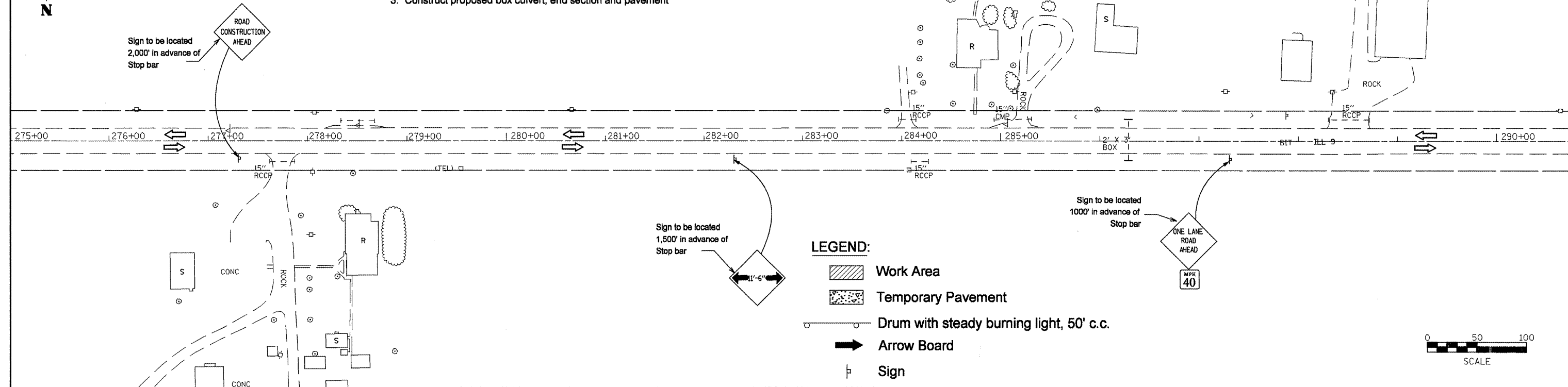




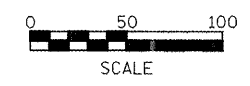
Stage II

1. Relocate temporary concrete barrier and switch traffic to constructed stage I
2. Remove temporary widening, existing pavement and box culvert
3. Construct proposed box culvert, end section and pavement

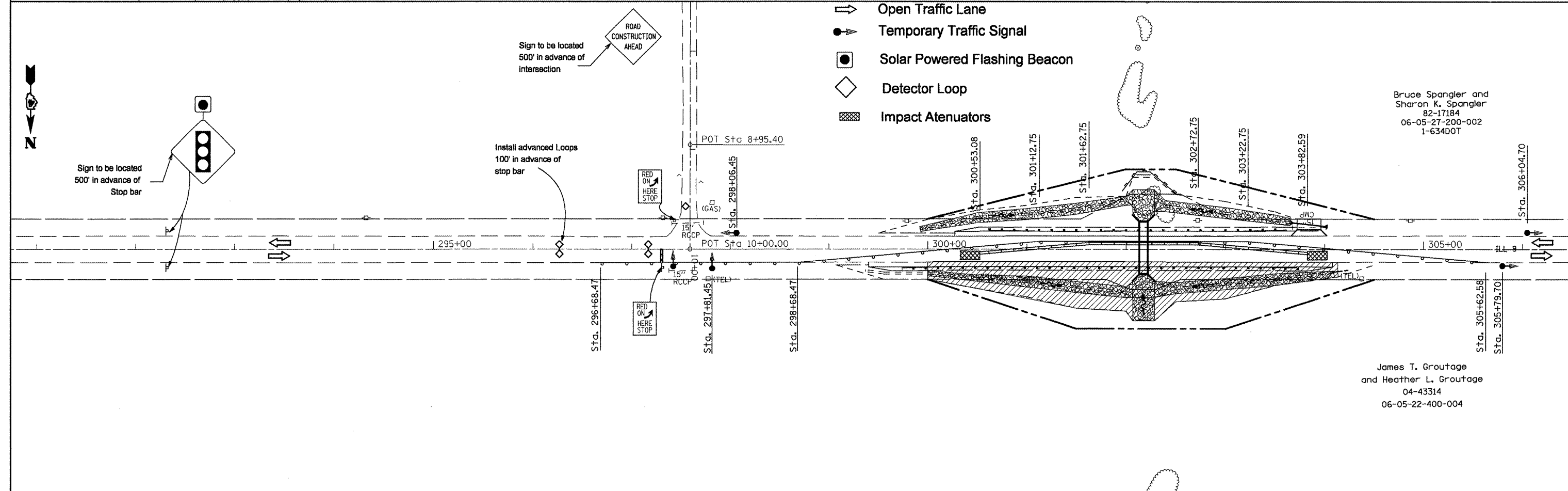


LEGEND:

- Work Area
- Temporary Pavement
- Drum with steady burning light, 50' c.c.
- Arrow Board
- Sign
- Open Traffic Lane
- Temporary Traffic Signal
- Solar Powered Flashing Beacon
- Detector Loop
- Impact Attenuators

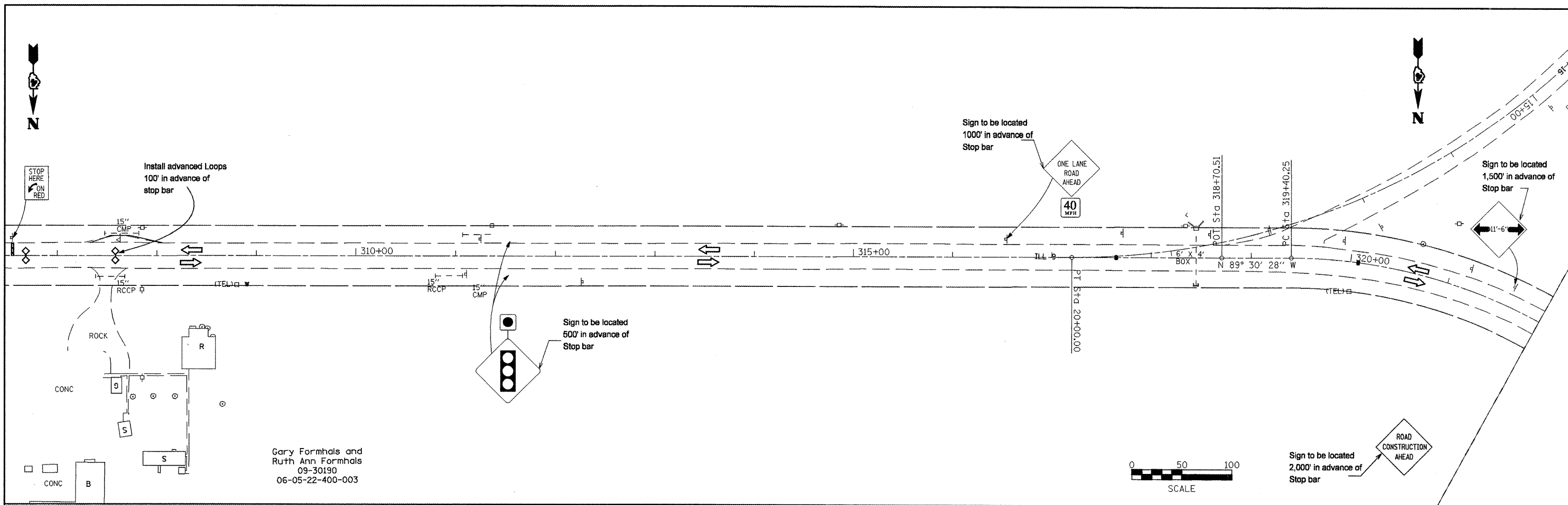


Bruce Spangler and
Sharon K. Spangler
82-17184
06-05-27-200-002
1-634DOT



James T. Groutage
and Heather L. Groutage
04-43314
06-05-22-400-004

FILE NAME = sheetstage2 8x6.dgn	USER NAME = mendezpj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE 2 PLAN - LOCATION 1		F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 101	
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		CHECKED -	REVISED -		ILLINOIS FED. AID PROJECT							
		DATE -	REVISED -		** (37,38)RS-3,39RS-5,(38) Fulton, McDonough							



LEGEND:

- Work Area
- Temporary Pavement
- Drum with steady burning light, 50' c.c.
- Arrow Board
- Sign
- Open Traffic Lane
- Temporary Traffic Signal
- Solar Powered Flashing Beacon
- Detector Loop
- Impact Attenuators

FILE NAME =
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USER NAME = mendexpj
PLOT SCALE = 100.0000' / IN.
PLOT DATE = 3/25/2011

DESIGNED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE 2 PLAN - LOCATION 1

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

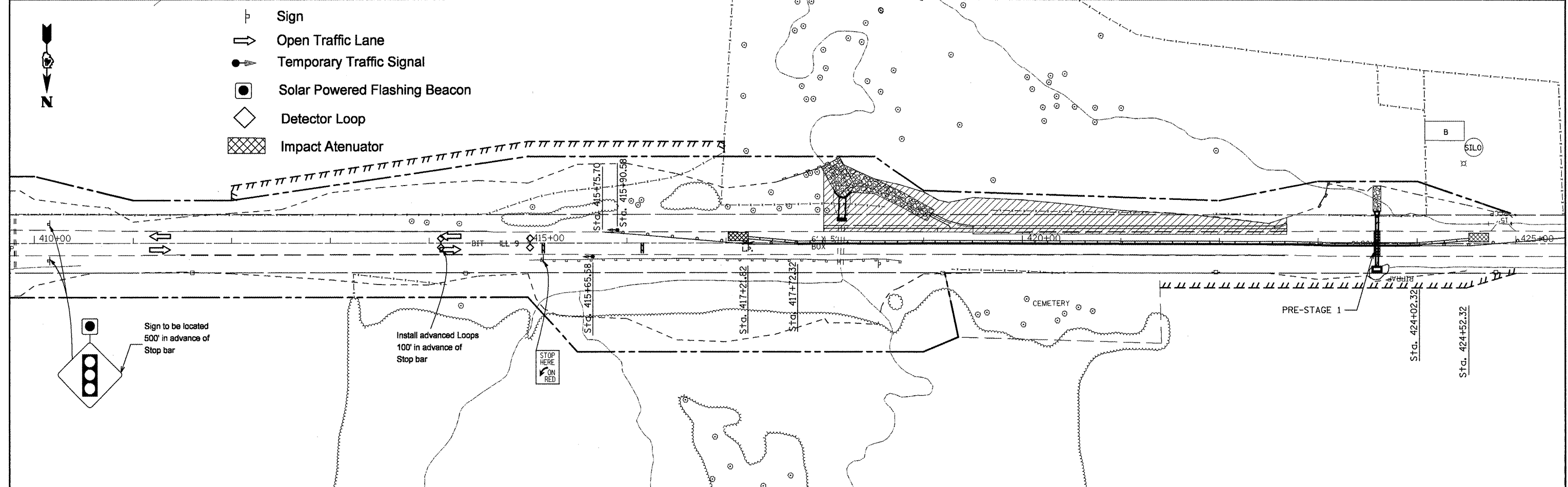
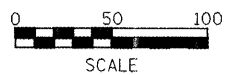
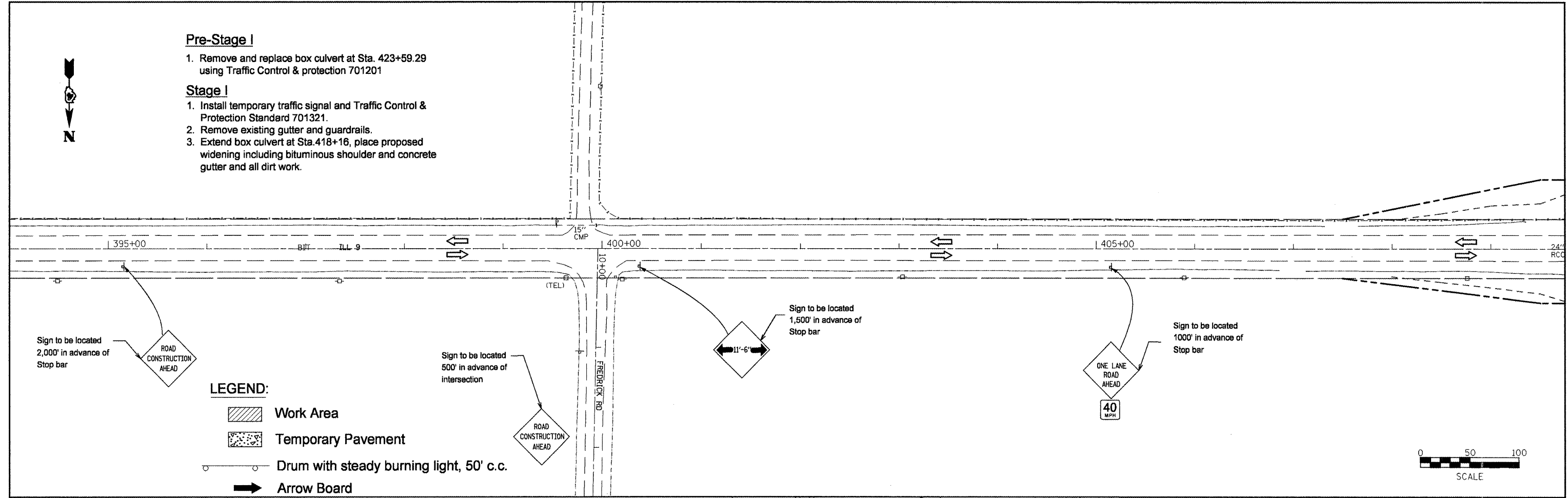
F.A.P. RTE. 685	SECTION ..	COUNTY ..	TOTAL SHEETS 329	SHEET NO. 102
CONTRACT NO. 68599				
ILLINOIS FED. AID PROJECT				

Pre-Stage I

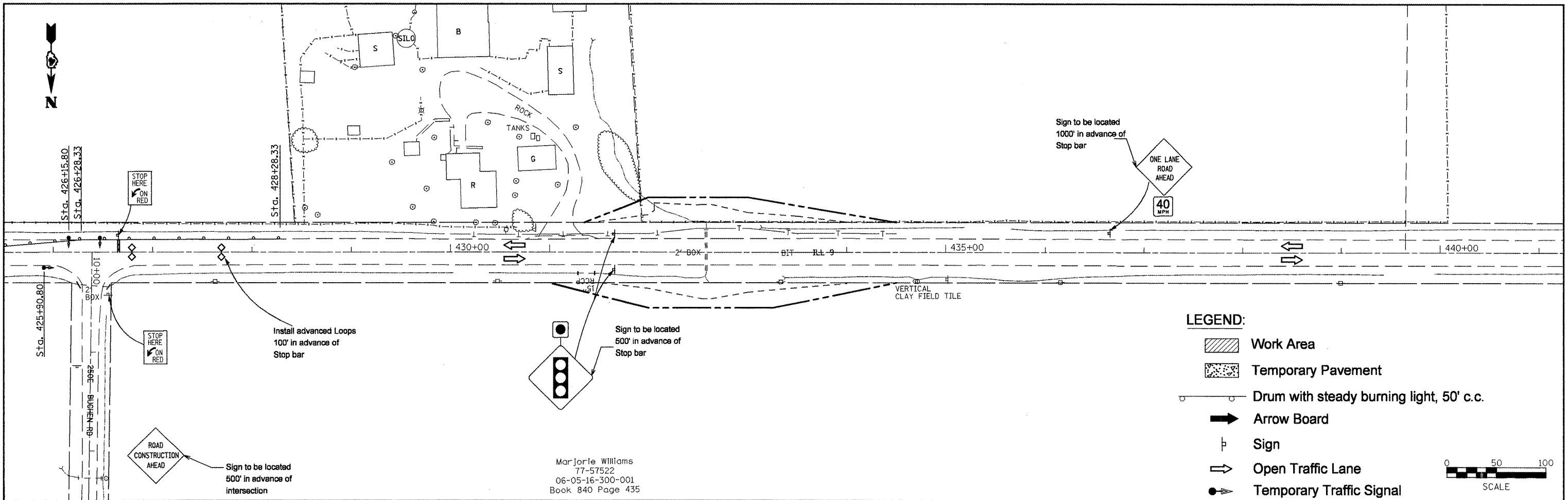
1. Remove and replace box culvert at Sta. 423+59.29 using Traffic Control & protection 701201

Stage I

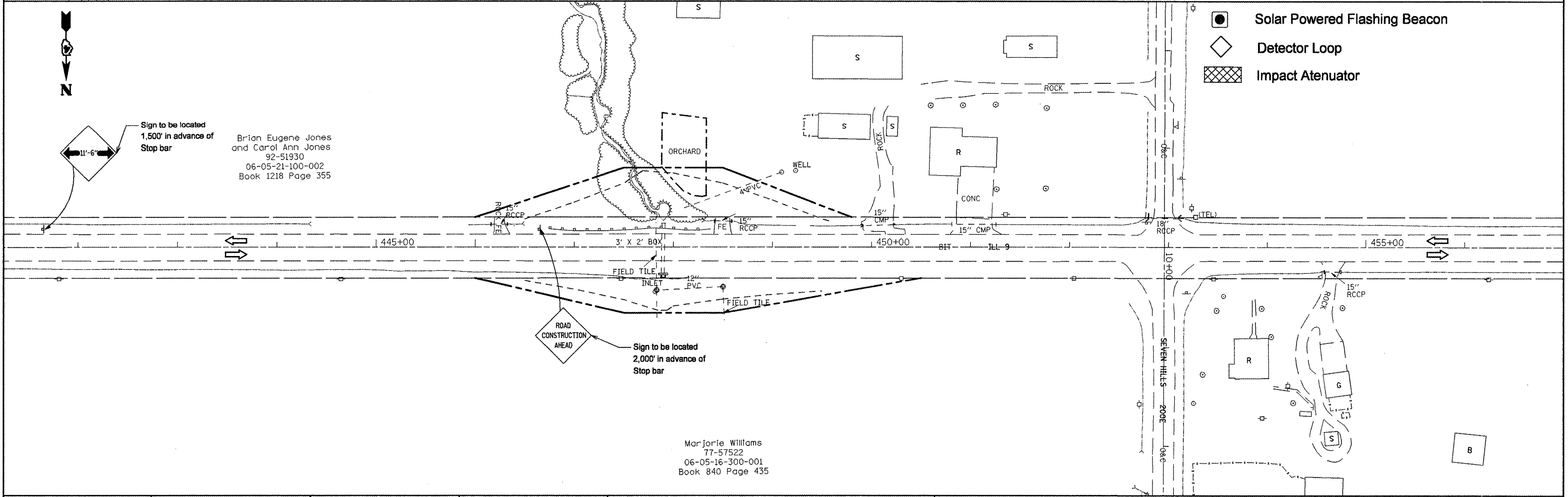
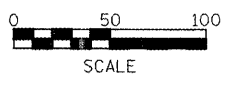
1. Install temporary traffic signal and Traffic Control & Protection Standard 701321.
2. Remove existing gutter and guardrails.
3. Extend box culvert at Sta.418+16, place proposed widening including bituminous shoulder and concrete gutter and all dirt work.



FILE NAME = sheetstage1 retwall.dgn	USER NAME = crespole	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE 1 PLAN - LOCATION 2		F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 103	
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		DATE -	REVISED -									



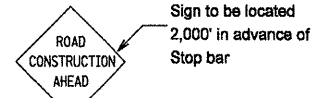
- LEGEND:**
- Work Area
 - Temporary Pavement
 - Drum with steady burning light, 50' c.c.
 - Arrow Board
 - Sign
 - Open Traffic Lane
 - Temporary Traffic Signal
 - Solar Powered Flashing Beacon
 - Detector Loop
 - Impact Attenuator



FILE NAME = sheetstage1 retwall.dgn	USER NAME = mendezpj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE 1 PLAN - LOCATION 2			F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 104
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		DATE -	REVISED -		(37,38)RS-3,39RS-5(38)1 Fulton, McDonough							

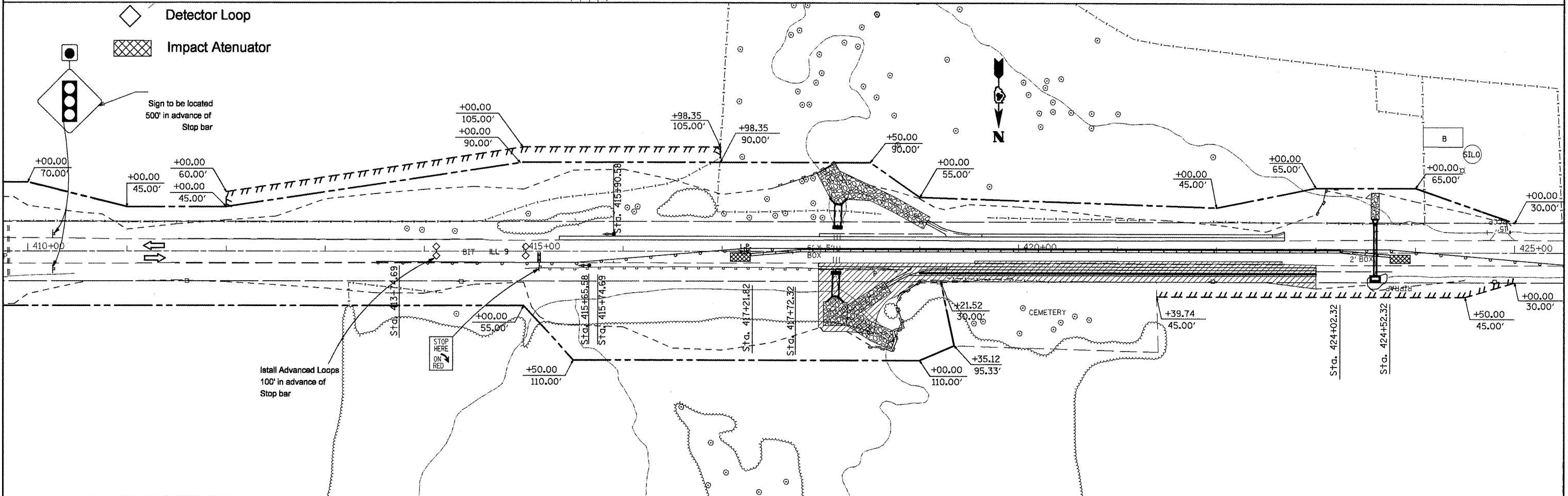
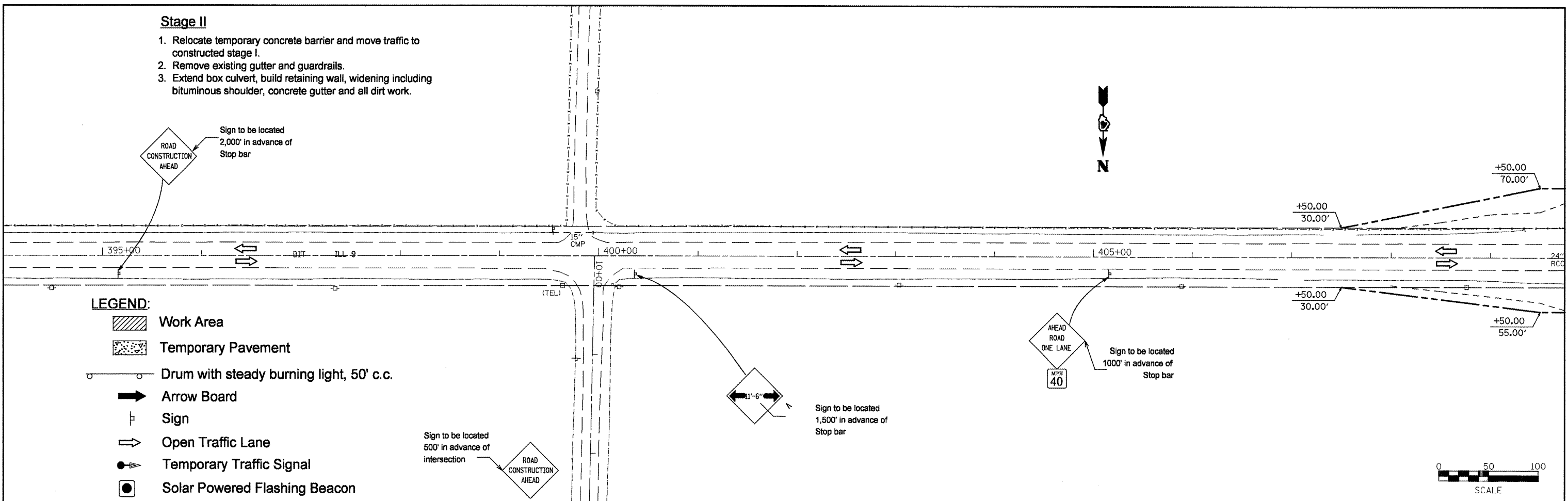
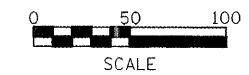
Stage II

1. Relocate temporary concrete barrier and move traffic to constructed stage I.
2. Remove existing gutter and guardrails.
3. Extend box culvert, build retaining wall, widening including bituminous shoulder, concrete gutter and all dirt work.



LEGEND:

- Work Area
- Temporary Pavement
- Drum with steady burning light, 50' c.c.
- Arrow Board
- Sign
- Open Traffic Lane
- Temporary Traffic Signal
- Solar Powered Flashing Beacon



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USER NAME = crespole

PLOT SCALE = 1/8" = 100.0000' / IN.

PLOT DATE = 4/8/2011

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DATE -	REVISED -

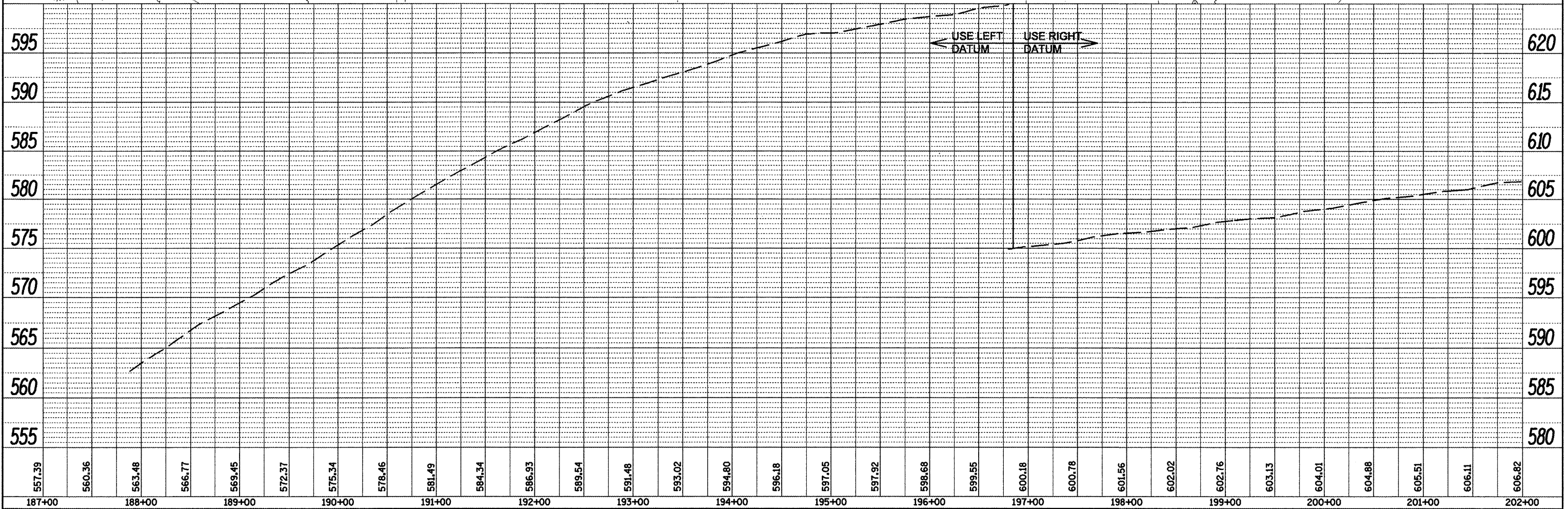
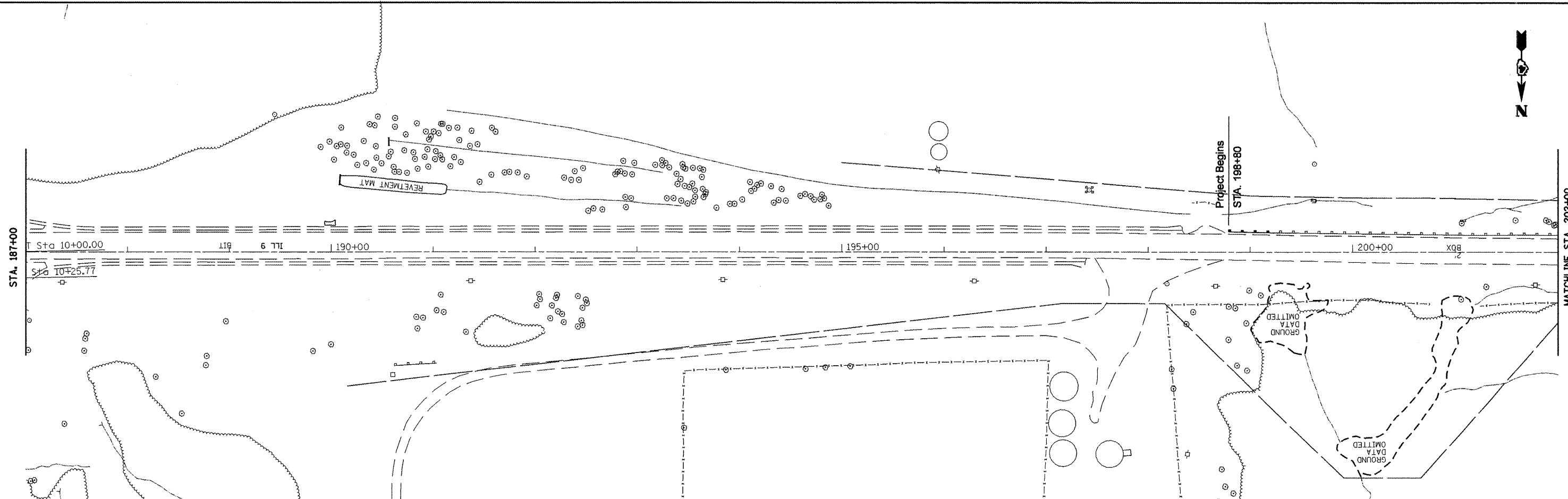
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE 2 PLAN - LOCATION 2

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

F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 105
CONTRACT NO. 68599				

ILLINOIS FED. AID PROJECT



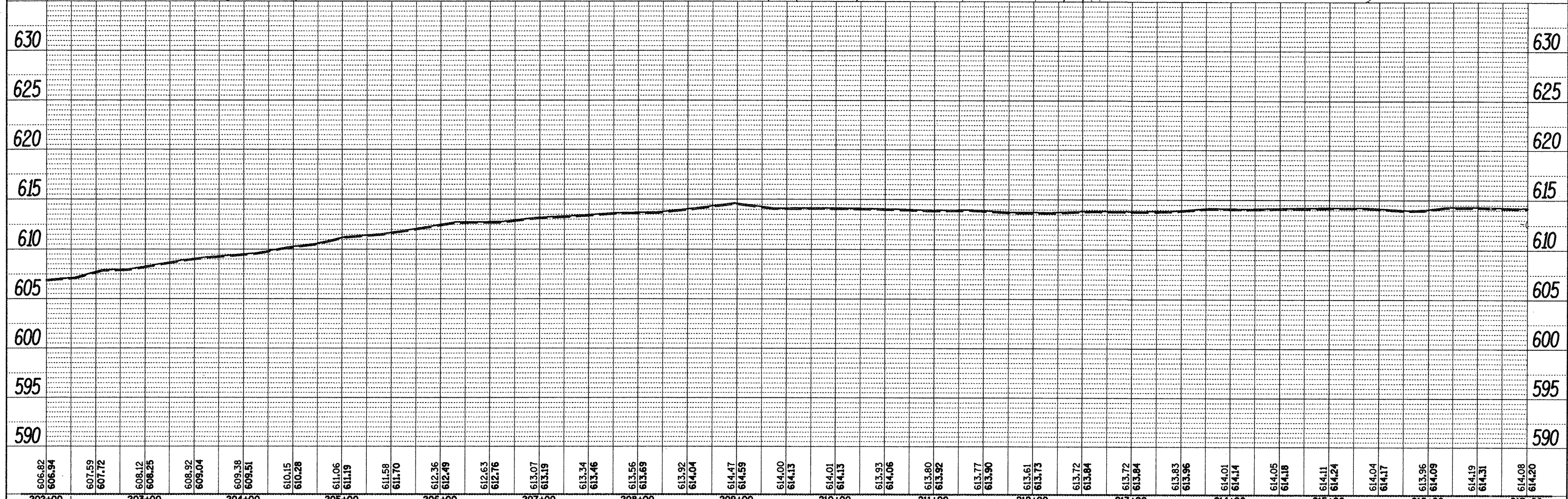
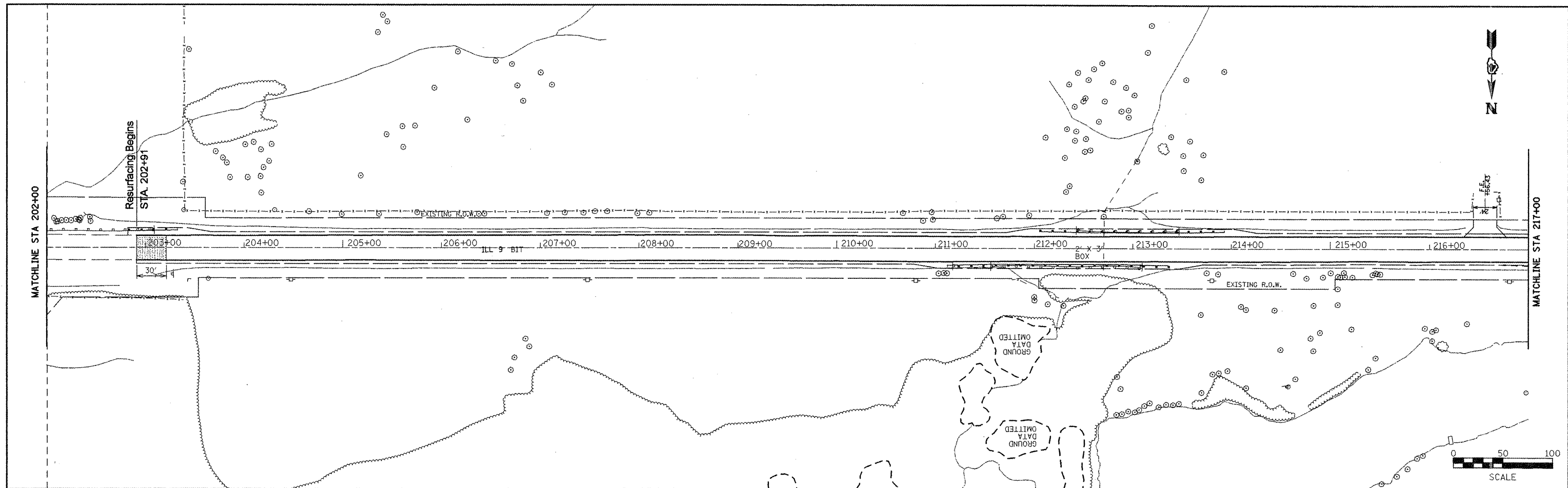
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	PLOT DATE = 3/25/2011	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							
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 NOTE BOOK NO. FILE NAME

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 NOTE BOOK NO. PROFILE NOTATION CHNG



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202+00	203+00	204+00	205+00	206+00	207+00	208+00	209+00	210+00	211+00	212+00	213+00	214+00	215+00	216+00	217+00															

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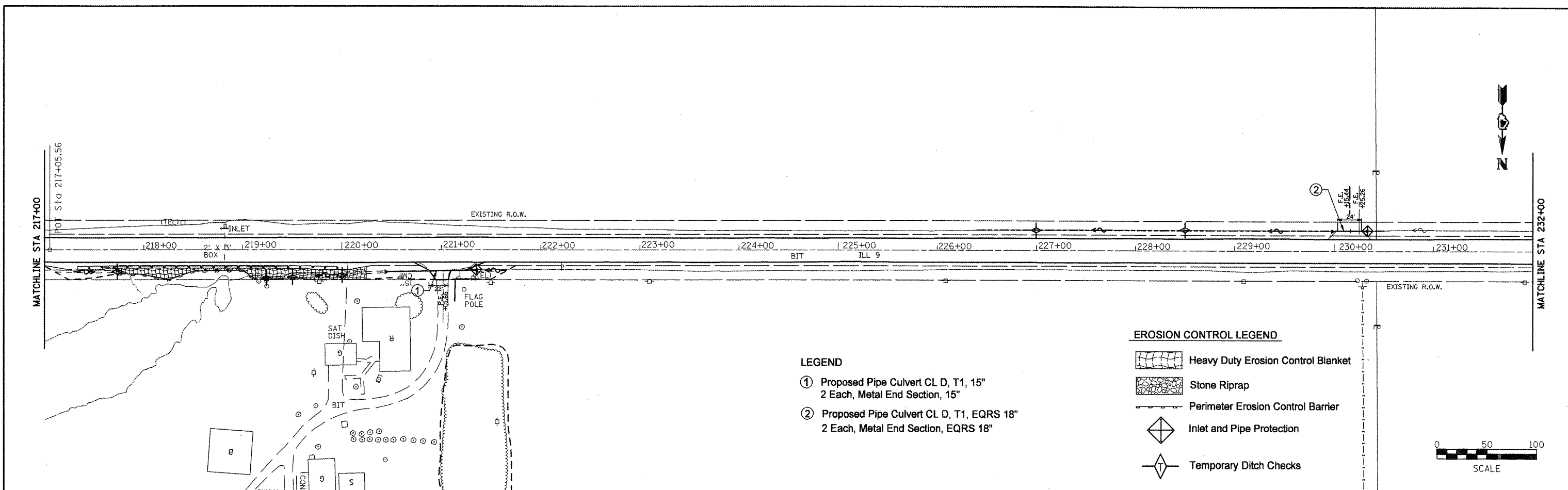
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DRAINAGE PLANS / EROSION CONTROL PLANS
 SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. 685
 SECTION **
 COUNTY *
 TOTAL SHEETS 329
 SHEET NO. 108
 CONTRACT NO. 68599
 ILLINOIS FED. AID PROJECT

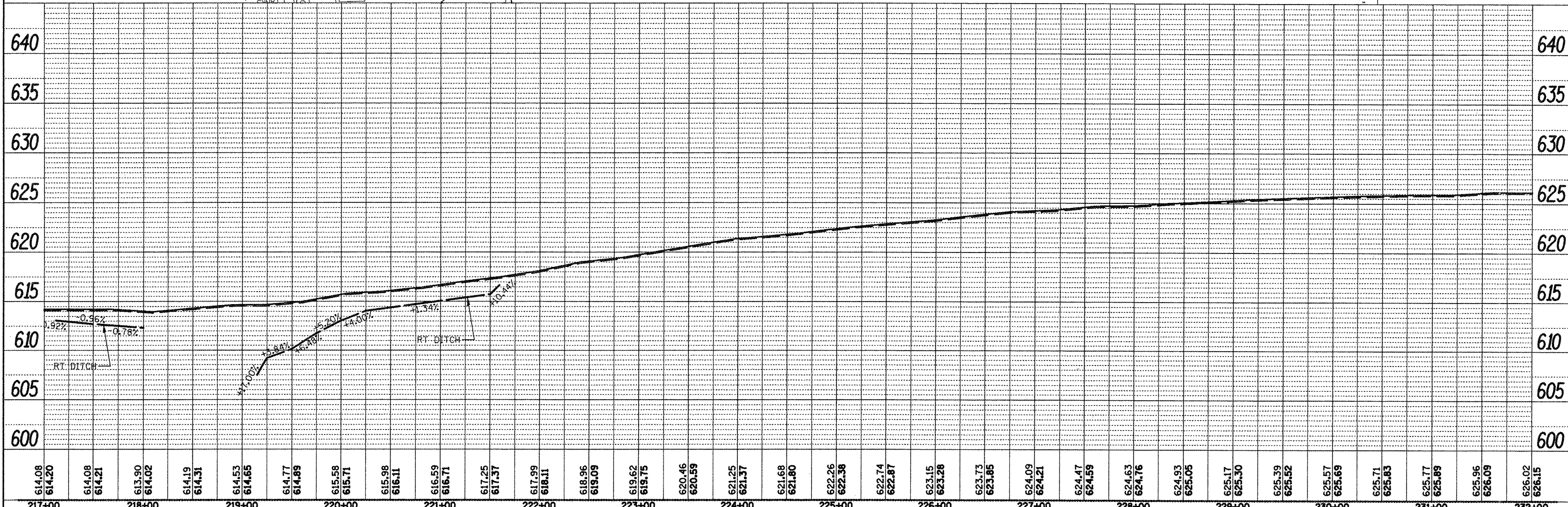
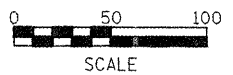
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- LEGEND**
- ① Proposed Pipe Culvert CL D, T1, 15"
2 Each, Metal End Section, 15"
 - ② Proposed Pipe Culvert CL D, T1, EQRS 18"
2 Each, Metal End Section, EQRS 18"

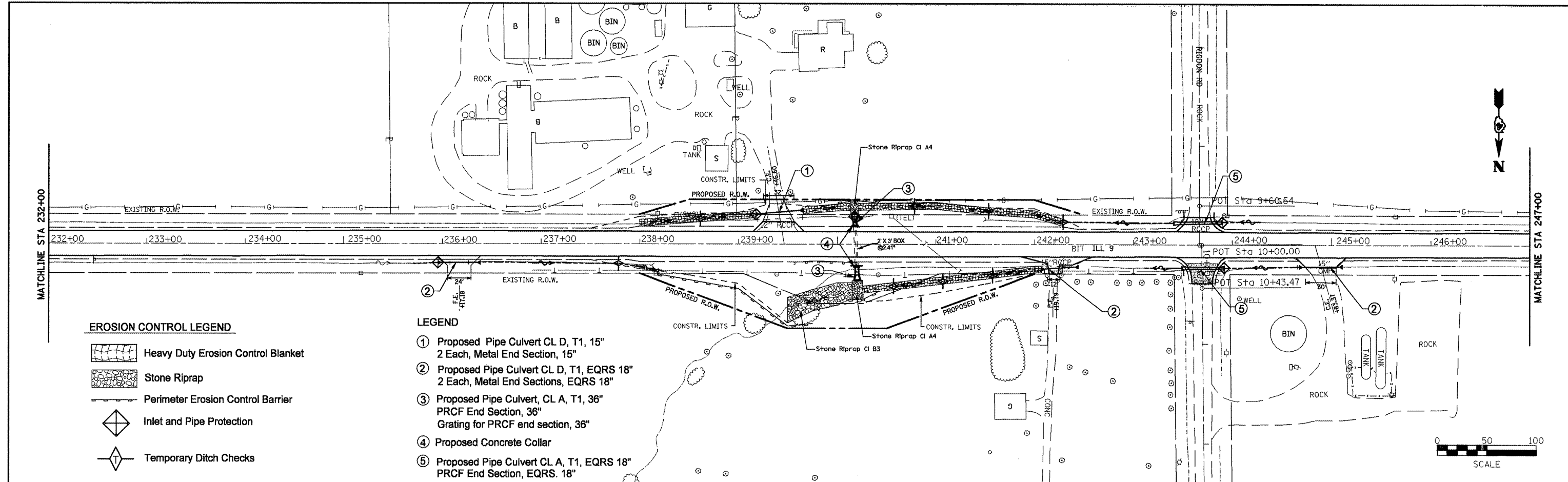
- EROSION CONTROL LEGEND**
- Heavy Duty Erosion Control Blanket
 - Stone Riprap
 - Perimeter Erosion Control Barrier
 - Inlet and Pipe Protection
 - Temporary Ditch Checks



FILE NAME = Drainage Plans2.dgn	USER NAME = mendezp.j	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DRAINAGE PLANS / EROSION CONTROL PLANS	F.A.P. RTE. 685	SECTION ..	COUNTY ..	TOTAL SHEETS 329	SHEET NO. 109	
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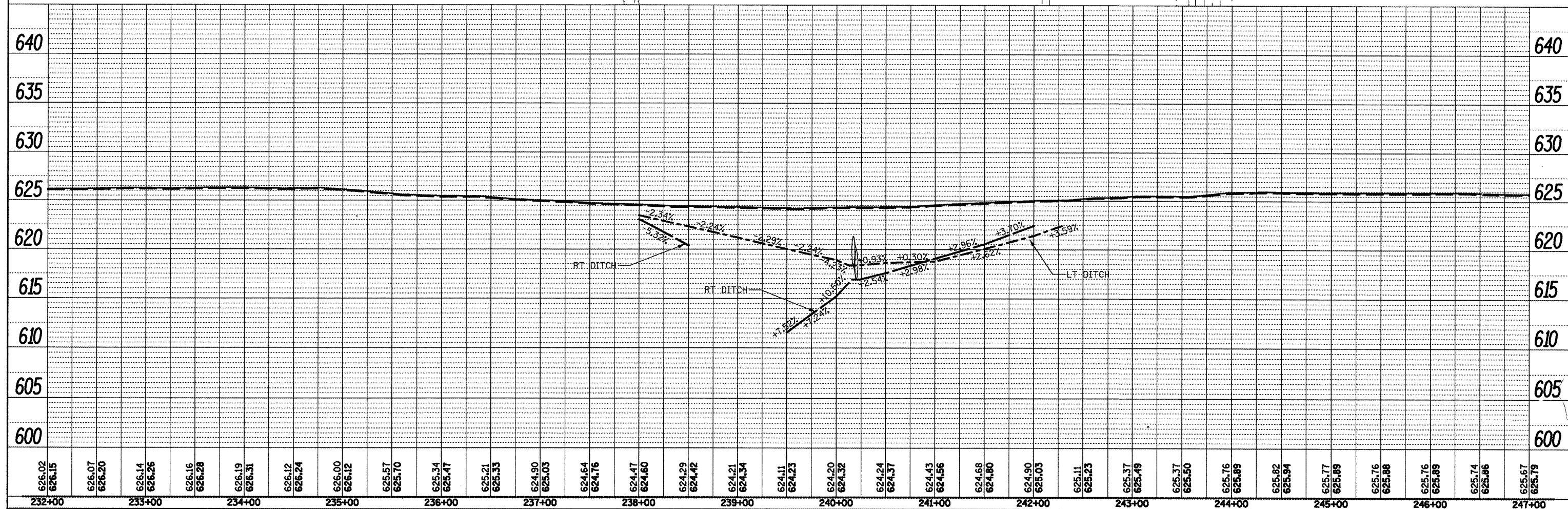
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- EROSION CONTROL LEGEND**
- Heavy Duty Erosion Control Blanket
 - Stone Riprap
 - Perimeter Erosion Control Barrier
 - Inlet and Pipe Protection
 - Temporary Ditch Checks

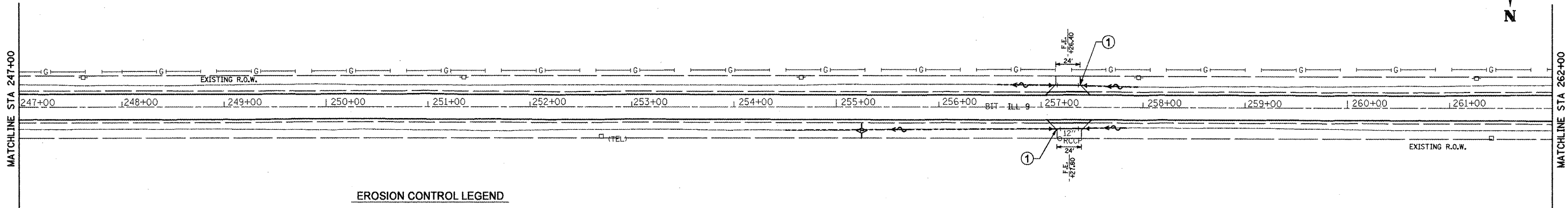
- LEGEND**
- ① Proposed Pipe Culvert CL D, T1, 15"
2 Each, Metal End Section, 15"
 - ② Proposed Pipe Culvert CL D, T1, EQRS 18"
2 Each, Metal End Sections, EQRS 18"
 - ③ Proposed Pipe Culvert, CL A, T1, 36"
PRCF End Section, 36"
Grating for PRCF end section, 36"
 - ④ Proposed Concrete Collar
 - ⑤ Proposed Pipe Culvert CL A, T1, EQRS 18"
PRCF End Section, EQRS. 18"



FILE NAME = Drainage Plans2.dgn	USER NAME = crespole	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DRAINAGE PLANS / EROSION CONTROL PLANS				F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 110
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		PLDT DATE = 4/8/2011	DATE -		REVISED -	Fulton, McDonough							

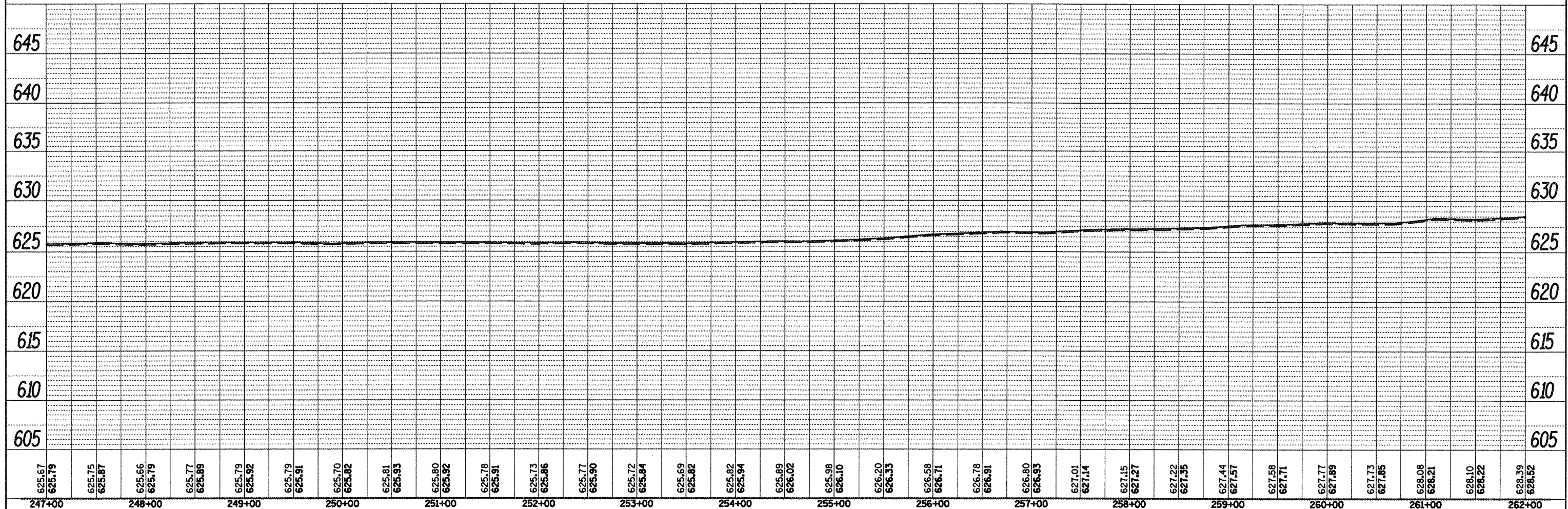
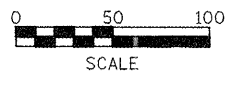
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 NOTATIONS OK
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- EROSION CONTROL LEGEND**
- Heavy Duty Erosion Control Blanket
 - Stone Riprap
 - Perimeter Erosion Control Barrier
 - Inlet and Pipe Protection
 - Temporary Ditch Checks

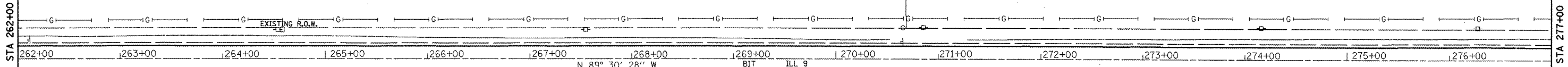
- LEGEND**
- ① Proposed Pipe Culvert CL D, T1, EQRS 18"
2 Each, Metal End Sections, EQRS 18"



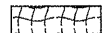
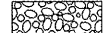
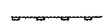


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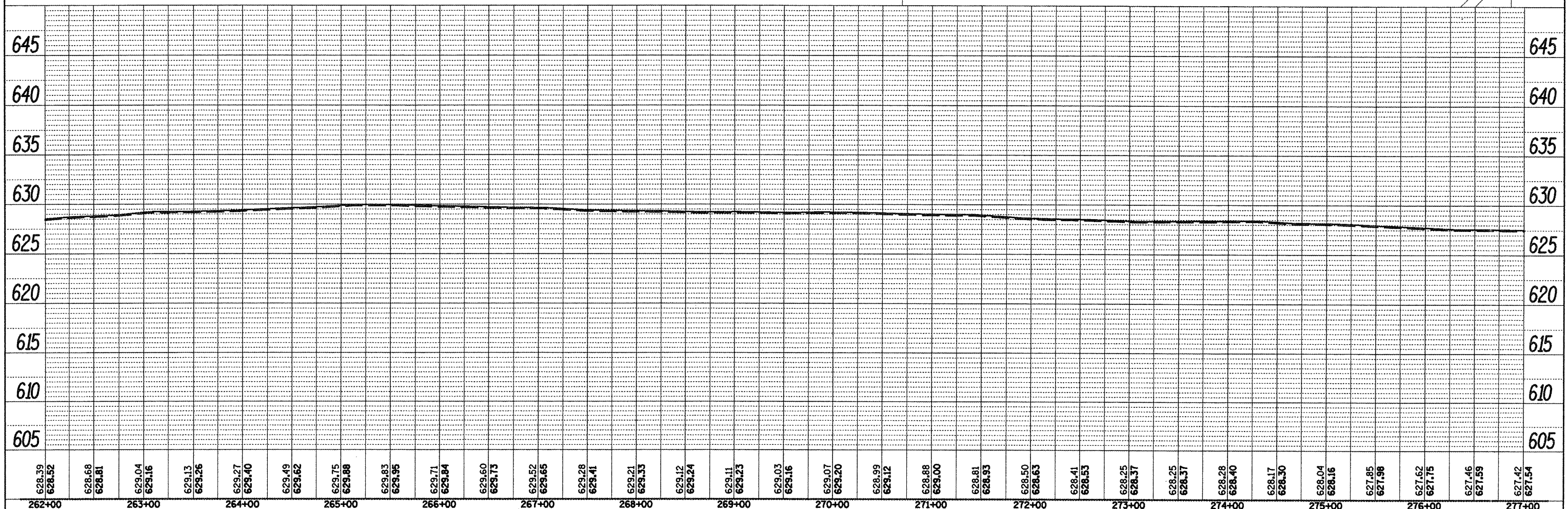
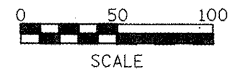
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EROSION CONTROL LEGEND

-  Heavy Duty Erosion Control Blanket
-  Stone Riprap
-  Perimeter Erosion Control Barrier
-  Inlet and Pipe Protection
-  Temporary Ditch Checks

- LEGEND**
- ① Proposed Pipe Culvert CL D, T1, EQRS 18"
2 Each, Metal End Sections, EQRS 18"



628.39 628.52	628.68 628.81	629.04 629.16	629.13 629.26	629.27 629.40	629.49 629.62	629.75 629.88	629.83 629.95	629.71 629.84	629.60 629.73	629.52 629.65	629.28 629.41	629.21 629.33	629.12 629.24	629.11 629.23	629.03 629.16	629.07 629.20	628.99 629.12	628.88 629.00	628.81 628.93	628.50 628.63	628.41 628.53	628.25 628.37	628.25 628.37	628.28 628.40	628.17 628.30	628.04 628.16	627.85 627.98	627.62 627.75	627.46 627.59	627.42 627.54
262+00	263+00	264+00	265+00	266+00	267+00	268+00	269+00	270+00	271+00	272+00	273+00	274+00	275+00	276+00	277+00															

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

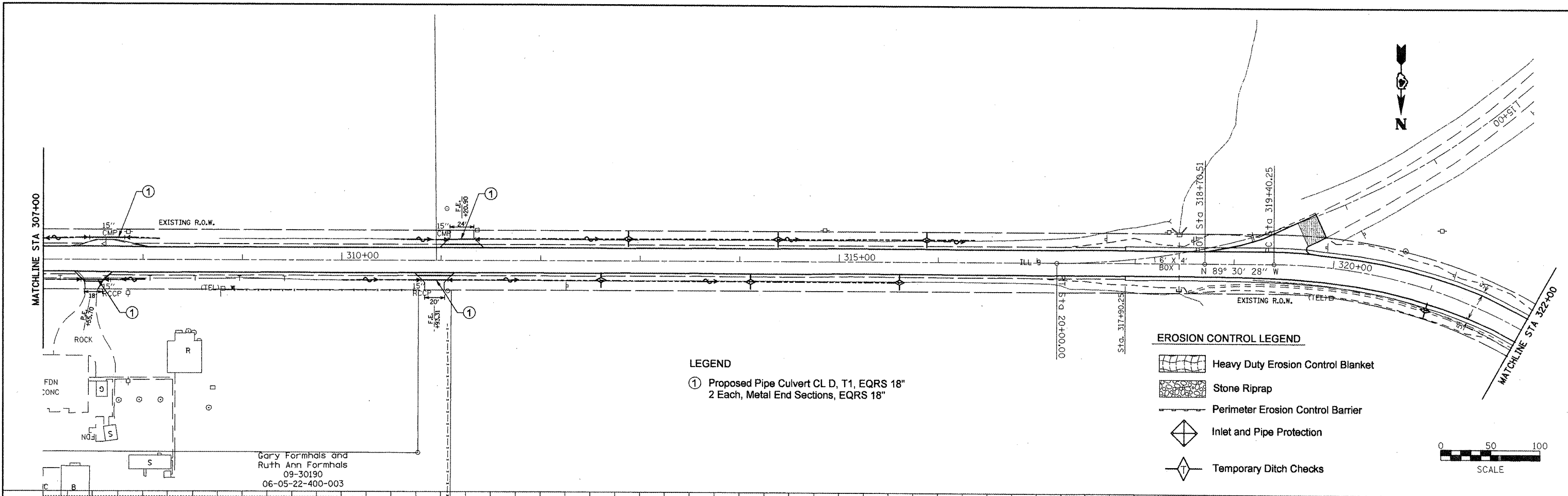
DRAINAGE PLANS / EROSION CONTROL PLANS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 68599			ILLINOIS FED. AID PROJECT	

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

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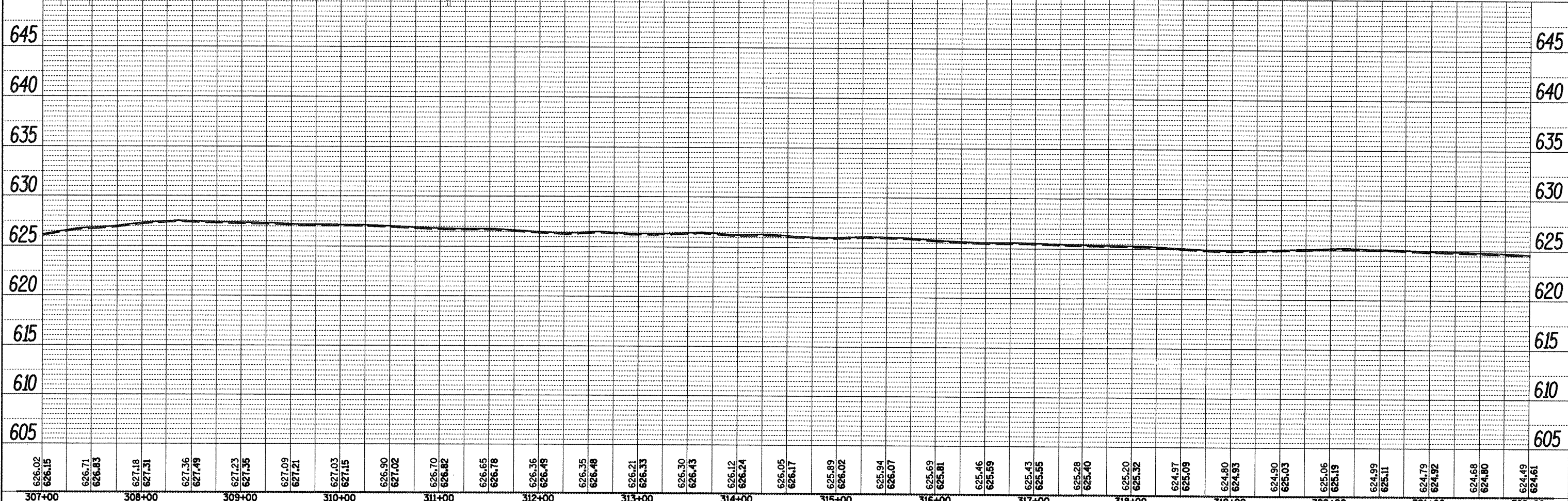
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LEGEND
 ① Proposed Pipe Culvert CL D, T1, EQRS 18"
 2 Each, Metal End Sections, EQRS 18"

EROSION CONTROL LEGEND
 Heavy Duty Erosion Control Blanket
 Stone Riprap
 Perimeter Erosion Control Barrier
 Inlet and Pipe Protection
 Temporary Ditch Checks

Gary Formhals and
 Ruth Ann Formhals
 09-30190
 06-05-22-400-003



626.02 626.15	626.71 626.83	627.18 627.31	627.36 627.49	627.23 627.35	627.09 627.21	627.03 627.15	626.90 627.02	626.70 626.82	626.65 626.78	626.36 626.49	626.35 626.48	626.21 626.33	626.30 626.43	626.12 626.24	626.05 626.17	625.89 626.02	625.94 626.07	625.69 625.81	625.46 625.59	625.43 625.55	625.28 625.40	625.20 625.32	624.97 625.09	624.80 624.93	624.90 625.03	625.06 625.19	624.99 625.11	624.79 624.92	624.68 624.80	624.49 624.61
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

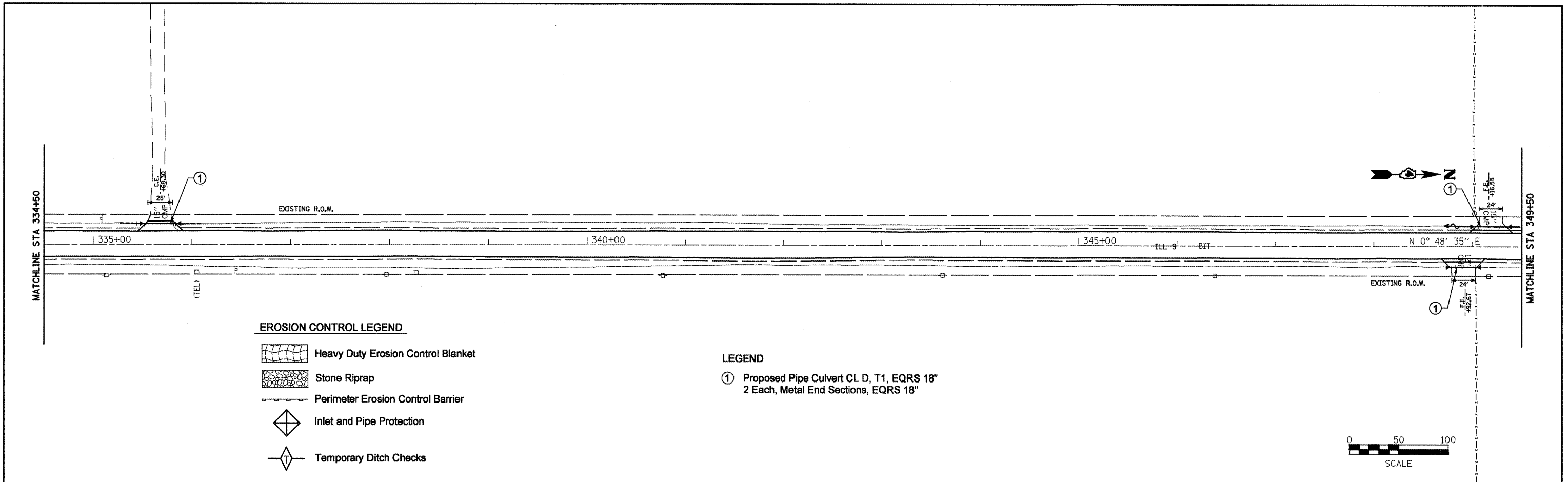
DRAINAGE PLANS / EROSION CONTROL PLANS

F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 115
CONTRACT NO. 68599				



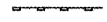


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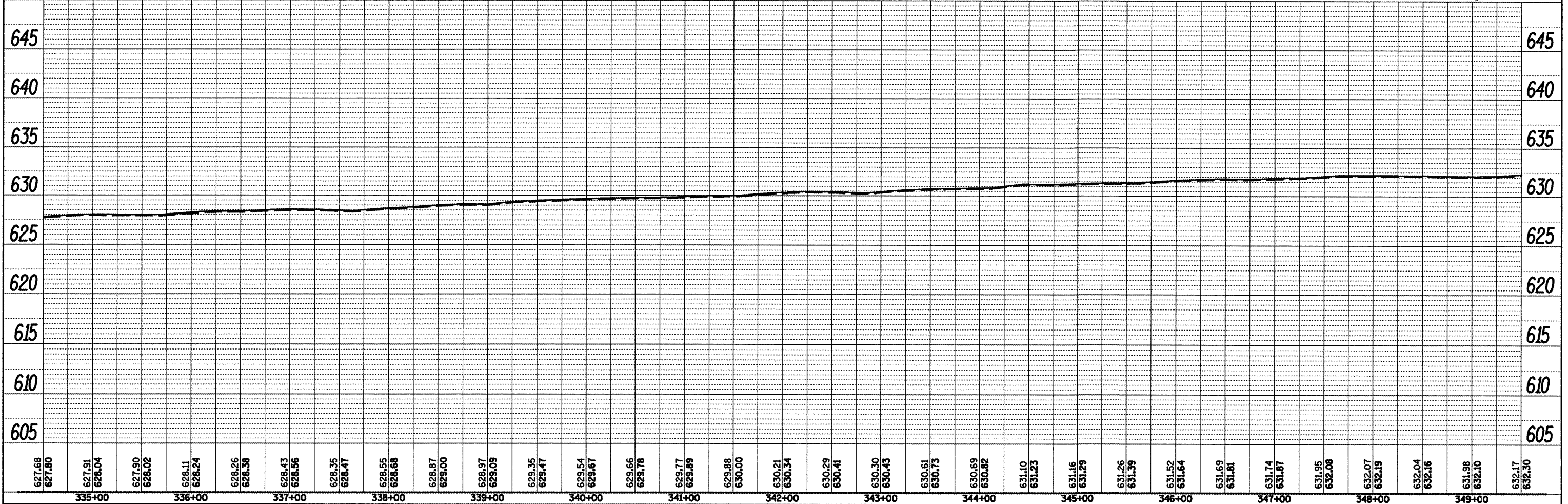


EROSION CONTROL LEGEND

-  Heavy Duty Erosion Control Blanket
-  Stone Riprap
-  Perimeter Erosion Control Barrier
-  Inlet and Pipe Protection
-  Temporary Ditch Checks

LEGEND

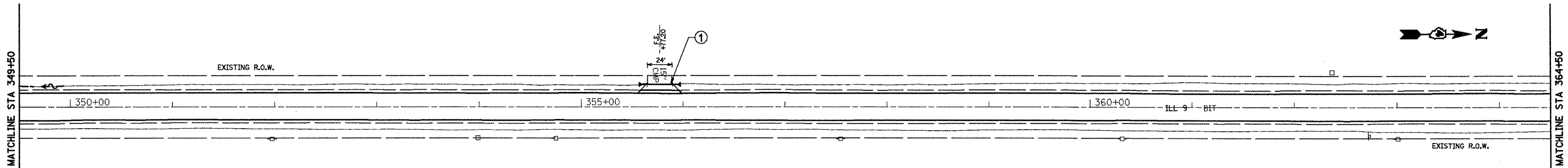
- ① Proposed Pipe Culvert CL D, T1, EQRS 18"
2 Each, Metal End Sections, EQRS 18"



FILE NAME = Drainage P1ana2.dgn	USER NAME = mendezpj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DRAINAGE PLANS / EROSION CONTROL PLANS			F.A.P. RTE. 685	SECTION ..	COUNTY ..	TOTAL SHEETS 329	SHEET NO. 117
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PLOT DATE = 3/25/2011	DATE -	REVISED -	ILLINOIS FED. AID PROJECT									
** (17-300RS-3-3985-5)(30) * Eutropl_McDonough												

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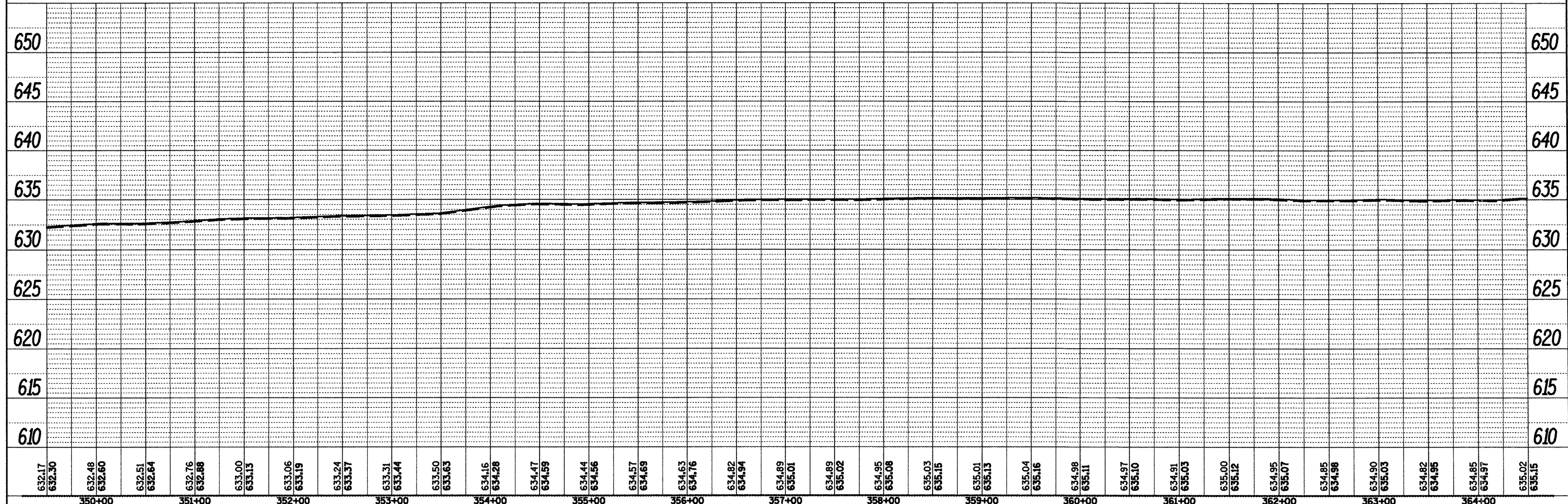
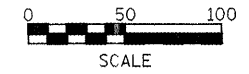


EROSION CONTROL LEGEND

- Heavy Duty Erosion Control Blanket
- Stone Riprap
- Perimeter Erosion Control Barrier
- Inlet and Pipe Protection
- Temporary Ditch Checks

LEGEND

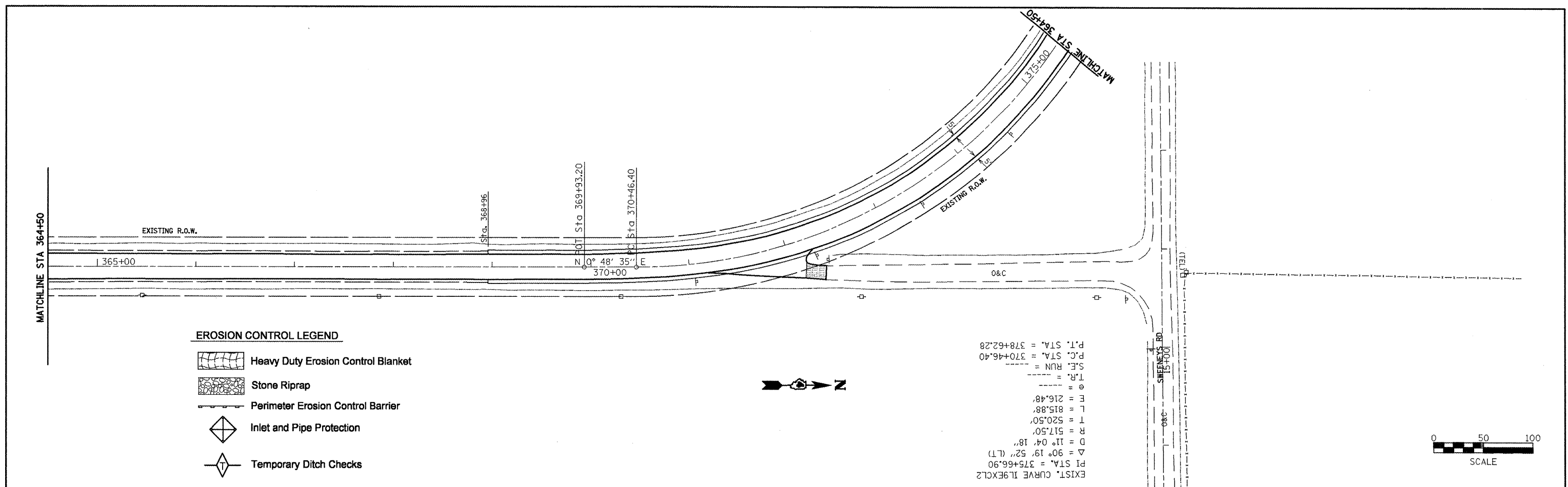
- ① Proposed Pipe Culvert CL D, T1, EQRS 18"
2 Each, Metal End Sections, EQRS 18"








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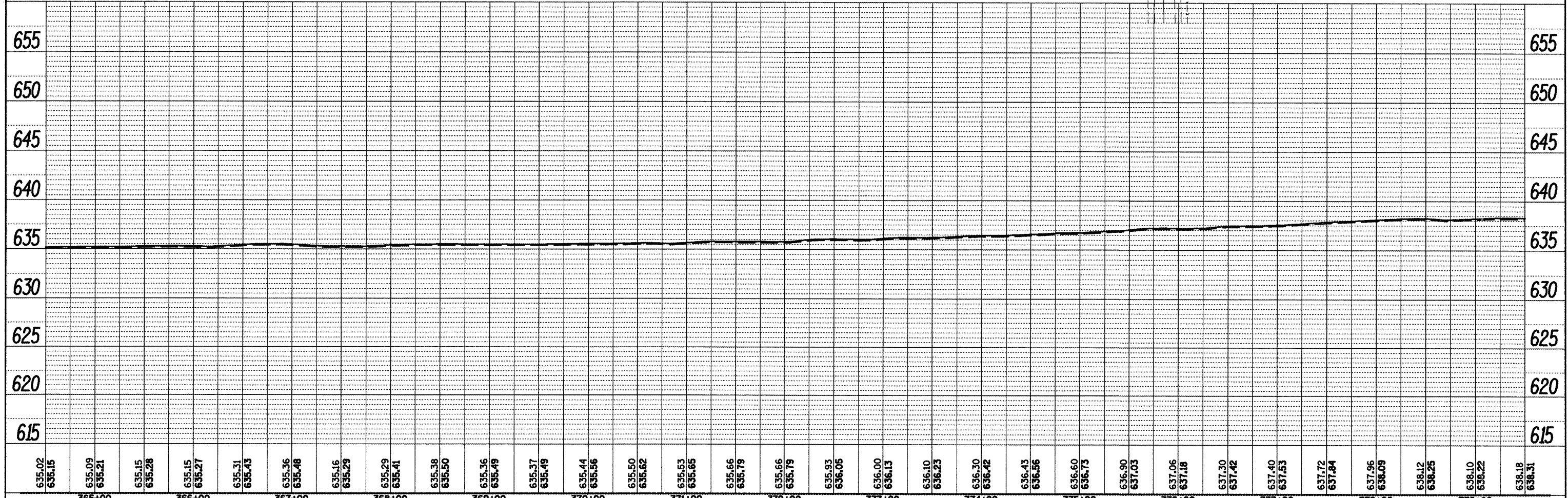
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EROSION CONTROL LEGEND

-  Heavy Duty Erosion Control Blanket
-  Stone Riprap
-  Perimeter Erosion Control Barrier
-  Inlet and Pipe Protection
-  Temporary Ditch Checks

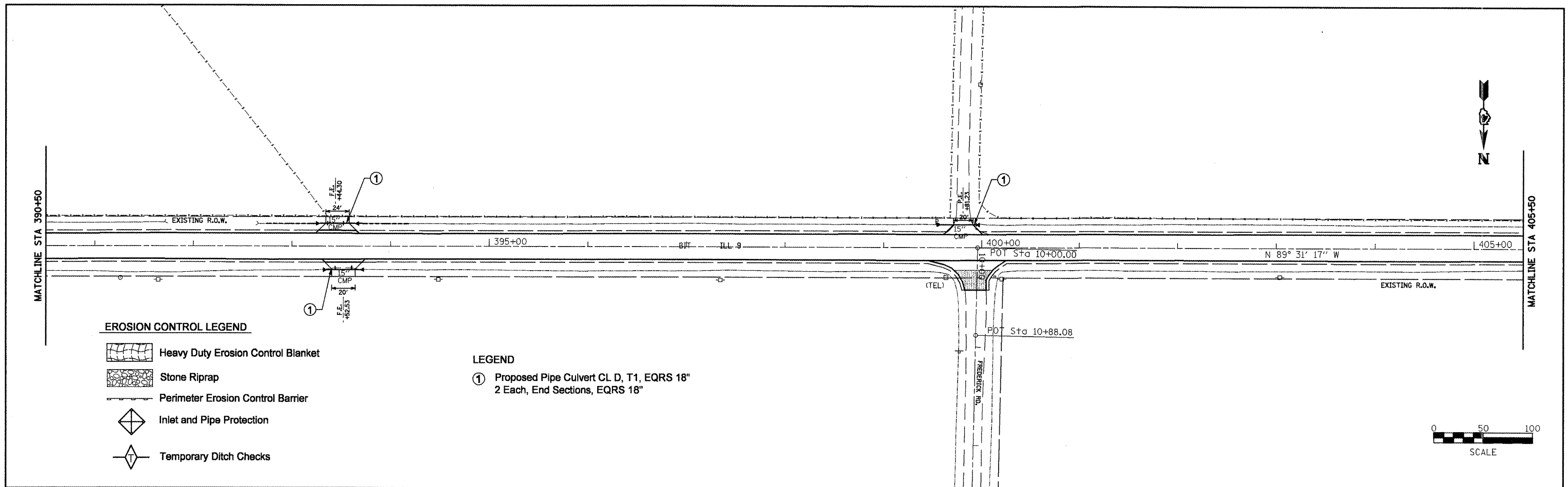
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 PI STA. = 375+66.90
 Δ = 90° 19' 52" (LT)
 D = 11' 04' 18"
 R = 517.50'
 T = 520.50'
 L = 815.88'
 E = 216.48'
 TR. = _____
 S.E. RUN = _____
 P.C. STA. = 370+46.40
 P.T. STA. = 378+62.28



FILE NAME = Drainage Plans2.dgn	USER NAME = mendezpj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				DRAINAGE PLANS / EROSION CONTROL PLANS				F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 119						
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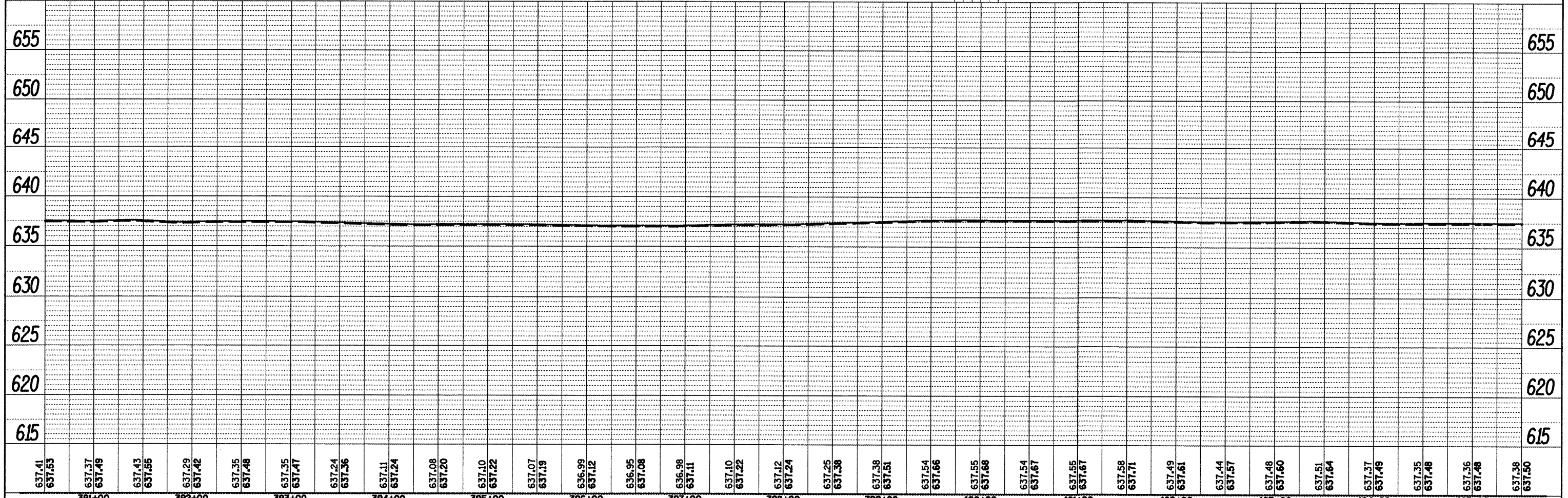
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	GRADES		
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	FILE NAME		



- EROSION CONTROL LEGEND**
- Heavy Duty Erosion Control Blanket
 - Stone Riprap
 - Perimeter Erosion Control Barrier
 - Inlet and Pipe Protection
 - Temporary Ditch Checks

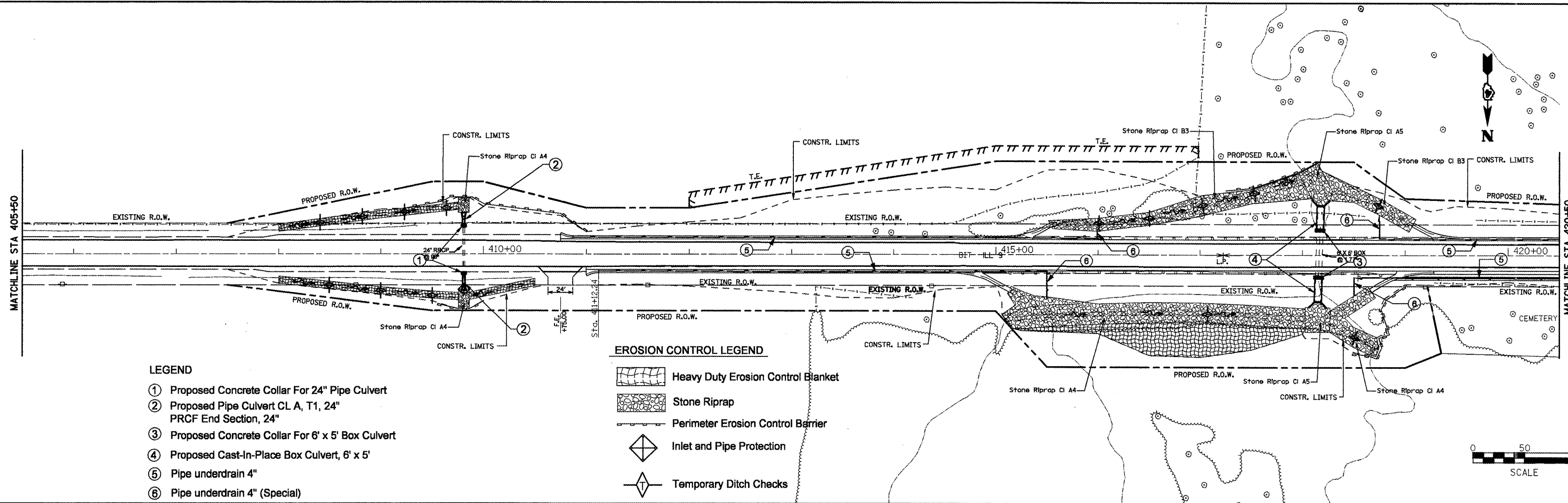
- LEGEND**
- ① Proposed Pipe Culvert CL D, T1, EQRS 18" 2 Each, End Sections, EQRS 18"



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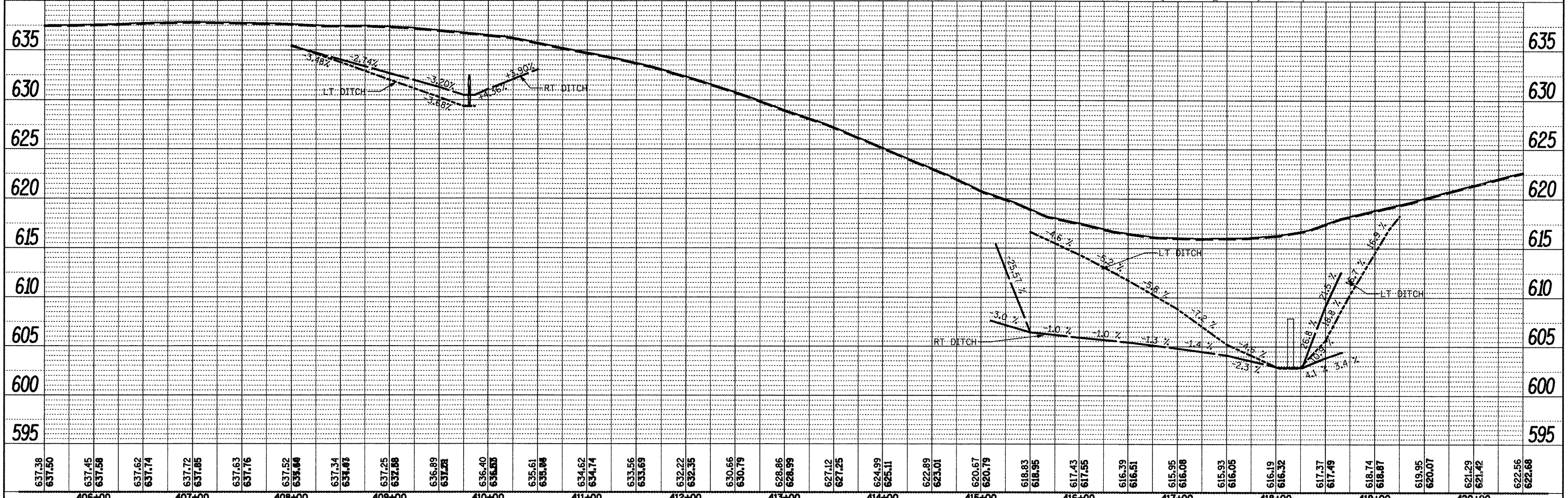
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NO. OF SHEETS	
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GRADES CHECKED	
STRUCTURE NOTATIONS OK'D	
NO.	
PROJECT	
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- LEGEND**
- ① Proposed Concrete Collar For 24" Pipe Culvert
 - ② Proposed Pipe Culvert CL A, T1, 24" PRCF End Section, 24"
 - ③ Proposed Concrete Collar For 6' x 5' Box Culvert
 - ④ Proposed Cast-In-Place Box Culvert, 6' x 5'
 - ⑤ Pipe underdrain 4"
 - ⑥ Pipe underdrain 4" (Special)

- EROSION CONTROL LEGEND**
- Heavy Duty Erosion Control Blanket
 - Stone Riprap
 - Perimeter Erosion Control Barrier
 - Inlet and Pipe Protection
 - Temporary Ditch Checks

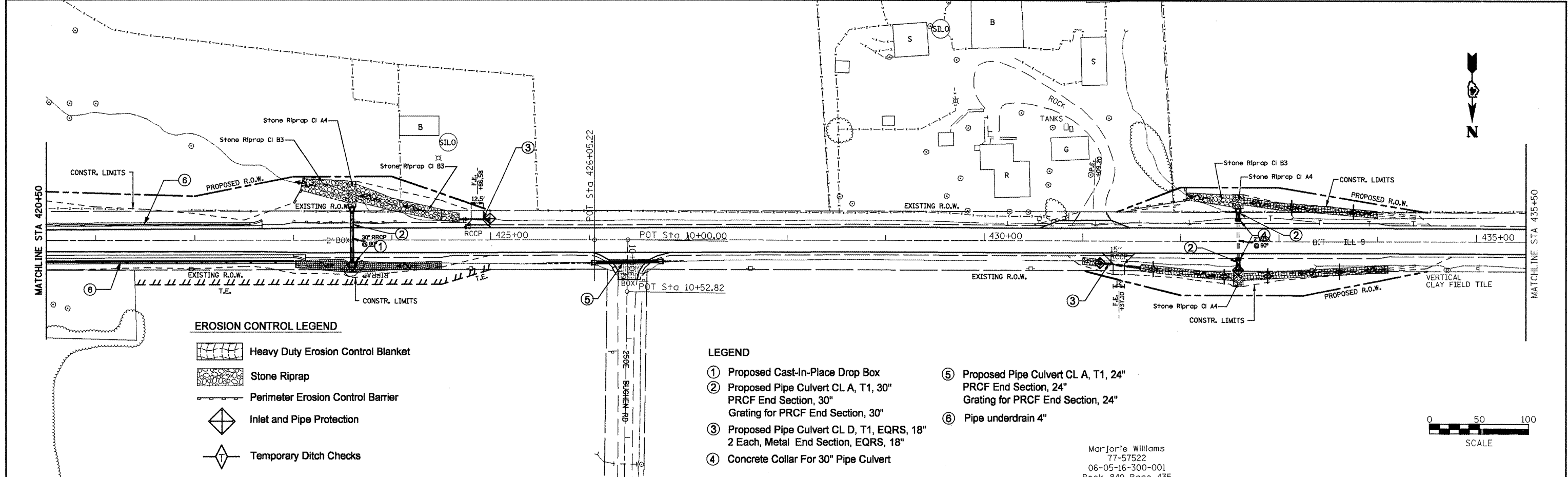


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		DATE -	REVISED -		(37,38)RS-3,39RS-5(38)1								

Fulton, McDonough

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 NOTE BOOK NO.: _____



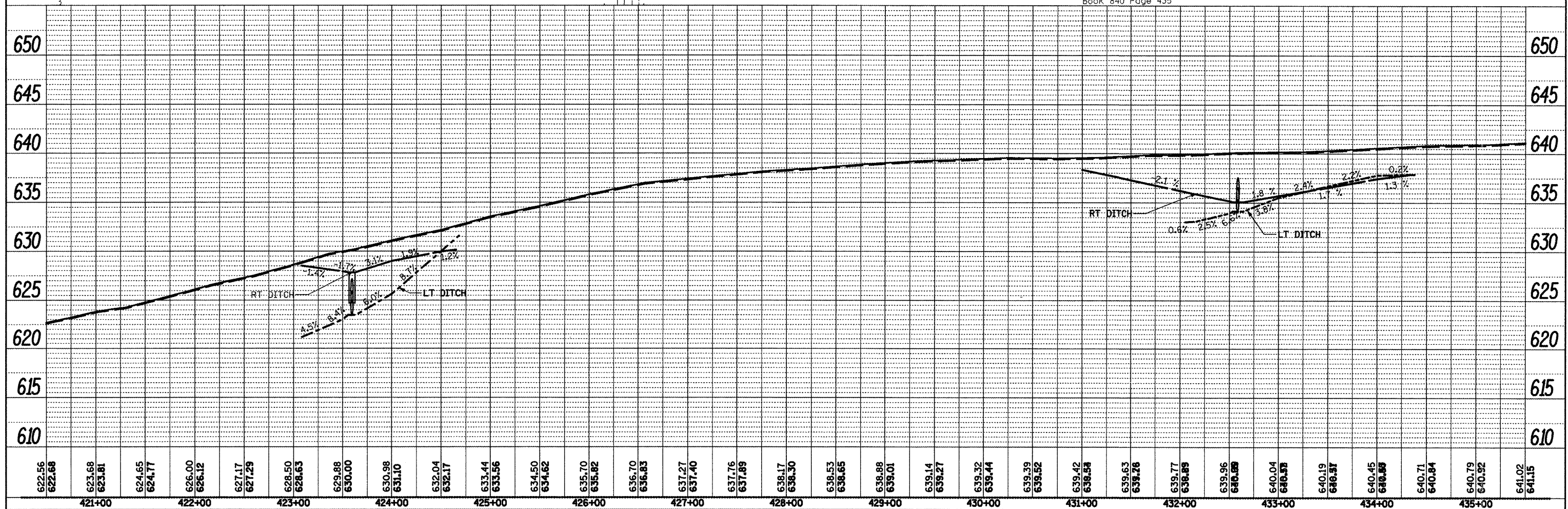
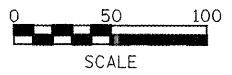
EROSION CONTROL LEGEND

- Heavy Duty Erosion Control Blanket
- Stone Riprap
- Perimeter Erosion Control Barrier
- Inlet and Pipe Protection
- Temporary Ditch Checks

LEGEND

- ① Proposed Cast-In-Place Drop Box
- ② Proposed Pipe Culvert CL A, T1, 30\"/>

Marjorie Williams
 77-57522
 06-05-16-300-001
 Book 840 Page 435

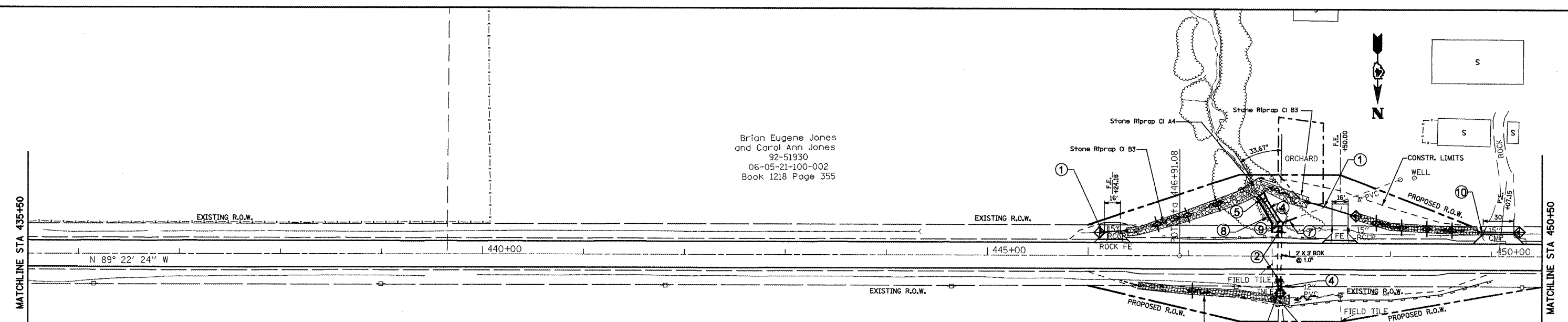


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PLOT SCALE = 100.0000' / IN.	CHECKED -	REVISED -	REVISED -									SCALE:				CONTRACT NO. 68599			
PLOT DATE = 3/25/2011	DATE -	REVISED -	REVISED -									SHEET NO. OF SHEETS				ILLINOIS FED. AID PROJECT			
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Brian Eugene Jones
and Carol Ann Jones
92-51930
06-05-21-100-002
Book 1218 Page 355



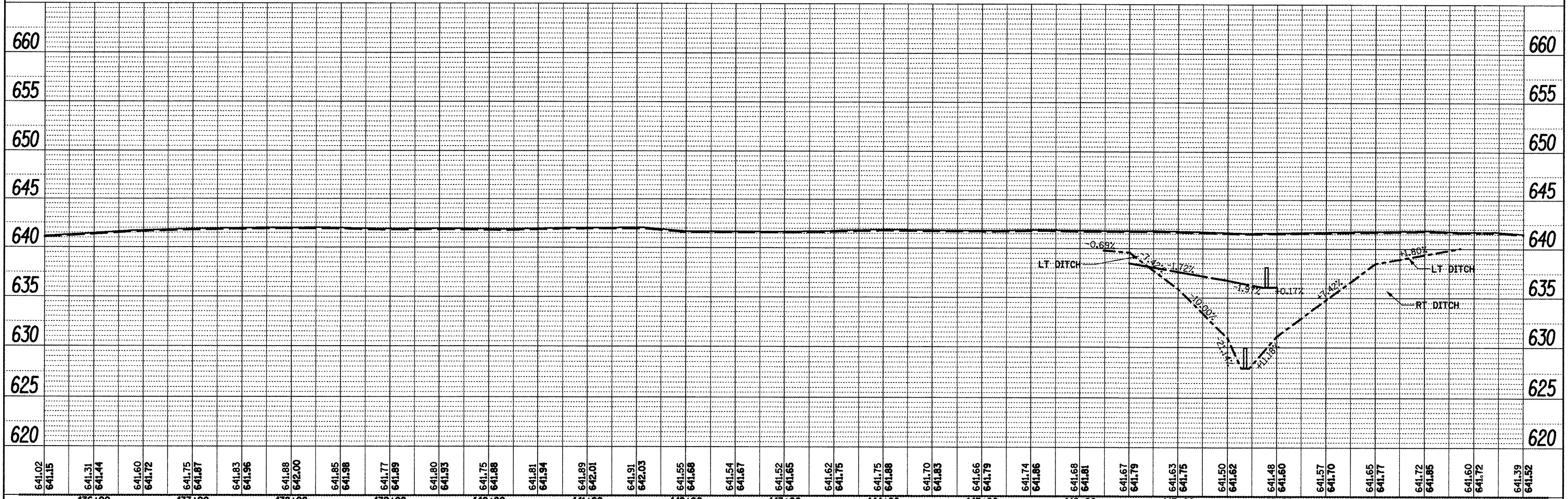
EROSION CONTROL LEGEND

- Heavy Duty Erosion Control Blanket
- Stone Riprap
- Perimeter Erosion Control Barrier
- Inlet and Pipe Protection
- Temporary Ditch Checks

LEGEND

- ① Proposed Pipe Culvert, CL D, T1, 15"
2 Each, Metal End Section, 15"
- ② Concrete Collars For 36" Pipe Culvert
- ③ Proposed Cast-In-Place Drop Box
- ④ Proposed Pipe Culvert, CL A, T2, 36"
- ⑤ PRCF End Section, 36"
- ⑦ Pipe Drains, 4"
- ⑧ Pipe Drains, 12"
- ⑨ Proposed M.H., TA, 5' DIA., T1 F. CL. Lid
- ⑩ Proposed Pipe Culvert Class D, Type 1 EQRS, 18"
2 Each, Metal End Sections, EQRS, 18"

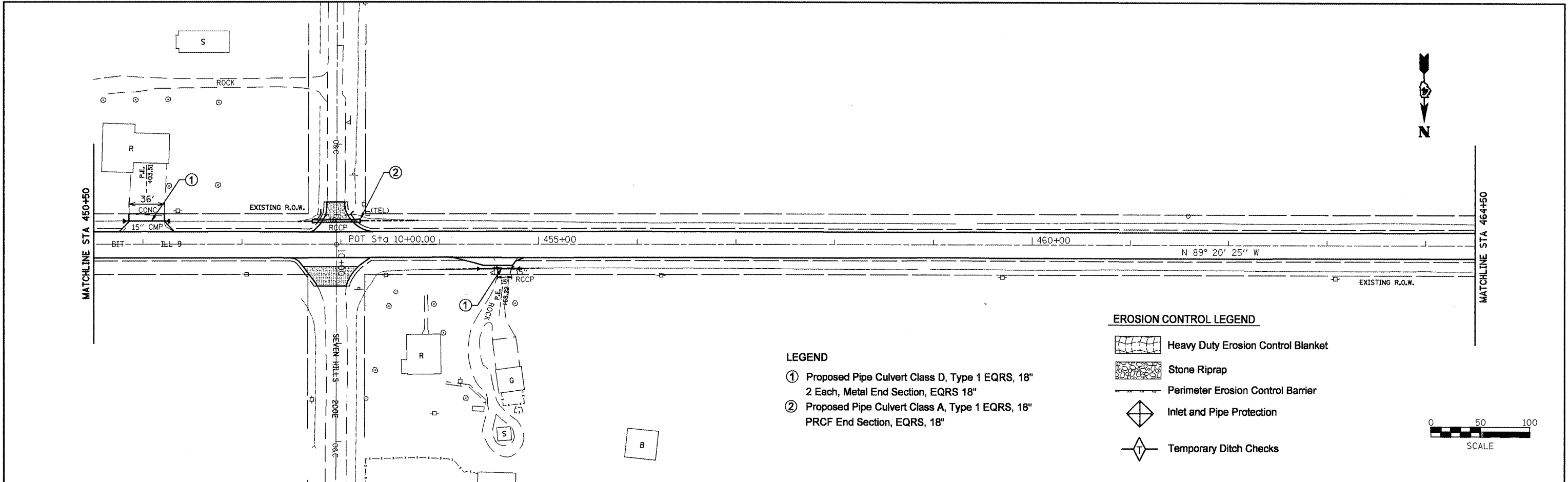
Marjorie Williams
77-57522
06-05-16-300-001
Book 840 Page 435



FILE NAME = Drainage Plans2.dgn	USER NAME = mendezpj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DRAINAGE PLANS / EROSION CONTROL PLANS		F.A.P. RTE. 685	SECTION ..	COUNTY ..	TOTAL SHEETS 329	SHEET NO. 124	
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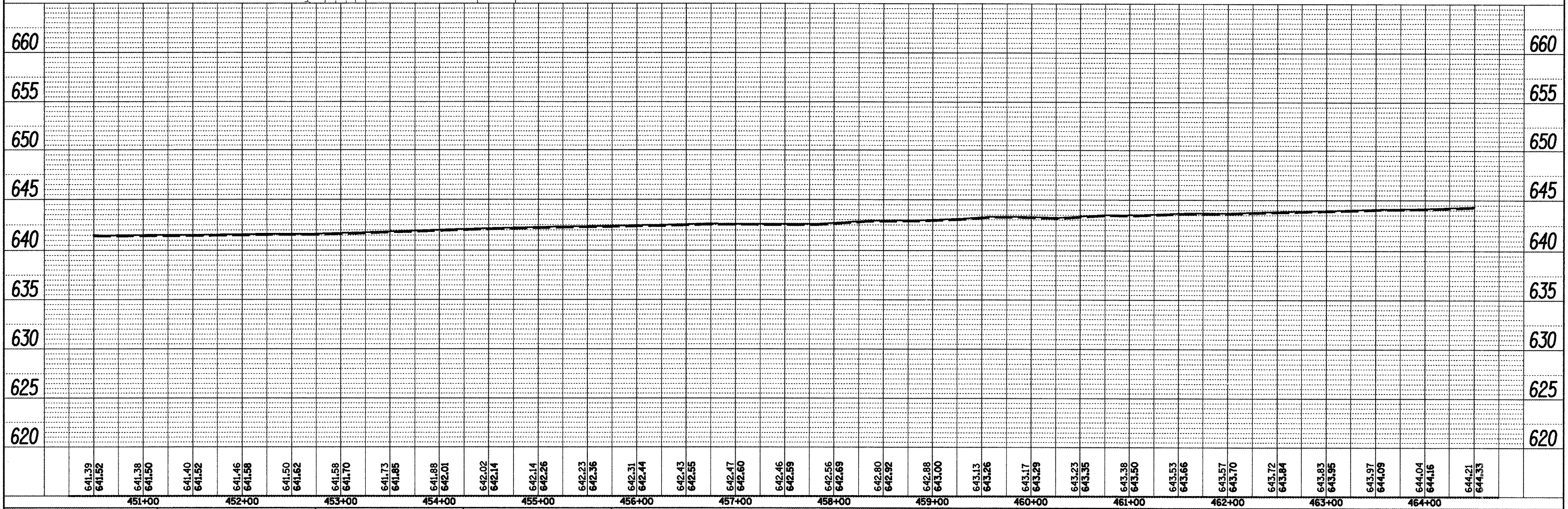
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- LEGEND**
- ① Proposed Pipe Culvert Class D, Type 1 EQRS, 18"
2 Each, Metal End Section, EQRS 18"
 - ② Proposed Pipe Culvert Class A, Type 1 EQRS, 18"
PRCF End Section, EQRS, 18"

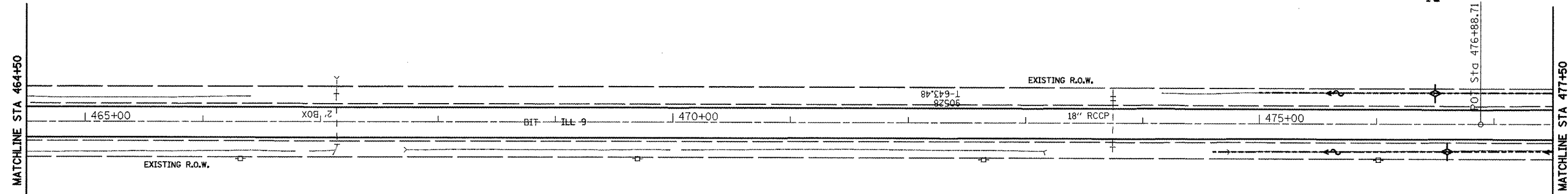
- EROSION CONTROL LEGEND**
- Heavy Duty Erosion Control Blanket
 - Stone Riprap
 - Perimeter Erosion Control Barrier
 - Inlet and Pipe Protection
 - Temporary Ditch Checks




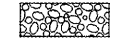


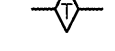
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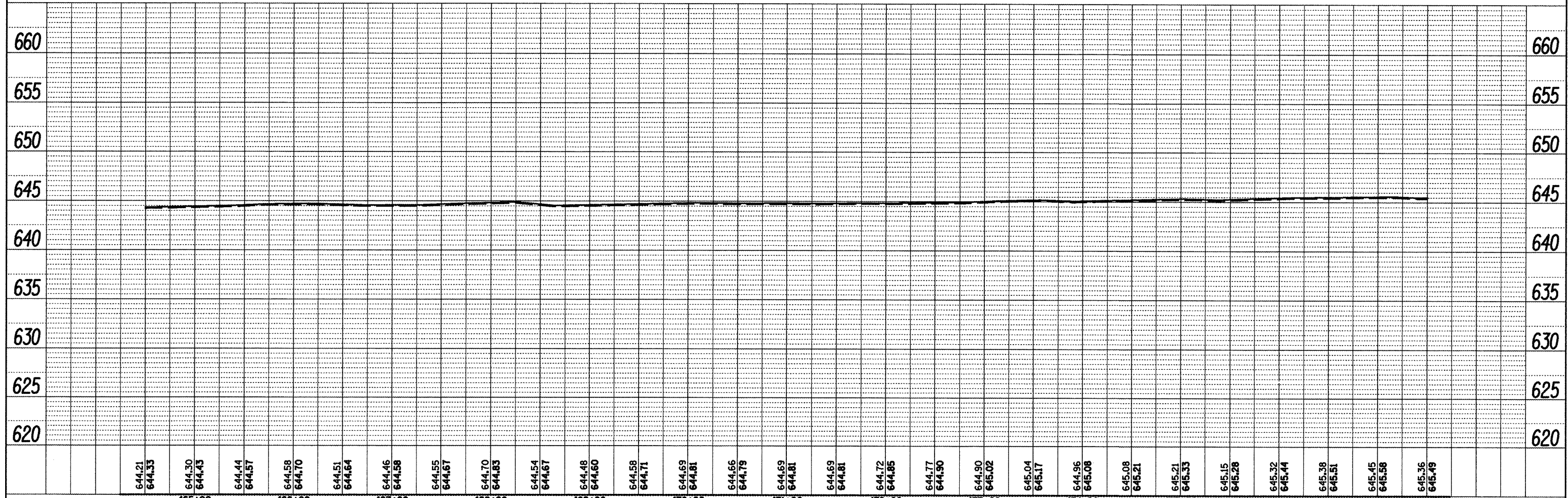
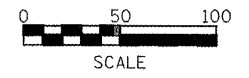
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EROSION CONTROL LEGEND

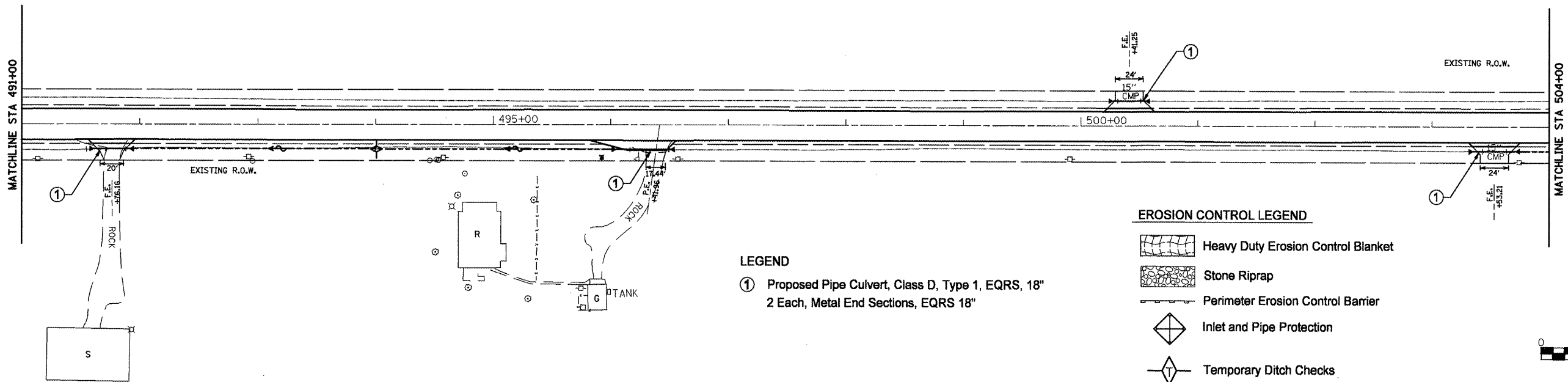
-  Heavy Duty Erosion Control Blanket
-  Stone Riprap
-  Perimeter Erosion Control Barrier
-  Inlet and Pipe Protection
-  Temporary Ditch Checks



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		DATE -	REVISED -		** (37,39)RS-3,39RS-5,(38)I				* Fulton, McDonough				

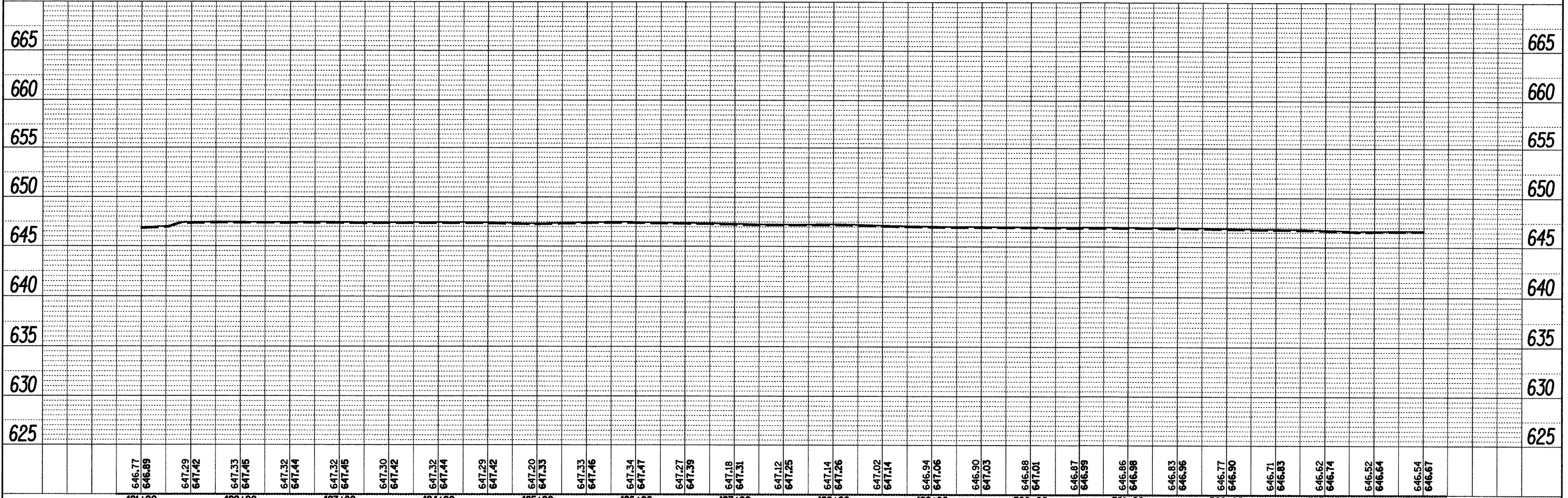
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LEGEND
 ① Proposed Pipe Culvert, Class D, Type 1, EQRS, 18"
 2 Each, Metal End Sections, EQRS 18"

EROSION CONTROL LEGEND
 Heavy Duty Erosion Control Blanket
 Stone Riprap
 Perimeter Erosion Control Barrier
 Inlet and Pipe Protection
 Temporary Ditch Checks

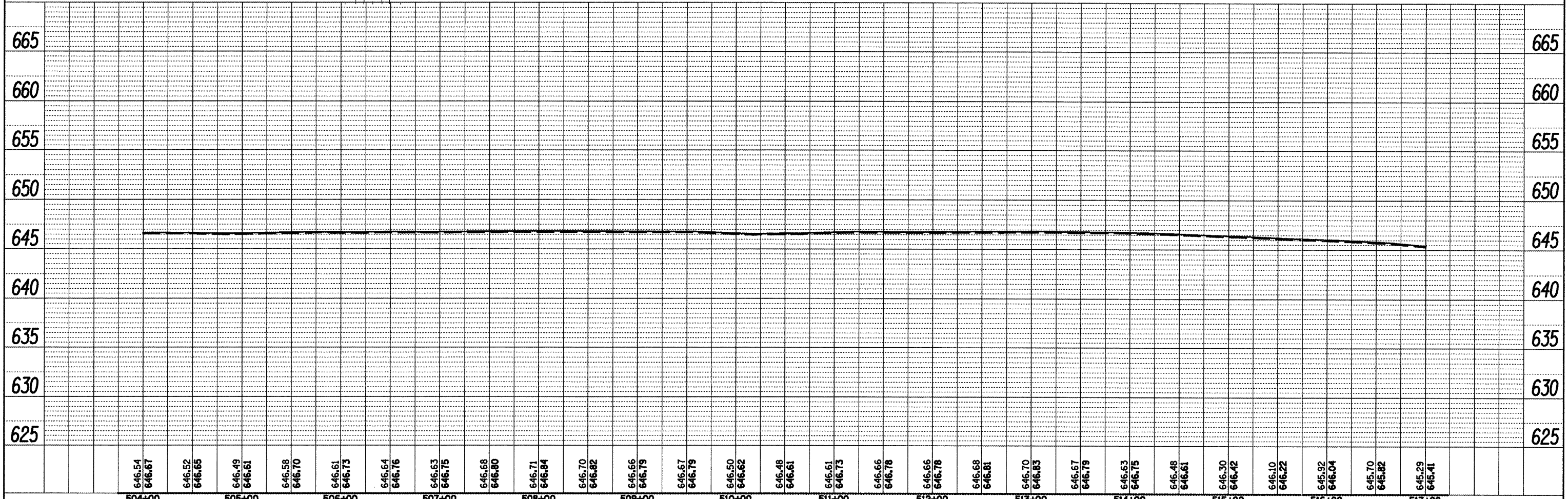
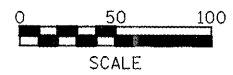
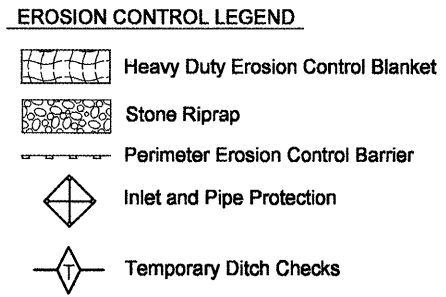
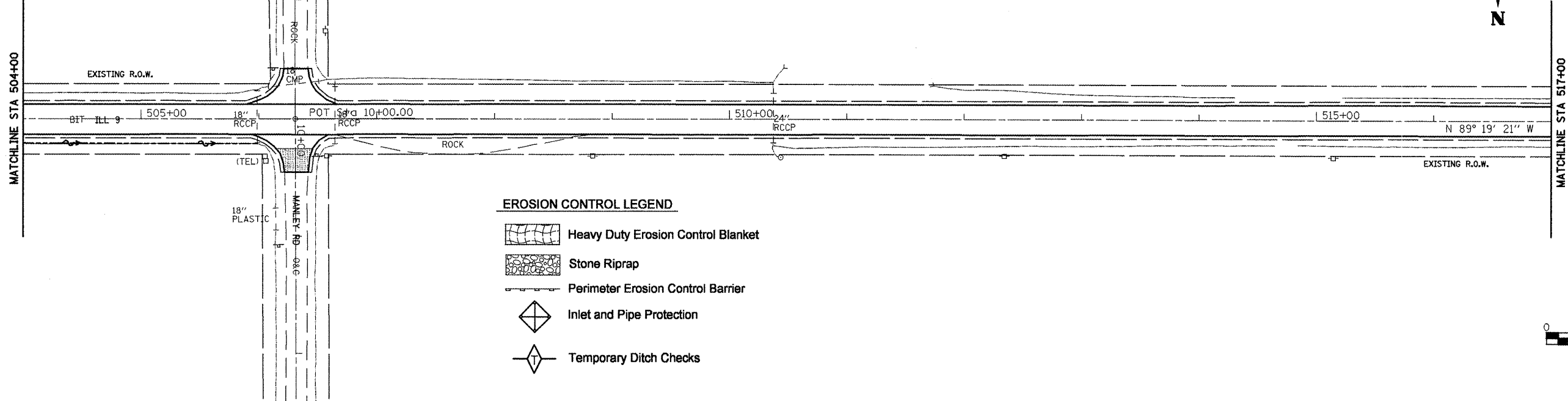


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FILE NAME = Drainage Plans2.dgn

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

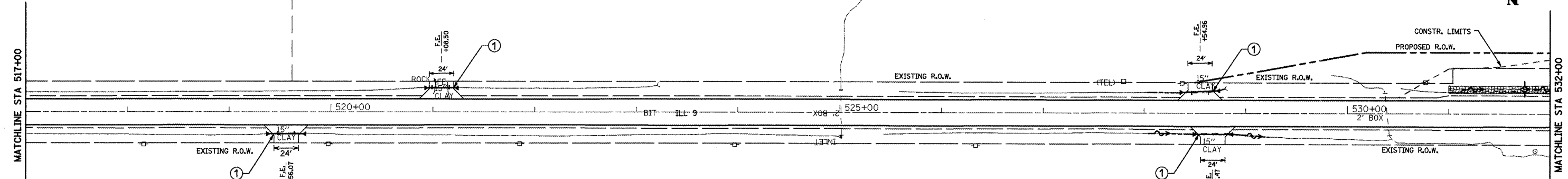
DRAINAGE PLANS / EROSION CONTROL PLANS

F.A.P. RTE. 685
 SECTION **
 COUNTY *
 TOTAL SHEETS 329
 SHEET NO. 129
 CONTRACT NO. 68599
 ILLINOIS FED. AID PROJECT



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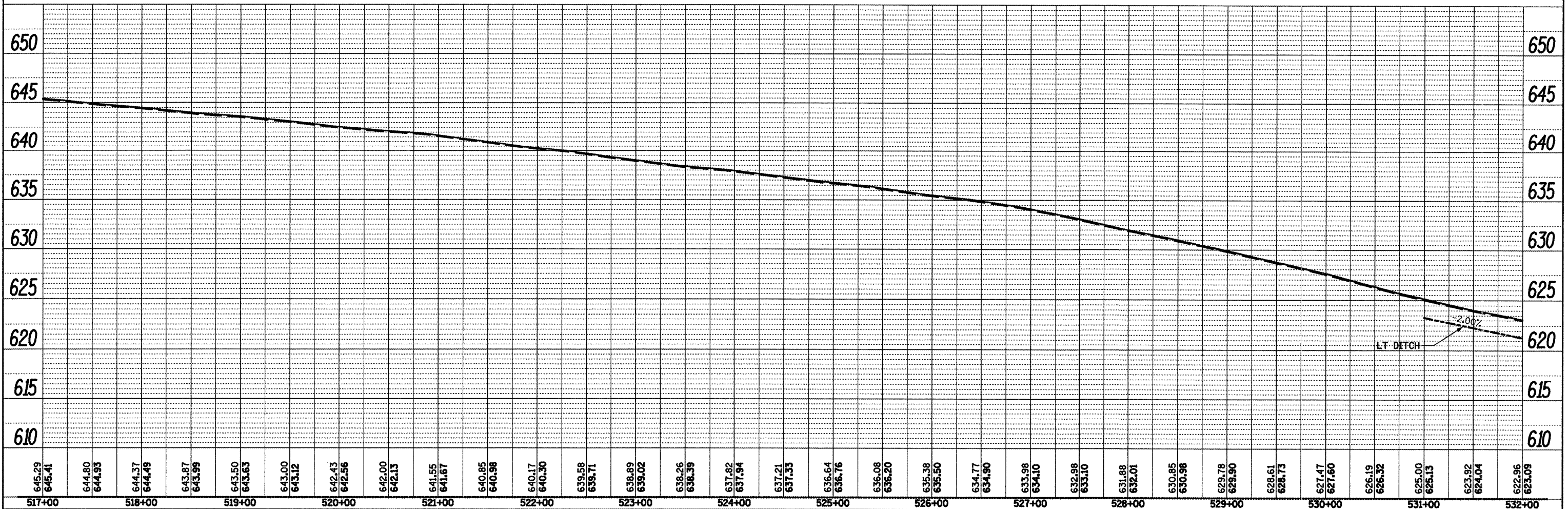
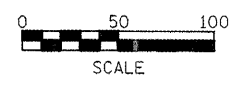


EROSION CONTROL LEGEND

- Heavy Duty Erosion Control Blanket
- Stone Riprap
- Perimeter Erosion Control Barrier
- Inlet and Pipe Protection
- Temporary Ditch Checks

LEGEND

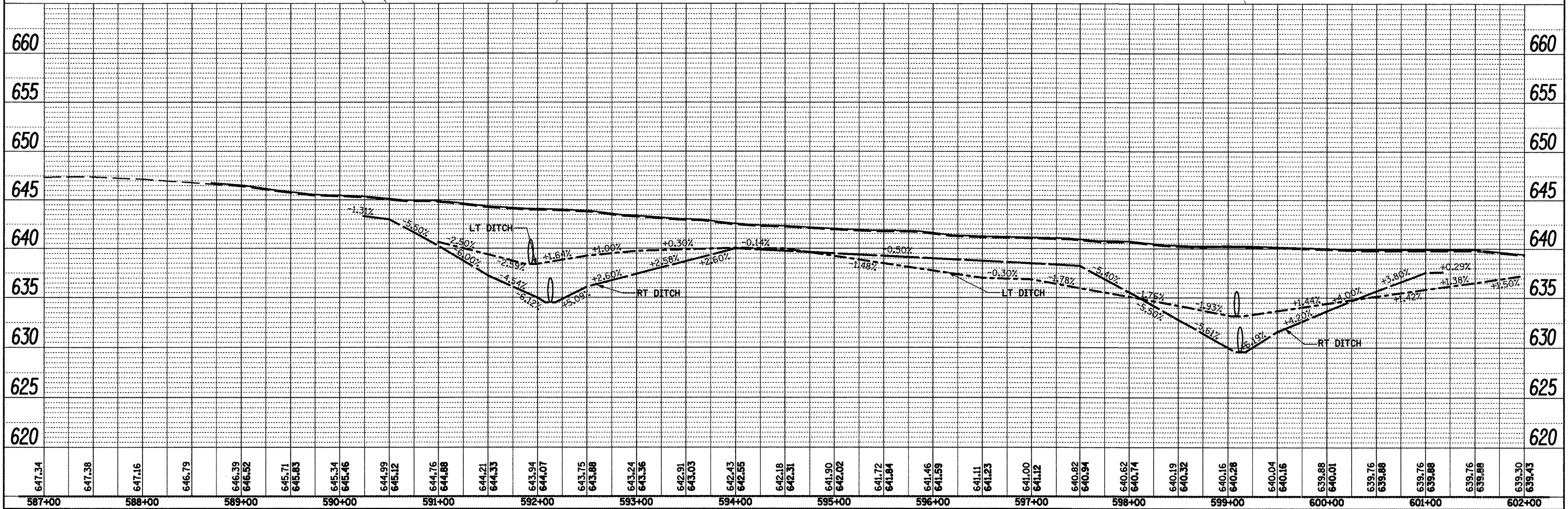
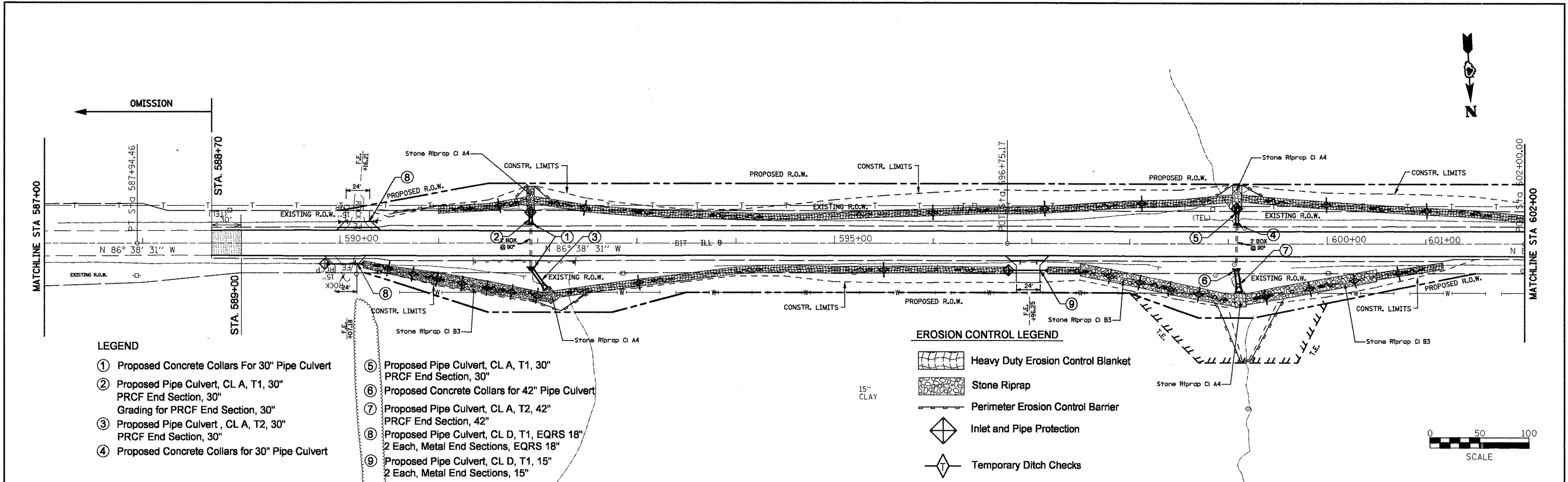
- ① Proposed Pipe Culvert Class D, Type 1 EQRS, 18"
2 Each, Metal End Sections, EQRS 18"



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PLOT DATE = 3/25/2011	DATE -	REVISED -	REVISED -		ILLINOIS FED. AID PROJECT							
** (37.38)RS-3,39RS-5(38) * Fulton, McDonough												

DATE	
BY	
REVIEWED	
PLOTTED	
NOTED	
NO.	

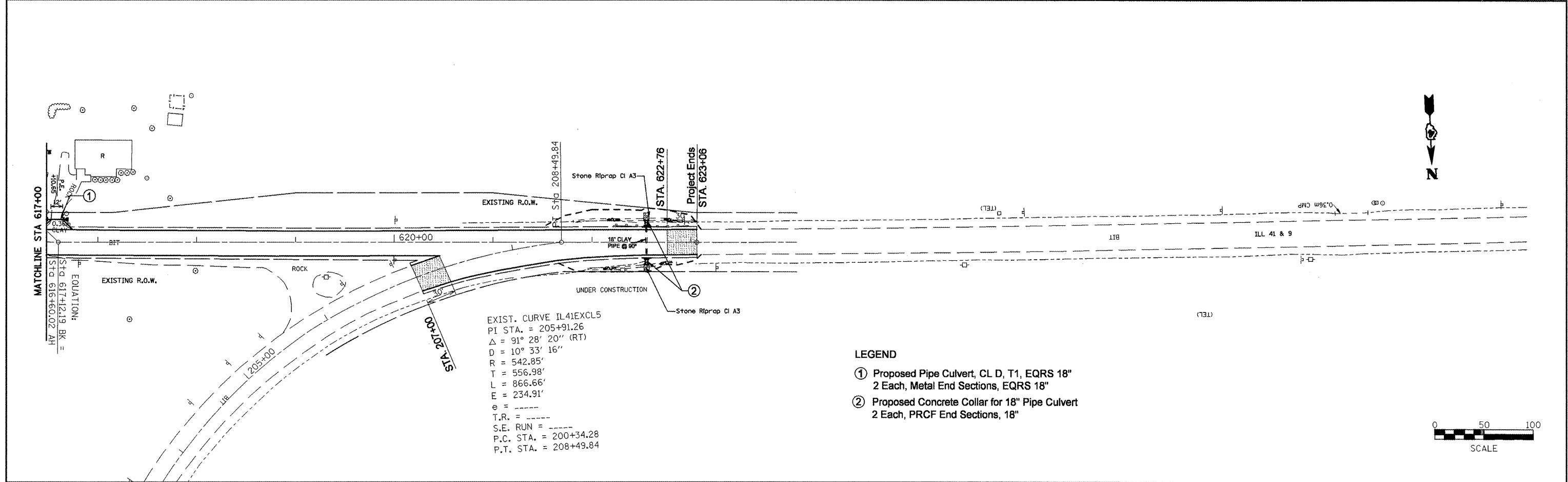
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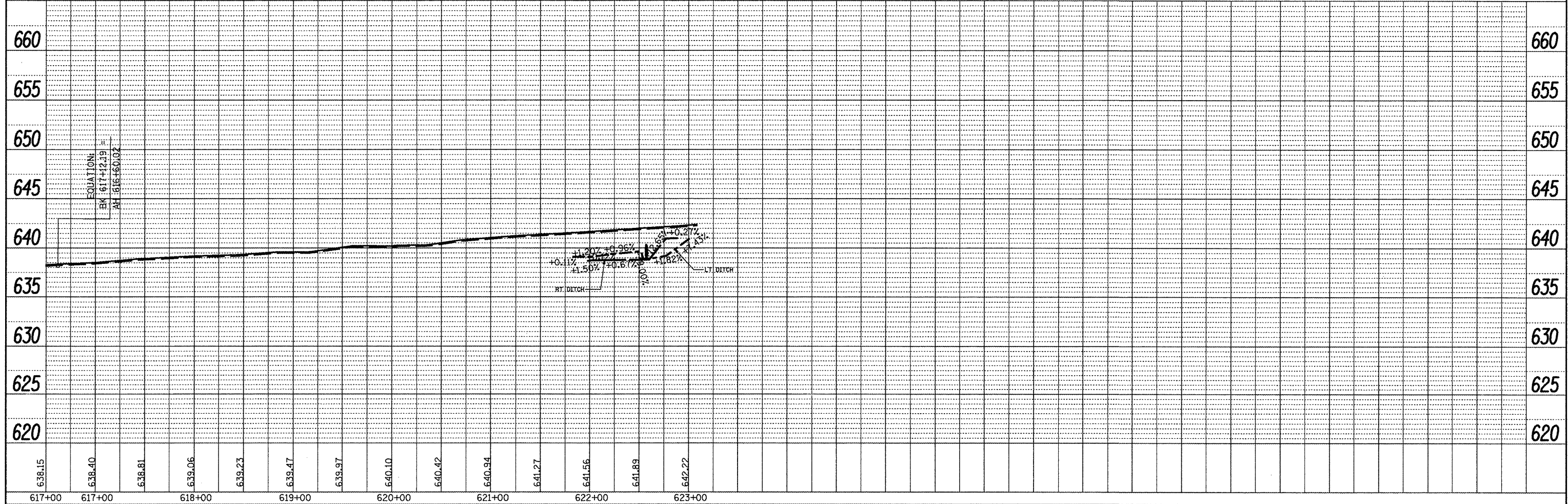
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		DRAWN -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT		CONTRACT NO. 68599		
		CHECKED -	REVISED -									
		DATE -	REVISED -									

DATE	
BY	
DESIGNED	
PLANNED	
NOTED	
FILE NAME	
NO.	

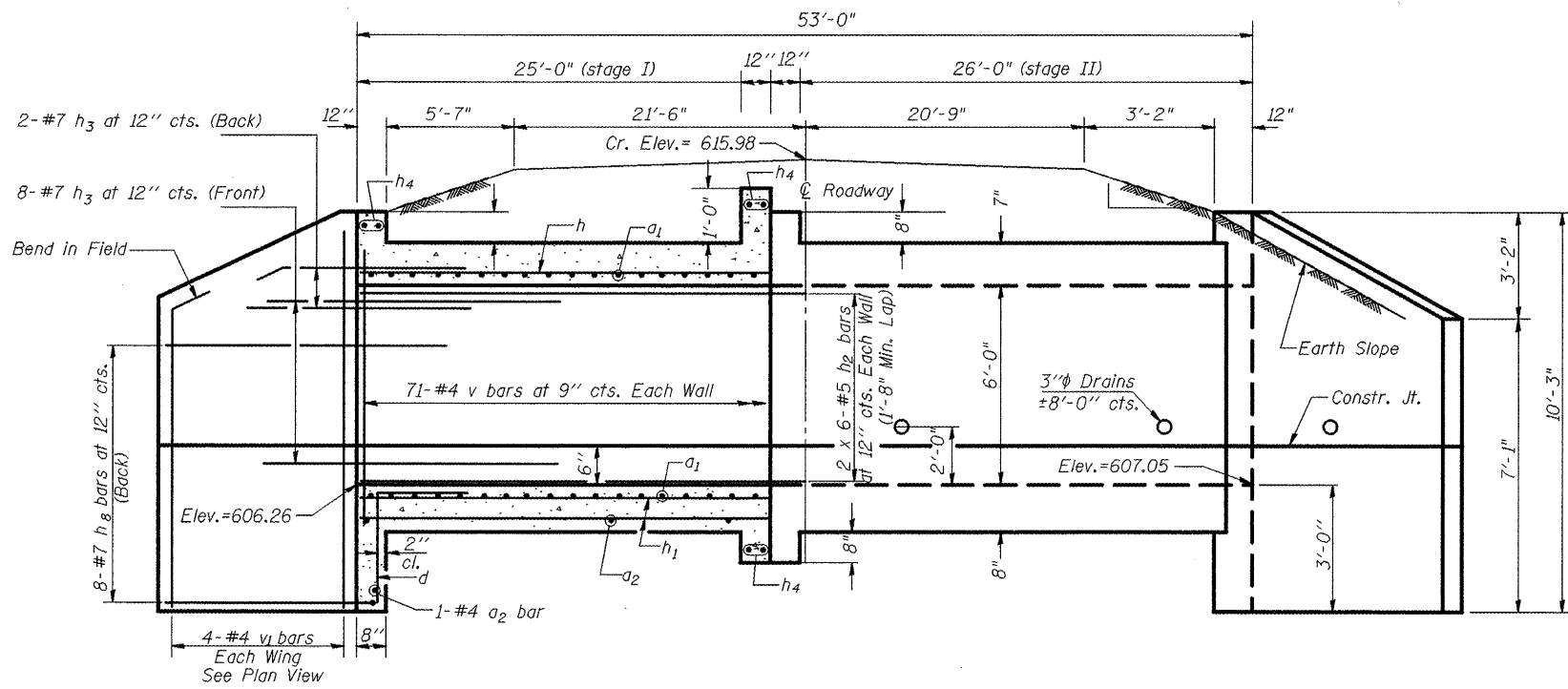
DATE	
BY	
DESIGNED	
PLANNED	
NOTED	
FILE NAME	
NO.	



- LEGEND**
- ① Proposed Pipe Culvert, CL D, T1, EQRS 18"
2 Each, Metal End Sections, EQRS 18"
 - ② Proposed Concrete Collar for 18" Pipe Culvert
2 Each, PRCF End Sections, 18"

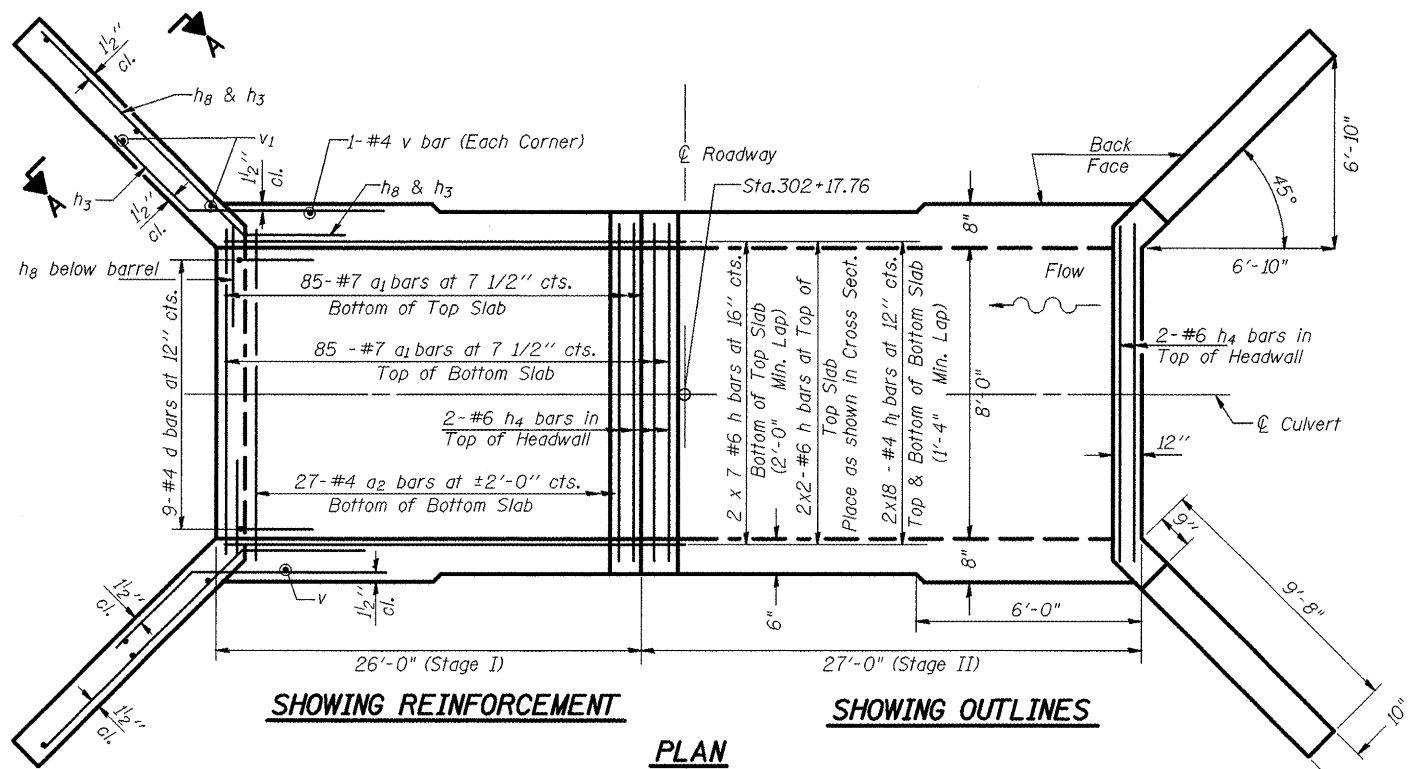


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	PLLOT DATE = 4/8/2011	CHECKED -	REVISED -		ILLINOIS FED. AID PROJECT							
		DATE -	REVISED -		Eulton, McDonough							



HALF LONG SECTION

HALF ELEVATION



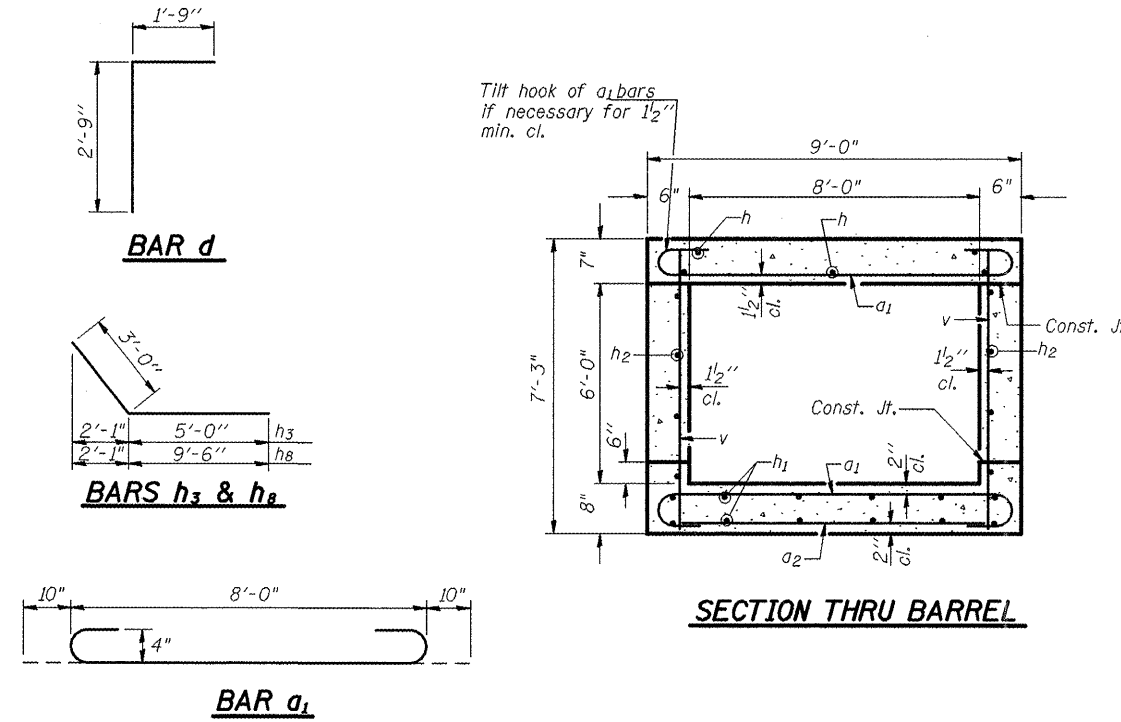
SHOWING REINFORCEMENT

SHOWING OUTLINES

PLAN

NOTES

A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.
 Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.
 Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.
 All construction joints shall be bonded.

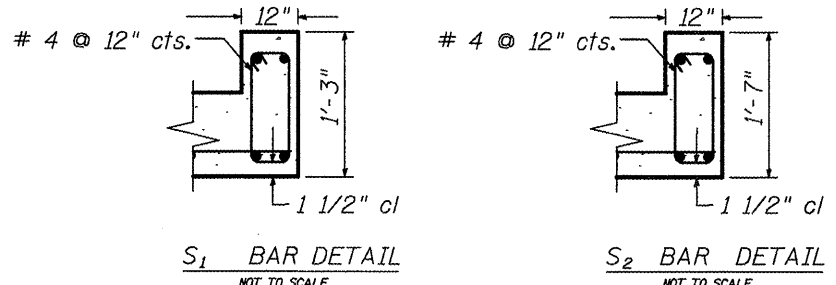


BAR d

BARS h3 & h8

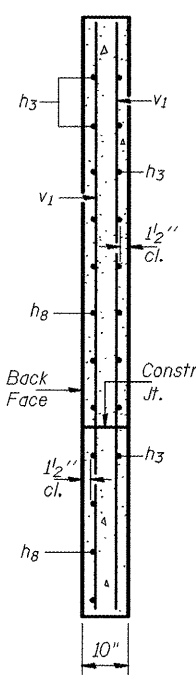
BAR a1

SECTION THRU BARREL

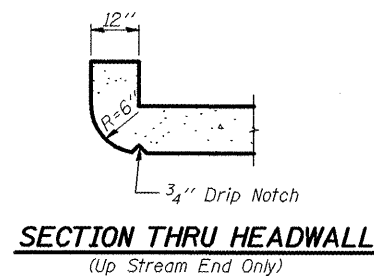


S1 BAR DETAIL
NOT TO SCALE

S2 BAR DETAIL
NOT TO SCALE



SECTION A-A



SECTION THRU HEADWALL
(Up Stream End Only)

DESIGN STRESSES

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

LOADING HS 20-44 & ALT.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1	170	#7	10'-4"	U
a2	28	#4	8'-3"	—
d	18	#4	4'-6"	L
h (Stg. I)	9	#6	25'-9"	—
h (Stg. II)	9	#6	26'-9"	—
h1 (Stg. I)	18	#4	25'-9"	—
h1 (Stg. II)	18	#4	26'-9"	—
h2 (Stg. I)	12	#5	25'-9"	—
h2 (Stg. II)	12	#5	26'-9"	—
h3	40	#7	8'-0"	L
h4	12	#6	8'-8"	—
h8	32	#7	11'-6"	L
v	142	#4	6'-11"	—
v1	20	#4	10'-0"	—
S1	45	#4	4'-3"	□
S2	9	#4	4'-11"	□
3/4" Expansion Bolts	Each		18	
Concrete Box Culverts	Cu. Yd.		70	
Reinforcement Bars	Pound		8,305.82	

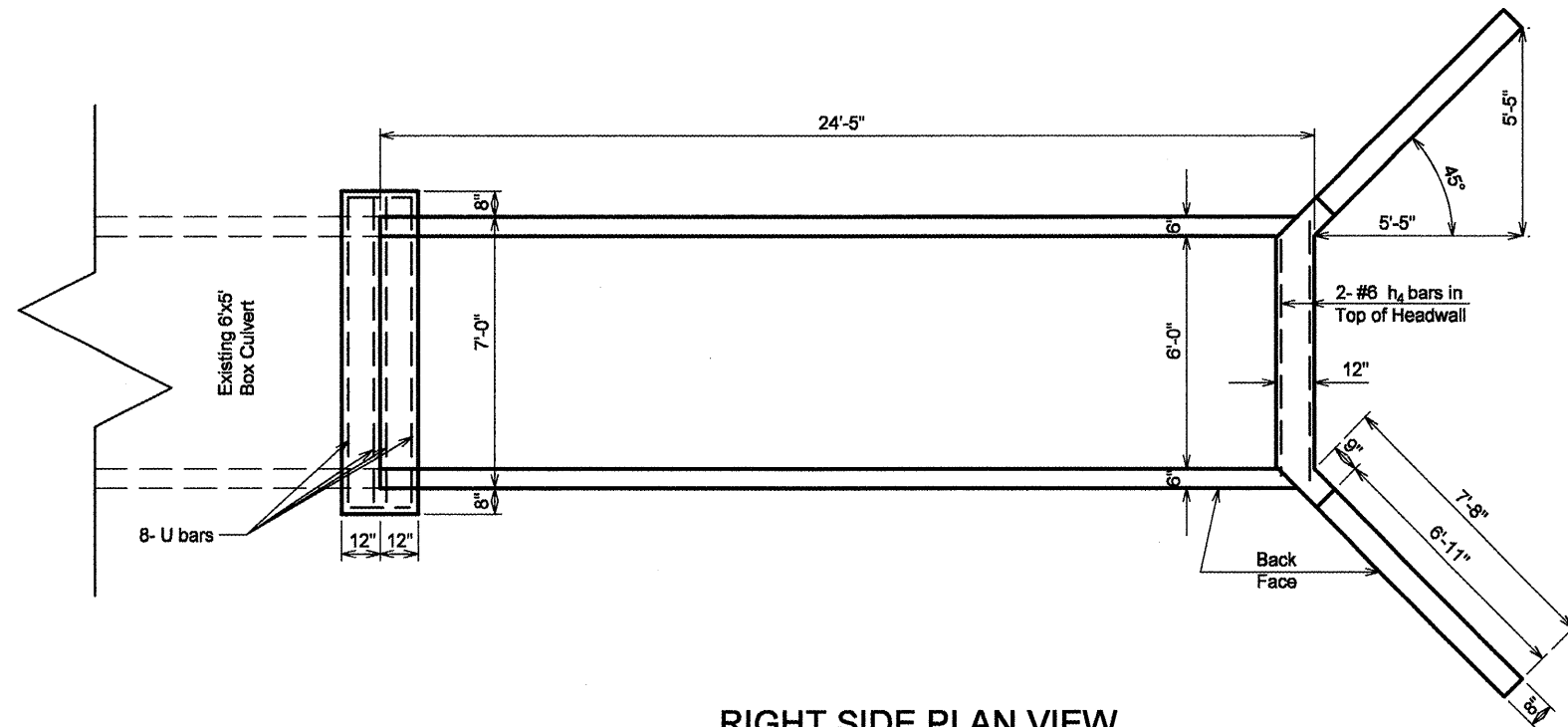
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DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

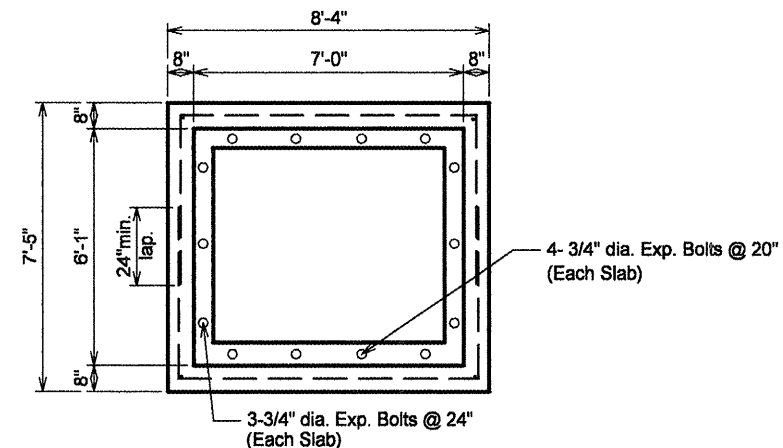
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BOX CULVERT
STA. 302 + 17.76

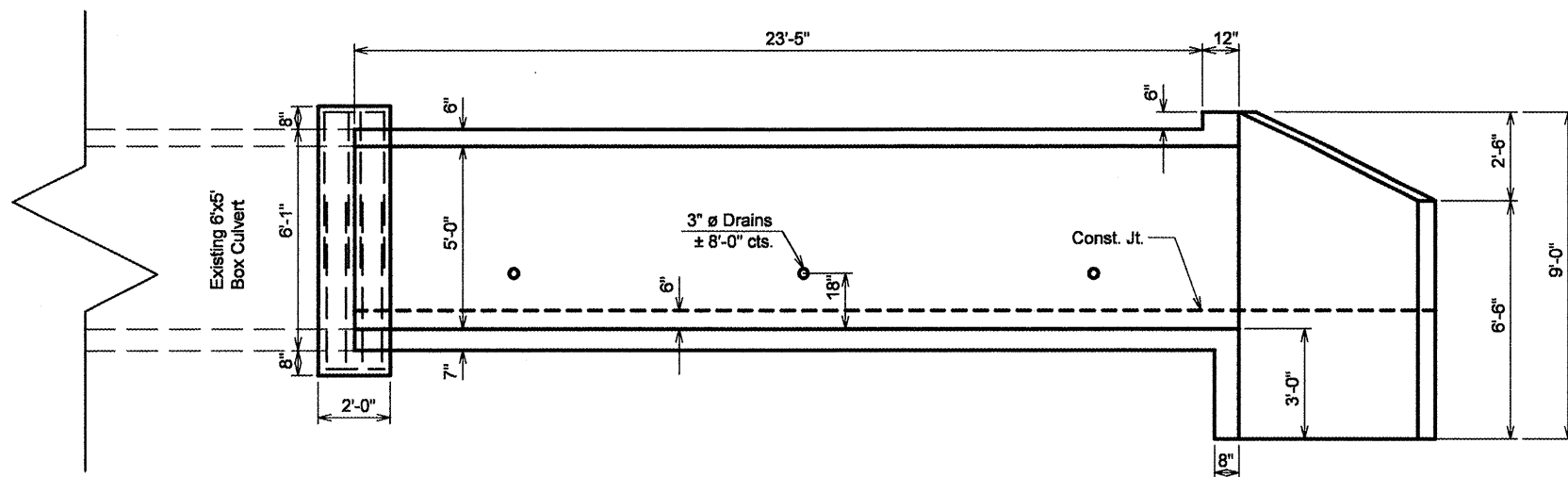
F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 136
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68599	



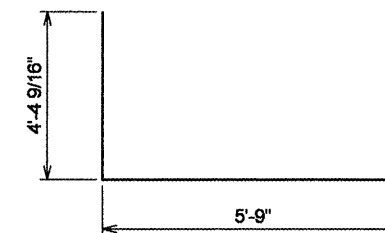
RIGHT SIDE PLAN VIEW
NOT TO SCALE



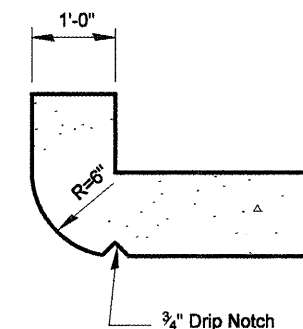
DETAIL OF CONCRETE COLLAR
NOT TO SCALE



RIGHT SIDE ELEVATION VIEW
NOT TO SCALE

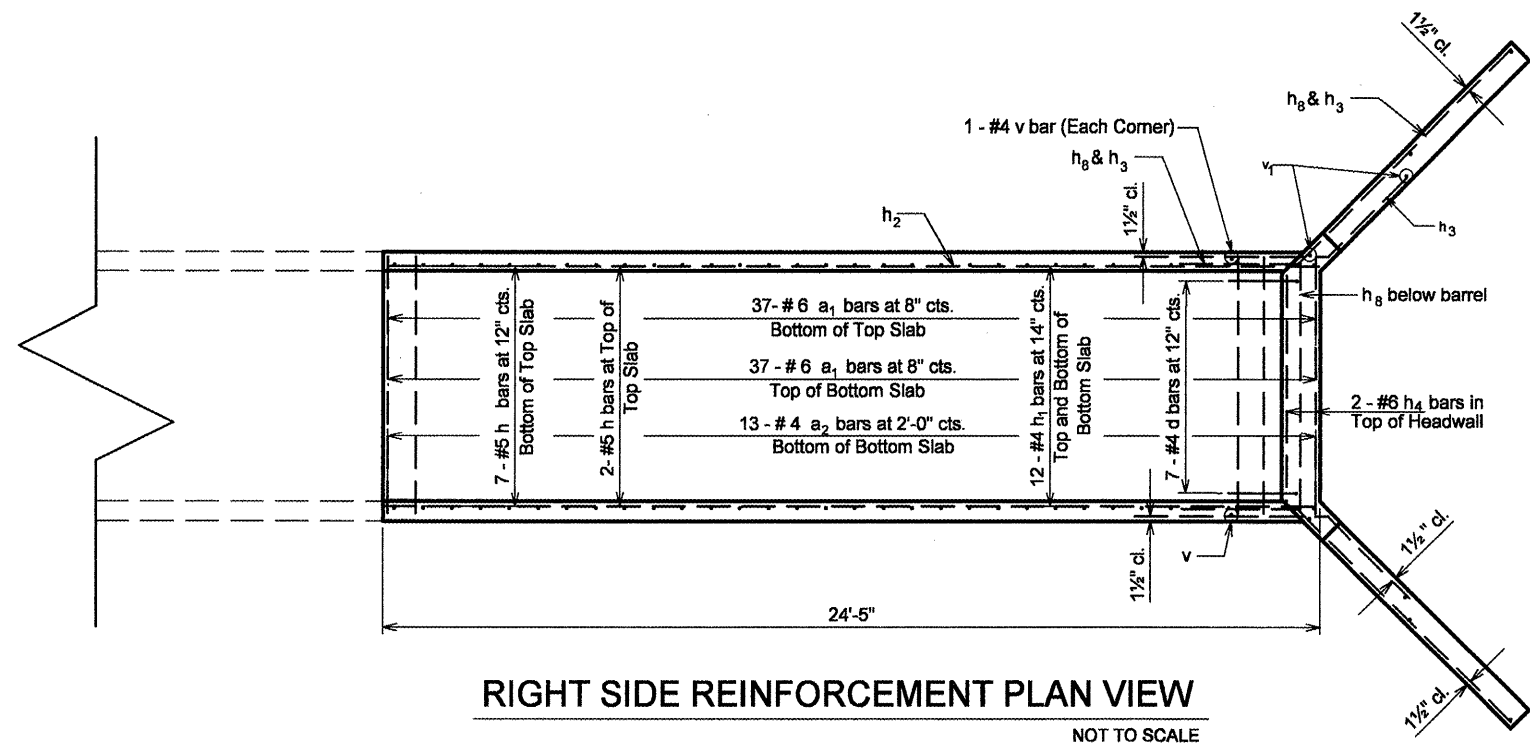


#4 U bar 8 required per collar
NOT TO SCALE



Section thru headwall
(Up Stream End Only)

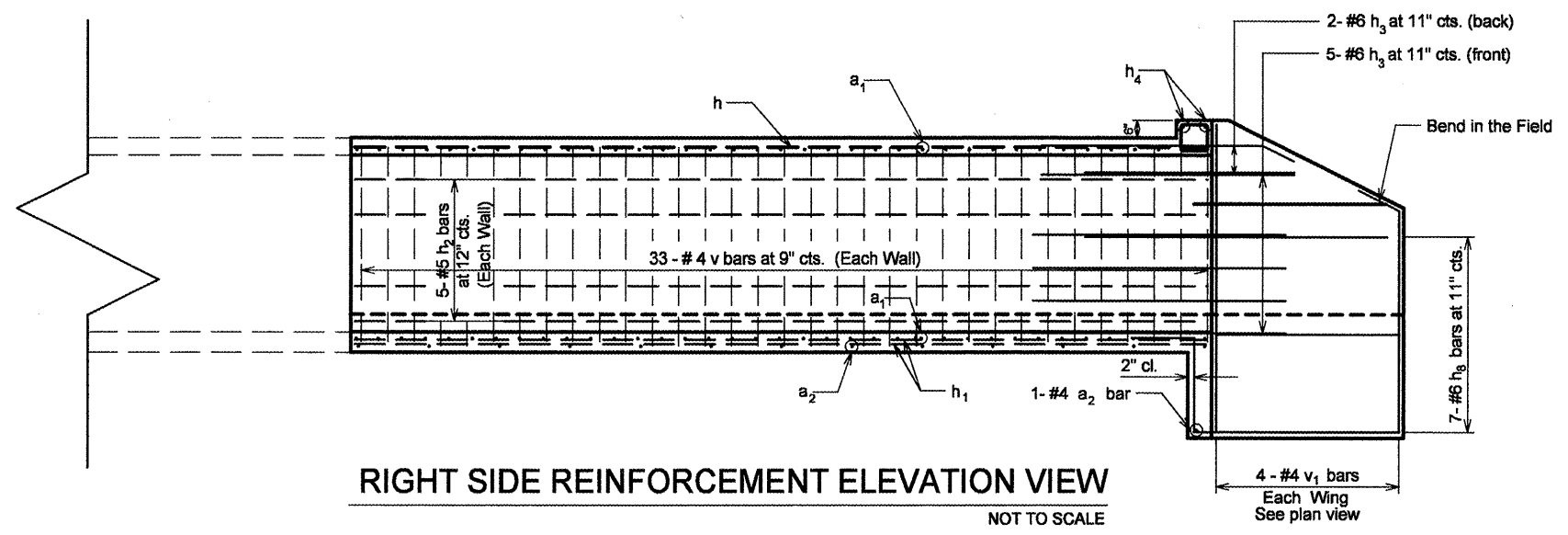
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PLOT SCALE = 1/8" = 1'-0"	CHECKED -	REVISED -	REVISED -					SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	CONTRACT NO. 68599	
PLOT DATE = 3/25/2011	DATE -	REVISED -	REVISED -		ILLINOIS FED. AID PROJECT							
** (37,38)RS-3,39RS-5(38) • Fulton, McDonough												



RIGHT SIDE REINFORCEMENT PLAN VIEW
NOT TO SCALE

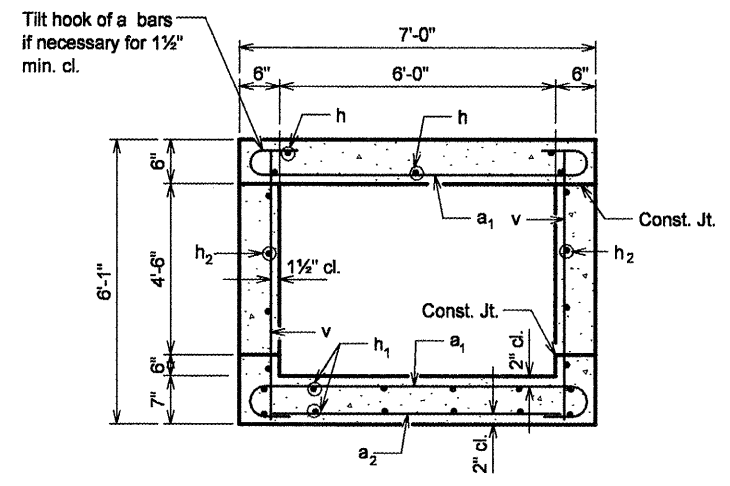
MIN. LAPS

Bar Size	Box Ext.
#4	1'-4"
#5	1'-8"

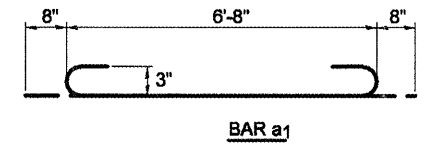
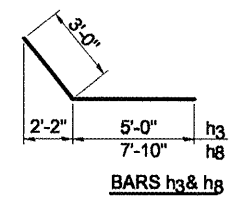
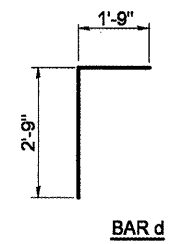


RIGHT SIDE REINFORCEMENT ELEVATION VIEW
NOT TO SCALE

NOTES
A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.



SECTION THRU BARREL
NOT TO SCALE



BILL OF MATERIAL

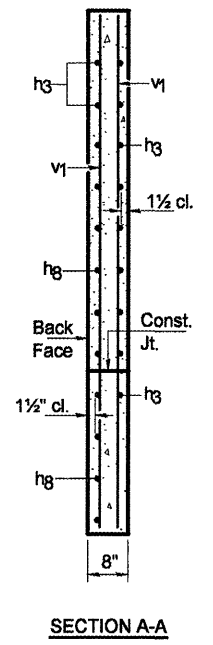
Bar	No.	Size	Length	Shape
a1	74	#6	8'-0"	U
a2	14	#4	6'-8"	U
d	7	#4	4'-6"	L
h	9	#5	24'-2"	U
h1	12	#4	24'-2"	U
h2	10	#5	24'-2"	U
h3	14	#6	8'-0"	U
h4	2	#6	6'-9"	U
h8	14	#6	10'-10"	U
v	68	#4	5'-9"	U
v1	8	#4	8'-9"	U
u	8	#4	14'-6"	L
* 3/4" Expansion Bolts			Each	14.0
Concrete Box Culverts			Cu. Yd.	15.0
Reinforcement Bars			Pound	2,447
* Concrete Collar			Cu. Yd.	1.5

* For Information Only

DESIGN STRESSES

fy = 60,000 psi
fc = 3,500 psi

LOADING HS 20-44 & ALT.



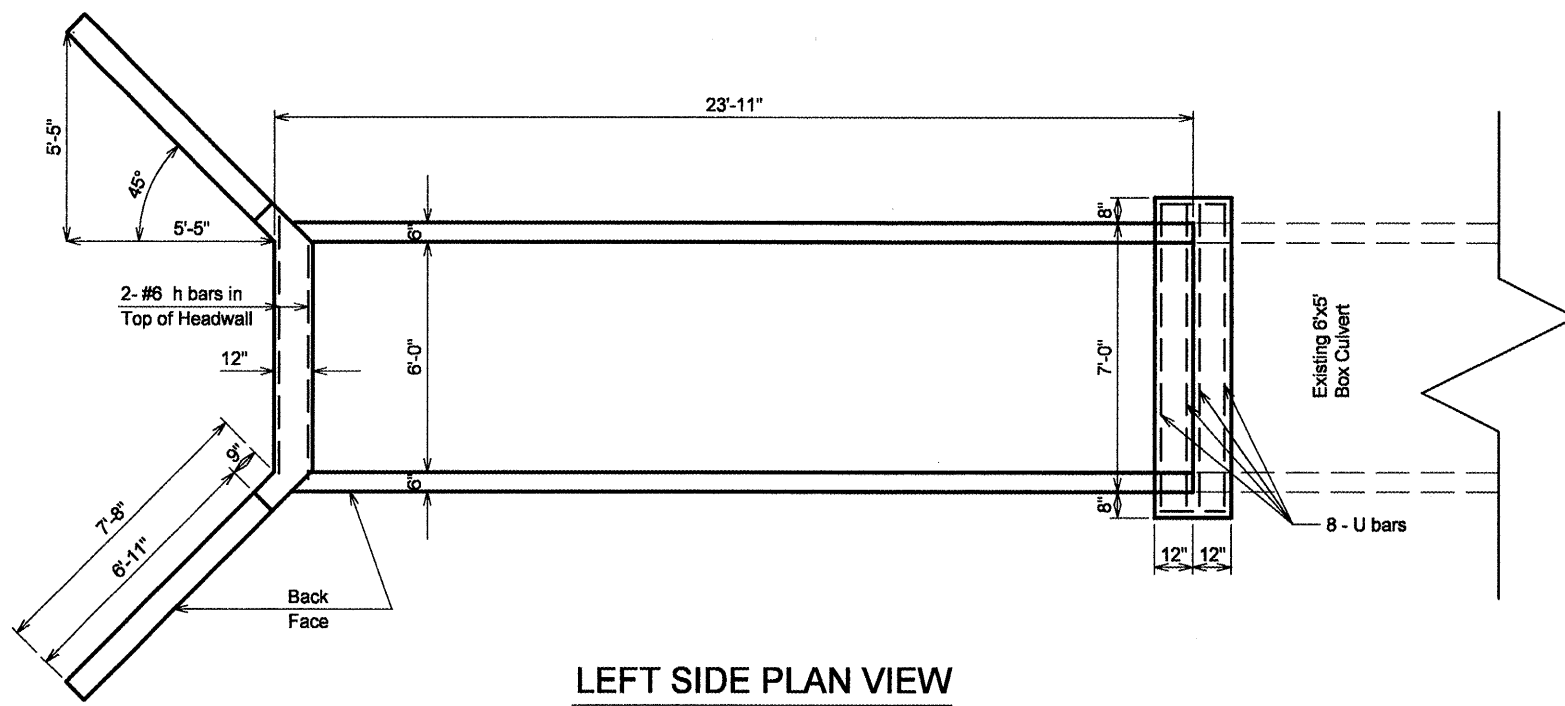
SECTION A-A

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		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

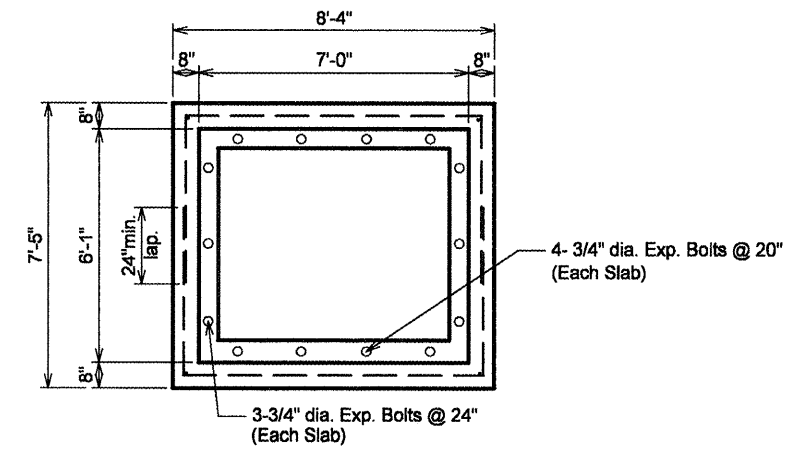
BOX CULVERT EXTENSION DETAIL
RT. STA. 418 + 16.23

F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 138
CONTRACT NO. 68599			ILLINOIS FED. AID PROJECT	



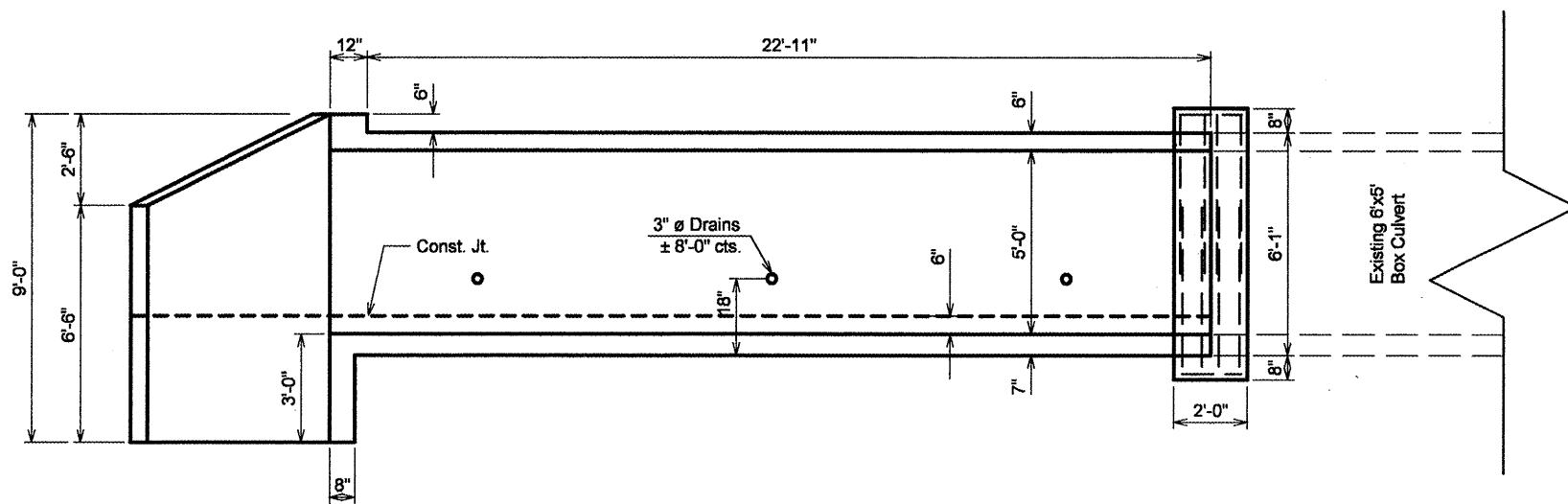
LEFT SIDE PLAN VIEW

NOT TO SCALE



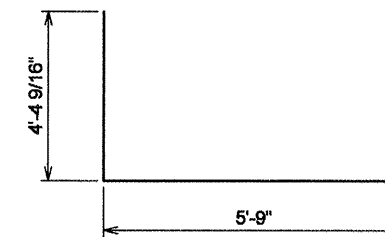
DETAIL OF CONCRETE COLLAR

NOT TO SCALE



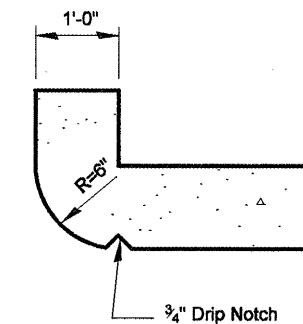
LEFT SIDE ELEVATION VIEW

NOT TO SCALE



#4 U bar 8 required per collar

NOT TO SCALE



Section thru headwall

(Up Stream End Only)

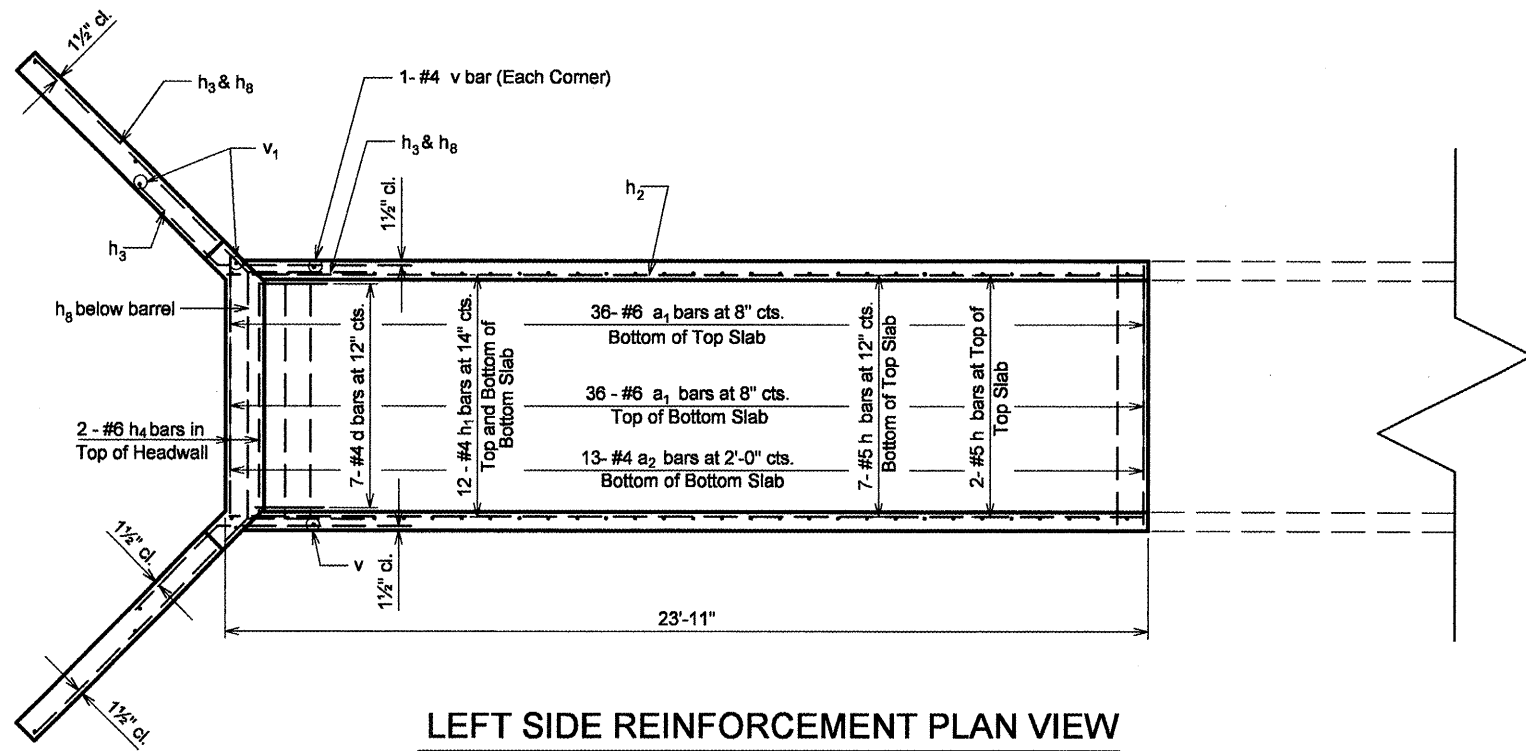
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		DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/25/2011	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BOX CULVERT EXTENSION DETAIL
LT. STA. 418 + 16.23**

F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 139
CONTRACT NO. 68599				

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

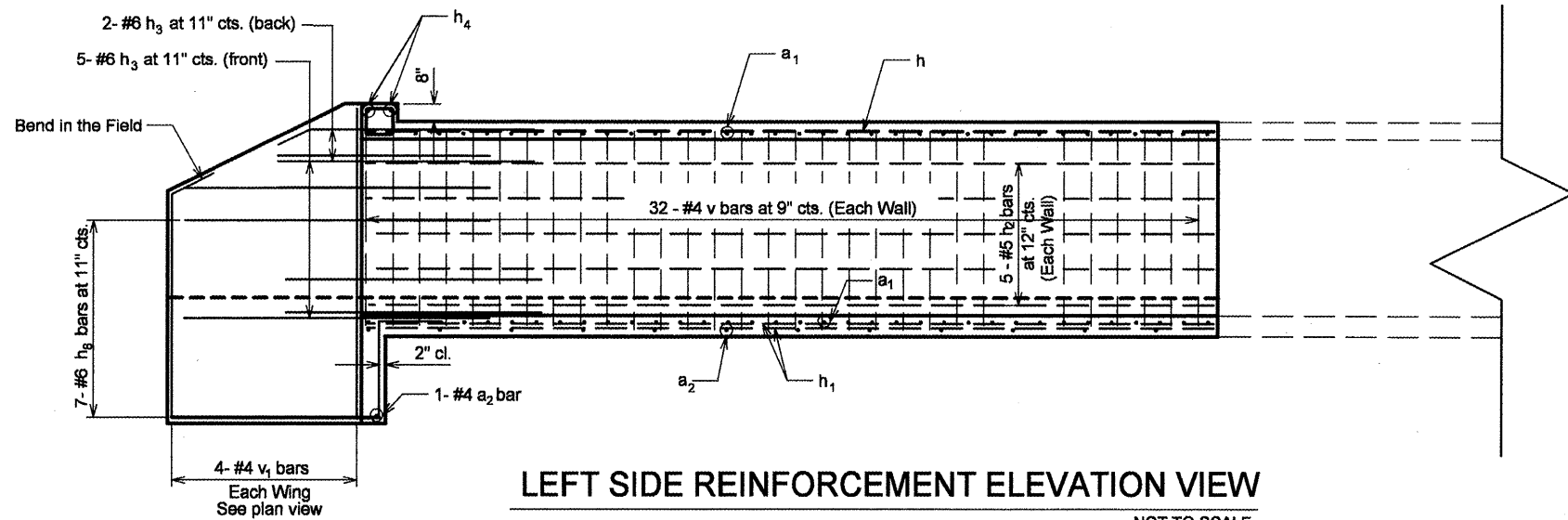


LEFT SIDE REINFORCEMENT PLAN VIEW

NOT TO SCALE

MIN. LAPS

Bar Size	Box Ext.
#4	1'-4"
#5	1'-8"

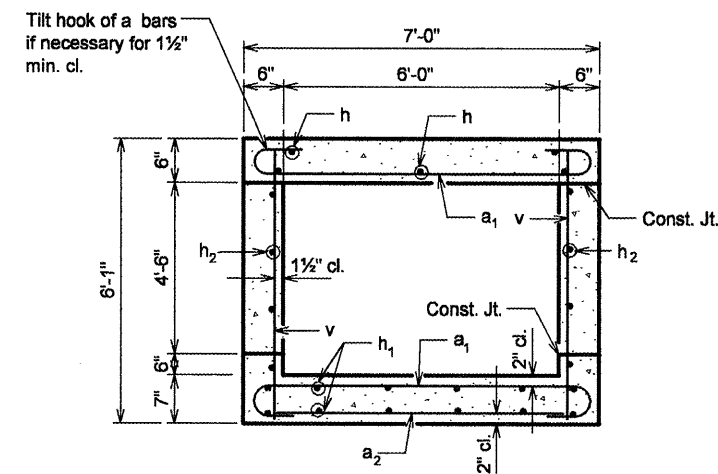


LEFT SIDE REINFORCEMENT ELEVATION VIEW

NOT TO SCALE

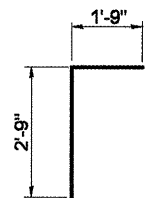
NOTES

A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.
 Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

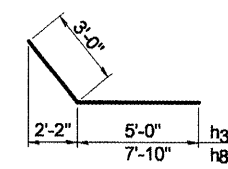


SECTION THRU BARREL

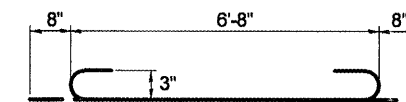
NOT TO SCALE



BAR d



BARS h3 & h8



BAR a1

BILL OF MATERIAL

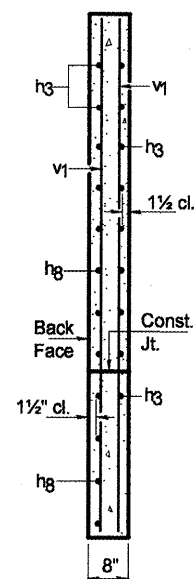
Bar	No.	Size	Length	Shape
a1	72	#6	8'-0"	
a2	14	#4	6'-8"	
d	7	#4	4'-6"	
h	9	#5	23'-8"	
h1	12	#4	23'-8"	
h2	10	#5	23'-8"	
h3	14	#6	8'-0"	
h4	2	#6	6'-9"	
h8	14	#6	10'-10"	
v	66	#4	5'-9"	
v1	8	#4	8'-9"	
U	8	#4	14'-6"	
* 3/4" Expansion Bolts			Each	14.0
Concrete Box Culverts			Cu. Yd.	14.75
Reinforcement Bars			Pound	2,397
* Concrete Collar			Cu. Yd.	1.5

* For Information Only

DESIGN STRESSES

fy = 60,000 psi
 fc = 3,500 psi

LOADING HS 20-44 & ALT.



SECTION A-A

FILE NAME =	USER NAME = crespole	DESIGNED -	REVISED -
sht-details.dgn		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

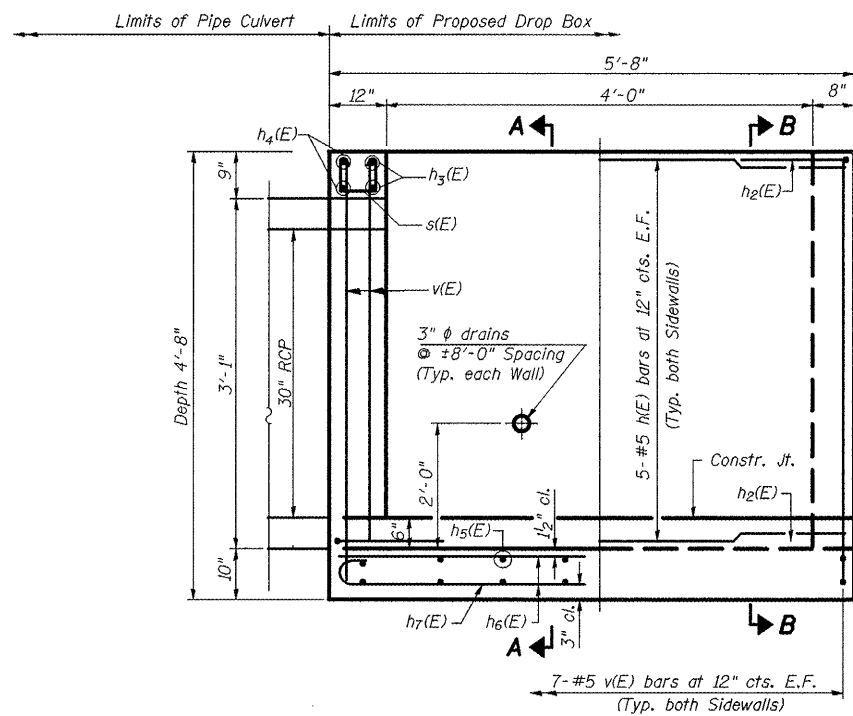
PLOT SCALE = 1/8" = 1'-0"	DATE = 4/8/2011
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

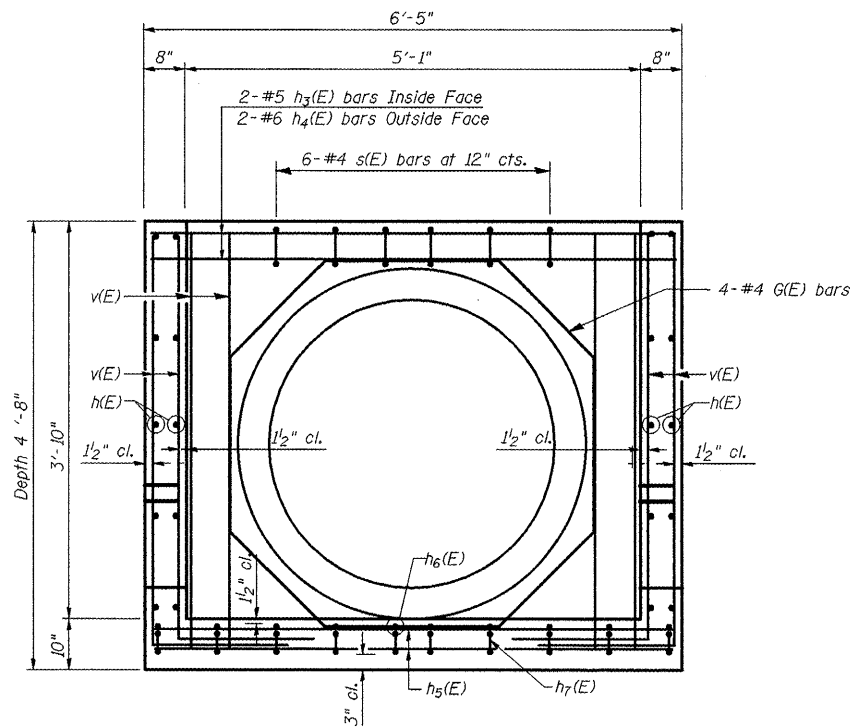
BOX CULVERT EXTENSION DETAIL
 LT. STA. 418 + 16.23

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

F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 140
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68599	

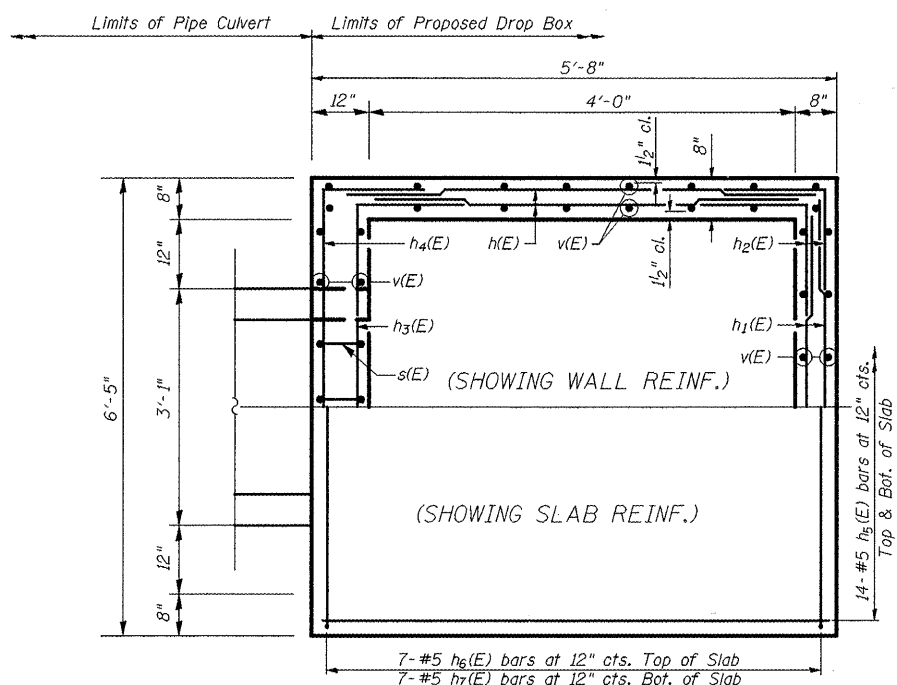
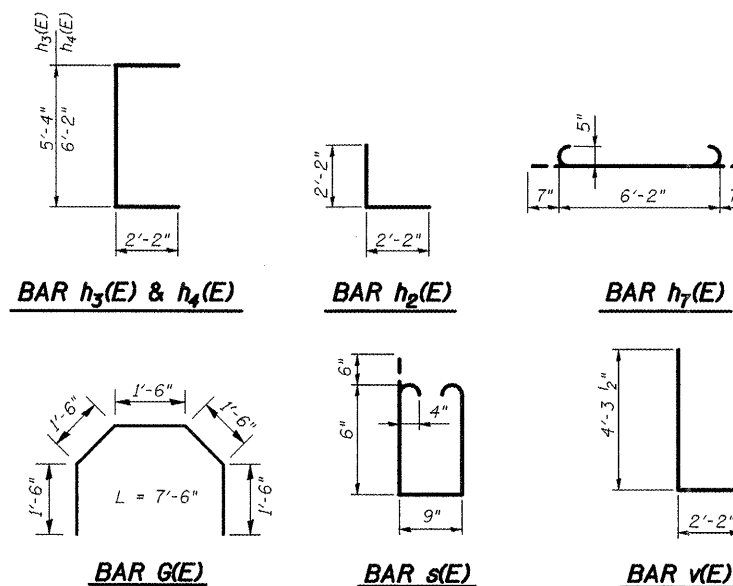


HALF LONG SECTION HALF ELEVATION

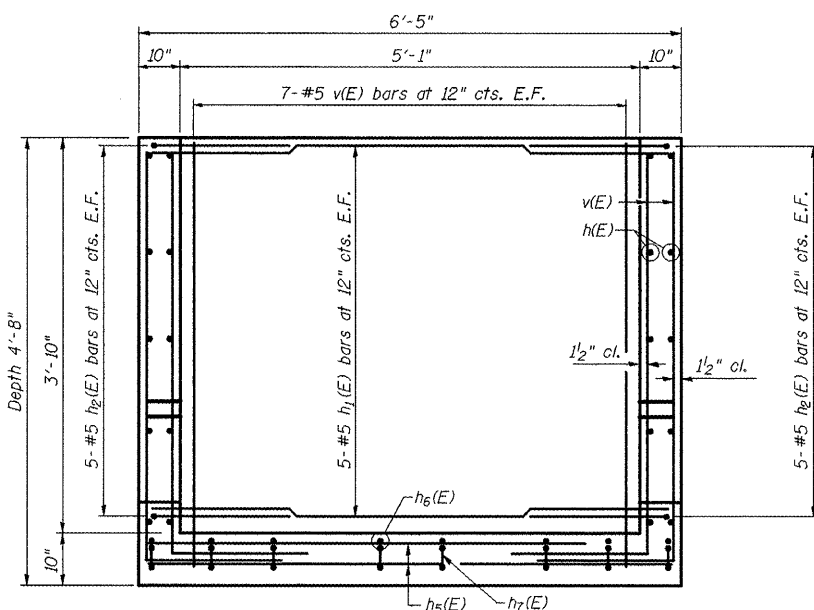


SECTION A-A

NOTES
 Reinforcement bars shall conform to the requirements of ASTM A706 Gr. 60 (IL Modified), See Special Provisions.
 The contractor shall be responsible for diverting the water flow from the construction area using a method meeting the approval of the Engineer. Cost included with "Concrete Box Culverts".
 Drain holes shall be constructed in accordance with section 503.11.
 Reinforcement bars designated (E) shall be epoxy coated.



PLAN



SECTION B-B

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	20	#5	5'-4"	—
h1(E)	10	#5	6'-2"	—
h2(E)	36	#5	4'-4"	┌
h3(E)	2	#5	9'-8"	┌┐
h4(E)	2	#6	10'-6"	┌┐
h5(E)	14	#5	6'-2"	—
h6(E)	7	#5	5'-5"	—
h7(E)	7	#5	6'-7"	—
s(E)	6	#4	2'-9"	┌
v(E)	50	#5	6'-5 1/2"	—
G(E)	4	#4	7'-6"	┌
Concrete Box Culverts		Cu. Yd.	2.70	
Reinforcement Bars, Epoxy Coated		Pound	935.36	

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
 fy = 60,000 psi (Reinforcement)

LOADING HL-93

Allow 50#/sq. Ft. for future wearing surface.

SINGLE PIPE CULVERT

DROP BOX

FILE NAME = sht-detail.s.dgn	USER NAME = mendezpj	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**DROP BOX DETAIL
 RT. STA. 423 + 59.49**

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

F.A.P. RTE. 685	SECTION	COUNTY	TOTAL SHEETS 329	SHEET NO. 141
			CONTRACT NO. 68599	

GENERAL NOTES

Length and number of steel pipes shall be determined by the Contractor except as shown. All steel pipe shall be standard weight (Sch. 40) unless otherwise noted.

All components of the Steel Pipe Grate System shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable.

Fabrication of the Steel Pipe Grate System shall conform to the requirements in Section 505 of the Standard Specifications unless noted otherwise.

Structural steel shapes and plates shall conform to the requirements of Article 1006.04 of the Standard Specifications. Steel pipes shall conform to the requirements of ASTM A 53 (Type E or S), Grade B.

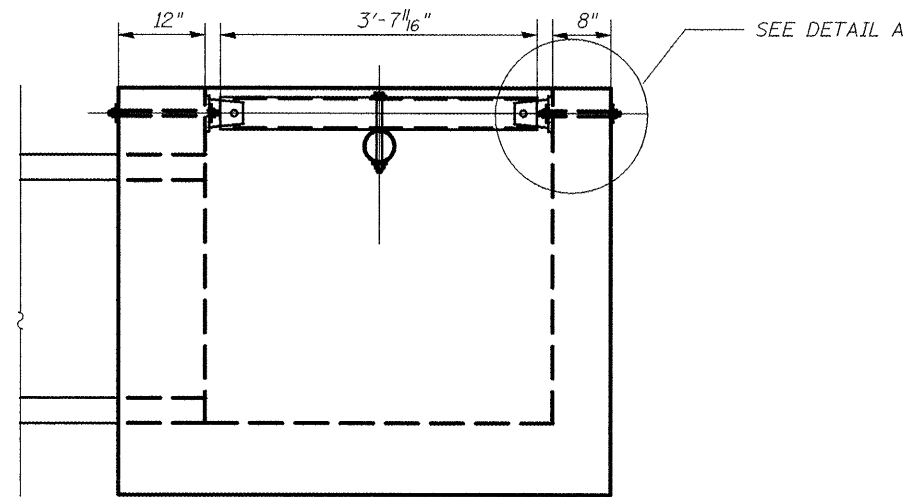
Anchor rods shall conform to the requirements of ASTM F1554, Grade 105. Anchor rods shall be drilled and epoxy grouted according to the requirements of Section 584 of the Standard Specifications. The chemical adhesive system shall be capable of achieving a minimum proof load of 5000 pounds and an ultimate shear capacity of 8000 pounds per anchor.

Bolts and thru bolts shall conform to the requirements of Article 1006.08 of the Standard Specifications except threaded rods conforming to the requirements of ASTM F1554, Grade 105 may be used for the thru bolts.

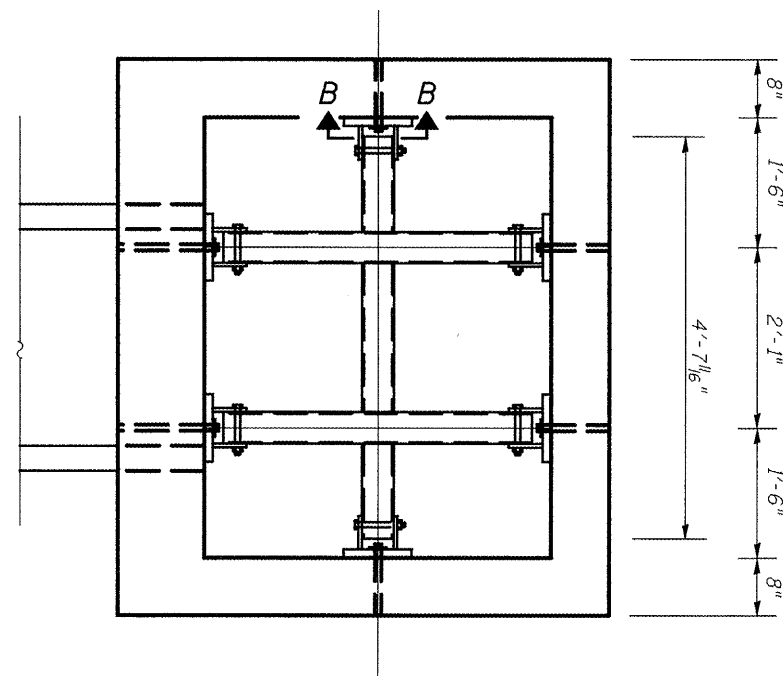
The minimum edge distance from the center of a hole to the free edge of a structural shape or plate shall be 1 1/2" unless noted otherwise.

Bolts and anchor rods shall be snug tightened by a few impacts of an impact wrench or the full force of a worker using an ordinary spud wrench.

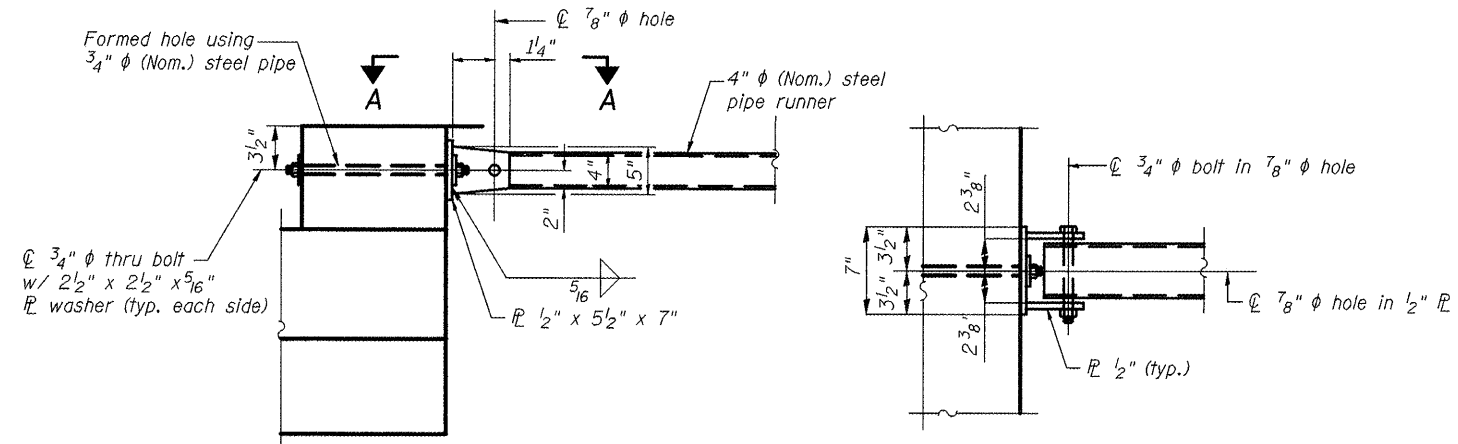
All cost associated with fabricating, furnishing, and installing the Steel Pipe Grate System shall be included in the contract unit price for Grating for Drop Box.



LONGITUDINAL SECTION

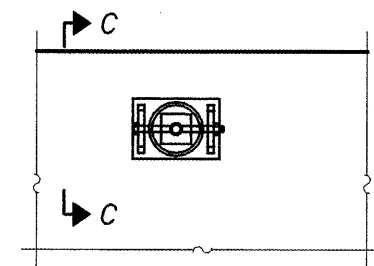


PLAN VIEW



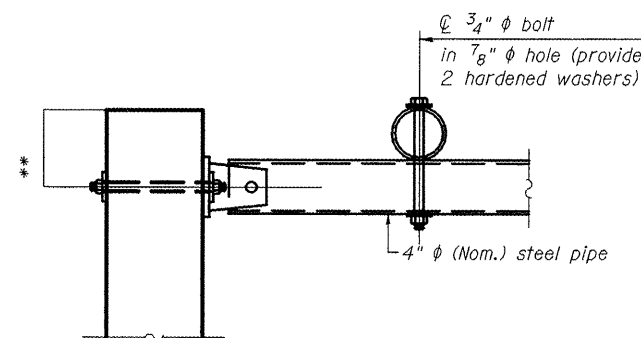
DETAIL A

SECTION A-A



SECTION B-B

(See Detail A for dimensions and details not shown.)



SECTION C-C

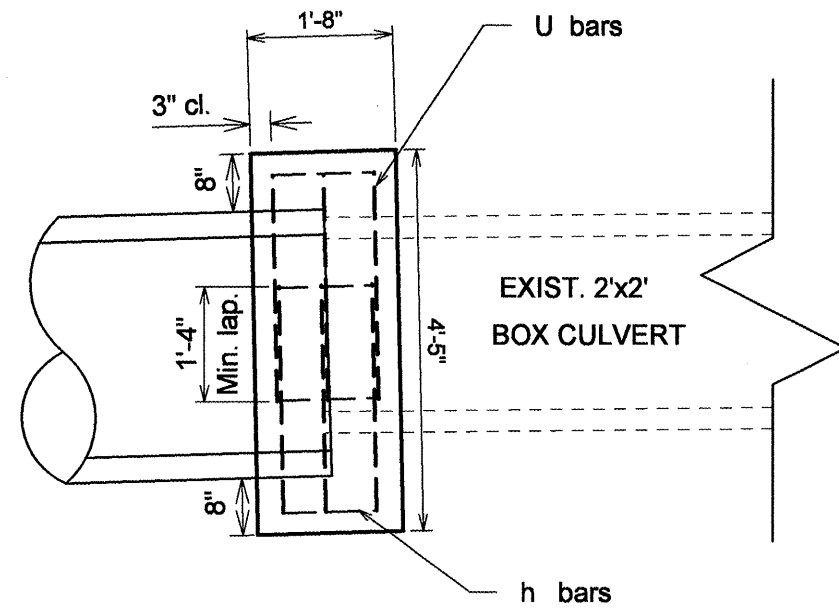
** Measured perpendicular to top of culvert wall. In addition, formed hole shall be located a minimum of 6" measured horizontally from any vertical joints necessary for construction of the culvert end section.

FILE NAME = shvt-details.dgn	USER NAME = mendespj	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

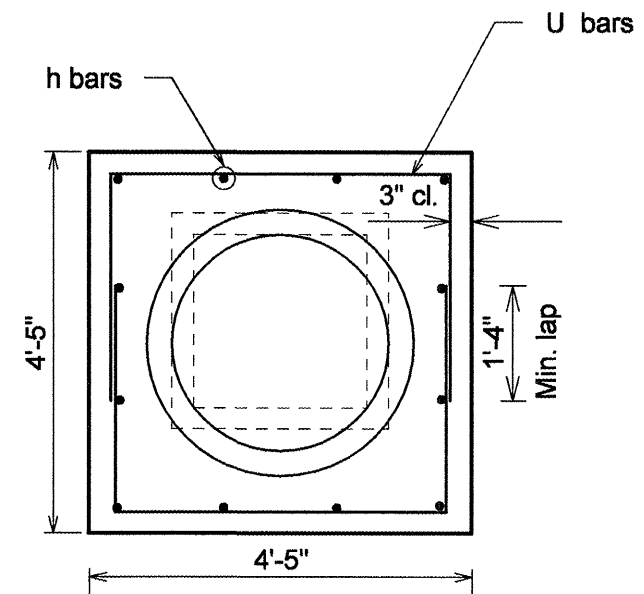
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GRATING FOR DROP BOX
RT. STA. 423 + 59.49**

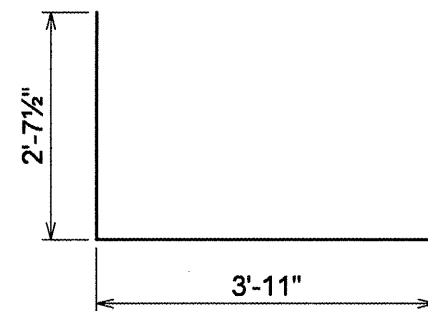
F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 142
CONTRACT NO. 68599			ILLINOIS FED. AID PROJECT	



ELEVATION VIEW OF CONCRETE COLLAR
NOT TO SCALE



FRONT VIEW OF CONCRETE COLLAR
NOT TO SCALE



#4 U bar 6 required per collar
NOT TO SCALE

BILL OF MATERIALS FOR CONCRETE COLLAR				
BAR	SIZE	NO.	LENGTH	SHAPE
h	#4	12	1'-2"	—
U	#4	6	9'-2"	U
DESCRIPTION		UNIT	QTY	
* Concrete Collar		CU YD	0.78	
* Reinforcement Bars		LB	46.09	

* For Information Only

NOTES:

The collar shall be constructed entirely of CLASS SI CONCRETE and in accordance with the applicable portions of section 503 of the Standard Specifications. Reinforcement Bars shall conform to section 508.

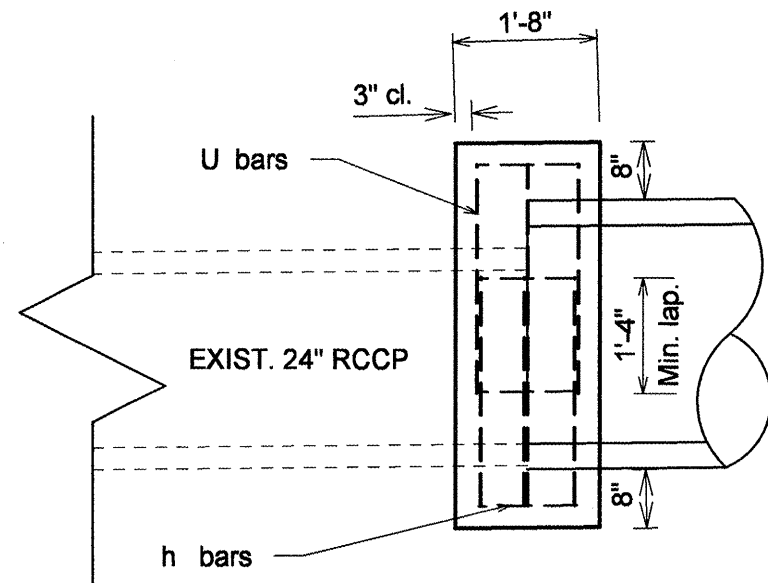
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		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

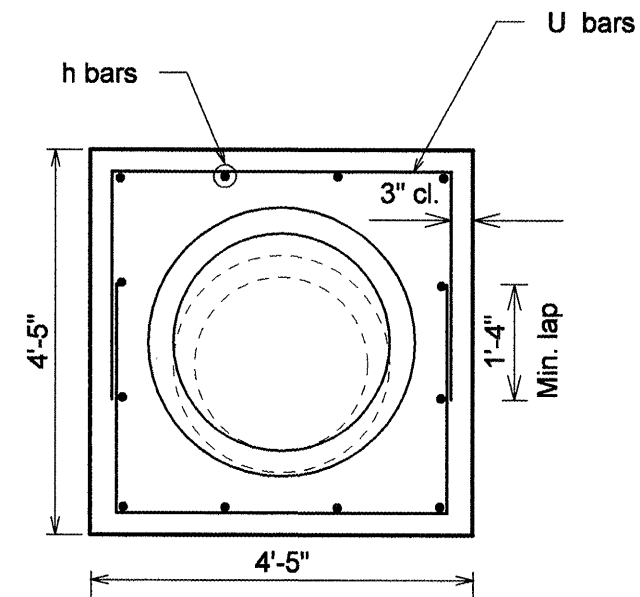
**CONCRETE COLLAR DETAIL
LT. STA. 432 + 58.33**

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

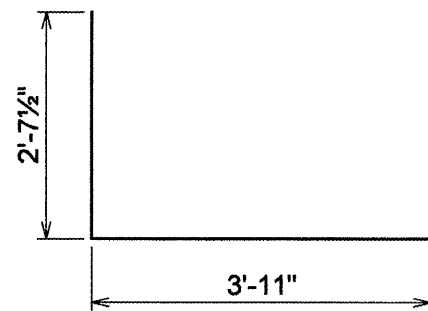
F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 143
CONTRACT NO. 68599			ILLINOIS FED. AID PROJECT	



ELEVATION VIEW OF CONCRETE COLLAR
NOT TO SCALE



FRONT VIEW OF CONCRETE COLLAR
NOT TO SCALE



#4 U bar 6 required per collar
NOT TO SCALE

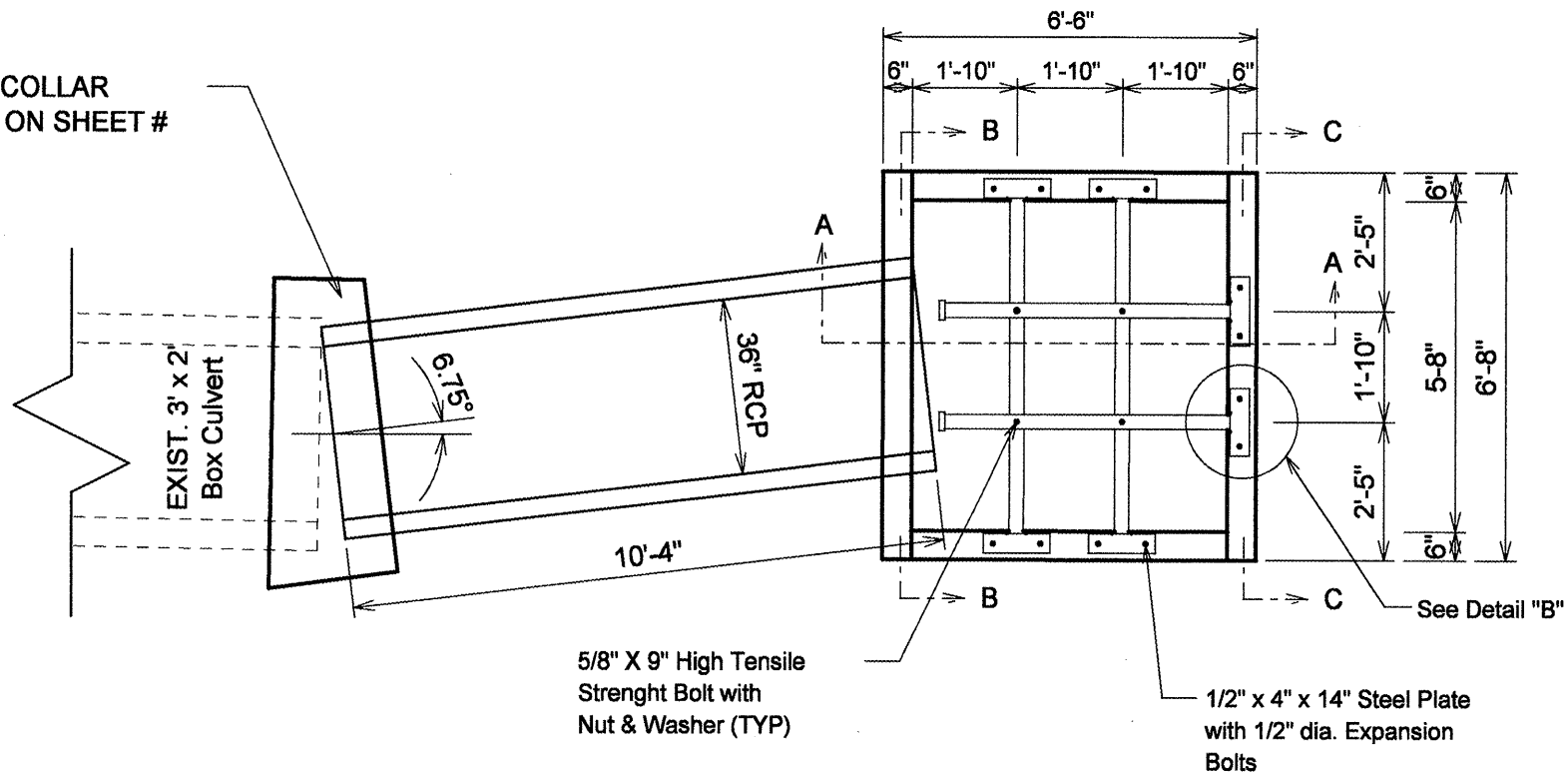
BILL OF MATERIALS FOR CONCRETE COLLAR				
BAR	SIZE	NO.	LENGTH	SHAPE
h	#4	12	1'-2"	—
U	#4	6	9'-2"	⌊
DESCRIPTION		UNIT	QTY	
* Concrete Collar		CU YD	0.82	
* Reinforcement Bars		LB	46.09	

* For Information Only

NOTES:

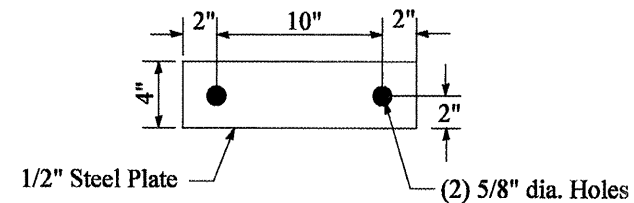
The collar shall be constructed entirely of CLASS SI CONCRETE and in accordance with the applicable portions of section 503 of the Standard Specifications. Reinforcement Bars shall conform to section 508.

CONCRETE COLLAR
SEE DETAIL ON SHEET #



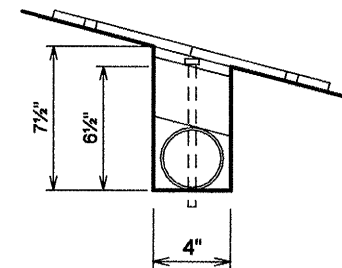
PLAN SHOWING OUTLINES

NOT TO SCALE



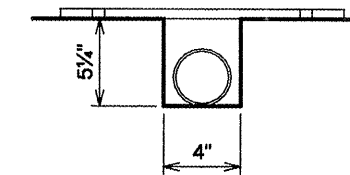
TOP ANCHOR PLATE

NOT TO SCALE



DETAIL "A"

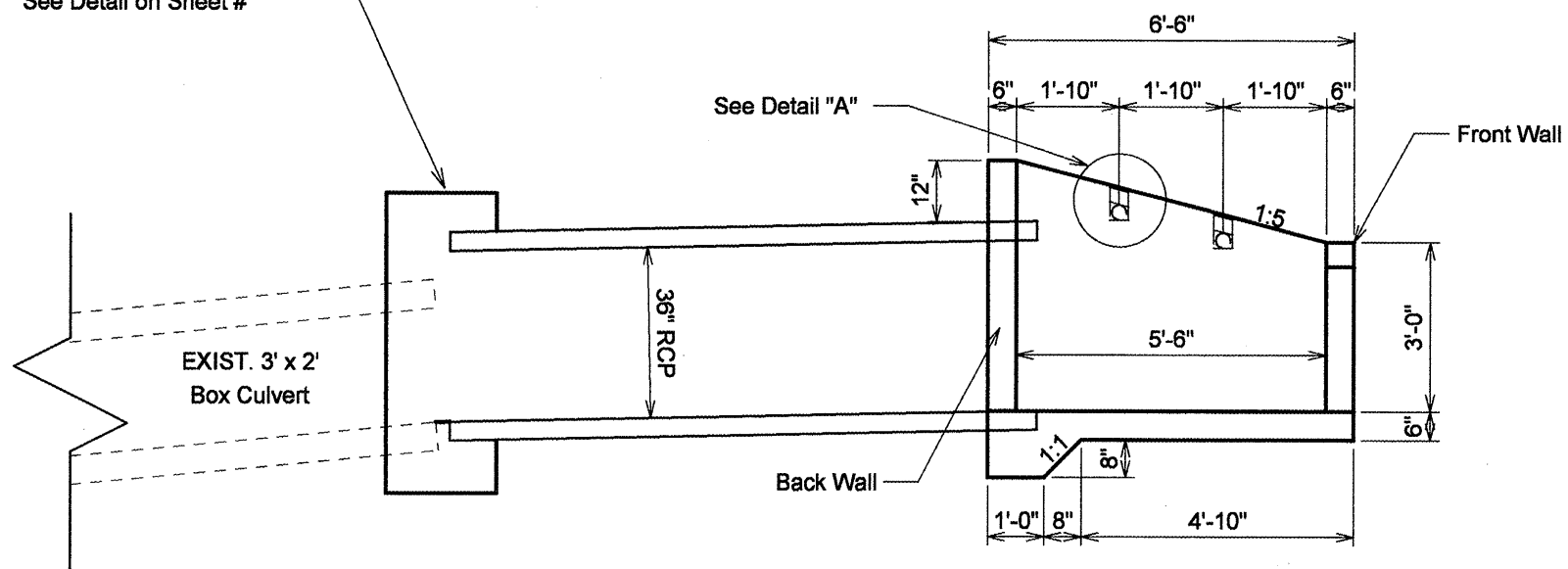
NOT TO SCALE



DETAIL "B"

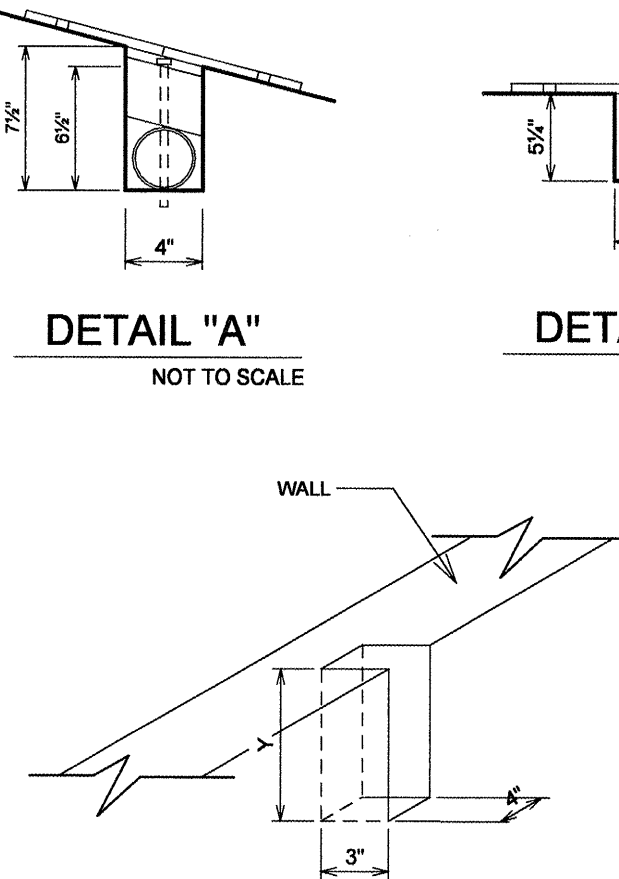
NOT TO SCALE

Concrete Collar
See Detail on Sheet #



ELEVATION VIEW

NOT TO SCALE



NOTE:
FOR "Y" DIMENSION SEE DETAIL "A" OR "B"

POCKET DETAIL

NOT TO SCALE

FILE NAME = sht-details.dgn	USER NAME = mendezpj	DESIGNED -	REVISED -
		DRAWN -	REVISED -
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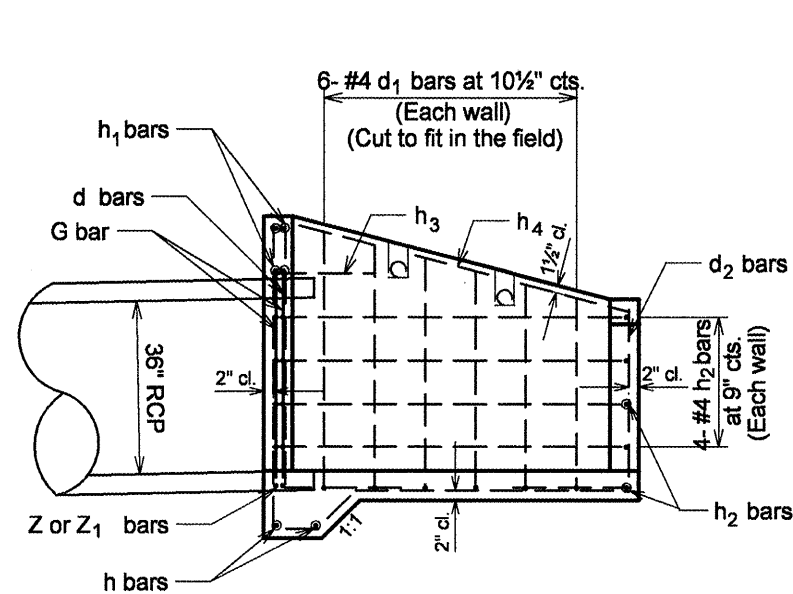
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DROP BOX DETAIL
RT. STA. 447 + 89.94

F.A.P. RTE. 685	SECTION ..	COUNTY .	TOTAL SHEETS 329	SHEET NO. 145
			CONTRACT NO. 68599	

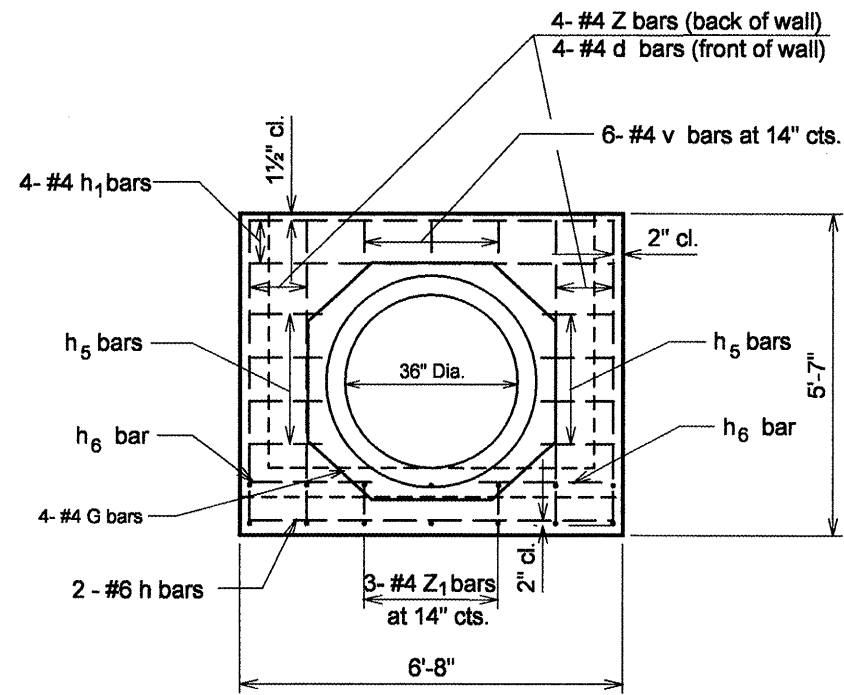
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ILLINOIS FED. AID PROJECT



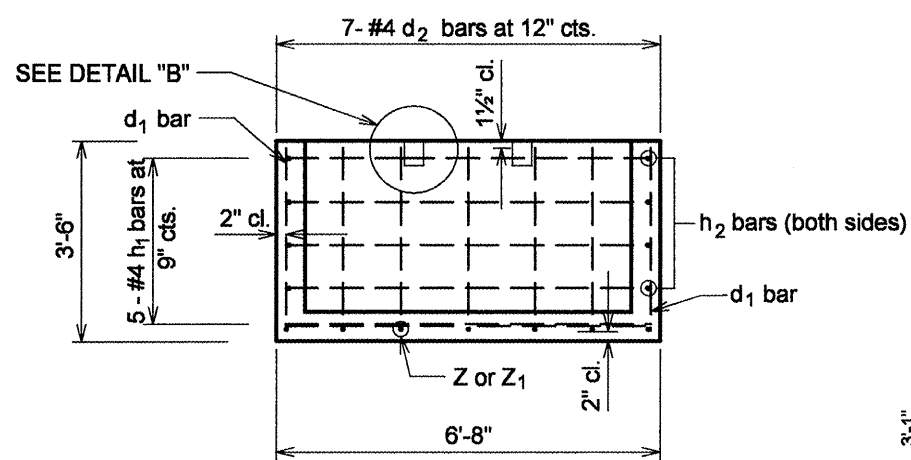
SECTION A-A

NOT TO SCALE



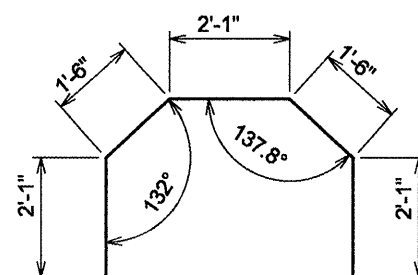
SECTION B-B

NOT TO SCALE



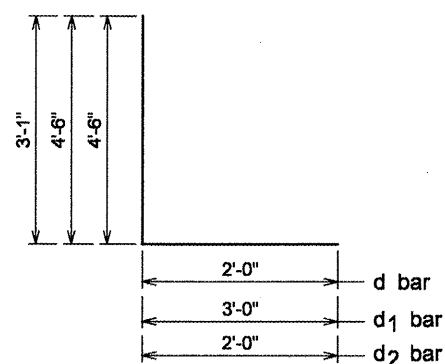
SECTION C-C

NOT TO SCALE



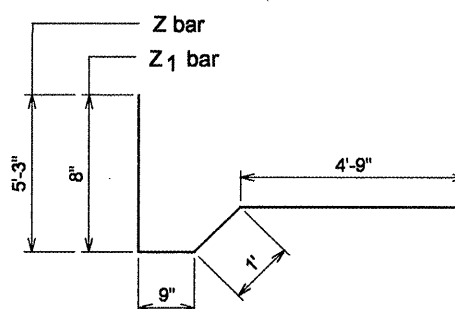
"G" bar

NOT TO SCALE



d, d1 & d2 bars

NOT TO SCALE



Z & Z1 bars

NOT TO SCALE

BILL OF MATERIALS FOR DROP BOX				
BAR	SIZE	NO.	LENGTH	SHAPE
h	#6	2	6'-4"	————
h1	#4	9	6'-4"	————
h2	#4	8	6'-2"	————
h3	#4	2	1'-9"	————
h4	#4	2	5'-11"	————
h5	#4	16	1'-3"	————
h6	#4	4	2'-4"	————
G	#4	4	9'-3"	⌒
d	#4	4	6'-6"	└┘
d1	#4	12	7'-6"	└┘
d2	#4	7	5'-1"	└┘
V	#4	6	0'-9"	————
Z	#4	4	11'-9"	└┘└┘
Z1	#4	3	7'-2"	└┘
DESCRIPTION		UNIT	QTY	
Concrete Box Culvert		CU YD	2.5	
Reinforcement Bars		LB	294.63	

BILL OF MATERIALS - GRATING FOR DROP BOX		
ITEMS	UNITS	QTY.
3" DIA. GALV. STEEL PIPE	EACH	2 - 6'-2"
1/2" x 4" x 14" GALV. ANCHOR PLATE	EACH	2 - 5'-3 1/4"
1/2" x 4" x 14" GALV. ANCHOR PLATE	EACH	6
5/8" x 9" GALV. BOLTS	EACH	4
GALV. STEEL PIPE CAPS	EACH	8
1/2" DIA. GALV. EXPANSION BOLTS	EACH	12

GENERAL NOTES:

STEEL PIPES SHALL COMFORM TO ASTM A-500 GRADE B, AND SHALL BE GALVANIZED COMFORMING TO ASTM A-123.

STEEL PLATES SHALL COMFORM TO ASTM A-709 GRADE 250 & SHALL BE GALVANIZED COMFORMING TO ASTM A-123.

BOLTS, NUTS & WASHERS SHALL BE IN ACCORDANCE WITH ARTICLE 1006.08 OF THE STANDARD SPECIFICATIONS AND SHALL BE GALVANIZED.

THE CONTRACT UNIT PRICE "EACH" FOR GRATING FOR DROP BOX. SHALL INCLUDE EXPANSION BOLTS, GALVANIZED STEEL PIPES, BOLTS, NUTS, WASHERS, PIPE CAPS, 7" DIA. x 1/4" GALVANIZED PLATES AND ANCHOR PLATES.

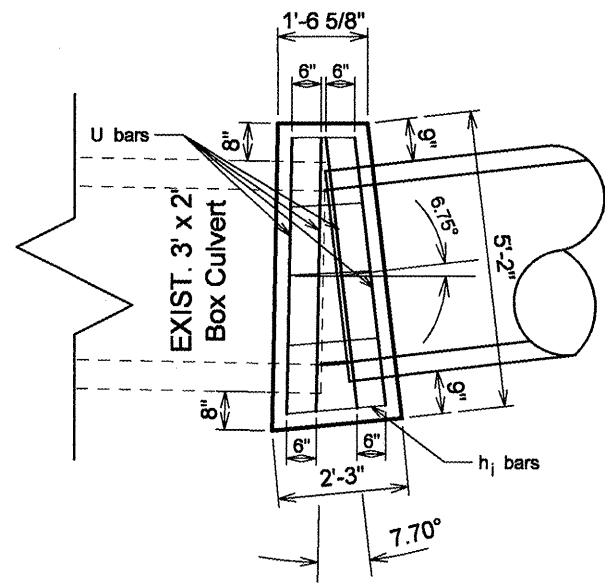
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DROP BOX DETAIL
RT. STA. 447 + 89.94**

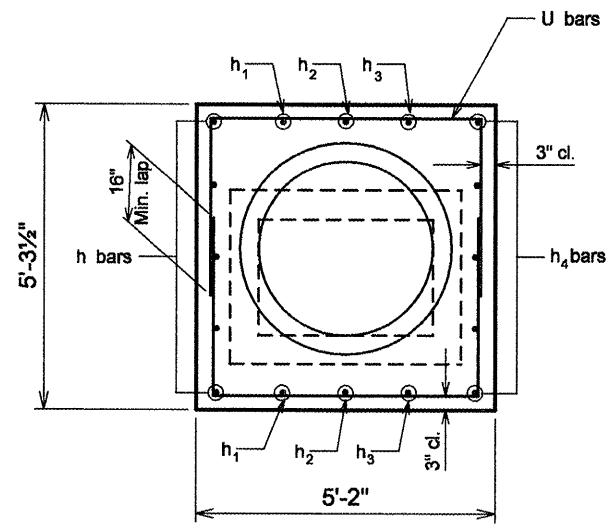
F.A.P. RTE. 685	SECTION ..	COUNTY ..	TOTAL SHEETS 329	SHEET NO. 146
			CONTRACT NO. 68599	
[ILLINOIS] FED. AID PROJECT				

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



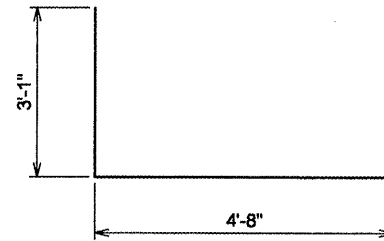
TOP VIEW OF CONCRETE COLLAR

NOT TO SCALE



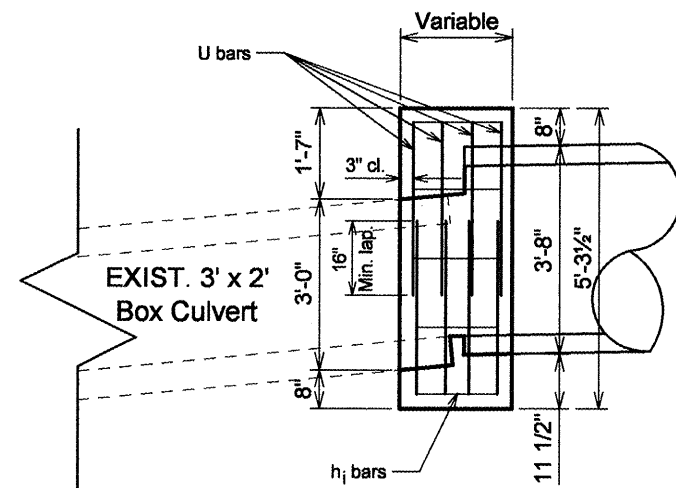
FRONT VIEW OF CONCRETE COLLAR

NOT TO SCALE



#5 U bar 8 required per collar

NOT TO SCALE



ELEVATION VIEW OF CONCRETE COLLAR

NOT TO SCALE

BILL OF MATERIALS FOR CONCRETE COLLAR

BAR	SIZE	NO.	LENGTH	SHAPE
h	#4	5	1'-9"	————
h1	#4	2	1'-7"	————
h2	#4	2	1'-5"	————
h3	#4	2	1'-3"	————
h4	#4	5	1'-1"	————
U	#5	8	10'-10"	┌───┐
DESCRIPTION		UNIT	QTY	
* Concrete Collar		CU YD	1.0	
* Reinforcement Bars		LB	105.52	

* For Information Only

NOTES:

The collar shall be constructed entirely of CLASS SI CONCRETE and in accordance with the applicable portions of section 503 of the Standard Specifications. Reinforcement Bars shall conform to section 508.

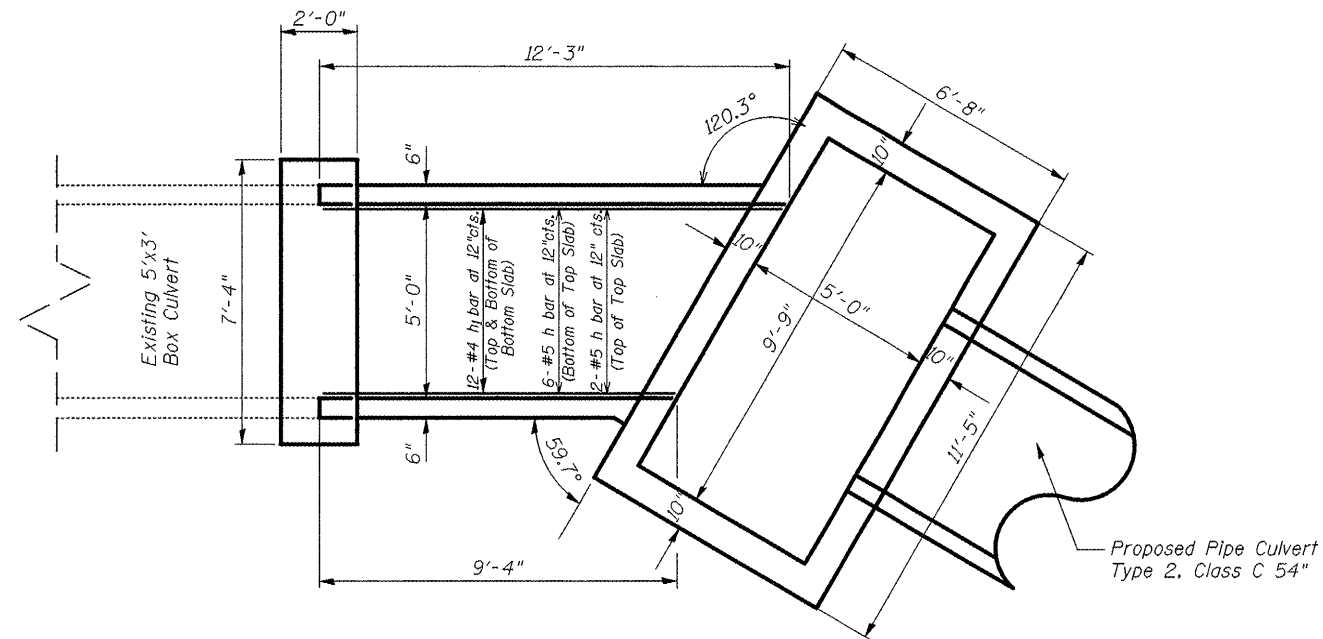
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CONCRETE COLLAR DETAIL
RT. STA. 447 + 89.94**

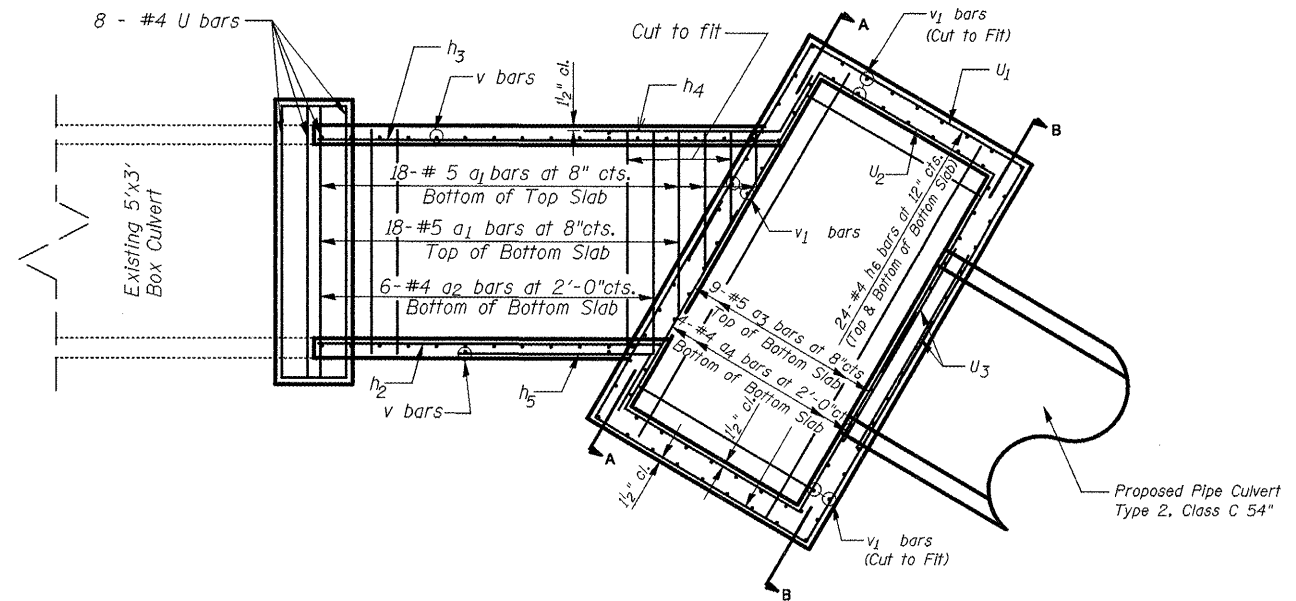
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			CONTRACT NO. 68599	
ILLINOIS FED. AID PROJECT				

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



PLAN SHOWING OUTLINES

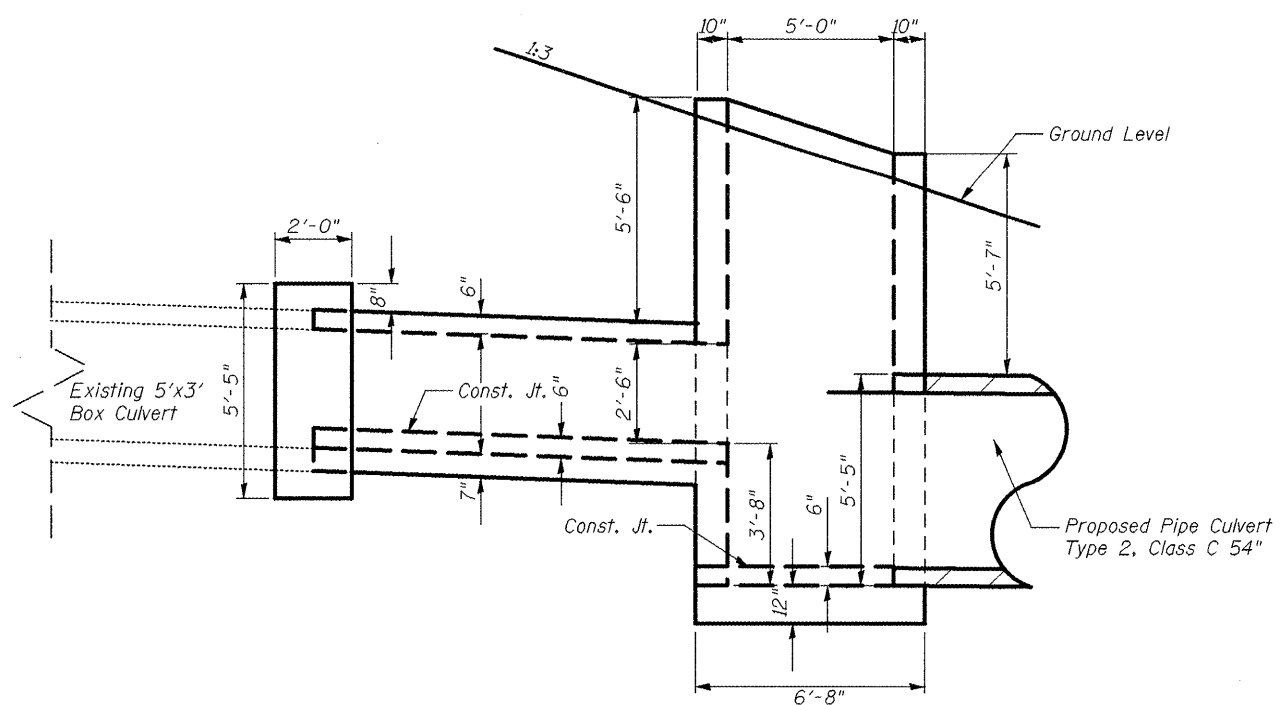
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ELEVATION SHOWING REINFORCEMENT

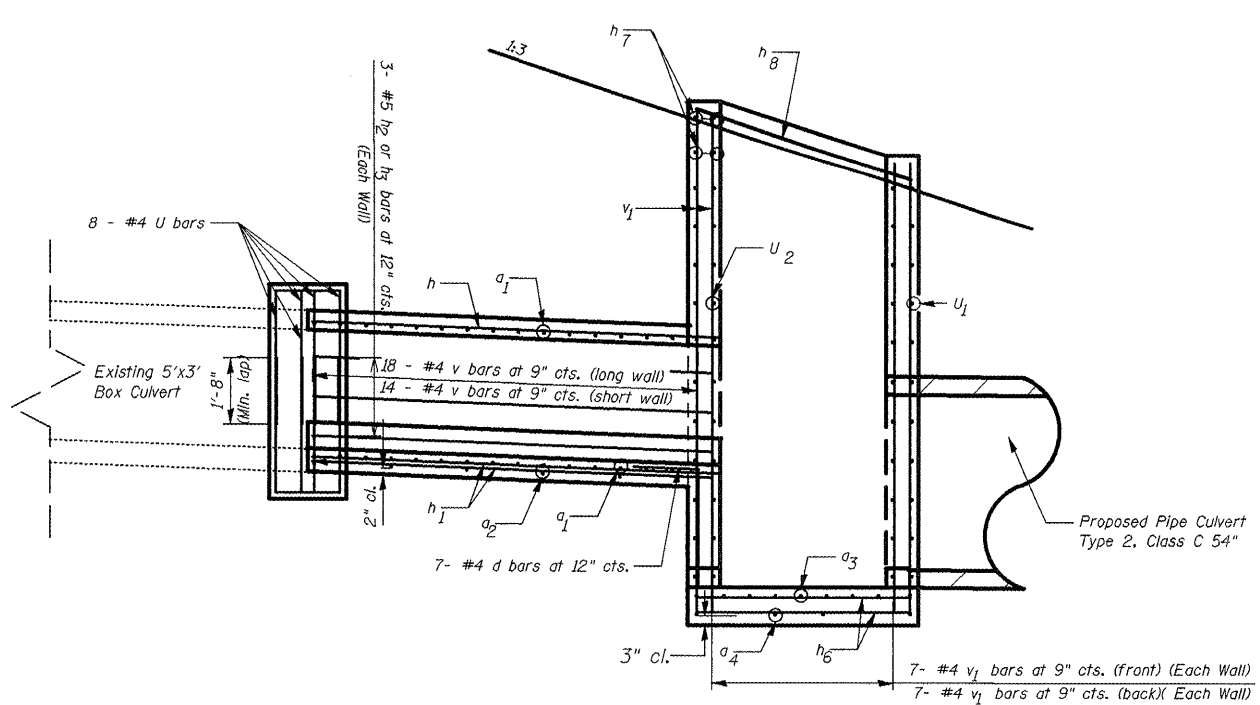
NOT TO SCALE

MIN. LAPS	
Bar Size	Box Ext.
#4	1'-4"
#5	1'-8"



ELEVATION

NOT TO SCALE



ELEVATION SHOWING REINFORCEMENT

NOT TO SCALE

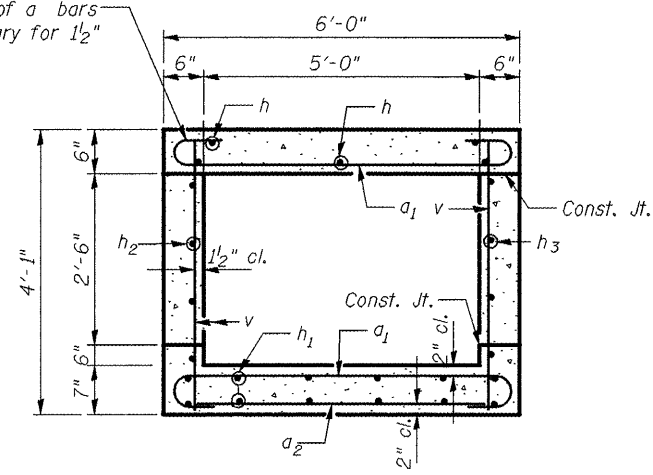
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		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BOX CULVERT EXTENSION & DROP BOX DETAIL			
RT. STA. 534 + 29.26			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

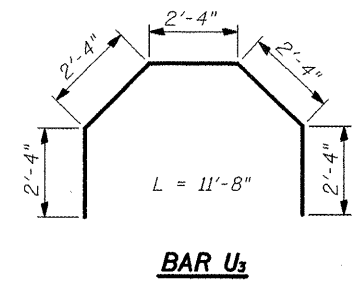
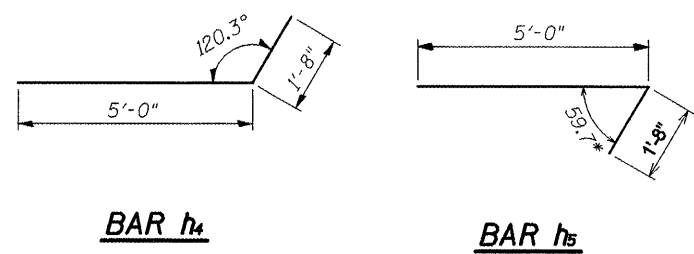
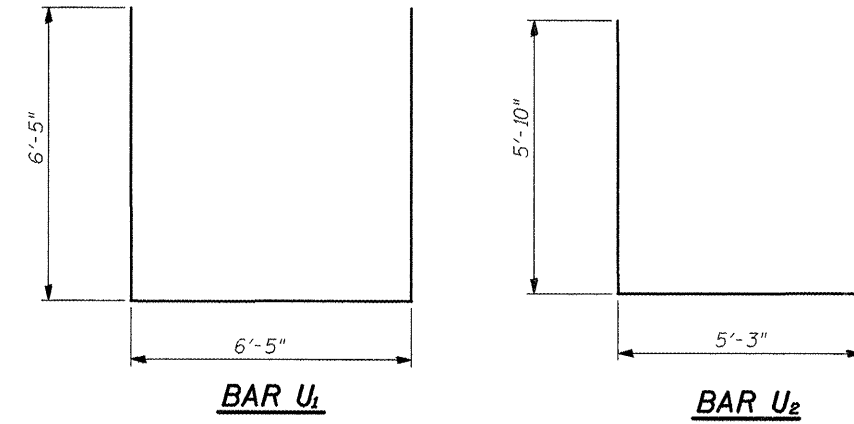
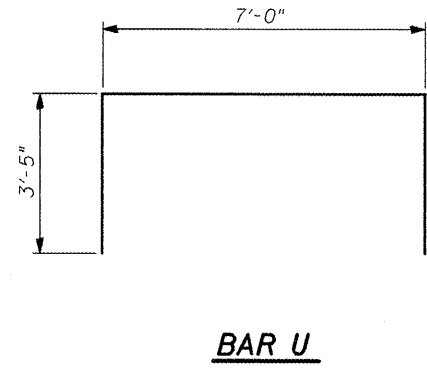
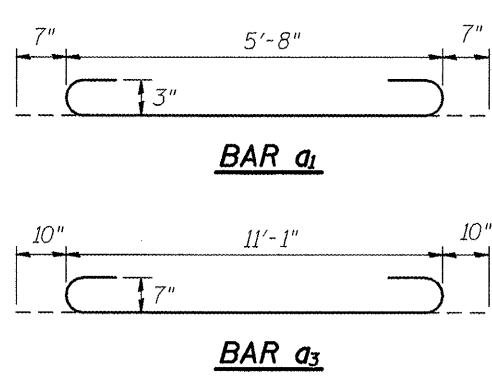
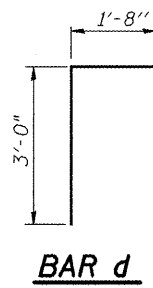
F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 148
CONTRACT NO. 68599				

Tilt hook of a bars if necessary for 1/2" min. cl.



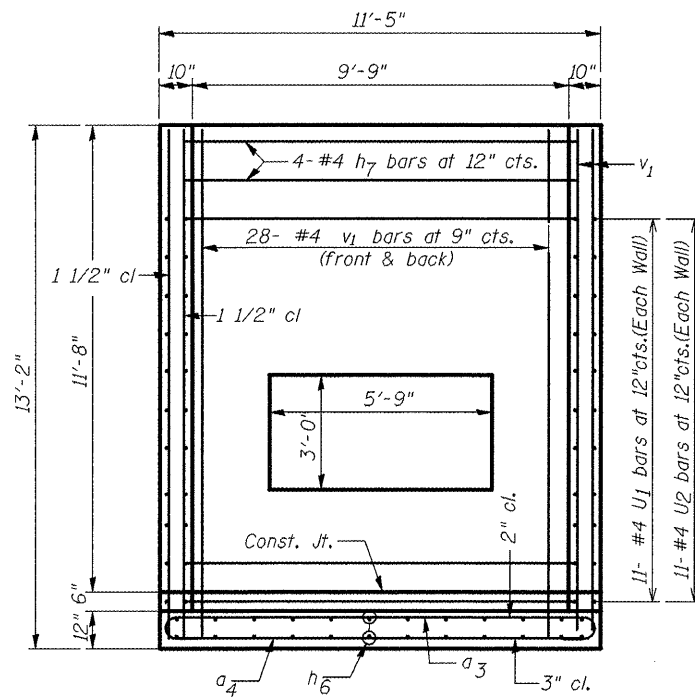
SECTION THRU BARREL
NOT TO SCALE

MIN. LAPS	
Bar Size	Box Ext.
#4	1'-4"
#5	1'-8"

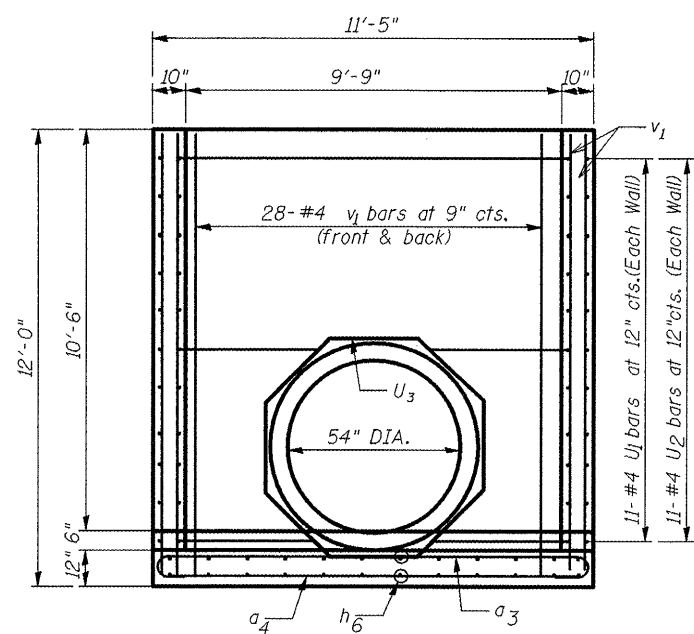


BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1	36	#5	6'-10"	U
a2	6	#4	5'-3"	—
a3	9	#5	12'-9"	U
a4	4	#4	11'-2"	—
d	7	#4	4'-8"	L
h	8	#5	12'-0"	—
h1	12	#4	12'-0"	—
h2	3	#5	9'-1"	—
h3	3	#5	12'-0"	—
h4	3	#5	6'-8"	L
h5	3	#5	6'-8"	L
h6	24	#4	6'-1"	—
h7	4	#4	11'-2"	—
h8	1	#4	6'-6"	—
U	8	#4	13'-10"	U
U1	22	#4	19'-3"	U
U2	22	#4	16'-11"	U
U3	4	#4	11'-8"	U
V	32	#4	3'-9"	—
V1	84	#4	12'-9"	—
* 3/4" Expansion Bolts			Each	10
Concrete Box Culverts			Cu. Yd.	17
Reinforcement Bars			Pound	2,327
* Concrete Collar			Cu. Yd.	1.5



SECTION A-A
NOT TO SCALE



SECTION B-B
NOT TO SCALE

* For Information Only

DESIGN STRESSES **LOADING HS 20-44 & ALT.**
fy = 60,000 psi

GENERAL NOTES

Length and number of steel pipes shall be determined by the Contractor except as shown. All steel pipe shall be standard weight (Sch. 40) unless otherwise noted.

All components of the Steel Pipe Grate System shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable.

Fabrication of the Steel Pipe Grate System shall conform to the requirements in Section 505 of the Standard Specifications unless noted otherwise.

Structural steel shapes and plates shall conform to the requirements of Article 1006.04 of the Standard Specifications. Steel pipes shall conform to the requirements of ASTM A 53 (Type E or S), Grade B.

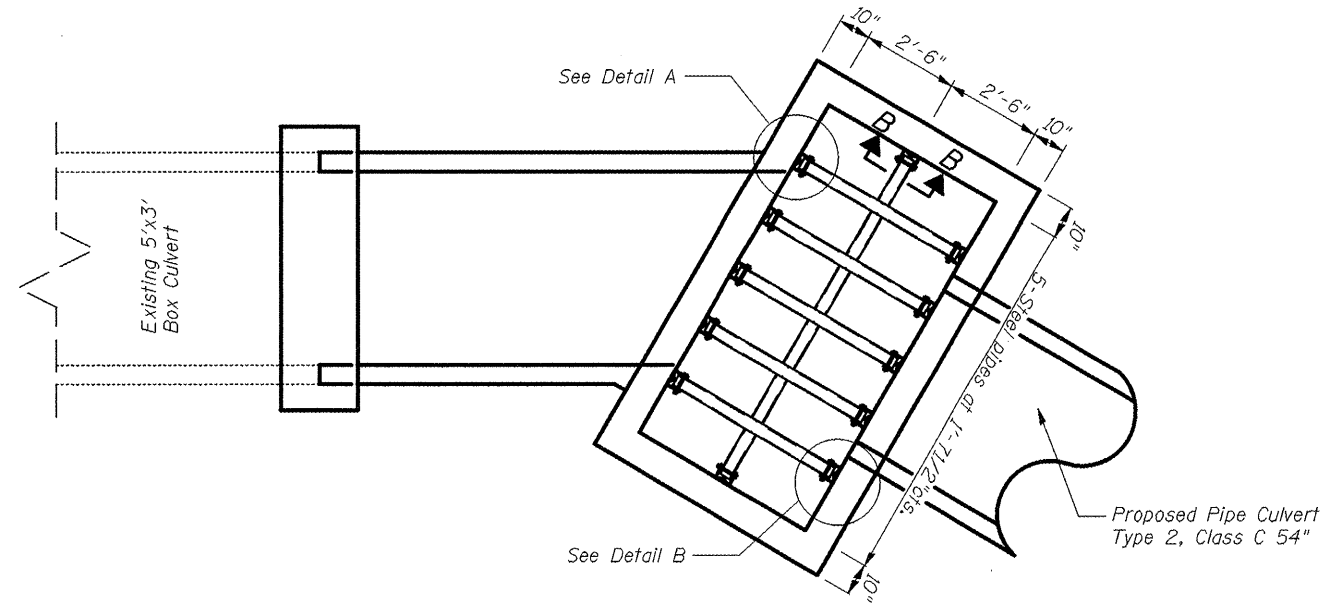
Anchor rods shall conform to the requirements of ASTM F1554, Grade 105. Anchor rods shall be drilled and epoxy grouted according to the requirements of Section 584 of the Standard Specifications. The chemical adhesive system shall be capable of achieving a minimum proof load of 5000 pounds and an ultimate shear capacity of 8000 pounds per anchor.

Bolts and thru bolts shall conform to the requirements of Article 1006.08 of the Standard Specifications except threaded rods conforming to the requirements of ASTM F1554, Grade 105 may be used for the thru bolts.

The minimum edge distance from the center of a hole to the free edge of a structural shape or plate shall be $1\frac{1}{2}$ " unless noted otherwise.

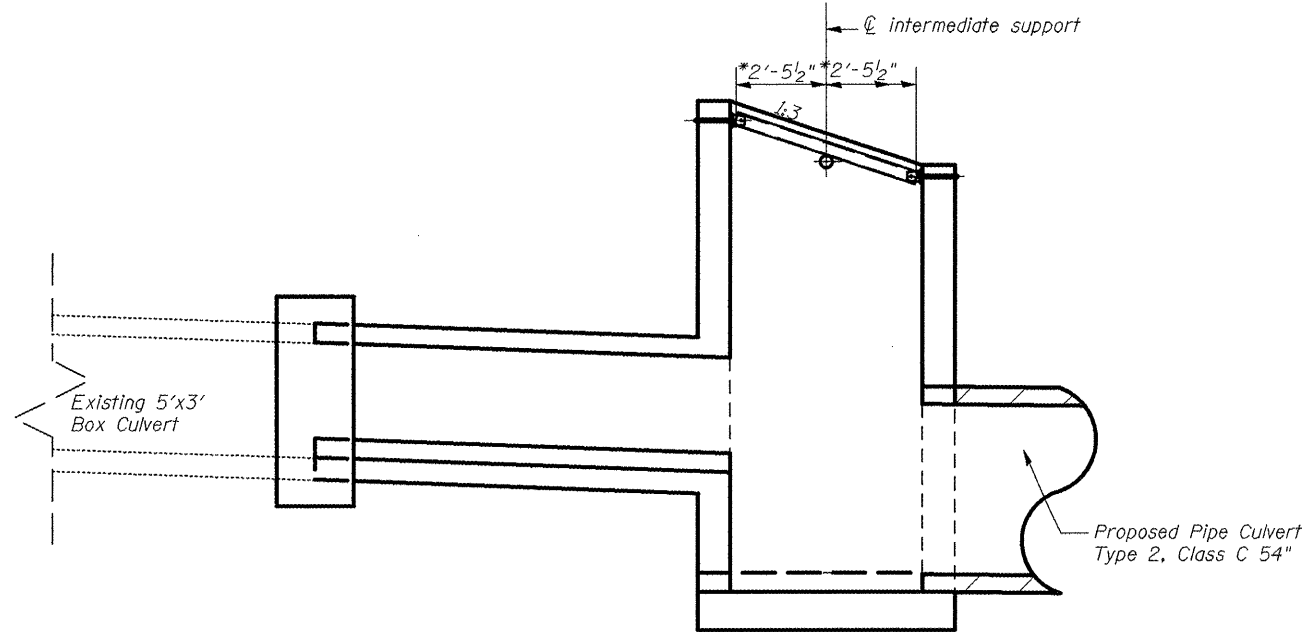
Bolts and anchor rods shall be snug tightened by a few impacts of an impact wrench or the full force of a worker using an ordinary spud wrench.

All cost associated with fabricating, furnishing, and installing the Steel Pipe Grate System shall be included in the contract unit price for Grating for Drop Box.



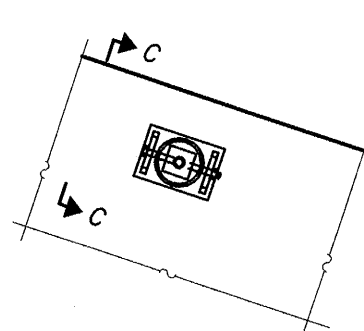
PLAN VIEW

NOT TO SCALE



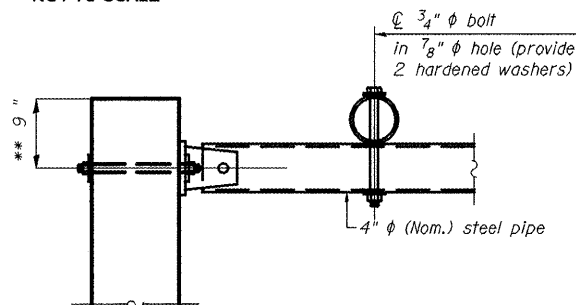
LONGITUDINAL SECTION

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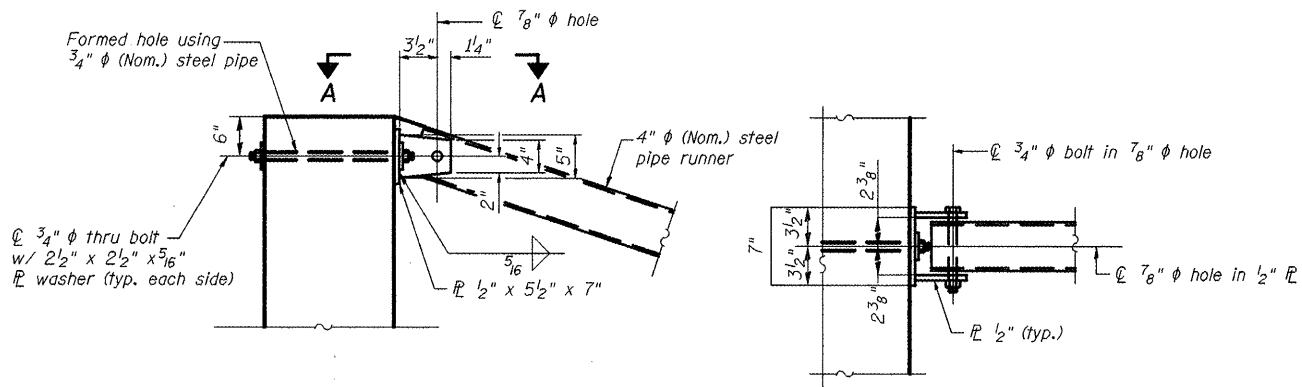
SECTION B-B

(See Detail A for dimensions and details not shown.)

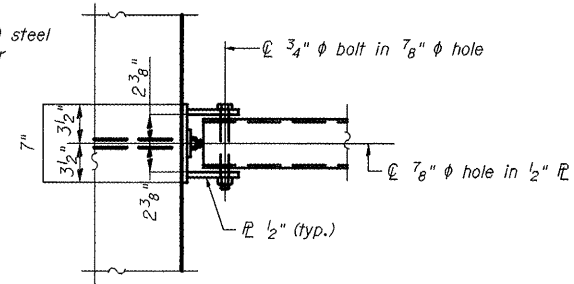


SECTION C-C

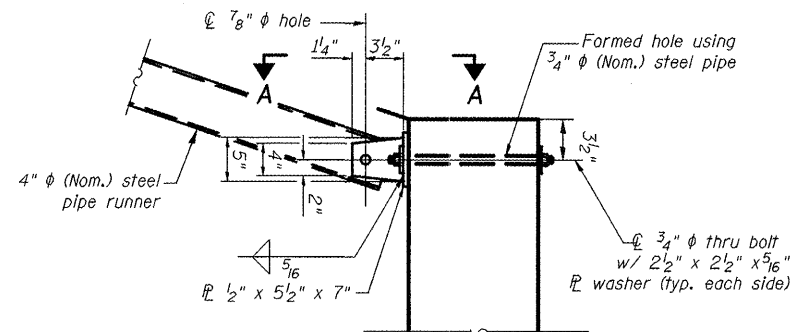
** Measured perpendicular to top of culvert wall. In addition, formed hole shall be located a minimum of 6" measured horizontally from any vertical joints necessary for construction of the culvert end section.



DETAIL A



SECTION A-A



DETAIL B

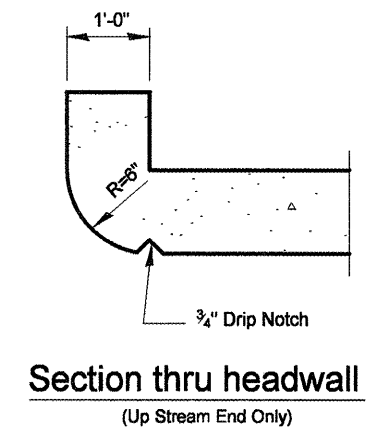
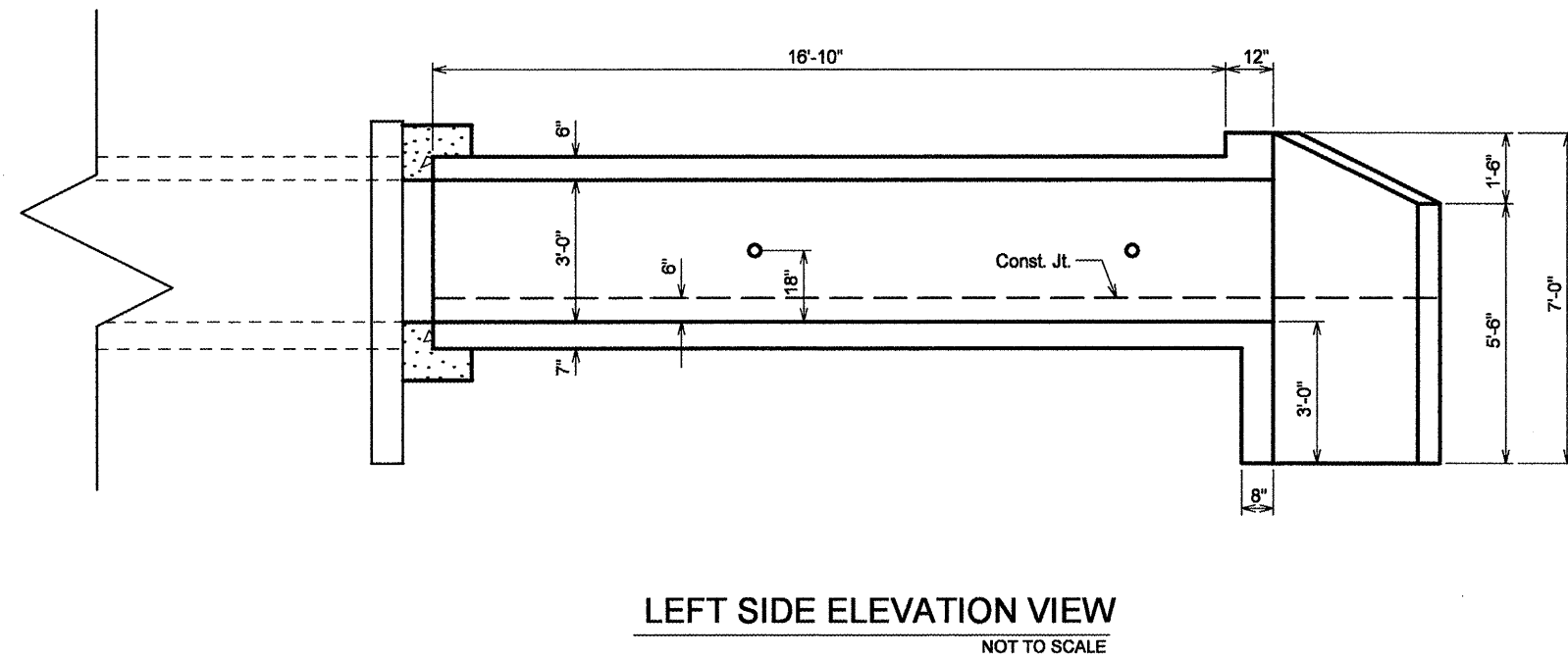
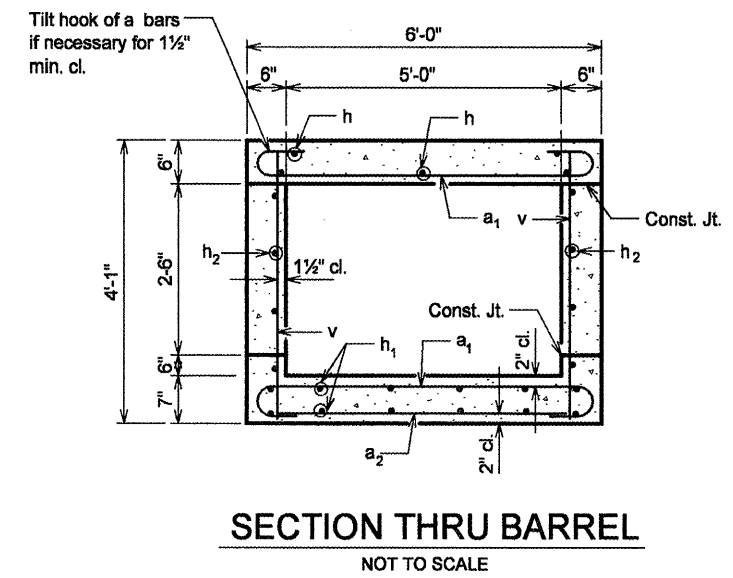
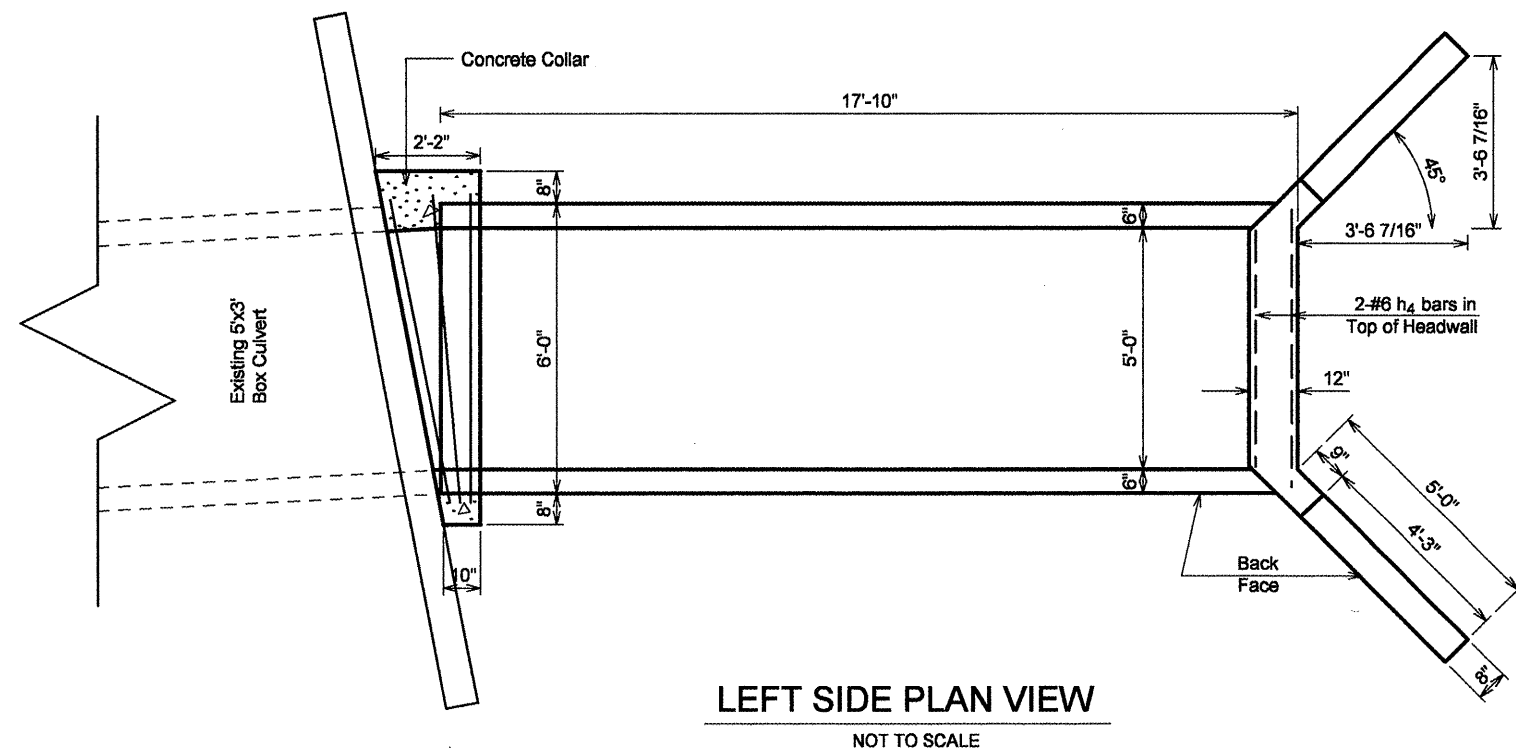
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GRADED INLET, SPECIAL DETAIL
RT. STA. 534 + 29.26**

F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 150
			CONTRACT NO. 68599	

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



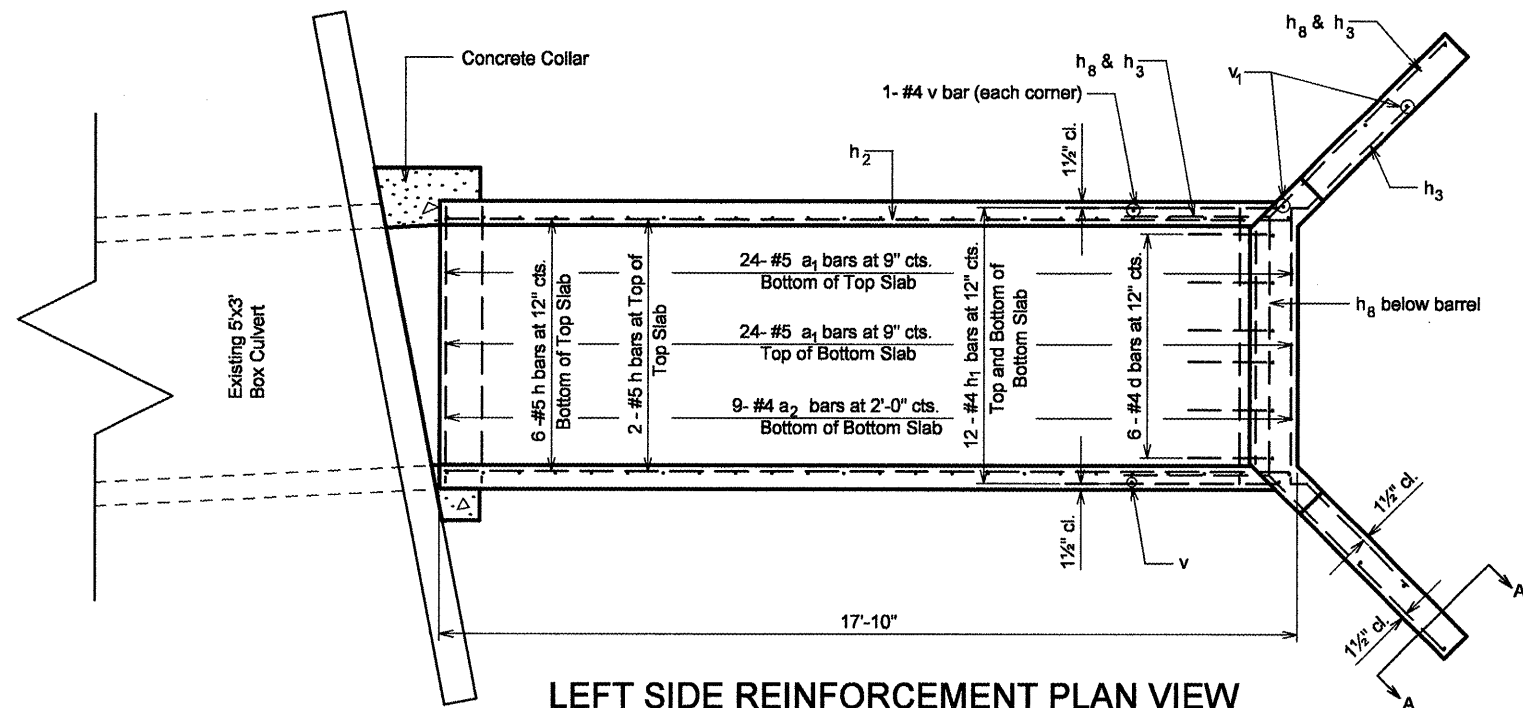
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		DATE -	REVISED -
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PLOT DATE = 3/25/2011			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BOX CULVERT EXTENSION DETAIL
LT. STA. 534 + 29.26

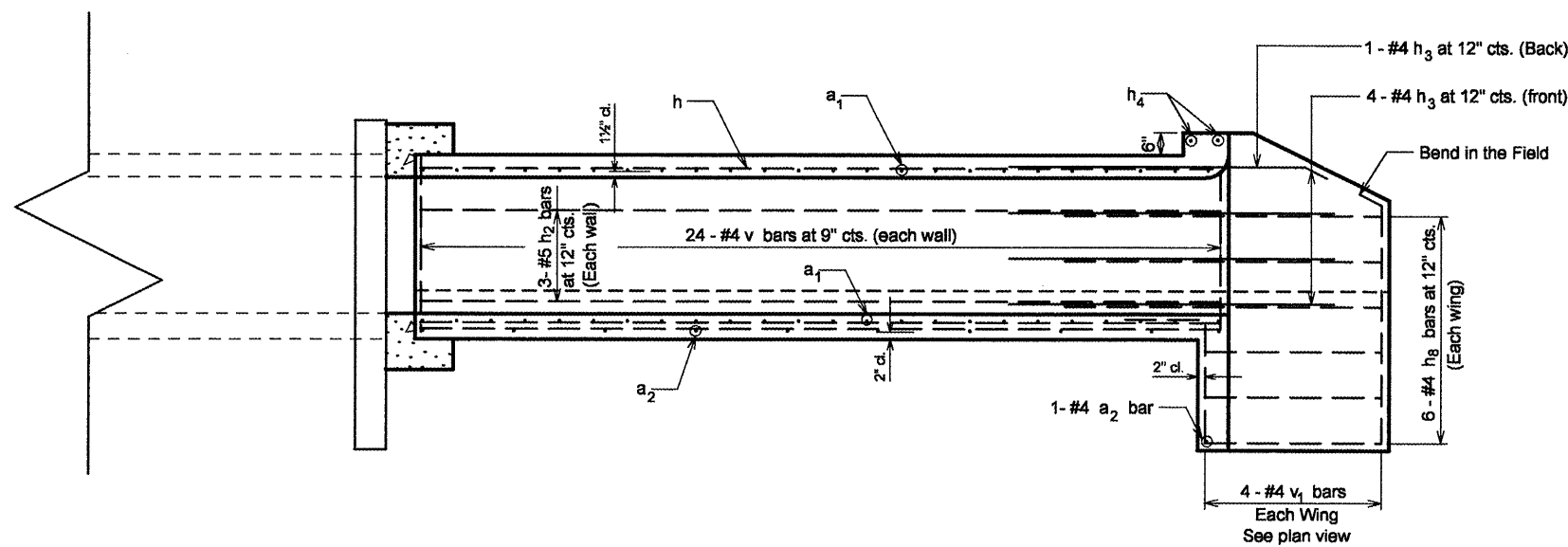
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
685	**	*	329	151
CONTRACT NO. 68599				

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



LEFT SIDE REINFORCEMENT PLAN VIEW

NOT TO SCALE



LEFT SIDE REINFORCEMENT ELEVATION VIEW

NOT TO SCALE

NOTES

A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

BILL OF MATERIAL

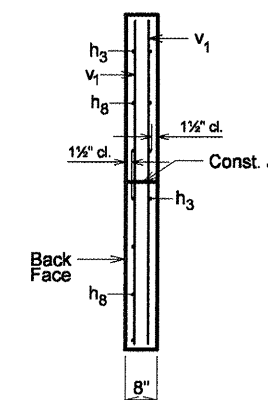
Bar	No.	Size	Length	Shape
a ₁	48	#5	6'-10"	
a ₂	10	#4	5'-3"	
d	6	#4	4'-6"	
h	8	#5	17'-7"	
h ₁	12	#4	17'-7"	
h ₂	6	#5	17'-7"	
h ₃	10	#4	8'-0"	
h ₄	2	#6	5'-3"	
h ₈	12	#4	8'-1"	
v	50	#4	3'-9"	
v ₁	8	#4	6'-9"	
U	6	#4	12'-6"	
* 3/4" Expansion Bolts		Each	10.00	
Concrete Box Culverts		Cu. Yd.	8.50	
Reinforcement Bars		Pound	1,138	
* Concrete Collar		Cu. Yd.	2.25	

* For Information Only

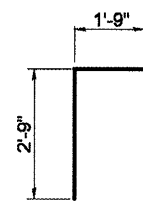
DESIGN STRESSES

f_y = 60,000 psi
f_c = 3,500 psi

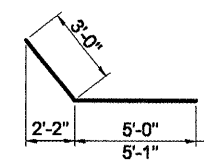
LOADING HS 20-44 & ALT.



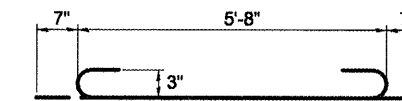
SECTION A-A



BAR d



BARS h₃ & h₈



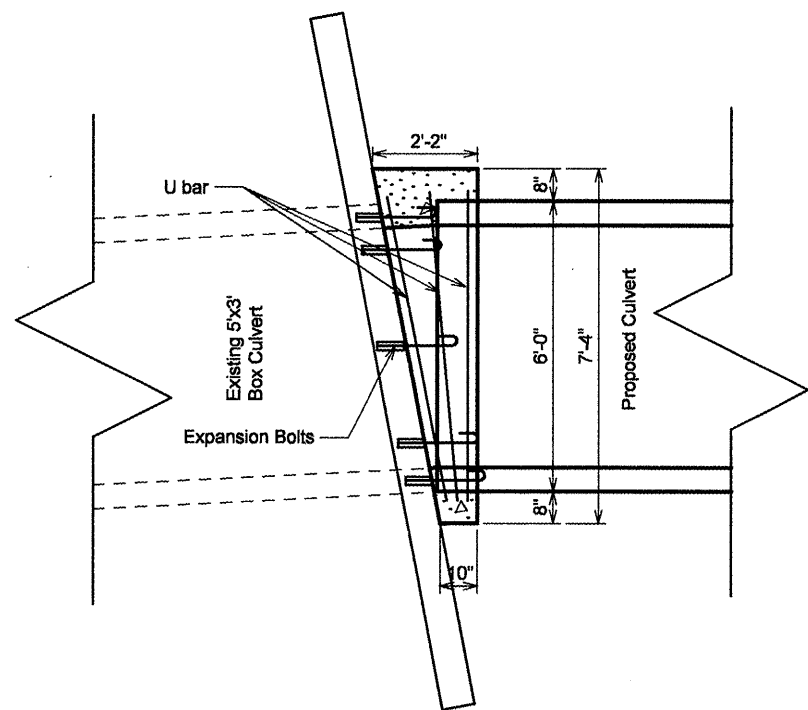
BAR a₁

FILE NAME = sht-details.dgn	USER NAME = mendezp.j	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

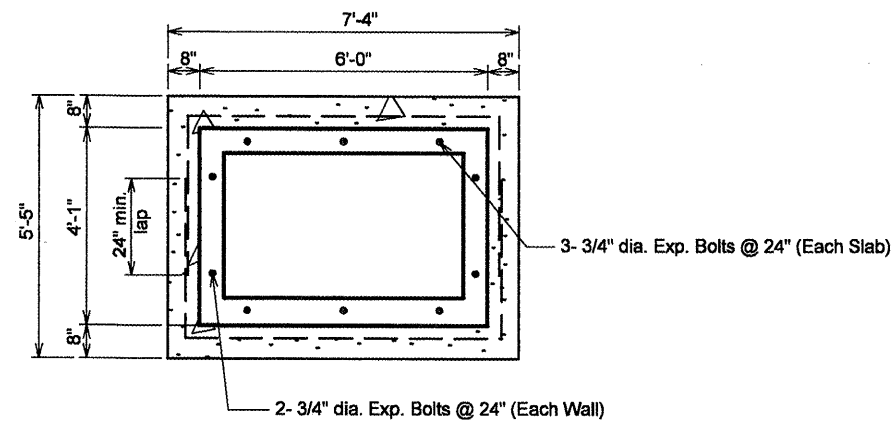
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BOX CULVERT EXTENSION DETAIL
LT. STA. 534 + 29.26

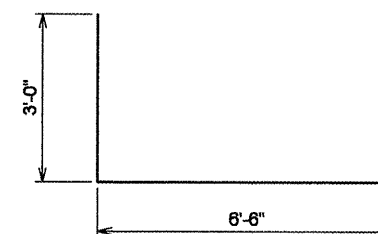
F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 152
SCALE: SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO. 68599	



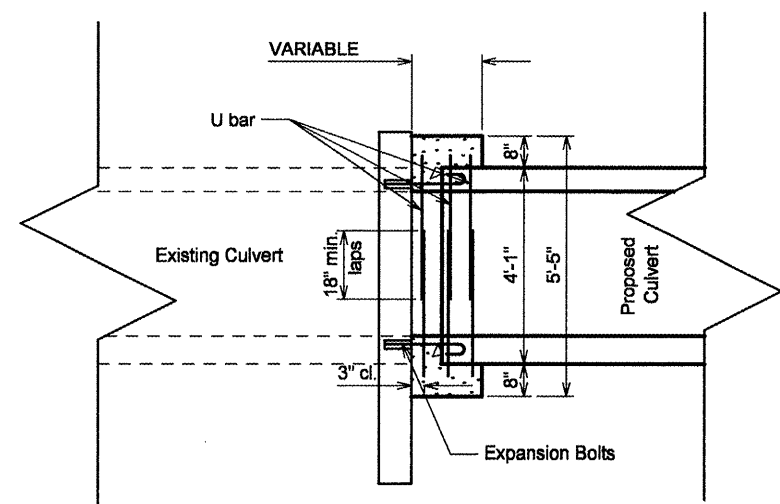
TOP VIEW OF CONCRETE COLLAR
NOT TO SCALE



DETAIL OF CONCRETE COLLAR
NOT TO SCALE



#4 U bar 6 required per collar
NOT TO SCALE



ELEVATION VIEW OF CONCRETE COLLAR
NOT TO SCALE

NOTES:

The collar shall be constructed entirely of CLASS SI CONCRETE and in accordance with the applicable portions of section 503 of the Standard Specifications. Reinforcement Bars shall conform to section 508.

Expansion bolts shall consist of approved expansions anchors, and 3/4" hook bolts which conform to Section 1006.09. These bolts shall extend at least 8" into the new concrete.

FILE NAME = sht-details.dgn	USER NAME = mendezpj	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/25/2011	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BOX CULVERT EXTENSION DETAIL				
LT. STA. 534 + 29.26				
SCALE:	SHEET NO.	OF	SHEETS	STA. TO STA.

F.A.P. RTE. 685	SECTION ..	COUNTY ..	TOTAL SHEETS 329	SHEET NO. 153
CONTRACT NO. 68599				



Illinois Department
of Transportation
Division of Highways
GSG Consultants, Inc.

SOIL BORING LOG

Page 1 of 1

Date 7/7/10

ROUTE FAP 685 (IL 9) DESCRIPTION IL9 from IL41(N) to approximately 2 miles west of Spoon River LOGGED BY NSP

SECTION (37,38)RS-3, 39RS-5 LOCATION Lee Road District, IL 9, SEC. 19, TWP. 7N, RNG. 1E, 4th PM,
Latitude 40° 35' 2.76" N, Longitude 90° 26' 9.49" W

COUNTY Fulton DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. N/A Station 534+29.26
BORING NO. B-12 Station 534+10 Offset 14.0 ft LT
Ground Surface Elev. 621.40 ft (ft) (/6") (tsf) (%)

Surface Water Elev. 608.30 ft
Stream Bed Elev. 607.60 ft
Groundwater Elev.:
First Encounter 595.4 ft
Upon Completion 593.4 ft
After - Hrs. - ft

DEPTH (ft)	DIAMETER (ft)	SOIL DESCRIPTION	DEPTH (ft)	DIAMETER (ft)	SOIL DESCRIPTION
620.40	15	Gray CLAY LOAM (fIII), trace gravel	600.40	2	Very Stiff Gray, Moist SILTY CLAY LOAM
	1	0.8	4	2.0	16
	1	B	5	B	
	1		5		
	1	1.2	10	4.0	33
	2	B	8	P	
	1		9		
	1	1.1	36	-	16
	2	B	37	-	
	1		5		
	1	2.0	10	-	21
	2	P	17	-	
	2				
	3	1.2			
	4	B			
	1				
	2	1.2			
	2	B			
	2				
	3	1.0			
	5	P			
	4				
	5	3.0			
	6	B			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)



Illinois Department
of Transportation
Division of Highways
GSG Consultants, Inc.

SOIL BORING LOG

Page 1 of 1

Date 7/7/10

ROUTE FAP 685 (IL 9) DESCRIPTION IL9 from IL41(N) to approximately 2 miles west of Spoon River LOGGED BY NSP

SECTION (37,38)RS-3, 39RS-5 LOCATION Lee Road District, IL 9, SEC. 19, TWP. 7N, RNG. 1E, 4th PM,
Latitude 40° 35' 2.29" N, Longitude 90° 26' 9.56" W

COUNTY Fulton DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. N/A Station 534+29.26
BORING NO. B-13 Station 534+50 Offset 14.0 ft RT
Ground Surface Elev. 621.60 ft (ft) (/6") (tsf) (%)

Surface Water Elev. 602.30 ft
Stream Bed Elev. 602.00 ft
Groundwater Elev.:
First Encounter 595.6 ft
Upon Completion 592.6 ft
After - Hrs. - ft

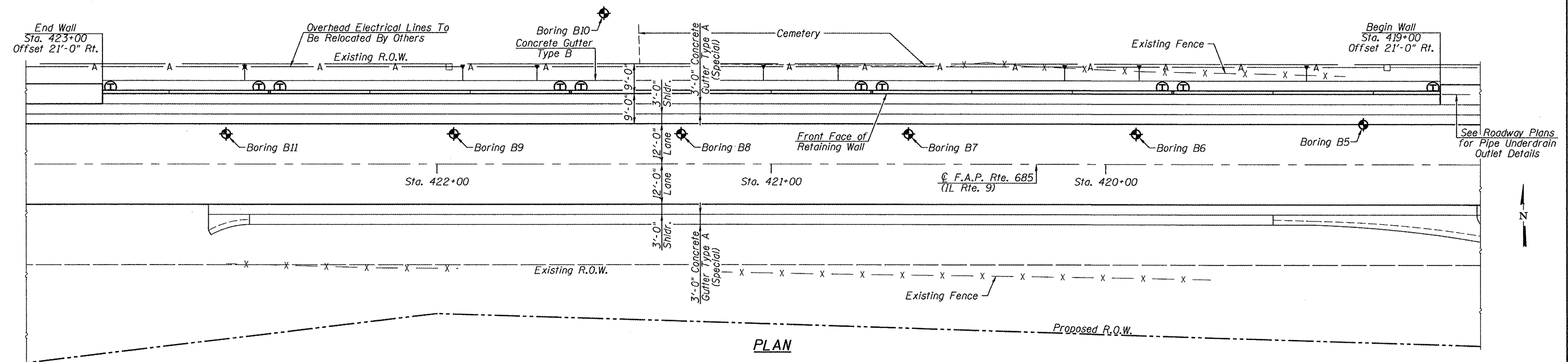
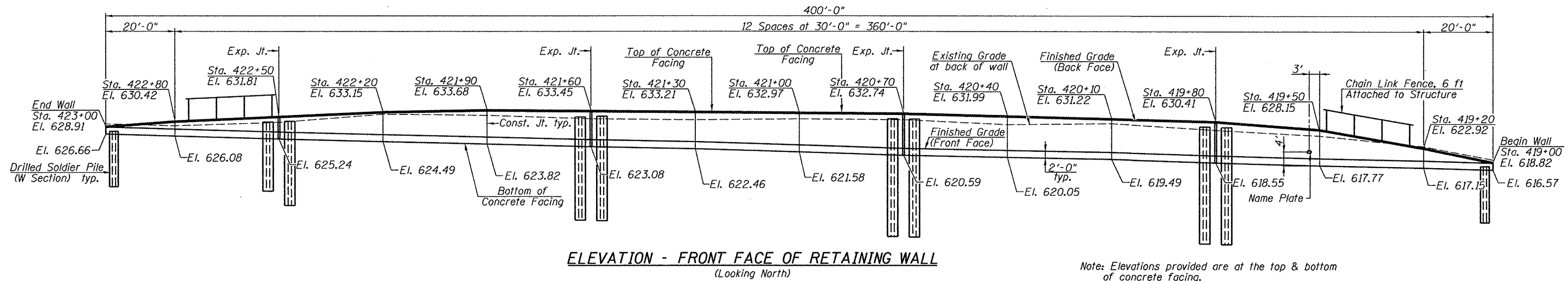
DEPTH (ft)	DIAMETER (ft)	SOIL DESCRIPTION	DEPTH (ft)	DIAMETER (ft)	SOIL DESCRIPTION
600.60	16	Gray CLAY LOAM (fIII), trace gravel	600.60	3	Hard Gray, Moist SILTY CLAY LOAM
	1	-	6	6.8	14
	1	-	13	B	
	2				
	1		10		
	2	1.4	19	1.3	23
	2	B	30	S	
	1		5		
	1	1.6	9	5.1	13
	4	B	16	S	
	2		5		
	2	2.0	12	-	17
	3	B	14	-	
	2				
	2	1.2			
	2	B			
	1		8		
	2	1.0	11	6.0	15
	2	B	14	S	
	1				
	2	0.8			
	3	B			
	2		4		
	5	4.1	8	4.9	17
	6	S	10	S	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)

SOIL BORING LOGS

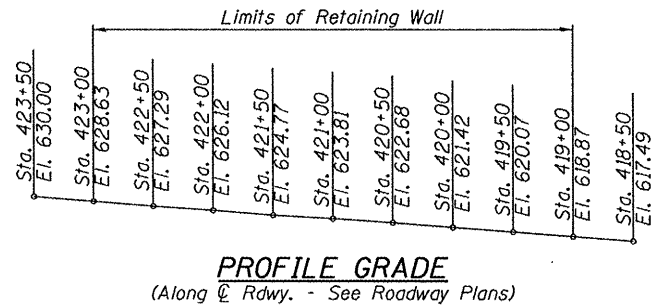
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PLOT SCALE = 1/8" = 100.0000' / IN.	CHECKED -	REVISED -	SCALE:			SHEET NO. OF SHEETS STA. TO STA.	CONTRACT NO. 68599			
PLOT DATE = 3/25/2011	DATE -	REVISED -				ILLINOIS FED. AID PROJECT				

Benchmark: Chisled "C" in N.W. Corner of East Headwall for Field Entrance, North side of IL Rt. 9, across from House #2416, Sta. ±431+36. Elev. 639.639.
 Chisled "C" on S.E. Corner of West Headwall for culvert under entrance to farm, South side of IL Rt. 9, across from Fredrick Rd., Sta. ±400+00. Elev. 636.291.
 Existing Structure: None

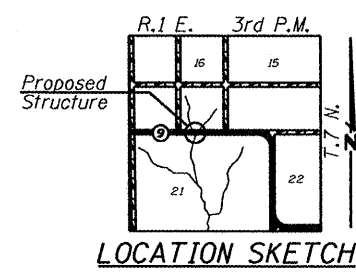


APPROVED
 For Structural Adequacy Only
D. Carl Pruy
 Engineer of Bridges & Structures

Date: 3/17/2011
 GERALD B. ROTHENBACH
 081-006673
 LICENSED
 STRUCTURAL
 ENGINEER
 STATE OF ILLINOIS
Gerald B. Rothenbach
 Expiration: 4/30/2012



DESIGN SPECIFICATIONS
 2002 AASHTO
DESIGN STRESSES
 FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 36,000$ psi (M270 Grade 36)



GENERAL PLAN
RETAINING WALL
ALONG IL ROUTE 9
F.A.P. RTE. 685
SECTION (37.38) RS-3, 39RS-5
FULTON COUNTY
STA. 419+00 TO STA. 423+00
STRUCTURE NO. 029-8505

FILE NAME =	USER NAME =	DESIGNED -	REVISED -	Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	GENERAL PLAN	F.A.P. RTE. 685	SECTION (37,38) RS-3, 39RS-5	COUNTY FULTON	TOTAL SHEETS 329	SHEET NO. 157
	PLDT SCALE =	CHECKED -	REVISED -		SHEET NO. 1 OF 12 SHEETS					
	PLDT DATE =	DRAWN -	REVISED -							
		CHECKED -	REVISED -							

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60. See Special Provisions.
 Reinforcement bars designated (E) shall be epoxy coated.
 All construction joints shall be bonded.
 The Contractor is responsible for the design and performance of the lagging using no less than a 3" nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1000 psi.
 Protective Coat shall be applied to top and front face of the Concrete Facing.
 The front face of the concrete facing shall receive a normal finish per Section 503.15(a) of the IDOT Standard Specifications.

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	General Plan
2	General Notes
3	Soldier Pile Layout
4	Typical Sections
5 - 9	Concrete Facing
10	Fence Details
11 - 12	Borings

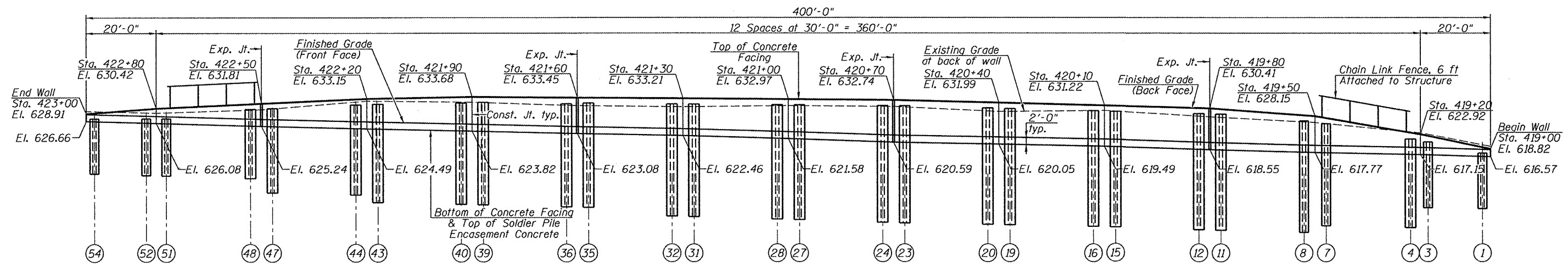
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Stud Shear Connectors	Each	624
Geocomposite Wall Drain	Sq. Yd.	245
Structure Excavation	Cu. Yd.	288
Concrete Structures	Cu. Yd.	139.5
Furnishing Soldier Piles (W Section)	Foot	1529
* Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	10695
Reinforcement Bars, Epoxy Coated	Pound	17600
Untreated Timber Lagging	Sq. Ft.	2861
Pipe Underdrains For Structures 4"	Foot	400
Protective Coat	Sq. Yd.	464
Name Plates	Each	1
Chain Link Fence, 6 ft. Attached to Structure	Foot	400

* Ground surface elevations used in calculating the Drilling and Setting Soldier Piles (In soil) quantity were based on the lower of the proposed ground surface elevation or the existing ground surface elevation at each pile location.

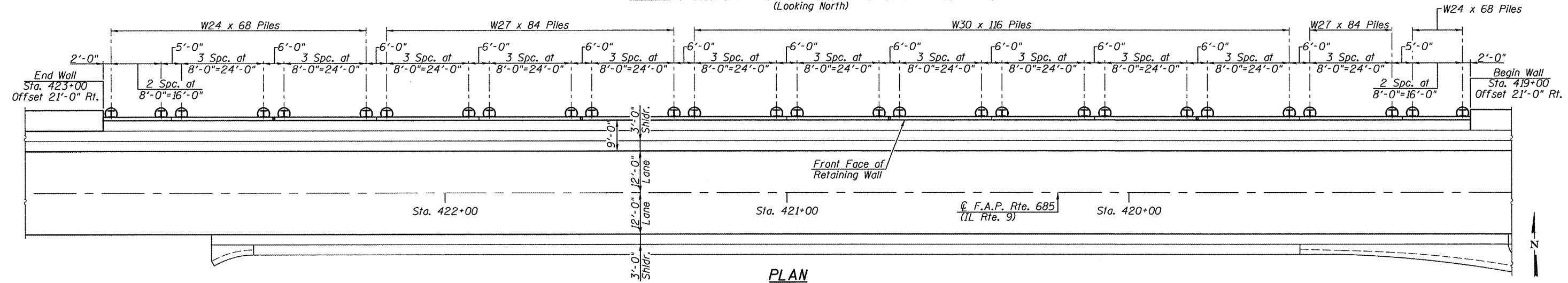
STATION 419+00
 BUILT 20 BY
 STATE OF ILLINOIS
 F.A.P. RTE. 685
 SEC. NO. (37,38)RS-3,39RS-5
 STRUCTURE NO. 029-8505

NAME PLATE
 See Std. 515001



ELEVATION - FRONT FACE OF RETAINING WALL
(Looking North)

Note: Elevations provided are at the top & bottom of concrete facing.



PLAN

SOLDIER PILE SCHEDULE

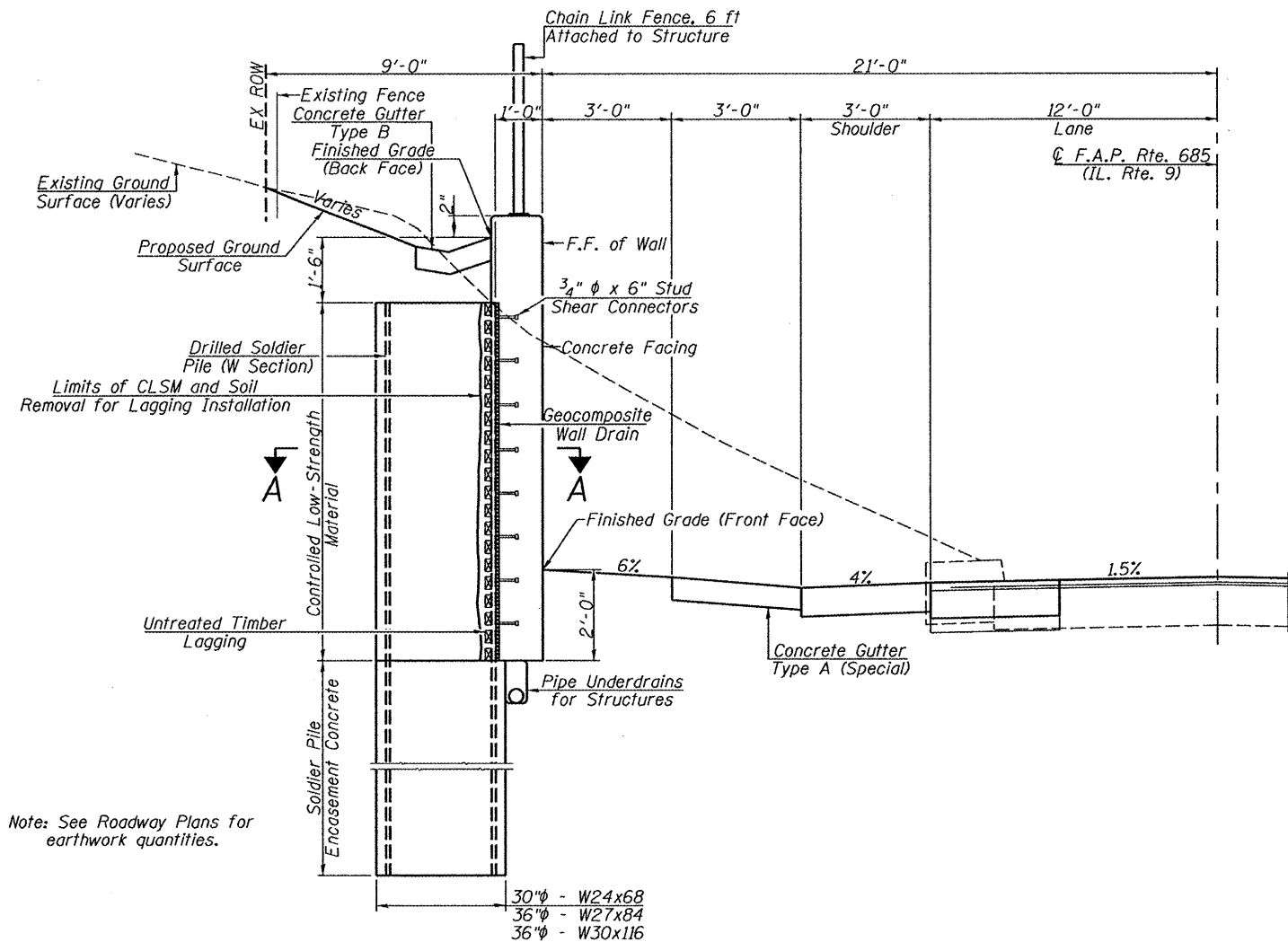
SOLDIER PILE DATA					
PILE	SIZE	TOP ELEV.	BOTT. ELEV.	LENGTH (FT.)	NO. OF STUDS
P1	W24X68	617.56	601.63	15.94	4
P2	W24X68	619.20	601.86	17.34	4
P3	W24X68	620.84	602.09	18.75	6
P4	W27X84	621.78	596.21	25.56	8
P5	W27X84	623.17	596.38	26.79	10
P6	W27X84	624.57	596.54	28.02	10
P7	W27X84	625.96	596.71	29.25	12
P8	W30X116	626.71	594.85	31.86	14
P9	W30X116	627.31	595.06	32.26	14
P10	W30X116	627.91	595.26	32.65	14
P11	W30X116	628.52	595.47	33.05	14
P12	W30X116	628.82	595.64	33.18	14
P13	W30X116	629.04	595.89	33.15	14
P14	W30X116	629.26	596.15	33.11	14
P15	W30X116	629.47	596.40	33.08	14
P16	W30X116	629.63	596.55	33.08	14
P17	W30X116	629.84	596.70	33.14	14
P18	W30X116	630.04	596.84	33.20	14
P19	W30X116	630.25	596.99	33.25	16
P20	W30X116	630.40	597.10	33.29	16
P21	W30X116	630.60	597.25	33.35	16
P22	W30X116	630.80	597.39	33.41	16
P23	W30X116	631.00	597.54	33.46	16
P24	W30X116	631.10	597.69	33.41	16
P25	W30X116	631.16	597.95	33.21	14
P26	W30X116	631.22	598.22	33.01	14
P27	W30X116	631.28	598.48	32.80	14

SOLDIER PILE SCHEDULE

SOLDIER PILE DATA					
PILE	SIZE	TOP ELEV.	BOTT. ELEV.	LENGTH (FT.)	NO. OF STUDS
P28	W30X116	631.33	598.67	32.66	14
P29	W30X116	631.39	598.90	32.49	14
P30	W30X116	631.46	599.14	32.32	14
P31	W30X116	631.52	599.37	32.15	14
P32	W27X84	631.57	601.52	30.04	14
P33	W27X84	631.63	601.69	29.94	14
P34	W27X84	631.69	601.85	29.84	14
P35	W27X84	631.75	602.02	29.74	12
P36	W27X84	631.80	602.15	29.65	12
P37	W27X84	631.86	602.35	29.51	12
P38	W27X84	631.93	602.55	29.38	12
P39	W27X84	631.99	602.75	29.24	12
P40	W27X84	631.96	602.89	29.07	12
P41	W27X84	631.82	603.07	28.75	12
P42	W27X84	631.68	603.24	28.43	12
P43	W27X84	631.54	603.42	28.11	10
P44	W24X68	631.35	605.57	25.78	10
P45	W24X68	630.99	605.77	25.23	10
P46	W24X68	630.63	605.97	24.67	8
P47	W24X68	630.28	606.17	24.11	8
P48	W24X68	630.00	610.32	19.68	8
P49	W24X68	629.63	610.55	19.09	6
P50	W24X68	629.26	610.77	18.49	6
P51	W24X68	628.89	611.00	17.90	6
P52	W24X68	628.60	611.14	17.46	4
P53	W24X68	628.00	611.37	16.63	4
P54	W24X68	627.39	611.60	15.79	4

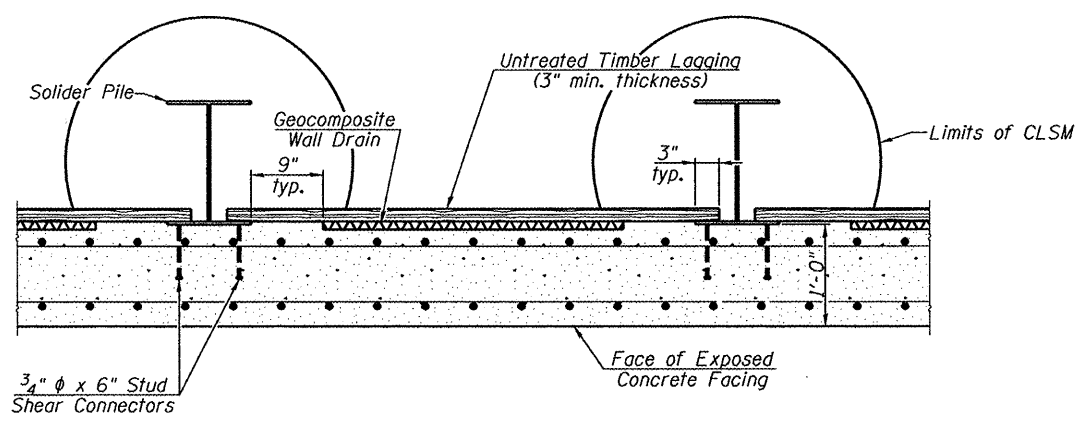
BILL OF MATERIAL

ITEM	UNIT	TOTAL
Furnishing Soldier Piles (W Section)	Foot	1529
Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	10695
Untreated Timber Lagging	Sq. Ft.	2861

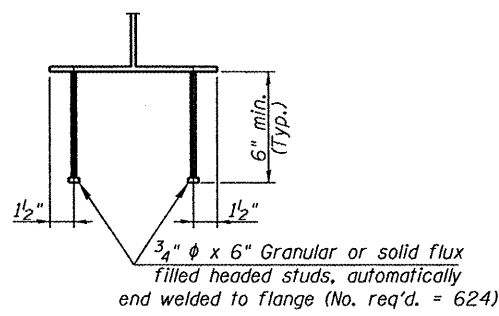


TYPICAL RETAINING WALL SECTION
(Looking East)

Note: See Roadway Plans for earthwork quantities.

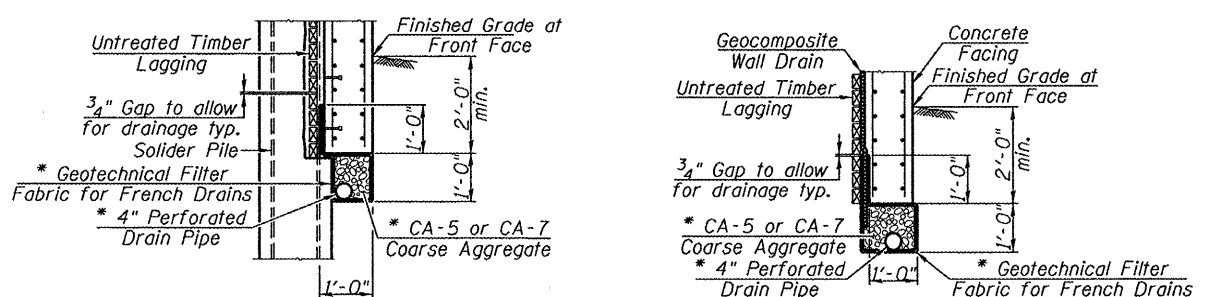


SECTION A-A



SECTION B-B

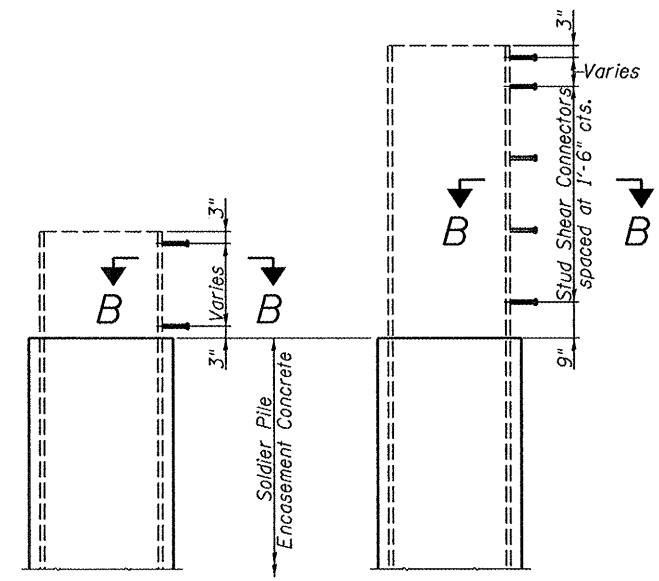
Note: See sheet 3 of 12 for the number of stud shear connectors for each pile.



AT SOLDIER PILES **BETWEEN SOLDIER PILES**

UNDERDRAIN DETAILS

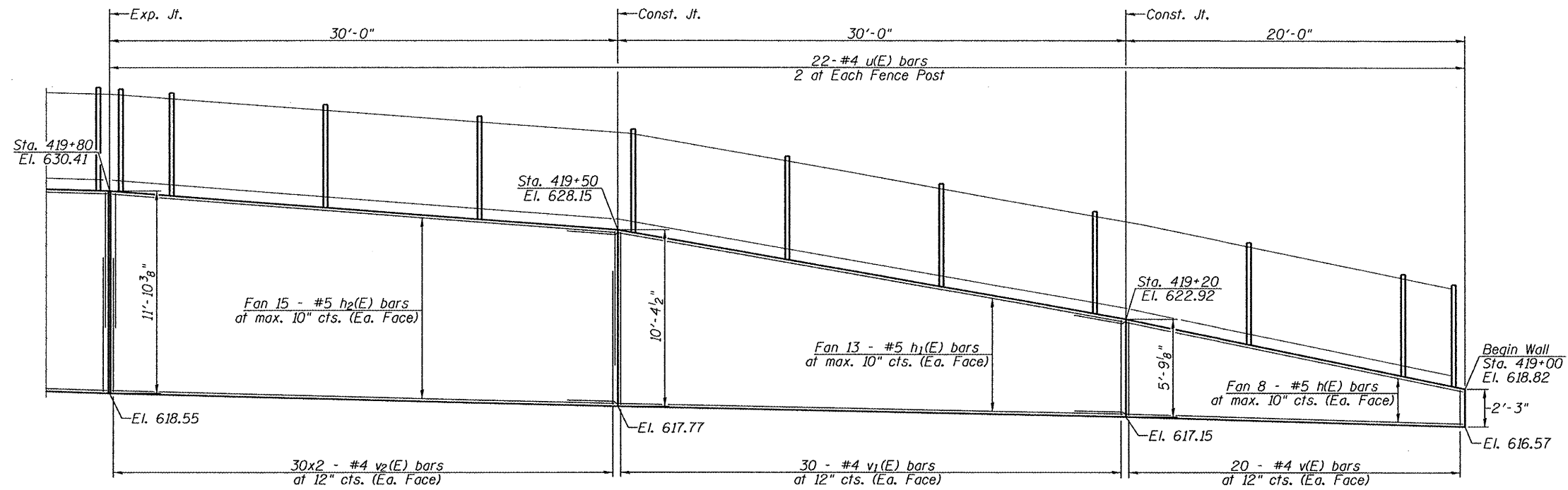
* Cost included with Pipe Underdrains for Structures 4".



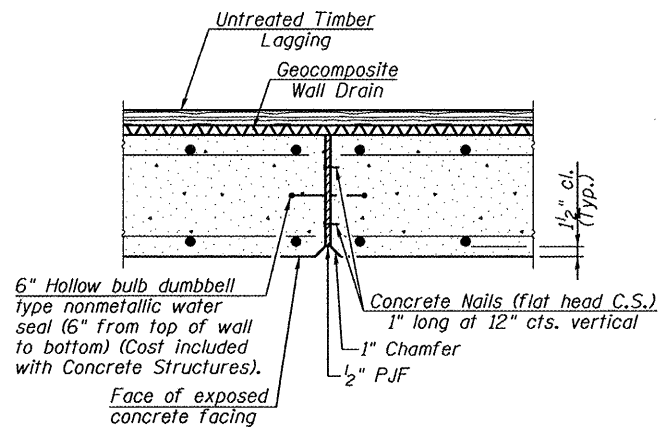
PILES P1, P2, P52, P53 & P54 **PILES P3 THRU P51**

STUD SHEAR CONNECTOR SPACING DETAILS

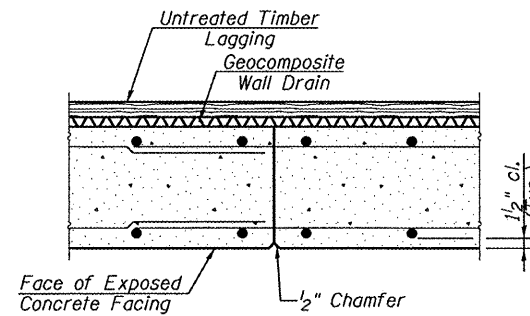
FILE NAME =	USER NAME =	DESIGNED -	REVISED -	Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	TYPICAL SECTIONS STRUCTURE NO. 029-8505 SHEET NO. 4 OF 12 SHEETS	F.A.P. RTE. 685	SECTION (37,38) RS-3, 39RS-5	COUNTY FULTON	TOTAL SHEETS 329	SHEET NO. 110
PLOT SCALE =	DRAWN -	REVISED -	CONTRACT NO. 68599			ILLINOIS FED. AID PROJECT				
PLOT DATE =	CHECKED -	REVISED -								



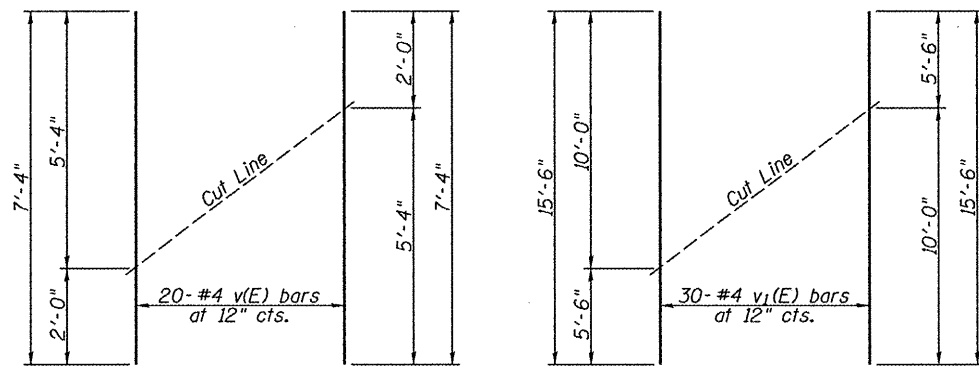
ELEVATION
(Looking North)



WALL EXPANSION JOINT



WALL CONSTRUCTION JOINT

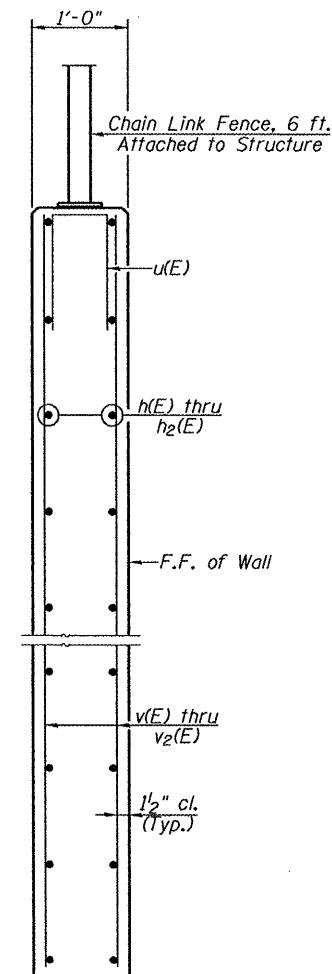


BAR v(E)

BAR v₁(E)

FIELD CUTTING DIAGRAMS

Order v(E) & v₁(E) bars full length.
Cut as shown and use remainder of bars
in opposite face.




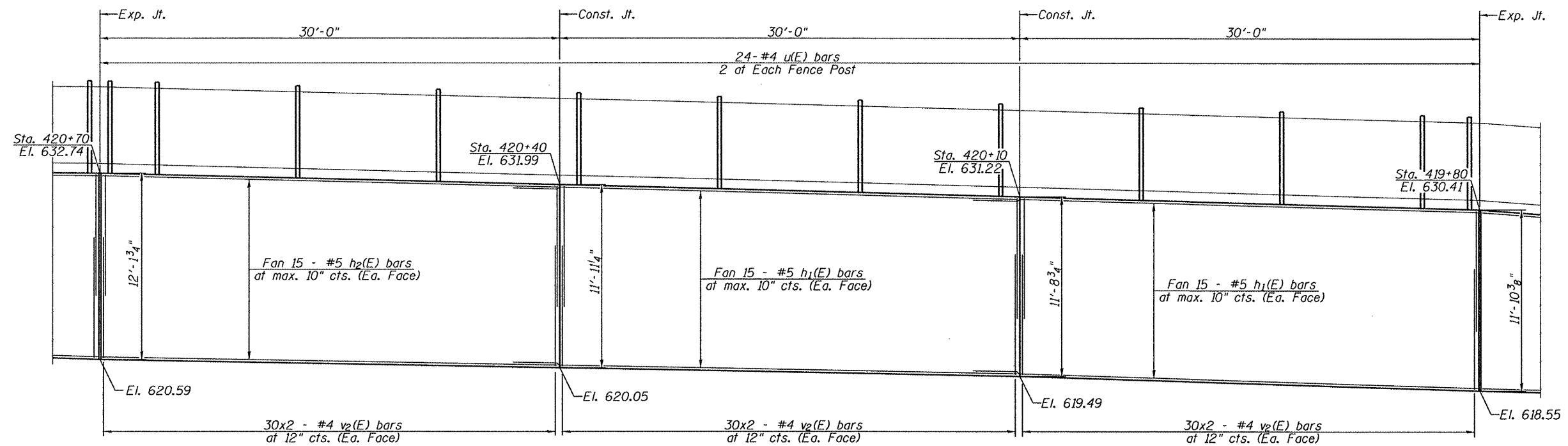
SECTION THRU CONCRETE FACING
(Looking East)

MIN. BAR LAPS

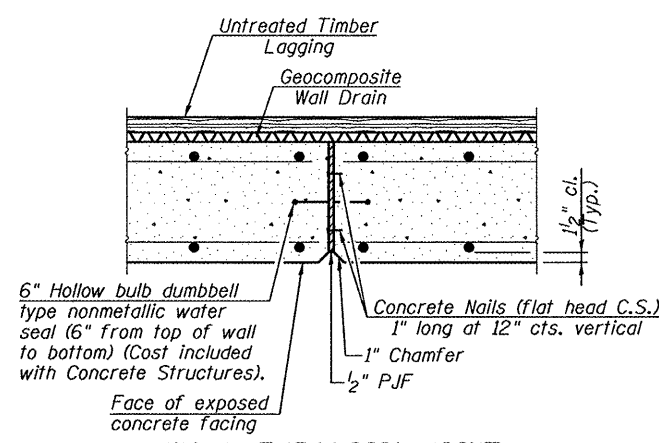
#4 bar = 2'-0"
#5 bar = 3'-3"

Notes: Bars indicated thus 30 x 2-#4 etc.
indicates 30 lines of bars with 2 lengths
per line.
See Sheet 9 of 12 for Bill of Material and
u(E) bar details.
See Sheet 10 of 12 for Fence Details
and Post Spacing.

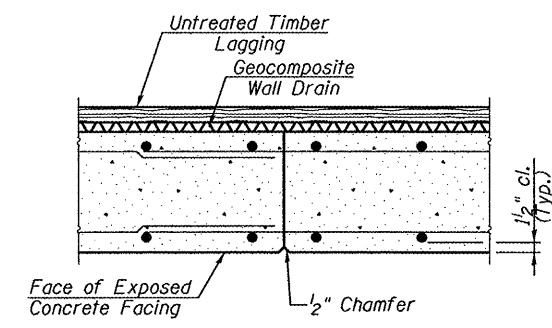
FILE NAME =	USER NAME =	DESIGNED -	REVISED -	 Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	CONCRETE FACING SECTION		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -	REVISED -		STRUCTURE NO. 029-8505		685	(37,38) RS-3, 39RS-5	FULTON	329	11
		DRAWN -	REVISED -		SHEET NO. 5 OF 12 SHEETS		CONTRACT NO. 68599				
		CHECKED -	REVISED -				ILLINOIS FED. AID PROJECT				



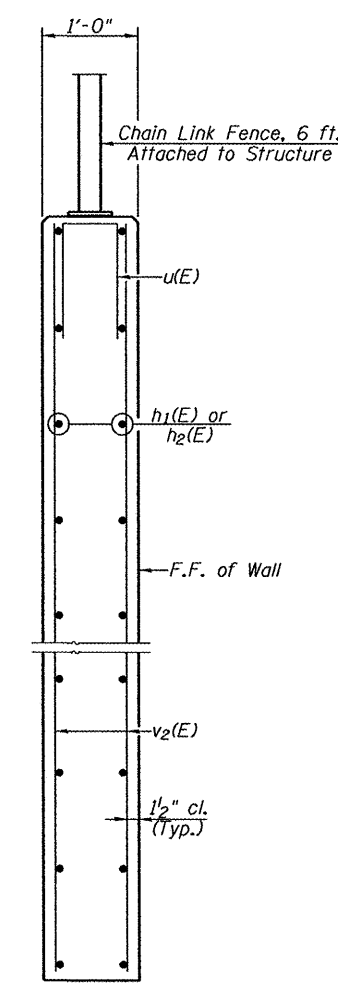
ELEVATION
(Looking North)



WALL EXPANSION JOINT



WALL CONSTRUCTION JOINT

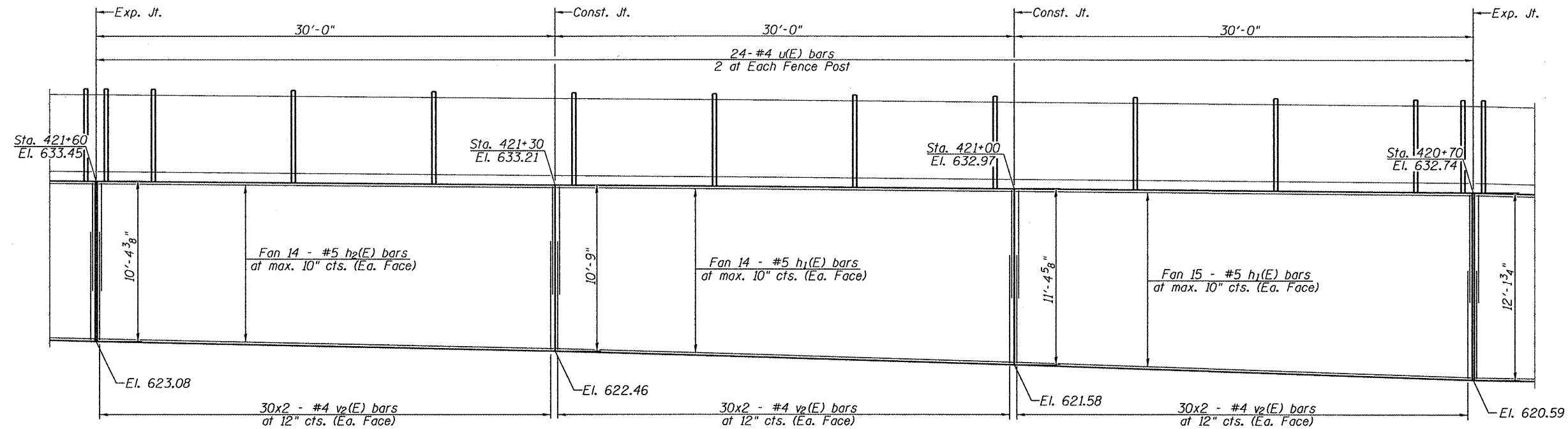


SECTION THRU CONCRETE FACING
(Looking East)

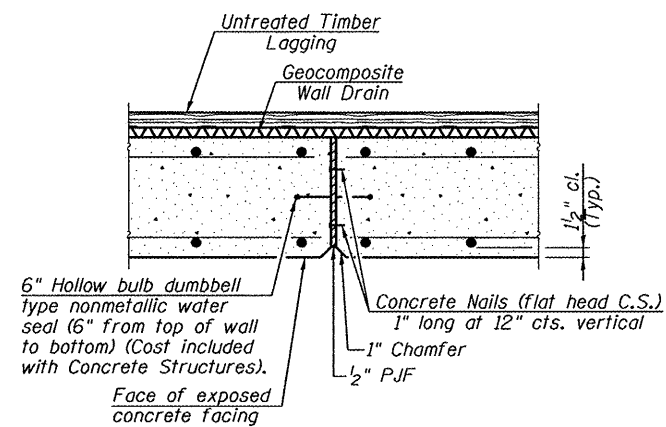
MIN. BAR LAPS
#4 bar = 2'-0"
#5 bar = 3'-3"

Notes: Bars indicated thus 30 x 2- #4 etc. indicates 30 lines of bars with 2 lengths per line.
See Sheet 9 of 12 for Bill of Material and u(E) bar details.
See Sheet 10 of 12 for Fence Details and Post Spacing.

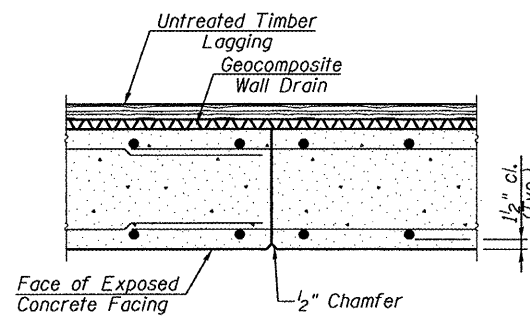
FILE NAME =	USER NAME =	DESIGNED -	REVISED -	<p>Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907</p>	<p>CONCRETE FACING SECTION STRUCTURE NO. 029-8505</p>	F.A.P. RTE. 685	SECTION (37,38) RS-3, 39RS-5	COUNTY FULTON	TOTAL SHEETS 329	SHEET NO. 162
PLOT SCALE =	DRAWN -	REVISED -	SHEET NO. 6 OF 12 SHEETS			CONTRACT NO. 68599				
PLOT DATE =	CHECKED -	REVISED -	ILLINOIS FED. AID PROJECT							



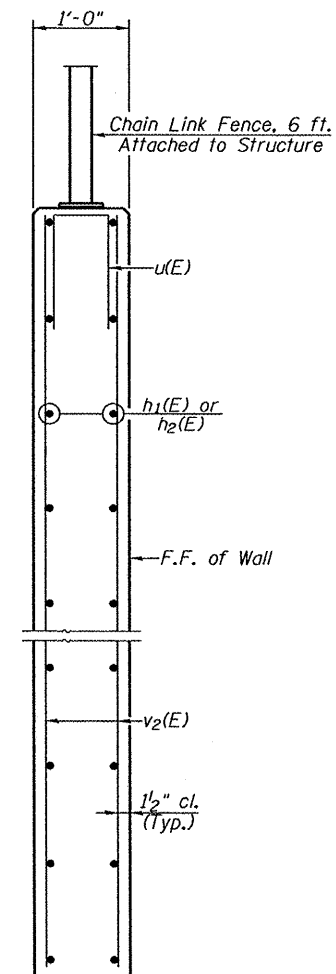
ELEVATION
(Looking North)



WALL EXPANSION JOINT




WALL CONSTRUCTION JOINT

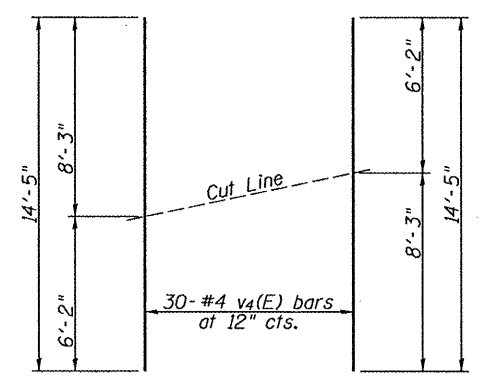
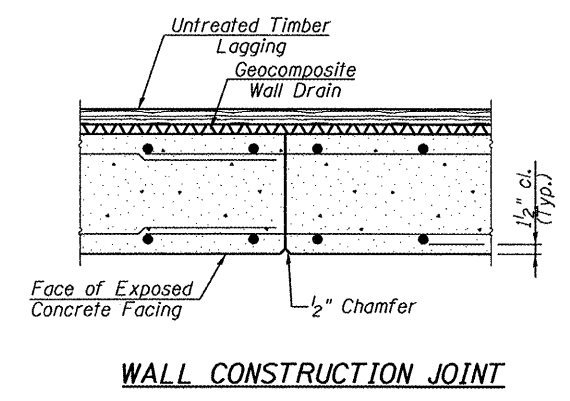
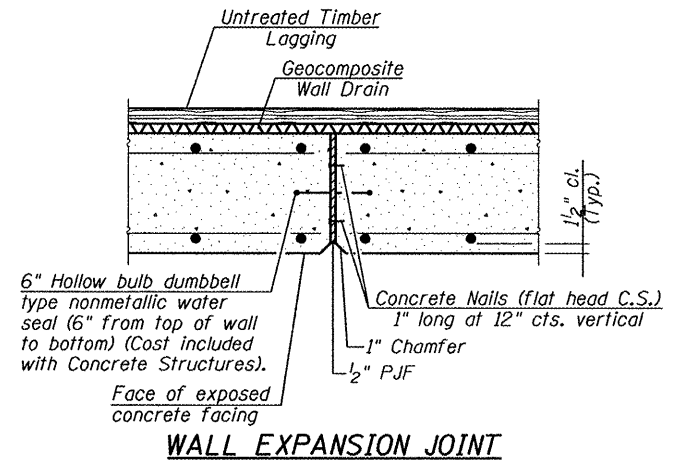
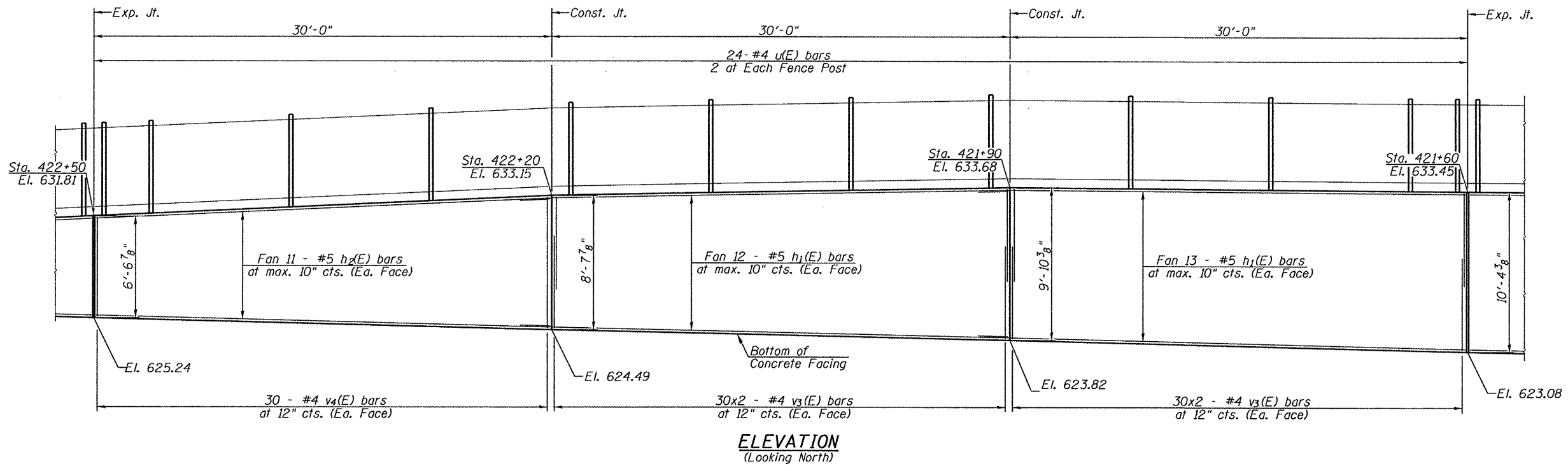


SECTION THRU CONCRETE FACING
(Looking East)

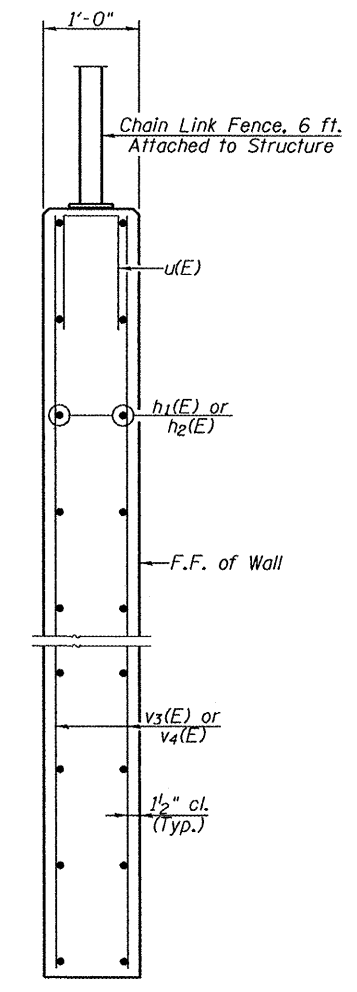
MIN. BAR LAPS
#4 bar = 2'-0"
#5 bar = 3'-3"

Notes: Bars indicated thus 30 x 2-#4 etc. indicates 30 lines of bars with 2 lengths per line.
See Sheet 9 of 12 for Bill of Material and u(E) bar details.
See Sheet 10 of 12 for Fence Details and Post Spacing.

FILE NAME =	USER NAME =	DESIGNED -	REVISED -	 Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	CONCRETE FACING SECTION		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -	REVISED -		STRUCTURE NO. 029-8505		685	(37,38) RS-3, 39RS-5	FULTON	329	163
		DRAWN -	REVISED -		SHEET NO. 7 OF 12 SHEETS		CONTRACT NO. 68599				
		CHECKED -	REVISED -				ILLINOIS FED. AID PROJECT				



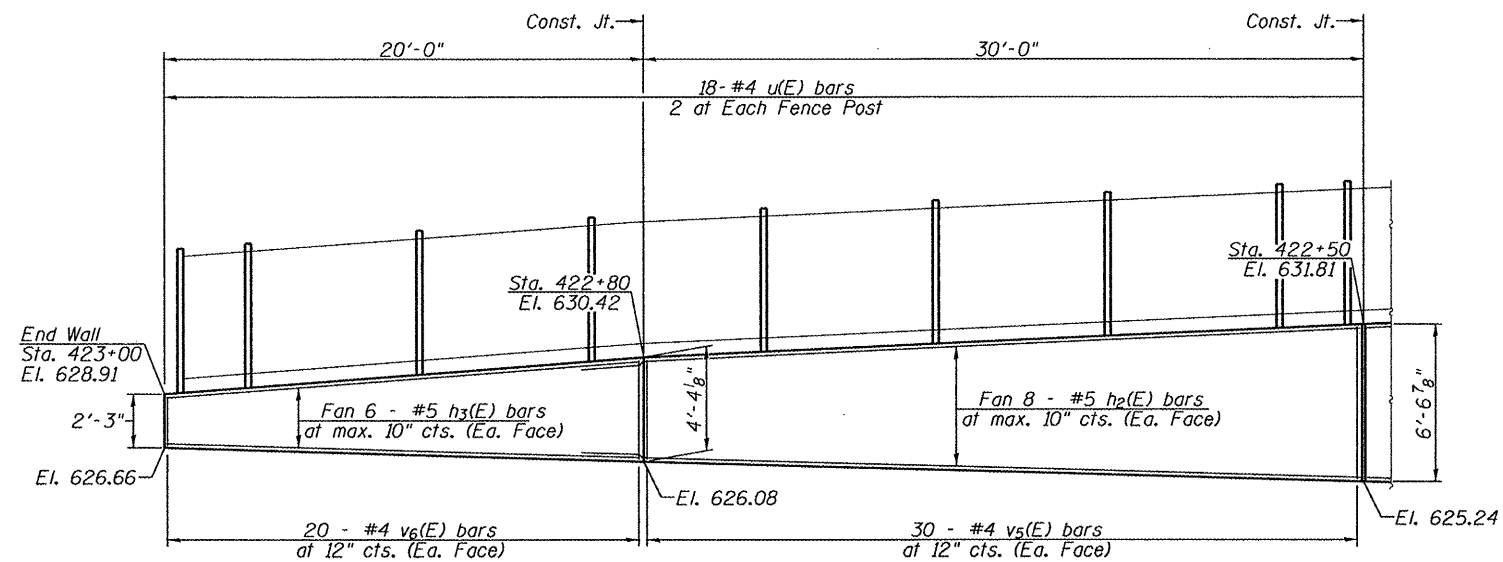
FIELD CUTTING DIAGRAM
Order v₄(E) bars full length. Cut as shown and use remainder of bars in opposite face.



MIN. BAR LAPS
#4 bar = 2'-0"
#5 bar = 3'-3"

Notes: Bars indicated thus 30 x 2-#4 etc. indicates 30 lines of bars with 2 lengths per line.
See Sheet 9 of 12 for Bill of Material and u(E) bar details.
See Sheet 10 of 12 for Fence Details and Post Spacing.

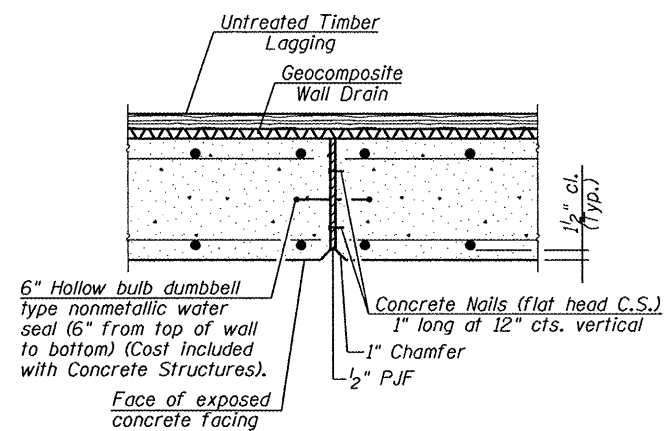
FILE NAME =	USER NAME =	DESIGNED -	REVISED -	<p>Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907</p>	CONCRETE FACING SECTION	F.A.P. RTE. 685	SECTION (37,38) RS-3, 39RS-5	COUNTY FULTON	TOTAL SHEETS 329	SHEET NO. 164
PLOT SCALE =	CHECKED -	REVISED -	CONTRACT NO. 68599		ILLINOIS FED. AID PROJECT					
PLOT DATE =	DRAWN -	REVISED -	SHEET NO. 8 OF 12 SHEETS							
	CHECKED -	REVISED -								



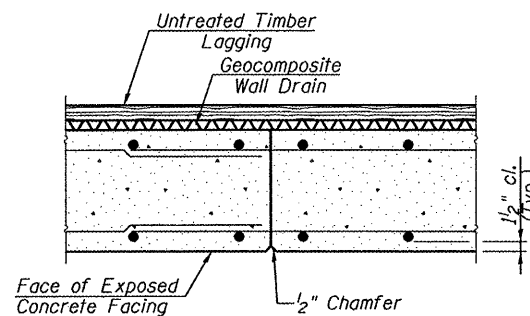
ELEVATION
(Looking North)

BILL OF MATERIAL

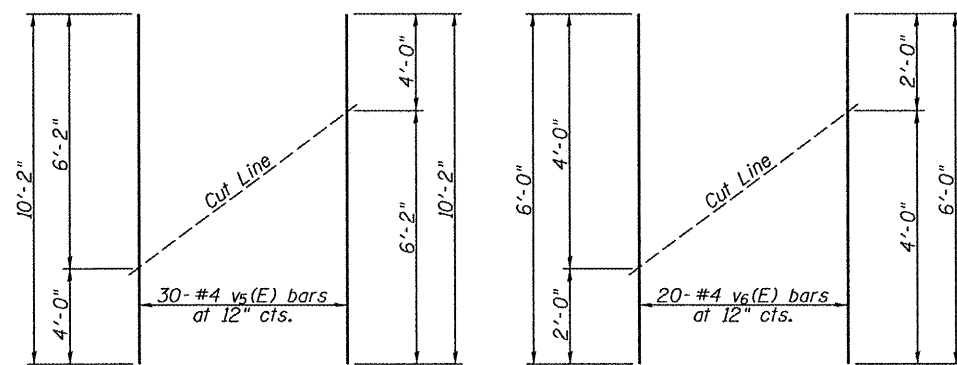
Bar	No.	Size	Length	Shape
h(E)	16	#5	23'-9"	—
h ₁ (E)	194	#5	33'-9"	—
h ₂ (E)	126	#5	29'-8"	—
h ₃ (E)	12	#5	19'-8"	—
u(E)	112	#4	4'-9"	□
v(E)	20	#4	7'-4"	—
v ₁ (E)	30	#4	15'-6"	—
v ₂ (E)	840	#4	7'-0"	—
v ₃ (E)	240	#4	6'-0"	—
v ₄ (E)	30	#4	14'-5"	—
v ₅ (E)	30	#4	10'-2"	—
v ₆ (E)	20	#4	6'-0"	—
Concrete Structures			Cu. Yd.	139.5
Reinforcement Bars, Epoxy Coated			Pound	17,600



WALL EXPANSION JOINT

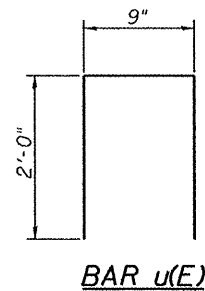


WALL CONSTRUCTION JOINT



BAR v₅(E)

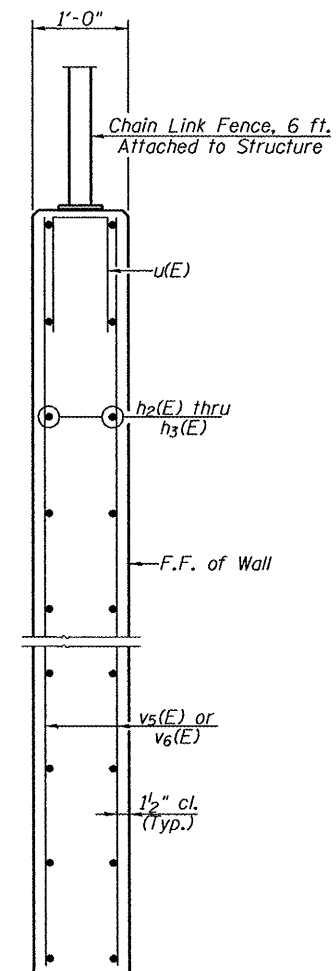
BAR v₆(E)



BAR u(E)

FIELD CUTTING DIAGRAMS

Order v₅(E) & v₆(E) bars full length. Cut as shown and use remainder of bars in opposite face.

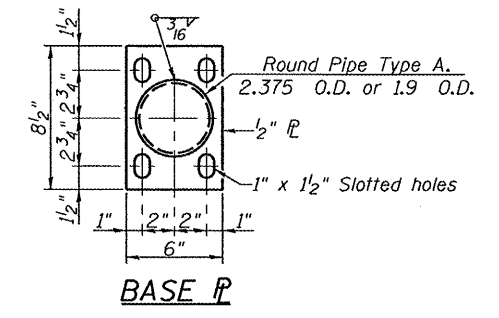
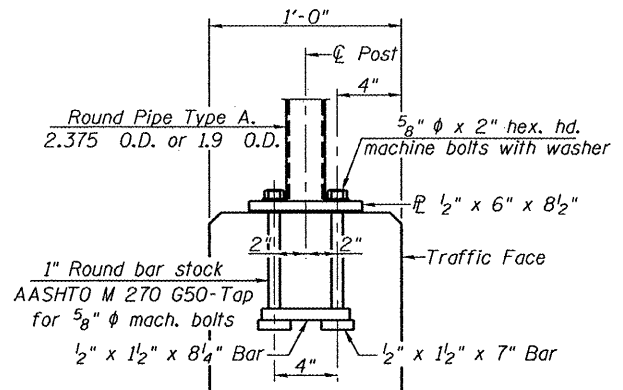
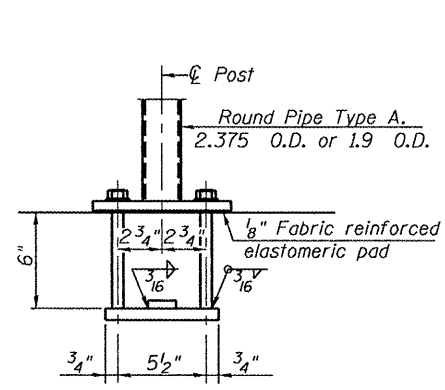


SECTION THRU CONCRETE FACING
(Looking East)

MIN. BAR LAPS

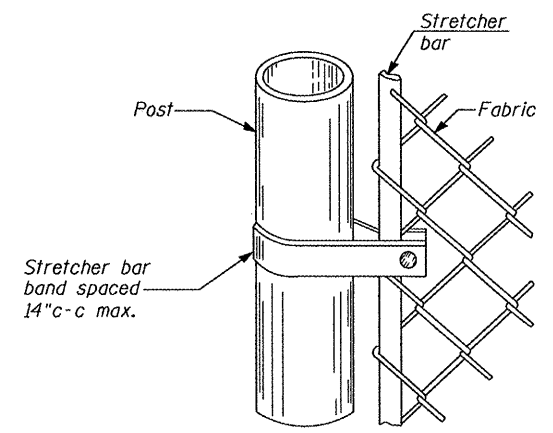
#4 bar = 2'-0"
#5 bar = 3'-3"

Notes: Bars indicated thus 30 x 2-#4 etc. indicates 30 lines of bars with 2 lengths per line. See Sheet 10 of 12 for Fence Details and Post Spacing.

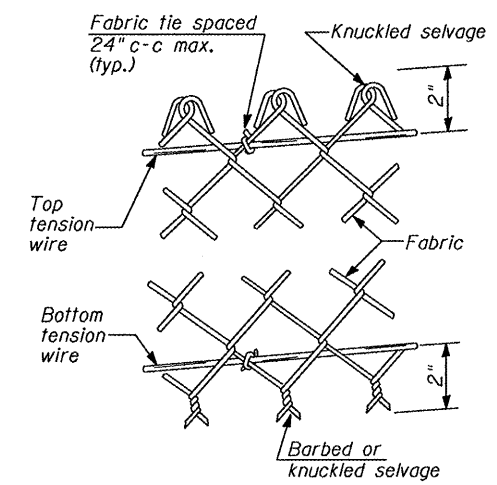


ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



METHOD OF FASTENING STRETCHER BAR TO POST



METHOD OF TYING FABRIC TO TENSION WIRES

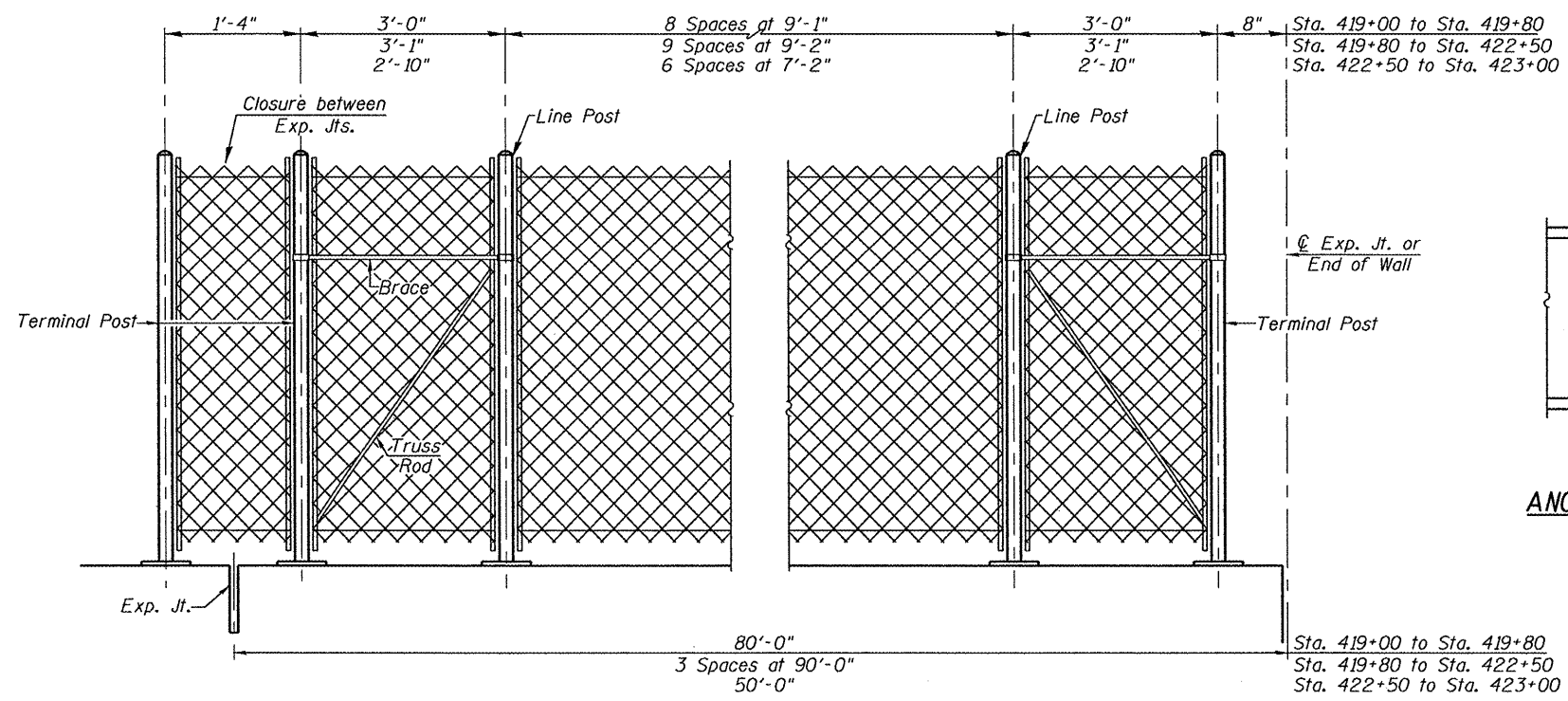
LINE POST	
Section	lbs./ft.
Pipe Type A 1.90 O.D.	2.72

TERMINAL POST	
Section	lbs./ft.
Pipe Type A 2.375 O.D.	3.65

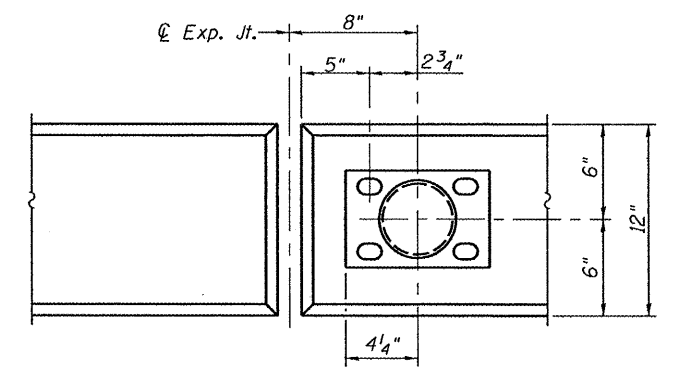
HORIZONTAL BRACES	
Section	lbs./ft.
Pipe Type A 1.66 O.D.	2.27
Pipe Type B 1.66 O.D.	1.83

NOTES

1. Posts, chain link fence and attaching hardware shall be according to Section 1006 of the Standard Specifications, except as noted and shall be paid for at the contract unit price per foot for Chain Link Fence (Attached to Structure).
2. The 9 gauge fabric ties shall be according to Article 1006.27(d) of the Standard Specifications.
3. Installation of the chain link fabric shall be according to Section 664 of the Standard Specifications.
4. Stretcher bars shall be used at all end posts.
5. All other steel shapes and plates shall conform to the requirements of AASHTO M 270M Grade 36.
6. The chain link fabric shall be placed along the west side of all posts.
7. If the option of drilling and epoxy grouting the anchor rods is chosen, the Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures. The capsule or the adhesive cartridge shall be sealed with premeasured amounts of the adhesive chemical.
8. Space reinforcement to miss anchor rods.
9. All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
10. Vent holes for galvanizing shall be placed in the posts and rails at locations that will not allow the accumulation of moisture in the members.
11. The chain link fabric shall conform to the requirements of Article 1006.27(a)(1)a, b or c of the Standard Specifications.

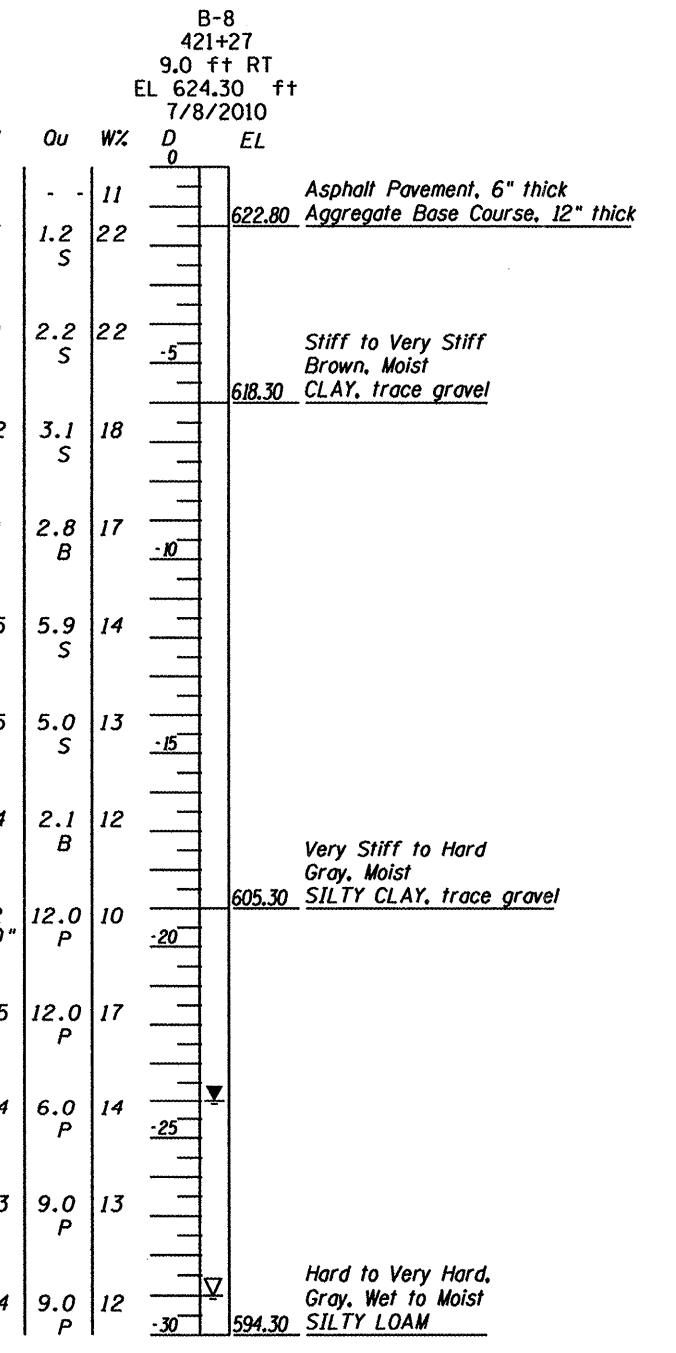
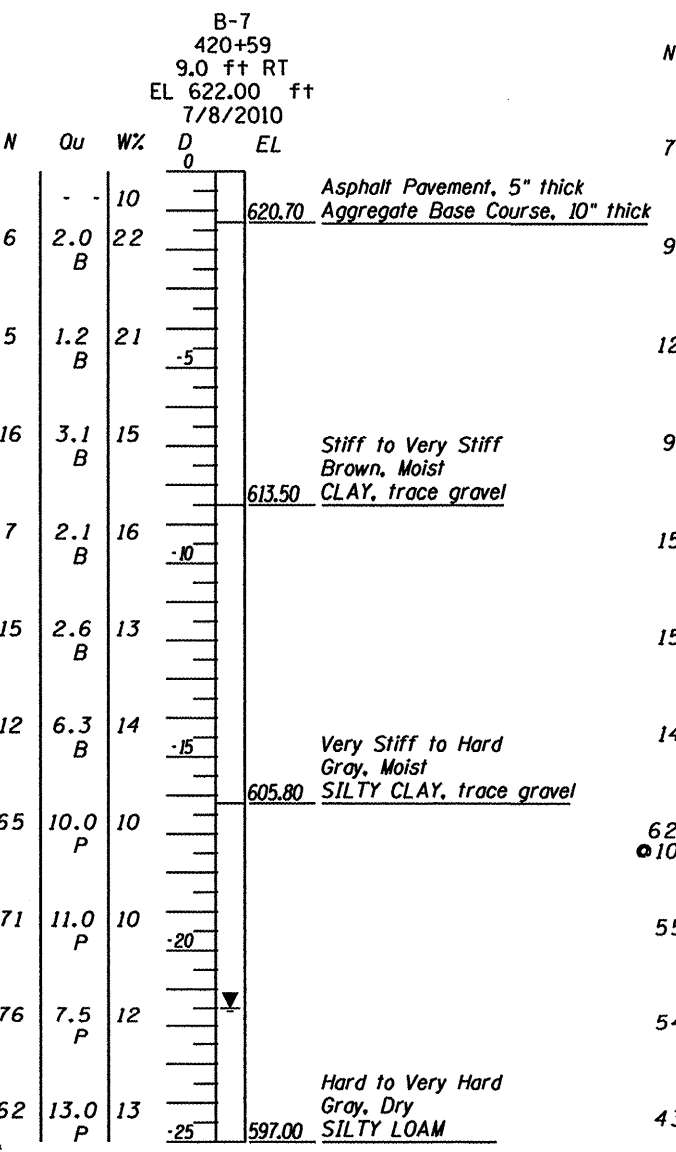
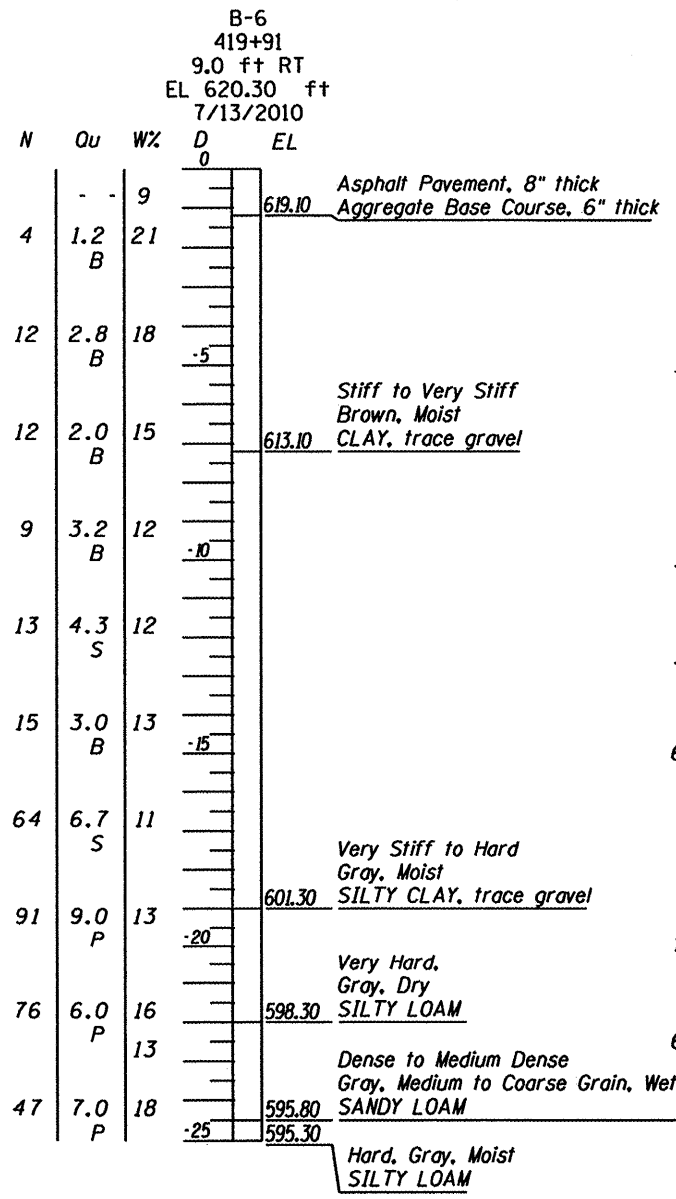
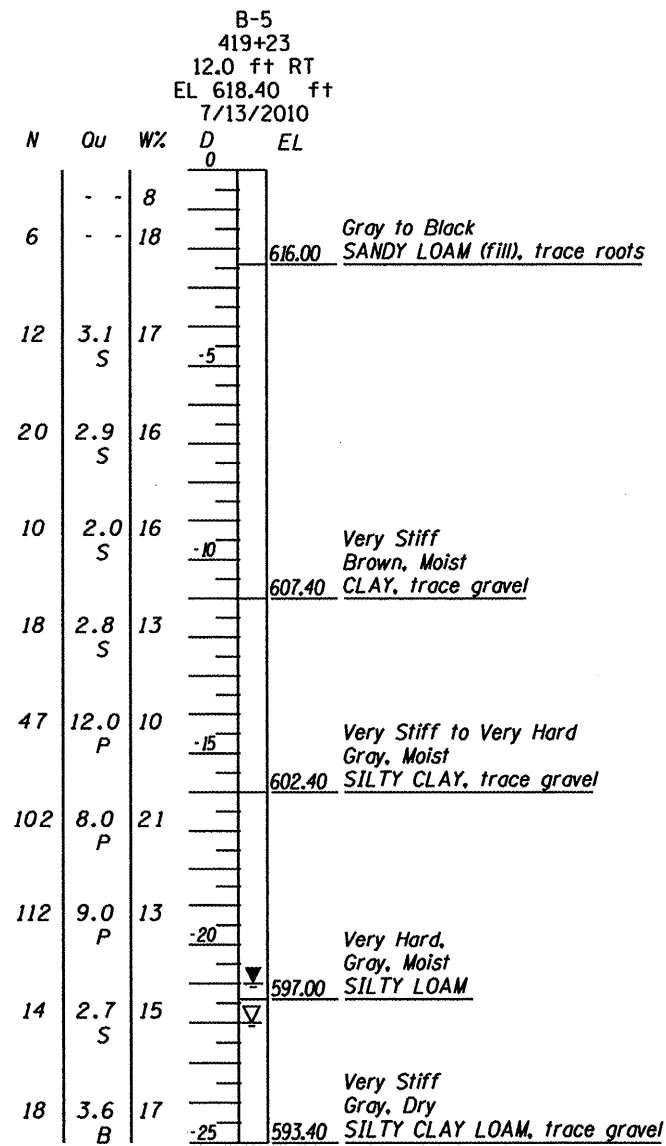


TYPICAL CHAIN LINK FENCE BETWEEN EXPANSION JOINTS



ANCHOR PLATE PLAN @ EXPANSION JOINT

Item	Unit	Quantity
Chain Link Fence 6' Attached to Structure	Foot	400



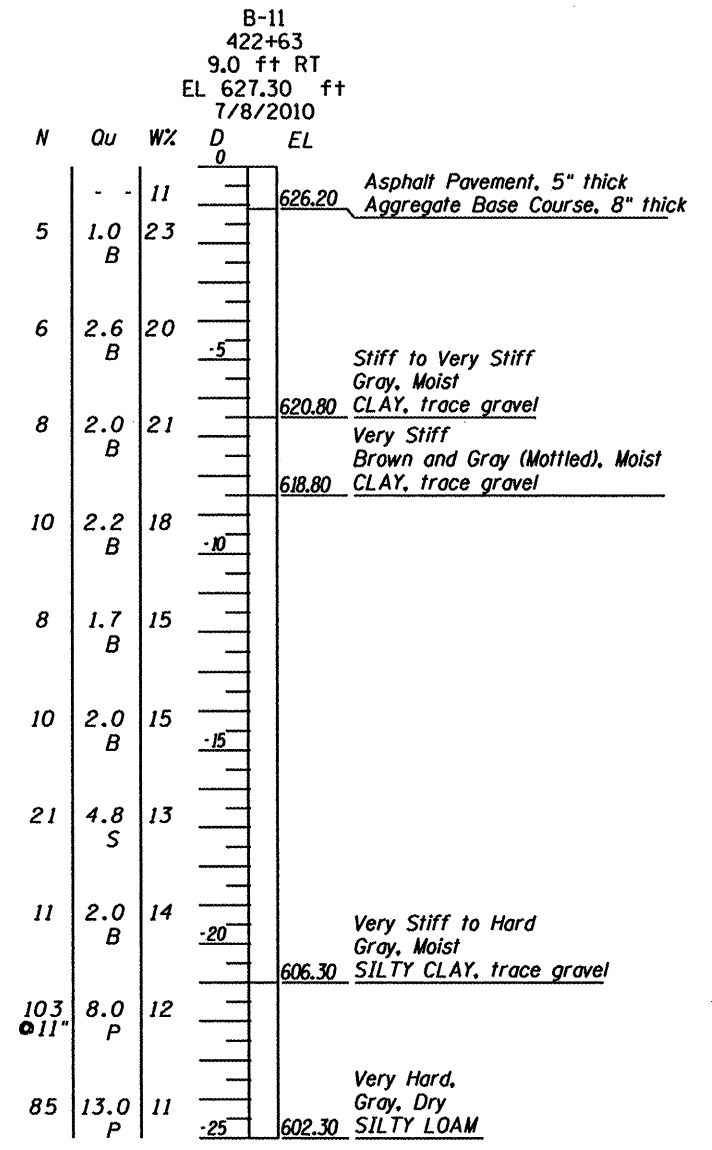
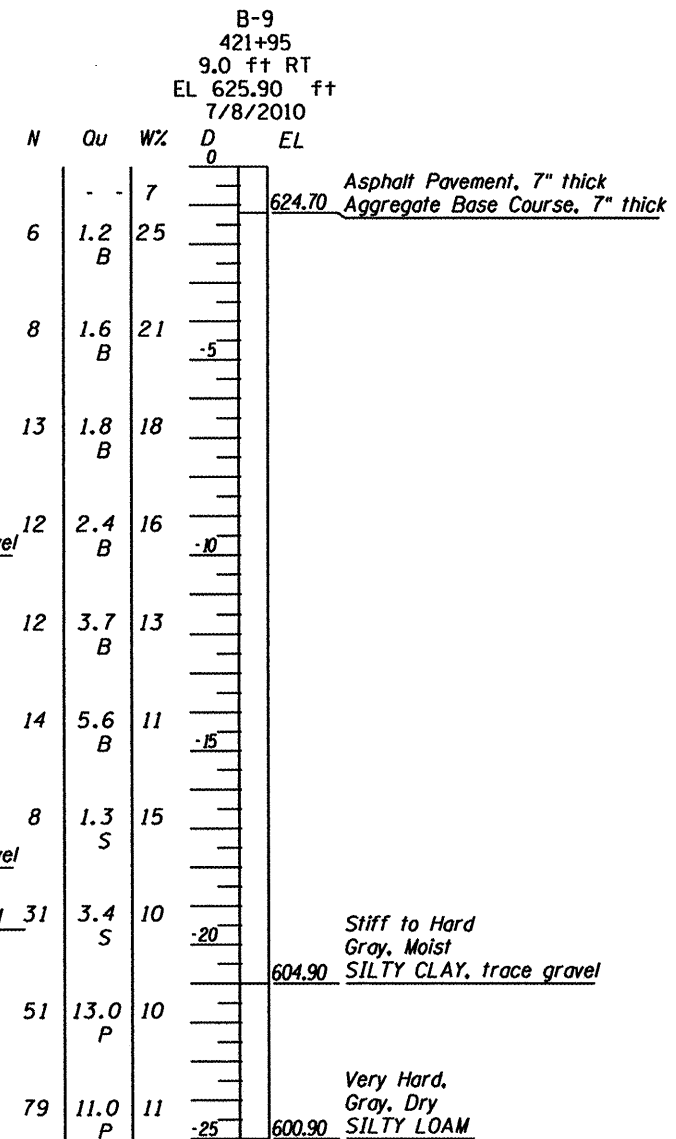
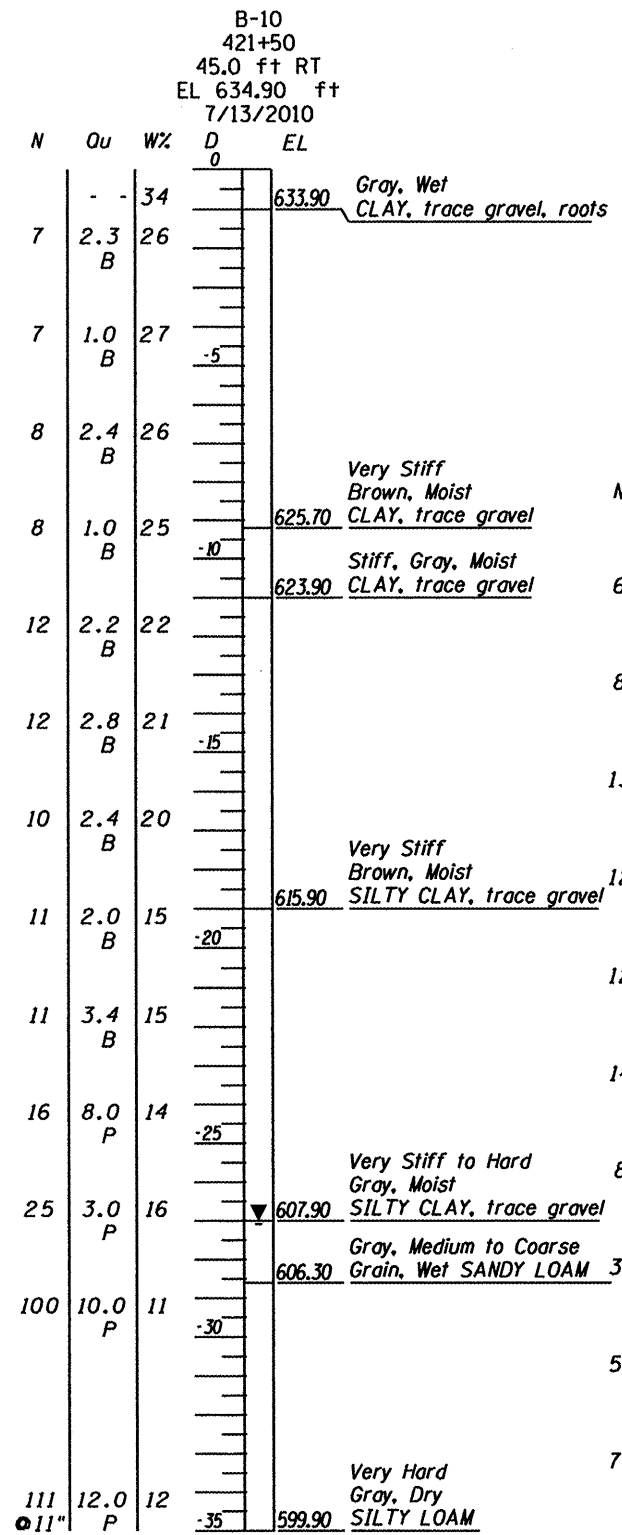
LEGEND
 EL = Elevation (ft)
 D = Depth Below Existing Ground Surface (ft)
 N = SPT N-Value (AASHTO T206)
 Qu = Unconfined compressive Strength in tons per tsf (tsf)
 Failure Mode (B= Bulge, S= shear, P= penetrometer)
 W% = Moisture Content Percentage

WATER TABLE LEGEND
 ▼ = Groundwater Level First Encountered
 ▽ = Groundwater Level Upon Completion

SUBSURFACE DATA PROFILE
RETAINING WALL
 FAP RTE. 685 (IL 9) - SEC. (37,38)RS-3, 39RS-5
 FULTON COUNTY
 STA. 419+00 TO STA. 423+00
 STRUCTURE NO. 029-8505

NOT TO HORIZONTAL SCALE

FILE NAME =	USER NAME =	DESIGNED -	REVISED -	 Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL. 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	BORINGS STRUCTURE NO. 029-8505 SHEET NO. 11 OF 12 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE =	CHECKED -	REVISED -	685			(37,38) RS-3, 39RS-5	FULTON	329	167	
PLOT DATE =	DRAWN -	REVISED -	CONTRACT NO. 68599							
	CHECKED -	REVISED -	ILLINOIS FED. AID PROJECT							



LEGEND

EL = Elevation (ft)
 D = Depth Below Existing Ground Surface (ft)
 N = SPT N-Value (AASHTO T206)
 Qu = Unconfined compressive Strength in tons per tsf (tsf)
 Failure Mode (B= Bulge, S= shear, P= penetrometer)
 w% = Moisture Content Percentage


WATER TABLE LEGEND

▼ = Groundwater Level First Encountered
 ▽ = Groundwater Level Upon Completion

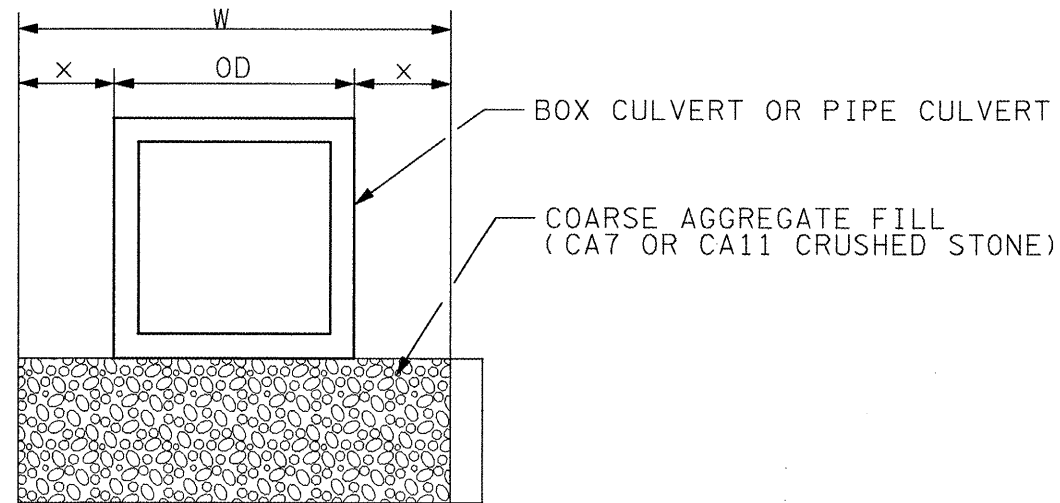
SUBSURFACE DATA PROFILE

RETAINING WALL
 FAP RTE. 685 (IL 9) - SEC. (37,38)RS-3, 39RS-5
 FULTON COUNTY
 STA. 419+00 TO STA. 423+00
 STRUCTURE NO. 029-8505

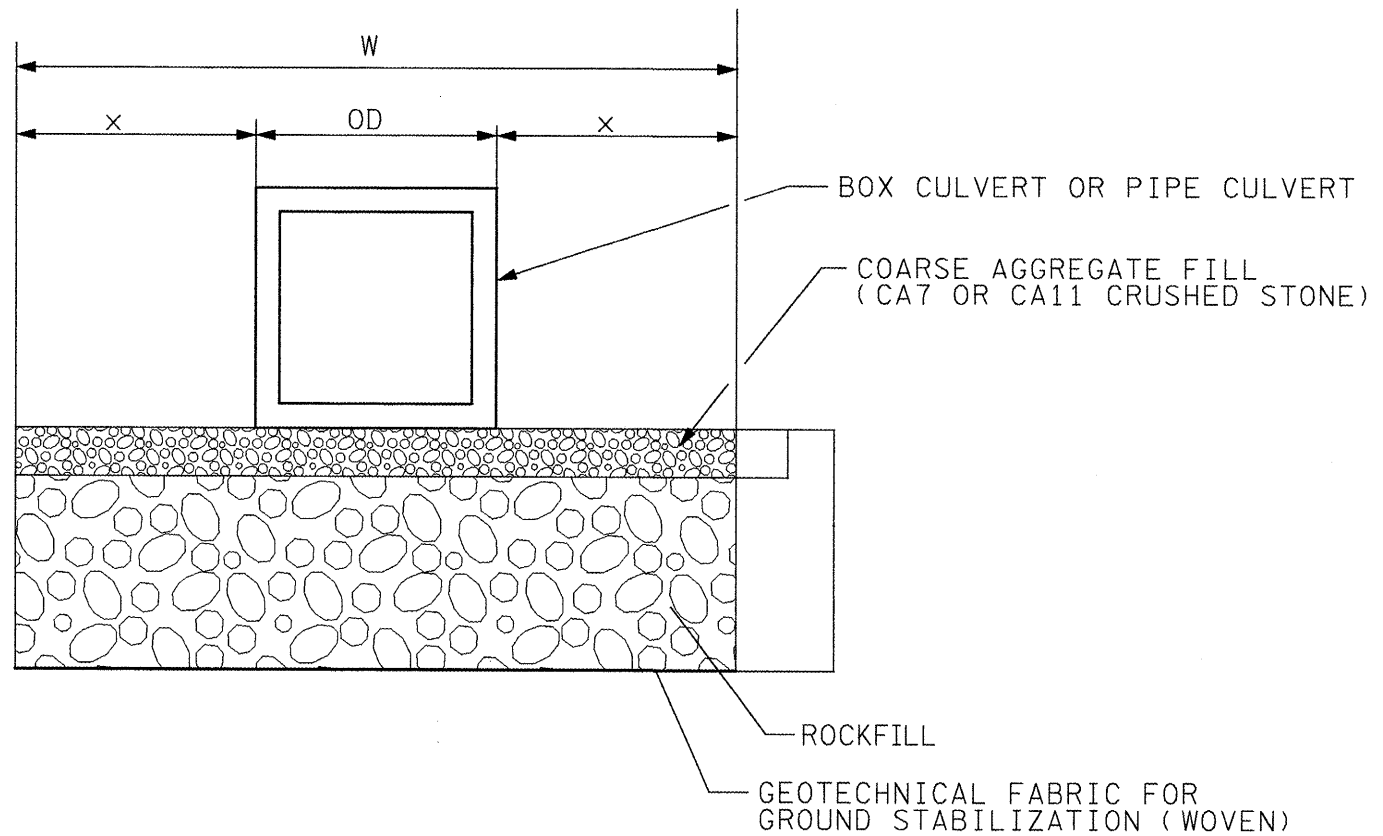
NOT TO HORIZONTAL SCALE

FILE NAME =	USER NAME =	DESIGNED -	REVISED -	 Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL. 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	BORINGS STRUCTURE NO. 029-8505 SHEET NO. 12 OF 12 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED -	REVISED -			685	(37,38) RS-3, 39RS-5	FULTON	329	168	
PLOT SCALE =		DRAWN -	REVISED -			CONTRACT NO. 68599					
PLOT DATE =		CHECKED -	REVISED -			ILLINOIS FED. AID PROJECT					

1. CHECK WITH THE DISTRICT GEOTECHNICAL ENGINEER FOR USE OF THIS DRAWING AND FOR UNDERCUT DEFINIS IF NOT PROVIDED
 OR SHOWN IN PROJECT SOILS REPORT.
 2. ASSURE TREATMENT AREAS ARE SHOWN IN PLANS AND ON CROSS SECTIONS.
 3. INCLUDE SOIL BORINGS FOR TREATED AREAS.



ALTERNATE I: FOR 12" TO 18" UNDERCUT



ALTERNATE II: FOR 18" TO 36" UNDERCUT

CULVERT LOCATION	UNDERCUT			
	DEPTH	WIDTH		
	h	x	OD	W
LT. STA. 418+16.23	2.5'	2.5'	7.0'	12.0'
LT. STA. 534+26.26	1.5'	2.0'	6.0'	10.0'

GENERAL NOTES:

- Undercut if the Dynamic Cone Penetrometer tests indicate soil strength is less than 1 ton/sq ft.
- DEFINITIONS:
 OD = Outside Diameter or outside width of box culvert
 h = Depth of undercut (for precast box culverts, the upper 6" is included in the cost of culvert).
 x = h or min. width specified in Sec. 542.04, which ever is greater for pipe culverts.
 x = h or minimum 2 feet, which ever is greater for box culverts.
 W = Width of undercut = 2x + OD
- For undercuts greater than 36", use Alternate II with undercut treatments as directed by the District Geotechnical Engineer.

All dimensions are in inches (millimeters) unless otherwise noted.

FILE NAME = sht-landscp.dgn	USER NAME = mendezpj	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 1/8" = 1'-0"	CHECKED -	REVISED -
	PLOT DATE = 3/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

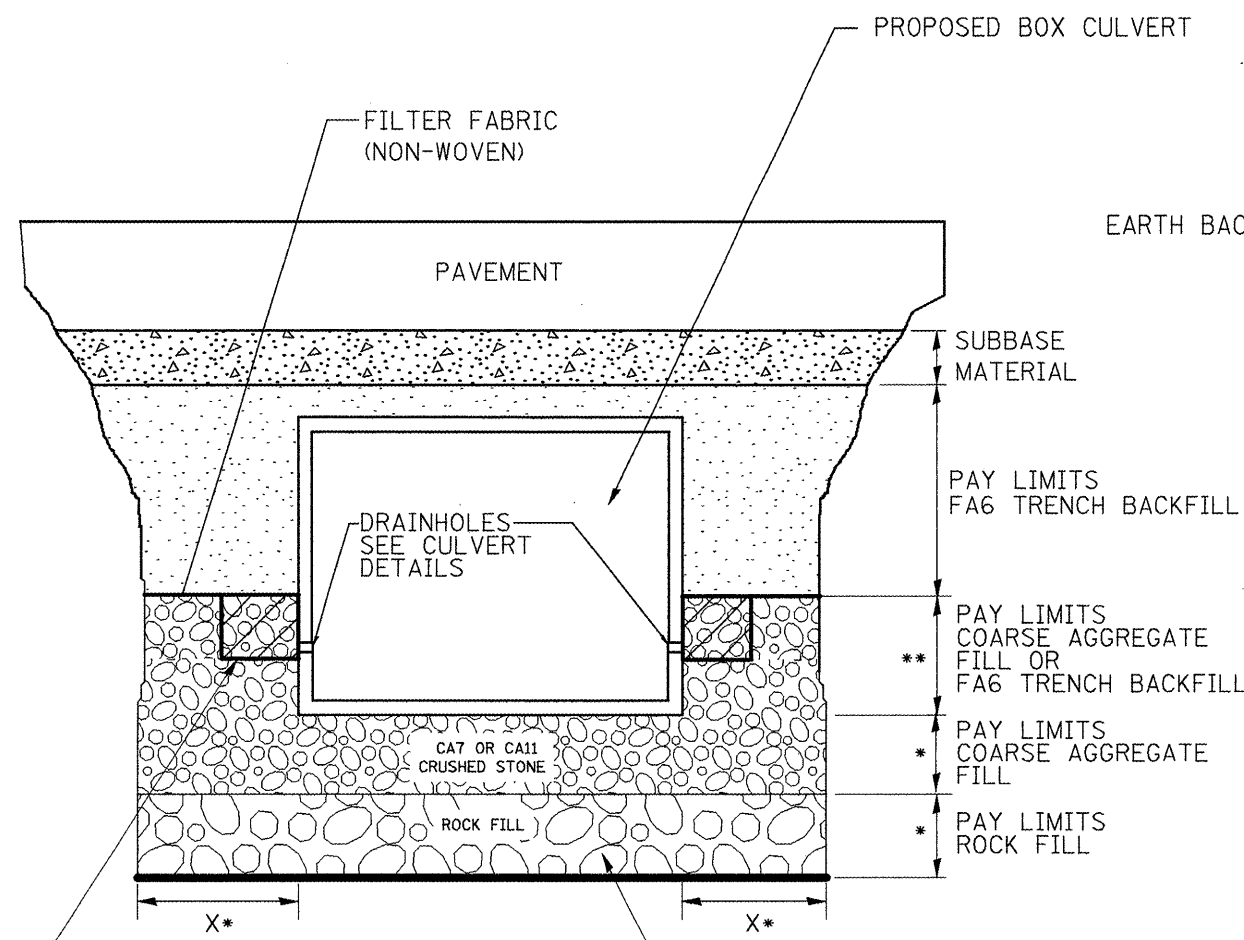
UNSUITABLE EXCAVATION TREATMENT FOR CULVERTS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
685	..	.	329	169
CONTRACT NO. 68599				
ILLINOIS FED. AID PROJECT				

DESIGNER NOTES:
 1. CHECK WITH THE DISTRICT GEOTECHNICAL ENGINEER FOR USE OF THIS DRAWING.
 2. THIS DETAIL IS MEANT FOR CONSTRUCTING BOX CULVERTS THROUGH EXISTING EMBANKMENTS.
 3. USE THE DISTRICT SPECIAL DETAIL FOR UNSUITABLE EXCAVATION TREATMENT FOR CULVERTS TO SHOW THE UNDERCUT DIMENSIONS.

ROADWAY PROFILE VIEW

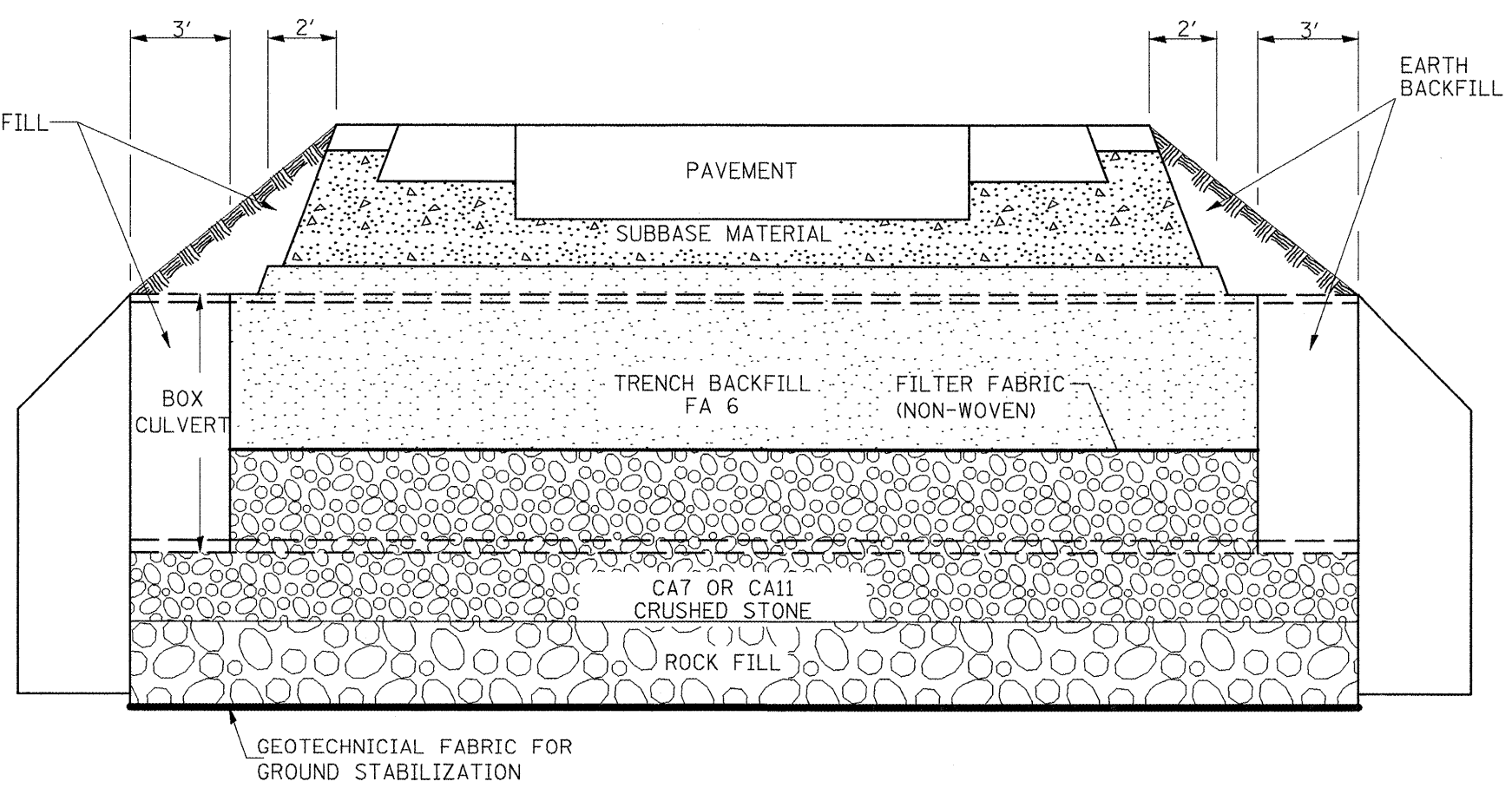


2' x 2' x 2' DEPOSIT OF CA 5, 7, OR 11 IN FABRIC ENVELOPE IN ACCORDANCE WITH ARTICLE 502.10 OF THE STANDARD SPECIFICATIONS (TYPICAL)

PROPOSED REMOVAL & DISPOSAL OF UNSUITABLE, AND REPLACE WITH ROCKFILL WITH GEOTECHNICAL FABRIC FOR GROUND STABILIZATION. PAID FOR BY RESPECTIVE PAY ITEMS

- * SEE UNDERCUT DETAIL FOR DEPTHS AND WIDTHS. IF THERE IS NO UNDERCUT, X = 2 FEET AND SEE NOTE 3 THIS SHEET.
- ** EXTEND THE COARSE AGGREGATE FILL TO THE TOP OF THE DRAINHOLE FILTER FABRIC ENVELOPES. IF THE BOX CULVERT DOES NOT HAVE DRAINHOLES, THEN BEGIN PLACING TRENCH BACKFILL AT THE BOTTOM OF THE CULVERT.

ROADWAY CROSS SECTION VIEW



NOTES:

1. EXCEPT AS SPECIFIED IN THIS DETAIL, THE PLACEMENT AND COMPACTION OF BACKFILL SHALL BE IN ACCORDANCE WITH ARTICLE 502.10 OF THE STANDARD SPECIFICATIONS.
2. TRENCH BACKFILL SHALL BE COMPACTED BY EITHER METHOD 2 OR METHOD 3 SPECIFIED IN ARTICLE 550.07, OR IN ACCORDANCE WITH METHOD 1 SPECIFIED IN ARTICLE 550.07, EXCEPT THAT THE COMPACTED LIFTS SHALL NOT EXCEED 8" IN THICKNESS. TRENCH BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% OF STANDARD LAB DENSITY.
3. IF NO UNDERCUT IS REQUIRED, A 6" MINIMUM LAYER OF COARSE AGGREGATE FILL SHALL BE PLACED BELOW THE ELEVATION OF THE BOTTOM OF PRECAST BOX CULVERTS AS SPECIFIED IN ARTICLE 540.06 OF THE STANDARD SPECIFICATIONS.

All dimensions are in Inches (millimeters) unless otherwise noted.

FILE NAME = sht-landscp.dgn	USER NAME = mendezpj	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLDT SCALE = 1/8" = 1/8" / IN.	CHECKED -	REVISED -
	PLDT DATE = 3/25/2011	DATE -	REVISED -

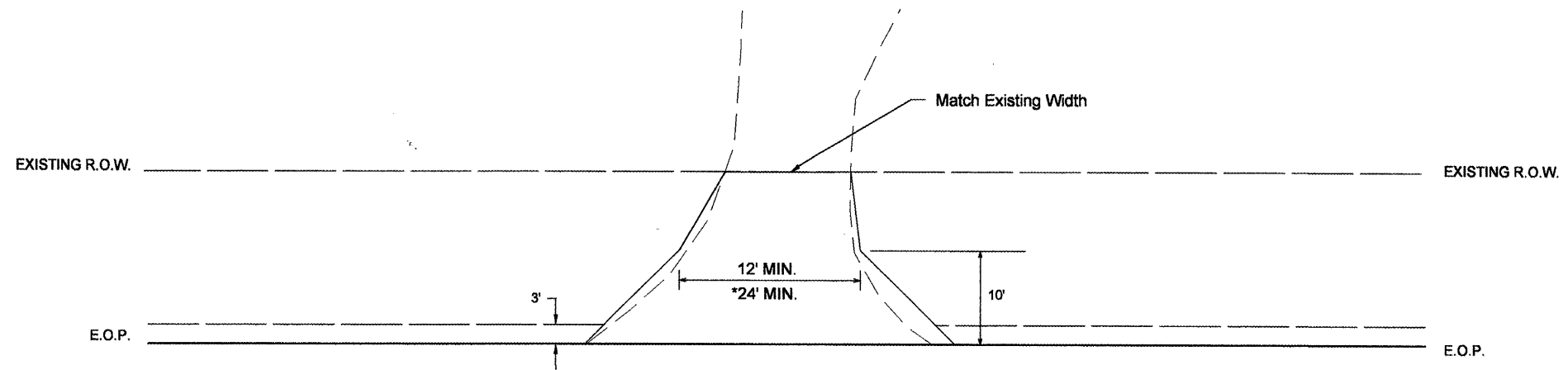
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETAIL OF EXCAVATION AND BACKFILL FOR BOX CULVERTS

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

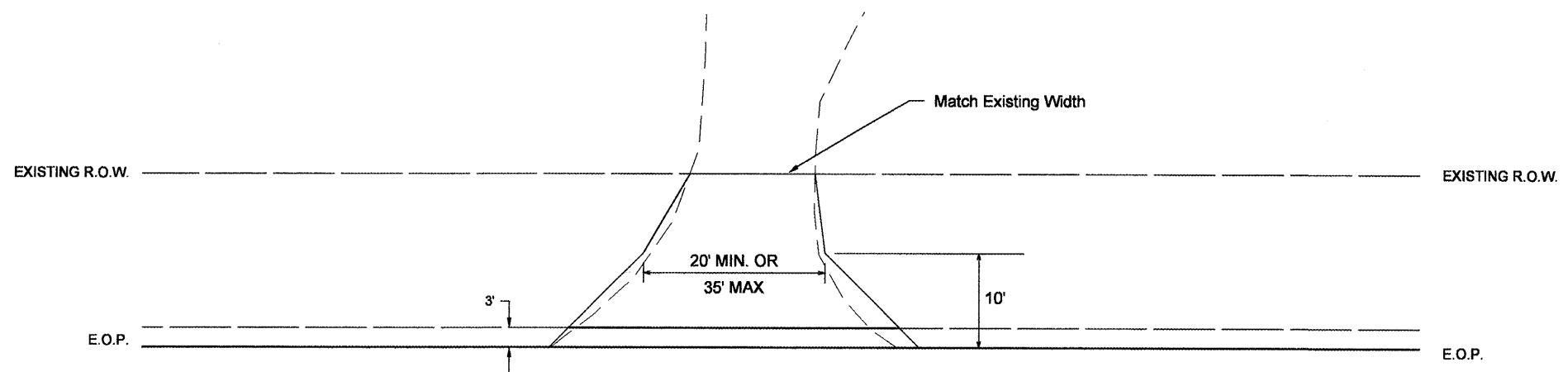
F.A.P. RTE. 685	SECTION ..	COUNTY ..	TOTAL SHEETS 329	SHEET NO. 170
ILLINOIS FED. AID PROJECT CONTRACT NO. 68599				

** (37-3185-3/385-5/387) * FULTON & MCDONOUGH



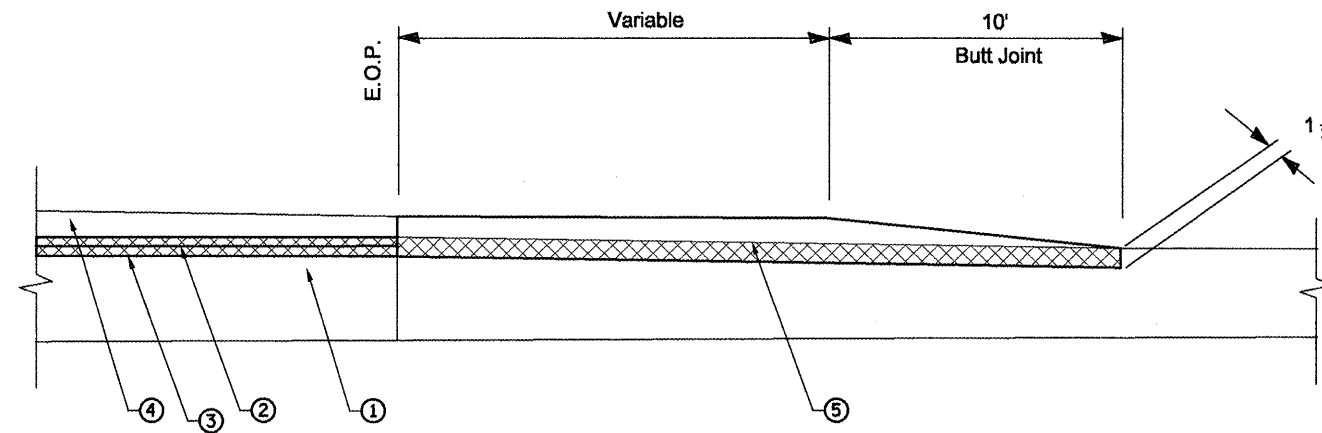
PRIVATE & COMMERCIAL DRIVEWAY

*35' Max. For Commercial Driveway

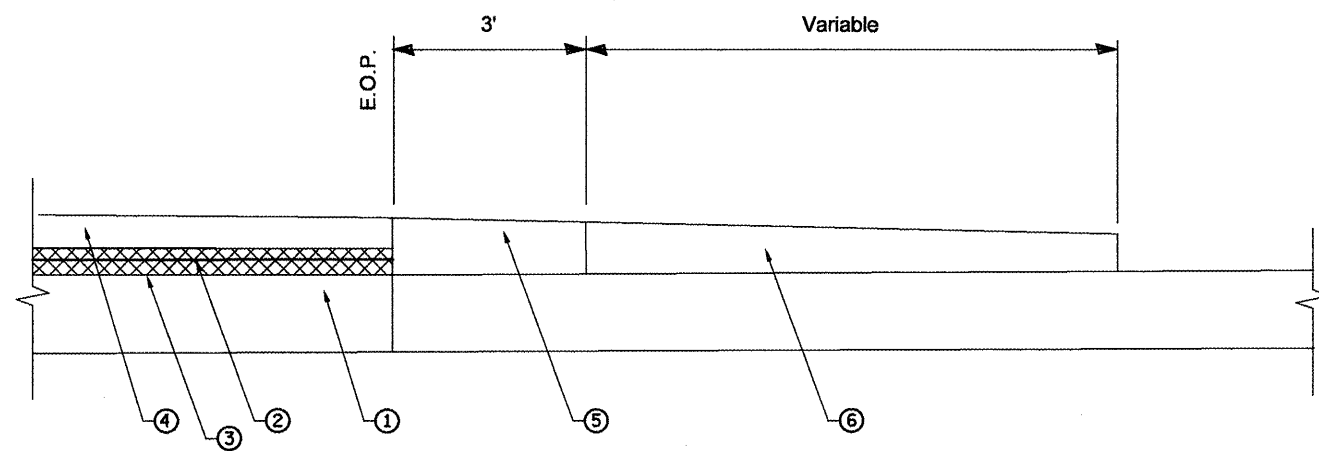


AGGREGATE FIELD ENTRANCE

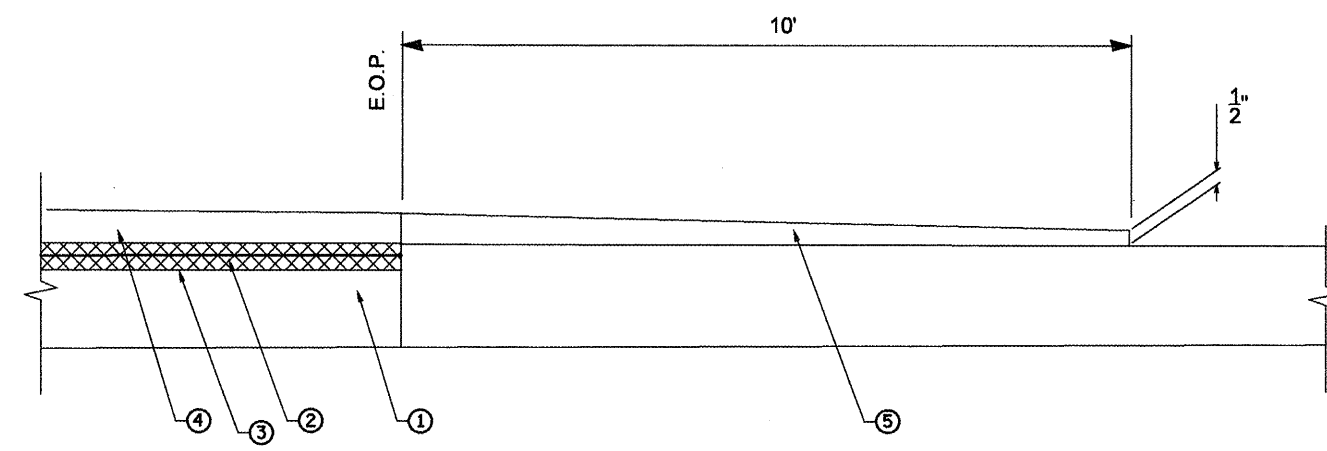
FILE NAME = sht-pmk.dgn	USER NAME = mendezpj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DRIVEWAY DETAILS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 100.0000' / IN.	CHECKED -	REVISED -					685	**	*	329	171
	PLOT DATE = 3/25/2011	DATE -	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 68599 ILLINOIS FED. AID PROJECT		



SIDEROADS



FIELD ENTRANCES



PRIVATE & COMMERCIAL ENTRANCES

LEGEND

- ① Existing Pavement
- ② Proposed H.M.A. Surface Removal, 1 1/2"
- ③ Proposed Poly. Leveling Binder, 3/4"
- ④ Proposed H.M.A. Surface Course, 1 1/2"
- ⑤ Incidental H.M.A. Surfacing, 2 1/4"
- ⑥ Aggregate Surface Course, Type B, 6"

Incidental H.M.A. Surfacing

FILE NAME = sht-pmk.dgn	USER NAME = mendezpj	DESIGNED -	REVISED -
	PLOT SCALE = 100.0000' / IN.	DRAWN -	REVISED -
	PLOT DATE = 3/25/2011	CHECKED -	REVISED -
		DATE -	REVISED -

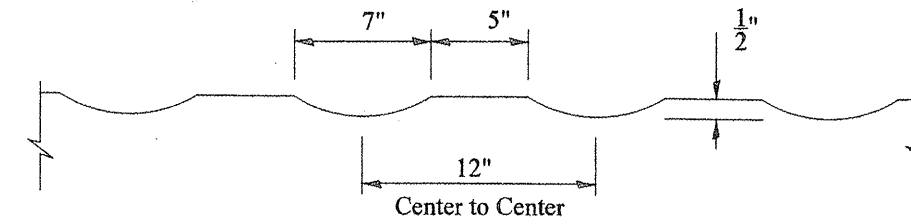
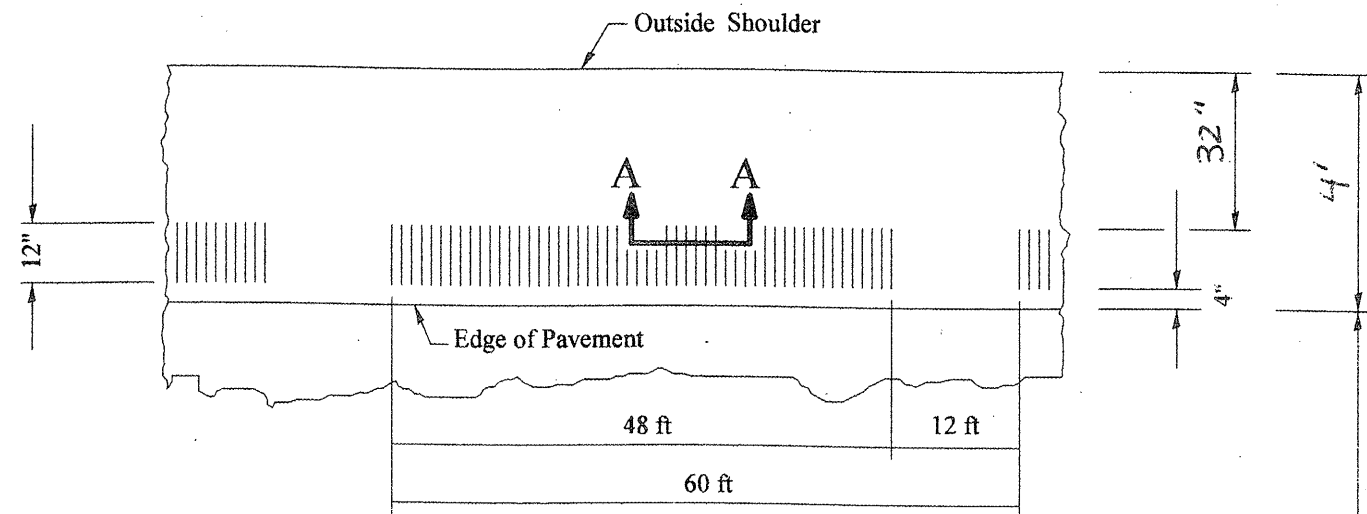
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIDE ROADS & DRIVEWAY DETAILS			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

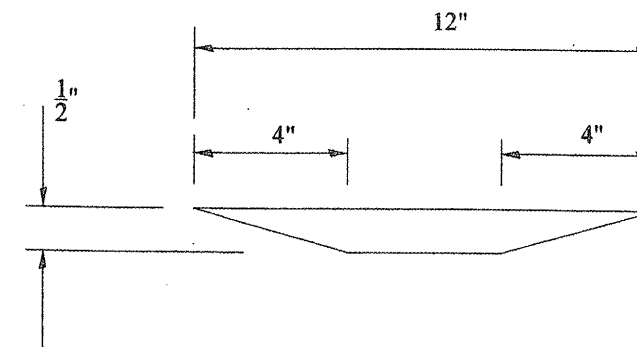
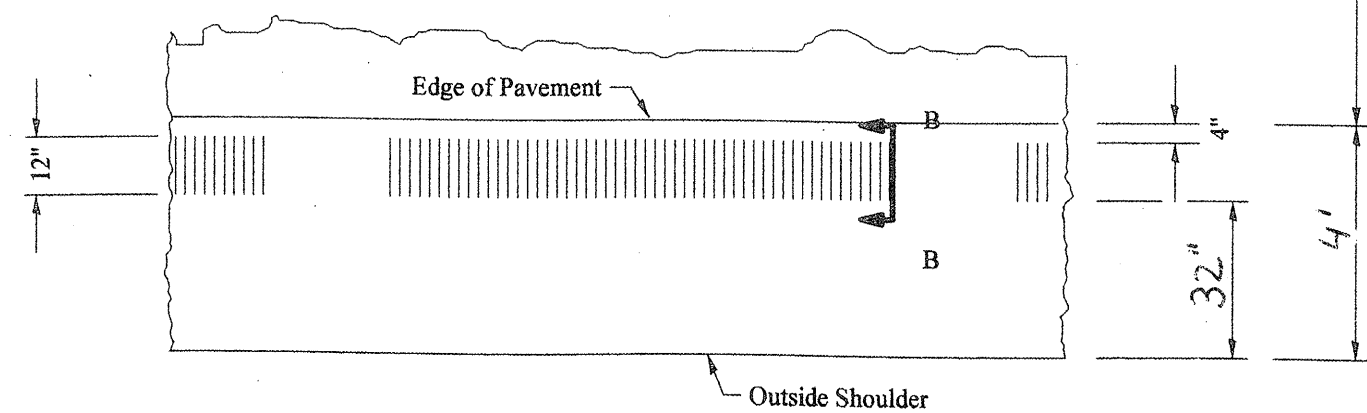
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
685	**	*	329	172
CONTRACT NO. 68599				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

1. THIS STANDARD GIVES CONSTRUCTION INSTALLATION DETAILS ONLY AND DOES NOT DETERMINE WHEN OR WHERE RUMBLE STRIPS ARE TO BE USED.
2. RUMBLE STRIPS SHALL BE OMITTED AT TURN AND AUXILIARY LANES, ROAD APPROACHES, RESIDENCE, 250 FT. BEFORE ROAD INTERSECTIONS, AND OTHER INTERRUPTIONS AS DIRECTED BY THE PROJECT ENGINEER.



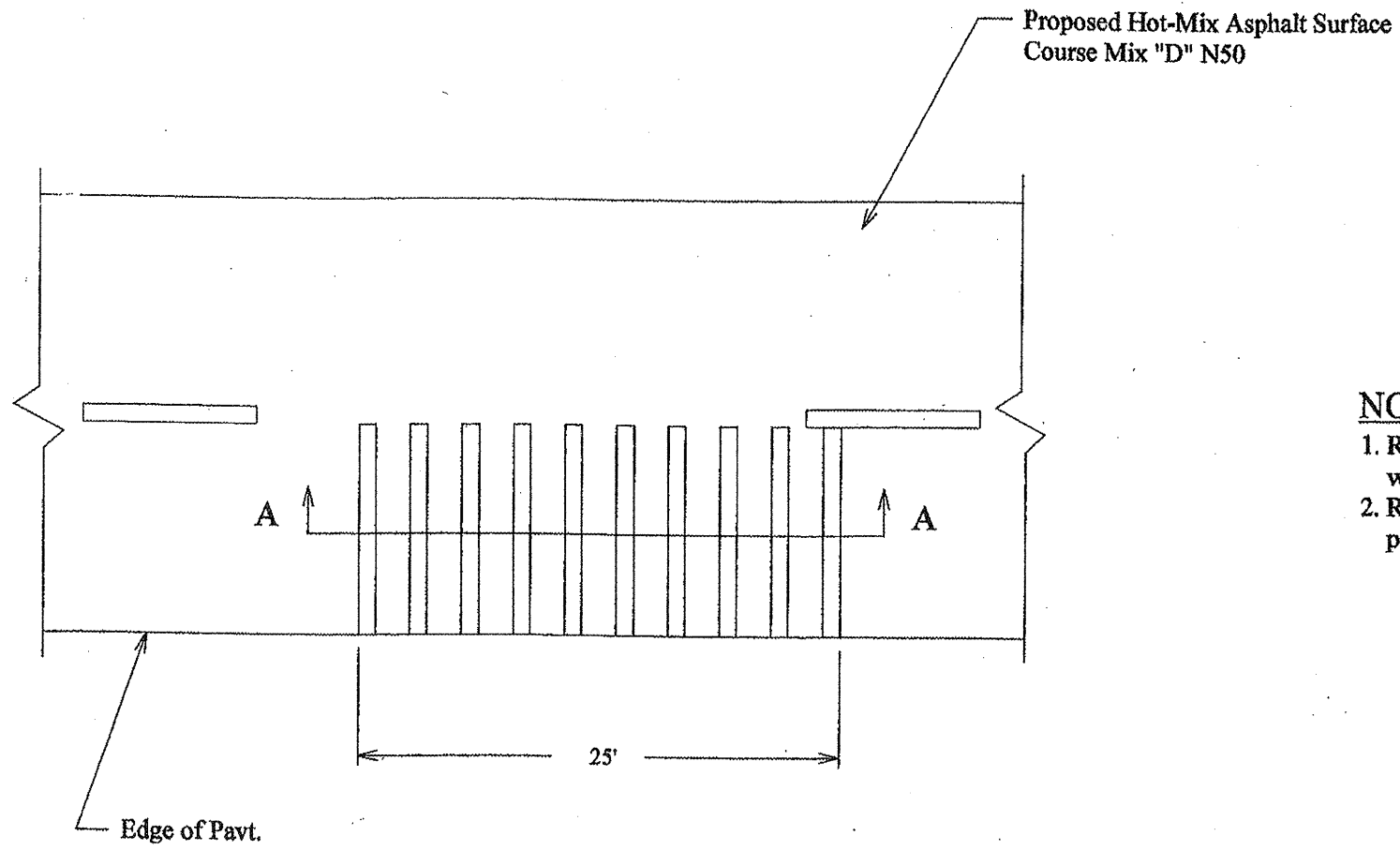
SECTION A-A
(Not to Scale)



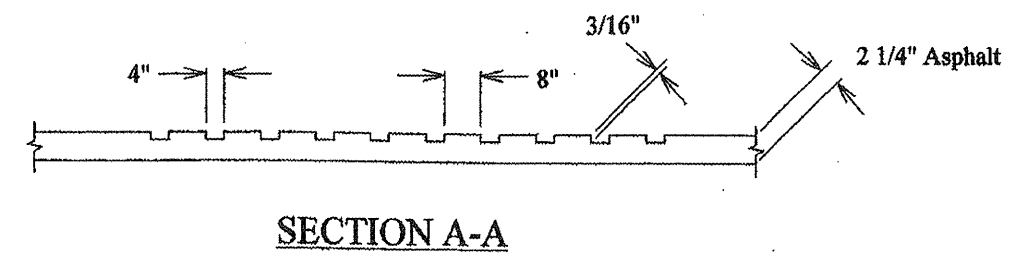
SECTION B-B
(Not to Scale)

INTERMITTENT RUMBLE STRIP
(Not to Scale)

FILE NAME = 0468960-sht-plan.dgn	USER NAME = mendespj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERMITTENT RUMBLE STRIP DETAIL	F.A.P. RTE.	SECTION	COUNTIES	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED -								
		CHECKED -	REVISED -								
		DATE -	REVISED -								
					SCALE: NONE	SHEET NO.	OF	SHEETS	STA.	TO STA.	
										CONTRACT NO. 68559	
										ILLINOIS FED. AID PROJECT	



- NOTES:**
1. Rumble strip will be paid for per square yard of grooved area which includes all labor and equipment necessary to do the work.
 2. Rumble strips are to be grooved into the pavement after placement of the Hot-Mix Asphalt Surf. Cse.

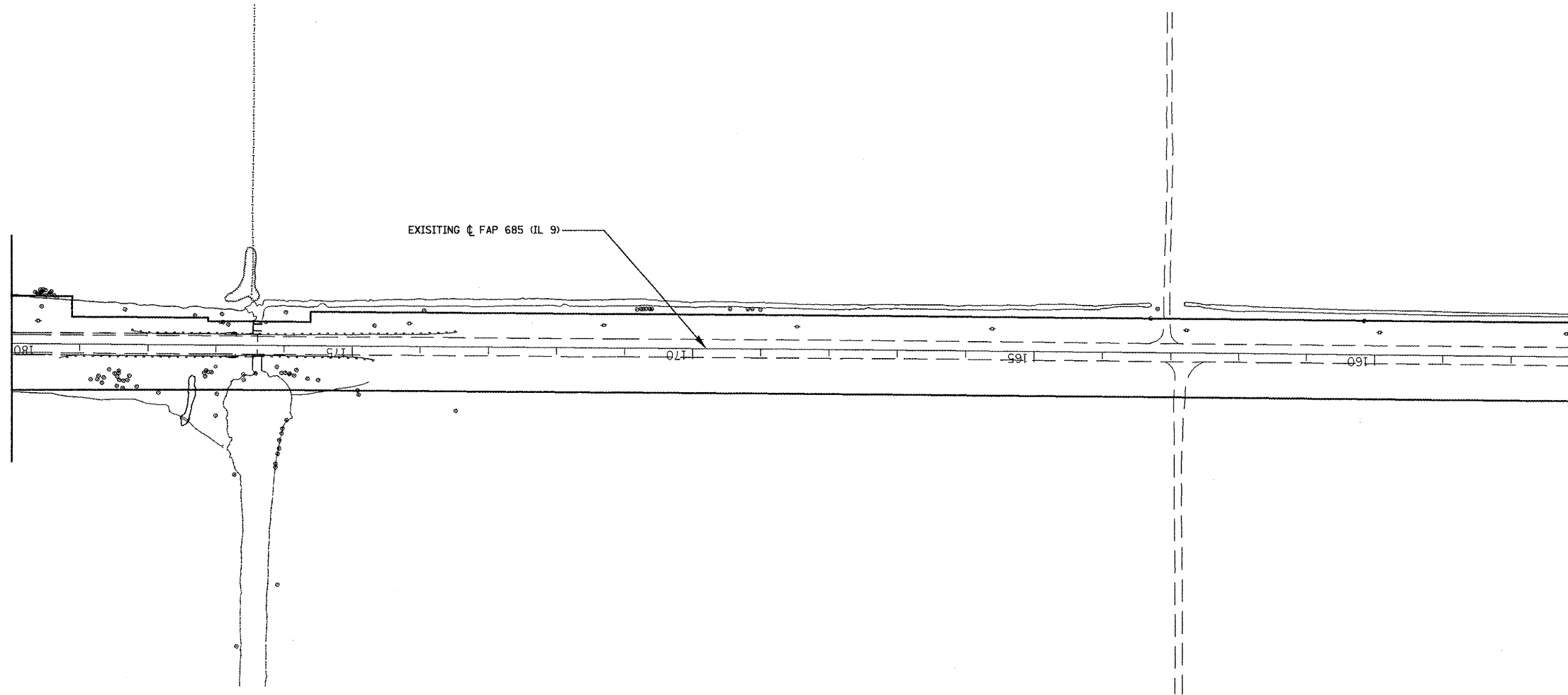


FILE NAME *	USER NAME = brucebom	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RUMBLE STRIP DETAIL			F.A.P.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5:\GEN\DRAW\ST08\PLNS\500AD11\68337\68337A\plans.dgn	PLOT SCALE = 44.2889' / DL	DRAWN -	REVISED -							FULTON	329	174
PLOT DATE = 10/14/2008	DATE -	CHECKED -	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO.

68599

PROPOSED RIGHT OF WAY LINE
 EXISTING RIGHT OF WAY LINE
 PROPOSED TEMPORARY EASEMENT LINE

Section 19 T 7 N R 2 E 4th P.M.



Section 30 T 7 N R 2 E 4th P.M.

FOR OLD R.O.W. SEE:
 PLANFILE 5 SHEETS 37, 37H, 37I Plat File: 39

FILE NAME = s10/s19.m32	USER NAME = crespole	DESIGNED - PCF	REVISED -
		DRAWN - MLA	REVISED -
		CHECKED - PCF	REVISED -
		DATE - 01-2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLANS

R-94-010-07

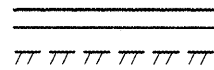
SCALE: 1"=100' SHEET NO. OF SHEETS STA. 157+00.00 TO STA. 180+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
685	**	*	329	175
Cat.# 032750-02			CONTRACT NO. 68599	
ILLINOIS FED. AID PROJECT				

•• (37,38)RS-3,39RS-5;(38)

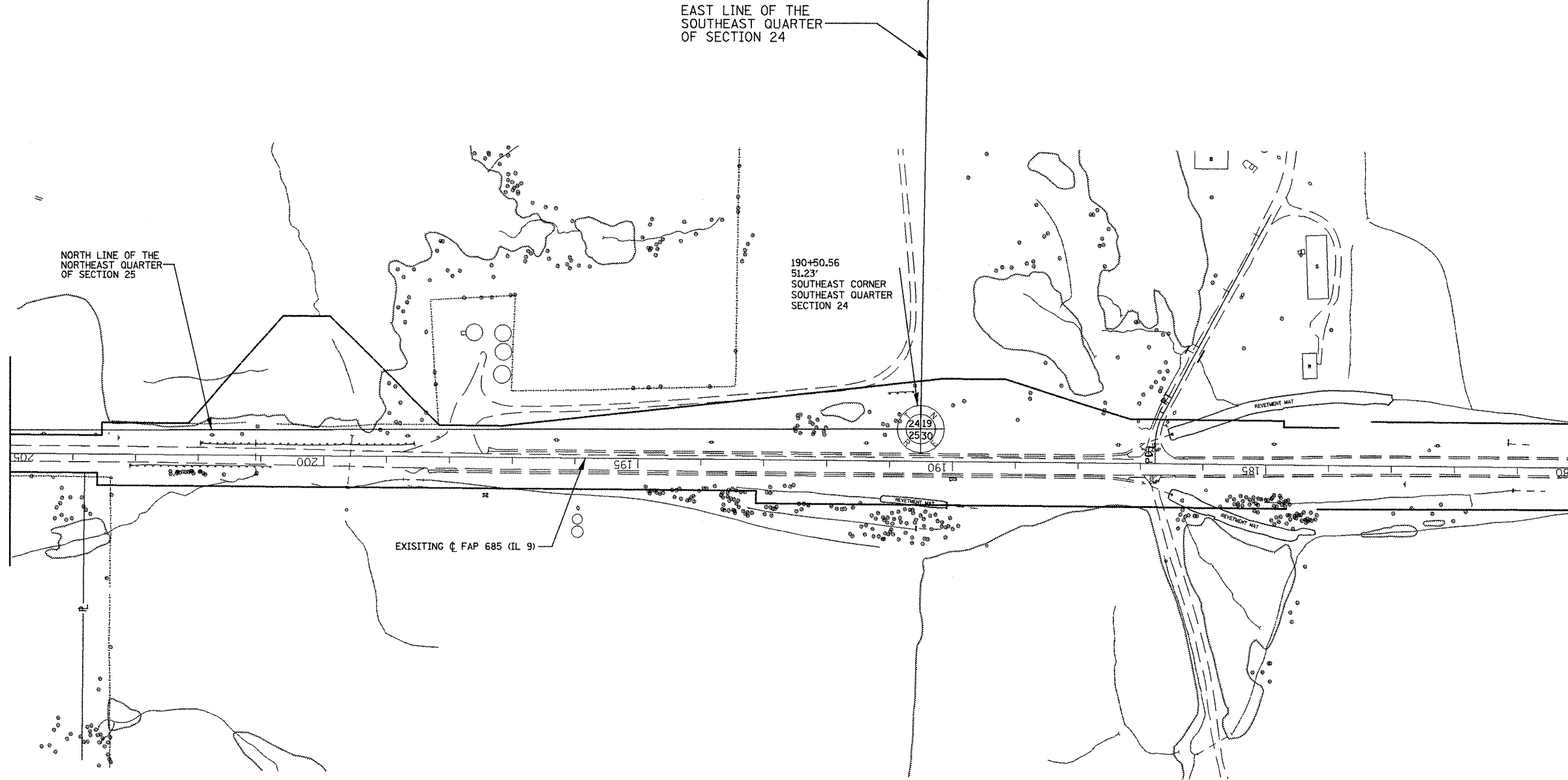
• Fulton, McDonough

PROPOSED RIGHT OF WAY LINE
 EXISTING RIGHT OF WAY LINE
 PROPOSED TEMPORARY EASEMENT LINE



Section 24 T 7 N R 1 E 4th P.M.

Section 19 T 7 N R 2 E 4th P.M.



EXIST. CURVE RIVBTCURV1
 PI STA. = 10+54.52
 $\Delta = 29^\circ 17' 30''$ (RT)
 $D = 52^\circ 05' 14''$
 $R = 110.00'$
 $T = 28.75'$
 $L = 56.24'$
 $E = 3.69'$
 P.C. STA. = 10+25.77
 P.T. STA. = 10+82.01

EAST LINE OF THE
 NORTHEAST QUARTER
 OF SECTION 25

Section 25 T 7 N R 1 E 4th P.M.

Section 30 T 7 N R 2 E 4th P.M.

FOR OLD R.O.W. SEE:
 PLANFILE 5 SHEETS 36, 37I, 39

Plat File: 39

FILE NAME = 119/119.m32	USER NAME = crespole	DESIGNED - PCF	REVISED -
		DRAWN - MLA	REVISED -
		CHECKED - PCF	REVISED -
		DATE - 01-2011	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

RIGHT OF WAY PLANS

SCALE: 1"=100' SHEET NO. OF SHEETS STA. 180+00.00 TO STA. 205+00.00

F.A.P. RTE. 685	SECTION ..	COUNTY ..	TOTAL SHEETS 329	SHEET NO. 176
Cat.# 032750-02			CONTRACT NO. 68599	
ILLINOIS FED. AID PROJECT				

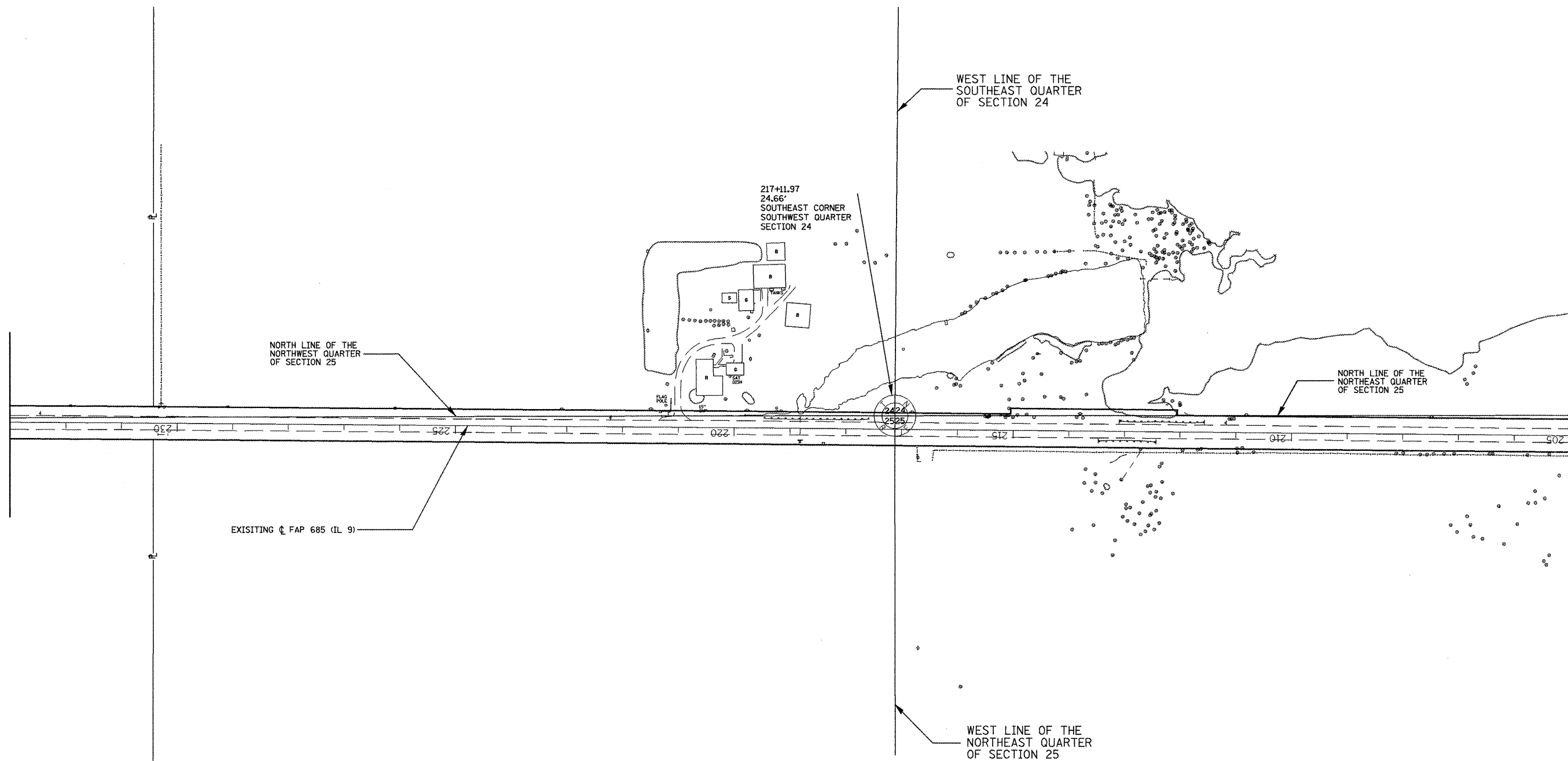
R-94-010-07

.. (37,38)RS-3,39RS-5(38)I

Fulton, McDonough

PROPOSED RIGHT OF WAY LINE
 EXISTING RIGHT OF WAY LINE
 PROPOSED TEMPORARY EASEMENT LINE

Section 24 T 7 N R 1 E 4th P.M.



Section 25 T 7 N R 1 E 4th P.M.

FOR OLD R.O.W. SEE:
 PLANFILE 5 SHEET 36
 Plat File: 39

FILE NAME = 119/119.m32	USER NAME = crespole	DESIGNED - PCF	REVISED -
		DRAWN - MLA	REVISED -
	PLLOT SCALE = 288.0000' / IN.	CHECKED - PCF	REVISED -
	PLLOT DATE = 4/6/2011	DATE - 01-2011	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

RIGHT OF WAY PLANS

SCALE: 1"=100' SHEET NO. OF SHEETS STA. 205+00.00 TO STA. 234+00.00

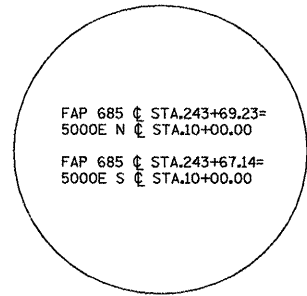
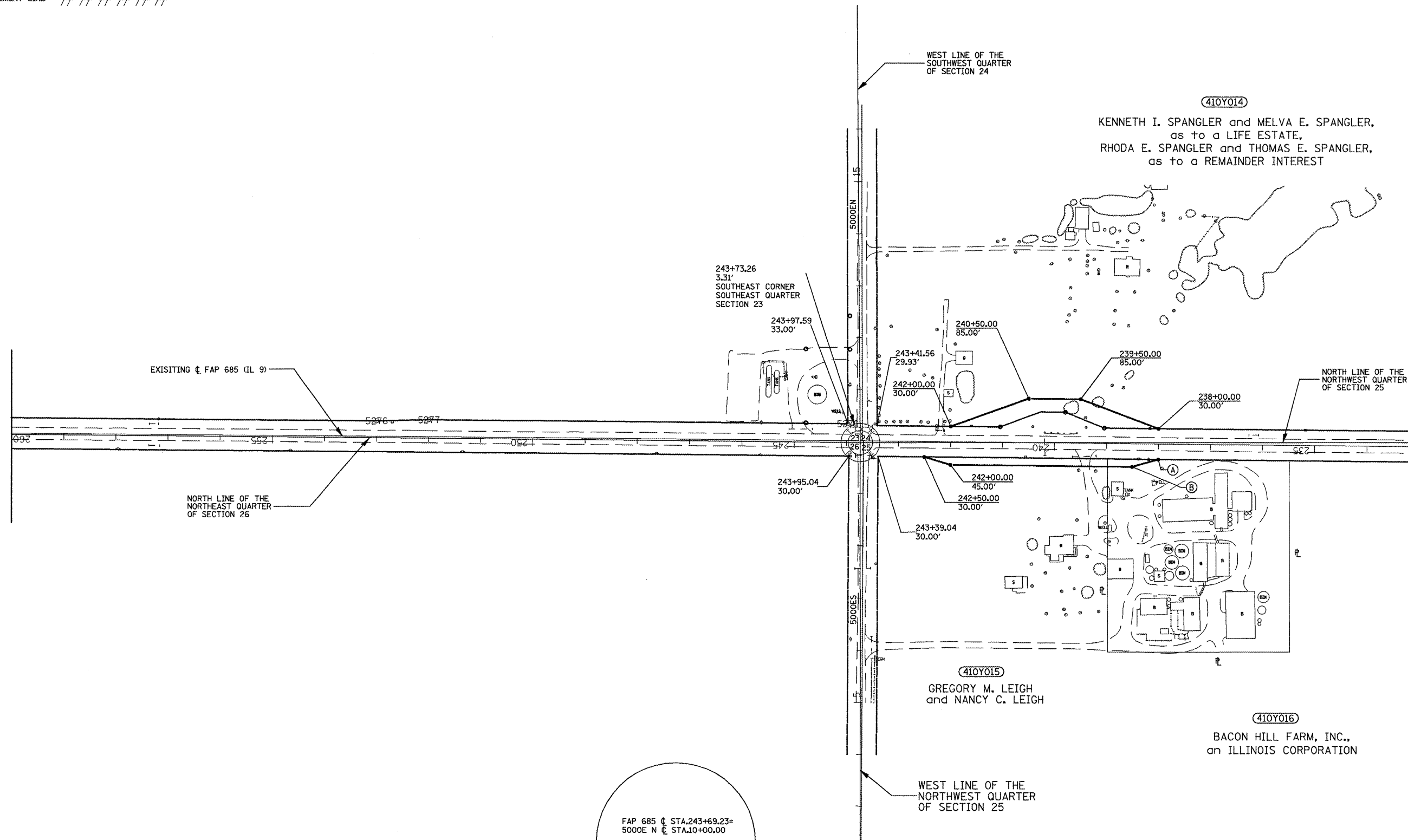
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
685	**	*	329	177
Cat.# 032750-02			CONTRACT NO. 68599	

DESIGNOPT2.dgn ILLINOIS FED. AID PROJECT

PROPOSED RIGHT OF WAY LINE
 EXISTING RIGHT OF WAY LINE
 PROPOSED TEMPORARY EASEMENT LINE

Section 23 T 7 N R 1 E 4th P.M.

Section 24



Section 26 T 7 N R 1 E 4th P.M.

Section 25

FOR OLD R.O.W. SEE:
 PLANFILE 5 SHEET 371

Plot File: 39

FILE NAME = 119/119.m32	USER NAME = crespole	DESIGNED - PCF	REVISED -
		DRAWN - MLA	REVISED -
		CHECKED - PCF	REVISED -
		DATE - 01-2011	REVISED -

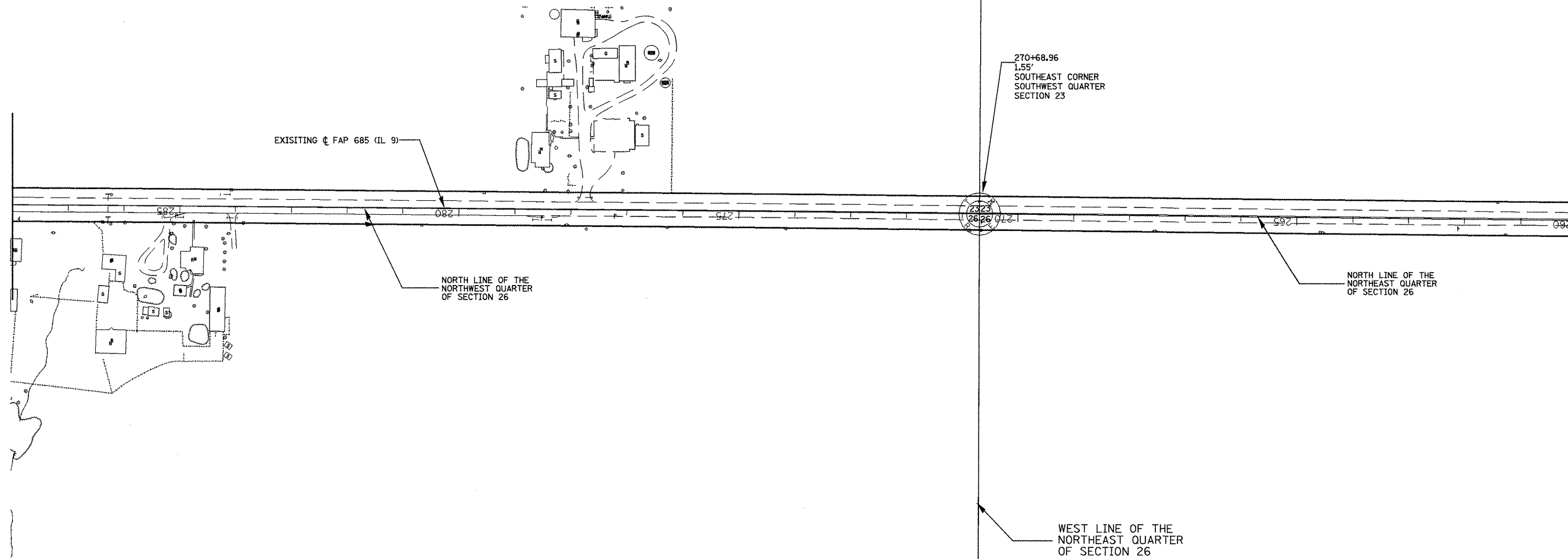
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

RIGHT OF WAY PLANS			
R-94-010-07			
SCALE: 1"=100'	SHEET NO.	OF SHEETS	STA. 253+00.00 TO STA. 260+00.00

F.A.P. RTE. 685	SECTION ..	COUNTY .	TOTAL SHEETS 329	SHEET NO. 178
Cat. # 032750-02			CONTRACT NO. 68599	
ILLINOIS FED. AID PROJECT				

Section 23 T 7 N R 1 E 4th P.M.

PROPOSED RIGHT OF WAY LINE
 EXISTING RIGHT OF WAY LINE
 PROPOSED TEMPORARY EASEMENT LINE



Section 26 T 7 N R 1 E 4th P.M.

FOR OLD R.O.W. SEE:
 PLANFILE 5 SHEET 36

Plat File: 39

FILE NAME = 119/119.m32	USER NAME = crespole	DESIGNED - PCF	REVISED -
		DRAWN - MLA	REVISED -
	PLOT SCALE = 200.0000' / IN.	CHECKED - PCF	REVISED -
	PLOT DATE = 4/6/2011	DATE - 01-2011	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

RIGHT OF WAY PLANS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
685	**	*	329	179
Cat.# 032750-02		CONTRACT NO. 68599		
ILLINOIS FED. AID PROJECT				

SCALE: 1"=100' SHEET NO. OF SHEETS STA. 260+00.00 TO STA. 288+00.00

R-94-010-07

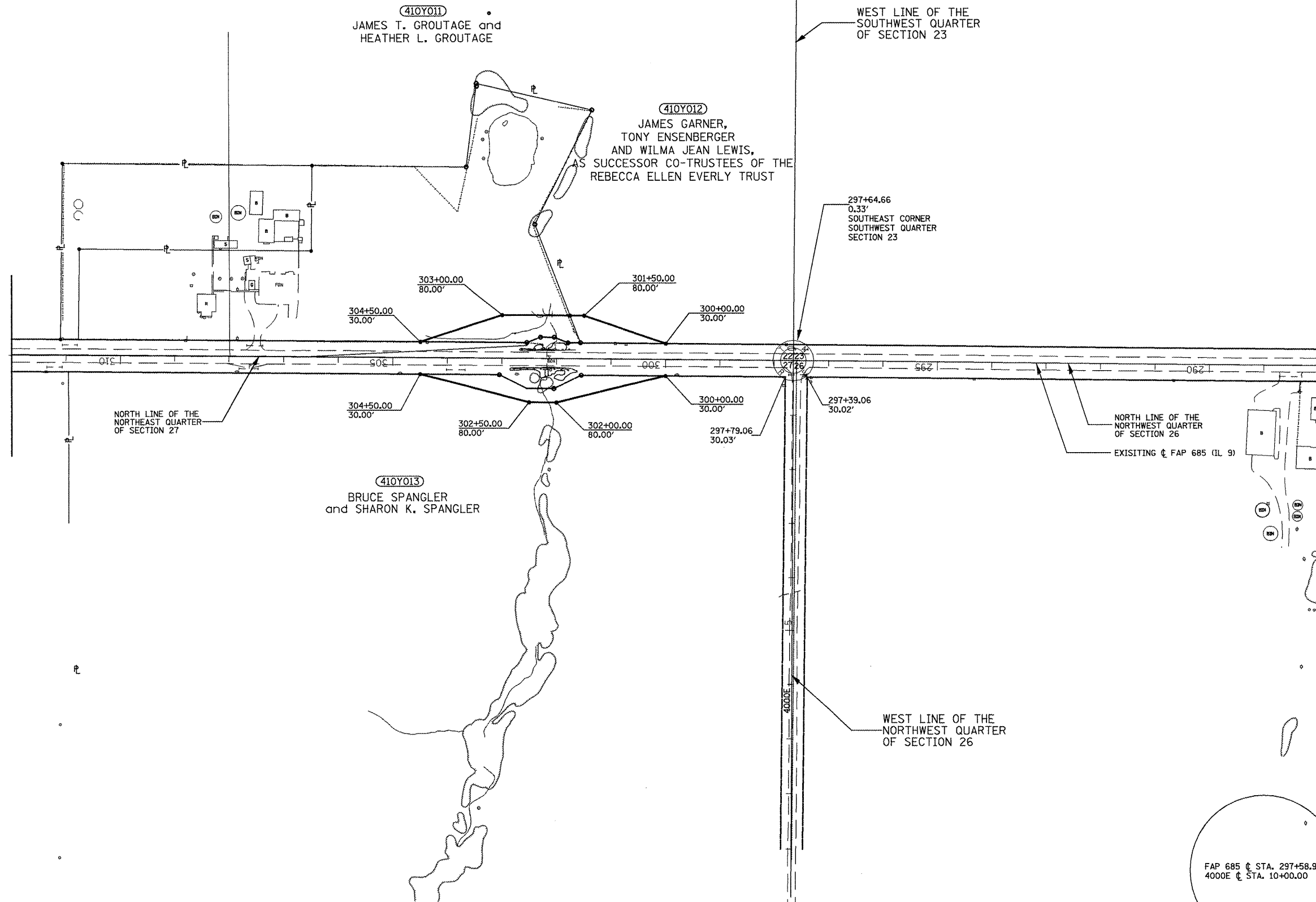
11/13/2005-3 3005-Ex3007

Edison, Me...

PROPOSED RIGHT OF WAY LINE
 EXISTING RIGHT OF WAY LINE
 PROPOSED TEMPORARY EASEMENT LINE

Section 22 T 7 N R 1 E 4th P.M.

Section 23



EXIST. CURVE 3500ECURV1
 PI STA. = 15+80.47
 $\Delta = 90^\circ 02' 44''$ (RT)
 D = 7° 47' 43"
 R = 735.00'
 T = 735.58'
 L = 1,155.12'
 E = 304.86'
 P.C. STA. = 8+44.88
 P.T. STA. = 20+00.00

Section 27 T 7 N R 1 E 4th P.M.

Section 26

FOR OLD R.O.W. SEE:
 PLANFILE 5 SHEETS 35, 36 Plat File: 39

FILE NAME = 119/119.m32	USER NAME = crespole	DESIGNED - PCF	REVISED -
		DRAWN - MLA	REVISED -
	PLOT SCALE = 200.0000' / IN.	CHECKED - PCF	REVISED -
	PLOT DATE = 4/6/2011	DATE - 01-2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLANS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
685			329	180
Cat.# 032750-02		CONTRACT NO. 68599		

SCALE: 1"=100' SHEET NO. OF SHEETS STA. 280+00.00 TO STA. 312+00.00

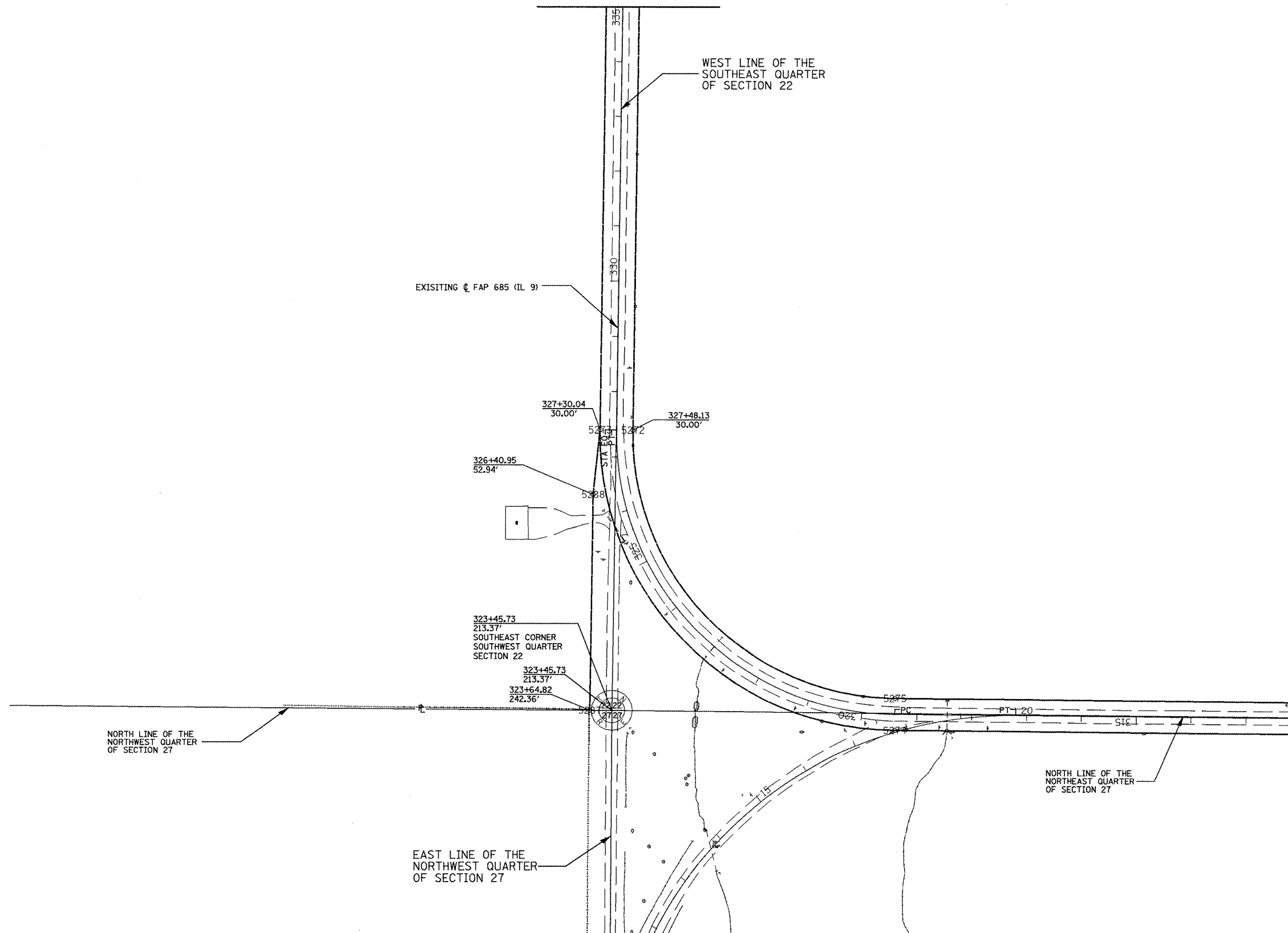
PROPOSED RIGHT OF WAY LINE
 EXISTING RIGHT OF WAY LINE
 PROPOSED TEMPORARY EASEMENT LINE

Section 22 T 7 N R 1 E 4th P.M.



STATION EQUATION:
 STA 327+48.13 BK=
 STA 327+30.04 AH

EXIST. CURVE IL9CURV1
 PI STA. = 324+55.60
 $\Delta = 90^\circ 19' 03''$ (RT)
 $D = 11^\circ 10' 47''$
 $R = 512.50'$
 $T = 515.35'$
 $L = 807.87'$
 $E = 214.30'$
 P.C. STA. = 319+40.26
 P.T. STA. = 327+48.13



EXIST. CURVE 3500ECURV1
 PI STA. = 15+80.47
 $\Delta = 90^\circ 02' 44''$ (RT)
 $D = 7^\circ 47' 43''$
 $R = 735.00'$
 $T = 735.58'$
 $L = 1,155.12'$
 $E = 304.86'$
 P.C. STA. = 8+44.88
 P.T. STA. = 20+00.00

Section 27 T 7 N R 1 E 4th P.M.

FOR OLD R.O.W. SEE:
 PLANFILE 5 SHEETS 35, 36

Plat File:39

FILE NAME = 119/119.m32	USER NAME = crespole	DESIGNED - PCF	REVISED -
		DRAWN - MLA	REVISED -
	PLLOT SCALE = 200.0000 "/ IN.	CHECKED - PCF	REVISED -
	PLLOT DATE = 4/6/2011	DATE - 01-2011	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLANS

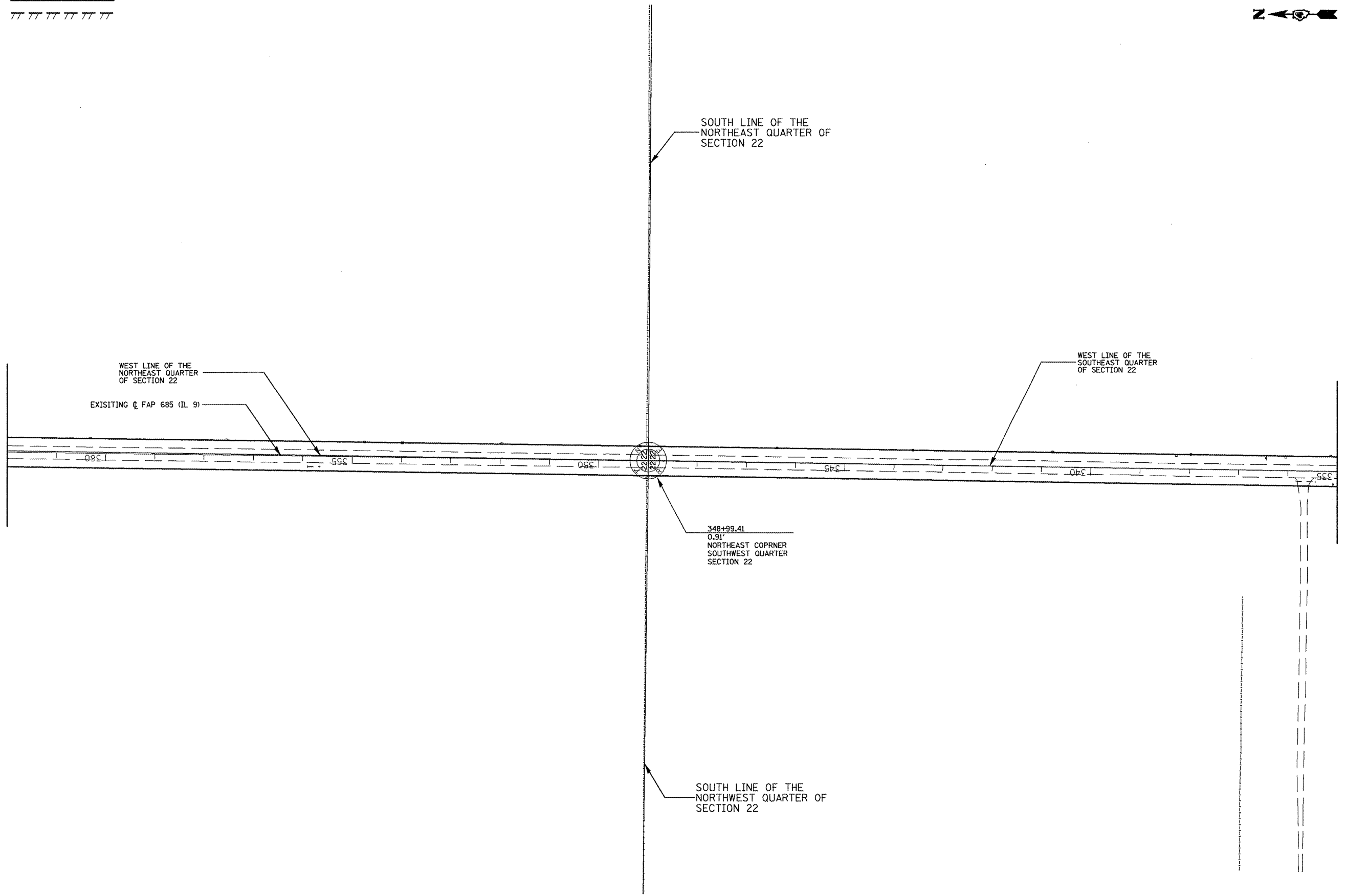
SCALE: 1"=100' SHEET NO. OF SHEETS STA. 312+00.00 TO STA. 335+00.00

F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 181
Cat.# 032750-02		CONTRACT NO. 68599		
ILLINOIS FED. AID PROJECT				

137 3885-3 3985-5/381 Euton, McDevitt

Section 22 T 7 N R 1 E 4th P.M.

PROPOSED RIGHT OF WAY LINE
 EXISTING RIGHT OF WAY LINE
 PROPOSED TEMPORARY EASEMENT LINE



FOR OLD R.O.W. SEE:
 PLANFILE 5 SHEET 35
 Plat File: 39

FILE NAME = 119/119.m32	USER NAME = crespole	DESIGNED - PCF	REVISED -
		DRAWN - MLA	REVISED -
	PLDT SCALE = 200.0000' / IN.	CHECKED - PCF	REVISED -
	PLDT DATE = 4/6/2011	DATE - 01-2011	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

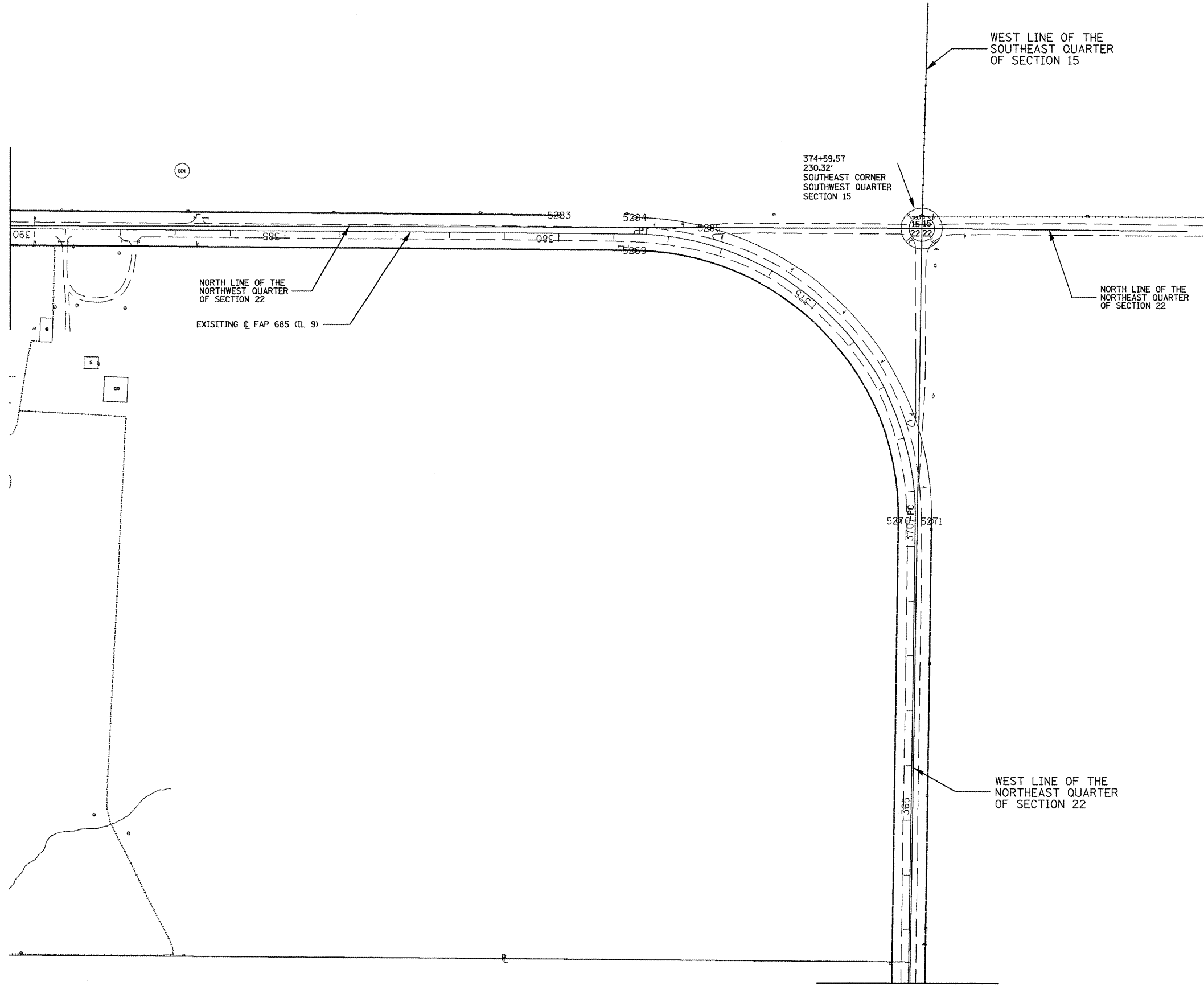
RIGHT OF WAY PLANS

R-94-010-07
 SCALE: 1"=100' SHEET NO. OF SHEETS STA. 335+00.00 TO STA. 362+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
685	**	*	329	182
Cat.# 032750-02		CONTRACT NO. 68599		
ILLINOIS FED. AID PROJECT				

Section 15 T 7 N R 1 E 4th P.M.

PROPOSED RIGHT OF WAY LINE
 EXISTING RIGHT OF WAY LINE
 PROPOSED TEMPORARY EASEMENT LINE



EXIST. CURVE IL9CURV2
 PI STA. = 375+66.90
 $\Delta = 90^\circ 19' 52''$ (LT)
 $D = 11^\circ 04' 18''$
 $R = 517.50'$
 $T = 520.50'$
 $L = 815.88'$
 $E = 216.48'$
 P.C. STA. = 370+46.40
 P.T. STA. = 378+62.28

Section 22 T 7 N R 1 E 4th P.M.

FOR OLD R.O.W. SEE:
 PLANFILE 5 SHEET 35 Plat File: 39

FILE NAME = 119/119.m32	USER NAME = crespole	DESIGNED - PCF	REVISED -
		DRAWN - MLA	REVISED -
		CHECKED - PCF	REVISED -
		DATE - 01-2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

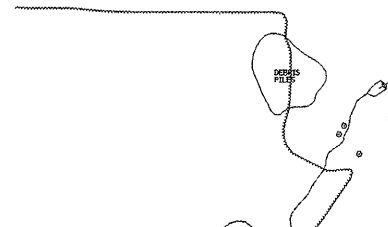
SCALE: 1"=100'	SHEET NO. OF SHEETS	STA. 362+00.00 TO STA. 390+00.00
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F.A.P. RTE. 685	SECTION ..	COUNTY ..	TOTAL SHEETS 329	SHEET NO. 183
Cat.# 032750-02		CONTRACT NO. 68599		
ILLINOIS FED. AID PROJECT				

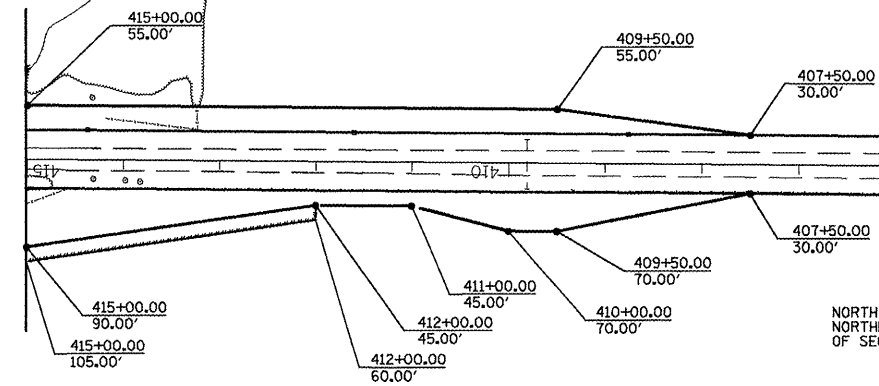
Section 16 T 7 N R 1 E 4th P.M.

Section 15

PROPOSED RIGHT OF WAY LINE
 EXISTING RIGHT OF WAY LINE
 PROPOSED TEMPORARY EASEMENT LINE



(410Y009)
 SARA McLEES, TRUSTEE of the commonly known CE/M TAYLOR TRUST

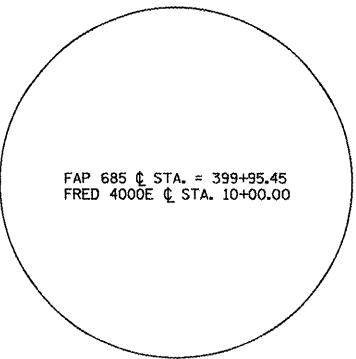


NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 20

399+95.45
 0.61'
 SOUTHEAST CORNER SOUTHEAST QUARTER SECTION 16

400+21.78
 30.00'

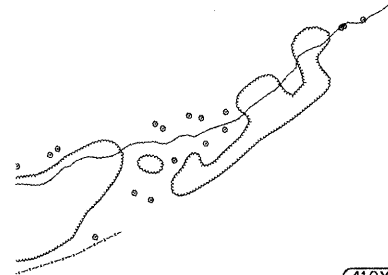
399+68.70
 33.00'



WEST LINE OF THE SOUTHWEST QUARTER OF SECTION 15

FRED 4000E

EXISTING C FAP 685 (IL 9)
 NORTH LINE OF THE NORTHWEST QUARTER OF SECTION 22



(410Y010)
 VIRGINIA I. ACKERSON & GAYLORD O. ACKERSON, CO-TRUSTEES

WEST LINE OF THE NORTHWEST QUARTER OF SECTION 22

Section 17 T 7 N R 1 E 4th P.M.

Section 22

FOR OLD R.O.W. SEE: PLANFILE 5 SHEET 34, 35 Plat File: 39

FILE NAME = 119/119.m32	USER NAME = crespole	DESIGNED - PCF	REVISED -
		DRAWN - MLA	REVISED -
		CHECKED - PCF	REVISED -
		DATE - 01-2011	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLANS

SCALE: 1"=100' SHEET NO. OF SHEETS STA. 390+00.00 TO STA. 415+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
685	**	*	329	184
Cat.# 032750-02			CONTRACT NO. 68599	

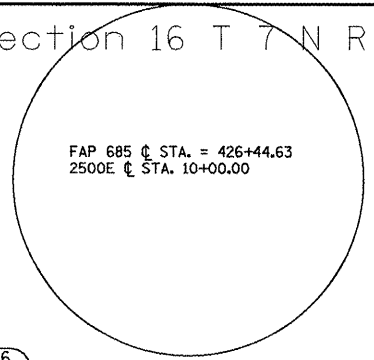
R-94-010-07

ILLINOIS FED. AID PROJECT

(37-38)BS-3-3985-5(38) Fulton, McDonough

Section 16 T 7 N R 1 E 4th P.M.

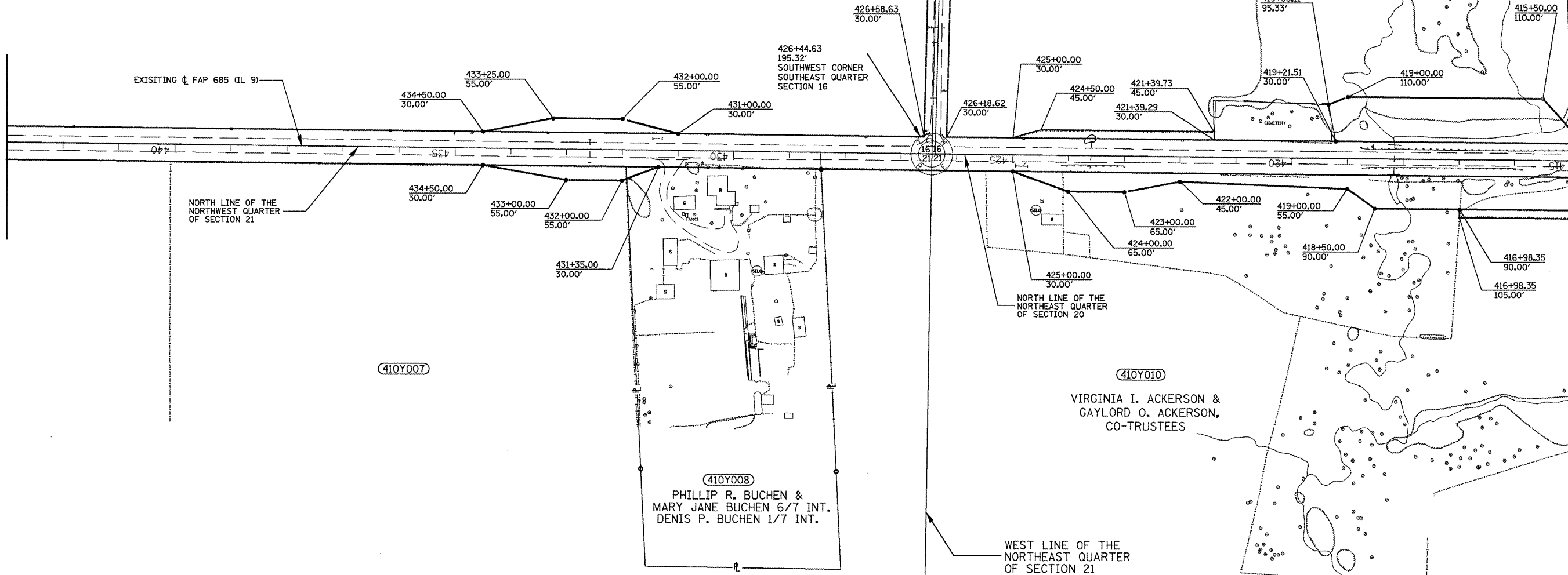
PROPOSED RIGHT OF WAY LINE
 EXISTING RIGHT OF WAY LINE
 PROPOSED TEMPORARY EASEMENT LINE



410Y006
 TRACT 2
 MARJORIE WILLIAMS and RICHARD L. WILLIAMS, TRUSTEES

WEST LINE OF THE
 SOUTHEAST QUARTER
 OF SECTION 16

410Y009
 SARA McLEES, TRUSTEE of the commonly
 known CE/M TAYLOR TRUST



410Y007

410Y008
 PHILLIP R. BUCHEN &
 MARY JANE BUCHEN 6/7 INT.
 DENIS P. BUCHEN 1/7 INT.

410Y010
 VIRGINIA I. ACKERSON &
 GAYLORD O. ACKERSON,
 CO-TRUSTEES

WEST LINE OF THE
 NORTHEAST QUARTER
 OF SECTION 21

Section 21 T 7 N R 1 E 4th P.M.

FOR OLD R.O.W. SEE:
 PLANFILE 5 SHEET 34, 35 Plat File: 39

FILE NAME = 119/119.m32	USER NAME = crespole	DESIGNED - PCF	REVISED -
		DRAWN - MLA	REVISED -
		CHECKED - PCF	REVISED -
		DATE - 01-2011	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLANS

SCALE: 1"=100' SHEET NO. OF SHEETS STA. 415+00.00 TO STA. 443+00.00

F.A.P. RTE. 685	SECTION ..	COUNTY ..	TOTAL SHEETS 329	SHEET NO. 185
Cat.# 032750-02			CONTRACT NO. 68599	

R-94-010-07

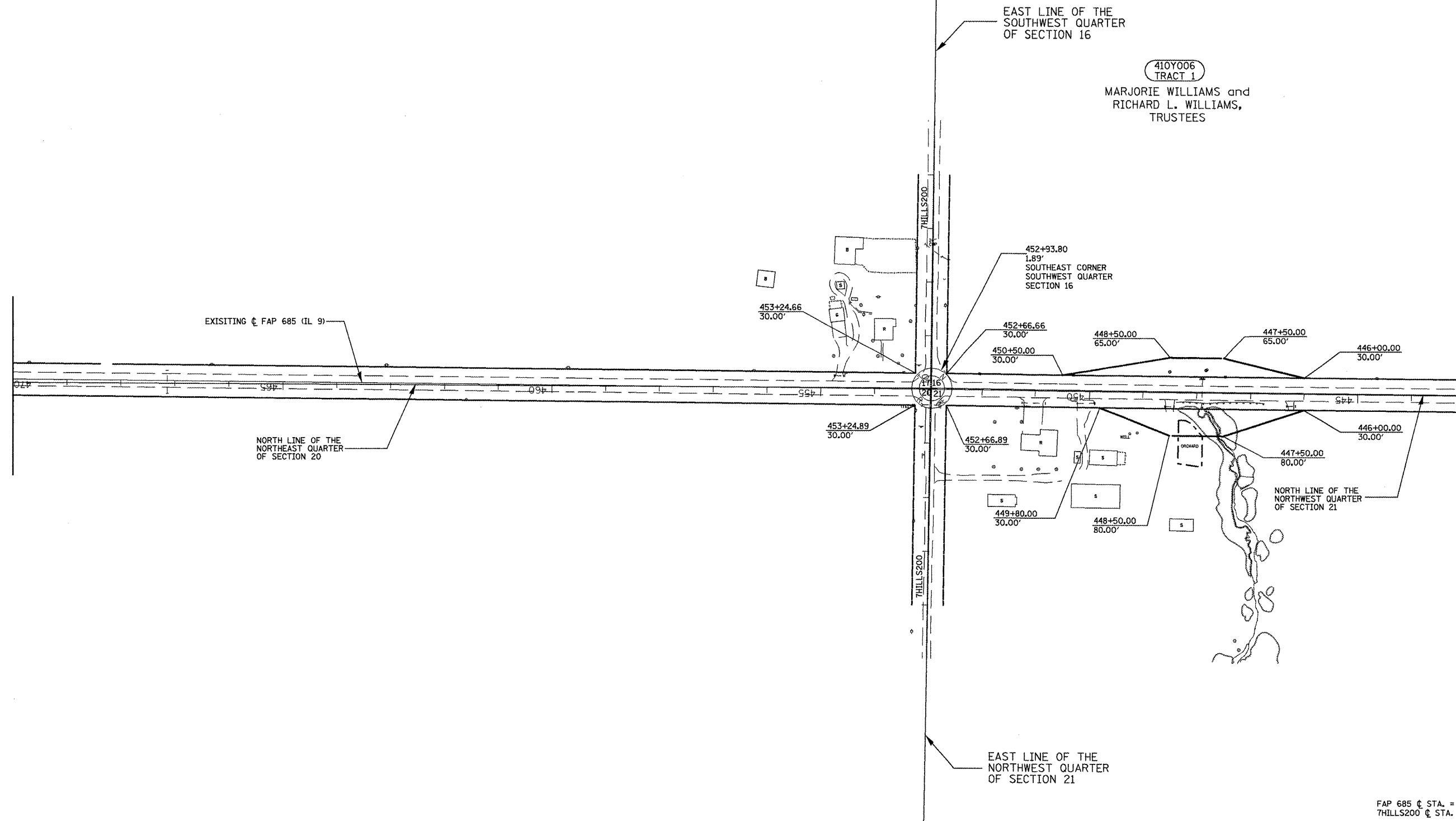
ILLINOIS FED. AID PROJECT

(37,39)RS-3,39RS-5(38)1 * Fulton, McDonough

Section 17 T 7 N R 1 E 4th P.M.

Section 16

PROPOSED RIGHT OF WAY LINE
 EXISTING RIGHT OF WAY LINE
 PROPOSED TEMPORARY EASEMENT LINE



410Y006
 TRACT 1
 MARJORIE WILLIAMS and
 RICHARD L. WILLIAMS,
 TRUSTEES

FAP 685 C STA. =
 7HILLS200 C STA.

Section 20 T 7 N R 1 E 4th P.M.

Section 21

FOR OLD R.O.W. SEE:
 PLANFILE 5 SHEET 34 Plat File: 39

FILE NAME = 119/119.m32	USER NAME = crespole	DESIGNED - PCF	REVISED -
		DRAWN - MLA	REVISED -
		CHECKED - PCF	REVISED -
		DATE - 01-2011	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLANS

SCALE: SHEET NO. OF SHEETS STA. 470+00.00 TO STA. 443+00.00

F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 186
Cat.# 032750-02		CONTRACT NO. 68599		

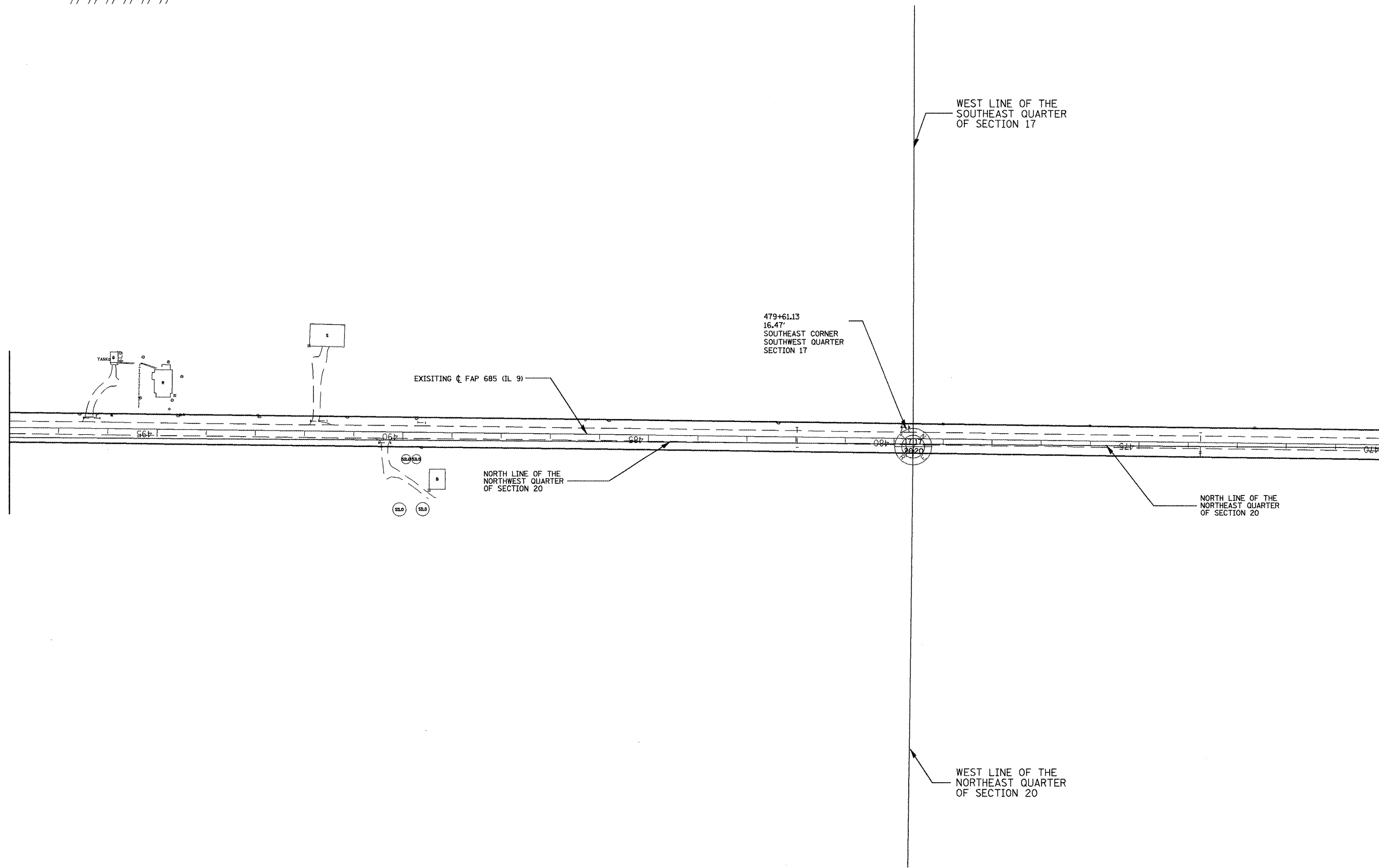
R-94-010-07

ILLINOIS FED. AID PROJECT

** (37,38)RS-3,39RS-5(38)1 * Fulton, McDonough

Section 17 T 7 N R 1 E 4th P.M.

PROPOSED RIGHT OF WAY LINE
 EXISTING RIGHT OF WAY LINE
 PROPOSED TEMPORARY EASEMENT LINE



Section 20 T 7 N R 1 E 4th P.M.

FOR OLD R.O.W. SEE:
 PLANFILE 5 SHEET 34
 Plat File: 39

FILE NAME = 119/119.m32	USER NAME = c-espole	DESIGNED - PCF	REVISED -
		DRAWN - MLA	REVISED -
		CHECKED - PCF	REVISED -
		DATE - 01-2011	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

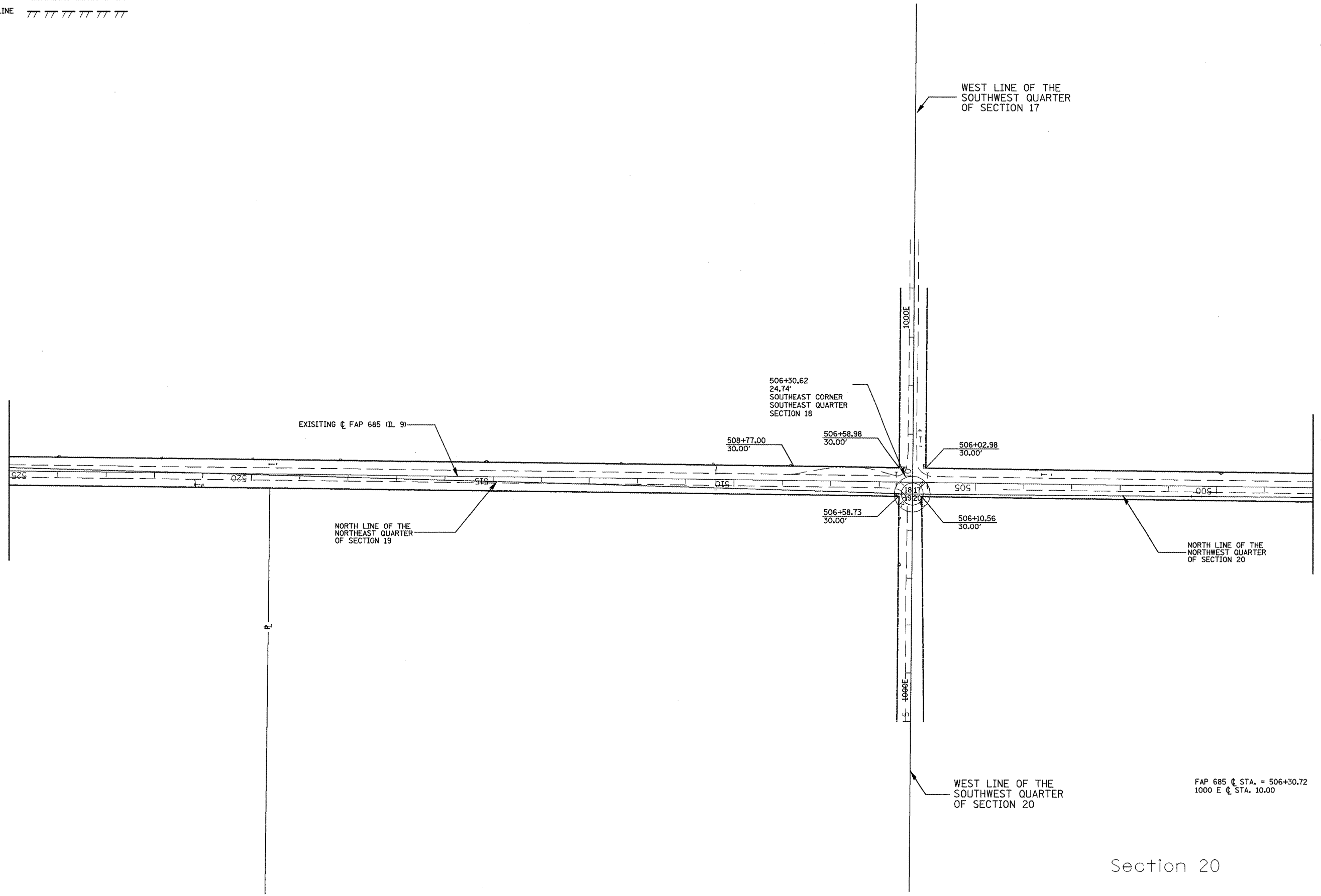
RIGHT OF WAY PLANS			
SCALE: 1"=100'	SHEET NO. OF SHEETS	STA. 470+00.00 TO STA. 498+00.00	R-94-010-07

F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 187
Cat.# 032750-02		CONTRACT NO. 68599		
ILLINOIS FED. AID PROJECT				

PROPOSED RIGHT OF WAY LINE
 EXISTING RIGHT OF WAY LINE
 PROPOSED TEMPORARY EASEMENT LINE

Section 18 T 7 N R 1 E 4th P.M.

Section 17



Section 19 T 7 N R 1 E 4th P.M.

Section 20

FAP 685 @ STA. = 506+30.72
 1000 E @ STA. 10.00

FOR OLD R.O.W. SEE:
 PLANFILE 5 SHEET 34 Plat File: 39

FILE NAME = 110/119.m32	USER NAME = crespole	DESIGNED - PCF	REVISED -
		DRAWN - MLA	REVISED -
		CHECKED - PCF	REVISED -
		DATE - 01-2011	REVISED -

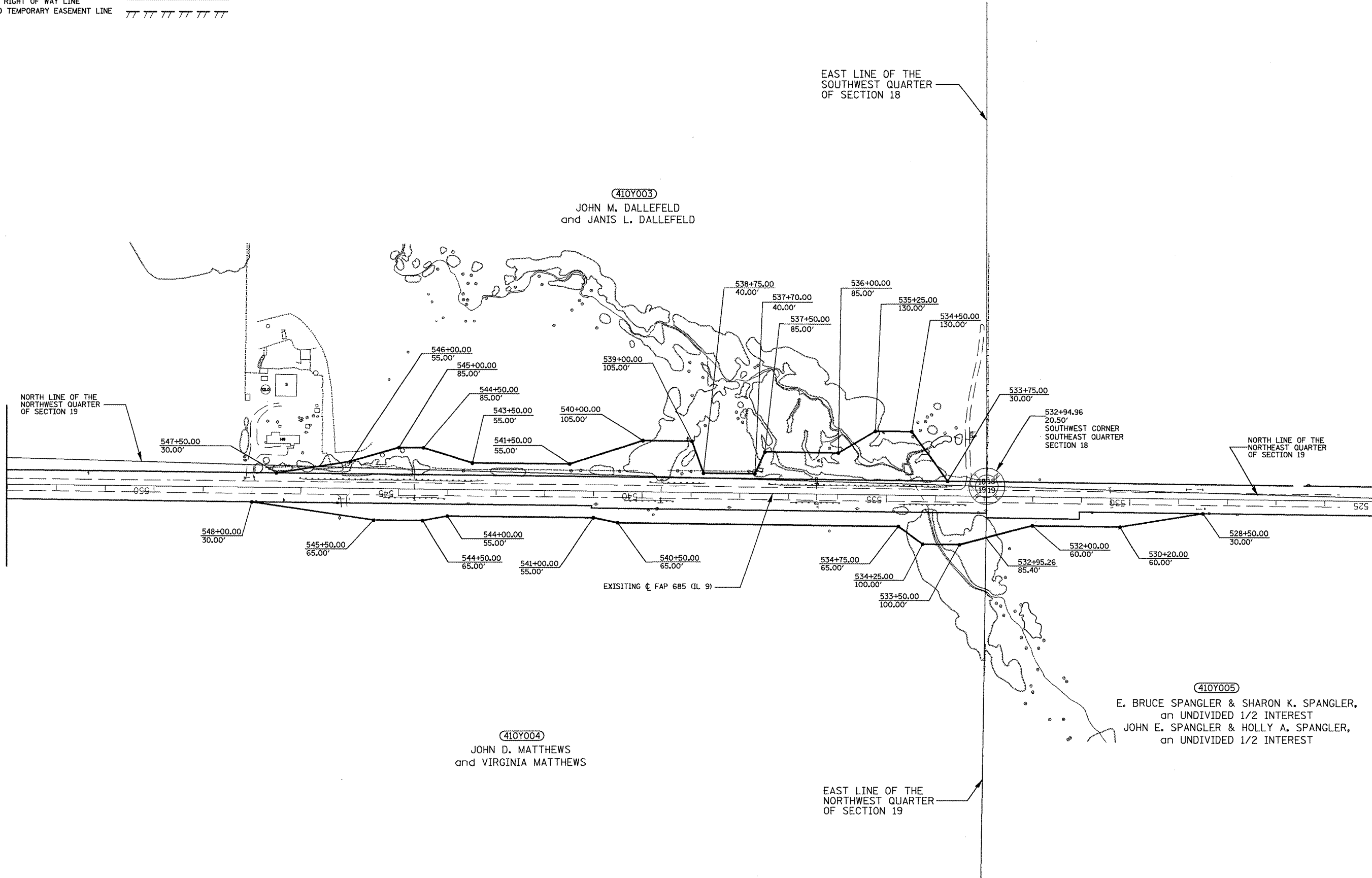
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

RIGHT OF WAY PLANS			
SCALE: 1"=100'	SHEET NO.	OF SHEETS	STA. 498+00.00 TO STA. 520+00.00

F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 188
Cat.# 032750-02		CONTRACT NO. 68599		

Section 18 T 7 N R 1 E 4th P.M.

PROPOSED RIGHT OF WAY LINE
 EXISTING RIGHT OF WAY LINE
 PROPOSED TEMPORARY EASEMENT LINE



Section 19 T 7 N R 1 E 4th P.M.

FOR OLD R.O.W. SEE:
 PLANFILE 5 SHEETS 33, 34 Plat File: 39

FILE NAME = 119/119.m32	USER NAME = crespole	DESIGNED - PCF	REVISED -
		DRAWN - MLA	REVISED -
		CHECKED - PCF	REVISED -
		DATE - 01-2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLANS	
SCALE: 1"=100'	SHEET NO. OF SHEETS STA. 524+00.00 TO STA. 553+00.00

F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 189
Cat.# R-94-010-07 032750-02		CONTRACT NO. 68599		
ILLINOIS FED. AID PROJECT				

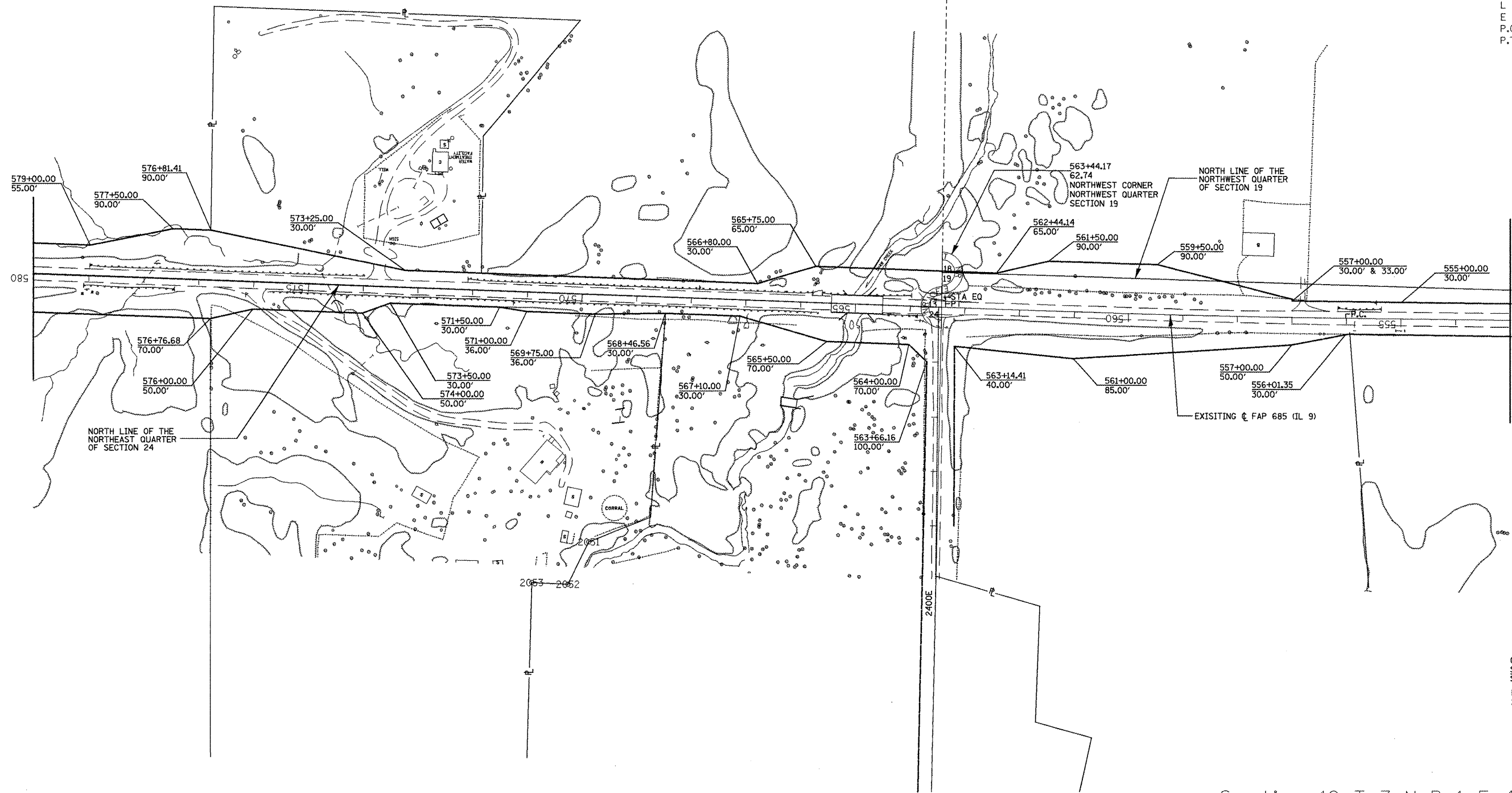
PROPOSED RIGHT OF WAY LINE
 EXISTING RIGHT OF WAY LINE
 PROPOSED TEMPORARY EASEMENT LINE

Section 13, T 7 N R 1 W 4th P.M.

Section 18 T 7 N R 1 E 4th P.M.



EXIST. CURVE IL9CURV3
 PI STA. = 559+68.35
 $\Delta = 1^\circ 27' 12''$ (RT)
 $D = 0^\circ 11' 53''$
 $R = 28,933.81'$
 $T = 367.00'$
 $L = 733.96'$
 $E = 2.33'$
 P.C. STA. = 556+01.35
 P.T. STA. = 563+35.31



Section 24, T 7 N R 1 W 4th P.M.

Section 19 T 7 N R 1 E 4th P.M.

FOR OLD R.O.W. SEE:
 PLANFILE 5 SHEETS 33A,33B Plat File: 39

☺ FAP 686 STA EQ:
 STA 563+35.31 BK
 STA 563+35.80 AH
 FAP 685 ☺ STA. 563+42.92 =
 2400 E ☺ STA. 99.54

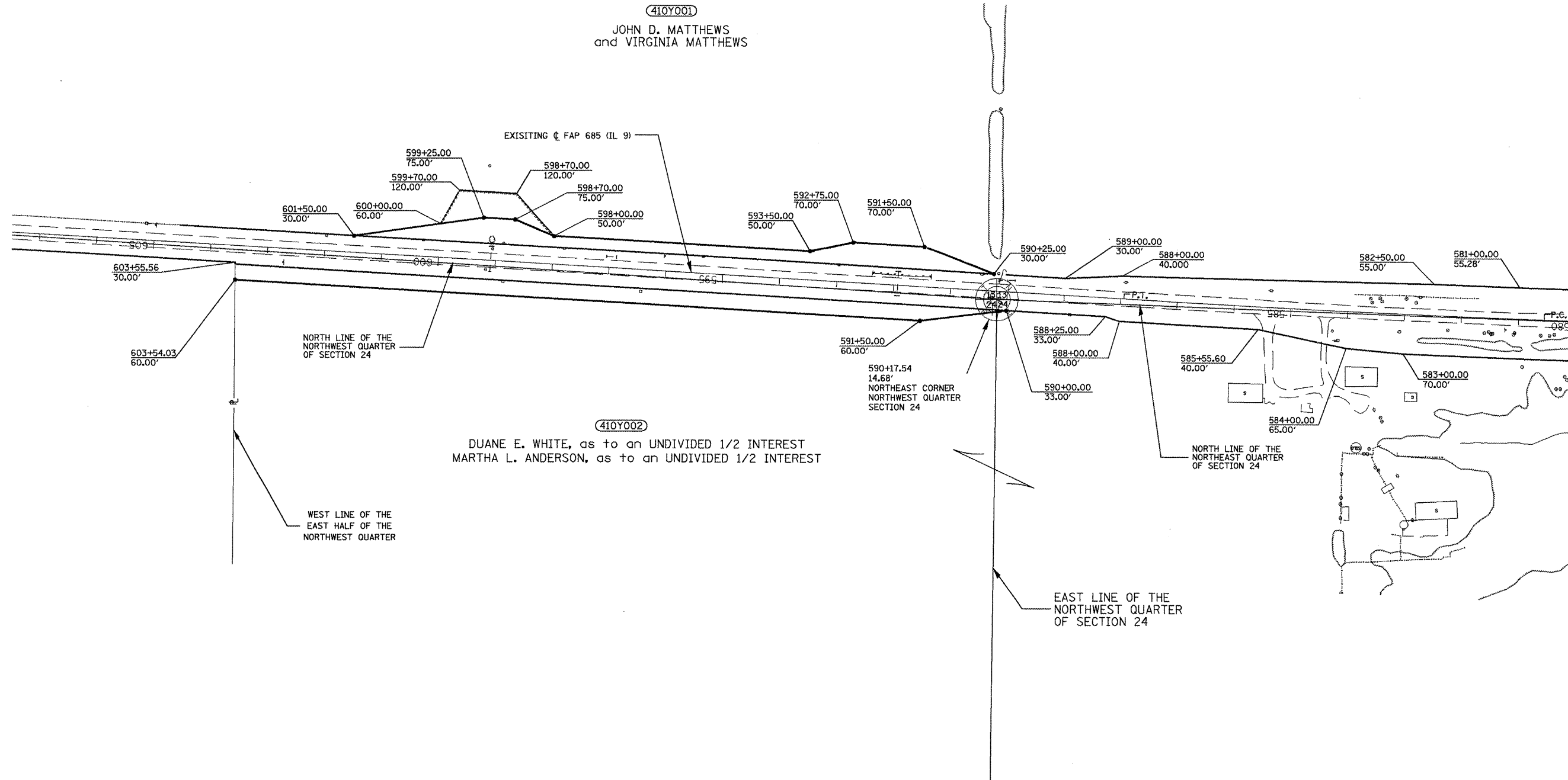
FILE NAME = 119/119.m32	USER NAME = crespole	DESIGNED - PCF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RIGHT OF WAY PLANS		F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 190
	PLOT SCALE = 288.0000' / IN.	CHECKED - PCF	REVISED -		SCALE: 1"=100'	SHEET NO. OF SHEETS	STA. 553+00.00 TO STA. 580+00.00	R-94-010-07	Cat.# 032750-02	ILLINOIS FED. AID PROJECT	CONTRACT NO. 68599
PLOT DATE = 4/6/2011	DATE - 01-2011	REVISED -	REVISED -								

Section 13, T 7 N R 1 W 4th P.M.

EXIST. CURVE IL9CURV4
 PI STA. = 584+24.78
 $\Delta = 1^\circ 13' 37''$ (RT)
 $R = 34,528.54'$
 $T = 369.70'$
 $L = 739.38'$
 $E = 1.98'$
 P.C. STA. = 580+55.08
 P.T. STA. = 587+94.46



PROPOSED RIGHT OF WAY LINE
 EXISTING RIGHT OF WAY LINE
 PROPOSED TEMPORARY EASEMENT LINE



FOR OLD R.O.W. SEE:
 PLANFILE 5 SHEETS 33,33A Plat File: 39

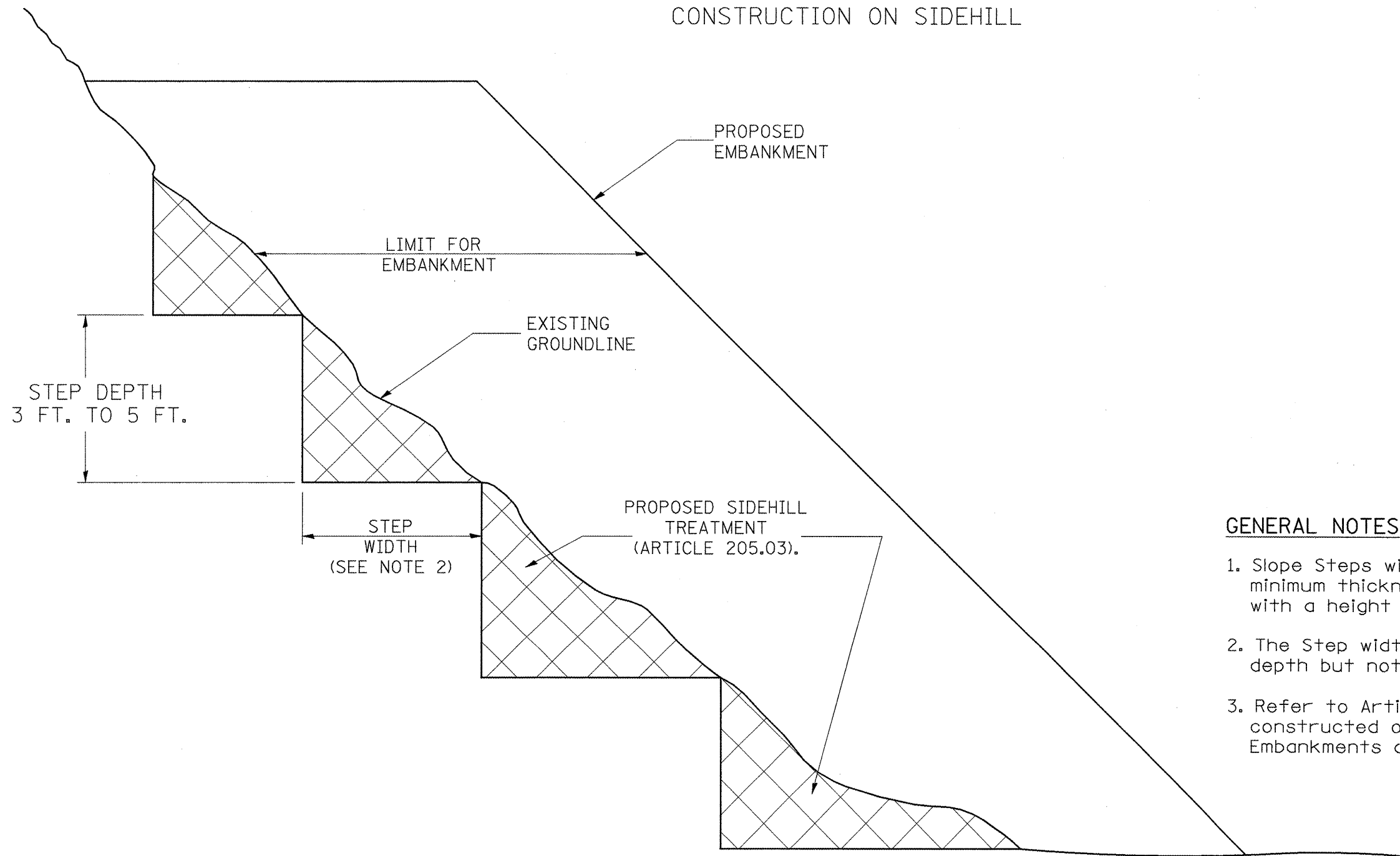
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		CHECKED - PCF	REVISED -
		DATE - 01-2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLANS			
SCALE: 1"=100'	SHEET NO. OF SHEETS	STA. 580+00.00 TO STA. 603+00.00	R-94-010-07

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
685	**	*	329	191
Cat.* 032750-02			CONTRACT NO. 68599	

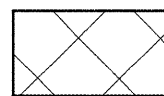
SLOPE STEPS DETAIL
 TYPICAL CROSS-SECTION EMBANKMENT
 CONSTRUCTION ON SIDEHILL



GENERAL NOTES:

1. Slope Steps will be required for all 12(300) minimum thickness "silver fills" and on a fills with a height of 10'(3.0m).
2. The Step width shall be twice the Step depth but not less than 6 feet.
3. Refer to Article 205.03 for Embankment to be constructed on Hillside or Slopes, or if existing Embankments are to be widened.

REPLACEMENT MATERIAL:



STANDARD EMBANKMENT
 (IN ACCORDANCE WITH
 205 OF THE STANDARD SPECIFICATION).

All dimensions are in inches (millimeters) unless otherwise noted.

Designer NOTES:
 1. Designer to modify this Special Detail Sheet, as needed for inclusion in plans.

1-1-97	RENUM. L-5.03, NEW REVISION BOX, REVISED TITLE BOX, REVISED GENERAL NOTES.	T.P.			
10-16-06	REVISED TO 2007 SPEC.	M.A.			

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

NOT TO SCALE

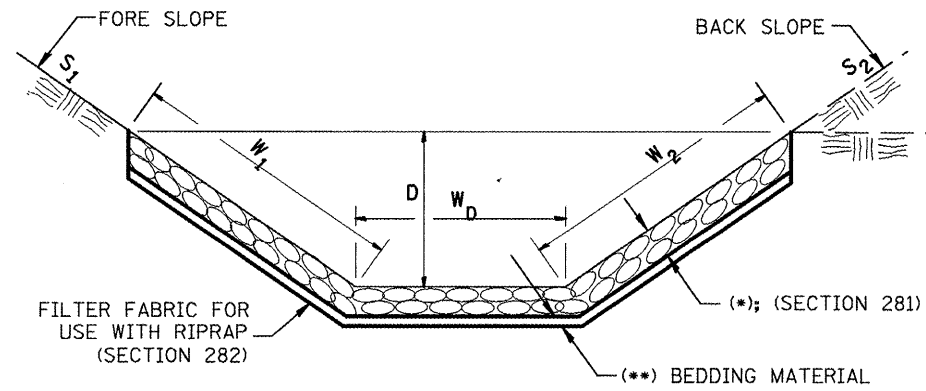
SLOPE STEPS DETAIL

CADD STD. 205001-D4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
685	..	.	329	192
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 68599	

4. Include District Special Provision if needed.

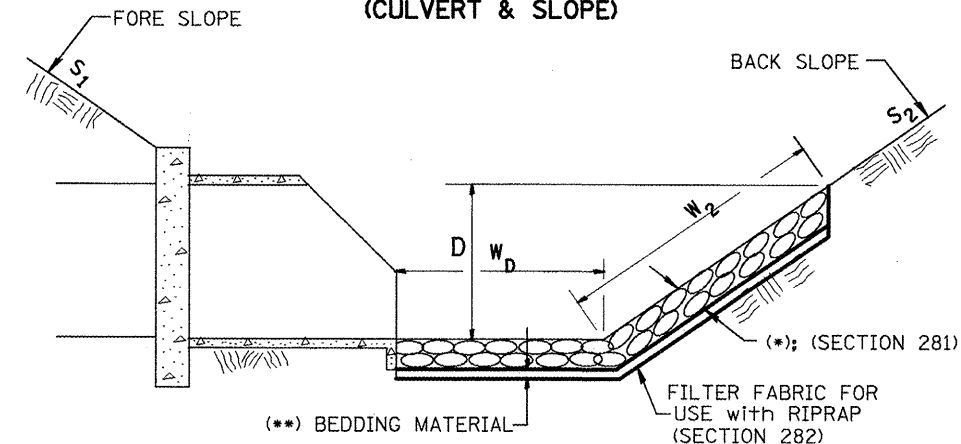
**CASE 1
(DITCH)**



(*)				
LOCATION	WIDTH (1)	LENGTH	RIPRAP	FABRIC
STA TO STA	lin ft (m)	lin ft (m)	tons (m tons)	sq yds (m ²)
TOTAL				

(1) WIDTH = $W_1 + W_2 + W_D$

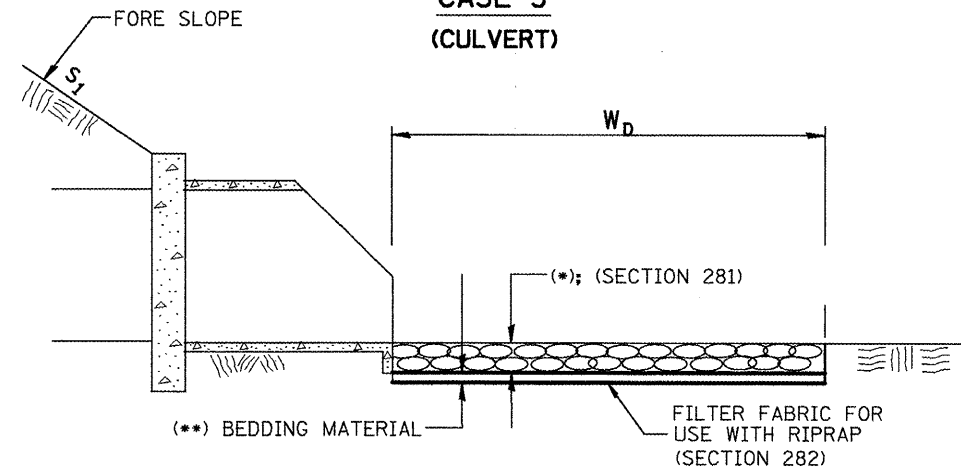
**CASE 2
(CULVERT & SLOPE)**



(*)				
LOCATION	WIDTH (1)	LENGTH	RIPRAP	FABRIC
STA TO STA	lin ft (m)	lin ft (m)	tons (m tons)	sq yds (m ²)
TOTAL				

(1) WIDTH = $W_2 + W_D$

**CASE 3
(CULVERT)**



(*)				
LOCATION	WIDTH (1)	LENGTH	RIPRAP	FABRIC
STA TO STA	lin ft (m)	lin ft (m)	tons (m tons)	sq yds (m ²)
TOTAL				

(1) WIDTH = W_D

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

All dimensions are in inches (millimeters) unless otherwise noted.

1-1-97	RENUM. A-12.02, NEW REVISION BOX	T.P.
12-1-97	CORRECT FILTER FABRIC LEADER ARROW	J.A.
10-16-06	REVISED TO 2007 SPEC.	M.A.

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

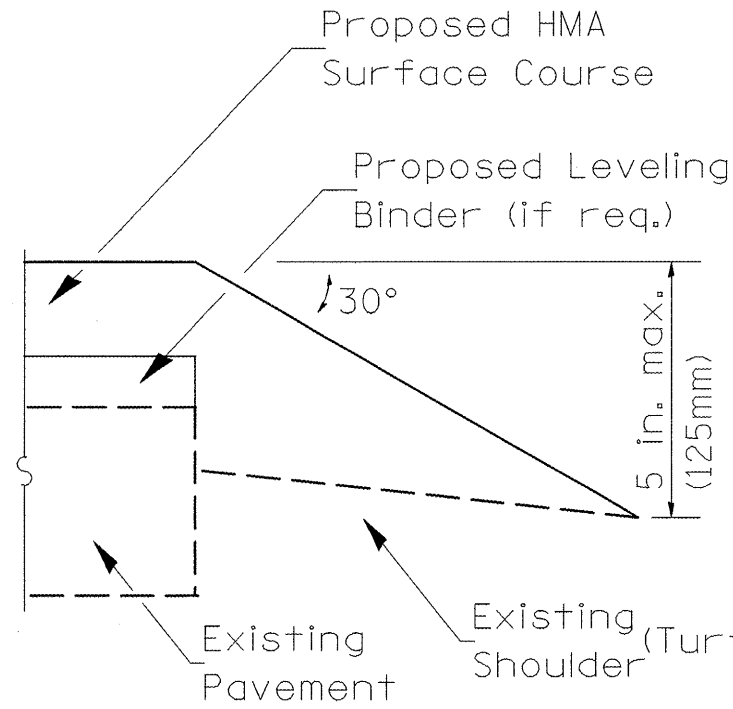
RIPRAP DITCH FOR EROSION PROTECTION

NOT TO SCALE

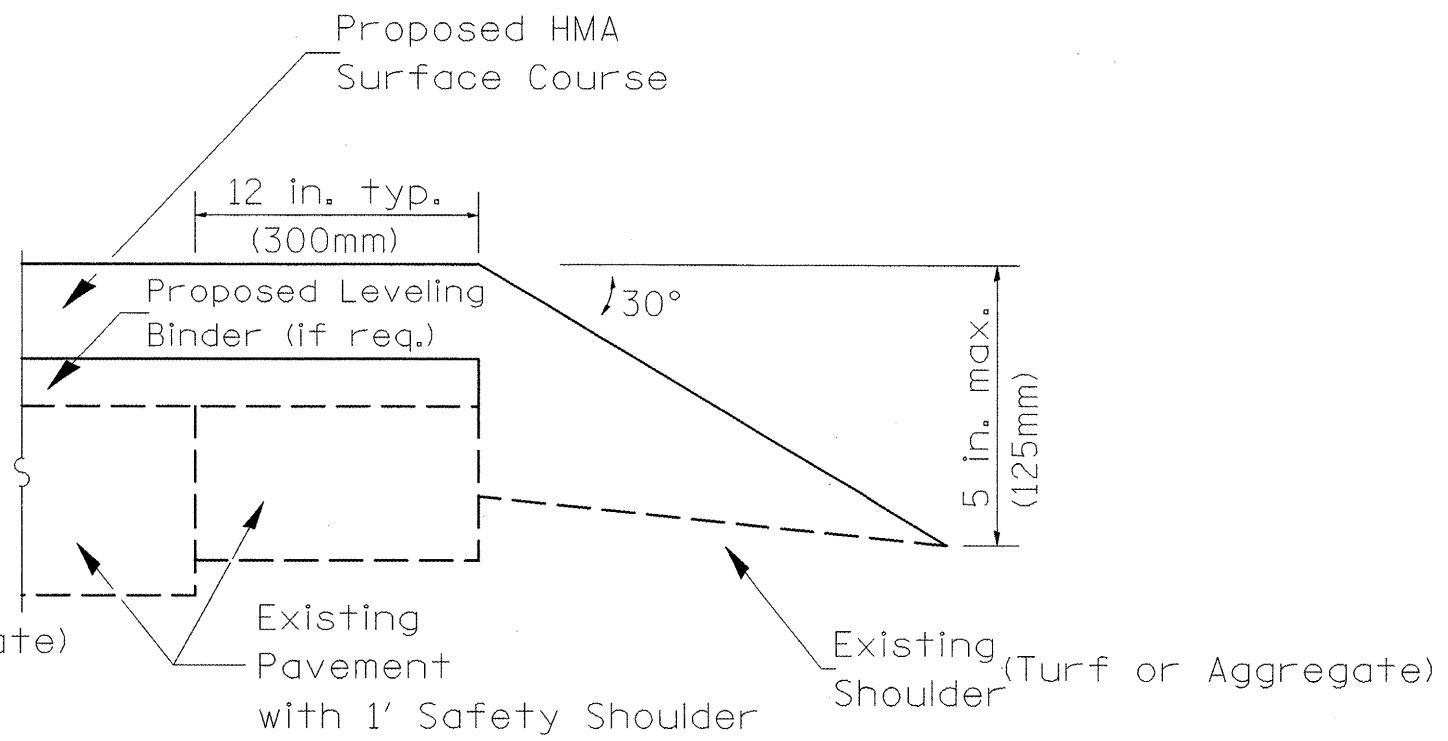
CADD STD. 281001-D4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
685	..	.	329	193
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 68599	

2. WHEN APPLYING THIS TREATMENT ADD 4% TO RESURFACING QUANTITIES.
 3. DON'T INCLUDE WHEN EXISTING OR PROPOSED HMA SHOULDERS ARE 3' WIDE OR MORE.
 4. MAKE NOTE ON TYPICAL TO SEE THIS DETAIL.
 5. INCLUDE HIGHWAY STD. 482011 ON LIST OF STANDARDS.
 6. CONSIDER GRADING AND SHAPING EXISTING SHOULDERS IF THEY ARE REALLY HIGH OR LOW.



SAFETY EDGE AT
EDGE OF PAVEMENT



SAFETY EDGE AT EDGE
OF SHOULDER STRIPS

NOTE:

1. See Highway Standard 482011 for placement of Aggregate Shoulders.

All dimensions are in inches (millimeters) unless otherwise noted.

2-7-11	Created to address Safety Edge Policy	R.D.			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SAFETY EDGE

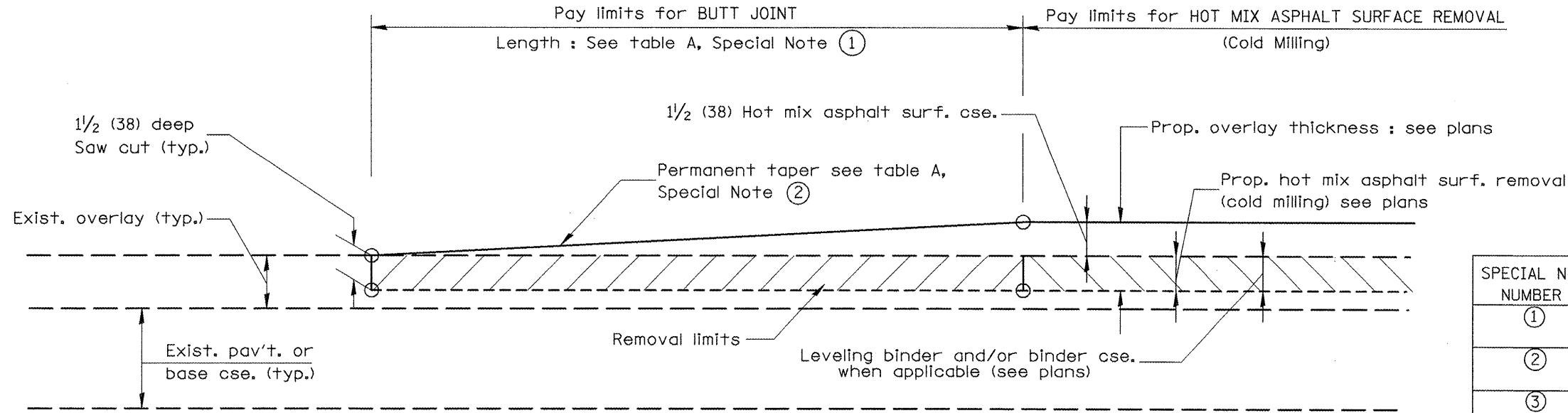
NOT TO SCALE

CADD STD. 406006-D4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
685	..	.	329	194
CONTRACT NO. 68599				

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

DESIGNER NOTES:
 1. Include District Special Provision for Butt Joints & for Hot Mix Asphalt Removal (Cold Milling).
 2. The butt joints pay item includes the saw cut & temporary ramp. Payment for the Butt Joint applies whether or not the project features Hot Mix Asphalt Removal (Cold Milling).



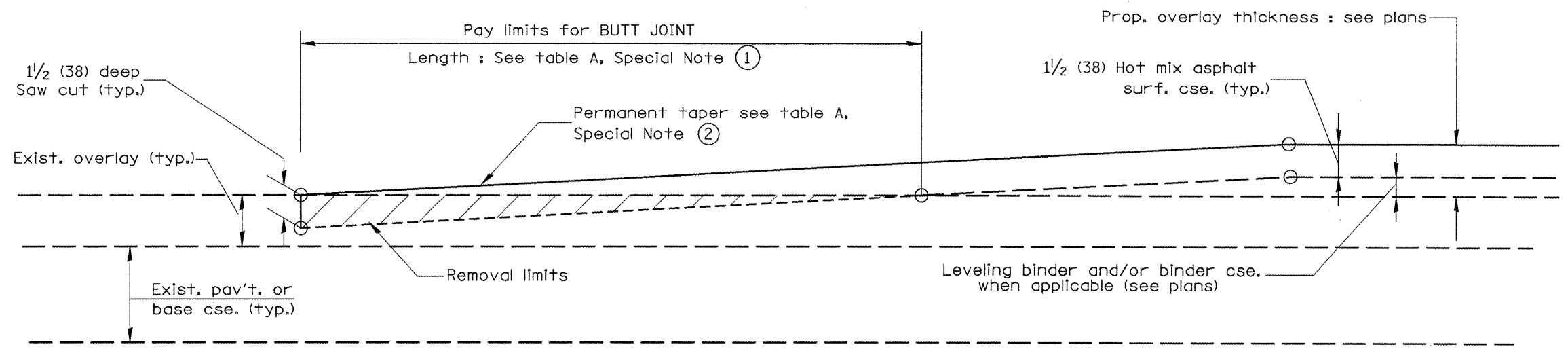
CASE 1 : WITH HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

TABLE A
(LENGTHS AND TAPER RATES)

SPECIAL NOTE NUMBER	ELEMENT	MAINLINE INTERSTATES & 4-LANE EXPRESSWAYS	ALL OTHERS
①	LENGTH OF BUTT JOINT	60'(18.0 m)	30'(9.0 m)
②	PERMANENT TAPER RATE	1:480	1:240
③	TEMPORARY RAMP TAPER RATE	1:80	1:40
④	TEMPORARY RAMP LENGTH	10'(3.0 m)	5'(1.5 m)
⑤	LENGTH OF BUTT JOINT	10'(3.0 m)	10'(3.0 m)

GENERAL NOTES

- The work shall be done in accordance with Article 406.08 and the Special Provision for Butt Joints.
- The pavement surface to be removed may be either bituminous or P.C. concrete. The work shall be performed in accordance with Article 440.04 and the Special Provisions for Butt Joints.
- The saw cut joints shall be primed just prior to the placing of bituminous material. The work will be in accordance with the applicable portions of Article 406.05.



CASE 2 : NO HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

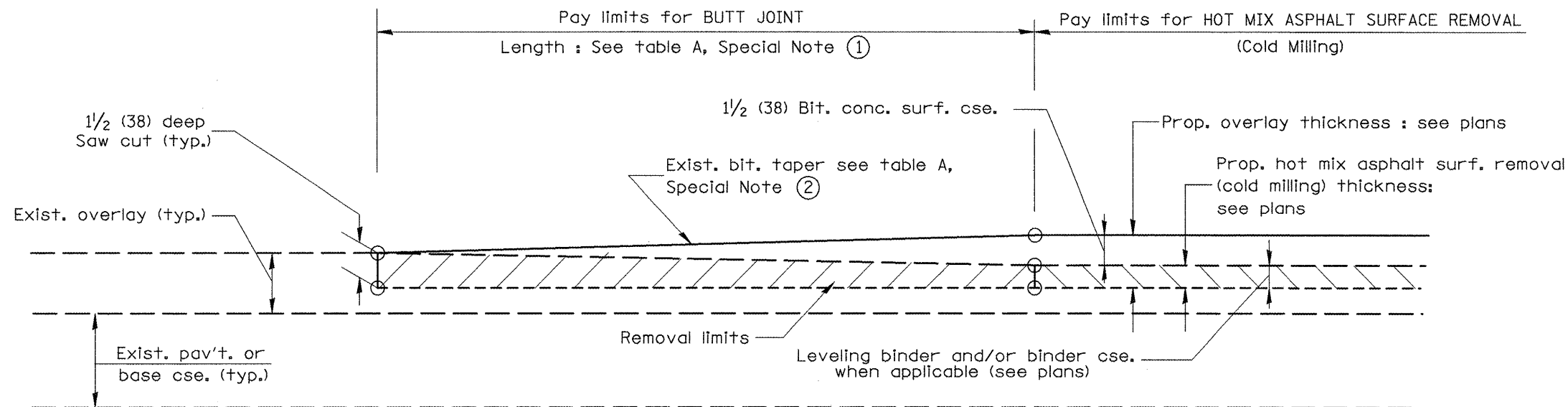
All dimensions are in inches (millimeters) unless otherwise noted.

01-01-97	RENUM. C-23.01, NEW REVISION BOX	T.P.			
04-01-97	CORRECTION TO DEPTH	J.A.			
09-15-05	REVISED DESIGNER NOTE	M.M.A.			
10-16-06	REVISED TO 2007 SPEC.	M.A.			

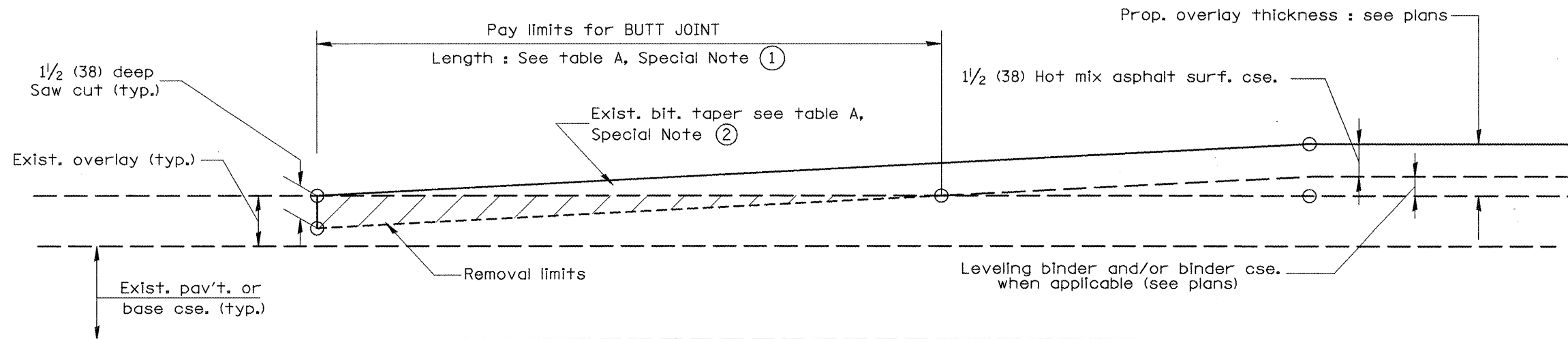
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINTS
 SHT. 1 OF 3
 CADD STD. 406101-D4
 NOT TO SCALE

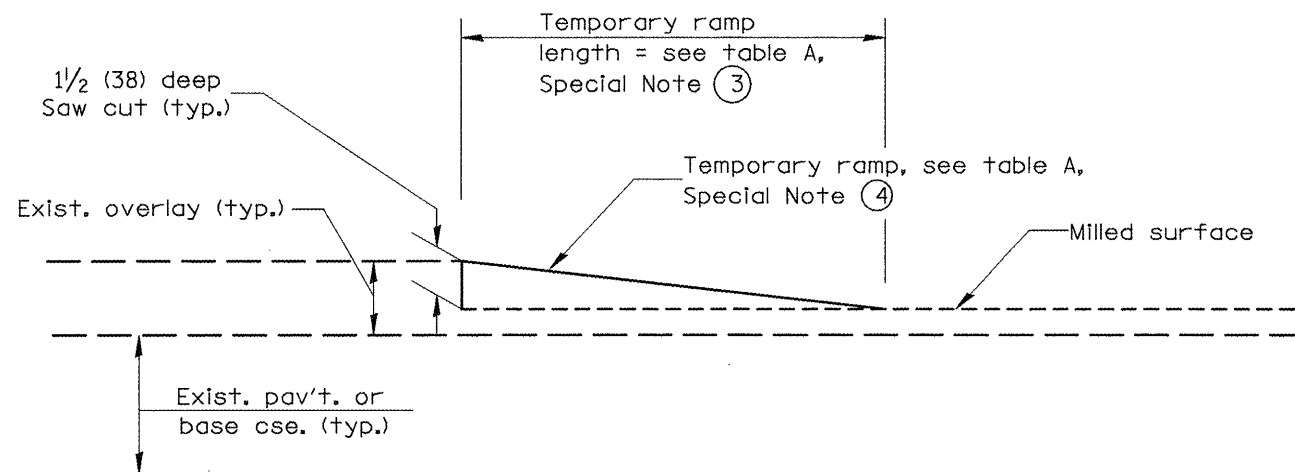
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
685	..	.	329	195
CONTRACT NO. 68599			ILLINOIS FED. AID PROJECT	



**CASE 3 : WITH HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)
TIE-IN TO EXISTING BITUMINOUS TAPER**



**CASE 4 : NO HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)
TIE-IN TO EXISTING BITUMINOUS TAPER**



DETAIL TEMPORARY RAMP

All dimensions are in inches (millimeters) unless otherwise noted.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

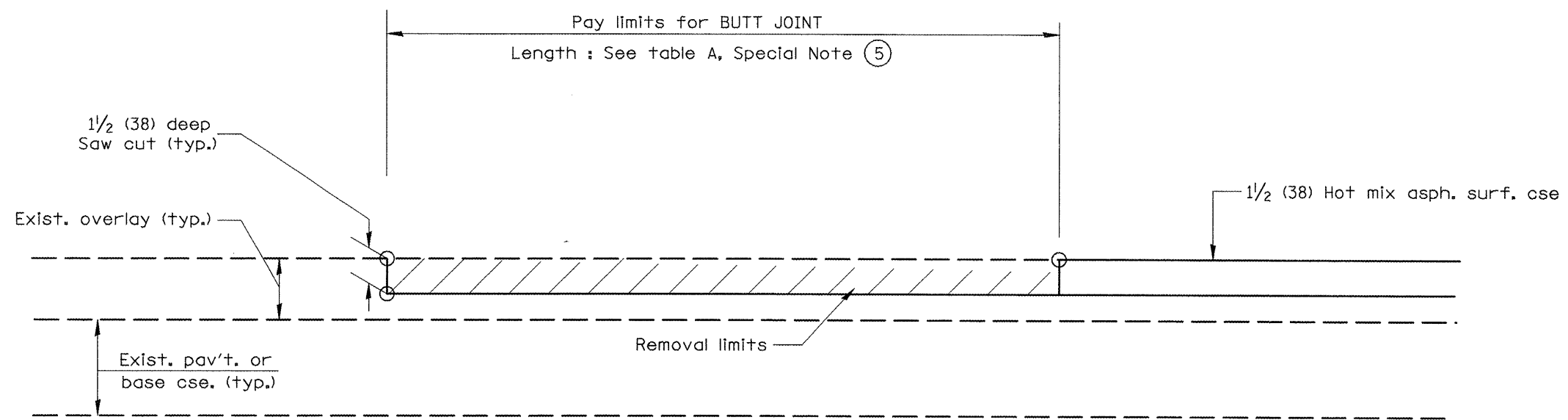
BUTT JOINTS

NOT TO SCALE

SHT. 2 OF 3
CADD STD. 406101-D4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
685	**	.	329	196
CONTRACT NO. 68599				

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



**CASE 5 : WITH HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)
TIE-IN TO EXISTING BITUMINOUS TAPER**

All dimensions are in inches (millimeters) unless otherwise noted.

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

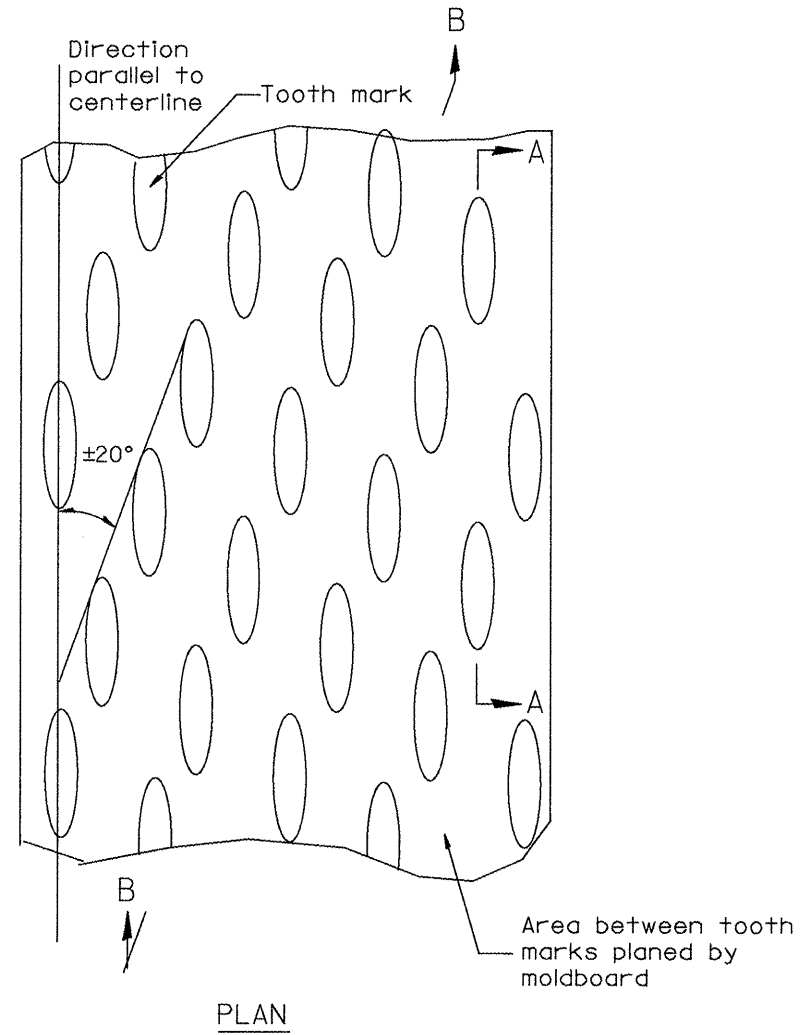
BUTT JOINTS

NOT TO SCALE

SHT. 3 OF 3
CADD STD. 406101-D4

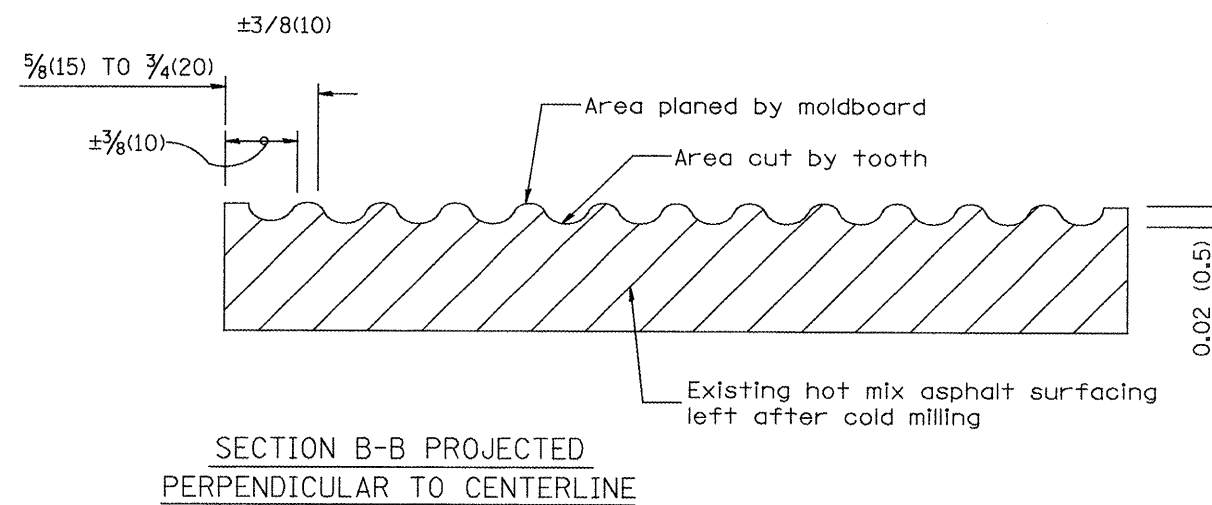
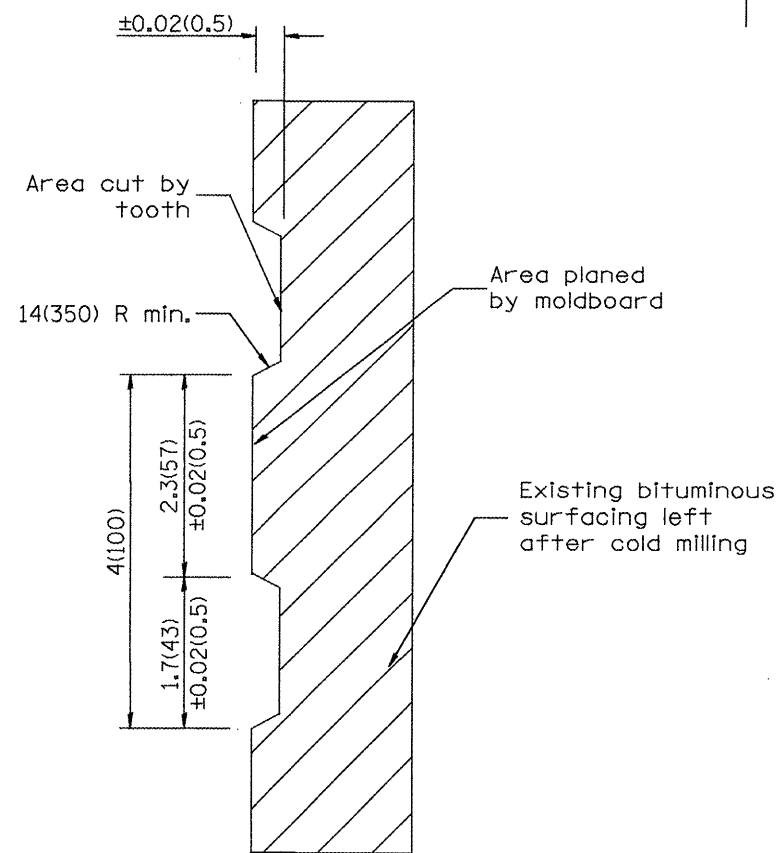
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
685	**	*	329	197
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 68599	

DESIGNER NOTES:
1. INCLUDE DISTRICT SPECIAL PROVISION, IF APPLICABLE.



General notes:

1. Coldmilling shall consist of two processes: Cutting with carbide teeth mounted on a rotating drum, and planing with a moldboard mounted immediately behind the cutting drum.
2. Other similar patterns will be acceptable if they consist of a smooth, flat, planed surface interspersed with a pattern of discontinuous longitudinal striations.



All dimensions are in inches (millimeters) unless otherwise noted.

01-01-97	RENUM. C-104.01. NEW REVISION BOX	T.P.
04-20-98	REMOVED MILLING DETAIL FROM STANDARD	J.A.
09-08-98	CORRECT NOTE LEADER PLACEMENT	R.W.
10-16-06	REVISED TO 2007 SPEC.	M.A.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

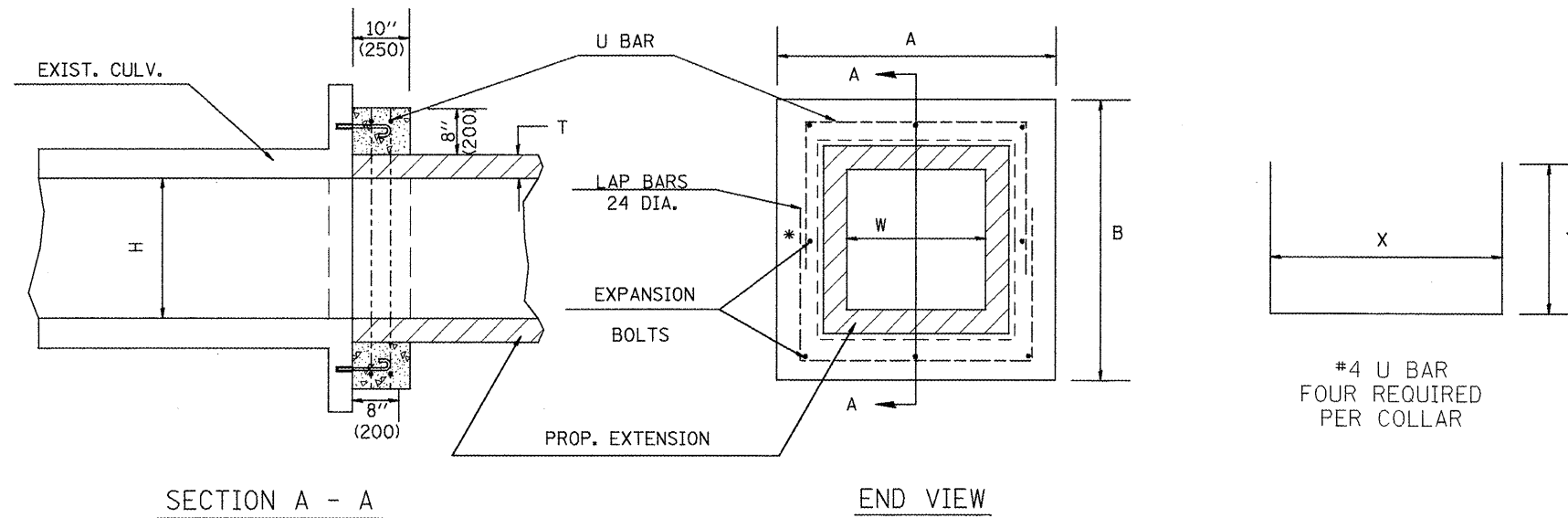
HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

NOT TO SCALE

CADD STD. 440001-D4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
685	..	.	329	198
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 68599	

* MINIMUM 1' LAP ON U BARS



GENERAL NOTES

1. The collar shall be constructed entirely of CLASS SI CONCRETE and in accordance with the applicable portions of section 503 of the Standard Specifications. REINFORCEMENT BARS shall conform to section 508.
2. Expansion bolts shall consist of approved expansions anchors, and 3/4" (M20) hook bolts which conform to Section 1006.09. These bolts shall extend at least 8"(200) into the new concrete.

* Dimensions for ASTM C789.

DIMENSIONS

EXISTING BOX		A	B	T *	EACH COLLAR				
W ft (mm)	H ft (mm)				CL SI CU YD (m ³)	REINFORCEMENT BARS		EXPANSION BOLTS	
					X	Y	POUNDS (kg)	NO.	
2 (600)	2 (600)	4'-0" (1.22m)	4'-0" (1.22m)	4(100)	0.27(0.21)	3'-4" (1.02m)	26(660)	20 (9)	8
3 (900)	2 (600)	5'-0" (1.52m)	4'-0" (1.22m)	4(100)	0.32(0.24)	4'-4" (1.32m)	26(660)	23 (10.5)	8
3 (900)	2.5 (750)	5'-0" (1.52m)	4'-6" (1.37m)	4(100)	0.34(0.26)	4'-4" (1.32m)	29(737)	24.5 (11)	8
3 (900)	3 (900)	5'-0" (1.52m)	5'-0" (1.52m)	4(100)	0.36(0.28)	4'-4" (1.32m)	32(813)	26 (12)	8
3 (900)	4 (1200)	5'-2" (1.57m)	6'-2" (1.88m)	5(125)	0.41(0.31)	4'-6" (1.37m)	39(991)	29 (13)	10
4 (1200)	3 (900)	6'-2" (1.88m)	5'-2" (1.57m)	5(125)	0.41(0.31)	5'-6" (1.68m)	33(838)	29 (13)	10
4 (1200)	4 (1200)	6'-2" (1.88m)	6'-2" (1.88m)	5(125)	0.45(0.34)	5'-6" (1.68m)	39(991)	32 (14.5)	12
4 (1200)	5 (1500)	6'-4" (1.93m)	7'-4" (2.24m)	6(150)	0.51(0.39)	5'-8" (1.73m)	3'-10" (1.17m)	36 (16)	14
5 (1500)	4 (1200)	7'-4" (2.24m)	6'-4" (1.93m)	6(150)	0.51(0.39)	6'-8" (2.03m)	3'-4" (1.02m)	35 (16)	14
5 (1500)	5 (1500)	7'-4" (2.24m)	7'-4" (2.24m)	6(150)	0.55(0.42)	6'-8" (2.03m)	3'-10" (1.17m)	38 (17)	16
5 (1500)	6 (1800)	7'-6" (2.29m)	8'-6" (2.59m)	7(175)	0.60(0.46)	6'-10" (2.08m)	4'-5" (1.35m)	42 (19)	16
6 (1800)	4 (1200)	8'-6" (2.59m)	6'-6" (1.98m)	7(175)	0.56(0.43)	7'-10" (2.39m)	3'-5" (1.04m)	39 (18)	14
6 (1800)	5 (1500)	8'-6" (2.59m)	7'-6" (2.29m)	7(175)	0.60(0.46)	7'-10" (2.39m)	3'-11" (1.19m)	42 (19)	16
6 (1800)	6 (1800)	8'-6" (2.59m)	8'-6" (2.59m)	7(175)	0.64(0.49)	7'-10" (2.39m)	4'-5" (1.35m)	44.5 (20)	16
6 (1800)	8 (2400)	8'-8" (2.64m)	10'-8" (3.25m)	8(200)	0.74(0.57)	8'-0" (2.44m)	5'-6" (1.68m)	51 (23)	18
8 (2400)	8 (2400)	10'-8" (3.25m)	10'-8" (3.25m)	8(200)	0.82(0.63)	10'-0" (3.05m)	5'-6" (1.68m)	56 (25.5)	20

QUANTITIES

CALC. BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____

QUANTITY CALCULATIONS ARE ON FILE AT THE DISTRICT 4 OFFICE, BUREAU OF PROJECT IMPLEMENTATION, DOCUMENTATION SECTION

01-01-97	RENUM. J-12.01, METRICS, NEW REVISION BOX, REVISED	T.P.
	TITLE BOX, ADDED QUANTITY CALCULATION BOX	
10-16-06	REV. TO 2007 SPEC., REINF. BARS COL.	M.A.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COLLAR FOR BOX CULVERT EXTENSIONS

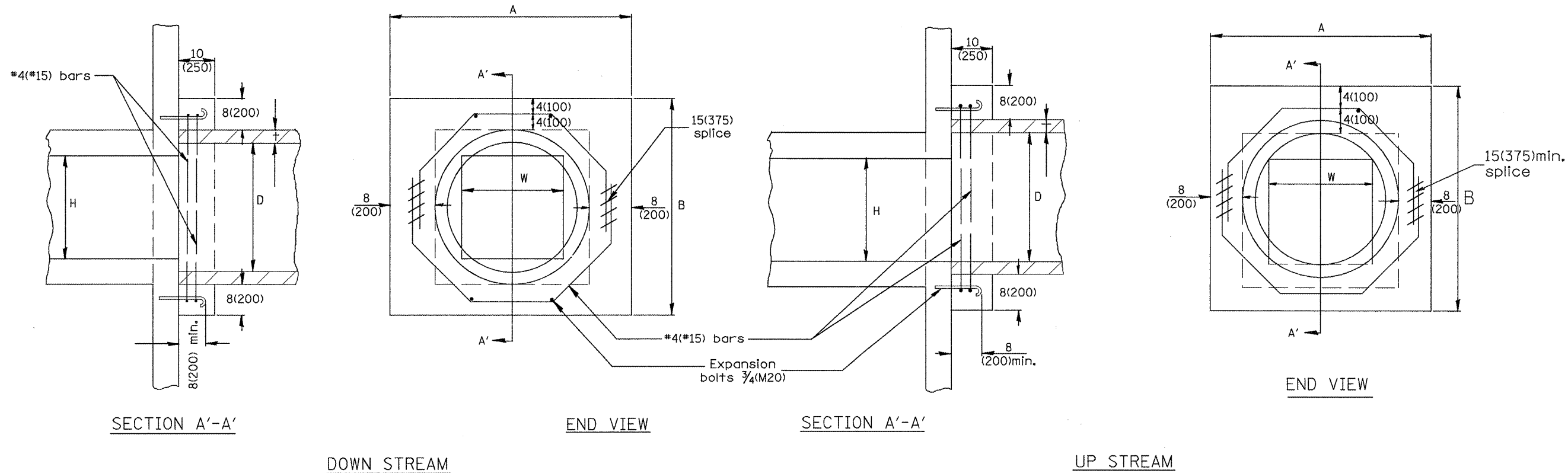
NOT TO SCALE

CADD STD. 540001-D4

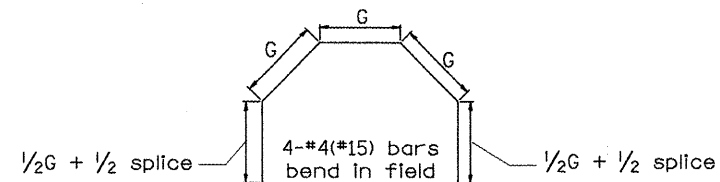
All dimensions are in inches (millimeters) unless otherwise noted.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
685	..	.	329	199
			CONTRACT NO. 68599	

FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT



EXISTING BOX		EACH COLLAR								
W	H	A	B	D	†	CONC. COLLAR		REINFORCEMENT BARS		EXPANSION BOLT
						CU. YD. (m³)	g	L	LBS. (KG)	EACH
12(300)	PIPE	32 (810)	32 (810)	12 (300)	2(50)	0.18(0.14)	10 (254)	4'-7" (1.40m)	12(5.5)	4
18(450)	PIPE	39 (990)	39 (990)	18 (450)	2 1/2(65)	0.24(0.18)	12 3/4 (324)	5'-6" (1.68m)	15(7)	4
24(600)	PIPE	3'-10" (1.17m)	3'-10" (1.17m)	24 (600)	3(75)	0.30(0.23)	15 3/4 (400)	6'-6" (1.98m)	17(8)	4
24(600)	24(600)	4'-5" (1.35m)	4'-5" (1.35m)	30 (750)	3 1/2(90)	0.37(0.28)	18 3/4 (416)	7'-6" (2.29m)	20(9)	4
30(750)	30(750)	5'-0" (1.52m)	5'-0" (1.52m)	36 (900)	4(100)	0.45(0.34)	21 1/2 (546)	8'-5" (2.57m)	22.5(10)	8
36(900)	36(900)	5'-7" (1.7m)	5'-7" (1.7m)	42 (1050)	4 1/2(115)	0.50(0.38)	24 1/2 (622)	9'-5" (2.87m)	25(11)	10
42(1050)	42(1050)	6'-2" (1.88m)	6'-2" (1.88m)	48 (1200)	5(125)	0.61(0.47)	27 1/4 (692)	10'-4" (3.15m)	28(12.5)	10
48(1200)	48(1200)	6'-9" (2.06m)	6'-9" (2.06m)	54 (1350)	5 1/2(140)	0.80(0.61)	30 1/4 (768)	11'-4" (3.45m)	30(14)	10



GENERAL NOTES

1. The collar shall be constructed entirely of CLASS SI CONCRETE and in accordance with the applicable portions of Section 503 of the Standard Specifications. Reinforcement Bars shall conform to Section 508.
2. Expansion Bolts shall consist of approved Expansion Anchors, and 3/4(M20) Hook Bolts which conform to Section 1006.09. These Bolts shall extend at least 8(200) into the new Concrete.

QUANTITIES

CALC. BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____

QUANTITY CALCULATIONS ARE ON FILE AT THE DISTRICT 4 OFFICE, BUREAU OF PROJECT IMPLEMENTATION, DOCUMENTATION SECTION

01-01-97	RENUM. J-11.02, NEW REVISION BOX, REVISED	T.P.
10-16-06	REV. TO 2007 SPEC., REINF. BATS COL.	M.A.

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PIPE CULVERT EXTENSION COLLAR (WITH END SECTION)

NOT TO SCALE

CADD STD. 542001-D4

All dimensions are in Inches (millimeters) unless otherwise noted.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
685	..	.	329	200
CONTRACT NO. 68599			FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT	