

GENERAL NOTES:

1. DO NOT SCALE FROM THE DRAWINGS. IF A REQUIRED DIMENSION IS NOT PROVIDED, CONSULT THE ENGINEER.
2. IF ANY OF THE WORK TO BE DONE AS SHOWN ON THE DRAWINGS DOES NOT CORRESPOND WITH THE EXISTING FIELD CONDITIONS, CONTACT THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK IN QUESTION.
3. FIELD VERIFY ALL ELEVATIONS PRIOR TO THE START OF CONSTRUCTION. IF THERE ARE ANY DISCREPANCIES, CONSULT THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK IN QUESTION.
4. SHOP DRAWINGS WERE DEVELOPED USING THE FOLLOWING RESOURCES FOR THE CONTRACT:  
STATE OF VERMONT AGENCY OF TRANSPORTATION, PROPOSED IMPROVEMENT BRIDGE PROJECT  
TOWN OF CHESTER  
COUNTY OF WINDSOR  
ROUTE NO. VT RT 103, PRINCIPAL ARTERIAL, NATIONAL HIGHWAY SYSTEM, BRIDGE 9  
DATED 29-SEPT-2010, WITH REVISION DATE OF NONE.
5. IF THERE IS ADDITIONAL INFORMATION PERTINENT TO THE FABRICATION AND INSTALLATION OF THESE UNITS THAT IS NOT CONTAINED WITHIN THE RESOURCES LISTED ABOVE IT SHALL BE BROUGHT TO THE ATTENTION OF MICHE CORPORATION. FAILURE TO MAKE SUCH ADDITIONAL INFORMATION AVAILABLE SHALL RELIEVE MICHE CORPORATION OF ALL LIABILITIES ARISING FROM ERRORS OR OMISSIONS RELATED TO THE OMITTED INFORMATION.

WING WALL NOTES:

1. WING WALLS ARE DESIGNED IN ACCORDANCE WITH AASHTO "LRFD BRIDGE DESIGN SPECIFICATIONS", 4TH EDITION AND VAOT PROJECT SPECIFICATIONS.
2. WING WALLS ARE DESIGNED FOR LIVE LOAD SURCHARGE (PER AASHTO) AND BACKFILL MATERIAL IS ASSUMED TO HAVE THE DESIGN PARAMETERS LISTED IN THE PRECAST DESIGN CRITERIA.
3. WING WALLS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 5,000 POUNDS PER SQUARE INCH (P.S.I.). THE CONCRETE SHALL BE SELF CONSOLIDATING CONCRETE.
4. ALL BACKFILL SHALL COMPLY WITH PROJECT SPECIFICATIONS. THE BACKFILL SHALL BE PLACED PER VAOT SPECIFICATIONS.
5. ALL EXPOSED EDGES EXCEPT WHERE NOTED SHALL BE CHAMFERED 3/4". ALL EXPOSED SURFACES SHALL BE TREATED WITH SILANE-SILOXANE (OR AS SPECIFIED BY CONTRACT SPECIFICATIONS) TO 1'-0" BELOW FINISHED GRADE BY OTHERS.

Subsection 704.08,  
Granular Backfill  
For Structures

Structures Copy

FABRICATION PLANT PRODUCTION SCHEDULE

1. DAILY PRODUCTION WILL PROCEED AT THE RATE OF APPROXIMATELY ONE WINGWALL SECTION EVERY DAY IN ONE LOT. UNITS WILL BE CAST IN A SIMILAR SEQUENCE AS IT IS TO BE TRANSPORTED AND FIELD ERECTED AS ORDERED BY THE CONTRACTOR. A DETAILED PLANT PRODUCTION SCHEDULE WILL BE KEPT AT THE PRECASTER'S FABRICATING PLANT AND MADE AVAILABLE TO INSPECTORS AS REQUIRED.

PRECAST DESIGN CRITERIA

1. APPLICABLE CODES: VAOT STANDARD SPECIFICATION FOR CONSTRUCTION, 2006; CONCRETE STEEL REINFORCING INSTITUTE; BRIDGE DESIGN SPECIFICATIONS, AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4TH EDITION, 2007 WITH 2008 REVISIONS
2. FOUNDATION SOIL PARAMETERS:  
\*8.9 KSF NOMINAL SOIL BEARING RESISTANCE  
- UNIT WEIGHT OF SOIL: 120 PCF  
- 32' SOIL FRICTION ANGLE
3. RETAINED SOIL PARAMETERS:  
\*130 PCF UNIT WEIGHT  
\*32' SOIL FRICTION ANGLE
4. RESISTANCE FACTORS:  
0.45 BEARING  
0.8 SLIDING  
0.95 FLEXING  
0.90 SHEAR
5. CONCRETE DESIGN STRENGTH:  
F<sub>c</sub> = 5,000 PSI @ 28 DAYS  
F<sub>ci</sub> = 2,500 PSI (STRIPPING)

4. THESE PLANS ARE FOR SHOP PRODUCTION AND ARE NOT INTENDED TO REPLACE THE CONSTRUCTION REQUIREMENTS OF THE CONTRACT PLANS.

MATERIALS

1. ALL CONCRETE SHALL COMPLY WITH VAOT STANDARD SPECIFICATIONS 540.
2. REINFORCING STEEL SHALL CONFORM TO ASTM A-615 GRADE 60, UNCOATED.  
ALL BARS ARE TO BE BENT COLD.
3. SUPPORTS FOR REINFORCEMENT SHALL COMPLY WITH CRSI RECOMMENDATIONS.
4. CASTING DATE SHALL BE SHOWN ON EACH PIECEMARK.

CURING

1. SHALL COMPLY WITH VAOT STANDARD SPECIFICATION 540.08.

PIECE MARKS

EACH PIECEMARK # WILL HAVE THE FOLLOWING STENCILED ONTO IT:

1. PIECEMARK NUMBER
2. DATE OF CASTING
3. LOT NUMBER - IF APPLICABLE
4. VT PROJECT NO. BRF 025-1 (37) (BRIDGE#9)
5. MICHE CORPORATION, INC.
6. CONTRACTOR'S NAME

TOLERANCES: PER AASHTO M259

PRODUCTION CONTROL PROCEDURES

1. CYLINDER SAMPLING AND CURING:  
A. A MINIMUM OF TWO (2) CYLINDERS PER LOT WILL BE MADE IN ACCORDANCE WITH ASTM C31. CYLINDERS WILL BE TESTED IN ACCORDANCE WITH ASTM C39.  
B. AIR CONTENT (ASTM C231), SPREAD PER SCC GUIDELINES, AND TEMPERATURE TESTS WILL BE TAKEN INITIALLY FOR FIRST LOAD, NOT TO EXCEED TEN (10) CUBIC YARDS.  
C. THE CYLINDERS SHALL BE KEPT WITH THE PIECE UNTIL STRIPPING STRENGTH IS MET. A SUFFICIENT NUMBER OF CYLINDERS SHALL BE PREPARED FOR STRIPPING AND 28 DAY STRENGTH TESTING.

NOTE: 1 AIR TEST 1ST LOAD

2. CYLINDER BREAKS:  
A. FOR EARLY STRENGTH VERIFICATION, CYLINDERS MAY BE BROKEN AT ANY TIME UP TO 28 DAYS AFTER CASTING. IF THE AVERAGE STRENGTH OF TWO (2) CYLINDERS MEETS OR EXCEEDS THE REQUIRED 28 DAY STRENGTH (WITH EACH CYLINDER HAVING A MINIMUM OF 95% OF THE REQUIRED 28 DAY STRENGTH), THE LOT SHALL BE ACCEPTED FOR STRENGTH.

3. QUALITY CONTROL TEST AND EQUIPMENT:  
CYLINDER TESTER: FERNLY 500 SERIES WITH DR-2 DIGITAL READOUT CALIBRATED ANNUALLY

AIR METER: PRESSURE METER BY FORNEY (CALIBRATED MONTHLY)

SLUMP CONE: STANDARD 8" BASE, 4" AT RIM, 12" IN HEIGHT MEASURED IN ACCORDANCE WITH SCC GUIDELINES

SCALES FOR UNIT WEIGHT: MEASURED IN ACCORDANCE WITH ASTM C143 100 LBS. CAPACITY CALIBRATED TO THE NEAREST 1/10TH POUND YEARLY

CYLINDER MOLDS: 4" DIAMETER X 8" PLASTIC

4. CONCRETE TESTING AND AIR METER CALIBRATION WILL BE DONE BY PLANT PERSONNEL (A CI GRADE I CERTIFIED) ALL TESTING PRODUCERS WILL BE OBSERVED BY VAOT INSPECTORS OR AUTHORIZED REPRESENTATIVES.

CASTING, STORAGE, SHIPPING, & ERECTING

- WINGWALLS SHALL BE FABRICATED AS FOLLOWS:
- WING FOOTING SHALL BE CAST FLAT ON A STEEL CASTING PLATE. AFTER STRIPPING STRENGTHS HAVE BEEN ACHIEVED, FOOTING SHALL BE STOOD UP INTO A VERTICAL POSITION.
  - WING STEM SHALL BE CAST ON A STEEL CASTING PLATE AGAINST THE FOOTING.
  - WINGS MAY BE STOOD UP OR LEFT LYING FLAT AND WILL BE CURED AND TRANSPORTED EITHER WAY.
  - IF WINGS ARE TO BE STOOD UP ON THE PROJECT SITE, IT SHALL BE DONE ON A SUBGRADE MATERIAL THAT WILL ALLOW FOR PRODUCT TO ROTATE ON BASE WITHOUT DAMAGE. THEY SHALL BE STOOD UP USING LIFTING ANCHORS CAST IN THE BACK SURFACE OF THE WALL.
  - WINGS SHALL BE MOVED INTO POSITION USING TWO LIFTERS ON THE FRONT SURFACE AND TWO LIFTERS ON THE TOP OF THE FOOTING SURFACE.
  - ALL PRODUCTS SHALL BE MOVED AND ERECTED UTILIZING CHAINS OR STRAPS ATTACHED TO PROVIDED LIFTING ANCHORS.
  - IT IS THE RESPONSIBILITY OF THE ERECTOR TO PROVIDE THE PROPER EQUIPMENT, CABLES AND PULLEYS TO SAFELY AND PROPERLY HANDLE THE PRECAST PRODUCTS. DETAILED HANDLING REQUIREMENTS SHALL BE COORDINATED BETWEEN THE PRECAST FABRICATOR AND ERECTORS.

PRECAST CUTOFF WALL NOTES:

1. ALL FOUNDATION CONCRETE (INCLUDING PEDESTAL WALL) SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 5,000 P.S.I. CEMENT USED SHALL MEET THE REQUIREMENTS OF ASTM C-150.
3. UNLESS NOTED OTHERWISE, ALL REINFORCING SHALL MEET THE REQUIREMENTS OF ASTM A-615 GRADE 60 DEFORMED STEEL BARS FOR CONCRETE REINFORCING. ALL BARS SHALL BE BENT COLD.
4. ALL EXPOSED EDGES EXCEPT WHERE NOTED SHALL BE CHAMFERED 3/4".
5. ALL FOOTINGS SHALL BE PLACED ON 1'-0" OF 3/4" CRUSHED STONE. ALL TOPSOIL, LOOSE FILL, AND DELETERIOUS MATERIALS SHALL BE REMOVED BEFORE PLACING BACKFILL.
6. EACH CUTOFF WALL SHALL BE PROVIDED WITH 2 LIFTING ANCHORS IN THE TOP FOR SETTING.
7. EACH SECTION SHALL WEIGH AS SHOWN.

PROJECT:

VAOT # BRF 025-1 (37)  
VT RT 103,  
PRINCIPAL ARTERIAL,  
NATIONAL HIGHWAY SYSTEM,  
BRIDGE 9  
CHESTER, VT

RECEIVED

CK'D BY JTB OK'D BY RST


MAR 23 2011

RESUBMIT \_\_\_\_\_ APPROVED As Noted

BY CPW DATE 3/30/11

LIST OF SHEETS:

- CI.0 - COVER SHEET
- S1.0 - PLAN, ELEVATION & CONNECTION DETAILS
- S2.0 - WINGWALL DETAILS
- S3.0 - WINGWALL & CUTOFF WALL DETAILS

	Project No. 1248 Date: 3/15/2011
	Drawn by: TDF Checked by: TDF
Vermont Rte. 103 Bridge #9 Chester, VT Wingwalls Cover Sheet	Scale: AS SHOWN
Prepared for: Cold River Bridges, LLC 187 Whitcomb Rd Walpole, NH 03088	DWG NO. CI