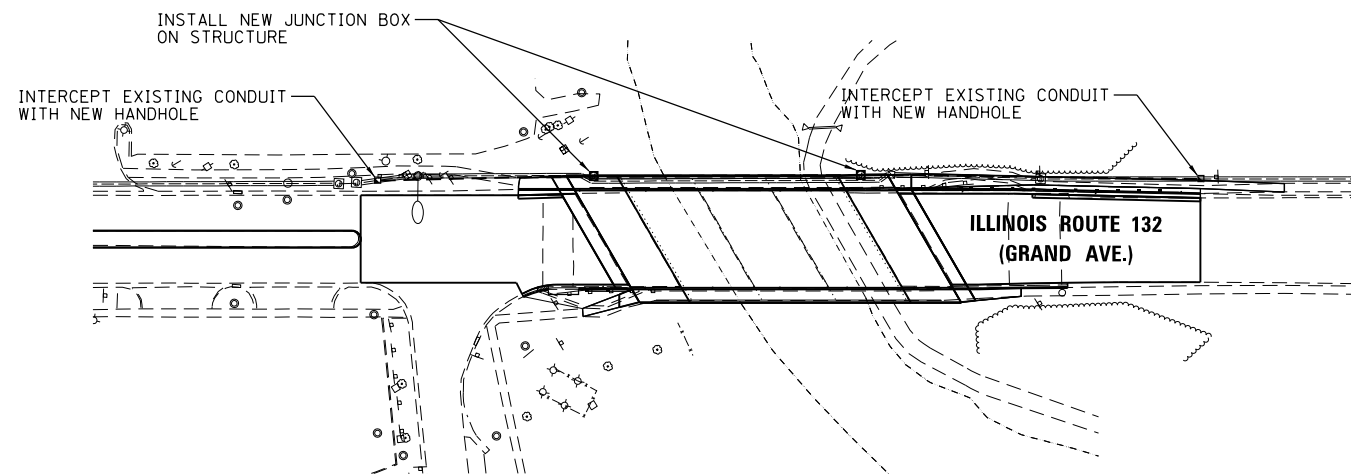


**INTERCONNECT SCHEMATIC**

**INTERCONNECT SCHEMATIC LEGEND**

- ☒ EXISTING INTERSECTION CONTROLLER
- EMC EXISTING MASTER CONTROLLER
- ⊠ SAMPLING (SYSTEM) DETECTOR
- PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR
- ② EXISTING LOOP DETECTOR CABLE, 2/C TWISTED, SHIELDED
- ① EXISTING TRACER CABLE, NO. 14 1/C
- ③⑥ PROPOSED INTERCONNECT CABLE NO. 62.5/125, 24F MULTIMODE AND 12F SINGLE MODE
- ② EXISTING LOOP DETECTOR CABLE, 2/C TWISTED, SHIELDED
- ⊠ EXISTING TELEPHONE CONNECTION



**DETAIL A**

**INTERCONNECT SCHEMATIC NOTES**

1. EXISTING FIBER OPTIC CABLE SHALL BE PULLED OUT OF THE EXISTING CONDUIT BETWEEN THE MASTER CONTROLLER AT IL RTE 21 (RIVERSIDE DR) AND O'PLAINE ROAD. EXISTING TRACER CABLE MAY BE DISCONNECTED AND PULLED BACK FROM THE RIVERSIDE CONTROLLER TO THE PROPOSED HANDHOLE IMMEDIATELY EAST OF THE BRIDGE OVER THE DES PLAINES RIVER AND SPOOLED AND PROTECTED AT THIS LOCATION FOR THE DURATION OF BRIDGE CONSTRUCTION. AFTER BRIDGE CONSTRUCTION IS COMPLETED AND NEW JUNCTION BOXES AND CONDUIT ARE INPLACE, THE EXISTING TRACER CABLE SHALL BE REINSTALLED IN THE CONDUIT TO THE RIVERSIDE CONTROLLER. IF TRACER CABLE IS NOT SALVAGEABLE, PROVIDE NEW 1C TRACER CABLE. THE REMOVAL OF EXISTING FIBER OPTIC CABLE AS WELL AS THE REMOVAL AND REINSTALLATION OF EXISTING TRACER CABLE SHALL NOT BE PAID FOR SEPERATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE NEW FIBER OPTIC CABLE.
2. AFTER BRIDGE CONSTRUCTION IS COMPLETED, INSTALL NEW 36 FIBER (24 MULTIMODE 12 SINGLEMODE) OPTIC CABLE BETWEEN THE IL 21 (RIVERSIDE DR.) CONTROLLER AND THE EXISTING CONTROLLER AT O'PLAINE RD.
3. ANY HARDWARE OR ACCESSORIES REQUIRED TO ATTACH THE NEW CONDUIT TO THE JUNCTION BOXES OR TO THE EXISTING CONDUIT WILL NOT BE PAID FOR SEPERATELY, BUT SHALL BE INCLUDED WITH THE CONTRACT UNIT PRICE BID FOR "CONDUIT ATTACHED TO STRUCTURE, 2" DIA., PVC COATED GALVANIZED STEEL."
4. SEE SPECIFICATIONS AND SPECIAL PROVISIONS FOR MORE INFORMATION.
5. CONTRACTOR MUST NOTIFY LAKE COUNTY DIVISION OF TRANSPORTATION THAT THIS WORK WILL AFFECT THEIR ICON (FIBER) SYSTEM. TRAFFIC SIGNAL PLANS SHALL BE PROVIDED TO LAKE COUNTY DIVISION OF TRANSPORTATION FOR THEIR REVIEW.
6. INTERCEPT EXISTING CONDUIT ON EACH SIDE OF THE BRIDGE AND PROVIDE A NEW HANDHOLE IN A LOCATION WHICH WILL NOT BE DISTURBED DURING BRIDGE CONSTRUCTION. REMOVE ANY EXISTING HANDHOLES AND CONDUIT BETWEEN THE NEW HANDHOLE PROVIDED AND EXISTING BRIDGE.
7. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL PROPOSED MATERIALS FOR INSTALLING EXPOSED RACEWAYS AS SPECIFIED IN SECTION 811 OF THE STANDARD SPECIFICATIONS.
8. THE EXPOSED CONDUIT ACROSS THE STRUCTURE SHALL BE ATTACHED TO THE UNDERSIDE OF THE CANTILEVERED SIDEWALK / EXTENDED BRIDGE DECK AS SHOWN ON THE STRUCTURAL PLANS. THIS PLACEMENT WILL CONTINUE ONTO THE PRECAST BRIDGE APPROACH SLABS ON EACH SIDE OF THE STRUCTURE. THE JUNCTION CABINET SHALL BE ATTACHED TO THE CAST-IN-PLACE UNDERSIDE OF THE CANTILEVERED SIDEWALK AND OUTER SIDE OF THE CONCRETE WEARING SURFACE WHICH ARE CONSTRUCTED ATOP THE PRECAST BRIDGE APPROACH SLAB. THE CONTRACTOR SHALL PROVIDE WORKING DRAWINGS THAT DETAIL ALL CONDUIT AND JUNCTION BOX ATTACHMENTS TO THE STRUCTURE.

**BILL OF MATERIAL**

CODE	PAY ITEM	UNIT	QUANTITY
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	335
81300830	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 18" X 18" X 8"	EACH	2
81400100	HANDHOLE	EACH	3
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2
87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	3630
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	24
88600100	DETECTOR LOOP, TYPE I	FOOT	66
89502380	REMOVE EXISTING HANDHOLE	EACH	3
X0325938	TEMPORARY WIRELESS INTERCONNECT, COMPLETE	L SUM	1
X8710040	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM24F SM12F	FOOT	3630
Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	2
	CONDUIT ATTACHED TO STRUCTURE, 2" DIA. RIGID GALVANIZED STEEL, PVC COATED	FOOT	150

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USER NAME = JPS	DESIGNED - KC	REVISED -
PLOT SCALE =	DRAWN - KC	REVISED -
PLOT DATE = 12/19/2013	CHECKED - MCH	REVISED -
	DATE - 12/17/13	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL 132 (GRAND AVE.) OVER DES PLAINES RIVER  
INTERCONNECT SCHEMATICS**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	X-6-B-1-1	LAKE	93	40
CONTRACT NO. 60N22				
ILLINOIS FED. AID PROJECT				