CONTRACT NO. 60B46

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	99 (1&2) WRS-2	WILL	228	144
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
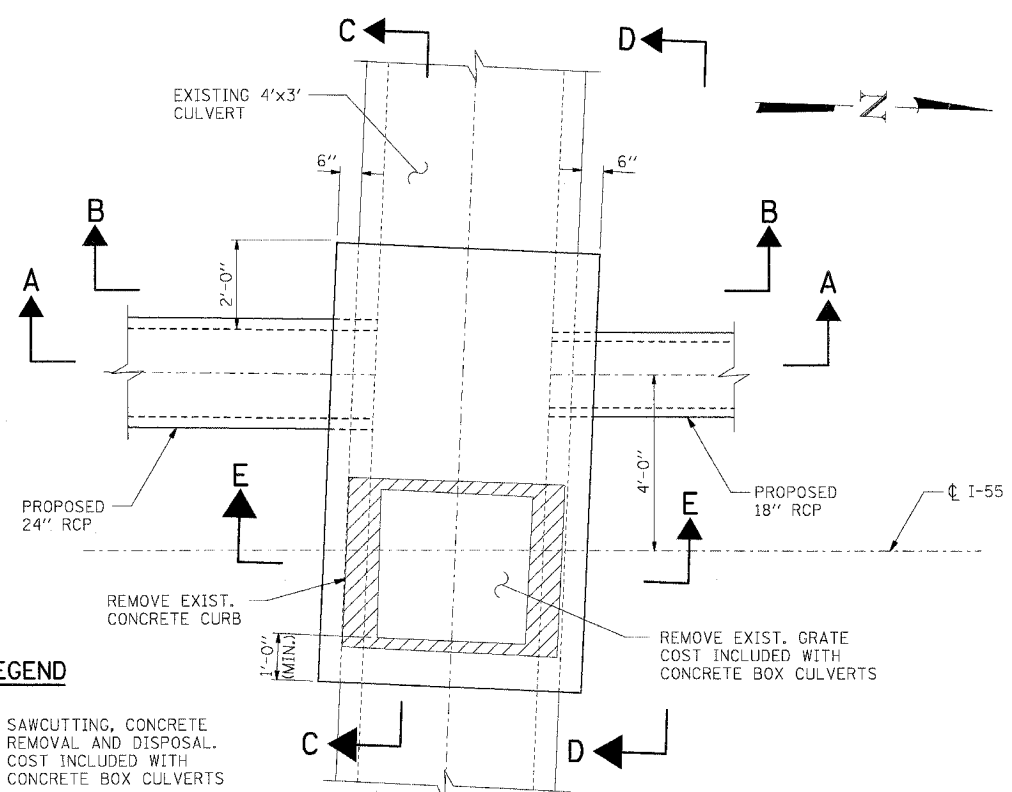
TOP PLAN
(SHOWING GEOMETRY)

EXISTING 4'x3' CULVERT
PROPOSED 24" RCP
PROPOSED 18" RCP
REMOVE EXIST. CONCRETE CURB
REMOVE EXIST. GRATE COST INCLUDED WITH CONCRETE BOX CULVERTS
₵ I-55
6"
2'-0"
4'-0"
1'-0" (MIN.)

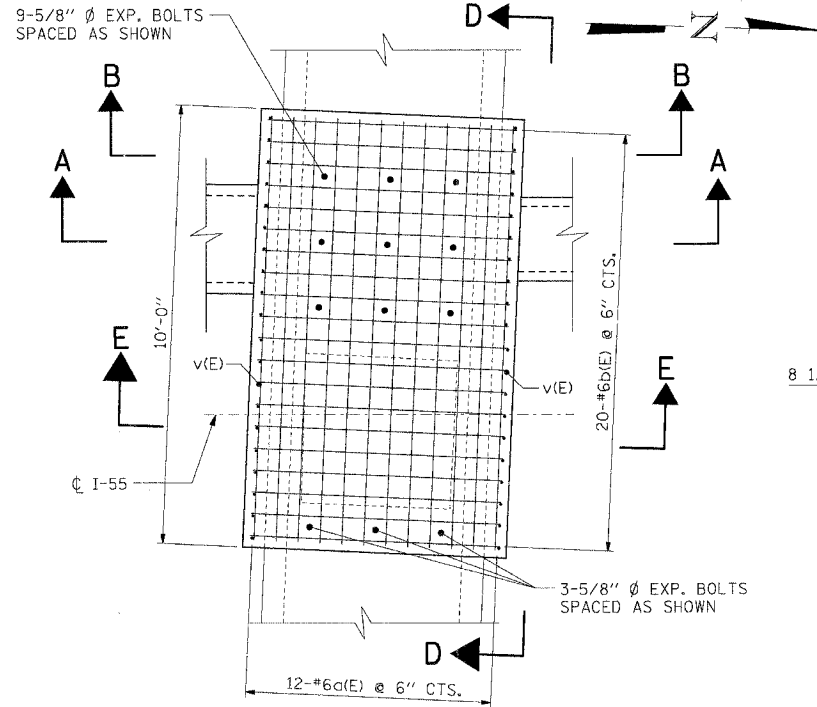**LEGEND**
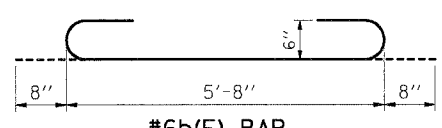
SAWCUTTING, CONCRETE REMOVAL AND DISPOSAL. COST INCLUDED WITH CONCRETE BOX CULVERTS
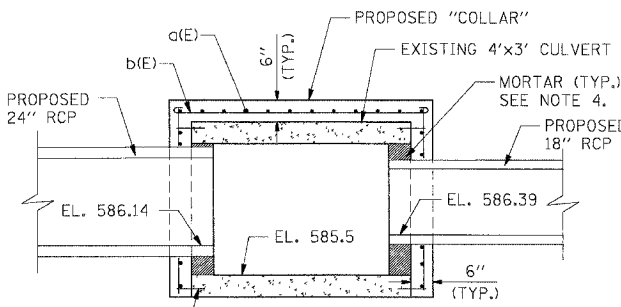
TOP PLAN
(SHOWING REINFORCEMENT)

9-5/8" Ø EXP. BOLTS SPACED AS SHOWN
3-5/8" Ø EXP. BOLTS SPACED AS SHOWN
12-#6a(E) @ 6" CTS.
20-#6b(E) @ 6" CTS.
10'-0"
v(E)
₵ I-55

#6b(E) BAR
• TILT HOOK AS NECESSARY TO MAINTAIN 1 1/2" CLEAR COVER.
8" 5'-8" 8" 6'
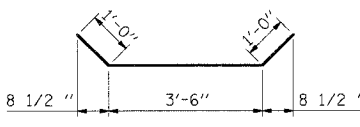
#6z(E) BAR
• BEND BARS AS NECESSARY TO MAINTAIN 2" CLEAR COVER.
8 1/2" 3'-6" 8 1/2" 1'-0" 1'-0"

BAR LIST

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	12	#6	9'-8"	
b(E)	20	#6	7'-0"	
h(E)	26	#6	9'-8"	
h1(E)	8	#6	5'-6"	
v(E)	48	#6	4'-2"	

BILL OF MATERIAL

ITEM	UNIT	TOTAL
CONCRETE BOX CULVERTS	CU. YD.	2.5
REINFORCEMENT BARS, EPOXY COATED	POUND	1,130
EXPANSION BOLTS 5/8 INCH ••	EACH	40

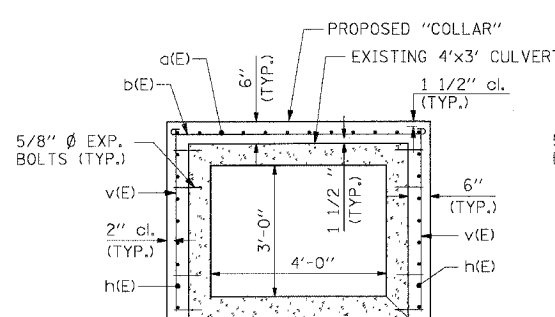•• EXPANSION BOLTS SHALL BE IN ACCORDANCE WITH 1006.09 OF THE STANDARD SPECIFICATIONS.

SECTION A-A

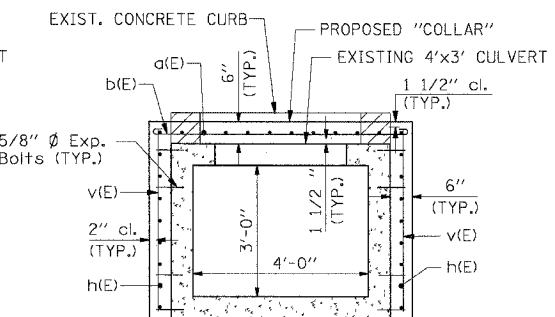PROPOSED "COLLAR"
EXISTING 4'x3' CULVERT
MORTAR (TYP.) SEE NOTE 4.
PROPOSED 24" RCP
PROPOSED 18" RCP
a(E)
b(E)
6" (TYP.)
EL. 586.14
EL. 585.5
EL. 586.39
6" (TYP.)
5/8" Ø Exp. Bolts (TYP.)
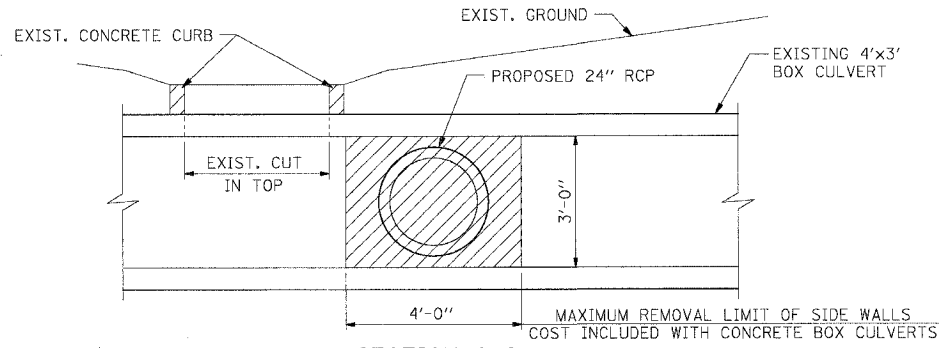
SECTION C-C
(SHOWING REMOVAL)

EXIST. CONCRETE CURB
EXIST. GROUND
PROPOSED 24" RCP
EXISTING 4'x3' BOX CULVERT
EXIST. CUT IN TOP
3'-0"
4'-0"
MAXIMUM REMOVAL LIMIT OF SIDE WALLS COST INCLUDED WITH CONCRETE BOX CULVERTS
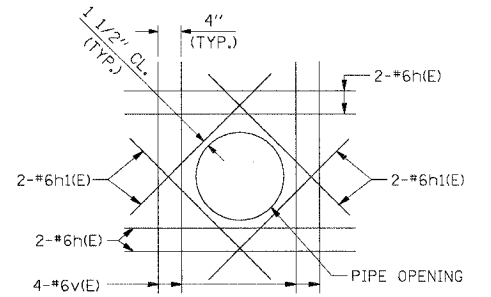
TYPICAL REINFORCEMENT DETAIL AROUND OPENINGS
• BEND BARS IN FIELD AS NECESSARY TO MAINTAIN 2" CLEAR COVER.

1 1/2" Cl. (TYP.)
4" (TYP.)
2-#6h(E)
2-#6h1(E)
2-#6h1(E)
2-#6h(E)
4-#6v(E)
PIPE OPENING

NOTES:
1. REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
2. CUT BARS IN FIELD AS NECESSARY FOR PIPE OPENINGS.
3. PLANS OF THE EXISTING 3' x 4' CULVERT ARE NOT AVAILABLE.
4. PRIOR TO CASTING PROPOSED "COLLAR", FILL VOID AROUND PROPOSED PIPES WITH MORTAR. COST INCLUDED WITH CONCRETE BOX CULVERTS.

SECTION B-B
(SHOWING REINFORCEMENT)

PROPOSED "COLLAR"
EXISTING 4'x3' CULVERT
1 1/2" cl. (TYP.)
a(E)
b(E)
5/8" Ø EXP. BOLTS (TYP.)
v(E)
2" cl. (TYP.)
h(E)
6" (TYP.)
v(E)
3'-0"
4'-0"
1 1/2" (TYP.)

SECTION E-E
(SHOWING REINFORCEMENT)

EXIST. CONCRETE CURB
PROPOSED "COLLAR"
EXISTING 4'x3' CULVERT
1 1/2" cl. (TYP.)
a(E)
b(E)
5/8" Ø EXP. BOLTS (TYP.)
v(E)
2" cl. (TYP.)
h(E)
6" (TYP.)
v(E)
3'-0"
4'-0"
1 1/2" (TYP.)
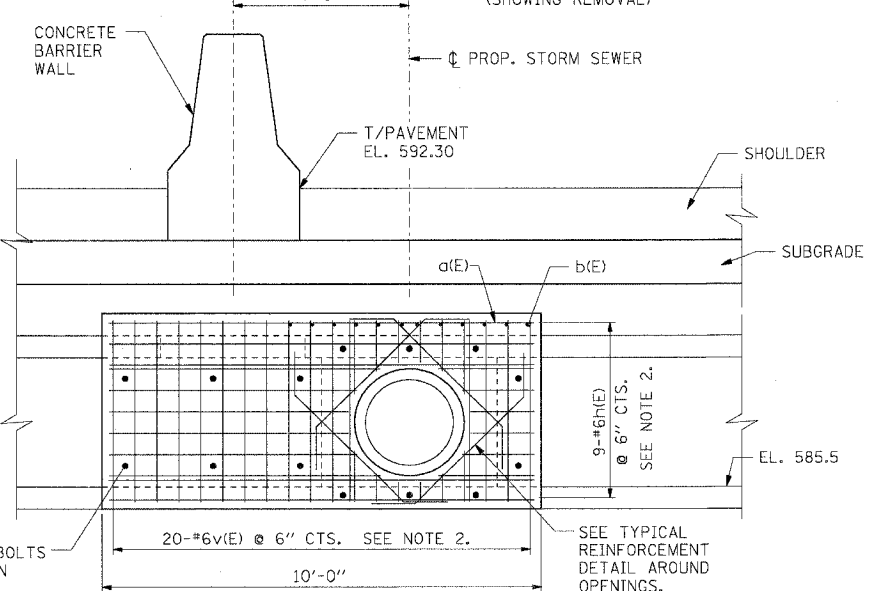
SECTION D-D
(SHOWING REINFORCEMENT)

CONCRETE BARRIER WALL
₵ I-55
T/PAVEMENT EL. 592.30
SHOULDER
SUBGRADE
a(E)
b(E)
EL. 585.5
4'-0"
9-#6h(E) @ 6" CTS. SEE NOTE 2.
20-#6v(E) @ 6" CTS. SEE NOTE 2.
10'-0"
14-5/8" Ø EXP. BOLTS SPACED AS SHOWN
SEE TYPICAL REINFORCEMENT DETAIL AROUND OPENINGS.
₵ PROP. STORM SEWER