

SQUAD LEADER: JENNIFER LUBBS (815)284-5958 PROJECT ENGINEER: BECKY MARRUFFO

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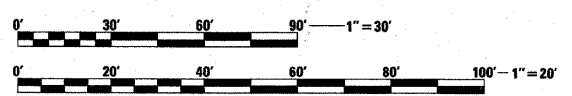
23A-D DETAILS FOR NEW FIELD ENTRANCE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAP ROUTE 638 (IL 82)
SECTION 129BR
PROJECT ACBRF-0638(012)
HENRY COUNTY

C 92-059-09
STRUCTURE REPLACEMENT
OVER ELKS BRANCH NORTH OF GENESEO
4TH PM
R3E



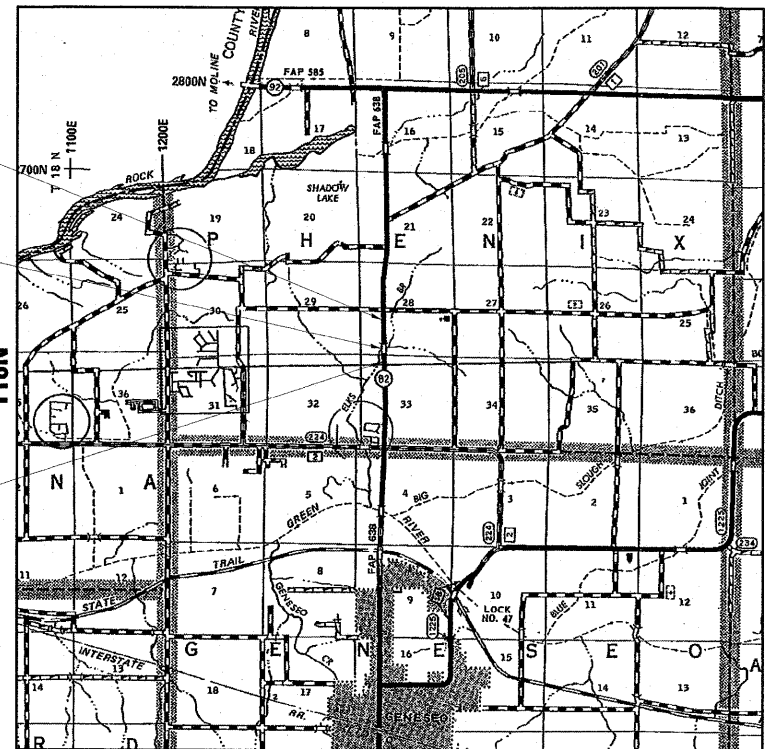
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
 1-800-892-0123
 OR 811

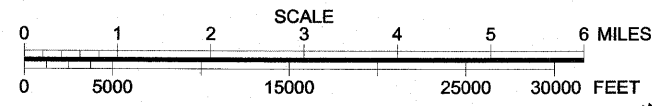
PHENIX TOWNSHIP, SEC. 28, 33

CONTRACT NO. 64A04

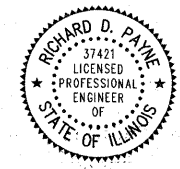
FAP 638 (IL 82) SECTION 129BR HENRY COUNTY



LOCATION MAP



GROSS LENGTH = 1188 FT. = 0.23 MI.
 NET LENGTH = 1188 FT. = 0.23 MI.

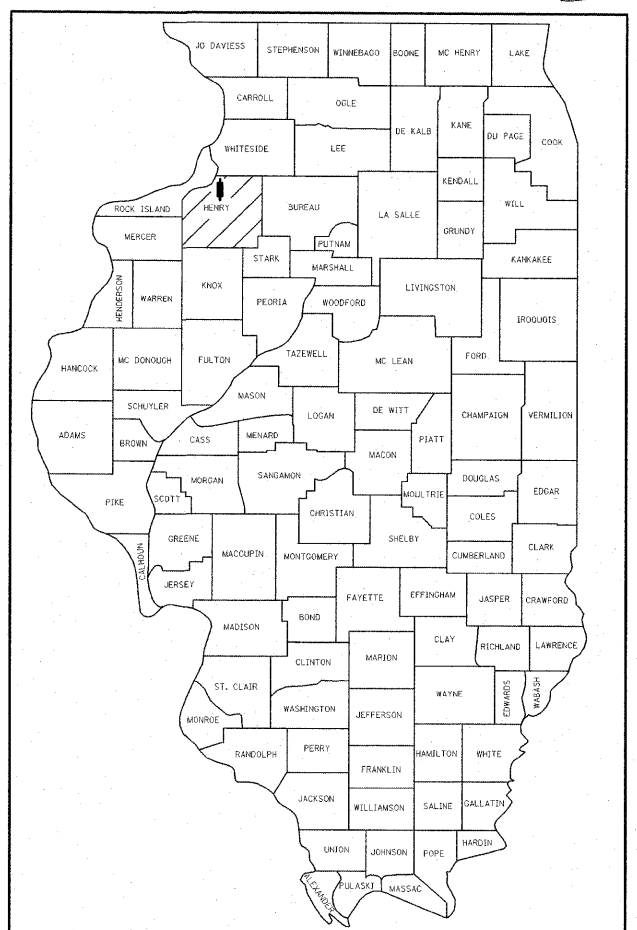


ESCA
CONSULTANTS, INC.
 CIVIL & STRUCTURAL ENGINEERS
 URBANA, ILLINOIS
 (217)384-0505
 PROJECT ENGINEER: ERIC HENKEL

Richard D. Payne
 ILLINOIS PROFESSIONAL LICENSE NO. 37421
 (EXPIRATION DATE: 11-30-09)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
638	129BR	HENRY	42	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 64A04		

D-92-052-04 *42+1=43+4=47



LOCATION OF SECTION INDICATED THUS: - [Symbol] -

FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL (NON URBAN)

DESIGN SPEED:	55 mph
POSTED SPEED:	55 mph
ADT:	2100 (2008)
PV:	91.9%
SU:	6.0%
MU:	2.1%

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED August 5, 2009
 George F. Ryan
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
 October 2, 2009
 Charles C. Ingersoll
 ENGINEER OF DESIGN AND ENVIRONMENT
 October 2, 2009
 Christine M. Reed
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

REVISED 10/28/09
PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS



SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	CONSTRUCTION
			TYPE CODE X028-2A SN 037-2027
20200100	EARTH EXCAVATION	CU YD	14,482
21301084	EXPLORATION TRENCH 84" DEPTH	FOOT	150
25000210	SEEDING, CLASS 2A	ACRE	2.0
25000310	SEEDING, CLASS 4	ACRE	2.75
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	430
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	430
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	430
25000750	MOWING	ACRE	4.75
25100115	MULCH, METHOD 2	ACRE	1.8
25100630	EROSION CONTROL BLANKET	SQ YD	14,200
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	1,900
28000300	TEMPORARY DITCH CHECKS	EACH	12
28000400	PERIMETER EROSION BARRIER	FOOT	210
28000500	INLET AND PIPE PROTECTION	EACH	1
28100107	STONE RIPRAP, CLASS A4	SQ YD	3,620
28200200	FILTER FABRIC	SQ YD	3,620
31100300	SUB-BASE GRANULAR MATERIAL, TYPE A 4"	SQ YD	213
35101400	AGGREGATE BASE COURSE, TYPE B	TON	119
35101600	AGGREGATE BASE COURSE, TYPE B 4"	SQ YD	914
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	50
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	242
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	173
40600990	TEMPORARY RAMP	SQ YD	46
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	440
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	10
44004250	PAVED SHOULDER REMOVAL	SQ YD	121
44201433	CLASS C PATCHES, TYPE IV, 16 INCH	SQ YD	191
48101200	AGGREGATE SHOULDERS, TYPE B	TON	420
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	1,035
50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50100400	REMOVAL OF EXISTING STRUCTURES NO. 2	EACH	1
50104400	CONCRETE HEADWALL REMOVAL	EACH	2
50105220	PIPE CULVERT REMOVAL	FOOT	17
50200450	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES	CU YD	160
50800105	REINFORCEMENT BARS	POUND	27,860
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	740
50800515	BAR SPLICERS	EACH	114
51205200	TEMPORARY SHEET PILING	SQ FT	1,859
51500100	NAME PLATES	EACH	1
54001000	BOX CULVERT END SECTIONS	EACH	1
54003000	CONCRETE BOX CULVERTS	CU YD	209.4

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	CONSTRUCTION
			TYPE CODE X028-2A SN 037-2027
54213459	END SECTIONS 24"	EACH	2
54200229	PIPE CULVERTS, CLASS D, TYPE 1 24"	FOOT	65
54205515	PIPE CULVERTS, CLASS D, TYPE 1 EQUIVALENT ROUND-SIZE 60"	FOOT	48
60100935	PIPE DRAINS 10"	FOOT	10
60100945	PIPE DRAINS 12"	FOOT	10
60100955	PIPE DRAINS 15"	FOOT	10
61133100	FIELD TILE JUNCTION VAULTS, 2' DIA.	EACH	3
61140000	STORM SEWERS, SPECIAL 8"	FOOT	80
61140100	STORM SEWERS, SPECIAL 10"	FOOT	55
61140200	STORM SEWERS, SPECIAL 12"	FOOT	55
63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6' POSTS	FOOT	375
63000025	STEEL PLATE BEAM GUARDRAIL, ATTACHED TO STRUCTURES	FOOT	75
63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	4
63200310	GUARDRAIL REMOVAL	FOOT	542
63500105	DELINEATORS	EACH	6
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	20
66700305	PERMANENT SURVEY MARKERS, TYPE II	EACH	2
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	5
67100100	MOBILIZATION	L SUM	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	2
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	528
70300625	TEMPORARY PAINT PAVEMENT MARKING LINE 4"	FOOT	4,876
70300660	TEMPORARY PAINT PAVEMENT MARKING LINE 24"	FOOT	26
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1,854
70400100	TEMPORARY CONCRETE BARRIER	FOOT	675
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	350
78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	5,792
78200410	GUARDRAIL MARKERS, TYPE A	EACH	8
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
78300100	PAVEMENT MARKING REMOVAL	SQ FT	257
XX005381	SLOPED HEADWALL TYPE 1	EACH	3
XX006929	REPLACE SECTION CORNER	EACH	1
X0322263	CULVERT DROP BOX	EACH	1
Z0005400	BREAKER-RUN CRUSHED STONE	TON	178
Z0013798	CONSTRUCTION LAYOUT	L SUM	1
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
Z0030260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2
Z0068800	STONE LINED DITCH	SQ YD	326
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2

REVISSED 10/28/09

SPECIALITY ITEM
NON-PARTICIPATING

FILE NAME = D264A04-shr-koq01.dgn
USER NAME = HAS
PLOT SCALE = 0.0833 "/ IN.
PLOT DATE = 8/3/2009 10:47:02 AM

DESIGNED - JMS	REVISED -
DRAWN - JPC	REVISED -
CHECKED - ELH	REVISED -
DATE - 08/03/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 638	SECTION 129BR	COUNTY HENRY	TOTAL SHEETS 42	SHEET NO. 3
CONTRACT NO. 64A04				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



ITEM NO.	DESCRIPTION	FOOT	LOCATION	REMARKS
60100935	PIPE DRAINS 10"	10	RT Sta. 1350+15	
		10	TOTAL	
60100945	PIPE DRAINS 12"	10	RT Sta. 1350+70	
		10	TOTAL	
60100955	PIPE DRAINS 15"	10	RT Sta. 1359+05	
		10	TOTAL	
61133100	FIELD TILE JUNCTION VAULTS, 2' DIA.			
		1	RT Sta. 1350+15	
		1	RT Sta. 1350+70	
		1	RT Sta. 1359+05	
		3	TOTAL	
61140000	STORM SEWERS, SPECIAL 8"			
		80	RT Sta. 1350+15	
		80	TOTAL	
61140100	STORM SEWERS, SPECIAL 10"			
		55	RT Sta. 1350+70	
		55	TOTAL	
61140200	STORM SEWERS, SPECIAL 12"			
		55	RT Sta. 1359+05	
		55	TOTAL	
63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6' POSTS			
		187.5	LT Sta. 1349+25.7 to 1351+44.4	Less rail attached to structure
		187.5	RT Sta. 1349+08.7 to 1351+27.4	Less rail attached to structure
		375	TOTAL	
63000025	STEEL PLATE BEAM GUARD RAIL, ATTACHED TO STRUCTURES			
		37.5	LT Sta. 1350+07 to 1350+44.5	3'-1 1/2" MAX. POST SPACING
		37.5	RT Sta. 1350+15.3 to 1350+52.8	3'-1 1/2" MAX. POST SPACING
		75	TOTAL	
63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED			
		1	RT Sta. 1348+59	
		1	LT Sta. 1348+76	
		1	RT Sta. 1351+84	
		1	LT Sta. 1352+01	
		4	TOTAL	
63200310	GUARDRAIL REMOVAL			
		103	SW SN 037-2003	
		168	SE SN 037-2003	
		168	NW SN 037-2003	
		102	NE SN 037-2003	
		542	TOTAL	
63500105	DELINEATORS			
		2	RT Sta. 1348+17.62	
		1	RT Sta. 1348+59	
		1	LT Sta. 1348+76	
		1	RT Sta. 1351+84	
		1	LT Sta. 1352+01	
		6	TOTAL	
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS			
		2	RT Sta. 1348+00	
		1	RT Sta. 1348+50	
		2	LT & RT Sta. 1349+00	
		2	LT Sta. 1349+75	
		1	RT Sta. 1350+00	
		1	LT Sta. 1350+75	
		2	LT & RT Sta. 1351+00	
		1	LT Sta. 1352+00	
		2	LT & RT Sta. 1353+00	
		1	RT Sta. 1356+00	
		1	RT Sta. 1359+00	
		1	LT Sta. 1360+00	
		2	RT Sta. 1361+00	
		1	LT Sta. 1362+00	
		20	TOTAL	

ITEM NO.	DESCRIPTION	EACH	LOCATION	REMARKS
66700305	PERMANENT SURVEY MARKERS, TYPE II	2	SN 037-2027	
		2	TOTAL	
67000400	ENGINEER'S FIELD OFFICE, TYPE A			
		5	SN 037-2027	
		5	TOTAL	
67100100	MOBILIZATION			
		1	SN 037-2027	
		1	TOTAL	
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321			
		1	SN 037-2027	
		1	TOTAL	
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201			
		1	SN 037-2027	
		1	TOTAL	
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326			
		1	SN 037-2027	
		1	TOTAL	
70103815	TRAFFIC CONTROL SURVEILLANCE			
		2	SN 037-2027	
		2	TOTAL	
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS			
		1	SN 037-2027	
		1	TOTAL	
70300100	SHORT-TERM PAVEMENT MARKING			
		68	Sta. 1346+73.5 to 1353+80.5	Yellow centerline striping
		396	Sta. 1348+12 to 1361+00	3 applications of yellow centerline striping
		32	RT Sta. 1348+12 to 1352+16	2 applications of white edgeline striping
		32	LT Sta. 1348+14 to 1352+38	2 applications of white edgeline striping
		528	TOTAL	
70300625	TEMPORARY PAINT PAVEMENT MARKING LINE 4"			
		2576	LT & RT Sta. 1348+12 to 1361+00	White edgeline striping
		320	Sta. 1348+12 to 1361+00	Yellow skip-dash centerline striping
		345	Sta. 1348+57.50 to 1352+02.50	Stage I
		660	Sta. 1347+33.50 to 1353+70.50	Stage I
		345	Sta. 1348+57.50 to 1352+02.50	Stage II
		630	Sta. 1347+01.50 to 1353+14.50	Stage II
		4,876	TOTAL	
70300660	TEMPORARY PAINT PAVEMENT MARKING LINE 24"			
		13	Sta. 1346+73.50	Stage I
		13	Sta. 1353+80.50	Stage I
		26	TOTAL	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL			
		880	LT & RT Sta. 1348+12 to 1361+00	Edgeline striping
		261	Sta. 1348+12 to 1361+00	Centerline striping
		115	Sta. 1348+57.50 to 1352+02.50	Stage I
		220	Sta. 1347+33.50 to 1353+70.50	Stage I
		115	Sta. 1348+57.50 to 1352+02.50	Stage II
		211	Sta. 1347+01.50 to 1353+14.50	Stage II
		26	Sta. 1346+73.50	Stage II
		26	Sta. 1353+80.50	Stage II
		1,854	TOTAL	
70400100	TEMPORARY CONCRETE BARRIER			
		675	Sta. 1348+42.5 to 1352+17.5	Stage I
		675	TOTAL	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER			
		350	Sta. 1348+67.5 to 1352+05	Stage II
		350	TOTAL	

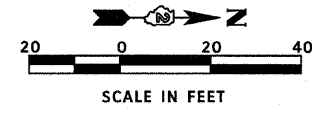
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78001110	PAINT PAVEMENT MARKING - LINE 4"	5152	LT & RT Sta. 1348+12 to 1361+00	White edgeline striping, 2 applications
		640	Sta. 1348+12 to 1361+00	Yellow skip-dash centerline striping, 2 applications
		5,792	TOTAL	
78200410	GUARDRAIL MARKERS, TYPE A			
		4	SN 037-2027, West	
		4	SN 037-2027, East	
		8	TOTAL	
78201000	TERMINAL MARKER - DIRECT APPLIED			
		1	RT Sta. 1348+59	
		1	LT Sta. 1348+76	
		1	RT Sta. 1351+84	
		1	LT Sta. 1352+01	
		4	TOTAL	
78300100	PAVEMENT MARKING REMOVAL			
		24.5	Sta. 1346+73.5 to 1349+67.5	Centerline striping, Stage I
		24	Sta. 1350+92.5 to 1353+80.5	Centerline striping, Stage I
		115	RT Sta. 1348+57.5 to 1352+02.5	Edgeline striping, Stage I
		45.5	LT Sta. 1348+57.5 to 1349+94	Edgeline striping, Stage II
		48	LT Sta. 1350+59 to 1352+02.5	Edgeline striping, Stage II
		257	TOTAL	
XX005381	SLOPED HEADWALL, TYPE 1			
		1	RT Sta. 1350+15	
		1	RT Sta. 1350+70	
		1	RT Sta. 1359+05	
		3	TOTAL	
XX006929	REPLACE SECTION CORNER			
		1	RT Sta. 1354+08.73, 28.10'	
		1	TOTAL	
Z0013798	CONSTRUCTION LAYOUT			
		1	SN 037-2027	
		1	TOTAL	
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3			
		1	Sta. 1348+42.5	Stage I
		1	Sta. 1352+17.5	Stage I
		2	TOTAL	
Z0030260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3			
		1	Sta. 1348+80	Stage I
		1	Sta. 1351+80	Stage I
		2	TOTAL	
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3			
		1	Sta. 1348+67.5	Stage II
		1	Sta. 1352+05	Stage II
		2	TOTAL	

FILE NAME =	USER NAME = Fordjd	DESIGNED -	REVISED -
84-shr-schedule03.dgn		DRAWN -	REVISED -
PLOT SCALE = 0.0833' / IN.		CHECKED -	REVISED -
PLOT DATE = Mon Oct 26 14:13:34 2009		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

REVISION		REVISION		REVISION	
SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
636	129 BR	HENRY	42	7	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 64A04		

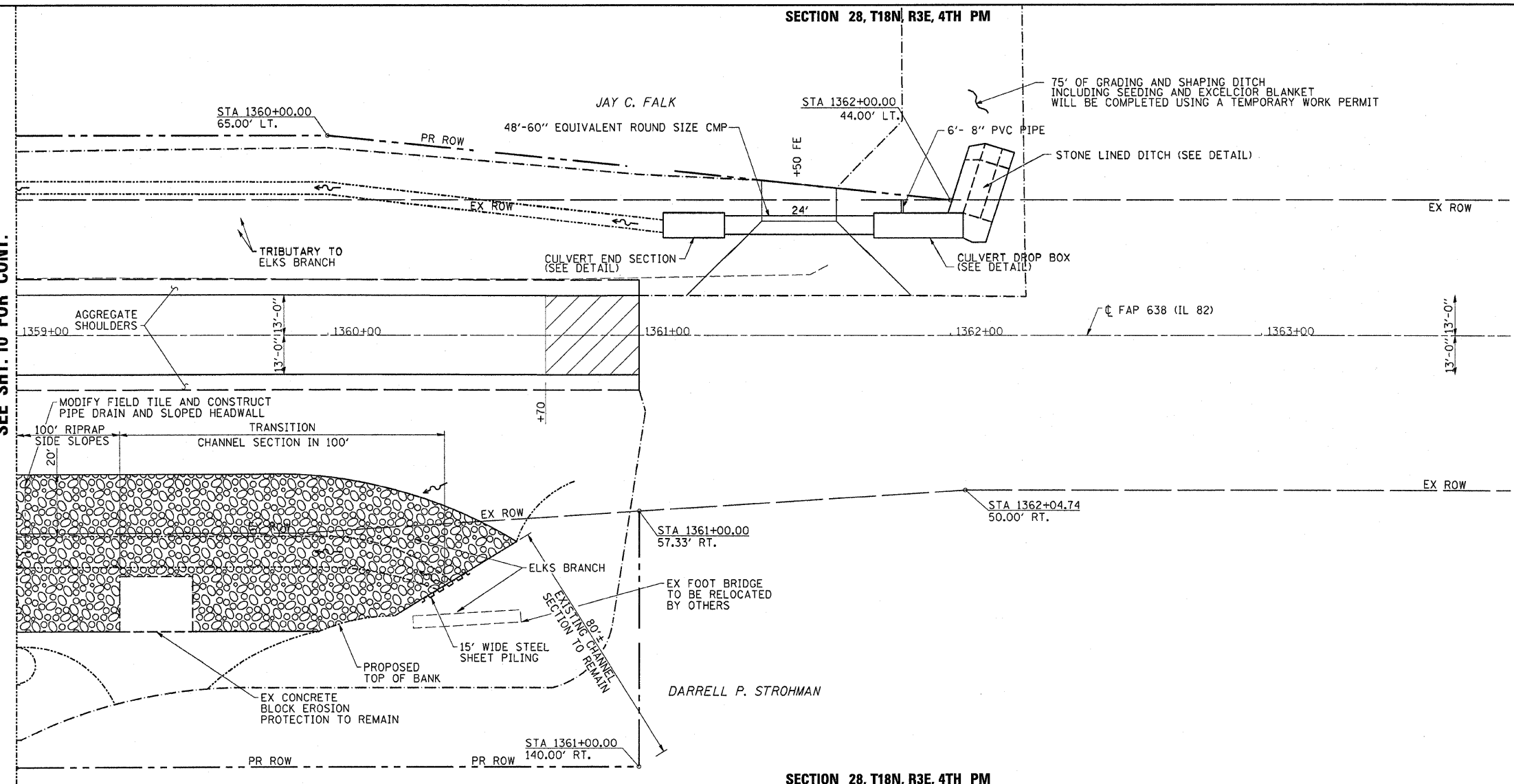
REVISION SHEET 10/28/09



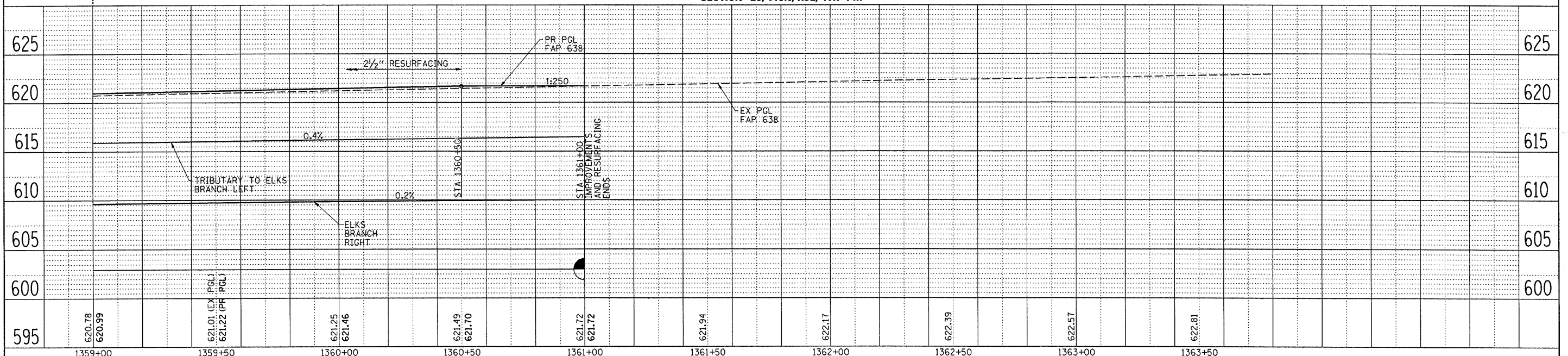
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DATE	
BY	
PROFILE	SURVEYED
	NOTE BOOK
	GRADES CHECKED
	BLK. NOTED
	STRUCTURE
	NOTATIONS OK'D
	NO.

MATCH LINE STA 1359+00
SEE SHT. 10 FOR CONT.



SECTION 28, T18N, R3E, 4TH PM



FILE NAME =	USER NAME = fordjd	DESIGNED -	REVISED -
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SCALES: (HORIZ) 1"=20' (VERT) 1"=5'	PLOT DATE = Mon Oct 26 14:20:58 2009 TIME#	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

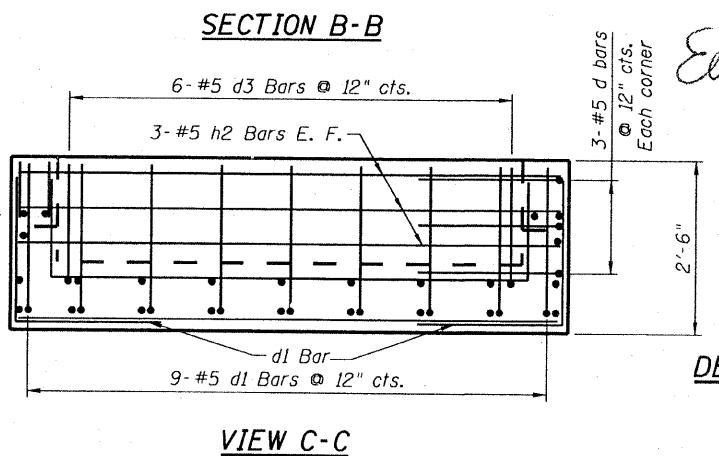
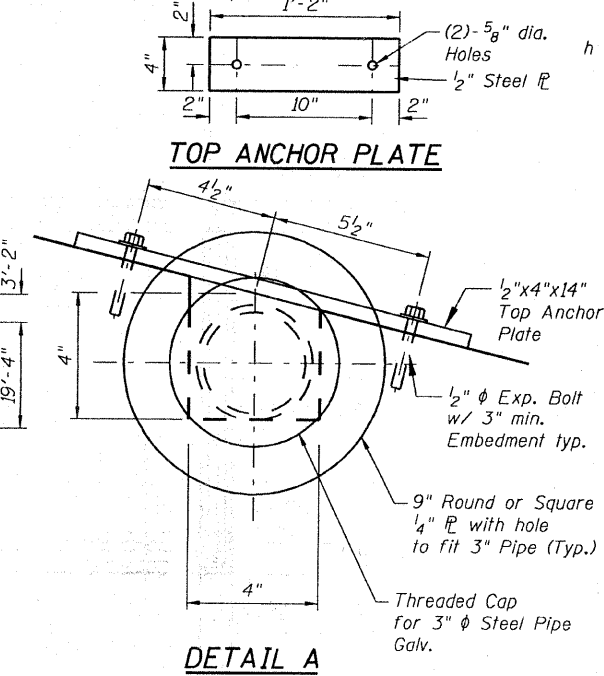
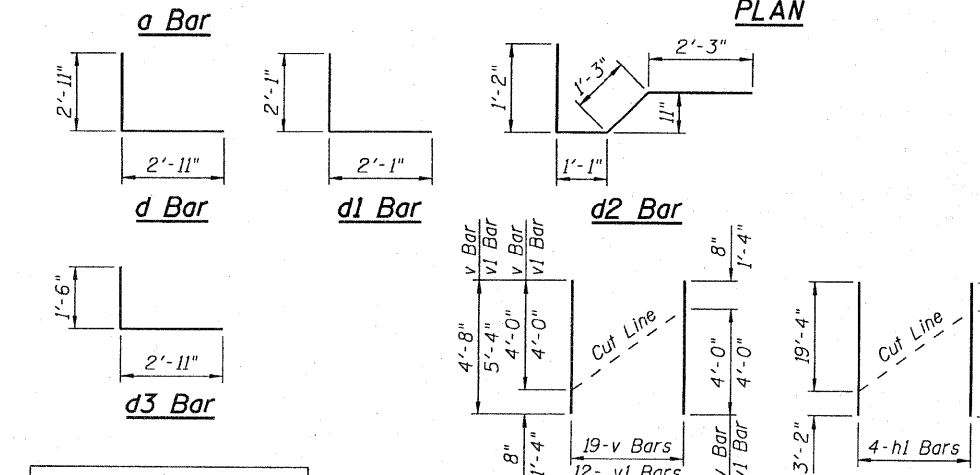
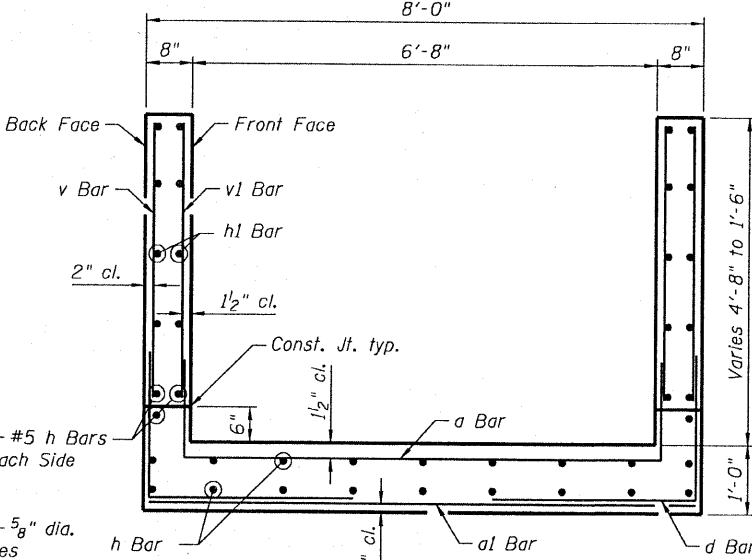
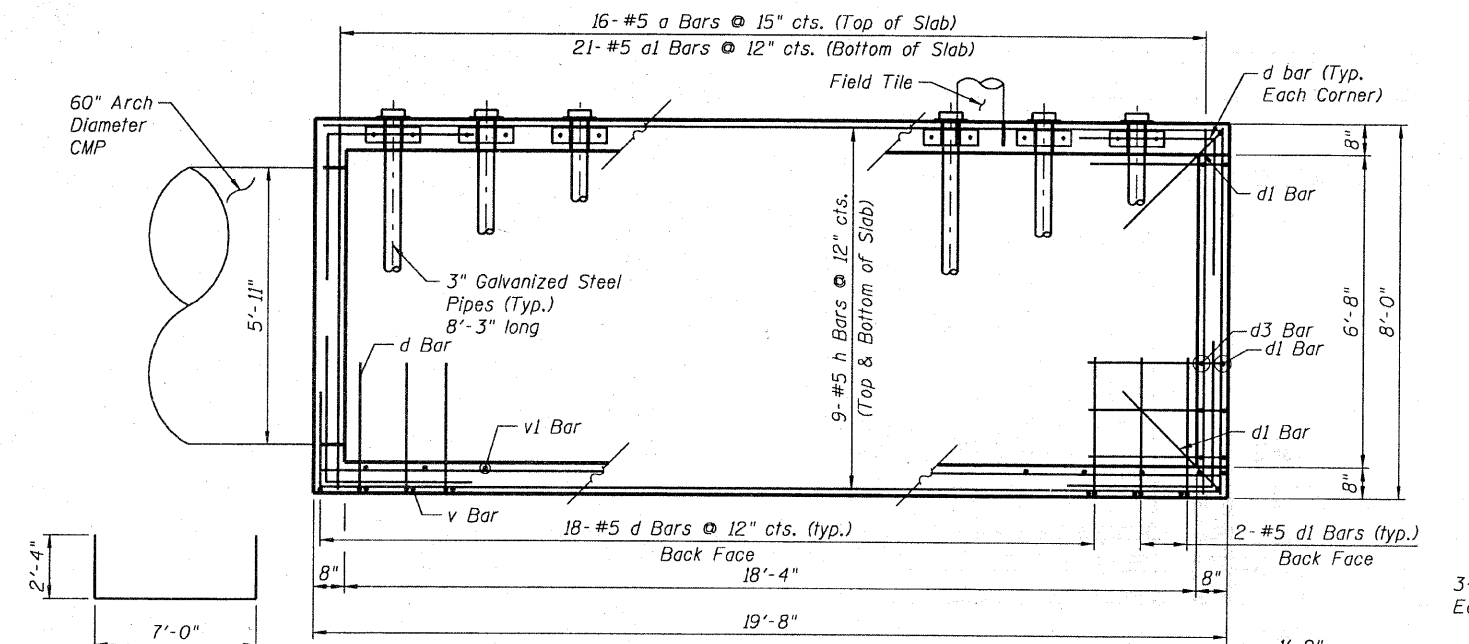
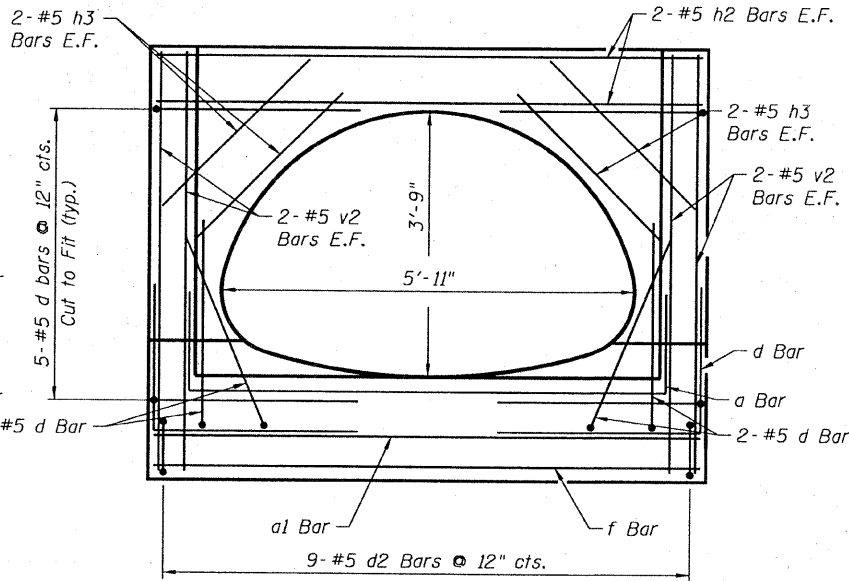
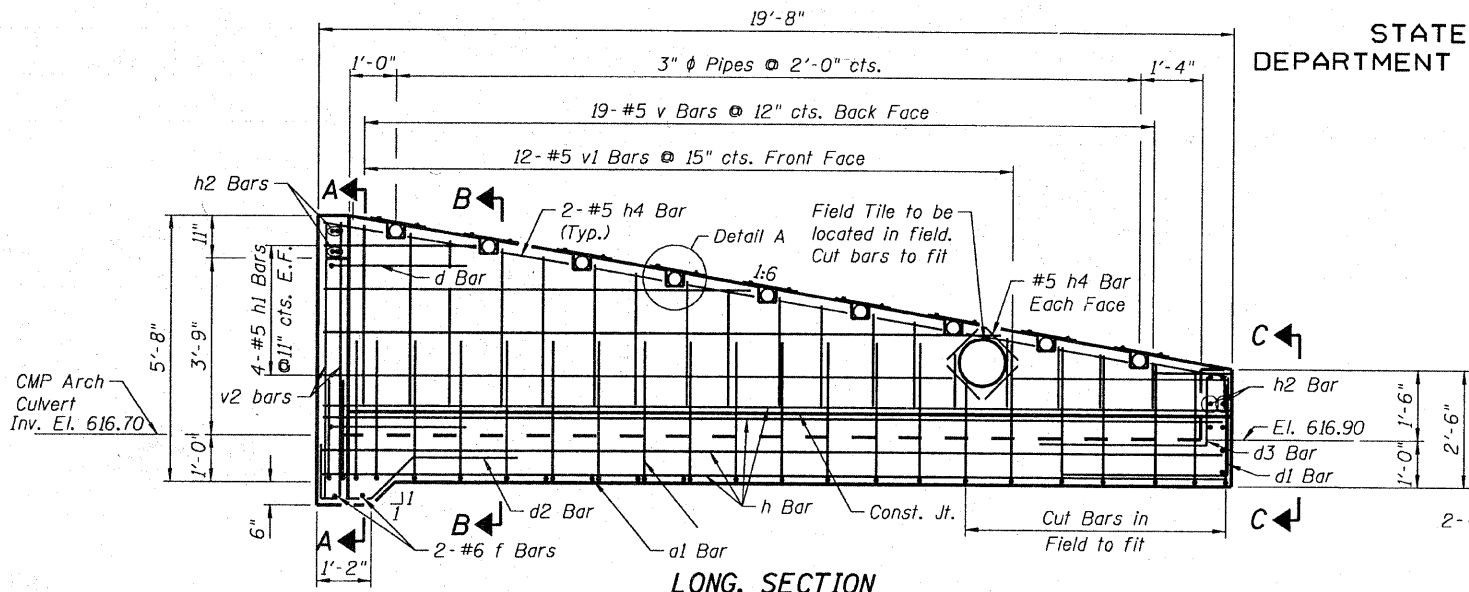
REVISOR SHEET 10/28/09
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
638	129 BR	HENRY	42	12
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 64A04		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES:

1. Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-35, Grade 60.
2. Exposed edges shall be beveled 3/4".
3. All construction joints shall be bonded.
4. The contract unit price "each" for culvert Drop Box and culvert End Section shall include the Expansion Bolts, Galvanized Pipe, Concrete Structures, Reinforcement Bars, Steel Plates, Bolts, Nuts, Washers, Pipe Caps, earth excavation where required, and necessary grading to fit the structure as shown in the cross sections, or to the slope.
5. Steel pipes shall conform to A.S.T.M. A-53 (Type E or S) Grade B. Schedule 40. & shall be galvanized conforming to A.S.T.M. A-120.
6. Steel plates shall conform to AASHTO M-183 & shall be galvanized conforming to AASHTO M-111.
7. Bolts, nuts, & washers shall be in accordance with Article 1006.08 of the Standard Specifications and shall be galvanized.
8. This work shall be done according to the applicable portion of 503, 508, and 542 of the Standard Specifications.
9. Extend field tile to new grated drop box using 6 ft 8" dia. PVC pipe. PVC pipe shall be in accordance with Article 1040.03 of the Standard Specifications. Cost shall be included with Culvert Drop Box pay item.



DATE: 10/23/2009
SEAL EXPIRES: 11/30/2009

Eward

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	16	# 5	11' - 8"	L
a1	21	# 5	7' - 8"	L
d	56	# 5	5' - 10"	L
d1	13	# 5	4' - 2"	L
d2	9	# 5	5' - 9"	L
d3	6	# 5	4' - 5"	L
f	2	# 6	7' - 8"	L
h	24	# 5	19' - 4"	L
h1	8	# 5	22' - 6"	L
h2	10	# 5	7' - 8"	L
h3	8	# 5	3' - 0"	L
h4	48	# 5	1' - 6"	L
v	19	# 5	4' - 8"	L
v1	12	# 5	5' - 4"	L
v2	8	# 5	5' - 8"	L

Culvert Drop Box	Each	1
Concrete Structures	Cu. Yd.	9.6
Reinforcement Bars, Epoxy Coated	Pound	1,920
1/2" Galv. Exp. Bolts	Each	36
1/4" Galv. Steel Plate (9" Nominal)	Each	18
1/2" x 4" x 14" Galvanized Steel Plate	Each	18
3" Galv. Steel Pipe	Each	9
3" Galv. Pipe Caps	Each	18

* For Information Only

DESIGN STRESSES

fy = 60,000 psi
f'c = 3,500 psi

DROP BOX - NORTH SIDE

FAP ROUTE 638(IL 82)
STA. 1361+50

DESIGNED	-
CHECKED	-
DRAWN	-
CHECKED	-

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402 Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com

SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-1	638 (IL82)	I29BR	HENRY COUNTY	42	23A
S-2 SHEETS			CONTRACT NO. 64A04		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

NEW
REVISED SHEET 10/28/09

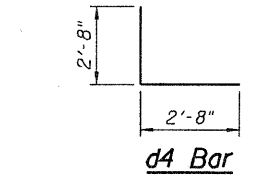
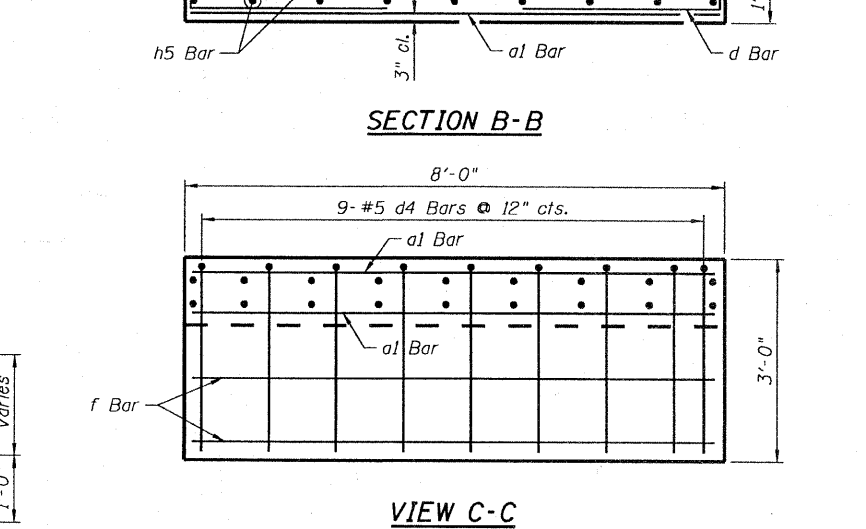
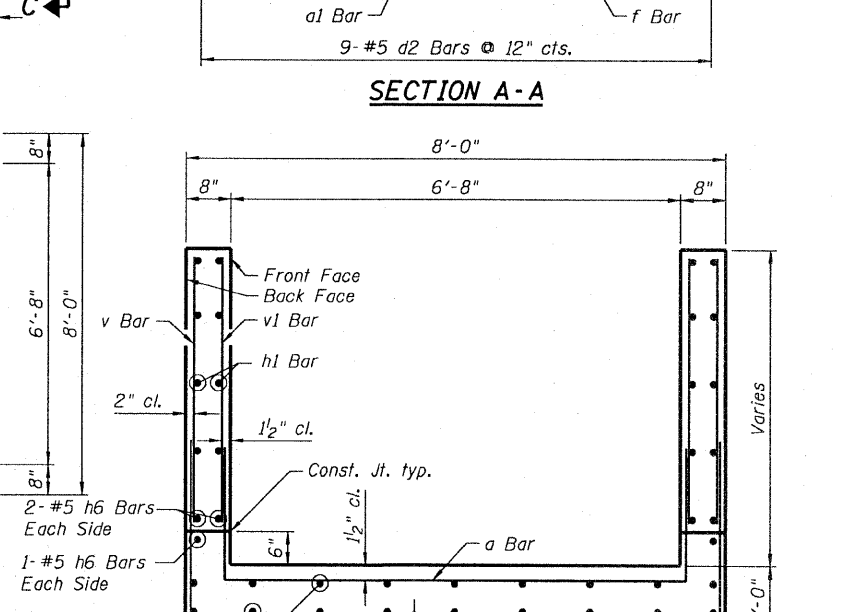
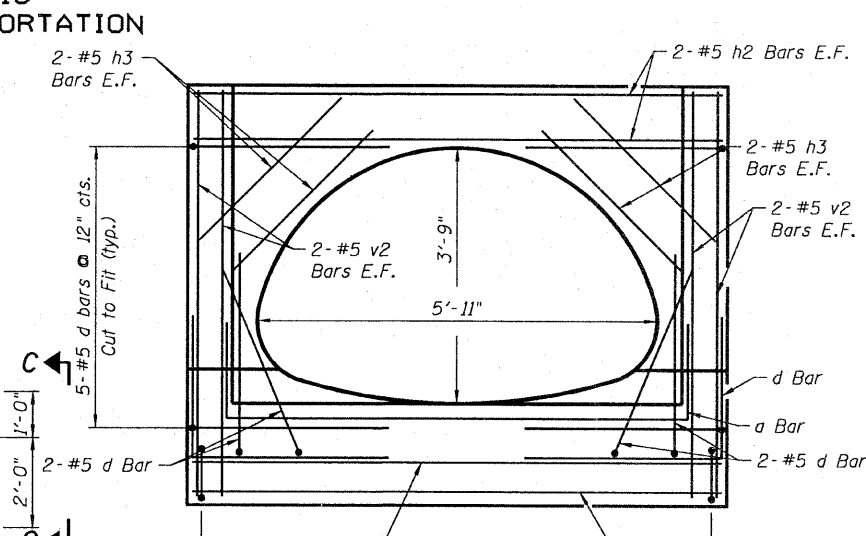
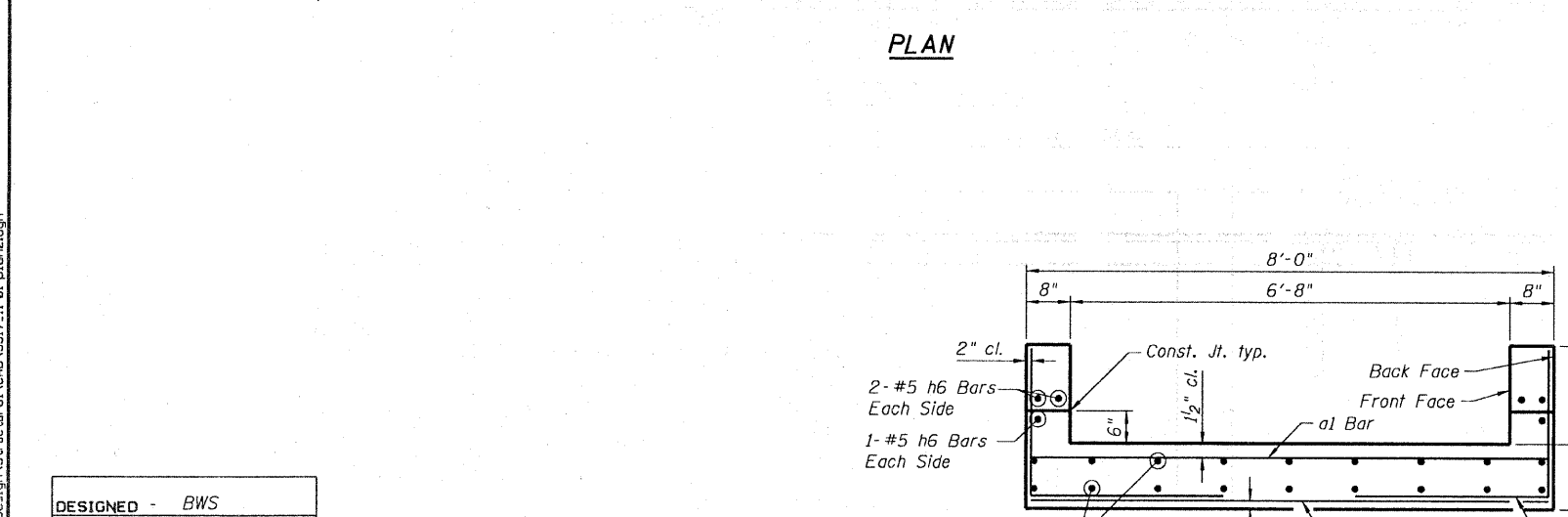
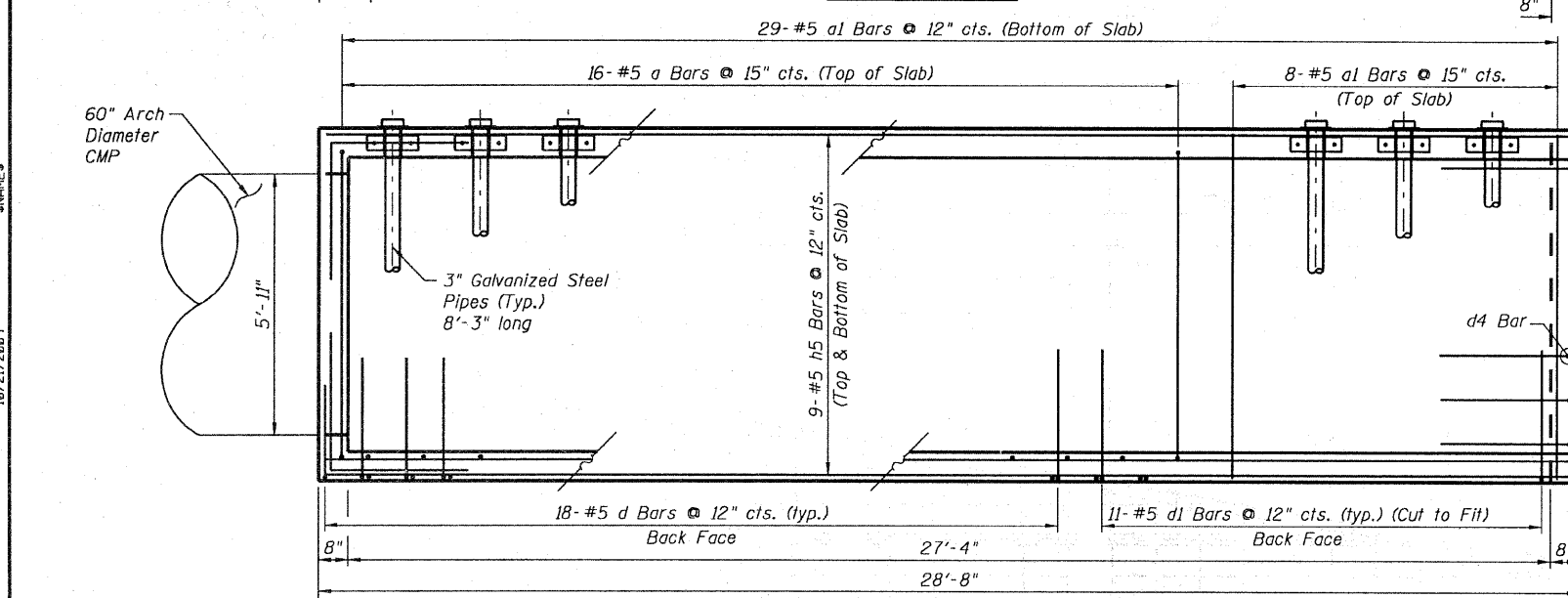
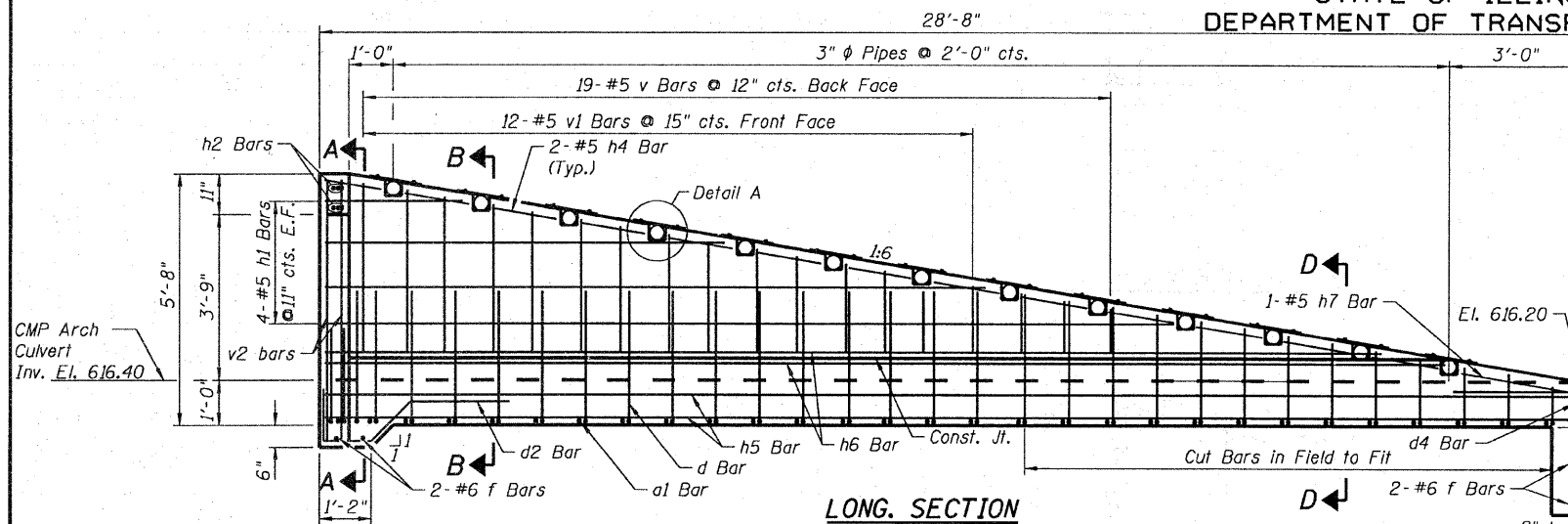
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	16	# 5	11' - 8"	—
a1	37	# 5	7' - 8"	—
d	50	# 5	5' - 10"	L
d1	22	# 5	4' - 2"	L
d2	9	# 5	5' - 9"	L
d4	9	# 5	5' - 4"	L
f	4	# 6	7' - 8"	—
h1	8	# 5	22' - 6"	—
h2	4	# 5	7' - 8"	—
h3	8	# 5	3' - 0"	—
h4	52	# 5	1' - 6"	—
h5	18	# 5	28' - 4"	—
h6	6	# 5	25' - 2"	—
h7	2	# 5	2' - 8"	—
v	19	# 5	4' - 8"	—
v1	12	# 5	5' - 4"	—
v2	8	# 5	5' - 8"	—
Culvert End Section				
Concrete Structures	Each		1	
Reinforcement Bars, Epoxy Coated	Pound		2,170	
1/2" Galv. Exp. Bolts	Each		52	
1/4" Galv. Steel Plate (9" Nominal)	Each		26	
1/2"x4"x14" Galvanized Steel Plate	Each		26	
3" Galv. Steel Pipe	Each		13	
3" Galv. Pipe Caps	Each		26	

* For Information Only



DESIGN STRESSES

$f_y = 60,000 \text{ psi}$
 $f'_c = 3,500 \text{ psi}$

NOTES:

1. For General Notes see Sheet S-1.
2. For Detail A and reinforcement details see Sheet S-1.
3. For Grating details see Sheet S-1.

END SECTION - SOUTH SIDE
FAP ROUTE 638(IL 82)
STA. 1361+50

DESIGNED -	BWS
CHECKED -	EKM
DRAWN -	RD
CHECKED -	BWS

CG Ciorba Group, Inc.
CONSULTING ENGINEERS
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SECTION D-D

NEW
REVISI REVISION SHEET 10/28/09

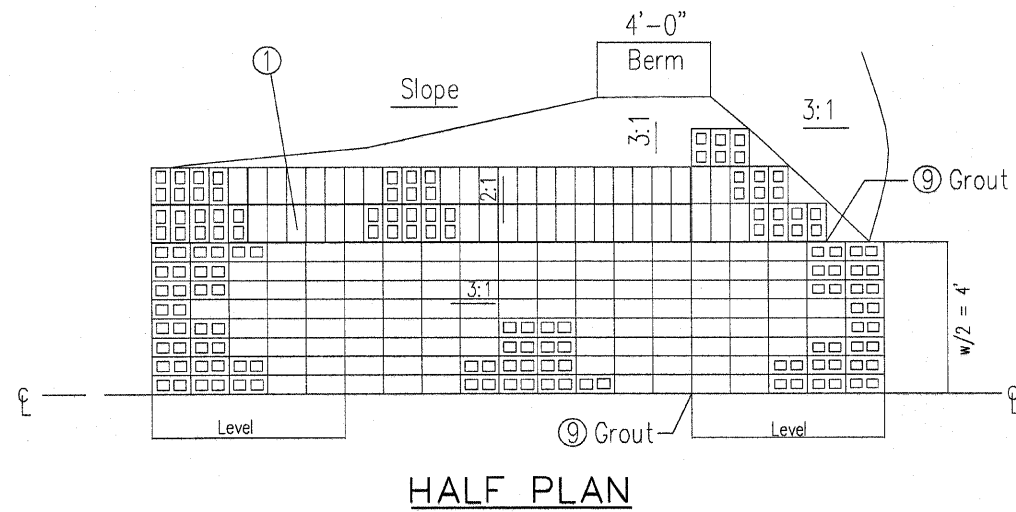
SHEET NO. S-2 S-2 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	638 (IL82)	129BR	HENRY COUNTY	42	23B
			CONTRACT NO. 64A04		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STONE LINED DITCH

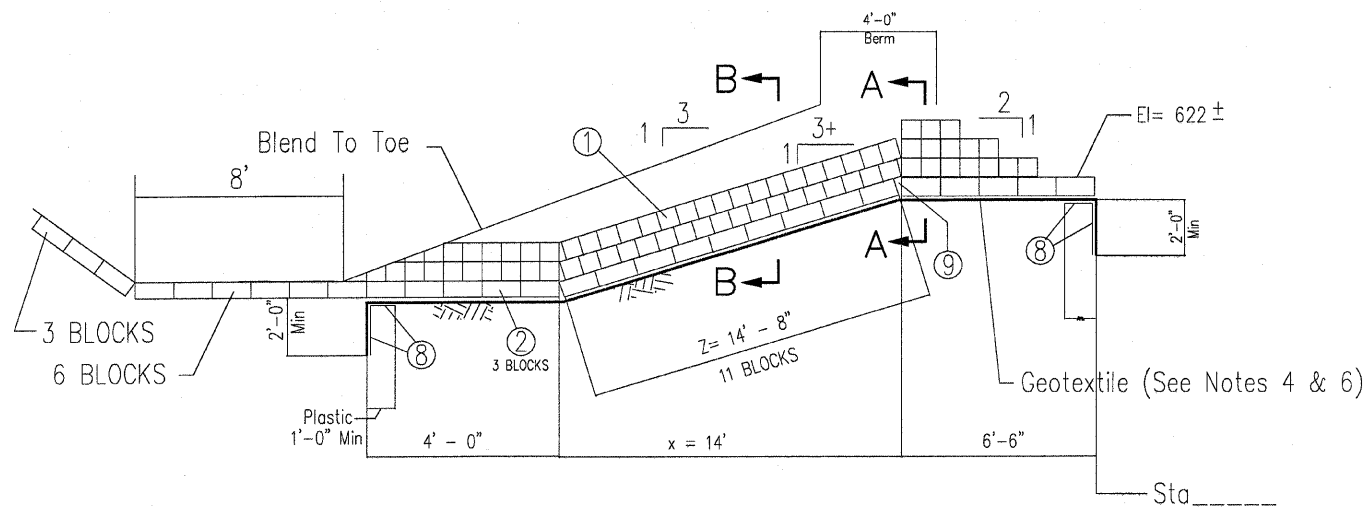
CONSTRUCTION NOTES

- Concrete blocks shall be 8"x8"x16" long, in good condition, and free of excess mortar.
- Concrete blocks shall be placed with holes up.
- Concrete blocks in floor shall be placed with length parallel to direction of flow.
- Geotextile shall be installed as recommended by manufacturers instructions. All seams shall overlap a minimum of 9 inches.
- Blocks in sidewalls shall be placed with length perpendicular (90 degrees) to direction of flow.
- Geotextile (non-woven) minimum criteria:

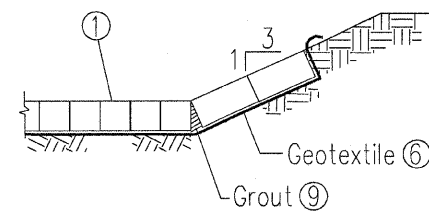
Weight of Geotextile (oz/sq.yd.)	_____	6
Tensile strength (lb) ASTM D 4632	_____	180
Elongation at failure (%) ASTM D 4632	_____	≥ 50
Puncture (lb) ASTM D 4833	_____	80
Ultraviolet light (% residual tensile strength) ASTM D 4355	_____	min 70
Apparent opening size (AOS) ASTM D 4751	_____	max 40 sieve
Permittivity sec ⁻¹ ASTM D 4491	_____	min 0.70
- A maximum 6 inch clean or washed chip or gravel fill (base) may be placed between the natural ground (sub base) and the Geotextile to provide a level base. At least 80% of the materials in the base shall be larger than the holes in the Geotextile. No material shall be placed between the blocks and the Geotextile.
- Extend cutoff trenches, plastic and filter fabric, U.S. & D.S. to a total width of block placement. Plastic in D.S. cutoff trench is optional.
- Grout triangular shaped void at each side by 3:1 chute section and across crest of weir. Grout to be 1 part cement and 3 parts sand.
- Holes in concrete blocks may be filled with soil and seeded to a waterway seeding mixture.
- Concrete blocks shall not be driven on by any machinery during or after placement.
- Berm shall be seeded and mulched to the 342 Critical Area Seeding specifications.



HALF PLAN



LONGITUDINAL SECTION AT CENTERLINE

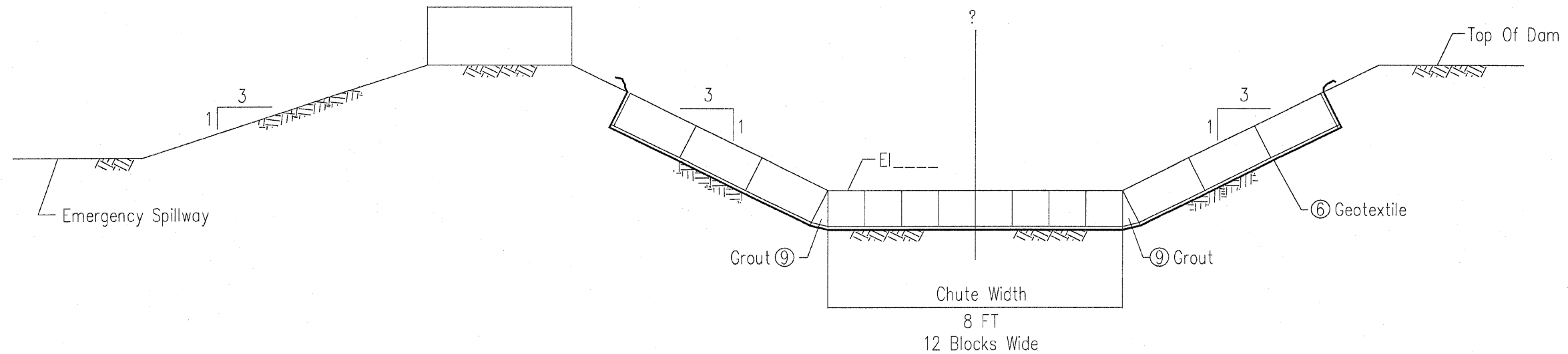


SECTION B-B

NEW
REVISED SHEET 10/28/09

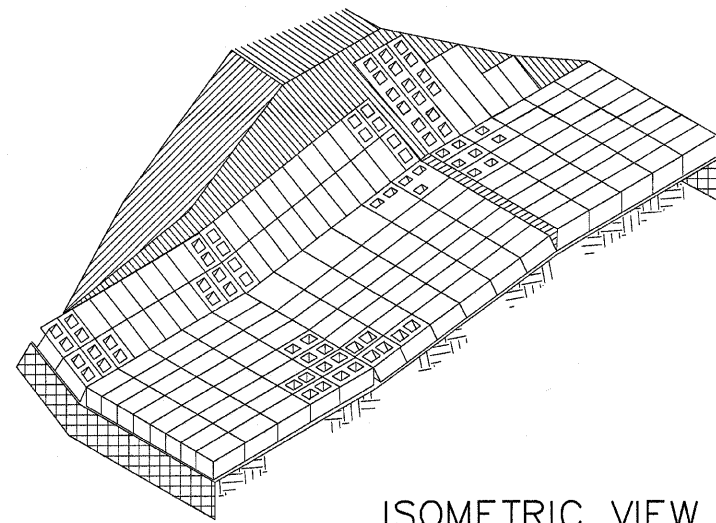
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PLOT DATE = Mon Oct 26 10:50:01 2009		DATE -	REVISIONS -		SCALE:	SHEET NO. 1 OF 2 SHEETS	STA. 1362+00	ILLINOIS FED. AID PROJECT			

STONE LINED DITCH



SECTION A-A

Scale: 1" = 1'-0"



**ISOMETRIC VIEW
HALF PROFILE**

BILL OF MATERIAL	
ITEM	QUANTITY
Concrete Blocks 8"x8"x16"	660
Geotextile	76 Sq. Yd.
Plastic Cutoff (3' Wide)	32' Lin. Ft.
Cement Grout	

STONE LINED DITCH

This work shall include the concrete blocks, approximately 75' of grading and shaping the ditch, seeding the ditch, covering the ditch with excelsior blanket, geotextile, plastic cutoff, cement grout and anything else needed to construct stone lined ditch.

Area estimated includes the 76 square yards for concrete block section and 75' x 30' for the ditch. Estimated area is 326 SQUARE YARDS.

This work shall be paid for at the contract unit price per square yard for STONE LINED DITCH which price shall include all labor, materials and equipment necessary to complet the work, as per the Resident Engineer.

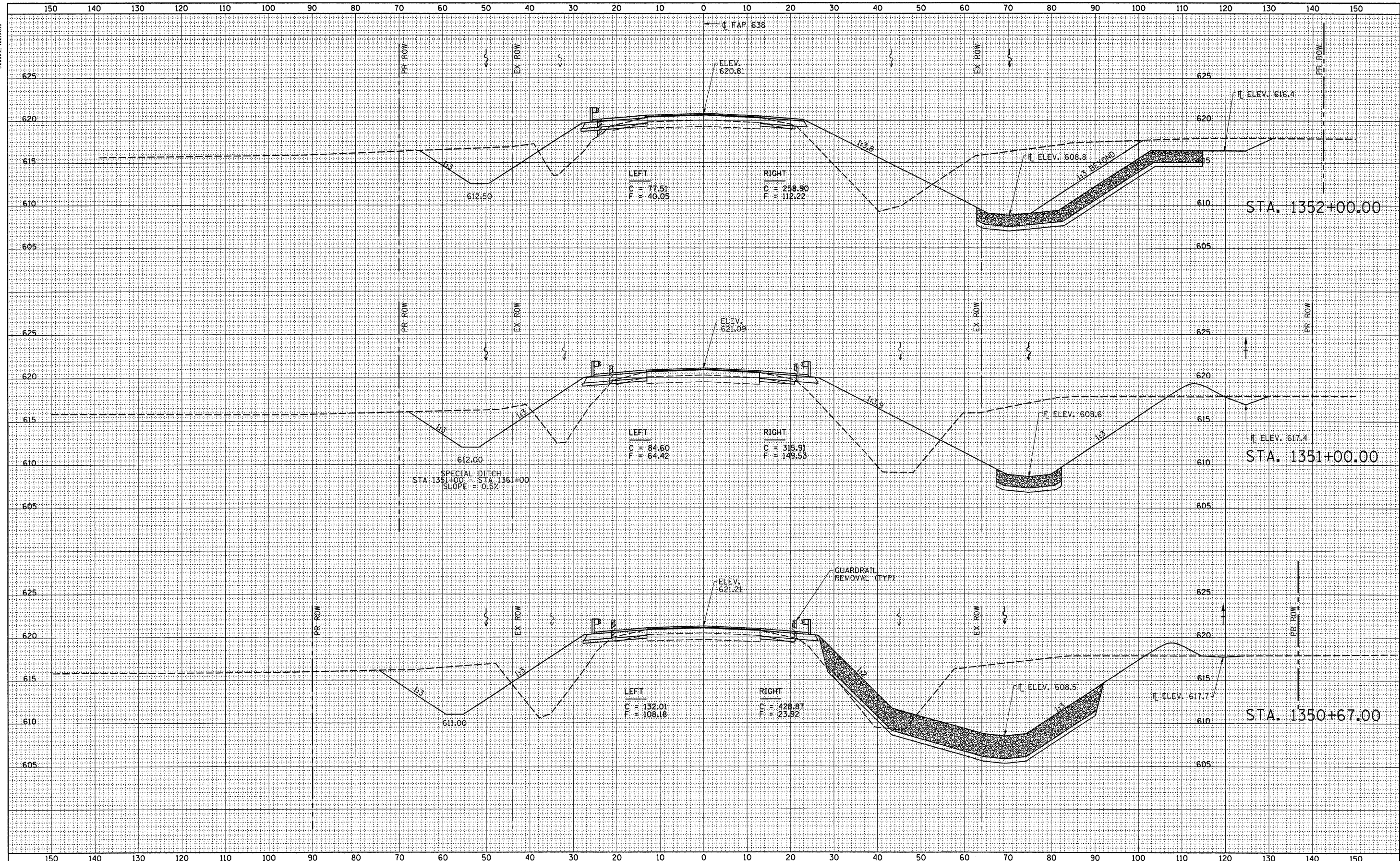
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						SCALE:	SHEET NO. 2 OF 2 SHEETS	STA. 1362+00		



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FINAL SURVEY	
NOTE BOOK	
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ORIGINAL SURVEY	
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

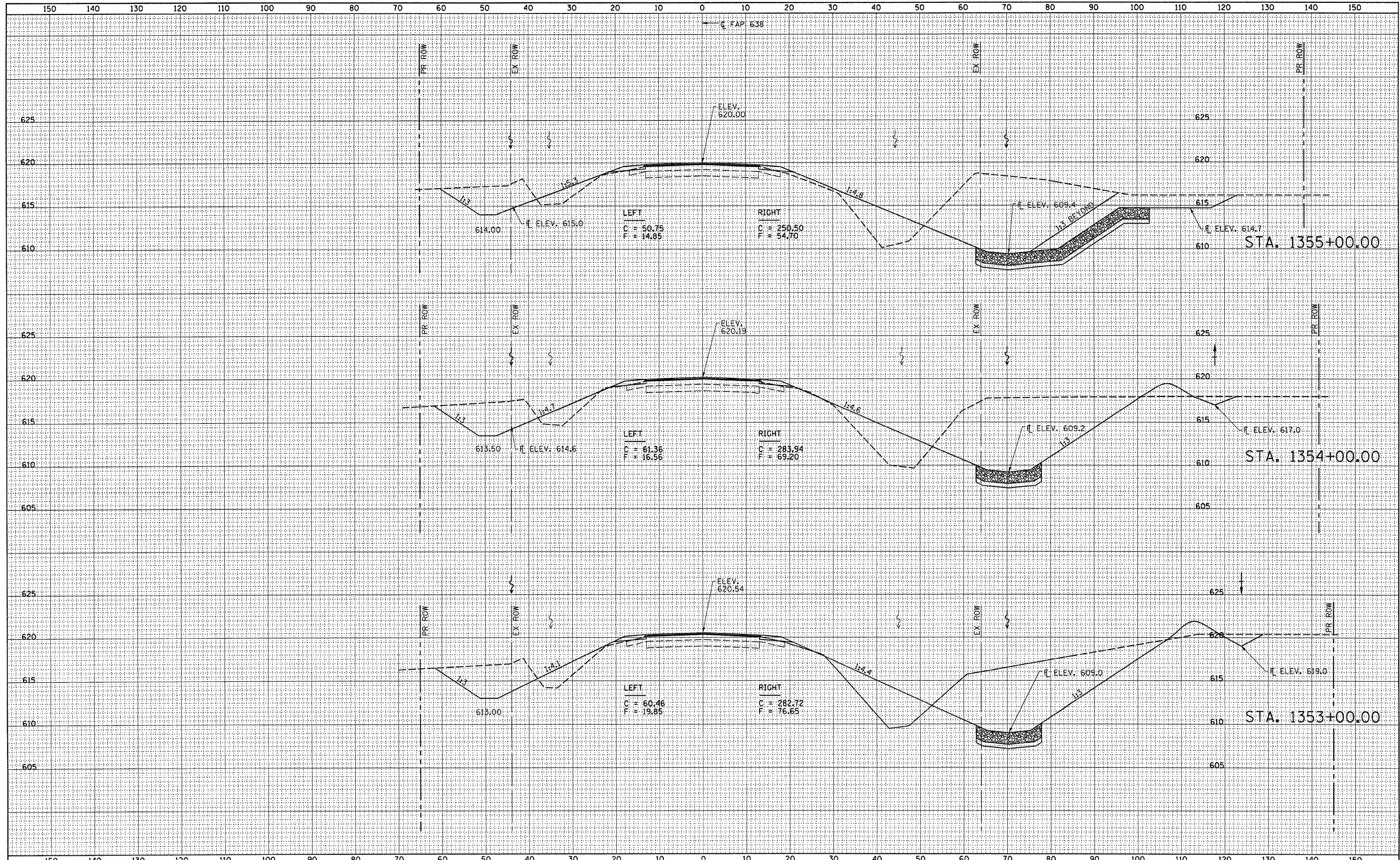
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IL ROUTE 82 CROSS SECTIONS
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F.A.P. RTE. 638	SECTION 129BR	COUNTY HENRY	TOTAL SHEETS 42	SHEET NO. 30
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		CONTRACT NO. 64A04



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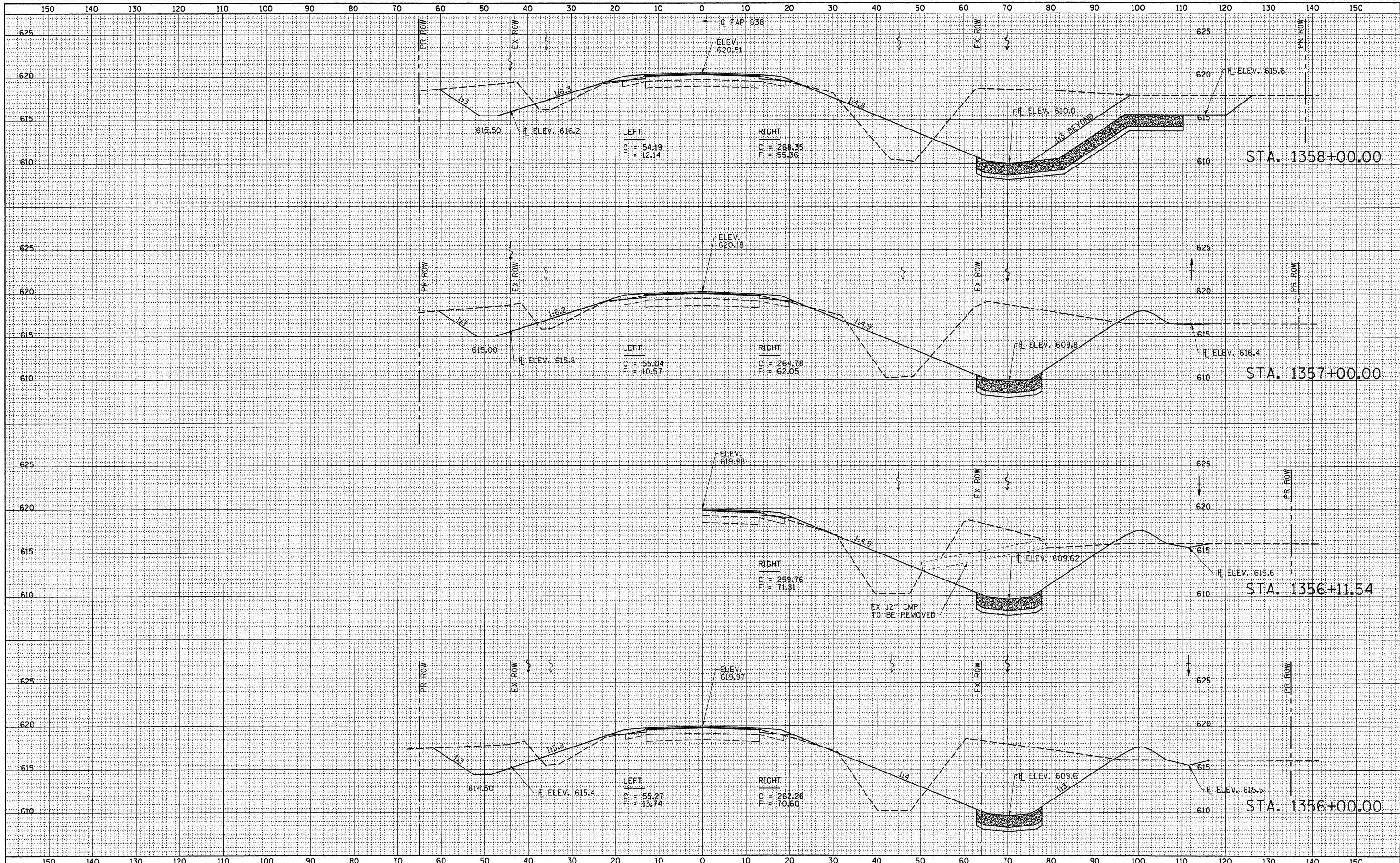


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CONTRACT NO. 64A04																					
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SURVEYED	
NOTED	
TEMPLATE	
AREAS	
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ORIGINAL	
NOTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

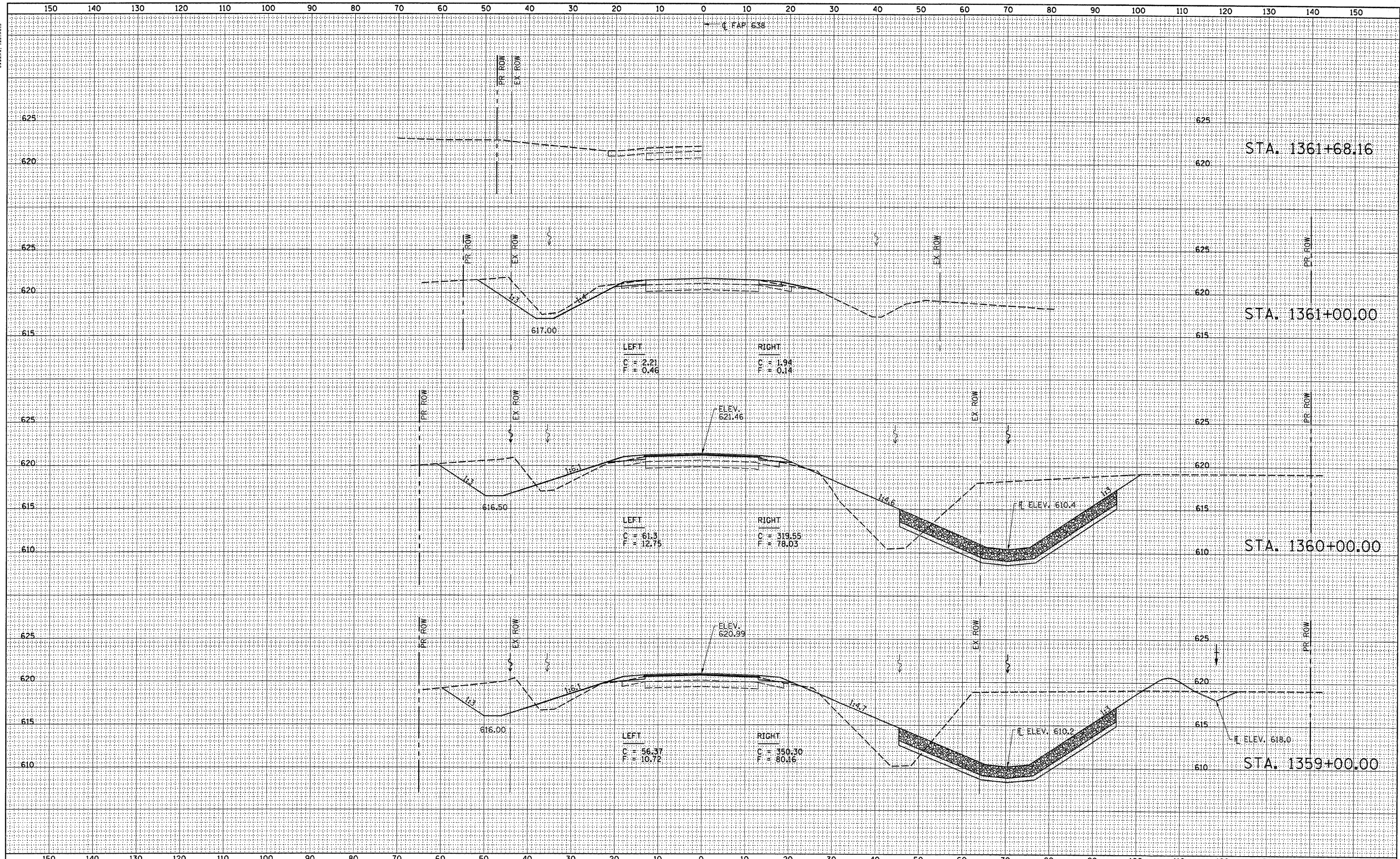
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F.A.P. RTE. 638	SECTION 129BR	COUNTY HENRY	TOTAL SHEETS 42	SHEET NO. 32
CONTRACT NO. 64A04				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



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FILE NAME =	USER NAME = fordjd	DESIGNED - JMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REVISED SHEET 10/28/09 IL ROUTE 82 CROSS SECTIONS	F.A.P. RTE. 638	SECTION 129BR	COUNTY HENRY	TOTAL SHEETS 42	SHEET NO. 33
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