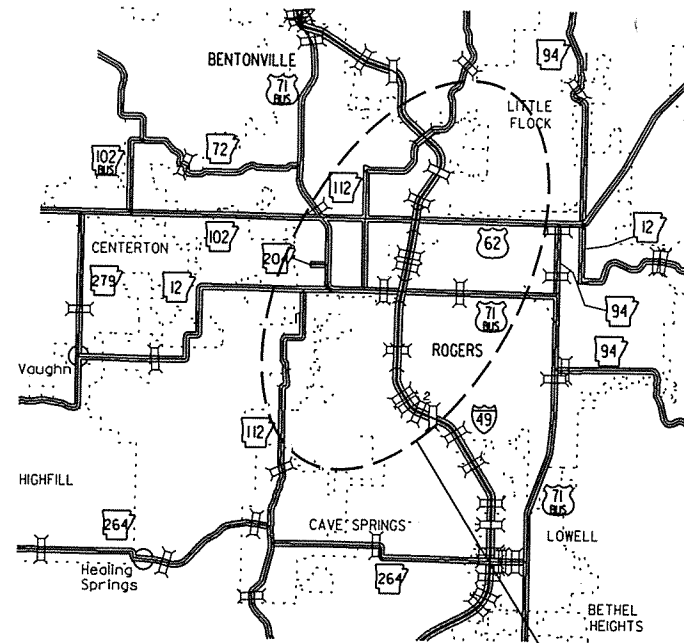


"A FULLY CONTROLLED ACCESS FACILITY"
 ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
 CONSTRUCTION PLANS FOR STATE HIGHWAY

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	090305		1	122
				NEW HOPE RD. - HWY. 62/102 WIDENING (ROGERS) (S)				



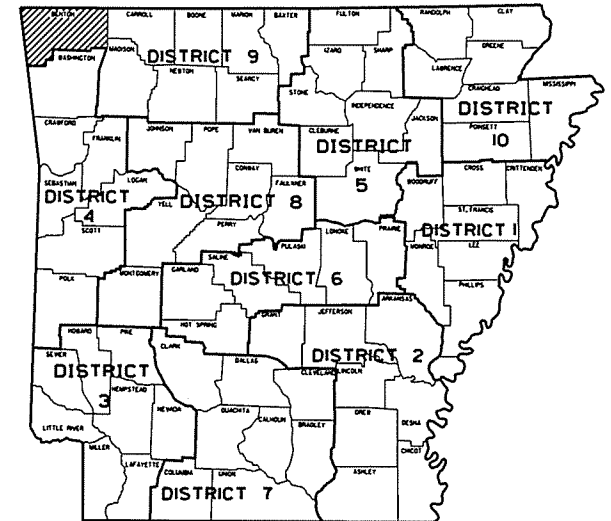
VICINITY MAP

PROJECT LOCATION

NEW HOPE RD. - HWY. 62/102 WIDENING (ROGERS) (S)

BENTON COUNTY
 ROUTE 49 SECTION 29
 FEDERAL AID PROJ. NHPP-540-I(258)83
 JOB 090305

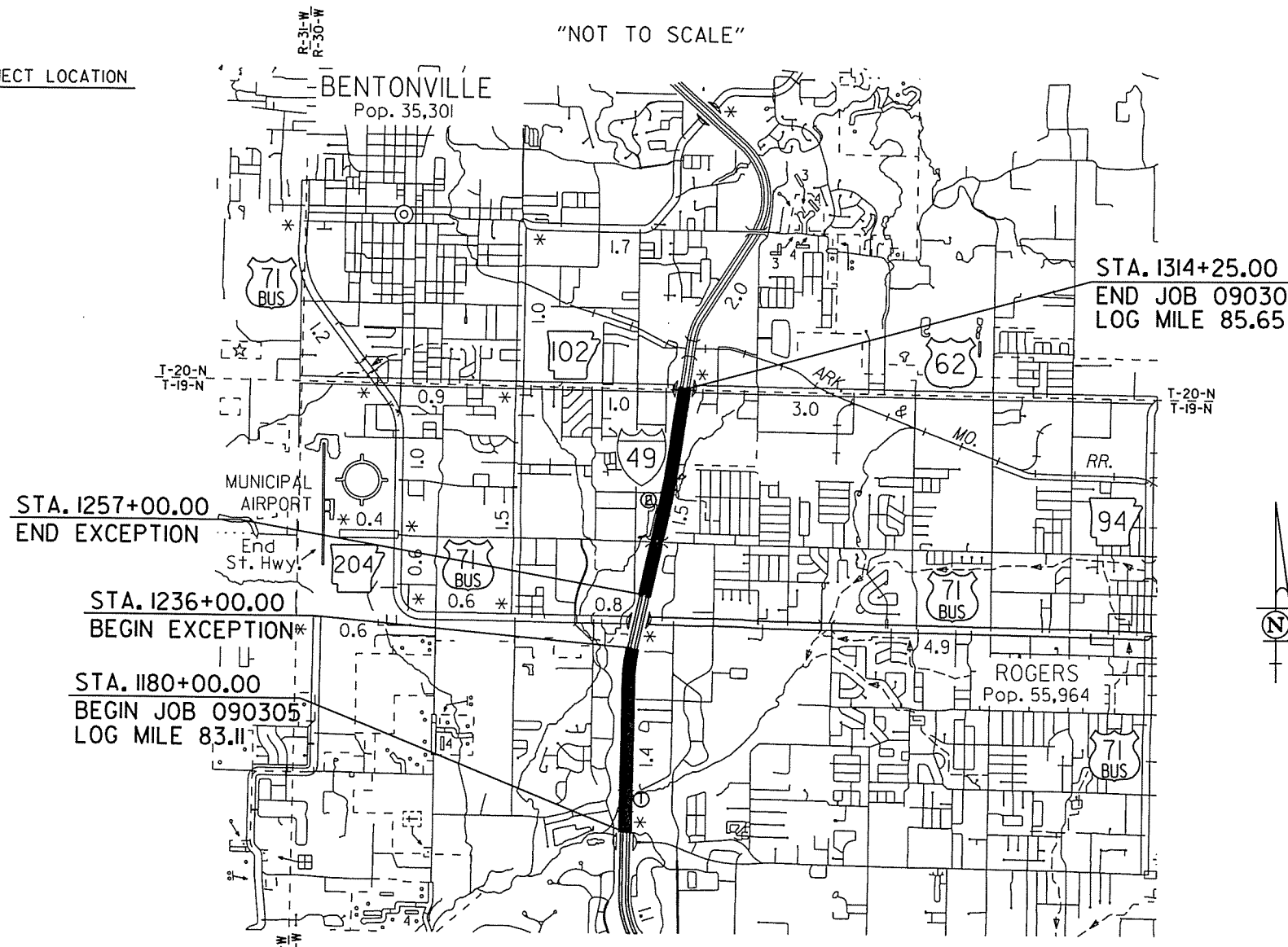
"NOT TO SCALE"



ARK. HWY. DIST. NO. 9

STRUCTURES OVER 20'-0" SPAN
 (SHOWN FOR INFORMATION ONLY)

- ① STA. 1184+31 - IN PLACE
 SIX BARREL 12'X8'X293' R.C. BOX CULV'T.
 (45° RT. FWD. SKEW)
 O50 = 6100 C.F.S. D.A. = 5,632 ACRES
 RETAIN
- ② STA. 1285+55 - IN PLACE
 QUINT. 8'X4'X241' R.C. BOX CULV'T.
 (45° RT. FWD. SKEW)
 O50 = 1200 C.F.S. D.A. = 700 ACRES
 RETAIN



STA. 1257+00.00
 END EXCEPTION

STA. 1236+00.00
 BEGIN EXCEPTION*

STA. 1180+00.00
 BEGIN JOB 090305
 LOG MILE 83.11

STA. 1314+25.00
 END JOB 090305
 LOG MILE 85.65

DESIGN TRAFFIC DATA

DESIGN YEAR	2034
2014 ADT	69,000
2034 ADT	96,500
2034 DHV	10,615
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	13%
DESIGN SPEED	70 MPH

LENGTH OF PROJECT CALCULATED ALONG C.L.

GROSS LENGTH OF PROJECT	13425.00	FEET OR	2,543	MILES
NET " " ROADWAY	11325.00	"	2,145	"
NET " " BRIDGES	0.00	"	0.000	"
NET " " PROJECT	11325.00	"	2,145	"

BEGINNING OF PROJECT	MID POINT OF PROJECT	END OF PROJECT
LATITUDE = N 36°19'02"	LATITUDE = N 36°20'08"	LATITUDE = N 36°21'13"
LONGITUDE = W 94°11'06"	LONGITUDE = W 94°10'60"	LONGITUDE = W 94°10'43"

APPROVED



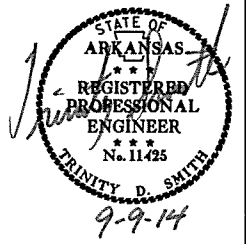
Ralph J. Hall
 DEPUTY DIRECTOR
 AND CHIEF ENGINEER

P.E. JOB 012070
 NON-PART.

INDEX OF SHEETS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
9-9-14				6	ARK.			
						JOB NO. 090305	2	122

② INDEX OF SHEETS, GOV. SPECS. & GEN. NOTES



SHEET NO.	TITLE	DRWG. NO.	DATE
1	TITLE SHEET		
2	INDEX OF SHEETS, GOVERNING SPECIFICATIONS, AND GENERAL NOTES		
3	TYPICAL SECTIONS OF IMPROVEMENT		
4 - 7	SPECIAL DETAILS		
8 - 12	TEMPORARY EROSION CONTROL DETAILS		
13 - 20	MAINTENANCE OF TRAFFIC DETAILS		
21 - 25	PERMANENT PAVEMENT MARKING DETAILS		
26 - 29	QUANTITIES		
30	SUMMARY OF QUANTITIES AND REVISIONS		
31 - 37	SURVEY CONTROL DETAILS		
38	SOIL LOG		
39 - 48	PLAN AND PROFILE SHEETS		
49	DETAILS OF DROP INLETS & JUNCTION BOXES	FPC-9	11-16-01
50	DETAILS OF DROP INLETS	FPC-9D	8-22-02
51	DETAILS OF DROP INLET & JUNCTION BOX (TYPE ST)	FPC-9S	7-26-12
52	CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING	PCC-1	2-27-14
53	PAVEMENT MARKING DETAILS	PM-1	9-12-13
54	PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS	PM-2	9-12-13
55	DETAILS OF PIPE UNDERDRAIN	PU-1	4-10-03
56	TABLES AND METHOD OF SUPERELEVATION FOR ONE-WAY TRAFFIC	SE-1	1-09-87
57	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	TC-1	12-15-11
58	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	TC-2	9-12-13
59	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	TC-3	10-15-09
60	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	TC-4	2-27-14
61	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	TC-5	10-15-09
62	TEMPORARY EROSION CONTROL DEVICES	TEC-1	12-15-11
63 - 122	CROSS SECTIONS		

NOTE: CROSS SECTIONS NOT NORMALLY INCLUDED IN PLANS SOLD TO PROSPECTIVE BIDDERS, BUT MAY BE HAD UPON REQUEST.

GOVERNING SPECIFICATIONS

ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014, AND THE FOLLOWING SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS:

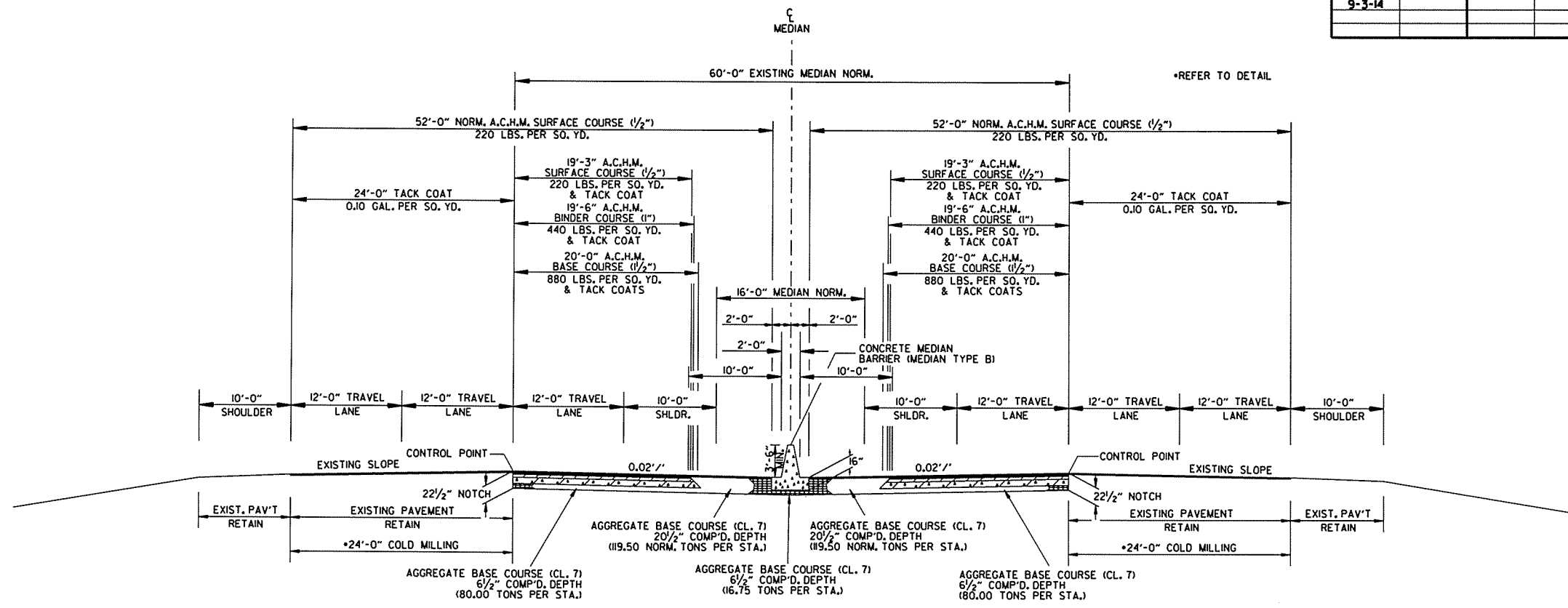
NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - TRAINING PROGRAM - JOB 090305
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
108-1	LIQUIDATED DAMAGES
410-1	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
620-1	MULCH COVER
JOB 090305	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB 090305	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB 090305	CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS
JOB 090305	DOCUMENTATION OF PAYMENTS MADE TO DISADVANTAGED BUSINESS ENTERPRISES
JOB 090305	ELECTRONIC SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 090305	EXTENSION FOR PIPE CULVERTS
JOB 090305	HIGH PERFORMANCE PAVEMENT MARKING
JOB 090305	MAINTENANCE OF TRAFFIC
JOB 090305	MANDATORY USE OF INTERNET BIDDING
JOB 090305	MOBILE SPEED NOTIFICATION SYSTEM
JOB 090305	PARTNERING REQUIREMENTS
JOB 090305	PERCENT WITHIN LIMITS/PAVEMENT SMOOTHNESS
JOB 090305	PROSECUTION AND PROGRESS
JOB 090305	REMOVAL AND DISPOSAL OF GUARDRAIL
JOB 090305	REMOVAL AND DISPOSAL OF WIRE ROPE SAFETY FENCE
JOB 090305	REMOVAL OF PAVEMENT MARKINGS
JOB 090305	SEQUENCE OF CONSTRUCTION
JOB 090305	SITE USE (A + C METHOD)
JOB 090305	STORM WATER POLLUTION PREVENTION PLAN
JOB 090305	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB 090305	UTILITY ADJUSTMENTS
JOB 090305	VALUE ENGINEERING
JOB 090305	WARM MIX ASPHALT
JOB 090305	WIRE ROPE SAFETY FENCE END TERMINAL

GENERAL NOTES

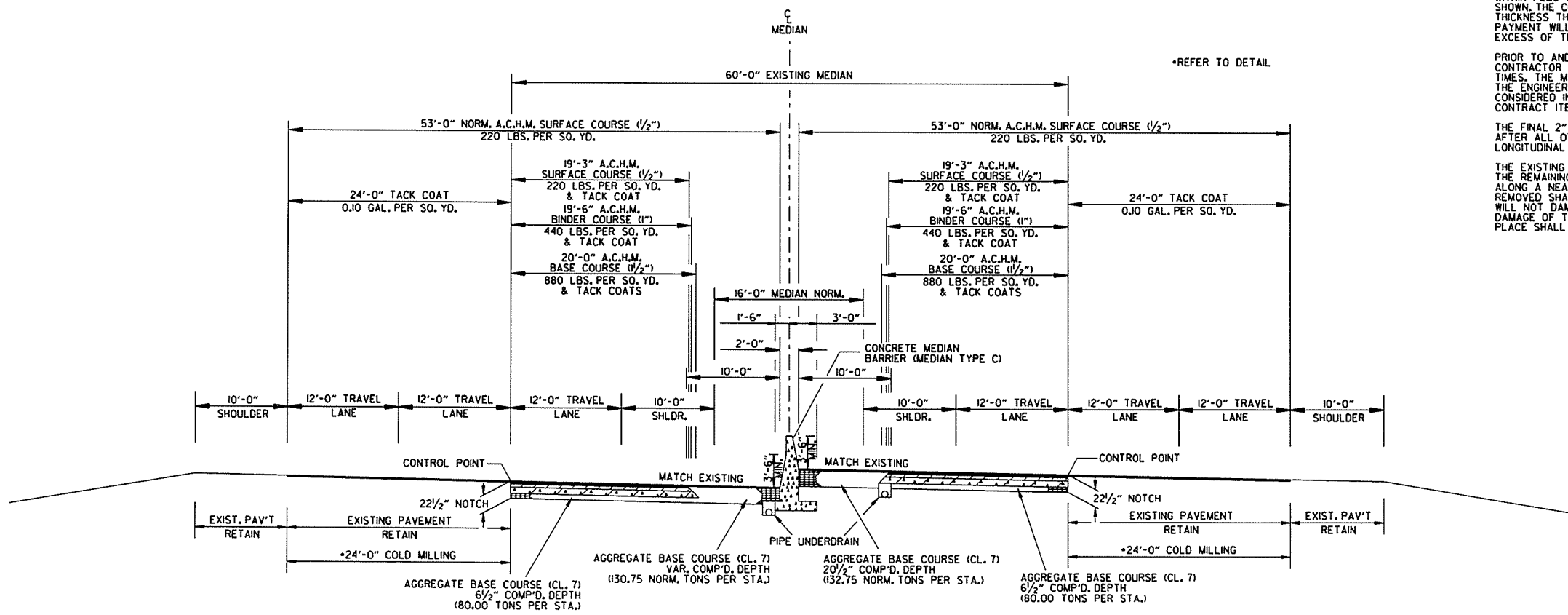
- GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON PLANS.
- ALL PIPE LINES, POWER, TELEPHONE AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
- ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
- ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
- ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.
- THE EXISTING ASPHALT PAVEMENT TO BE REMOVED FROM THE REMAINING PAVEMENT SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. AFTER SAWING, THE PAVEMENT TO BE REMOVED SHALL BE CAREFULLY REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE OF THE ASPHALT PAVEMENT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
9-3-14				6	ARK.			
						JOB NO. 090305	3	122

2 TYPICAL SECTIONS OF IMPROVEMENT



TYPICAL SECTION OF IMPROVEMENT - 1-49
 STA. 1180+00.00 TO STA. 1236+00.00
 STA. 1257+00.00 TO STA. 1314+25.00

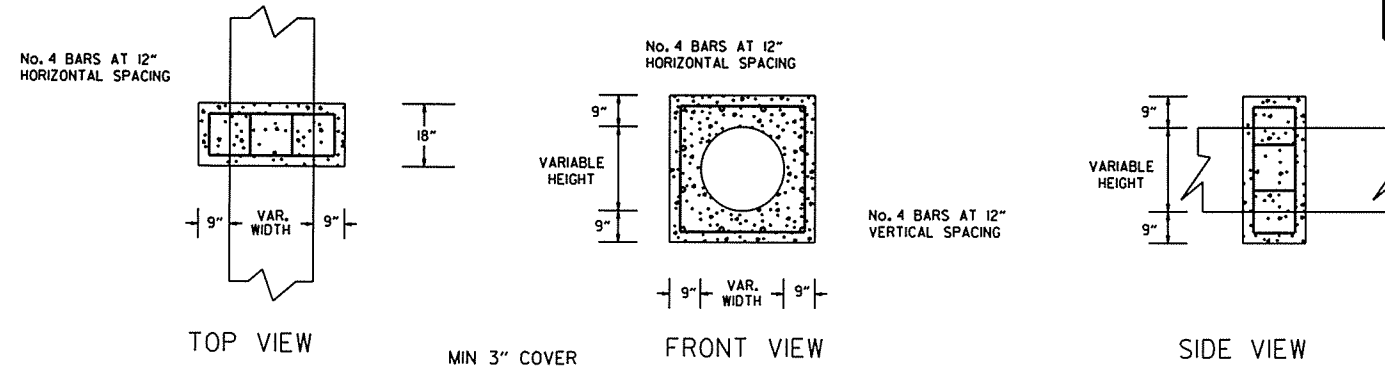


TYPICAL SECTION OF IMPROVEMENT - 1-49
 SUPERELEVATION

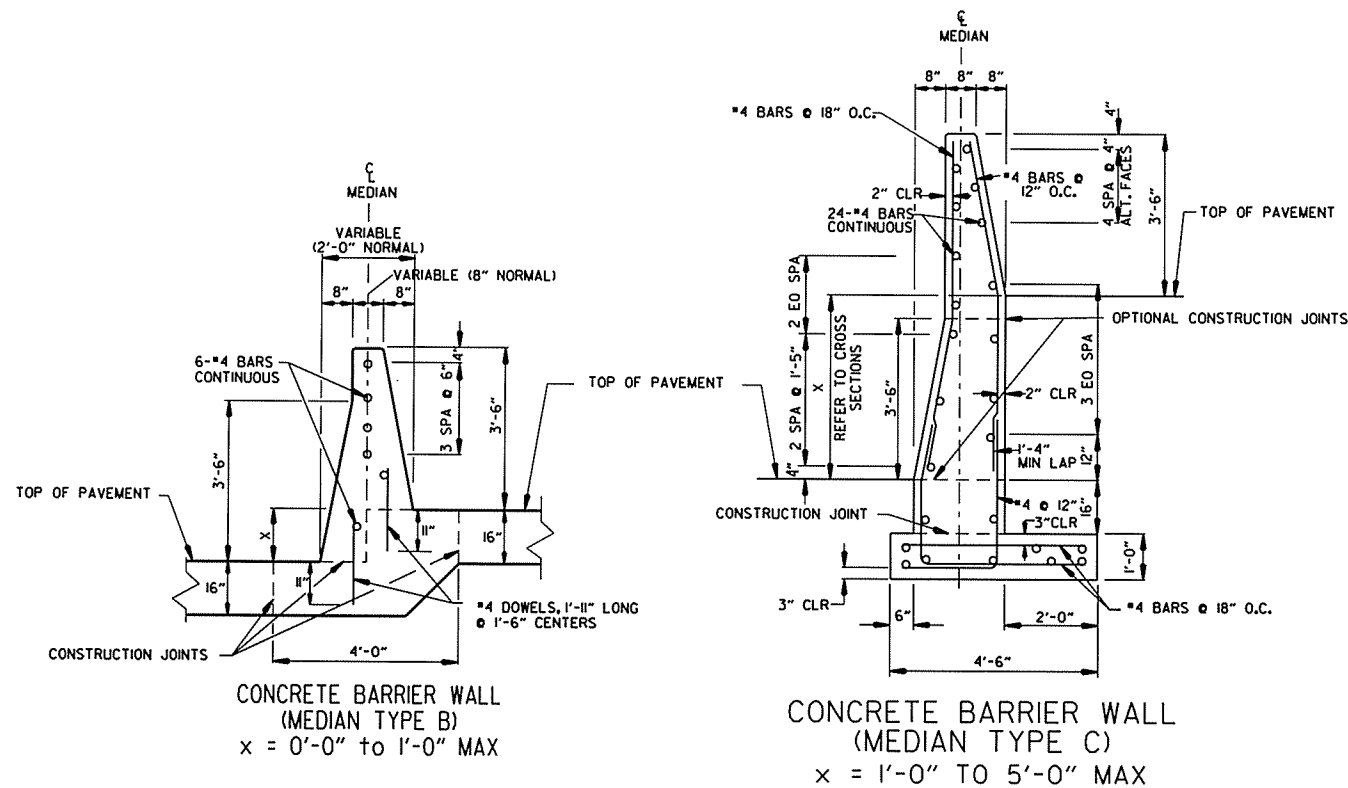
- NOTES:
- REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
 - THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.
 - PRIOR TO AND DURING PLACEMENT OF PAVEMENT, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.
 - THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.
 - THE EXISTING ASPHALT PAVEMENT TO BE REMOVED FROM THE REMAINING PAVEMENT SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. AFTER SAWING, THE PAVEMENT TO BE REMOVED SHALL BE CAREFULLY REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE OF THE ASPHALT PAVEMENT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
9-3-14				6	ARK.			
JOB NO. 090305						4	122	

2 SPECIAL DETAILS

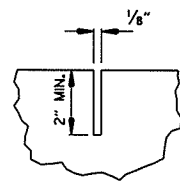


PIPE EXTENSION
REINFORCED CONCRETE COLLAR DETAIL

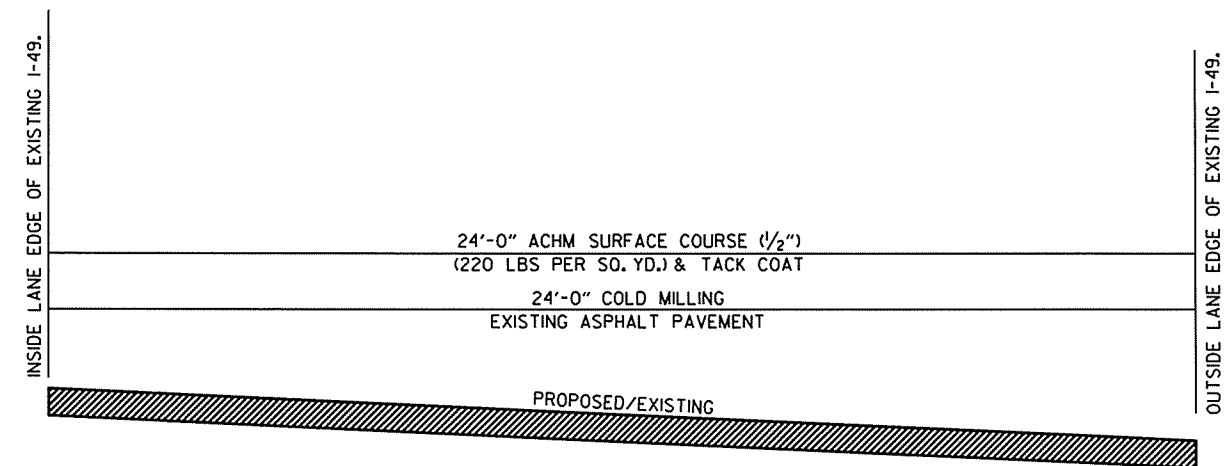


GENERAL NOTES FOR CONCRETE BARRIER WALLS

- ALL BARRIER WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 631 OF THE STANDARD SPECIFICATIONS, 2014 EDITION.
- CONTRACTION JOINTS REQUIRED @ 15'-0" MAXIMUM SPACING FOR TYPE MEDIAN B A 30'-0" MAXIMUM SPACING IS REQUIRED FOR TYPE MEDIAN C.
- ALL CONTRACTION JOINTS TO BE FORMED IN FRESH CONCRETE ON TOP AND IN SIDES OF BARRIER WALL.
- ALL EXPOSED EDGES OF CONCRETE BARRIER WALL SHALL HAVE A 1/4" CHAMFER.
- THE DESIGN OF BARRIER WALL TYPE MEDIAN C IS BASED ON A MINIMUM FOUNDATION BEARING CAPACITY OF ONE TON PER SQUARE FOOT. UNSTABLE FOUNDATION MATERIAL SHALL BE REMOVED AND REPLACED TO PROVIDE A FIRM FOUNDATION AS DIRECTED BY THE ENGINEER.
- SPACING BETWEEN EXPANSION JOINTS SHALL NOT EXCEED 400 FT FOR BARRIER TYPE MEDIAN B OR 120 FT FOR BARRIER TYPE MEDIAN C. EXPANSION JOINTS SHALL BE FORMED USING 1" PREFORMED JOINT FILLER, CONTINUOUS REINFORCEMENT SHALL BE CUT 2" CLEAR OF EXPANSION JOINTS.



CONTRACTION JOINT DETAIL

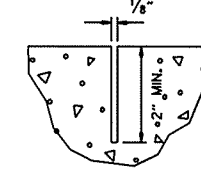


DETAIL OF COLD MILLING OF I-49
(SHOWN IN THE DIRECTION OF TRAFFIC)

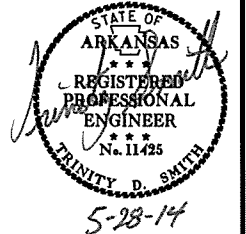
SPECIAL DETAILS

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. PROJ. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							5	122

2 SPECIAL DETAILS

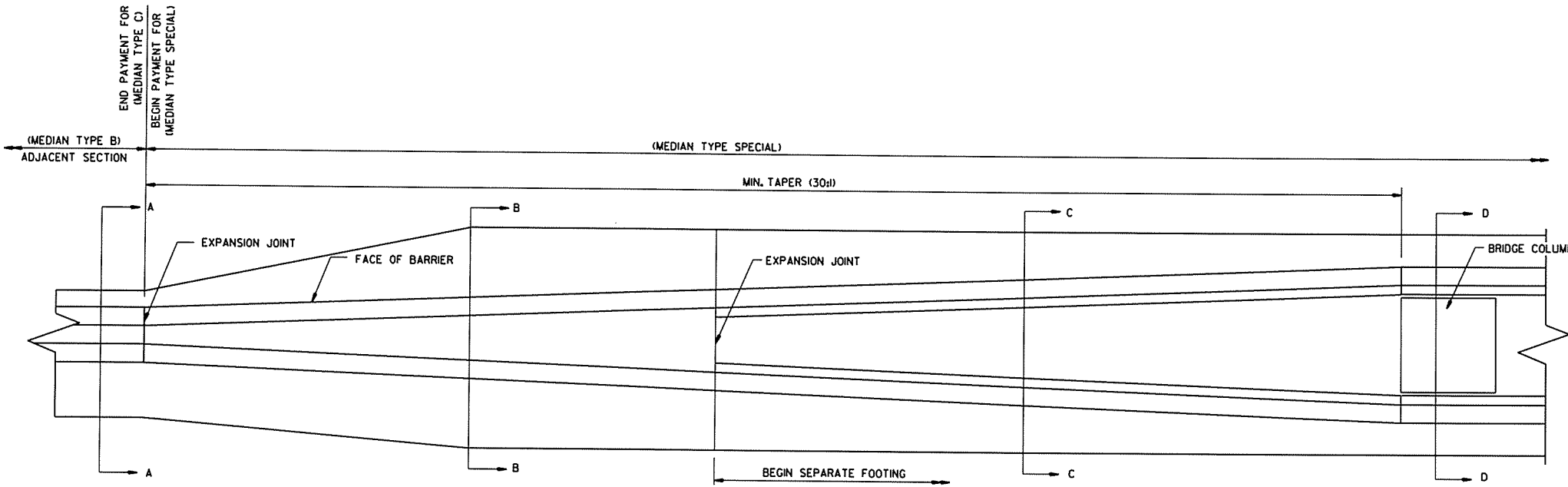


CONTRACTION JOINT DETAIL



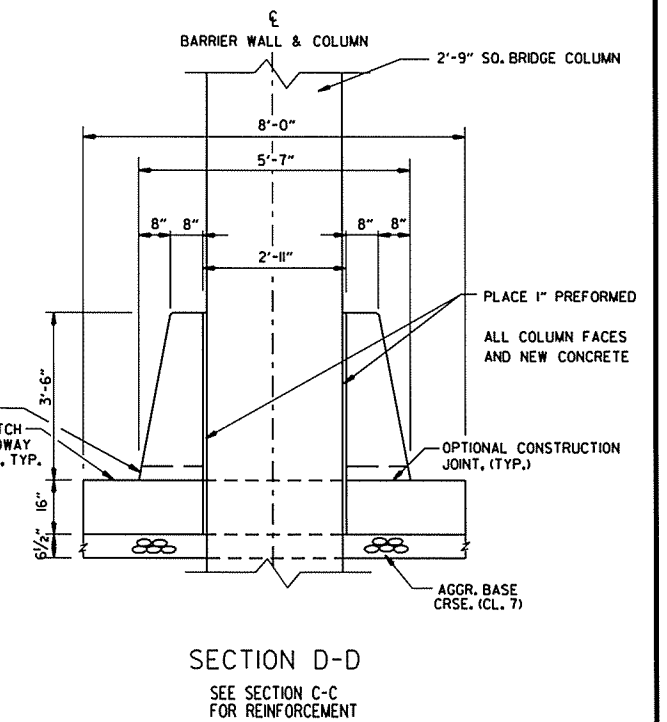
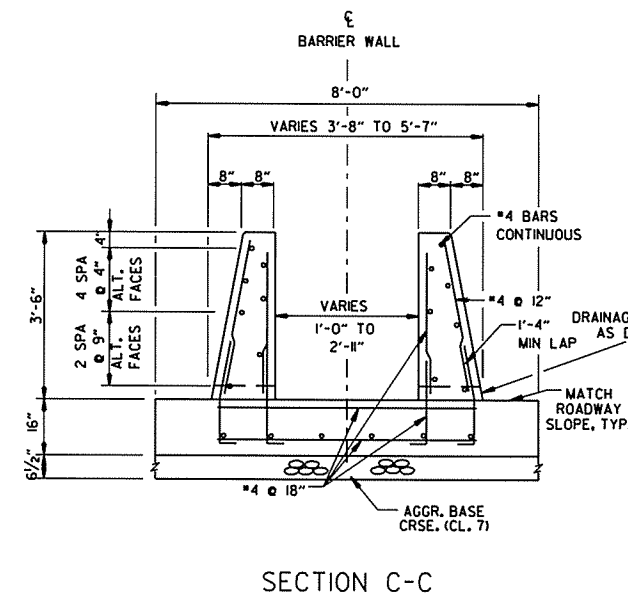
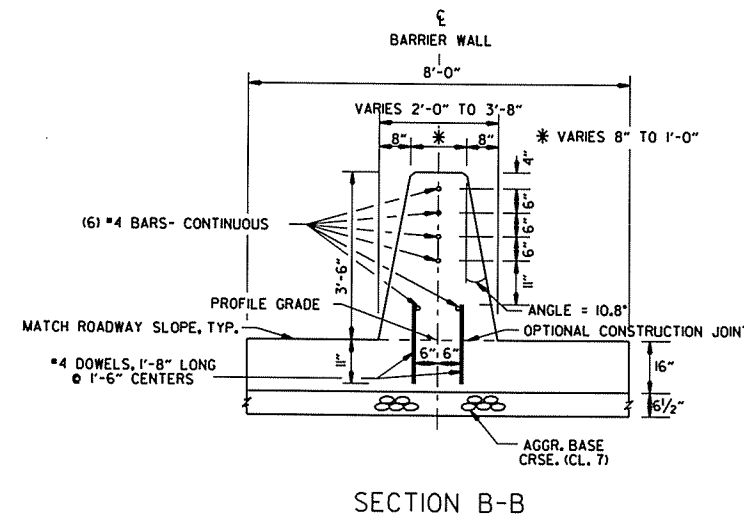
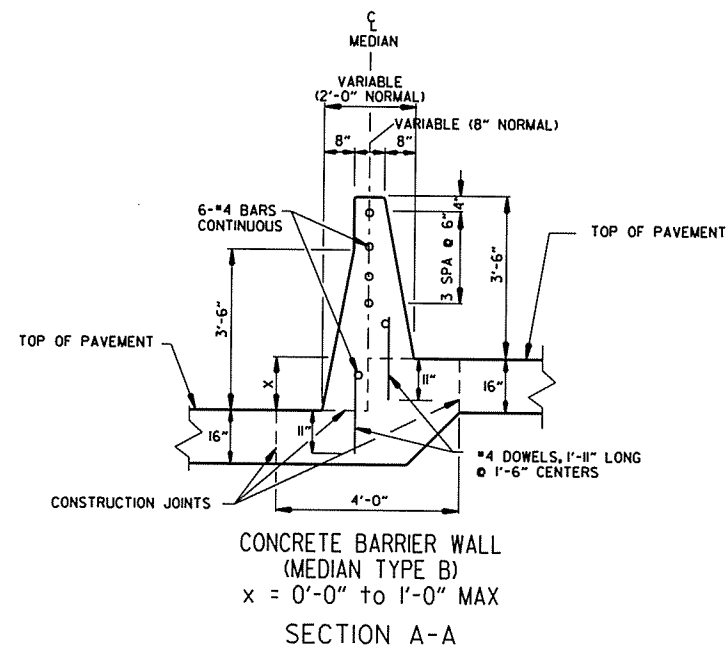
GENERAL NOTES FOR CONCRETE BARRIER WALLS

1. ALL BARRIER WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 631 OF THE STANDARD SPECIFICATIONS, 2014 EDITION.
2. CONTRACTION JOINTS REQUIRED @ 15'-0" MAXIMUM SPACING FOR BARRIER SECTION AA & BB, A 30'-0" MAXIMUM SPACING IS REQUIRED FOR BARRIER SECTION CC. CONTRACTION JOINTS ARE NOT PERMITTED AT THE DOWEL BAR LOCATIONS.
3. ALL CONTRACTION JOINTS TO BE FORMED IN FRESH CONCRETE ON TOP AND IN SIDES OF BARRIER WALL.
4. DOWEL BARS FOR BARRIER SECTION AA & BB WILL NOT BE REQUIRED IF BARRIER AND MINIMUM 8' WIDE BASE ARE CAST AS A COMPLETE UNIT.
5. ALL EXPOSED EDGES OF CONCRETE BARRIER WALL SHALL HAVE A 3/4" CHAMFER.
6. SPACING BETWEEN EXPANSION JOINTS SHALL NOT EXCEED 400 FT. FOR BARRIER. EXPANSION JOINTS SHALL BE FORMED USING 1" PREFORMED JOINT FILLER. CONTINUOUS REINFORCEMENT SHALL BE CUT 2" CLEAR OF EXPANSION JOINTS.
7. MAINTAIN 3" CLEARANCE ON ALL FOOTING REINFORCEMENT AND 2" CLEARANCE ON ALL OTHER REINFORCEMENT.
8. DRAINAGE OPENINGS TO BE CONSTRUCTED AS DIRECTED BY THE ENGINEER.



CONCRETE BARRIER WALL

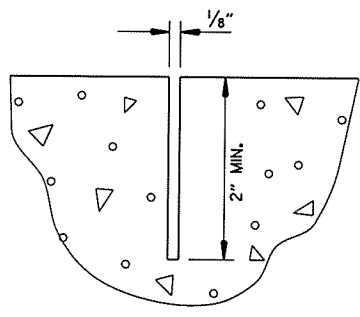
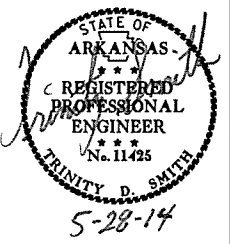
NOTE: TRANSITION FOR SOUTH SIDE SHOWN. NORTH SIDE TRANSITION IS IDENTICAL.



CONCRETE BARRIER WALL (MEDIAN TYPE B) TRANSITION FOR BRIDGE PIER

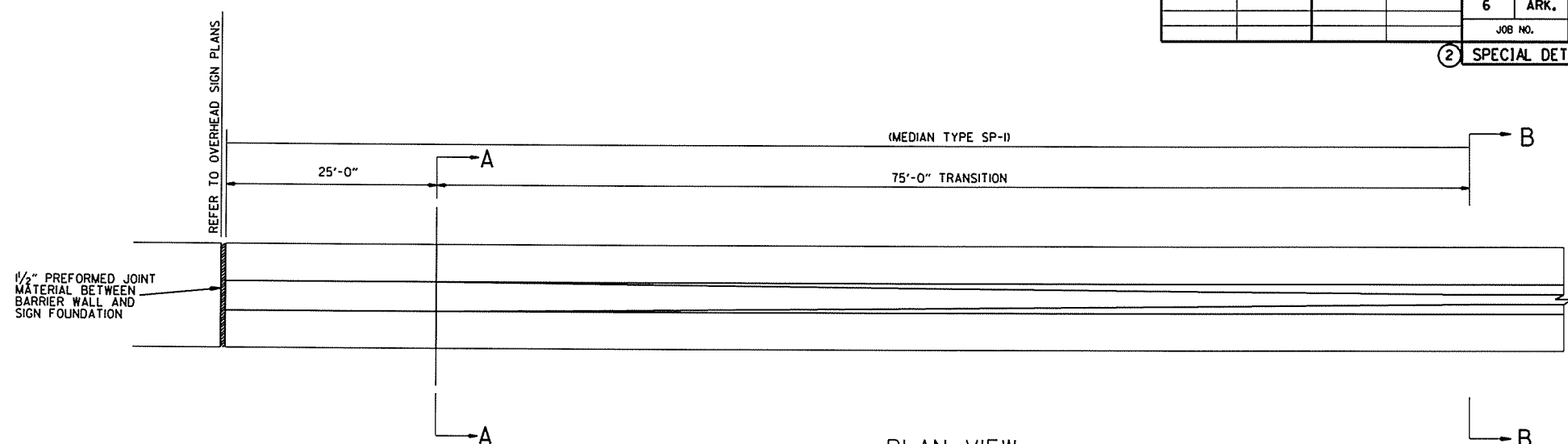
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							6	122

2 SPECIAL DETAILS

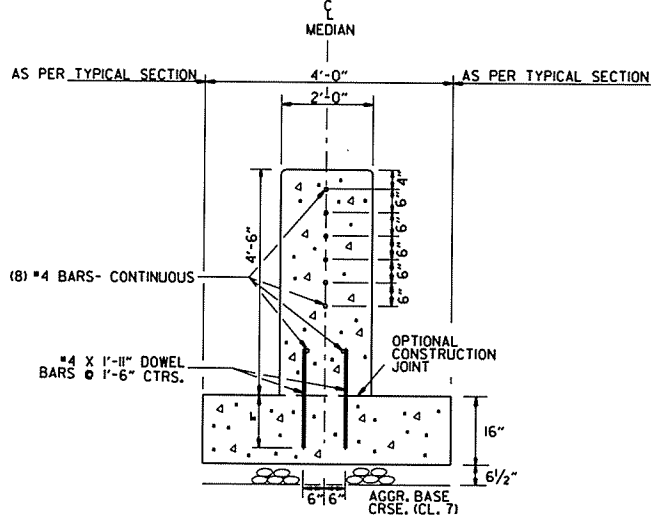


CONTRACTION JOINT DETAIL

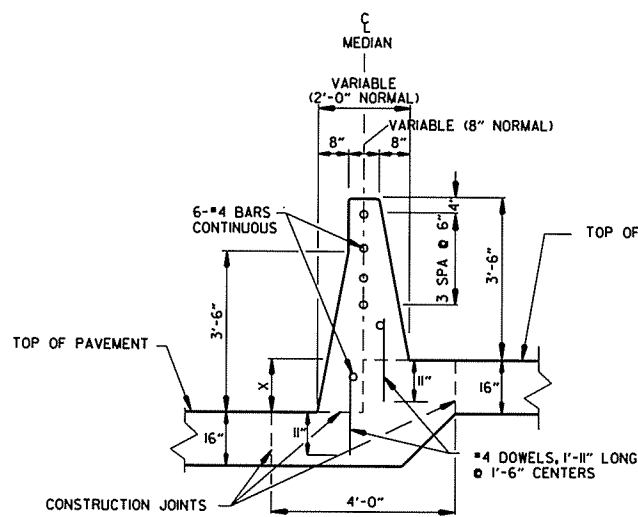
- NOTES FOR MEDIAN BARRIER:
1. ALL EXPOSED EDGES SHALL HAVE 3/4" CHAMFERS.
 2. CONTRACTION JOINTS SHALL BE CONSTRUCTED AT 15'-0" MAXIMUM SPACING IN TOP AND SIDES OF MEDIAN BARRIER AND SHALL BE FORMED IN FRESH CONCRETE.
 3. CONTRACTION JOINTS ARE NOT PERMITTED AT THE DOWEL BAR LOCATIONS.
 4. ALL REINFORCING BARS SHALL HAVE 2" MINIMUM COVER.
 5. DOWEL BARS WILL NOT BE REQUIRED IF BARRIER AND BASE ARE CAST AS A COMPLETE UNIT.
 6. DRAINAGE OPENINGS TO BE CONSTRUCTED ADJACENT TO DROP INLETS. DOWEL BARS SHALL NOT BE PLACED WITHIN 3" OF DRAINAGE OPENINGS.



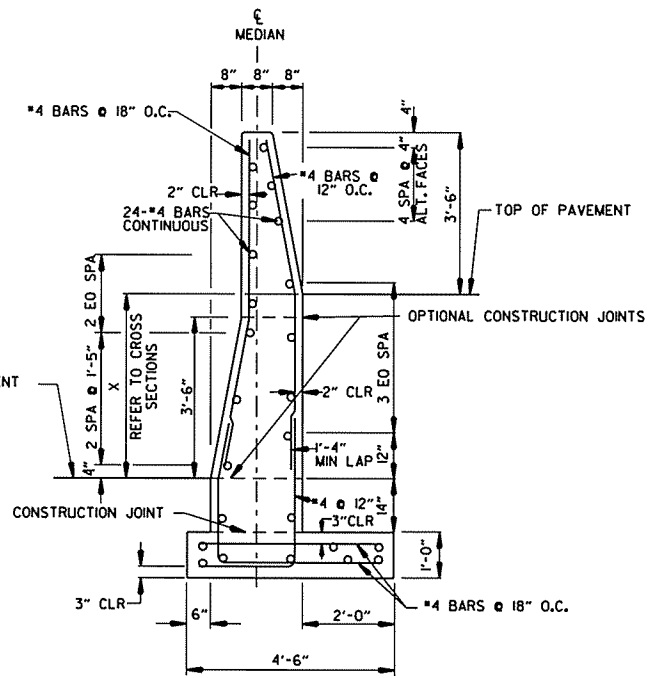
PLAN VIEW
CONCRETE BARRIER WALL (MEDIAN TYPE B AND MEDIAN TYPE C) TRANSITION



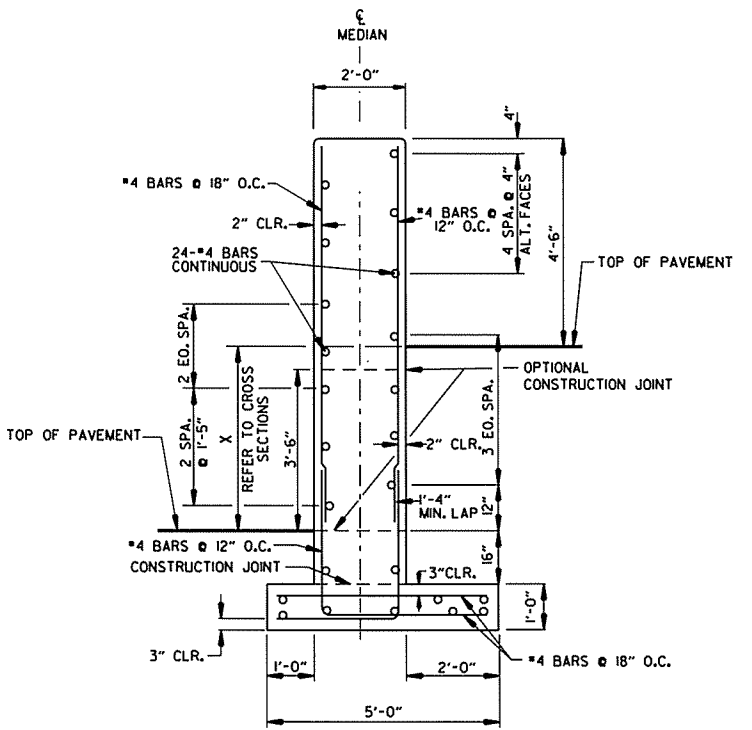
CONCRETE BARRIER WALL (MEDIAN TYPE SP-1)
x = 0'-0" TO 1'-0" MAX
SECTION A-A



CONCRETE BARRIER WALL (MEDIAN TYPE B)
x = 0'-0" TO 1'-0" MAX
SECTION B-B



CONCRETE BARRIER WALL (MEDIAN TYPE C)
x = 1'-0" TO 5'-0" MAX
SECTION B-B



CONCRETE BARRIER WALL (MEDIAN TYPE SP-1)
x = 1'-0" TO 5'-0" MAX
SECTION A-A

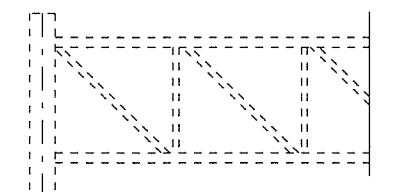
CONCRETE BARRIER WALL (MEDIAN TYPE B) AND (MEDIAN TYPE C) TRANSITION FOR OVERHEAD SIGN STRUCTURE

SPECIAL DETAILS

5/14/2014

R090305.DGN

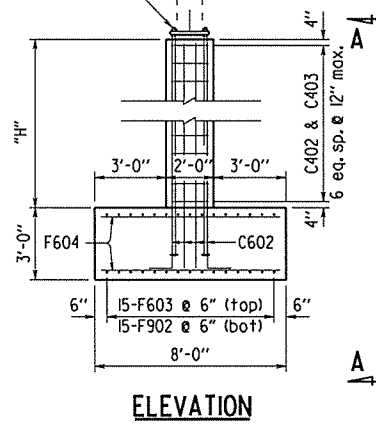
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090305	7	126
SPECIAL DETAILS								



Note: Foundation Details shown are for Standard 70'-85' Steel Overhead Sign Structures with Median Foundation. (Not in this Contract)

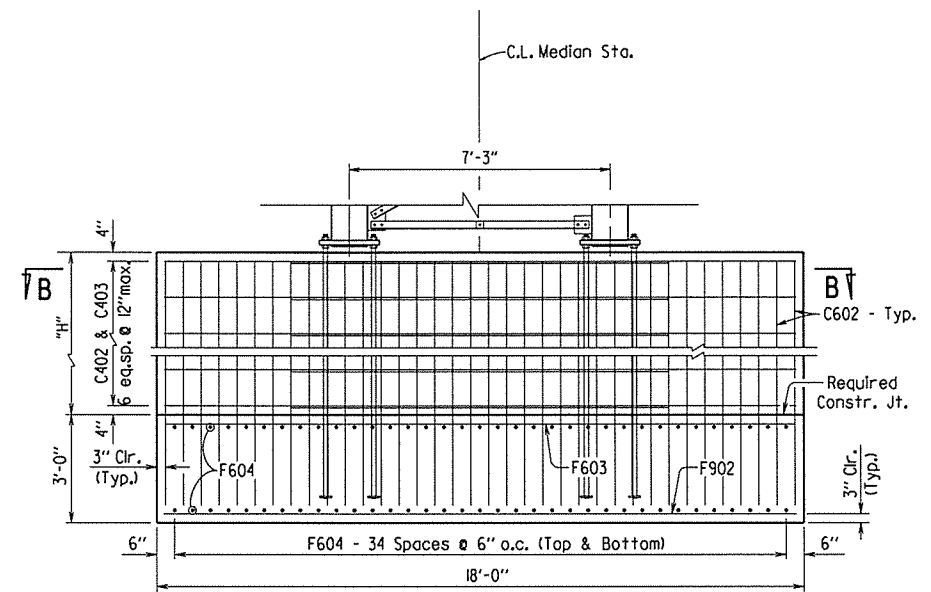
Anchor bolts shall be installed during foundation construction. See "Anchor Bolt Layout". Anchor bolt shall have 1'-6" min. embedment into footing-typ.

4'-6 7/8" at Sta. 1189+00
 6'-7 5/8" at Sta. 1230+00
 4'-6 1/2" at Sta. 1261+00
 4'-6 7/8" at Sta. 1310+00

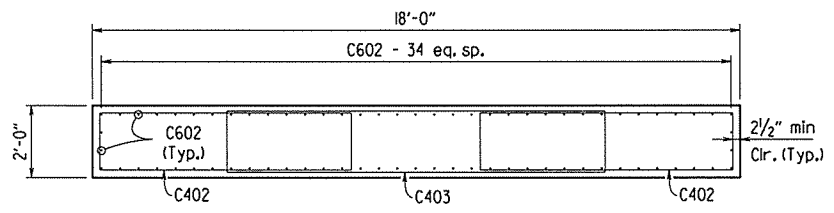


ELEVATION

Note: For median barrier on either side of Foundation, see Roadway Plans.



VIEW A-A



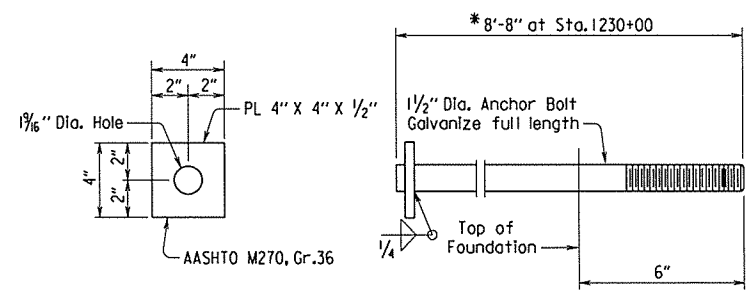
SECTION B-B

GENERAL NOTES:

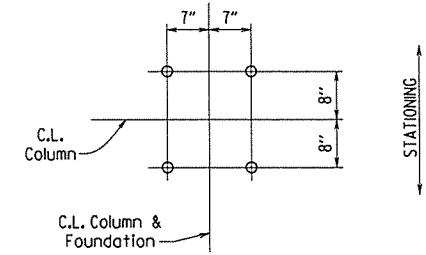
FOUNDATION MATERIALS AND STRENGTHS:
 Class S Concrete $f'_c = 3,500$ psi
 Reinforcing Steel (Grade 60, AASHTO M 31 or M 322, Type A) $f_y = 60,000$ psi

Anchor bolts shall comply with AASHTO M 314, Grade 55 including Supplementary Requirement S1, and galvanized according to subsection 807.07. Anchor bolts will not be paid for directly but shall be considered subsidiary to the pay item "Concrete Barrier Wall (Median Type C)".

Shoring may be required to protect existing shoulders during excavation. Any shoring required shall not be paid for directly, but shall be considered incidental to other items in the Contract.



ANCHOR BOLT DETAIL



ANCHOR BOLT LAYOUT

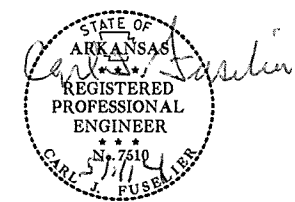
BAR LIST-FOUNDATION

MARK	NO. REQ'D	LENGTH	P.D.	BENDING DIAGRAMS
C402	14	17'-8"	3"	<p>Dimensions are out to out of bars.</p>
C403	7	24'-8"	3"	
*C602	74	9'-11"	4 1/2"	
F603	15	17'-6"	Str.	
F604	70	7'-6"	Str.	
F902	15	17'-6"	Str.	

* APPROXIMATE QUANTITIES FOR FOUNDATION (FOR INFORMATION ONLY)

CLASS S CONCRETE (Cu. Yds.)	REINFORCING STEEL (Lbs.)	EXCAVATION (Cu. Yds.)
24.9	3460	26

* Note: Anchor bolt length, Bar List and Quantities based on 6'-7 5/8" column height. Contractor shall make appropriate adjustments for other column heights.

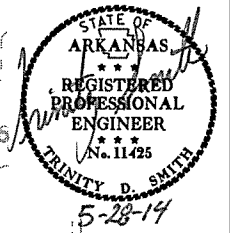


SPECIAL DETAILS FOR MEDIAN FOUNDATIONS

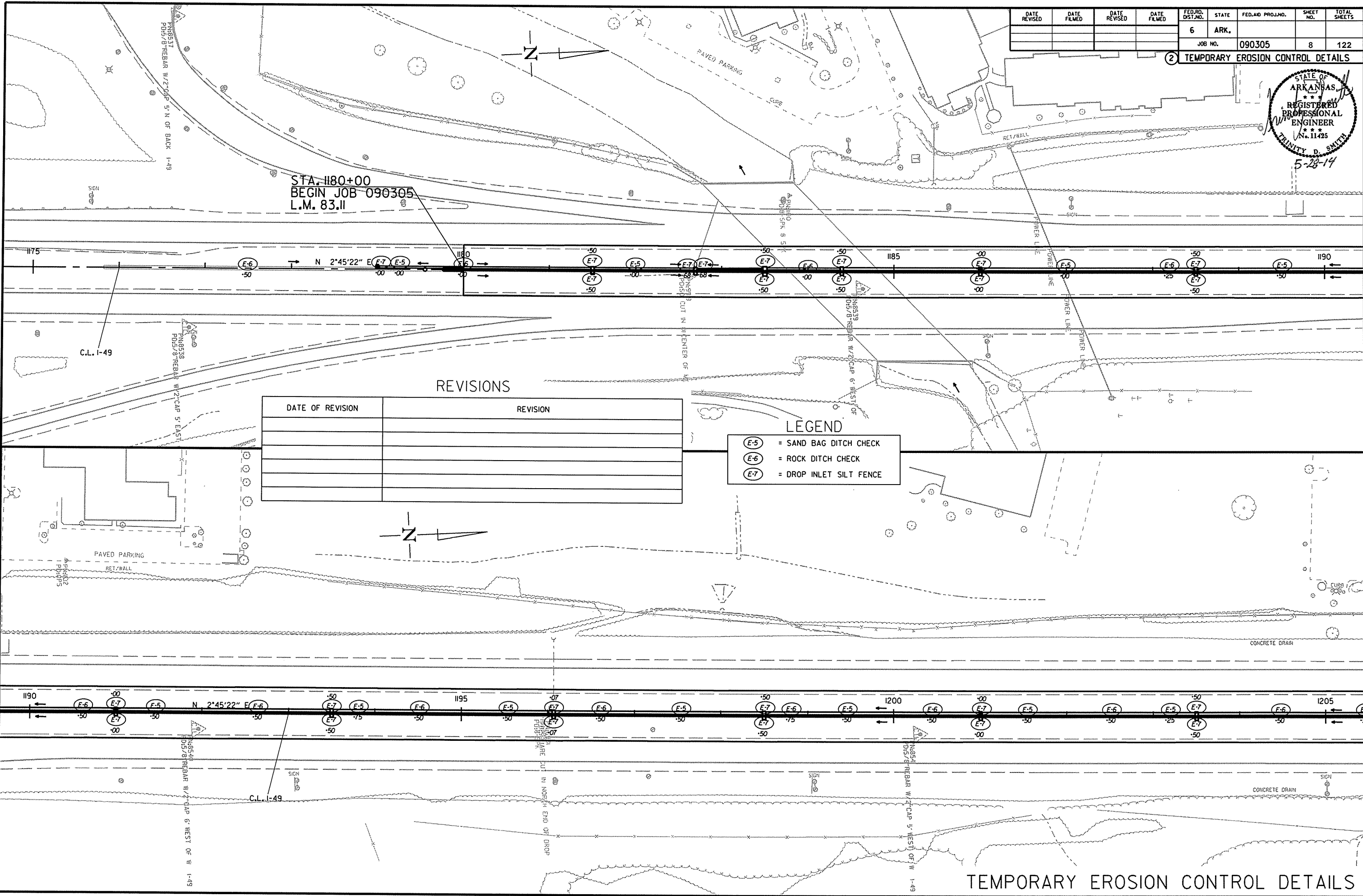
BRIDGE ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO.						090305	8	122

② TEMPORARY EROSION CONTROL DETAILS



STA. 1180+00
BEGIN JOB 090305
L.M. 83.11



REVISIONS

DATE OF REVISION	REVISION

LEGEND

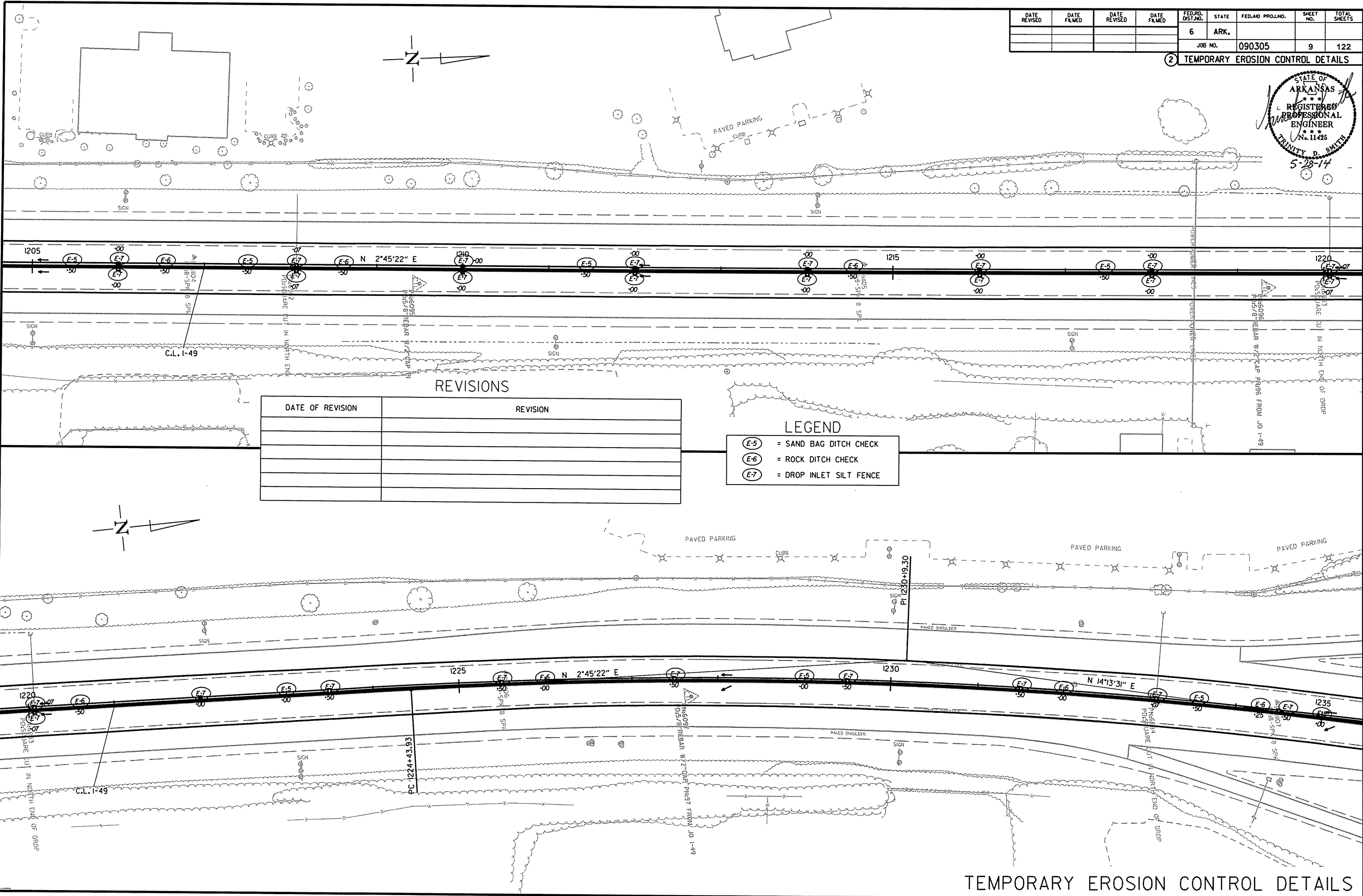
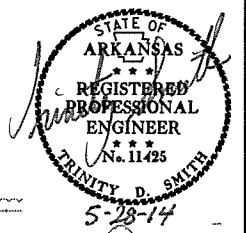
- (E-5) = SAND BAG DITCH CHECK
- (E-6) = ROCK DITCH CHECK
- (E-7) = DROP INLET SILT FENCE

5/14/2014
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TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		9	122
				JOB NO.		090305		

2 TEMPORARY EROSION CONTROL DETAILS



REVISIONS

DATE OF REVISION	REVISION

LEGEND

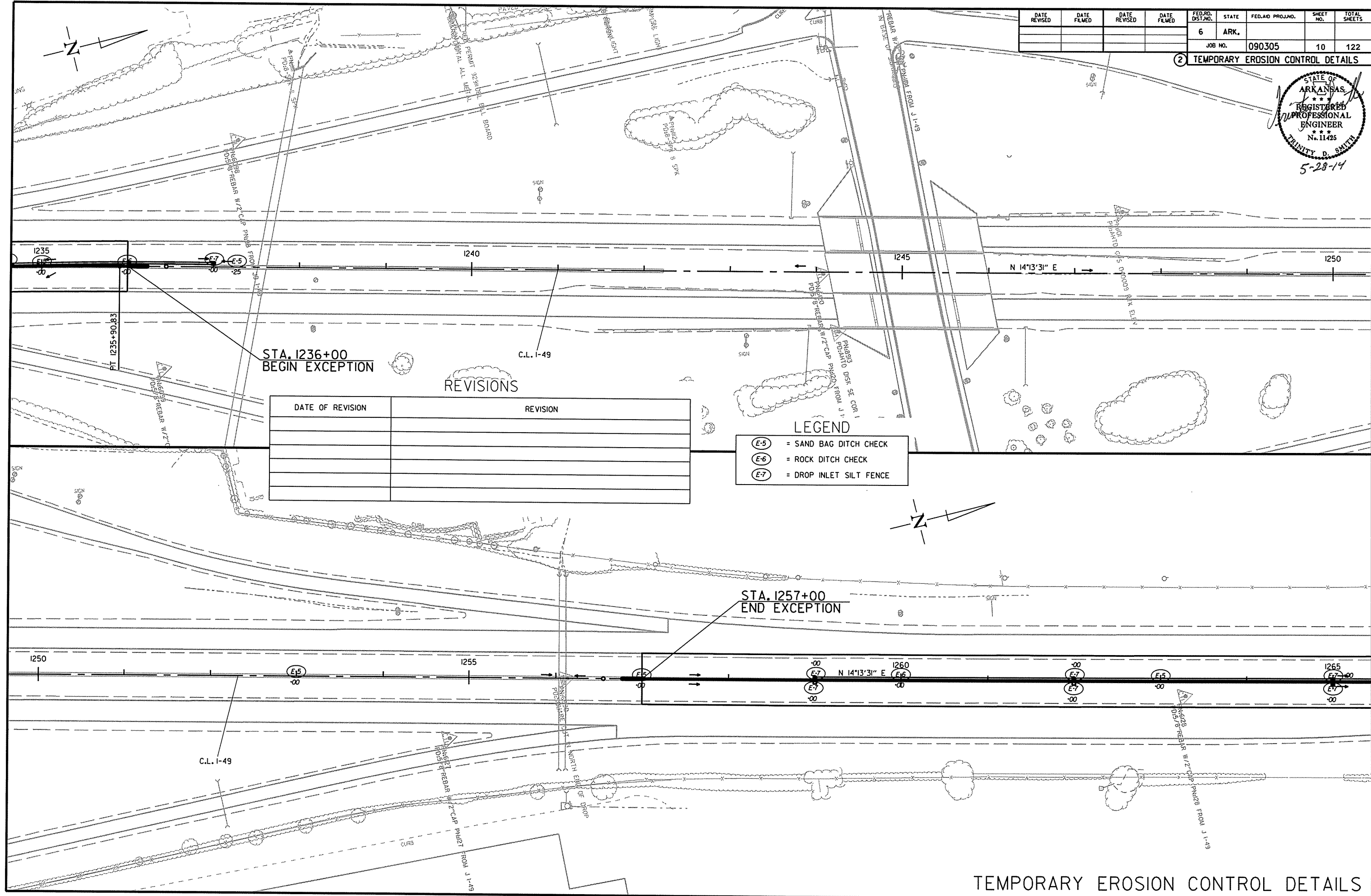
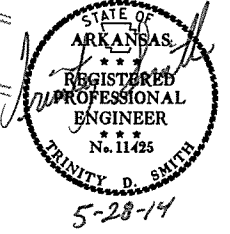
- (E-5) = SAND BAG DITCH CHECK
- (E-6) = ROCK DITCH CHECK
- (E-7) = DROP INLET SILT FENCE

R090305.DGN 5/14/2014

TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		10	122

2 TEMPORARY EROSION CONTROL DETAILS



STA. 1236+00
BEGIN EXCEPTION

STA. 1257+00
END EXCEPTION

REVISIONS

DATE OF REVISION	REVISION

LEGEND

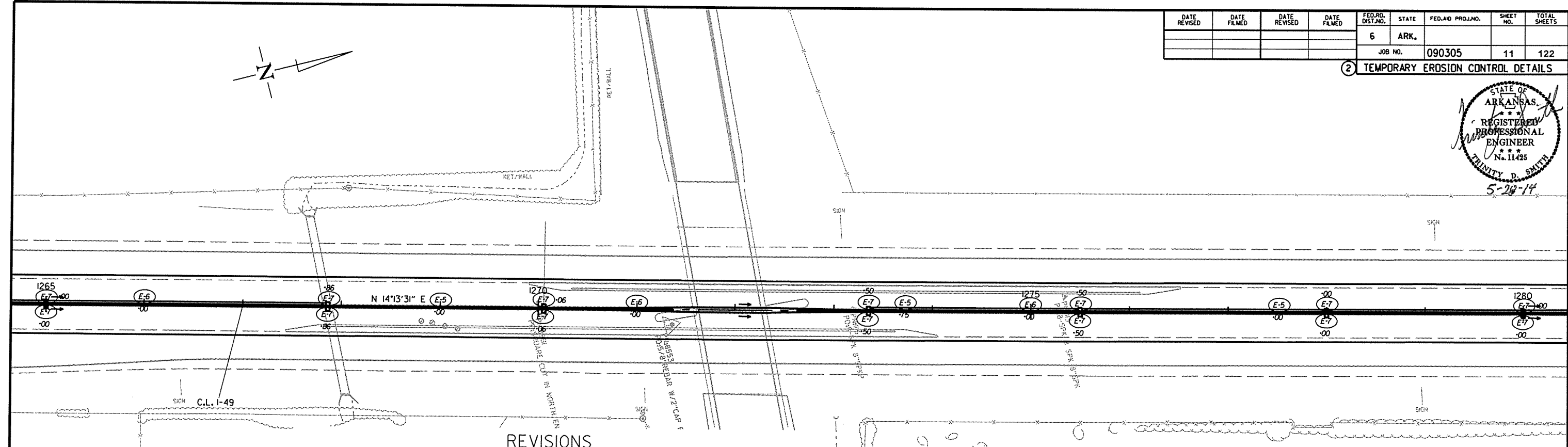
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- (E-6) = ROCK DITCH CHECK
- (E-7) = DROP INLET SILT FENCE

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TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
							JOB NO. 090305	11 122

2 TEMPORARY EROSION CONTROL DETAILS

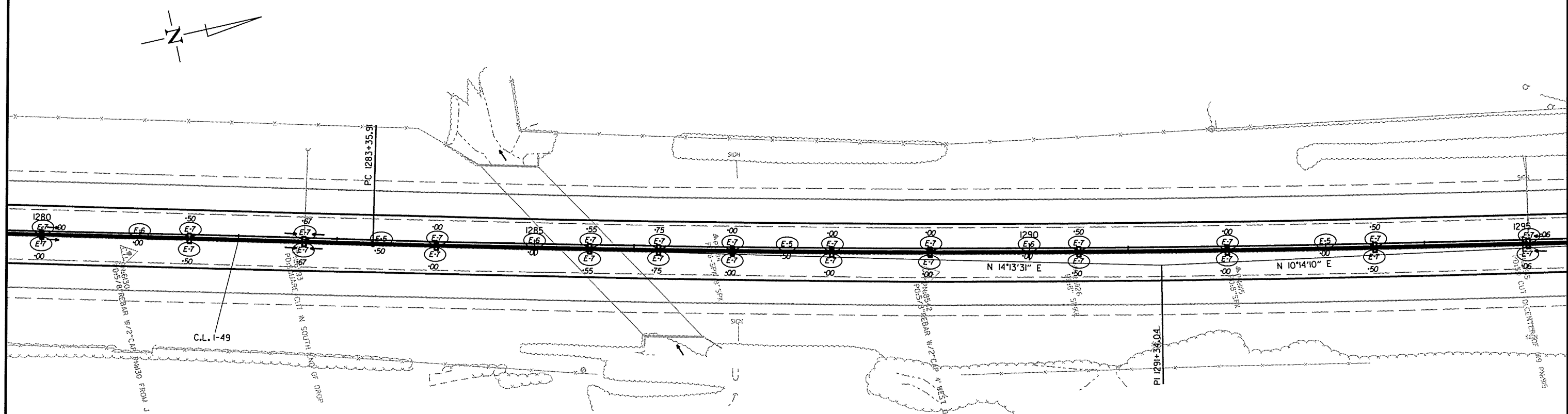


REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-5) = SAND BAG DITCH CHECK
- (E-6) = ROCK DITCH CHECK
- (E-7) = DROP INLET SILT FENCE



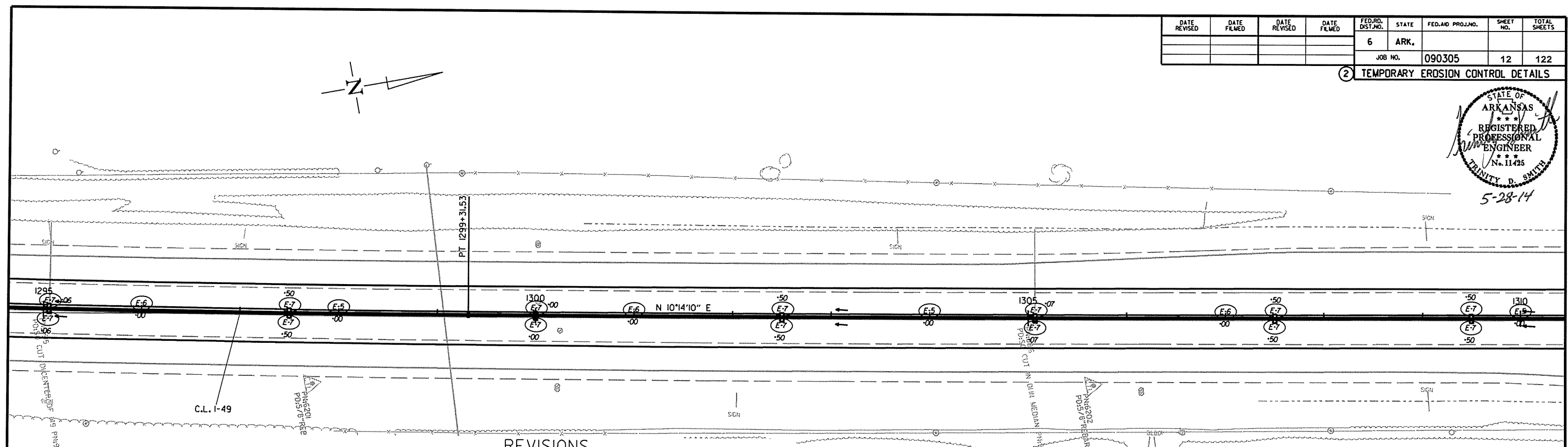
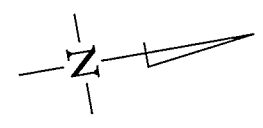
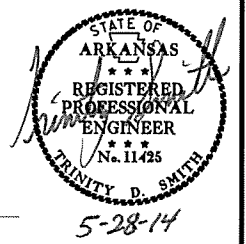
TEMPORARY EROSION CONTROL DETAILS

5/14/2014

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		12	122
JOB NO. 090305								

2 TEMPORARY EROSION CONTROL DETAILS

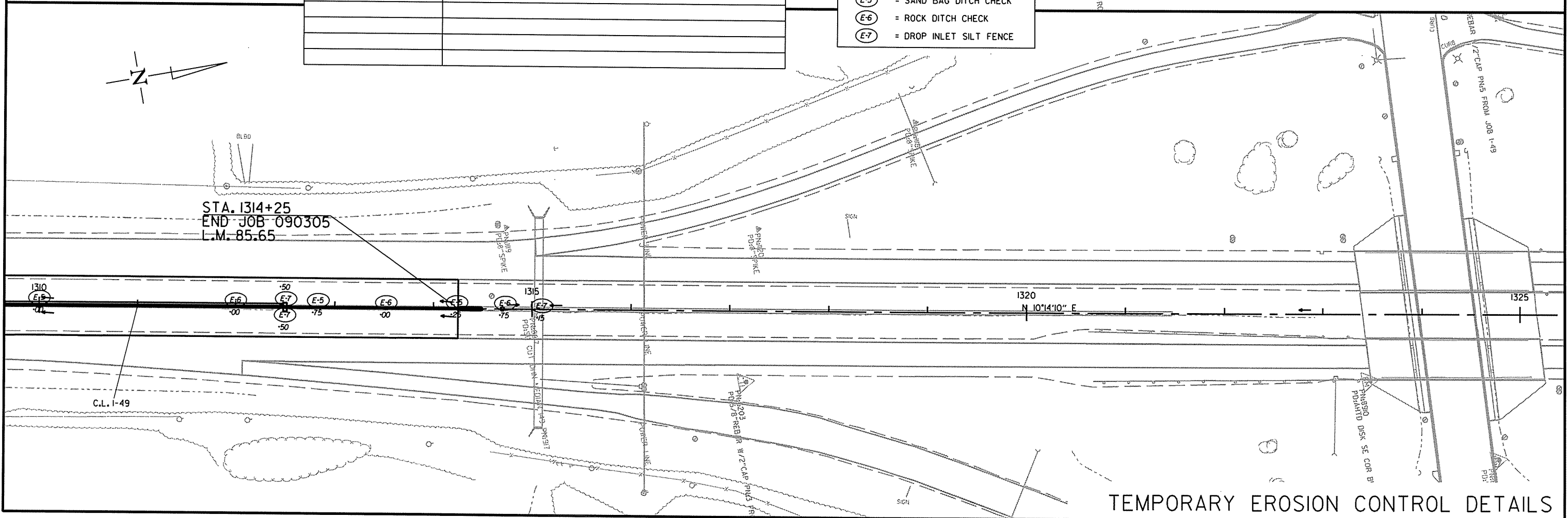
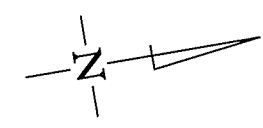


REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-5) = SAND BAG DITCH CHECK
- (E-6) = ROCK DITCH CHECK
- (E-7) = DROP INLET SILT FENCE



STA. 1314+25
END JOB 090305
L.M. 85.65

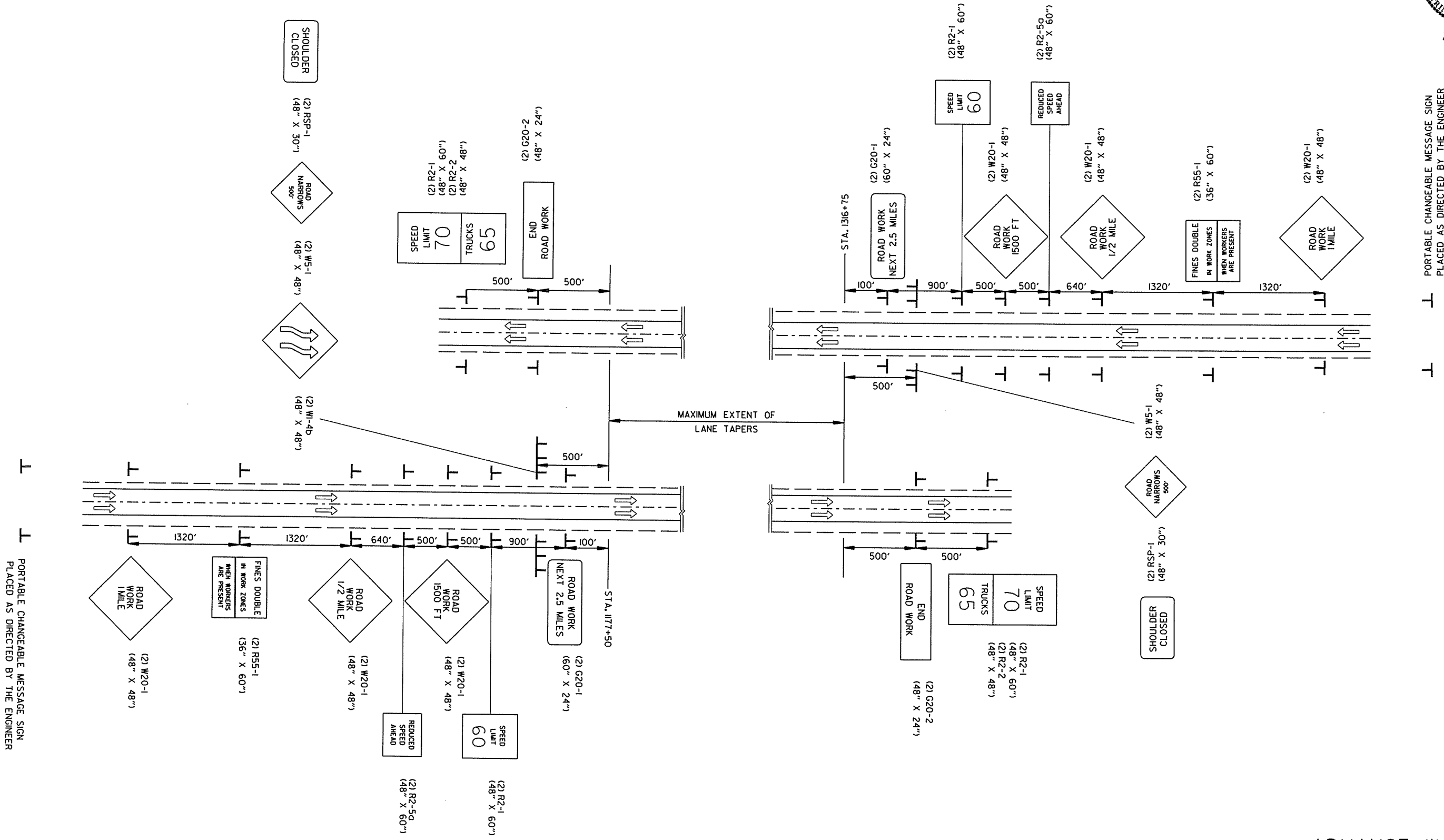
5/14/2014

R090305.DGN

TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		13	122
						JOB NO. 090305		

2 MAINTENANCE OF TRAFFIC DETAILS



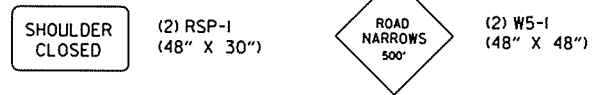
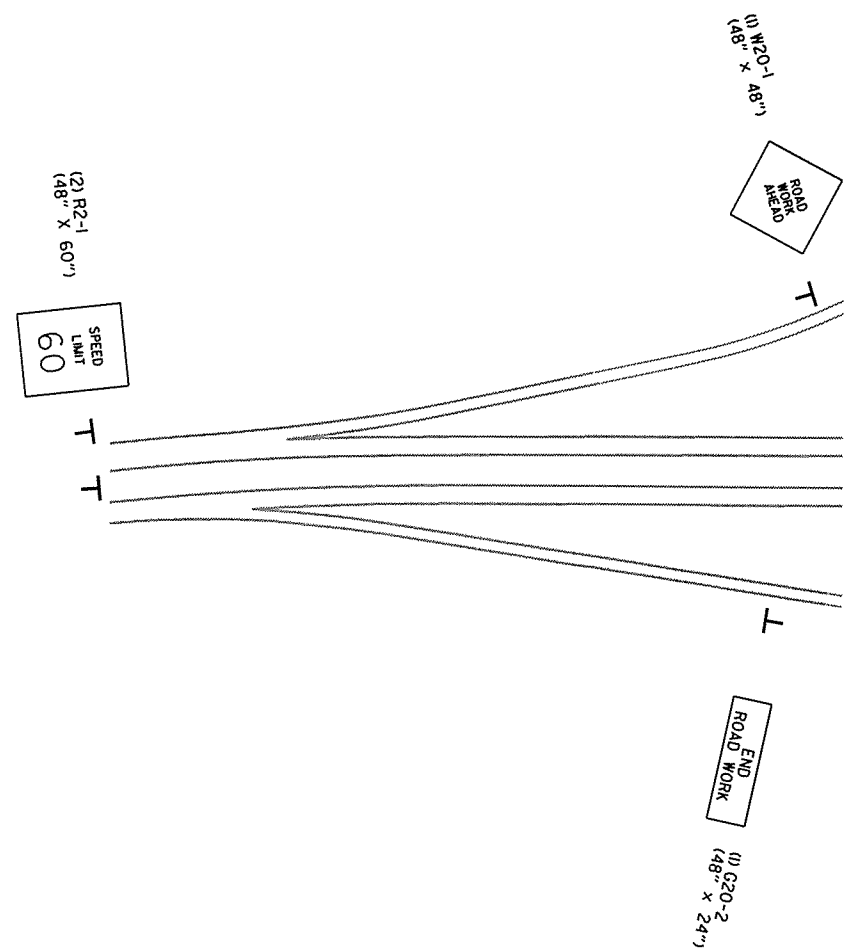
PORTABLE CHANGEABLE MESSAGE SIGN
PLACED AS DIRECTED BY THE ENGINEER

PORTABLE CHANGEABLE MESSAGE SIGN
PLACED AS DIRECTED BY THE ENGINEER

ADVANCE WARNING
MAINTENANCE OF TRAFFIC DETAILS

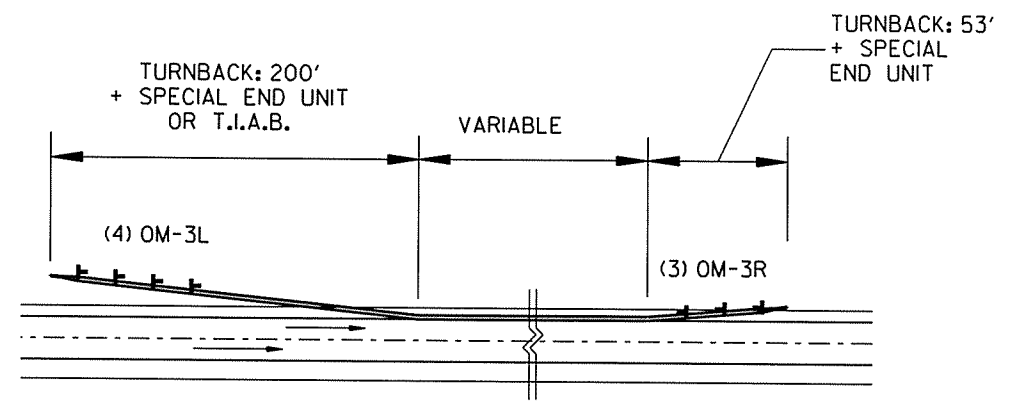
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9-3-14				6	ARK.			
						JOB NO. 090305	14	122

② MAINTENANCE OF TRAFFIC DETAILS



ADVANCE WARNING SIGNS
 I-49 R.M.L. - STA. 1249+50
 I-49 L.M.L. - STA. 1243+50

DETAIL OF ENTRANCE AND EXIT RAMP
 (ALL STAGES)
 EXIT 83
 EXIT 85
 EXIT 86



CONSTRUCTION SEQUENCE

INSTALL ADVANCE WARNING SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAIL. INSTALL END ROAD WORK SIGNS AND SPEED LIMIT 65 SIGNS AT THE END OF JOB AS SHOWN ON THE ADVANCE WARNING DETAIL. INSTALL ROAD WORK AHEAD (W20-1) SIGN AND END ROAD WORK (G20-2) ON RAMP AS SHOWN ON THE ADVANCE WARNING DETAIL.

INSTALL SHOULDER CLOSED (RSP-1), ROAD NARROWS 500' (W5-1), AND REVERSE CURVE (W1-4b) SIGNS AS SHOWN IN THE MAINTENANCE OF TRAFFIC DETAILS.

INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKINGS AND PRECAST CONCRETE BARRIERS AS SHOWN IN THE MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT CONCRETE BARRIER WALL AND PAVEMENT WIDENING IN THE MEDIAN OF I-49.

REMOVE PRECAST CONCRETE BARRIER WALL. MILL AND OVERLAY EXISTING I-49 MAIN LANES. PLACE PERMANENT PAVEMENT MARKINGS AS SHOWN IN THE PERMANENT PAVEMENT MARKING DETAILS.

ADVANCE WARNING QUANTITIES

SIGNS = 1200 SQ. FT.

LANE CLOSURE QUANTITIES

SIGNS = 573.5 SQ. FT.
 TRAFFIC DRUMS = 182 EACH

MAINTENANCE OF TRAFFIC QUANTITIES

TRAFFIC DRUMS = 36 EACH
 FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER = 24124 LIN. FT.
 REMOVABLE CONSTRUCTION PAVEMENT MARKINGS = 30510 LIN. FT.
 REMOVAL OF PERMANENT PAVEMENT MARKINGS = 6110 LIN. FT.

REFER ALSO TO STANDARD DRAWING TC-5 FOR DETAILS OF PLACEMENT OF PCCB TURNBACKS.

NOTE: OM-3L AND OM-3R SIGNS SHALL BE EQUALLY SPACED ALONG P.C.C.B. TURNBACK.

DETAIL OF OBJECT MARKERS AT PRECAST CONCRETE BARRIER TURNBACKS

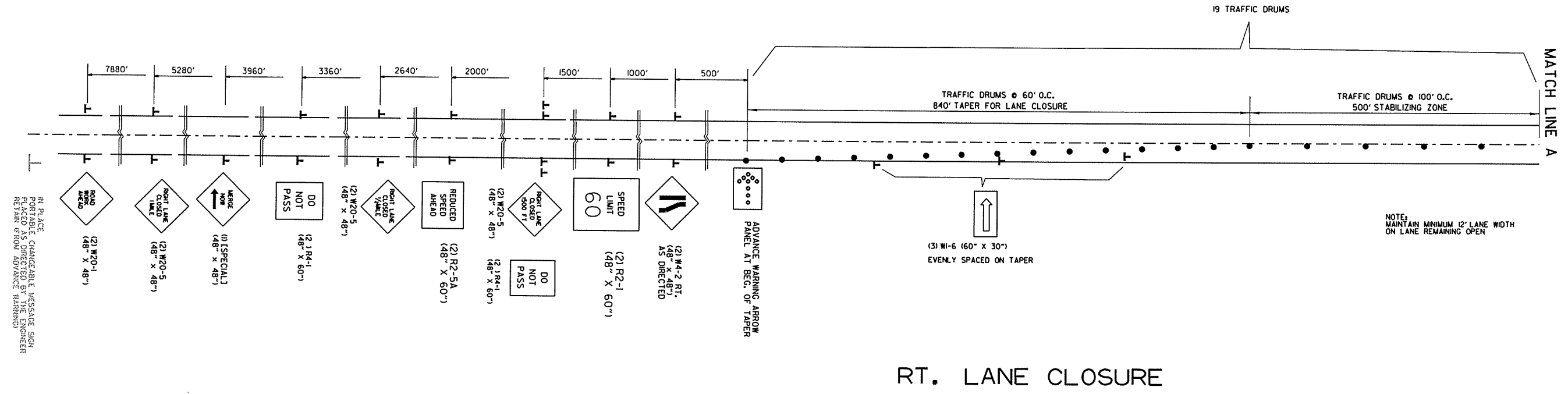
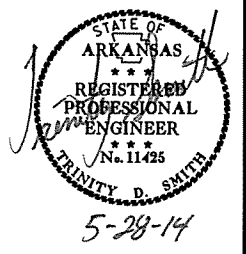
ADVANCE WARNING
 MAINTENANCE OF TRAFFIC DETAILS

9/3/2014

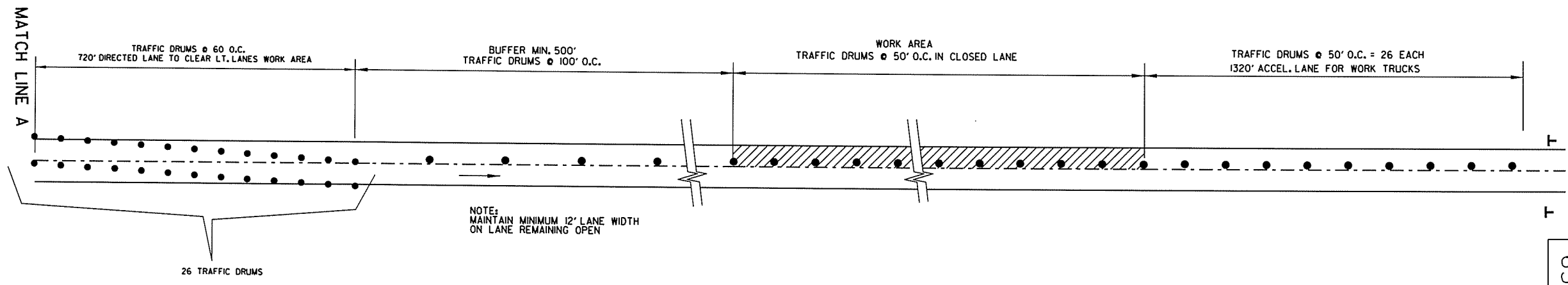
R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							15	122

② MAINTENANCE OF TRAFFIC DETAILS



RT. LANE CLOSURE



DIVERSION FOR LT. LANE WORK ZONE

SPEED LIMIT	70
TRUCKS	65

(2) R2-1
(48" X 60")
(2) R2-2
(48" X 48")

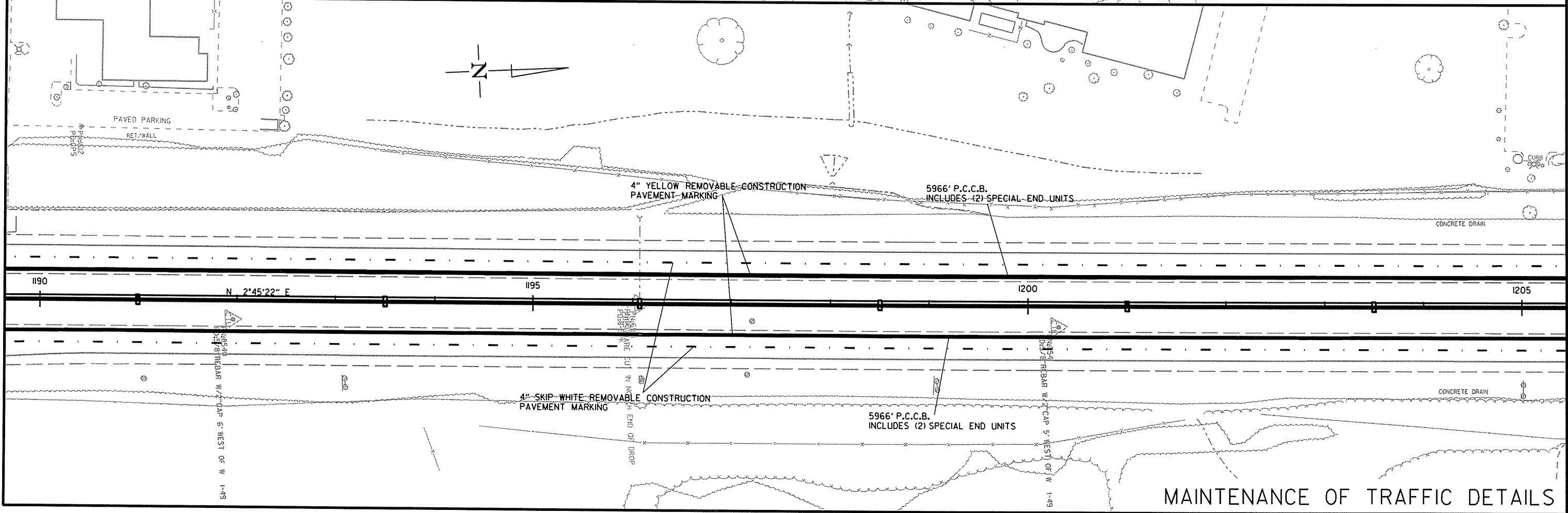
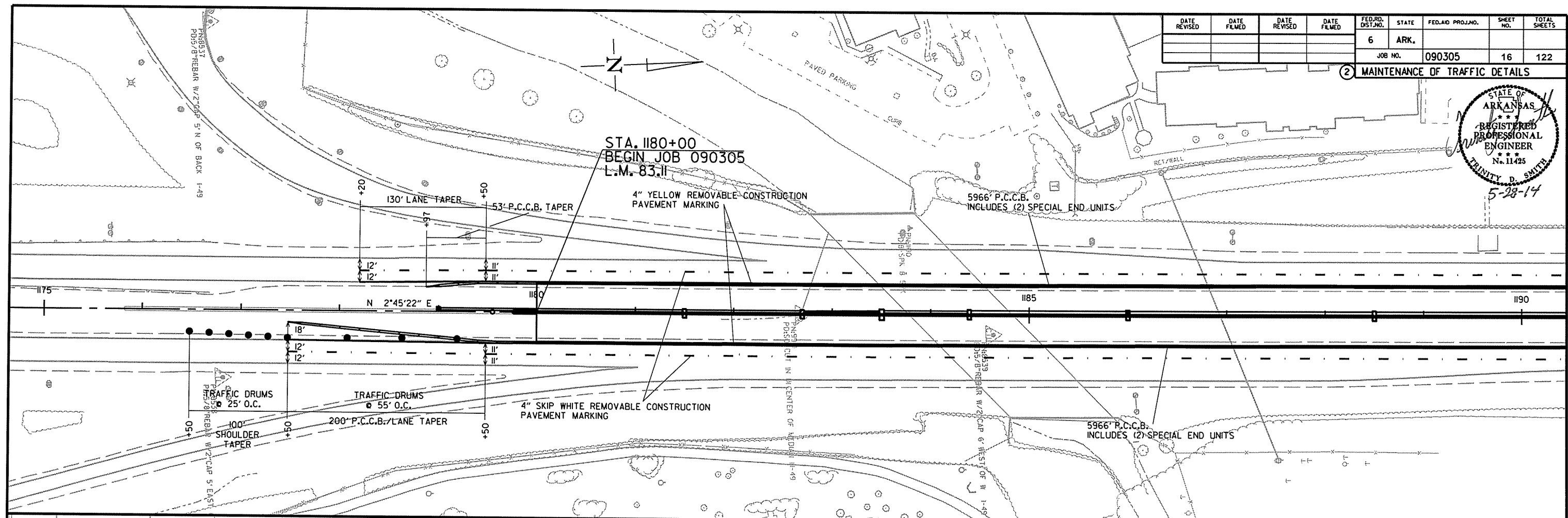
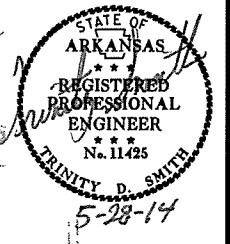
WORK ZONE - LANE CLOSURE
MAINTENANCE OF TRAFFIC DETAILS

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							16	122

② MAINTENANCE OF TRAFFIC DETAILS



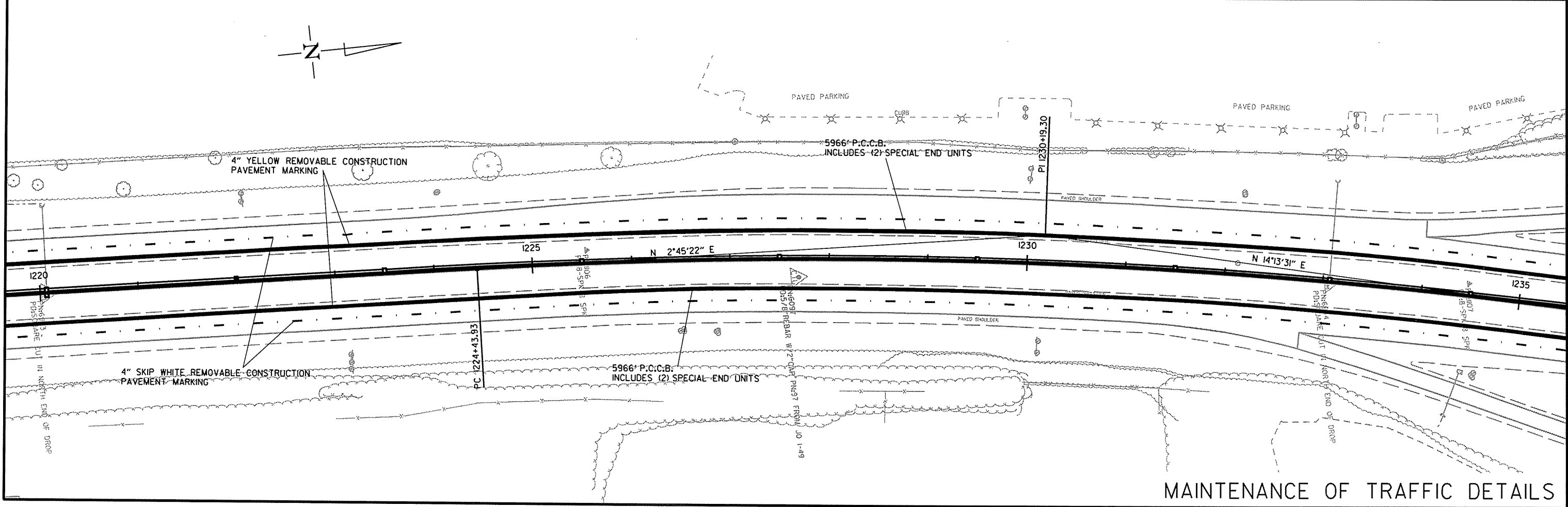
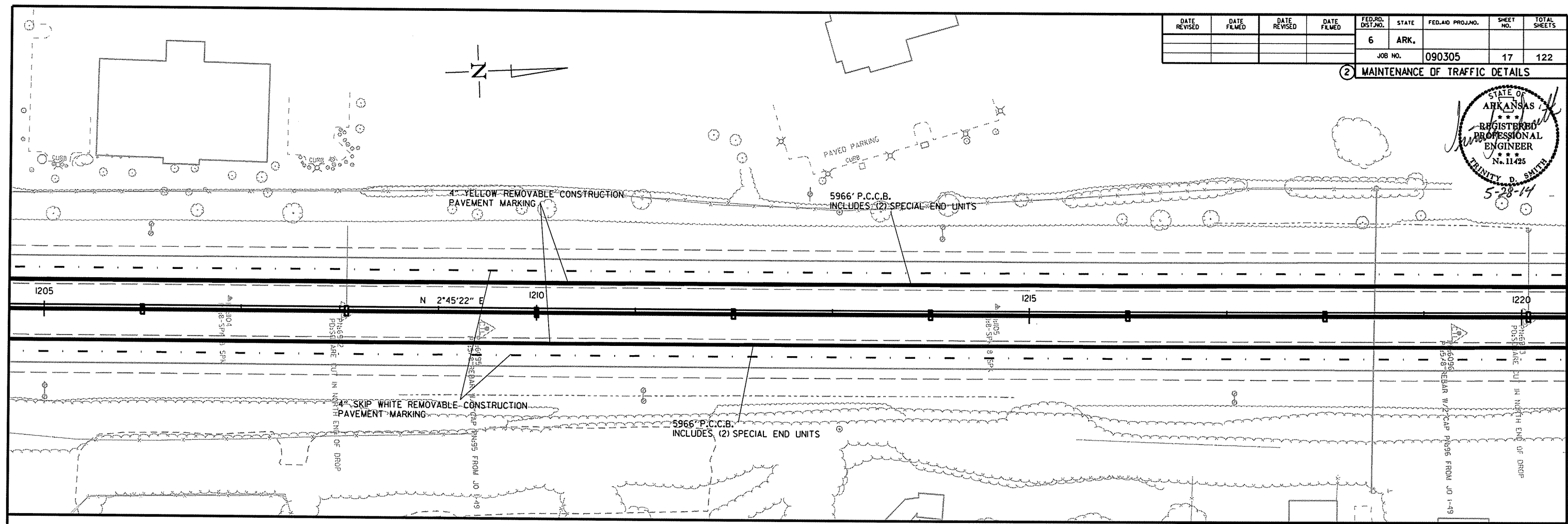
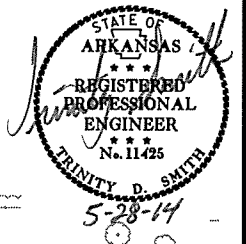
MAINTENANCE OF TRAFFIC DETAILS

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							17	122

② MAINTENANCE OF TRAFFIC DETAILS

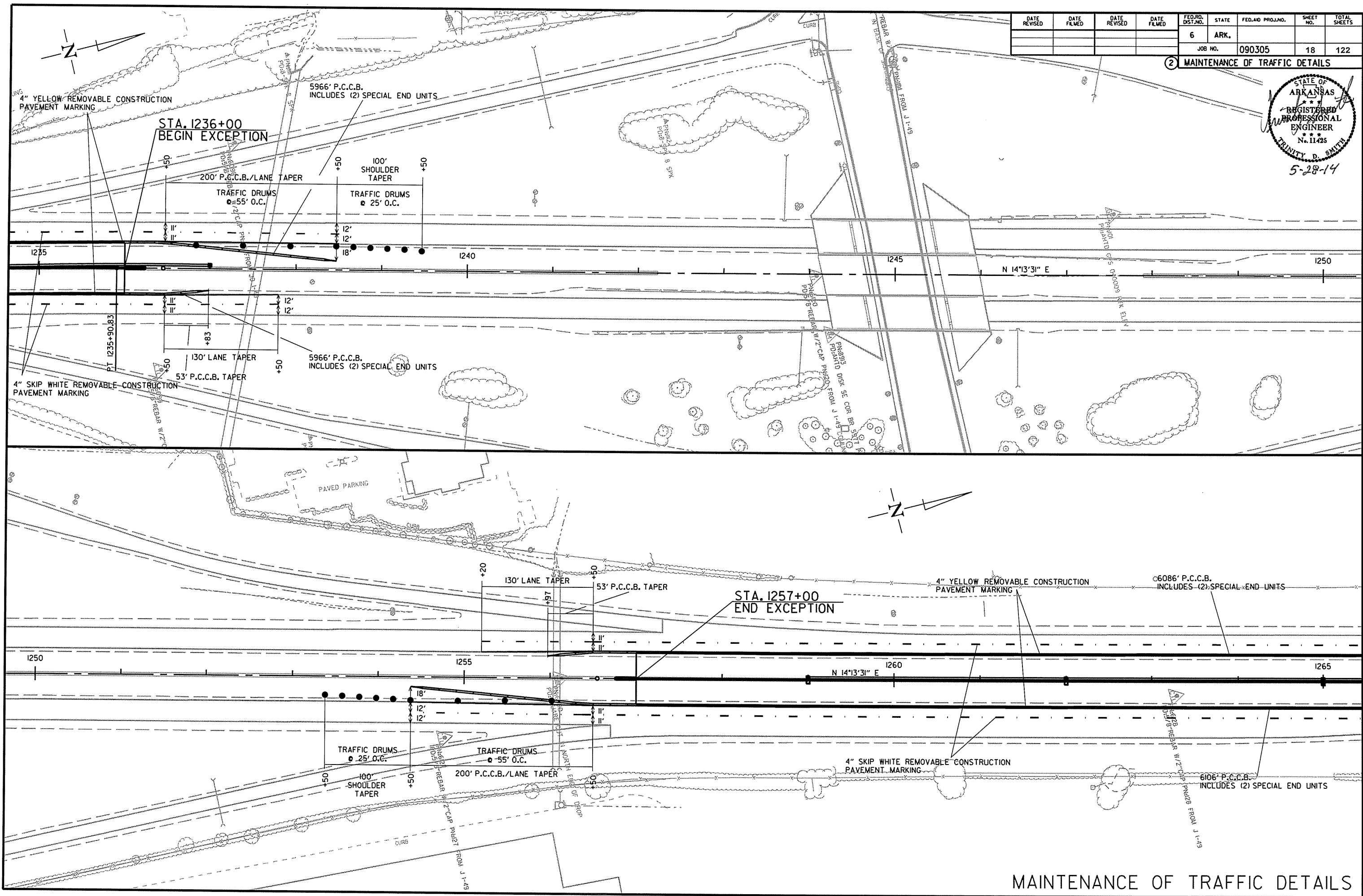
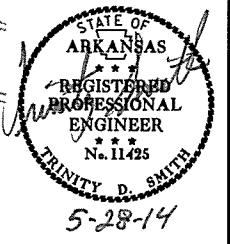


MAINTENANCE OF TRAFFIC DETAILS

R090305.DGN 5/14/2014

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		18	122
JOB NO. 090305								

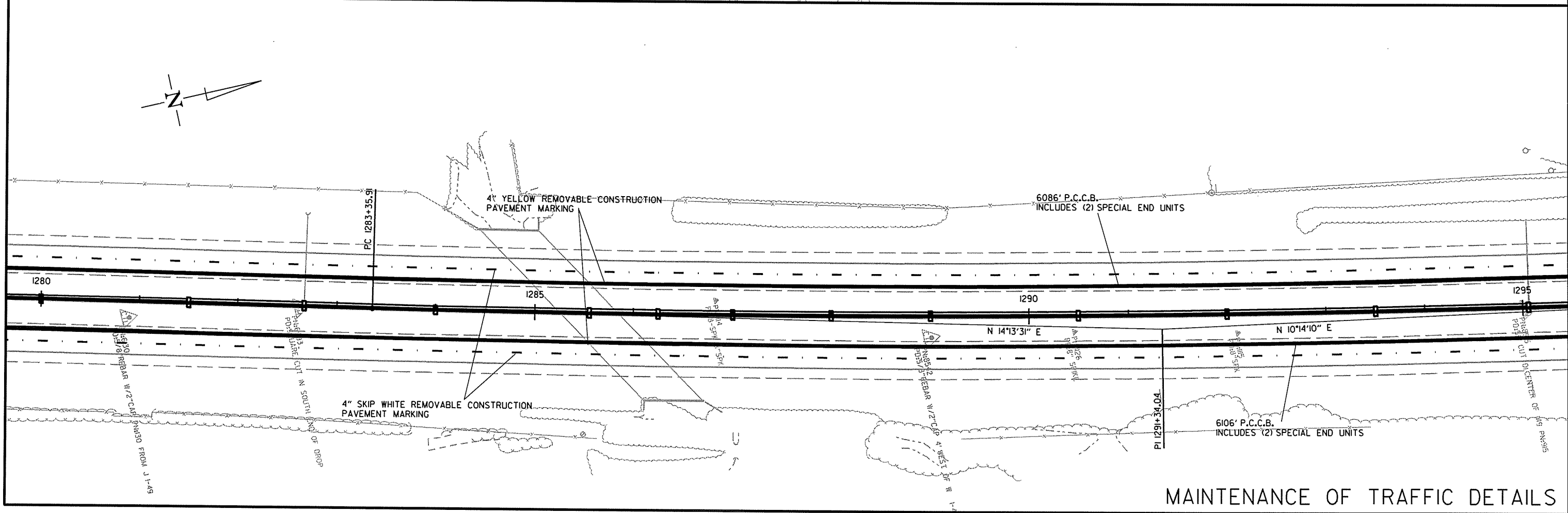
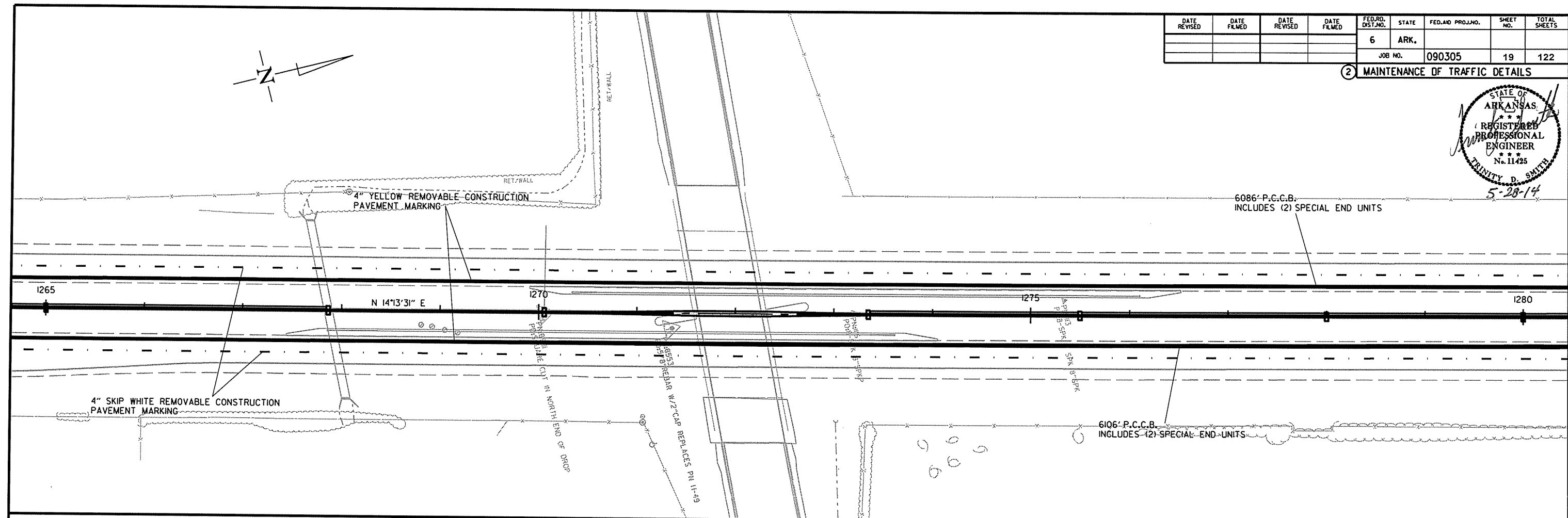
② MAINTENANCE OF TRAFFIC DETAILS



5/14/2014
R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO.	090305	19

② MAINTENANCE OF TRAFFIC DETAILS



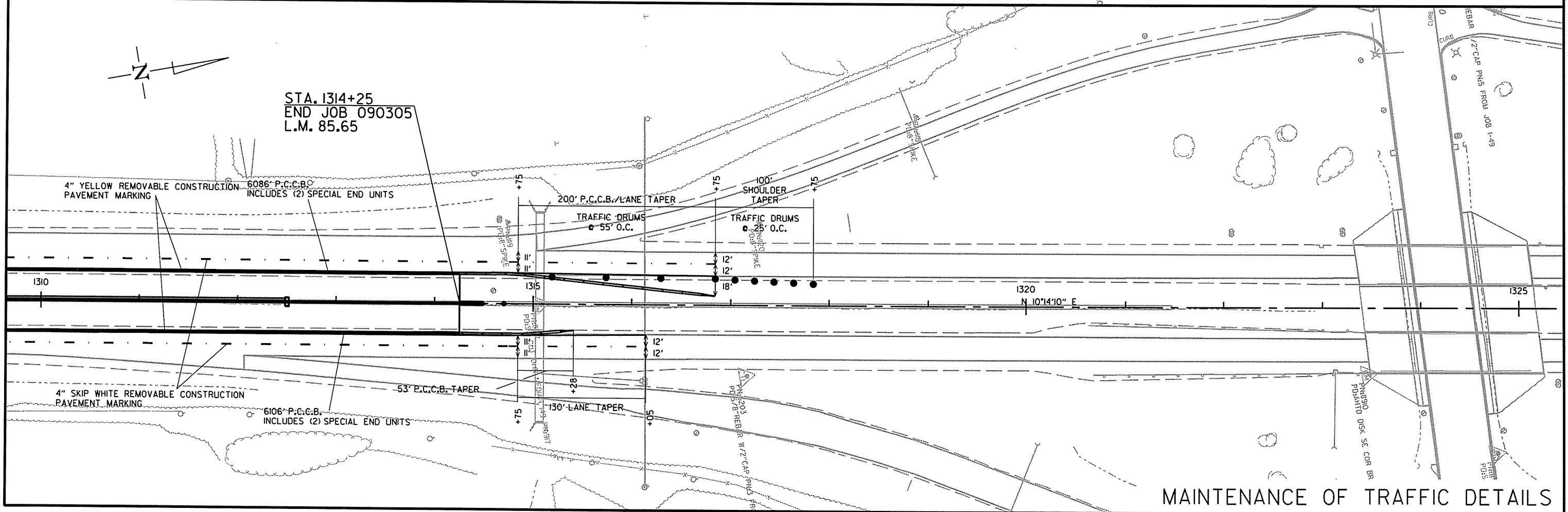
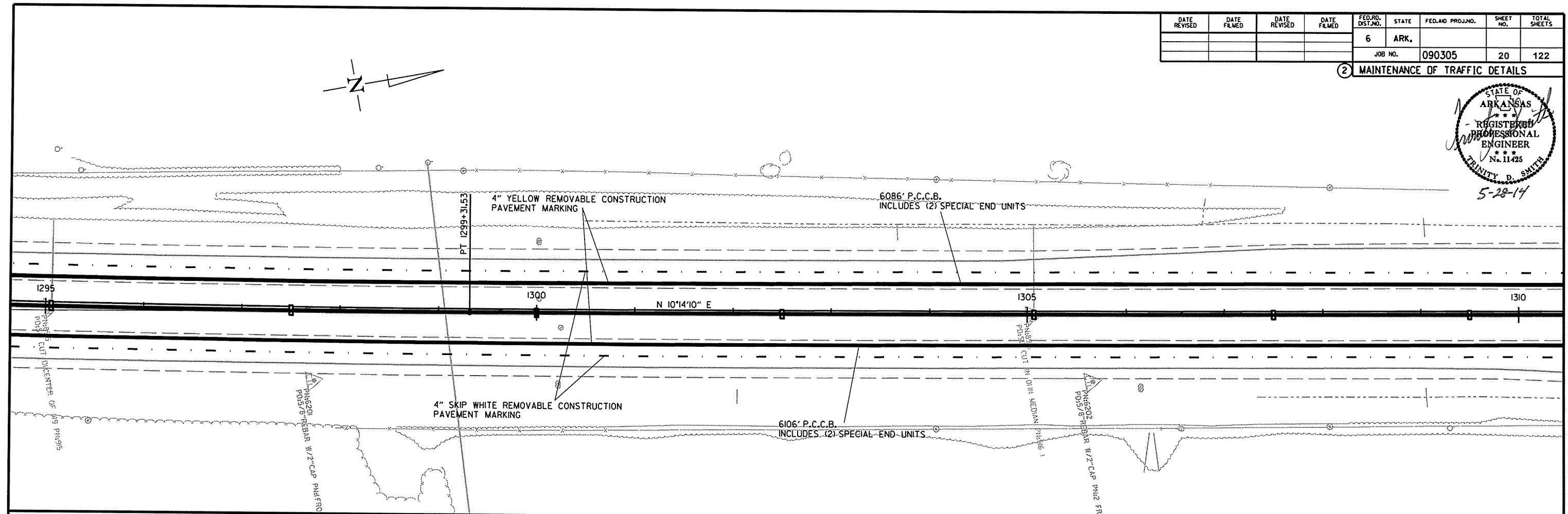
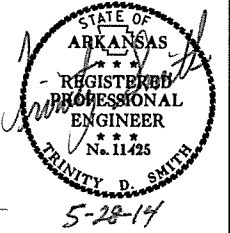
MAINTENANCE OF TRAFFIC DETAILS

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							20	122

② MAINTENANCE OF TRAFFIC DETAILS



STA. 1314+25
END JOB 090305
L.M. 85.65

MAINTENANCE OF TRAFFIC DETAILS

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PERMANENT PAVEMENT MARKING

LEFT MAIN LANES
 HIGH PERFORMANCE PAVEMENT MARKINGS
 4" YELLOW = 11569 LIN. FT.
 4" WHITE = 11342 LIN. FT.
 4" WHITE SKIPS = 2833 LIN. FT.
 8" WHITE = 875 LIN. FT.

RAISED PAVEMENT MARKERS
 TYPE II (WHITE/RED) = 232 EACH

RIGHT MAIN LANES
 HIGH PERFORMANCE PAVEMENT MARKINGS
 4" YELLOW = 11413 LIN. FT.
 4" WHITE = 11326 LIN. FT.
 4" WHITE SKIPS = 2833 LIN. FT.
 8" WHITE = 1372 LIN. FT.

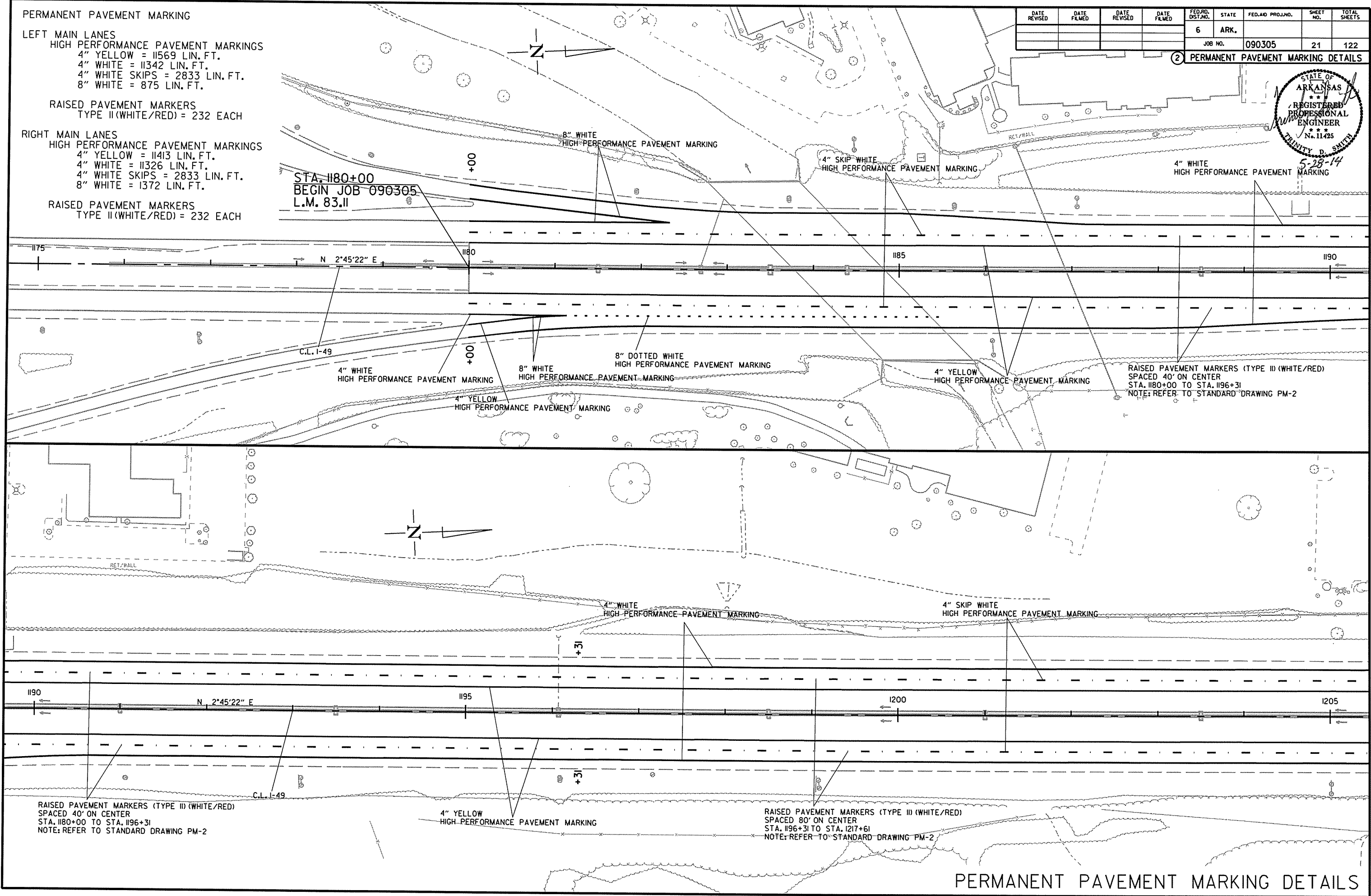
RAISED PAVEMENT MARKERS
 TYPE II (WHITE/RED) = 232 EACH

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			

JOB NO. 090305 SHEET NO. 21 TOTAL SHEETS 122



STA. 1180+00
 BEGIN JOB 090305
 L.M. 83.11



RAISED PAVEMENT MARKERS (TYPE III) (WHITE/RED)
 SPACED 40' ON CENTER
 STA. 1180+00 TO STA. 1196+31
 NOTE: REFER TO STANDARD DRAWING PM-2

RAISED PAVEMENT MARKERS (TYPE III) (WHITE/RED)
 SPACED 40' ON CENTER
 STA. 1180+00 TO STA. 1196+31
 NOTE: REFER TO STANDARD DRAWING PM-2

RAISED PAVEMENT MARKERS (TYPE III) (WHITE/RED)
 SPACED 80' ON CENTER
 STA. 1196+31 TO STA. 1217+61
 NOTE: REFER TO STANDARD DRAWING PM-2

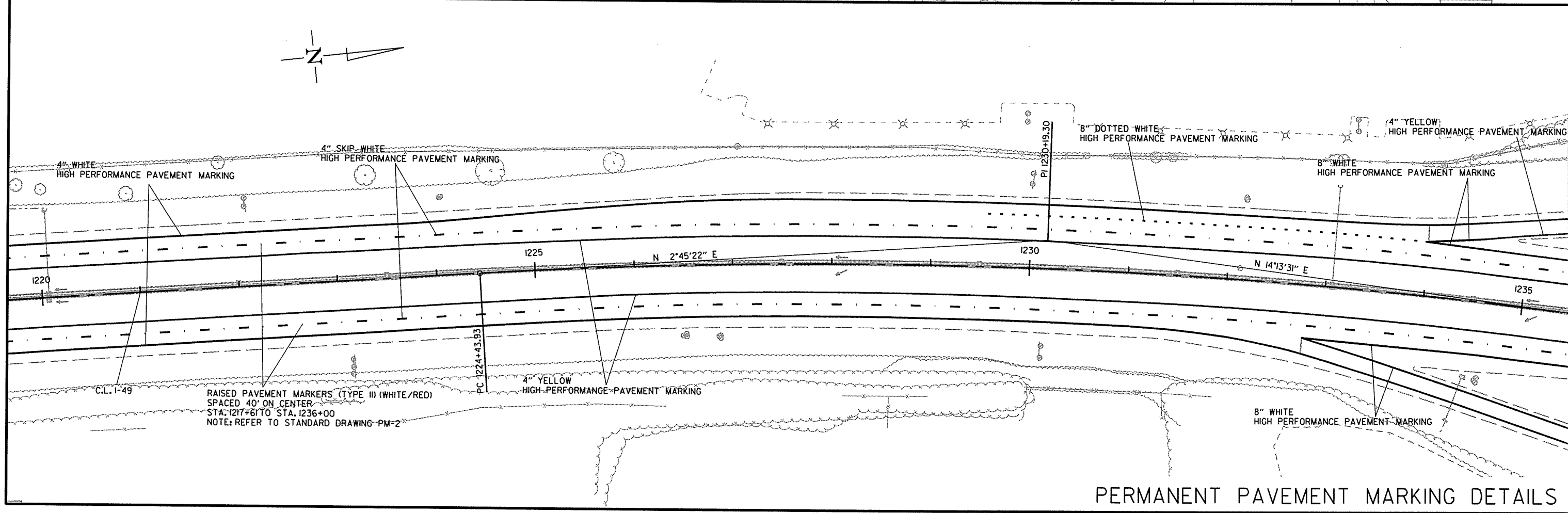
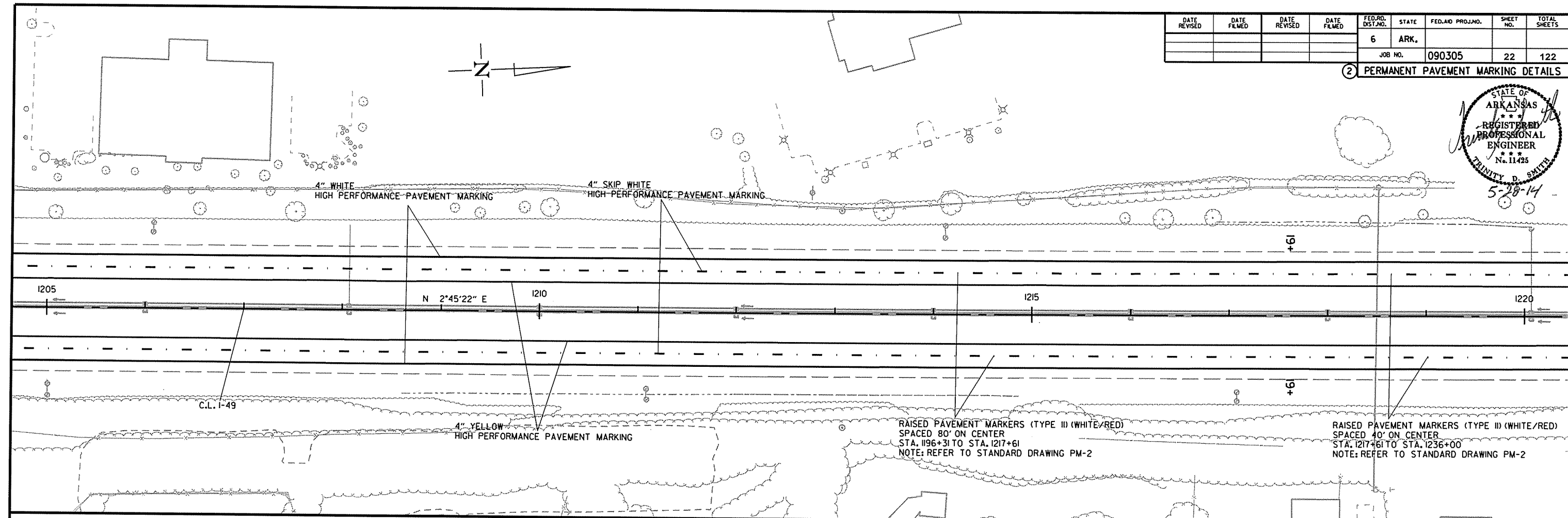
PERMANENT PAVEMENT MARKING DETAILS

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		22	122
						JOB NO. 090305		

② PERMANENT PAVEMENT MARKING DETAILS



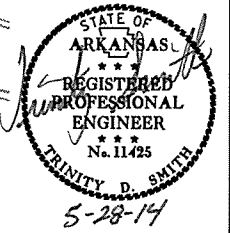
PERMANENT PAVEMENT MARKING DETAILS

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		23	122

2 PERMANENT PAVEMENT MARKING DETAILS



4" WHITE HIGH PERFORMANCE PAVEMENT MARKING
 4" SKIP WHITE HIGH PERFORMANCE PAVEMENT MARKING
 RAISED PAVEMENT MARKERS (TYPE III) (WHITE/RED) SPACED 40' ON CENTER STA. 1217+61 TO STA. 1236+00
 NOTE: REFER TO STANDARD DRAWING PM-2

4" YELLOW HIGH PERFORMANCE PAVEMENT MARKING

STA. 1236+00 BEGIN EXCEPTION

4" WHITE HIGH PERFORMANCE PAVEMENT MARKING
 8" WHITE HIGH PERFORMANCE PAVEMENT MARKING

8" WHITE HIGH PERFORMANCE PAVEMENT MARKING

4" WHITE HIGH PERFORMANCE PAVEMENT MARKING

4" SKIP WHITE HIGH PERFORMANCE PAVEMENT MARKING

8" DOTTED WHITE HIGH PERFORMANCE PAVEMENT MARKING

4" YELLOW HIGH PERFORMANCE PAVEMENT MARKING

STA. 1257+00 END EXCEPTION

RAISED PAVEMENT MARKERS (TYPE III) (WHITE/RED) SPACED 40' ON CENTER STA. 1257+00 TO STA. 1272+50
 NOTE: REFER TO STANDARD DRAWING PM-2

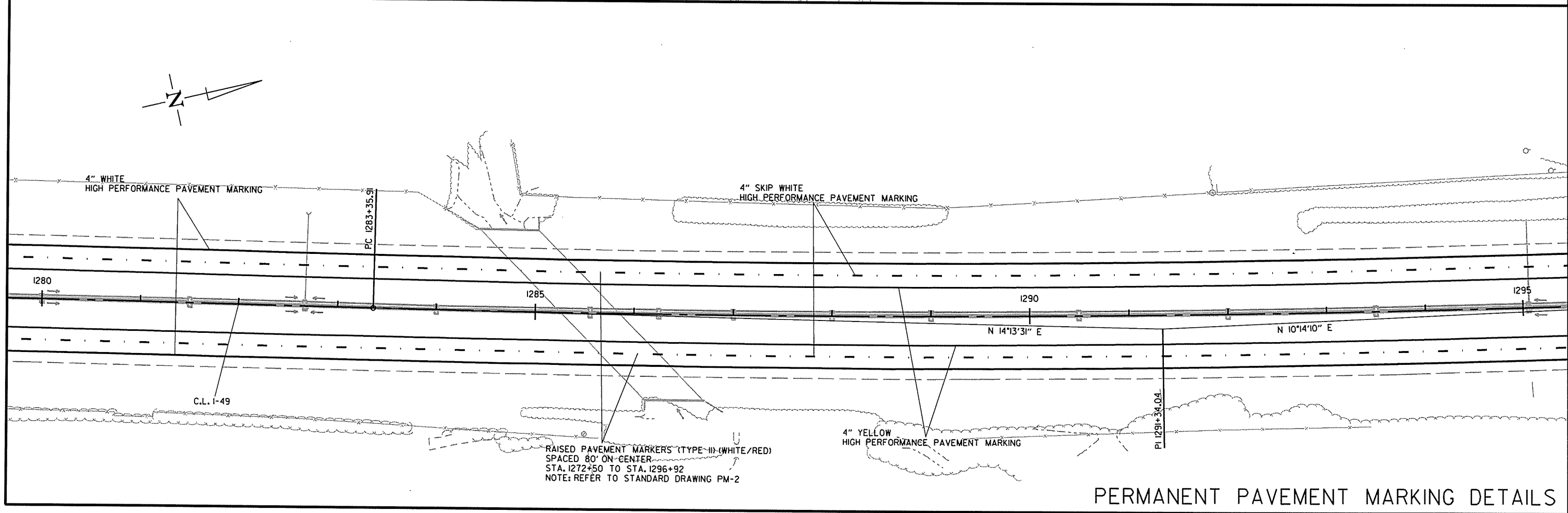
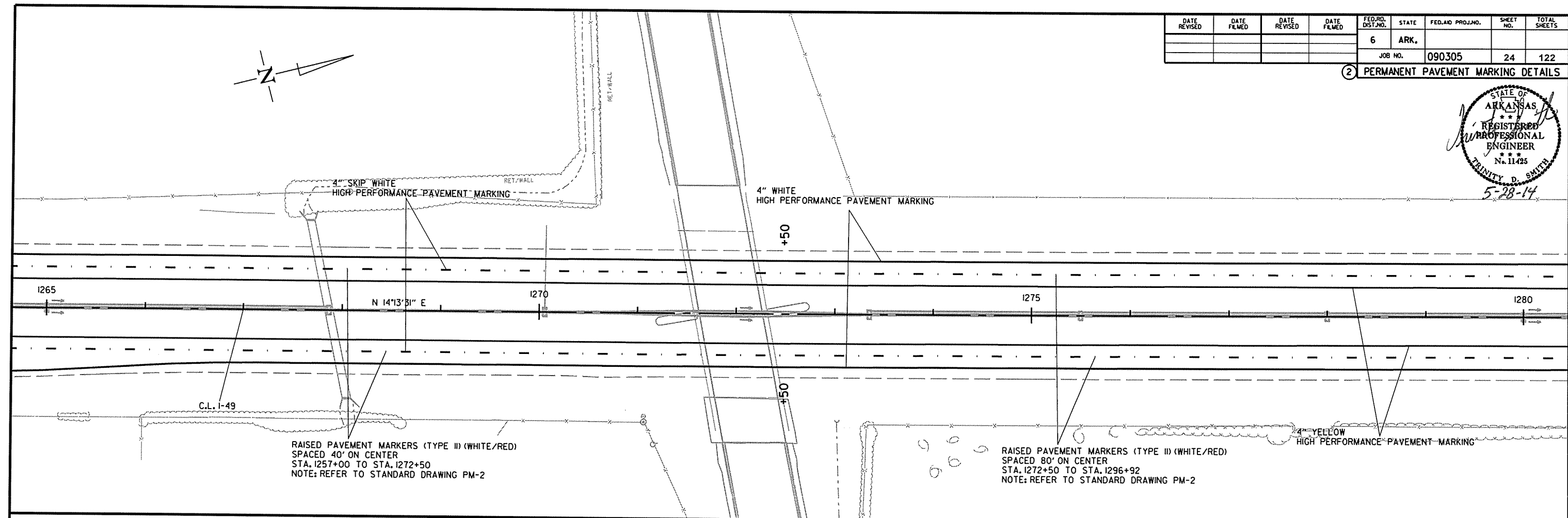
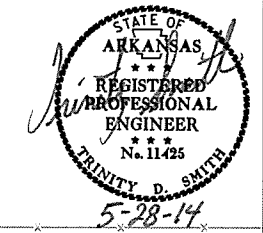
PERMANENT PAVEMENT MARKING DETAILS

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	24	122

② PERMANENT PAVEMENT MARKING DETAILS



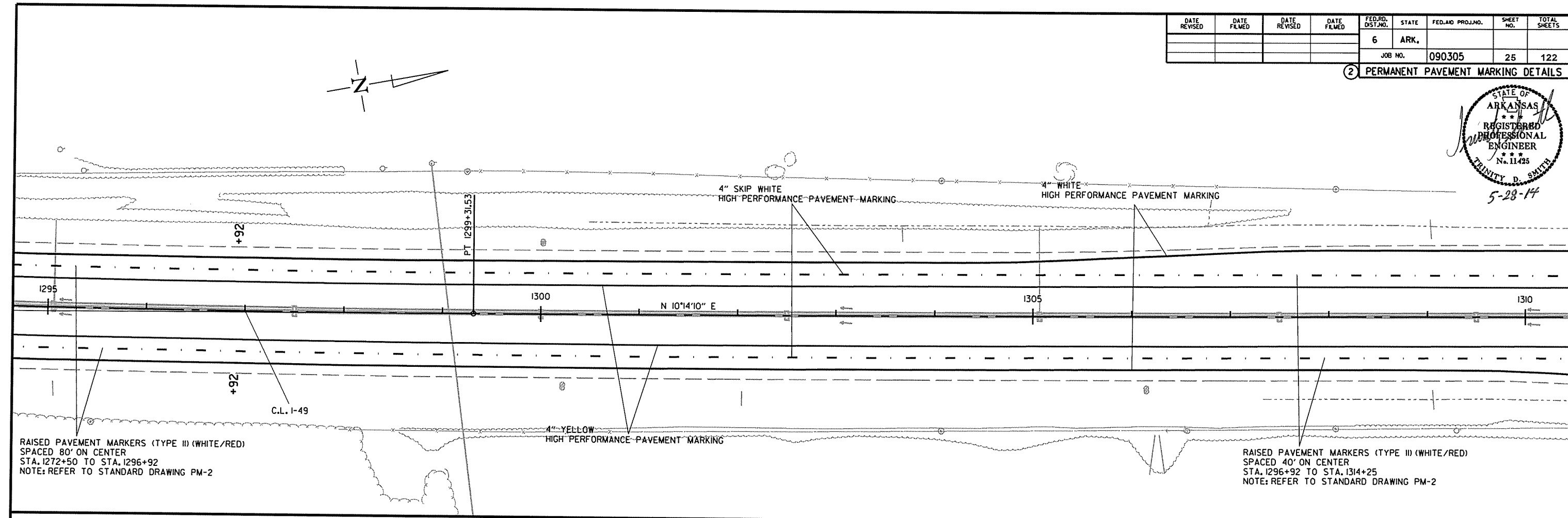
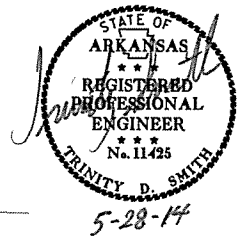
PERMANENT PAVEMENT MARKING DETAILS

5/14/2014

R090305.DGN

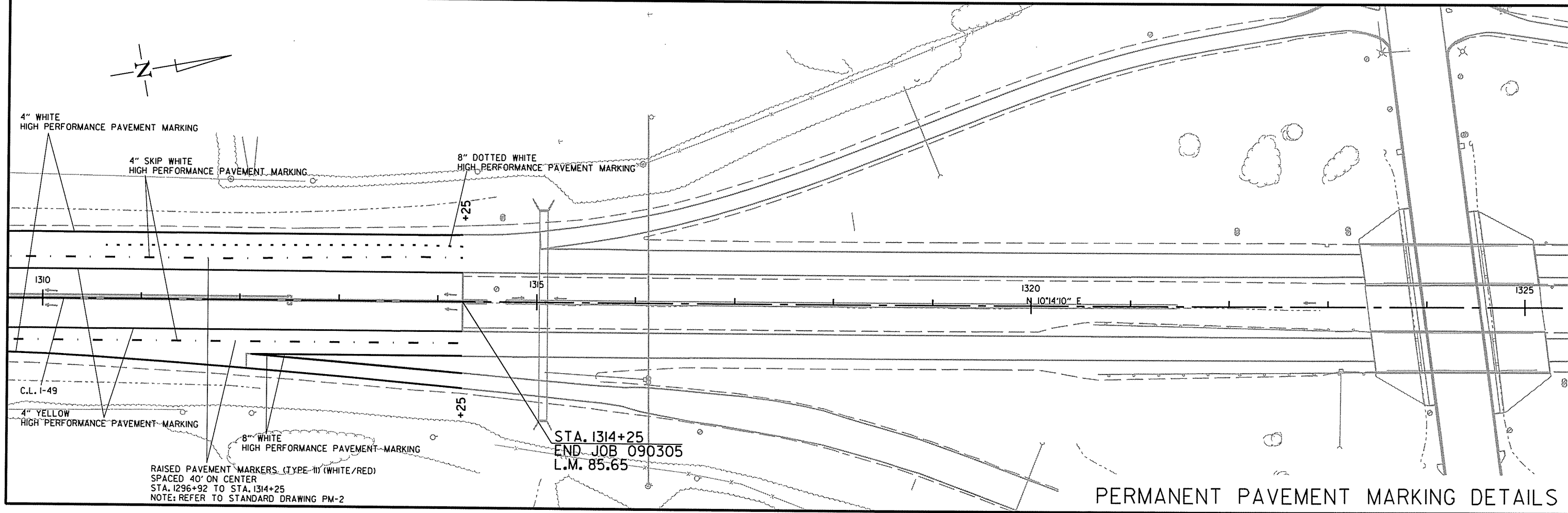
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				6	ARK.			
JOB NO. 090305							25	122

② PERMANENT PAVEMENT MARKING DETAILS



RAISED PAVEMENT MARKERS (TYPE III) (WHITE/RED)
 SPACED 80' ON CENTER
 STA. 1272+50 TO STA. 1296+92
 NOTE: REFER TO STANDARD DRAWING PM-2

RAISED PAVEMENT MARKERS (TYPE III) (WHITE/RED)
 SPACED 40' ON CENTER
 STA. 1296+92 TO STA. 1314+25
 NOTE: REFER TO STANDARD DRAWING PM-2



RAISED PAVEMENT MARKERS (TYPE III) (WHITE/RED)
 SPACED 40' ON CENTER
 STA. 1296+92 TO STA. 1314+25
 NOTE: REFER TO STANDARD DRAWING PM-2

STA. 1314+25
 END JOB 090305
 L.M. 85.65

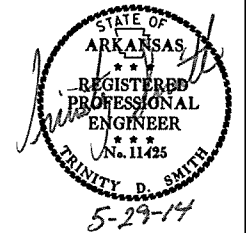
PERMANENT PAVEMENT MARKING DETAILS

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	26	122

2 QUANTITIES



ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	LANE CLOSURE	ADVANCE WARNING	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		TRAFFIC DRUMS	ADVANCE WARNING ARROW PANEL	PORTABLE CHANGEABLE MESSAGE SIGN	MOBILE SPEED NOTIFICATION SYSTEM	FURNISHING & INSTALLING PRECAST CONC. BARRIER
						NO.	SQ. FT.					
			LIN. FT. - EACH									
W20-1	ROAD WORK 1 MILE	48"x48"		4	4	4	64.0					
W20-1	ROAD WORK 1/2 MILE	48"x48"		4	4	4	64.0					
W20-1	ROAD WORK 1500 FT.	48"x48"		4	4	4	64.0					
W20-1	ROAD WORK AHEAD	48"x48"	2	6	8	8	128.0					
G20-2	END ROAD WORK	48"x24"		7	7	7	56.0					
SPECIAL 1	MERGE NOW + ARROW	48"x48"	1		1	1	16.0					
W20-5	RIGHT LANE CLOSED 1 MILE	48"x48"	2		2	2	32.0					
W20-5	RIGHT LANE CLOSED 1/2 MILE	48"x48"	2		2	2	32.0					
W20-5	RIGHT LANE CLOSED 1500 FT.	48"x48"	2		2	2	32.0					
W4-2R	RIGHT LANE CLOSING GRAPHIC	48"x48"	2		2	2	32.0					
W1-6	LARGE ARROW	60"x30"	3		3	3	37.5					
G20-1	ROAD WORK NEXT 2.5 MILES	60"x24"		4	4	4	40.0					
R55-1	FINES DOUBLE IN WORK ZONES	36"x60"		4	4	4	60.0					
R2-5a	REDUCED SPEED AHEAD	48"x60"	2	4	6	6	120.0					
R2-1	SPEED LIMIT 60	48"x60"	2	12	14	14	280.0					
R2-1	SPEED LIMIT 70	48"x60"	2	4	6	6	120.0					
R2-2	TRUCKS 65	48"x48"	2	4	6	6	96.0					
OM-3L	OBJECT MARKER	12"x36"		16	16	16	48.0					
OM-3R	OBJECT MARKER	12"x36"		12	12	12	36.0					
W5-1	ROAD NARROWS 500'	48"x48"		8	8	8	128.0					
R4-1	DO NOT PASS	48"x60"	4		4	4	80.0					
RSP-1	SHOULDER CLOSED	48"x30"		8	8	8	80.0					
	TRAFFIC DRUMS		182	36	218	218		218				
	ADVANCE WARNING ARROW PANEL		1		1			50				
	PORTABLE CHANGEABLE MESSAGE SIGN			4	4				168			
	MOBILE SPEED NOTIFICATION SYSTEM			2	2					2		
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER				24124							24124
TOTALS:							1645.5	218	50	168	2	24124

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2014 EDITION.

NOTE: THE QUANTITY OF TRAFFIC DRUMS PROVIDED FOR THE COLUMN "LANE CLOSURE" IS FOR ONE SIDE OF THE ROADWAY FOR ONE MILE.

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	ENTIRE JOB	REMOVAL OF PERMANENT PAVEMENT MARKINGS	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS	HIGH PERFORMANCE PAVEMENT MARKING				
					TYPE II (WHITE/RED)	WHITE		YELLOW	
						4"	4" (SKIP LINE)	8"	4"
REMOVAL OF PERMANENT PAVEMENT MARKINGS	6110	6110							
REMOVABLE CONSTRUCTION PAV'T MARKINGS	30510		30510						
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)	464			464					
HIGH PERFORMANCE PAVEMENT MARKING WHITE (4")	22668				22668				
HIGH PERFORMANCE PAVEMENT MARKING (SKIP LINE) WHITE (4")	5666					5666			
HIGH PERFORMANCE PAVEMENT MARKING WHITE (8")	2247						2247		
HIGH PERFORMANCE PAVEMENT MARKING YELLOW (4")	22982							22982	
TOTALS:		6110	30510	464	22668	5666	2247	22982	

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2014 EDITION.

5/28/2014

R090305.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
9-9-14				6	ARK.		27	122
						JOB NO.	090305	

REMOVAL AND DISPOSAL OF ITEMS

STATION	STATION	LOCATION	WIRE ROPE SAFETY FENCE	GUARDRAIL	CONCRETE DITCH PAVING
			LIN. FT.	LIN. FT.	SQ. YD.
1179+55	1236+45	MEDIAN I-49	5690		2529
1180+00	1236+00	LEFT AND RIGHT MAIN LANES I-49			
1256+55	1314+75	MEDIAN I-49	5820		2587
1257+00	1314+25	LEFT AND RIGHT MAIN LANES I-49			
1267+87	1273+62	LEFT OF RIGHT MAIN LANES		575	
1270+34	1276+09	RIGHT OF LEFT MAIN LANES		575	
TOTALS:			11510	1150	5116

WIRE ROPE SAFETY FENCE

STATION	LOCATION	END TERMINAL	POST REPAIR
		EACH	EACH
1179+55	MEDIAN I-49	1	
1236+45	MEDIAN I-49	1	
1256+55	MEDIAN I-49	1	
1314+75	MEDIAN I-49	1	
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER			50
TOTAL:		4	50

*NOTE: QUANTITIES ARE ESTIMATED. SEE SECTION 104.03 OF THE STD. SPECS.

OVERHEAD SIGN STRUCTURE FOUNDATION

STATION	LOCATION	EACH
1189+00	MEDIAN I-49, SOUTHBOUND	1
1230+00	MEDIAN I-49, NORTHBOUND	1
1261+00	MEDIAN I-49, SOUTHBOUND	1
1310+00	MEDIAN I-49, NORTHBOUND	1
TOTAL:		4



② QUANTITIES

REMOVAL AND DISPOSAL OF DROP INLETS

STATION	DESCRIPTION	DROP INLETS
		EACH
1182+70	MEDIAN I-49	1
1196+07	MEDIAN I-49	1
1208+07	MEDIAN I-49	1
1220+07	MEDIAN I-49	1
1233+07	MEDIAN I-49	1
1270+06	MEDIAN I-49	1
1282+67	MEDIAN I-49	1
1295+06	MEDIAN I-49	1
1305+07	MEDIAN I-49	1
TOTAL:		9

CRASH CUSHION

STATION	DESCRIPTION	EACH
1180+00.00	C.L. I-49	1
1236+00.00	C.L. I-49	1
1257+00.00	C.L. I-49	1
1314+25.00	C.L. I-49	1
TOTAL:		4

NOTE: THE CRASH CUSHION SHALL BE NON-GATING AND REDIRECTIVE AND COMPATIBLE WITH THE SITE GEOMETRY SHOWN ON THE PLANS.

CONCRETE BARRIER WALL

STATION	STATION	LOCATION	MEDIAN TYPE B	MEDIAN TYPE C	MEDIAN TYPE SPECIAL	MEDIAN TYPE SP-1
			LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.
1180+00	1187+91	MEDIAN I-49	791			
1187+91	1188+91	MEDIAN I-49				100
1189+09	1190+09	MEDIAN I-49				100
1190+09	1221+35	MEDIAN I-49	3126			
1221+35	1228+91	MEDIAN I-49		756		
1228+91	1229+91	MEDIAN I-49				100
1230+09	1231+09	MEDIAN I-49				100
1231+09	1236+00	MEDIAN I-49		491		
1257+00	1259+91	MEDIAN I-49	291			
1259+91	1260+91	MEDIAN I-49				100
1261+09	1262+09	MEDIAN I-49				100
1262+09	1270+60	MEDIAN I-49	851			
1270+60	1273+32	MEDIAN I-49			272	
1273+32	1308+91	MEDIAN I-49	3559			
1308+91	1309+91	MEDIAN I-49				100
1310+09	1311+09	MEDIAN I-49				100
1311+09	1314+25	MEDIAN I-49	316			
TOTALS:			8934	1247	272	800

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT	*SOIL STABILIZATION
			CU. YD.	CU. YD.	TON
ENTIRE	PROJECT	MAIN LANES	19249.2	7138.0	
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER					100
TOTALS:			19249.2	7138.0	100

*QUANTITY ESTIMATED. SEE SECTION 104.03 OF THE STD. SPECS.

NOTE: EARTHWORK QUANTITIES SHOWN ABOVE SHALL BE PAID AS PLAN QUANTITY.

BENCH MARKS

STATION	LOCATION	BENCH MARKS
		EACH
1184+39	TYPE ST D.I. 2.5' LT. OF C.L.	1
TOTAL:		1

NOTE: SHOWN FOR INFORMATION ONLY. BENCH MARKS SHALL BE FURNISHED AND PLACED BY STATE FORCES.

EROSION CONTROL

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL					TEMPORARY EROSION CONTROL					*SEDIMENT REMOVAL & DISPOSAL		
			SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	TEMPORARY SEEDING	MULCH COVER	WATER	SAND BAG DITCH CHECKS	ROCK DITCH CHECKS		DROP INLET SILT FENCE	SILT FENCE
			ACRE	TON	ACRE	M.GAL.	ACRE	ACRE	ACRE	M.GAL.	(E-5) BAG	(E-6) CU.YD.		(E-7) LIN. FT.	(E-11) LIN. FT.
ENTIRE	PROJECT	MAIN LANES	1.75	3.50	1.75	178.5	1.75	2.00	2.00	40.8	836	114	2376	164	
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.							0.50	0.50	10.2	220	30	594	200	49	
TOTALS:			1.75	3.50	1.75	178.5	1.75	2.50	2.50	51.0	1056	144	2970	213	

BASIS OF ESTIMATE:
 LIME2 TONS / ACRE OF SEEDING
 WATER.....102.0 M.G. / ACRE OF SEEDING.
 WATER.....20.4 M.G. / ACRE OF TEMPORARY SEEDING.
 SAND BAG DITCH CHECKS.....22 BAGS / LOCATION
 ROCK DITCH CHECKS.....3 CU.YD./LOCATION
 DROP INLET SILT FENCE.....22 LIN.FT./LOCATION

NOTE: THE TEMPORARY EROSION CONTROL DEVICES SHOWN ABOVE AND ON THE PLANS SHALL BE INSTALLED IN SUCH A SEQUENCE AS TO DETER EROSION AND SEDIMENTATION ON U.S. WATERWAYS AS EXPLAINED BY THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT.

*QUANTITIES ARE ESTIMATED. SEE SECTION 104.03 OF THE STD. SPECS.

9/9/2014

R090305.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO.	090305	28

2 QUANTITIES



STRUCTURES (BOX 1 OF 2)

STATION	DESCRIPTION	REINFORCED CONCRETE PIPE CULVERT (CLASS III)				DROP INLETS		STD. DWG. NOS.
		18"	24"	30"	36"	TYPE		
		LIN. FT.				RM	ST	
1179+00.00	2.5' LT. OF C.L.		248			1		FPC-9D, PCC-1
1181+50.00	2.5' LT. OF C.L.		118				1	FPC-9S, PCC-1
1181+50.00	2.5' RT. OF C.L.		2					FPC-9S, PCC-1
1182+70.00	2.5' LT. OF C.L.		80				1	FPC-9S, PCC-1
1182+70.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1183+50.00	2.5' LT. OF C.L.		90					FPC-9S, PCC-1
1183+50.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1184+39.00	2.5' LT. OF C.L.						1	FPC-9S, PCC-1
1184+39.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1186+00.00	2.5' LT. OF C.L.				158			FPC-9S, PCC-1
1186+00.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1188+50.00	2.5' LT. OF C.L.			248				FPC-9S, PCC-1
1188+50.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1191+00.00	2.5' LT. OF C.L.			248				FPC-9S, PCC-1
1191+00.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1193+50.00	2.5' LT. OF C.L.			248				FPC-9S, PCC-1
1193+50.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1196+07.00	2.5' LT. OF C.L.	4		254				FPC-9S, PCC-1
1196+07.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1198+50.00	2.5' LT. OF C.L.			240				FPC-9S, PCC-1
1198+50.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1201+00.00	2.5' LT. OF C.L.			248				FPC-9S, PCC-1
1201+00.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1203+50.00	2.5' LT. OF C.L.			248				FPC-9S, PCC-1
1203+50.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1206+00.00	2.5' LT. OF C.L.			248				FPC-9S, PCC-1
1206+00.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1208+07.00	2.5' LT. OF C.L.	4		204				FPC-9S, PCC-1
1208+07.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1210+00.00	2.5' LT. OF C.L.			190				FPC-9S, PCC-1
1210+00.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1212+00.00	2.5' LT. OF C.L.			198				FPC-9S, PCC-1
1212+00.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1214+00.00	2.5' LT. OF C.L.		198					FPC-9S, PCC-1
1214+00.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1216+00.00	2.5' LT. OF C.L.		198					FPC-9S, PCC-1
1216+00.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1218+00.00	2.5' LT. OF C.L.		198					FPC-9S, PCC-1
1218+00.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1220+07.00	2.5' LT. OF C.L.	4		204				FPC-9S, PCC-1
1220+07.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1222+00.00	2.5' LT. OF C.L.			190				FPC-9S, PCC-1
1223+50.00	2.5' LT. OF C.L.		148					FPC-9S, PCC-1
1225+50.00	2.5' LT. OF C.L.		198					FPC-9S, PCC-1
1227+50.00	2.5' LT. OF C.L.		198					FPC-9S, PCC-1
1229+50.00	2.5' LT. OF C.L.		198					FPC-9S, PCC-1
1231+50.00	2.5' LT. OF C.L.		198					FPC-9S, PCC-1
1233+07.00	2.5' LT. OF C.L.	4	154					FPC-9S, PCC-1
1234+50.00	2.5' LT. OF C.L.		140					FPC-9S, PCC-1
1237+00.00	2.5' LT. OF C.L.		248			1		FPC-9D, PCC-1
1259+00.00	2.5' LT. OF C.L.		298				1	FPC-9S, PCC-1
1259+00.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
SUBTOTALS:		16	2210	1136	2732	2	50	

NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.

STRUCTURES (BOX 2 OF 2)

STATION	DESCRIPTION	REINFORCED CONCRETE PIPE CULVERT (CLASS III)				DROP INLETS		STD. DWG. NOS.
		18"	24"	30"	36"	TYPE		
		LIN. FT.				RM	ST	
1262+00.00	2.5' LT. OF C.L.		298				1	FPC-9S, PCC-1
1262+00.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1265+00.00	2.5' LT. OF C.L.		284					FPC-9S, PCC-1
1265+00.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1267+86.00	2.5' LT. OF C.L.						1	FPC-9S, PCC-1
1267+86.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1270+06.00	2.5' LT. OF C.L.	4						FPC-9S, PCC-1
1270+06.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1273+35.00	2.5' LT. OF C.L.		212					FPC-9S, PCC-1
1273+35.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1275+50.00	2.5' LT. OF C.L.		248					FPC-9S, PCC-1
1275+50.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1278+00.00	2.5' LT. OF C.L.		198					FPC-9S, PCC-1
1278+00.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1280+00.00	2.5' LT. OF C.L.		148					FPC-9S, PCC-1
1280+00.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1281+50.00	2.5' LT. OF C.L.			114				FPC-9S, PCC-1
1281+50.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1282+67.00	2.5' LT. OF C.L.	4		130				FPC-9S, PCC-1
1282+67.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1284+00.00	2.5' LT. OF C.L.			152				FPC-9S, PCC-1
1284+00.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1285+55.00	2.5' LT. OF C.L.						1	FPC-9S, PCC-1
1285+55.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1286+25.00	2.5' LT. OF C.L.			68				FPC-9S, PCC-1
1286+25.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1287+00.00	2.5' LT. OF C.L.			72				FPC-9S, PCC-1
1287+00.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1288+00.00	2.5' LT. OF C.L.			98				FPC-9S, PCC-1
1288+00.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1289+00.00	2.5' LT. OF C.L.			98				FPC-9S, PCC-1
1289+00.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1290+50.00	2.5' LT. OF C.L.			148				FPC-9S, PCC-1
1290+50.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1292+00.00	2.5' LT. OF C.L.			148				FPC-9S, PCC-1
1292+00.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1293+50.00	2.5' LT. OF C.L.			148				FPC-9S, PCC-1
1293+50.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1295+06.00	2.5' LT. OF C.L.			154				FPC-9S, PCC-1
1295+06.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1297+50.00	2.5' LT. OF C.L.			242				FPC-9S, PCC-1
1297+50.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1300+00.00	2.5' LT. OF C.L.			248				FPC-9S, PCC-1
1300+00.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1302+50.00	2.5' LT. OF C.L.		248					FPC-9S, PCC-1
1302+50.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1305+07.00	2.5' LT. OF C.L.		254					FPC-9S, PCC-1
1305+07.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1307+50.00	2.5' LT. OF C.L.		240					FPC-9S, PCC-1
1307+50.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1309+50.00	2.5' LT. OF C.L.		198					FPC-9S, PCC-1
1309+50.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
1312+50.00	2.5' LT. OF C.L.		298					FPC-9S, PCC-1
1312+50.00	2.5' RT. OF C.L.		2				1	FPC-9S, PCC-1
SUBTOTALS (BOX 1 OF 2):		16	2210	1136	2732	2	50	
SUBTOTALS (BOX 2 OF 2):		8	2680	1680	140		54	
TOTALS:		24	4890	2816	2872	2	104	

NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.

8/8/2014

R090305.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
9-3-14				6	ARK.			
9-9-14						JOB NO. 090305	29	122

② QUANTITIES



4" PIPE UNDERDRAIN

STATION	STATION	LOCATIONS	4" PIPE UNDERDRAINS	UNDERDRAIN OUTLET PROTECTORS
			LIN. FT.	EACH
1216+00.00	1218+00.00	RIGHT MAIN LANES	207	
1218+00.00	1220+07.00	RIGHT MAIN LANES	214	
1220+07.00	1222+00.00	RIGHT MAIN LANES	200	
1222+00.00	1223+50.00	RIGHT MAIN LANES	162	
1222+00.00	1223+50.00	LEFT MAIN LANES	150	
1223+50.00	1225+50.00	RIGHT MAIN LANES	212	
1223+50.00	1225+50.00	LEFT MAIN LANES	200	
1225+50.00	1227+50.00	RIGHT MAIN LANES	212	
1225+50.00	1227+50.00	LEFT MAIN LANES	200	
1227+50.00	1229+50.00	RIGHT MAIN LANES	212	
1227+50.00	1229+50.00	LEFT MAIN LANES	200	
1229+50.00	1231+50.00	RIGHT MAIN LANES	212	
1229+50.00	1231+50.00	LEFT MAIN LANES	200	
1231+50.00	1234+50.00	RIGHT MAIN LANES	312	
1231+50.00	1234+50.00	LEFT MAIN LANES	300	
1234+50.00	1236+00.00	RIGHT MAIN LANES	162	
1234+50.00	1236+00.00	LEFT MAIN LANES	150	
* ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER			2000	8
TOTALS:			5505	8

* NOTE: QUANTITIES ARE ESTIMATED. SEE SECTION 104.03 OF THE STD. SPECS.

UNDERDRAINS SHALL BE STUBBED INTO THE PROPOSED DROP INLET IF AND WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR THIS TO BE INCLUDED IN THE UNIT PRICE BID FOR 4" PIPE UNDERDRAIN.

ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC

LOCATION	TON	TACK COAT
		GALLON
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	60	120
TOTALS:	60	120

NOTE: QUANTITIES ARE ESTIMATED. SEE SECTION 104.03 OF THE STD. SPECS. BASIS OF ESTIMATE: ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC...25 TON/MILE TACK COAT FOR MAINTENANCE OF TRAFFIC.....50 GAL./MILE

COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
1180+00	1236+00	MAIN LANES	48	29866.67
1257+00	1314+25	MAIN LANES	48	30533.33
TOTAL:				60400.00

NOTE: AVERAGE MILLING DEPTH 2". NOTE: REMOVAL AND DESPOSAL OF PLOWABLE PAVEMENT MARKER IS SUBSIDIARY TO COLD MILLING ASPHALT PAVEMENT.

SELECTED PIPE BEDDING

LOCATION	SELECTED PIPE BEDDING
	CU. YD.
ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	500
TOTAL:	500

NOTE: QUANTITY ESTIMATED. SEE SECTION 104.03 OF THE STD. SPECS.

BASE AND SURFACING

STATION	STATION	LOCATION	LENGTH FEET	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT				ACHM BASE COURSE (1 1/2")				ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")						TOTAL PG 76-22 TON		
				TON / STATION	TON	TOTAL WID. FEET	SQ. YD.	GALLONS / SQ. YD.	GALLON	AVG. WID. FEET	SQ. YD.	POUND / SQ. YD.	PG 76-22 TON	AVG. WID. FEET	SQ. YD.	POUND / SQ. YD.	PG 76-22 TON	AVG. WID. FEET	SQ. YD.	POUND / SQ. YD.	PG 76-22 TON	AVG. WID. FEET	SQ. YD.		POUND / SQ. YD.	PG 76-22 TON
MAIN LANES																										
1180+00.00	1221+35.00	I-49	4135.00	415.75	17191.26	157.50	72362.50	0.03	2170.88	40.00	18377.78	880.00	8086.22	39.00	17918.33	440.00	3942.03	38.50	17688.61	220.00	1945.75	104.00	47782.22	220.00	5256.04	7201.79
1221+35.00	1236+00.00	I-49 SUPERELEVATION, TYPE C MEDIAN BARRIER	1465.00	423.50	6204.28	157.50	25637.50	0.03	769.13	40.00	6511.11	880.00	2864.89	39.00	6348.33	440.00	1396.63	38.50	6266.94	220.00	689.36	106.00	17254.44	220.00	1897.99	2587.35
1257+00.00	1270+60.00	I-49	1360.00	415.75	5654.20	157.50	23800.00	0.03	714.00	40.00	6044.44	880.00	2659.55	39.00	5893.33	440.00	1296.53	38.50	5817.78	220.00	639.96	104.00	15715.56	220.00	1728.71	2368.67
1270+60.00	1271+60.00	I-49 MEDIAN TAPER	100.00	397.75	397.75	157.50	1750.00	0.03	52.50	40.00	444.44	880.00	195.55	39.00	433.33	440.00	95.33	38.50	427.78	220.00	47.06	102.00	1133.33	220.00	124.67	171.73
1271+60.00	1272+32.00	I-49 MEDIAN WIDENED FOR BRIDGE PIER	72.00	368.00	264.96	157.50	1260.00	0.03	37.80	40.00	320.00	880.00	140.80	39.00	312.00	440.00	68.64	38.50	308.00	220.00	33.88	100.00	800.00	220.00	88.00	121.88
1272+32.00	1273+32.00	I-49 MEDIAN TAPER	100.00	397.75	397.75	157.50	1750.00	0.03	52.50	40.00	444.44	880.00	195.55	39.00	433.33	440.00	95.33	38.50	427.78	220.00	47.06	102.00	1133.33	220.00	124.67	171.73
1273+32.00	1314+25.00	I-49	4093.00	415.75	17016.65	157.50	71627.50	0.03	2148.83	40.00	18191.11	880.00	8004.09	39.00	17736.33	440.00	3901.99	38.50	17508.94	220.00	1925.98	104.00	47296.89	220.00	5202.66	7128.64
ENTIRE PROJECT		I-49 COLD MILLING	11325.00			48.00	60400.00	0.10	6040.00																	
TOTALS:					47126.85		258587.50		11985.64		50333.32		22146.65		49074.98		10796.48		48445.83		5329.05		131115.77		14422.74	19751.79

BASIS OF ESTIMATE:
 ACHM SURFACE COURSE (1/2").....94.4% MIN. AGGR.....5.6% ASPHALT BINDER
 ACHM BINDER COURSE (1").....95.3% MIN. AGGR.....4.7% ASPHALT BINDER
 ACHM BASE COURSE (1 1/2").....95.7% MIN. AGGR.....4.3% ASPHALT BINDER
 MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

9/9/2014

R090305.DGN

SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 202	REMOVAL AND DISPOSAL OF WIRE ROPE SAFETY FENCE	11510	LIN. FT.
202	REMOVAL AND DISPOSAL OF DROP INLETS	9	EACH
SP & 202	REMOVAL AND DISPOSAL OF GUARDRAIL	1150	LIN. FT.
202	REMOVAL AND DISPOSAL OF CONCRETE DITCH PAVING	5116	SQ. YD.
210	UNCLASSIFIED EXCAVATION	19249	CU. YD.
210	COMPACTED EMBANKMENT	7138	CU. YD.
210	SOIL STABILIZATION	100	TON
303	AGGREGATE BASE COURSE (CLASS 7)	47127	TON
401	TACK COAT	12106	GAL.
SP & 405	MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2")	21195	TON
SP & 405	ASPHALT BINDER (PG 76-22) IN ACHM BASE COURSE (1 1/2")	952	TON
SP, SS, & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")	10289	TON
SP, SS, & 406	ASPHALT BINDER (PG 76-22) IN ACHM BINDER COURSE (1")	507	TON
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1 1/2")	18646	TON
SP, SS, & 407	ASPHALT BINDER (PG 76-22) IN ACHM SURFACE COURSE (1 1/2")	1106	TON
412	COLD MILLING ASPHALT PAVEMENT	60400	SQ. YD.
SP & 414	ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC MOBILIZATION	60	TON
601	FURNISHING FIELD OFFICE	1.00	LUMP SUM
SP & 602	MAINTENANCE OF TRAFFIC	1	EACH
SP & 603	TRAFFIC CONTROL SUPERVISOR	1.00	LUMP SUM
603	SIGNS	1646	SQ. FT.
604	TRAFFIC DRUMS	218	EACH
604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER	24124	LIN. FT.
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	30510	LIN. FT.
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS	6110	LIN. FT.
604	ADVANCE WARNING ARROW PANEL	50	DAY
SP & 604	PORTABLE CHANGEABLE MESSAGE SIGN	168	WEEK
SP & 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	24	LIN. FT.
SP & 606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	4890	LIN. FT.
SP & 606	30" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	2816	LIN. FT.
SP & 606	36" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	2872	LIN. FT.
606	SELECTED PIPE BEDDING	500	CU. YD.
609	DROP INLETS (TYPE RM)	2	EACH
609	DROP INLETS (TYPE ST)	104	EACH
611	UNDERDRAIN OUTLET PROTECTORS	8	EACH
611	4" PIPE UNDERDRAINS	5505	LIN. FT.
620	LIME	4	TON
620	SEEDING	1.75	ACRE
SS & 620	MULCH COVER	4.25	ACRE
620	WATER	229.5	M.GAL.
621	TEMPORARY SEEDING	2.50	ACRE
621	SILT FENCE	200	LIN. FT.
621	SAND BAG DITCH CHECKS	1056	BAG
621	DROP INLET SILT FENCE	2970	LIN. FT.
621	SEDIMENT REMOVAL AND DISPOSAL	213	CU. YD.
621	ROCK DITCH CHECKS	144	CU. YD.
623	SECOND SEEDING APPLICATION	1.75	ACRE
631	CONCRETE BARRIER WALL (MEDIAN TYPE B)	8934	LIN. FT.
631	CONCRETE BARRIER WALL (MEDIAN TYPE C)	1247	LIN. FT.
631	CONCRETE BARRIER WALL (MEDIAN TYPE SPECIAL)	272	LIN. FT.
631	CONCRETE BARRIER WALL (MEDIAN TYPE SP-1)	800	LIN. FT.
635	ROADWAY CONSTRUCTION CONTROL	1.00	LUMP SUM
SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (4")	22668	LIN. FT.
SP	HIGH PERFORMANCE MARKING TAPE WHITE (4")	22668	LIN. FT.
SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING (SKIP LINE) WHITE (4")	5666	LIN. FT.
SP	HIGH PERFORMANCE MARKING TAPE (SKIP LINE) WHITE (4")	5666	LIN. FT.
SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (8")	2247	LIN. FT.
SP	HIGH PERFORMANCE MARKING TAPE WHITE (8")	2247	LIN. FT.
SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	22982	LIN. FT.
SP	HIGH PERFORMANCE MARKING TAPE YELLOW (4")	22982	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE II)	464	EACH
724	OVERHEAD SIGN STRUCTURE FOUNDATION	4	EACH
732	CRASH CUSHION	4	EACH
SP	WIRE ROPE SAFETY FENCE END TERMINAL	4	EACH
SP	MOBILE SPEED NOTIFICATION SYSTEM	4	EACH
SP	WIRE ROPE SAFETY FENCE (POST REPAIR)	2	EACH
SP		60	EACH

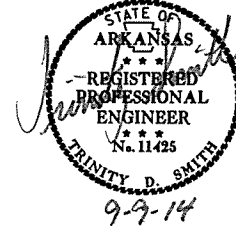
*DENOTES ALTERNATE BID ITEMS

REVISIONS

DATE	REVISION	SHEET NUMBER
8/20/2014	REVISED EXISTING R.C. BOX CULVERT NOTES. ADDED MILL AND OVERLAY OF EXISTING MAIN LANES. ADDED "COLD MILLING ASPHALT PAVEMENT" QUANTITY AND REVISED "TACK COAT", "MINERAL AGGREGATE IN ACHM SURFACE COURSE", AND "ASPHALT BINDER (PG 76-22) IN ACHM SURFACE COURSE (1 1/2)"; QUANTITIES.	30, 39, 46, 67, 108
9/8/2014	REMOVED "REMOVAL AND DISPOSAL OF FLOWABLE PAVEMENT MARKER" SPECIAL PROVISION AND QUANTITY. REVISED "PERCENT WITHIN LIMITS/PAVEMENT SMOOTHNESS" SPECIAL PROVISION. REVISED "COLD MILLING ASPHALT PAVEMENT" QUANTITY. ADDED NOTE UNDER "COLD MILLING ASPHALT PAVEMENT" QUANTITY BOX.	3, 4, 14, 29, 30
9/9/2014		2, 27, 29, 30

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
8-20-14				6	ARK.			
9-3-14								
9-9-14								
				JOB NO.	090305		30	122

2 SUMMARY OF QUANTITIES AND REVISIONS



SURVEY CONTROL COORDINATES

Coordinate System: ARKANSAS STATE PLANE - NORTH ZONE BASED ON GPS CONTROL, PROJECTED TO GROUND. Units: U.S. SURVEY FOOT

Table with columns: Point Name, Northing, Easting, Elevation, Feature, Description, and Remarks. Contains 924 entries of survey control points with detailed coordinates and descriptions.

*Note - Rebar and Cap - Standard - 5/8" Rebar with 2" Aluminum Cap stamped (other markings common to all caps), or as indicated. ALL DISTANCES ARE GROUND. USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT. THIS CAF IS INTENDED FOR USE WITHIN THE PROJECT LIMITS. GRID COORDINATES ARE STORED UNDER FILE NAME: s090305g.i.cti

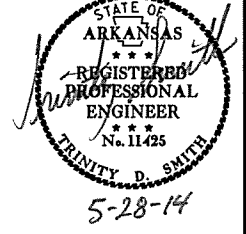
REFERENCE POINTS (1500 SERIES) ARE TO BE USED TO ESTABLISH CONTROL IF THE PRIMARY CONTROL POINTS LISTED ABOVE HAVE BEEN DESTROYED. REFERENCE POINTS ARE NOT TO BE USED FOR VERTICAL CONTROL

BASIS OF BEARING: ARKANSAS STATE PLANE GRID BEARINGS - 0301-NORTH ZONE DETERMINED GPS CONTROL POINTS: 040018, 04009, 040044 CONVERGENCE ANGLE: 01 16.05 LEFT AT L1, 36-20-56.8 LG, 094-10-45, 7 GRID AZIMUTH * ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

Table with 4 columns: POINT NO., TYPE, STATION, NORTHING, EASTING. Lists points 8000 through 8007.

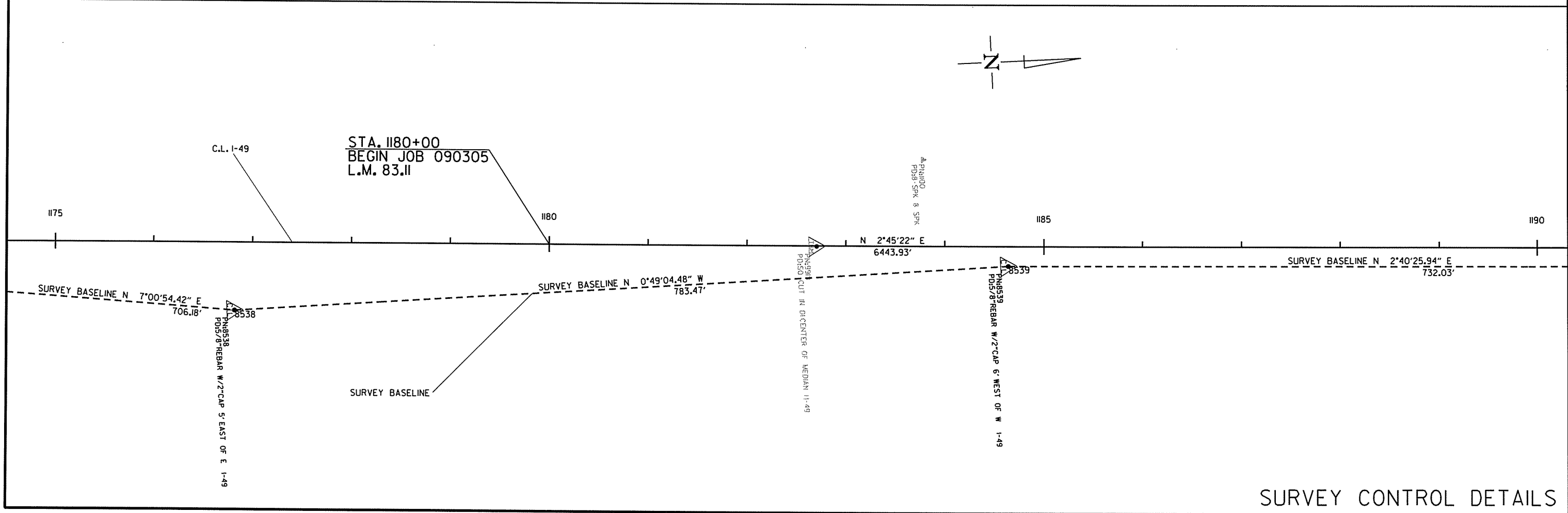
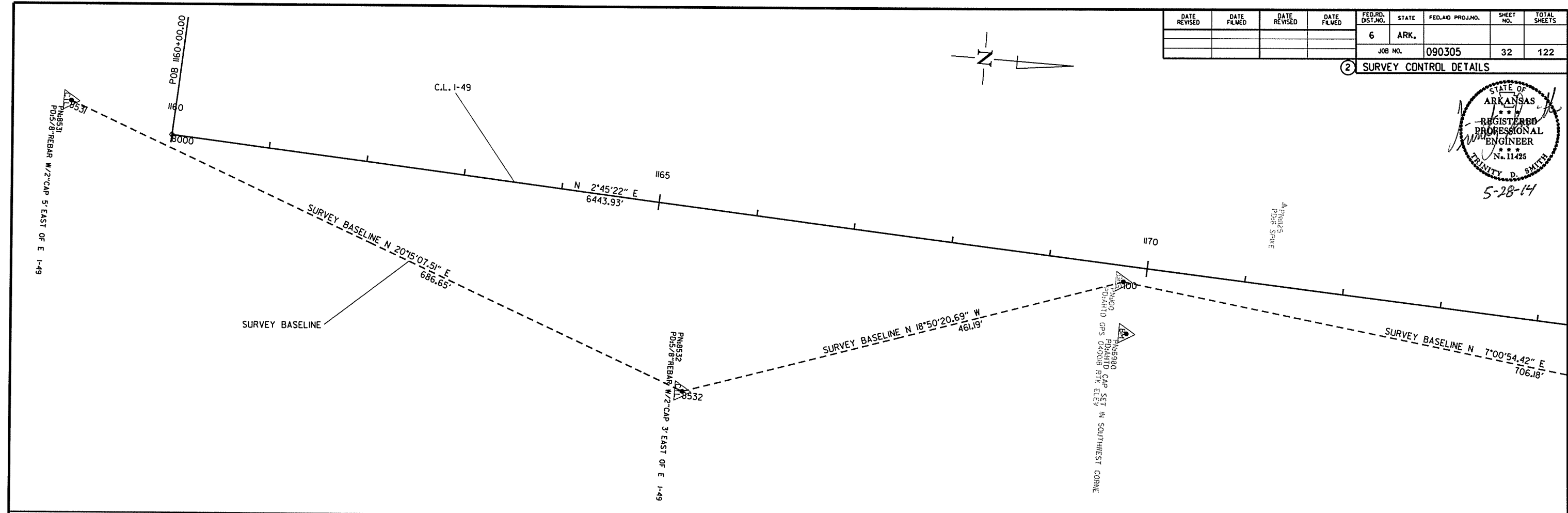
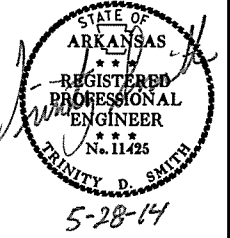
Table with 6 columns: DATE REVISED, DATE FILMED, DATE REVISED, DATE FILMED, FED. DIST. NO., STATE, FED. AD. PROJ. NO., SHEET NO., TOTAL SHEETS. Includes project number 090305 and sheet number 31.

2 SURVEY CONTROL DETAILS



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							32	122

2 SURVEY CONTROL DETAILS

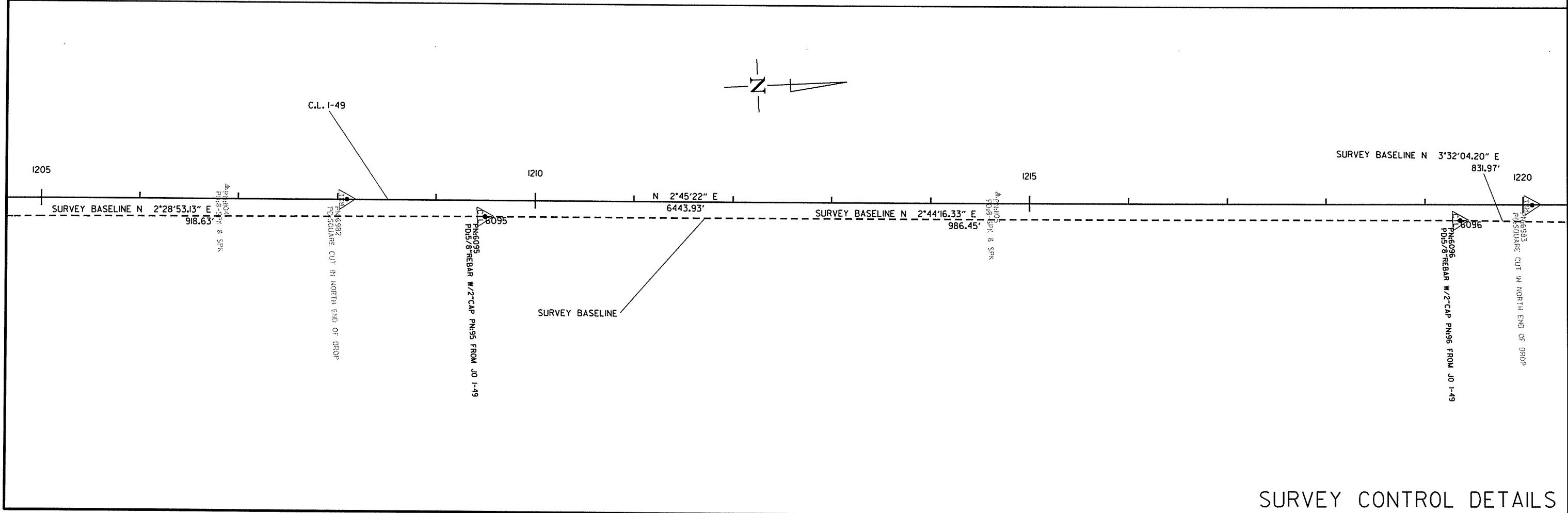
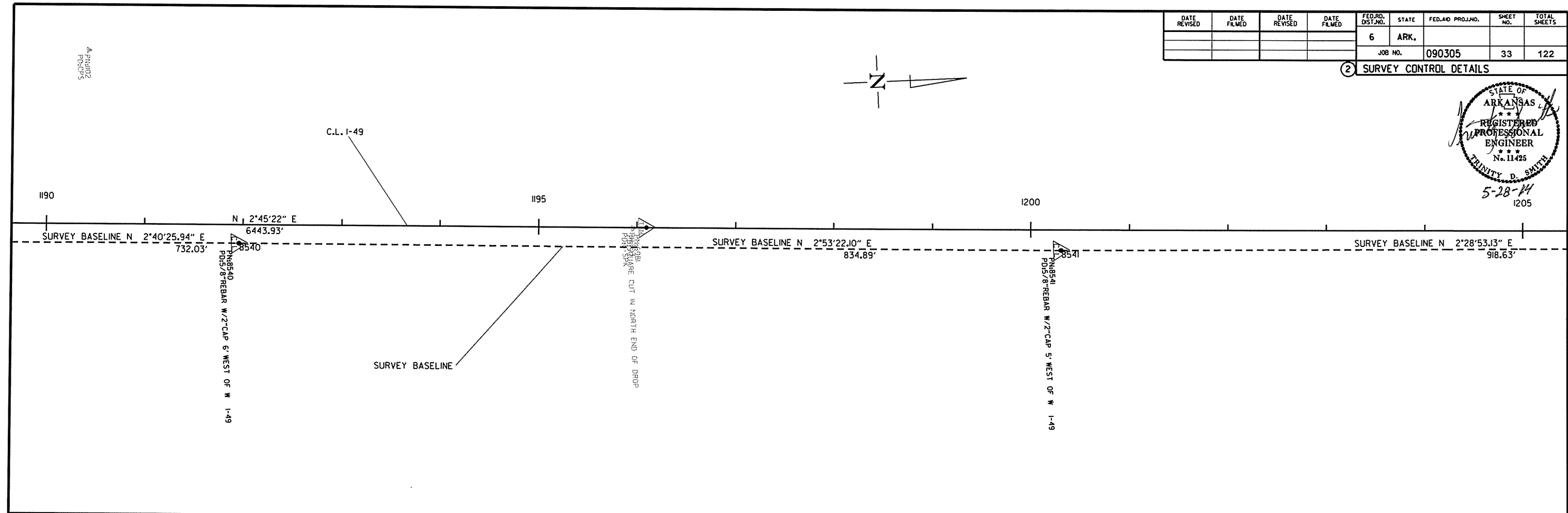
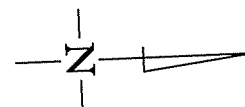
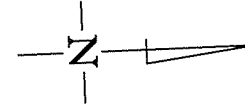
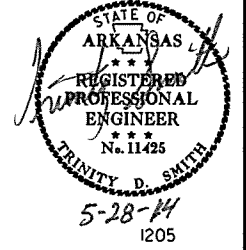


5/14/2014 R090305.DGN

SURVEY CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	
				6	ARK.				
JOB NO.							090305	33	122

② SURVEY CONTROL DETAILS



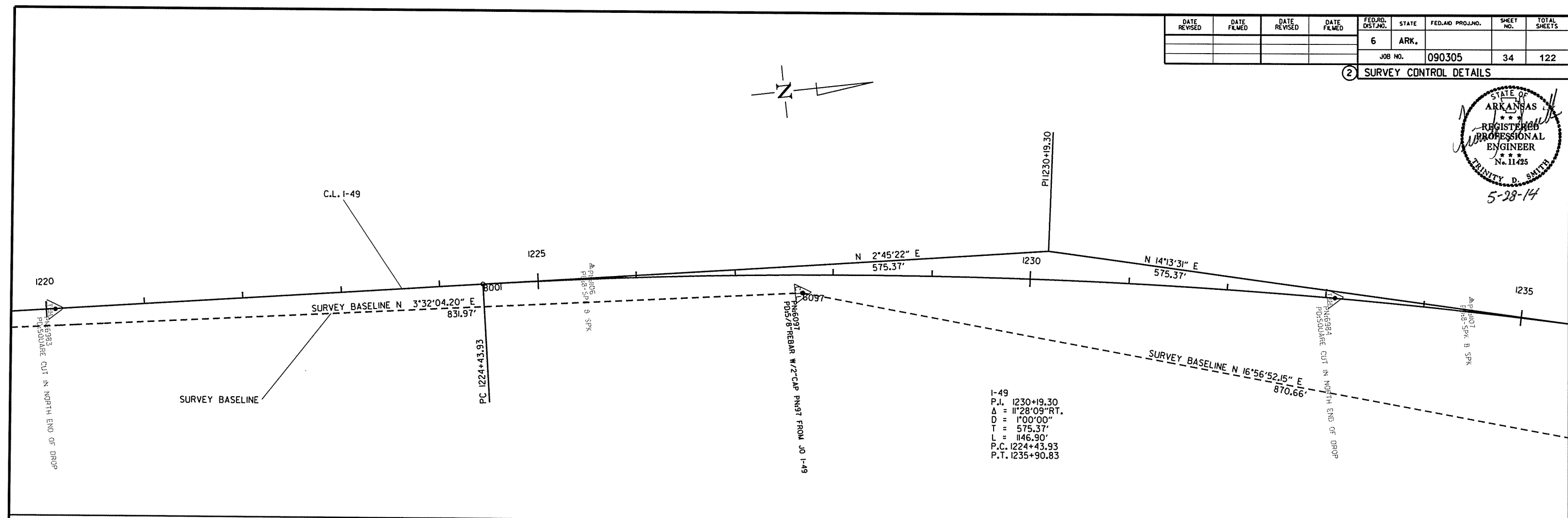
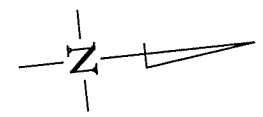
SURVEY CONTROL DETAILS

5/14/2014

R090305.DCN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	34	122

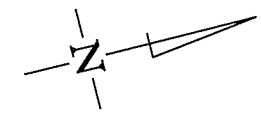
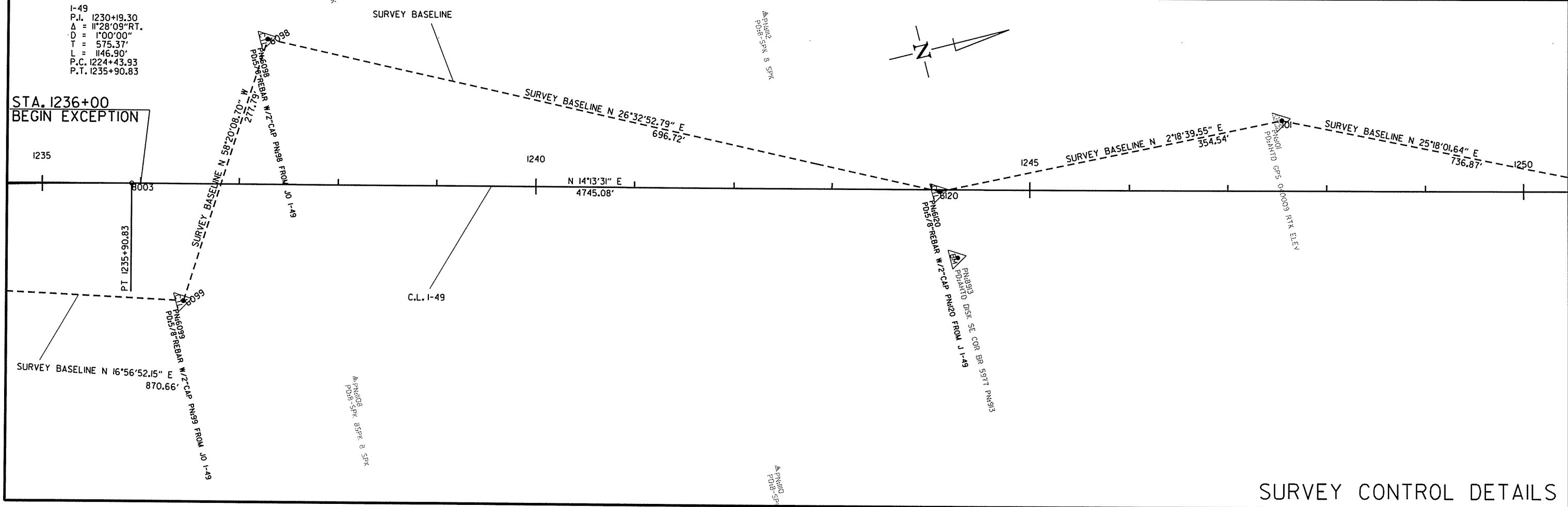
2 SURVEY CONTROL DETAILS



I-49
P.I. 1230+19.30
Δ = 11°28'09" RT.
D = 1°00'00"
T = 575.37'
L = 1146.90'
P.C. 1224+43.93
P.T. 1235+90.83

I-49
P.I. 1230+19.30
Δ = 11°28'09" RT.
D = 1°00'00"
T = 575.37'
L = 1146.90'
P.C. 1224+43.93
P.T. 1235+90.83

STA. 1236+00
BEGIN EXCEPTION



5/14/2014

R090305.DGN

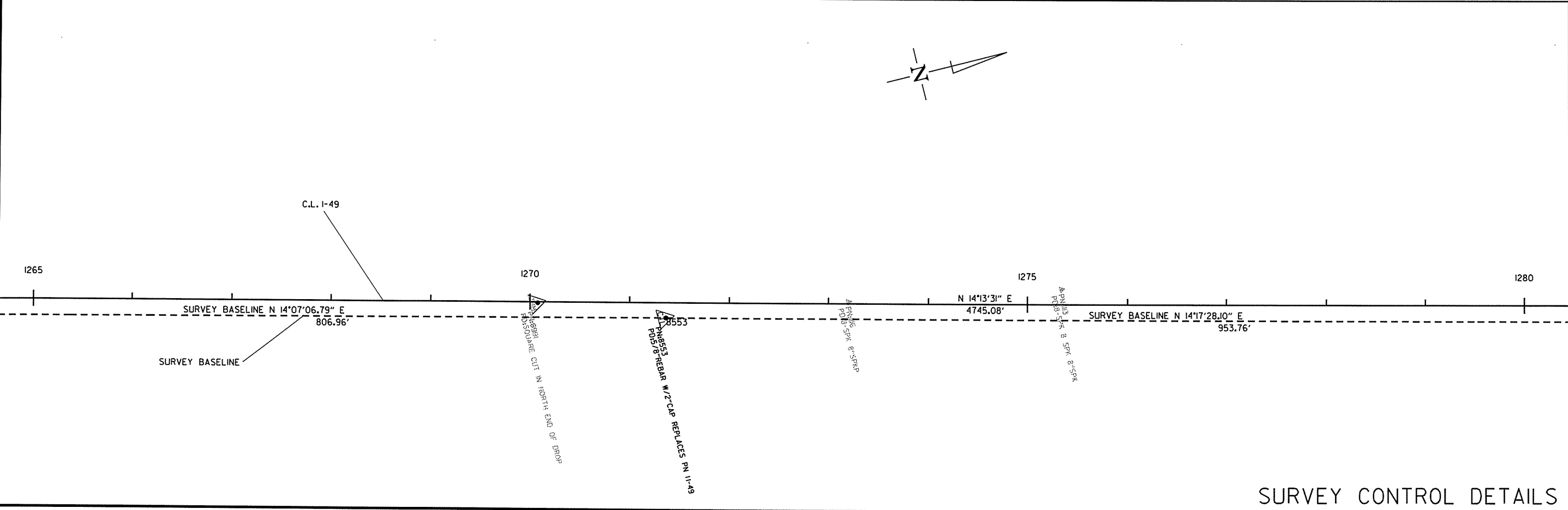
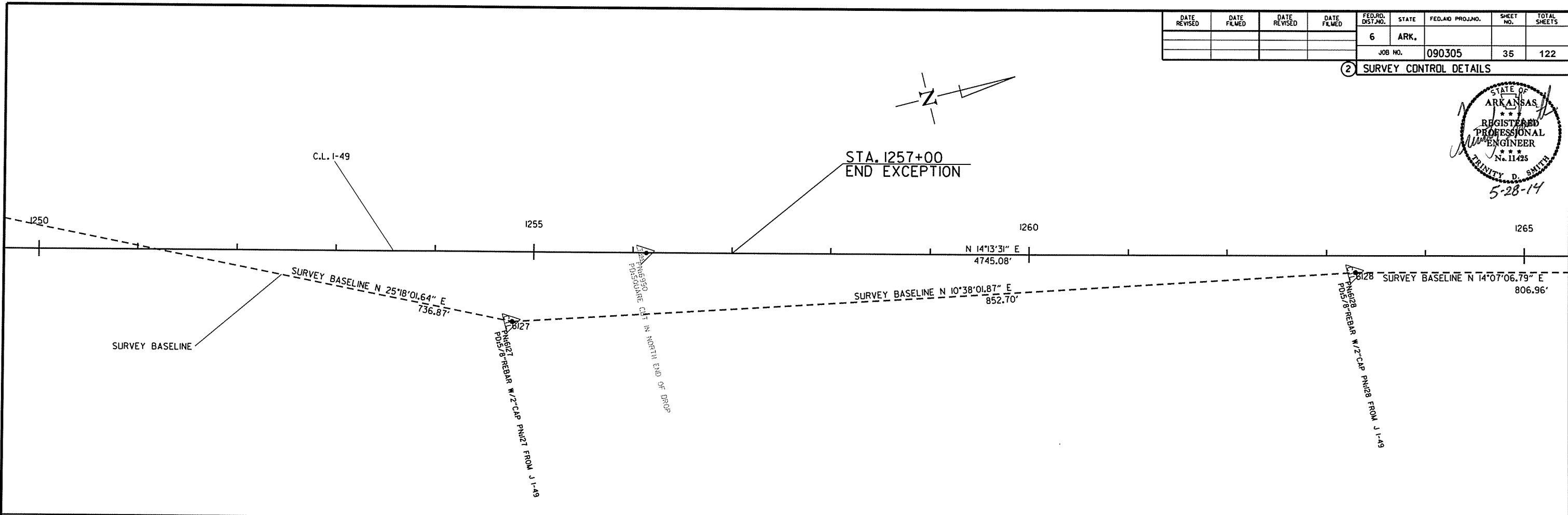
SURVEY CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	35	122

2 SURVEY CONTROL DETAILS



STA. 1257+00
END EXCEPTION



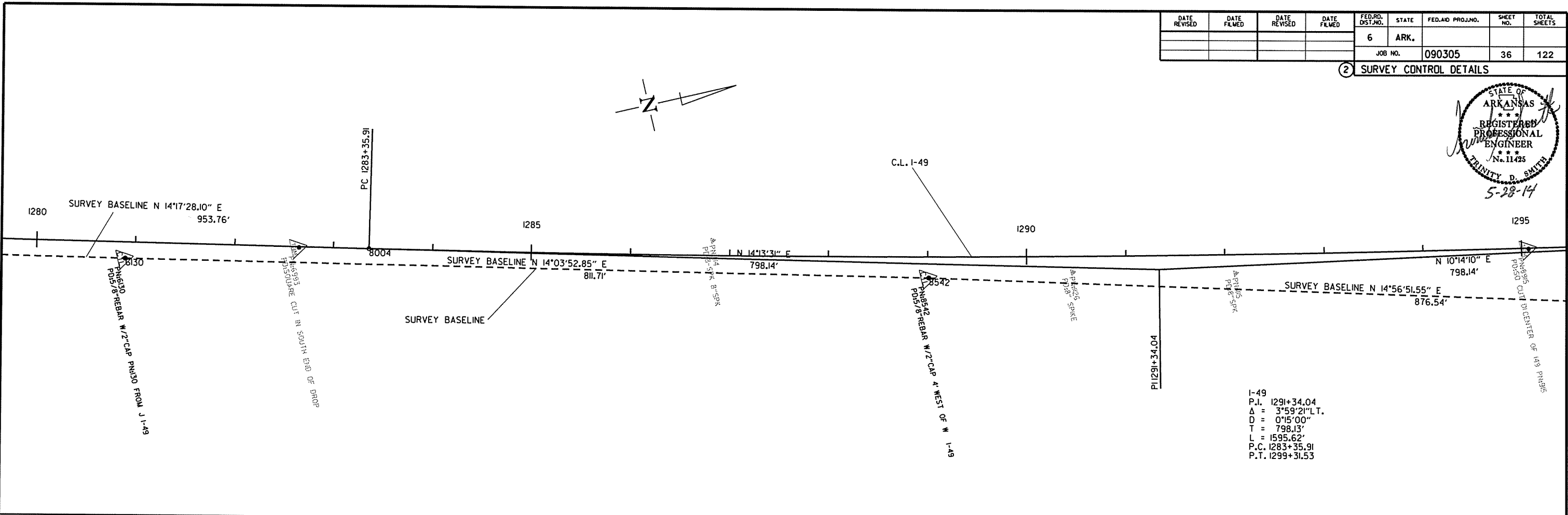
SURVEY CONTROL DETAILS

5/14/2014

R090305.DCN

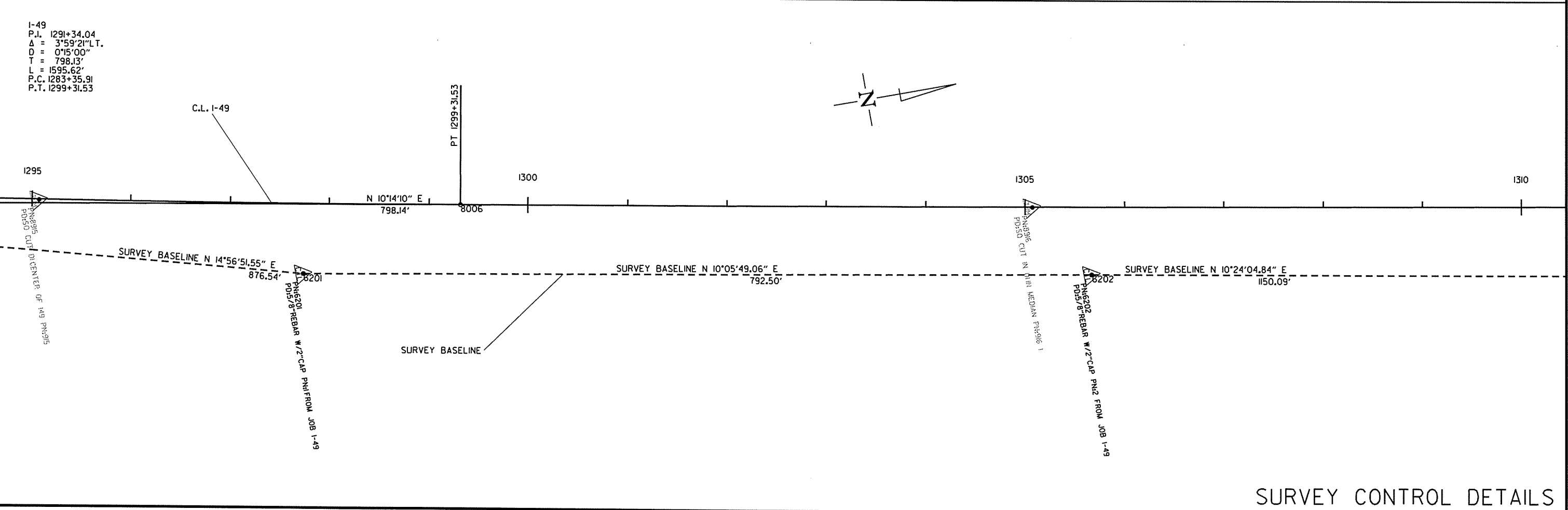
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							36	122

2 SURVEY CONTROL DETAILS



I-49
P.I. 1291+34.04
 $\Delta = 3^{\circ}59'21''$ L.T.
D = 0'15"00"
T = 798.13'
L = 1595.62'
P.C. 1283+35.91
P.T. 1299+31.53

I-49
P.I. 1291+34.04
 $\Delta = 3^{\circ}59'21''$ L.T.
D = 0'15"00"
T = 798.13'
L = 1595.62'
P.C. 1283+35.91
P.T. 1299+31.53



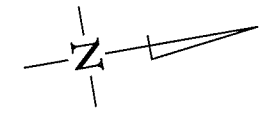
5/14/2014

R090305.DGN

SURVEY CONTROL DETAILS

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							37	122

② SURVEY CONTROL DETAILS



STA. 1314+25
END JOB 090305
L.M. 85.65

C.L. I-49

1310 1315 1320 1325

N 10°14'10" E
4183.65'

SURVEY BASELINE N 10°24'04.84" E
1150.09'

SURVEY BASELINE

PN1315
PDS/S REBAR
RIGHT CUT DIV. MEDIAN I49 PN1317

PN1320
PDS/S REBAR W/2"CAP PN13 FROM JOB I-49

SURVEY BASELINE N 25°12'32.11" E
723.44'

PN1320
PDS/S REBAR
DISK SE COR BR BR93195 PN1

PN1321
PDS/S REBAR

PN1324
PDS/S REBAR W/2"CAP PN14 FROM JOB I-49

PN1329
PDS/S REBAR
CUT IN CA NORTH OF E2 EAST I-

PN1325
PDS/S REBAR W/2"CAP PN15 FROM JOB I-49

5/14/2014

R090305.DGN

SURVEY CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	
				6	ARK.				
JOB NO.							090305	38	122

2 SOIL LOG



SOIL BORING LOG

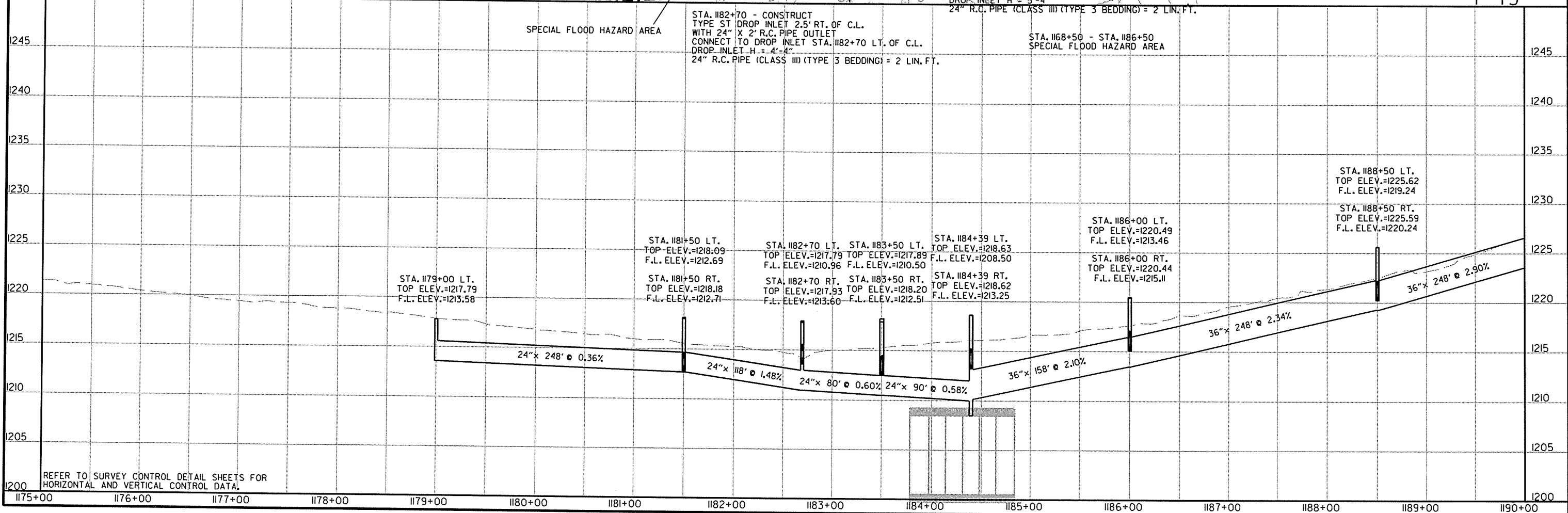
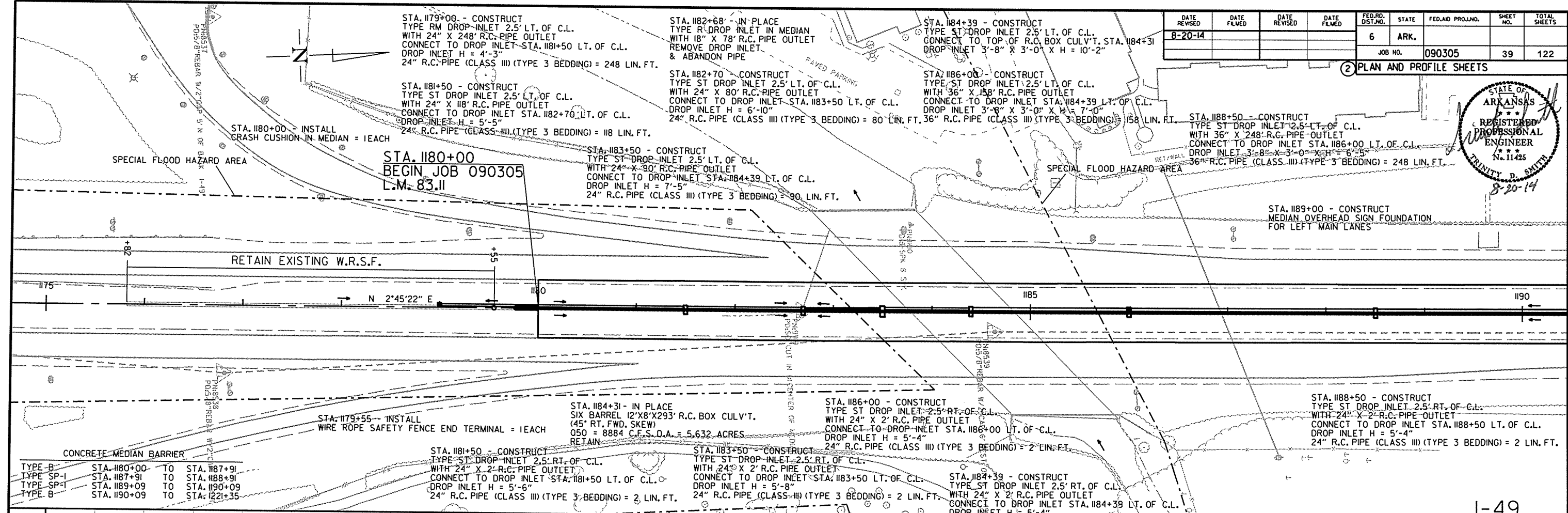
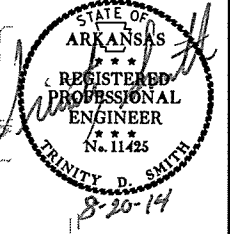
STATION	LATITUDE			LONGITUDE			LOCATION	DEPTH FEET	LIQUID LIMIT	PLASTICITY INDEX	AASHTO CLASSIFICATION	COLOR
	DEG	MIN	SEC	DEG	MIN	SEC						
1164+00	36	18	46.50	94	11	6.30	26' RT. OF CENTERLINE	0-5	32	16	A-6 (6)	RED
1178+00	36	19	0.20	94	11	5.90	26' RT. OF CENTERLINE	0-5	34	21	A-6 (9)	RED
1182+00	36	19	4.40	94	11	6.10	4' RT. OF CENTERLINE	0-5	44	26	A-7-6 (17)	RED
1186+00	36	19	8.30	94	11	5.70	26' RT. OF CENTERLINE	0-5	32	18	A-6 (8)	RED
1190+00	36	19	12.30	94	11	5.90	4' RT. OF CENTERLINE	0-5	45	28	A-7-6 (11)	RED
1190+00	36	19	16.20	94	11	5.40	27' RT. OF CENTERLINE	0-5	38	25	A-6 (13)	RED
1198+00	36	19	20.30	94	11	5.60	4' RT. OF CENTERLINE	0-5	44	24	A-6 (8)	RED
1202+00	36	19	24.20	94	11	5.80	29' RT. OF CENTERLINE	0-5	36	13	A-6 (5)	RED
1206+00	36	19	28.10	94	11	5.30	4' RT. OF CENTERLINE	0-5	42	20	A-7-6 (13)	RED
1210+00	36	19	32.00	94	11	4.90	27' RT. OF CENTERLINE	0-3 Z	38	25	A-6 (15)	RED
1214+00	36	19	36.00	94	11	5.10	4' RT. OF CENTERLINE	0-5	33	19	A-6 (16)	RED
1218+00	36	19	39.90	94	11	4.70	27' RT. OF CENTERLINE	0-5	39	19	A-6 (10)	RED/BROWN
1222+00	36	19	43.90	94	11	4.80	4' RT. OF CENTERLINE	0-5	37	14	A-6 (1)	RED
1226+00	36	19	47.80	94	11	4.40	27' RT. OF CENTERLINE	0-3 Z	30	16	A-6 (6)	RED/BROWN
1230+00	36	19	51.80	94	11	4.20	4' RT. OF CENTERLINE	0-2.5 Z	30	12	A-6 (7)	RED
1234+00	36	19	55.70	94	11	3.20	26' RT. OF CENTERLINE	0-5	35	20	A-6 (11)	RED/BROWN
1238+00	36	19	59.50	94	11	2.30	4' RT. OF CENTERLINE	0-5	41	26	A-7-6 (11)	RED
1241+00	36	19	2.60	94	11	1.90	26' RT. OF CENTERLINE	0-5	32	19	A-6 (9)	RED/BROWN
1276+05	36	20	38.60	94	10	51.40	CENTERLINE	0-5	32	16	A-6 (12)	BROWN
1302+85	36	21	4.00	94	10	45.30	CENTERLINE	0-5	40	25	A-6 (16)	BROWN

NOTE: SOIL CHARACTERISTICS TABULATED ABOVE ARE REPRESENTATIVE AT THE LOCATION OF THE SAMPLE, AND FROM SURFACE INDICATIONS ARE TYPICAL FOR THE LIMITS SHOWN. THESE DATA ARE SHOWN FOR INFORMATION ONLY. THE STATE WILL NOT BE RESPONSIBLE FOR VARIATIONS IN THE SOIL CHARACTERISTICS AND/OR EXTENT OF SAME DIFFERING FROM THE ABOVE TABULATIONS.
Z- AUGER REFUSAL

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8-20-14				6	ARK.		39	122

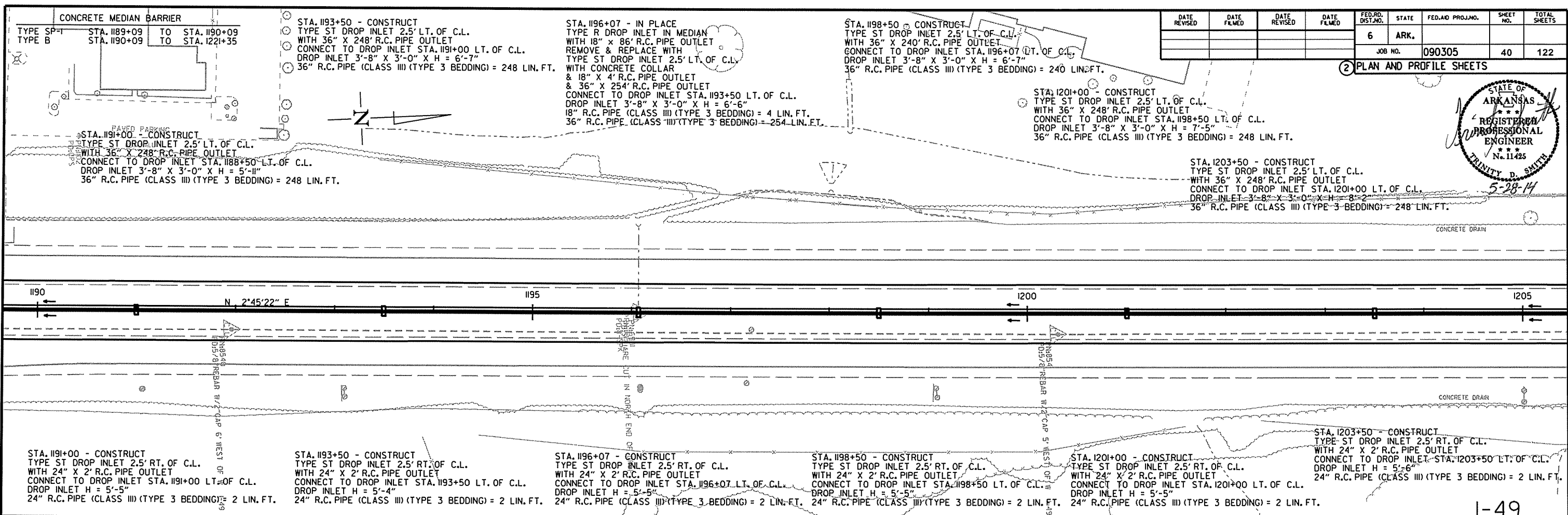
2 PLAN AND PROFILE SHEETS



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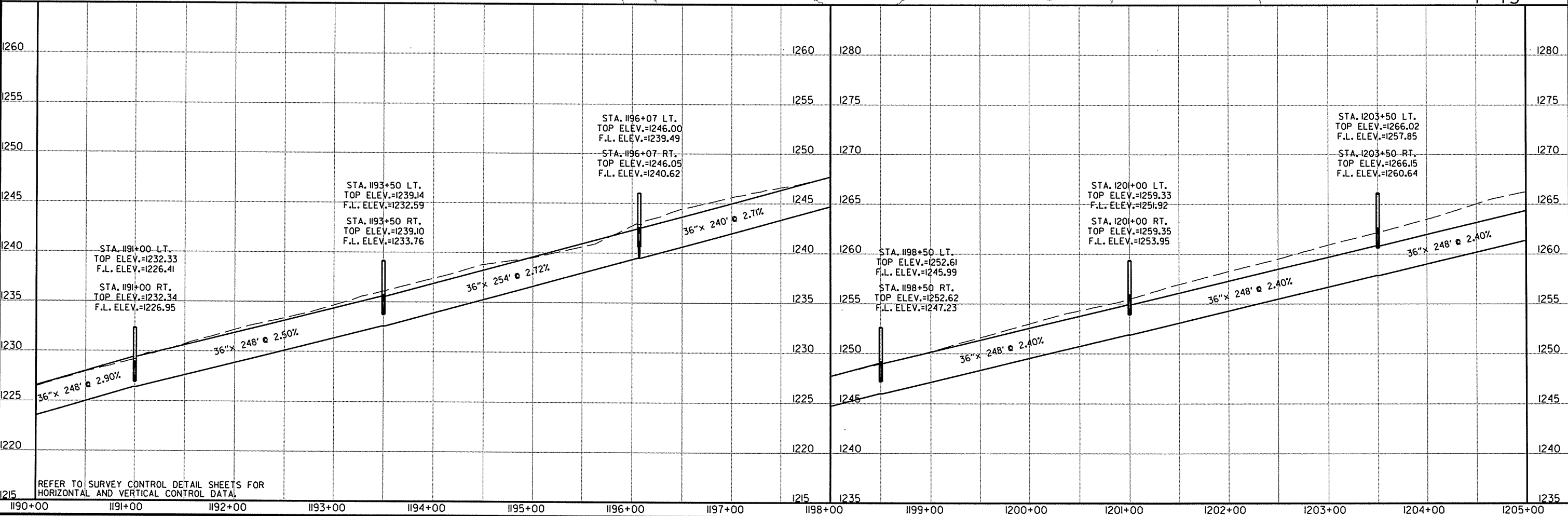
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

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				6	ARK.			
JOB NO. 090305							40	122

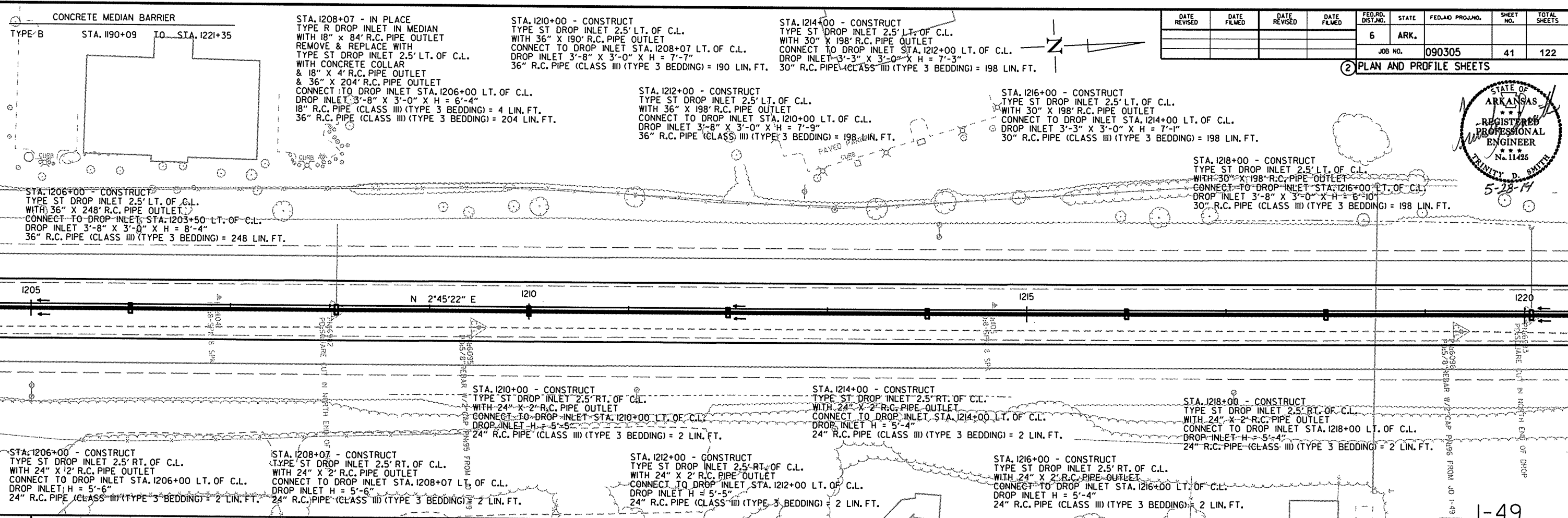
2 PLAN AND PROFILE SHEETS



1-49

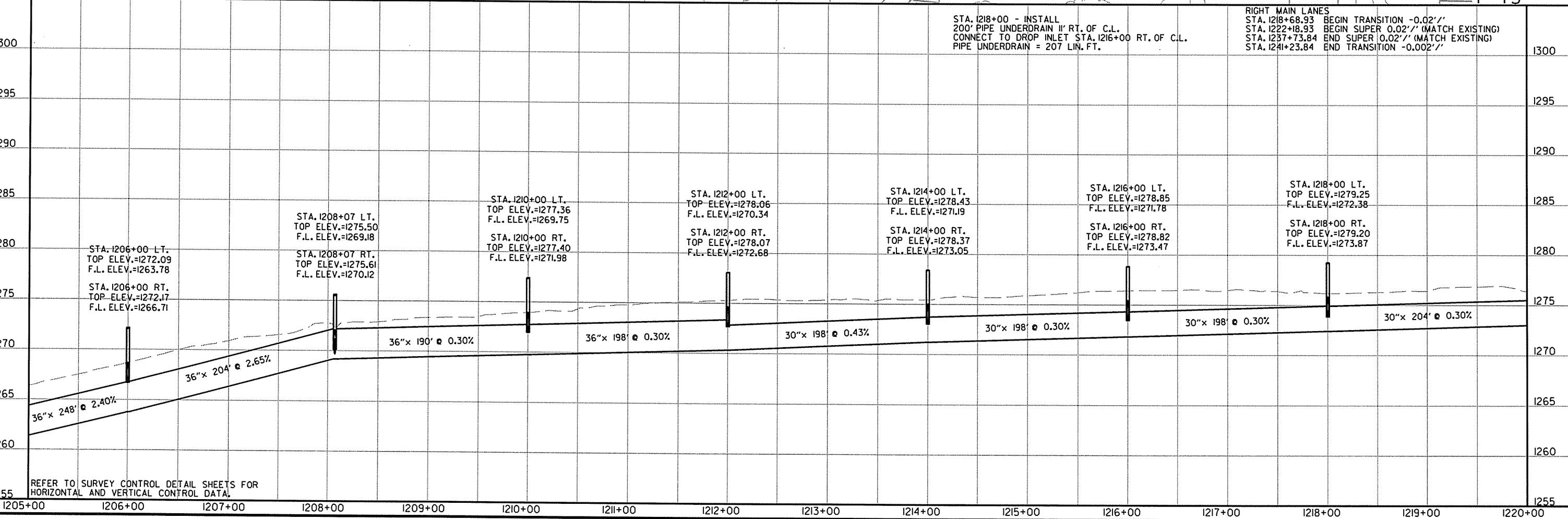
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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2 PLAN AND PROFILE SHEETS



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STA. I220+07 - IN PLACE
TYPE R DROP INLET IN MEDIAN
WITH 18" x 87' R.C. PIPE OUTLET
REMOVE & REPLACE WITH
TYPE ST DROP INLET 2.5' LT. OF C.L.
WITH CONCRETE COLLAR
& 18" x 4' R.C. PIPE OUTLET
& 30" x 204' R.C. PIPE OUTLET
CONNECT TO DROP INLET STA. I218+00 LT. OF C.L.
DROP INLET 3'-3" x 3'-0" x H = 6'-8"
18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 4 LIN. FT.
30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 204 LIN. FT.

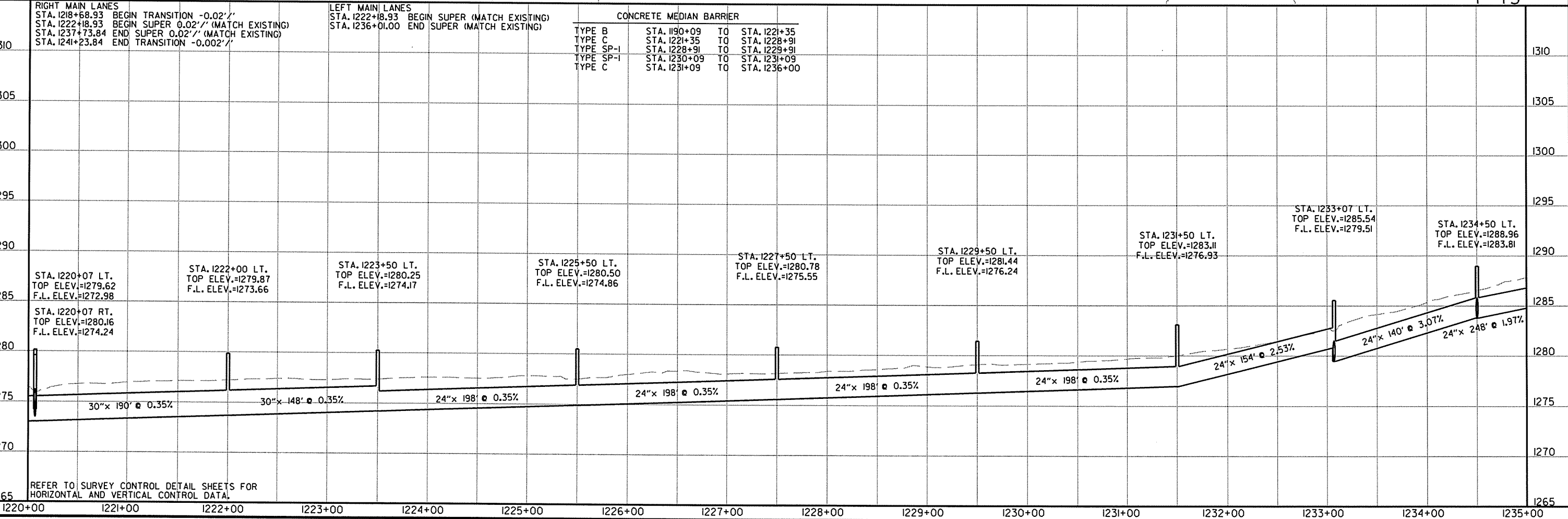
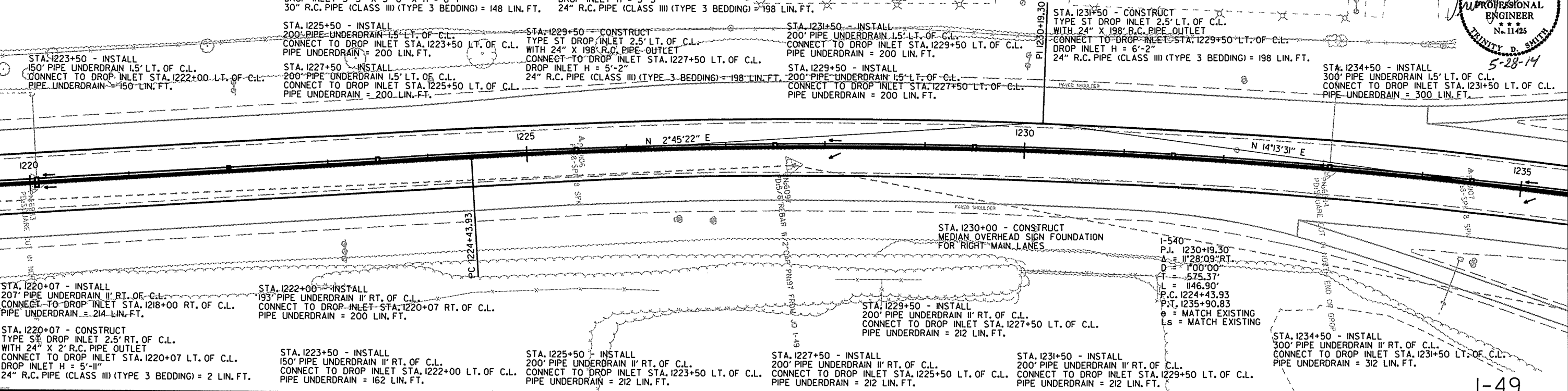
STA. I222+00 - CONSTRUCT
TYPE ST DROP INLET 2.5' LT. OF C.L.
WITH 30" x 190' R.C. PIPE OUTLET
CONNECT TO DROP INLET STA. I220+07 LT. OF C.L.
DROP INLET 3'-3" x 3'-0" x H = 6'-3"
30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 190 LIN. FT.

STA. I225+50 - CONSTRUCT
TYPE ST DROP INLET 2.5' LT. OF C.L.
WITH 24" x 198' R.C. PIPE OUTLET
CONNECT TO DROP INLET STA. I223+50 LT. OF C.L.
DROP INLET H = 5'-8"
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 198 LIN. FT.

STA. I233+07 - IN PLACE
TYPE R DROP INLET IN MEDIAN
WITH 18" x 99' R.C. PIPE OUTLET
REMOVE & REPLACE WITH
TYPE ST DROP INLET 2.5' LT. OF C.L.
WITH CONCRETE COLLAR
& 18" x 4' R.C. PIPE OUTLET
& 24" x 154' R.C. PIPE OUTLET
CONNECT TO DROP INLET STA. I231+50 LT. OF C.L.
DROP INLET H = 5'-8"
18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 4 LIN. FT.
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 154 LIN. FT.

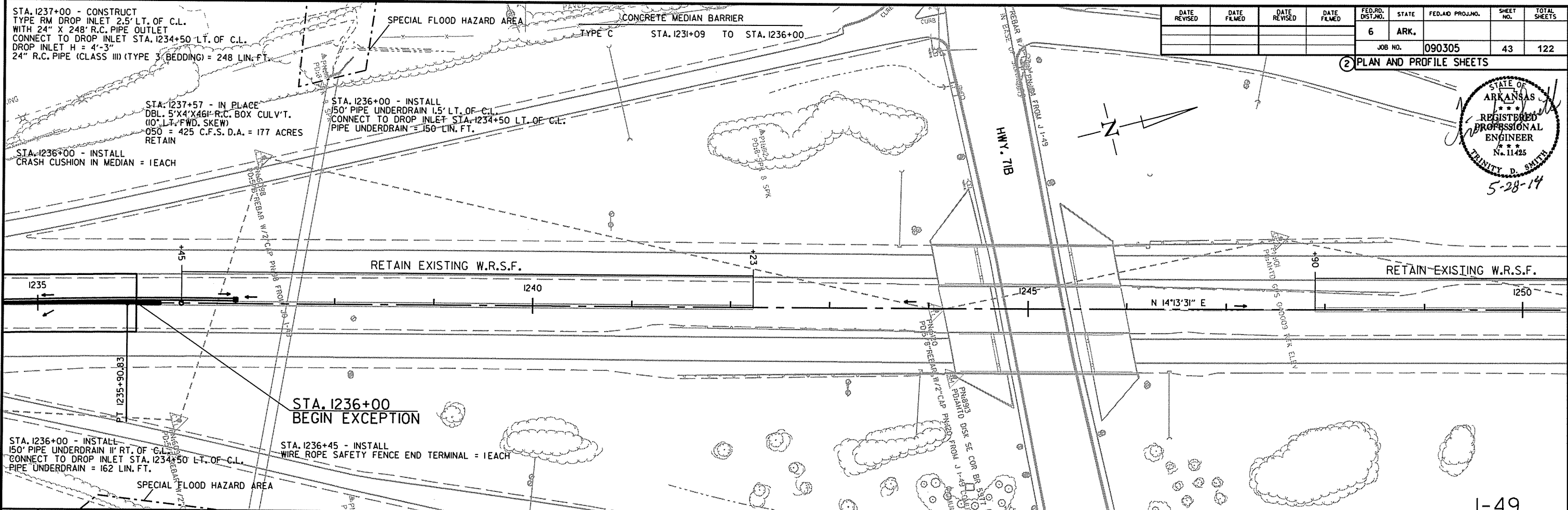
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
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PLAN AND PROFILE SHEETS



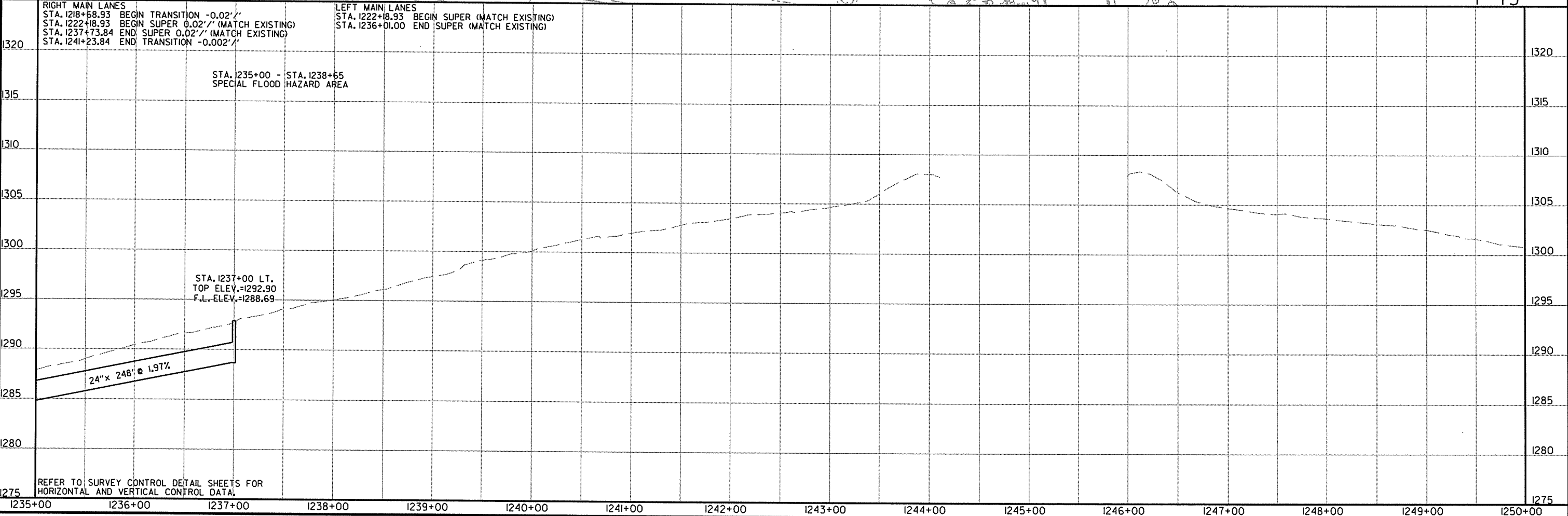
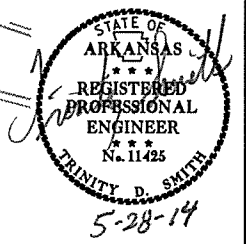
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				6	ARK.		43	122

2 PLAN AND PROFILE SHEETS



RIGHT MAIN LANES
 STA. 1218+68.93 BEGIN TRANSITION -0.02'/'
 STA. 1222+18.93 BEGIN SUPER 0.02'/' (MATCH EXISTING)
 STA. 1237+73.84 END SUPER 0.02'/' (MATCH EXISTING)
 STA. 1241+23.84 END TRANSITION -0.002'/'

LEFT MAIN LANES
 STA. 1222+18.93 BEGIN SUPER (MATCH EXISTING)
 STA. 1236+01.00 END SUPER (MATCH EXISTING)

STA. 1235+00 - STA. 1238+65
 SPECIAL FLOOD HAZARD AREA

STA. 1237+00 LT.
 TOP ELEV.=1292.90
 F.L. ELEV.=1288.69

24" x 248" @ 1.97%

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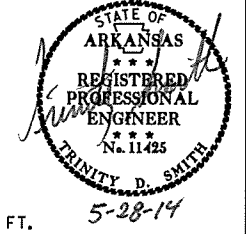
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CONCRETE MEDIAN BARRIER
 TYPE B STA. 1257+00 TO STA. 1259+91
 TYPE SP-1 STA. 1259+91 TO STA. 1260+91
 TYPE SP-1 STA. 1261+09 TO STA. 1262+09
 TYPE B STA. 1262+09 TO STA. 1270+60

STA. 1259+00 - CONSTRUCT
 TYPE ST DROP INLET 2.5' LT. OF C.L.
 WITH 24" X 298' R.C. PIPE OUTLET
 CONNECT TO DROP INLET STA. 1262+00 LT. OF C.L.
 DROP INLET H = 7'-10"
 24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 298 LIN. FT.

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PLAN AND PROFILE SHEETS



STA. 1262+00 - CONSTRUCT
 TYPE ST DROP INLET 2.5' LT. OF C.L.
 WITH 24" X 298' R.C. PIPE OUTLET
 CONNECT TO DROP INLET STA. 1265+00 LT. OF C.L.
 DROP INLET H = 7'-11"
 24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 298 LIN. FT.

STA. 1265+00 - CONSTRUCT
 TYPE ST DROP INLET 2.5' LT. OF C.L.
 WITH 24" X 284' R.C. PIPE OUTLET
 CONNECT TO R.C. BOX CULVERT STA. 1267+86
 DROP INLET H = 7'-11"
 24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 284 LIN. FT.

STA. 1256+08 - IN PLACE
 DBL. 36" X 218' R.C. PIPE CULV'T.
 WITH F.E.S. LT. & RT.
 Q50 = 75 C.F.S. D.A. = 51 ACRES
 RETAIN

STA. 1256+08 - IN PLACE
 TYPE R DROP INLET IN MEDIAN
 IN TOP OF NORTHERN-MOST
 STRING OF DBL. 36" R.C. PIPE
 RETAIN

STA. 1261+00 - CONSTRUCT
 MEDIAN OVERHEAD SIGN FOUNDATION
 FOR LEFT MAIN LANES

STA. 1257+00 - INSTALL
 CRASH CUSHION IN MEDIAN = 1 EACH

STA. 1257+00
 END EXCEPTION

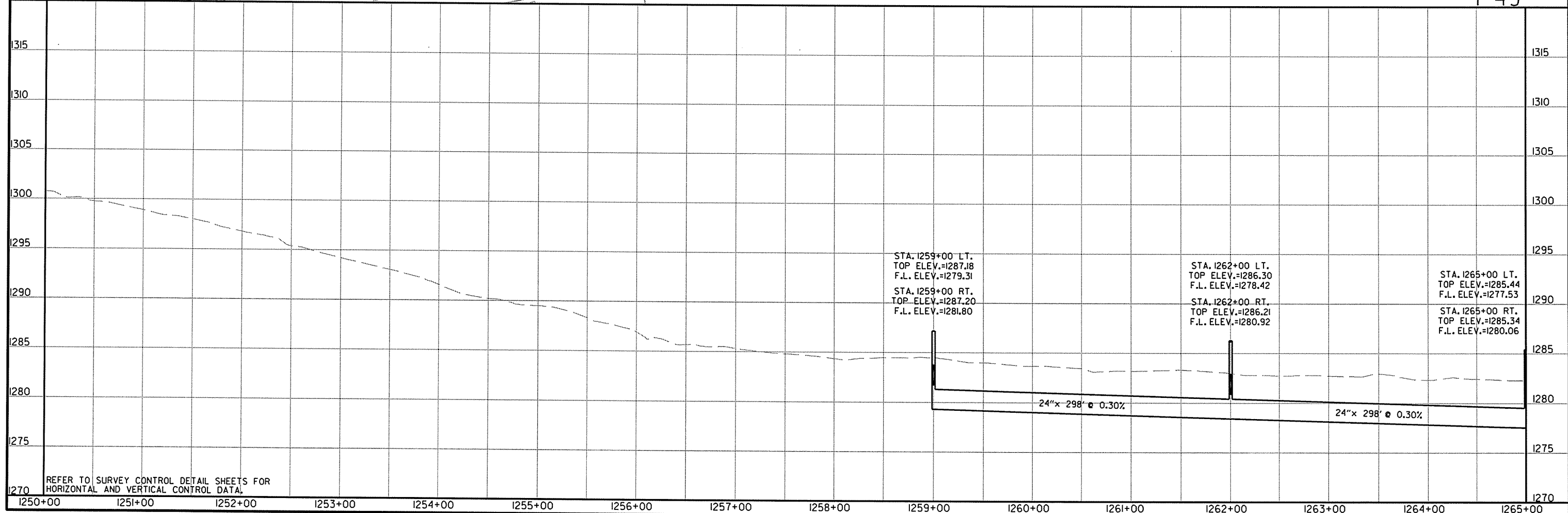
RETAIN EXISTING W.R.S.F.

STA. 1256+55 - INSTALL
 WIRE ROPE SAFETY FENCE END TERMINAL = 1 EACH

STA. 1259+00 - CONSTRUCT
 TYPE ST DROP INLET 2.5' RT. OF C.L.
 WITH 24" X 2' R.C. PIPE OUTLET
 CONNECT TO DROP INLET STA. 1259+00 LT. OF C.L.
 DROP INLET H = 5'-5"
 24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 2 LIN. FT.

STA. 1262+00 - CONSTRUCT
 TYPE ST DROP INLET 2.5' RT. OF C.L.
 WITH 24" X 2' R.C. PIPE OUTLET
 CONNECT TO DROP INLET STA. 1262+00 LT. OF C.L.
 DROP INLET H = 5'-3"
 24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 2 LIN. FT.

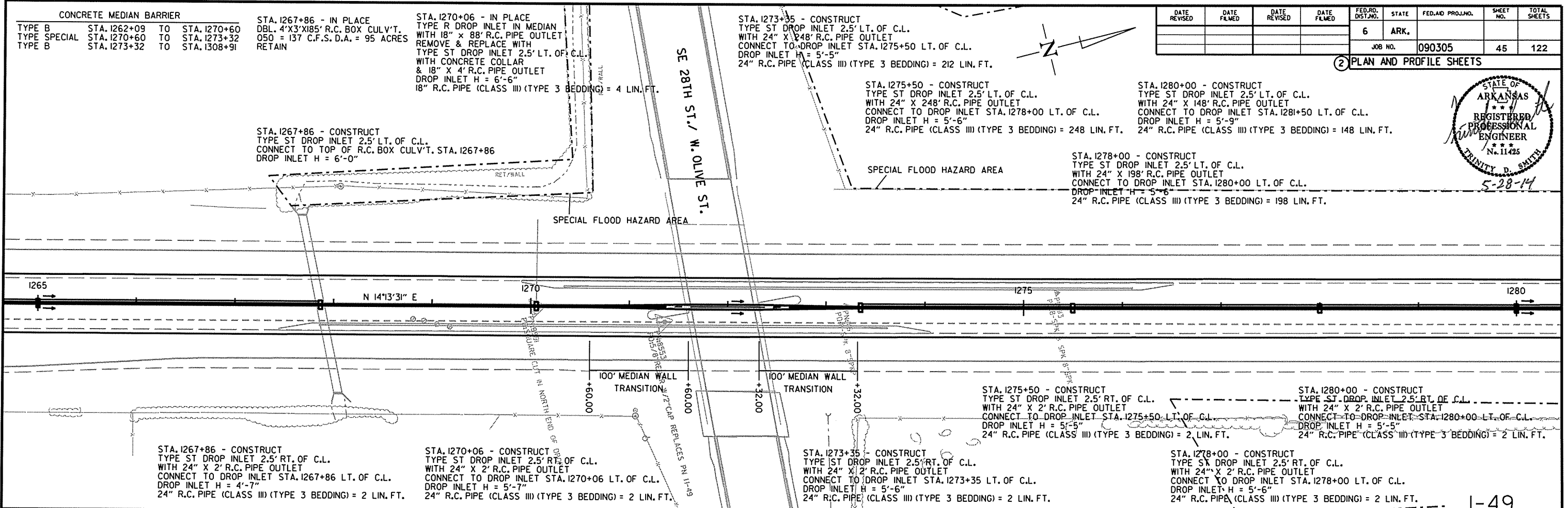
STA. 1265+00 - CONSTRUCT
 TYPE ST DROP INLET 2.5' RT. OF C.L.
 WITH 24" X 2' R.C. PIPE OUTLET
 CONNECT TO DROP INLET STA. 1265+00 LT. OF C.L.
 DROP INLET H = 5'-4"
 24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 2 LIN. FT.



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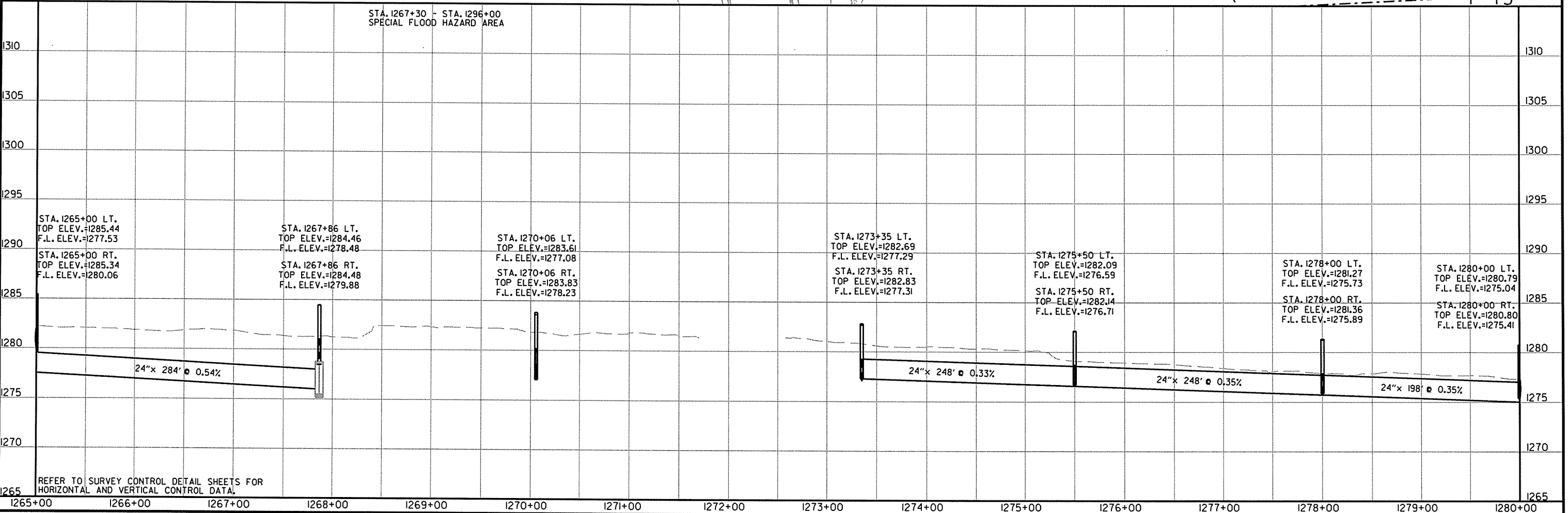
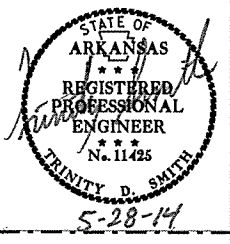
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2 PLAN AND PROFILE SHEETS



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STA. 1281+50 - CONSTRUCT
 TYPE ST DROP INLET 2.5' LT. OF C.L.
 WITH 30" X 14" R.C. PIPE OUTLET
 CONNECT TO DROP INLET STA. 1282+67 LT. OF C.L.
 DROP INLET 3'-3" X 3'-0" X H = 5'-11"
 30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 114 LIN. FT.

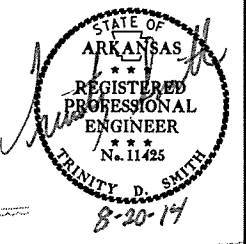
STA. 1284+00 - CONSTRUCT
 TYPE ST DROP INLET 2.5' LT. OF C.L.
 WITH 30" X 152" R.C. PIPE OUTLET
 CONNECT TO DROP INLET STA. 1285+55 LT. OF C.L.
 DROP INLET 3'-3" X 3'-0" X H = 6'-4"
 30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 152 LIN. FT.

STA. 1286+25 - CONSTRUCT
 TYPE ST DROP INLET 2.5' LT. OF C.L.
 WITH 36" X 68" R.C. PIPE OUTLET
 CONNECT TO DROP INLET STA. 1285+55 LT. OF C.L.
 DROP INLET 3'-8" X 3'-0" X H = 7'-7"
 36" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 68 LIN. FT.

STA. 1288+00 - CONSTRUCT
 TYPE ST DROP INLET 2.5' LT. OF C.L.
 WITH 30" X 98" R.C. PIPE OUTLET
 CONNECT TO DROP INLET STA. 1287+00 LT. OF C.L.
 DROP INLET 3'-3" X 3'-0" X H = 7'-3"
 30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 98 LIN. FT.

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2 PLAN AND PROFILE SHEETS



STA. 1282+67 - IN PLACE
 TYPE R DROP INLET IN MEDIAN
 WITH 18" X 92" R.C. PIPE OUTLET
 REMOVE & REPLACE WITH
 TYPE ST DROP INLET 2.5' LT. OF C.L.
 WITH CONCRETE COLLAR
 & 30" X 130" R.C. PIPE OUTLET
 CONNECT TO DROP INLET STA. 1284+00 LT. OF C.L.
 DROP INLET 3'-3" X 3'-0" X H = 6'-3"
 18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 4 LIN. FT.
 30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 130 LIN. FT.

STA. 1285+55 - CONSTRUCT
 TYPE ST DROP INLET 2.5' LT. OF C.L.
 CONNECT TO TOP OF R.C. BOX CULV'T. STA. 1285+55
 DROP INLET 3'-8" X 3'-0" X H = 7'-8"

STA. 1287+00 - CONSTRUCT
 TYPE ST DROP INLET 2.5' LT. OF C.L.
 WITH 36" X 72" R.C. PIPE OUTLET
 CONNECT TO DROP INLET STA. 1286+25 LT. OF C.L.
 DROP INLET 3'-3" X 3'-0" X H = 7'-5"
 30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 72 LIN. FT.

STA. 1289+00 - CONSTRUCT
 TYPE ST DROP INLET 2.5' LT. OF C.L.
 WITH 30" X 98" R.C. PIPE OUTLET
 CONNECT TO DROP INLET STA. 1288+00 LT. OF C.L.
 DROP INLET 3'-3" X 3'-0" X H = 7'-0"
 30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 98 LIN. FT.

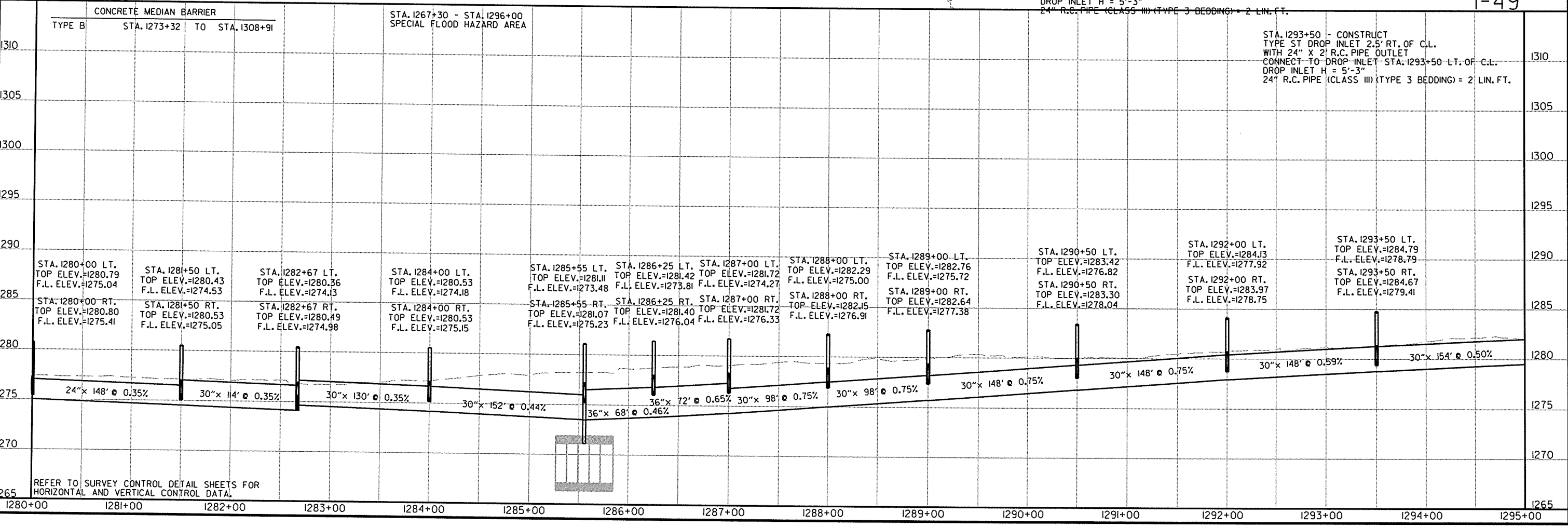
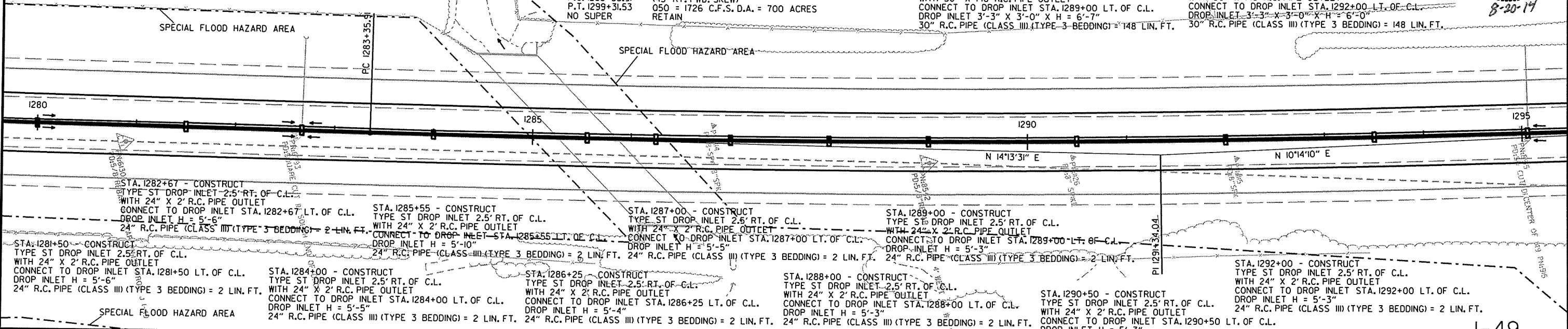
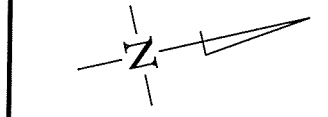
STA. 1292+00 - CONSTRUCT
 TYPE ST DROP INLET 2.5' LT. OF C.L.
 WITH 30" X 148" R.C. PIPE OUTLET
 CONNECT TO DROP INLET STA. 1290+50 LT. OF C.L.
 DROP INLET 3'-3" X 3'-0" X H = 6'-3"
 30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 148 LIN. FT.

STA. 1293+50 - CONSTRUCT
 TYPE ST DROP INLET 2.5' LT. OF C.L.
 WITH 30" X 148" R.C. PIPE OUTLET
 CONNECT TO DROP INLET STA. 1292+00 LT. OF C.L.
 DROP INLET 3'-3" X 3'-0" X H = 6'-0"
 30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 148 LIN. FT.

I-540
 P.I. 1291+34.04
 Δ = 3'59"21" L.T.
 D = 0'15"00"
 T = 798.13'
 L = 1595.62'
 P.C. 1283+35.91
 P.T. 1299+31.53
 NO SUPER
 RETAIN

STA. 1285+55 - IN PLACE
 QUINT. 8'X4'X24" R.C. BOX CULV'T.
 (45° RT. FWD. SKEW)
 O50 = 1726 C.F.S. D.A. = 700 ACRES
 RETAIN

STA. 1290+50 - CONSTRUCT
 TYPE ST DROP INLET 2.5' LT. OF C.L.
 WITH 30" X 148" R.C. PIPE OUTLET
 CONNECT TO DROP INLET STA. 1289+00 LT. OF C.L.
 DROP INLET 3'-3" X 3'-0" X H = 6'-7"
 30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 148 LIN. FT.



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STA. 1295+06 - IN PLACE
TYPE R DROP INLET IN MEDIAN
WITH 18" X 87" R.C. PIPE OUTLET
REMOVE DROP INLET
AND PLUG AND ABANDON PIPE

STA. 1297+50 - CONSTRUCT
TYPE ST DROP INLET 2.5' LT. OF C.L.
WITH 30" X 242" R.C. PIPE OUTLET
CONNECT TO DROP INLET STA. 1295+06 LT. OF C.L.
DROP INLET 3'-3" X 3'-0" X H = 5'-9"
30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 242 LIN. FT.

STA. 1302+50 - CONSTRUCT
TYPE ST DROP INLET 2.5' LT. OF C.L.
WITH 24" X 248" R.C. PIPE OUTLET
CONNECT TO DROP INLET STA. 1300+00 LT. OF C.L.
DROP INLET H = 6'-2"
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 248 LIN. FT.

STA. 1305+07 - IN PLACE
TYPE R DROP INLET IN MEDIAN
WITH 18" X 89" R.C. PIPE OUTLET
REMOVE DROP INLET
AND PLUG AND ABANDON PIPE

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2 PLAN AND PROFILE SHEETS

STA. 1295+06 - CONSTRUCT
TYPE ST DROP INLET 2.5' LT. OF C.L.
WITH 30" X 154" R.C. PIPE OUTLET
CONNECT TO DROP INLET STA. 1293+50 RT. OF C.L.
DROP INLET 3'-3" X 3'-0" X H = 5'-11"
30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 154 LIN. FT.

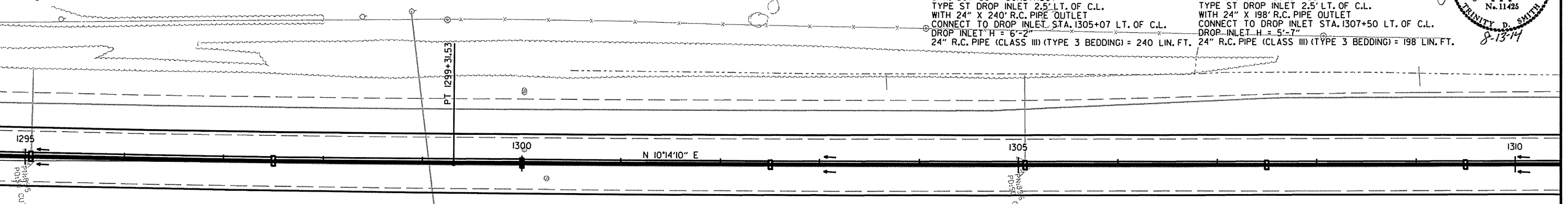
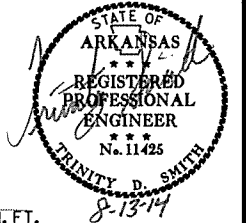


STA. 1300+00 - CONSTRUCT
TYPE ST DROP INLET 2.5' LT. OF C.L.
WITH 30" X 248" R.C. PIPE OUTLET
CONNECT TO DROP INLET STA. 1297+50 LT. OF C.L.
DROP INLET 3'-3" X 3'-0" X H = 5'-11"
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 248 LIN. FT.

STA. 1305+07 - CONSTRUCT
TYPE ST DROP INLET 2.5' LT. OF C.L.
WITH 24" X 254" R.C. PIPE OUTLET
CONNECT TO DROP INLET STA. 1302+50 RT. OF C.L.
DROP INLET H = 6'-3"
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 254 LIN. FT.

STA. 1307+50 - CONSTRUCT
TYPE ST DROP INLET 2.5' LT. OF C.L.
WITH 24" X 240" R.C. PIPE OUTLET
CONNECT TO DROP INLET STA. 1305+07 LT. OF C.L.
DROP INLET H = 6'-2"
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 240 LIN. FT.

STA. 1309+50 - CONSTRUCT
TYPE ST DROP INLET 2.5' LT. OF C.L.
WITH 24" X 198" R.C. PIPE OUTLET
CONNECT TO DROP INLET STA. 1307+50 LT. OF C.L.
DROP INLET H = 5'-7"
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 198 LIN. FT.



STA. 1295+06 - CONSTRUCT
TYPE ST DROP INLET 2.5' RT. OF C.L.
WITH 24" X 2' R.C. PIPE OUTLET
CONNECT TO DROP INLET STA. 1295+06 LT. OF C.L.
DROP INLET H = 5'-4"
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 2 LIN. FT.

STA. 1300+00 - CONSTRUCT
TYPE ST DROP INLET 2.5' RT. OF C.L.
WITH 24" X 2' R.C. PIPE OUTLET
CONNECT TO DROP INLET STA. 1300+00 LT. OF C.L.
DROP INLET H = 5'-5"
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 2 LIN. FT.

STA. 1305+07 - CONSTRUCT
TYPE ST DROP INLET 2.5' RT. OF C.L.
WITH 24" X 2' R.C. PIPE OUTLET
CONNECT TO DROP INLET STA. 1305+07 LT. OF C.L.
DROP INLET H = 5'-5"
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 2 LIN. FT.

STA. 1309+50 - CONSTRUCT
TYPE ST DROP INLET 2.5' RT. OF C.L.
WITH 24" X 2' R.C. PIPE OUTLET
CONNECT TO DROP INLET STA. 1309+50 LT. OF C.L.
DROP INLET H = 5'-5"
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 2 LIN. FT.

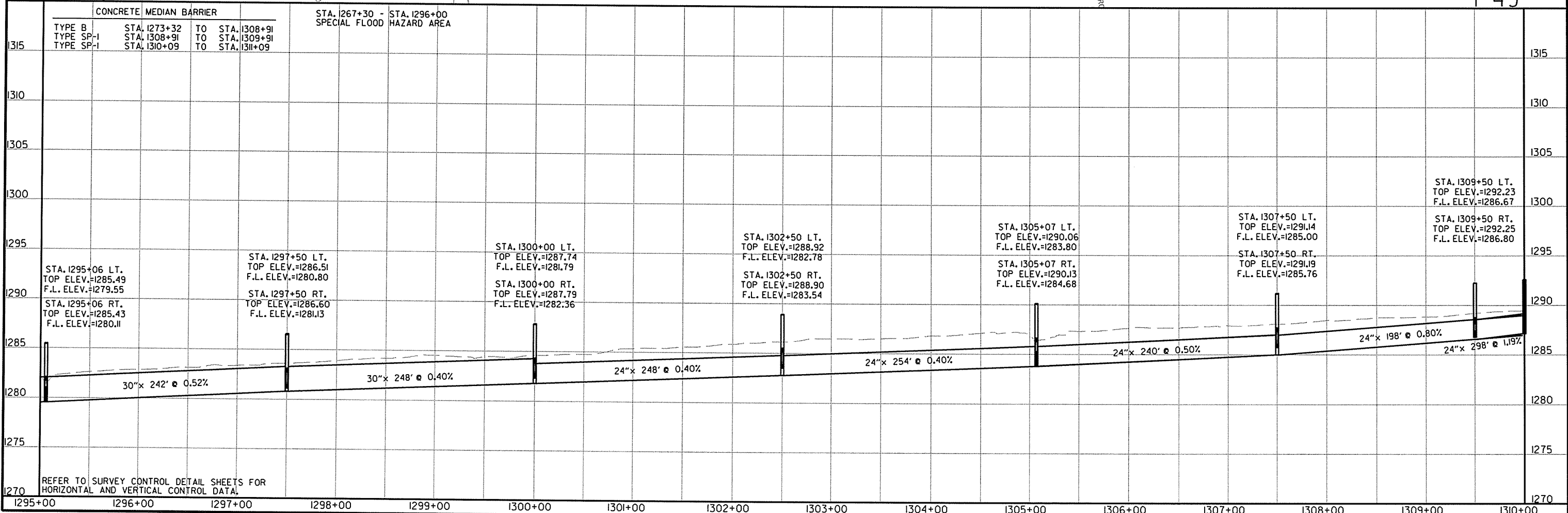
STA. 1297+50 - CONSTRUCT
TYPE ST DROP INLET 2.5' RT. OF C.L.
WITH 24" X 2' R.C. PIPE OUTLET
CONNECT TO DROP INLET STA. 1297+50 LT. OF C.L.
DROP INLET H = 5'-6"
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 2 LIN. FT.

STA. 1302+50 - CONSTRUCT
TYPE ST DROP INLET 2.5' RT. OF C.L.
WITH 24" X 2' R.C. PIPE OUTLET
CONNECT TO DROP INLET STA. 1302+50 LT. OF C.L.
DROP INLET H = 5'-4"
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 2 LIN. FT.

STA. 1307+50 - CONSTRUCT
TYPE ST DROP INLET 2.5' RT. OF C.L.
WITH 24" X 2' R.C. PIPE OUTLET
CONNECT TO DROP INLET STA. 1307+50 LT. OF C.L.
DROP INLET H = 5'-5"
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 2 LIN. FT.

SPECIAL FLOOD HAZARD AREA

1-49



8/12/2014
R090305.DGN

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

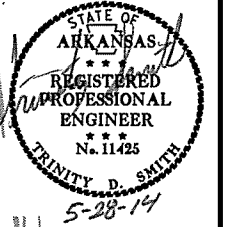
STA. 1312+50 - CONSTRUCT
 TYPE ST DROP INLET 2.5' LT. OF C.L.
 WITH 24" X 298' R.C. PIPE OUTLET
 CONNECT TO DROP INLET STA. 1309+50 LT. OF C.L.
 DROP INLET H = 5'-5"
 USE 3 VANE GRATES
 24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 298 LIN. FT.

STA. 1314+75 - INSTALL
 WIRE ROPE SAFETY FENCE END TERMINAL = 1 EACH

CONCRETE MEDIAN BARRIER			
TYPE SP-1	STA. 1308+91	TO	STA. 1309+91
TYPE SP-1	STA. 1310+09	TO	STA. 1311+09
TYPE B	STA. 1311+09	TO	STA. 1314+25

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							48	122

2 PLAN AND PROFILE SHEETS



STA. 1315+07 - IN PLACE
 DBL. 4'X3'X213' R.C. BOX CULV'T.
 Q50 = 150 C.F.S. D.A. = 75.5 ACRES
 RETAIN

STA. 1315+10 - IN PLACE
 TYPE T DROP INLET IN MEDIAN
 IN TOP OF R.C. BOX CULVERT
 RETAIN

STA. 1314+25 - INSTALL
 CRASH CUSHION IN MEDIAN = 1 EACH

STA. 1314+25
 END JOB 090305
 L.M. 85.65

RETAIN EXISTING W.R.S.F.

1310

1315

1320

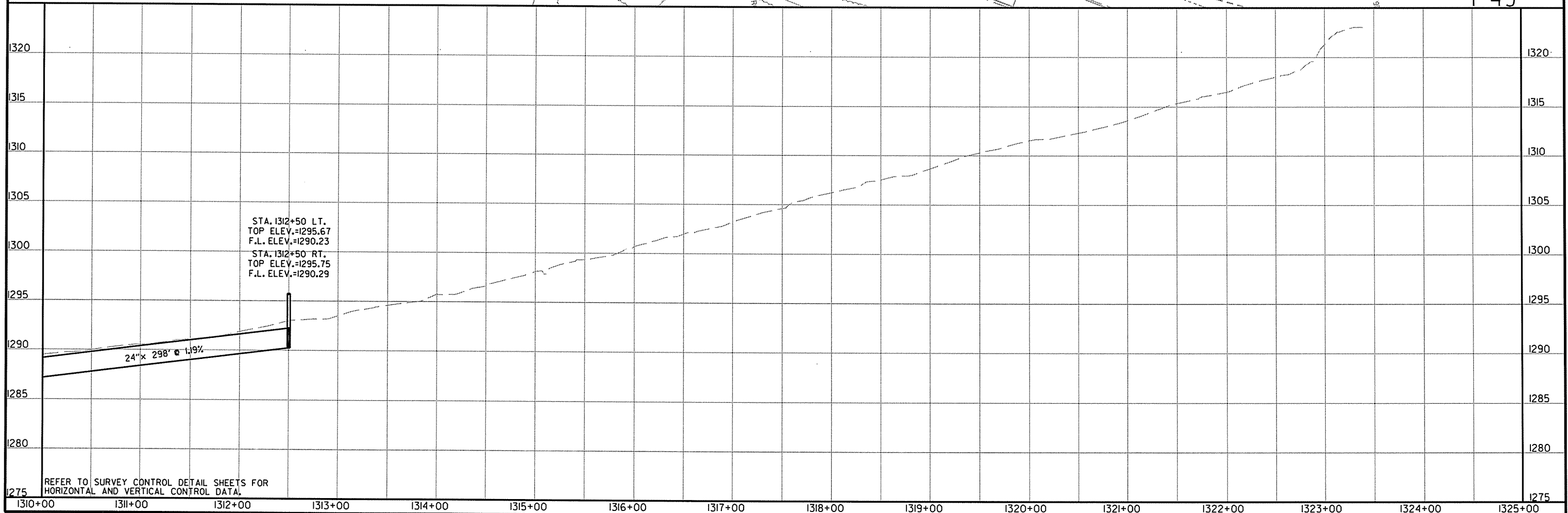
1325

GRADE TO DRAIN

STA. 1310+00 - CONSTRUCT
 MEDIAN OVERHEAD SIGN FOUNDATION
 FOR RIGHT MAIN LANES

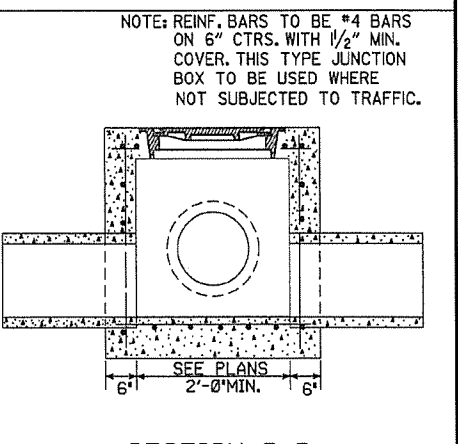
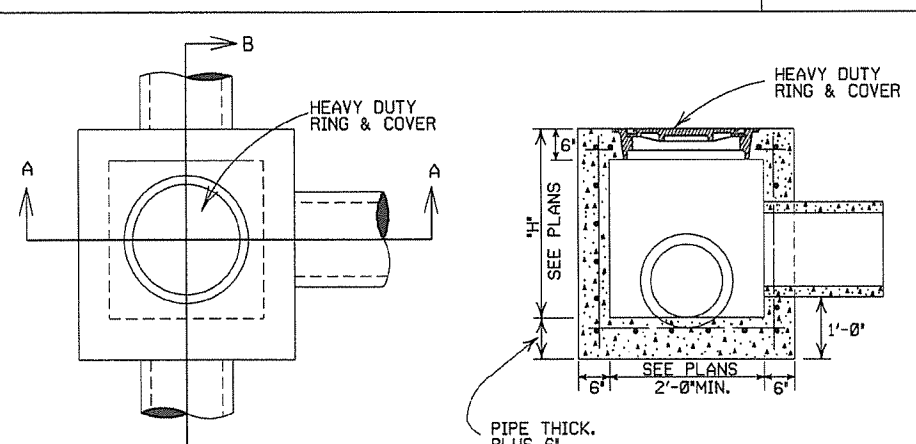
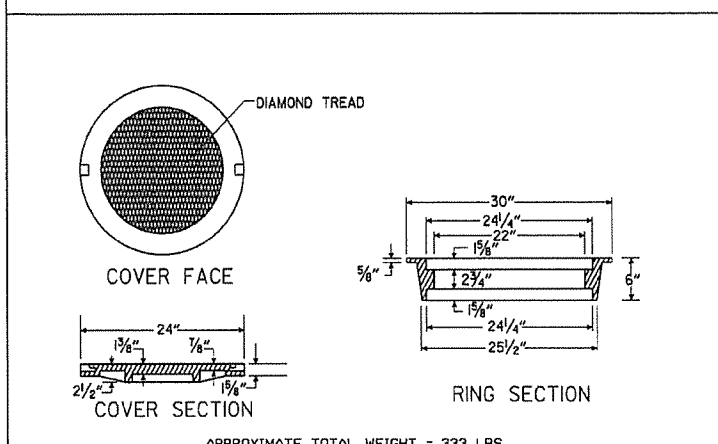
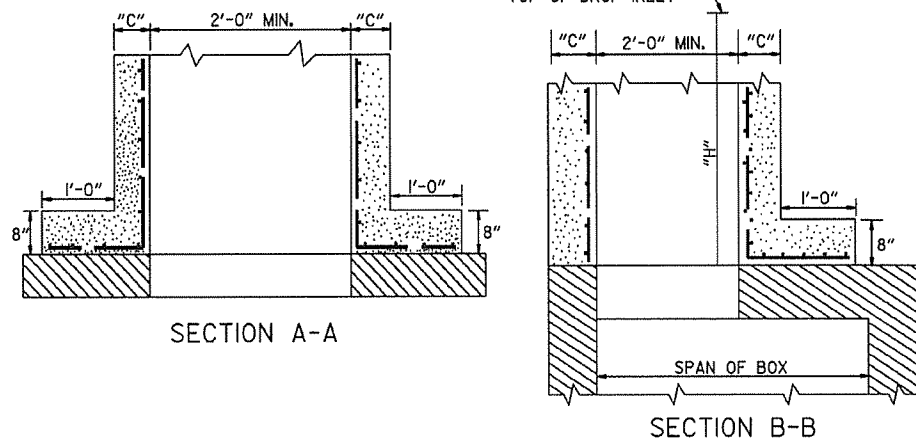
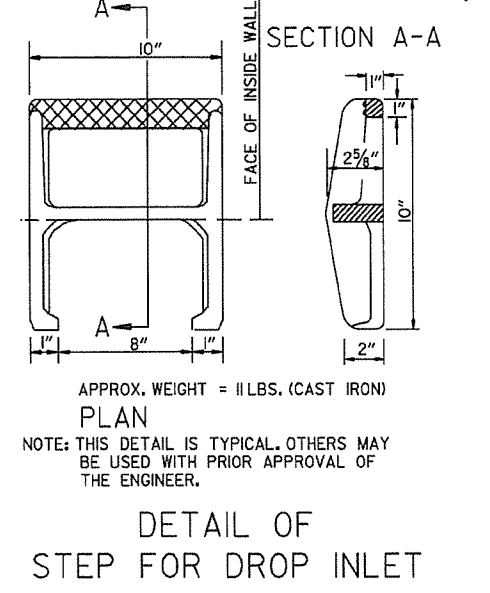
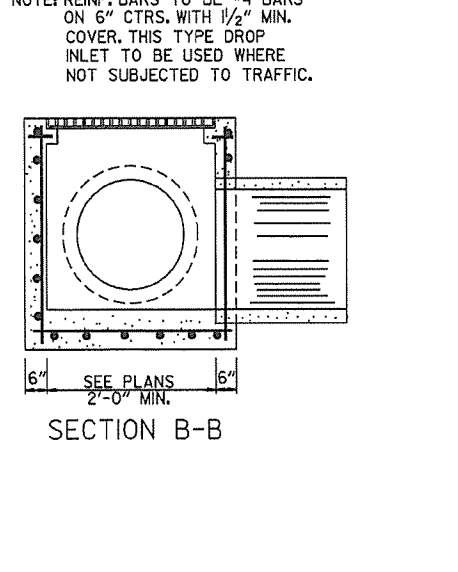
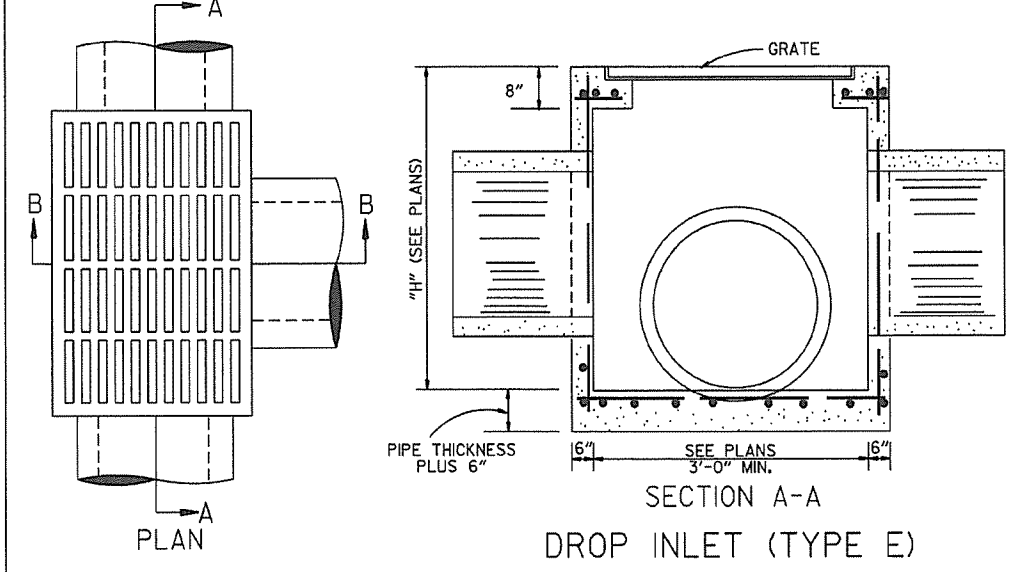
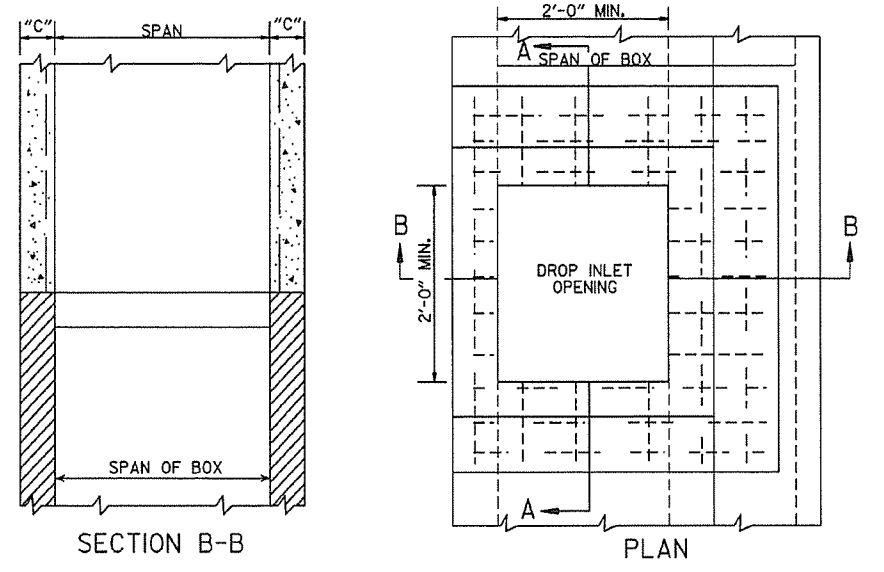
STA. 1312+50 - CONSTRUCT
 TYPE ST DROP INLET 2.5' RT. OF C.L.
 WITH 24" X 298' R.C. PIPE OUTLET
 CONNECT TO DROP INLET STA. 1312+50 LT. OF C.L.
 DROP INLET H = 5'-6"
 USE 3 VANE GRATES
 24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 2 LIN. FT.

1-49



5/14/2014

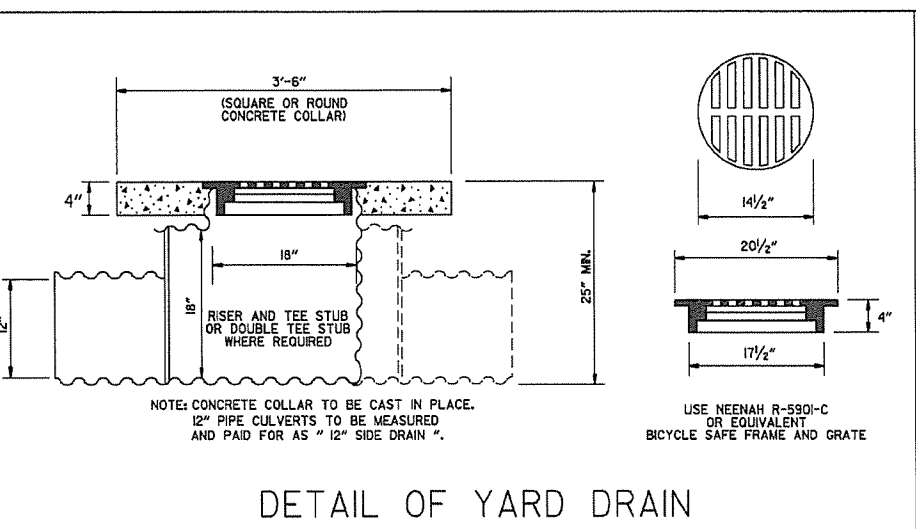
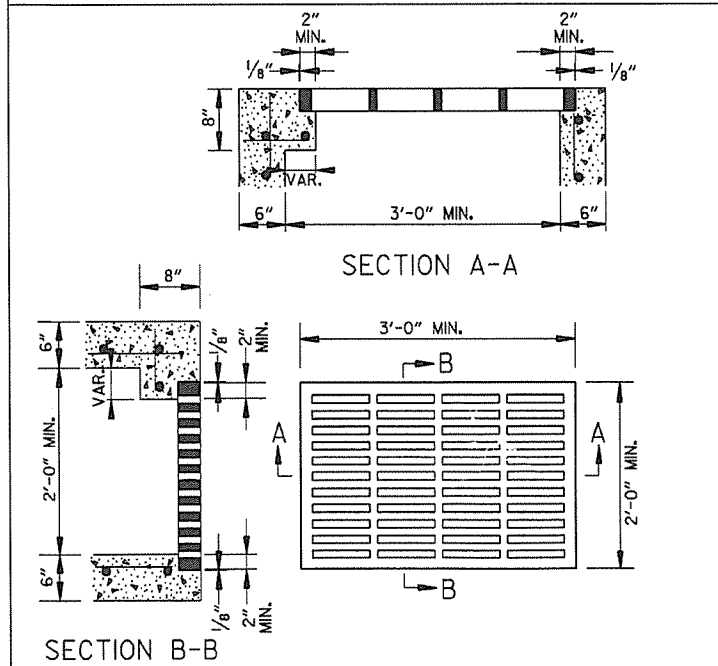
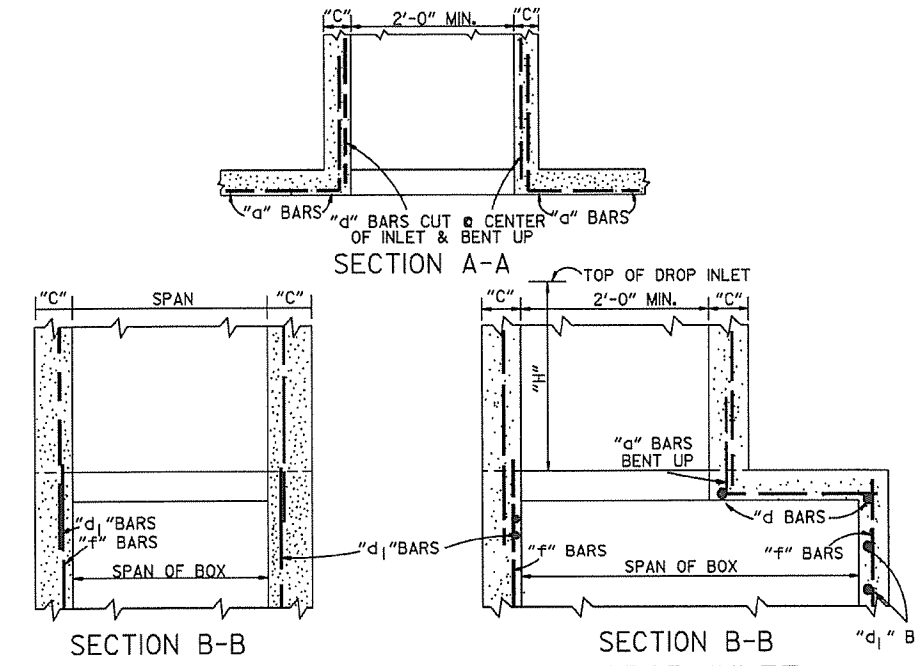
R090305.DGN



METHOD OF CONSTRUCTING DROP INLET ON EXISTING R.C. BOX CULVERT

HEAVY DUTY RING & COVER

JUNCTION BOX (TYPE E)



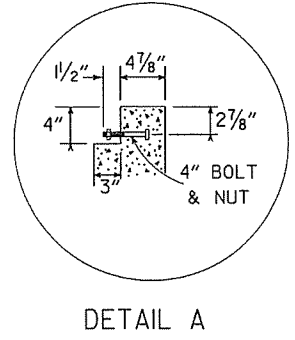
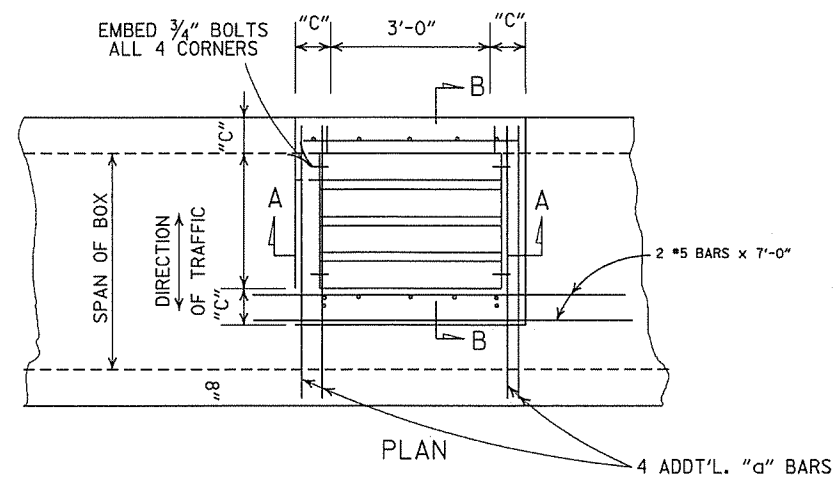
- GENERAL NOTES:
1. ALL EXPOSED CORNERS SHALL BE 3/4" CHAMFERED.
 2. STEPS SHALL BE INSTALLED ON 16" CENTERS ON ALL INLETS 4'-0" HIGH OR OVER, OR AS APPROVED BY THE ENGINEER.
 3. EXPANSION JOINT MATERIAL SHALL BE 3/4" PREFORMED FIBER.
 4. GRATE OR GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105 CLASS 35B. GRATE MAY BE USED WITHOUT FRAME.
 5. GRATE AND FRAME SHALL NOT BE PAINTED.
 6. GRATE SHALL BE BICYCLE SAFE.
 7. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
 8. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
 9. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
 10. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

DETAIL OF YARD DRAIN

DATE	REV.	REVISION	DATE FILMED
11-16-01		ADDED NOTE 10	
1-12-00		REVISED HEAVY DUTY RING & COVER	
7-02-98		CHANGED GRATE DETAIL, DELETED D(TYPE D), REPLACED RING & COVER W/HEAVY DUTY RING & COVER, ADDED JUNCTION BOX (TYPE E)	
6-26-97		ADDED DIMENSION TO TYPE IV-A	
10-18-96		ADDED DETAIL OF YARD DRAIN	
8-15-91		DELETE TYPE IV GRATE	
7-15-88		REVISED STEP DETAIL	
5-20-83		REVISED DETAILS OF GRATES (TYPE IV & IV-A)	
2-4-83		ADDED GENERAL NOTE NO. 4	
3-2-81		ADDED TYPE IV-A GRATE	
5-22-74		DELETED INLET (TYPE F) & GRATE (TYPE III)	
10-2-72		REVISED AND REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION
 DETAILS OF DROP INLETS
 & JUNCTION BOXES
 STANDARD DRAWING FPC-9

GRATE FOR TYPE E DROP INLET

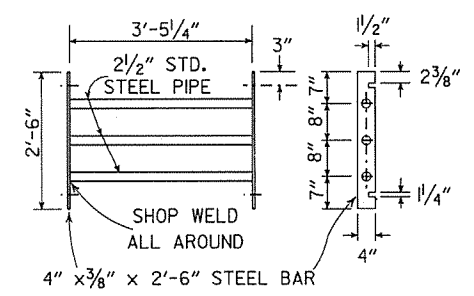
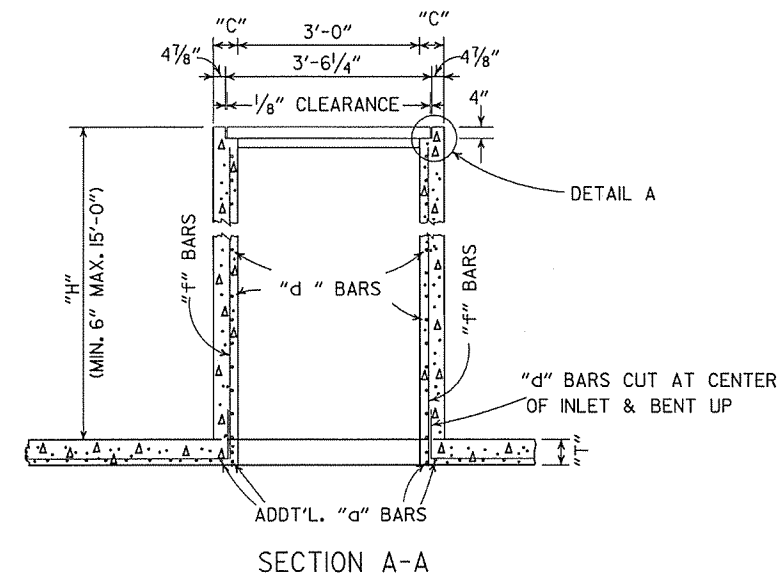


- GENERAL NOTES:
1. STEEL PIPE FOR GRATES AND BOLTS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 807. BOLTS SHALL CONFORM TO ONE OF THE FOLLOWING: ASTM A193, GRADE B8 CLASS 10R 2, ASTM A307 OR AASHTO M 164.
 2. STEEL PIPE FOR GRATES SHALL BE "STANDARD WEIGHT" PIPE CONFORMING TO ASTM A53 NATIONAL STANDARD PIPE.
 3. BOLTS, NUTS, WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 232 OR AASHTO M 298, CLASS 40 OR 50.
 4. ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER.
 5. ALL #4 AND #5 REINFORCING BARS TO HAVE 1/2" COVER. LARGER SIZES TO HAVE 2" COVER.
 6. THE COMPLETE PIPE GRATE SHALL BE PAINTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

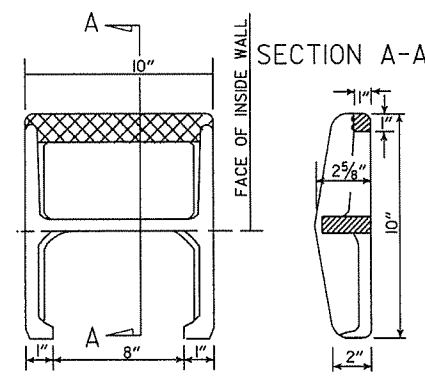
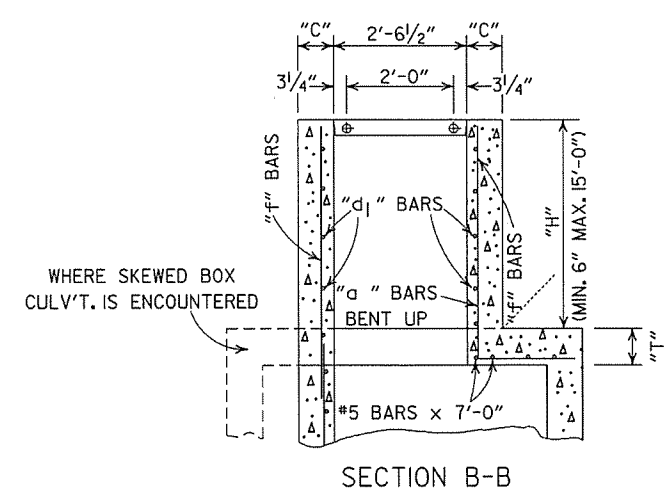
TABLE OF "W" DIMENSIONS

I.D. PIPE	SKEW OF CROSS DRAIN		
	STRAIGHT	30°	45°
24"	4'-0"	4'-0"	4'-0"
30"	4'-0"	4'-0"	4'-5"
36"	4'-0"	4'-3"	5'-3"
42"	4'-3"	4'-11"	6'-11"
48"	4'-10"	5'-7"	6'-11"

NOTE: DIMENSIONS SHOWN ABOVE ARE FOR PIPES INTERSECTING DROP INLET ON ONE SIDE ONLY. FOR SKEWED PIPES INTERSECTING BOTH SIDES OF DROP INLET, "W" WILL NEED TO BE INCREASED OR AXIS OF INTERSECTING PIPES WILL NEED TO BE SHIFTED.

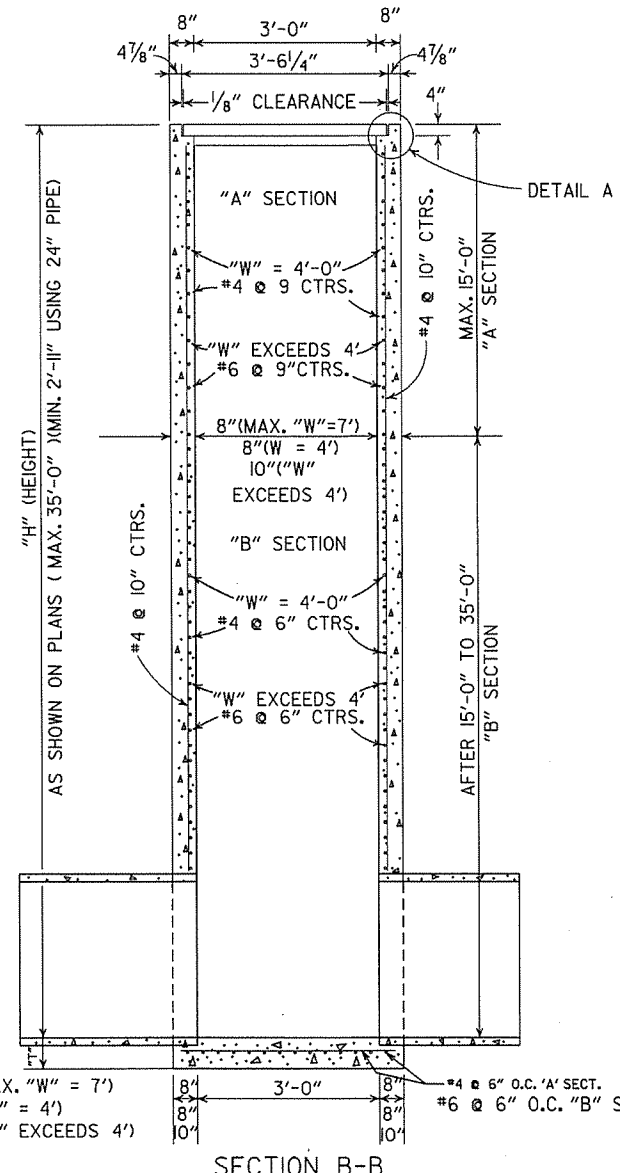


GRATE DETAIL

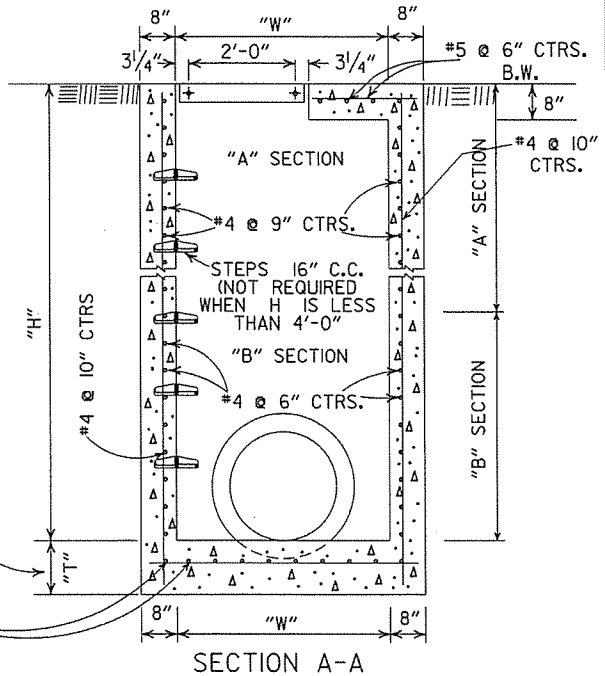
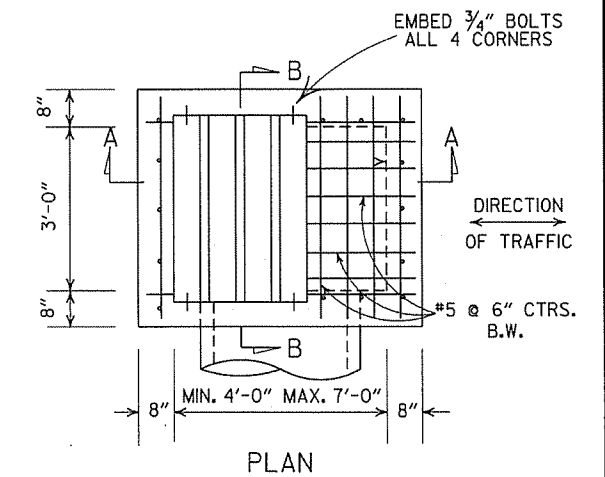


APPROX. WEIGHT = 11 LBS. (CAST IRON)
 NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

DETAIL OF STEP FOR DROP INLET



SECTION B-B DROP INLET (TYPE RM)



SECTION A-A

NOTE: ADDT'L. REINF. STEEL TO BE INCLUDED IN UNIT PRICE BID PER TYPE "TM" D.I.

DIMENSIONS & REINF. BARS FOR D.I. TO BE THE SAME AS THOSE SHOWN ON APPLICABLE STD. BARREL DRAWING FOR R.C. BOX CULVERTS.

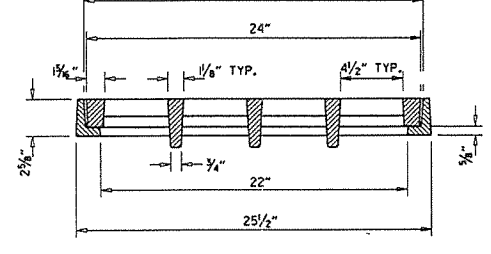
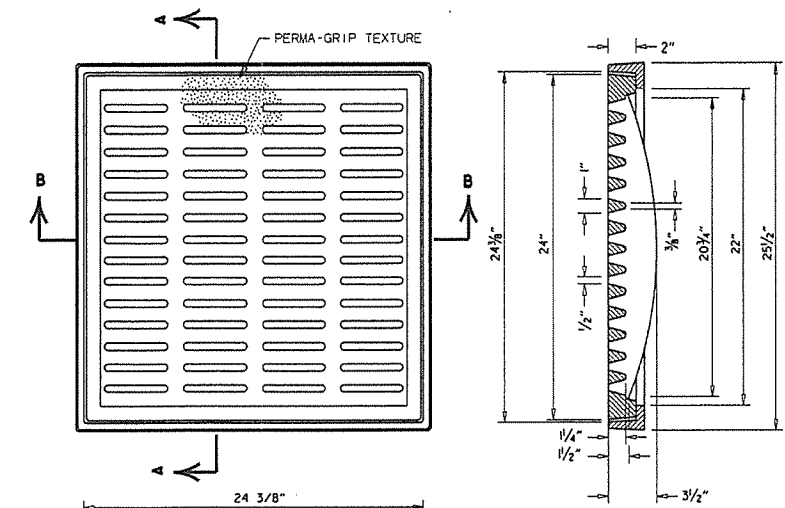
DROP INLET TYPE "TM" FOR REINFORCED CONC BOX CULVERTS

8-22-02	ADDED & REVISED DIMENSION TO SECTION A-A	
1-12-00	CORRECTED DIMENSION ON SECTION B-B	
11-06-97	ADDED DIMENSION TO SECTION A-A	
10-18-96	REVISED ASTM REF. TO AASHTO AND ADDED NOTE TO TABLE OF "W" DIMENSIONS	
10-1-92	ADDED DIRECTION OF TRAFFIC	10-1-92
8-15-91	ADDED NOTE ABOUT PAINTING OF GRATE	8-15-91
11-30-89	ALTERED DETAIL A	11-30-89
7-15-88	REVISED STEP DETAIL, TM & RM D.I. & GRATE DETAIL	7-15-88
10-2-77	REVISED AND REBROKEN	542-10-2-77

ARKANSAS STATE HIGHWAY COMMISSION

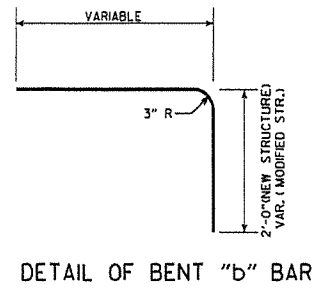
DETAILS OF DROP INLETS

STANDARD DRAWING EDC-00

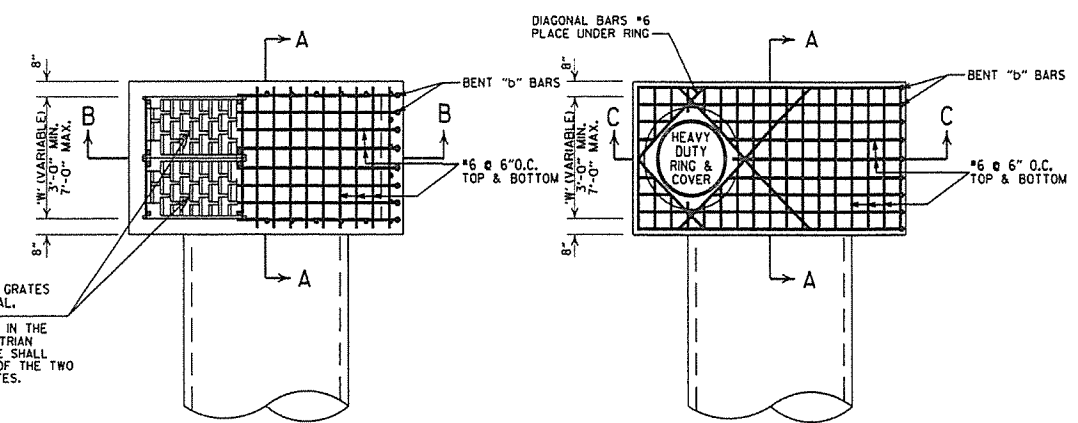


SECTION B-B
DETAILS OF PEDESTRIAN GRATE AND FRAME

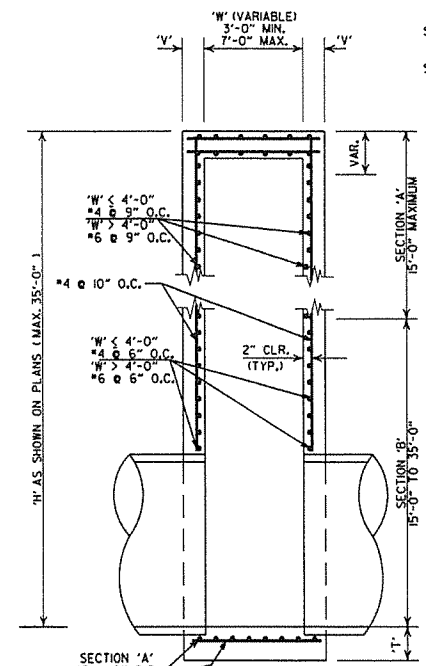
SECTION A-A
GENERAL NOTES (PEDESTRIAN GRATE & FRAME)
1. THE PEDESTRIAN GRATE SHALL BE ORIENTED IN THE TOP OF THE DROP INLET SO THAT THE 1/2" OPENINGS ARE PERPENDICULAR TO THE PATH OF PEDESTRIAN TRAVEL.
2. THE PEDESTRIAN GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B, & AASHTO M 306.
3. THE GRATE AND FRAME SHALL NOT BE PAINTED.
4. THE GRATE AND FRAME SHALL BE INSTALLED IN THE DROP INLET IN THE ASSEMBLED POSITION.
5. THE APPROXIMATE WEIGHT OF THE GRATE AND FRAME SHALL BE 21 LBS.
6. THE MINIMUM WATERWAY OPENING SHALL BE 122 SQ. IN.



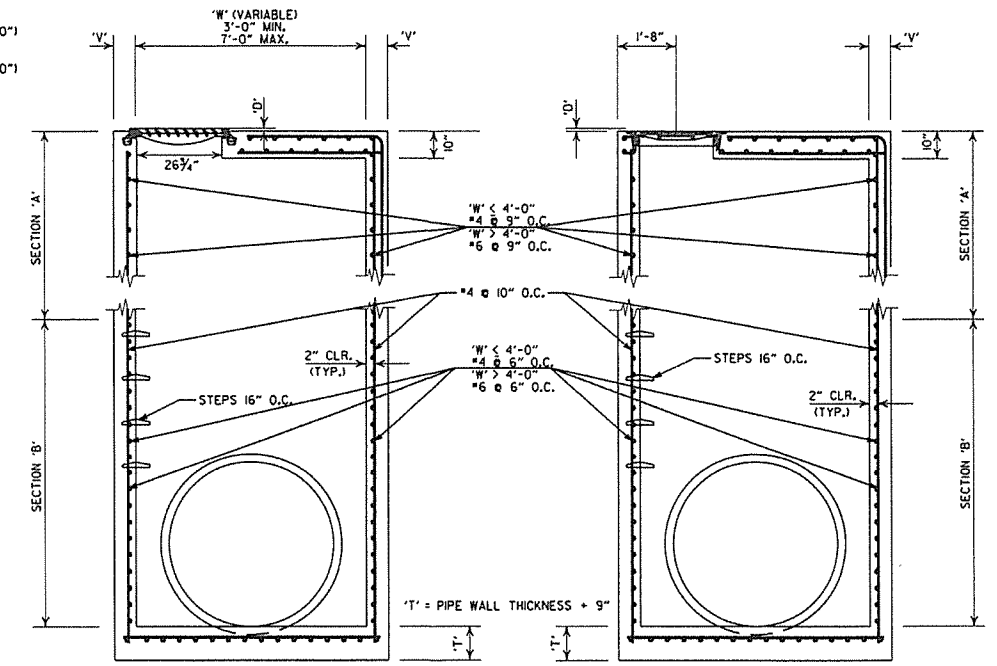
DETAIL OF BENT "b" BAR



TWO RIBBED VANE GRATES WITH FRAME NORMAL.
WHEN CALLED FOR IN THE PLANS, ONE PEDESTRIAN GRATE WITH FRAME SHALL BE USED IN LIEU OF THE TWO RIBBED VANE GRATES.

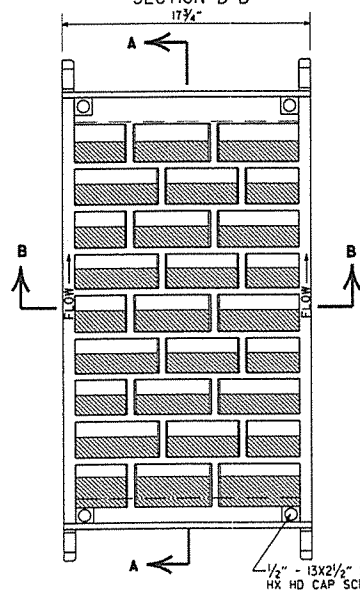
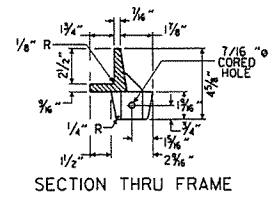
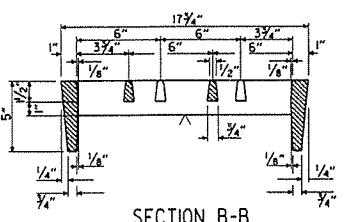


SECTION A-A
DETAILS OF DROP INLET (TYPE ST)

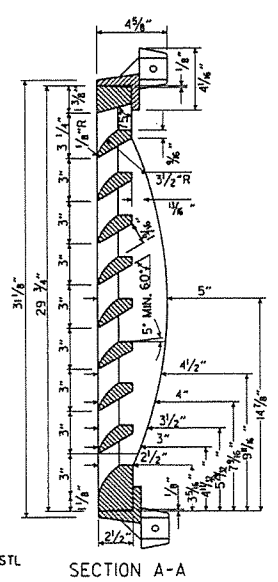


SECTION B-B
SECTION C-C
DETAILS OF JUNCTION BOX (TYPE ST)

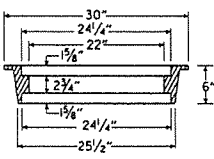
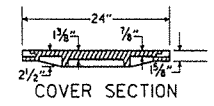
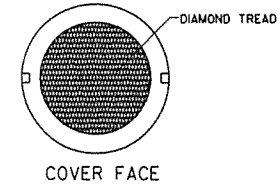
GENERAL NOTES (TYPE ST DROP INLET & JUNCTION BOX)
1. THE 'D' DIMENSION SHALL MATCH THE FINAL LIFT OF ACHM SURFACE COURSE SHOWN IN THE PLANS WHEN ASPHALT PAVING SURROUNDS THE GRATE OR RING COVER, AND SHALL BE 0" AT OTHER INSTALLATIONS.
2. THE STEPS SHALL BE OMITTED WHERE 'H' IS LESS THAN 4'-0".
3. ALL EXPOSED CORNERS ARE TO HAVE A 3/4" CHAMFER.



SECTION A-A
DETAILS OF RIBBED VANE GRATE AND FRAME



GENERAL NOTES (RIBBED VANE GRATE & FRAME)
1. RIBBED VANE GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B, & AASHTO M 306.
2. GRATE AND FRAME SHALL NOT BE PAINTED.
3. GRATE AND FRAME SHALL BE INSTALLED IN DROP INLET IN ASSEMBLED POSITION.
4. APPROXIMATE WEIGHT OF GRATE SHALL BE 170 LBS.



RING SECTION
HEAVY DUTY RING & COVER
APPROXIMATE TOTAL WEIGHT = 333 LBS.

DATE REVISED	DATE FILMED	DESCRIPTION
7-26-12		REMOVED NOTE 4, REVISED 'T', REVISED BOTTOM SLAB REBAR FOR SECTION 'A', SHOWED REBAR CLEARANCE IN SECTIONS
11-16-01		ADDED NOTE 4
1-12-00		REVISED HEAVY DUTY RING & COVER
5-13-99		ADDED PEDESTRIAN FRAME & GRATE
7-02-98		REMOVED NOTE 5, REV. DIMENSIONS, ADDED HEAVY DUTY RING & COVER ADDED AASHTO REF. REVISED GRATE
10-18-96		REVISED ASTM REF. TO AASHTO
10-1-92		REVISED & REISSUED
8-15-91	8-15-91	REVISED & REISSUED

GENERAL NOTES (HEAVY DUTY RING & COVER):
1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B, & AASHTO M 306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
4. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER, REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

ARKANSAS STATE HIGHWAY COMMISSION
DETAILS OF DROP INLET & JUNCTION BOX (TYPE ST)
STANDARD DRAWING FPC-9S



REINFORCED CONCRETE ARCH PIPE DIMENSIONS

EQUIV. DIA.	SPAN		RISE	
	AASHTO M 206	AHTD NOMINAL	AASHTO M 206	AHTD NOMINAL
INCHES	INCHES			
15	18	18	11	11
18	22	22	13 1/2	14
21	26	26	15 1/2	16
24	28 1/2	29	18	18
30	36 1/4	36	22 1/2	23
36	43 3/8	44	26 3/8	27
42	51 1/8	51	31 1/8	31
48	58 1/2	59	36	36
54	65	65	40	40
60	73	73	45	45
72	88	88	54	54
84	102	102	62	62
90	115	115	72	72
96	122	122	77 1/2	77
108	138	138	87 1/8	87
120	154	154	96 3/8	97
132	168 3/4	169	106 1/2	107

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M206.

REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE DIMENSIONS

EQUIV. DIA.	AASHTO M 207	
	SPAN	RISE
INCHES	INCHES	
18	23	14
24	30	19
27	34	22
30	38	24
33	42	27
36	45	29
39	49	32
42	53	34
48	60	38
54	68	43
60	76	48
66	83	53
72	91	58
78	98	63
84	106	68

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M207.

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. PLACE AND COMPACT THE HAUNCH AREA UP TO THE MIDDLE OF THE PIPE.
5. COMPLETE BACKFILL ACCORDING TO SUBSECTION 606.03.(F)(1).

NOTE: HAUNCH AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF CONCRETE PIPE.

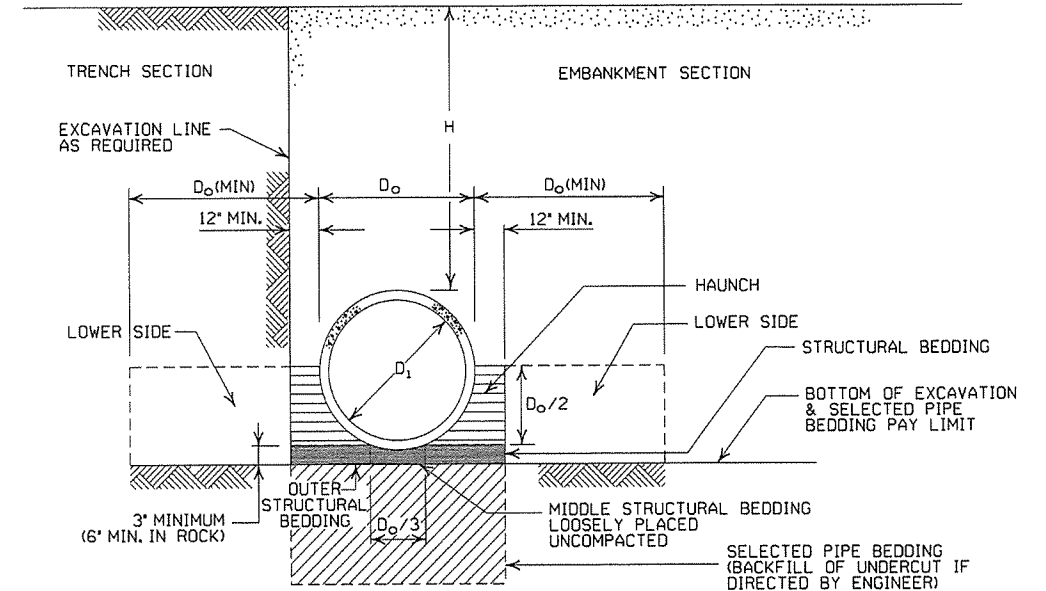
- LEGEND -

- D_i = NORMAL INSIDE DIAMETER OF PIPE
- D_o = OUTSIDE DIAMETER OF PIPE
- H = FILL COVER HEIGHT OVER PIPE (FEET)
- MIN. = MINIMUM
- [Symbol] = UNDISTURBED SOIL

INSTALLATION TYPE	MATERIAL REQUIREMENTS FOR HAUNCH AND STRUCTURAL BEDDING
TYPE 1	AGGREGATE BASE COURSE (CLASS 5 OR CLASS 7)
TYPE 2	SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4) OR TYPE 1 INSTALLATION MATERIAL*
TYPE 3**	AASHTO CLASSIFICATION A-1 THRU A-6 SOIL OR TYPE 1 OR 2 INSTALLATION MATERIAL

* SM-3 WILL NOT BE ALLOWED.

** MATERIALS SHALL NOT INCLUDE ORGANIC MATERIALS OR STONES LARGER THAN 3 INCHES.



EMBANKMENT AND TRENCH INSTALLATIONS

1. MATERIAL IN THE HAUNCH AND OUTER STRUCTURAL BEDDING SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.
2. FOR TRENCHES WITH WALLS OF NATURAL SOIL, THE DENSITY OF THE SOIL IN THE LOWER SIDE ZONE SHALL BE AS FIRM AS THE 95% DENSITY REQUIRED FOR THE HAUNCH. IF THE EXISTING SOIL DOES NOT MEET THIS CRITERIA, IT SHALL BE REMOVED AND RECOMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OF MATERIAL USED.
3. FOR EMBANKMENTS, THE MATERIAL IN THE LOWER SIDE ZONE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

GENERAL NOTES

1. CONCRETE PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION), WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS. UNLESS OTHERWISE NOTED IN THE PLANS, SECTION AND SUBSECTION REFER TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. CONCRETE PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. ALL PIPE SHALL CONFORM TO SECTION 606. CIRCULAR R.C. PIPE CULVERTS SHALL CONFORM TO AASHTO M170. R.C. ARCH PIPE CULVERTS SHALL CONFORM TO AASHTO M206 AND HORIZONTAL ELLIPTICAL PIPE CULVERTS SHALL CONFORM TO AASHTO M207.
4. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
5. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
6. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
7. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
8. NOT MORE THAN ONE LIFTING HOLE MAY BE PROVIDED IN CONCRETE PIPE TO FACILITATE HANDLING. HOLE MAY BE CAST IN PLACE, CUT INTO THE FRESH CONCRETE AFTER FORMS ARE REMOVED, OR DRILLED. THE HOLE SHALL NOT BE MORE THAN TWO INCHES IN DIAMETER OR TWO INCHES SQUARE. CUTTING OR DISPLACEMENT OF REINFORCEMENT WILL NOT BE PERMITTED. SPALLED AREAS AROUND THE HOLE SHALL BE REPAIRED IN A WORKMANLIKE MANNER. LIFTING HOLE SHALL BE FILLED WITH MORTAR, CONCRETE, OR OTHER METHOD AS APPROVED BY THE ENGINEER.
9. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
10. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS THE HAUNCH), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."

MINIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE			
	CLASS III		CLASS IV	CLASS V
PIPE ID (IN.)	TYPE 1 OR 2	TYPE 3	ALL	ALL
	FEET			
12-15	2	2.5	2	1
18-24	2.5	3	2	1
27-33	3	4	2	1
36-42	3.5	5	2	1
48	4.5	5.5	2	1
54-60	5	7	2	1
66-78	6	8	2	1
84-108	7.5	8	2	1

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

MAXIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE		
	CLASS III	CLASS IV	CLASS V
	FEET		
TYPE 1	21	32	50
TYPE 2	16	25	39
TYPE 3	12	20	30

NOTE: IF FILL HEIGHT EXCEEDS 50 FEET, A SPECIAL DESIGN CONCRETE PIPE WILL BE REQUIRED USING TYPE 1 INSTALLATION.

MINIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE	
	CLASS III	CLASS IV
	FEET	
TYPE 2 OR TYPE 3	2.5	1.5

NOTE: TYPE 1 INSTALLATION WILL NOT BE ALLOWED FOR ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS.

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

MAXIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE	
	CLASS III	CLASS IV
	FEET	
TYPE 2	13	21
TYPE 3	10	16

NOTE: TYPE 1 INSTALLATION WILL NOT BE ALLOWED FOR ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS.

DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REVISED FOR LRFD DESIGN SPECIFICATIONS	
5-18-00	REVISED TYPE 3 BEDDING & ADDED NOTE	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

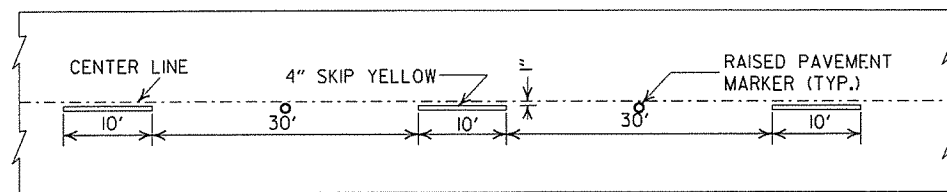
ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE PIPE CULVERT
FILL HEIGHTS & BEDDING

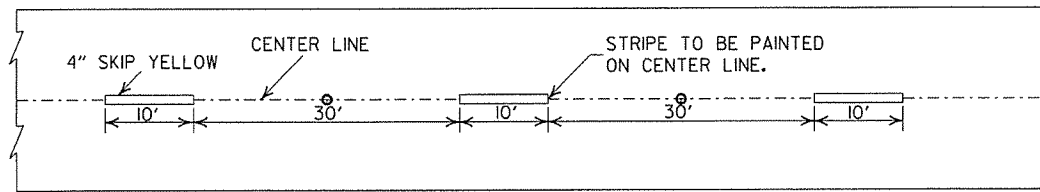
STANDARD DRAWING PCC-1

NOTES:

1. ALL LINES SHALL HAVE A WIDTH OF 4 INCHES.
2. THE THICKNESS AND RATE OF PAINT APPLICATION SHALL BE AS SPECIFIED IN SECTION 718 OF THE STANDARD SPECIFICATIONS.
3. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
4. RAISED PAVEMENT MARKERS SHALL BE CENTERED BETWEEN SKIP LINES ON 40 FEET SPACING UNLESS OTHERWISE SHOWN ON THE PLANS.

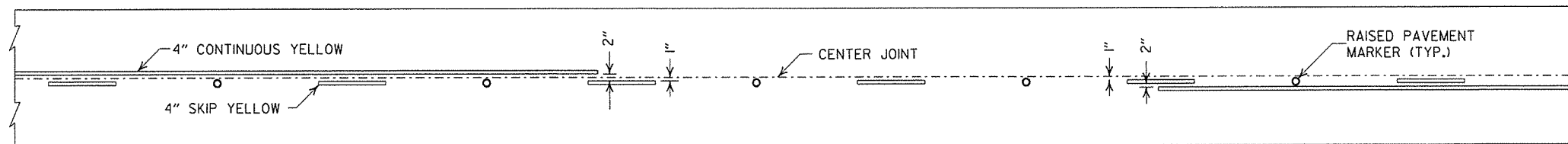


CONCRETE PAVEMENT

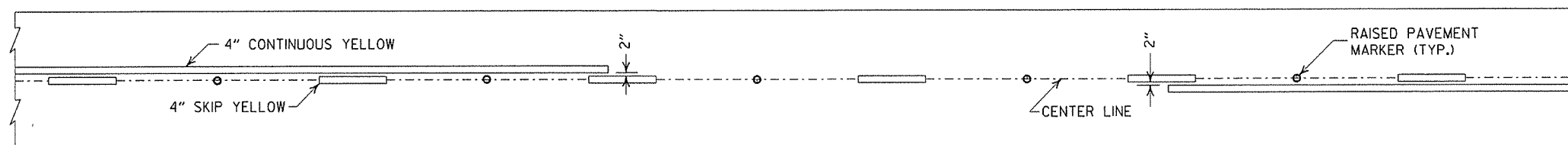


ASPHALT PAVEMENT

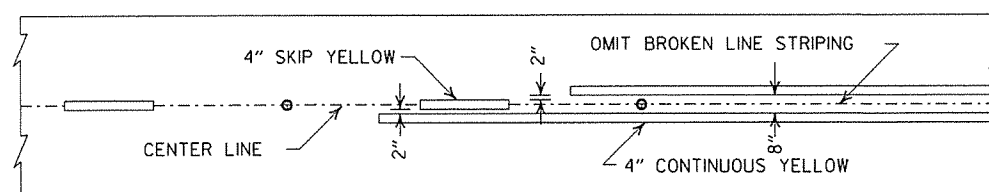
BROKEN LINE STRIPING



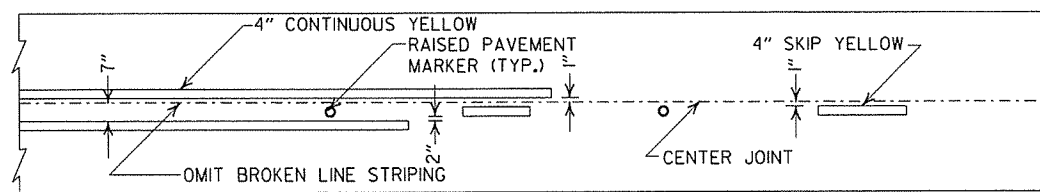
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT



ASPHALT PAVEMENT



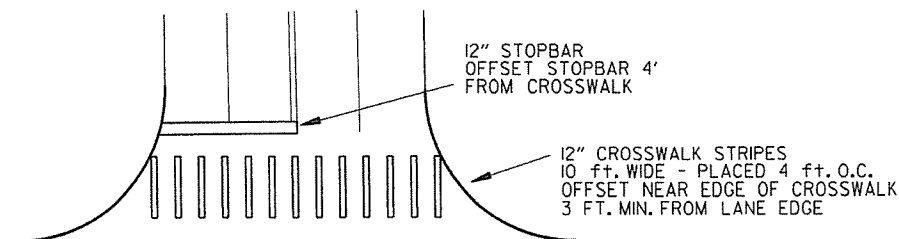
CONCRETE PAVEMENT

STRIPING AT ADJACENT NO PASSING LANES

GENERAL NOTES:
THIS DRAWING SHOULD BE CONSIDERED AS TYPICAL ONLY AND THE FINAL LOCATION OF THE STRIPING AND RAISED PAVEMENT MARKERS SHALL BE DETERMINED BY THE ENGINEER.

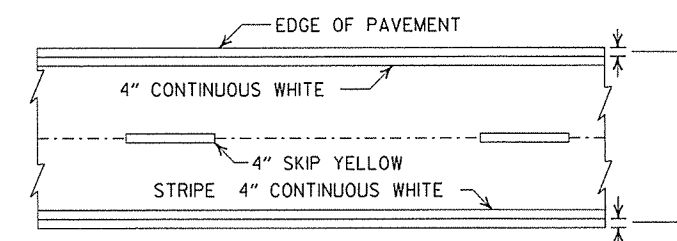
THIS DRAWING SHOULD BE USED IN CONJUNCTION WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST REVISION.

NOTE:
DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AHTD QUALIFIED PRODUCTS LIST.

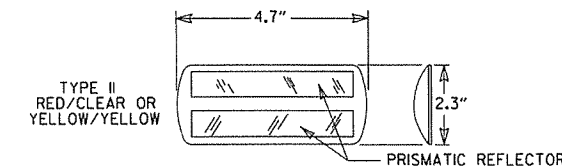


CROSSWALK AND STOPBAR DETAILS

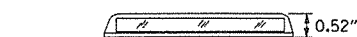
2" FOR ASPHALT OR CONCRETE PAVEMENT
6" FOR BITUMINOUS SURFACE TREATMENT



PAVEMENT EDGE LINE MARKING



NOTE:
THE RED LENS OF THE TYPE II R.P.M. SHALL FACE THE INCORRECT TRAFFIC MOVEMENT.



DETAIL OF STANDARD RAISED PAVEMENT MARKERS

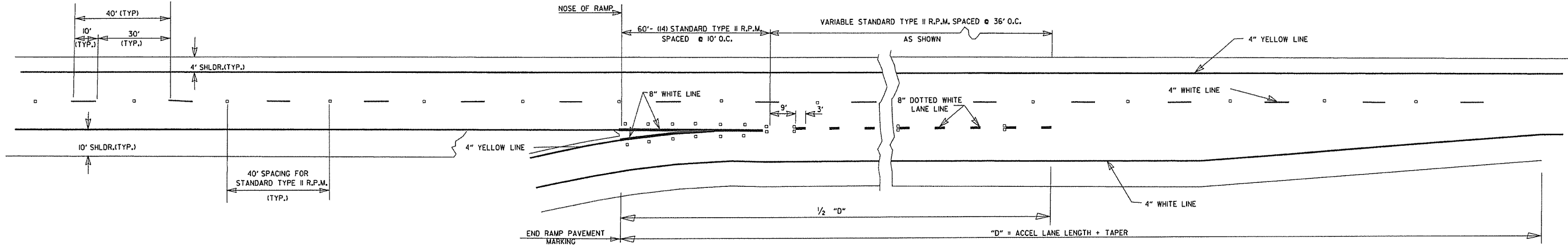
DATE	REVISION	FILMED
9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
11-17-10	REVISED GENERAL NOTES & REMOVED FLOWABLE PVMT MRKRS	
11-18-04	REVISED NOTE 2 & GENERAL NOTES	
8-22-02	ADDED CROSSWALK & STOPBAR DTLS.	
7-02-98	ADDED DETAILS OF STD. RAISED PAV'T. MARKERS	
4-26-96	REV. NOTES 3&4; ADDED R.P.M.	
9-30-80	DRAWN	1-9-30-80

ARKANSAS STATE HIGHWAY COMMISSION	
PAVEMENT MARKING DETAILS	
STANDARD DRAWING PM-1	

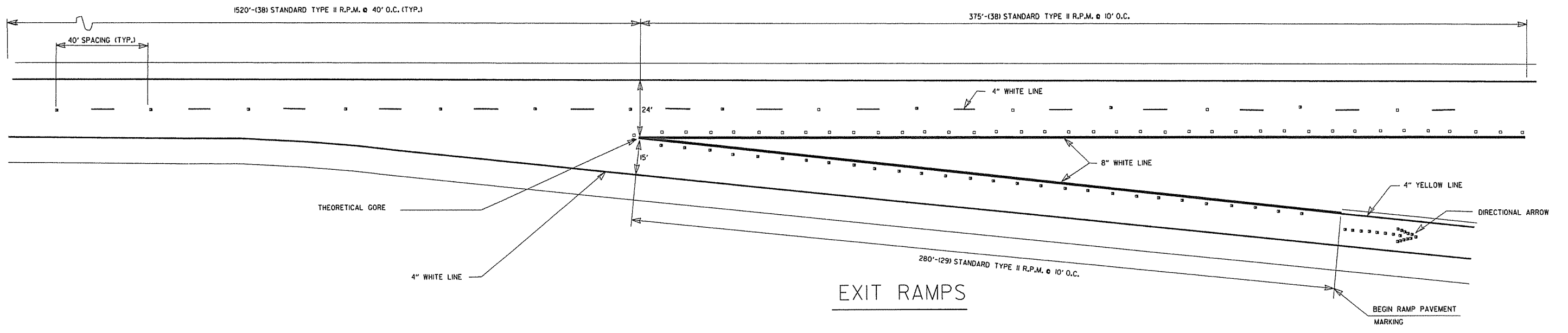
PAVEMENT MARKING QUANTITIES
(BASED ON 700' ACCEL. LANE + 300' TAPER)

ENTRANCE RAMP
 8" WHITE = 228 LIN. FT.
 RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH

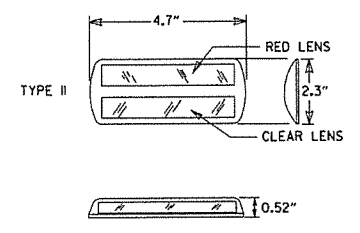
EXIT RAMP
 4" WHITE = 280 LIN. FT.
 8" WHITE = 655 LIN. FT.
 RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH
 RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 48 EACH
 RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH



ENTRANCE RAMPS

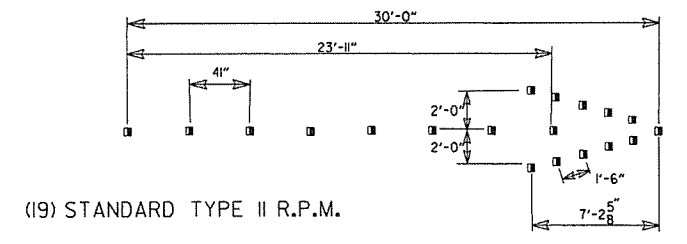


EXIT RAMPS



DETAIL OF STANDARD RAISED PAVEMENT MARKERS

NOTE: THE RED LENS OF THE TYPE II R.P.M. SHALL



(19) STANDARD TYPE II R.P.M. DIRECTIONAL ARROWS

GENERAL NOTES:
 THIS DRAWING SHOULD BE CONSIDERED AS TYPICAL ONLY AND THE FINAL LOCATION OF THE STRIPING AND PAVEMENT MARKERS SHALL BE DETERMINED BY THE ENGINEER.

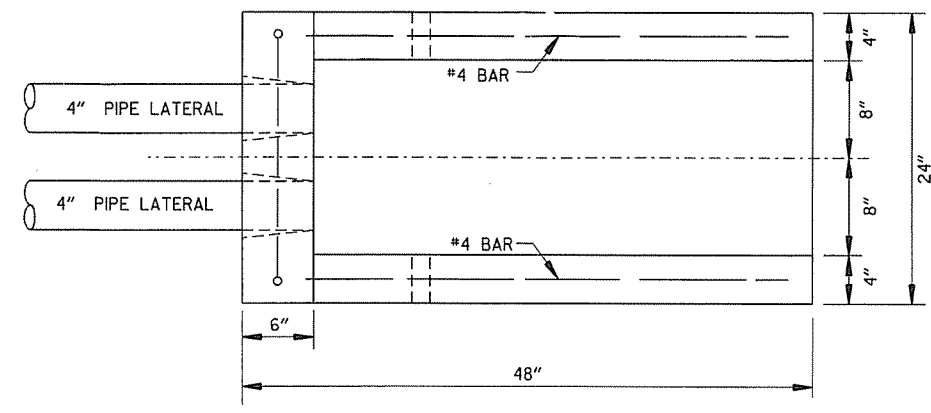
THIS DRAWING SHOULD BE USED IN CONJUNCTION WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST REVISION.

NOTE:
 DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AHTD QUALIFIED PRODUCTS LIST.

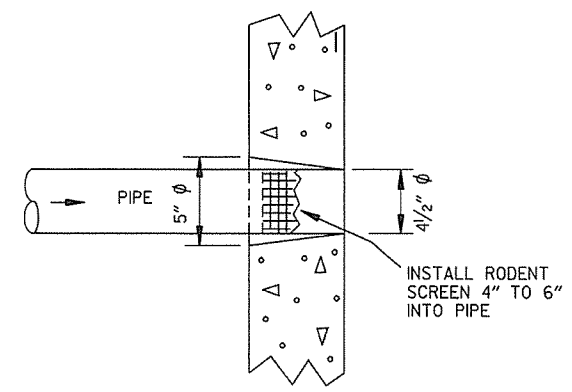
9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
7-26-12	REVISED RPM NOTATION	
12-15-11	REVISED RPMs ACCORDING TO LATEST POLICY	
11-17-10	REMOVED PLOWABLE PAVEMENT MARKERS	
6-3-10	REVISED PER 2009 MUTCD	
11-18-04	REVISED NOTES	
8-22-02	ADDED & REVISED NOTES; REV. ENTRANCE & EXIT RAMPS	
5-18-00	REMOVED HASHMARKS	
7-02-98	CHANGED TYPES TO ROMAN NUMERALS	
4-26-96	ADDED DIMENSIONS & QUANTITIES; REVISED LANE WIDTH ON EXIT RAMP	
2-2-95	PLACED IN USE	2-2-95

ARKANSAS STATE HIGHWAY COMMISSION
 PERMANENT PAVEMENT MARKING
 ON ACCESS CONTROLLED ROADWAYS

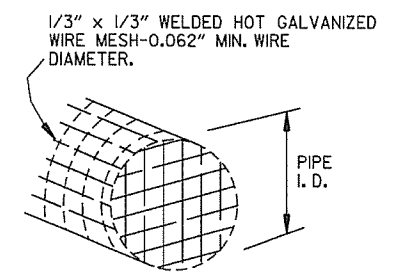
NOTE:
 1. GRANULAR BACKFILL TO BE SUBSIDIARY TO PIPE UNDERDRAIN.
 2. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO PIPE UNDERDRAIN.
 3. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC, LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.



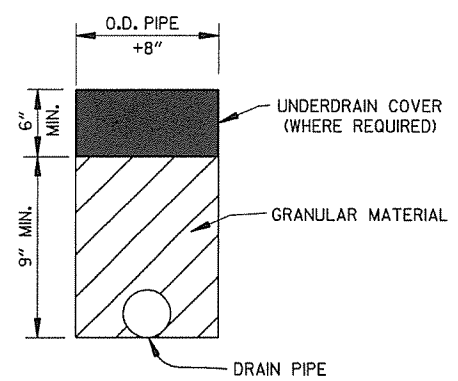
PLAN VIEW



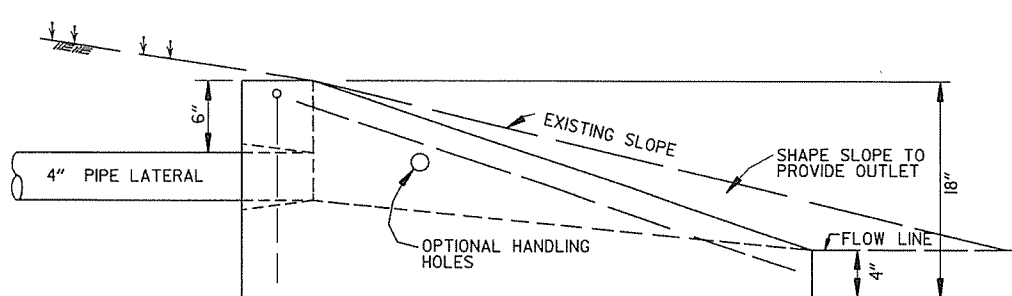
DETAIL OF HOLE FOR 4" PIPE



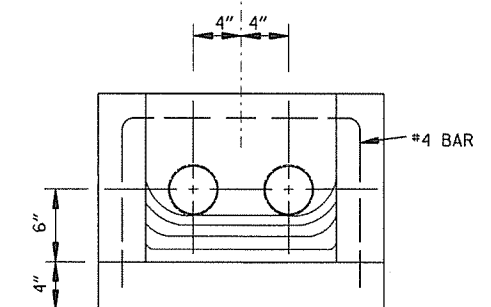
DETAIL OF RODENT SCREEN



DETAILS OF PIPE UNDERDRAIN



SIDE VIEW

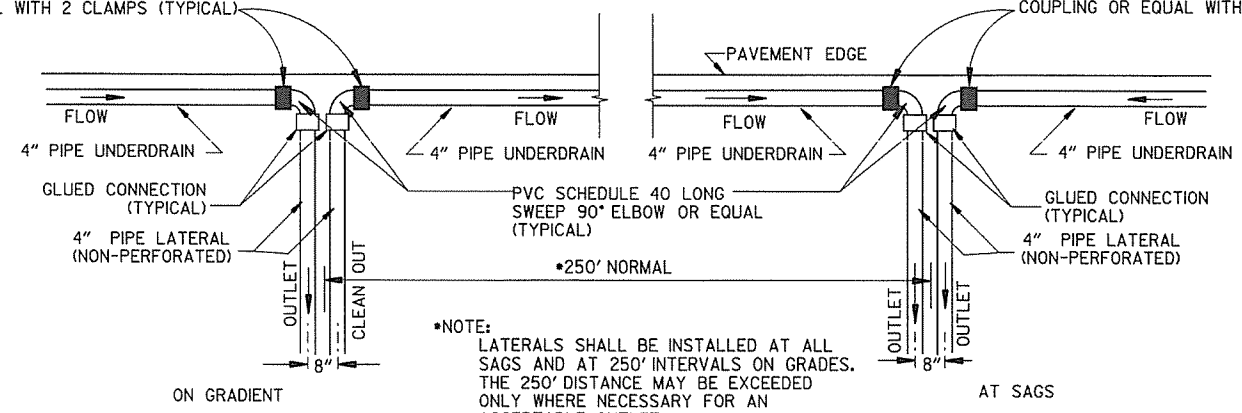


FRONT VIEW

FERNCO 1056-44 (4" CI/PLASTIC) OR FERNCO 1051-44 (4" AC/DIOR 4" CI/PLASTIC) COUPLING OR EQUAL WITH 2 CLAMPS (TYPICAL)

UNDERDRAIN OUTLET PROTECTORS

FERNCO 1056-44 (4" CI/PLASTIC) OR FERNCO 1051-44 (4" AC/DIOR 4" CI/PLASTIC) COUPLING OR EQUAL WITH 2 CLAMPS (TYPICAL)



*NOTE:
 LATERALS SHALL BE INSTALLED AT ALL SAGS AND AT 250' INTERVALS ON GRADES. THE 250' DISTANCE MAY BE EXCEEDED ONLY WHERE NECESSARY FOR AN ACCEPTABLE OUTLET.

DETAIL OF PIPE UNDERDRAIN LATERALS WHEN PLACED ALONG PAVEMENT EDGE

*NOTE: PVC PIPE FOR LATERALS SHALL MEET THE REQUIREMENTS OF ASTM D 1785 (LATEST REVISION) FOR SCHEDULE 40 PIPE.

4-10-03	REVISED NOTE 3	
1-12-00	REVISED DETAIL OF UNDERDRAIN LATERALS	
11-18-98	REVISED NOTE	
10-18-96	REVISED MIN. DEPTH & GEOTEXTILE FABRIC	
4-26-96	ADDED LATERAL NOTE; 5 1/2" TO 5"	
11-22-95	REVISED LATERALS	
7-20-95	REVISED LATERALS & ADDED NOTE	
11-3-94	REVISED FOR DUAL LATERALS	11-3-94
10-1-92	SUBSTITUTED GEOTEXTILE	10-1-92
8-15-91	ADDED POLYETHYLENE PIPE	8-15-91
11-8-90	DELETED ALTERNATE NOTE	11-8-90
1-25-90	ADDED 4" SNAP ADAPTER	1-25-90
11-30-89	DEL. (SUBGRADE); ADDED (WHERE REQUIRED)	11-30-89
7-15-88	ISSUED P.L.M.	647-7-15-88
DATE	REVISION	DATE FILMED

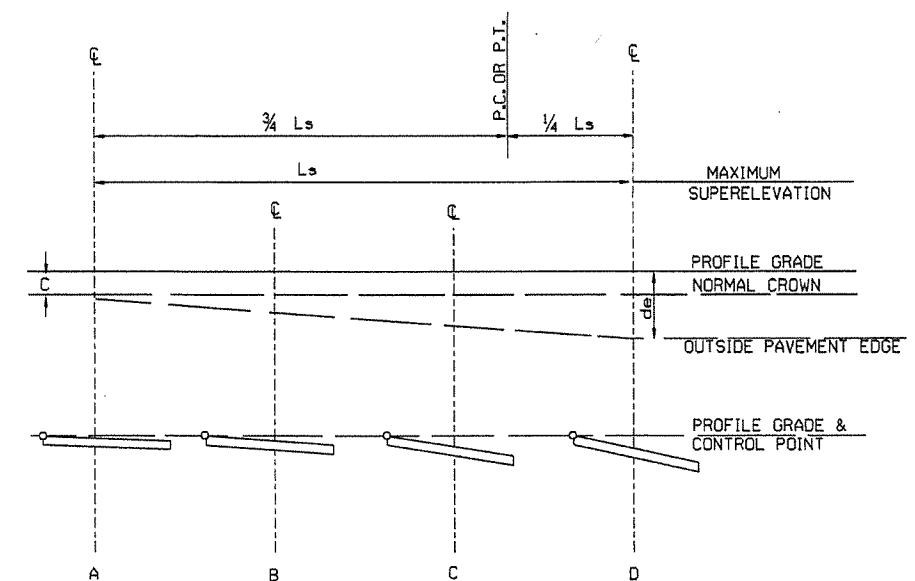
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF PIPE UNDERDRAIN

STANDARD DRAWING PU-1

SUPERELEVATION TABLE FOR ONE - WAY TRAFFIC

DEGREE OF CURVE	30 MPH		40 MPH		50 MPH		55 MPH		60 MPH		65 MPH		70 MPH	
	Ls (FT)		Ls (FT)		Ls (FT)		Ls (FT)		Ls (FT)		Ls (FT)		Ls (FT)	
	MINIMUM	DESIRABLE	MINIMUM	DESIRABLE	MINIMUM	DESIRABLE	MINIMUM	DESIRABLE	MINIMUM	DESIRABLE	MINIMUM	DESIRABLE	MINIMUM	DESIRABLE
0° 15'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
0° 30'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
0° 45'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
1° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
1° 15'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
1° 30'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
1° 45'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
2° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
2° 15'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
2° 30'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
2° 45'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
3° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
3° 15'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
3° 30'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
3° 45'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
4° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
4° 30'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
5° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
6° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
7° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
8° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
9° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
10° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
11° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
12° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
13° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
14° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
15° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
16° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
17° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
18° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
19° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
20° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
21° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
22° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
23° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
24° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	



SUPERELEVATION FORMULA = $S = - \frac{L(d_e - C)}{L_s} - C$

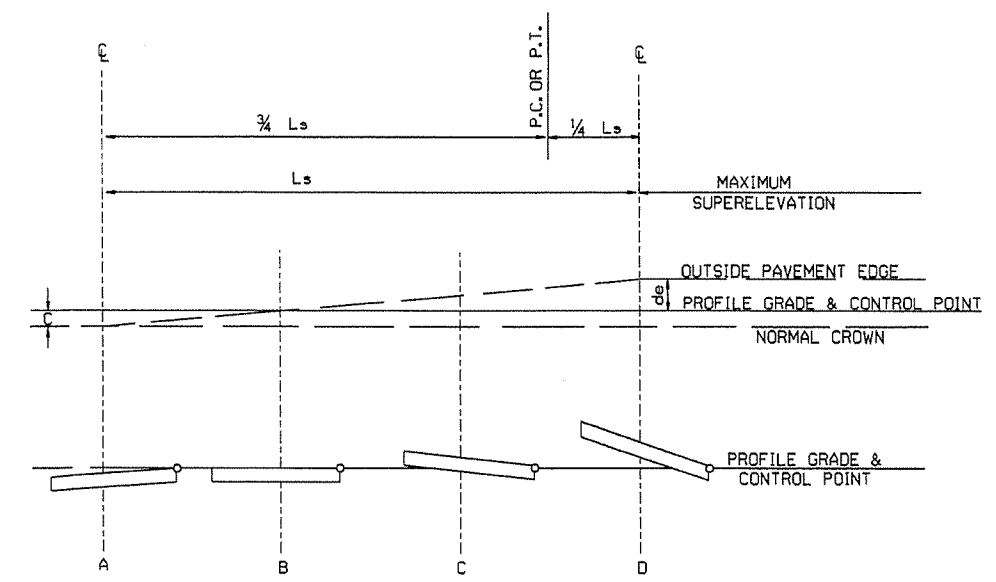
ABBREVIATIONS

- NC - NORMAL CROWN
- RC - REVERSE CROWN, SUPERELEVATION AT NORMAL CROWN SLOPE
- S - SUPERELEVATION
- L - DISTANCE FROM BEGINNING OF SUPERELEVATION TRANSITION TO ANY POINT (FT.)
- d - WIDTH OF PAVEMENT
- e - MAXIMUM RATE OF SUPERELEVATION (FT. PER FT.)
- Ls - LENGTH OF SUPERELEVATION TRANSITION (FT.)
- C - NORMAL CROWN (FT.)

GENERAL NOTES

- ON PAVEMENT WITH ONE-WAY TRAFFIC, THE SUPERELEVATION SHALL BE REVOLVED ON THE PROFILE GRADE POINT.
- SUPERELEVATION VALUES SHOWN ON THE CROSS SECTIONS ARE VALUES (+) OR (-) TO BE ADDED OR SUBTRACTED FROM THE POINT OF CONTROL.
- LENGTHS FOR Ls MAY BE ROUNDED IN MULTIPLES OF 25 FT. OR 50 FT. TO PERMIT SIMPLER CALCULATIONS.
- MINIMUM Ls VALUES MAY BE USED FOR RAMPS; DESIRABLE VALUES SHALL APPLY TO MAIN LANES.
- DIVIDED PAVEMENTS WIDER THAN 4 LANES SHALL HAVE ADDITIONAL TRANSITION LENGTHS AS FOLLOWS:


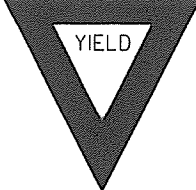
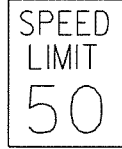
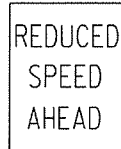



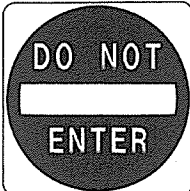

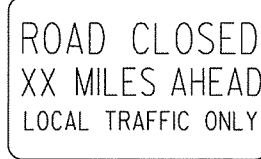
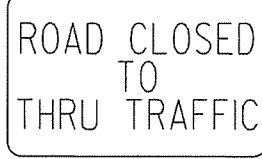

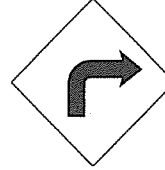
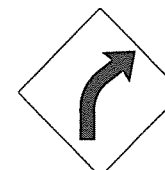
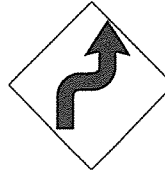
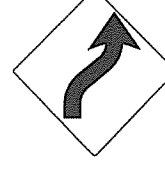
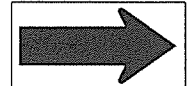
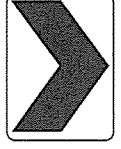
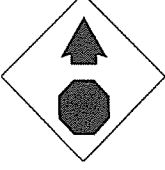
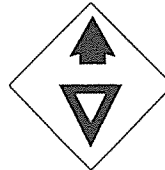
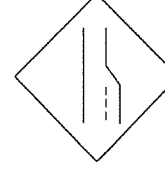



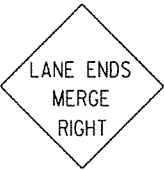


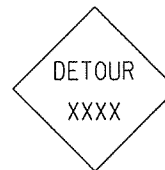

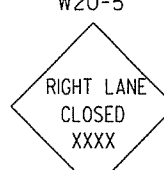


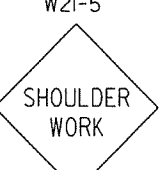
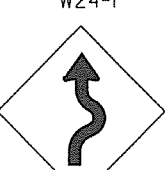

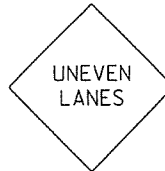
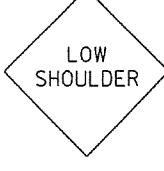
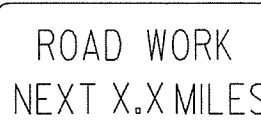
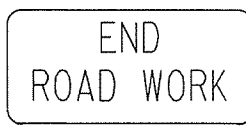
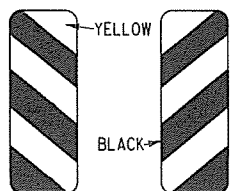
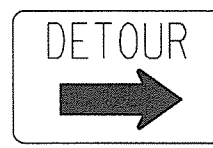
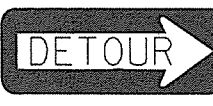
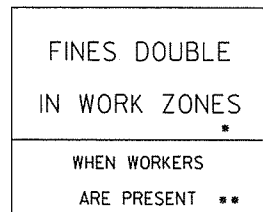
6 LANE DIVIDED-----+20%
8 LANE DIVIDED-----+50%



SUPERELEVATION FORMULA = $S = + \frac{L(d_e + C)}{L_s} - C$

01-09-87	ISSUED	578-1-15-87
DATE	REVISION	DATE FILMED

ARKANSAS STATE HIGHWAY COMMISSION
TABLES AND METHOD OF SUPERELEVATION FOR ONE-WAY TRAFFIC
STANDARD DRAWING SE-1

<p>RI-1</p>  <p>STANDARD 30"x30" EXPRESSWAY 36"x36" SPECIAL 48"x48"</p>	<p>RI-2</p>  <p>STD. 36"x36"x36" EXPWY. 48"x48"x48" FWY. 60"x60"x60"</p>	<p>R2-1</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>R2-5A</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>R2-5C</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>R4-1</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>R4-2</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>
<p>R5-1</p>  <p>STD. 30"x30" EXPWY. 36"x36" SPECIAL 48"x48"</p>	<p>R11-2</p>  <p>48"x30"</p>	<p>R11-3A</p>  <p>60"x30"</p>	<p>R11-4</p>  <p>60"x30"</p>	<p>RSP-1</p>  <p>48"x30"</p>	<p>WI-1</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>WI-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>
<p>WI-3</p>  <p>STD. 48"x48"</p>	<p>WI-4</p>  <p>STD. 48"x48"</p>	<p>WI-6</p>  <p>STD. 48"x24" SPECIAL 60"x30"</p>	<p>WI-8</p>  <p>STD. 18"x24" SPECIAL 24"x30" EXPWY. 30"x36" FWY. 36"x48"</p>	<p>W3-1</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W3-2</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W4-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>
<p>W5-1</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W6-3</p>  <p>EXPWY. 36"x36" SPECIAL 48"x48"</p>	<p>W8-7</p>  <p>EXPWY. 36"x36" FWY. 48"x48"</p>	<p>W9-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W13-1</p>  <p>STD. 24"x24"</p>	<p>W20-1</p>  <p>STD. 48"x48"</p>	<p>W20-2</p>  <p>STD. 48"x48"</p>
<p>W20-4</p>  <p>STD. 48"x48"</p>	<p>W20-5</p>  <p>STD. 48"x48"</p>	<p>W20-7a</p>  <p>18" 500 FEET 24" W16-2</p> <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W21-2</p>  <p>STD. 30"x30" SPECIAL 36"x36"</p>	<p>W21-5</p>  <p>STD. 30"x30" SPECIAL 36"x36"</p>	<p>W24-1</p>  <p>STD. 36"x36"</p>	<p>WI-4b</p>  <p>STD. 48"x48"</p>
<p>W8-11</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W8-9</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>G20-1</p>  <p>60"x24"</p>	<p>G20-2</p>  <p>48"x24"</p>	<p>OM-3L OM-3R</p>  <p>12"x36"</p>	<p>M4-9</p>  <p>STD. 30"x24" SPECIAL 48"x36" SPECIAL 60"x48"</p>	<p>M4-10</p>  <p>48"x18"</p>
						<p>R55-1</p>  <p>36"x60"</p> <p>• USE 6" C LETTERS</p>

ADVANCE DISTANCES (XXXX)

500 FT	1/2 MILE
1000 FT	3/4 MILE
1500 FT	1 MILE AHEAD

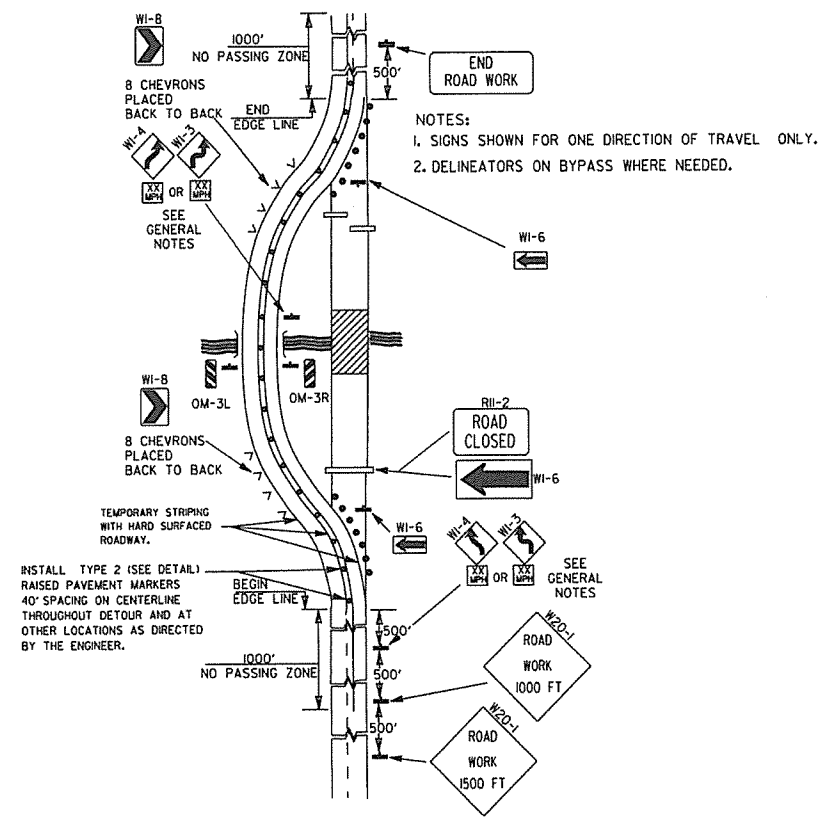
GENERAL NOTES:

- ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.
- TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER.
- EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.
- SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE.
- SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3.
- POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE.
- ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS.

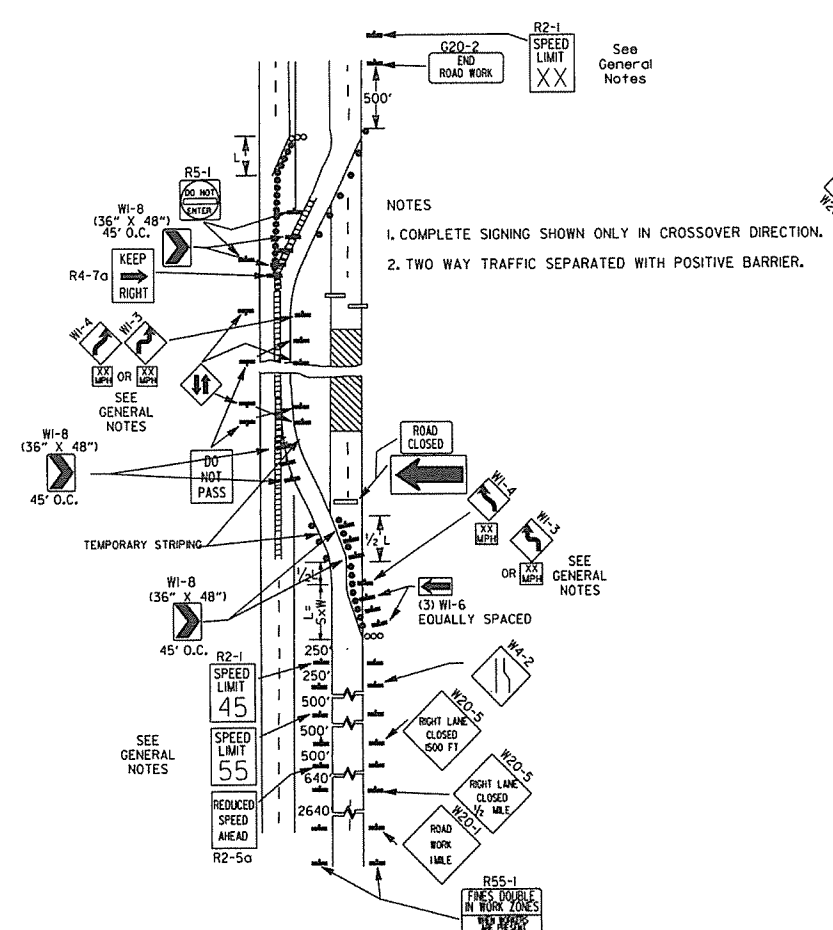
- FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
- MOST OF THE SIGNS ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT.
- R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.

• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED, COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.

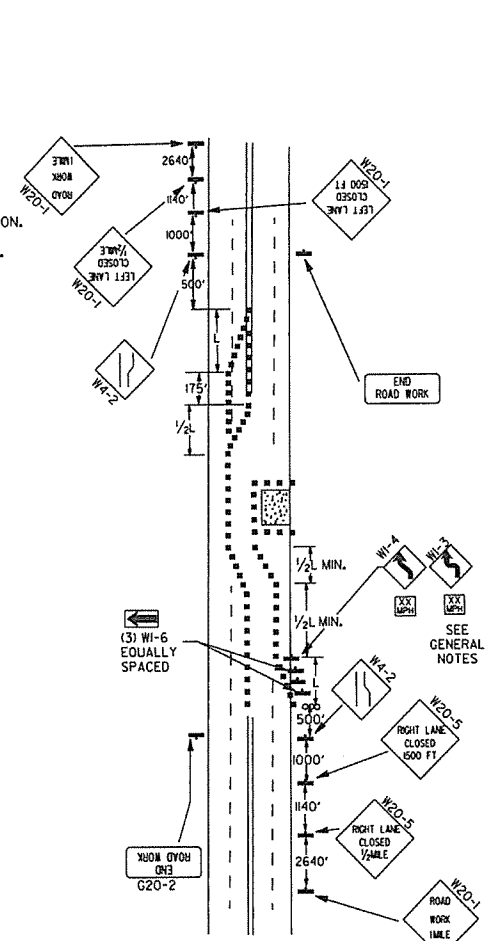
DATE	REVISION	FILMED
12-15-11	REVISED W24-1	
11-17-10	DELETED W8-9g & ADDED W8-9	
10-15-09	ADDED REFERENCE TO MASH & ADDED SIGN W24-1	
4-17-08	REVISED SIGN DESIGNATIONS	
11-18-04	REVISED NOTES	
10-9-03	REVISED NOTE 1	
11-16-01	REVISED NOTE 7	
9-28-00	REVISED NOTE	
11-18-98	ADDED NOTE	
6-26-97	REVISED NOTE 5	
4-03-97	REVISED NOTE 5	
10-18-96	ADDED CONTROLLED ACCESS HWY. SIGN & TO NOTE 7	
10-12-95	ADDED R55-1	
6-8-95	REVISED TO CORRECT SIGN ILLUSTRATIONS	6-8-95
2-2-95	REVISED PER PART VI, MUTCD SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	



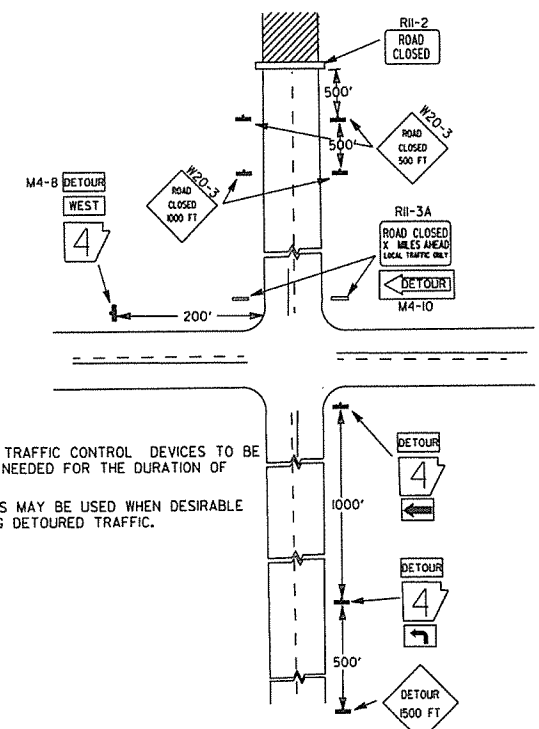
(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.



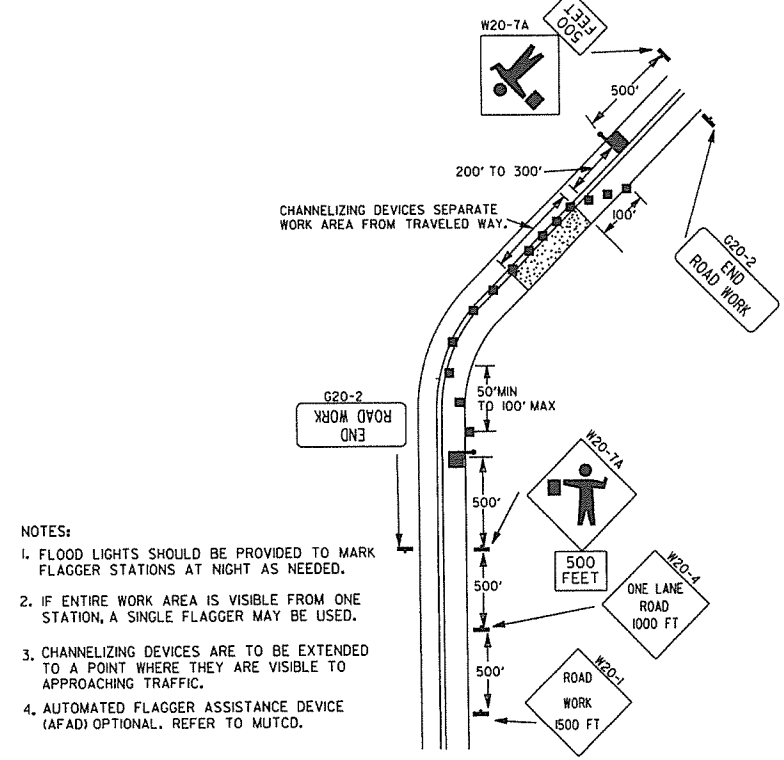
(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.



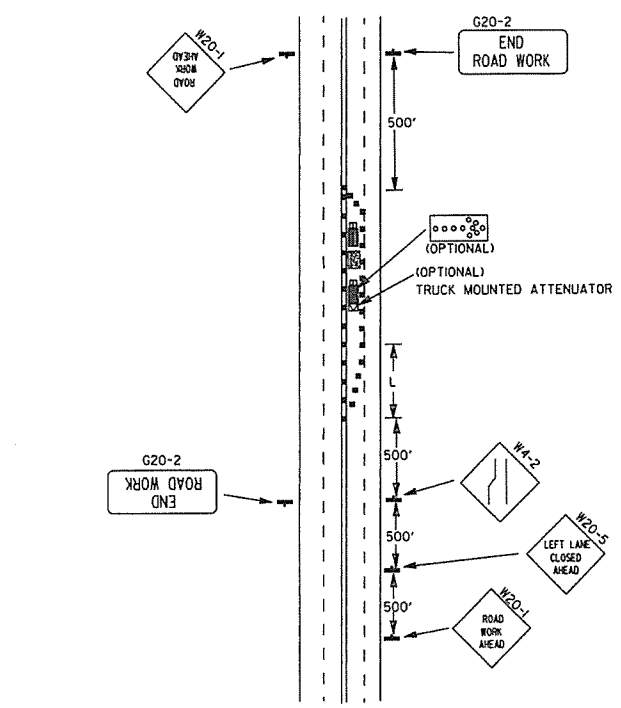
(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



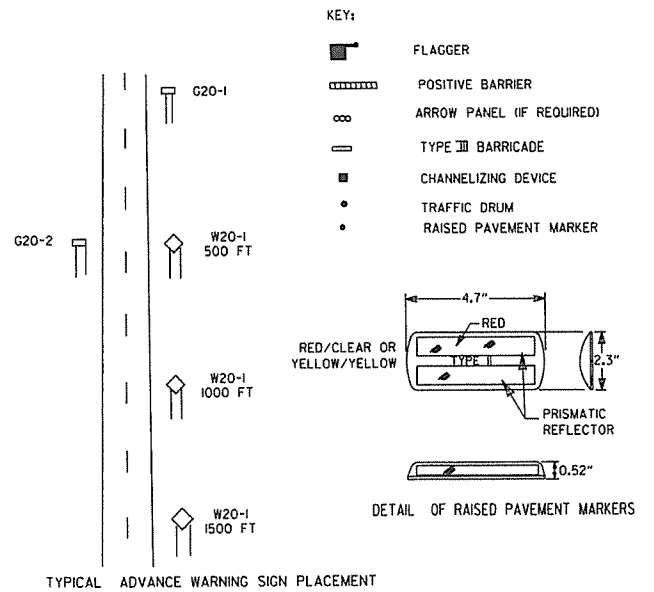
(D) TYPICAL APPLICATION - ROADWAY CLOSED BEYOND DETOUR POINT.



(E) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON 2-LANE HIGHWAY WHERE ONE LANE IS CLOSED AND FLAGGING IS PROVIDED.



(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

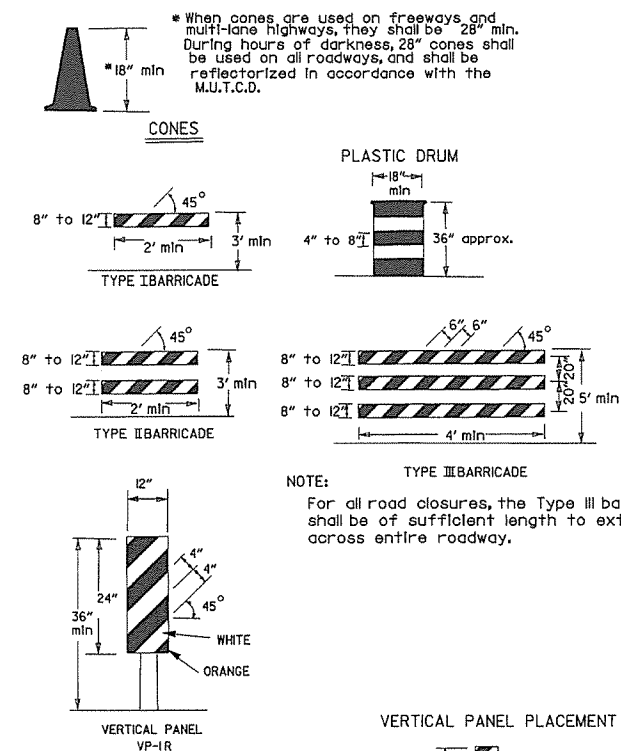


TAPER FORMULAE:
 $L = SXW$ FOR SPEEDS OF 45MPH OR MORE.
 $L = \frac{WS^2}{60}$ FOR SPEEDS OF 40MPH OR LESS.
 WHERE:
 L = MINIMUM LENGTH OF TAPER.
 S = NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.
 W = WIDTH OF OFFSET.

- GENERAL NOTES:
- ADVISORY SPEED POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS TO BE DETERMINED AT SITE. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
 - WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-(K55) SHALL BE OMITTED AND THE R2-5A SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-145MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-(KXX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
 - WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-(K65) SHALL BE OMITTED. ADDITIONAL R2-155MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-(KXX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
 - THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT, OR AS DIRECTED BY THE ENGINEER.
 - WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
 - PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
 - TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER. WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE.

DATE	REVISION	FILMED
9-12-13	REVISED DETAIL OF RAISED PAVEMENT MARKERS	
3-11-10	ADDED (AFAD)	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED GENERAL NOTE	
10-18-96	ADDED R55-1	
4-26-96	CORRECTED (a) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON W1-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

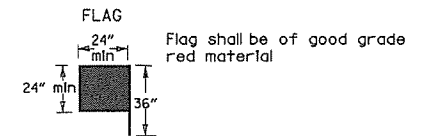
Channelizing devices



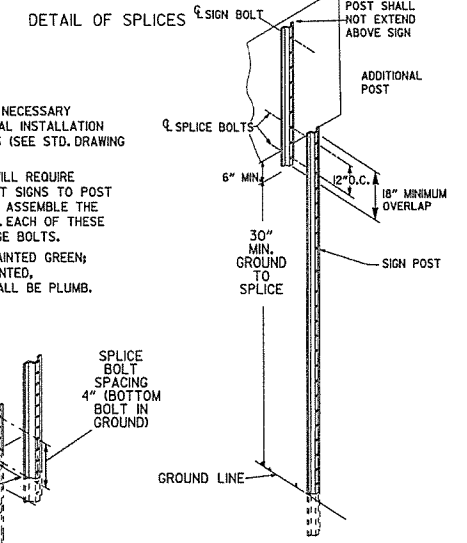
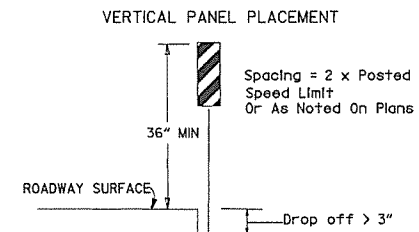
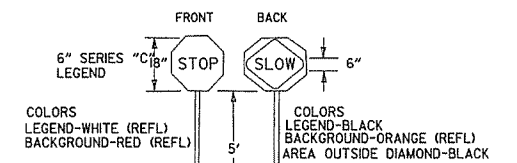
TRAFFIC CONTROL DEVICES FOR VERTICAL PAVEMENT DIFFERENTIALS

VERTICAL DIFFERENTIAL	LOCATIONS	TRAFFIC CONTROL
1" to 3"	Centerline, lane lines	W8-11
1" to 3"	Edge of shoulder	W8-9
Greater than 3"	Lane lines	Standard lane closure required
Greater than 3"	Edge of traveled lane	*RSP-land vertical panels, drums or concrete barrier
Greater than 3"	Edge of shoulder	*Vertical panels, drums or concrete barrier

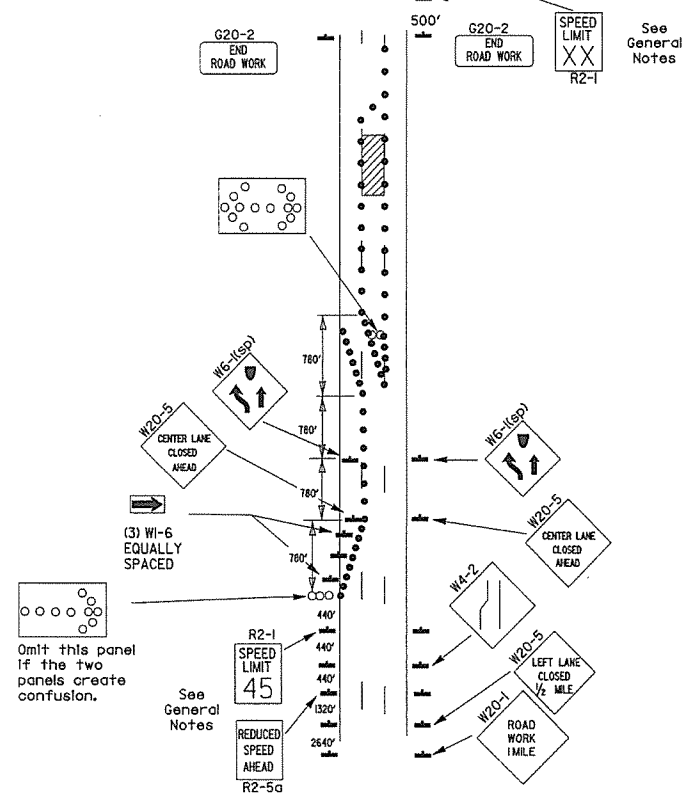
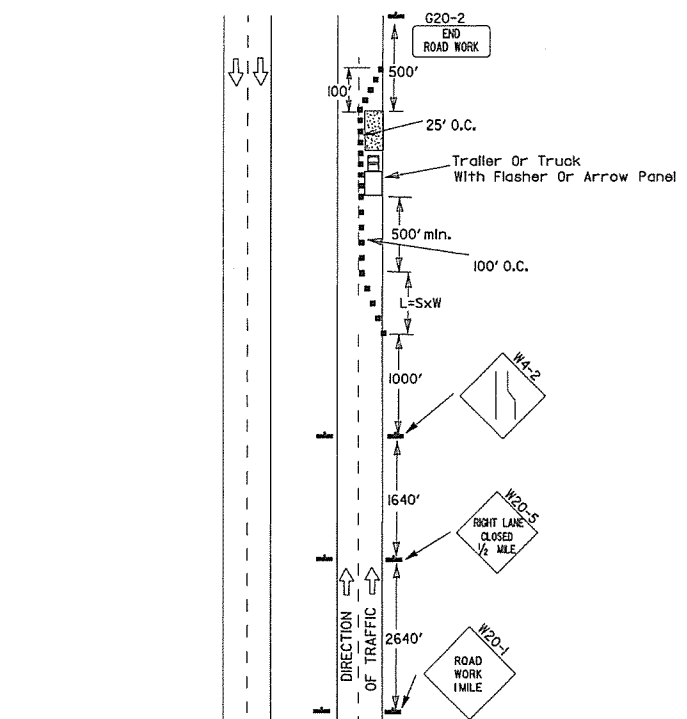
• When shown on the plans concrete barrier will be used. When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.



STOP SLOW PADDLE



NOTES:
 USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-2)
 NORMAL INSTALLATIONS WILL REQUIRE 1/4" DIA. BOLTS TO MOUNT SIGNS TO POST AND 5/16" DIA. BOLTS TO ASSEMBLE THE VARIOUS POST SUPPORTS. EACH OF THESE BOLTS SHALL BE CARRIAGE BOLTS.
 SIGN POSTS SHALL BE PAINTED GREEN; SIGNS SHALL NOT BE PAINTED, AND ALL SIGN POSTS SHALL BE PLUMB.

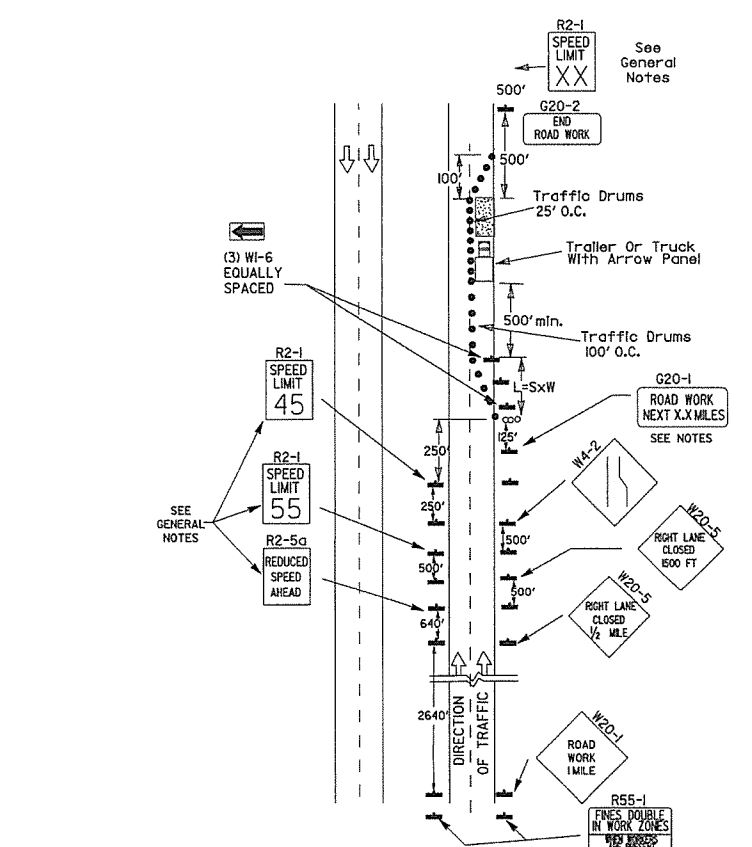


(B) Typical application - 3-lane oneway roadway where center lane is closed.

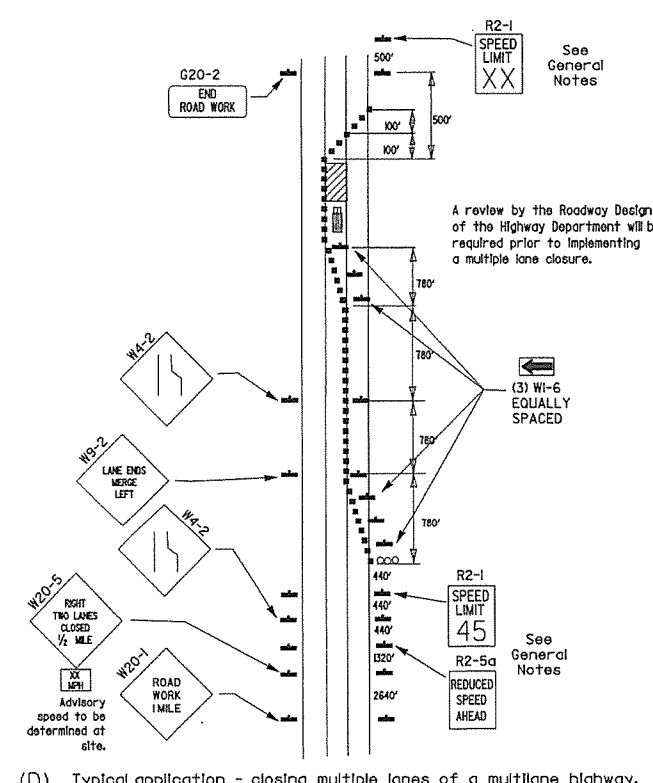
- KEY:**
- Arrow Panel (if Required)
 - Channelizing Device
 - Traffic drum

- GENERAL NOTES:**
- A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
 - When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the R2-5A shall be installed at that location. Additional R2-145mph speed limit signs shall be installed at a maximum of 1/2 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
 - When the existing speed limit is 65mph and the plans require a speed limit of 55mph, the R2-1(65) shall be omitted. Additional R2-155mph speed limit signs shall be installed at a maximum of 1/2 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
 - The maximum spacing between channelizing devices in a taper should be approximately equal in feet to the speed limit. Beyond the taper, maximum spacing shall be two times the speed limit or as directed by the Engineer.
 - Warning lights and/or flags may be mounted to signs or channelizing devices at night as needed.
 - Pavement markings no longer applicable which might create confusion in the minds of vehicle operators shall be removed or obliterated as soon as practicable.
 - The G20-1 sign will be required on jobs of over two miles in length. When the lane closure is not at the beginning of the project, the G20-1 sign shall be erected 125' in advance of the job limit. Additional W20-1 (1/2 MILE) signs are not required in advance of lane closures that begin inside the project limits.
 - Flaggers shall use STOP/SLOW paddles for controlling traffic through work zones. Flags may be used only for emergency situations.
 - All plastic drums and cones shall meet the requirements of NCHRP-350 or Manual for Assessing Safety Hardware (MASH).
 - Trailer mounted devices such as arrow panels and portable changeable message signs shall be delineated by affixing conspicuity material in a continuous line on the face of the trailer. When placed on or adjacent to the shoulder and not behind a positive barrier, these devices shall be delineated by placing five (5) traffic drums, equally spaced along the traffic side of the device.

(A) Typical application - daytime maintenance operations of short duration on a 4-lane divided roadway where half of the roadway is closed.



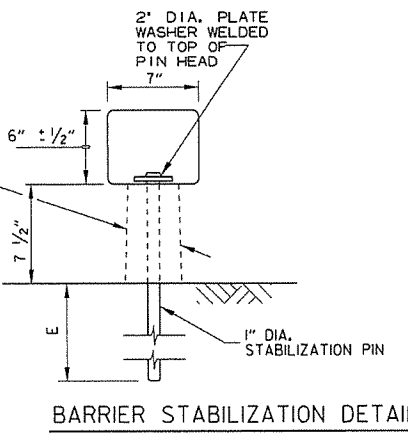
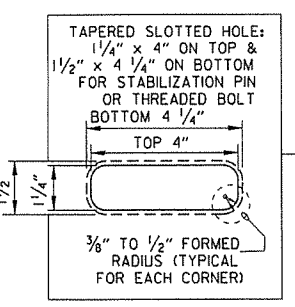
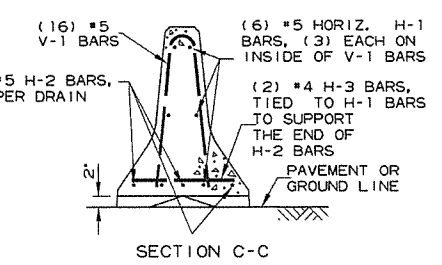
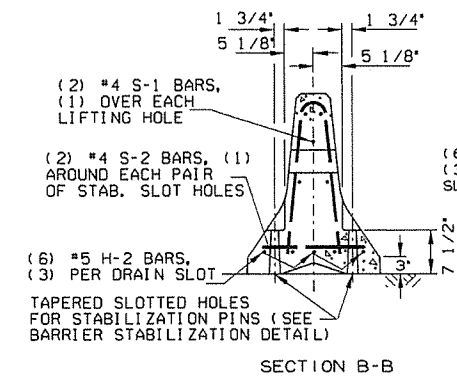
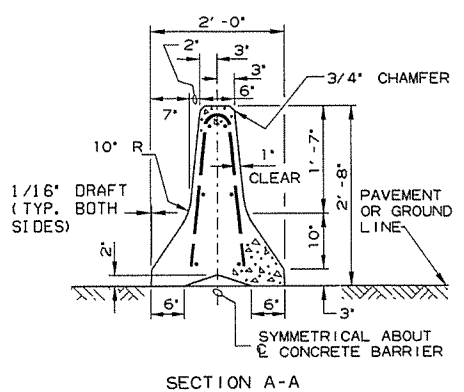
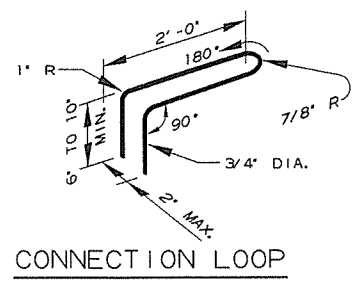
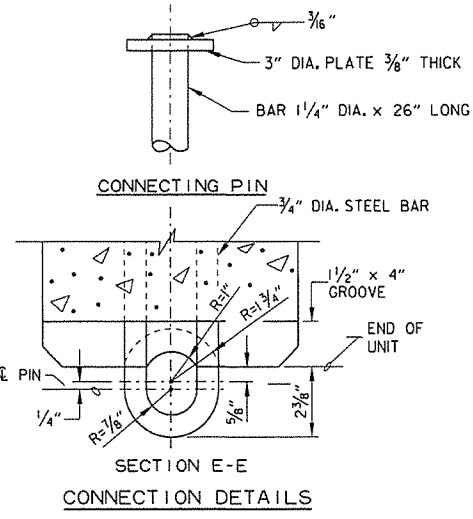
(C) Typical application - construction operations of intermediate to long term duration on a 4-lane divided roadway where half of the roadway is closed.



(D) Typical application - closing multiple lanes of a multi-lane highway.

DATE	REVISION	FILMED
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SP) TO W6-1 & REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

REINFORCING BAR TABLE PER BARRIER UNIT			
MARK	LOCATION	BAR SIZE	(NO. BARS)
H-1	HORIZONTAL IN BARRIER TIED INSIDE V-1 BARS	#5	(6)
H-2	CENTERED ABOVE DRAIN SLOTS LONG. & TRANSVERSELY	#5	(6)
H-3	TIED ABOVE H-1 BARS TO SUPPORT H-2, TIED TO V-1	#4	(2)
S-1	OVER LIFT HOLES	#4	(2)
S-2	HORIZ. AROUND SLOTS BETWEEN V-1'S & DRAIN SLOTS	#4	(2)
V-1	VERTICAL IN BARRIER (3) EACH END & (2) AT EACH DRAIN SLOTS	#5	(16)

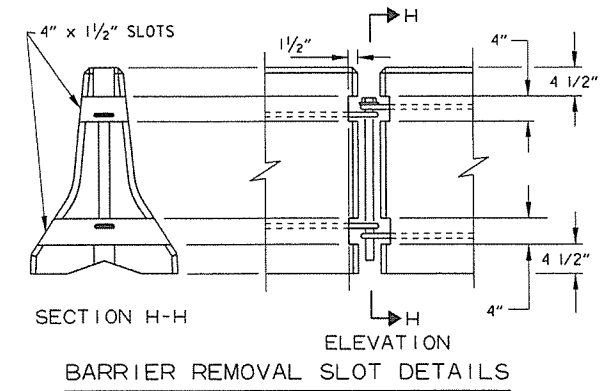
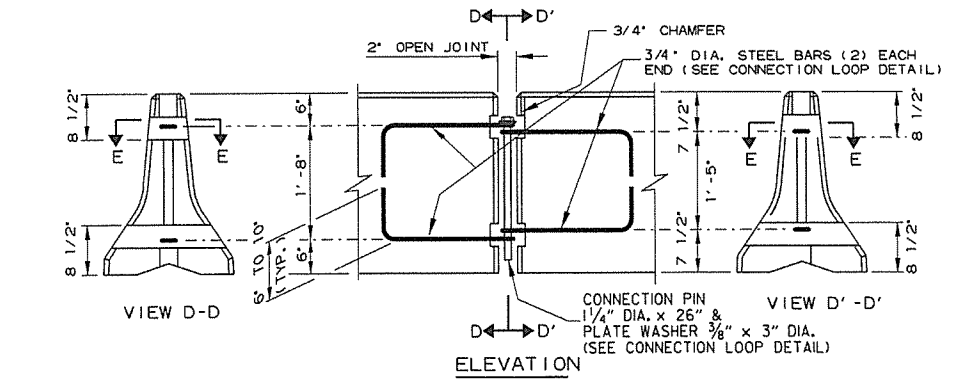


BARRIER STABILIZATION DETAIL

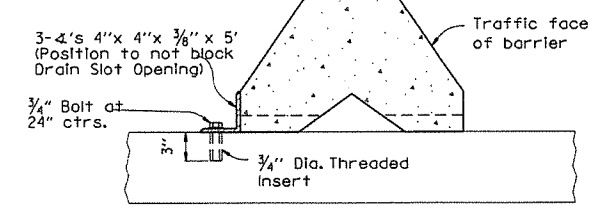
- 4" - Concrete Pavement
- 8" - Asphalt Pavement
- 12" - Shoulder Areas

- General Notes**
- The contractor shall furnish the Precast Concrete Barrier Units and shall be responsible for the manufacture, shipment, storage, placement and removal. At the completion of the project, the precast units will remain the property of the contractor.
 - Materials shall meet the following minimum requirements:
 Concrete: 2500 psi compressive strength at 28 days.
 Reinforcing Steel: AASHTO M 31 or M 53, Grade 60
 Structural Steel: AASHTO-M270 Grade 36 shall be used for the Connection Pin, Connection Loops, and Stabilization Pins. A One Piece Pin with a 3" rounded top may be used in place of the detailed Connection Pin.
 Delineators: Delineators shall be mounted at 10' spacing on top of precast barrier.

 In applications where barrier walls within 6 feet of a traffic lane, additional delineators shall be placed on the barrier at 10' spacing approximately one (1) foot from the top of the barrier. Delineators shall be on the AHTD Qualified Products List for Construction Concrete Barrier Markers. Delineator color shall be in accordance with the Manual on Uniform Traffic Control Devices.
 Payment for delineators shall be considered included in the price bid per Lin. Ft. for "Furnishing and Installing Precast Concrete Barrier". The contractor shall certify to the Engineer that the material and the design used in the precast barrier units meets the requirements as shown on this standard drawing.
 - Other Precast Concrete Barriers that have been crash tested and approved by the Federal Highway Administration to meet the requirements of NCHRP-350 test level 3 or Manual For Assessing Safety Hardware (MASH) will be accepted in lieu of the barrier shown. Drain slots shall be provided as needed or as directed by the Engineer. The Contractor shall furnish a certification of NCHRP Report 350 or Manual For Assessing Safety Hardware (MASH) compliance for any other types of precast barrier to be used. The certification shall state that the precast concrete barrier meets the requirements of NCHRP Report 350 or Manual For Assessing Safety Hardware (MASH) and include a copy of the Federal Highway Administration's (FHWA) approval letter with all attachments. Precast concrete barrier units shall be fabricated and installed in accordance with crash testing and documentation provided in the FHWA approval letter. Mixing of shapes will not be allowed in a continuous line of units.
 - Dowel holes in pavement or bridge slabs that are to remain in place shall be filled. Holes in concrete pavement and bridge slabs shall be filled with an approved non-shrink epoxy grout. Holes in asphalt pavement shall be filled with an approved asphalt joint filler. Payment for drilling and filling holes to be included in the price for various barrier items.
 - Attach Units To Roadway Surface with Stabilization Pins and to Deck Slabs using bolts when required.
 - A 4" White PVC Sleeve may be used to form the Lifting Hole and if used the Sleeve is to be left in place.

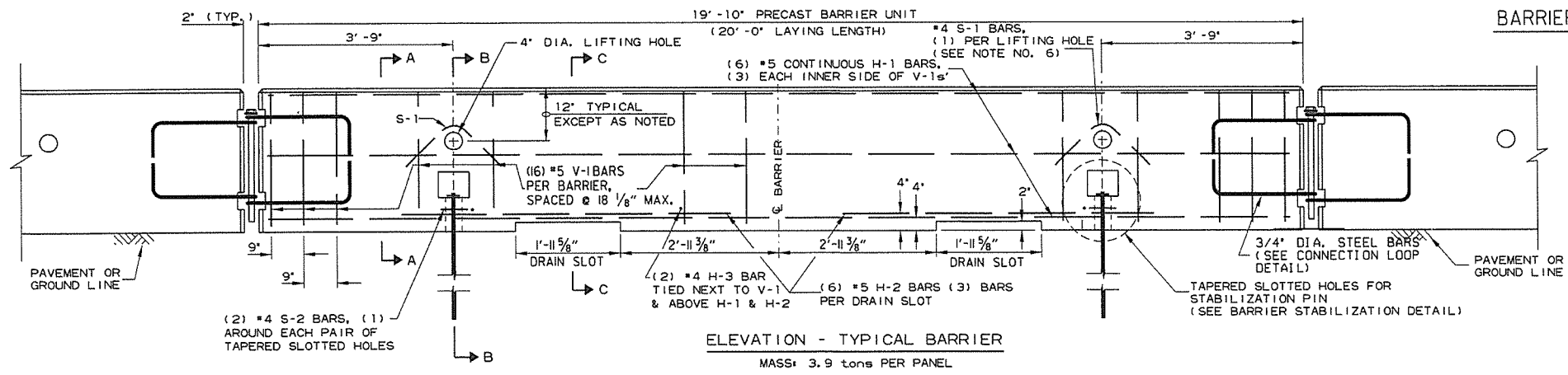


BARRIER REMOVAL SLOT DETAILS



NOTE: 3/4" Threaded Inserts shall be cast in place for all new bridge decks and drilled and grouted for existing bridge decks. Inserts shall have a minimum ultimate load capacity of 8000 lbs. in tension. After removal of barrier, bolts, and angles, the inserts shall be filled with approved non-shrink epoxy.

BARRIER STABILIZATION DETAIL BRIDGE DECKS



ELEVATION - TYPICAL BARRIER
MASS: 3.9 tons PER PANEL

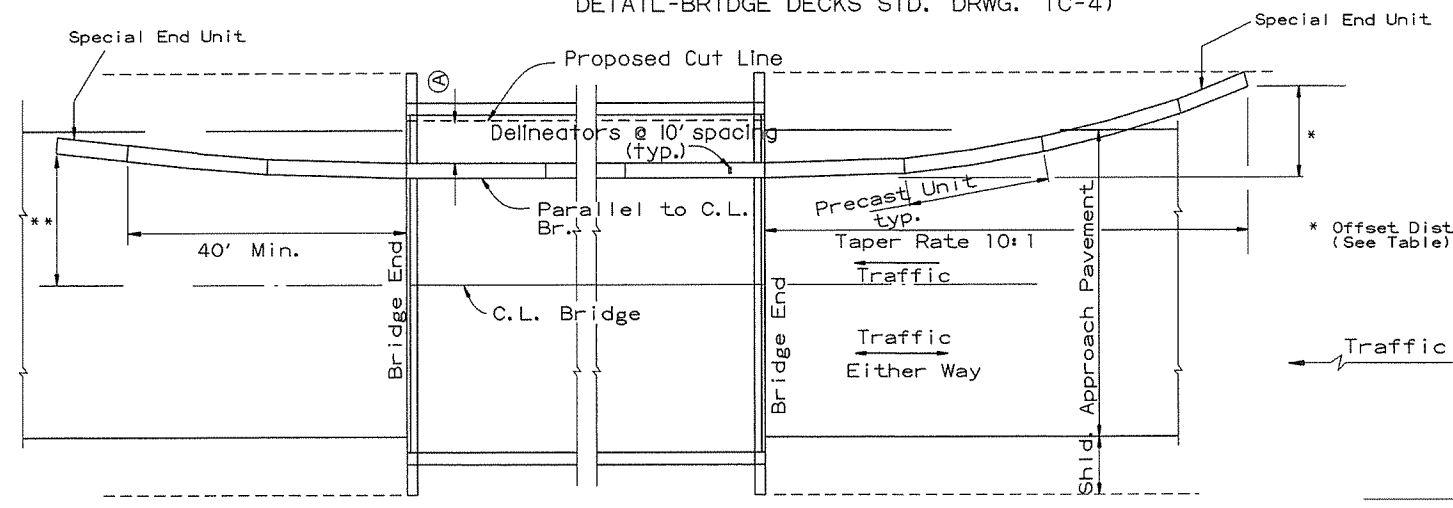
DATE	REVISION	FILMED
2-27-14	REVISED BARRIER STABILIZATION DETAIL	
10-15-09	ADDED REFERENCE TO MASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02	ISSUED NEW DRAWING	

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

STANDARD DRAWING TC-4

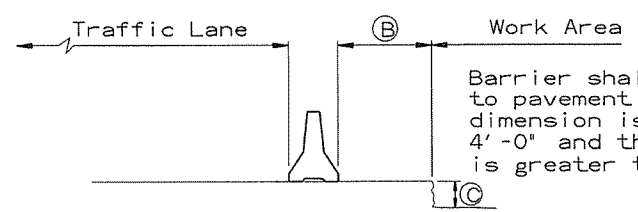
(A) 4 feet or greater preferred. If less than 4 feet, Precast Units shall be connected to slab (SEE BARRIER STABILIZATION DETAIL-BRIDGE DECKS STD. DRWG. TC-4)



BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

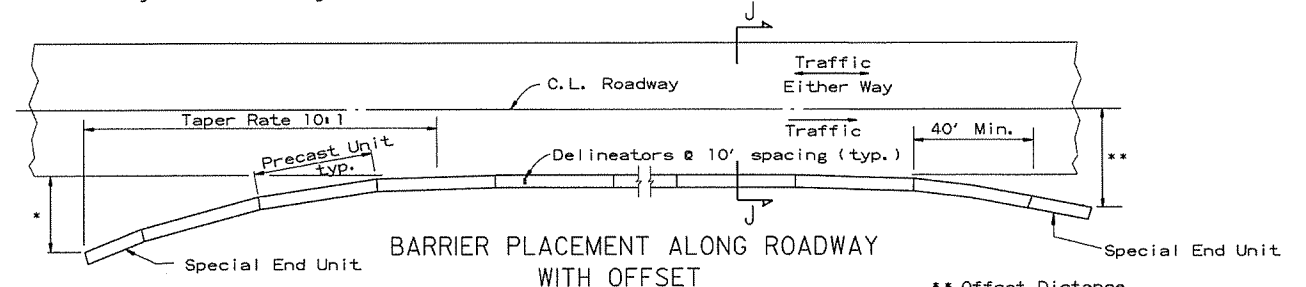
No Scale

** Offset Distance for Two Way Traffic Only



SECTION J-J

No Scale



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

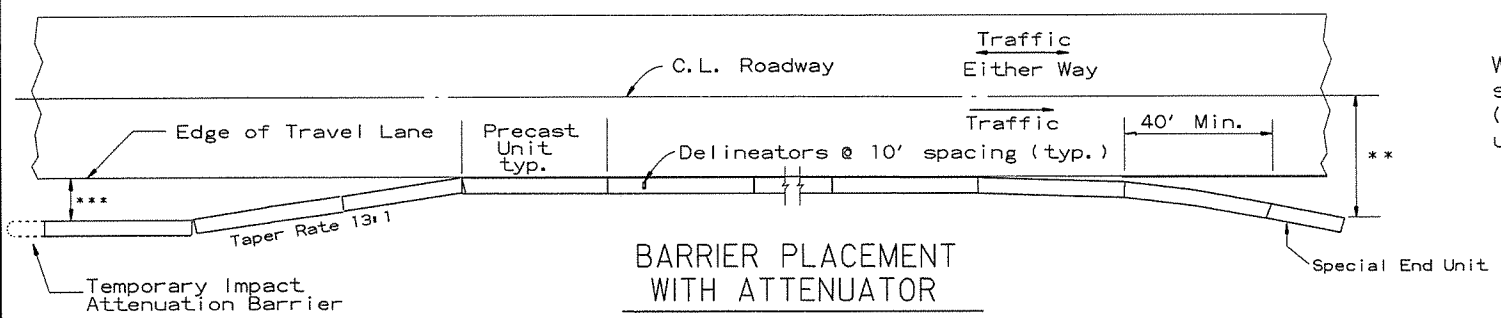
* Offset Distance (See Table)

** Offset Distance For Two Way Traffic Only

Offset Distance Table

Speed (MPH)	Offset Distance (FT.)
≤ 45	12
> 45	18

If offset distance is not attainable, then see 'Barrier Placement With Attenuator' Detail shown below.

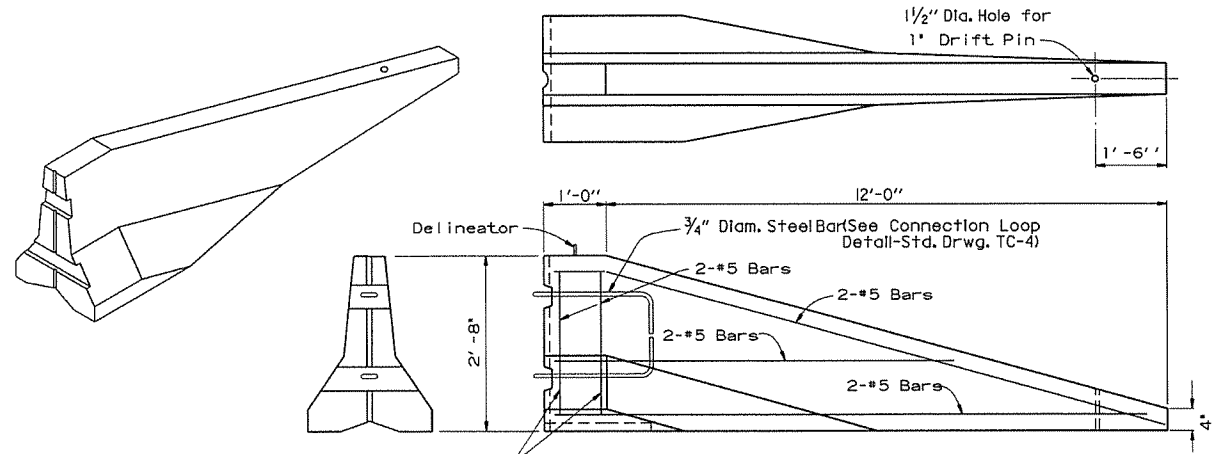


BARRIER PLACEMENT WITH ATTENUATOR

No Scale

** Offset Distance For Two Way Traffic Only

*** Min. 3'-0" From Edge of Travel Lane to Nearest Edge of Attenuator



SPECIAL END UNIT

No Scale

General Notes

When shown on the Plans, the ends of the Temporary Precast Concrete Barrier shall be protected with an NCHRP-350 or Manual For Assessing Safety Hardware (MASH) approved Crash Cushion. Payment for Crash Cushions shall be made under the item of "Temporary Impact Attenuation Barrier."

DATE	REVISION	FILMED
10-15-09	ADDED REFERENCE TO MASH	
5-25-06	REVISED BARRIER PLACEMENT	
8-22-02	ISSUED NEW DRAWING	

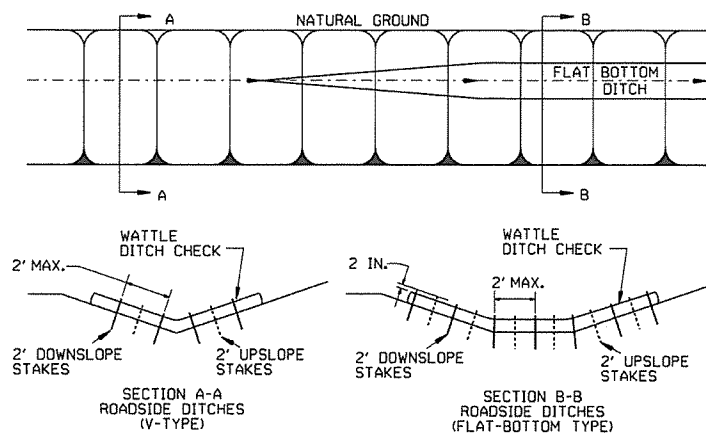
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION -
TEMPORARY PRECAST BARRIER

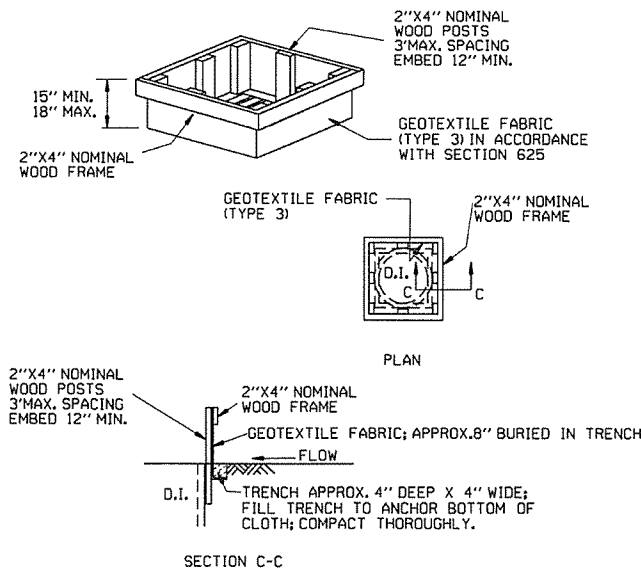
STANDARD DRAWING TC-5

GENERAL NOTES

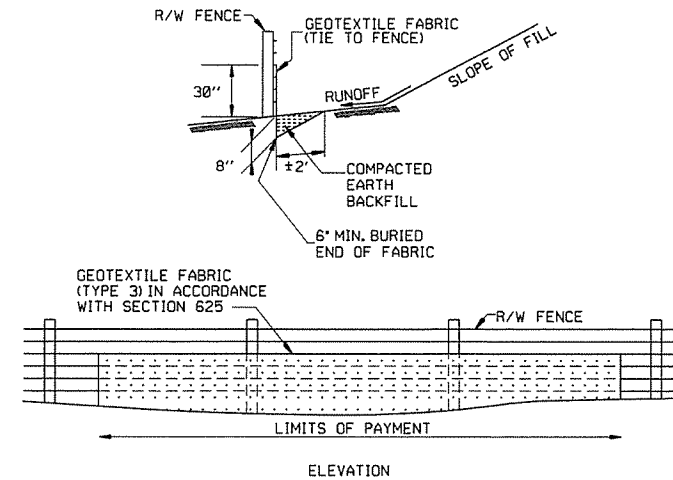
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)

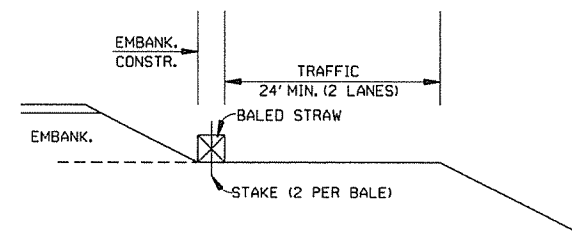


DROP INLET SILT FENCE (E-7)



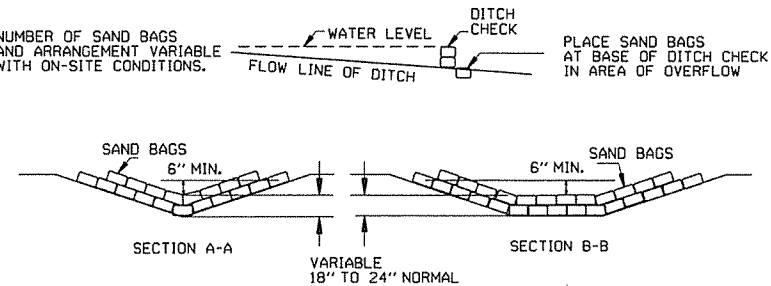
SILT FENCE ON R/W FENCE (E-4)

GENERAL NOTES
 GEOTEXTILE FABRIC SHALL BE SPliced TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST, OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

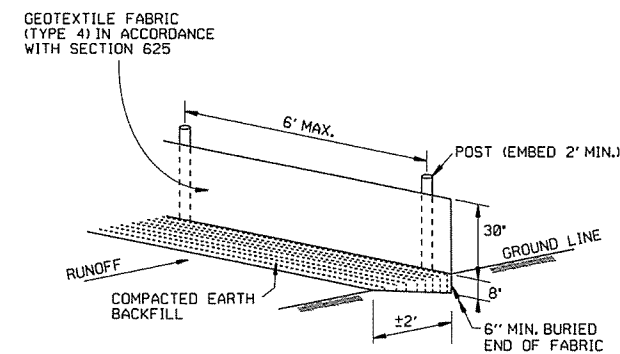


BALED STRAW FILTER BARRIER (E-2)

NUMBER OF SAND BAGS AND ARRANGEMENT VARIABLE WITH ON-SITE CONDITIONS. PLACE SAND BAGS AT BASE OF DITCH CHECK IN AREA OF OVERFLOW

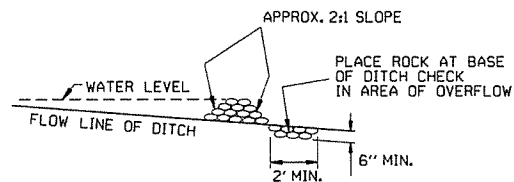


SAND BAG DITCH CHECK (E-5)



SILT FENCE (E-11)

GENERAL NOTES
 GEOTEXTILE FABRIC SHALL BE SPliced TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

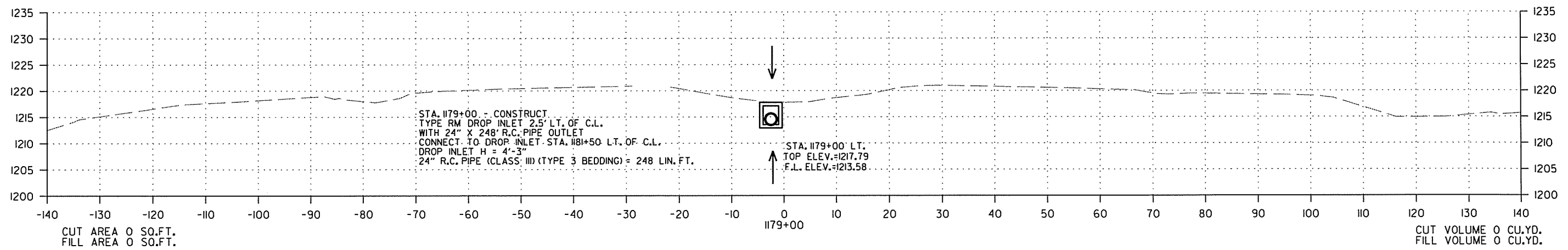
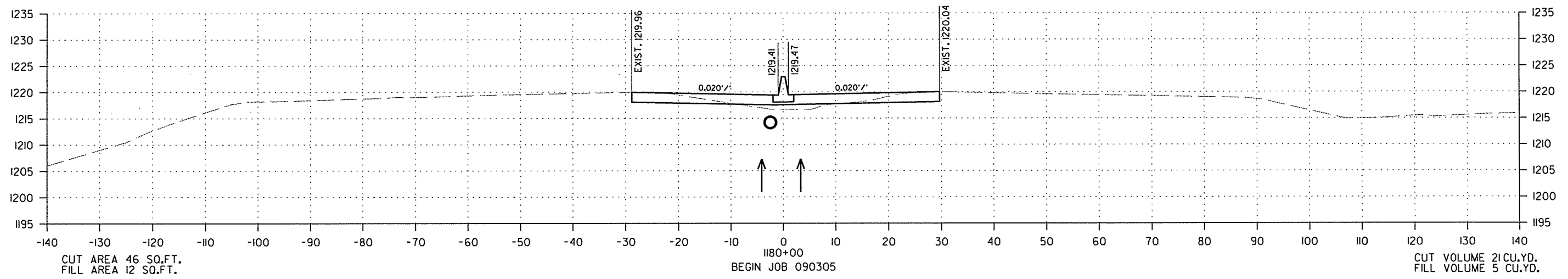
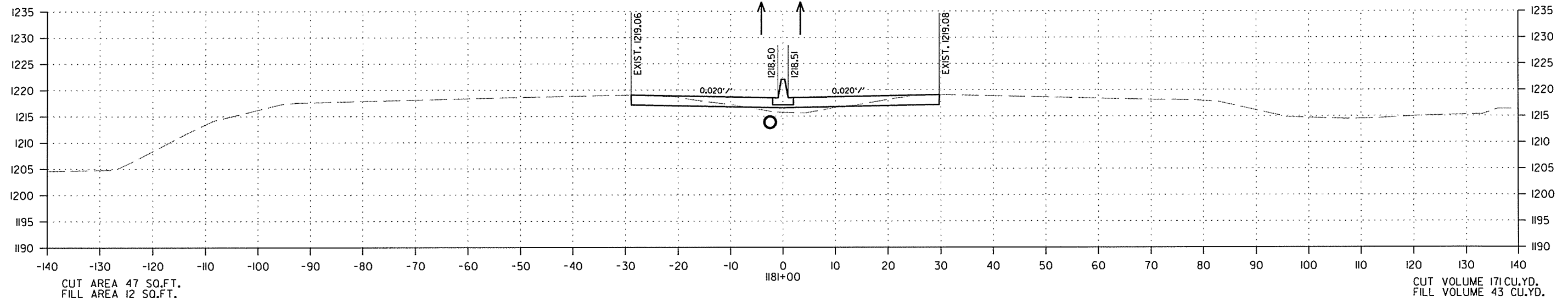


ROCK DITCH CHECK (E-6)

12-15-11	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK		ARKANSAS STATE HIGHWAY COMMISSION
11-18-98	ADDED NOTES		
7-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)		
7-20-95	REVISED SILT FENCE E-4 AND E-11	7-20-95	TEMPORARY EROSION CONTROL DEVICES
7-15-94	REV. E-4 & E-11 MIN. 13" BURIED END OF FABRIC		
6-2-94	REVISED E-1, 4.7 & 11; DELETED E-2 & 3	6-2-94	
4-1-93	REDRAWN		
10-1-92	REDRAWN		
8-2-76	ISSUED R.D.M.	298-7-28-76	STANDARD DRAWING TEC-1
DATE	REVISION	FILMED	

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	63	122

2 CROSS SECTIONS



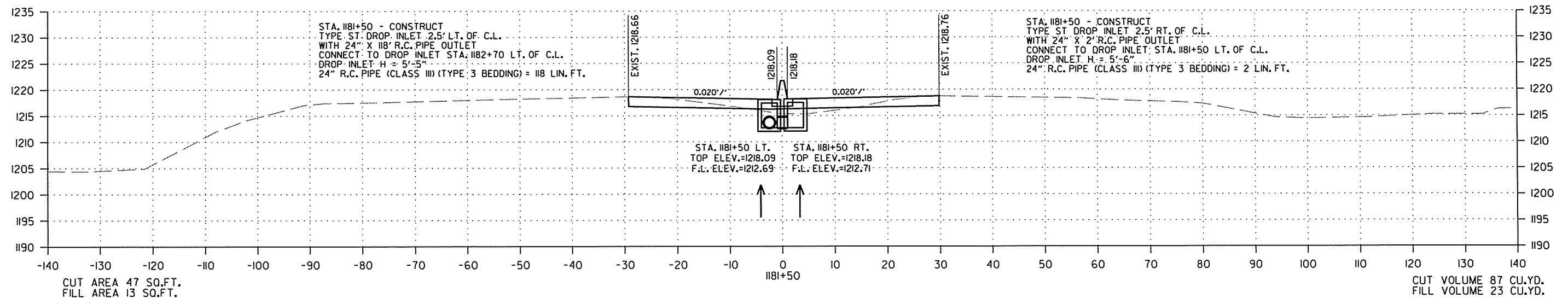
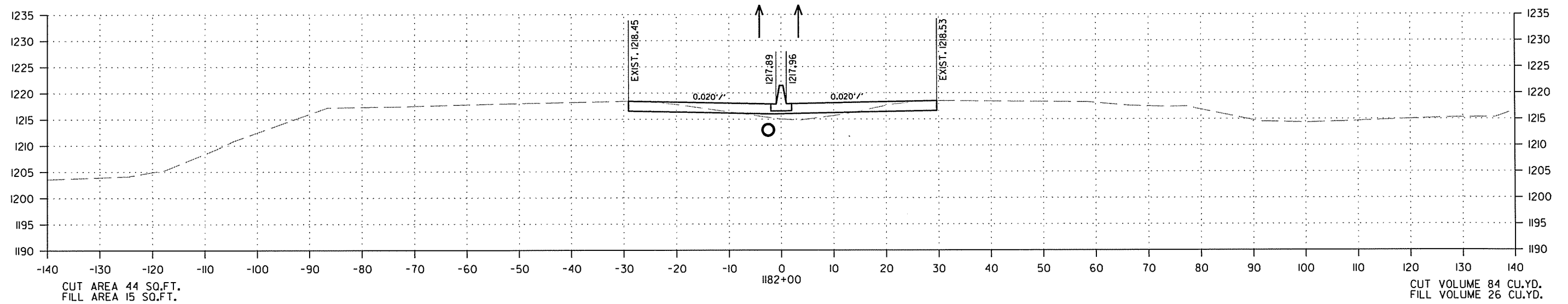
CROSS SECTION STA. 1179+00 TO STA. 1181+00

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO.	090305	64 122

2 CROSS SECTIONS



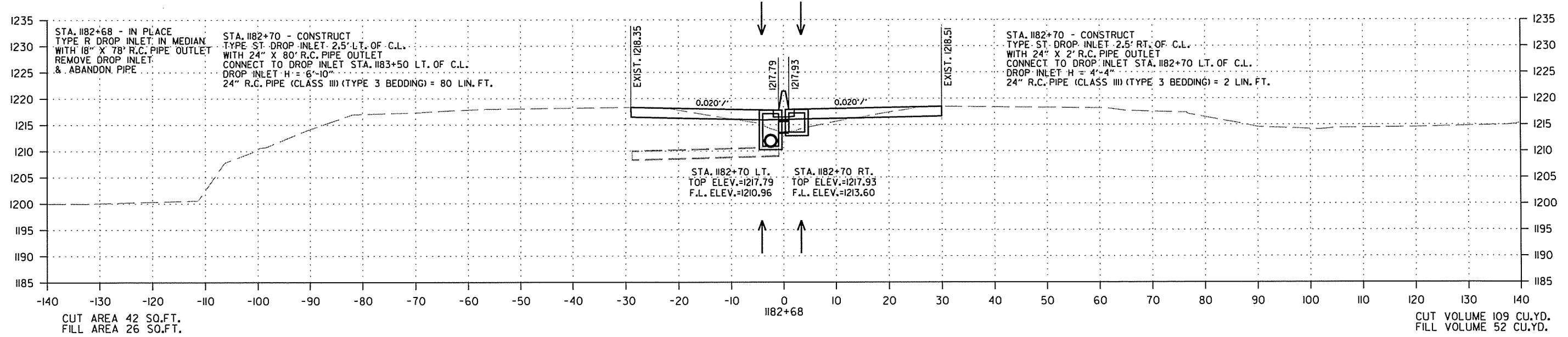
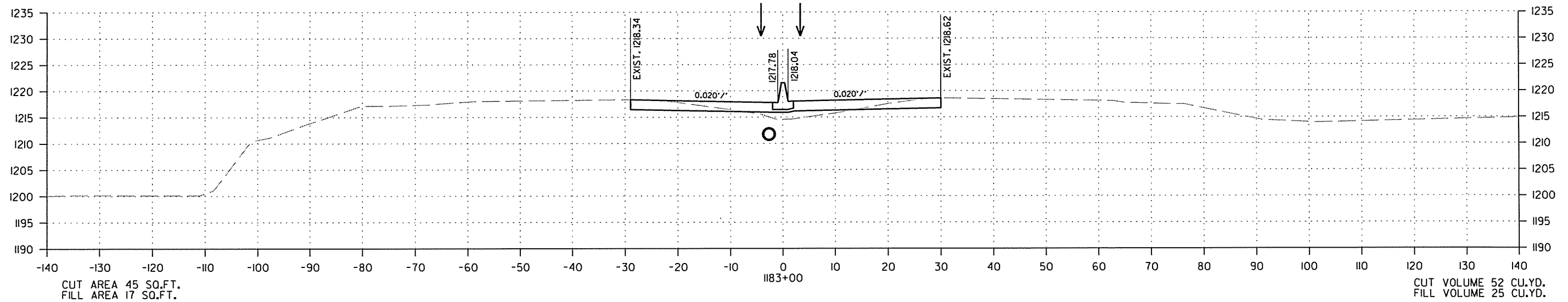
CROSS SECTION STA. 1181+50 TO STA. 1182+00

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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2 CROSS SECTIONS



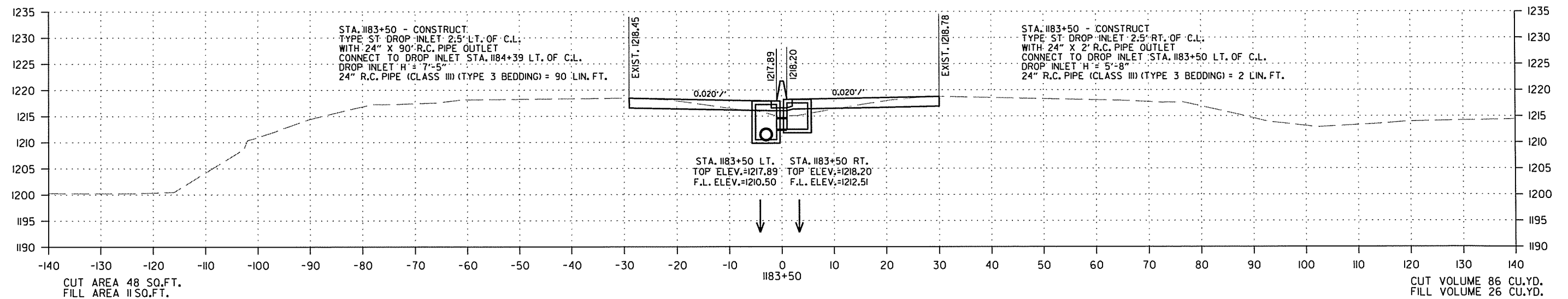
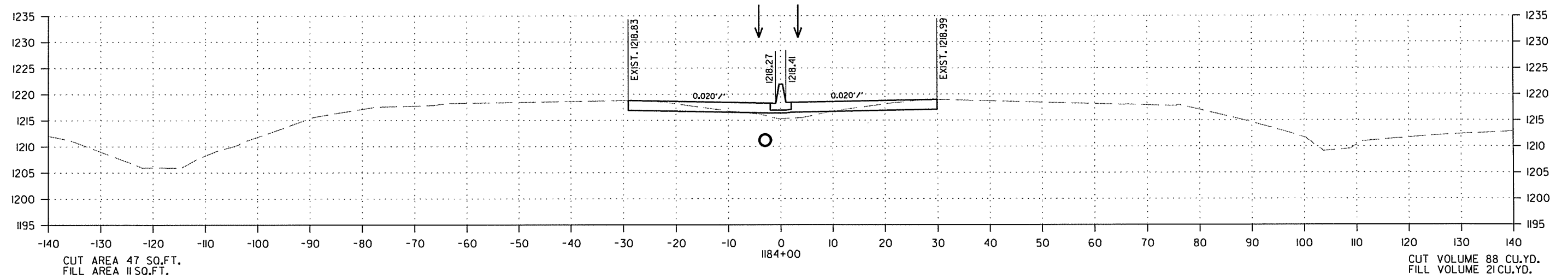
CROSS SECTION STA. 1182+68 TO STA. 1183+00

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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② CROSS SECTIONS



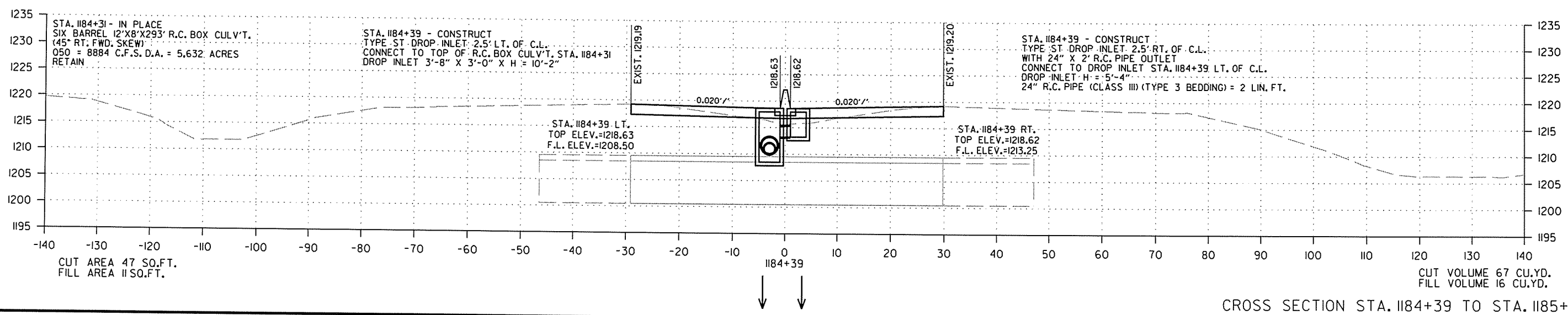
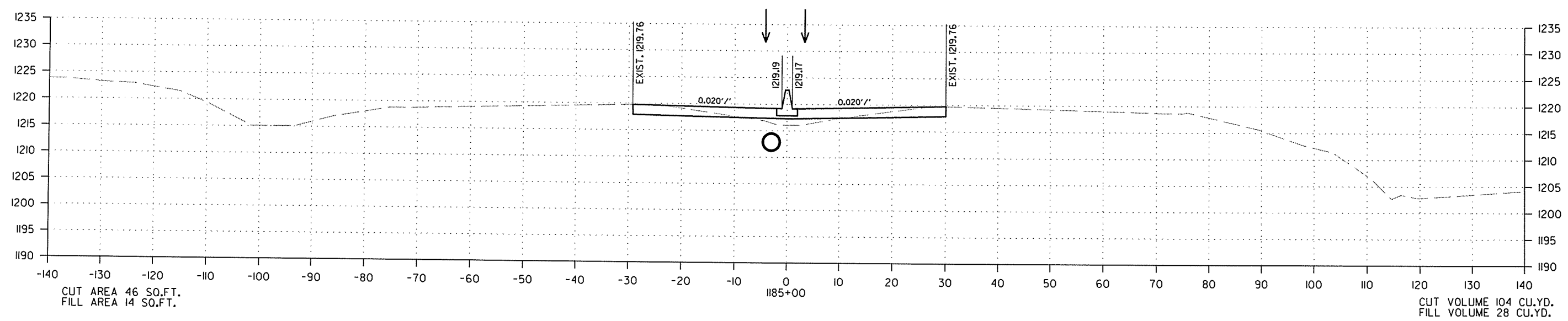
CROSS SECTION STA. 1183+50 TO STA. 1184+00

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
8-20-14				6	ARK.			
						JOB NO. 090305	67	122

② CROSS SECTIONS

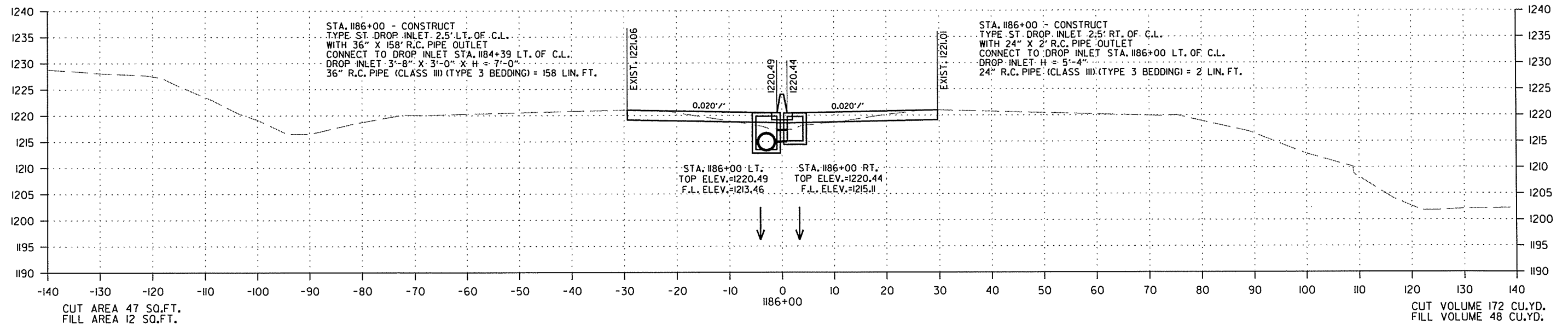
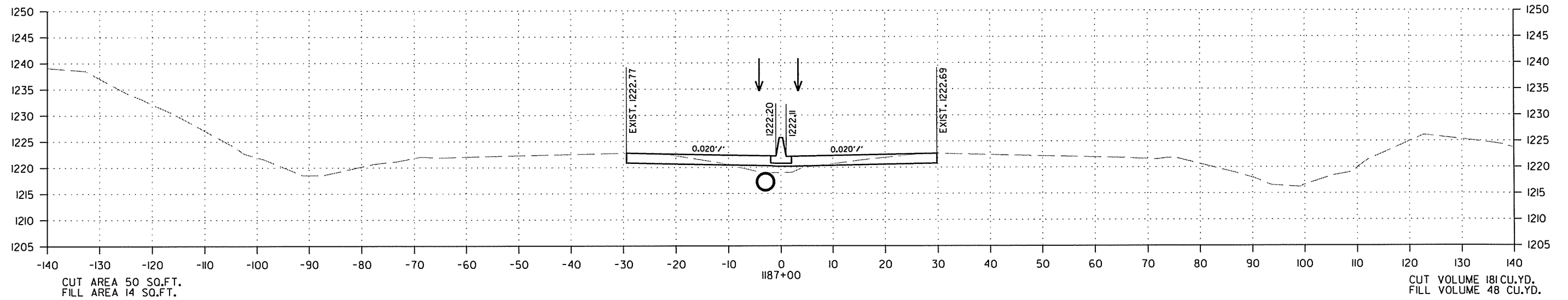


CROSS SECTION STA. 1184+39 TO STA. 1185+00

8/20/2014 R090305.DCN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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② CROSS SECTIONS



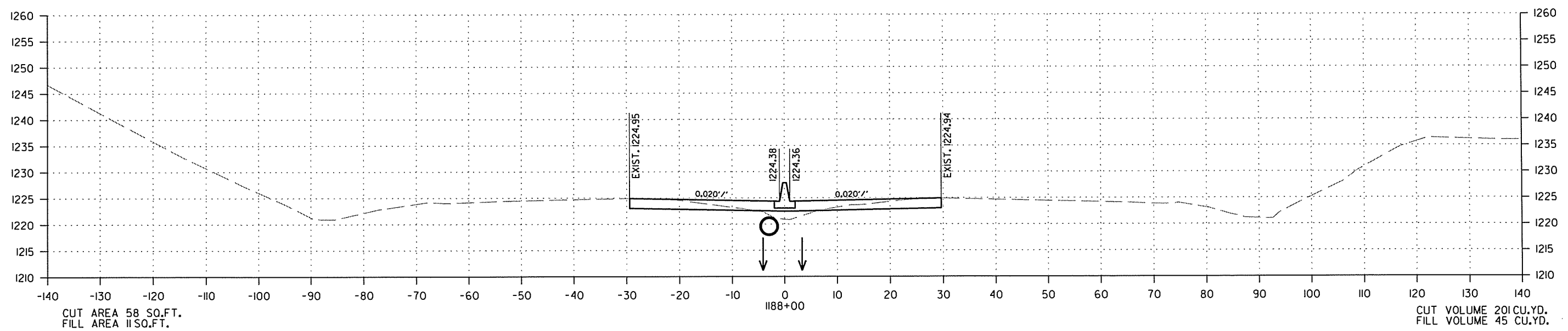
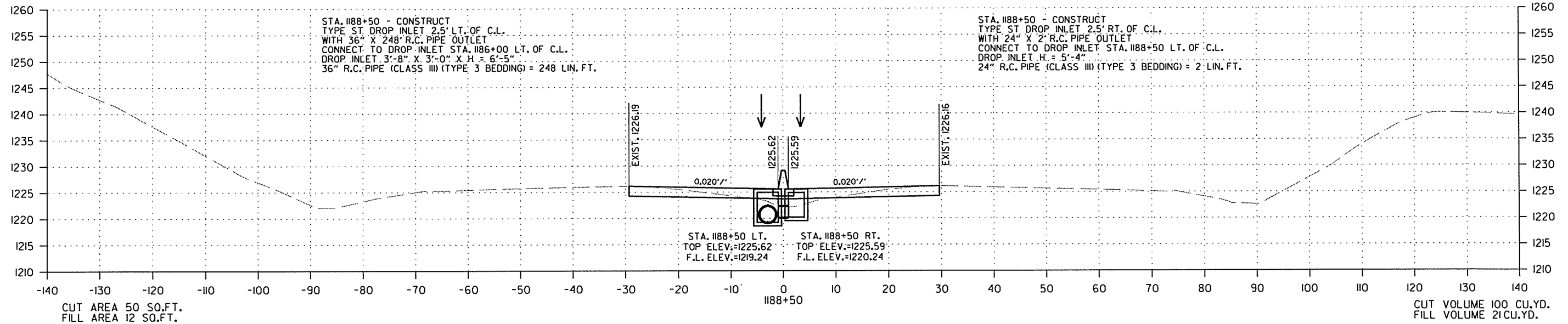
CROSS SECTION STA. 1186+00 TO STA. 1187+00

5/14/2014

R090305.DGN

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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2 CROSS SECTIONS



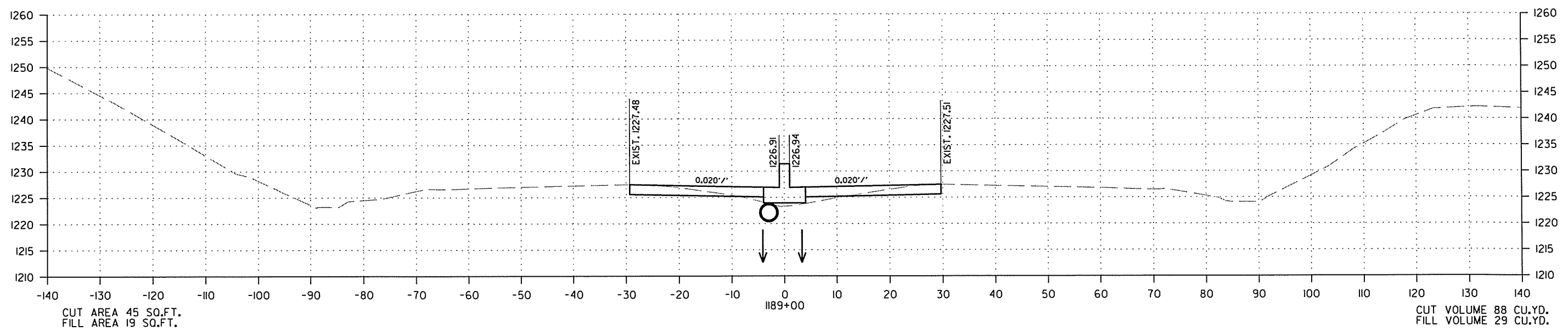
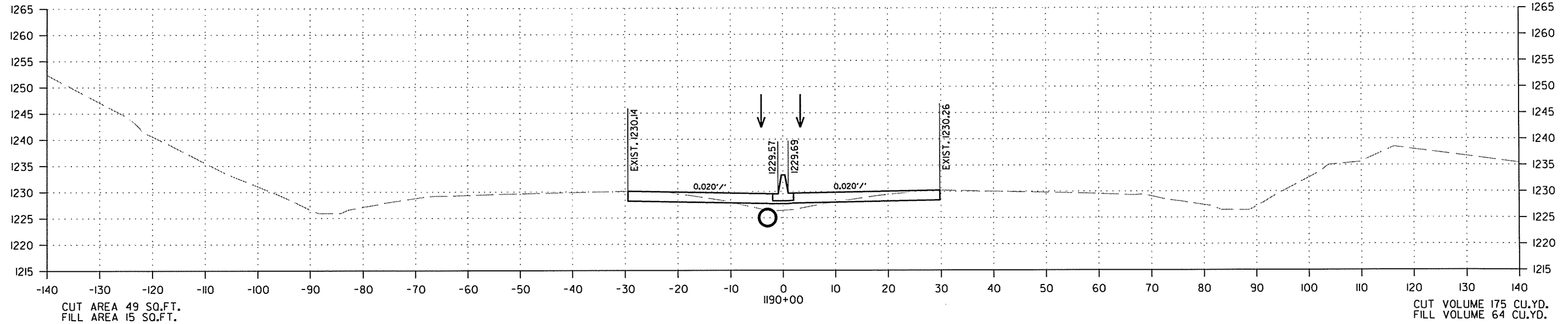
CROSS SECTION STA. 1188+00 TO STA. 1188+50

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							70	122

② CROSS SECTIONS



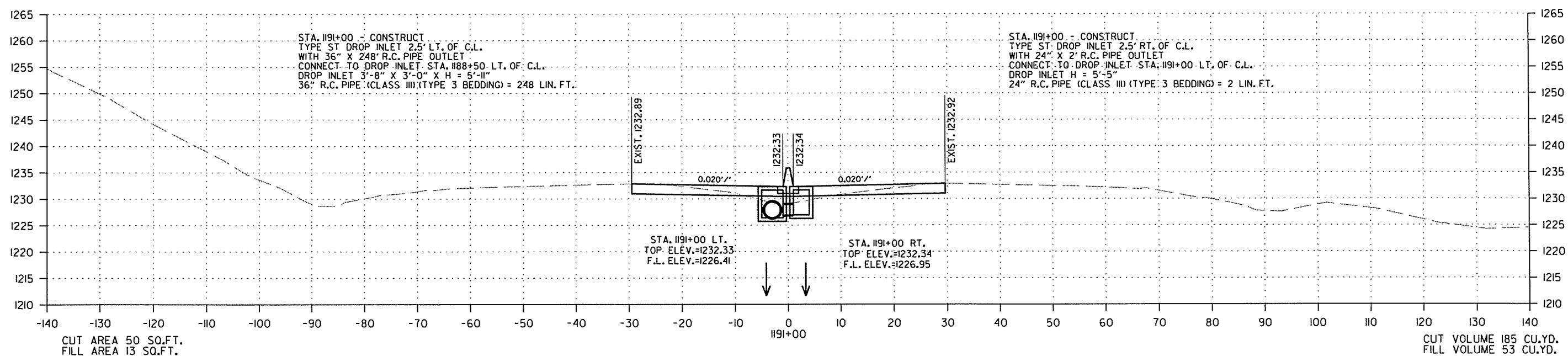
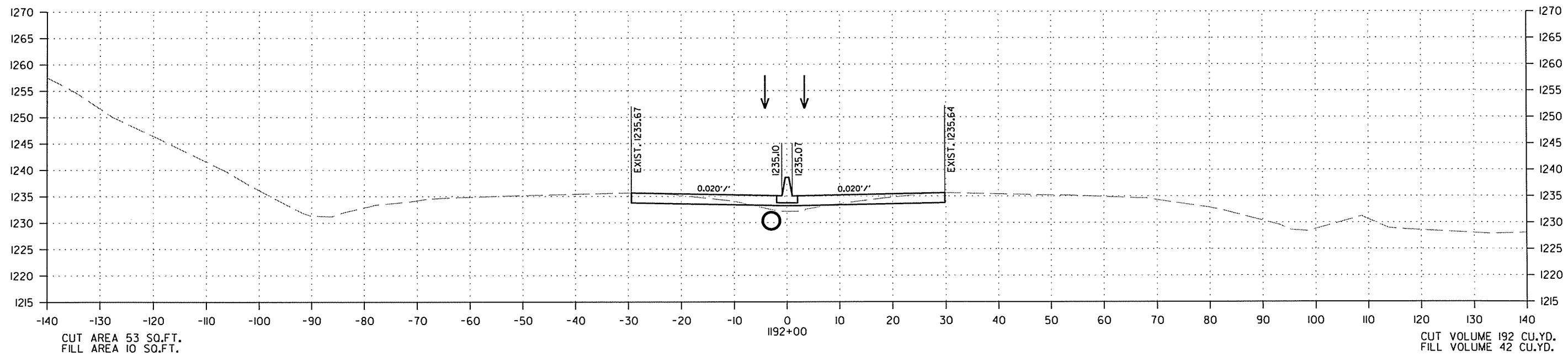
CROSS SECTION STA. 1189+00 TO STA. 1190+00

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO.	090305	71 122

2 CROSS SECTIONS

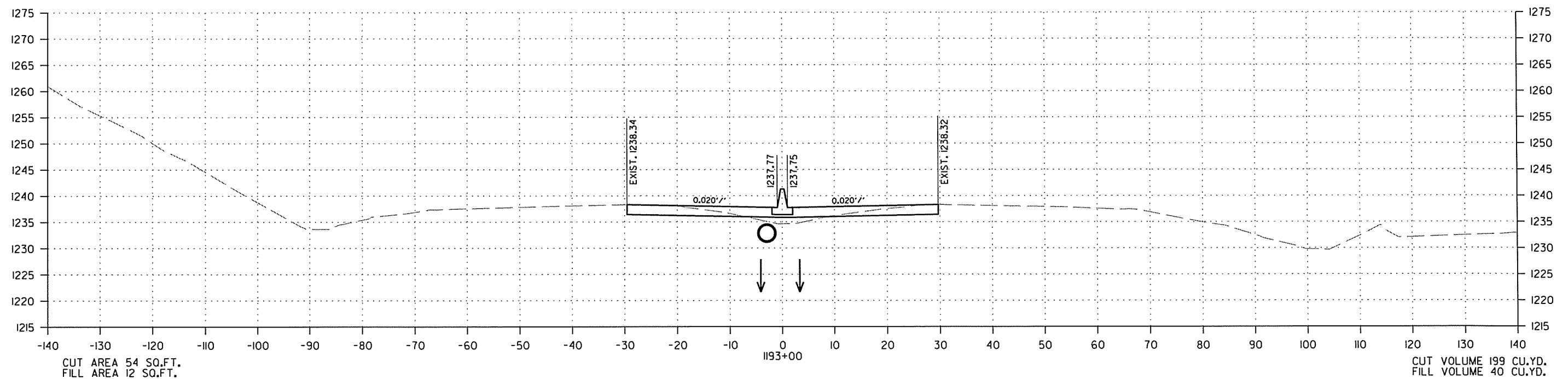
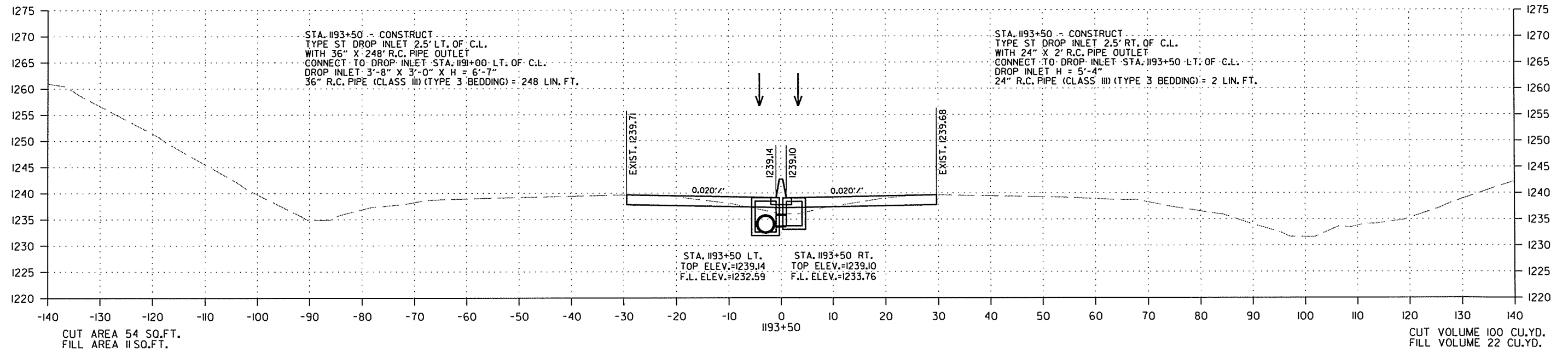


CROSS SECTION STA. 1191+00 TO STA. 1192+00

R090305.DGN 5/14/2014

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	72	122

2 CROSS SECTIONS



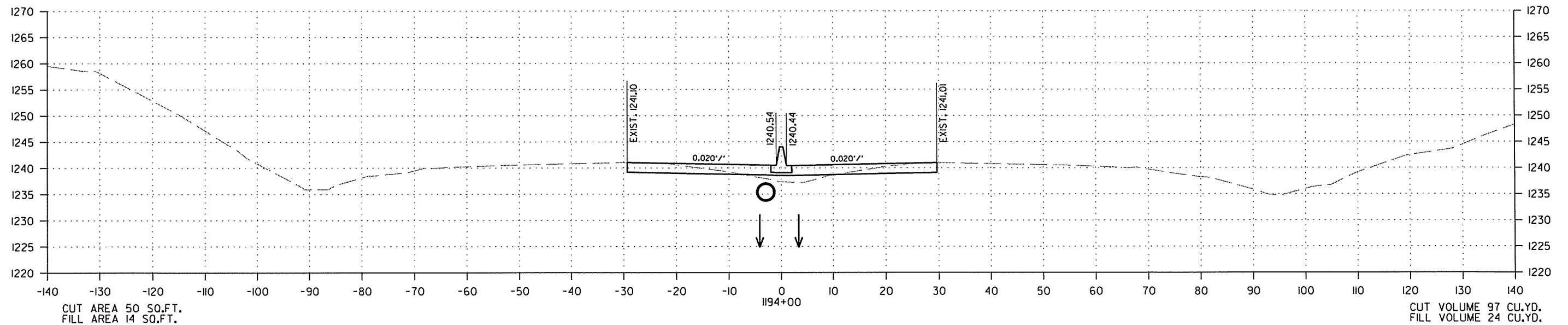
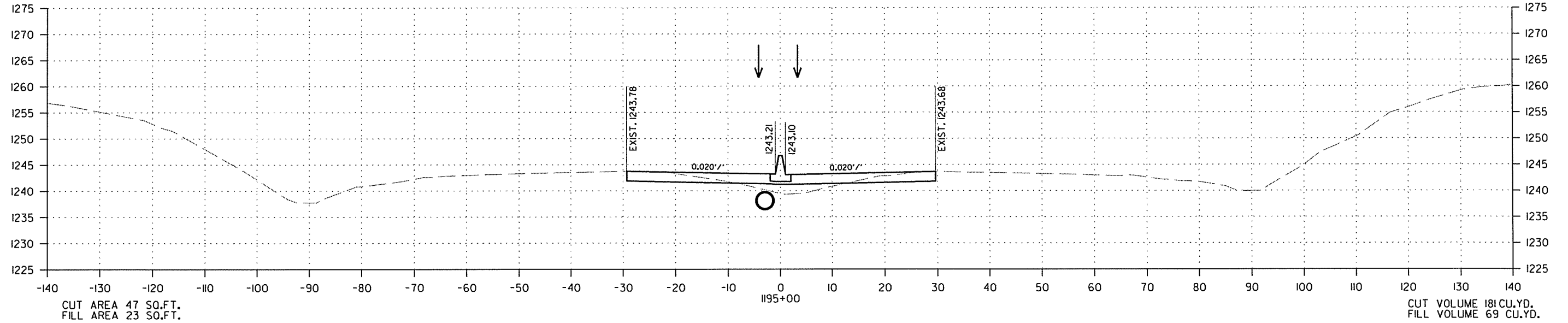
CROSS SECTION STA. 1193+00 TO STA. 1193+50

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO.	090305	73

2 CROSS SECTIONS



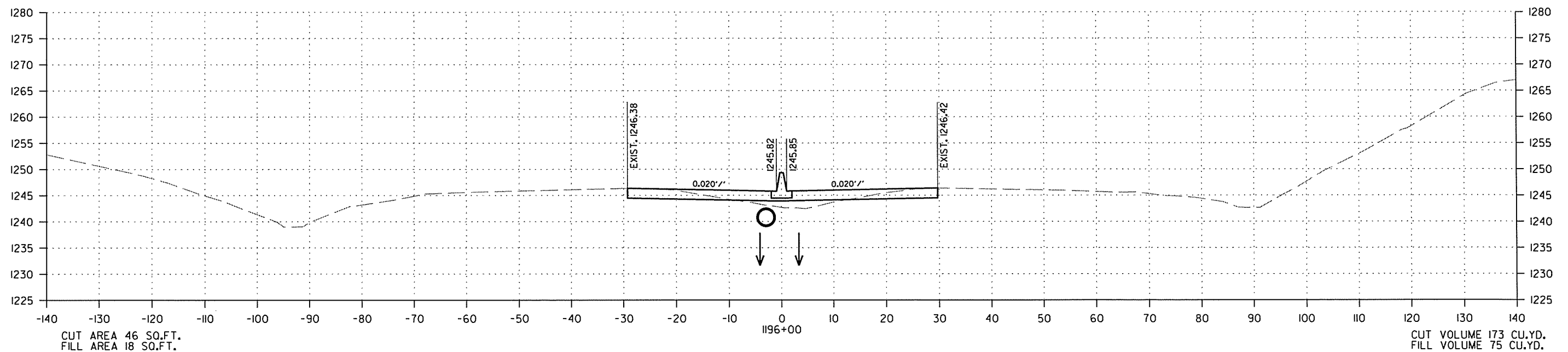
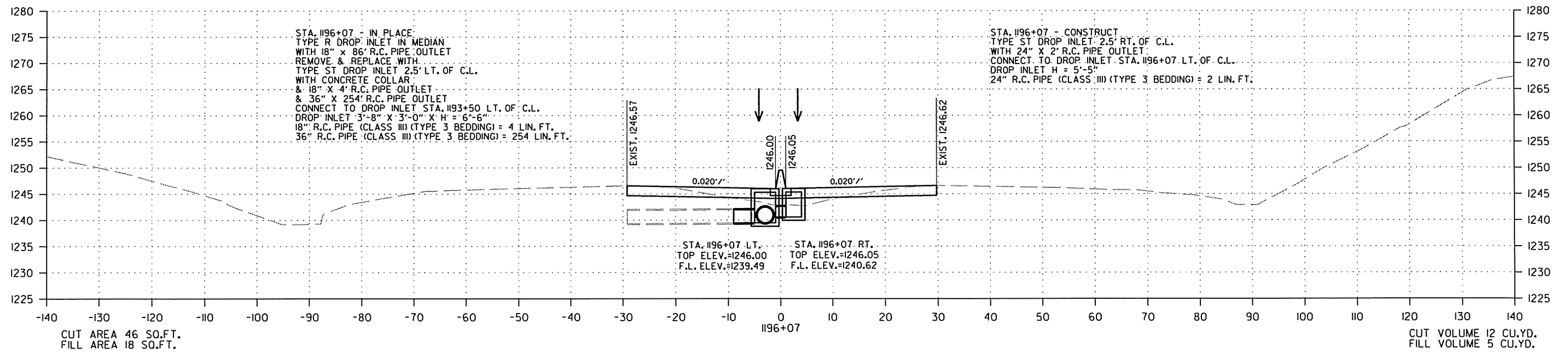
CROSS SECTION STA. 1194+00 TO STA. 1195+00

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO.	090305	74

2 CROSS SECTIONS



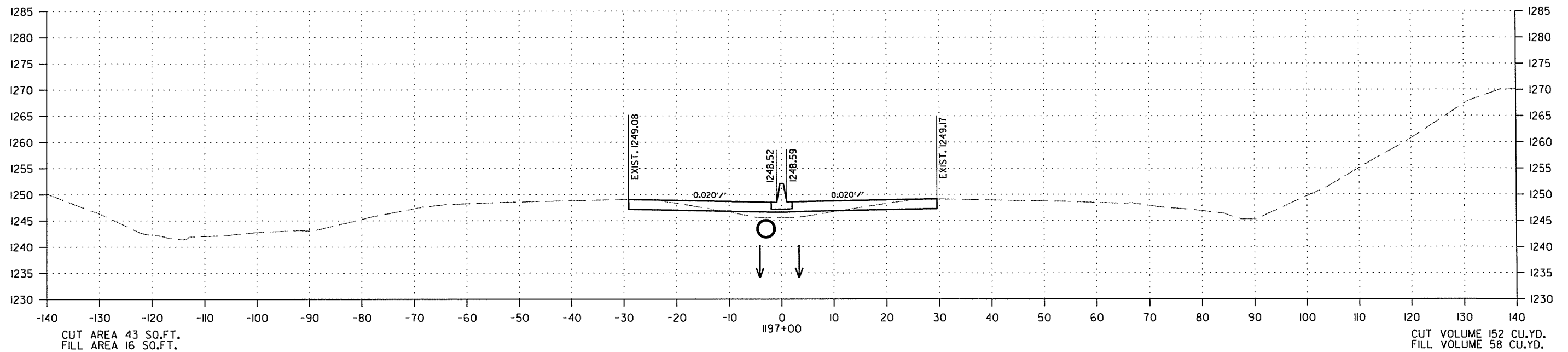
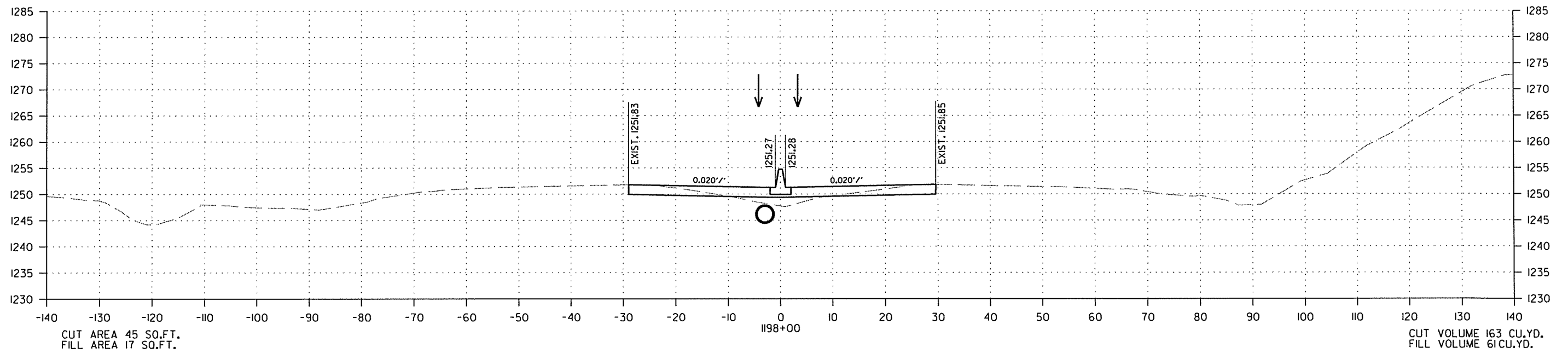
CROSS SECTION STA. 1196+00 TO STA. 1196+07

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	75	122

2 CROSS SECTIONS



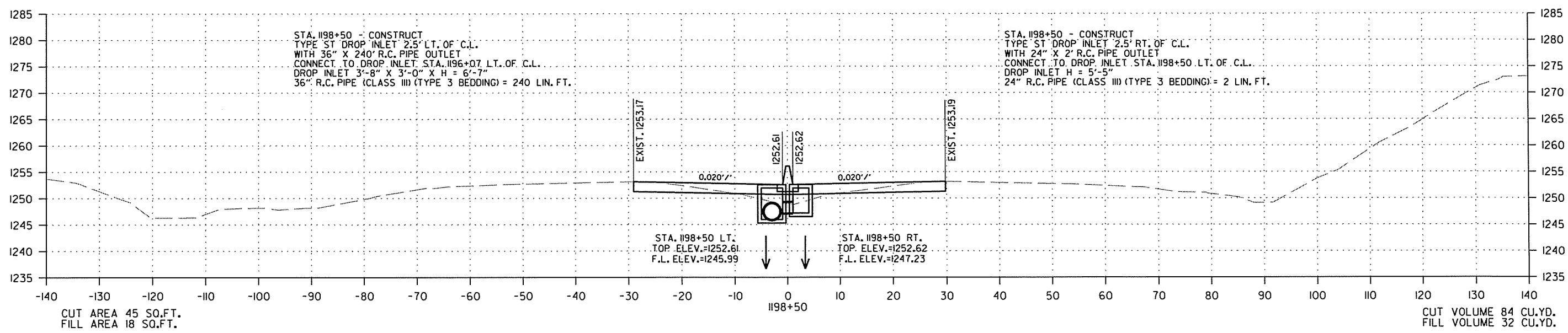
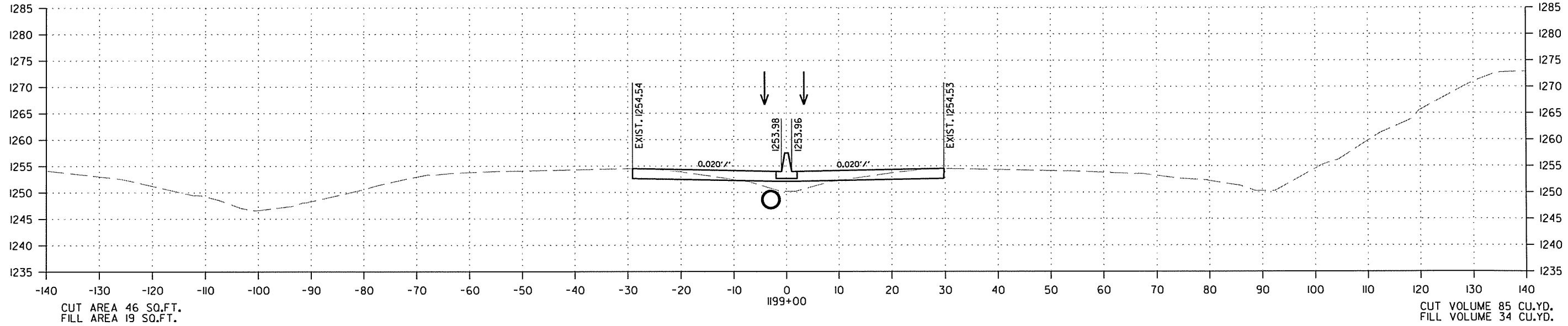
CROSS SECTION STA. 1197+00 TO STA. 1198+00

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	76	122

② CROSS SECTIONS

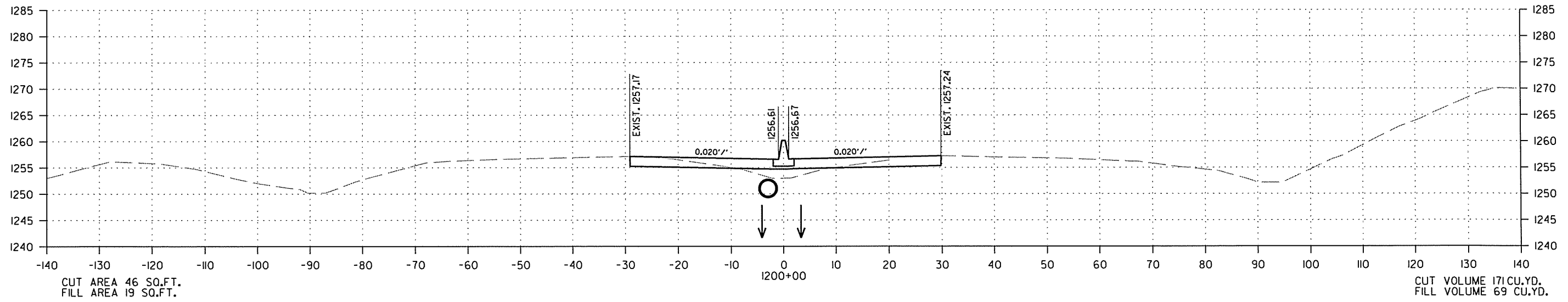
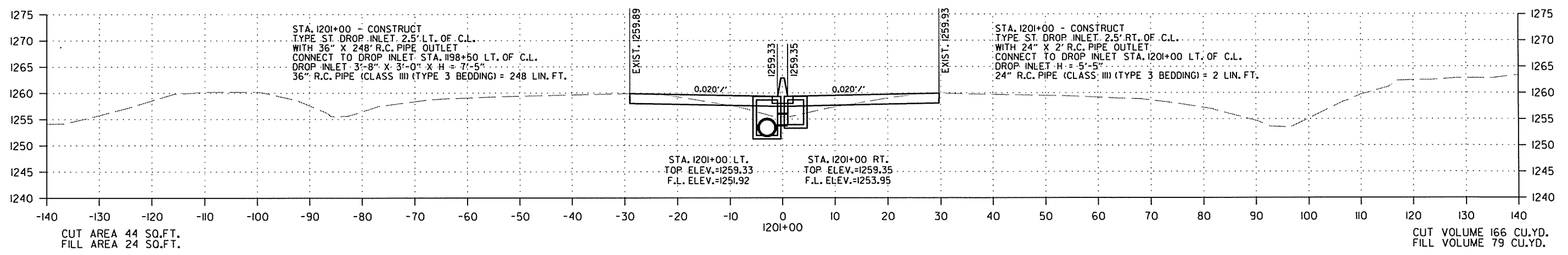
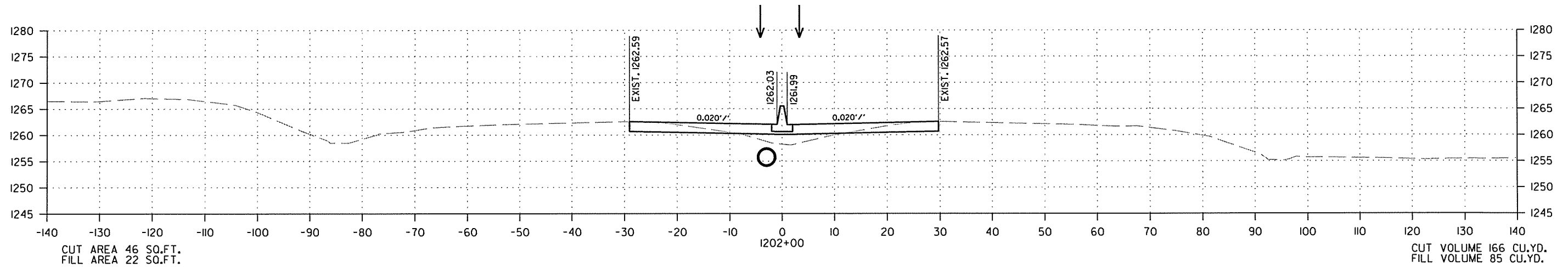


CROSS SECTION STA. 1198+50 TO STA. 1199+00

R090305.DGN 5/14/2014

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	77	122

2 CROSS SECTIONS



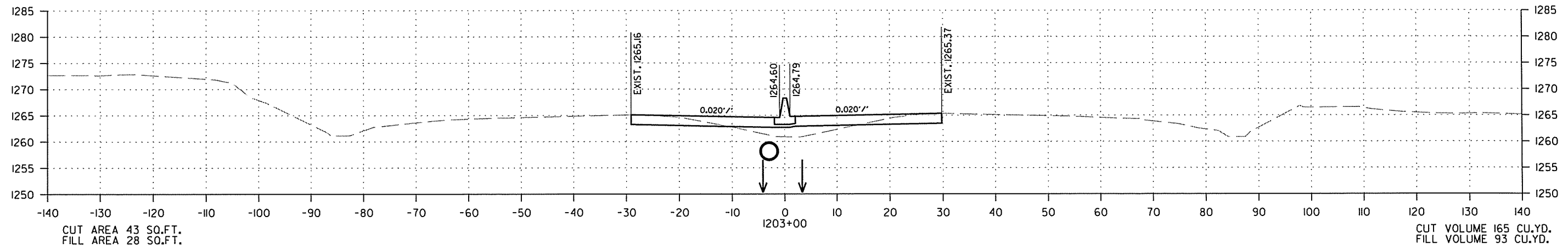
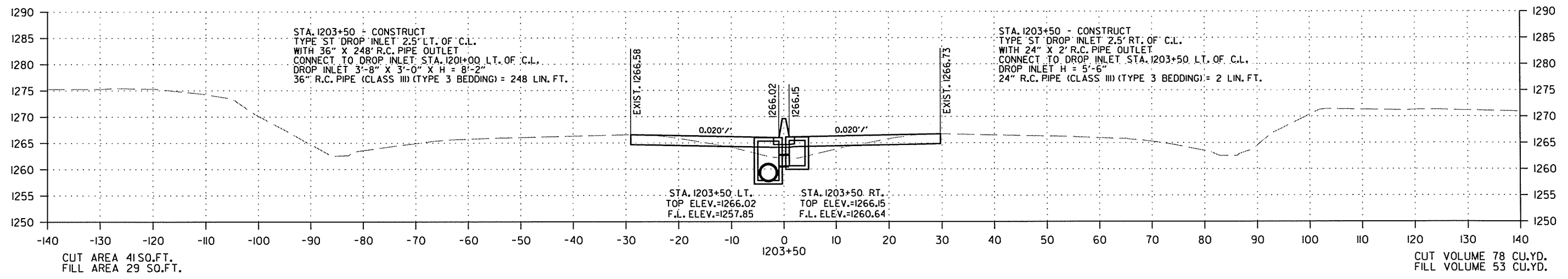
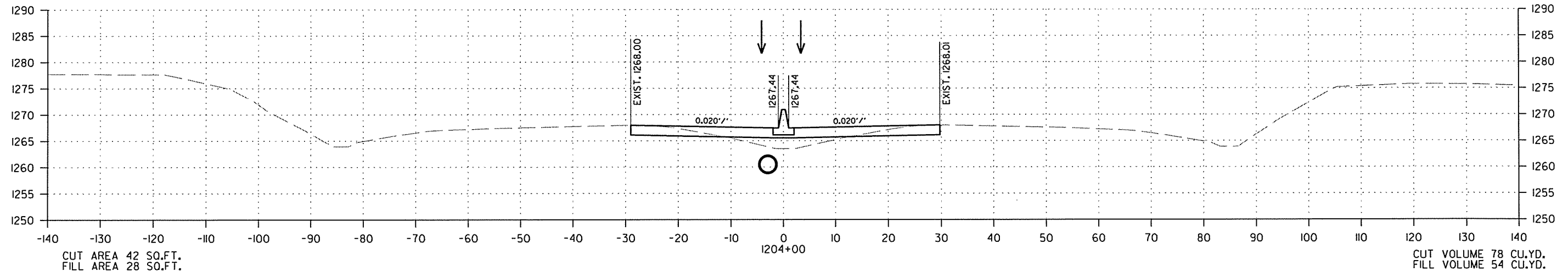
CROSS SECTION STA. 1200+00 TO STA. 1202+00

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	78	122

2 CROSS SECTIONS

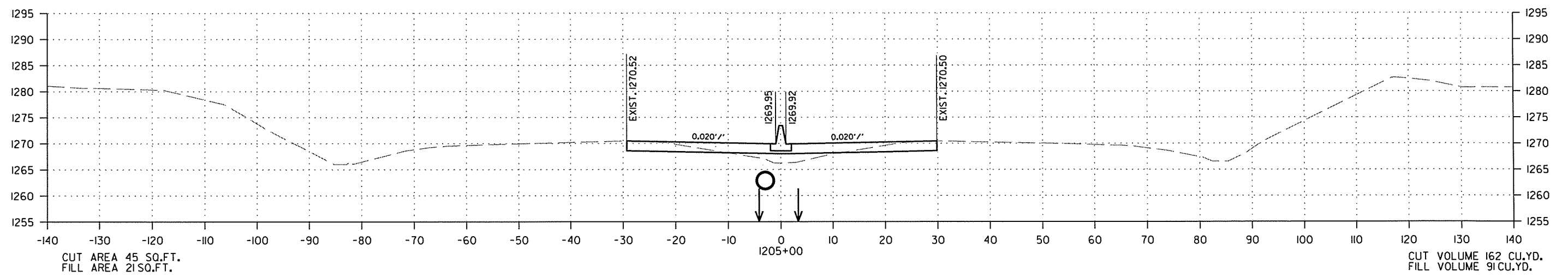
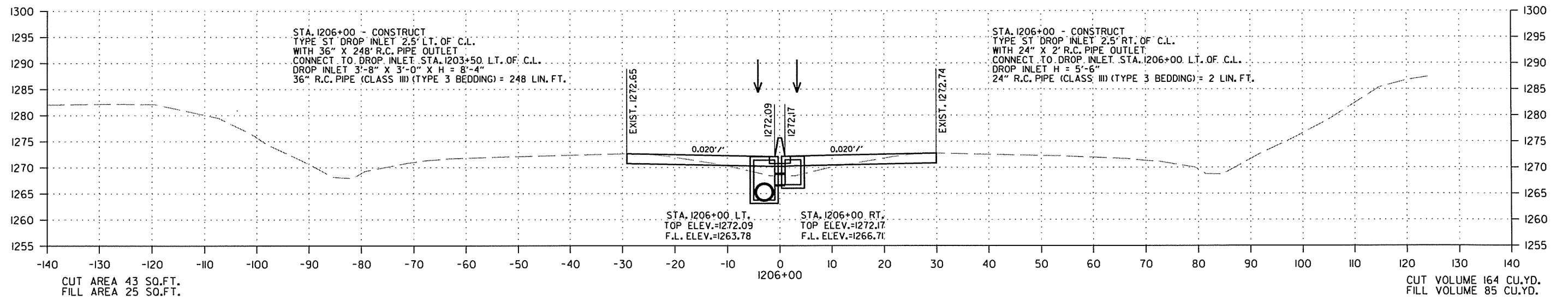


CROSS SECTION STA. 1203+00 TO STA. 1204+00

R090305.DGN 5/14/2014

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							79	122

2 CROSS SECTIONS



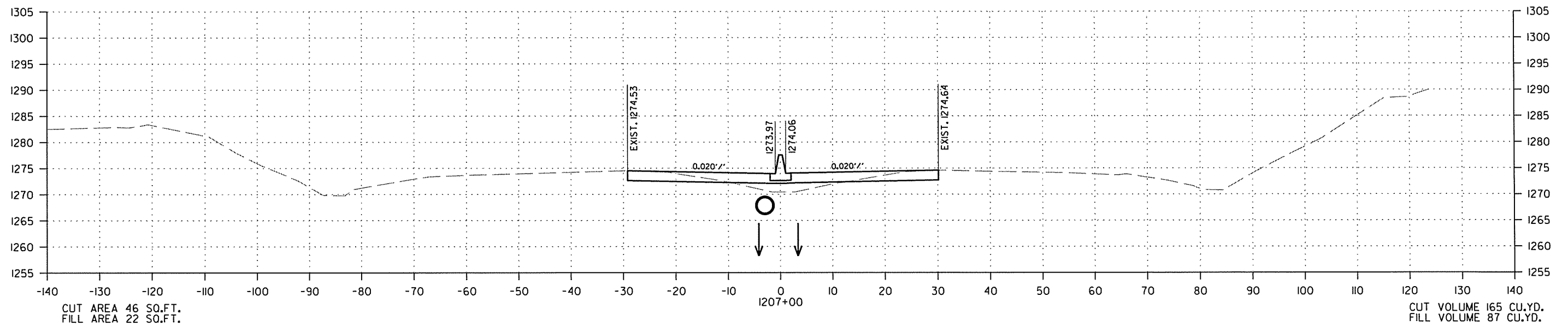
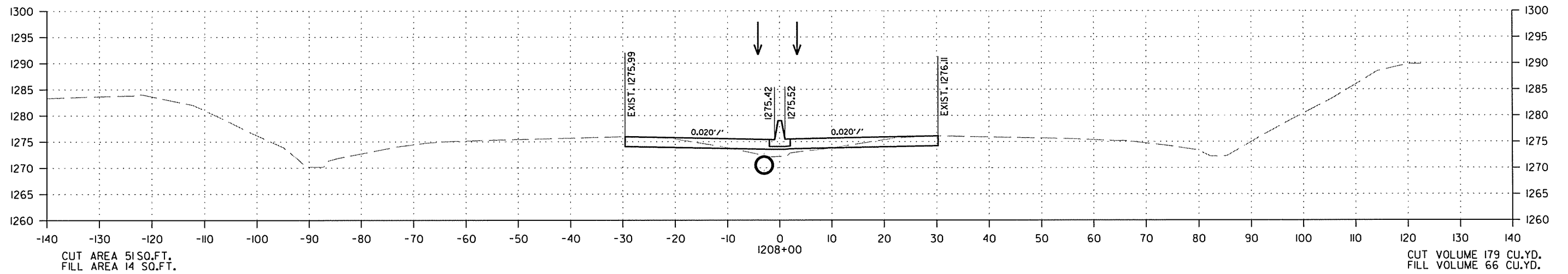
CROSS SECTION STA. 1205+00 TO STA. 1206+00

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO.	090305	80

2 CROSS SECTIONS



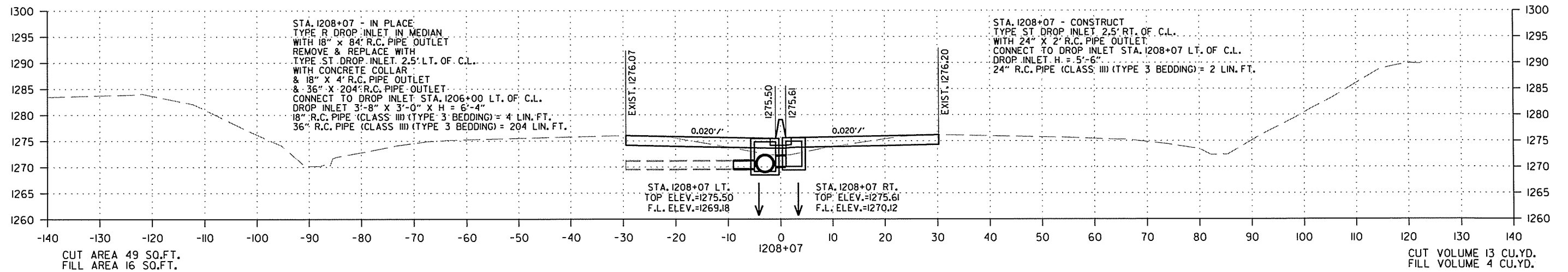
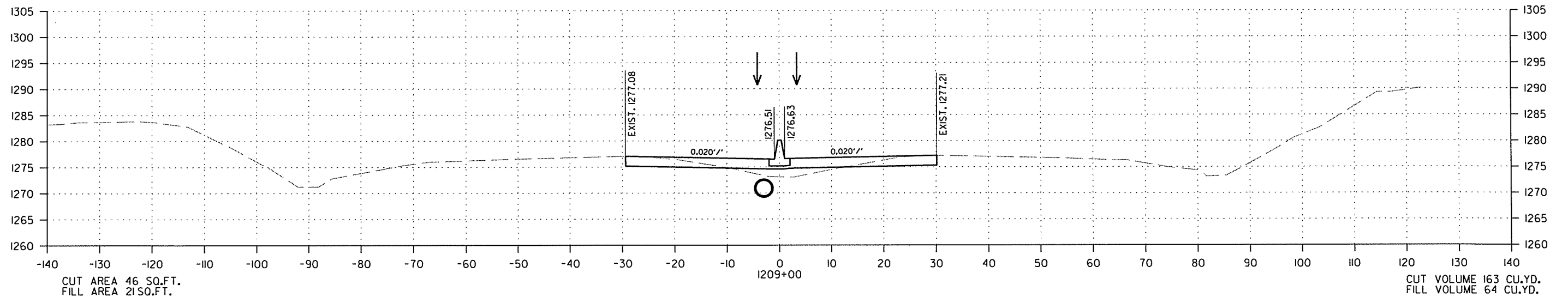
CROSS SECTION STA. 1207+00 TO STA. 1208+00

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R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							81	122

2 CROSS SECTIONS



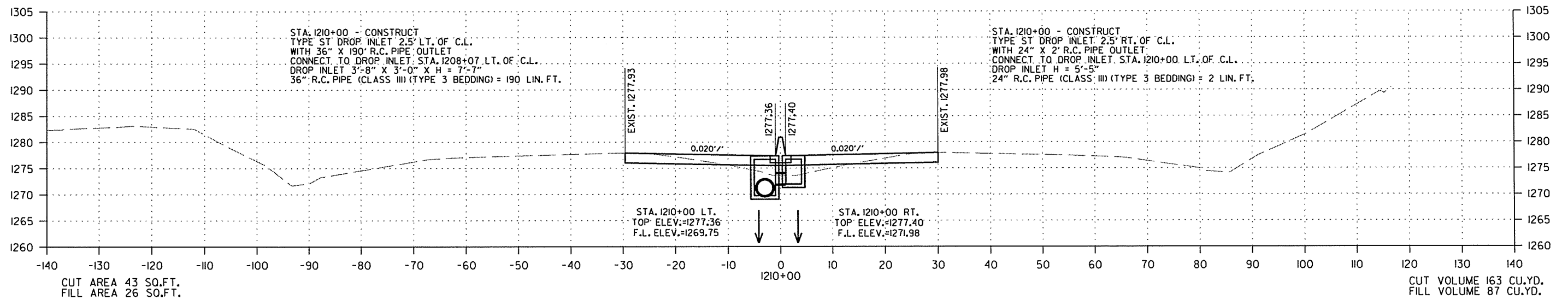
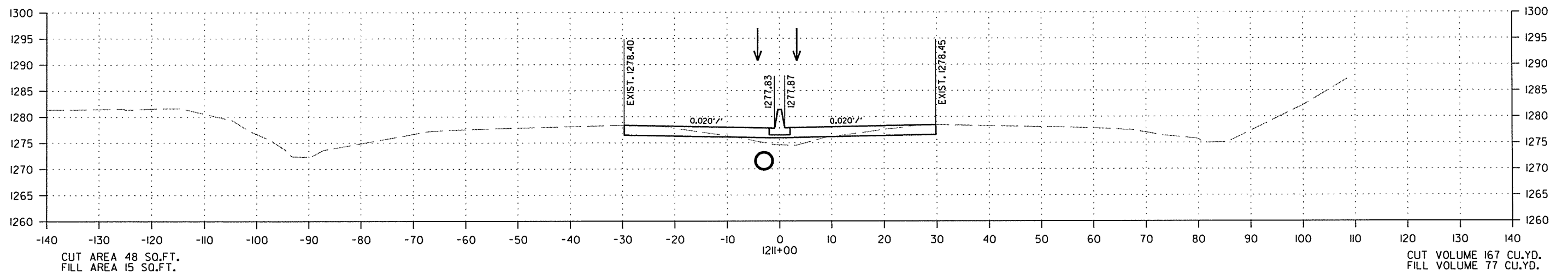
CROSS SECTION STA. 1208+07 TO STA. 1209+00

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	82	122

2 CROSS SECTIONS



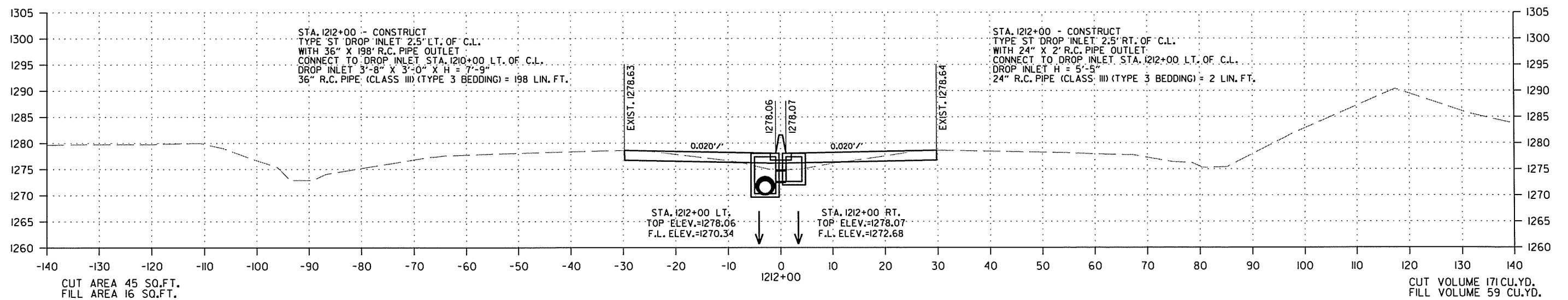
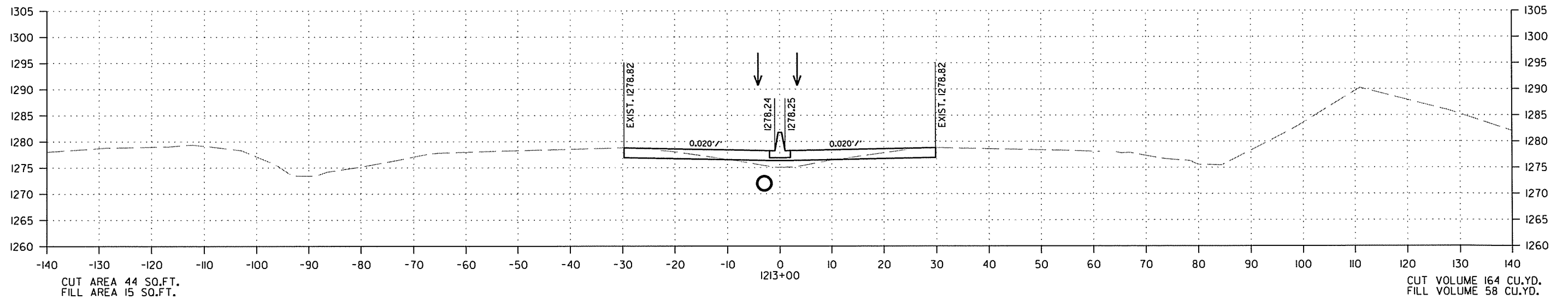
CROSS SECTION STA. 1210+00 TO STA. 1211+00

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. AID DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO.	090305	83

2 CROSS SECTIONS

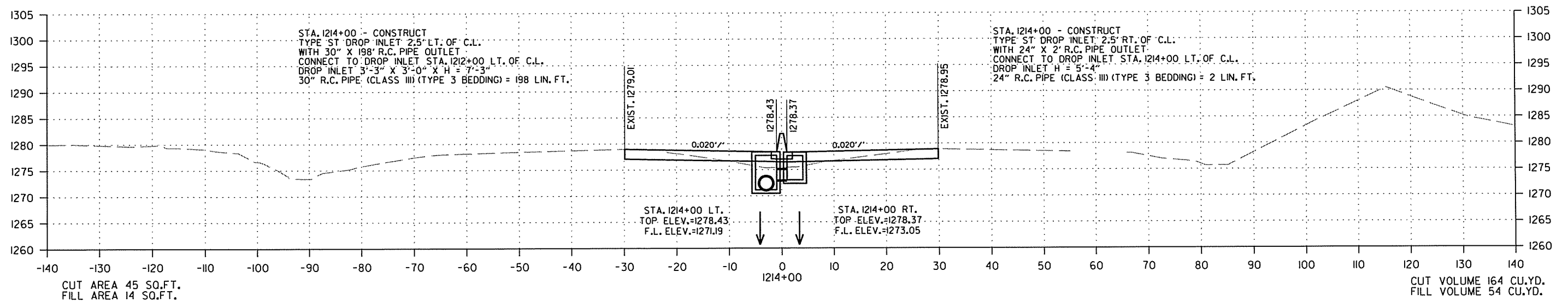
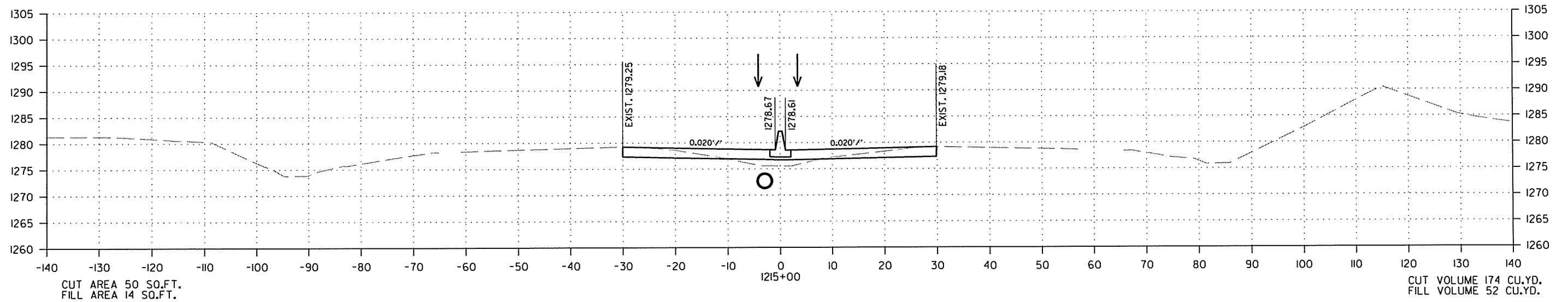


CROSS SECTION STA. 1212+00 TO STA. 1213+00

R090305.DCN 5/14/2014

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO.	090305	84 122

2 CROSS SECTIONS



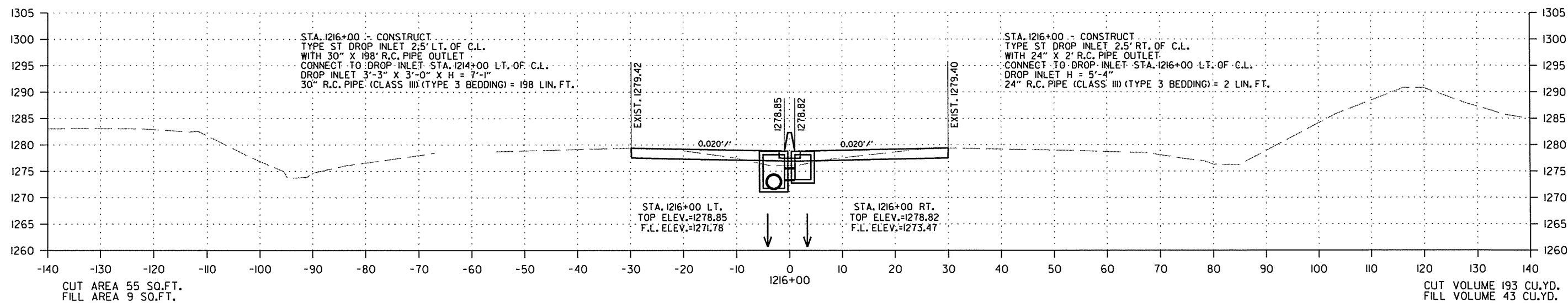
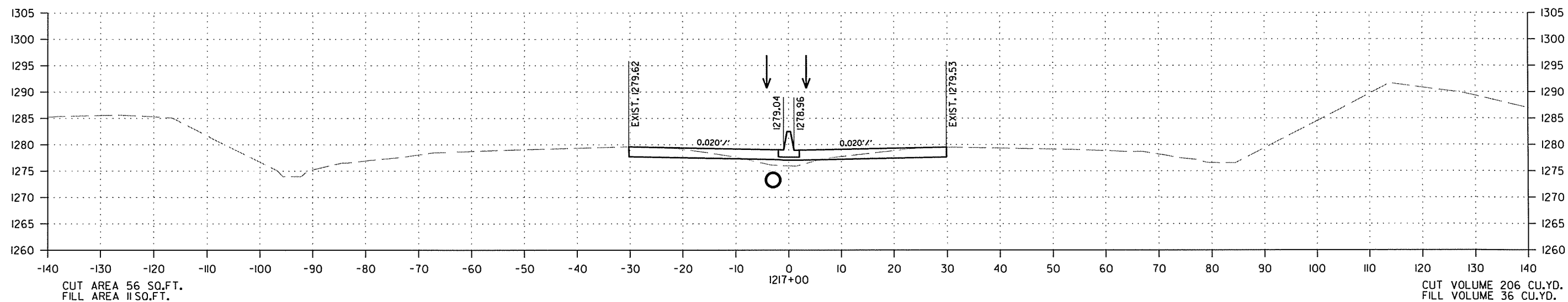
CROSS SECTION STA. 1214+00 TO STA. 1215+00

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R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	85	122

② CROSS SECTIONS



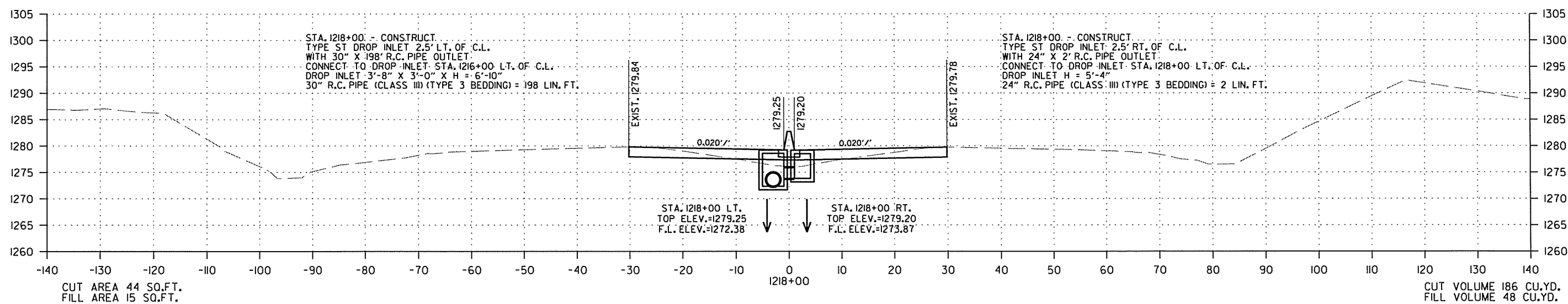
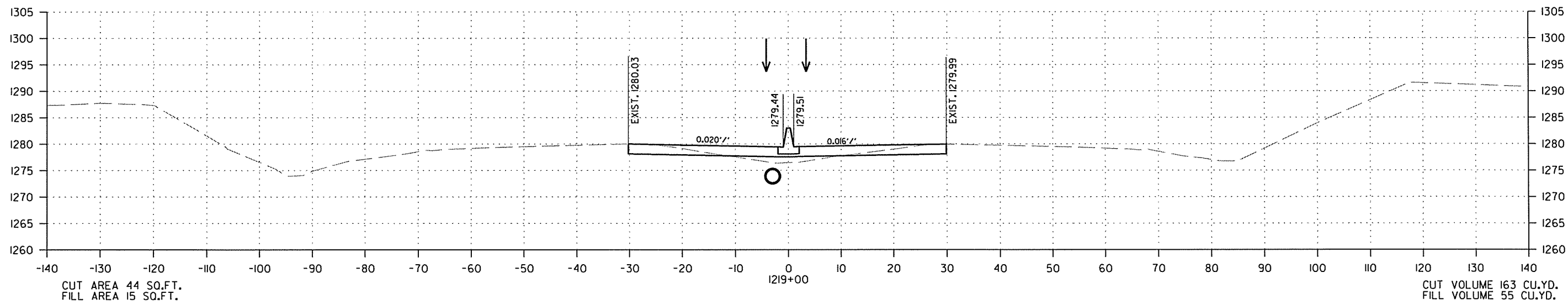
CROSS SECTION STA. 1216+00 TO STA. 1217+00

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	86	122

2 CROSS SECTIONS

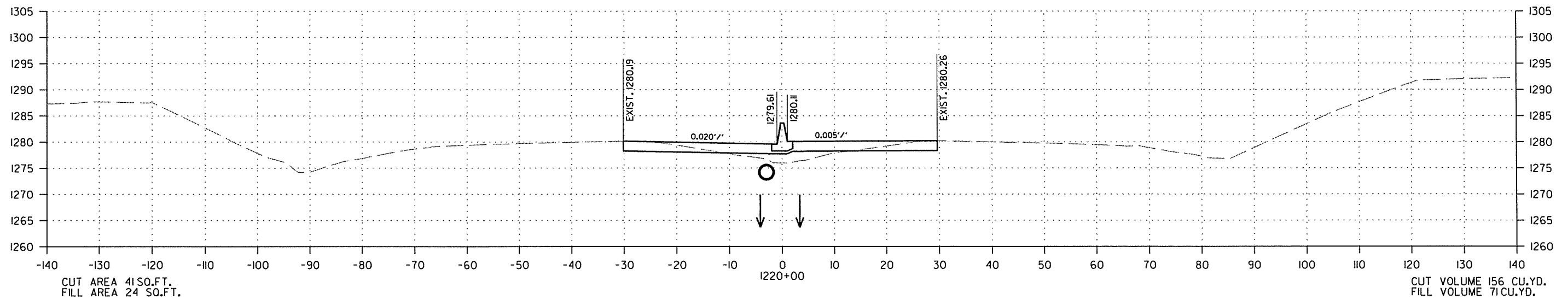
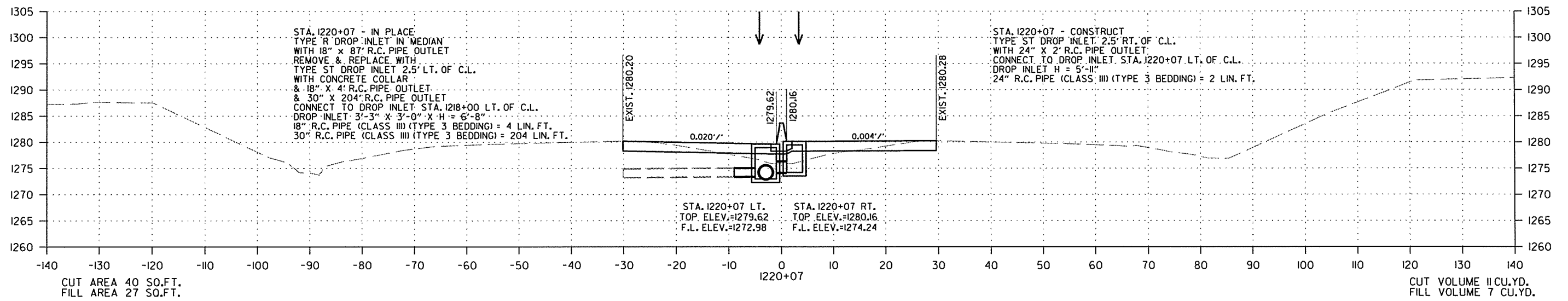


CROSS SECTION STA. 1218+00 TO STA. 1219+00

R090305.DGN 5/14/2014

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	87	122

2 CROSS SECTIONS



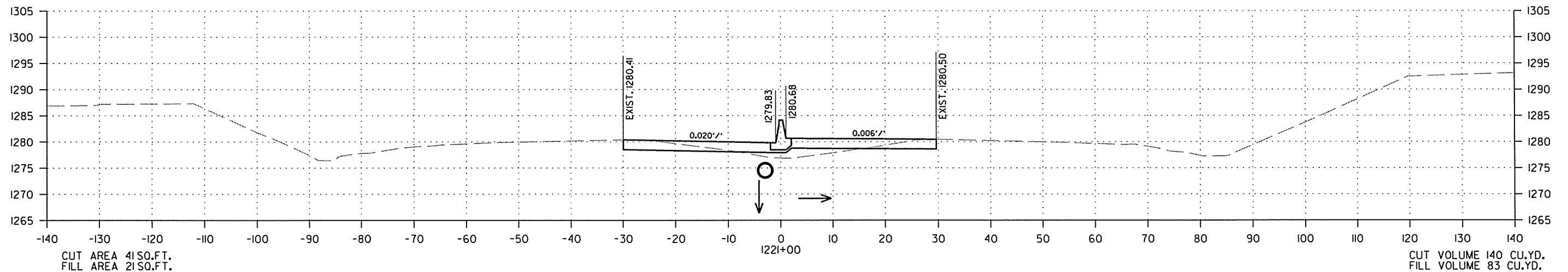
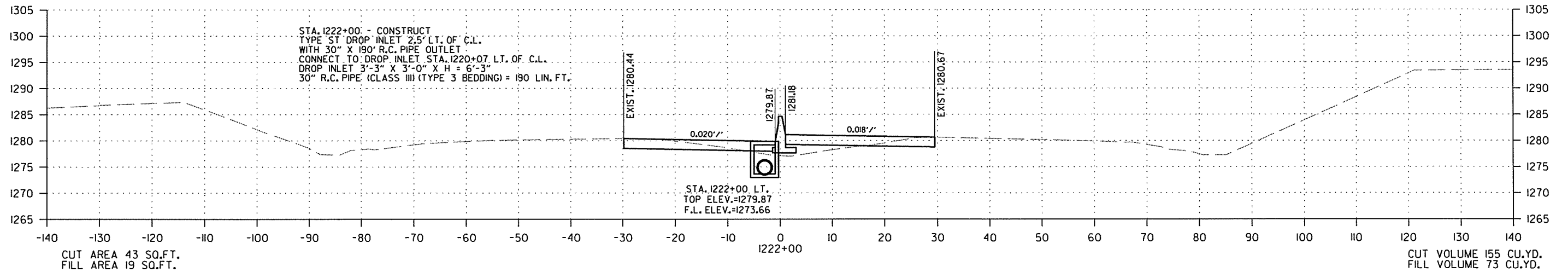
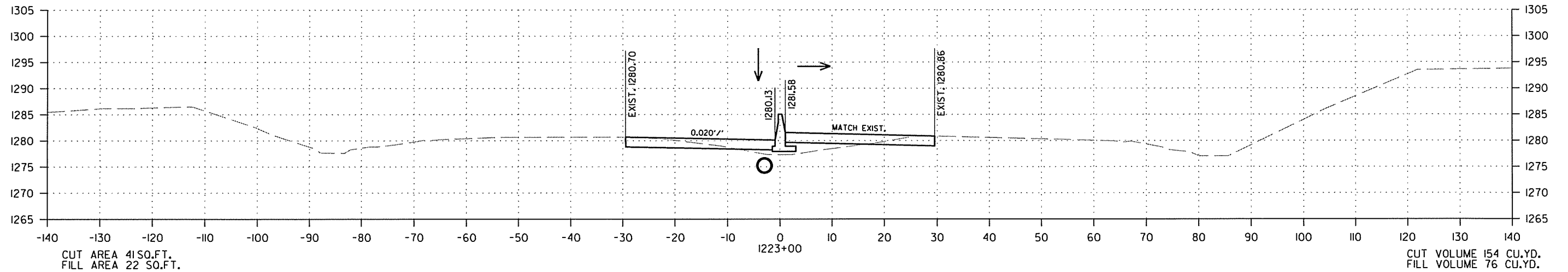
CROSS SECTION STA. 1220+00 TO STA. 1220+07

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	88	122

② CROSS SECTIONS



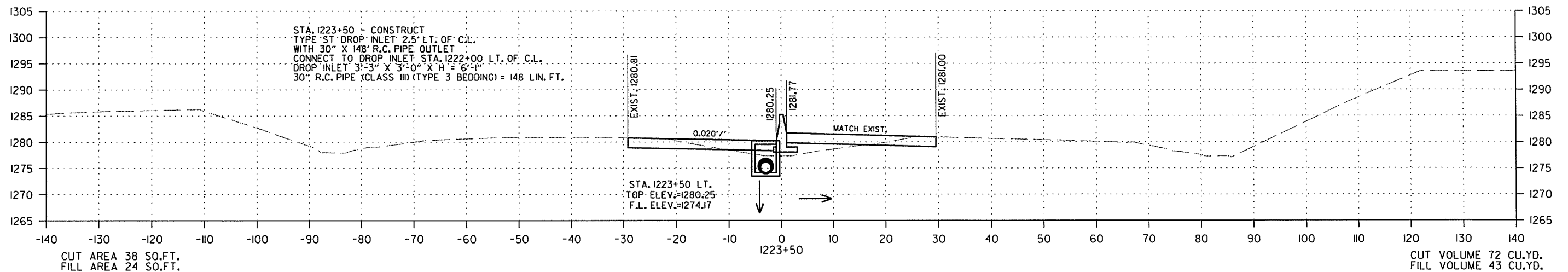
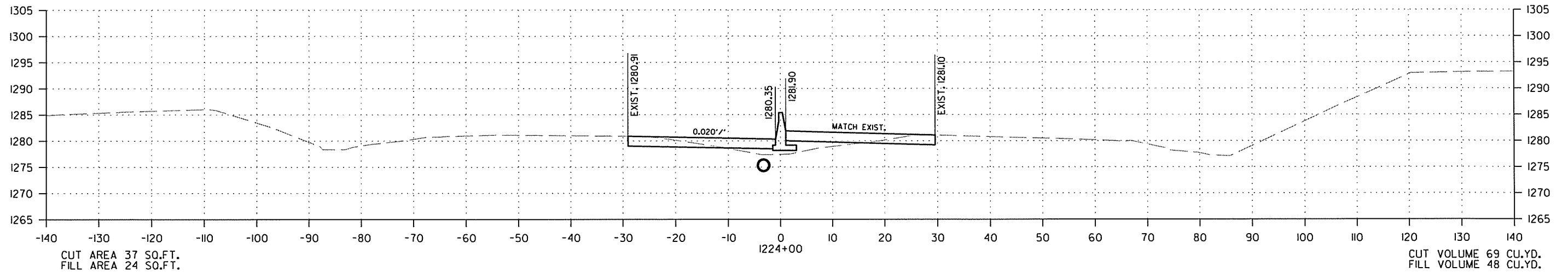
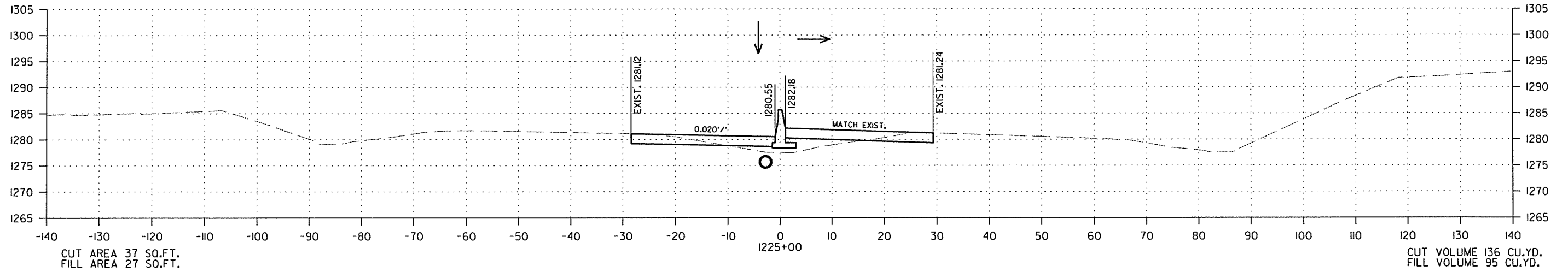
CROSS SECTION STA. 1221+00 TO STA. 1223+00

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							89	122

2 CROSS SECTIONS



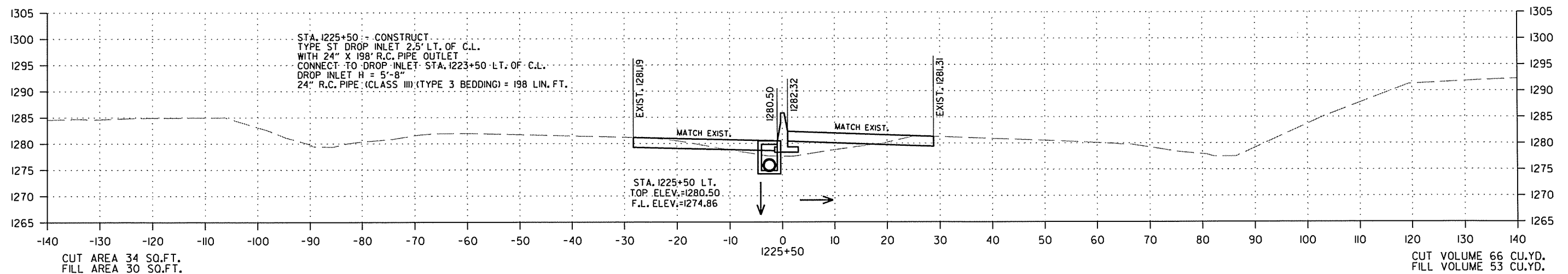
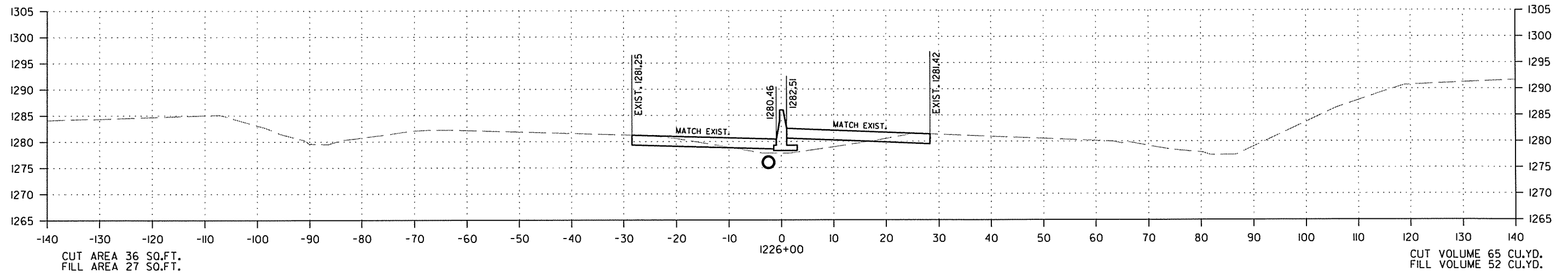
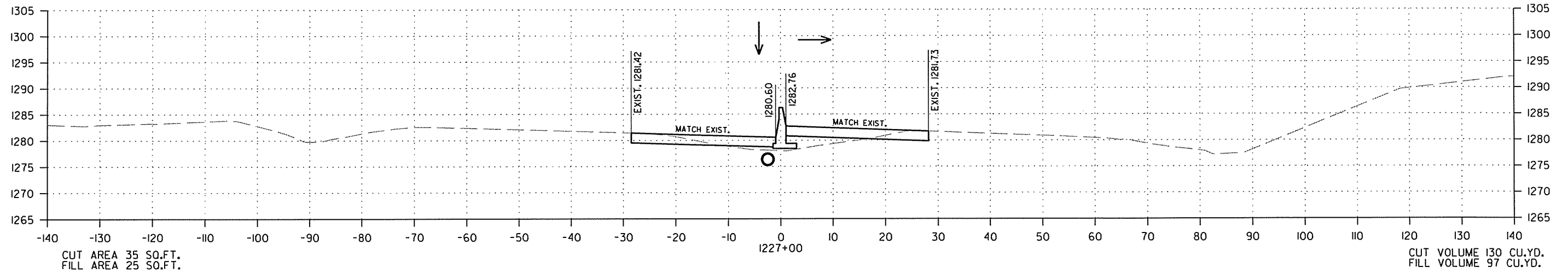
CROSS SECTION STA. 1223+50 TO STA. 1225+00

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							90	122

② CROSS SECTIONS



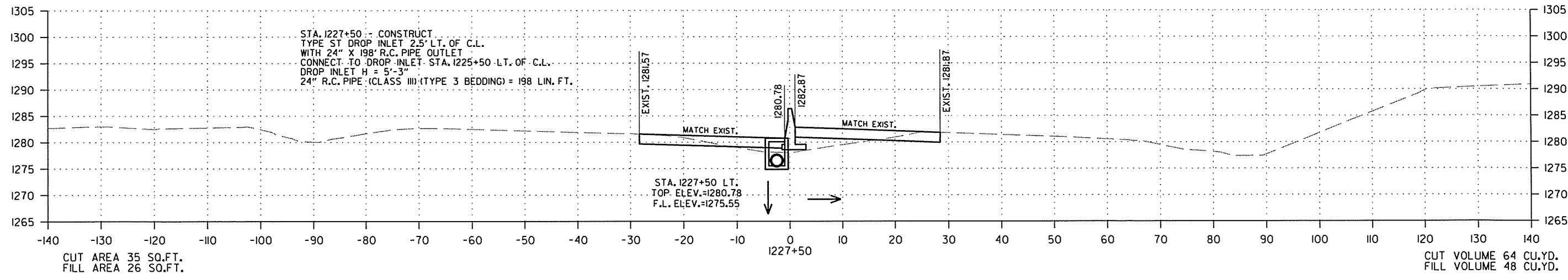
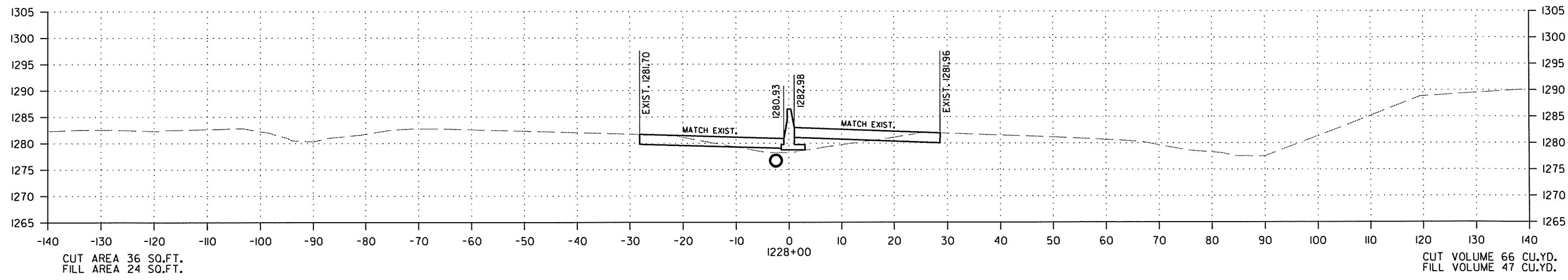
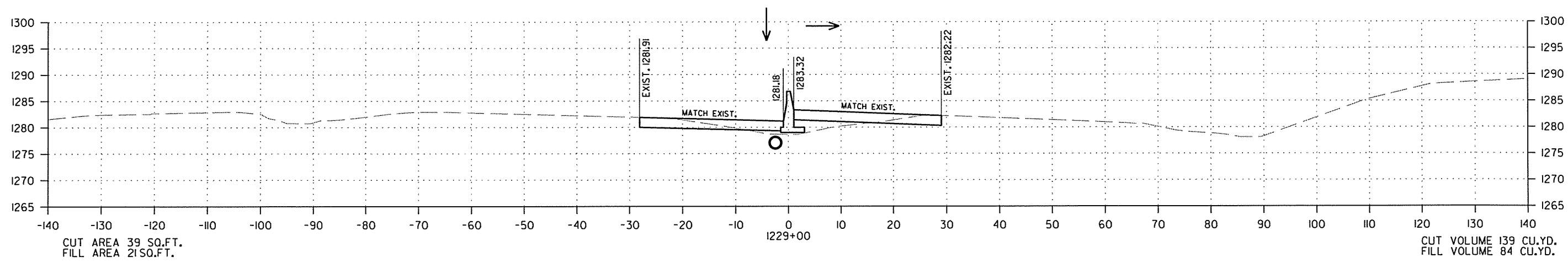
STA. 1225+50 = CONSTRUCT
 TYPE ST DROP INLET 2.5' LT. OF C.L.
 WITH 24" X 198' R.C. PIPE OUTLET
 CONNECT TO DROP INLET STA. 1223+50 LT. OF C.L.
 DROP INLET H = 5'-8"
 24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 198 LIN. FT.

STA. 1225+50 LT.
 TOP ELEV.=1280.50
 F.L. ELEV.=1274.86

CROSS SECTION STA. 1225+50 TO STA. 1227+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	91	122

2 CROSS SECTIONS

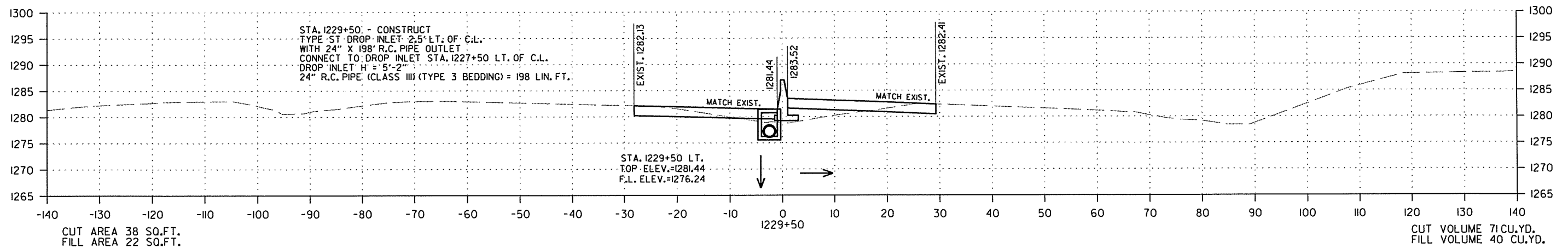
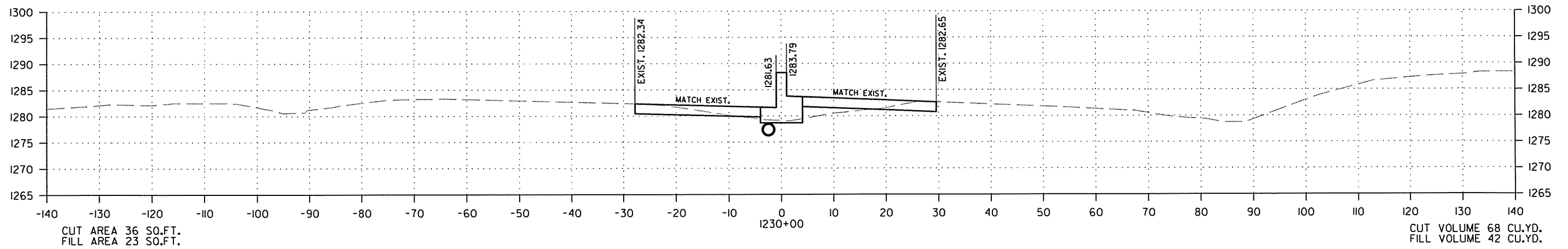
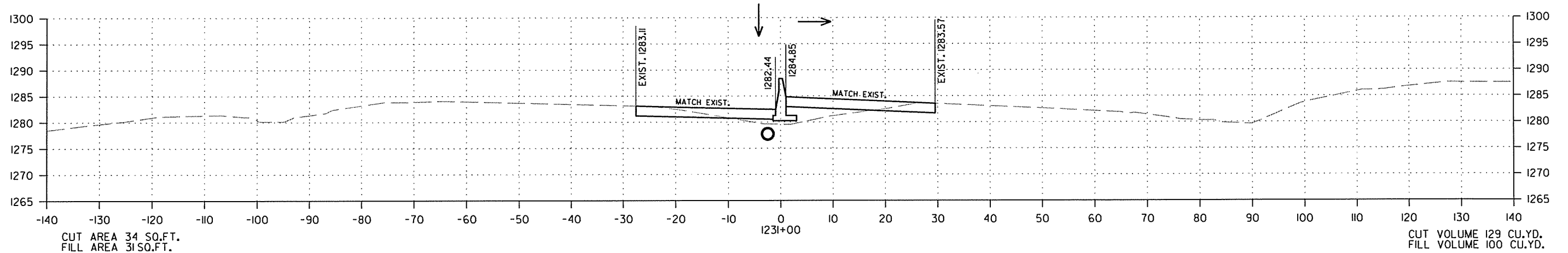


CROSS SECTION STA. 1227+50 TO STA. 1229+00

5/14/2014
R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090305	92	122

② CROSS SECTIONS



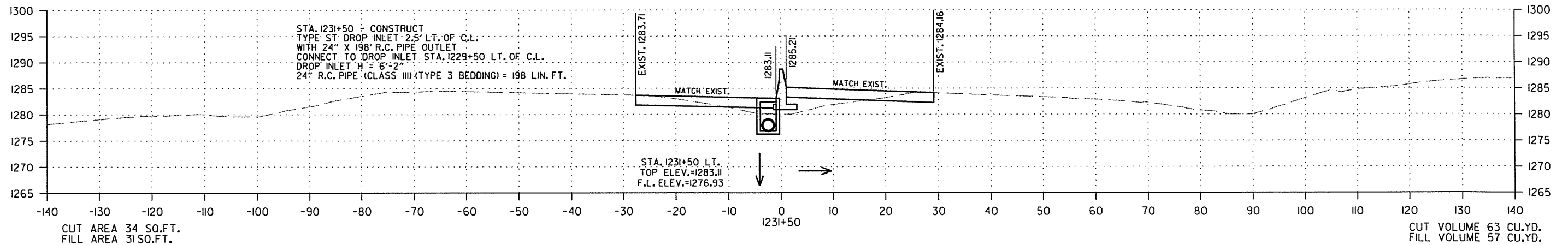
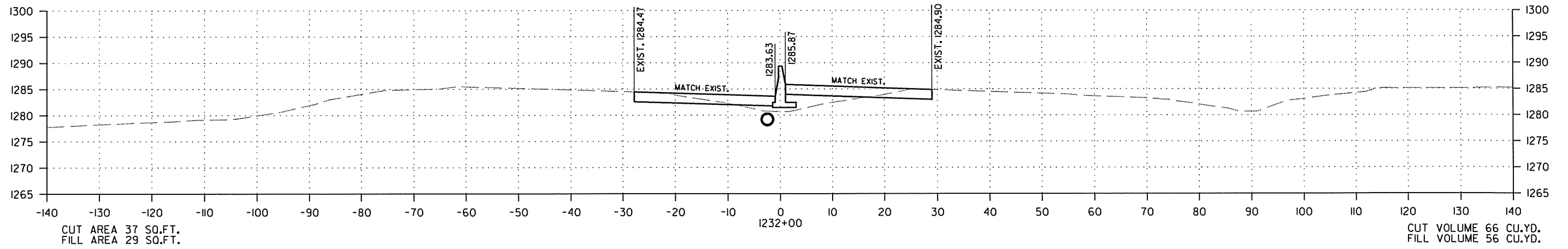
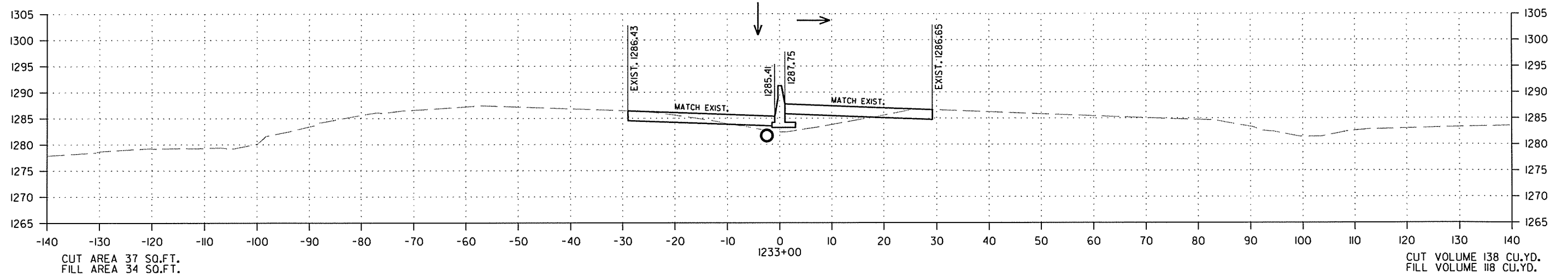
STA. 1229+50 - CONSTRUCT
TYPE ST-DROP INLET 2.5' LT. OF C.L.
WITH 24" X 198' R.C. PIPE OUTLET
CONNECT TO DROP INLET STA. 1227+50 LT. OF C.L.
DROP INLET H = 5'-2"
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 198 LIN. FT.

STA. 1229+50 LT.
TOP ELEV.=1281.44
F.L. ELEV.=1276.24

CROSS SECTION STA. 1229+50 TO STA. 1231+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							93	122

2 CROSS SECTIONS



STA. 1231+50 - CONSTRUCT
 TYPE ST DROP INLET 2.5' LT. OF C.L.
 WITH 24" X 198" R.C. PIPE OUTLET
 CONNECT TO DROP INLET STA. 1229+50 LT. OF C.L.
 DROP INLET H = 6'-2"
 24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 198 LIN. FT.

STA. 1231+50 LT.
 TOP ELEV.=1283.11
 F.L. ELEV.=1276.93

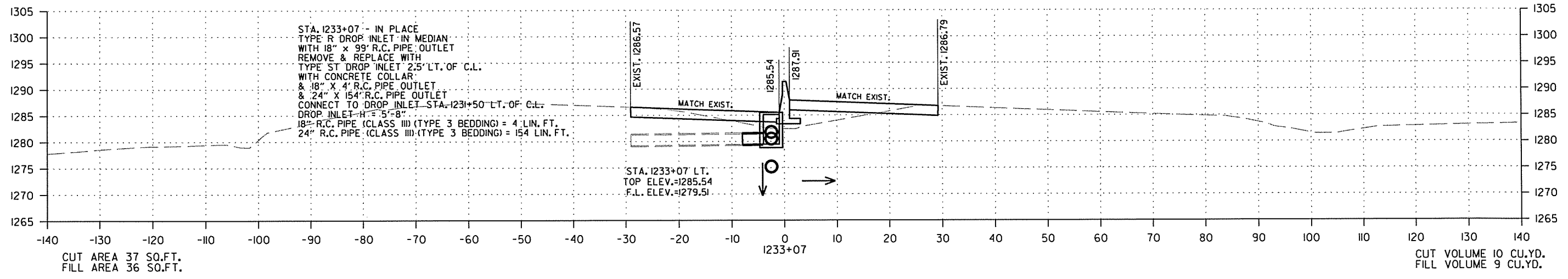
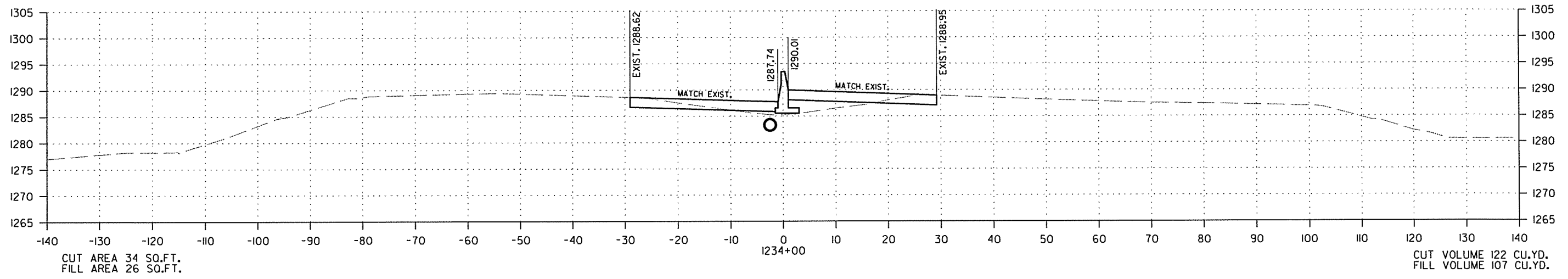
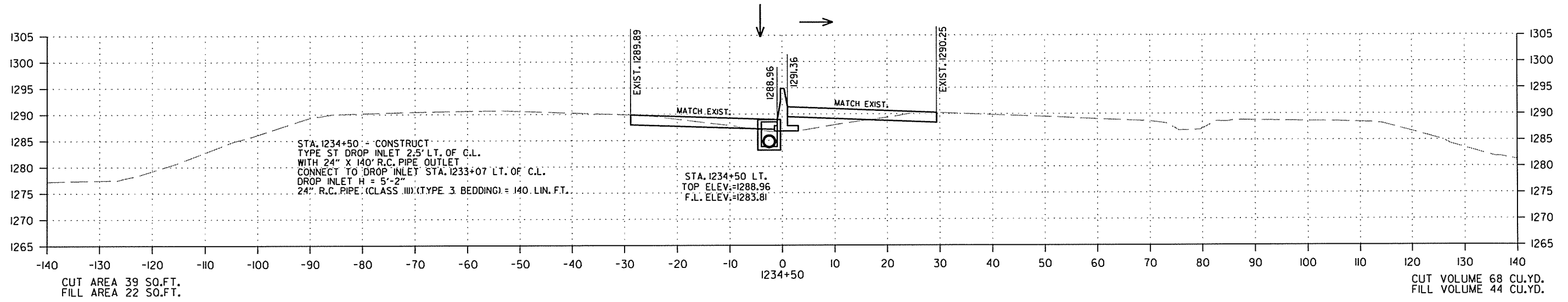
CROSS SECTION STA. 1231+50 TO STA. 1233+00

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R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							94	122

2 CROSS SECTIONS



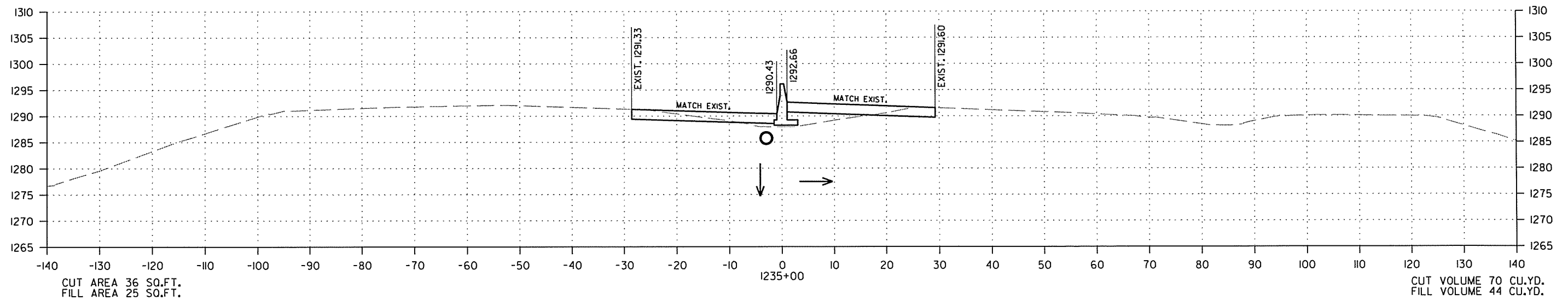
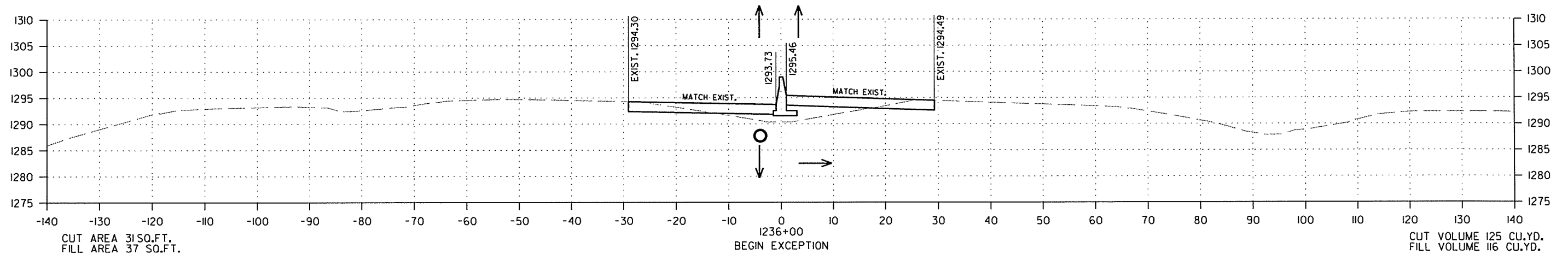
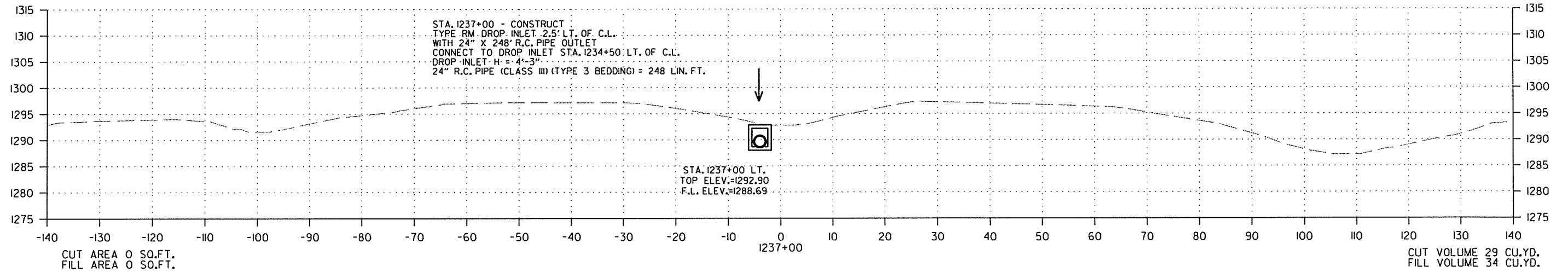
CROSS SECTION STA. 1233+07 TO STA. 1234+50

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	090305		95	122

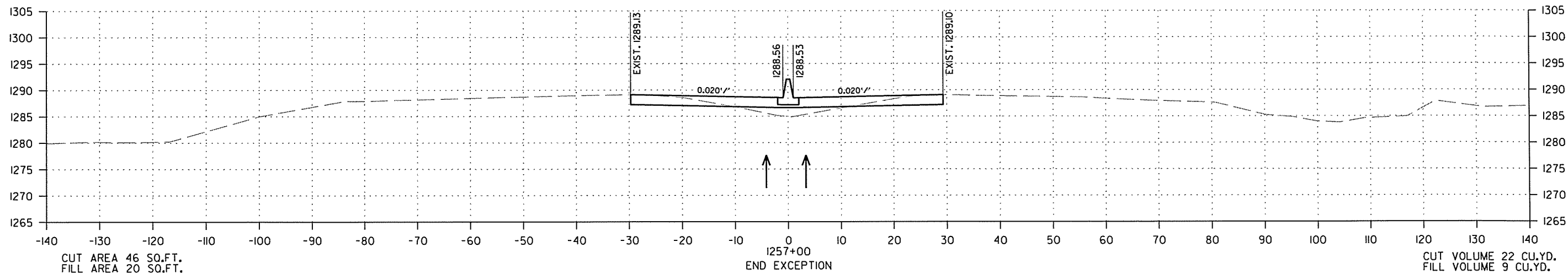
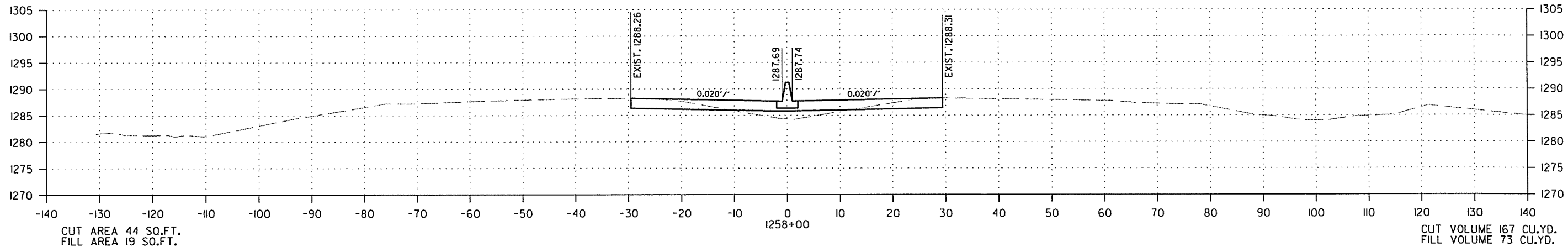
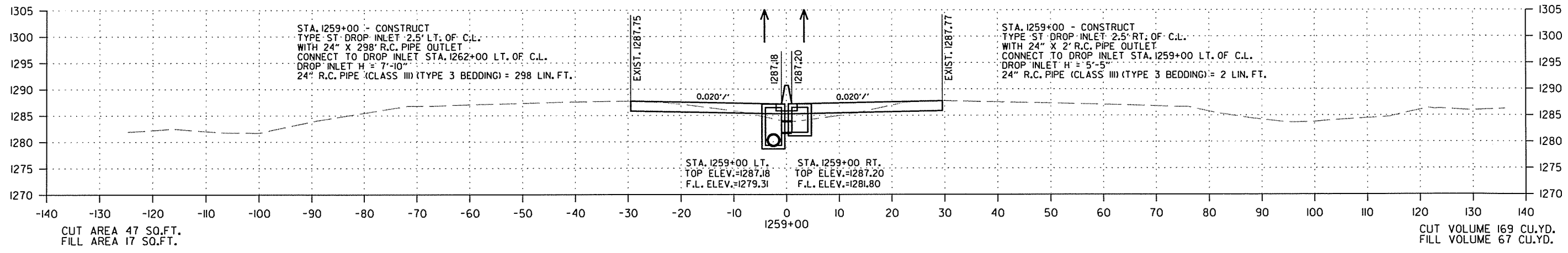
2 CROSS SECTIONS



CROSS SECTION STA. 1235+00 TO STA. 1237+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							96	122

2 CROSS SECTIONS

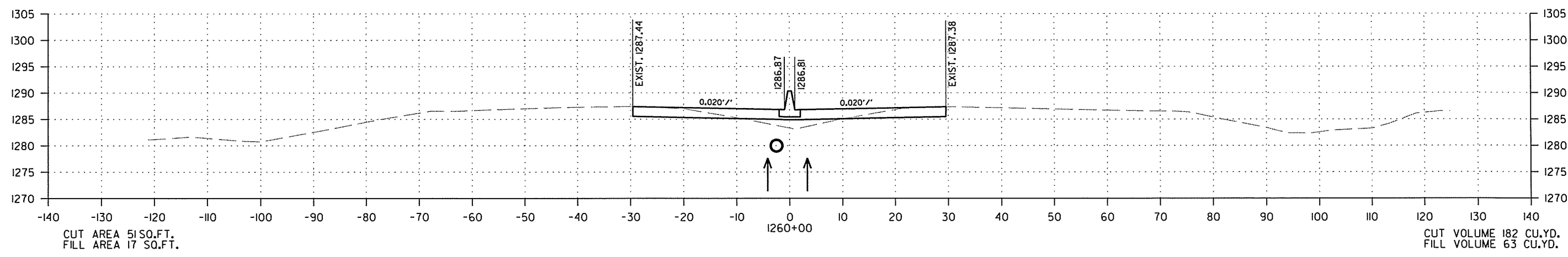
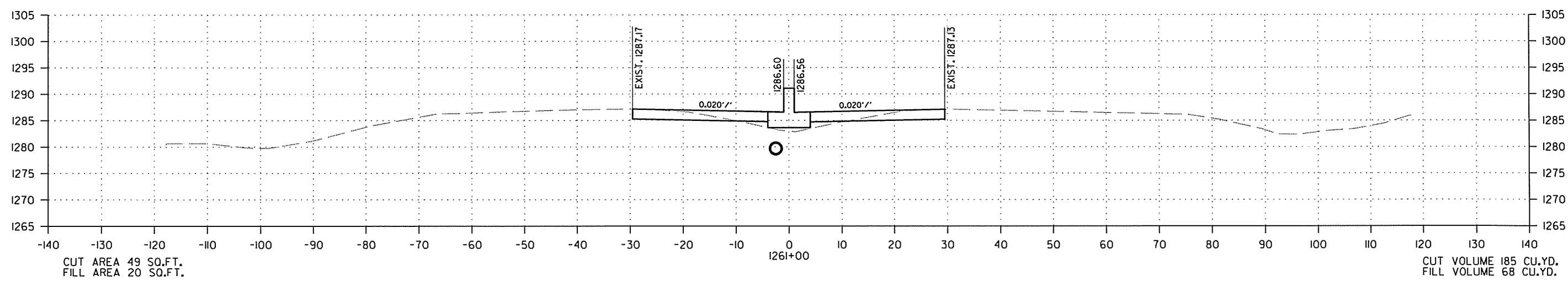
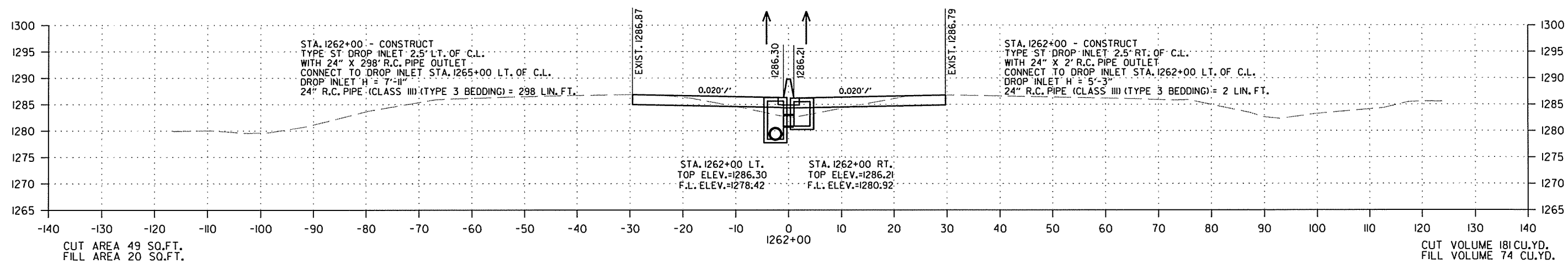


CROSS SECTION STA. 1257+00 TO STA. 1259+00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO.	090305	97 122

② CROSS SECTIONS

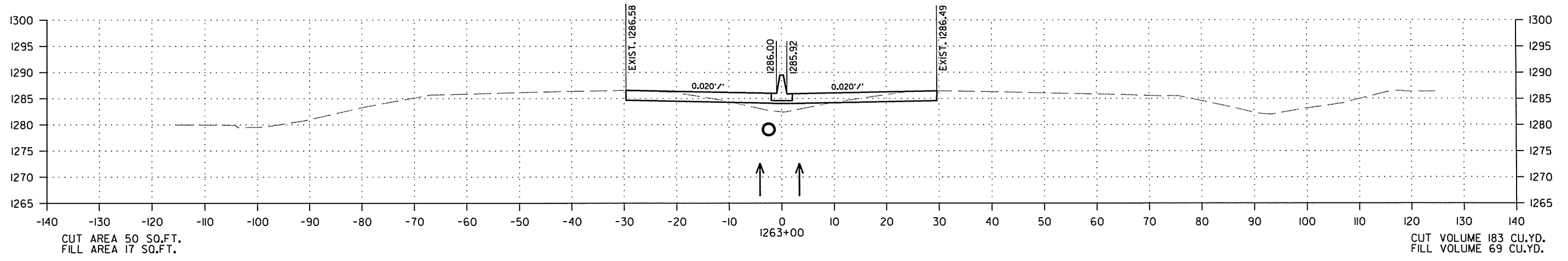
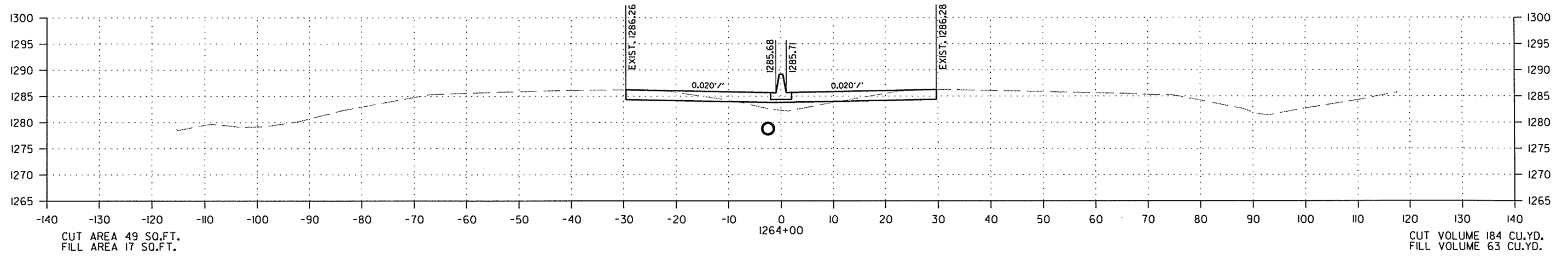
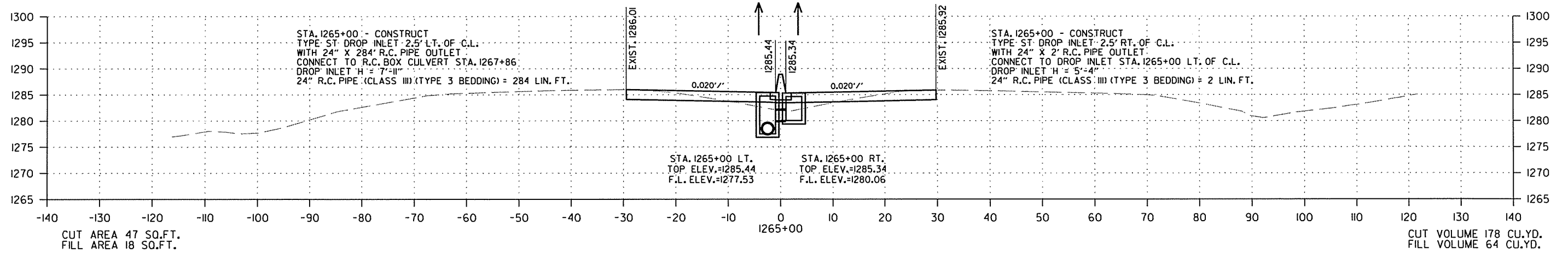


CROSS SECTION STA. 1260+00 TO STA. 1262+00

R090305.DGN 5/14/2014

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							98	122

2 CROSS SECTIONS



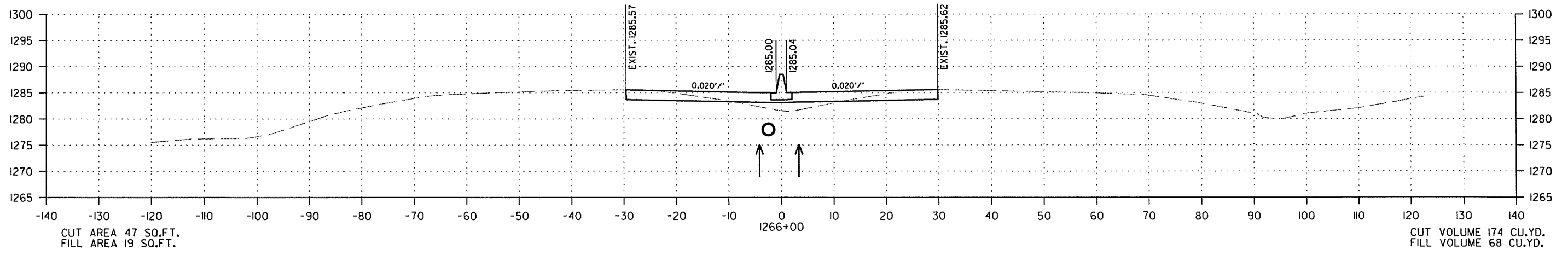
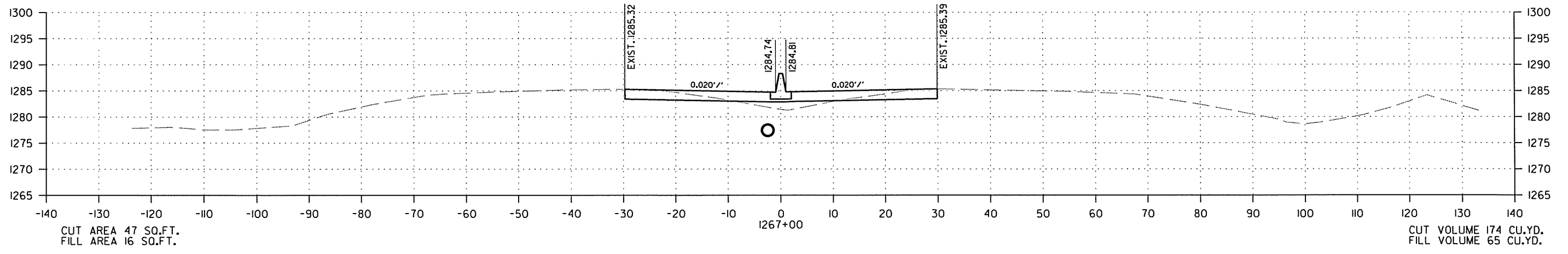
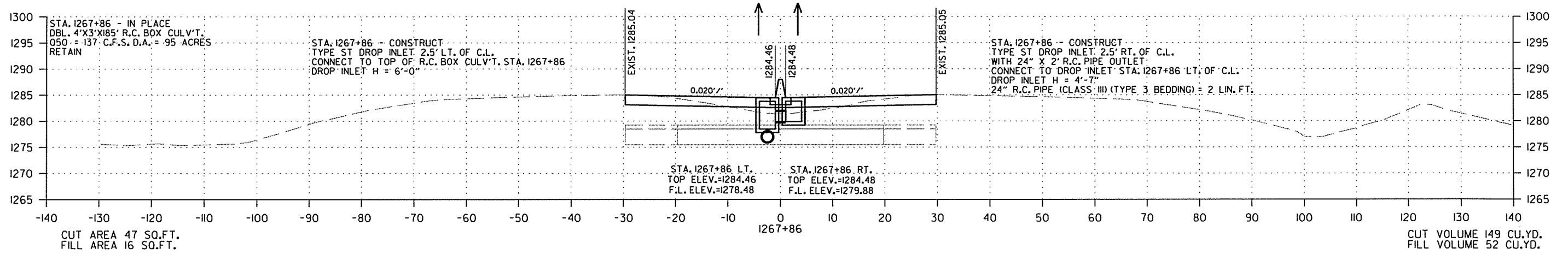
CROSS SECTION STA. 1263+00 TO STA. 1265+00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							99	122

2 CROSS SECTIONS



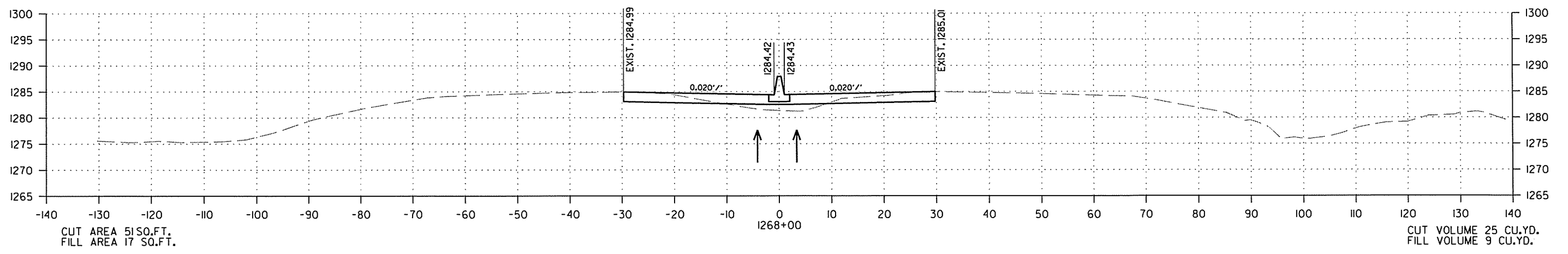
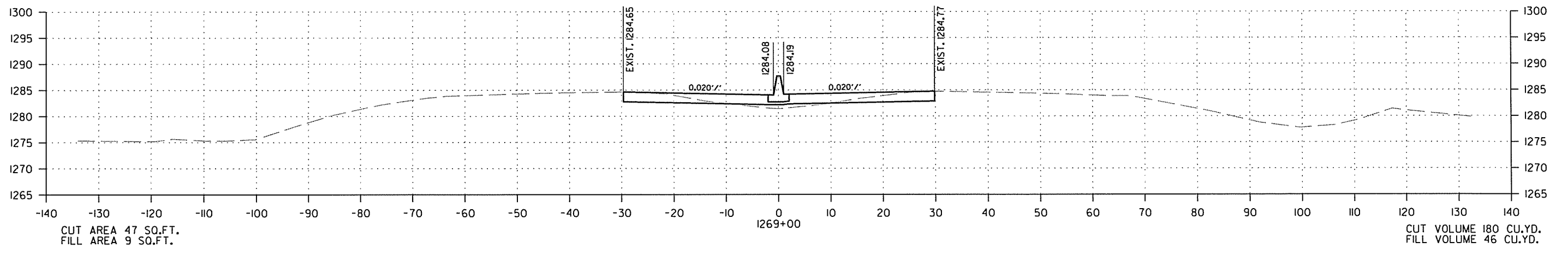
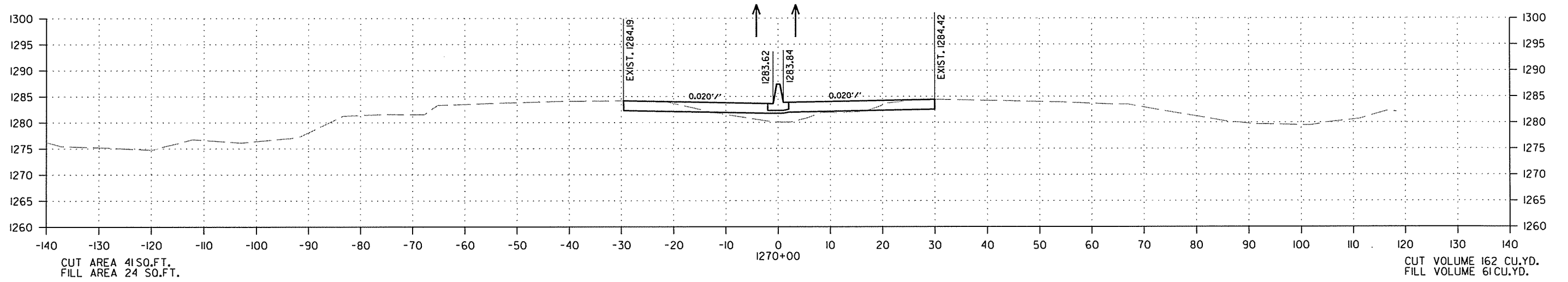
CROSS SECTION STA. 1266+00 TO STA. 1267+86

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO.						090305	100	122

2 CROSS SECTIONS



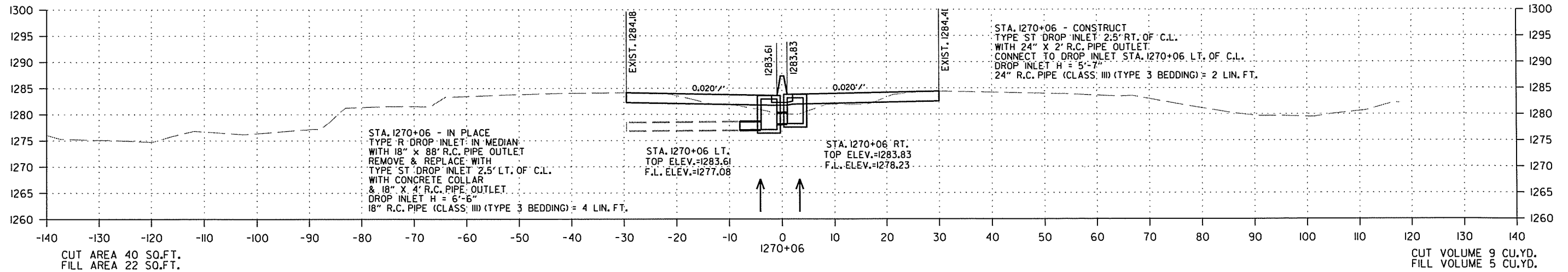
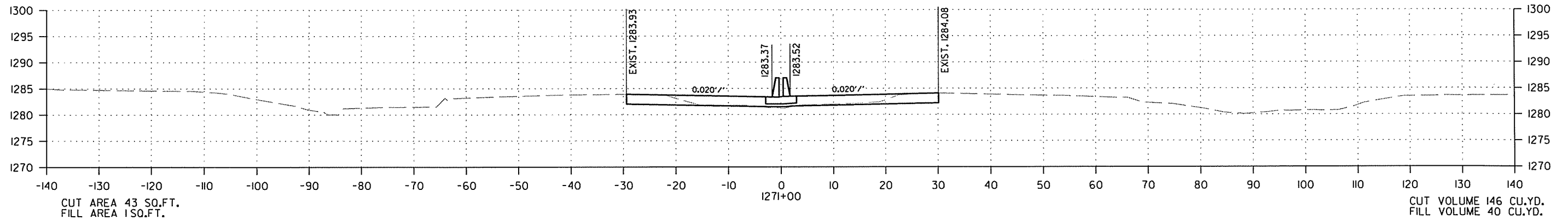
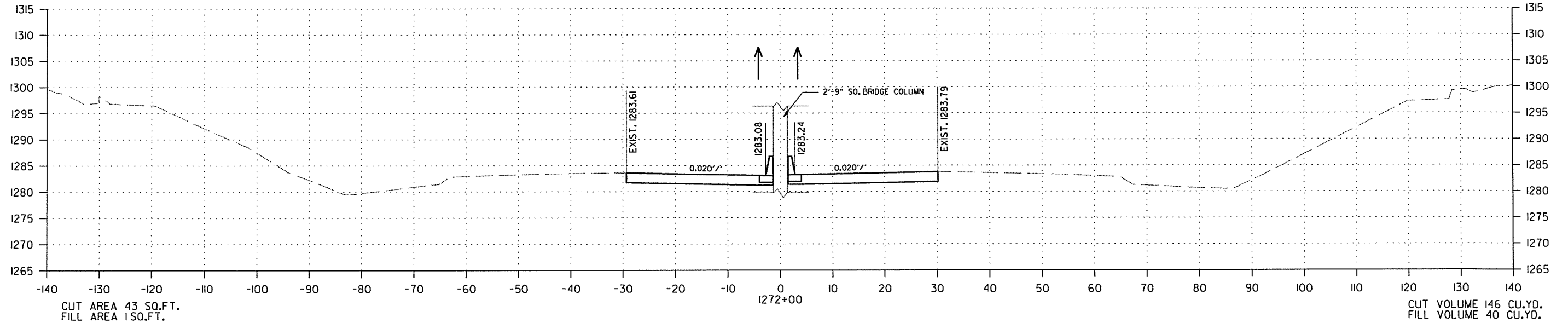
CROSS SECTION STA. 1268+00 TO STA. 1270+00

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	101	122

2 CROSS SECTIONS



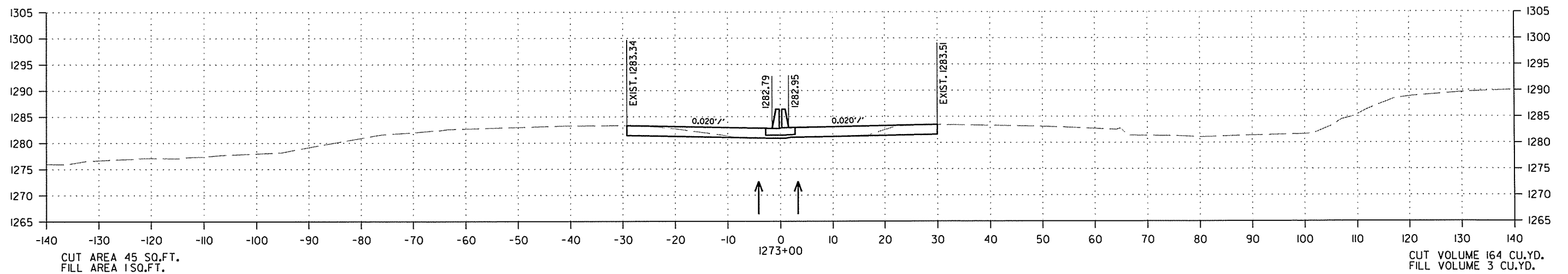
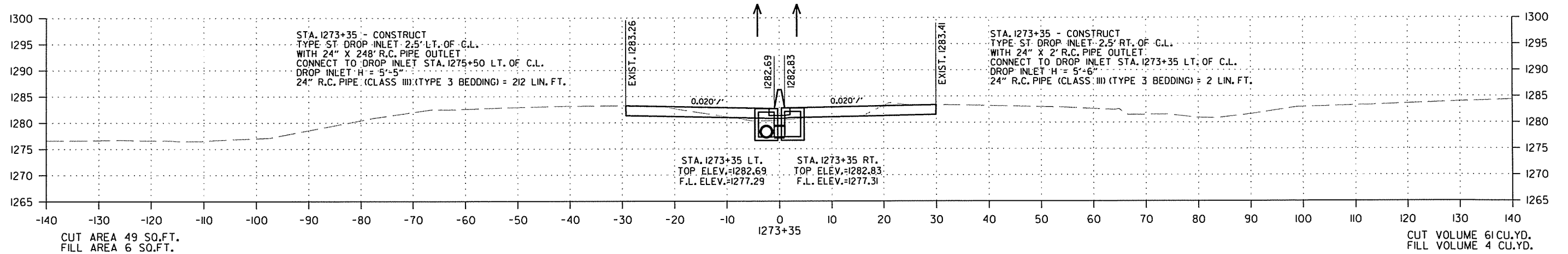
CROSS SECTION STA. 1270+06 TO STA. 1272+00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	102	122

2 CROSS SECTIONS

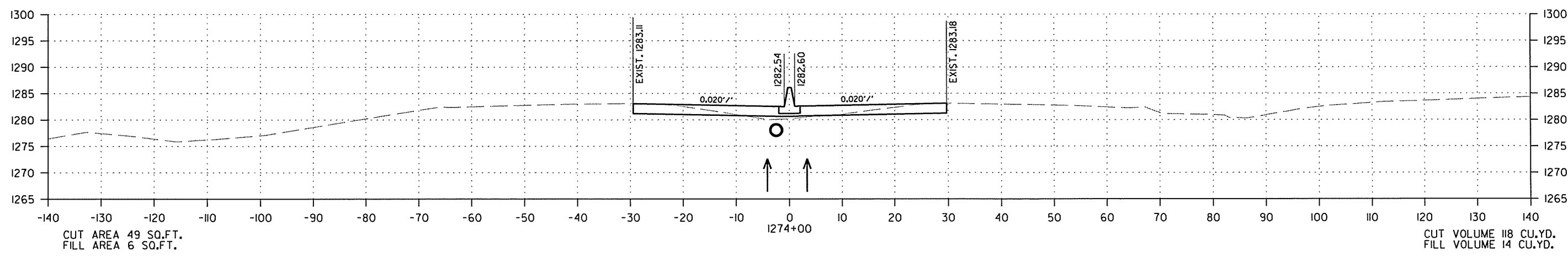
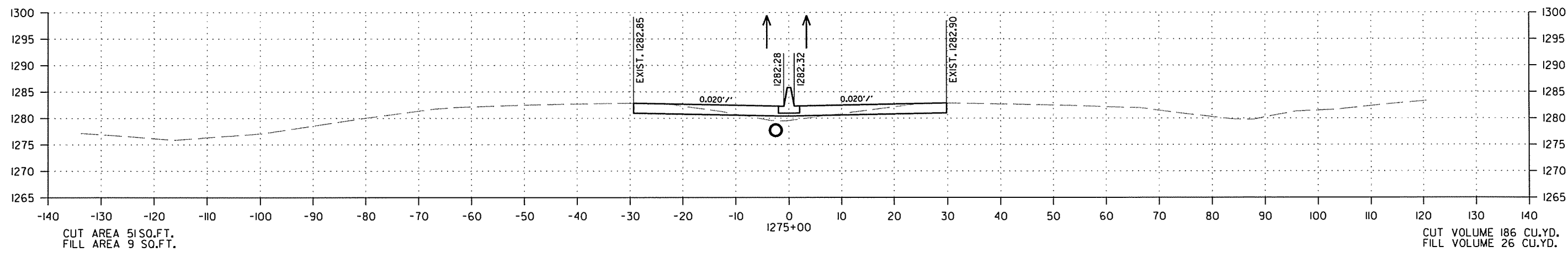


CROSS SECTION STA. 1273+00 TO STA. 1273+35

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R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO.	090305	103
② CROSS SECTIONS								

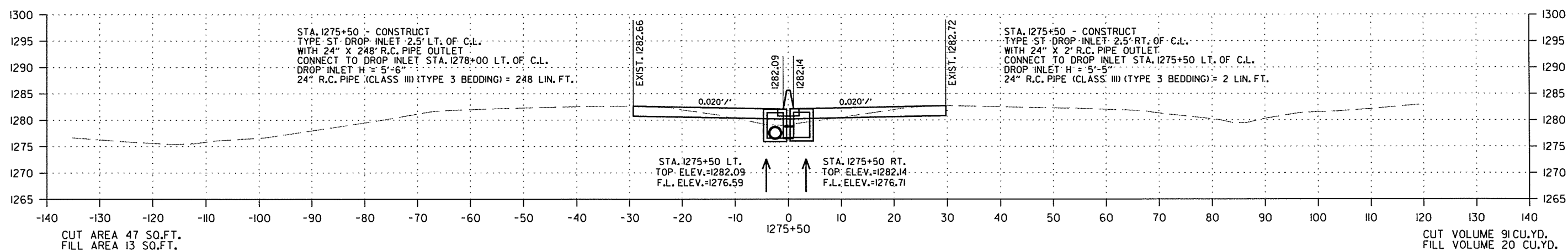
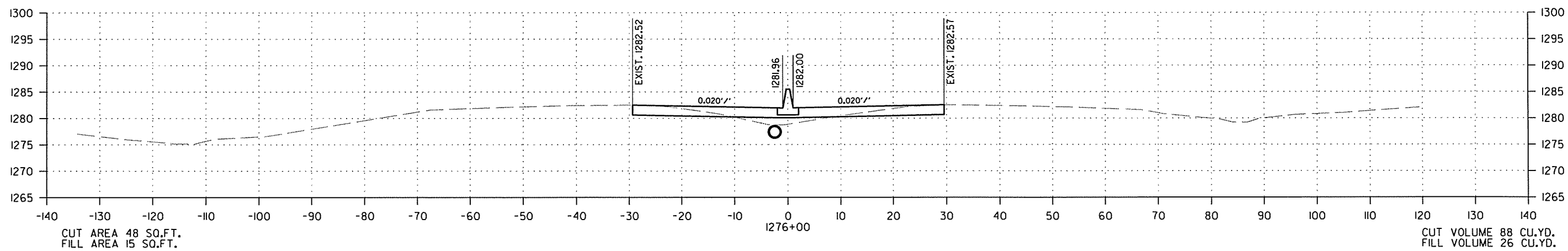
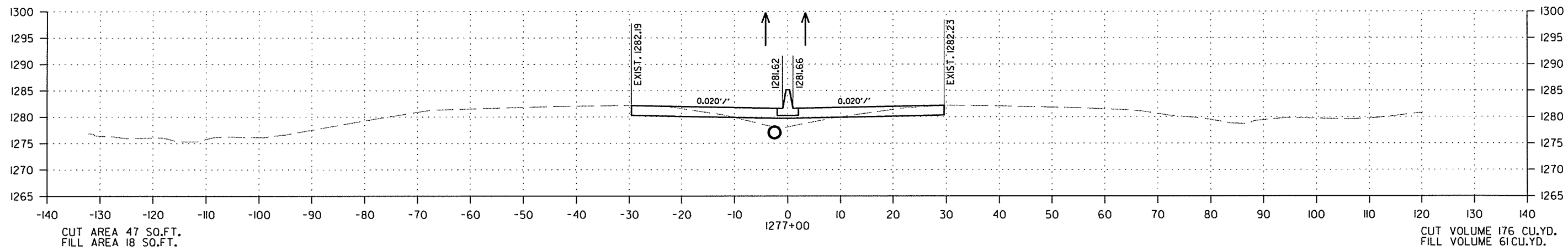


CROSS SECTION STA. 1274+00 TO STA. 1275+00

R090305.DGN 5/14/2014

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	104	122

② CROSS SECTIONS

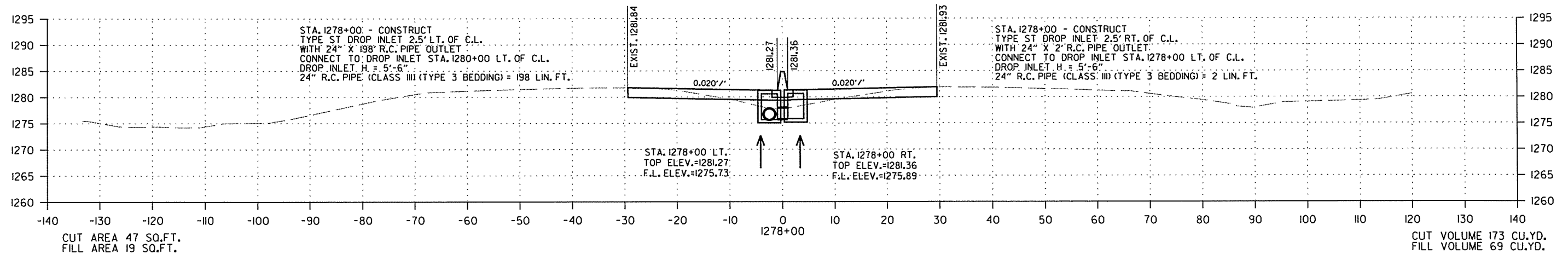
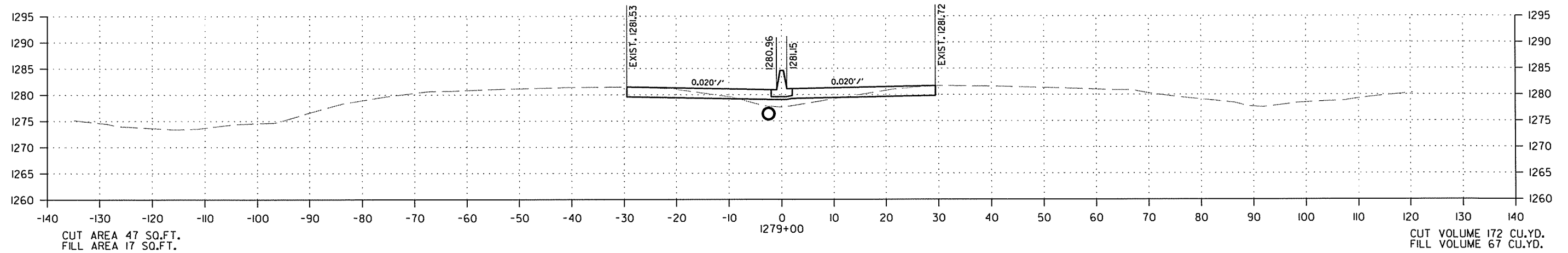
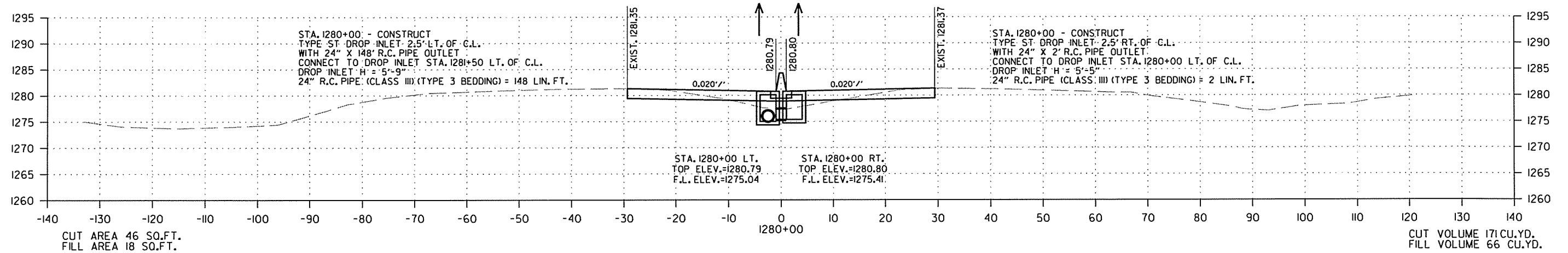


CROSS SECTION STA. 1275+50 TO STA. 1277+00

R090305.DGN 5/14/2014

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							105	122

② CROSS SECTIONS



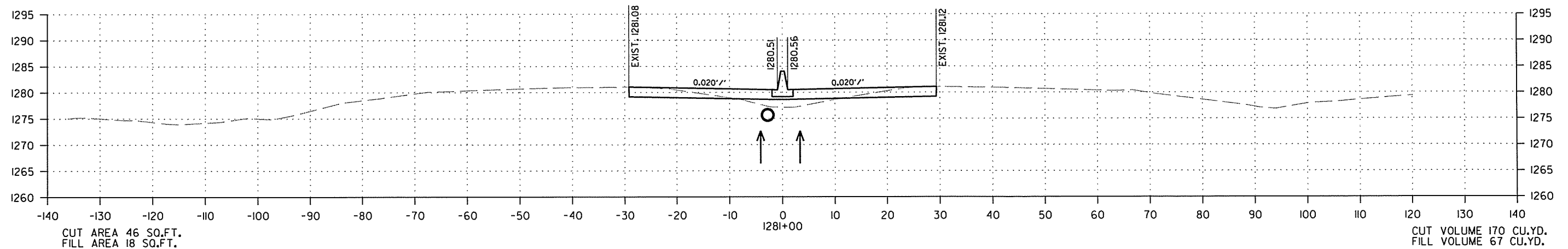
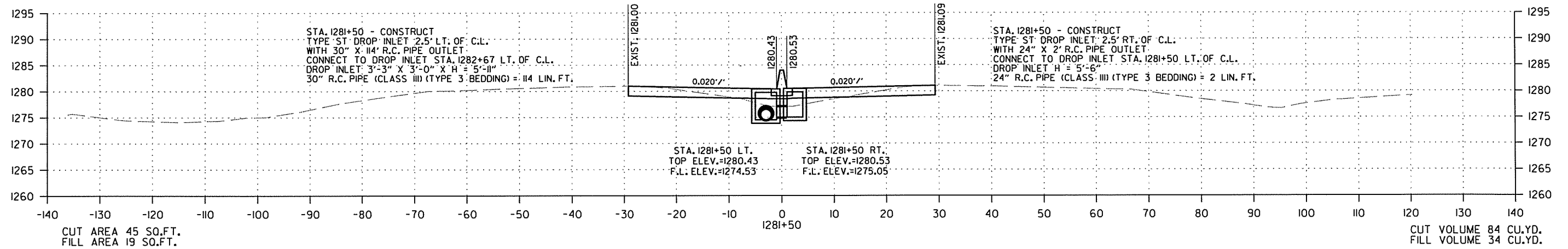
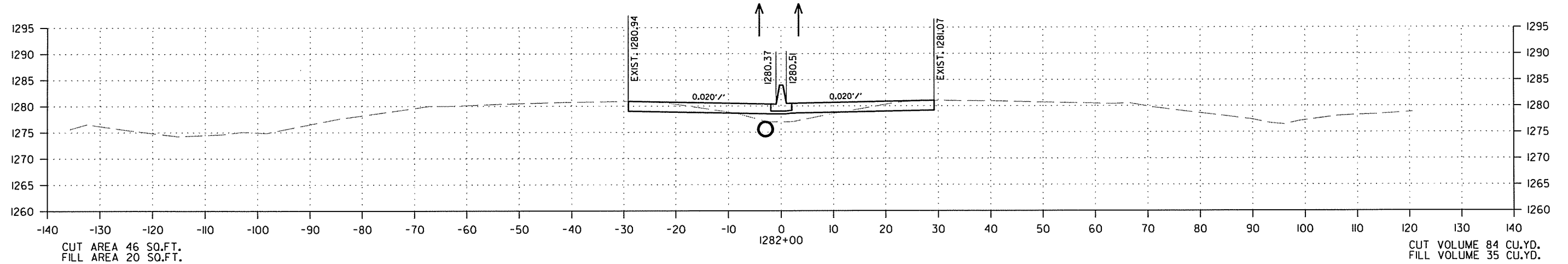
CROSS SECTION STA. 1278+00 TO STA. 1280+00

5/14/2014

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	106	122

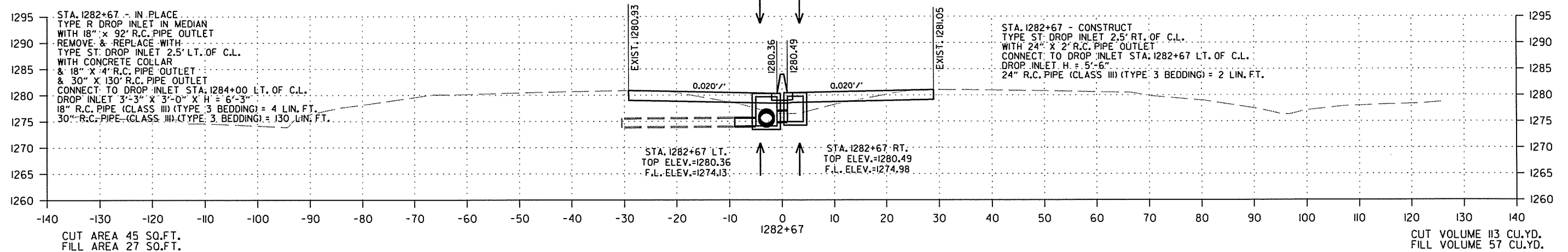
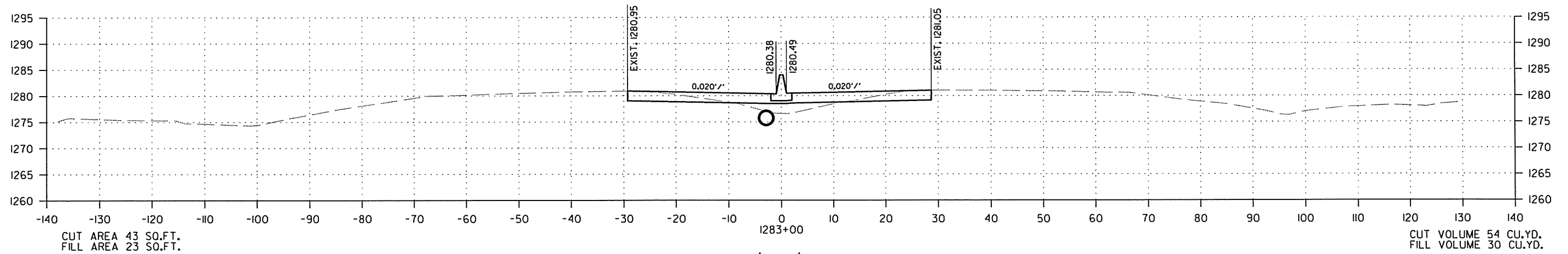
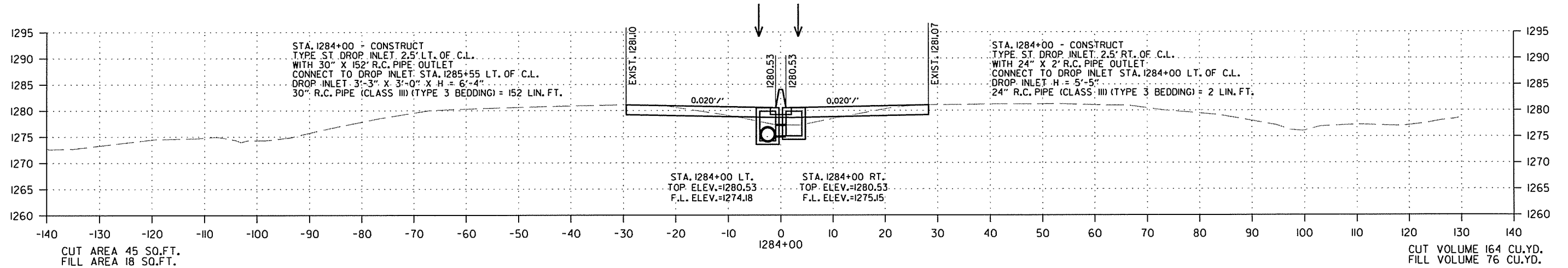
2 CROSS SECTIONS



CROSS SECTION STA. 1281+00 TO STA. 1282+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	107	122

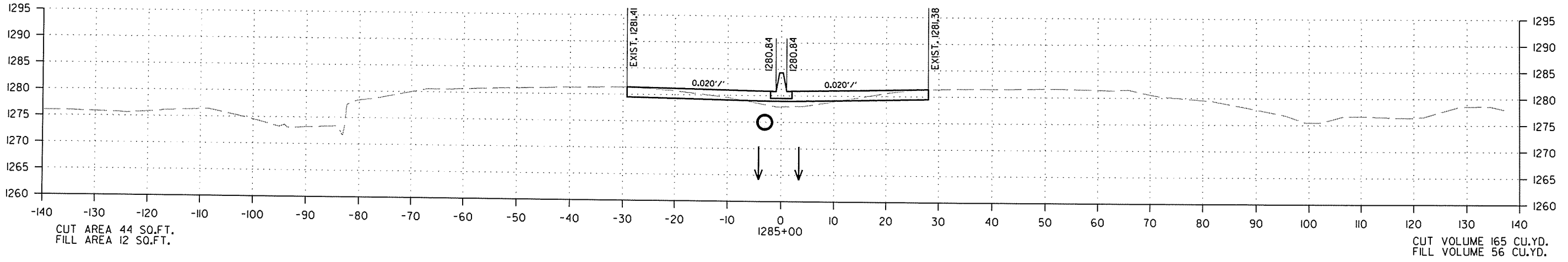
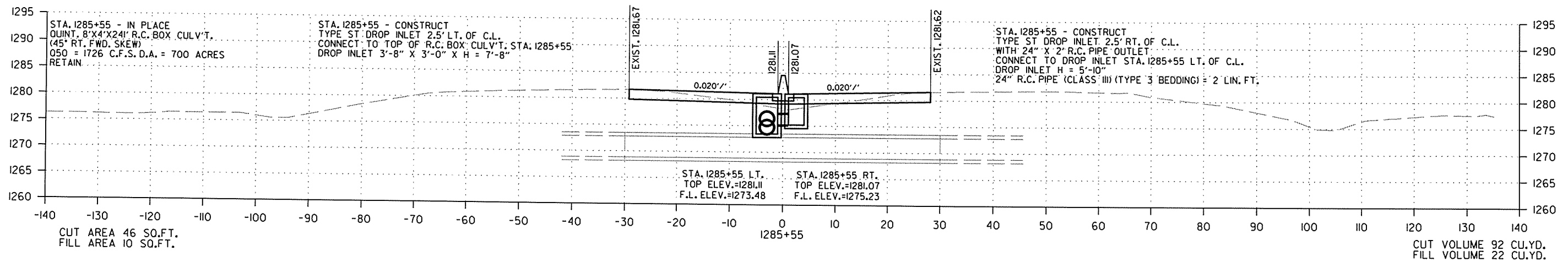
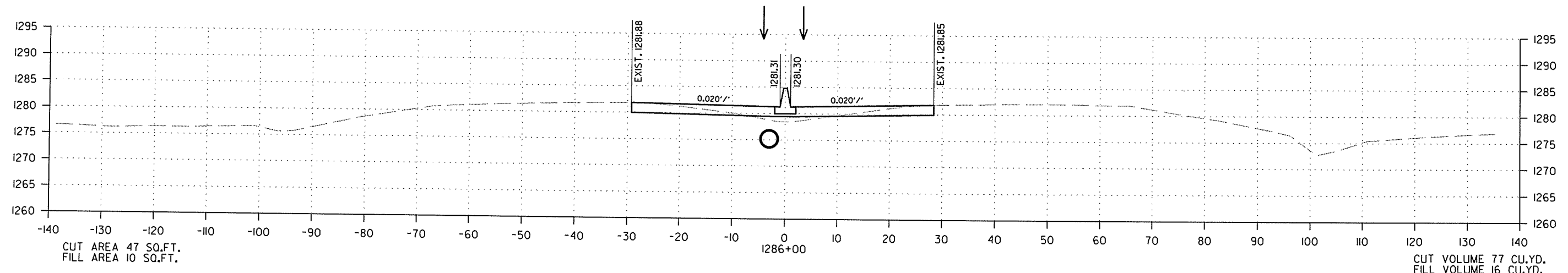
2 CROSS SECTIONS



CROSS SECTION STA. 1282+67 TO STA. 1284+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
8-20-14				6	ARK.			
						JOB NO. 090305	108	122

2 CROSS SECTIONS

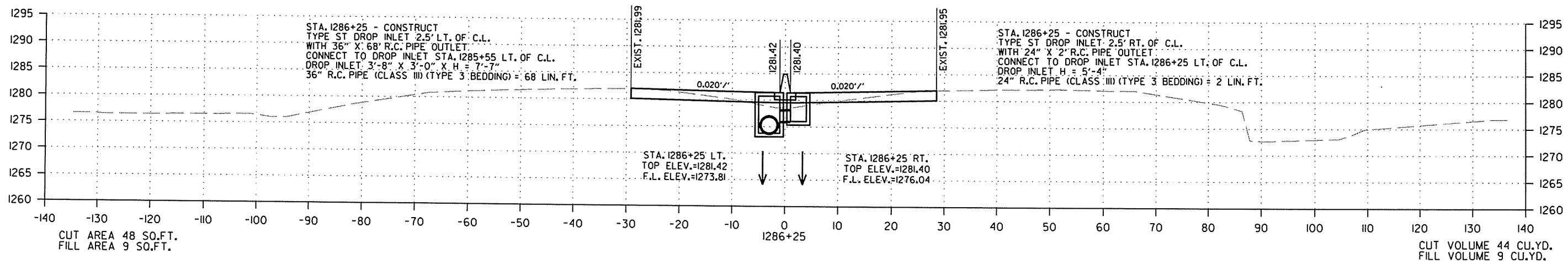
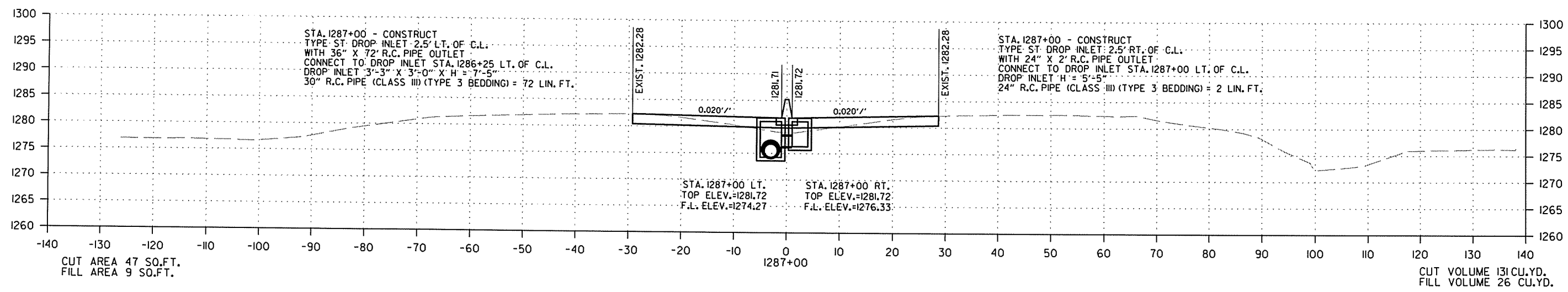
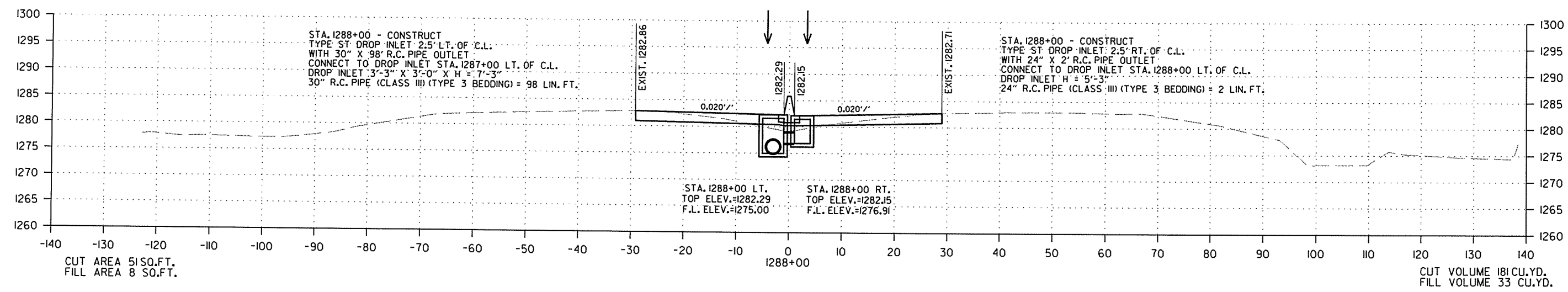


CROSS SECTION STA. 1285+00 TO STA. 1286+00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	109	122

2 CROSS SECTIONS

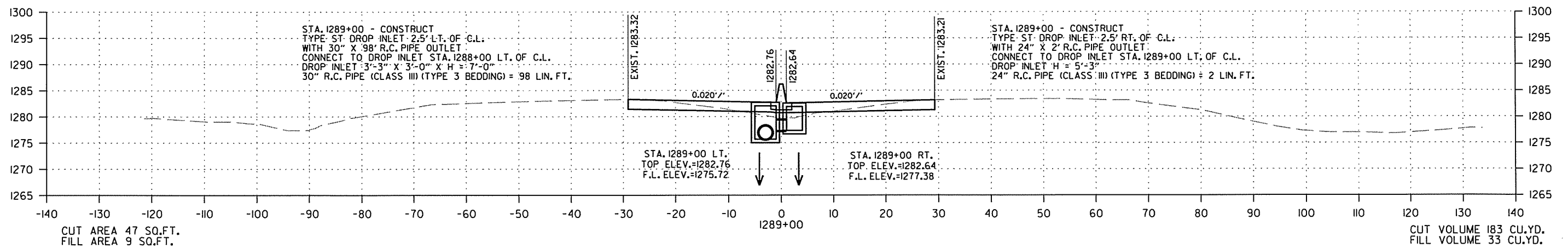
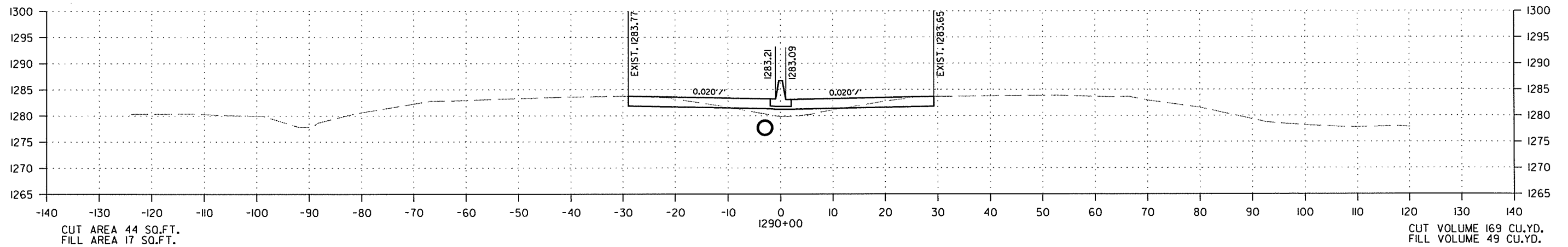
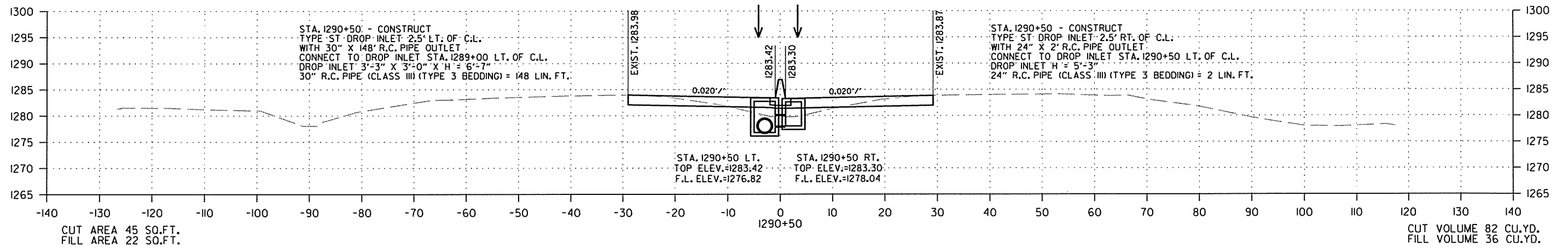


CROSS SECTION STA. 1286+25 TO STA. 1288+00

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R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							110	122

2 CROSS SECTIONS



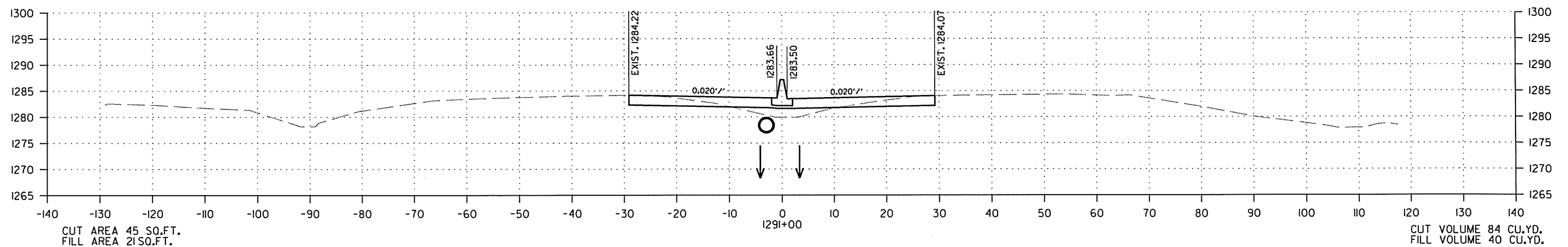
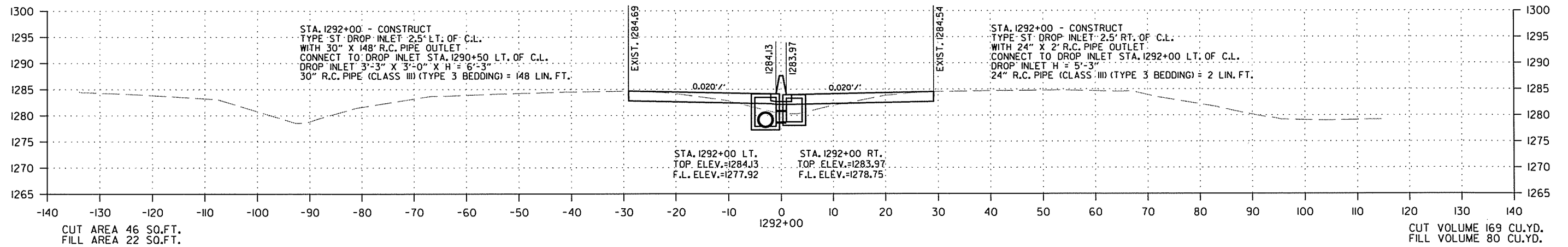
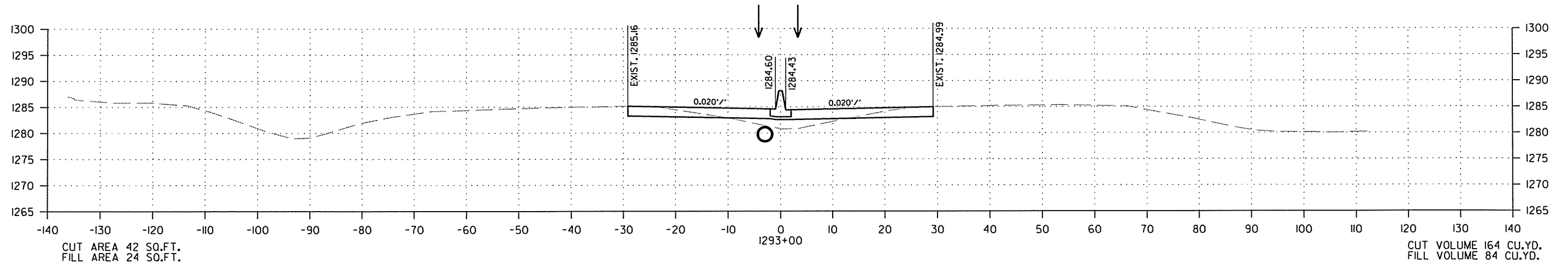
CROSS SECTION STA. 1289+00 TO STA. 1290+50

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							111	122

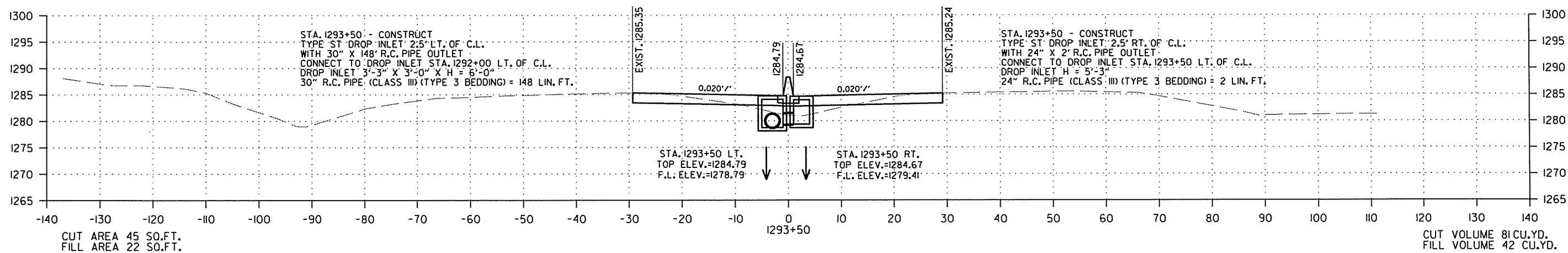
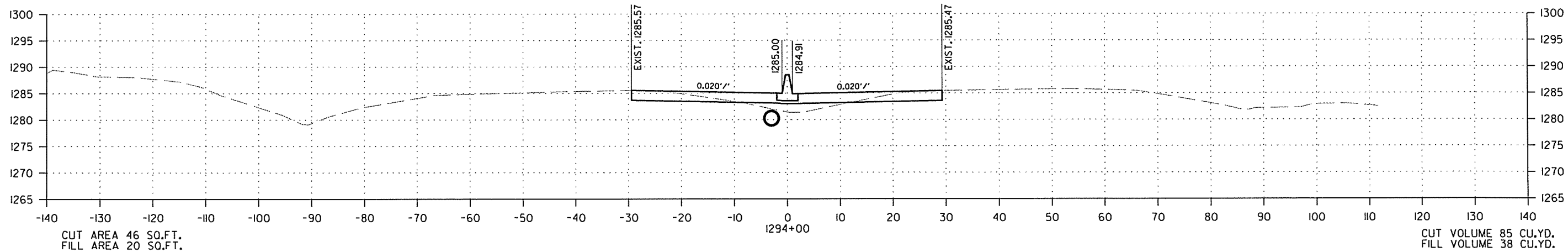
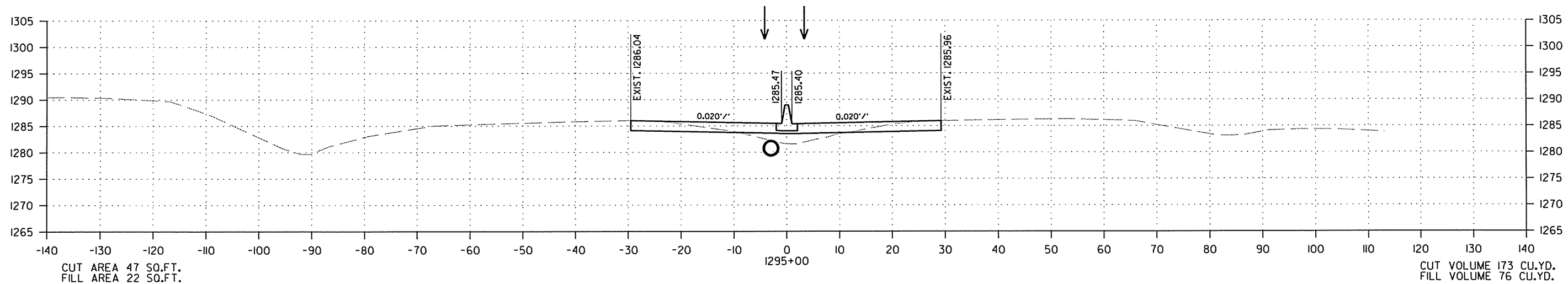
② CROSS SECTIONS



CROSS SECTION STA. 1291+00 TO STA. 1293+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. NO. PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							112	122

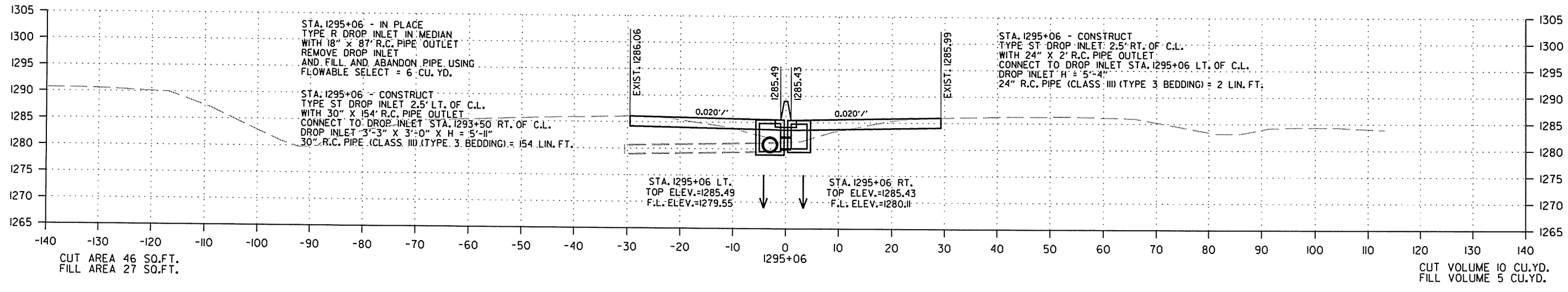
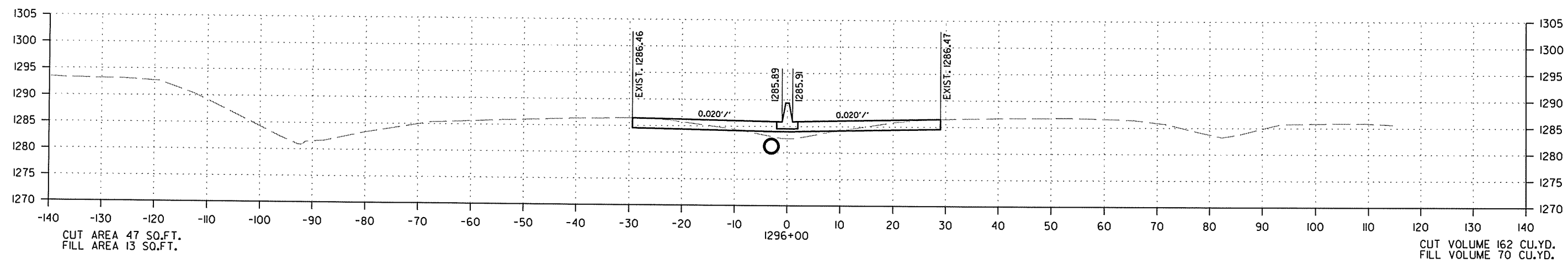
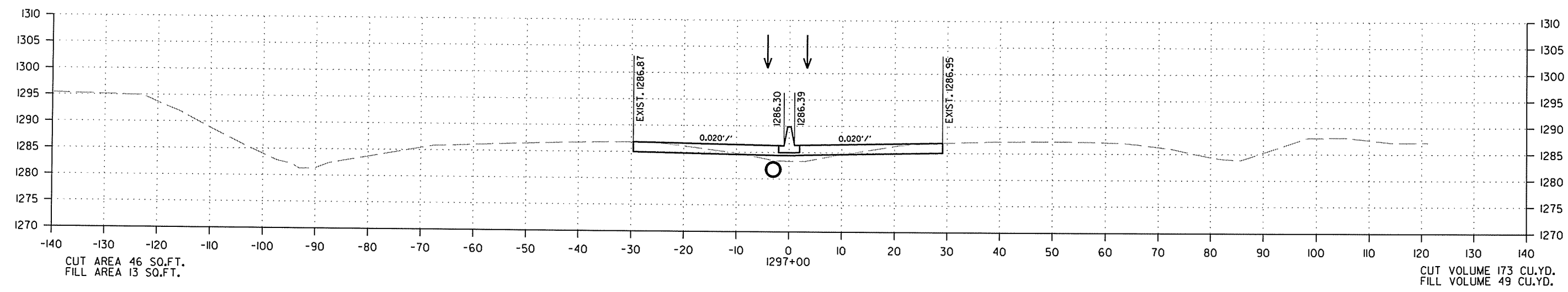
2 CROSS SECTIONS



CROSS SECTION STA. 1293+50 TO STA. 1295+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. PROJ. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	113	122

② CROSS SECTIONS



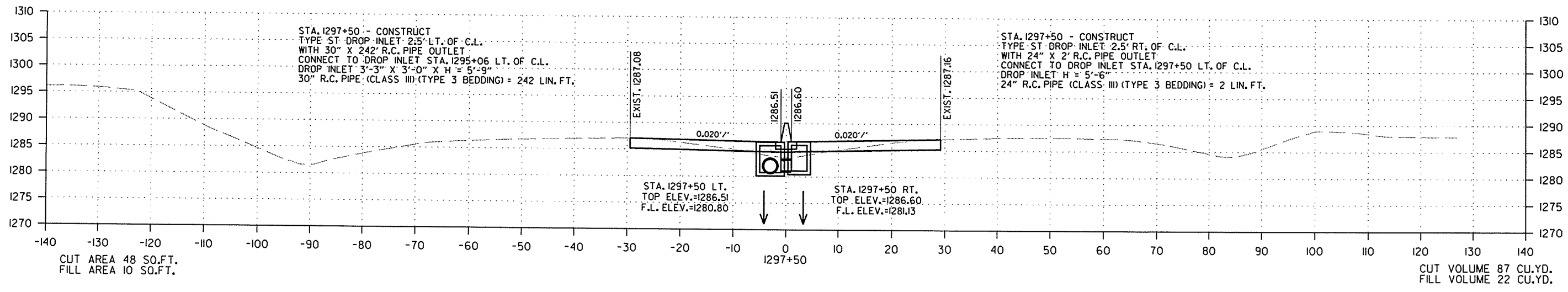
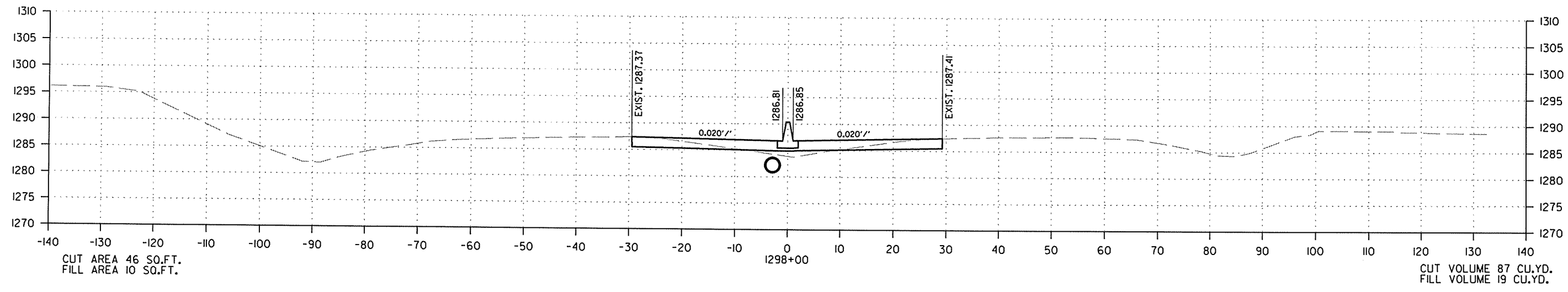
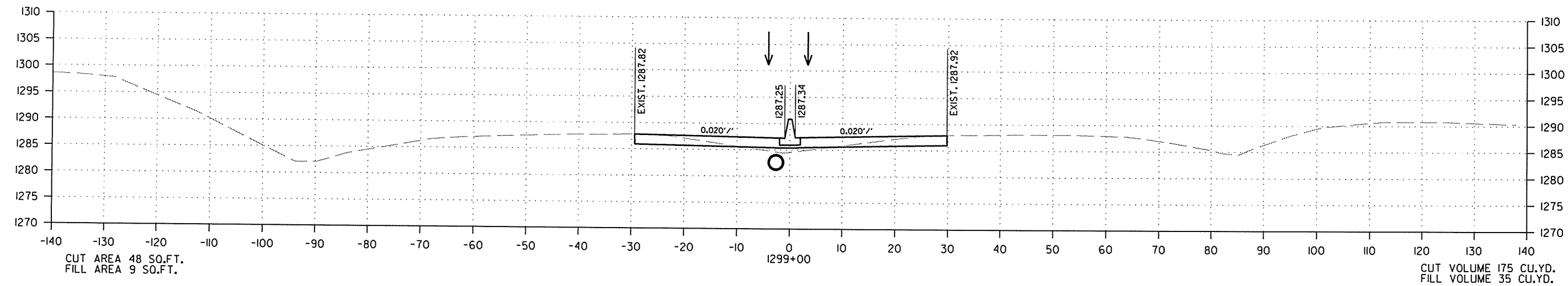
CROSS SECTION STA. 1295+06 TO STA. 1297+00

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R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	114	122

2 CROSS SECTIONS

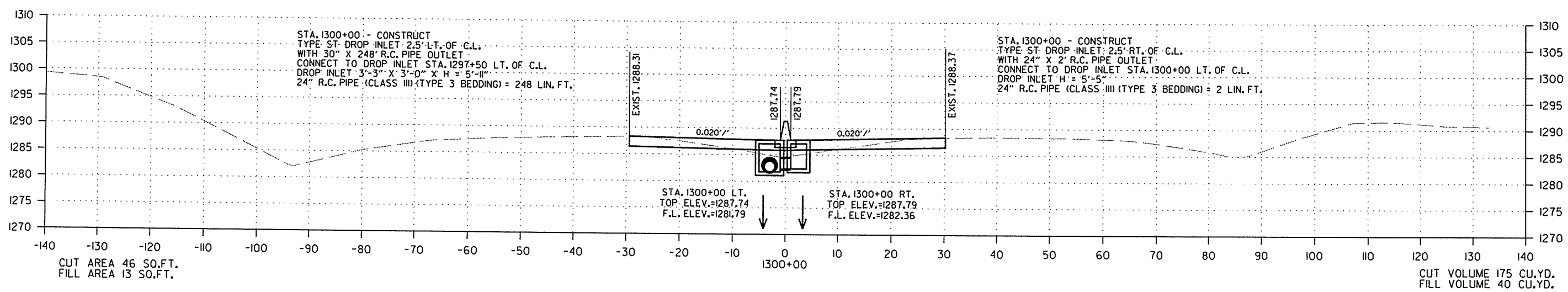
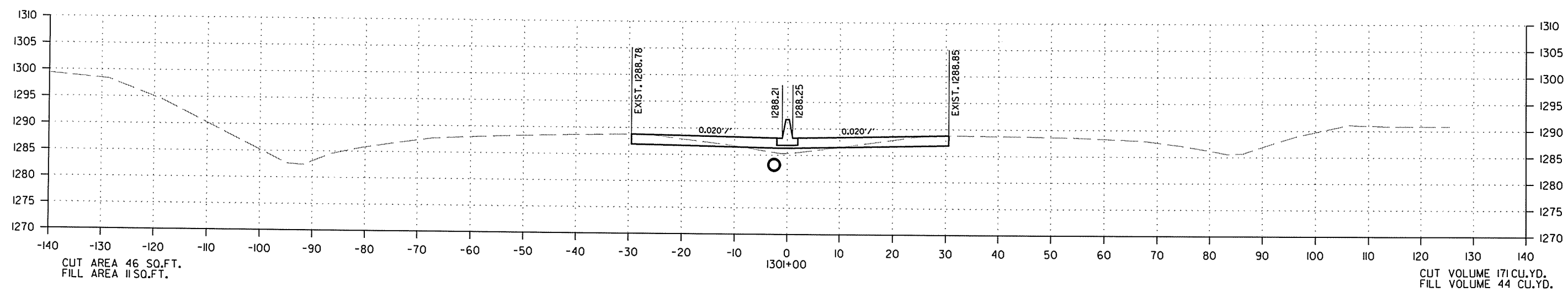
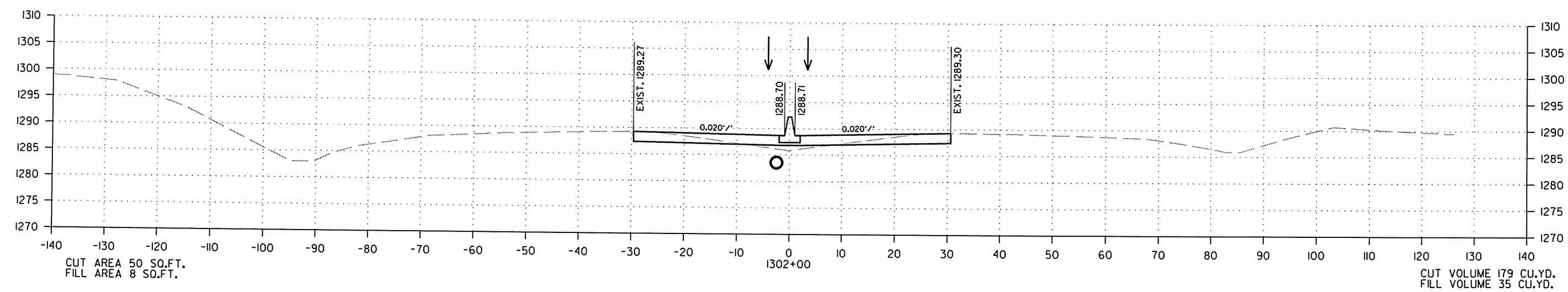


CROSS SECTION STA. 1297+50 TO STA. 1299+00

R090305.DGN 8/8/2014

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	115	122

2 CROSS SECTIONS



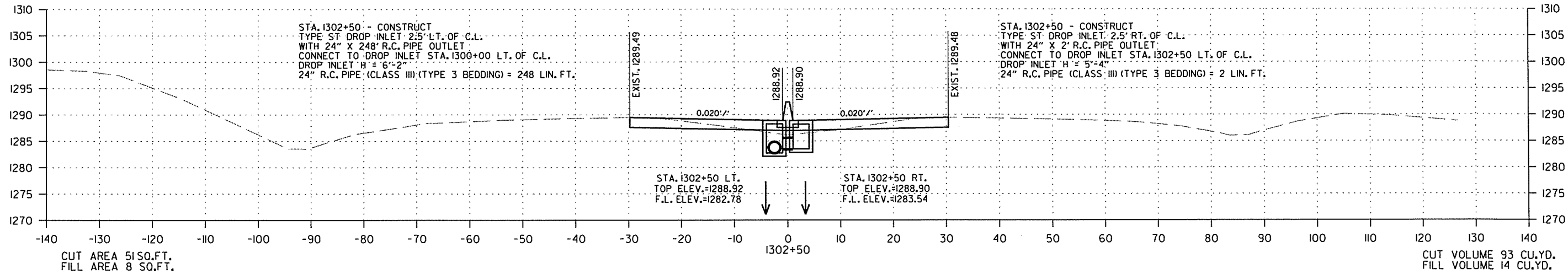
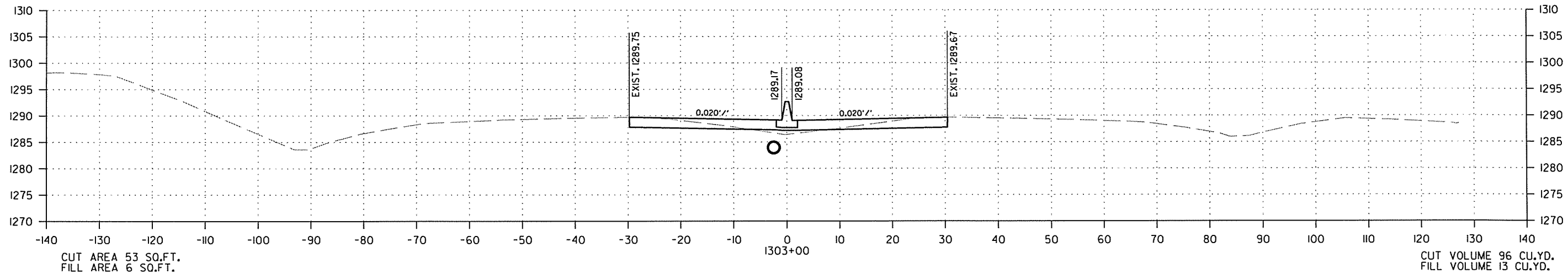
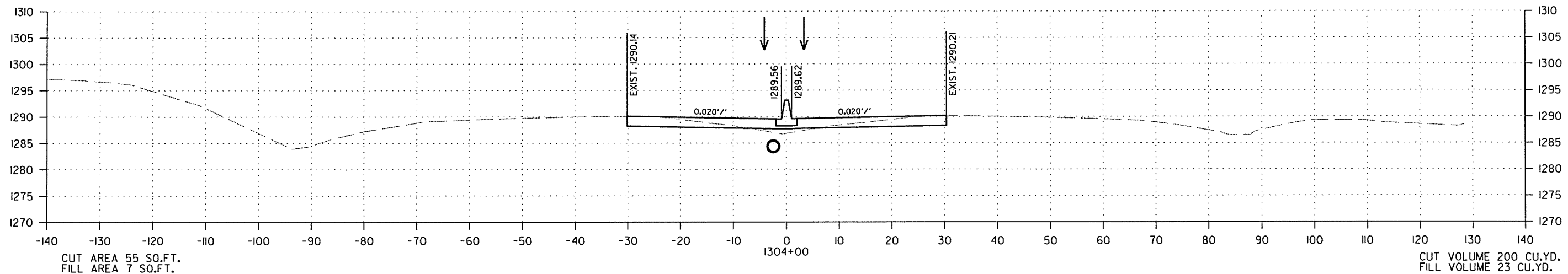
CROSS SECTION STA. 1300+00 TO STA. 1302+00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							116	122

2 CROSS SECTIONS

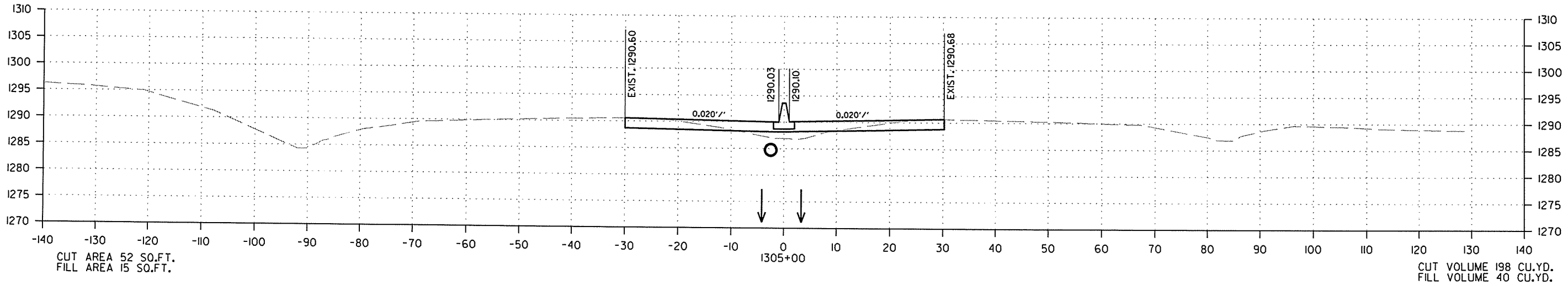
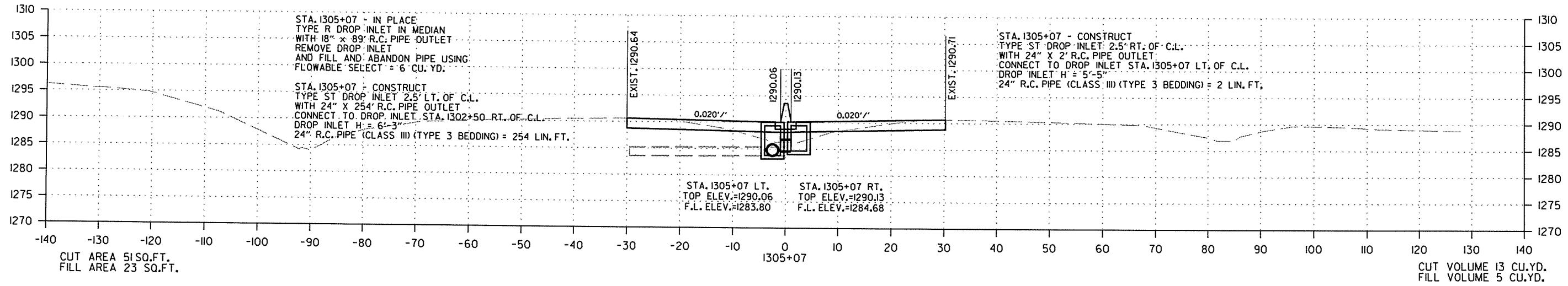
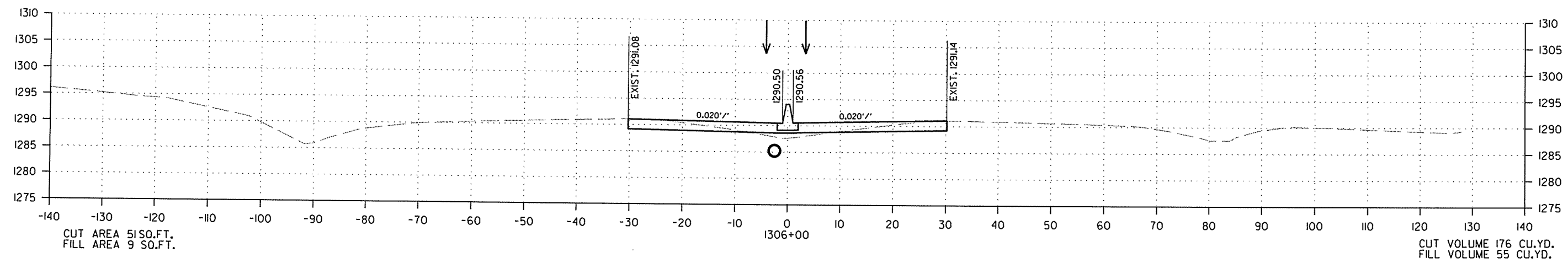


CROSS SECTION STA. 1302+50 TO STA. 1304+00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	117	122

② CROSS SECTIONS

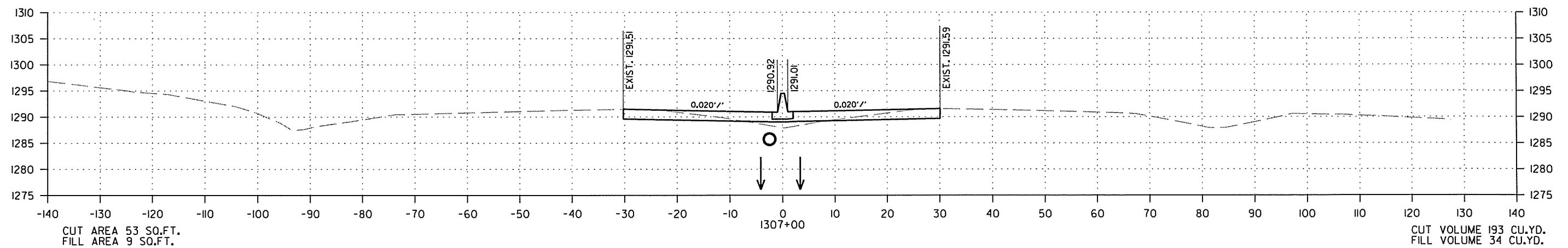
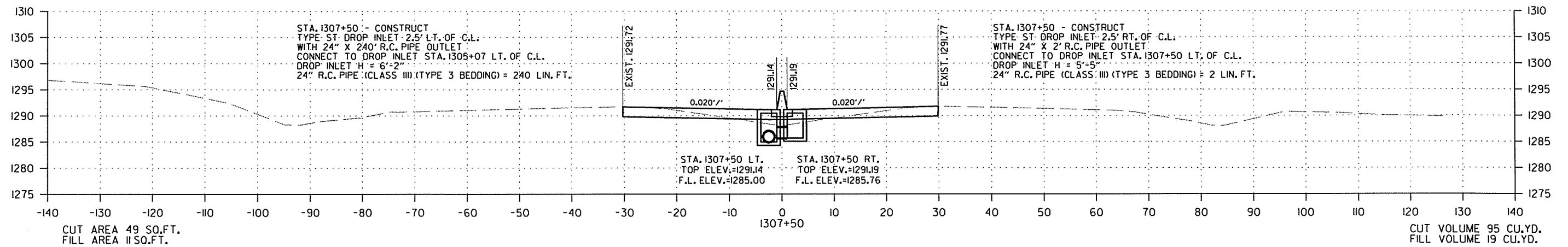
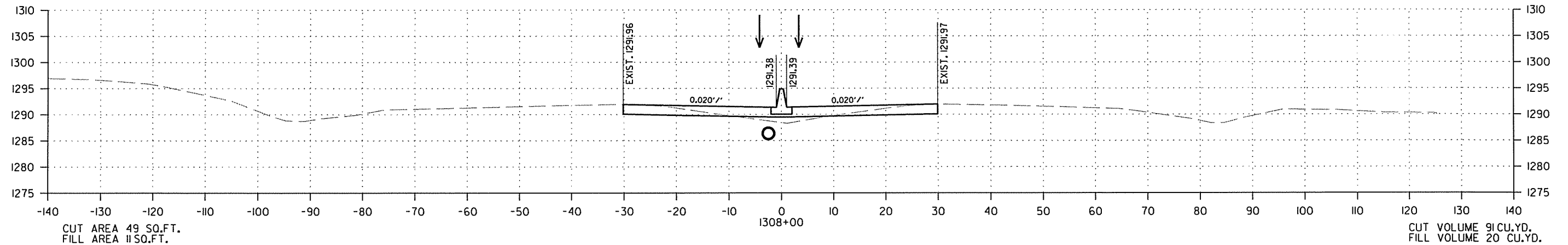


CROSS SECTION STA. 1305+00 TO STA. 1306+00

R090305.DGN 8/8/2014

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 090305	118	122

② CROSS SECTIONS



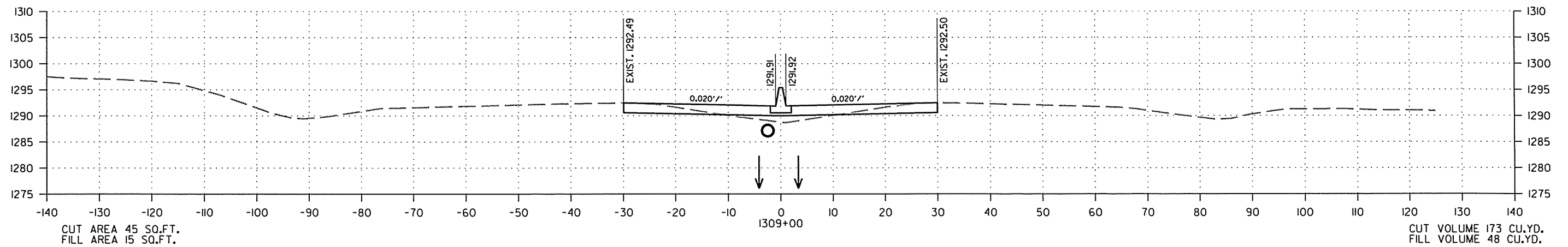
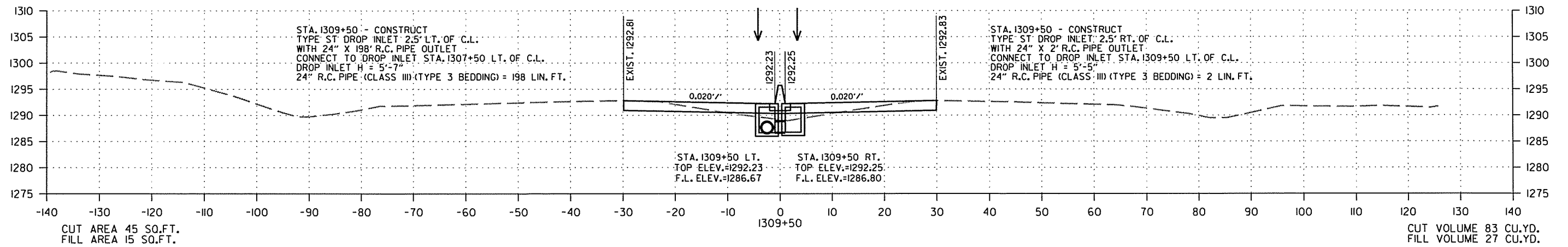
CROSS SECTION STA. 1307+00 TO STA. 1308+00

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							119	122

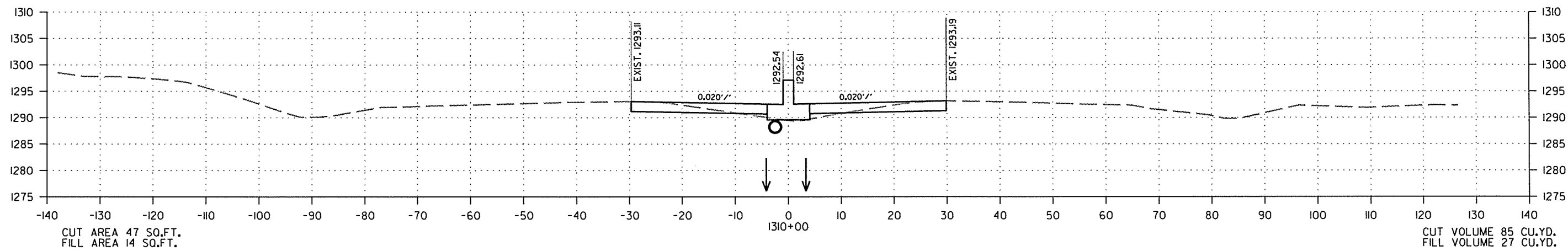
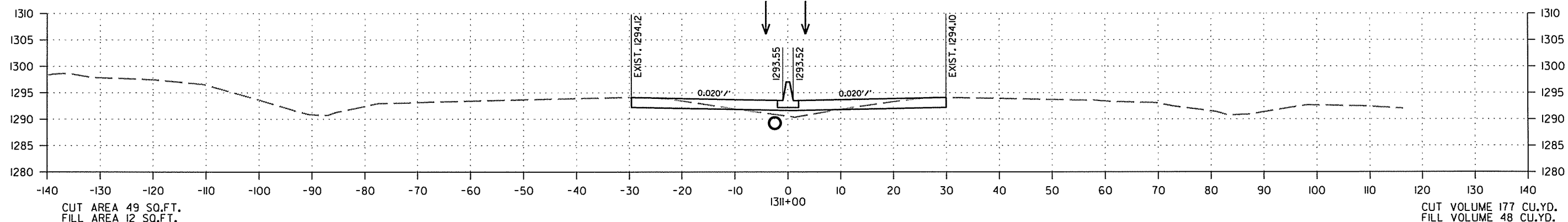
② CROSS SECTIONS



CROSS SECTION STA. 1309+00 TO STA. 1309+50

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							120	122

② CROSS SECTIONS

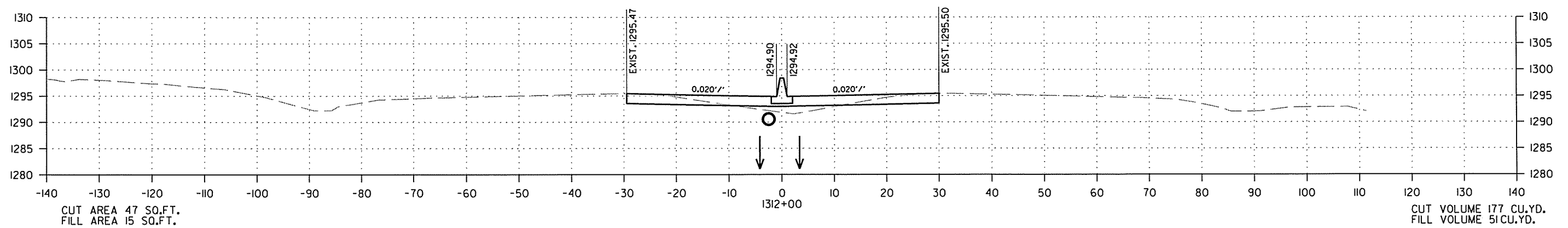
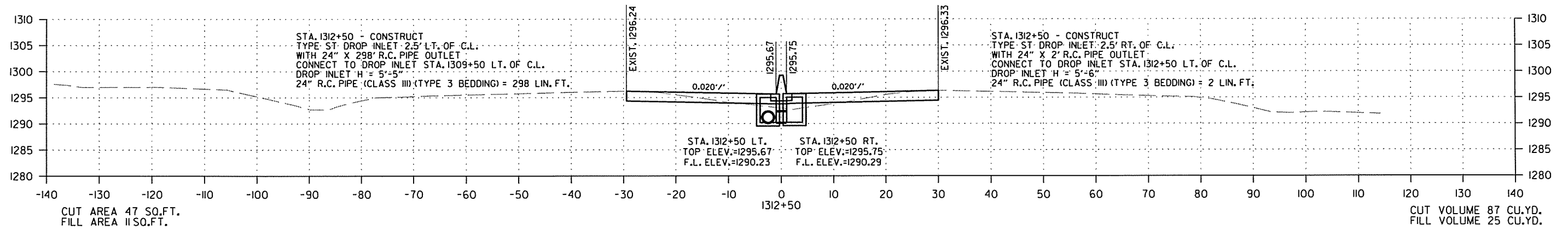
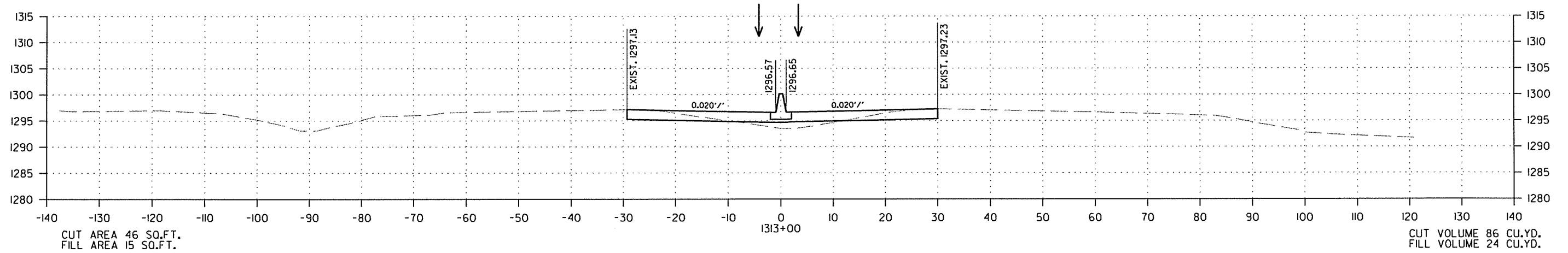


CROSS SECTION STA. 1310+00 TO STA. 1311+00

R090305.DGN 5/14/2014

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							121	122

② CROSS SECTIONS



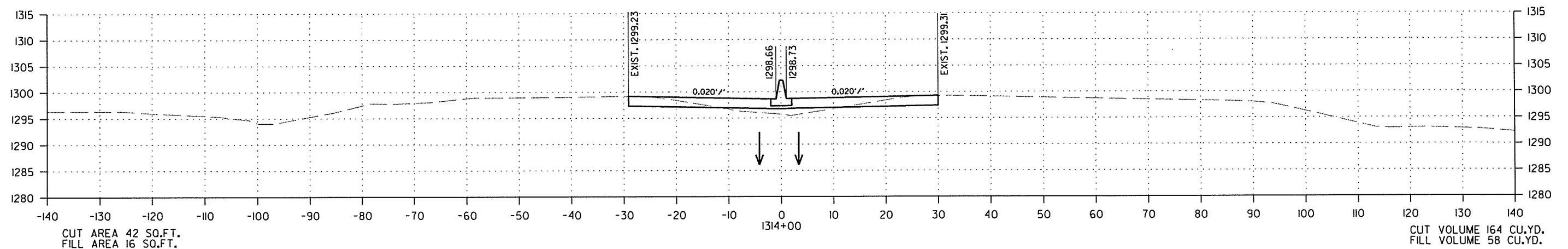
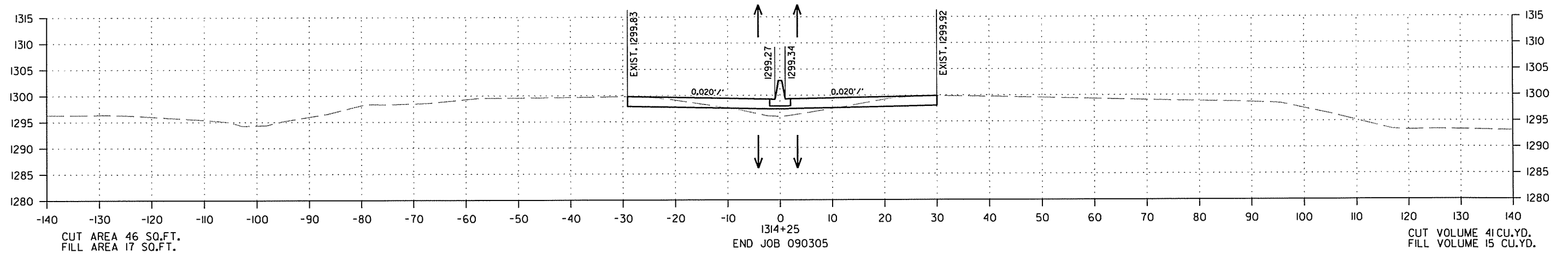
CROSS SECTION STA. 1312+00 TO STA. 1313+00

5/14/2014

R090305.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 090305							122	122

② CROSS SECTIONS



CROSS SECTION STA. 1314+00 TO STA. 1314+25

5/14/2014

R090305.DGN