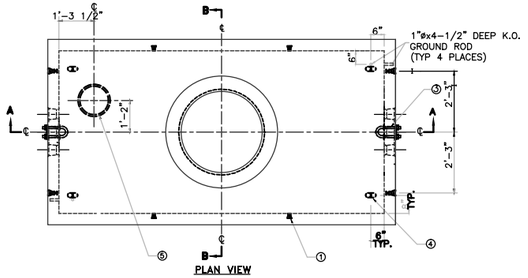
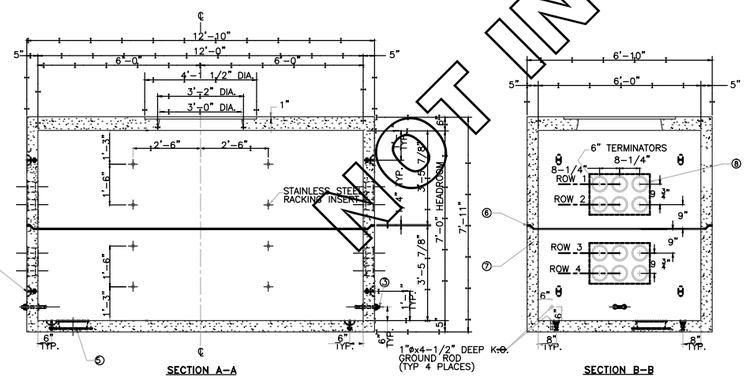
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338/IL 59	~~2011-035-I~~	DUPAGE		
			CONTRACT 60P42	
FED.ROAD.DIST.NO.	ILLINOIS	FED. AID PROJECT		



PLAN VIEW

ITEM	DESCRIPTION		QTY	NOTE
	TOTAL MANHOLE WEIGHT	4500 P.S.I. CONC.	27,405 LBS.	
⑦	TOP SECTION WEIGHT		14,100 LBS.	1
	BASE SECTION WEIGHT		13,305 LBS.	
⑦	REBAR: GR. 60, EPOXY COATED			2
⑧	6" DUCT TERMINATORS		24	
⑥	1"ø BUTYL RUBBER JOINT SEALANT		4 ROLLS	
⑤	SUMP GRATE & 12"x12"x1/8" P.		1	4
④	5" LIFTING ANCHORS		12	
③	1"ø S/S PULLING IRONS		2	
①	1/2"ø x 3" DEEP, S/S INSERTS WITH 1/2"ø x 3" S/S HEX HEAD BOLT AND WASHER.		16	



SECTION A–A

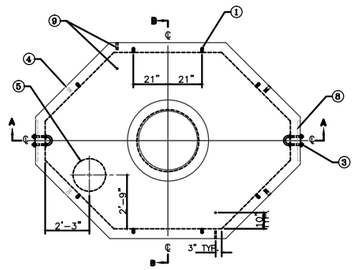
SECTION B–B

NOTES:

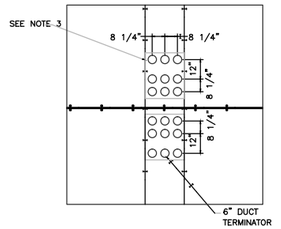
1. CONCRETE: 4500 psi @ 28 DAYS, 5%–8% ENTRAINED AIR, 4" MAX. SLUMP.
2. REBAR: ASTM A–615 GRD. 60 EPOXY COATED
3. PULLING IRON: ø" STAINLESS STEEL
4. ADD GROUNDROD KNOCKOUTS IN FLOOR AND WALLS.
5. RACKING INSERTS: STAINLESS STEEL,
6. IDENTIFICATION: IMPRESSED INTO CEILING OF VAULT.
7. DESIGN CRITERIA:
   A.) DESIGNED AND BUILT IN ACCORDANCE WITH ASTM C858 "STANDARD SPECIFICATION FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES".
   B.) ALL LOADING AS PER ASTM C857 "MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES" INCLUDING:
   - EARTH COVER: MIN. 2.0', MAX. 5.0'.
   - AASHTO HS–20 WHEEL LOAD AND APPLICABLE IMPACT.
   - VERTICAL AND LATERAL SOIL PRESSURES DETERMINED USING A SOIL DENSITY OF 120 PCF.
   - GROUNDWATER AT 3'–0" BELOW GRADE.
   C.) STRUCTURAL DESIGN PERFORMED USING AASHTO STRENGTH DESIGN METHOD.
   D.) REINFORCING COVER REQUIREMENTS AS PER ACI 318.
8. CONTRACTOR SHALL CONFIRM DUCT LOCATION WITH INSPECTOR.
9. SEE SPECIFICATION C30–1900 FOR ROW IDENTIFICATION WITH CONDUIT.

ADDING THE MANHOLE CENTER ASSEMBLY CONVERTS TYPE "A" MANHOLE TO TYPE "C" MANHOLE.

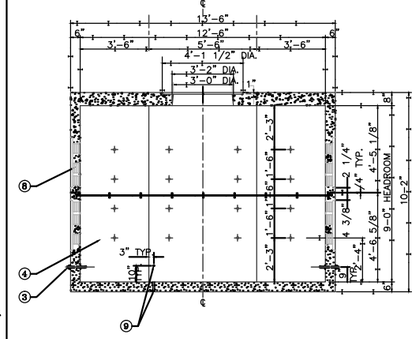
NAPERVILLE PUBLIC UTILITIES DEPARTMENT	TYPE A MANHOLE	DATE: 12-18-04
ELECTRIC STANDARDS		M30-1140



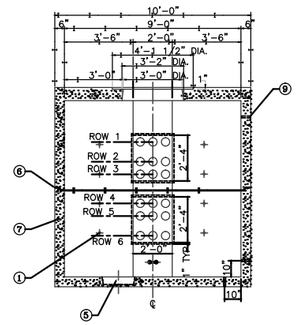
PLAN VIEW



6" DUCT TERMINATOR
ENDWALL SHOWN



SECTION A–A



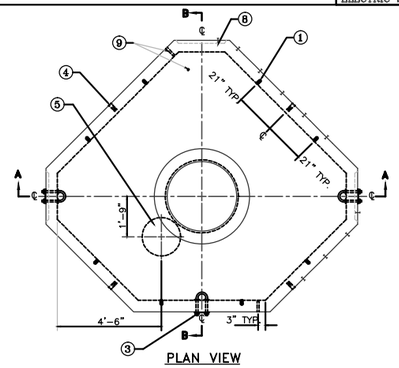
SECTION B–B

ITEM	DESCRIPTION		QTY	NOTE
	TOTAL MANHOLE WEIGHT	4500 P.S.I. CONC.	43,000 LBS.	
⑦	TOP SECTION WEIGHT		22,000 LBS.	1
	BASE SECTION WEIGHT		21,000 LBS.	
⑦	REBAR, EPOXY COATED			2
⑨	1"ø x 5 1/2" GROUND WIRE HOLE, 1/2" KNOCKOUT		4	
⑧	6" DUCT TERMINATORS		36	3
⑥	1"ø BUTYL RUBBER JOINT SEALANT		4 ROLLS	
⑤	IBT SUMP DEPRESSION		1	
④	6" LIFTING ANCHORS		8	
③	1"ø S.S. PULLING IRONS		2	4
①	CABLE RACK INSERTS: 1/2" 304 STAINLESS STEEL THREADED INSERTS EACH WITH 1/2" x 2" 304 S.S. HEX HEAD BOLT, 1/2" S.S. WASHER, AND 1/2" PVC WASHER		32	

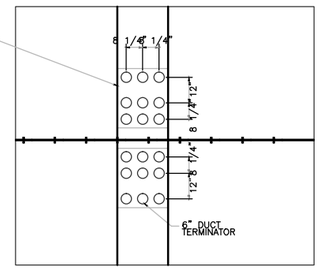
NOTES:

1. CONCRETE: 4500 psi @ 28 DAYS, 5%–8% ENTRAINED AIR, 4" MAX. SLUMP.
2. REBAR: ASTM A–615 GRD. 60, EPOXY COATED.
3. DUCT ENTRANCE: SINGLE DUCT TERMINATORS TO ACCEPT 6" DIAMETER SCH. 40 PVC CONDUIT. SEE DETAIL THIS SHEET.
4. PLEASE NOTE PULLING IRON DESIGNED AS PER A.C.I. 318 FOR WORKING LOAD CAPACITY OF 28,000 POUNDS APPLIED COINCIDENT TO THE MAJOR AXIS OF THE PULLING IRON.
5. IDENTIFICATION: IMPRESSED INTO CEILING OF VAULT.
6. DESIGN CRITERIA:
   A.) DESIGNED AND BUILT IN ACCORDANCE WITH ASTM C858 "STANDARD SPECIFICATION FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES".
   B.) ALL LOADING AS PER ASTM C857 "MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES" INCLUDING:
   - EARTH COVER: MIN. 2.0', MAX. 5.0'.
   - AASHTO HS–20 WHEEL LOAD AND APPLICABLE IMPACT.
   - VERTICAL AND LATERAL SOIL PRESSURES DETERMINED USING A SOIL DENSITY OF 120 PCF.
   - GROUNDWATER AT 3'–0" BELOW GRADE.
   C.) STRUCTURAL DESIGN PERFORMED USING AASHTO STRENGTH DESIGN METHOD.
   D.) REINFORCING COVER REQUIREMENTS AS PER ACI 318.
7. SEE SPECIFICATION C30–1900 FOR ROW IDENTIFICATION WITH CONDUIT.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT	TYPE E MANHOLE	DATE: 12-24-04
ELECTRIC STANDARDS		M30-1160

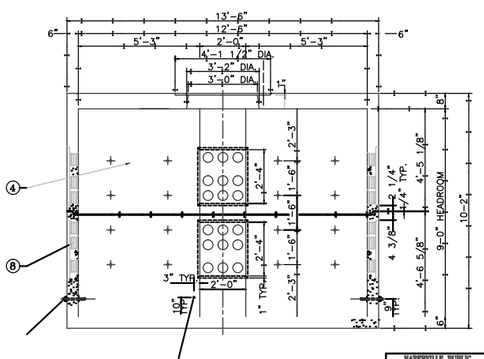


PLAN VIEW

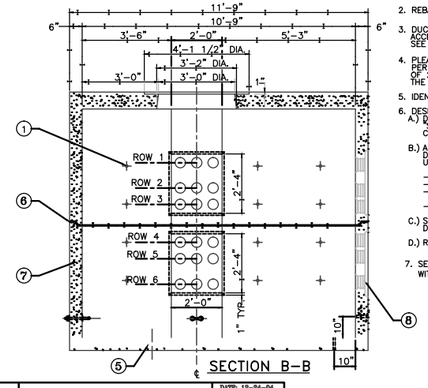


6" DUCT TERMINATOR
ENDWALL SHOWN

ITEM	DESCRIPTION		QTY	NOTE
	TOTAL MANHOLE WEIGHT	4500 P.S.I. CONC.	46,000 LBS.	
⑦	TOP SECTION WEIGHT		24,000 LBS.	1
	BASE SECTION WEIGHT		22,000 LBS.	
⑦	REBAR, EPOXY COATED			2
⑨	1"ø x 5 1/2" GROUND WIRE HOLE, 1/2" KNOCKOUT		4	
⑧	6" DUCT TERMINATORS		54	3
⑥	1"ø BUTYL RUBBER JOINT SEALANT		4 ROLLS	
⑤	IBT SUMP DEPRESSION		1	
④	6" LIFTING ANCHORS		8	
③	1"ø S.S. PULLING IRONS		3	4
①	CABLE RACK INSERTS: 1/2" 304 STAINLESS STEEL THREADED INSERTS EACH WITH 1/2" x 2" 304 S.S. HEX HEAD BOLT, 1/2" S.S. WASHER, AND 1/2" PVC WASHER		32	



SECTION A–A



SECTION B–B

NOTES:

1. CONCRETE: 4500 psi @ 28 DAYS, 5%–8% ENTRAINED AIR, 4" MAX. SLUMP.
2. REBAR: ASTM A–615 GRD. 60, EPOXY COATED.
3. DUCT ENTRANCE: SINGLE DUCT TERMINATORS TO ACCEPT 6" DIAMETER SCH. 40 PVC CONDUIT. SEE DETAIL THIS SHEET.
4. PLEASE NOTE PULLING IRON DESIGNED AS PER A.C.I. 318 FOR WORKING LOAD CAPACITY OF 28,000 POUNDS APPLIED COINCIDENT TO THE MAJOR AXIS OF THE PULLING IRON.
5. IDENTIFICATION: IMPRESSED INTO CEILING OF VAULT.
6. DESIGN CRITERIA:
   A.) DESIGNED AND BUILT IN ACCORDANCE WITH ASTM C858 "STANDARD SPECIFICATION FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES".
   B.) ALL LOADING AS PER ASTM C857 "MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES" INCLUDING:
   - EARTH COVER: MIN. 2.0', MAX. 5.0'.
   - AASHTO HS–20 WHEEL LOAD AND APPLICABLE IMPACT.
   - VERTICAL AND LATERAL SOIL PRESSURES DETERMINED USING A SOIL DENSITY OF 120 PCF.
   - GROUNDWATER AT 3'–0" BELOW GRADE.
   C.) STRUCTURAL DESIGN PERFORMED USING AASHTO STRENGTH DESIGN METHOD.
   D.) REINFORCING COVER REQUIREMENTS AS PER ACI 318.
7. SEE SPECIFICATION C30–1900 FOR ROW IDENTIFICATION WITH CONDUIT.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT	TYPE G MANHOLE	DATE: 12-24-04
ELECTRIC STANDARDS		M30-1170

NOTE:

1) EXISTING MANHOLES USUALLY SINGLE OPENING MANHOLES

PROJECT TITLE	ROUTE 59 ROAD IMPROVEMENTS		
PROJECT DESCRIPTION	DETAILS AND STANDARDS		
ENGINEER: BCC	DRAFTING DATE: 5-11-12	MAP #: 4211,4212,4223	SCALE: N.T.S.
GIS DESIGN BY: DL / DRAFTED BY: PSM	REVISIONS DATE:	AT&T JOINT AGREEMENT #: N/A	PROJECT #: EU-12
CHECKED BY:	APPROVED BY:	CAD FILE: 0060648001D122.DWG	SHEET #: 22 OF 63
Naperville	Department of Public Utilities Electric Division		WORK REQUEST #: 60468