

GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 1990, AND ITS LATEST REVISIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DATED 1989, AND ITS LATEST REVISIONS.
2. DESIGN IS FOR HS-25 LIVE LOADING WITH NO ALLOWANCE FOR FUTURE PAVEMENT.
3. TRAFFIC WILL BE DETOURED VIA I-91 BETWEEN THE THETFORD AND NORWICH INTERCHANGES.
4. THE STONE FILL TYPE IV SHALL BE USED TO FILL THE SCOUR HOLES AROUND BOTH PIERS SO THAT THE STONE FILL IS AS CLOSE AS POSSIBLE TO THE EXISTING STREAMBED ELEVATION. THE STONE FILL WILL BE PLACED BEFORE THE NEW GIRDERS ARE SET. THE RESIDENT ENGINEER SHALL TAKE ELEVATIONS OF THE EXISTING STREAMBED IN THE AREAS UPSTREAM AND DOWNSTREAM OF THE BRIDGE IN ORDER TO DETERMINE A CHANNEL PROFILE, WHICH WILL BE USED IN DETERMINING TO WHAT ELEVATION THE STONE FILL SHALL BE PLACED. THERE SHALL BE A 4' MINIMUM DEPTH OF STONE FILL.
5. THE EXISTING SUPERSTRUCTURE SHALL BE REMOVED UNDER THE ITEM "PARTIAL REMOVAL OF STRUCTURE". THIS INCLUDES THE BRIDGE RAILING CURTAIN WALLS, PAVEMENT, CURBS, CONCRETE DECK, BEAMS, DIAPHRAGMS AND BEARINGS. THE EXISTING BEAMS AND THE HEAVY DUTY STEEL BEAM RAIL SHALL REMAIN THE PROPERTY OF THE STATE AND SHALL BE LOADED ONTO TRUCKS SUPPLIED BY OTHERS.
6. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68 DEGREES F.
7. THE FOLLOWING TABLE OF ALLOWABLE STRESSES AND WEIGHTS APPLY TO THESE PLANS FOR DESIGN PURPOSES:

CONCRETE:

CLASS 'A' $f'c = 3500 \text{ PSI}$ $fc = 1400 \text{ PSI}$
 CLASS 'B' $f'c = 3500 \text{ PSI}$ $fc = 1400 \text{ PSI}$

REINFORCING STEEL:

GRADE 60 $ft = 24,000 \text{ PSI}$ $fc = 20,000 \text{ PSI}$

SOIL: UNIT WEIGHT 140 PCF

*CONCRETE 'CLASS A' SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSIAS PER SPEC. 501.

8. REINFORCING PLACEMENT TOLERANCES SHALL BE:

SPACING +/- 1"
 CLEARANCE +/- 1/4"

9. MINIMUM COVER FOR REINFORCING STEEL (EXCEPT IN DECKS) SHALL BE TWO (2) INCHES ALONG BACK FACES OF WALLS AGAINST EARTH, AND THREE (3) INCHES ELSEWHERE.
10. DECK CONCRETE SHALL BE CONCRETE, CLASS A, AND ALL OTHER CONCRETE SHALL BE CONCRETE, CLASS B UNLESS NOTED OTHERWISE.
11. THE CURB ON THE BRIDGE DECK AND THE CURB ON THE APPROACH SLABS SHALL BE SILICA-FUME CONCRETE AND PAID UNDER ITEM 501.60 "SILICA-FUME CONCRETE".
12. THE DECK CONCRETE FINISHING MACHINE SHALL BE SET ON A SKEW THAT IS PARALLEL TO THE CENTERLINE OF BEARING. THE DECK CONCRETE SHALL BE DEPOSITED PARALLEL TO THE CENTERLINE OF BEARING.
13. THE ITEM 580.14 "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE CLASS II" SHALL BE USED TO REPAIR SPALLED OR DETERIORATED CONCRETE THAT WILL NOT BE ENCASED BY NEW CONCRETE. AREAS OF SUBSTRUCTURES TO BE REPAIRED SHALL BE MARKED BY THE RESIDENT ENGINEER PRIOR TO REMOVAL. ACCESS FOR INVESTIGATING AND MARKING THE CONCRETE MUST BE PROVIDED BY THE CONTRACTOR. PAYMENT FOR ACCESS SHALL BE SUBSIDIARY TO OTHER ITEMS IN THE CONTRACT. CARE SHALL BE TAKEN WHEN REMOVING DETERIORATED CONCRETE NOT TO DAMAGE OR DELAMINATE THE EXISTING REINFORCING STEEL. ANY RESULTING DAMAGE WILL BE REPAIRED AT THE CONTRACTORS EXPENSE.
14. THE ITEM 580.14 MODIFIED SHALL BE USED TO REPAIR AREAS THAT WILL BE ENCASED BY CONCRETE. THIS ITEM COVERS THE PREPARATION OF THE DETERIORATED SURFACES FOR ENCASEMENT. THE VOLUME OF CONCRETE TO FILL THESE AREAS BACK TO THE ORIGINAL SURFACE SHALL BE SUBSIDIARY TO ITEM 501.25 "CONCRETE CLASS B".

15. THE REPAIRS TO THE PIERS SHALL INCLUDE THE SPALLED AND DETERIORATED CONCRETE AT WATER LINE. NEW ENGLAND POWER WILL LOWER THE WATER LEVEL OF THE WILDER DAM FOR A MAXIMUM OF 3 DAYS ONLY ONCE. ALL REPAIRS WHICH WILL SUBSEQUENTLY BE UNDER WATER WILL BE COMPLETED IN THIS 3 DAY PERIOD. THE CONCRETE USED FOR THESE REPAIRS WILL BE REQUIRED TO DEVELOP A STRENGTH OF 3500 PSI BEFORE THE WATER LEVEL RISES.
16. THE ITEM 529.25 "REMOVAL OF CONCRETE OR MASONRY" SHALL BE USED TO REMOVE THE PORTIONS OF THE ABUTMENTS AND PIERS TO THE CUT LINES SHOWN ON SHEETS BR13 AND BR14, INCLUDING THE "EAR" WALLS ON ALL SUBSTRUCTURES, BOTH ABUTMENT BEAM CAPS, NECESSARY PORTIONS OF THE COLUMNS AT THE ABUTMENTS AND PORTIONS OF THE PIER CAPS NECESSARY TO POUR THE NEW CAP.
17. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" BY 1".
18. WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF DECK BETWEEN DRIP BEADS, (INCLUDING EXISTING SUBSTRUCTURES)
19. JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
20. THE KEY IN CONCRETE CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT.
21. FLEMING BRACKETS OR SIMILAR FALSEWORK SHALL BE SPACED AS REQUIRED BY DESIGN UP TO A MAXIMUM OF 4 FEET.
22. SURFACES OF BRIDGE SEATS UNDER BEARING DEVICES SHALL BE LEVEL. OTHER BRIDGE SEAT AREAS SHALL BE SLOPED 1/2" PER FOOT. ABUTMENT SEATS SHALL BE SLOPED FULL WIDTH TOWARD MID-SPAN. PIER SEATS SHALL BE SLOPED EACH WAY FROM CENTER. THE ENTIRE BRIDGE SEAT SURFACE SHALL BE SMOOTH STEEL TROWEL FINISHED.
23. ALL REINFORCING STEEL IN THE CONCRETE DECK, BRIDGE CURBS AND APPROACH SLABS SHALL BE EPOXY COATED AND PAID UNDER ITEM 507.17. WHEN EPOXY COATED REBAR IS CUT THE UNCOATED ENDS SHALL BE REPAIRED WITH MATERIALS AND PROCEDURES APPROVED BY THE COATING MANUFACTURER. FLAME CUTTING OF EPOXY COATED REBAR WILL NOT BE PERMITTED.
24. ALL STRUCTURAL STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE "AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)".
25. ALL STEEL PAID UNDER THE ITEM 506.55 "STRUCTURAL STEEL (PLATE GIRDER)" SHALL CONFORM TO AASHTO M270 GRADE 50 PAINTED UNLESS NOTED OTHERWISE ON THE PLANS. THE MAIN GIRDER FLANGES, WEBS, AND ALL STEEL IN THE FIELD SPLICES EXCLUDING THE 1/8" FILLER PLATES WILL REQUIRE CHARPY V-NOTCH TESTING.
26. INTERMEDIATE DIAPHRAGM BOLTS SHALL ONLY BE SNUG TIGHT UNTIL AFTER THE ENTIRE DECK HAS BEEN PLACED.
27. NOT USED.
28. AFTER SUPERSTRUCTURE STEEL HAS BEEN ERECTED, ELEVATIONS ALONG THE TOP OF THE GIRDERS SHALL BE TAKEN AS DIRECTED BY THE ENGINEER FOR USE IN DETERMINING FINAL GRADE.
29. ANY BOLT HOLES IN THE WEB OF THE FASCIA GIRDERS NOT OTHERWISE FILLED SHALL BE FILLED WITH BUTTON HEAD OR HEX HEAD BOLTS. THE BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH SUBSECTION 506.19.
30. ALL FIELD CONNECTIONS SHALL BE MADE USING 7/8 INCH DIAMETER TYPE 1 BOLTS MEETING AASHTO M 164. HOLES SHALL BE 15/16 INCH DIAMETER, UNLESS OTHERWISE NOTED. CONNECTIONS NOT DESIGNATED SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE STRUCTURES DIVISION FOR APPROVAL.
31. CONCRETE PORTIONS OF THE ABUTMENT AND WINGWALL ABOVE ADJACENT BRIDGE SEAT ELEVATIONS SHALL NOT BE PLACED UNTIL THE FINISH GRADE HAS BEEN DETERMINED BY THE RESIDENT ENGINEER.

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of NORWICH	Bridge No. 81
Highway No. U. S. ROUTE 5	Log Sta. 345+47 Surv. Sta. 345+47
GENERAL NOTES	
U. S. ROUTE 5 OVER THE OMPOMANOOSUC RIVER	
Designed By D. J. HOYNE	Drawn By K. S. CLAIRMONT
Checked By D. J. HOYNE	Bridge Design Supervisor F. W. Balkum
Date 2/92	Date 5/92
PROJECT NORWICH	PROJECT NO. BHS 0131361
L&C info. ZH1[30,47] 77B069WOT.DGN:1	
Bridge Sheet No. BR01	Sheet 17 of 10