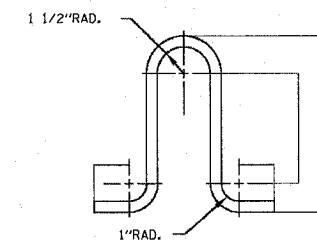
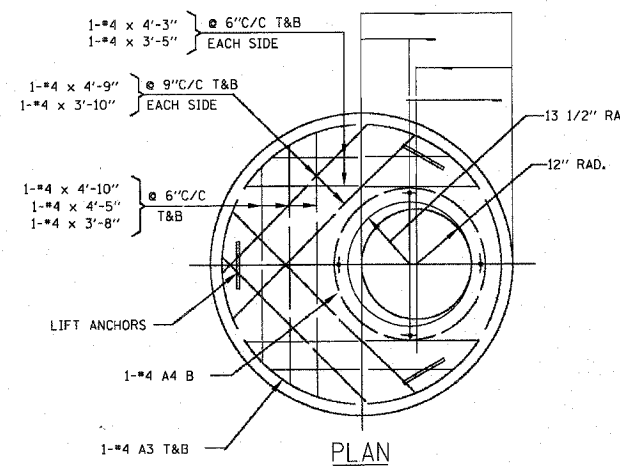
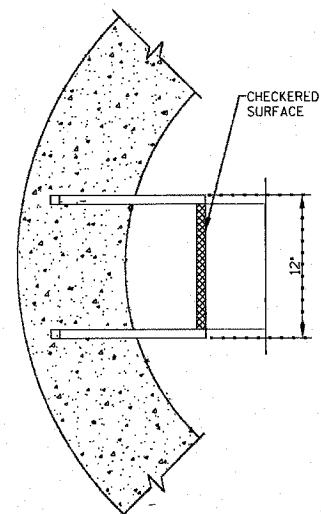
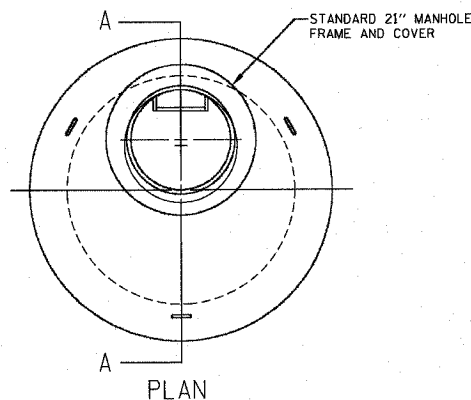
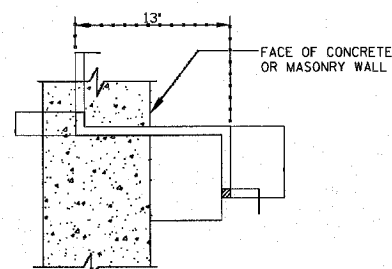
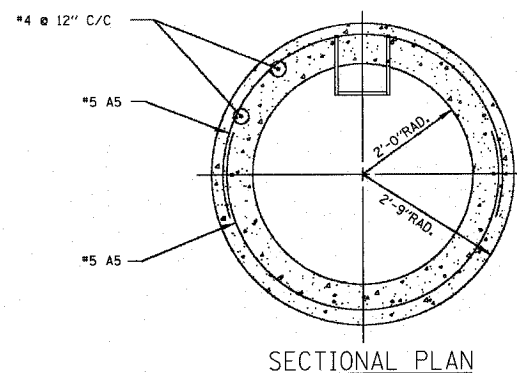


F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3509	00-00173-00-FP	COOK	246	182
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

PLOT DATE = 7/12/2007
 FILE NAME = g:\cadd\83964\road\mhd\std\mhd.dwg
 USER = jg
 PLOT SCALE = 1/4" = 1'-0"
 PLOT USER = jg

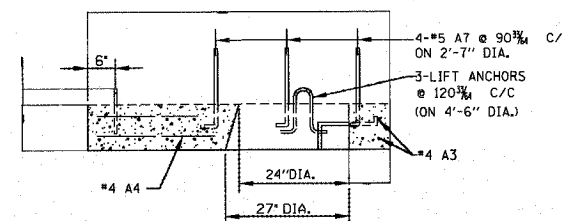


SCALE: 3" = 1'-0"
 MATERIAL: 5/8" DIA. x 2'-3" A-36 STEEL ROD GALVANIZED AFTER FABRICATION

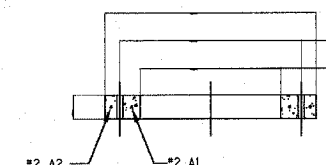
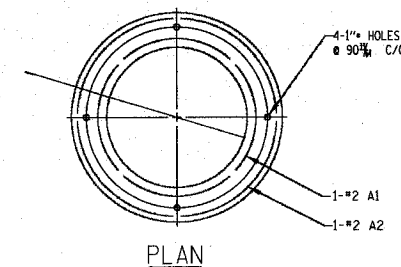


MANHOLE STEPS
 SCALE: 2" = 1'-0"

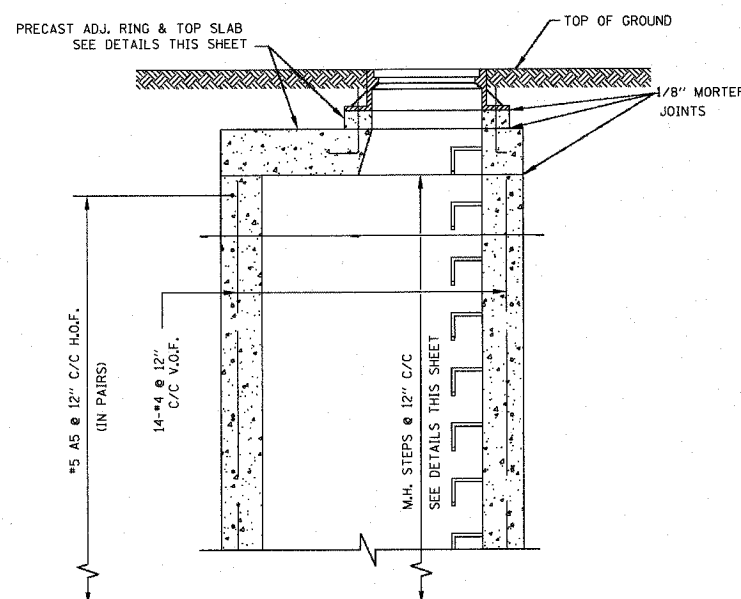
MATERIAL:
 DUCTILE IRON GRADE 65-45-12 FULLY ANNEALED CONFORMING TO ASTM SPECIFICATIONS



SCALE: 3/4" = 1'-0"



SCALE: 1" = 1'-0"



SCALE: 3/4" = 1'-0"

RE-BAR BENDING DETAILS						
MARK	SIZE	LENGTH	TYPE	A	B	R
A1	#2	7'-6"	②	-	-	13 1/2"
A2	#2	9'-6"	②	-	-	17"
A3	#4	15'-0"	②	-	-	29 1/2"
A4	#4	9'-3"	②	-	-	16 1/2"
A5	#5	8'-9"	②	8'-9"	-	29 1/2"
A7	#5	2'-0"	①	6"	1'-6"	-

NOTE:

9" THICK PRECAST CONCRETE RINGS WITH CAST IN PLACE RUNGS MAY BE USED IN PLACE OF CAST IN PLACE CONCRETE WHEN EXTENDING THE HEIGHT OF THE MANHOLE BARREL. ALL EXTENSION SHALL BE IN ONE PIECE AND IN INCREMENTS OF 12".

ALL JOINTS SHALL BE CLEANED, SQUARED AND GROUTED IN A MANNER TO PRECLUDE POSSIBILITY OF LEAKS AT JOINT.

THE PRECAST TOP SLAB SHALL BE REMOVED AND REPLACED AS REQUIRED.

ALL ELEMENTS OF THE MANHOLE DISTURBED OR DAMAGED DURING ALTERATION SHALL BE CORRECTED OR REPLACED TO MEET THE STANDARD HEREIN SHOWN AND SPECIFIED.

ALL CONCRETE SHALL BE CLASS "R".

ALL GROUT SHALL BE 1 PART CEMENT TO 3 PARTS SAND WITH MINIMUM WATER TO ACHIEVE A STIFF PLASTIC CONSISTENCY WITH ZERO SLUMP.

ALL WORKMANSHIP AND MATERIALS NOT SPECIFIED SHALL BE AS PER STANDARD PREPRINTED MWRDGC SPECIFICATIONS TITLED:
 GENERAL SPECIFICATIONS - CONSTRUCTION CONTRACTS
 GENERAL SPECIFICATIONS - SEWERS
 GENERAL SPECIFICATIONS - CONCRETE

PROCEDURE:

- A) TO RAISE ELEVATION 0" TO 8" MAX., ADD 4" THICK ADJUSTMENT RINGS AS DETAILED. INCREMENTS OF LESS THAN 4" SHALL BE OBTAINED BY HAND PACKING A DRY CEMENT GROUT OVER 100% OF THE BEARING AREA.
- B) TO RAISE ELEVATION OVER 8" AND LESS THAN 12", REMOVE THE 4" ADJUSTMENT RING AND EXTEND THE 9" THICK MANHOLE BARREL 12" WITH CAST IN PLACE CONCRETE REINFORCED AS DETAILED AND WITH LADDER RUNG AS DETAILED. TOP OF EXISTING CONCRETE TO BE CLEANED AND ROUGHENED AND NEW CONCRETE PLACED IN A MANNER TO INSURE BONDING AND NO LEAKAGE. FOR INCREMENTS BETWEEN 8" AND 12" PLACE GROUT FILLER AS IN (A) ABOVE.

- C) TO RAISE ELEVATION 12" AND ABOVE, ADD TO 9" THICK MANHOLE BARREL ONLY IN INCREMENTS OF 12" WITH RUNGS AT 12" O.C. AS DESCRIBED IN (B). FOR INCREMENTS BETWEEN 12" ADD OR REMOVE 4" ADJUSTMENT RINGS AND GROUT FILLER AS DESCRIBED IN (A) AND (B).
- D) TO LOWER ELEVATION 0" TO 4", REMOVE 4" THICK ADJUSTMENT RING AND FILL INCREMENTS OF 0" TO 4" WITH GROUT AS DESCRIBED IN (A).
- E) TO LOWER ELEVATION MORE THAN 4", REMOVE 9" THICK MANHOLE BARREL ONLY IN INCREMENTS OF 12" AND ADD OR REMOVE 4" THICK ADJUSTMENT RINGS AND GROUT AS REQUIRED AND AS DESCRIBED IN (A) AND (B).

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 MWRDGC STANDARD NO. 8-121
 PROCEDURE FOR ADJUSTING
 ELEVATION OF EXISTING
 48" DIA. STANDARD MANHOLE

DATE 7/13/07
 DRAWN BY LTD
 CHECKED BY BJL

NOT TO SCALE

1051 PERIMETER DRIVE, SUITE 1025
 SCHAMBERG, ILLINOIS 60173
 (847) 605-9800

