

DEMOLITION AND CONSTRUCTION SEQUENCE GENERAL NOTES

1. ALL WORK SHALL BE PAID FOR UNDER "DESIGN AND CONSTRUCTION OF BRIDGE 51". NO SEPARATE PAYMENT SHALL BE MADE FOR THE ITEMS NOTED IN THIS SEQUENCE.

2. MEANS AND METHODS OF DEMOLITION AND CONSTRUCTION ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTORS MEANS AND METHODS SHALL INCORPORATE THE INFORMATION SHOWN IN THIS SEQUENCE.

3. THIS DEMOLITION AND CONSTRUCTION SEQUENCE DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO SUBMIT A PLAN FOR PARTIAL REMOVAL OF THE BRIDGE IN ACCORDANCE WITH SECTION 402 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL SUBMIT A PLAN FOR PARTIAL REMOVAL OF THE BRIDGE THAT INCORPORATES THE INFORMATION SHOWN IN THESE CONTRACT DRAWINGS. THE PLAN FOR PARTIAL REMOVAL SHALL INCLUDE THE FOLLOWING:

a. CRANE SIZE, LOCATION DURING OPERATION, LIFT RADIUS, RIGGING, SUPPORT LOCATIONS, AND PICK WEIGHTS.

b. FULL DEPTH SAW CUT LOCATIONS.

4. THIS DEMOLITION AND CONSTRUCTION SEQUENCE AS SHOWN ON THE PLANS HAS BEEN ENGINEERED. IF THE CONTRACTOR DESIRES TO DEMOLISH AND CONSTRUCT THE BRIDGE USING AN ALTERNATIVE SEQUENCE, THE CONTRACTOR SHALL SUBMIT PLANS AND CALCULATIONS FOR EVALUATION THAT ARE SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NORTH CAROLINA.

5. EACH STEP IN THE CONSTRUCTION SEQUENCE MUST BE COMPLETED PRIOR TO COMMENCING THE NEXT STEP, UNLESS STATED OTHERWISE.

6. THE DEMOLITION AND CONSTRUCTION SEQUENCE INCLUDES AN ALLOWANCE FOR 50 PSF CONSTRUCTION LOADING IN ACCORDANCE WITH SECTION 420-3 (D) (1) (b) OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL NOT PLACE ANY OTHER LOADING SUCH AS CRANES OR TRUCK EQUIPMENT ON THE BRIDGE UNLESS SPECIFICALLY AUTHORIZED.

7. CONTRACTOR SHALL DEMOLISH AND RECONSTRUCT THE STRUCTURE WHILE MAINTAINING SYMMETRY OF LOADING IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS OF THE BRIDGE. UNLESS OTHERWISE STATED, DEMOLITION SHALL PROCEED FROM THE SPRINGLINE TO THE CROWN OF THE ARCH SPAN AND FROM THE OUTSIDE EDGES OF THE STRUCTURE TO THE CENTERLINE. CONSTRUCTION SHALL PROCEED FROM THE CROWN TO THE SPRINGLINE OF THE ARCH SPAN AND FROM THE STRUCTURE CENTERLINE TO THE OUTSIDE EDGES OF THE STRUCTURE.

8. CONTRACTOR SHALL DEMOLISH AND RECONSTRUCT THE STRUCTURE WHILE AVOIDING IMBALANCE BETWEEN ADJACENT ARCH SPANS.

9. THE EXISTING STRUCTURE IS OF SIGNIFICANT HISTORIC VALUE, AND THE CONTRACTOR SHALL USE CARE TO PRESERVE AND PROTECT THE STRUCTURE DURING DEMOLITION AND RECONSTRUCTION. ANY DAMAGE TO THE STRUCTURE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE CONTRACT.

10. CONTRACTOR SHALL PERFORM THE DEMOLITION USING CLEAN SAW CUTS. MECHANICAL CLAWS AND JACKHAMMERS SHALL NOT BE UTILIZED UNLESS SPECIFICALLY AUTHORIZED.

11. PARTIAL DEPTH SAW CUTS SHALL BE COMPLETED WHILE PREVENTING DAMAGE TO THE EXISTING REINFORCING STEEL AND THE CONCRETE SUBSTRATE THAT WILL REMAIN IN THE PROPOSED STRUCTURE. CONTRACTOR SHALL USE GROUND PENETRATING RADAR (GPR) TO DETERMINE THE CONCRETE COVER TO THE REINFORCEMENT PRIOR TO COMPLETING THE CUTS.

12. PROVIDE BRACING, SUPPORTS, AND RIGGING REQUIRED FOR STRUCTURE REMOVAL. THE DESIGN AND PROVISION OF THESE ITEMS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

13. INTERMEDIATE TRANSVERSE SAW CUTS MAY BE UTILIZED BY THE CONTRACTOR. THESE SAW CUTS SHALL BE SHOWN ON THE CONTRACTORS PLAN FOR PARTIAL REMOVAL OF THE BRIDGE.

14. ALL DECK POURS SHALL BE IN THE SEQUENCE SHOWN ON THE CONCRETE DECK POURING SEQUENCE SHEETS. DECK POURS SHALL NOT BE MADE IN PARELLEL.

15. MAINTAIN ONE ARCH SPAN OPEN FOR VESSEL TRAFFIC AT ALL TIMES.

16. THE CONTRACTOR SHALL DRILL AND POUR ONE SHAFT AT A TIME AT BENTS 1 AND 7. CONCRETE IN THE FIRST DRILLED SHAFT SHALL ACHIEVE A STRENGTH OF 3,000PSI PRIOR TO DRILLING THE OTHER SHAFT AT THE BENT.

DEMOLITION AND CONSTRUCTION SEQUENCE AT ARCH PIERS

1. THE CONTRACTOR MAY DEMOLISH THE ARCH PIERS AT ANY TIME FOLLOWING THE DEMOLITION OF THE ADJACENT APPROACH SPAN OR SPANDREL SPANS.

2. THE CONTRACTOR SHALL COMPLETE DEMOLITION OF THE ARCH PIER PRIOR TO PERFORMING ANY REPAIRS ON THE ARCH PIER.

3. THE CONTRACTOR SHALL REPAIR THE ARCH PIER PRIOR TO ITS RECONSTRUCTION.

4. THE CONTRACTOR MAY RECONSTRUCT THE ARCH PIER AT ANY TIME FOLLOWING COMPLETION OF THE ARCH PIER REPAIRS.

5. THE CONTRACTOR SHALL RECONSTRUCT THE ARCH PIERS IN SUFFICIENT TIME TO COMPLETE THE SUPERSTRUCTURE CONSTRUCTION. PLACING GIRDERS, POURING GIRDER DIAPHRAGMS, PLACING DECK PANELS, AND POURING DECK CONCRETE SHALL NOT COMMENCE UNTIL THE ARCH PIERS ARE COMPLETELY RECONSTRUCTED AND GIRDERS CAN BE PLACED ALONG THE ENTIRE ARCH SPAN.

CONSTRUCTION SEQUENCE WITHIN AN ARCH SPAN

1. COMPLETE CONCRETE REPAIRS ON THE ARCH RIBS, ARCH RIB STRUTS, AND THE TWO ARCH PIERS ADJACENT TO THE ARCH SPAN.

2. CONSTRUCT SPANDREL COLUMNS SYMMETRICALLY FROM THE CROWN TO THE SPRINGLINE WHILE MAINTAINING SYMMETRY OF LOADING IN BOTH AXES OF THE BRIDGE DURING CONCRETE PLACEMENT.

3. CONSTRUCT SPANDREL BENT CAPS SYMMETRICALLY FROM THE CROWN TO THE SPRINGLINE WHILE MAINTAINING SYMMETRY OF LOADING IN BOTH AXES OF THE BRIDGE DURING CONCRETE PLACEMENT.

4. PLACE GIRDER BEARINGS AND SOLE PLATES. PLACE TEMPORARY SUPPORTS, IF NECESSARY, TO STABILIZE THE BEARINGS AND GIRDERS DURING CONSTRUCTION.

5. PLACE PRECAST CONCRETE BOX GIRDERS IN THE FOLLOWING ORDER: SPANDREL SPANS 6 & 7, SPANDREL SPANS 5 & 8, SPANDREL SPANS 4 & 9, SPANDREL SPANS 3 & 10, SPANDREL SPANS 2 & 11, AND SPANDREL SPANS 1 & 12. PLACE INTERIOR GIRDERS PRIOR TO PLACING EXTERIOR GIRDERS.

6. POUR CONCRETE BOX GIRDER SPLICES IN ORDER SYMMETRICALLY FROM THE CROWN TO THE SPRINGLINE.

7. PLACE SPANDREL BENT DIAPHRAGMS BETWEEN GIRDERS.

8. PLACE PRECAST CONCRETE DECK PANELS FROM THE ARCH CROWN TO THE ARCH PIERS. MAINTAIN SYMMETRY OF LOADING ABOUT THE ARCH CROWN.

9. FORM OVERHANGS AND PLACE DECK REINFORCEMENT.

10. POUR DECK CONCRETE IN THE ORDER AND DIRECTION SHOWN IN THE POUR SEQUENCE DETAILS.

11. CONSTRUCT THE BARRIER RAIL SYMMETRICALLY FROM THE ARCH CROWN TO THE ARCH PIERS.

PROJECT NO. B-4974

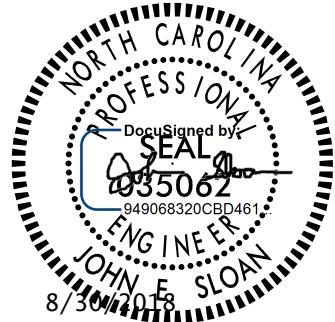
STANLY/MONTGOMERY COUNTY

STATION: 339+86.39 -L-

SHEET 1 OF 8

DRAWN BY : <u>M. TOM</u>	DATE : <u>10/2017</u>
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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
DEMOLITION & CONSTRUCTION
SEQUENCE
GENERAL NOTES
AND SEQUENCE

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO. S-98
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<u>1</u>			<u>3</u>			TOTAL SHEETS 148
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