

THE CONTRACTOR SHALL FURNISH UNLOAD DELIVER AND INSTALL THE FOLLOWING MATERIALS PER CITY OF NAPEVILLE'S SPECIFICATION FOR W.F. #56270 AT THE 75TH STREET BRIDGE.

MATERIAL LIST FOR BRIDGE WORK.
CONDUX INTERNATIONAL, INC.
P.O. BOX. 247
145 KINGSWOOD RD.
MANKATO, MN 56002-0247
ATTN: BRAN BAYNES (1-800-533-2077)

F.A. RT. 2552	SECTION	COUNTY	TOTAL SHEETS
	00-0014-00-FV	DUPAGE	563
STA. 291	TO STA.		291
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		CONTRACT 63024

INSTALLATION GUIDE:

- BEGIN AT ONE ABUTMENT BY INSTALLING AN ADAPTER COUPLING ONTO THE CONDUIT THAT IS PROTRUDING FROM THE ABUTMENT. THIS CONDUIT IS THREADED STEEL.
- LAYOUT CONNECTIONS AT WEB-NEAR SPLICE PLATES AND DIAPHRAGM FIRST. CONTRACTOR TO ADJUST LOCATION OF COUPLINGS, CONNECTIONS, EXPANSION JOINTS TO MISS DIAPHRAGM LOCATIONS AND ARE TO BE LOCATED A MINIMUM OF ONE FOOT ON EITHER SIDE OF A DIAPHRAGM. CONTRACTOR TO TRAIN EACH CONDUIT THROUGH EACH DIAPHRAGM AND ENSURE CONDUIT IS FREE TO MOVE LONGITUDINALLY. THEN CONTINUE TO FINISH LAY OUT FROM ABUTMENT WALL TO ABUTMENT WALL. ATTACH ALL CLIPS TO WEB ON BOTH BEAMS ADJUST AS REQUIRED AND CHECK CLEARANCES INSTALL ITEM-2.
- INSTALL AS MANY SUPPORTS AS REQUIRED TO REACH THE FIRST CONDUIT JOINT. THE CONTRACTOR SHALL INSTALL HANGER SYSTEM TO ALLOW THE CONDUIT TO MOVE AND TO BE SURE THE SPACER TUBE IS CUT TO ALLOW THE RODS TO BE TORQUED WITHOUT RESTRICTING CONDUIT MOVEMENT. INSTALL NYLON WASHER BETWEEN STAINLESS STEEL NUTS AND WEATHERING STEEL ANGLE TO PROVIDE AN INSULATOR BETWEEN MATERIALS.
- 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.
- 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.

- A. 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.
- B. NO EXPANSION JOINT SHOULD BE CLOSER THAN 12 INCHES TO ANY SUPPORT. THE IDEAL LOCATION IS 1/4 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.

- 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 JOB SITE AMBIENT TEMPERATURE WHEN INSTALLING EXPANSION JOINTS.

- CHECK ALL CONNECTIONS, MAKE FINAL ADJUSTMENTS, TORQUE BOLTS, PREEN THREADS, TACK WELD ALL NUTS TO RODS, CHECK LOW STEEL FOR CLEARANCE. THIS IS A FINAL CHECK PRIOR TO APPROVAL BY THE CITY.
- CONTRACTOR SHALL PROVIDE FALL PROTECTION.

MATERIAL LIST FOR WEST BOUND LANES (WF #56270)

ITEM	BILL OF MATERIALS (UNDER BRIDGE SUPPORT SYSTEM) PURCHASE BY CONTRACTOR	UNIT	QTY.	PRODUCT NO.
1	HANGER, 11'-6W, FIBERGLASS & STAINLESS STEEL, OPENING FOR 6" PVC DUCT THREADED RODS: 3/4"-10 X 24" LONG WITH (S.S. MOUNTING HARDWARE) NUTS, BOLTS AND WASHERS	ASSEMBLY	33	16125F3512
2	L 2 1/2" X 2 1/2" X 3/8" X 6'-7 1/2" LONG ASTM A709 GRADE 50W (SEE PAGE 48 FOR DETAIL-Q1)	EACH	33	TBA
3	L 4" X 4" 1/2" X 0'-6" LONG ASTM A709 GRADE 50W ANGLE (SEE PAGE 48 FOR DETAIL)	EACH	66	TBA
4	3/4" BOLT X 3" LONG, ASTM A325 TYPE 3	EACH	198	TBA
5	N/A	N/A	N/A	N/A
6	FLAT BAR: 1/8 X 2.0 X 12 FT. STAINLESS STEEL 316 (BAR BRACE A)	EACH	26	00166100
7	HEX NUT: 3/4"-10 UNC ASTM A563 GRADE D13 TYPE 3	EACH	392	
8	LOCK WASHER: 3/4" ASTM F436	EACH	392	
9	FLAT WASHER: 3/4" ASTM F436	EACH	784	
10	CONDUIT, SCH 40/6.00" UL CONDUIT: 6" PVC SCH 40 UL MEETING NEMA TC-2, UL651 (10' LENGTH)/ PURCHASED FROM CONDUX	FEET	960	05101160
11	CPLG. EXP PVC-6.62 SC40-BIN EXPANSION JOINT: 6" SCH 40 WITH O-RING	EACH	12	06101360
12	CPLG. 6.62 ID PVC-STOP COUPLING STOP: 6" SCH 40 PVC	EACH	12	05210060
13	RING, STOP 6.62 ID PVC SCH 40	EACH	12	08501961
14	SOLVENT CEMENT 32 OZ-FAST SET AS REQUIRED	EACH	12	08519103
15	ADAPTER: 6" PVC TO 6" THREADED FEMALE	EACH	12	05170360
16	COUPLING 5 DEG RET STOP PVC SCH 40	EACH	24	06101860
17	6" RIGID GALVANIZED CONDUIT - 11 TEN FOOT (10') LENGTH (BY CONTRACTOR)	EACH	36	TBA
18	6" PVC ADAPTER THREADED ON ONE END-SOCKET ON OTHER (BY CONTRACTOR)	EACH	72	06100280
19	FLAT WASHER, 3/4" ASTM STAINLESS STEEL 316 (2" DIA.)	EACH	210	02125200
20	LOCK WASHER, 3/4" STAINLESS STEEL 316	EACH	186	02125300
21	ACETAL DELRIN, NATURAL WHITE WASHER 1/4" THICK	EACH	105	
22	ACETAL DELRIN, NATURAL WHITE WASHER WITH COLLAR 1/4" THICK	EACH	105	
23	HEX NUT 3/4"-10 UNC STAINLESS STEEL 316	EACH	287	02125100
24	WASHER, 3/4" ASTM STAINLESS STEEL 316	EACH	210	02125100

MATERIAL LIST FOR EAST BOUND LANES (WF #56270)

ITEM	BILL OF MATERIALS (UNDER BRIDGE SUPPORT SYSTEM) PURCHASE BY CONTRACTOR	UNIT	QTY.	PRODUCT NO.
1	HANGER, 11'-6W, FIBERGLASS & STAINLESS STEEL, OPENING FOR 6" PVC DUCT THREADED RODS: 3/4"-10 X 24" LONG WITH (S.S. MOUNTING HARDWARE) NUTS, BOLTS AND WASHERS	ASSEMBLY	33	16125F3512
2	L 2 1/2" X 2 1/2" X 3/8" X 6'-7 1/2" LONG ASTM A709 GRADE 50W (SEE PAGE 48 FOR DETAIL-Q2)	EACH	33	TBA
3	L 4" X 4" 1/2" X 0'-6" LONG ASTM A709 GRADE 50W ANGLE (SEE PAGE 48 FOR DETAIL)	EACH	66	TBA
4	3/4" BOLT X 3" LONG, ASTM A325 TYPE 3	EACH	198	TBA
5	N/A	N/A	N/A	N/A
6	FLAT BAR: 1/8 X 2.0 X 12 FT. STAINLESS STEEL 316 (BAR BRACE A)	EACH	26	00166100
7	HEX NUT: 3/4"-10 UNC ASTM A563 GRADE D13 TYPE 3	EACH	392	
8	LOCK WASHER: 3/4" ASTM F436	EACH	392	
9	FLAT WASHER: 3/4" ASTM F436	EACH	784	
10	CONDUIT, SCH 40/6.00" UL CONDUIT: 6" PVC SCH 40 UL MEETING NEMA TC-2, UL651 (12' LENGTH)/ PURCHASED FROM CONDUX	FEET	960	05101160
11	CPLG. EXP PVC-6.62 SC40-BIN EXPANSION JOINT: 6" SCH 40 WITH O-RING	EACH	12	06101360
12	CPLG. 6.62 ID PVC-STOP COUPLING STOP: 6" SCH 40 PVC	EACH	12	05210060
13	RING, STOP 6.62 ID PVC SCH 40	EACH	12	08501961
14	SOLVENT CEMENT 32 OZ-FAST SET AS REQUIRED	EACH	12	08519103
15	ADAPTER: 6" PVC TO 6" THREADED FEMALE	EACH	12	05170360
16	COUPLING 5 DEG RET STOP PVC SCH 40	EACH	24	06101860
17	6" RIGID GALVANIZED CONDUIT - 11 TEN FOOT (10') LENGTH (BY CONTRACTOR)	EACH	36	TBA
18	6" PVC ADAPTER THREADED ON ONE END-SOCKET ON OTHER (BY CONTRACTOR)	EACH	72	06100280
19	FLAT WASHER, 3/4" ASTM STAINLESS STEEL 316 (2" DIA.)	EACH	210	02125200
20	LOCK WASHER, 3/4" STAINLESS STEEL 316	EACH	186	02125300
21	ACETAL DELRIN, NATURAL WHITE WASHER 1/4" THICK	EACH	105	
22	ACETAL DELRIN, NATURAL WHITE WASHER WITH COLLAR 1/4" THICK	EACH	105	
23	HEX NUT 3/4"-10 UNC STAINLESS STEEL 316	EACH	287	02125100
24	WASHER, 3/4" ASTM STAINLESS STEEL 316	EACH	210	02125100

BOLT TORQUE

BOLT SIZE (DIAMETER)	A325 TYPE 3
3/4"	130 FT/LBS.

THE VALUES ARE STATED IN FOOT POUNDS

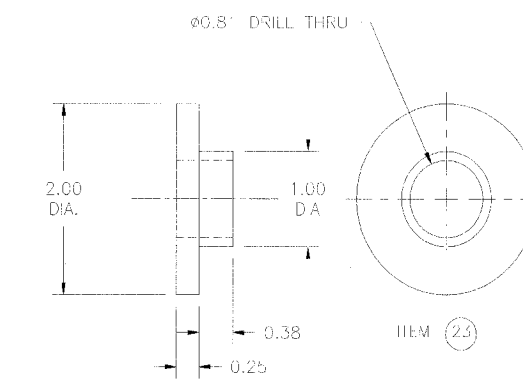
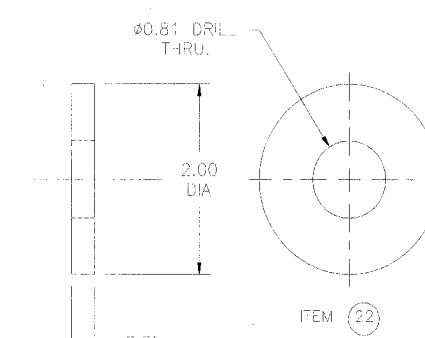
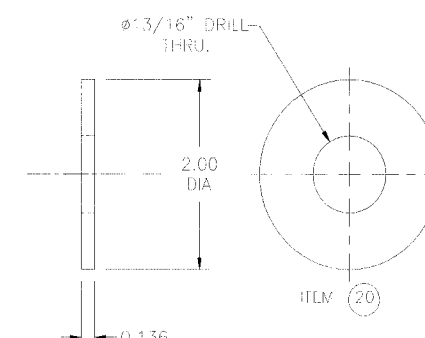
NOTE:

THE CONTRACTOR SHALL ALLOW 24 TO 30 WEEKS FOR THE ABOVE MATERIALS TO BE DELIVERED TO JOB SITE AFTER CONFIRMATION FROM CONDUX THAT THE P.O. HAS BEEN RECEIVED IN THE CONDUX OFFICE.

CONDUIT HANGER SUPPORTS BY CONDUX INTERNATIONAL, INC.

CONTRACTOR TO COUNT ALL ITEMS AND ALL MATERIALS PRIOR TO INSTALLATION. ANY ITEMS MISSING SHALL BE ORDERED BY THE CONTRACTOR WITH SUFFICIENT LEAD TIME TO AVOID DELAYS.

CONDUIT HANGER SUPPORTS BY CONDUX INTERNATIONAL, INC.



WF# INFORMATION

WF# 59451	WASHINGTON ST. 75TH TO OLYMPIUS DR. EAST SIDE	JOB 1	EU-73
WF# 59452	75TH WASHINGTON ST. TO OLYMPIUS DR. NORTH SIDE	JOB 2	EU-73
WF# 59454	75TH WASHINGTON ST. TO CLYDE DR. SOUTH SIDE	JOB 3	EU-73
WF# 59455	WASHINGTON ST. 75TH TO BAILEY RD. EAST SIDE	JOB 4	EU-73

CITY OF NAPEVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC

CALL 7 JULY 11, 48 HRS. PRIOR TO CONSTRUCTION

PROJECT TITLE: 75TH ST. AND WASHINGTON ST. ROAD IMPROVEMENTS

PROJECT INFORMATION: MAP NO. 0012-06-23, SHEET 50 OF 73

DATE: 7/11/08

DESIGNED BY: [Signature]

CHECKED BY: [Signature]

APPROVED BY: [Signature]

SCALE: NTS