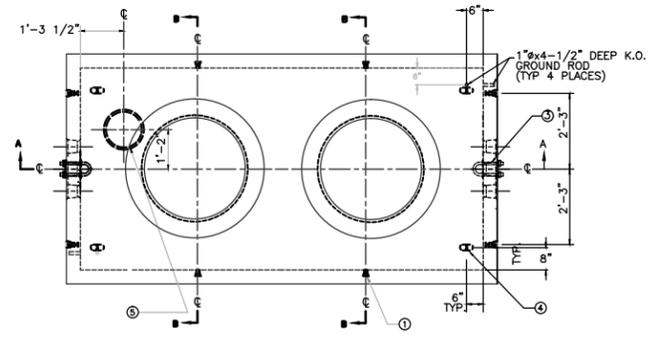
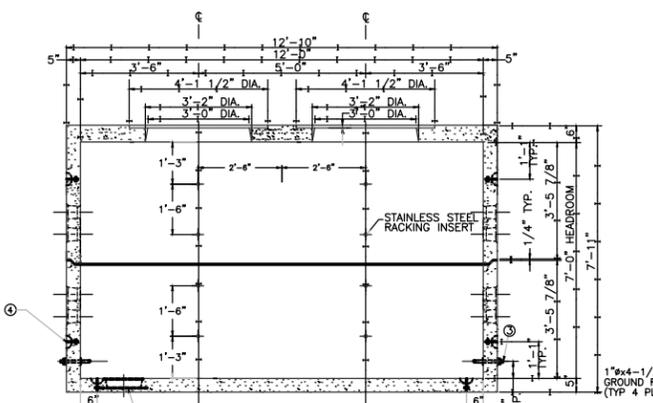


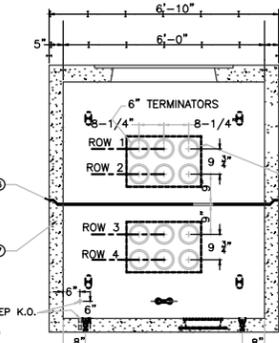
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338/IL 59	2011-035-1	DUPAGE		
CONTRACT 60P42				
FED.ROAD.DIST.NO.	ILLINOIS	FED. AID PROJECT		



PLAN VIEW



SECTION A-A



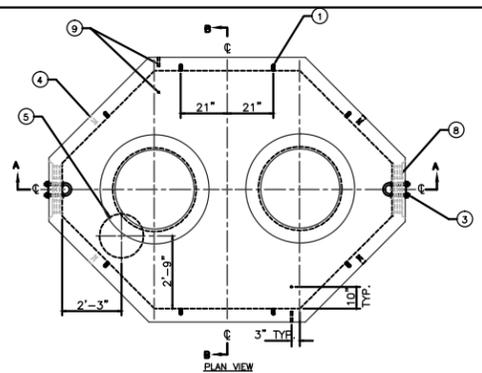
SECTION B-B

ITEM	DESCRIPTION	QTY	NOTE
	TOTAL MANHOLE WEIGHT	5000	40,615 LBS.
①	TOP SECTION WEIGHT	P.S.I.	13,570 LBS.
	BASE SECTION WEIGHT	CONC.	27,045 LBS.
⑦	REBAR, 60, EPOXY COATED	2	
⑧	6" DUCT TERMINATORS	24	
⑨	1 1/2" BUTYL RUBBER JOINT SEALANT ROLLS	1	
⑩	SUMP GRATE & 12"x12"x1/8" P	1	4
⑪	5" LIFTING ANCHORS	12	
⑫	1 1/2" S.S. PULLING IRONS	2	
⑬	1/2" x 3" DEEP S/S INSERTS	16	
⑭	WITH 1/2" x 3" S/S HEX HEAD BOLT AND WASHER		

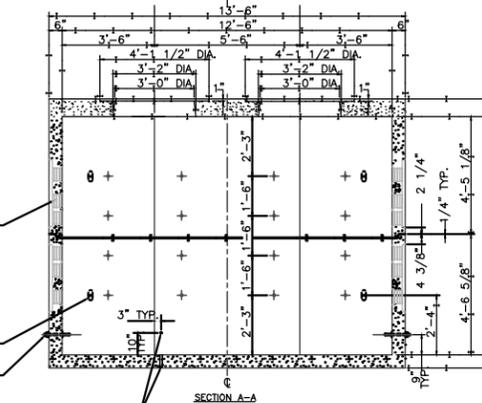
- NOTES:
- CONCRETE: 5000 psi @ 28 DAYS, 5%-8% ENTRAINED AIR, 4" MAX. SLUMP.
 - REBAR: ASTM A-615 GRD. 60 EPOXY COATED.
 - DUCT ENTRANCE: SINGLE DUCT TERMINATORS TO ACCEPT 6" DIAMETER SCH. 40 PVC CONDUIT. SEE DETAIL ON THIS SHEET.
 - PLEASE NOTE PULLING IRON DESIGNED AS PER A.C.I. 318 FOR WORKING LOAD CAPACITY OF 28,000 POUNDS APPLIED COINCIDENT TO THE MAJOR AXIS OF THE PULLING IRON.
 - IDENTIFICATION: IMPRESSED INTO CEILING OF VAULT.
 - DESIGN CRITERIA:
 - DESIGNED AND BUILT IN ACCORDANCE WITH ASTM C858 "STANDARD SPECIFICATION FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES".
 - 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.
 - GROUND WATER AT 3'-0" BELOW GRADE.
 - STRUCTURAL DESIGN PERFORMED USING AASHTO STRENGTH DESIGN METHOD.
 - REINFORCING COVER REQUIREMENTS AS PER ACI 318.
 - SEE SPECIFICATION C30-1900 FOR ROW IDENTIFICATION WITH CONDUIT.

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

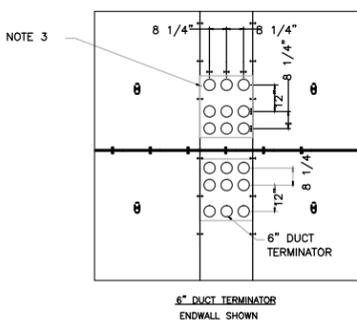
NAPEVILLE PUBLIC UTILITIES DEPARTMENT	TYPE A MANHOLE	DATE 08-08-08
ELECTRIC DIVISION	M30-1140	



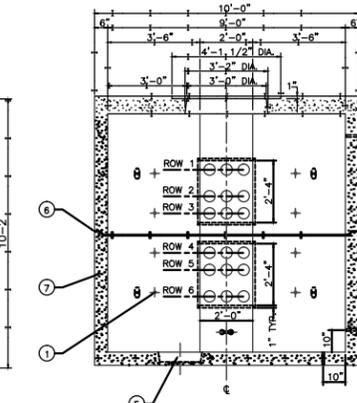
PLAN VIEW



SECTION A-A



6" DUCT TERMINATOR ENDWALL SHOWN

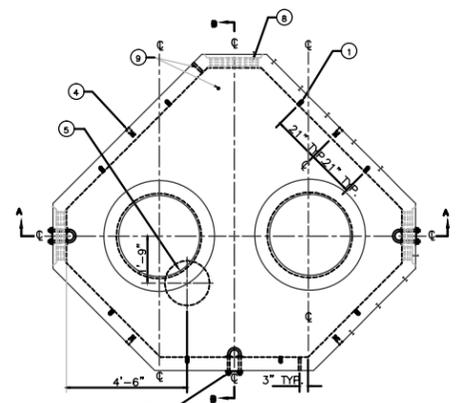


SECTION B-B

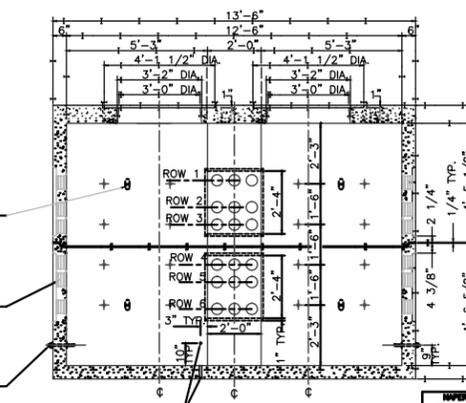
ITEM	DESCRIPTION	QTY	NOTE
	TOTAL MANHOLE WEIGHT	5000	42,470 LBS.
⑦	TOP SECTION WEIGHT	P.S.I.	21,470 LBS.
	BASE SECTION WEIGHT	CONC.	21,000 LBS.
⑦	REBAR, EPOXY COATED	2	
⑨	1 1/2" x 5 1/2" GROUND WIRE HOLE, 1/2" KNOCKOUT	4	
⑩	6" DUCT TERMINATORS	36	3
⑪	1 1/2" BUTYL RUBBER JOINT SEALANT	4	ROLLS
⑫	IBT SUMP DEPRESSION	1	
⑬	6" LIFTING ANCHORS	8	
⑭	1 1/2" S.S. PULLING IRONS	2	4
⑮	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:
- CONCRETE: 5000 psi @ 28 DAYS, 5%-8% ENTRAINED AIR, 4" MAX. SLUMP.
 - REBAR: ASTM A-615 GRD. 60, EPOXY COATED.
 - DUCT ENTRANCE: SINGLE DUCT TERMINATORS TO ACCEPT 6" DIAMETER SCH. 40 PVC CONDUIT. SEE DETAIL THIS SHEET.
 - 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.
 - IDENTIFICATION: IMPRESSED INTO CEILING OF VAULT.
 - DESIGN CRITERIA:
 - DESIGNED AND BUILT IN ACCORDANCE WITH ASTM C858 "STANDARD SPECIFICATION FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES".
 - 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.
 - GROUND WATER AT 3'-0" BELOW GRADE.
 - STRUCTURAL DESIGN PERFORMED USING AASHTO STRENGTH DESIGN METHOD.
 - REINFORCING COVER REQUIREMENTS AS PER ACI 318.
 - SEE SPECIFICATION C30-1900 FOR ROW IDENTIFICATION WITH CONDUIT.

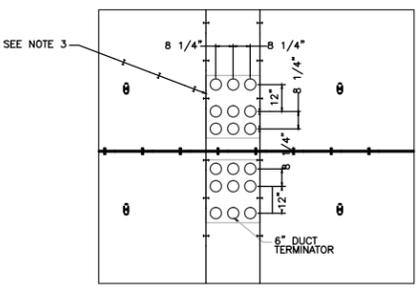
NAPEVILLE PUBLIC UTILITIES DEPARTMENT	TYPE E MANHOLE	DATE 08-08-08
ELECTRIC DIVISION	M30-1160	



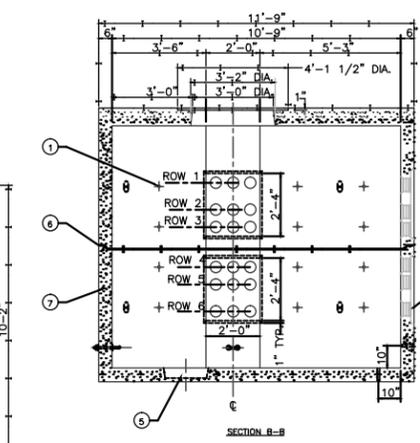
PLAN VIEW



SECTION A-A



6" DUCT TERMINATOR ENDWALL SHOWN



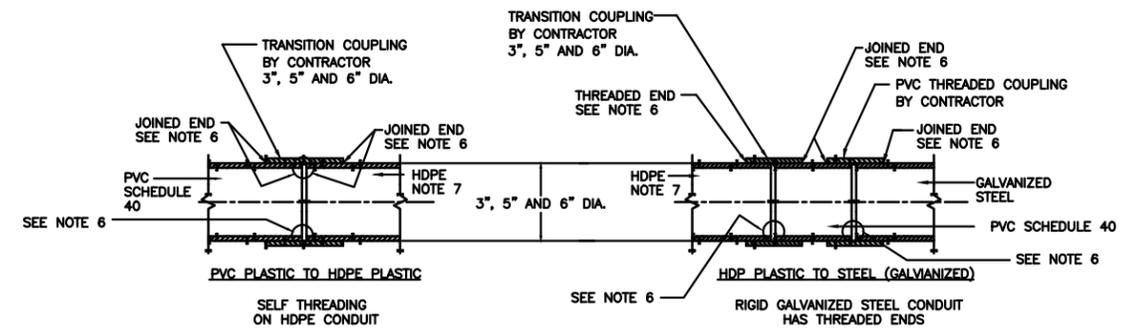
SECTION B-B

ITEM	DESCRIPTION	QTY	NOTE
	TOTAL MANHOLE WEIGHT	5000	45,470 LBS.
⑦	TOP SECTION WEIGHT	P.S.I.	23,470 LBS.
	BASE SECTION WEIGHT	CONC.	22,000 LBS.
⑦	REBAR, EPOXY COATED	2	
⑨	1 1/2" x 5 1/2" GROUND WIRE HOLE, 1/2" KNOCKOUT	4	
⑩	6" DUCT TERMINATORS	54	3
⑪	1 1/2" BUTYL RUBBER JOINT SEALANT	4	ROLLS
⑫	IBT SUMP DEPRESSION	1	
⑬	6" LIFTING ANCHORS	8	
⑭	1 1/2" S.S. PULLING IRONS	3	4
⑮	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:
- CONCRETE: 5000 psi @ 28 DAYS, 5%-8% ENTRAINED AIR, 4" MAX. SLUMP.
 - REBAR: ASTM A-615 GRD. 60, EPOXY COATED.
 - PULLING IRON: 1 1/2" STAINLESS STEEL.
 - ADD GROUND ROD KNOCKOUTS IN FLOOR AND WALLS.
 - RACKING INSERTS: STAINLESS STEEL.
 - IDENTIFICATION: IMPRESSED INTO CEILING OF VAULT.
 - DESIGN CRITERIA:
 - DESIGNED AND BUILT IN ACCORDANCE WITH ASTM C858 "STANDARD SPECIFICATION FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES".
 - 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.
 - GROUND WATER AT 3'-0" BELOW GRADE.
 - STRUCTURAL DESIGN PERFORMED USING AASHTO STRENGTH DESIGN METHOD.
 - REINFORCING COVER REQUIREMENTS AS PER ACI 318.
 - SEE SPECIFICATION C30-1900 FOR ROW IDENTIFICATION WITH CONDUIT.

NAPEVILLE PUBLIC UTILITIES DEPARTMENT	TYPE G MANHOLE	DATE 08-08-08
ELECTRIC DIVISION	M30-1170	

3. 5 AND 6 INCH PLASTIC TRANSITION CONDUIT COUPLINGS
PVC TO HDPE
GALVANIZED STEEL TO HDPE



- NOTES:
- CONTRACTOR SHALL SUPPLY TRANSITION COUPLING TO GO FROM HDPE TO STEEL AND HDPE TO PVC SCHEDULE 40.
 - THE COST OF THIS MATERIAL IS INCLUDED IN UNIT PRICES FOR VAULTS AND HANDHOLES, PLUG CANS, FUSE CANS, SIDE WALK SPLICE BOXES AND CONDUIT.
 - THE CONTRACTOR SHALL SUPPLY ALL TRANSITION COUPLINGS.
 - THE CONTRACTOR SHALL NOT USE TRANSITION COUPLING TO CONNECT HDPE TO HDPE IN THE MAIN LINE. ALL MAINLINE CONNECTIONS SHALL BE BUTT FUSED.
 - CONTRACTOR TO USE ELECTROFUSION PROCESS AT ALL TIMES TO MAKE HDPE TO HDPE CONNECTIONS.
 - CONTRACTOR TO ASSEMBLE, CUT, ALIGN, BEVEL, AND FIT TO CREATE A SMOOTH INSIDE INTERFACE AT CONNECTION POINT.
 - HDPE, PVC AND STEEL CONDUIT HAVE DIFFERENT INSIDE DIAMETER.
 - ENCASE IN CONCRETE FOR 5 FEET.

PROJECT TITLE				ROUTE 59 ROAD IMPROVEMENTS			
PROJECT DESCRIPTION				DETAILS AND STANDARDS			
ENGINEER	DRAFTING DATE	MAP #	SCALE				
BCC	5-11-12	4211,4212,4223	N.T.S.				
GS DESIGN BY	DRAFTED BY	REVISIONS DATE	AT&T JOINT AGREEMENT #	PROJECT #			
DL	PSM		N/A	EU-12			
CHECKED BY	APPROVED BY	CAD FILE	SHEET #				
		0060648001D121.DWG	21 OF 63				
Naperville			Department of Public Utilities		WORK REQUEST #		
			Electric Division		60468		