From the Tappan Zee Contract:

“Precast concrete deck panel substructure units: A total of 150 units shall be salvaged. The units shall be from the 2005 and 2010 contracts (by others) undertaken at the existing bridge and shall be located on the tangent section of the existing causeway between spans 70 and 165. Units that have bump-outs for light standards shall not be included. Twenty units shall be from existing lanes 1 and 7, with 10 units being taken from each lane, and these units shall be retained with the existing steel traffic barrier remaining attached. One hundred and thirty units shall be from existing lanes 1, 4 and 7 (without barrier). The Authority’s Project Manager shall provide to the Design-Builder a list of the available units after existing traffic has been removed from relevant lanes. Ten units with the barrier and 60 units without barrier shall be removed and delivered by the Design-Builder to a designated location in Syracuse, NY. Ten units with the barrier and 70 units without barrier shall be removed and delivered by the Design-Builder to a designated location in Albany, NY. All 150 units shall be removed, transported, delivered and unloaded by the Design-Builder without introduction of further defects (cracks, chips, spalls) that would reduce the service life or adversely affect the immediate in-service use of the precast concrete deck panel units, unless such further defects are repaired such that the service life or immediate in-service use is not adversely affected. Any damaged units that are not repaired by the Design-Builder shall be replaced by other units that conform to the requirements herein;

In addition to the barrier for salvage with deck panels, a total of 15,000 feet of steel barrier and associated hardware and appurtenances installed on precast deck panels shall be removed from the panels and salvaged. The Authority’s Project Manager shall provide to the Design-Builder a list of the available steel barrier sections for salvage after existing traffic has been removed from relevant lanes. Following removal by the Design-Builder of the steel barrier system, the Design-Builder shall deliver it as follows: 10,000 feet shall be delivered to a designated location in Albany, NY area; 2,500 feet shall be delivered to a designated location in the Syracuse, NY area; and 2,500 feet shall be delivered to a designated location in the Buffalo, NY area. All lengths of barrier and associated hardware and appurtenances shall be removed, transported, delivered and unloaded by the Design-Builder without introduction of further defects (bending, denting, cracking, chipping) that would reduce the service life or adversely affect the immediate in-service use of the barrier systems, unless such further defects are repaired such that the service life or immediate in-service use is not adversely affected. Any damaged barrier and barrier appurtenances that are not repaired by the Design-Builder shall be replaced by barrier and barrier appurtenances that conform to the requirements herein;”
Tappan Zee Bridge Deck Panel Reuse

Existing Tappan Zee Bridge Information: The proposed contract calls for removal and storage of superstructure units from the existing Tappan Zee Bridge. These units are located on the tangent causeway section west of the Main Span. These units will come from Lanes 1 and 7 as fascia units and Lane 4, an interior unit.

Lane 1 and 7 units consist of 2 galvanized rolled beams approximately 50 feet in length with an 8 ¼ inch monolithic HP concrete deck. Longitudinal grooving is installed on the surface. The fascia rolled beam is a W27x102 with the interior beam a W27x94. The units were fabricated between 2007-2008 and have been in service for about 5-7 years. These prefabricated units have a deck areas that typically measures approximately 12’-7” W x 50’ L. The expansion end consists of the steel beam welded to an elastomeric bearing. The fixed end consists of a concrete footer that sits on a neoprene pad. The existing anchor bolts were used/extended and grouted. The estimated weight of each unit is approximately 75500 lbs, not including the steel barrier.

Lane 4 units consists of 3 galvanized rolled beams approximately 50 feet in length with an 8 ¼ inch monolithic HP concrete deck. Longitudinal grooving is installed on the surface. The rolled beams are W27x114. The units were fabricated between 2011-2012 and have been in service for about 2-4 years. These prefabricated units have a deck areas that typically measures approximately 13-3” W x 50’ L. The expansion end consists of the steel beam welded to an elastomeric bearing. The fixed end consists of a concrete footer that sits on a neoprene pad. The existing anchor bolts were used/extended and grouted. The estimated weight of each unit is approximately 86500 lbs.

Existing Superstructure Drawings:
- Typical Bridge Cross Section
- Lane 4 Units - Deck Panel Detail Spans 82 -165
- Lane 4 Units - Deck Panel Detail Span 166
- Lane 4 Units - Superstructure Details
- Lane 1 and 7 Units - Deck Panel Detail Spans 2 -166
- Lane 1 and 7 Units - Superstructure Details
- Lane 1 and 7 Units – Expansion Bent Details
- Lane 1 and 7 Units – Fix Bent Details
- Lane 1 and 7 Units - Deck Panel Fixed end Details
- Steel Bridge Railing Details 1
- Steel Bridge Railing Details 2

Traffic is scheduled to be removed from the existing bridge late 2016. Based on the current demolition schedule, these panels could become available Summer of 2017. If you would like to receive more information when it becomes available or are interested in deck panels for reuse, please feel free to contact me.

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27 BARS TOP/Borr. (STAGGERED)

GIRDER 610 MIN.

TOP AND BOT.

TRANSVERSE SPACING

600

50 CON.

400 EDGE SLOP

ARCHITECT & ENGINEER, P.E.

BEAM REINFORCEMENT. SEE DPU-3.

DRAWING NUMBER:

25 CON.

50 CON.

1.47m

400 EDGE SLOP

NOTES:

1. ALL DIMENSIONS MEASURED ARE HORIZONTAL. ACTUAL DIMENSIONS SHALL BE PREVIOUS TO THE CONTRACTOR. CONSTRUCTION SURVEY AND DETERMINING CROSS SLOPE AND LONGITUDINAL SLOPE.

2. SEE PRECAST SUPERSTRUCTURE NOTES (O-3) FOR TOP SURFACE REQUIREMENTS.

3. SEE G-4 FOR GROUTING REQUIREMENTS.

4. FOR EDGE BEAM REINFORCEMENT SEE DPU-3.

5. FOR END BEAM REINFORCEMENT SEE DPU: E-2.

CONTRACT NUMBER:

DRAWING

NOTE:

ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE NOTED.

SPANS 82-145 PREFABRICATED DECK PANEL DETAILS

DRAWING

10-98 N.Y. STATE THRUWAY AUTHORITY

ENGINEERING SERVICES

BIN 5516540
**INSTALLATION DETAILS:**

1. Rods shall be installed in each panel from span 1 to 21 (MB and SB).
2. Install 125 x 125 x 19 plate on each end of rod.
3. Install washer and locknut on each end.
4. Use 2B DH, F190, grade 105 galvanized fixed end rod.
5. Refer to this drawing for location of holes.

**DESIGN SUMMARY:**

1. Use 2B DH, F190, grade 105 galvanized fixed end rod.
2. Use 125 x 125 x 19 grade 36 galvanized wall plate.
3. Use 36 x 150 x 19 grade 36 galvanized locknut.
4. Use galvanized washer.
5. Use galvanized washer plate (small hole) pair galvanized.

**PRECAST DECK PANEL**

**SECTION A-A**

**NOTE:**

All dimensions are shown in millimeters unless otherwise noted.