

DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 316 (IL 26)
SECTION (114)I

**BOX CULVERT REPAIR
STRUCTURE NO. 006-2517
313 FEET SOUTH OF THE
LEE COUNTY LINE (BASE LINE RD)
BUREAU COUNTY
C-93-102-12**

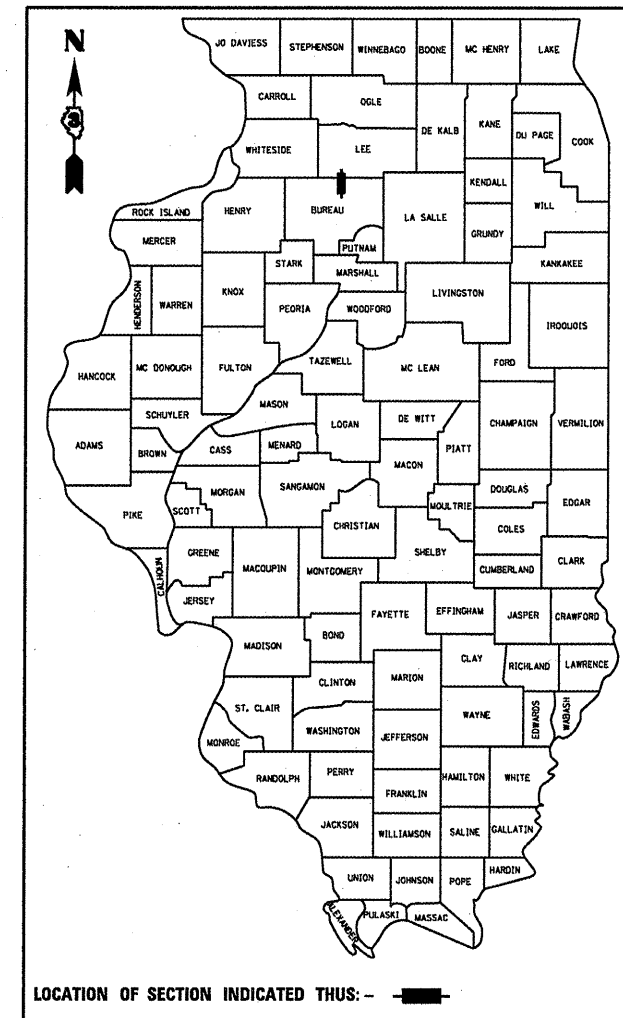
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	(114)I	BUREAU	12	1
		ILLINOIS	CONTRACT NO. 66C11	

1. COVER SHEET
2. GENERAL NOTES
3. SUMMARY OF QUANTITIES
4. TYPICAL SECTION
5. TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)
6. TYPICAL PAVEMENT MARKING DETAILS
- 7 - 8. ROADWAY DETAILS
- 9 - 12. STRUCTURE DETAILS FOR STRUCTURE NO. 006-2517

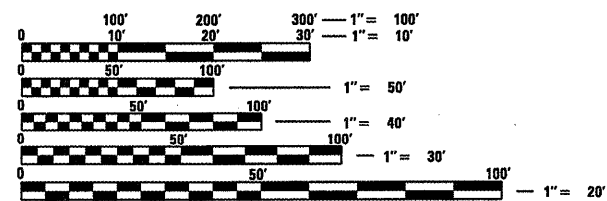
STANDARDS

- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREAS OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 420001-07 PAVEMENT JOINTS
- 420701-02 PAVEMENT FABRIC
- 442201-03 CLASS C AND D PATCHES
- 604081-04 FRAMES AND GRATES, TYPE 22
- 606106-04 OUTLET, TYPE 1 FOR TYPE A GUTTER
- 635011-02 REFLECTOR MARKER AND MOUNTING DETAILS
- 701001-02 OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 15' (4.5 m) AWAY
- 701006-03 OFF-ROAD OPERATIONS 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701201-04 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS \geq 45 MPH
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701901-02 TRAFFIC CONTROL DEVICES
- 704001-07 TEMPORARY CONCRETE BARRIER

D-93-002-12



PROJECT LOCATION
STRUCTURE NO. 006-2517
STA. 1412 + 97



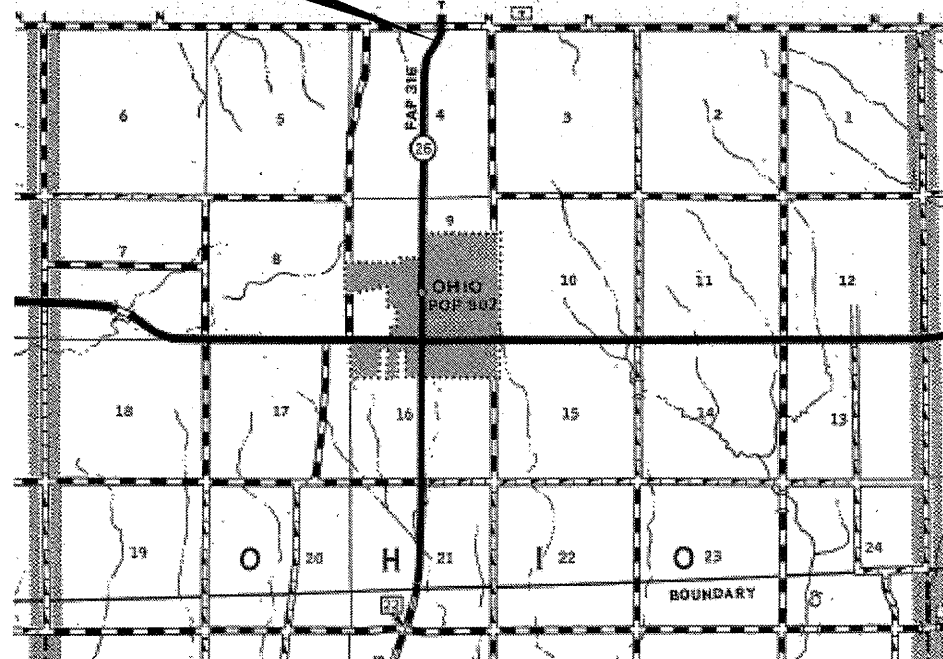
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

DISTRICT NO. 3 (815) 434-6131

PROJECT ENGINEER: JOE KANNEL P.E.
UNIT CHIEF: RON WOODSHANK
TOWNSHIP: OHIO

CONTRACT NO. 66C11



POINT LOCATION

OTHER PRINCIPAL ARTERIAL

FAP RTE. 316 (IL 26)

2011

ADT	1750
P.V.	77.43%
S.U.	6.86%
M.U.	15.71%

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 4/6 2012
Eric S. Theobald
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 11 2012
John D. Baranzelli P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

May 11 2012
William R. Freyer
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

GENERAL NOTES

THE THICKNESS OF HMA SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA IS PLACED.

EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.

THE FINISHED EARTHWORK SHALL HAVE A VEGETATION SUSTAINING SOIL COVERING THE TOP FOUR INCHES IN AREAS TO BE SEEDED. THE VEGETATION SUSTAINING SOIL REQUIRED WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

ON EXISTING PAVEMENT WHICH MAY BE SUPERELEVATED, THE NEW HMA PAVEMENT SHALL BE BUILT WITH THE SAME SUPERELEVATION UNLESS NEW SUPERELEVATION RATES ARE GIVEN ON THE PLANS.

ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.

ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05	TONS / CU YD
--------------------	------	--------------

THE CONTRACTOR SHALL CONTACT JULIE AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.

COMMITMENTS

DATE: 4-6-12

PREPARED BY: *Dan Beouin*
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: *Harold K. Jones*
DISTRICT CONSTRUCTION ENGINEER

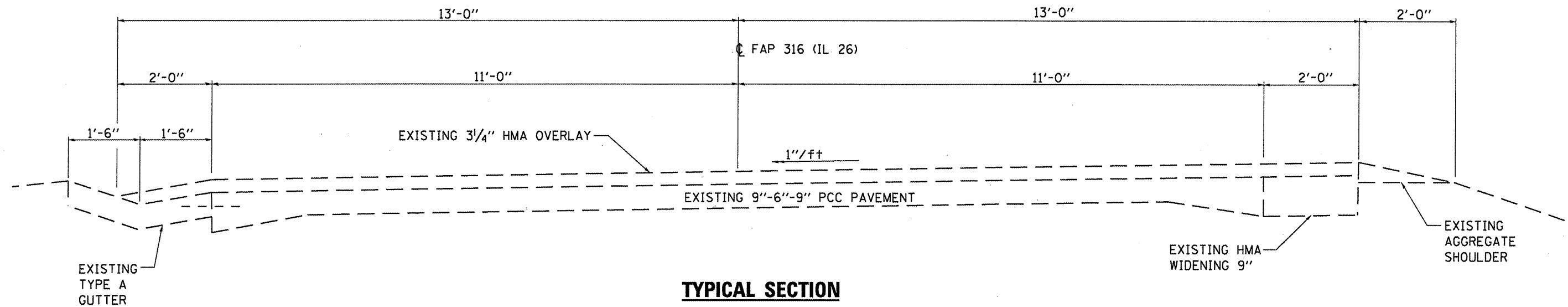
Ray J. Phillips
DISTRICT MATERIALS ENGINEER

Bruce A. Hatcher
DISTRICT OPERATIONS ENGINEER

FILE NAME =	USER NAME = petelyj	DESIGNED - RLW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
cr:\pw_work\pwidot\petelyj\d0268140\036643-shr-details.dgn	DRAWN - RLW	REVISED -	316			(114)I	BUREAU	12	2	
PLOT SCALE = 100.0000' / 1" in.	CHECKED -	REVISED -	CONTRACT NO. 66C11							
PLOT DATE = 4/6/2012	DATE -	REVISED -	ILLINOIS FED. AID PROJECT							
				SCALE: _____	SHEET NO. 1 OF 1 SHEETS	STA. _____	TO STA. _____			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				STATE FUNDS 100% STRUCTURE 0014 RURAL
20200100	EARTH EXCAVATION	CU YD	106	106
35101600	AGGREGATE BASE COURSE, TYPE B 4"	SQ YD	21	21
44201381	CLASS C PATCHES, TYPE III, 12 INCH	SQ YD	18	18
44213100	PAVEMENT FABRIC	SQ YD	18	18
44213200	SAW CUTS	FOOT	45	45
44213204	TIE BARS 3/4"	EACH	60	60
50102400	CONCRETE REMOVAL	CU YD	8.6	8.6
50200100	STRUCTURE EXCAVATION	CU YD	20	20
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1722	1722
54002060	EXPANSION BOLTS 3/4 INCH X 12 INCH	EACH	20	20
54003000	CONCRETE BOX CULVERTS	CU YD	9.8	9.8
60404930	FRAMES AND GRATES, TYPE 22	EACH	1	1
60600095	CLASS SI CONCRETE (OUTLET)	CU YD	6.5	6.5
67100100	MOBILIZATION	L SUM	1	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
70400100	TEMPORARY CONCRETE BARRIER	FOOT	130	130
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	27	27
* 78001130	PAINT PAVEMENT MARKING - LINE 6"	FOOT	150	150
78300100	PAVEMENT MARKING REMOVAL	SQ FT	75	75
X4402720	GUTTER REMOVAL (SPECIAL)	FOOT	76	76
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2

* SPECIALITY ITEM



FILE NAME = c:\pw\work\p\dot\carpenterd\0268140\366843-sht-details.dgn	USER NAME = carpenterdj 366843-sht-details.dgn	DESIGNED - RLW DRAWN - RLW	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTION	F.A.P. RTE. 316	SECTION (114)	COUNTY BUREAU	TOTAL SHEETS 12	SHEET NO. 4
PLOT SCALE = 100,0000 ' / in. PLOT DATE = 4/5/2012				SCALE: _____ SHEET NO. 1 OF 1 SHEETS STA. _____ TO STA. _____		ILLINOIS FED. AID PROJECT CONTRACT NO. 66C11				

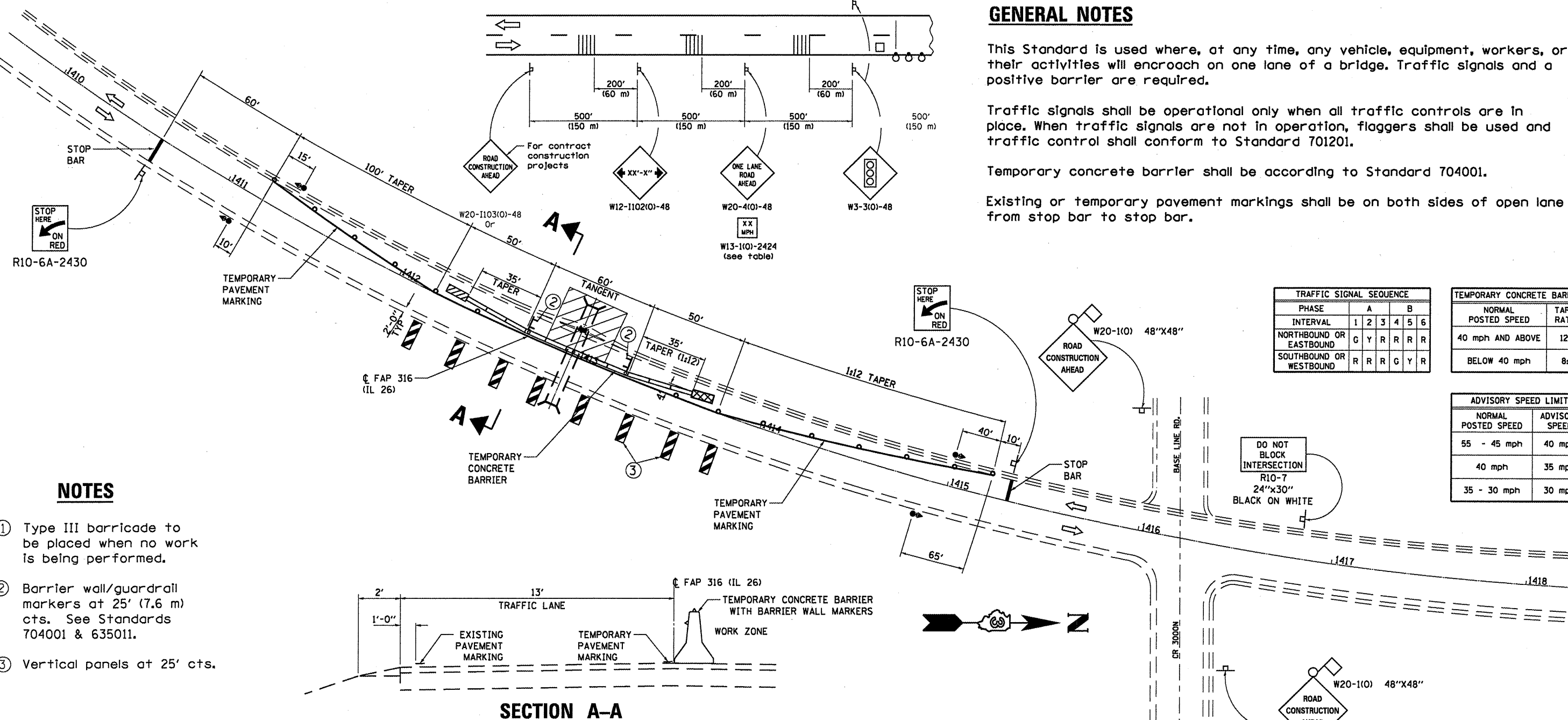
GENERAL NOTES

This Standard is used where, at any time, any vehicle, equipment, workers, or their activities will encroach on one lane of a bridge. Traffic signals and a positive barrier are required.

Traffic signals shall be operational only when all traffic controls are in place. When traffic signals are not in operation, flaggers shall be used and traffic control shall conform to Standard 701201.

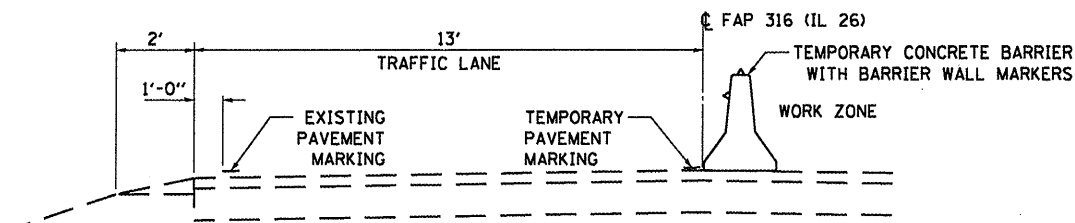
Temporary concrete barrier shall be according to Standard 704001.

Existing or temporary pavement markings shall be on both sides of open lane from stop bar to stop bar.



NOTES

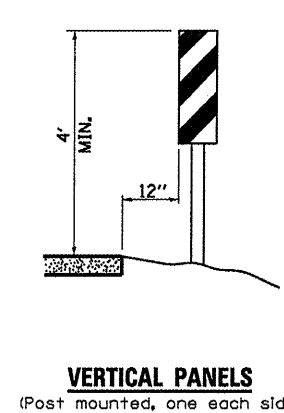
- ① Type III barricade to be placed when no work is being performed.
- ② Barrier wall/guardrail markers at 25' (7.6 m) cts. See Standards 704001 & 635011.
- ③ Vertical panels at 25' cts.



SECTION A-A

SYMBOLS

- Work area
- Sign
- Type III barricade
- Traffic signal w/Back Plate
- Impact attenuator
- Temporary rumble strip
- Drum with steady burning bi-directional light
- Temporary concrete barrier
- Double vertical panel (see detail)
- Crystal, bidirectional barrier wall/guardrail marker

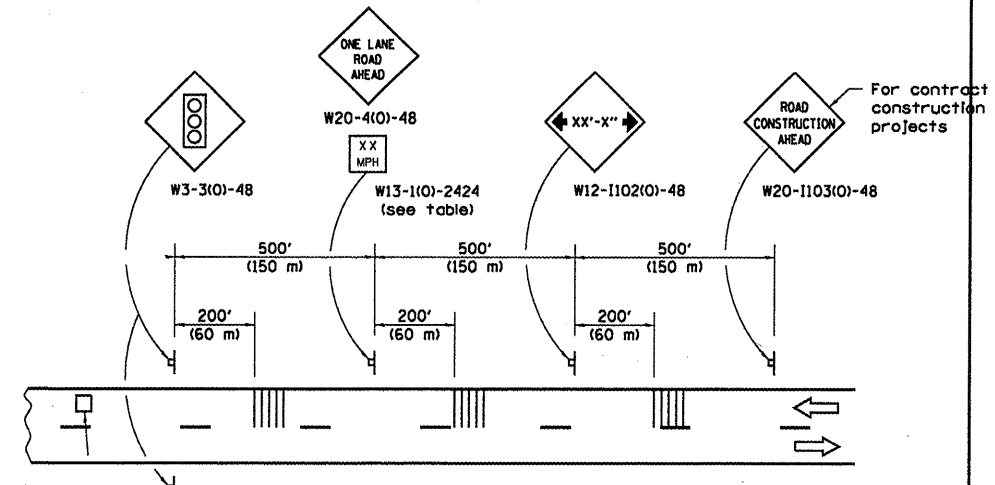


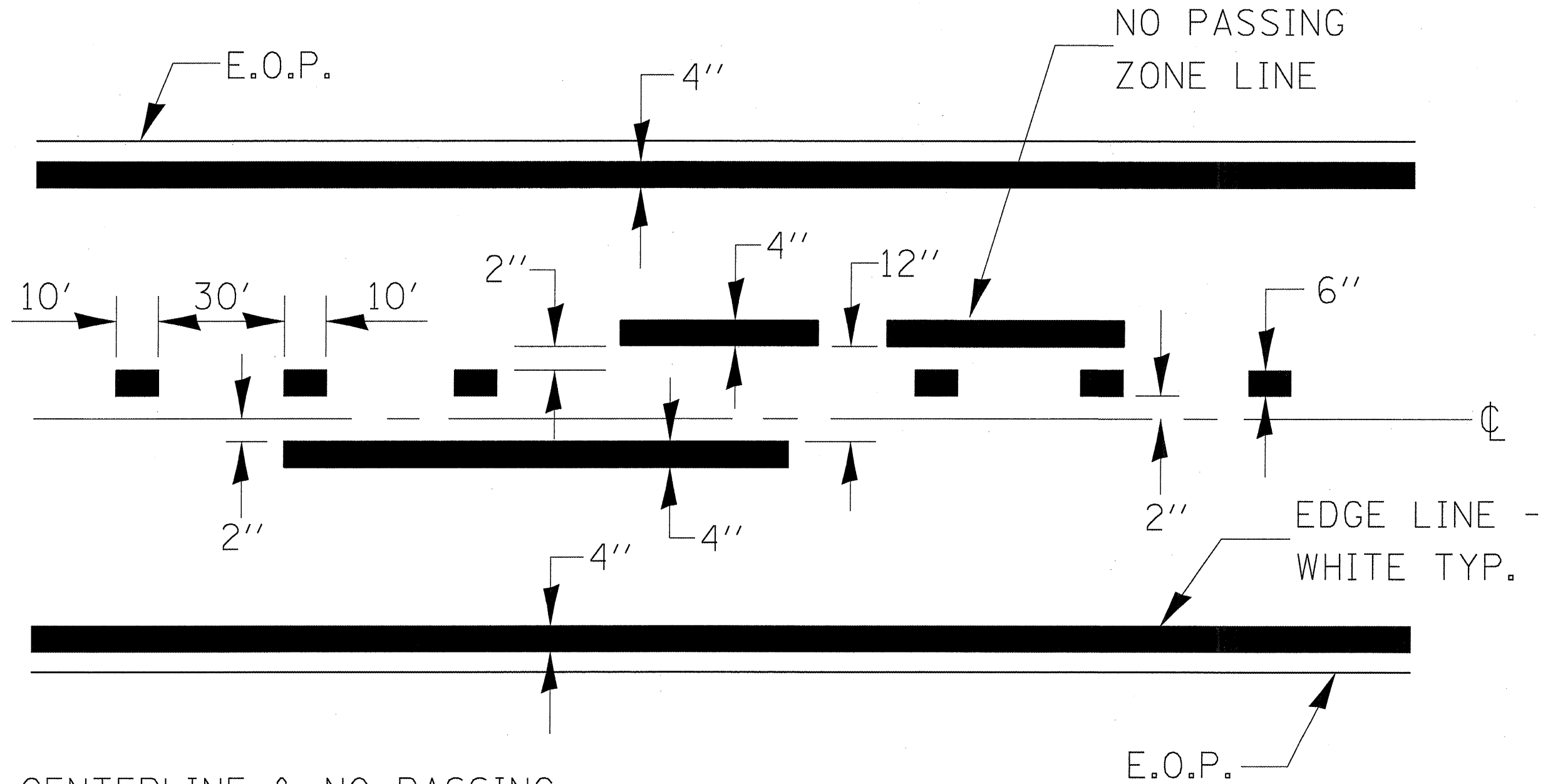
VERTICAL PANELS
(Post mounted, one each side)

TRAFFIC SIGNAL SEQUENCE						
PHASE	A	B				
INTERVAL	1	2	3	4	5	6
NORTHBOUND OR EASTBOUND	G	Y	R	R	R	R
SOUTHBOUND OR WESTBOUND	R	R	R	G	Y	R

TEMPORARY CONCRETE BARRIER	
NORMAL POSTED SPEED	TAPER RATIO
40 mph AND ABOVE	12:1
BELOW 40 mph	8:1

ADVISORY SPEED LIMIT	
NORMAL POSTED SPEED	ADVISORY SPEED
55 - 45 mph	40 mph
40 mph	35 mph
35 - 30 mph	30 mph





CENTERLINE & NO PASSING
ZONE LINES - YELLOW

(SEE TYPICAL SECTIONS)

PAVEMENT MARKING

FILE NAME =	USER NAME = carpenterdj	DESIGNED - RLW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL PAVEMENT MARKING DETAILS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pwork\carpenterdj\d8268148\366843-sht-details.dgn	DRAWN - RLW	REVISED -	316			(114)	BUREAU	12	6	
PLOT SCALE = 1/8" = 1'-0"	CHECKED -	REVISED -	CONTRACT NO. 66C11							
PLOT DATE = 4/5/2012	DATE -	REVISED -	ILLINOIS FED. AID PROJECT							
				SCALE: _____ SHEET NO. 1 OF 2 SHEETS STA. _____ TO STA. _____						

LEE COUNTY

BUREAU COUNTY



CL BASE LINE RD.
(CR 3000)
STA. 1416+22

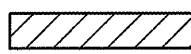
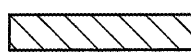
BASE LINE RD. (CR 3000)

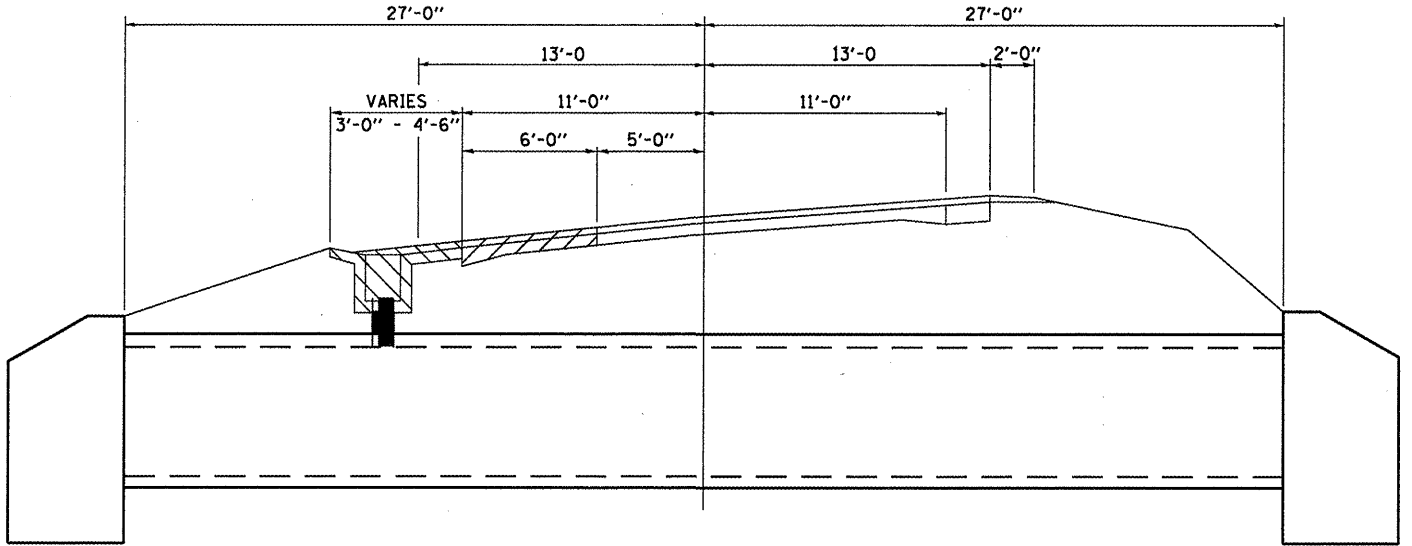
CONCRETE GUTTER TYPE A
AGGREGATE SHOULDER

CL FAP 316 (IL 26)

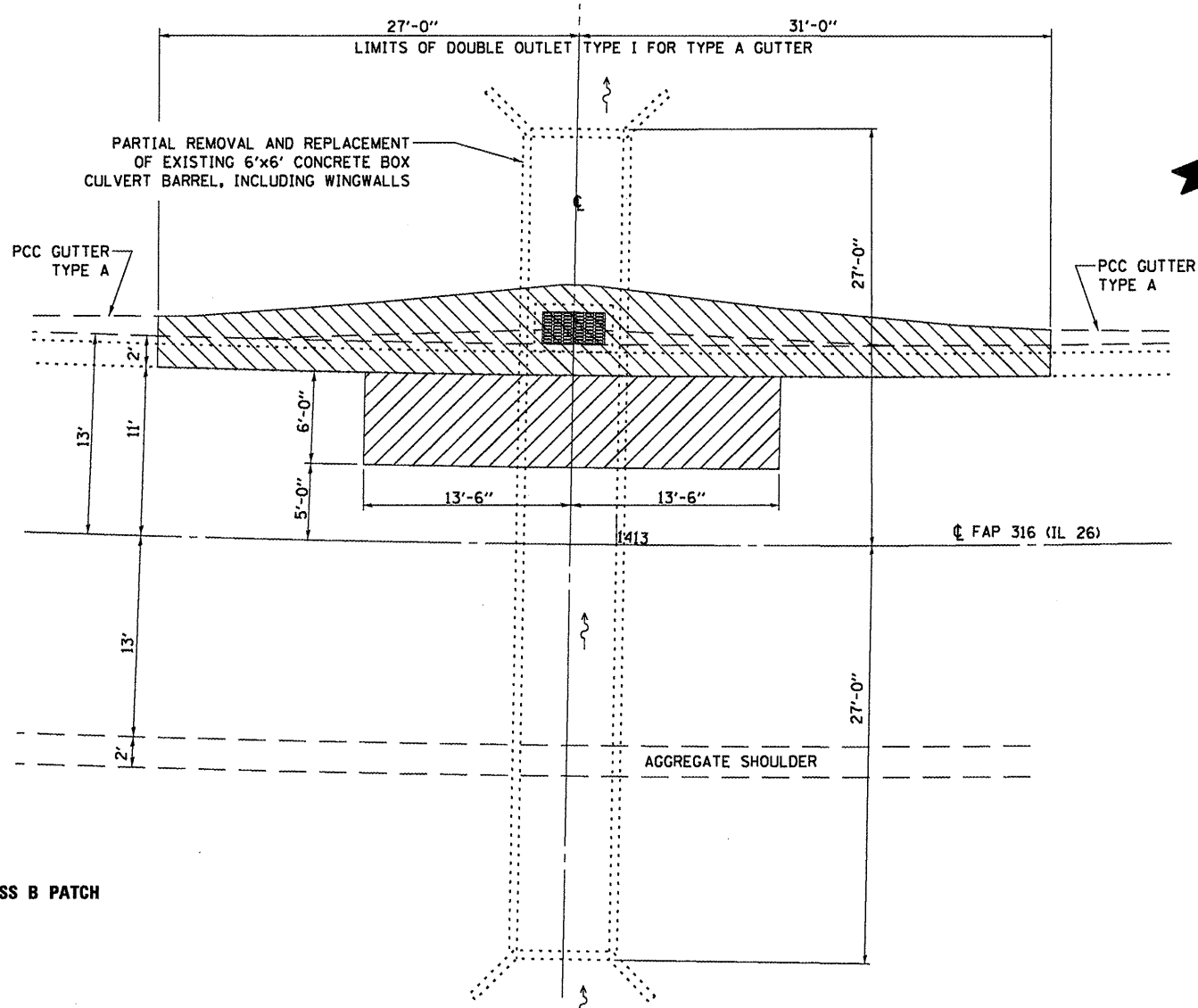
CL S.N. 006-2517
STA. 1412+97

PLAN

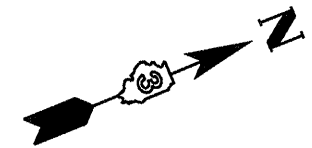
-  PAVEMENT REMOVAL FOR CLASS B PATCH
-  GUTTER REMOVAL (SPECIAL)



ELEVATION



PLAN



FILE NAME =
c:\pwork\pwidot\carpenter\d08268140

USER NAME = carpenterj
366843-shd-details.dgn
PLOT SCALE = 100.0000' / 1" =
PLOT DATE = 4/5/2012

DESIGNED - RLW
DRAWN - RLW
CHECKED -
DATE -

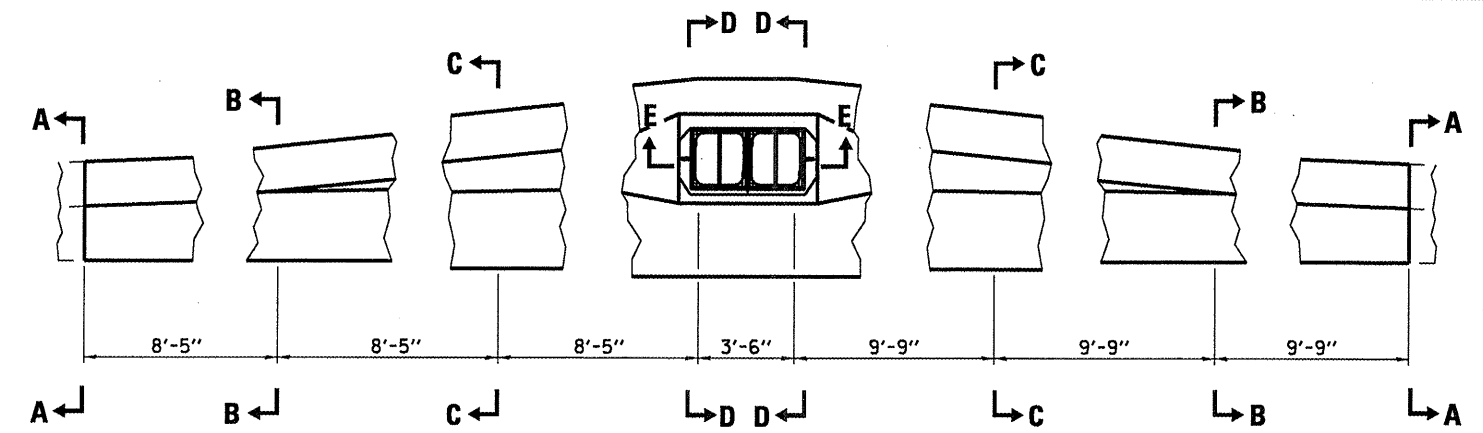
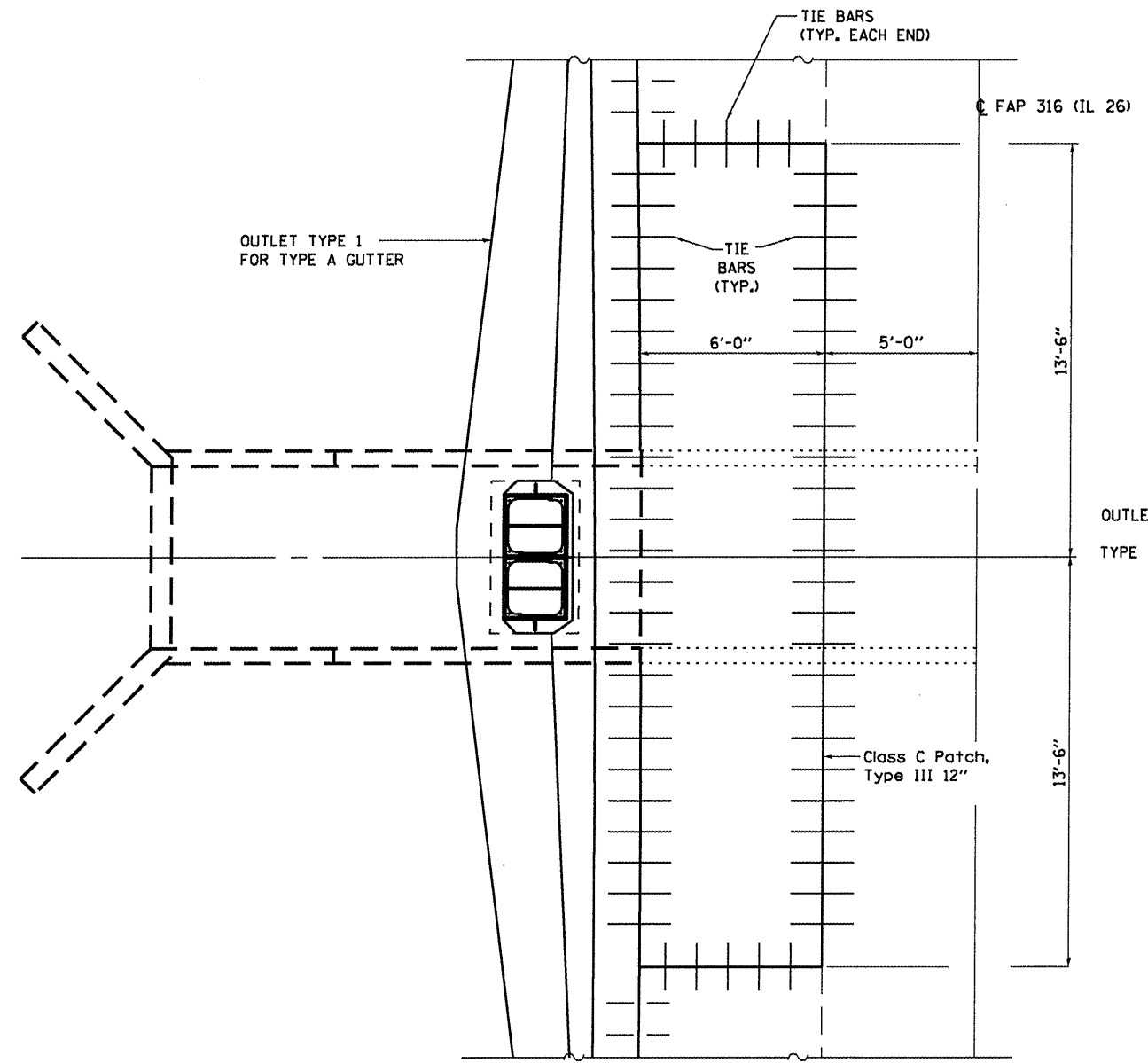
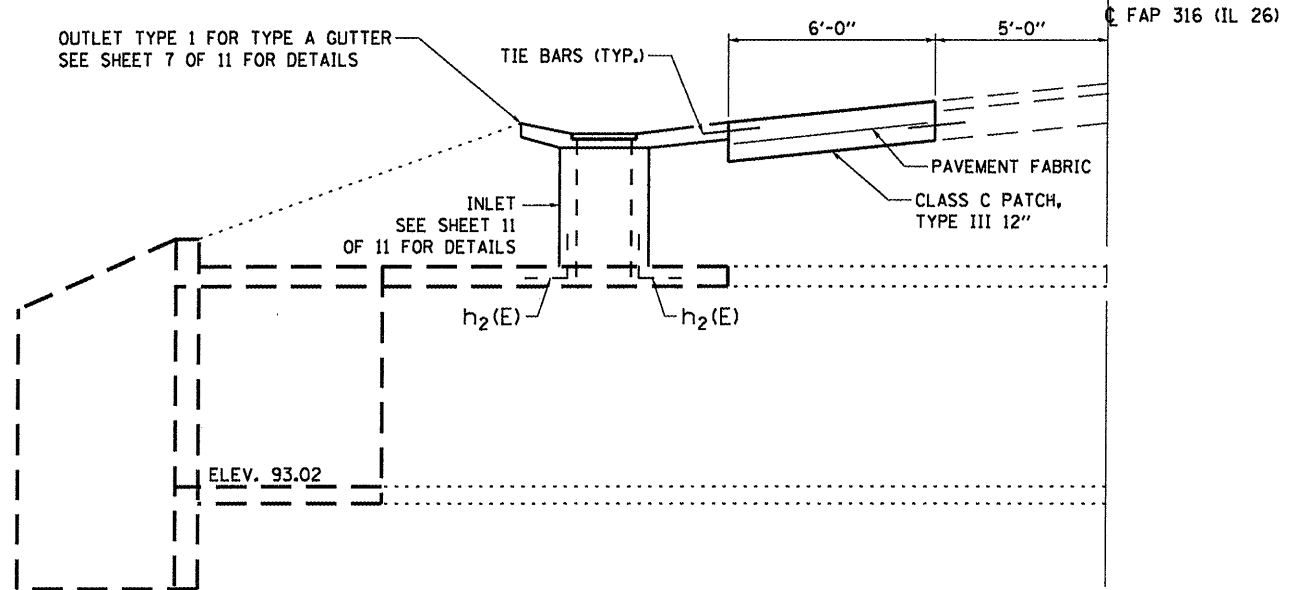
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

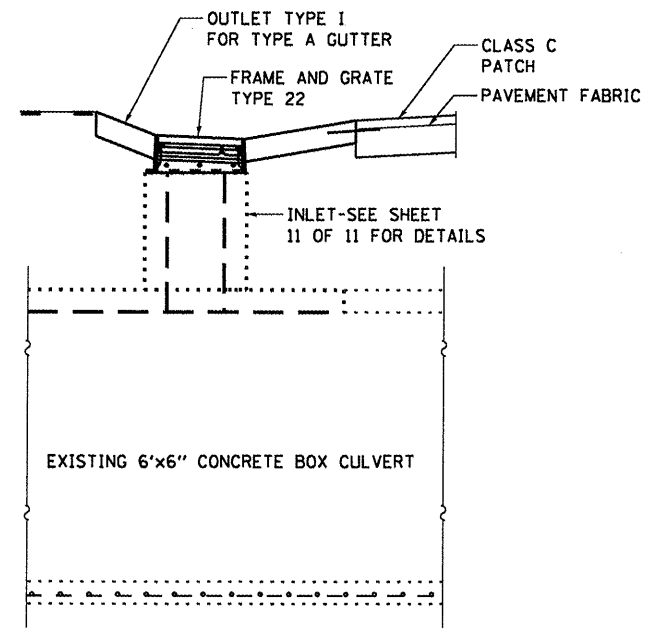
ROADWAY REMOVAL DETAILS

SCALE: SHEET NO. 1 OF 2 SHEETS STA. TO STA.

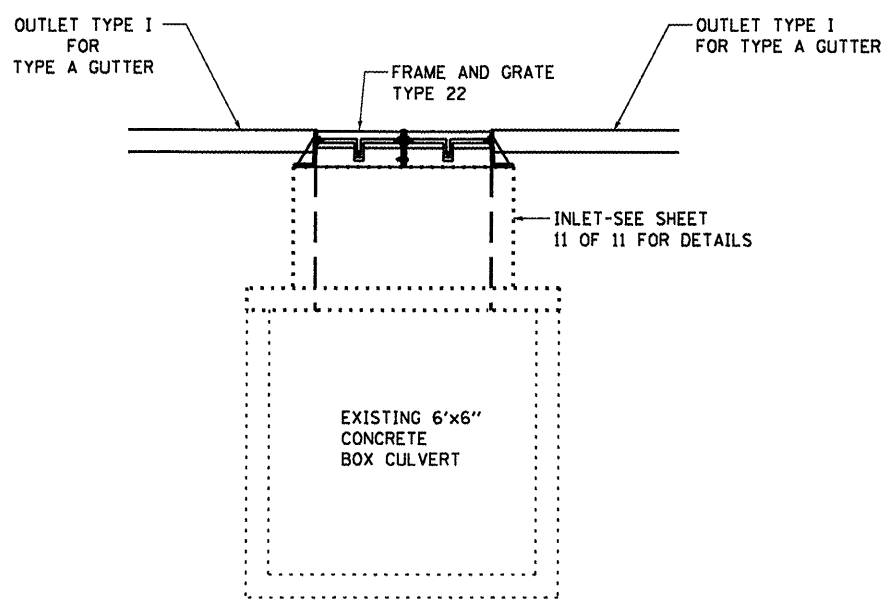
F.A.P. RTE. 316	SECTION (114)	COUNTY BUREAU	TOTAL SHEETS 12	SHEET NO. 7
CONTRACT NO. 66C11				
ILLINOIS FED. AID PROJECT				



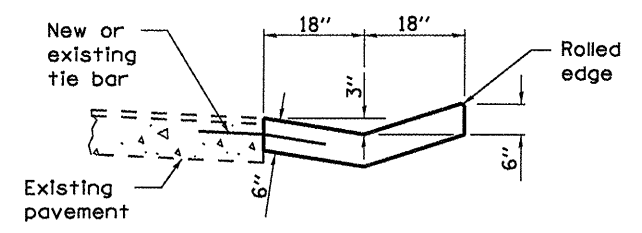
OUTLET TYPE 1 FOR TYPE A GUTTER



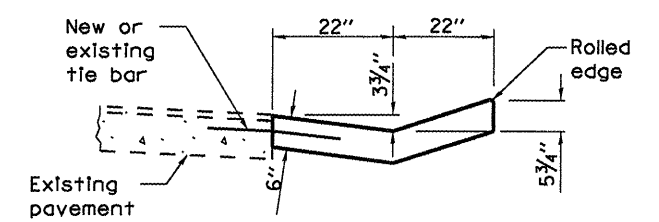
SECTION D-D



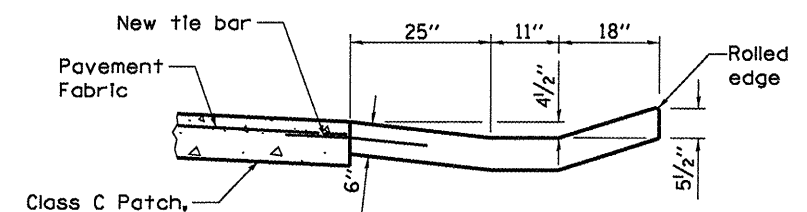
SECTION E-E



SECTION A-A



SECTION B-B



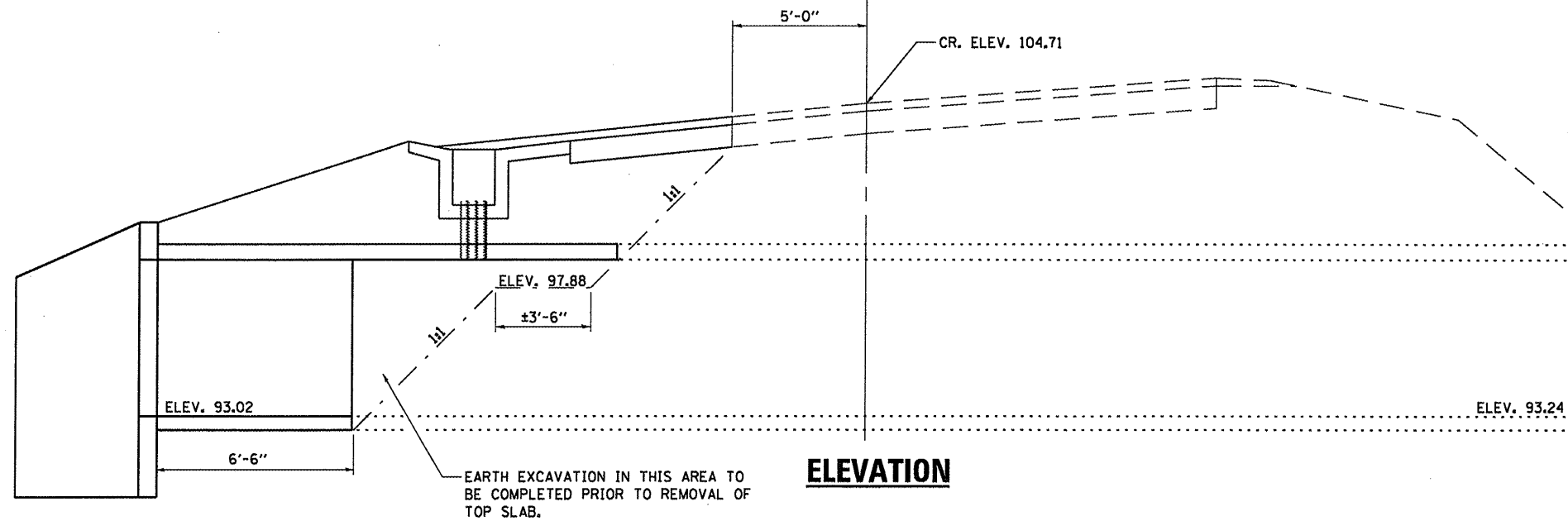
SECTION C-C

FILE NAME =	USER NAME = carpentardj	DESIGNED - RLW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ROADWAY CONSTRUCTION DETAILS	SCALE: _____ SHEET NO. 2 OF 2 SHEETS STA. _____ TO STA. _____	F.A.P. RTE. 316	SECTION (114)	COUNTY BUREAU	TOTAL SHEETS 12	SHEET NO. 8
ct:\pv_work\pwidot\carpentardj\0268140\366B43-sht-details.dgn	PLOT SCALE = 100.0000' / 1"	DRAWN - RLW	REVISED -				CONTRACT NO. 66C11				
PLOT DATE = 4/5/2012	DATE -	CHECKED -	REVISED -				ILLINOIS FED. AID PROJECT				

B.M. #1 EAST HEADWALL OF 6'x6" BOX CULVERT ELEV. = 100.00

FAP 316 (IL 26)

CR. ELEV. 104.71

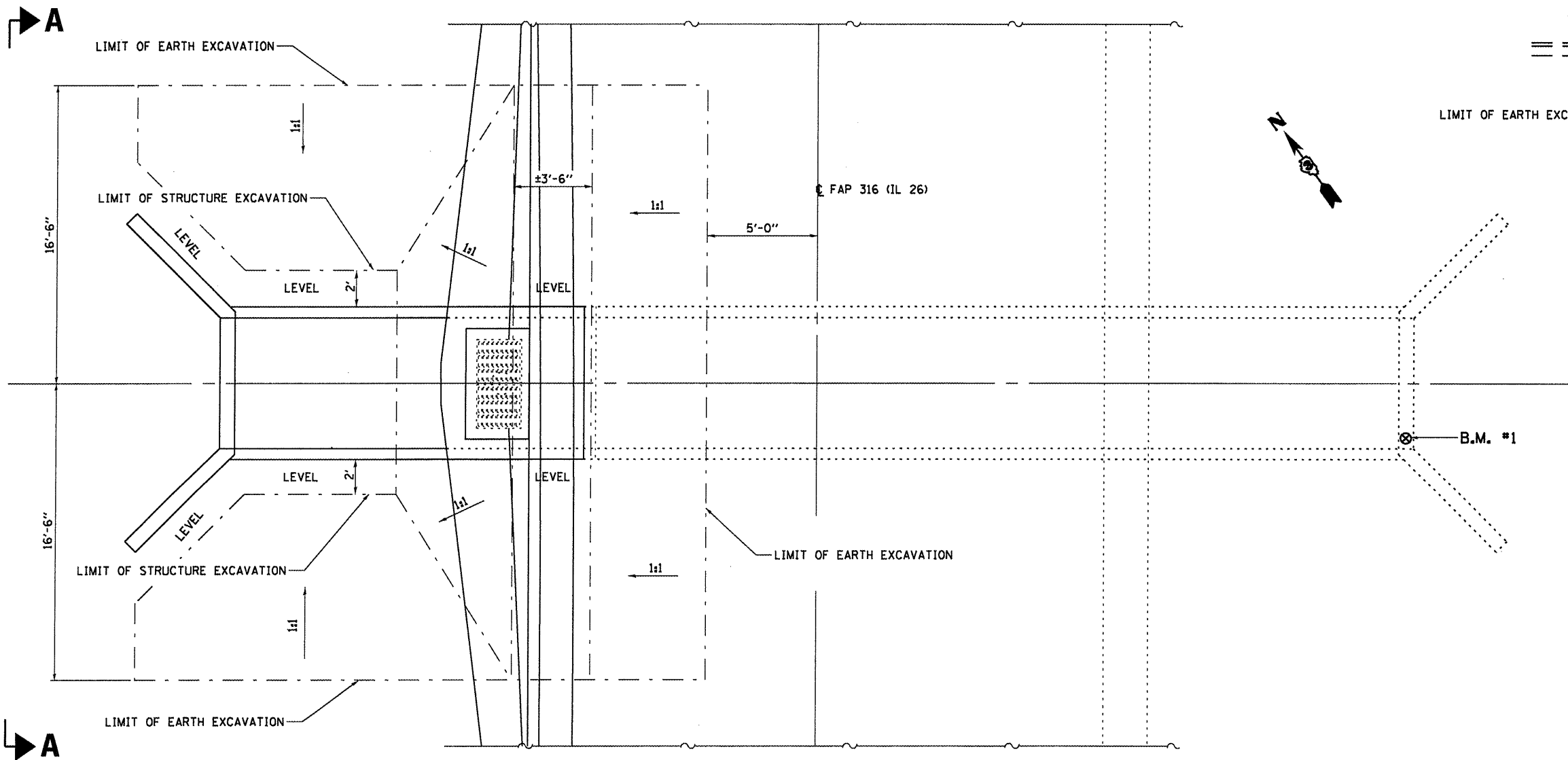


ELEVATION

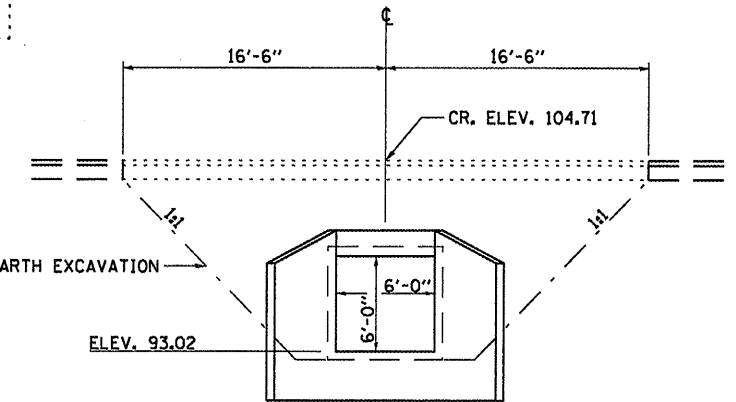
NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKING NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF WORK, HOWEVER, THE PRICE THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED AT THAT UNIT PRICE BID FOR THE WORK.

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.



PLAN



VIEW A-A

TOTAL BILL OF MATERIAL FOR STRUCTURE NO. 006-2517

ITEM	UNIT	TOTAL
Structure Excavation	Cu. Yd.	20
Earth Excavation	Cu. Yd.	106
Concrete Removal	Cu. Yd.	8.6
Concrete Box Culverts	Cu. Yd.	9.8
Reinforcement Bars Epoxy Coated	Pound	1722
3/4" Expansion Bolts	Each	20

FILE NAME =
c:\pw_work\pwwork\carpentard\0268140\

USER NAME = carpentardj
366B43-shr-details.dgn
PLOT SCALE = 1/8" = 1'-0"
PLOT DATE = 4/5/2012

DESIGNED - RLW
DRAWN - RLW
CHECKED -
DATE -

REVISED -
REVISED -
REVISED -
REVISED -

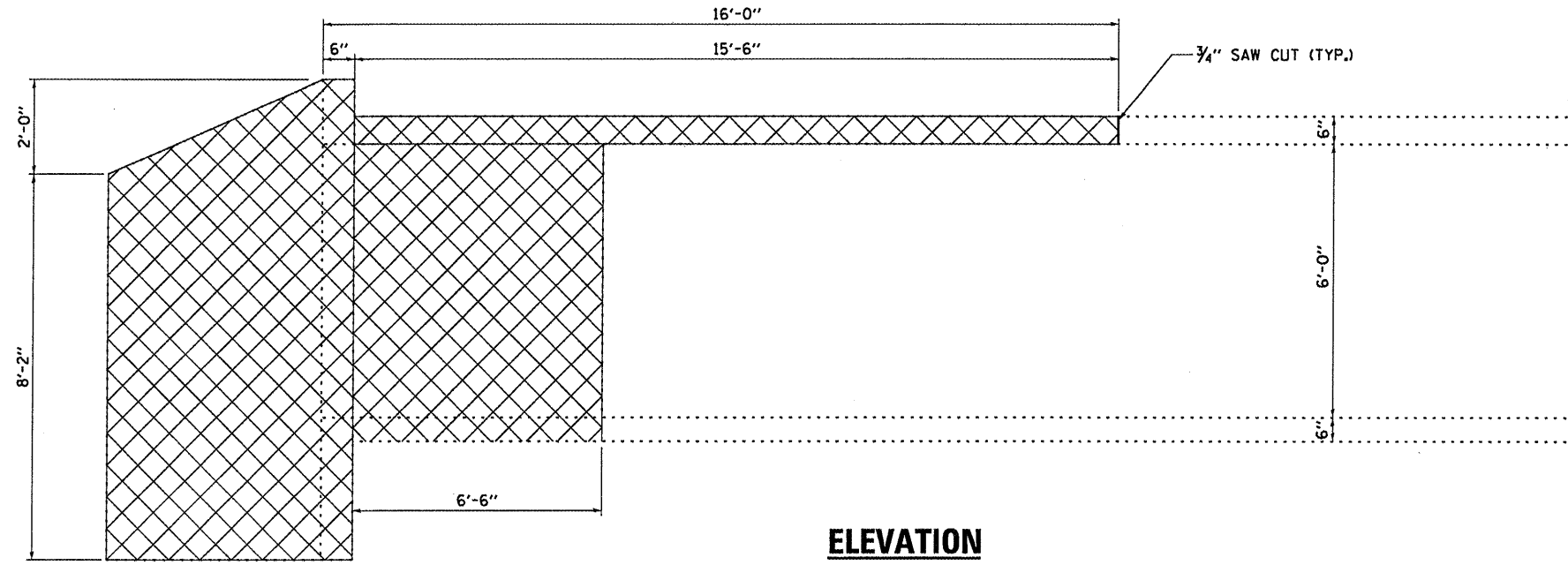
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
FOR STRUCTURE NO. 006-2517

SCALE: SHEET NO. 1 OF 4 SHEETS STA. TO STA.

F.A.P. RTE. 316 SECTION (114) COUNTY BUREAU 12 SHEET NO. 9 CONTRACT NO. 66C11 ILLINOIS FED. AID PROJECT

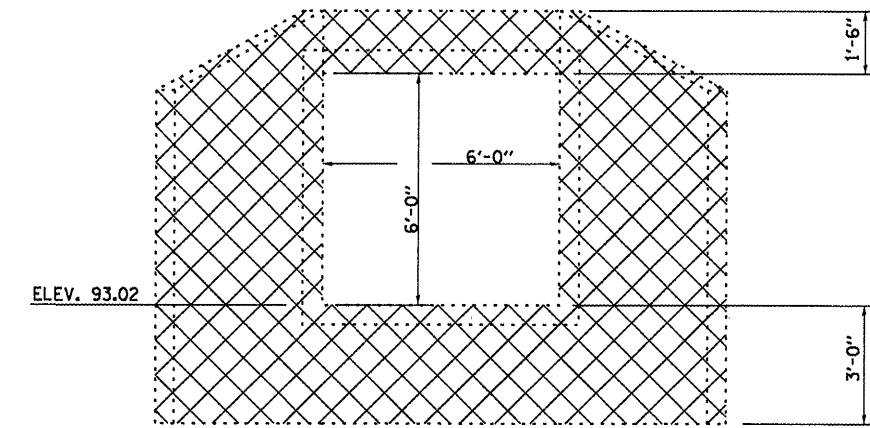
FAP 316 (IL 26)



ELEVATION

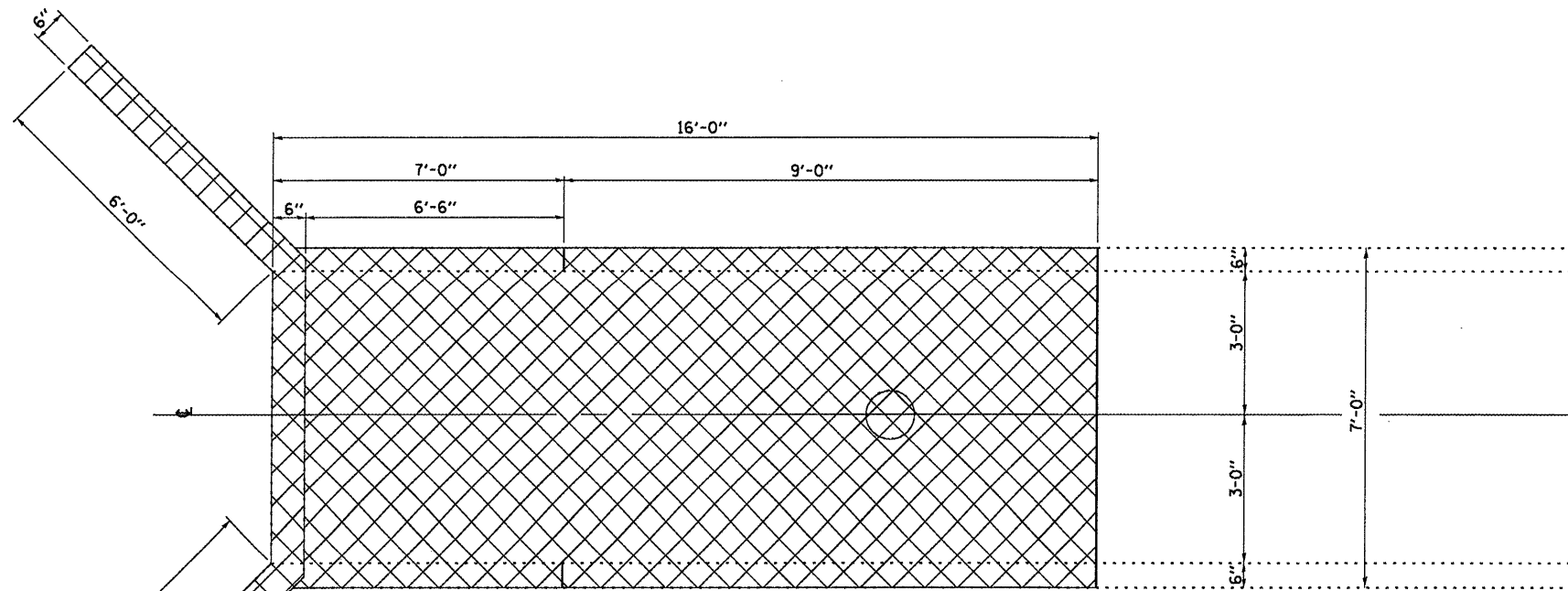


CONCRETE REMOVAL



VIEW B-B

B



PLAN

FAP 316 (IL 26)

NOTES

EXISTING REINFORCEMENT BARS EXTENDING INTO CONCRETE REMOVAL AREA SHALL BE CUT OFF FLUSH WITH FACE OF CONCRETE AT REMOVAL LINE.

EXISTING REINFORCEMENT WITHIN CONCRETE REMOVAL AREA SHALL BE REMOVED AND REPLACED WITH EPOXY COATED REINFORCEMENT.

B

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REMOVAL DETAILS
FOR STRUCTURE NO. 006-2517

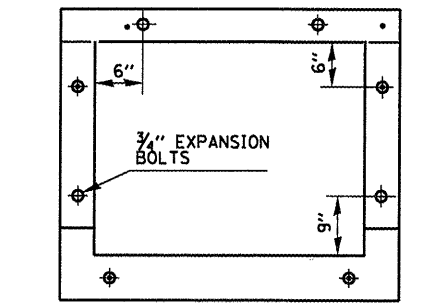
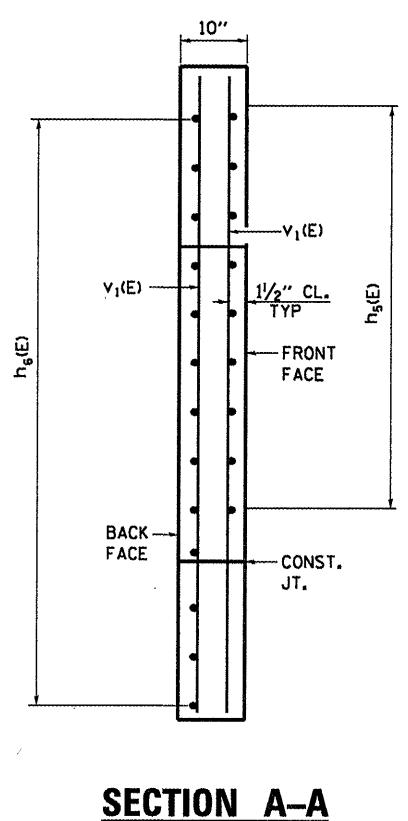
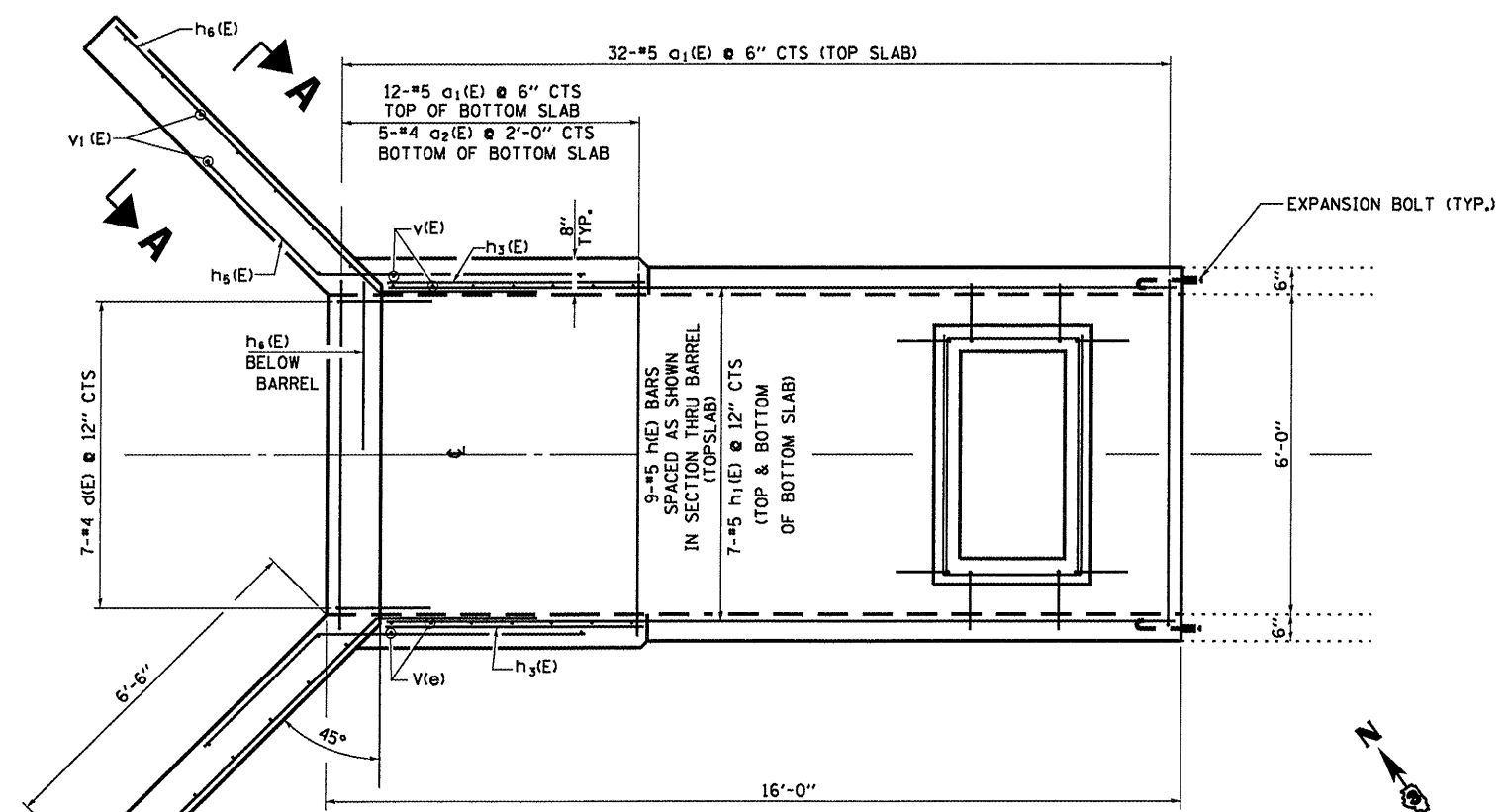
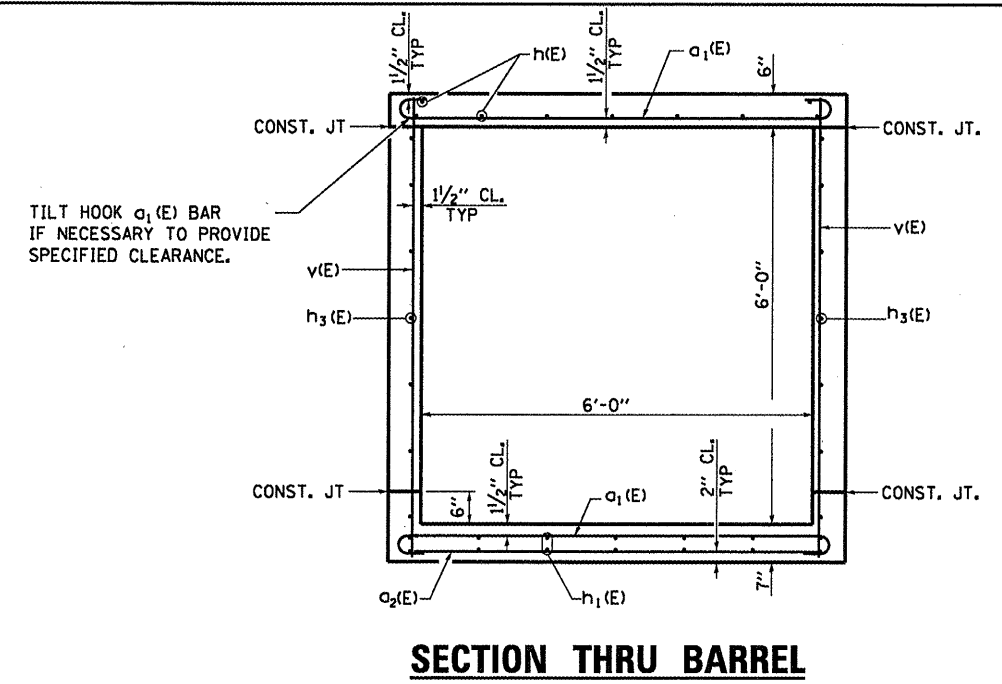
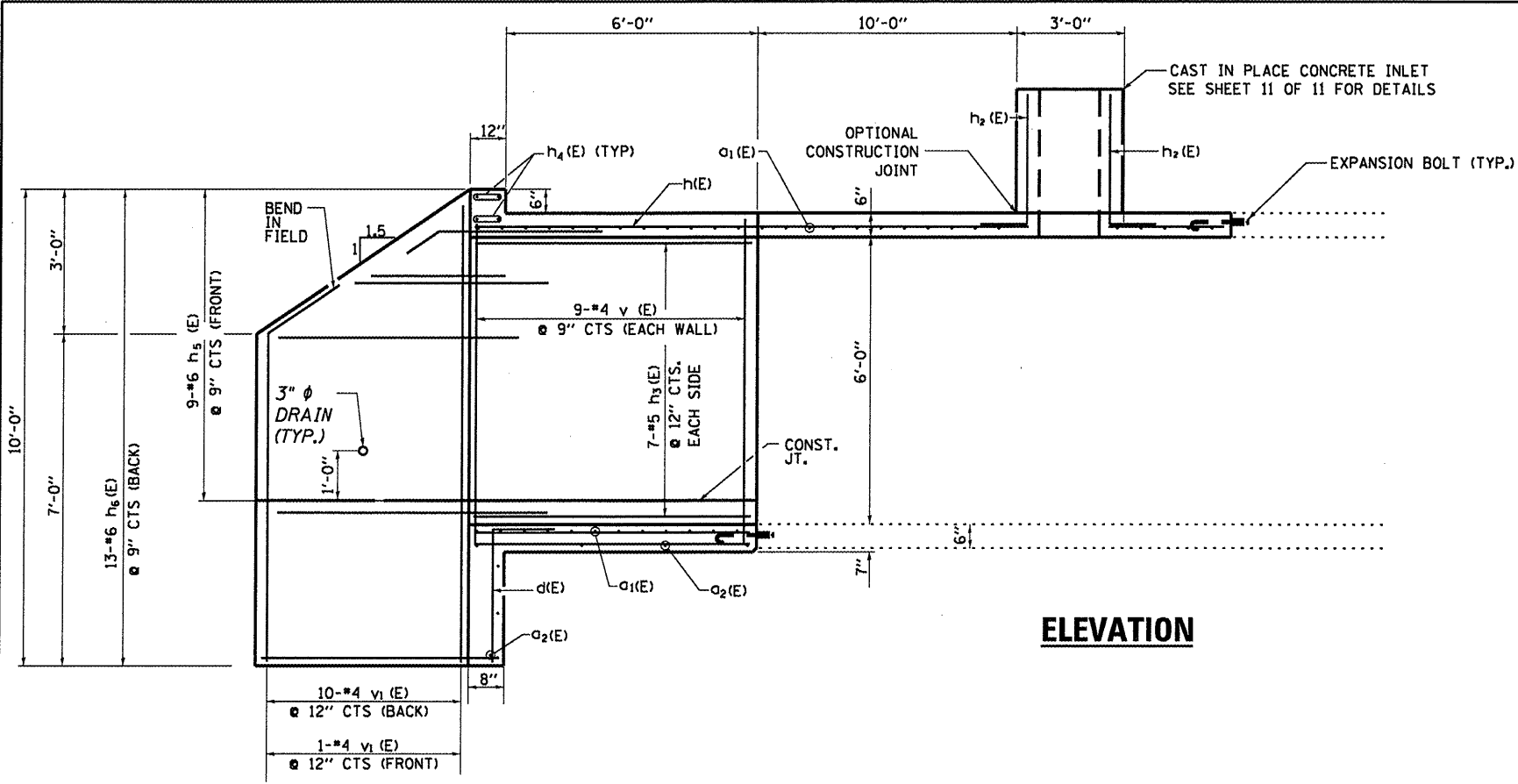
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	(114)	BUREAU	12	10
CONTRACT NO. 66C11			ILLINOIS FED. AID PROJECT	

FILE NAME =
c:\pw_work\pwork\carpentard\0268148\

USER NAME = carpentardj
366B43-sht-details.dgn
PLOT SCALE = 100,0000' / in.
PLOT DATE = 4/5/2012

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

SCALE: SHEET NO. 2 OF 4 SHEETS STA. TO STA.



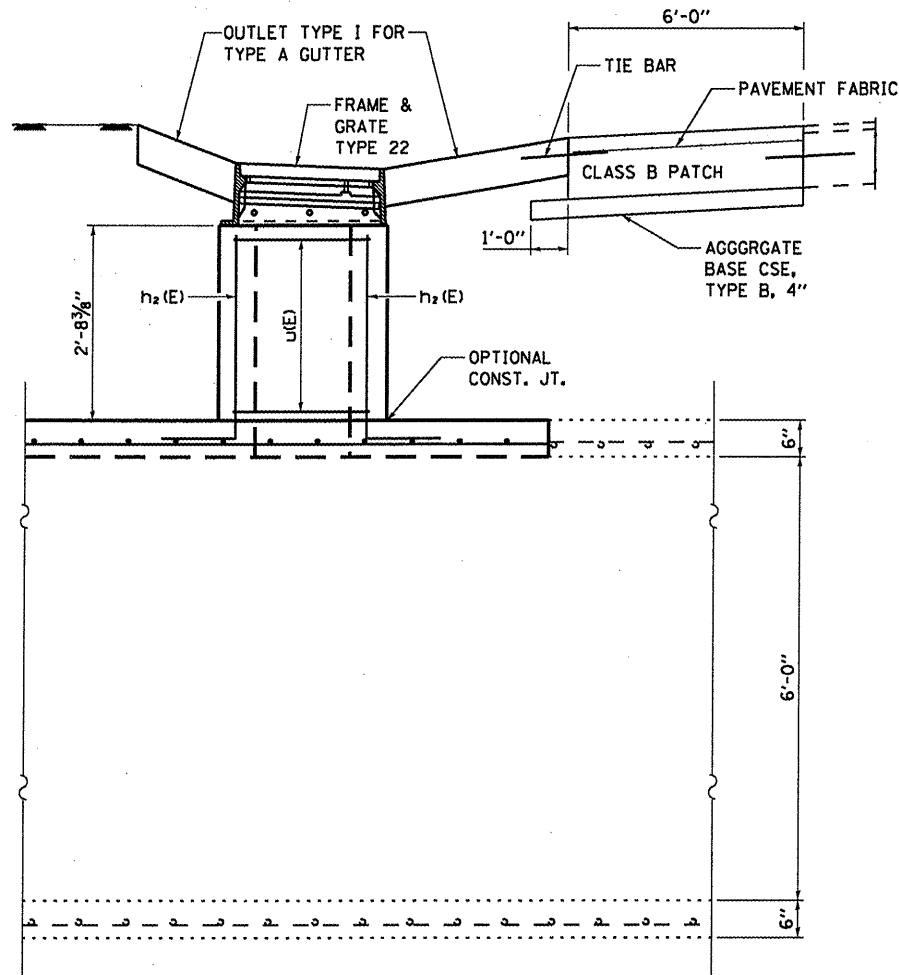
SIDEWALLS 5 @ 15" CTS.
TOP & BOTTOM 5 @ 15" CTS.

EXPANSION BOLT LOCATION

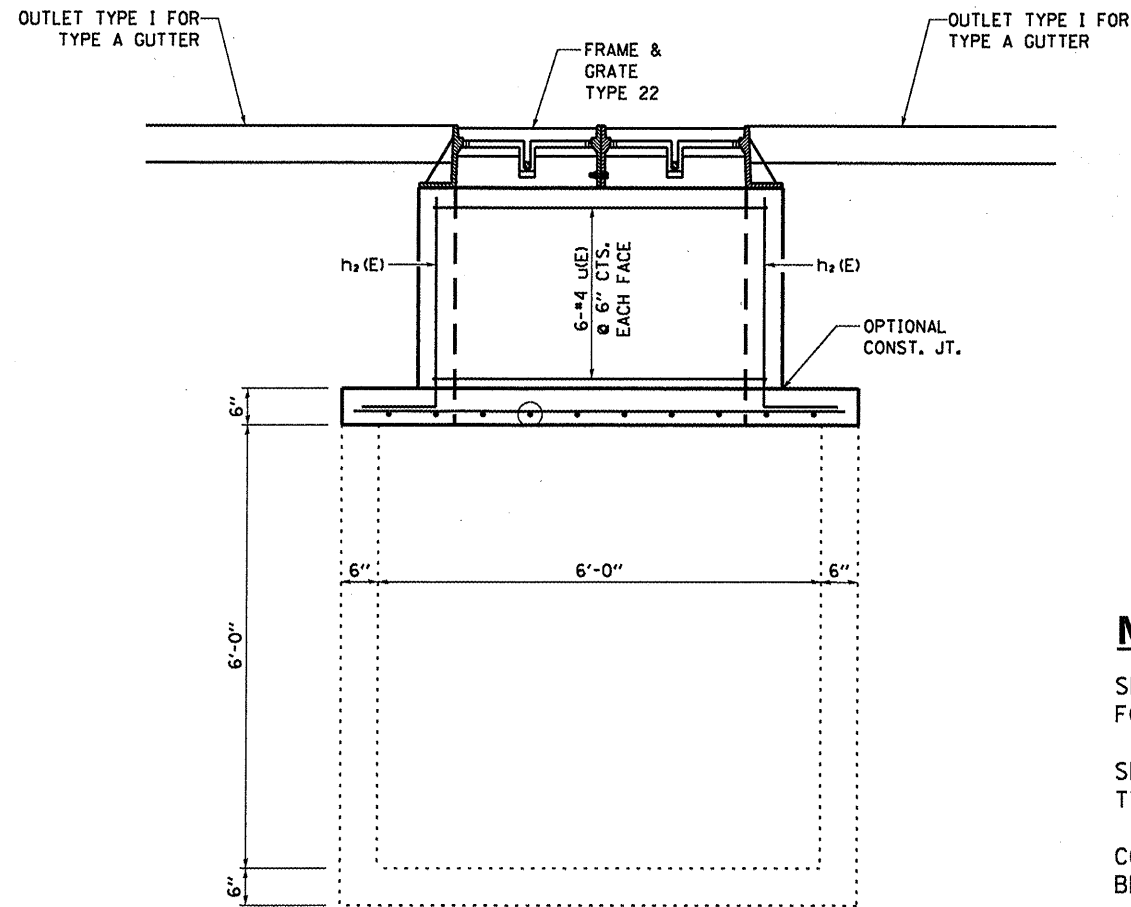
NOTE: EXPANSION BOLTS SHALL CONSIST OF SELF DRILL EXPANSION SHIELDS AND 3/4" DIAMETER HOOKED BOLTS. HOOKED BOLTS SHALL EXTEND A MINIMUM OF 9" INTO NEW CONCRETE. MINIMUM CERTIFIED PROOF LOAD = 4,080 LBS.

NOTE: WINGWALLS, FOOTINGS, SIDEWALLS, AND BOTTOM SLAB SHALL BE POURED MONOLITHICALLY.

FILE NAME =	USER NAME = carpenterd	DESIGNED - RLW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONSTRUCTION DETAILS FOR STRUCTURE NO. 006-2517	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ca:\pwork\puidot\carpenterd\vd8268140	366843-sht-details.dgn	DRAWN - RLW	REVISED -			316	(114)	BUREAU	12	11	
	PLOT SCALE = 1/8" = 1' / in.	CHECKED -	REVISED -			CONTRACT NO. 66C11					
	PLOT DATE = 4/5/2012	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					
					SCALE: _____	SHEET NO. 3 OF 4 SHEETS		STA. _____	TO STA. _____		



SECTION A-A



SECTION B-B

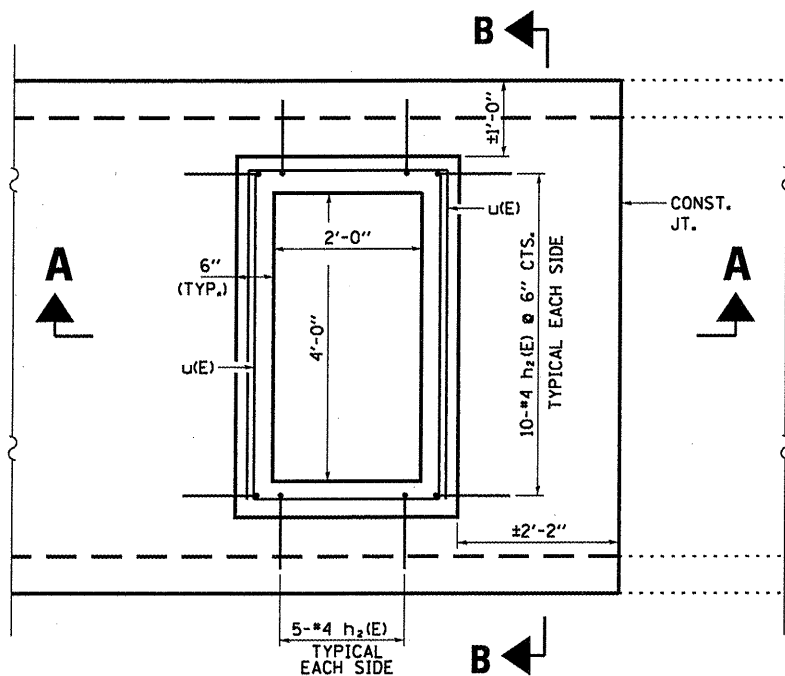
NOTES

SEE STANDARD 606106 FOR OUTLET TYPE I FOR TYPE A GUTTER DETAILS

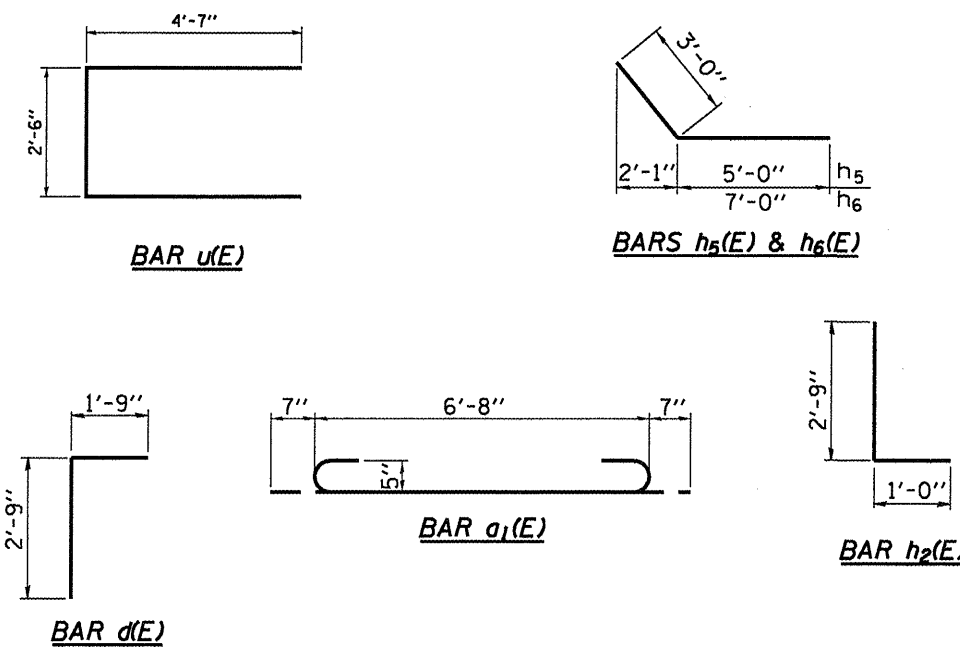
SEE STANDARD 604081 FOR FRAME AND GRATE TYPE 22 DETAILS

CONCRETE FOR INLET CONSTRUCTION SHALL BE PAID FOR AS CONCRETE BOX CULVERTS.

REINFORCEMENT BARS FOR INLET CONSTRUCTION SHALL BE PAID FOR AS REINFORCEMENT BARS, EPOXY COATED.



PLAN



BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a1(E)	44	#5	7'-10"	U
a2(E)	4	#4	6'-8"	U
d(E)	7	#4	4'-6"	L
h(E)	9	#5	14'-9"	U
h1(E)	14	#4	6'-2"	U
h2(E)	30	#4	3'-9"	U
h3(E)	14	#5	6'-2"	U
h4(E)	4	#6	6'-8"	U
h5(E)	18	#6	8'-0"	U
h6(E)	26	#6	10'-0"	U
u(E)	12	#4	11'-8"	U
v(E)	18	#4	6'-8"	U
v1(E)	22	#4	9'-8"	U
CONCRETE REMOVAL			CU YD	8.6
CONCRETE BOX CULVERTS			CU YD	9.8
REINFORCEMENT BARS EPOXY COATED			POUND	1722
EXPANSION BOLTS 3/4" x 12 INCH			EACH	20

FILE NAME =	USER NAME = carpenterdj	DESIGNED - RLW	REVISED -
al:\pwork\pwork\carpenterdj\d0268140\366843-shr-details.dgn		DRAWN - RLW	REVISED -
PLOT SCALE = 100.0000 / in.		CHECKED -	REVISED -
PLOT DATE = 4/5/2012		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INLET DETAILS
FOR STRUCTURE NO. 006-2517

SCALE: _____ SHEET NO. 4 OF 4 SHEETS STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	(114)I	BUREAU	12	12
			CONTRACT NO. 66C11	
ILLINOIS FED. AID PROJECT				