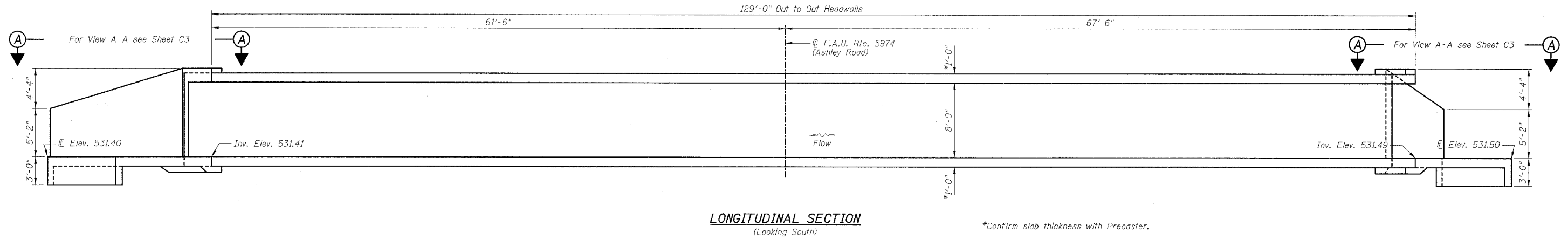


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	32-3HBR-1	GRUNDY	88	64
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SHEET NO. C2  
OF 5 SHEETS



**BAR BENDING DIAGRAMS**

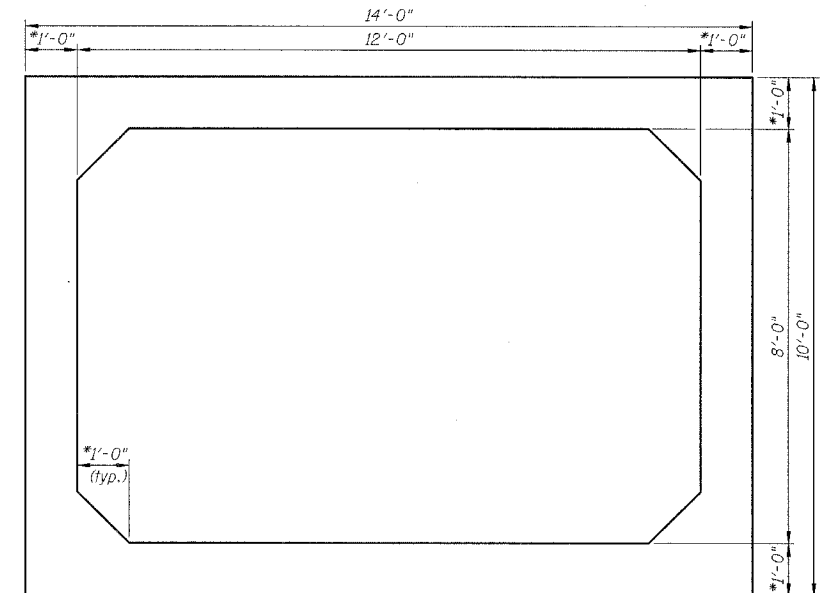
Bar	a	b	Diagram	
d20	2'-7"	9'-1"		
s20	6'-3"	16'-3"	6'-3"	
u20	4"	8"	4"	
v20(E)	2'-0"	15'-10"	2'-0"	
h20	17'-7"	9'-6"	5'-3 1/4"	7'-10 3/4"
h21	12'-4"	9'-6"	7'-10 3/4"	5'-3 1/4"

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a20	74	#5	9'-1"	—
b20	32	#5	20'-0"	—
b21	16	#5	21'-2"	—
b22	6	#5	37'-7"	—
b23	6	#5	19'-2"	—
d20	74	#5	11'-8"	└
h20	2	#5	27'-1"	└
h21	2	#5	21'-10"	└
h22	40	#5	16'-8"	└
h23	40	#5	10'-11"	└
s20	8	#5	28'-9"	└
u20	34	#4	1'-4"	└
v20(E)	70	#5	19'-10"	└
Item	Unit	Quantity		
Concrete Box Culverts	Cu. Yd.	43.1		
Reinforcement Bars	Pound	4500		
Reinforcement Bars, Epoxy Coated	Pound	1450		

**GENERAL NOTES:**

- Cast-in-place concrete exposed edges shall be beveled 3/4 in.
- Class SI concrete shall be used throughout (concrete strength, f'c=3500 psi @ 28 days).
- Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42, or M-53, grade 60.
- Reinforcement bars denoted (E) shall be epoxy coated.
- It shall be the responsibility of the Contractor to divert the stream flow during construction in order to keep the construction areas free of water. The method of water diversion shall be subject to the approval of the Engineer and the cost shall be included with the cost of "Precast Concrete Box Culvert 12'x8".
- See Sheet C4 for boring data.
- Structural seal is for cast-in-place portion of structure only.
- The precast concrete culvert sections shall be designed and manufactured in accordance with AASHTO M259 (ASTM C1433).
- For backfilling and embankment, see Standard Specifications.
- End of precast section shall not have a bell or spigot.
- The apron end sections shown shall be cast-in-place.
- Contractor to confirm all precast culvert dimensions with the supplier before starting construction.
- The existing plans are provided for informational use only.



**BAR CUTTING DIAGRAM**

BAR	A	B	C	D	E	F	L
b21	18'-2"	3'-0"	18'-2"	3'-0"	2	8	21'-2"
v20(E)	10'-1"	5'-9"	10'-1"	5'-9"	2	21	15'-10"
v20(E)	10'-1"	5'-9"	10'-1"	5'-9"	2	14	15'-10"

Note: "L" dimension does not include the 2'-0" bent legs for the v20(E) bars.

**NOTES:**

- Work this sheet with Sheets C1, C3-C4.
- For View A-A, see Sheet C3.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
GENERAL NOTES, BILL OF MATERIAL,  
SECTION AND DETAILS  
CULVERT @ STATION 114+17.59  
F.A.I. 80 (I-80)  
SECTION 32-3HBR-1  
GRUNDY COUNTY

DESIGNED BY: JML  
DATE: 09/09/05  
DRAWN BY: DJM  
CHECKED BY: MSW