

**SUGGESTED CONSTRUCTION SEQUENCE**

1. Install all steel H piles (Stage 3A) and approach pit (as needed) for jump span at both abutments (between trains with flagmen).  
The existing fiber optic lines will be in service at their existing locations. See Construction Staging - Fiber Optic Relocations.
2. Install H piles for temporary soil retention between Tracks Main 1 and 2. This work could be performed during available track shutdown or during installation of steel H piles for jump spans.
3. Verify the locations of all existing utilities, including the existing 84" sewer, prior to the start of work.

**NOTE:**

THE STAGING PROCEDURES SHOWN IN THE PLANS ARE A SUGGESTED METHOD FOR CONSTRUCTION SEQUENCE AND OPERATIONS AND AS A GUIDE FOR THE SAFE DIVERSION OF TRAFFIC DURING THE EXECUTION OF THIS CONTRACT. THE CONTRACTOR, AT HIS OR HER OPTION, MAY SUBMIT AN ALTERNATE STAGING OR TRAFFIC CONTROL PLAN FOR APPROVAL BY THE ENGINEER.

**STAGE 3A - CONSTRUCTION SEQUENCE - JUMP SPAN INSTALLATION (WEST HALF)**

- PHASE 1:  
1. REMOVE B&O SIDING AND MAIN 2 TRACKS (TRACK SHUTDOWN - 10 HOURS).
- PHASE 2:  
2. EXCAVATE TO BOTTOM OF JUMP SPAN CAP BEAM ELEVATION.  
3. CUT STEEL H-PILES AT BOTTOM OF JUMP SPAN CAP BEAM ELEVATION.
- PHASE 3:  
4. INSTALL LAGGING BETWEEN MAIN 1 AND MAIN 2 TRACKS.  
5. INSTALL STRUCTURAL STEEL FOR JUMP SPAN INCLUDING CAP BEAM AND JUMP SPAN BEAM.
- PHASE 4:  
6. INSTALL TEMPORARY B&O SIDING AND MAIN 2 TRACK ASSEMBLY AND MAKE CONNECTIONS (TRACK OPERATIONS RESUME).

**STAGE 3A - CONSTRUCTION SEQUENCE - JUMP SPAN INSTALLATION (EAST HALF)**

- PHASE 1:  
1. REMOVE MAIN 1 AND CONTROLLED SIDING TRACKS (TRACK SHUTDOWN - 10 HOURS).
- PHASE 2:  
2. EXCAVATE TO BOTTOM OF JUMP SPAN CAP BEAM ELEVATION.  
3. CUT STEEL H-PILES AT BOTTOM OF JUMP SPAN CAP BEAM ELEVATION.
- PHASE 3:  
4. INSTALL STRUCTURAL STEEL FOR JUMP SPAN INCLUDING CAP BEAM AND JUMP SPAN BEAM.
- PHASE 4:  
5. INSTALL TEMPORARY MAIN 1 AND CONTROLLED SIDING TRACK ASSEMBLY AND MAKE CONNECTIONS (TRACK OPERATIONS RESUME).

**STAGE 3B - CONSTRUCTION SEQUENCE - FOOTINGS AND ABUTMENTS**

- PRIOR TO 24 HOUR OUTAGES:  
1. WITHIN BOTH JUMP SPANS EXCAVATE TO BOTTOM OF ABUTMENT FOOTING AND INSTALL WALERS AND STRUTS (TRACK OPERATIONS NOT AFFECTED).  
2. CONSTRUCT ABUTMENT FOOTINGS/WALLS MODIFYING THE STRUTS (TRACK OPERATIONS NOT AFFECTED).

**STAGE 4A - CONSTRUCTION SEQUENCE - BRIDGE INSTALLATION (WEST HALF)**

- PHASE 1:  
1. REMOVE B&O SIDING AND MAIN 2 TRACKS AND PORTION OF JUMP SPAN STRUCTURAL STEEL (TRACK SHUTDOWN - 24 HOURS).  
2. EXCAVATE 1' MINIMUM BELOW THE BEARING ELEVATION ALONG ENTIRE LENGTH OF BRIDGE (1/2 WIDTH, EXCLUDING JUMP SPANS).  
3. CUT STEEL H-PILES IN FRONT OF ABUTMENTS TO MAKE ROOM FOR PLATE GIRDERS.
- PHASE 2:  
4. INSTALL PORTION OF ABUTMENT BACKWALLS AND BEARINGS.  
5. PLACE BACKFILL BEHIND ABUTMENTS AND BACKWALLS.
- PHASE 3:  
6. INSTALL SUPERSTRUCTURE AND BALLAST (1/2 WIDTH).
- PHASE 4:  
7. INSTALL B&O SIDING AND MAIN 2 TRACKS ASSEMBLY AND MAKE CONNECTIONS (TRACK OPERATIONS RESUME).

**STAGE 4B - CONSTRUCTION SEQUENCE - BRIDGE INSTALLATION (EAST HALF)**

- PHASE 1:  
1. REMOVE MAIN 1 AND CONTROLLED SIDING TRACKS AND PORTION OF JUMP SPAN STRUCTURAL STEEL (TRACK SHUTDOWN - 24 HOURS).  
2. EXCAVATE 1' MINIMUM BELOW THE BEARING ELEVATION ALONG ENTIRE LENGTH OF BRIDGE (1/2 WIDTH, EXCLUDING JUMP SPANS).  
3. CUT STEEL H-PILES IN FRONT OF ABUTMENTS TO MAKE ROOM FOR PLATE GIRDERS.
- PHASE 2:  
4. INSTALL PORTION OF ABUTMENT BACKWALLS AND BEARINGS.  
5. PLACE BACKFILL BEHIND ABUTMENTS AND BACKWALLS.
- PHASE 3:  
6. INSTALL SUPERSTRUCTURE AND BALLAST (1/2 WIDTH).
- PHASE 4:  
7. INSTALL MAIN 1 AND CONTROLLED SIDING TRACKS ASSEMBLY AND MAKE CONNECTIONS (TRACK OPERATIONS RESUME).

**STAGE 5 - CONSTRUCTION SEQUENCE - ROADWAY**

1. EXCAVATE BELOW THE BRIDGE SUPERSTRUCTURE FOR ROADWAY CONSTRUCTION REMOVING LONGITUDINAL SHEETING IN SEGMENTS BY BURNING (TRACK OPERATIONS NOT AFFECTED).
2. REMOVE STRUTS, CUT OFF AND BURY STEEL H-PILES IN FRONT OF ABUTMENTS (TRACK OPERATIONS NOT AFFECTED).
3. INSTALL ROADWAY PAVEMENT AND SIDEWALK (TRACK OPERATIONS NOT AFFECTED).

**CONSTRUCTION STAGING - Fiber Optic Relocations**

NOTES:  
THE PROCEDURES SHOWN IN THE PLANS ARE A SUGGESTED METHOD FOR CONSTRUCTION SEQUENCE OF THE FIBER OPTIC LINE RELOCATIONS. THE CONTRACTOR, AT HIS OR HER OPTION, MAY SUBMIT AN ALTERNATE PLAN FOR APPROVAL BY THE ENGINEER AND THE INVOLVED FIBER OPTIC COMPANY(S).

SEE THE SPECIAL PROVISIONS FOR CONTACT INFORMATION.

**SEQUENCE OF WORK**

WORK TO BE PERFORMED BY THE CONTRACTOR:

1. PRIOR TO BEGINNING WORK IN THE CSXT ROW, EXPOSE AND FIELD LOCATE THE EXISTING FIBER OPTIC LINES. (WORK PAID FOR AS LOCATING UNDERGROUND CABLE, SPECIAL)
2. ADJUST PROPOSED PILE LAYOUT AS-NEEDED TO AVOID THE EXISTING LINES SUBJECT TO THE APPROVAL OF THE ENGINEER.
3. LEAVE A KNOCK-OUT POINT IN LAGGING FOR EXISTING CROSSING. SUPPORT AND PROTECT THE LINES DURING EXCAVATION WORK FOR THE ABUTMENTS.
4. PLACE A SLEEVE IN THE PROPOSED ABUTMENT WALL TO MAINTAIN THE EXISTING LINE IN PLACE. (IF NEEDED BASED ON THE EXISTING FIELD LOCATIONS AND TIMING OF FIBER OPTIC RELOCATION WORK.)

WORK TO BE PERFORMED BY THE FIBER OPTIC OWNER/OPERATOR:

5. AFTER INSTALLATION OF THE PILES FOR THE JUMP SPANS, RELOCATE THE EXISTING FIBER OPTIC LINE(S) UNDERNEATH THE PROPOSED IMPROVEMENTS (APPROXIMATE ELEVATION 580 OR LESS.). RELOCATION WORK TO BE PERFORMED AS A DIRECTIONAL BORE OPERATION.
6. UTILIZE AN EXISTING SPLICE POINT (OR CREATE A NEW SPLICE POINT) AND CUT OVER TO THE NEW FIBER OPTIC LINE.
7. REMOVE EXISTING CABLE AND CONDUIT.

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Suggested Details Only,  
Final Design and Details  
by the Contractor.



USER NAME = krtzm	DESIGNED - BMR	REVISED -
PLOT SCALE = 0:1.0000 1' / in.	DRAWN - JH	REVISED -
PLOT DATE = 3/16/2011	CHECKED - DD	REVISED -
	DATE - 11/23/2010	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUGGESTED CONSTRUCTION SEQUENCE  
STRUCTURE NO. 016-7721

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1537	06-00050-00-GS	COOK	209	111
SCALE: SHEET NO. 18 OF 65 SHEETS STA. TO STA.			CONTRACT NO. 63556	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT CRE-9003(T09)				