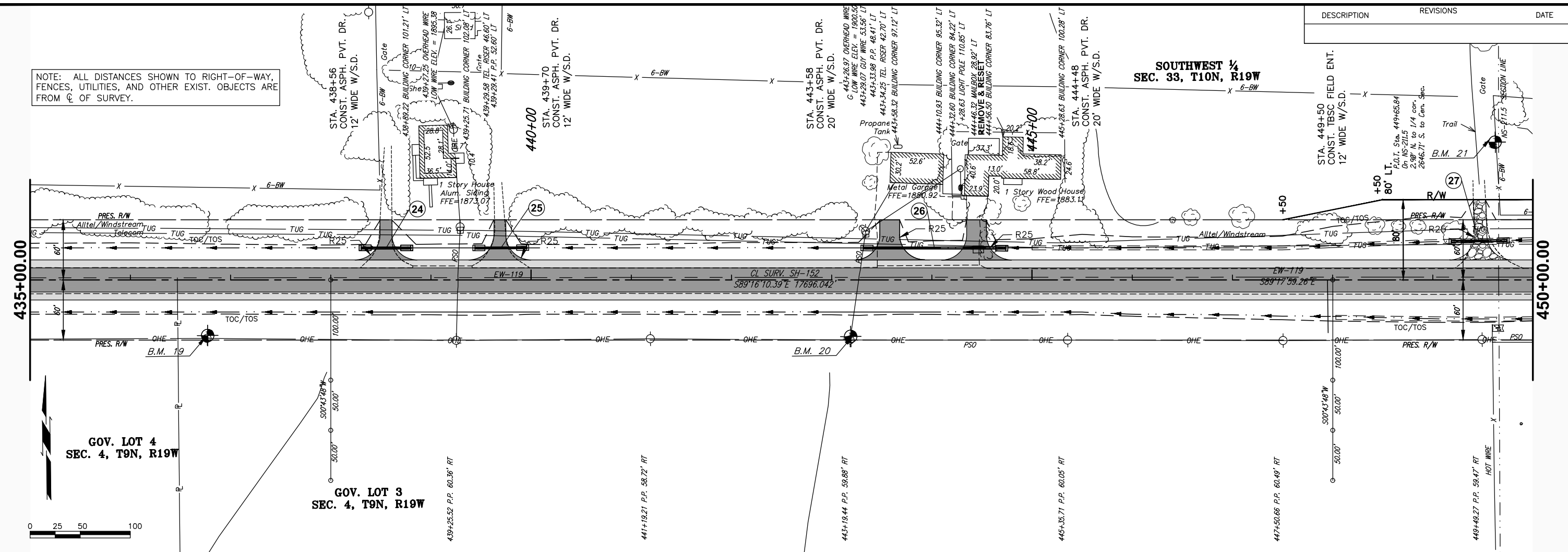
NOTE: ALL DISTANCES SHOWN TO RIGHT-OF-WAY, FENCES, UTILITIES, AND OTHER EXIST. OBJECTS ARE FROM ϕ OF SURVEY.



PLOTTER: Thursday, May 30, 2019 11:55AM
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NOTE: ALL DISTANCES SHOWN TO RIGHT-OF-WAY, FENCES, UTILITIES, AND OTHER EXIST. OBJECTS ARE FROM ϕ OF SURVEY.

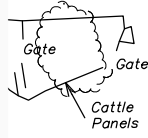
DESCRIPTION	REVISIONS	DATE
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TYPICAL PAVED DITCH	
CONST. SPEC. PAVED DITCH	
SPEC. DITCH	

G:\projects\2019\1403210608-0001 EC-1504 - SH-152 Westline CAIS-CAIS\CAIS\1403210608-0001.dwg
 PLOTTER: Thursday, May 30, 2019 @ 11:50AM

NOTE: ALL DISTANCES SHOWN TO RIGHT-OF-WAY, FENCES, UTILITIES, AND OTHER EXIST. OBJECTS ARE FROM \odot OF SURVEY.



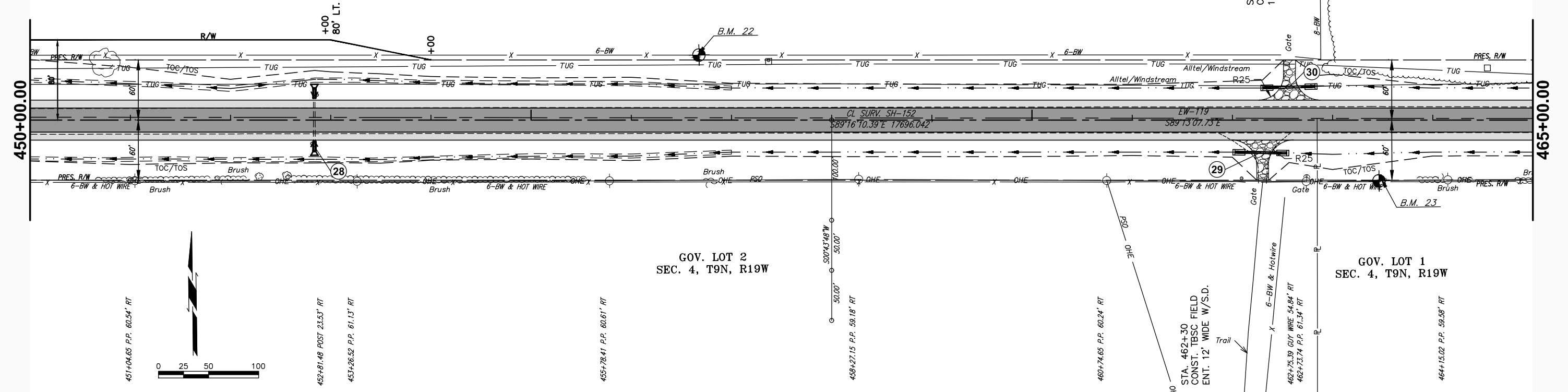
452+83.87 2'X2' RCB
EXTEND
452+86.50 POST 25.07' LT

457+37.16 TEL. RISER 55.37' LT

WEST 1/2 SOUTHEAST 1/4
SEC. 33, T10N, R19W

STA. 462+56
CONST. TBSC FIELD ENT.
12' WIDE W/S.D.

DESCRIPTION	REVISIONS	DATE



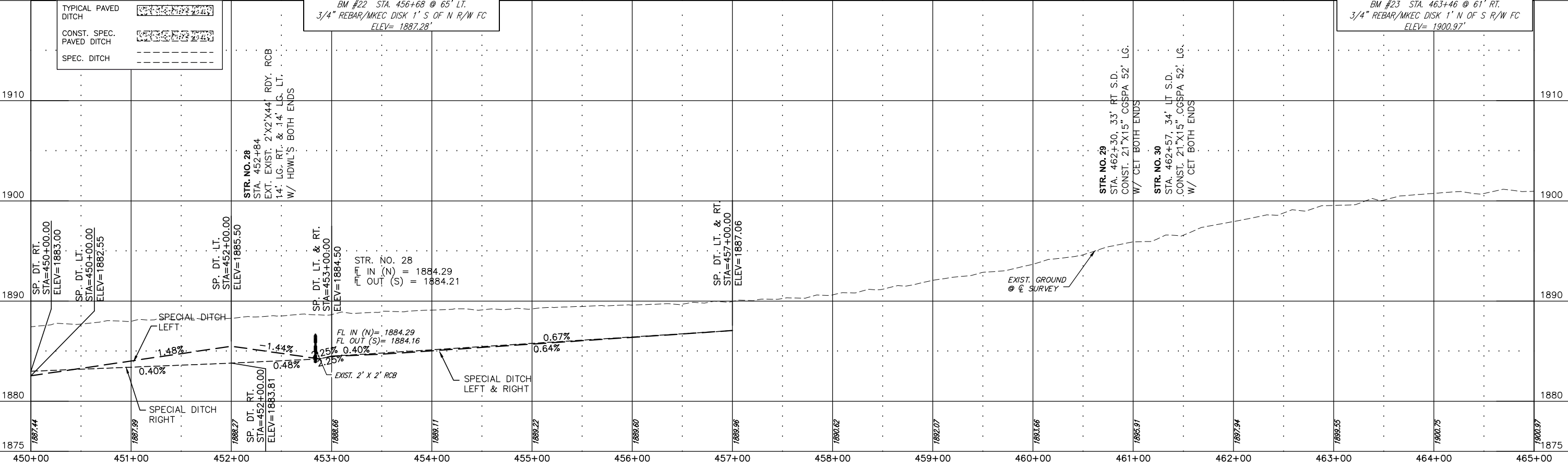
GOV. LOT 2
SEC. 4, T9N, R19W

GOV. LOT 1
SEC. 4, T9N, R19W

TYPICAL PAVED DITCH	
CONST. SPEC. PAVED DITCH	
SPEC. DITCH	

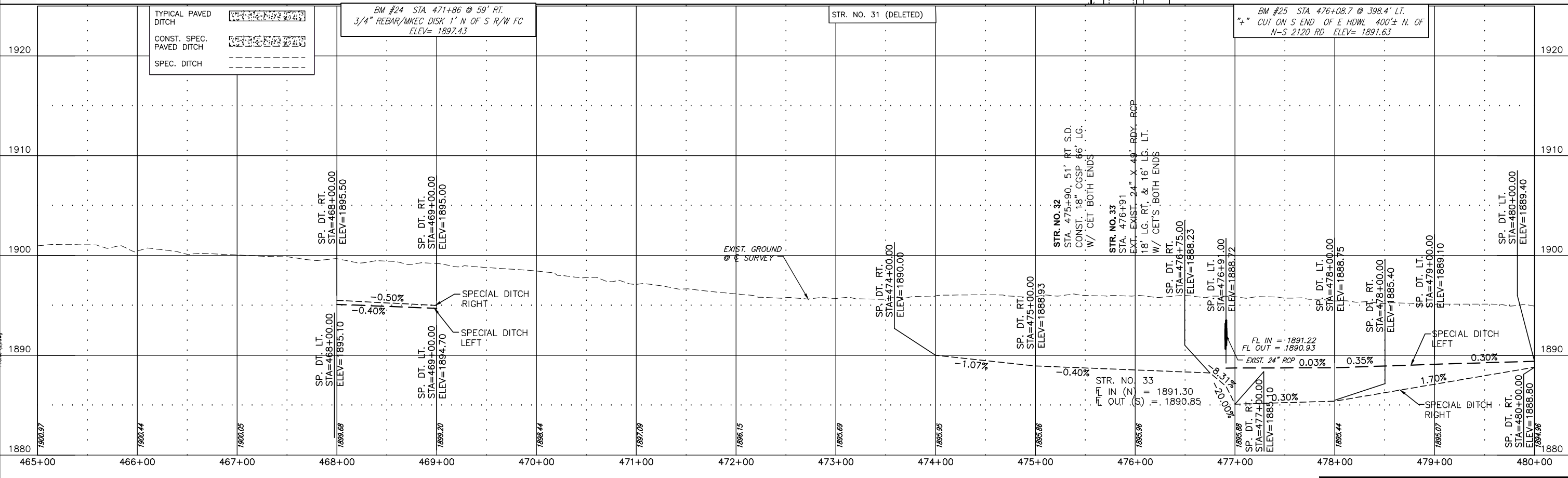
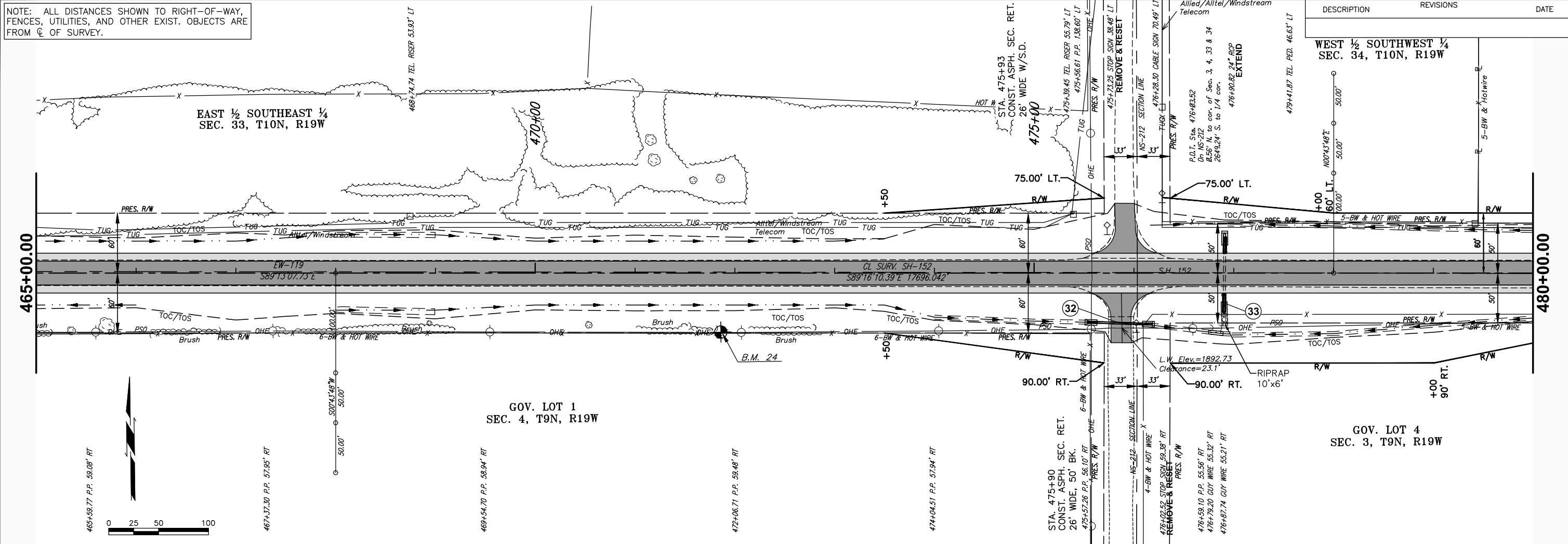
BM #22 STA. 456+68 @ 65' LT.
3/4" REBAR/MKEC DISK 1' S OF N R/W FC
ELEV= 1887.28'

BM #23 STA. 463+46 @ 61' RT.
3/4" REBAR/MKEC DISK 1' N OF S R/W FC
ELEV= 1900.97'

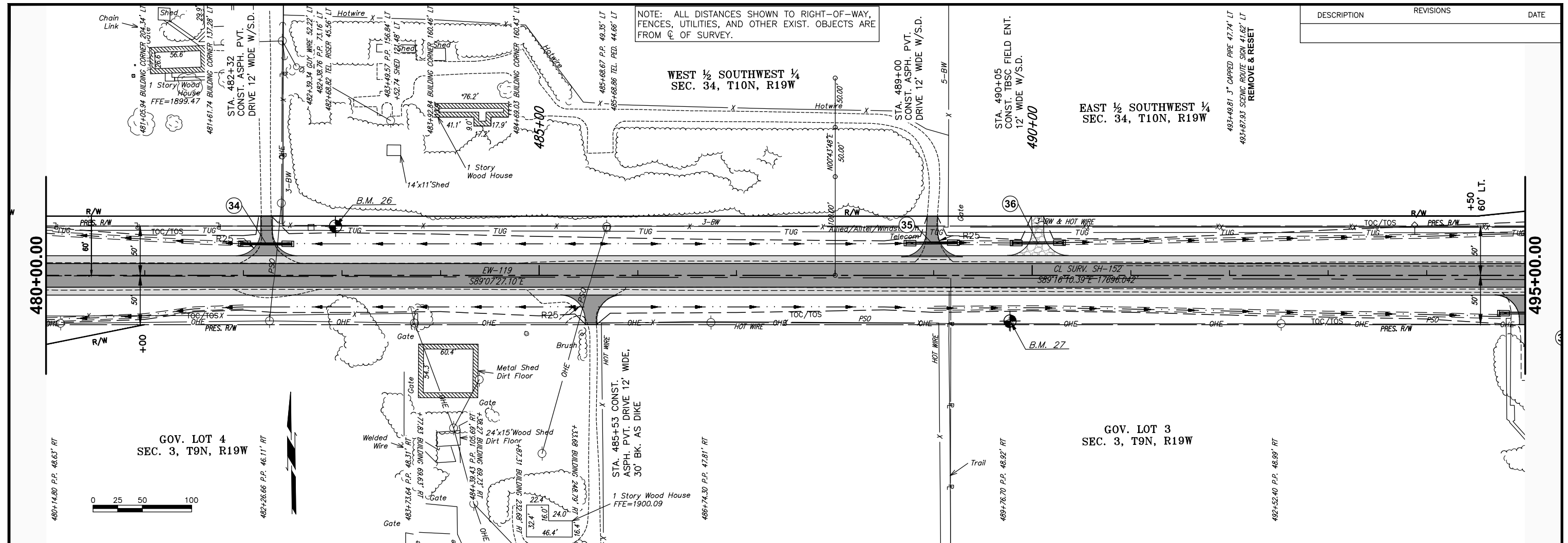


NOTE: ALL DISTANCES SHOWN TO RIGHT-OF-WAY, FENCES, UTILITIES, AND OTHER EXIST. OBJECTS ARE FROM ϕ OF SURVEY.

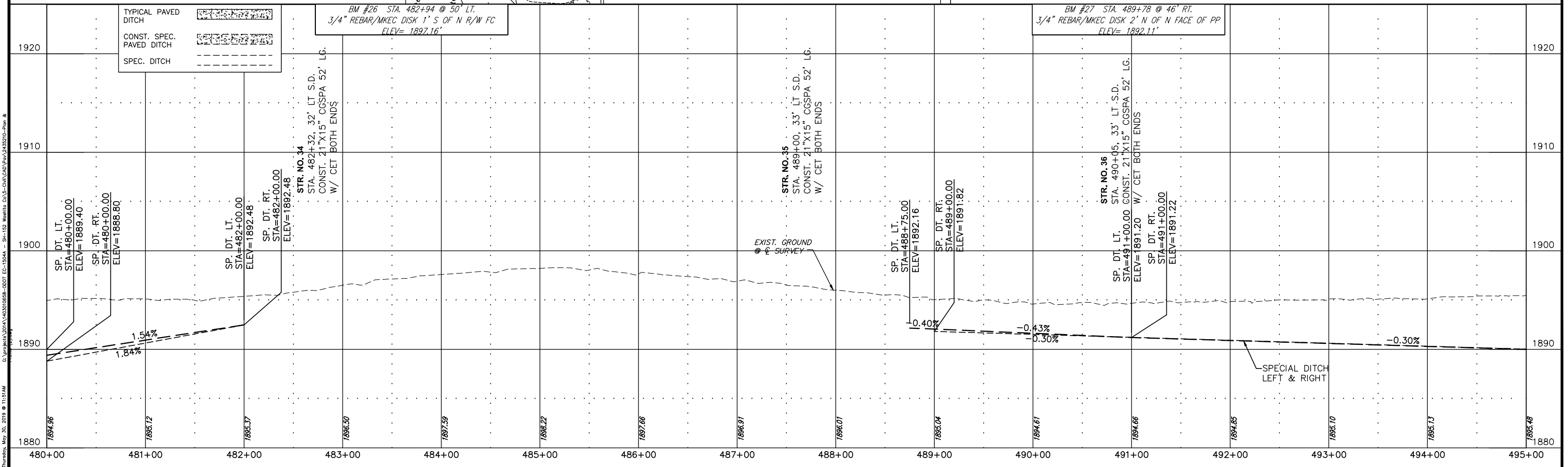
DESCRIPTION	REVISIONS	DATE
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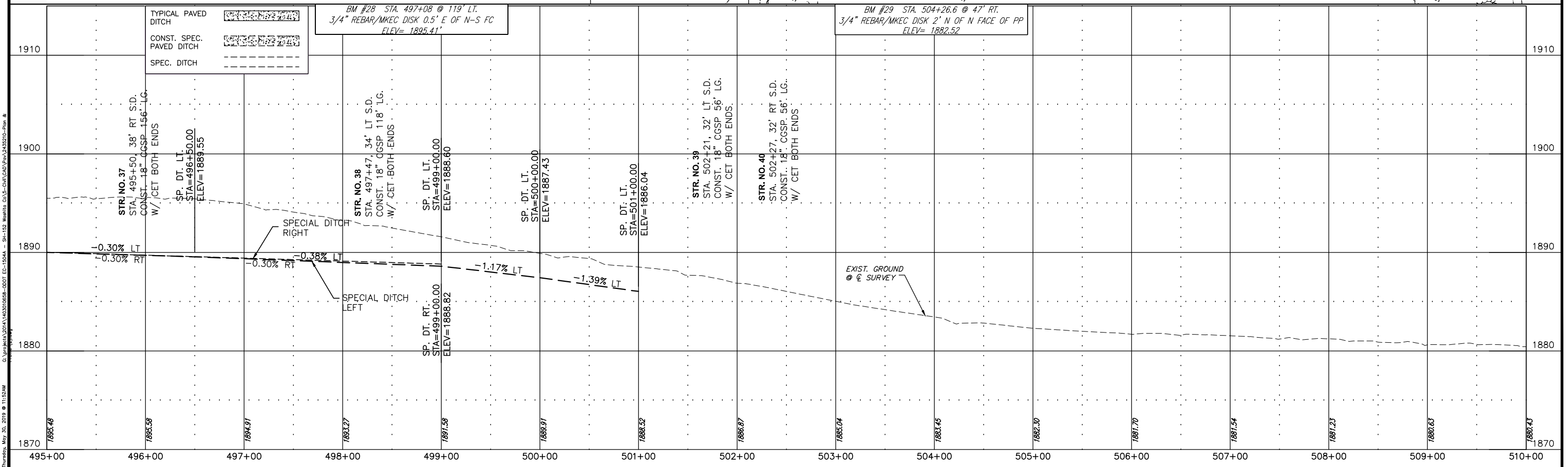
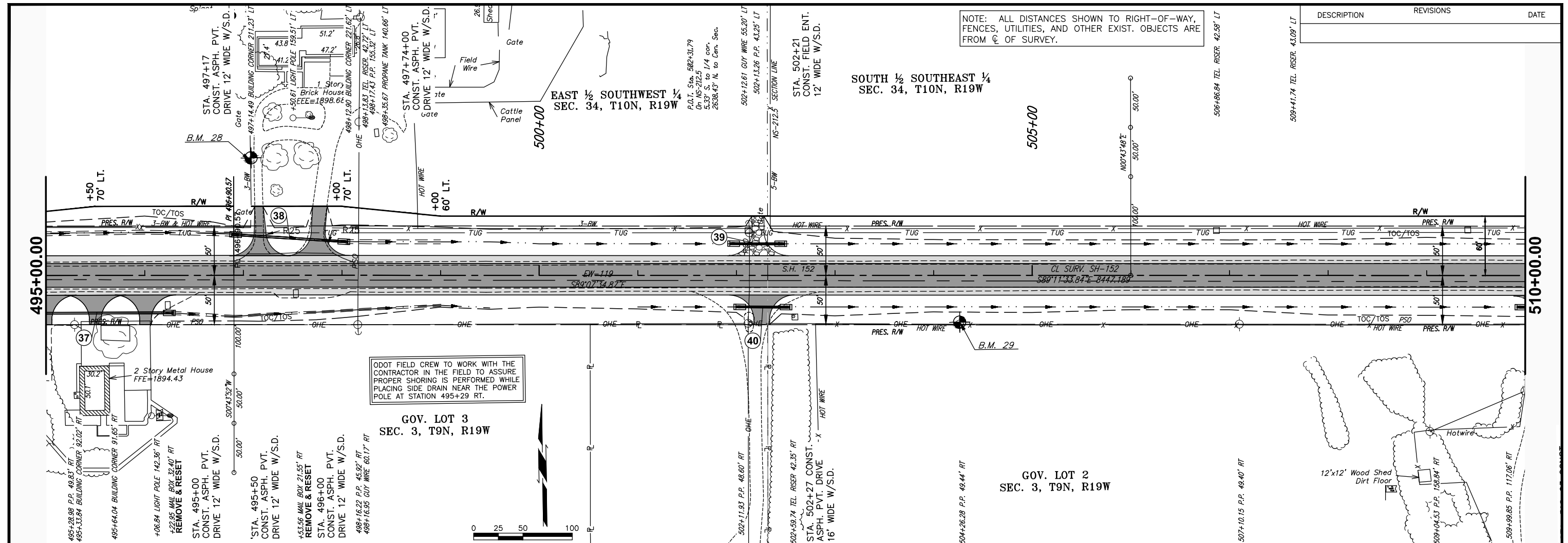


PLOTTER: Thursday, May 30, 2019 11:51 AM G:\projects\2019\140310608-0001_EC-1504 - SH-152 Westita.cad\cadd\p\24352(10)-Plan & Profile.dwg



DESCRIPTION	REVISIONS	DATE

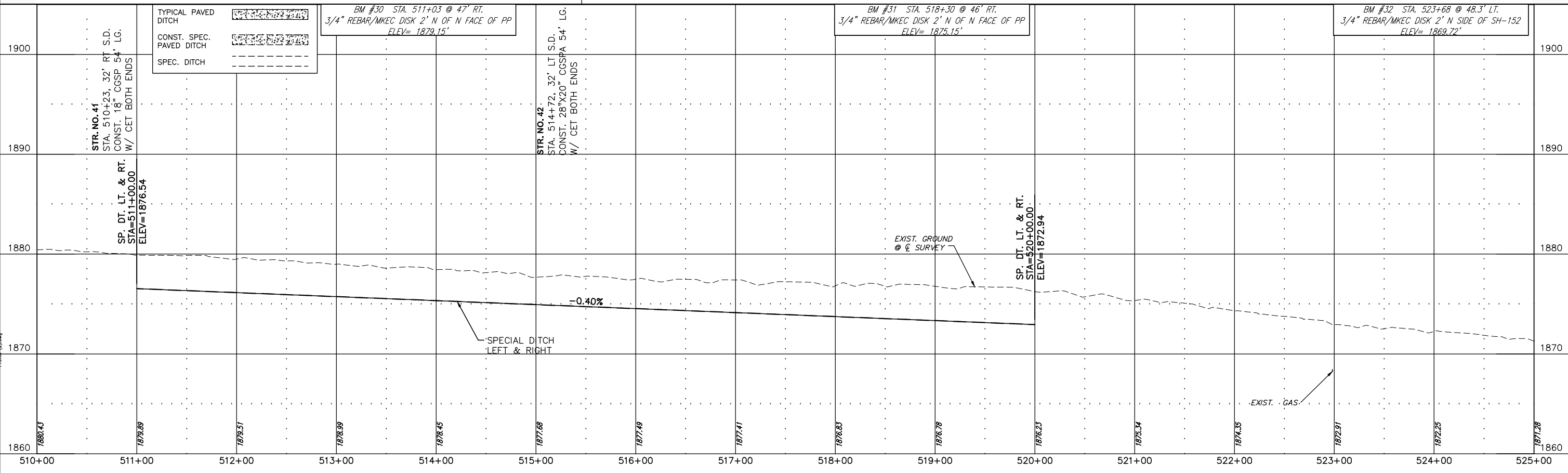
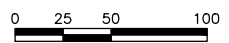
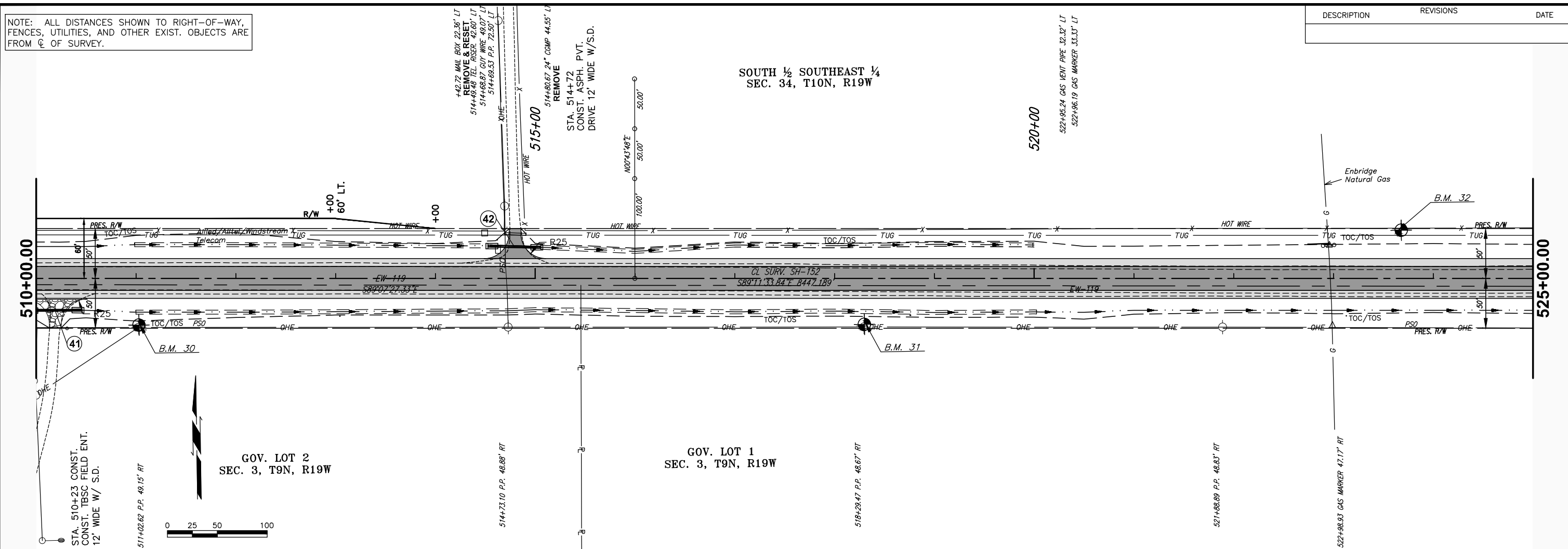




NOTE: ALL DISTANCES SHOWN TO RIGHT-OF-WAY, FENCES, UTILITIES, AND OTHER EXIST. OBJECTS ARE FROM ϕ OF SURVEY.

DESCRIPTION	REVISIONS	DATE

SOUTH $\frac{1}{2}$ SOUTHEAST $\frac{1}{4}$
SEC. 34, T10N, R19W



G:\projects\2014\14031008-001 EC-1504 - SH-152 Westline CA\5- civil\CA\5\14031008-001.dwg
 PLOTED: Thursday, May 30, 2019 @ 11:52AM

DESCRIPTION	REVISIONS	DATE

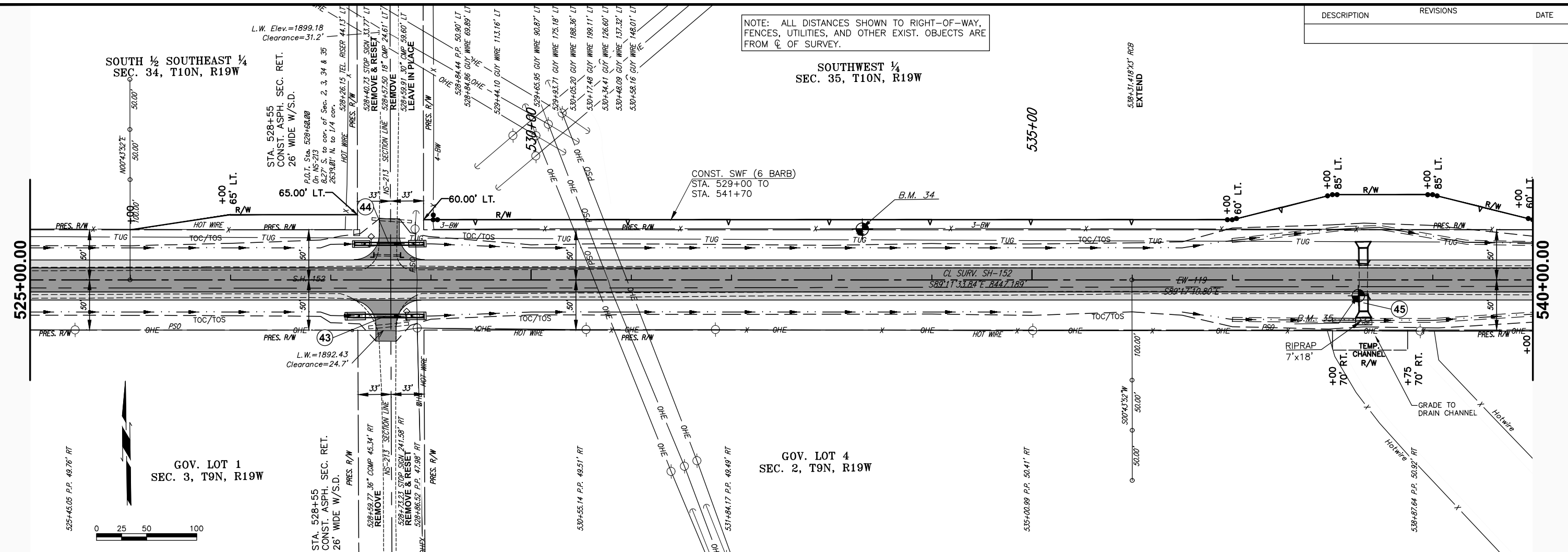
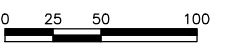
NOTE: ALL DISTANCES SHOWN TO RIGHT-OF-WAY, FENCES, UTILITIES, AND OTHER EXIST. OBJECTS ARE FROM ϕ OF SURVEY.

SOUTH 1/2 SOUTHEAST 1/4 SEC. 34, T10N, R19W

SOUTHWEST 1/4 SEC. 35, T10N, R19W

GOV. LOT 1 SEC. 3, T9N, R19W

GOV. LOT 4 SEC. 2, T9N, R19W

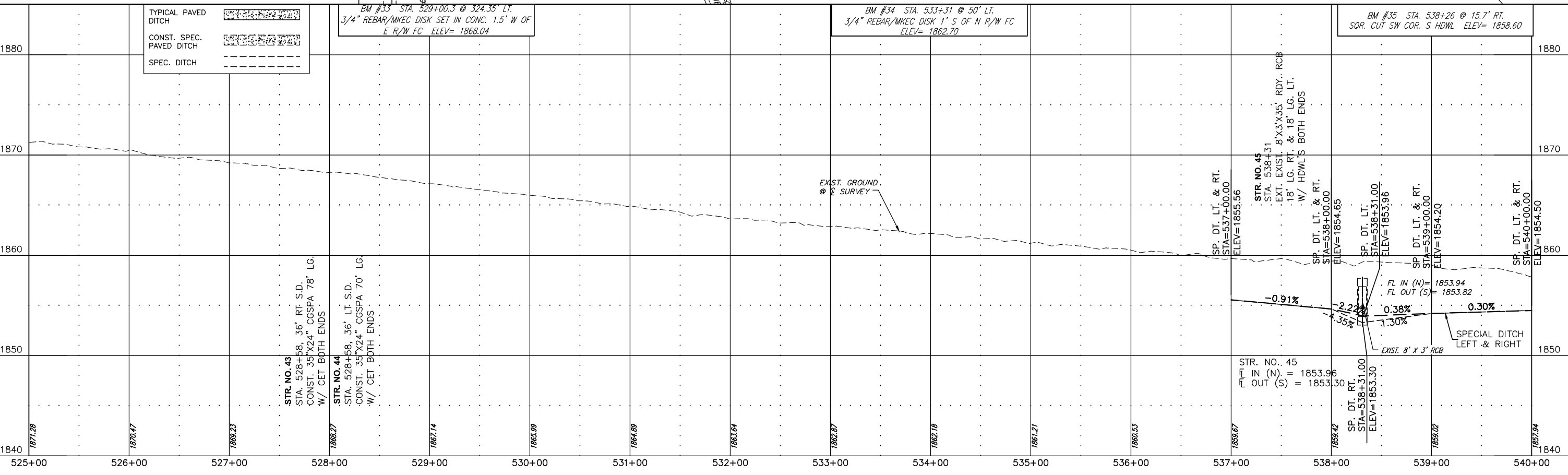


	TYPICAL PAVED DITCH
	CONST. SPEC. PAVED DITCH
	SPEC. DITCH

BM #33 STA. 529+00.3 @ 324.35' LT.
3/4" REBAR/MKEC DISK SET IN CONC. 1.5' W OF
E R/W FC ELEV= 1868.04

BM #34 STA. 533+31 @ 50' LT.
3/4" REBAR/MKEC DISK 1' S OF N R/W FC
ELEV= 1862.70

BM #35 STA. 538+26 @ 15.7' RT.
SQR. CUT SW COR. S HDWL ELEV= 1858.60

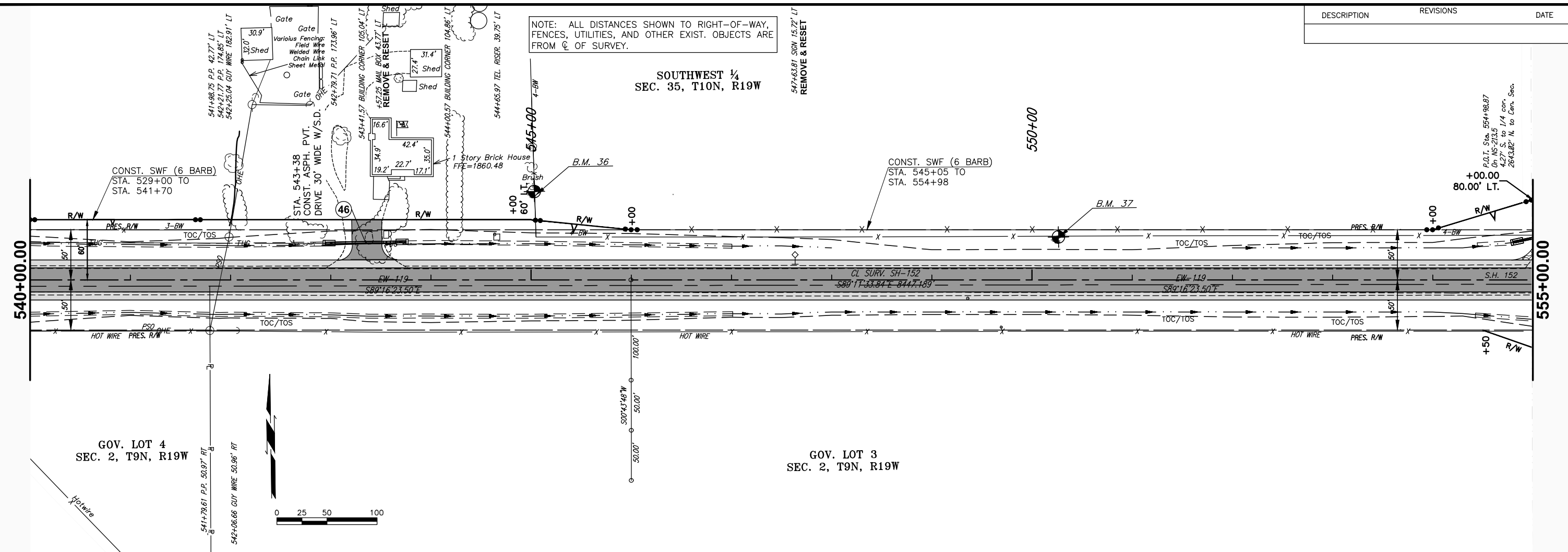


PLOTTER: Thursday, May 30, 2019 @ 11:52AM G:\projects\2019\1403210608-0007 EC-1504A_S1-102 WestCo CA\5-2019\CA\5-2019\1403210608-0007.dwg

DESCRIPTION	REVISIONS	DATE

NOTE: ALL DISTANCES SHOWN TO RIGHT-OF-WAY, FENCES, UTILITIES, AND OTHER EXIST. OBJECTS ARE FROM ϕ OF SURVEY.

SOUTHWEST 1/4
SEC. 35, T10N, R19W



GOV. LOT 4
SEC. 2, T9N, R19W

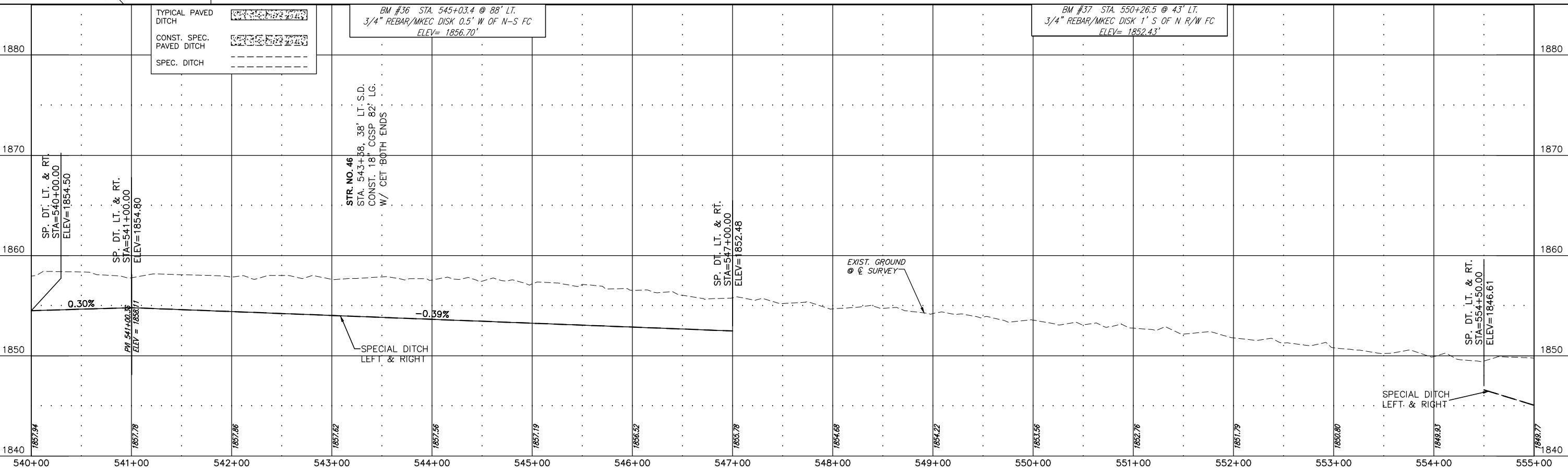
GOV. LOT 3
SEC. 2, T9N, R19W

	TYPICAL PAVED DITCH
	CONST. SPEC. PAVED DITCH
	SPEC. DITCH

BM #36 STA. 545+03.4 @ 88' LT.
3/4" REBAR/MKEC DISK 0.5' W OF N-S FC
ELEV= 1856.70'

BM #37 STA. 550+26.5 @ 43' LT.
3/4" REBAR/MKEC DISK 1' S OF N R/W FC
ELEV= 1852.43'

STR. NO. 46
STA. 543+88, 38' LT. S.D.
CONST. 18" CCSP 82' LG.
W/ CET. BOTH ENDS

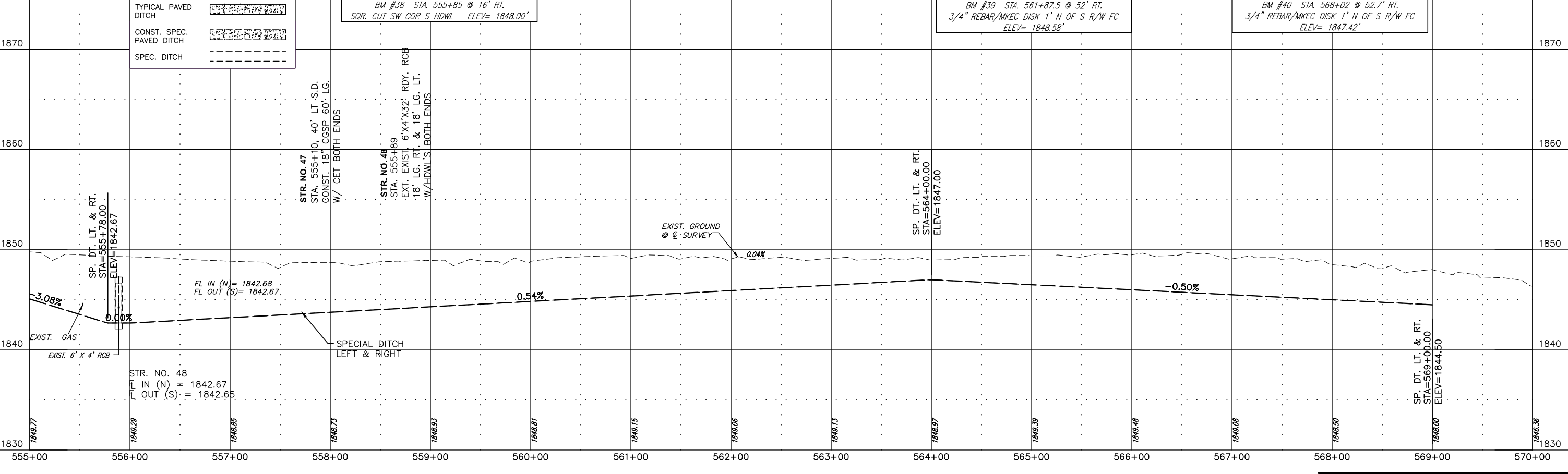
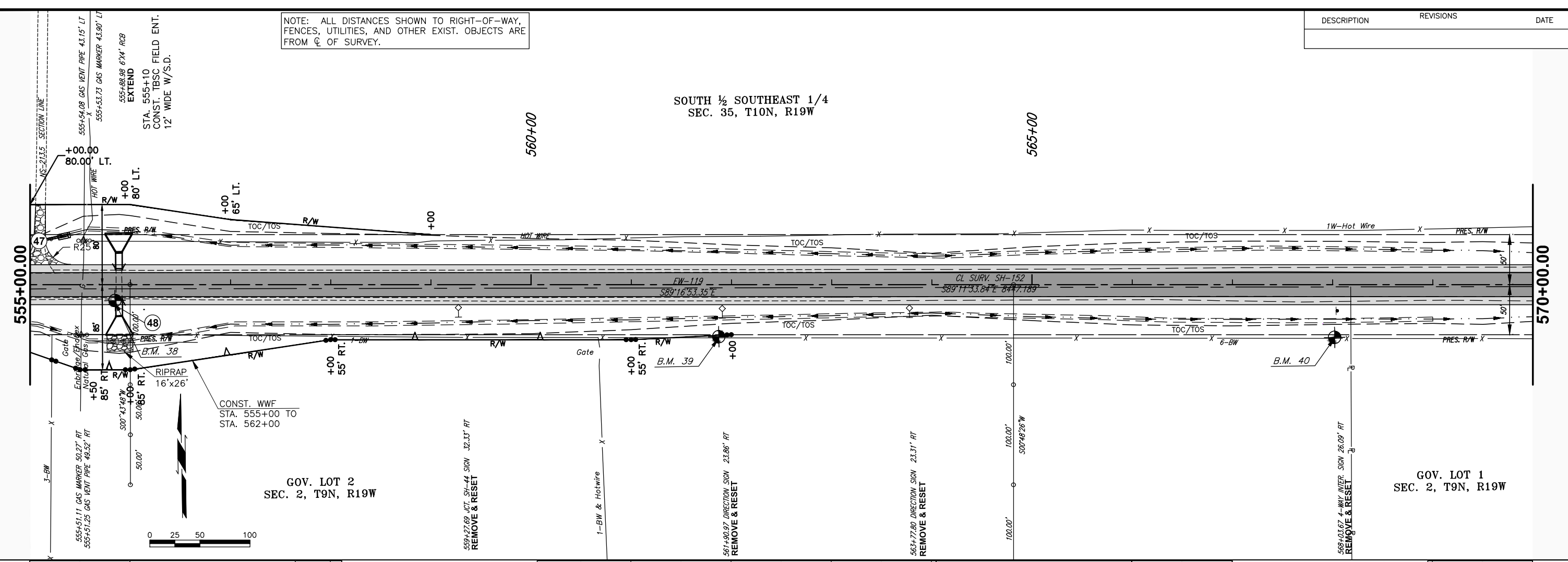


PLOTTER: Thursday, May 30, 2019 @ 11:25AM G:\projects\2019\14031008-0007 EC-1504 - SH-152 WestCo CA\5- civil\CA\5\24352(10)-Plan & Profile.dwg

DESCRIPTION	REVISIONS	DATE

NOTE: ALL DISTANCES SHOWN TO RIGHT-OF-WAY, FENCES, UTILITIES, AND OTHER EXIST. OBJECTS ARE FROM ϕ OF SURVEY.

SOUTH 1/2 SOUTHEAST 1/4
SEC. 35, T10N, R19W



G:\projects\2014\14031008-001 EC-1504 - SH-152 Westla ca\5-cad\plan\24352(10)-plan &
 PLOTED: Thursday, May 30, 2019 @ 11:52AM

NOTE: ALL DISTANCES SHOWN TO RIGHT-OF-WAY, FENCES, UTILITIES, AND OTHER EXIST. OBJECTS ARE FROM \odot OF SURVEY.

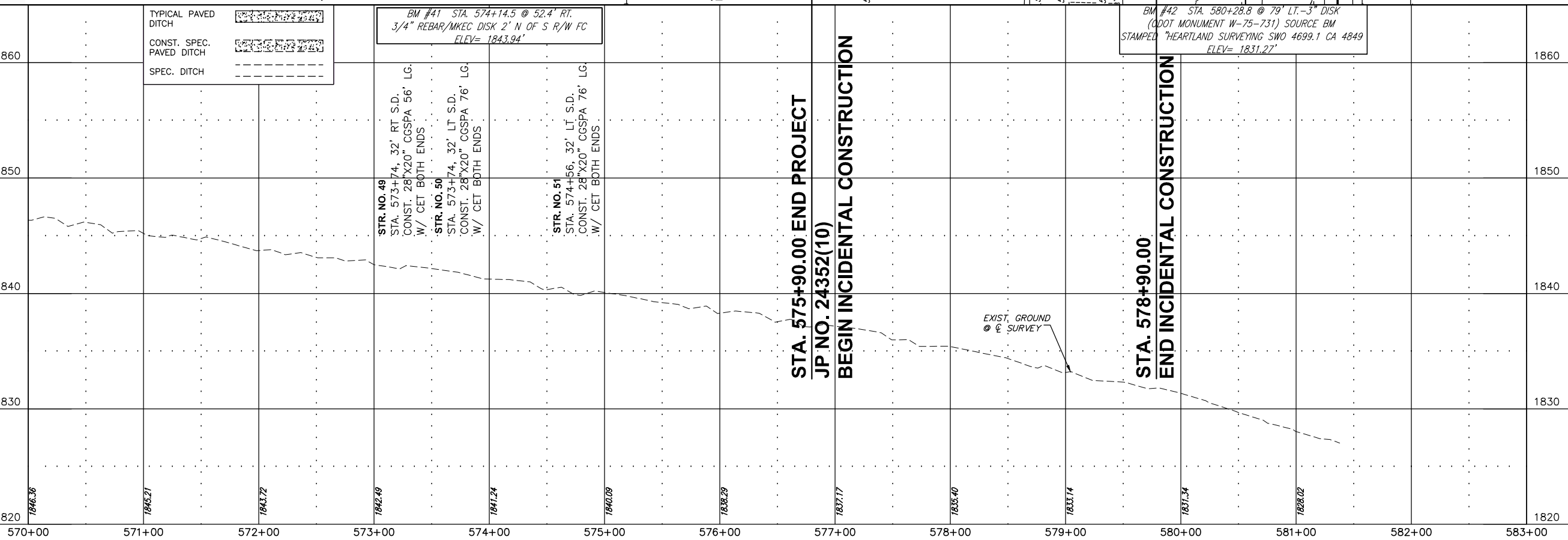
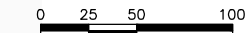
DESCRIPTION	REVISIONS	DATE

SOUTH 1/2 SOUTHEAST 1/4 SEC. 35, T10N, R19W

SOUTHWEST 1/4 SEC. 36, T10N, R19W

GOV. LOT 4 SEC. 1, T9N, R19W

570+00.00



TYPICAL PAVED DITCH	
CONST. SPEC. PAVED DITCH	
SPEC. DITCH	

BM #41 STA. 574+14.5 @ 52.4' RT.
3/4" REBAR/MKEC DISK 2' N OF S R/W FC
ELEV= 1843.94'

STR. NO. 49
STA. 573+74, 32' RT S.D.
CONST. 28"X20" CGSPA 56' LG.
W/ CET BOTH ENDS

STR. NO. 50
STA. 573+74, 32' LT S.D.
CONST. 28"X20" CGSPA 76' LG.
W/ CET BOTH ENDS

STR. NO. 51
STA. 574+56, 32' LT S.D.
CONST. 28"X20" CGSPA 76' LG.
W/ CET BOTH ENDS

BM #42 STA. 580+28.8 @ 79' LT.-3" DISK
(DOT MONUMENT W-75-731) SOURCE BM
STAMPED "HEARTLAND SURVEYING SWO 4699.1 CA 4849
ELEV= 1831.27"

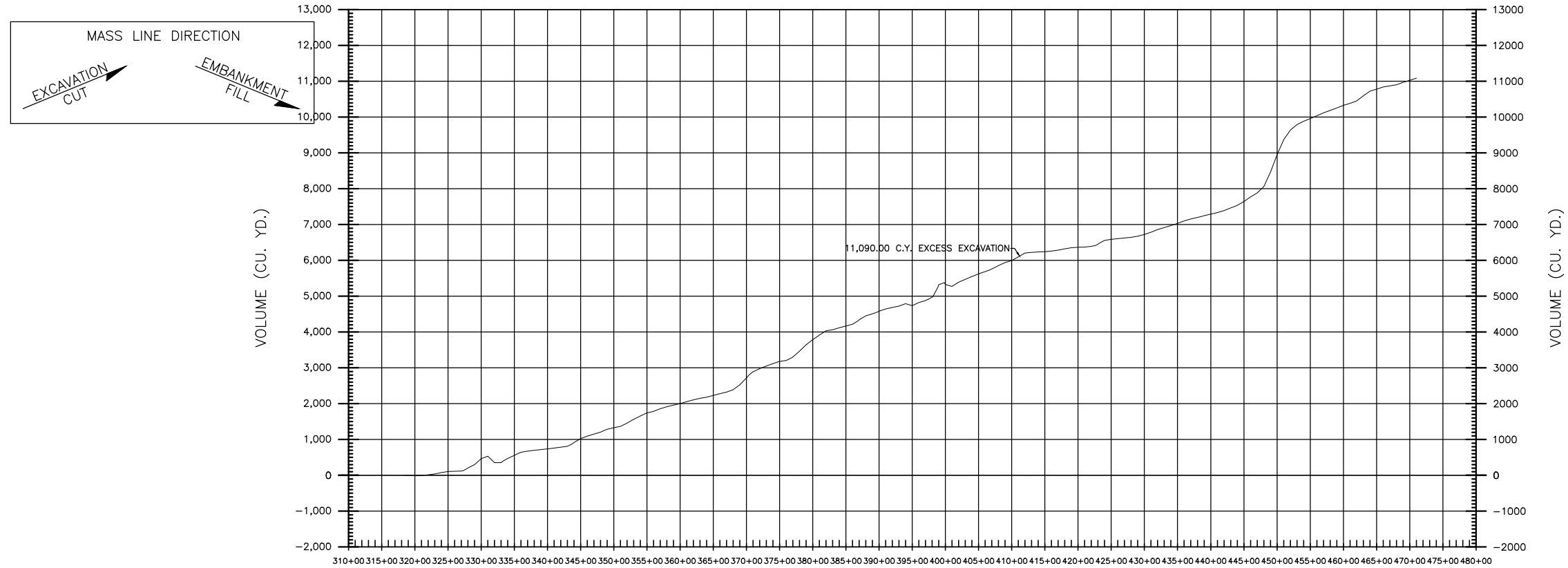
**STA. 575+90.00 END PROJECT
JP NO. 24352(10)
BEGIN INCIDENTAL CONSTRUCTION**

**STA. 578+90.00
END INCIDENTAL CONSTRUCTION**

PLOTED: Thursday, May 30, 2019 @ 11:52AM G:\projects\2019\1403701058-0007_EC-1504A - SH-152 Westline CA\5-conv\Auto\plan\24352(10)-plan & profile.dwg

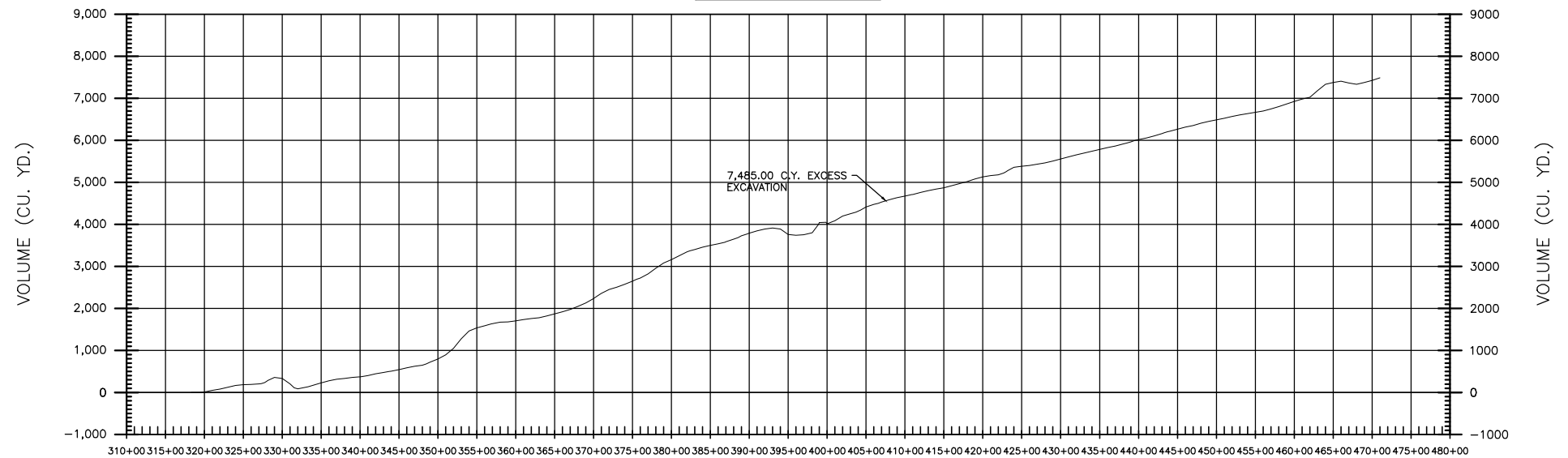
DESCRIPTION	REVISIONS	DATE

**MASS DIAGRAM
PHASE 1**



SHEET ESTIMATE—PHASE 1
 STA. 321+00.00 TO STA. 575+90.00
 EMBANKMENT +15%=1,385.00 C.Y.
 UNCLASSIFIED EXCAVATION=12,475.00 C.Y.
 EXCESS EXCAVATION=11,090.00 C.Y.

**MASS DIAGRAM
PHASE 2**



SHEET ESTIMATE—PHASE 2
 STA. 321+00.00 TO STA. 575+90.00
 EMBANKMENT +15%=1,667.00 C.Y.
 UNCLASSIFIED EXCAVATION=9,152.00 C.Y.
 EXCESS EXCAVATION=7,485.00 C.Y.

MASS DIAGRAM PROVIDED FOR BIDDING PURPOSES ONLY. ACTUAL BALANCE POINTS TO BE DETERMINED BY CHARACTER OF MATERIAL ENCOUNTERED DURING CONSTRUCTION. WHENEVER POSSIBLE, THE CONTRACTOR SHALL SEQUENCE EARTHWORK OPERATIONS IN ORDER TO OBTAIN THE MATERIAL FROM THE CUT SECTION FOR USE AS FILL RATHER THAN OBTAINING UNCLASSIFIED BORROW. MATERIAL DEPICTED AS WASTE SHALL ONLY BE CONSIDERED WASTE ONCE ALL EARTHWORK OPERATIONS HAVE BEEN COMPLETED. THIS MATERIAL SHALL BE USED TO REDUCE THE NEED FOR UNCLASSIFIED BORROW AT ANY LOCATION AND TIME THROUGH THE DURATION OF THE PROJECT.

NOTE: THE CONTRACTOR SHALL NOT WASTE ANY EXCESS EXCAVATION UNTIL ALL PLANNED EMBANKMENTS ARE COMPLETED. IF CONTRACTOR OPERATIONS REQUIRE HIM TO STOCKPILE THE EXCESS EXCAVATION, THE COST OF THE SECOND HANDLING SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

DESIGN	SH-152	WASHITA COUNTY
DRAWN		
CHECKED		
MKEC ENG.	MASS HAUL DIAGRAM	
	PROJ. NO. 24352(10) SHEET NO. R033	

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

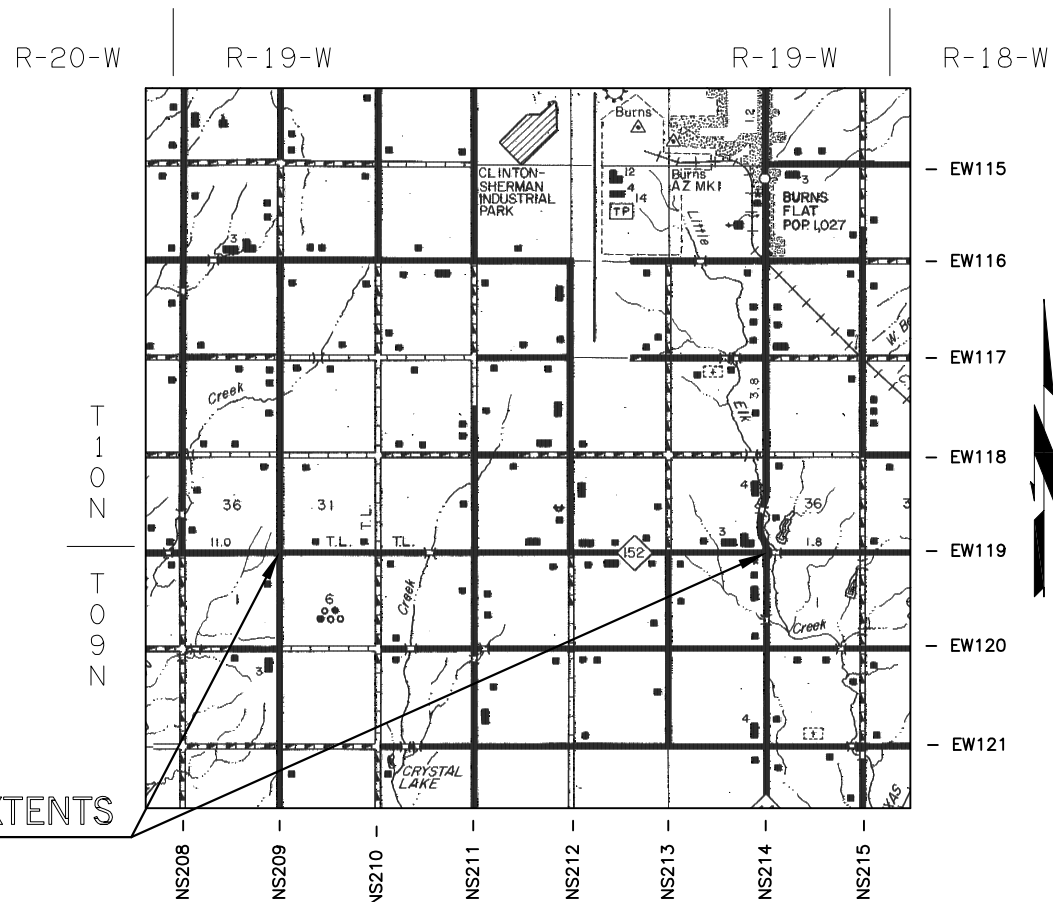
SURVEY OF
STATE HIGHWAY 152

SWO 4699(1)
STATE JOB NO. 24352(10)

WASHITA COUNTY, OKLAHOMA

S.H. 152, FROM 6.0 MILES EAST OF THE
BECKHAM COUNTY LINE, EAST TO S.H. 44

PROJECT LOCATION



SURVEY EXTENTS

PROJECT LENGTH 26347 Ft. 4.99 MI.

BEGINNING STATION : Sta. 318+31.86 (NS-209 Section Line)
ENDING STATION : P.I. Sta. 581+37.76 (NS-214 Section Line & S.H. 44)

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.

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SWO 4699(1) J/P 24352(10) : WASHITA CO.

HORIZONTAL CONTROL:
 Oklahoma Coordinate System of 1927 Zone.
 Oklahoma Coordinate System of 1983 South Zone.
 Oklahoma Dept. of Transportation Plane Coordinate System of 1927 Zone.
 Oklahoma Dept. of Transportation Plane Coordinate System of 1983 Zone.
 Arbitrary Coordinate System

HORIZONTAL PLANE DATUM DEFINITION:
 Oklahoma Department of Transportation coordinates were derived by multiplying the Oklahoma Coordinate Systems of 1927 or 1983 by the combined adjustment factor of 1.00010. The ODOT Coordinate System is 2350 feet above sea level.

1. Heartland Surveying W-75-731 adjusted to Provided by ODOT (3rd) Order Stations
 A) Closure before adjustment X : Y Angles
 Trav. Length No. Angles ; 1:
 B) : is () Order before adjustment.
 C) Method of Distance Measurement:
 Electronic GPS Triangulation chained
 D) Instrument used for angles

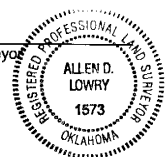
2. ODOT W-75-732 & W-75-733 adjusted to Provided by ODOT (3rd) Order Stations
 A) Closure before adjustment X : Y Angles
 B) : is () Order; Tied to
 C) Method of Distance Measurement:
 Electronic GPS Triangulation chained
 D) Instrument used for angles

VERTICAL CONTROL IS (3rd) order. Level Line taken from ODOT W-75-732 (3rd) order and tied to Heartland W-75-731 (3rd) order. derived from static GPS observations. () NGVD 29 datum (x) NAVD 88 datum

ACCURACY DEFINITION:
 (1) HORIZONTAL: (3rd Order = Class I = 1 : 10,000')
 (3rd Order = Class II = 1 : 5,000')
 (2) VERTICAL: (1st Order = 0.017 Ft. x sqrt. of Mi.) (2nd Order = 0.035 Ft. x sqrt. of Mi.)
 (3rd Order = 0.050 Ft. x sqrt. of Mi.)

Distribution:
Copy w/survey reports
Copy in each Alignment
and level book

Allen D. Lowry
Professional Land Surveyor
April 30, 2015
Date



(FORM SD #20)
Rev. 11/03

UTILITIES

Utility	Contact	Phone Number
Communication Lines		
Alltel/Windstream	Zach Perry	(405) 365-7068
Allied Telecom		(202) 541-9000
Electric Lines		
PSO		1-888-216-3523
Pipelines		
Senex Pipeline		(918) 494-0000
OneOk Field	Travis Canada	(580) 330-6060
Enbridge Pipeline	Randy Smith	(580) 799-2375
Oklahoma Natural Gas		1-800-664-5463
Enogex		(405) 341-7373
Waterlines		
Beckham County Rural Water District #3	Doug Wallin	(580) 243-4505

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, MAY 17, 2010.

SPECIFICATIONS FOR SURVEYS FOR PRIMARY AND SECONDARY HIGHWAYS DATED JANUARY 2011 GOVERN.

SDS 1 OF 25

OKLAHOMA DEPARTMENT OF TRANSPORTATION

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

DESCRIPTION	REVISIONS	DATE

INDEX OF SHEETS

1.	TITLE SHEET
2.	HISTORICAL LETTER
3.	ALIGNMENT REPORT
3-5.	COGO LIST
6.	BM's & Check Levels
7-15.	SURVEY DATA SHEETS
16-25.	LAND TIE SHEETS

SURVEY BEGAN: 10/28/2014
SURVEY COMPLETED: 5/15/2015

PERSONNEL:	TITLE:
Allen D. Lowry	Prof. Land Surveyor
Kevin J. Ingram	Prof. Land Surveyor
Carey E. Harris	Prof. Land Surveyor
E.L. Lee	Prof. Land Surveyor
Curtis Luttrell	Senior Survey Chief
Caleb Johns	Survey Assistant
E.A. Hiner	Technician Manager
A.B. Grothe	Tech III
K.F. Slater	Tech I

EQUIPMENT:
 Trimble R-8 Model 2 Real-Time Kinematic GPS (RTK)
 Trimble S3 Robotic Total Station
 Sokkia SDL30 Digital Level
 Topcon GR-3 Receiver
 Topcon Hiper II Receiver
 Topcon PS & QS Robotic Total Station
 Topcon DL-503 Level
 Ashtech Locus Static Receiver

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

SWO 4699(1) Job/Piece 224352(10) Engr. Contract No. EC-1365K

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:

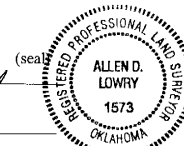
- Applicable instructions contained in the U.S. Government Bureau of Land Management publication "Manual of Survey Instruction".
- Its supplement, "Restoration of Lost or Obliterated Corners and Sub-division of Sections".
- "Oklahoma Minimum Standards for the Practice of Land Surveying" as adopted by the State Board of Licensure 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.

Dated this 15th day of May, 2015.

Land Surveyor Allen D. Lowry
Signature
Allen D. Lowry
Printed Name



Oklahoma Licensed Land Surveyor No. 1573

Certificate of Authorization No. 2958 Exp. Date June 30, 2015



PLS	ADL	OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	DCJ	SURVEY DATA SHEET
CHECKED	CEH	
APPROVED		
CREW		

SWO 4699 (1) PROJECT NO. 24352(10) SHEET NO. S1

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

DESCRIPTION	REVISIONS	DATE

Oklahoma Department of Transportation

Date: May 15, 2015

To: Mr. William Leroy Tackett, Chief of Surveys

From: Allen D. Lowry, Professional Land Surveyor

Subject: SWO 4699(1) - J/P No. 24352(10) - S.H. 152 - Washita County.
From 6.0 miles east of the Beckham County line, east to S.H. 44

1. GENERAL:

Method of Survey:

This survey was performed using a combination of aerial photogrammetry and conventional field methods to include Robotic Total Station, Real Time Kinematic (RTK) Global Positioning System (GPS) and electronic differential leveling.

Units of Measurement – English (US Survey Foot)

Survey Began: October 28, 2015

Survey Completed: May 15, 2015

Personnel on this survey:

Allen D. Lowry, Professional Land Surveyor
Kevin J. Ingram, Professional Land Surveyor
Carey E. Harris, Professional Land Surveyor
E.L. Lee, Professional Land Surveyor
Curtis Luttrell, Senior Survey Chief
Caleb Jones, Survey Assistant
E.A. Hiner, Technician Manager I
A.B. Grothe, Tech III
K.F. Slater, Tech I

Previous surveys relevant to this project:

SWO 1549(1) survey
SWO 2986(1) survey
SWO 4698(1) survey
FAP No. 155, F.G.H.I plans-S.H. 152
FAP No. F-430(1) Part 1 & Part 2 plans- S.H. 152
FAS No. S-377(4) (5) plans- S.H. 44
FAS No. S-377(8) (9) plans- S.H. 44

2. ASSIGNMENT:

Assignment of this survey originated on July 18, 2014 from Mr. Larry Resser. The Notice-To-Proceed for this survey originated on October 22, 2014 in an e-mail from Cecilia Payne - Oklahoma Department of Transportation (ODOT). The survey requirements were set out by ODOT Special Provisions and Specifications for Surveys for Primary and Secondary Highways.

Historical Letter & Written Report
1 of 4

3. PURPOSE:

The purpose of this survey is to obtain adequate information to develop plans to widen & resurface the present roadway.

4. LIMITS:

This survey began at P.O.T. Sta. 318+31.86 (NS-209 Section Line), as established under SWO 4698(1) survey, and extend east to a point identified as P.I. Sta. 581+70.31 (NS-214 Section Line & centerline S.H. 44), as established under SWO 2986(1) survey and shown on FAP No. 155 F.G.H.&I plans, FAS No. S-377(4)(5) plans & FAS No. S-377(8) (9) plans (approximate centerline length = 4.99 miles).

5. ALIGNMENT:

A001: Main Survey – SH 152
Alignment for this survey is along and identical to the centerline of present S.H. 152 as established under SWO 4698(1) survey, SWO 1549(1) survey & SWO 2986(1) survey and shown on FAP No. 155 F. G. II & I plans and FAP No. 430(1) Part 1 & Part 2 plans.

- A. Recovered the section corner at Sta. 318+31.86 and the PI at Sta. 319+94.53 established by ODOT under SWO 4698(1) survey.
- B. Find no monumentation from FAP No. 155 F. G. H & I plans and FAP No. 430(1) Part 1 & Part 2 plans. I located 8 drainage structures between the PI at Sta. 319+94.53 SWO 4698(1) survey the PI at Station 497+05.3 FAP No. 155 F.G.H&I plans. All but one of the 8 lined up within 0.26" so I used this line and prorated the stationing to establish the PI at Sta. 497+05.3 FAP No. 155 F. G. II & I plans.
- C. I recovered the section corner at the intersection of SII-44 & SII-152 established under SWO 2986 at Sta. 581+70.31 and at Sta. 581+56.0 on FAP No. 155 F.G.H&I plans. There are 2 RCB structures on the line from this point back to previous PI and they are within 0.29' of line.

6. STATIONING:

A001: Main Survey – SII 152
Stationing for the alignment on this survey was taken from SWO 4698(1) survey at P.O.T. Sta. 318+31.86 (NS-209 Section Line). Stationing increased east from this point, field measured distance, to the End of Survey without equation.

7. HORIZONTAL CONTROL:

Horizontal control for this survey is based on the National Geodetic Survey (NGS) Oklahoma State Plane Coordinate System – HARN Adjustment, NAD 1983, (2007), Oklahoma South Zone (2502). The distances and coordinates on this survey are in US Survey Feet. All angles and bearings shown are in degrees, minutes and seconds. Mr. Kyle King ODOT Area Manager requested that we utilize the horizontal control as established under SWO 4698(1) survey. ODOT stations W-75-731, W-75-732 & W-75-733 were recovered. Double RTK observations were taken & a minimum of 2 hours static observations were collected & uploaded to OPUS to confirm the 3 stations. Then 52 secondary benchmarks & horizontal control points were set and double RTK observations were taken on them to establish their values. The centerline of the survey and section corners were then tied to the primary control by GPS utilizing real-time kinematic GPS (RTK).

8. VERTICAL CONTROL:

Vertical control for this survey is NAVD88 datum. Mr. Kyle King ODOT Area Manager requested that we utilize the vertical control as established under SWO 4698(1) survey. Our double run digital differential level line started from ODOT station W-75-732 (BM 1) proceeded through W-75-733 (BM 17) and ended at ended at W-75-731 (BM 42) The closure was 0.03 feet in 5 miles. (See: SUBMITTED DATA below).

9. PHOTO CONTROLS:

No photo controls were established for this project.

10. TOPOGRAPHY:

Field work consisted of establishing centerline, obtaining topographic and level data via the break line method. All data obtained in the field was recorded in a digital format and archived.

11. LAND TIES:

Land ties for this survey consisted of the establishment of the corners of Sections 2, 3, 4, 5 & 6, Township 9 North, Range 19 West of the Indian Meridian and Sections 31, 32, 33, 34 & 35, Township 10 North, Range 19 West of the Indian Meridian. A search was made at all corner locations for any trace of the original monuments and/or accessories. A search was made of the records of the County Clerk's Office at the Washita County Courthouse in Cordell. All filed certified corner records from the Oklahoma Department of Libraries were researched and noted.

12. RIGHT OF WAY:

The existing Right of Way shown on this survey was taken from FAP No. 155, F.G.H.I and FAP No. F-430(1) Part 1 & Part 2 plans and Rights of Way documents found on file at the Washita County Courthouse and ODOT Right of Way Division. The east 2 miles of project FAP No. 155-F, G, H & I plans show the Right of Way at 40' left & right of centerline. The Right of Way documents from 1930 & 1931 and SWO 2986(1) both indicate that Right of Way is 50' left & right of centerline. It is shown at 50' on this survey.

13. ENVIRONMENTAL CONCERNS:

There is an old abandon gas station located on the northwest corner at the intersection of SII-152 & SII-44 that could be a concern.

14. UTILITIES:

All utilities shown on this survey were located by using 'Call Okie.' Depth of utilities were not provided and locations are approximate in nature. All underground utilities were located by their respective owners.

15. Drainage Information:

A DRA.dgn file has been included in the submittal, along with a color TIFF and PDF of the relevant USGS Quadrangle map depicting the project area.

16. Equipment Used

- Trimble R-8 model 2 real-time kinematic GPS (RTK)
- Trimble S3 Robotic total station
- Sokkia SDL30 digital level
- Topcon Hiper II & GR-3 GPS Receivers
- Topcon PS & QS Robotic Total Station
- Topcon DL-503 Level
- Ashlech Locus Static Receivers

17. DATA SUBMITTED:

A. PDF REPORTS

1. Historical Letter and Written Report.
2. ODOT form SD-1, Transmittal Letter
3. ODOT form SD-7, Public and privately owned Utilities List.
4. ODOT form SD-11, Three (3) control monument forms.
5. ODOT form SD-20, Survey Accuracy Statement
6. ODOT form SD-41 Land Surveyor's Certification
7. Fifty (50) Oklahoma Certified Corner Records.
8. Benchmark check level notes.
9. Cogo Data (coordinate list with alignments)

B. DATA SHEETS

1. Twenty-Five (25) Survey Data Sheets including Title Sheet, and Land Tie Sheets.

C. COMPUTER FILES

1. SWO4699_1_V1.dgn- All field survey information.
2. SWO4699_1_TOPO.dgn - Topography identification file.
3. SWO4699_1_SFF.dgn - Surface feature file
4. SWO4699_1_TRI.dgn - Surface Triangle File.
5. SWO4699_1_DRA.dgn Drainage Area file.
6. SWO4699_1_COGO List PENZD.txt - COGO Points spaced delimited.
7. SWO4699_1_SFF.fwd
8. SWO4699_1_SFF.txt
9. SWO4699_1_ALIGN.alg
10. SWO4699_1_TRI.dtm
11. OK Dill City Quad 20121029 Cropped.tiff
12. OK Dill City Quad 20121029.pdf

Allen D. Lowry, PLS 1573

Historical Letter & Written Report
2 of 4

Historical Letter & Written Report
3 of 4

Historical Letter & Written Report
4 of 4

PLS	ADL		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION	
DRAWN	DCJ		SURVEY DATA SHEET	
CHECKED	CEH			
APPROVED				
CREW				
			SWO 4699 (1) PROJECT NO. 24352(10) SHEET NO. S2	

Horizontal Alignment Report

Project: S.H. 152 from the Jct. of SH-44 & SH-152 going west for 5 miles.
 Description: SWO4699(1), J/P 24352(10)
 Horizontal Alignment Name: Alignment:
 Description: SH-152
 Style: Centerline

Element:	Point #	Station	Northing	Easting
Linear				
POB	(300)	318+31.86	714963.1425	1592930.3203
PI	(301)	319+94.53	714961.3020	1593092.9757
Tangent Direction: S89° 21' 06.14"E				
Tangent Length: 162.666				

Element:	Point #	Station	Northing	Easting
Linear				
PI	(301)	319+94.53	714961.3020	1593092.9757
PI	(302)	496+90.57	714735.7066	1610787.5793
Tangent Direction: S89° 16' 10.28"E				
Tangent Length: 17696.042				

Element:	Point #	Station	Northing	Easting
Linear				
PI	(302)	496+90.57	714735.7066	1610787.5793
POE	(303)	581+37.76	714616.6940	1619233.9300
Tangent Direction: S89° 11' 33.83"E				
Tangent Length: 8447.189				

Total Length of Alignment A001: 26305.897

SWO4699(1)		COORDINATE POINT LIST			
Pt. No.	EASTING	Northing	Elev.	Desc.	
1	1592891.77750	714738.31180	1875.62700	SD ODOT W-75-732	
2	1593591.61870	714894.33670	1879.81200	BM 3/4 MKEC	
3	1594253.00950	714908.25840	1870.45700	BM SQR CUT SE COR	
4	1595085.69530	714912.71740	1868.27600	BM SQR CUT CL S	
5	1595457.15390	715068.01760	1864.98600	BM 3/4 MKEC	
6	1595947.74750	714895.22210	1848.84100	BM SQR CUT CL S	
7	1596687.98700	714887.58940	1846.77900	BM SQR CUT SE	
8	1597415.94930	714847.24950	1838.15500	BM 3/4 MKEC	
9	1598100.38490	714601.13360	1828.25300	BM 3/4 MKEC IN CONC	
10	1598642.85720	714863.47230	1830.11500	BM SQR CUT SW COR	
11	1599330.98480	714859.95410	1827.92000	BM SQR CUT SW COR	
12	1600100.40490	714725.21260	1817.87100	BM 3/4 MKEC	
13	1600548.01840	714841.18180	1820.03500	BM SQR CUT SE COR	
14	1601281.30860	714781.51250	1823.77500	BM CL TOP R/W	
15	1601983.89480	714788.45210	1835.60100	BM 3/4 MKEC	
16	1602683.02800	714780.84610	1840.68500	BM 3/4 MKEC	
17	1603389.74270	714497.31120	1854.04000	SD ODOT W-75-733	
18	1603988.88480	714765.59850	1860.44100	BM 3/4 MKEC	
19	1604774.12590	714756.96250	1870.32900	BM 3/4 MKEC	
20	1605415.91020	714747.80710	1878.50100	BM 3/4 MKEC	
21	1606061.47610	714933.32930	1891.51700	BM 3/4 MKEC	
22	1606755.88070	714851.86030	1887.27800	BM 3/4 MKEC	
23	1607442.93470	714717.67160	1900.96600	BM 3/4 MKEC	
24	1608282.59710	714708.51390	1897.42900	BM 3/4 MKEC	
25	1608710.92630	715160.60560	1891.63200	BM <CUT CL>.END.E	
26	1609391.42060	714803.27500	1897.15600	BM 3/4 MKEC	
27	1610074.05320	714698.48570	1892.10700	BM 3/4 MKEC	
28	1610806.70780	714854.45080	1895.40700	BM 3/4 MKEC	
29	1611522.82630	714677.90500	1882.51700	BM 3/4 MKEC	
30	1612190.28790	714669.06730	1879.14700	BM 3/4 MKEC	
31	1612926.14710	714659.51040	1875.15400	BM 3/4 MKEC	
32	1613455.33510	714746.32540	1869.71500	BM 3/4 MKEC	
33	1614001.52110	715014.80580	1868.03900	BM 3/4 MKEC IN CONC	
34	1614428.18970	714734.95710	1862.69700	BM 3/4 MKEC	
35	1614922.27230	714661.69290	1858.09600	BM SQR CUT SW COR S HDWL	
36	1615601.16920	714756.07450	1856.69800	BM 3/4 MKEC	
37	1616123.66190	714703.32640	1852.43400	BM 3/4 MKEC	
38	1616681.05980	714636.84980	1847.99500	BM SQR CUT SW COR S HDWL	
39	1617283.16130	714592.17260	1848.57900	BM 3/4 MKEC	
40	1617897.83160	714582.85060	1847.41700	BM 3/4 MKEC	
41	1618509.99960	714574.47630	1843.94100	BM 3/4 MKEC	
42	1619126.14300	714697.29700	1831.26800	SD ODOT W-75-731	
51	1592938.44410	717675.05830	1905.50000	SDMD	
52	1598159.40300	717730.54430	1867.81700	SDMD	
53	1603432.50580	718137.80750	1872.91700	SDMD	
54	1608700.23150	717098.83800	1911.49800	SDMD	
55	1614020.23790	717554.50970	1873.82200	SDMD	
56	1619240.89460	717817.35140	1835.81800	SD 5/8 COBB CTRL PT	
57	1619137.13360	712056.38400	1828.07200	SD 3/4 MKEC	

Job Piece 24352(10)

SWO4699(1)		COORDINATE POINT LIST			
Pt. No.	EASTING	Northing	Elev.	Desc.	
58	1613973.12620	712010.33410	1865.60200	SDMD	
59	1608622.66900	711967.01660	1888.40000	SDMD	
60	1603469.43040	712404.14680	1852.18200	SDMD	
61	1598131.14090	712409.15710	1814.36300	SDMD	
62	1592855.20980	712531.72390	1853.09000	SDMD	
141	1585566.23100	714988.58800	1792.90500	SD NGS-41	
300	1592930.32030	714963.14250	0.00000	SC BOP 318+31.86 5/8 MKEC 2in disk	
301	1593092.97570	714961.30200	0.00000	SD PI 319+94.53 1/2 REBAR FND	
302	1610787.57930	714735.70660	0.00000	SDMD PI 496+90.57	
303	1619233.93000	714616.69400	0.00000	SC EOP 581+37.76 1/2 REBAR FND	
304	1593898.33900	714951.03300	0.00000	POT 328+00.01	
305	1594896.32800	714936.28500	0.00000	POT 338+00.02	
306	1595898.26300	714925.52900	0.00000	POT 348+00.04	
307	1596898.19800	714912.78800	0.00000	POT 358+00.06	
308	1597898.13300	714900.03900	0.00000	POT 368+00.07	
309	1598898.06800	714887.29100	0.00000	POT 378+00.09	
310	1599898.00300	714874.54200	0.00000	POT 388+00.10	
311	1600897.93800	714861.79300	0.00000	POT 398+00.12	
312	1601897.87300	714849.04500	0.00000	POT 408+00.14	
313	1602897.80800	714836.29600	0.00000	POT 418+00.15	
314	1603897.74300	714823.54800	0.00000	POT 428+00.17	
315	1604897.67800	714810.79900	0.00000	POT 438+00.18	
316	1605897.61300	714798.05100	0.00000	POT 448+00.20	
317	1606897.54800	714785.30200	0.00000	POT 458+00.22	
318	1607897.48300	714772.55400	0.00000	POT 468+00.23	
319	1608897.41800	714759.80500	0.00000	POT 478+00.25	
320	1609897.35300	714747.05600	0.00000	POT 488+00.27	
321	1611696.91900	714722.89360	0.00000	POT 506+00	
322	1612696.81981	714708.80458	0.00000	POT 516+00	
323	1613696.72056	714694.71557	0.00000	POT 526+00	
324	1614696.62130	714680.62655	0.00000	POT 536+00	
325	1615696.52205	714666.53754	0.00000	POT 546+00	
326	1616696.42279	714652.44852	0.00000	POT 556+00	
327	1617578.09437	714640.02541	0.00000	POT 564+81.76	
328	1618378.01496	714626.75420	0.00000	POT 572+81.76	
7500	1592429.39929	714908.14487	0.00000	Exist R/W	
7501	1592896.35472	714903.47888	0.00000	Exist R/W	
7502	1592889.26705	714463.57502	0.00000	Exist R/W	
7503	1592955.26358	714462.82825	0.00000	Exist R/W	
7504	1592962.35197	714902.77621	0.00000	Exist R/W	
7505	1593092.25281	714901.30633	0.00000	Exist R/W	
7506	1595514.70497	714870.42155	0.00000	Exist R/W	
7507	1598049.01317	714838.11066	0.00000	Exist R/W	
7508	1598049.16293	714848.10956	0.00000	Exist R/W	
7509	1598118.45747	714847.22610	0.00000	Exist R/W	
7510	1598111.71814	714897.27545	0.00000	Exist R/W	
7511	1598177.71294	714896.43406	0.00000	Exist R/W	
7512	1598184.30251	714836.38580	0.00000	Exist R/W	
7513	1600480.98624	714807.10448	0.00000	Exist R/W	

SWO4699(1) COORDINATE POINT LIST

Pt. No.	EASTING	Northing	Elev.	Desc.
7514	1600480.73502	714792.10570	0.00000	Exist. R/W
7515	1600782.91814	714788.25382	0.00000	Exist. R/W
7516	1601280.73001	714781.90702	0.00000	Exist. R/W
7517	1601280.92123	714796.90580	0.00000	Exist. R/W
7518	1603392.91626	714769.97915	0.00000	Exist. R/W
7519	1603393.35765	714329.93776	0.00000	Exist. R/W
7520	1603459.35853	714329.09629	0.00000	Exist. R/W
7521	1603458.91714	714769.13768	0.00000	Exist. R/W
7522	1606062.79304	714735.93984	0.00000	Exist. R/W
7523	1608666.75615	714702.74090	0.00000	Exist. R/W
7524	1608659.82932	714262.79345	0.00000	Exist. R/W
7525	1608725.82425	714261.95206	0.00000	Exist. R/W
7526	1608732.90851	714711.89831	0.00000	Exist. R/W
7527	1611328.11042	714678.08530	0.00000	Exist. R/W
7528	1613923.19708	714641.51946	0.00000	Exist. R/W
7529	1613918.81213	714191.53657	0.00000	Exist. R/W
7530	1613984.80621	714190.60669	0.00000	Exist. R/W
7531	1613989.19115	714640.58957	0.00000	Exist. R/W
7532	1616594.81387	714603.87527	0.00000	Exist. R/W
7533	1619083.45117	714568.80935	0.00000	Exist. R/W
7534	1619152.79062	714501.38741	0.00000	Exist. R/W
7535	1619149.01356	714117.84053	0.00000	Exist. R/W
7536	1618970.53654	715137.32212	0.00000	Exist. R/W
7537	1618978.11479	715059.33787	0.00000	Exist. R/W
7538	1619062.97599	714823.46041	0.00000	Exist. R/W
7539	1619087.81130	714762.70951	0.00000	Exist. R/W
7540	1619042.15356	714669.40117	0.00000	Exist. R/W
7541	1616595.86360	714703.87041	0.00000	Exist. R/W
7542	1613980.28810	714740.58404	0.00000	Exist. R/W
7543	1613995.62094	715190.55357	0.00000	Exist. R/W
7544	1613929.62733	715191.48345	0.00000	Exist. R/W
7545	1613924.29449	714741.51392	0.00000	Exist. R/W
7546	1611329.35950	714778.07763	0.00000	Exist. R/W
7547	1608734.14505	714811.89067	0.00000	Exist. R/W
7548	1608738.15433	715261.87613	0.00000	Exist. R/W
7549	1608672.15921	715262.71752	0.00000	Exist. R/W
7550	1608668.23902	714822.73174	0.00000	Exist. R/W
7551	1606063.92129	714855.93521	0.00000	Exist. R/W
7552	1603459.36460	714889.14172	0.00000	Exist. R/W
7553	1603463.21594	715329.12838	0.00000	Exist. R/W
7554	1603397.22078	715329.96978	0.00000	Exist. R/W
7555	1603398.36944	714889.98312	0.00000	Exist. R/W
7556	1600784.18088	714923.24869	0.00000	Exist. R/W
7557	1598185.88868	714956.37533	0.00000	Exist. R/W
7558	1598190.87804	715396.34748	0.00000	Exist. R/W
7559	1598124.88334	715397.18887	0.00000	Exist. R/W
7560	1598119.89398	714957.21673	0.00000	Exist. R/W
7561	1595516.32502	714990.41065	0.00000	Exist. R/W
7562	1593098.69759	715021.29767	0.00000	Exist. R/W

Job Piece 24352(10)

SWO4699(1) COORDINATE POINT LIST

Pt. No.	EASTING	Northing	Elev.	Desc.
7663	1592964.16382	715022.76339	0.00000	Exist. R/W
7664	1592970.36423	715462.72140	0.00000	Exist. R/W
7665	1592904.36820	715463.46816	0.00000	Exist. R/W
7666	1592898.16718	715023.46676	0.00000	Exist. R/W
7667	1592431.18657	715028.13271	0.00000	Exist. R/W
7668	1619294.00653	714116.41268	0.00000	Exist. R/W
7669	1619297.58743	714480.04065	0.00000	Exist. R/W
7670	1619333.50364	714515.26187	0.00000	Exist. R/W
7671	1619976.42628	714506.08090	0.00000	Exist. R/W
7672	1619588.03593	714761.65259	0.00000	Exist. R/W
7673	1619355.05968	714764.97954	0.00000	Exist. R/W
7674	1619222.02902	714817.57847	0.00000	Exist. R/W
7675	1619197.19372	714878.32937	0.00000	Exist. R/W
8001	1610014.51400	714742.78900	0.00000	SC 1/2in rebar 5in deep
8002	1612642.58300	714702.66500	0.00000	SC 1/2in rebar 5in deep
8003	1615275.88800	714666.34600	0.00000	SC 1/2in rebar 5in deep
8004	1617914.49500	714633.06400	0.00000	SC PKN FND
8005	1594159.51673	712306.82877	0.00000	Calc Prop Cor
8006	1594182.91690	712306.54293	0.00000	Calc Prop Cor
8007	1594197.23810	714947.53193	0.00000	Calc Prop Cor
8008	1594222.94467	714947.21519	0.00000	Calc Prop Cor
8009	1596833.90157	714915.04379	0.00000	Calc Prop Cor
8010	1596795.37470	712274.63058	0.00000	Calc Prop Cor
8011	1599467.78504	714881.92722	0.00000	Calc Prop Cor
8012	1599440.81411	712240.21694	0.00000	Calc Prop Cor
8013	1603156.53488	712188.95700	0.00000	Calc Prop Cor
8014	1603144.82775	712890.85937	0.00000	Calc Prop Cor
8015	1603427.80413	712887.20303	0.00000	Calc Prop Cor
8016	1603428.25381	712429.64488	0.00000	Calc Prop Cor
8017	1604319.17987	712417.41524	0.00000	Calc Prop Cor
8018	1604319.42507	712172.97537	0.00000	Calc Prop Cor
8019	1603427.18531	713504.83734	0.00000	Calc Prop Cor
8020	1606053.47158	713466.82376	0.00000	Calc Prop Cor
8021	1608679.67371	713426.97420	0.00000	Calc Prop Cor
8022	1609995.62932	713412.38979	0.00000	Calc Prop Cor
8023	1609976.97750	712098.39550	0.00000	Calc Prop Cor
8024	1611148.12868	714680.62132	0.00000	Calc Prop Cor
8025	1611143.46458	714315.52699	0.00000	Calc Prop Cor
8026	1611323.44366	714312.78245	0.00000	Calc Prop Cor
8027	1611311.75476	713397.80349	0.00000	Calc Prop Cor
8028	1613943.79477	713368.63324	0.00000	Calc Prop Cor
8029	1613951.42789	714151.94486	0.00000	Calc Prop Cor
8030	1614193.91638	714149.58189	0.00000	Calc Prop Cor
8031	1614190.39871	713788.59903	0.00000	Calc Prop Cor
8032	1613947.91023	713790.96200	0.00000	Calc Prop Cor
8033	1613946.93580	713690.96675	0.00000	Calc Prop Cor
8034	1614189.42429	713688.60378	0.00000	Calc Prop Cor
8035	1616582.51224	713323.84533	0.00000	Calc Prop Cor
8036	1619221.16856	713299.05823	0.00000	Calc Prop Cor

Job Piece 24352(10)

SWO4699(1) COORDINATE POINT LIST

Pt. No.	EASTING	Northing	Elev.	Desc.
8037	1594232.44026	717590.31207	0.00000	Calc Prop Cor
8038	1605259.42116	714866.19210	0.00000	Calc Prop Cor
8039	1605261.14695	715007.40155	0.00000	Calc Prop Cor
8040	1605849.92100	714988.59412	0.00000	Calc Prop Cor
8041	1605848.33330	714858.68383	0.00000	Calc Prop Cor
8042	1607409.11747	717418.52356	0.00000	Calc Prop Cor
8043	1607381.98100	714780.85400	0.00000	Calc Prop Cor
8044	1608482.54594	717405.75977	0.00000	Calc Prop Cor
8045	1608479.87910	717105.77168	0.00000	Calc Prop Cor
8046	1608688.55835	717103.29027	0.00000	Calc Prop Cor
8047	1608691.23119	717403.27837	0.00000	Calc Prop Cor
8048	1609043.02326	714807.95266	0.00000	Calc Prop Cor
8049	1609046.94052	715103.47043	0.00000	Calc Prop Cor
8050	1609342.07459	715099.55826	0.00000	Calc Prop Cor
8051	1609338.15931	714804.18985	0.00000	Calc Prop Cor
8052	1610042.66408	717384.60009	0.00000	Calc Prop Cor
8053	1611344.89008	716044.53159	0.00000	Calc Prop Cor
8054	1613972.28686	716006.33033	0.00000	Calc Prop Cor
8055	1616610.05681	715973.16917	0.00000	Calc Prop Cor
8056	1618844.78005	715945.18358	0.00000	Calc Prop Cor
8057	1618736.49636	717270.18175	0.00000	Calc Prop Cor
8058	1618733.98212	717070.19756	0.00000	Calc Prop Cor
8059	1619064.46744	717066.04264	0.00000	Calc Prop Cor
8060	1618994.63212	715008.09172	0.00000	Calc Prop Cor
8061	1618855.76338	715009.81467	0.00000	Calc Prop Cor
8062	1618852.45540	714672.07410	0.00000	Calc Prop Cor
8063	1617901.79174	713316.45242	0.00000	Calc 1/16
8064	1615263.13236	713351.23957	0.00000	Calc 1/16
8065	1612627.75093	713383.21863	0.00000	Calc 1/16
8066	1607366.58087	713446.89885	0.00000	Calc 1/16
8067	1604744.55500	714814.95150	0.00000	Calc 1/16
8068	1604740.33667	713485.83043	0.00000	Calc 1/16
8069	1602101.65502	713523.48652	0.00000	Calc 1/16
8070	1602104.59572	714848.06137	0.00000	Calc 1/16
8071	1599454.29611	713560.73280	0.00000	Calc 1/16
8072	1598132.47071	713579.32986	0.00000	Calc 1/16
8073	1596814.64534	713595.33100	0.00000	Calc 1/16
8074	1595496.82012	713611.33214	0.00000	Calc 1/16
8075	1594178.37971	713627.34075	0.00000	Calc 1/16
8076	1592909.04635	713642.75310	0.00000	Calc 1/16
8077	1592866.54040	711004.57960	0.00000	Calc 1/16
8078	1594140.60739	710983.07038	0.00000	Calc 1/16
8079	1594121.69804	709659.31200	0.00000	Calc 1/16
8080	1594214.83918	716268.92191	0.00000	Calc 1/16
8081	1592948.95245	716285.21125	0.00000	Calc 1/16
8082	1592986.10485	718921.41260	0.00000	Calc 1/16
8083	1594250.02797	718910.69875	0.00000	Calc 1/16
8084	1594267.61566	720231.08379	0.00000	Calc 1/16
8085	1600776.13104	713542.13561	0.00000	Calc 1/16

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

DESCRIPTION	REVISIONS	DATE

SWO4699(1) COORDINATE POINT LIST Job Piece 24352(10)

Pt. No.	EASTING	Northing	Elev.	Desc.
9001	1592845.30840	709686.79550	0.00000	SC fnd 60d 1in deep
9002	1595440.28000	709630.92000	0.00000	SC 5/8 MKEC set 8in deep 48 long
9003	1598078.02500	709618.69000	0.00000	SC 1/2in rebar fnd 5in deep
9004	1600754.58400	709582.40500	0.00000	SC 1/2in rebar fnd 6in deep
9005	1603430.88600	709545.73800	0.00000	SC 60d FND & Replaced / 5/8 MKEC
9006	1606024.45400	709516.08400	0.00000	SC RRSPK fnd 3in deep
9007	1608617.69500	709486.75900	0.00000	SC 1/2 rebar fnd 3in deep
9008	1611261.55800	709450.10500	0.00000	SC 1/2 rebar fnd 6in deep
9009	1613905.50100	709413.49900	0.00000	SC 1/2 REBAR FND 3IN DEEP
9010	1616544.25200	709383.83000	0.00000	SC 5/8 MKEC Set 4in deep
9011	1619183.00200	709354.16100	0.00000	SC 1/2 PLS-806 FND 4IN DEEP 1.76N & 0.49E
9012	1619208.43300	711984.05300	0.00000	SC 1/2 PLS-806 FND 4IN DEEP
9013	1613920.97600	712053.17100	0.00000	SC 1/2 REBAR FND 6IN DEEP
9014	1611294.96300	712083.38500	0.00000	SC 1/2 pls 1375
9015	1608658.99200	712113.40600	0.00000	SC RRSPK fnd 4in deep
9016	1603428.50900	712185.20500	0.00000	SC 1/2in pls-1375 5in deep
9017	1598112.68800	712258.53900	0.00000	SC 1/2in PLS-1375 fnd 15in deep
9018	1592887.77240	712322.36370	0.00000	SC mag & wshr odot pls-1102
9019	1592930.32030	714963.14250	0.00000	SC MAG & WSHR fnd replaced/5/8 MKEC BOP 318+31.86
9020	159515.56955	714931.28786	0.00000	SC 5/8 MKEC Set flush
9021	1598152.23364	714898.79971	0.00000	SC 5/8 MKEC Set flush
9022	1600783.33644	714865.05474	0.00000	SC 5/8 MKEC Set flush
9023	1603425.85500	714831.06800	0.00000	SC 1/2 REBAR 6IN DEEP
9024	1606063.25500	714798.83500	0.00000	SC FND PKN & Replaced / 5/8 MKEC
9025	1608700.70700	714762.87300	0.00000	SC 5/8 MKEC set
9026	1611328.68100	714722.74900	0.00000	SC 1/2 REBAR FND 4 IN DEEP
9027	1613958.60071	714682.77966	0.00000	SC 1/2 REBAR FND 6IN DEEP
9028	1616595.25685	714649.60869	0.00000	SC 1/2 REBAR FND 4IN DEEP
9029	1619233.92960	714616.69380	0.00000	SC 1/2 REBAR FND 6IN DEEP EOP 581+37.76
9030	1619259.85500	717263.60200	0.00000	SC 3/4in bar fnd 2in deep
9031	1613987.97300	717329.88100	0.00000	SC 1/2 ILL-ORANGE CAP 4in deep
9032	1608724.22900	717402.88600	0.00000	SC FND PKN & Replaced / 5/8 MKEC
9033	1603448.91600	717465.61300	0.00000	SC RRSPK fnd 6in deep
9034	1598182.15500	717537.32700	0.00000	SC RRSPK fnd 1in deep
9035	1592967.58460	717607.28000	0.00000	SC 1/2in odot pls-1102 fnd 1in deep
9036	1593004.62510	720235.54520	0.00000	SC 1/2in rebar fnd 2in deep
9037	1595583.23045	720226.43649	0.00000	SC 5/8 MKEC set
9038	1598225.35300	720175.81800	0.00000	SC 1/2in GD Rayger RLS-1222 fnd 24in deep
9039	1600859.84300	720137.44000	0.00000	SC 1/2in okla ls-477 12in deep
9040	1603494.44500	720099.03300	0.00000	SC 1/2in rebar fnd 1in deep
9041	1606124.78000	720071.46700	0.00000	SC 1/2in Gunning Surveying fnd 6in deep
9042	1608755.13800	720043.80900	0.00000	SC 1/2 REBAR FND 8IN DEEP
9043	1611393.52230	720010.28536	0.00000	SC 5/8 MKEC set 6in deep
9044	1614019.76500	719976.91600	0.00000	SC 1/2 REBAR 8IN DEEP
9045	1616654.35200	719934.48700	0.00000	SC 1/2 DAVIS RPLS-1587 FND 6IN DEEP
9046	1619288.32400	719893.92800	0.00000	SC 5/8 MKEC Set
9047	1616569.77275	712018.61111	0.00000	Calc Ctr
9048	1606043.79461	712149.30489	0.00000	Calc Ctr
9049	1600768.94023	712221.89488	0.00000	Calc Ctr

SWO4699(1) COORDINATE POINT LIST Job Piece 24352(10)

Pt. No.	EASTING	Northing	Elev.	Desc.
9050	1595478.06140	712290.72215	0.00000	Calc Ctr
9051	1616624.85678	717296.72965	0.00000	Calc Ctr
9052	1611361.09916	717366.31418	0.00000	Calc Ctr
9053	1606094.00595	717434.16111	0.00000	Calc Ctr
9054	1600821.59175	717501.38754	0.00000	Calc Ctr
9055	1595549.32057	717572.64624	0.00000	Calc Ctr

PLS	ADL		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION SURVEY DATA SHEET SWO 4699 (1) PROJECT NO. 24352(10) SHEET NO. S5
DRAWN	DCJ		
CHECKED	CEH		
APPROVED			
CREW			

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

DESCRIPTION	REVISIONS	DATE

CHECK LEVELS SWO 4699(1) J/P24352(10) SH-152 - WASHITA CO. BENCH MARK LIST NAVD-88 DATUM
FROM 6 MILES EAST OF BECKAM CO. LINE EAST TO SH-44

BM No.	Run 1	Run 2	Mean Diff.	Adj. Dif.	Adj. Elev.	Published	Description
BM 1 to	4.185	4.184	4.185		1875.627	1875.627	ODOT Monument in concrete stamped W-75-732 Source BM 225' Rt. Sta. 317+96
BM 2 to	-9.353	-9.356	-9.355		1879.812		3/4" rebar/MKEC disk 1' N of S R/W Fc 60.6' Rt. Sta. 324+94
BM 3 to	-2.181	-2.182	-2.182		1870.457		Sqr. Cut SE Cor S HDWL 38.2' Rt. Sta. 331+55
BM 4 to	-3.29	-3.289	-3.290		1868.276		Sqr. Cut centerline S HDWL 23.2' Rt. Sta. 339+88
BM 5 to	-16.147	-16.144	-16.146		1864.986		3/4" rebar/MKEC disk set at the NW cor of cattle guard 137' Lt. Sta. 343+67
BM 6 to	-2.061	-2.063	-2.062		1848.841		Sqr. Cut centerline S HDWL 29.7' Rt. Sta. 348+50
BM 7 to	-8.625	-8.623	-8.624		1846.779		Sqr. Cut SE Cor S HDWL 27.9' Rt. Sta. 355+90
BM 8 to	-9.9	-9.904	-9.902		1838.155		3/4" rebar/MKEC disk 1' N of S R/W Fc 58.9' Rt. Sta. 363+19
BM 9 to	1.861	1.864	1.863		1828.253		3/4" rebar/MKEC disk set in conc. 1.5' E of W R/W Fc 296.3' Rt. Sta. 370+06
BM 10 to	-2.197	-2.194	-2.196		1830.115		Sqr. Cut SW Cor S HDWL 27' Rt. Sta. 375+45
BM 11 to	-10.042	-10.044	-10.043		1827.920		Sqr. Cut SW Cor S HDWL 21.8' Rt. Sta. 382+33.3
BM 12					1817.877		See next page

1

CHECK LEVELS SWO 4699(1) J/P24352(10) SH-152 - WASHITA CO. BENCH MARK LIST NAVD-88 DATUM
FROM 6 MILES EAST OF BECKAM CO. LINE EAST TO SH-44

BM No.	Run 1	Run 2	Mean Diff.	Adj. Dif.	Adj. Elev.	Published	Description
BM 23 to	-3.54	-3.534	-3.537		1900.966		3/4" rebar/MKEC disk 1' N of S R/W Fc 61' Rt. Sta. 463+46
BM 24 to	-5.798	-5.786	-5.792		1897.429		3/4" rebar/MKEC disk 1' N of S R/W Fc 59' Rt. Sta. 471+86
BM 25 to	5.526	5.523	5.525		1891.632		"+" cut on S end of E HDWL +or- 400' N of N-S 2120 Rd., 398.4' Lt. Sta. 476+08.7
BM 26 to	-5.05	-5.049	-5.050		1897.156		3/4" rebar/MKEC disk 1' S of N R/W Fc 50' Lt. Sta. 482+94
BM 27 to	3.3	3.301	3.301		1892.107		3/4" rebar/MKEC disk 2' N of N face of PP 46' Rt. Sta. 489+78
BM 28 to	-12.893	-12.888	-12.891		1895.407		3/4" rebar/MKEC disk 0.5' E of N-S Fc 119' Lt. Sta. 497+08
BM 29 to	-3.37	-3.359	-3.365		1882.517		3/4" rebar/MKEC disk 2' N of N face of PP 47' Rt. Sta. 504+26.6
BM 30 to	-3.993	-3.992	-3.993		1879.147		3/4" rebar/MKEC disk 2' N of N face of PP 47' Rt. Sta. 511+03
BM 31 to	-5.441	-5.438	-5.440		1875.154		3/4" rebar/MKEC disk 2' N of N face of PP 46' Rt. Sta. 518+30
BM 32 to	-1.675	-1.676	-1.676		1869.715		3/4" rebar/MKEC disk North side SH-152 48.3' Lt. Sta. 523+68
BM 33 to	-5.345	-5.34	-5.343		1868.039		3/4" rebar/MKEC disk set in conc. 1.5' W of E R/W Fc 324.35' Lt. Sta. 529+00.3
BM 34					1862.697		See next page

3

CHECK LEVELS SWO 4699(1) J/P24352(10) SH-152 - WASHITA CO. BENCH MARK LIST NAVD-88 DATUM
FROM 6 MILES EAST OF BECKAM CO. LINE EAST TO SH-44

BM No.	Run 1	Run 2	Mean Diff.	Adj. Dif.	Adj. Elev.	Published	Description
BM 12 to	2.158	2.158	2.158		1817.877		3/4" rebar/MKEC disk 0.5' W of N-S Fc 27' N & 8'E of SE cor of garage, 146.7 Rt. Sta. 390+04.4
BM 13 to	3.721	3.714	3.718		1820.035		Sqr. Cut SE Cor S HDWL 25' Rt. Sta. 394+50.5
BM 14 to	11.846	11.852	11.849		1823.752		Top of R/W marker 75.4' Rt. Sta. 401+84.5
BM 15 to	5.084	5.084	5.084		1835.601		3/4" rebar/MKEC disk 0.5' N of S R/W Fc 59.5' Rt. Sta. 408+87
BM 16 to	13.366	13.36	13.363		1840.685		3/4" rebar/MKEC disk 1.5' N of S R/W Fc 58' Rt. Sta. 415+86
BM 17 to	6.41	6.402	6.406		1854.040	1854.040	ODOT Monument in concrete stamped W-75-733 Source BM 332.7' Rt. Sta. 422+96.4
BM 18 to	9.891	9.885	9.888		1860.441		3/4" rebar/MKEC disk 3' N of N face of PP 57' Rt. Sta. 428+92
BM 19 to	8.171	8.172	8.172		1870.329		3/4" rebar/MKEC disk 3' N of N face of PP 55.4' Rt. Sta. 436+77
BM 20 to	13.018	13.014	13.016		1878.501		3/4" rebar/MKEC disk 3' N of N face of PP 56' Rt. Sta. 443+19
BM 21 to	-4.237	-4.23	-4.234		1891.517		3/4" rebar/MKEC disk 1' W of N-S Fc 137.35' Lt. Sta. 449+62.3
BM 22 to	13.686	13.69	13.688		1887.278		3/4" rebar/MKEC disk 1' S of N R/W Fc 65' Lt. Sta. 456+68
BM 23					1900.966		See next page

2

CHECK LEVELS SWO 4699(1) J/P24352(10) SH-152 - WASHITA CO. BENCH MARK LIST NAVD-88 DATUM
FROM 6 MILES EAST OF BECKAM CO. LINE EAST TO SH-44

BM No.	Run 1	Run 2	Mean Diff.	Adj. Dif.	Adj. Elev.	Published	Description
BM 34 to	-4.102	-4.1	-4.101		1862.697		3/4" rebar/MKEC disk 1' S of N R/W Fc 50' Lt. Sta. 533+31
BM 35 to	-1.897	-1.889	-1.893		1858.596		Sqr. Cut SW Cor S HDWL 15.7' Rt. Sta. 538+26
BM 36 to	-4.265	-4.262	-4.264		1856.698		3/4" rebar/MKEC disk 0.5' W of N-S Fc 88' Lt. Sta. 545+03.4
BM 37 to	-4.437	-4.442	-4.440		1852.434		3/4" rebar/MKEC disk 1' S of N R/W Fc 43' Lt. Sta. 550+26.5
BM 38 to	0.586	0.583	0.585		1847.995		Sqr. Cut SW Cor S HDWL 16' Rt. Sta. 555+85
BM 39 to	-1.163	-1.161	-1.162		1848.579		3/4" rebar/MKEC disk 1' N of S R/W Fc 52' Rt. Sta. 561+87.5
BM 40 to	-3.478	-3.474	-3.476		1847.417		3/4" rebar/MKEC disk 1' N of S R/W Fc 52.7' Rt. Sta. 568+02
BM 41 to	-12.669	-12.66	-12.665		1843.941		3/4" rebar/MKEC disk 2' N of S R/W Fc 52.4' Rt. Sta. 574+14.5
BM 42					1831.268	1831.268	3" disk (ODOT monument W-75-731) Source BM stamped "Heartland Surveying SWO 4699.1 CA 4849" 79' Lt. Sta. 580+28.8

4

PLS	ADL		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION SURVEY DATA SHEET SWO 4699 (1) PROJECT NO. 24352(10) SHEET NO. 56
DRAWN	DCJ		
CHECKED	CEH		
APPROVED			
CREW			

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

GOV. LOT 4
31-10N-19W

Ricky P. & Meladie D. Strain
Bk 1271, Pg 234

EAST 1/2
SOUTHWEST 1/4
31-10N-19W

Donna K. Church
Bk 449, Pg 420

Station Comparison
P.I. Sta. 318+31.86 this survey
+P.I. Sta. 318+31.86 SWO 4698(1)
+P.I. Sta. 318+37.2 FAP 155 FGH&I
+P.I. Sta. 318+37.2 FAP 430(1)

Station Comparison
P.I. Sta. 319+94.53 this survey
+P.I. Sta. 319+94.53 SWO 4698(1)
+P.I. Sta. 320+62.9 FAP 155 FGH&I
+P.I. Sta. 320+00 FAP 430(1)

Bearing Comparison
S89°16'10"E along A001 this survey
+S89°16'12"E on SWO 4698(1)
+S89°58'E on FAP 155 FGH&I
+S89°58'E on FAP 430(1)

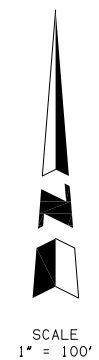
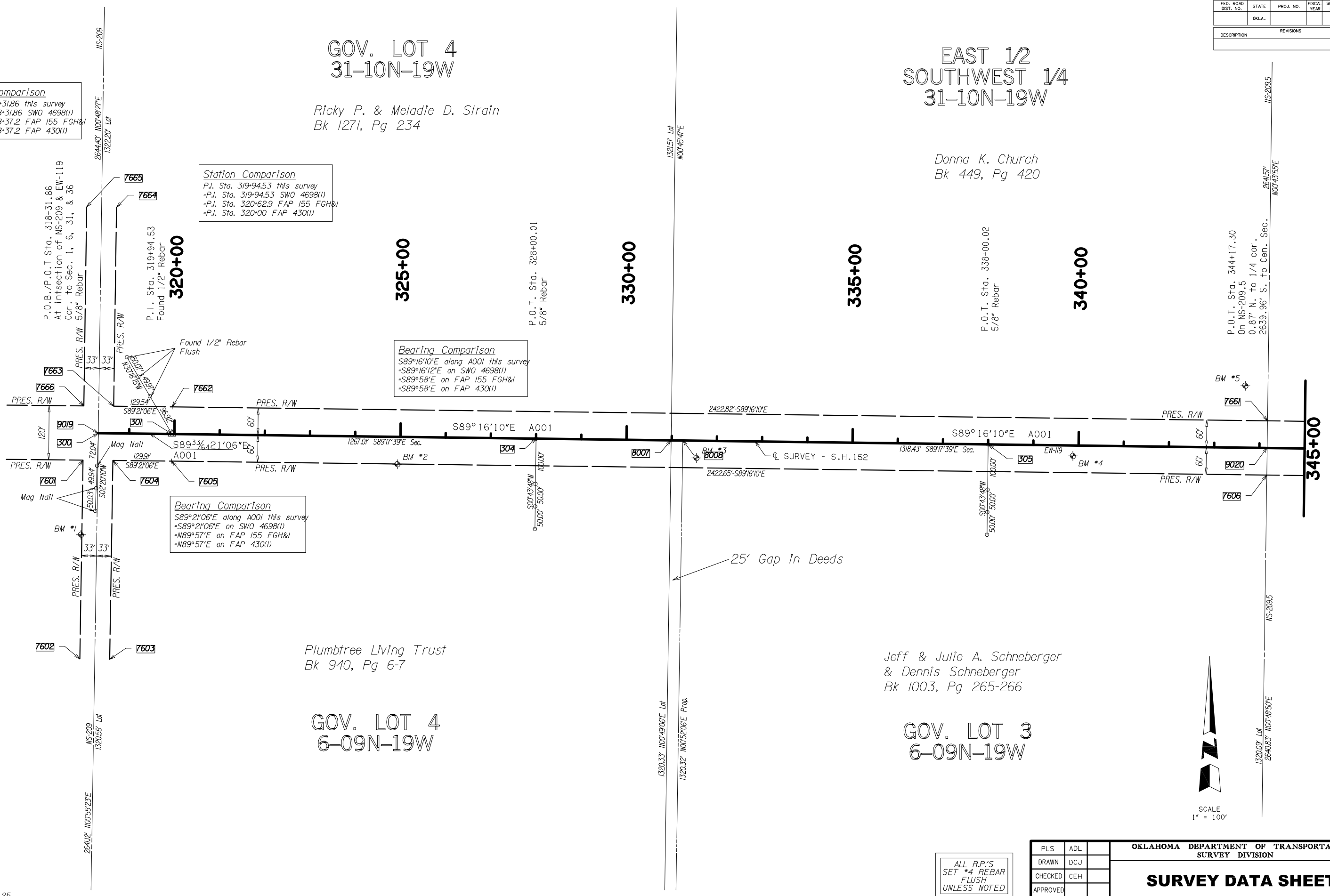
Bearing Comparison
S89°21'06"E along A001 this survey
+S89°21'06"E on SWO 4698(1)
+N89°57'E on FAP 155 FGH&I
+N89°57'E on FAP 430(1)

Plumbtree Living Trust
Bk 940, Pg 6-7

GOV. LOT 4
6-09N-19W

Jeff & Julie A. Schneberger
& Dennis Schneberger
Bk 1003, Pg 265-266

GOV. LOT 3
6-09N-19W



ALL R.P.'S
SET #4 REBAR
FLUSH
UNLESS NOTED

OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION			
PLS	ADL		
DRAWN	DCJ		
CHECKED	CEH		
APPROVED			
CREW			

SURVEY DATA SHEET

SWO 4699 (1) PROJECT NO. 24352(10) SHEET NO. 57



SCALE
1" = 100'

SOUTHEAST 1/4 31-10N-19W

1/3 interest Janice G Stanley
Bk 794, Pg 162
1/3 interest Brinda Sue Lewis
Bk 1187, Pg 857
1/3 interest Kathleen M. Wilson
Bk 1254, Pg 176

OKLAHOMA DEPARTMENT OF TRANSPORTATION

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

SOUTHWEST 1/4 32-10N-19W

Anthony Green Trust
Bk 1153, Pg 83-84

Station Comparison
 P.O.T. Sta. 370+54.16 this survey
 *P.O.T. Sta. 370+62.3 FAP 155 FGH&I
 *P.O.T. Sta. 370+62.3 FAP 430(I)

P.O.T. Sta. 348+00.04
5/8" Rebar

350+00

355+00

P.O.T. Sta. 358+00.06
5/8" Rebar

360+00

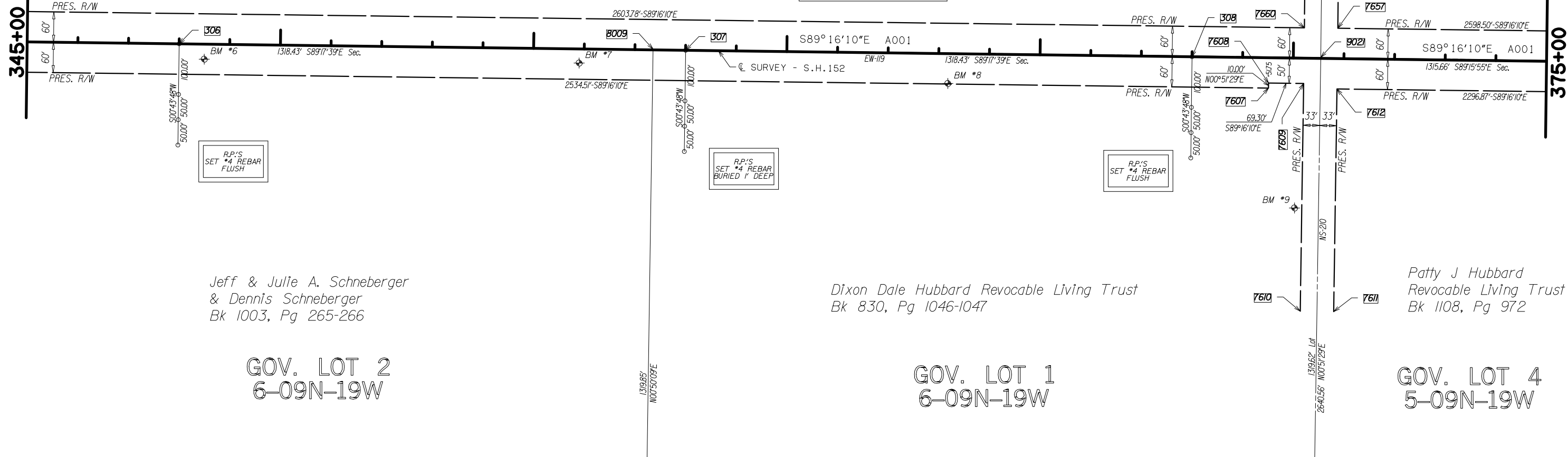
365+00

P.O.T. Sta. 368+00.07
5/8" Rebar

370+00

P.O.T. Sta. 370+54.16
On NS-210
2.00' N. to cor. of Sec. 5, 6, 31 & 32
2638.56' S. to 1/4 cor.

Bearing Comparison
 S89°16'10"E along A001 this survey
 -S89°58'E on FAP 155 FGH&I
 -S89°58'E on FAP 430(I)



Jeff & Julie A. Schneberger
& Dennis Schneberger
Bk 1003, Pg 265-266

GOV. LOT 2
6-09N-19W

Dixon Dale Hubbard Revocable Living Trust
Bk 830, Pg 1046-1047

GOV. LOT 1
6-09N-19W

Patty J Hubbard
Revocable Living Trust
Bk 1108, Pg 972

GOV. LOT 4
5-09N-19W

OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION	
PLS	ADL
DRAWN	DCJ
CHECKED	CEH
APPROVED	
CREW	

SURVEY DATA SHEET

SWO 4699 (1) PROJECT NO. 24352(10) SHEET NO. 58

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

SOUTHWEST 1/4
32-10N-19W

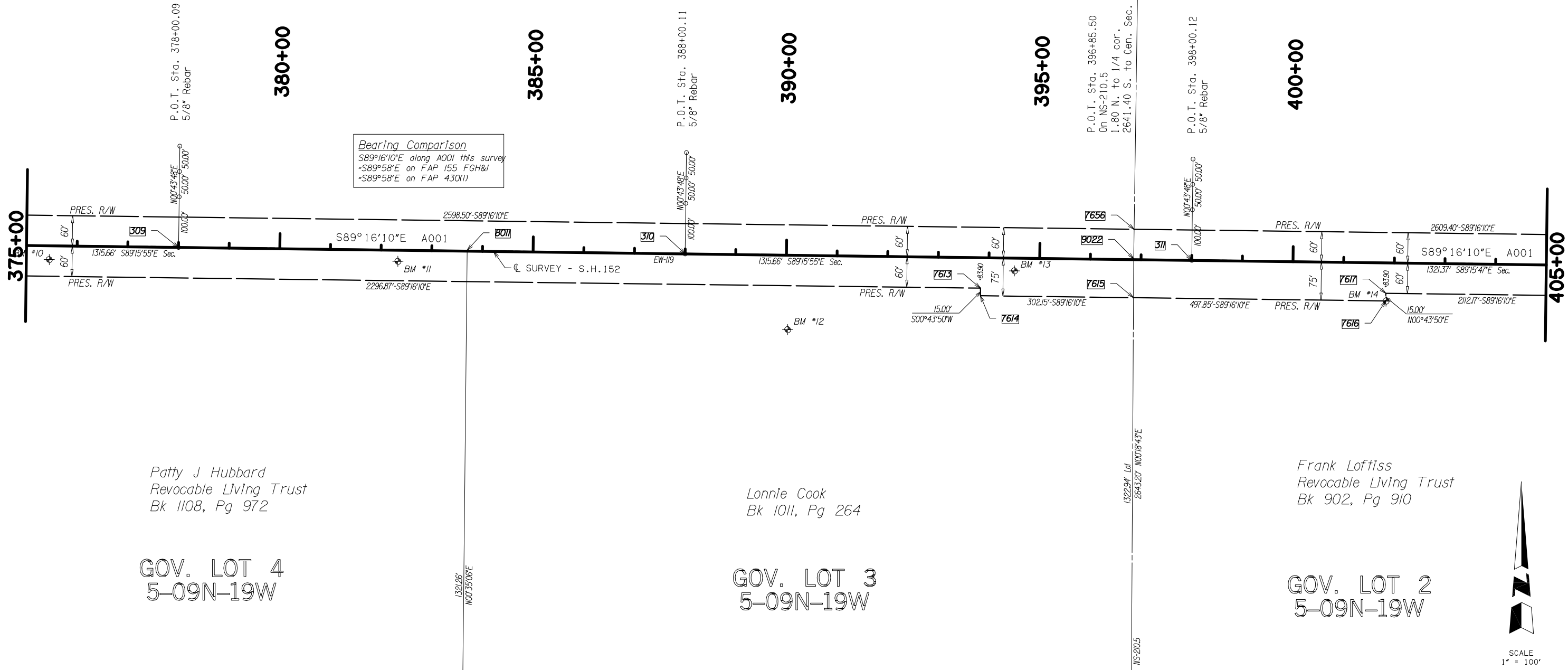
SOUTHEAST 1/4
32-10N-19W

Anthony Green Trust
Bk 1153, Pg 83-84

Anthony Green Trust
Bk 1153, Pg 83-84

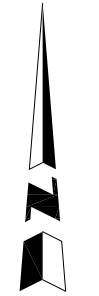
Station Comparison
 P.O.T. Sta. 396+85.50 this survey
 +P.O.T. Sta. 397+01.6 FAP 155 FGH&I
 +P.O.T. Sta. 396+95 FAP 430(I)

Bearing Comparison
 S89°16'10"E along A001 this survey
 -S89°58'E on FAP 155 FGH&I
 -S89°58'E on FAP 430(I)



ALL R.P.'S
SET #4 REBAR
FLUSH
UNLESS NOTED

OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION			
PLS	ADL		
DRAWN	DCJ		
CHECKED	CEH		
APPROVED			
CREW			
			SURVEY DATA SHEET
			SWO 4699 (1) PROJECT NO. 24352(10) SHEET NO. 59



SCALE
1" = 100'

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

SOUTHEAST 1/4
32-10N-19W

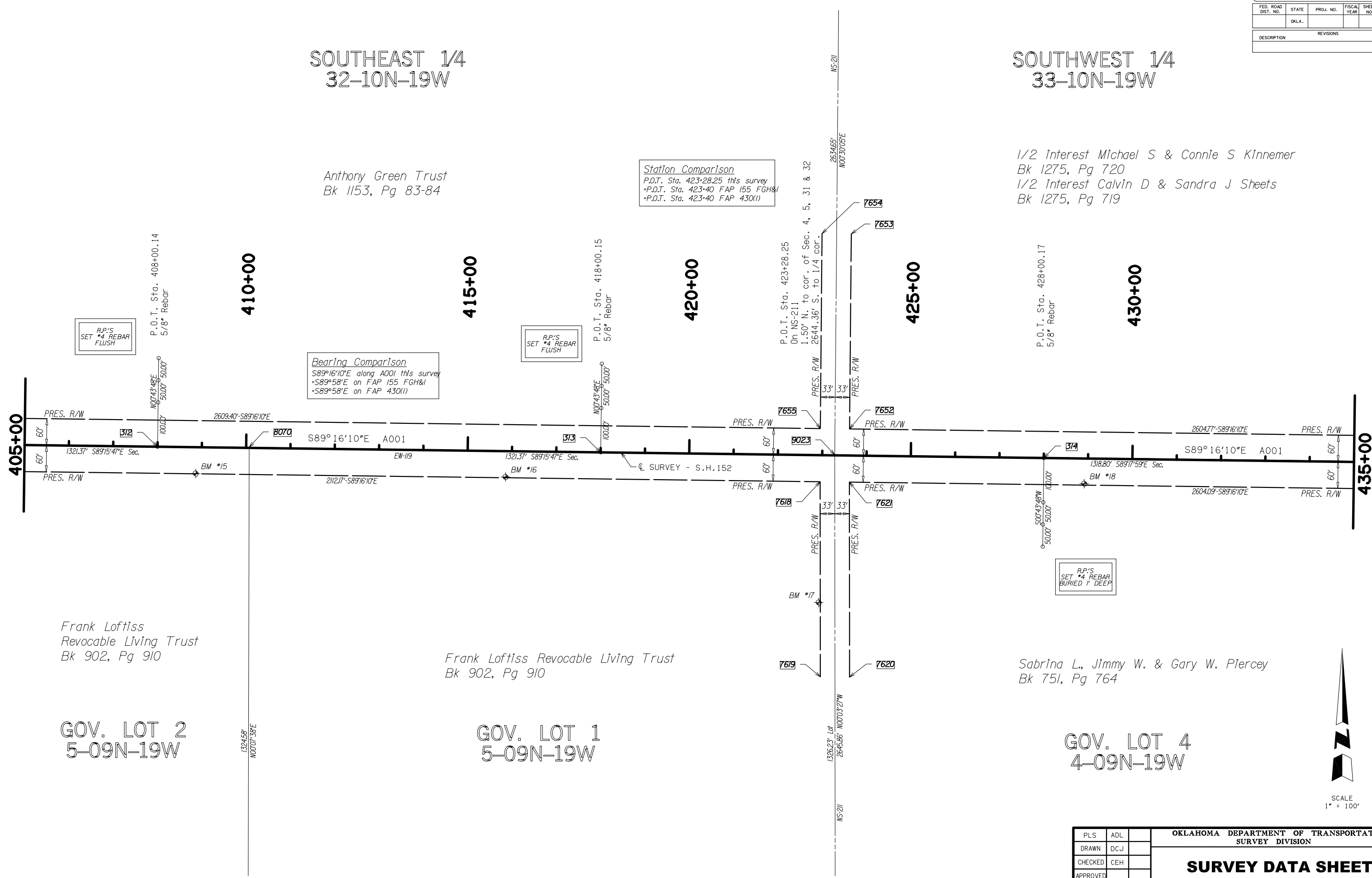
SOUTHWEST 1/4
33-10N-19W

Anthony Green Trust
Bk 1153, Pg 83-84

1/2 Interest Michael S & Connie S Kinnemer
Bk 1275, Pg 720
1/2 Interest Calvin D & Sandra J Sheets
Bk 1275, Pg 719

Station Comparison
P.O.T. Sta. 423+28.25 this survey
+P.O.T. Sta. 423+40 FAP 155 FGH&I
+P.O.T. Sta. 423+40 FAP 430(I)

Bearing Comparison
S89°16'10"E along A001 this survey
-S89°58'E on FAP 155 FGH&I
+S89°58'E on FAP 430(I)



Frank Loftiss
Revocable Living Trust
Bk 902, Pg 910

Frank Loftiss Revocable Living Trust
Bk 902, Pg 910

Sabrina L., Jimmy W. & Gary W. Piercey
Bk 751, Pg 764

GOV. LOT 2
5-09N-19W

GOV. LOT 1
5-09N-19W

GOV. LOT 4
4-09N-19W

OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION			
PLS	ADL		
DRAWN	DCJ		
CHECKED	CEH		
APPROVED			
CREW			
			SURVEY DATA SHEET
			SWO_4699_(1) PROJECT NO._24352(10) SHEET NO._S10

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

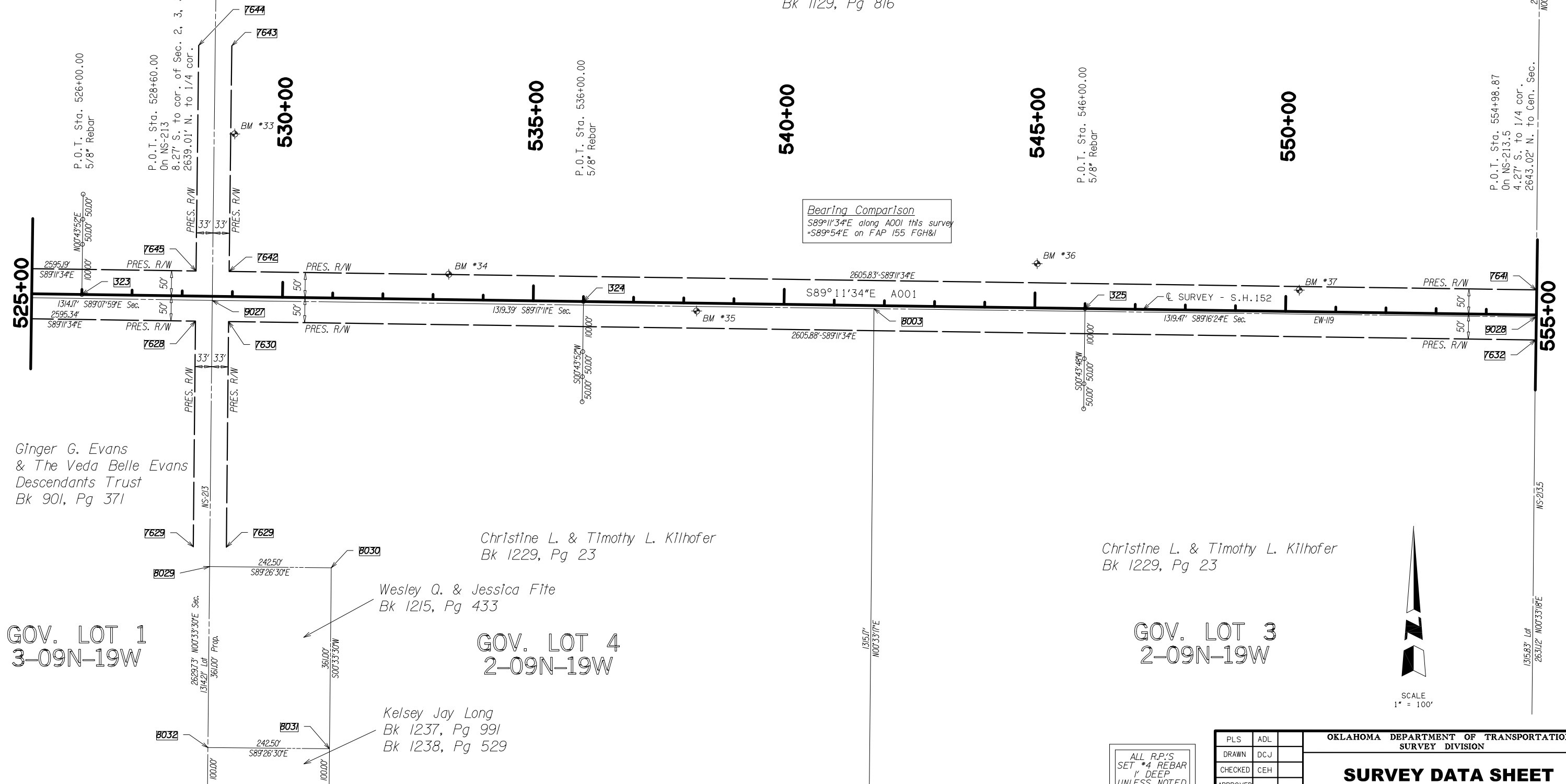
SOUTH 1/2
SOUTHEAST 1/4
34-10N-19W

Bernard & Donna Kilhoffer
Bk 816, Pg 95I

Station Comparison
P.O.T. Sta. 528+60.00 this survey
+P.O.T. Sta. 528+76.0 FAP 155 FGH&I

SOUTHWEST 1/4
35-10N-19W

Jimmy F. & Sandry L. Piercey Revocable
Living Trust
Bk 1129, Pg 816



Bearing Comparison
S89°11'34\"/>

Ginger G. Evans
& The Veda Belle Evans
Descendants Trust
Bk 901, Pg 37I

Christine L. & Timothy L. Kilhofer
Bk 1229, Pg 23

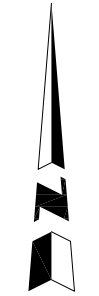
Christine L. & Timothy L. Kilhofer
Bk 1229, Pg 23

Wesley Q. & Jessica Fite
Bk 1215, Pg 433

GOV. LOT 4
2-09N-19W

Kelsey Jay Long
Bk 1237, Pg 99I
Bk 1238, Pg 529

GOV. LOT 3
2-09N-19W



SCALE
1" = 100'

ALL R.P.'S
SET #4 REBAR
& DEEP
UNLESS NOTED

OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION			
PLS	ADL		
DRAWN	DCJ		
CHECKED	CEH		
APPROVED			
CREW			

SURVEY DATA SHEET

SWO 4699 (1) PROJECT NO. 24352(10) SHEET NO. S14



SCALE
1" = 100'

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

SOUTH 1/2 SOUTHEAST 1/4 35-10N-19W

Kennemer, Michael S. & Connie S., H/W
Bk 825, Pg 1003-1004

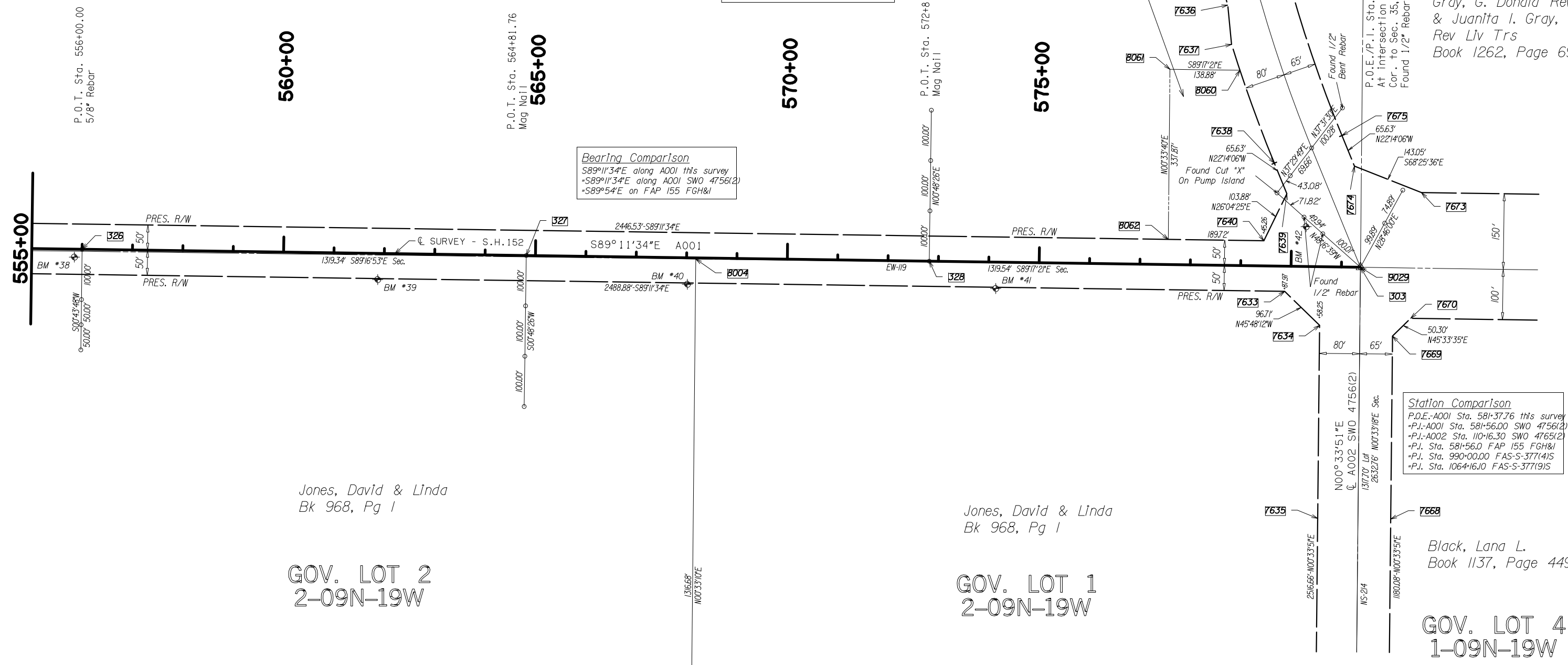
SOUTHWEST 1/4 36-10N-19W

Station Comparison
 P.O.T. Sta. 564+81.76 this survey
 +P.O.T. Sta. 565+00.00 SWO 4756(2)

Station Comparison
 P.O.T.-A001 Sta. 572+81.76 this survey
 +P.O.T.-A001 Sta. 573+00.00 SWO 4756(2)

Bearing Comparison
 S89°11'34"E along A001 this survey
 =S89°11'34"E along A001 SWO 4756(2)
 =S89°54"E on FAP 155 FGH&I

Station Comparison
 P.O.E.-A001 Sta. 581+37.76 this survey
 +P.J.-A001 Sta. 581+56.00 SWO 4756(2)
 +P.J.-A002 Sta. 110+16.30 SWO 4765(2)
 +P.J. Sta. 581+56.00 FAP 155 FGH&I
 +P.J. Sta. 990+00.00 FAS-S-377(4)S
 +P.J. Sta. 1064+16.10 FAS-S-377(9)S



P.O.T. Sta. 556+00.00
5/8" Rebar

560+00

P.O.T. Sta. 564+81.76
Mag Nail
565+00

570+00

575+00

580+00

David A. Watson
Bk 1195, Pg 222

Hinds, Imogene (Deceased)
Book 434, Page 322

P.O.E./P.L. Sta. 581+37.76
AT intersection of NS-214 & EW-119
Cor. to Sec. 35, 36, 1 & 2
Found 1/2" Rebar

Gray, G. Donald Rev Trs
& Juanita I. Gray,
Rev Liv Trs
Book 1262, Page 696

Jones, David & Linda
Bk 968, Pg 1

GOV. LOT 2
2-09N-19W

Jones, David & Linda
Bk 968, Pg 1

GOV. LOT 1
2-09N-19W

Black, Lana L.
Book 1137, Page 449

GOV. LOT 4
1-09N-19W

ALL R.P.'S
SET #4 REBAR
FLUSH
UNLESS NOTED

OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION			
PLS	ADL		
DRAWN	DCJ		
CHECKED	CEH		
APPROVED			
CREW			

SURVEY DATA SHEET

SWO 4699 (1) PROJECT NO. 24352(10) SHEET NO. 515

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

DESCRIPTION	REVISIONS	DATE

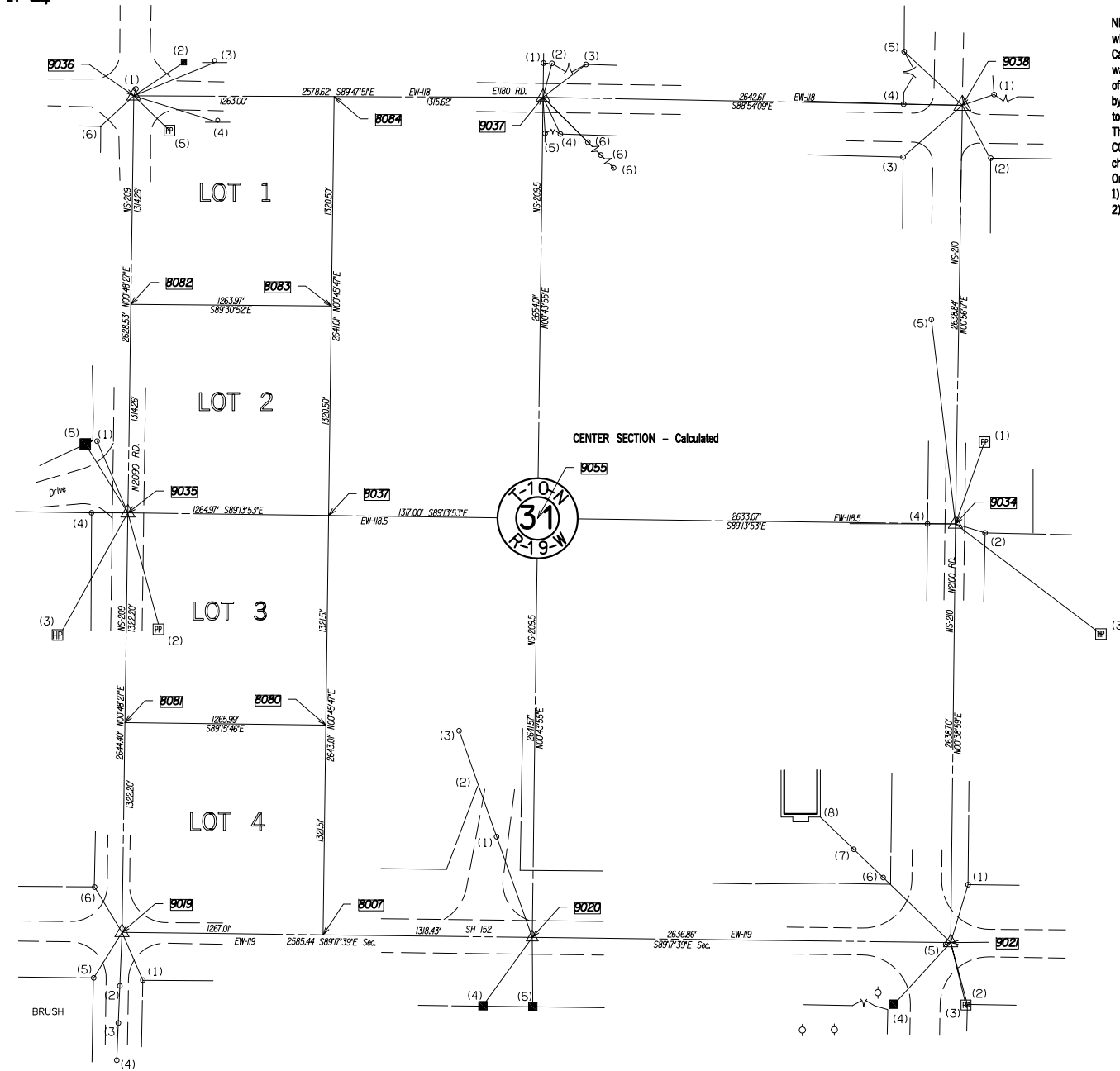
REFERENCE MEASUREMENTS:

NW/COR. SEC. 31	Distance		Bearing	
	Feet	Meters	True	Magnetic
Description			NAD 83 Grid	
1. 1/2" Rebar 3" deep found	6.90'		N16°53'E	
2. 60D nail w/MKEC washer in the NW face of Telephone marker post	57.05'		N56°13'E	
3. Face pipe line marker	82.64'		N67°39'E	
4. Face pipe line marker	83.16'		S72°34'E	
5. 60D nail w/MKEC washer in N face of PP	47.06'		S45°48'E	
6. 60D nail in top corner of fence post	42.56'		S47°21'W	
NORTH 1/4 COR. SEC. 31				
Description				
1. Face 2" steel corner fence post	32.28'		N00°50'E	
2. Face 2" steel gate post	33.12'		N14°51'E	
3. Face 2" steel gate post	51.11'		N52°41'E	
4. Face 2" steel gate post	38.37'		S25°20'E	
5. Face 2" steel gate post	34.11'		S03°21'E	
6. 1/2" Rebar's set	60.00', 110.00' & 160.00'		S45°E	
NE/COR. SEC. 31				
Description				
1. Face 10" steel corner/gate post	26.46'		N71°16'E	
2. 60D Nail w/MKEC washer in W face corner fence post	64.98'		S21°50'E	
3. Face 2" steel corner fence post	80.54'		S36°31'W	
4. Face 2" steel corner fence post	41.20'		N88°44'W	
5. Face gate fence post	58.71'		N43°57'W	
EAST 1/4 COR. SEC. 31				
Description				
1. 60D Nail in S face of PP	82.10'		N19°37'E	
2. Face 2" steel corner fence post	29.26'		S73°05'E	
3. 60D Nail w/MKEC washer in the N face of North High Line Pole	172.46'		N52°53'W	
4. Face 2" steel corner fence post	26.38'		N89°52'W	
5. 5/8" rebar w/MKEC Control Point ID cap	194.55'		N06°43'W	
CENTER SEC. 31				
Description				
1. Calculated.				
WEST 1/4 COR. SEC. 31				
Description				
1. 5/8" rebar w/ MKEC Control Point id cap	73.78'		N23°16'W	
2. 60D Nail w/MKEC washer in W face of PP	111.46'		S14°58'E	
3. 60D Nail w/MKEC washer in E face of North HLP	129.95'		S29°33'W	
4. PKN in top of corner fence post	34.35'		N89°57'W	
5. PKN in top of fence post	76.55'		N31°44'W	
SW/COR. SEC. 31				
Description				
1. Face 3" steel corner fence post	69.99'		S23°33'E	
2. Mag Nail in road Surface	72.04'		S02°20'W	
3. Mag Nail in road Surface	121.98'		S02°20'W	
4. Mag Nail in road Surface	172.01'		S02°20'W	
5. 60D Nail w/MKEC washer in E face Corner fence post	72.09'		S31°51'W	
6. Face 3" Steel Corner fence Post	71.09'		N31°11'W	
SOUTH 1/4 COR. SEC. 31				
Description				
1. 1/2" rebar w/MKEC id cap set flush	95.05'		N19°30'W	
2. 1/2" rebar w/2" Control pin id cap	145.05'		N19°30'W	
3. 1/2" rebar w/MKEC id cap set flush	195.05'		N19°30'W	
4. Face 4" steel fence post	74.99'		S34°48'W	
5. Face 4" steel fence post	61.54'		S01°10'W	
SE/COR. SEC. 31				
Description				
1. Face of 2" steel corner fence post	60.96'		N16°41'E	
2. Face of 6" steel corner fence post	64.58'		S15°09'E	
3. 60D Nail in NW face of PP	64.86'		S13°43'E	
4. NE corner of Pump House	72.71'		S37°18'W	
5. 60D Nail found 6" deep	5.25'		S69°44'W	
6. 1/2" rebar set flush	85.60'		N37°50'W	
7. 1/2" rebar set flush	135.60'		N37°50'W	
8. SE corner of building1	85.61'		N37°50'W	

NW SECTION CORNER - Found and accepted a 1/2" rebar 2 1/2" deep and confirmed using Gregory Gunning and Gary Rhoads' CCR's. I did find but did not accept a 1/2" rebar which bears N16d5304'E from the accepted bar.
Original and Subsequent Monuments:
 1) GLO sandstone 15x11x15.
 2) CCR by Gregory Gunning (3/2005) - Found #4 rebar 24" deep and a second #4 rebar 6.65' north and 1.78' east.
 3) CCR by Gary Rhoads (8/2012) found #4 rebar 24" deep and a second #4 rebar 6.85' NNE.

N 1/4 CORNER - Set 5/8"x3/8" rebar with MKEC CA 2958 cap 6" deep. I searched with a metal detector and excavated for the stone but found nothing. There is an old fence south with a new fence about 2.5 feet east of it in section 31 and a newer fence to the north in section 30. I talked to Paul Kamphaus who owns the northwest 1/4 of section 31. He said the old fence has been there for over 70 years. He said Mr. Jones the owner of the northwest 1/4 wanted to build a new fence and talked to him about moving it 3' or 4' east to make it easier to construct. I set my monument in line with the old fence to the south which also lines up with the fence to the north and is 5.63' west of the proportioned location. For the North-South location I split the RW fences using existing evidence rather than on line.
Original and Subsequent Monuments:
 1) GLO Set sandstone 14x14x3.

W 1/4 CORNER - I found and accepted a 1/2" rebar with ODOT PLS 1102 cap 1" deep and confirmed using Gary Rhoads CCR.
Original and Subsequent Monuments:
 1) GLO Set sandstone 15x10x5.
 2) CCR by Gary Rhoads (8/2012) - Set #4 rebar with cap (Rhoads' license number is 1102).

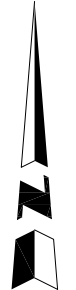


NE SECTION CORNER - Found and accepted a 1/2" rebar with GD Rayner RLS 1222 cap 24" deep. None of Craig Carsaller's ties still exist. I tried to contact Mr. Carsallen but was unsuccessful. From this monument to the northeast corner of section 32 I found the north 1/4 corner of section 32 set by Craig Carsallen on line and half distance which lead me to believe this is the same location he had set his corner. The Corner is on the Northside of the road as shown on his CCR as well. The GLO measurements in all 4 directions check reasonably well.
Original and Subsequent Monuments:
 1) GLO Set sandstone 18x16x3.
 2) CCR by Craig Carsallen (8/1992)- Set #4 rebar with LS 447 cap.

E 1/4 CORNER - I found and accepted railroad spike 1" deep and confirmed using Brian Oakley's CCR.
Original and Subsequent Monuments:
 1) GLO Sandstone 16x14x3.
 2) CCR by Brian Oakley (4/2013) - Found railroad spike.

S 1/4 CORNER - Set a 5/8" Rebar with MKEC CA 2958 cap at the proportioned location and 0.87' north of centerline. SWO 1549(1) Alignment Book No. 2 & F-430(1) Part 1 & Part 2 plans for S.H. 152 have this corner on line at half distances between section corners. This is a closing section and should have proportioned to the GLO measurements. After searching at the plan location, the proportioned location and in line with the fence north and finding nothing I set it at the proportioned location. This is about 11' east of the fence North, the 1/16th corner west is about 11' west of the fence south and the 1/16th corner east is about 8' east of the fence south.
Original and Subsequent Monuments:
 1) GLO Set sandstone 14x10x4.
 2) SWO 1549(1) Survey Alignment Book No. 2 and FAP No. F-430(1) Part 1 & Part 2 plans for S.H. 152 state that the corner is 1' north of centerline but don't call out monument type.

SE SECTION CORNER - I set a 5/8" rebar with MKEC 2958 cap at prorated stationing and 2' north of centerline per SWO 1549(1) Survey and FAP 430 plans for S.H. 152.
Original and Subsequent Monuments:
 1) GLO set sandstone 18x10x5.
 2) SWO 1549(1) Survey Alignment Book No.2 & FAP No. F-430(1) Part 1 & Part 2 plans for S.H. 152 state that the corner is 2' north of centerline but don't call out type of monument.



SCALE: 1" = 500'

NOTE: REFERENCES SHOWN ARE NOT TO SCALE.

PLS	ADL		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION SURVEY DATA SHEET SWO 4699 (1) PROJECT NO. 24352(10) SHEET NO. 16
DRAWN	DCJ		
CHECKED	CEH		
APPROVED			
CREW			

REFERENCE MEASUREMENTS:

Description	Distance		Bearing	
	Feet	Meters	True	Magnetic
NW COR. SEC. 32				
Description				
1. Face 10" steel corner/gate post	26.46'		NAD 83 Grid	N71°16'E
2. 60D Nail w/ MKEC washer in W face corner Fence post	64.98'			S21°50'E
3. Face 2" steel corner fence post	80.54'			S36°31'W
4. Face 2" steel corner fence post	41.20'			N88°44'W
5. Face gate fence post	58.71'			N43°57'W
NORTH 1/4 COR. SEC. 32				
Description				
1. Top of 1" bar 24" long top is 6" below surface & leaning	7.1'			N27°53'W
2. Face of East 4" steel gate post	39.27'			S53°00'E
3. Face 4" steel gate post	28.25'			S33°28'E
4. Face 4" steel gate post	40.65'			S01°22'W
5. Face 4" steel gate post	29.39'			S39°43'W
6. Face of West 4" steel brace post	41.27'			S57°01'W
7. Face 2" steel gate post	24.54'			S00°51'W
NE COR. SEC. 32				
Description				
1. 1/2" Rebar w/Gunning id cap 6" deep found	32.94'			N00°29'E
2. 1/2" Rebar w/Gunning id cap 14" deep found	46.69'			N45°32'E
3. 1/2" Rebar w/Gunning id cap 10" deep found	33.02'			S89°24'E
4. Face of 2" steel corner fence post	36.62'			S50°19'E
5. Face of 2" steel corner fence post	42.86'			S57°29'W
6. 1/2" Rebar found 4" deep	5.93'			S81°28'W
7. Face of corner fence post	71.36'			N61°18'W
8. Face of corner fence post	70.19'			N30°07'W
EAST 1/4 COR. SEC. 32				
Description				
1. Face of 2" steel gate/corner fence post	33.03'			N87°27'E
2. Face of 2" steel gate fence post	37.45'			S66°32'E
3. Face of 2" steel brace post	46.65'			S46°52'E
4. 60D Nail w/MKEC washer in E face of North High line Pole	107.26'			S30°53'W
5. Face of 2" steel corner fence post	32.79'			N90°00'W
6. 1/2" rebar w/Oakley LS 1616 id cap	32.98'			N88°51'W
CENTER SEC. 32				
Description				
1. Calculated.				
WEST 1/4 COR. SEC. 32				
Description				
1. 60D Nail in S face of PP	82.10'			N19°37'E
2. Face 2" steel corner fence post	29.26'			S73°05'E
3. 60D Nail w/MKEC washer in the N face of North High Line Pole	172.46'			N52°53'W
4. Face 2" steel corner fence post	26.37'			N89°52'W
5. 5/8" rebar w/MKEC Control Point ID cap	194.55'			N06°43'W
SW COR. SEC. 32				
Description				
1. Face of 2" steel corner fence post	60.96'			N16°41'E
2. Face of 6" steel corner fence post	64.58'			S15°09'E
3. 60D Nail in NW face of PP	64.86'			S13°43'E
4. NE corner of Pump House	72.71'			S37°18'W
5. 60D Nail found 6" deep	5.25'			S69°44'W
6. 1/2" rebar set flush	85.60'			N37°50'W
7. 1/2" rebar set flush	135.60'			N37°50'W
8. SE corner of building	185.61'			N37°50'W
SOUTH 1/4 COR. SEC. 32				
Description				
1. 1/2" rebar w/MKEC id cap set flush	150.01'			N00°44'E
2. 1/2" rebar w/MKEC id cap set flush	100.01'			N00°44'E
3. 1/2" rebar w/MKEC id cap set flush	200.01'			N00°44'E
4. 60D Nail in N face of PP	106.13'			N53°41'E
5. 60D Nail w/MKEC washer in N face of fence post	77.21'			S00°46'E
SE COR. SEC. 32				
Description				
1. 60D nail in S face of PP	61.41'			N20°09'E
2. 60D nail in NW face of PP	64.62'			S19°32'E
3. Face of 3" steel corner fence post	76.00'			S34°55'W
4. 60D nail in N face of PP	104.48'			S53°55'W
5. 1/2" rebar found	99.89'			N36°45'W
6. 1/2" rebar found	139.84'			N36°45'W
7. Near face of 3" corner fence post	74.48'			N35°14'W

NW SECTION CORNER - Found and accepted a 1/2" rebar with GD Rayner RLS 1222 cap 24" deep. None of Craig Carsallen's ties still exist. I tried to contact Mr. Carsallen but was unsuccessful. From this monument to the northeast corner of section 32 I found the north 1/4 corner of section 32 set by Craig Carsallen on line and half distance which lead me to believe this is the same location he had set his corner. The Corner is on the Northside of the road as shown on his CCR as well. The GLO measurements in all 4 directions check reasonably well.
Original and Subsequent Monuments:
1) GLO Set sandstone 18x16x3.
2) CCR by Craig Carsallen (8/1992) - Set #4 rebar with LS 447 cap.

N 1/4 CORNER - I found and accepted a 1/2" rebar set by Mr. Carsallen with LS 477 id cap 12" deep. All of Mr. Carsallen's ties have been destroyed. I tried to contact him but was unsuccessful. I found the 1" bar used by Mr. Oakley about 6" below the road surface & it bears N27d53'25"W, 7.1' from Carsallen's and is leaning at a 45d angle. I called Mr. Oakley to discuss this and he said he did not find Carsallen's monument & did not remember the other one leaning. The Carsallen bar appears to have been set on line at half distance between the two section corners. The Carsallen bar fits the north-south fence better but the Oakley bar fits the road and RW fences better.
Original and Subsequent Monuments:
1) GLO set sandstone 16x14x3.
2) CCR by Craig Carsallen (8/1982) - Set #4 rebar with LS 477 cap.
3) CCR by Brian J. Oakley (4/2013) - Found 1" iron pin.

NE SECTION CORNER - I found and accepted a 1/2" rebar 1" deep and confirmed using Francis Gunning's CCR. All of Craig Carsallen's ties have been destroyed but I believe Gunning and Carsallen used the same corner. I also found 1/2" rebar bearing S81d27'50"W, 5.93' used by Brian Oakley for a survey on the southeast 1/4 of section 29.
Original and Subsequent Monuments:
1) GLO set sandstone 18x12x4.
2) CCR by Craig Carsallen (8/1982) - Set #4 rebar with LS 477 cap.
3) CCR by Francis Gunning (12/2000) - Found #4 rebar with LS 477 cap.

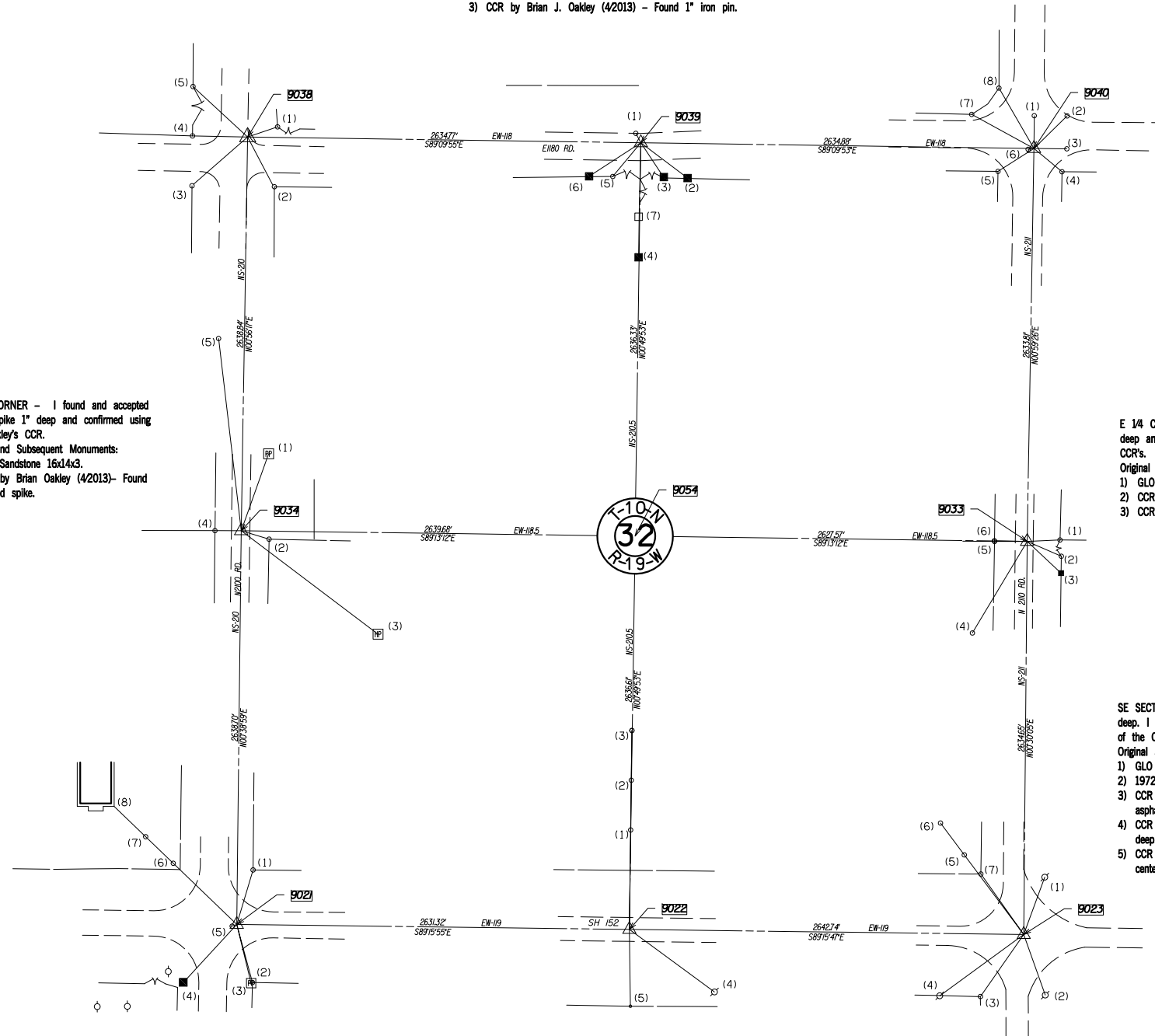
W 1/4 CORNER - I found and accepted railroad spike 1" deep and confirmed using Brian Oakley's CCR.
Original and Subsequent Monuments:
1) GLO Sandstone 16x14x3.
2) CCR by Brian Oakley (4/2013) - Found railroad spike.

E 1/4 CORNER - I found and accepted a railroad spike 6" deep and confirmed using both Brian Oakley and Thomas Howell's CCR's.
Original and Subsequent Monuments:
1) GLO set sandstone 16x10x5.
2) CCR by Brian Oakley (4/2013) - Found railroad spike.
3) CCR by Thomas Howell (5/2013) - Found railroad spike.

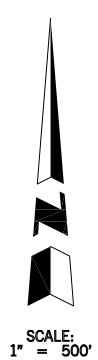
SE SECTION CORNER - I found and accepted 1/2" rebar 6" deep. I confirmed with 2 of the ODOT ties from 1972 and all 3 of the CCR's.
Original and Subsequent Monuments:
1) GLO set sandstone 12x12x6
2) 1972 ODOT SWO Survey set 1/2" rebar.
3) CCR by Roger Jividen (7/1982) - Found 1/2" iron pin in asphalt.
4) CCR by Gregory Gunning (2/2000) - Found No.4 rebar 6" deep.
5) CCR by Randy Mosely (5/2007) - Found mag nail on centerline Highway 152.

SW SECTION CORNER - I set a 5/8" rebar with MKEC 2958 cap at prorated stationing and 2' north of centerline per SWO 1549(1) Survey and FAP 430 plans for S.H. 152.
Original and Subsequent Monuments:
1) GLO set sandstone 18x10x5.
2) SWO 1549(1) Survey Alignment Book No. 2 & FAP No. F-430(1) Part 1 & Part 2 plans for S.H. 152 state that the corner is 2' north of centerline but don't call out type of monument.

S 1/4 CORNER - I set a 5/8" rebar with MKEC CA 2958 cap at a prorated stationing and 1.8' north of the centerline per SWO 1549(1) Survey and FAP 430(1) plans for SH 152. There is a 6.6' discrepancy between the RW deeds for FAP 430(1) & FAP 155 plans.
Original and Subsequent Monuments:
1) GLO set sandstone 18x10x3.
2) SWO 1549(1) Survey Alignment Book No. 2 & FAP No. F-430(1) Part 1 & Part 2 plans for S.H. 152 state that the corner is 1.8' north of centerline but don't call out the type of monument.



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



NOTE: REFERENCES SHOWN ARE NOT TO SCALE.

OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION		
PLS	ADL	
DRAWN	DCJ	
CHECKED	CEH	
APPROVED		
CREW		

SURVEY DATA SHEET

REFERENCE MEASUREMENTS:

NW/COR. SEC. 33	Distance		Bearing	
	Feet	Meters	True	Magnetic
Description			NAD 83 Grid	
1. 1/2" Rebar w/Gunning id cap 6" deep found	32.94'		N00°29'E	
2. 1/2" Rebar w/Gunning id cap 14" deep found	46.69'		N45°32'E	
3. 1/2" Rebar w/Gunning id cap 10" deep found	33.02'		S89°24'E	
4. Face of 2" steel corner fence post	36.62'		S50°19'E	
5. Face of 2" steel corner fence post	42.86'		S57°29'W	
6. 1/2" Rebar found 4" deep	5.93'		S81°28'W	
7. Face of corner fence post	71.36'		N61°18'W	
8. Face of corner fence post	70.19'		N30°07'W	
NORTH 1/4 COR. SEC. 33				
Description				
1. 1/2" Rebar w/Gunning id cap 4" deep found	40.02'		N00°37'E	
2. 1/2" Rebar w/MKEC id cap	79.93'		N00°37'E	
3. 1/2" Rebar w/MKEC id cap	119.92'		N00°37'E	
4. 60D Nail w/MKEC washer in T-Post	30.84'		S62°25'E	
5. 60D Nail w/MKEC washer in T-Post	14.54'		S16°15'E	
6. 60D Nail w/MKEC washer in T-Post	24.46'		S56°28'W	
NE/COR. SEC. 33				
Description				
1. 60D Nail in East Face of PP	51.92'		N43°00'W	
2. 60D Nail w/MKEC washer in West face of PP	48.13'		N43°53'E	
3. Face of 2" steel corner fence post	57.33'		N51°59'E	
4. Face of 2" steel corner fence post	44.83'		S49°04'E	
5. 60D Nail w/MKEC washer in West Face of PP	44.10'		S46°35'E	
6. Face of 2" steel gate/corner fence post	44.95'		S51°20'W	
7. 60D Nail in West face of old Guy pole	44.10'		S46°34'E	
EAST 1/4 COR. SEC. 33				
Description				
1. Face of "U" post, 2' tall	34.37'		N84°43'E	
2. 5/8" Rebar w/MKEC Control Point id cap	304.99'		S04°31'W	
3. 60D Nail w/MKEC washer in W face of PP	69.85'		S36°05'W	
4. Face of Southeast Chain link fence corner around Sub station	121.41'		S45°33'W	
5. 60D Nail w/MKEC washer in N face of PP	41.65'		S85°01'W	
6. 3/8" Rebar w/CA 1299 id cap	33.12'		N89°10'W	
7. Face of 3" steel corner fence post	33.12'		N88°17'W	
CENTER SEC. 35				
Description				
1. Calculated.				
WEST 1/4 COR. SEC. 33				
Description				
1. Face of 2" steel gate/corner fence post	33.03'		N87°27'E	
2. Face of 2" steel gate fence post	37.45'		S66°32'E	
3. Face of 2" steel brace post	46.65'		S46°52'E	
4. 60D Nail w/MKEC washer in E face of North High line Pole	107.26'		S30°53'W	
5. Face of 2" steel corner fence post	32.79'		N90°00'W	
6. 1/2" rebar w/Oakley LS 1616 id cap	32.98'		N88°51'W	
SW/COR. SEC. 33				
Description				
1. 60D nail in S face of PP	61.41'		N20°09'E	
2. 60D nail in NW face of PP	64.62'		S19°32'E	
3. Face of 3" steel corner fence post	76.00'		S34°55'W	
4. 60D nail in N face of PP	104.48'		S53°55'W	
5. 1/2" rebar found	99.89'		N36°45'W	
6. 1/2" rebar found	139.84'		N36°45'W	
7. Near face of 3" corner fence post	74.48'		N35°14'W	
SOUTH 1/4 COR. SEC. 33				
Description				
1. Near face of 2" steel corner fence post	61.54'		N02°11'E	
2. Near face of 2" steel corner fence post	65.51'		S06°03'W	
3. 60D Nail N face of PP	63.85'		S14°35'W	
4. 3/4" Rebar w/2" MKEC Control Point id cap set	134.51'		N00°45'W	
5. 1/2" Rebar's w/MKEC id cap set	184.51' & 234.51'		N00°45'W	
SE/COR. SEC. 33				
Description				
1. Near face at base of corner fence post	56.57'		N27°19'E	
2. 60D nail in top of corner fence post	45.27'		S19°31'E	
3. 60D nail in N face of PP	72.44'		S39°37'W	
4. 1/2" Rebar found	99.99'		S45°44'W	
5. 1/2" Rebar found	149.96'		S45°44'W	
6. 1/2" Rebar found	199.95'		S45°44'W	

NW SECTION CORNER - I found and accepted a 1/2" rebar 1" deep and confirmed using Francis Gunning's CCR. All of Craig Carsallen's ties have been destroyed but I believe Gunning and Carsallen used the same corner. I also found 1/2" rebar bearing S81d27°50'W, 5.93' used by Brian Oakley for a survey on the southeast 1/4 of section 29.

Original and Subsequent Monuments:
 1) GLO set sandstone 18x12x4.
 2) CCR by Craig Carsallen (81982) - Set #4 rebar with LS 477 cap.
 3) CCR by Francis Gunning (122000) - Found #4 rebar with LS 477 cap.

N 1/4 CORNER - I found and accepted a 1/2" with the Gunning Surveying cap 6" deep. No ties exist from the Carsallen CCR. The 1/2" rebar tie is the only tie that still exists from Gunning & Campo CCR's and it checks.

Original and Subsequent Monuments:
 1) GLO set sandstone 15x10x4
 2) CCR by Craig Carsallen (81982) - Set #4 rebar with LS477 cap.
 3) CCR by France Gunning (122000) - Set #4 rebar with Gunning Surveying Cap
 4) CCR by Randall Campo (12008) - Found 1/2" pin.

W 1/4 CORNER - I found and accepted a railroad spike 6" deep and confirmed using both Brian Oakley and Thomas Howell's CCR's.

Original and Subsequent Monuments:
 1) GLO set sandstone 16x10x5.
 2) CCR by Brian Oakley (42013) - Found railroad spike.
 3) CCR by Thomas Howell (52013) - Found railroad spike.

NE SECTION CORNER - I found and accepted a 1/2" rebar 8" deep and confirmed using Craig Carsallen's CCR.

Original and Subsequent Monuments:
 1) GLO deposited charred stake, set post, dug pits, built mound.
 2) CCR by Craig Carsallen (81982) - Found #4 rebar.

E 1/4 CORNER - I found and accepted a PK nail and replaced it with 5/8" rebar and MKEC CA 2958 cap.

Thomas Howell on his CCR said he proportioned the corner in between the section corners. Mr. Howell was not aware of the 1972 ODOT SWO 2986(1) Survey and had set the Southwest corner of section 34 7.4' west of the ODOT corner. I discussed this with him and he said he would revise his survey to use ODOT corner but we both agreed to hold this one as he had originally set it as it fits the fence west, the west RW fence and the center of the road. There is a survey for the Western Farmers Electric Coop substation recorded in Book 456, Pg. 218 at the Washita Co. Clerks office. I searched for the corners shown on said survey and found none but the fences around it fit this corner.

Original and Subsequent Monuments:
 1) GLO deposited charred stake, set post, dug pits and built mound.
 2) CCR by Thomas Howell (52013) - Set a PK nail.

SE SECTION CORNER - I set a 5/8" rebar with MKEC - CA 2958 cap using the ties from SWO 2986(1) Survey. I found the PK nail set Mr. Howell and it bears S81d21°13'W, 7.49' from my corner. I called Mr. Howell to discuss the discrepancy and he was not aware of the 1972 ODOT SWO 2986(1) Survey. He said he would revise his survey to use the ODOT corner.

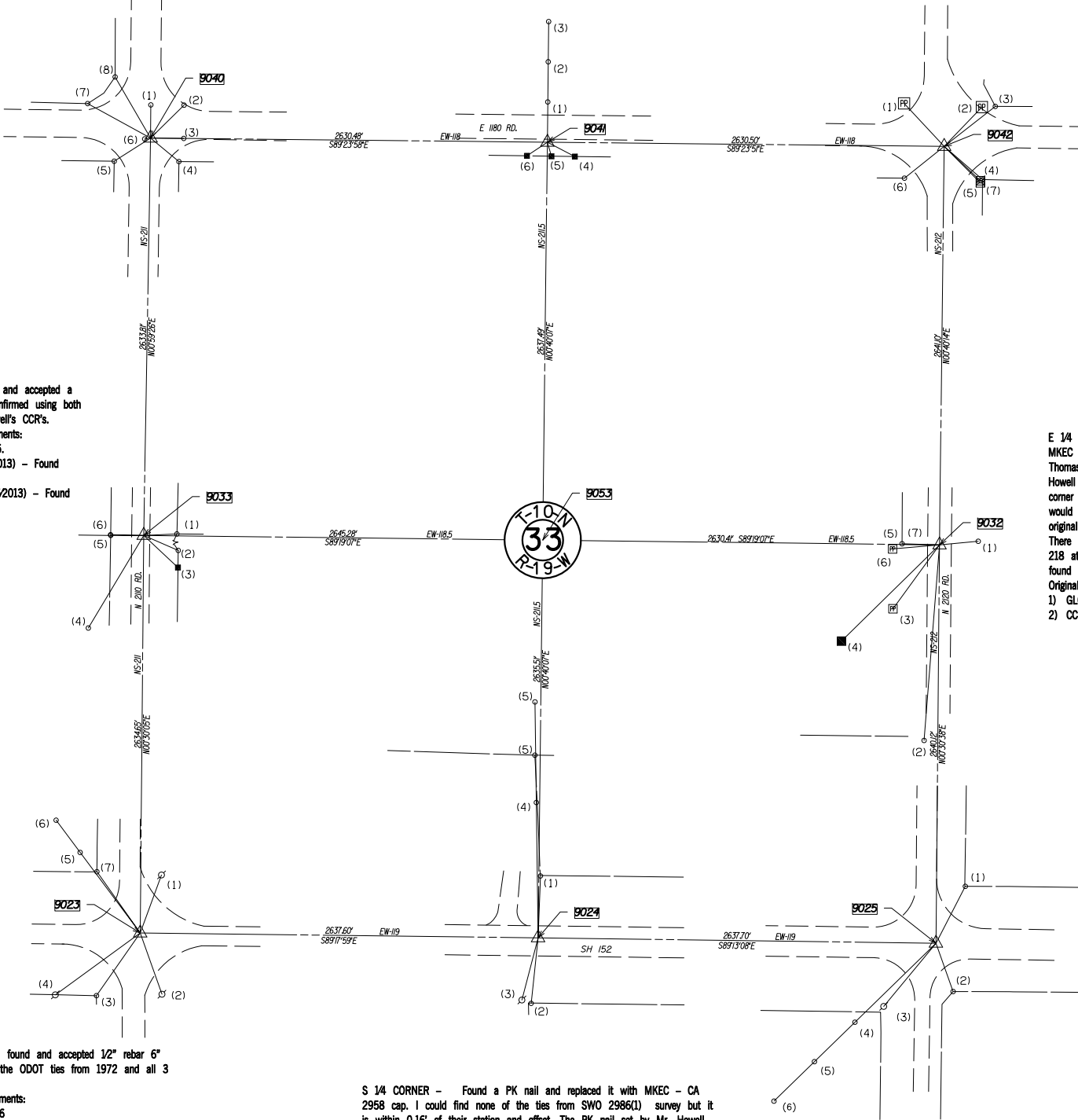
Original and Subsequent Monuments:
 1) GLO set sandstone 20x12x3.
 2) SWO 1549(1) Survey Alignment Book No. 2 & FAP No. F-430(1) Part 1 & Part 2 plans for S.H. 152 state that the corner is on centerline but does not call out type of monument.
 3) 1972 ODOT SWO 2986(1) Survey set a 1/2" rebar.
 4) CCR by Thomas Howell (52013) - PK nail by State Highway 152 plans.

SW SECTION CORNER - I found and accepted 1/2" rebar 6" deep. I confirmed with 2 of the ODOT ties from 1972 and all 3 of the CCR's.

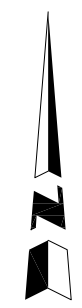
Original and Subsequent Monuments:
 1) GLO set sandstone 12x12x6
 2) 1972 ODOT SWO Survey set 1/2" rebar.
 3) CCR by Roger Jividen (71982) - Found 1/2" iron pin in asphalt.
 4) CCR by Gregory Gunning (22000) - Found No.4 rebar 6" deep.
 5) CCR by Randy Moseley (52007) - Found mag nail on centerline Highway 152.

S 1/4 CORNER - Found a PK nail and replaced it with MKEC - CA 2958 cap. I could find none of the ties from SWO 2986(1) survey but it is within 0.16' of their station and offset. The PK nail set by Mr. Howell bears S66d59°47'W, 6.44' from the one I used. I called Mr. Howell to discuss the discrepancy and he was not aware of the 1972 ODOT SWO 2986(1) Survey. He said he would revise his survey to use the ODOT corner. There is a 4.9' discrepancy in station reflected in the RW deeds between FAP 430(1) & FAP 155 plans. This corner was set in accordance with FAP 430(1) plans & SWO 2986(1) survey.

Original and Subsequent Monuments:
 1) GLO set sandstone 20x10x3.
 2) SWO 1549(1) Survey Alignment book No.2 & FAP F-430(1) Part 1 & Part 2 plans for S.H. 152 state that the corner is 2.5' north of centerline but does not call out type of monument.
 3) 1972 SWO 2986(1) Survey states that the 1/4 corner is 1.7' north of their survey line but I am not sure it was monumented.
 4) CCR by Thomas Howell (52013) - Set PK nail.



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



SCALE: 1" = 500'

NOTE: REFERENCES SHOWN ARE NOT TO SCALE.

OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION	
PLS	ADL
DRAWN	DCJ
CHECKED	CEH
APPROVED	
CREW	

SURVEY DATA SHEET

SWO 4699 (1) PROJECT NO. 24352(10) SHEET NO. S18

REFERENCE MEASUREMENTS:

Description	Distance	Bearing
	Feet <input checked="" type="checkbox"/> Meters <input type="checkbox"/>	True <input type="checkbox"/> Magnetic <input type="checkbox"/>
NW/COR. SEC. 34		
Description		
1. 60D Nail in East Face of PP	51.92'	N43°00'W
2. 60D Nail w/MKEC washer in West face of PP	48.13'	N43°53'E
3. Face of 2" steel corner fence post	57.33'	N51°59'E
4. Face of 2" steel corner fence post	44.83'	S49°04'E
5. 60D Nail w/MKEC washer in West Face of PP	44.10'	S46°35'E
6. Face of 2" steel gate/corner fence post	44.95'	S51°20'W
7. 60D Nail in West face of old Guy pole	44.10'	S46°34'E
NORTH 1/4 COR. SEC. 34		
Description		
1. 60D Nail w/MKEC washer in W face of PP	31.59'	N18°48'E
2. Face Pipe Line Marker	46.27'	S46°56'E
3. Face Pipe Line Marker	88.42'	S73°17'W
4. Face Pipe Line Marker	92.49'	N69°51'W
5. 1/2" Rebar Set	50.00', 100.00', & 150.00'	S00°42'W
NE/COR. SEC. 34		
Description		
1. Center 3 pipeline marker posts	29.51'	N08°27'E
2. Set 60D w/MKEC washer E face PP	40.43'	N48°42'W
3. Set 60D w/MKEC washer E face guy pole	50.92'	S40°22'W
4. N face pipeline marker	82.40'	S12°04'E
5. 3" steel gate post face	54.75'	S29°35'E
6. 3" steel gate post face	50.89'	S49°09'E
EAST 1/4 COR. SEC. 34		
Description		
1. 1/2" rebar from FAS s-377 plans	100.00'	S89°12'E
2. Set 60D & MKEC washer W face PP	58.66'	N17°08'E
3. Set 60D & MKEC washer S face PP	120.39'	S88°17'E
4. Set 60D & MKEC washer W face PP	96.17'	S03°57'W
5. Set "+" cut on NE corner bridge	285.60'	S26°34'W
6. Near face 2" steel corner post	0.90'	N68°00'E
CENTER SEC. 34		
Description		
1. Calculated.		
WEST 1/4 COR. SEC. 34		
Description		
1. Face of "U" post, 2' tall	34.37'	N84°43'E
2. 5/8" Rebar w/MKEC Control Point id cap	304.99'	S04°31'W
3. 60D Nail w/MKEC washer in W face of PP	69.85'	S36°05'W
4. Face of Southeast chain link fence corner around Sub station	121.41'	S45°33'W
5. 60D Nail w/MKEC washer in N face of PP	41.65'	S85°01'W
6. 3/8" Rebar w/CA 1299 id cap	33.12'	N89°10'W
7. Face of 3" steel corner fence post	33.12'	N88°17'W
SW/COR. SEC. 34		
Description		
1. Near face at base of corner fence post	56.57'	N27°19'E
2. 60D nail in top of corner fence post	45.27'	S19°31'E
3. 60D nail in N face of PP	72.44'	S39°37'W
4. 1/2" Rebar found	99.99'	S45°44'W
5. 1/2" Rebar found	149.96'	S45°34'W
6. 1/2" Rebar found	199.95'	S45°34'W
SOUTH 1/4 COR. SEC. 34		
Description		
1. 1/2" rebar flush with the surface found	99.97'	N00°56'E
2. 1/2" rebar flush with the surface found	149.96'	N00°56'E
3. 1/2" rebar flush with the surface found	199.95'	N00°56'E
4. 3/4" rebar w/MKEC control id cap	199.26'	S77°00'E
5. 60D Nail w/MKEC washer in E face of PP	47.41'	S24°05'W
6. 60D Nail w/MKEC washer in E face of Guy Pole	51.85'	N19°17'W
SE/COR. SEC. 34		
Description		
1. "+" cut on SE cor. of hdwl.	35.13'	N27°31'W
2. "+" cut on SW cor. of hdwl.	32.31'	N18°19'E
3. Set 5/8" rebar 12" deep	100.00'	N44°38'E
4. Fnd. & reset 1/2" rebar 12" deep	150.00'	N44°38'E
5. Set 5/8" rebar flush	200.00'	N44°38'E

NW SECTION CORNER - I found and accepted a 1/2" rebar 8" deep and confirmed using Craig Carsallen's CCR.
Original and Subsequent Monuments:
1) GLO deposited charred stake, set post, dug pits, built mound.
2) CCR by Craig Carsallen (8/1982) - Found #4 rebar.

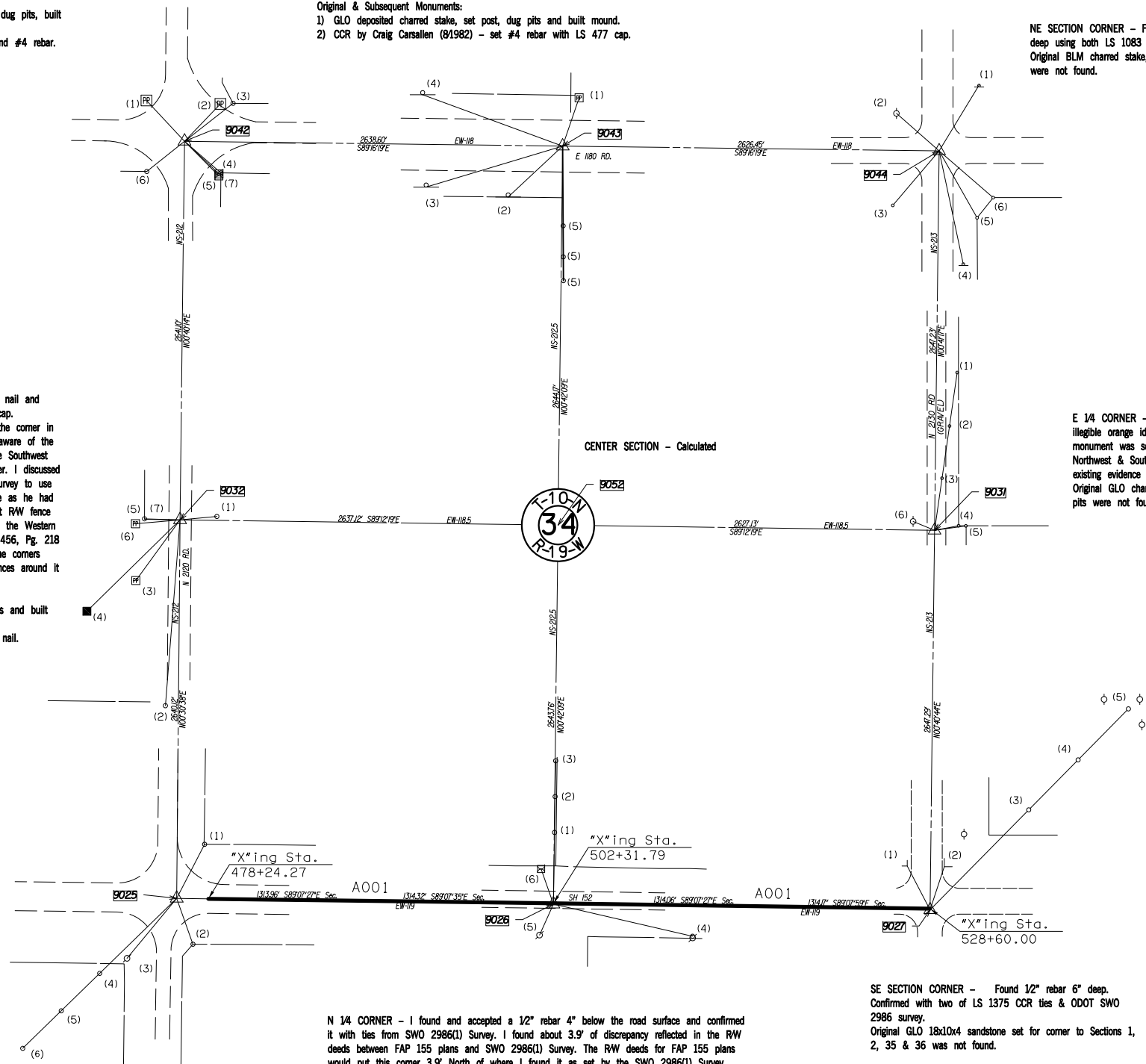
N 1/4 CORNER - I set a 5/8" rebar w/MKEC - CA 2958 cap. I did not find the rebar LS 477 set by Mr. Carsallen or any of his ties. I tried to contact him but was unsuccessful. His CCR shows the corner being in line with a fence to the south. There is no fence to the south now but there is a fence going west on the south side of the road. There is an old corner post at the center of section 34. Taking a line from the south 1/4 corner of section 34 through the old corner post lines up perfect with the end post on the south side of the road. I used this for the east-west location and set the corner on line between the section corners which fits the center of the road and the RW fences. This is 6' east of half way between the section corners. I also talked to Frank & Jeff Loftis. They don't remember where the old fence to the south was but said the newer fence to the north was done without a survey. The fence to the north is 7' of my east corner.
Original & Subsequent Monuments:
1) GLO deposited charred stake, set post, dug pits and built mound.
2) CCR by Craig Carsallen (8/1982) - set #4 rebar with LS 477 cap.

NE SECTION CORNER - Found and accepted a 1/2" rebar 8" deep using both LS 1083 & LS 1157 CCR's.
Original BLM charred stake, set post, built mound and dug pits were not found.

W 1/4 CORNER - I found and accepted a PK nail and replaced it with 5/8" rebar and MKEC CA 2958 cap. Thomas Howell on his CCR said he proportioned the corner in between the section corners. Mr. Howell was not aware of the 1972 ODOT SWO 2986(1) Survey and had set the Southwest corner of section 34 7.4' west of the ODOT corner. I discussed this with him and he said he would revise his survey to use ODOT corner but we both agreed to hold this one as he had originally set it as it fits the fence west, the west RW fence and the center of the road. There is a survey for the Western Farmers Electric Coop substation recorded in Book 456, Pg. 218 at the Washita Co. Clerks office. I searched for the corners shown on said survey and found none but the fences around it fit this corner.
Original and Subsequent Monuments:
1) GLO deposited charred stake, set post, dug pits and built mound.
2) CCR by Thomas Howell (5/2013) - Set a PK nail.

SE SECTION CORNER - Found 1/2" rebar 6" deep. Confirmed with two of LS 1375 CCR ties & ODOT SWO 2986 survey.
Original GLO 18x10x4 sandstone set for corner to Sections 1, 2, 35 & 36 was not found.

N 1/4 CORNER - I found and accepted a 1/2" rebar 4" below the road surface and confirmed it with ties from SWO 2986(1) Survey. I found about 3.9' of discrepancy reflected in the RW deeds between FAP 155 plans and SWO 2986(1) Survey. The RW deeds for FAP 155 plans would put this corner 3.9' North of where I found it as set by the SWO 2986(1) Survey.
Original & Subsequent Monuments:
1) GLO set Sandstone 16x12x3.
2) 1972 ODOT SWO 2986(1) Survey set 1/2" iron pin.



NOTE: REFERENCES SHOWN ARE NOT TO SCALE.

REFERENCE MEASUREMENTS:

Distance	Bearing	
	Feet <input checked="" type="checkbox"/> Meters <input type="checkbox"/>	True <input type="checkbox"/> Magnetic <input checked="" type="checkbox"/>

NW/COR. SEC. 35		
Description		
1. Center 3 pipeline marker posts	29.51'	N08°27'E
2. Set 60D w/MKEC washer E face PP	40.43'	N48°42'W
3. Set 60D w/MKEC washer E face guy pole	50.92'	S40°22'W
4. N face pipeline marker	82.40'	S12°04'E
5. 3" steel gate post face	54.75'	S29°35'E
6. 3" steel gate post face	50.89'	S49°09'E
NORTH 1/4 COR. SEC. 35		
Description		
1. 60D in S face PP	29.51'	N08°27'E
2. 60D in N face PP	36.80'	S00°53'E
3. 60D in S face east HLP	58.67'	S46°35'E
4. 2" steel gate post near face	68.41'	N53°24'E
5. 2" steel gate post near face	78.09'	N70°59'E
6. 60D w/MKEC washer in W face fence post	57.67'	S34°40'E
NE/COR. SEC. 35		
Description		
1. 1/2 bar 3" deep	2.06'	S17°01'E
2. Set 60D & washer in NW face PP	149.28'	N59°47'E
3. SE face 3" steel pipe line marker Po.	110.81'	N21°52'W
4. Set 60D & washer top cor. fence post	83.03'	N32°00'W
5. Set 60D nail & washer top cor. fence post	71.98'	N55°09'W
6. Set 60D & washer N face PP	68.86'	S62°50'W
EAST 1/4 COR. SEC. 35		
Description		
1. Set 5/8" rebar w/red MKEC control id cap	26.94'	N08°10'E
2. Set 1/2" rebar w/MKEC id cap	150.00'	N08°10'E
3. Set 1/2" rebar w/MKEC id cap	75.00'	N08°10'E
4. near face 3" steel corner post	34.90'	N79°15'E
5. near face 9" steel corner post	45.02'	N81°54'E
6. 60D nail w/MKEC washer S face PP	33.03'	N67°31'W
CENTER SEC. 35		
Description		
1. Calculated.		
WEST 1/4 COR. SEC. 35		
Description		
1. 1/2" rebar from FAS s-377 plans	100.00'	S89°12'E
2. Set 60D & MKEC washer W face PP	58.66'	N17°08'E
3. Set 60D & MKEC washer S face PP	120.39'	S88°17'E
4. Set 60D & MKEC washer W face PP	96.17'	S03°57'W
5. Set + cut on NE corner bridge	285.60'	S26°34'W
6. Near face 2" steel corner post	0.90'	N68°00'E
SW/COR. SEC. 35		
Description		
1. + cut on SE cor. of hdwl.	35.13'	N27°31'W
2. + cut on SW cor. of hdwl.	32.31'	N18°19'E
3. Set 5/8" rebar 12" deep	100.00'	N44°38'E
4. Fnd. & reset 1/2" rebar 12" deep	150.00'	N44°38'E
5. Set 5/8" rebar flush	200.00'	N44°38'E
SOUTH 1/4 COR. SEC. 35		
Description		
1. Fnd. 1/2" rebar 15" deep	100.00'	S44°16'E
2. Fnd. 1/2" rebar 15" deep	150.00'	S44°16'E
3. Fnd. 1/2" rebar 15" deep	199.88'	S44°16'E
4. Near face of 8" steel gate post	53.76'	N25°44'E
5. Near face of 8" steel gate post	48.59'	N01°14'E
6. Near face of W 8" steel brace post	50.39'	N15°09'W
7. Square cut SW corner S hdwl.	86.75'	S81°33'E
SE/COR. SEC. 35		
Description		
1. Cut "X" in N end abandoned pump island	221.78'	N48°17'W
2. Fnd. 1/2" rebar	150.00'	N48°17'W
3. Fnd. 1/2" rebar	100.00'	N48°17'W
4. Alum.disk stamped Hearland Surveying SWO-4699.1 7302	134.65'	N53°14'W
5. NE cor. of building	239.59'	N54°15'W

NW SECTION CORNER - Found and accepted a 1/2" rebar 8" deep using both LS 1083 & LS 1157 CCR's. Original BLM charred stake, set post, built mound and dug pits were not found.

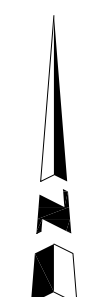
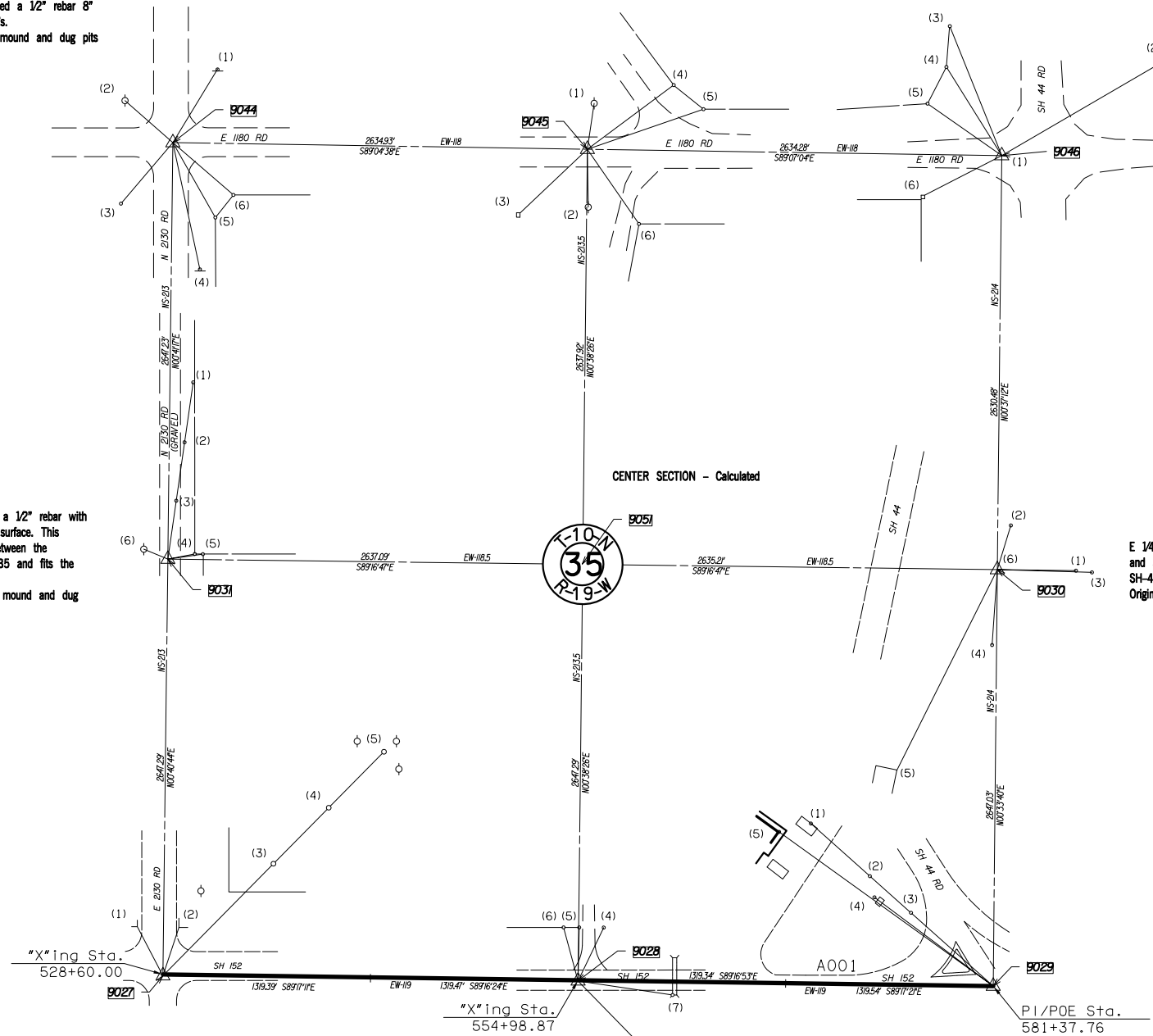
W 1/4 CORNER - Found and accepted a 1/2" rebar with illegible orange id cap 4" below the road surface. This monument was set on line and halfway between the Northwest & Southwest corners of Section 35 and fits the existing evidence within 7 feet. Original GLO charred stake, set post, built mound and dug pits were not found.

SW SECTION CORNER - Found 1/2" rebar 6" deep. Confirmed with two of LS 1375 CCR ties & ODOT SWO 2986 survey. Original GLO 18x10x4 sandstone set for corner to Sections 1, 2, 35 & 36 was not found.

N 1/4 CORNER - Found and accepted a 1/2" iron pin with Davis RPLS-1587 id cap 6" deep using his CCR. Original BLM charred stake, set post, built mound and dug pits were not found.

NE SECTION CORNER - Found 1/2" rebar 3" below the road surface that was 0.6' East & 2' South per the station and offset called for on FAS No. S-377(4)(5)S plans for SH-44. As no id cap was found I am not sure if this is the monument set by Roger Jviden, but I did discuss the discrepancy with him. Set 5/8" rebar with 2" aluminum cap stamped "MKEC CA-2958" at the road surface. I found ties for the PI at Station 1021+88.53, PT at 1025+59.06 & POT's at 1033+59.70, 1046+08.73 & 1056+00 from FAS No. S-377(4)(5)S plans for SH-44. They all line up within 0.08' & distances between checks within 0.3'. Set station 1043+69 by prorating between 1033+59.70 & 1046+08.73 & measuring 51.0' with the Northwest plan angle of 89d53'50" to the Sec. corner. Original 20"x16"x3" set sandstone for corners to Sections 26, 25, 35, & 36 was not found.

E 1/4 CORNER - Found 3/4" rebar 2" below grade. Found and accepted the corner using FAS N. S-377(4)(5)S plans for SH-44. Original 14"x14"x4" set sandstone was not found.



SCALE: 1" = 500'

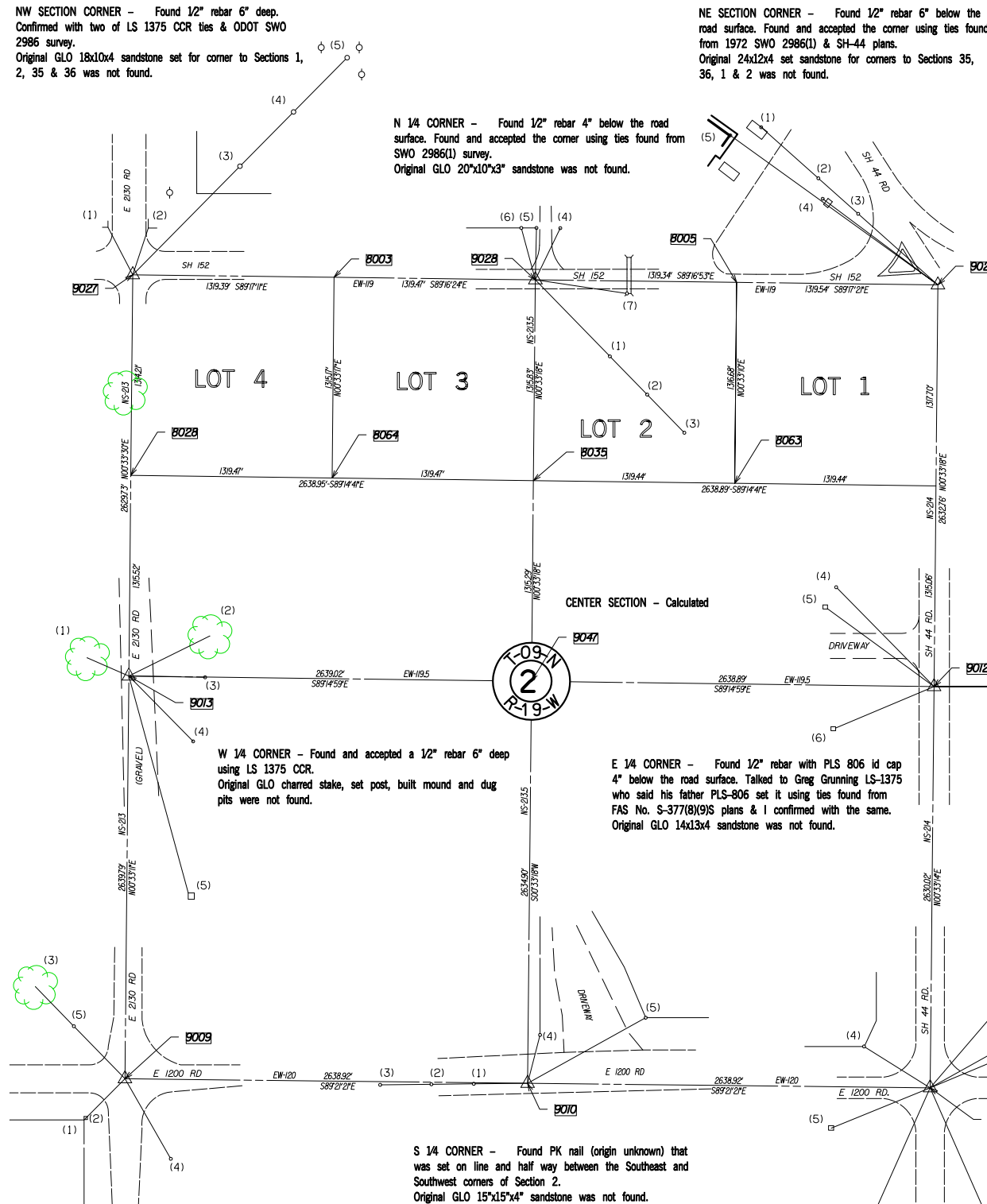
NOTE: REFERENCE'S SHOWN ARE NOT TO SCALE.

PLS	ADL		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION SURVEY DATA SHEET SWO 4699 (1) PROJECT NO. 24352(10) SHEET NO. S20
DRAWN	DCJ		
CHECKED	CEH		
APPROVED			
CREW			

REFERENCE MEASUREMENTS:

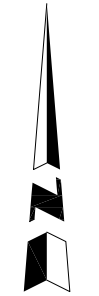
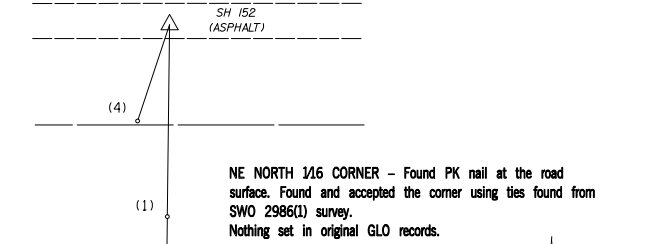
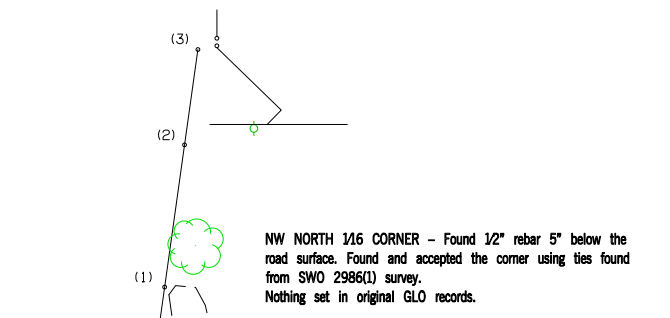
Distance	Bearing	
	Feet <input checked="" type="checkbox"/> Meters <input type="checkbox"/>	True <input type="checkbox"/> Magnetic <input type="checkbox"/>

NW/COR. SEC. 2		
Description		
1. + cut on SE cor. of hdwl.	35.13'	N27°31'W
2. + cut on SW cor. of hdwl.	32.31'	N18°19'E
3. Set 5/8" rebar 12" deep	100.00'	N44°38'E
4. Fnd. & reset 1/2" rebar 12" deep	150.00'	N44°38'E
5. Set 5/8" rebar flush	200.00'	N44°38'E
NORTH 1/4 COR. SEC. 2		
Description		
1. Fnd. 1/2" rebar 15" deep	100.00'	S44°16'E
2. Fnd. 1/2" rebar 15" deep	150.00'	S44°16'E
3. Fnd. 1/2" rebar 15" deep	199.88'	S44°16'E
4. Near face of 8" steel gate post	53.76'	N25°44'E
5. Near face of 8" steel gate post	48.59'	N01°14'E
6. Near face of W 8" steel brace post	50.39'	N15°09'W
7. Square cut SW corner S hdwl.	86.75'	S81°33'E
NE/COR. SEC. 2		
Description		
1. Cut "X" in N end abandoned pump island	221.78'	N48°17'W
2. Fnd. 1/2" rebar	150.00'	N48°17'W
3. Fnd. 1/2" rebar	100.00'	N48°17'W
4. Alum.disk stamped Hearland Surveying SWO-4699.1 7302	134.65'	N53°14'W
5. NE cor. of building	239.59'	N54°15'W
EAST 1/4 COR. SEC. 2		
Description		
1. Fnd. 1/2" rebar flush w/grade	100.00'	S89°26'E
2. Fnd. 1/2" rebar flush w/grade	150.00'	S89°26'E
3. Fnd. 1/2" rebar flush w/grade	200.00'	S89°26'E
4. 3/4" rebar w/2" MKEC Control Point id cap	101.56'	N44°35'W
5. Set 60D w/MKEC washer in S face PP	98.00'	N53°50'W
6. Set 60D w/MKEC washer in S face PP	79.45'	S67°10'W
CENTER SEC. 2		
Description		
1. Calculated		
WEST 1/4 COR. SEC. 2		
Description		
1. Set RR Spike NE face 36" elm & 60D nail w/MKEC washer	29.76'	N66°27'W
2. RR Spike NW face 30" dead tree	59.00'	N63°43'E
3. 1/2" rebar	49.97'	S89°00'E
4. Set 5/8" rebar w/MKEC red id cap	60.10'	S44°32'E
5. 60D nail w/MKEC washer W face PP	147.26'	S15°19'E
SW/COR. SEC. 2		
Description		
1. NE face 6" steel corner fence post	46.57"	S52°07'W
2. 60D & insulator in N face PP	45.00"	S52°09'W
3. RR spike E face 36" elm	105.18'	N28°17'W
4. Set 1/2" rebar w/MKEC tie id cap	60.00"	S28°26'E
5. Found 1/2" rebar	60.00"	N28°17'W
SOUTH 1/4 COR. SEC. 2		
Description		
1. Set 1/2" rebar w/cap MKEC CA2958 @grade	50.00'	N89°21'W
2. Set 1/2" rebar w/cap MKEC CA2958 @grade	100.00'	N89°21'W
3. Set 1/2" rebar w/cap MKEC CA2958 @grade	200.00'	N89°21'W
4. Near face 4" steel end post	37.39'	N13°51'E
5. Near face 6" steel corner fence post	96.57'	N68°20'E
SE/COR. SEC. 2		
Description		
1. Set 60D w/MKEC washer W face tele. post	82.80'	N67°17'E
2. SW face 2" steel fence post	68.02'	N60°55'E
3. SW face 2" steel S-Brace	80.91'	N40°36'E
4. SE face 6" steel fence post	63.69'	N57°58'W
5. Set 60D w/MKEC washer N face PP	87.60'	S67°49'W
6. 2" steel PLM vent face	127.89'	S42°03'W
7. 2" steel PLM vent face	128.04'	S23°48'E



NW N/16TH COR. Sec. 2		
Description		
1. Fnd. 1/2" rebar	100.00'	N07°59'E
2. Fnd. 1/2" rebar	174.81'	N07°59'E
3. Fnd. 1/2" rebar	224.94'	N07°59'E

NE N/16TH COR. Sec. 2		
Description		
1. Fnd. 1/ rebar 1' below grade	100.00	S00°41'W
2. Fnd. 1/ rebar 1' below grade	150.00'	S00°41'W
3. Fnd. 1/ rebar 1' below grade	200.00'	S00°41'W
4. 3/4" rebar w/MKEC id cap	52.91'	S18°22'W



SCALE: 1" = 500'

NOTE: REFERENCE'S SHOWN ARE NOT TO SCALE.

PLS	ADL	OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION <h3 style="text-align: center;">SURVEY DATA SHEET</h3> SWO 4699 (1) PROJECT NO. 24352(10) SHEET NO. S21
DRAWN	DCJ	
CHECKED	CEH	
APPROVED		
CREW		

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

REFERENCE MEASUREMENTS:

NW/COR. SEC. 03 Description	Distance	Bearing
	Feet <input checked="" type="checkbox"/> Meters <input type="checkbox"/>	True <input type="checkbox"/> Magnetic <input type="checkbox"/> NAD 83 Grid <input checked="" type="checkbox"/>
1. Near face at base of corner fence post	56.57'	N27°19'E
2. 60D nail in top of corner fence post	45.27'	S19°31'E
3. 60D nail in N face of PP	72.44'	S39°37'W
4. 1/2" Rebar found	99.99'	S45°44'W
5. 1/2" Rebar found	149.96'	S45°34'W
6. 1/2" Rebar found	199.95'	S45°34'W
NORTH 1/4 COR. SEC. 03 Description		
1. 1/2" rebar flush with the surface found	99.97'	N00°56'E
2. 1/2" rebar flush with the surface found	149.96'	N00°56'E
3. 1/2" rebar flush with the surface found	199.95'	N00°56'E
4. 3/4" rebar w/MKEC control id cap	199.26'	S77°00'E
5. 60D Nail w/MKEC washer in E face of PP	47.41'	S24°05'W
6. 60D Nail w/MKEC washer in E face of Guy Pole	51.85'	N19°17'W
NE/COR. SEC. 03 Description		
1. "+" cut on SE cor. of hdwl.	35.13'	N27°31'W
2. "+" cut on SW cor. of hdwl.	32.31'	N18°19'E
3. Set 5/8" rebar 12" deep	100.00'	N44°38'E
4. Fnd. & reset 1/2" rebar 12" deep	150.00'	N44°38'E
5. Set 5/8" rebar flush	200.00'	N44°38'E
EAST 1/4 COR. SEC. 03 Description		
1. Set RR Spike NE face 36" elm & 60D nail w/MKEC washer	29.76'	N66°27'W
2. RR Spike NW face 30" dead tree	59.00'	N63°43'E
3. 1/2" rebar	49.97'	S89°00'E
4. Set 5/8" rebar w/MKEC red id cap	60.10'	S44°32'E
5. 60D nail w/MKEC washer W face PP	147.26'	S15°19'E
CENTER SEC. 03 Description		
1. 60D Nail w/MKEC washer in NW face of corner fence post	7.98'	N41°31'E
2. 60D Nail w/MKEC washer in face of PP	109.48'	S11°25'W
3. RR Spike S face of 15" tree	45.65'	N77°40'W
4. RR Spike S face of 15" tree	76.25'	N38°36'W
WEST 1/4 COR. SEC. 03 Description		
1. 1/2" rebar w/PLS 1375 id cap found	32.90'	S89°28'E
2. 1/2" rebar found	82.90'	S89°28'E
3. 1/2" rebar found	119.93'	S89°28'E
4. 60D Nail w/MKEC washer in E face of PP	87.72'	S24°13'W
5. Face of 4" steel brace post	38.69'	S79°17'W
6. Face of West 4" steel corner fence post	37.93'	N88°20'W
7. 60D Nail w/MKEC washer in E face of PP	246.00'	N07°26'W
SW/COR. SEC. 03 Description		
1. PK Nail in top of RR tie corner fence post	49.61'	S49°14'E
2. 1/2" rebar found	99.85'	S49°14'E
3. 1/2" rebar found	149.82'	S49°14'E
4. 60D Nail w/MKEC washer in E face of PP	42.20'	S28°24'W
5. 60D Nail w/MKEC washer in E face of PP	35.70'	N40°01'W
6. Face of 4" steel corner fence post	40.49'	N37°55'W
SOUTH 1/4 COR. SEC. 03 Description		
1. 60D Nail in E face of Guy Pole	37.07'	N00°11'W
2. Face of 2" steel post	65.91'	N46°14'W
3. 60D Nail in N face of PP	98.00'	S71°19'E
4. Face of 4" steel corner fence post	32.83'	S02°17'W
5. 60D Nail in N face of gate fence post	58.44'	S59°00'W
SE/COR. SEC. 03 Description		
1. NE face 6" steel corner fence post	46.57'	S52°07'W
2. 60D & insulator in N face PP	45.00'	S52°09'W
3. RR spike E face 36" elm	105.18'	N28°17'W
4. Set 1/2" rebar w/MKEC tie id cap	60.00'	S28°26'E
5. Found 1/2" rebar	60.00'	N28°17'W

NW SECTION CORNER - I set a 5/8" rebar with MKEC - CA 2958 cap using the ties from SWO 2986(1) Survey. I found the PK nail set Mr. Howell and it bears S81d2°13'W, 7.49' from my corner. I called Mr. Howell to discuss the discrepancy and he was not aware of the 1972 ODOT SWO 2986(1) Survey. He said he would revise his survey to use the ODOT corner.
Original and Subsequent Monuments:
1) GLO set sandstone 20x12x3.
2) SWO 1549(1) Survey Alignment Book No. 2 & FAP No. F-430(1) Part 1 & Part 2 plans for S.H. 152 state that the corner is on centerline but does not call out type of monument.
3) 1972 ODOT SWO 2986(1) Survey set a 1/2" rebar.
4) CCR by Thomas Howell (5/2013) - PK nail by State Highway 152 plans.

N 1/4 CORNER - I found and accepted a 1/2" rebar 4" below the road surface and confirmed it with ties from SWO 2986(1) Survey. I found about 3.9' of discrepancy reflected in the RW deeds between FAP 155 plans and SWO 2986(1) Survey. The RW deeds for FAP 155 plans would put this corner 3.9' North of where I found it as set by the SWO 2986(1) Survey.
Original & Subsequent Monuments:
1) GLO set Sandstone 16x12x3.
2) 1972 ODOT SWO 2986(1) Survey set 1/2" iron pin.

NE SECTION CORNER - Found 1/2" rebar 6" deep. Confirmed with two of LS 1375 CCR ties & ODOT SWO 2986 survey.
Original GLO 18x10x4 sandstone set for corner to Sections 1, 2, 35 & 36 was not found.

SW S/16TH COR. Sec. 34
Description

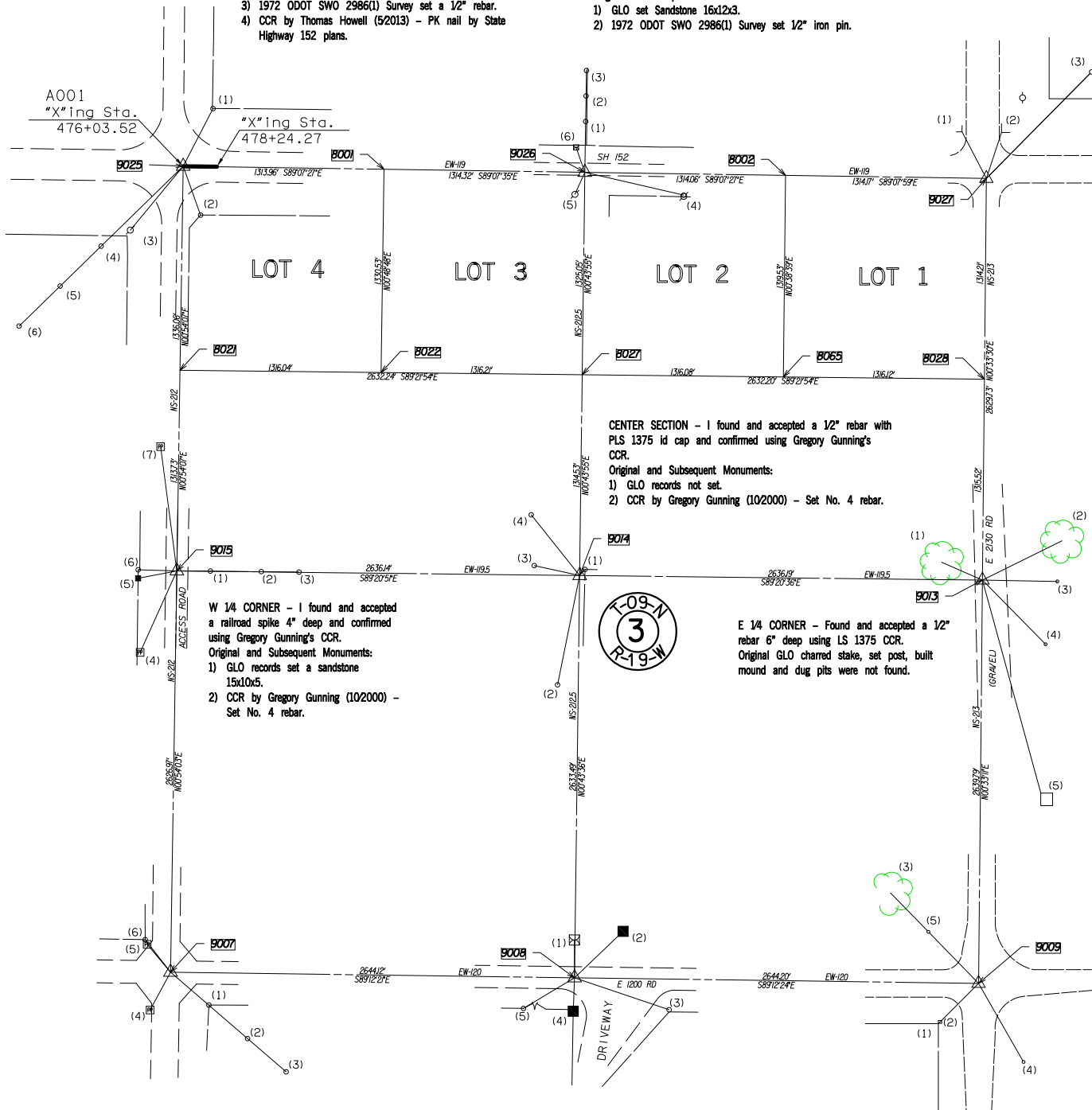
1. 1/2" rebar Fnd.	100.05'	N00°50'E
2. 1/2" rebar Fnd.	150.06'	N00°50'E
3. 1/2" rebar Fnd.	200.07'	N00°50'E
4. 3/4" Rebar w/2" Aluminum MKEC id cap	74.21'	S53°21'E
5. 1/2" rebar w/Gunning LS 1375 & 806 id cap found	47.15'	S00°37'W
6. 5/8" rebar w/MKEC id cap at P.O.T. 488+00.27	117.22'	N87°55'W

NW NORTH 1/16 CORNER - I found and accepted a 1/2" rebar 5" deep and confirmed it with ties from SWO 2986(1) Survey.
Original & Subsequent Monuments:
1) Not originally set by GLO.
2) 1972 ODOT SWO 2986(1) Survey set a 1/2" rebar.

SE S/16TH COR. Sec. 34
Description

1. Fnd. 1/2" rebar	100.09'	N44°08'W
2. Fnd. 1/2" rebar	150.03'	N44°08'W
3. Fnd. 1/2" rebar	200.01'	N44°08'W

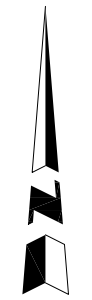
NE NORTH 1/16 CORNER - I found and accepted a 1/2" rebar 5" deep and confirmed with ties from SWO 2986(1) Survey.
Original & Subsequent Monuments:
1) Not originally set by GLO.
2) 1972 ODOT SWO 2986(1) set a 1/2" rebar.



SW SECTION CORNER - I found and accepted a 1/2" rebar 3" deep and confirmed using Gregory Gunning's CCR.
Original and Subsequent Monuments:
1) GLO set sandstone 15x10x5.
2) CCR by Gregory Gunning (10/2000) - set No. 4 rebar.

S 1/4 CORNER - I found and accepted a 1/2" rebar 6" deep, origin unknown. The corner is online and half way between the two section corners. It also fits the existing evidence well.
Original & Subsequent Monuments:
1) GLO set sandstone 15x10x4.

SE SECTION CORNER - Found and accepted a 1/2" rebar 3" deep using LS 1375 CCR.
Original GLO 18"x18"x4" sandstone set for corner to Sections 2, 3, 10 & 11 was not found.



SCALE: 1" = 500'

NOTE: REFERENCES SHOWN ARE NOT TO SCALE.

PLS	ADL	OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	DCJ	
CHECKED	CEH	
APPROVED		
CREW		
SWO 4699 (1) PROJECT NO. 24352(10) SHEET NO. S22		SURVEY DATA SHEET

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

REFERENCE MEASUREMENTS:

NW/COR. SEC. 04	Distance		Bearing	
	Feet	Meters	True	Magnetic
Description				
1. 60D nail in S face of PP	61.41'		N20°09'E	
2. 60D nail in NW face of PP	64.62'		S19°32'E	
3. Face of 3" steel corner fence post	76.00'		S34°55'W	
4. 60D nail in N face of PP	104.48'		S53°55'W	
5. 1/2" rebar found	99.89'		N36°45'W	
6. 1/2" rebar found	139.84'		N36°45'W	
7. Near face of 3" corner fence post	74.48'		N35°14'W	
NORTH 1/4 COR. SEC. 04				
Description				
1. Near face of 2" steel corner fence post	61.54'		N02°11'E	
2. Near face of 2" steel corner fence post	65.51'		S06°03'W	
3. 60D Nail N face of PP	63.85'		S14°35'W	
4. 3/4" Rebar w/2" MKEC Control Point id cap set	134.51'		N00°45'W	
5. 1/2" Rebar's w/MKEC id cap set	184.51', 234.51'		N00°45'W	
NE/COR. SEC. 04				
Description				
1. Near face at base of corner fence post	56.57'		N27°19'E	
2. 60D nail in top of corner fence post	45.27'		S19°31'E	
3. 60D nail in N face of PP	72.44'		S39°37'W	
4. 1/2" Rebar found	99.99'		S45°44'W	
5. 1/2" Rebar found	149.96'		S45°44'W	
6. 1/2" Rebar found	199.95'		S45°44'W	
EAST 1/4 COR. SEC. 04				
Description				
1. 1/2" rebar w/PLS 1375 id cap found	32.90'		S89°28'E	
2. 1/2" rebar found	82.90'		S89°28'E	
3. 1/2" rebar found	119.93'		S89°28'E	
4. 60D Nail w/MKEC washer in E face of PP	87.72'		S24°13'W	
5. Face of 4" steel brace post	38.69'		S79°17'W	
6. Face of West 4" steel corner fence post	37.93'		N88°20'W	
7. 60D Nail w/MKEC washer in E face of PP	246.00'		N07°26'W	
CENTER SEC. 04				
Description				
1. Calculated.				
WEST 1/4 COR. SEC. 04				
Description				
1. Face 4" steel corner fence post	115.38'		S65°58'E	
2. Face 4" steel corner fence post	102.43'		S28°50'E	
3. Face 4" steel corner fence post	74.74'		S12°07'W	
4. Face 4" steel fence post	19.58'		S53°08'W	
5. 1/2" bar found w/PLS 1375 id cap	32.96'		N89°26'W	
6. 60D Nail in SE face Telephone Riser Post	25.15'		N36°50'W	
SW/COR. SEC. 04				
Description				
1. "+" cut at SE corner of concrete Telephone Equipment Pod	105.19'		N24°55'W	
2. Face of 2" steel gate post	115.07'		N16°37'E	
3. Face of gate Post	93.52'		N35°25'E	
4. Face of corner 2" steel fence post	91.06'		N51°52'E	
5. Face of 4" steel guard rail post	59.46'		S35°29'W	
6. Face of 6" steel guard rail post	45.18'		S71°36'W	
SOUTH 1/4 COR. SEC. 04				
Description				
1. 60D Nail in SW Face of fence post	67.53'		N51°05'E	
2. Face of 2" steel fence post	33.14'		S01°35'W	
3. Face of 3" steel corner fence post	55.63'		S67°36'W	
4. 60D Nail in NE face of PP	125.25'		S82°48'W	
5. Face of 4" steel gate fence post	110.26'		N65°05'W	
6. Face of 4" steel gate fence post	107.34'		N47°53'W	
SE/COR. SEC. 04				
Description				
1. PK Nail in top of RR tie corner fence post	49.61'		S49°14'E	
2. 1/2" rebar found	99.85'		S49°14'E	
3. 1/2" rebar found	149.82'		S49°14'E	
4. 60D Nail w/MKEC washer in E face of PP	42.20'		S28°24'W	
5. 60D Nail w/MKEC washer in E face of PP	35.70'		N40°01'W	
6. Face of 4" steel corner fence post	40.49'		N37°55'W	

NW SECTION CORNER - I found and accepted 1/2" rebar 6" deep. I confirmed with 2 of the ODOT ties from 1972 and all 3 of the CCR's.

Original and Subsequent Monuments:

- 1) GLO set sandstone 12x12x6
- 2) 1972 ODOT SWO Survey set 1/2" rebar.
- 3) CCR by Roger Jividen (7/1982) - Found 1/2" iron pin in asphalt.
- 4) CCR by Gregory Gunning (2/2000) - Found No.4 rebar 6" deep.
- 5) CCR by Randy Mosely (5/2007) - Found mag nail on centerline Highway 152.

N 1/4 CORNER - Found a PK nail and replaced it with MKEC - CA 2958 cap. I could find none of the ties from SWO 2986(1) survey but it is within 0.16' of their station and offset. The PK nail set by Mr. Howell bears S66°59'47"W, 6.44' from the one I used. I called Mr. Howell to discuss the discrepancy and he was not aware of the 1972 ODOT SWO 2986(1) Survey. He said he would revise his survey to use the ODOT corner. There is a 4.9' discrepancy in station reflected in the RW deeds between FAP 430(1) & FAP 155 plans. This corner was set in accordance with FAP 430(1) plans & SWO 2986(1) survey.

Original and Subsequent Monuments:

- 1) GLO set sandstone 20x10x3.
- 2) SWO 1549(1) Survey Alignment book No.2 & FAP F-430(1) Part 1 & Part 2 plans for S.H. 152 state that the corner is 2.5' north of centerline but does not call out type of monument.
- 3) 1972 SWO 2986(1) Survey states that the 1/4 corner is 1.7' north of their survey line but I am not sure it was monumented.
- 4) CCR by Thomas Howell (5/2013) - Set PK nail.

NE SECTION CORNER - I set a 58" rebar with MKEC - CA 2958 cap using the ties from SWO 2986(1) Survey. I found the PK nail set Mr. Howell and it bears S81d2'13"W, 7.49' from my corner. I called Mr. Howell to discuss the discrepancy and he was not aware of the 1972 ODOT SWO 2986(1) Survey. He said he would revise his survey to use the ODOT corner.

Original and Subsequent Monuments:

- 1) GLO set sandstone 20x12x3.
- 2) SWO 1549(1) Survey Alignment Book No. 2 & FAP No. F-430(1) Part 1 & Part 2 plans for S.H. 152 state that the corner is on centerline but does not call out type of monument.
- 3) 1972 ODOT SWO 2986(1) Survey set a 1/2" rebar.
- 4) CCR by Thomas Howell (5/2013) - PK nail by State Highway 152 plans.

W 1/4 CORNER - I found and accepted a 1/2" rebar with PLS 1375 cap 5" deep and confirmed using Gregory Gunning's & Randy Mosley's CCR's.

Original and Subsequent Monuments:

- 1) GLO set sandstone 16x10x4.
- 2) CCR Gregory Gunning (2/2000) - Set No.4 rebar with PLS 1375 cap 6" deep.
- 3) CCR Randy Mosley (5/2007) - Found 1/2" IP.

E 1/4 CORNER - I found and accepted a railroad spike 4" deep and confirmed using Gregory Gunning's CCR.

Original and Subsequent Monuments:

- 1) GLO records set a sandstone 15x10x5.
- 2) CCR by Gregory Gunning (10/2000) - Set No. 4 rebar.

SE SECTION CORNER - I found and accepted a 1/2" rebar 3" deep and confirmed using Gregory Gunning's CCR.

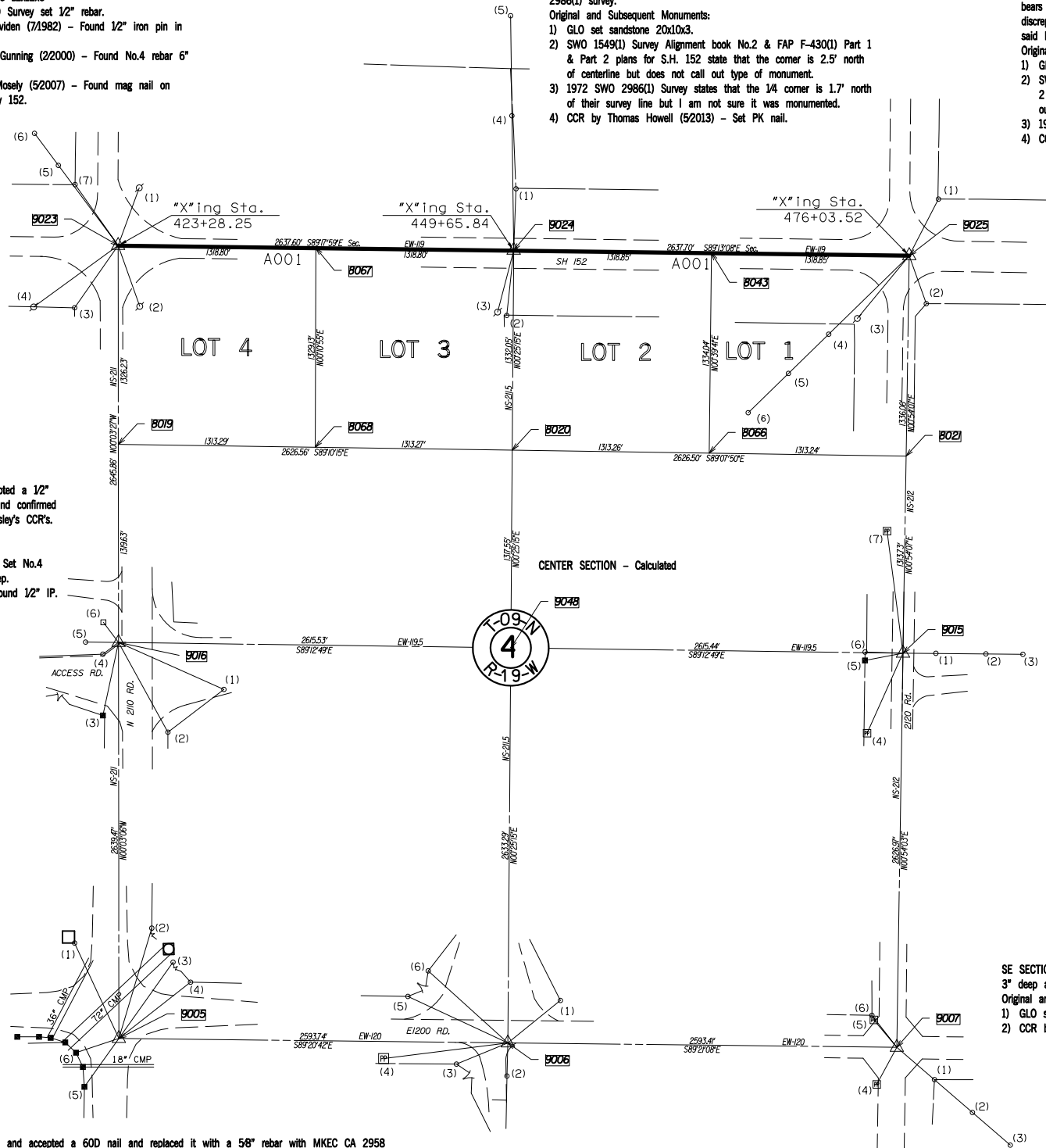
Original and Subsequent Monuments:

- 1) GLO set sandstone 15x10x5.
- 2) CCR by Gregory Gunning (10/2000) - set No. 4 rebar.

S 1/4 CORNER - I found and accepted a railroad spike 3" deep and confirmed using Darrell McArthur's CCR.

Original and Subsequent Monuments:

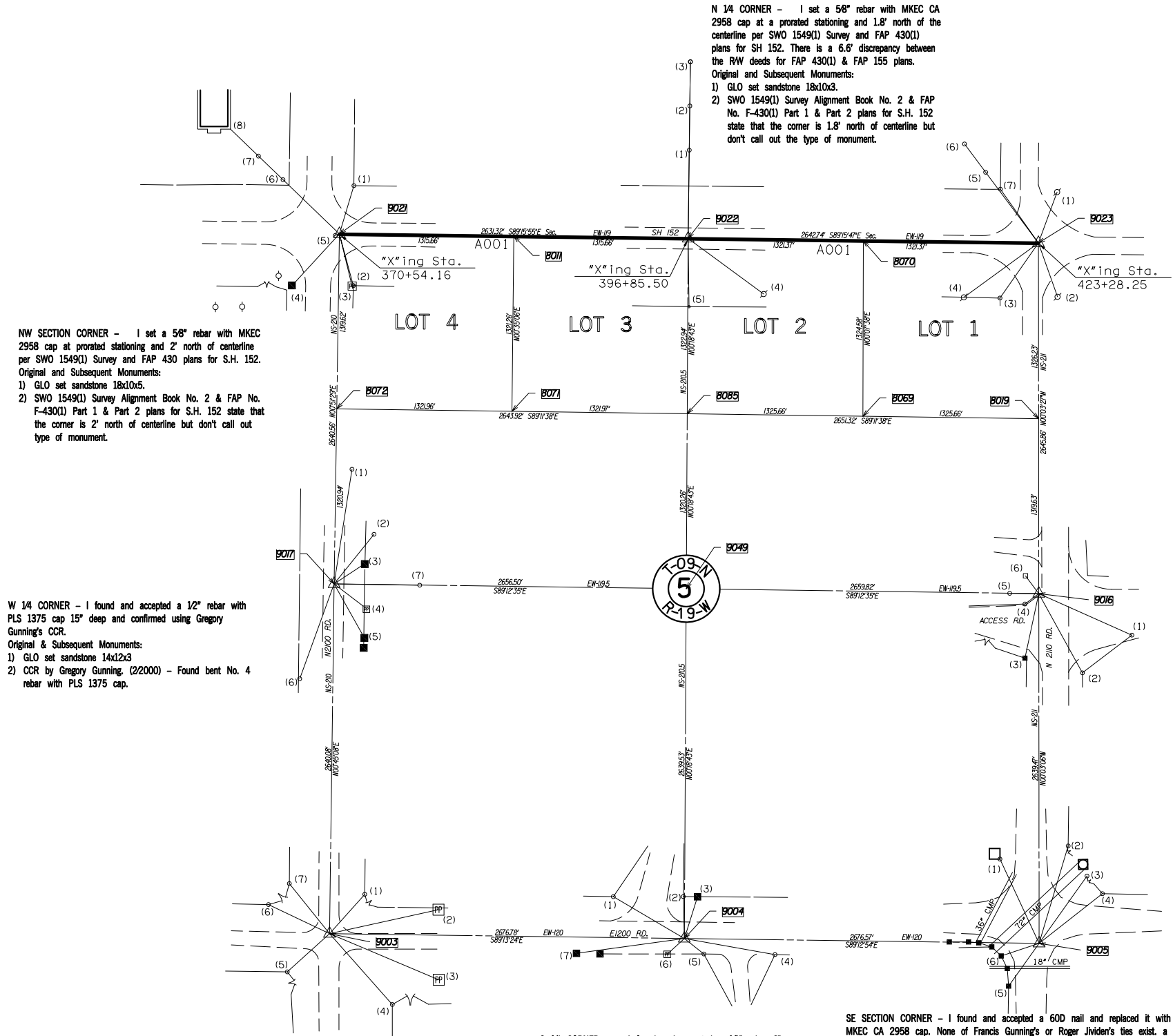
- 1) GLO set sandstone 15x10x5.
- 2) CCR by Darrell McArthur (10/2014) - Found railroad spike on south edge of asphalt road.



PLS	ADL		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION SURVEY DATA SHEET SWO 4699 (1) PROJECT NO. 24352(10) SHEET NO. S23
DRAWN	DCJ		
CHECKED	CEH		
APPROVED			
CREW			

REFERENCE MEASUREMENTS:

Description	Distance	Bearing
	Feet <input type="checkbox"/> Meters <input type="checkbox"/>	True <input type="checkbox"/> Magnetic <input type="checkbox"/>
NW/COR. SEC. 05		
Description		
1. Face of 2" steel corner fence post	60.96'	N16°41'E
2. Face of 6" steel corner fence post	64.58'	S15°09'E
3. 60D Nail in NW face of PP	64.86'	S13°43'E
4. NE corner of Pump House	72.71'	S37°18'W
5. 60D Nail found 6" deep	5.25'	S69°44'W
6. 1/2" rebar set flush	85.60'	N37°50'W
7. 1/2" rebar set flush	135.60'	N37°50'W
8. SE corner of building	185.61'	N37°50'W
NORTH 1/4 COR. SEC. 05		
Description		
1. 1/2" rebar w/MKEC id cap set flush	150.01'	N00°44'E
2. 1/2" rebar w/MKEC id cap set flush	100.01'	N00°44'E
3. 1/2" rebar w/MKEC id cap set flush	200.01'	N00°44'E
4. 60D Nail in N face of PP	106.13'	N53°41'E
5. 60D Nail w/MKEC washer in N face of fence post	77.21'	S00°46'E
NE/COR. SEC. 05		
Description		
1. 60D nail in S face of PP	61.41'	N20°09'E
2. 60D nail in NW face of PP	64.62'	S19°32'E
3. Face of 3" steel corner fence post	76.00'	S34°55'W
4. 60D nail in N face of PP	104.48'	S53°55'W
5. 1/2" rebar found	99.89'	N36°45'W
6. 1/2" rebar found	139.84'	N36°45'W
7. Near face of 3" corner fence post	74.48'	N35°14'W
EAST 1/4 COR. SEC. 05		
Description		
1. Face 4" steel corner fence post	115.38'	S65°58'E
2. Face 4" steel corner fence post	102.43'	S28°50'E
3. Face 4" steel corner fence post	74.74'	S12°07'W
4. Face 4" steel fence post	19.58'	S53°08'W
5. 1/2" bar found w/PLS 1375 id cap	32.96'	N89°26'W
6. 60D Nail in SE face Telephone Riser Post	25.15'	N36°50'W
CENTER SEC. 05		
Description		
1. Calculated.		
WEST 1/4 COR. SEC. 05		
Description		
1. 5/8" rebar w/MKEC control point id cap	151.74'	N06°59'E
2. RR spike in NW face of 18" Tree	39.58'	N37°10'E
3. 60D Nail w/MKEC washer in W face of Brace Post	19.99'	N64°27'E
4. 60D Nail w/MKEC washer in W face of PP	21.96'	S53°30'E
5. Face of North Brace Post	51.46'	S21°40'E
6. Face of Line post	98.72'	S28°05'W
7. PK Nail in top of corner fence post	18.60'	S88°37'E
SW/COR. SEC. 05		
Description		
1. Face 2" steel Gate Post	47.84'	N41°48'E
2. 60D Nail w/MKEC washer in S face of PP	100.96'	N77°36'E
3. 60D Nail w/MKEC washer in N face of PP	107.33'	S67°06'E
4. Face 2" steel Gate Post	85.68'	S41°33'E
5. 40D Nail in E face Gate Post	51.54'	S47°54'W
6. Face 2" steel Gate Post	61.24'	N64°29'W
7. Face 2" steel Gate Post	58.19'	N38°44'W
SOUTH 1/4 COR. SEC. 05		
Description		
1. 60D Nail in E face of fence corner post	93.29'	N59°29'W
2. Face of 2" steel fence corner post	47.47'	N01°25'W
3. Face of 2" steel fence post	49.57'	N17°29'E
4. Face of 6" steel fence corner post	104.14'	S79°55'E
5. Face of 6" steel fence corner post	28.20'	S51°33'E
6. 60D Nail in NE face of PP	26.41'	S47°19'W
7. 60D Nail w/MKEC washer in N face of gate post	123.23'	S82°10'W
SE/COR. SEC. 05		
Description		
1. "+" cut at SE corner of concrete Telephone Equipment Pod	105.19'	N24°55'W
2. Face of 2" steel gate post	115.07'	N16°37'E
3. Face of gate Post	93.52'	N35°25'E
4. Face of corner 2" steel fence post	91.06'	N51°52'E
5. Face of 4" steel guard rail post	59.46'	S35°29'W
6. Face of 6" steel guard rail post	45.18'	S71°36'W



N 1/4 CORNER - I set a 5/8" rebar with MKEC CA 2958 cap at a prorated stationing and 1.8' north of the centerline per SWO 1549(1) Survey and FAP 430(1) plans for SH 152. There is a 6.6' discrepancy between the RW deeds for FAP 430(1) & FAP 155 plans. Original and Subsequent Monuments:
 1) GLO set sandstone 18x10x3.
 2) SWO 1549(1) Survey Alignment Book No. 2 & FAP No. F-430(1) Part 1 & Part 2 plans for S.H. 152 state that the corner is 1.8' north of centerline but don't call out the type of monument.

NW SECTION CORNER - I set a 5/8" rebar with MKEC 2958 cap at prorated stationing and 2' north of centerline per SWO 1549(1) Survey and FAP 430 plans for S.H. 152. Original and Subsequent Monuments:
 1) GLO set sandstone 18x10x3.
 2) SWO 1549(1) Survey Alignment Book No. 2 & FAP No. F-430(1) Part 1 & Part 2 plans for S.H. 152 state that the corner is 2' north of centerline but don't call out type of monument.

W 1/4 CORNER - I found and accepted a 1/2" rebar with PLS 1375 cap 15" deep and confirmed using Gregory Gunning's CCR. Original & Subsequent Monuments:
 1) GLO set sandstone 14x12x3
 2) CCR by Gregory Gunning, (2/2000) - Found bent No. 4 rebar with PLS 1375 cap.

SW SECTION CORNER - I found and accepted a 1/2" rebar 5" deep. As Burk Cornelius found a 60D nail this is not the same monument he found. A 40D in a corner fence post 52.27', S50W is the only tie that still exists. I measured 51.54' to it so I believe the 1/2" found rebar is within an acceptable tolerance. I talked to Mr. Cornelius and he said to contact Topographic Land Surveyors who was his employer at the time. I contacted them and they could not find any of his field notes except the CCR's of record. Original & Subsequent Monuments:
 1) GLO set sandstone 18x13x4
 2) CCR by Burk Cornelius (4/1992) - Found 60D nail.

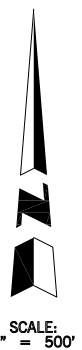
S 1/4 CORNER - I found and accepted a 1/2" rebar 6" deep and confirmed using Darrell McArthur's CCR. I could not find any of Roger Jividen's ties. I contacted his office and they sent me a copy of his field notes and a survey he did in the southeast corner of section 5. I could find no trace of any of his work. Original and Subsequent Monuments:
 1) GLO set sandstone 14x12x4.
 2) CCR by Roger Jividen (7/1982) - Found 1/2" Iron pin with OLS 128 cap.
 3) CCR by Darrell McArthur (2/2004) - Found 1/2" iron pin.

SE SECTION CORNER - I found and accepted a 60D nail and replaced it with a 5/8" rebar with MKEC CA 2958 cap. None of Francis Gunning's or Roger Jividen's ties exist, a new 72" CMP has been installed across the intersection which I believe destroyed their monuments. There is some question in my mind as to whether they were using the same monument. I talked to Greg Gunning (Francis's Son) but he did not have any information that could confirm the 60D nail. I contacted Roger Jividen's office and they sent me a copy of his field notes and a survey he did in the southeast corner of section 5. I could find no trace of any of his work. I found 3 surveys for the northwest quarter of section 9 recorded in the Washita Co. Clerk's office done by William E. Burks LS-265. Measurements to their monuments would put the corner 9' north and 1' west of the 60D. I found a 1/16th corner east of the 60D set by Darrell McArthur LS-1130. I talked with him & he confirmed that he is using the 60D. The quarter corners in all 4 directions appear to be single proportioned and are in agreement with the 60D. Original and Subsequent Monuments:
 1) GLO set sandstone 17x12x5.
 2) CCR by Roger Jividen (7/1982) - Found PK nail on bridge.
 3) CCR by Francis Gunning (8/1995) - Set No. 4 rebar.

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

NE SECTION CORNER - I found and accepted 1/2" rebar 6" deep. I confirmed with 2 of the ODOT ties from 1972 and all 3 of the CCR's. Original and Subsequent Monuments:
 1) GLO set sandstone 12x12x6
 2) 1972 ODOT SWO Survey set 1/2" rebar.
 3) CCR by Roger Jividen (7/1982) - Found 1/2" iron pin in asphalt.
 4) CCR by Gregory Gunning (2/2000) - Found No.4 rebar 6" deep.
 5) CCR by Randy Mosely (5/2007) - Found mag nail on centerline Highway 152.

E 1/4 CORNER - I found and accepted a 1/2" rebar with PLS 1375 cap 5" deep and confirmed using Gregory Gunning's & Randy Mosley's CCR's. Original and Subsequent Monuments:
 1) GLO set sandstone 16x10x4.
 2) CCR Gregory Gunning (2/2000) - Set No.4 rebar with PLS 1375 cap 6" deep.
 3) CCR Randy Mosley (5/2007) - Found 1/2" IP.



NOTE: REFERENCES SHOWN ARE NOT TO SCALE.

OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION		
PLS	ADL	
DRAWN	DCJ	
CHECKED	CEH	
APPROVED		
CREW		

SURVEY DATA SHEET

SWO 4699 (1) PROJECT NO. 24352(10) SHEET NO. 24

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

REFERENCE MEASUREMENTS:

Description	Distance	Bearing
	Feet <input checked="" type="checkbox"/> Meters <input type="checkbox"/>	True <input type="checkbox"/> Magnetic <input type="checkbox"/>
NW/COR. SEC. 06		
Description		
1. Face 3" steel corner fence post	69.99'	NAD 83 S23°33'E Grid <input checked="" type="checkbox"/>
2. Mag Nail in road Surface	72.04'	S02°20'W
3. Mag Nail in road Surface	121.98'	S02°20'W
4. Mag Nail in road Surface	172.01'	S02°20'W
5. 60D Nail w/MKEC washer in E face Corner fence post	72.09'	S31°51'W
6. Face 3" Steel Corner fence Post	71.09'	N31°11'W
NORTH 1/4 COR. SEC. 06		
Description		
1. 1/2" rebar w/MKEC id cap set flush	95.05'	N19°30'W
2. 3/4" rebar w/2" MKEC Control pin id cap	145.05'	N19°30'W
3. 1/2" rebar w/MKEC id cap set flush	195.05'	N19°30'W
4. Face 4" steel fence post	74.99'	S34°48'W
5. Face 4" steel fence post	61.54'	S01°10'W
NE/COR. SEC. 06		
Description		
1. Face of 2" steel corner fence post	60.96'	N16°41'E
2. Face of 6" steel corner fence post	64.58'	S15°09'E
3. 60D Nail in NW face of PP	64.86'	S13°43'E
4. NE corner of Pump House	72.71'	S37°18'W
5. 60D Nail found 6" deep	5.25'	S69°44'W
6. 1/2" rebar set flush	85.60'	N37°50'W
7. 1/2" rebar set flush	135.60'	N37°50'W
8. SE corner of building	185.61'	N37°50'W
EAST 1/4 COR. SEC. 06		
Description		
1. 5/8" rebar w/MKEC control point id cap	151.74'	N06°59'E
2. RR spike in NW face of 18" Tree	39.58'	N37°10'E
3. 60D Nail w/MKEC washer in W face of Brace Post	19.99'	N64°27'E
4. 60D Nail w/MKEC washer in W face of PP	21.96'	S53°30'E
5. Face of North Brace Post	51.46'	S21°40'E
6. Face of Line post	98.72'	S28°05'W
7. PK Nail in top of corner fence post	18.60'	S88°37'E
CENTER SEC. 06		
Description		
1. Calculated.		
WEST 1/4 COR. SEC. 06		
Description		
1. 3/4" rebar w/2" MKEC Control point id cap	211.88'	N08°50'29"W
2. 1/2" rebar found	46.85'	S89°07'E
3. 1/2" rebar found	96.88'	S89°07'E
4. 1/2" rebar found	146.86'	S89°07'E
5. Face of 2" steel brace post	39.90'	S79°47'W
6. Face of 2" steel corner fence post	39.15'	N89°44'W
7. Face of 2" steel brace post	39.86'	N78°13'W
8. 60D Nail w/MKEC washer in S face of PP	30.35'	N76°32'E
SW/COR. SEC. 06		
Description		
1. 60D Nail in SW face PP	66.19'	N31°41'E
2. 60D Nail in W face of PP	44.46'	S49°04'E
3. NE corner of old house-new tie	120.31'	S51°58'W
4. 40D Nail in SE face corner fence post	37.14'	N56°06'W
SOUTH 1/4 COR. SEC. 06		
Description		
1. Face of 2" steel corner fence post	52.89'	N52°22'E
2. 60D Nail w/MKEC washer in W face of 10" corner fence post	51.84'	S50°54'E
3. 60D Nail w/MKEC washer in W face of PP	47.60'	S42°03'E
4. 1/2" rebar set flush	50'	S00°00'E
5. 1/2" rebar set flush	100'	S00°00'E
6. 1/2" rebar set flush	150'	S00°00'E
SE/COR. SEC. 06		
Description		
1. Face 2" steel Gate Post	47.84'	N41°48'E
2. 60D Nail w/MKEC washer in S face of PP	100.96'	N77°36'E
3. 60D Nail w/MKEC washer in N face of PP	107.33'	S67°06'E
4. Face 2" steel Gate Post	85.68'	S41°33'E
5. 40D Nail in E face Gate Post	51.54'	S47°54'W
6. Face 2" steel Gate Post	61.24'	N64°29'W
7. Face 2" steel Gate Post	58.19'	N38°44'W

NW SECTION CORNER - I found and accepted a mag nail and washer set by Gary Rhoads and replaced it with a 5/8" Rebar w/MKEC - CA 2958 id cap. I confirmed it with his ties.
Original and Subsequent Monuments:
 1) GLO Set sandstone 20x18x3.
 2) CCR by Gary Rhoads. (8/2012) - Set mag nail and washer

W 1/4 CORNER - I found and accepted mag nail and washer stamped "ODOT PLS 1102" and confirmed using Gary Rhoads CCR.
Original & Subsequent Monuments:
 1) GLO set sandstone 15x9x5
 2) CCR by Gary Rhoads. (8/2012) - Set #4 rebar with PLS 1102 cap.

SW SECTION CORNER - I found and accepted 60D nail 1" deep and confirmed with all 3 previous CCR's.
Original & Subsequent Monuments:
 1) GLO set sandstone 18x11x3.
 2) CCR by Burk Cornelius (4/1992) - Found 60D nail.
 3) CCR by Randall Campo (1/2004) - Found 60D nail.
 4) CCR by Gary Rhoads (8/2012) - Found 60D nail.

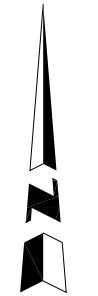
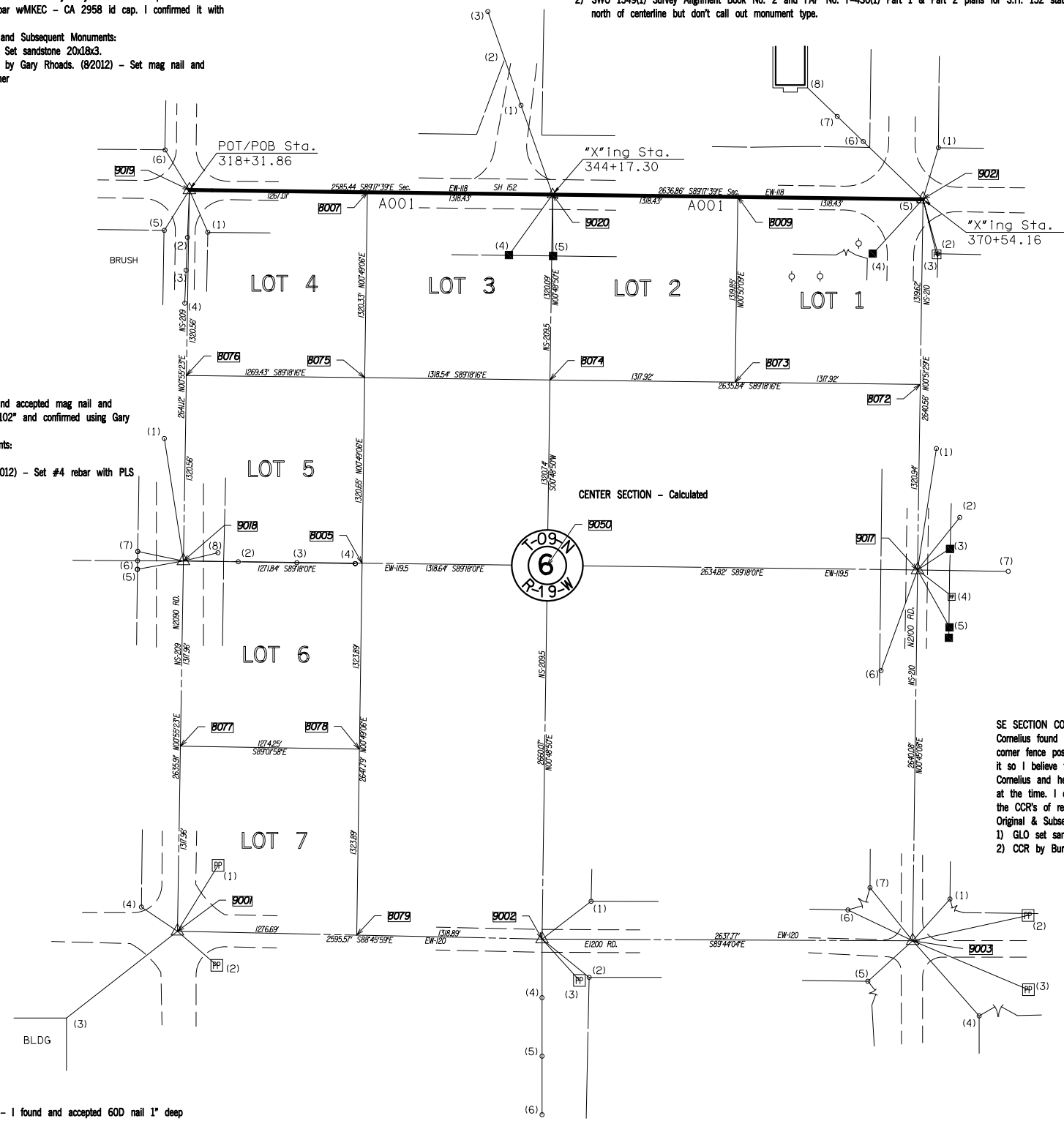
S 1/4 CORNER - I set a 5/8"x48" with MKEC CA 2958 8" deep. I set it by proportioning the GLO distances for the east west locations and splitting the fences to the north-south location. I searched and excavated at the location where I set my monument and 41' east where the existing fences are. Nothing was found. I measured 2637' from the fence west to the southwest corner of section 6 which is close to what the distance should be to the southeast corner of section 6. Burk Lee Cornelius LS-1331 set the center of section 7 on April 24, 1992 and stated on his CCR that he set it at the intersection of opposite 1/4 corners but did not file CCR's for 3 of the corners, using my position and a calculated proportioned corner at the south 1/4 of section 7 fits the found 3/8" rebar he set at the center. I talked to Mr. Cornelius and he said to contact Topographic Land Surveyors who was his employer at the time. I contacted them and they could not find any of his field notes except the CCR's of record.
Original & Subsequent Monuments:
 1) GLO set sandstone 16x14x4

N 1/4 CORNER - Set a 5/8" Rebar with MKEC CA 2958 cap at the proportioned location and 0.87' north of centerline. SWO 1549(1) Alignment Book No. 2 & F-430(1) Part 1 & Part 2 plans for S.H. 152 have this corner on line at half distance between section corners. This is a closing section and should have proportioned to the GLO measurements. After searching at the plan location, the proportioned location and in line with the fence north and finding nothing I set it at the proportioned location. This is about 11' east of the fence North, the 1/16th corner west is about 11' west of the fence south and the 1/16th corner east is about 8' east of the fence south.
Original and Subsequent Monuments:
 1) GLO Set sandstone 14x10x4.
 2) SWO 1549(1) Survey Alignment Book No. 2 and FAP No. F-430(1) Part 1 & Part 2 plans for S.H. 152 state that the corner is 1' north of centerline but don't call out monument type.

NE SECTION CORNER - I set a 5/8" rebar with MKEC 2958 cap at prorated stationing and 2' north of centerline per SWO 1549(1) Survey and FAP 430 plans for S.H. 152.
Original and Subsequent Monuments:
 1) GLO set sandstone 18x10x5.
 2) SWO 1549(1) Survey Alignment Book No.2 & FAP No. F-430(1) Part 1 & Part 2 plans for S.H. 152 state that the corner is 2' north of centerline but don't call out type of monument.

E 1/4 CORNER - I found and accepted a 1/2" rebar with PLS 1375 cap 15" deep and confirmed using Gregory Gunning's CCR.
Original & Subsequent Monuments:
 1) GLO set sandstone 14x12x3
 2) CCR by Gregory Gunning. (2/2000) - Found bent No. 4 rebar with PLS 1375 cap.

SE SECTION CORNER - I found and accepted a 1/2" rebar 5" deep. As Burk Cornelius found a 60D nail this is not the same monument he found. A 40D in a corner fence post 52.27', S50W is the only tie that still exists. I measured 51.54' to it so I believe the 1/2" found rebar is within an acceptable tolerance. I talked to Mr. Cornelius and he said to contact Topographic Land Surveyors who was his employer at the time. I contacted them and they could not find any of his field notes except the CCR's of record.
Original & Subsequent Monuments:
 1) GLO set sandstone 18x13x4
 2) CCR by Burk Cornelius (4/1992) - Found 60D nail.



SCALE: 1" = 500'

NOTE: REFERENCES SHOWN ARE NOT TO SCALE.

OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION	
PLS	ADL
DRAWN	DCJ
CHECKED	CEH
APPROVED	
CREW	

SURVEY DATA SHEET

SWO 4699 (1) PROJECT NO. 24352(10) SHEET NO. S25

SUGGESTED SEQUENCE OF CONSTRUCTION

PHASE 1:

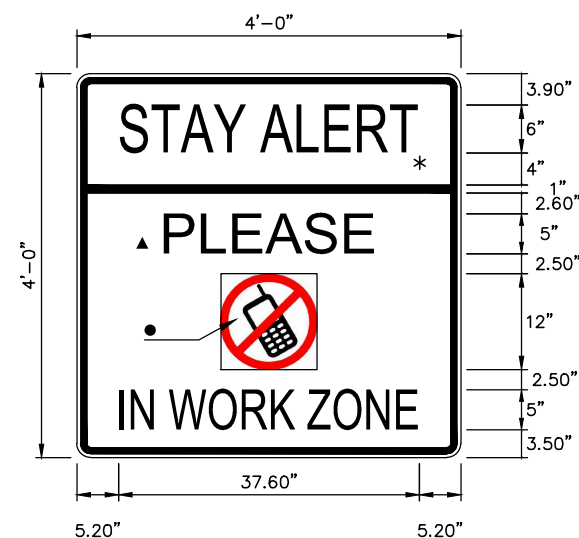
- 1A) INSTALL TRAFFIC CONTROL DEVICES
- 1B) COLDMILL ROADWAY BOTH EASTBOUND AND WESTBOUND AND IMMEDIATELY PLACE RIL.
- 1C) CONSTRUCT 2-3" BASE COURSES ON WESTBOUND SHOULDER, AND EXTEND CROSS DRAINS. CONTRACTOR TO SHOULDER UP NIGHTLY.
- 1D) PROVIDE WEDGE TREATMENT FOLLOWING ODOT STANDARD PDT-1-3 TREATMENT 3.

PHASE 2:

- 2A) INSTALL TRAFFIC CONTROL DEVICES
- 2B) CONSTRUCT 2-3" BASE COURSES ON EASTBOUND SHOULDER, AND EXTEND CROSS DRAINS. CONTRACTOR TO SHOULDER UP NIGHTLY.
- 2C) PROVIDE WEDGE TREATMENT FOLLOWING ODOT STANDARD PDT-1-3 TREATMENT 3.

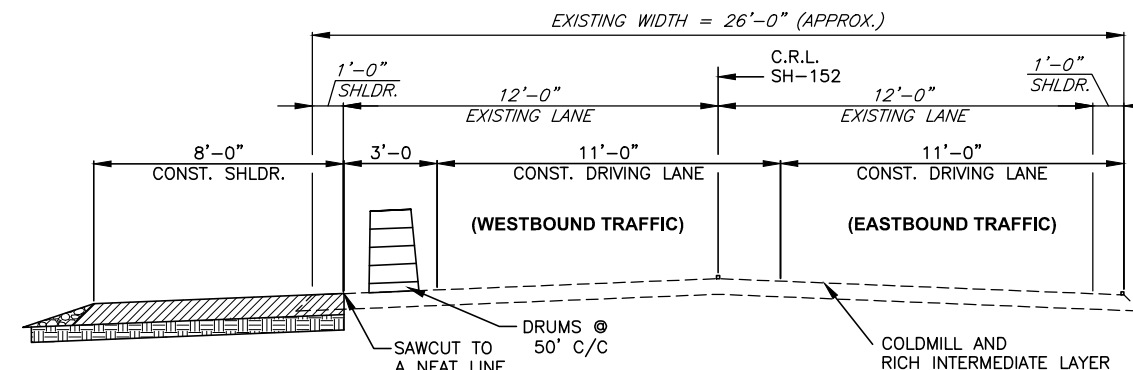
PHASE 3:

- 3A) CONSTRUCT FINAL 3" COURSE ON SHOULDER AND DRIVING LANES FOLLOWED IMMEDIATELY BY 2" SURFACE COURSE OF SHOULDERS AND DRIVING LANE. USE FLAGGING OPERATIONS TO CLOSE ONE LANE AT A TIME. MAXIMUM LANE CLOSURE LENGTH IS 1500'.

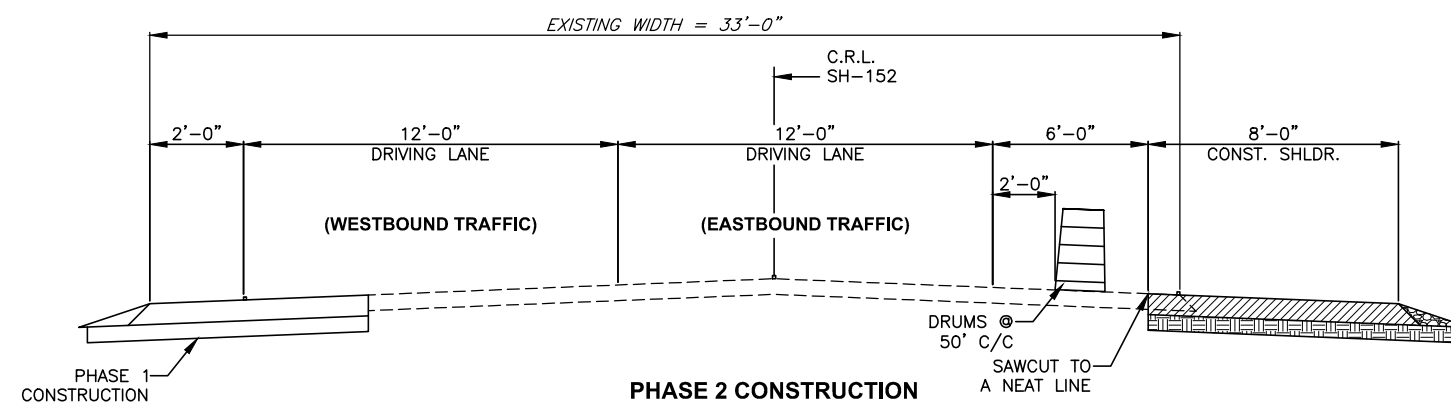


SPECIAL SIGN NO. 1

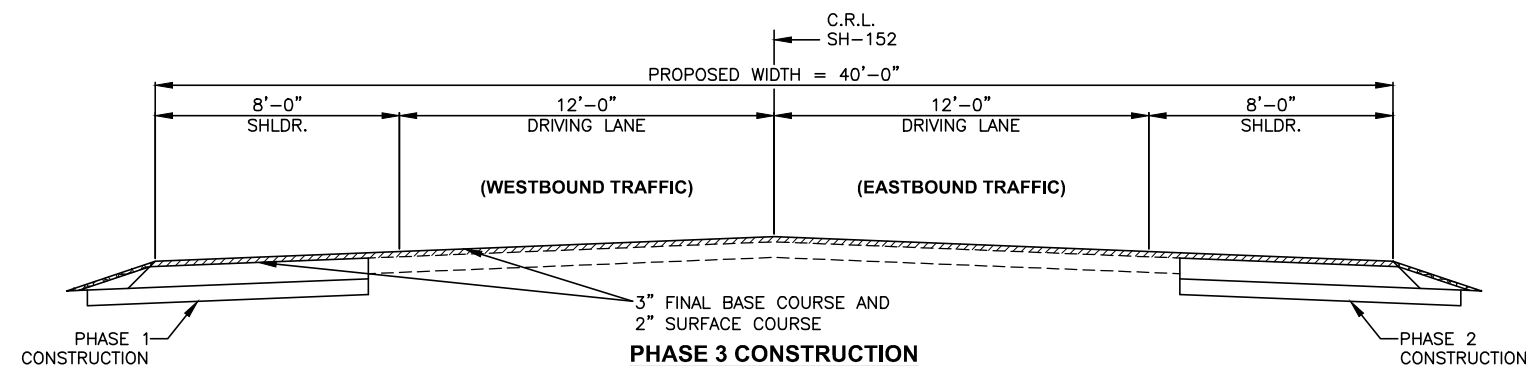
- | | | |
|---------------|--------------------------------------|------------------------|
| BORDER | COLOR: | FRONT: |
| R=1.5" | LEGEND, SYMBOL, AND BORDER: | (1) CLEAR VIEW HWY-2-B |
| TH=0.75" | BLACK (NON-REFLECTORIZED) | (2) CLEAR VIEW HWY-1-B |
| IN=0.75" | | |
| | BACKGROUND | |
| | ▲ FLUORESCENT ORANGE (REFLECTORIZED) | |
| | * FLUORESCENT YELLOW (REFLECTORIZED) | |
| | ● WHITE (REFLECTORIZED) | |



PHASE 1 CONSTRUCTION
STA. 322+00.00 TO STA. 575+90.00

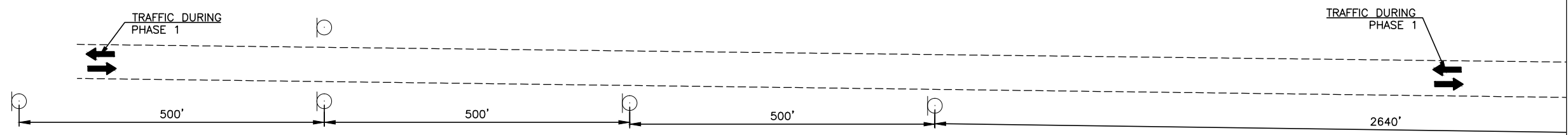


PHASE 2 CONSTRUCTION
STA. 322+00.00 TO STA. 575+90.00



PHASE 3 CONSTRUCTION
STA. 322+00.00 TO STA. 575+90.00

DESIGN	G.C.S.	SH-152	WASHITA COUNTY
DRAWN	G.S.N.	TRAFFIC CONTROL AND CONSTRUCTION SEQUENCING	
CHECKED	S.K.		
MKEC		JOB PIECE NO. 24352(10)	SHEET NO. 1001

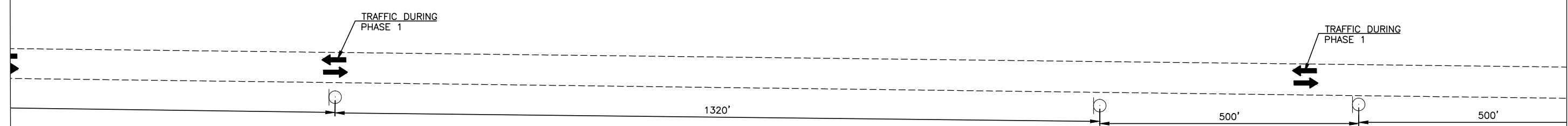
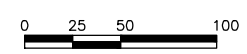


CS-16 WORK-ZONE
 CS-17 FINES DOUBLE
 CS-18 WHEN WORKERS ARE PRESENT

G20-1A
 ROAD WORK
 NEXT 4 MILES
 WING BARRICADE

STAY ALERT
 PLEASE
 IN WORK ZONE
 SP-1
 (SEE SHEET T001)

ROAD WORK
 AHEAD
 1 MILE
 W20-1



ROAD WORK
 AHEAD
 1/2 MILE
 W20-1

LEGEND

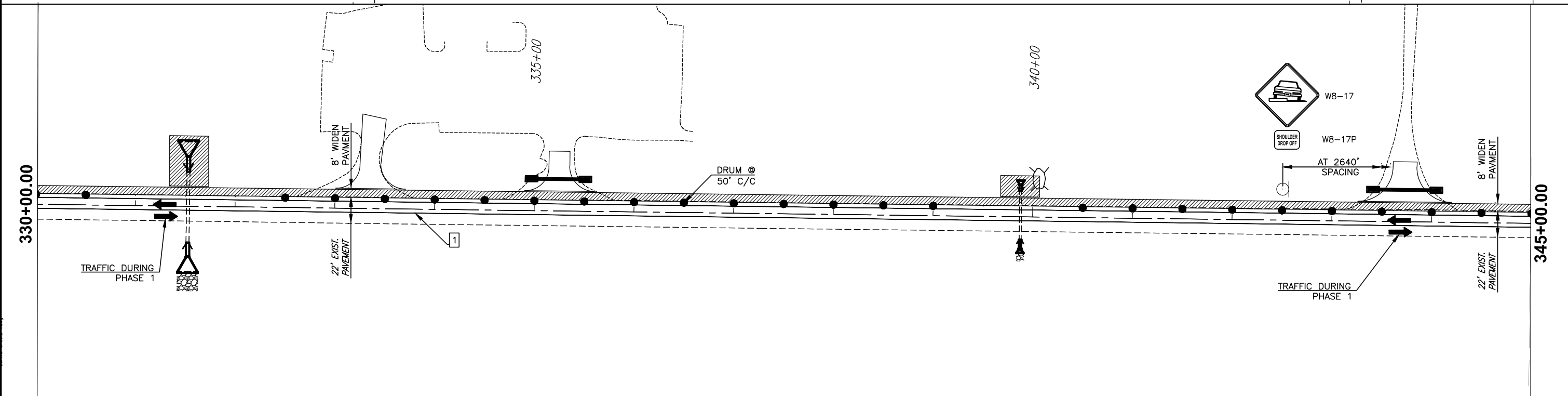
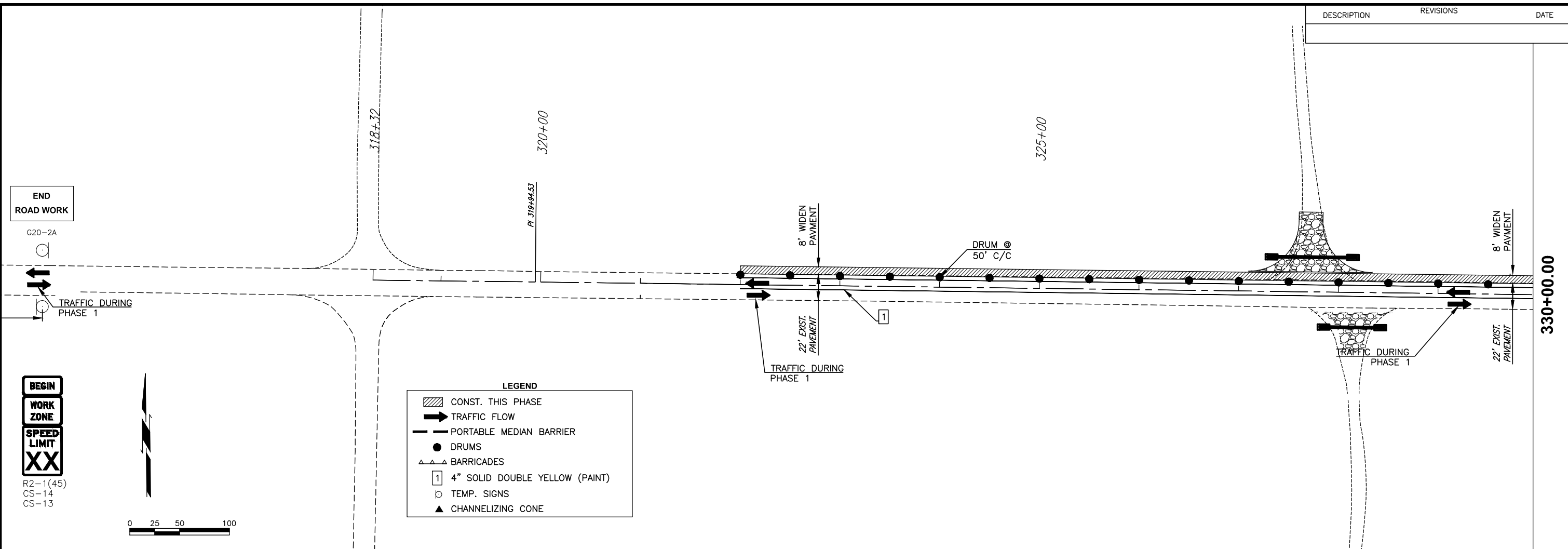
- CONST. THIS PHASE
- TRAFFIC FLOW
- PORTABLE MEDIAN BARRIER
- DRUMS
- BARRICADES
- 4" SOLID DOUBLE YELLOW (PAINT)
- TEMP. SIGNS
- CHANNELIZING CONE

ROAD WORK
 1500 FT
 W20-1

SPEED
 LIMIT
 XX
 W3-5(45)

G:\projects\2014\140310608-0001 EC-1504A - SH-152 Washita Co\5 - civil\CAD\Drawings\24352(10)-Traffic
 PLOTED: Friday, March 29, 2019 @ 03:12PM

DESCRIPTION	REVISIONS	DATE



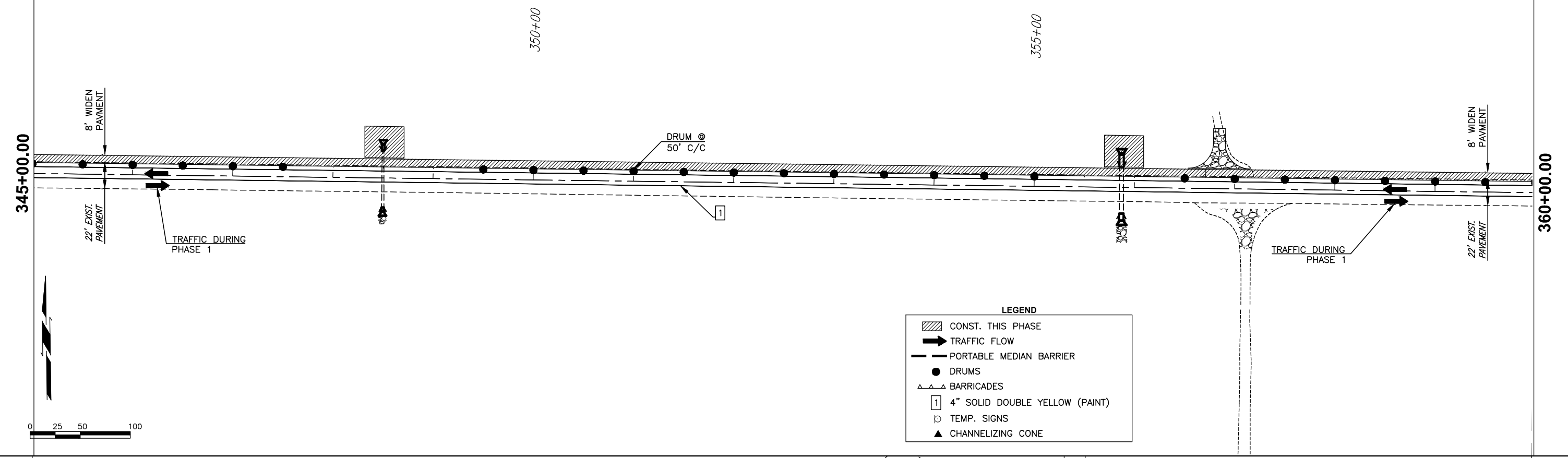
SH-152 WASHITA COUNTY

**TRAFFIC CONTROL-
PHASE 1**
(SHEET 2 OF 11)

JOB PIECE NO. 24352(10) Sheet No. T003

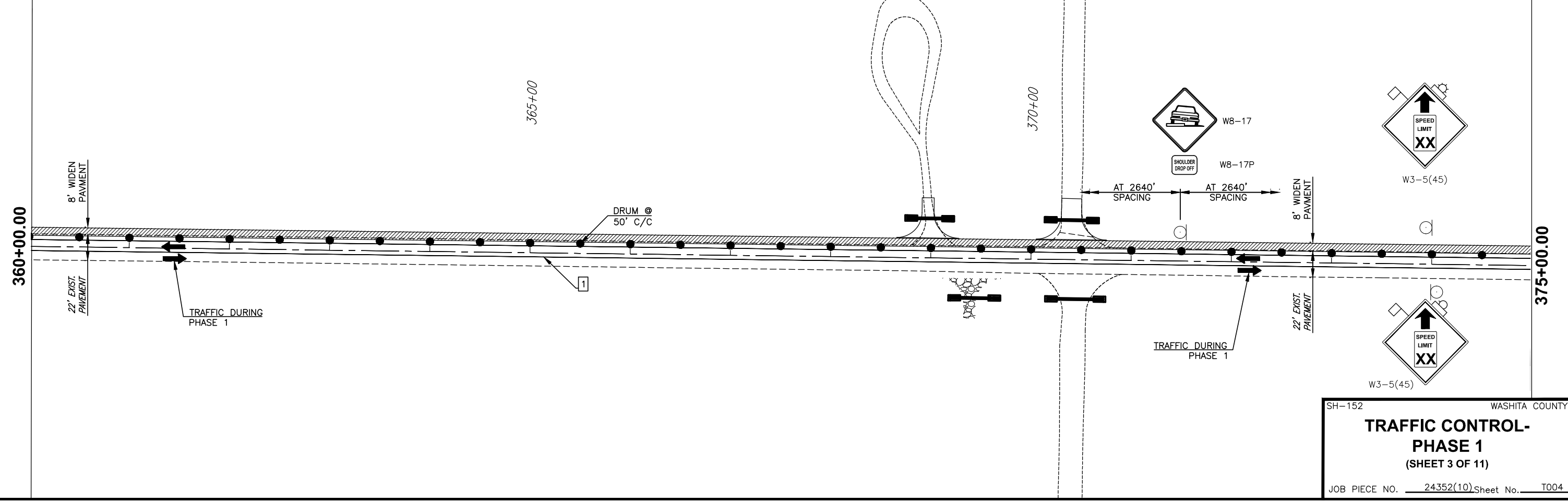
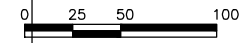
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DESCRIPTION	REVISIONS	DATE



LEGEND

- CONST. THIS PHASE
- TRAFFIC FLOW
- PORTABLE MEDIAN BARRIER
- DRUMS
- BARRICADES
- 4" SOLID DOUBLE YELLOW (PAINT)
- TEMP. SIGNS
- CHANNELIZING CONE



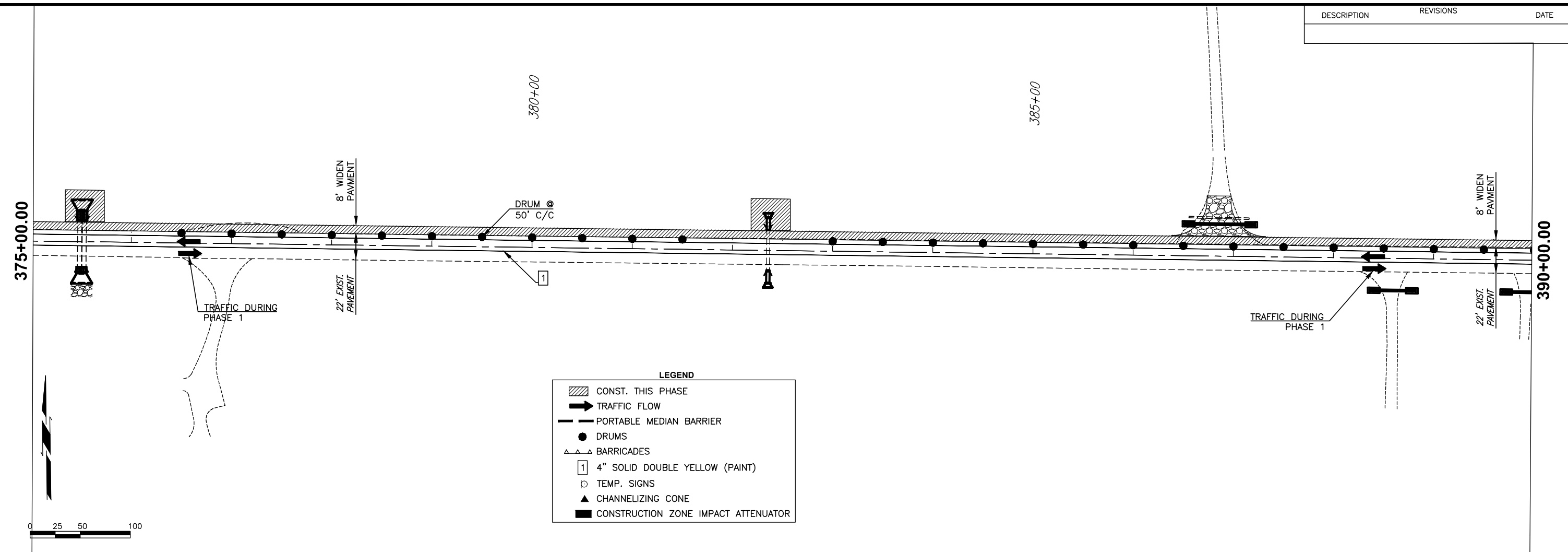
SH-152 WASHITA COUNTY

**TRAFFIC CONTROL-
PHASE 1**

(SHEET 3 OF 11)

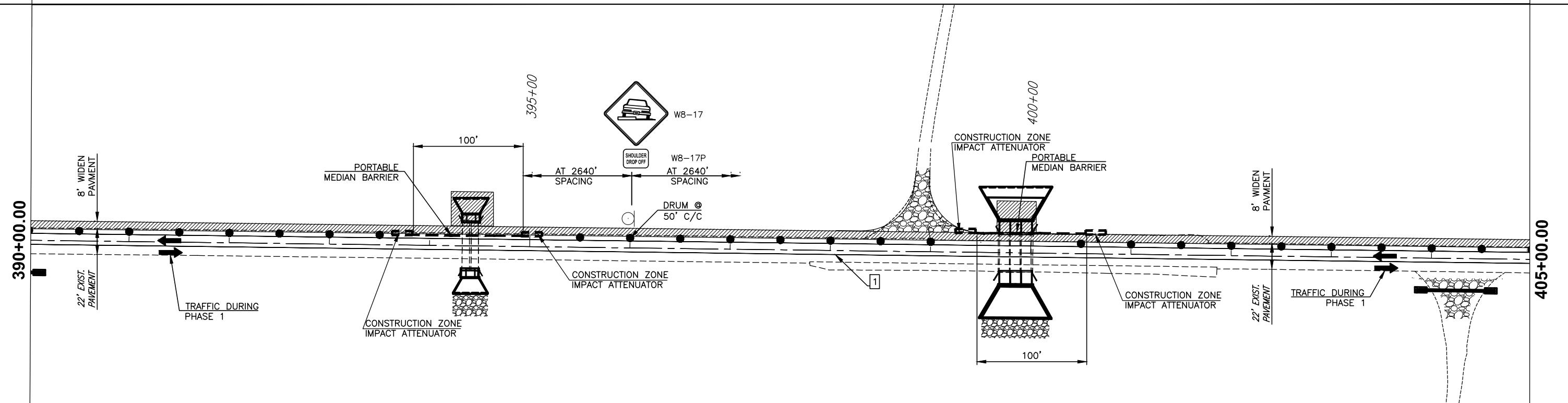
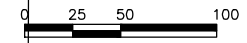
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PLOTTER: Friday, March 29, 2019 @ 04:47PM
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LEGEND

- CONST. THIS PHASE
- TRAFFIC FLOW
- PORTABLE MEDIAN BARRIER
- DRUMS
- BARRICADES
- 4" SOLID DOUBLE YELLOW (PAINT)
- TEMP. SIGNS
- CHANNELIZING CONE
- CONSTRUCTION ZONE IMPACT ATTENUATOR



SH-152 WASHITA COUNTY

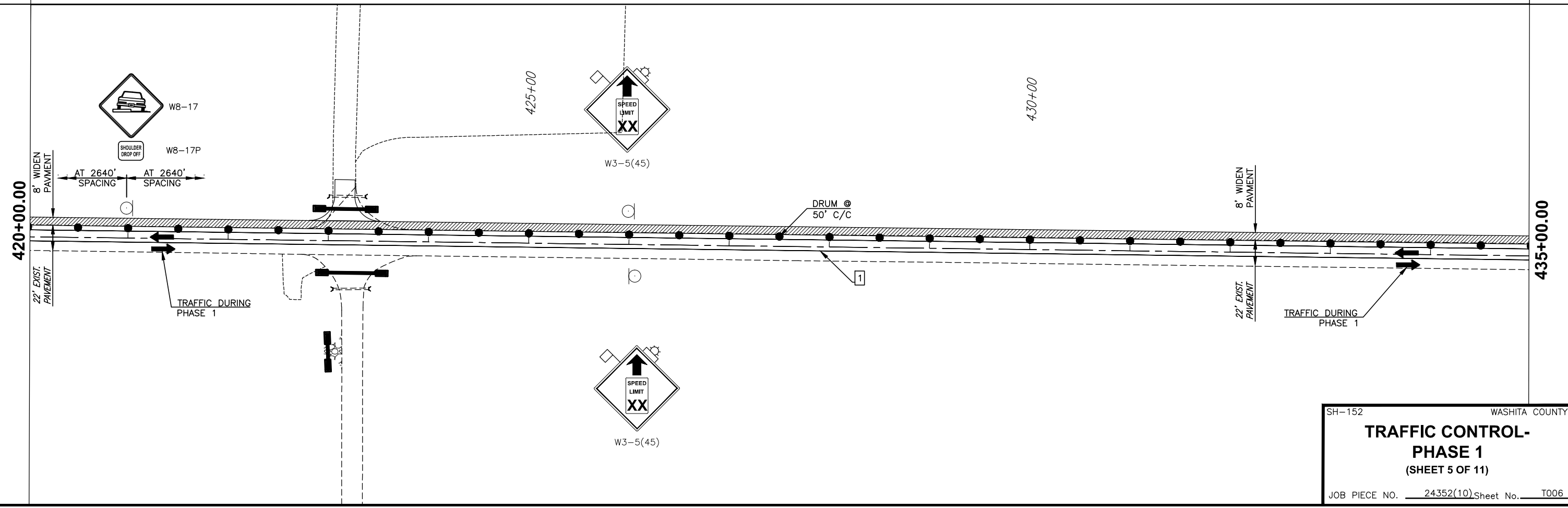
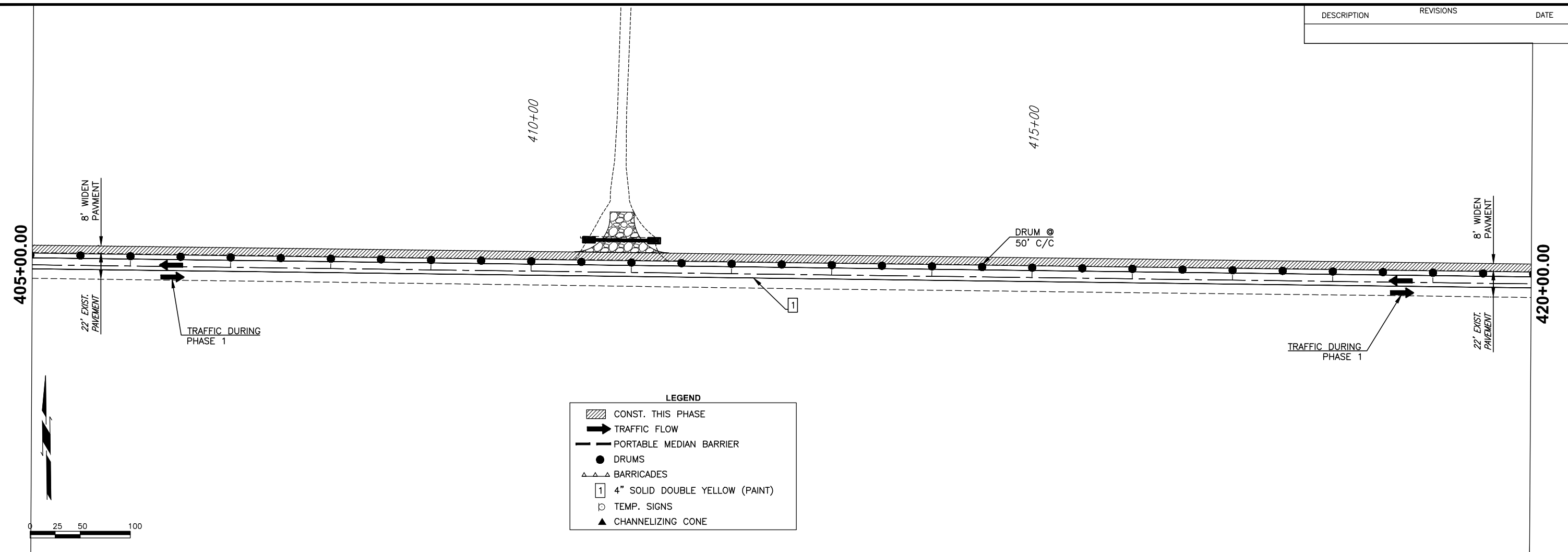
**TRAFFIC CONTROL-
PHASE 1**

(SHEET 4 OF 11)

JOB PIECE NO. 24352(10) Sheet No. T005

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 PLOTTER: Friday, March 29, 2019 @ 03:12PM

DESCRIPTION	REVISIONS	DATE

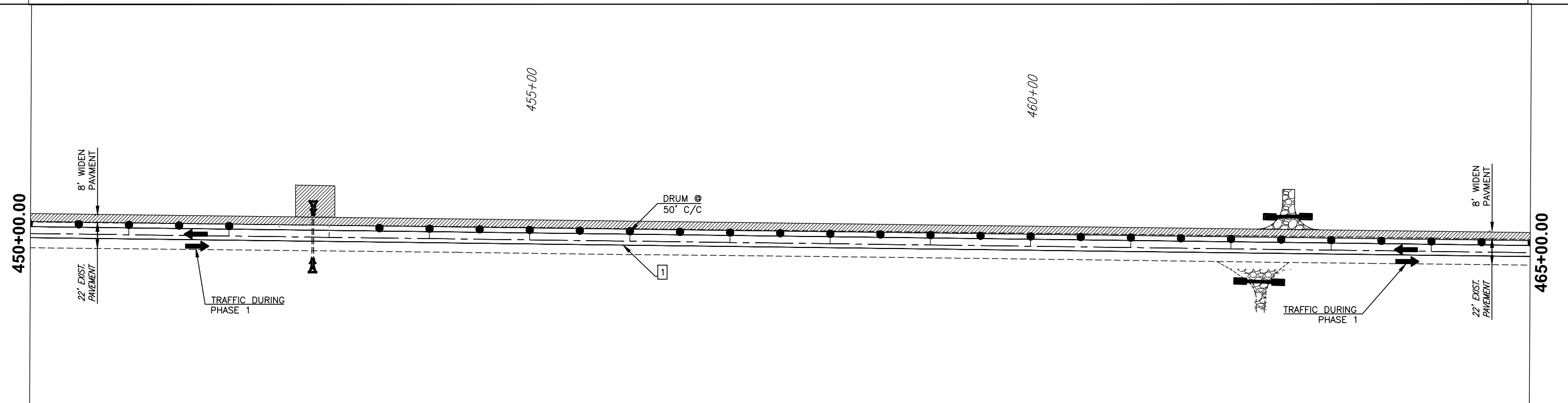
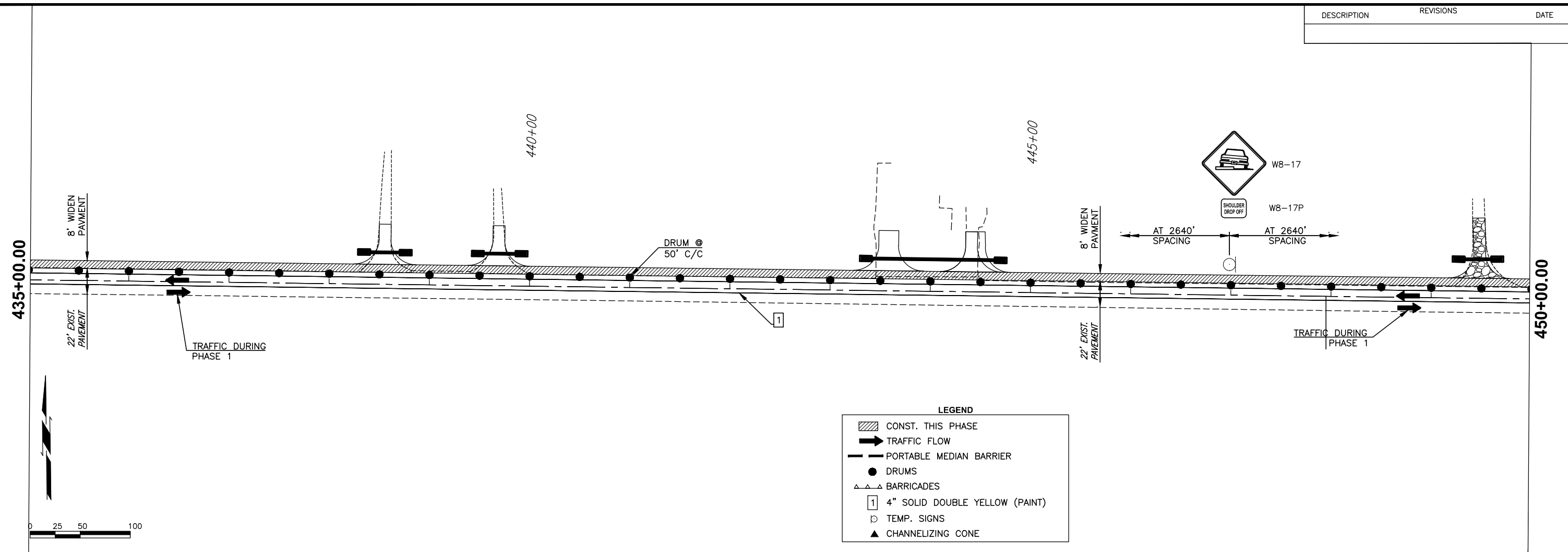


LEGEND

	CONST. THIS PHASE
	TRAFFIC FLOW
	PORTABLE MEDIAN BARRIER
	DRUMS
	BARRICADES
	4" SOLID DOUBLE YELLOW (PAINT)
	TEMP. SIGNS
	CHANNELIZING CONE

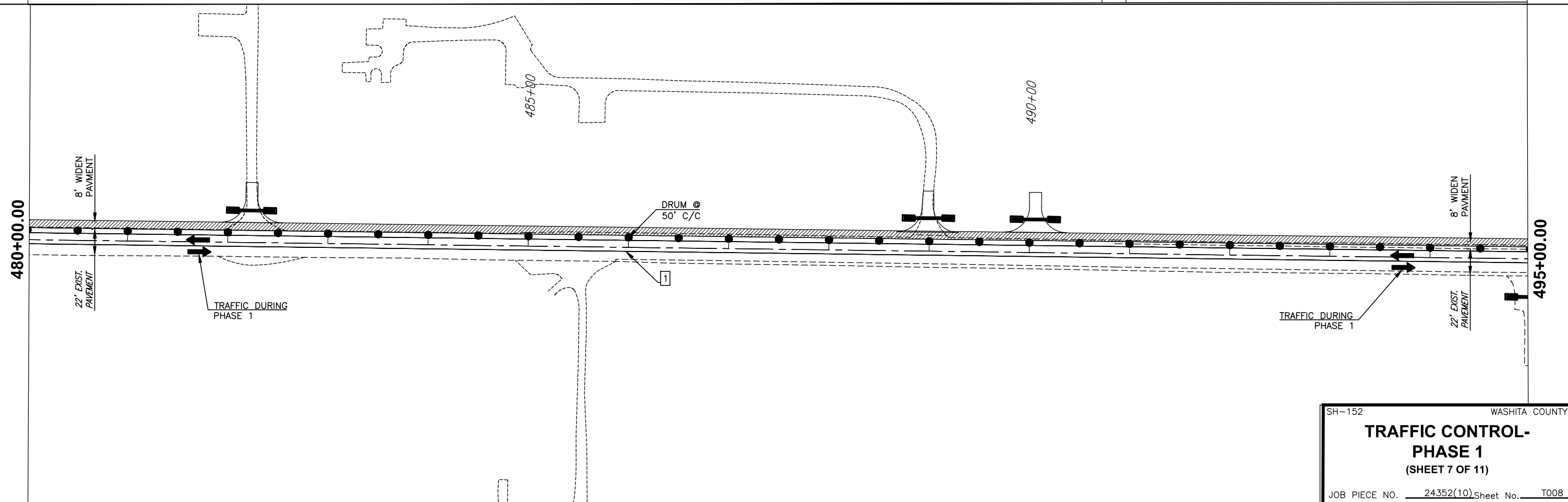
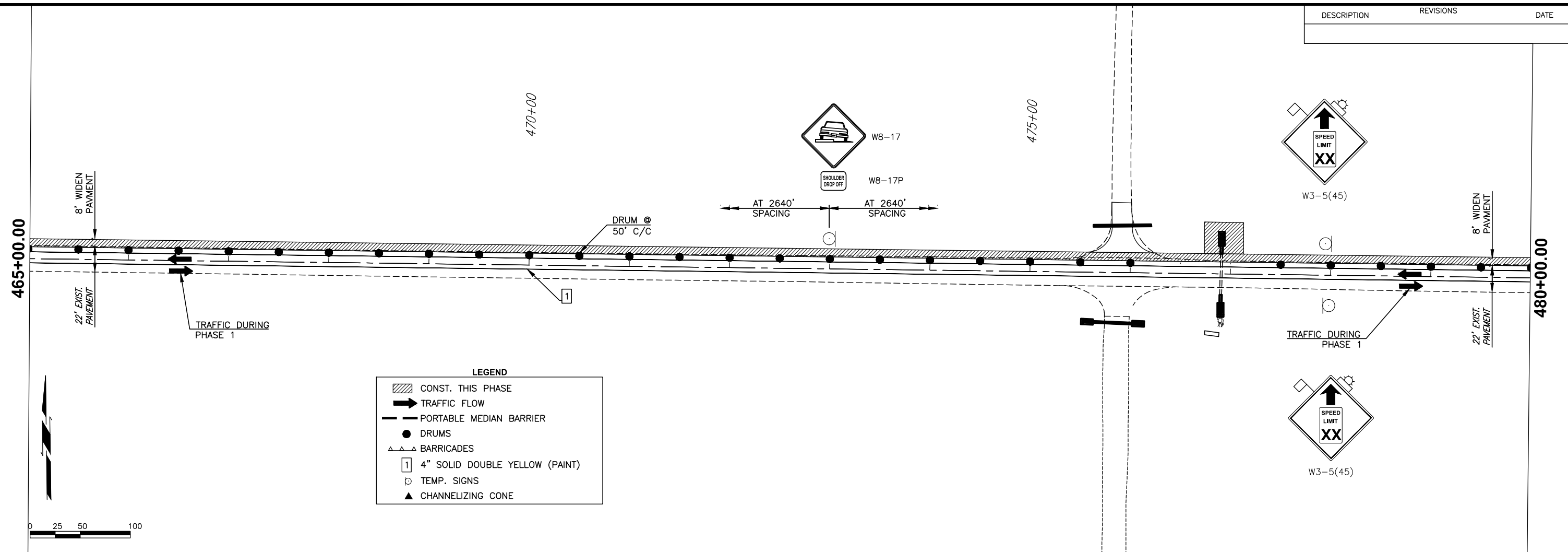
SH-152 WASHITA COUNTY
**TRAFFIC CONTROL-
 PHASE 1**
 (SHEET 5 OF 11)
 JOB PIECE NO. 24352(10) Sheet No. T006

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DESCRIPTION	REVISIONS	DATE



SH-152 WASHITA COUNTY

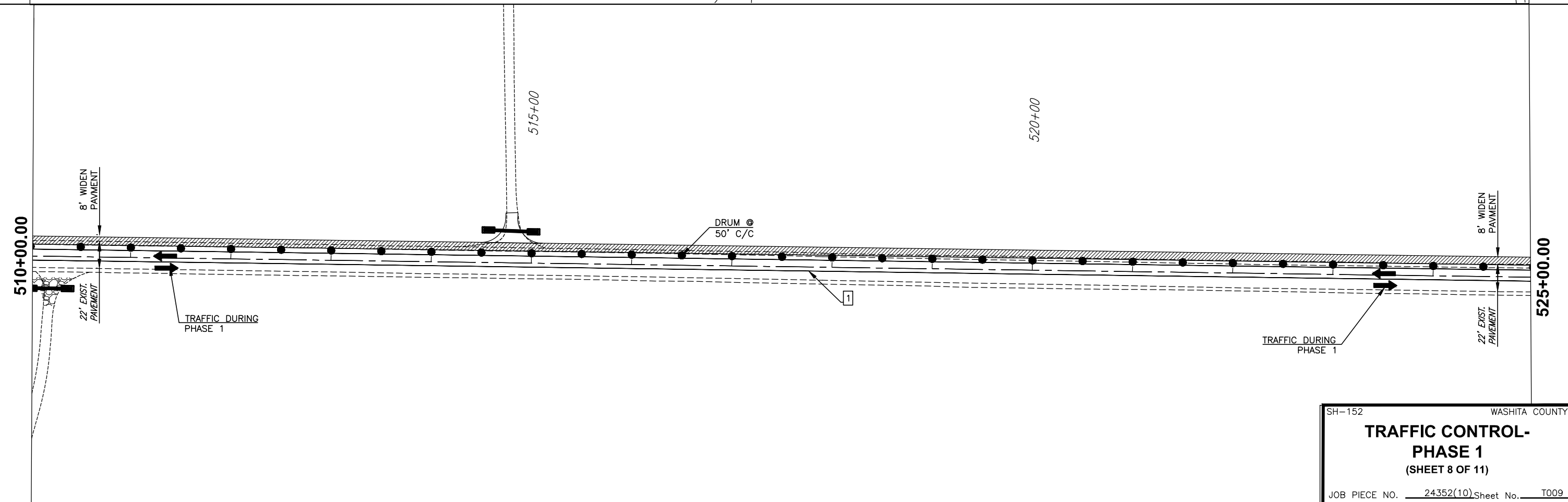
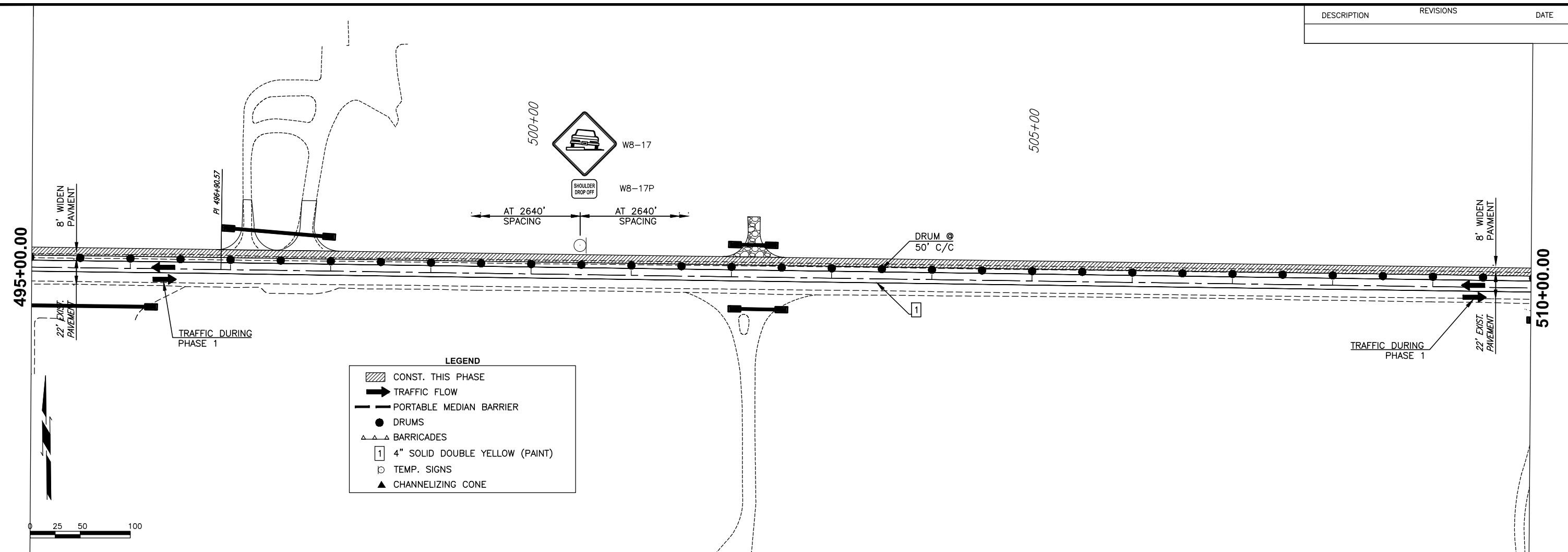
**TRAFFIC CONTROL-
PHASE 1**

(SHEET 7 OF 11)

JOB PIECE NO. 24352(10) Sheet No. T008

PLOTED: Friday, March 29, 2019 @ 03:12PM
 G:\projects\2019\14031008-0001-EC-1504 - SH-152 Washita Co\5- civil\CAD\Drawings\435210-Traffic

DESCRIPTION	REVISIONS	DATE



SH-152 WASHITA COUNTY

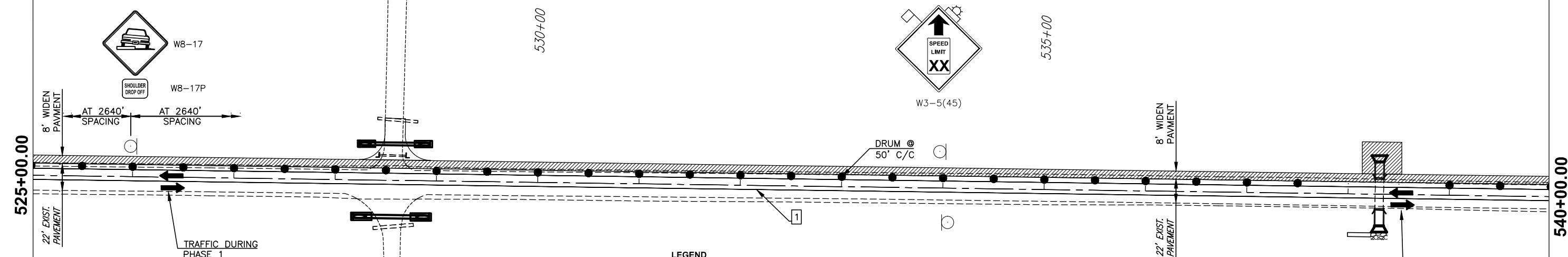
**TRAFFIC CONTROL-
PHASE 1**

(SHEET 8 OF 11)

JOB PIECE NO. 24352(10) Sheet No. T009

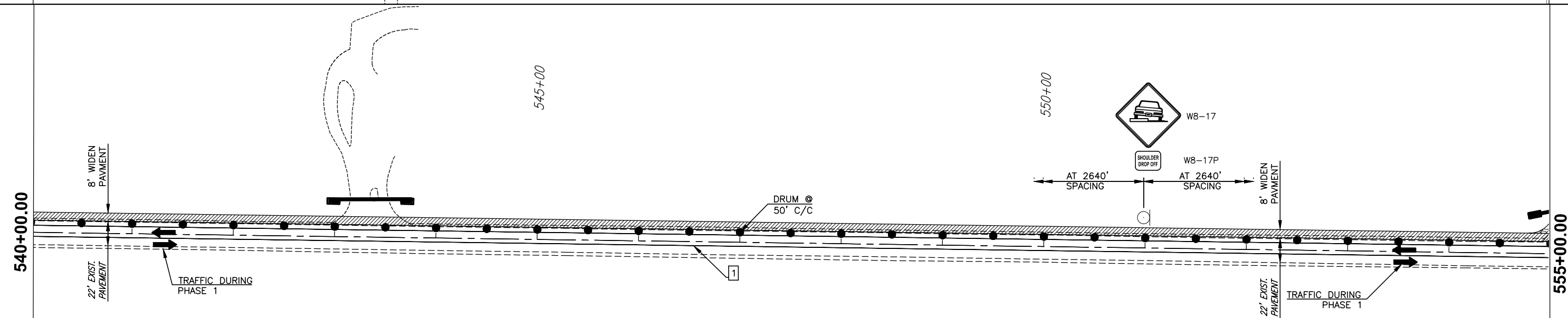
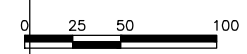
PLOTTER: Friday, March 29, 2019 @ 03:13PM
 G:\projects\2019\14031008-0001-EC-150A - SH-152 Washita Co\5 - civil\CD\Drawings\24352(10)-Traffic

DESCRIPTION	REVISIONS	DATE



LEGEND

- CONST. THIS PHASE
- TRAFFIC FLOW
- PORTABLE MEDIAN BARRIER
- DRUMS
- BARRICADES
- 4" SOLID DOUBLE YELLOW (PAINT)
- TEMP. SIGNS
- CHANNELIZING CONE



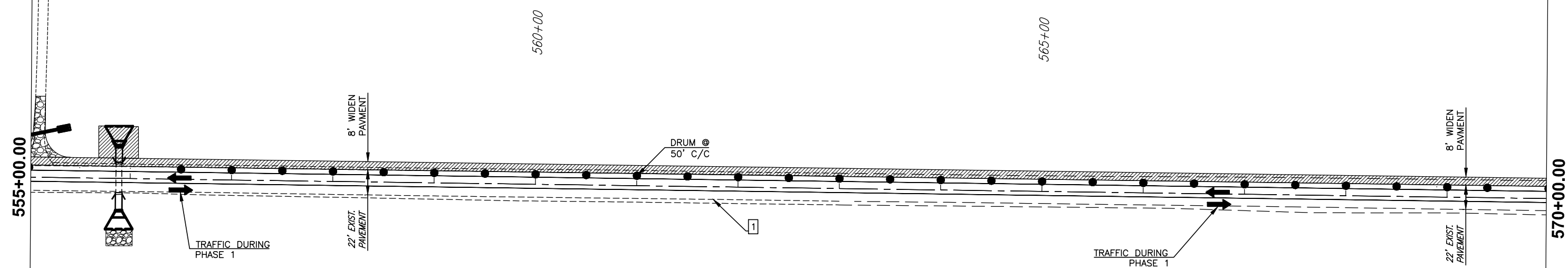
SH-152 WASHITA COUNTY

**TRAFFIC CONTROL-
PHASE 1**

(SHEET 9 OF 11)

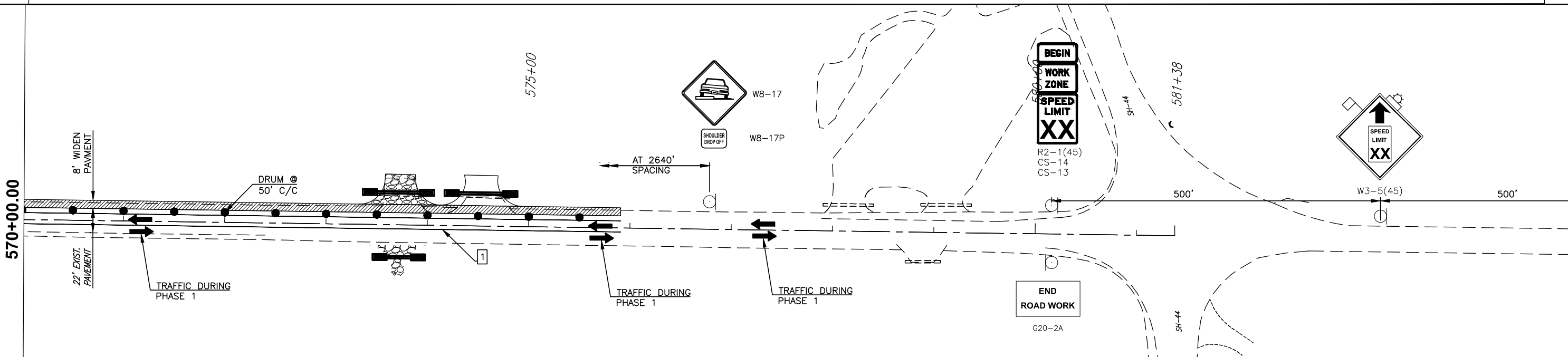
JOB PIECE NO. 24352(10) Sheet No. T010

G:\projects\2019\140370608-0001_EC-1504 - SH-152 Washita Co\5 - civil\CAD\Drawings\24352(10)-Traffic
 PLOTTER: Friday, March 29, 2019 @ 03:13PM



LEGEND

- CONST. THIS PHASE
- TRAFFIC FLOW
- PORTABLE MEDIAN BARRIER
- DRUMS @ 50' CENTER
- BARRICADES
- 4" SOLID DOUBLE YELLOW (PAINT)
- TEMP. SIGNS
- CHANNELIZING CONE



NOTE:
 ADD ADVANCED WARNING SIGNS
 PER ODOT STANDARD
 TCS7-1-02 (LATEST) ON
 NORTHBOUND AND SOUTHBOUND SH-44

SH-152 WASHITA COUNTY

**TRAFFIC CONTROL-
 PHASE 1**
 (SHEET 10 OF 11)

JOB PIECE NO. 24352(10) Sheet No. T011

PLOTTER: Friday, March 29, 2019 @ 03:13PM
 G:\projects\2019\140370608-0001 EC-1504 - SH-152 Washita Co\5-001\CAD\Drawings\24352(10)-Traffic

DESCRIPTION	REVISIONS	DATE



500'

W20-1

1320'

W20-1



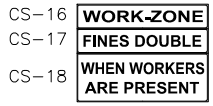
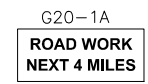
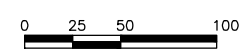
TRAFFIC DURING PHASE 1



TRAFFIC DURING PHASE 1

LEGEND

- CONST. THIS PHASE
- TRAFFIC FLOW
- PORTABLE MEDIAN BARRIER
- DRUMS @ 50' CENTER
- BARRICADES
- 4" SOLID DOUBLE YELLOW (PAINT)
- TEMP. SIGNS
- CHANNELIZING CONE



2640'

W20-1

500'

SP-1 (SEE SHEET T001)

500'

G20-1A WING BARRICADE

500'



TRAFFIC DURING PHASE 1



TRAFFIC DURING PHASE 1

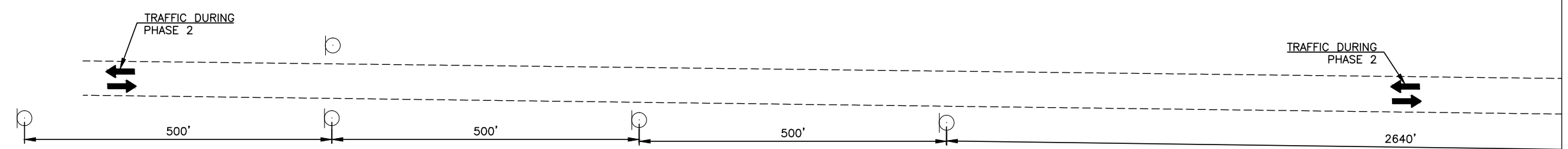
G:\projects\2014\140310068-0001 EC-1504A - SH-152 Washita Co\15-102 Washita Co\15-102\140310068-0001 EC-1504A - SH-152 Traffic
 PLOTED: Friday, March 29, 2019 @ 03:13PM

SH-152 WASHITA COUNTY

**TRAFFIC CONTROL-
PHASE 1**

(SHEET 11 OF 11)

JOB PIECE NO. 24352(10) Sheet No. T012



CS-16 WORK-ZONE
 CS-17 FINES DOUBLE
 CS-18 WHEN WORKERS ARE PRESENT

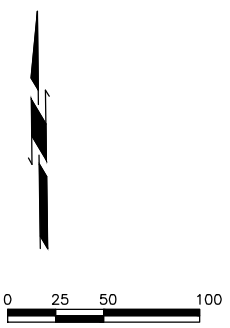
G20-1A
 ROAD WORK
 NEXT 4 MILES
 WING BARRICADE

STAY ALERT
 PLEASE
 IN WORK ZONE
 SP-1
 (SEE SHEET T001)

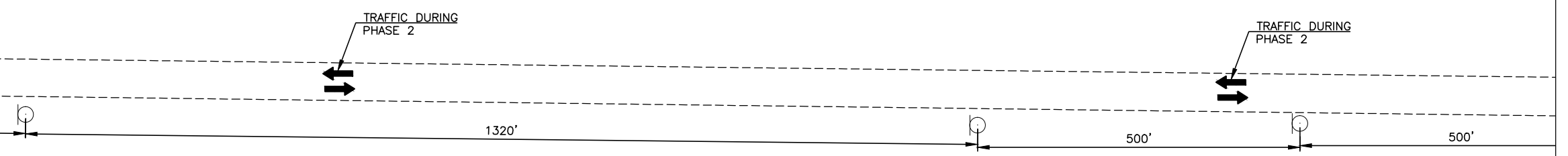
ROAD WORK
 AHEAD
 1 MILE
 W20-1

LEGEND

- ▨ CONST. THIS PHASE
- ➡ TRAFFIC FLOW
- PORTABLE MEDIAN BARRIER
- DRUMS
- △△△ BARRICADES
- 1 4" SOILD DOUBLE YELLOW (PAINT)
- TEMP. SIGNS
- ▲ CHANNELIZING CONE



G:\projects\2014\140301068-007 EC-1504 - SH-152 Washita Co\5- civil\CA\Draw\24352(1)-Traffic
 PLOTED: Friday, March 29, 2019 @ 03:13PM



ROAD WORK
 AHEAD
 1/2 MILE
 W20-1

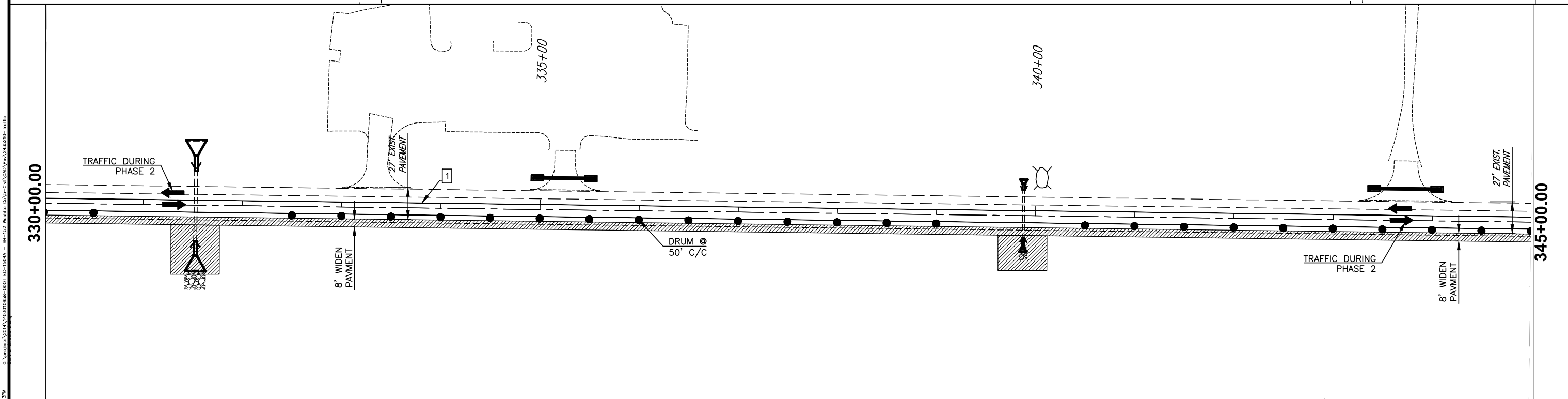
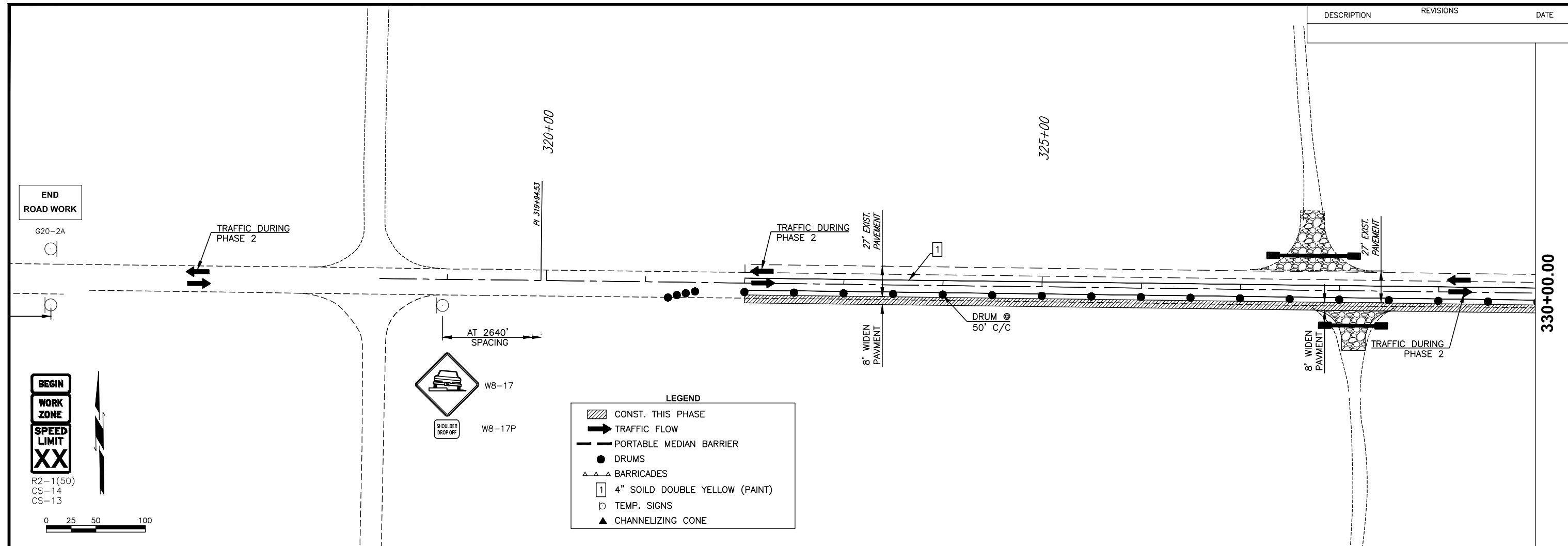
ROAD WORK
 1500 FT
 W20-1

SPEED
 LIMIT
 XX
 W3-5(45)

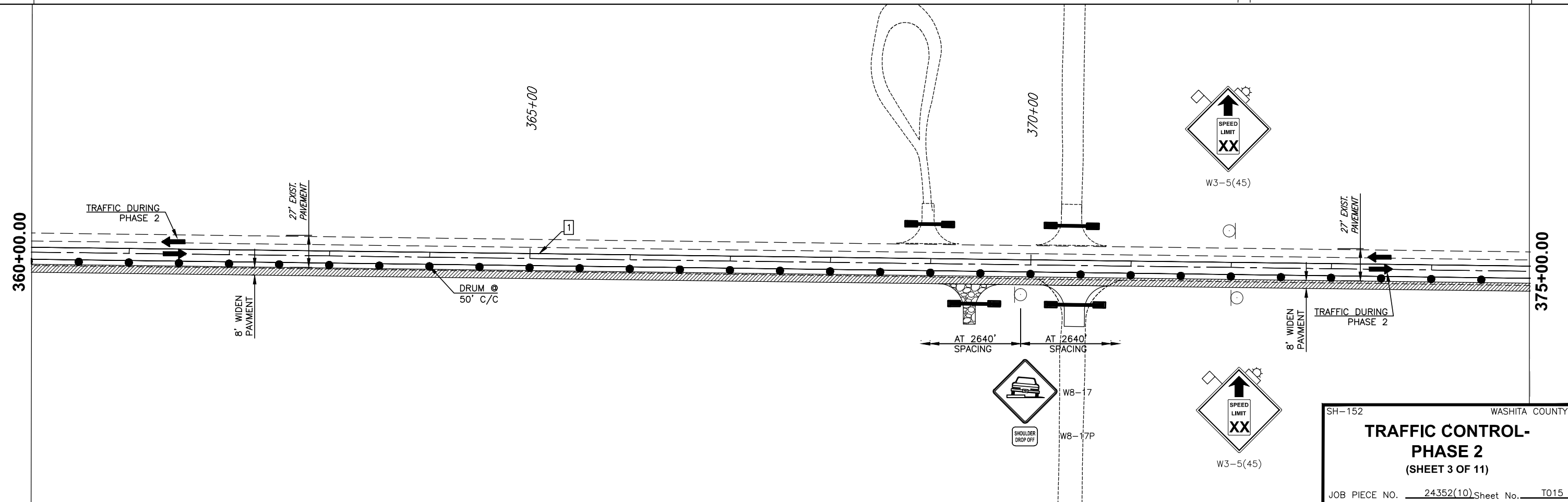
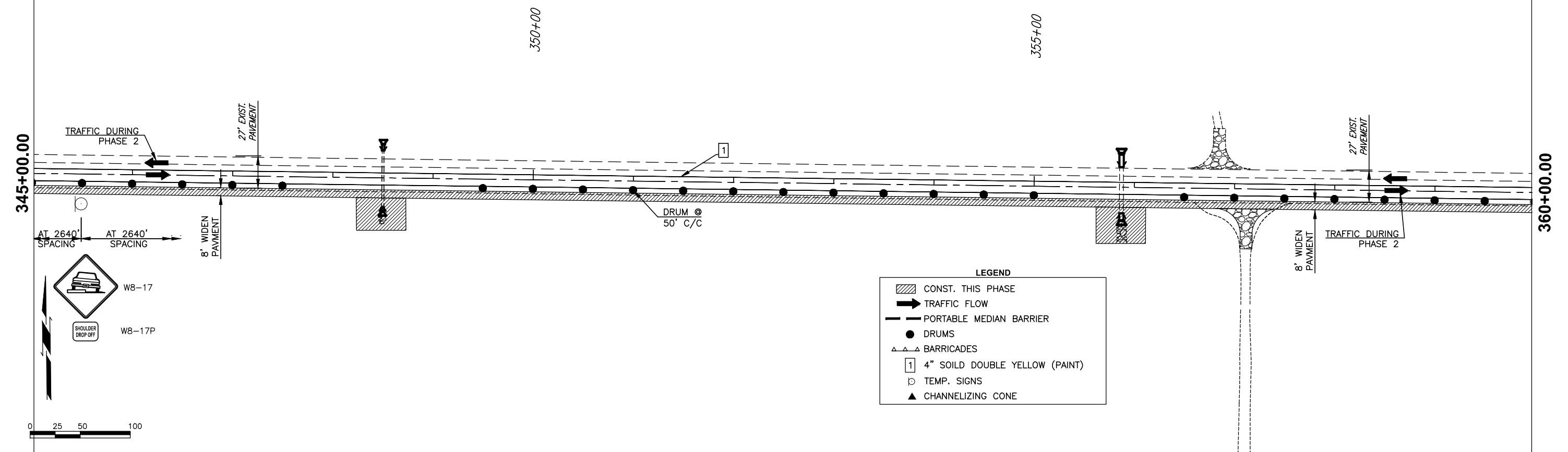
SH-152 WASHITA COUNTY

**TRAFFIC CONTROL-
 PHASE 2**
 (SHEET 1 OF 11)

JOB PIECE NO. 24352(10) Sheet No. T013



G:\projects\2014\140310068-0007_EC-1504A - SH-152 Washita Co\5-041\CA\Draw\24352(10)-Traffic
 PLOTED: Friday, March 29, 2019 @ 03:13PM

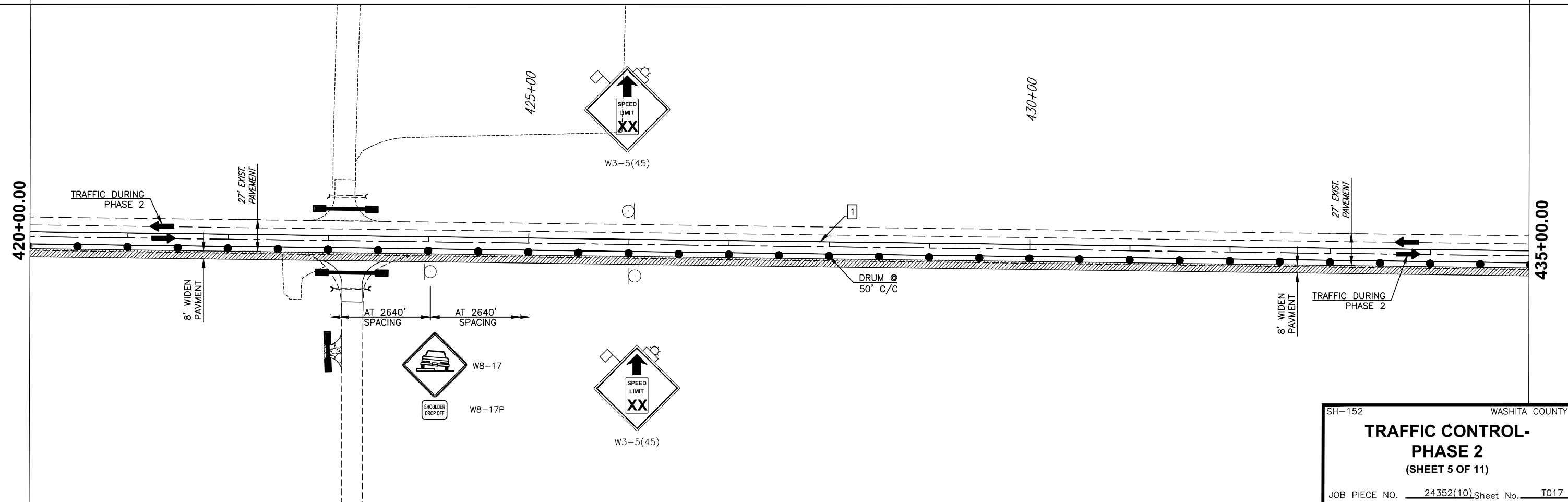
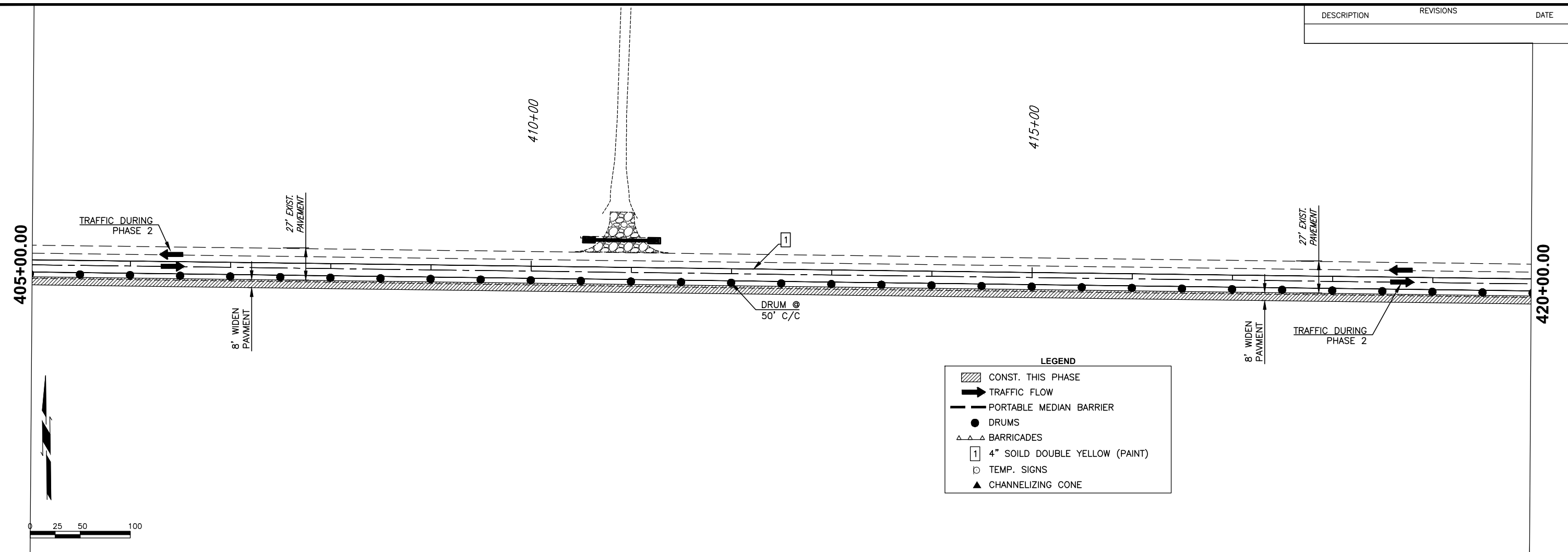


SH-152 WASHITA COUNTY

**TRAFFIC CONTROL-
PHASE 2**
(SHEET 3 OF 11)

JOB PIECE NO. 24352(10) Sheet No. T015

PLOTTER: Friday, March 29, 2019 @ 03:13PM
 G:\projects\2019\140310608-0001_EC-1504 - SH-152 Washita Co\5- civil\CAD\Drawings\24352(10)-Traffic



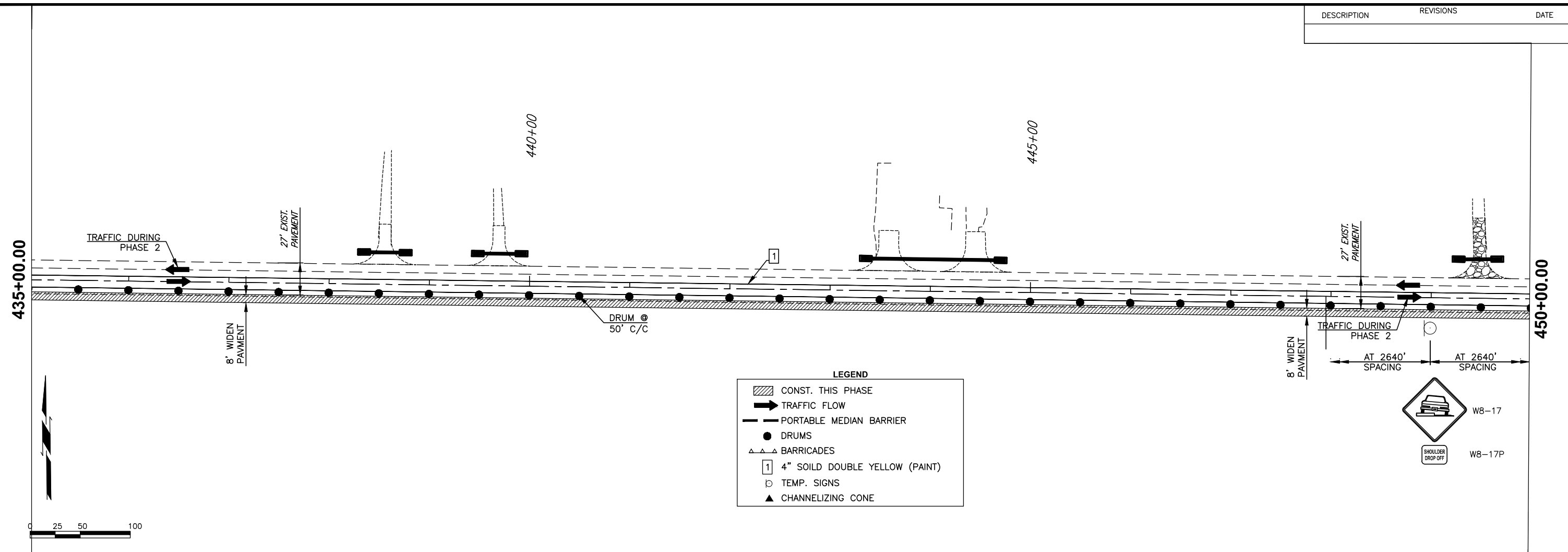
SH-152 WASHITA COUNTY

**TRAFFIC CONTROL-
PHASE 2**
(SHEET 5 OF 11)

JOB PIECE NO. 24352(10) Sheet No. T017

PLOTTER: Friday, March 29, 2019 @ 03:13PM
 G:\projects\2019\140310608-0001_EC-1504 - SH-152 Washita Co\5-civil\CD\Drawings\24352(10)-Traffic

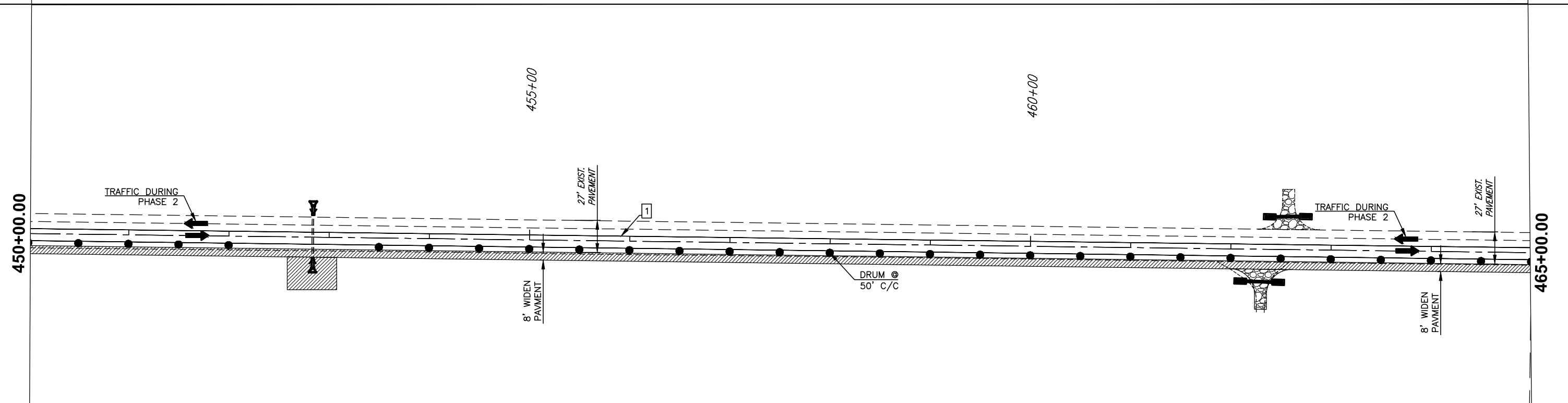
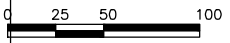
DESCRIPTION	REVISIONS	DATE



LEGEND

- CONST. THIS PHASE
- TRAFFIC FLOW
- PORTABLE MEDIAN BARRIER
- DRUMS
- BARRICADES
- 4" SOILD DOUBLE YELLOW (PAINT)
- TEMP. SIGNS
- CHANNELIZING CONE

W8-17
W8-17P



SH-152 WASHITA COUNTY

**TRAFFIC CONTROL-
PHASE 2**
(SHEET 6 OF 11)

JOB PIECE NO. 24352(10) Sheet No. T018

PLOTTER: Friday, March 29, 2019 @ 03:13PM
 G:\projects\2019\1403210608-0001_EC-1504 - SH-152 Washita Co\5- civil\CAD\Drawings\24352(10)-Traffic

465+00.00

480+00.00

470+00

475+00

TRAFFIC DURING PHASE 2

27' EXIST. PAVEMENT

DRUM @ 50' C/C

W3-5(45)









27' EXIST. PAVEMENT

TRAFFIC DURING PHASE 2

8' WIDEN PAVEMENT

8' WIDEN PAVEMENT

LEGEND

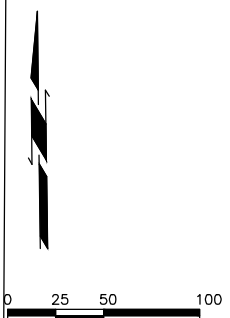
-  CONST. THIS PHASE
-  TRAFFIC FLOW
-  PORTABLE MEDIAN BARRIER
-  DRUMS
-  BARRICADES
-  4" SOILD DOUBLE YELLOW (PAINT)
-  TEMP. SIGNS
-  CHANNELIZING CONE

AT 2640' SPACING

AT 2640' SPACING

W8-17
SHOULDER DROP OFF
W8-17R

W3-5(45)



480+00.00

495+00.00

485+00

490+00

TRAFFIC DURING PHASE 2

27' EXIST. PAVEMENT

DRUM @ 50' C/C

27' EXIST. PAVEMENT

8' WIDEN PAVEMENT

8' WIDEN PAVEMENT

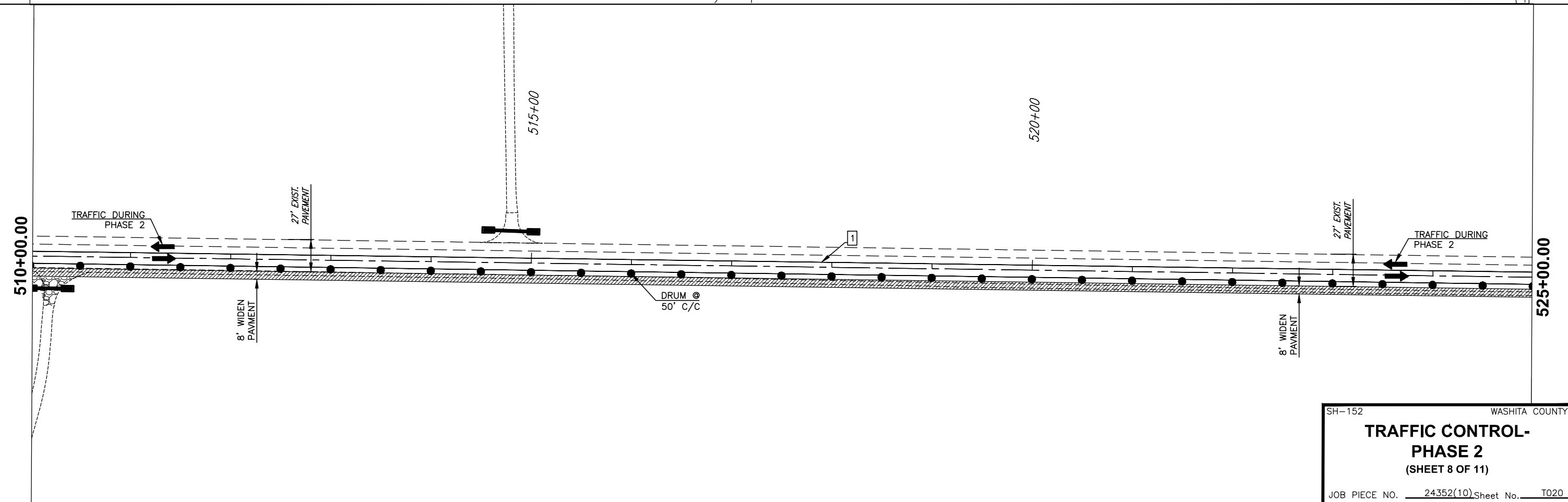
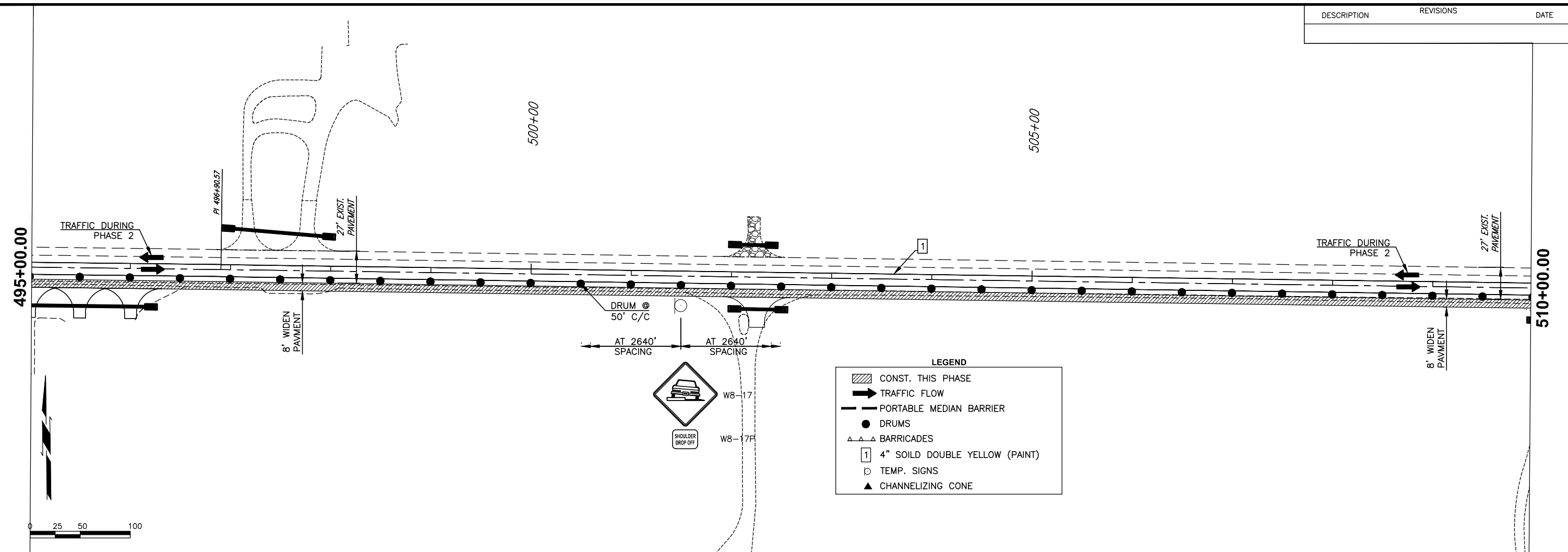
TRAFFIC DURING PHASE 2

SH-152 WASHITA COUNTY

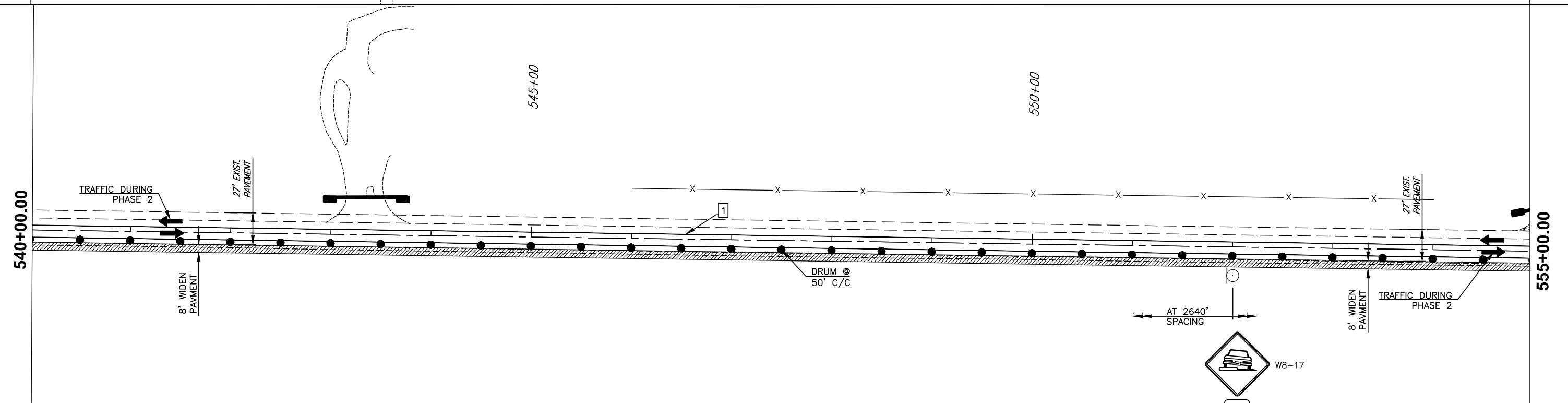
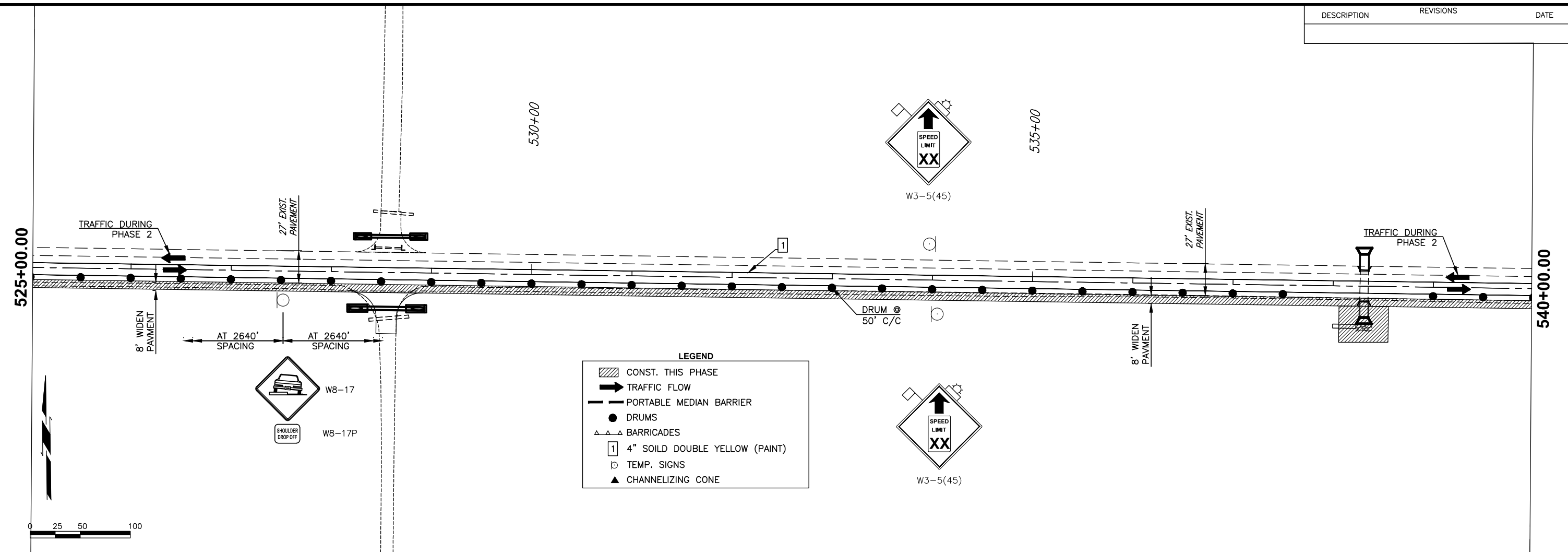
**TRAFFIC CONTROL-
PHASE 2**
(SHEET 7 OF 11)

JOB PIECE NO. 24352(10) Sheet No. T019

PLOTTER: Friday, March 29, 2019 @ 03:14PM
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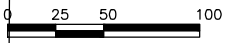


PLOTTER: Friday, March 29, 2019 @ 03:14PM
 G:\projects\2019\1403210608-0001_EC-1504 - SH-152 Washita Co\5- civil\CAD\Drawings\24352(10)-Traffic



LEGEND

- CONST. THIS PHASE
- TRAFFIC FLOW
- PORTABLE MEDIAN BARRIER
- DRUMS
- BARRICADES
- 4" SOILD DOUBLE YELLOW (PAINT)
- TEMP. SIGNS
- CHANNELIZING CONE



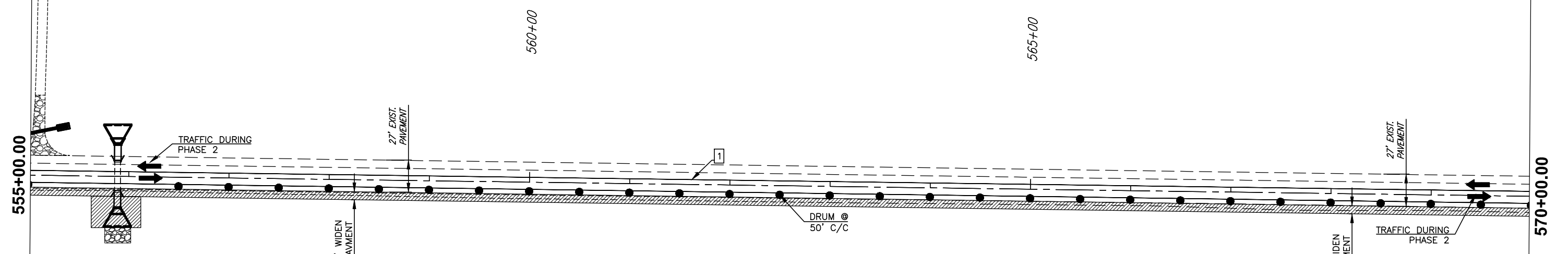
SH-152 WASHITA COUNTY

**TRAFFIC CONTROL-
PHASE 2**
(SHEET 9 OF 11)

JOB PIECE NO. 24352(10) Sheet No. T021

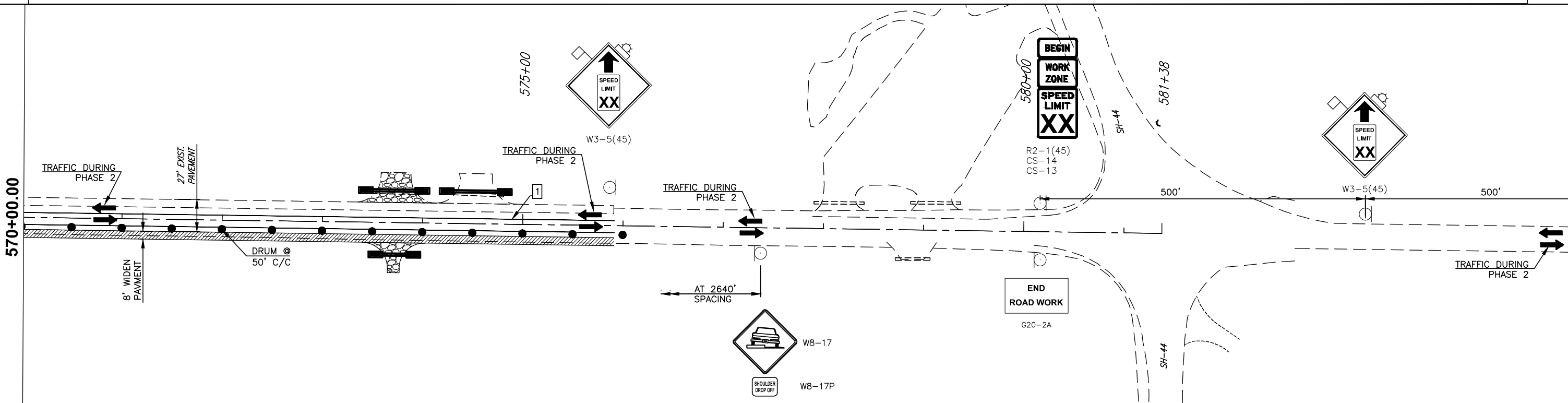
PLOTTER: Friday, March 29, 2019 @ 03:14PM
 G:\projects\2019\140310608-0001-EC-1504 - SH-152 Washita Co\5-civil\CAD\Drawings\24352(10)-Traffic

DESCRIPTION	REVISIONS	DATE



LEGEND

- CONST. THIS PHASE
- TRAFFIC FLOW
- PORTABLE MEDIAN BARRIER
- DRUMS
- BARRICADES
- 4" SOILD DOUBLE YELLOW (PAINT)
- TEMP. SIGNS
- CHANNELIZING CONE



NOTE:
 ADD ADVANCED WARNING SIGNS
 PER ODOT STANDARD
 TCS7-1-02 (LATEST) ON
 NORTHBOUND AND SOUTHBOUND SH-44

SH-152 WASHITA COUNTY

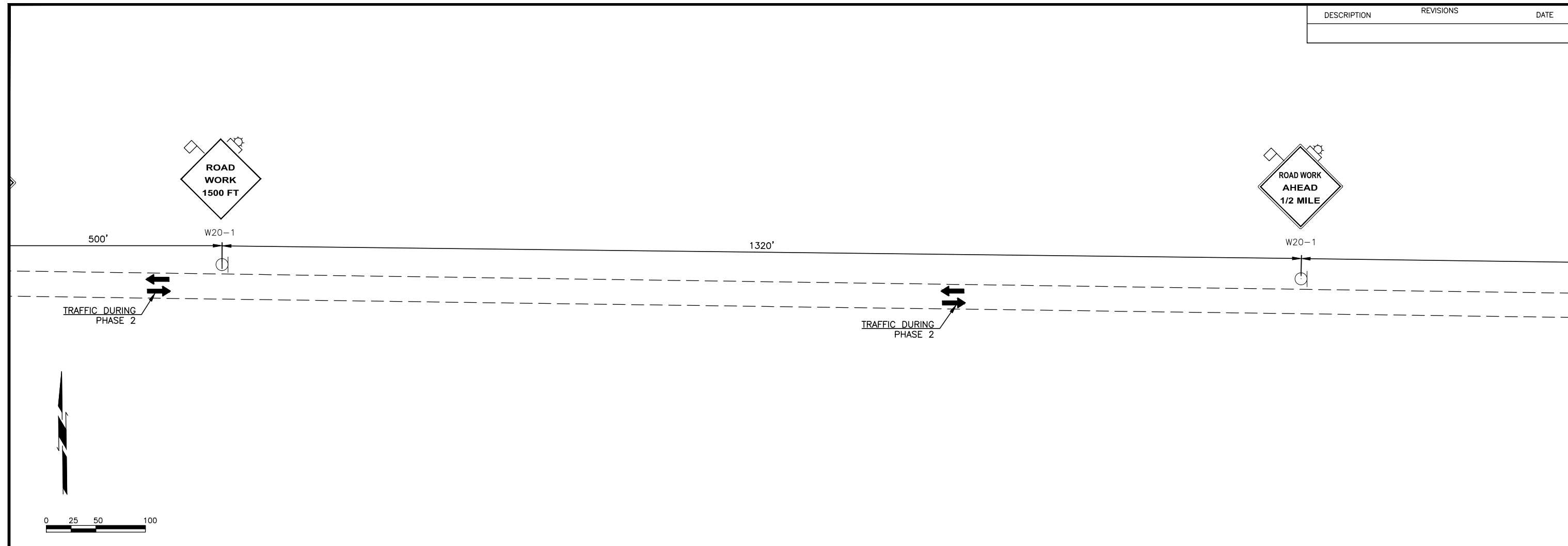
**TRAFFIC CONTROL-
 PHASE 2**

(SHEET 10 OF 11)

JOB PIECE NO. 24352(10) Sheet No. T022

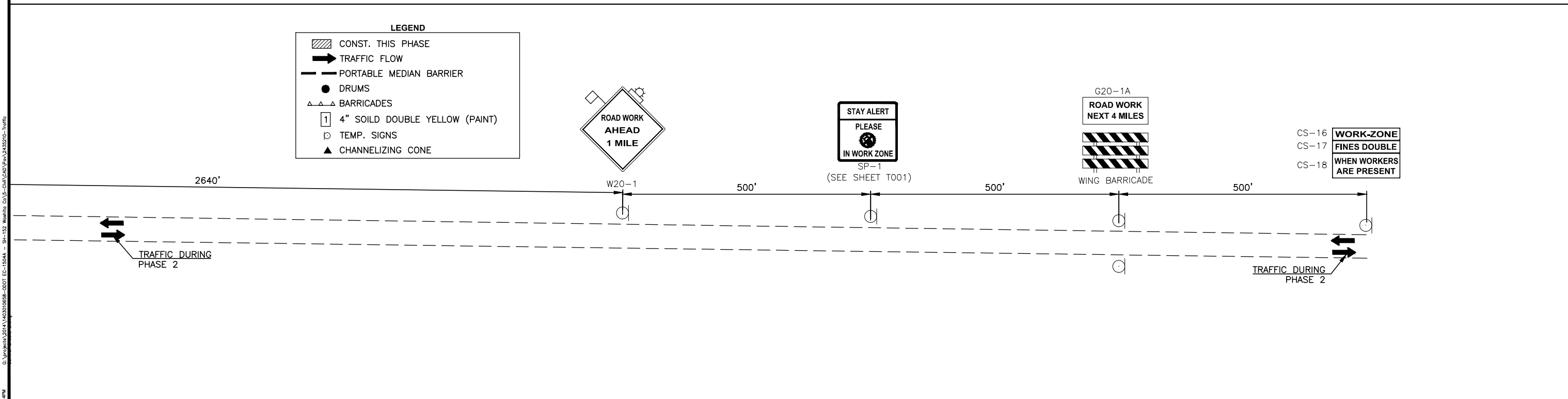
PLOTTER: Friday, March 29, 2019 @ 03:44PM
 G:\projects\2018\140370608-0007_EC-1504 - SH-152 Washita Co\5-conv\CAD\Plan\24352(10)-Traffic

DESCRIPTION	REVISIONS	DATE



LEGEND

	CONST. THIS PHASE
	TRAFFIC FLOW
	PORTABLE MEDIAN BARRIER
	DRUMS
	BARRICADES
	4" SOILD DOUBLE YELLOW (PAINT)
	TEMP. SIGNS
	CHANNELIZING CONE



G:\projects\2014\140310608-0007 EC-1504 - SH-152 Washita Co\5- civil\CAD\Draw\24352(11)-Traffic
 PLOTED: Friday, March 29, 2019 @ 03:14PM

SH-152 WASHITA COUNTY

**TRAFFIC CONTROL-
PHASE 2**

(SHEET 11 OF 11)

JOB PIECE NO. 24352(10) Sheet No. T023

SEC. 36, T10N, R19W

GOV. LOT 4
SEC. 31, T10N, R19W

SEC. 1, T9N, R19W

GOV. LOT 4
SEC. 6, T9N, R19W

EAST 1/2 SOUTHWEST 1/4
SEC. 31, T10N, R19W

GOV. LOT 3
SEC. 6, T9N, R19W

320+00

325+00

330+00.00

335+00

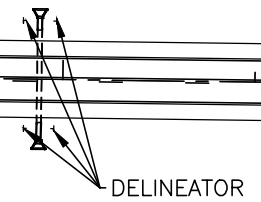
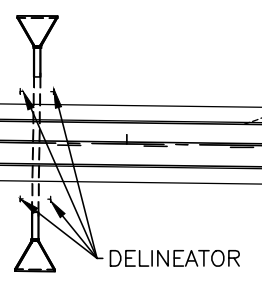
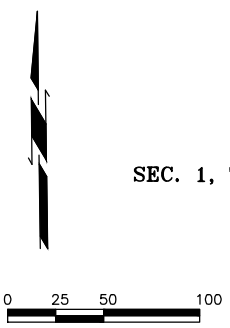
340+00

330+00.00

345+00.00

PI 319+84.53

- LEGEND**
- 1 4" DASHED YELLOW LANE LINE
 - 2 4" SOLID WHITE EDGE LINE
 - 3 4" DOUBLE YELLOW BARRIER LINE
 - 4 4" SOLID YELLOW LANE LINE
 - 5 EDGE RUMBLE STRIP
 - 6 CENTERLINE RUMBLE STRIP



STATION TO STATION	PASSING BOTH DIRECTIONS	PASSING EAST BOUND NO PASSING WEST BOUND	PASSING WEST BOUND NO PASSING EAST BOUND	NO PASSING BOTH DIRECTIONS
319+00 - 330+00		*		
330+00 - 333+00	*			
333+00 - 339+80			*	
339+80 - 344+15				*

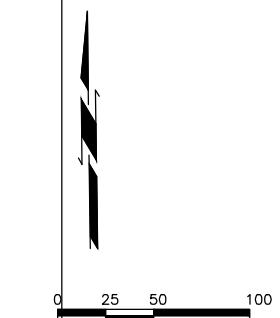
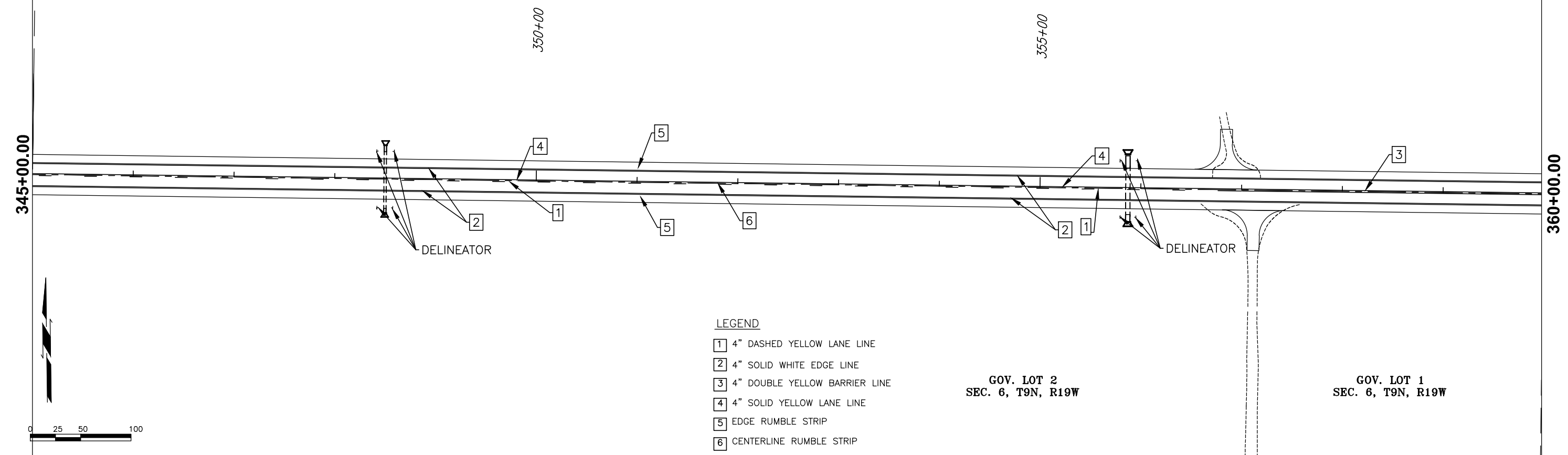
SH-152 WASHITA COUNTY

SIGNING AND STRIPING SHEETS

JOB PIECE NO. 24352(10) Sheet No. T024

PLOTTER: Wednesday, May 01, 2019 @ 11:17AM
 G:\projects\2019\140310068-0001_EC-1504 - SH-152 Washita Co\15-001\04\Drawings\24352(10)-Signing and Striping.dwg

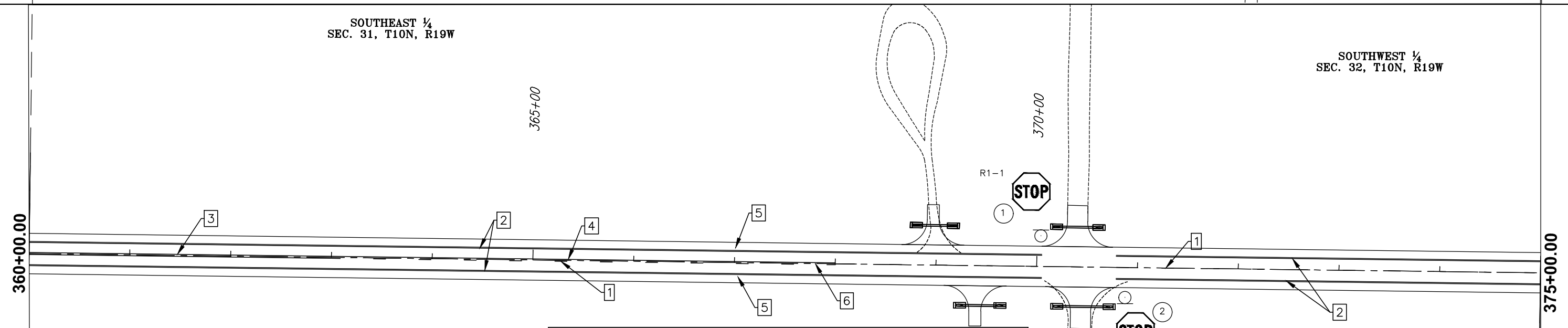
SOUTHEAST ¼
SEC. 31, T10N, R19W



- LEGEND**
- 1 4" DASHED YELLOW LANE LINE
 - 2 4" SOLID WHITE EDGE LINE
 - 3 4" DOUBLE YELLOW BARRIER LINE
 - 4 4" SOLID YELLOW LANE LINE
 - 5 EDGE RUMBLE STRIP
 - 6 CENTERLINE RUMBLE STRIP

SOUTHEAST ¼
SEC. 31, T10N, R19W

SOUTHWEST ¼
SEC. 32, T10N, R19W



PASSING - NO PASSING AREA STRIPING TABLE				
STATION TO STATION	PASSING BOTH DIRECTIONS	PASSING EAST BOUND NO PASSING WEST BOUND	PASSING WEST BOUND NO PASSING EAST BOUND	NO PASSING BOTH DIRECTIONS
344+15 - 350+35		*		
350+35 - 351+00				*
351+00 - 357+60			*	
357+60 - 361+50	*			
361+50 - 368+70		*		
368+70 - 369+50	*			
369+50 - 375+65			*	

SH-152 WASHITA COUNTY

SIGNING AND STRIPING SHEETS

JOB PIECE NO. 24352(10) Sheet No. T025

PLOTTER: Friday, March 29, 2019 @ 03:49PM
 G:\projects\2019\140310068-0001-EC-1504 - SH-152 Washita Co\15-001\040\Drawings\24352(10)-Signing and Striping.dwg

SOUTHWEST ¼
SEC. 32, T10N, R19W

380+00

385+00

375+00.00

390+00.00

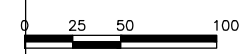
GOV. LOT 4
SEC. 5, T9N, R19W

GOV. LOT 3
SEC. 5, T9N, R19W

LEGEND

- 1 4" DASHED YELLOW LANE LINE
- 2 4" SOLID WHITE EDGE LINE
- 3 4" DOUBLE YELLOW BARRIER LINE
- 4 4" SOLID YELLOW LANE LINE
- 5 EDGE RUMBLE STRIP
- 6 CENTERLINE RUMBLE STRIP

DELINEATOR



SOUTHEAST ¼
SEC. 32, T10N, R19W

395+00

SOUTHEAST ¼
SEC. 32, T10N, R19W

390+00.00

405+00.00

GOV. LOT 3
SEC. 5, T9N, R19W

GOV. LOT 2
SEC. 5, T9N, R19W

PASSING - NO PASSING AREA STRIPING TABLE				
STATION TO STATION	PASSING BOTH DIRECTIONS	PASSING EAST BOUND NO PASSING WEST BOUND	PASSING WEST BOUND NO PASSING EAST BOUND	NO PASSING BOTH DIRECTIONS
375+65 - 382+38	*			
382+38 - 388+68		*		
388+68 - 415+60	*			

400+00

○ SPRING CREEK SIGN

○ SPRING CREEK SIGN

○

DELINEATOR

DELINEATOR

SH-152 WASHITA COUNTY

SIGNING AND STRIPING SHEETS

JOB PIECE NO. 24352(10) Sheet No. T026

PLOTED: Friday, March 29, 2019 @ 03:49PM
 G:\projects\2019\140370608-0001_EC-1504 - SH-152 Washita Co\15-001\04\Drawings\24352(10)-Signing and Striping.dwg

SOUTHEAST ¼
SEC. 32, T10N, R19W

410+00

415+00

405+00.00

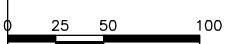
420+00.00

GOV. LOT 2
SEC. 5, T9N, R19W

GOV. LOT 1
SEC. 5, T9N, R19W

LEGEND

- 1 4" DASHED YELLOW LANE LINE
- 2 4" SOLID WHITE EDGE LINE
- 3 4" DOUBLE YELLOW BARRIER LINE
- 4 4" SOLID YELLOW LANE LINE
- 5 EDGE RUMBLE STRIP
- 6 CENTERLINE RUMBLE STRIP



SOUTHEAST ¼
SEC. 32, T10N, R19W

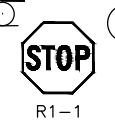
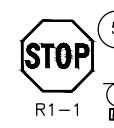
SOUTHWEST ¼
SEC. 33, T10N, R19W

425+00

430+00

420+00.00

435+00.00



PASSING - NO PASSING AREA STRIPING TABLE

STATION TO STATION	PASSING BOTH DIRECTIONS	PASSING EAST BOUND NO PASSING WEST BOUND	PASSING WEST BOUND NO PASSING EAST BOUND	NO PASSING BOTH DIRECTIONS
415+60 - 422+87			*	
** 422+87 - 423+78				
423+78 - 425+78			*	
425+78 - 427+16	*			
427+16 - 433+89		*		

** SECTION LINE ROAD OPENING IN STRIPING

GOV. LOT 4
SEC. 4, T9N, R19W

GOV. LOT 1
SEC. 5, T9N, R19W

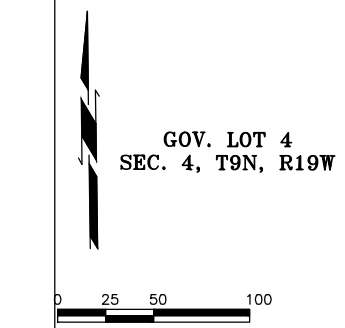
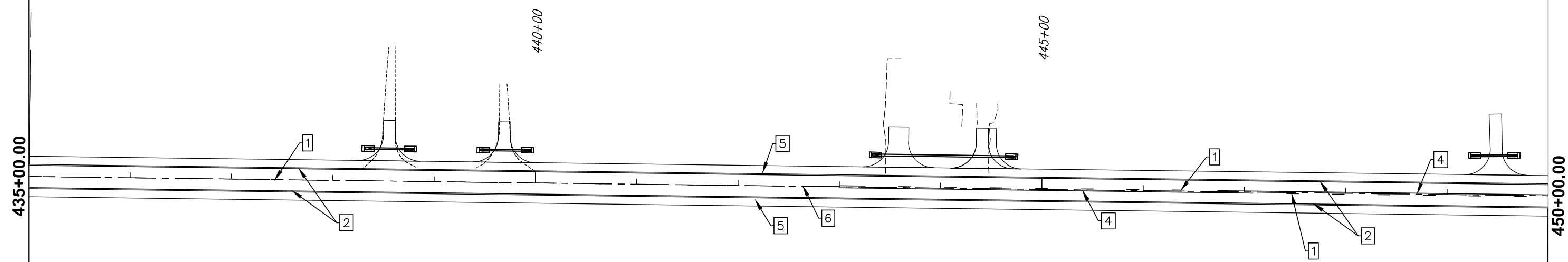
SH-152 WASHITA COUNTY

SIGNING AND STRIPING SHEETS

JOB PIECE NO. 24352(10) Sheet No. T027

PLOTED: Friday, March 29, 2019 @ 03:14PM
 G:\projects\2019\14032019-001 EC-1504 - SH-152 Washita Co\15-001\04\Drawings\24352(10)-Signing and Striping.dwg

SOUTHWEST ¼
SEC. 33, T10N, R19W

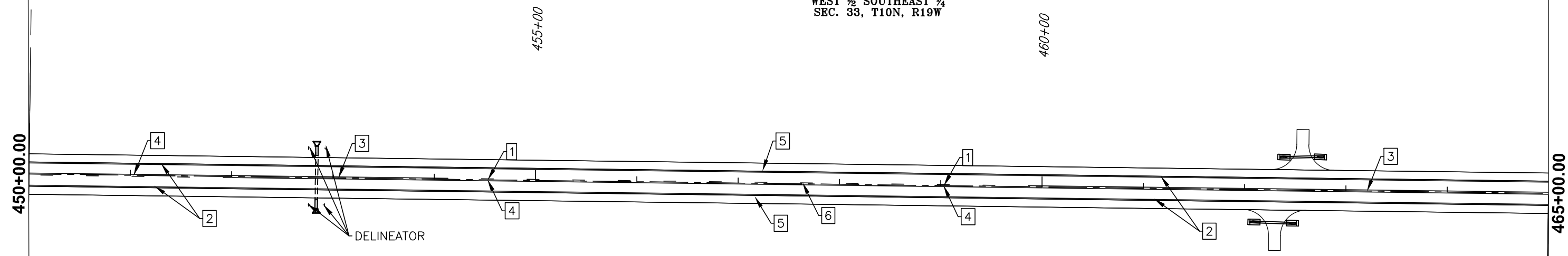


GOV. LOT 4
SEC. 4, T9N, R19W

GOV. LOT 3
SEC. 4, T9N, R19W

- LEGEND**
- 1 4" DASHED YELLOW LANE LINE
 - 2 4" SOLID WHITE EDGE LINE
 - 3 4" DOUBLE YELLOW BARRIER LINE
 - 4 4" SOLID YELLOW LANE LINE
 - 5 EDGE RUMBLE STRIP
 - 6 CENTERLINE RUMBLE STRIP

WEST ½ SOUTHEAST ¼
SEC. 33, T10N, R19W



GOV. LOT 2
SEC. 4, T9N, R19W

GOV. LOT 1
SEC. 4, T9N, R19W

PASSING - NO PASSING AREA STRIPING TABLE				
STATION TO STATION	PASSING BOTH DIRECTIONS	PASSING EAST BOUND NO PASSING WEST BOUND	PASSING WEST BOUND NO PASSING EAST BOUND	NO PASSING BOTH DIRECTIONS
433+89 - 441+00	*			
441+00 - 447+32			*	
447+32 - 452+31	*			
452+31 - 454+31		*		
454+31 - 458+46				*
458+46 - 463+79			*	
463+79 - 465+49	*			

SH-152 WASHITA COUNTY

SIGNING AND STRIPING SHEETS

PLOTED: Friday, March 29, 2019 @ 03:14PM
 G:\projects\2019\140310068-0001_EC-1504 - SH-152 Washita Co\5- civil\CA\Drawings\435210-Signing and Striping.dwg

DESCRIPTION	REVISIONS	DATE

EAST 1/2 SOUTHEAST 1/4
SEC. 33, T10N, R19W

470+00

475+00

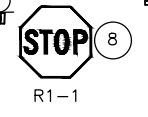
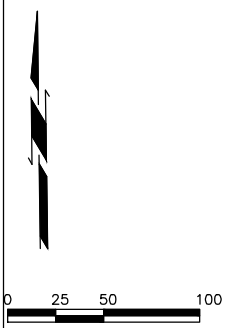
WEST 1/2 SOUTHWEST 1/4
SEC. 34, T10N, R19W

465+00.00

480+00.00

GOV. LOT 1
SEC. 4, T9N, R19W

- LEGEND**
- 1 4" DASHED YELLOW LANE LINE
 - 2 4" SOLID WHITE EDGE LINE
 - 3 4" DOUBLE YELLOW BARRIER LINE
 - 4 4" SOLID YELLOW LANE LINE
 - 5 EDGE RUMBLE STRIP
 - 6 CENTERLINE RUMBLE STRIP



DELINEATOR

WEST 1/2 SOUTHWEST 1/4
SEC. 34, T10N, R19W

EAST 1/2 SOUTHWEST 1/4
SEC. 34, T10N, R19W

485+00

490+00

480+00.00

495+00.00

GOV. LOT 4
SEC. 3, T9N, R19W

GOV. LOT 3
SEC. 3, T9N, R19W

STATION TO STATION	PASSING BOTH DIRECTIONS	PASSING EAST BOUND NO PASSING WEST BOUND	PASSING WEST BOUND NO PASSING EAST BOUND	NO PASSING BOTH DIRECTIONS
465+49 - 475+66		*		
** 475+66 - 476+31				
476+31 - 486+51			*	
486+51 - 493+94				*

** SECTION LINE ROAD OPENING IN STRIPING

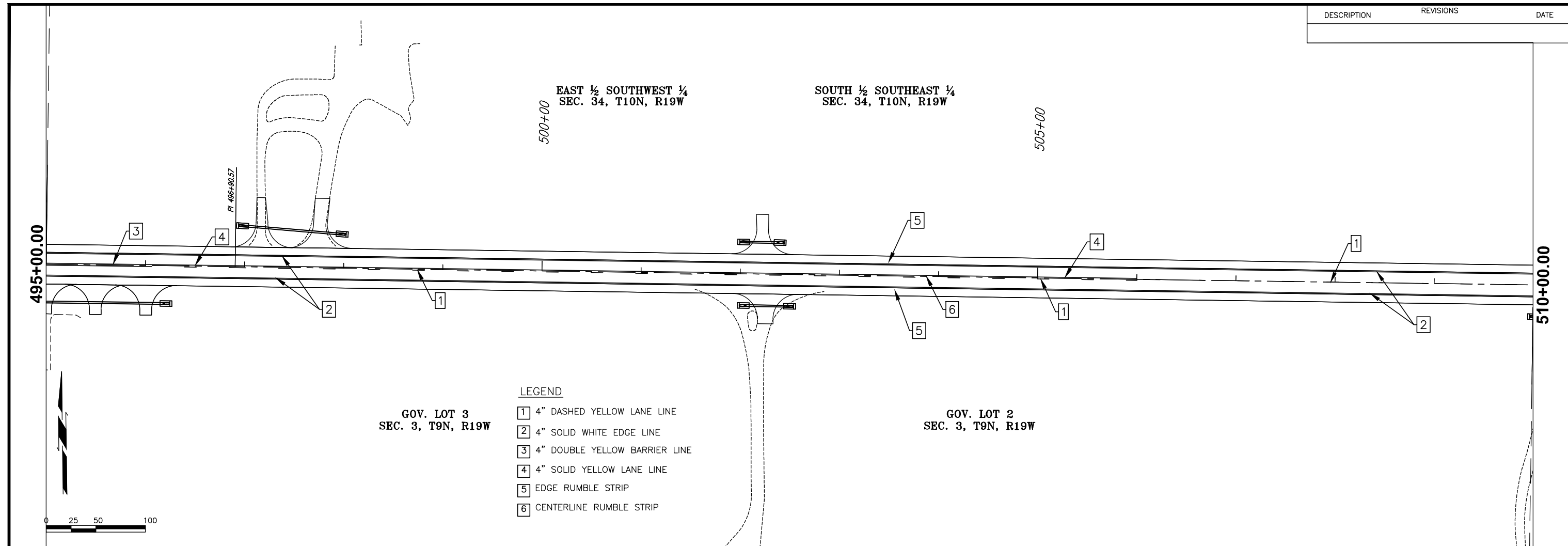
SH-152 WASHITA COUNTY

SIGNING AND STRIPING SHEETS

JOB PIECE NO. 24352(10) Sheet No. T029

G:\projects\2019\140310068-0001_EC-1504 - SH-152 Washita Co\15-001\CAD\Drawings\24352(10)-Signing and Striping.dwg
 PLOTTER: Friday, March 29, 2019 @ 03:14PM

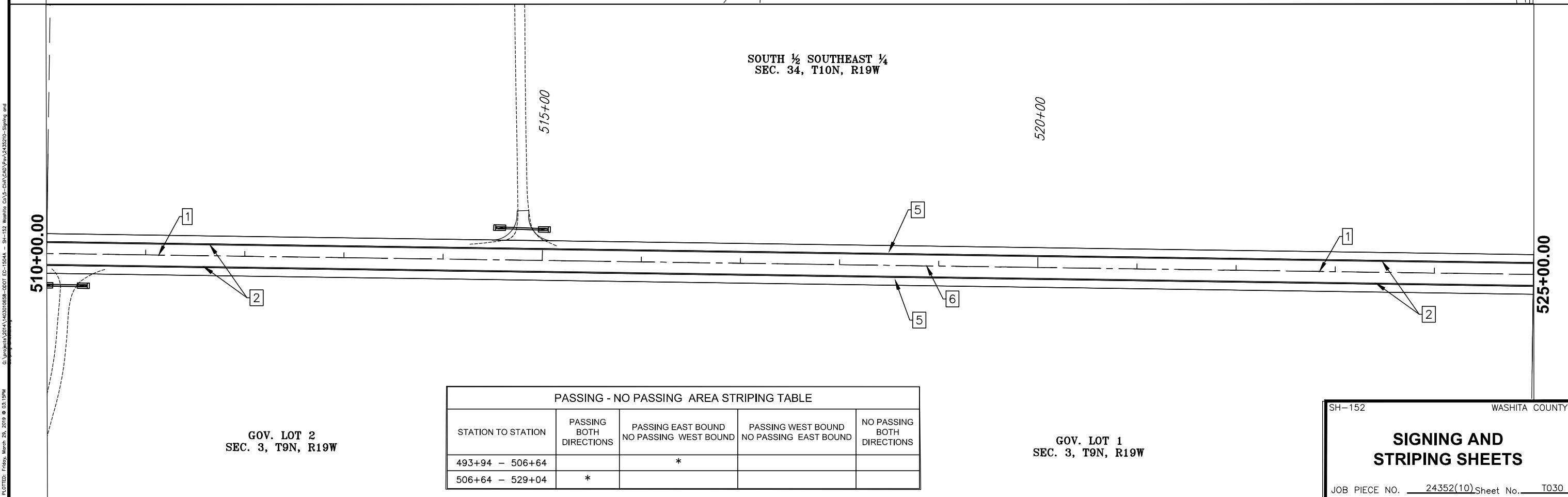
DESCRIPTION	REVISIONS	DATE



- LEGEND**
- 1 4" DASHED YELLOW LANE LINE
 - 2 4" SOLID WHITE EDGE LINE
 - 3 4" DOUBLE YELLOW BARRIER LINE
 - 4 4" SOLID YELLOW LANE LINE
 - 5 EDGE RUMBLE STRIP
 - 6 CENTERLINE RUMBLE STRIP

GOV. LOT 3
SEC. 3, T9N, R19W

GOV. LOT 2
SEC. 3, T9N, R19W



GOV. LOT 2
SEC. 3, T9N, R19W

GOV. LOT 1
SEC. 3, T9N, R19W

PASSING - NO PASSING AREA STRIPING TABLE				
STATION TO STATION	PASSING BOTH DIRECTIONS	PASSING EAST BOUND NO PASSING WEST BOUND	PASSING WEST BOUND NO PASSING EAST BOUND	NO PASSING BOTH DIRECTIONS
493+94 - 506+64		*		
506+64 - 529+04	*			

SH-152 WASHITA COUNTY

SIGNING AND STRIPING SHEETS

JOB PIECE NO. 24352(10) Sheet No. T030

PLOTED: Friday, March 29, 2019 @ 03:19PM
 G:\projects\2019\1403201808-0001-EC-1504 - SH-152 Washita Co\15-001\Drawings\24352(10)-Signing and Striping.dwg

SOUTH ½ SOUTHEAST ¼
SEC. 34, T10N, R19W

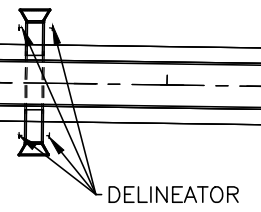
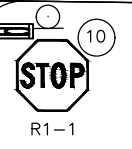
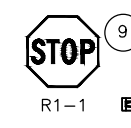
SOUTHWEST ¼
SEC. 35, T10N, R19W

525+00.00

540+00.00

530+00

535+00

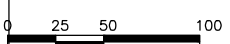


LEGEND

- 1 4" DASHED YELLOW LANE LINE
- 2 4" SOLID WHITE EDGE LINE
- 3 4" DOUBLE YELLOW BARRIER LINE
- 4 4" SOLID YELLOW LANE LINE
- 5 EDGE RUMBLE STRIP
- 6 CENTERLINE RUMBLE STRIP

GOV. LOT 1
SEC. 3, T9N, R19W

GOV. LOT 4
SEC. 2, T9N, R19W



SOUTHWEST ¼
SEC. 35, T10N, R19W

540+00.00

555+00.00

545+00

550+00



GOV. LOT 4
SEC. 2, T9N, R19W

GOV. LOT 3
SEC. 2, T9N, R19W

PASSING - NO PASSING AREA STRIPING TABLE				
STATION TO STATION	PASSING BOTH DIRECTIONS	PASSING EAST BOUND NO PASSING WEST BOUND	PASSING WEST BOUND NO PASSING EAST BOUND	NO PASSING BOTH DIRECTIONS
** 529+04 - 529+69				
529+69 - 559+64	*			

** SECTION LINE ROAD OPENING IN STRIPING

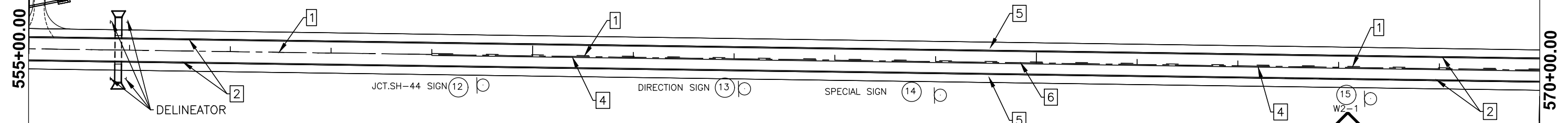
SH-152 WASHITA COUNTY

SIGNING AND STRIPING SHEETS

JOB PIECE NO. 24352(10) Sheet No. T031

PLOTTER: Friday, March 29, 2019 @ 03:19PM
 G:\projects\2019\140310608-0001_EC-1504 - SH-152 Washita Co\15-001\04\05\140310608-0001_Signing and Striping.dwg

SOUTH 1/2 SOUTHEAST 1/4
SEC. 35, T10N, R19W

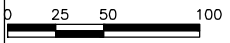


GOV. LOT 2
SEC. 2, T9N, R19W

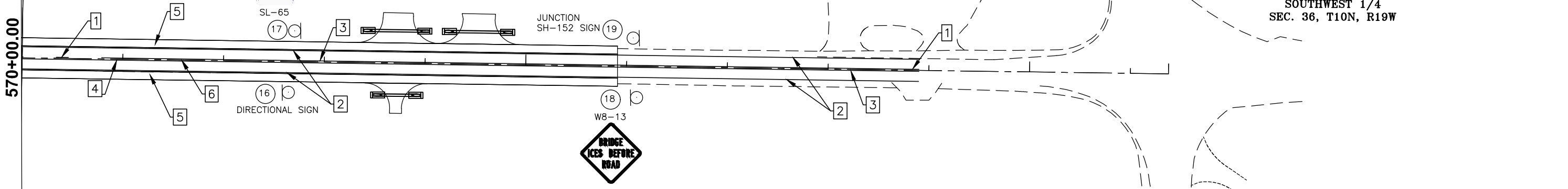
GOV. LOT 1
SEC. 2, T9N, R19W

LEGEND

- 1 4" DASHED YELLOW LANE LINE
- 2 4" SOLID WHITE EDGE LINE
- 3 4" DOUBLE YELLOW BARRIER LINE
- 4 4" SOLID YELLOW LANE LINE
- 5 EDGE RUMBLE STRIP
- 6 CENTERLINE RUMBLE STRIP



SOUTH 1/2 SOUTHEAST 1/4
SEC. 35, T10N, R19W



GOV. LOT 1
SEC. 2, T9N, R19W

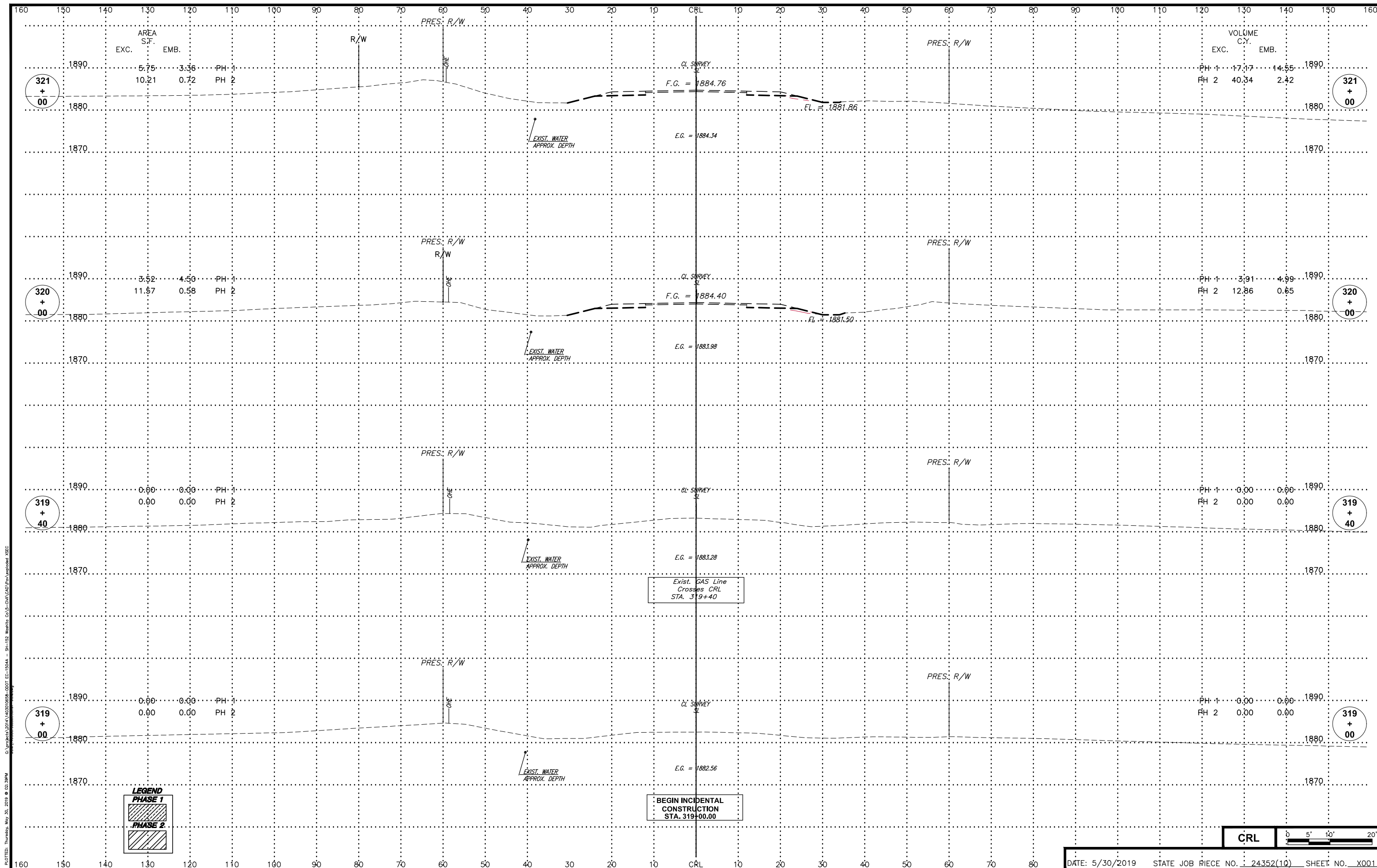
GOV. LOT 4
SEC. 1, T9N, R19W

STATION TO STATION	PASSING BOTH DIRECTIONS	PASSING EAST BOUND NO PASSING WEST BOUND	PASSING WEST BOUND NO PASSING EAST BOUND	NO PASSING BOTH DIRECTIONS
559+64 - 570+78			*	
570+78 - 578+90				*

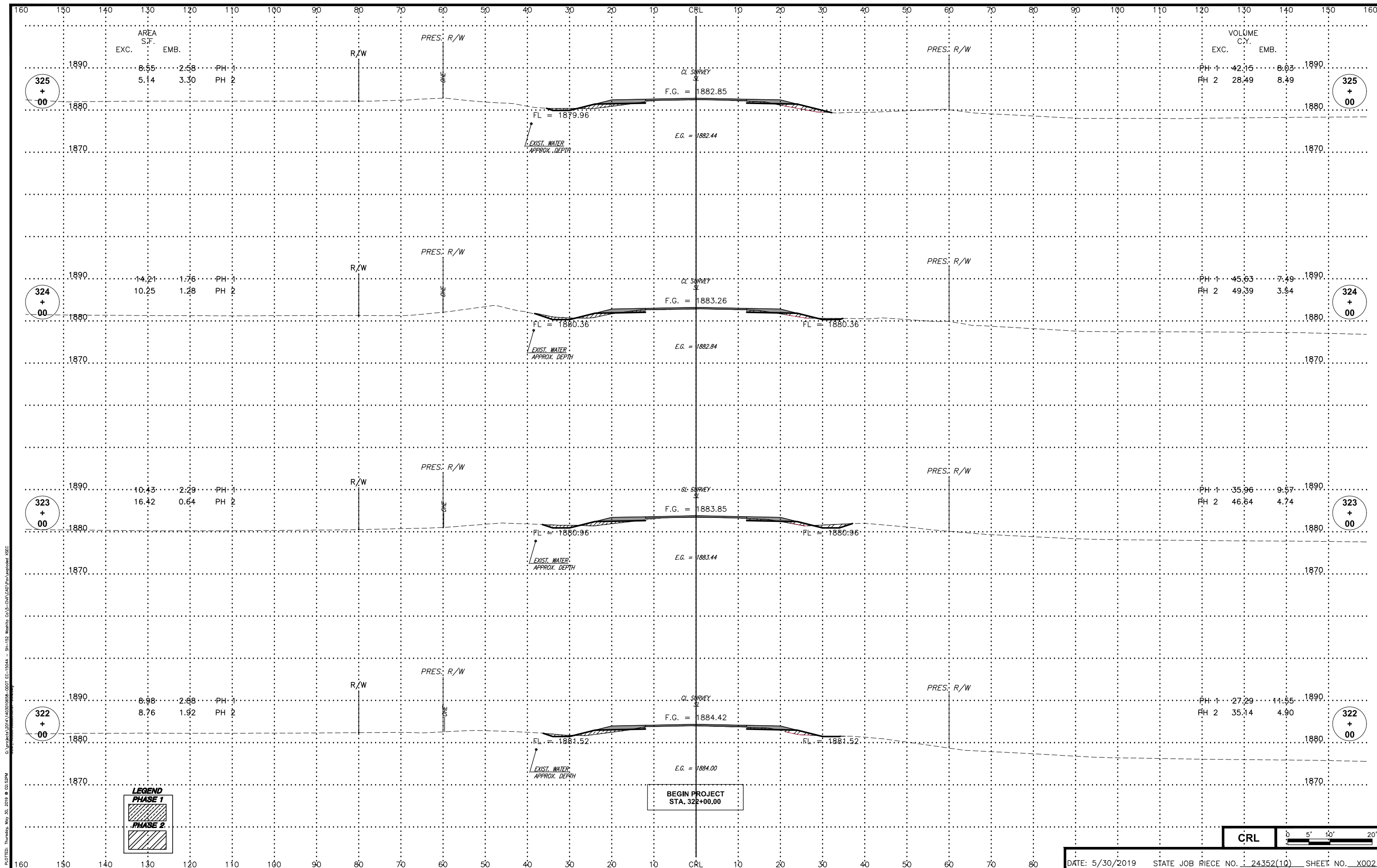
SH-152 WASHITA COUNTY

SIGNING AND STRIPING SHEETS

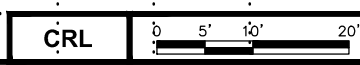
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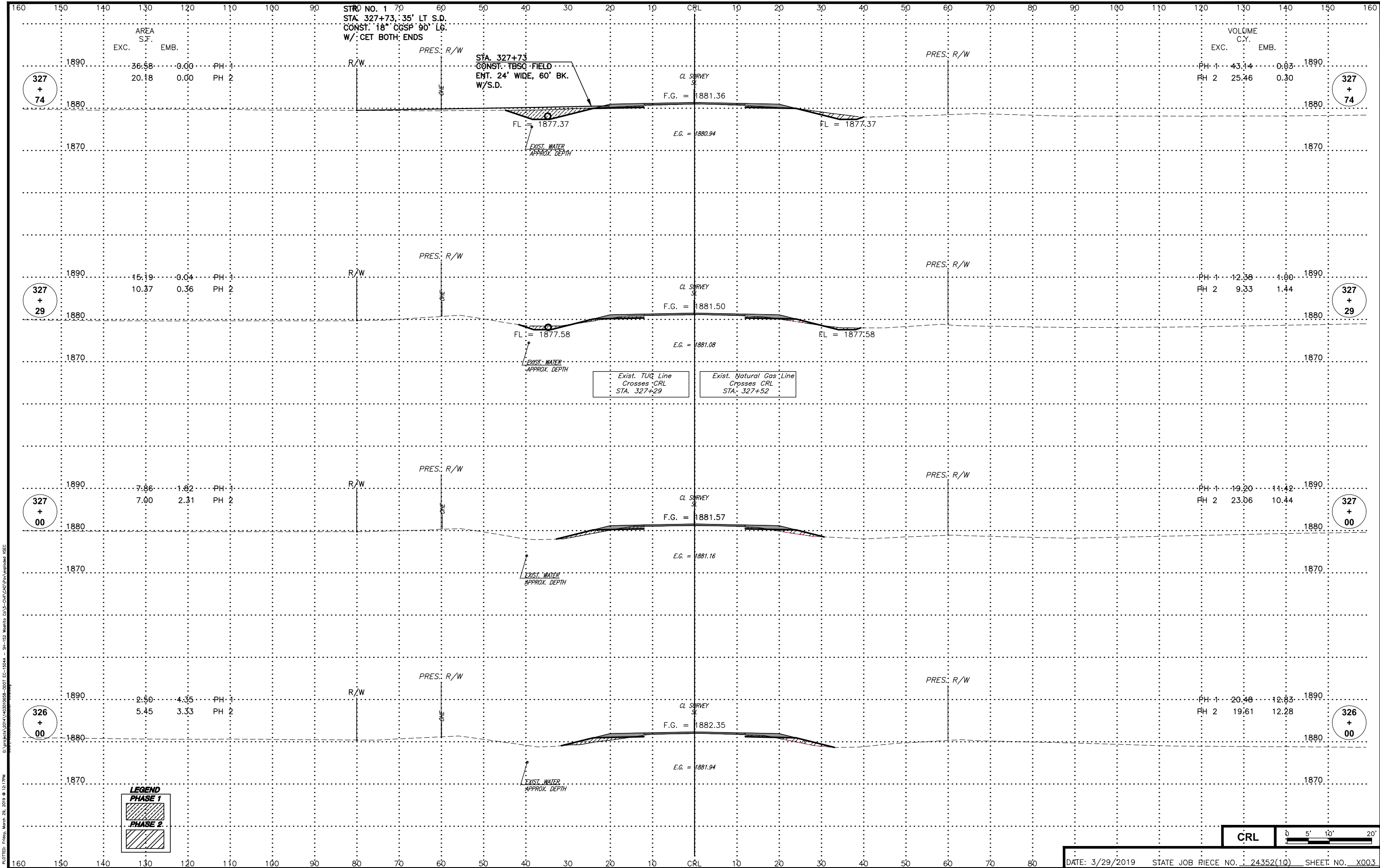


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 PLOTTED: Thursday, May 30, 2019 @ 02:39PM

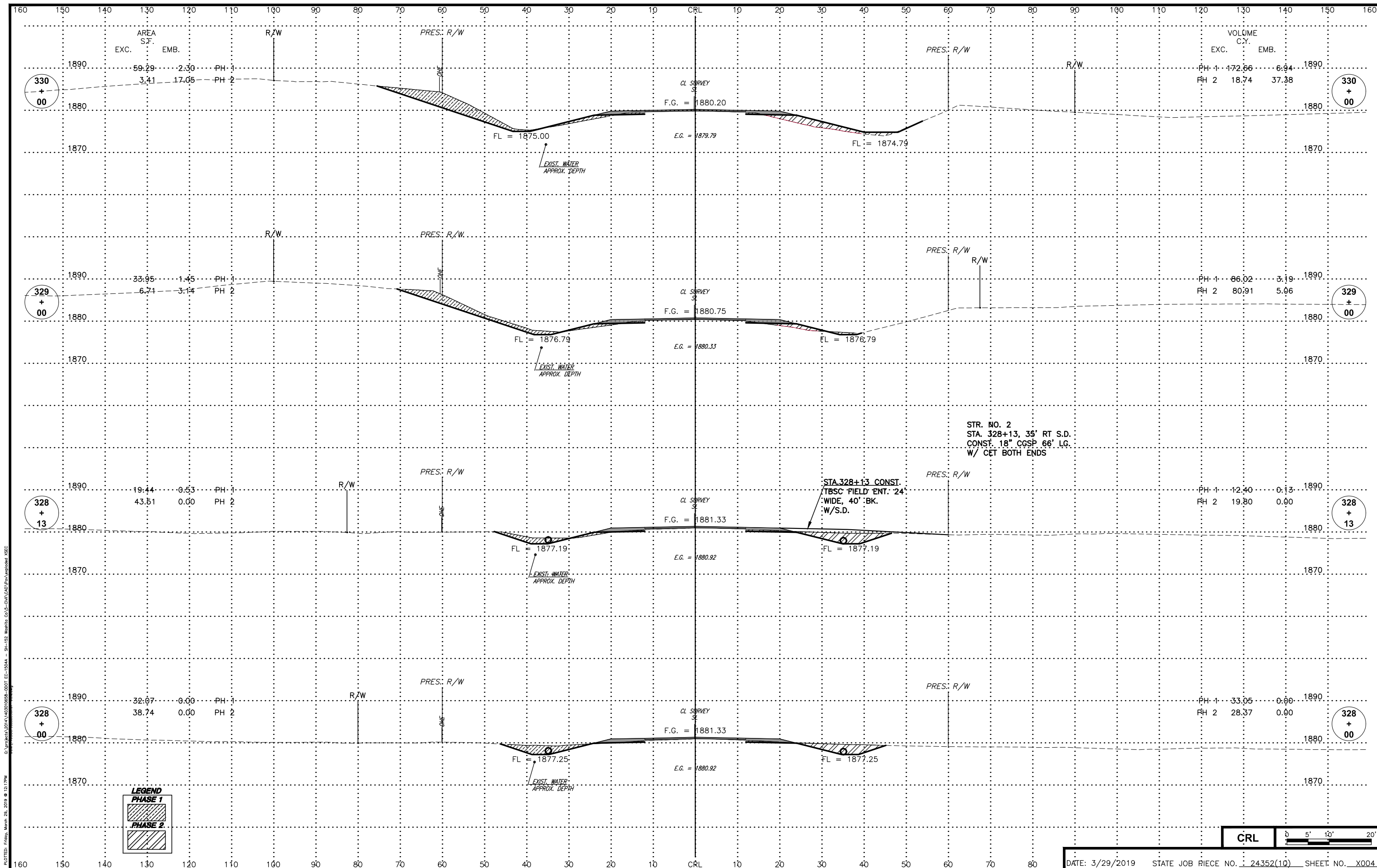


PLOTTED: Thursday, May 30, 2019 @ 02:52PM
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PLOTTER: Friday, March 29, 2019 @ 12:17PM
 C:\projects\2014\1403010558-0007 EC-1564A - SH-152 Washita Co-V-5-CVA-CAD\Drawings\X003



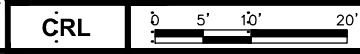
LEGEND

PHASE 1

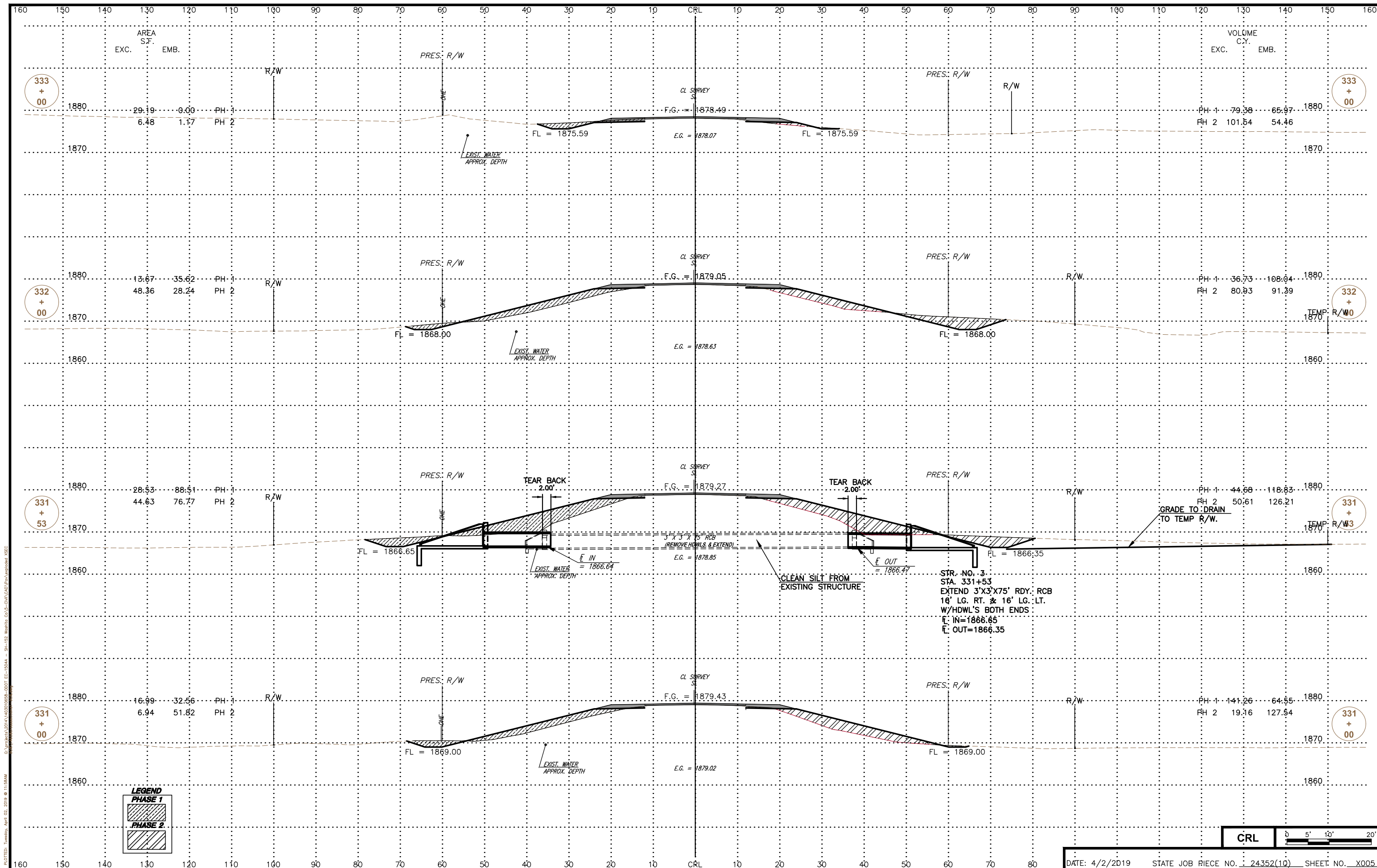
PHASE 2

STR. NO. 2
 STA. 328+13, 35' RT S.D.
 CONST. 18" CGSP 66' LG.
 W/ C&T BOTH ENDS

STA. 328+13 CONST.
 TBSC FIELD ENT. 24'
 WIDE, 40' BK.
 W/S.D.



PLOTTED: Friday, March 29, 2019 @ 12:17PM
 C:\projects\2014\1403010558-0007 EC-1564A - SH-152 Washita Co\5-Civil\CAD\Drawings\XSEC



LEGEND

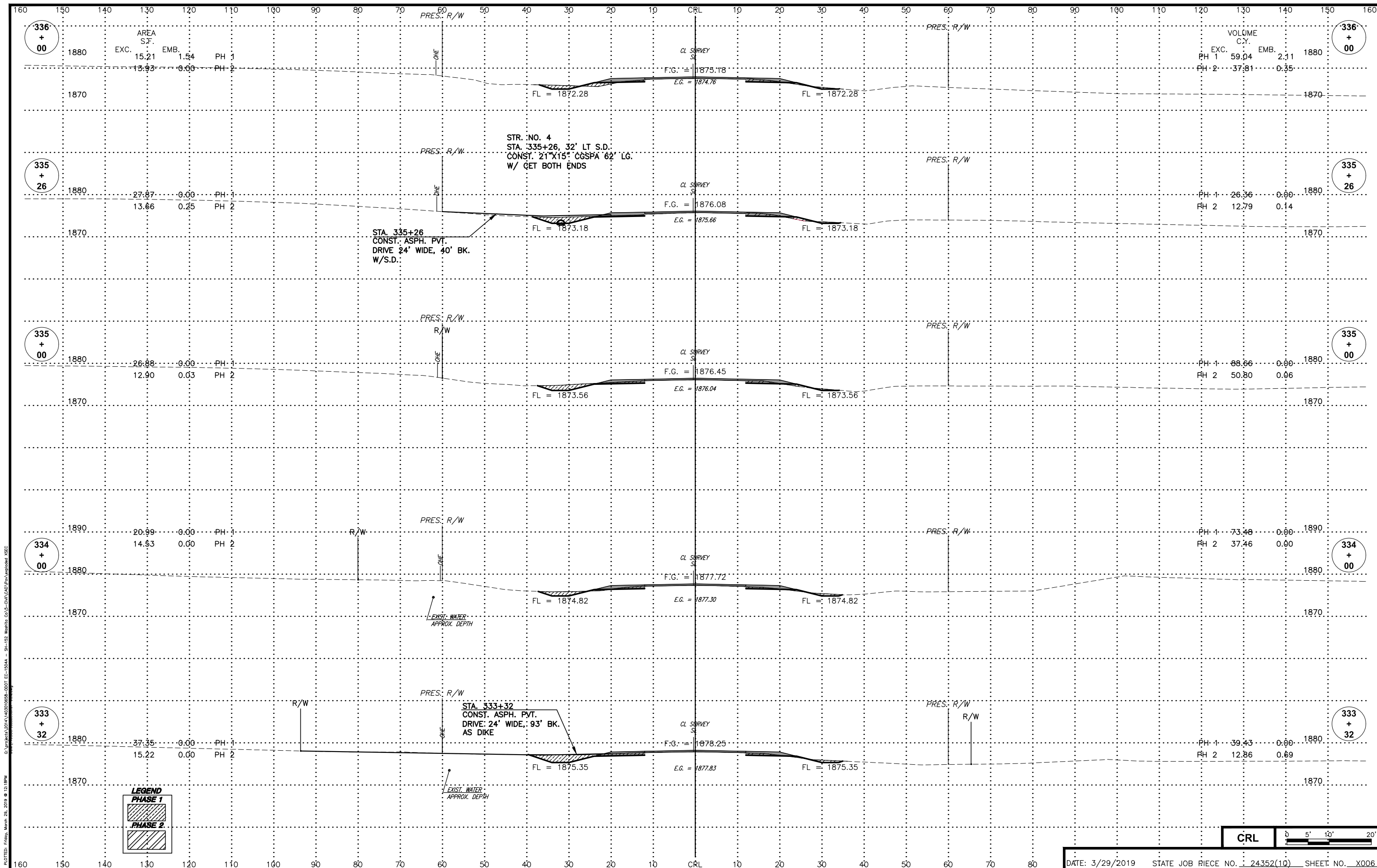
PHASE 1

PHASE 2

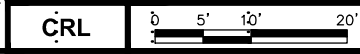
CRL

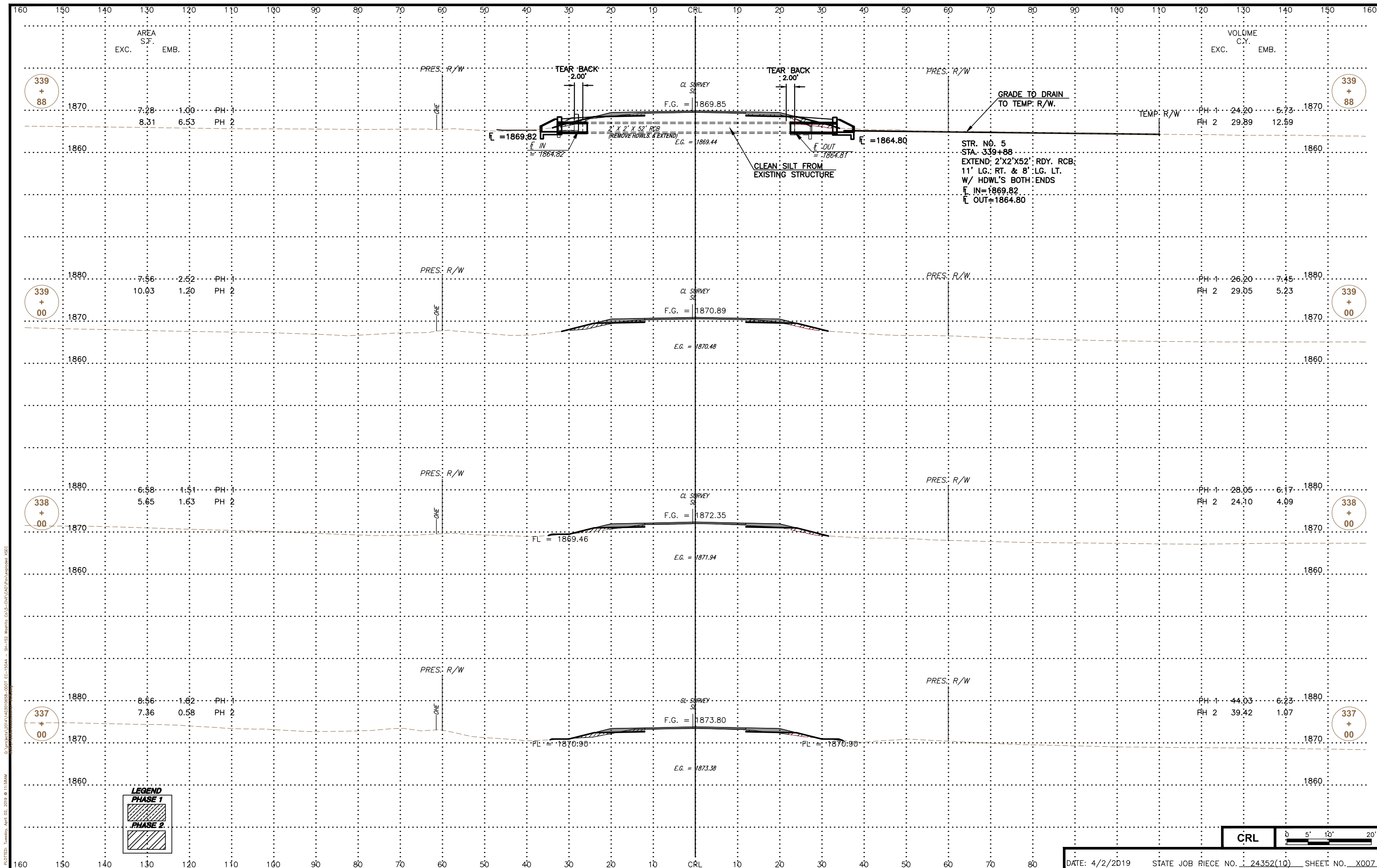
0 5' 10' 20'

PLOTTER: Tuesday, April 02, 2019 @ 11:58AM C:\projects\2014\1403010558-0001 EC-1564A - SH-152 Washita Co\5-Civil\CAD\Drawings\X005



C:\projects\2014\1403010658-0007 EC-1564A - SH-152 Washita Co-V-5-CH-CAD\PAV\Asphosed XSEC
 PLOTTED: Friday, March 29, 2019 @ 12:18PM





LEGEND

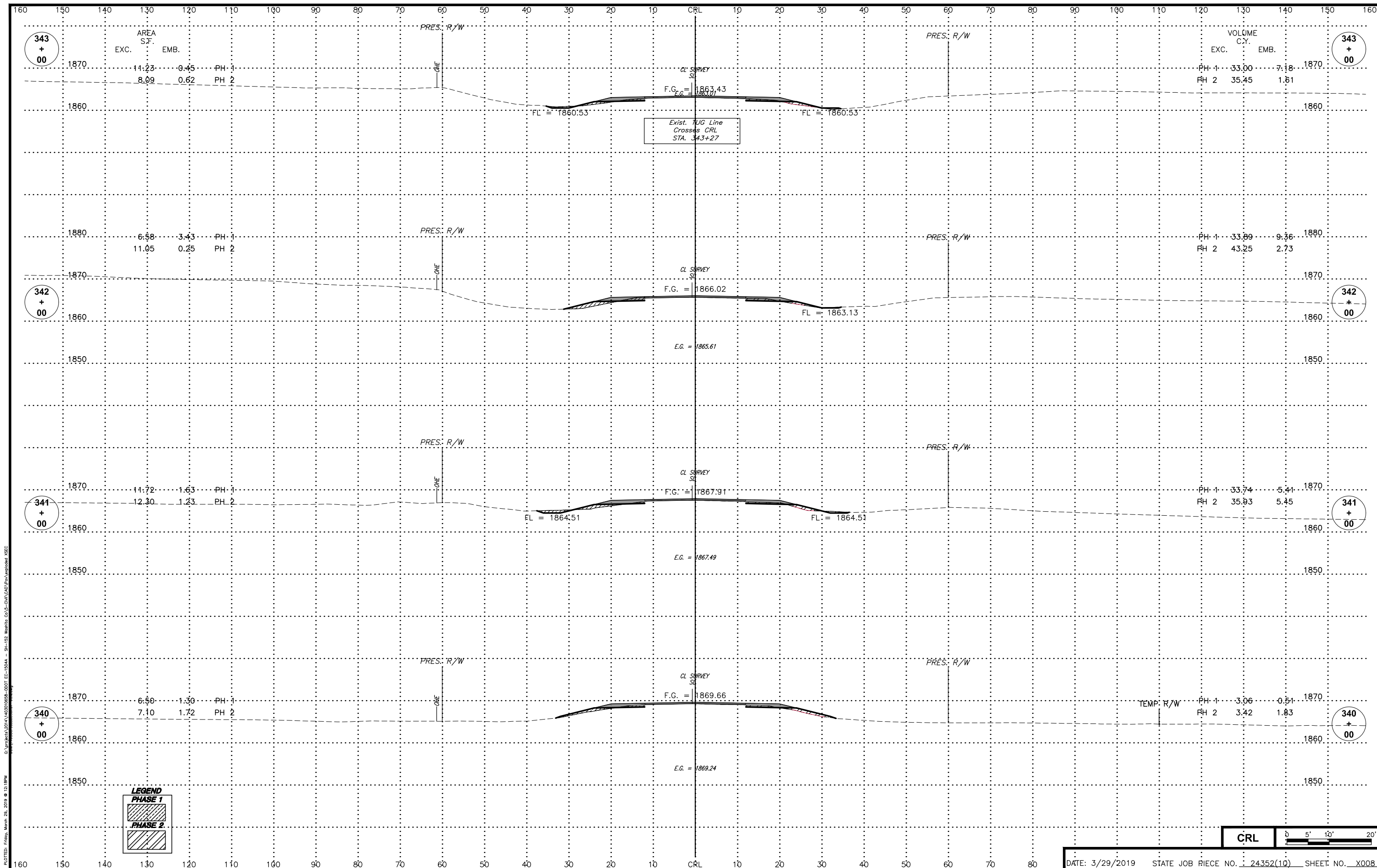
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

PLOTTED: Tuesday, April 02, 2019 @ 11:58AM
 C:\projects\2014\140301055-0007 EC-1564A - SH-152 Washita Co.V-5-CVA\CAD\Drawings\XSEC



LEGEND

PHASE 1 (diagonal hatching)

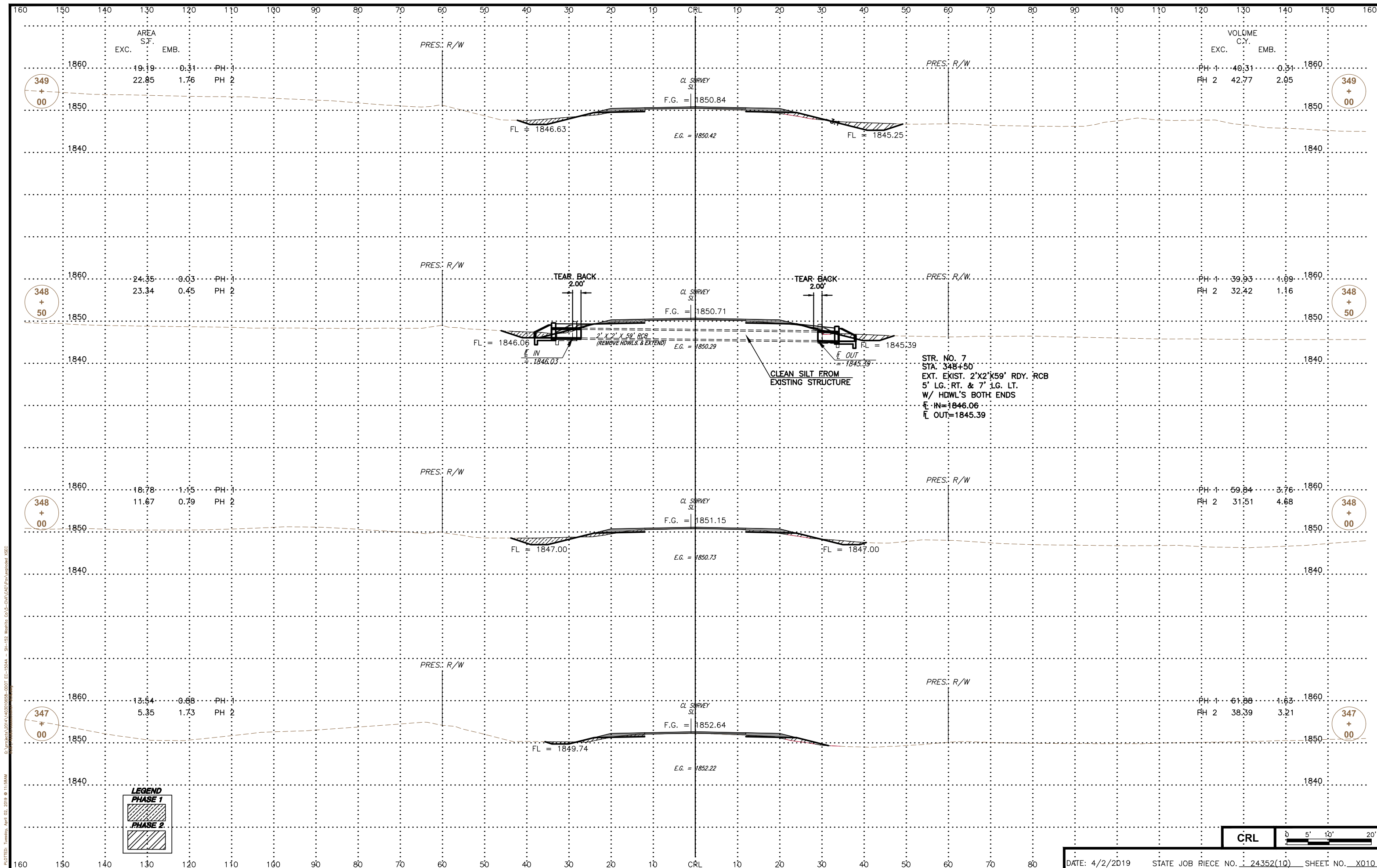
PHASE 2 (diagonal hatching)

Exist. TUG Line
Crosses CRL
STA. 343+27

TEMP. R/W

CRL 0 5' 10' 20'

PLOTTER: Friday, March 29, 2019 @ 12:18PM
 C:\projects\2014\1403010558-0007 EC-1564A - SH-152 Washita Co.V-5-Civil\CAD\Drawings\XSEC

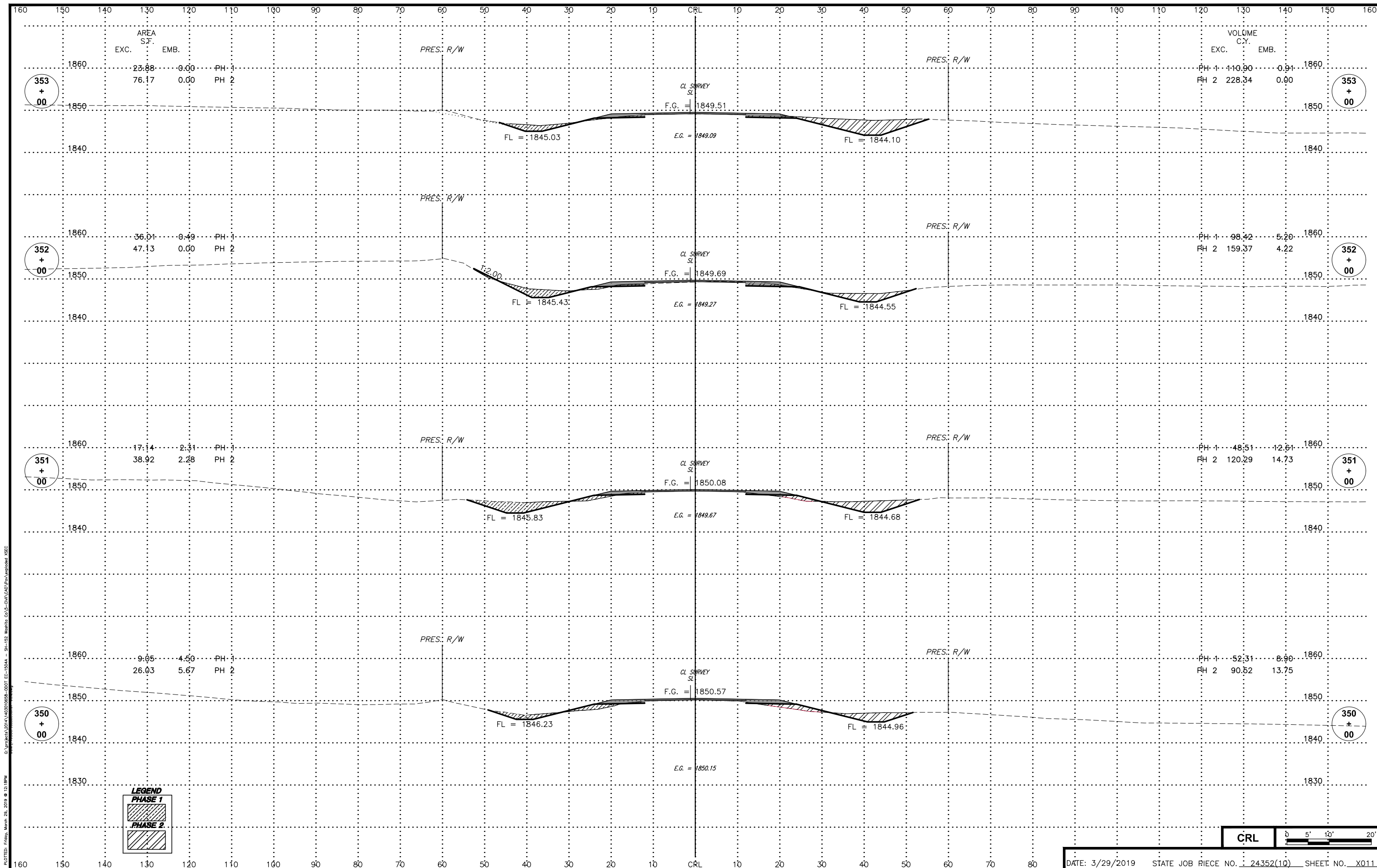


LEGEND

	PHASE 1
	PHASE 2

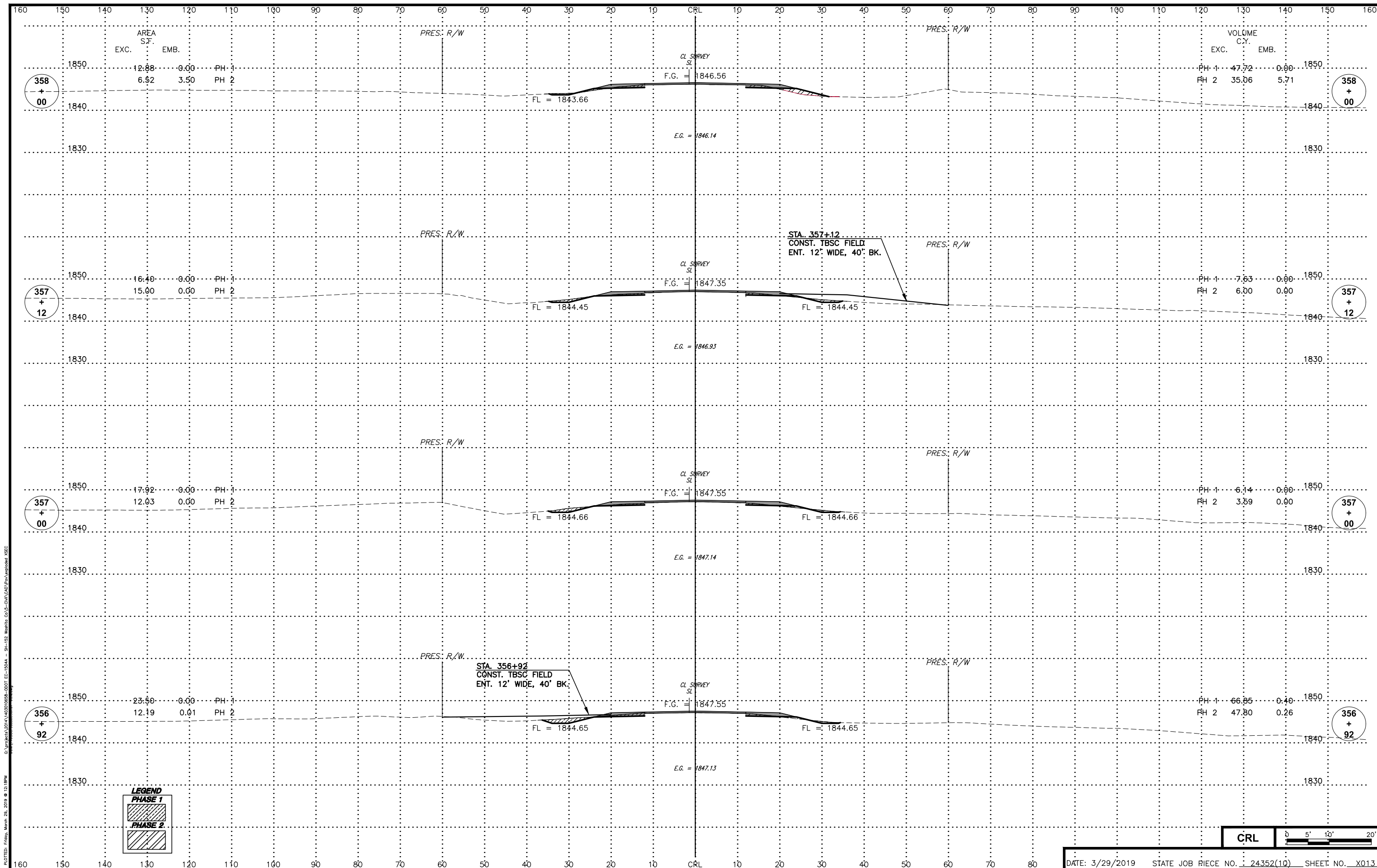
CRL 0' 5' 10' 20'

PLOTTED: Tuesday, April 02, 2019 @ 11:58AM
 C:\projects\2014\140301055-0001 EC-1564A - SH-152 Washita Co.VA-CVA\DWG\Drawings\XSEC



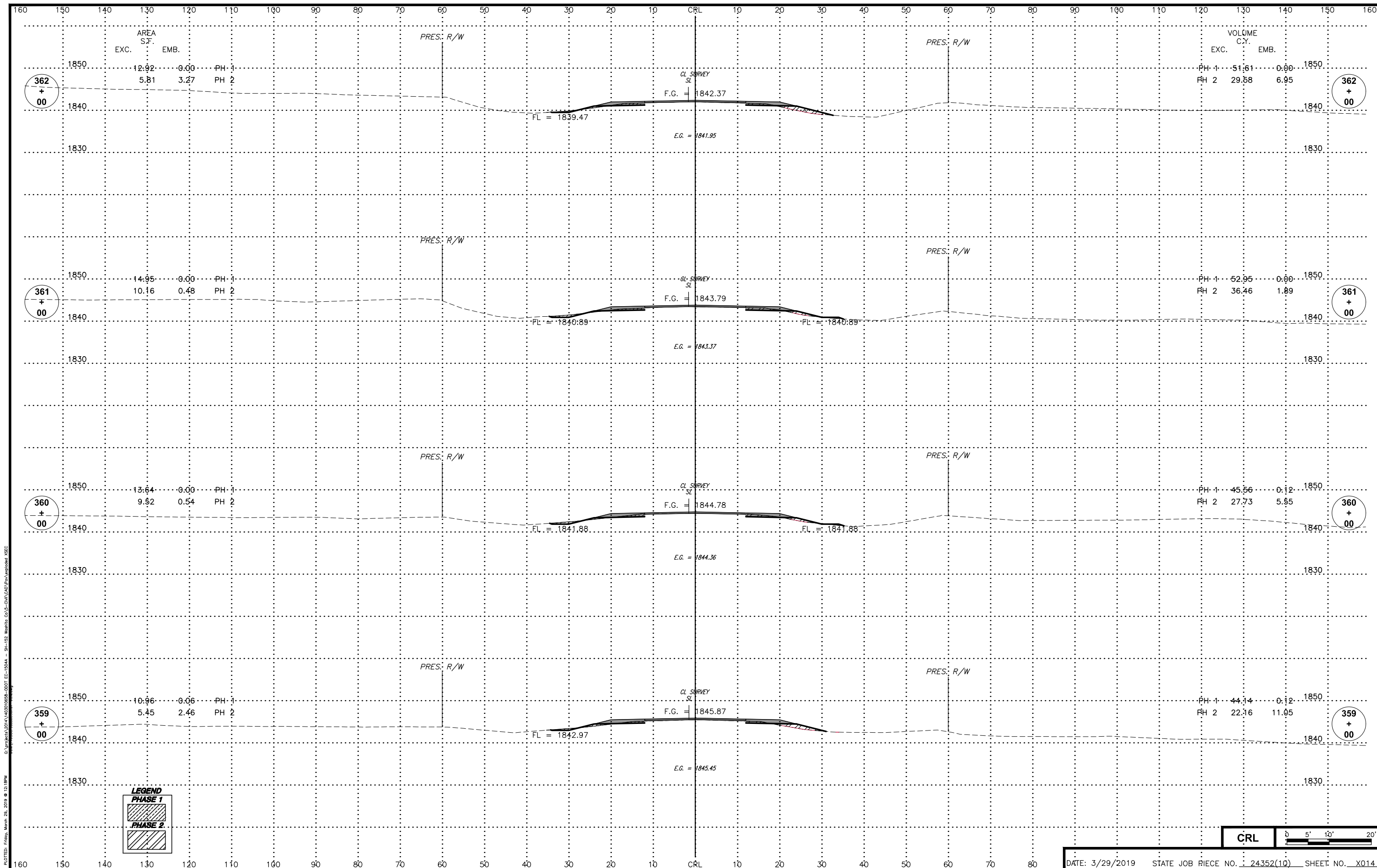
PLOTTER: Friday, March 29, 2019 @ 12:18PM
 C:\projects\2014\1403010558-0001 EC-1504A - SH-152 Washita Co\5-Civil\CAD\Drawings\XSEC

Station	Phase	Exc. Area (S.F.)	Emb. Area (S.F.)	Exc. Volume (C.Y.)	Emb. Volume (C.Y.)	FL (Left)	FL (Right)	E.G. (Centerline)
353+00	PH 1	23.88	0.00	-	-	-	-	1849.51
	PH 2	76.17	0.00	-	-	1845.03	1844.10	1849.09
352+00	PH 1	36.01	0.49	-	5.20	-	-	1849.69
	PH 2	47.13	0.00	-	4.22	1845.43	1844.55	1849.27
351+00	PH 1	17.14	2.31	-	12.61	-	-	1850.08
	PH 2	38.92	2.28	-	14.73	1845.83	1844.68	1849.67
350+00	PH 1	9.05	4.50	-	8.90	-	-	1850.57
	PH 2	26.03	5.67	-	13.75	1846.23	1844.96	1850.15

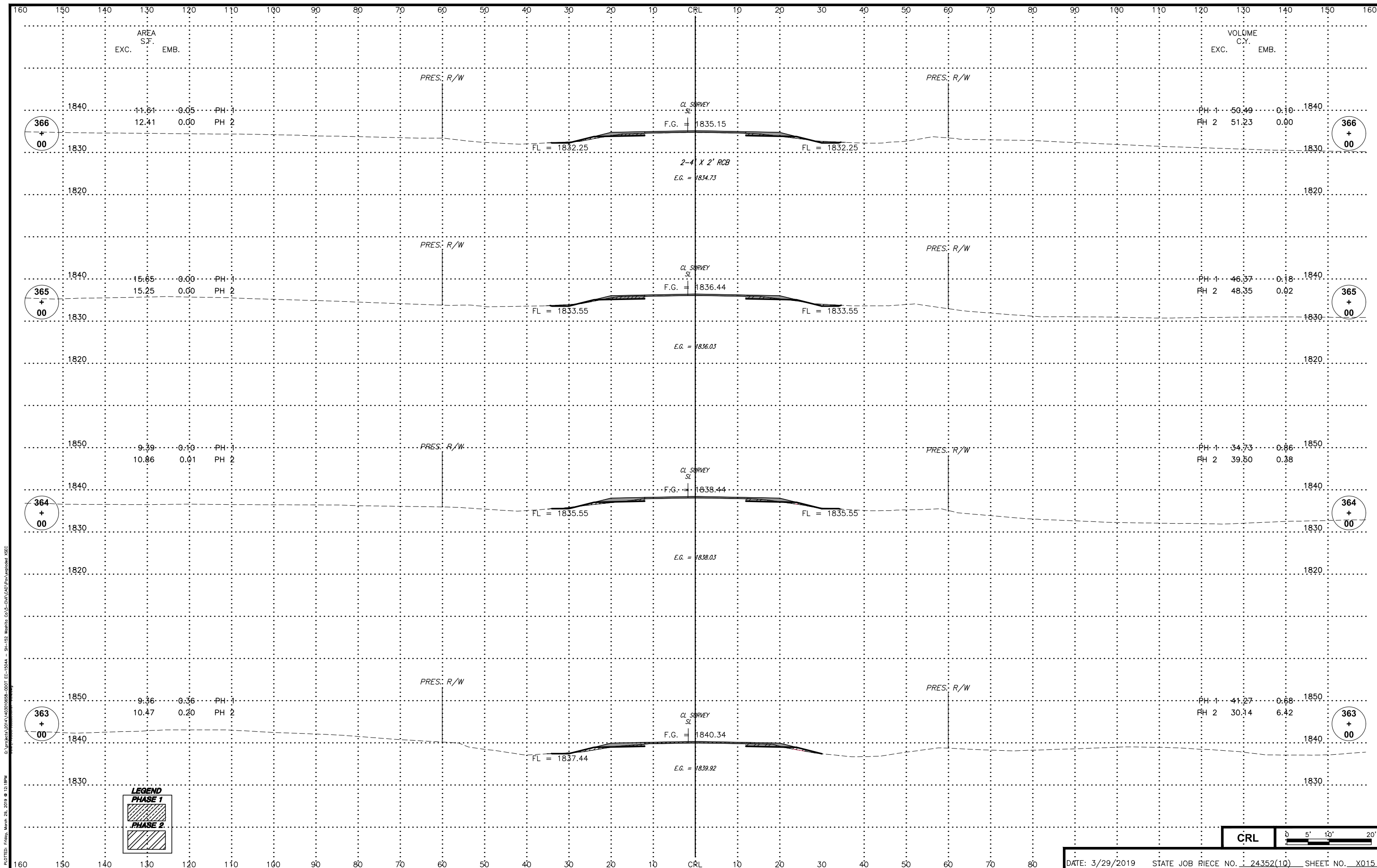


PLOTTER: Friday, March 29, 2019 @ 12:18PM
 C:\projects\2014\1403010558-0001 EC-1584A - SH-152 Washita Co\5-Civil\CAD\Drawings\XSEC

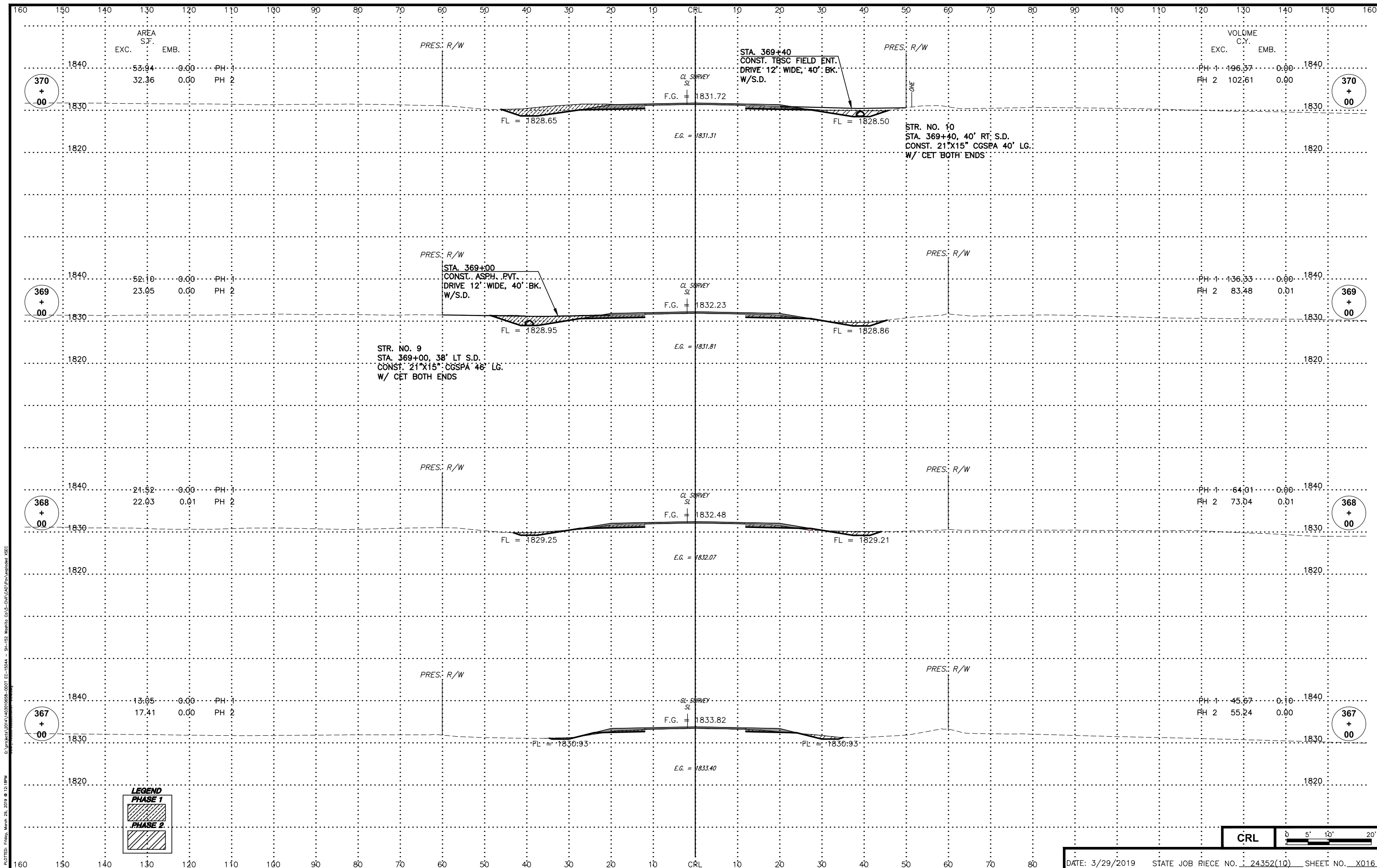
CRL 0 5' 10' 20'



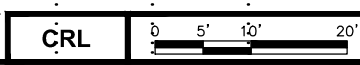
PLOTTER: Friday, March 29, 2019 @ 12:18PM
 C:\projects\2014\1403010558-0007 EC-1584A - SH-152 Washita Co-V-5-Civil-CAD\Drawings\XSEC

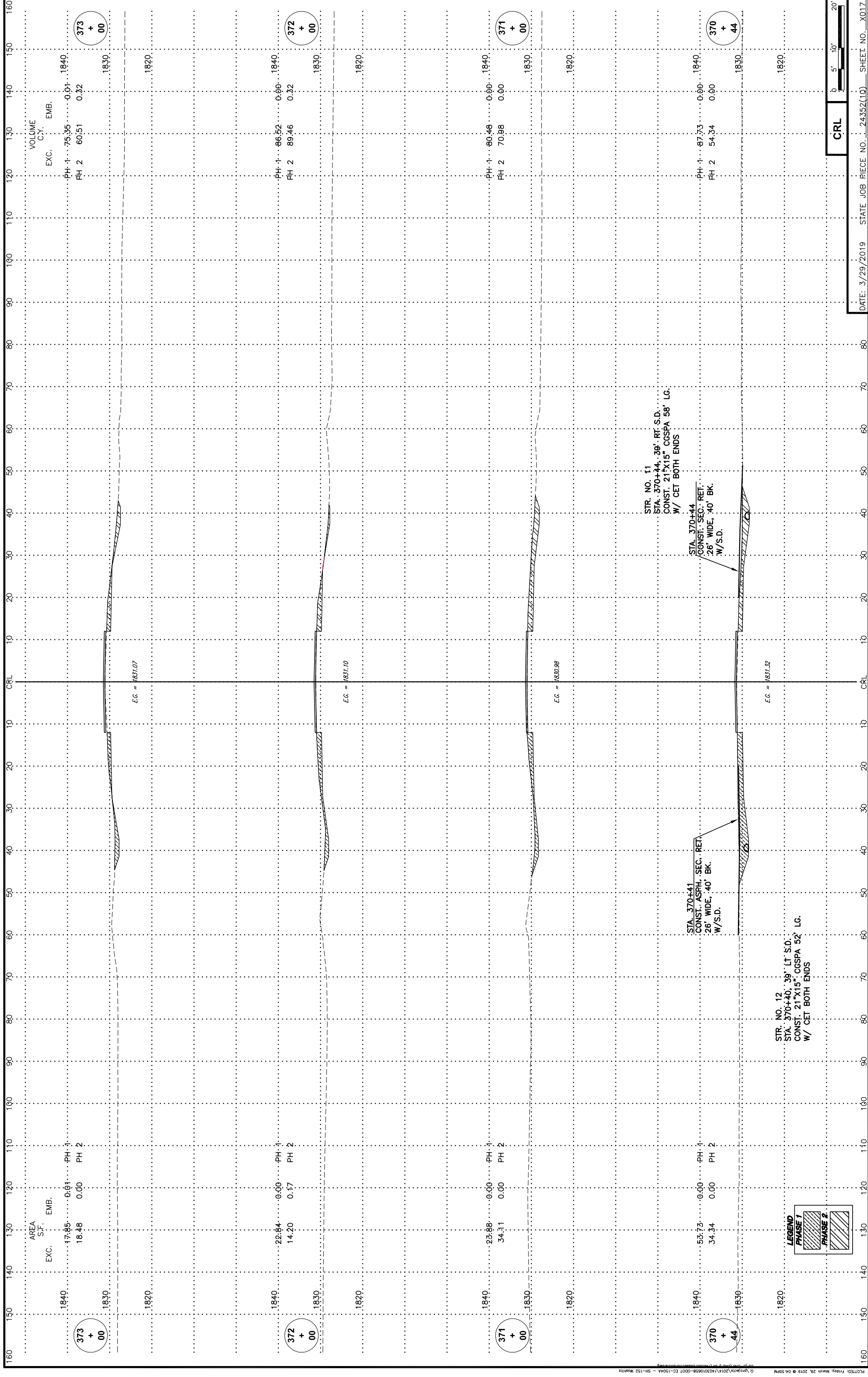


PLOTTER: Friday, March 29, 2019 @ 12:18PM
 C:\projects\2014\1403010558-0007 EC-1564A - SH-152 Washita Co\5-Civil\CAD\Drawings\XSEC



PLOTTER: Friday, March 29, 2019 @ 12:18PM
 C:\projects\2014\1403010558-0007 EC-1564A - SH-152 Washita Co-V-5-Civil-CAD\Drawings\XSEC





373
+
00

372
+
00

371
+
00

370
+
44

1840
1830
1820

1840
1830
1820

1840
1830
1820

1840
1830
1820

AREA
S.F.
EXC. EMB.

VOLUME
C.Y.
EXC. EMB.

PH 1
PH 2

PH 1
PH 2

PH 1
PH 2

PH 1
PH 2

E.G. = 1831.07

E.G. = 1831.10

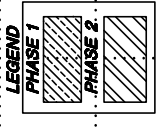
E.G. = 1830.98

E.G. = 1831.32

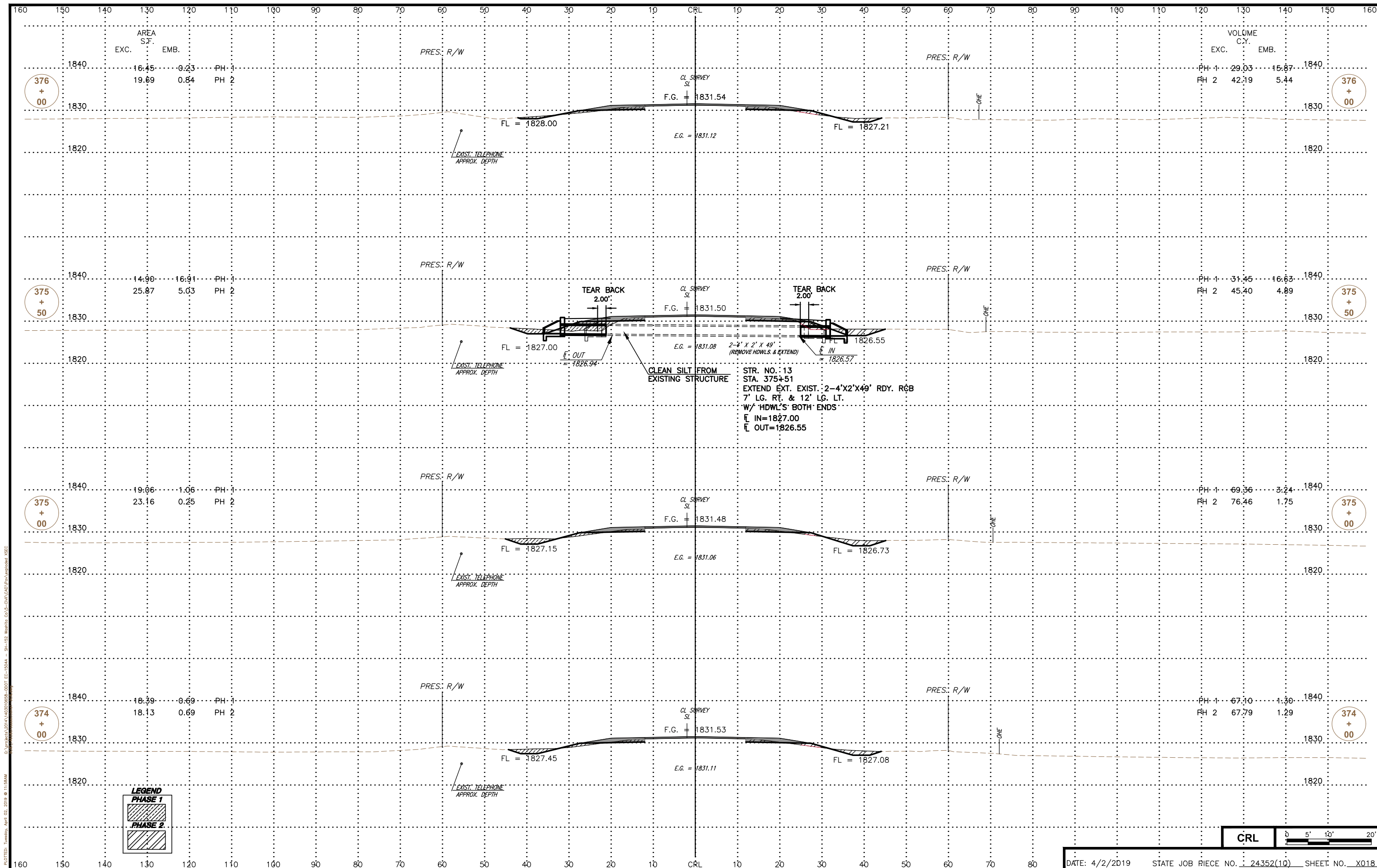
STR. NO. 11
STA. 370+44, 39' RT. S.D.
CONST. 21"X15" CGSPA 58' LG.
W/ CET BOTH ENDS

STA. 370+44
CONST. SEC. RET.
26' WIDE, 40' BK.
W/S.D.

STR. NO. 12
STA. 370+40, 39' LT. S.D.
CONST. 21"X15" CGSPA 52' LG.
W/ CET BOTH ENDS



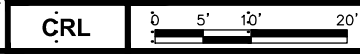
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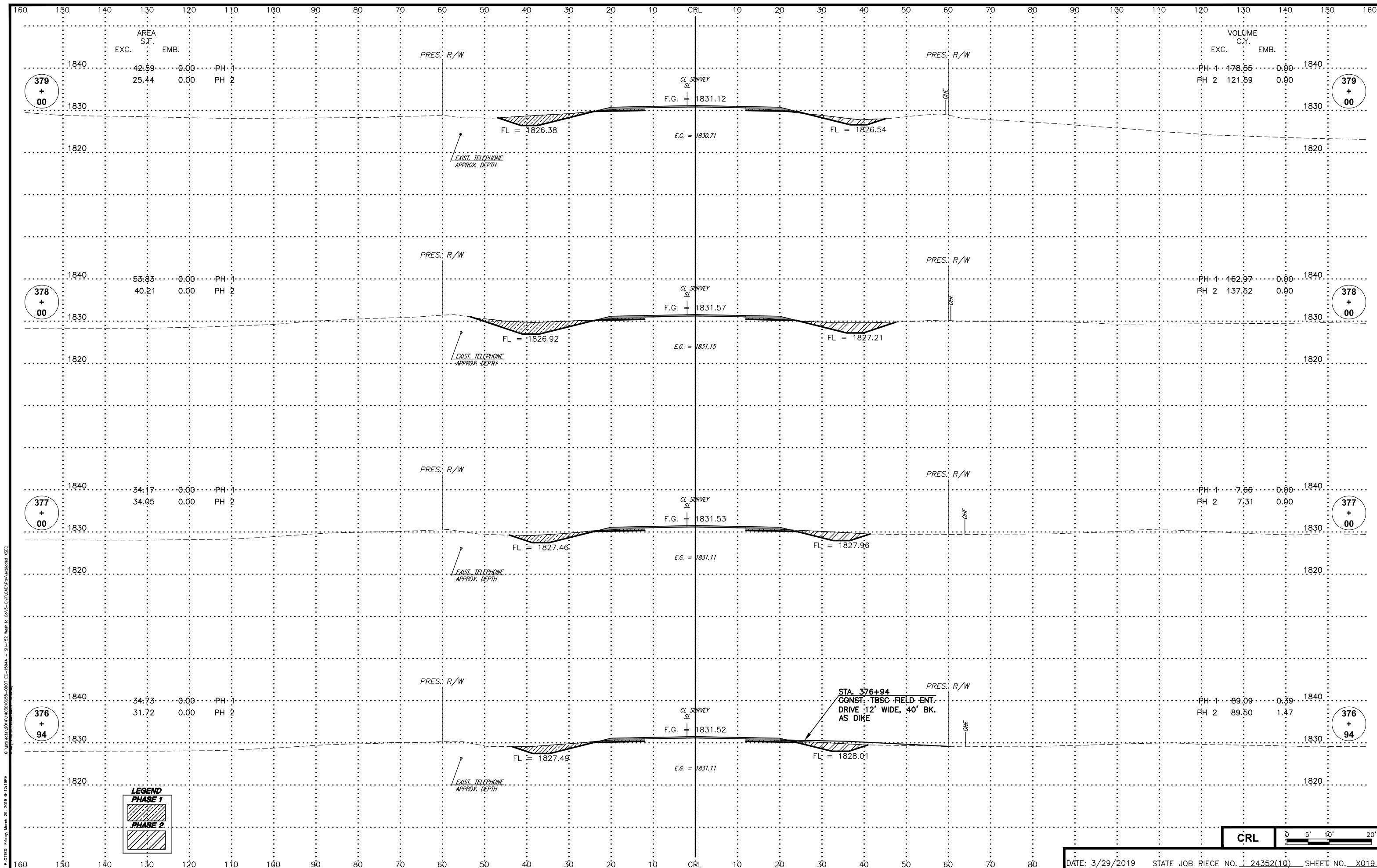
LEGEND

	PHASE 1
	PHASE 2

STR. NO. 13
 STA. 375+51
 EXTEND EXT. EXIST. 2-4' X 2' X 49' RDY. R&B
 7' LG. RT. & 12' LG. LT.
 W/ HDWL'S BOTH ENDS
 IN=1827.00
 OUT=1826.55



PLOTTED: Tuesday, April 02, 2019 @ 11:58AM
 C:\projects\2014\140301055-0001 EC-1564A - SH-152 Washita Co.V-5-Civil\DWG\Drawings\NSC

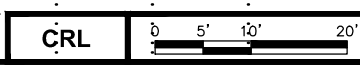


LEGEND

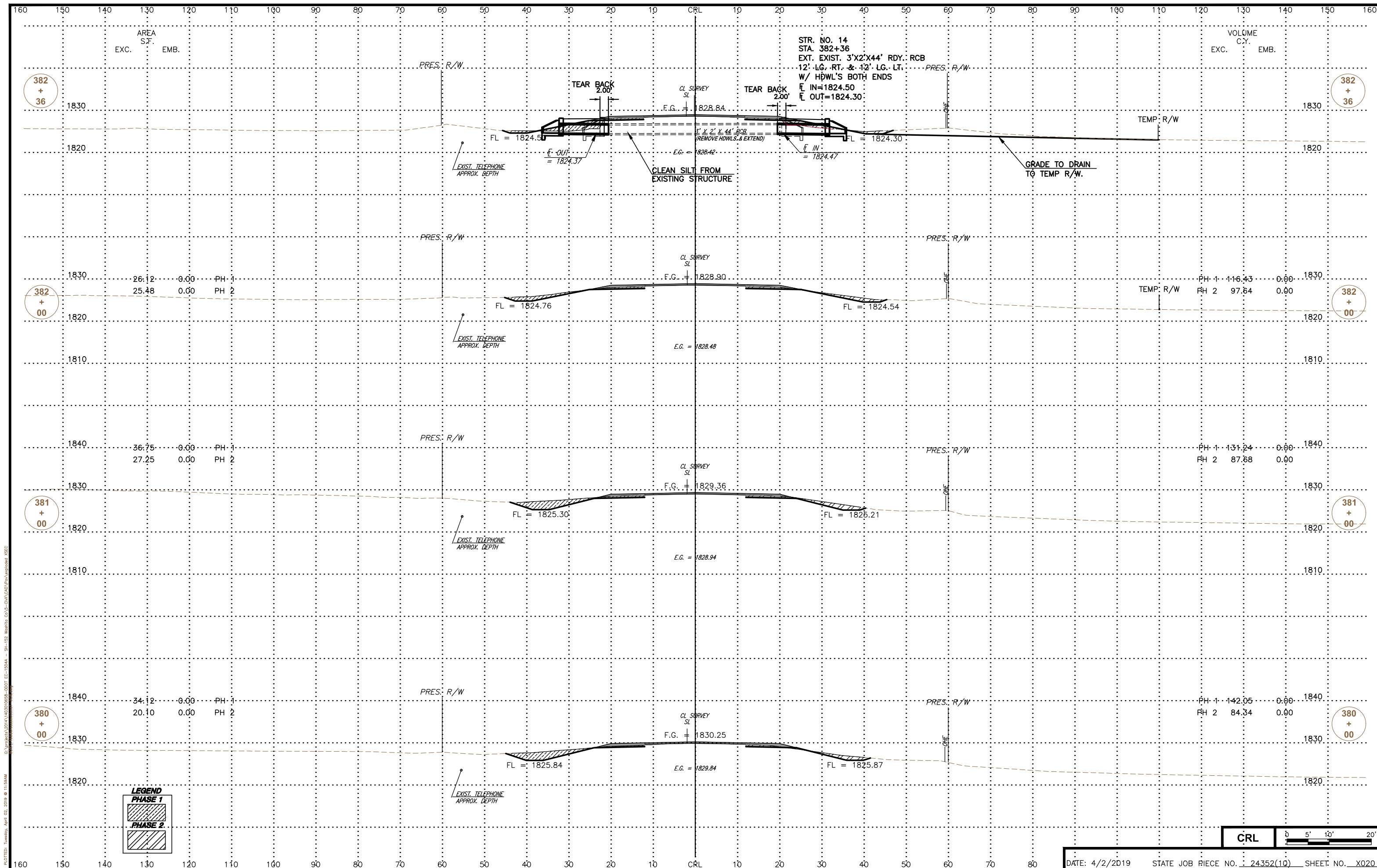
PHASE 1 (diagonal hatching)

PHASE 2 (cross-hatching)

STA. 376+94
 CONST. TBSC FIELD-ENT.
 DRIVE 12' WIDE, 40' BK.
 AS DIKE



PLOTTED: Friday, March 29, 2019 @ 12:18PM
 C:\projects\2014\1403010558-0007 EC-1564A - SH-152 Washita Co\5-Civil\CAD\Drawings\XSEC



STR. NO. 14
 STA. 382+36
 EXT. EXIST. 3'X2'X44' RDY.: RCB
 12' LG. RT. & 12' LG. LT.
 W/ HDWL'S BOTH ENDS
 F. IN=1824.50
 F. OUT=1824.30

VOLUME
 C.Y.
 EXC. EMB.

382
 +
 36

382
 +
 36

382
 +
 00

382
 +
 00

381
 +
 00

381
 +
 00

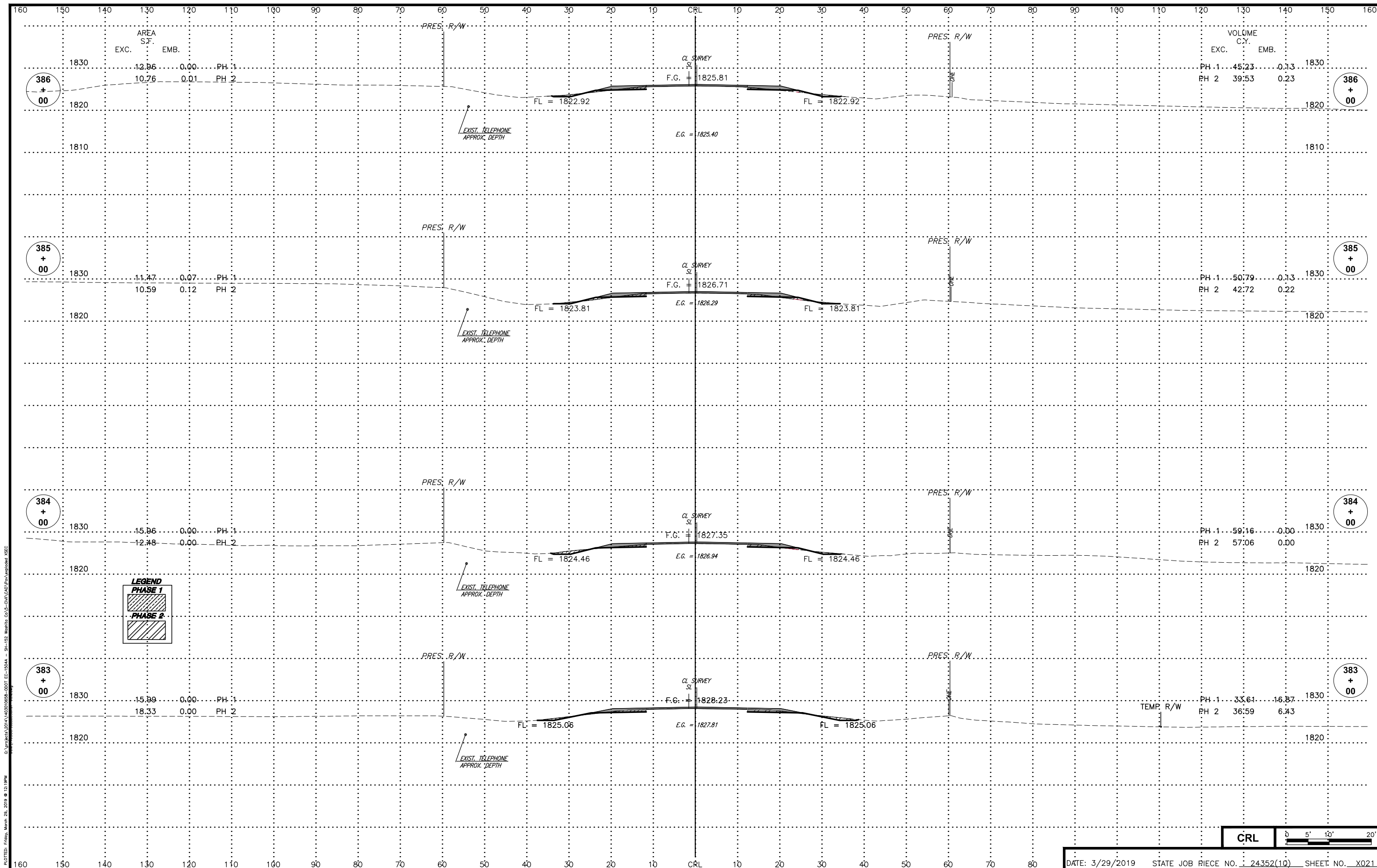
380
 +
 00

380
 +
 00

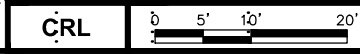
LEGEND
 PHASE 1
 PHASE 2

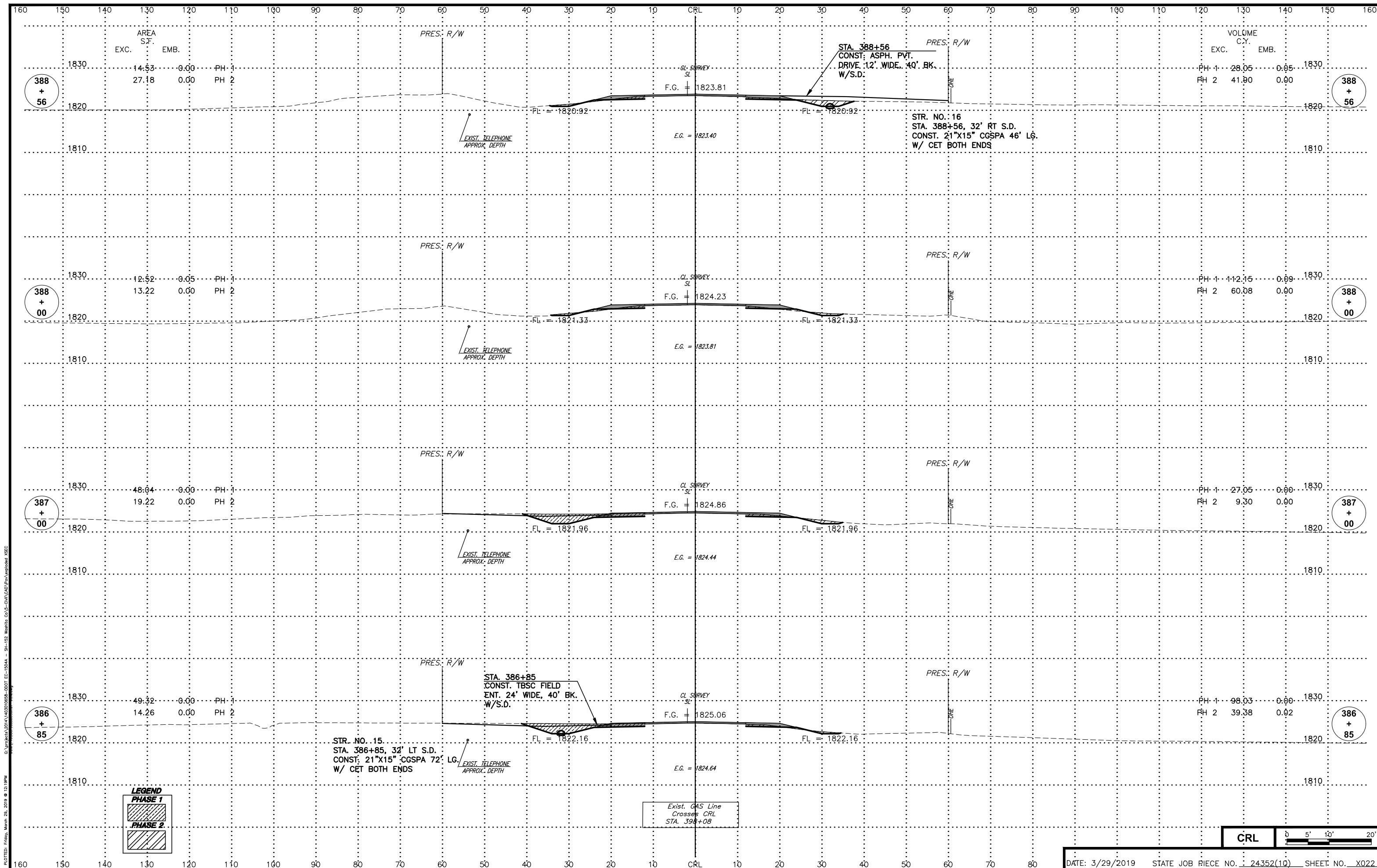
CRL
 0 5' 10' 20'

PLOTTED: Tuesday, April 02, 2019 @ 11:59AM
 C:\projects\2014\140301055-0001 EC-1564A - SH-152 Washita Co\5-Civil\CAD\Drawings\0505 XSEC



PLOTTER: Friday, March 29, 2019 @ 12:19PM
 C:\projects\2014\1403010558-0001 EC-1584A - SH-152 Washita Co-V-Civil-CAD\Drawings\XSEC





LEGEND

PHASE 1

PHASE 2

Exist. GAS Line
Crosses CRL
STA. 398+08

CRL

0 5' 10' 20'

PLOTTER: Friday, March 29, 2019 @ 12:18PM
 C:\projects\2014\1403010558-0007 EC-1564A - SH-152 Washita Co-V-5-Civil-CAD\Drawings\XSEC

388
+
56

388
+
56

388
+
00

388
+
00

387
+
00

387
+
00

386
+
85

386
+
85

AREA S.F.

EXC.	EMB.
14.53	0.00
27.18	0.00

PH 1
PH 2

VOLUME C.Y.

EXC.	EMB.
28.05	0.05
41.90	0.00

PH 1
PH 2

AREA S.F.

EXC.	EMB.
12.52	0.05
13.22	0.00

PH 1
PH 2

VOLUME C.Y.

EXC.	EMB.
112.15	0.09
60.08	0.00

PH 1
PH 2

AREA S.F.

EXC.	EMB.
49.32	0.00
14.26	0.00

PH 1
PH 2

VOLUME C.Y.

EXC.	EMB.
98.03	0.00
39.38	0.02

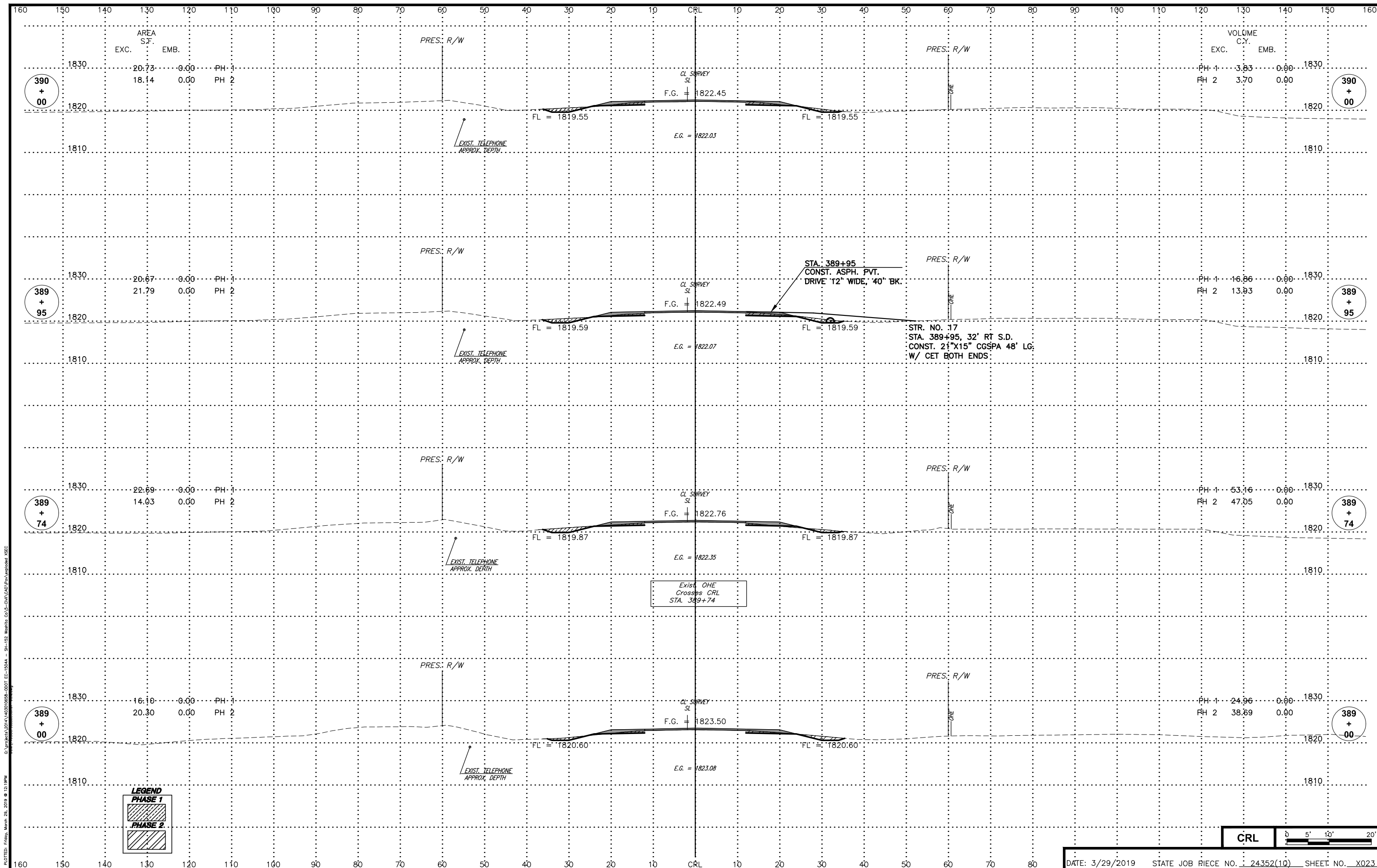
PH 1
PH 2

STR. NO. 15.
STA. 386+85, 32' LT S.D.
CONST. 21"x15" CGSPA 72' LG.
W/ CET BOTH ENDS



STA. 386+85
CONST. TBSC FIELD
ENT. 24' WIDE, 40' BK.
W/S.D.

STA. 388+56
CONST. ASPH. PVT.
DRIVE 12' WIDE, 40' BK.
W/S.D.

STR. NO. 16
STA. 388+56, 32' RT S.D.
CONST. 21"x15" CGSPA 46' LG.
W/ CET BOTH ENDS

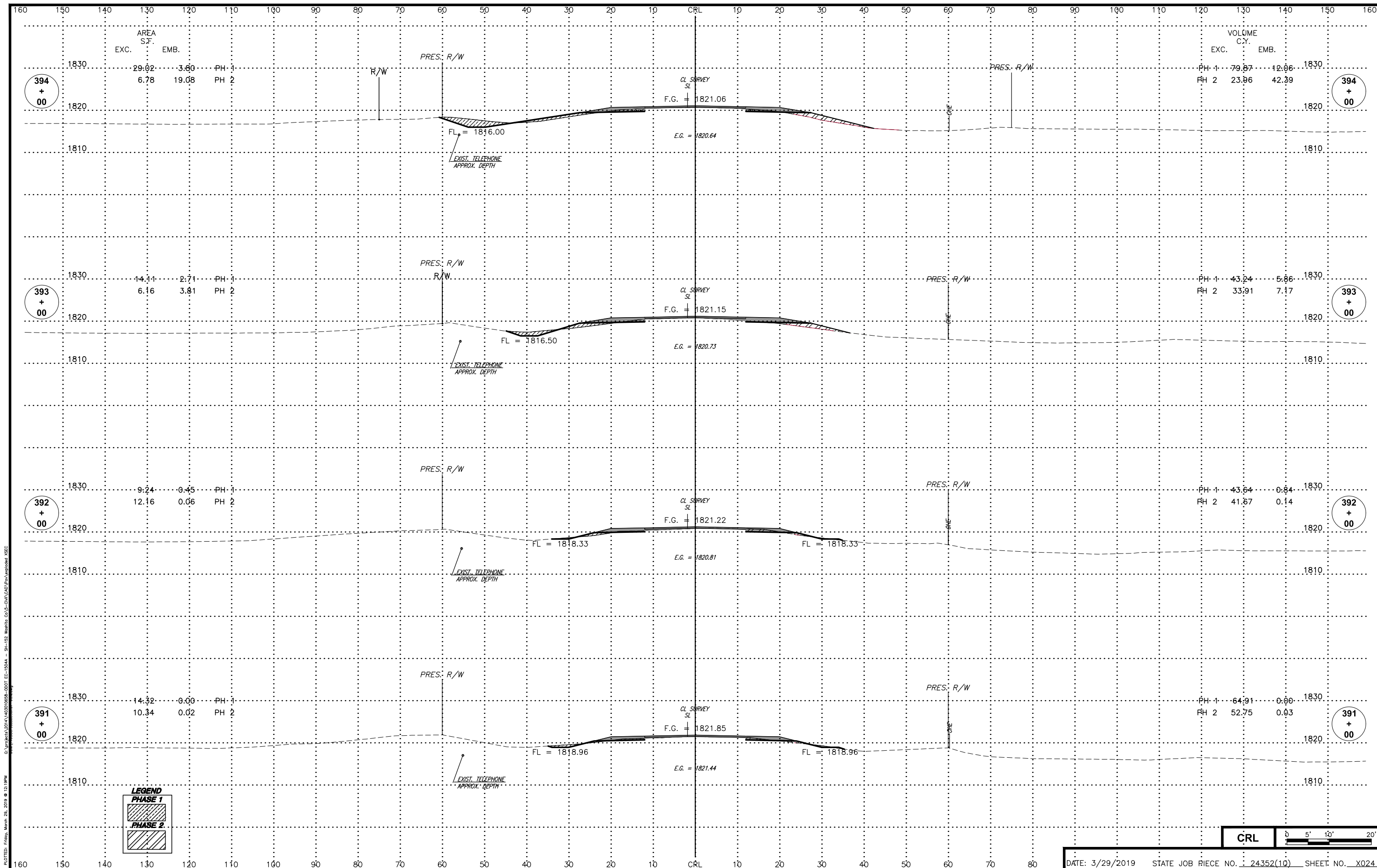


PLOTTED: Friday, March 29, 2019 @ 12:18PM
 C:\projects\2014\1403010558-0007 EC-1564A - SH-152 Washita Co-V-5-Civil-CAD\Drawings\XSEC

LEGEND
 **PHASE 1**
 **PHASE 2**

CRL 0' 5' 10' 20'

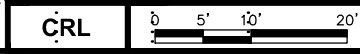
DATE: 3/29/2019 STATE JOB PIECE NO.: 24352(10) SHEET NO.: X023



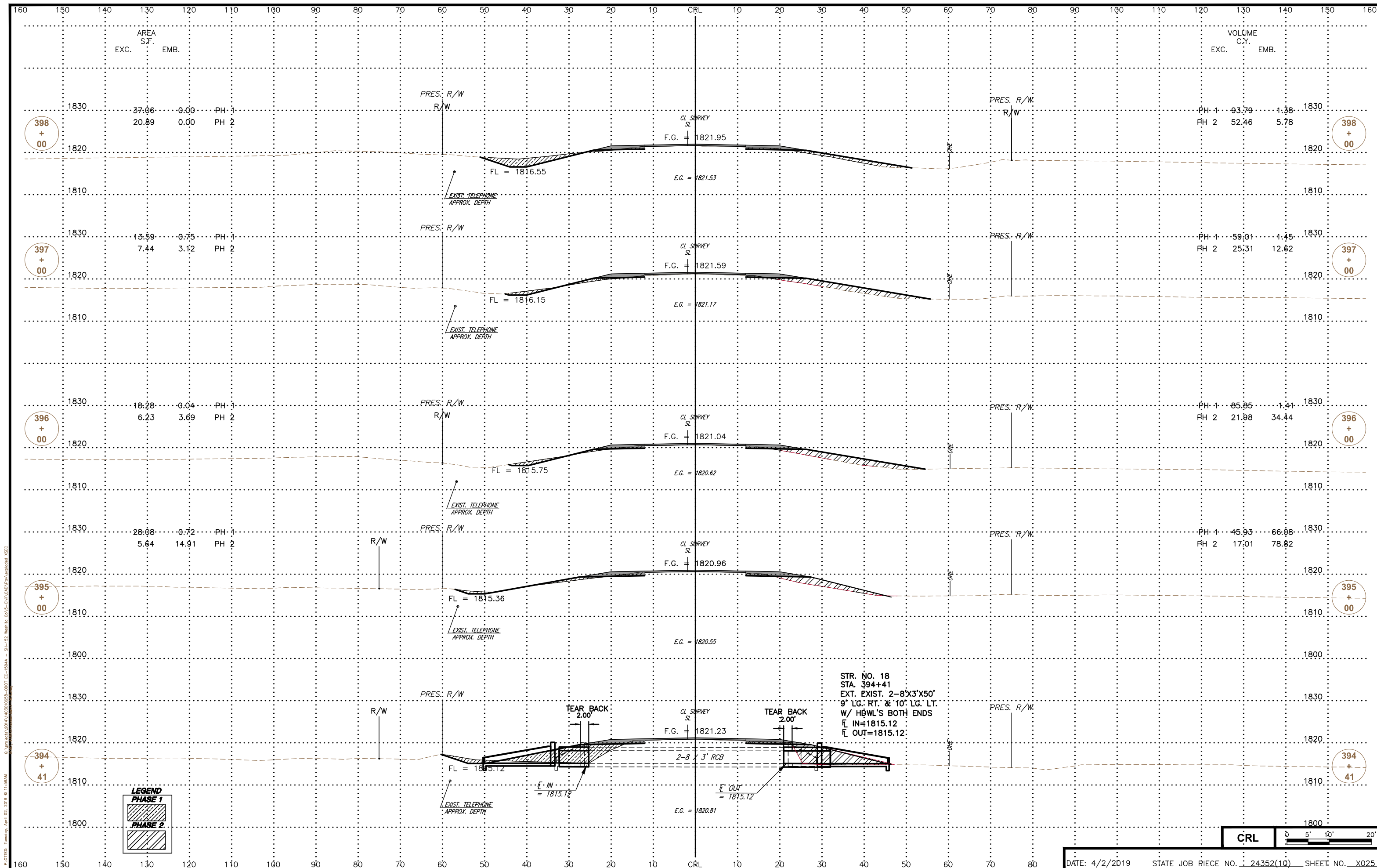
LEGEND

PHASE 1 (diagonal hatching)

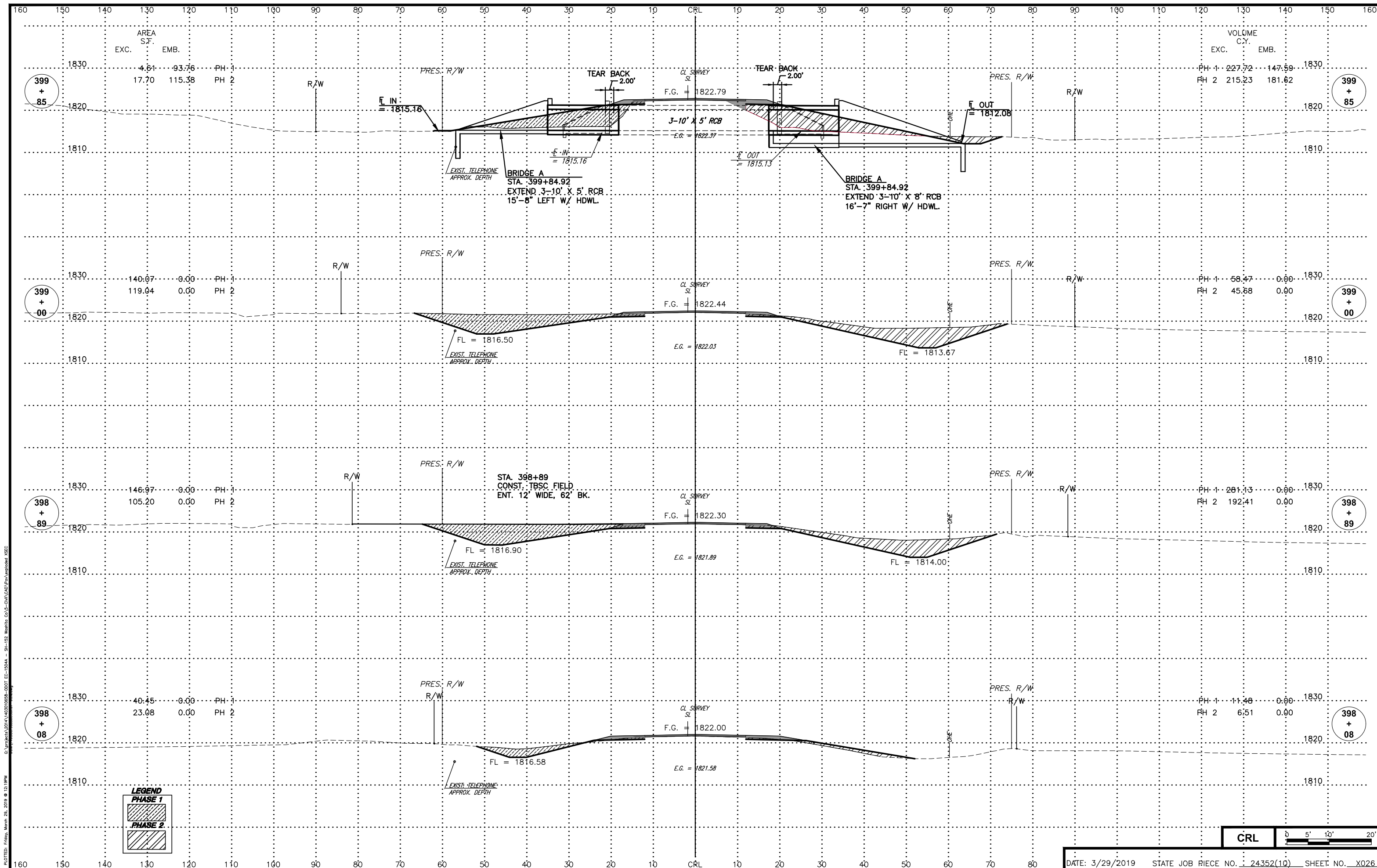
PHASE 2 (diagonal hatching)



PLOTTER: Friday, March 29, 2019 @ 12:18PM
 C:\projects\2014\1403010558-0007 EC-1564A - SH-152 Washita Co\5-Civil\CAD\Drawings\XSEC



PLOTTED: Tuesday, April 02, 2019 @ 11:59AM
 C:\projects\2014\1403010658-0007 EC-1564A - SH-152 Washita Co-V-5-Cha-CAD\Drawings\XSEC



LEGEND

PHASE 1

PHASE 2

CRL

0 5' 10' 20'

PLOTTED: Friday, March 29, 2019 @ 12:19PM
 C:\projects\2014\1403010558-0007 EC-1564A - SH-152 Washita Co\5-Civil\CAD\Drawings\XSEC

AREA S.F. EXC. EMB.

4.61	93.76	PH 1
17.70	115.38	PH 2

VOLUME C.Y. EXC. EMB.

227.72	147.59	PH 1
215.23	181.62	PH 2

399 + 85

399 + 85

399 + 00

399 + 00

398 + 89

398 + 89

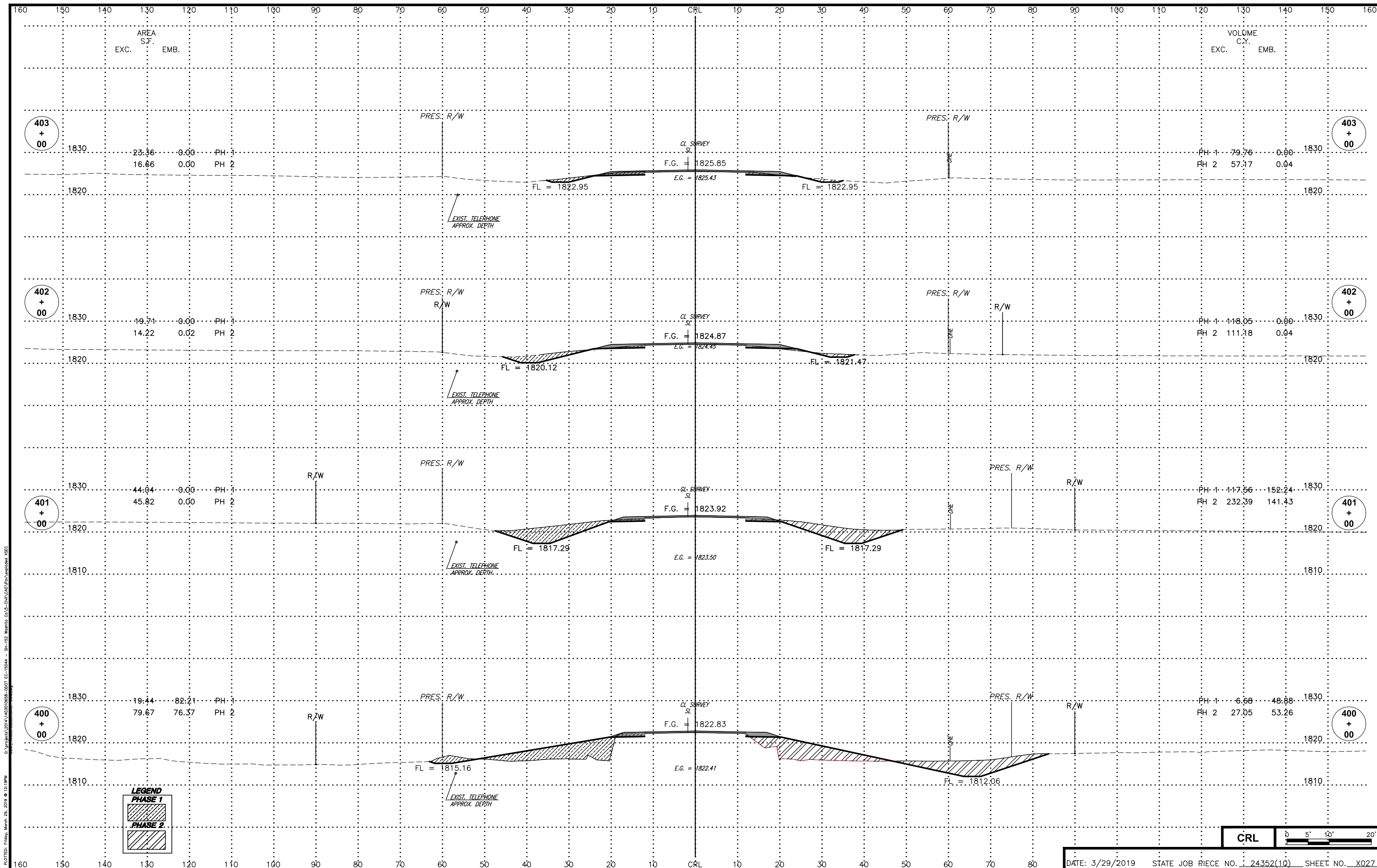
398 + 08

398 + 08

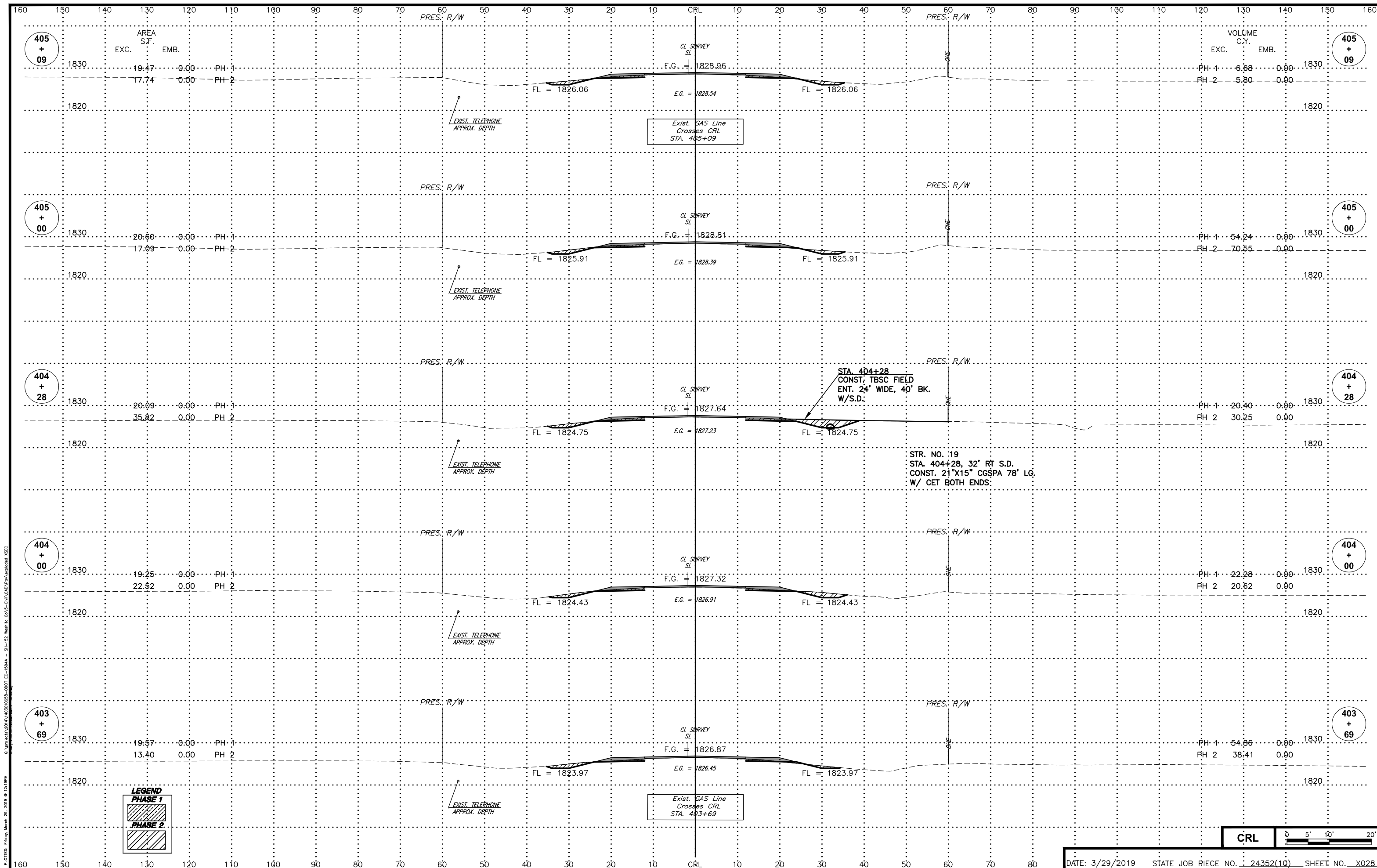
BRIDGE A
 STA. 399+84.92
 EXTEND 3-10' X 5' RCB
 15'-8" LEFT W/ HDWL.

BRIDGE A
 STA. 399+84.92
 EXTEND 3-10' X 8' RCB
 16'-7" RIGHT W/ HDWL.

STA. 398+89
 CONST. TBSC FIELD
 ENT. 12' WIDE, 62' BK.



PLOTTER: Friday, March 29, 2019 @ 12:18PM
 C:\projects\2014\1403010558-0007 EC-1564A - SH-152 Washita Co\5-Civil\CAD\Drawings\XSEC



LEGEND

PHASE 1

PHASE 2

Exist. GAS Line
Crosses CRL
STA. 405+09

Exist. GAS Line
Crosses CRL
STA. 403+69

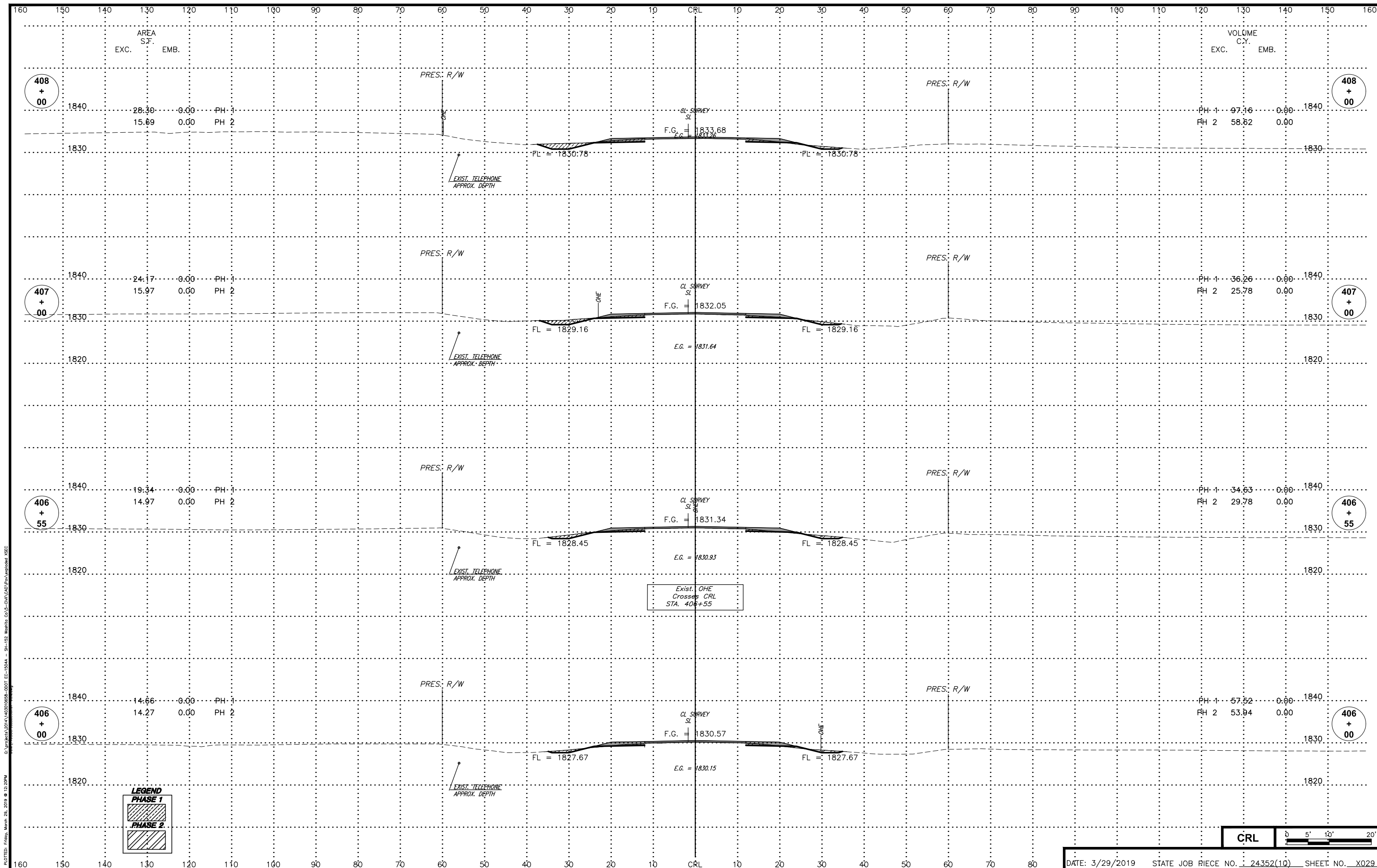
STA. 404+28
CONST. TBSC FIELD
ENT. 24' WIDE, 40' BK.
W/S.D.

STR. NO. 19
STA. 404+28, 32' RT S.D.
CONST. 21"X15" CGSPA 78' LG.
W/ CET BOTH ENDS.

CRL

0 5' 10' 20'

C:\projects\2014\1403010658-0007 EC-1564A - SH-152 Washita Co-V-5-Civil-CAD\Drawings\XSEC
 PLOTTER: Friday, March 29, 2019 @ 12:18PM



LEGEND

PHASE 1

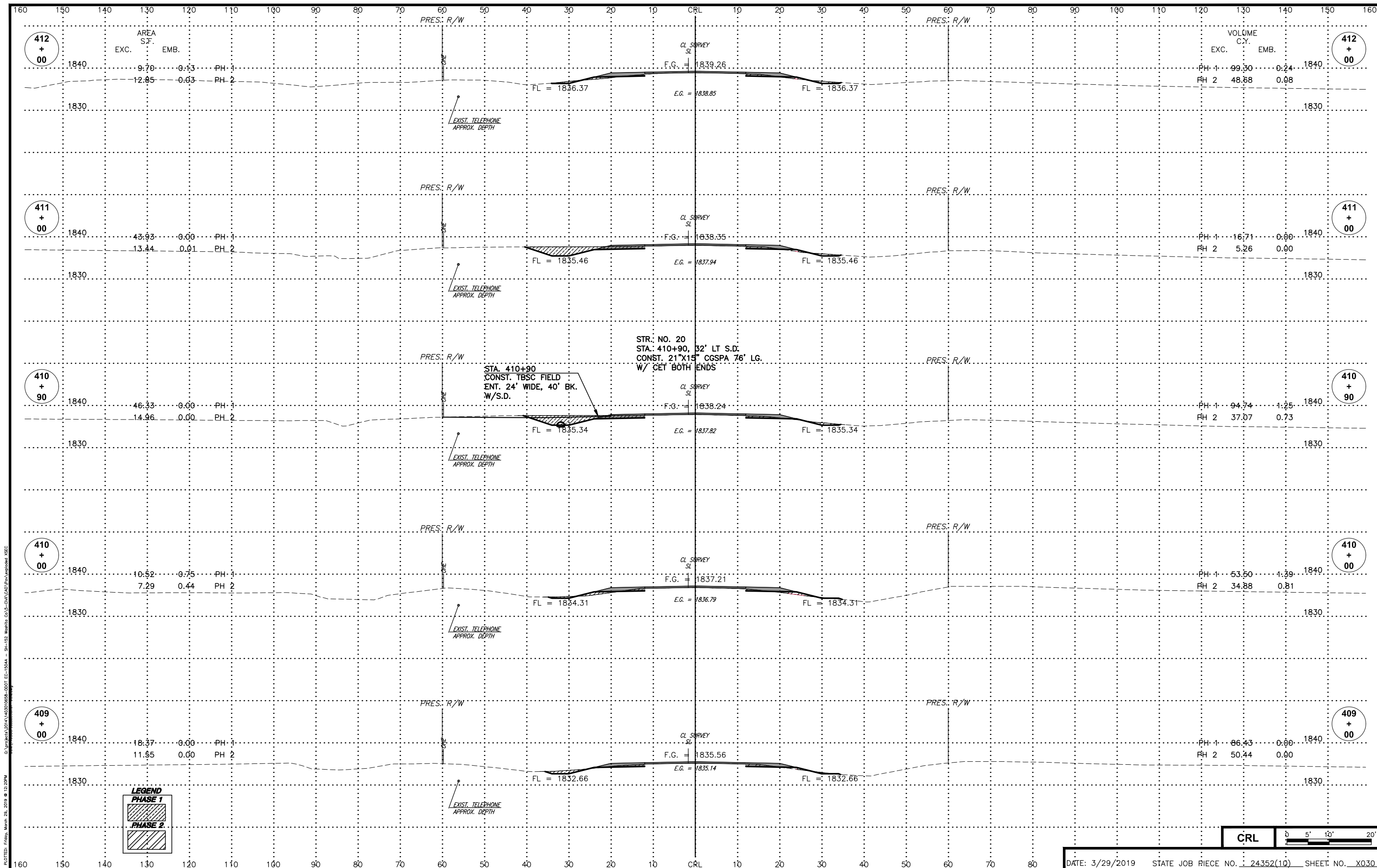
PHASE 2

Exist. OHE
Crosses CRL
STA. 406+55

CRL

0 5' 10' 20'

PLOTTER: Friday, March 29, 2019 @ 12:20PM
 C:\projects\2014\1403010558-0007 EC-1564A - SH-152 Washita Co-V-5-Cha-CAD\Drawings\XSEC



PRES: R/W

PRES: R/W

PRES: R/W

PRES: R/W

PRES: R/W

PRES: R/W

PRES: R/W

PRES: R/W

PRES: R/W

PRES: R/W

STR. NO. 20
STA. 410+90, 32' LT S.D.
CONST. 21"X15" CGSPA 76' LG.
W/ CET BOTH ENDS

STA. 410+90
CONST. TBSC FIELD
ENT. 24' WIDE, 40' BK.
W/S.D.

LEGEND

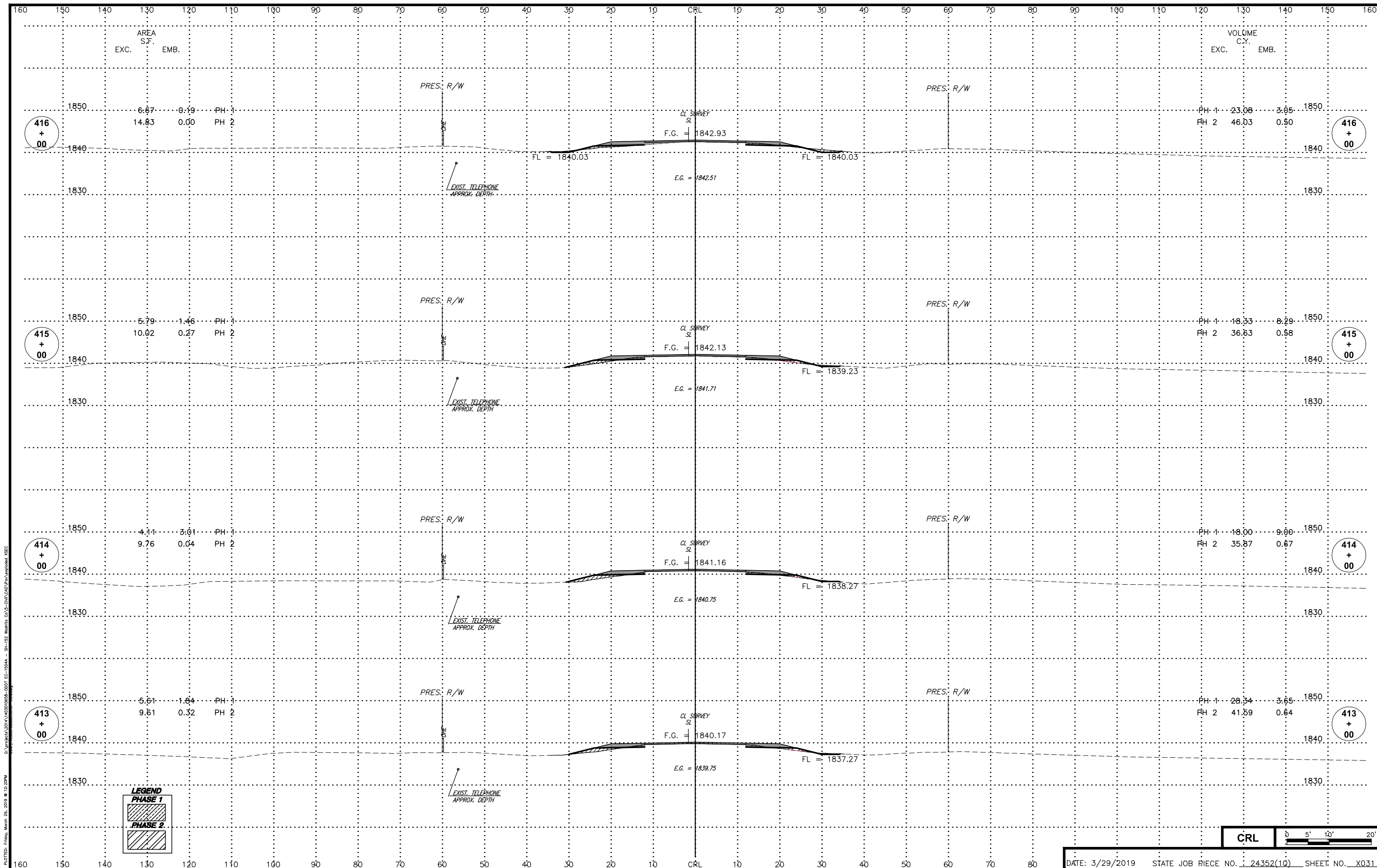
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

C:\projects\2014\1403010658-0007 EC-1564A - SH-152 Washita Co-V-5-Civil-CAD\Drawings\XSEC
 PLOTTED: Friday, March 29, 2019 @ 12:20PM



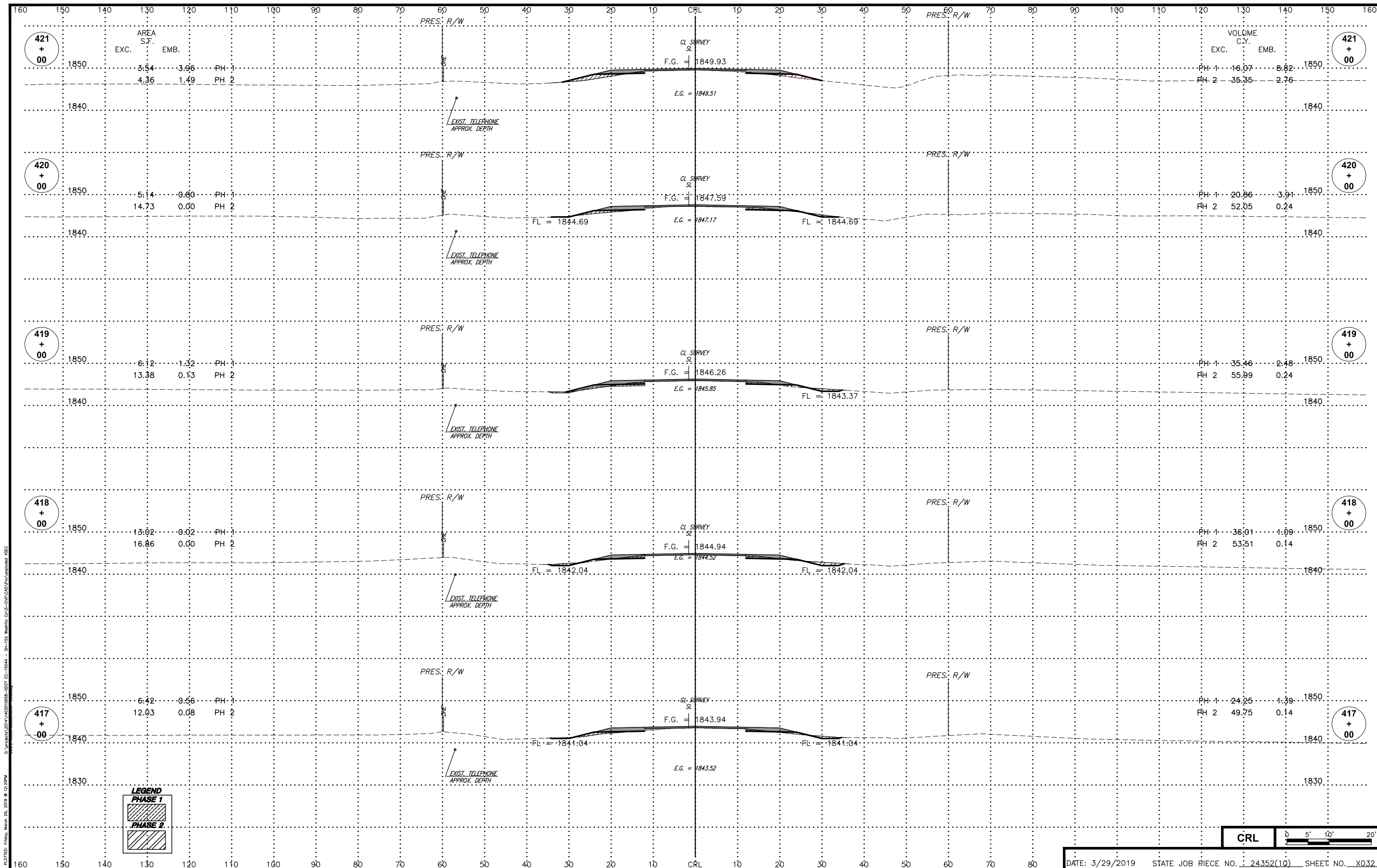
LEGEND

PHASE 1 (diagonal hatching)

PHASE 2 (diagonal hatching)

CRL | 0' 5' 10' 20'

C:\projects\2014\1403010558-0007 EC-1564A - SH-152 Washita Co-V-Civil-CAD\Drawings\XSEC
 PLOTTER: Friday, March 29, 2019 @ 12:20PM



LEGEND

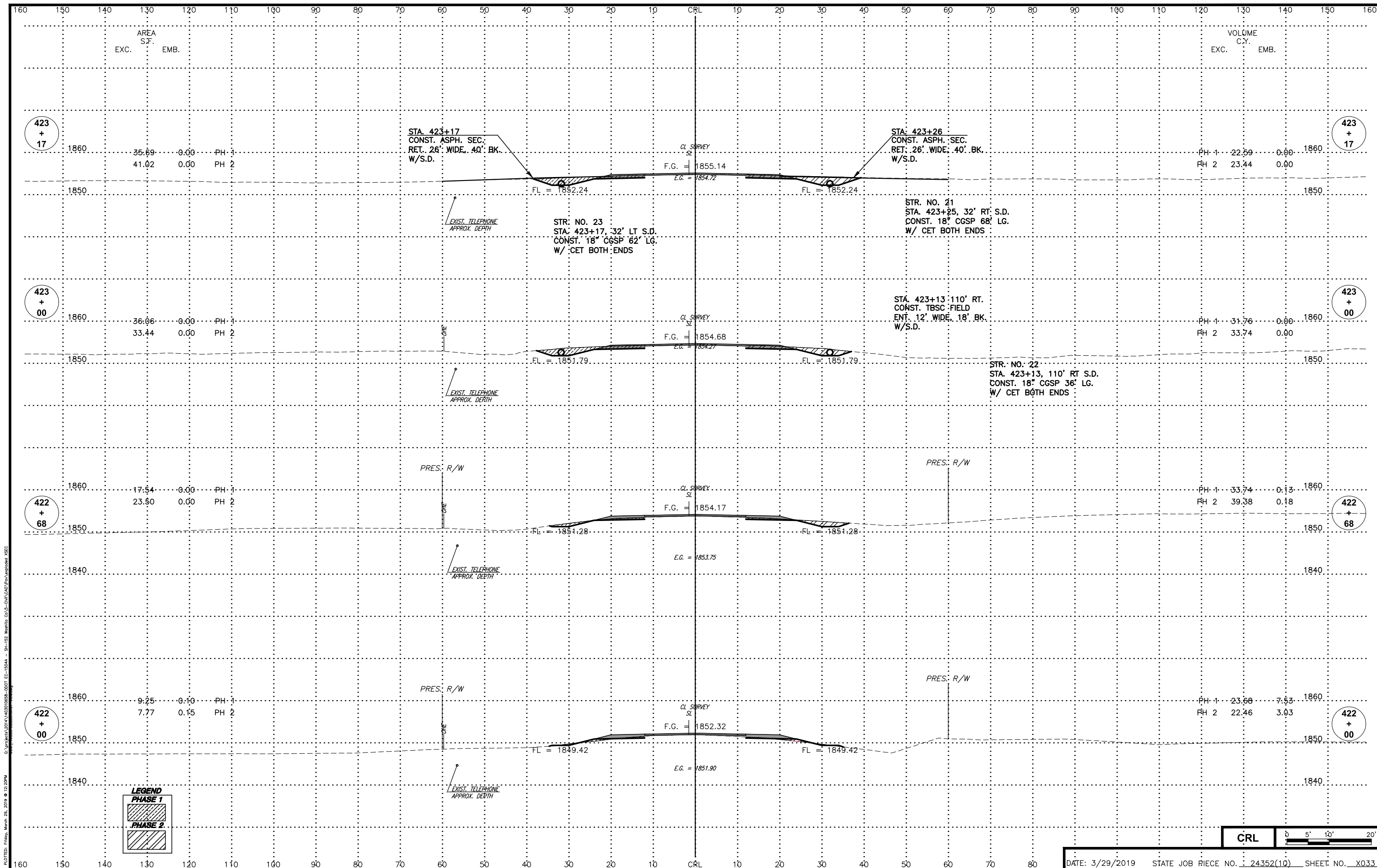
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

PLOTTER: Friday, March 29, 2019 @ 12:20PM
 C:\projects\2014\1403010658-0007 EC-1564A - SH-152 Washita Co\5-Civil\CAD\Drawings\XSEC

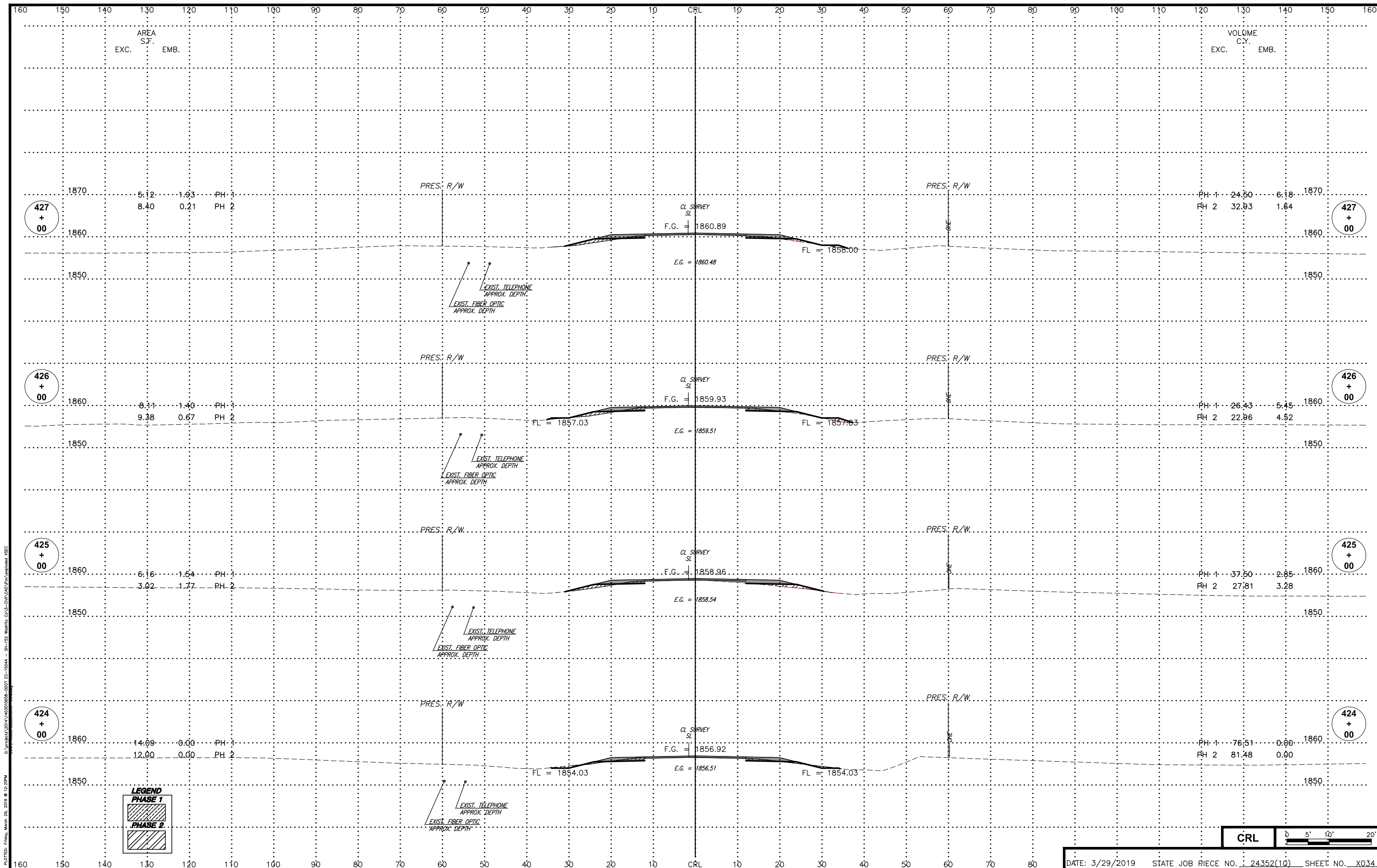


PLOTTER: Friday, March 29, 2019 @ 12:20PM
 C:\projects\2014\1403010558-0007 EC-1564A - SH-152 Washita Co-V-5-Civil-CAD\Drawings\XSEC

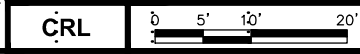
LEGEND
 PHASE 1
 PHASE 2

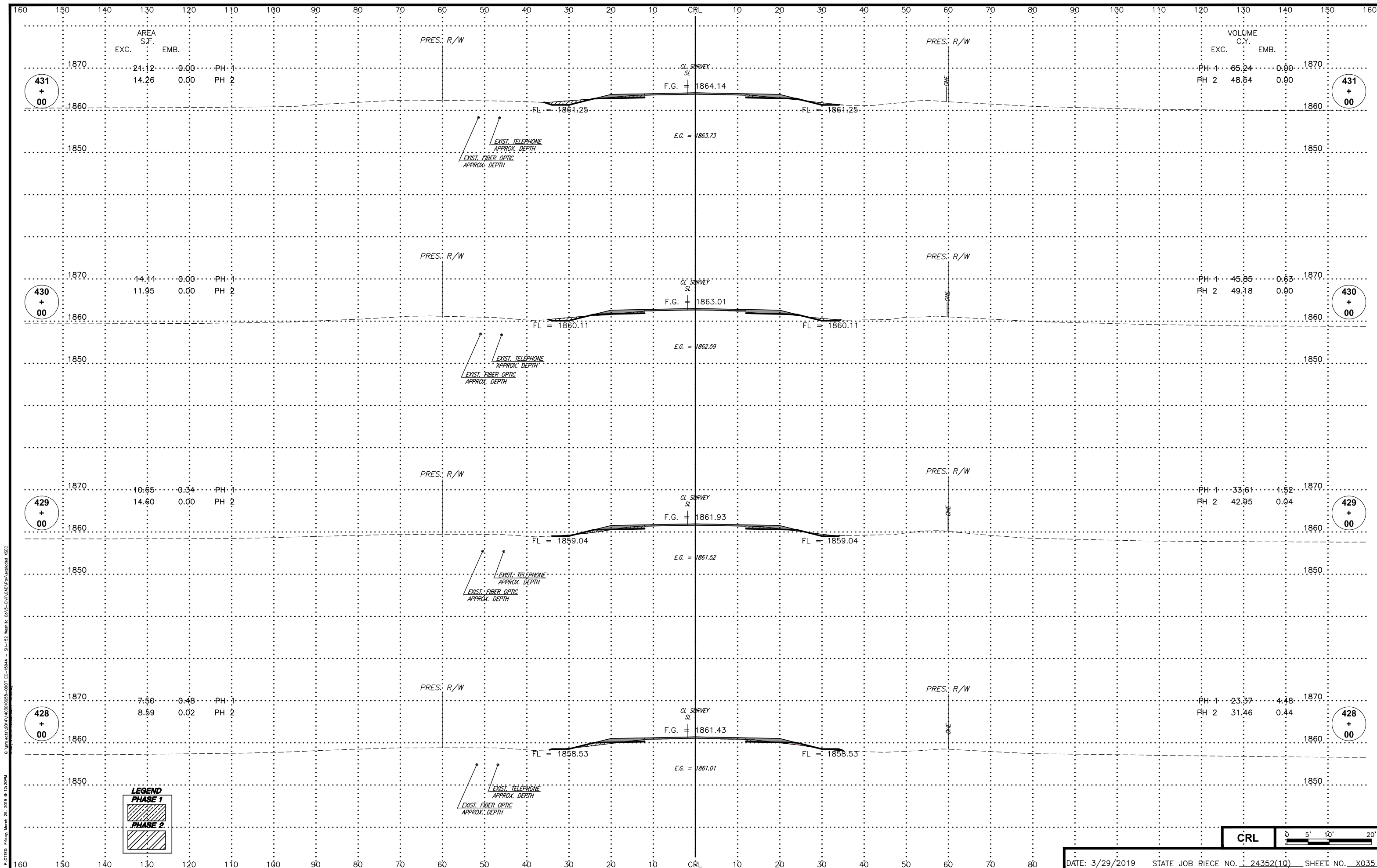
CRL
 0 5' 10' 20'

DATE: 3/29/2019 STATE JOB PIECE NO.: 24352(10) SHEET NO.: X033



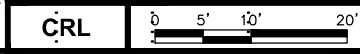
PLOTTER: Friday, March 29, 2019 @ 12:20PM
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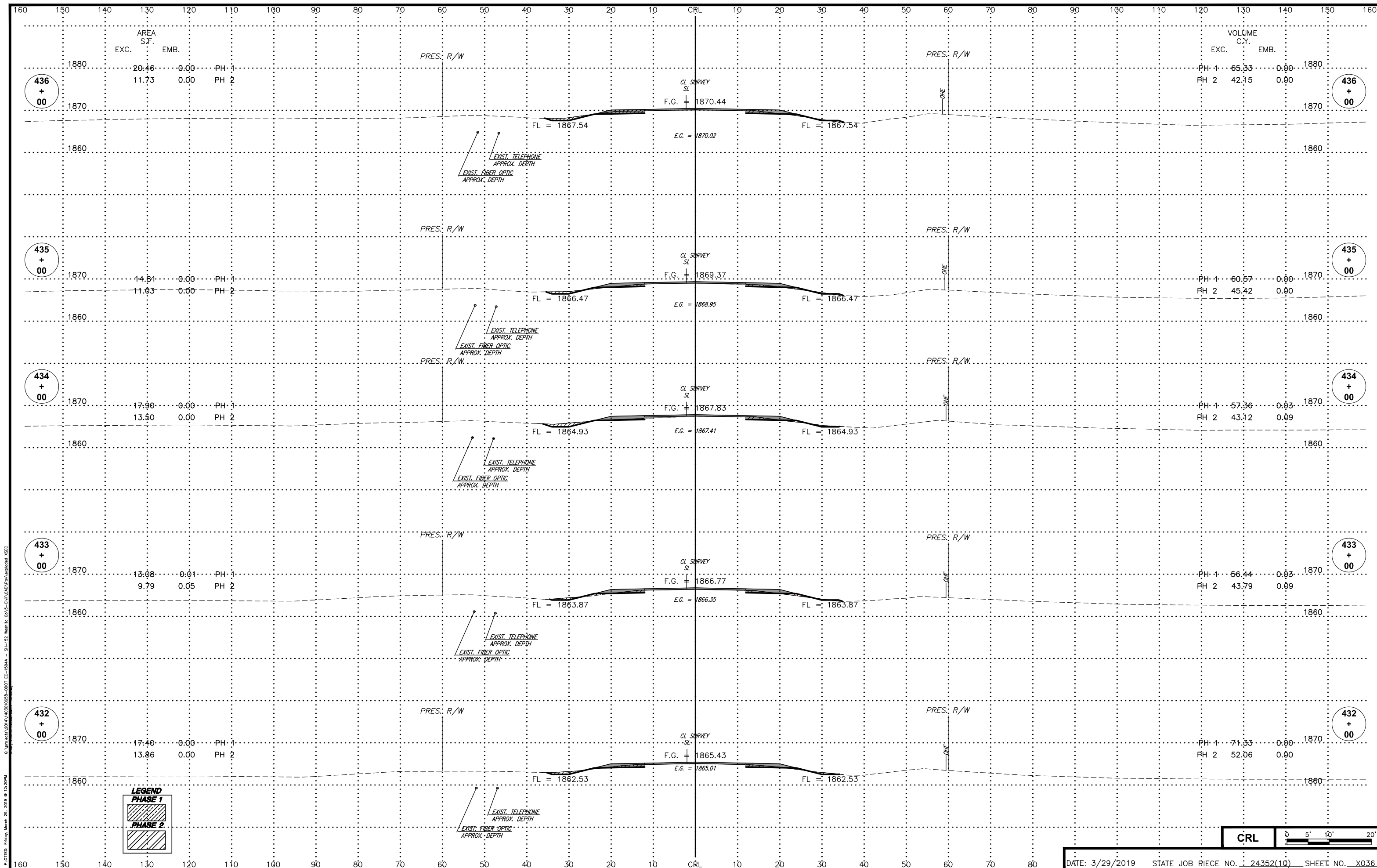


LEGEND

	PHASE 1
	PHASE 2



PLOTTER: Friday, March 29, 2019 @ 12:20PM
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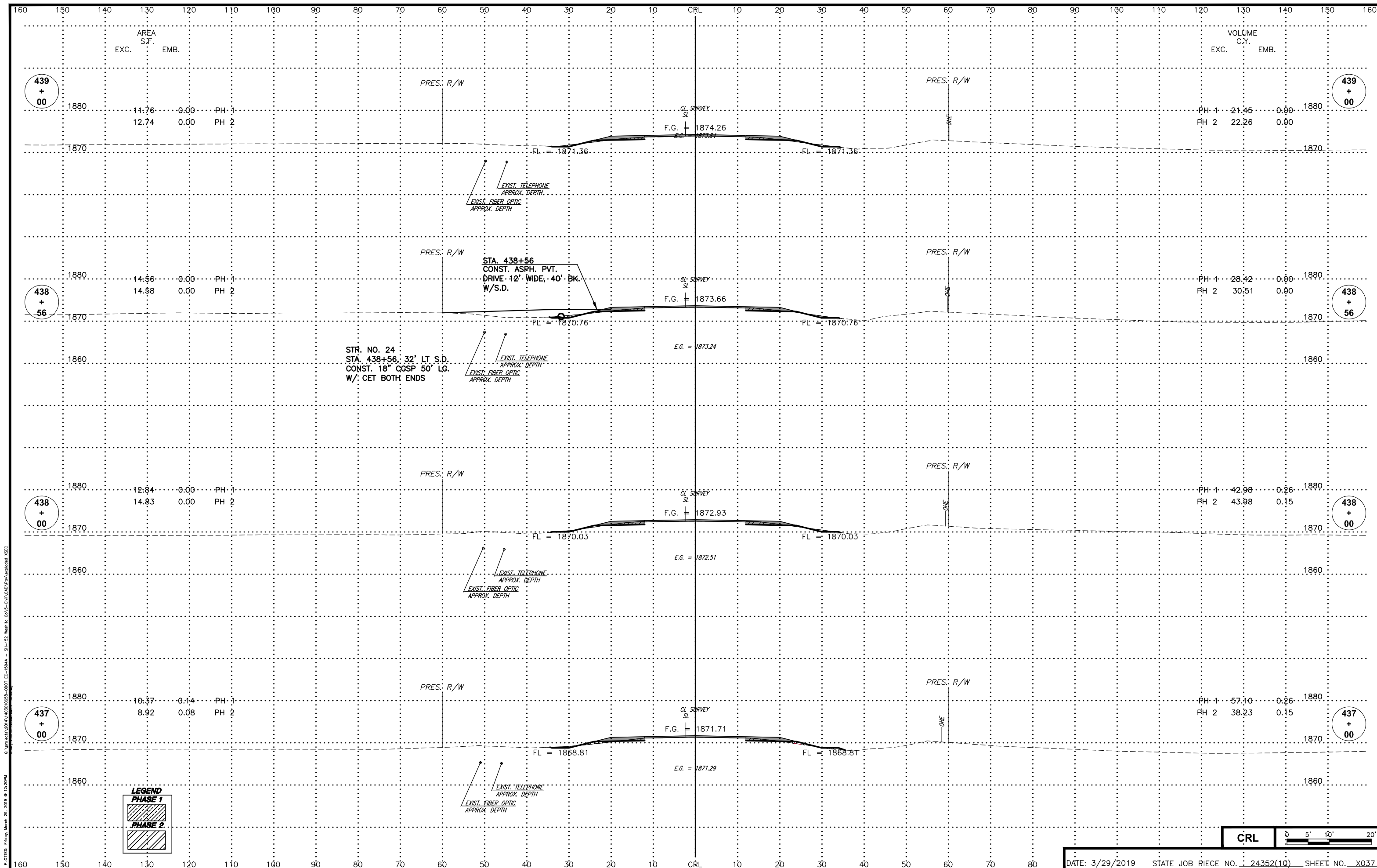


LEGEND

- PHASE 1** (Hatched area)
- PHASE 2** (Hatched area)

CRL | 0' 5' 10' 20'

C:\projects\2014\403010658-0001 EC-1564A - SH-152 Washita Co-V-5-Civil-CAD\Drawings\XSEC



LEGEND

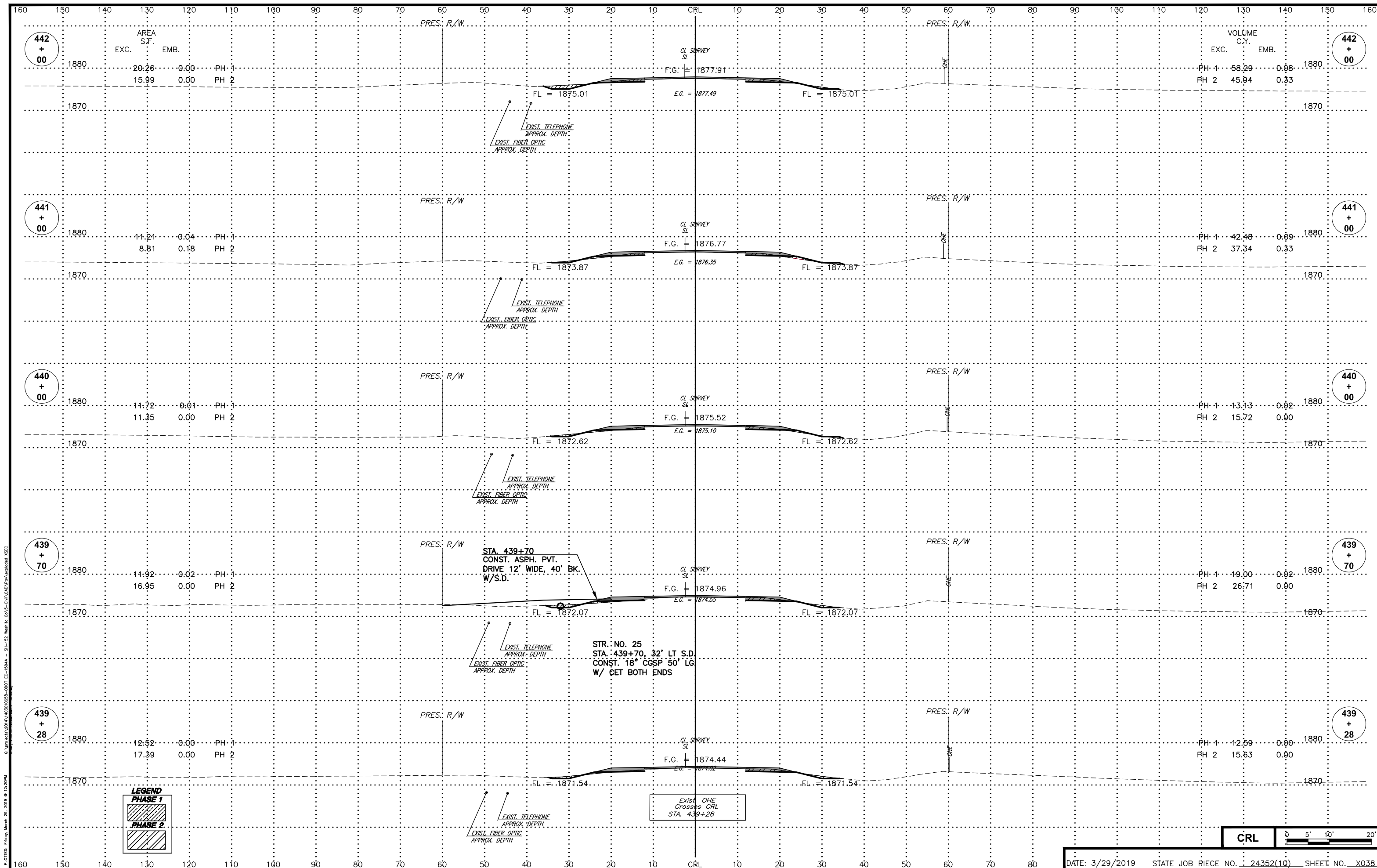
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

PLOTTER: Friday, March 29, 2019 @ 12:20PM
 C:\projects\2014\1403010658-0007 EC-1564A - SH-152 Washita Co-V-5-Civil-CAD\Drawings\XSEC



VOLUME		C.Y.	
EXC.	EMB.	EXC.	EMB.
PH 1	58.29	0.08	1880
PH 2	45.94	0.33	1870

442 + 00

442 + 00

441 + 00

441 + 00

440 + 00

440 + 00

439 + 70

439 + 70

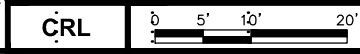
439 + 28

439 + 28

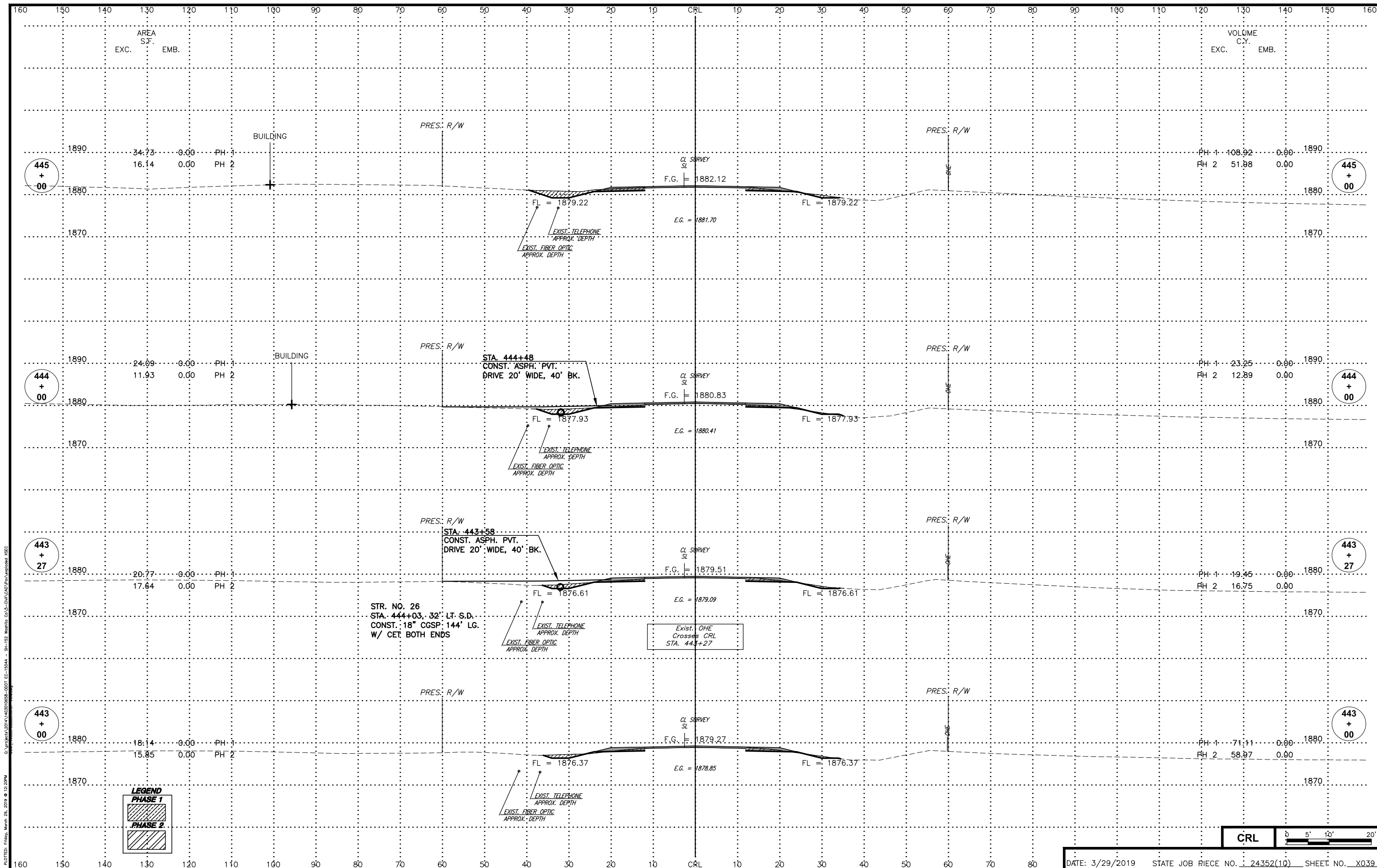
LEGEND

	PHASE 1
	PHASE 2

Exist. OHE Crosses CRL STA. 439+28



C:\projects\2014\403010658-0007 EC-154A - SH-152 Washita Co-V-CH-CAD\Drawings\XSEC
 PLOTTER: Fdry, March 29, 2019 @ 12:20PM

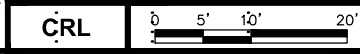


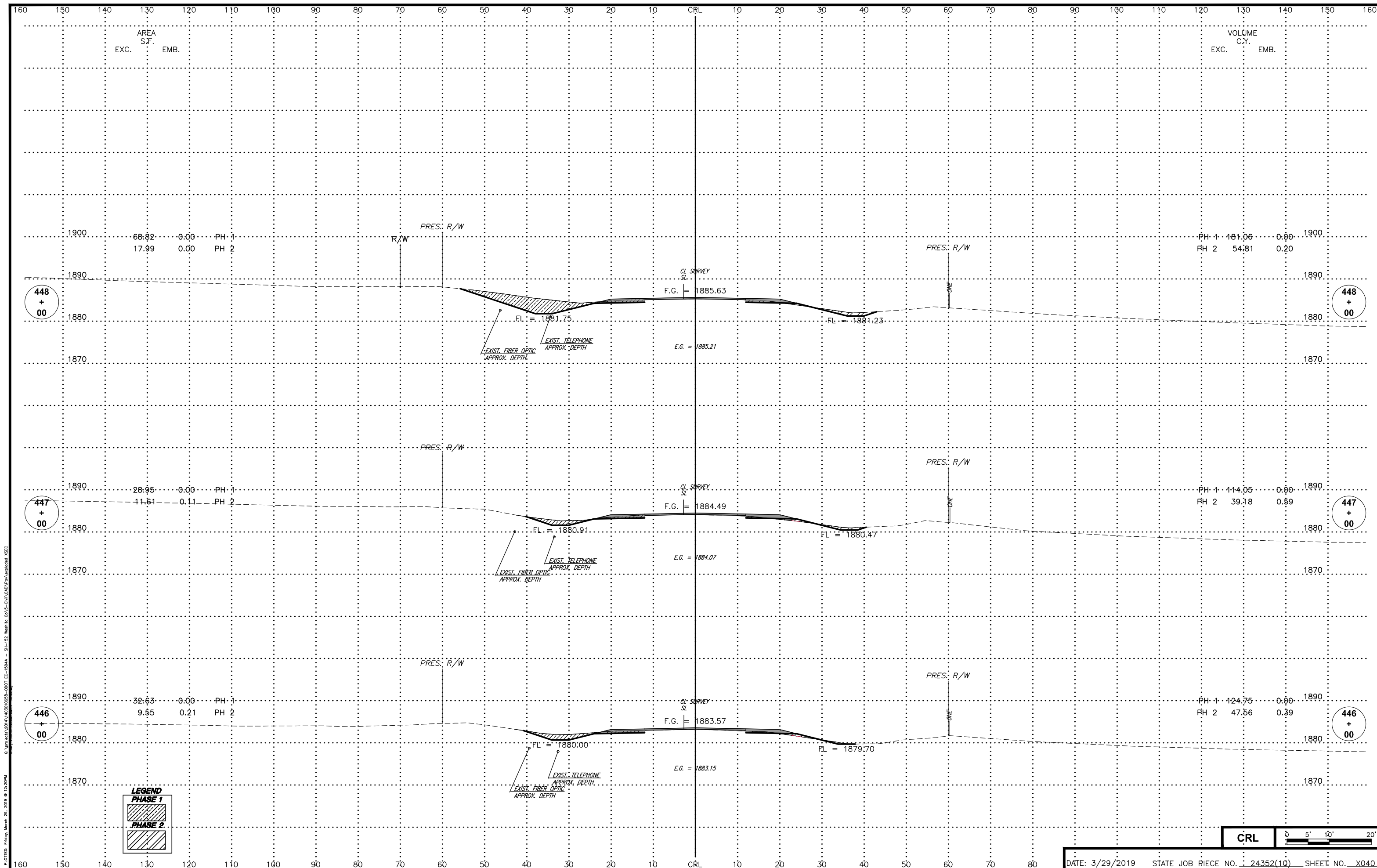
PLOTTER: Friday, March 29, 2019 @ 12:20PM
 C:\projects\2014\402010658-0001 EC-1564A - SH-152 Washita Co-V-5-Chr-CAD\Drawings\XSEC

LEGEND

PHASE 1

PHASE 2





LEGEND

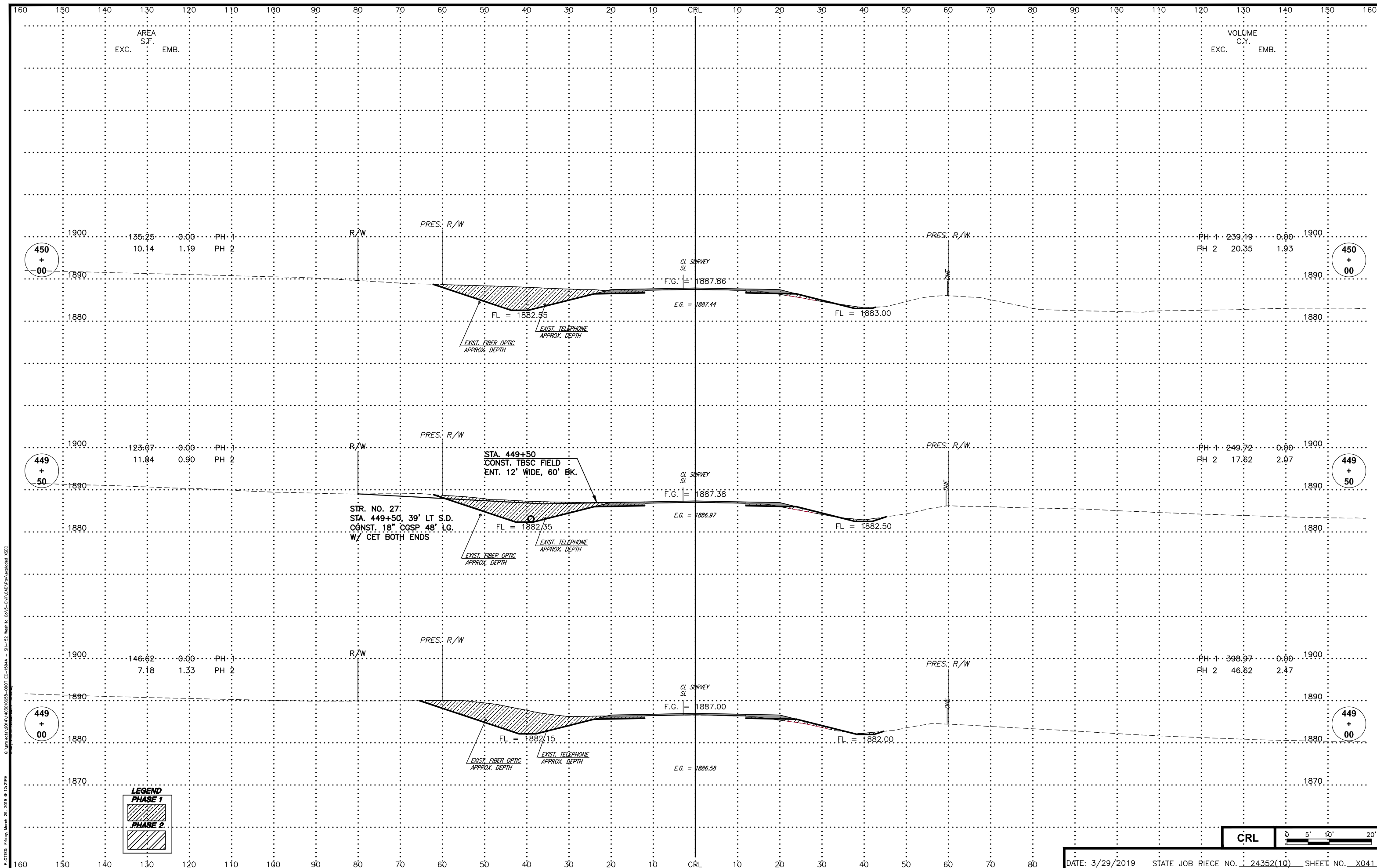
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

PLOTTER: Friday, March 29, 2019 @ 12:20PM
 C:\projects\2014\1403010558-0007 EC-1564A - SH-152 Washita Co\5-Civil\CAD\Drawings\XSEC



LEGEND

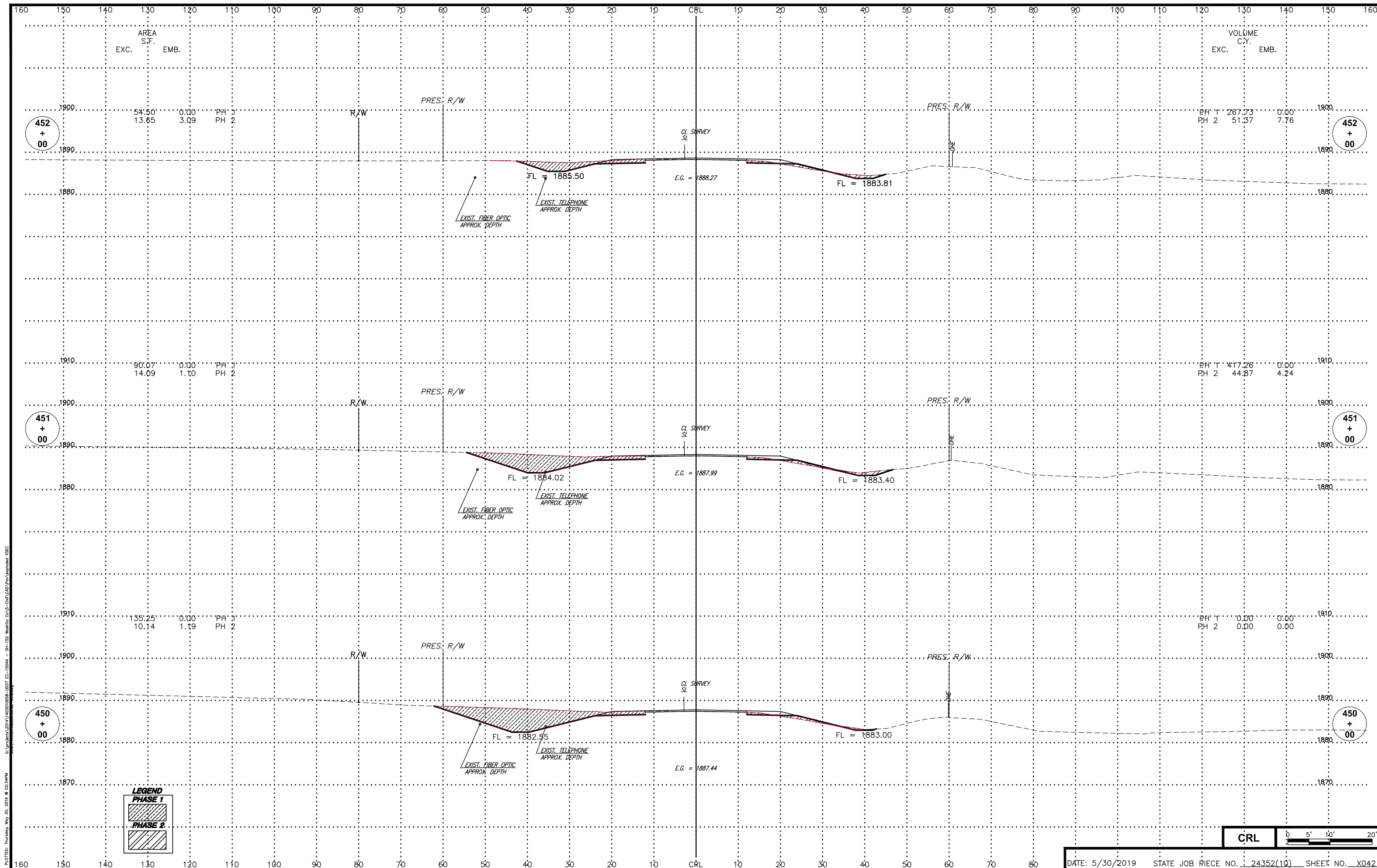
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

PLOTTER: Friday, March 29, 2019 @ 12:21PM
 C:\projects\2014\403010658-0001 EC-1584 - SH-152 Washita Co\5-Civil\CAD\Drawings\XSEC



AREA S.F. EXC. EMB.

VOLUME C.Y. EXC. EMB.

452 + 00

452 + 00

451 + 00

451 + 00

450 + 00

450 + 00

LEGEND

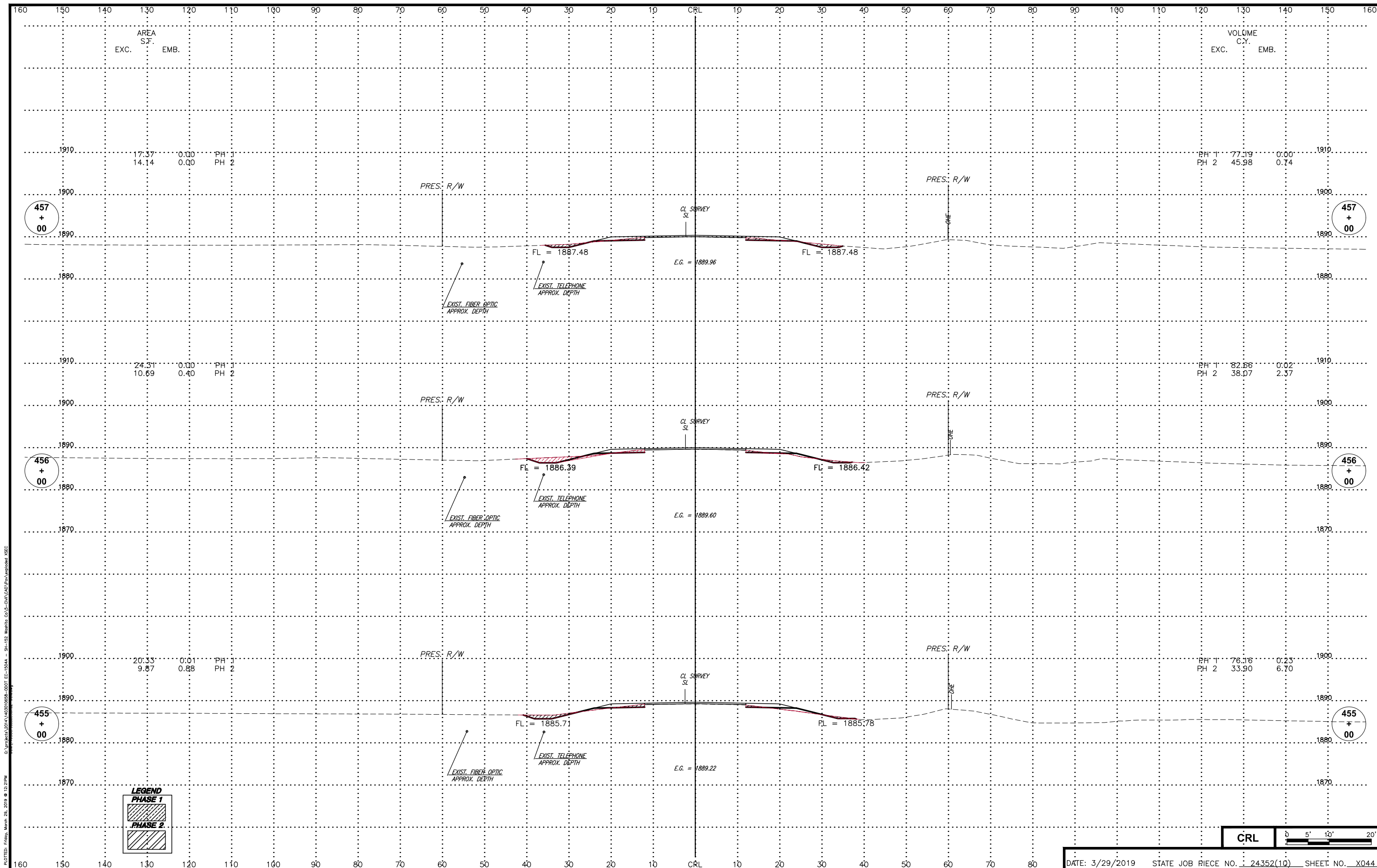
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

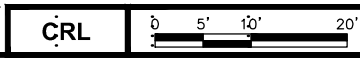
PLOTTED: Thursday, May 30, 2019 @ 02:54PM
 C:\projects\2014\1403010658-0007 EC-1504A - SH-12, Washita Co.-CIV-CAD\Drawings\XSEC



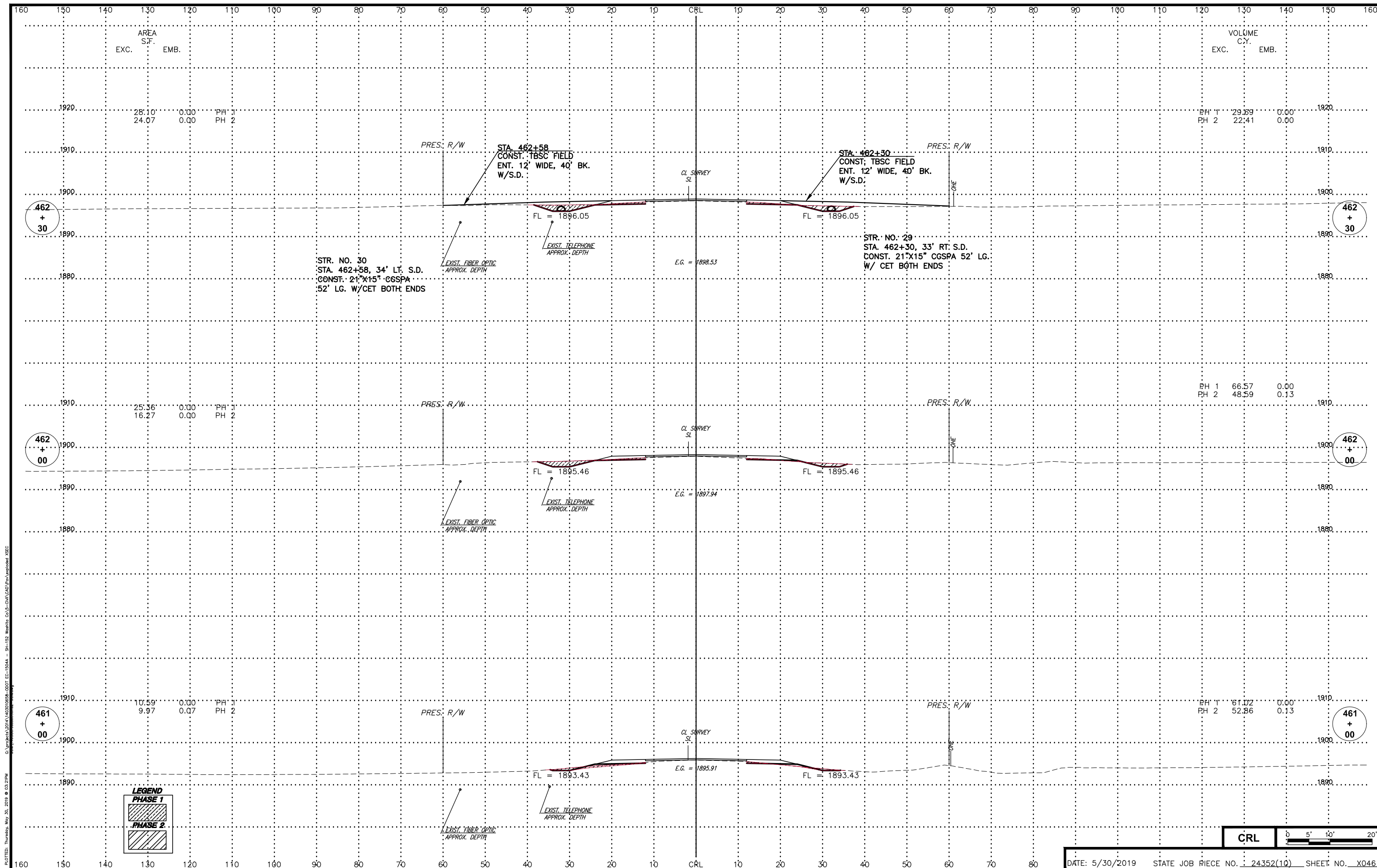
LEGEND

PHASE 1

PHASE 2



PLOTTED: Friday, March 29, 2019 @ 12:21PM
 C:\projects\2014\1403010658-0007 EC-1504A - SH-152 Washita Co.V-5-Civil\CAD\Drawings\XSEC



LEGEND

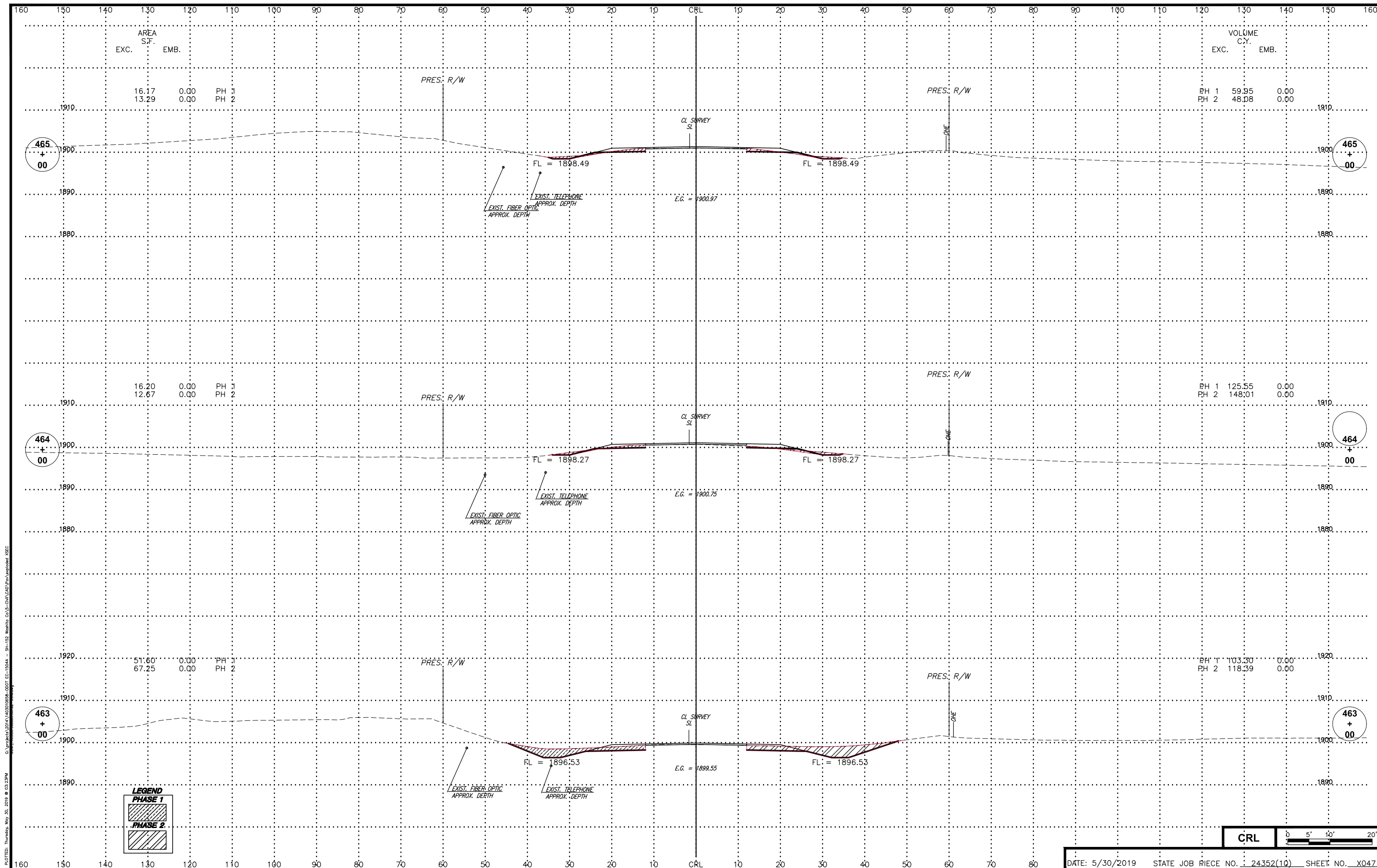
PHASE 1

PHASE 2

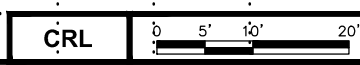
CRL

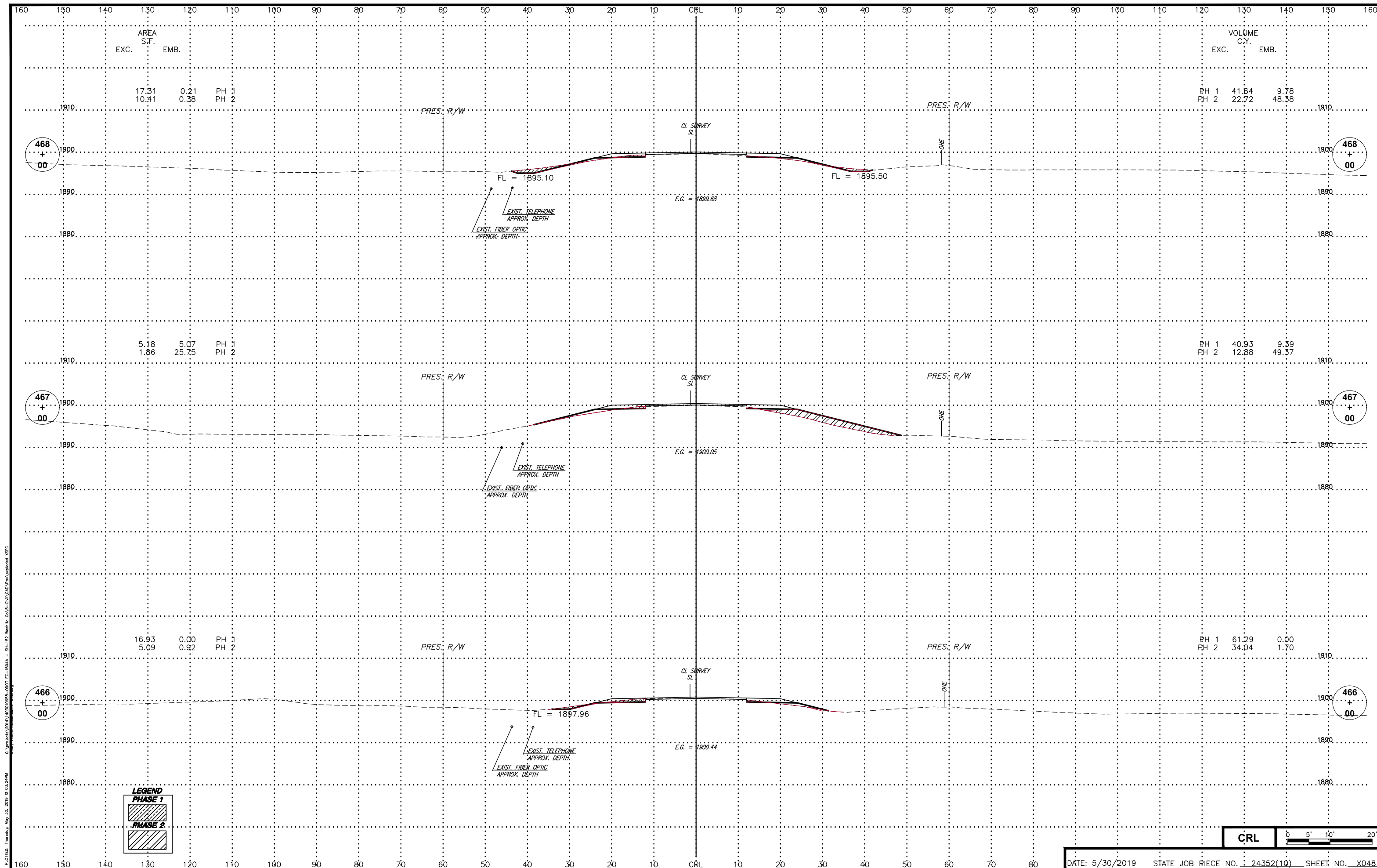
0 5' 10' 20'

C:\projects\2014\1403010658-0007 EC-1504A - SH-152 Washita Co LE-Civil\DWG\Drawings\XSEC
 PLOTTED: Thursday, May 30, 2019 @ 03:21PM



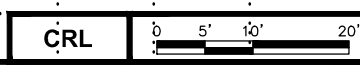
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 PLOTTED: Thursday, May 30, 2019 @ 03:23 PM



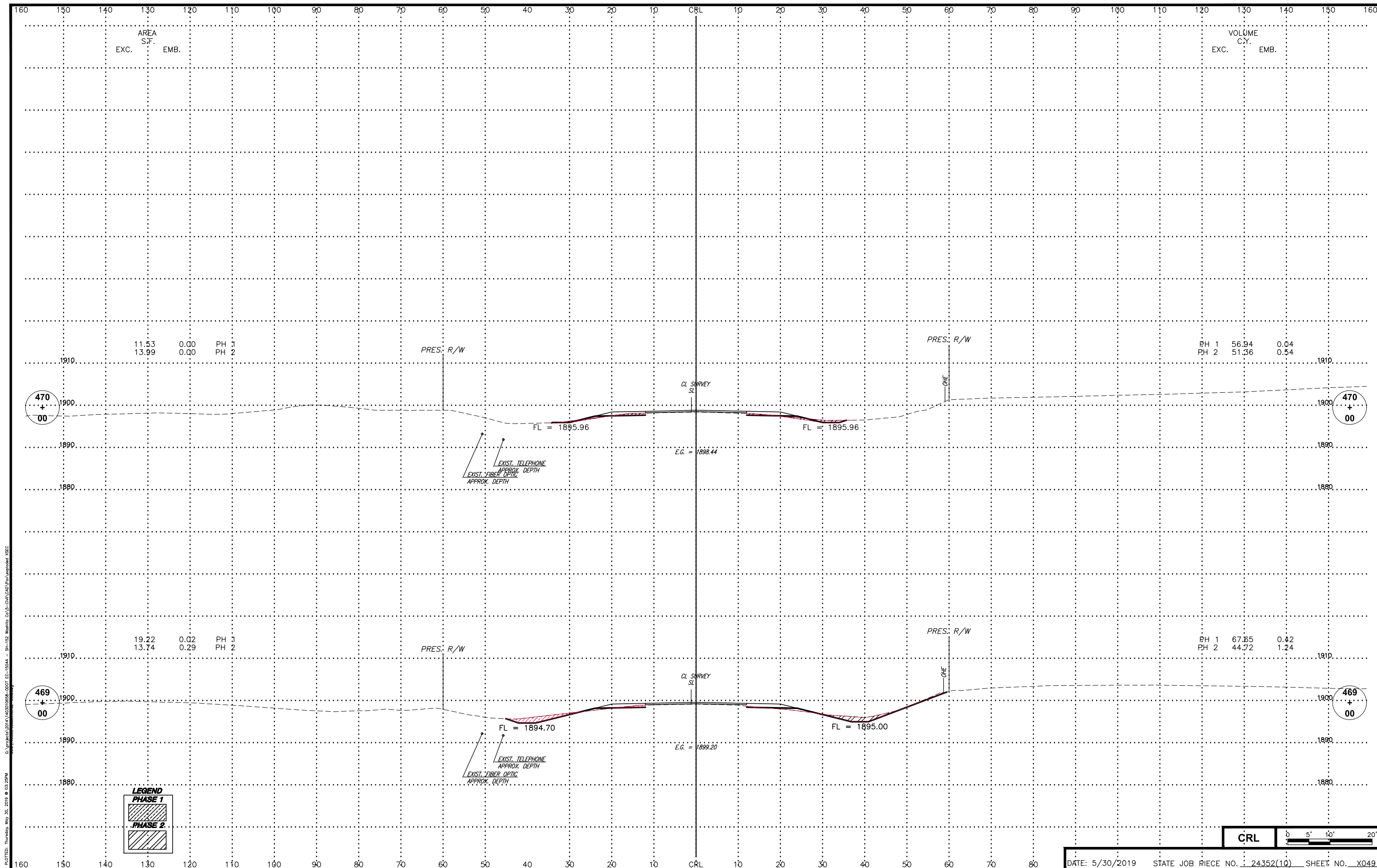


LEGEND

	PHASE 1
	PHASE 2



PLOTTED: Thursday, May 30, 2019 @ 03:24 PM
 C:\projects\2014\403010658-0007 EC-1594A - SH-152 Washita CO LE-Civil\CAD\Drawings\XSEC



AREA
S.F.
EXC. EMB.

VOLUME
C.Y.
EXC. EMB.

11.53 0.00 PH 1
13.99 0.00 PH 2

PH 1 56.94 0.04
PH 2 51.36 0.54

470
+
00

470
+
00

19.22 0.02 PH 1
13.74 0.29 PH 2

PH 1 67.65 0.42
PH 2 44.72 1.24

469
+
00

469
+
00

LEGEND

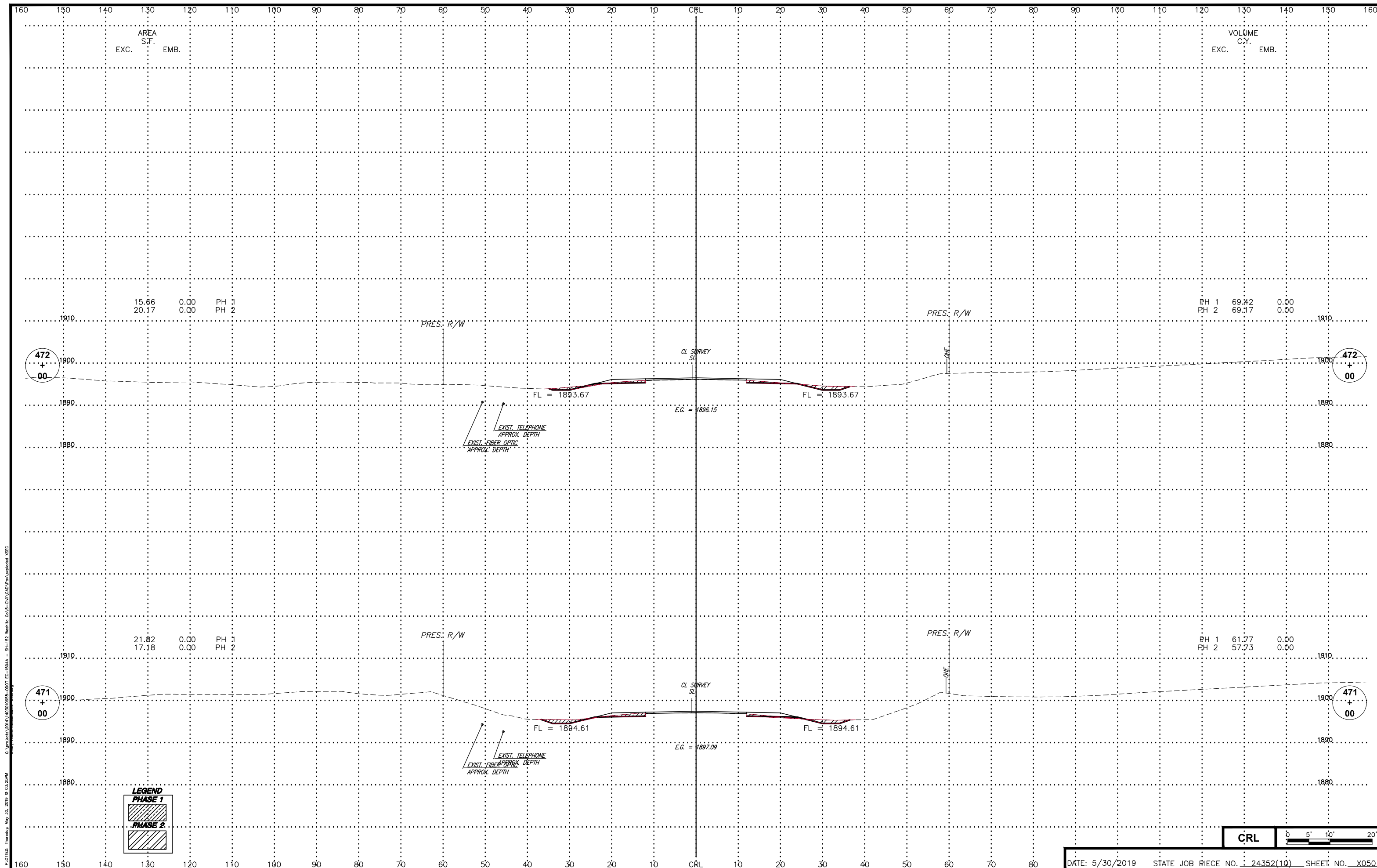
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

PLOTTED: Thursday, May 30, 2019 @ 03:25PM
 C:\projects\2014\1403010658-0007 EC-1594A - SH-12 - Washita Co LE-Civil\CAD\Drawings\XSEC



AREA
S.F.
EXC. EMB.

VOLUME
C.Y.
EXC. EMB.

15.66 0.00 PH 1
20.17 0.00 PH 2

PH 1 69.42 0.00
PH 2 69.17 0.00

472
+
00

472
+
00

PRES. R/W

PRES. R/W

FL = 1893.67

FL = 1893.67

E.G. = 1896.15

EXIST. TELEPHONE
APPROX. DEPTH
EXIST. FIBER OPTIC
APPROX. DEPTH

21.82 0.00 PH 1
17.18 0.00 PH 2

PH 1 61.77 0.00
PH 2 57.73 0.00

471
+
00

471
+
00

PRES. R/W

PRES. R/W

FL = 1894.61

FL = 1894.61

E.G. = 1897.09

EXIST. TELEPHONE
APPROX. DEPTH
EXIST. FIBER OPTIC
APPROX. DEPTH

LEGEND

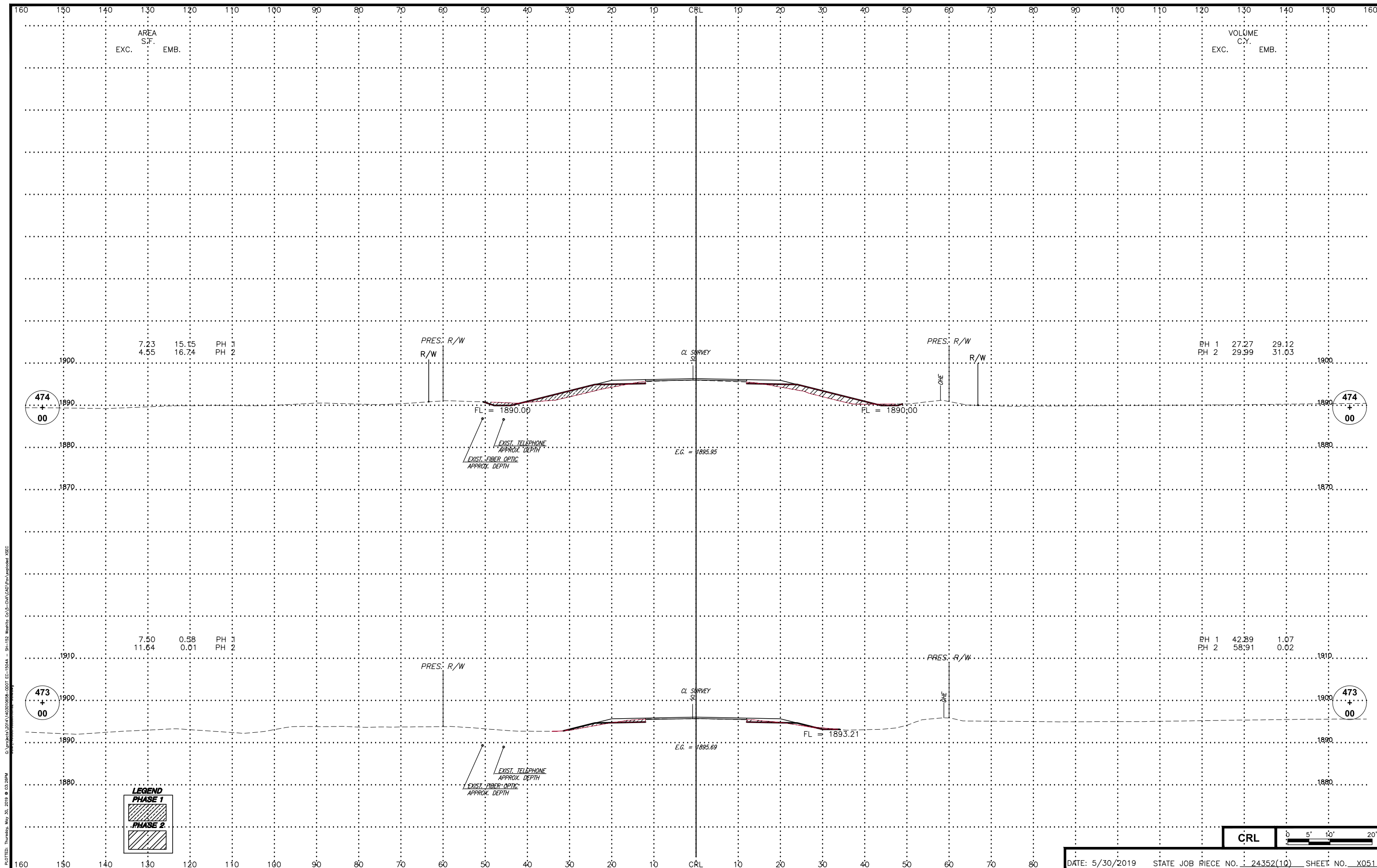
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

PLotted: Thursday, May 30, 2019 @ 03:25PM
C:\projects\2014\403010658-0007 EC-1594A - SH-152 Washita Co LE-Civil\CAD\Drawings\XSEC



AREA
S.F.
EXC. EMB.

VOLUME
C.Y.
EXC. EMB.

7.23 15.15 PH 1
4.55 16.74 PH 2

PH 1 27.27 29.12
PH 2 29.99 31.03

474
+
00

474
+
00

7.50 0.58 PH 1
11.64 0.01 PH 2

PH 1 42.89 1.07
PH 2 58.91 0.02

473
+
00

473
+
00

LEGEND

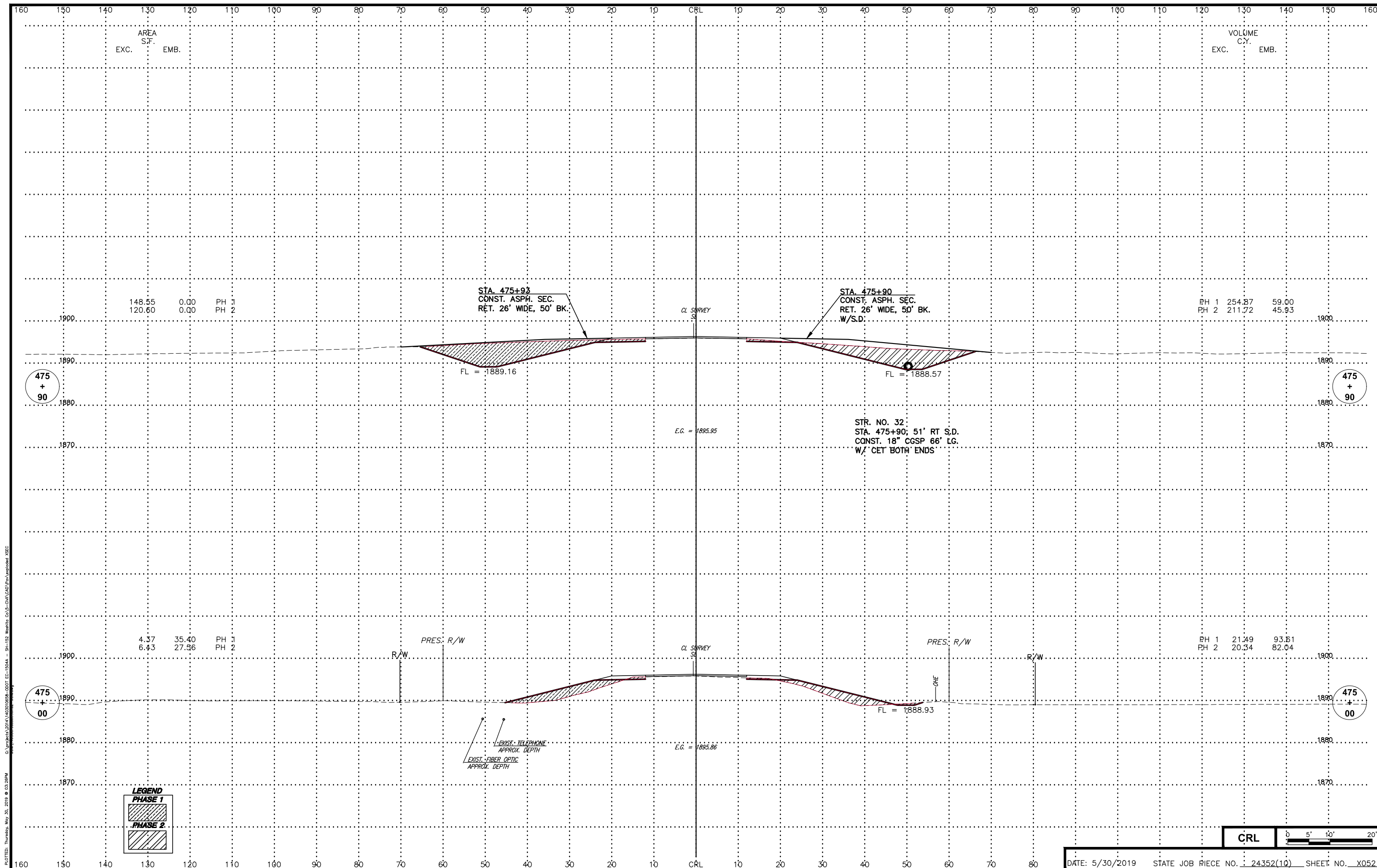
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

PLOTTED: Thursday, May 30, 2019 @ 03:26PM
 C:\projects\2014\403010658-0007 EC-1594A - SH-152 Washita CO LE-Civil\CAD\Drawings\XSEC



AREA
S.F.
EXC. EMB.

VOLUME
C.Y.
EXC. EMB.

148.55	0.00	PH 1
120.60	0.00	PH 2

PH 1	254.87	59.00
PH 2	211.72	45.93

STA. 475+93
CONST. ASPH. SEC.
RET. 26' WIDE, 50' BK.

STA. 475+90
CONST. ASPH. SEC.
RET. 26' WIDE, 50' BK.
W/S.D.

FL = 1889.16

FL = 1888.57

E.G. = 1895.95

STR. NO. 32
STA. 475+90; 51' RT S.D.
CONST. 18" CGSP 66' LG.
W/ 'CET BOTH ENDS

4.37	35.40	PH 1
6.43	27.96	PH 2

PH 1	21.49	93.51
PH 2	20.34	82.04

PRES. R/W

PRES. R/W

EXIST. TELEPHONE
APPROX. DEPTH

EXIST. FIBER OPTIC
APPROX. DEPTH

E.G. = 1895.86

FL = 1888.93

LEGEND

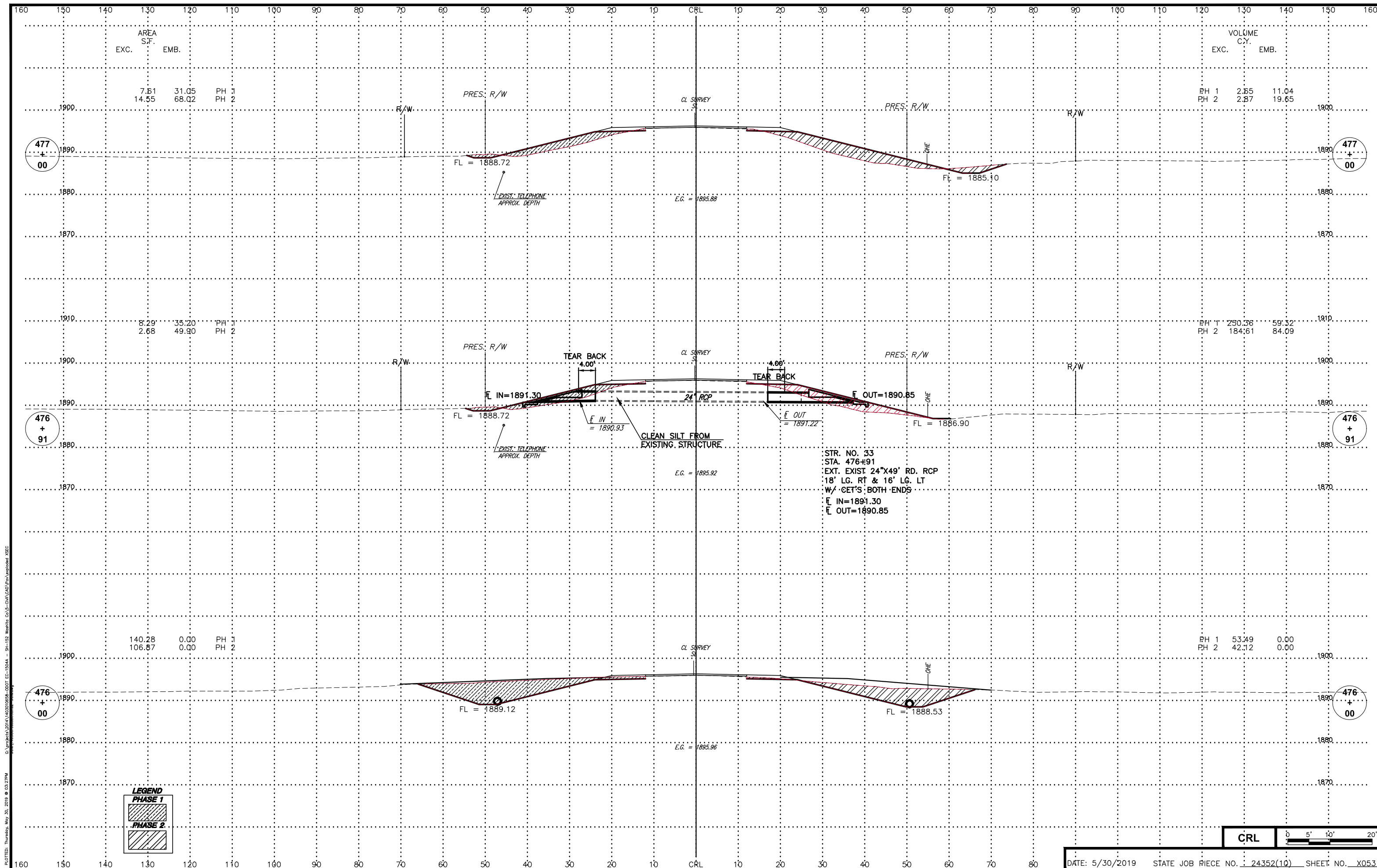
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

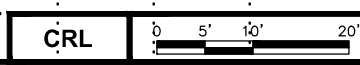
PLOTTED: Thursday, May 30, 2019 @ 03:26PM
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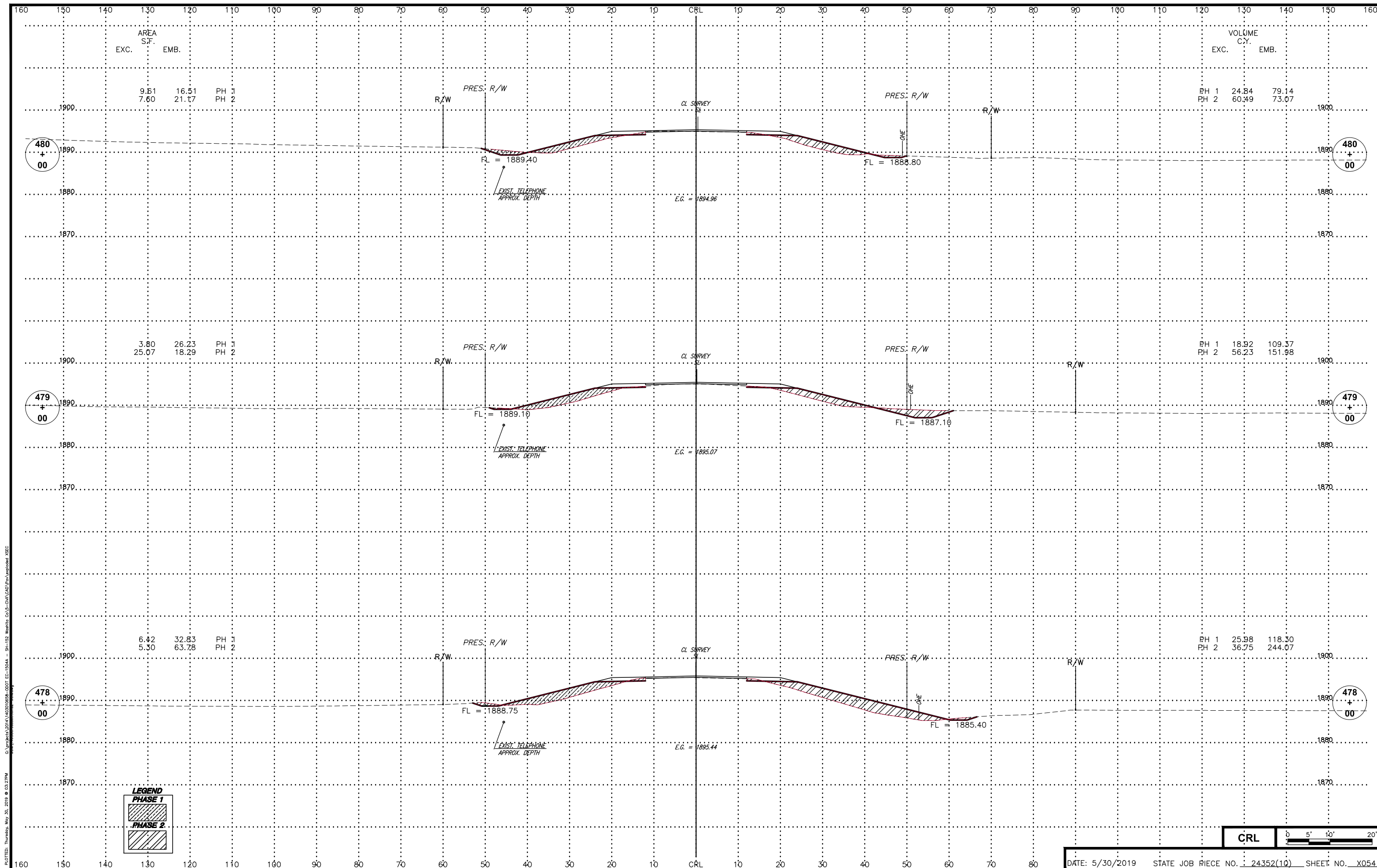
LEGEND

	PHASE 1
	PHASE 2

STR. NO. 33
 STA. 476+91
 EXT. EXIST 24"X49' RD. RCP
 18' LG. RT & 16' LG. LT
 W/ CETS BOTH ENDS
 I IN=1891.30
 I OUT=1890.85



PLOTTED: Thursday, May 30, 2019 @ 03:27PM
 C:\projects\2014\403010658-0007 EC-1504A - SH-152 Washita Co LE-Civil\DWG\Plan\Asmbls\XSEC



LEGEND

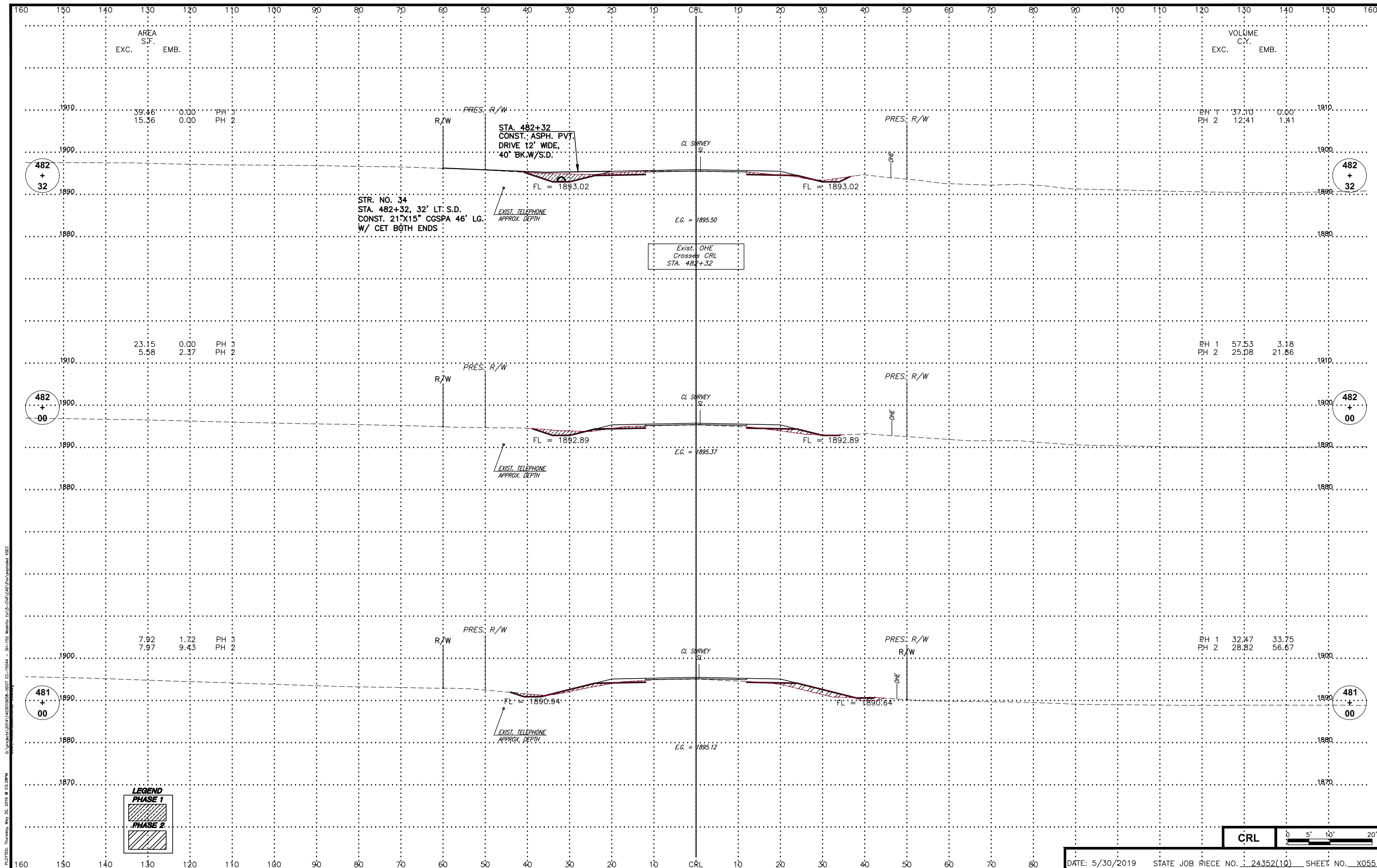
PHASE 1

PHASE 2

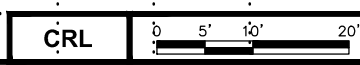
CRL

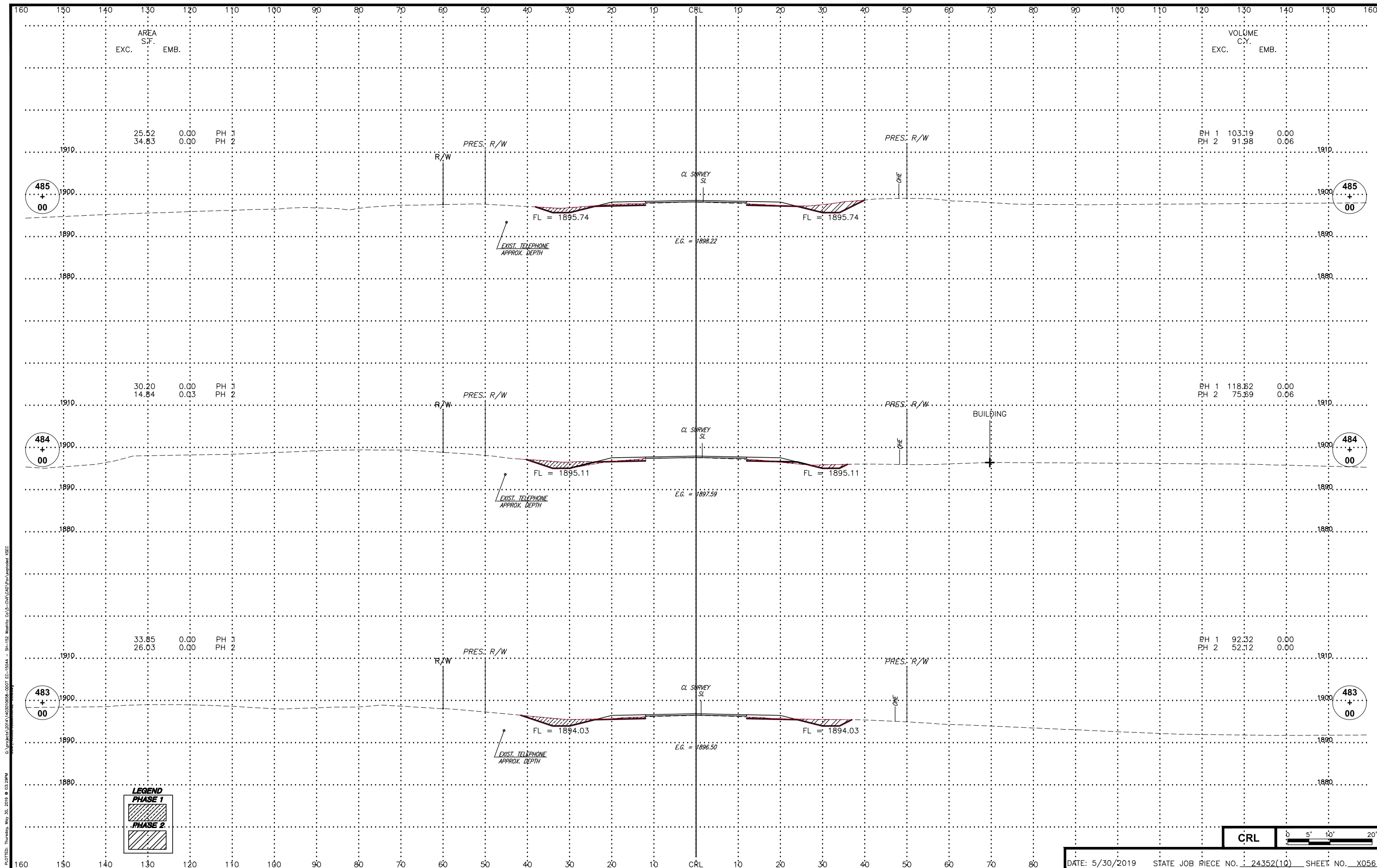
0 5' 10' 20'

PLOTTED: Thursday, May 30, 2019 @ 03:27PM
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PLOTTED: Thursday, May 30, 2019 @ 03:28PM
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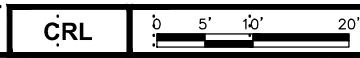




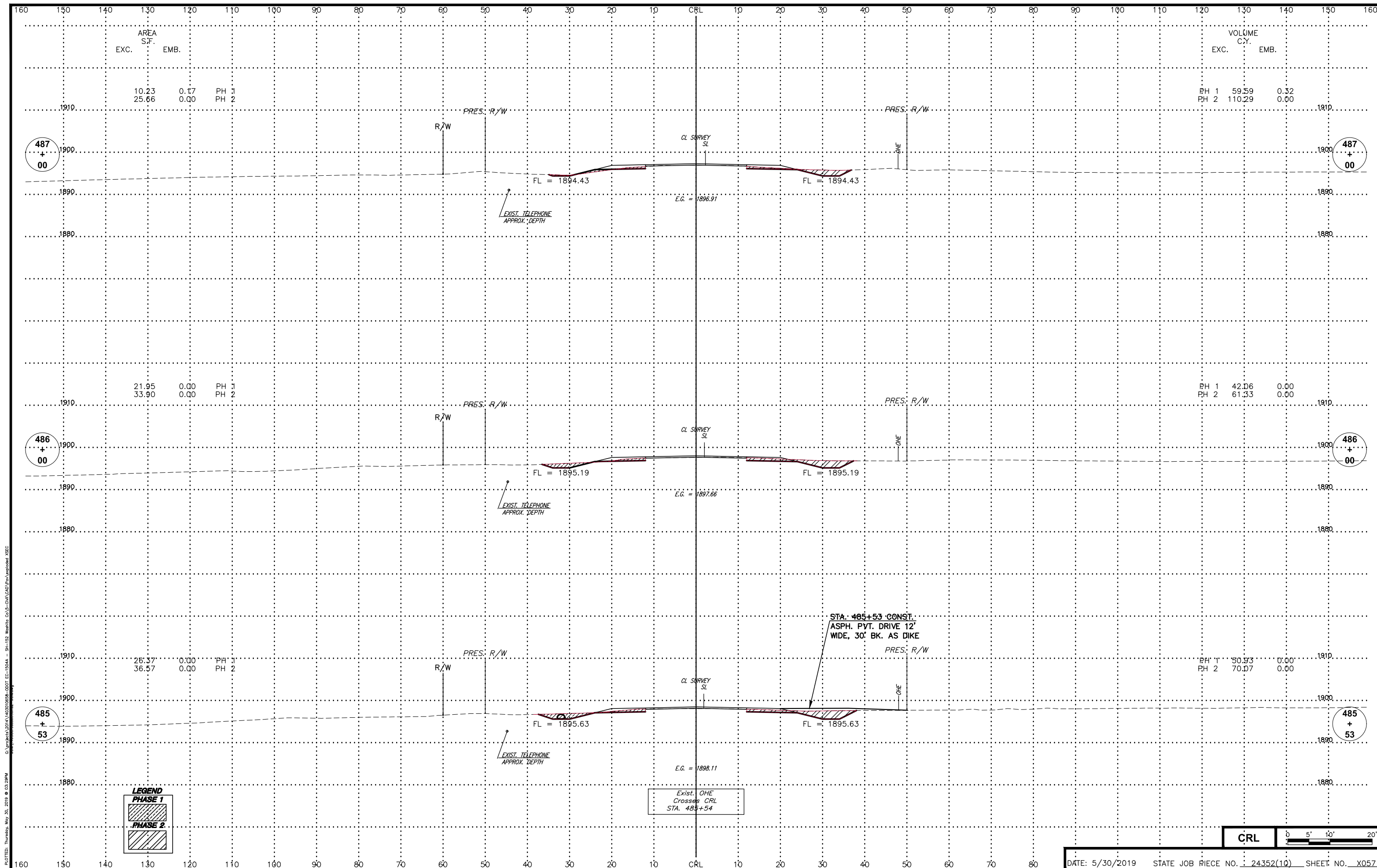
LEGEND

PHASE 1

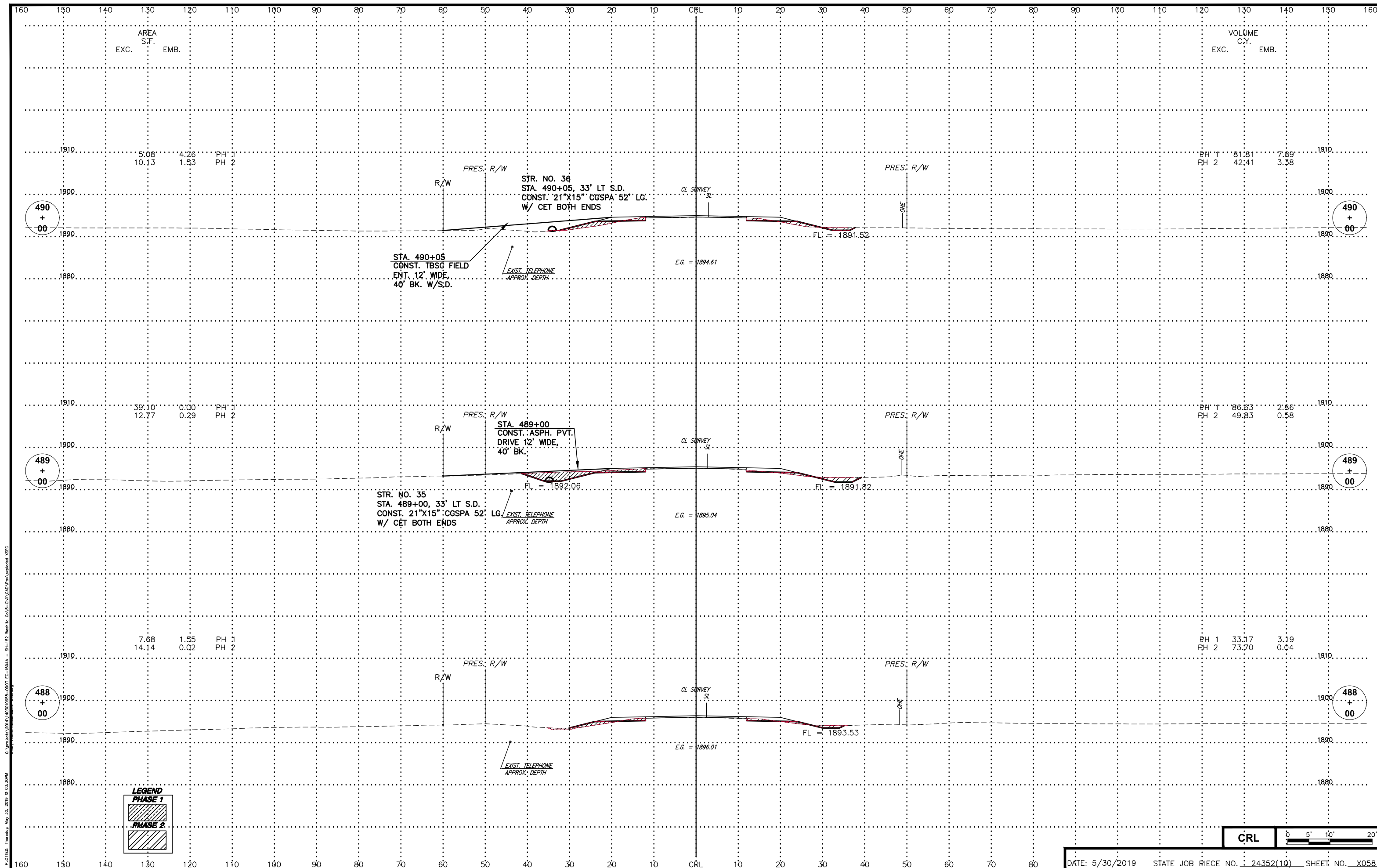
PHASE 2



PLOTTED: Thursday, May 30, 2019 @ 03:29PM
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PLOTTED: Thursday, May 30, 2019 @ 03:29PM
 C:\projects\2014\403010658-0007 EC-1504A - SH-152 Washita Co LE-Civil\CAD\Drawings\XSEC



AREA S.F.
EXC. EMB.

VOLUME C.Y.
EXC. EMB.

490
+
00

490
+
00

489
+
00

489
+
00

488
+
00

488
+
00

LEGEND

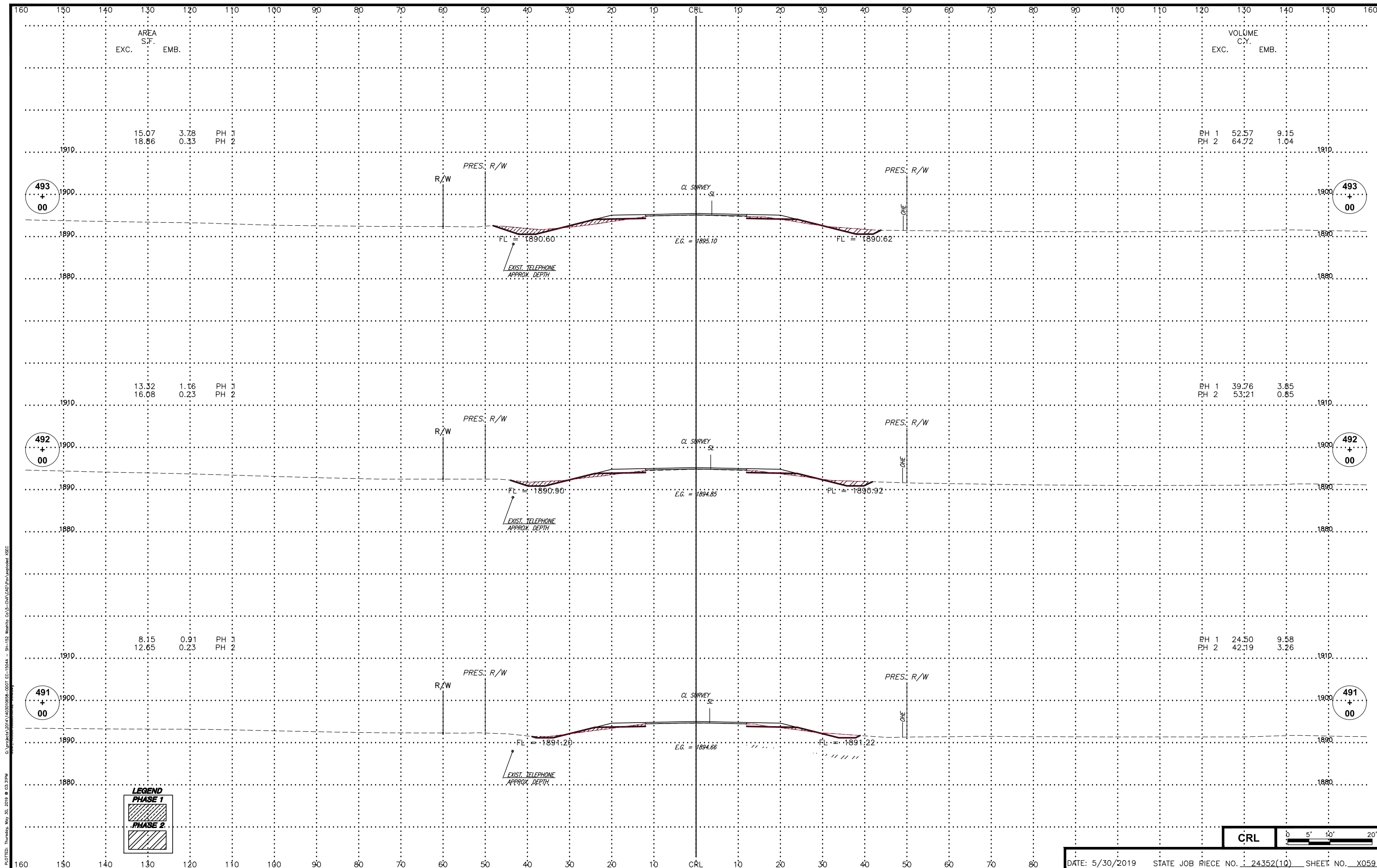
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

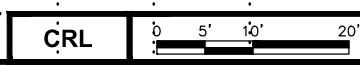
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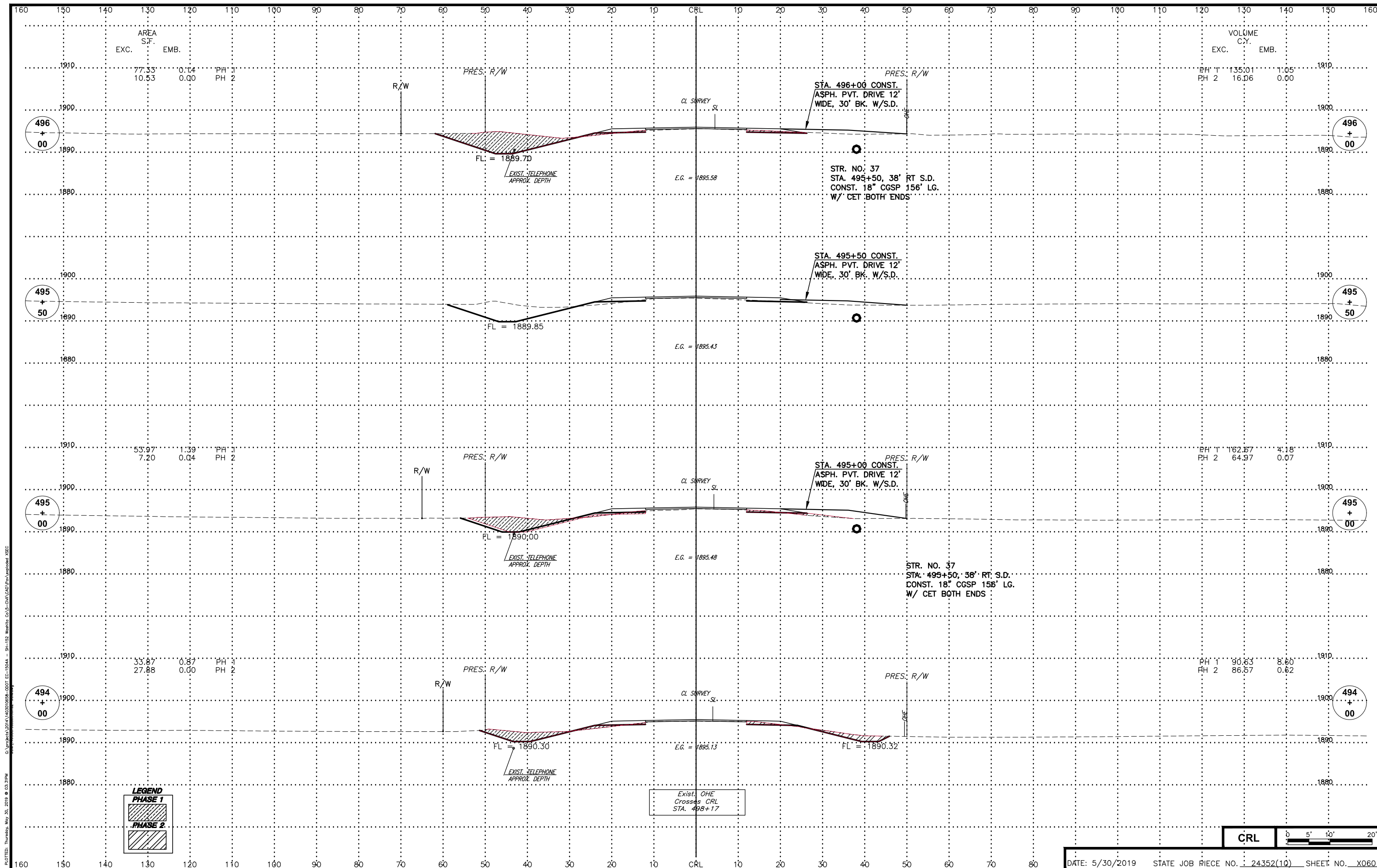
LEGEND

PHASE 1

PHASE 2



PLOTTED: Thursday, May 30, 2019 @ 03:31PM
 C:\projects\2014\403010658-0007 EC-1594A - SH-152 Washita CO LE-Civil\CAD\Drawings\XSEC



LEGEND

PHASE 1

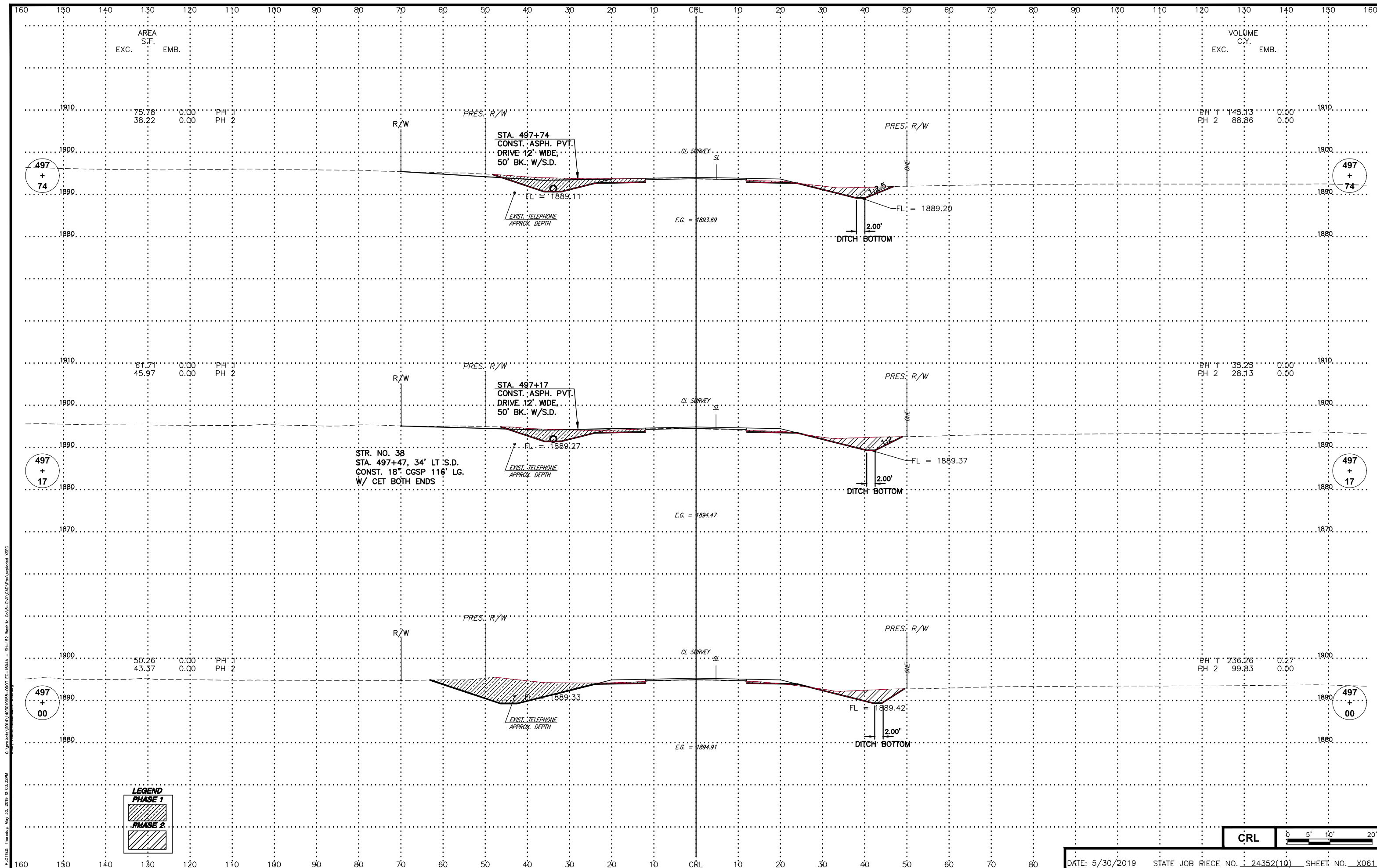
PHASE 2

Exist. OHE
Crosses CRL
STA. 498+17

CRL

0 5' 10' 20'

PLOTTED: Thursday, May 30, 2019 @ 03:31PM
 C:\projects\2014\403010658-0007 EC-1504A - SH-152 Washita COLE-Civil\CAD\Drawings\XSEC



AREA
S.F.
EXC. EMB.

VOLUME
C.Y.
EXC. EMB.

PH 1 75.78' 0.00'
PH 2 38.22' 0.00'

PH 1 145.13' 0.00'
PH 2 88.56' 0.00'

497
+
74

497
+
74

STA. 497+74
CONST. ASPH. PVT.
DRIVE 12' WIDE,
50' BK. W/S.D.

EXIST. TELEPHONE
APPROX. DEPTH

DITCH BOTTOM

PH 1 61.71' 0.00'
PH 2 45.97' 0.00'

PH 1 35.25' 0.00'
PH 2 28.13' 0.00'

497
+
17

497
+
17

STA. 497+17
CONST. ASPH. PVT.
DRIVE 12' WIDE,
50' BK. W/S.D.

EXIST. TELEPHONE
APPROX. DEPTH

DITCH BOTTOM

STR. NO. 3B
STA. 497+47, 34' LT. S.D.
CONST. 18" CGSP 116' LG.
W/ CET BOTH ENDS

PH 1 50.26' 0.00'
PH 2 43.37' 0.00'

PH 1 236.26' 0.27'
PH 2 99.83' 0.00'

497
+
00

497
+
00

STA. 497+00
CONST. ASPH. PVT.
DRIVE 12' WIDE,
50' BK. W/S.D.

EXIST. TELEPHONE
APPROX. DEPTH

DITCH BOTTOM

LEGEND

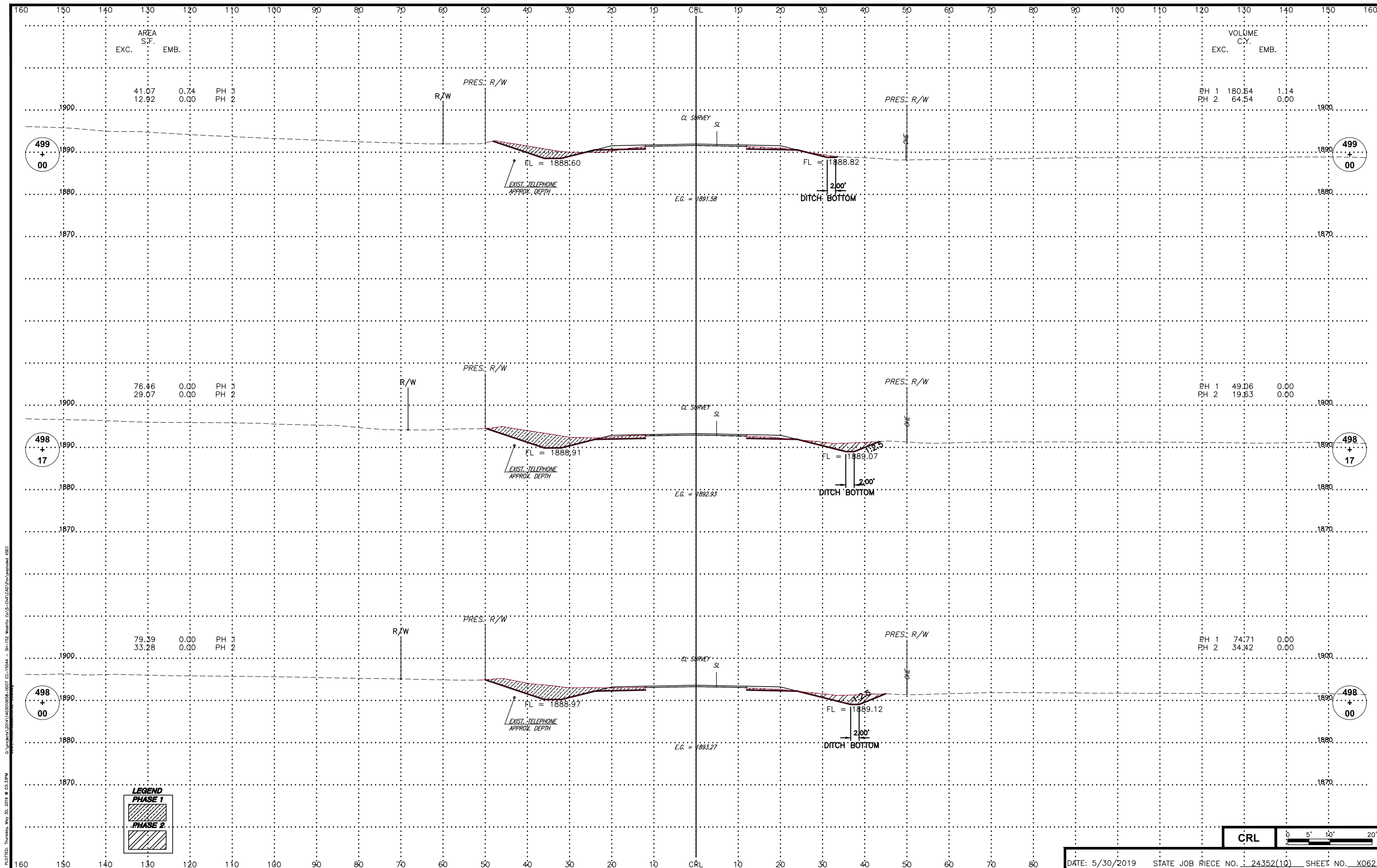
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

PLOTTED: Thursday, May 30, 2019 @ 03:32PM
 C:\projects\2014\403010658-0007 EC-1504A - SH-152 Washita Co LE-Civil\CAD\Drawings\XSEC



AREA S.F.		PH	
EXC.	EMB.	PH 1	PH 2
41.07	0.74		
12.92	0.00		

VOLUME C.Y.		PH	
EXC.	EMB.	PH 1	PH 2
180.54	1.14		
64.54	0.00		

499
+
00

499
+
00

498
+
17

498
+
17

498
+
00

498
+
00

LEGEND

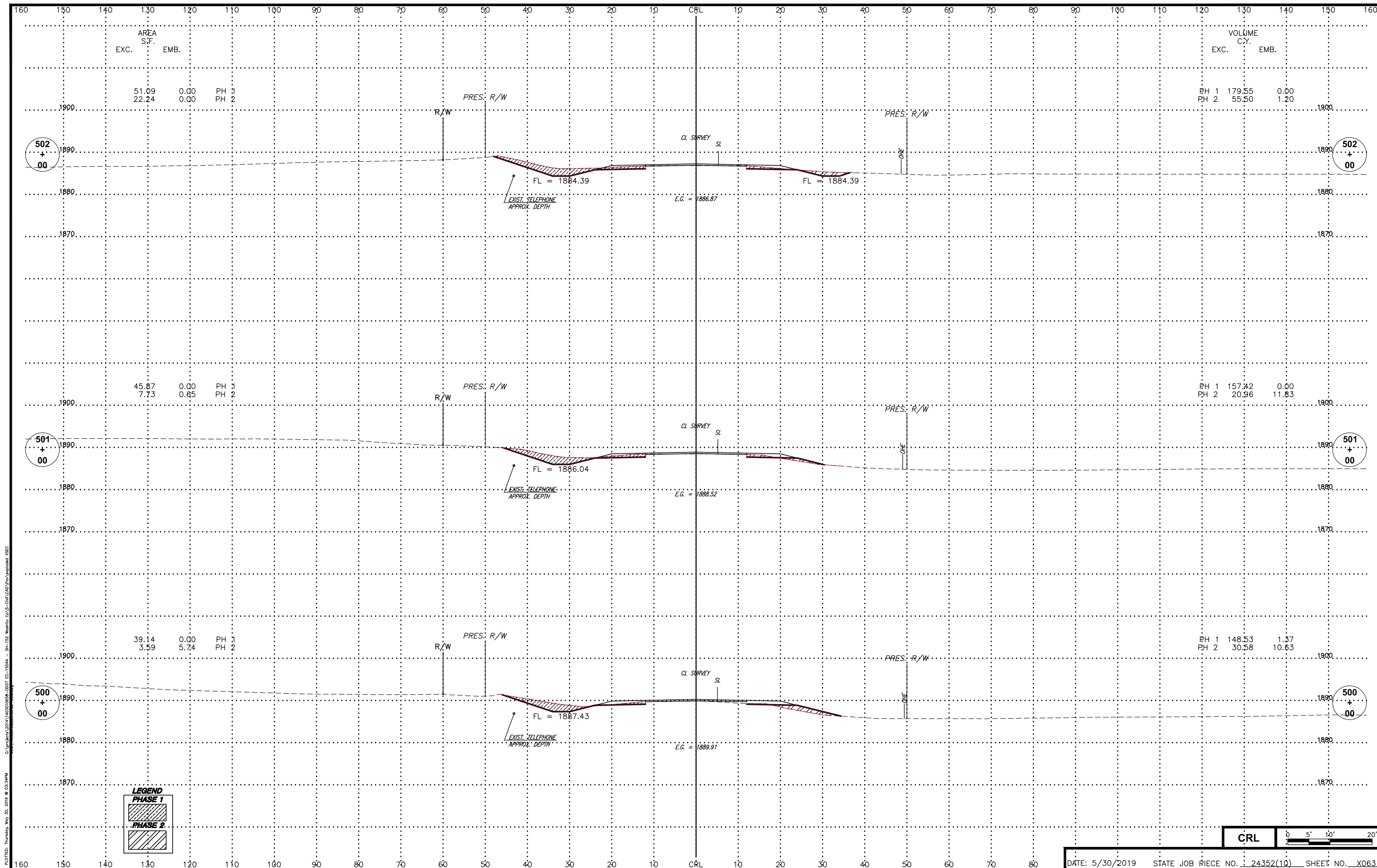
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

PLOTTED: Thursday, May 30, 2019 @ 03:33PM
 C:\projects\2014\1403010658-0007 EC-1504A - SH-152 Washita Co LE-Civil\CAD\Drawings\XSEC



LEGEND

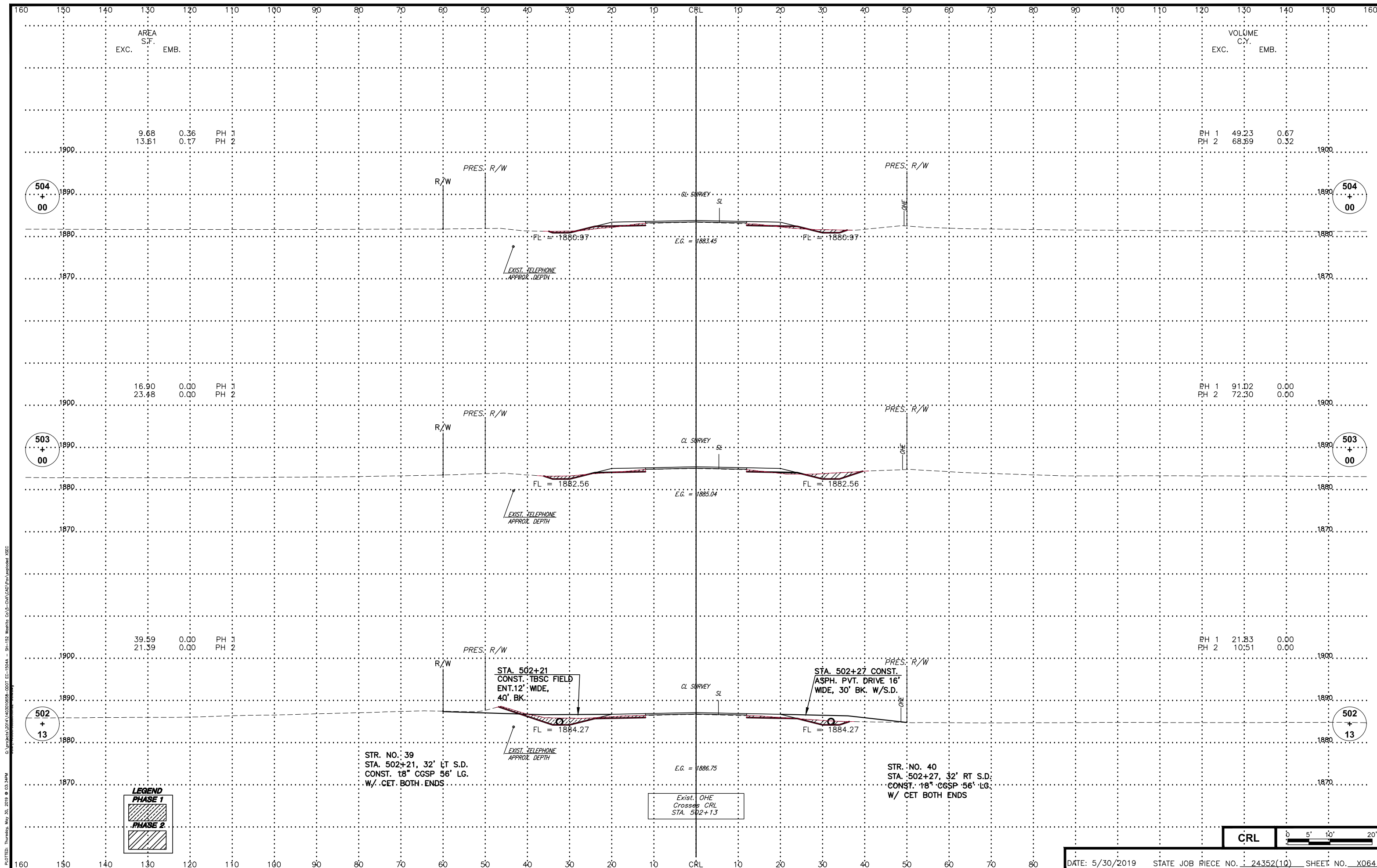
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

C:\projects\2014\1403010658-0007 EC-1504A - SH-152 Washita CO LE-Civil-CAD\Drawings\XSEC
 PLOTTED: Thursday, May 30, 2019 @ 03:34PM



AREA S.F.
EXC. EMB.

VOLUME C.Y.
EXC. EMB.

9.68	0.36	PH 1
13.61	0.17	PH 2

PH 1	49.23	0.67
PH 2	68.69	0.32

504
+
00

504
+
00

503
+
00

503
+
00

16.90	0.00	PH 1
23.48	0.00	PH 2

PH 1	91.02	0.00
PH 2	72.30	0.00

502
+
13

502
+
13

39.59	0.00	PH 1
21.39	0.00	PH 2

PH 1	21.83	0.00
PH 2	10.51	0.00

STR. NO. 39
STA. 502+21, 32' LT S.D.
CONST. 18" CGSP 56' LG.
W/ .CET. BOTH ENDS

STR. NO. 40
STA. 502+27, 32' RT S.D.
CONST. 18" CGSP 56' LG.
W/ CET BOTH ENDS

LEGEND

PHASE 1

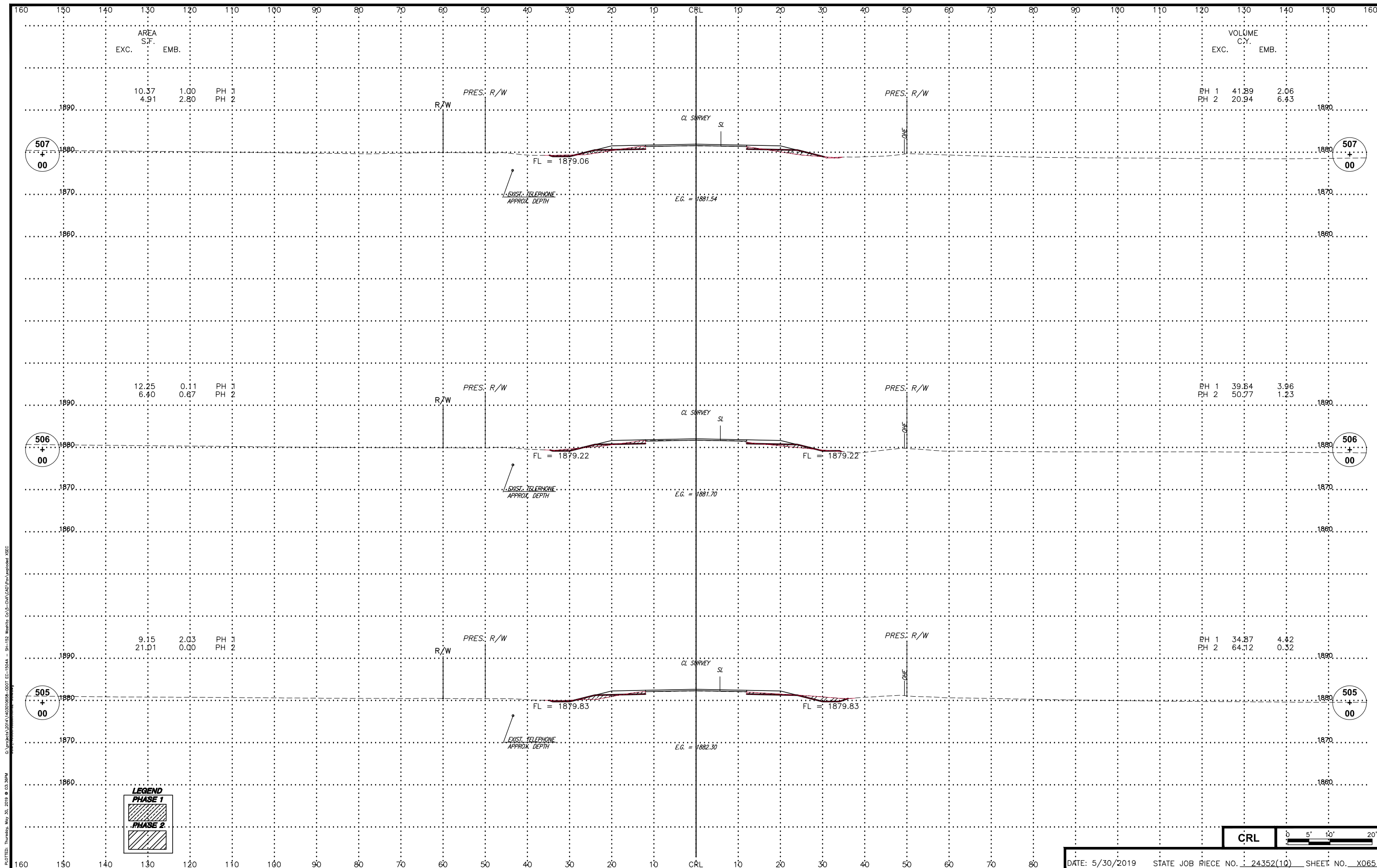
PHASE 2

Exist. OHE
Crossed CRL
STA. 502+13

CRL

0 5' 10' 20'

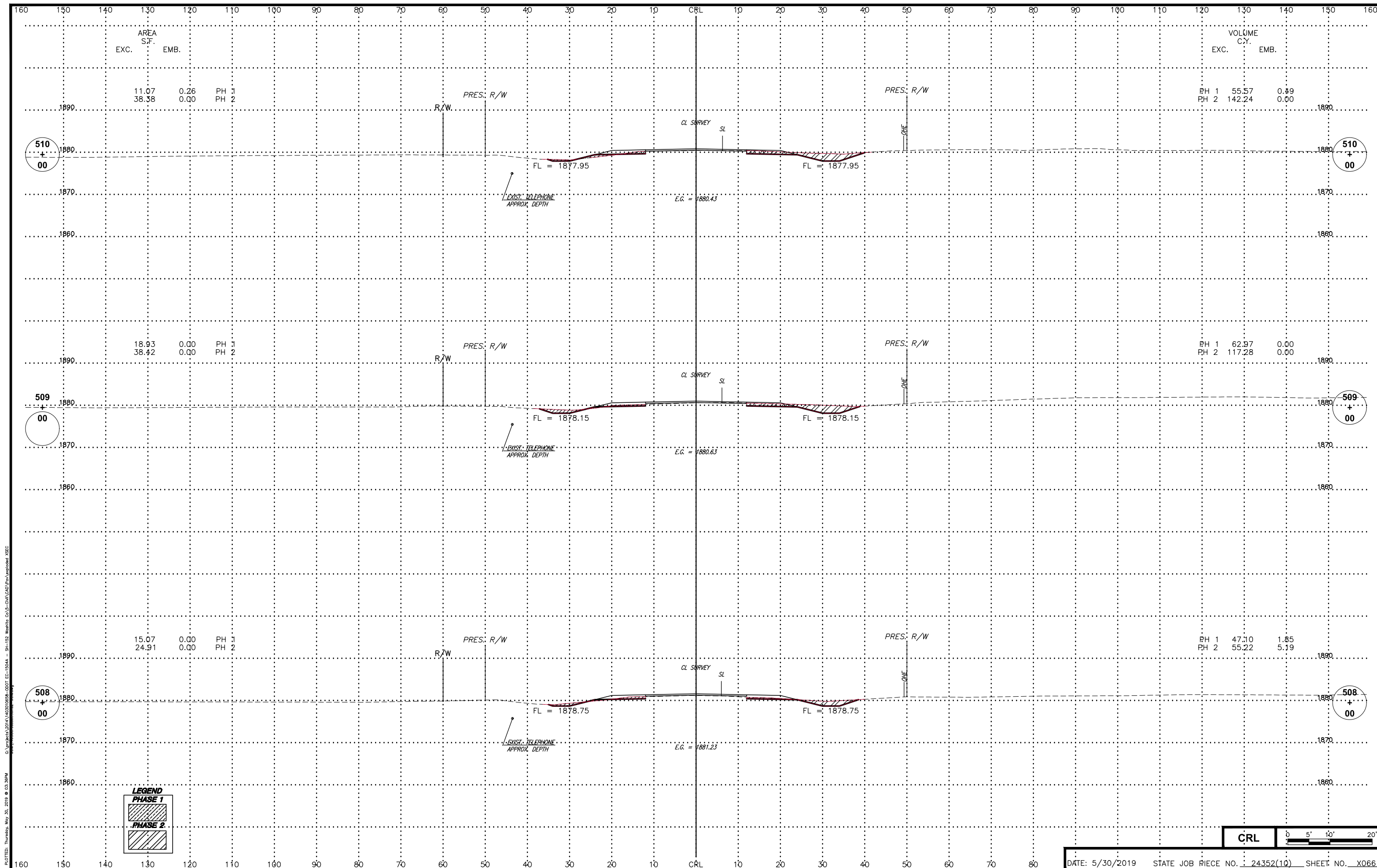
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 PLOTTED: Thursday, May 30, 2019 @ 03:24PM



PLOTTED: Thursday, May 30, 2019 @ 03:36PM
 C:\projects\2014\403070658-0007 EC-1504A - SH-152 Washita CO LE-Civil\CAD\Drawings\XSEC

LEGEND
 PHASE 1
 PHASE 2

CRL
 0 5' 10' 20'



AREA S.F.		VOLUME C.Y.	
EXC.	EMB.	EXC.	EMB.
11.07	0.26	PH 1 55.57	0.49
38.38	0.00	PH 2 142.24	0.00

AREA S.F.		VOLUME C.Y.	
EXC.	EMB.	EXC.	EMB.
18.93	0.00	PH 1 62.97	0.00
38.42	0.00	PH 2 117.28	0.00

AREA S.F.		VOLUME C.Y.	
EXC.	EMB.	EXC.	EMB.
15.07	0.00	PH 1 47.10	1.85
24.91	0.00	PH 2 55.22	5.19

AREA S.F.		VOLUME C.Y.	
EXC.	EMB.	EXC.	EMB.
15.07	0.00	PH 1 47.10	1.85
24.91	0.00	PH 2 55.22	5.19

LEGEND

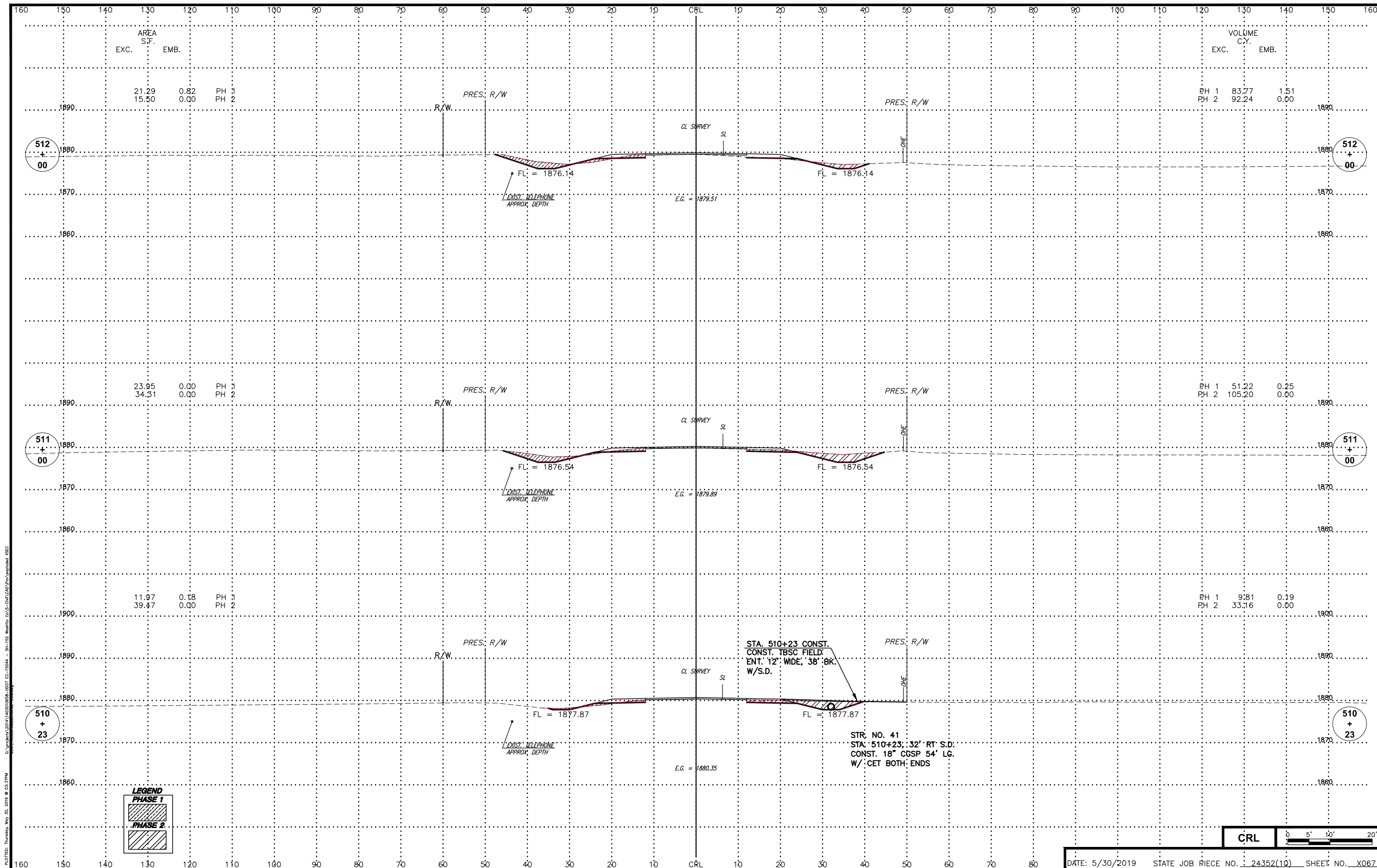
PHASE 1

PHASE 2

CRL

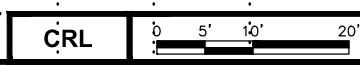
0 5' 10' 20'

C:\projects\2014\403010658-0007 EC-1504A - SH-152 Washita Co LE-Civil\CAD\Drawings\XSEC
 PLOTTED: Thursday, May 30, 2019 @ 03:36PM



LEGEND

	PHASE 1
	PHASE 2



PLOTTED: Thursday, May 30, 2019 @ 03:37PM
 C:\projects\2014\403010658-0007 EC-1504A - SH-152 Washita Co.-CVA-CAD\Drawings\XSEC

AREA S.F.	EXC.	EMB.	PH 1	PH 2
21.29	15.50	0.82	0.00	0.00

VOLUME C.Y.	EXC.	EMB.	PH 1	PH 2
83.77	1.51	0.00	92.24	0.00

AREA S.F.	EXC.	EMB.	PH 1	PH 2
23.95	34.31	0.00	0.00	0.00

VOLUME C.Y.	EXC.	EMB.	PH 1	PH 2
51.22	0.25	0.00	105.20	0.00

AREA S.F.	EXC.	EMB.	PH 1	PH 2
11.97	39.47	0.18	0.00	0.00

VOLUME C.Y.	EXC.	EMB.	PH 1	PH 2
9.81	0.19	0.00	33.16	0.00

STA. 510+23 CONST.
 CONST. TBSC FIELD
 ENT. 12' WIDE, 38' BK.
 W/S.D.

STR. NO. 41
 STA. 510+23; 32' RT S.D.
 CONST. 18" CGSP 54' LG.
 W/ CET BOTH ENDS

FL = 1876.14
 POST TELEPHONE
 APPROX. DEPTH

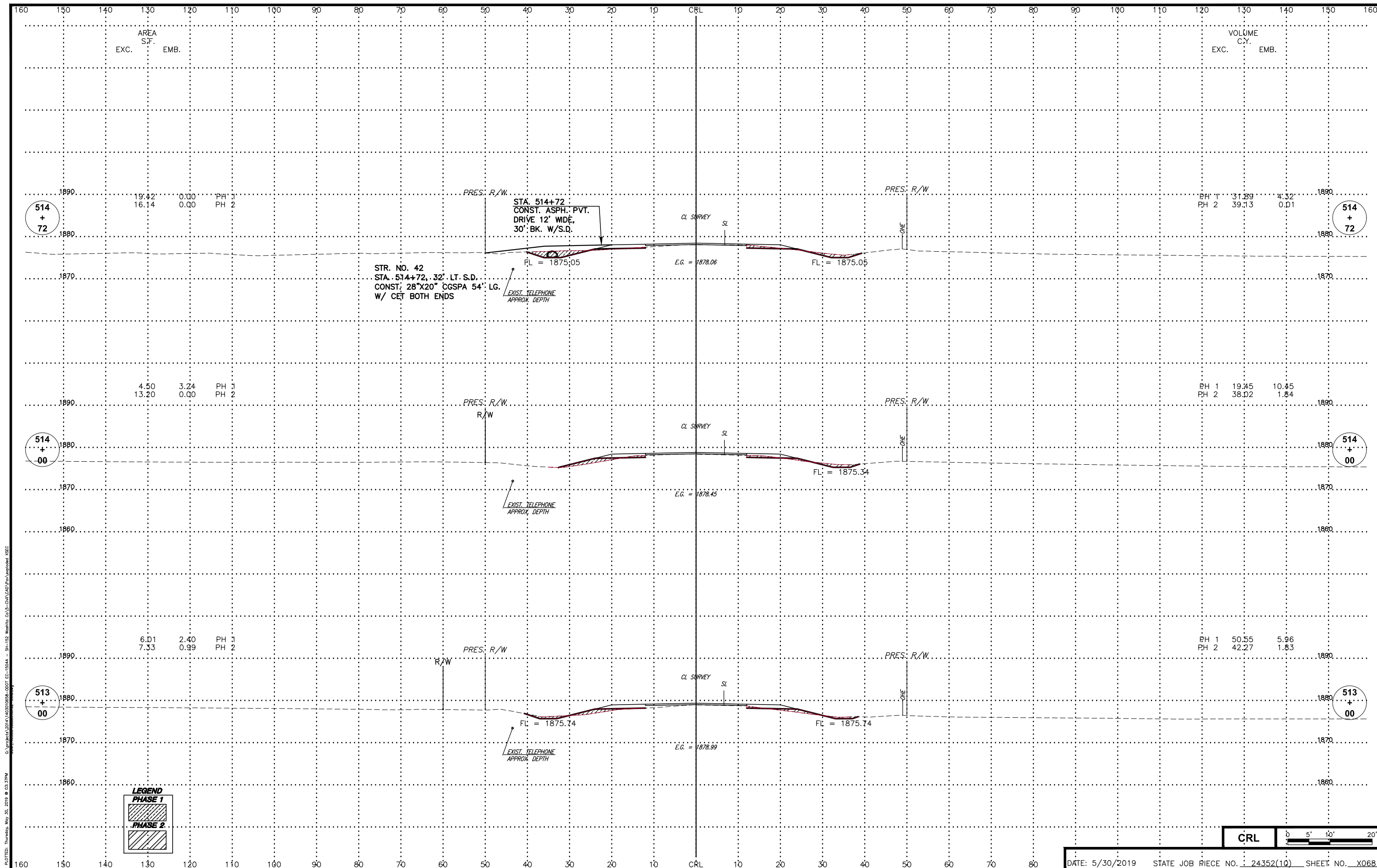
FL = 1876.54
 POST TELEPHONE
 APPROX. DEPTH

FL = 1877.87
 POST TELEPHONE
 APPROX. DEPTH

E.G. = 1879.51

E.G. = 1879.89

E.G. = 1880.35



LEGEND

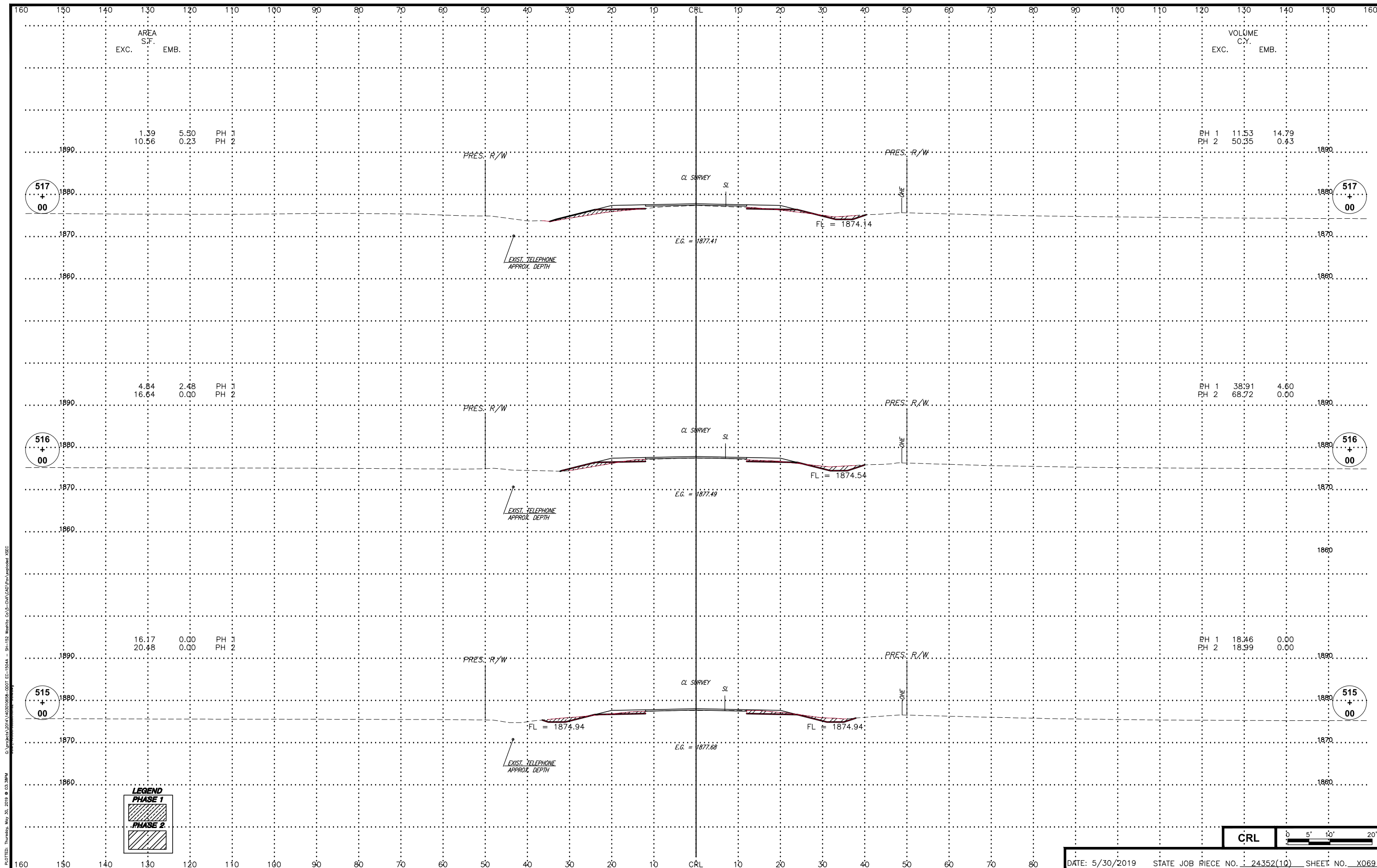
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

PLOTTED: Thursday, May 30, 2019 @ 03:37PM
 C:\projects\2014\1403010658-0007 EC-1504A - SH-152 Washita Co LE-Civil\CAD\Drawings\XSEC



LEGEND

	PHASE 1
	PHASE 2

AREA S.F.	PH 1	PH 2
1.39	5.50	0.23
10.56		

VOLUME C.Y.	PH 1	PH 2
11.53	14.79	0.43
50.35		

AREA S.F.	PH 1	PH 2
4.84	2.48	0.00
16.64		

VOLUME C.Y.	PH 1	PH 2
38.91	4.60	0.00
68.72		

AREA S.F.	PH 1	PH 2
16.17	0.00	0.00
20.48		

VOLUME C.Y.	PH 1	PH 2
18.46	0.00	0.00
18.99		

CL SURVEY

SL

PRES. R/W

PRES. R/W

E.G. = 1877.41

FL = 1874.14

EXIST. TELEPHONE APPROX. DEPTH

CL SURVEY

SL

PRES. R/W

PRES. R/W

E.G. = 1877.49

FL = 1874.54

EXIST. TELEPHONE APPROX. DEPTH

CL SURVEY

SL

PRES. R/W

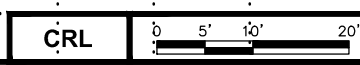
PRES. R/W

E.G. = 1877.68

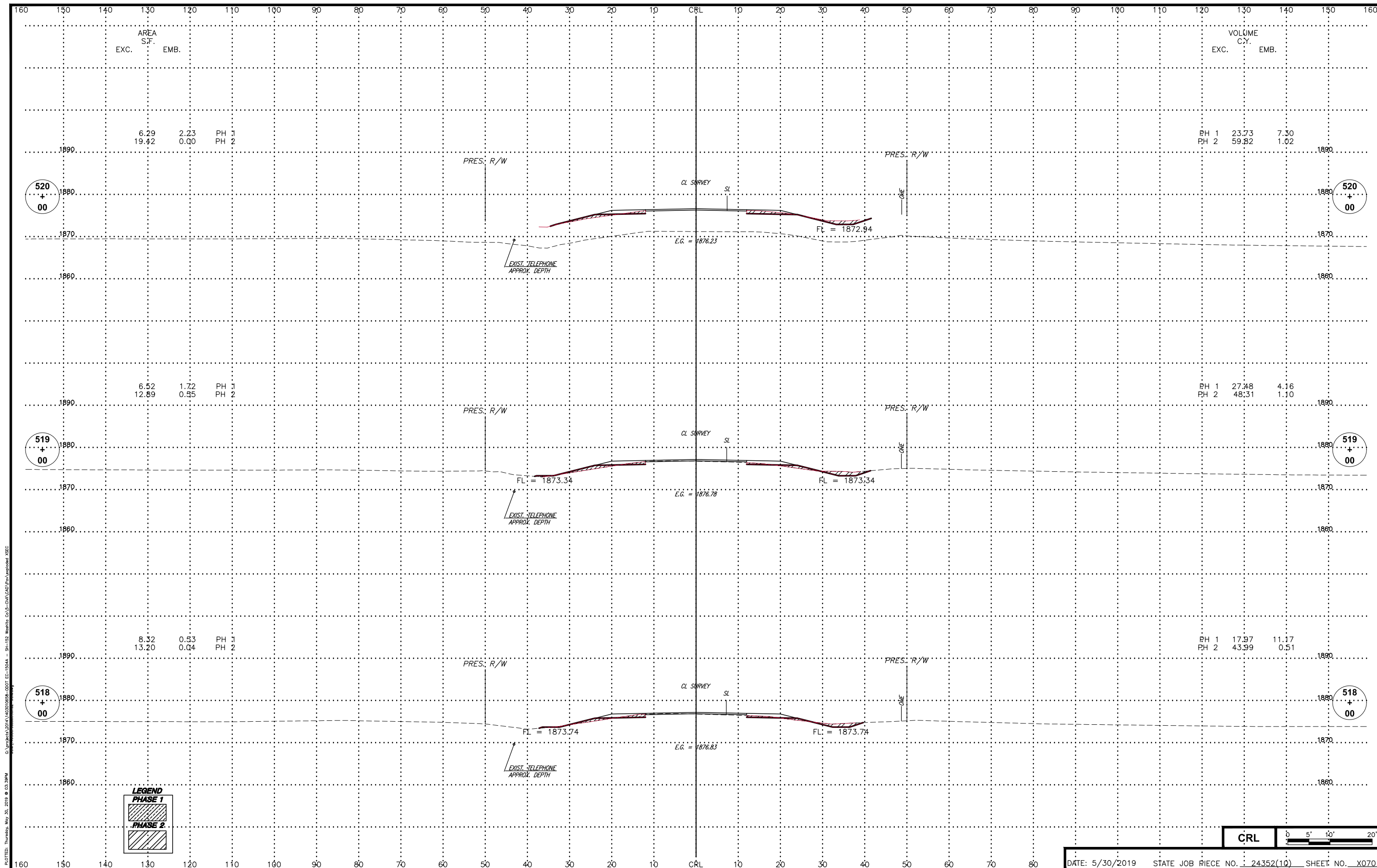
FL = 1874.94

FL = 1874.94

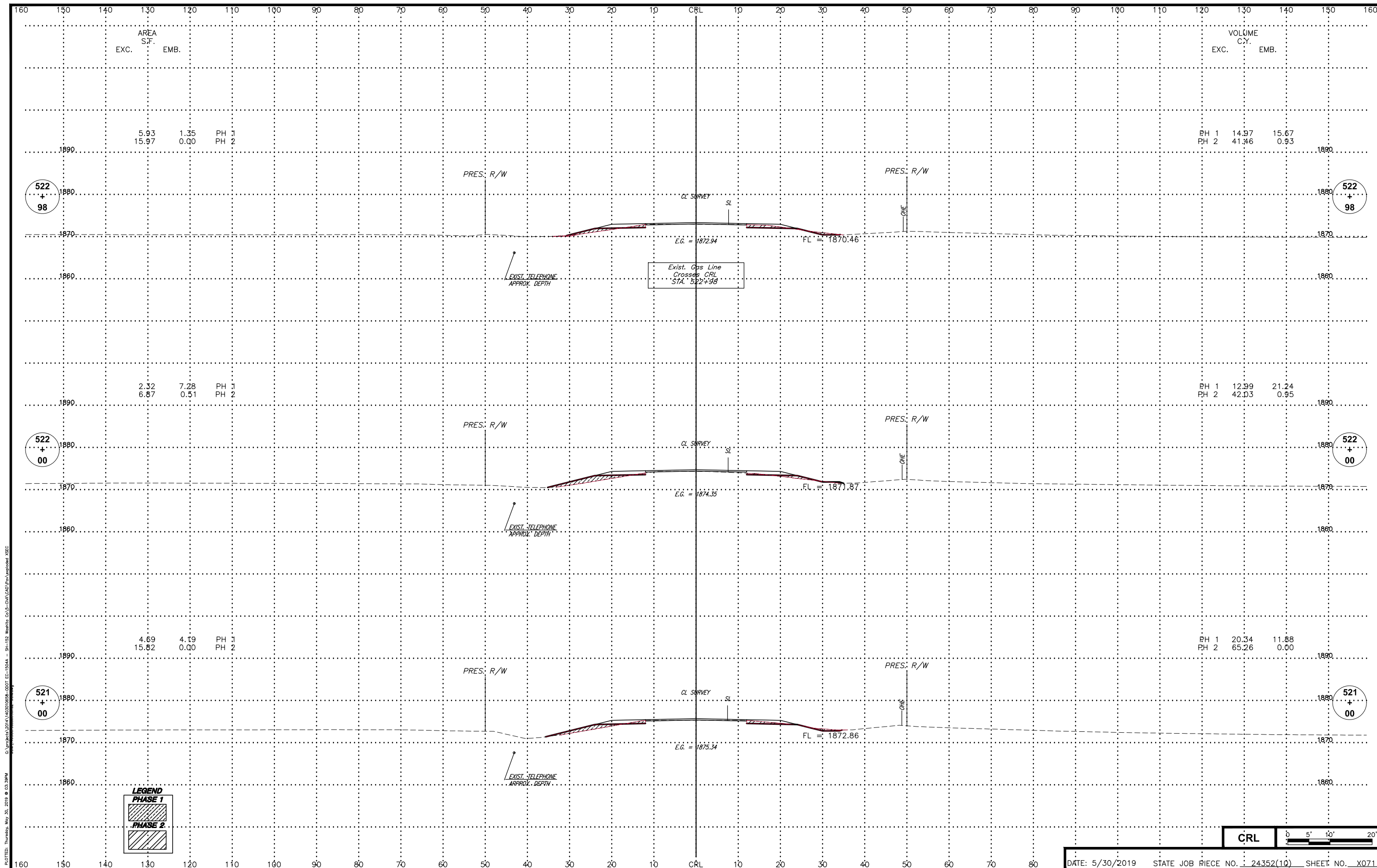
EXIST. TELEPHONE APPROX. DEPTH



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 PLOTTED: Thursday, May 30, 2019 @ 03:38PM



C:\projects\2014\403010658-0007 EC-1504A - SH-152 Washita CO LE-Civil\CAD\Drawings\Roadway XSEC
 PLOTTED: Thursday, May 30, 2019 @ 03:39PM



LEGEND

	PHASE 1
	PHASE 2

AREA S.F.

EXC.	EMB.	
5.93	1.35	PH 1
15.97	0.00	PH 2

VOLUME C.Y.

EXC.	EMB.	
PH 1	14.97	15.67
PH 2	41.46	0.93

AREA S.F.

EXC.	EMB.	
2.32	7.28	PH 1
6.87	0.51	PH 2

VOLUME C.Y.

EXC.	EMB.	
PH 1	12.99	21.24
PH 2	42.03	0.95

AREA S.F.

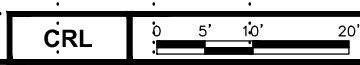
EXC.	EMB.	
4.69	4.19	PH 1
15.82	0.00	PH 2

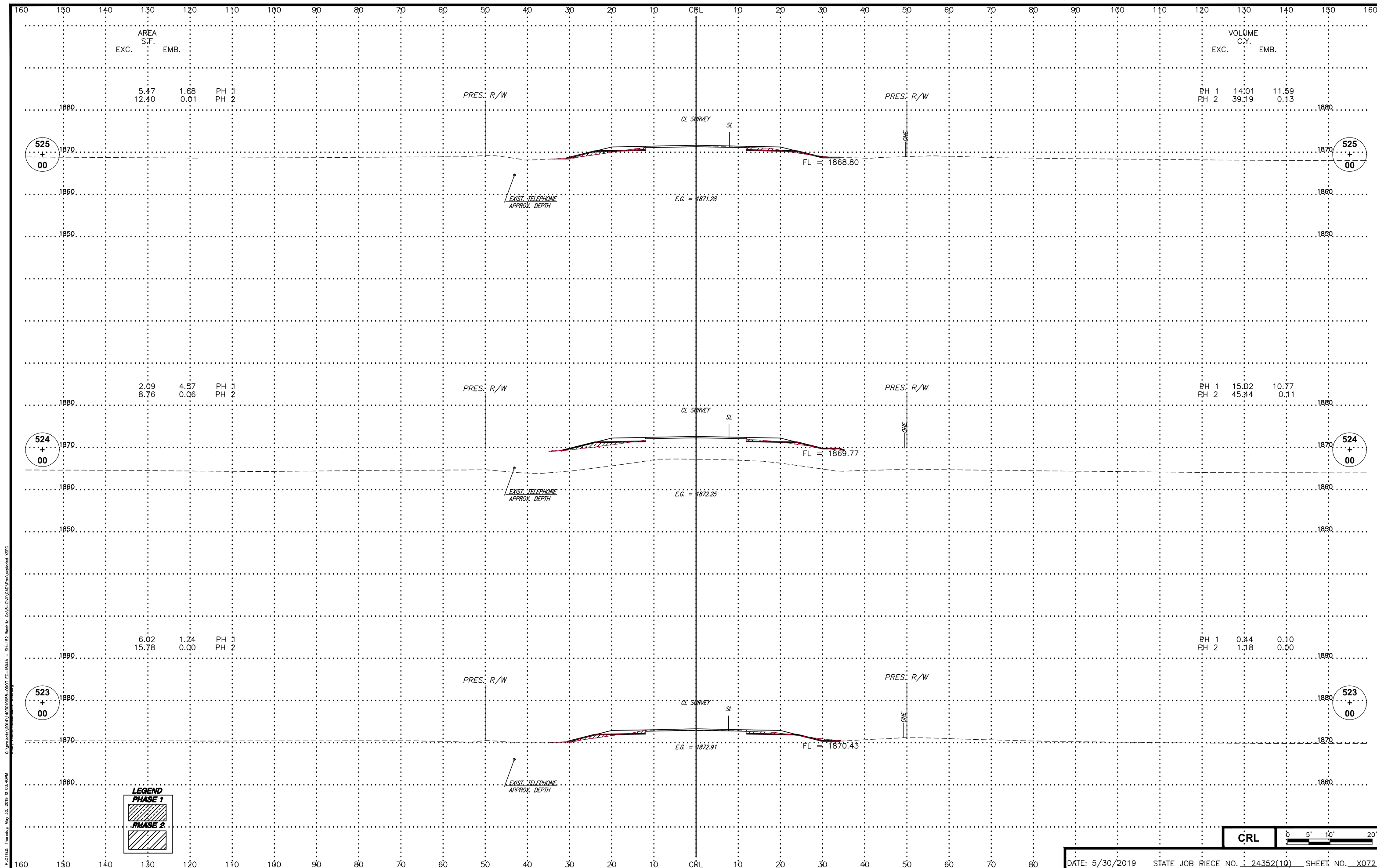
VOLUME C.Y.

EXC.	EMB.	
PH 1	20.34	11.88
PH 2	65.26	0.00

Exist. Ops Line
Crossed CRL
STA. 522+98

C:\projects\2014\403010658-0007 EC-1594A - SH-152 Washita CO LE-Civil\CAD\Drawings\XSEC
 PLOTTED: Thursday, May 30, 2019 @ 03:39PM





AREA S.F.		PH	
EXC.	EMB.	PH 1	PH 2
5.47	1.68		
12.40	0.01		

VOLUME C.Y.		PH	
EXC.	EMB.	PH 1	PH 2
14.01	11.59		
39.19	0.13		

AREA S.F.		PH	
EXC.	EMB.	PH 1	PH 2
2.09	4.57		
8.76	0.06		

VOLUME C.Y.		PH	
EXC.	EMB.	PH 1	PH 2
15.02	10.77		
45.44	0.11		

AREA S.F.		PH	
EXC.	EMB.	PH 1	PH 2
6.02	1.24		
15.78	0.00		

VOLUME C.Y.		PH	
EXC.	EMB.	PH 1	PH 2
0.44	0.10		
1.18	0.00		

LEGEND

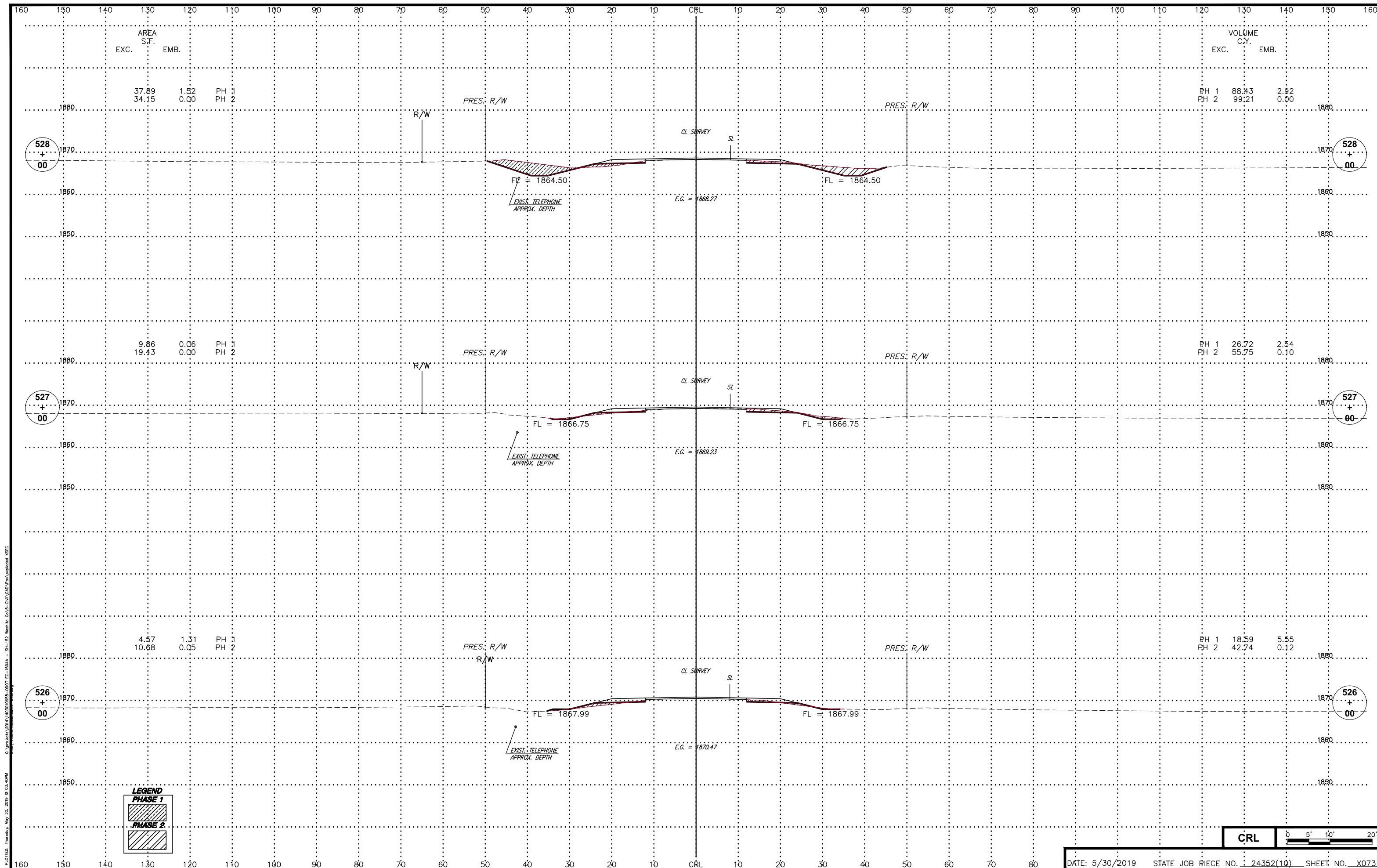
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

PLOTTED: Thursday, May 30, 2019 @ 03:40PM
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AREA
S.F.
EXC. EMB.

VOLUME
C.Y.
EXC. EMB.

37.89 1.52 PH 1
34.15 0.00 PH 2

PH 1 88.43 2.92
PH 2 99.21 0.00

9.86 0.06 PH 1
19.43 0.00 PH 2

PH 1 26.72 2.54
PH 2 55.75 0.10

4.57 1.31 PH 1
10.68 0.05 PH 2

PH 1 18.59 5.55
PH 2 42.74 0.12

LEGEND

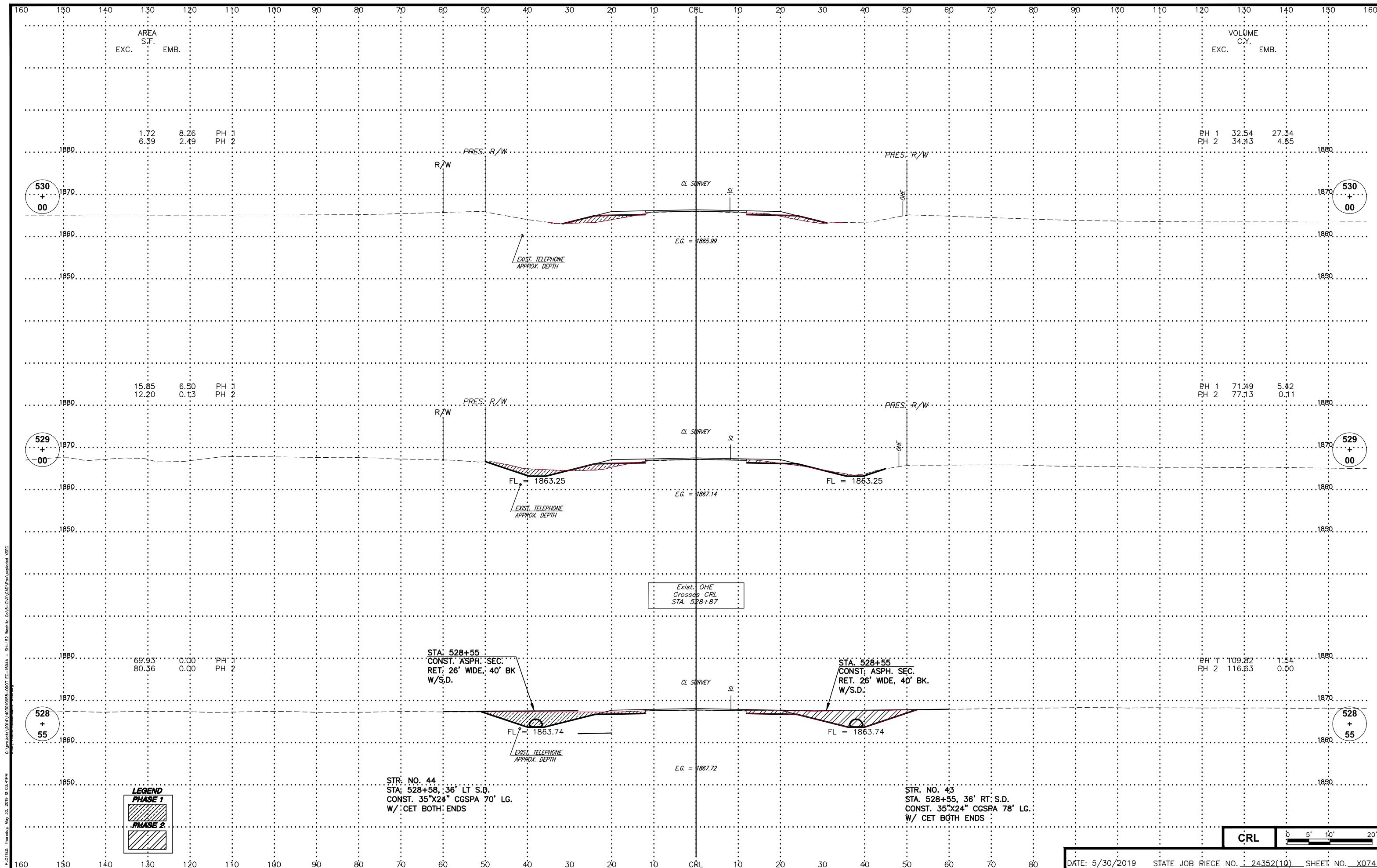
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

C:\projects\2014\1403010658-0007 EC-1504A - SH-152 Washita Co LE-Civil\CAD\Drawings\XSEC
 PLOTTED: Thursday, May 30, 2019 @ 03:40PM



AREA S.F.
EXC. EMB.

VOLUME C.Y.
EXC. EMB.

1.72 8.26 PH 1
6.39 2.49 PH 2

PH 1 32.54 27.34
PH 2 34.43 4.85

15.85 6.50 PH 1
12.20 0.13 PH 2

PH 1 71.49 5.42
PH 2 77.13 0.11

69.93' 0.00 PH 1
80.36 0.00 PH 2

PH 1 109.82 1.54
PH 2 116.63 0.00

LEGEND

PHASE 1

PHASE 2

STA. 528+55
CONST. ASPH. SEC.
RET. 26' WIDE, 40' BK
W/S.D.

STA. 528+55
CONST. ASPH. SEC.
RET. 26' WIDE, 40' BK.
W/S.D.

STR. NO. 44
STA. 528+58, 36' LT S.D.
CONST. 35"x24" CGSPA 70' LG.
W/ CET BOTH ENDS

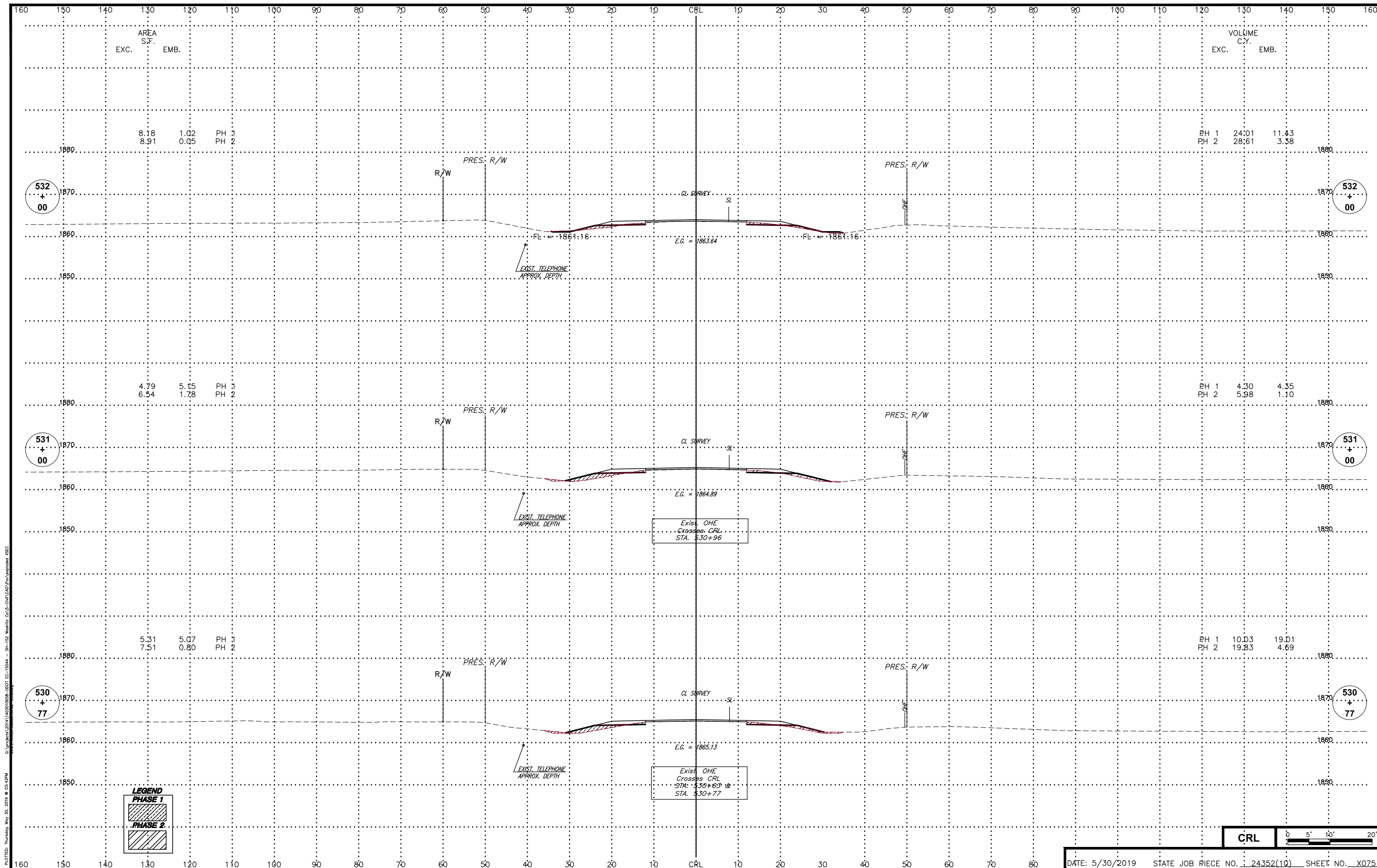
STR. NO. 43
STA. 528+55, 36' RT S.D.
CONST. 35"x24" CGSPA 78' LG.
W/ CET BOTH ENDS

Exist. OHE
Crosses CRL
STA. 528+87

CRL

0 5' 10' 20'

C:\projects\2014\1403010658-0007 EC-1504A - SH-152 Washita Co LE-Civil\CAD\Drawings\XSEC
 PLOTTED: Thursday, May 30, 2019 @ 03:41PM



LEGEND

PHASE 1

PHASE 2

Exist. OHE
Crosses CRL
STA. 530+96

Exist. OHE
Crosses CRL
STA. 530+63 &
STA. 530+77

AREA S.F.	PH 1	PH 2
EXC. 8.18	1.02	
EMB. 8.91	0.05	

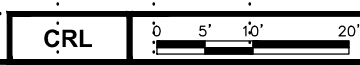
VOLUME C.Y.	PH 1	PH 2
EXC. 24.01	11.43	
EMB. 28.61	3.38	

AREA S.F.	PH 1	PH 2
EXC. 4.79	5.15	
EMB. 6.54	1.78	

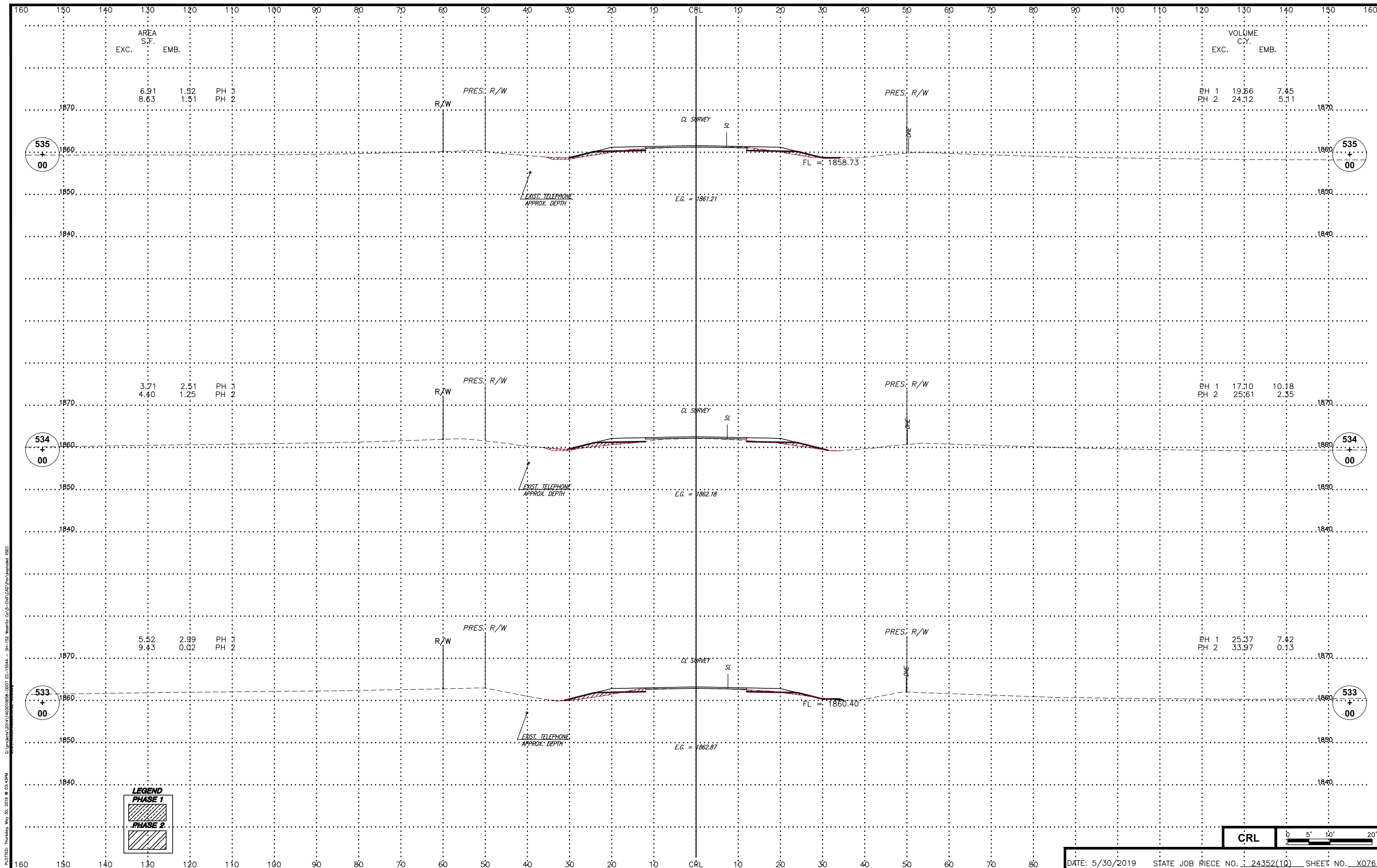
VOLUME C.Y.	PH 1	PH 2
EXC. 4.30	4.35	
EMB. 5.98	1.10	

AREA S.F.	PH 1	PH 2
EXC. 5.31	5.07	
EMB. 7.51	0.80	

VOLUME C.Y.	PH 1	PH 2
EXC. 10.03	19.01	
EMB. 19.83	4.69	



PLOTTED: Thursday, May 30, 2019 @ 03:42PM
 C:\projects\2014\40300658-0007 EC-1504A - SH-152 Washita CO.FE-CIVIL\CAD\Drawings\XSEC



LEGEND

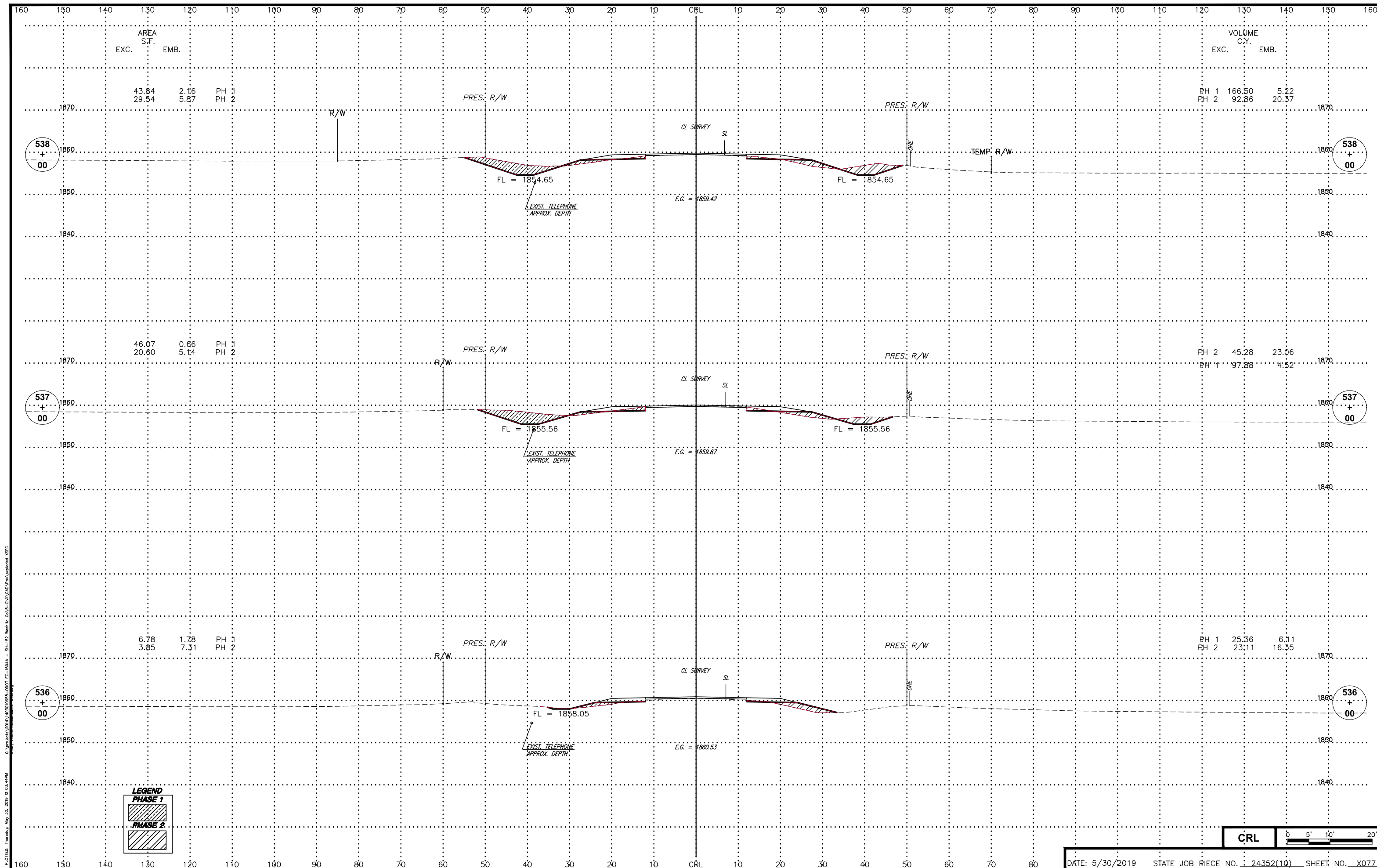
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

PLOTTED: Thursday, May 30, 2019 @ 03:13PM
 C:\projects\2014\403010658-0007 EC-1504A - SH-152 Washita CO LE-Civil\CAD\Drawings\XSEC



PLOTTED: Thursday, May 30, 2019 @ 03:44PM
 C:\projects\2014\403010658-0007 EC-1504A - SH-152 Washita CO LE-Civil\CAD\Drawings\excav XSEC

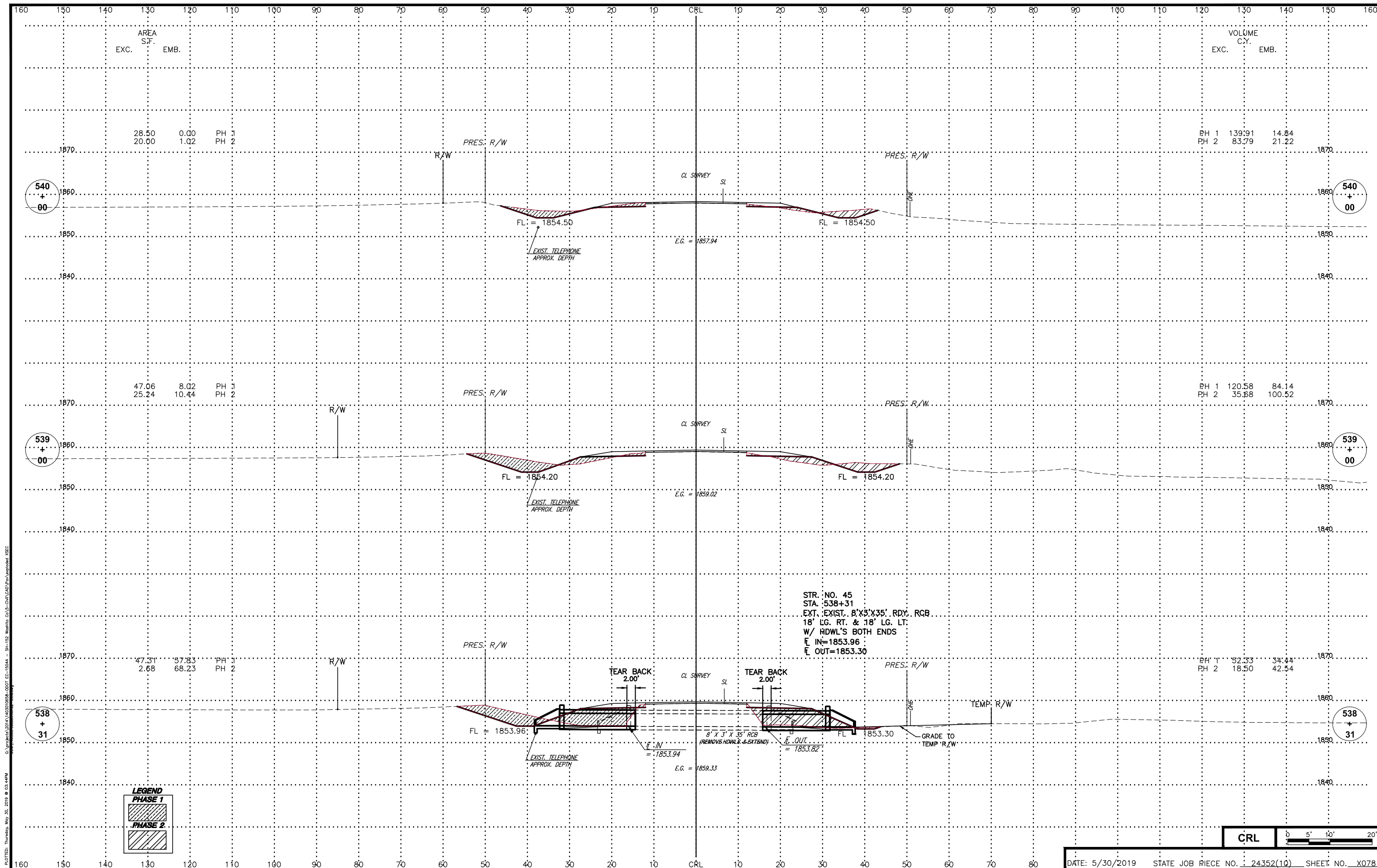
LEGEND

PHASE 1

PHASE 2

CRL

0 5' 10' 20'



LEGEND

PHASE 1

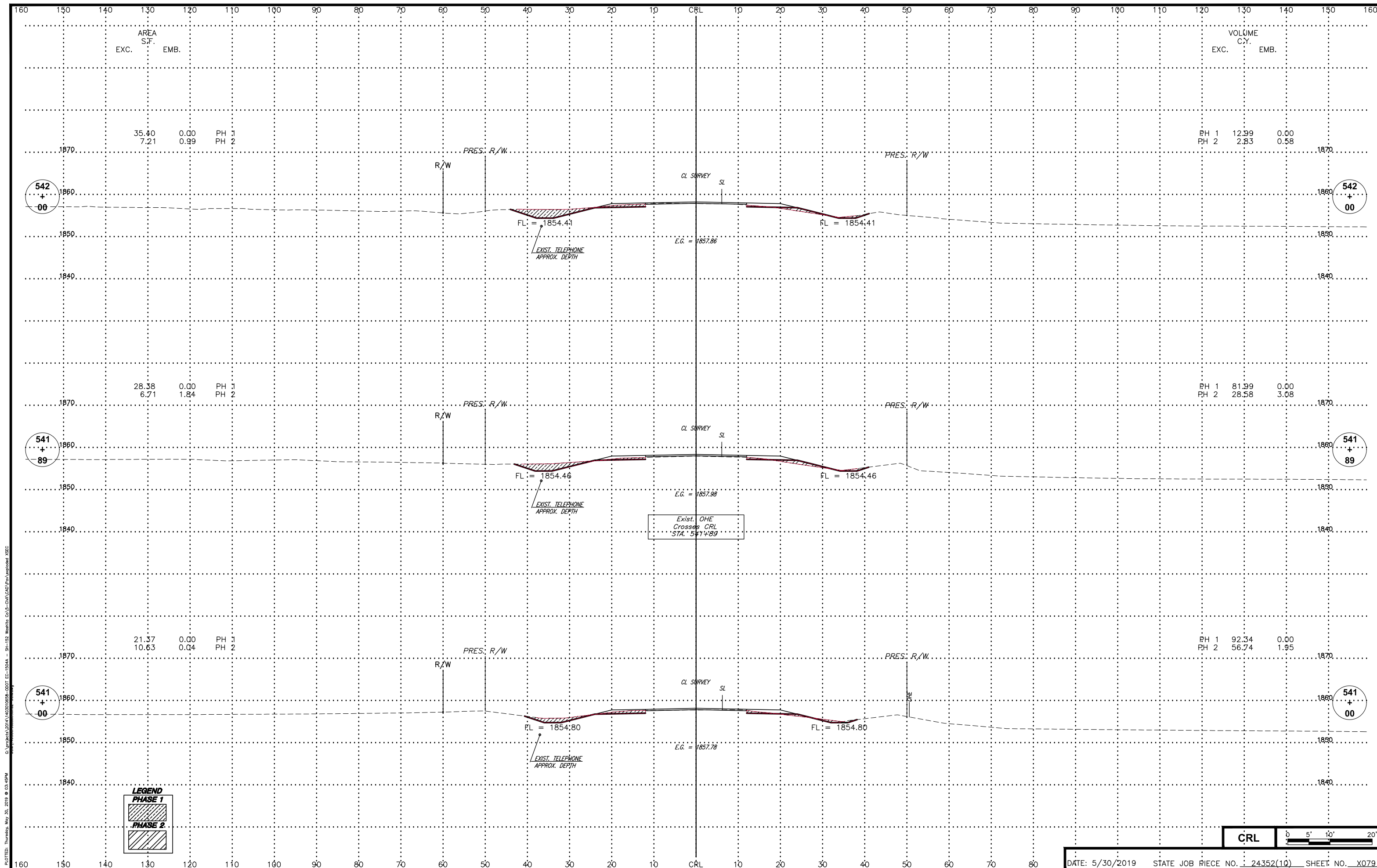
PHASE 2

STR. NO. 45
 STA. 538+31
 EXT. EXIST. 8' X 3' X 35' RDY. RCB
 18' LG. RT. & 18' LG. LT.
 W/ HDWL'S BOTH ENDS
 F_L IN = 1853.96
 F_L OUT = 1853.30

CRL

0 5' 10' 20'

C:\projects\2014\1403010658-0007 EC-1504A - SH-152 Washita Co LE-Civil\CAD\Drawings\Roadway\XSEC
 PLOTTED: Thursday, May 30, 2019 @ 03:44PM



LEGEND

PHASE 1

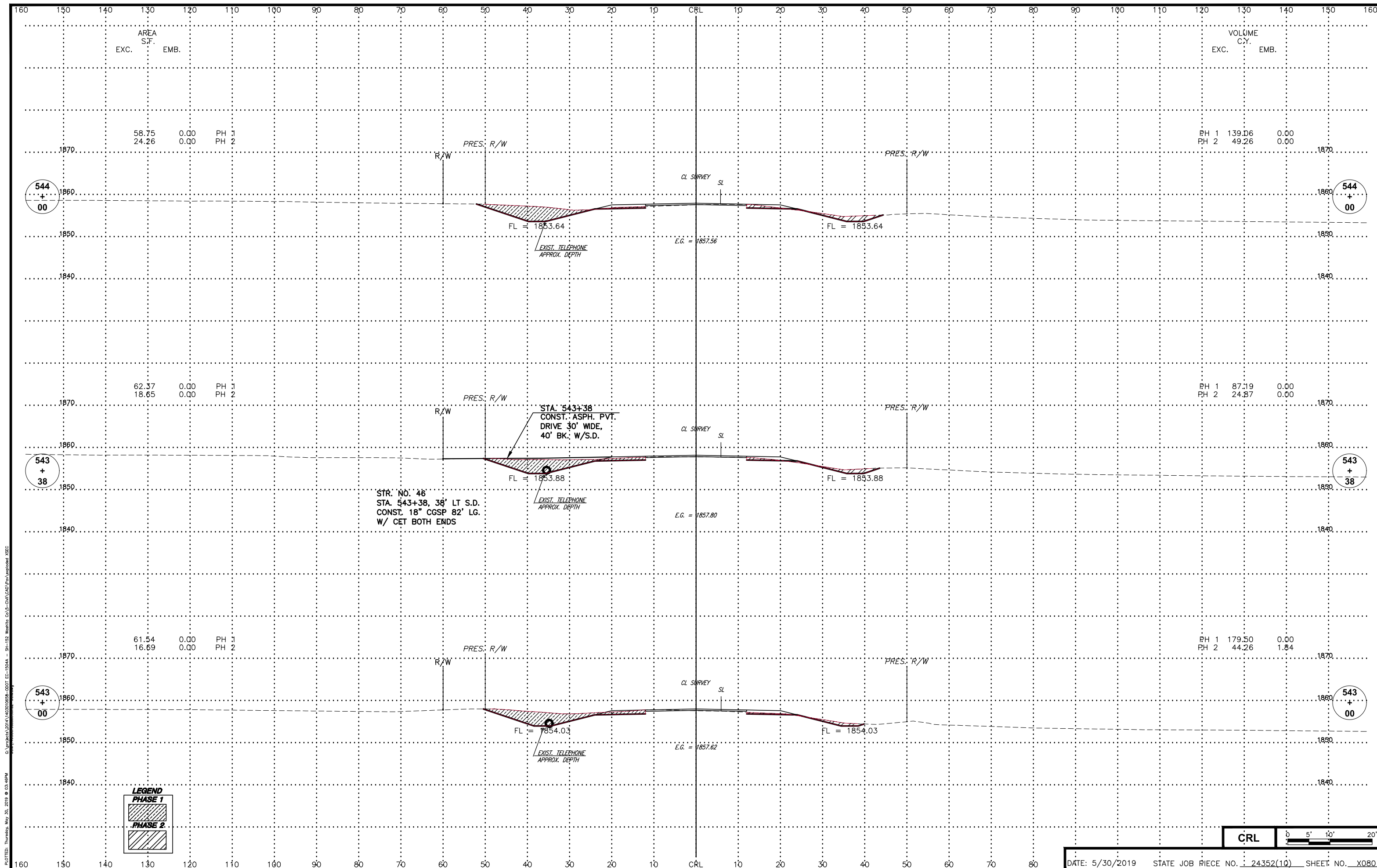
PHASE 2

Exist. OHE
Crosses CRL
STA. 541+89

CRL

0 5' 10' 20'

C:\projects\2014\1403010658-0007 EC-1504A - SH-152 Washita Co LE-Civil\CAD\Drawings\XSEC
 PLOTTED: Thursday, May 30, 2019 @ 03:45PM



LEGEND

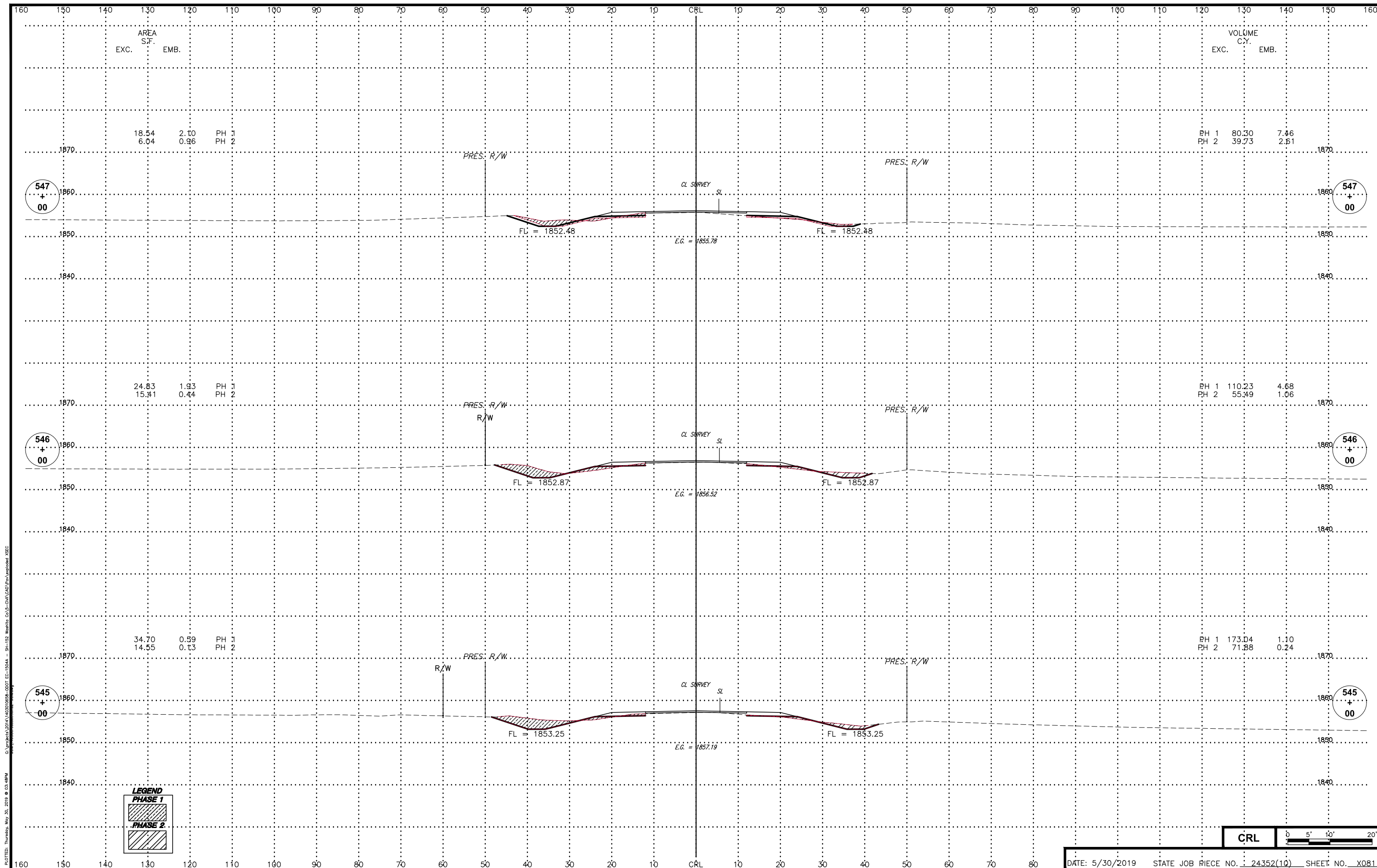
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

C:\projects\2014\403010658-0007 EC-1504A - SH-152 Washita Co. E-Civil\CAD\Drawings\XSEC
 PLOTTED: Thursday, May 30, 2019 @ 03:46PM



LEGEND

	PHASE 1
	PHASE 2

AREA S.F.	PH 1	PH 2
EXC. 18.54	2.10	0.96
EMB. 6.04	0.96	

VOLUME C.Y.	PH 1	PH 2
EXC. 80.30	7.46	2.61
EMB. 39.73	2.61	

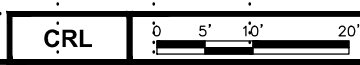
AREA S.F.	PH 1	PH 2
EXC. 24.83	1.93	0.44
EMB. 15.41	0.44	

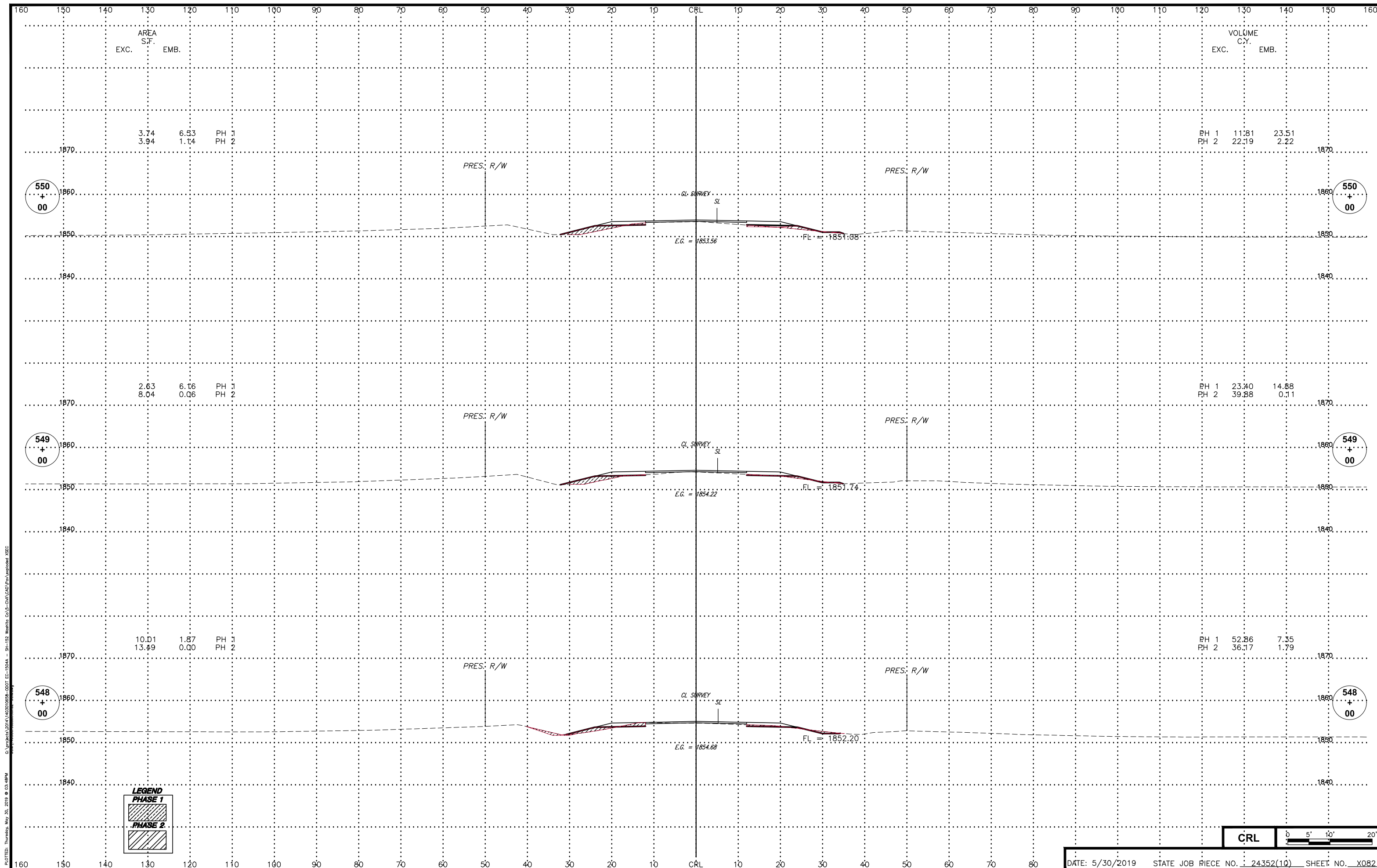
VOLUME C.Y.	PH 1	PH 2
EXC. 110.23	4.68	1.06
EMB. 55.49	1.06	

AREA S.F.	PH 1	PH 2
EXC. 34.70	0.59	0.13
EMB. 14.55	0.13	

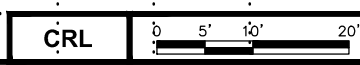
VOLUME C.Y.	PH 1	PH 2
EXC. 173.04	1.10	0.24
EMB. 71.88	0.24	

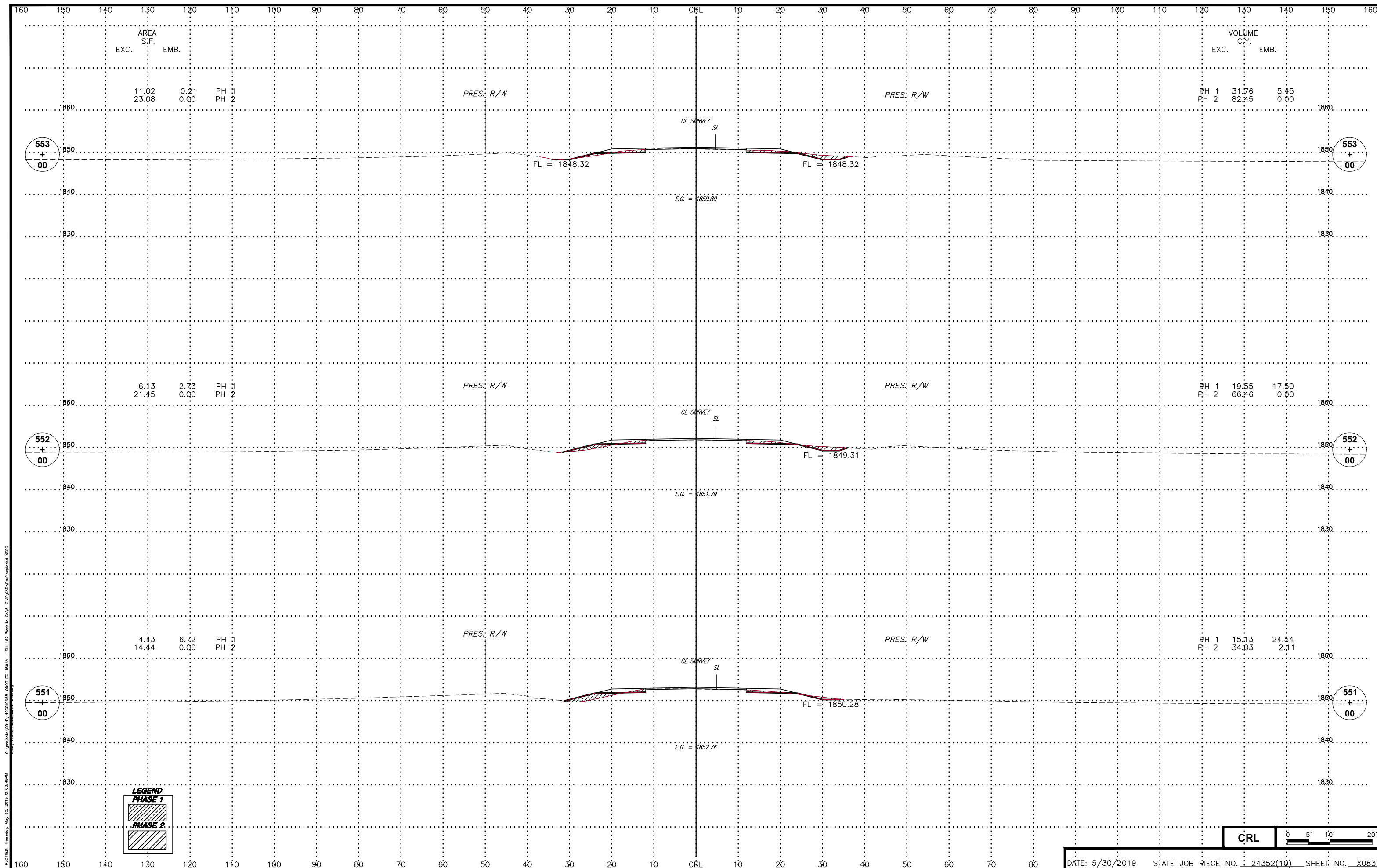
PLOTTED: Thursday, May 30, 2019 @ 03:48PM
 C:\projects\2014\1403010658-0007 EC-1504A - SH-152 Washita CO-FE-Civil\CAD\Drawings\XSEC



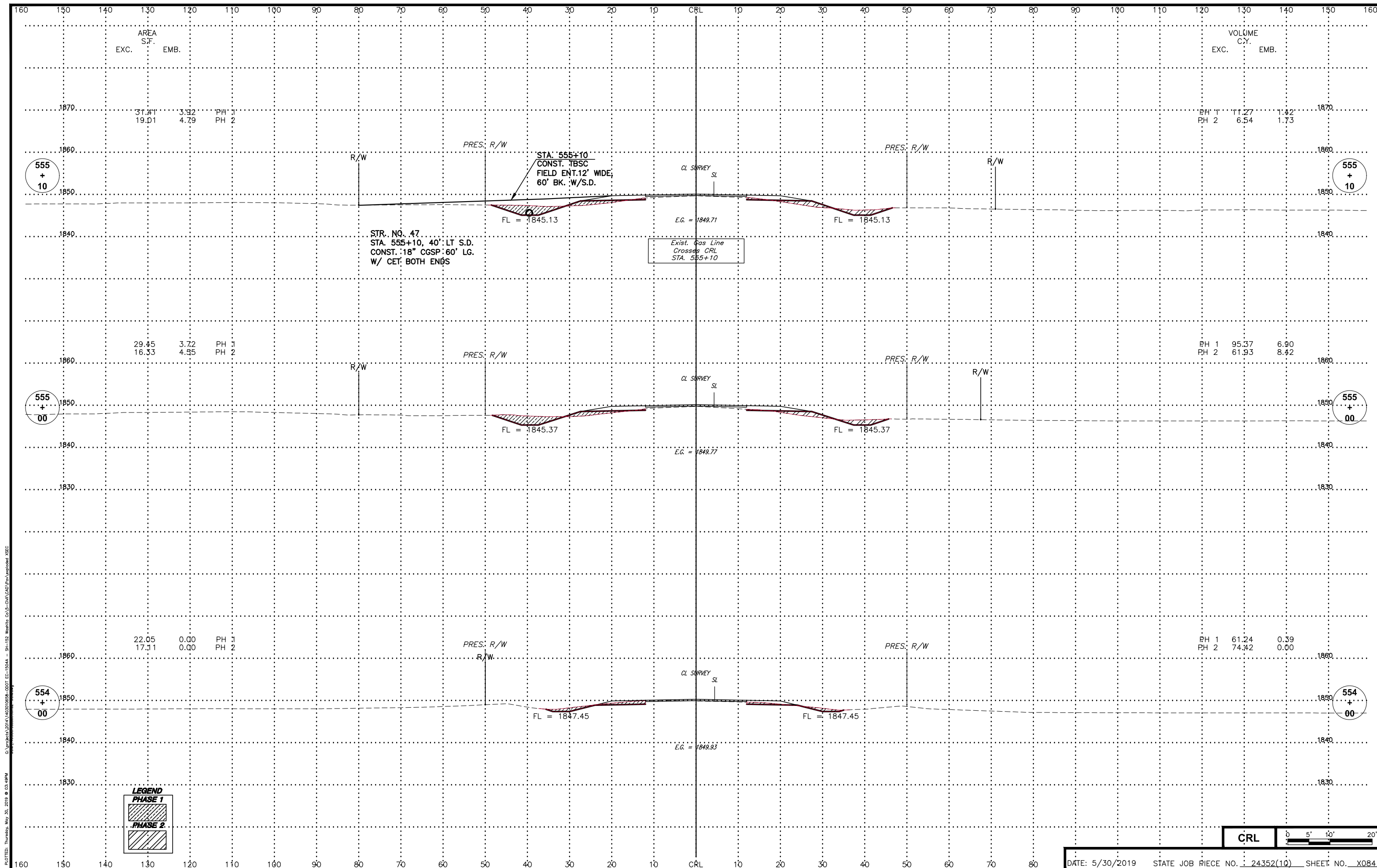


PLOTTED: Thursday, May 30, 2019 @ 03:48PM
 C:\projects\2014\403010658-0007 EC-1504A - SH-152 Washita CO LE-Civil\CAD\Drawings\Roads XSEC





C:\projects\2014\1403010658-0007 EC-1504A - SH-152 Washita Co LE-Civil\CAD\Drawings\XSEC
 PLOTTED: Thursday, May 30, 2019 @ 03:48PM



LEGEND

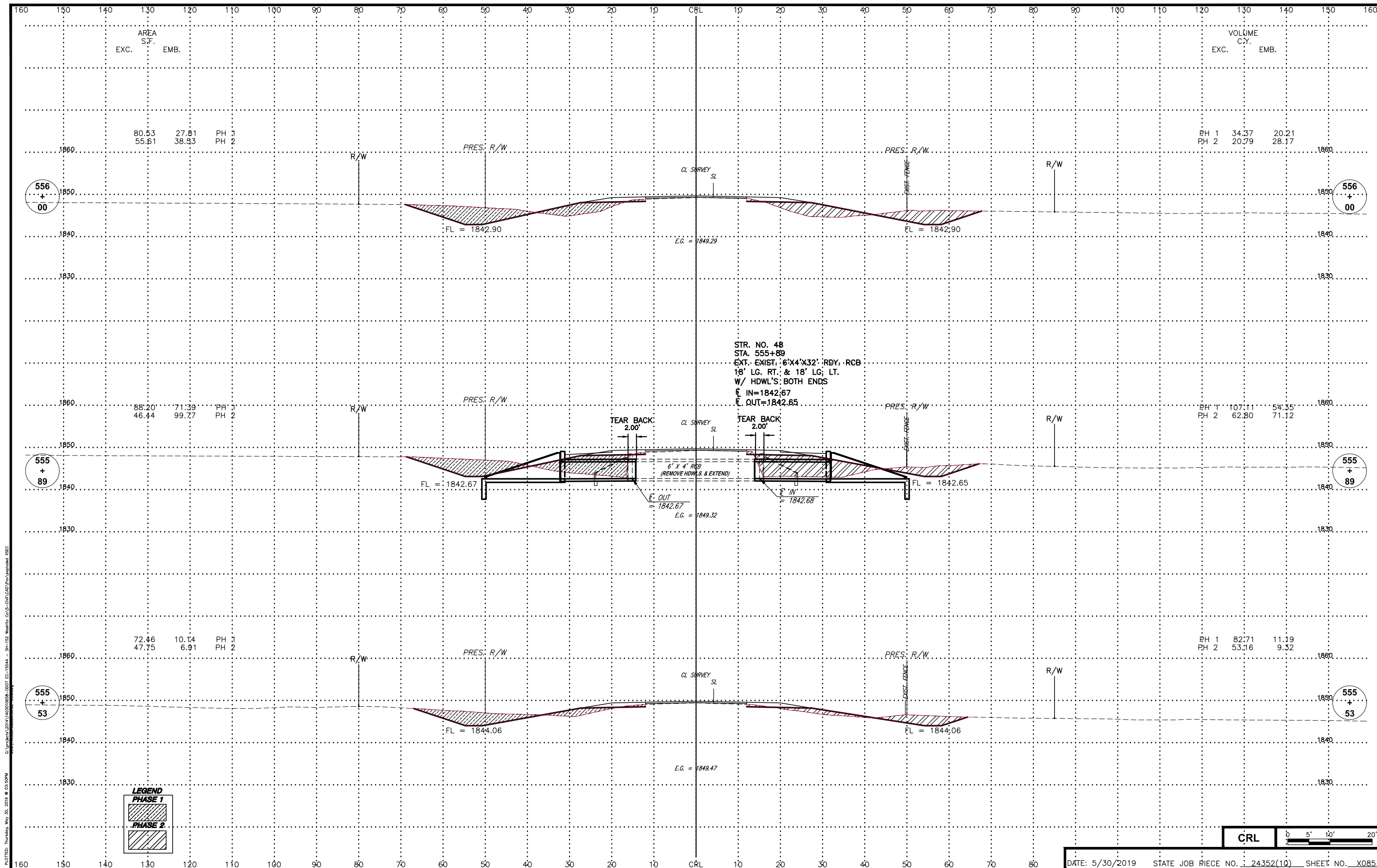
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

PLOTTED: Thursday, May 30, 2019 @ 03:48PM
 C:\projects\2014\403010658-0007 EC-1504A - SH-152 Washita CO LE-Civil\CAD\Drawings\XSEC



AREA S.F.
EXC. EMB.

VOLUME C.Y.
EXC. EMB.

80.53 27.81 PH 1
55.61 38.83 PH 2

PH 1 34.37 20.21
PH 2 20.79 28.17

556
+
00

556
+
00

555
+
89

555
+
89

555
+
53

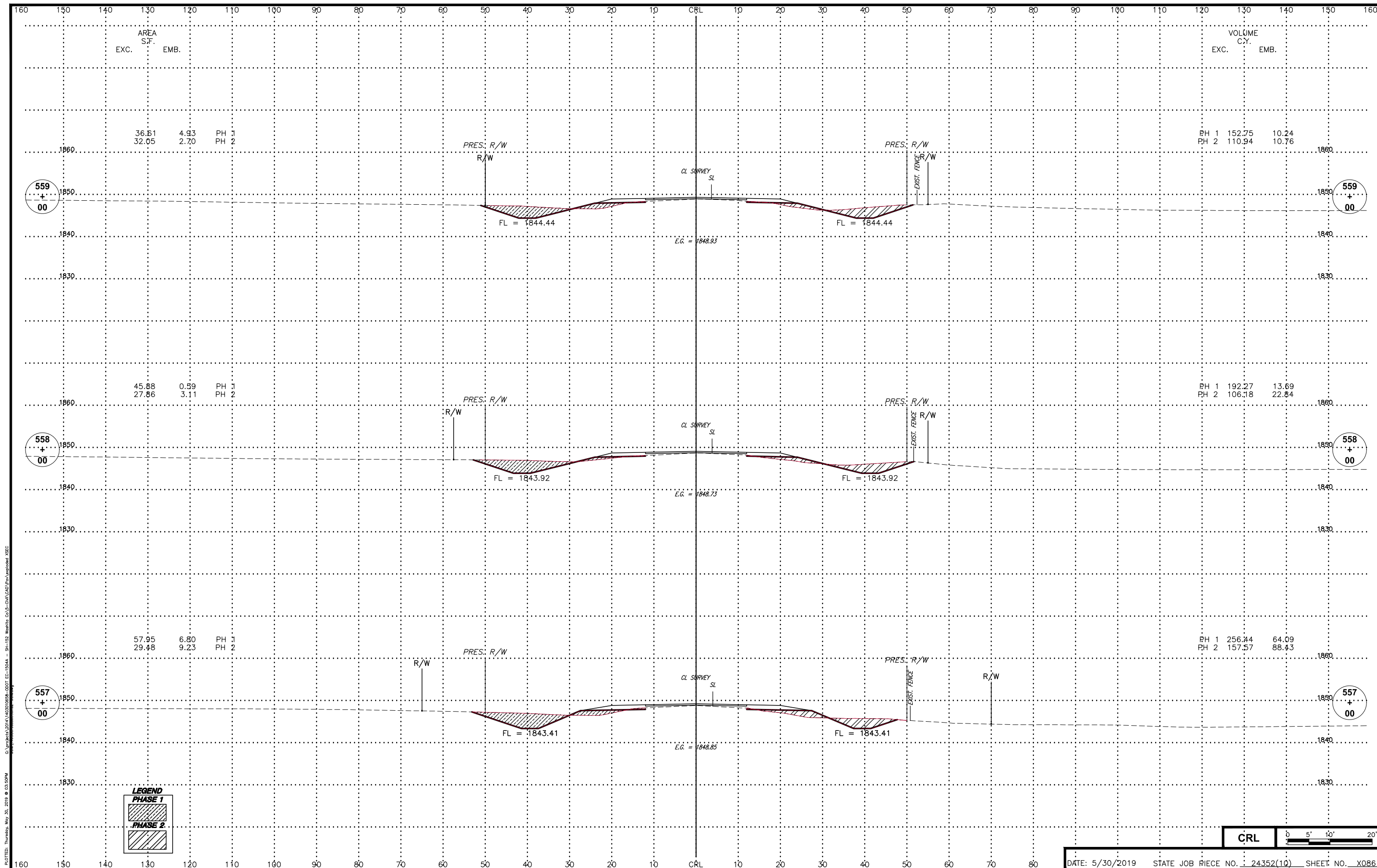
555
+
53

STR. NO. 48
STA. 555+89
EXT. EXIST. 6'X4'X32' RDBY. RCB
18' LG. RT. & 18' LG. LT.
W/ HDWL'S: BOTH ENDS
FIN IN=1842.67
FIN OUT=1842.65

LEGEND
PHASE 1
PHASE 2

CRL
0 5' 10' 20'

PLOTTED: Thursday, May 30, 2019 @ 03:05PM
 C:\projects\2014\1403010658-0007 EC-1504A - SH-152 Washita CO.FE-CIVIL\CAD\Drawings\XSEC



LEGEND

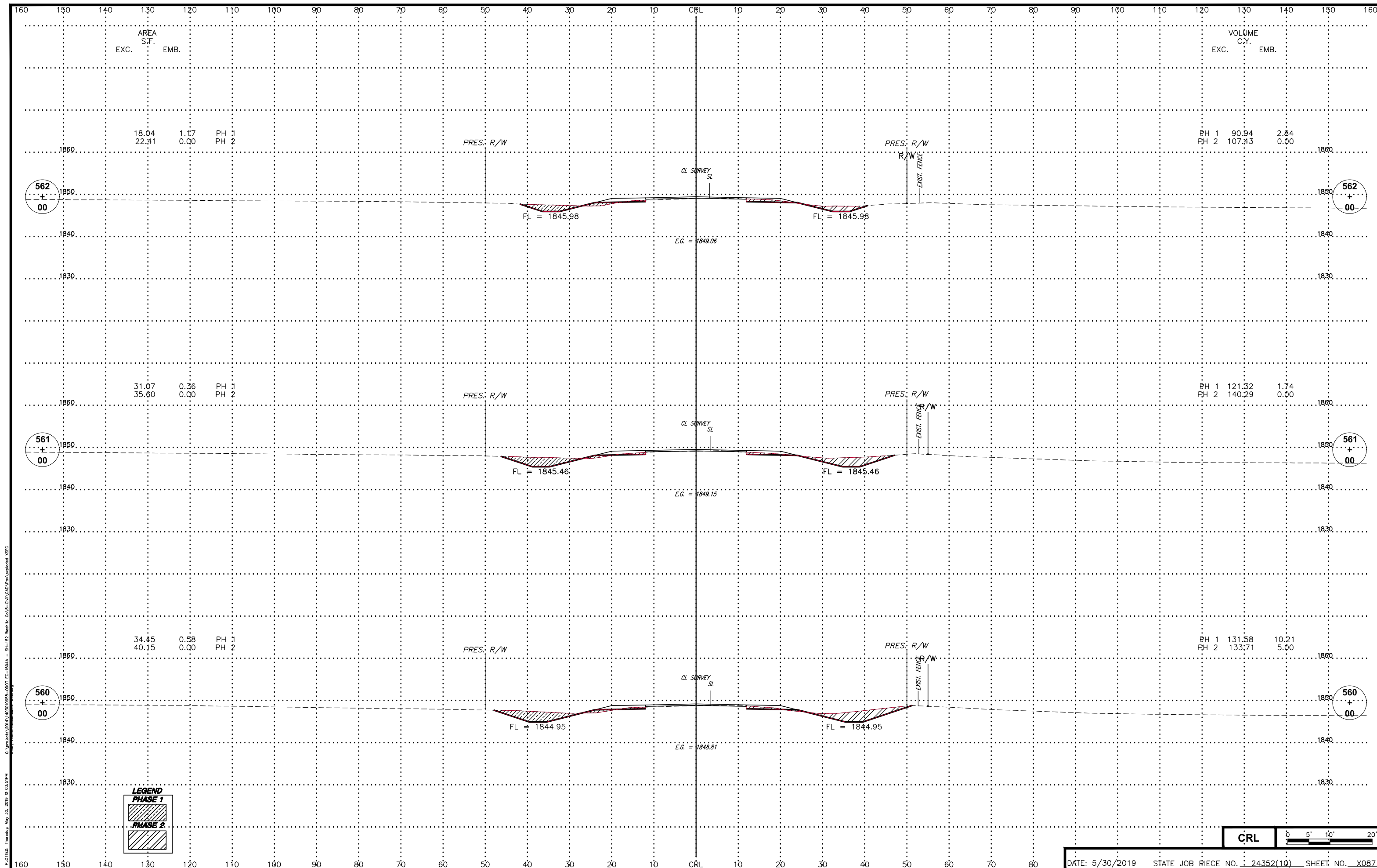
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

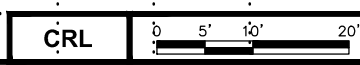
C:\projects\2014\1403010658-0007 EC-1504A - SH-152 Washita Co LE-Civil\CAD\Drawings\XSEC
 PLOTTED: Thursday, May 30, 2019 @ 03:05PM



LEGEND

PHASE 1

PHASE 2



AREA S.F.
EXC. EMB.

VOLUME C.Y.
EXC. EMB.

18.04 1.17 PH 1
22.41 0.00 PH 2

PH 1 90.94 2.84
PH 2 107.43 0.00

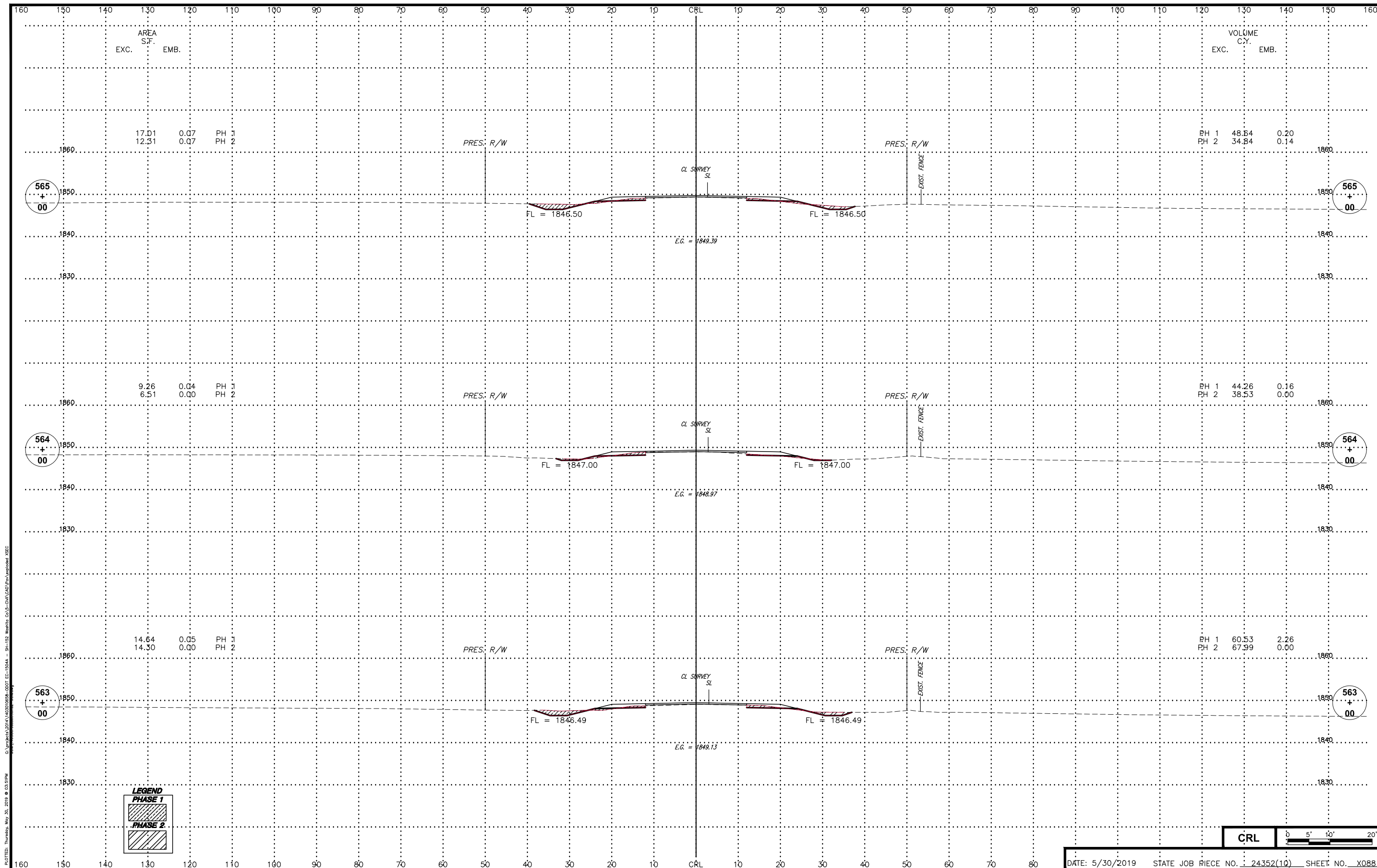
31.07 0.36 PH 1
35.60 0.00 PH 2



PH 1 121.32 1.74
PH 2 140.29 0.00

34.45 0.58 PH 1
40.15 0.00 PH 2

PH 1 131.58 10.21
PH 2 133.71 5.00

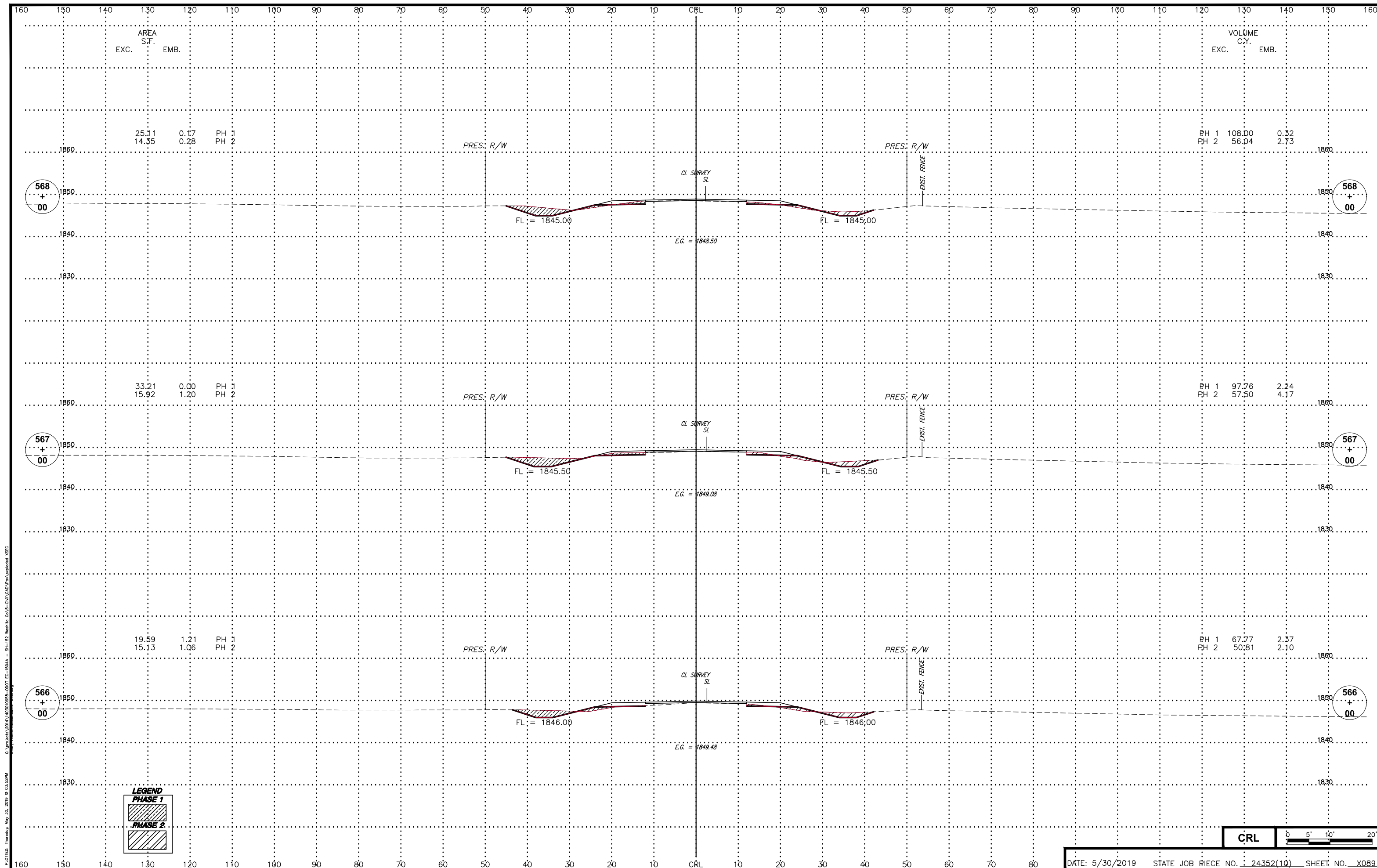
PLOTTED: Thursday, May 30, 2019 @ 03:51PM
 C:\projects\2014\1403010658-0007 EC-1504A - SH-152 Washita CO LE-Civil\CAD\Drawings\XSEC



LEGEND
 **PHASE 1**
 **PHASE 2**

CRL 0 5' 10' 20'

C:\projects\2014\1403010658-0007 EC-1504A - SH-152 Washita CO-E-Civil-CAD\Drawings\XSEC
 PLOTTED: Thursday, May 30, 2019 @ 03:51PM



LEGEND

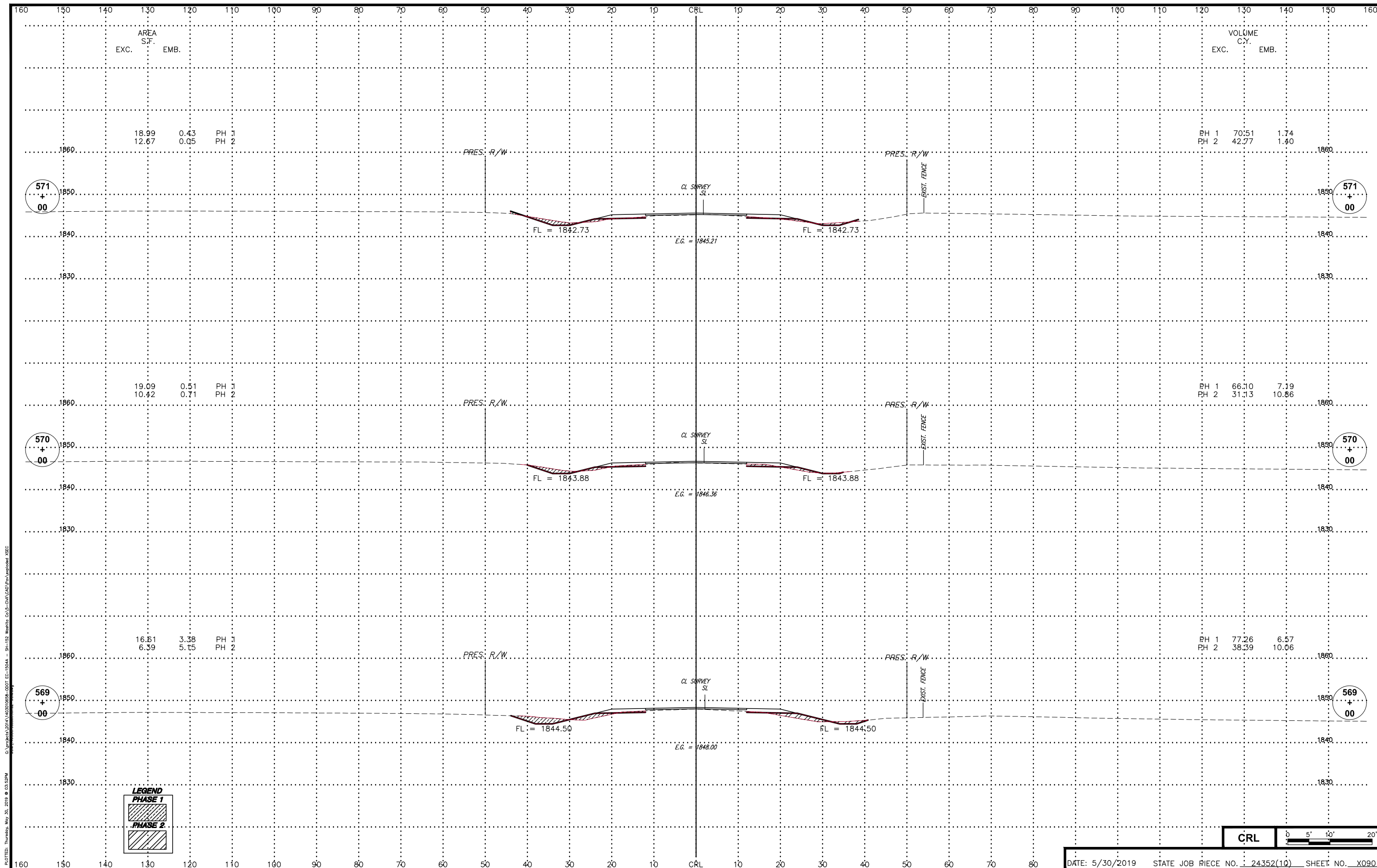
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

C:\projects\2014\1403010658-0007 EC-1504A - SH-152 Washita Co. E-Civil\CAD\Drawings\Roads XSEC
 PLOTTED: Thursday, May 30, 2019 @ 03:52PM



LEGEND

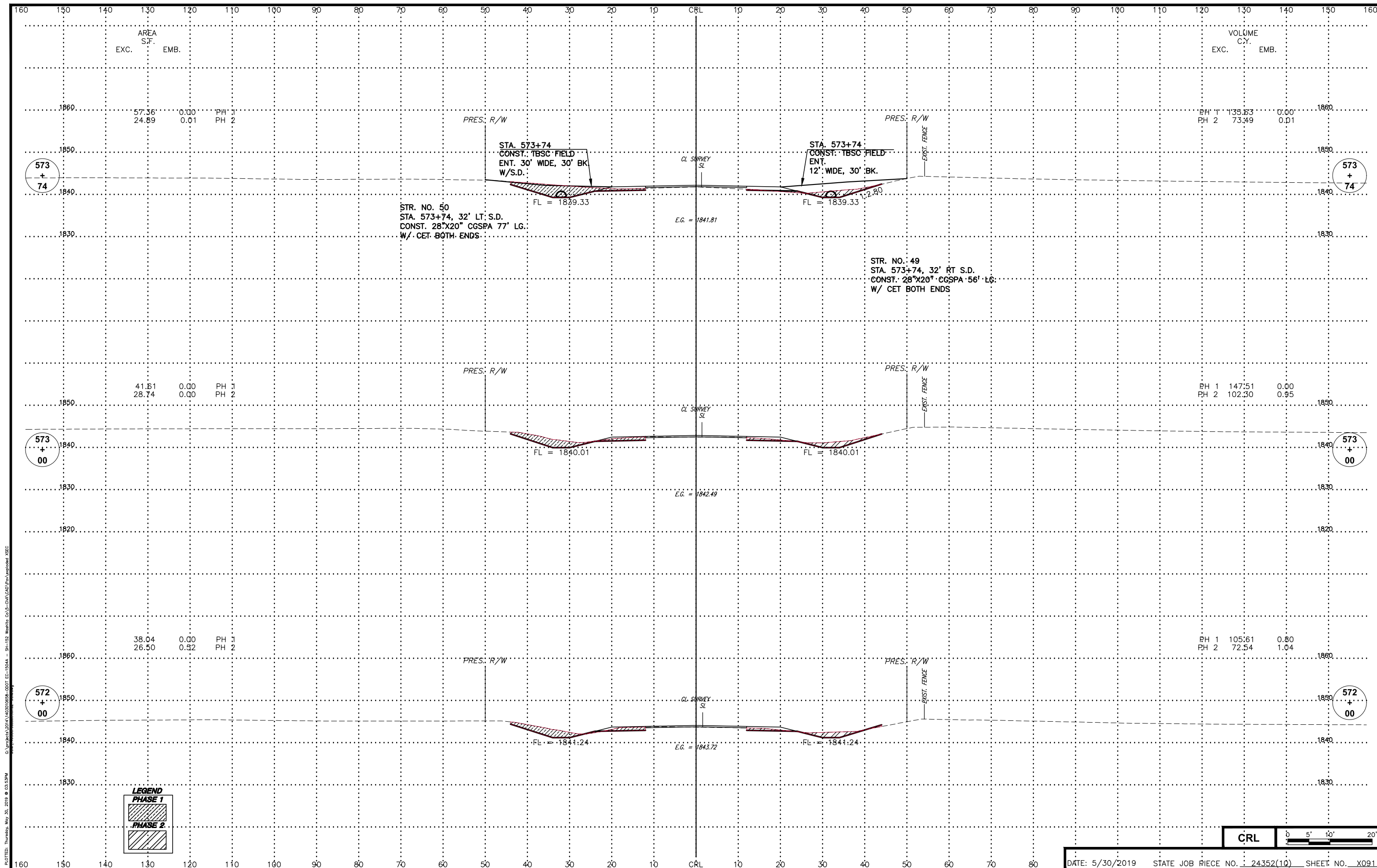
PHASE 1

PHASE 2

CRL

0 5' 10' 20'

C:\projects\2014\403010658-0007 EC-1504A - SH-152 Washita CO LE-Civil\DWG\Plan\Assembled XSEC
 PLOTTED: Thursday, May 30, 2019 @ 03:52PM



LEGEND

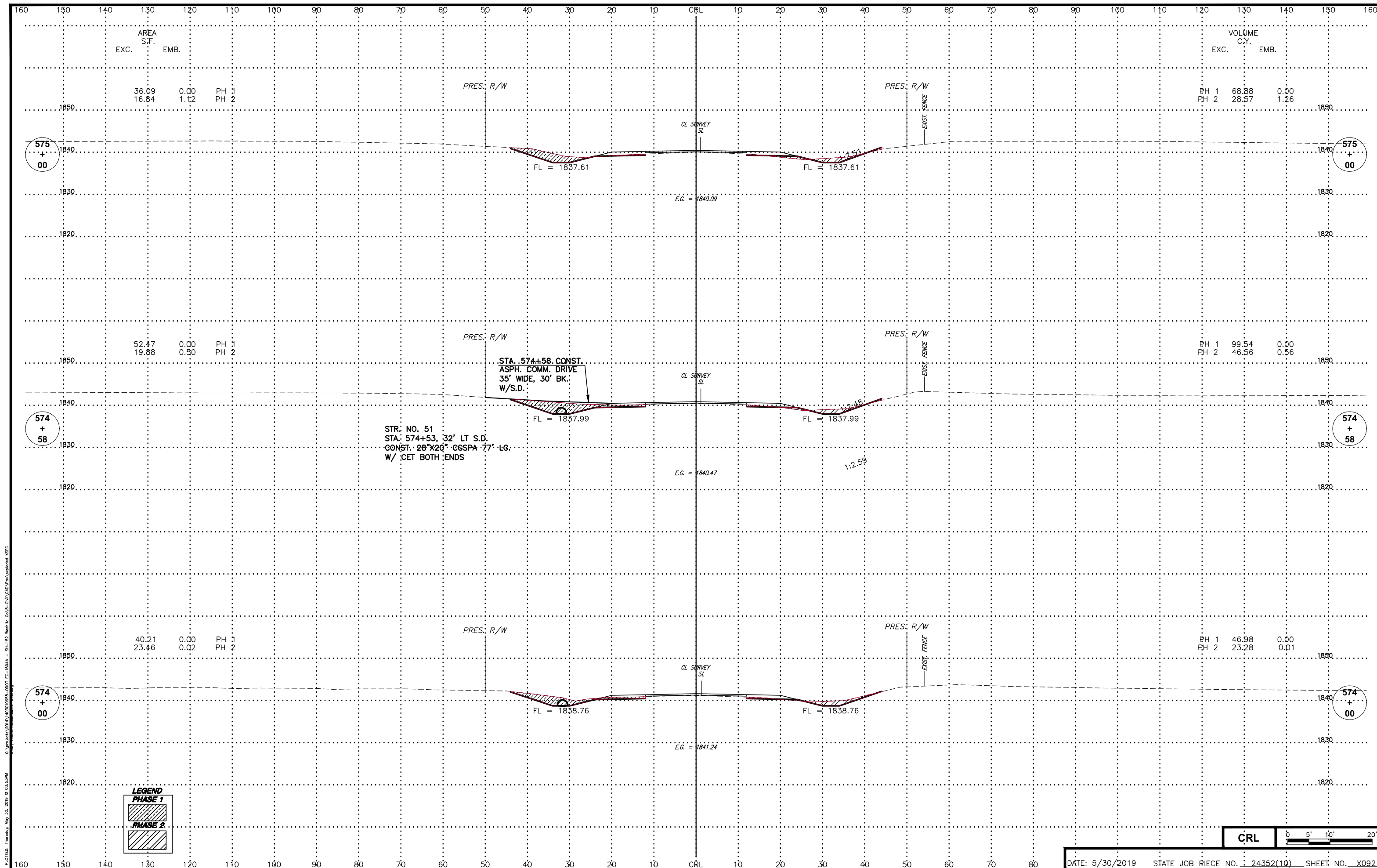
PHASE 1

PHASE 2

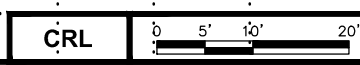
CRL

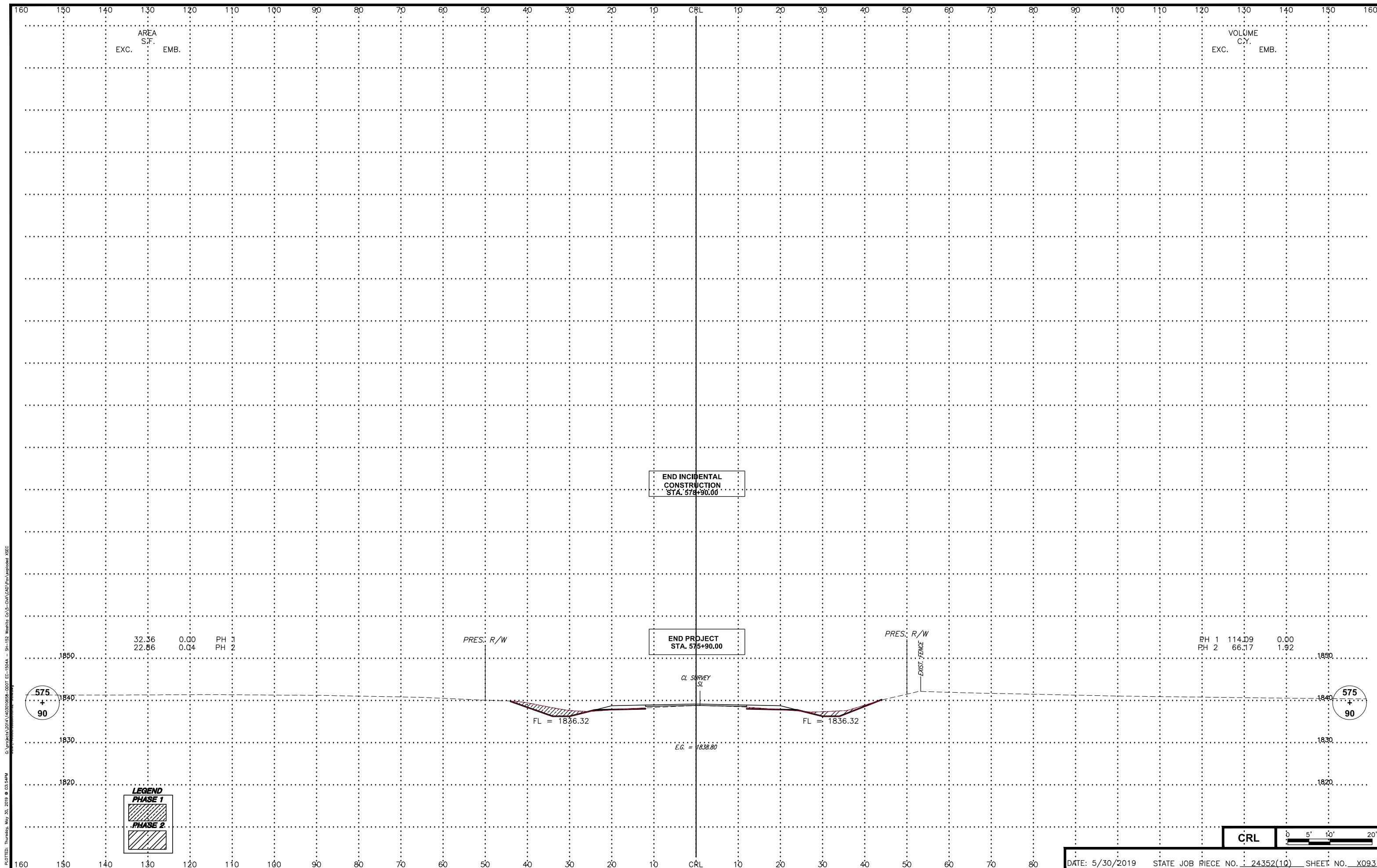
0 5' 10' 20'

C:\projects\2014\403010658-0007 EC-1504A - SH-152 Washita Co LE-Civil\DWG\Plan\Asmbls\XSEC
 PLOTTED: Thursday, May 30, 2019 @ 03:53PM



C:\projects\2014\1403010658-0007 EC-1504A - SH-152 Washita CO LE-Civil-CAD\Drawings\XSEC
 PLOTTED: Thursday, May 30, 2019 @ 03:53PM





AREA
S.F.
EXC. EMB.

VOLUME
C.Y.
EXC. EMB.

32.36	0.00	PH 1
22.86	0.04	PH 2

RH 1	114.09	0.00
RH 2	66.17	1.92

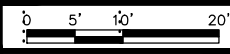
END INCIDENTAL
CONSTRUCTION
STA. 578+90.00

END PROJECT
STA. 575+90.00

LEGEND

PHASE 1

PHASE 2



C:\projects\2014\1403010658-0007 EC-1504A - SH-152 Washita CO LE-CIV-CAD\Drawings\Roads XSEC
 PLOTTED: Thursday, May 30, 2019 @ 03:54 PM