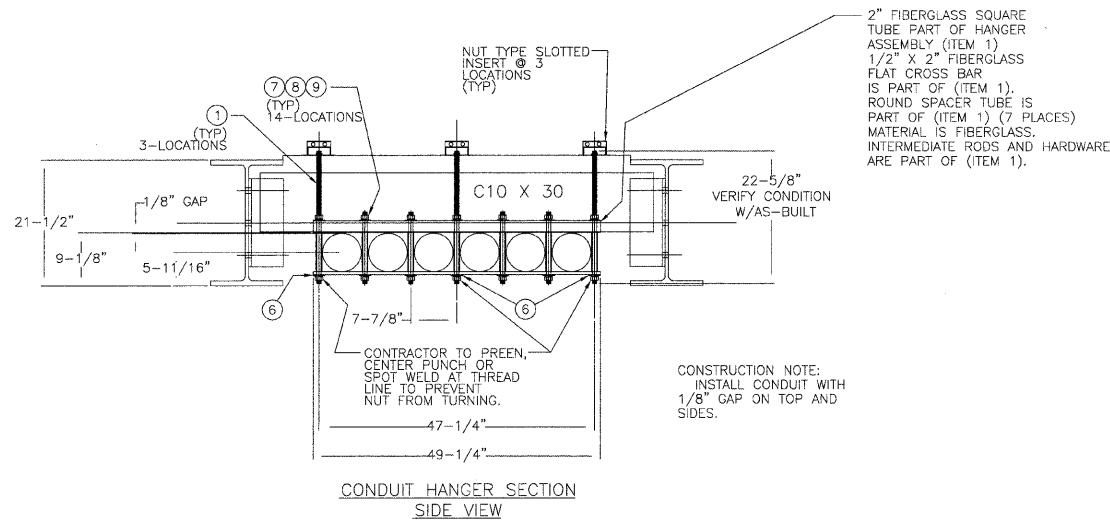
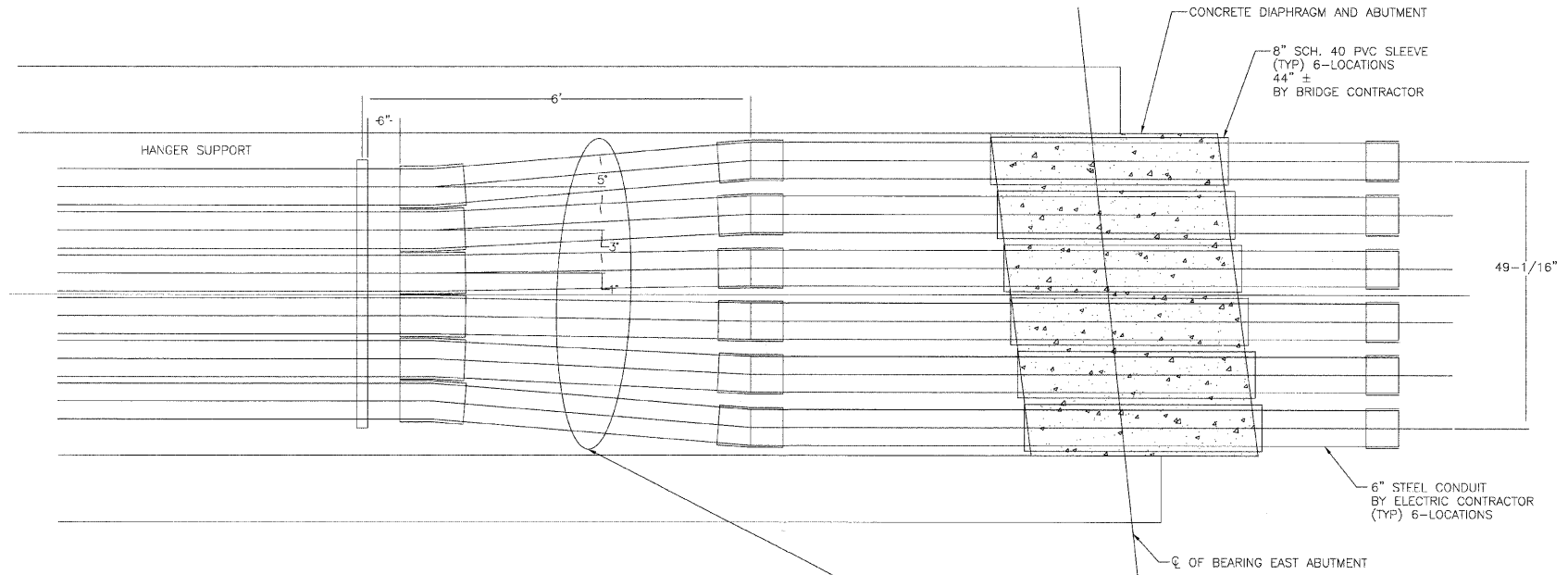


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	62
STA. 4+38.47	TO STA. 14+62.4			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT 83827				

UNDER BRIDGE CONDUIT ATTACHMENT



CONDUIT HANGER SECTION  
TOP VIEW BY ABUTMENT



INSTALLATION GUIDE

- BEGIN AT ONE ABUTMENT BY INSTALLING AN ADAPTER COUPLING ONTO THE STEEL CONDUIT THAT IS PROTRUDING FROM THE ABUTMENT. THIS CONDUIT IS THREADED STEEL.
- INSTALL AS MANY SUPPORTS AS REQUIRED TO REACH THE FIRST CONDUIT JOINT. THIS REQUIRES THE INSTALLATION OF CONCRETE INSERTS INTO BRIDGE DECK AT TIME OF PLACEMENT OF CONCRETE.
- NEXT INSTALL THE FIRST PIECE OF CONDUIT AND MAKE THE CONNECTION AT THE ABUTMENT ACCORDING TO STANDARD PRACTICES FOR TYPE OF CONDUIT BEING USED. CONTINUE THE PROCESS OF INSTALLING SEGMENTS OF SUPPORTS AND CONDUIT, WORKING FROM ONE ABUTMENT TO THE OTHER. NO JOINT SHOULD BE WITHIN 12 INCHES OF A HANGER. INSTALL (ITEM 6) CONTINUOUSLY FROM DIAPHRAGM TO DIAPHRAGM BY WELDING (ITEM 6) TOGETHER.
- EXPANSION JOINTS ARE INSTALLED AT (2) TWO LOCATIONS IN THE CONDUIT SYSTEM DURING THIS ONGOING ASSEMBLY PROCESS. THE EXPANSION JOINTS MUST BE PLACED AS THE REQUIRED LOCATIONS BY ATTACHING THE EXPANSION SLEEVE TO THE CONDUIT THAT IS IN PLACE. IF THE EXPANSION SLEEVE IS OF THE TYPE THAT WILL ACCEPT THE SPIGOT END OF THE NEXT CONDUIT PIECE, THEN THE NEXT CONDUIT PIECE SHOULD BE INSERTED TO THE HALFWAY POINT OF THE SLEEVE ALLOWING FOR EQUAL MOVEMENT IN EITHER DIRECTION. IF THE EXPANSION SLEEVE IS OF THE TYPE THAT REQUIRES AN EXPANSION NIPPLE, THE NIPPLE SHOULD BE ADJUSTED TO THE HALFWAY POINT OF THE SLEEVE AND SUBSEQUENTLY ASSEMBLED TO THE END OF THE NEXT CONDUIT SECTION.
  - CARE MUST BE TAKEN THAT THE EXPANSION JOINTS REMAIN AT MID-TRAVEL DURING THE REMAINDER OF THE INSTALLATION PROCESS. THE JOINT MAY BE WRAPPED WITH TAPE FOR ASSURANCE.
  - NO EXPANSION JOINT SHOULD BE CLOSER THAN 12 INCHES TO ANY SUPPORT. THE IDEAL LOCATION IS 1/2 THE DISTANCE TO THE NEXT SUPPORT.
- SPLIT STOP RINGS ARE INSTALLED ON THE CONDUIT AT ANCHOR POINTS WHICH OCCUR AT THE MIDWAY POINT BETWEEN EXPANSION JOINTS. WHICH IS THE CENTER OF THE BRIDGE WHEN AN ANCHOR POINT LOCATION IS REACHED, TWO STOP RINGS SHOULD BE SLIPPED OVER THE CONDUIT SECTION SO THAT ONE FALLS ON EACH SIDE OF THE ANCHOR POINT SUPPORT. AFTER THE CONDUIT CONNECTION HAS BEEN MADE, AND THE LAST EXPANSION JOINT HAS BEEN CHECKED TO MAKE SURE THAT IT HAS NOT MOVED, THE STOP RINGS CAN BE EPOXIED TO THE OUTSIDE OF THE CONDUIT AGAINST EACH SIDE OF THE SUPPORT. PLASTIC TIE WRAPS OR TAPE CAN BE USED TO HOLD THE STOP RINGS IN PLACE UNTIL THE EPOXY HAS CURED.
  - IT IS CONVENIENT AT THIS TIME TO INSTALL THE ANCHOR POINT BRACING (ITEM K) AND (ITEM L) BETWEEN THE ANCHOR POINT THE ANCHOR POINT SUPPORT AND THE BRIDGE DECK.
- THE LAST SECTION OF CONDUIT SHOULD BE CUT TO LENGTH SO THAT IT FITS END TO END WITH THE CONDUIT THAT PROTRUDES FROM THE ABUTMENT. IF THE TWO CONDUITS ARE THE SAME, THE CONNECTION CAN BE MADE WITH A SLEEVE COUPLING OR SLIP COUPLING. SIMPLY SLIDE THE SLEEVE ONTO ONE OF THE CONDUITS, APPLY EPOXY TO EACH END, PLACE THE ENDS TOGETHER AND SLIDE THE SLEEVE OVER THE JOINT. IF AN ADAPTER COUPLING IS REQUIRED, THEN THE LAST CONNECTION IS MADE BY RETRACTING THE LAST EXPANSION JOINT, THEREBY ALLOWING ENOUGH SPACE BETWEEN THE CONDUIT ENDS TO INSTALL THE ADAPTER. AFTER THE CONNECTION HAS BEEN MADE, THE EXPANSION JOINT SHOULD BE BACK AT MID-TRAVEL.
 

\*THIS PRINCIPLE HOLDS TRUE FOR A TEMPERATURE RANGE OF APPROX. 50°-70°F ACCOUNT FOR YOUR JOBSITE AMBIENT TEMPERATURE WHEN INSTALLING EXPANSION JOINTS.
- CHECK ALL CONNECTIONS, PREEN THREADS, TACK WELD ALL NUTS TO RODS, CHECK LOW STEEL FOR CLEARANCE.
- CONTRACTOR SHALL PROVIDE FALL PROTECTION.

THE CONTRACTOR SHALL FURNISH UNLOAD DELIVER AND INSTALL THE FOLLOWING MATERIALS PER CITY OF NAPERVILLE'S SPECIFICATION FOR W.F. #54679 AT THE JEFFERSON ST. BRIDGE.  
MATERIAL LIST FOR BRIDGE WORK.  
CONDUX INTERNATIONAL, INC.  
P.O. BOX. 247  
145 KINGSWOOD RD.  
MANKATO, MN 56002-0247  
ATTN: BRIAN BAYNES (1-800-533-2077)

ITEM NO.	PART NO.	DESCRIPTION	QTY	UNIT
1	16126F3S12	CONDUIT SUPPORT HANGER: 1 HIGH X 6 WIDE FIBERGLASS AND STAINLESS STEEL, OPENING FOR SIX 6" PVC DUCTS, THREADED RODS THREE @ 3/4-10UNC X 22.50 LONG	26	EA.
2	TBA	HANGER BRACE "K" TYPE (ANGLE 2.50 X 2.50 X .38) STAINLESS	4	EA.
3	08610236	HANGER BRACE ADJUSTABLE STAINLESS	2	EA.
4	08409926	CONCRETE INSERT ADJUSTABLE: P-30 3/4-10UNC STAINLESS	78	EA.
5	TBA	FLAT BAR: 1/8IN. X 2.0IN. X 12FT STAINLESS STEEL	24	EA.
6	05101160	CONDUIT PVC SCH 40: 6" (6.62 O.D.) MEETING NEMA TC-2	900	FT.
7	05210060	CONDUIT STOP COUPLING: 6" PVC SCH 40	12	EA.
8	05170060	CONDUIT SLEEVE COUPLING: 6" PVC SCH 40	6	EA.
9	06101860	CONDUIT 5 DEGREE STOP COUPLING: 6" PVC SCH 40	24	EA.
10	06101360	CONDUIT EXPANSION JOINT O-RING TYPE: 6" PVC SCH 40	12	EA.
11	08501961	CONDUIT SPLIT STOP RING: 6" PVC SCH 40	12	EA.
12	06100260	CONDUIT ADAPTER: 6" PVC SCH 40 TO 6" GRE FEMALE THREAD	24	EA.
13	08519103	CONDUIT SOLVENT CEMENT	15	EA.

CONDUIT HANGER SUPPORTS BY CONDUX INTERNATIONAL, INC. (TOTAL 26 HANGER LOCATIONS) EXCEPT ITEM 18

CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC			
CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION			
PROJECT TITLE	MAP NO.:	CAD FILE: DWG	
JEFFERSON AV. BRIDGE DUCTBANK INSTALLATION	-	0054679001D7.DWG	
PROJECT DESCRIPTION	DRAWN BY:	PROJECT NO.:	
COORDINATED WITH BRIDGE IMPROVEMENT	JK	EU13-04-06	
DATE	WORK REQUEST NO.	CHKD:	AMERITECH:
4-01 09			
ISSUED	54679	APPRV:	SCALE:
ENGINEER PSM			NTS
REVISION	1 2 3		SHEET 7 OF 30