HNTB Corporation
Infrastructure Solutions

715 Kirk Dr
Kansas City, Missouri 64105

Telephone (816) 472-1201
Facsimile (816) 472-4060
www.hntb.com

MEMO

To
CHBP Grant Review

From
HNTB

Cc
ODOT

Subject
Kay County CHBP I-35 Plan Set and Cost Estimate

Date
November 27, 2018

Attached are preliminary 90% design plans and cost estimates for consideration in the Kay County CHBP Grant Application for the I-35 Bridge Raises for JP2443215. Please note the following items as you review:

- These plans are preliminary and not for construction. These plans are 90% complete and have been submitted for the Final Plan Field Review Meeting scheduled for December 6, 2018. 100% Plans, Specs, and Estimates are due in December 2018.

- Plans and cost estimates have been provided for JP 22432(15) – I-35 Bridge Raisings, which includes eight bridge locations (Indian, Adobe, Ferguson, Chrysler, Coleman, Hartford, Highland, North) over I-35 in Kay County, Oklahoma. Also included are the plans and costs for one additional bridge location, the removal/demolition of Home Road over I-35.

- As part of the Field Assessment and corresponding memo dated 5-25-2017, it was recommended that Home Road be removed from service as it was not a good candidate for a raise considering the condition of the existing structure. This removal was subsequently approved by ODOT and later approved by the Kay County commission.

- The removal/demolition of Home Road bridge has been excluded from the Grant application.

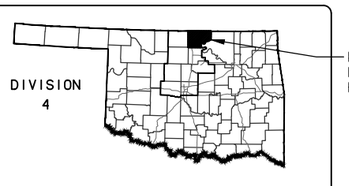
SURVEY CONTROL DATA

HORIZONTAL DATUM:
OKLAHOMA NORTH ZONE (3501) NAD 83. BEARINGS ARE BASED ON STATE PLANE GRID, AND ARE NOT ASTRONOMIC.

VERTICAL DATUM:
NAVD 1988

DESIGN DATA
COUNTY ROADS

AADT	2017	= 100
AADT	2037	= 181
V		= VARIES



LOCATION MAP

SCALES 1"

PLAN 1" = 50'

PROFILE HOR. 1" = 50'

VER. 1" = 5'

LAYOUT MAP 1" = 2 MILE

CONVENTIONAL SYMBOLS

- PROPOSED ROAD
- RAILROADS
- RANGE & TOWNSHIP
- SECTION LINES
- QUARTER SECTION LINES
- FENCES
- GROUND LINE
- EXISTING ROADS
- BASE LINE
- GRADE LINES
- TELEPHONE & TELEGRAPH
- POWER LINES
- BUILDINGS
- OILWELL
- DRAINAGE STRUCTURES - IN PLACE
- DRAINAGE STRUCTURES - NEW
- PRES. R/W — RIGHT-OF-WAY LINES - EXISTING
- R/W — RIGHT-OF-WAY LINES - NEW
- CONTROLLED ACCESS
- MAILBOX
- EXISTING CENTERLINE
- SS — EXISTING SANITARY SEWERS
- G — EXISTING GAS LINES
- W — EXISTING WATER LINES
- TUG — EXISTING TELEPHONE CABLES UNDERGROUND

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

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED

STATE BRIDGE

FEDERAL AID PROJECT NO. J2-4432(015)SS

GRADE, DRAIN, SURFACE AND BRIDGE PLANS FOR

I-35 BRIDGE RAISINGS

KAY COUNTY

I-35 CONTROL SECTION NO 35-36-25

STATE JOB NO. 24432(15)

INDIAN ROAD
BRIDGE "J" 78+08.91 TO 79+80.41 (171.50')
NBI NO. 14155, LOCATION NO. 3625 2605X
STA 73+50.00 TO STA 78+08.91
STA 79+80.41 TO STA 84+50.00

HOME ROAD
BRIDGE "H"
NBI NO. 14154, LOCATION NO. 3625 2505X
(DEMOLISH EXISTING BRIDGE/REGRADE DITCHES I-35 STA 817+00.00 TO 823+00.00)

ADOBE ROAD
BRIDGE "G" 86+42.94 TO 88+19.44 (176.50')
NBI NO. 15149, LOCATION NO. 3625 1601X
STA 81+60.00 TO STA 86+42.94
STA 88+19.44 TO STA 93+20.00

FERGUSON AVE
BRIDGE "F" 81+32.28 TO 83+03.78 (171.50')
NBI NO. 15147, LOCATION NO. 3625 1399X
STA 74+05.00 TO STA 81+32.28
STA 83+03.78 TO STA 89+10.00

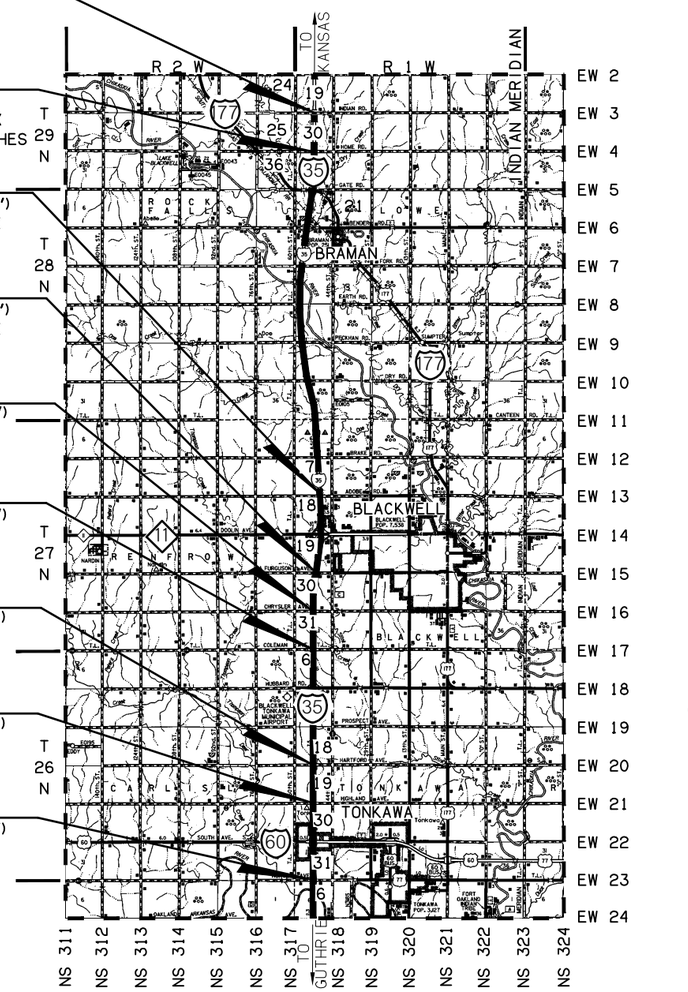
CHRYSLER AVE
BRIDGE "E" 77+16.78 TO 78+88.28 (171.50')
NBI NO. 15146, LOCATION NO. 3625 1299X
STA 72+25.00 TO STA 77+16.78
STA 78+88.28 TO STA 84+50.00

COLEMAN ROAD
BRIDGE "D" 77+21.86 TO 78+93.36 (171.50')
NBI NO. 15145, LOCATION NO. 3625 1199X
STA 71+60.00 TO STA 77+21.86
STA 78+93.36 TO STA 84+50.00

HARTFORD AVE.
BRIDGE "C" 24+56.51 TO 26+28.01 (171.50')
NBI NO. 14437, LOCATION NO. 3625 0900X
STA 19+00.00 TO STA 24+56.51
STA 26+28.01 TO STA 32+00.00

HIGHLAND AVE.
BRIDGE "B" 24+52.80 TO 26+24.30 (171.50')
NBI NO. 14435, LOCATION NO. 3625 0799X
STA 19+25.00 TO STA 24+52.80
STA 26+24.30 TO STA 32+00.00

NORTH AVE.
BRIDGE "A" 24+53.17 TO 26+24.67 (171.50')
NBI NO. 14429, LOCATION NO. 3625 0599X
STA 18+40.00 TO STA 24+53.17
STA 26+24.67 TO STA 32+00.00



ROADWAY LENGTH	8,838.00 FT.	1.673 MI.
BRIDGE LENGTH	1,377.00 FT.	0.260 MI.
PROJECT LENGTH		1.933 MI.

EQUATION: SEE PLAN AND PROFILE SHEETS

EXCEPTIONS: NONE

INDEX OF SHEETS

THE FOLLOWING ODOT STANDARD DRAWINGS ARE REQUIRED

ROADWAY	TRAFFIC			
SSS-1-1	TCS1-1-01	TCS9-1-01	TCS19-1-01	WSD2-1-00
TSC2-3-2	TCS2-1-00	TCS10-1-00	TCS20-1-00	WSD3-1-00
TSD-2-0	TCS3-1-01	TCS11-1-01	THRI-1-02	DU1-1-00
PCES-4-1	TCS4-1-01	TCS13-1-00	SKT-1-00	DU2-1-00
RWF2-2-1	TCS5-1-00	TCS14-1-00	GHW1-1-00	SBS2-1-00
TFL-1-1	TCS6-1-02	TCS15-1-00	GHW2-1-00	GMS1-1-00
LECS-4	TCS7-1-02	TCS17-1-00	RSD1-1-00	SSP1-1-02
	TCS8-1-00	TCS18-1-01	WSD1-1-00	SSA1-1-02

REVISIONS

DESCRIPTION	DATE

SUBMITTED BY

GUY ENGINEERING

Certificate of Authorization No. 1427
Renewal Date: June 30, 2020

JOHN R. WORMAN, P.E. NO. 15497
(THIS SEAL COVERS ALL SHEETS EXCEPT AB01-AB02, B001-B027)

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

SUBMITTED BY

HNTB

Certificate of Authorization No. 1893
Renewal Date: JUNE 30, 2019

JESSE D. KUHLEN, P.E. NO. 28383
(THIS SEAL COVERS SHEETS AB01-AB02, B001-B027)

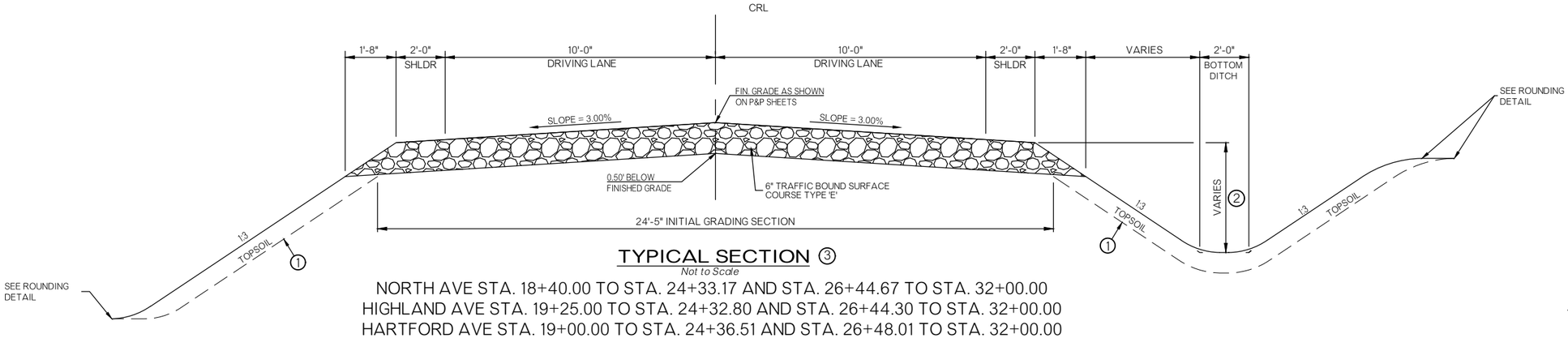
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT

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

JOB 24432(15) PROJECT NO. J2-4432(015)SS

COUNTY KAY HIGHWAY/ROAD I-35 BRIDGES SHEET NO. 0001

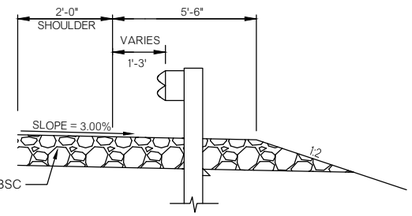
Wednesday, October 24, 2018 2:22:40 PM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-COVER.dwg



TYPICAL SECTION ③

Not to Scale

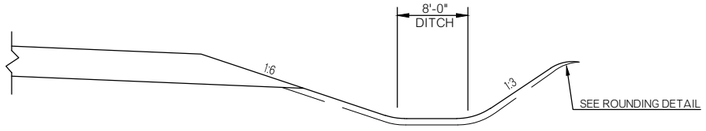
NORTH AVE STA. 18+40.00 TO STA. 24+33.17 AND STA. 26+44.67 TO STA. 32+00.00
HIGHLAND AVE STA. 19+25.00 TO STA. 24+32.80 AND STA. 26+44.30 TO STA. 32+00.00
HARTFORD AVE STA. 19+00.00 TO STA. 24+36.51 AND STA. 26+48.01 TO STA. 32+00.00
COLEMAN RD STA. 71+60.00 TO STA. 77+01.86 AND STA. 79+13.36 TO STA. 84+50.00
CHRYSLER AVE STA. 72+25.00 TO STA. 76+96.78 AND STA. 79+08.28 TO STA. 84+50.00
FERGUSON AVE STA. 74+05.00 TO STA. 81+12.28 AND STA. 83+23.78 TO STA. 89+10.00
ADOBE RD STA. 81+60.00 TO STA. 86+22.94 AND STA. 88+39.44 TO STA. 93+20.00
INDIAN RD STA. 73+50.00 TO STA. 77+88.91 AND STA. 80+00.41 TO STA. 84+50.00



GUARDRAIL WIDENING ③

Not To Scale

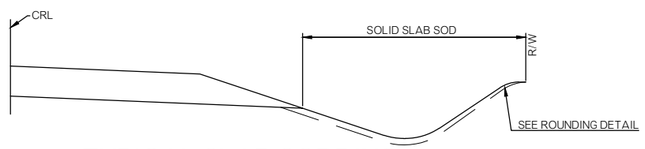
NORTH AVE STA. 23+41.90 TO STA. 24+33.17
NORTH AVE STA. 26+44.67 TO STA. 27+35.94
HIGHLAND AVE STA. 23+41.53 TO STA. 24+32.80
HIGHLAND AVE STA. 26+44.30 TO STA. 27+35.57 RT
HIGHLAND AVE STA. 26+44.30 TO STA. 28+48.07 LT
HARTFORD AVE STA. 23+45.24 TO STA. 24+36.51
HARTFORD AVE STA. 26+48.01 TO STA. 27+39.28
COLEMAN RD STA. 76+10.59 TO STA. 77+01.86
COLEMAN RD STA. 79+13.36 TO STA. 80+04.63
CHRYSLER AVE STA. 76+05.51 TO STA. 76+96.78
CHRYSLER AVE STA. 79+08.28 TO STA. 79+99.55 LT
CHRYSLER AVE STA. 79+08.28 TO STA 80+49.55 RT
FERGUSON AVE STA. 76+71.01 TO STA. 81+12.28 RT
FERGUSON AVE STA. 76+96.01 TO STA. 81+12.28 LT
FERGUSON AVE STA. 83+23.78 TO STA. 86+77.55
ADOBE RD STA. 85+31.67 TO STA. 86+22.94 RT
ADOBE RD STA. 84+69.17 TO STA. 86+22.94 LT
ADOBE RD STA. 88+39.44 TO STA. 89+30.71 RT
ADOBE RD STA. 88+39.44 TO STA. 89+93.21 LT
INDIAN RD STA. 76+78.89 TO STA. 77+88.91 RT
INDIAN RD STA. 76+16.39 TO STA. 77+88.91 LT
INDIAN RD STA. 80+00.41 TO STA. 81+97.93 RT
INDIAN RD STA. 80+00.41 TO STA. 82+35.43 LT



I-35 DITCH GRADING AT HOME ROAD

Not To Scale

I-35 STA. 817+00.00 TO STA. 823+00.00 LT
I-35 STA. 818+50.00 TO STA. 822+00.00 RT



TYPICAL SLAB SODDING

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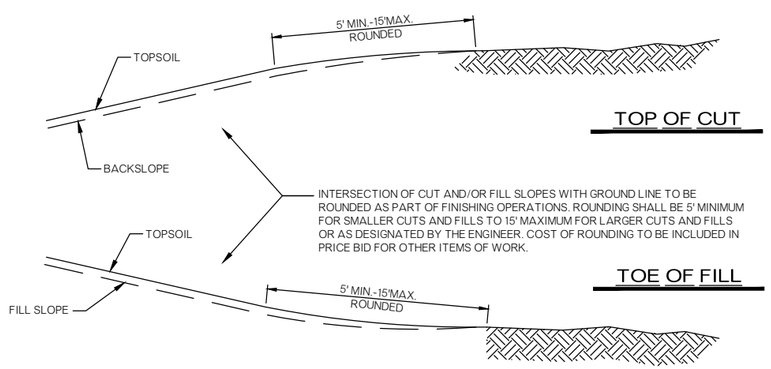
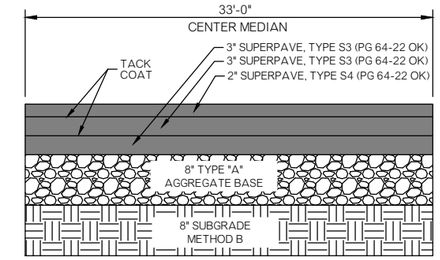


ROUNDING DETAIL

Not To Scale

REVISIONS	
DESCRIPTION	DATE



I-35 CROSSOVER S. OF INDIAN ROAD

Not To Scale

I-35 STA. 858+85.26 TO STA. 859+85.26

① TOPSOIL NOTE:
THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL, STOCKPILE IT, AND PLACE IT BACK ON THE SECTION IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATIONS. RESERVED TOPSOIL SHALL BE SPREAD FIRST ON THE COMPLETED SLOPES OF THE CUT SECTIONS AND THE REMAINDER ON COMPLETED FILL SLOPES OR OTHER PRIORITY AREAS LOCATED BY THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH OPERATION SHALL BE INCLUDED IN THE PAY ITEM FOR SALVAGED TOPSOIL, LUMP SUM.

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

② DISTANCE MEASURED VERTICALLY FROM EDGE OF FINISHED GRADE SHOULDER.

③ EXCEPTIONS:
NORTH AVE STA. 18+40.00 TO STA. 19+40.00 TRANSITION FROM EX. PAV'T. TO TYP.
NORTH AVE STA. 22+64.90 TO STA. 23+41.90 TRANSITION FROM TYP. TO GUARDRAIL WIDENING
NORTH AVE STA. 27+35.94 TO STA. 28+12.94 TRANSITION FROM GUARDRAIL WIDENING TO TYP.
NORTH AVE STA. 31+00.00 TO STA. 32+00.00 TRANSITION FROM TYP. TO EX. PAVT.

HIGHLAND AVE STA. 19+25.00 TO STA. 20+25.00 TRANSITION FROM EX. PAV'T. TO TYP.
HIGHLAND AVE STA. 22+64.53 TO STA. 23+41.53 TRANSITION FROM TYP. TO GUARDRAIL WIDENING
HIGHLAND AVE STA. 27+35.57 TO STA. 28+12.57 TRANSITION FROM GUARDRAIL WIDENING TO TYP. RT
HIGHLAND AVE STA. 28+48.07 TO STA. 29+25.07 TRANSITION FROM GUARDRAIL WIDENING TO TYP. LT
HIGHLAND AVE STA. 31+00.00 TO STA. 32+00.00 TRANSITION FROM TYP. TO EX. PAVT.

W HARTFORD AVE STA. 19+00.00 TO STA. 20+00.00 TRANSITION FROM EX. PAV'T. TO TYP.
W HARTFORD AVE STA. 22+68.24 TO STA. 23+45.24 TRANSITION FROM TYP. TO GUARDRAIL WIDENING
W HARTFORD AVE STA. 27+39.28 TO STA. 28+16.28 TRANSITION FROM GUARDRAIL WIDENING TO TYP.
W HARTFORD AVE STA. 31+00.00 TO STA. 32+00.00 TRANSITION FROM TYP. TO EX. PAVT.

COLEMAN RD STA. 71+60.00 TO STA. 72+60.00 TRANSITION FROM EX. PAV'T. TO TYP.
COLEMAN RD STA. 75+33.59 TO STA. 76+10.59 TRANSITION FROM TYP. TO GUARDRAIL WIDENING
COLEMAN RD STA. 80+04.63 TO STA. 80+81.63 TRANSITION FROM GUARDRAIL WIDENING TO TYP.
COLEMAN RD STA. 83+50.00 TO STA. 84+50.00 TRANSITION FROM TYP. TO EX. PAVT.

CHRYSLER AVE STA. 72+25.00 TO STA. 73+25.00 TRANSITION FROM EX. PAV'T. TO TYP.
CHRYSLER AVE STA. 75+28.51 TO STA. 76+05.51 TRANSITION FROM TYP. TO GUARDRAIL WIDENING
CHRYSLER AVE STA. 79+99.55 TO STA. 80+76.55 TRANSITION FROM GUARDRAIL WIDENING TO TYP. LT
CHRYSLER AVE STA. 80+49.55 TO STA. 81+26.55 TRANSITION FROM GUARDRAIL WIDENING TO TYP. RT
CHRYSLER AVE STA. 83+50.00 TO STA. 84+50.00 TRANSITION FROM TYP. TO EX. PAVT.

FERGUSON AVE STA. 74+05.00 TO STA. 74+55.00 TRANSITION FROM EX. PAV'T. TO TYP. RT.
FERGUSON AVE STA. 75+94.01 TO STA. 76+71.01 TRANSITION FROM TYP. TO GUARDRAIL WIDENING RT
FERGUSON AVE STA. 76+19.01 TO STA. 76+96.01 TRANSITION FROM TYP. TO GUARDRAIL WIDENING LT
FERGUSON AVE STA. 86+77.55 TO STA. 87+54.55 TRANSITION FROM GUARDRAIL WIDENING TO TYP.
FERGUSON AVE STA. 88+10.00 TO STA. 89+10.00 TRANSITION FROM TYP. TO EX. PAVT.

ADOBE RD STA. 81+60.00 TO STA. 82+60.00 TRANSITION FROM EX. PAV'T. TO TYP.
ADOBE RD STA. 84+54.67 TO STA. 85+31.67 TRANSITION FROM TYP. TO GUARDRAIL WIDENING RT
ADOBE RD STA. 83+92.17 TO STA. 84+69.17 TRANSITION FROM TYP. TO GUARDRAIL WIDENING LT
ADOBE RD STA. 89+30.71 TO STA. 90+07.71 TRANSITION FROM GUARDRAIL WIDENING TO TYP. RT
ADOBE RD STA. 89+93.21 TO STA. 90+70.21 TRANSITION FROM GUARDRAIL WIDENING TO TYP. LT
ADOBE RD STA. 92+20.00 TO STA. 93+20.00 TRANSITION FROM TYP. TO EX. PAVT.

INDIAN RD STA. 73+50.00 TO STA. 74+50.00 TRANSITION FROM EX. PAV'T. TO TYP.
INDIAN RD STA. 76+01.89 TO STA. 76+78.89 TRANSITION FROM TYP. TO GUARDRAIL WIDENING RT
INDIAN RD STA. 75+39.39 TO STA. 76+16.39 TRANSITION FROM TYP. TO GUARDRAIL WIDENING LT
INDIAN RD STA. 81+97.93 TO STA. 82+74.93 TRANSITION FROM GUARDRAIL WIDENING TO TYP. RT
INDIAN RD STA. 82+35.43 TO STA. 83+12.43 TRANSITION FROM GUARDRAIL WIDENING TO TYP. LT
INDIAN RD STA. 83+50.00 TO STA. 84+50.00 TRANSITION FROM TYP. TO EX. PAVT.

DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

TYPICAL SECTIONS

COUNTY KAY STATE JOB NO. 24432(15) SHEET NO. 0002

I-35 BRIDGE RAISINGS

Friday, October 26, 2018 3:51:28 PM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-TYPICAL SECTION.dwg

GENERAL NOTES

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

DESCRIPTION OF WORK:
THE PRIMARY WORK TO BE PERFORMED AT COUNTY ROAD BRIDGES "A" THROUGH "G" AND "J" OVER I-35 CONSISTS OF THE FOLLOWING:

1. INSTALL TRAFFIC CONTROL ON I-35.
2. INSTALL FALSEWORK ON SUBSTRUCTURE ELEMENTS.
3. INSTALL DETOUR ROUTE AND CLOSE COUNTY BRIDGE. INSTALL DECK CONTAINMENT SYSTEM.
4. RAISE BRIDGE. SEE RECOMMENDED BRIDGE RAISE SEQUENCE NOTES.
5. INSTALL FILTER FABRIC AND CLSM BACKFILL BEHIND ABUTMENTS.
6. APPLY SPECIAL CONCRETE FINISH TO PREPARED SURFACES.
7. REPLACE SLOPEWALLS AND SLOPEDRAINS AS NOTED IN THE PLANS. CONSTRUCT NEW APPROACH SLABS AND BARRIER RAIL.
8. REGRADE COUNTY ROAD APPROACHES.
9. APPLY FLOOD COAT TO BRIDGE DECK.

THE PRIMARY WORK TO BE PERFORMED AT HOME ROAD BRIDGE "H" CONSISTS OF THE FOLLOWING:

1. INSTALL TRAFFIC CONTROL ON I-35.
2. CLOSE HOME ROAD.
3. REMOVE HOME ROAD BRIDGE USING ONE OF THE DEMOLITION OPTIONS PROVIDED IN THE PLANS.

SEE TRAFFIC CONTROL PLANS FOR MAINTENANCE OF TRAFFIC ALONG I-35 DURING THE BRIDGE RAISES AND DEMOLITION. BID ALTERNATES FOR TRAFFIC CONTROL HAVE BEEN INCLUDED.

MATERIAL NOTES:
1. STRUCTURAL STEEL FOR BOLSTERS AND FALSEWORK SHALL BE AASHTO M270 GR 50, Fy=50 KSI. CONCRETE-FILLED STEEL BOLSTERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123. GALVANIZE BOLSTERS AFTER FABRICATION.
2. CONCRETE FOR BOLSTERS, SLOPEWALLS AND SLOPEDRAINS SHALL BE CLASS C, F'c=3.0 KSI. CONCRETE FOR CURB, RAIL AND APPROACH SLABS SHALL BE CLASS AA, F'c=4 KSI.
3. REINFORCING STEEL SHALL BE GRADE 60, Fy=60 KSI AND SHALL MEET THE REQUIREMENTS OF AASHTO M31.
4. WELDING SHALL BE IN CONFORMANCE WITH AWS D1.5.

VERIFICATION OF EXISTING CONDITIONS:
THE EXISTING BRIDGES, APPROACHES AND UNDERPASS WERE ORIGINALLY CONSTRUCTED UNDER OKLAHOMA DEPARTMENT OF TRANSPORTATION (ODOT) FEDERAL AID PROJECT NOS. 1-456 (32) FOR BRIDGES "A" - "C", 1-456 (6) FOR BRIDGES "D" - "G", AND 1-456 (3) FOR BRIDGES "H" AND "J". ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION. A CONDITION SURVEY SHALL BE PERFORMED WITH THE ENGINEER AT EACH BRIDGE LOCATION. THE PURPOSE OFTHIS WILL BE TO IDENTIFY THE EXISTING CONDITIONS PRIOR TO THE BRIDGE RAISE.
THE BIDDERS AND CONTRACTOR ARE RESPONSIBLE FOR FULLY UNDERSTANDING THE NATURE OF THE WORK AND THE CONDITIONS UNDER WHICH THE WORK WILL BE PERFORMED. THE CONTRACTOR SHALL ADOPT METHODS CONSISTENT WITH GOOD CONSTRUCTION PRACTICE AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGING THE EXISTING BRIDGES AND I-35 UNDERPASSES BELOW. ANY DAMAGE TO THE EXISTING BRIDGES OR UNDERPASSES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER.
FIELD VERIFY SUBSTRUCTURE DIMENSIONS AT ALL BRIDGE LOCATIONS AND INSPECT STEEL BEARING PLATES AT BRIDGE "J" PRIOR TO FABRICATION OF BOLSTERS.

SURVEYING AND CONSTRUCTION STAKING:
THE CONTRACTOR WILL BE REQUIRED TO CONDUCT ALL SURVEYING AND CONSTRUCTION STAKING NECESSARY FOR COMPLETION OF THE PROJECT OR AS DIRECTED BY THE ENGINEER. THE SURVEYING AND CONSTRUCTION STAKING REQUIRED FOR THE COMPLETION OF THE PROJECT INCLUDES, BUT MAY NOT BE LIMITED TO THE FOLLOWING:

1. ESTABLISHING HORIZONTAL CONTROL INCLUDING THE STAKING OF CENTERLINE BRIDGE AND APPROACH ROADWAY AND ASSIGNING STATIONING AS DIRECTED BY THE ENGINEER.
2. ESTABLISHING VERTICAL CONTROL.
3. MEASURING THE ELEVATIONS ALONG THE TOP OF THE EXISTING BRIDGE DECK SLAB AT CENTERLINE ON COUNTY ROADS AND AT THE TOP OF EXISTING ABUTMENT AND PIER CAPBEAMS.
4. MEASURING THE ELEVATIONS ALONG EXISTING I-35 ROADWAY AT CENTERLINE, EDGES OF DRIVING LANES AND EDGES OF SHOULDERS.
5. MEASURING AND SETTING CONSTRUCTION STAKES AS NECESSARY FOR CONDUCTING THE GRADING AND SURFACING WORK ON THE APPROACH ROADWAYS.

THE CONTRACTOR SHALL CALCULATE THE FINISH GRADE PROFILE ELEVATIONS. THE CALCULATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO THE BRIDGE RAISE. BRIDGE RAISING OPERATION(S) AND BOLSTER FABRICATION SHALL NOT COMMENCE PRIOR TO RECEIVING APPROVAL FROM THE ENGINEER.

BRIDGE "H" GENERAL DEMOLITION NOTES:
1. CONTRACTOR SHALL BE RESPONSILBLE FOR PREVENTING ANY DEBRIS FROM FALLING ON THE ROADWAY WHILE TRAFFIC ON I-35 IS UNRESTRICTED.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE FALSEWORK TOWER DESIGN AND STABILITY THROUGHOUT DEMOLITION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CRANE RIGGING, STABILITY OF THE CRANE AND STABILITY OF THE PICK DURING DEMOLITION.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE CONCRETE SEGMENTS BEING REMOVED.
5. MAXIMUM FALSEWORK TOWER REACTIONS INCLUDE A DEAD LOAD FACTOR OF 1.25.

BRIDGE "H" GENERAL DEMOLITION NOTES: "CONTINUED"
6. FALSEWORK TOWER LOCATIONS WERE ASSUMED AS SHOWN IN THE PLANS. ACTUAL FALSEWORK TOWER LOCATIONS, REACTIONS AND DESIGN ARE THE RESPONSIBILITY OF THE CONTRACTOR. IF ACTUAL FALSEWORK TOWER LOCATIONS IN THE LONGITUDINAL DIRECTION OF THE BRIDGE VARY FROM WHAT IS SHOWN, THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE REVISED FALSEWORK TOWER REACTIONS AND THE BRIDGE STABILITY DURING REMOVAL. SEE NOTE "FALSEWORK AND JACKING" ON THIS SHEET FOR DESIGN REQUIRMENTS.
7. THE BRIDGE HAS NOT BEEN CHECKED FOR ANY CRANE LOADING OR OTHER EQUIPMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY EQUIPMENT ON THE BRIDGE. NO MATERIAL WILL BE ALLOWED TO BE STORED ON THE BRIDGE DURING DEMOLITION.

REMOVAL OF BRIDGE ITEMS:
THE PAY ITEM "REMOVAL OF BRIDGE ITEMS SHALL INCLUDE THE REMOVAL AND DISPOSAL OF THE FOLLOWING ITEMS FROM THE EXISTING BRIDGES:

1. EXISTING NEOPRENE BEARING PADS
2. EXISTING SLOPEWALLS AND SLOPEDRAINS

WHEN MAKING REMOVALS ON THE EXISTING BRIDGES, THE CONTRACTOR SHALL TAKE EVERY PRECAUTION NECESSARY TO PREVENT DAMAGING THE REMAINING COMPONENTS OR ANY NEW CONSTRUCTION ATTACHED TO THE BRIDGES. ANY COMPONENT OF THE EXISTING BRIDGES OR NEW CONSTRUCTION ATTACHED TO THE BRIDGES DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED OR COMPLETELY REPLACED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER. THE ENGINEER WILL DETERMINE IF THE COMPONENT CAN BE SATISFACTORILY REPAIRED OR IF THE COMPONENT SHALL BE COMPLETELY REPLACED.
SEE "REMOVAL OF UNSOUND CONCRETE" NOTES ON THIS SHEET FOR REMOVAL OF EXISTING CURBS AND RAILS.
ALL COSTS NECESSARY TO COMPLETE THE WORK AS SPECIFIED OR AS SHOWN IN THE PLANS INCLUDING THE COST OF SAWING, CUTTING, GRINDING, DEMOLITION, CONTAINMENT AND REMOVAL OF DEBRIS, MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LUMP SUM OF "REMOVAL OF BRIDGE ITEMS."

CONTAINMENT OF FALLING OBJECTS:
AT ALL TIMES DURING THE PROJECT, THE CONTRACTOR SHALL PROTECT TRAFFIC AND THE DRIVING LANES AND SHOULDERS ON THE UNDERPASSES BELOW THE BRIDGE FROM ANY AND ALL FALLING OBJECTS INCLUDING REMOVED MATERIAL, NEW MATERIAL, EQUIPMENT, TOOLS AND DEBRIS. ALL COSTS TO PROTECT THE UNDERPASSES BELOW THE BRIDGE INCLUDING THE COST OF ALL PROTECTIVE MEASURES AND/OR CONTAINMENT STRUCTURES, MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

FALSEWORK AND JACKING:
A DESIGN AND PLAN FOR ALL FALSEWORK AND JACKING USED ON THE PROJECT SHALL BE SUBMITTED TO THE BRIDGE ENGINEER OF THE OKLAHOMA DEPARTMENT OF TRANSPORTATION. THE DESIGN AND PLAN SHALL INCLUDE LAYOUTS, DETAILS AND STRUCTURAL CALCULATIONS FOR ALL FALSEWORK AND JACKING. ALL FALSEWORK SHALL BE DESIGNED USING A MINIMUM LOAD FACTOR OF 1.25 * DEAD LOAD. BRIDGE RAISE FALSEWORK INCLUDES BUT IS NOT LIMITED TO: HYDRAULIC JACKS, TRANSFER BEAM, BRACKETS, ADHESIVE ANCHOR BOLTS, AND THROUGH BOLTS. BRIDGE DEMOLITION FALSEWORK INCLUDES, BUT IS NOT LIMITED TO, TEMPORARY FALSEWORK TOWERS.THE SUBMITTED DESIGNS AND PLANS SHALL BE DESIGNED, SIGNED AND SEALED BY AN OKLAHOMA LICENSED ENGINEER.
THE PLAN AND STRUCTURAL CALCULATIONS SHALL BE PREPARED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, OR THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, AND/OR THE AASHTO BRIDGE TEMPORARY WORKS SPECIFICATION AND SECTION 502 OF THE STANDARD SPECIFICATIONS.
NO INSTALLATION OF FALSEWORK OR JACKING SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED APPROVAL OF THE SUBMITTED PLAN FROM THE BRIDGE ENGINEER. ALL COSTS TO DEVELOP THE DESIGNS AND PLANS FOR THE FALSEWORK AND JACKING INCLUDING THE COST OF ALL PROFESSIONAL SERVICES SHALL BE INCLUDED IN THE PRICE BID PER LUMP SUM OF "FALSEWORK AND JACKING."
FOR THE BRIDGE RAISINGS, THE BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE HAS BEEN CHECKED BASED ON THE JACKING LOCATIONS PROVIDED. FOR THESE CALCULATIONS, ASSUMED EXISTING CONCRETE STRENGTH F'c = 2.5 KSI AND REINFORCING STEEL STRENGTH Fy = 40 KSI. IF DIFFERENT LOCATIONS OR NUMBER OF JACKS ARE USED, THE CONTRACTOR SHALL PROVIDE THE LAYOUT, DETAILS, AND STRUCTURAL CALCULATIONS DESIGNED, SIGNED AND SEALED BY AN OKLAHOMA LICENSED ENGINEER.
THE CONTRACTOR SHALL SUBMIT THE PROPOSED BRIDGE RAISE SEQUENCE TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION OF FALSEWORK.

BRIDGE "A" THROUGH "G" PERMANENT BOLSTERS:
THE EXISTING NEOPRENE BEARING PADS SHALL BE REMOVED AFTER LIFT-OFF. ABUTMENT AND PIER BEARING SURFACES SHALL BE CLEANED WITH A WIRE BRUSH AND ALL LOOSE DEBRIS SHALL BE REMOVED. IF ANY PROTRUSIONS EXIST, THEY SHALL BE GROUND SMOOTH. RECESSES OR SPALLS LARGER THAN 4" DIAMETER MAY NEED TO BE REPAIRED BY A HIGH EARLY STRENGTH GROUT AS APPROVED BY THE ENGINEER. THE EXISTING NEOPRENE BEARING PADS SHALL BE REPLACED WITH PERMANENT BOLSTER WITH NEW NEOPRENE BEARING PADS AFFIXED TO THE BOLSTERS PRIOR TO INSTALLATION. SEE PERMANENT BOLSTER TYPE 1 DETAILS FOR MORE INFORMATION.
PERMANENT BOLSTERS HAVE BEEN DESIGNED TO RESIST SEISMIC LATERIAL FORCES OF 25% OF THE DEAD LOAD.

BRIDGE "J" PERMANENT BOLSTERS:
PRIOR TO BEGINNING FALSEWORK INSTALLATION, THE STEEL BEARING PADS SHALL BE VISUALLY INSPECTED TO DETERMINE IF SECTION LOSS HAS OCCURRED. IF STEEL BEARING PLATES EXHIBIT SECTION LOSS, NOTIFY THE ENGINEER.
THE PERMANENT BOLSTER SHALL BE INSTALLED ACCORDING TO TYPE 2 DETAILS. THE STEEL BEARING PLATES SHALL BE CLEANED WITH A WIRE BRUSH AND ALL LOOSE DEBRIS REMOVED AFTER LIFT-OFF.
PERMANENT BOLSTERS HAVE BEEN DESIGNED TO RESIST SEISMIC LATERIAL FORCES OF 25% OF THE DEAD LOAD.

ANCHORAGE INTO EXISTING CONCRETE:
DRILLING INTO THE EXISTING CONCRETE TO INSTALL NEW REINFORCING AND FALSEWORK SHALL BE ACCOMPLISHED WITHOUT CUTTING ANY EXISTING REINFORCING STEEL BARS IN THE EXISTING CONCRETE. PRIOR TO DRILLING, THE CONTRACTOR SHALL LOCATE AND MARK THE EXISTING REINFORCING STEEL BARS WITH NONDESTRUCTIVE TOOLS, EQUIPMENT AND METHODS APPROVED BY THE ENGINEER. IF ANY EXISTING REINFORCING STEEL BARS ARE ENCOUNTERED DURING DRILLING, THE DRILLING SHALL CEASE AND THE ENGINEER SHALL BE NOTIFIED. UPON APPROVAL BY THE ENGINEER, PROCEED WITH DRILLING THE HOLE OR RELOCATING THE HOLE TO CLEAR THE REINFORCEMENT. NEW REINFORCING SHALL BE ANCHORED INTO EXISTING CONCRETE PER SECTION 509.04D.3.
ALL COSTS TO ANCHOR THE NEW REINFORCING AND FALSEWORK INTO THE EXISTING CONCRETE OF THE BRIDGE AS SHOWN IN THE PLANS INCLUDING THE COST OF LOCATING THE EXISTING CONCRETE REINFORCING STEEL BARS, DRILLING, REPAIRING DRILL HOLES, EPOXY ADHESIVE, MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER SY OF "(PL) REPAIR BRIDGE ITEMS" AND PER LUMP SUM OF "FALSEWORK AND JACKING."

APPROACH SLABS:
APPROACH SLAB CONSTRUCTION SHALL CONFORM TO SECTION 504. CLASS AA CONCRETE SHALL BE USED IN THE APPROACH SLABS.

SLOPEWALLS AND SLOPEDRAINS:
THE EXISTING SLOPEWALLS AND SLOPEDRAINS SHALL BE REMOVED AND REPLACED WITH NEW SLOPEWALLS AND SLOPEDRAINS AS SHOWN IN THE PLANS. SEE THE GENERAL NOTE "REMOVAL OF BRIDGE ITEMS" FOR ADDITIONAL INFORMATION. CLASS A CONCRETE SHALL BE USED IN THE SLOPEWALLS AND SLOPEDRAINS.
SEE SLOPEWALL AND DRAIN DETAILS FOR ADDITIONAL INFORMATION REGARDING PAY ITEMS.

PERFORATED AND NON-PERFORATED PIPE UNDERDRAIN:
ITEMS "6" PERFORATED UNDERDRAIN PIPE ROUND" AND "6" NON-PERFORATED UNDERDRAIN PIPE ROUND" ARE INCLUDED AS PART OF THE ABUTMENT UNDERDRAIN AND SLOPEWALL UNDERDRAIN SYSTEMS. INSTALLATION SHALL BE AS SHOWN IN THE PLANS. FOR ADDITIONAL DETAILS AND NOTES, SEE THE SLOPEWALL AND DRAIN DETAILS SHEET.

REVISIONS

REV. NO.	DESCRIPTION	DATE

REMOVAL OF EXISTING BRIDGE
THE EXISTING BRIDGE NBI NO. 14154, HOME RD. OVER I-35, NOTED IN THE PLANS AS BRIDGE "H" SHALL BE REMOVED. DEMOLITION ALTERNATIVES HAVE BEEN PROVIDED IN THE PLANS AND ARE RELATED TO THE TYPE OF TRAFFIC CONTROL SELECTED, ROLLING ROADBLOCK OR CROSSOVER. ALL WORK AND EQUIPMENT NECESSARY FOR THE REMOVAL OF THE BRIDGE SHALL BE INCLUDED IN THE PRICE BID PER LUMP SUM OF "REMOVAL OF EXISTING BRIDGE".
ALL MATERIALS REMOVED WITH THE DEMOLITION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.
ALL SUBSTRUCTURE SHALL BE REMOVED TO 2 FEET MINIMUM BELOW THE PROPOSED GROUND LINE AND BACKFILLED TO THE PROPOSED GROUND LINE. SEE THE ROADWAY PLANS FOR GRADING LIMITS AND PROPOSED GROUND LINE.

REMOVAL OF UNSOUND CONCRETE:
REMOVAL OF UNSOUND CONCRETE FROM THE CURB AND RAIL WILL BE REQUIRED. LIMITS SHALL BE DETERMINED BY THE ENGINEER IN FIELD PRIOR TO JACKING OPERATIONS. ADDITIONAL QUANTITIES IDENTIFIED DURING THE CONDITION SURVEY SHALL BE PAID FOR AS DIRECTED BY THE ENGINEER. ANY ADDITIONAL QUANTITIES IDENTIFIED AS A RESULT OF DAMAGE SUSTAINED DURING JACKING SHALL BE AT NO ADDITIONAL COST TO THE OWNER. PRIOR TO REMOVING ANY AREAS OF UNSOUND CONCRETE, A SAW OR CHIPPING TOOL SHALL BE USED TO CUT THE PERIMETER OF THE AREA TO A DEPTH OF AT LEAST ONE (1) INCH. THE CUTS SHALL BE MADE APPROXIMATELY PERPENDICULAR TO THE EXISTING SURFACE AND PARALLEL TO THE LINES OF THE STRUCTURE. ALL CONCRETE SHALL BE REMOVED WITHIN THE CUT PERIMETER. AFTER REMOVAL OF ALL CONCRETE, THE NEWLY EXPOSED CONCRETE SURFACES SHALL BE SAND-BLASTED OR WATER-BLASTED TO REMOVE ALL CONCRETE RESIDUE AND LOOSE PARTICLES, AND ALL EXPOSED REINFORCING STEEL SHALL BE SAND-BLASTED TO REMOVE RUST. REMOVAL AND REPAIR OF THE CURB AND RAIL IS INCLUDED IN THE BRIDGE PAY ITEM FOR "(PL) REPLACE BRIDGE ITEMS".
DECK CONCRETE REMOVAL IS SPECIFIED AT BRIDGE "G". DECK CONCRETE SHALL BE REMOVED UNTIL SOUND CONCRETE IS REACHED. LIMITS OF DECK REPAIR SHALL BE DETERMINED BY THE FIELD ENGINEER. A MAXIMUM AREA OF 12' X 24' IS ASSUMED BASED ON THE MOST RECENT FIELD REPORT. THE REPAIR TYPE SHALL BE CLASS B AND SHALL BE PAID FOR AS "CLASS B BRIDGE DECK REPAIR". DECK REPAIR SHALL CONFORM TO SECTION 513.
ALL CONCRETE REMOVALS SHALL BE ACCOMPLISHED WITH HAND TOOLS OR POWER-DRIVEN HAND TOOLS. NO VEHICLE MOUNTED TOOLS OR EQUIPMENT WILL BE ALLOWED TO MAKE ANY REMOVALS. ALL JACK HAMMER TOOLS SHALL BE OPERATED AT ANGLES NO GREATER THAN 45° FROM THE REPAIR SURFACES. THE USE OF ANY TOOLS THAT RESULTS IN EXCESSIVE REMOVAL OF OR DAMAGE TO THE SOUND CONCRETE AS DETERMINED BY THE ENGINEER WILL NOT BE ALLOWED. A LIST OF ALL TOOLS THAT WILL BE USED TO MAKE THE CONCRETE REMOVALS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. NO TOOL SHALL BE USED TO MAKE THE CONCRETE REMOVALS UNTIL IT HAS BEEN APPROVED BY THE ENGINEER. ALL BLASTING EQUIPMENT SHALL BE HAND-HELD AND SATISFY SECTION 513.03.A OF THE STANDARD SPECIFICATIONS. ALL MATERIALS REMOVED FROM THE EXISTING BRIDGE SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

CLSM BACKFILL:
CLSM BACKFILL SHALL BE PLACED BEHIND THE ABUTMENTS AS SHOWN IN THE PLANS AND SHALL MEET THE REQUIREMENTS OF SECTION 701.19 OF THE CONSTRUCTION SPECIFICATIONS. SEE ALSO THE SLOPEWALL AND DRAIN DETAILS FOR ADDITIONAL LIMITS.

CONCRETE SURFACE FINISH FOR STRUCTURES:
CONCRETE SURFACE FINISH SHALL MEET THE REQUIREMENTS OF SECTION 737 OF THE CONSTRUCTION SPECIFICATIONS. COLOR OF APPLICATION SHALL BE "XXX".
LIMITS OF SURFACE FINISH SHALL INCLUDE THE NORTH AND SOUTH BRIDGE SLAB FASCIAS, THE UNDERSIDE OF THE SLAB, THE EXPOSED ABUTMENT AND WINGWALL SURFACES, AND THE PIERS.

CONCRETE SURFACE REPAIR BY SEALING:
ALL BRIDGE ROADWAY SURFACES SHALL BE SEALED WITH A FLOOD COAT PER SECTION 523. LIMITS OF ROADWAY SEALING SHALL BE THE CLEAR ROADWAY WIDTH, AS INDICATED ON THE PLANS, AND THE FULL LENGTH OF THE BRIDGE.

NEOPRENE AND COTTON FIBER REINFORCED PADS:
NEOPRENE PADS SHALL BE PLAIN ELASTOMERIC PADS OF DUROMETER 60.
COTTON FIBER REINFORCED PADS CAN BE "FABREEKA" OR APPROVED EQUIVALENT.
PADS SHALL BE ATTACHED TO TYPE 1 BOLSTER, PRIOR TO INSTALLATION WITH ADHESIVE THAT IS RECOMMENDED BY PAD SUPPLIER.

BRIDGE "A" - "J" KAY COUNTY
COUNTY ROADS OVER I-35

GENERAL NOTES (BRIDGE)

Design	SJK	08/18
Detail	KNB	08/18
Check	SJK	09/19

Squad:
Engr.: THOMAS

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION
JOB/PIECE NO. 24432(15)
SHEET NO. AB01

REVISIONS		
REV. NO.	DESCRIPTION	DATE

24432 (15)
0200 BRIDGE

PAY QUANTITIES

ITEM		DESCRIPTION		UNIT	BRIDGE "A" NORTH AVE.	BRIDGE "B" HIGHLAND AVE.	BRIDGE "C" HARTFORD AVE.	BRIDGE "D" COLEMAN RD.	BRIDGE "E" CHRYSLE R AVE.	BRIDGE "F" FERGUSON AVE.	BRIDGE "G" ADOBE RD.	BRIDGE "H" HOME RD.	BRIDGE "J" INDIAN RD.	TOTALS
501 (B)	1307	SUBSTRUCTURE EXCAVATION COMMON	BR-1, BR-2	CY	55.00	65.00	75.00	45.00	45.00	55.00	55.00	---	40.00	435.00
501 (G)	6309	CLSM BACKFILL	BR-1, BR-2	CY	45.00	45.00	45.00	46.00	46.00	45.00	45.00	---	39.00	356.00
502 (C)	6116	FALSEWORK AND JACKING	BR-6	LSUM	1.00	1.00	1.00	1.00	1.00	1.00	1.00	---	1.00	1.00
504 (A)	1304	APPROACH SLAB	BR-1	SY	129.00	129.00	129.00	129.00	129.00	129.00	129.00	---	111.20	1,014.20
504 (B)	1305	SAW CUT GROOVING	BR-1	SY	119.40	119.40	119.40	119.40	119.40	119.40	119.40	---	101.60	937.40
504 (D)	6245	CONCRETE RAIL (TR4)	BR-1	LF	80.00	80.00	80.00	80.00	80.00	80.00	80.00	---	80.00	640.00
506 (A)	1322	STRUCTURAL STEEL	BR-1, BR-3	LB	18,680.00	17,490.00	16,110.00	20,240.00	21,160.00	19,320.00	19,320.00	---	20,670.00	152,990.00
507 (C)	6282	ELASTOMERIC BEARING PADS	BR-1, BR-4	EA	10.00	10.00	10.00	10.00	10.00	10.00	10.00	---	---	70.00
509	6152	SPECIAL CONCRETE FINISH	BR-1	SY	796.00	799.00	801.00	788.00	792.00	796.00	818.00	---	694.00	6,284.00
509 (B)	1328	CLASS A CONCRETE	BR-1, BR-7	CY	9.20	7.10	5.00	11.40	12.00	9.90	9.90	---	11.10	75.60
510 (C)	6138	SLOPE WALL (5")	BR-1, BR-2	SY	918.00	856.00	941.00	857.00	854.00	958.00	794.00	---	982.00	7,160.00
513 (B)	6019	CLASS B BRIDGE DECK REPAIR	BR-8	SY	---	---	---	---	---	---	33.00	---	---	33.00
523 (C)	6570	DECK AREA SEAL (FLOODCOATS)	BR-1	SY	457.00	457.00	457.00	457.00	457.00	457.00	471.00	---	381.00	3,594.00
540	4501	(PL) REPAIR BRIDGE ITEMS	BR-5	SY	1.00	3.00	5.00	2.00	1.00	1.00	1.00	---	1.00	15.00
545	4800	(PL) REPLACE BRIDGE ITEMS	BR-11	LSUM	---	---	---	1.00	1.00	---	1.00	---	1.00	1.00
613 (H)	6204	6" PERFORATED PIPE UNDERDRAIN ROUND	BR-1, BR-2	LF	249.00	238.00	253.00	236.00	234.00	253.00	227.00	---	252.00	1942.00
613 (I)	6207	6" NON-PERFORATED PIPE UNDERDRAIN ROUND	BR-1, BR-2	LF	92.00	92.00	92.00	92.00	92.00	92.00	92.00	---	92.00	736.00
619 (B)	2500	REMOVAL OF BRIDGE ITEMS	BR-9	LSUM	1.00	1.00	1.00	1.00	1.00	1.00	1.00	---	1.00	1.00
619 (D)	1397	REMOVAL OF EXISTING BRIDGE	BR-10	LSUM	---	---	---	---	---	---	---	1.00	---	1.00

PAY QUANTITY NOTES

(BR-1) PAYMENT FOR THIS ITEM WILL BE BASED UPON PLAN QUANTITIES ONLY. SEE SECTION 109.01.B OF THE STANDARD SPECIFICATIONS.

(BR-2) PAYMENT AND LIMITS FOR THESE ITEMS ARE NOTED AND SHOWN ON THE SLOPEWALL AND DRAIN DETAILS SHEET.

(BR-3) PAYMENT FOR ITEM "STRUCTURAL STEEL" INCLUDES THE STRUCTURAL STEEL, HEADED STUD ANCHORS, AND SQUARING DIAPHRAGMS REQUIRED FOR THE PERMANENT BOLSTERS. THIS ALSO INCLUDES COST FOR GALVANIZING. BASIS OF MEASUREMENT IS FOR THE STRUCTURAL STEEL ONLY. ALL STRUCTURAL STEEL FOR FALSEWORK AND JACKING IS INCLUDED WITH THE BID ITEM "FALSEWORK AND JACKING".

(BR-4) BASIS OF MEASUREMENT ASSUMES A SINGLE, CONTINUOUS, 2'-0" WIDE BEARING PAD AT THE TOP OF EACH BOLSTER AT ABUTMENT AND PIER AND COTTON FIBER REINFORCED PADS ON THE BOTTOM OF THE BOLSTER AS SHOWN IN THE PLANS . MULTIPLE, SHORTER 2'-0" WIDE BEARING PADS MAY BE USED IN LIEU OF A SINGLE PAD AT EACH ABUTMENT AND PIER.

(BR-5) PAYMENT FOR ITEM "(PL) REPAIR BRIDGE ITEMS" WILL BE BASED ON THE PLAN QUANTITIES. BASIS OF MEASUREMENT IN SQUARE YARDS IS TOTAL SURFACE AREA OF HOLES IN THE PIERS AND ABUTMENTS DUE TO JACKING ASSEMBLY ATTACHMENT AND OTHER MISCELLANEOUS REPAIRS TO THE PIERS OR ABUTMENTS AS NOTED IN THE PLANS. THE BID ITEM PRICE PER SQUARE YARD FOR "(PL) REPAIR BRIDGE ITEMS" SHALL INCLUDE ALL COSTS FOR MATERIALS AND INSTALLATION INCLUDING CONCRETE, GROUT, REINFORCING STEEL, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.

(BR-6) PAYMENT FOR ITEM "FALSEWORK AND JACKING" SHALL INCLUDE ALL ITEMS NOTED IN THE GENERAL NOTES "FALSEWORK AND JACKING", "LIFTING OF EXISTING BRIDGE" AND "ANCHORAGE INTO EXISTING CONCRETE".

(BR-7) PAYMENT FOR ITEM "CLASS A CONCRETE" WILL BE BASED ON THE PLAN QUANTITIES. THIS ITEM INCLUDES THE PERMANENT STEEL BOLSTER CONCRETE ONLY.

(BR-8) PAYMENT FOR "CLASS B BRIDGE DECK REPAIR" INCLUDES REMOVAL OF EXISTING CONCRETE TO A MINIMUM OF THE LIMITS DEFINED IN THE PLANS AND IN ACCORDANCE WITH SECTION 513 OF THE STANDARD SPECIFICATIONS. THE BID ITEM PRICE PER SQUARE YARD FOR "CLASS B BRIDGE DECK REPAIR" SHALL INCLUDE ALL COSTS FOR REMOVAL OF EXISTING CONCRETE AS WELL AS MATERIALS AND INSTALLATION INCLUDING CONCRETE, REINFORCING STEEL, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.

(BR-9) PAYMENT FOR ITEM "REMOVAL OF EXISTING BRIDGE ITEMS" INCLUDES EXISTING NEOPRENE PADS, EXISTING SLOPEDRAINS, AND EXISTING SLOPEWALLS AS DEFINED IN PLANS AND NOTES.

(BR-10) PAYMENT FOR THIS ITEM INCLUDES THE DEMOLTION OF THE EXISTING BRIDGE AT HOME RD AS SHOWN IN THE PLANS. THIS INCLUDES THE REMOVAL OF THE EXISTING SLOPEWALLS AND SLOPEDRAINS AND ALL LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO REMOVE THE BRIDGE FOR EITHER ALTERATIVE AS PROPOSED.

(BR-11) PAYMENT FOR "(PL) REPLACE BRIDGE ITEMS" INCLUDES REMOVAL OF EXISTING CONRETE PILASTER AND RAILS AS NOTED IN THE PLANS. ALL COSTS FOR MATERIALS AND INSTALLATION INCLUDING CONCRETE, REINFORCING STEEL, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK ARE INCLUDED IN THIS PAY ITEM.

BRIDGE "A" - "J" KAY COUNTY
COUNTY ROADS OVER I-35

SUMMARY OF PAY QUANTITIES AND NOTES (BRIDGE)

Design	WJS	9/18
Detail	KNB	8/18
Check	WJS	9/18

Squad:
Engr.: THOMAS

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 24432(15) SHEET NO. AB02

ROADWAY GENERAL CONSTRUCTION NOTES

EXISTING ROADWAY SHALL REMAIN CLOSED TO THROUGH TRAFFIC. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVES AND FIELD ENTRANCES DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER BARRICADES, LIGHTS, AND SIGNING WITHIN THE LIMITS OF CONSTRUCTION. ALL CONSTRUCTION SIGNING WILL BE DONE ACCORDING TO STANDARDS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (CURRENT EDITION), AND AS SHOWN ON TCS STANDARD DRAWINGS.

THE CONTRACTOR SHALL SUBMIT A DETAILED CONSTRUCTION PHASING AND TRAFFIC MANAGEMENT PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL BEFORE CONSTRUCTION OPERATIONS BEGIN. THE TRAFFIC MANAGEMENT SHALL CONFORM TO ALL APPLICABLE STATE STANDARDS AND MUTCD GUIDELINES (LATEST REVISIONS).

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 GIVE NOTICE TO THE COUNTY AND THE OKLAHOMA DEPARTMENT OF TRANSPORTATION (DIVISION 4) IN WRITING, FOURTEEN (14) CALENDAR DAYS BEFORE WORK BEGINS ON THE PROJECT.

CONTRACTOR SHALL NOT DISTURB ANY RIGHT-OF-WAY STAKES. IF ANY OF THE RIGHT-OF-WAY STAKES ARE REMOVED OR DISTURBED DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING THEM, AT HIS OWN EXPENSE, TO THE SATISFACTION OF THE ENGINEER AND COUNTY, IN ORDER TO CONSTRUCT THE PERMANENT FENCE AT THE PROPER LOCATION.

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

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

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

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE HE MAY INFLICT TO THE EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT AREA AS A RESULT OF HIS DIGGING, TRENCHING, BORING, ETC. . . . PRIOR TO DIGGING NEAR THE UTILITIES, THE CONTRACTOR SHALL CALL FOR A LIST OF ALL UNDERGROUND FACILITIES REGISTERED IN THE AREA OF CONSTRUCTION LISTED WITH THE FOLLOWING AGENCIES:
THE OKIE NOTIFICATION CENTER 811 OR 1-800-522-6543 OR WWW.CALLOKIE.COM OR THE LOCAL COUNTY CLERK'S OFFICE.

DEPTH OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

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

AT THE BEGINNING OF THE TURFING OPERATIONS, ANY AREAS INCLUDED IN PLANNED QUANTITIES THAT HAVE GROWN A SATISFACTORY VOLUNTEER TURF OR 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.

DO NOT DISTURB SECTION CORNERS OR $\frac{1}{4}$ SECTION CORNERS. IF DISTURBED MONUMENTS SHALL BE RESET WITHIN 30 DAYS OF PROJECT COMPLETION BY A REGISTERED LAND SURVEYOR LICENSED IN THE STATE OF OKLAHOMA.

ROADWAY PAY QUANTITY NOTES

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

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

(R-5) AN ESTIMATED QUANTITY OF 8136 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-7) FOR TYPE A SALVAGED TOPSOIL PRICE BID TO INCLUDE COST OF 18-46-0 FERTILIZER, ESTIMATED AT 150 POUNDS PER ACRE.

FOR 230(A) SOLID SLAB SOD PRICE BID TO INCLUDE COST OF 10-20-10 FERTILIZER OR APPROVED EQUIVALENT, ESTIMATED AT 200 POUNDS PER S.Y.

(R-8) FOR SOLID SLAB SODDING PRICE BID TO INCLUDE THE COST OF WATERING, ESTIMATED AT 80 GALLONS PER S.Y.

(R-11) THE QUANTITY ESTIMATED FOR TEMPORARY EROSION AND SEDIMENT CONTROL IS 12.46 ACRES.

(R-25) ESTIMATED AT 140 LBS. PER CU. FT.

(R-30) PRICE BID TO INCLUDE COST OF 56 GALLONS OF TACK COAT, MEETING THE REQUIREMENTS OF SECTION 407 OF THE STANDARD SPECIFICATIONS.

(R-32) ESTIMATED AT 112 LBS. PER SQ. YD. PER 1" THICK.

(R-41) QUANTITY INCLUDES AN ESTIMATED 10 C.Y. TO BE USED AS DIRECTED BY THE ENGINEER.

(R-48) INCLUDES REMOVAL OF ALL EXISTING ROADWAY DRAINAGE STRUCTURES, HEADWALLS (UNLESS OTHERWISE SPECIFIED), INLETS, FENCES, AND OTHER STRUCTURES WITHIN THE RIGHT OF WAY.

(R-49) TO BECOME THE PROPERTY OF AND BE DISPOSED OF BY THE CONTRACTOR IN A MANNER APPROVED BY THE ENGINEER.

R-52) INCLUDES 2% FOR GROUND MEASUREMENT.

1) QUANTITY INCLUDES 19 TONS FOR TEMPORARY ACCESS TO DRIVEWAYS.

2) ESTIMATED QUANTITY ONLY. COST TO INCLUDE TEMPORARY SEDIMENT REMOVAL. REMOVE SEDIMENT WHEN 1/3 FULL.

3) STAKE SOD ON ALL SLOPES 1:2 OR STEEPER, AND ON ANY AREAS THAT ARE IN SUCH CONDITION THAT THERE IS DANGER OF SOD SLIPPING. PERFORM STAKING CONCURRENTLY WITH SOD PLACEMENT AND PRIOR TO TAMPING WITH SOUND WOODEN STAKES APPROXIMATELY 1 INCH SQUARE OR 1 INCH IN DIAMETER AN D NOT LESS THAN 12 INCHES IN LENGTH, OR USE METAL STAPLES IN PLACE OF WOODEN STAKES. PLACE STAKES AND STAPLE THE SOD WHERE NECESSARY, AND AS DETERMINED BY THE ENGINEER. SEE STANDARD DRAWING SSS-1-1 FOR DETAILS.

4) CONSTRUCTION STAKING SHALL INCLUDE ESTABLISH AND RE-ESTABLISH STAKING OF CENTERLINE, BENCHMARKS, AND RIGHT-OF-WAY. INCLUDES SLOPE STAKING, STRUCTURE AND BRIDGE STAKING, ROADWAY STAKING (DRIVEWAYS INCLUDED), BLUETOPPING, AND CHECKING ALIGNMENTS AND ELEVATIONS AS REQUIRED.

5) INCLUDES REMOVING AND RESETTING GUARDRAIL AS NECESSARY NEAR BOTTOM OF BRIDGE SLOPEWALLS IN ORDER TO REMOVE AND REPLACE SLOPEWALLS AS SHOWN ON BRIDGE PLANS.

6) SAW CUTTING IS INCLUDED IN REMOVAL OF ASPHALT.

7) INCLUDES REMOVAL OF CONCRETE PAD AND SAND FILLED IMPACT ATTENUATORS. SAND FILLED IMPACT ATTENUATORS TO BECOME PROPERTY OF ODOT. CONTRACTOR TO DELIVER TO ODOT. COORDINATE WITH ENGINEER FOR DELIVERY LOCATION.

8) DOES NOT INCLUDE BRIDGE REMOVAL AT HOME ROAD.

REVISIONS	
DESCRIPTION	DATE

31170(15)

PAY QUANTITIES

0100 ROADWAY ITEMS (BASE BID)

ITEM		DESCRIPTION	PAY NOTES	UNIT	QUANTITY
201(A)	0102	CLEARING AND GRUBBING		L. SUM	1
202(A)	0183	UNCLASSIFIED EXCAVATION	R-1	C.Y.	7,285
202(D)	0184	UNCLASSIFIED BORROW	R-1, R-4	C.Y.	16,665
205(A)	4230	TYPE A - SALVAGED TOPSOIL	R-7	C.Y.	8,136
221(C)	2801	TEMPORARY SILT FENCE	2	L.F.	19,725
221(F)	0100	TEMPORARY SILT DIKE	2	L.F.	225
221(K)	0600	TEMPORARY FIBER LOG	2,3	L.F.	15
230(A)	2806	SOLID SLAB SODDING	R-7, R-8	S.Y.	60,165
233(A)	2817	VEGETATIVE MULCHING	R-11	AC.	12.46
402(E)	0225	TRAFFIC BOUND SURFACE COURSE TYPE E	1, R-25	TON	8,068
509(D)	0325	CLASS C CONCRETE	R-41	C.Y.	10
613(A)	0492	24" R.C. PIPE CLASS III		L.F.	10
613(L)	5730	24" PREFAB. CULVERT END SEC., ROUND		EA.	2
619(A)	0920	REMOVAL OF STRUCTURES & OBSTRUCTIONS	5, 7-8, R-48, R-49	L. SUM	1
619(B)	4725	REMOVAL OF FENCE	R-49	L.F.	2,993
619(B)	4728	REMOVAL OF ASPHALT PAVEMENT	6, R-49	S.Y.	145
619(B)	4780	REMOVAL OF GUARDRAIL	R-49	L.F.	3,918
623(A)	0932	BEAM GUARDRAIL W-BEAM SINGLE		L.F.	2,038
623(G)	8590	GUARDRAIL END TREATMENT (31")		EA.	32
623(I)	8700	GUARDRAIL BRIDGE CONN-THRIE BEAM (31")		EA.	32
624(C)	4459	FENCE-STYLE SWF (5 BARBED WIRE)	R-52	L.F.	3,168

31170(15)

PAY QUANTITIES

0100 ROADWAY ITEMS (BID ALTERNATE A-CROSSOVER PAVING QUANTITIES)

303(A)	2100	AGGREGATE BASE TYPE A		CY	82
310(B)	0149	SUBGRADE, METHOD B		SY	370
411(B)	5945	SUPERPAVE, TYPE S3 (PG 64-22 OK)	R-30, R-32	TON	124
411(C)	5960	SUPERPAVE, TYPE S4 (PG 64-22 OK)	R-30, R-32	TON	41

31170(15)

PAY QUANTITIES

0600 STAKING (BASE BID)

ITEM		DESCRIPTION	PAY NOTES	UNIT	QUANTITY
642(B)	0096	CONSTRUCTION STAKING LEVEL II	4	L. SUM	1

31170(15)

PAY QUANTITIES

0640 CONSTRUCTION (BASE BID)

ITEM		DESCRIPTION	PAY NOTES	UNIT	QUANTITY
220	2800	SWPPP DOCUMENTATION AND MANAGEMENT		L. SUM	1
641	1399	MOBILIZATION		L. SUM	1

BID NOTES

BID ALTERNATE A INCLUDES ROLLING BLOCKS IN BOTH DIRECTIONS ALONG I-35 FOR 8 OF THE BRIDGE LOCATIONS. HOWEVER, THE DEMOLITION OF THE BRIDGE AT HOME ROAD DOES NOT INCLUDE ROLLING ROAD BLOCKS, BUT CROSSOVERS ARE BEING UTILIZED IN THE BASE BID AT THIS LOCATION. SEE TRAFFIC CONTROL PAY QUANTITIES FOR ADDITIONAL DETAILS. BID ALTERNATE A ROADWAY PAY QUANTITIES ONLY INCLUDES QUANTITIES FOR THE CROSS OVER PAVING.

BID ALTERNATE B IS FOR A ROLLING ROAD BLOCK AT HOME ROAD DEMOLITION INSTEAD OF CROSSOVER AND FOR THE 8 BRIDGES TO BE RAISED UNDER LIVE TRAFFIC INSTEAD OF UTILIZING ROLLING ROAD BLOCKS. THIS WILL REQUIRE LANE CLOSURES INSTEAD OF ROAD BLOCKS. SEE TRAFFIC CONTROL PAY QUANTITIES FOR ADDITIONAL DETAILS. ALTERNATE B DOES NOT HAVE ANY ROADWAY QUANTITIES ASSOCIATED WITH THIS ALTERNATE.

DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

SUMMARY OF PAY QUANTITIES & NOTES (ROADWAY)

COUNTY KAY HIGHWAY/ROAD I-35 STATE JOB NO. 24432(15) SHEET NO. AR01

I-35 BRIDGES US-60 TO OK-KS STATE LINE

Friday, October 26, 2018 3:52:10 PM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070E SUMMARY PQ AND NOTES.dwg

SCHEDULE OF GUARDRAIL

STATION EXTENTS	GUARDRAIL BRIDGE CONN-THRIE BEAM (31") 623(I) EA.	BEAM GUARDRAIL W-BEAM SINGLE 623(A) L.F.	GUARDRAIL END TREATMENT (31") 623(G) EA.	REMOVAL OF GUARDRAI619(B) LF.	REMOVAL OF ASPHALT 619(B) S.Y.
NORTH AVENUE					
23+61.90 TO 24+33.77 LT.	1	6.25	1	53	
23+61.90 TO 24+33.77 RT.	1	6.25	1	53	
26+44.07 TO 27+15.94 LT.	1	6.25	1	53	
26+44.07 TO 27+15.94 RT.	1	6.25	1	54	
HIGHLAND AVENUE					
23+61.53 TO 24+33.40 LT.	1	6.25	1	53	
23+61.53 TO 24+33.40 RT.	1	6.25	1	53	
26+43.70 TO 28+28.07 LT.	1	118.75	1	54	
26+43.70 TO 27+15.57 RT.	1	6.25	1	52	
HARTFORD AVENUE					
23+65.24 TO 24+37.11 LT.	1	6.25	1	113	
23+65.24 TO 24+37.11 RT.	1	6.25	1	113	
26+47.41 TO 27+19.28 LT.	1	6.25	1	116	
26+47.41 TO 27+19.28 RT.	1	6.25	1	116	
COLEMAN AVENUE					
76+30.59 TO 77+02.46 LT.	1	6.25	1	53	
76+30.59 TO 77+02.46 RT.	1	6.25	1	53	
79+12.76 TO 79+84.63 LT.	1	6.25	1	53	
79+12.76 TO 79+84.63 RT.	1	6.25	1	52	
CHRYSLER AVENUE					
76+25.51 TO 76+97.38 LT.	1	6.25	1	53	
76+25.51 TO 76+97.38 RT.	1	6.25	1	53	
79+07.68 TO 79+79.55 LT.	1	6.25	1	52	
79+07.68 TO 80+29.55 RT.	1	56.25	1	50	
FERGUSON AVENUE					
77+16.01 TO 81+12.88 LT.	1	331.25	1	403	
76+91.01 TO 81+12.88 RT.	1	356.25	1	427	
83+23.18 TO 86+57.55 LT.	1	268.75	1	328	
83+23.18 TO 86+57.55 RT.	1	268.75	1	328	
ADOBE ROAD					
84+89.17 TO 86+23.54 LT.	1	68.75	1	53	
85+51.67 TO 86+23.54 RT.	1	6.25	1	53	
88+38.84 TO 89+73.21 LT.	1	68.75	1	52	
88+38.84 TO 89+10.71 RT.	1	6.25	1	51	
HOME ROAD					
West Approaches-Home				104	
East Approaches-Home				107	
I-35 Northwest side				251	145
I-35 Southeast side				250	
INDIAN ROAD					
76+36.39 TO 77+89.51 LT.	1	87.5	1	52	
76+98.89 TO 77+89.51 RT.	1	25	1	53	
79+99.81 TO 82+15.43 LT.	1	150	1	52	
79+99.81 TO 81+77.93 RT.	1	112.5	1	52	
TOTALS =	32	2037.5	32	3,918	145

SUMMARY OF DRIVES

STATION	TYPE	RETURN RADIUS FT.	DRIVE WIDTH FT.	LENGTH L.F.	TRAFFIC BOUND SURFACE COURSE TYPE E 402(E) TONS
COLEMAN AVE.					
72+00.26 LT.	0	15	32	5	3
72+01.21 RT.	0	15	30	5	3
84+31.11 RT.	0	15	22	5	3
FERGUSON AVE.					
75+96.00 RT.	0	15	8	29	7
88+25.54 RT.	0	15	20	5	2
TOTALS =					19

FENCE SUMMARY

STATION EXTENTS	FENCE-STYLE SWF (5 BARBED WIRE) 624(C) L.F.	REMOVAL OF FENCE 619(B) L.F.
NORTH AVE		
23+89.92 TO 24+32.05 LT.	76	78
23+90.52 TO 24+32.05 RT.	75	77
26+45.52 TO 26+87.55 LT.	99	84
26+45.52 TO 26+85.91 RT.	94	93
HIGLAND AVE		
23+95.32 TO 24+32.00 LT.	92	82
23+89.72 TO 24+32.00 RT.	93	103
26+45.00 TO 26+68.73 LT.	61	60
26+45.00 TO 26+86.38 RT.	93	91
HARTFORD AVE		
23+93.82 TO 24+35.50 LT.	86	84
23+98.11 TO 24+35.50 RT.	67	66
26+49.00 TO 26+89.99 LT.	71	73
26+49.00 TO 26+89.53 RT.	136	131
COLEMAN RD		
76+58.40 TO 77+01.00 LT.	105	101
76+60.23 TO 77+01.00 RT.	112	99
79+14.40 TO 79+55.47 LT.	77	78
79+14.40 TO 79+56.60 RT.	77	74
CHRYSLER AVE		
76+55.50 TO 76+95.88 RT.	82	81
79+09.00 TO 79+50.70 LT.	85	83
79+09.00 TO 79+50.96 RT.	70	72
FERGUSON AVE		
80+58.26 TO 81+11.00 LT.	79	84
80+51.35 TO 81+11.00 RT.	90	92
83+24.75 TO 83+94.12 LT.	100	102
83+24.75 TO 83+61.63 RT.	94	91
ADOBE RD		
85+77.70 TO 86+22.00 LT.	78	79
85+88.82 TO 86+22.00 RT.	87	84
88+40.40 TO 88+75.46 LT.	72	71
88+40.40 TO 88+86.14 RT.	96	93
HOME RD (I-35 STATIONING)		
819+84.21 TO 821+90.34 LT.	207	223
820+12.69 TO 821+77.94 RT.	166	155
INDIAN RD		
77+28.04 TO 77+87.60 LT.	91	0
77+34.68 TO 77+87.60 RT.	85	91
80+01.50 TO 80+52.66 LT.	101	104
80+01.50 TO 80+52.76 RT.	109	114
TOTALS =	3,106	2,993

EARTHWORK SUMMARY

STATION EXTENTS	UNCLASSIFIED EXCAVATION 202(A) C.Y.	EMBANKMENT +15% C.Y.	EXCESS EXCAVATION C.Y.	UNCLASSIFIED BORROW 202(D) C.Y.	WASTE C.Y.
NORTH AVE.					
18+40.00 TO 24+53.17	48	637	-	589	-
26+24.67 TO 32+00.00	97	2,550	-	2,453	-
HIGHLAND AVE.					
19+25.00 TO 24+52.86	46	446	-	400	-
26+24.24 TO 32+00.00	54	598	-	545	-
HARTFORD AVE.					
19+00.00 TO 24+56.54	50	450	-	400	-
26+27.99 TO 32+00.00	118	297	-	179	-
COLEMAN AVE.					
71+60.00 TO 77+21.86	58	1,604	-	1,546	-
78+93.34 TO 84+92.46	114	1,011	-	897	-
CHRYSLER AVE.					
72+25.00 TO 77+16.87	285	1,694	-	1,409	-
78+88.14 TO 84+50.00	85	1,417	-	1,332	-
FERGUSON ROAD					
72+50.00 TO 81+32.33	130	944	-	813	-
83+03.73 TO 89+10.00	143	502	-	360	-
ADOBE ROAD					
81+60.00 TO 86+42.90	49	827	-	777	-
88+19.42 TO 93+20.00	36	1,604	-	1,569	-
HOME ROAD (I-35 STATIONING)					
817+40.00 TO 823+20.00	5,854	129	5,726		5,726
INDIAN ROAD					
73+50.00 TO 77+98.91	67	1,208	-	1,140	-
78+08.91 TO 84+50.00	51	1,907	-	1,856	-
TOTALS =	7,285	17,824	5,726	16,465	5,726

SURFACING SUMMARY

STATION EXTENTS	TRAFFIC BOUND SURFACE COURSE TYPE E 402(E) TONS
NORTH AVE	
18+40.00 TO 24+33.17	548
26+44.67 TO 32+00.00	513
HIGHLAND AVE	
19+25.00 TO 24+32.80	469
26+44.30 TO 32+00.00	534
HARTFORD AVE	
19+00.00 TO 24+36.51	490
26+48.01 TO 32+00.00	509
COLEMAN AVE	
71+60.00 TO 77+01.86	498
79+13.36 TO 84+50.00	495
CHRYSLER AVE	
72+25.00 TO 76+96.78	442
79+08.28 TO 84+50.00	491
FERGUSON AVE	
74+05.00 TO 81+12.28	773
83+23.73 TO 89+10.00	543
ADOBE ROAD	
81+60.00 TO 86+22.94	439
88+39.44 TO 93+20.00	453
INDIAN ROAD	
73+50.00 TO 77+88.91	420
80+00.41 TO 84+50.00	432
TOTALS =	8,068

- INCLUDES GUARDRAIL WIDENING QUANTITIES

SUMMARY OF EROSION CONTROL

STATIONS	TYPE A SALVAGED TOPSOIL 205(A) C.Y.	TEMPORARY SILT FENCE 221(C) L.F.	TEMPORARY FIBER LOG 221(K) L.F.	TEMPORARY SILT DIKE 221(F) L.F.	SOLID SLAB SODDING 230(A) S.Y.	VEGETATIVE MULCHING 233(A) AC.
NORTH AVE						
18+40.00 TO 24+80.00 LT.	215	690			1,549	0.32
18+40.00 TO 24+80.00 RT.	310	670			2,227	0.46
26+00.00 TO 32+00.00 LT.	417	660			3,001	0.62
26+00.00 TO 32+00.00 RT.	370	680			2,662	0.55
HIGHLAND AVE						
19+25.00 TO 24+80.00 LT.	222	610			1,597	0.33
19+25.00 TO 24+80.00 RT.	242	610			1,743	0.36
26+00.00 TO 32+00.00 LT.	155	650			1,113	0.23
26+00.00 TO 32+00.00 RT.	38	670			2,033	0.42
HARTFORD AVE						
19+00.00 TO 24+80.00 LT.	229	635			1,597	0.34
19+00.00 TO 24+80.00 RT.	215	645			1,549	0.32
26+00.00 TO 32+00.00 LT.	155	655			1,113	0.23
26+00.00 TO 32+00.00 RT.	242	670			1,743	0.36
COLEMAN AVE						
71+60.00 TO 77+50.00 LT.	242	570			1,743	0.36
71+60.00 TO 77+50.00 RT.	209	565			1,500	0.31
78+65.00 TO 84+92.00 LT.	222	625			1,597	0.33
78+65.00 TO 84+92.00 RT.	215	605			1,500	0.32
CHRYSLER AVE						
72+25.00 TO 77+40.00 LT.	202	500		20	1,452	0.30
72+25.00 TO 77+40.00 RT.	262	455		30	1,889	0.39
78+60.00 TO 76+50.00 LT.	222	635			1,597	0.33
78+60.00 TO 76+50.00 RT.	215	625		20	1,500	0.32
FERGUSON AVE						
74+05.00 TO 81+30.00 LT.	195	810			1,404	0.29
74+05.00 TO 81+30.00 RT.	188	785			1,355	0.28
82+75.00 TO 89+10.00 LT.	148	660			1,065	0.22
82+75.00 TO 89+10.00 RT.	175	665			1,259	0.26
ADOBE RD						
81+60.00 TO 86+75.00 LT.	121	540			871	0.18
81+60.00 TO 86+75.00 RT.	148	550			1,065	0.22
87+90.00 TO 93+20.00 LT.	202	600			1,452	0.30
87+90.00 TO 93+20.00 RT.	195	590			1,404	0.29
HOME RD (1-35 STATIONS)						
817+00.00 TO 823+00.00 LT.	692			60	4,985	1.03
817+00.00 TO 823+00.00 CL.	40			15	290	0.06
818+50.00 TO 822+00.00 RT.	410		15	50	2,952	0.61
INDIAN ROAD						
73+50.00 TO 78+40.00 LT.	162	550			1,162	0.24
73+50.00 TO 78+40.00 RT.	242	540			1,743	0.36
79+50.00 TO 84+50.00 LT.	249	540			1,791	0.37
79+50.00 TO 84+50.00 R3	370	470		30	2,662	0.55
TOTALS =	8,136	19,725	15	225	60,165	12.46

DRAINAGE SUMMARY

STR. NO.	STATION	OFFSET L.F.	SIDE	DESCRIPTION HOME ROAD:	FLOWLINE IN	FLOWLINE OUT	R.C.P. 24" 613(A) L.F.	P.C.E.S. 24" 613(L) EA.
1	821+56.05	81 & 82.5	LT. & RT.	REMOVE EXISTING HEADWALL, EXTEND 24" RCP 4' LT. & 6' RT. W/PCES	1073.77	1072.8	10	2
						TOTALS =	10.0	2.0

SURFACING SUMMARY ASPHALT PAVING

STATION EXTENTS	AGGREGATE BASE TYPE A 303(A) CY	SUBRADE METHOD B 310(B) SY	TACK COAT 407(B) GAL	SUPERPAVE TYPE S3 (PG 64-22 OK) 411(B) TONS	SUPERPAVE TYPE S4 (PG 64-22 OK) 411(C) TONS
I-35 STA 858+85.26 TO STA 859+85.26	82	370	56	124	41

REVISIONS	
DESCRIPTION	DATE

DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

SUMMARY OF QUANTITIES (ROADWAY)

COUNTY KAY HIGHWAY/ROAD I-35 STATE JOB NO. 24432(15) SHEET NO. AR02

I-35 BRIDGES US-60 TO OK-KS STATE LINE

Wednesday, October 24, 2018 2:24:39 PM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070- SUMMARY SHEET.dwg

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.

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.

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).

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

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

NO SPLICES SHALL BE PERMITTED IN ANY PIPE OR WIDE FLANGE SIGN POSTS.

ALL ANCHOR BOLTS SHALL BE GRADE A-36 STEEL.

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

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

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

ALL 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.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE HE MAY INFLICT TO THE EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT AREA AS A RESULT OF HIS DIGGING, TRENCHING, BORING, ETC.... PRIOR TO DIGGING NEAR THE UTILITIES, THE CONTRACTOR SHALL CALL FOR A LIST OF ALL UNDERGROUND FACILITIES REGISTERED IN THE AREA OF CONSTRUCTION LISTED WITH THE FOLLOWING AGENCIES:

THE "OKIE" NOTIFICATION CENTER (405) 840-5032 OR 1-800-522-6543.
THE LOCAL COUNTY CLERK'S OFFICE.

DEPTH OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

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-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.

TRAFFIC CONSTRUCTION PAY QUANTITY NOTES CONTINUED

(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-44) PRICE BID FOR THIS ITEM SHALL INCLUDE ATTENUATOR MODULES, SAND, WOODEN PALLETS (IF REQUIRED), RELOCATION, AND MAINTENANCE.

(TC-52) ANY USED CHANGEABLE MESSAGE SIGNS 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.

ANY USED CONSTRUCTION ZONE IMPACT ATTENUATOR TO BE PLACED ON THIS PROJECT SHALL BE SUBJECT TO INSPECTION AND APPROVAL, BY THE OKLAHOMA DEPARTMENT OF TRANSPORTATION, TO ASSURE THAT THEY ARE IN GOOD WORKING CONDITION, PRIOR TO PLACEMENT ON THE PROJECT.

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

(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) 240 CONSTRUCTION CALENDAR DAYS WERE USED TO COMPUTE THE SIGN DAY PAY ITEMS. THE AMOUNT OF CALENDAR DAYS USED TO COMPUTE THE SIGN DAY PAY ITEMS IS AN ESTIMATED QUANTITY ONLY, BASED ON THE CURRENT O.D.O.T. STANDARD 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.

(SP-1) WARNING LIGHTS TYPE C ARE NOT REQUIRED.

(SP-2) SIGN PLACEMENT LOCATIONS SHALL BE DETERMINED BY THE ENGINEER.

(SP-3) REMOVAL ONLY INCLUDES POSTS REMOVED AND NOT CABLE THAT NEEDS TO BE RE-TENSIONED. PRICE BID SHALL INCLUDE REINSTALLATION OF CABLE BARRIER.

(SP-4) INCLUDES SALVAGING POSTS, HARDWARE, APPURTENANCES AND SAFEGUARDING CABLE FOR REINSTALLATION. STORE MATERIALS IN A SECURE LOCATION APPROVED BY THE ENGINEER AFTER REMOVAL.

(SP-5) CONTRACTOR TO PROVIDE TENSION METER. THE TENSION METER SHALL BE OF THE TYPE RECOMMENDED BY THE MANUFACTURER OF THE CABLE BARRIER SYSTEM PROVIDED. AND SHALL BE APPROVED BY THE ODOT TRAFFIC ENGINEERING DIVISION. IT SHALL ALSO BE NEW, CALIBRATED, FUNCTIONAL AND CAPABLE OF READING THE TENSION ON THE CABLE BARRIER SYSTEM TO WITH THE MANUFACTURER'S RECOMMENDED TOLERANCES.

(SP-6) END ANCHOR QUANTITY PROVIDED IN CASE EXISTING END ANCHORS ARE DAMAGED. TO BE USED AT DISCRETION OF ENGINEER.

TRAFFIC OPERATIONS GENERAL CONSTRUCTION NOTES

ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL MEET OKLAHOMA DEPARTMENT OF TRANSPORTATION'S "QUALITY STANDARDS FOR TEMPORARY TRAFFIC CONTROL DEVICES."

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.

I-35 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 DONE ACCORDING TO STANDARDS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (CURRENT EDITION), AND AS SHOWN ON TCS STANDARD DRAWINGS.

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

ADJACENT COUNTY ROADS MAY NOT BE CLOSED AT THE SAME TIME DURING THE DURATION OF THE PROJECT.

TRAFFIC SIGNING PAY QUANTITY NOTES

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

(TS-34) INCLUDED IN THIS PAY ITEM IS THE REMOVAL OF ANY EXISTING SIGNS TO BE REPLACED BY NEW ASSEMBLIES AND THE REMOVAL OF ANY EXISTING SIGNS THAT WILL BE IN CONFLICT WITH THE NEW ROADWAY OR NEW SIGNAGE.

REVISIONS	
DESCRIPTION	DATE

31170(15)

PAY QUANTITIES

0300 TRAFFIC ITEMS (BASE BID)

ITEM		DESCRIPTION	PAY NOTES	UNIT	QUANTITY
619(B)	5190	REMOVAL OF CABLE BARRIER	SP-3,SP-4	LF	700
628(C)	5110	END ANCHORS	SP-6	EA	2
628(F)	5185	(PL) HIGH TENSION CABLE BARRIER - RE-TENSIONING	SP-3,SP-5	EA	10
850(A)	8110	SHEET ALUMINUM SIGNS	TS-34	SF	144
851(C)	8330	2 1/2" SQUARE TUBE POST	TS-33	LF	152
853	9069	GUARDRAIL DELINEATORS (TYPE 2, CODE 1)		EA	72
871(B)	8705	(SP) CONST. ZONE IMPACT ATTEN.	TC-44,52,80,84	SD	960
877(B)	8484	DELIVER PORTABLE LONGITUDINAL BARRIER	TC-1,TC-2,TC-26	LF	2,240
877(C)	8486	RELOCATION OF PORTABLE LONGITUDINAL BARRIER	TC-1,TC-2,TC-26	LF	17,920
880(B)	8818	CONSTRUCTION SIGNS 0 TO 6.25 SF	TC-26,TC-33,TC-84,SP-2	SD	8,000
880(B)	8821	CONSTRUCTION SIGNS 6.26 TO 15.99 SF	TC-26,TC-33,TC-84,SP-2	SD	4,000
880(B)	8824	CONSTRUCTION SIGNS 16.00 TO 32.99 SF	TC-26,TC-33,TC-84,SP-2	SD	10,000
880(C)	8842	CONSTRUCTION BARRICADES (TYPE III)	TC-26,TC-84	SD	2,000
880(C)	8845	BARRICADES (TYPE III)		EA	10
880(C)	8848	WING BARRICADES	TC-26,TC-84	SD	1,200
880(E)	8860	WARNING LIGHTS (TYPE A)	TC-26,TC-84	SD	10,000
880(F)	8878	DRUMS	TC-26,TC-84,SP-1	SD	22,000
880(I)	8902	FLAGGER	TC-70	SD	30
882(A)	8306	PORTABLE CHANGEABLE MESSAGE SIGN	TC-52,84,85,SP-2	SD	480

31170(15)

PAY QUANTITIES

0300 TRAFFIC ITEMS (BID ALTERNATE A)

ITEM		DESCRIPTION	PAY NOTES	UNIT	QUANTITY
619(B)	5190	REMOVAL OF CABLE BARRIER	SP-3,SP-4	LF	1,775
628(F)	5185	(PL) HIGH TENSION CABLE BARRIER - RE-TENSIONING	SP-3,SP-5	EA	5
880(A)	8800	ARROW DISPLAY (TYPE A)	TC-26,TC-84	SD	20
880(B)	8818	CONSTRUCTION SIGNS 0 TO 6.25 SF	TC-26,TC-33,TC-84,SP-2	SD	400
880(B)	8821	CONSTRUCTION SIGNS 6.26 TO 15.99 SF	TC-26,TC-33,TC-84,SP-2	SD	200
880(B)	8824	CONSTRUCTION SIGNS 16.00 TO 32.99 SF	TC-26,TC-33,TC-84,SP-2	SD	550
880(C)	8842	CONSTRUCTION BARRICADES (TYPE III)	TC-26,TC-84	SD	40
880(C)	8848	WING BARRICADES	TC-26,TC-84	SD	40
880(E)	8860	WARNING LIGHTS (TYPE A)	TC-26,TC-84	SD	300
880(F)	8878	DRUMS	TC-26,TC-84,SP-1	SD	3,200
880(I)	8902	FLAGGER	TC-70	SD	30
880(J)	8905	CONSTRUCTION TRAFFIC CONTROL		LSUM	1
882(A)	8306	PORTABLE CHANGEABLE MESSAGE SIGN	TC-52,TC-84,TC-85,SP-2	SD	960

31170(15)

PAY QUANTITIES

0300 TRAFFIC ITEMS (BID ALTERNATE B)

ITEM		DESCRIPTION	PAY NOTES	UNIT	QUANTITY
877(C)	8486	RELOCATION OF PORTABLE LONGITUDINAL BARRIER	TC-1,TC-2,TC-26	LF	17,920
880(A)	8800	ARROW DISPLAY (TYPE A)	TC-26,TC-84	SD	500
880(B)	8818	CONSTRUCTION SIGNS 0 TO 6.25 SF	TC-26,TC-33,TC-84,SP-2	SD	4,000
880(B)	8821	CONSTRUCTION SIGNS 6.26 TO 15.99 SF	TC-26,TC-33,TC-84,SP-2	SD	100
880(B)	8824	CONSTRUCTION SIGNS 16.00 TO 32.99 SF	TC-26,TC-33,TC-84,SP-2	SD	1,000
880(C)	8842	CONSTRUCTION BARRICADES (TYPE III)	TC-26,TC-84	SD	350
880(E)	8860	WARNING LIGHTS (TYPE A)	TC-26,TC-84	SD	1,000
880(F)	8878	DRUMS	TC-26,TC-84,SP-1	SD	7,000
880(I)	8902	FLAGGER	TC-70	SD	10
880(J)	8905	CONSTRUCTION TRAFFIC CONTROL		LSUM	1
882(A)	8306	PORTABLE CHANGEABLE MESSAGE SIGN	TC-52,TC-84,TC-85,SP-2	SD	60

BID NOTES

BID ALTERNATE A INCLUDES ADDITIONAL QUANTITIES FOR ROLLING BLOCKS IN BOTH DIRECTIONS ALONG I-35 FOR 8 OF THE BRIDGE LOCATIONS. THE DEMOLITION OF THE BRIDGE AT HOME ROAD DOES NOT INCLUDE ROLLING ROAD BLOCKS, BUT CROSSOVERS ARE BEING UTILIZED IN THE BASE BID AT THIS LOCATION.

BID ALTERNATE B INCLUDES ADDITIONAL QUANTITIES FOR A ROLLING ROAD BLOCK AT HOME ROAD DEMOLITION INSTEAD OF CROSSOVER AND FOR THE 8 BRIDGES TO BE RAISED UNDER LIVE TRAFFIC INSTEAD OF UTILIZING ROLLING ROAD BLOCKS. THIS WILL REQUIRE LANE CLOSURES INSTEAD OF ROAD BLOCKS.

ROLLING ROAD BLOCK NOTES

INSTALL PORTABLE LONGITUDINAL BARRIERS TO ALLOW FOR 2 LANES. THESE WILL BE NEEDED PRE-RAISE AND POST-RAISE TO PERFORM WORK ADJACENT TO SHOULDERS. POSITION BARRIERS SUCH THAT THE CONTRACTOR WILL NOT NEED TO SHIFT THEM DURING THE RAISE, AND PORTABLE LONGITUDINAL BARRIERS CAN BE LEFT IN PLACE THROUGHOUT THE DURATION OF THE RAISE.

SEE SHEET T13 FOR ADDITIONAL NOTES.

LIVE TRAFFIC NOTES

INSTALL PORTABLE BARRIERS TO ALLOW FOR 2 LANES PRE-RAISE.

SHIFT OUTSIDE PORTABLE BARRIERS TO INSIDE LANE TO ALLOW FOR 1 LANE TO PASS DURING RAISE.

SHIFT OUTSIDE PORTABLE BARRIERS BACK TO 2 LANE CONFIGURATION FOR POST RAISE OPERATIONS

DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

SUMMARY OF PAY QUANTITIES & NOTES (TRAFFIC)

STATE JOB NO. 24432(I5) SHEET NO. AT01

KAY I-35 BRIDGES US-60 TO OK-KS STATE LINE

Friday, October 26, 2018 8:52:47 AM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070- PQ - TRAFFIC.dwg

SIGN SUMMARY

SIGN NO.	APPROX CRL STATION AND OFFSET LOCATION			DESCRIPTION	SIGN	BARRICADE (TYPE)III 880(C)	SHEET ALUMINUM SIGNS 850(A)	2-1/2" SQUARE TUBE POST 851(C) A	2-1/2" SQUARE TUBE POST 851(C) B	REMARKS
						SF	SF	LF	LF	
1	FERGUSON	74+05.00	15' RT.	LEFT REVERSE CURVE	W1-4(L)		6.25	14		MOUNT BOTH SIGNS ON SINGLE POST
				ADVISORY SPEED (20 MPH)	W13-1P(20)		2.25			
2	FERGUSON	81+08.00	16' RT.	LEFT REVERSE CURVE	W1-4(L)		6.25	14		MOUNT BOTH SIGNS ON SINGLE POST
				ADVISORY SPEED (20 MPH)	W13-1P(20)		2.25			
3	FERGUSON	83+28.00	16' LT.	LEFT REVERSE CURVE	W1-4(L)		6.25	14		MOUNT BOTH SIGNS ON SINGLE POST
				ADVISORY SPEED (20 MPH)	W13-1P(20)		2.25			
4	FERGUSON	89+00.00	16' LT.	LEFT REVERSE CURVE	W1-4(L)		6.25	14		MOUNT BOTH SIGNS ON SINGLE POST
				ADVISORY SPEED (20 MPH)	W13-1P(20)		2.25			
5	HOME ROAD	SECTION LINE EAST OF BRIDGE		2-TYPE III BARRICADES "BRIDGE OUT 0.5 MILES AHEAD LOCAL TRAFFIC ONLY" MOUNTED ON EACH TYPE III BARRICADE	2-R11-3B	2	25.00	12	12	
5	HOME ROAD	SECTION LINE WEST OF BRIDGE		2-TYPE III BARRICADES "BRIDGE OUT 0.5 MILES AHEAD LOCAL TRAFFIC ONLY" MOUNTED ON EACH TYPE III BARRICADE	2-R11-3B	2	25.00	12	12	
6	HOME ROAD	150 EAST OF I-35 C.L.		3-TYPE III BARRICADES "ROAD CLOSED" MOUNTED ON EACH TYPE III BARRICADE	3-R11-2	3	30.00	12	12	
6	HOME ROAD	150 WEST OF I-35 C.L.		3-TYPE III BARRICADES "ROAD CLOSED" MOUNTED ON EACH TYPE III BARRICADE	3-R11-2	3	30.00	12	12	
					TOTALS =	10	144.00	104	48	

PORTABLE LONGITUDINAL BARRIER WALL SUMMARY TABLE

LOCATION NORTHBOUND	DELIVER PORTABLE LONGITUDINAL BARRIER 877(B) LF	RELOCATION OF PORTABLE LONGITUDINAL BARRIER 877(C) LF
NORTH AVE OUTSIDE SHOULDER-PRE RAISE	560	
NORTH AVE INSIDE SHOULDER-PRE RAISE	560	
NORTH AVE OUTSIDE LANE CLOSURE-BRIDGE RAISE		560
NORTH AVE OUTSIDE SHOULDER-POST BRIDGE RAISE		560
HIGHLAND AVE OUTSIDE SHOULDER-PRE RAISE		560
HIGHLAND AVE INSIDE SHOULDER -PRE RAISE		560
HIGHLAND AVE OUTSIDE LANE CLOSURE-BRIDGE RAISE		560
HIGHLAND AVE OUTSIDE SHOULDER-POST BRIDGE RAISE		560
HARTFORD AVE OUTSIDE SHOULDER-PRE RAISE		560
HARTFORD AVE INSIDE SHOULDER -PRE RAISE		560
HARTFORD AVE OUTSIDE LANE CLOSURE-BRIDGE RAISE		560
HARTFORD AVE OUTSIDE SHOULDER-POST BRIDGE RAISE		560
COLEMAN ROAD OUTSIDE SHOULDER-PRE RAISE		560
COLEMAN ROAD INSIDE SHOULDER -PRE RAISE		560
COLEMAN ROAD OUTSIDE LANE CLOSURE-BRIDGE RAISE		560
COLEMAN ROAD OUTSIDE SHOULDER-POST BRIDGE RAISE		560
CHRYSLER AVE NORTHBOUND OUTSIDE SHOULDER-PRE RAISE		560
CHRYSLER AVE NORTHBOUND INSIDE SHOULDER -PRE RAISE		560
CHRYSLER AVE NORTHBOUND OUTSIDE LANE CLOSURE-BRIDGE RAISE		560
CHRYSLER AVE OUTSIDE SHOULDER-POST BRIDGE RAISE		560
FERGUSON AVE OUTSIDE SHOULDER-PRE RAISE		560
FERGUSON AVE INSIDE SHOULDER -PRE RAISE		560
FERGUSON AVE OUTSIDE LANE CLOSURE-BRIDGE RAISE		560
FERGUSON AVE OUTSIDE SHOULDER-POST BRIDGE RAISE		560
ABOBE ROAD OUTSIDE SHOULDER-PRE RAISE		560
ADOBE ROAD INSIDE SHOULDER -PRE RAISE		560
ADOBE ROAD OUTSIDE LANE CLOSURE-BRIDGE RAISE		560
ADOBE ROAD OUTSIDE SHOULDER-POST BRIDGE RAISE		560
HOME ROAD OUTSIDE SHOULDER-PRE DEMOLITION		560
HOME ROAD INSIDE SHOULDER -PRE DEMOLITION		560
INIDAN ROAD OUTSIDE SHOULDER-PRE RAISE		560
INDIAN ROAD INSIDE SHOULDER -PRE RAISE		560
INDIAN ROAD OUTSIDE LANE CLOSURE-BRIDGE RAISE		560
INDIAN ROAD OUTSIDE SHOULDER-POST BRIDGE RAISE		560
SUBTOTAL NORTHBOUND	**1,120**	**17,920**

PORTABLE LONGITUDINAL BARRIER WALL SUMMARY TABLE

LOCATION SOUTHBOUND	DELIVER PORTABLE LONGITUDINAL BARRIER 877(B) LF	RELOCATION OF PORTABLE LONGITUDINAL BARRIER 877(C) LF
NORTH AVE OUTSIDE SHOULDER-PRE RAISE	560	
NORTH AVE INSIDE SHOULDER -PRE RAISE	560	
NORTH AVE OUTSIDE LANE CLOSURE-BRIDGE RAISE		560
NORTH AVE OUTSIDE SHOULDER-POST BRIDGE RAISE		560
HIGHLAND AVE OUTSIDE SHOULDER-PRE RAISE		560
HIGHLAND AVE INSIDE SHOULDER -PRE RAISE		560
HIGHLAND AVE OUTSIDE LANE CLOSURE-BRIDGE RAISE		560
HIGHLAND AVE OUTSIDE SHOULDER-POST BRIDGE RAISE		560
HARTFORD AVE OUTSIDE SHOULDER-PRE RAISE		560
HARTFORD AVE INSIDE SHOULDER -PRE RAISE		560
HARTFORD AVE OUTSIDE LANE CLOSURE-BRIDGE RAISE		560
HARTFORD AVE OUTSIDE SHOULDER-POST BRIDGE RAISE		560
COLEMAN ROAD OUTSIDE SHOULDER-PRE RAISE		560
COLEMAN ROAD INSIDE SHOULDER -PRE RAISE		560
COLEMAN ROAD OUTSIDE LANE CLOSURE-BRIDGE RAISE		560
COLEMAN ROADOUTSIDE SHOULDER-POST BRIDGE RAISE		560
CHRYSLER AVE OUTSIDE SHOULDER-PRE RAISE		560
CHRYSLER AVE INSIDE SHOULDER -PRE RAISE		560
CHRYSLER AVE OUTSIDE LANE CLOSURE-BRIDGE RAISE		560
CHRYSLER AVE OUTSIDE SHOULDER-POST BRIDGE RAISE		560
FERGUSON AVE OUTSIDE SHOULDER-PRE RAISE		560
FERGUSON AVE INSIDE SHOULDER -PRE RAISE		560
FERGUSON AVE OUTSIDE LANE CLOSURE-BRIDGE RAISE		560
FERGUSON AVE OUTSIDE SHOULDER-POST BRIDGE RAISE		560
ABOBE ROAD OUTSIDE SHOULDER-PRE RAISE		560
ADOBE ROAD INSIDE SHOULDER -PRE RAISE		560
ADOBE ROAD OUTSIDE LANE CLOSURE-BRIDGE RAISE		560
ADOBE ROAD OUTSIDE SHOULDER-POST BRIDGE RAISE		560
HOME ROAD OUTSIDE SHOULDER-PRE DEMOLITION		560
HOME ROAD INSIDE SHOULDER -PRE DEMOLITION		560
INIDAN ROAD OUTSIDE SHOULDER-PRE RAISE		560
INDIAN ROAD INSIDE SHOULDER -PRE RAISE		560
INDIAN ROAD OUTSIDE LANE CLOSURE-BRIDGE RAISE		560
INDIAN ROAD OUTSIDE SHOULDER-POST BRIDGE RAISE		560
SUBTOTAL SOUTHBOUND	**1,120**	**17,920**
SUBTOTALNORTHBOUND	**1,120**	**17,920**
GRAND TOTAL	**2,240**	**35,840**

REVISIONS DESCRIPTION	DATE

DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

SUMMARY OF QUANTITIES (TRAFFIC)

COUNTY KAY HIGHWAY/ROAD I-35 STATE JOB NO. 24432(15) SHEET NO. AT02

I-35 BRIDGES US-60 TO OK-KS STATE LINE

Friday, October 26, 2018 3:53:07 PM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070- SUMMARY SHEET.dwg

REVISIONS		
REV. NO.	DESCRIPTION	DATE

LIFTING OF THE EXISTING BRIDGES:

THE EXISTING BRIDGES SHALL BE LIFTED USING FALSEWORK AND JACKING INSTALLED AT THE ABUTMENTS AND PIERS. SEE THE GENERAL NOTE "FALSEWORK AND JACKING" FOR ADDITIONAL INFORMATION. CONTRACTOR SHALL SUBMIT THE PROPOSED BRIDGE RAISE SEQUENCE TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION OF FALSEWORK.

1. CONTRACTOR SHALL PROVIDE A MINIMUM OF 2 BACKUP JACKS FOR EACH SIZE/TYPE OF JACK USED.
2. CONTRACTOR SHALL PROVIDE A MINIMUM OF 2 SETS OF BACKUP HYDRAULIC HOSES, PUMPS, AND MANIFOLDS.
3. HYDRAULIC JACKS SHALL HAVE A MINIMUM CAPACITY OF 1.5 TIMES THE ANTICIPATED MAXIMUM JACK REACTION. ALL HYDRAULIC JACKS SHALL HAVE LOCKING COLLARS.
4. DURING THE BRIDGE RAISE, THE CONTRACTOR SHALL HAVE AUDIBLE AND VISUAL COMMUNICATION WITH ALL JACK LOCATIONS AT ALL TIMES.
5. DOWEL BARS MAY BE PRESENT AT BEARING LOCATIONS. CONTRACTOR SHALL BE PREPARED TO CUT AND/OR REMOVE BARS IF PRESENT.
6. PHASED LIFTING OPERATIONS ARE NECESSARY TO RAISE THE BRIDGE. TEMPORARY BOLSTERS WILL BE REQUIRED AT EACH JACK LOCATION.

ALL COSTS TO INSTALL FALSEWORK AND JACKING ON THE BRIDGE INCLUDING THE COST OF ALL MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LUMP SUM OF "FALSEWORK AND JACKING."

INDEX OF BRIDGE SHEETS

SUGGESTED BRIDGE RAISE SEQUENCE NOTES:

1. INSTALL TRAFFIC CONTROL DEVICES ALONG MAINLINE I-35. SEE TRAFFIC CONTROL PLANS FOR MORE INFORMATION REGARDING MAINTENANCE OF TRAFFIC.
2. REMOVE ANY APPURTENANCES AS NECESSARY. THIS INCLUDES ANY ATTACHED UTILITIES AND SIGNS. THIS MAY ALSO INCLUDE LOOSE OR DAMAGED CONCRETE CURB AND RAIL. REMOVE ALL LOOSE DEBRIS.
3. INSTALL JACKING BRACKETS. USE A PACHOMETER OR OTHER APPROVED METHOD TO LOCATE EXISTING REINFORCEMENT PRIOR TO CORING/DRILLING HOLES FOR BRACKETS.
4. INSTALL JACKS, TRANSFER BEAMS, AND SHIMS. INSTALLATION OF JACKS SHALL BE COORDINATED WITH TIMELINE FOR JACKING OPERATIONS.
5. PERFORM ON-SITE COORDINATION MEETING WITH ENGINEERS, INSPECTORS, AND WORKERS TO DISCUSS PROCESSES AND SPECIFICATIONS FOR JACKING OPERATIONS.
6. CONFIRM ALL HYDRAULIC PUMPS ARE WORKING AND PROVIDE BACKUPS AS SPECIFIED.
7. CLOSE LOCAL ROAD. SEE TRAFFIC CONTROL PLANS FOR MORE INFORMATION REGARDING MAINTENANCE OF TRAFFIC. EXCAVATE DOWN TO EXPOSE THE FULL THICKNESS OF SLAB TO TOP OF ABUTMENT SEAT.
8. INSTALL 2 KIP COUNTERWEIGHT AT EACH ABUTMENT WINGWALL PILE (FOUR TOTAL) ON APPROACH PAVEMENT SIDE.
9. INSTALL CONTAINMENT SYSTEM TO PREVENT DEBRIS FROM FALLING ON I-35. INSTALL ADDITIONAL TRAFFIC CONTROL ALONG MAINLINE I-35. TRAFFIC CONTROL SHALL BE COORDINATED WITH RAISING OPERATIONS.
10. ENERGIZE JACKS. RAISE BRIDGE UNTIL VISIBLE GAP BETWEEN EXISTING SLAB AND SUBSTRUCTURE. CHECK ALL JACK REACTIONS, HYDRAULIC PUMPS, AND DEFLECTIONS. GAP AT ALL SUBSTRUCTURE ELEMENTS SHOULD BE EQUAL. ADJUST JACK PRESSURES UNTIL REACTIONS AT ABUTMENTS ARE EQUAL AND REACTIONS AT SHOULDER PIERS ARE EQUAL. RECORD JACK REACTIONS AS "TARGET REACTIONS." AFTER LIFT-OFF CHECK IS COMPLETE, CONTINUE RAISE.
11. RAISE BRIDGE 8"±. MAINTAIN "TARGET REACTIONS" THROUGHOUT LIFT. SEE JACKING TABLE FOR MORE INFORMATION. LOCK ALL JACKS. INSTALL TEMPORARY STEEL BOLSTERS AT BRACKETS. SHIM TIGHT. RELEASE JACKS UNIFORMLY ACROSS ALL SUBSTRUCTURE LOCATIONS.
12. INSTALL SHIM STACK BELOW JACKS. RESET JACKS. ENERGIZE JACKS. CONTINUE RAISING BRIDGE WHILE MONITORING PRESSURES, REACTIONS, AND DEFLECTIONS.
13. REPEAT STEPS 11 AND 12 AS REQUIRED TO RAISE BRIDGE TO FINAL ELEVATION +3". LOCK ALL JACKS.
14. PRIOR TO INSTALLATION OF PREFABRICATED BOLSTERS, CLEAN BEARING SEATS WITH WIRE BRUSH AND COMPRESSED AIR. PERFORM VISUAL INSPECTION OF SEATS. IF ANY DEFECTS ARE NOTED, NOTIFY THE ENGINEER.
15. INSTALL BOLSTERS. SEE SUGGESTED BOLSTER INSTALLATION DETAILS.
16. ONCE BOLSTERS ARE PERMANENTLY INSTALLED, LOWER BRIDGE TO FINAL ELEVATION. RELEASE JACKS AND REMOVE FALSEWORK. PATCH HOLES AT PIERS AND CUT ANCHORS FLUSH AT ABUTMENTS. REMOVE COUNTERWEIGHTS FROM STEP NO. 8.
17. RE-OPEN I-35 TO 2 LANES IN EACH DIRECTION.
18. REMAINING IMPROVEMENTS TO STRUCTURE SHALL BE DONE WITH MINIMAL DISRUPTIONS TO MAINLINE TRAFFIC.
19. AFTER WORK IS COMPLETED FOR BRIDGE AND ROADWAY IMPROVEMENTS, LOCAL ROAD MAY BE RE-OPENED TO TRAFFIC.

JACKING TABLE BRIDGES A-F

SUBSTRUCTURE LOCATION	NUMBER OF JACKS	TOTAL LOAD	ANTICIPATED REACTION	MAXIMUM REACTION	MAX. DIFF. DISPLACEMENT
		KIP	KIP/JACK	KIP/JACK	IN
ABUTMENT NO. 1	5	45	9	14	±½
PIER NO. 1	2	420	210	225	±5/16
PIER NO. 2	4	592	148	210	±5/16
PIER NO. 3	2	420	210	225	±5/16
ABUTMENT NO. 2	5	45	9	14	±½

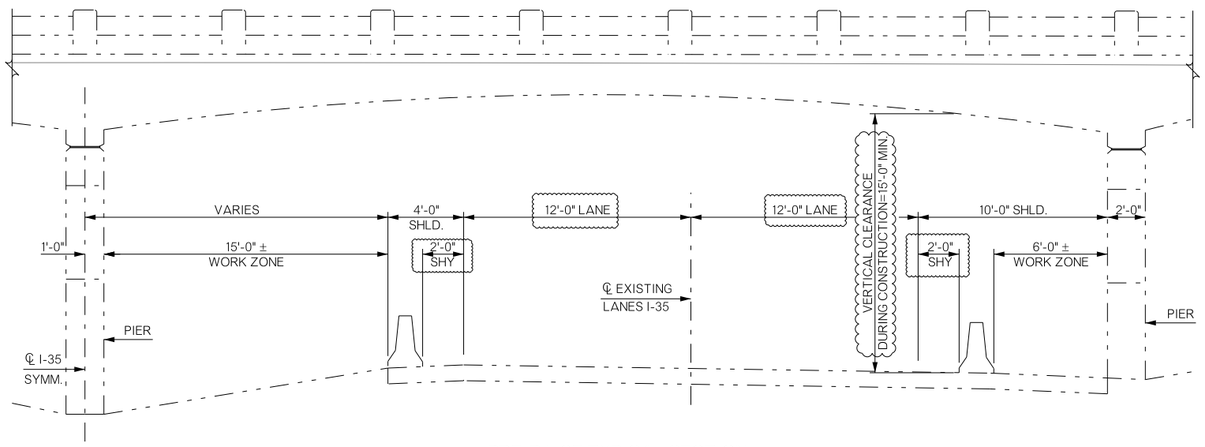
JACKING TABLE BRIDGE G

SUBSTRUCTURE LOCATION	NUMBER OF JACKS	TOTAL LOAD	ANTICIPATED REACTION	MAXIMUM REACTION	MAX. DIFF. DISPLACEMENT
		KIP	KIP/JACK	KIP/JACK	IN
ABUTMENT NO. 1	5	54	11	15	±½
PIER NO. 1	2	455	227	247	±5/16
PIER NO. 2	4	645	161	234	-⅜ TO +¼
PIER NO. 3	2	455	227	247	±5/16
ABUTMENT NO. 2	5	54	11	15.0	±½

JACKING TABLE BRIDGE J

SUBSTRUCTURE LOCATION	NUMBER OF JACKS	TOTAL LOAD	ANTICIPATED REACTION	MAXIMUM REACTION	MAX. DIFF. DISPLACEMENT
		KIP	KIP/JACK	KIP/JACK	IN
ABUTMENT NO. 1	5	44	9	12	±½
PIER NO. 1	2	364	182	197	±5/16
PIER NO. 2	4	520	130	182	-5/16 TO +¼
PIER NO. 3	2	364	182	197	±5/16
ABUTMENT NO. 2	5	44	9	12.0	±½

NOTE: ALL ANTICIPATED JACK REACTIONS WERE DETERMINED USING 1.0 *DL. DIFFERENTIAL DISPLACEMENT IS MEASURED RELATIVE TO THE TOTAL DISPLACEMENT MEASURED AT THE ADJACENT SUBSTRUCTURE LOCATION(S). LIFTING OPERATIONS WILL BE STOPPED IF MAXIMUM JACK REACTIONS OR MAXIMUM DIFFERENTIAL DISPLACMENTS ARE APPROACHED UNTIL MITIGATION PLAN HAS BEEN APPROVED BY ON-SITE ENGINEER.



PRE-RAISE TYPICAL SECTION
(SUGGESTED MAINTENANCE OF TRAFFIC)

BRIDGE A-G & J
COUNTY ROADS OVER I-35
KAY COUNTY

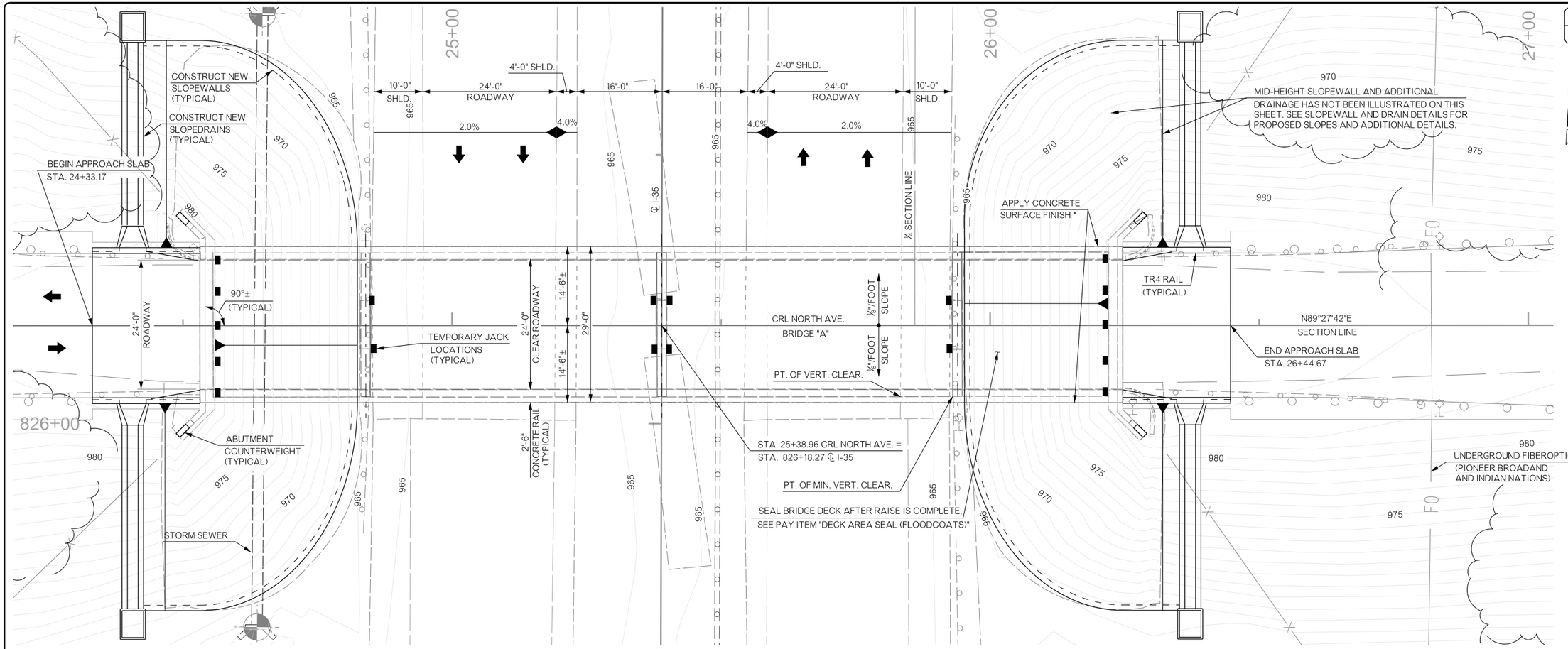
BRIDGE RAISING SEQUENCE AND JACKING TABLES

Design	SJK	07/18
Detail	KNB	10/18
Check	SJK	10/18
Squad: Engr.: THOMAS		

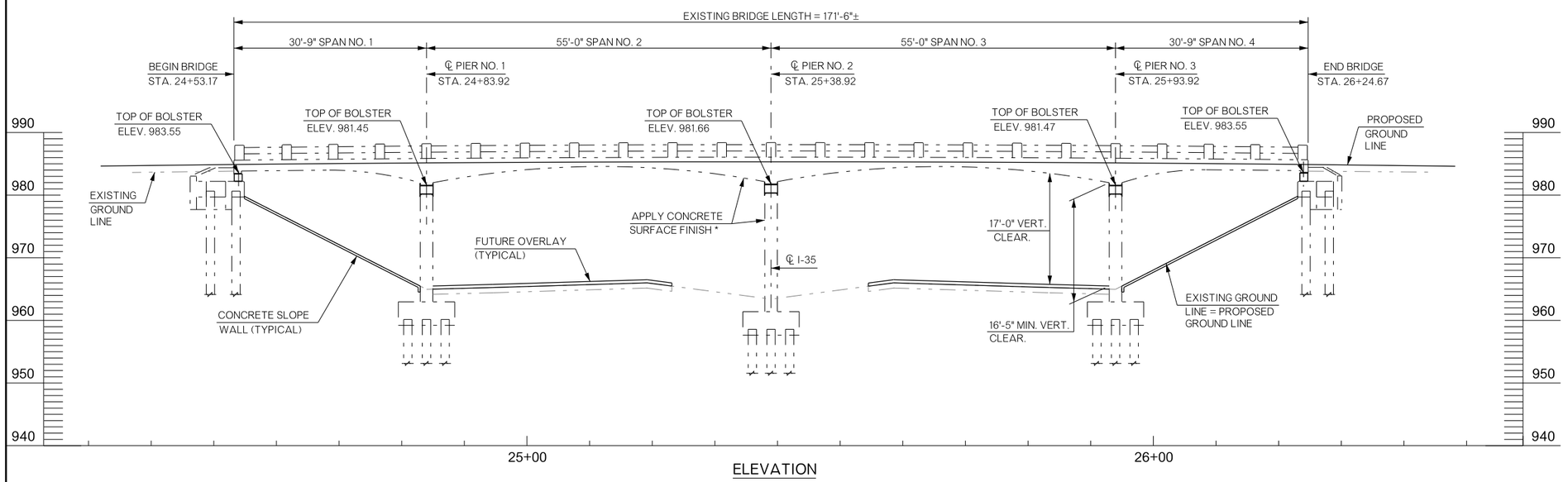
STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 24432(15) | SHEET NO. B001

REVISIONS

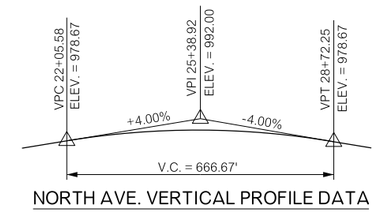
REV. NO.	DESCRIPTION	DATE



PLAN



ELEVATION



NORTH AVE. VERTICAL PROFILE DATA

NOTES:

1. ELEVATION SHOWS THE BRIDGE IN THE RAISED POSITION.
2. * APPLY CONCRETE SURFACE FINISH TO THE SLAB FASCIAS, THE UNDERSIDE OF THE SLAB, THE EXPOSED ABUTMENT AND WINGWALL SURFACES, AND THE PIERS.
3. SEE ABUTMENT AND PIER FALSEWORK DETAILS FOR TEMPORARY JACK LOCATIONS.
4. CLEARANCES SHOWN ARE TO THE FUTURE I-35 OVERLAY PROJECT.
5. STATIONS AND DIMENSIONS GIVEN ARE APPROXIMATE. EXISTING STATIONS AND DIMENSIONS SHALL BE FIELD VERIFIED.

BRIDGE "A"
NORTH AVE. OVER I-35

KAY COUNTY

GENERAL PLAN AND ELEVATION

EXISTING 30'-55'-55'-30' CONT. CONC. SLAB SPANS
24' CLEAR ROADWAY

Design	JDK	10/17
Detail	KNB	10/17
Check	SJK	07/18

Squad:
Engr.: THOMAS

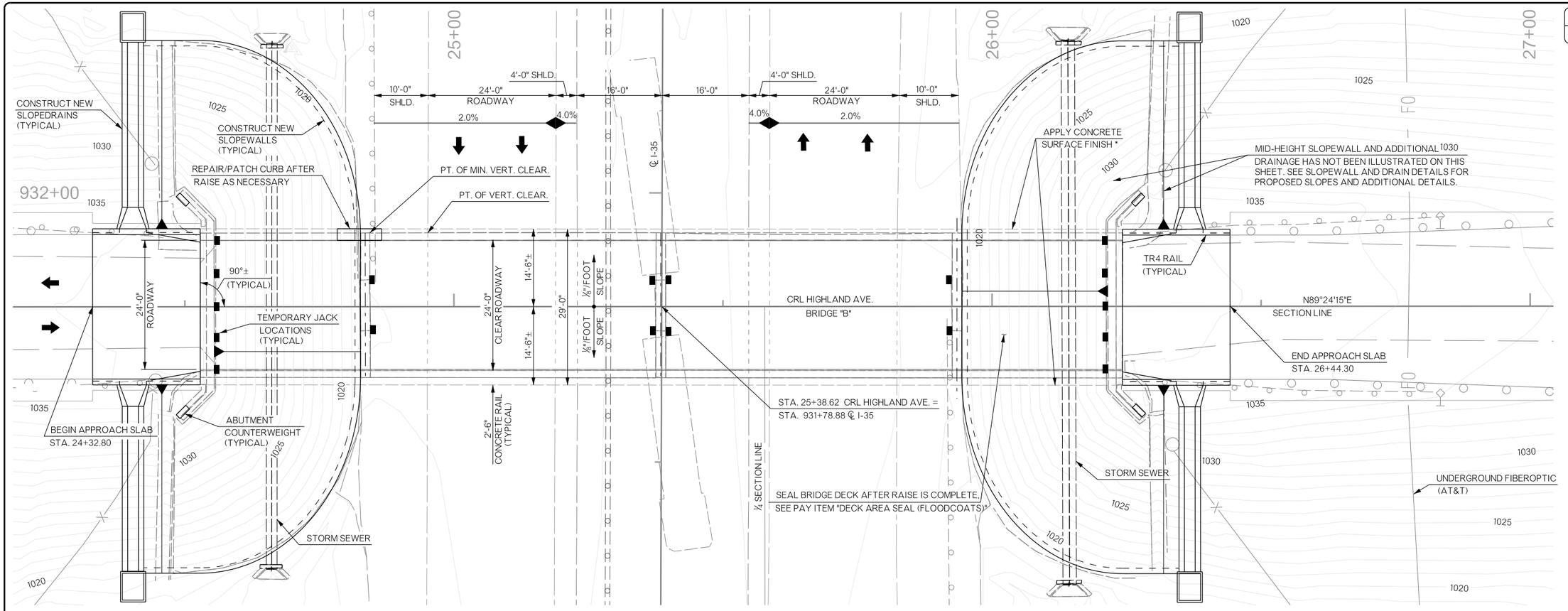
STATE OF OKLAHOMA

DEPARTMENT OF TRANSPORATION

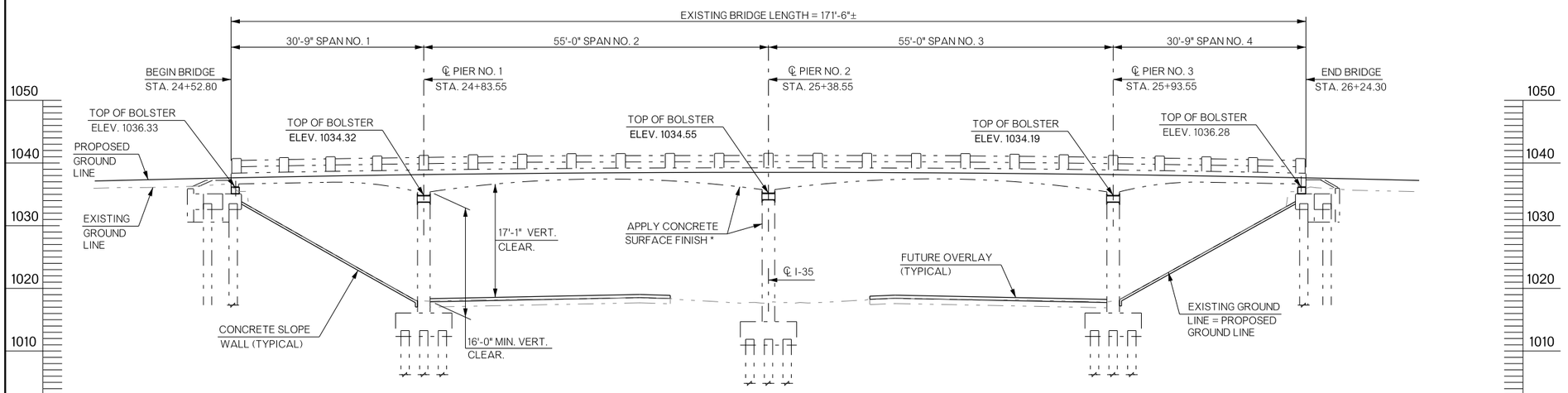
JOB PIECE NO. 24432(15)

SHEET NO. B002

REVISIONS		
REV. NO.	DESCRIPTION	DATE



PLAN



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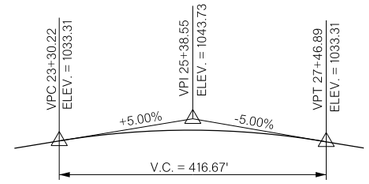


HIGHLAND AVE. VERTICAL PROFILE DATA

NOTES:

1. ELEVATION SHOWS THE BRIDGE IN THE RAISED POSITION.
2. * APPLY CONCRETE SURFACE FINISH TO THE SLAB FASCIAS, THE UNDERSIDE OF THE SLAB, THE EXPOSED ABUTMENT AND WINGWALL SURFACES, AND THE PIERS.
3. SEE ABUTMENT AND PIER FALSEWORK DETAILS FOR TEMPORARY JACK LOCATIONS.
4. CLEARANCES SHOWN ARE TO THE FUTURE I-35 OVERLAY PROJECT.
5. STATIONS AND DIMENSIONS GIVEN ARE APPROXIMATE. EXISTING STATIONS AND DIMENSIONS SHALL BE FIELD VERIFIED.

BRIDGE "B" KAY COUNTY
HIGHLAND AVE. OVER I-35

GENERAL PLAN AND ELEVATION

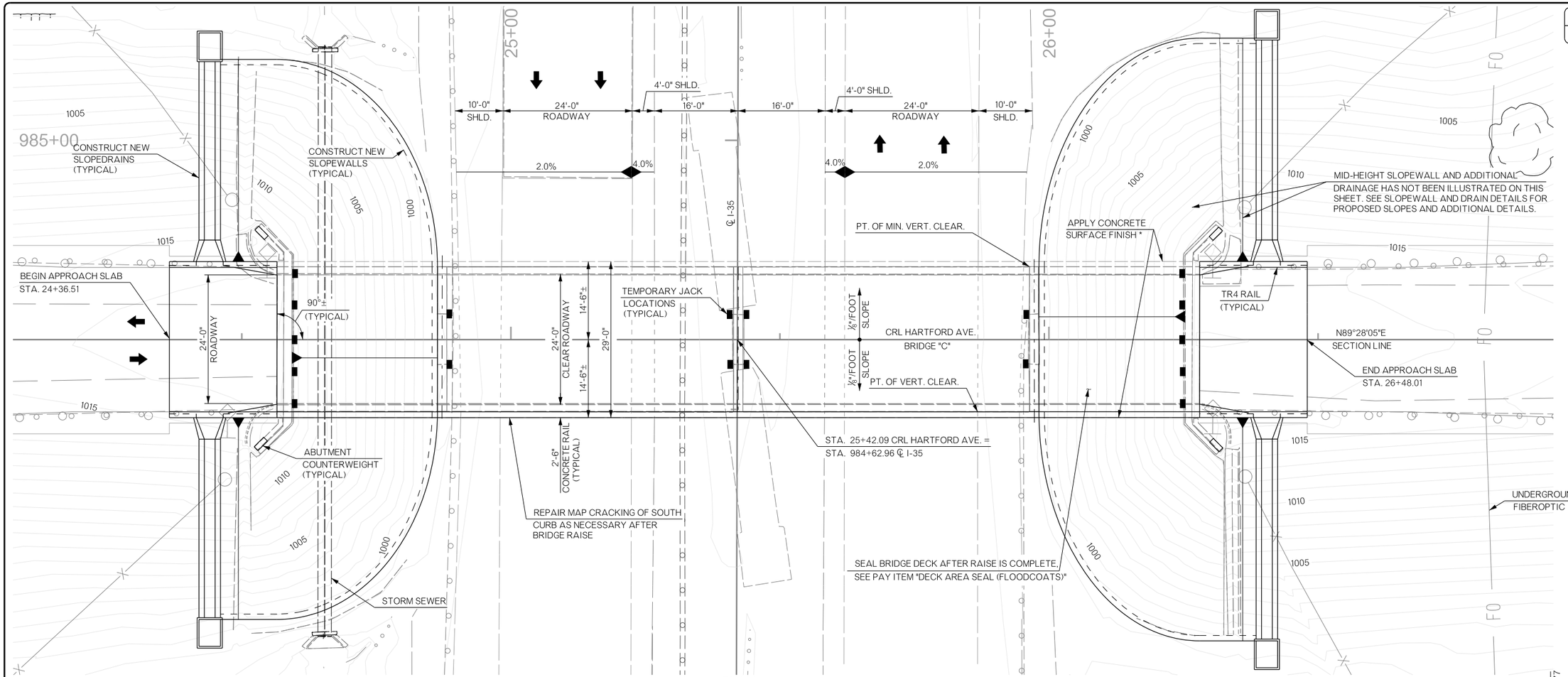
EXISTING 30'-55'-55'-30' CONT. CONC. SLAB SPANS
24' CLEAR ROADWAY

Design	JDK	10/17
Detail	KNB	10/17
Check	SJK	07/18
Squad: Engr.:	THOMAS	

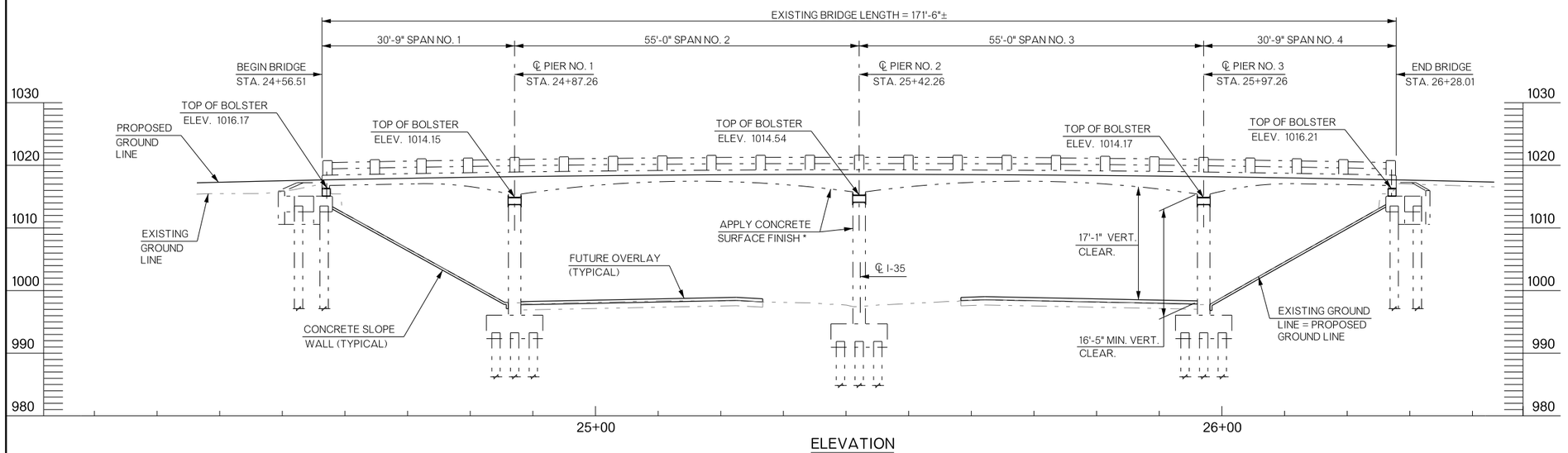
STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORATION

JOB PIECE NO. 24432(15) SHEET NO. B003

REVISIONS		
REV. NO.	DESCRIPTION	DATE



PLAN



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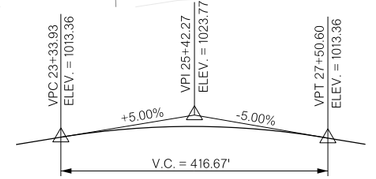


HARTFORD AVE. VERTICAL PROFILE DATA

NOTES:

1. ELEVATION SHOWS THE BRIDGE IN THE RAISED POSITION.
2. * APPLY CONCRETE SURFACE FINISH TO THE SLAB FASCIAS, THE UNDERSIDE OF THE SLAB, THE EXPOSED ABUTMENT AND WINGWALL SURFACES, AND THE PIERS.
3. SEE ABUTMENT AND PIER FALSEWORK DETAILS FOR TEMPORARY JACK LOCATIONS.
4. CLEARANCES SHOWN ARE TO THE FUTURE I-35 OVERLAY PROJECT.
5. STATIONS AND DIMENSIONS GIVEN ARE APPROXIMATE. EXISTING STATIONS AND DIMENSIONS SHALL BE FIELD VERIFIED.

BRIDGE "C" KAY COUNTY
HARTFORD AVE. OVER I-35

GENERAL PLAN AND ELEVATION

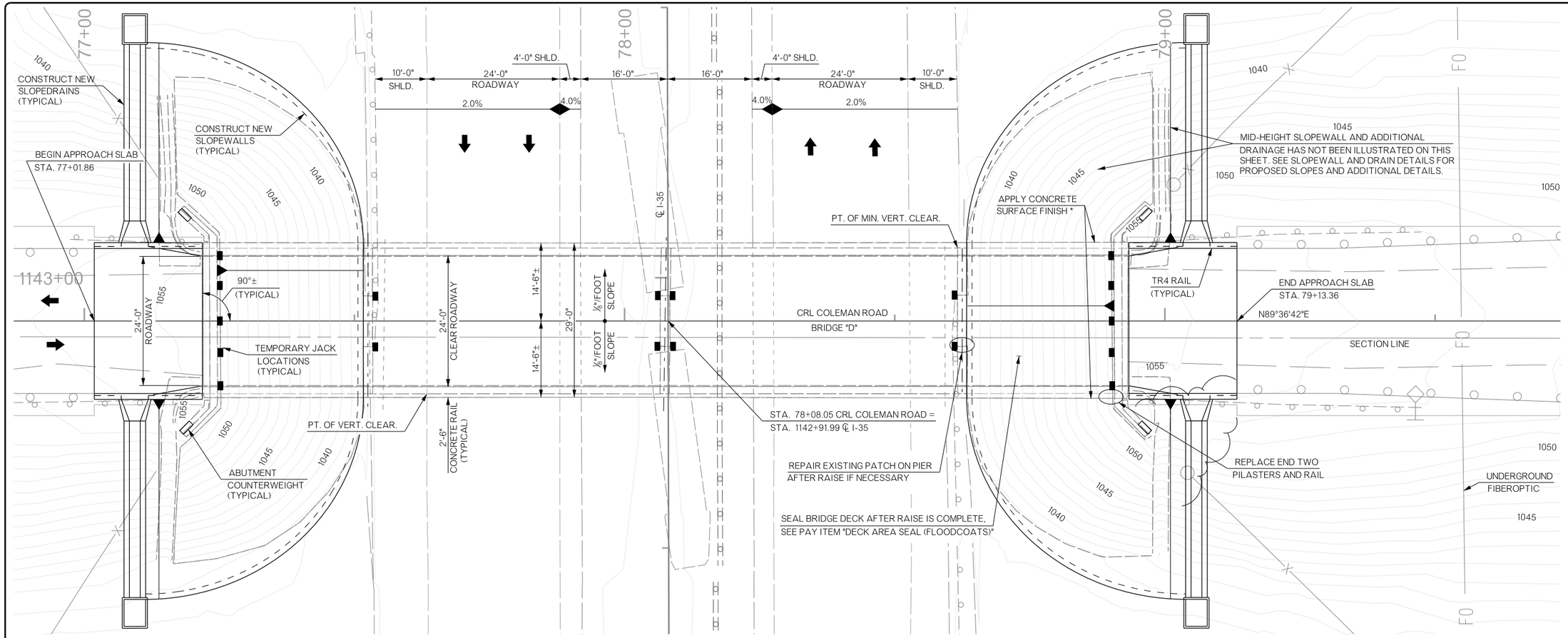
EXISTING 30'-55'-55'-30' CONT. CONC. SLAB SPANS
24' CLEAR ROADWAY

Design	JDK	10/17
Detail	KNB	10/17
Check	SJK	07/18
Squad.		
Engr.:	THOMAS	

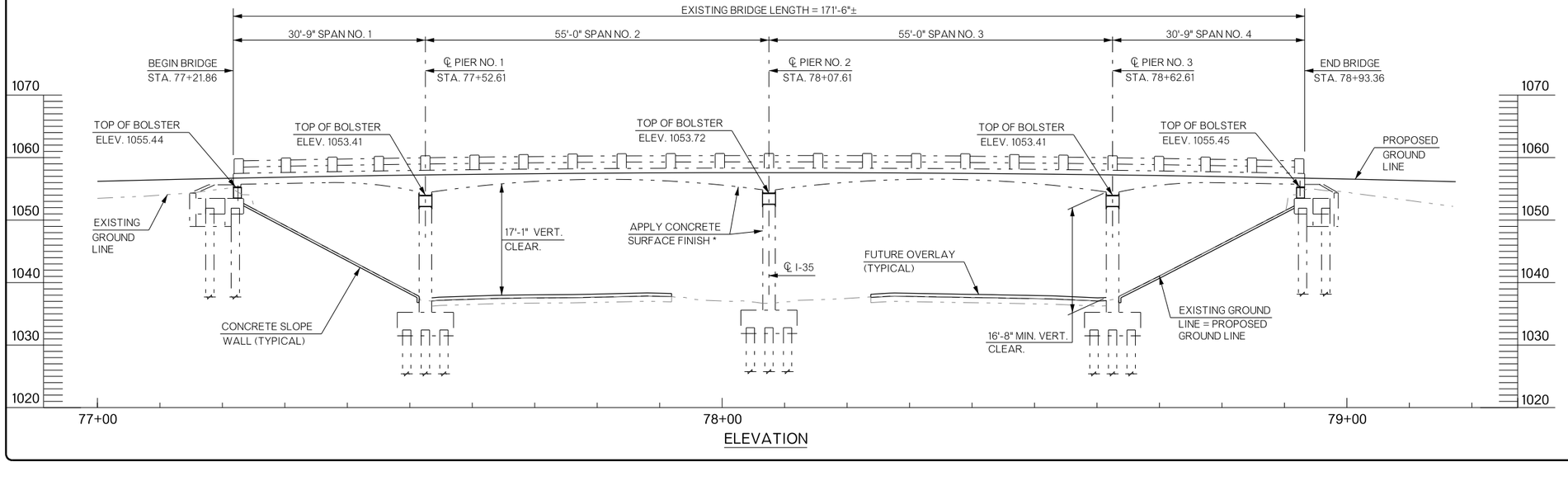
STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORATION

JOB PIECE NO. 24432(15) SHEET NO. B004

REVISIONS		
REV. NO.	DESCRIPTION	DATE



PLAN



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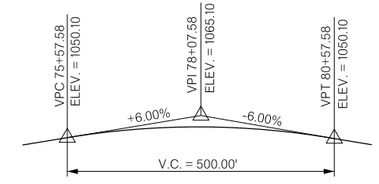


COLEMAN ROAD VERTICAL PROFILE DATA

NOTES:

1. ELEVATION SHOWS THE BRIDGE IN THE RAISED POSITION.
2. * APPLY CONCRETE SURFACE FINISH TO THE SLAB FASCIAS, THE UNDERSIDE OF THE SLAB, THE EXPOSED ABUTMENT AND WINGWALL SURFACES, AND THE PIERS.
3. SEE ABUTMENT AND PIER FALSEWORK DETAILS FOR TEMPORARY JACK LOCATIONS.
4. CLEARANCES SHOWN ARE TO THE FUTURE I-35 OVERLAY PROJECT.
5. STATIONS AND DIMENSIONS GIVEN ARE APPROXIMATE. EXISTING STATIONS AND DIMENSIONS SHALL BE FIELD VERIFIED.

BRIDGE "D" KAY COUNTY
COLEMAN ROAD OVER I-35

GENERAL PLAN AND ELEVATION

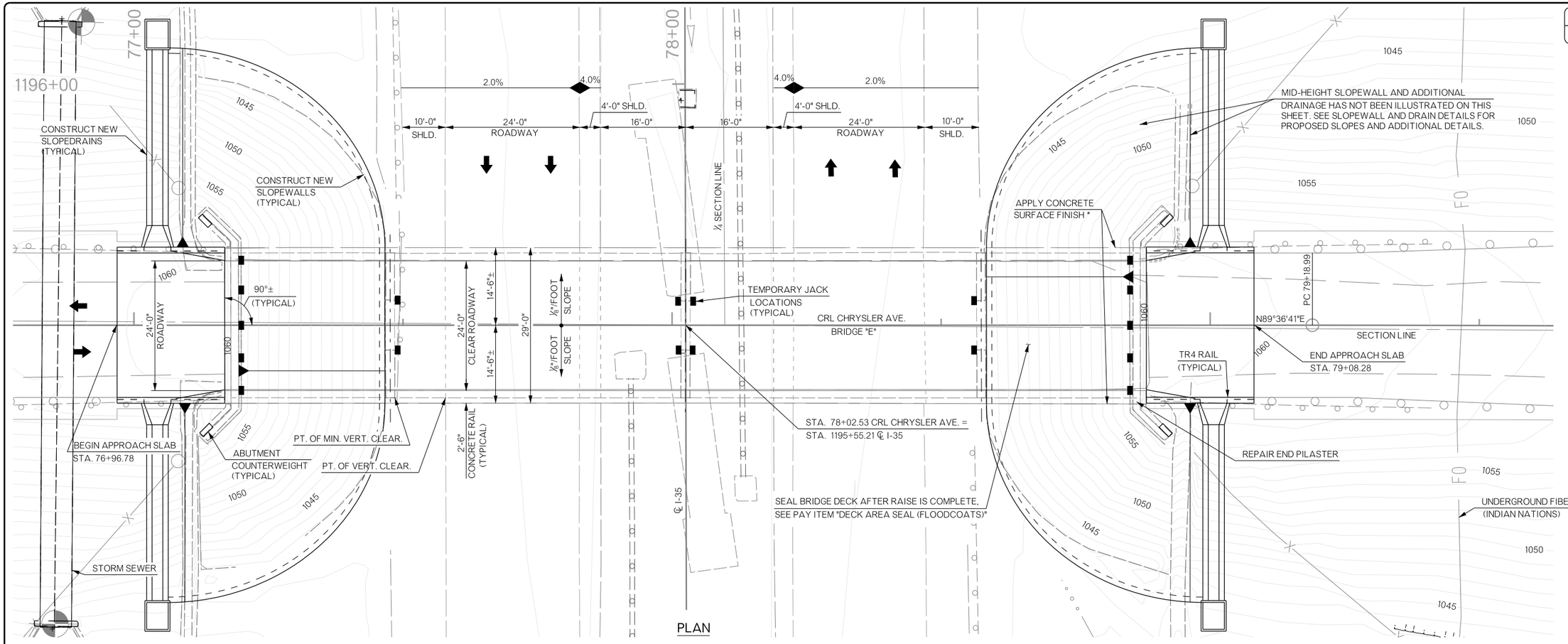
EXISTING 30'-55'-55'-30' CONT. CONC. SLAB SPANS
24' CLEAR ROADWAY

Design	JDK	10/17
Detail	KNB	10/17
Check	SJK	07/18
Squad: Engr.:	THOMAS	

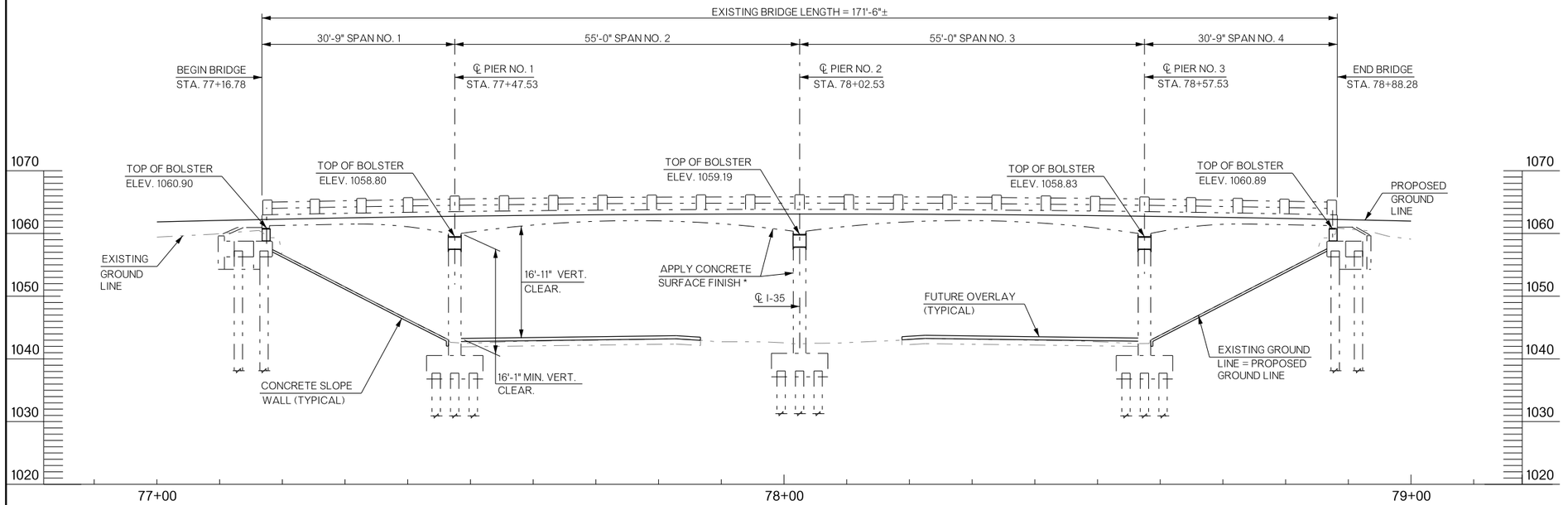
STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORATION

JOB PIECE NO. 24432(15) SHEET NO. B005

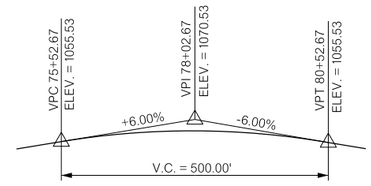
REVISIONS		
REV. NO.	DESCRIPTION	DATE



PLAN



ELEVATION



CHRYSLER AVE. VERTICAL PROFILE DATA

NOTES:

1. ELEVATION SHOWS THE BRIDGE IN THE RAISED POSITION.
2. * APPLY CONCRETE SURFACE FINISH TO THE SLAB FASCIAS, THE UNDERSIDE OF THE SLAB, THE EXPOSED ABUTMENT AND WINGWALL SURFACES, AND THE PIERS.
3. SEE ABUTMENT AND PIER FALSEWORK DETAILS FOR TEMPORARY JACK LOCATIONS.
4. CLEARANCES SHOWN ARE TO THE FUTURE I-35 OVERLAY PROJECT.
5. STATIONS AND DIMENSIONS GIVEN ARE APPROXIMATE. EXISTING STATIONS AND DIMENSIONS SHALL BE FIELD VERIFIED.

BRIDGE "E" KAY COUNTY
CHRYSLER AVE. OVER I-35

GENERAL PLAN AND ELEVATION

EXISTING 30'-55'-55'-30' CONT. CONC. SLAB SPANS
24' CLEAR ROADWAY

Design	JDK	10/17
Detail	KNB	10/17
Check	SJK	07/18

Squad:
Engr.: THOMAS

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORATION

JOB PIECE NO. 24432(15) | SHEET NO. B006

REVISIONS		
REV. NO.	DESCRIPTION	DATE

81+00 1249+00 82+00 83+00

10'-0" SHLD. | 24'-0" ROADWAY | 4'-0" SHLD. | 16'-0" | 16'-0" | 4'-0" SHLD. | 24'-0" ROADWAY | 10'-0" SHLD.

2.0% 4.0% 4.0% 2.0%

℄ I-35

CONSTRUCT NEW SLOPEDRAINS (TYPICAL)

CONSTRUCT NEW SLOPEWALLS (TYPICAL)

MID-HEIGHT SLOPEWALL AND ADDITIONAL DRAINAGE HAS NOT BEEN ILLUSTRATED ON THIS SHEET. SEE SLOPEWALL AND DRAIN DETAILS FOR PROPOSED SLOPES AND ADDITIONAL DETAILS.

PT. OF MIN. VERT. CLEAR.

PT. OF VERT. CLEAR.

APPLY CONCRETE SURFACE FINISH *

SECTION LINE

TEMPORARY JACK LOCATIONS (TYPICAL)

CRL FERGUSON AVE. BRIDGE "F"

S82°01'00"E

PC 83+21.82

PT 81+28.11

24'-0" ROADWAY

90°± (TYPICAL)

24'-0" CLEAR ROADWAY

14'-6"± 29'-0" 14'-6"±

⅛"/FOOT SLOPE

⅛"/FOOT SLOPE

2'-6" CONCRETE RAIL (TYPICAL)

BEGIN APPROACH SLAB STA. 81+12.28

STA. 82+18.03 CRL FERGUSON AVE. = STA. 1248+42.75 ℄ I-35

TR4 RAIL (TYPICAL)

END APPROACH SLAB STA. 83+23.78

UNDERGROUND FIBEROPTIC (INDIAN NATIONS)

ABUTMENT COUNTERWEIGHT (TYPICAL)

1248+00

STORM SEWER

STORM SEWER

SEAL BRIDGE DECK AFTER RAISE IS COMPLETE, SEE PAY ITEM "DECK AREA SEAL (FLOODCOATS)"

PLAN

EXISTING BRIDGE LENGTH = 171'-6"±

30'-9" SPAN NO. 1 | 55'-0" SPAN NO. 2 | 55'-0" SPAN NO. 3 | 30'-9" SPAN NO. 4

BEGIN BRIDGE STA. 81+32.28 | ℄ PIER NO. 1 STA. 81+63.03 | ℄ PIER NO. 2 STA. 82+18.03 | ℄ PIER NO. 3 STA. 82+73.03 | END BRIDGE STA. 83+03.78

TOP OF BOLSTER ELEV. 1059.26 | TOP OF BOLSTER ELEV. 1056.88 | TOP OF BOLSTER ELEV. 1057.12 | TOP OF BOLSTER ELEV. 1056.84 | TOP OF BOLSTER ELEV. 1059.19

PROPOSED GROUND LINE

APPLY CONCRETE SURFACE FINISH *

FUTURE OVERLAY (TYPICAL)

℄ I-35

17'-0" VERT. CLEAR.

16'-2" MIN. VERT. CLEAR.

EXISTING GROUND LINE = PROPOSED GROUND LINE

EXISTING GROUND LINE

CONCRETE SLOPE WALL (TYPICAL)

1070 1060 1050 1040 1030 1020

82+00 83+00

ELEVATION

VPC 78+00.00 ELEV. = 1050.45 | VPI 81+50.00 ELEV. = 1068.01 | VPT 85+00.00 ELEV. = 1056.17

+5.02% -3.38%

V.C. = 700.00'

FERGUSON AVE. VERTICAL PROFILE DATA

NOTES:

1. ELEVATION SHOWS THE BRIDGE IN THE RAISED POSITION.
2. * APPLY CONCRETE SURFACE FINISH TO THE SLAB FASCIAS, THE UNDERSIDE OF THE SLAB, THE EXPOSED ABUTMENT AND WINGWALL SURFACES, AND THE PIERS.
3. SEE ABUTMENT AND PIER FALSEWORK DETAILS FOR TEMPORARY JACK LOCATIONS.
4. CLEARANCES SHOWN ARE TO THE FUTURE I-35 OVERLAY PROJECT.
5. STATIONS AND DIMENSIONS GIVEN ARE APPROXIMATE. EXISTING STATIONS AND DIMENSIONS SHALL BE FIELD VERIFIED.

BRIDGE "F" KAY COUNTY
FERGUSON AVE. OVER I-35

GENERAL PLAN AND ELEVATION

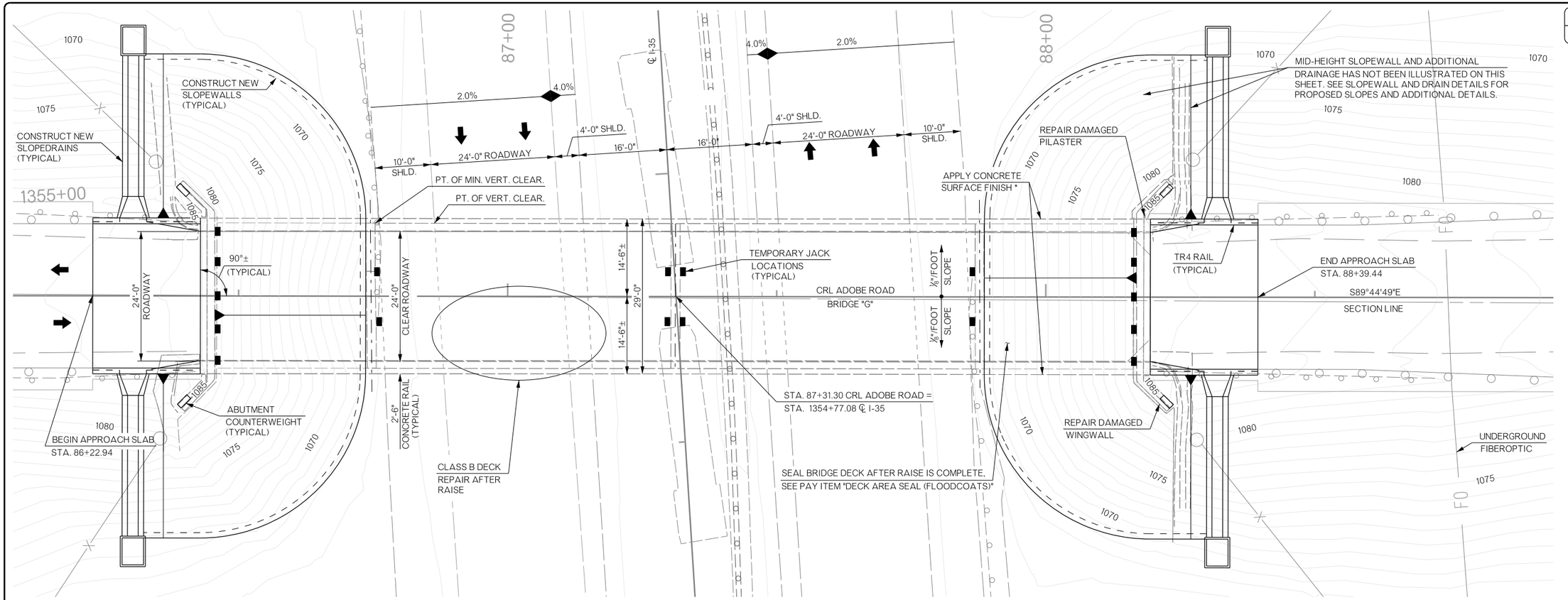
EXISTING 30'-55'-55'-30' CONT. CONC. SLAB SPANS
24' CLEAR ROADWAY

Design	JDK	10/17
Detail	KNB	10/17
Check	SJK	07/18
Squad:		
Engr.:	THOMAS	

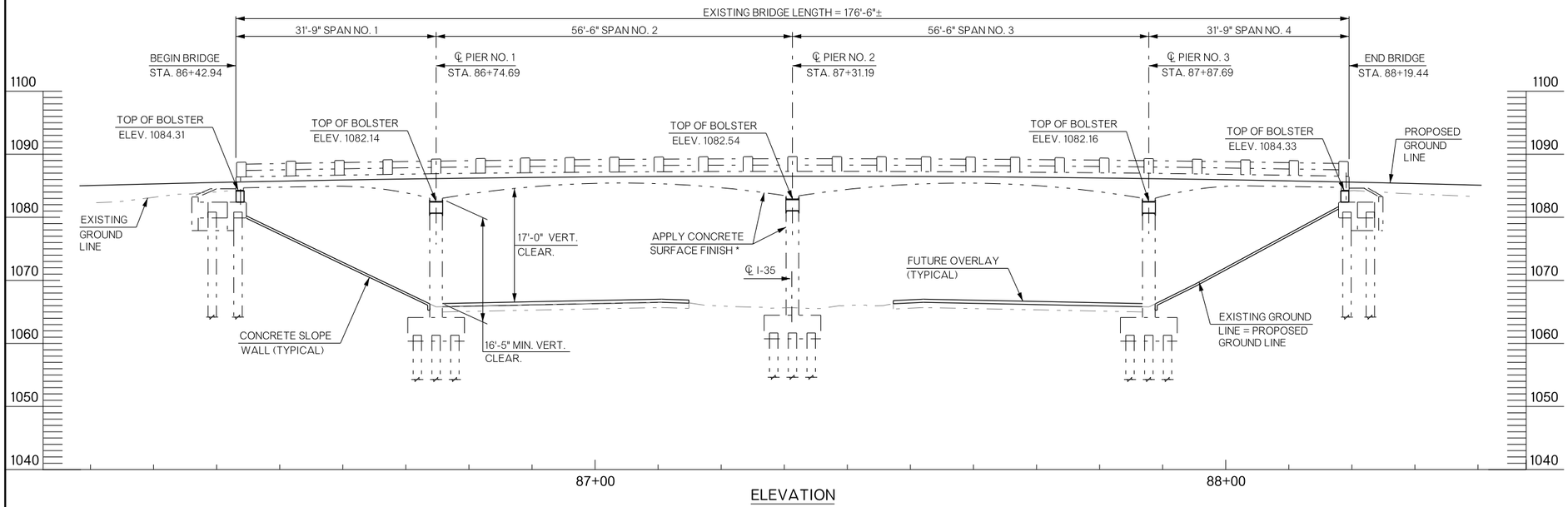
STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORATION

JOB PIECE NO. 24432(15) | SHEET NO. B007

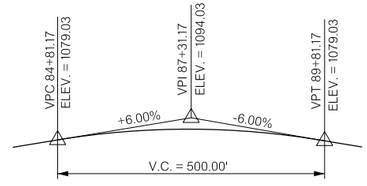
REVISIONS		
REV. NO.	DESCRIPTION	DATE



PLAN



ELEVATION



ADOBE ROAD VERTICAL PROFILE DATA

NOTES:

1. ELEVATION SHOWS THE BRIDGE IN THE RAISED POSITION.
2. * APPLY CONCRETE SURFACE FINISH TO THE SLAB FASCIAS, THE UNDERSIDE OF THE SLAB, THE EXPOSED ABUTMENT AND WINGWALL SURFACES, AND THE PIERS.
3. SEE ABUTMENT AND PIER FALSEWORK DETAILS FOR TEMPORARY JACK LOCATIONS.
4. CLEARANCES SHOWN ARE TO THE FUTURE I-35 OVERLAY PROJECT.
5. STATIONS AND DIMENSIONS GIVEN ARE APPROXIMATE. EXISTING STATIONS AND DIMENSIONS SHALL BE FIELD VERIFIED.

BRIDGE "G"
ADOBE ROAD OVER I-35

KAY COUNTY

GENERAL PLAN AND ELEVATION

EXISTING 31'-56.5'-56.5'-31' CONT. CONC. SLAB SPANS
24' CLEAR ROADWAY

Design	WJS	10/17
Detail	KNB	10/17
Check	SJK	07/18
Squad:		
Engr.:	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORATION

JOB PIECE NO. 24432(15) | SHEET NO. B008

REVISIONS		
REV. NO.	DESCRIPTION	DATE

78+00 · 79+00 · 80+00 · 874+00

10'-0" SHLD. · 24'-0" ROADWAY · 4'-0" SHLD. · 16'-0" · 16'-0" · 4'-0" SHLD. · 24'-0" ROADWAY · 10'-0" SHLD.

2.0% · 4.0% · 4.0% · 2.0%

℄ I-35

CONSTRUCT NEW SLOPEWALLS (TYPICAL)

CONSTRUCT NEW SLOPEDRAINS (TYPICAL)

MID-HEIGHT SLOPEWALL AND ADDITIONAL DRAINAGE HAS NOT BEEN ILLUSTRATED ON THIS SHEET. SEE SLOPEWALL AND DRAIN DETAILS FOR PROPOSED SLOPES AND ADDITIONAL DETAILS.

REPAIR THREE BARRIER RAIL SEGMENTS

APPLY CONCRETE SURFACE FINISH *

TR4 RAIL (TYPICAL)

TEMPORARY JACK LOCATIONS (TYPICAL)

CRL INDIAN ROAD BRIDGE "J"

N89°28'15"E SECTION LINE

END APPROACH SLAB STA. 80+00.41

BEGIN APPROACH SLAB STA. 77+88.91

ABUTMENT COUNTERWEIGHT (TYPICAL)

90°± (TYPICAL)

20'-0" ROADWAY

⅛"/FOOT SLOPE · ⅛"/FOOT SLOPE · 20'-0" CLEAR ROADWAY · 12'-6"± · 12'-6"± · 25'-0"

2'-6" CONCRETE RAIL (TYPICAL)

PT. OF VERT. CLEAR.

STA. 78+94.80 CRL INDIAN ROAD = STA. 873+78.07 ℄ I-35

PT. OF MIN. VERT. CLEAR.

SEAL BRIDGE DECK AFTER RAISE IS COMPLETE. SEE PAY ITEM "DECK AREA SEAL (FLOODCOATS)"

UNDERGROUND FIBEROPTIC (INDIAN NATIONS)

PLAN

EXISTING BRIDGE LENGTH = 171'-6"±

30'-9" SPAN NO. 1 · 55'-0" SPAN NO. 2 · 55'-0" SPAN NO. 3 · 30'-9" SPAN NO. 4

BEGIN BRIDGE STA. 78+08.91 · ℄ PIER NO. 1 STA. 78+39.66 · ℄ PIER NO. 2 STA. 78+94.66 · ℄ PIER NO. 3 STA. 79+49.66 · END BRIDGE STA. 79+80.41

TOP OF BOLSTER ELEV. 1109.78 · TOP OF BOLSTER ELEV. 1107.89 · TOP OF BOLSTER ELEV. 1108.27 · TOP OF BOLSTER ELEV. 1107.93 · TOP OF BOLSTER ELEV. 1109.73

PROPOSED GROUND LINE

EXISTING GROUND LINE

17'-0" VERT. CLEAR.

APPLY CONCRETE SURFACE FINISH *

℄ I-35

FUTURE OVERLAY (TYPICAL)

16'-3" MIN. VERT. CLEAR.

EXISTING GROUND LINE = PROPOSED GROUND LINE

CONCRETE SLOPE WALL (TYPICAL)

1120 · 1110 · 1100 · 1090 · 1080 · 1070

78+00 · 79+00 · 80+00

ELEVATION

VPC 76+44.66 ELEV. = 1104.32 · VPI 78+94.66 ELEV. = 1119.32 · VPT 81+44.66 ELEV. = 1104.32

+6.00% · -6.00%

V.C. = 500.00'

INDIAN ROAD VERTICAL PROFILE DATA

NOTES:

1. ELEVATION SHOWS THE BRIDGE IN THE RAISED POSITION.
2. * APPLY CONCRETE SURFACE FINISH TO THE SLAB FASCIAS, THE UNDERSIDE OF THE SLAB, THE EXPOSED ABUTMENT AND WINGWALL SURFACES, AND THE PIERS.
3. SEE ABUTMENT AND PIER FALSEWORK DETAILS FOR TEMPORARY JACK LOCATIONS.
4. CLEARANCES SHOWN ARE TO THE FUTURE I-35 OVERLAY PROJECT.
5. STATIONS AND DIMENSIONS GIVEN ARE APPROXIMATE. EXISTING STATIONS AND DIMENSIONS SHALL BE FIELD VERIFIED.

BRIDGE "J" KAY COUNTY
INDIAN ROAD OVER I-35

GENERAL PLAN AND ELEVATION

EXISTING 30'-55'-55'-30' CONT. CONC. SLAB SPANS
20' CLEAR ROADWAY

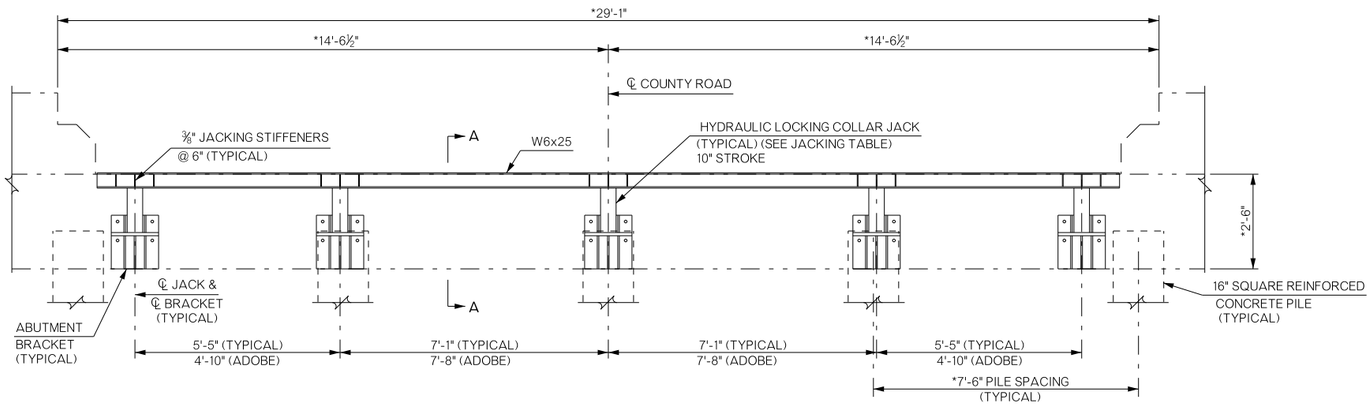
Design	JDK	10/17
Detail	KNB	10/17
Check	SJK	07/18

Squad:
Engr.: THOMAS

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORATION

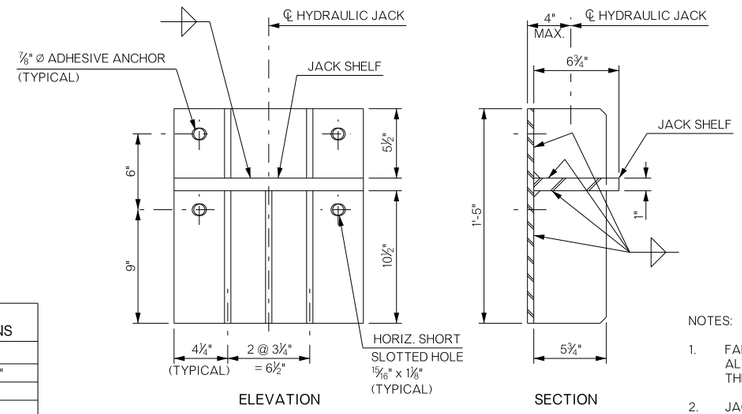
JOB PIECE NO. 24432(15) | SHEET NO. B009

REVISIONS		
REV. NO.	DESCRIPTION	DATE



ABUTMENT NO. 1 ELEVATION

(LOOKING WEST, ABUTMENT NO. 2 SIMILAR)
(SLAB NOT SHOWN FOR CLARITY)



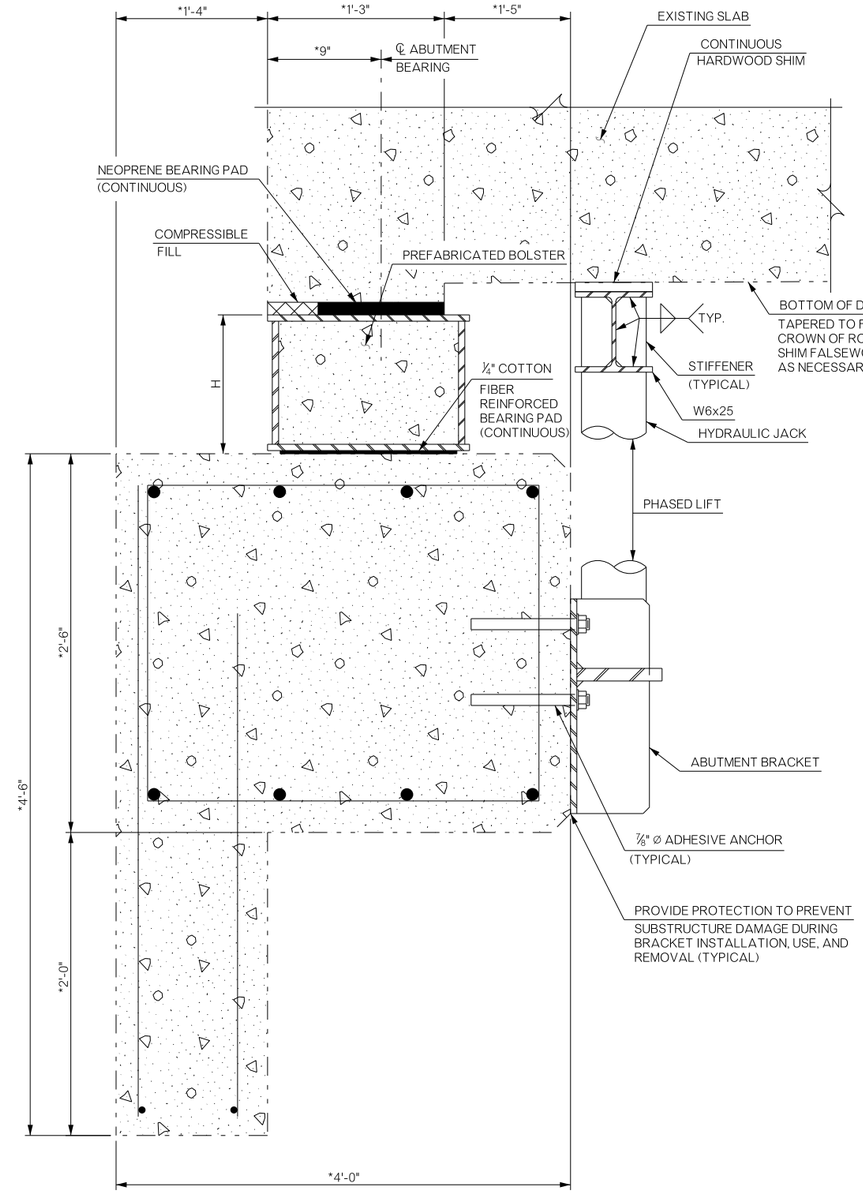
ABUTMENT BRACKET DETAIL

ALL PLATE THICKNESSES ARE ½" UNLESS NOTED OTHERWISE.

TABLE OF RAISE DIMENSIONS	
LOCATION	H
BRIDGE "A"	1'-2"
BRIDGE "B"	11"
BRIDGE "C"	8"
BRIDGE "D"	1'-5"
BRIDGE "E"	1'-6"
BRIDGE "F"	1'-3"
BRIDGE "G"	1'-3"

NOTES:

1. FALSEWORK AND JACKING SHOWN ARE FOR CONTRACTOR'S INFORMATION ONLY. ALTERNATIVE FALSEWORK AND JACKING MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
2. JACKS SHALL BE DESIGNED FOR NOT LESS THAN 1.5 TIMES THE ESTIMATED MAXIMUM JACKING LOAD. SEE JACKING TABLE ON BRIDGE RAISING SEQUENCE SHEET.
3. ABUTMENT ADHESIVE ANCHORS SHALL BE STAINLESS STEEL. AFTER BRIDGE RAISE IS COMPLETE AND FALSEWORK HAS BEEN REMOVED, ADHESIVE ANCHORS SHALL BE CUT OFF FLUSH WITH THE FACE OF THE ABUTMENT.
4. ABUTMENT ADHESIVE ANCHORS ARE ASSUMED TO HAVE A MAXIMUM EMBEDMENT LENGTH OF 7.875". FOR EMBEDMENT LENGTH GREATER THAN 7.875", CONTRACTOR SHALL CHECK FOR INTERFERENCE WITH PRECAST PILES. HAS-R STAINLESS STEEL HILTI ADHESIVE ANCHORS WITH HIT-RE 500 V3 EPOXY ADHESIVE OR APPROVED EQUIVALENT MAY BE USED.
5. ALL WELDS THIS SHEET SHALL BE DOUBLE-SIDED 5⁄16" FILLET WELDS MINIMUM UNLESS NOTED OTHERWISE. CJP WELDS MAY BE SUBSTITUTED FOR FILLET WELDS. NO FIELD WELDING IS PERMITTED FOR FABRICATION OF BOLSTERS AND FALSEWORK.
6. * DIMENSIONS SHOWN ARE TAKEN FROM EXISTING PLANS. FIELD VERIFY.
7. RAISE DIMENSION OF "H" BASED ON ELEVATIONS NOTED ON GENERAL PLAN AND ELEVATION SHEET. ADJUSTMENTS WILL BE NEEDED IF ELEVATIONS ARE FOUND TO BE LOWER THAN THOSE NOTED.
8. ALL STRUCTURAL STEEL SHALL CONFORM TO AASHTO M270 GR. 50.



SECTION A-A

(PILES NOT SHOWN FOR CLARITY)

BRIDGE "A" - "G"
COUNTY ROAD OVER I-35

KAY COUNTY

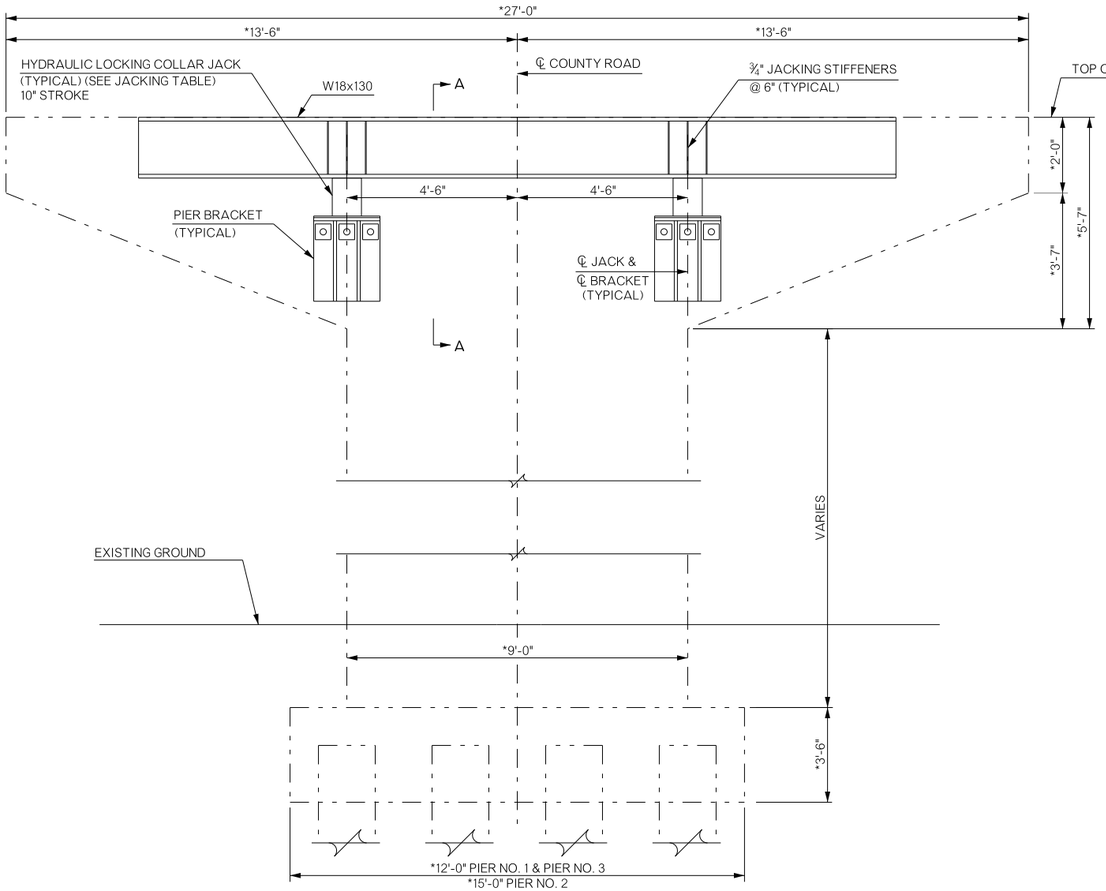
ABUTMENT FALSEWORK TYPE 1

24'-0" CLEAR ROADWAY

Design	SJK	10/17
Detail	KNB	10/17
Check	SJK	07/18
Squad:		
Engr.:	THOMAS	

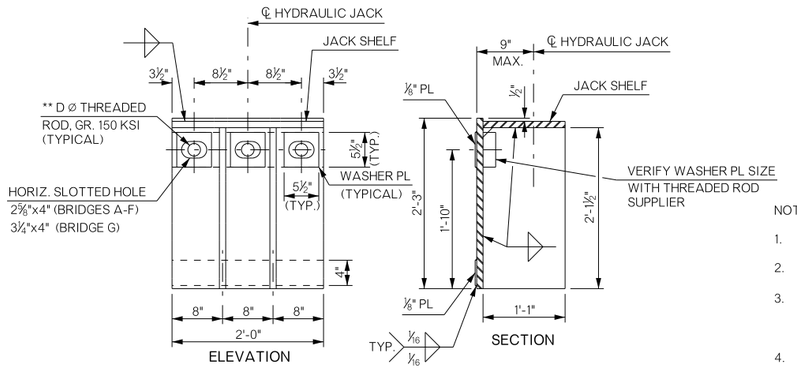
STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 24432(15) | SHEET NO. B010



PIER ELEVATION

(SLAB NOT SHOWN FOR CLARITY)



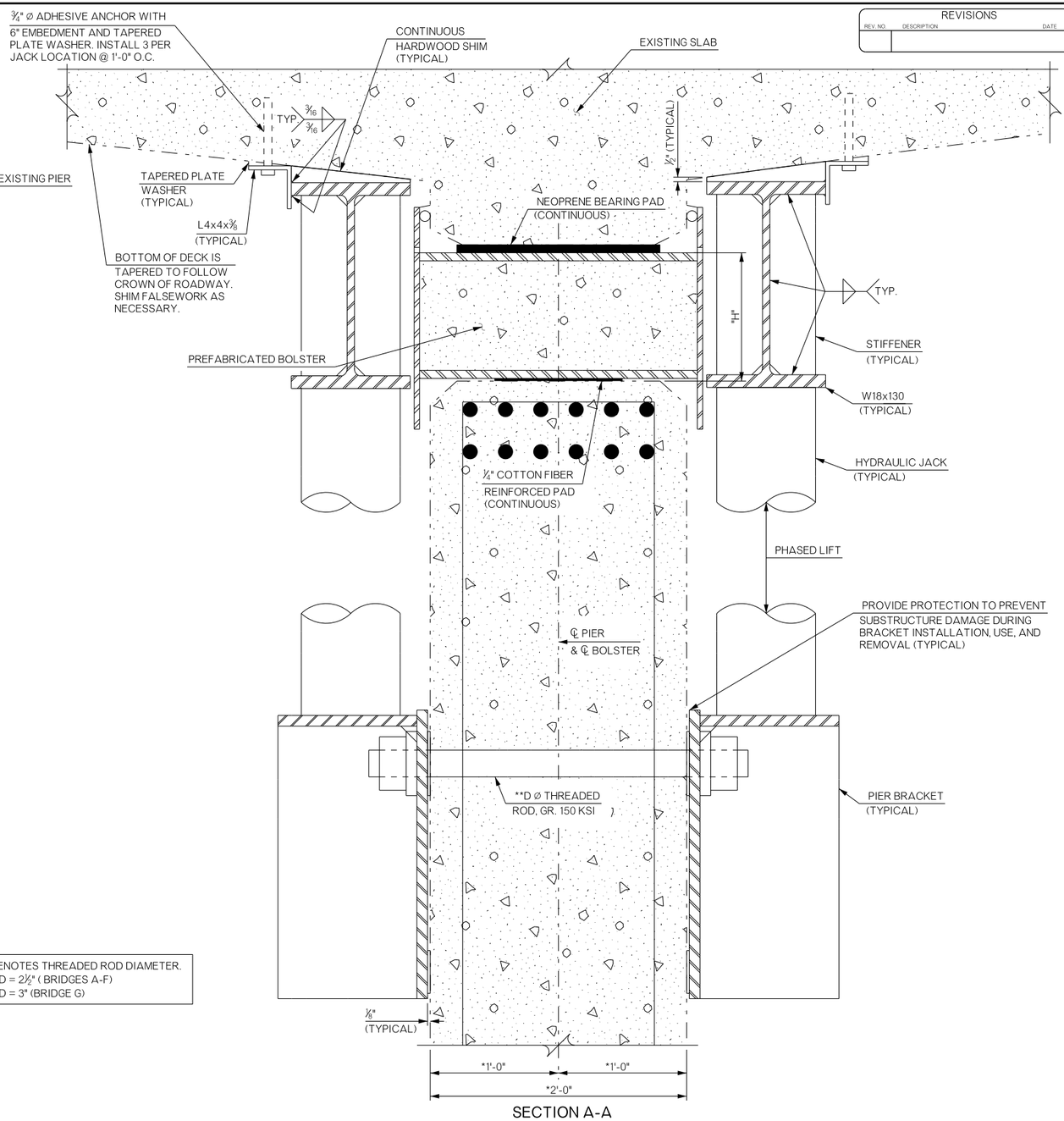
PIER BRACKET DETAIL

ALL PLATE THICKNESSES ARE 1"
UNLESS NOTED OTHERWISE

** D DENOTES THREADED ROD DIAMETER.
D = 2½" (BRIDGES A-F)
D = 3" (BRIDGE G)

NOTES:

1. SEE NOTES ON SHEET B010.
2. * DIMENSIONS SHOWN ARE TAKEN FROM EXISTING PLANS. FIELD VERIFY AS NEEDED.
3. ALL WELDS THIS SHEET SHALL BE DOUBLE SIDED ½" FILLET WELDS MINIMUM UNLESS NOTED OTHERWISE. CJP WELDS MAY BE SUBSTITUTED FOR FILLET WELDS. NO FIELD WELDING IS PERMITTED FOR FABRICATION OF BOLSTERS AND FALSEWORK.
4. RAISE DIMENSION OF "H" BASED ON ELEVATIONS NOTED IN GENERAL PLAN AND ELEVATION SHEET. ADJUSTMENTS WILL BE NEEDED IF ELEVATIONS ARE FOUND TO BE LOWER THAN THOSE NOTED.
5. FOR "H" DIMENSION, SEE TABLE ON SHEET B010.
6. THREADED ROD SHALL CONFORM TO ASTM A722, GR. 150.



SECTION A-A

(PIER NO. 2 SHOWN)
(JACKS LOCATED AT PIERS NO. 1 AND NO. 3 AS SHOWN IN PLANS.)

REVISIONS

REV. NO.	DESCRIPTION	DATE

BRIDGE "A" - "G"
COUNTY ROAD OVER I-35

KAY COUNTY

PIER FALSEWORK TYPE 1

24'-0" CLEAR ROADWAY

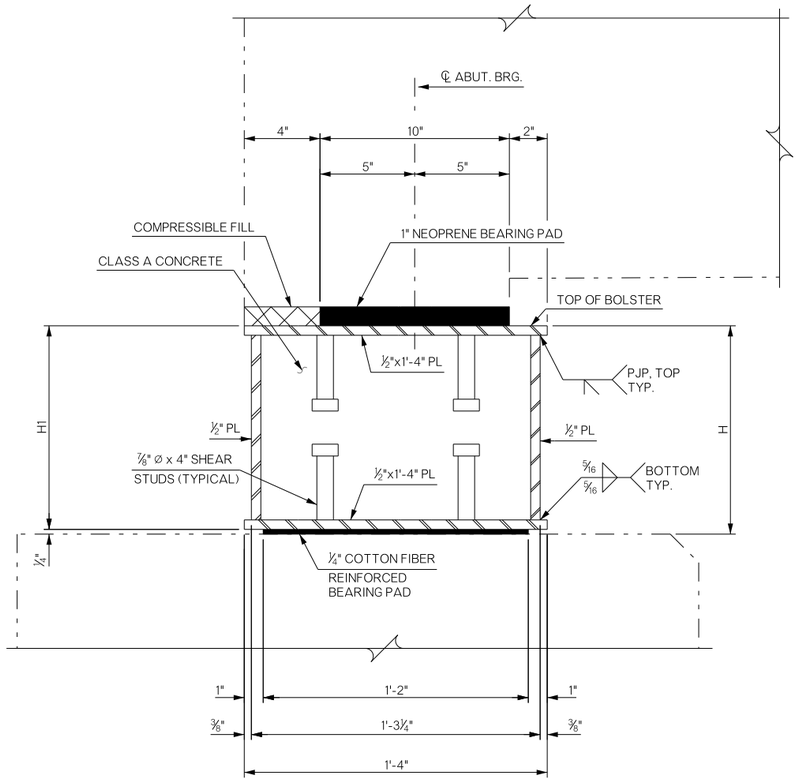
Design	SJK	10/17
Detail	KNB	10/17
Check	SJK	07/18

Squad:
Engr.: THOMAS

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

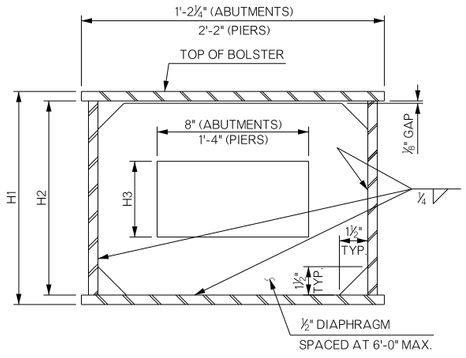
JOB PIECE NO. 24432(15) | SHEET NO. B011

REVISIONS		
REV. NO.	DESCRIPTION	DATE



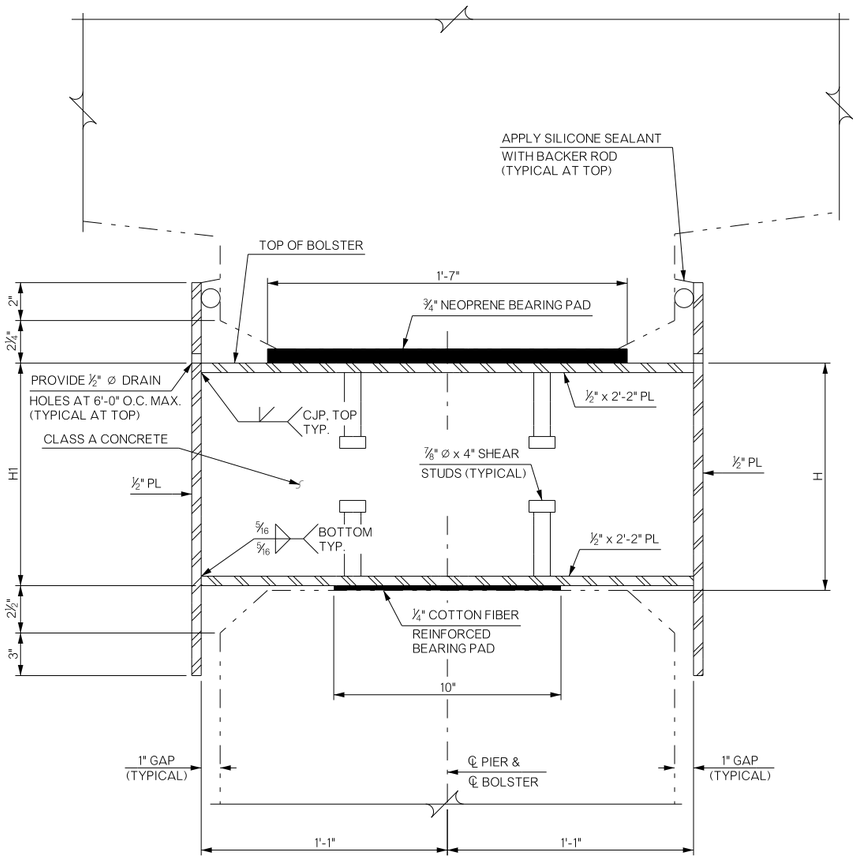
PERMANENT ABUTMENT BOLSTER

TABLE OF VARIABLES				
LOCATION	H	H1	H2	H3
BRIDGE "A"	1'-2"	1'-1⅜"	1'-0⅞"	6"
BRIDGE "B"	11"	10⅜"	9¾"	4"
BRIDGE "C"	8"	7¾"	6⅞"	4"
BRIDGE "D"	1'-5"	1'-4⅜"	1'-3⅞"	9"
BRIDGE "E"	1'-6"	1'-5⅜"	1'-4⅞"	10"
BRIDGE "F"	1'-3"	1'-2¾"	1'-1¾"	7"
BRIDGE "G"	1'-3"	1'-1⅜"	1'-1¾"	7"



SQUARING DIAPHRAGM

(ABUTMENT SHOWN, PIER SIMILAR)
NOTE: ADJUST DIAPHRAGM AS NECESSARY TO MISS STUDS.



PERMANENT PIER BOLSTER

NOTES:

1. FIELD VERIFY SUBSTRUCTURE DIMENSIONS PRIOR TO FABRICATION OF BOLSTERS. BOLSTER LENGTH SHALL MATCH THE EXISTING SUBSTRUCTURE WIDTH OF 27'-0"±.
2. NO FIELD WELDING IS PERMITTED FOR FABRICATION OF BOLSTERS.
3. CONTRACTOR SHALL TAKE ANY NECESSARY STEPS TO ELIMINATE AIR POCKETS DURING BOLSTER CONCRETE PLACEMENT.
4. SHEAR STUDS SHALL BE SPACED AT 1'-0" MAX. O.C. SPACINGS. STUDS SHALL BE PLACED AT ALTERNATING LOCATIONS BOTH TRANSVERSELY ACROSS AND LONGITUDINALLY ALONG THE BOLSTER. TOTAL OF STUDS FOR EACH BOLSTER = 54.
5. SEALANT AND BACKER ROD ARE INCLUDED FOR PAYMENT WITH THE BID ITEM "STRUCTURAL STEEL".
6. A BOLSTER GAP OF 1 INCH ON EACH SIDE OF PIER HAS BEEN PROVIDED TO ALLOW FOR INSTALLATION OF BOLSTER BY ACCOMMODATING POTENTIAL FABRICATION AND CONSTRUCTION TOLERANCES OF THE STEEL BOLSTER AND EXISTING PIER CONCRETE. GAP SHALL BE CONFIRMED TO BE ADEQUATE FOR INSTALLATION WITH FIELD VERIFICATION.

BRIDGE "A" - "G" KAY COUNTY
COUNTY ROAD OVER I-35

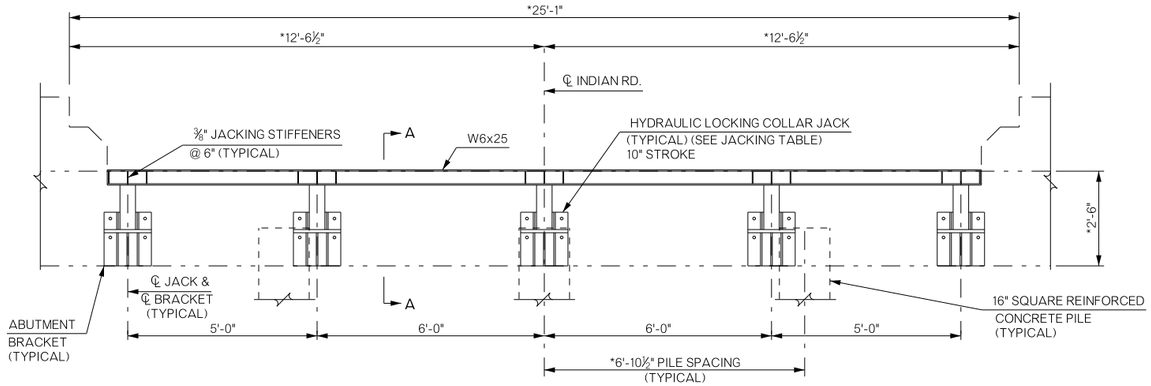
PERMANENT BOLSTER TYPE 1

24'-0" CLEAR ROADWAY

Design	SJK	05/18
Detail	KNB	06/18
Check	SJK	07/18
Squad		
Engr.:	THOMAS	

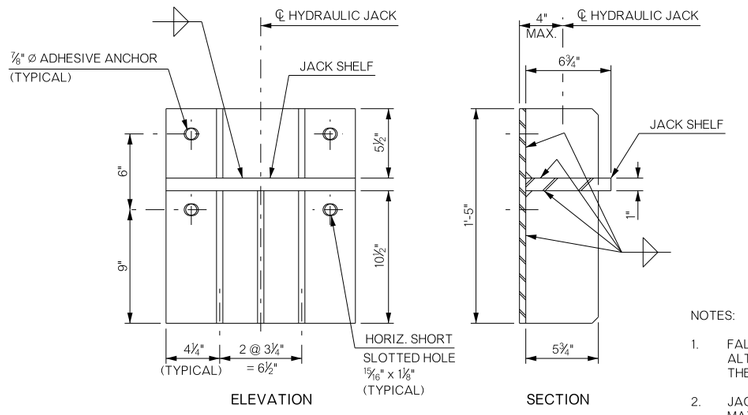
STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 24432(15) SHEET NO. B012



ABUTMENT NO. 1 ELEVATION

(LOOKING WEST, ABUTMENT NO. 2 SIMILAR)
(SLAB NOT SHOWN FOR CLARITY)

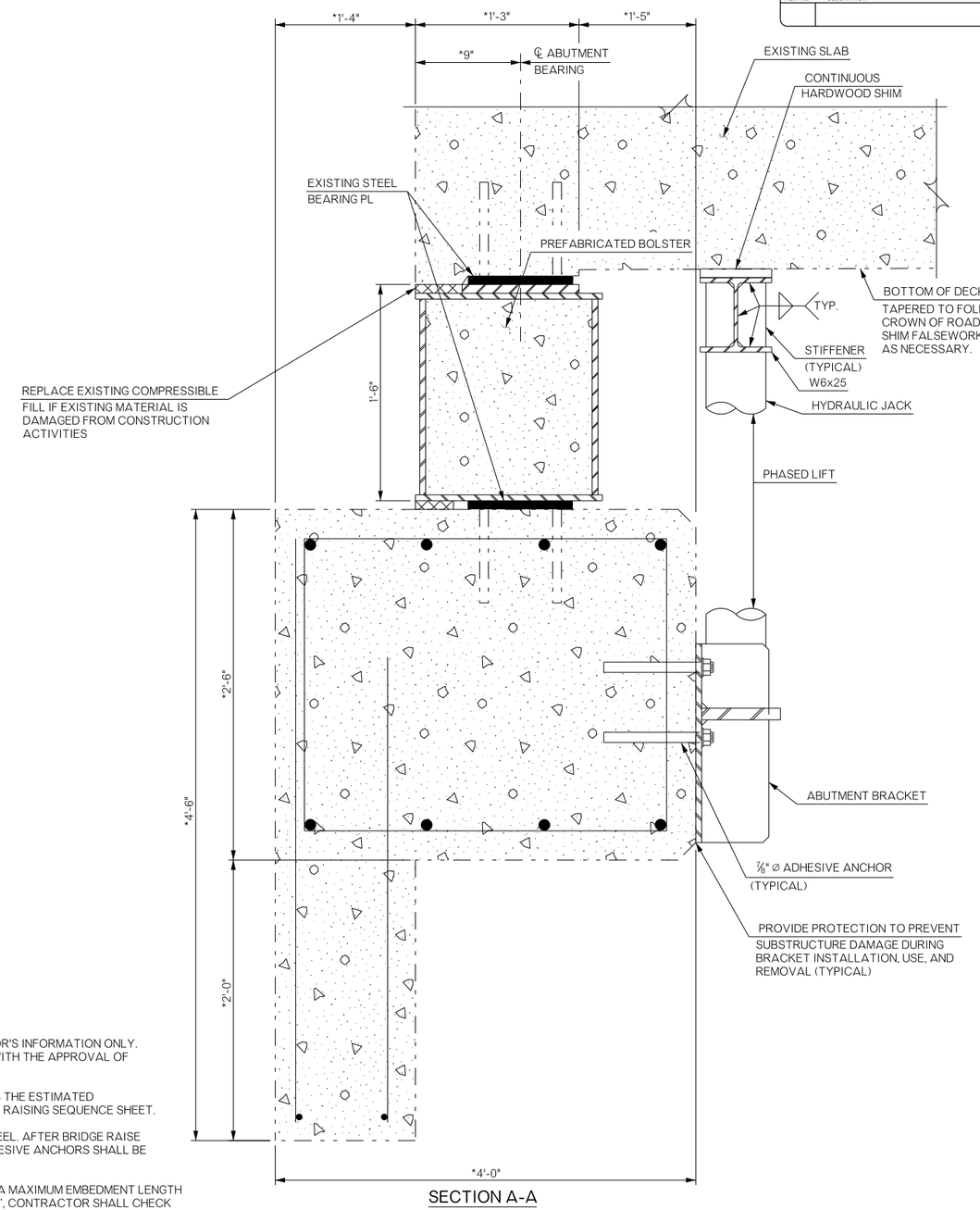


ABUTMENT BRACKET DETAIL

ALL PLATE THICKNESSES ARE ½" UNLESS NOTED OTHERWISE.

NOTES:

1. FALSEWORK AND JACKING SHOWN ARE FOR CONTRACTOR'S INFORMATION ONLY. ALTERNATIVE FALSEWORK AND JACKING MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
2. JACKS SHALL BE DESIGNED FOR NOT LESS THAN 1.5 TIMES THE ESTIMATED MAXIMUM JACKING LOAD. SEE JACKING TABLE ON BRIDGE RAISING SEQUENCE SHEET.
3. ABUTMENT ADHESIVE ANCHORS SHALL BE STAINLESS STEEL. AFTER BRIDGE RAISE IS COMPLETE AND FALSEWORK HAS BEEN REMOVED, ADHESIVE ANCHORS SHALL BE CUT OFF FLUSH WITH THE FACE OF THE ABUTMENT.
4. ABUTMENT ADHESIVE ANCHORS ARE ASSUMED TO HAVE A MAXIMUM EMBEDMENT LENGTH OF 7.875". FOR EMBEDMENT LENGTH GREATER THAN 7.875", CONTRACTOR SHALL CHECK FOR INTERFERENCE WITH PRECAST PILES. HAS-R STAINLESS STEEL HILTI ADHESIVE ANCHORS WITH HIT-RE 500 V3 EPOXY ADHESIVE OR APPROVED EQUIVALENT MAY BE USED.
5. ALL WELDS THIS SHEET SHALL BE DOUBLE-SIDED 5/16" FILLET WELDS MINIMUM UNLESS NOTED OTHERWISE. CJP WELDS MAY BE SUBSTITUTED FOR FILLET WELDS. NO FIELD WELDING IS PERMITTED FOR FABRICATION OF BOLSTERS AND FALSEWORK.
6. * DIMENSIONS SHOWN ARE TAKEN FROM EXISTING PLANS. FIELD VERIFY.
7. RAISE DIMENSION OF 1'-6" BASED ON ELEVATIONS NOTED ON GENERAL PLAN AND ELEVATION SHEET. ADJUSTMENTS WILL BE NEEDED IF ELEVATIONS ARE FOUND TO BE LOWER THAN THOSE NOTED.
8. ALL STRUCTURAL STEEL SHALL CONFORM TO AASHTO M270 GR. 50.



SECTION A-A

(PILES NOT SHOWN FOR CLARITY)

REVISIONS

REV. NO.	DESCRIPTION	DATE

BRIDGE "J" KAY COUNTY
INDIAN ROAD OVER I-35

ABUTMENT FALSEWORK TYPE 2

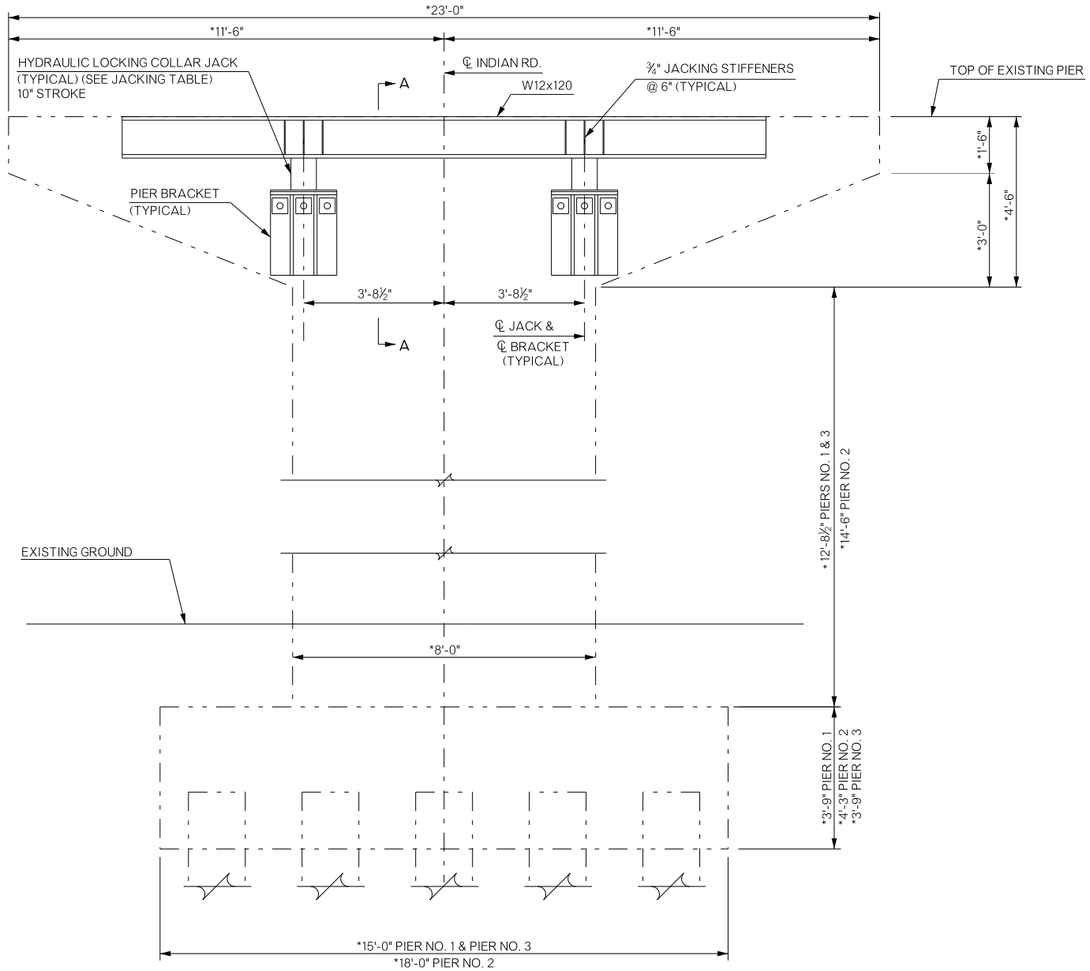
20'-0" CLEAR ROADWAY

Design	SJK	10/17
Detail	KNB	10/17
Check	SJK	07/18

Squad:
Engr.: THOMAS

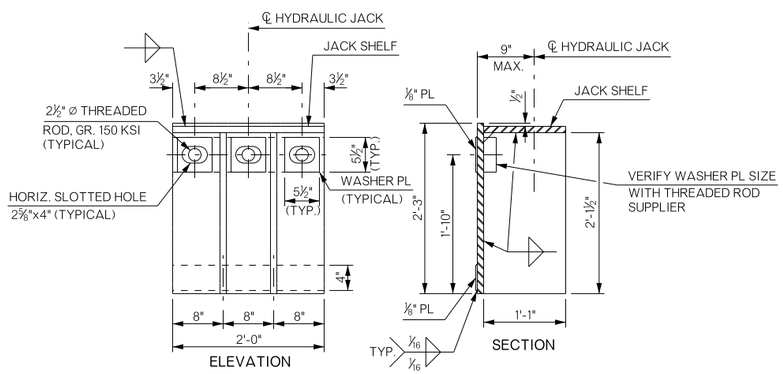
STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 24432(15) SHEET NO. B013



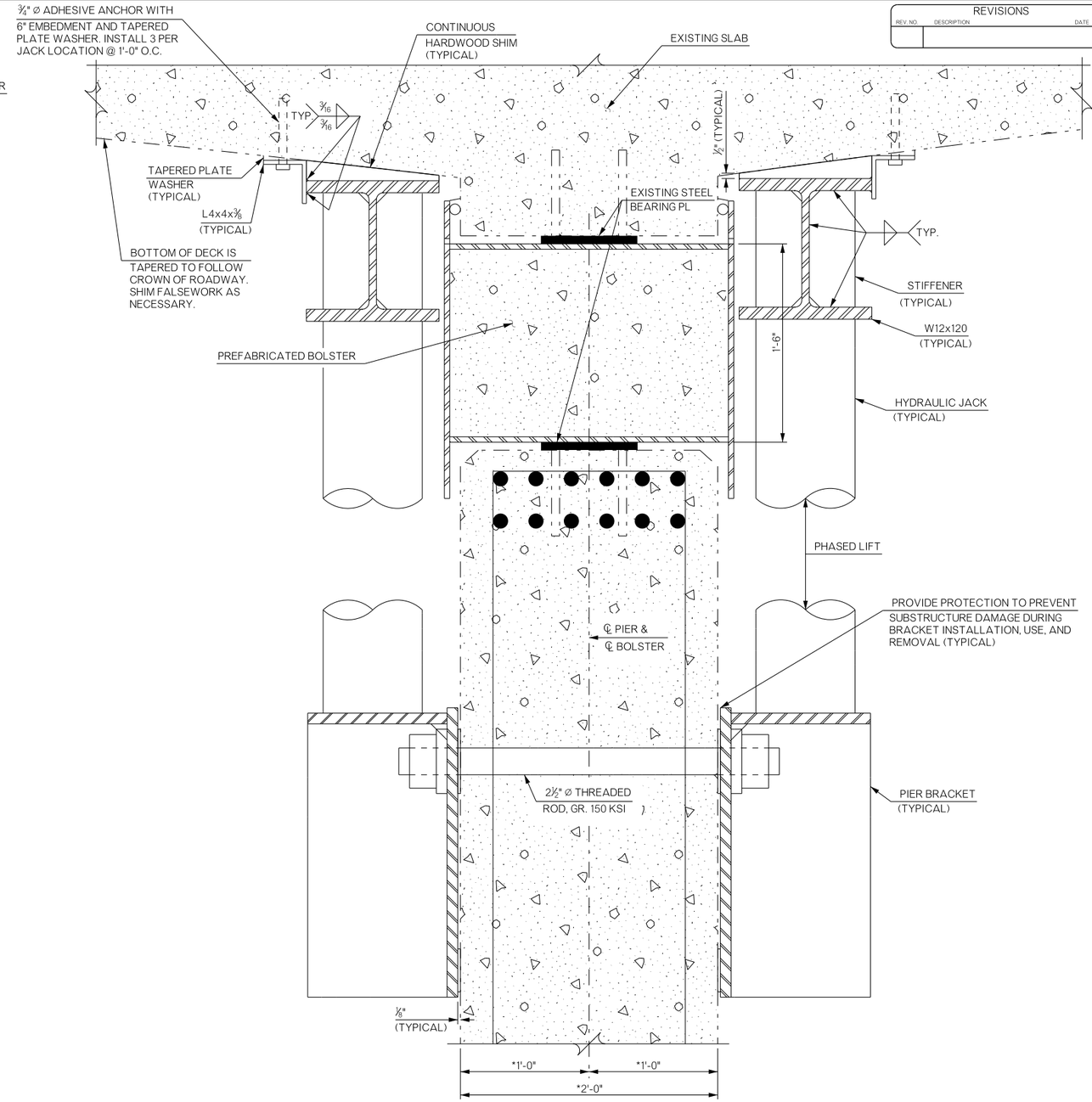
PIER ELEVATION

(SLAB NOT SHOWN FOR CLARITY)



PIER BRACKET DETAIL

ALL PLATE THICKNESSES ARE 1"
UNLESS NOTED OTHERWISE



SECTION A-A

(PIER NO. 2 SHOWN)
(JACKS LOCATED AT PIERS NO. 1 AND NO. 3 AS SHOWN IN PLANS.)

NOTES:

1. SEE NOTES ON SHEET B013.
2. * DIMENSIONS SHOWN ARE TAKEN FROM EXISTING PLANS. FIELD VERIFY AS NEEDED.
3. ALL WELDS THIS SHEET SHALL BE DOUBLE SIDED ½" FILLET WELDS MINIMUM UNLESS NOTED OTHERWISE. CJP WELDS MAY BE SUBSTITUTED FOR FILLET WELDS. NO FIELD WELDING IS PERMITTED FOR FABRICATION OF BOLSTERS AND FALSEWORK.
4. RAISE DIMENSION OF 1'-6" BASED ON ELEVATIONS NOTED IN GENERAL PLAN AND ELEVATION SHEET. ADJUSTMENTS WILL BE NEEDED IF ELEVATIONS ARE FOUND TO BE LOWER THAN THOSE NOTED.
5. 2½" ⌀ THREADED ROD SHALL CONFORM TO ASTM A722, GR. 150.

REVISIONS

REV. NO.	DESCRIPTION	DATE

BRIDGE "J" KAY COUNTY
INDIAN ROAD OVER I-35

PIER FALSEWORK TYPE 2

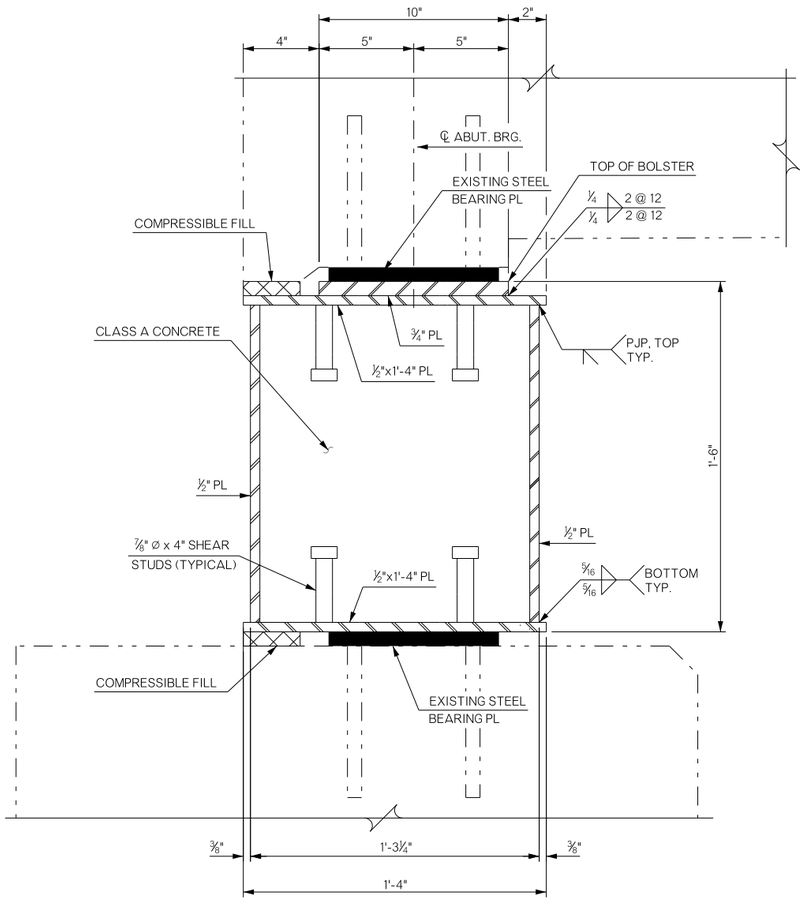
20'-0" CLEAR ROADWAY

Design	SJK	10/17
Detail	KNB	10/17
Check	SJK	07/18
Squad:		
Engr.:	THOMAS	

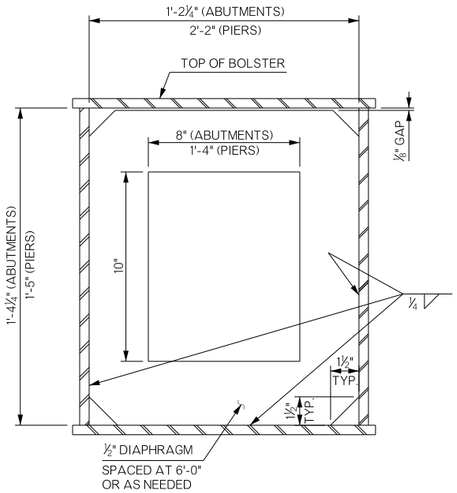
STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 24432(15) SHEET NO. B014

REVISIONS		
REV. NO.	DESCRIPTION	DATE

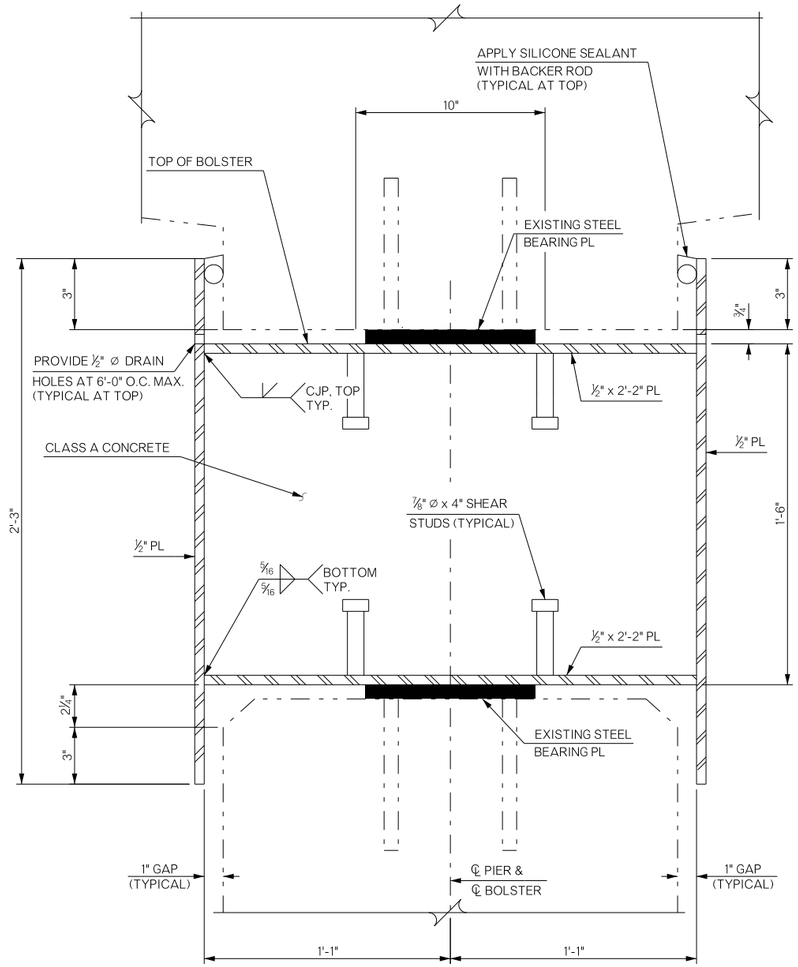


PERMANENT ABUTMENT BOLSTER



SQUARING DIAPHRAGM

(ABUTMENT SHOWN, PIER SIMILAR)
NOTE: ADJUST DIAPHRAGM AS NECESSARY TO MISS STUDS.



PERMANENT PIER BOLSTER

NOTES:

1. FIELD VERIFY SUBSTRUCTURE DIMENSIONS PRIOR TO FABRICATION OF BOLSTERS. BOLSTER LENGTH SHALL MATCH THE EXISTING SUBSTRUCTURE WIDTH OF 23'-0"±.
2. NO FIELD WELDING IS PERMITTED FOR FABRICATION OF BOLSTERS.
3. FIELD VERIFY EXISTING BEARING PL DIMENSIONS PRIOR TO FABRICATION.
4. CONTRACTOR SHALL TAKE ANY NECESSARY STEPS TO ELIMINATE AIR POCKETS DURING BOLSTER CONCRETE PLACEMENT.
5. SHEAR STUDS SHALL BE SPACED AT 1'-0" MAX. O.C. SPACINGS. STUDS SHALL BE PLACED AT ALTERNATING LOCATIONS BOTH TRANSVERSELY ACROSS AND LONGITUDINALLY ALONG THE BOLSTER. TOTAL OF STUDS FOR EACH BOLSTER = 46.
6. SEALANT AND BACKER ROD ARE INCLUDED FOR PAYMENT WITH THE BID ITEM "STRUCTURAL STEEL".
7. A BOLSTER GAP OF 1 INCH ON EACH SIDE OF PIER HAS BEEN PROVIDED TO ALLOW FOR INSTALLATION OF BOLSTER BY ACCOMMODATING POTENTIAL FABRICATION AND CONSTRUCTION TOLERANCES OF THE STEEL BOLSTER AND EXISTING PIER CONCRETE. GAP SHALL BE CONFIRMED TO BE ADEQUATE FOR INSTALLATION WITH FIELD VERIFICATION.

BRIDGE "J"
INDIAN ROAD OVER I-35
KAY COUNTY

PERMANENT BOLSTER TYPE 2

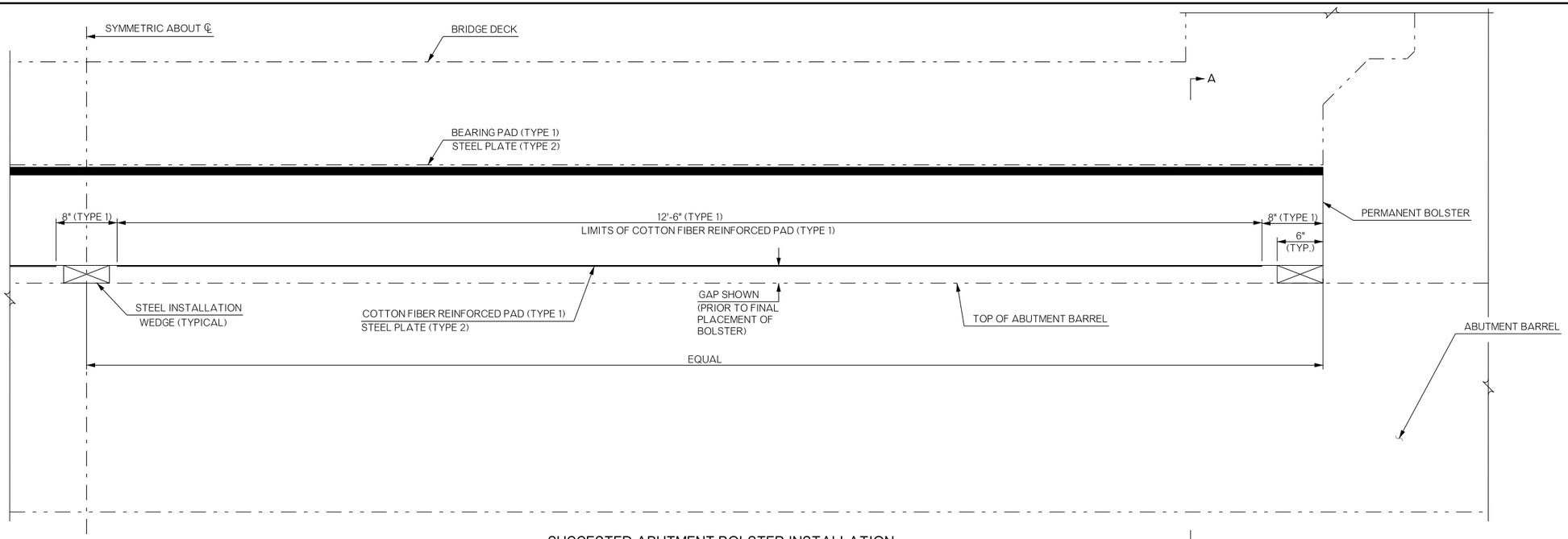
20'-0" CLEAR ROADWAY

Design	SJK	05/18
Detail	KNB	06/18
Check	SJK	07/18
Squad. Engr.:	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 24432(15) | SHEET NO. B015

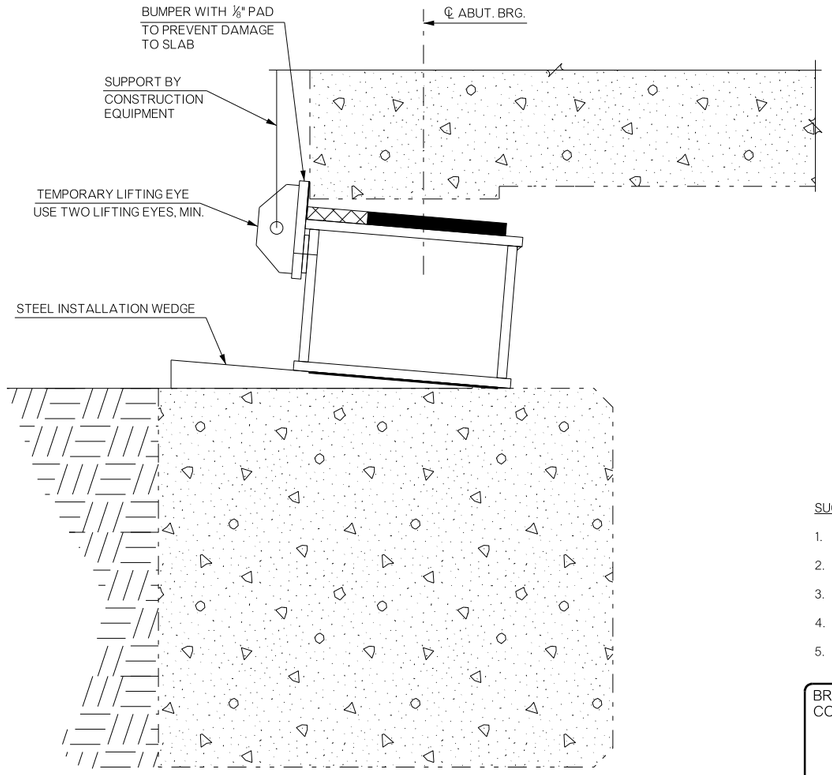
REVISIONS		
REV. NO.	DESCRIPTION	DATE



SUGGESTED ABUTMENT BOLSTER INSTALLATION

NOTE: WINGWALL AND PILES NOT SHOWN FOR CLARITY.

NOTE: TYPE 1 ABUTMENT BOLSTER SHOWN. TYPE 2 SIMILAR. STEEL PLATE ON TOP AND BOTTOM OF TYPE 2 BOLSTER IS CONTINUOUS.



SECTION A-A

SUGGESTED ABUTMENT BOLSTER INSTALLATION NOTES:

1. PLACE STEEL INSTALLATION WEDGES ON ABUTMENT CAP.
2. LOWER ABUTMENT BOLSTER ONTO WEDGES.
3. SLIDE BOLSTER UNTIL BEARING PAD IS CENTERED UNDER ℄ BEARING.
4. LIFT BACK EDGE OF BOLSTER USING LIFTING EYE. REMOVE STEEL WEDGES.
5. LOWER BOLSTER TO FINAL POSITION.

BRIDGE A - G & J
COUNTY ROADS OVER I-35

KAY COUNTY

ABUTMENT BOLSTER INSTALLATION

Design	SJK	05/18
Detail	KNB	06/18
Check	SJK	07/18
Squad:		
Engr.:	THOMAS	

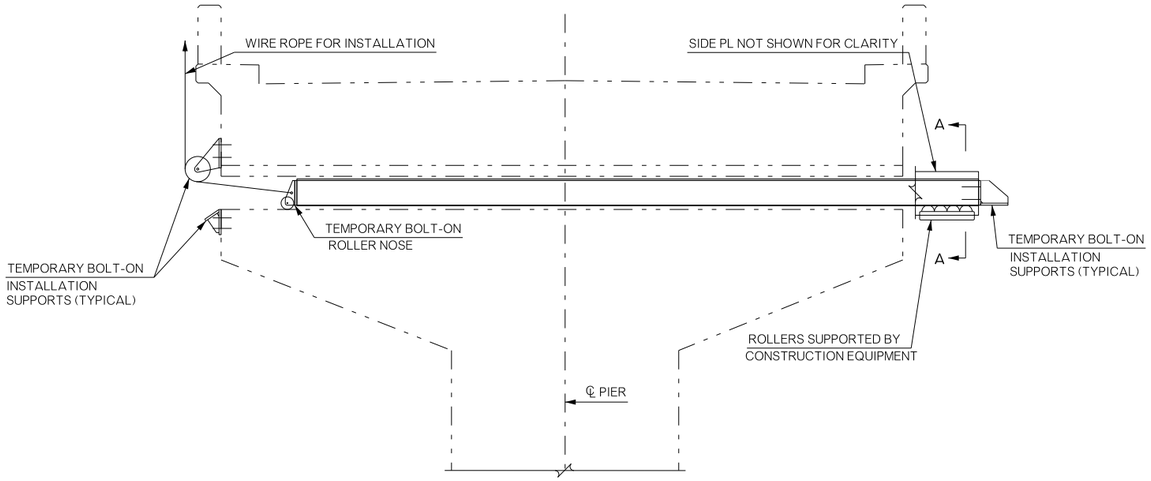
STATE OF OKLAHOMA

DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 24432(15)

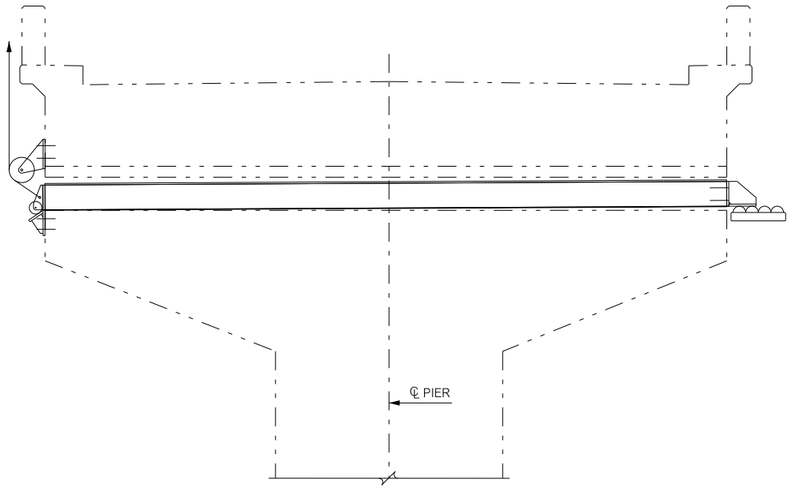
SHEET NO. B016

REVISIONS		
REV. NO.	DESCRIPTION	DATE

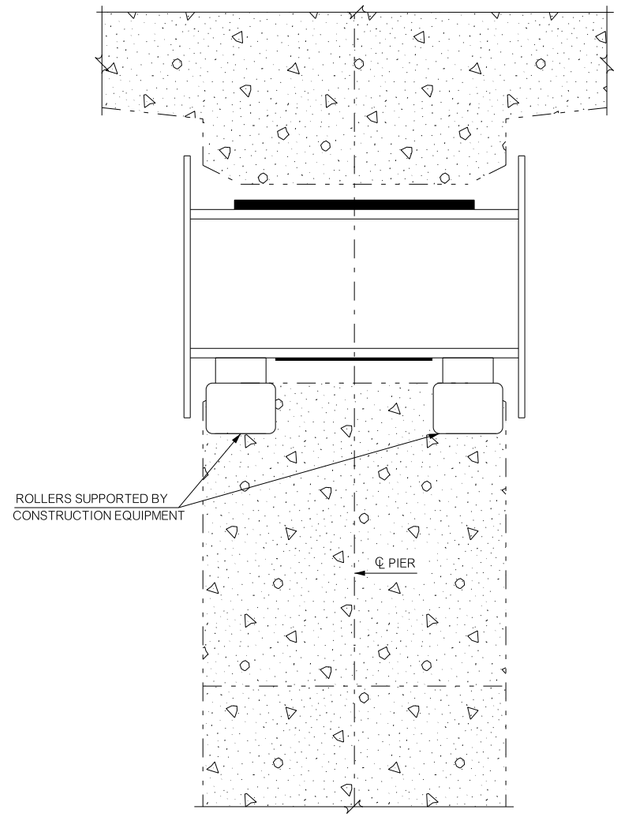


SUGGESTED BOLSTER INSTALLATION DURING ROLL-IN

NOTE: TYPE 1 PIER BOLSTER SHOWN. TYPE 2 SIMILAR.



SUGGESTED BOLSTER INSTALLATION AT SET DOWN



SECTION A-A

SUGGESTED PIER BOLSTER INSTALLATION NOTES:

1. INSTALL TEMPORARY BOLTED-ON INSTALLATION SUPPORTS. NOTE: TEMPORARY SUPPORTS BOLTED TO THE SUPERSTRUCTURE SHALL BE INSTALLED PRIOR TO BRIDGE RAISE.
2. LIFT BOLSTER AND SET ROLLER NOSE ON PIER WHILE SUPPORTING TRAILING END OF BOLSTER ON ROLLERS.
3. ROLL BOLSTER INTO FINAL POSITION USING WIRE ROPES.
4. TEMPORARY SUPPORT GEOMETRY SHALL BE SET SO AS THE ROLLER NOSE TRANSITIONS OFF THE PIER AND ONTO THE SUPPORT, THE LEADING END OF THE BOLSTER IS LOWERED INTO THE FINAL POSITION.
5. LOWER THE SUPPORT FOR THE TRAILING END OF THE BOLSTER TO SET BOLSTER ONTO PIER.

BRIDGE A - G & J
COUNTY ROADS OVER I-35
KAY COUNTY

PIER BOLSTER INSTALLATION

Design	SJK	05/18
Detail	KNB	06/18
Check	SJK	07/18
Squad:		
Engr.:	THOMAS	

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 24432(15)
SHEET NO. B017

APPROACH SLAB QUANTITIES			
ITEM	UNIT	APPROACH SLAB NO. 1	APPROACH SLAB NO. 2
25'-0" x 20'-0" APPROACH SLAB			
(2) (1) APPROACH SLAB	S.Y.	55.6	55.6
SAW-CUT GROOVING	S.Y.	50.8	50.8
CONCRETE RAIL (TR4)	L.F.	40.0	40.0
29'-0" x 20'-0" APPROACH SLAB			
(3) (1) APPROACH SLAB	S.Y.	64.5	64.5
SAW-CUT GROOVING	S.Y.	59.7	59.7
CONCRETE RAIL (TR4)	L.F.	40.0	40.0

(1) THE DEPARTMENT CONSIDERS THE COST OF CONCRETE, REINFORCING STEEL (INCLUDING SR1 AND SR2 BARS), BACKER ROD, RAPID CURE JOINT SEALANT, POLYSTYRENE AND POLYETHYLENE SHEETING TO BE INCLUDED IN THE CONTRACT UNIT PRICE OF "APPROACH SLAB".

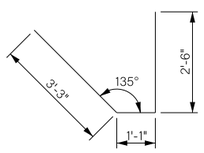
(2) THERE IS AN ESTIMATED 23.4 CY OF CLASS AA CONCRETE AND AN ESTIMATED 4,340 LB. OF EPOXY COATED REINFORCING STEEL IN EACH APPROACH SLAB.

(3) THERE IS AN ESTIMATED 27.2 CY OF CLASS AA CONCRETE AND AN ESTIMATED 4,920 LB. OF EPOXY COATED REINFORCING STEEL IN EACH APPROACH SLAB.

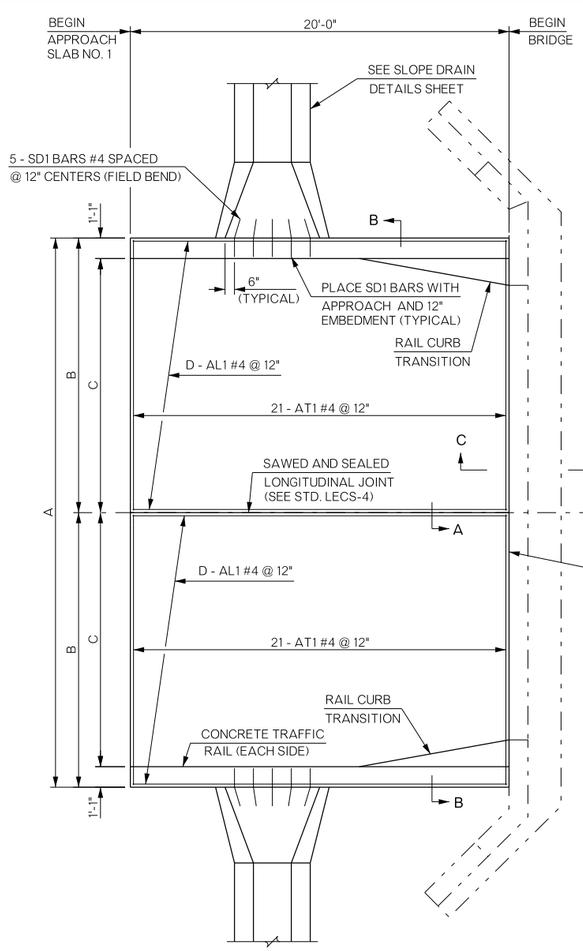
TABLE OF VARIABLES						
LOCATION	A	B	C	D	E	F
BRIDGE "A"	29'-0"	14'-6"	13'-5"	15	44	2'-5½"
BRIDGE "B"	29'-0"	14'-6"	13'-5"	15	44	2'-2½"
BRIDGE "C"	29'-0"	14'-6"	13'-5"	15	44	1'-11½"
BRIDGE "D"	29'-0"	14'-6"	13'-5"	15	44	2'-8½"
BRIDGE "E"	29'-0"	14'-6"	13'-5"	15	44	2'-9½"
BRIDGE "F"	29'-0"	14'-6"	13'-5"	15	44	2'-6½"
BRIDGE "G"	29'-0"	14'-6"	13'-5"	15	44	2'-7½"
BRIDGE "J"	25'-0"	12'-6"	11'-5"	13	38	2'-10"

APPROACH SLAB BAR LIST (ONE SHOWN, TWO REQUIRED PER BRIDGE) (EPOXY COATED REINFORCING)				
MARK	SIZE	NO.	FORM	LENGTH
25'-0"x20'-0" APPROACH SLAB				
AT1	#4	42	STR.	12'-2"
AT2	#4	25	STR.	24'-8"
AL1	#4	26	STR.	19'-8"
AL2	#9	38	STR.	19'-8"
AL3	#4	38	BNT.	6'-10"
SR1	#5	106	BNT.	4'-1"
SR2	#5	16	BNT.	VARIES
SD1	#4	10	STR.	2'-0"
29'-0"x20'-0" APPROACH SLAB				
AT1	#4	42	STR.	14'-2"
AT2	#4	25	STR.	28'-8"
AL1	#4	30	STR.	19'-8"
AL2	#9	44	STR.	19'-8"
AL3	#4	38	BNT.	6'-10"
SR1	#5	106	BNT.	4'-1"
SR2	#5	16	BNT.	VARIES
SD1	#4	10	STR.	2'-0"

NOTE:
AL3 BARS SHALL BE FIELD CUT TO FIT WITHIN LIMITS OF APPROACH SLAB TO PROVIDE PROPER CLEARANCE.

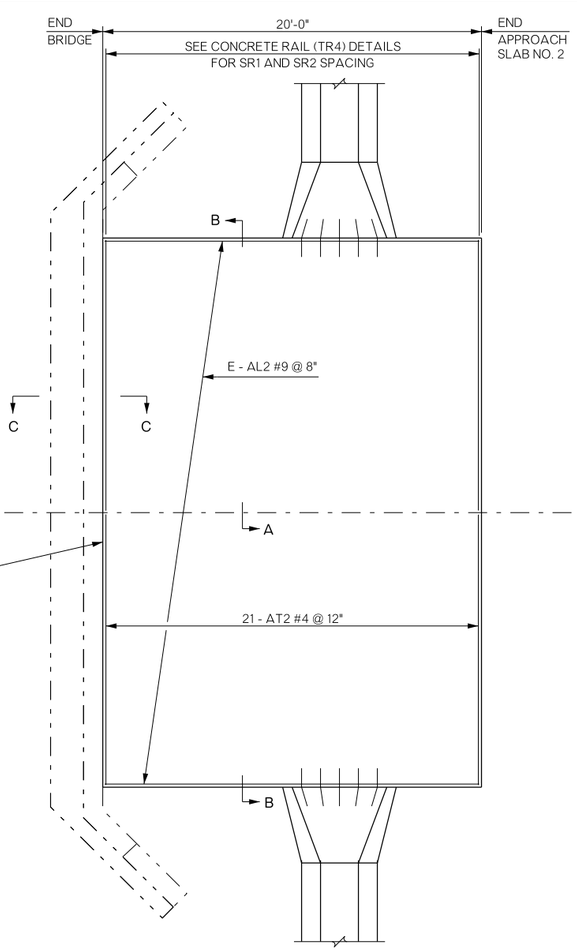


AL3 #4 x 6'-10"



TOP REINFORCING MAT DETAIL

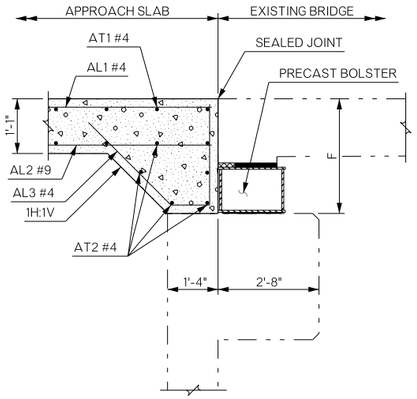
APPROACH SLAB NO. 1



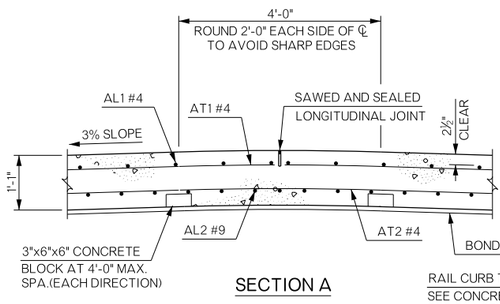
BOTTOM REINFORCING MAT DETAIL

APPROACH SLAB NO. 2

NOTE:
PLACE REINFORCING IN THE TOP OF THE APPROACH SLAB 2" FROM EITHER SIDE OF THE SAWED AND SEALED LONGITUDINAL JOINT. FOR ADDITIONAL DETAILS OF LONGITUDINAL JOINT, SEE STD. LECS-4

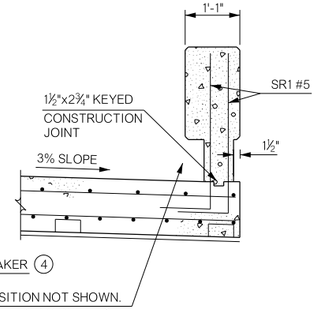


SECTION C-C



SECTION A

(4) BOND BREAKER SHALL BE ONE 6 MIL OR TWO 4 MIL POLYETHYLENE SHEETS. BOND BREAKER SHALL EXTEND FULL WIDTH OF APPROACH SLAB AND FULL LENGTH UP TO THE BACK FACE OF THE ABUTMENT DIAPHRAGM.



SECTION B

NOTE:
SEE CONCRETE RAIL (TR4) SHEET FOR SR1 AND SR2 BAR BENDS AND ADDITIONAL DETAILS OF CONCRETE RAIL. FIELD VERIFY EXISTING DIMENSIONS.

REVISIONS		
REV. NO.	DESCRIPTION	DATE

BRIDGE A-G & J
COUNTY ROADS OVER I-35
KAY COUNTY

APPROACH SLAB DETAILS

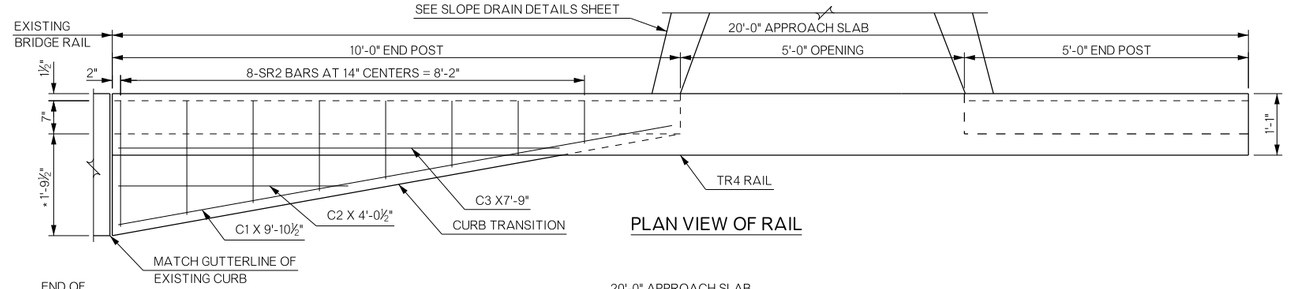
Design	JDK	09/18
Detail	KNB	09/18
Check	WJS	10/18
Squad: Engr.: THOMAS		

STATE OF OKLAHOMA

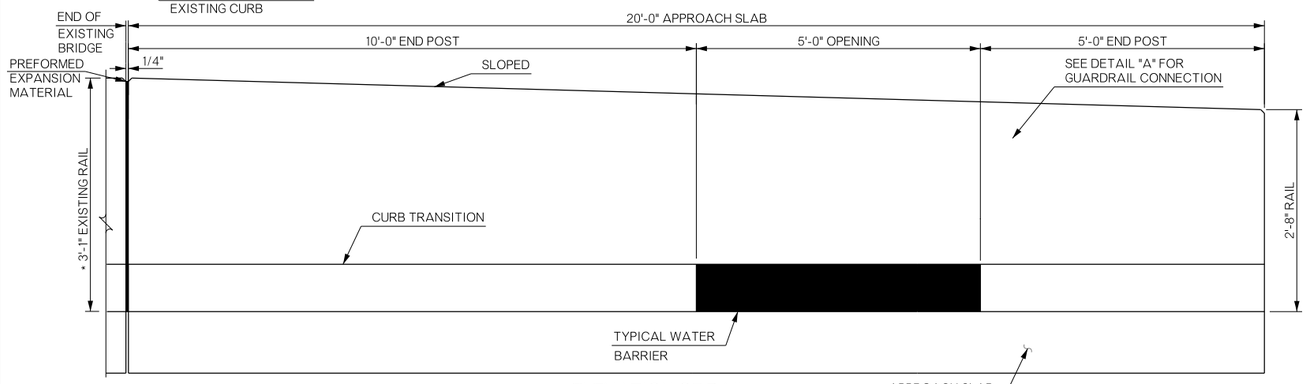
DEPARTMENT OF TRANSPORTATION

JOB/PIECE NO. 24432(15)

SHEET NO. B018

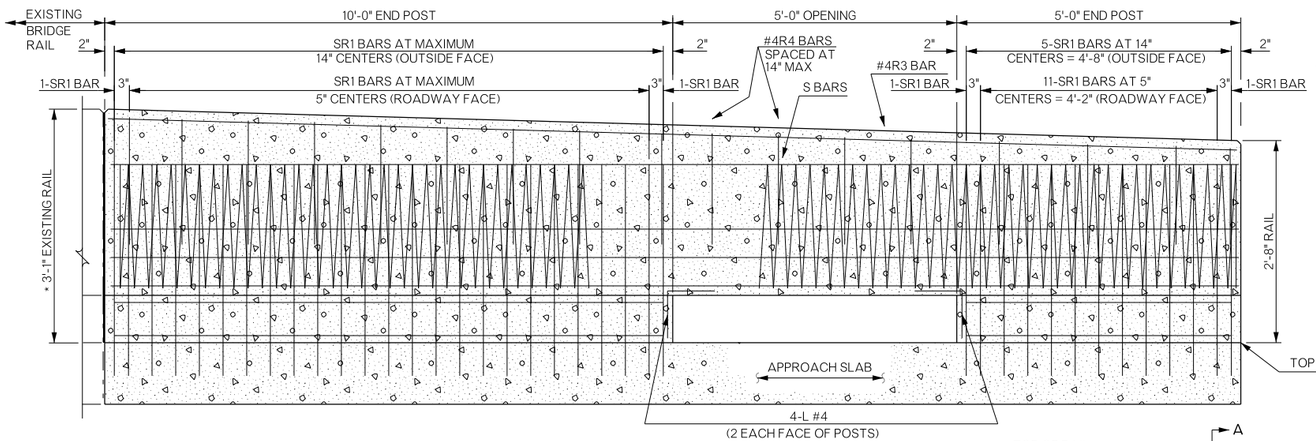


PLAN VIEW OF RAIL

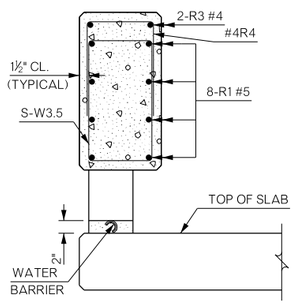


ELEVATION OF RAIL

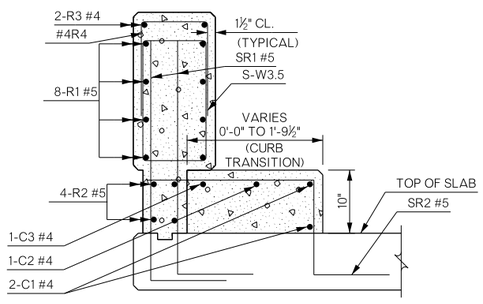
* CONTRACTOR SHALL FIELD VERIFY DIMENSIONS PRIOR TO CONSTRUCTION



TRAFFIC RAIL REINFORCING

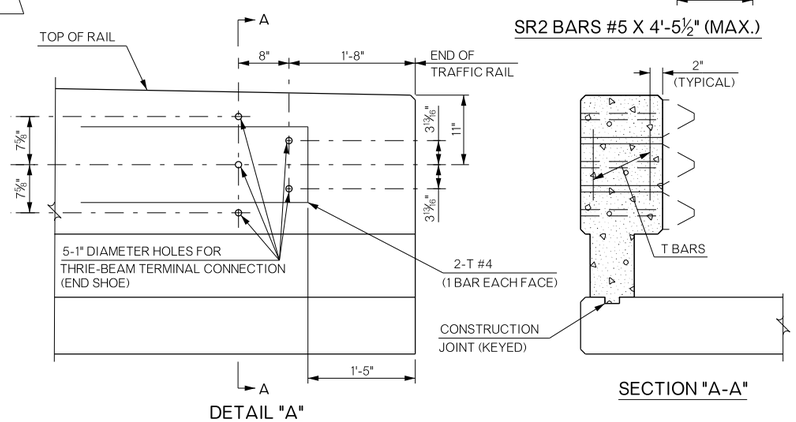


SECTION THRU POST OPENING



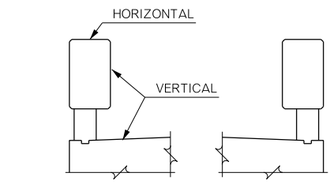
SECTION THRU POST (WITH CURB TRANSITION)

SECTION THRU RAIL AT APPROACH SLAB

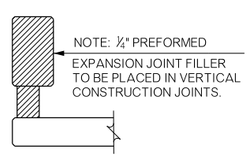


DETAIL "A"

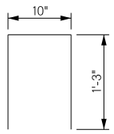
SECTION "A-A"



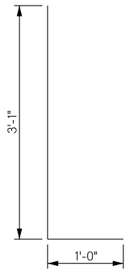
NORMAL CROWN OR CROSS SLOPE



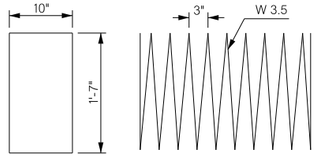
CONSTRUCTION JOINT



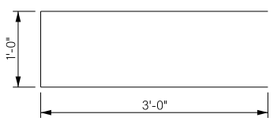
R4 BARS #4 X 3'-4"



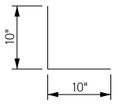
SR1 BARS #5 X 4'-1"



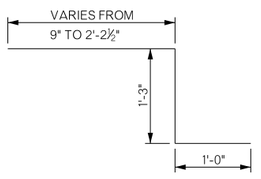
S BAR



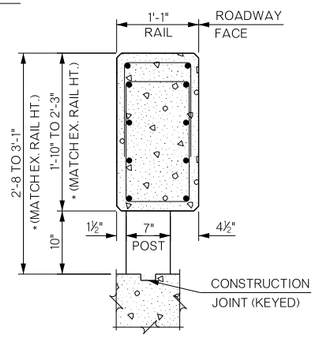
T BARS #4 X 7'-0"



L BAR #4 X 1'-8"



SR2 BARS #5 X 4'-5½" (MAX.)



TYPICAL SECTION THRU RAIL

REVISIONS

REV. NO.	DESCRIPTION	DATE

CONCRETE TRAFFIC RAIL NOTES

CONSTRUCT THE CONCRETE TRAFFIC RAIL TO MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION (ENGLISH) AS WELL AS THE FOLLOWING REQUIREMENTS.

CONTRACTOR SHALL FIELD VERIFY EXISTING RAIL DIMENSIONS PRIOR TO CONSTRUCTION OF RAIL TRANSITIONS. ALL RAIL TRANSITION LABOR AND MATERIALS SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "CONCRETE RAIL (TR4)".

CLASS AA CONCRETE:

USE CLASS AA CONCRETE IN THE CONCRETE TRAFFIC RAIL. ALL COSTS OF CONCRETE TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "CONCRETE RAIL (TR4)".

REINFORCING STEEL:

ALL REINFORCING STEEL, EXCEPT FOR THE S-BAR, USED IN THE CONCRETE TRAFFIC RAIL IS TO BE EPOXY COATED. WHEN TWO OR MORE S-BARS ARE USED IN A CONTINUOUS RAIL SECTION, BUTT THEIR ENDS TOGETHER WITHIN THE CENTER 3'-0" OF A RAIL POST. PLACE AND TIE ALL SR1 AND SR2 BARS BEFORE THE CONCRETE IS PLACED IN THE APPROACH SLABS. ALL REINFORCING STEEL PLACED WITHIN THE RAIL IS INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "CONCRETE RAIL (TR4)". SR1 AND SR2 BARS ARE INCLUDED WITH THE BID ITEM "APPROACH SLAB".

GUARDRAIL CONNECTION:

FORM ALL DRILL HOLES, AS SHOWN, FOR THE CONNECTION OF THE THRIE-BEAM TERMINAL CONNECTION (END SHOE) AT THE LOCATIONS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER. IT IS THE RESPONSIBILITY OF THE BRIDGE CONTRACTOR TO PROVIDE THE HOLES. THE CONTRACTOR THAT INSTALLS THE GUARDRAIL WILL BE RESPONSIBLE FOR INSTALLING THE THRIE-BEAM TERMINAL CONNECTION.

CONSTRUCTION JOINTS:

PLACE A CONSTRUCTION JOINT AT THE LOCATIONS SHOWN IN THE PLANS. PLACE 1/4" THICK PREFORMED EXPANSION MATERIAL IN THE CONSTRUCTION JOINT SUCH THAT IT COVERS THE ENTIRE AREA OF THE RAIL AND POST IN ACCORDANCE WITH THE DETAILS SHOWN.

CONCRETE RAIL CONSTRUCTION:

LOCATE POSTS AS SHOWN ON THIS SHEET CONSTRUCT OPENINGS SUCH THAT THE FACE OF THE POSTS ARE PERPENDICULAR TO THE ROADWAY PROFILE GRADE.

WATER BARRIER:

PROVIDE WATER BARRIER AT RAIL OPENINGS. PLACE THE CONCRETE FOR THE WATER BARRIER CONCURRENTLY WITH THE PLACEMENT OF THE CONCRETE IN THE POSTS. INCLUDE ALL COSTS OF WATER BARRIERS IN THE PRICE BID PER LINEAR FOOT OF "CONCRETE RAIL (TR4)".

BASIS OF PAYMENT

ITEM NO.	DESCRIPTION	UNIT
504(E)	CONCRETE RAIL (TR4)	L.F.

BRIDGE A-G & J
COUNTY ROADS OVER I-35

KAY COUNTY

CONCRETE TRAFFIC RAIL (TR4) ON APPROACH SLAB

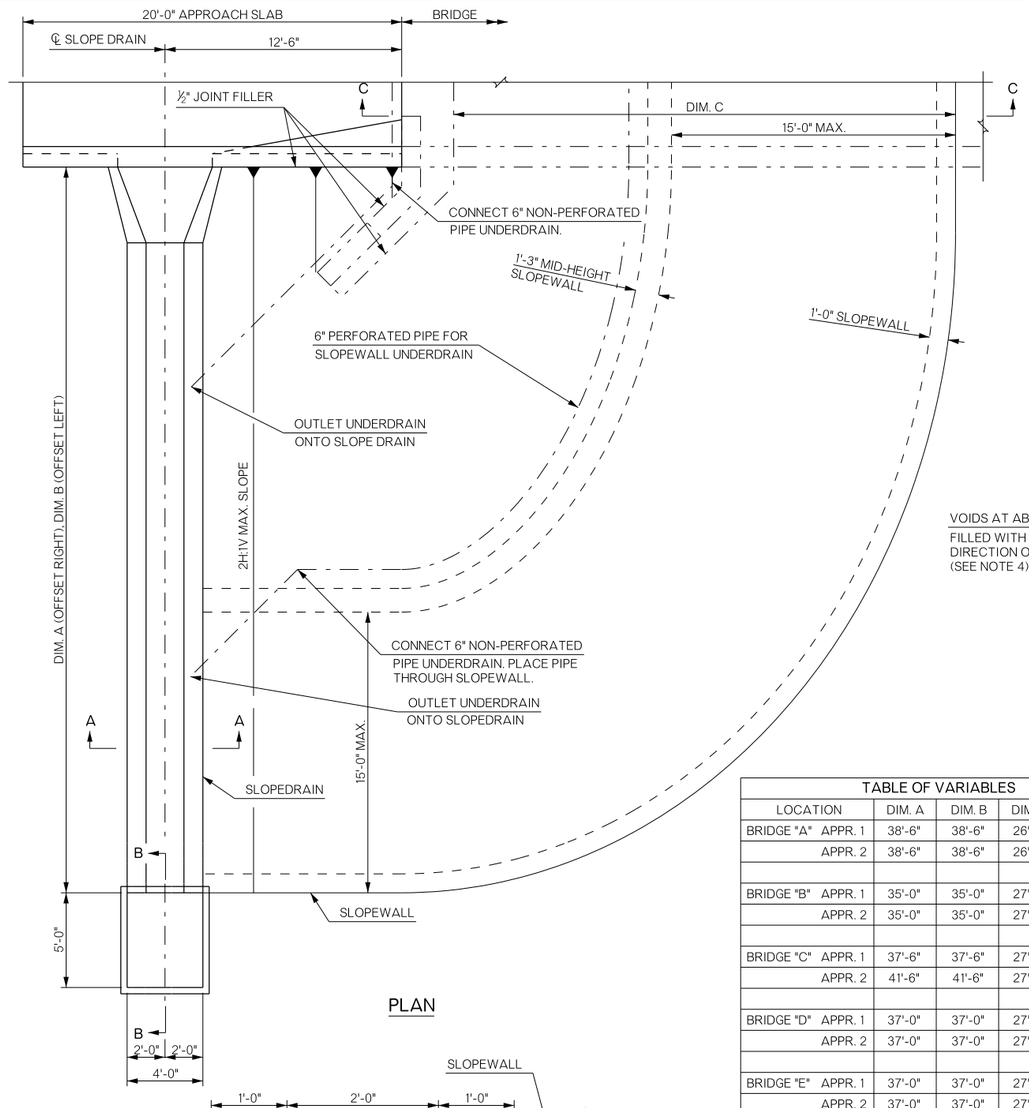
Design	JDK	09/18
Detail	RAW	09/18
Check	WJS	10/18
Squad:		
Engr.:	THOMAS	

STATE OF OKLAHOMA

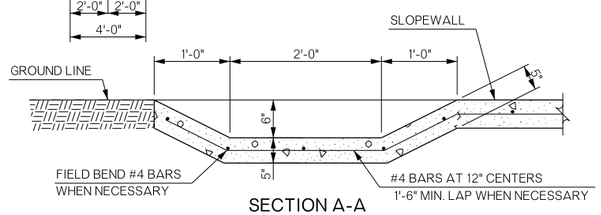
DEPARTMENT OF TRANSPORATION

JOB PIECE NO. 24432(15)

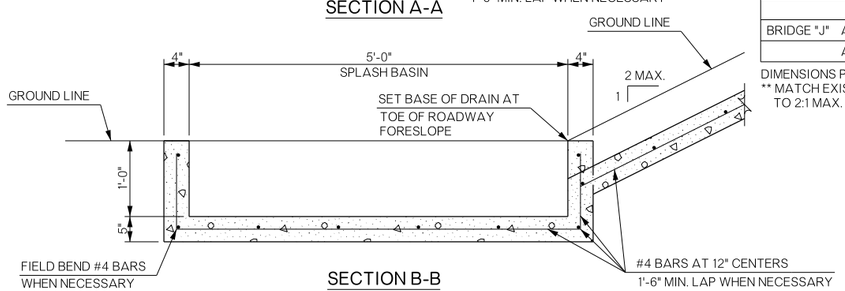
SHEET NO. B019



PLAN



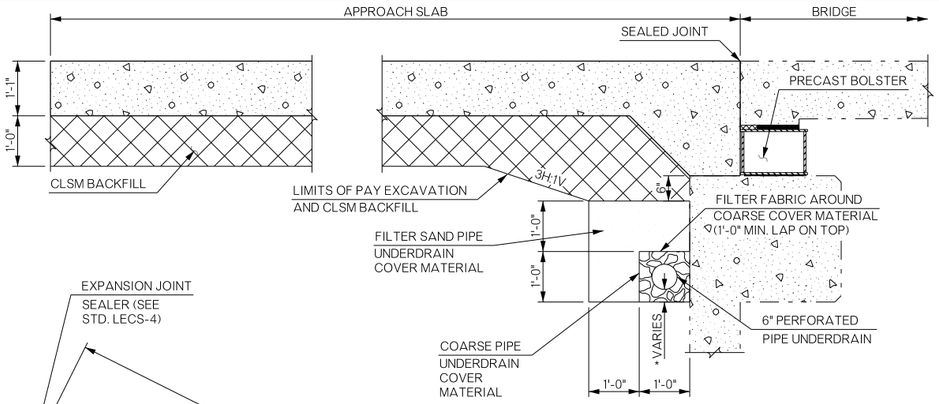
SECTION A-A



SECTION B-B

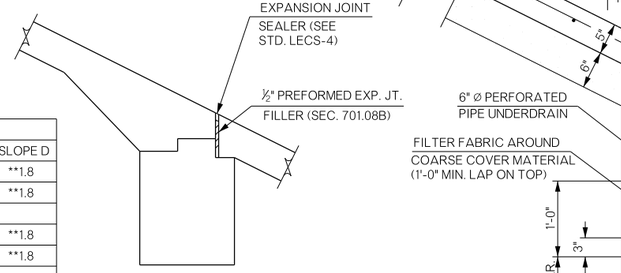
TABLE OF VARIABLES				
LOCATION	DIM. A	DIM. B	DIM. C	SLOPE D
BRIDGE "A" APPR. 1	38'-6"	38'-6"	26'-6"	**1.8
APPR. 2	38'-6"	38'-6"	26'-6"	**1.8
BRIDGE "B" APPR. 1	35'-0"	35'-0"	27'-2"	**1.8
APPR. 2	35'-0"	35'-0"	27'-2"	**1.8
BRIDGE "C" APPR. 1	37'-6"	37'-6"	27'-0"	**1.8
APPR. 2	41'-6"	41'-6"	27'-2"	**1.8
BRIDGE "D" APPR. 1	37'-0"	37'-0"	27'-0"	**1.9
APPR. 2	37'-0"	37'-0"	27'-2"	**1.9
BRIDGE "E" APPR. 1	37'-0"	37'-0"	27'-2"	**1.9
APPR. 2	37'-0"	37'-0"	27'-2"	**1.9
BRIDGE "F" APPR. 1	45'-0"	41'-0"	27'-5"	**1.8
APPR. 2	42'-0"	42'-0"	27'-4"	**1.8
BRIDGE "G" APPR. 1	30'-6"	30'-6"	28'-1"	2.0
APPR. 2	30'-6"	30'-6"	28'-3"	2.0
BRIDGE "J" APPR. 1	39'-6"	41'-6"	27'-0"	**1.9
APPR. 2	41'-6"	41'-6"	27'-0"	**1.9

DIMENSIONS PROVIDED FOR SLOPE PAVING ARE APPROXIMATE.
** MATCH EXISTING SLOPE UNDER BRIDGE AND TRANSITION TO 2:1 MAX.

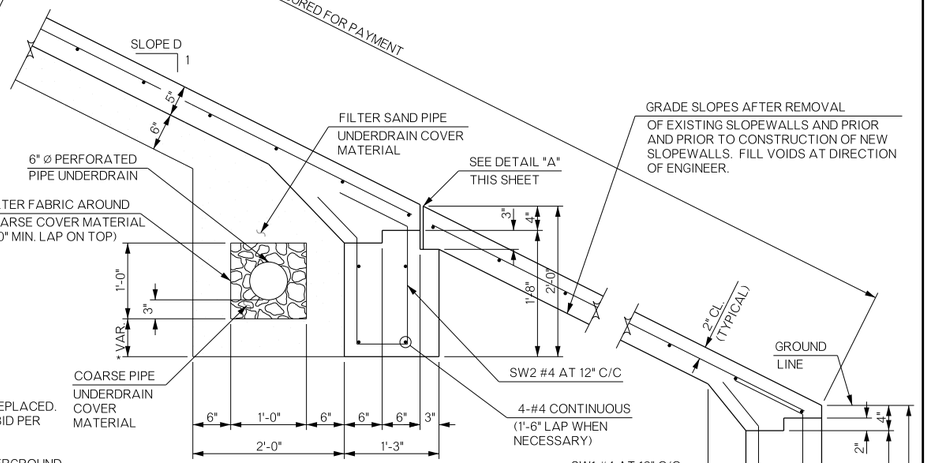


BACKFILL AND UNDERDRAINS AT ABUTMENTS

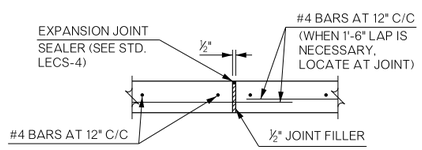
THE DEPARTMENT WILL PAY FOR CLSM BACKFILL IN ACCORDANCE WITH THE PLAN QUANTITY AND NO ADJUSTMENT WILL BE MADE FOR ACTUAL LOCATION OF EXCAVATION LIMITS.



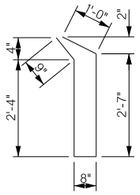
DETAIL 'A'



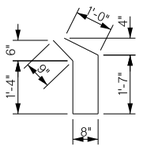
SECTION C-C



DETAIL OF VERTICAL CONSTRUCTION JOINT



SW1 #4 x 7'-4"



SW2 #4 x 4'-0"

GRADE SLOPES AFTER REMOVAL OF EXISTING SLOPEWALLS AND PRIOR AND PRIOR TO CONSTRUCTION OF NEW SLOPEWALLS. FILL VOIDS AT DIRECTION OF ENGINEER.

NOTES:

1. ALL EXISTING SLOPEWALLS SHALL BE REMOVED AND REPLACED. ALL REMOVAL WORK SHALL BE INCLUDED IN THE PRICE BID PER LUMP SUM "REMOVAL OF BRIDGE ITEMS".

2. SHOULD THE 3'-0" DIMENSION CONFLICT WITH AN UNDERGROUND STRUCTURE (FOOTING, DRAINAGE STRUCTURE, ETC.), ADJUSTMENTS SHALL BE MADE TO THE DEPTH OF THE SLOPEWALL TO AVOID CONFLICT AS APPROVED BY FIELD ENGINEER.

3. THE SLOPEWALL AND SLOPEDRAIN WILL BE PAID FOR AT THE UNIT PRICE BID PER SQUARE YARD OF SLOPE WALL (5") COMPLETED IN PLACE AS SHOWN ON THE PLANS. THE PRICE SHALL INCLUDE ALL COSTS OF JOINT FILLER, REINFORCING STEEL, LABOR, AND ALL OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK. ALL MATERIALS AND WORK SHALL BE IN ACCORDANCE WITH THAT PART OF SECTION 610 COVERING CONCRETE SIDEWALKS. SLOPEWALLS SHALL BE CONSTRUCTED WITH CLASS A CONCRETE. IN ACCORDANCE WITH SECTION 509, COARSE AGGREGATE FOR THIN SECTION CONCRETE (SEC. 701.06) MAY BE USED.

4. ALL COST OF THE PIPE UNDERDRAIN (PERFORATED AND NON-PERFORATED), COVER MATERIAL (BOTH FINE AND COARSE), FILTER FABRIC, TRENCH EXCAVATION, STANDARD BEDDING MATERIAL, GRADING, CLSM BACKFILLING, AND EQUIPMENT AND LABOR FOR THEIR INSTALLATION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF 6" PERFORATED PIPE UNDERDRAIN ROUND AND 6" NON-PERFORATED PIPE UNDERDRAIN ROUND.

5. REINFORCING STEEL IS NON-EPOXY COATED.

6. JOINT FILLER SHALL MEET THE REQUIREMENTS OF SECTION 701.08B.

7. CLSM BACKFILL BENEATH APPROACHES IS INCLUDED IN THE PRICE BID PER CY OF CLSM BACKFILL.

8. SLOPEWALL PAVING SECTIONS SHALL BE LIMITED TO A MAXIMUM OF 250 SQ.FT. OF SURFACE AREA. HORIZONTAL AND VERTICAL JOINTS SHALL BE PLACED TO MEET THESE REQUIREMENTS, WITH 90° ANGLES BETWEEN JOINTS MAINTAINED WHERE POSSIBLE.

* DIMENSION SHALL BE VARIED TO MAINTAIN POSITIVE DRAINAGE IN PIPE UNDERDRAIN TO OUTLET.

REVISIONS

REV. NO.	DESCRIPTION	DATE

BRIDGE A-G & J
COUNTY ROADS OVER I-35

KAY COUNTY

SLOPEWALL AND DRAIN DETAILS

Design	JDK	09/18
Detail	KNB	09/18
Check	WJS	10/18
Squad. Engr.:	THOMAS	

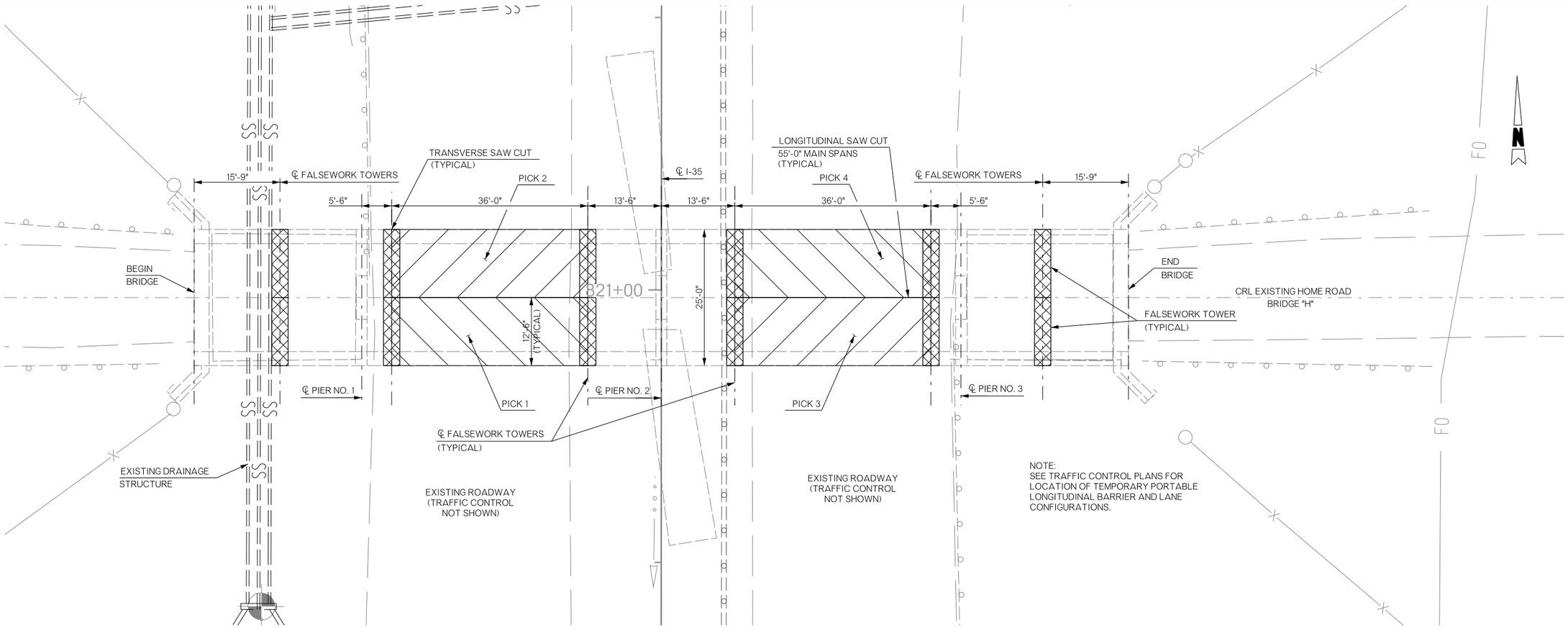
STATE OF OKLAHOMA

DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 24432(15)

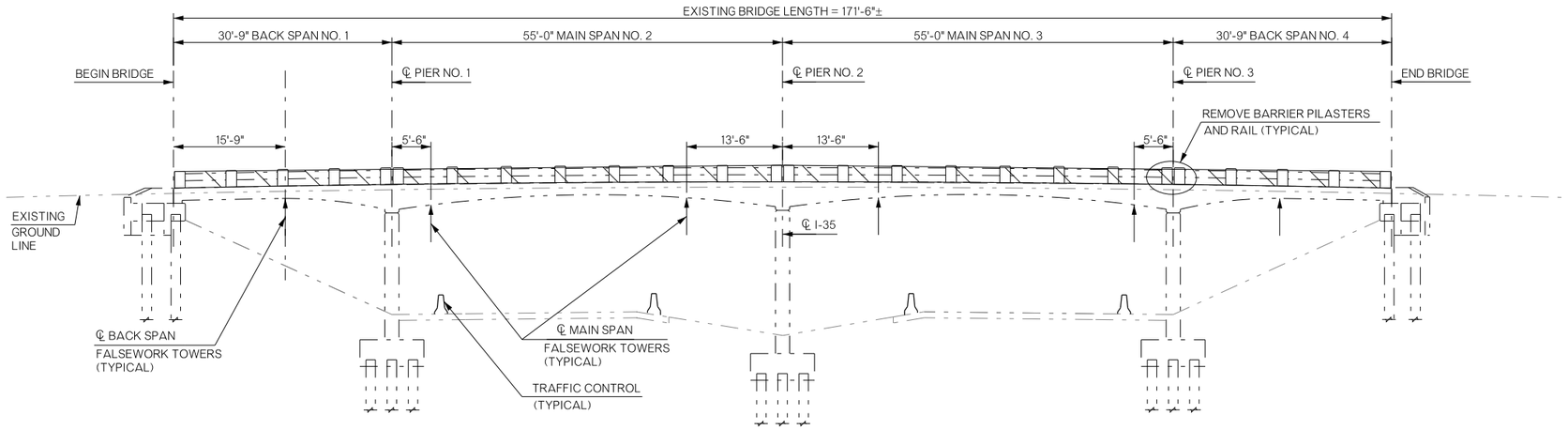
SHEET NO. B020

REVISIONS		
REV. NO.	DESCRIPTION	DATE



PLAN

NOTE: HATCHED AREA DENOTES BRIDGE SECTION BEING REMOVED.



STAGE ONE ELEVATION

NOTE: HATCHED AREA DENOTES BRIDGE SECTION BEING REMOVED.

NOTE: ESTIMATED WEIGHT OF PICKED SECTION OVER ROADWAY = 132 KIPS (UNFACTORED). CONTRACTOR IS RESPONSIBLE FOR FINAL PICK WEIGHTS.

NOTE:
FALSEWORK TOWER LOCATIONS WERE ASSUMED AS SHOWN. FALSEWORK REACTIONS PROVIDED ARE BASED ON PLAN LOCATIONS. CONTRACTOR IS RESPONSIBLE FOR ACTUAL FALSEWORK LOCATIONS AND DESIGN. IF ALTERNATE FALSEWORK LOCATIONS ARE USED, CONTRACTOR IS RESPONSIBLE FOR FALSEWORK LOADS AND BRIDGE STABILITY.

FALSEWORK TOWER REACTIONS

LOCATION	k/TOWER
BACK SPAN	40
MAIN SPAN	120

NOTE: ALL ANTICIPATED REACTIONS WERE DETERMINED USING 1.25 *DL.
REACTION LOCATIONS FOR TOWERS WERE ASSUMED AT 5 FT FROM ℄ OF BRIDGE.

STAGE 1 SUGGESTED SEQUENCE

1. INSTALL TRAFFIC CONTROL PER TRAFFIC CONTROL PLANS.
2. INSTALL CONTAINMENT SYSTEM OVER ROADWAY. REMOVE CONCRETE BARRIER PILASTERS AND RAIL.
3. INSTALL TEMPORARY FALSEWORK AT BOTH BACK SPANS AND MAIN SPANS.
4. SAW CUT MAIN SPANS IN LONGITUDINAL DIRECTION. OPTIONAL BACK SPAN SAW CUT IN LONGITUDINAL DIRECTION.

BRIDGE "H"
HOME ROAD OVER I-35

KAY COUNTY

HOME ROAD DEMOLITION-ROLLING ROAD BLOCK ALTERNATIVE (1 OF 2)

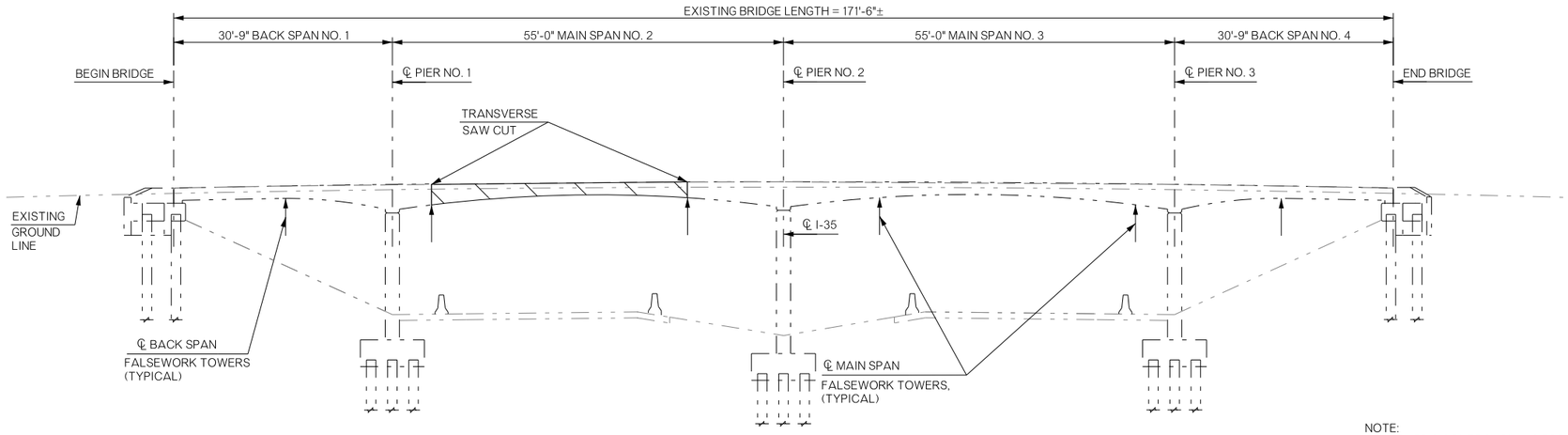
EXISTING 30'-55'-55'-30' CONT. CONC. SLAB SPANS
20' CLEAR ROADWAY

Design	SJK	09-18
Detail	RAW	09-18
Check	SJK	10-18
Squad:		
Engr.:	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORATION

JOB PIECE NO. 24432(15) | SHEET NO. B021

REVISIONS		
REV. NO.	DESCRIPTION	DATE



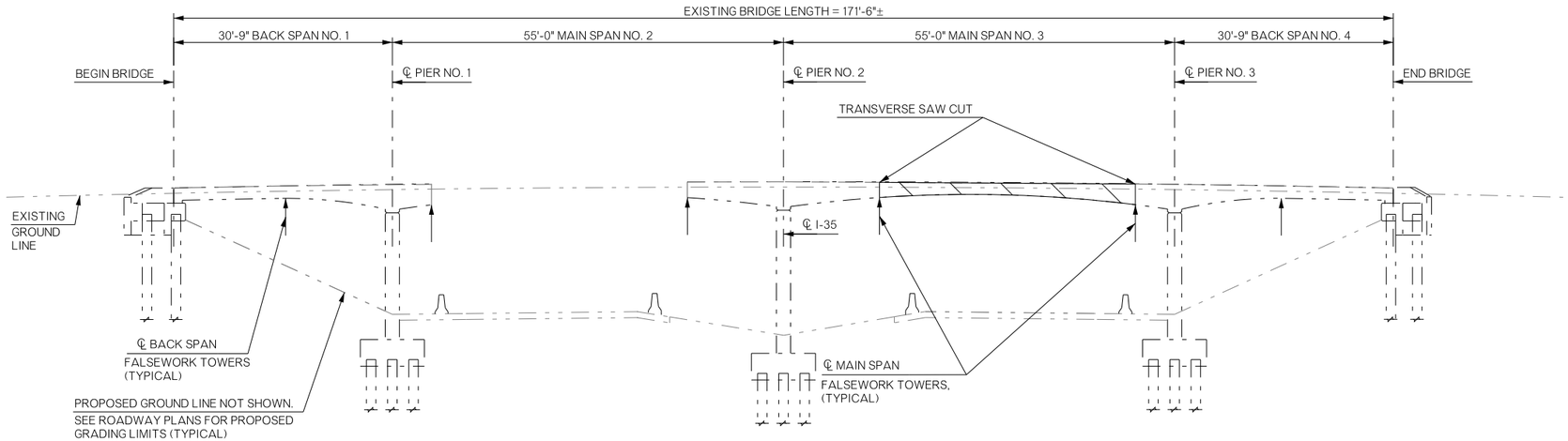
STAGE TWO ELEVATION

NOTE: HATCHED AREA DENOTES BRIDGE SECTION BEING REMOVED.

NOTE:
SEE TRAFFIC CONTROL PLANS FOR LOCATION OF TEMPORARY PORTABLE LONGITUDINAL BARRIER AND LANE CONFIGURATIONS.

STAGE 2 SUGGESTED SEQUENCE:

1. SAW CUT FIRST MAIN SPAN IN TRANSVERSE DIRECTION AT LOCATIONS NOTED ON PLANS.
2. RIG PICK 1 TO THE CRANE.
3. BEGIN ROLLING ROAD BLOCK.
4. PICK AND REMOVE PICK 1. RELEASE ROLLING ROAD BLOCK.
5. RIG PICK 2 TO THE CRANE.
6. BEGIN ROLLING ROAD BLOCK.
7. PICK AND REMOVE PICK 2. RELEASE ROLLING ROAD BLOCK.
8. CONTRACTOR HAS THE OPTION TO REMOVE TEMPORARY SUPPORT IN SPAN 2 ADJACENT TO PIER NO. 1. ALL OTHER TEMPORARY SUPPORTS TO REMAIN FOR STABILITY.



STAGE THREE ELEVATION

NOTE: HATCHED AREA DENOTES BRIDGE SECTION BEING REMOVED.

STAGE 3 SUGGESTED SEQUENCE:

1. SAW CUT SECOND MAIN SPAN IN TRANSVERSE DIRECTION AT LOCATIONS NOTED ON PLANS.
2. RIG PICK 3 TO THE CRANE.
3. BEGIN ROLLING ROAD BLOCK.
4. PICK AND REMOVE PICK 3. RELEASE ROLLING ROAD BLOCK.
5. RIG PICK 4 TO THE CRANE.
6. BEGIN ROLLING ROAD BLOCK.
7. PICK AND REMOVE PICK 4. RELEASE ROLLING ROAD BLOCK.
8. REMOVE TEMPORARY SUPPORT ADJACENT TO PIER NO. 3. PROVIDE TEMPORARY SUPPORT AT CENTER PIER CANTILEVER UNTIL CENTER PIER SECTION IS REMOVED.
9. REMOVE REMAINING BRIDGE SUBSTRUCTURE SECTIONS AND SUBSTRUCTURE. SUBSTRUCTURE SHALL BE REMOVED TO AT LEAST 2 FT BELOW PROPOSED GROUND LINE.

BRIDGE "H"
HOME ROAD OVER I-35

KAY COUNTY

HOME ROAD DEMOLITION-ROLLING ROAD BLOCK ALTERNATIVE (2 OF 2)

EXISTING 30'-55'-55'-30' CONT. CONC. SLAB SPANS
20' CLEAR ROADWAY

Design	SJK	09-18
Detail	RAW	09-18
Check	SJK	10-18

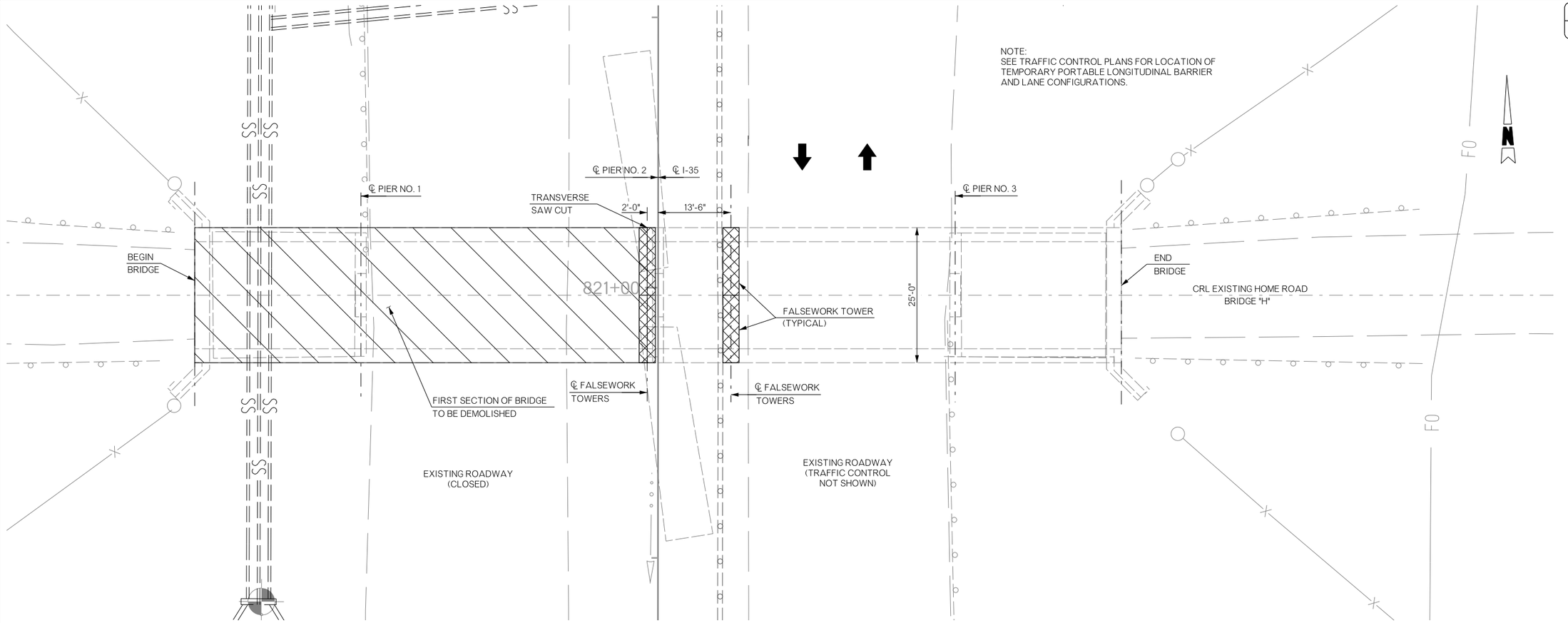
Squad:
Engr.: THOMAS

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORATION

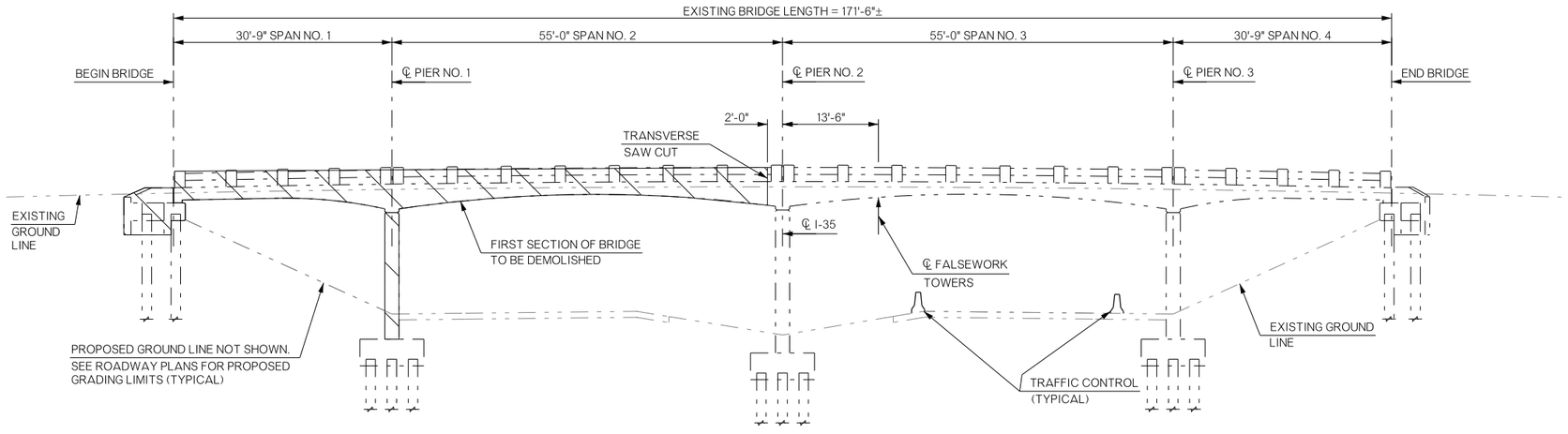
JOB PIECE NO. 24432(15) | SHEET NO. B022

REVISIONS		
REV. NO.	DESCRIPTION	DATE

NOTE:
SEE TRAFFIC CONTROL PLANS FOR LOCATION OF TEMPORARY PORTABLE LONGITUDINAL BARRIER AND LANE CONFIGURATIONS.



PLAN



ELEVATION

MAXIMUM FACTORED FALSEWORK TOWER REACTION = 150 KIP/TOWER
INCLUDES BARRIER PILASTERS AND RAIL

NOTE: ALL ANTICIPATED REACTIONS WERE DETERMINED USING 1.25 *DL.
REACTION LOCATIONS FOR TOWERS WERE ASSUMED AT 5 FT FROM ℄ BRIDGE.

NOTE:
FALSEWORK TOWER LOCATIONS WERE ASSUMED AS SHOWN. FALSEWORK REACTIONS PROVIDED ARE BASED ON PLAN LOCATIONS. CONTRACTOR IS RESPONSIBLE FOR ACTUAL FALSEWORK LOCATIONS AND DESIGN. IF ALTERNATE FALSEWORK LOCATIONS ARE USED, CONTRACTOR IS RESPONSIBLE FOR FALSEWORK LOADS AND BRIDGE STABILITY.

SUGGESTED DEMOLITION SEQUENCE:

1. CONSTRUCT CROSSOVERS AND INSTALL TRAFFIC CONTROL. BEGIN HEAD-TO-HEAD TRAFFIC USING CROSSOVER.
2. CLOSE HOME ROAD. INSTALL TEMPORARY FALSEWORK.
3. TRANSVERSE SAW CUT THE BRIDGE DECK AT LOCATION SHOWN IN PLANS. CONTRACTOR HAS THE OPTION TO REMOVE BARRIER RAIL & PILASTERS PRIOR TO SAW CUT.
4. PROTECT ROADWAY BELOW. ANY DAMAGE TO I-35 AS A RESULT OF BRIDGE DEMO WILL BE REPAIRED AT NO COST TO OWNER. REMOVE THE FIRST SECTION OF THE BRIDGE. ALL SUBSTRUCTURE SHALL BE REMOVED TO AT LEAST 2 FT BELOW PROPOSED GROUND LINE.
5. AFTER FIRST SECTION OF BRIDGE HAS BEEN REMOVED AND ROADWAY HAS BEEN CLEARED OF DEBRIS, USE CROSSOVERS TO SWITCH HEAD-TO-HEAD TRAFFIC TO OPPOSITE BOUND.
6. REMOVE THE REMAINING SECTIONS OF THE BRIDGE.

BRIDGE "H"
HOME ROAD OVER I-35

KAY COUNTY

HOME ROAD DEMOLITION CROSSOVER ALTERNATIVE

EXISTING 30'-55'-55'-30' CONT. CONC. SLAB SPANS
20' CLEAR ROADWAY

Design	SJK	09-18
Detail	RAW	09-18
Check	SJK	10-18
Squad:		
Engr.:	THOMAS	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORATION

JOB PIECE NO. 24432(15) | SHEET NO. B023

Rev. 4-15-57
Rev. Reinf. Quan. 5/9/57

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	I-456(3)		41	111

FOR INFORMATION ONLY

DESIGN DATA

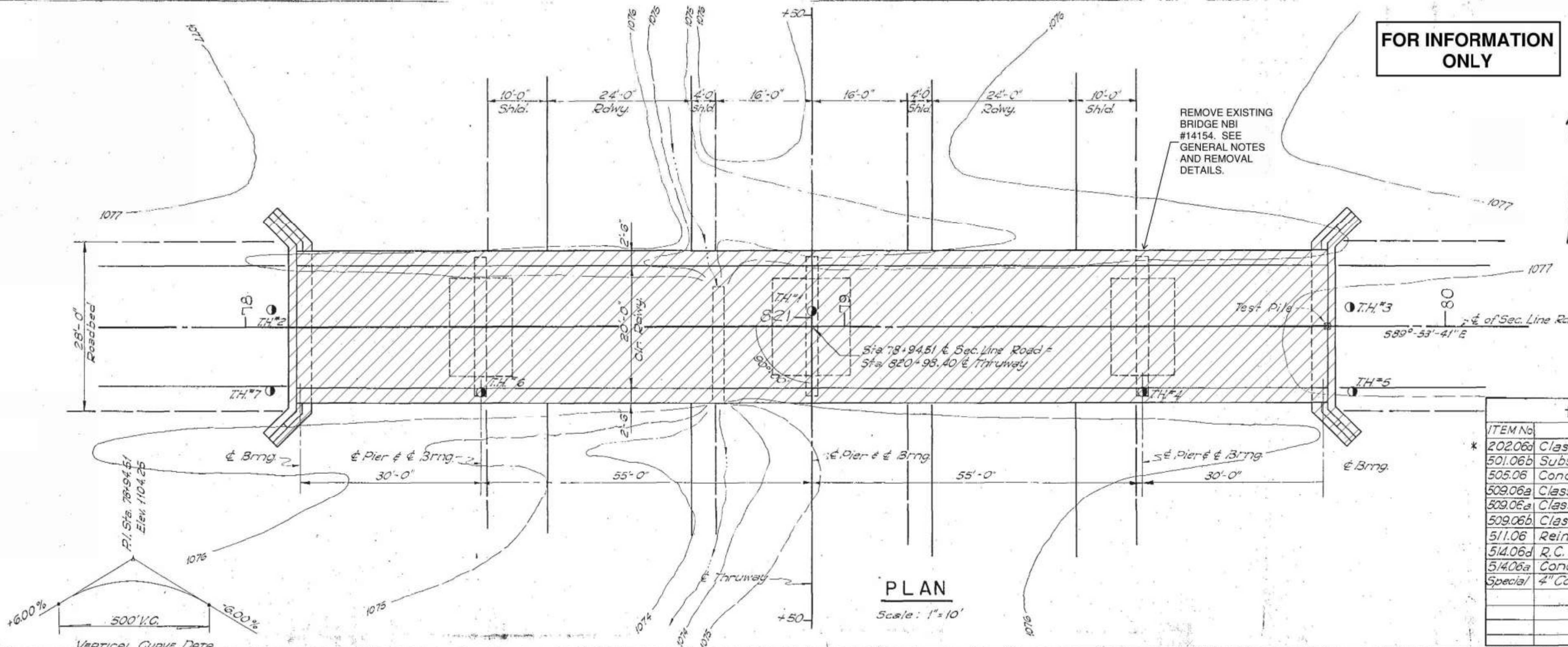
54

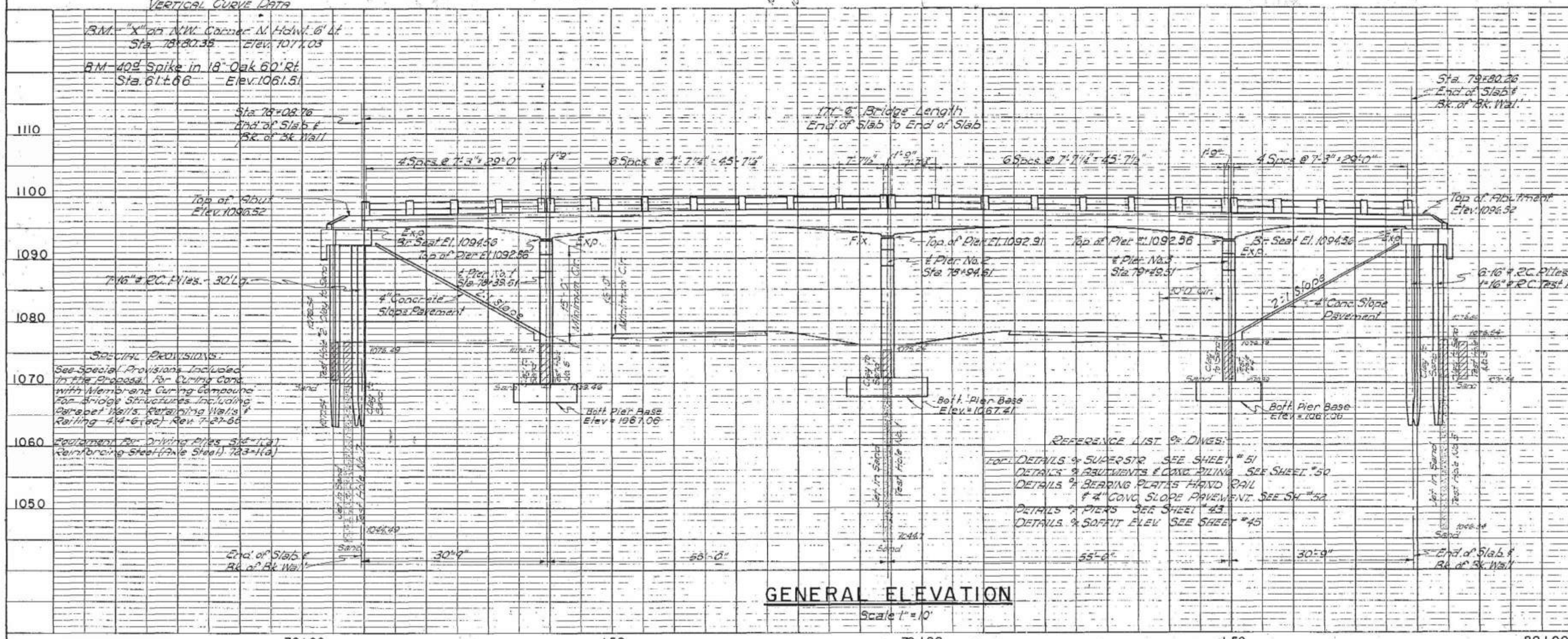
Concrete	1,000 psi
Reinforcing Steel	18,000 psi
Design Live Load	H15 - 53

Maximum Foundation Loads;

Abutments	18.2 Ton/Pile
Piers: Direct Load	1.92 T/□'
Max. Load	2.51 T/□'

BRIDGE "H"
HOME ROAD OVER I-35





† SUMMARY OF QUANTITIES

	ITEM No.	ITEM	UNIT	Abuts.	Piers	Super Structure	Total
*	202.06a	Class D Excav.	C.Y.				200
	501.06b	Substr. Excav. Common	C.Y.	120	355		475
	505.06	Concrete Rails	L.F.			343.0	343.0
	509.06a	Class A Conc.	C.Y.	37.0	50.1		87.1
	509.06a	Class A Conc. Pier Base	C.Y.		60.5		60.5
	509.06b	Class AA Conc.	C.Y.			311.9	311.9
	511.06	Reinf. Steel	Lbs.	4960	11,025	55,025	71,010
	514.06d	R.C. Piling	L.F.	390			390
	514.06a	Concrete Test Pile	Ea.	1			1
	Special	4" Conc. Slope Pavement	S.Y.	155.3			155.3

* Non-Participating Item

All construction and materials shall be in accordance with the Oklahoma Standard Specifications of 1954 and Special Provisions.

All exposed concrete surfaces shall have a carborundum finish.

All reinforcing steel bars shall conform to A.S.T.M. Specifications A-305-49

All abutment piling shall be driven using leads of sufficient strength to control piles.

Abutment piling shall be driven to practical refusal if above grade or to a minimum bearing of 50 tons if at or below grade.

All Abutment Piling shall be driven through the compacted fill. 12" Pilot holes shall be drilled to natural ground line. All cost of pilot holes shall be included in the unit price bid for R.C. Piling.

† Time will not be charged against the Bridge Contractor until the fills at Abutments are complete in place and the grading through the structure has been completed.

† The Bridge Contractor shall at all times maintain a minimum vertical clearance of 12' and a minimum horizontal clearance of 25' over each lane of interstate highway. If the surfacing is completed and the highway opened to traffic prior to the completion of the grade separation structures the Bridge Contractor will be held responsible for maintenance of traffic through the structure locations.

RECORD		
ITEM	BY	DATE
DESIGN		
DETAIL		
TRACED	D.F.S.	3/57
CHECKED	R.A.R.	3/57
APPR'D		
SQUAD		

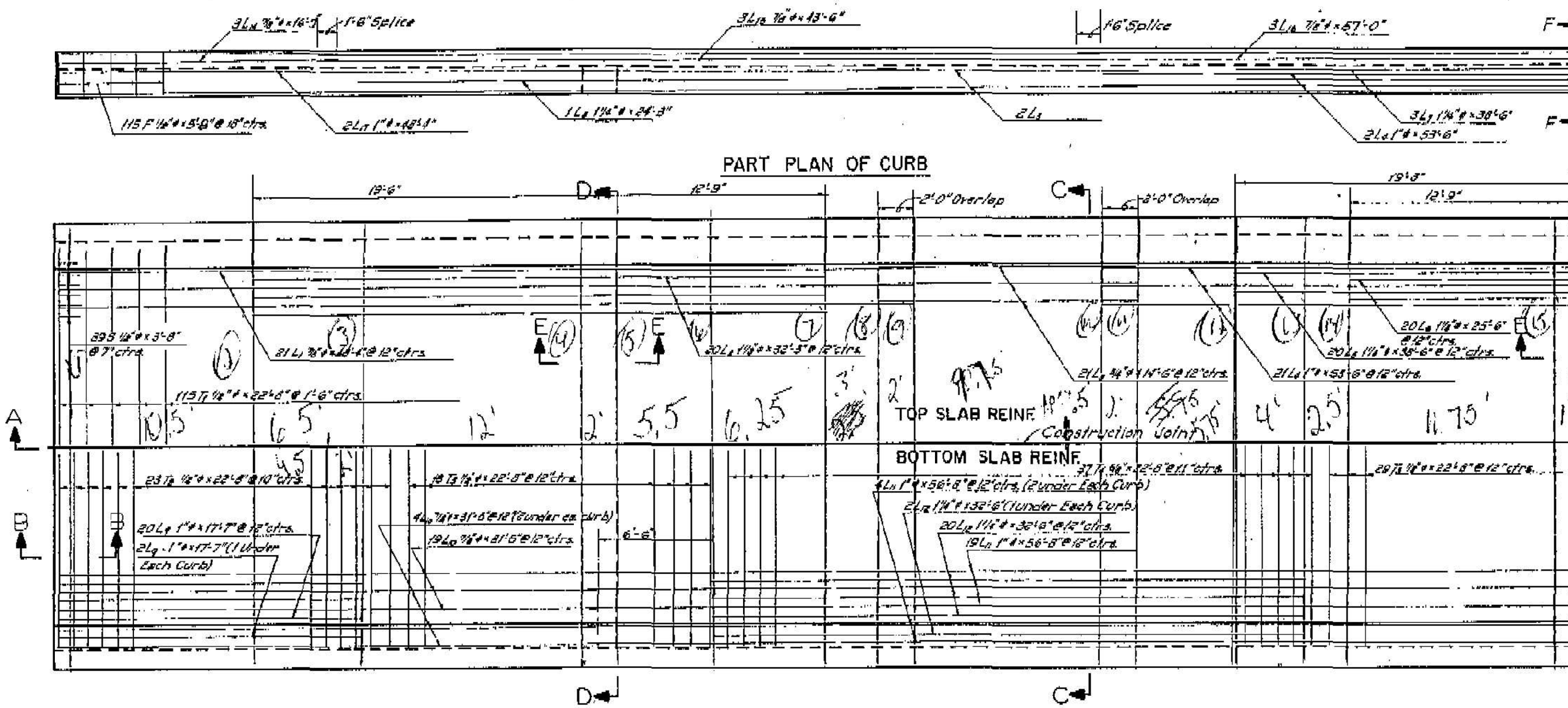
OKLAHOMA STATE HIGHWAY COMMISSION
OKLAHOMA CITY, OKLA.

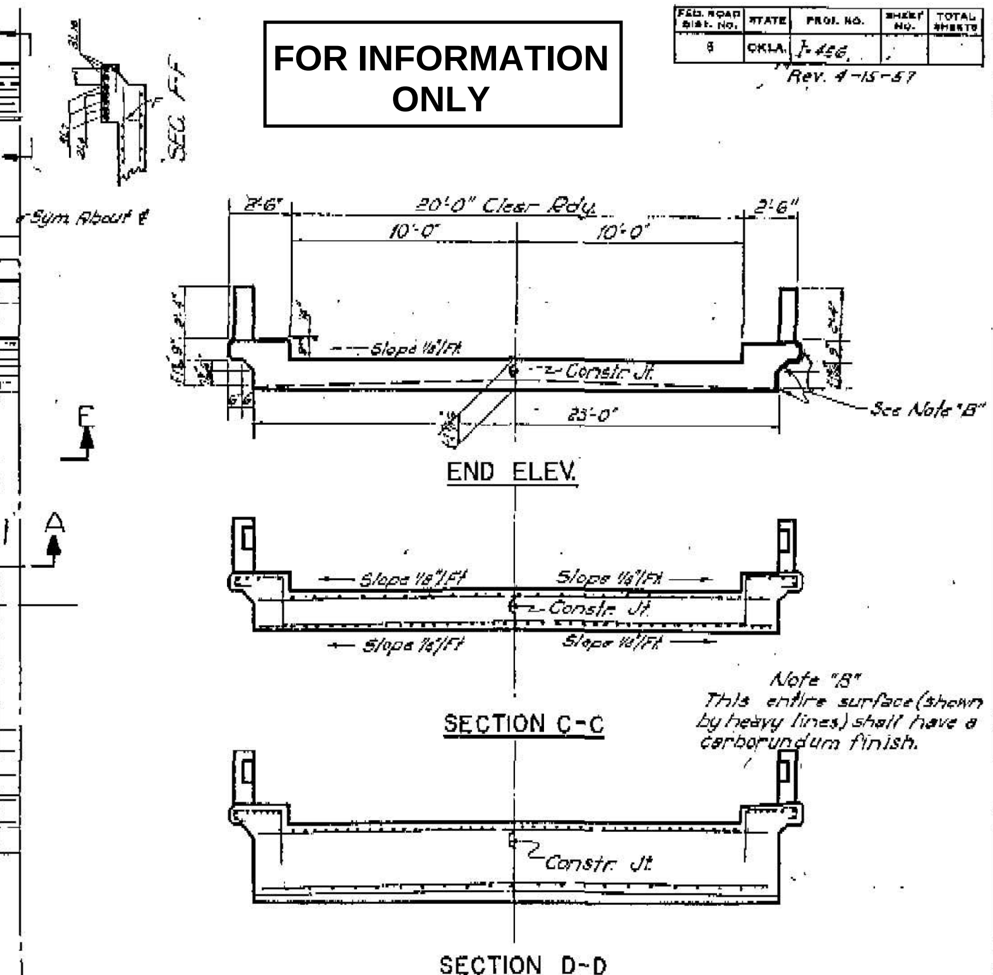
STR. No. 1
GENERAL ELEV., PLAN & SUMMARY OF QUANTITIES
30-55-55-30 CONC. SLAB SPAN
20' RDY. & 2-18" S.C.'s
℄ STA. ON ℄ SURVEY 820 + 98.40
F.A. PROJ. I-456(3)

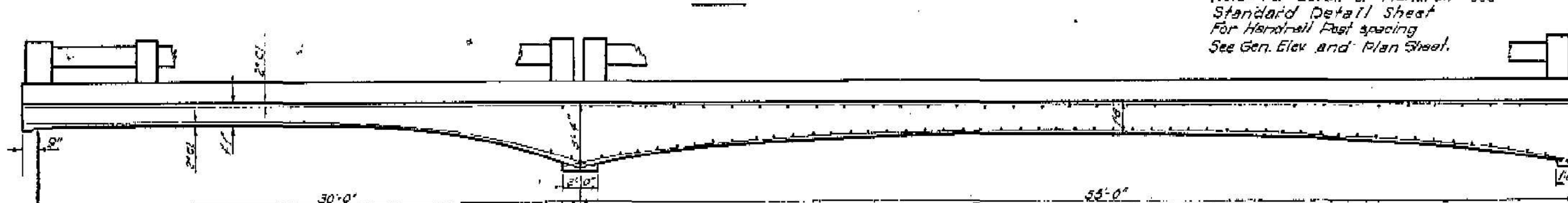
FOR INFORMATION ONLY

FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	OKLA.	I-456		

Rev. 4-15-57





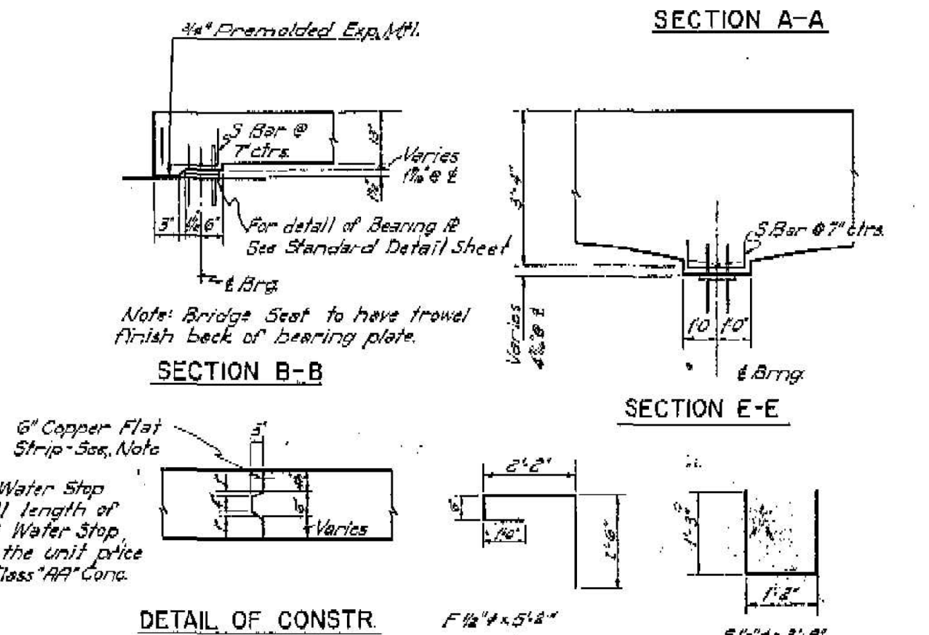


SECTION A-A

ITEM	UNIT	
Class AA	C.Y.	316
Reinforcing steel	Lbs	55,025

BAR LIST

Mark	No.	Size	Form	Length	Mark	No.	Size	Form	Length
L1	42	⅞"ø	Str.	48'-4"	L13	8	1"ø	Str.	48'-4"
L2	40	1⅛"ø	Str.	32'-3	T1	115	½"ø	Str.	22'-8"
L3	50	¾"ø	Str.	14'-6"	T2	46	½"ø	Str.	22'-8"
L4	25	1"ø	Str.	53'-6"	T3	80	½"ø	Str.	22'-8"
L5	20	1⅛"ø	Str.	38'-6"	T4	74	⅝"ø	Str.	22'-8"
L6	20	1⅛"ø	Str.	25'-6"	T5	29	½"ø	Str.	22'-8"
L7	6	1¼"ø	Str.	38'-8"	F	230	½"ø	Bnt.	5'-8"
L8	4	1¼"ø	Str.	24'-3"	S	195	½"ø	Bnt.	3'-8"
L9	44	1"ø	Str.	17'-7"					
L10	46	⅞"ø	Str.	31'-5"					
L11	46	1"ø	Str.	56'-6"					
L12	44	1⅛"ø	Str.	32'-6"					
L14	12	⅞"ø	Str.	16'-7"					
L15	12	⅞"ø	Str.	43'-6"					
L16	8	⅞"ø	Str.	57'-0"					



Note: A 20 oz. Copper Water Stop shall be installed full length of Constr. Jt. All cost of Water Stop shall be included in the unit price bid per Cu. Yds. for Class "AA" Conc.

DETAIL OF CONSTR. JOINT IN SLAB

NOTES

Detailed plans of Falsework & Forms shall be submitted to the Highway Commission & be approved by the Chief Engineer before any concrete is poured. Falsework & forms must be in place for the entire deck of one unit before any concrete in that unit is poured.

All forms shall be lined with an approved form lining (Plywood, Masonite, or similar material). The form lining material shall be full sized commercial panels & joints shall line up, in so far as practical. No scrap or odd sized pieces will be used.

Provision shall be made for adjustment of forms to correct any deformation which may occur during concrete operations. Adequate provisions shall be made for making adjustments to forms during pouring operations.

The concrete mixer shall be sufficient capacity to pour all concrete as indicated by the construction joints in a continuous pour. A standby mixer shall be provided at the bridge site for emergency use, unless transit mixed concrete is used.

No construction joints other than those shown on plans, will be allowed.

All exposed edges on concrete shall have a ¾" chamfer unless otherwise shown or noted.

Bricking of the underside of the deck will not be required if a smooth & uniform finish, acceptable to the engineer, is otherwise obtained.

A standby vibrator shall be provided at the site to take the place of any working vibrator breaking down.

All reinforcing steel bars shall conform to A.S.T.M. Spec. A-305-49.

The contractor may at his option & with no expense to the State, cut all transverse bars to allow 1'-6" lap outside construction joint of the panel being poured.

Reinf. in bottom of slab shall be supported on approved metal slab spacers. Steel in top of slab shall be supported on approved metal high chairs at approx. 4' centers.

BRIDGE "H"

HOME ROAD OVER I-35

Design Load H-15-44.

REVISIONS				RECORD		
NO.	DESCRIPTION	BY	DATE	ITEM	BY	DATE
1	Adj. L Bars & Reinf. Quan.			DESIGN		
				DETAIL		
				TRACED		4/57
				CHECKED		4/57
				APPROVED		
				SQUAD:		

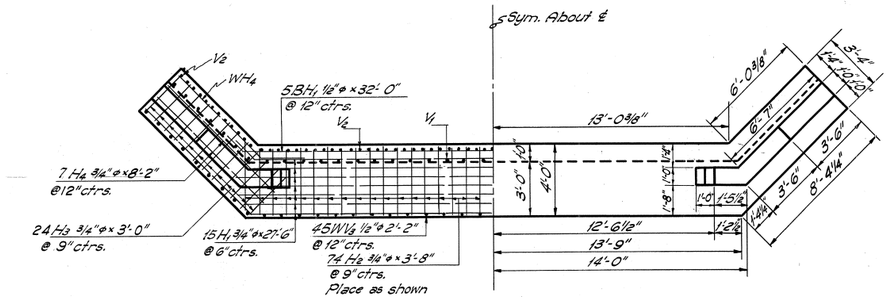
OKLAHOMA STATE HIGHWAY COMMISSION
OKLAHOMA CITY, OKLAHOMA

STANDARD
DETAIL OF CONC. SLAB
FOR 30'-55'-55'-30' CONC. SLAB SPAN
20' RDWY & 2-18" S.C.'s
F.A. PROJ. I-456

PROJECT NO. I-456(3) SHEET NO.

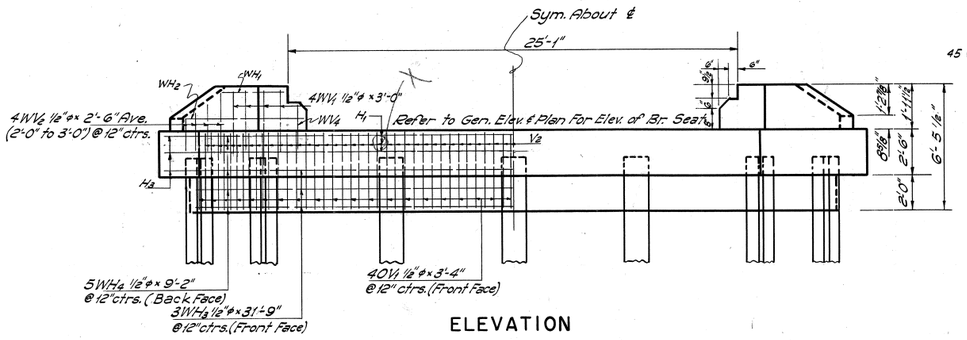
FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	OKLA.	I-456		

FOR INFORMATION ONLY

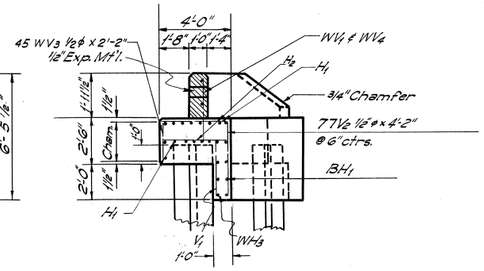


HALF REINF. PLAN HALF PLAN

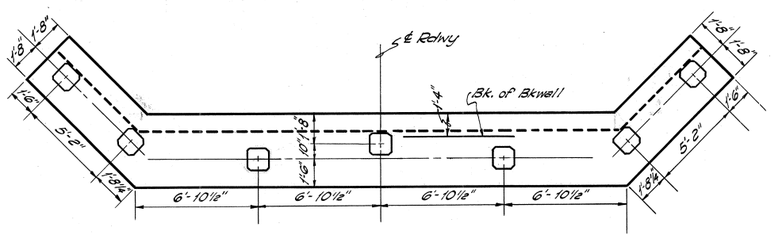
BAR LIST-ONE ABUT.				
Mark	No.	Size	Form	Length
H_1	15	3/4"ø	Str.	27'-6"
H_2	14	3/4"ø	Str.	3'-8"
H_3	48	3/4"ø	Str.	3'-0"
H_4	14	3/4"ø	Str.	8'-2"
V_1	40	1/2"ø	Str.	3'-4"
V_2	77	1/2"ø	Str.	4'-2"
WH_1	2	1/2"ø	Bnt.	4'-4"
WH_2	2	1/2"ø	Bnt.	8'-0"
WH_3	3	1/2"ø	Bnt.	31'-9"
WH_4	10	1/2"ø	Bnt.	9'-2"
BH_1	5	1/2"ø	Bnt.	32'-0"
WV_1	8	1/2"ø	Str.	3'-0"
WV_2	8	1/2"ø	Str.	2'-6" Ave.
WV_3	45	1/2"ø	Str.	2'-2"
WV_4	2	1/2"ø	Str	2'-6"
H	28	3/4"ø	Bnt.	8'-3"
P	14	1/2"ø	Bnt.	3'-8"



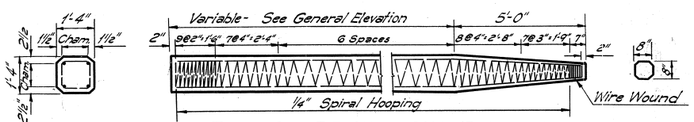
ELEVATION



SECTION ON ℄



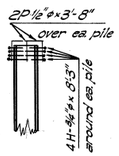
PILE SPACING DIAGRAM

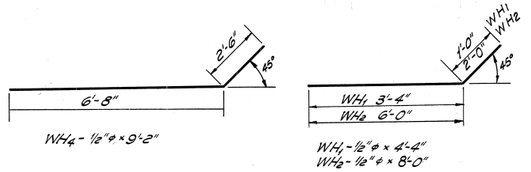


DETAIL OF REINF. CONC. PILE

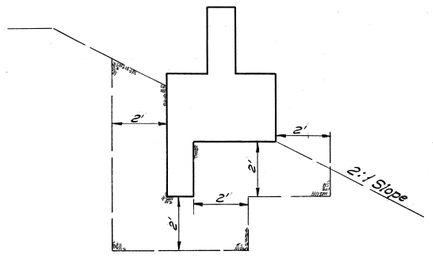
Piling Note: Vertical Bars in piling - For lengths less than 35' use 4-1" ø bars. For lengths 35' to 39' use 8-7/8" ø bars. For lengths 40' or over use 8-1" ø bars. In piles requiring 8 vertical bars, the 4 side bars shall be 5'-0" shorter than the 4 corner bars.

Materials, driving equipment, construction methods, method of measurement, and basis of payment shall conform to the plans and Section 514 of the Specifications.





BAR BENDING DETAILS



MAXIMUM LIMITS OF EXCAV. IN COMPACTED FILL

Abutment shall be back filled & tamped with a mechanical tamper (type & weight to be approved by the Engineer) by the Bridge Contractor after abutment is completed. All cost of backfill shall be included in the unit price bid per Cu. Yd. for Substr. Excavation Common.

Contractor may excavate to the neat lines of the abutment & if in satisfactory condition to the Resident Engineer, he may pour the concrete against the compacted fill. If necessary, Contractor shall use forms on the back vertical face of the Abut. & remove the same after concrete is set.

EXCAVATION DETAILS FOR ABUTMENTS

QUANTITIES			
ITEM	UNIT	Abut. #1	Abut. #2
Class "A" Concrete	Cu. Yds.	18.5	18.5
Reinf. Steel	Lbs.	2480	2480
Reinf. Conc. Piling	Lin. Ft.	*	*
Substr. Excav. Com.	Cu. Yds.	60	60

* - Included in Summary of Quantities - General Elevation & Plan - Sheet

BRIDGE "H"

HOME ROAD OVER I-35

NOTES

1. - Unless Otherwise Noted, All Exposed Edges Shall Have A 3/4" Chamfer.
2. - All construction and materials shall be in accordance with the Oklahoma Standard Specifications of 1954 and Special Provisions.

REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	Rev. #4 Bars & Reinf. Quan.	D.F.S.	5/8/57

RECORD		
ITEM	BY	DATE
DESIGN		
DETAIL		
TRACED	D.F.S.	3/57
CHECKED	R.A.R.	3/57
APPROVED		
SQUAD:		

OKLAHOMA STATE HIGHWAY COMMISSION
OKLAHOMA CITY, OKLAHOMA

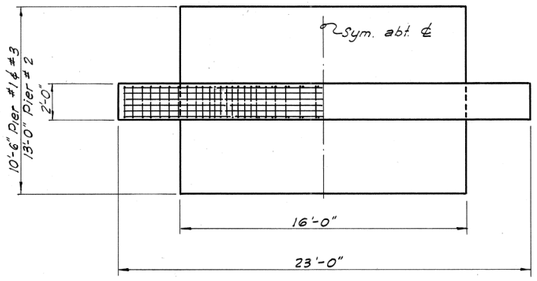
STANDARD DETAILS OF ABUTMENTS FOR 30-55-55-30 CONC. SLAB SPAN 20' RDWY & 2-18" S.C.'s F.A. PROJ. I-456

PROJECT NO. I-456 SHEET NO. 50

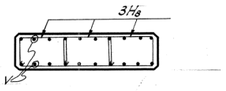
SHEET NO. B026

FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	OKLA.	I-456(3)	43	111

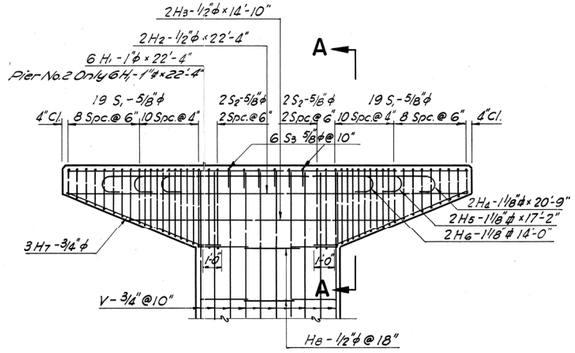
FOR INFORMATION ONLY



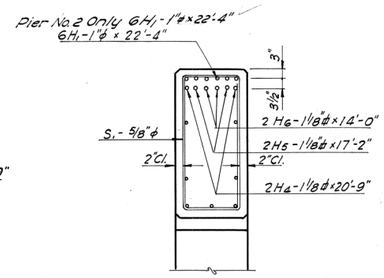
PLAN



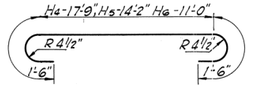
SECTION A-A



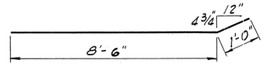
REINFORCING DETAILS



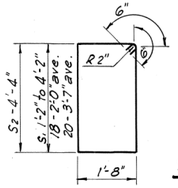
SECTION - A



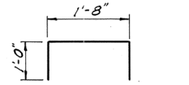
H4, H5, H6 - 3/4"ϕ BARS



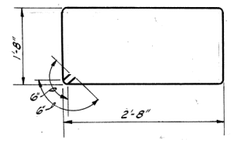
H7 - 3/4" BARS



S1, S2 - 5/8"ϕ BARS



S3 - 5/8"ϕ BARS



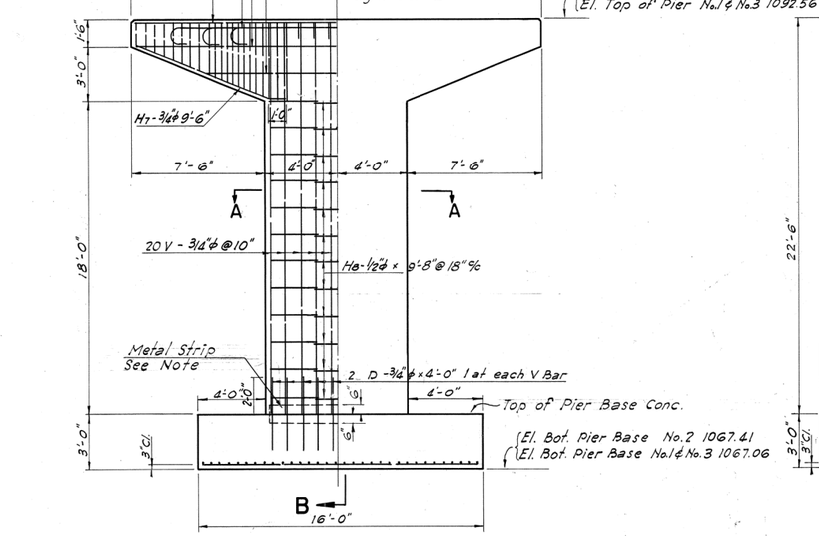
H8 - 1/2" BARS

BAR LIST - PIER No. 1
BAR LIST - PIER No. 3

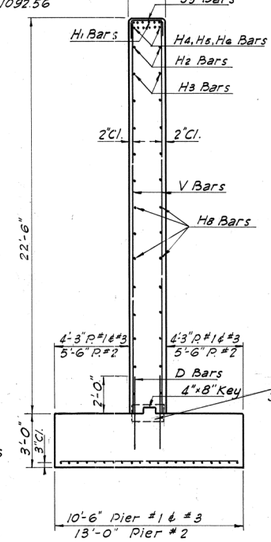
Mark	No.	Size	Form	Length
H1	6	1"ϕ	Str.	22'-4"
H2	2	1/2"ϕ	Str.	22'-4"
H3	2	1/2"ϕ	Str.	14'-10"
H4	2	1 1/8"ϕ	Bnt.	20'-9"
H5	2	1 1/8"ϕ	Bnt.	17'-2"
H6	2	1 1/8"ϕ	Bnt.	14'-0"
H7	6	3/4"ϕ	Bnt.	9'-6"
H8	39	1/2"ϕ	Str.	9'-8"
S1	18	5/8"ϕ	Bnt.	7'-4"(Ave.)
S1	20	5/8"ϕ	Bnt.	11'-6"(Ave)
S2	4	5/8"ϕ	Bnt.	13'-0"
S3	6	5/8"ϕ	Bnt.	3'-8"
D	20	3/4"ϕ	Str.	4'-0"
V	20	3/4"ϕ	Str.	22'-4"
F1	21	3/4"ϕ	Str.	15'-6"
F2	32	3/4"ϕ	Str.	10'-0"

BAR LIST - PIER No. 2

Mark	No.	Size	Form	Length
H1	6	1"ϕ	Str.	22'-4"
H2	2	1/2"ϕ	Str.	22'-4"
H3	2	1/2"ϕ	Str.	14'-10"
H4	2	1 1/8"ϕ	Bnt.	20'-9"
H5	2	1 1/8"ϕ	Bnt.	17'-2"
H6	2	1 1/8"ϕ	Bnt.	14'-0"
H7	6	3/4"ϕ	Bnt.	9'-6"
H8	39	1/2"ϕ	Str.	9'-8"
S1	18	5/8"ϕ	Bnt.	7'-4 (Ave.)
S1	20	5/8"ϕ	Bnt.	11'-6"(Ave)
S2	4	5/8"ϕ	Bnt.	13'-0"
S3	6	5/8"ϕ	Bnt.	3'-8"
D	20	3/4"ϕ	Str.	4'-0"
V	20	3/4"ϕ	Str.	22'-4"
F3	29	5/8"ϕ	Str.	15'-6"
F4	32	1"ϕ	Str.	12'-6"



ELEVATION



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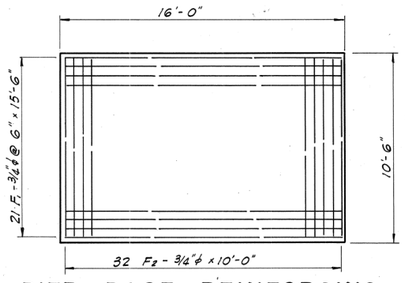
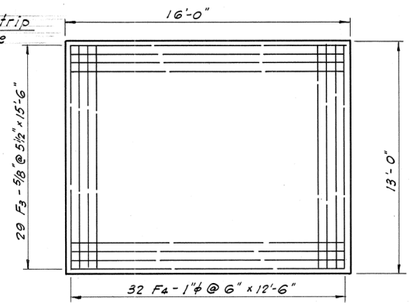


PIER BASE REINFORCING
PIER No. 1 & No. 3



PIER BASE REINFORCING
PIER No. 2

QUANTITIES

ITEM	UNIT	PIER No.1	PIER No.2	PIER No.3
Reinforcing Steel	Lbs.	3,450	4,125	3,450
Class "A" Concrete	Cu. Yds.	16.7	16.7	16.7
Class "A" Conc. in Pier Bases	Cu. Yds.	18.7	23.1	18.7
Substr. Excav. - Common	Cu. Yds.	125	105	125

BRIDGE "H"

HOME ROAD OVER I-35

NOTES:
All reinforcing steel bars shall conform to A.S.T.M. specifications A-305-49.
All exposed edges shall have a 1½" chamfer unless otherwise noted.
All concrete shall be poured dry

NOTE: METAL STRIP

A 16 gage galvanized iron strip 12" wide shall be placed in the Construction Joint in each Pier Shaft as shown. Each joint in the metal strip shall be lapped 2", riveted and soldered to make it water tight. The materials shall comply with the requirements of the Oklahoma Standard Specifications of 1954 and A.A.S.H.O. specification. Concrete shall be carefully placed so as not to crush or deform this strip. All cost of the material and the placing of metal strip shall be included in the unit price bid per Cubic Yard for class "A" concrete in pier bases.

Any variation in the elevation of pier bases shall be taken care of in the shaft and any additional concrete shall be paid for as class "A" concrete in pier bases. All cost of such variation shall be included in the unit price bid per cubic yard for class "A" concrete in pier bases.

REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	Rev. H8 Bars & Reinf. Quan.	DFS	8/8/57

RECORD		
ITEM	BY	DATE
DESIGN		
DETAIL		
TRACED	I.S.	3/57
CHECKED	R.A.R.	3/57
APPROVED		
SQUAD:		

OKLAHOMA STATE HIGHWAY COMMISSION
OKLAHOMA CITY, OKLAHOMA

STRUCTURE No. 1
DETAILS OF PIERS
℄ STA. ℄ SURVEY 820+98.40
F A PROJ. I-456(3)

PROJECT NO. I-456(3) SHEET NO. - -

SHEET NO. B027

STORM WATER MANAGEMENT PLAN

REVISIONS	
DESCRIPTION	DATE

SITE DESCRIPTION

PROJECT LIMITS: APPROX. 1/8 MILE EAST & WEST OF I-35 ALONG NORTH AVE
NORTH AVE IS LOCATED 1 MILE SOUTH OF THE SH-60 & I-35 JUNCTION ALONG THE I-35 CORRIDOR.

PROJECT DESCRIPTION: RAISE BRIDGE PROFILE AND ADJUST ROADWAY PROFILE TO MATCH. PROJECT INCLUDES REPLACING GUARDRAIL AND RESHAPING SLOPES TO MATCH RAISE PROFILE GRADE OF THE ROAD.

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 AND DEVICES WHEN AN ACCEPTABLE VEGETATIVE COVER (AT LEAST 70%) HAS BEEN ATTAINED. AS SITE CONDITIONS WARRANT, THE CONTRACTOR MAY CHOOSE TO MODIFY THE TYPE OR ARRANGEMENT OF SPECIFIED PRACTICES TO IMPROVE THEIR EFFECTIVENESS AS APPROVED BY THE ENGINEER. THE CONTRACTOR WILL MAINTAIN A LOG OF MAJOR SOIL DISTURBANCE ACTIVITIES, AND ALSO THE DATES OF INSTALLATION OF EROSION CONTROL MEASURES.

SOIL TYPE: REINACH LOAM/EDA LOAMY FINE SAND

TOTAL AREA OF THE CONSTRUCTION SITE: 2.86 ACRES (124,582 SF)

ESTIMATED AREA TO BE DISTURBED: 2.86 ACRES (124,582 SF)

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE)

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 0.16 ACRES (7,100 SF)

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 0.19 ACRES (8,440 SF)

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.45

LATITUDE & LONGITUDE OF CENTER OF PROJECT: N36°40'51" W97°20'45"

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: ARKANSAS RIVER, SALT FORK

SENSITIVE WATERS OR WATERSHEDS: YES [ ] NO [X]

303(D) IMPAIRED WATERS: YES [X] NO [ ]

IF YES, LIST IMPAIRMENT: Enterococc, Turbidity

LOCATED IN A TMDL: YES [X] NO [ ]

LAKE THUNDERBIRD TMDL: YES [ ] NO [X]

MS4 ENTITY YES [ ] NO [X]

IF YES, LOCATION: OK621000010010_30

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

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- ____ TEMPORARY SEEDING
- _X_ PERMANENT SODDING, SPRIGGING OR SEEDING
- _X_ VEGETATIVE MULCHING
- ____ SOIL RETENTION BLANKET
- _X_ 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
- _X_ 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
- _X_ 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
- _X_ 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	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION

STORMWATER MANAGEMENT PLAN

COUNTY: KAY HIGHWAY: NORTH AVE STATE JOB NO.: 24432(15) SHEET NO.: R001

Wednesday, October 24, 2018 12:01:4 PM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-SWMP SHEETS.dwg

STORM WATER MANAGEMENT PLAN

REVISIONS	
DESCRIPTION	DATE

SITE DESCRIPTION

PROJECT LIMITS: APPROX. 1/8 MILE EAST & WEST OF I-35 ALONG HIGHLAND AVE. HIGLAND AVE IS LOCATED 1 MILE NORTH OF THE SH-60 & I-35 JUNCTION ALONG THE I-35 CORRIDOR.

PROJECT DESCRIPTION: RAISE BRIDGE PROFILE AND ADJUST ROADWAY PROFILE TO MATCH. PROJECT INCLUDES REPLACING GUARDRAIL AND RESHAPING SLOPES TO MATCH RAISE PROFILE GRADE OF THE ROAD.

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 AND DEVICES WHEN AN ACCEPTABLE VEGETATIVE COVER (AT LEAST 70%) HAS BEEN ATTAINED. AS SITE CONDITIONS WARRANT, THE CONTRACTOR MAY CHOOSE TO MODIFY THE TYPE OR ARRANGEMENT OF SPECIFIED PRACTICES TO IMPROVE THEIR EFFECTIVENESS AS APPROVED BY THE ENGINEER. THE CONTRACTOR WILL MAINTAIN A LOG OF MAJOR SOIL DISTURBANCE ACTIVITIES, AND ALSO THE DATES OF INSTALLATION OF EROSION CONTROL MEASURES.

SOIL TYPE: BETHANY SILT LOAM/KIRKLAND SILT LOAM

TOTAL AREA OF THE CONSTRUCTION SITE: 2.18 ACRES (94,961 SF)

ESTIMATED AREA TO BE DISTURBED: 2.18 ACRES (94,961 SF)

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE) _____

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 0.16 ACRES (7,100 SF)

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 0.17 ACRES (7,500 SF)

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.45

LATITUDE & LONGITUDE OF CENTER OF PROJECT: N36°42'35" W97°20'45"

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: TONKAWA CREEK

SENSITIVE WATERS OR WATERSHEDS: YES [ ] NO [X]

303(D) IMPAIRED WATERS: YES [ ] NO [X]

IF YES, LIST IMPAIRMENT: Enterococc, Turbidity

LOCATED IN A TMDL: YES [ ] NO [X]

LAKE THUNDERBIRD TMDL: YES [ ] NO [X]

MS4 ENTITY YES [ ] NO [X]

IF YES, LOCATION: _____

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

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- _____ TEMPORARY SEEDING
- X PERMANENT SODDING, SPRIGGING OR SEEDING
- X VEGETATIVE MULCHING
- _____ SOIL RETENTION BLANKET
- X 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
- X 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
- X 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
- X 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	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION

STORMWATER MANAGEMENT PLAN

COUNTY KAY HIGHWAY HIGHLAND AVE STATE JOB NO. 24432(15) SHEET NO. R002

Wednesday, October 24, 2018 12:02:22 PM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-SWMP SHEETS.dwg

STORM WATER MANAGEMENT PLAN

REVISIONS	
DESCRIPTION	DATE

SITE DESCRIPTION

PROJECT LIMITS: APPROX. 1/8 MILE EAST & WEST OF I-35 ALONG HARTFORD AVE. HARTFORD AVE IS LOCATED 2 MILES NORTH OF THE SH-60 & I-35 JUNCTION ALONG THE I-35 CORRIDOR.

PROJECT DESCRIPTION: RAISE BRIDGE PROFILE AND ADJUST ROADWAY PROFILE TO MATCH. PROJECT INCLUDES REPLACING GUARDRAIL AND RESHAPING SLOPES TO MATCH RAISE PROFILE GRADE OF THE ROAD.

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 AND DEVICES WHEN AN ACCEPTABLE VEGETATIVE COVER (AT LEAST 70%) HAS BEEN ATTAINED. AS SITE CONDITIONS WARRANT, THE CONTRACTOR MAY CHOOSE TO MODIFY THE TYPE OR ARRANGEMENT OF SPECIFIED PRACTICES TO IMPROVE THEIR EFFECTIVENESS AS APPROVED BY THE ENGINEER. THE CONTRACTOR WILL MAINTAIN A LOG OF MAJOR SOIL DISTURBANCE ACTIVITIES, AND ALSO THE DATES OF INSTALLATION OF EROSION CONTROL MEASURES.

SOIL TYPE: KIRKLAND SILT LOAM/KIRKLAND RENFROW COMPLEX

TOTAL AREA OF THE CONSTRUCTION SITE: 1.95 ACRES (85,119 SF)

ESTIMATED AREA TO BE DISTURBED: 1.95 ACRES (85,119 SF)

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE) _____

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 0.16 ACRES (7,100 SF)

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 0.17 ACRES (7,500 SF)

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.45

LATITUDE & LONGITUDE OF CENTER OF PROJECT: N36°43'28" W97°20'45"

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: STINK CREEK

SENSITIVE WATERS OR WATERSHEDS:	YES [ ]	NO [X]
303(D) IMPAIRED WATERS:	YES [ ]	NO [X]
IF YES, LIST IMPAIRMENT:		
LOCATED IN A TMDL:	YES [ ]	NO [X]
LAKE THUNDERBIRD TMDL:	YES [ ]	NO [X]
MS4 ENTITY	YES [ ]	NO [X]

IF YES, LOCATION: _____

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

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- ____ TEMPORARY SEEDING
- _X_ PERMANENT SODDING, SPRIGGING OR SEEDING
- _X_ VEGETATIVE MULCHING
- ____ SOIL RETENTION BLANKET
- _X_ 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
- _X_ 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
- _X_ 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
- _X_ LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN
- ____ EXCESS DIRT ON ROAD REMOVED DAILY

NOTES:

_____

_____

_____

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_____

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	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION

STORMWATER MANAGEMENT PLAN

COUNTY KAY HIGHWAY HARTFORD AVE STATE JOB NO. 24432(15) SHEET NO. R003

Wednesday, October 24, 2018 12:02:27 PM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-SWMP SHEETS.dwg

STORM WATER MANAGEMENT PLAN

REVISIONS	
DESCRIPTION	DATE

SITE DESCRIPTION

PROJECT LIMITS: APPROX. 1/8 MILE EAST & WEST OF I-35 ALONG COLEMAN ROAD. COLEMAN ROAD IS LOCATED 3 MILES SOUTH OF THE SH-11 & I-35 JUNCTION ALONG THE I-35 CORRIDOR.

PROJECT DESCRIPTION: RAISE BRIDGE PROFILE AND ADJUST ROADWAY PROFILE TO MATCH. PROJECT INCLUDES REPLACING GUARDRAIL AND RESHAPING SLOPES TO MATCH RAISE PROFILE GRADE OF THE ROAD.

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 AND DEVICES WHEN AN ACCEPTABLE VEGETATIVE COVER (AT LEAST 70%) HAS BEEN ATTAINED. AS SITE CONDITIONS WARRANT, THE CONTRACTOR MAY CHOOSE TO MODIFY THE TYPE OR ARRANGEMENT OF SPECIFIED PRACTICES TO IMPROVE THEIR EFFECTIVENESS AS APPROVED BY THE ENGINEER. THE CONTRACTOR WILL MAINTAIN A LOG OF MAJOR SOIL DISTURBANCE ACTIVITIES, AND ALSO THE DATES OF INSTALLATION OF EROSION CONTROL MEASURES.

SOIL TYPE: TABLER SILT LOAM

TOTAL AREA OF THE CONSTRUCTION SITE: 2.13 ACRES (92,783 SF)

ESTIMATED AREA TO BE DISTURBED: 2.13 ACRES (92,783 SF)

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE) _____

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 0.16 ACRES (7,100 SF)

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 0.17 ACRES (7,500 SF)

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.45

LATITUDE & LONGITUDE OF CENTER OF PROJECT: N36°46'4" W97°20'45"

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: STINK CREEK

SENSITIVE WATERS OR WATERSHEDS: YES [ ] NO [X]

303(D) IMPAIRED WATERS: YES [ ] NO [X]

IF YES, LIST IMPAIRMENT: _____

LOCATED IN A TMDL: YES [ ] NO [X]

LAKE THUNDERBIRD TMDL: YES [ ] NO [X]

MS4 ENTITY YES [ ] NO [X]

IF YES, LOCATION: _____

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

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- ____ TEMPORARY SEEDING
- _X_ PERMANENT SODDING, SPRIGGING OR SEEDING
- _X_ VEGETATIVE MULCHING
- ____ SOIL RETENTION BLANKET
- _X_ 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
- _X_ 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
- _X_ 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
- _X_ LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN
- ____ EXCESS DIRT ON ROAD REMOVED DAILY

NOTES:

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THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE FOLLOWING:

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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	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION

STORMWATER MANAGEMENT PLAN

COUNTY KAY HIGHWAY COLEMAN AVE STATE JOB NO. 24432(15) SHEET NO. R004

Wednesday, October 24, 2018 12:02 PM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-SWMP SHEETS.dwg

STORM WATER MANAGEMENT PLAN

REVISIONS	
DESCRIPTION	DATE

SITE DESCRIPTION

PROJECT LIMITS: APPROX. 1/8 MILE EAST & WEST OF I-35 ALONG CHRYSLER AVE. CHRYSLER AVE IS LOCATED 2 MILES SOUTH OF THE SH-11 & I-35 JUNCTION ALONG THE I-35 CORRIDOR.

PROJECT DESCRIPTION: RAISE BRIDGE PROFILE AND ADJUST ROADWAY PROFILE TO MATCH. PROJECT INCLUDES REPLACING GUARDRAIL AND RESHAPING SLOPES TO MATCH RAISE PROFILE GRADE OF THE ROAD.

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 AND DEVICES WHEN AN ACCEPTABLE VEGETATIVE COVER (AT LEAST 70%) HAS BEEN ATTAINED. AS SITE CONDITIONS WARRANT, THE CONTRACTOR MAY CHOOSE TO MODIFY THE TYPE OR ARRANGEMENT OF SPECIFIED PRACTICES TO IMPROVE THEIR EFFECTIVENESS AS APPROVED BY THE ENGINEER. THE CONTRACTOR WILL MAINTAIN A LOG OF MAJOR SOIL DISTURBANCE ACTIVITIES, AND ALSO THE DATES OF INSTALLATION OF EROSION CONTROL MEASURES.

SOIL TYPE: TABLER SILT LOAM/KIRKLAND SILT LOAM

TOTAL AREA OF THE CONSTRUCTION SITE: 2.12 ACRES (92,347 SF)

ESTIMATED AREA TO BE DISTURBED: 2.12 ACRES (92,347 SF)

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE) _____

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 0.16 ACRES (7,100 SF)

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 0.17 ACRES (7,500 SF)

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.45

LATITUDE & LONGITUDE OF CENTER OF PROJECT: N36°46'56" W97°20'46"

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: STINK CREEK

SENSITIVE WATERS OR WATERSHEDS: YES [ ] NO [X]

303(D) IMPAIRED WATERS: YES [ ] NO [X]

IF YES, LIST IMPAIRMENT: _____

LOCATED IN A TMDL: YES [ ] NO [X]

LAKE THUNDERBIRD TMDL: YES [ ] NO [X]

MS4 ENTITY YES [ ] NO [X]

IF YES, LOCATION: _____

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

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- ____ TEMPORARY SEEDING
- _X_ PERMANENT SODDING, SPRIGGING OR SEEDING
- _X_ VEGETATIVE MULCHING
- ____ SOIL RETENTION BLANKET
- _X_ 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
- _X_ TEMPORARY SILT FENCE
- _X_ TEMPORARY SILT DIKES
- ____ TEMPORARY FIBER LOG
- ____ DIVERSION, INTERCEPTOR OR PERIMETER DIKES
- ____ DIVERSION, INTERCEPTOR OR PERIMETER SWALES
- ____ ROCK FILTER DAMS
- ____ TEMPORARY SLOPE DRAIN
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- ____ TEMPORARY SEDIMENT BASINS
- ____ TEMPORARY SEDIMENT TRAPS
- ____ TEMPORARY SEDIMENT FILTERS
- _X_ 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
- _X_ LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN
- ____ EXCESS DIRT ON ROAD REMOVED DAILY

NOTES:

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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	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION

STORMWATER MANAGEMENT PLAN

COUNTY KAY HIGHWAY CHRYSLER AVE STATE JOB NO. 24432(15) SHEET NO. R005

Wednesday, October 24, 2018 12:07:37 PM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\C3D\PLANS\1070-SWMP SHEETS.dwg

STORM WATER MANAGEMENT PLAN

REVISIONS	
DESCRIPTION	DATE

SITE DESCRIPTION

PROJECT LIMITS: APPROX. 3/16 MILE WEST & 1/8 EAST OF I-35 ALONG FERGUSON AVE. FERGUSON AVE IS LOCATED 1 MILE SOUTH OF THE SH-11 & I-35 JUNCTION ALONG THE I-35 CORRIDOR.

PROJECT DESCRIPTION: RAISE BRIDGE PROFILE AND ADJUST ROADWAY PROFILE TO MATCH. PROJECT INCLUDES REPLACING GUARDRAIL AND RESHAPING SLOPES TO MATCH RAISE PROFILE GRADE OF THE ROAD.

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 AND DEVICES WHEN AN ACCEPTABLE VEGETATIVE COVER (AT LEAST 70%) HAS BEEN ATTAINED. AS SITE CONDITIONS WARRANT, THE CONTRACTOR MAY CHOOSE TO MODIFY THE TYPE OR ARRANGEMENT OF SPECIFIED PRACTICES TO IMPROVE THEIR EFFECTIVENESS AS APPROVED BY THE ENGINEER. THE CONTRACTOR WILL MAINTAIN A LOG OF MAJOR SOIL DISTURBANCE ACTIVITIES, AND ALSO THE DATES OF INSTALLATION OF EROSION CONTROL MEASURES.

SOIL TYPE: KIRKLAND RENFROW COMPLEX/GRAINOLA ASHPORT

TOTAL AREA OF THE CONSTRUCTION SITE: 2.19 ACRES (95,396 SF)

ESTIMATED AREA TO BE DISTURBED: 2.19 ACRES (95,396 SF)

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE) _____

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 0.16 ACRES (7,100 SF)

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 0.17 ACRES (7,500 SF)

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.45

LATITUDE & LONGITUDE OF CENTER OF PROJECT: N36°47'48" W97°20'41"

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: STINK CREEK

SENSITIVE WATERS OR WATERSHEDS: YES [ ] NO [X]

303(D) IMPAIRED WATERS: YES [ ] NO [X]

IF YES, LIST IMPAIRMENT: _____

LOCATED IN A TMDL: YES [ ] NO [X]

LAKE THUNDERBIRD TMDL: YES [ ] NO [X]

MS4 ENTITY YES [ ] NO [X]

IF YES, LOCATION: _____

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

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- ____ TEMPORARY SEEDING
- _X_ PERMANENT SODDING, SPRIGGING OR SEEDING
- _X_ VEGETATIVE MULCHING
- ____ SOIL RETENTION BLANKET
- _X_ 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
- _X_ TEMPORARY SILT FENCE
- _X_ 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
- _X_ 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
- _X_ LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN
- ____ EXCESS DIRT ON ROAD REMOVED DAILY

NOTES:

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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	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION

STORMWATER MANAGEMENT PLAN

COUNTY KAY HIGHWAY FERGUSON AVE STATE JOB NO. 24432(15) SHEET NO. R006

Wednesday, October 24, 2018 12:42 PM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-SWMP SHEETS.dwg

STORM WATER MANAGEMENT PLAN

REVISIONS	
DESCRIPTION	DATE

SITE DESCRIPTION

PROJECT LIMITS: APPROX. 1/8 MILE EAST & WEST OF I-35 ALONG ADOBE ROAD. ADOBE ROAD IS LOCATED 1 MILE NORTH OF THE SH-11 & I-35 JUNCTION ALONG THE I-35 CORRIDOR.

PROJECT DESCRIPTION: RAISE BRIDGE PROFILE AND ADJUST ROADWAY PROFILE TO MATCH. PROJECT INCLUDES REPLACING GUARDRAIL AND RESHAPING SLOPES TO MATCH RAISE PROFILE GRADE OF THE ROAD.

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 AND DEVICES WHEN AN ACCEPTABLE VEGETATIVE COVER (AT LEAST 70%) HAS BEEN ATTAINED. AS SITE CONDITIONS WARRANT, THE CONTRACTOR MAY CHOOSE TO MODIFY THE TYPE OR ARRANGEMENT OF SPECIFIED PRACTICES TO IMPROVE THEIR EFFECTIVENESS AS APPROVED BY THE ENGINEER. THE CONTRACTOR WILL MAINTAIN A LOG OF MAJOR SOIL DISTURBANCE ACTIVITIES, AND ALSO THE DATES OF INSTALLATION OF EROSION CONTROL MEASURES.

SOIL TYPE: KIRKLAND SILT LOAM

TOTAL AREA OF THE CONSTRUCTION SITE: 1.78 ACRES (77,441 SF)

ESTIMATED AREA TO BE DISTURBED: 1.78 ACRES (77,441 SF)

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE)

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 0.16 ACRES (7,100 SF)

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 0.17 ACRES (7,500 SF)

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.45

LATITUDE & LONGITUDE OF CENTER OF PROJECT: N36°49'33" W97°20'35"

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: STINK CREEK

SENSITIVE WATERS OR WATERSHEDS:	YES [ ]	NO [X]
303(D) IMPAIRED WATERS:	YES [ ]	NO [X]
IF YES, LIST IMPAIRMENT:		
LOCATED IN A TMDL:	YES [ ]	NO [X]
LAKE THUNDERBIRD TMDL:	YES [ ]	NO [X]
MS4 ENTITY	YES [ ]	NO [X]

IF YES, LOCATION:

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

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- ____ TEMPORARY SEEDING
- _X_ PERMANENT SODDING, SPRIGGING OR SEEDING
- _X_ VEGETATIVE MULCHING
- ____ SOIL RETENTION BLANKET
- _X_ 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
- _X_ 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
- _X_ 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
- _X_ 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	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION

STORMWATER MANAGEMENT PLAN

COUNTY KAY HIGHWAY ADOBE RD STATE JOB NO. 24432(15) SHEET NO. R007

Wednesday, October 24, 2018 12:47 PM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-SWMP SHEETS.dwg

STORM WATER MANAGEMENT PLAN

REVISIONS	
DESCRIPTION	DATE

SITE DESCRIPTION

PROJECT LIMITS: APPROX. 1/16 MILE NORTH & SOUTH OF HOME ROAD ALONG I-35. HOME ROAD IS LOCATED 1 MILE NORTH OF THE SH-177 & I-35 JUNCTION ALONG THE I-35 CORRIDOR.

PROJECT DESCRIPTION: REMOVE EXISTING BRIDGE AND APPURTENANCES. ADJUST DITCH GRADING ALONG I-35. INCLUDES REMOVAL OF EXISTING REINFORCED CONCRETE BOX ON I-35.

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 AND DEVICES WHEN AN ACCEPTABLE VEGETATIVE COVER (AT LEAST 70%) HAS BEEN ATTAINED. AS SITE CONDITIONS WARRANT, THE CONTRACTOR MAY CHOOSE TO MODIFY THE TYPE OR ARRANGEMENT OF SPECIFIED PRACTICES TO IMPROVE THEIR EFFECTIVENESS AS APPROVED BY THE ENGINEER. THE CONTRACTOR WILL MAINTAIN A LOG OF MAJOR SOIL DISTURBANCE ACTIVITIES, AND ALSO THE DATES OF INSTALLATION OF EROSION CONTROL MEASURES.

SOIL TYPE: KIRKLAND SILT LOAM

TOTAL AREA OF THE CONSTRUCTION SITE: 1.68 ACRES (73,181 SF)

ESTIMATED AREA TO BE DISTURBED: 1.68 ACRES (73,181 SF)

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE)

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 0.13 ACRES (5,620 SF)

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 0.00 ACRES (0 SF)

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.40

LATITUDE & LONGITUDE OF CENTER OF PROJECT: N36°57'21" W97°20'44"

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: DRY CREEK

SENSITIVE WATERS OR WATERSHEDS:	YES [ ]	NO [X]
303(D) IMPAIRED WATERS:	YES [ ]	NO [X]
IF YES, LIST IMPAIRMENT:		
LOCATED IN A TMDL:	YES [ ]	NO [X]
LAKE THUNDERBIRD TMDL:	YES [ ]	NO [X]
MS4 ENTITY	YES [ ]	NO [X]

IF YES, LOCATION:

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

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- ____ TEMPORARY SEEDING
- _X_ PERMANENT SODDING, SPRIGGING OR SEEDING
- _X_ VEGETATIVE MULCHING
- ____ SOIL RETENTION BLANKET
- _X_ 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
- _X_ TEMPORARY SILT DIKES
- _X_ 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
- _X_ 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
- _X_ 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	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION

STORMWATER MANAGEMENT PLAN

COUNTY KAY HIGHWAY HOME RD STATE JOB NO. 24432(15) SHEET NO. R008

Wednesday, October 24, 2018 12:52 PM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-SWMP SHEETS.dwg

STORM WATER MANAGEMENT PLAN

REVISIONS		
DESCRIPTION		DATE

SITE DESCRIPTION

PROJECT LIMITS: APPROX. 1/8 MILE EAST & WEST OF I-35 ALONG INDIAN ROAD. INDIAN IS LOCATED 2 MILES NORTH OF THE SH-177 & I-35 JUNCTION ALONG THE I-35 CORRIDOR. CONSTRUCT ASPHALT WIDENING FOR CROSSOVER APPROX 1/4 MILE S. OF INDIAN ROAD.

PROJECT DESCRIPTION: RAISE BRIDGE PROFILE AND ADJUST ROADWAY PROFILE TO MATCH. PROJECT INCLUDES REPLACING GUARDRAIL AND RESHAPING SLOPES TO MATCH RAISE PROFILE GRADE OF THE ROAD.

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 AND DEVICES WHEN AN ACCEPTABLE VEGETATIVE COVER (AT LEAST 70%) HAS BEEN ATTAINED. AS SITE CONDITIONS WARRANT, THE CONTRACTOR MAY CHOOSE TO MODIFY THE TYPE OR ARRANGEMENT OF SPECIFIED PRACTICES TO IMPROVE THEIR EFFECTIVENESS AS APPROVED BY THE ENGINEER. THE CONTRACTOR WILL MAINTAIN A LOG OF MAJOR SOIL DISTURBANCE ACTIVITIES, AND ALSO THE DATES OF INSTALLATION OF EROSION CONTROL MEASURES.

SOIL TYPE: KIRKLAND SILT LOAM

TOTAL AREA OF THE CONSTRUCTION SITE: 2.09 ACRES (91,019 SF) INDIAN +0.08 ACRES(3,300 SF) CROSSOVER= 2.17 ACRES

ESTIMATED AREA TO BE DISTURBED: 2.17 ACRES (94,319 SF)

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE)

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 0.16 ACRES (7,100 SF)

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 0.25 ACRES (10,800 SF)

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.45

LATITUDE & LONGITUDE OF CENTER OF PROJECT: N36°58'13" W97°20'44"

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: SHOO FLY CREEK/DRY CREEK

SENSITIVE WATERS OR WATERSHEDS: YES [ ] NO [X]

303(D) IMPAIRED WATERS: YES [ ] NO [X]

IF YES, LIST IMPAIRMENT:

LOCATED IN A TMDL: YES [ ] NO [X]

LAKE THUNDERBIRD TMDL: YES [ ] NO [X]

MS4 ENTITY YES [ ] NO [X]

IF YES, LOCATION:

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

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- ____ TEMPORARY SEEDING
- _X_ PERMANENT SODDING, SPRIGGING OR SEEDING
- _X_ VEGETATIVE MULCHING
- ____ SOIL RETENTION BLANKET
- _X_ 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
- _X_ TEMPORARY SILT FENCE
- _X_ 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
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- ____ RIP RAP
- ____ INLET SEDIMENT FILTER
- ____ TEMPORARY BRUSH SEDIMENT BARRIERS
- ____ SANDBAG BERMS
- ____ TEMPORARY STREAM CROSSINGS

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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.

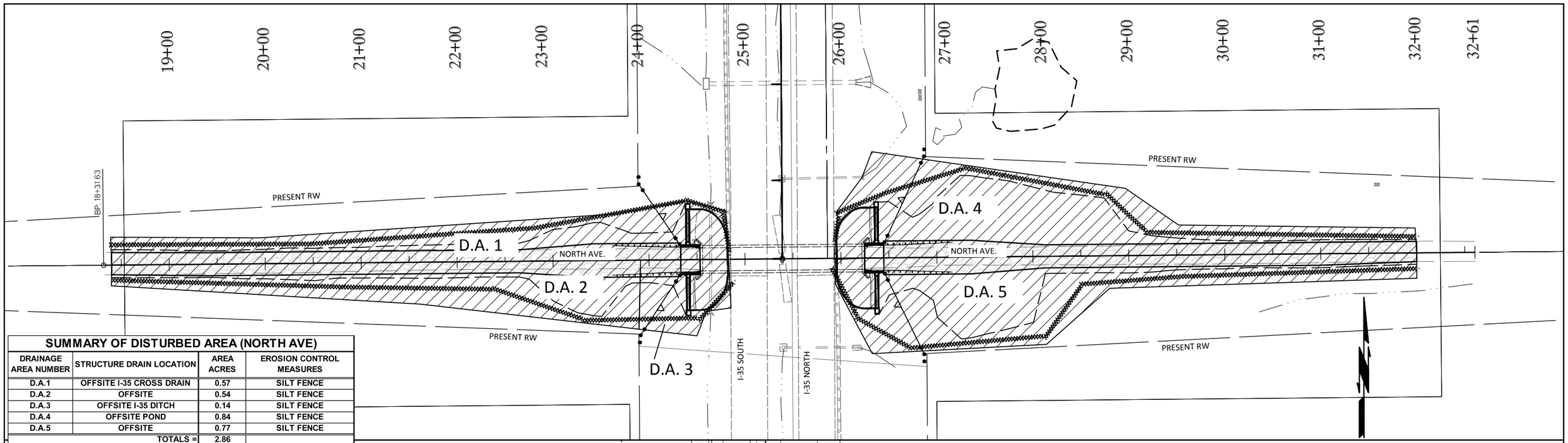
DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION

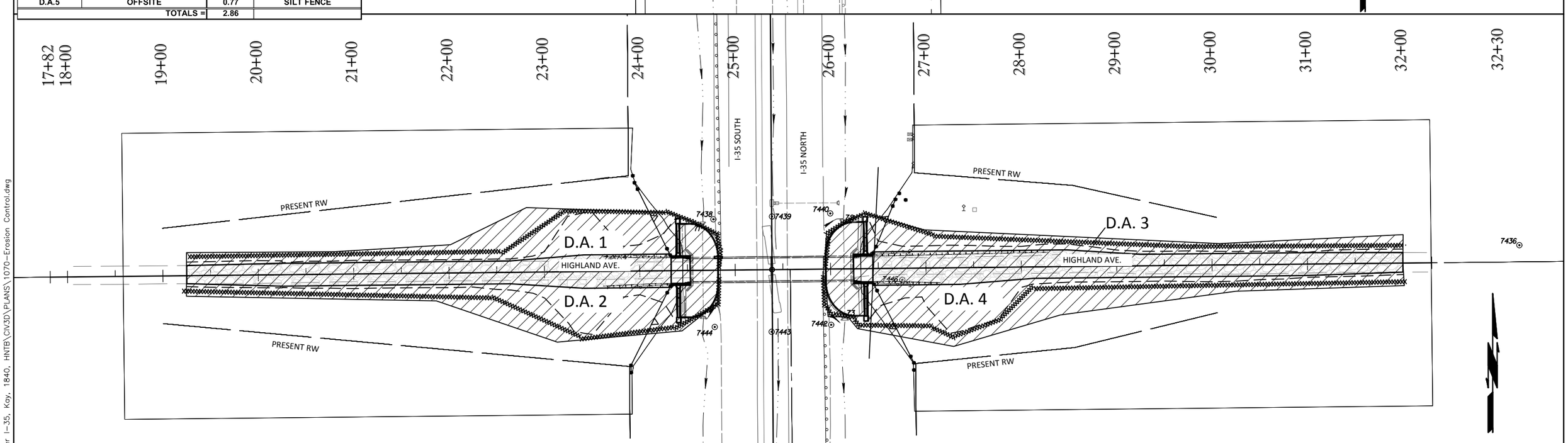
STORMWATER MANAGEMENT PLAN

COUNTY KAY HIGHWAY INDIAN RD STATE JOB NO. 24432(15) SHEET NO. R009

Wednesday, October 24, 2018 12:07:57 PM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-SWMP SHEETS.dwg



SUMMARY OF DISTURBED AREA (NORTH AVE)			
DRAINAGE AREA NUMBER	STRUCTURE DRAIN LOCATION	AREA ACRES	EROSION CONTROL MEASURES
D.A.1	OFFSITE I-35 CROSS DRAIN	0.57	SILT FENCE
D.A.2	OFFSITE	0.54	SILT FENCE
D.A.3	OFFSITE I-35 DITCH	0.14	SILT FENCE
D.A.4	OFFSITE POND	0.84	SILT FENCE
D.A.5	OFFSITE	0.77	SILT FENCE
	TOTALS =	2.86	



SUMMARY OF DISTURBED AREA (HIGHLAND AVE)			
DRAINAGE AREA NUMBER	STRUCTURE DRAIN LOCATION	AREA ACRES	EROSION CONTROL MEASURES
D.A.1	EXISTING 24" RCP SOUTH	0.53	SILT FENCE
D.A.2	OFFSITE I-35 DITCH	0.55	SILT FENCE
D.A.3	EXISTING 30" RCP SOUTH	0.45	SILT FENCE
D.A.4	OFFSITE I-35 DITCH	0.65	SILT FENCE
	TOTALS =	2.18	

LEGEND

- TEMPORARY SILT DIKE INSTALLATION
- TEMPORARY SILT FENCE INSTALLATION
- DISTURBED AREA

GRAPHIC SCALE (HORIZ.)
1 inch = 50' ft.
50' 0 50' 100'

DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

EROSION CONTROL

COUNTY KAY HWY/ROAD NORTH & HIGHLAND STATE JOB NO. 24432(15) SHEET NO. R010

Wednesday, October 24, 2018 1:22:14 PM
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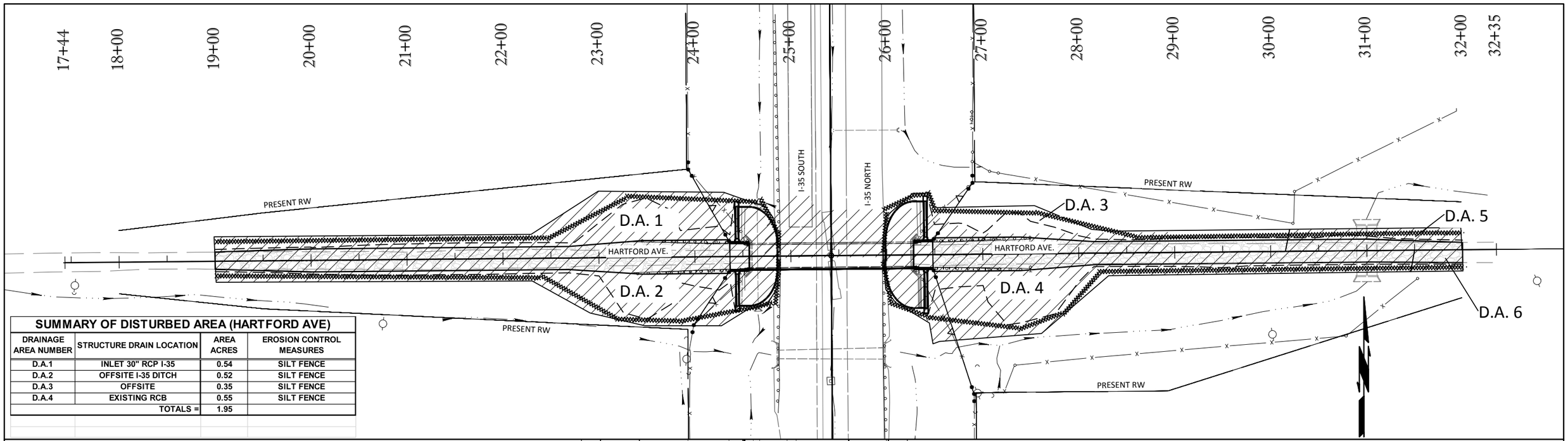
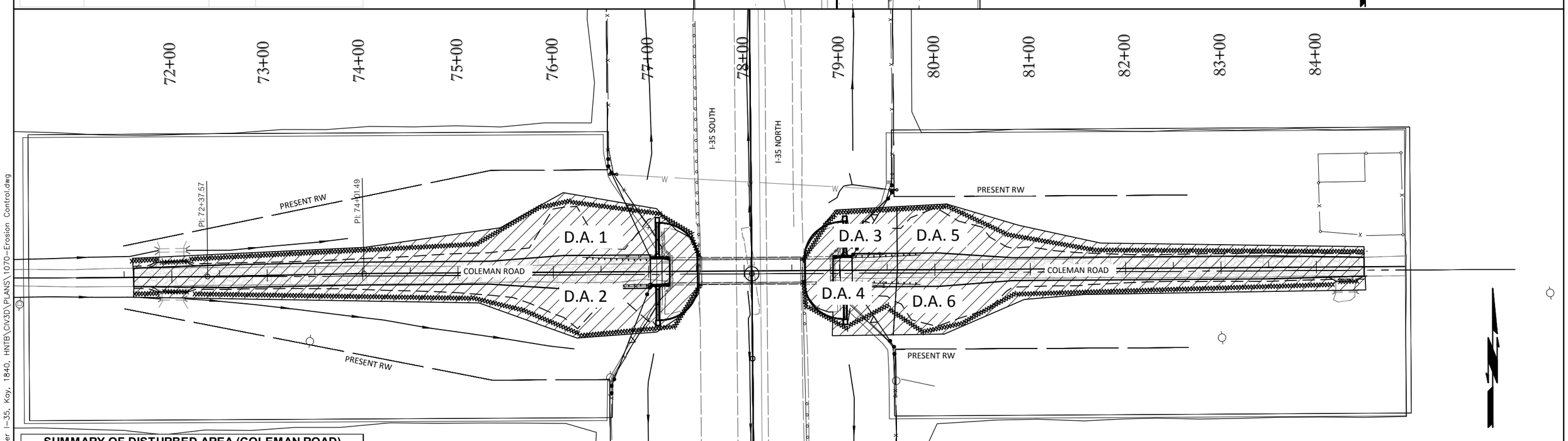


SUMMARY OF DISTURBED AREA (HARTFORD AVE)

DRAINAGE AREA NUMBER	STRUCTURE DRAIN LOCATION	AREA ACRES	EROSION CONTROL MEASURES
D.A.1	INLET 30" RCP I-35	0.54	SILT FENCE
D.A.2	OFFSITE I-35 DITCH	0.52	SILT FENCE
D.A.3	OFFSITE	0.35	SILT FENCE
D.A.4	EXISTING RCB	0.55	SILT FENCE
	TOTALS =	1.95	



SUMMARY OF DISTURBED AREA (COLEMAN ROAD)

DRAINAGE AREA NUMBER	STRUCTURE DRAIN LOCATION	AREA ACRES	EROSION CONTROL MEASURES
D.A.1	OFFSITE I-35 DITCH NORTH	0.57	SILT FENCE
D.A.2	OFFSITE I-35 DITCH NORTH	0.51	SILT FENCE
D.A.3	OFFSITE I-35 DITCH NORTH	0.13	SILT FENCE
D.A.4	OFFSITE I-35 DITCH NORTH	0.13	SILT FENCE
D.A.5	OFFSITE OVERLAND	0.40	SILT FENCE
D.A.6	OFFSITE OVERLAND	0.39	SILT FENCE
	TOTALS =	2.13	

LEGEND

TEMPORARY SILT DIKE INSTALLATION

TEMPORARY SILT FENCE INSTALLATION

GRAPHIC SCALE (HORIZ.)
1 inch = 50' ft.
50' 0 50' 100'

DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

EROSION CONTROL

COUNTY KAY HWY/RD HARTFORD & COLEMAN STATE JOB NO. 24432(15) SHEET NO. R011

Wednesday, October 24, 2018 1:23:11 PM
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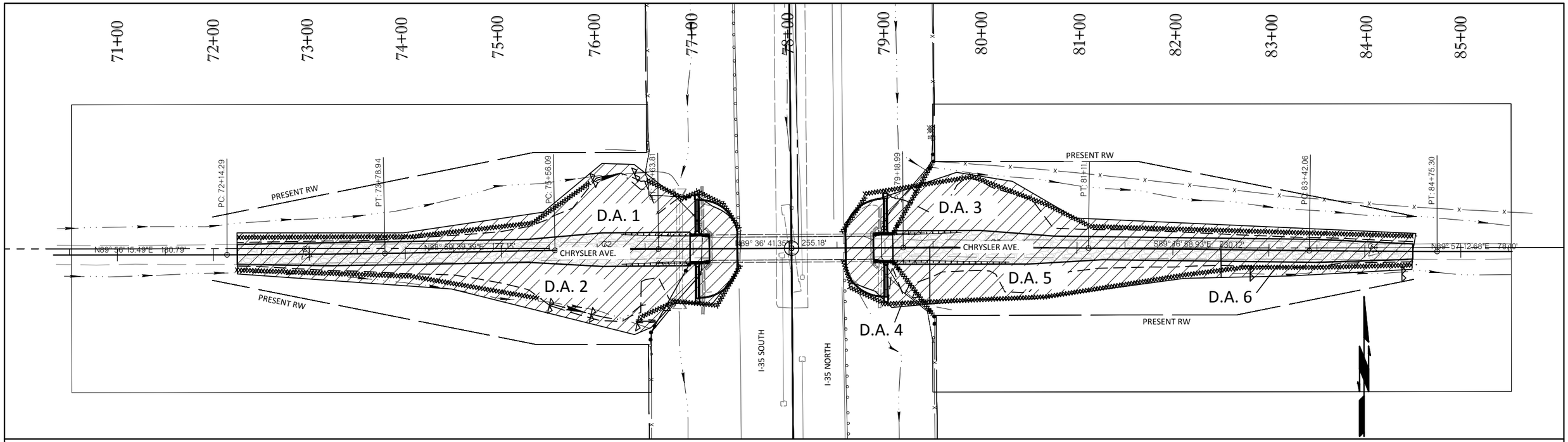

SUMMARY OF DISTURBED AREA (CHRYSLER AVE)			
DRAINAGE AREA NUMBER	STRUCTURE DRAIN LOCATION	AREA ACRES	EROSION CONTROL MEASURES
D.A.1	INLET RCB I-35	0.49	SILT FENCE/SILT DIKE
D.A.2	OFFSITE I-35 DITCH	0.58	SILT FENCE/SILT DIKE
D.A.3	OFFSITE CHRYSLER DITCH	0.53	SILT FENCE
D.A.4	OFFSITE I-35 DITCH	0.10	SILT FENCE
D.A.5	OFFSITE OVERLAND	0.31	SILT FENCE
D.A.6	OFFSITE CHRYSLER DITCH	0.11	SILT FENCE/SILT DIKE
	TOTALS =	2.12	

LEGEND

TEMPORARY SILT DIKE INSTALLATION

TEMPORARY SILT FENCE INSTALLATION

GRAPHIC SCALE (HORIZ.)
1 inch = 50' ft.
50' 0 50' 100'

DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

EROSION CONTROL

COUNTY KAY HWY/RD CHRYSLER AVE STATE JOB NO. 24432(15) SHEET NO. R012

Friday, October 26, 2018 4:02:35 PM
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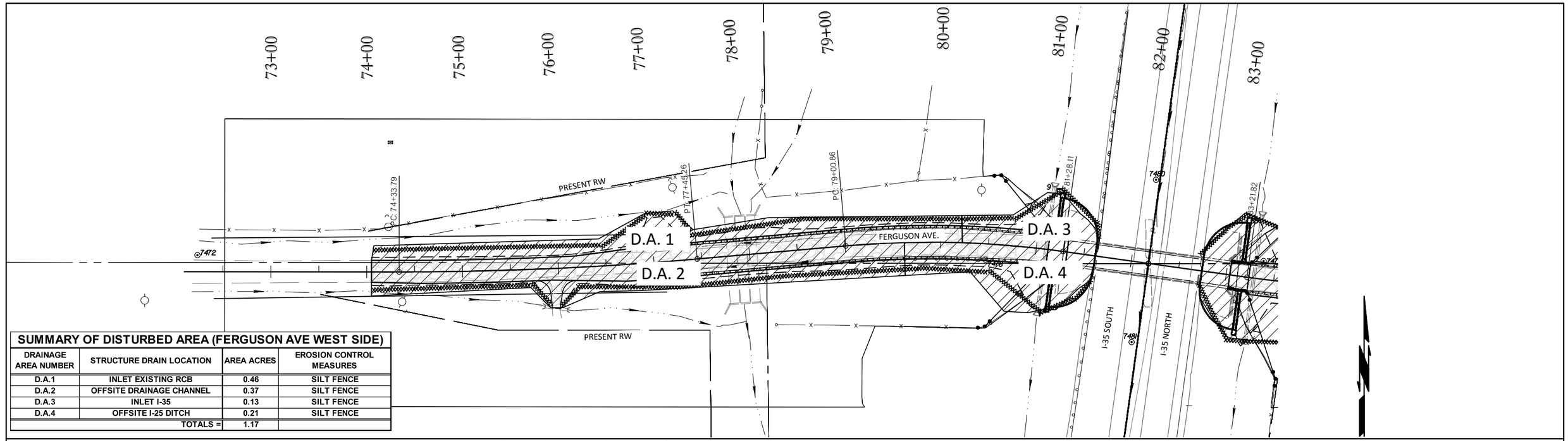
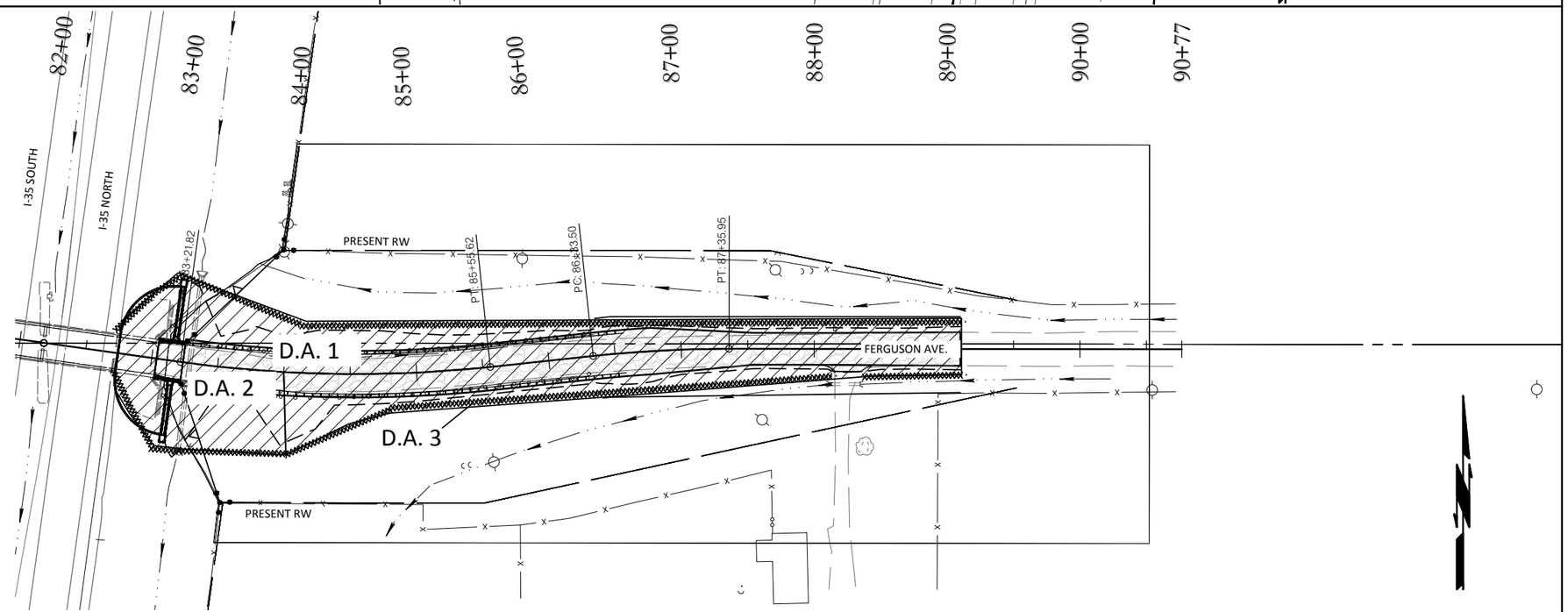


SUMMARY OF DISTURBED AREA (FERGUSON AVE WEST SIDE)			
DRAINAGE AREA NUMBER	STRUCTURE DRAIN LOCATION	AREA ACRES	EROSION CONTROL MEASURES
D.A.1	INLET EXISTING RCB	0.46	SILT FENCE
D.A.2	OFFSITE DRAINAGE CHANNEL	0.37	SILT FENCE
D.A.3	INLET I-35	0.13	SILT FENCE
D.A.4	OFFSITE I-25 DITCH	0.21	SILT FENCE
	TOTALS =	1.17	



SUMMARY OF DISTURBED AREA (FERGUSON AVE EAST SIDE)			
DRAINAGE AREA NUMBER	STRUCTURE DRAIN LOCATION	AREA ACRES	EROSION CONTROL MEASURES
D.A.1	INLET EXISTING RCB I-35	0.49	SILT FENCE
D.A.2	OFFSITE I-35 DITCH	0.18	SILT FENCE
D.A.3	OFFSITE DRAINAGE CHANNEL	0.35	SILT FENCE
	TOTALS =	1.02	

LEGEND

TEMPORARY SILT DIKE INSTALLATION

TEMPORARY SILT FENCE INSTALLATION

GRAPHIC SCALE (HORIZ.)
1 inch = 50' ft.
50' 0 50' 100'

DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

EROSION CONTROL

COUNTY KAY HWY/RD FERGUSON AVE STATE JOB NO. 24432(15) SHEET NO. R013

Wednesday, October 24, 2018 1:24:45 PM
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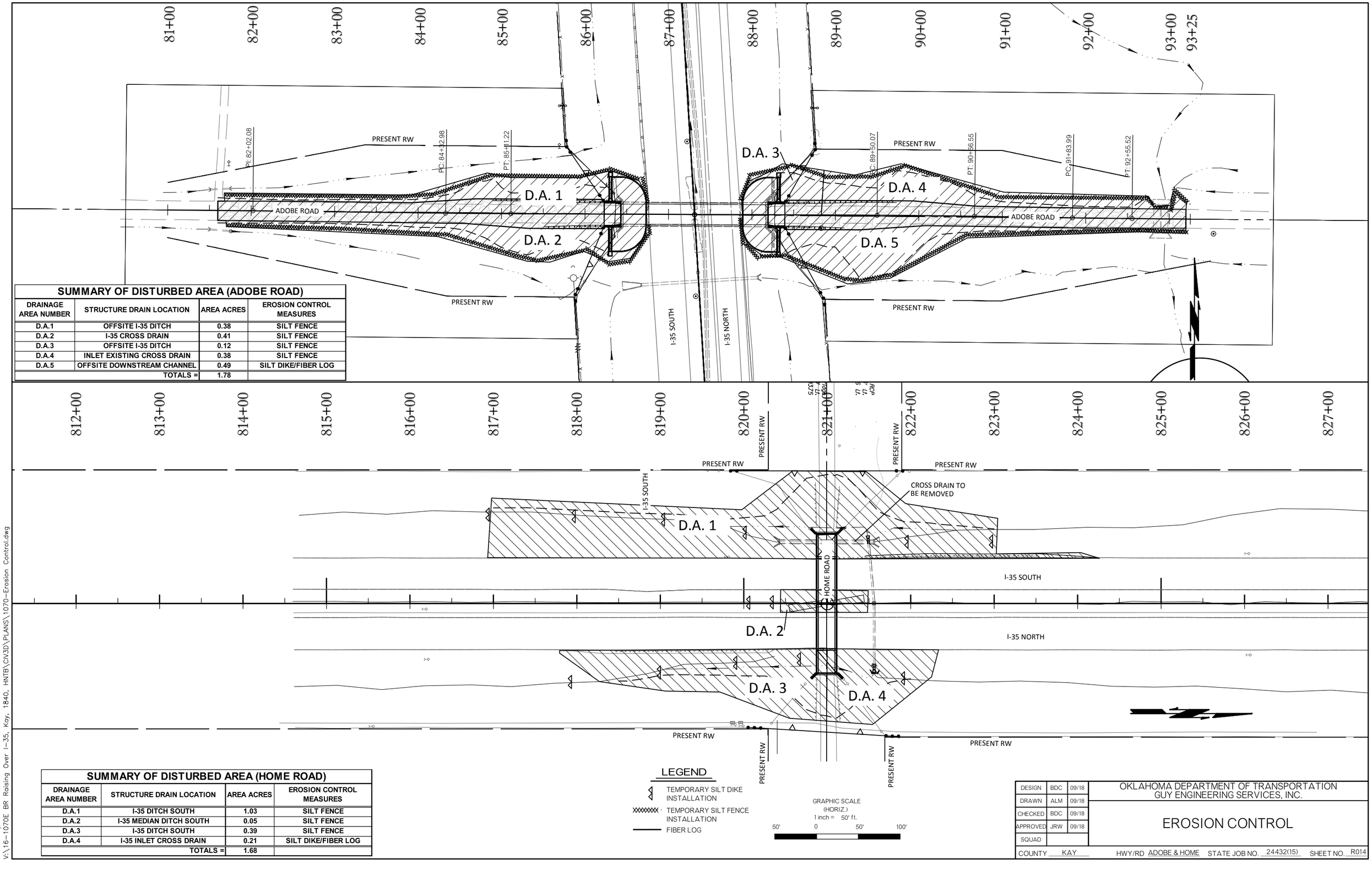


SUMMARY OF DISTURBED AREA (ADOBE ROAD)			
DRAINAGE AREA NUMBER	STRUCTURE DRAIN LOCATION	AREA ACRES	EROSION CONTROL MEASURES
D.A.1	OFFSITE I-35 DITCH	0.38	SILT FENCE
D.A.2	I-35 CROSS DRAIN	0.41	SILT FENCE
D.A.3	OFFSITE I-35 DITCH	0.12	SILT FENCE
D.A.4	INLET EXISTING CROSS DRAIN	0.38	SILT FENCE
D.A.5	OFFSITE DOWNSTREAM CHANNEL	0.49	SILT DIKE/FIBER LOG
	TOTALS =	1.78	

SUMMARY OF DISTURBED AREA (HOME ROAD)			
DRAINAGE AREA NUMBER	STRUCTURE DRAIN LOCATION	AREA ACRES	EROSION CONTROL MEASURES
D.A.1	I-35 DITCH SOUTH	1.03	SILT FENCE
D.A.2	I-35 MEDIAN DITCH SOUTH	0.05	SILT FENCE
D.A.3	I-35 DITCH SOUTH	0.39	SILT FENCE
D.A.4	I-35 INLET CROSS DRAIN	0.21	SILT DIKE/FIBER LOG
	TOTALS =	1.68	

LEGEND

- TEMPORARY SILT DIKE INSTALLATION
- TEMPORARY SILT FENCE INSTALLATION
- FIBER LOG

GRAPHIC SCALE (HORIZ.)
1 inch = 50' ft.
50' 0 50' 100'

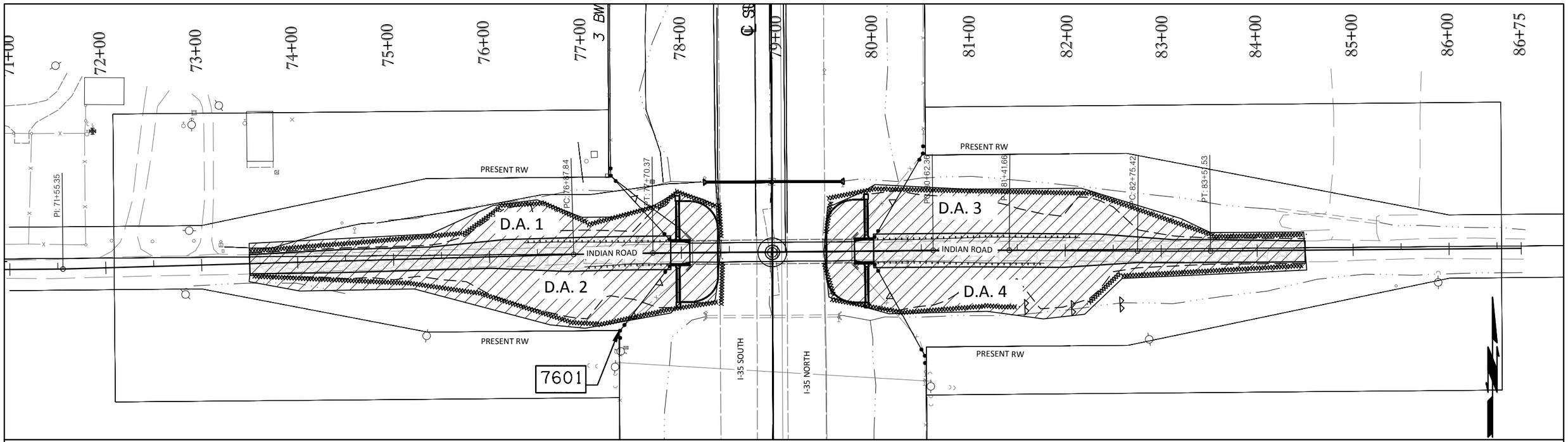
DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

EROSION CONTROL

COUNTY KAY HWY/RD ADOBE & HOME STATE JOB NO. 24432(15) SHEET NO. R014

Wednesday, October 24, 2018 1:25:41 PM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\Civ3D\PLANS\1070-Erosion Control.dwg



SUMMARY OF DISTURBED AREA (INDIAN ROAD)

DRAINAGE AREA NUMBER	STRUCTURE DRAIN LOCATION	AREA ACRES	EROSION CONTROL MEASURES
D.A.1	CROSS DRAIN I-35	0.43	SILT FENCE
D.A.2	CROSS DRAIN I-35	0.55	SILT FENCE
D.A.3	OFFSITE DITCH INDIAN ROAD	0.57	SILT FENCE
D.A.4	OFFSITE DITCH INDIAN ROAD	0.55	SILT DIKE/FIBER LOG
	TOTALS =	2.09	

LEGEND

- TEMPORARY SILT DIKE INSTALLATION
- TEMPORARY SILT FENCE INSTALLATION
- DISTURBED AREA

GRAPHIC SCALE (HORIZ.)
1 inch = 50' ft.
50' 0 50' 100'

DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

EROSION CONTROL

COUNTY KAY HIGHWAY/ROAD INDIAN RD STATE JOB NO. 24432(15) SHEET NO. R015

Wednesday, October 24, 2018 1:26:27 PM
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REVISIONS	
DESCRIPTION	DATE

19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00

MEET AND MATCH EXISTING WIDTH, DITCHES AND GRADE

SECTION 31
T 26 N, R 1 W

Sta. 828+01.30 4'x3' RCB
*X"ing 78.42' Rt. & 75.37' Lt.
fl. Elev. 956.94 Rt. & 957.85 Lt.
Sta. 827+43.91
FO Line *X"ing
Sta. 827+01.48 18" CMP
*X"ing 84.43' Rt. & 00.00' Lt.
fl. Elev. 958.00 Rt. & 960.24 Lt.

Pres. R/W Hogwire w/ 3-Strand B/W

Inlet fl. Elev.=957.85
Inlet 4'x3' RCB fl. Elev.=957.85
150.00'
Tel. Pull Box
Underground Tel. Marker (Lightcore Fiber Optic)
Underground Tel. Marker (Indian Nations Fiber Optic)
Tel. Pedestal
Pond
Guardrail
Inlet TG Elev.=964.24 fl. Elev.=960.24
Inlet TG Elev.=964.24 fl. Elev.=960.24
Pres. R/W
Elec. Box
Water Pump
Pres. R/W
Elec. Box
Water Pump
Underground Tel. Marker (Pioneer Broadband)
Tel. Pull Box
Underground FO Marker (Pioneer Telephone)
REMOVE Hogwire w/ 3-Strand B/W
18" CMP
Underground FO Marker (Pioneer Broadband)
CONSTRUCT 5BW FENCE (TYP)
Billboard
Pres. R/W
Underground FO Marker
2-Strand B/W
Tel. Pedestal
TOE OF FILL
Guardrail
Sign - Reflector
Sign - Reflector
Asphalt
Concrete
Asphalt
REMOVE 3-Strand B/W
TOE OF FILL
Section Line
N89° 27' 42"E 1369.73'
Gravel
NORTH AVE.
CRL
N89° 27' 42"E 1360.00'
Sign - Reflector
Guardrail
CRL
NORTH AVE.
Gravel
North Ave.
TOE OF FILL
TOE OF FILL
4-Wire OHE
PP
Pres. R/W
4-Wire OHE
PP
4-Wire OHE
Sta. 826+18.43 171.5'x29' Concrete Bridge
*X"ing 85.70' Rt. & 85.80' Lt.
Low Beam Elev. 980.49
REMOVE Hogwire w/ 3-Strand B/W
24" RCP
Concrete I-35 (South)
Concrete I-35 (North)
18" RCP
Guardrail
18" RCP
fl. Elev. 959.32 Rt. & 960.49 Lt.
4-Wire OHE *X"ing
Low Wire Elev. @ ℄ = xxxx.xx'
Guy Wire
Guy Wire
4-Wire OHE
REPLACE 3-Strand B/W
Underground FO Marker (Indian Nations FO)
6-Strand B/W
Guy Wire
4-Wire OHE
Pres. R/W
PP
4-Wire OHE
Guy Wire
1-Wire OHE
Billboard
Guy Wire
Billboard
Inlet TG Elev.=963.89 fl. Elev.=960.49
Guardrail
Pres. R/W
Pres. R/W
150.00'
150.00'
Hogwire w/ 3-Strand B/W

CRL NORTH AVE STA. 25+38.96 = ℄ I35 STA. 826+18.27

SECTION 6
T 26 N, R 1 W

SECTION 31
T 26 N, R 1 W

MEET AND MATCH EXISTING WIDTH, DITCHES AND GRADE

SECTION 6
T 26 N, R 1 W

NOTE:
ALL UTILITY LOCATIONS ARE APPROXIMATE.

LEGEND
BENCHMARK
PROPOSED TBSC TYPE E SURFACING

CAUTION FIBER OPTIC CROSSING

GRAPHIC SCALE (HORIZ.)
1 inch = 50' ft.
50' 0 50' 100'
5' 0 5' 10'
(VERT)
1 inch = 5' ft.

VPI 19+51.68
ELEV = 968.51
L = 200.00
K = 62.48

VPI 25+38.92
ELEV = 992.00
L = 666.67
K = 83.33
BR. LENGTH = 171.50'

VPI 30+37.33
ELEV = 972.07
L = 200.00
K = 69.92

BM 49
Sta. 26+17.85, 1482.06' Lt.
*X" in Center of E. HDWL
75' Rt. Sta. 841+01
N=614000.41
E=2160394.20
EL=966.73

BM 48
Sta. 26+93.88, 2381.02' Lt.
80D Spike in S. Brace Post
148' Rt. Sta. 850+00
N=614900.34
E=2160461.48
EL=975.03

VPC 18+51.68 ELEV. = 967.71
VPT 20+51.68 ELEV. = 972.51
VPC 22+05.58 ELEV. = 978.67
BEG. BR. STA. 24+53.17
END BR. STA. 26+24.67
VPT 28+72.25 ELEV. = 978.67
VPC 29+37.33 ELEV. = 976.07
VPT 31+37.33 ELEV. = 970.93

FINISHED GRADE
EXISTING PROFILE

STA. 18+40.00 BEGIN NORTH AVE. J.P. NO. 24432(15)
STA. 32+00.00 END NORTH AVE. J.P. NO. 24432(15)

0.80% 4.00% -4.00% -1.14%

1000 995 990 985 980 975 970 965 960 955

FG=968.29 FG=970.66 FG=974.45 FG=978.45 FG=981.91 FG=984.18 FG=985.24 FG=985.11 FG=983.78 FG=981.25 FG=977.56 FG=973.84 FG=971.45 FG=970.21

19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00

NOTE:
ALL UTILITY LOCATIONS
ARE APPROXIMATE.

REVISIONS		
DESCRIPTION		DATE

18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00

SECTION 19
T 26 N, R 1 W

SECTION 30
T 26 N, R 1 W

SECTION 19
T 26 N, R 1 W

SECTION 30
T 26 N, R 1 W

Pres. R/W

Hogwire w/ 3-Strand B/W

Guardrail

Cable Barrier

Asphalt I-35 (South)

Asphalt I-35 (North)

Billboard

6" Post

150.00'

REMOVE Hogwire w/ 3-Strand B/W

MEET AND MATCH EXISTING WIDTH, DITCHES AND GRADE

TOE OF FILL

100.00'

50.00'

85.00'

Section Line N89° 24' 15"E 1319.64'

Gravel Highland Ave.

HIGHLAND AVE.

N89° 24' 15"E 1275.00'

CRL

6" Wood Post

24" RCP

CONSTRUCT 5BW FENCE (TYP)

18" CMP

Underground FO Marker (AT&T)

Tel. Pull Box

Underground Tel. Marker (Bell Telephone)

8" Wood Post

6" Steel Post

Underground Tel. Marker (Bell Telephone)

Tel. Pedestal

FOC

5-Strand B/W

6" Wood Post

Guardrail Stan - Reflector

Section Line

N89° 24' 15"E 1646.00'

CAUTION
FIBER OPTIC
CROSSING

CRL HIGHLAND AVE. STA. 25+38.62 =
℄ I35 STA. 931+78.88

LEGEND

BENCHMARK

PROPOSED TBSC TYPE E . SURFACING

GRAPHIC SCALE
(HORIZ.)
1 inch = 50 ft.
50' 0 50' 100'
5' 0 5' 10'
(VERT)
1 inch = 5 ft.

VPI 21+18.00
ELEV = 1022.70
L = 340.00
K = 63.95

VPI 25+38.55
ELEV = 1043.73
L = 416.67
K = 41.67
BR. LENGTH = 171.50'

VPI 30+16.70
ELEV = 1019.82
L = 330.00
K = 63.48

VPC 19+48.00
ELEV. = 1023.24

VPT 22+88.00
ELEV. = 1031.20

VPC 23+30.22
ELEV. = 1033.31

BEG. BR. STA. 24+52.80

END BR. STA. 26+24.30

VPT 27+46.89
ELEV. = 1033.31

VPC 28+51.70
ELEV. = 1028.07

VPT 31+81.70
ELEV. = 1020.15

BM 38
Sta.26+90.03, 826.96' Lt.
R.R. Spike in Brace Post
148' Rt. Sta. 940+06
N=623906.85
E=2160402.62
EL=1022.25

BM 39
Sta. 25+92.15, 945.52' Rt.
"[]" in Center of E. HDWL.
57' Rt. Sta. 922+34
N=622133.45
E=2160323.22
EL=1013.40

FINISHED GRADE

EXISTING PROFILE

5.00%

-5.00%

0.32%

0.20%

STA. 19+25.00 BEGIN HIGHLAND AVE J.P. NO. 24432(15)

STA. 32+00.00 END HIGHLAND AVE J.P. NO. 24432(15)

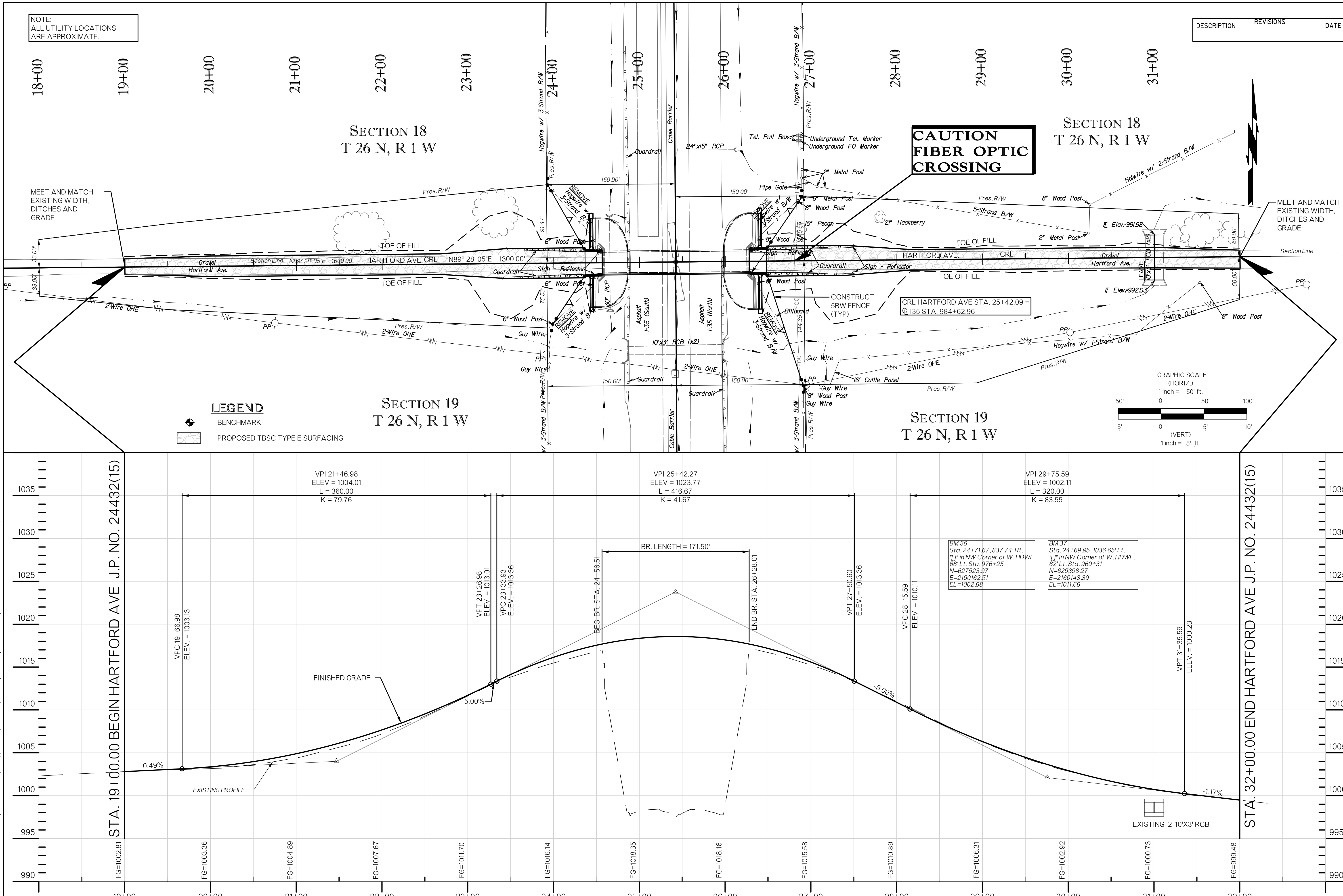
1050 1045 1040 1035 1030 1025 1020 1015 1010 1005

FG=1023.29 FG=1024.56 FG=1027.41 FG=1031.80 FG=1036.22 FG=1038.34 FG=1038.07 FG=1035.39 FG=1030.66 FG=1025.84 FG=1022.39 FG=1020.51 FG=1020.19

19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00

Wednesday, October 24, 2018 1:27:14 PM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\HIGHLAND\1070-HIGHLAND P&P.dwg

I-35 BRIDGE RAISINGS COUNTY KAY HIGHWAY/ROAD HIGHLAND AVE. STATE JOB NO. 24432(15) SHEET NO. R017


NOTE:
ALL UTILITY LOCATIONS
ARE APPROXIMATE.
REVISIONS
DESCRIPTION
DATE
18+00
19+00
20+00
21+00
22+00
23+00
24+00
25+00
26+00
27+00
28+00
29+00
30+00
31+00
SECTION 18
T 26 N, R 1 W
CAUTION
FIBER OPTIC
CROSSING
MEET AND MATCH
EXISTING WIDTH,
DITCHES AND
GRADE
TOE OF FILL
HARTFORD AVE. CRL
N89° 28' 05"E
1300.00'
Gravel
Hartford Ave.
Section Line
N89° 28' 05"E
1600.00'
Pres. R/W
2-Wire OHE
Guardrail
Sign - Reflector
6" Wood Post
REMOVE
Hogwire w/
3-Strand B/W
Cable Barrier
24"x15" RCP
150.00'
Tel. Pull Box
Underground Tel. Marker
Underground FO Marker
2" Metal Post
Pipe Gate
6" Metal Post
8" Wood Post
15" Pecan
21" Hackberry
5-Strand B/W
Hogwire w/ 2-Strand B/W
2" Metal Post
℄ Elev.=991.98
℄ Elev.=992.03
HARTFORD AVE.
CRL
Section Line
Asphalt
I-35 (South)
Asphalt
I-35 (North)
10'x3' RCB (x2)
Billboard
CONSTRUCT
5BW FENCE
(TYP)
CRL HARTFORD AVE STA. 25+42.09 =
℄ I35 STA. 984+62.96
Guy Wire
PP
Hogwire w/ 1-Strand B/W
16' Cattle Panel
SECTION 19
T 26 N, R 1 W
LEGEND
BENCHMARK
PROPOSED TBSC TYPE E SURFACING
GRAPHIC SCALE
(HORIZ.)
1 inch = 50' ft.
(VERT)
1 inch = 5' ft.
VPI 21+46.98
ELEV = 1004.01
L = 360.00
K = 79.76
VPI 25+42.27
ELEV = 1023.77
L = 416.67
K = 41.67
VPI 29+75.59
ELEV = 1002.11
L = 320.00
K = 83.55
BR. LENGTH = 171.50'
BEG BR. STA. 24+56.51
END BR. STA. 26+28.01
VPC 19+66.98
ELEV. = 1003.13
VPT 23+26.98
ELEV. = 1013.01
VPC 23+33.93
ELEV. = 1013.36
VPT 27+50.60
ELEV. = 1013.36
VPC 28+15.59
ELEV. = 1010.11
VPT 31+35.59
ELEV. = 1000.23
BM 36
Sta. 24+71.67, 837.74' Rt.
"[]" in NW Corner of W. HDWL
68' Lt. Sta. 976+25
N=627523.97
E=2160162.51
EL=1002.68
BM 37
Sta. 24+69.95, 1036.65' Lt.
"[]" in NW Corner of W. HDWL.
62' Lt. Sta. 960+31
N=629398.27
E=2160143.39
EL=1011.66
STA. 19+00.00 BEGIN HARTFORD AVE J.P. NO. 24432(15)
STA. 32+00.00 END HARTFORD AVE J.P. NO. 24432(15)
FINISHED GRADE
EXISTING PROFILE
0.49%
5.00%
-5.00%
-1.17%
EXISTING 2-10'X3' RCB
FG=1002.81
FG=1003.36
FG=1004.89
FG=1007.67
FG=1011.70
FG=1016.14
FG=1018.35
FG=1018.16
FG=1015.58
FG=1010.89
FG=1006.31
FG=1002.92
FG=1000.73
FG=999.48
1035
1030
1025
1020
1015
1010
1005
1000
995
990
19+00
20+00
21+00
22+00
23+00
24+00
25+00
26+00
27+00
28+00
29+00
30+00
31+00
32+00

Wednesday, October 24, 2018 1:27:35 PM
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I-35 BRIDGE RAISINGS | COUNTY KAY | HIGHWAY/ROAD HARTFORD AVE | STATE JOB NO. 24432(15) | SHEET NO. R018

NOTE:
ALL UTILITY LOCATIONS
ARE APPROXIMATE.

REVISIONS		
	DESCRIPTION	DATE

72+00 73+00 74+00 75+00 76+00 77+00 78+00 79+00 80+00 81+00 82+00 83+00 84+00

SECTION 31
T 27 N, R 1 W

SECTION 31
T 27 N, R 1 W

STA. 72+00
24' PVT. DRIVE

MEET AND MATCH EXISTING WIDTH, DITCHES AND GRADE

LEAVE
42"x27" RCP

El. Elev.=1034.38

El. Elev.=1034.19

El. Elev.=1034.78

El. Elev.=1034.69

30"x19" RCP

77.57'

Guy Wire

Tel. Pedestal (SW Bell)

PP w/ Dip

N89° 40' 09"E 1600.00'

Section Line

N89° 28' 36"E

N88° 53' 39"E 164.92'

COLEMAN RD.

Gravel
Coleman Rd.

CRL

TOE OF FILL

Pres.R/W

Pl: 72+37.57

Pl: 74+01.49

33.00'

110.00'

80.00'

STA. 72+01.00
22' PVT. DRIVE

PP

T

T-Wire OHT

Hogwire w/ 3-Strand B/W

Guardrail

Vent Pipe

REMOVE Hogwire w/ 3-Strand B/W

CONSTRUCT 5BW FENCE (TYP)

Asphalt I-35 (South)

Asphalt I-35 (North)

Guy Wire

150.00'

CRL COLEMAN RD STA. 78+08.05 =
℄ I35 STA. 1142+91.99

Underground FO Marker

Tel. Pull Box

8" Wood Post

FO

Sign Reflector

Billboard

N89° 36' 42"E 1048.51'

Barn

1" Pipe

MEET AND MATCH EXISTING WIDTH, DITCHES AND GRADE

Section Line

El. Elev.=1031.80

15" RCP

El. Elev.=1032.01

T-Wire OHT-Wire OHT

STA. 84+3.0.00
20' PVT. DRIVE

CAUTION
FIBER OPTIC
CROSSING

SECTION 6
T 26 N, R 1 W

SECTION 6
T 26 N, R 1 W

LEGEND
BENCHMARK
PROPOSED ASPH. SURFACING

GRAPHIC SCALE
(HORIZ.)
1 inch = 50 ft.
50' 0 50' 100'
5' 0 5' 10'
(VERT)
1 inch = 5 ft.

VPI 73+49.27
ELEV = 1037.60
L = 290.00
K = 49.44

VPI 78+07.58
ELEV = 1065.10
L = 500.00
K = 41.67
BR. LENGTH = 171.50'

VPI 82+86.49
ELEV = 1036.37
L = 250.00
K = 51.65

BM 22
Sta. 76+60.45, 343.77' Rt.
60D in Fence Post
148' Lt. Sta. 1139+49
N=643845.97
E=2159940.41
EL=1035.34

BM 21
Sta. 77+18.89, 620.59' Lt.
"X" on W. Sign Base
88' Lt. Sta. 1149+13
N=644810.70
E=2159992.32
EL=1033.31

VPC 72+04.27
ELEV. = 1037.41

VPT 74+94.27
ELEV. = 1046.30

VPC 75+57.58
ELEV. = 1050.10

BEG. BR. STA. 77+21.86

END BR. STA. 78+93.36

VPT 80+57.58
ELEV. = 1050.10

VPC 81+61.49
ELEV. = 1043.87

VPT 84+11.49
ELEV. = 1034.92

FINISHED GRADE

EXISTING PROFILE

6.00%

-6.00%

0.13%

-1.16%

STA. 71+60.00 BEGIN COLEMAN RD. J.P. NO. 24432(15)

STA. 84+50.00 END COLEMAN RD. J.P. NO. 24432(15)

1070 1065 1060 1055 1050 1045 1040 1035 1030 1025

FG=1037.40 FG=1038.46 FG=1041.54 FG=1046.65 FG=1052.43 FG=1056.21 FG=1057.59 FG=1056.58 FG=1053.16 FG=1047.56 FG=1041.70 FG=1037.41 FG=1035.06

71+00 72+00 73+00 74+00 75+00 76+00 77+00 78+00 79+00 80+00 81+00 82+00 83+00 84+00 85+00

Wednesday, October 24, 2018 1:27:58 PM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\COLEMAN\1070-COLEMAN P&P.dwg

REVISIONS	
DESCRIPTION	DATE

NOTE:
ALL UTILITY LOCATIONS ARE APPROXIMATE.

SECTION 30
T 27 N, R 1 W

SECTION 31
T 27 N, R 1 W

SECTION 30
T 27 N, R 1 W

SECTION 31
T 27 N, R 1 W

71+00 72+00 73+00 74+00 75+00 76+00 77+00 78+00 79+00 80+00 81+00 82+00 83+00 84+00

MEET AND MATCH EXISTING WIDTH, DITCHES AND GRADE

PC: 72+14.29 | PT: 73+78.94 | PC: 75+56.09 | PT: 76+63.81 | PC: 79+18.99 | PT: 81+11.93 | PC: 83+42.06 | PT: 84+75.30

N89° 56' 15"E 180.79' | N89° 57' 13"E 2700.41' | Section Line | N88° 59' 39"E 177.15' | N89° 36' 41"E 255.18' | S89° 16' 59"E 230.12' | N89° 57' 13"E 78.10'

Gravel Chrysler Ave. | CHRYSLER AVE. | Gravel Chrysler Ave.

Pres.R/W | TOP OF CUT | TOE OF FILL | 100.00' | 90.00' | 70.00'

Billboard | 6" Wood Post | Guardrail | Cable Barrier | Sign - Reflector | BM #15 | LEAVE 6'x4' RCB | REMOVE Hogwire w/ 3-Strand B/W | REMOVE Cable Barrier | CONSTRUCT 5BW FENCE (TYP)

Hogwire w/ 3-Strand B/W | Hogwire w/ 2-Strand B/W | 150.00' | Asphalt I-35 (South) | Asphalt I-35 (North)

Tel. Pull Box | Underground FO Marker (Indian Nations FO) | Tel. Pedestal | Gate | 4" Post | 2-Hot Wire | EOC

Sign - Exit 222

CAUTION FIBER OPTIC CROSSING

CRL CHRYLER AVE STA. 78+02.53 = ℄ I35 STA. 1195+55.21

CRL CURVE #1
PI STA 72+96.62
Δ=0°56'36"
D=0°34'23"
T=82.33'
L=164.65'
R=10000.00'
EXT=0.34'
X=2159531.0808
Y=649446.9193
V= 45 MPH
S= NC

CRL CURVE #2
PI STA 76+09.95
Δ=0°37'02"
D=0°34'23"
T=53.86'
L=107.72'
R=10000.00'
EXT=0.15'
X=2159844.3678
Y=649452.4191
V= 45 MPH
S= NC

CRL CURVE #3
PI STA 80+15.47
Δ=1°06'20"
D=0°34'23"
T=96.48'
L=192.94'
R=10000.00'
EXT=0.47'
X=2160249.8751
Y=649455.1688
V= 45 MPH
S= NC

CRL CURVE #4
PI STA 84+08.68
Δ=0°45'48"
D=0°34'23"
T=66.62'
L=133.24'
R=10000.00'
EXT=0.22'
X=2160643.0666
Y=649450.2484
V= 45 MPH
S= NC

MEET AND MATCH EXISTING WIDTH, DITCHES AND GRADE

LEGEND
BENCHMARK
PROPOSED TBSC TYPE E SURFACING

GRAPHIC SCALE (HORIZ.)
1 inch = 50 ft.
50' 0 50' 100'
5' 0 5' 10'
(VERT)
1 inch = 5' ft.

VPI 73+91.38
ELEV = 1045.86
L = 280.00
K = 48.38

VPI 78+02.67
ELEV = 1070.53
L = 500.00
K = 41.67

VPI 82+43.18
ELEV = 1044.10
L = 300.00
K = 63.92

BR. LENGTH = 171.50'

BEG. BR. STA. 77+16.78 | END BR. STA. 78+88.28

FINISHED GRADE | EXISTING PROFILE

VPC 72+51.38 ELEV. = 1045.56 | VPT 75+31.38 ELEV. = 1054.26 | VPC 75+52.67 ELEV. = 1055.53 | VPT 80+52.67 ELEV. = 1055.53 | VPC 80+93.18 ELEV. = 1053.10 | VPT 83+93.18 ELEV. = 1042.14

0.21% | 6.00% | -6.00% | -1.31%

RT DITCH | LT DITCH | EXISTING 6'x4' RCB

BM 16
Sta. 77+36.50, 662.37' Rt.
"[ ]" in SE Corner of Wing Wall
68' Lt. Sta. 1188+93
N=648790.92
E=2159975.41
EL=1038.52

BM 15
Sta. 76+90.23, 56.24' Lt.
"[ ]" in NE Corner of N. HDWL.
112' Lt. Sta. 1196+12
N=649509.20
E=2159924.27
EL=1042.77

STA. 72+25.00 BEGIN CHRYSLER AVE J.P. NO. 24432(15)

STA. 84+50.00 END CHRYSLER AVE J.P. NO. 24432(15)

FG=1045.91 | FG=1048.16 | FG=1052.48 | FG=1058.11 | FG=1061.77 | FG=1063.03 | FG=1061.90 | FG=1058.36 | FG=1052.70 | FG=1047.59 | FG=1044.04 | FG=1042.05

1075 1070 1065 1060 1055 1050 1045 1040 1035 1030

72+00 73+00 74+00 75+00 76+00 77+00 78+00 79+00 80+00 81+00 82+00 83+00 84+00 85+00

Wednesday, October 24, 2018 1:28:19 PM
V:\16-1070E BR Raising Over I-35, Koy, 1840, HNTB\CIV3D\PLANS\CHRYSLER\1070-CHRYSLER P&P.dwg

GRAPHIC SCALE
(HORIZ.)
1 inch = 50' ft.
50' 0 50' 100'
5' 0 5' 10'
(VERT)
1 inch = 5' ft.

LEGEND

BENCHMARK

PROPOSED TBSC TYPE E SURFACING

NOTE:
ALL UTILITY LOCATIONS ARE APPROXIMATE.

CRL CURVE #1
PI STA 75+89.63
Δ=5°05'56"
D=1°38'13"
T=155.84'
L=311.47'
R=3500.00'
EXT=3.47'
X=2159753.6561
Y=654714.3899
V= 40 MPH
S= NC

CRL CURVE #2
PI STA 80+14.98
Δ=13°01'15"
D=5°43'46"
T=114.12'
L=227.25'
R=1000.00'
EXT=6.49'
X=2160177.5648
Y=654751.7560
V= 20 MPH
S= NC

SECTION 19
T 27 N, R 1 W

DESCRIPTION	REVISIONS	DATE

CRL FERGUSON AVE STA. 82+18.03 = ℄ I35 STA. 1248+42.75

CAUTION POWER CROSSING

CAUTION FIBER OPTIC CROSSING

MEET AND MATCH EXISTING WIDTH, DITCHES AND GRADE

PC: 74+33.79

PT: 77+45.26

PC: 79+00.86

TOE OF FILL

TOE OF FILL CONSTRUCT 5BW FENCE (TYP)

S89°56'19"E 28.79'

S82° 01' 00"E 193.71'

N84° 57' 45"E 155.60'

Section Line S89° 56' 19"E 2536.20'

FERGUSON AVE

Gravel CRL Ferguson Ave.

Sign - Curve Ahead Slow Children

Sign - Alva / Newkirk

Guy Wire

Elec. Pull Box

Underground FO Marker (Indian Nations FO)

Tel. Pull Box

Gate

Guardrail

Asphalt I-35 (South)

Asphalt I-35 (North)

Cable Barrier

Hogwire w/ 3-Strand B/W

5-Strand B/W

4-Wire OHE

Pres. R/W

8" Wood Post

REMOVE Hogwire w/ 3-Strand B/W

REMOVE 2-Strand B/W

REMOVE 5-Strand B/W

STA. 1248+43.2 ?X? 133' RCB S.D. 0.11' RT FL ELEV. 1031.81' LT & 1033.41' RT

STA. 1248+42 ?X? BEGIN BRIDGE OVER I-35 85.70' LT.
STA 1248+29 ℄ PEIR 54.87' LT., 0.04' RT. AND 54.96' RT.
STA 1248+56 ℄ PEIR 54.97' LT., 0.04' LT. AND 55.00' RT.
STA 1248+42 ?X? END BRIDGE OVER I-35 85.70' RT.

STA. 84+00

SECTION 30
T 27 N, R 1 W

STA. 75+98
12' T.B.S.C.
PVT DRIVE

STA. 74+05.00
BEGIN FERGUSON AVE J.P. NO. 24432(15)

VPI 75+91.84
ELEV = 1040.01
L = 320.00
K = 62.94

VPI 81+50.00
ELEV = 1068.01
L = 700.00
K = 83.33

BR. LENGTH = 171.50'

BEG. BR. STA. 81+32.28

END BR. STA. 83+03.78

VPC 74+31.84
ELEV. = 1040.12

VPT 77+51.84
ELEV. = 1048.04

VPC 78+00.00
ELEV. = 1050.45

BM 10
Sta. 77+28.85, 1246.35' Rt.
80D SPK. in North Brace Post.
218' Lt. Sta. 1235+68
N=653484.66
E=2159996.15
EL=1046.71

BM 9
Sta. 81+11.32, 65.96' Lt.
"X" in Center of HDWL on N.
Side of Overpass
108' Lt. Sta. 1249+09
N=654803.56
E=2160281.99
EL=1037.34

FINISHED GRADE

EXISTING PROFILE

-0.07%

5.02%

EXISTING 3-10'x6' RCB

EXISTING 3'x2' RCB

EXISTING 3'x2' RCB

FG=1040.44
FG=1042.25
FG=1045.65
FG=1050.45
FG=1054.87
FG=1058.09
FG=1060.10
FG=1060.92
FG=1060.53
FG=1058.45

70+00 71+00 72+00 73+00 74+00 75+00 76+00 77+00 78+00 79+00 80+00 81+00 82+00 83+00 84+00

1075 1070 1065 1060 1055 1050 1045 1040 1035 1030

REVISIONS	
DESCRIPTION	DATE

CRL CURVE #3
PI STA 84+39.32
Δ=14°06'04"
D=6°01'52"
T=117.50'
L=233.80'
R=950.00'
EXT=7.24'
X=2160598.7643
Y=654692.6853
V= 20 MPH
S= NC

CRL CURVE #4
PI STA 86+84.77
Δ=6°10'45"
D=6°01'52"
T=51.27'
L=102.45'
R=950.00'
EXT=1.38'
X=2160844.0049
Y=654718.9709
V= 20 MPH
S= NC

84+00 85+00 86+00 87+00 88+00 89+00 90+00

SECTION 19
T 27 N, R 1 W

CAUTION POWER CROSSING

MEET AND MATCH EXISTING WIDTH, DITCHES AND GRADE

STA. 84+00

4-Wire OHE
Pres. R/W
4 Strand B/W
PP
PT 85+56.62
PC 86+83.50
PT 87+35.95
Guy Wire (x3)
Mail Box (16497)
Guardrail
C3
C4
Gravel Ferguson Ave.
N83° 52' 56"E 77.87'
FERGUSON AVE.
Sign - Reflector
S89° 56' 19"E 174.05'
S89° 56' 19"E 2631.52' Section Line
24"x16' RCP
fl. Elev.=1045.43
fl. Elev.=1045.73
6 Strand B/W
PP w/ XFMR
Guy Wire (x2)
Hogwire w/ 3-Strand B/W
Hogwire w/ 1-Strand B/W
Gravel
24" Oak
STA. 88+25
12' T.B.S.C.
PVT DRIVE
Vinyl
Gate
Single Story Wood Framed House FF Elev.=1047.55
LP
Guy Wire

SECTION 30
T 27 N, R 1 W

NOTE:
ALL UTILITY LOCATIONS ARE APPROXIMATE.

LEGEND
BENCHMARK
PROPOSED ASPH. SURFACING

GRAPHIC SCALE (HORIZ.)
1 inch = 50' ft.
50' 0 50' 100'
5' 0 5' 10'
(VERT)
1 inch = 5' ft.

VPI 81+50.00
ELEV = 1068.01
L = 700.00
K = 83.33

VPI 87+23.12
ELEV = 1048.62
L = 110.00
K = 37.88

VPT 85+00.00
ELEV. = 1056.17

VPC 86+68.12
ELEV. = 1050.48

VPT 87+78.12
ELEV. = 1048.35

FINISHED GRADE

-3.38%

-0.48%

EXISTING PROFILE

STA. 89+10.00 END FERGUSON J.P. NO. 24432(15)

1075 1070 1065 1060 1055 1050 1045 1040 1035 1030

FG=1058.95 FG=1056.17 FG=1052.78 FG=1049.53 FG=1048.25 FG=1047.77

84+00 85+00 86+00 87+00 88+00 89+00 90+00 91+00 92+00 93+00 94+00 95+00 96+00 97+00 98+00

Wednesday, October 24, 2018 1:28:46 PM
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SECTION 7
T 27 N, R 1 W

CRL CURVE #1
PI STA 84+72.10
Δ=0°26'54"
D=0°34'23"
T=39.12'
L=78.24'
R=10000.00'
EXT=0.08'
X=2160536.7701
Y=665312.4913
V= 45 MPH
S= NC

SECTION 7
T 27 N, R 1 W

CRL CURVE #2
PI STA 90+08.31
Δ=0°40'03"
D=0°34'23"
T=58.24'
L=116.49'
R=10000.00'
EXT=0.17'
X=2161072.9735
Y=665310.1218
V= 45 MPH
S= NC

CRL CURVE #3
PI STA 92+19.75
Δ=0°24'35"
D=0°34'23"
T=35.76'
L=71.53'
R=10000.00'
EXT=0.06'
X=2161284.3913
Y=665306.7246
V= 45 MPH
S= NC

REVISIONS		
DESCRIPTION		DATE

81+00 82+00 83+00 84+00 85+00 86+00 87+00 88+00 89+00 90+00 91+00 92+00 93+00

CRL ADOBE RD STA. 87+31.30 = ℄ I35 STA. 1354+77.08

Hogwire w/ 3-Strand B/W — Pres.R/W — Asphalt I-35 (South) — Asphalt I-35 (North) — Cable Barrier — Guardrail

GAS GAS GAS GAS GAS GAS GAS GAS GAS GAS GAS GAS GAS GAS GAS GAS GAS GAS GAS GAS GAS GAS

Gas Line Marker & Vent Pipe — Vent Pipe / Gas Marker (Enable Gas Transmissions)

Gravel — PI: 82+02.08 — PC: 84+32.98 — PT: 85+11.22 — PC: 89+50.07 — PT: 90+66.55 — PC: 91+83.99 — PT: 92+55.52

Billboard — 6" Wood Post — REMOVE Hogwire w/ 3-Strand B/W — CONSTRUCT 5BW FENCE (TYP)

Gas Line Marker — LEAVE 21" x15' RCP — TOE OF FILL — Pres.R/W

ADOBE ROAD S89° 29' 21"E 929.43' — Section Line — 38.00' — 33.00' — 42.08' — Adobe Rd. — ADOBE ROAD

Fl. Elev.=1066.22 — Fl. Elev.=1065.81 — Fl. Elev.=1066.38 — Fl. Elev.=1066.47

S89° 29' 21"E — Gravel — S89° 17' 55"E 230.90' CRL — C1 — Sign - Reflector — S89° 44' 49"E 438.85'

ADOBE ROAD — Gravel Adobe Rd. — Section Line — S89° 29' 21"E 1715.08' — C2 — S89° 04' 46"E 117.44' — C3 — S89° 29' 21"E 64.48' — ADOBE ROAD

Fl. Elev.=1055.42 — LEAVE 6'x2' RCB (x2) — Fl. Elev.=1055.22

MEET AND MATCH EXISTING WIDTH, DITCHES AND GRADE

Guardrail — 8" Wood Post — Guy Wire (x2) — PP — 2-Wire OHE — 100.00' — 50.00'

Asphalt I-35 (South) — Asphalt I-35 (North) — BM #57 — 6" Wood Post — REMOVE Hogwire w/ 3-Strand B/W — FOC — 3-Strand B/W

STA. 1353+97 ℄ 3' X 2' X 141'
RDY RCB "X"ING ℄ 68' LT & 71' RT
FL ELEV. 1060.8' LT & 1060.3' RT

SECTION 18
T 27 N, R 1 W

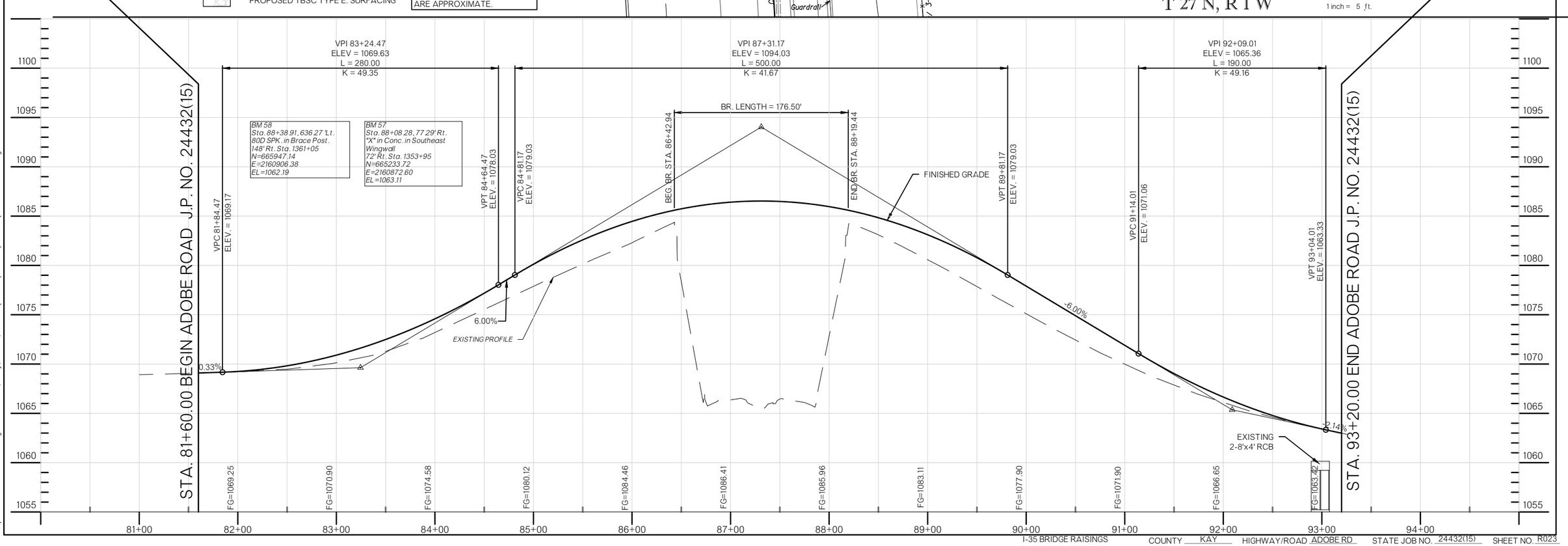
SECTION 18
T 27 N, R 1 W

CAUTION FIBER OPTIC CROSSING

GRAPHIC SCALE
(HORIZ.)
1 inch = 50 ft.
50' 0 50' 100'
(VERT)
1 inch = 5 ft.
5' 0 5' 10'

LEGEND
- BENCHMARK
- PROPOSED TBSC TYPE E. SURFACING

NOTE:
ALL UTILITY LOCATIONS ARE APPROXIMATE.



Wednesday, October 24, 2018 1:29:07 PM
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I-35 BRIDGE RAISINGS — COUNTY KAY — HIGHWAY/ROAD ADOBE RD — STATE JOB NO. 24432(15) — SHEET NO. R023

REVISIONS	
DESCRIPTION	DATE

SECTION 31
T 29 N, R 1 W

SECTION 30
T 29 N, R 1 W

814+00 815+00 816+00 817+00 818+00 819+00 820+00 821+00 822+00 823+00 824+00 825+00 826+00 827+00 828+00 829+00

Hogwire w/ 3-Strand B/W — Pres.R/W — Dilapidated B/W — Pres.R/W — Hogwire w/ 3-Strand B/W

TYPE III BARRIER. SEE SHEET T003
CONSTRUCT 5BW FENCE
3" Wood Post
Pres.R/W
Bridge 6'-0" Lt. 9375
RCP 3'-0" Lt. 96 Lt.
6" Wood Post
REMOVE GUARDRAIL
Guardrail
Hogwire w/ 3-Strand B/W
Dilapidated B/W
6" Wood Post
REMOVE EXISTING FENCE
TOP OF CUT
REMOVE EXISTING FENCE
REMOVE EXISTING GUARDRAIL AND ASPHALT PAVING
REMOVE EXISTING
4'x4' RCB
4'x4' RCB
Sign - Reflector
Flowline Elev.=1072.50
Flowline Elev.=1072.88
Sign - Mile 233
Asphalt I-35 (South)
REMOVE CONCRETE PADS AND SAND FILLED IMPACT ATTENUATORS
24" RCP
Guardrail
Asphalt I-35 (South)
Sign - Do Not Impede Left Lane
CRL
Cable Barrier
Cable Barrier
Asphalt I-35 (North)
DEMOLISH EXISTING BRIDGE NBI 14154. SEE BRIDGE SHEETS FOR DETAILS.
HOME ROAD
Inlet 16' Elev.=1077.16 Flowline Elev.=1073.41
24" RCP
1
Asphalt I-35 (North)
Sign - Slower Traffic Keep Right
Sign - Mile 233
TOP OF CUT
TOP OF CUT
REMOVE EXISTING GUARDRAIL
REMOVE EXISTING FENCE
Tel. Pull Box
6" Wood Post
Guardrail
3" Wood Post
5-Strand B/W
REMOVE EXISTING FENCE
Hogwire w/ 2-Strand B/W
Underground FO Marker (Indian Nations)
Pres.R/W
Hogwire w/ 3-Strand B/W
Underground Tel. Marker
8" Wood Post
8" Wood Post
Pres.R/W
5-Strand B/W
REMOVE EXISTING GUARDRAIL
CONSTRUCT 5BW FENCE
TYPE III BARRIER. SEE SHEET T003
Pres.R/W
Pres.R/W

LEGEND
BENCHMARK

NOTE:
ALL UTILITY LOCATIONS ARE APPROXIMATE.

CAUTION FIBER OPTIC CROSSING

SECTION 31
T 29 N, R 1 W

SECTION 30
T 29 N, R 1 W

GRAPHIC SCALE
(HORIZ.)
1 inch = 50 ft.
50' 0 50' 100'
5' 0 5' 10'
(VERT)
1 inch = 5 ft.

STR. #1
CRL STA. 821+56.05
REMOVE EXISTING HEADWALLS
EXTEND 24" RCP 4' LT. & 6' RT. W/ PCES
81.0' LT & 82.5' RT (OFFSET TO END OF PCES)
FL WEST = 1072.80 FL EAST = 1073.77

STA. 817+00.00 BEGIN I-35 DITCH GRADING
J.P. NO. 24432(15)

STA. 823+00.00 END I-35 DITCH GRADING
J.P. NO. 24432(15)

EXISTING PROFILE @ CRL
RT DITCH
LT DITCH

1095 1090 1085 1080 1075 1070 1065 1060 1055

FG=1075.30 FG=1075.65 FG=1075.94 FG=1076.34 FG=1076.69 FG=1077.16 FG=1077.24 FG=1077.85 FG=1078.36 FG=1079.28 FG=1080.07 FG=1080.67 FG=1081.22

815+00 816+00 817+00 818+00 819+00 820+00 821+00 822+00 823+00 824+00 825+00 826+00 827+00 828+00

Wednesday, October 24, 2018 1:29:27 PM
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REVISIONS	
DESCRIPTION	DATE

SECTION 19
T 29 N, R 1 W

SECTION 29
T 29 N, R 1 W

SECTION 19
T 29 N, R 1 W

SECTION 29
T 29 N, R 1 W

CRL CURVE #1
PI STA 77+29.11
Δ=1°06'36"
D=1°20'42"
T=41.27'
L=82.53'
R=4260.00'
EXT=0.20'
X=2159514.2668
Y=717907.0221
V= 45 MPH
S= NC

CAUTION
FIBER OPTIC
CROSSING

CRL CURVE #2
PI STA 81+02.01
Δ=0°54'31"
D=1°08'45"
T=39.65'
L=74.30'
R=5000.00'
EXT=0.16'
X=2159887.1558
Y=717910.4657
V= 45 MPH
S= NC

CRL CURVE #3
PI STA 83+13.48
Δ=0°52'20"
D=1°08'45"
T=38.06'
L=76.11'
R=5000.00'
EXT=0.14'
X=2160098.6162
Y=717909.0649
V= 45 MPH
S= NC

CRL INDIAN ROAD STA. 78+94.80 = ℄ I35 STA. 873+78.07

MEET AND MATCH EXISTING WIDTH, DITCHES AND GRADE

MEET AND MATCH EXISTING WIDTH, DITCHES AND GRADE

CONSTRUCT 5BW FENCE (TYP)

NOTE:
ALL UTILITY LOCATIONS ARE APPROXIMATE.

LEGEND
BENCHMARK
PROPOSED TBSC TYPE E SURFACING

GRAPHIC SCALE (HORIZ.)
1 inch = 50' ft.
50' 0 50' 100'
5' 0 5' 10'
(VERT)
1 inch = 5' ft.

STA. 73+50.00 BEGIN INDIAN ROAD J.P. NO. 24432(15)

STA. 84+50.00 END INDIAN ROAD J.P. NO. 24432(15)

VPI 75+12.87
ELEV = 1096.42
L = 230.00
K = 41.25

VPI 78+94.66
ELEV = 1119.32
L = 500.00
K = 41.67

VPI 83+07.98
ELEV = 1094.52
L = 200.00
K = 68.49

BR. LENGTH = 171.50'

VPC 73+97.87
ELEV. = 1095.93

VPT 76+27.87
ELEV. = 1103.32

VPC 76+44.66
ELEV. = 1104.32

BEG. BR. STA. 78+08.91

END BR. STA. 79+80.41

VPT 81+44.66
ELEV. = 1104.32

VPC 82+07.98
ELEV. = 1100.52

VPT 84+07.98
ELEV. = 1091.44

FINISHED GRADE

EXISTING PROFILE

0.42%
6.00%
-6.00%
-3.08%

FG=1095.94
FG=1097.62
FG=1101.74
FG=1107.28
FG=1110.75
FG=1111.82
FG=1110.49
FG=1106.76
FG=1101.00
FG=1095.62
FG=1091.69

1120 1115 1110 1105 1100 1095 1090 1085 1080 1075

73+00 74+00 75+00 76+00 77+00 78+00 79+00 80+00 81+00 82+00 83+00 84+00 85+00 86+00

Wednesday, October 24, 2018 1:29:53 PM
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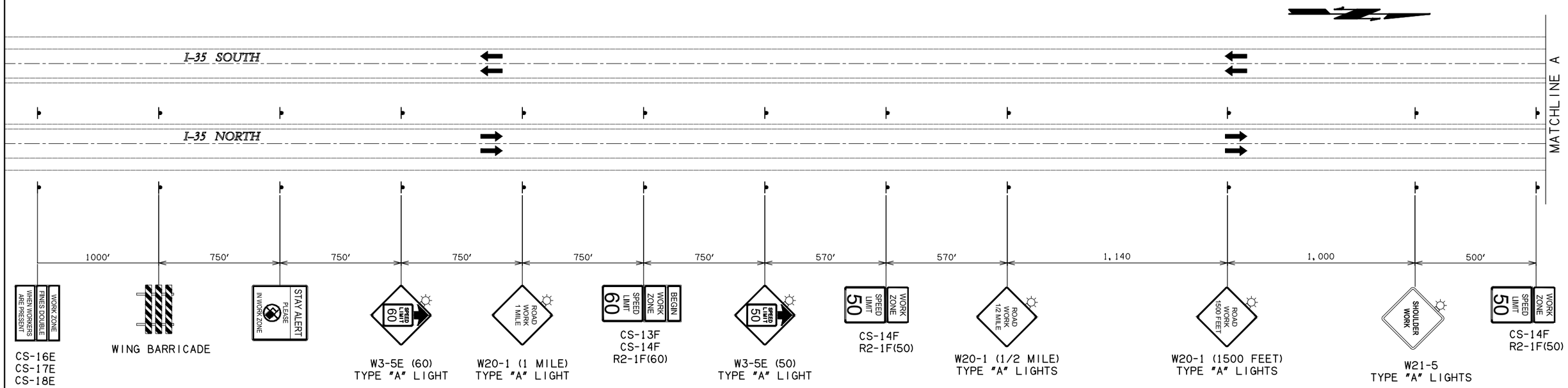
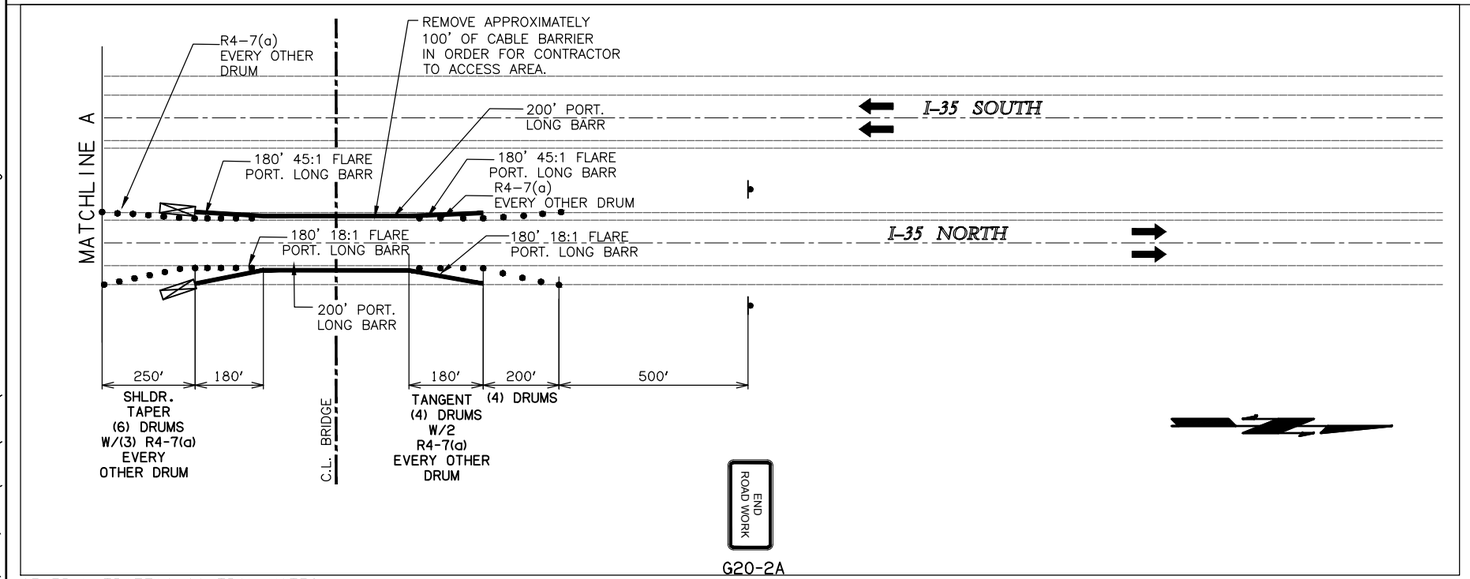
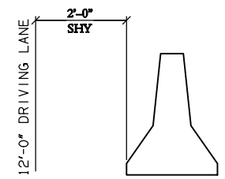
DESCRIPTION	REVISIONS	DATE





COLOR:
LEGEND, SYMBOL AND BORDER
BLACK (NON-REFLECTORIZED)
BACKGROUND:

- ▲ FLUORESCENT ORANGE (REFLECTORIZED)
- ✳ FLUORESCENT YELLOW (REFLECTORIZED)
- ● WHITE (REFLECTORIZED)
- ■ RED (NON-REFLECTORIZED)



TYPICAL BARRIER PLACEMENT

GENERAL TRAFFIC CONTROL NOTES:

1. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS: SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 75 FEET FOR CHANNELIZER CONES, SPACING SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.
2. FOR TAPERS, A MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (IN FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (MPH). DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.
3. PORTABLE LONGITUDINAL BARRIERS SHALL BE POSITIONED TO ALLOW 2' SHY DISTANCE FROM OUTSIDE OF TRAVEL WAY.

LEGEND

- SIGN
- DRUM
- PORTABLE MEDIAN BARRIER
- CONST ZONE IMPACT ATTENUATOR
- TYPE III BARRICADE

NOTE:
THIS SHEET REPRESENTS TRAFFIC CONTROL AND PORTABLE LONGITUDINAL BARRIER PLACEMENT FOR NORTH BOUND TRAFFIC. PLACEMENT OF TRAFFIC CONTROLS AND BARRIERS WOULD ALSO BE PLACED IN THE SOUTH BOUND DIRECTION IN THE SAME MANNER AS SHOWN FOR THE NORTH BOUND DIRECTION.

NOTE:
THIS DRAWING APPLICABLE TO "ROLLING ROADBLOCK", "LIVE TRAFFIC", AND "CROSSOVER" ALTERNATIVES

DRAWING NOT TO SCALE

DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

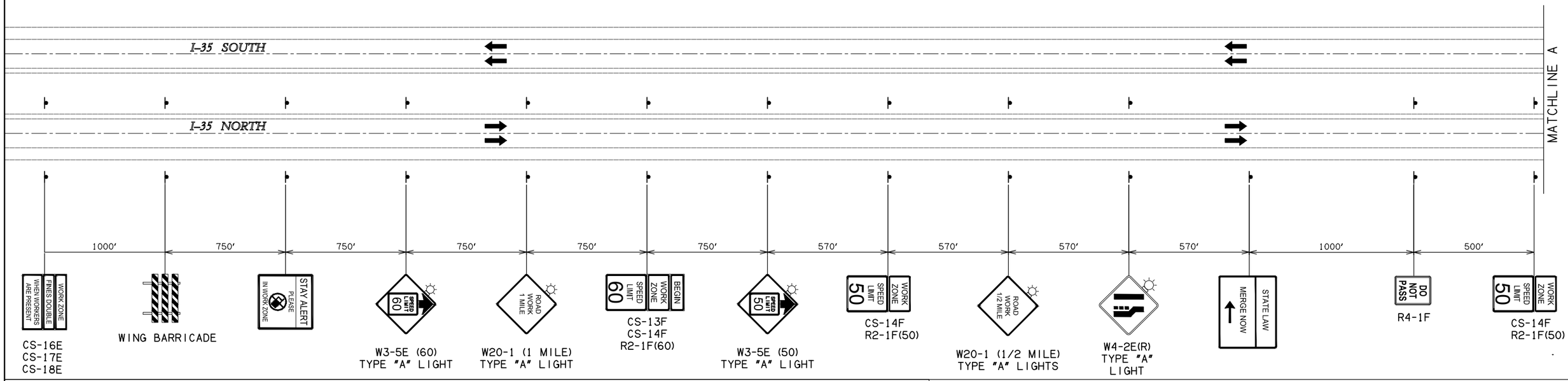
ADVANCE WARNING SIGNS (TYP SHOULDER WORK)

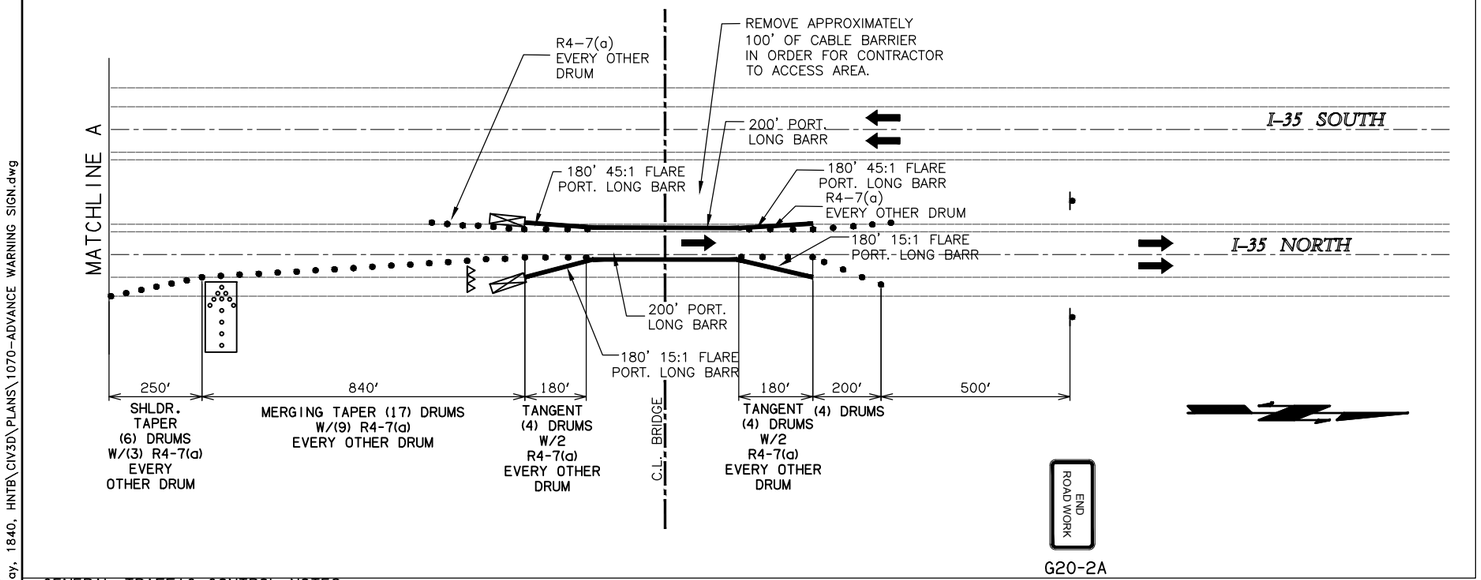
STATE JOB NO. 24432(15) SHEET NO. T001

KAY I-35 BRIDGES US-60 TO OK-KS STATE LINE

Thursday, October 25, 2018 8:38:06 AM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-ADVANCE WARNING SIGN.dwg

REVISIONS		
DESCRIPTION		DATE

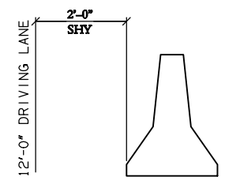




BORDER
R=1.5″
TH=0.75″
IN=0.75″

COLOR:
LEGEND, SYMBOL AND BORDER
BLACK (NON-REFLECTORIZED)
BACKGROUND:

- ▲ FLUORESCENT ORANGE (REFLECTORIZED)
- ✳ FLUORESCENT YELLOW (REFLECTORIZED)
- ● WHITE (REFLECTORIZED)
- ■ RED (NON-REFLECTORIZED)



TYPICAL BARRIER PLACEMENT

GENERAL TRAFFIC CONTROL NOTES:

1. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS: SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 75 FEET FOR CHANNELIZER CONES, SPACING SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.
2. FOR TAPERS, A MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (IN FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (MPH). DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.
3. PORTABLE LONGITUDINAL BARRIERS SHALL BE POSITIONED TO ALLOW 2′ SHY DISTANCE FROM INSIDE LANE.

LEGEND

- SIGN
- ARROW DISPLAY
- DRUM
- PORTABLE MEDIAN BARRIER
- CONST ZONE IMPACT ATTENUATOR

NOTE:
THIS SHEET REPRESENTS TRAFFIC CONTROL AND PORTABLE LONGITUDINAL BARRIER PLACEMENT FOR NORTH BOUND TRAFFIC. PLACEMENT OF TRAFFIC CONTROLS AND BARRIERS WOULD ALSO BE PLACED IN THE SOUTH BOUND DIRECTION IN THE SAME MANNER AS SHOWN FOR THE NORTH BOUND DIRECTION.

NOTE:
THIS DRAWING APPLICABLE TO LIVE TRAFFIC BRIDGE RAISING

DRAWING NOT TO SCALE

DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

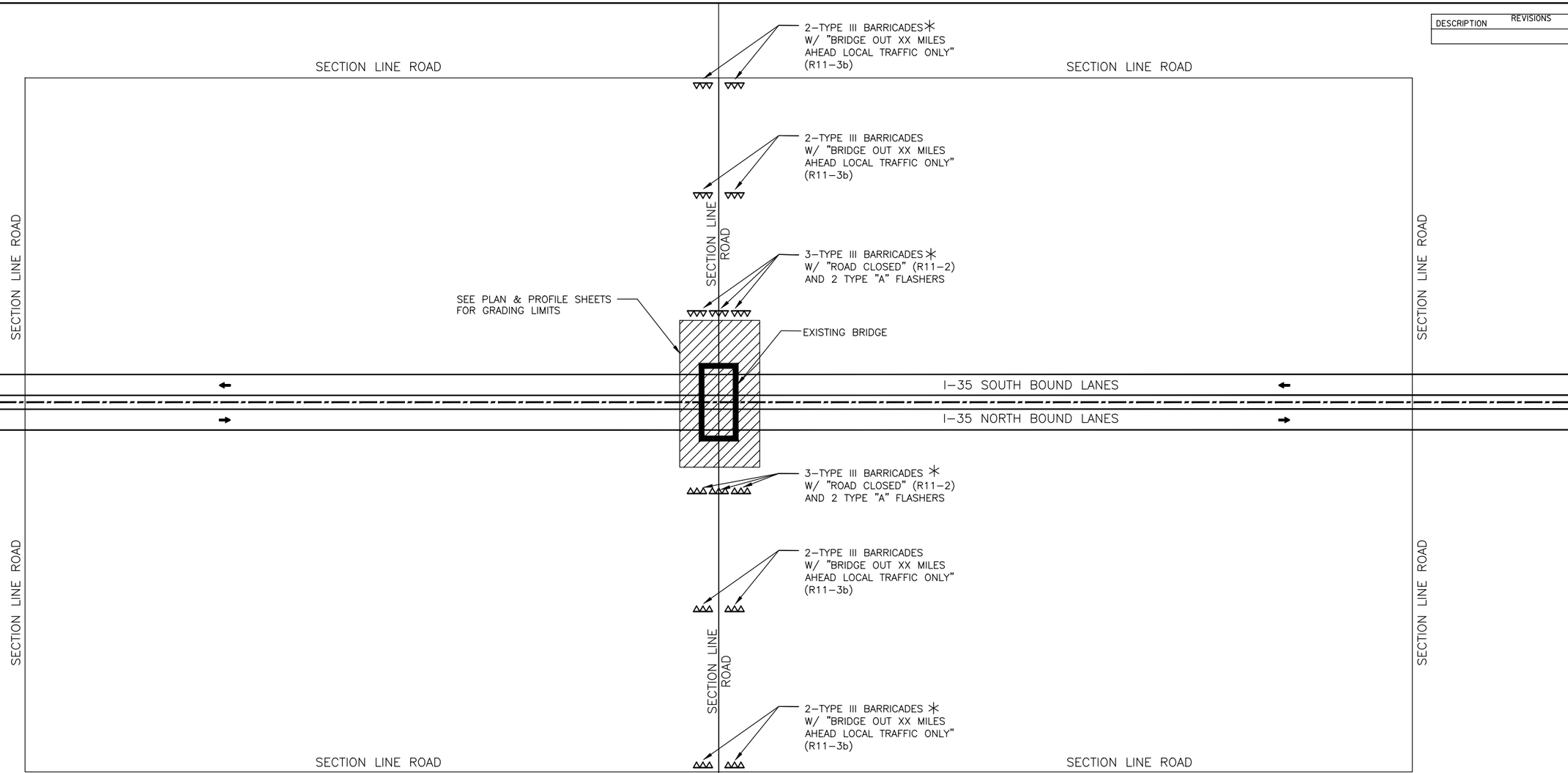
ADVANCE WARNING SIGNS (TYP LANE CLOSURE)

STATE JOB NO. 24432(15) SHEET NO. T002

KAYI-35 BRIDGES US-60 TO OK-KS STATE LINE

Thursday, October 25, 2018 8:38:46 AM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-ADVANCE WARNING SIGN.dwg

REVISIONS	
DESCRIPTION	DATE



✳ PERMANENT SIGNS WILL BE PLACED FOR HOME ROAD. "ROAD CLOSED" SIGNS WILL BE PLACE APPROXIMATELY 150' LT & RT OF I–35 C.L. AT HOME ROAD. TYPE A FLASHERS WILL NOT BE ON PERMANENT SIGNS.

LEGEND

- SIGN
- CONSTRUCTION COMPLETE
- WORK AREA
- DRUM
- PORTABLE MEDIAN BARRIER
- CONST ZONE IMPACT ATTENUATOR
- TYPE III BARRICADE

DRAWING NOT TO SCALE

DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

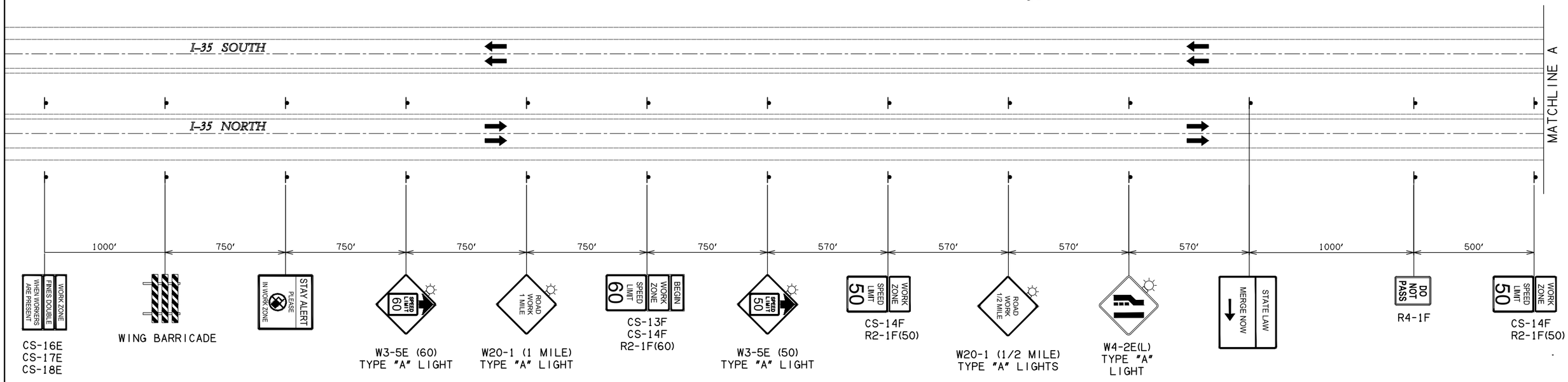
WARNING SIGNS (TYP SECTION LINE)

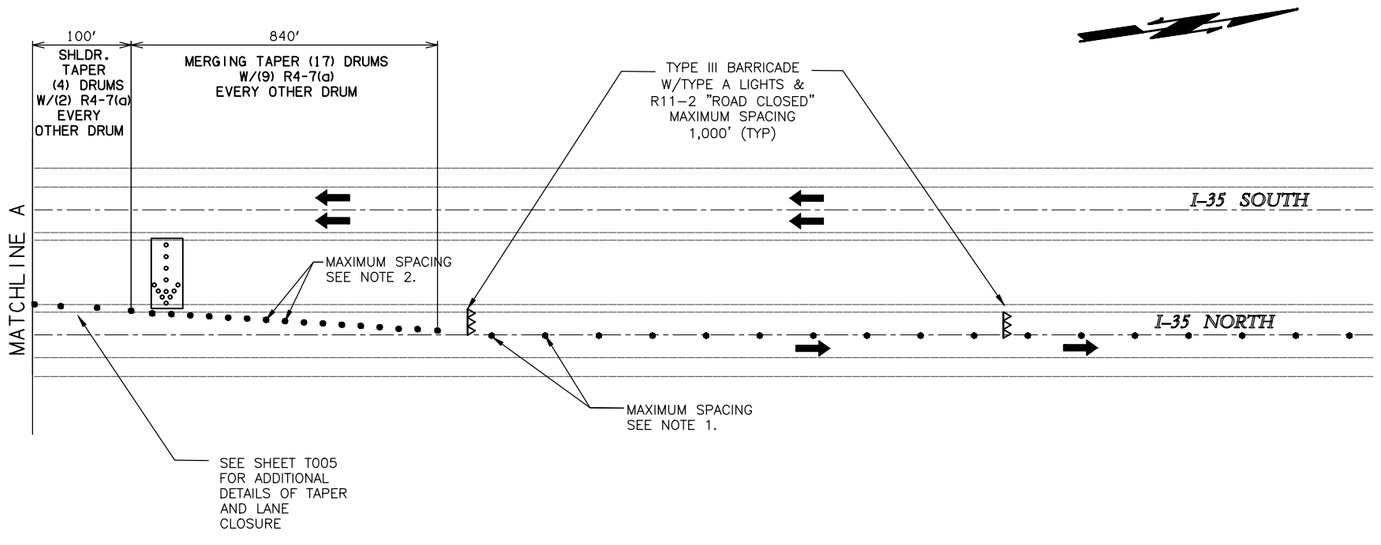
STATE JOB NO. 24432(I5) SHEET NO. T003

KAY I-35 BRIDGES US-60 TO OK-KS STATE LINE

Thursday, October 25, 2018 8:39:00 AM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-ADVANCE WARNING SIGN.dwg

DESCRIPTION	REVISIONS	DATE





ADVANCE WARNING CROSSOVER NORTH BOUND LEFT LANE CLOSURE

GENERAL TRAFFIC CONTROL NOTES:

1. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS: SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 75 FEET FOR CHANNELIZER CONES, SPACING SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

2. FOR TAPERS, A MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (IN FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (MPH). DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

LEGEND

- TYPE III BARRICADE W/TYPE A LIGHTS & R11-2 "ROAD CLOSED"
- SIGN
- DRUM OR OTHER CHANNELIZER
- DIRECTION OF TRAFFIC
- ARROW DISPLAY

NOTE: SHEETS T004-T006 ARE FOR SHIFTING ALL TRAFFIC TO THE NORTHBOUND LANES.

✳ ADVANCE WARNING TRAFFIC CONTROL SHOWN FOR NORTH BOUND TRAFFIC. SOUTH BOUND ADVANCE WARNING FOR TRAFFIC CONTROL IS NOT SHOWN. HOWEVER, THE SAME SIGNS, TAPERS AND LAYOUT FOR SOUTH BOUND LANES WOULD APPLY.

DRAWING NOT TO SCALE

DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

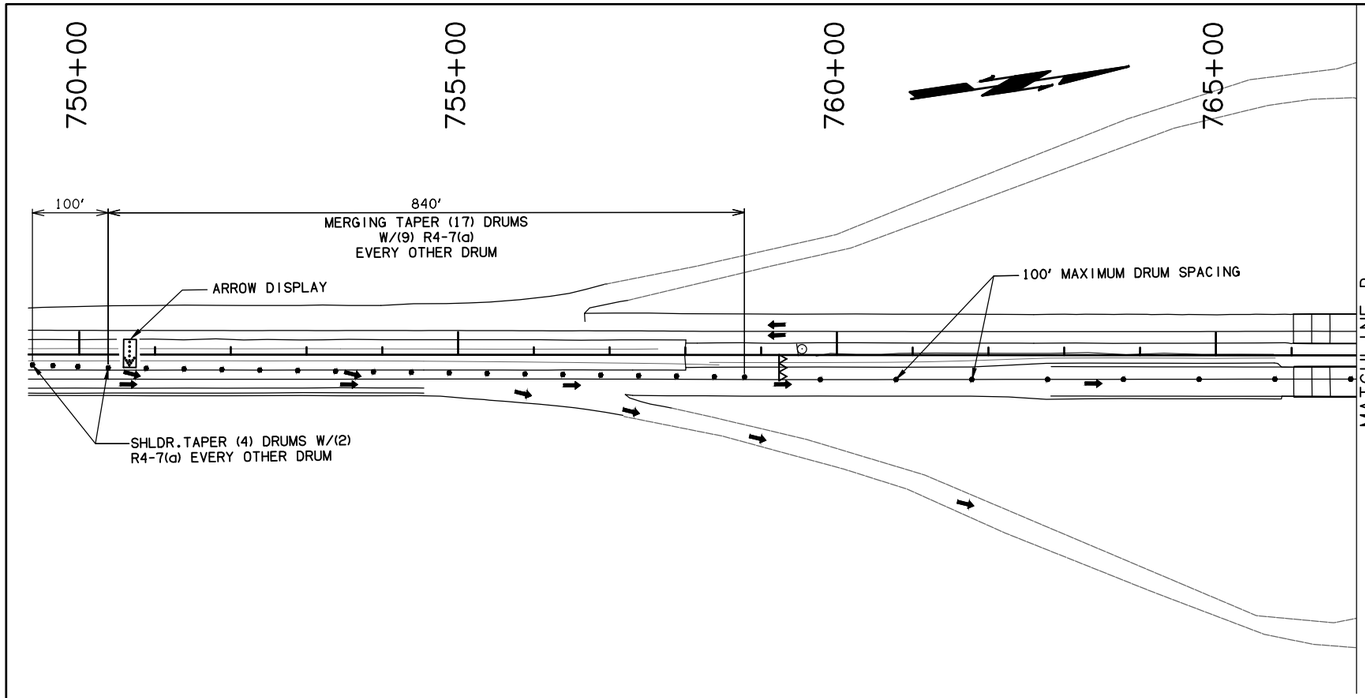
TRAFFIC CONTROL CROSSOVER DETAIL 1

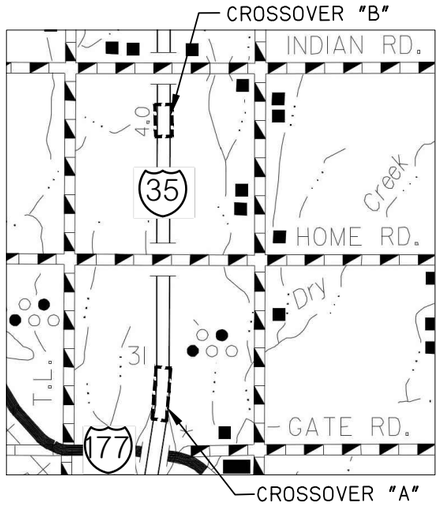
STATE JOB NO. 24432(15) SHEET NO. T004

KAY I-35 BRIDGES US-60 TO OK-KS STATE LINE

Thursday, October 25, 2018 8:25:43 AM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-CROSSOVER TRAFFIC CONTROL.dwg

REVISIONS		
DESCRIPTION		DATE





KEY MAP

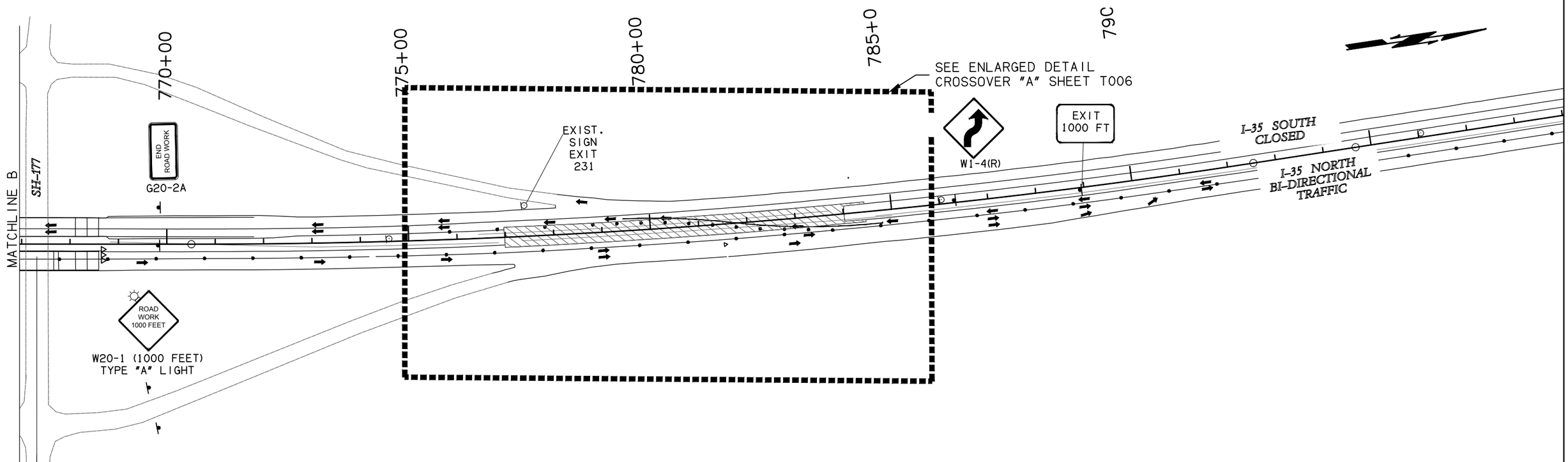
GENERAL TRAFFIC CONTROL NOTES:

1. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS: SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 75 FEET FOR CHANNELIZER CONES, SPACING SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

2. FOR TAPERS, A MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (IN FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (MPH). DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

LEGEND

- TYPE III BARRICADE W/TYPE A LIGHTS & R11-2 "ROAD CLOSED"
- SIGN
- DRUM OR OTHER CHANNELIZER
- ARROW DISPLAY
- DIRECTION OF TRAFFIC
- EXISTING PAVED MEDIAN TO BE USED AS CROSSOVER



TRAFFIC CONTROL CROSSOVER "A" FROM NORTH BOUND LANES BACK TO SOUTHBOUND LANES

DRAWING NOT TO SCALE

DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

TRAFFIC CONTROL CROSSOVER DETAIL 2

STATE JOB NO. 24432(15) SHEET NO. T005

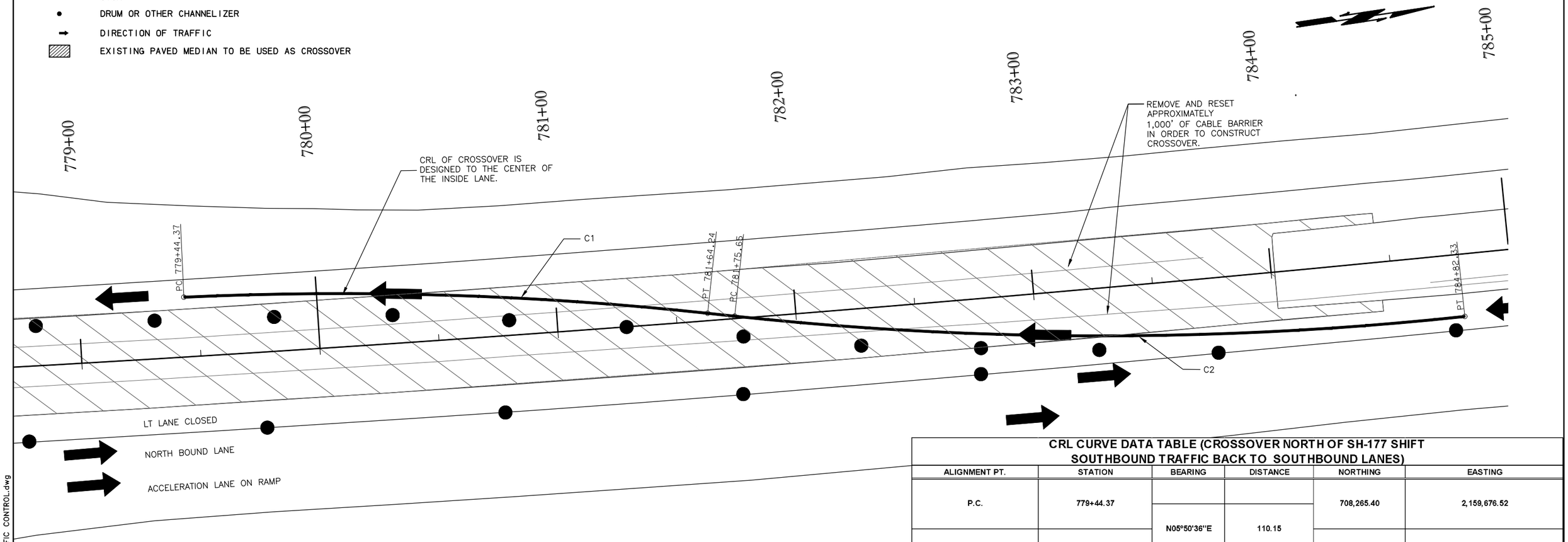
KAY I-35 BRIDGES US-60 TO OK-KS STATE LINE

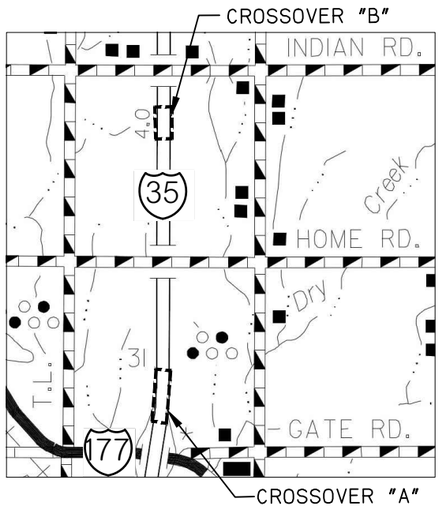
Thursday, October 25, 2018 8:25:00 AM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-CROSSOVER TRAFFIC CONTROL.dwg

REVISIONS		
DESCRIPTION		DATE

LEGEND

- TYPE III BARRICADE W/TYPE A LIGHTS & R11-2 "ROAD CLOSED"
- SIGN
- DRUM OR OTHER CHANNELIZER
- DIRECTION OF TRAFFIC
- EXISTING PAVED MEDIAN TO BE USED AS CROSSOVER





KEY MAP

GENERAL TRAFFIC CONTROL NOTES:

1. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS: SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 75 FEET FOR CHANNELIZER CONES, SPACING SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.
2. FOR TAPERS, A MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (IN FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (MPH). DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

CRL CURVE DATA TABLE (CROSSOVER NORTH OF SH-177 SHIFT SOUTHBOUND TRAFFIC BACK TO SOUTHBOUND LANES)

ALIGNMENT PT.	STATION	BEARING	DISTANCE	NORTHING	EASTING
P.C.	779+44.37			708,265.40	2,159,676.52
		N05°50'36"E	110.15		
P.I.	780+54.52			708,427.78	2,159,695.64
		N14°37'21"E			
P.T.	781+64.24			708,590.29	2,159,677.74
		N14°37'21"E	11.41		
P.C.	781+75.65			708,598.32	2,159,676.85
		N14°37'21"E	153.93		
P.I.	783+29.58			708,708.15	2,159,664.75
		N02°22'39"E			
P.T.	784+82.33			708,818.53	2,159,669.61

CRL CURVE DATA TABLE (CROSSOVER NORTH OF SH-177 SHIFT SOUTHBOUND TRAFFIC BACK TO SOUTHBOUND LANES)

CURVE NO.	P.I. STATION	Δ	D	R	T	L	E	P.C.		P.I.		C.C.		P.T.		DESIGN V MPH	FULL SUPER
								NORTHING	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING	EASTING		
C1	780+54.52	8°46'45"	3°59'34"	1435.00	110.15	219.87	4.22	708,478.64	2,159,644.43	708,588.22	2,159,655.64	708,587.47	2,159,659.80	708,694.80	2,159,683.45	50	N.C.
C2	783+29.58	12°14'42"	3°59'34"	1435.00	153.93	306.68	8.23	708,705.84	2,159,686.33	708,854.78	2,159,725.19	708,856.00	2,159,717.05	709,008.58	2,159,731.57	50	N.C.

TRAFFIC CONTROL CROSSOVER "A" ENLARGED DETAIL

DRAWING NOT TO SCALE

DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

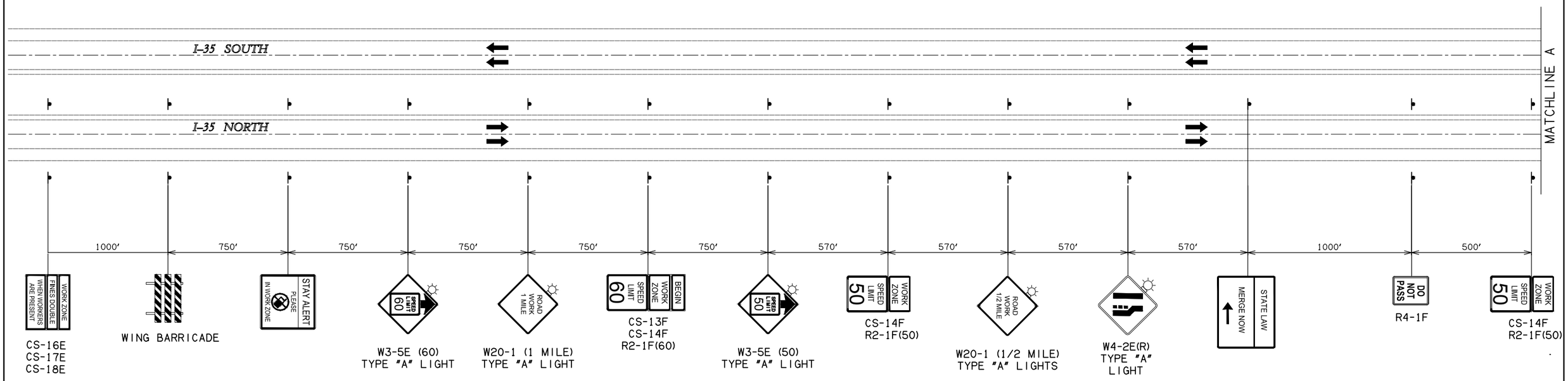
TRAFFIC CONTROL CROSSOVER DETAIL 3

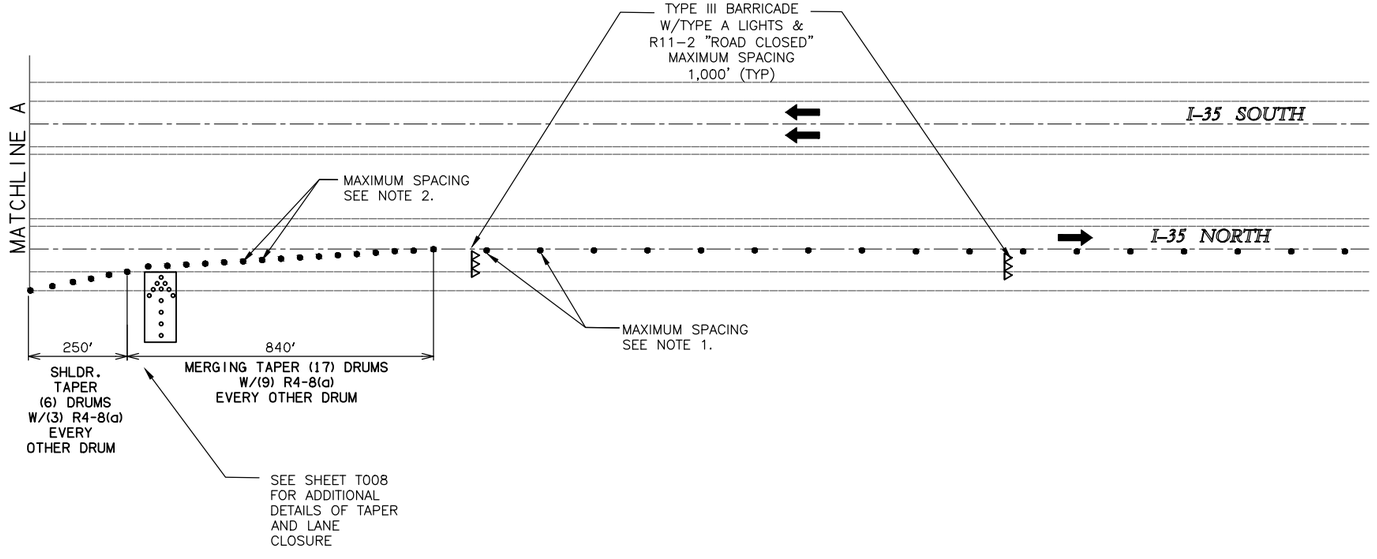
STATE JOB NO. 24432(15) SHEET NO. T006

KAY I-35 BRIDGES US-60 TO OK-KS STATE LINE

Thursday, October 25, 2018 8:26:27 AM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-CROSSOVER TRAFFIC CONTROL.dwg

DESCRIPTION	REVISIONS	DATE





ADVANCE WARNING CROSSOVER NORTH BOUND RIGHT LANE CLOSURE

GENERAL TRAFFIC CONTROL NOTES:

1. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS: SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 75 FEET FOR CHANNELIZER CONES, SPACING SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.
2. FOR TAPERS, A MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (IN FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (MPH). DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

LEGEND

- TYPE III BARRICADE W/TYPE A LIGHTS & R11-2 "ROAD CLOSED"
- SIGN
- DRUM OR OTHER CHANNELIZER
- ARROW DISPLAY
- DIRECTION OF TRAFFIC

NOTE: SHEETS T007-T009 ARE FOR SHIFTING ALL TRAFFIC TO THE SOUTHBOUND LANES.

✳ ADVANCE WARNING TRAFFIC CONTROL SHOWN FOR NORTH BOUND TRAFFIC. SOUTH BOUND ADVANCE WARNING FOR TRAFFIC CONTROL IS NOT SHOWN. HOWEVER, THE SAME SIGNS, TAPERS AND LAYOUT FOR SOUTH BOUND LANES WOULD APPLY.

DRAWING NOT TO SCALE

DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

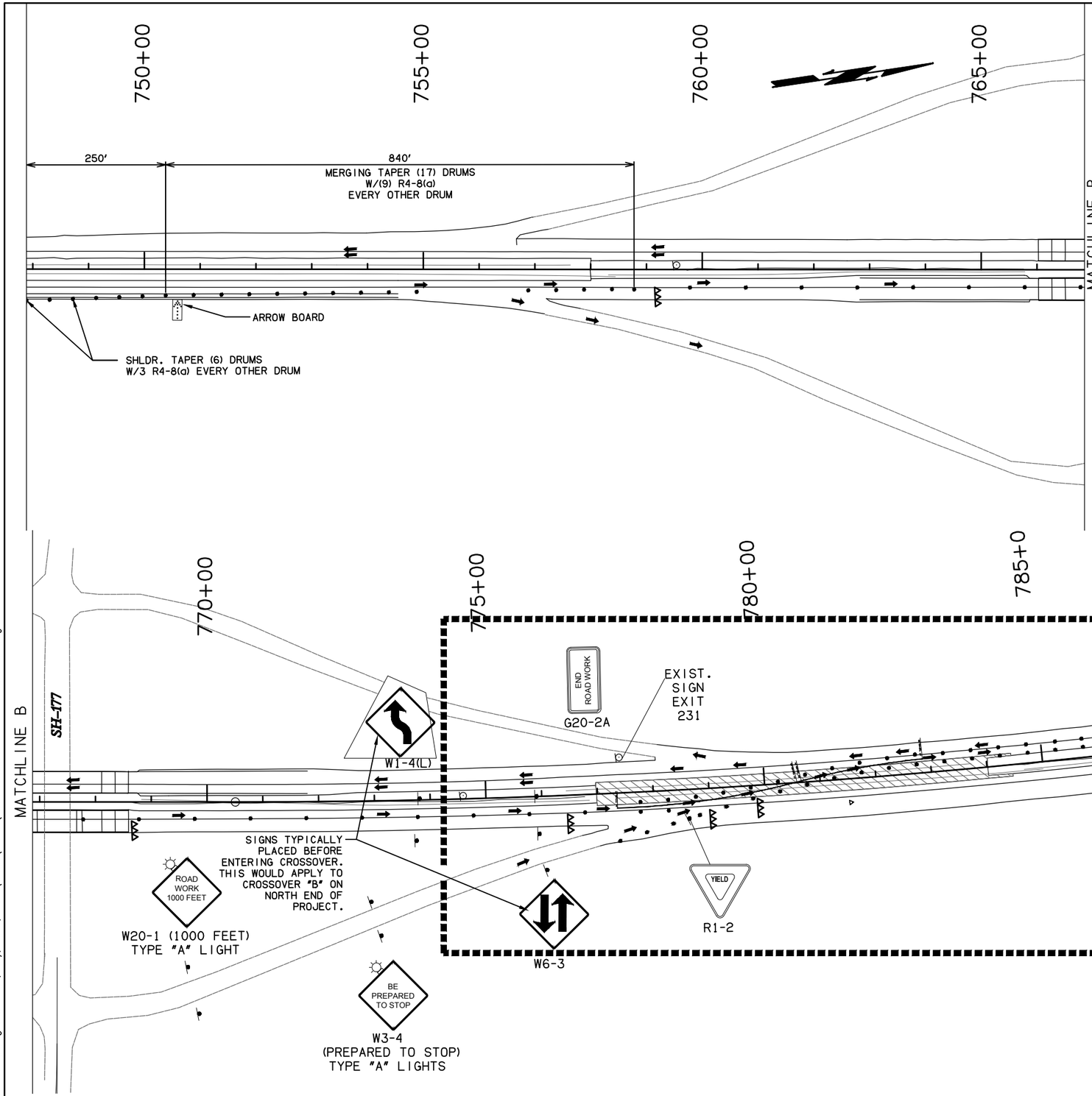
OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

TRAFFIC CONTROL CROSSOVER DETAIL 4

STATE JOB NO. 24432(15) SHEET NO. T007

KAY I-35 BRIDGES US-60 TO OK-KS STATE LINE

Thursday, October 25, 2018 8:26:50 AM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-CROSSOVER TRAFFIC CONTROL.dwg



TRAFFIC CONTROL CROSSOVER "A" FROM NORTH BOUND TO SOUTH BOUND LANES

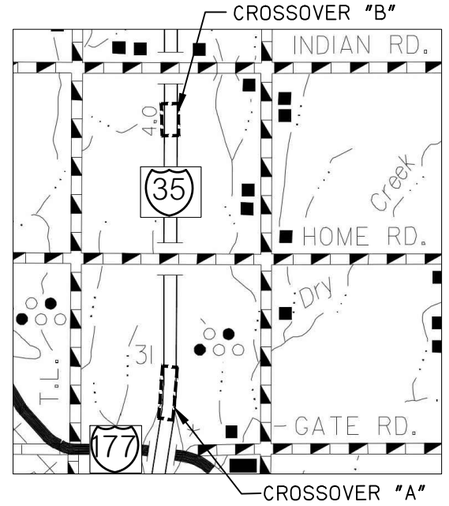
DRAWING NOT TO SCALE

LEGEND

- TYPE III BARRICADE W/TYPE A LIGHTS & R11-2 "ROAD CLOSED"
- SIGN
- DRUM OR OTHER CHANNELIZER
- ARROW DISPLAY
- DIRECTION OF TRAFFIC
- EXISTING PAVED MEDIAN TO BE USED AS CROSSOVER

GENERAL TRAFFIC CONTROL NOTES:

1. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS: SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 75 FEET FOR CHANNELIZER CONES, SPACING SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.
2. FOR TAPERS, A MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (IN FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (MPH). DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.



KEY MAP

REVISIONS		
DESCRIPTION		DATE

DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

TRAFFIC CONTROL CROSSOVER DETAIL 5

STATE JOB NO. 24432(15) SHEET NO. T008

KAY I-35 BRIDGES US-60 TO OK-KS STATE LINE

Thursday, October 25, 2018 8:33:20 AM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-CROSSOVER TRAFFIC CONTROL.dwg

LEGEND

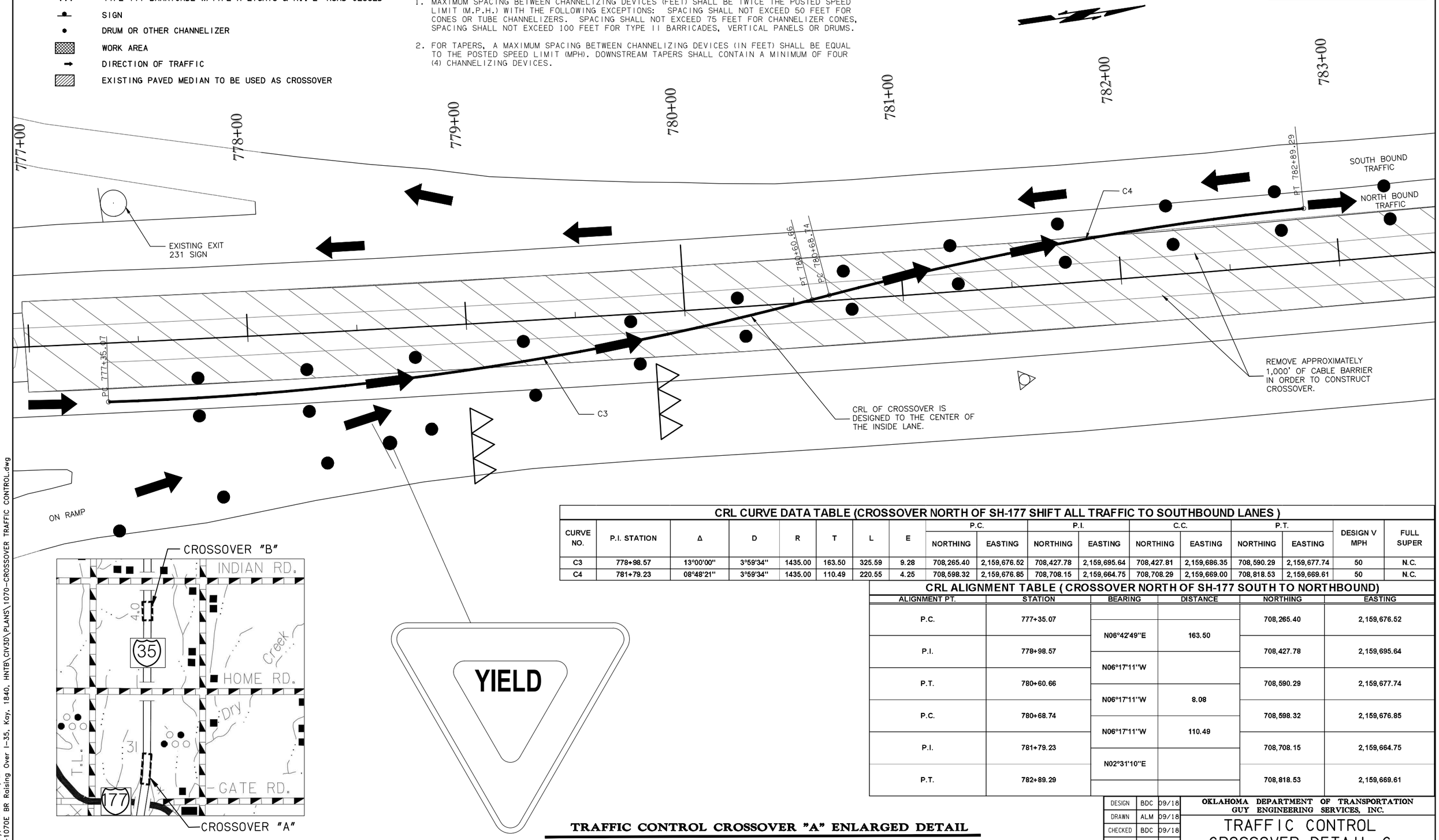
- TYPE III BARRICADE W/TYPE A LIGHTS & R11-2 "ROAD CLOSED"
- SIGN
- DRUM OR OTHER CHANNELIZER
- WORK AREA
- DIRECTION OF TRAFFIC
- EXISTING PAVED MEDIAN TO BE USED AS CROSSOVER

GENERAL TRAFFIC CONTROL NOTES:

1. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS: SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 75 FEET FOR CHANNELIZER CONES, SPACING SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

2. FOR TAPERS, A MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (IN FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (MPH). DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

REVISIONS	
DESCRIPTION	DATE



KEY MAP

TRAFFIC CONTROL CROSSOVER "A" ENLARGED DETAIL

DRAWING NOT TO SCALE

CRL CURVE DATA TABLE (CROSSOVER NORTH OF SH-177 SHIFT ALL TRAFFIC TO SOUTHBOUND LANES)

CURVE NO.	P.I. STATION	Δ	D	R	T	L	E	P.C.		P.I.		C.C.		P.T.		DESIGN V MPH	FULL SUPER
								NORTHING	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING	EASTING		
C3	778+98.57	13°00'00"	3°59'34"	1435.00	163.50	325.59	9.28	708,265.40	2,159,676.52	708,427.78	2,159,695.64	708,427.81	2,159,686.35	708,590.29	2,159,677.74	50	N.C.
C4	781+79.23	08°48'21"	3°59'34"	1435.00	110.49	220.55	4.25	708,598.32	2,159,676.85	708,708.15	2,159,664.75	708,708.29	2,159,669.00	708,818.53	2,159,669.61	50	N.C.

CRL ALIGNMENT TABLE (CROSSOVER NORTH OF SH-177 SOUTH TO NORTHBOUND)

ALIGNMENT PT.	STATION	BEARING	DISTANCE	NORTHING	EASTING
P.C.	777+35.07			708,265.40	2,159,676.52
		N06°42'49"E	163.50		
P.I.	778+98.57			708,427.78	2,159,695.64
		N06°17'11"W			
P.T.	780+60.66			708,590.29	2,159,677.74
		N06°17'11"W	8.08		
P.C.	780+68.74			708,598.32	2,159,676.85
		N06°17'11"W	110.49		
P.I.	781+79.23			708,708.15	2,159,664.75
		N02°31'10"E			
P.T.	782+89.29			708,818.53	2,159,669.61

DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

TRAFFIC CONTROL CROSSOVER DETAIL 6

STATE JOB NO. 24432(15) SHEET NO. T009

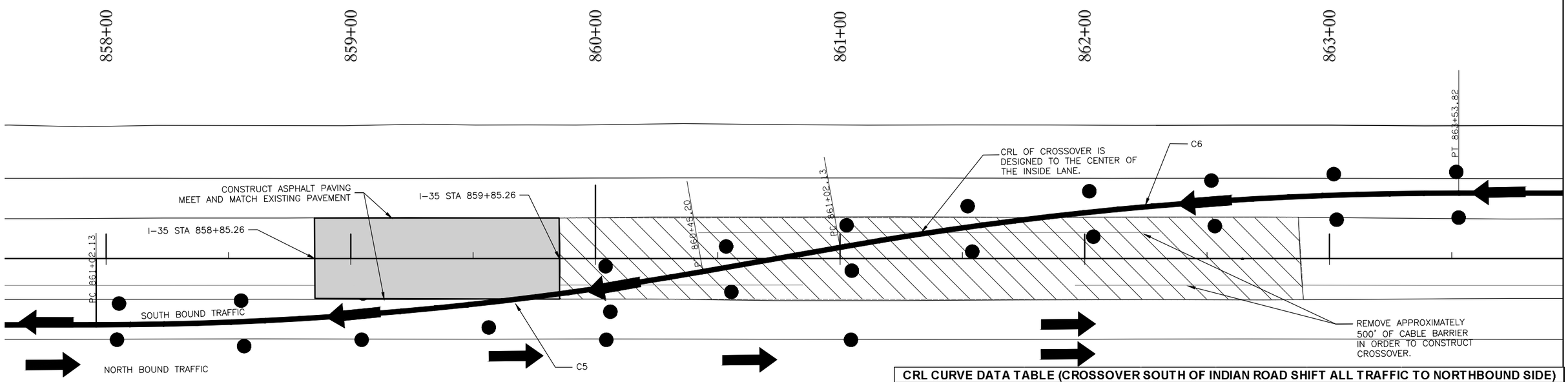
KAY I-35 BRIDGES US-60 TO OK-KS STATE LINE

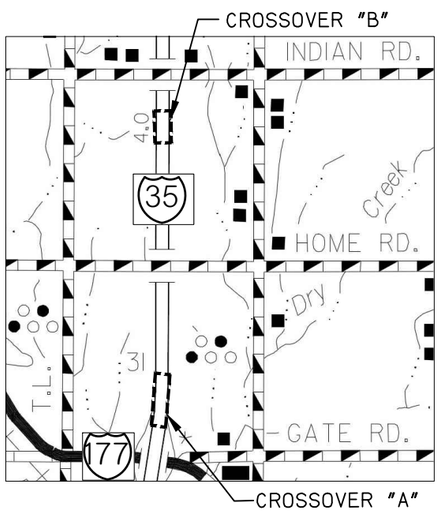
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-CROSSOVER TRAFFIC CONTROL.dwg
Thursday, October 25, 2018 8:34:00 AM

REVISIONS		
DESCRIPTION		DATE

LEGEND

- TYPE III BARRICADE W/TYPE A LIGHTS & R11-2 "ROAD CLOSED"
- SIGN
- DRUM OR OTHER CHANNELIZER
- DIRECTION OF TRAFFIC
- EXISTING PAVED MEDIAN TO BE USED AS CROSSOVER





KEY MAP

CRL CURVE DATA TABLE (CROSSOVER SOUTH OF INDIAN ROAD SHIFT ALL TRAFFIC TO NORTHBOUND SIDE)

ALIGNMENT PT.	STATION	BEARING	DISTANCE	NORTHING	EASTING
P.C.	857+95.93			716,326.57	2,159,715.30
		N00°20'23"W	124.95		
P.I.	859+20.88			716,451.52	2,159,714.57
		N10°17'33"W			
P.T.	860+45.20			716,574.46	2,159,692.24
		N10°17'33"W	56.93		
P.C.	861+02.13			716,630.47	2,159,682.07
		N10°17'33"W	128.65		
P.I.	862+30.78			716,757.05	2,159,659.09
		N00°14'35"W			
P.T.	863+53.82			716,883.22	2,159,658.55

GENERAL TRAFFIC CONTROL NOTES:

1. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS: SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 75 FEET FOR CHANNELIZER CONES, SPACING SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.
2. FOR TAPERS, A MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (IN FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (MPH). DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

CRL CURVE DATA TABLE (CROSSOVER SOUTH OF INDIAN ROAD SHIFT ALL TRAFFIC TO NORTHBOUND SIDE)

CURVE NO.	P.I. STATION	Δ	D	R	T	L	E	P.C.		P.I.		C.C.		P.T.		DESIGN V MPH	FULL SUPER
								NORTHING	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING	EASTING		
C5	856+20.88	9°57'10"	3°59'34"	1435.00	124.95	249.27	5.43	716,326.57	2,159,715.30	716,451.52	2,159,714.57	716,451.01	2,159,709.16	716,574.46	2,159,692.24	50	N.C.
C6	859+30.78	10°2'58"	3°59'34"	1435.00	128.65	251.69	5.54	716,630.47	2,159,682.07	716,757.05	2,159,659.09	716,757.56	2,159,664.60	716,883.22	2,159,658.55	50	N.C.

TRAFFIC CONTROL CROSSOVER "B" ENLARGED DETAIL

DRAWING NOT TO SCALE

DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

TRAFFIC CONTROL CROSSOVER DETAIL 7

STATE JOB NO. 24432(15) SHEET NO. TOIO

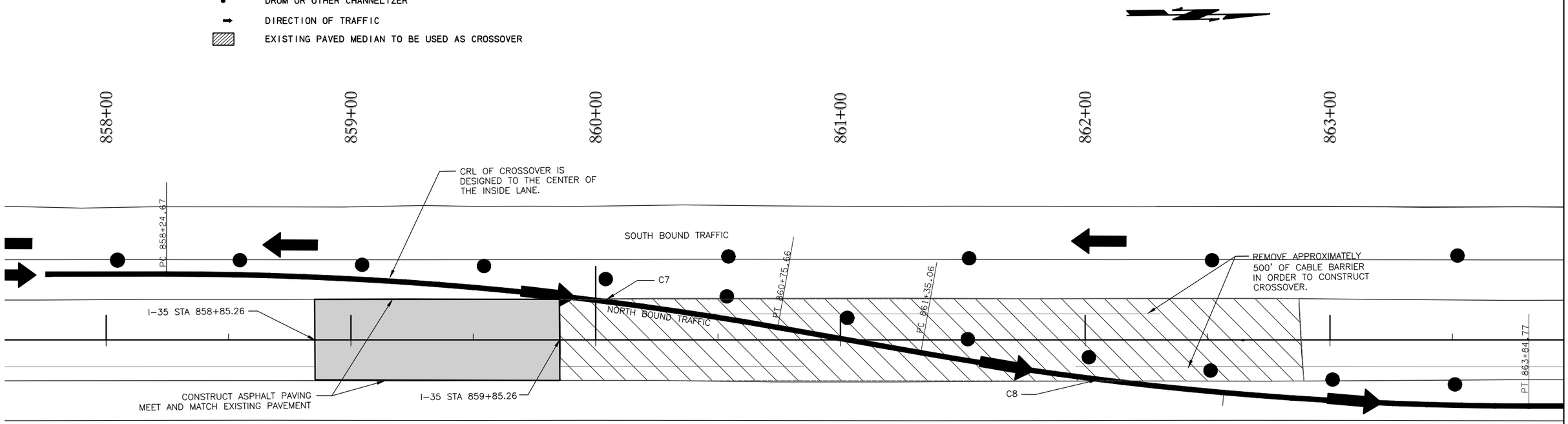
KAYI-35 BRIDGES US-60 TO OK-KS STATE LINE

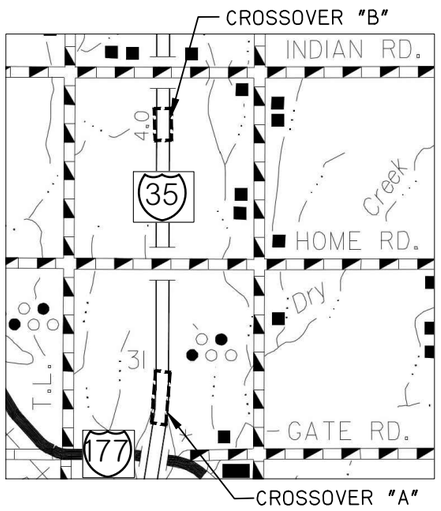
Thursday, October 25, 2018 8:35:17 AM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-CROSSOVER TRAFFIC CONTROL.dwg

REVISIONS		
DESCRIPTION		DATE

LEGEND

- TYPE III BARRICADE W/TYPE A LIGHTS & R11-2 "ROAD CLOSED"
- SIGN
- DRUM OR OTHER CHANNELIZER
- DIRECTION OF TRAFFIC
- EXISTING PAVED MEDIAN TO BE USED AS CROSSOVER





KEY MAP

GENERAL TRAFFIC CONTROL NOTES:

1. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS: SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 75 FEET FOR CHANNELIZER CONES, SPACING SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.
2. FOR TAPERS, A MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (IN FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (MPH). DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

CRL CURVE DATA TABLE (CROSSOVER SOUTH OF INDIAN ROAD SHIFT NORTHBOUND TRAFFIC BACK TO NORTHBOUND LANES)

ALIGNMENT PT.	STATION	BEARING	DISTANCE	NORTHING	EASTING
P.C.	858+24.67			716,355.03	2,159,661.15
		N00°18'49"W	125.82		
P.I.	859+50.49			716,480.84	2,159,660.46
		N9°42'27"E			
P.T.	860+75.66			716,604.85	2,159,681.68
		N9°42'27"E	59.40		
P.C.	861+35.06			716,663.40	2,159,691.69
		N9°42'27"E	125.17		
P.I.	862+60.23			716,786.78	2,159,712.80
		N00°15'45"W			
P.T.	863+84.77			716,911.95	2,159,712.23

CRL CURVE DATA TABLE (CROSSOVER SOUTH OF INDIAN ROAD SHIFT NORTHBOUND TRAFFIC BACK TO NORTHBOUND LANES)

CURVE NO.	P.I. STATION	Δ	D	R	T	L	E	P.C.		P.I.		C.C.		P.T.		DESIGN V MPH	FULL SUPER
								NORTHING	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING	EASTING		
C7	859+50.49	10°01'17"	3°59'34"	1435.00	125.82	250.99	5.51	716,355.03	2,159,661.15	716,480.84	2,159,660.46	716,480.39	2,159,665.95	716,604.85	2,159,681.68	50	N.C.
C8	862+60.23	9°58'13"	3°59'34"	1435.00	125.17	249.71	5.45	716,663.40	2,159,691.69	716,786.78	2,159,712.80	716,787.23	2,159,707.37	716,911.95	2,159,712.23	50	N.C.

TRAFFIC CONTROL CROSSOVER "B" ENLARGED DETAIL

DRAWING NOT TO SCALE

DESIGN	BDC	09/18
DRAWN	ALM	09/18
CHECKED	BDC	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

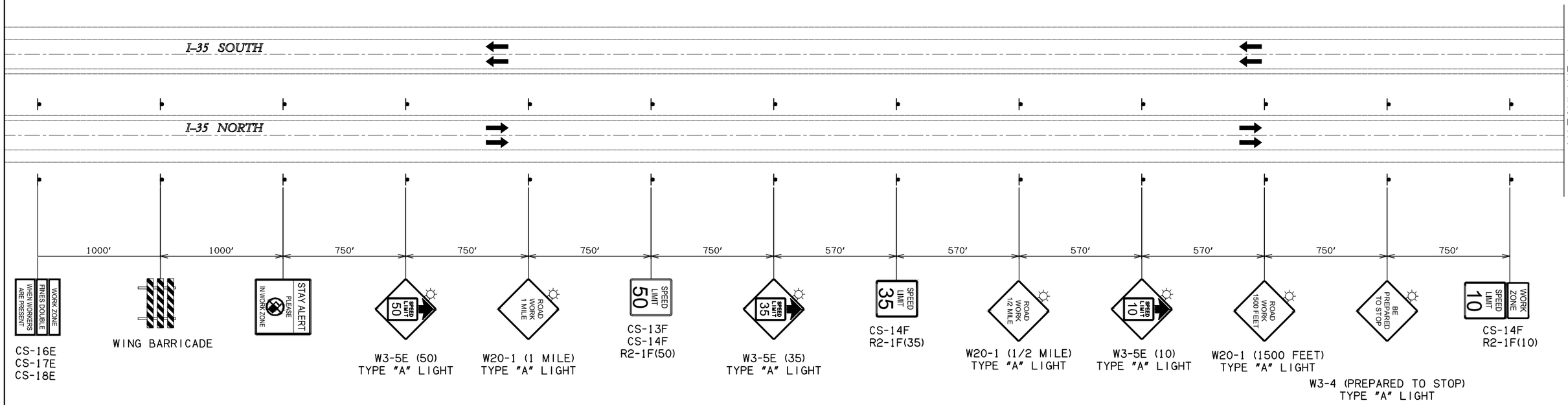
TRAFFIC CONTROL
CROSSOVER DETAIL 8

STATE JOB NO. 24432(15) SHEET NO. T011

KAY I-35 BRIDGES US-60 TO OK-KS STATE LINE

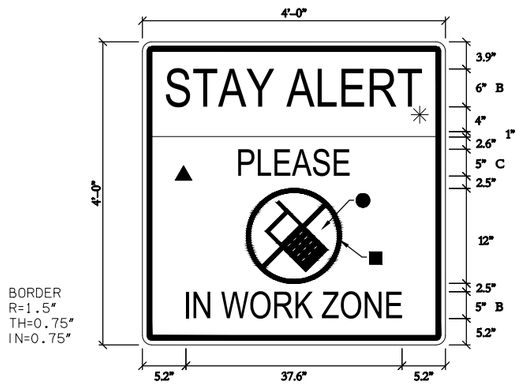
Thursday, October 25, 2018 8:35:49 AM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-CROSSOVER TRAFFIC CONTROL.dwg

REVISIONS	
DESCRIPTION	DATE



LEGEND

- SIGN
- DRUM
- PORTABLE MEDIAN BARRIER
- CONST ZONE IMPACT ATTENUATOR
- TYPE III BARRICADE



BORDER
R=1.5″
TH=0.75″
IN=0.75″

COLOR:
LEGEND, SYMBOL AND BORDER
BLACK (NON-REFLECTORIZED)
BACKGROUND:

- FLUORESCENT ORANGE (REFLECTORIZED)
- FLUORESCENT YELLOW (REFLECTORIZED)
- WHITE (REFLECTORIZED)
- RED (NON-REFLECTORIZED)

DRAWING NOT TO SCALE

DESIGN	MZV	09/18
DRAWN	BDC	09/18
CHECKED	JRW	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

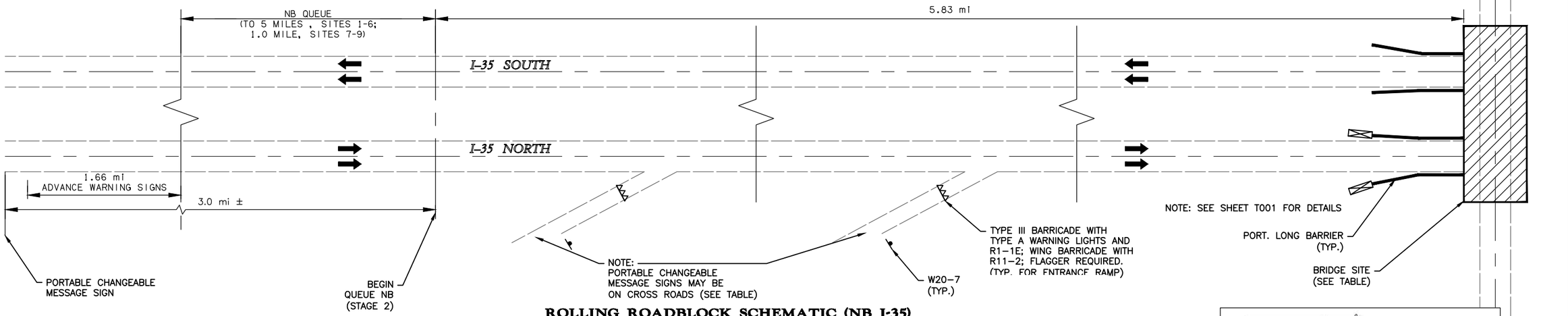
ROLLING ROADBLOCK DETAIL 1

STATE JOB NO. 24432(15) SHEET NO. T012

KAYI-35 BRIDGES US-60 TO OK-KS STATE LINE

Wednesday, October 24, 2018 1:33:15 PM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-ADV WRNING SIGN-ROLL ROADBLCK.dwg

REVISIONS	
DESCRIPTION	DATE



ROLLING ROADBLOCK SCHEMATIC (NB I-35)

Not To Scale

NOTES:

1. THE ROLLING ROADBLOCK OPERATION CONSISTS OF PROVIDING TRAFFIC PACING OPERATIONS TO MOTORISTS WITHIN THE PROJECT AREA, AS SHOWN. IT INCLUDES LOCATING, PROVIDING ROADSIDE ASSISTANCE AND CLEARING TRAFFIC RELATED INCIDENTS. THE USE OF LAW ENFORCEMENT OFFICERS SHALL BE INTEGRATED INTO THE ROLLING ROADBLOCK OPERATIONS. ODOT DIVISION 4 SHALL BE RESPONSIBLE FOR PROCUREMENT OF OKLAHOMA AND KANSAS HIGHWAY PATROL PERSONNEL AND VEHICLES.
2. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN FOR REVIEW AND OBTAIN APPROVAL PRIOR TO IMPLEMENTING THE FIRST ROLLING ROADBLOCK. THE PLAN SHALL INCLUDE A PACING PLAN. THE PACING PLAN SHALL INCLUDE A SUMMARY THE CONTRACTOR'S EQUIPMENT, PERSONNEL, INCLUDING LAW ENFORCEMENT PERSONNEL, AND A DETAILED DESCRIPTION OF THE OPERATION. A CONTINGENCY PLAN SHALL BE INCLUDED TO ACCOUNT FOR BREAKDOWN OF THE CONTRACTOR'S CRITICAL EQUIPMENT AND TO ADDRESS EMERGENCIES THAT REQUIRE EXITING THE QUEUE. IF THERE ARE CERTAIN WORK ACTIVITIES THAT NEED TO BE COMPLETED PRIOR TO START OF WORK, THE ACTIVITIES SHOULD BE CLEARLY DETAILED IN A CHECKLIST THAT IS USED TO ENSURE THAT ALL PREPARATIONS HAVE BEEN MADE PRIOR TO INITIATING THE ROLLING ROADBLOCK.
3. THE ROADBLOCK OPERATION FOR A GIVEN LOCATION SHALL BE CONDUCTED BETWEEN THE HOURS OF 8:00 PM AND 6:00 AM. MONDAY EVENING THROUGH FRIDAY MORNING. IF NECESSARY, ROLLING ROADBLOCKS MAY BE REQUIRED ON WEEKENDS; LANE RENTAL FEES MAY BE INCURRED FOR DAYLIGHT OPERATIONS. ROLLING ROADBLOCKS WILL BE INITIATED SIMULTANEOUSLY IN BOTH DIRECTIONS FOR RAISING OF THE BRIDGE. THE BRIDGE WILL BE RAISED IN STAGES, NECESSITATING MULTIPLE ROLLING ROADBLOCKS (IN EACH DIRECTION).
4. A PLANNING MEETING WITH ALL ROLLING ROADBLOCK PARTICIPANTS SHALL BE HELD TWO TO THREE WEEKS IN ADVANCE OF THE FIRST EVENT TO DEFINE RESPONSIBILITIES AND TO ENSURE THAT THOSE ACTIVITIES REQUIRED FOR ACCOMPLISHING THE TASK WILL BE IN PLACE FOR THE ROADBLOCK. PERSONNEL SHALL INCLUDE AS A MINIMUM, A.) THE LEAD COORDINATOR, WHO IS STATIONED AT THE WORK AREA AND COMMUNICATES WITH THE PACE CARS, B.) AN INDIVIDUAL OR INDIVIDUALS TO COMMUNICATE WITH THE LEAD COORDINATOR CONCERNING WORK STATUS, C.) SELECTED CONSTRUCTION PERSONNEL, AND D.) LAW ENFORCEMENT OFFICERS. FOUR OFFICERS ARE REQUIRED FOR EACH ROLLING ROADBLOCK (FOR EACH DIRECTION). THE PURPOSE OF THE MEETING IS TO IDENTIFY THE LEAD COORDINATOR, SET POINTS OF CONTACTS, TO SET LINES COMMUNICATION, AND TO REVIEW ROLES AND RESPONSIBILITIES. ADDITIONAL MEETINGS WILL BE HELD IF THERE ARE PERSONNEL CHANGES, OR AS NECESSARY. PLANNING MEETINGS WILL BE HELD AT ODOT DIVISION 4 IN PERRY.
5. A FINAL MEETING INVOLVING PARTICIPANTS SHALL BE HELD AT THE BRIDGE SITE TO REVIEW PROCEDURES AND TO ENSURE THAT ALL PRELIMINARY REQUIREMENTS FOR THE ROLLING ROADBLOCK HAVE BEEN IMPLEMENTED.
6. THE CONTRACTOR SHALL SIGN OFF ON THE PRE ROLLING ROADBLOCK CHECKLIST TO CONFIRM THAT EVERYTHING HAS BEEN COMPLETED FOR EACH LIFT. ON-RAMPS AND ENTRANCES BETWEEN THE BEGINNING POINT OF THE PACING AREA AND THE WORK AREA SHALL BE BLOCKED USING FLAGGERS AND TRAFFIC CONTROL DEVICES UNTIL THE PACE SETTING VEHICLES HAVE PASSED. THE CONTRACTOR SHALL PROVIDE TWO-WAY RADIOS THAT SHALL BE UTILIZED TO PROVIDE COMMUNICATION TO PACE VEHICLES, CONTRACTOR'S WORKERS, FLAGGERS STATIONED AT ON-RAMPS, AND THE ENGINEER.
7. A MINIMUM OF THREE WEEKS PRIOR TO THE START OF ROLLING ROADBLOCK OPERATIONS FOR A GIVEN LOCATION, THE CONTRACTOR SHALL PROVIDE THE DATE AND TIMES THAT ROLLING ROADBLOCK OPERATIONS ARE TO BEGIN TO THE ENGINEER, ODOT DISTRICT 4 TRAFFIC ENGINEER, ODOT PUBLIC INFORMATION OFFICE AND THE OKLAHOMA HIGHWAY PATROL TO ENABLE NOTIFICATION TO THE PUBLIC.
8. PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DISPLAYED ONE WEEK PRIOR TO THE START OF A ROLLING ROADBLOCK. MESSAGES SHALL BE CHANGED TO INDICATE WHEN THE ROLLING ROADBLOCK OPERATIONS ARE IN EFFECT. PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE IN ACCORDANCE WITH SECTION 882, CHANGEABLE MESSAGE SIGN.
9. THE MAXIMUM PACING SPEED IS 10MPH.
10. MESSAGE SIGN TEXT SHALL BE PROVIDED BY THE ENGINEER.
11. ALL DETAILS SHOWN ON SHEET T001 APPLY, AS LONG AS SHOULDERS ARE CLOSED AT THE BRIDGE AND THE ROLLING ROADBLOCK IS NOT IN OPERATION. T001 SIGNS ARE COVERED WHEN THE ROLLING ROADBLOCK IS IN OPERATION. T012 SIGNS ARE COVERED WHEN THE ROLLING ROADBLOCK IS NOT IN EFFECT.
12. AS SHOWN, THE ROLLING ROADBLOCK IS BASED ON 30 MINUTES PER PHASE OF BRIDGE RAISING. MULTIPLE PHASES MAY BE REQUIRED.

METHOD OF MEASUREMENT

1. THE ROLLING ROADBLOCK OPERATION WILL BE PAID FOR UNDER CONSTRUCTION TRAFFIC CONTROL.
2. CHANGEABLE MESSAGE SIGNS WILL BE MEASURED AND PAID FOR IN ACCORDANCE WITH SECTION 882.06.

BASIS OF PAYMENT

PAYMENT WILL BE MADE UNDER:

PAY ITEM	PAY UNIT
880 (J) CONSTRUCTION TRAFFIC CONTROL	LUMP SUM

PAYMENT FOR CONSTRUCTION SIGNING WILL BE MEASURED AND PAID FOR UNDER THE APPROPRIATE CONSTRUCTION SIGNING.

CHANGEABLE MESSAGE SIGNS AS REQUIRED WILL BE MEASURED AND PAID FOR IN ACCORDANCE WITH SECTION 882.06, CHANGEABLE MESSAGE SIGN.

TRAFFIC CONTROL OFFICERS AND VEHICLES WILL BE PAID FOR UNDER CONSTRUCTION TRAFFIC CONTROL.

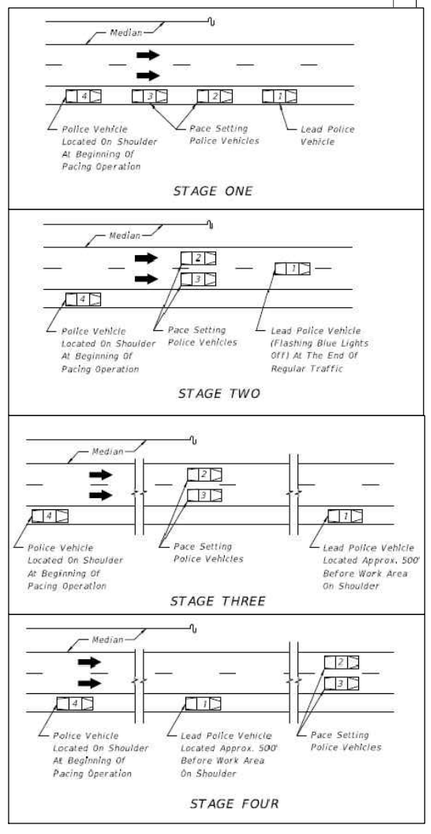
PAYMENT FOR FLAGGERS WILL BE PAID FOR UNDER PAY ITEM 880(I), FLAGGING.

PAYMENT FOR TWO-WAY RADIOS WILL NOT BE MEASURED AND PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK.

PAYMENT FOR TEMPORARY CONCRETE BARRIER WALLS, IF REQUIRED, WILL NOT BE MEASURED AND PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK.

Site	Location	Type	Ramp(s) Upstream	Approx.Dist. From Site (mi)	Type III Barricades (SD)	Wing Barricades (ramps) (SD)	Flagger (SD)	Port. Change. Messge Signs (Crossroad) (SD)
1-NB	North	Raising	E0250	1.8	1	1	1	
			Local Road	5.4	1	1	1	
1-SB	North	Raising	US 60	0.8	1	1	1	14
			Hubbard Road	4.8	1	1	1	
2-NB	Highland	Raising	US 60	0.9	1	1	1	14
			E0250	3.0	1	1	1	
2-SB	Highland	Raising	Hubbard Road	2.8	1	1	1	
3-NB	Hartford	Raising	US 60	1.9	1	1	1	14
			E0250	4.0	1	1	1	
3-SB	Hartford	Raising	Hubbard Road	1.8	1	1	1	
4-NB	Coleman	Raising	Hubbard Road	1.0	1	1	1	
			US 60	5.0	1	1	1	14
4-SB	Coleman	Raising	SH 11	2.8	1	1	1	14
5-NB	Chrysler	Raising	Hubbard Road	1.9	1	1	1	
			US 60	5.8	1	1	1	14
5-SB	Chrysler	Raising	SH 11	1.7	1	1	1	14
6-NB	Ferguson	Raising	Hubbard Road	3.0	1	1	1	
6-SB	Ferguson	Raising	SH 11	0.8	1	1	1	14
7-NB	Adobe	Raising	SH 11	1.0	1	1	1	14
			Hubbard Road	4.9	1	1	1	
7-SB	Adobe	Raising	(None)					
8-NB	Home	Demo	US 177	1.0	1	1	1	14
			County Road	1.9	1	1	1	
8-SB	Home	Demo	Weigh Station	1.7	1	1	1	
9-NB	Indian	Raising	US 177	1.9	1	1	1	14
			County Road	2.8	1	1	1	
9-SB	Indian	Raising	Weigh Station	0.6	1	1	1	
				Totals:	26	26	26	154

SUMMARY: TRAFFIC CONTROL DEVICES



ROLLING ROADBLOCK OPERATIONS (EXAMPLE)

NOTE: OPERATIONS PLAN TO BE DETERMINED BY HIGHWAY PATROL.

DRAWING NOT TO SCALE

DESIGN	MZV	09/18
DRAWN	DGD	09/18
CHECKED	JRW	09/18
APPROVED	JRW	09/18
SQUAD		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
GUY ENGINEERING SERVICES, INC.

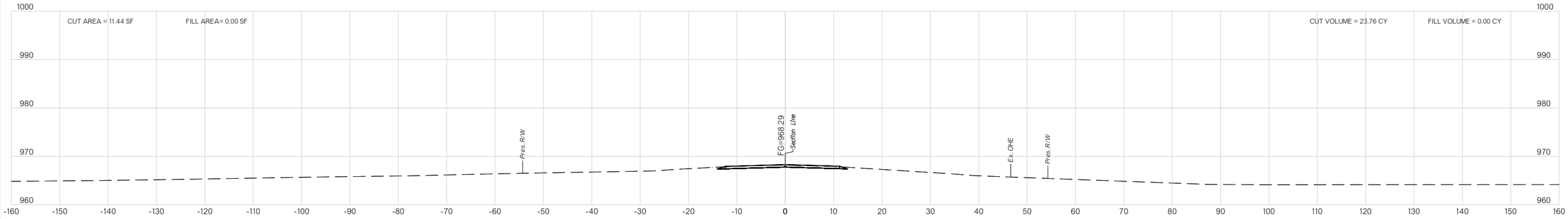
ROLLING ROADBLOCK DETAIL 2

STATE JOB NO. 24432(15) SHEET NO. T013

KAY I-35 BRIDGES US-60 TO OK-KS STATE LINE

Wednesday, October 24, 2018 2:37:07 PM
V:\16-1070E BR Raising Over I-35, Kay, 1840, HNTB\CIV3D\PLANS\1070-TRAFF CNTRL ROLLING RDBLOCK.dwg

REVISIONS	
DESCRIPTION	DATE



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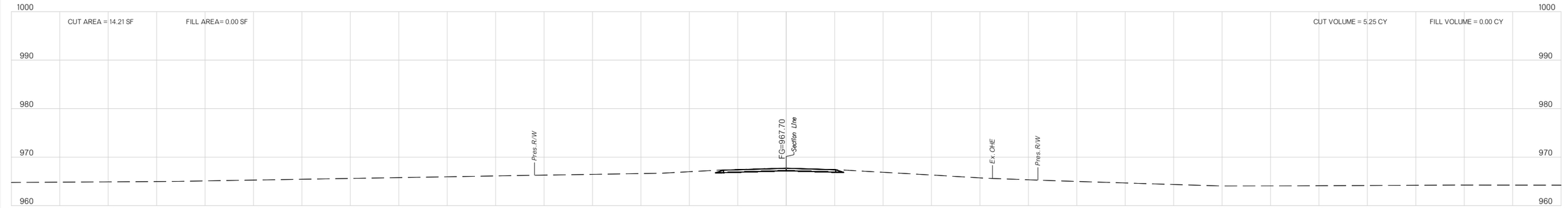
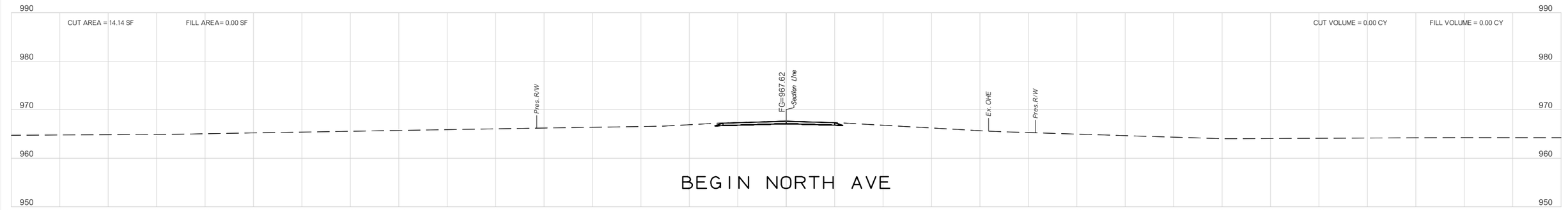


18+50.00



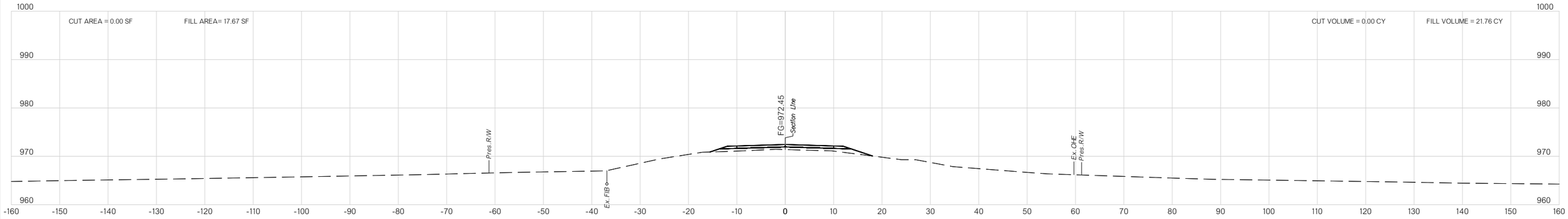
BEGIN NORTH AVE

18+40.00

Wednesday, October 24, 2018 1:33:50 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L CIV3D\L PLANS\L NORTH\L 1070-NORTH SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD NORTH AVE STATE JOB NO. 24432(15) SHEET NO. X001

REVISIONS	
DESCRIPTION	DATE



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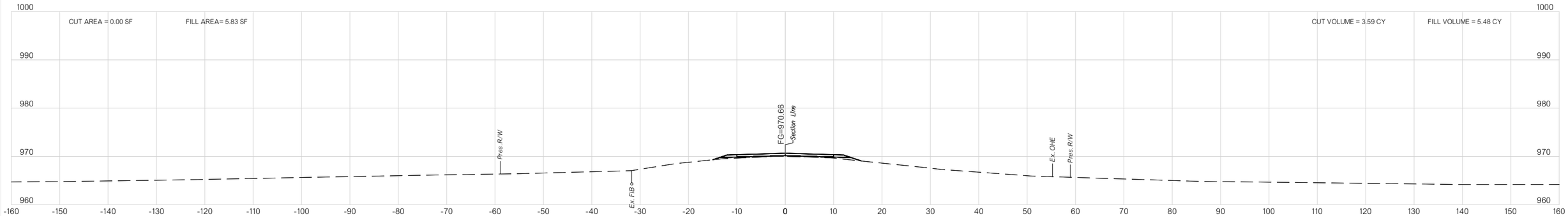

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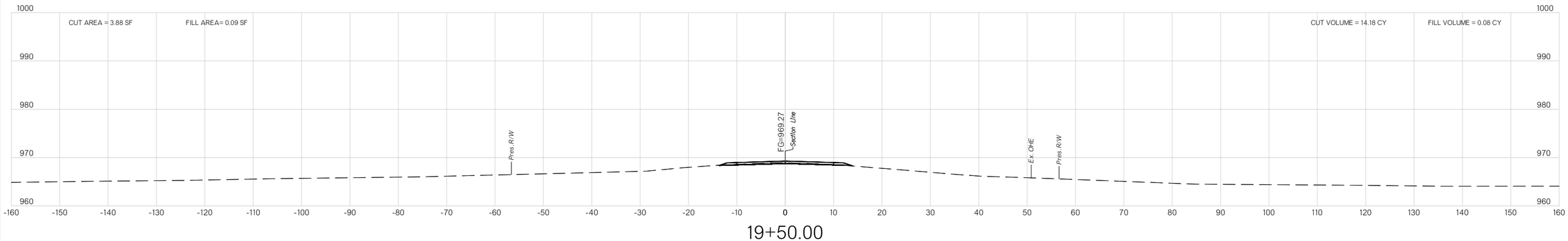
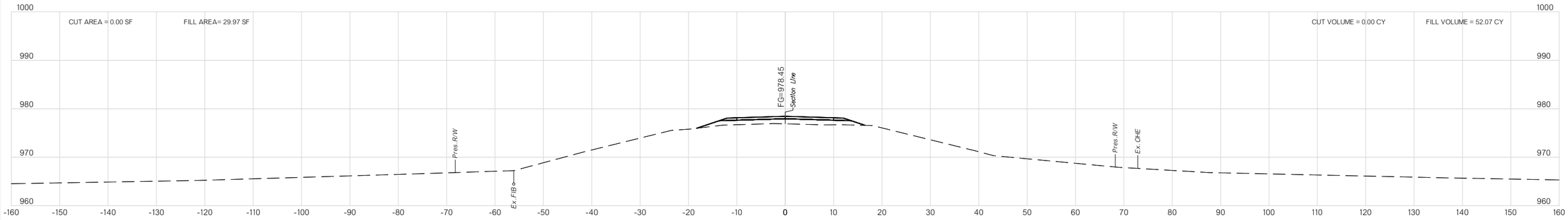


19+50.00

COUNTY KAY HIGHWAY/ROAD NORTH AVE STATE JOB NO. 24432(15) SHEET NO. X002

Wednesday, October 24, 2018 1:34:02 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L CIV3D\L PLANS\L NORTH\L 1070-NORTH SECTIONS.dwg

REVISIONS	
DESCRIPTION	DATE



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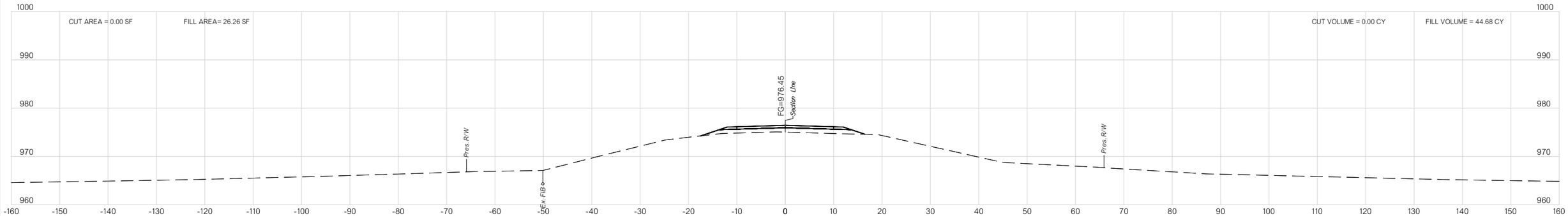

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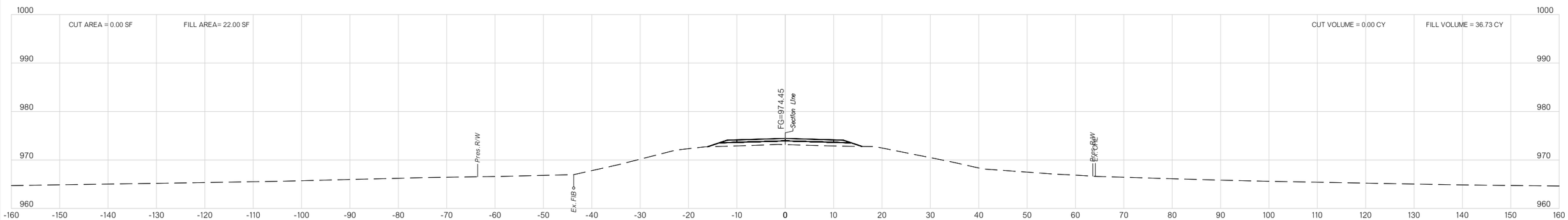

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Wednesday, October 24, 2018 1:34:11 PM
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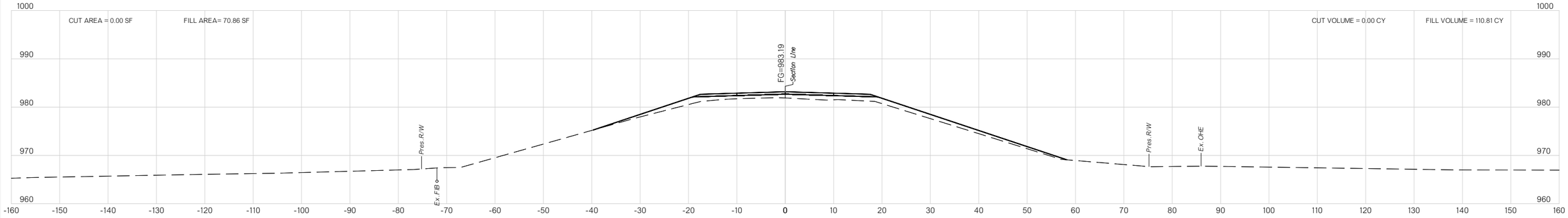
COUNTY KAY HIGHWAY/ROAD NORTH AVE STATE JOB NO. 24432(15) SHEET NO. X003

REVISIONS	
DESCRIPTION	DATE



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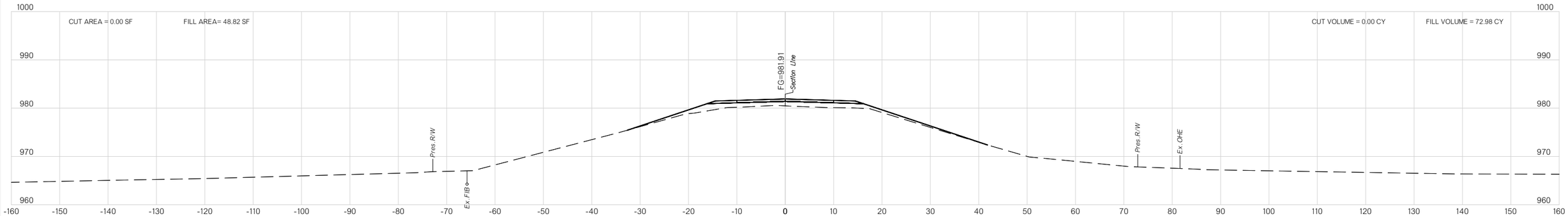

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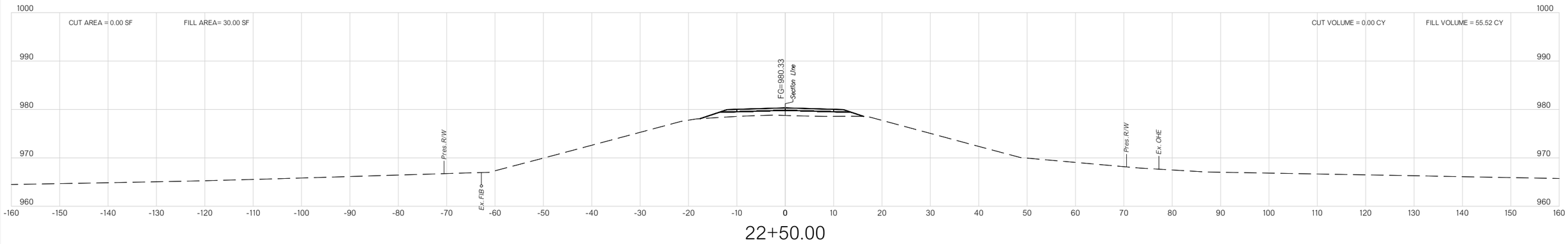
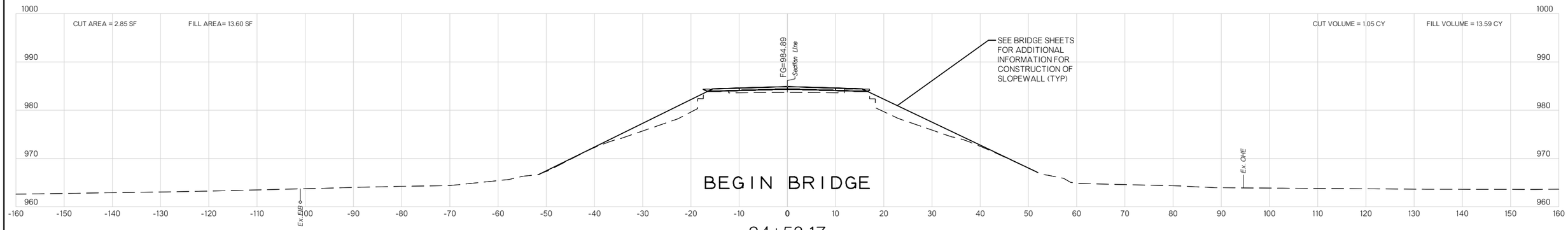


22+50.00

Wednesday, October 24, 2018 1:34:22 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L CIV\3D\L PLANS\L NORTH\L 1070-NORTH SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD NORTH AVE STATE JOB NO. 24432(15) SHEET NO. X004

REVISIONS	
DESCRIPTION	DATE



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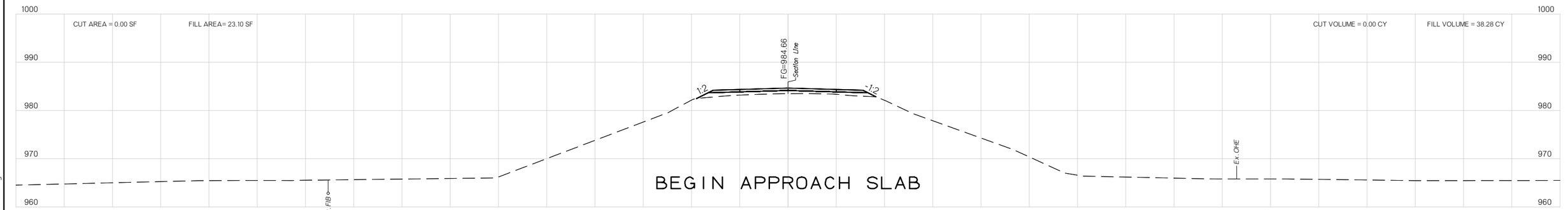

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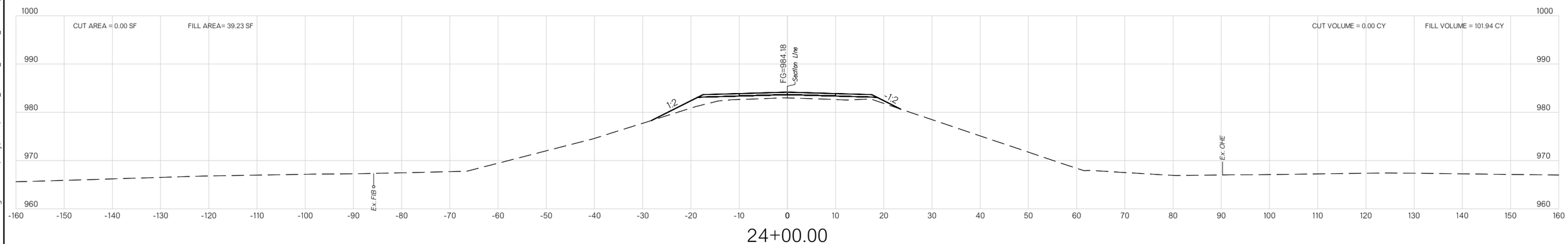

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COUNTY KAY HIGHWAY/ROAD NORTH AVE STATE JOB NO. 24432(15) SHEET NO. X005

Friday, October 26, 2018 9:13:44 AM
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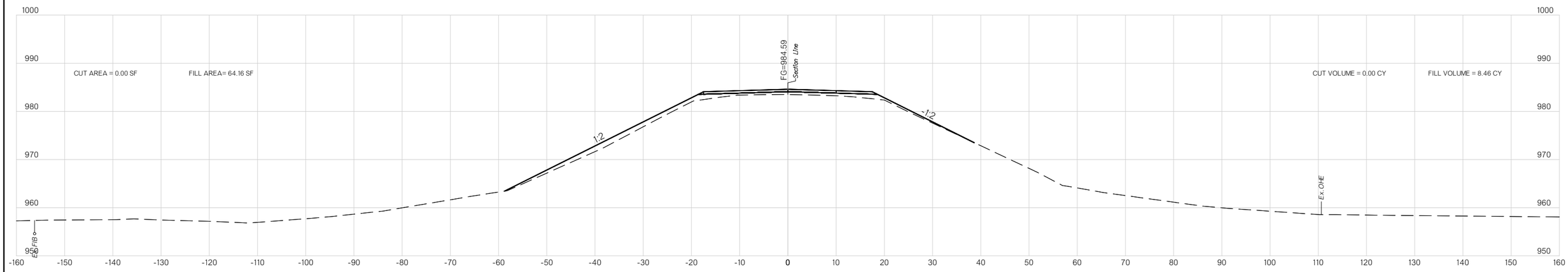
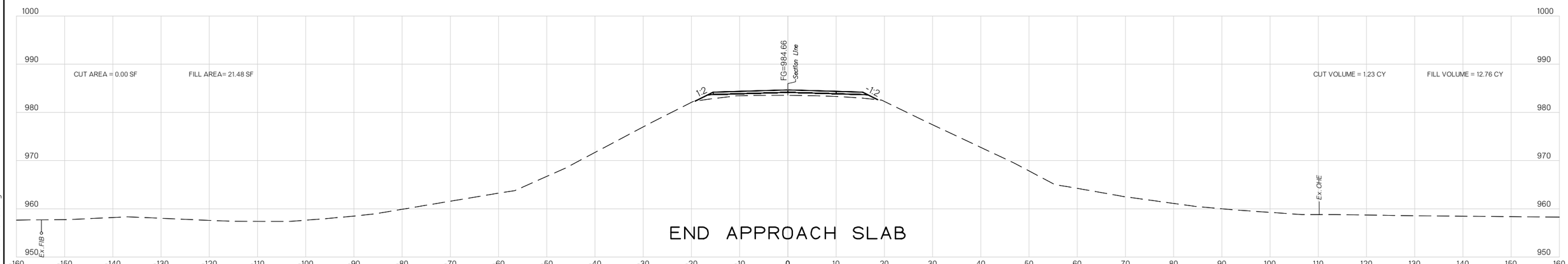
REVISIONS	
DESCRIPTION	DATE

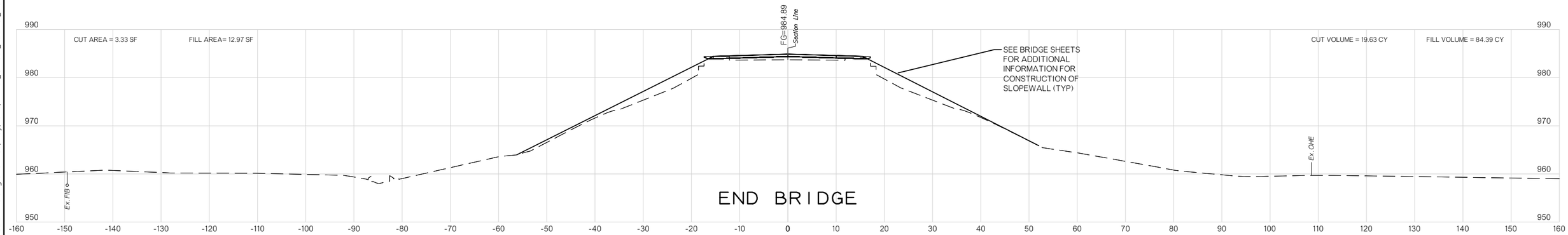


26+50.00



END APPROACH SLAB

26+44.67



END BRIDGE

26+24.67

COUNTY KAY HIGHWAY/ROAD NORTH AVE STATE JOB NO. 24432(15) SHEET NO. X006

Friday, October 26, 2018 9:14:28 AM
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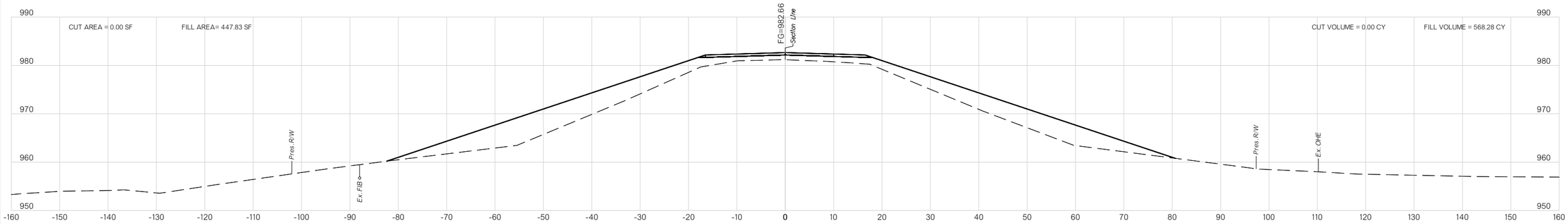
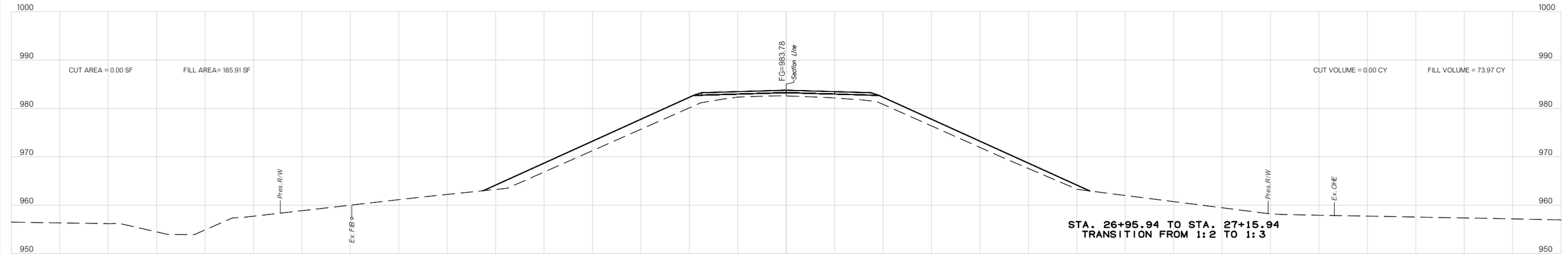
REVISIONS	
DESCRIPTION	DATE



27+50.00



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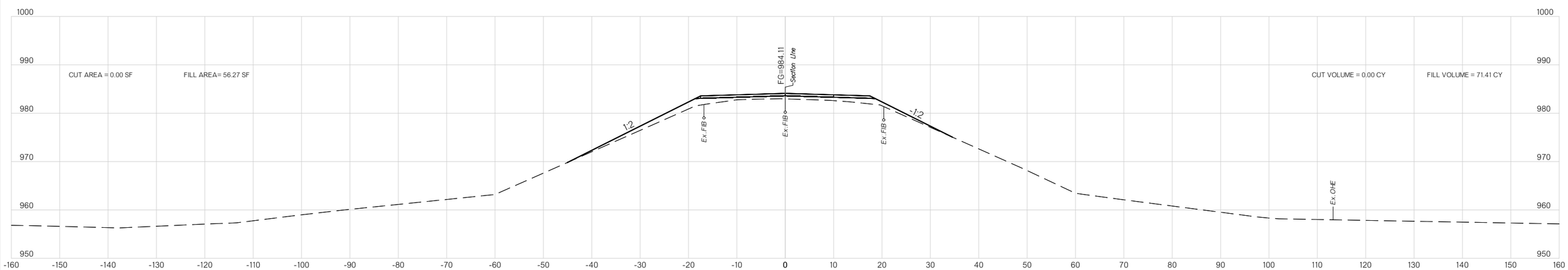

26+82.02

COUNTY KAY HIGHWAY/ROAD NORTH AVE STATE JOB NO. 24432(15) SHEET NO. X007

Wednesday, October 24, 2018 1:34:51 PM
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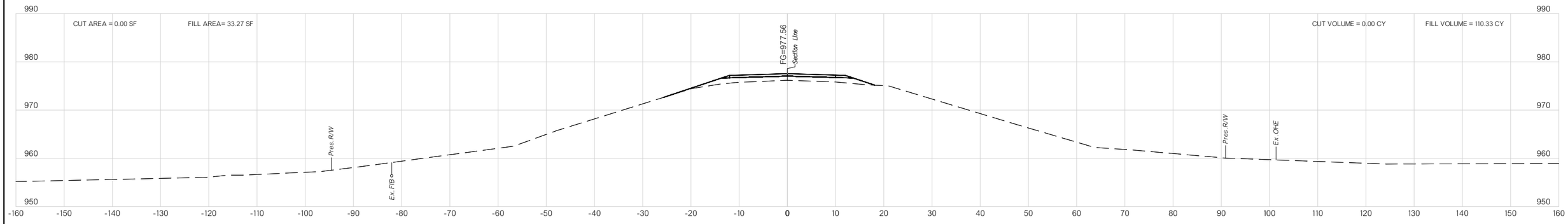
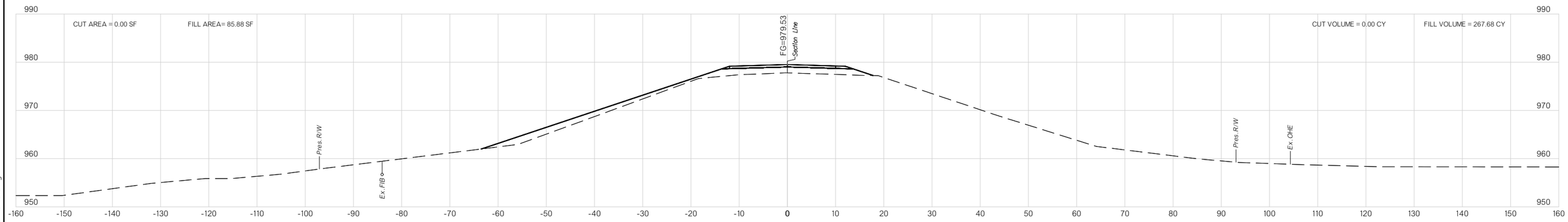
REVISIONS	
DESCRIPTION	DATE



29+00.00



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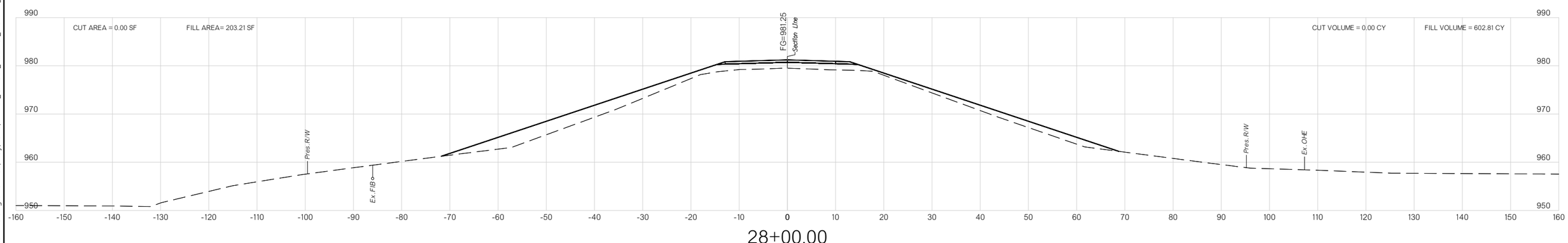
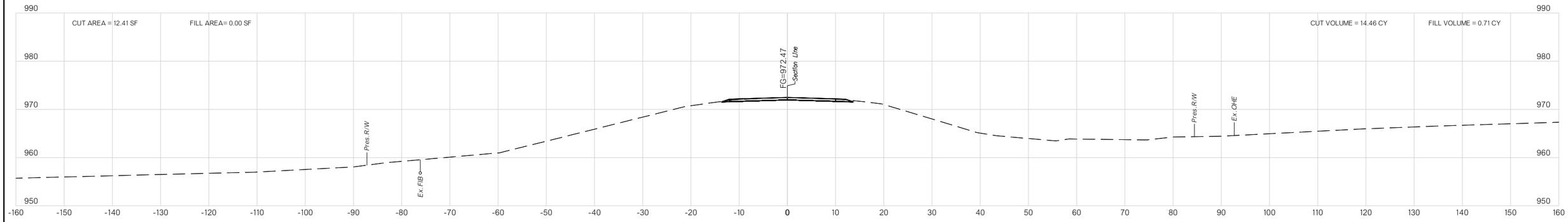


28+00.00

Thursday, October 25, 2018 12:56:38 PM
V:\FL16-1070E BR Raising Over I-35, Kay, 18.40, HNTB\FL\CIV3D\FL_PLANS\FL_NORTH\FL1070-NORTH SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD NORTH AVE STATE JOB NO. 24432(15) SHEET NO. X008

REVISIONS	
DESCRIPTION	DATE



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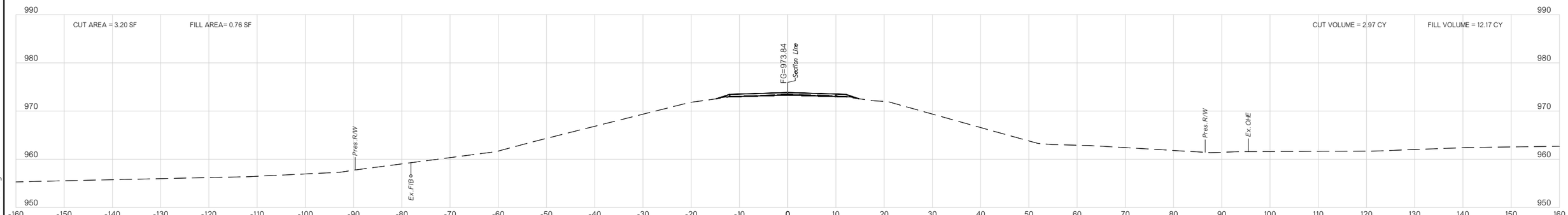
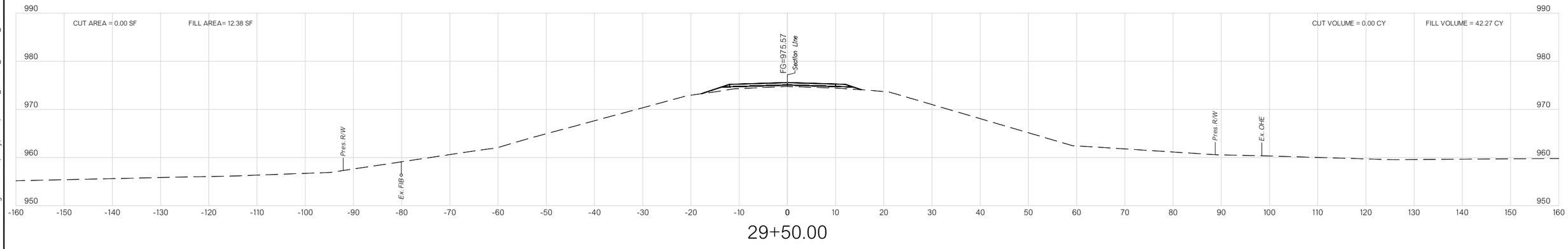


30+00.00



29+50.00

Thursday, October 25, 2018 12:57:31 PM
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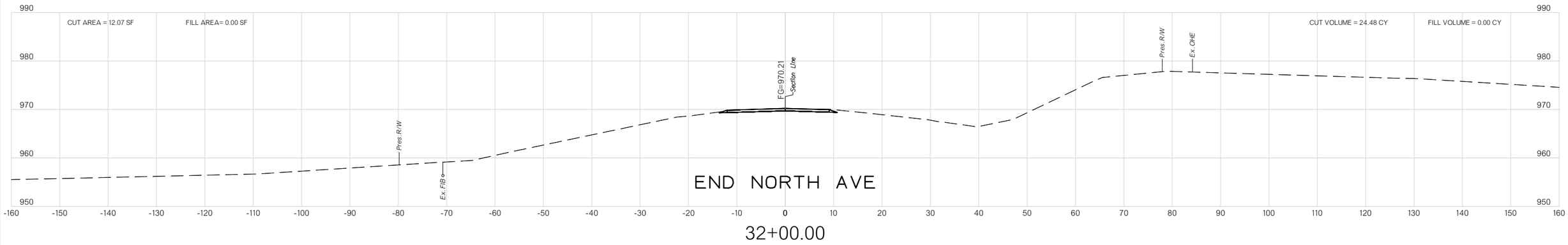
COUNTY KAY HIGHWAY/ROAD NORTH AVE STATE JOB NO. 24432(15) SHEET NO. X009

REVISIONS	
DESCRIPTION	DATE



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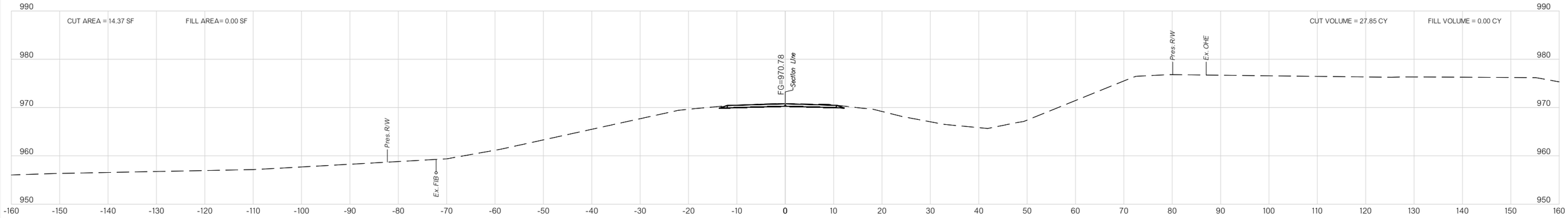
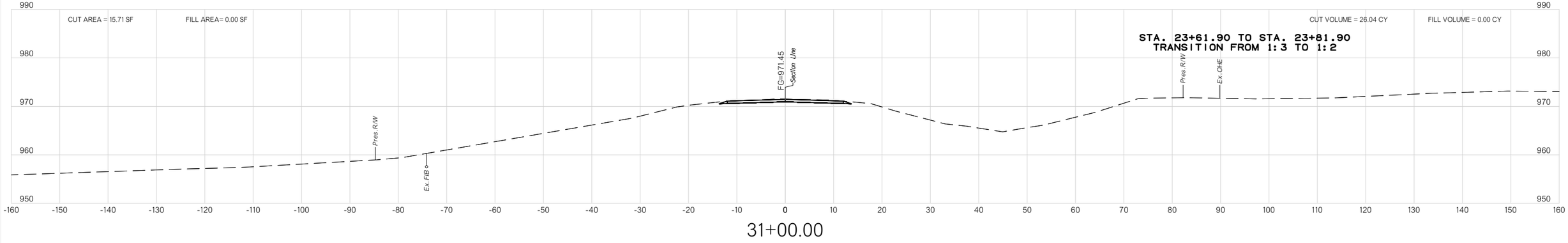


31+50.00

CAUTION
FIBER OPTIC
CROSSING



31+00.00

Wednesday, October 24, 2018 1:35:21 PM
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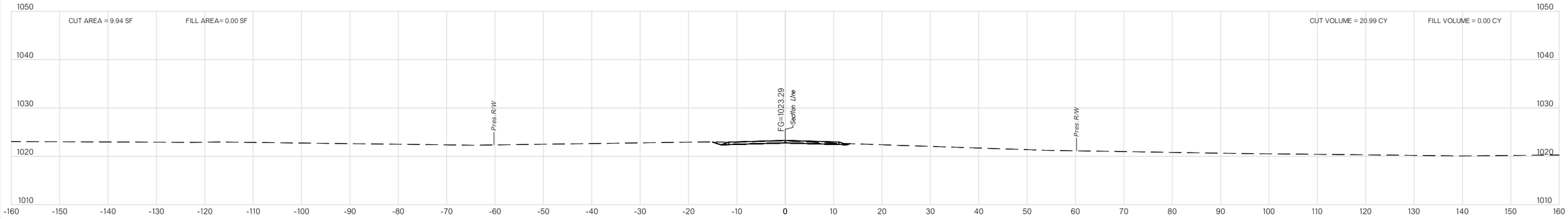
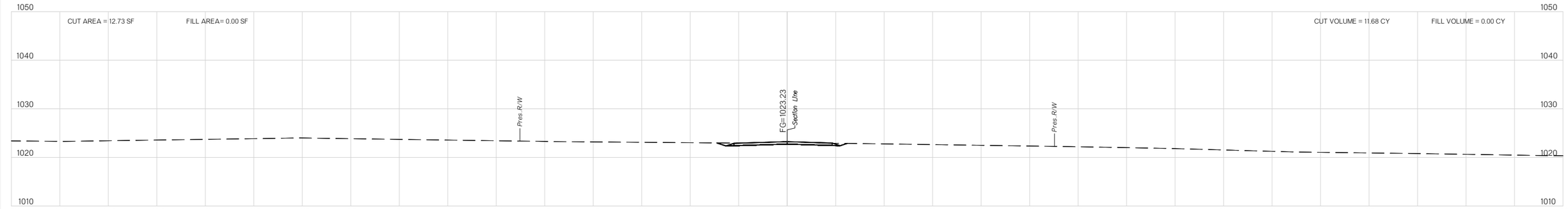
COUNTY KAY HIGHWAY/ROAD NORTH AVE STATE JOB NO. 24432(15) SHEET NO. X010

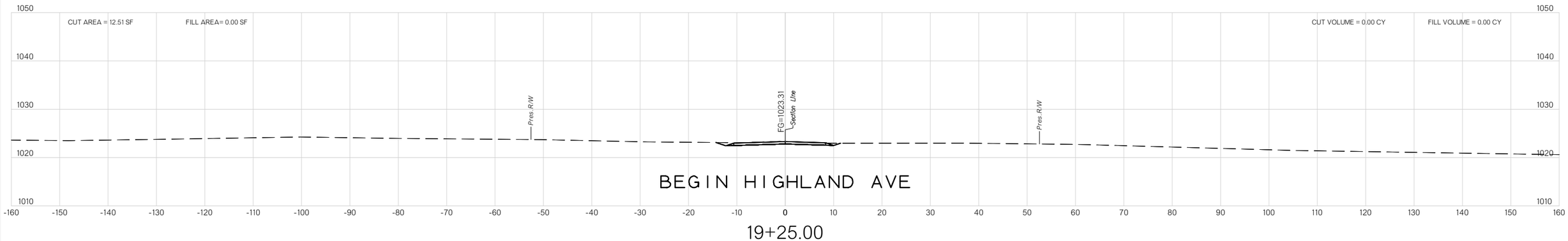
REVISIONS	
DESCRIPTION	DATE



20+00.00



19+50.00



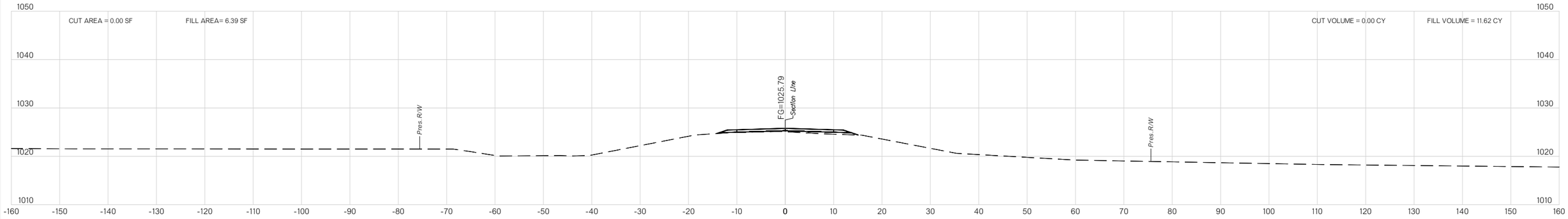
BEGIN HIGHLAND AVE

19+25.00

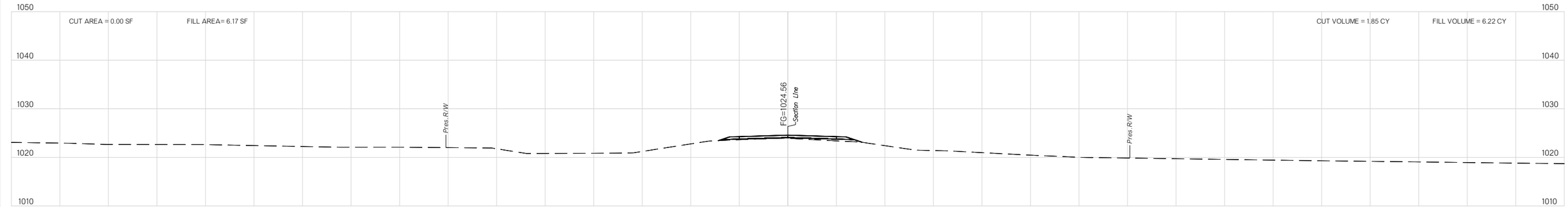
COUNTY KAY HIGHWAY/ROAD HIGHLAND AVE STATE JOB NO. 24432(15) SHEET NO. X011

Wednesday, October 24, 2018 1:35:43 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L_CIV3D\L_PLANS\L_HIGHLAND\L_1070-HIGHLAND SECTIONS.dwg

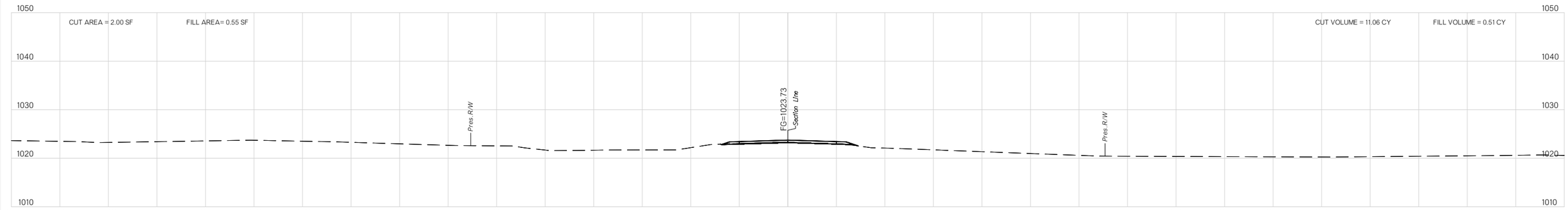
REVISIONS	
DESCRIPTION	DATE



21+50.00



21+00.00



20+50.00

COUNTY KAY HIGHWAY/ROAD HIGHLAND AVE STATE JOB NO. 24432(15) SHEET NO. X012

Wednesday, October 24, 2018 1:35:50 PM
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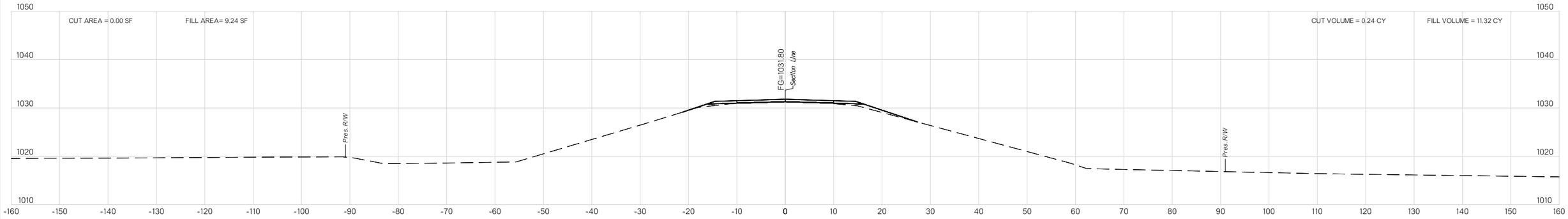
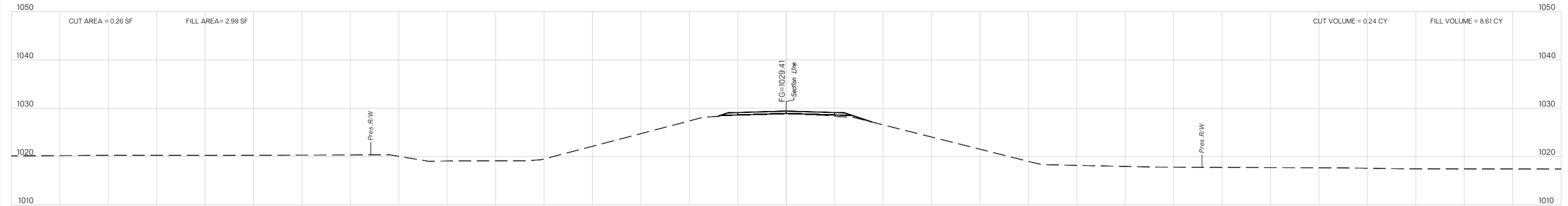
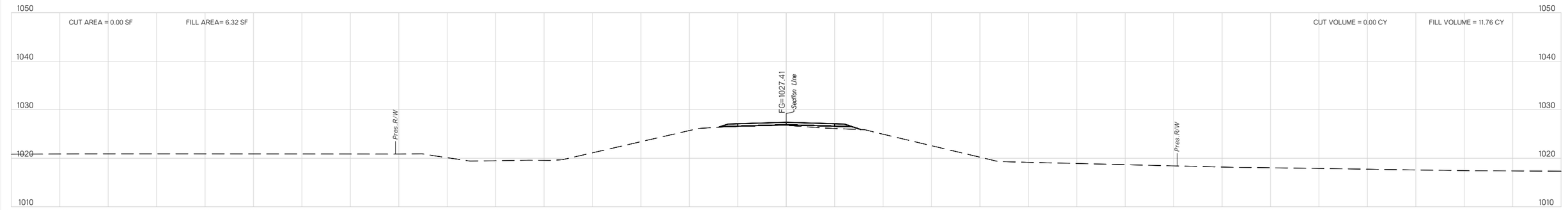
REVISIONS	
DESCRIPTION	DATE



23+00.00



22+50.00



22+00.00

COUNTY KAY HIGHWAY/ROAD HIGHLAND AVE STATE JOB NO. 24432(15) SHEET NO. X013

Wednesday, October 24, 2018 1:36:00 PM
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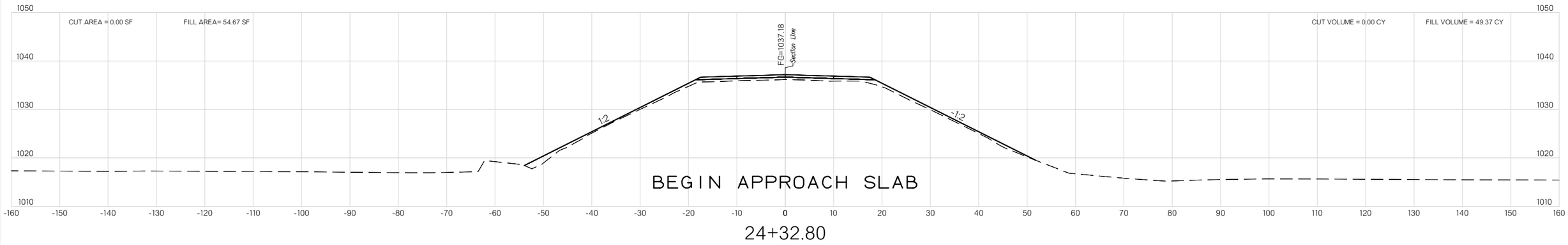
REVISIONS	
DESCRIPTION	DATE



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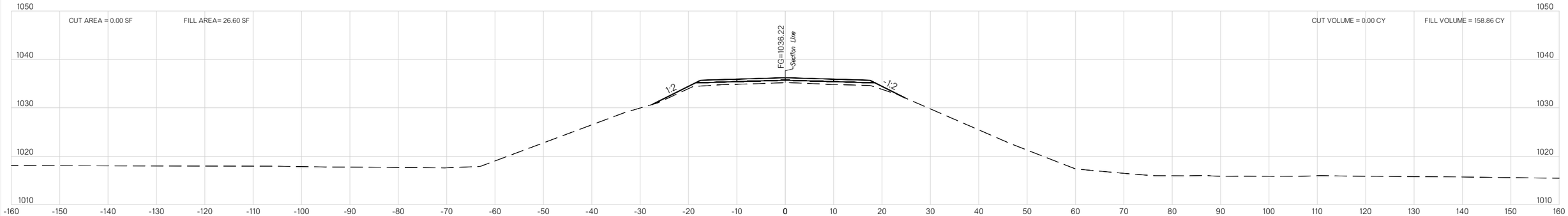
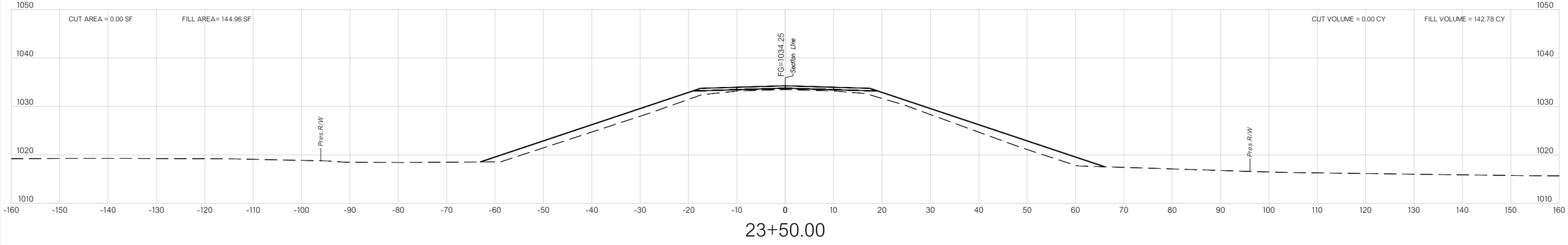


24+00.00



23+50.00

Wednesday, October 24, 2018 1:36:10 PM
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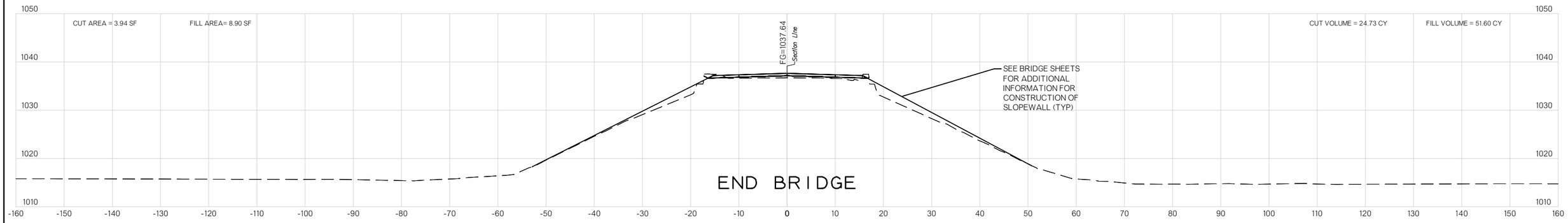
COUNTY KAY HIGHWAY/ROAD HIGHLAND AVE. STATE JOB NO. 24432(15) SHEET NO. X014

REVISIONS	
DESCRIPTION	DATE



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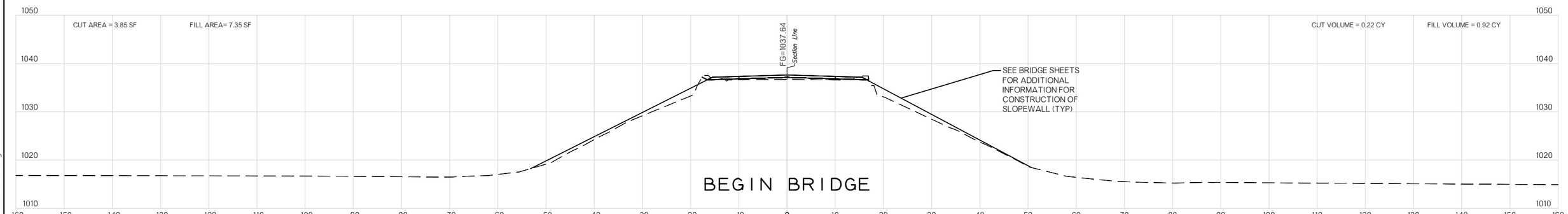

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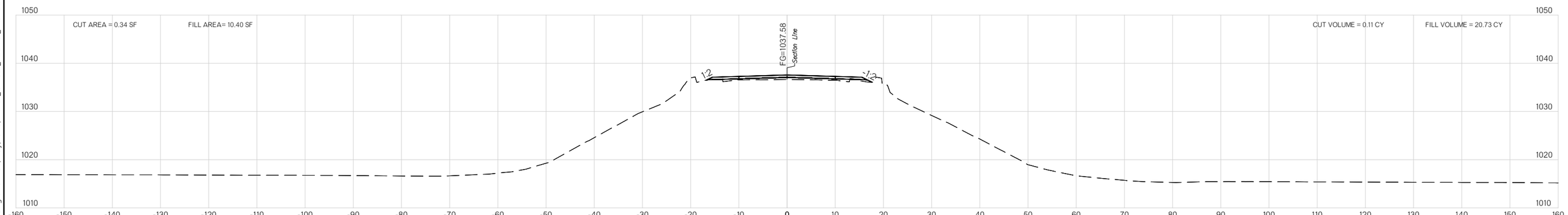

24+50.00

Friday, October 26, 2018 9:34:33 AM
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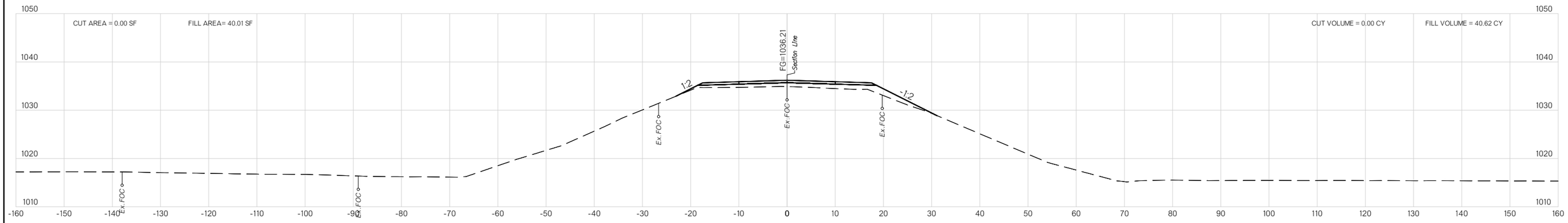
COUNTY KAY HIGHWAY/ROAD HIGHLAND AVE STATE JOB NO. 24432(15) SHEET NO. X015

REVISIONS	
DESCRIPTION	DATE



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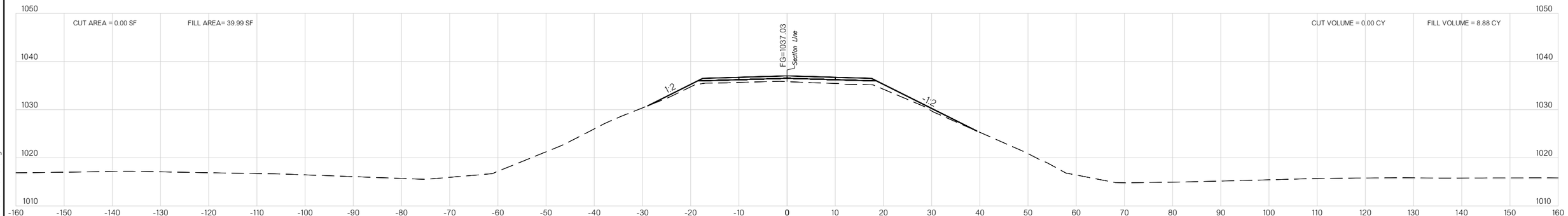

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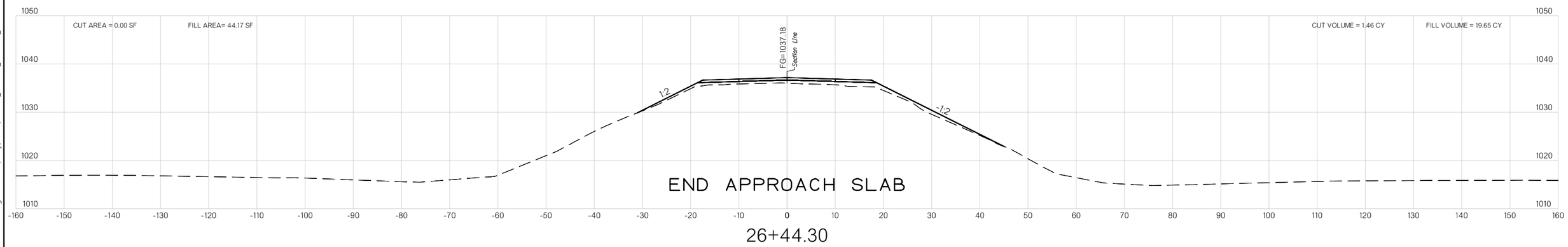
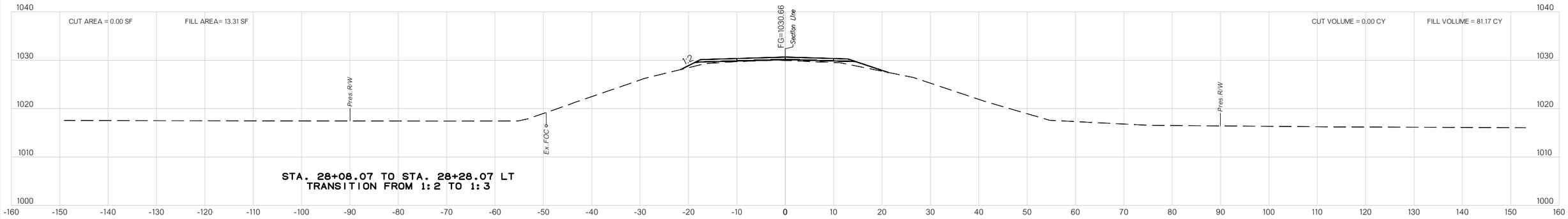


26+44.30

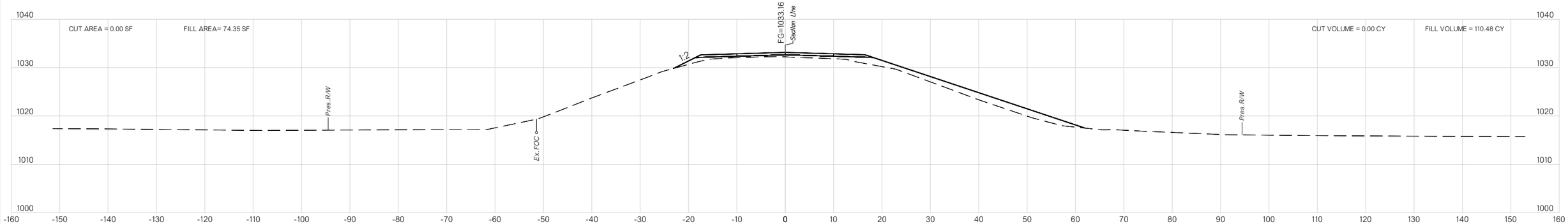
Thursday, October 25, 2018 1:00:08 PM
V:\L16-1070E BR Raising Over I-35, Kay, 18-40, HNTB\L CIV3D\L PLANS\L HIGHLAND\L 1070-HIGHLAND SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD HIGHLAND AVE STATE JOB NO. 24432(15) SHEET NO. X016

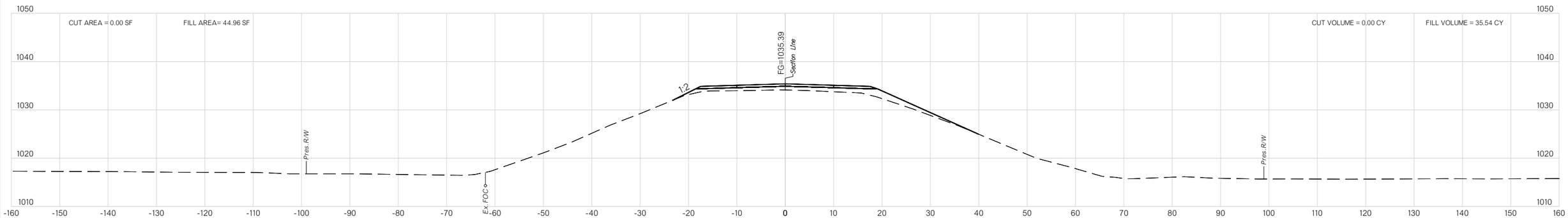
REVISIONS	
DESCRIPTION	DATE



28+00.00



27+50.00



27+00.00

Wednesday, October 24, 2018 1:36:40 PM
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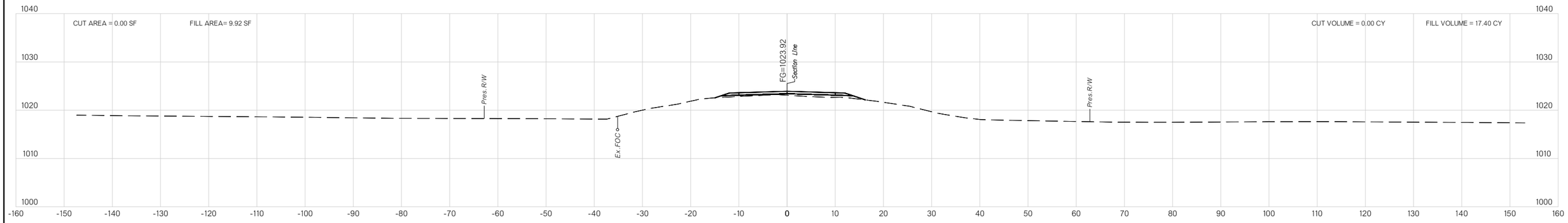
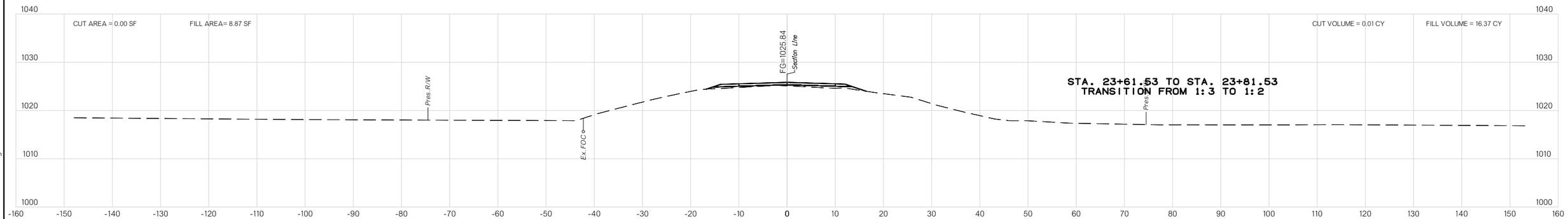
COUNTY KAY HIGHWAY/ROAD HIGHLAND AVE STATE JOB NO. 24432(15) SHEET NO. X017

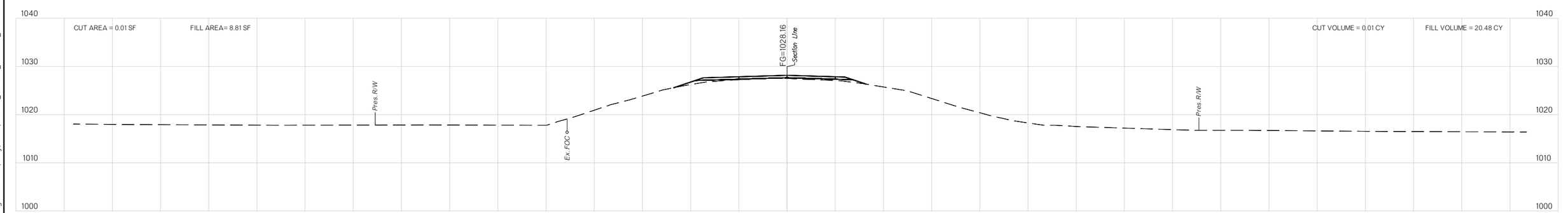
REVISIONS	
DESCRIPTION	DATE



29+50.00



29+00.00

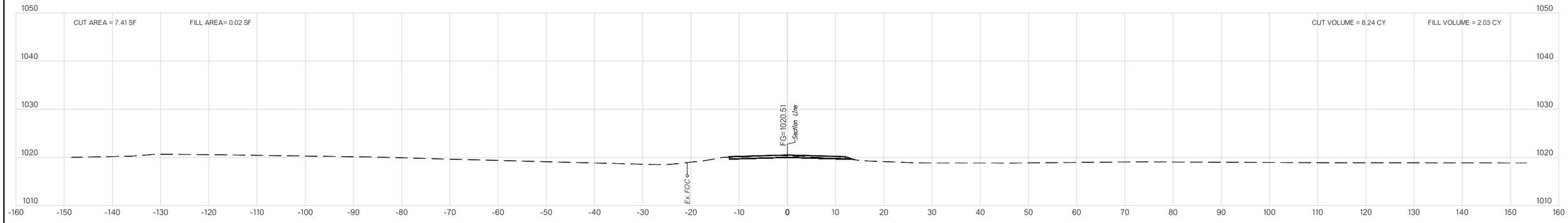


28+50.00

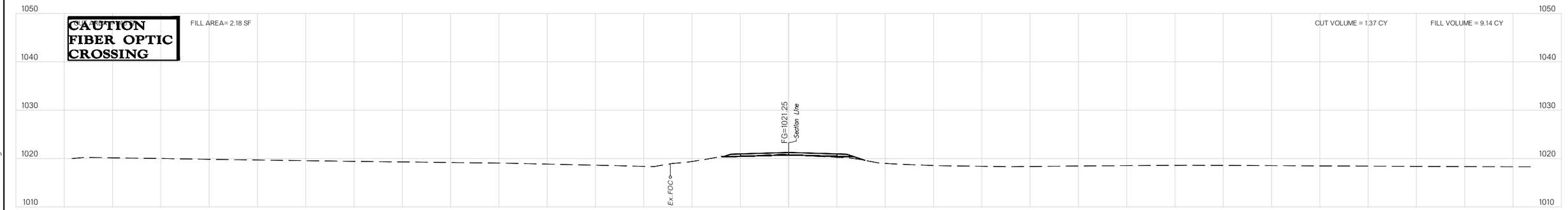
COUNTY KAY HIGHWAY/ROAD HIGHLAND AVE STATE JOB NO. 24432(15) SHEET NO. X018

Thursday, October 25, 2018 1:00:51 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\E_CIV3D\E_PLANS\E_HIGHLAND\E_1070-HIGHLAND SECTIONS.dwg

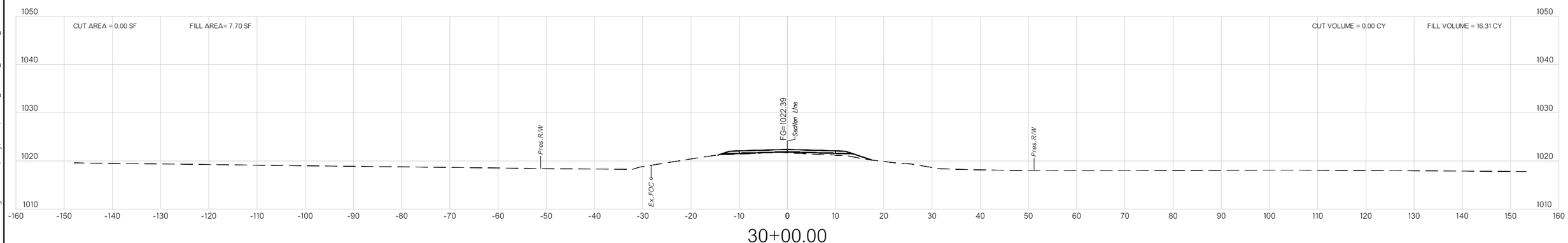
REVISIONS	
DESCRIPTION	DATE



31+00.00



30+50.00



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Thursday, October 25, 2018 1:01:08 PM
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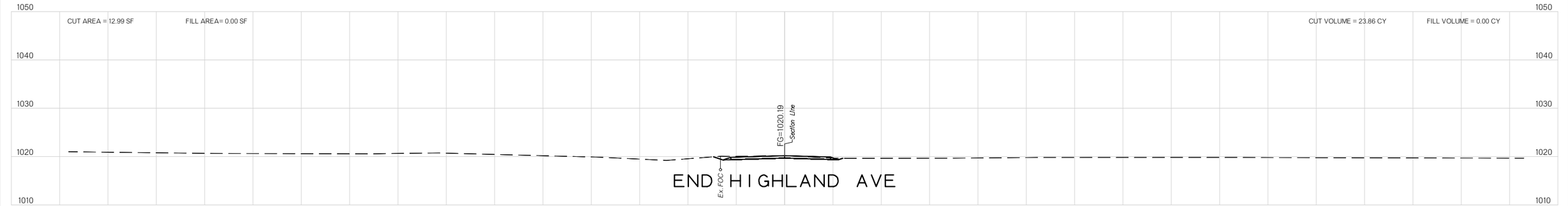
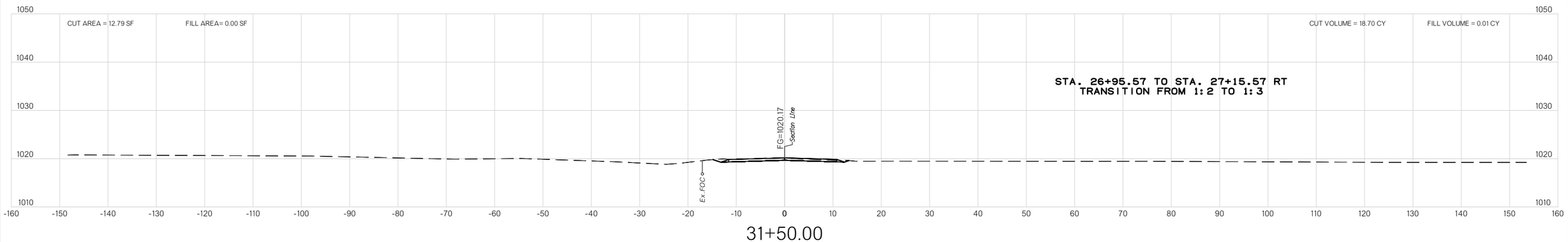
COUNTY KAY HIGHWAY/ROAD HIGHLAND AVE STATE JOB NO. 24432(15) SHEET NO. X019

REVISIONS	
DESCRIPTION	DATE



32+00.00

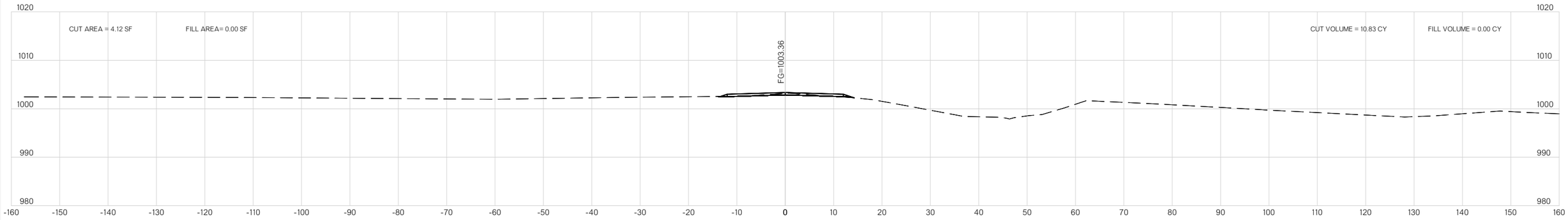


31+50.00

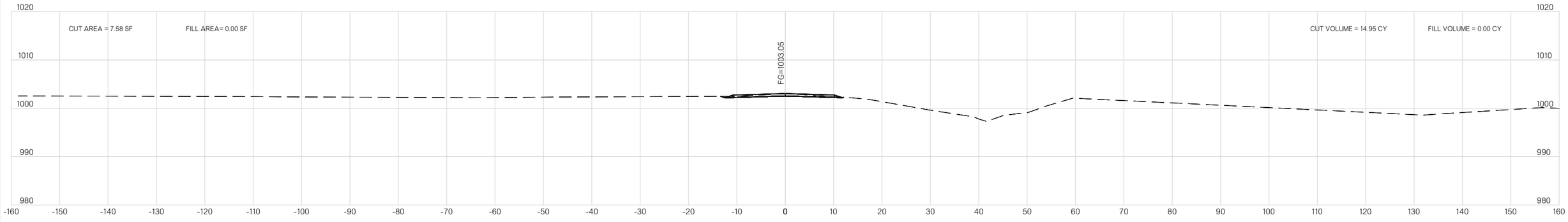
COUNTY KAY HIGHWAY/ROAD HIGHLAND AVE STATE JOB NO. 24432(15) SHEET NO. X020

Wednesday, October 24, 2018 1:37:10 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L_CIV3D\L_PLANS\L_HIGHLAND\L_1070-HIGHLAND SECTIONS.dwg

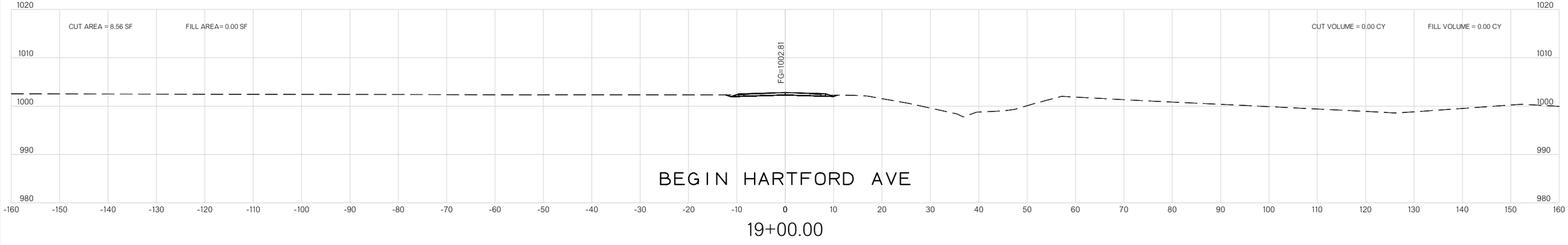
REVISIONS	
DESCRIPTION	DATE



20+00.00



19+50.00



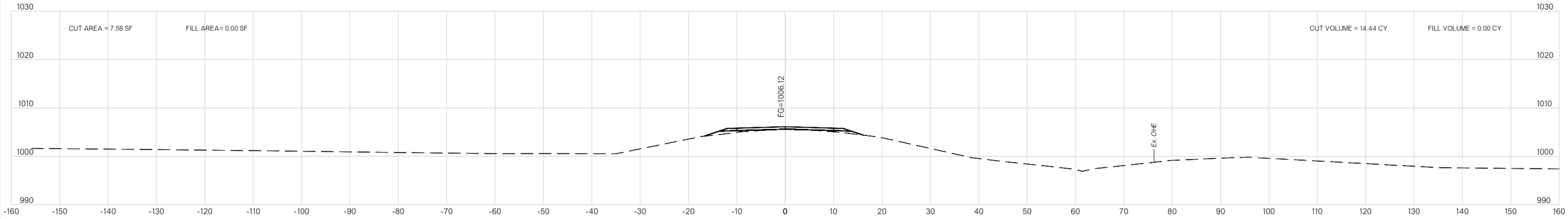
BEGIN HARTFORD AVE

19+00.00

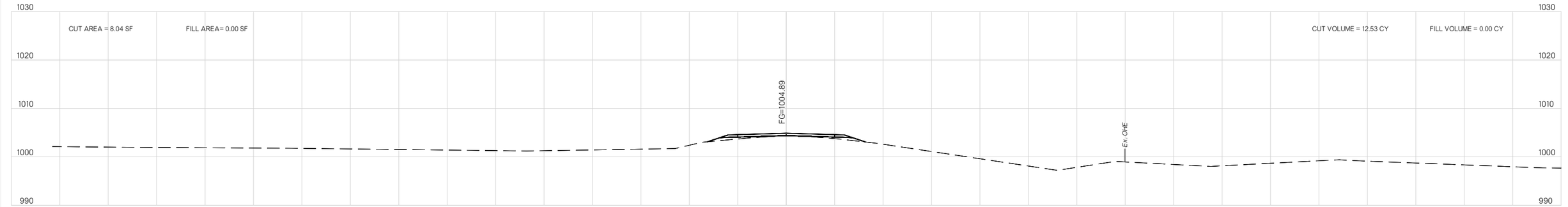
COUNTY KAY HIGHWAY/ROAD HARTFORD AVE STATE JOB NO. 24432(15) SHEET NO. X021

Wednesday, October 24, 2018 1:37:34 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L_CIV3D\L_PLANS\L_HARTFORD\L_1070-HARTFORD SECTIONS.dwg

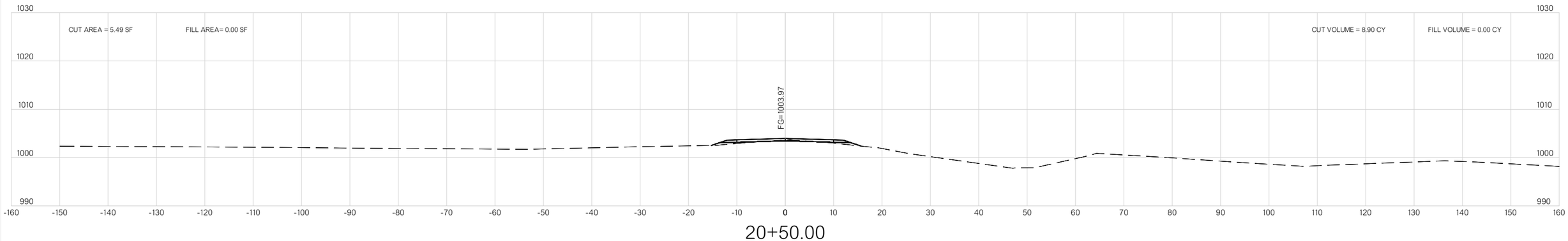
REVISIONS	
DESCRIPTION	DATE



21+50.00



21+00.00

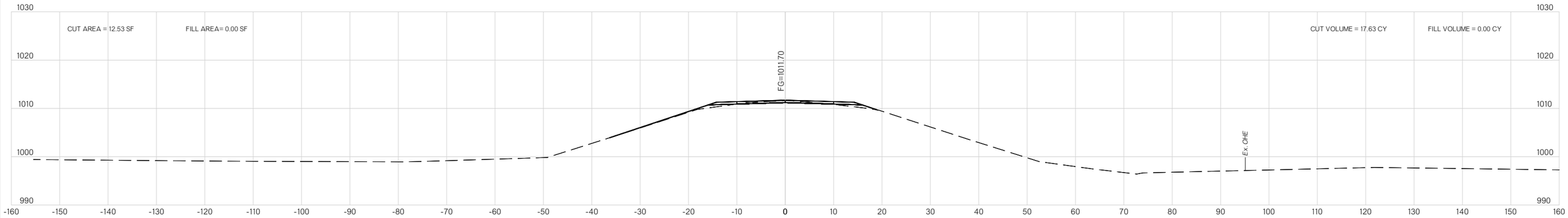


20+50.00

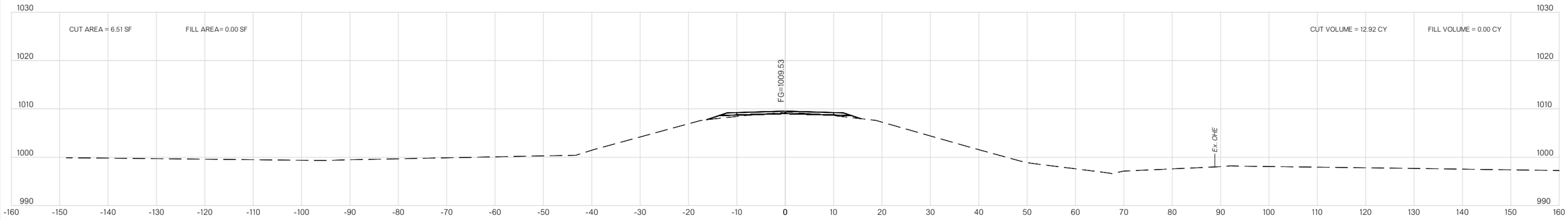
COUNTY KAY HIGHWAY/ROAD HARTFORD AVE STATE JOB NO. 24432(15) SHEET NO. X022

Wednesday, October 24, 2018 1:37:46 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L CIV3D\L PLANS\L HARTFORD\L 1070-HARTFORD SECTIONS.dwg

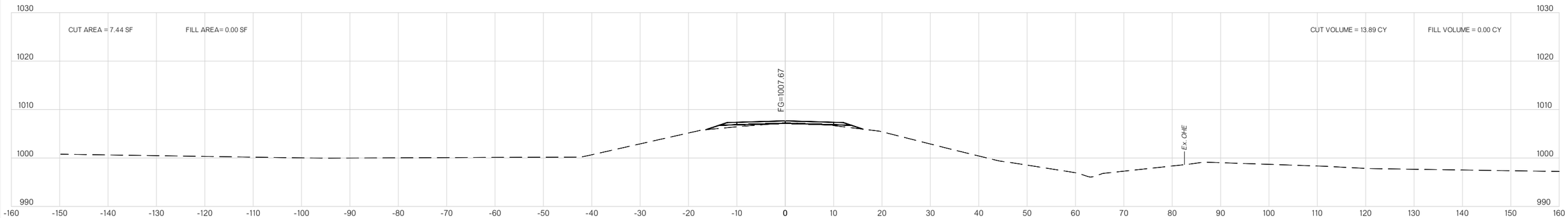
REVISIONS	
DESCRIPTION	DATE



23+00.00



22+50.00

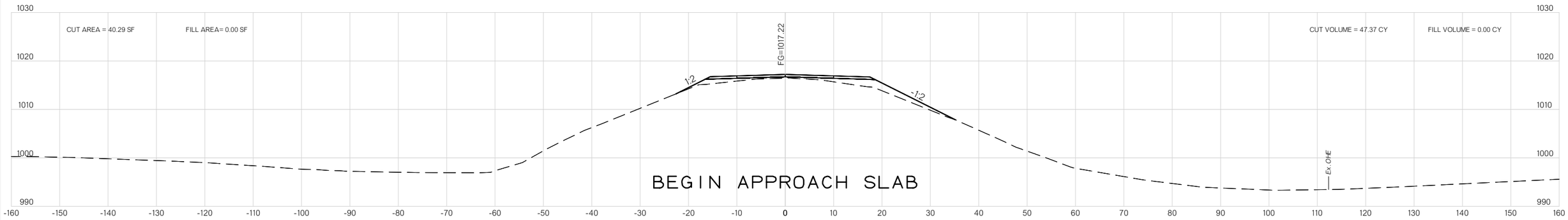


22+00.00

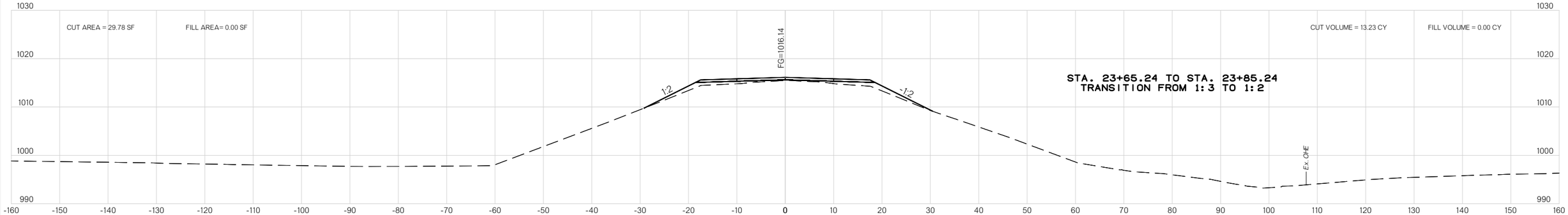
Wednesday, October 24, 2018 1:37:56 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L\CIV3D\L\PLANS\L\HARTFORD\L\1070-HARTFORD SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD HARTFORD AVE STATE JOB NO. 24432(15) SHEET NO. X023

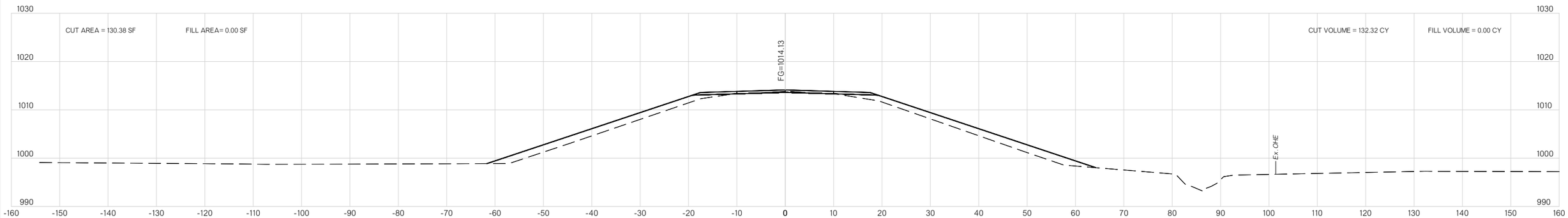
REVISIONS	
DESCRIPTION	DATE



24+36.51



24+00.00

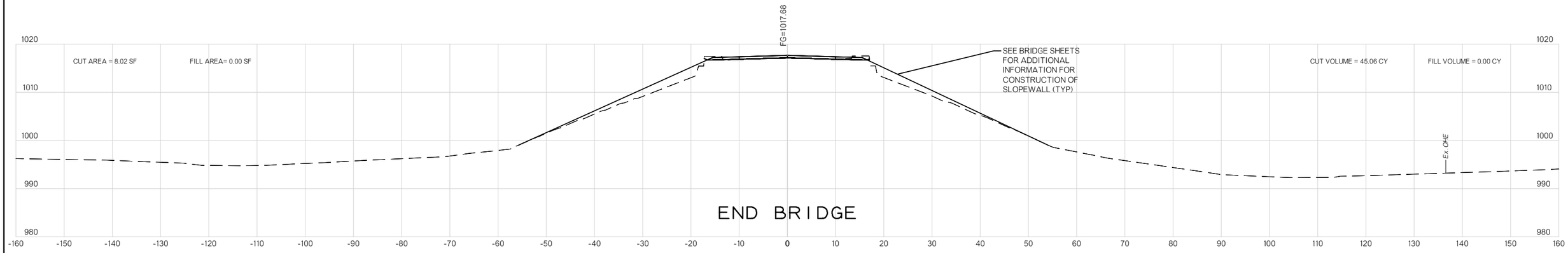


23+50.00

COUNTY KAY HIGHWAY/ROAD HARTFORD AVE STATE JOB NO. 24432(15) SHEET NO. X024

Wednesday, October 24, 2018 1:38:05 PM
V:\FL16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L C\V3D\FL PLANS\L HARTFORD\L 1070-HARTFORD SECTIONS.dwg

REVISIONS	
DESCRIPTION	DATE

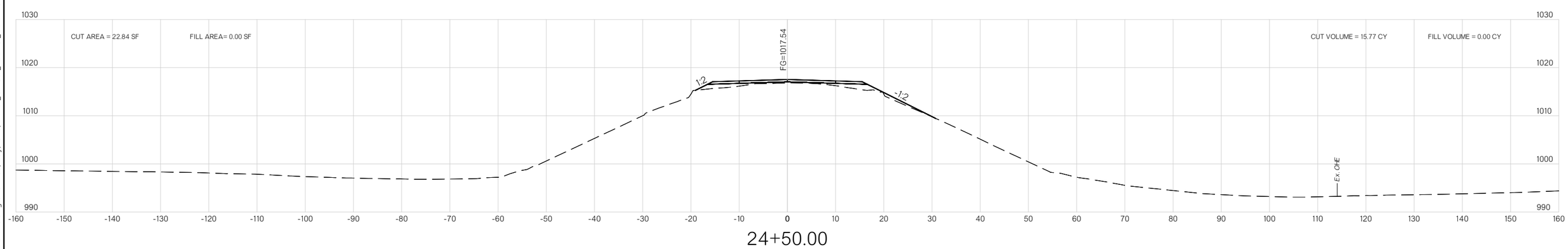


END BRIDGE

26+28.01

BEGIN BRIDGE

24+56.51

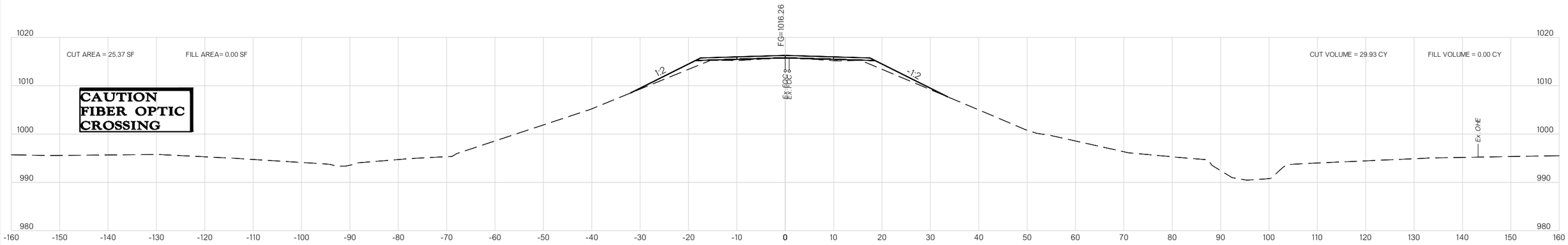


24+50.00

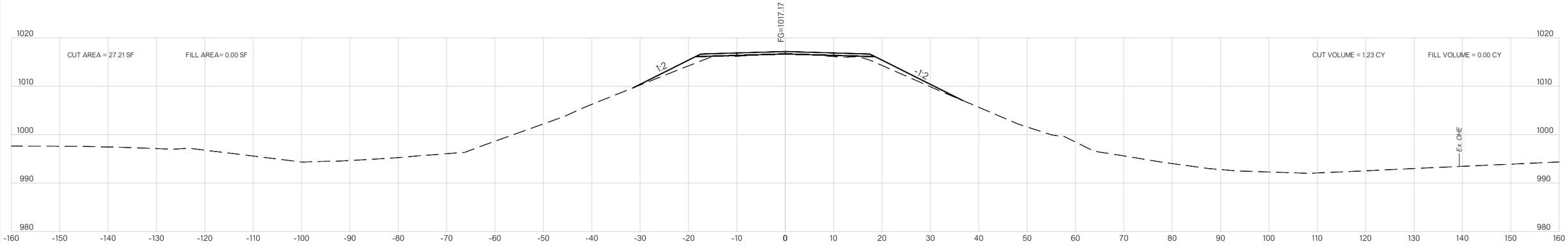
COUNTY KAY HIGHWAY/ROAD HARTFORD AVE STATE JOB NO. 24432(15) SHEET NO. X025

Monday, October 29, 2018 8:01:51 AM
V:\E_16-1070E BR Raising Over I-35, Kay, 1840, HNTB\E_CIV3D\E_PLANS\E_HARTFORD\E_1070-HARTFORD SECTIONS.dwg

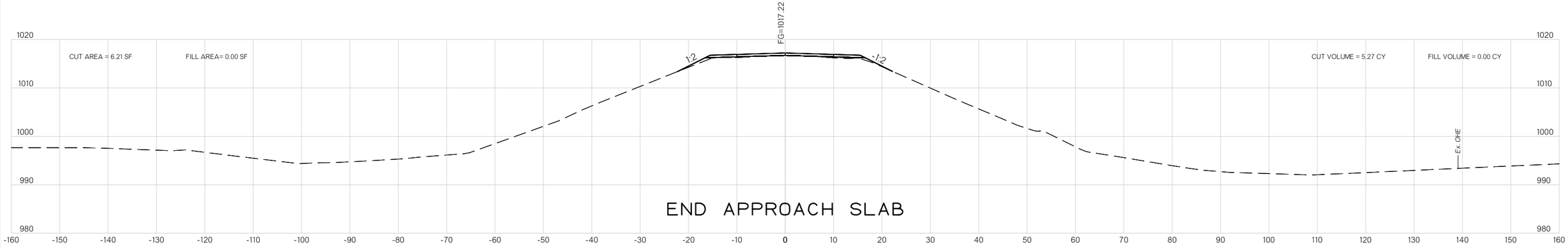
REVISIONS	
DESCRIPTION	DATE



26+80.74



26+50.00

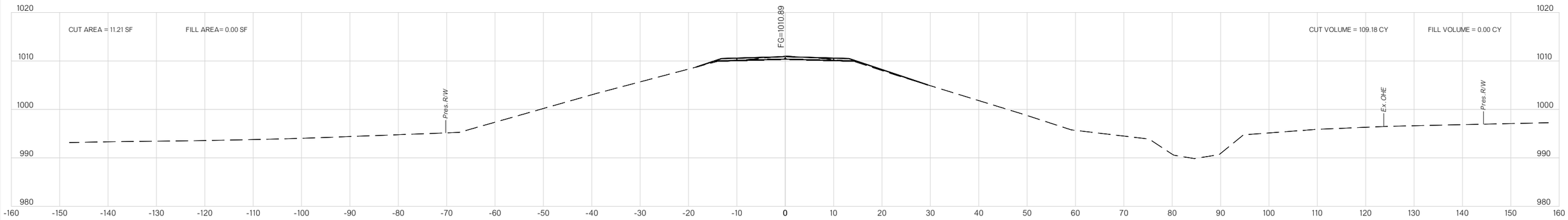


END APPROACH SLAB

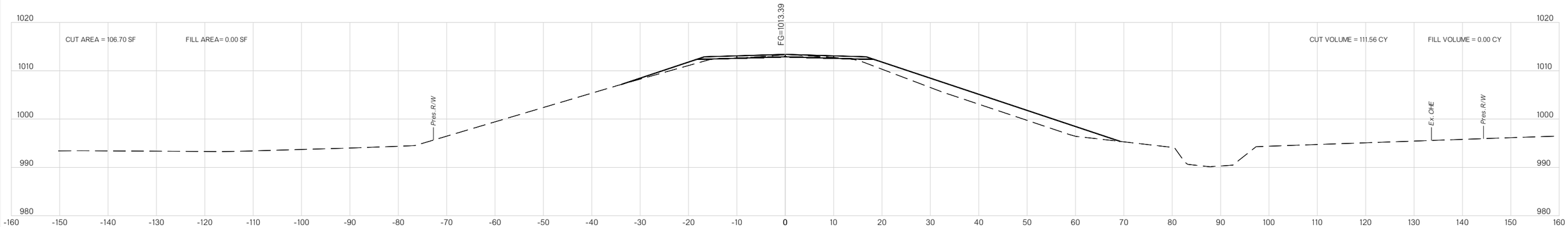
26+48.01

Wednesday, October 24, 2018 1:38:25 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L_CIV3D\L_PLANS\L_HARTFORD\L_1070-HARTFORD SECTIONS.dwg

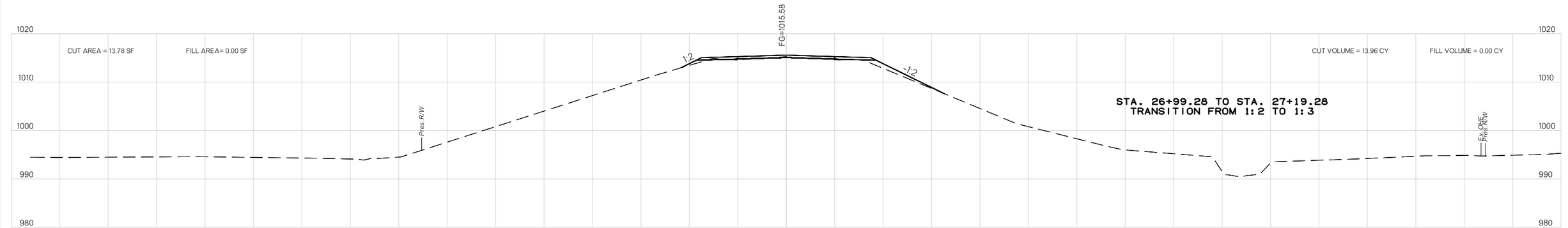
REVISIONS	
DESCRIPTION	DATE



28+00.00



27+50.00

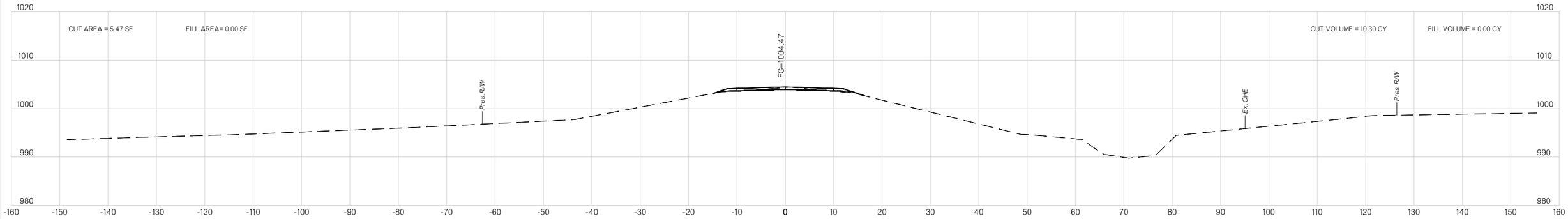


27+00.00

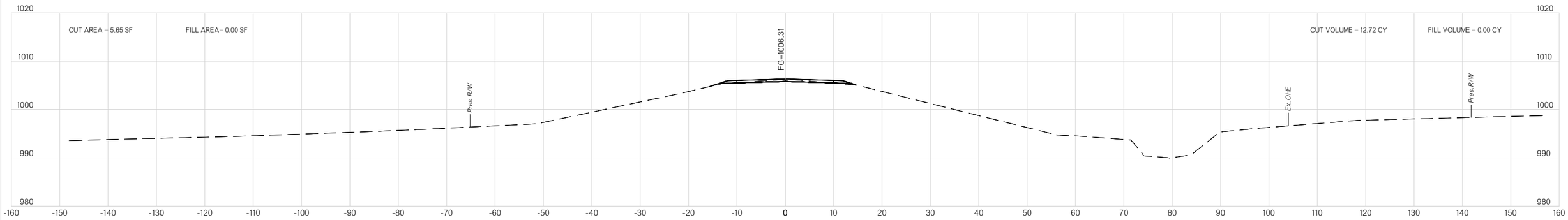
COUNTY KAY HIGHWAY/ROAD HARTFORD AVE STATE JOB NO. 24432(15) SHEET NO. X027

Wednesday, October 24, 2018 1:38:35 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L_CIV3D\L_PLANS\L_HARTFORD\L_1070-HARTFORD SECTIONS.dwg

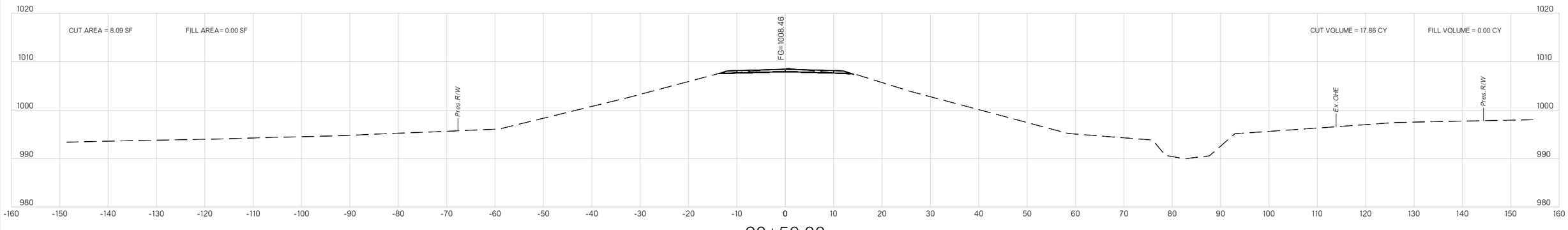
REVISIONS	
DESCRIPTION	DATE



29+50.00



29+00.00

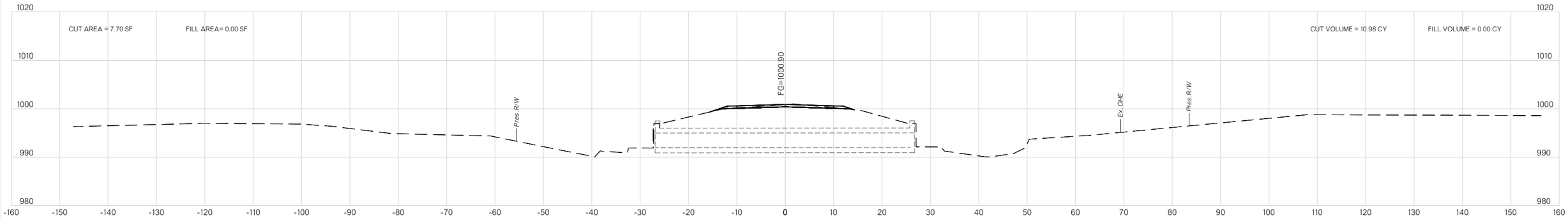


28+50.00

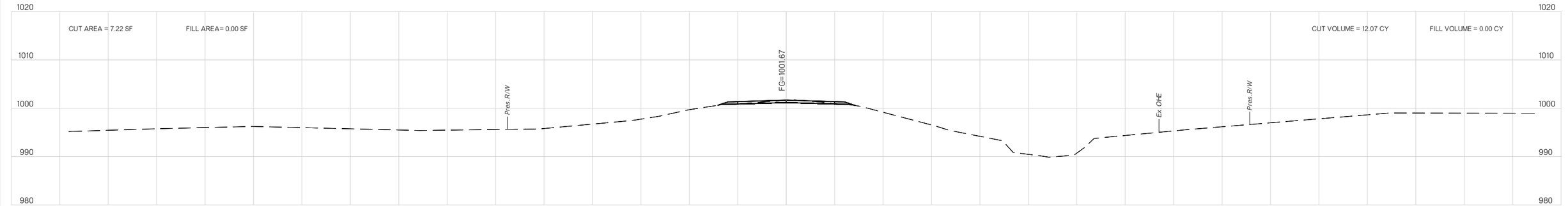
COUNTY KAY HIGHWAY/ROAD HARTFORD AVE STATE JOB NO. 24432(15) SHEET NO. X028

Wednesday, October 24, 2018 1:38:45 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L_CIV3D\L_PLANS\L_HARTFORD\L_1070-HARTFORD SECTIONS.dwg

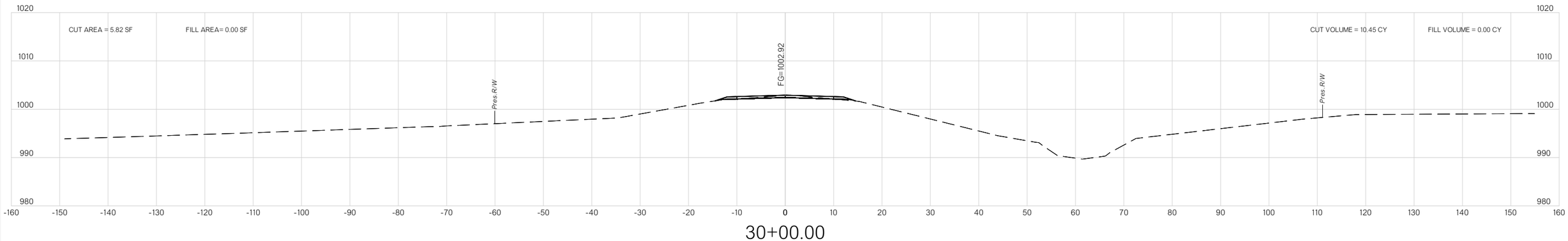
REVISIONS	
DESCRIPTION	DATE



30+89.76



30+50.00

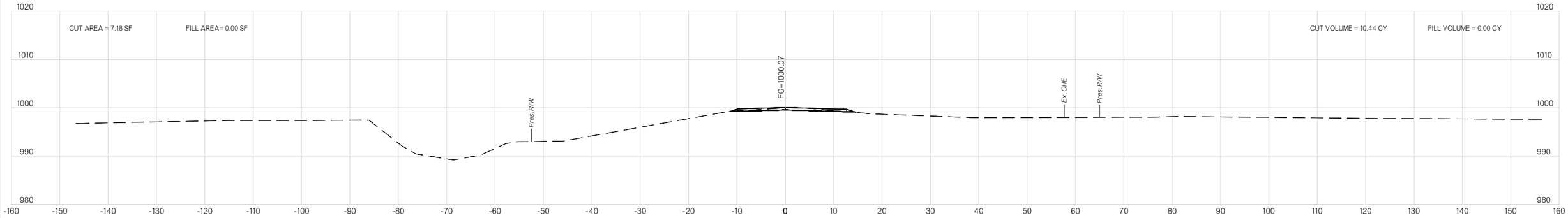


30+00.00

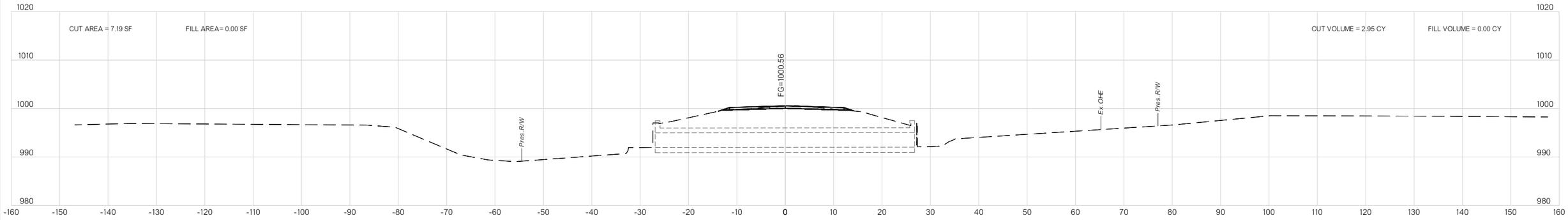
COUNTY KAY HIGHWAY/ROAD HARTFORD AVE STATE JOB NO. 24432(15) SHEET NO. X029

Wednesday, October 24, 2018 1:38:55 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L CIV3D\L PLANS\L HARTFORD\L 1070-HARTFORD SECTIONS.dwg

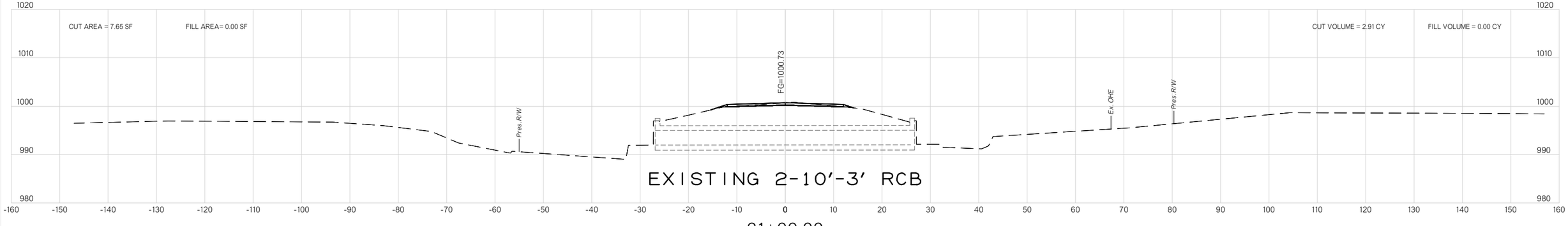
REVISIONS	
DESCRIPTION	DATE



31+50.00



31+10.76

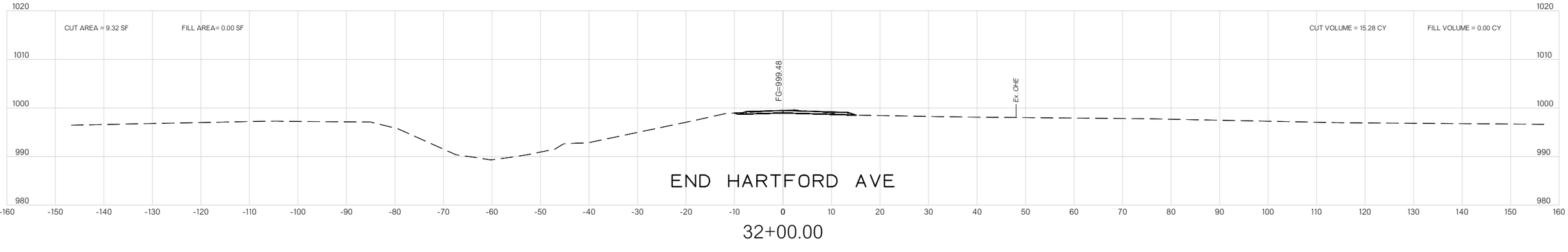


31+00.00

Wednesday, October 24, 2018 1:39:05 PM
V:\[_16-1070E BR Raising Over I-35, Kay, 1840, HNTB\[_CIV3D\[_PLANS\[_HARTFORD\[_1070-HARTFORD SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD HARTFORD AVE STATE JOB NO. 24432(15) SHEET NO. X030

REVISIONS	
DESCRIPTION	DATE



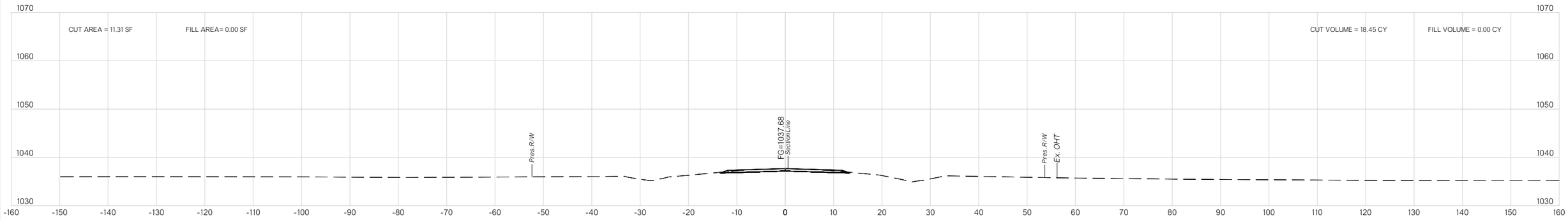
END HARTFORD AVE

32+00.00

COUNTY KAY HIGHWAY/ROAD HARTFORD AVE STATE JOB NO. 24432(15) SHEET NO. X031

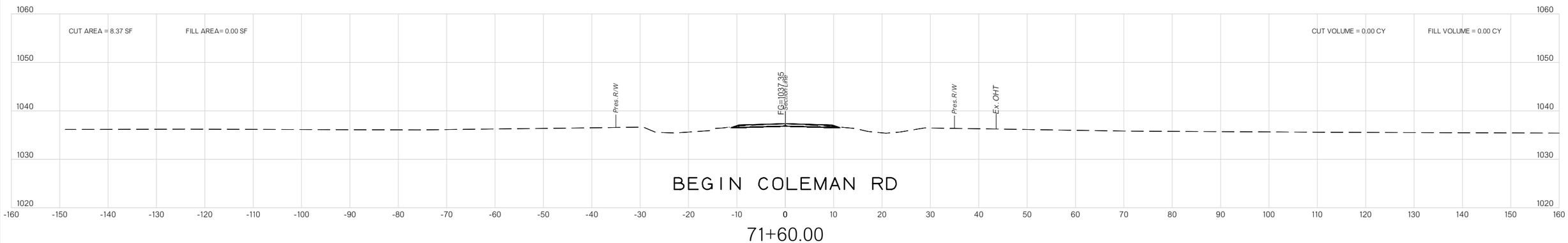
Wednesday, October 24, 2018 1:39:15 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L CIV3D\L PLANS\L HARTFORD\L 1070-HARTFORD SECTIONS.dwg

REVISIONS	
DESCRIPTION	DATE



72+50.00

72+00.00



71+60.00

Wednesday, October 24, 2018 1:39:40 PM
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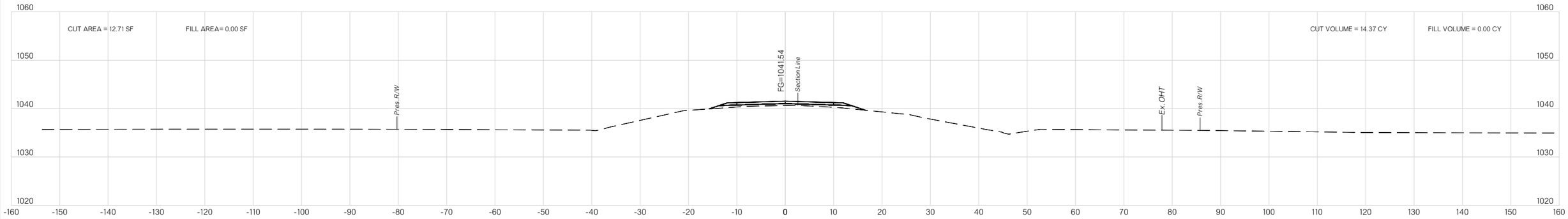
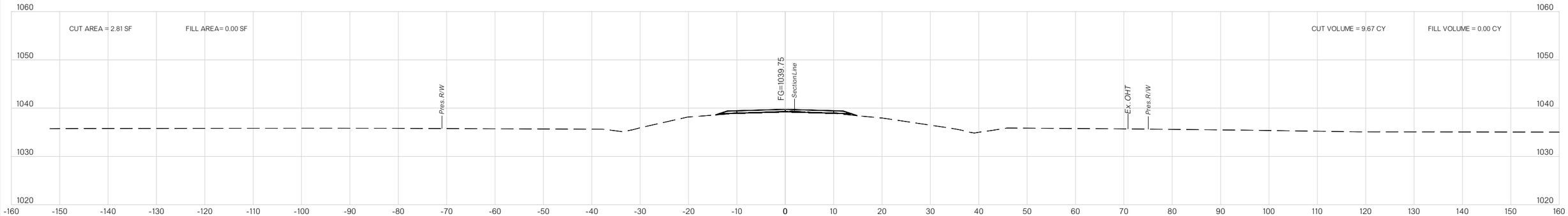
COUNTY KAY HIGHWAY/ROAD COLEMAN RD STATE JOB NO. 24432(15) SHEET NO. X032

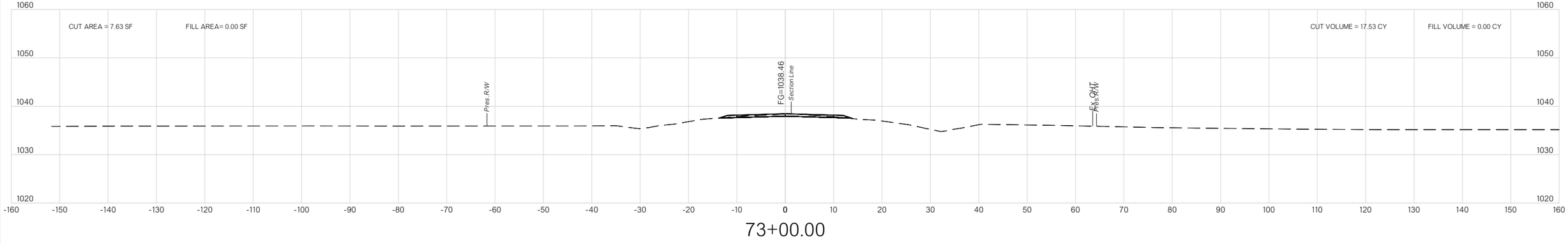
REVISIONS	
DESCRIPTION	DATE



74+00.00



73+50.00

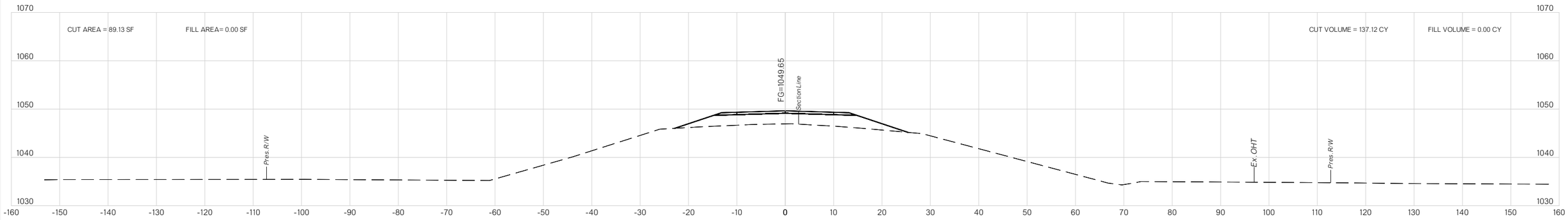


73+00.00

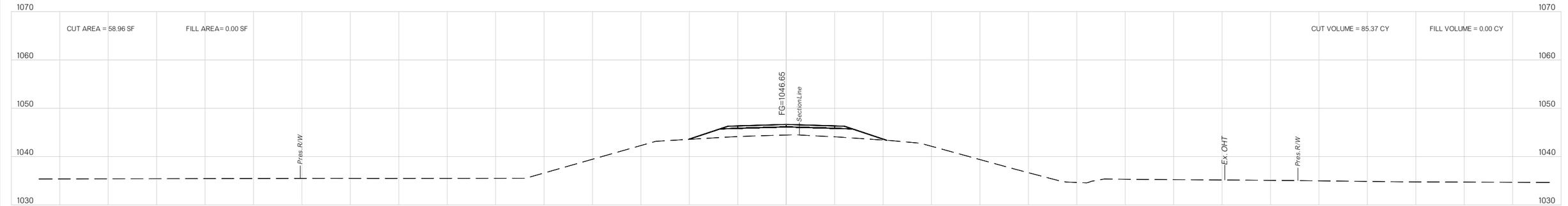
Wednesday, October 24, 2018 1:39:51 PM
V:\1_16-1070E BR Raising Over I-35, Kay, 1840_HNTB\1_CIV3D\1_PLANS\1_COLEMAN\1_1070-COLEMAN SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD COLEMAN RD STATE JOB NO. 24432(15) SHEET NO. X033

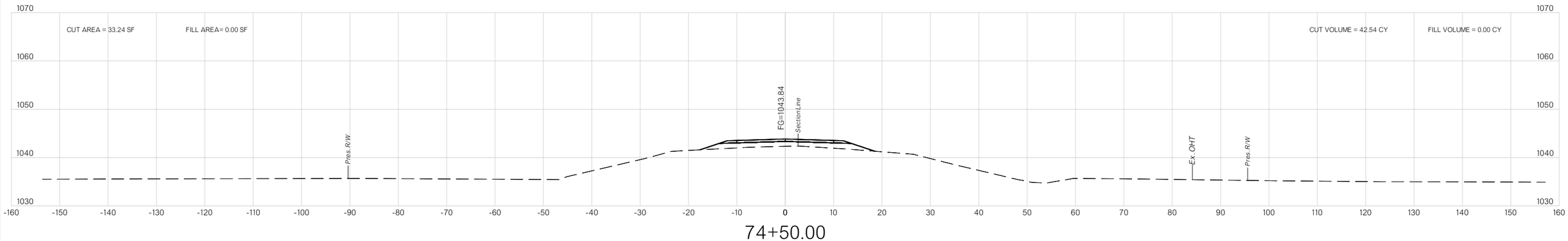
REVISIONS	
DESCRIPTION	DATE



75+50.00



75+00.00

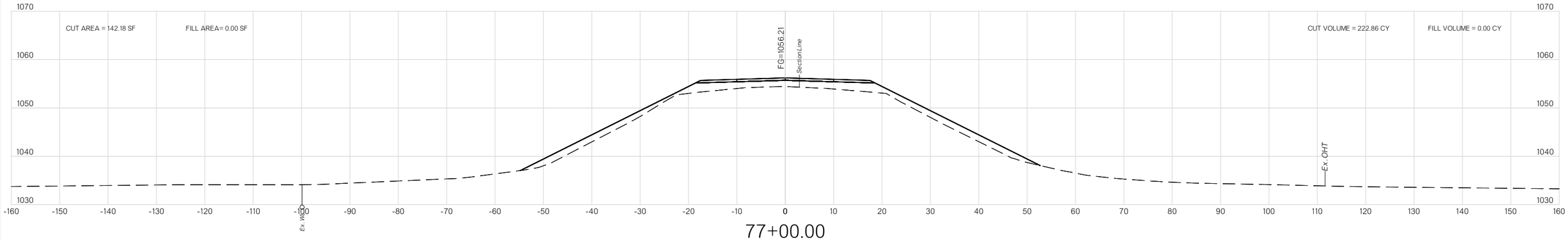


74+50.00

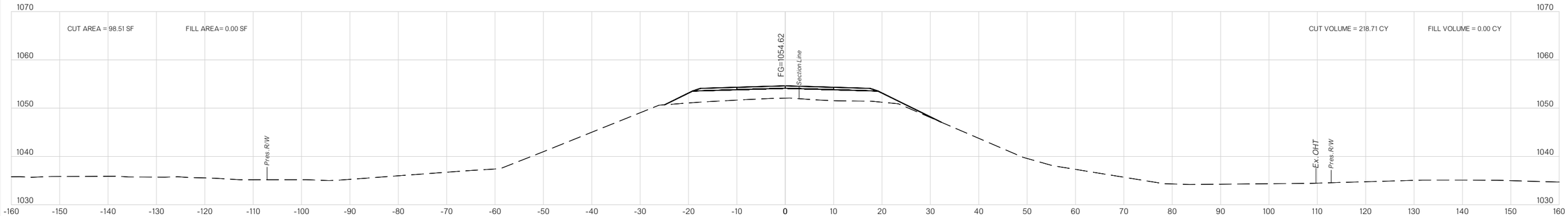
COUNTY KAY HIGHWAY/ROAD COLEMAN RD STATE JOB NO. 24432(15) SHEET NO. X034

Wednesday, October 24, 2018 1:40:01 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L_CIV3D\L_PLANS\L_COLEMAN\L_1070-COLEMAN SECTIONS.dwg

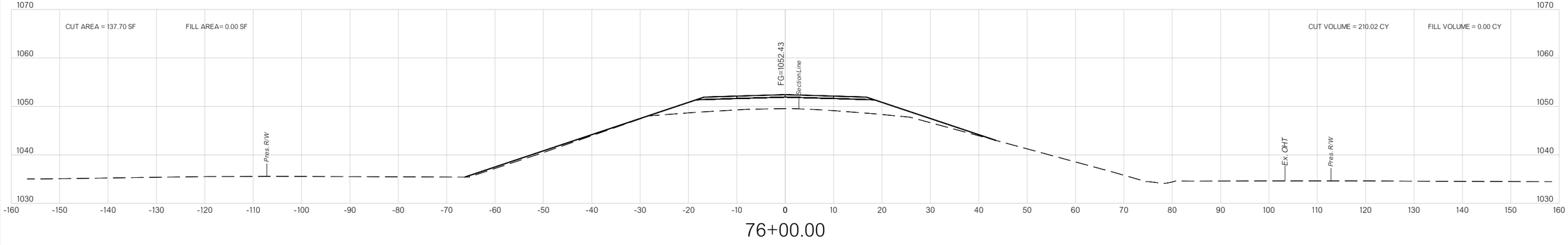
REVISIONS	
DESCRIPTION	DATE



77+00.00



76+50.00

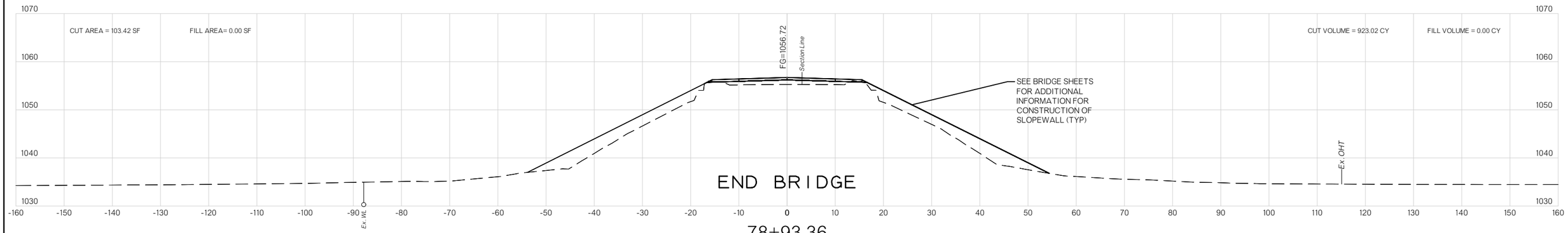


76+00.00

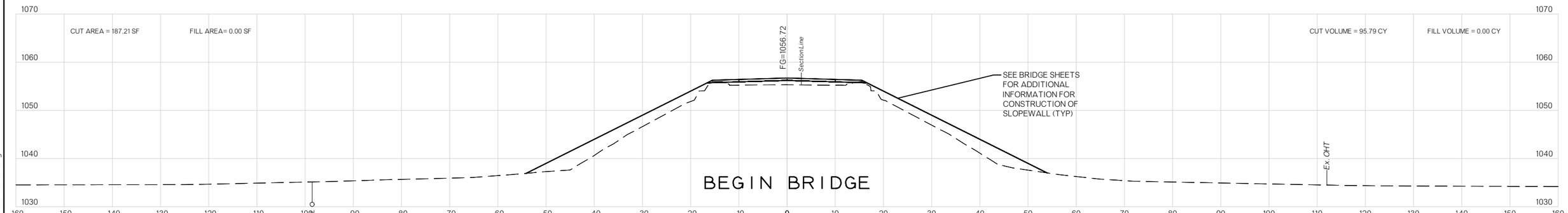
Wednesday, October 24, 2018 1:40:11 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L CIV3D\L PLANS\L COLEMAN\L 1070-COLEMAN SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD COLEMAN RD STATE JOB NO. 24432(15) SHEET NO. X035

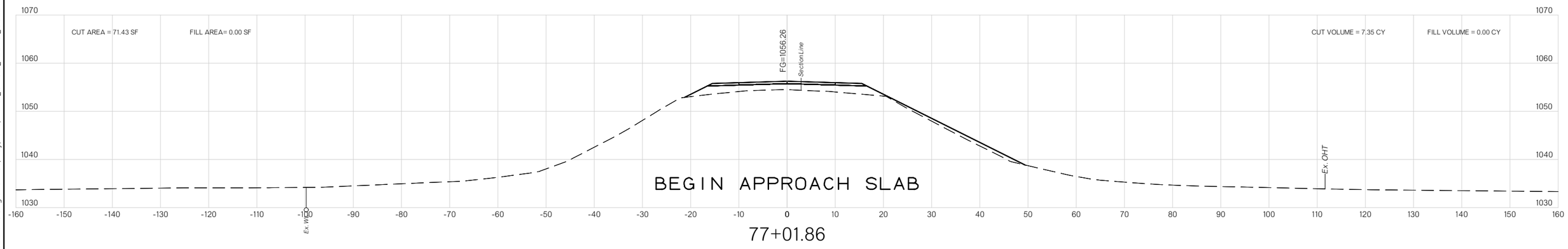
REVISIONS	
DESCRIPTION	DATE



78+93.36



77+21.86

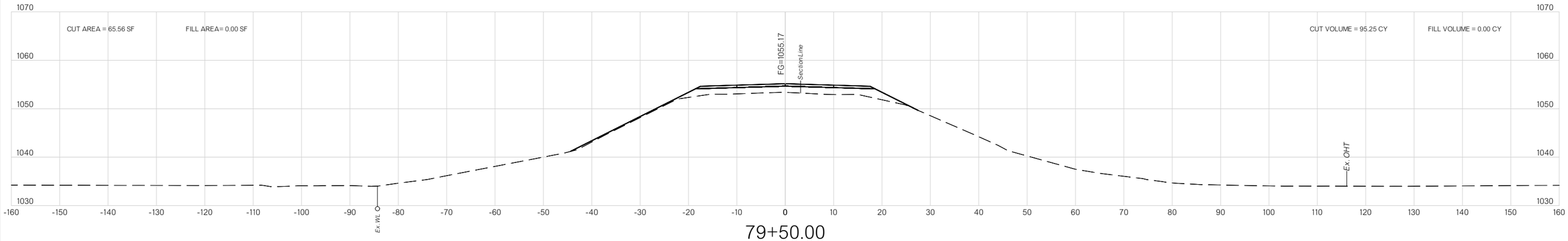


77+01.86

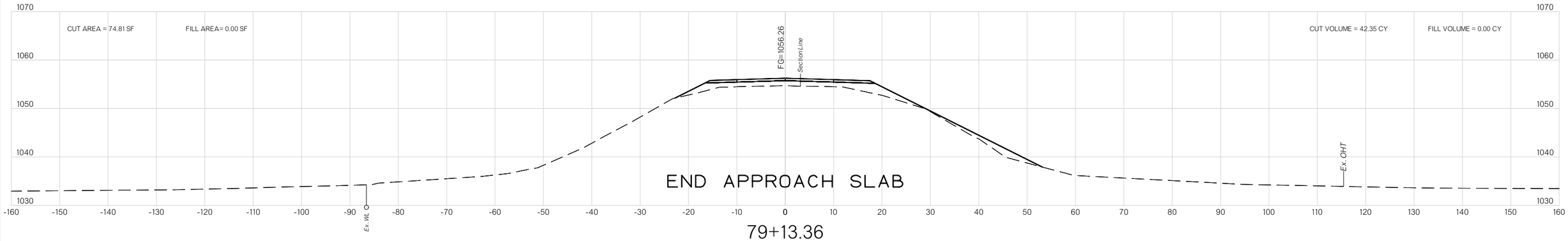
Friday, October 26, 2018 9:41:01 AM
V:\L16-1070E BR Raising Over I-35, Kay, 18.40, HNTB\E_CIV\3D\E_PLANS\E_COLEMAN\E_1070-COLEMAN SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD COLEMAN RD. STATE JOB NO. 24432(15) SHEET NO. X036

REVISIONS	
DESCRIPTION	DATE

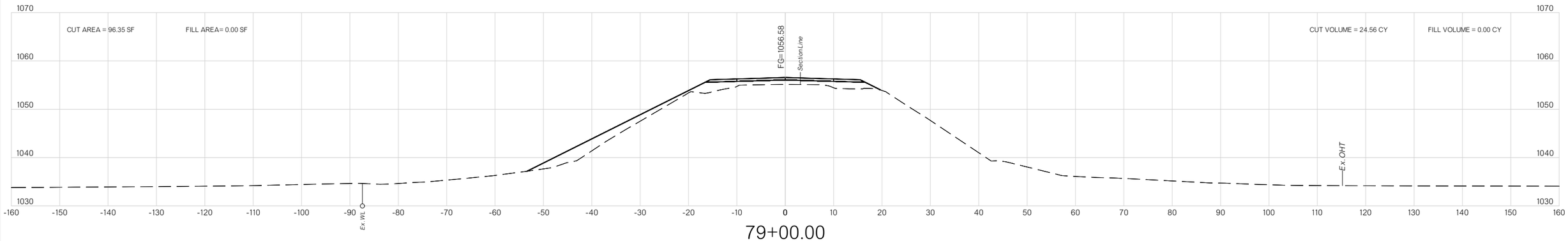


79+50.00



END APPROACH SLAB

79+13.36

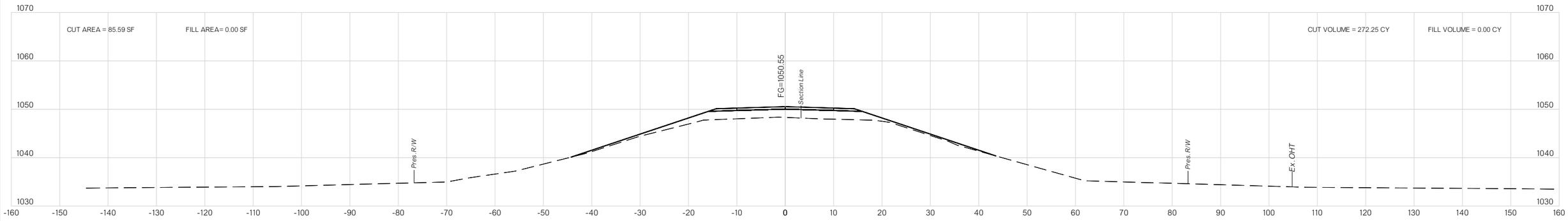


79+00.00

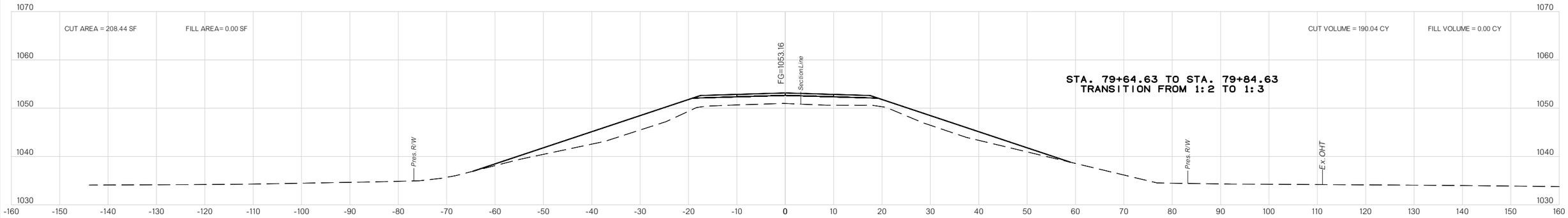
COUNTY KAY HIGHWAY/ROAD COLEMAN RD STATE JOB NO. 24432(15) SHEET NO. X037

Wednesday, October 24, 2018 1:40:31 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L\CIV3D\L\PLANS\L\COLEMAN\L\1070-COLEMAN SECTIONS.dwg

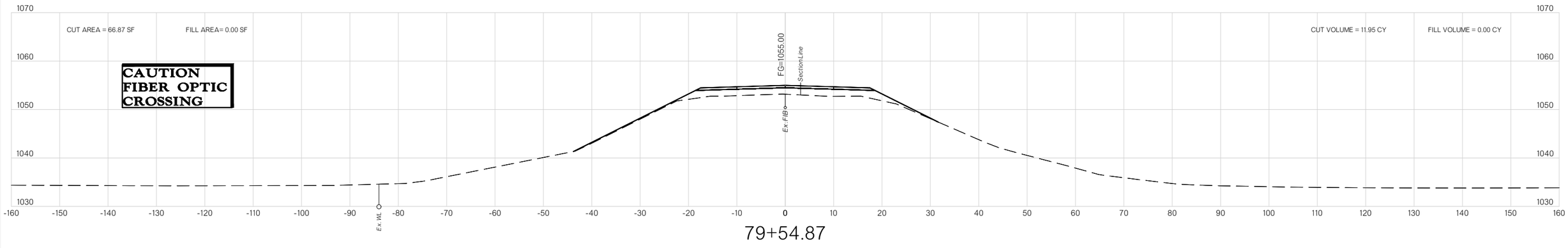
REVISIONS	
DESCRIPTION	DATE



80+50.00



80+00.00



79+54.87

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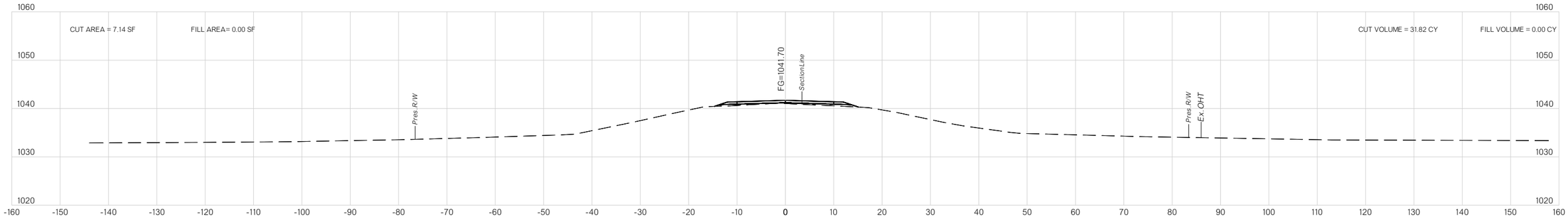
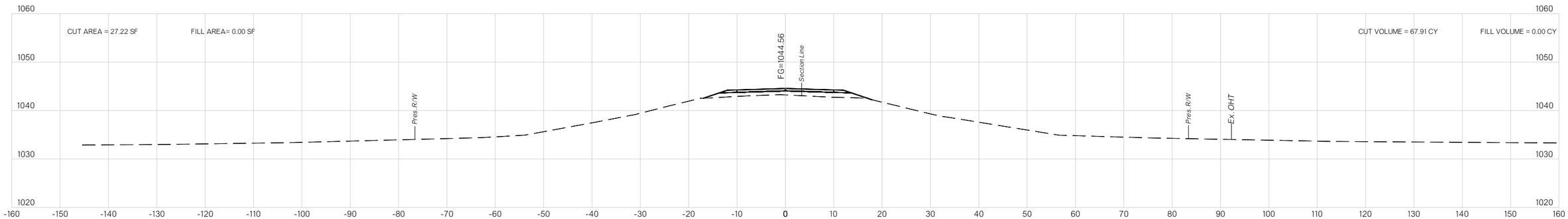
COUNTY KAY HIGHWAY/ROAD COLEMAN RD STATE JOB NO. 24432(15) SHEET NO. X038

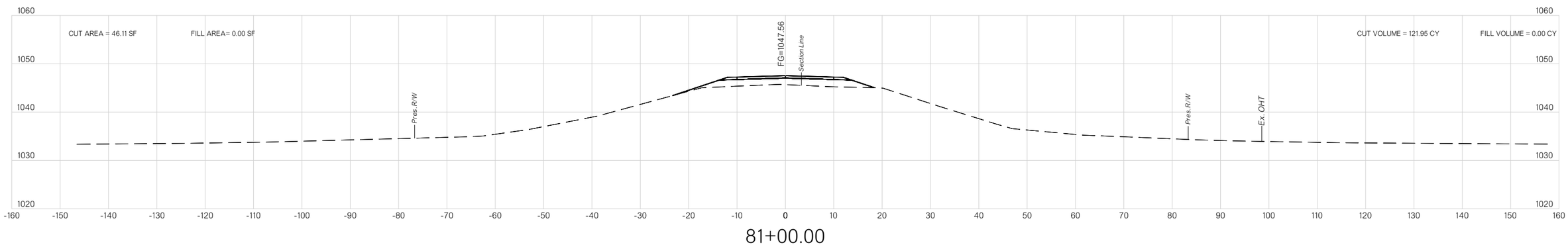
REVISIONS	
DESCRIPTION	DATE



82+00.00



81+50.00



81+00.00

Wednesday, October 24, 2018 1:40:51 PM
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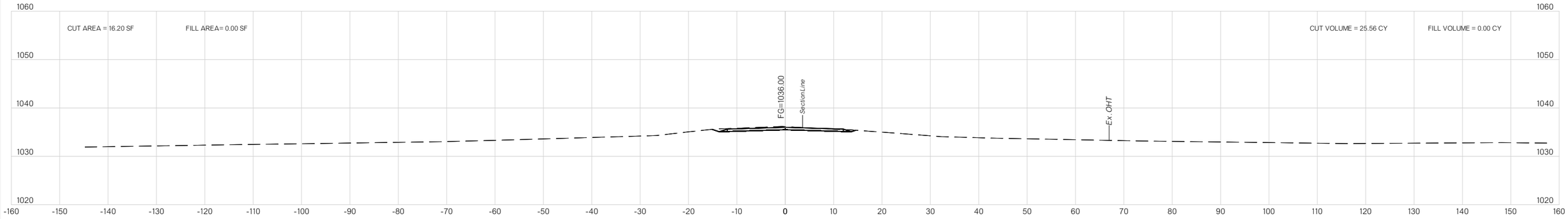
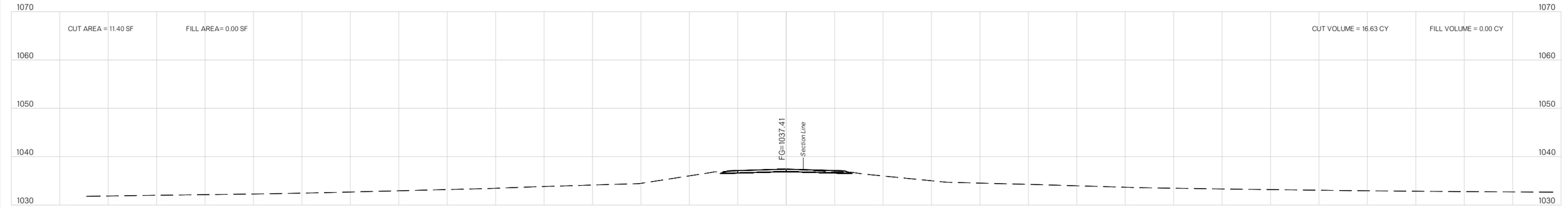
COUNTY KAY HIGHWAY/ROAD COLEMAN RD STATE JOB NO. 24432(15) SHEET NO. X039

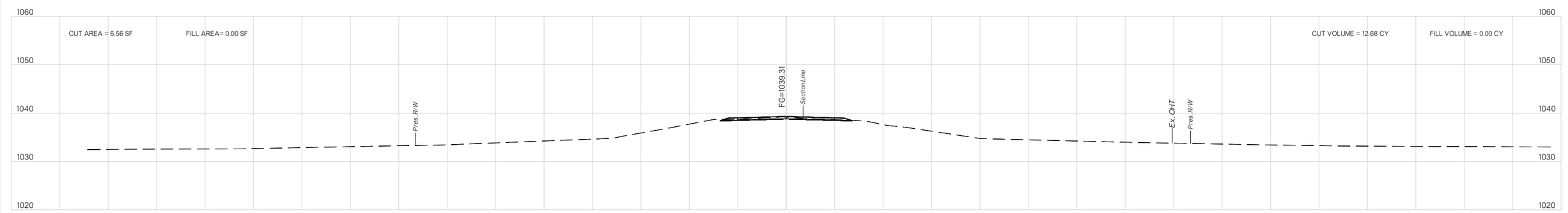
REVISIONS	
DESCRIPTION	DATE



83+50.00



83+00.00

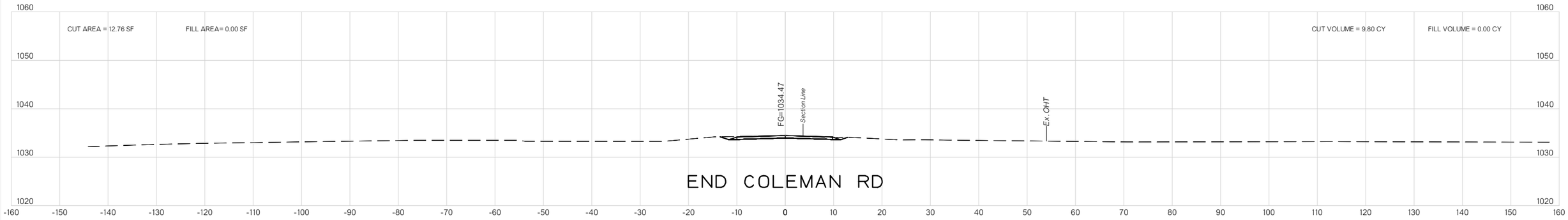


82+50.00

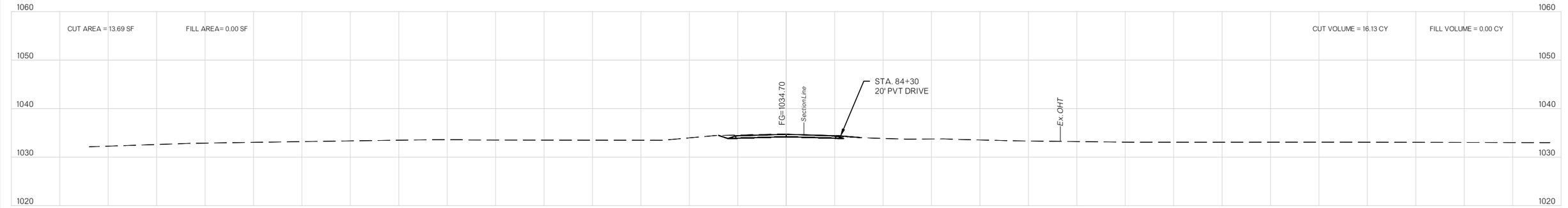
COUNTY KAY HIGHWAY/ROAD COLEMAN RD STATE JOB NO. 24432(15) SHEET NO. X040

Wednesday, October 24, 2018 1:41:01 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L CIV3D\L PLANS\L COLEMAN\L 1070-COLEMAN SECTIONS.dwg

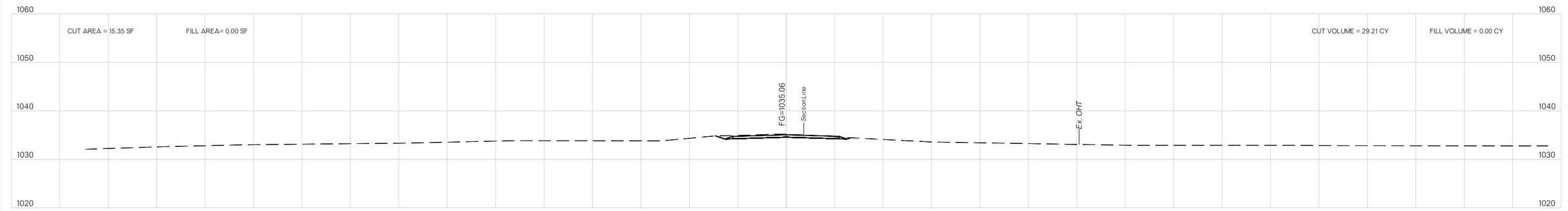
REVISIONS	
DESCRIPTION	DATE



84+50.00



84+30.00

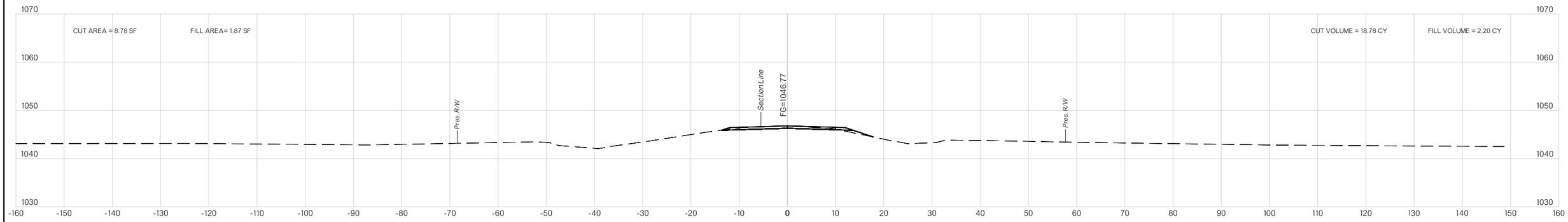


84+00.00

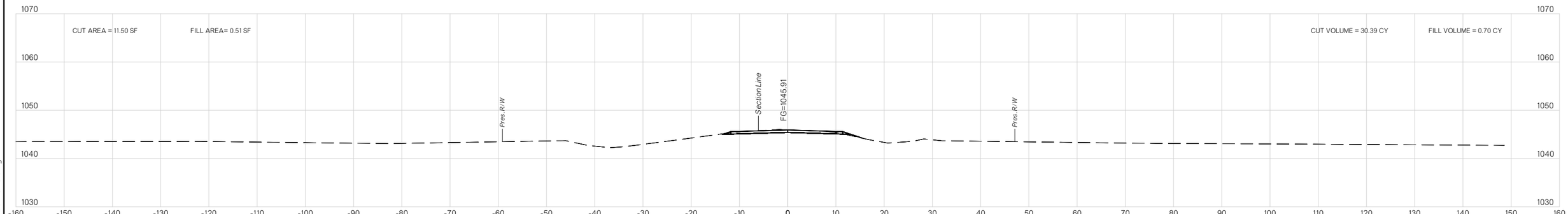
Wednesday, October 24, 2018 1:41:11 PM
V:\E_16-1070E BR Raising Over I-35, Kay, 18401, HNTB\E_CIV3D\E_PLANS\E_COLEMAN\E_1070-COLEMAN SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD COLEMAN RD STATE JOB NO. 24432(15) SHEET NO. X041

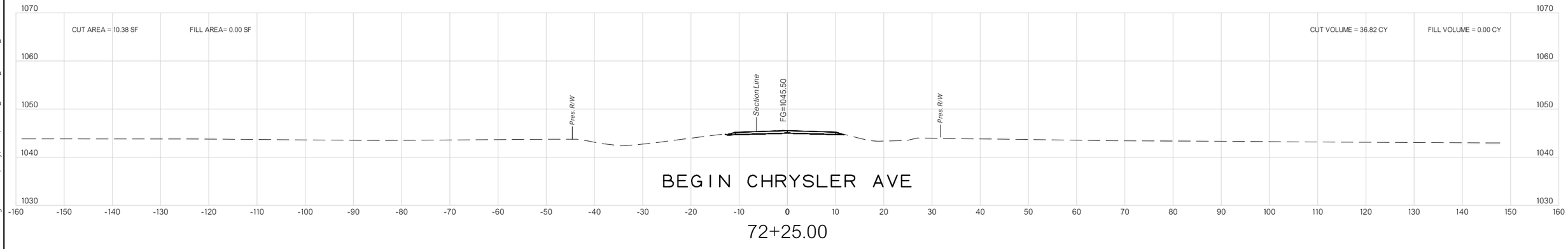
REVISIONS	
DESCRIPTION	DATE



73+50.00



73+00.00



72+25.00

Thursday, October 25, 2018 1:30:35 PM
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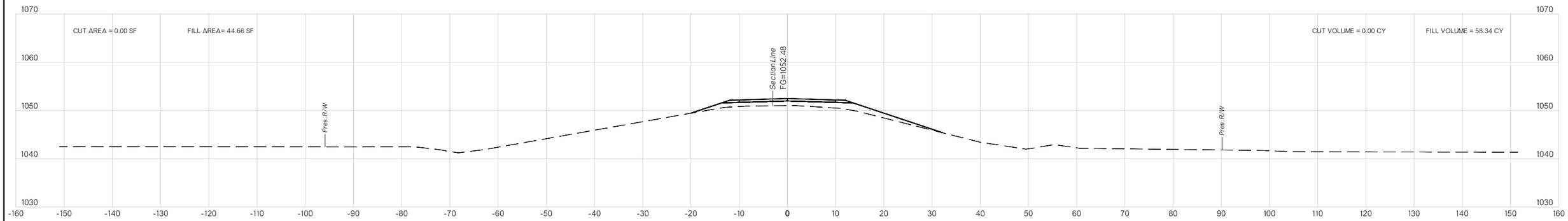
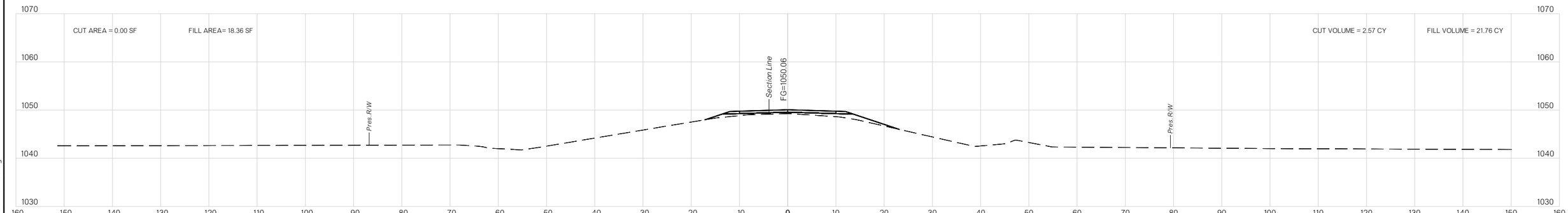
COUNTY KAY HIGHWAY/ROAD CHRYSLER AVE STATE JOB NO. 24432(15) SHEET NO. X042

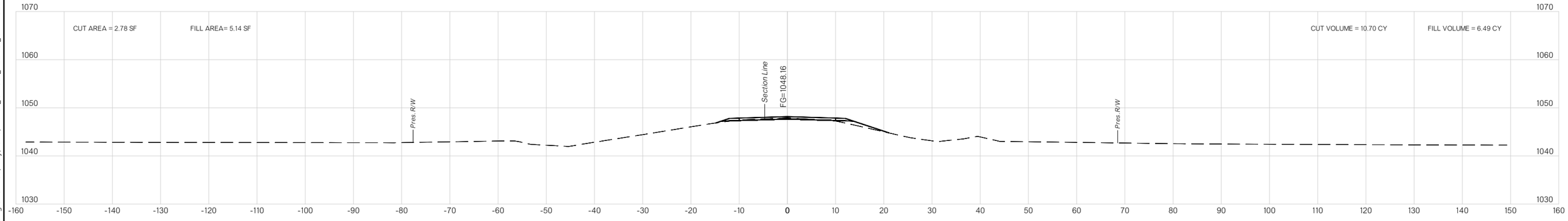
REVISIONS	
DESCRIPTION	DATE



75+00.00



74+50.00



74+00.00

Thursday, October 25, 2018 1:31:14 PM
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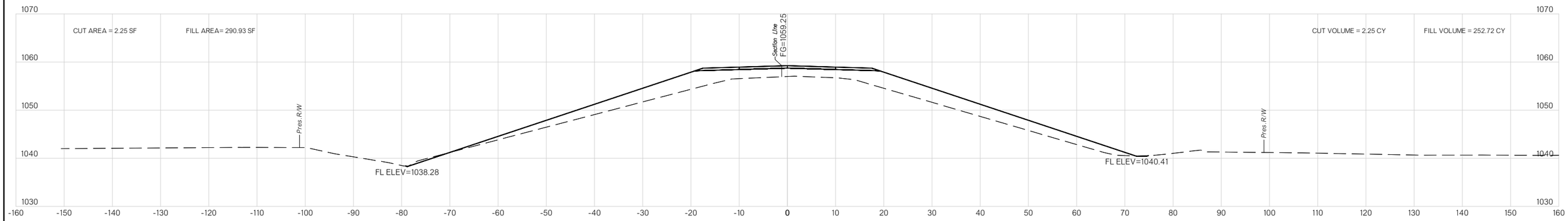
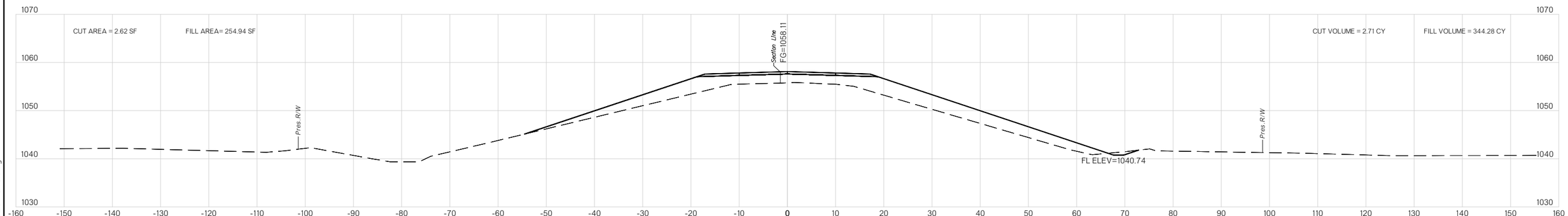
COUNTY KAY HIGHWAY/ROAD CHRYSLER AVE STATE JOB NO. 24432(15) SHEET NO. X043

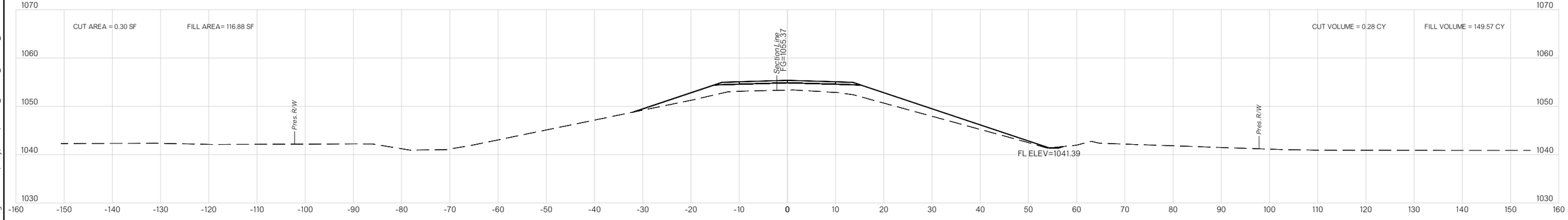
REVISIONS	
DESCRIPTION	DATE



76+25.00



76+00.00



75+50.00

Thursday, October 25, 2018 1:57:21 PM
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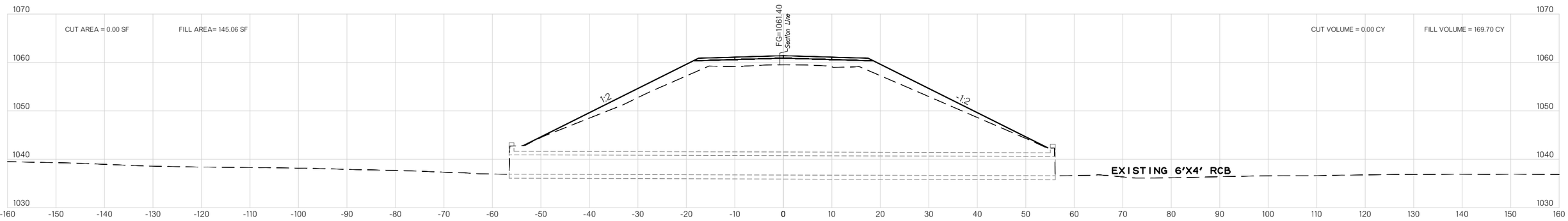
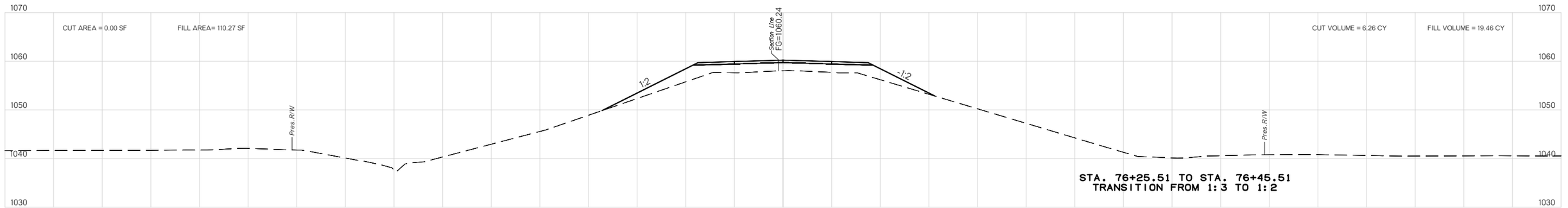
COUNTY KAY HIGHWAY/ROAD CHRYSLER AVE STATE JOB NO. 24432(15) SHEET NO. X044

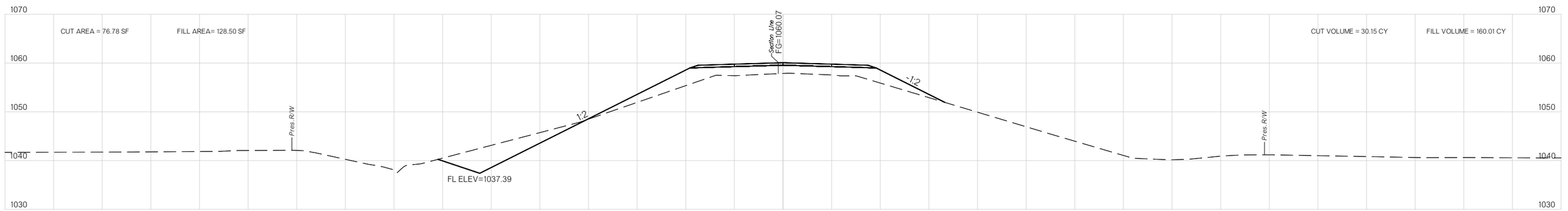
REVISIONS	
DESCRIPTION	DATE



76+85.89



76+50.00



76+45.60

Wednesday, October 24, 2018 1:42:06 PM
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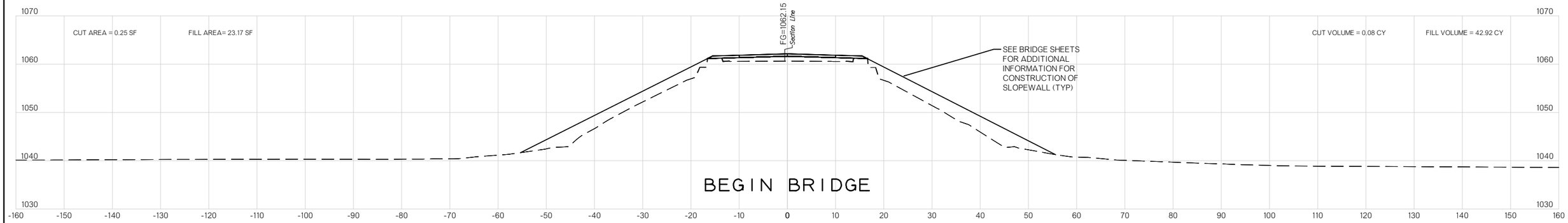
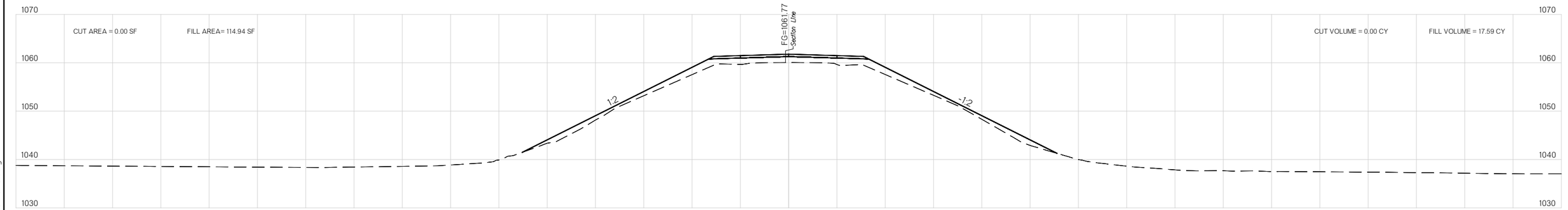
COUNTY KAY HIGHWAY/ROAD CHRYSLER AVE STATE JOB NO. 24432(15) SHEET NO. X045

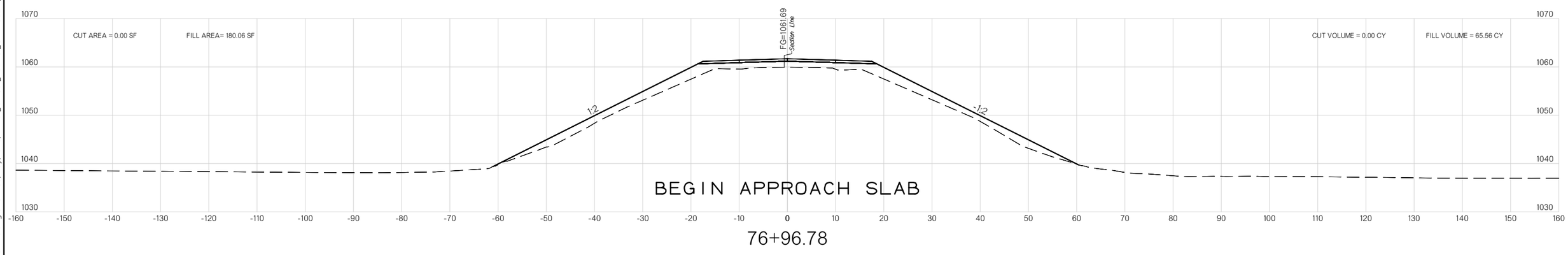
REVISIONS	
DESCRIPTION	DATE



77+16.78



77+00.00



76+96.78

Friday, October 26, 2018 9:43:22 AM
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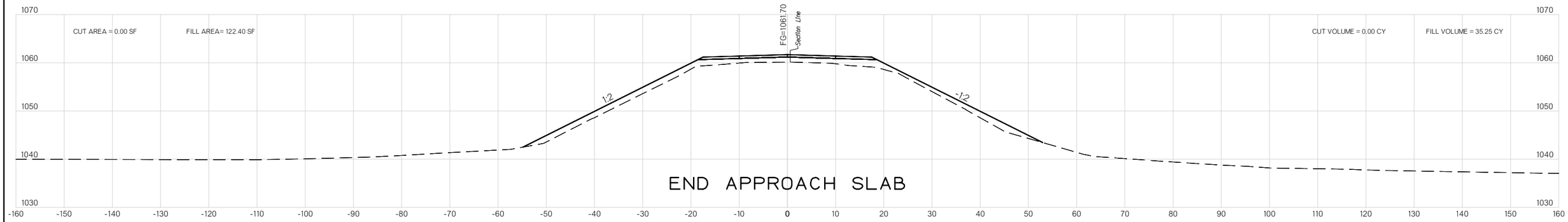
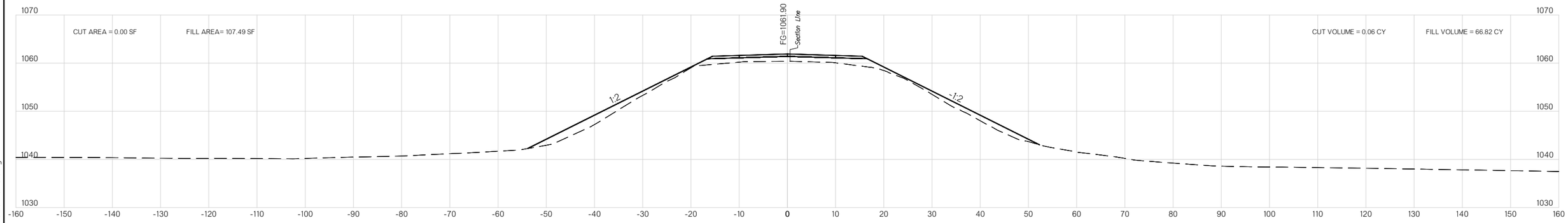
COUNTY KAY HIGHWAY/ROAD CHRYSLER AVE STATE JOB NO. 24432(15) SHEET NO. X046

REVISIONS	
DESCRIPTION	DATE

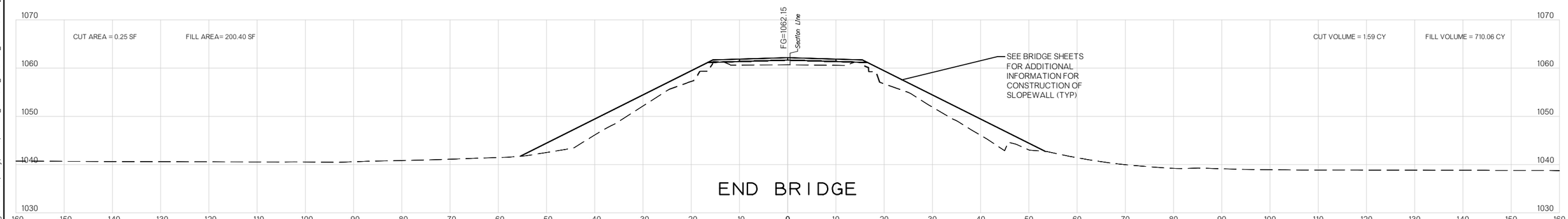


END APPROACH SLAB

79+08.28



79+00.00



END BRIDGE

78+88.28

Friday, October 26, 2018 9:45:25 AM
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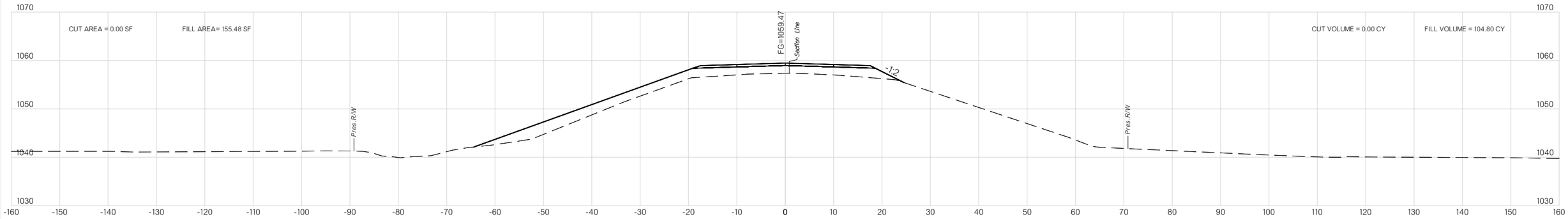
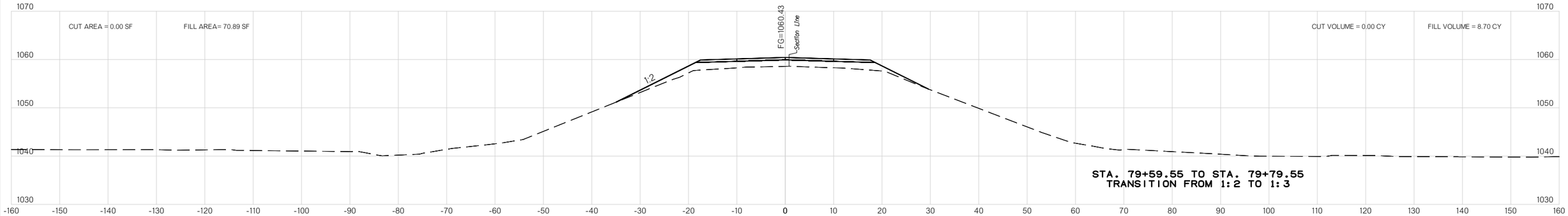
COUNTY KAY HIGHWAY/ROAD CHRYSLER AVE STATE JOB NO. 24432(15) SHEET NO. X047

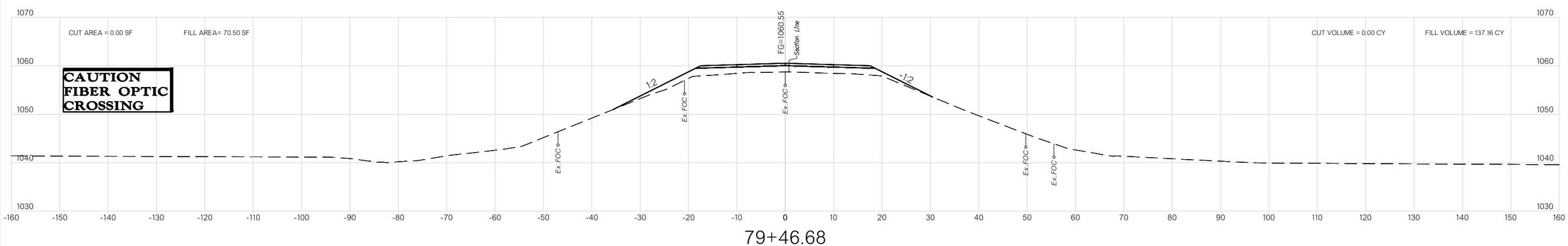
REVISIONS	
DESCRIPTION	DATE



79+75.00



79+50.00

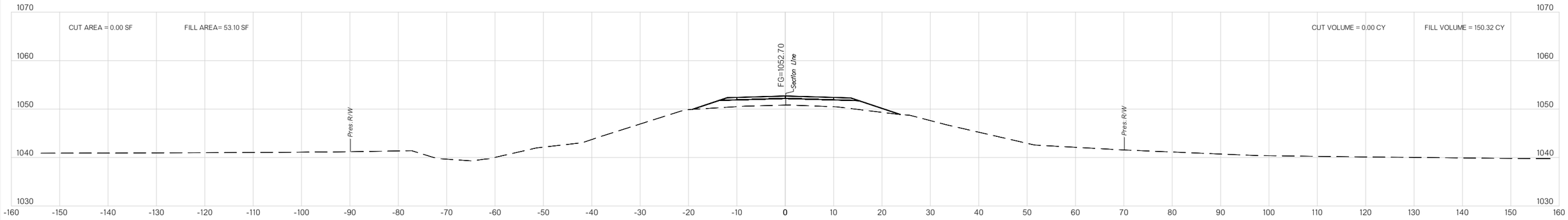


79+46.68

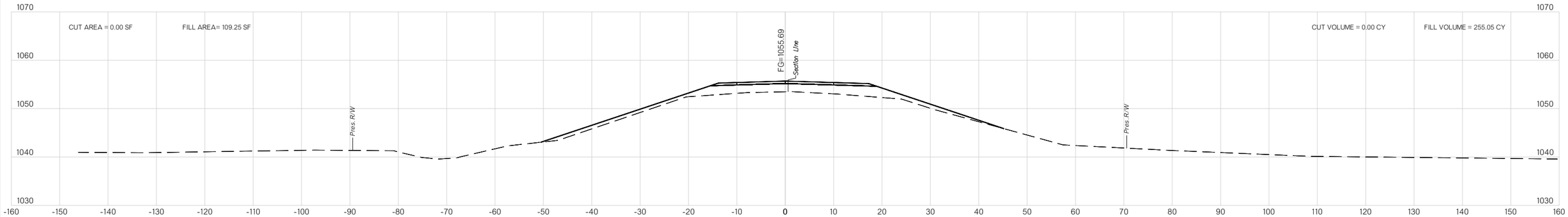
Wednesday, October 24, 2018 1:42:36 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840_HNTB\L_CIV3D\L_PLANS\L_CHRYSLER\L_1070-CHRYSLER SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD CHRYSLER AVE STATE JOB NO. 24432(15) SHEET NO. X048

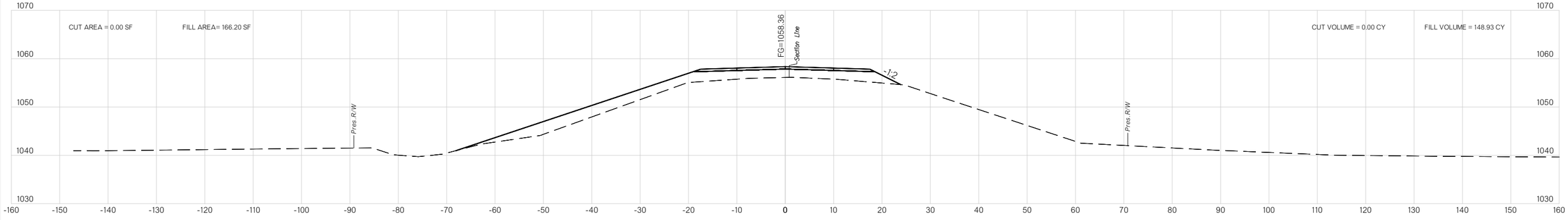
REVISIONS	
DESCRIPTION	DATE



81+00.00



80+50.00



80+00.00

Wednesday, October 24, 2018 1:42:46 PM
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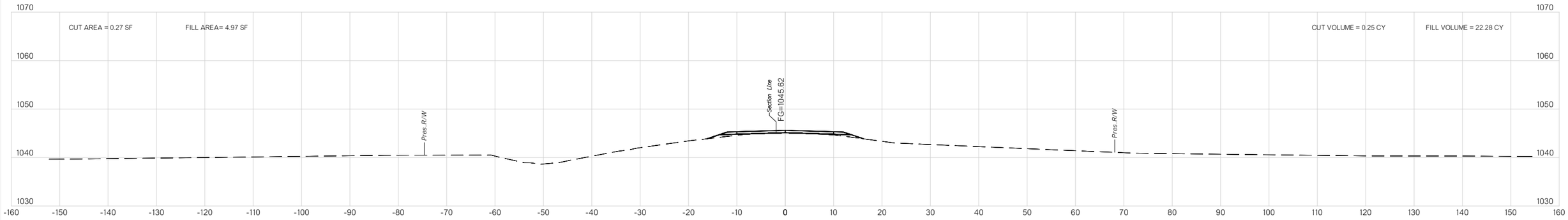
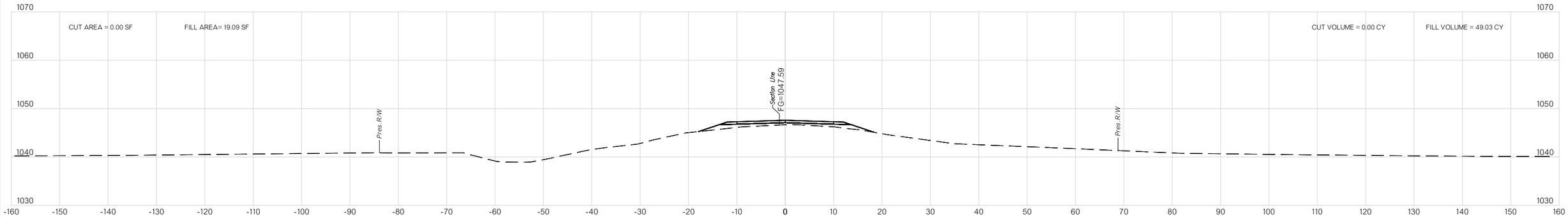
COUNTY KAY HIGHWAY/ROAD CHRYSLER AVE STATE JOB NO. 24432(15) SHEET NO. X049

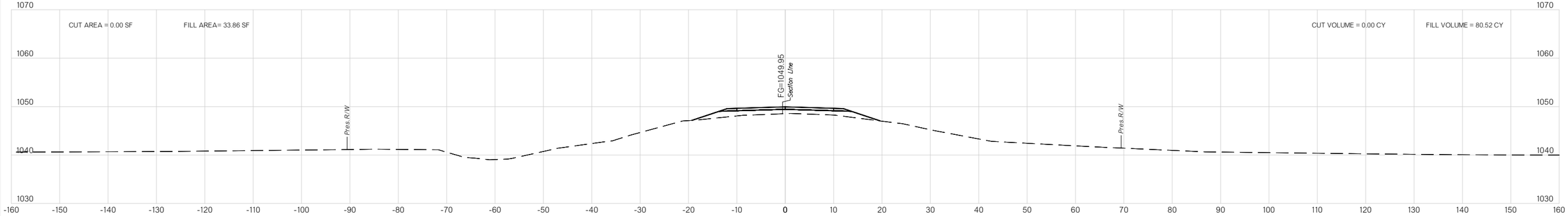
REVISIONS	
DESCRIPTION	DATE



82+50.00



82+00.00

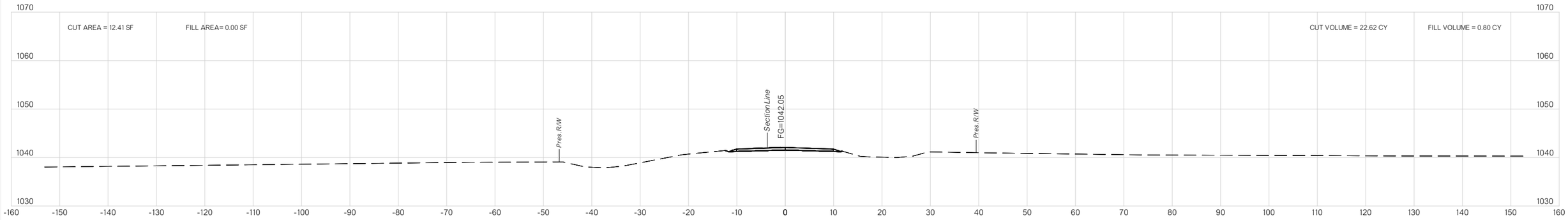


81+50.00

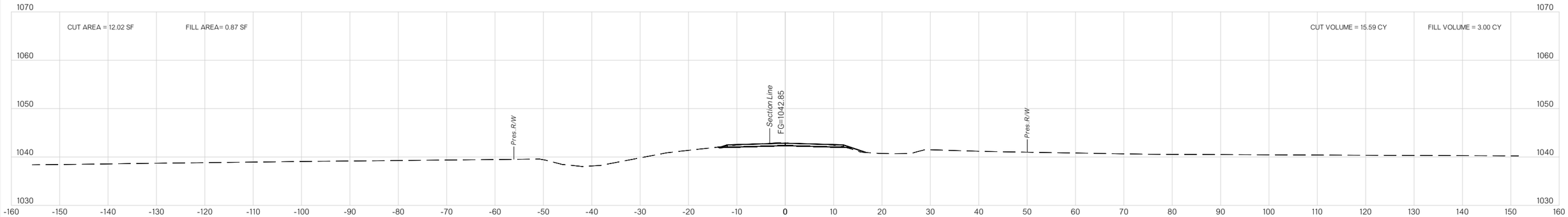
Wednesday, October 24, 2018 1:42:56 PM
V:\1_16-1070E BR Raising Over I-35, Kay, 1840, HNTB\1_CIV3D\1_PLANS\1_CHRYSLER\1_1070-CHRYSLER SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD CHRYSLER AVE STATE JOB NO. 24432(15) SHEET NO. X050

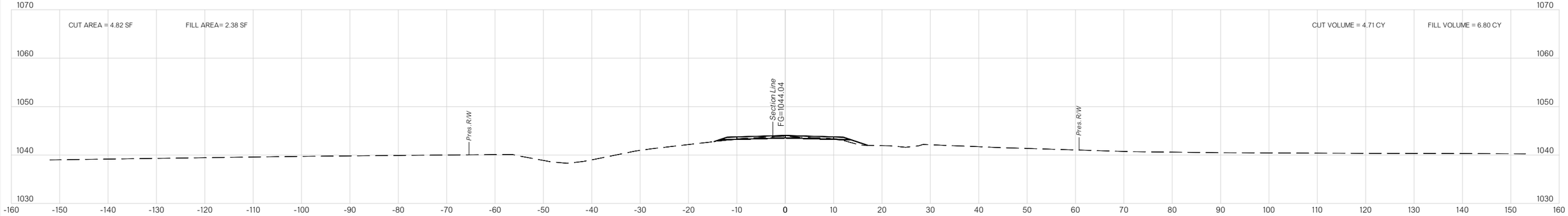
REVISIONS	
DESCRIPTION	DATE



84+00.00



83+50.00

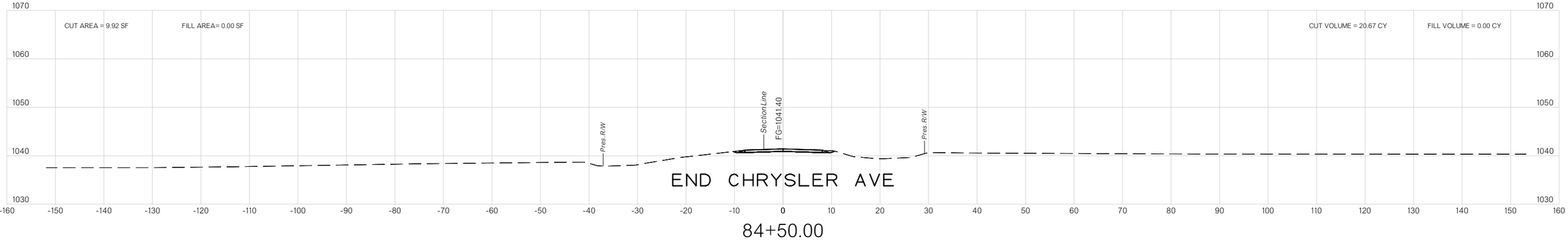


83+00.00

Wednesday, October 24, 2018 1:43:06 PM
V:\fl_16-1070E BR Raising Over I-35, Koy, 1840, HNTB\fl_CIV3D\fl_PLANS\fl_CHRYSLER\fl_1070-CHRYSLER SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD CHRYSLER AVE STATE JOB NO. 24432(15) SHEET NO. X051

REVISIONS	
DESCRIPTION	DATE



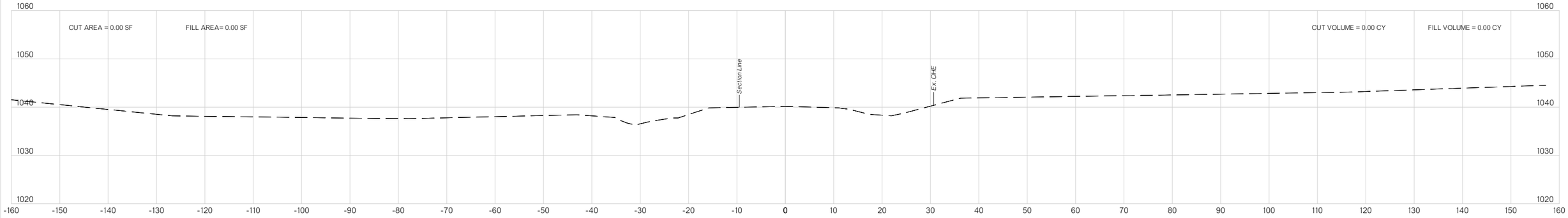
END CHRYSLER AVE

84+50.00

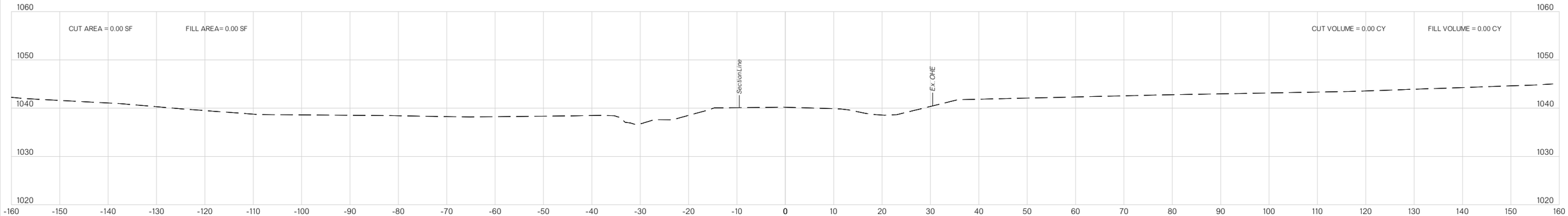
COUNTY KAY HIGHWAY/ROAD CHRYSLER AVE STATE JOB NO. 24432(15) SHEET NO. X052

Wednesday, October 24, 2018 1:43:16 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L CIV3D\L PLANS\L CHRYSLER\L 1070-CHRYSLER SECTIONS.dwg

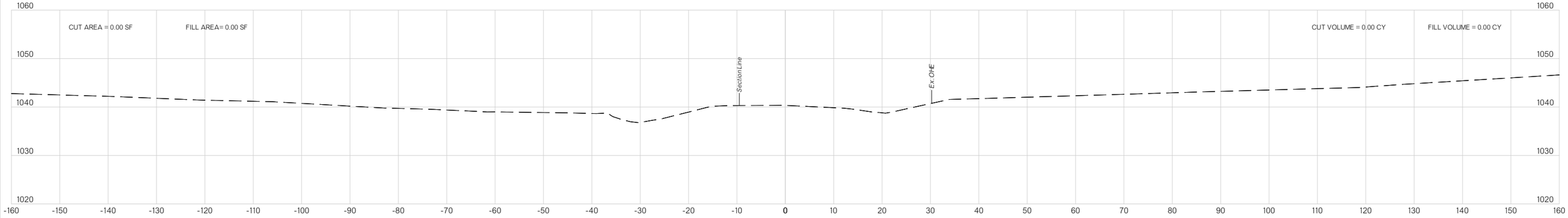
REVISIONS	
DESCRIPTION	DATE



73+50.00



73+00.00

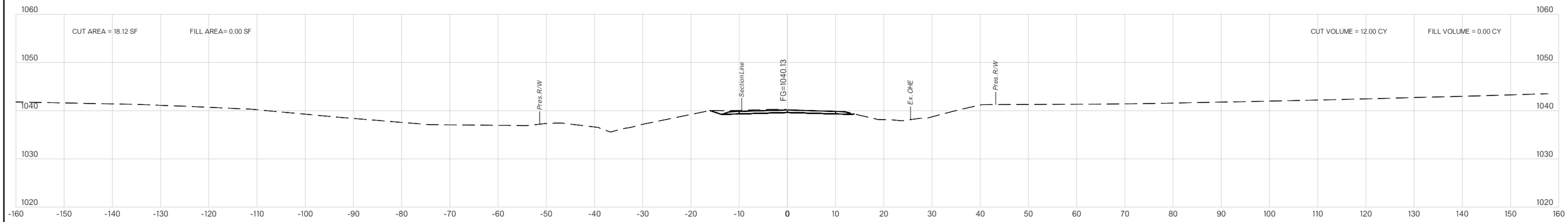


72+50.00

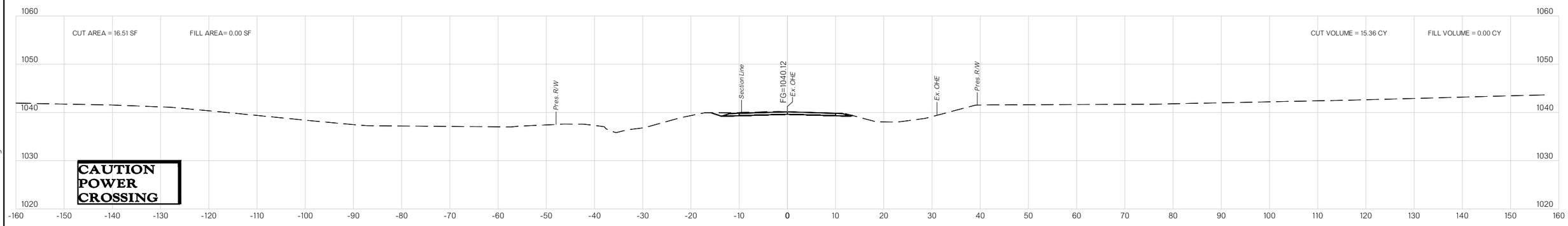
Wednesday, October 24, 2018 2:26:35 PM
V:\1_16-1070E BR Raising Over I-35, Kay, 1840, HNTB\1_CIV3D\1_PLANS\1_FERGUSON\1_1070-FERGUSON SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD FERGUSON AVE STATE JOB NO. 24432(15) SHEET NO. X053

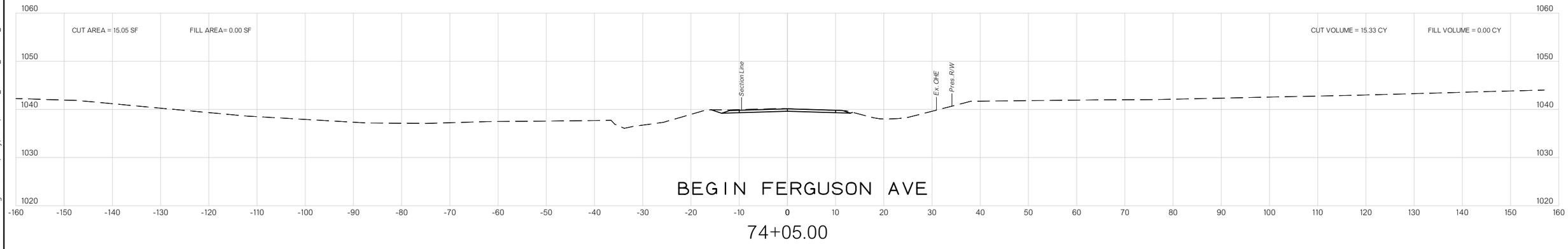
REVISIONS	
DESCRIPTION	DATE



74+50.00



74+31.29

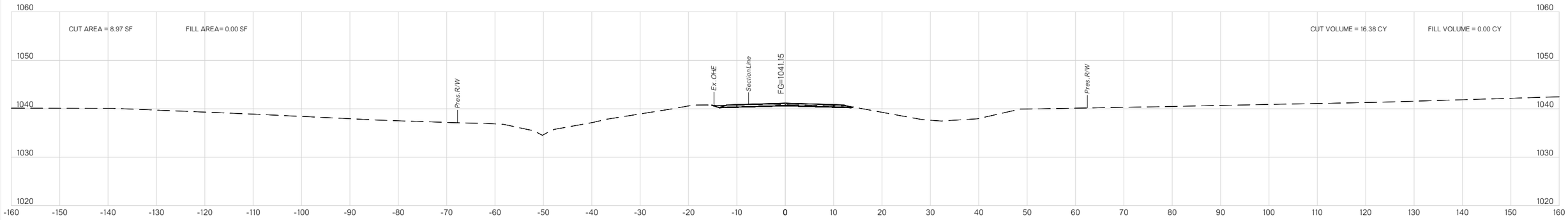


74+05.00

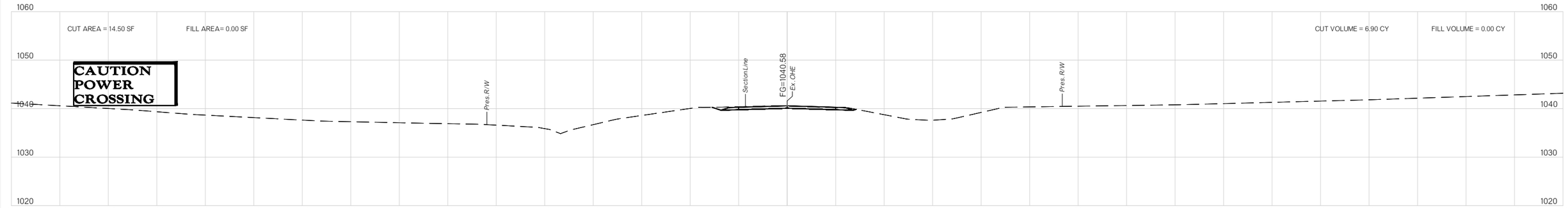
COUNTY KAY HIGHWAY/ROAD FERGUSON AVE STATE JOB NO. 24432(15) SHEET NO. X054

Thursday, October 25, 2018 1:36:44 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L CIV3D\L PLANS\L FERGUSON\L 1070-FERGUSON SECTIONS.dwg

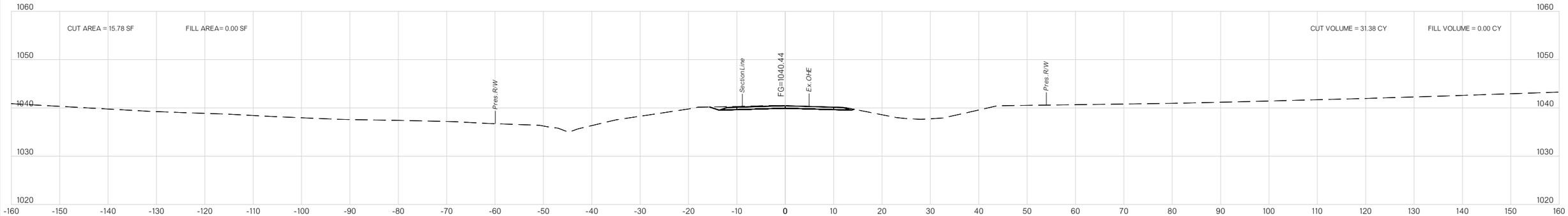
REVISIONS	
DESCRIPTION	DATE



75+50.00



75+12.30

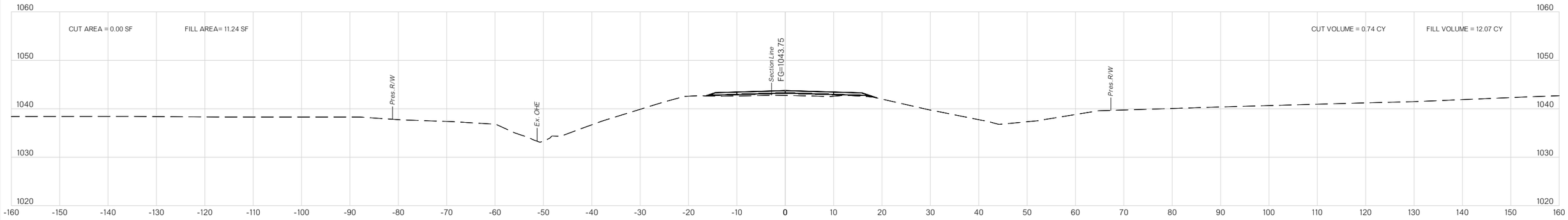


75+00.00

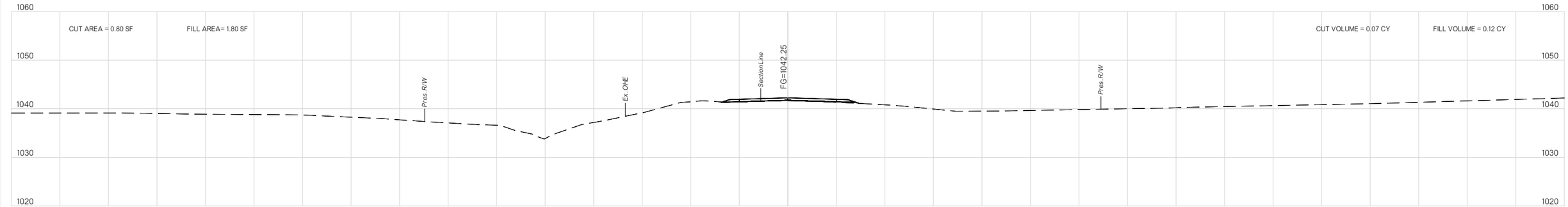
Wednesday, October 24, 2018 1:44:01 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L CIV\3DF\L PLANS\L FERGUSON\L 1070-FERGUSON SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD FERGUSON AVE STATE JOB NO. 24432(15) SHEET NO. X055

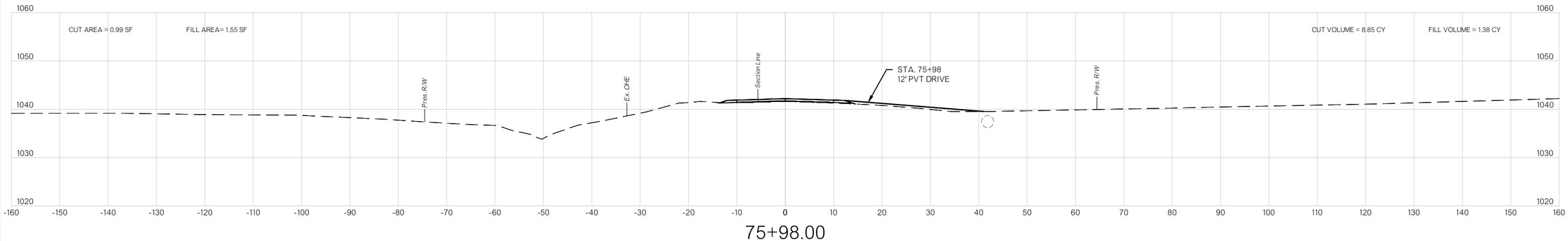
REVISIONS	
DESCRIPTION	DATE



76+50.00



76+00.00

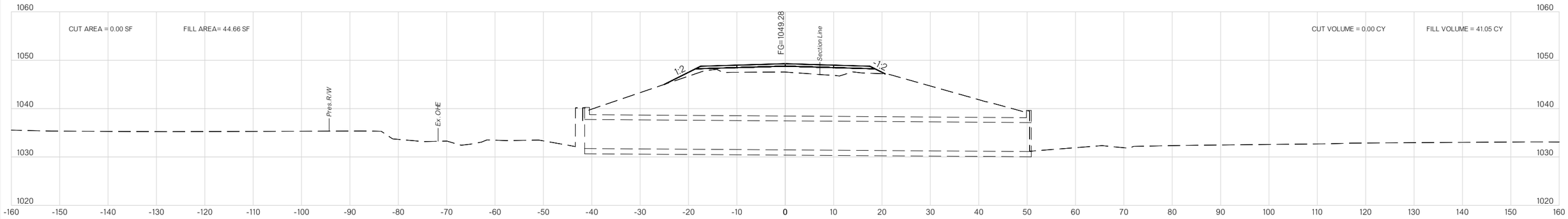


75+98.00

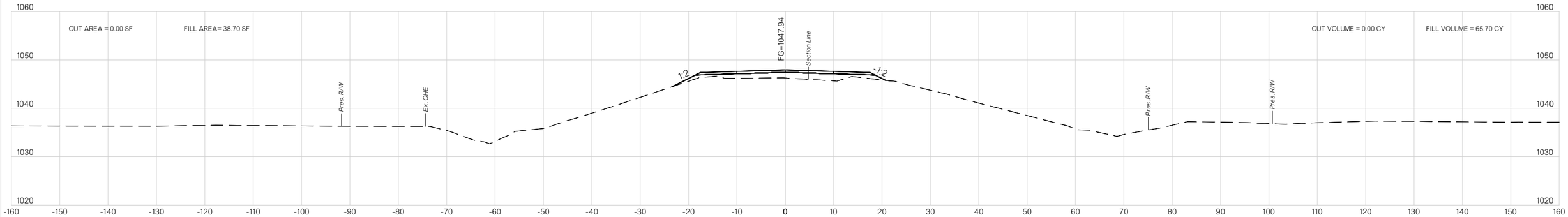
COUNTY KAY HIGHWAY/ROAD FERGUSON AVE STATE JOB NO. 24432(15) SHEET NO. X056

Wednesday, October 24, 2018 1:44:11 PM
V:\E_16-1070E BR Raising Over I-35, Kay, 1840, HNTB\E_CIV3D\E_PLANS\E_FERGUSON\E_1070-FERGUSON SECTIONS.dwg

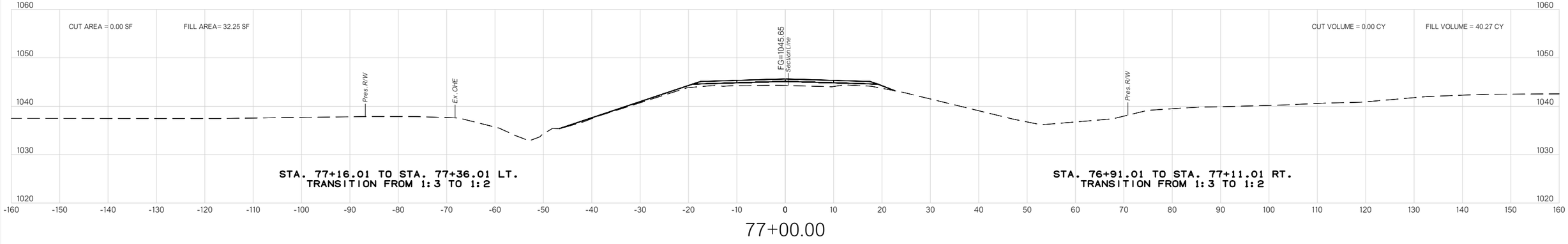
REVISIONS	
DESCRIPTION	DATE



77+76.59



77+50.00



STA. 77+16.01 TO STA. 77+36.01 LT.
TRANSITION FROM 1:3 TO 1:2

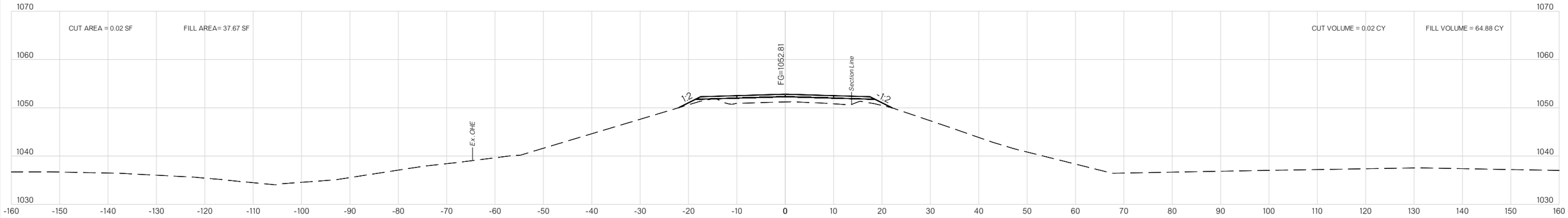
STA. 76+91.01 TO STA. 77+11.01 RT.
TRANSITION FROM 1:3 TO 1:2

77+00.00

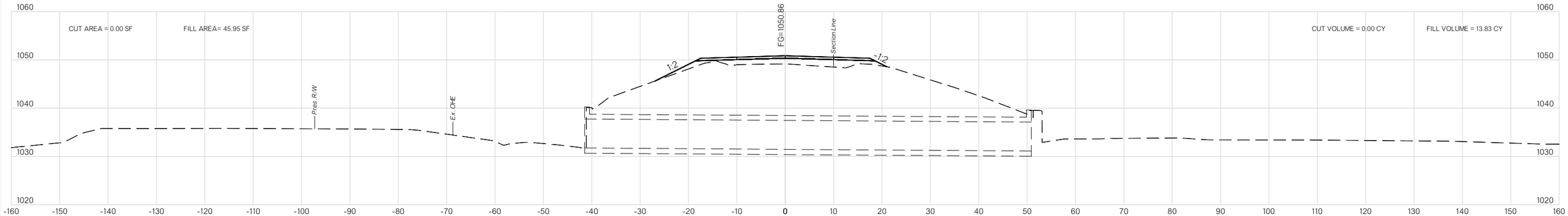
Wednesday, October 24, 2018 1:44:21 PM
V:\FI_16-1070E BR Raising Over I-35, Kay, 1840_HNTB\E_CIV3D\E_PLANS\E_FERGUSON\E_1070-FERGUSON SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD FERGUSON AVE STATE JOB NO. 24432(15) SHEET NO. X057

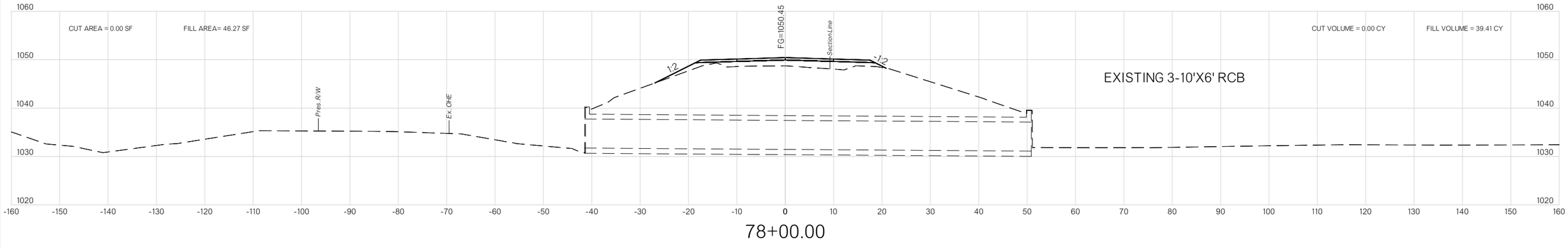
REVISIONS	
DESCRIPTION	DATE



78+50.00



78+08.10

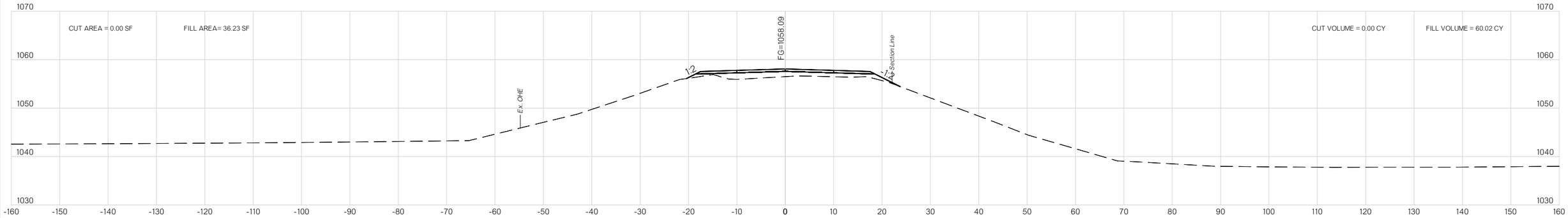


78+00.00

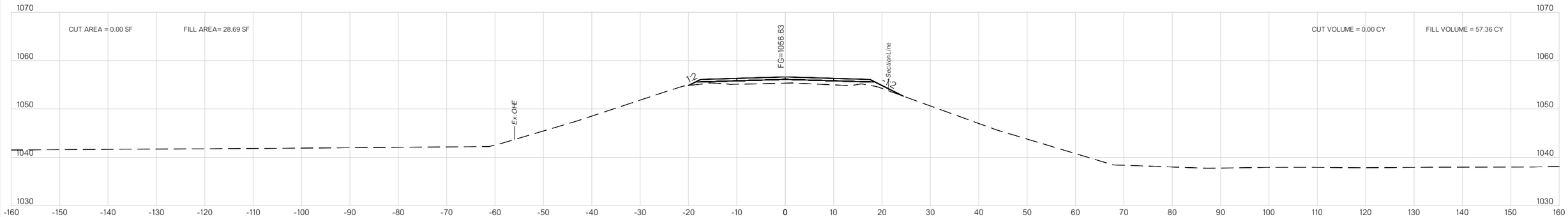
COUNTY KAY HIGHWAY/ROAD FERGUSON AVE STATE JOB NO. 24432(15) SHEET NO. X058

Wednesday, October 24, 2018 1:44:31 PM
V:\1_16-1070E BR Raising Over I-35, Kay, 1840_HNTB\1_CIV3D\1_PLANS\1_FERGUSON\1_1070-FERGUSON SECTIONS.dwg

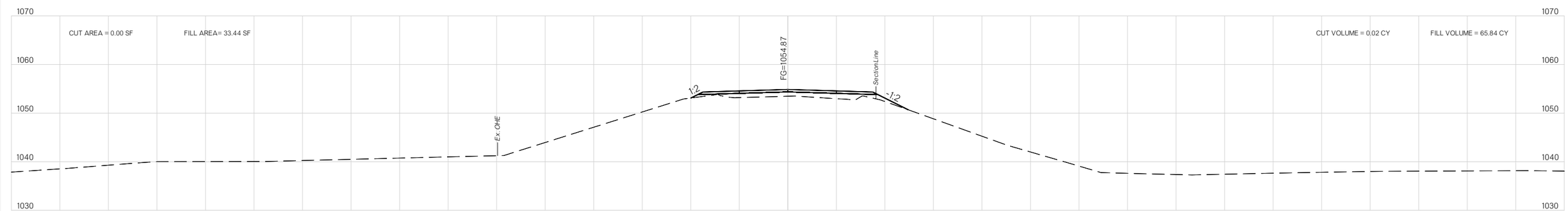
REVISIONS	
DESCRIPTION	DATE



80+00.00



79+50.00

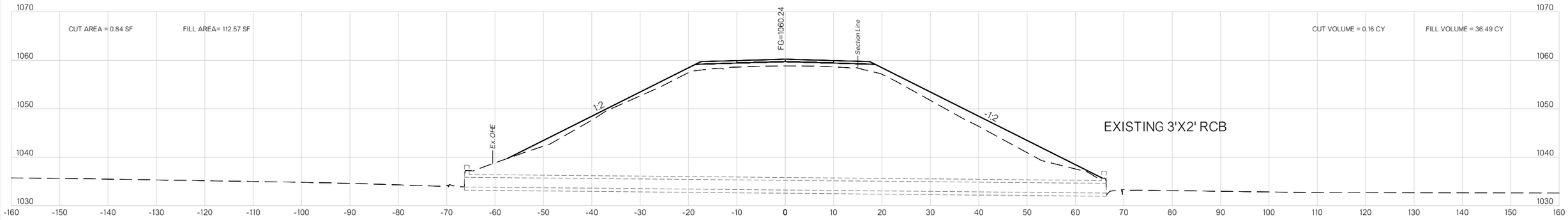


79+00.00

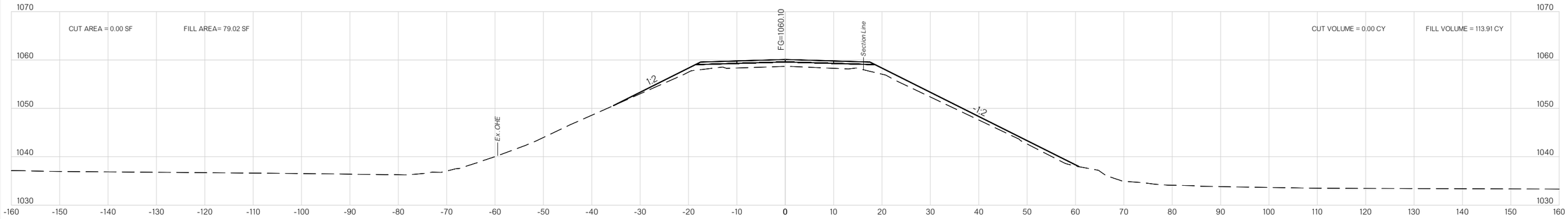
Wednesday, October 24, 2018 1:44:41 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L CIV3D\L PLANS\L FERGUSON\L 1070-FERGUSON SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD FERGUSON AVE STATE JOB NO. 24432(15) SHEET NO. X059

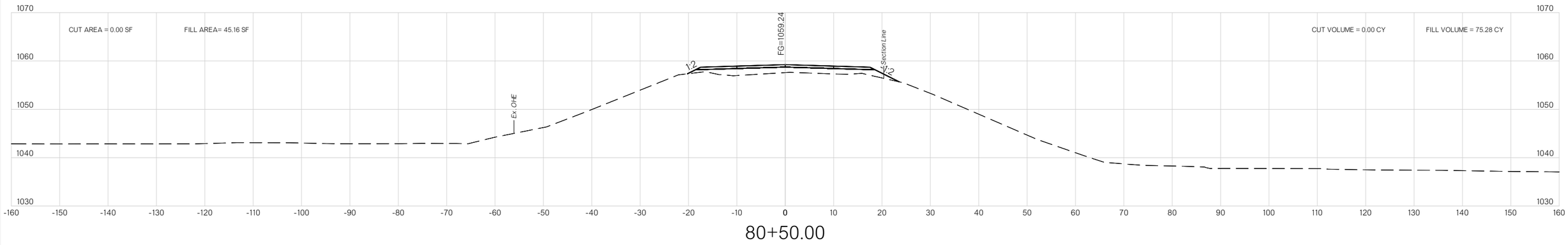
REVISIONS	
DESCRIPTION	DATE



81+10.28



81+00.00

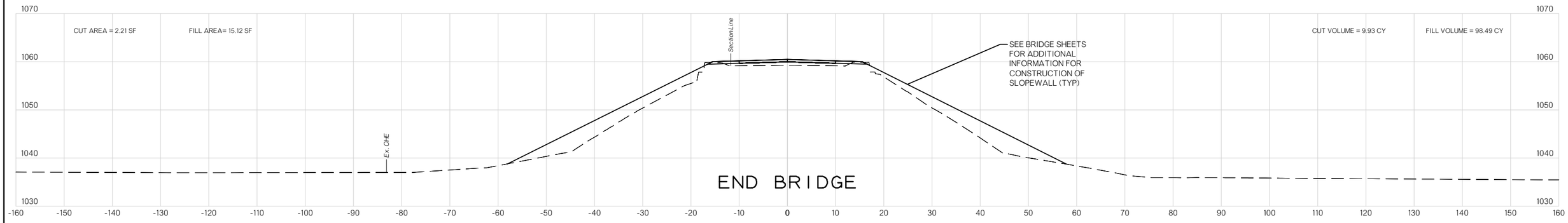


80+50.00

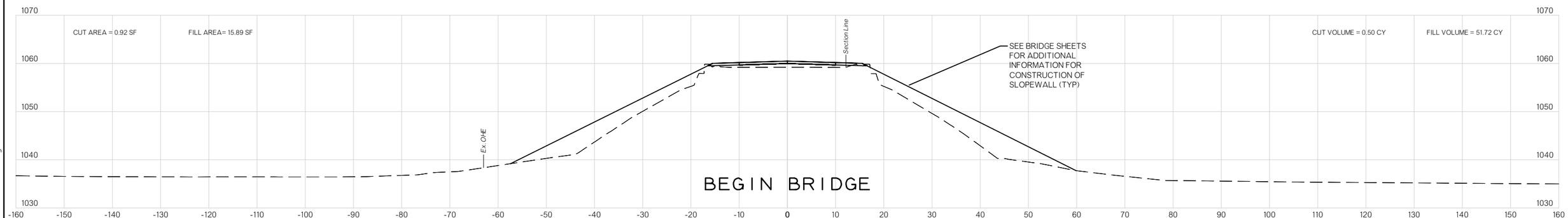
Wednesday, October 24, 2018 1:44:51 PM
V:\E 16-1070E BR Raising Over I-35, Kay, 1840, HNTB\E_CIV3D\E_PLANS\E_FERGUSON\E_1070-FERGUSON SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD FERGUSON AVE STATE JOB NO. 24432(15) SHEET NO. X060

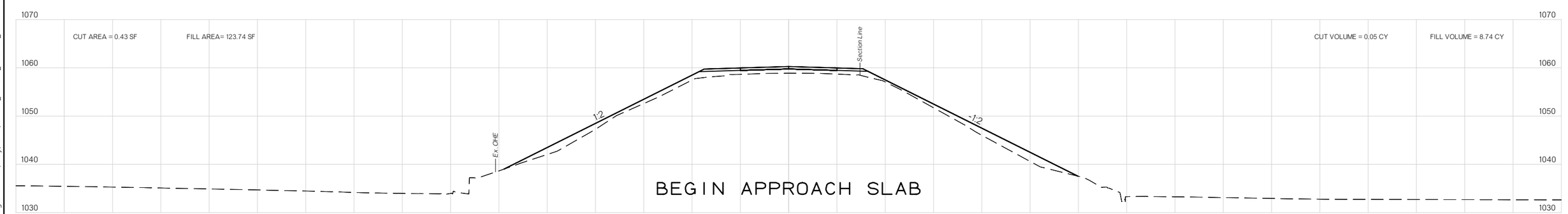
REVISIONS	
DESCRIPTION	DATE



83+03.78



81+32.28

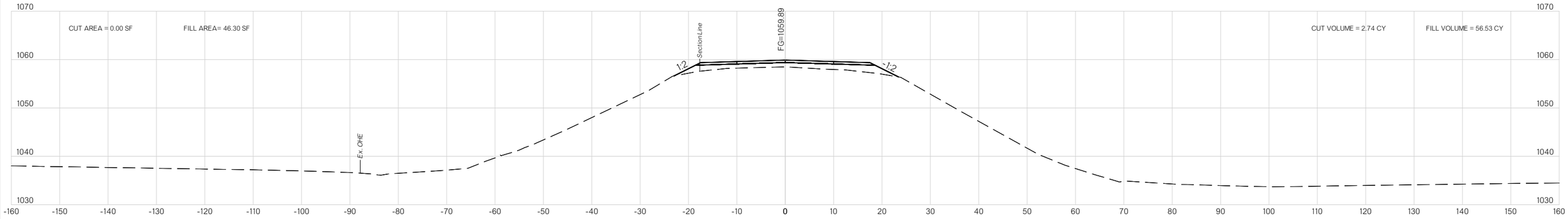


81+12.28

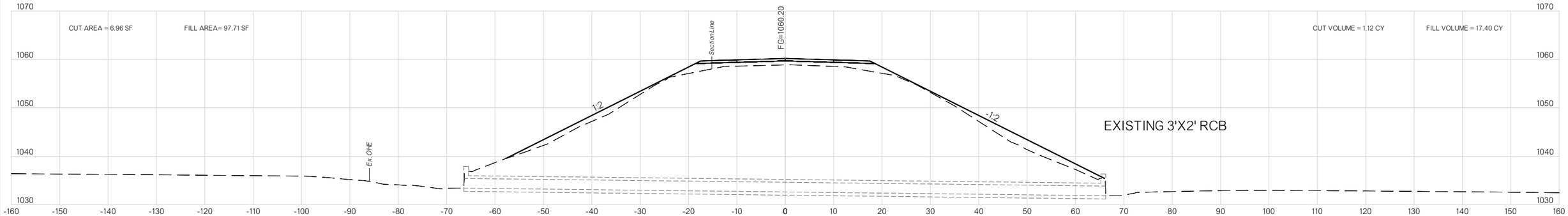
COUNTY KAY HIGHWAY/ROAD FERGUSON AVE STATE JOB NO. 24432(15) SHEET NO. X061

Friday, October 26, 2018 9:49:45 AM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L CIV3D\L PLANS\L FERGUSON\L 1070-FERGUSON SECTIONS.dwg

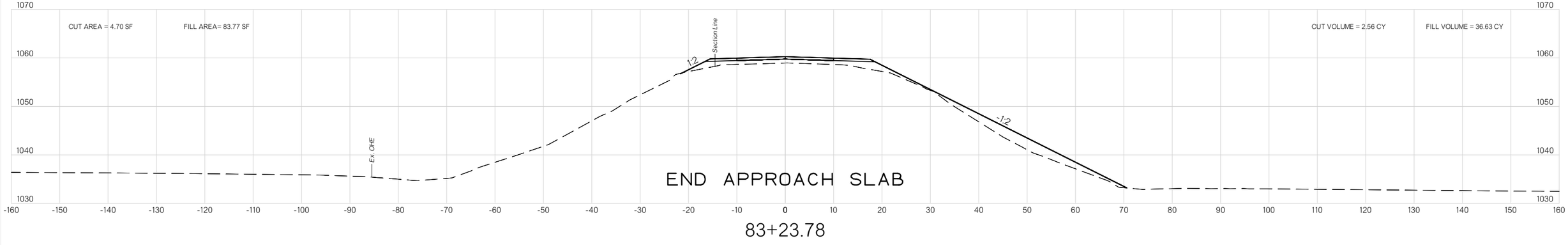
REVISIONS	
DESCRIPTION	DATE



83+50.00



83+28.96

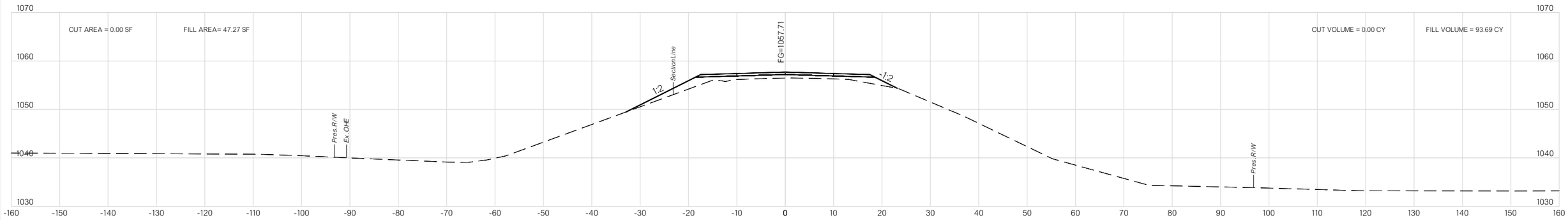


83+23.78

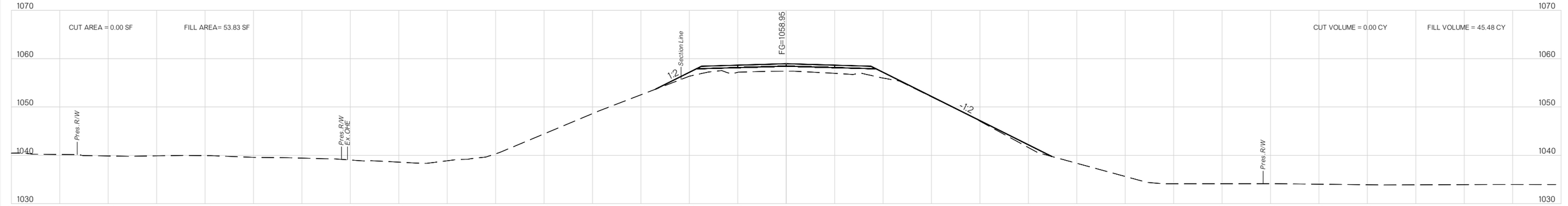
COUNTY KAY HIGHWAY/ROAD FERGUSON AVE STATE JOB NO. 24432(15) SHEET NO. X062

Wednesday, October 24, 2018 1:45:11 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L CIV3D\L PLANS\L FERGUSON\L 1070-FERGUSON SECTIONS.dwg

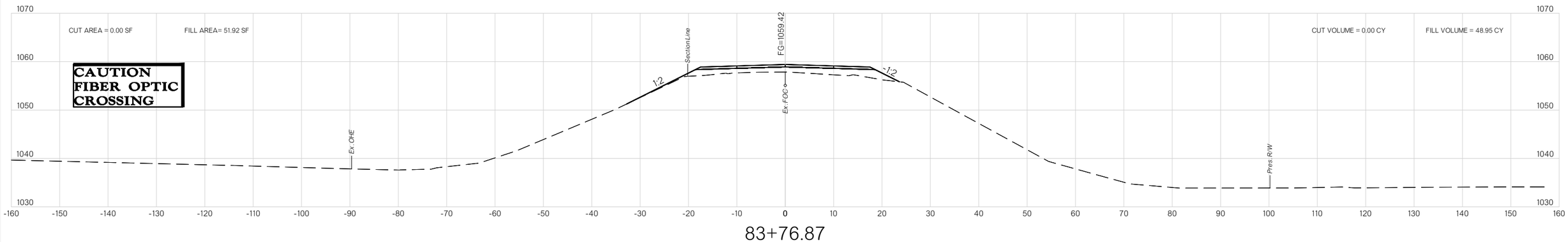
REVISIONS	
DESCRIPTION	DATE



84+50.00



84+00.00

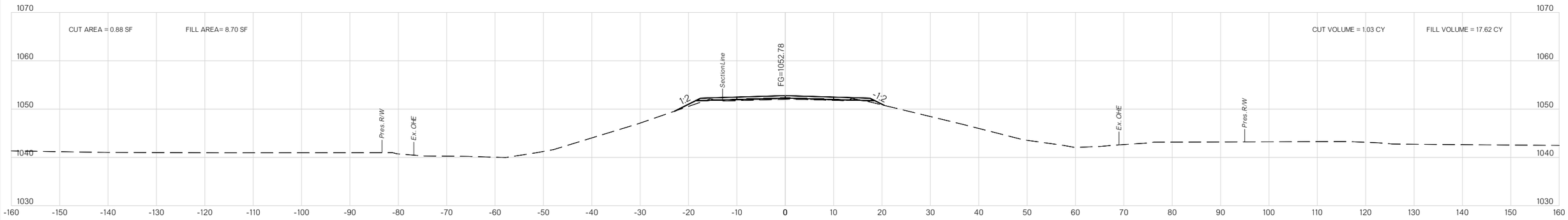


83+76.87

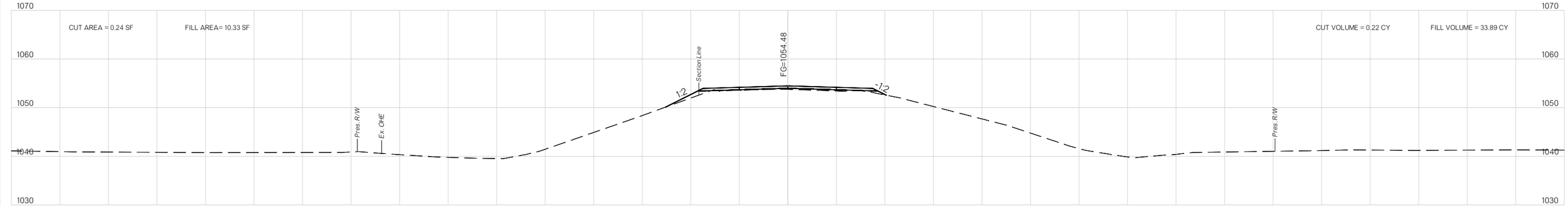
COUNTY KAY HIGHWAY/ROAD FERGUSON AVE STATE JOB NO. 24432(15) SHEET NO. X063

Wednesday, October 24, 2018 1:45:21 PM
V:\FL16-1070E BR Raising Over I-35, Kay, 1840, HNTB\FL C1V3D\FL PLANS\FL FERGUSON\FL_1070-FERGUSON SECTIONS.dwg

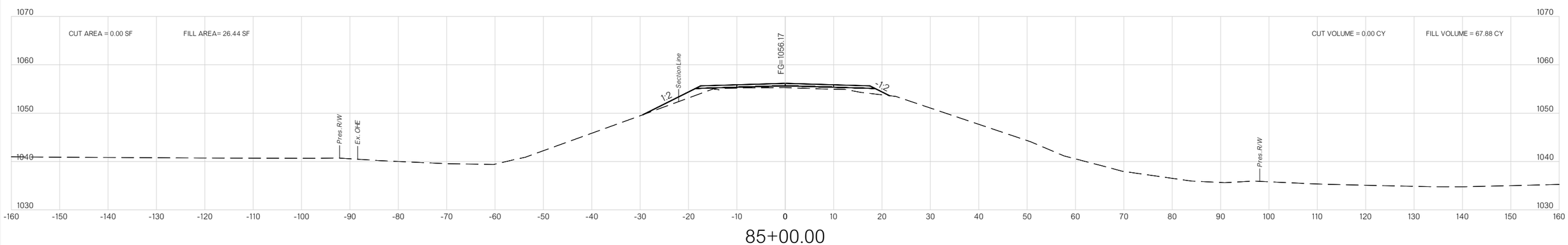
REVISIONS	
DESCRIPTION	DATE



86+00.00



85+50.00

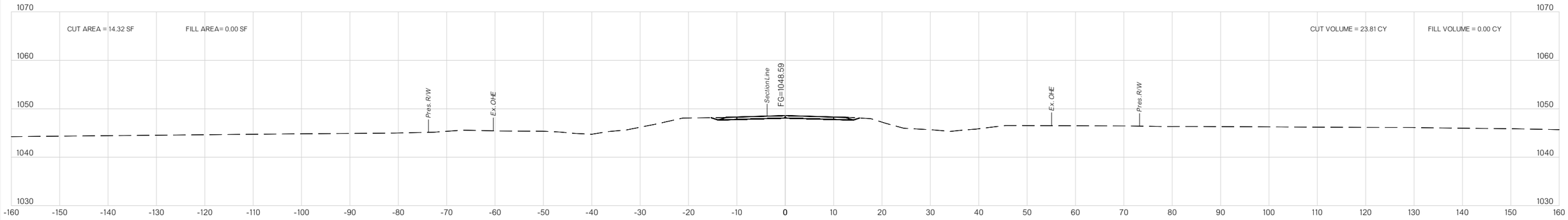


85+00.00

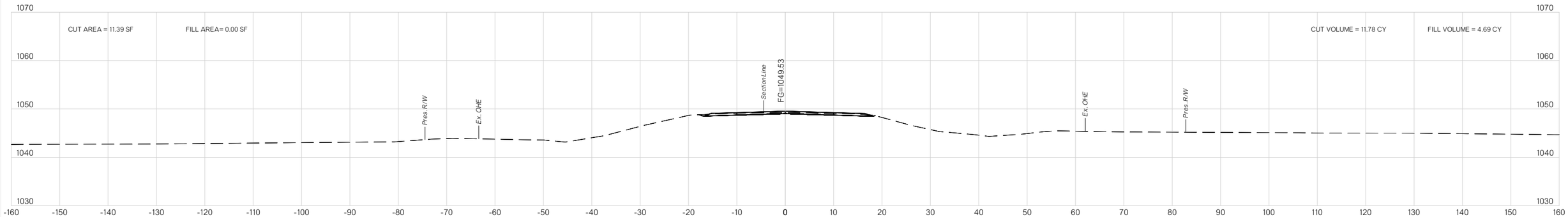
COUNTY KAY HIGHWAY/ROAD FERGUSON AVE STATE JOB NO. 24432(15) SHEET NO. X064

Wednesday, October 24, 2018 1:45:31 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L_CIV3D\L_PLANS\L_FERGUSON\L_1070-FERGUSON SECTIONS.dwg

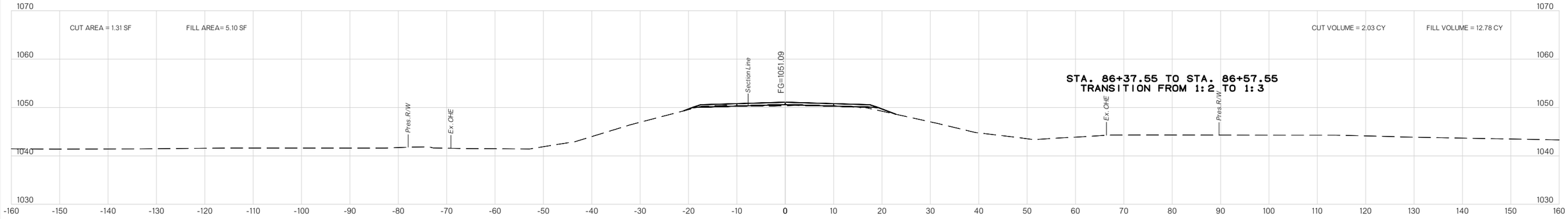
REVISIONS	
DESCRIPTION	DATE



87+50.00



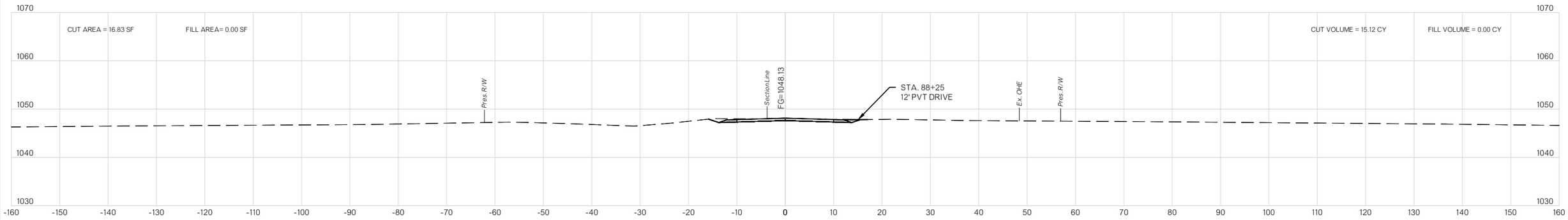
87+00.00



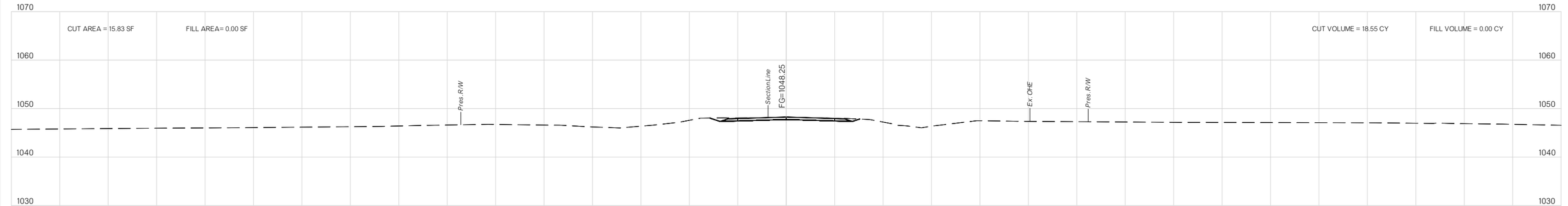
86+50.00

Wednesday, October 24, 2018 1:45:41 PM
V:\FL 16-1070E BR Raising Over I-35, Koy, 1840, HNTB\FL CIV 3D\FL PLANS\FERGUSON\FL 1070-FERGUSON SECTIONS.dwg

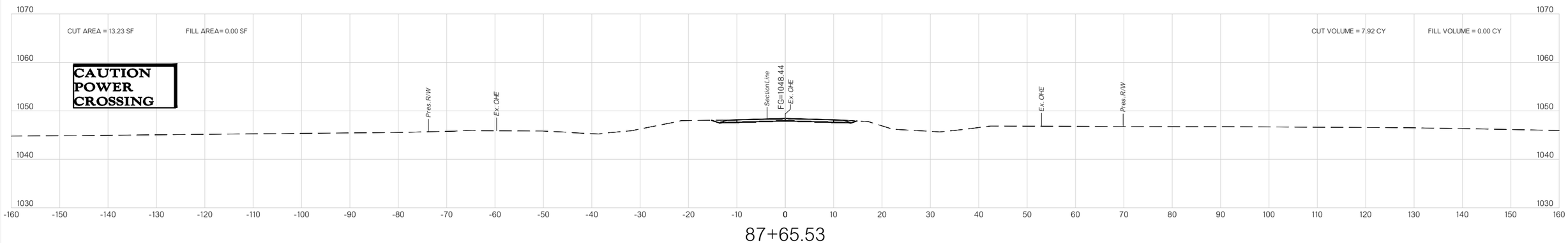
REVISIONS	
DESCRIPTION	DATE



88+25.00



88+00.00

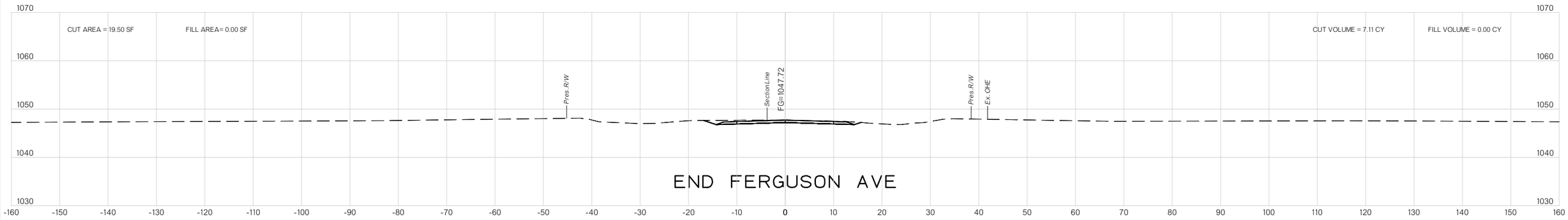


87+65.53

COUNTY KAY HIGHWAY/ROAD FERGUSON AVE STATE JOB NO. 24432(15) SHEET NO. X066

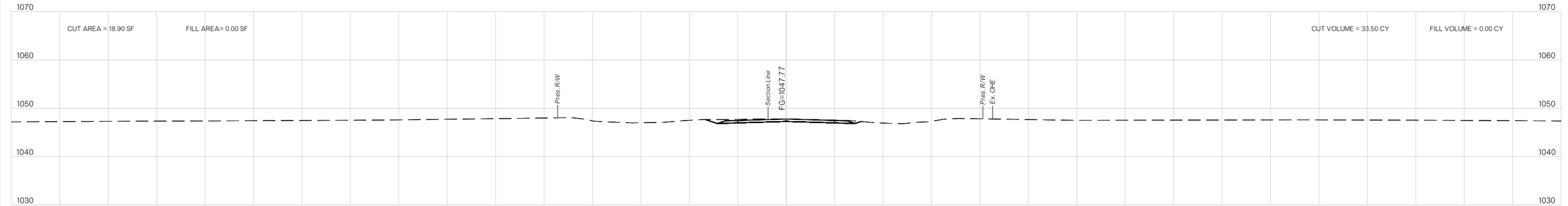
Wednesday, October 24, 2018 1:45:51 PM
V:\E_16-1070E BR Raising Over I-35, Kay, 1840, HNTB\E_CIV3D\E_PLANS\E_FERGUSON\E_1070-FERGUSON SECTIONS.dwg

REVISIONS	
DESCRIPTION	DATE

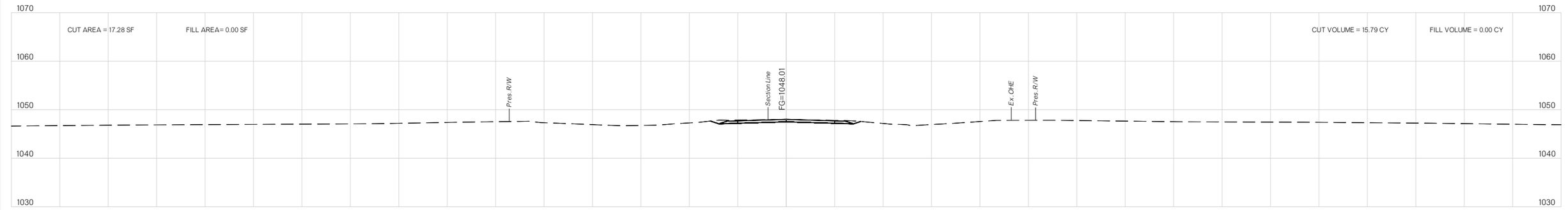


END FERGUSON AVE

89+10.00



89+00.00

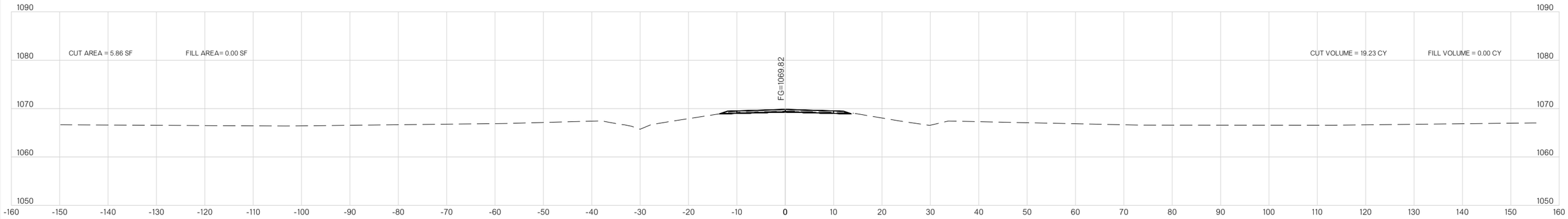


88+50.00

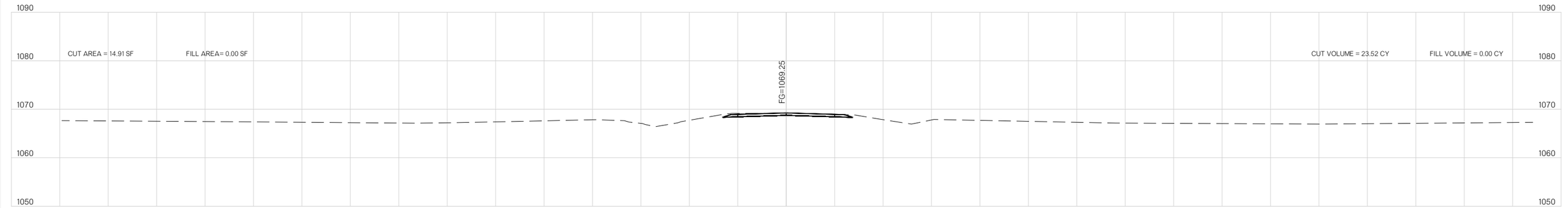
COUNTY KAY HIGHWAY/ROAD FERGUSON AVE STATE JOB NO. 24432(15) SHEET NO. X067

Wednesday, October 24, 2018 1:46:01 PM
V:\E_16-1070E BR Raising Over I-35, Kay, 1840, HNTB\E_CIV3D\E_PLANS\E_FERGUSON\E_1070-FERGUSON SECTIONS.dwg

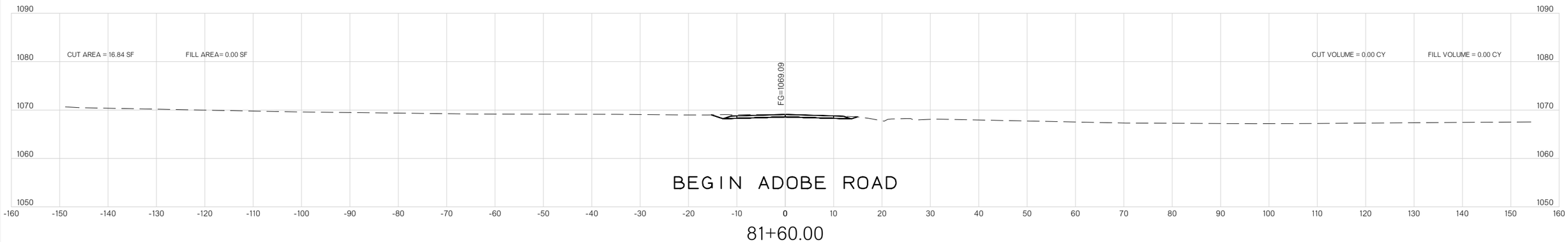
REVISIONS	
DESCRIPTION	DATE



82+50.00



82+00.00

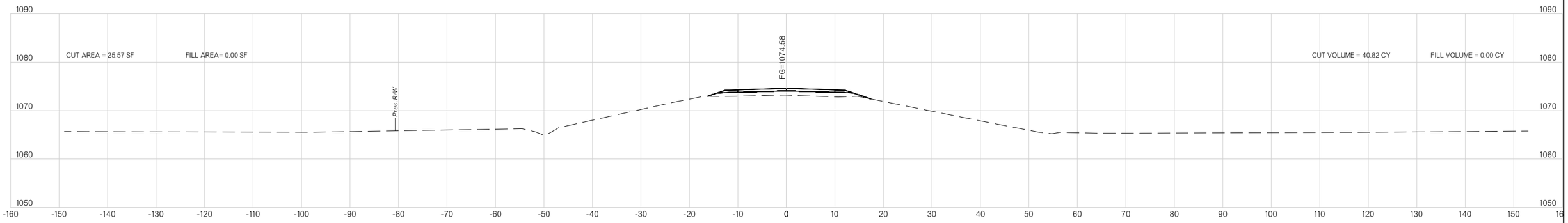


81+60.00

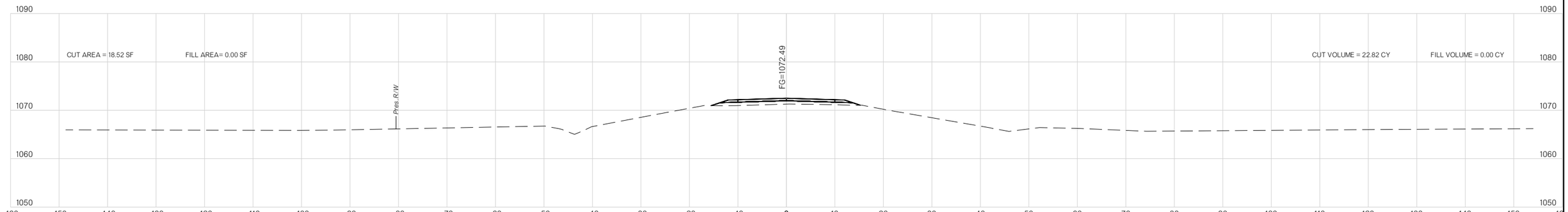
COUNTY KAY HIGHWAY/ROAD ADOBE ROAD STATE JOB NO. 24432(15) SHEET NO. X068

Wednesday, October 24, 2018 1:46:22 PM
V:\FL16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L C\V3D\FL PLANS\L ADOBE\L 1070-ADOBE SECTIONS.dwg

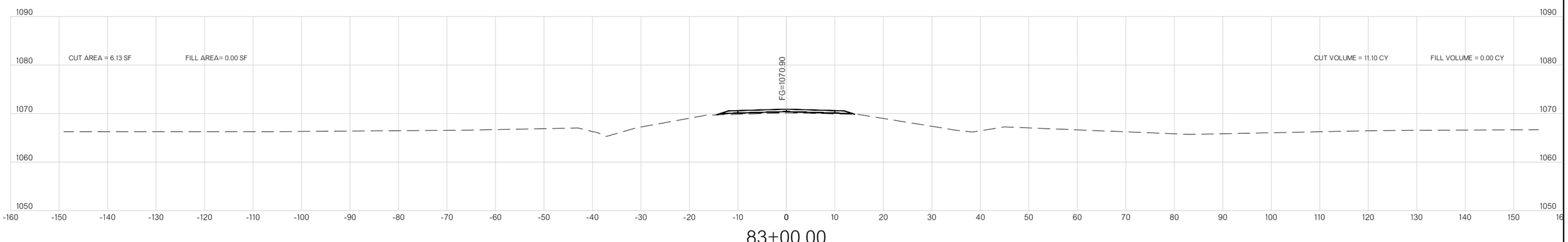
REVISIONS	
DESCRIPTION	DATE



84+00.00



83+50.00



83+00.00

COUNTY KAY HIGHWAY/ROAD ADOBE ROAD STATE JOB NO. 24432(15) SHEET NO. X069

Wednesday, October 24, 2018 1:46:31 PM
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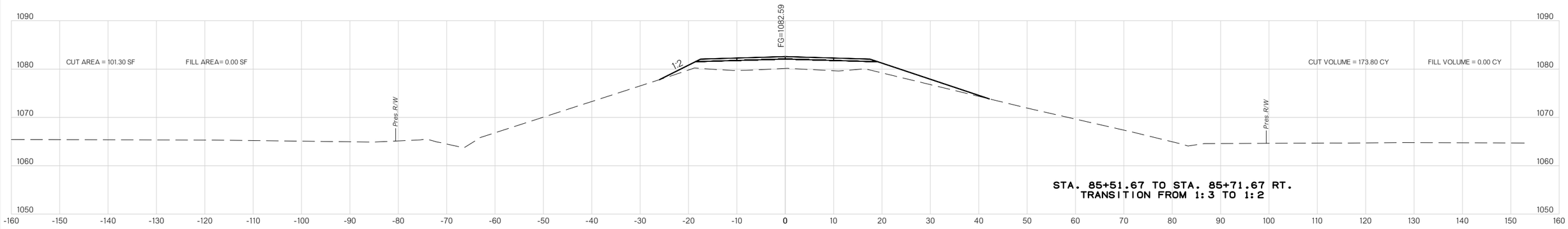
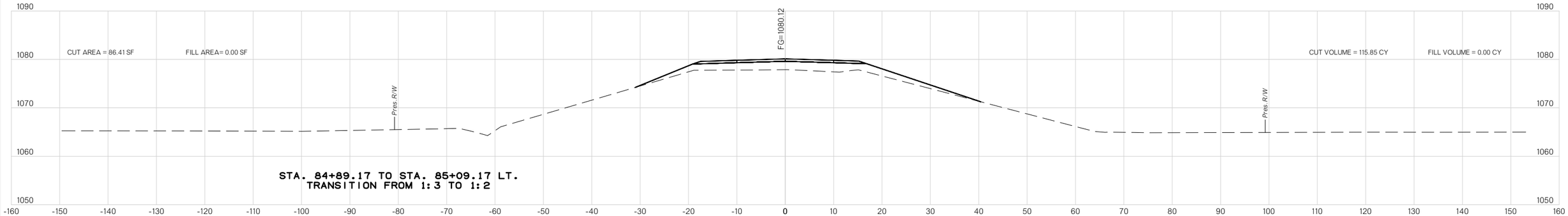
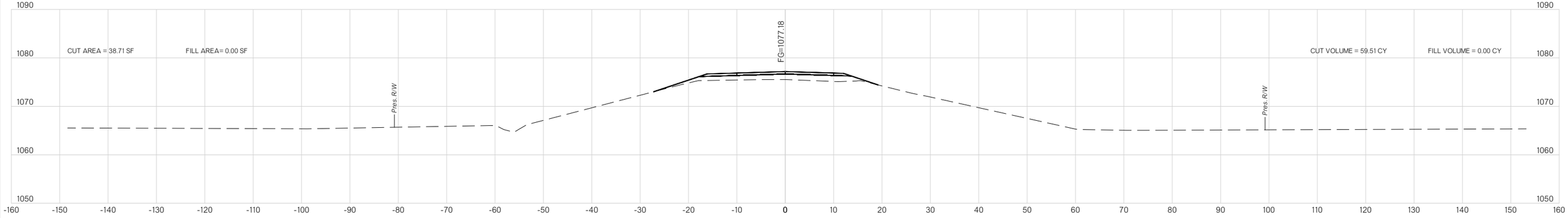
REVISIONS	
DESCRIPTION	DATE



85+50.00



85+00.00

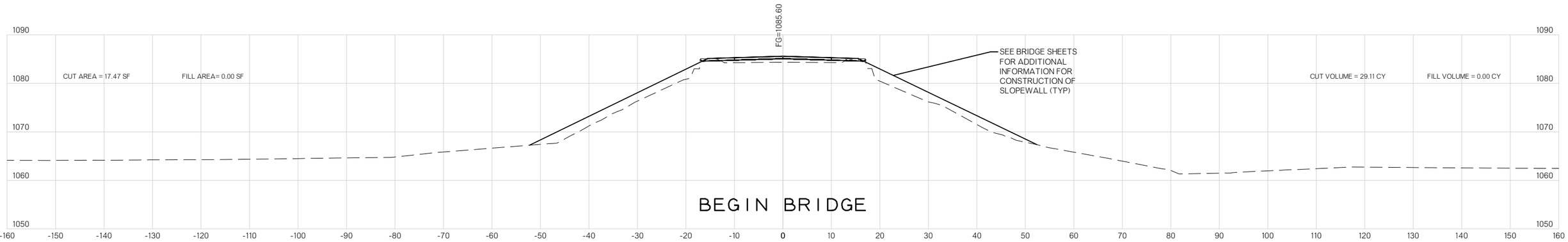


84+50.00

Wednesday, October 24, 2018 1:46:41 PM
V:\1_16-1070E BR Raising Over I-35, Kay, 1840, HNTB\1_CIV3D\1_PLANS\1_ADOBE\1_1070-ADOBE SECTIONS.dwg

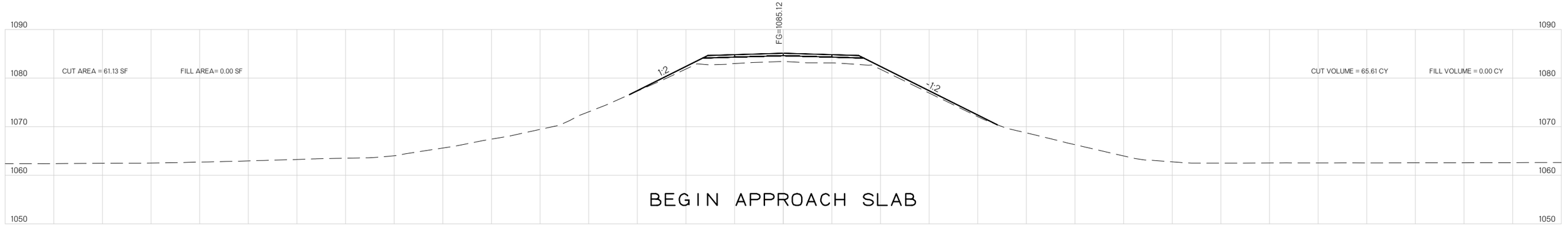
COUNTY KAY HIGHWAY/ROAD ADOBE ROAD STATE JOB NO. 24432(15) SHEET NO. X070

REVISIONS	
DESCRIPTION	DATE



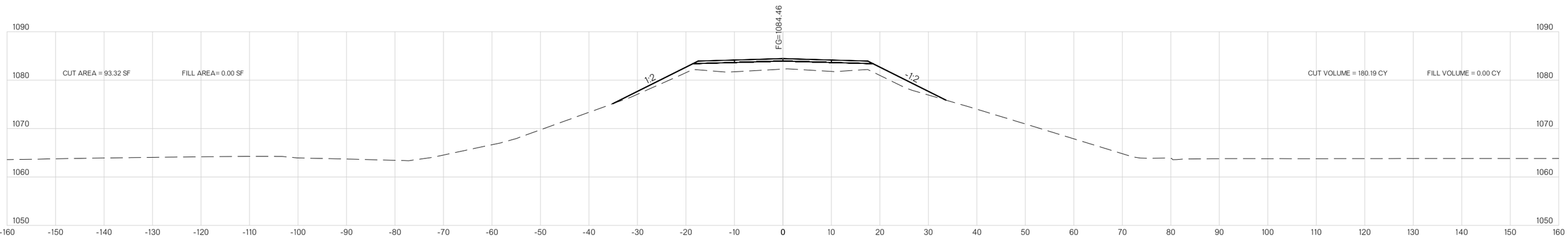
BEGIN BRIDGE

86+42.94



BEGIN APPROACH SLAB

86+22.94

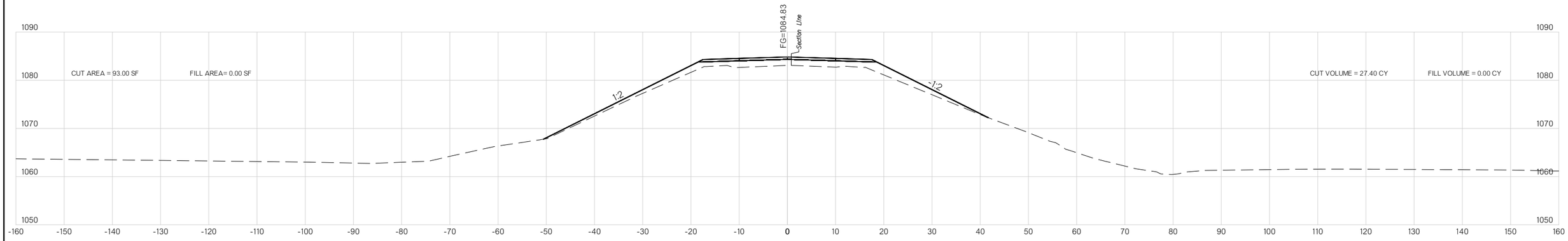


86+00.00

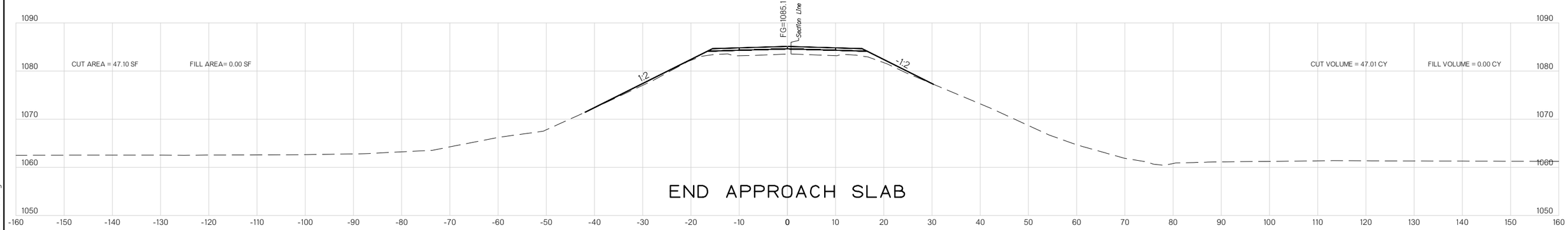
Friday, October 26, 2018 9:51:59 AM
V:\L16-1070E BR Raising Over I-35, Kay, 18-40, HNTB\L CIV 3D\L PLANS\L ADOBE\L 1070-ADOBE SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD ADOBE ROAD STATE JOB NO. 24432(15) SHEET NO. X071

REVISIONS	
DESCRIPTION	DATE

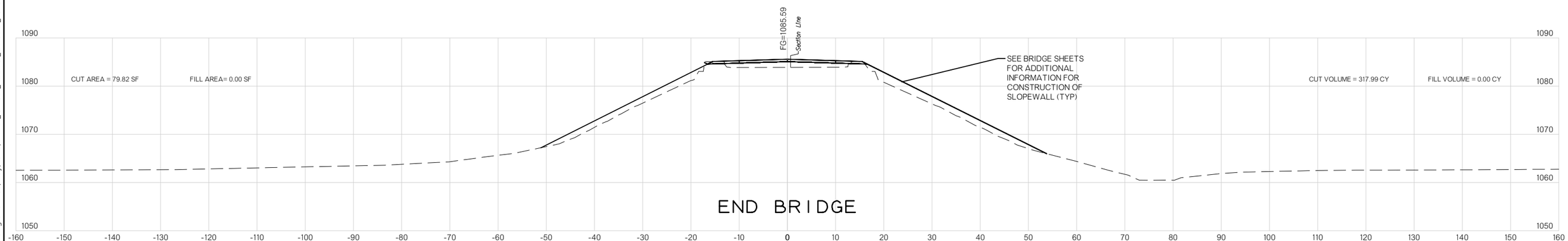


88+50.00



END APPROACH SLAB

88+39.44



END BRIDGE

88+19.44

Friday, October 26, 2018 9:53:51 AM
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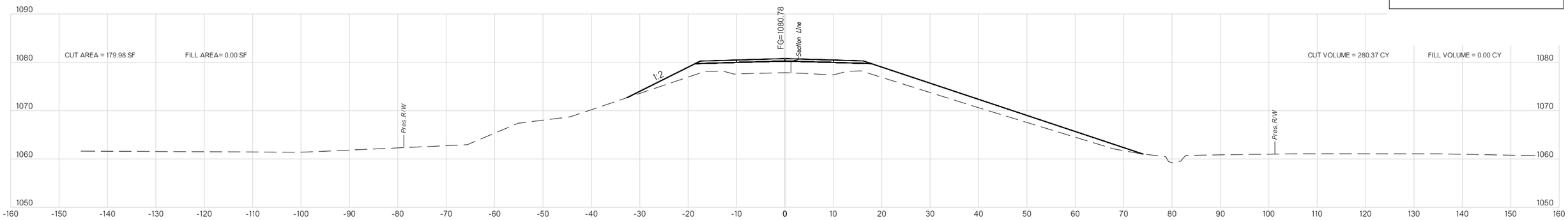
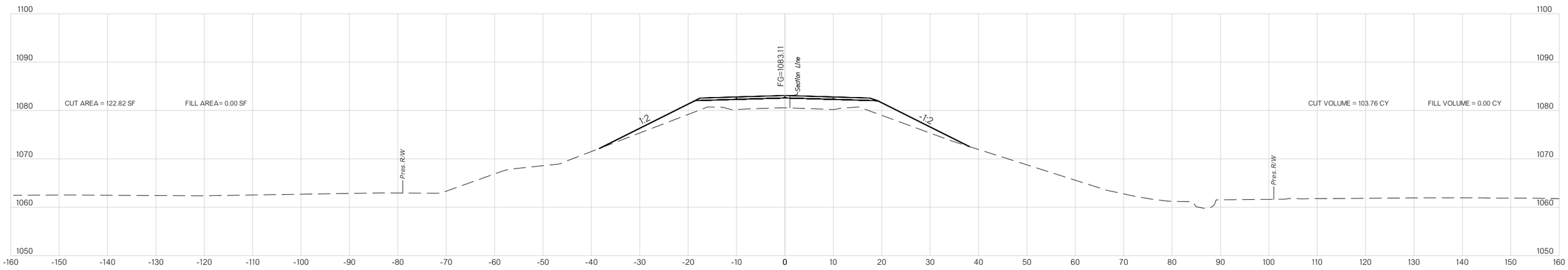
COUNTY KAY HIGHWAY/ROAD ADOBE ROAD STATE JOB NO. 24432(15) SHEET NO. X072

REVISIONS	
DESCRIPTION	DATE

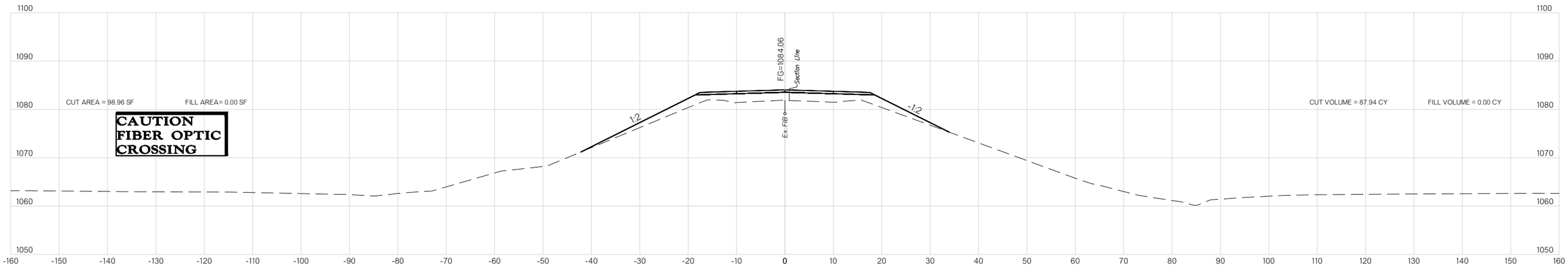


STA. 89+53.21 TO STA. 89+73.21 LT.
TRANSITION FROM 1:2 TO 1:3

89+50.00



89+00.00



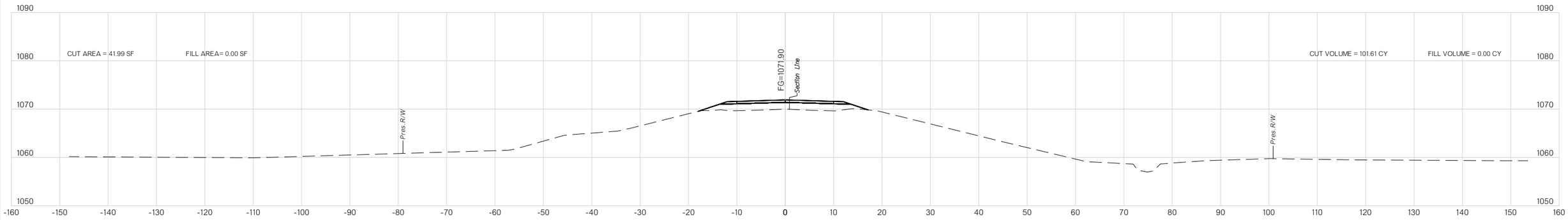
88+74.74

STA. 88+90.71 TO STA. 89+10.71 RT.
TRANSITION FROM 1:2 TO 1:3

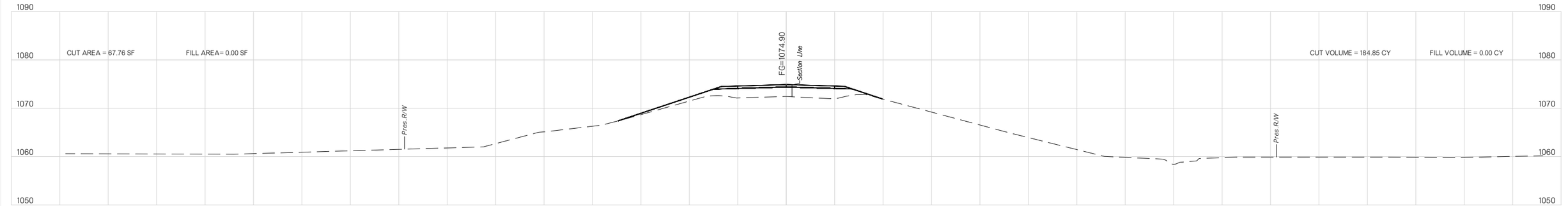
COUNTY KAY HIGHWAY/ROAD ADOBE ROAD STATE JOB NO. 24432(15) SHEET NO. X073

Wednesday, October 24, 2018 1:47:11 PM
V:\E_16-1070E BR Raising Over I-35, Kay, 1840, HNTB\E_CIV3D\E_PLANS\E_ADOBE\E_1070-ADOBE SECTIONS.dwg

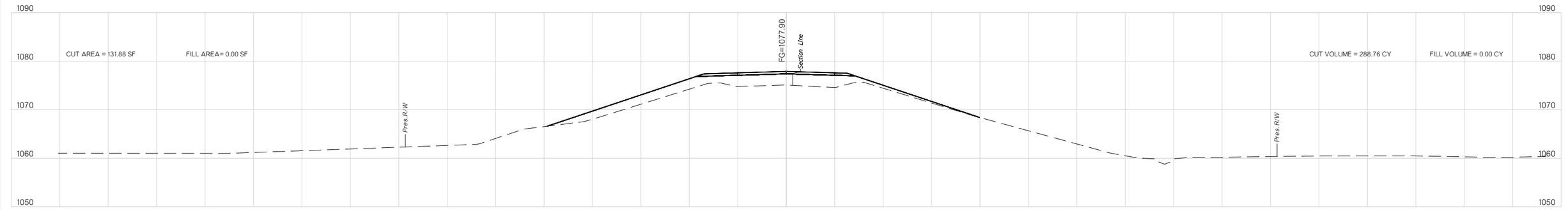
REVISIONS	
DESCRIPTION	DATE



91+00.00



90+50.00

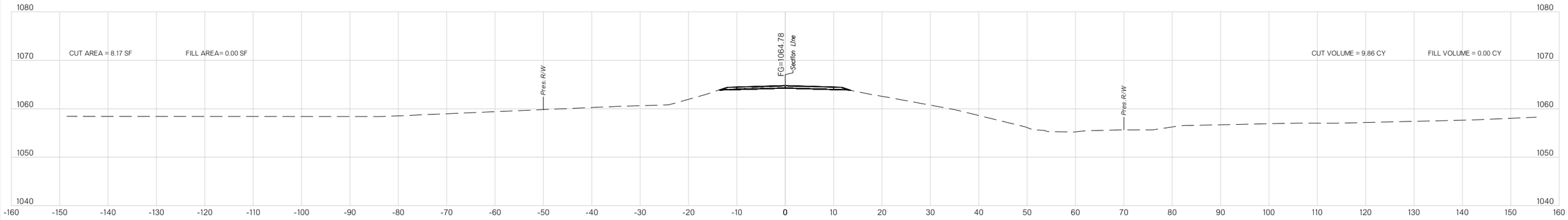


90+00.00

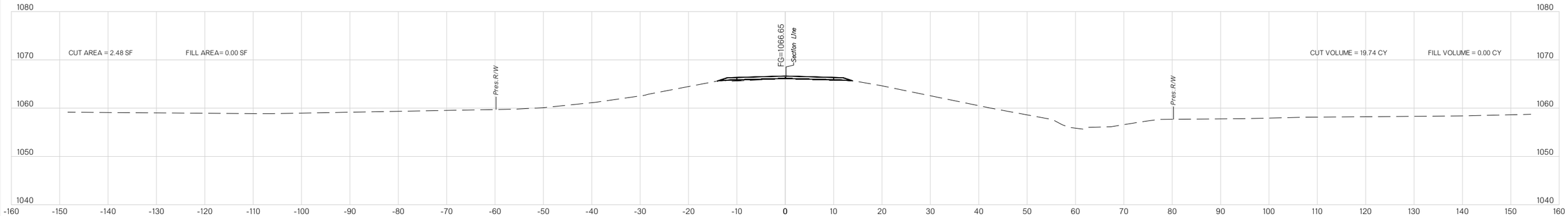
COUNTY KAY HIGHWAY/ROAD ADOBE ROAD STATE JOB NO. 24432(15) SHEET NO. X074

Wednesday, October 24, 2018 1:47:21 PM
V:\L16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L_CIV3D\L_PLANS\L_ADOBE\L_1070-ADOBE SECTIONS.dwg

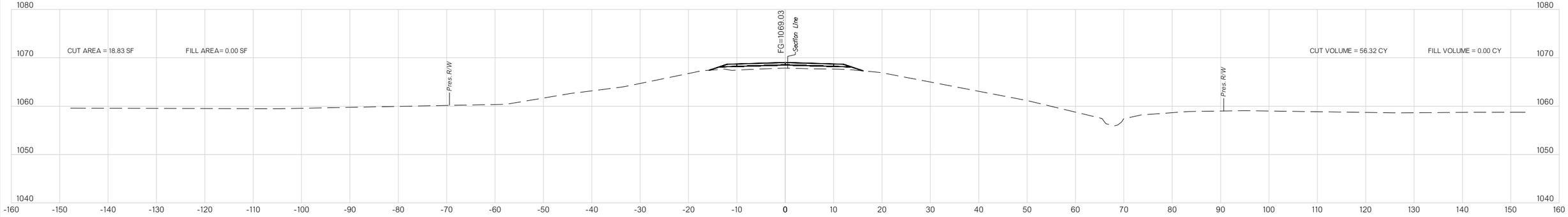
REVISIONS	
DESCRIPTION	DATE



92+50.00



92+00.00

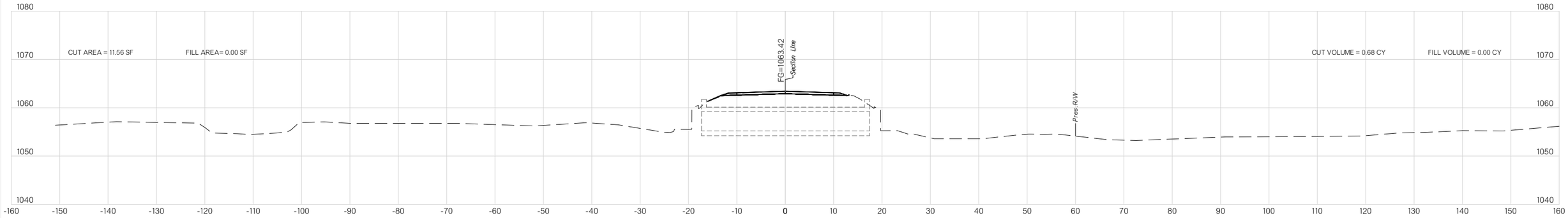


91+50.00

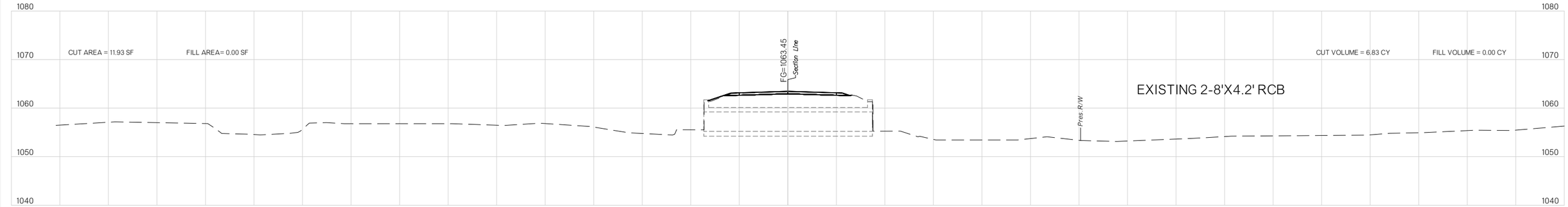
Wednesday, October 24, 2018 1:47:31 PM
V:_16-1070E BR Raising Over I-35, Kay, 1840, HNTB_CIV3D_PLANS_ADOBE_1070-ADOBE SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD ADOBE ROAD STATE JOB NO. 24432(15) SHEET NO. X075

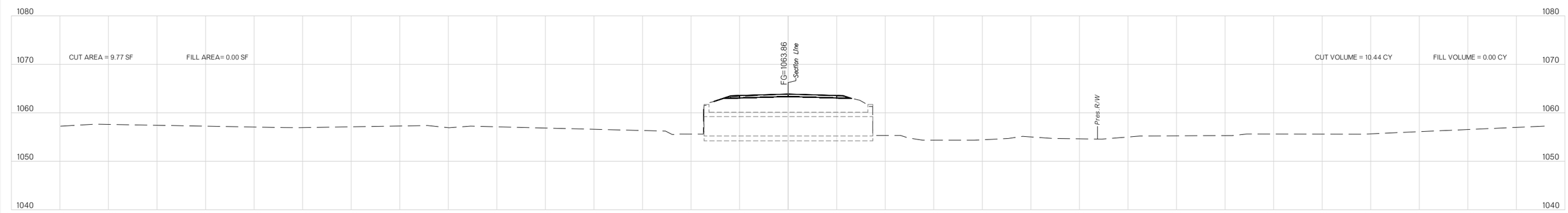
REVISIONS	
DESCRIPTION	DATE



93+00.00



92+98.43

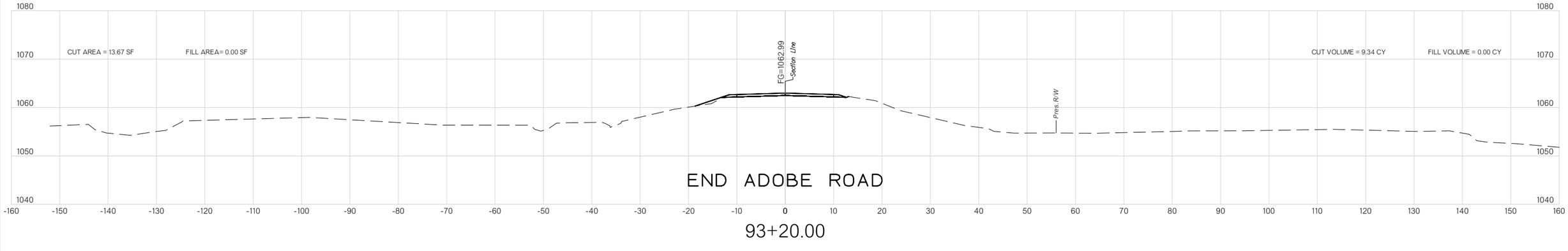


92+81.43

Wednesday, October 24, 2018 1:47:41 PM
V:\fl_16-1070E BR Raising Over I-35, Kay, 1840_HNTB\fl_C1V3D\fl_PLANS\fl_ADOBE\fl_1070-ADOBE SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD ADOBE ROAD STATE JOB NO. 24432(15) SHEET NO. X076

REVISIONS	
DESCRIPTION	DATE



END ADOBE ROAD

93+20.00

COUNTY KAY HIGHWAY/ROAD ADOBE ROAD STATE JOB NO. 24432(15) SHEET NO. X077

Wednesday, October 24, 2018 1:47:51 PM
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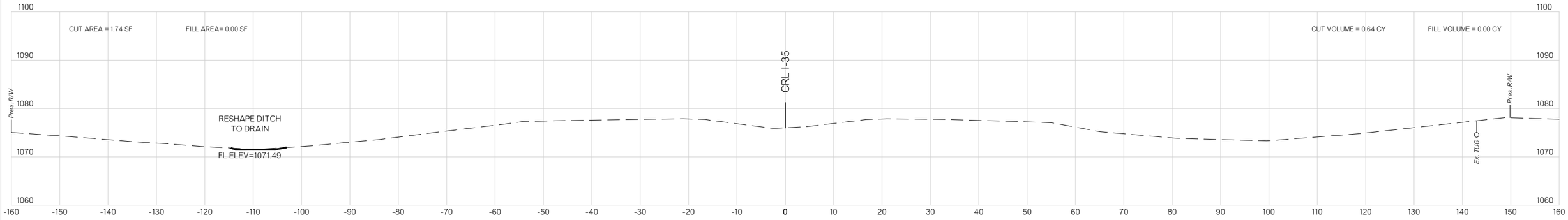
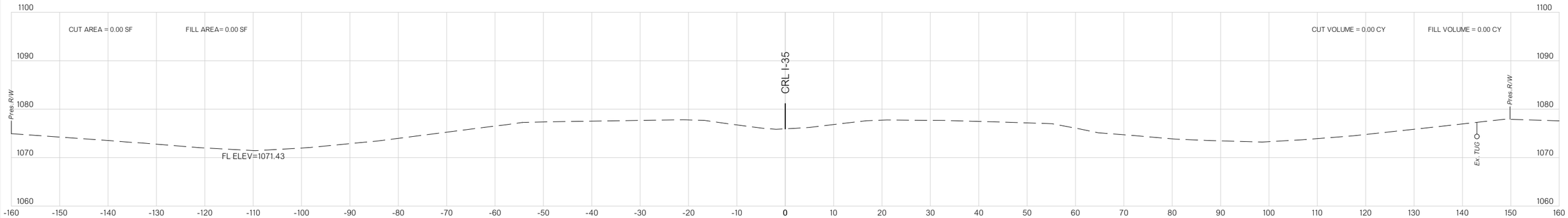
REVISIONS	
DESCRIPTION	DATE



817+20.00



817+00.00

Wednesday, October 24, 2018 1:48:14 PM
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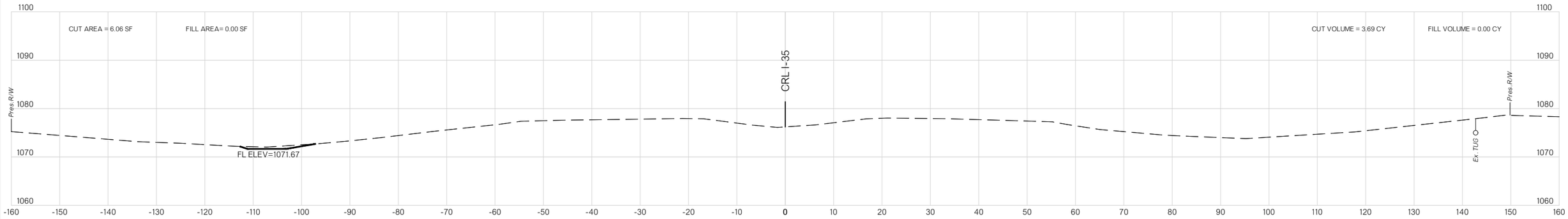
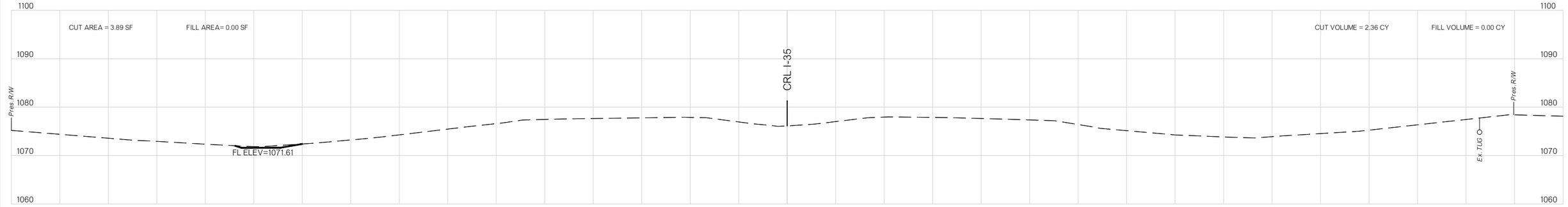
COUNTY KAY HIGHWAY/ROAD HOME ROAD STATE JOB NO. 24432(15) SHEET NO. X078

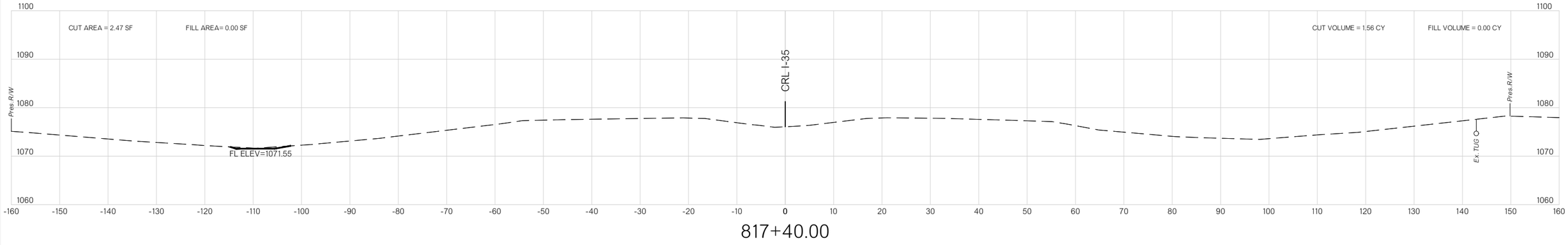
REVISIONS	
DESCRIPTION	DATE



817+80.00



817+60.00



817+40.00

Wednesday, October 24, 2018 1:48:26 PM
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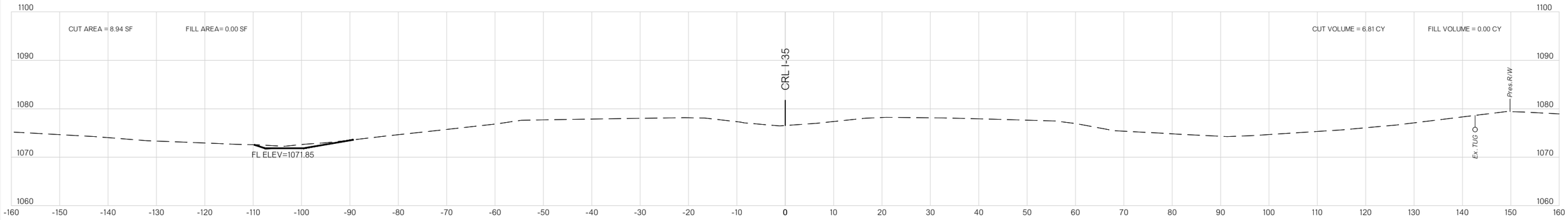
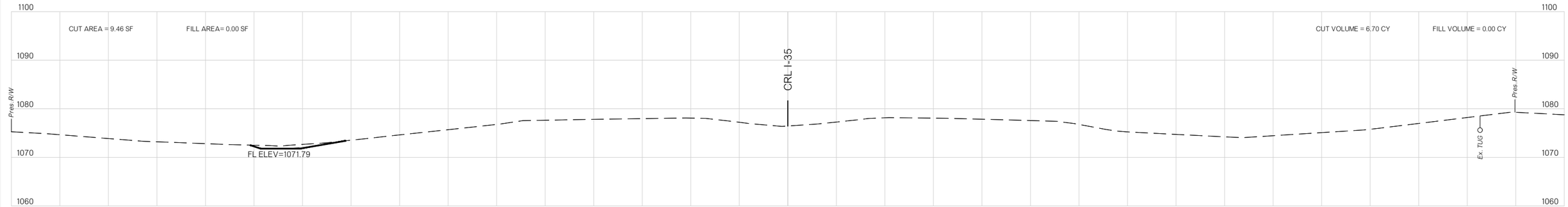
COUNTY KAY HIGHWAY/ROAD HOME ROAD STATE JOB NO. 24432(15) SHEET NO. X079

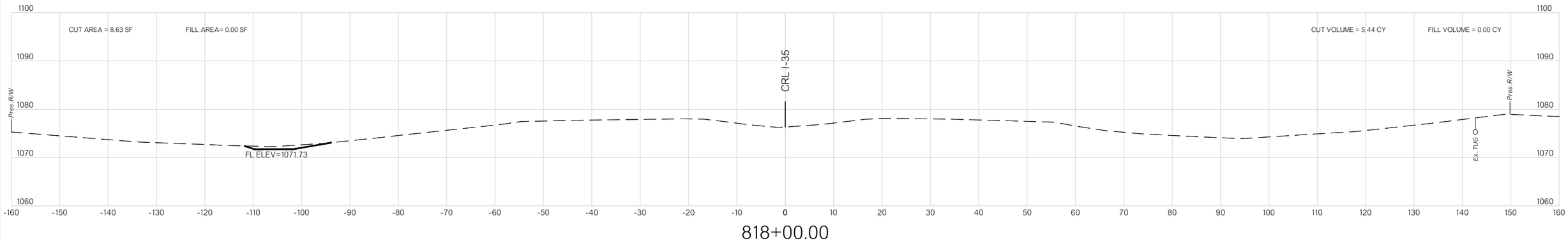
REVISIONS	
DESCRIPTION	DATE



818+40.00



818+20.00



818+00.00

COUNTY KAY HIGHWAY/ROAD HOME ROAD STATE JOB NO. 24432(15) SHEET NO. X080

Wednesday, October 24, 2018 1:48:36 PM
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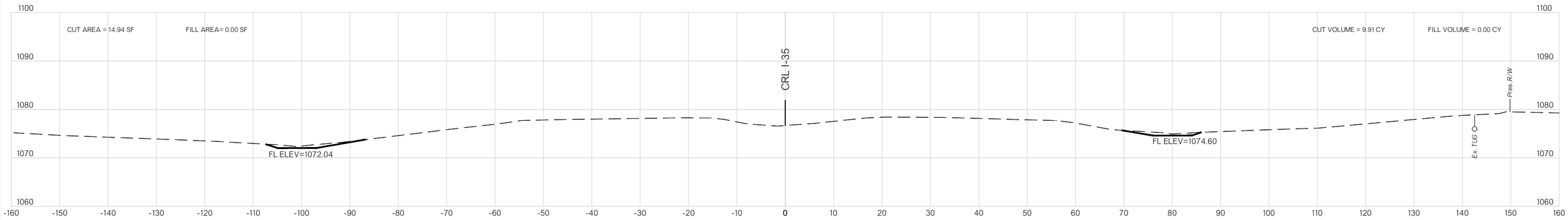
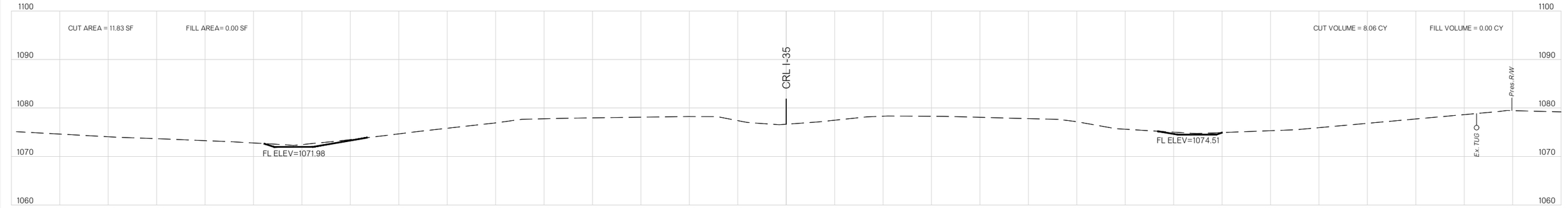
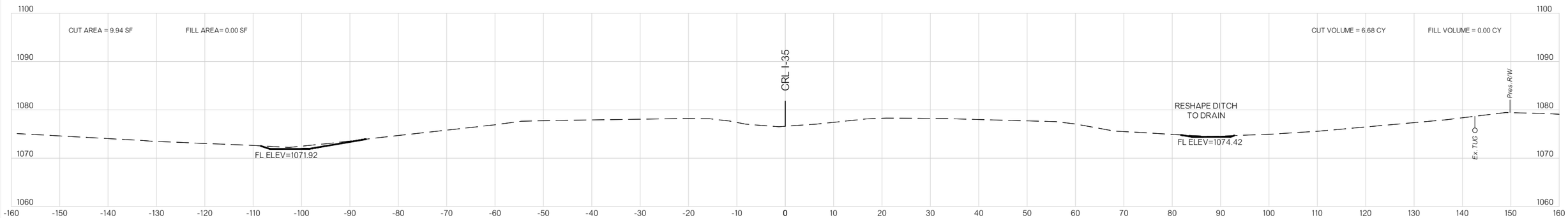
REVISIONS	
DESCRIPTION	DATE



819+00.00



818+80.00



818+60.00

COUNTY KAY HIGHWAY/ROAD HOME ROAD STATE JOB NO. 24432(15) SHEET NO. X081

Wednesday, October 24, 2018 1:48:46 PM
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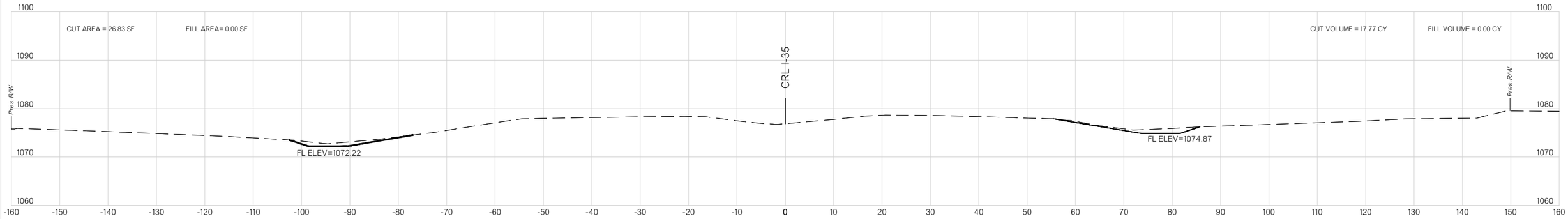
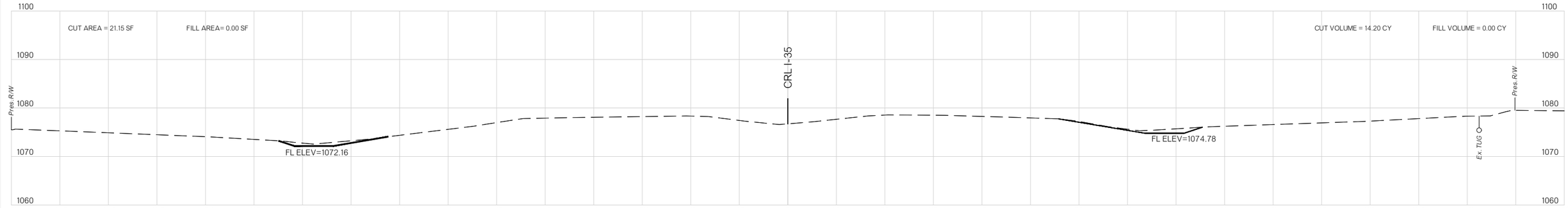
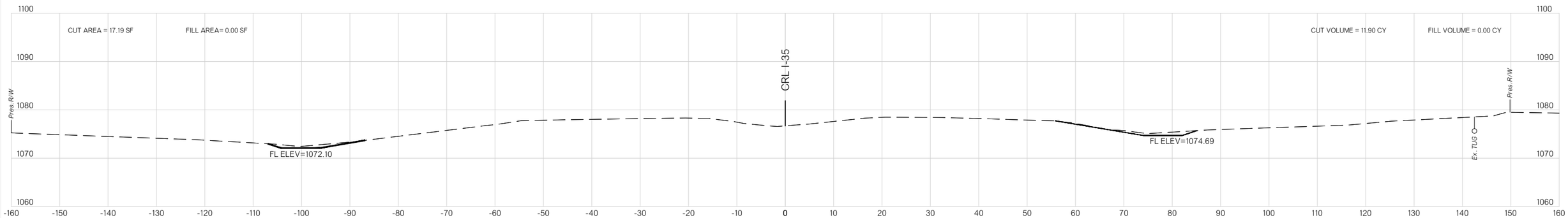
REVISIONS	
DESCRIPTION	DATE



819+60.00



819+40.00



819+20.00

COUNTY KAY HIGHWAY/ROAD HOME ROAD STATE JOB NO. 24432(15) SHEET NO. X082

Wednesday, October 24, 2018 1:48:56 PM
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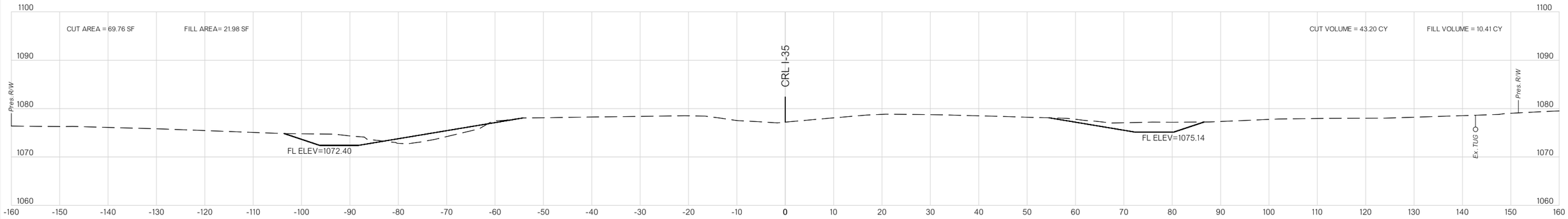
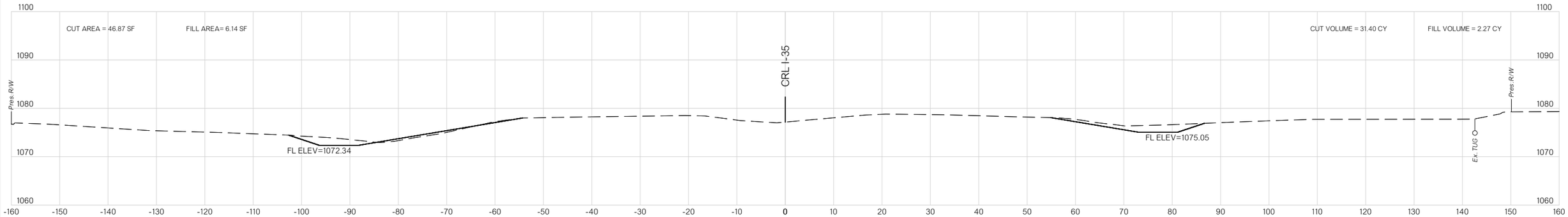
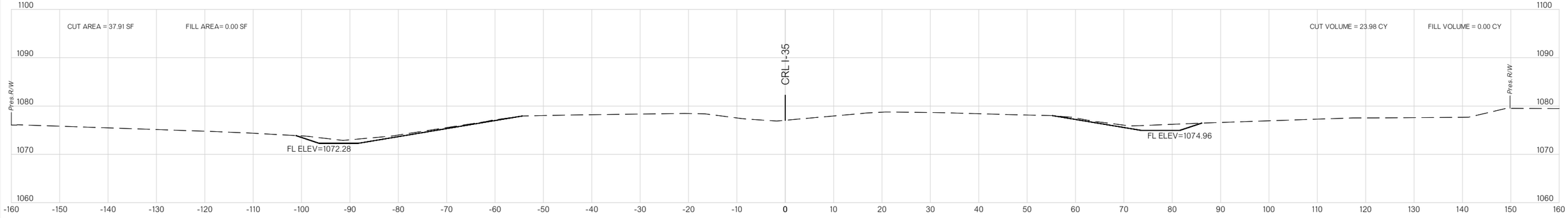
REVISIONS	
DESCRIPTION	DATE



820+20.00



820+00.00



819+80.00

COUNTY KAY HIGHWAY/ROAD HOME ROAD STATE JOB NO. 24432(15) SHEET NO. X083

Wednesday, October 24, 2018 1:49:07 PM
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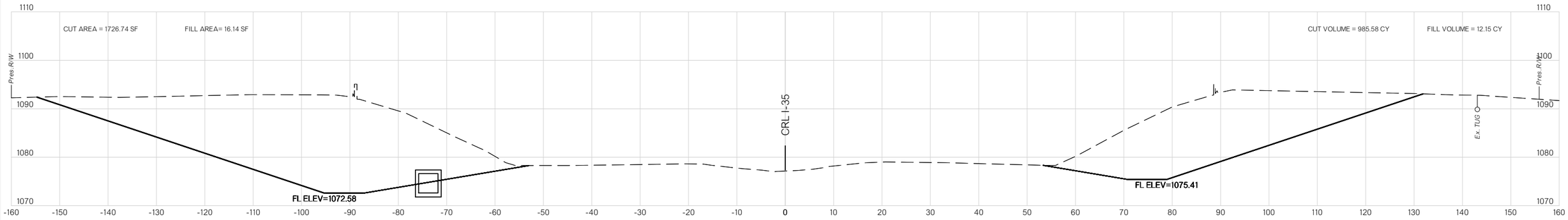
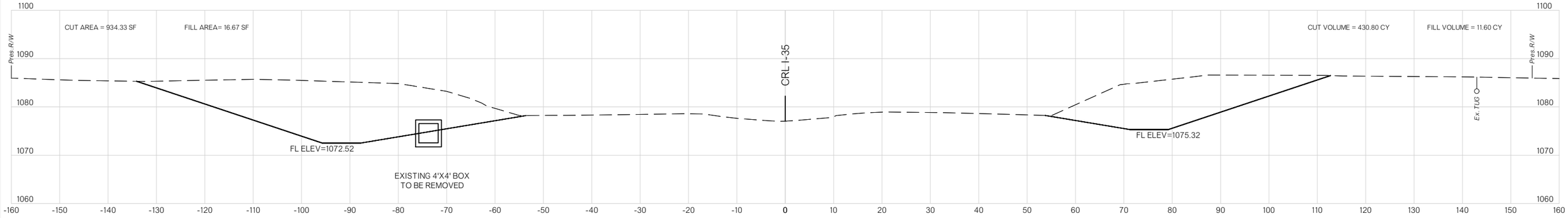
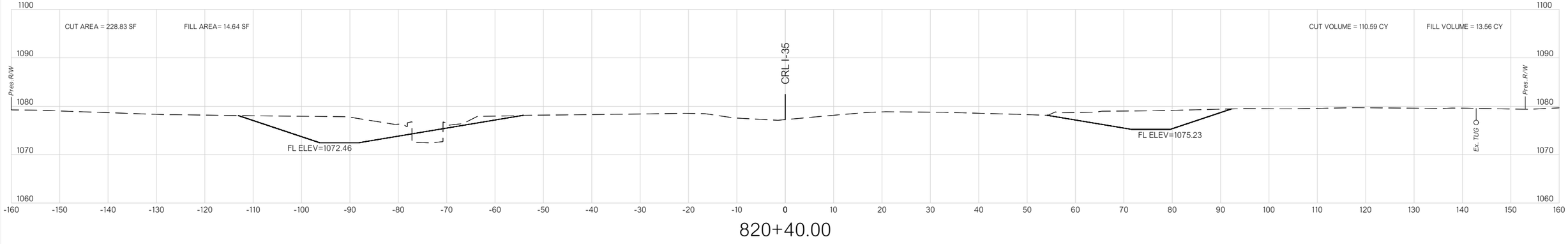
REVISIONS	
DESCRIPTION	DATE



820+80.00



820+60.00

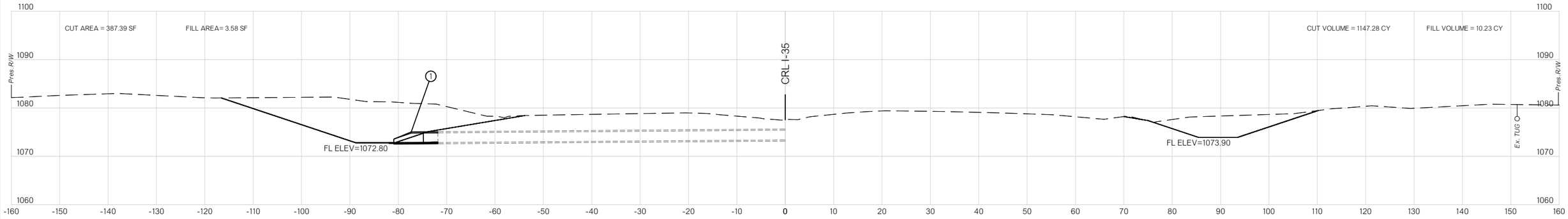


820+40.00

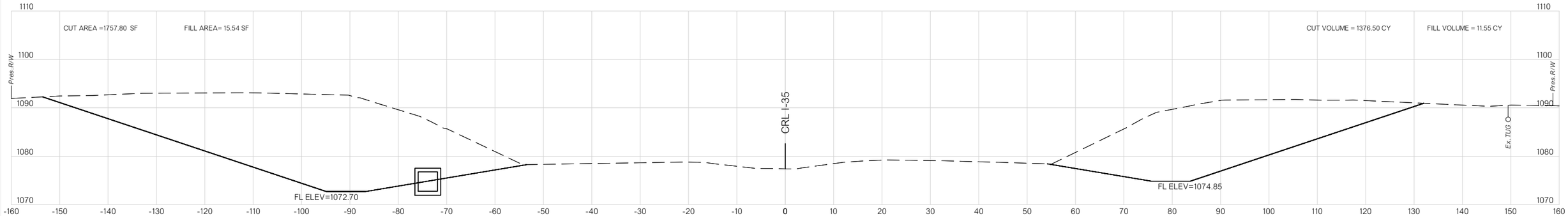
Wednesday, October 24, 2018 1:49:16 PM
V:\FL 16-1070E BR Raising Over I-35, Kay, 1840, HNTB\E_CIV3D\E_PLANS\E_HOME\E_1070 - HOME SECTIONS.dwg

COUNTY KAY HIGHWAY/ROAD HOME ROAD STATE JOB NO. 24432(15) SHEET NO. X084

REVISIONS	
DESCRIPTION	DATE



821+48.88



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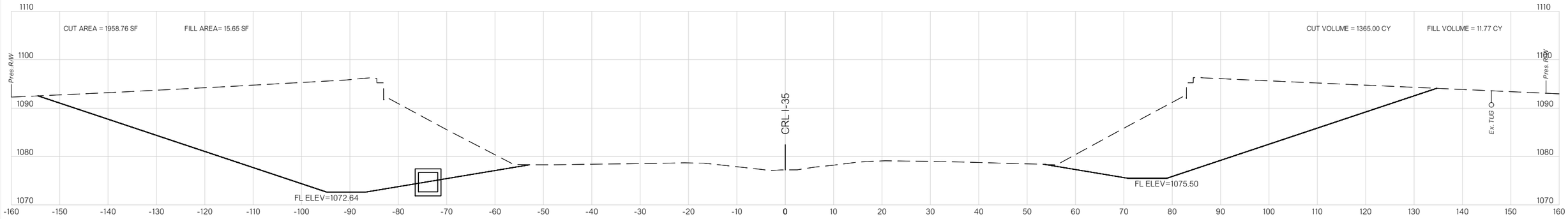

821+00.00

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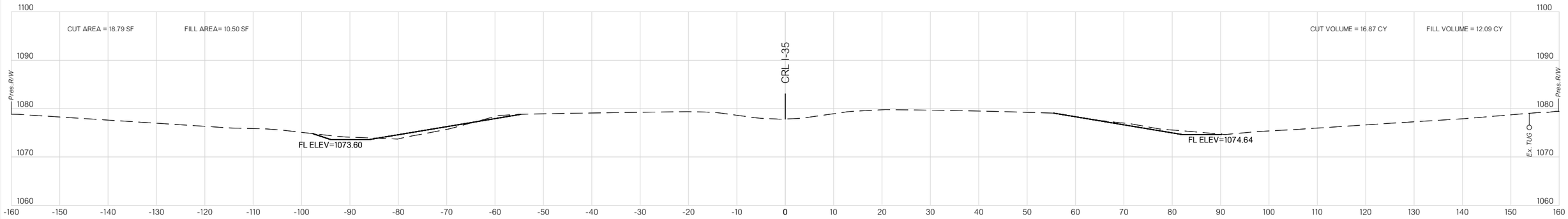
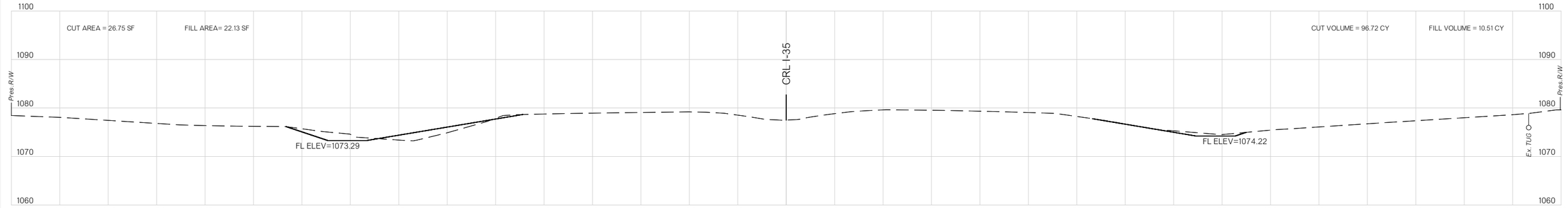
COUNTY KAY HIGHWAY/ROAD HOME ROAD STATE JOB NO. 24432(15) SHEET NO. X085

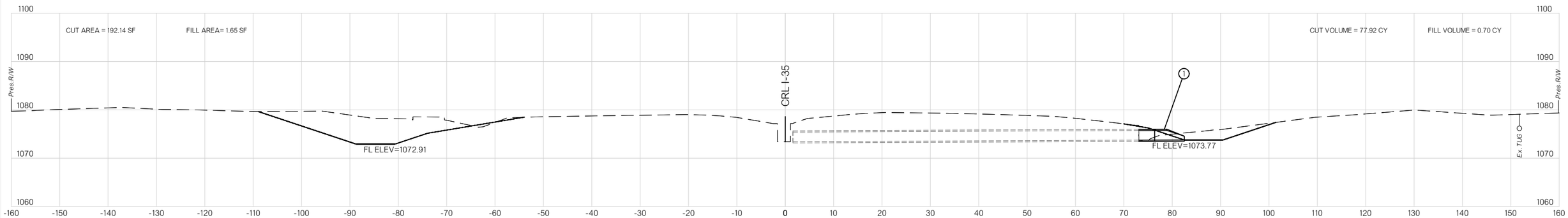
REVISIONS	
DESCRIPTION	DATE



822+00.00



821+80.00



821+56.14

COUNTY KAY HIGHWAY/ROAD HOME ROAD STATE JOB NO. 24432(15) SHEET NO. X086

Wednesday, October 24, 2018 1:49:37 PM
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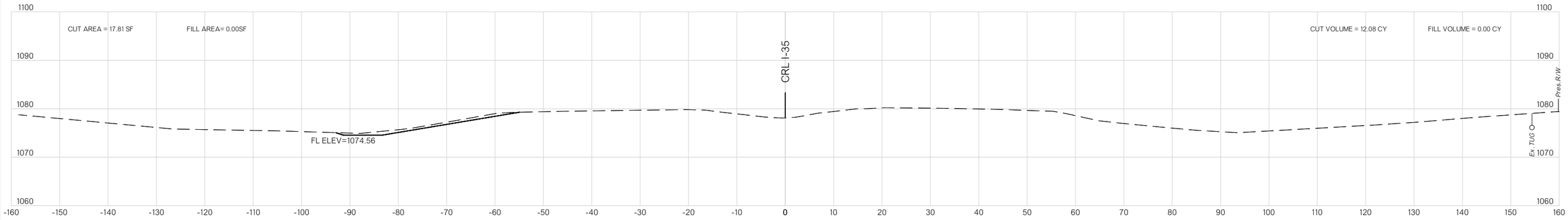
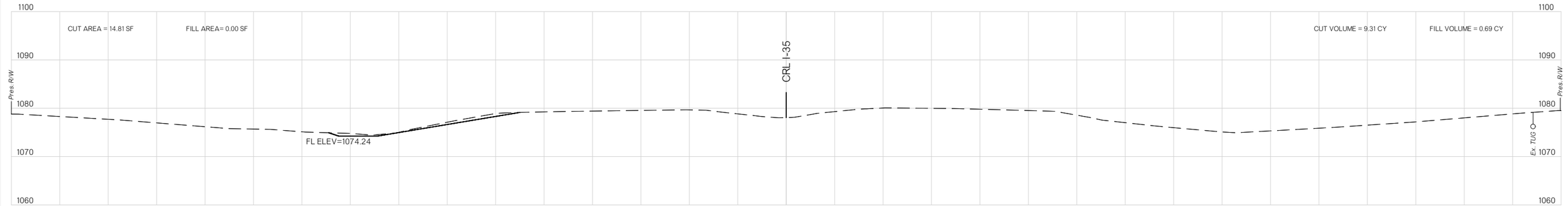
REVISIONS	
DESCRIPTION	DATE



822+60.00



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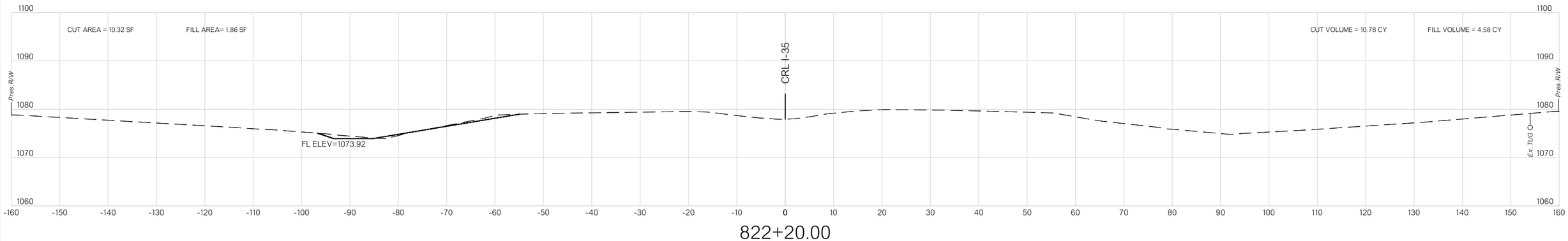

822+20.00

COUNTY KAY HIGHWAY/ROAD HOME ROAD STATE JOB NO. 24432(15) SHEET NO. X087

Wednesday, October 24, 2018 1:49:47 PM
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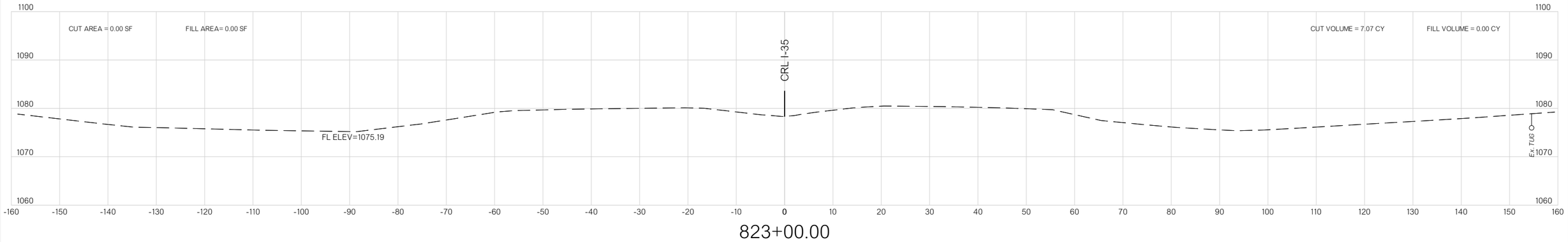
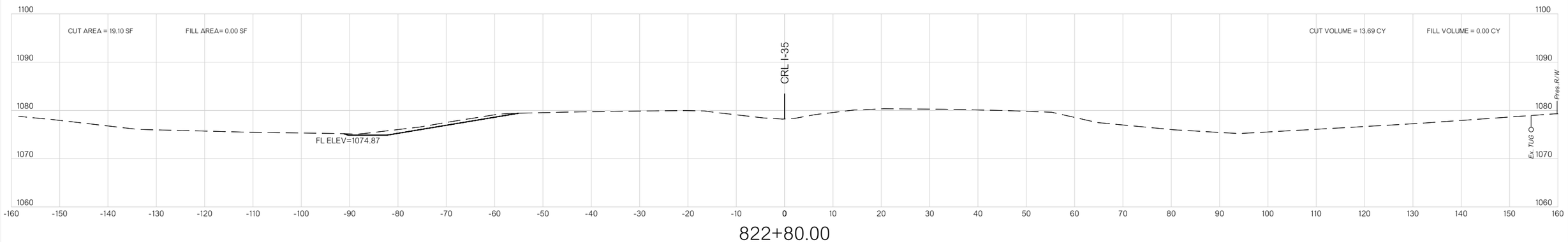
REVISIONS	
DESCRIPTION	DATE





COUNTY KAY HIGHWAY/ROAD HOME ROAD STATE JOB NO. 24432(15) SHEET NO. X088

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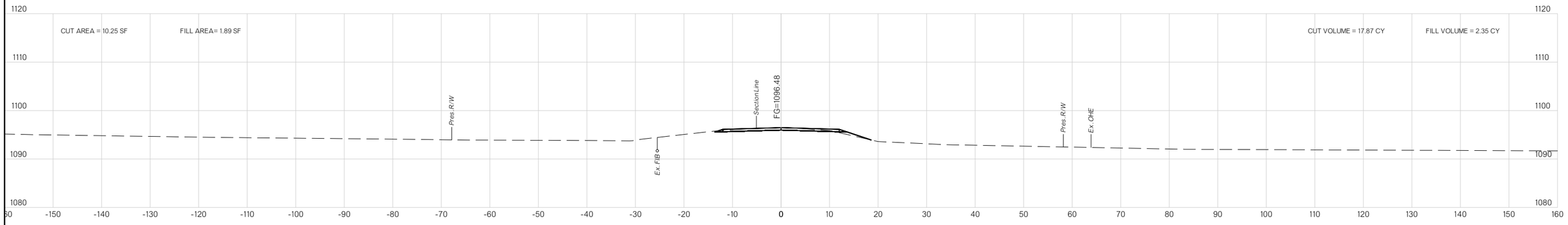
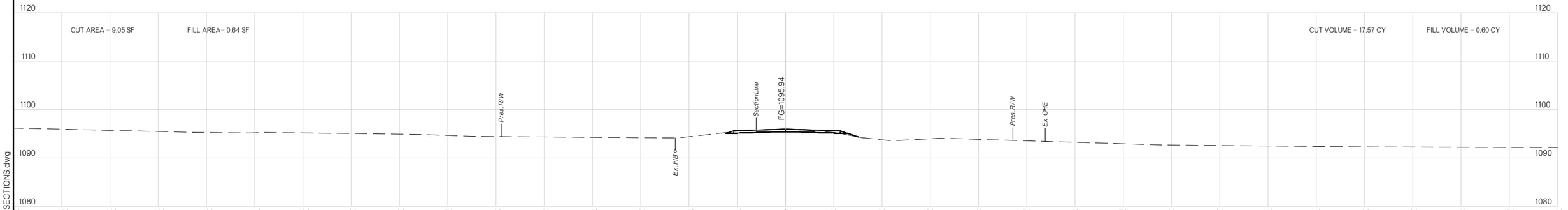
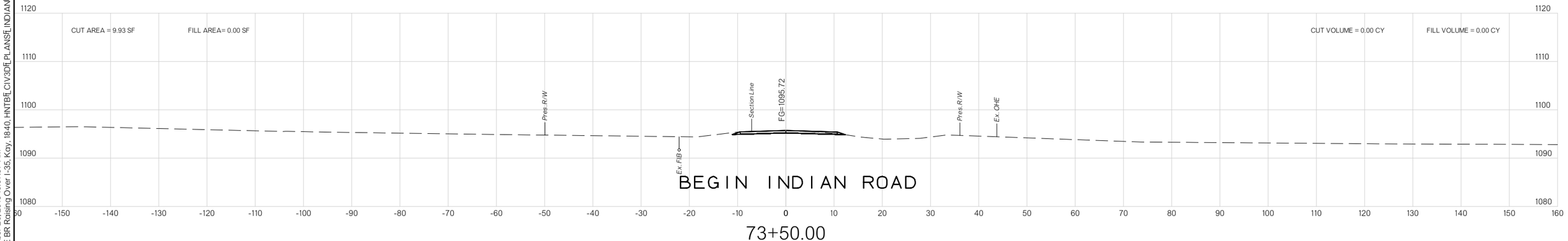
REVISIONS	
DESCRIPTION	DATE



74+50.00



74+00.00



BEGIN INDIAN ROAD

73+50.00

Friday, October 26, 2018 10:07:37 AM
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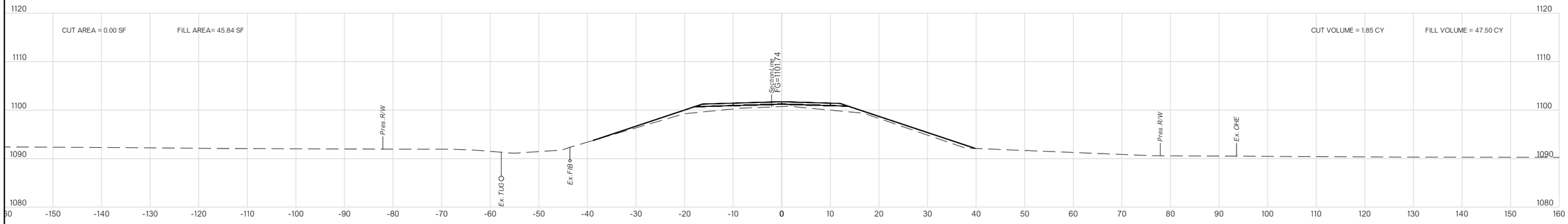
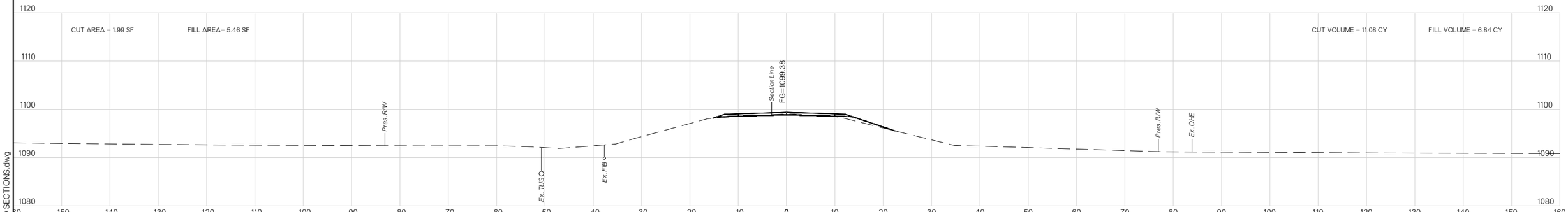
COUNTY KAY HIGHWAY/ROAD INDIAN RD STATE JOB NO. 24432(15) SHEET NO. X089

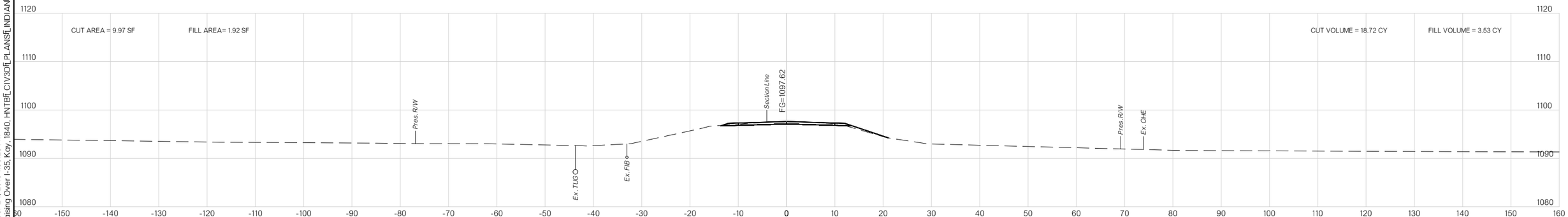
REVISIONS	
DESCRIPTION	DATE



76+00.00



75+50.00

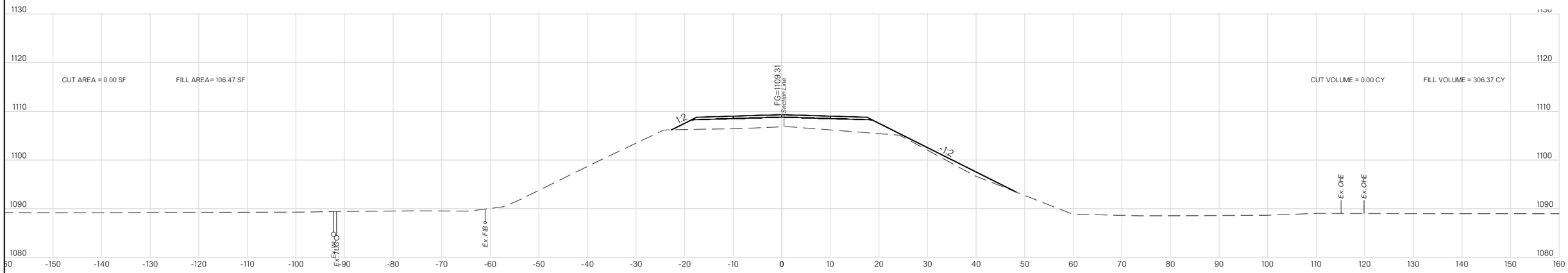


75+00.00

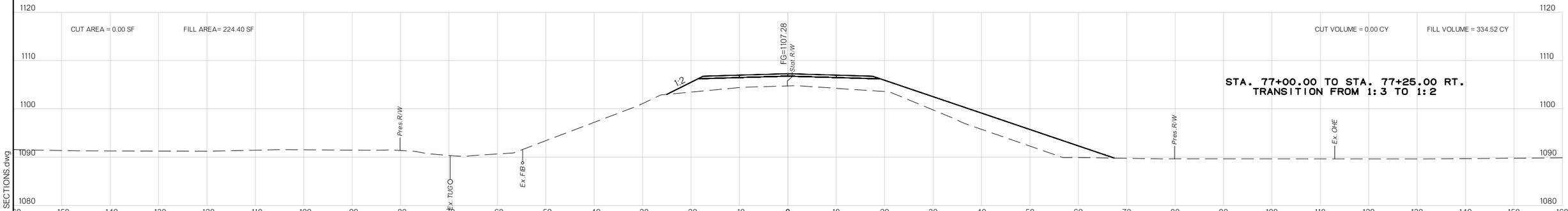
COUNTY KAY HIGHWAY/ROAD INDIAN RD STATE JOB NO. 24432(15) SHEET NO. X090

Wednesday, October 24, 2018 1:50:25 PM
V:\FL16-1070E BR Raising Over I-35, Kay, 1840, HNTB\L C1V3D\FL PLANS\L INDIAN\L 1070-INDIAN ROAD SECTIONS.dwg

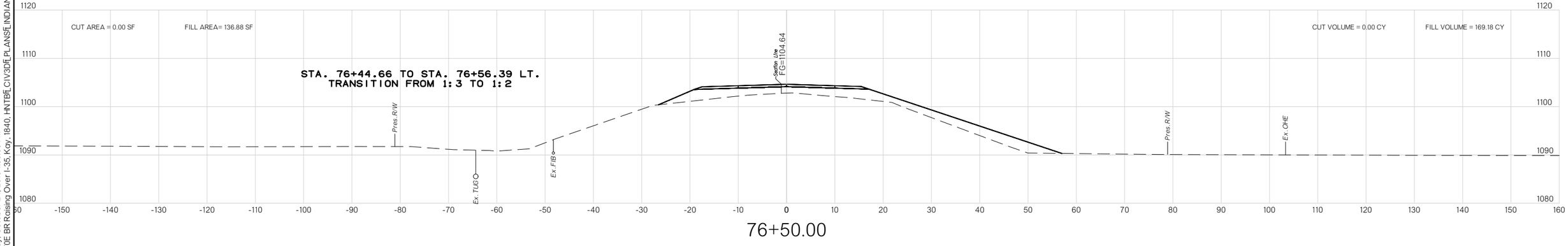
REVISIONS	
DESCRIPTION	DATE



77+50.00



77+00.00



76+50.00

Wednesday, October 24, 2018 1:50:35 PM
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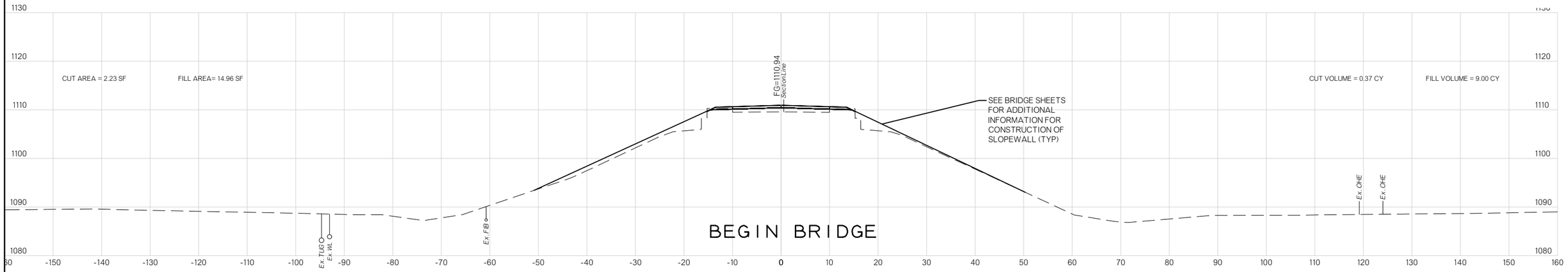
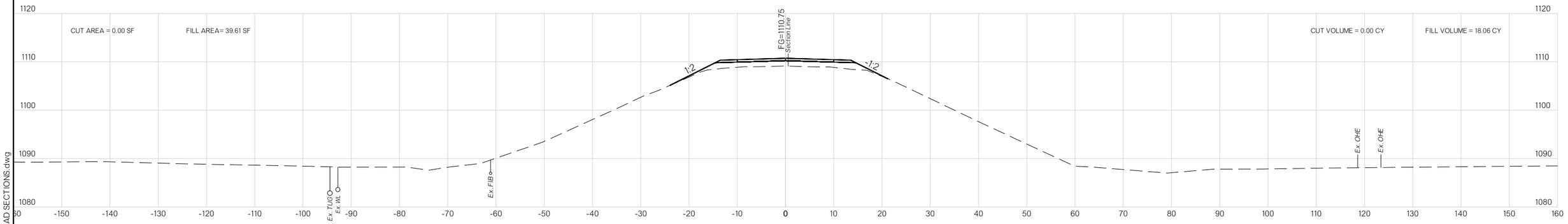
COUNTY KAY HIGHWAY/ROAD INDIAN RD STATE JOB NO. 24432(15) SHEET NO. X091

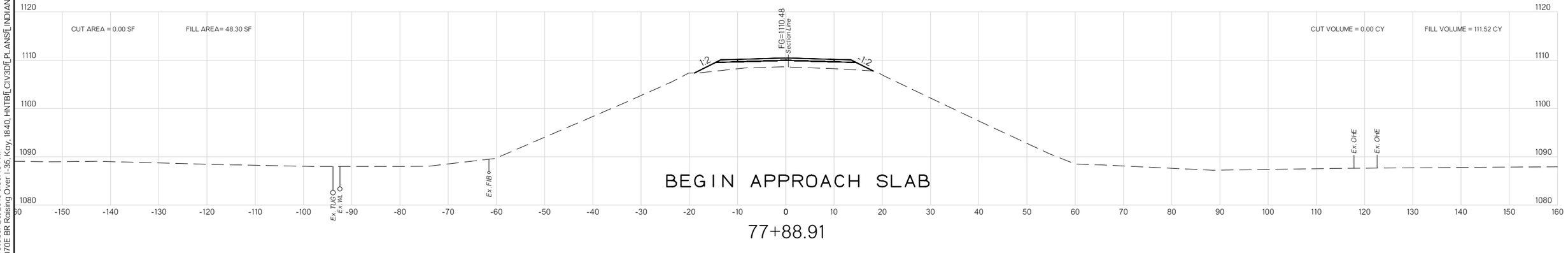
REVISIONS	
DESCRIPTION	DATE



78+08.91



78+00.00



77+88.91

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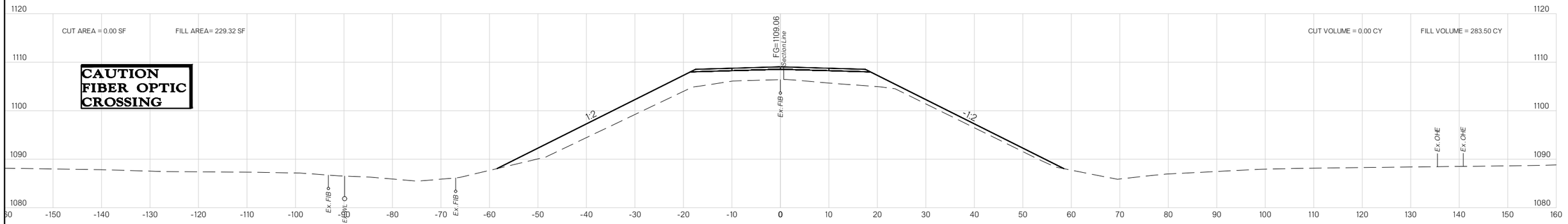
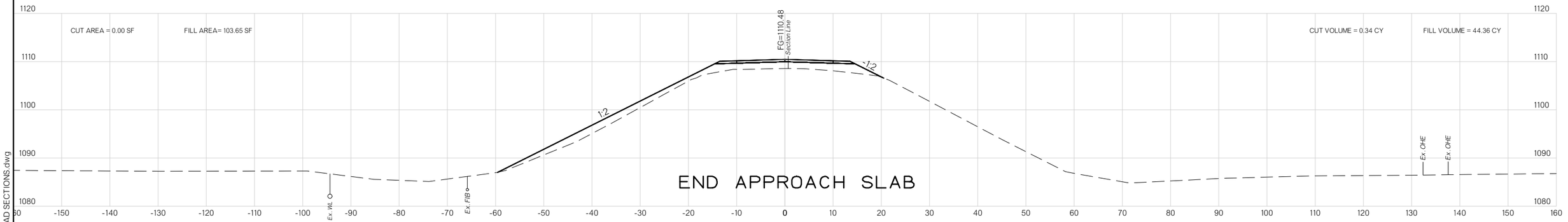
COUNTY KAY HIGHWAY/ROAD INDIAN RD STATE JOB NO. 24432(15) SHEET NO. X092

REVISIONS	
DESCRIPTION	DATE

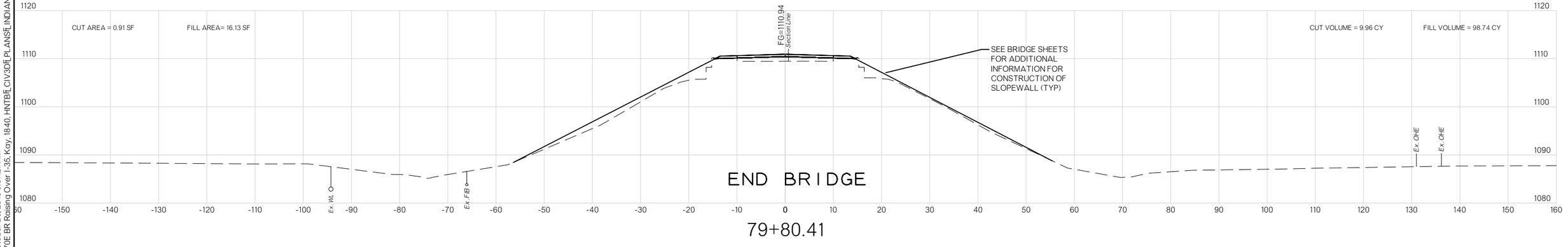


80+46.39



END APPROACH SLAB

80+00.41



END BRIDGE

79+80.41

Friday, October 26, 2018 9:57:21 AM
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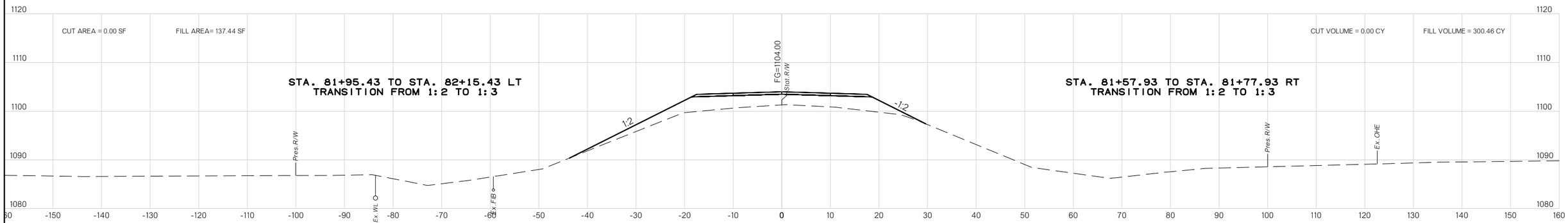
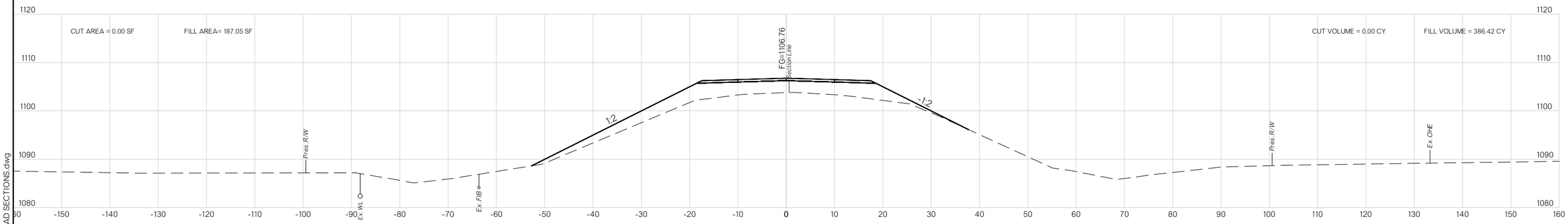
COUNTY KAY HIGHWAY/ROAD INDIAN RD STATE JOB NO. 24432(15) SHEET NO. X093

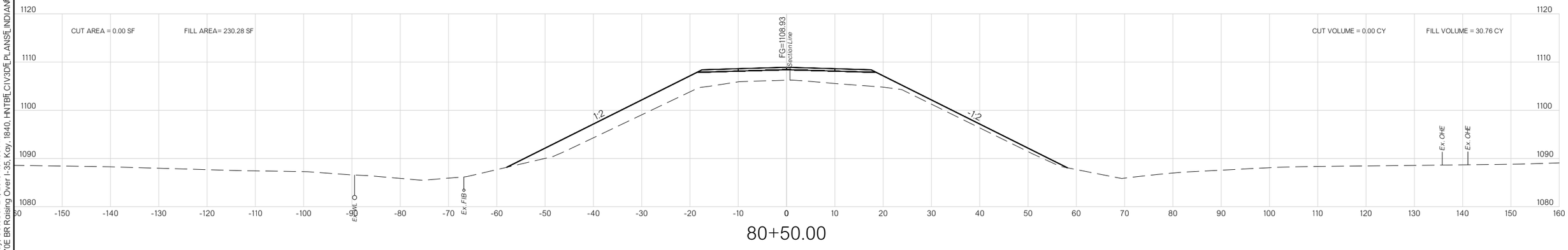
REVISIONS	
DESCRIPTION	DATE



81+50.00



81+00.00



80+50.00

Wednesday, October 24, 2018 1:51:05 PM
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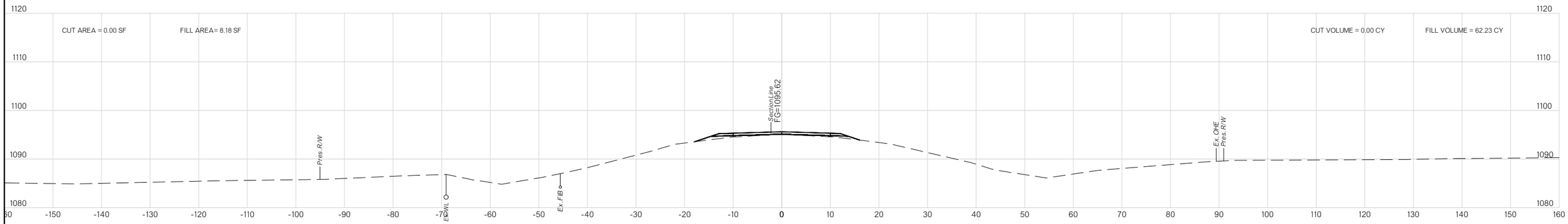
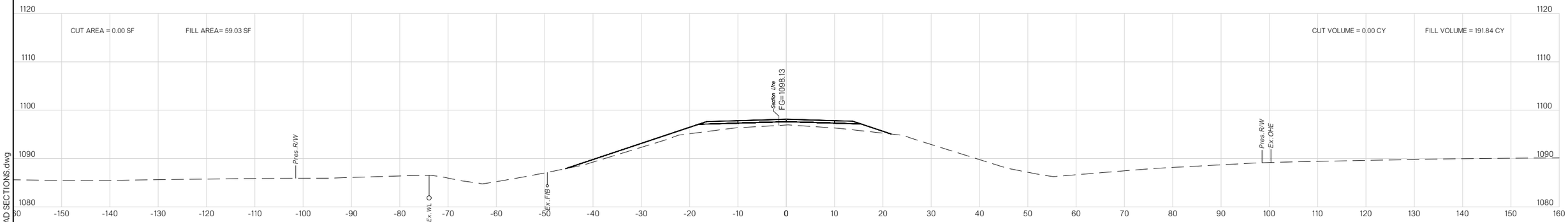
COUNTY KAY HIGHWAY/ROAD INDIAN RD STATE JOB NO. 24432(15) SHEET NO. X094

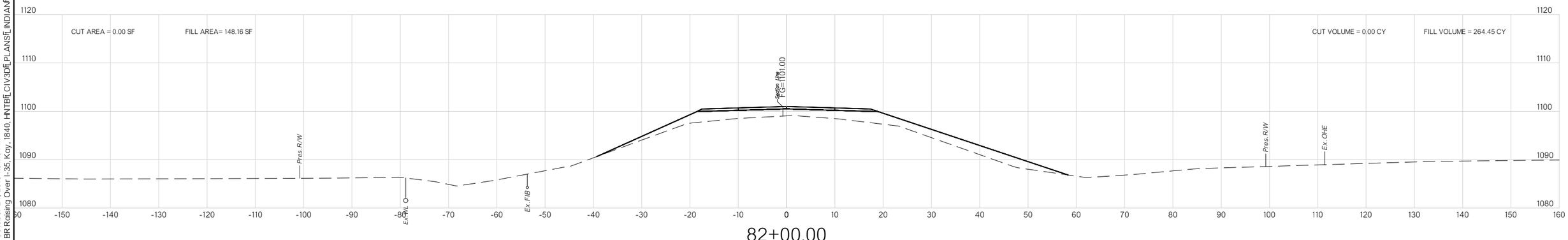
REVISIONS	
DESCRIPTION	DATE



83+00.00



82+50.00



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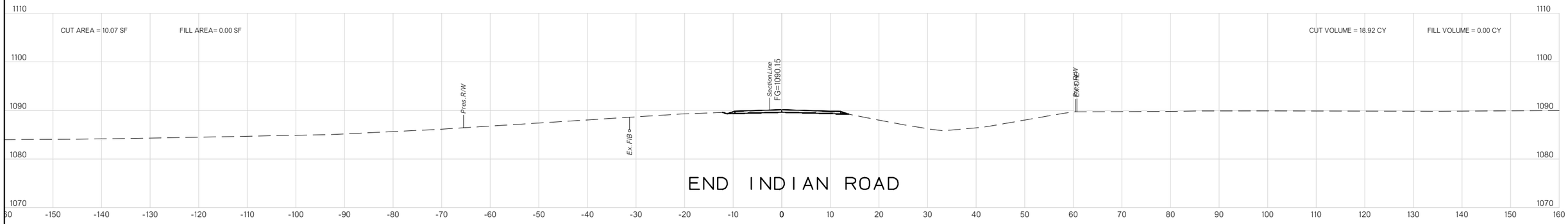
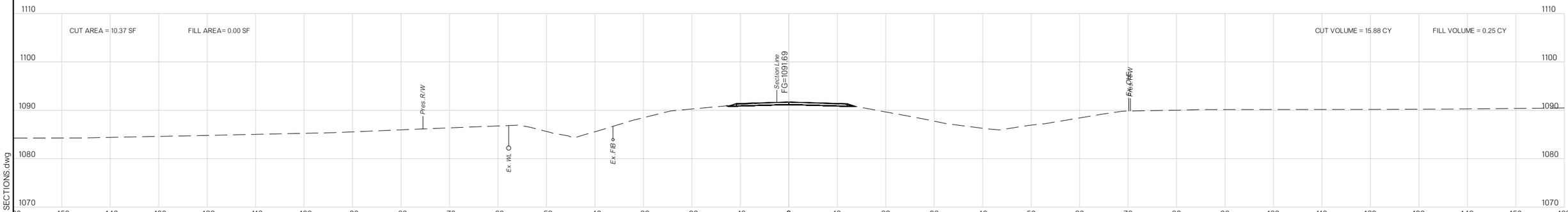
COUNTY KAY HIGHWAY/ROAD INDIAN RD STATE JOB NO. 24432(15) SHEET NO. X095

REVISIONS	
DESCRIPTION	DATE

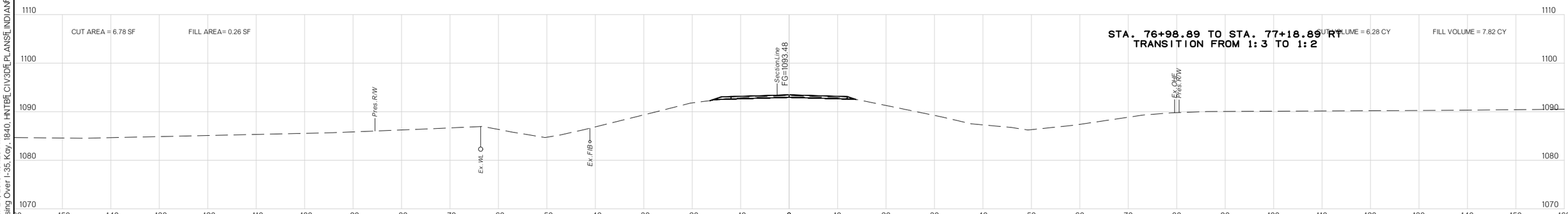


END INDIAN ROAD

84+50.00



84+00.00



83+50.00

Wednesday, October 24, 2018 1:51:25 PM
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COUNTY KAY HIGHWAY/ROAD INDIAN RD STATE JOB NO. 24432(15) SHEET NO. X096