

SAMPLE

SPECIAL INSPECTION OF 24 STATE OWNED FCM BRIDGES

**STRUCTURE NO. 0905-130
EAST 30th STREET OVER BAYONNE BRANCH
(NJ TRANSIT HUDSON BERGEN LIGHT RAIL AND CONRAIL)
CITY OF BAYONNE
HUDSON COUNTY**

Scope of Field Inspection Work in NJ Transit Hudson Bergen Light Rail Right of Way

(DATE)
Prepared By:

(Name of Company)

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1. SCOPE OF WORK

a. Description:

Structure No. 0905-130, East 30th Street over Bayonne Branch is a single span, simply supported, composite welded steel plate through girder with floorbeams supporting a reinforced concrete deck slab. The bridge which is owned and maintained by the State of New Jersey is categorized as Fracture Critical due to its two girder configuration. According to federal regulations, all Fracture Critical (FCM) bridges require a special inspection of their Fracture Critical components for early detection of structural deficiencies in order to avoid catastrophic failure. IH Engineers, PC was contracted by NJDOT in order to perform the Special Inspection on the structure. The inspection will require non-destructive testing that is limited to the fascia girders (FCM Members). We are planning to utilize an under bridge inspection equipment (UB60) for access.

b. Location:

The bridge carries East 30th Street over NJ Transit Hudson Bergen Light Rail and Conrail Tracks in the City of Bayonne, Hudson County. The work will be performed on the entire span that crosses the NJ Transit light rail (2 Tracks) and Conrail (2 Tracks) at RR MP. 5.69.

2. WORK SCHEDULE:

a. Planned Start Date:

Based on the project schedule approved by NJDOT the inspection is supposed to be performed on 4/9/19. However since the permit process takes time the inspection of the structure can be performed shortly after NJ transit review of this submittal and permission is granted by NJ Transit to proceed with the inspection.

b. Work Hours:

The work above the railroad tracks will start at night after NJ Transit Light Rail service hours or as approved by NJ Transit till the early morning.

c. Duration:

Field inspection work above the railroad tracks should be completed within one night, weather permitting.

3. WORK PROCEDURES:

- a. The field work will start with the closure of the right lane in East 30th Street westbound traffic direction utilizing a vendor. Prior to the start of work all inspection/ testing personnel will attend a safety briefing in order to follow instructions issued by the NJ Transit/Conrail approved Flagman and the A-Man. After the briefing the A-Man will proceed with the power outage and grounding activities associated with the Light Rail catenary wires below the structure.

Our Inspection team will then use a UB60 under bridge inspection equipment to access the north fascia girder. A certified technician will perform non-destructive testing of the girder transition welds and floorbeam connection welds at the girder bottom flange. The inspection/testing will be conducted at several locations throughout the girder length and the results will be documented. After the completion of the north fascia girder inspection, the right lane in East 30th Street eastbound will be closed to traffic and the same process will

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take place in order to complete the inspection/testing of the south fascia girder welds. All work will be conducted within the fouling zone at the presence of the Flagman and the A-Man.

b. Equipment

On NJ Transit Right of Way:

Inspection equipment such as measuring tape; level; flash lights; paint grinder; note pads, camera; D-meter and marking keels will be utilized by the inspection team. Testing equipment such as Magnetic Particle (MT) and Ultrasonic (UT) testing kits along with associated power tools will be utilized.

c. Crew Size

The crew utilizing the NJ Transit Right of Way will be comprised of 3 individuals ((1) Team Leader, (1) Assistant Team Leader and (1) Testing Technician). The UB60 Operator and the MOT personnel will remain at the top of the bridge during the inspection.

d. Communications

The inspection crew will utilize 2-way radios and cell phones.

e. Site Access

Site access will be granted for working personnel that with current NJ Transit safety training certificates. Material utilized will be as per the access approval provided by NJ Transit.

4. SAFETY

a. All workers will attend the railroad workers safety training class.

A flagging watchman will be provided by Conrail (Inspection work to be performed during power outage). All work at the bridge will be within the fouling zone as outlined in NJ Transit Temporary permit Documents. All workers at the bridge will be wearing yellow reflective safety vests and approved inspection gear. All workers will follow the instructions provided by the Flagman and the A-Man in the safety briefing and throughout the work duration. Working personnel will secure all loose equipment at all times during inspection.

5. QUALITY ASSURANCE

- a. IH Engineers, PC will provide the FCM Inspection Team while MISTRAS Corporation will provide the Certified Testing Technician. Both companies will follow all Quality Assurance policies and Procedures which have been submitted and approved by our client NJDOT. All work will follow specified quality standards in order to insure accurate testing results and inspection procedures and provide proper structural evaluation of the structure FCM members.