THE STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

SPECIFICATION AND CONSTRUCTION PLANS FOR THE REPAIRS AND REHABILITATION OF BRIDGES:
BR 711 ON SALEM CHURCH ROAD, DECK OVERLAY
BR 715 ON SR273, DECK OVERLAY

CONTRACT NUMBERS 97-074-05, 97-074-06
FEDERAL AID PROJECT NUMBER N/A

ROADWAY LENGTH N/A METERS = N/A KILOMETERS BR 711
STRUCTURE LENGTH 156.430 METERS = 0.156 KILOMETERS BR 711
TOTAL LENGTH 156.430 METERS = 0.156 KILOMETERS BR 711
ROADWAY LENGTH 18.288 METERS = 0.018 KILOMETERS BR 715
STRUCTURE LENGTH 140.066 METERS = 0.140 KILOMETERS BR 715
TOTAL LENGTH 140.066 METERS = 0.140 KILOMETERS BR 715

LOCATION MAP

DISTURBED AREA = 0.46 HECTARES

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED 10-97

RECOMMENDED 9-12, 10-97
RECOMMENDED 9-12, 10-97
RECOMMENDED 10-97
RECOMMENDED 10-97
RECOMMENDED 10-97
RECOMMENDED 9-15, 10-97
RECOMMENDED 9-12, 10-97
PROJECT NOTES (BR 711)

1. Location
   Rehabilitation of Bridge #1-711 on Salem Church Road over I-95, West of Christiana, Delaware

2. The duration of the full roadway closure shall be ten continuous calendar days. During the duration of the project, the contractor may work extended hours and Sundays. The contractor shall place portable concrete safety barriers across the roadway at both ends of the job. The contractor shall obtain barrier from Bear Yard or Turnpike Maintenance Yard. Payment for pickup, delivery, setting, removal, return to the correct yard, and all other maintenance of traffic includes required for Bridge #1-711 shall be paid under item 725500 - Maintenance of Traffic.

3. After completion of the roadway, the contractor shall remove the top of the windshield plates and adhere closed cell joint seal to the existing anchorage to make the current system watertight. All windshield plates when complete. Payment under item 605030.

4. Seal bridge parapet with white-pigmented waterproofing compound. Payment shall be under item 602546. Replace one missing section of aluminum rail and two brackets in Rink area. Payment shall be incidental to the contract. This work may be completed after the bridge is open to traffic.

5. Existing drain pipes on the bridge shall be cleaned and flushed. Payment incidental to item 202000 - Excavation and Embankment.

6. The contractor shall remove all of the existing guardrail to the limits shown on the plans. Payment under item 211002 - Removal of Structures and Obstructions (guardrail).

7. The Department will set up parts C, D, E, and F of the signed detour route. The remaining signage will be set up by the contractor and all signage shall be maintained by the contractor and paid under item 750500.

PROJECT NOTES (BR 715)

8. Location
   Rehabilitation of Bridge #1-715 on SR273 over I-95, West of Christiana, Delaware

9. The duration of Phase 1 and 2 construction shall be 30 calendar days. Traffic will be maintained at a minimum one lane in the eastbound direction and two lanes in the westbound direction during peak hours. See maintenance of traffic plan.

10. All joints on the bridge deck will be replaced with an asphaltic joint system. Payment under item 605654 - Elastic Joint Seal.

11. Seal bridge parapet with white-pigmented waterproofing compound. Payment shall be under item 602546.

12. Approach slab: The existing hot mix shall be removed to the top of the existing concrete surface. The concrete steps removed and replaced with Class "A" concrete to the original finished grade. An asphaltic joint material shall be installed between the concrete approach roadway and the approach slab. Payment for the joint material shall be under item 605654 - Elastic Joint Seal.

13. All areas disturbed by the contractor’s operation outside the limits of construction shall be topsoiled, seeded, and mulched. Follow the requirements of Section 274.01 of the Metric Standard Specifications, July 1986. It shall be the contractor’s responsibility to achieve a stand of grass. Any additional seeding required shall be at the contractors expense. Payment shall be at the contractors expense.

14. The contractor may work extended hours and Sundays, if the contractor elects to work at night, he or she is responsible for all lighting. Payment shall be incidental to item 605444 - Constructing latex concrete overlay.

15. After milling of the concrete deck, the deck shall be checked for unsound concrete as determined by the engineer. The contractor shall remove all unsound concrete. Payment under item 602540 - Partial Removal of P.C.C. Mosaic. Additional concrete to repair deteriorated areas shall be performed under item 602501 or 602463 as subsequently described for a deck repair of 70mm or greater in depth. The contractor will use Class "A" mix concrete for patching up to the top of the milled surface. Payment under item 602501. For deck repair of less than 70mm depth, the contractor will not patch the area. Payment under item 602454.

16. The contractor shall take elevations at 3m intervals of the existing deck and approach roadway prior to any milling operations. A new smooth profile shall be established with this data which closely resembles the existing profile and cross slope and provides a smooth transition to the approach roadway. This information shall be submitted for review and approval. Payment under item 600501 - Construction Engineering.

17. Portland Cement Concrete
   Structural elements of Portland cement concrete shall be as noted:
   - # C - 28 Day Compressive Strength
   - Class B Bridge Sidewalls & Approach Slab (5°C - 30 MPa)
   - Class D Bridge Sidewalls (5°C - 30 MPa)
   - Latex Concrete Deck Slab (5°C - 35 MPa)

   Mix requirements shall conform to Section 13.12 of the Specifications. All exposed edges shall be chamfered 19mm. Unless otherwise noted:
   - Keyed construction joints shall be 38mm x 90mm or as noted. All exposed construction joint edges shall have a 18mm V-notch.
NOTE: 1. MODIFY USE OF BRIDGE RAILINGS TO MEDIAN SEPARATION.
2. MODIFY USE OF BRIDGE RAILINGS TO MEDIAN SEPARATION.
3. EXCAVATION IN ADJACENT PROPERTY TO BE ESSENTIAL S.C.C. ABUTMENT BOX Pier Foundation X Bar Gage Insertion.

EXISTING SECTION A-A

EXISTING ELEVATION

DETAIL OF DEPRESSED P.C.C. SIDEWALK AT WEST APPROACH OF BRIDGE (TYPICAL)
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<th>530063</th>
<th>600001</th>
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**Legend:**
- 2R2000: Round Bars
- 211002: 1/2" Reinforcement
- 530063: 3/8" Steel Bars
- 600001: 1/2" Reinforcement
- 605042: 5/8" Steel Bars
- 605044: 3/4" Steel Bars
- 605046: 1" Steel Bars
- 605048: 1-1/4" Steel Bars
- 605052: 1-1/2" Steel Bars
- 605054: 2" Steel Bars
- 705006: 3" Steel Bars
- 120001: 4" Steel Bars
- 128527: 5" Steel Bars
- 720505: 6" Steel Bars
- 740030: 8" Steel Bars
- 740501: 10" Steel Bars
- 740504: 12" Steel Bars
- 740502: 14" Steel Bars
- 740506: 16" Steel Bars
- 740508: 18" Steel Bars
- 740511: 20" Steel Bars
- 740512: 22" Steel Bars
- 740514: 24" Steel Bars