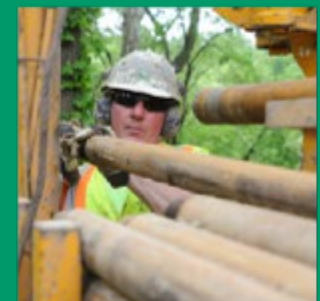
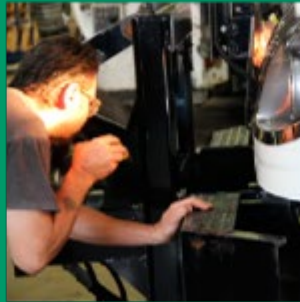


DECORATIVE PRECAST BRIDGE ELEMENTS

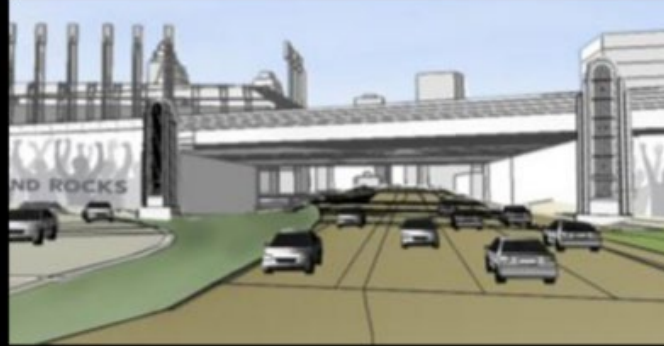
NCC FALL 2019 KALISPELL, MT, SEPT. 10, 2019



OHIO DEPARTMENT OF
TRANSPORTATION

INNERBELT BRIDGE PROJECT

Gateway PORTAL COMPARISON

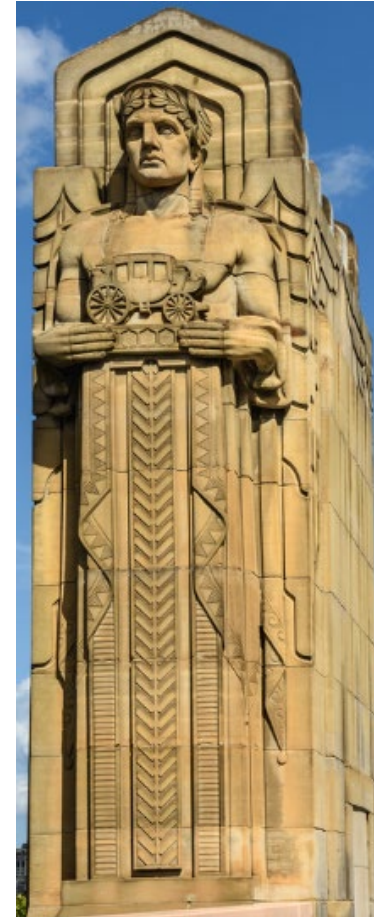


JANUARY 2013



As Approved by City of Cleveland Planning Commission 4-19-13

C|S|S



INNERBELT BRIDGE PROJECT



INNERBELT BRIDGE PROJECT

- Casting Requirements per Spec
 - Use Qualified Prestressed Supplier (Supplement 1079)
 - Submit Contractor Approved Shop Drawings
 - Required a prefabrication Meeting
 - Sealed at the facility prior to shipment

INNERBELT BRIDGE PROJECT

ITEM 501 STRUCTURES—GENERAL

501.01 General. This specification includes the general requirements for building the various items that constitute the completed structure.

Perform the work, including fabrication, erection, and construction, so that the entire structure and all its component parts will function as designed.

501.02 Verification of Dimensions. Verify that all dimensions established by the Engineer are correct.

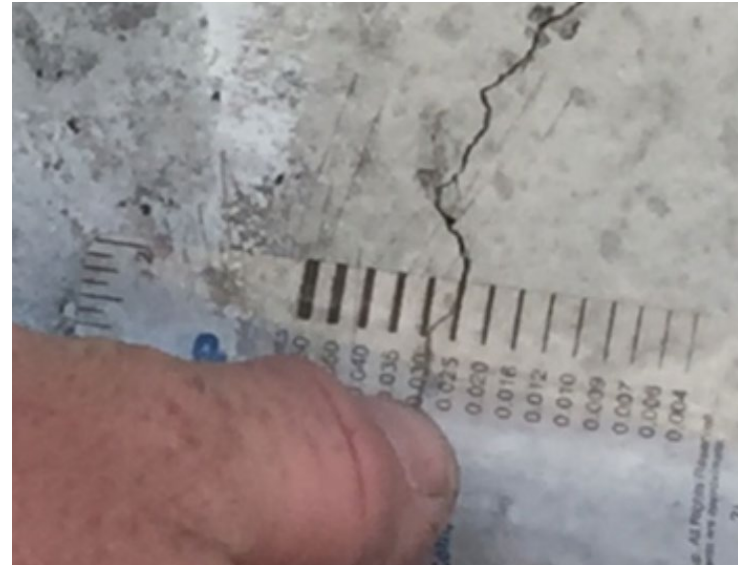
501.03 Notification of Fabricator. When furnishing materials under Items [513](#), [515](#), [516](#), [517](#), and [518](#), select a fabricator from the pre-qualified fabricators list in effect the date of the Contract letting. Before or at the preconstruction conference, provide a written notification to the DCA and [OMM](#) of the selected steel fabricators and precast concrete fabricators.

501.04 Shop Drawings. Provide shop drawings detailing structural steel, metal structural elements, prestressed concrete members, precast concrete structural elements, and other similar materials requiring either shop or field fabrication. Include the PID (Project Identification Number).

A. Contractor Acceptance of Shop Drawings for Items 513 and 515. Submit shop drawings to the [OMM](#) and the District Office of Planning and Engineering before the start of fabrication on Item [513](#), UF Level or at least 3 days before the pre-fabrication meeting, per [513.07](#) or [515.07](#) as follows:

INNERBELT BRIDGE PROJECT

- Issues at Production
 - Minor cracking
 - Resolved with Epoxy Injection



INNERBELT BRIDGE PROJECT (ONTARIO)



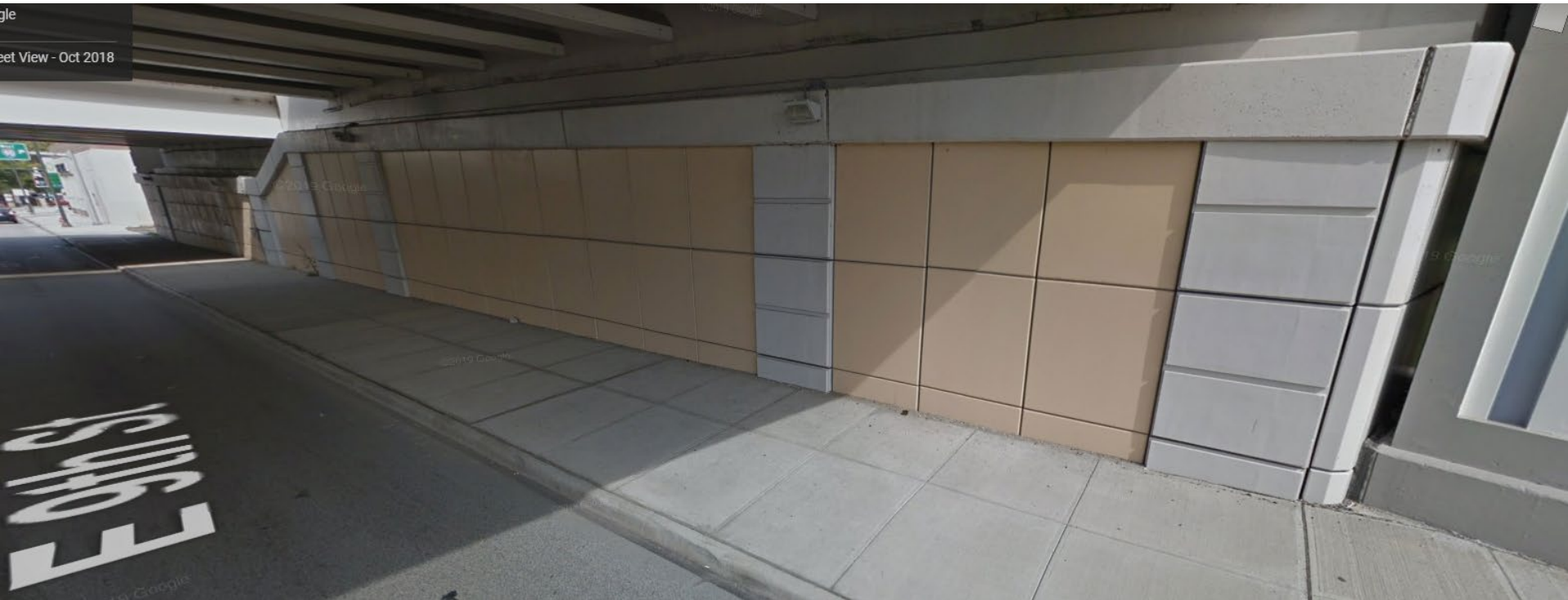
INNERBELT BRIDGE PROJECT (E. 9TH ST.)



INNERBELT BRIDGE PROJECT E. 9TH ST.

- MSE Wall Panels
- Certified under Supplement 1073
- Designs Approved by OGE and OSE
- Form liners provided by Design
 - RECO
 - SINE
 - Redi-Rock

INNERBELT BRIDGE PROJECT E. 9TH ST.



WATERVILLE BRIDGE PROJECT



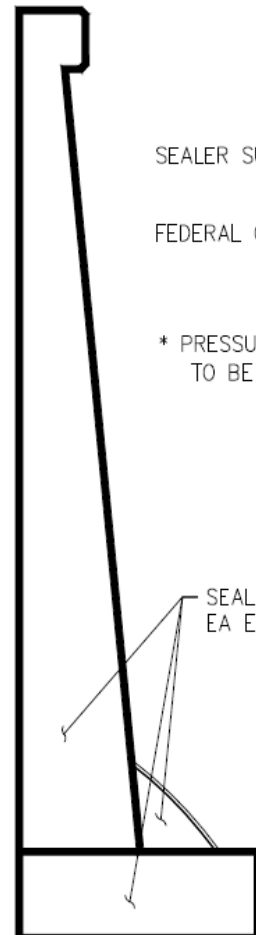
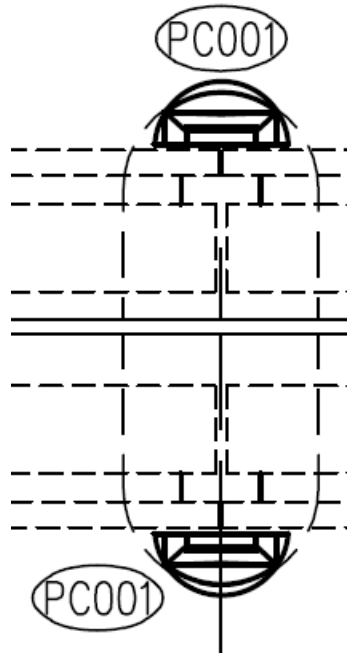
DESIGN REQUIREMENTS

- Plans required supplier to be S1079 Certified
- Required use of different mix design than standard prestress box/I-beam mix
- Shop drawing submittal required and prefabrication meeting required prior to production

PRODUCTION CONCERNS

- Fabricator did not notify Department
- Cast product without inspection
- New products cast due issues with product
 - Dimensional tolerances
 - Wrong mix design used
- Led to review and discussion of the pier ends that had been cast

WATERVILLE BRIDGE PROJECT SHOP DWG



SEALER DETAIL
END CAP A

SEALER SUPPLIED BY CONTRACTOR,
APPLIED BY PS.

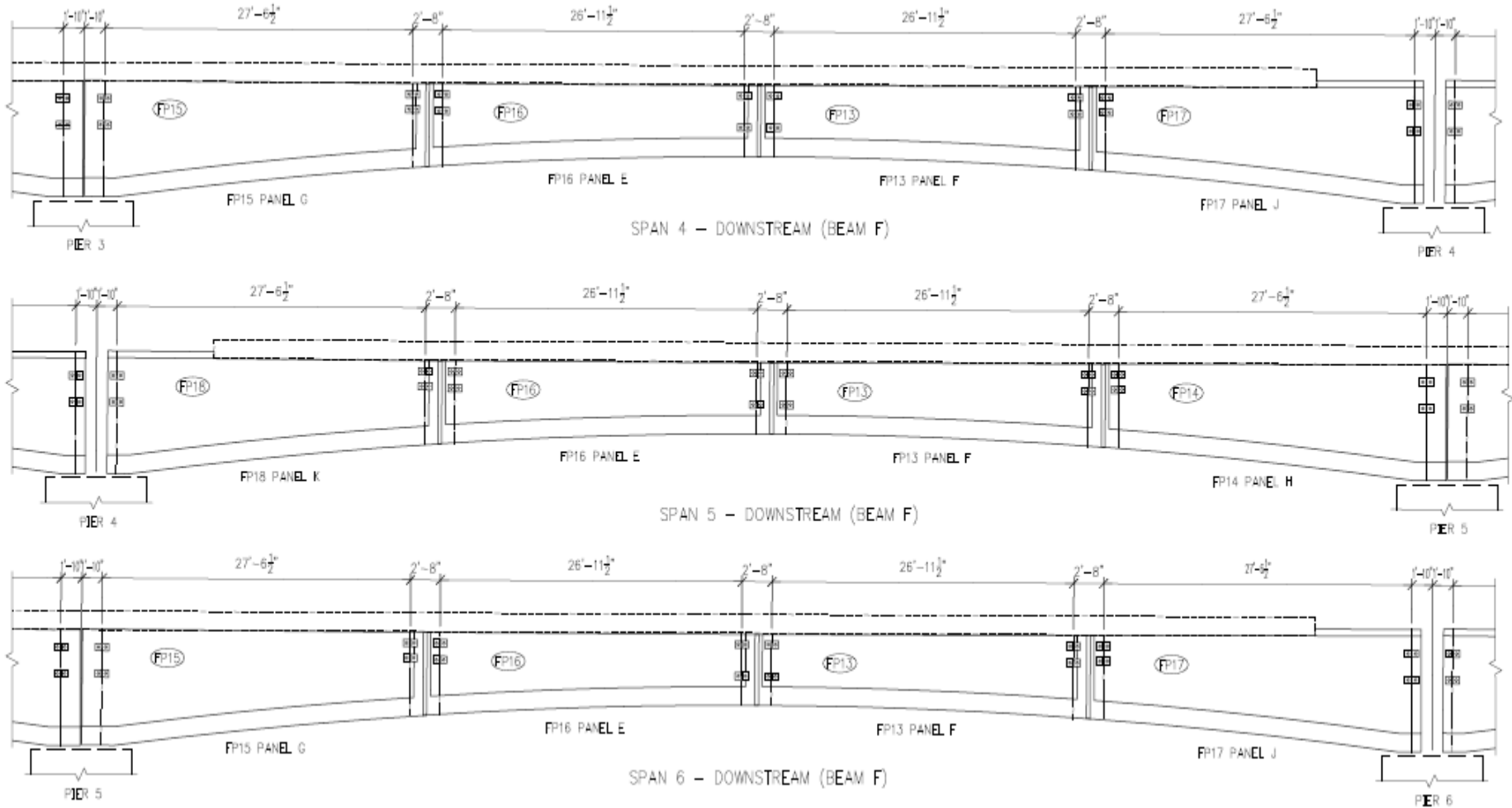
FEDERAL COLOR STANDARD #36650
LIGHT GREY

* PRESSURE WASH ALL SURFACES
TO BE SEALED (NO SEALER ON
BOTTOMS) PRIOR TO
APPLYING SEALER.



SEALER DETAIL
END CAP B

WATERVILLE BRIDGE PROJECT SHOP DWG



PIER ENDS (MOLD)



PIER ENDS



DECORATIVE PANELS



DECORATIVE PANELS



DECORATIVE PANELS (SEALER MOCK UP)



WHERE WE ARE TODAY

- **No installation**
 - Wrong brackets on site
 - No pretty photos of set panels
- **Other delays**
 - Wet spring
 - Flooding on site

LESSONS LEARNED (FABRICATOR SIDE)

- Fabricator Lessons Learned
 - Follow the plans
 - Internal Communication with Estimators
 - Communicate with ODOT
 - Requires more QA at the plant
 - Accountability

LESSONS LEARNED (ODOT SIDE)

- **ODOT Involvement**
 - Communication is key
 - Review all documentation
 - Requires more QA at the plant
 - Innovation and decoration can work
 - Needs more monitoring and time

QUESTIONS



Last updated 9/16/2019