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		

CONDUIT ENTRANCE INTO MANHOLE/HANDHOLE

APPLICABLE TO SWITCHGEAR AND TRANSFORMER VAULTS

GENERAL

CONDUIT ENTRANCES INTO MANHOLES/HANDHOLES SHALL NORMALLY BE MADE WITH PLASTIC ENTRANCE BELLS PER FIGURE 1 OR 2. THE ENTRANCE CONDUIT SHALL BE PLASTIC OR STEEL ENCASED IN CONCRETE AS PER FIGURE 1 AND 2 BELOW, SPECIFIED BY THE ENGINEER ON THE CONSTRUCTION DRAWINGS.

POCKETS

DUCT POCKETS SHALL BE PROVIDED IN WALLS WHERE SPECIFIED ON CONSTRUCTION DRAWINGS. POCKET NOT REQUIRED ON NEWER STYLE MANHOLE DESIGNS (FIGURE 2). TYPICAL POCKET DIMENSIONS ARE INDICATED BELOW ON FIGURE 1.

CONDUIT SPACING

CONDUIT SHALL NORMALLY BE SUPPORTED BY VERTICAL AND HORIZONTALLY INTERLOCKED PLASTIC SPACERS TO PROVIDE ALIGNMENT WITH PLASTIC ENTRANCE BELL UNITS AT 8 1/4 IN. SPACING.

ENTRANCE BELL UNITS

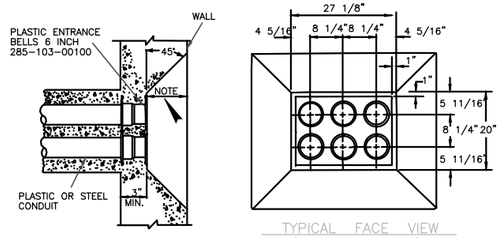
PLASTIC 6 INCH ENTRANCE BELLS, DPU-E# 285-103-00100 SHALL BE USED ON CONDUIT ENTRANCES TO MANHOLES.

ENTRANCE PIPES

GALVANIZED STEEL CONDUIT, M30-1550, SHALL BE USED FOR ALL BENDS. PIPES INTENDED FOR CABLES ON INITIAL INSTALLATION SHALL BE CAPPED WITH PLUGS (DPU-E# 285-103-00090) TO PREVENT CONTAMINATION FROM ENTERING THE PIPES.

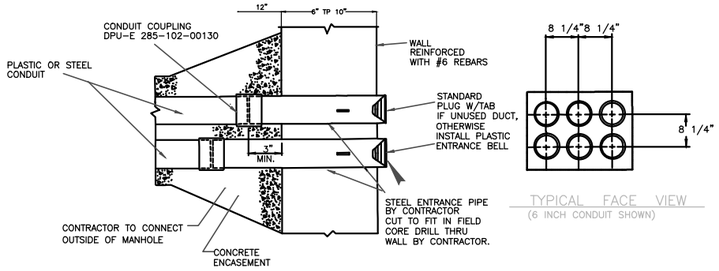
INSTALLATION METHODS

EVERY EFFORT SHALL BE MADE TO INSURE A WATERTIGHT INSTALLATION OF ENTRANCE PIPES. WHERE PIPES ARE INSTALLED THROUGH AN OPENING LEFT IN A MANHOLE, OR BROKEN OUT OF AN EXISTING MANHOLE WALL, SURFACES SHALL BE CLEANED, WETTED AND COVERED WITH A COATING OF 3 TO 1 SAND AND CEMENT MORTAR. IF BRICKWORK IS EXISTING ON THE INNER FACE OF WALL, IT SHALL ALSO BE COATED WITH A SAND AND CEMENT MORTAR. AN ALTERNATE PROCEDURE IS TO DRILL HOLES IN THE WALL AND GROUT THE PIPES IN PLACE WITH A SAND AND CEMENT MORTAR. THE INSIDE SURFACE OF THE HOLES SHALL BE ROUGHENED TO OBTAIN A STRONG AND WATERTIGHT BOND.



TYPICAL FACE VIEW
(6 INCH CONDUIT SHOWN)

FIG. 1 MANHOLE ENTRANCE WITH PLASTIC TERMINATORS (OLDER STYLE)
FOR PLASTIC OR STEEL CONDUIT (POCKET TYPE)



TYPICAL FACE VIEW
(6 INCH CONDUIT SHOWN)

FIG. 2 ENTRANCE IN MANHOLE/HANDHOLE (NEWER STYLE)

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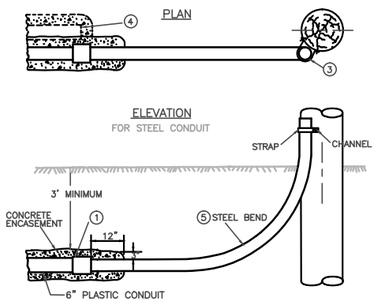
CONDUIT TO RISER AT POLE

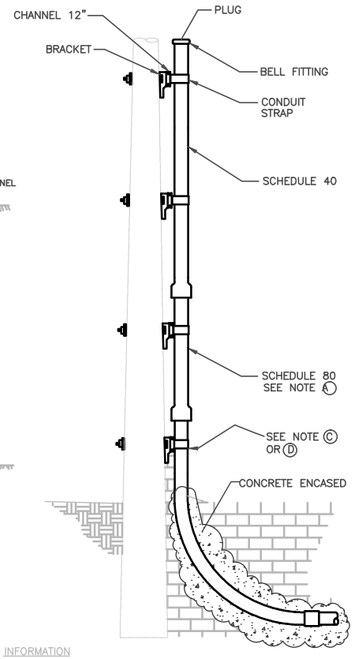
CONDUIT TO RISER AT POLE
FOR PLASTIC OR STEEL CONDUIT

APPLICATION

- THIS STANDARD SHALL BE USED WHEN A TRANSITION FROM A SINGLE DUCT TO SINGLE RISER PIPE IS REQUIRED.



RISER CONSTRUCTION
FOLLOW CONSTRUCTION STANDARD C20-5220



SUPPLEMENTARY MATERIAL

① IF BELLED END OF PLASTIC CONDUIT CAN BE CONNECTED TO STEEL BEND OMIT COUPLING.

NOTES:

A). FIRST SECTION ABOVE ELBOW MUST BE SCHEDULE 80.

B). FOR LARGER POLES (>50'), ADDITIONAL CONDUIT AND HARDWARE MAY BE REQUIRED.

C). STEEL BEND AND POLE BRACKET EXISTING FROM PREVIOUS DUCT BANK INSTALLATION.

D). INSTALL STEEL BEND AND POLE BRACKET AND CHANNEL.

E). INSTALL SPARE OF CONDUIT UP POLE WITH BEND, ATTACH TO BRACKET AND PLUG.

INFORMATION

② FIELD CUT SO THAT A GOOD CONNECTING FIT CAN BE MADE BETWEEN THE CONDUITS AND BENDS.

③ LOCATE THE BEND ON A QUADRANT OF THE POLE WHERE IT IS THE LEAST SUSCEPTIBLE TO DAMAGE BY VEHICLES.

④ IF SPARE DUCT IS INSTALLED, PLUG AT BOTH ENDS AND ENCASE IN CONCRETE WHEN NECESSARY.

⑤ SCHEDULE 80 PVC DOES NOT REQUIRE CONCRETE ENCASEMENT.

⑥ CONDUIT TO A U-GUARD* RISER FOLLOWS C20-5222, FOR USE AS MAINTENANCE ONLY.

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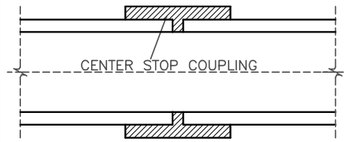
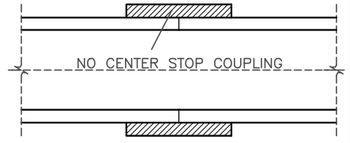
PLASTIC CONDUIT COUPLINGS

SUBTITLE LINE TWO



PLASTIC TO PLASTIC OR PLASTIC TO STEEL COUPLING

SIZE	DPU-E #	MATERIAL / USE
3"	285-102-00040	PLASTIC TO PLASTIC
5"	285-102-00110	PLASTIC TO PLASTIC
6"	285-102-00140	PLASTIC TO PLASTIC
5"	285-102-00110	PLASTIC TO STEEL
6"	285-102-00140	PLASTIC TO STEEL



PLASTIC TO PLASTIC OR PLASTIC TO STEEL SLEEVE

SIZE	DPU-E #	MATERIAL / USE
3"	285-102-00060	PLASTIC TO PLASTIC
5"	285-102-00100	PLASTIC OR STEEL
6"	285-102-00130	PLASTIC OR STEEL

PLASTIC TO PLASTIC 5° COUPLING

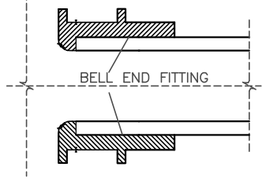
SIZE	DPU-E #	MATERIAL / USE
3"	285-102-00050	PLASTIC TO PLASTIC
5"	285-102-00120	PLASTIC TO PLASTIC
6"	285-102-00150	PLASTIC TO PLASTIC

PLUG W/PULL TAB

SIZE	DPU-E #
3"	285-103-00030
5"	285-103-00070
6"	285-103-00090

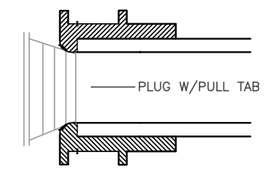
APPLICATION

THIS STANDARD SHALL BE USED FOR THE INSTALLATION OF CONDUIT CONNECTIONS ON CONCRETE ENCASED PLASTIC CONDUIT DUCTBANK.



PLASTIC BELL END FITTINGS

SIZE	DPU-E #	MATERIAL
3"	285-103-00040	PLASTIC
5"	285-103-00080	PLASTIC
6"	285-103-00100	PLASTIC



THE 6" EXPANDING PLUG W/EYE NUT DPU-E# 285-103-00150

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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: 0060648001D130.DWG	SHEET #: 30 OF 63
Naperville — Department of Public Utilities, Electric Division			WORK REQUEST #: 60468