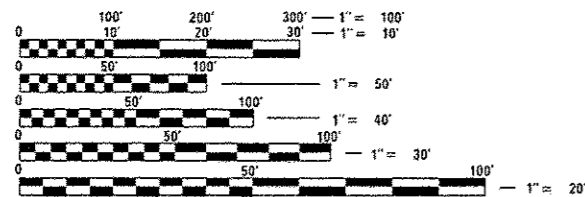


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- 6-7 TYPICAL SECTIONS
- 8-9 SCHEDULE OF QUANTITIES
- 10 ALIGNMENTS, TIES, AND BENCHMARKS
- 11 PLAN
- 12 DRAINAGE DETAILS
- 13 PIPE HANDRAIL DETAIL
- 14-20 DISTRICT CADD STANDARDS
- 21-25 CROSS SECTIONS

HIGHWAY STANDARDS

- 280001-07
- 442201-03
- 602401-03
- 602601-04
- 602701-02
- 630001-10
- 630301-06
- 631006-08
- 701001-02
- 701006-05
- 701011-04
- 701201-04
- 701301-04
- 701306-03
- 701311-03
- 701326-04
- 701901-05
- 725001
- 780001-05
- 782006



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

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

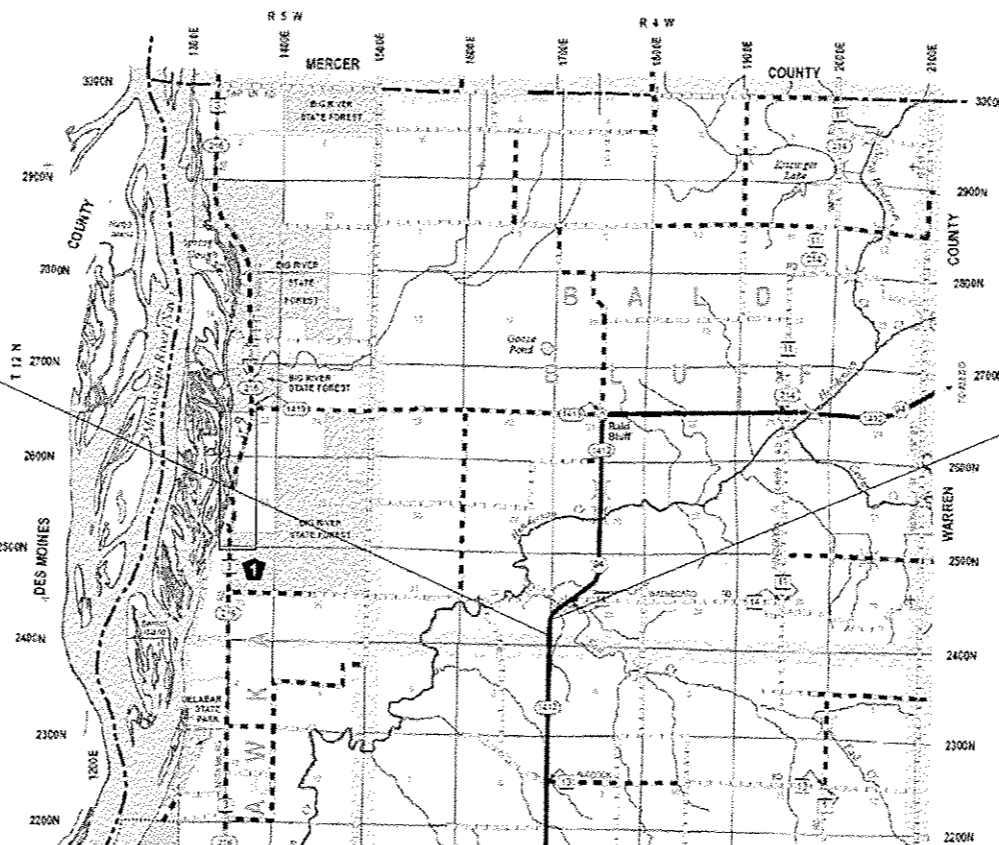
PROJECT ENGINEER: RICHARD DOTSON (309) 671-3455
PROJECT MANAGER: KEVIN HORST/JOSH JOCHUMS (309) 671-3472
CATALOG NO. 035375-00D
CONTRACT NO. 68D19

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PROPOSED
HIGHWAY PLANS**

FAS ROUTE 1412 (IL 94)
SECTION (106-SLP, T)
CONTRACT MAINTENANCE
HENDERSON COUNTY
C-94-062-16

PROJECT BEGINS
STA 434 + 50

PROJECT ENDS
STA 437 + 50



GROSS LENGTH = 300 FT. = 0.057 MILES
NET LENGTH = 300 FT. = 0.057 MILES

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1412	(106-SLP, T)	HENDERSON	25	1
		ILLINOIS	CONTRACT NO. 68D19	

D-94-028-16



THIS PROJECT INCLUDES THE INSTALLATION OF A DROP STRUCTURE AND THE RECONSTRUCTION OF A FORESLOPE.
ADT = 350 (2015)
SU = 8.6%
MU = 20%

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
SUBMITTED 4/27 2016
Kunal A. Khetta
REGION THREE ENGINEER
May 6 2016
Maxwell M. Addis, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT
May 6 2016
Omer Osman, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

GENERAL NOTES

PLAN ELEVATIONS – U.S.G.S. MEAN SEA LEVEL DATUM

All elevations shown on the plans are established from U.S.G.S. mean sea level datum.

COMMITMENTS

Commitments are not to be altered without the written approval of all parties to which the commitment was made.

No commitments have been made on this project.

TREE REMOVAL

The District Four Tree Committee should be contacted and prior approval obtained for any tree removal beyond the limits/locations included in the plans.

ENVIRONMENTAL REVIEWS

Prior to the use of any proposed borrow areas, use areas (temporary access roads, detours, run-arounds, etc.) and/or waste areas, the Contractor shall file the required environmental resource request surveys according to Section 107.22 of the Standard Specifications. These surveys are required in order for the Department to conduct cultural and biological resource surveys for the proposed site.

The required environmental resource documentation shall include the following:

- * BDE Form 2289 (Cultural and Natural Resources Review of Borrow Areas)
- * BDE Form 2290 (Waste/Use Area Review)
- * A location map showing the size limits and location of the use area
- * Color photographs depicting the use area
- * Borrow Area Entry Agreement form * D4 PI0101

Prior to any waste materials being removed from the construction site the required environmental resource surveys shall be obtained and filed by the Contractor. Excess waste products removed from the construction site shall be disposed of as required in Section 202.03 of the Standard Specifications.

Any protruding metal bars shall be removed prior to the disposal of broken concrete at approved disposal sites.

Please note that a minimum of four weeks shall be allowed for the District to obtain the required waste site environmental clearances and six weeks for the required borrow site environmental clearances.

PAVEMENT STATION NUMBERS & PLACEMENT

The Contractor shall provide labor and materials required to imprint pavement station numbers in the finished surface of the pavement and/or overlay. The numbers shall be approximately 3/4 inch (20 mm) wide, 5 inches (125 mm) high and 5/8 inch (15 mm) deep.

The pavement station numbers shall be installed as specified herein:

Interval – 200 feet (English stationing) or 100 meters (metric stationing)

Bottom of Numbers – 6 inches (150 mm) from the inside edge of the pavement marking

Location:

– 2, 3, & 5 Lane Pavements – right edge of pavement in direction of increasing stations

– Multi-Lane Divided Roadways – outside edge of pavement in both directions

– Ramps – along baseline edge of pavement

Position – stations shall be placed so they can be read from the adjacent shoulder

Format – English (Metric) pavement stations shall use this format *XXX (XX + X00)*,

where X represents the pavement station

This work will not be paid for separately, but will be included in the cost of the associated pavement and/or overlay pay items.

PROJECT SPECIFIC NOTES

1. The removal of the existing erosion control curb and all associated hardware will be included in the cost of PAVED SHOULDER REMOVAL.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE USE	CLASS D PATCHES & SHOULDERS (LOWER LIFTS)	CLASS D PATCHES & SHOULDERS (SURFACE LIFTS)
AC/PG	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4.0% @ N=50	4.0% @ N=50
MIX COMPOSITION (GRADATION MIXTURE)	IL 19.0	IL 9.5
FRICTION AGG	N.A.	MIX D
QUALITY MANAGEMENT PROGRAM	QC/QA	QC/QA

Notes: Individual lift thickness of each mix type will be no less than three (3) times nominal maximum aggregate size and no more than 6 times nominal maximum aggregate size.

SAW CUT – 18" (450 mm) SHOULDER REMOVAL – IN-PLACE WHEEL SAW GRINDING PERMITTED

A full depth saw cut shall be required at the joint between the pavement that is to be left in place and the existing shoulder that is to be removed. The Contractor may have the option of using a wheel saw to grind up the existing shoulder and leave the finely ground pieces on site under the new shoulder and on the foreslope, with the approval of the Engineer. Maximum size of pieces shall be no more than 3" (75 mm). Larger pieces shall be picked up/removed from the jobsite. No additional compensation will be allowed for variations in assumed thickness. This work shall not be paid for separately, but shall be included in the cost of the removal items.

ORDERING LENGTH CONFIRMATION – DRAINAGE ITEMS

The Contractor shall consult with the Engineer in regard to the exact length of the box/pipe culverts, storm sewers, and/or pipe drains required prior to ordering these items.

EXISTING DRAINAGE PIPES CONNECTED TO NEW STRUCTURES

In accordance with Section 602 of the Standard Specifications, the connecting of existing drain tiles, pipe culverts, or storm sewers to the proposed drainage system structures will not be paid for separately but shall be considered as included in the pay items provided.

FILE NAME : DL-001-16-shaets.dgn	USER NAME : subreggs	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES AND PROJECT SPECIFIC NOTES				F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
DeFault	PLOT SCALE = 100,0000' / in.	DRAWN -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	1412	(106-SLP,T)	HENDERSON	25	2
	PLOT DATE = 4/27/2016	CHECKED -	REVISED -												
		DATE -	REVISED -												
ILLINOIS FED. AID PROJECT															

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONST. CODE
				ROADWAY
				0044
44004250	PAVED SHOULDER REMOVAL	SQ YD	89	89
44201796	CLASS D PATCHES, TYPE IV, 12 INCH	SO YD	124	124
48203029	HOT - MIX ASPHALT SHOULDERS, 8"	SO YD	89	89
50102400	CONCRETE REMOVAL	CU YD	0.3	0.3
50800105	REINFORCEMENT BARS	POUND	29	29
50901760	PIPE HANDRAIL	FOOT	64	64
54002020	EXPANSION BOLTS 3/4 INCH	EACH	7	7
54248510	CONCRETE COLLAR	CU YD	1	1
542A1915	PIPE CULVERTS, CLASS A, TYPE 3 30"	FOOT	6	6
60222900	MANHOLES, TYPE A, 5' -DIAMETER	EACH	1	1
60600095	CLASS SI CONCRETE (OUTLET)	CU YD	0.8	0.8
* 63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	188	188
* 63100041	TRAFFIC BARRIER TERMINAL, TYPE 1B	EACH	1	1
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	1	1

* SPECIALTY ITEM

FILE NAME = DL-001-16-sheets.dgn	USER NAME = subnygt	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / 1"	CHECKED -	REVISED -
	PLOT DATE = 4/27/2016	DATE -	REVISED -

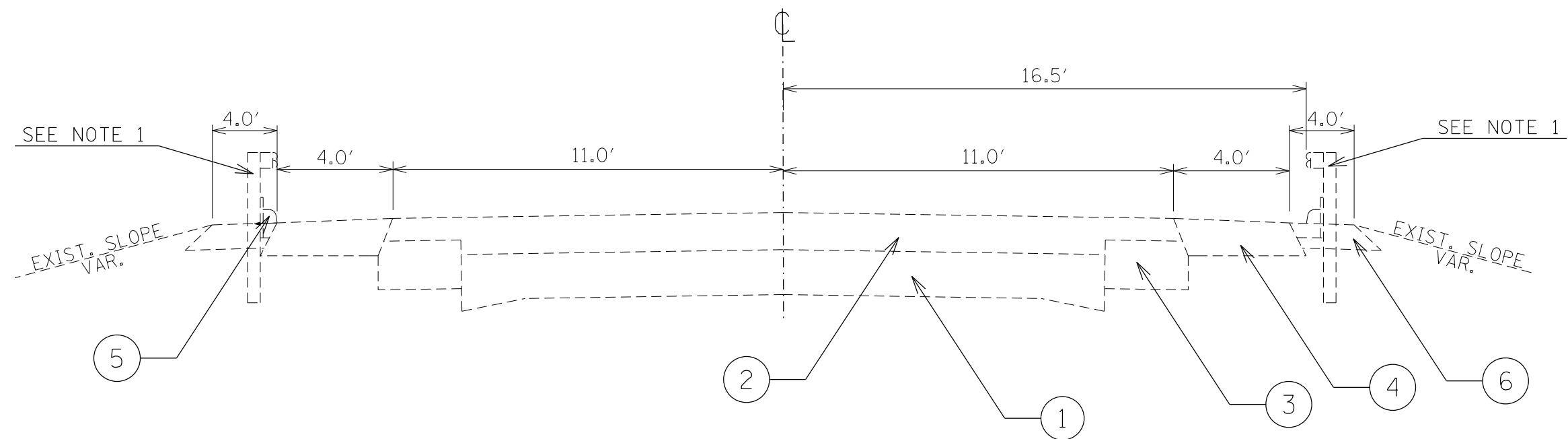
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1412	(106-SPL,T)	RENDERSON	25	4
			CONTRACT NO. 68019	
ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONST. CODE
				ROADWAY
				0044
63200310	GUARDRAIL REMOVAL	FOOT	264	264
67100100	MOBILIZATION	L SUM	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	2	2
* 78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	402	402
* 78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	4	4
Z0001002	GUARDRAIL AGGREGATE EROSION CONTROL	TON	63	63
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1

9
* SPECIALTY ITEM



IL 94 EXISTING
 STA 434+30 TO 436+96

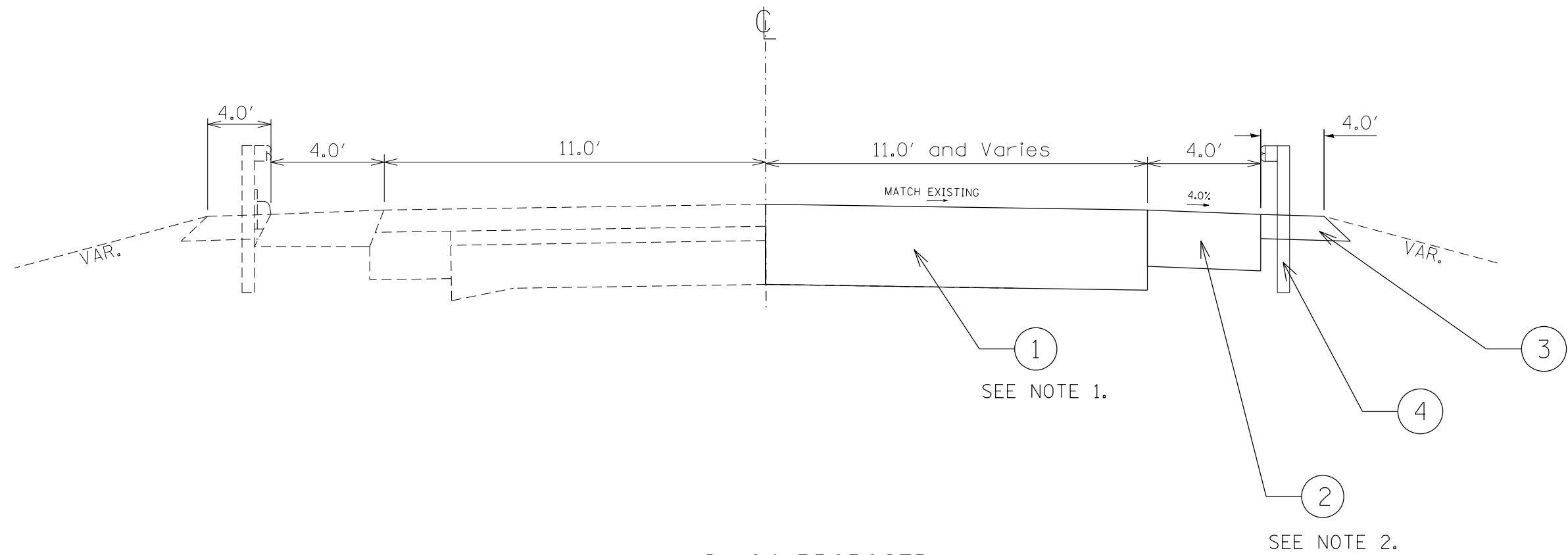
LEGEND:

- ① EXIST. PCC PAVEMENT -9''-6''-9''
- ② EXIST. HMA OVERLAY (5 1/2'')
- ③ EXIST. HMA BASE COURSE WIDENING (9'')
- ④ EXIST. HMA SHOULDERS (8'')
- ⑤ EXIST. EROSION CONTROL CURB
- ⑥ EXIST. GUARDRAIL AGGREGATE EROSION CONTROL

NOTES:

- 1. EXISTING GUARDRAIL
 STA. 434+00 TO 436+99 RT AND
 STA. 435+00 TO 437+90 LT.

FILE NAME = Chad Typical.dgn	USER NAME = aubreys	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS EXISTING			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
Default	PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	1412	(106-SLP, T)	HENDERSON	25	6
	PLOT DATE = 4/27/2016	CHECKED -	REVISED -								CONTRACT NO. 68D19				
		DATE -	REVISED -								ILLINOIS FED. AID PROJECT				



IL 94 PROPOSED
STA 434+30 TO 436+96

LEGEND:

- ① PROPOSED CLASS "D" PATCHES, TYPE IV, 12 INCH
- ② PROPOSED HMA SHOULDERS, 8"
- ③ PROPOSED GUARDRAIL AGGREGATE EROSION CONTROL
- ④ PROPOSED STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS

NOTES:

- 1. PROPOSED CLASS "D" PATCHES, TYPE IV, 12", ARE FROM STA 435+08 TO 435+29 RT AND FROM STATION 436+00 TO 436+80 RT
- 2. THE PROPOSED HMA SHOULDERS, 8" ARE FROM STA 434+80 TO 436+80 RT

• Drawing not to scale

FILE NAME = Chad Typical.dgn	USER NAME = aubreys	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS PROPOSED				F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
Default	PLOT SCALE = 100.0000' / 1".	DRAWN -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	1412	(106-SLP, T)	HENDERSON	25	7
	PLOT DATE = 4/27/2016	CHECKED -	REVISED -						CONTRACT NO. 68D19						
		DATE -	REVISED -						ILLINOIS FED. AID PROJECT						

SEEDING AND FERTILIZER SUMMARY								
LOCATION	TEMP. EROSION CONTROL SEEDING (1 APPLICATION)	SEEDING, CLASS 2A	MULCH, METHOD 2	ERSOSION CONTROL BLANKET	NITROGEN FERT. NUT.	PHOSPHORUS FERT. NUT.	POTASSIUM FERT. NUT.	TOPSOIL FURNISH & PLACE, 4"
STATION TO STATION	LBS.	ACRE	ACRE	SY	LBS	LBS	LBS	SQ YD
STA 434+60 TO 437+50 RT	38.3	0.21	0.05	771.0	19.2	19.2	19.2	1034.0
TOTAL	38	0.21	0.05	771	19	19	19	1,034

PIPE CULVERTS, CLASS A, TYPE 3, 30"	
LOCATION	LENGTH (FEET)
STA. 435+90 RT	6
TOTAL	6

EARTHWORK					
LOCATION	EARTH EXCAVATION (CUT)	FOR INFORMATION ONLY			FURNISHED EXCAVATION
		ADJUSTED EARTH EXCAVATION (ADJ. CUT)	EMBANKMENT (FILL)	WASTE	
	CY	CY	CY	CY	CY
EARTHWORK FROM STA. 434+50 TO 438+00	186	149	1658	0	1509
TOTAL	186	149	1658	0	1509

CONCRETE COLLAR	
LOCATION	VOLUME (CY)
CULVERT EXTENSION STA. 435+90 RT	1
TOTAL	1

CONCRETE REMOVAL	
LOCATION	CY
SOUTHWEST WINGWALL OF CULVERT AT STA. 435+95 RT	0.3
TOTAL	0.3

NOTE: EARTHWORK CALCULATIONS ASSUME THAT THE PROPOSED FORESLOPE EARTHWORK WILL BE COMPLETED PRIOR TO ANY WORK ON THE PROPOSED ROCK FILL TRENCHES.

EROSION CONTROL BLANKET	
LOCATION	AREA (SY)
STA 434+53 TO 435+50 AND STA 436+70 TO 437+50 RT	770.83
TOTAL	771

INLET AND PIPE PROTECTION	
LOCATION	EACH
STA. 435+90 RT	1
TOTAL	1

STONE RIP-RAP, CLASS B3			
LOCATION	AREA (SF)	DEPTH (FT)	WEIGHT (TONS)
STA. 435+50 TO 436+70 RT	7388.52	1	410.4733
TOTAL			410

REINFORCEMENT BARS	
LOCATION	WEIGHT (LBS)
COLLAR AT CULVERT EXTENSION STA. 435+95 RT	29
TOTAL	29

PIPE HANDRAIL	
LOCATION	LENGTH (FEET)
STA 435+95 RT	64
TOTAL	64

TEMPORARY DITCH CHECKS	
LOCATION	EACH
PLACE 4 DITCH CHECKS ON EACH SIDE OF THE DROP STRUCTURE	8
TOTAL	8

PAVED SHOULDER REMOVAL			
LOCATION	LENGTH (FEET)	WIDTH (FEET)	AREA (SY)
STA. 434+80 TO 436+80 RT	200	4	88.9
TOTAL			89

GUARDRAIL SCHEDULE						
LOCATION	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	TRAFFIC BARRIER TERMINAL, TYPE 1B	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	GUARDRAIL REMOVAL	GUARDRAIL REFLECTORS, TYPE A	GUARDRAIL AGGREGATE EROSION CONTROL
	FOOT	EACH	EACH	FOOT	EACH	TON
STA. 434+32 TO STA. 436+96 RT				264	0	
STA. 434+80 TO STA. 436+68 RT	188	1	1	0	4	63
TOTAL	188	1	1	264	4	63

CLASS D PATCHES, TYPE IV, 12 INCH			
LOCATION	LENGTH (FEET)	WIDTH (FEET)	AREA (SY)
STA. 435+08 TO STA. 435+29 RT	21	11	25.7
STA. 436+00 TO 436+80 RT	80	11	97.8
TOTAL			123.4

HMA SHOULDERS, 8"			
LOCATION	LENGTH (FEET)	WIDTH (FEET)	AREA (SY)
STA. 434+80 TO STA 436+80 RT	200	4	88.9
TOTAL			89

EXPANSION BOLTS 3/4 INCH	
LOCATION	EACH
CONCRETE COLLAR AT CULVERT EXTENSION	4
TIE CONCRETE SPLASH PAD TO THE TOP OF THE MANHOLE LID	3
TOTAL	7

MOBILIZATION	
LOCATION	L SUM
JOBSITE	1
TOTAL	1

MODIFIED URETHANE PAVEMENT MARKING				
STATION TO STATION			YELLOW SOLID 4"	WHITE SOLID 4"
			(FT)	(FT)
435+08.00	TO	435+29.00	42.0	21.0
436+00.00	TO	436+80.00	160.0	80.0
434+80.00	TO	436+80.00	0.0	99.0
SUB-TOTAL			202.0	200.0
TOTAL			402.0	

MANHOLES, TYPE A, 5' DIAMETER	
LOCATION	EACH
STA. 435+95 RT	1
TOTAL	1

TRAFFIC CONTROL SURVEILLANCE	
LOCATION	CA DAY
JOBSITE	2
TOTAL	2

CLASS SI CONCRETE (OUTLET)	
LOCATION	EACH
SPLASH PAD AT STA. 435+95 RT	0.8
TOTAL	0.8

PERIMETER EROSION BARRIER	
LOCATION	FEET
STA. 434+32 TO 437+50 RT	360.0
TOTAL	360.0

TRAFFIC CONTROL & PROTECTION STANDARD 701201	
LOCATION	L SUM
JOBSITE	1
TOTAL	1

TRAFFIC CONTROL & PROTECTION STANDARD 701326	
LOCATION	L SUM
JOBSITE	1
TOTAL	1

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	PLOT DATE = 4/27/2016	CHECKED -	REVISED -
		DATE -	REVISED -

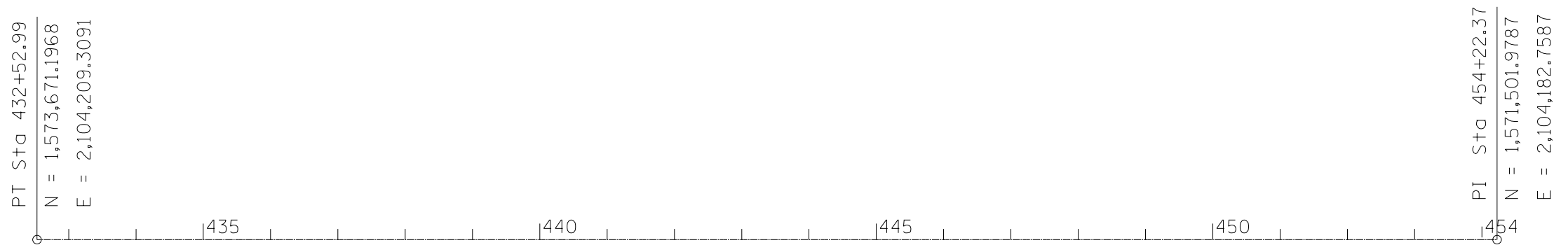
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

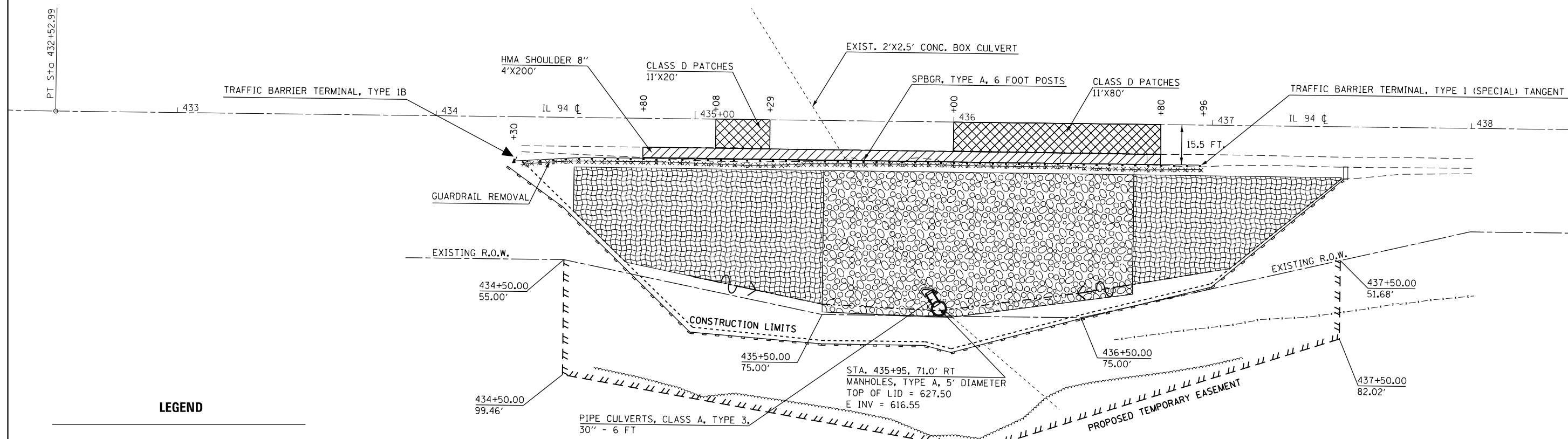
SCHEDULE OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.






F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1412	(106-SLP,T)	HENDERSON	25	9
			CONTRACT NO. 68D19	
ILLINOIS FED. AID PROJECT				

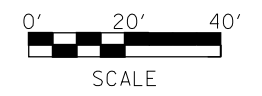
HORIZONTAL CONTROL		BENCHMARK(S)
IL94 C.L. P.T. DISK	IL94 C.L. P.O.T. DISK	B.M.#103:
STA 432+52.99	STA 443+72.71	- ELEV. 655.02
N 1573671.1968	N 1572551.5604	- STA 437+65 (LT)
E 2104209.3091	E 2104195.5232	- CHIS. SQUARE N. END OF C&G, E. SIDE IL94



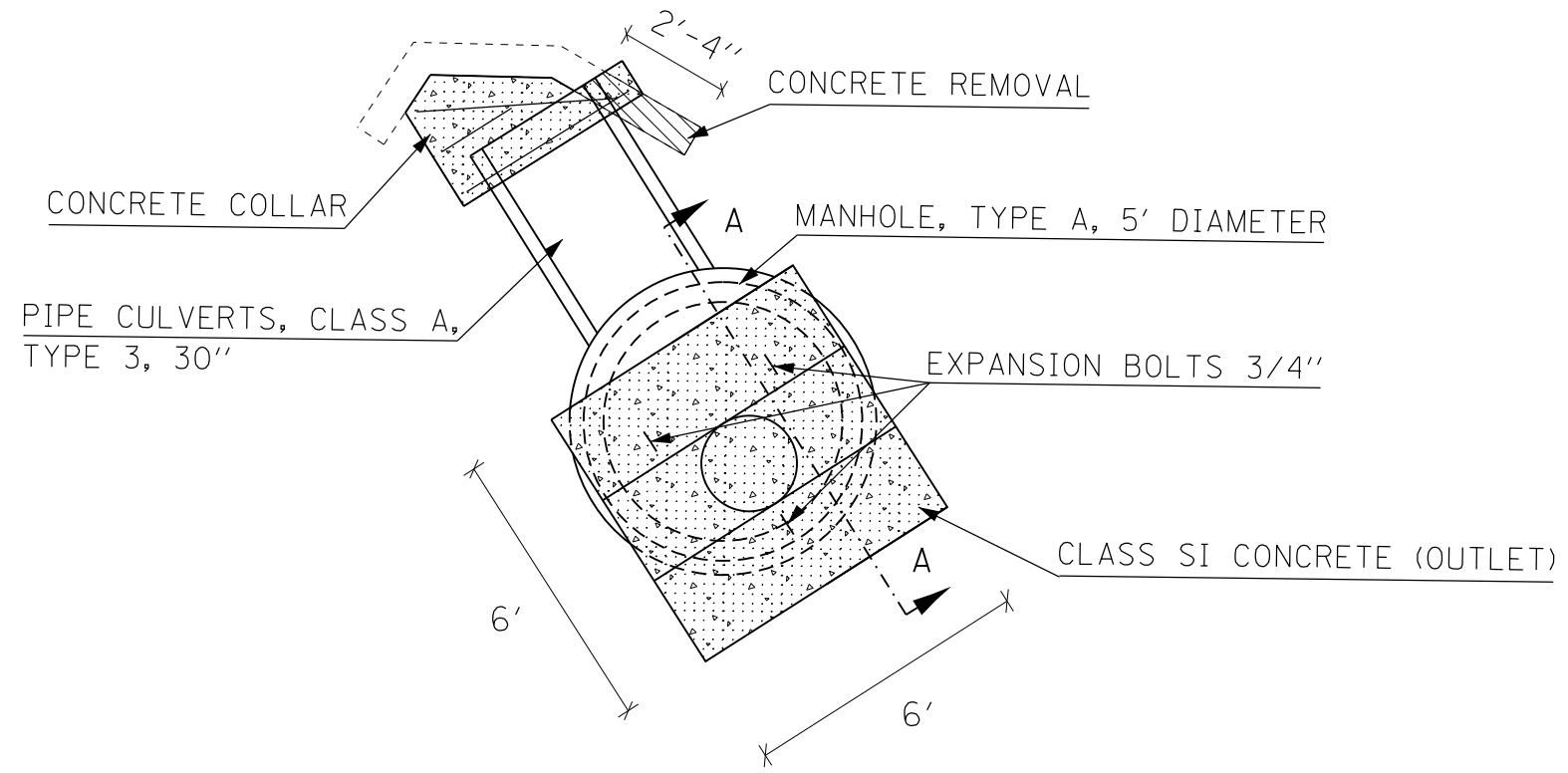


LEGEND

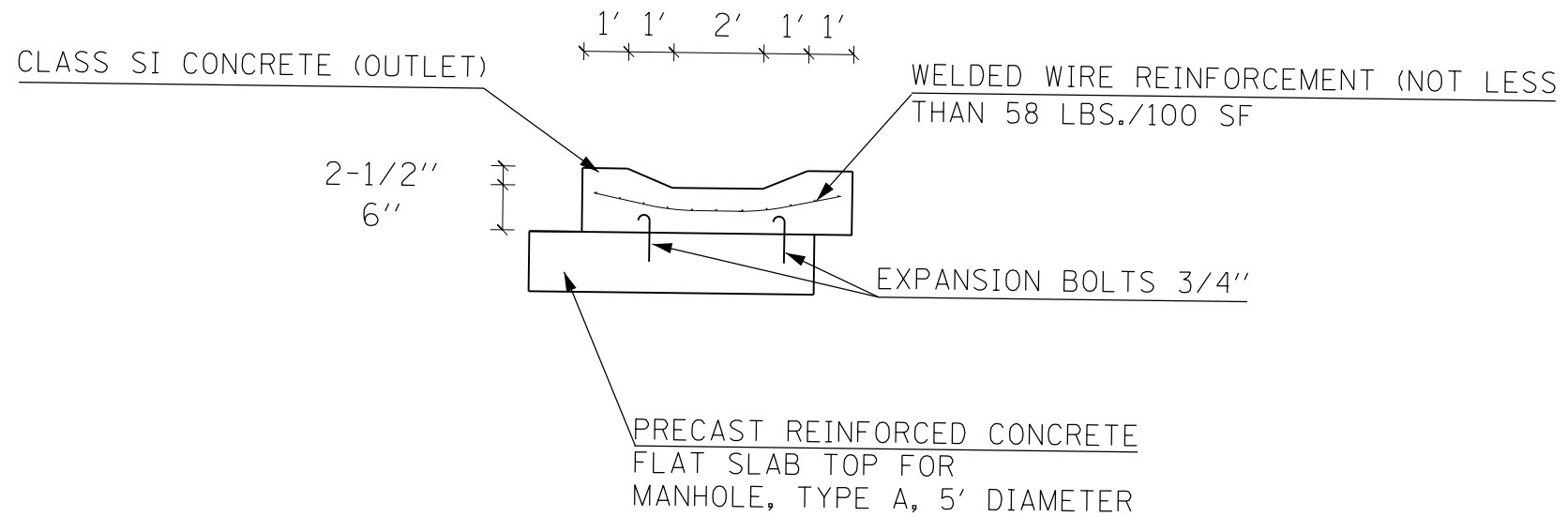
-  CLASS D PATCHES, TYPE IV, 12 INCH
-  HMA SHOULDERS, 8"
-  EROSION CONTROL BLANKET
-  STONE RIPRAP, CLASS B3
-  PERIMETER EROSION BARRIER



FILE NAME = DL-001-16-sheets.dgn	USER NAME = aubreys	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN				F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
Default	PLOT SCALE = 40.0000' / in.	DRAWN -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	1412	(106-SLP,T)	HENDERSON	25	11
	PLOT DATE = 4/27/2016	CHECKED -	REVISED -		CONTRACT NO. 68D19										
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT										



PLAN



SECTION A-A

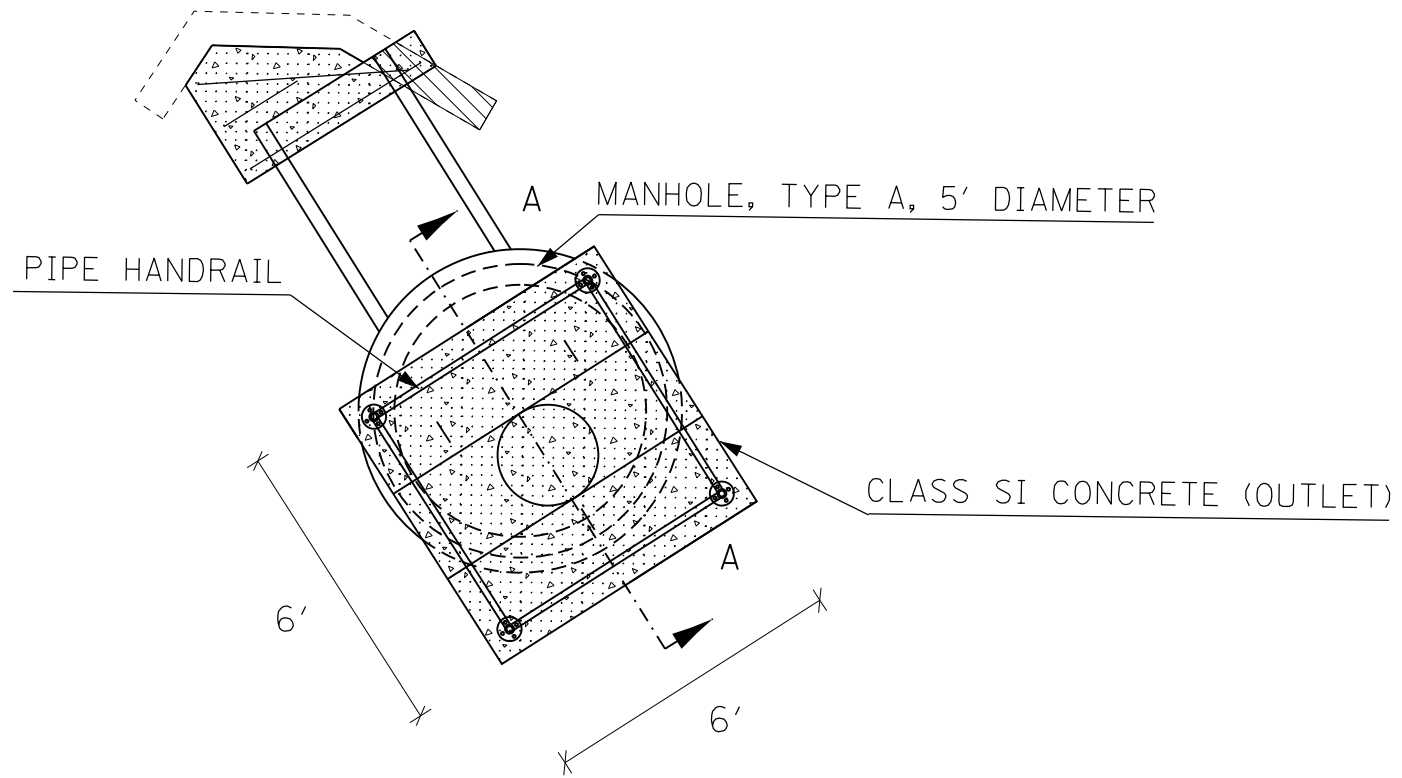
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		DRAWN -	REVISED -
		CHECKED -	REVISED -
Default	PLOT DATE = 4/27/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

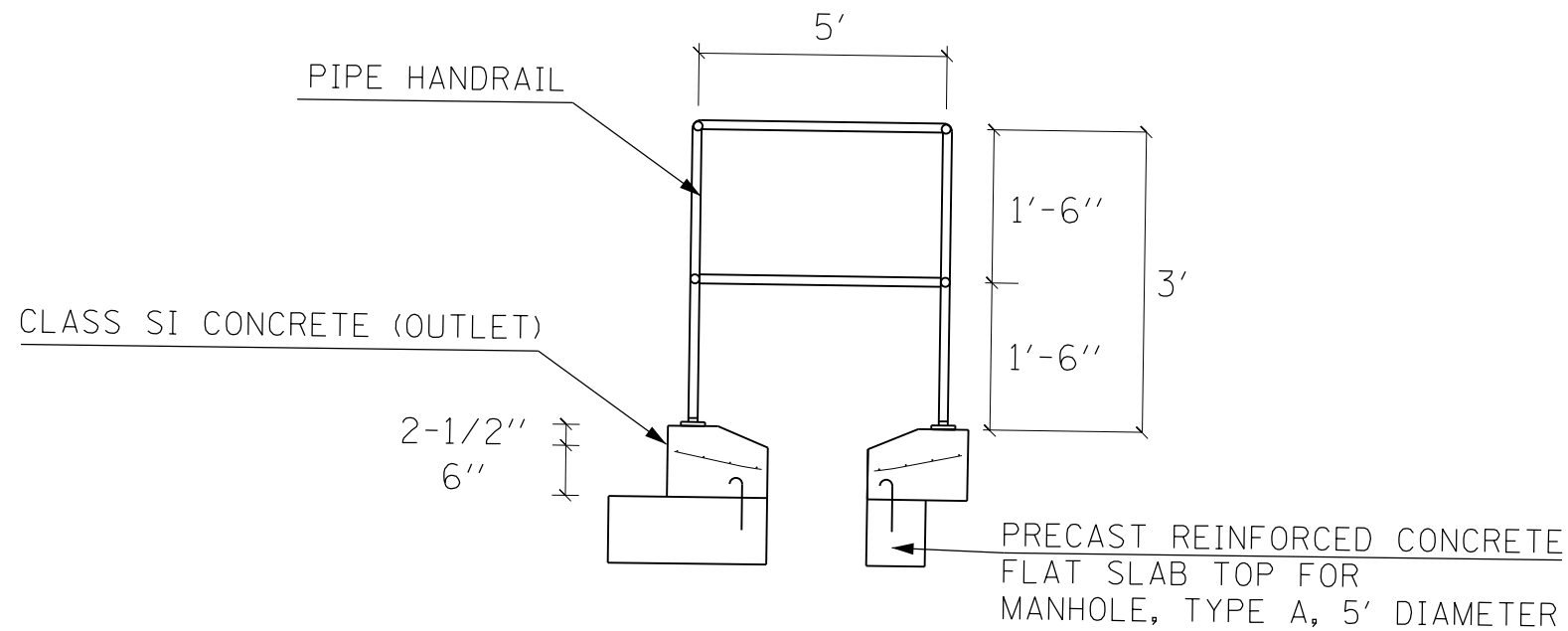
DRAINAGE DETAIL

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1412	(106-SLP,T)	HENDERSON	25	12
CONTRACT NO. 68D19			ILLINOIS FED. AID PROJECT	



PLAN



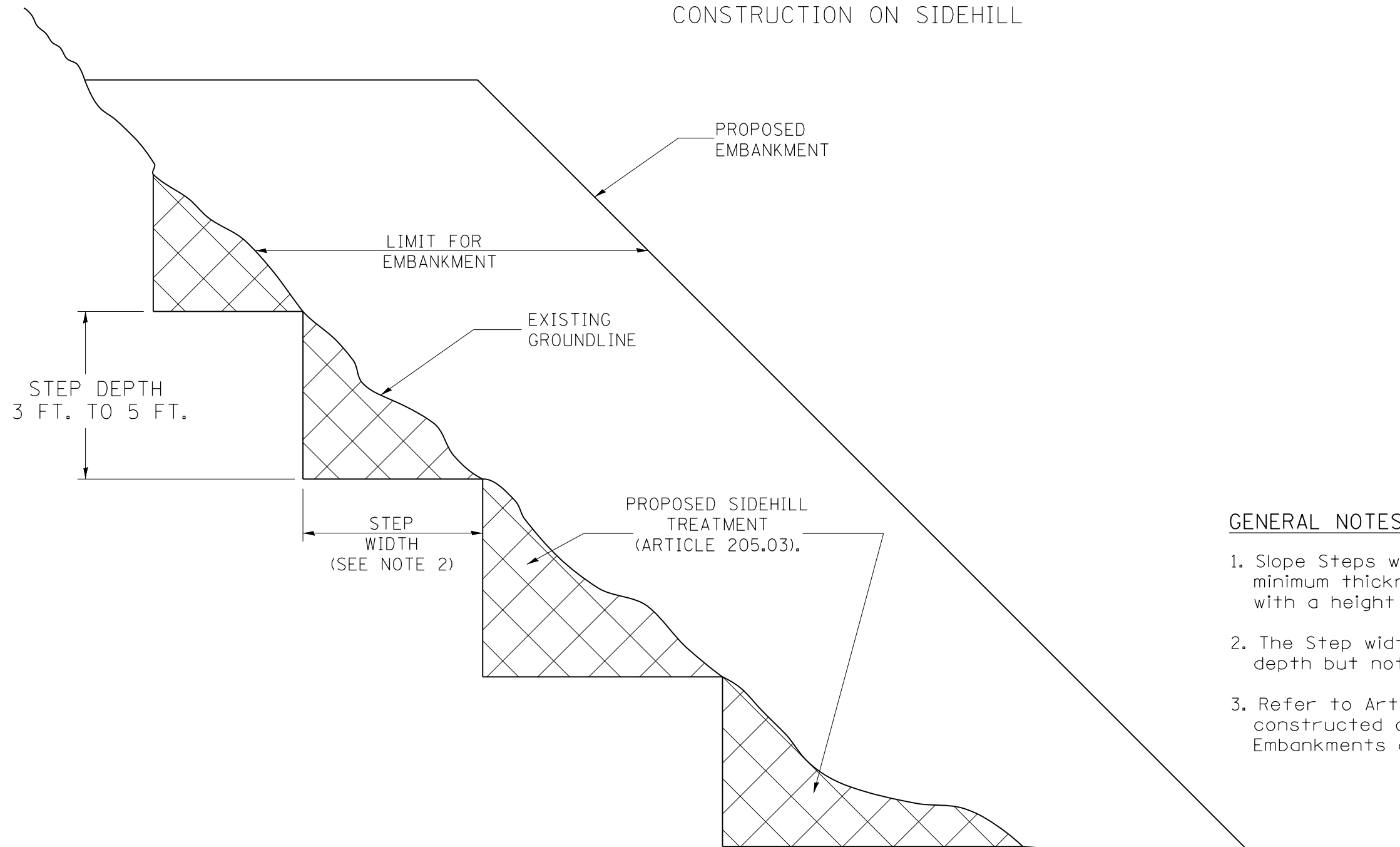
SECTION A-A

NOTES:

1. ALL DIMENSIONS ARE TO THE CENTER OF THE POSTRAIL
2. HANDRAIL DIMENSIONS TYPICAL FOR ALL SIDES

FILE NAME = DL-001-16-sheets.dgn	USER NAME = aubreys	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIPE HANDRAIL DETAIL				F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default	PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.	1412	13
	PLOT DATE = 4/27/2016	CHECKED -	REVISED -						(106-SLP,T)		HENDERSON	25	13
		DATE -	REVISED -						ILLINOIS FED. AID PROJECT		CONTRACT NO. 68D19		

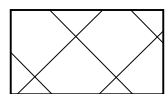
SLOPE STEPS DETAIL
 TYPICAL CROSS-SECTION EMBANKMENT
 CONSTRUCTION ON SIDEHILL



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.

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

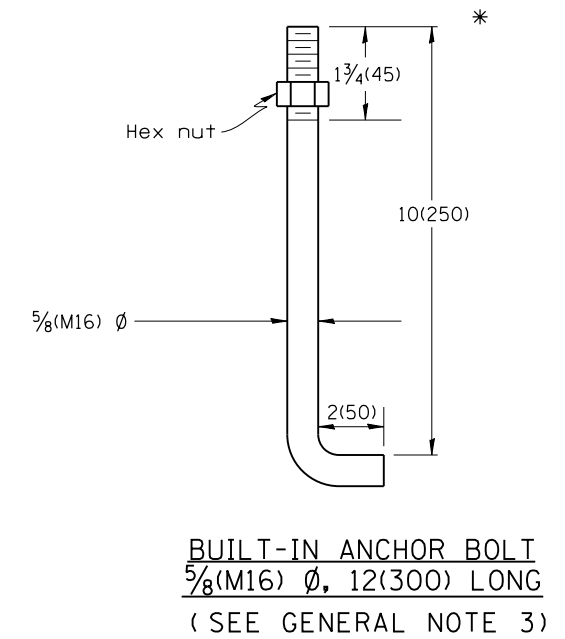
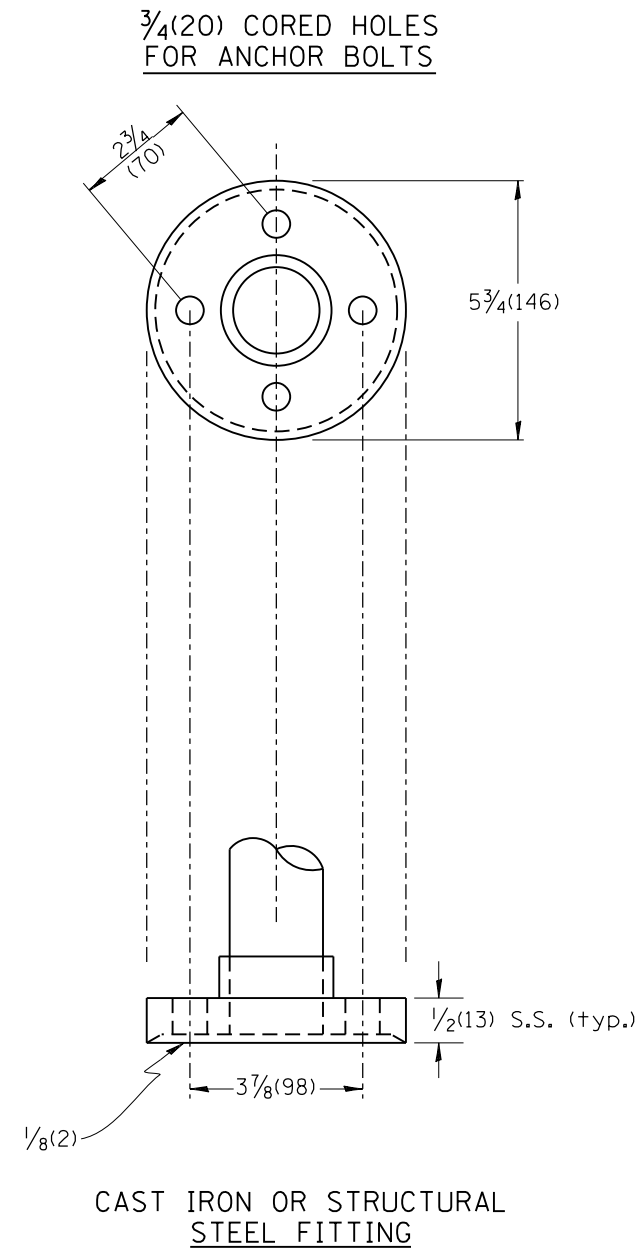
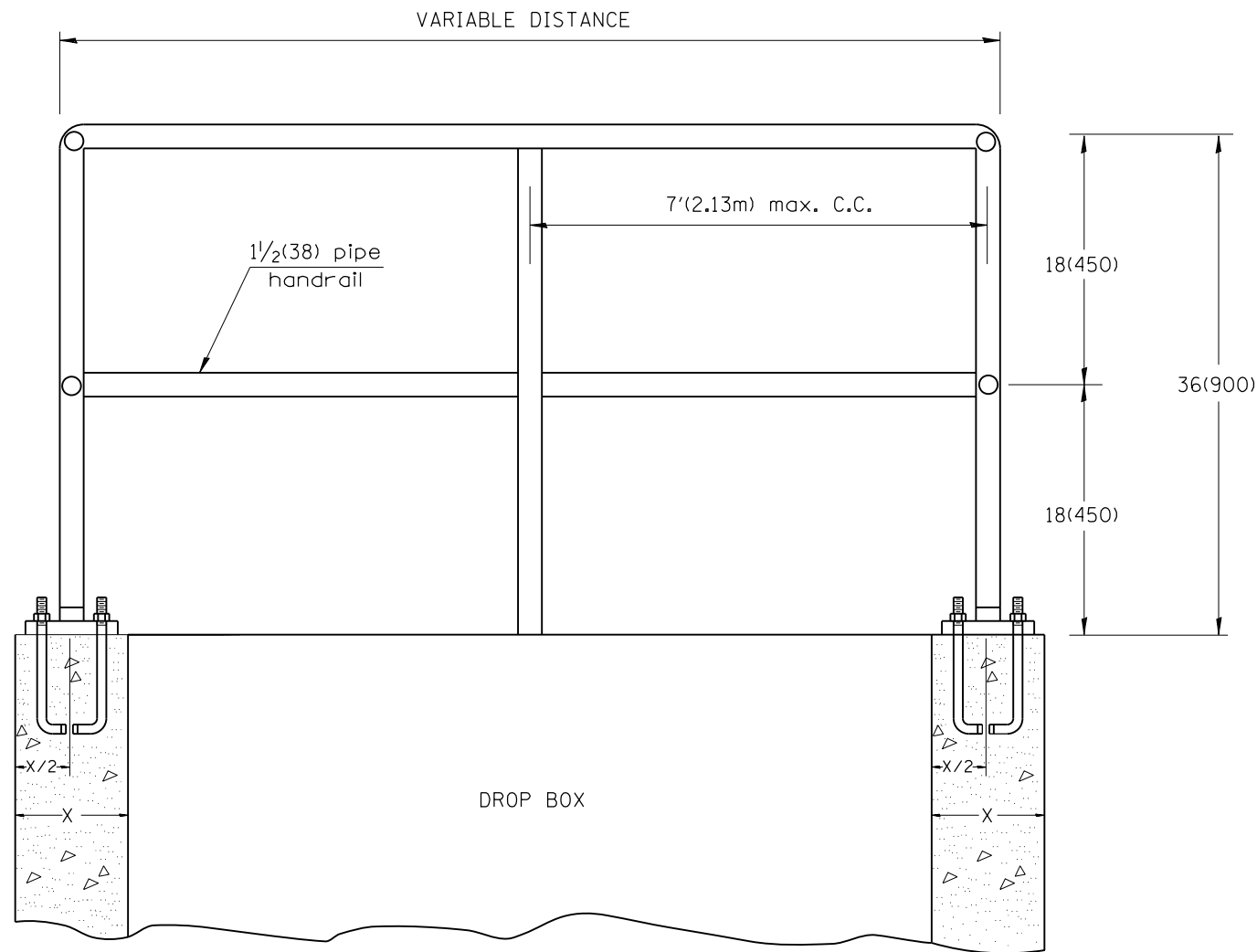
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SLOPE STEPS DETAIL

NOT TO SCALE

CADD STD. 205001-D4

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1412	(106-SLP,T)	HENDERSON	25	14
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 68D19	



GENERAL NOTES:

- Article 509.04 of the Standard Specifications shall apply.
- Connection of railing to posts shall be made by continuous welding or with using standard pipe fitting.
- An equivalent epoxy anchor stud can be used in place of anchor shown. Anchor bolt holes shall be 3/4(20) in diameter and 5(125) deep. They shall be predrilled with an electric hammer drill to a depth of 4(100) prior to use of a pneumatic drill for the remaining 4(100). A two component encapsulated epoxy such as "Parabond" or an equivalent shall be used. Installation shall be according to Manufacturer's recommendations.
- The pipe handrail shall be galvanized by the hot dip process.

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

01-01-97	RENUM. B-11.01, METRICS, NEW REVISION BOX, REVISED TITLE BOX, REVISED NOTES	T.P.
10-16-06	REVISED TO 2007 SPEC.	M.A.

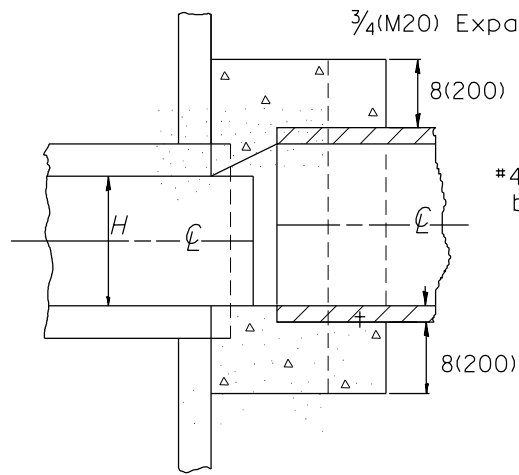
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

DETAIL OF PIPE HANDRAIL FASTENING

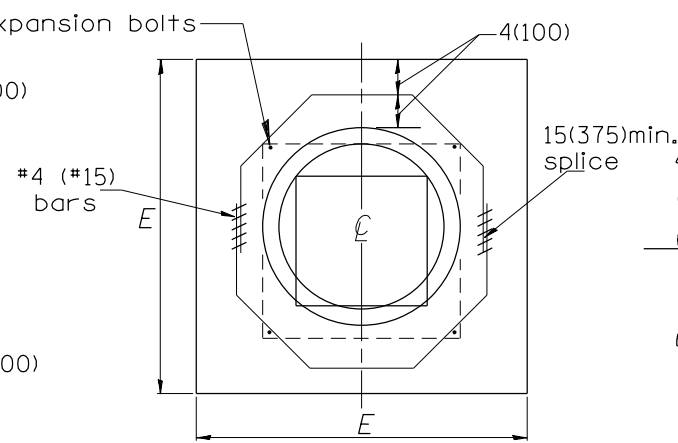
NOT TO SCALE

CADD STD. 510001-D4

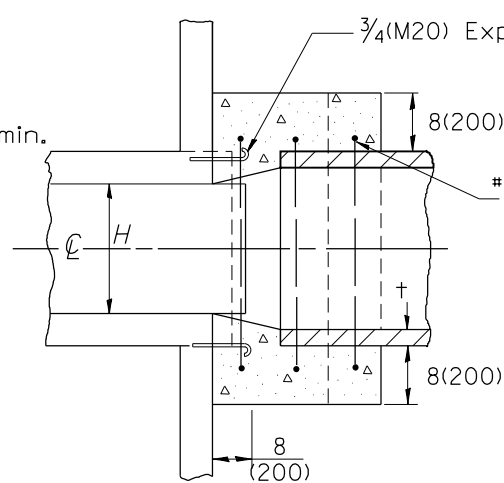
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1412	(106-SLP,T)	HENDERSON	25	15
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 68D19	



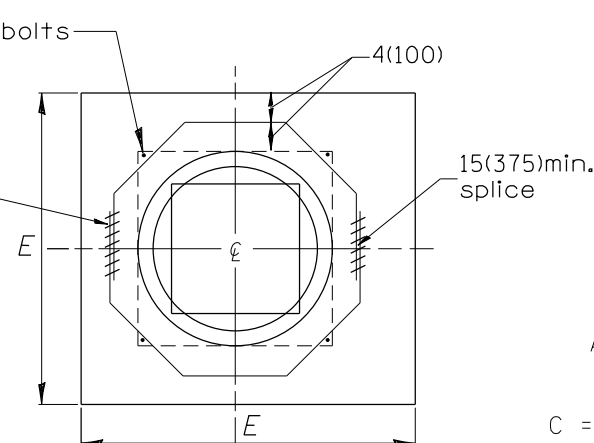
SECTION A-A



END VIEW



SECTION A-A



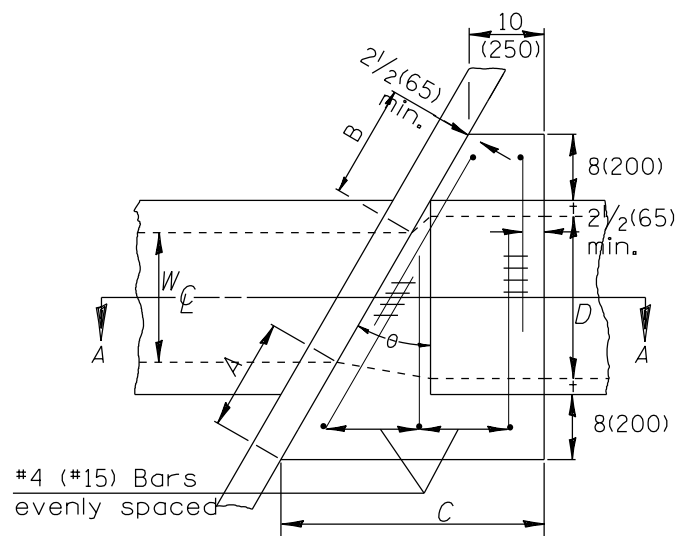
END VIEW

$$A = B = \frac{D - W}{2} + t + 8(200) \cos \theta$$

$$C = \tan \theta [D + 2t + 16(410)] + 10(250)$$

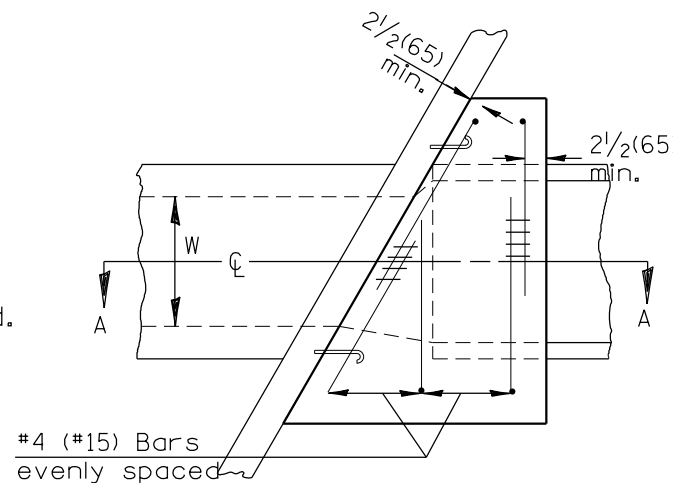
$$G = \frac{D + 2t + 8(200)}{2.4142 [\cos \theta]}$$

(Note: 'G' is based upon maximum skewed length)

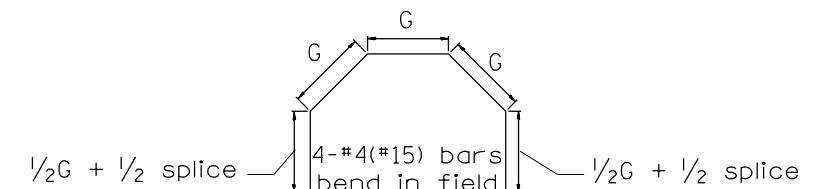


PLAN VIEW UP STREAM

NOTE: Dimensions are shown in Plan View of Up Stream End while Reinforcement is shown in plan view of Down Stream End.



PLAN VIEW DOWN STREAM



GENERAL 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 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.
- This work will be paid for by the cubic yard (cubic meter) for CONCRETE COLLAR, by the pound (kg) for REINFORCEMENT BARS, and by Each for EXPANSION BOLTS of the size indicated.

EXISTING BOX		EACH COLLAR											
W	H	θ	A	B	C	D	E	t	CONCRETE	REINFORCEMENT BARS		EXPAN. BOLTS	
									CU. YD. (m ³)	G	L	KG(LBS.)	EACH
2	2.5	33	17	17	44	30	53	3.5	1.0	1.9	8.7	29	4

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-11.03, NEW REVISION BOX, REVISED	T.P.
	TITLE BOX, ADDED QUANTITY CALCULATION BOX	
10-16-06	REVISED TO 2007 SPEC.	M.A.
2-15-11	CHANGED REBAR DETAIL	R.D.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

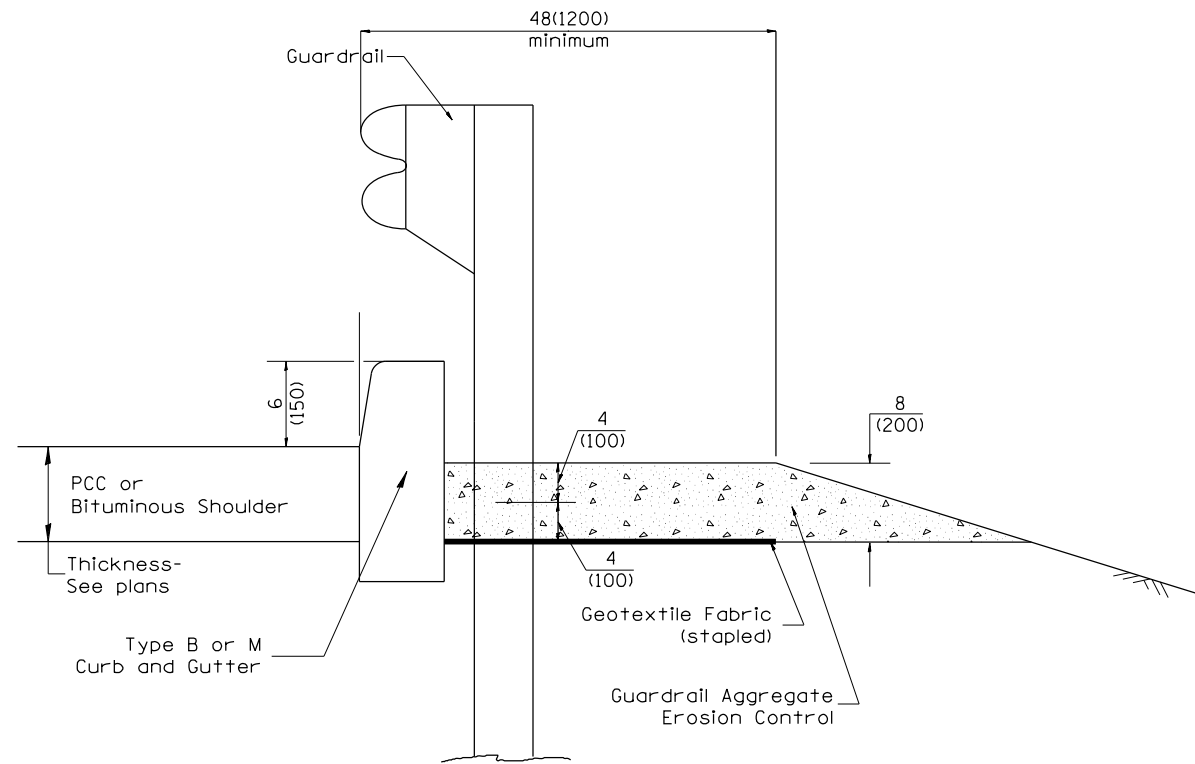
SKewed PIPE CULVERT EXTENSION COLLAR (WITH END SECTION)

NOT TO SCALE

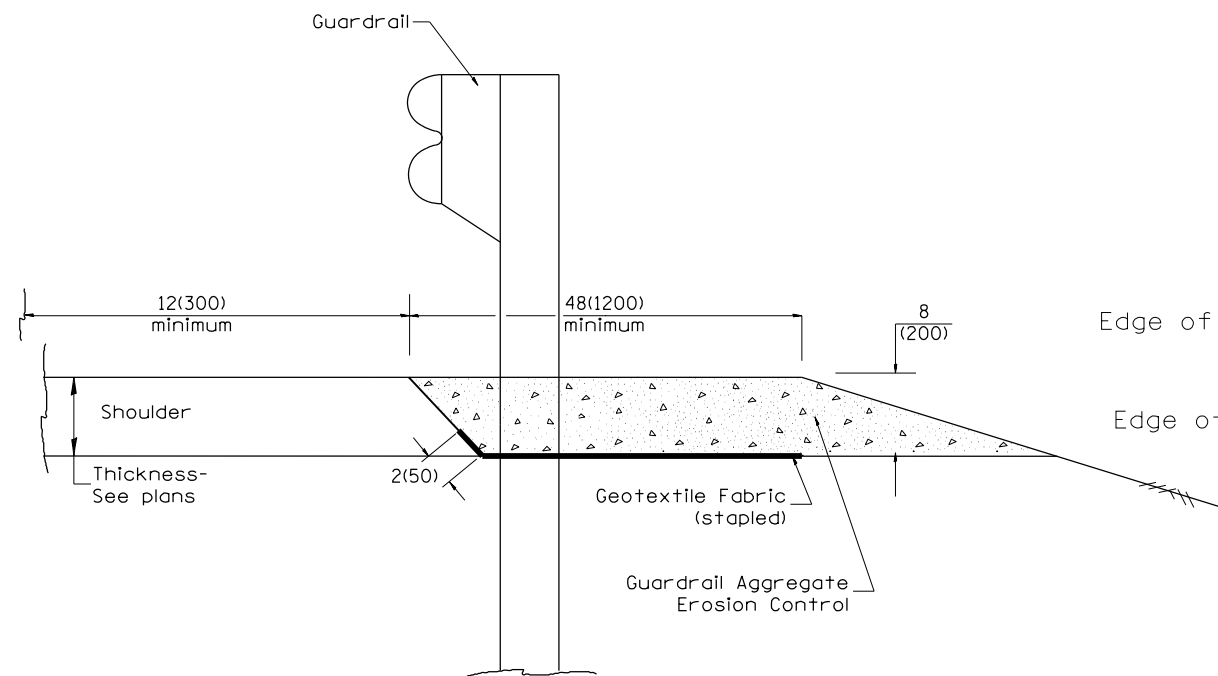
CADD STD. 542011-D4

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 68D19	



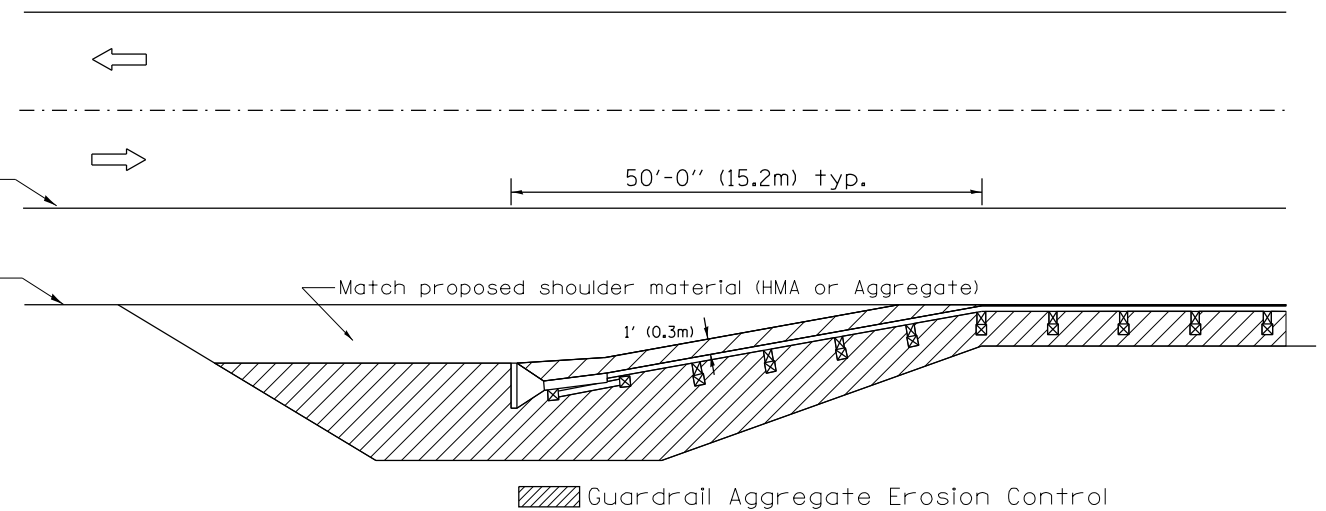
TYPICAL SECTION WITH EROSION CONTROL CURB



TYPICAL SECTION WITHOUT EROSION CONTROL CURB

GENERAL NOTES: GUARDRAIL AGGREGATE EROSION CONTROL

1. This work shall consist of grading as needed, furnishing and installing geotextile fabric and staples, and furnishing, placing and shaping crushed aggregate around and behind Steel Plate Beam Guardrail posts in accordance with Plan Details.
2. Before placing the aggregate and the Geotextile Fabric, weeds and grass shall be removed from the area to be covered.
3. After the area has been prepared, and in a dry condition, the Geotextile fabric shall be placed with a 12(300) minimum overlap. A knife cut for guardrail post installation is necessary.
4. The aggregate shall be deposited, compacted and shaped by either mechanical or hand methods, in a manner reasonably true to line and grade.
5. The Contractor shall have the option of placing the guardrail before or after the Geotextile Fabric and Aggregate are in place. If the guardrail is placed after the Geotextile Fabric and Aggregate, then any voids must be filled and the aggregate returned to line and grade.
6. Materials shall meet the following requirements:
 - A. The crushed aggregate shall be CA1 gradation in accordance with Article 1004.01(c) of the Standard Specifications.
 - B. The Geotextile Fabric shall be nonwoven fabric in accordance with Article 1080.02 of the Standard Specifications.



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

01-01-97	RENUM. C-22.01, NEW REVISION BOX	T.P.	3-7-11	Added Detail showing plan view	R.D.
03-01-97	CORRECT STD. NUMBERS IN NOTES PG. 2	J.A.	8-10-12	Revised curb "B" and aggregate	R.D.
11-03-00	CORRECTION TO NOTES	M.A.	7-15-15	Addressed shoulder inlet curb	R.D.
10-16-06	REVISED TO 2007 SPEC.	M.A.			

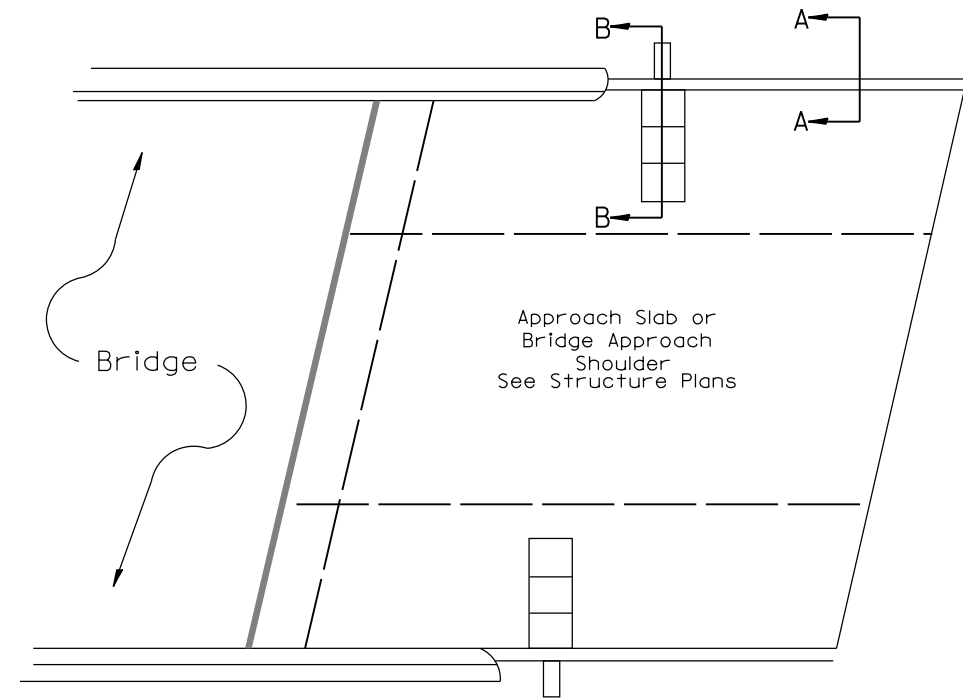
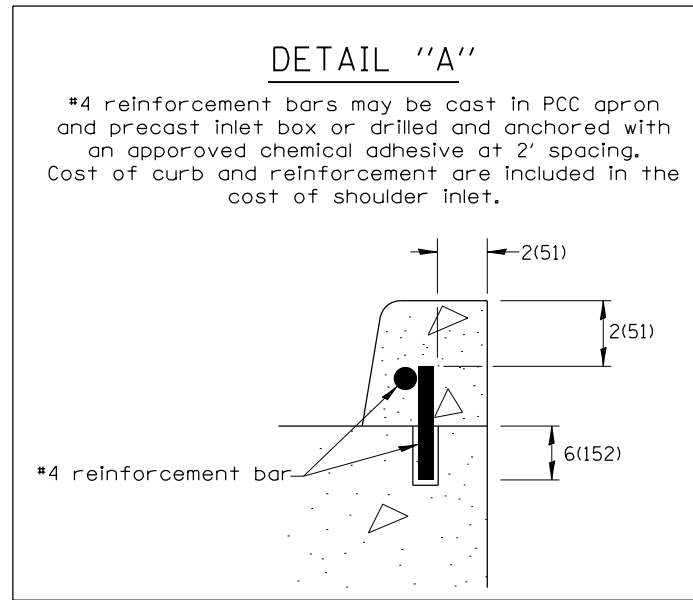
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GUARDRAIL EROSION CONTROL TREATMENTS

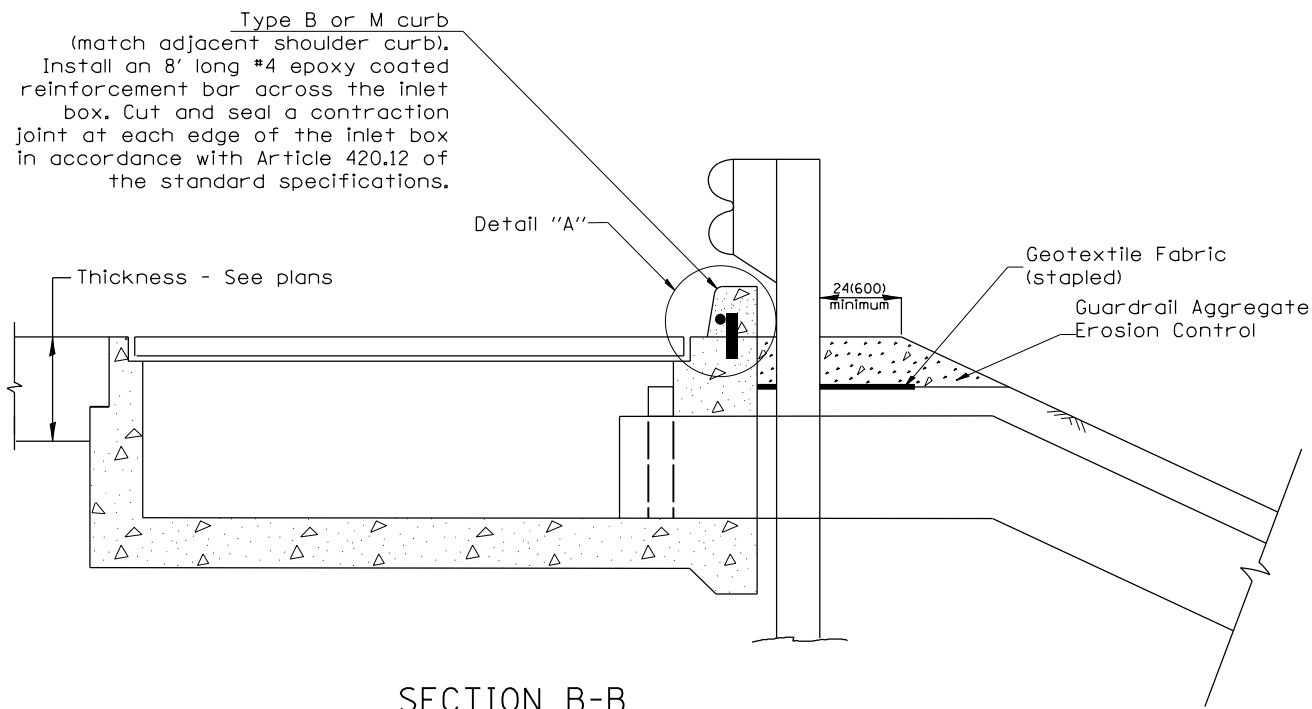
NOT TO SCALE

SHT. 1 OF 2
CADD STD. 630101-D4

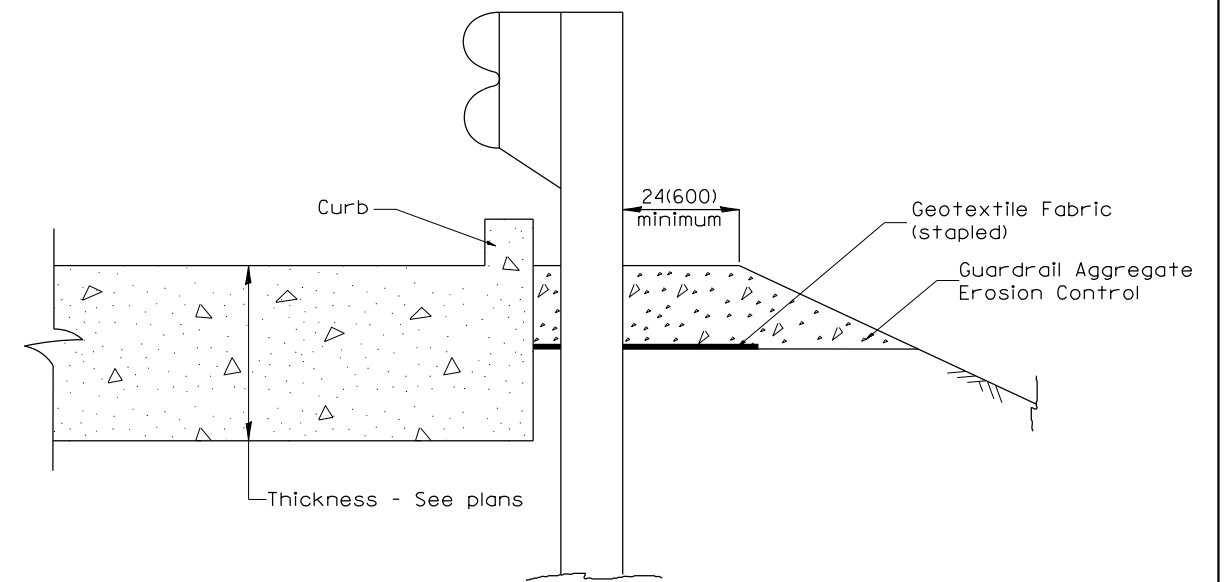
F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1412	(106-SLP,T)	HENDERSON	25	17
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 68D19	



PLAN VIEW
APPROACH SLAB OR SHOULDER PLACEMENT



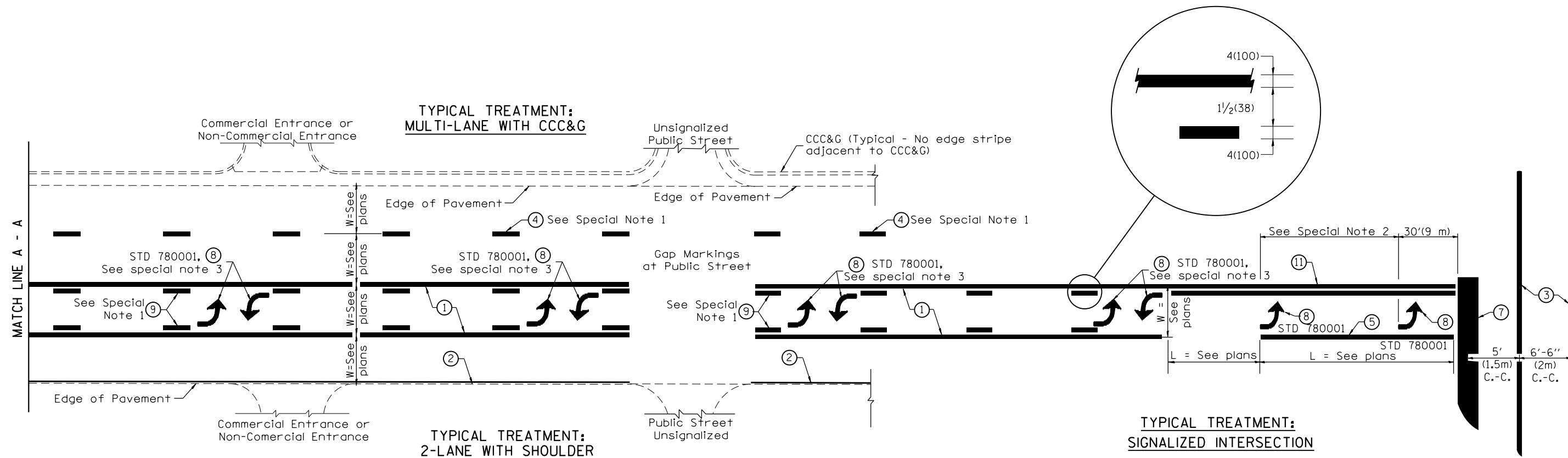
SECTION B-B
TYPICAL SECTION AT INLETS
TYPE E, F & G (HIGHWAY STANDARD 610001)



SECTION A-A
TYPICAL SECTION WITH BRIDGE APPROACH CURB

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

FILE NAME =	USER NAME = aubreys	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GUARDRAIL EROSION CONTROL TREATMENTS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
DL-001-16-sheets.dgn		DRAWN -	REVISED -			1412	(106-SLP,T)	HENDERSON	25	18	
Default	PLOT SCALE = 100.0000' / 1".	CHECKED -	REVISED -			SHT. 2 OF 2 CONTRACT NO. 68D19					
	PLOT DATE = 4/27/2016	DATE -	REVISED -			NOT TO SCALE	SHEET OF SHEETS	STA.	CADD STD. 630101-D4	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT



FLUSH PAVED MEDIAN: TWO-WAY LEFT TURN LANE WITH ONE-WAY LEFT TURN LANE AT SIGNALIZED INTERSECTION

TYPICAL PAVEMENT MARKING LEGEND

(Note: This is a District Standard Legend. Some elements may not apply to specific project.)

- ① 4(100) Solid (Yellow)
- ② 4(100) Solid (White)
- ③ 2-6(150) Crosswalk @ 6'-6" (2m)min C.-C. (White)
2-8(200) Crosswalk @ 6'-6" (2m)min C.-C. (White) (When traffic signals are present.)
- ④ 6(150) Skip-Dash (White) (See Special Note 1)
- ⑤ 8(200) Solid (White)
- ⑥ 12(300) Diagonal (White) (Item ⑥ is shown on Std. 780001)
- ⑦ 24(600) Stop Bar (White)
- ⑧ Letters & Arrows (See Std. 780001 and Special Notes 2 & 3)
- ⑨ 4(100) Skip-Dash (Yellow) (See Special Note 1)
- ⑩ 12(300) Diagonal (Yellow) (See Table A) ⑩
- ⑪ 4(100) Double Solid (Yellow) ⑪

SPECIAL NOTES

1. Skip-Dash markings will be centered between both ends of city blocks and shall be placed in alignment transversely across the pavement.
2. The following shall apply to arrows located in one-way left turn lanes:
 - A. A minimum of two (2) arrows is required.
 - B. The maximum spacing between arrows is 80' (24 m).
 - C. Arrows shall be evenly spaced if three (3) or more are required.
3. The following shall apply to arrow pairs located in two-way left turn lanes:
 - A. A minimum of two (2) arrow pairs is required.
 - B. The maximum spacing between arrow pairs is 200' (61 m).
 - C. Arrow pairs shall be evenly spaced if three (3) or more are required.
 - D. The spacing between Bi Directional Left Turn Arrows is 33' (10 m).

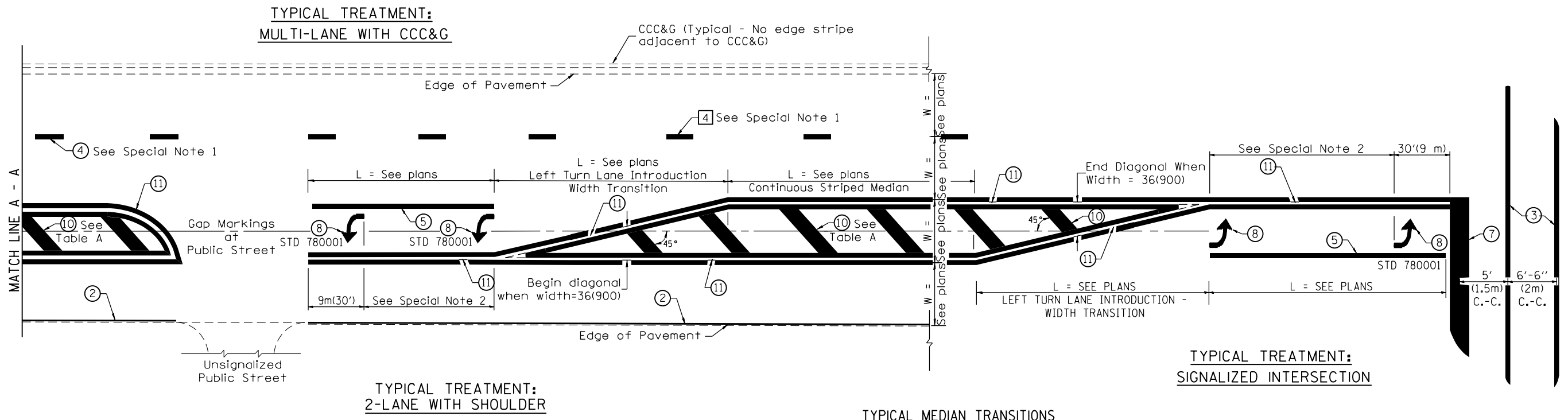
GENERAL NOTES

1. Refer to State Standard 780001 for additional Pavement Markings including letters & arrows.
2. See Plans for Pavement Markings adjacent to curbed islands and medians, and through lane reductions.

01-01-97	RENUM. F-8.03, NEW REVISION BOX	T.P.	10-16-06	REVISED TO 2007 SPEC.	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL PAVEMENT MARKINGS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
02-07-97	ADD BI DIRECTIONAL DIMENSION	J.A.					1412	(106-SLP,T)	HENDERSON	25	19
10-97	CORRECT BI DIRECTIONAL DIMENSION	J.A.					SHT. 1 OF 2 CADD STD. 780001-D4				
08-02	ADD CROSSWALK DMNS. WITH T.S.	M.A.					CONTRACT NO. 68D19				

NOT TO SCALE

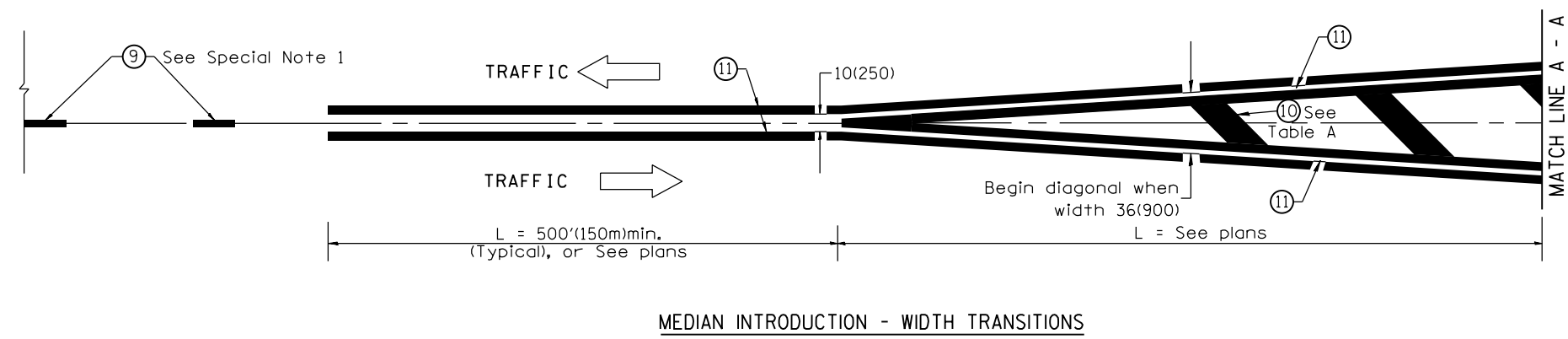
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



FLUSH PAVED MEDIAN: RESTRICTED LEFT TURN LANE

TABLE A
RECOMMENDED SPACING BETWEEN DIAGONAL LINES

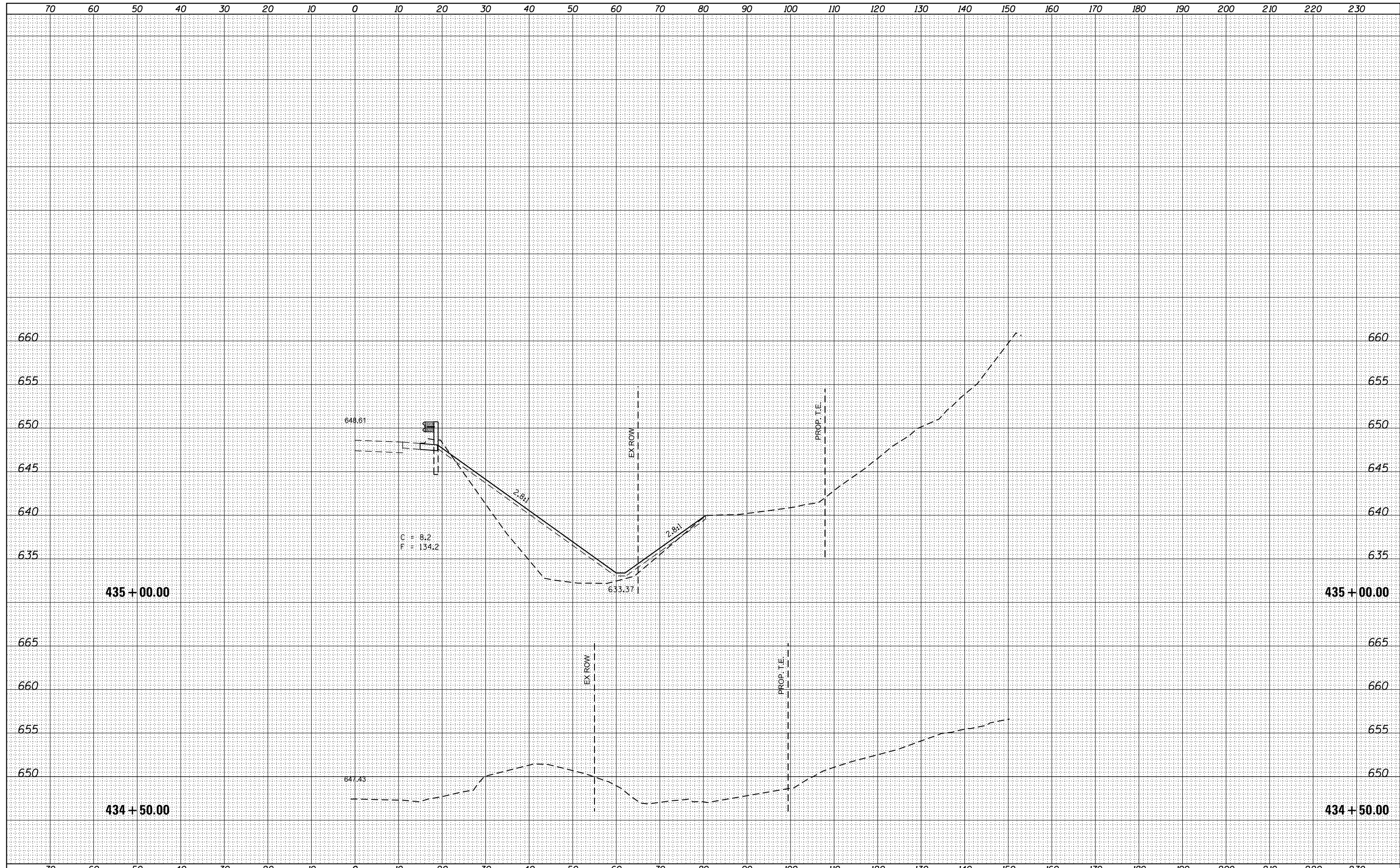
SPEED LIMIT RANGE	INTERSECTION CHANNELIZATION (Includes Width Transitions for Median and Left Turn Lane Introductions)	
	CONTINUOUS	
Less Than 30 mph (50 km/h)	50' (15m)	15' (5m)
30 - 45 mph (50 - 70 km/h)	75' (23m)	20' (6m)
Over 45 mph (70 km/h)	150' (46m)	30' (9m)



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

DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS
	CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS
	CHECKED



FILE NAME = DL-001-16-sheets.dgn
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USER NAME = aubreys	DESIGNED -	REVISED -
PLOT SCALE = 20.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 4/27/2016	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

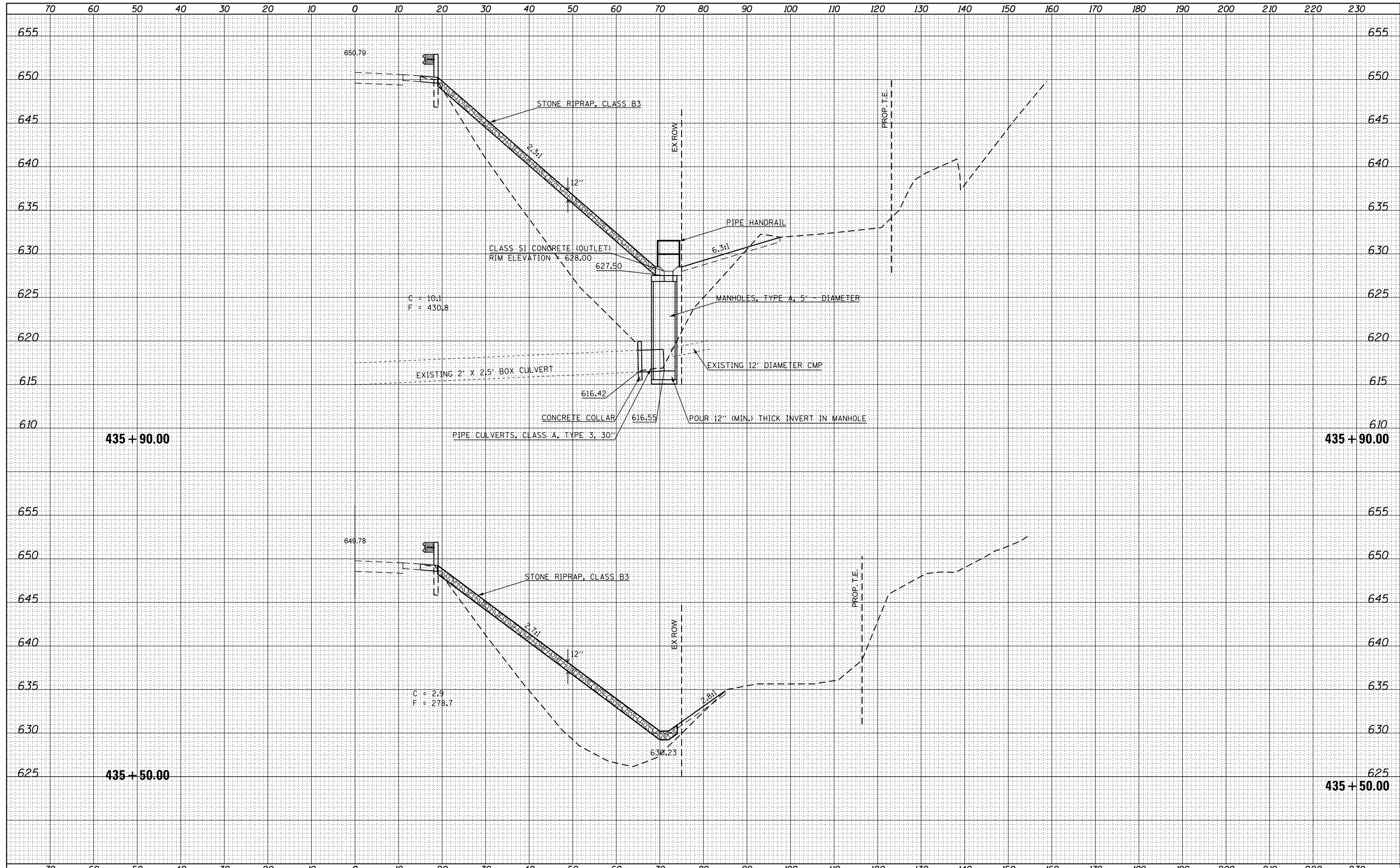
CROSS SECTIONS

SCALE: SHEET OF SHEETS STA. 434+50.00 TO STA. 435+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1412	(106-SLP,T)	HENDERSON	25	21
CONTRACT NO. 68D19				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS
	CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS
	CHECKED



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PLOT DATE = 4/27/2016	CHECKED -	REVISED -
	DATE -	REVISED -

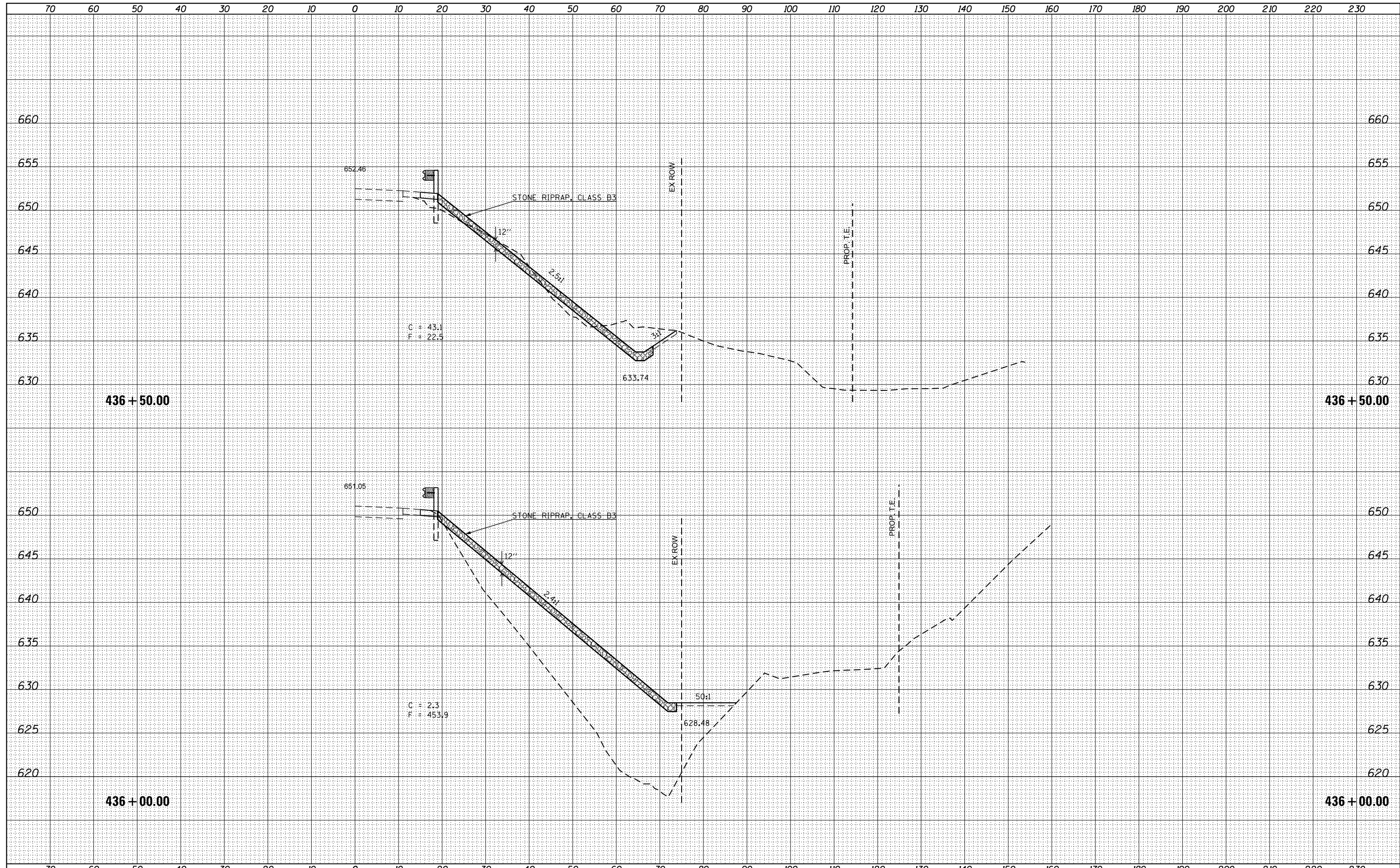
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1412	(106-SLP,T)	HENDERSON	25	22
CONTRACT NO. 68D19				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

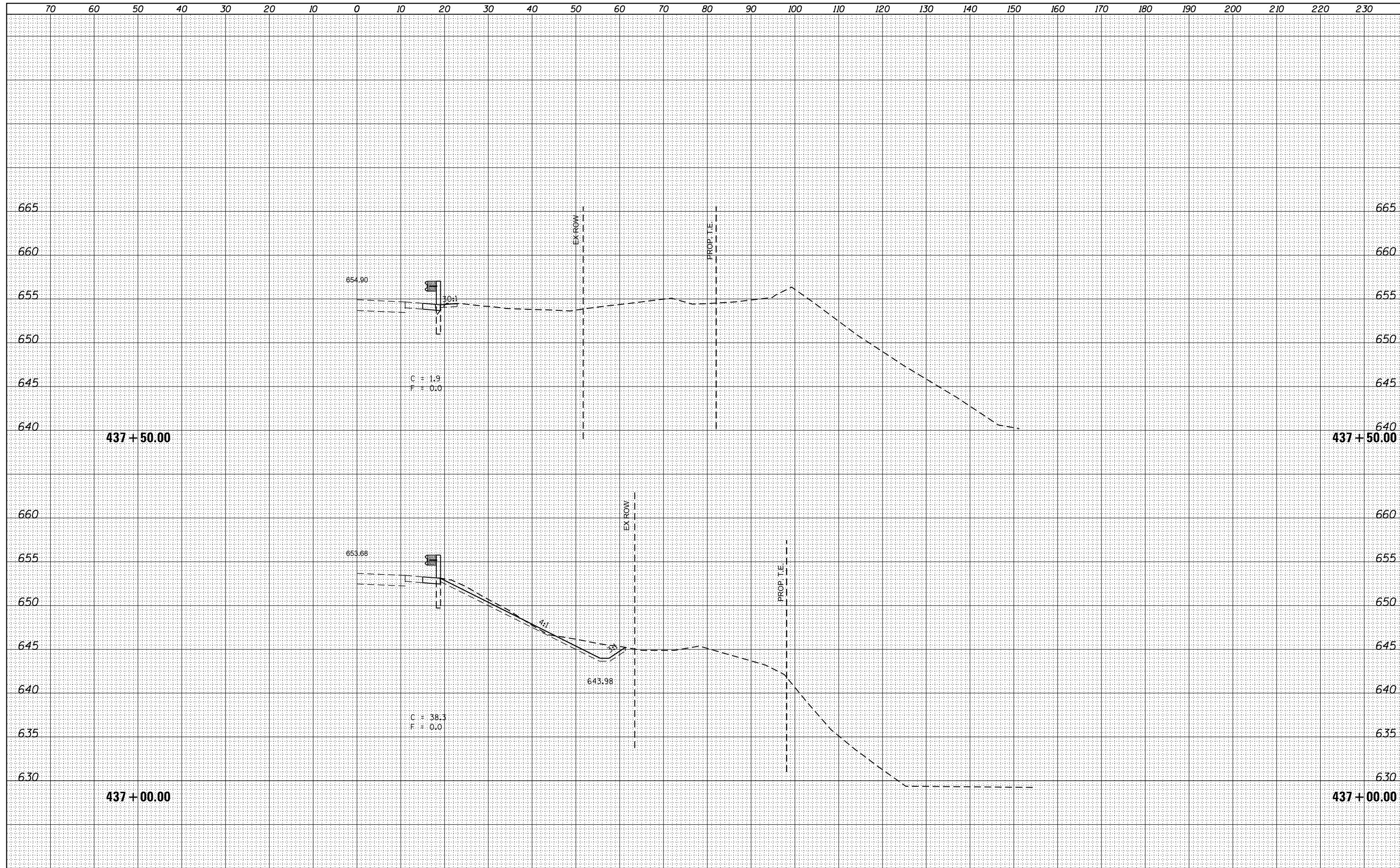
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BY	
SURVEYED	
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TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



FILE NAME = DL-001-16-sheets.dgn	USER NAME = aubreys	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS				F.A.S. RTE. 1412	SECTION (106-SLP,T)	COUNTY HENDERSON	TOTAL SHEETS 25	SHEET NO. 23
Default	PLOT SCALE = 20.0000' / in.	DRAWN -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA. 436+00.00	TO STA. 436+50.00	CONTRACT NO. 68D19		
	PLOT DATE = 4/27/2016	CHECKED -	REVISED -		ILLINOIS FED. AID PROJECT								
		DATE -	REVISED -										

BY	DATE
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

BY	DATE
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TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



FILE NAME : DL-001-16-sheets.dgn
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USER NAME : aubreys	DESIGNED -	REVISED -
PLOT SCALE : 20.0000' / in.	DRAWN -	REVISED -
PLOT DATE : 4/27/2016	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

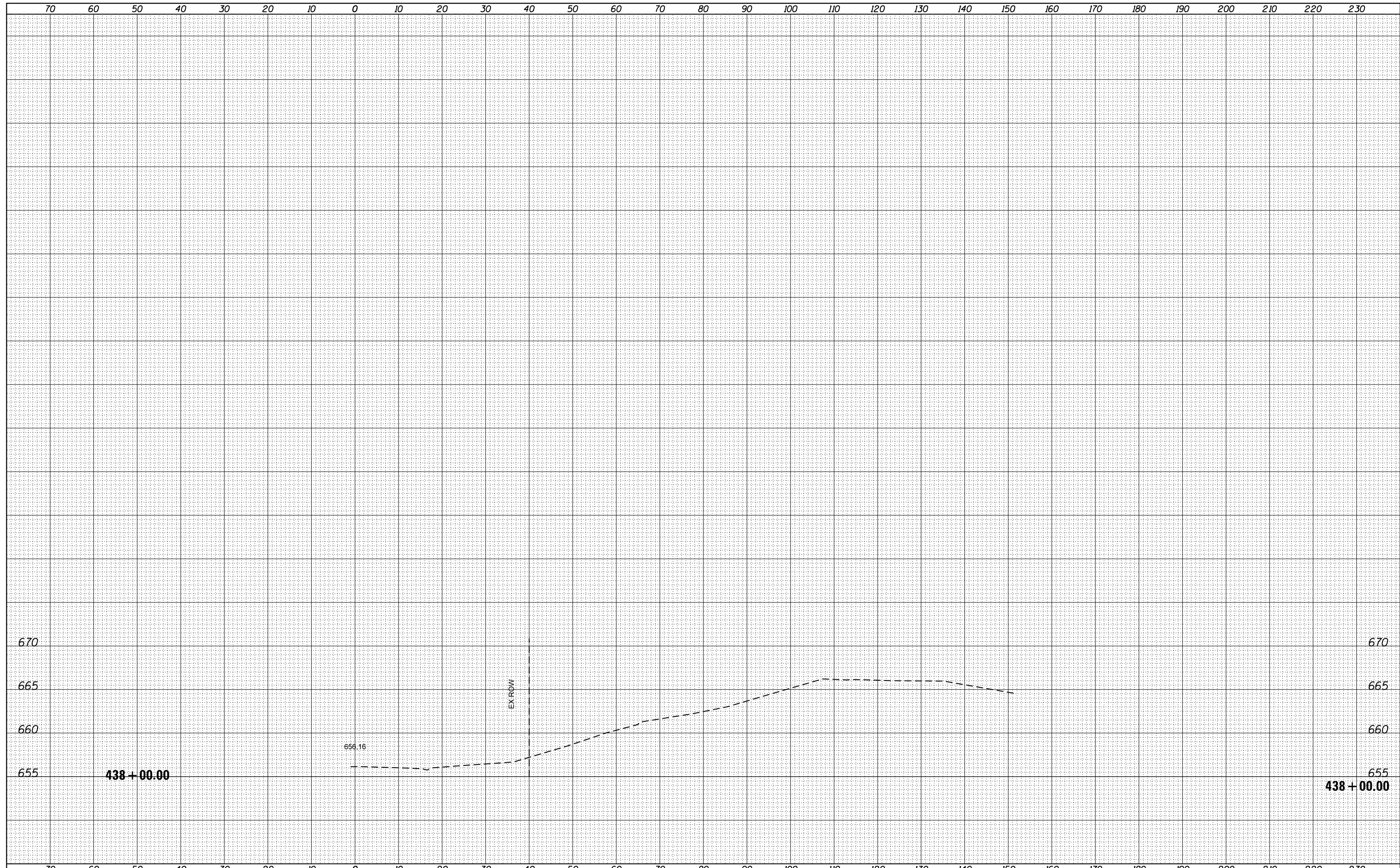
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1412	(106-SLP,T)	HENDERSON	25	24
CONTRACT NO. 68D19				

ILLINOIS FED. AID PROJECT

DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS
	CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS
	CHECKED



FILE NAME = DL-001-16-sheets.dgn
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USER NAME = aubreys	DESIGNED -	REVISIED -
	DRAWN -	REVISIED -
PLOT SCALE = 20.0000' / in.	CHECKED -	REVISIED -
PLOT DATE = 4/27/2016	DATE -	REVISIED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS			
SCALE:	SHEET	OF	SHEETS
	STA.		TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1412	(106-SLP,T)	HENDERSON	25	25
				CONTRACT NO. 68D19
ILLINOIS FED. AID PROJECT				