

GENERAL NOTES

- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE AGENCY OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2006, AND ITS LATEST REVISIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SEVENTEENTH EDITION, DATED 2002 AND ITS LATEST REVISIONS.
- IN-STREAM CONSTRUCTION SHALL BE RESTRICTED TO JUNE 1 TO OCTOBER 1, UNLESS THE CONTRACTOR OBTAINS WRITTEN PERMISSION FROM THE AGENCY OF NATURAL RESOURCES TO DO WORK OUTSIDE THAT TIME FRAME.
- DIMENSIONS, ANGLES AND ELEVATIONS SHOWN ON THESE CONTRACT PLANS HAVE BEEN OBTAINED FROM SURVEY INFORMATION AND LIMITED FIELD INVESTIGATION AND MAY NOT ACCURATELY REFLECT ACTUAL FIELD CONDITIONS. ACCORDINGLY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING FIELD MEASUREMENTS FOR ALL STRUCTURE COMPONENTS IMPACTED BY THE WORK (EXISTING OR PROPOSED) TO ASSURE CONSISTENCY WITH THE PROPOSED MODIFICATIONS. ANY DISCREPANCIES IN DIMENSIONS, CHARACTER OR EXTENT OF THE EXISTING FEATURES SHALL BE BROUGHT TO ATTENTION OF THE ENGINEER BEFORE ADVANCING THE WORK. FABRICATION DRAWINGS REQUIRED FOR VARIOUS ITEMS OF THE WORK SHALL INDICATE THE ACTUAL FIELD MEASUREMENTS AND SHALL BE SO NOTED.
- THE CONTRACTOR SHOULD NOTE THAT ALL QUANTITIES SHOWN IN THE CONTRACT DOCUMENTS ARE BASED ON DIMENSIONS AND ELEVATIONS TAKEN FROM FIELD MEASUREMENTS. THE STREAM BANKS MAY HAVE SHIFTED FROM THE LOCATIONS SHOWN ON THE PLANS; THE ACTUAL ASSOCIATED QUANTITIES MAY VARY.
- COFFERDAMS (ITEM 208.40) SHALL BE USED AT STA. 2+071.607 (ABUT. 1) AND STA. 2+089.907 (ABUT. 2). THE DESIGN AND SUBMITTAL PROCEDURE SHALL BE AS PER SUBSECTION 208.07. THE COFFERDAMS SHALL ENCOMPASS THE STONE FILL, BUT SHALL NOT EXTEND BEYOND THE LATERAL LIMITS OF STONE FILL, AS STIPULATED BY THE U.S. ARMY CORPS OF ENGINEERS NATIONWIDE PERMIT. SHOULD COFFERDAMS BE NECESSARY OUTSIDE THESE LIMITS, THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING PERMITS FOR THIS ACTIVITY.
- ITEM 900.608 SPECIAL PROVISION (GROUT BAGS) SHALL BE PLACED AT THE UNDERMINED AREAS OF THE EXISTING ABUTMENTS (TO REMAIN) AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT SILTATION OR POLLUTION, ESPECIALLY THE DISCHARGE OF RAW CONCRETE, INTO THE SOUTH BRANCH MIDDLEBURY RIVER, AS DIRECTED BY THE ENGINEER AND STANDARD SPECIFICATION, SECTION 105.
- ITEM 529.20, PARTIAL REMOVAL OF STRUCTURE, INCLUDES REMOVAL OF THE SUPERSTRUCTURE AND REMOVAL OF PORTIONS OF THE EXISTING ABUTMENTS NOT REMOVED UNDER THE COFFERDAM ITEMS, TO THE LIMITS SHOWN ON THE PLANS.
- THE FOLLOWING WEIGHTS APPLY TO THESE PLANS FOR DESIGN PURPOSES:
SOIL UNIT WEIGHT: 22 kN/m.
- MINIMUM CONCRETE COVER FOR REINFORCING STEEL SHALL BE 50 mm ALONG BACK FACES OF WALLS AGAINST EARTH AND 75 mm ELSEWHERE UNLESS OTHERWISE NOTED.
- REINFORCING PLACEMENT TOLERANCES SHALL BE:
SPACING: +/- 25 mm
CLEARANCE: +/- 6 mm
- THE KEY IN CONCRETE CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT.
- JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 25 mm BY 25 mm UNLESS OTHERWISE DIMENSIONED.
- NO CONCRETE ABOVE BRIDGE SEAT ELEVATION SHALL BE PLACED UNTIL THE SUPERSTRUCTURE PANELS ARE IN PLACE.
- ALL ABUTMENT AND WINGWALL CONCRETE SHALL BE CONCRETE, HIGH PERFORMANCE CLASS B.
- WATER REPELLENT, SILANE SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF THE DECK BETWEEN DRIP NOTCHES.
- ALL DIMENSIONS ARE HORIZONTAL AND VERTICAL AND ARE GIVEN AT 20°C.
- THE FINAL BRIDGE SEAT ELEVATIONS SHALL BE DETERMINED BY THE CONTRACTOR, CONSIDERING THE SUPERSTRUCTURE DEPTHS PROVIDED BY THE MANUFACTURER. THE ABUTMENT SEAT SHALL BE LEVEL TO WITHIN 1.6mm OVER THE FULL DIAMETER OF THE BEARING PADS.
- THE SUBSTRUCTURE HAS BEEN DESIGNED FOR THE FOOTING ELEVATIONS SHOWN ON THE DRAWINGS. IF, AFTER THE LEDGE HAS BEEN EXPOSED, IT IS SIGNIFICANTLY DIFFERENT (600mm OR MORE) IN ELEVATION FROM THAT SHOWN ON THE DRAWINGS, THEN NO FURTHER WORK SHALL BE DONE ON THE SUBSTRUCTURE UNTIL THE STRUCTURES ENGINEER HAS BEEN CONTACTED AND HAS SUBMITTED A REPLY AUTHORIZING AN ADJUSTMENT TO THE SUBSTRUCTURE.
- THE CONTRACTOR SHALL EXCAVATE THE LEDGE TO PROVIDE A LEVEL SURFACE OR AS DIRECTED BY THE ENGINEER. THE COST OF ALL THIS EXCAVATION SHALL BE PAID FOR UNDER ITEM 208.35, "COFFERDAM EXCAVATION, ROCK."

SUPERSTRUCTURE NOTES

- THE PRE-FABRICATED SUPERSTRUCTURE, INCLUDING PRECAST END WALLS, AND PRECAST BRUSH CURBS SHALL BE PAID UNDER ITEM 900.675, SPECIAL PROVISION (PRECAST PRECOMPRESSED CONCRETE/STEEL COMPOSITE SUPERSTRUCTURE).
- THE PRE-FABRICATED SUPERSTRUCTURE SHALL BE DESIGNED FOR AASHTO MS22.5 DESIGN LIVE LOAD AND ALL DEAD LOADS AS SHOWN ON THE PLANS, AND DETAILED, FABRICATED AND TRANSPORTED TO THE SITE BY THE MANUFACTURER/CONTRACTOR.
- FABRICATION METHODS THAT UTILIZE PRESTRESS IN THE STRINGERS CAN BE USED. A PROCEDURE FOR A FUTURE CAST-IN-PLACE DECK REHABILITATION, INDICATING THE AMOUNT OF PRESTRESS REQUIRED AND A METHOD TO ACHIEVE IT IN THE FIELD, SHALL BE INCLUDED ON THE FABRICATION DRAWINGS.
- LIVE LOAD DEFLECTION SHALL BE LIMITED TO L/1000.
- THE DESIGN CALCULATIONS AND FABRICATION DRAWINGS SHALL BE SIGNED, STAMPED AND DATED BY A PROFESSIONAL ENGINEER (STRUCTURAL OR CIVIL) REGISTERED IN THE STATE OF VERMONT.
- ALL REINFORCING STEEL SHALL BE EPOXY COATED.
- MINIMUM SIZE OF REINFORCING STEEL WILL BE #16.
- FABRICATION DRAWINGS SHALL BE SUBMITTED (6 WEEKS PRIOR TO FABRICATION OF THE SUPERSTRUCTURE) TO THE STRUCTURES ENGINEER IN ACCORDANCE WITH STANDARD SPECIFICATION SUBSECTION 105.03(b). STRUCTURES ENGINEER MUST APPROVE BEFORE FABRICATION COMMENCES.
- THE FABRICATOR OF THE UNITS SHALL SUBMIT DETAILS TO THE STRUCTURES ENGINEER FOR APPROVAL SHOWING HOW TO RECTIFY THE SITUATION, IF THE ELEVATION DIFFERENCE BETWEEN ADJACENT UNITS, AT ANY POINT ALONG THE UNIT, IS GREATER THAN 3mm.
- A 25 mm CAMBER SHALL REMAIN IN THE BEAMS AFTER ALL DEAD LOADS HAVE BEEN APPLIED. THE CAMBER SHALL APPROXIMATE A SIMPLE CURVE.
- THE FABRICATOR SHALL SUPPLY LOAD RATINGS FOR THE SUPERSTRUCTURE BASED ON VERMONT'S SEVEN STANDARD TRUCKS. COMPLETED LOAD RATING TABLE AND CALCULATIONS SHALL BE INCLUDED WITH THE FABRICATION DRAWINGS AND SIGNED, STAMPED AND DATED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF VERMONT. TRUCK WEIGHTS AND CONFIGURATIONS WILL BE SUPPLIED UPON REQUEST.
- MINIMUM CONCRETE COVER FOR DECK REINFORCING STEEL SHALL BE 65mm ON TOP AND 40mm ON BOTTOM UNLESS OTHERWISE NOTED.
- ALL MATERIAL CAST INTO THE UNITS AND ALL REINFORCING STEEL MECHANICALLY CONNECTED TO THE UNITS SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 900.675 SPECIAL PROVISION (PRECAST PRECOMPRESSED CONCRETE/STEEL SUPERSTRUCTURE). PREPARATION OF THE ENDS OF REINFORCING STEEL FOR ATTACHMENT TO MECHANICAL CONNECTORS SHALL ALSO BE INCLUDED IN THIS BID PRICE.
- STRUCTURAL STEEL SHALL CONFORM TO AASHTO M270M/M 270 GRADE 345W.
- THE END OF DECK DETAIL SHALL BE AS SHOWN ON SHEET 17.
- THE PREFABRICATED SUPERSTRUCTURE UNIT SHALL BE FABRICATED TO ACCOUNT FOR THE ROADWAY CROSS SLOPE.

BEARING NOTES

- STEEL REINFORCED ELASTOMERIC BEARINGS SHALL BE PAID UNDER ITEM 531.11, BEARING DEVICE ASSEMBLY, ELASTOMERIC PAD.
- BEARING DESIGN CRITERIA:
AASHTO DESIGN METHOD = B
SHORE "A" DUROMETER HARDNESS = 50
DESIGN LOAD PER BEARING = 78 KIPS
DEAD LOAD = 29 KIPS
LIVE LOAD = 49 KIPS
LIVE LOAD ROTATION = 0.004 RADIAN
CONSTRUCTION TOLERANCE ROTATION = 0.01 RADIAN
- THE ACTUAL DESIGN LOADING AND ROTATION SHALL BE DETERMINED PRIOR TO FABRICATION OF THE BEARINGS. THE STRUCTURES ENGINEER SHALL BE NOTIFIED SHOULD THE ACTUAL DESIGN LOADING AND ROTATION BE DIFFERENT THAN THE LOADS AND CRITERIA LISTED IN NOTE 2.
- ALTERNATE CONFIGURATIONS FOR THE ELASTOMERIC BEARINGS AND ANCHORAGE MAY BE SUBMITTED FOR APPROVAL. ANY ALTERNATE SUBMITTED SHALL BE DESIGNED AND CERTIFIED TO MEET THE ACTUAL DESIGN LOADS AND CRITERIA. THE DESIGN CALCULATIONS AND FABRICATION DRAWINGS FOR ALTERNATE CONFIGURATIONS SHALL BE SIGNED, STAMPED AND DATED BY A LICENSED PROFESSIONAL ENGINEER (STRUCTURAL OR CIVIL) IN THE STATE OF VERMONT.
- ALL MATERIALS AND FABRICATION SHALL BE PER AASHTO DIVISION II SECTION 18, BEARINGS.



**SEEDING FORMULA
RURAL AREAS**

% WT.	kg/ha	NAME	PUR %	GERM %
37.5	26.0	CREEPING RED FESCUE	98	85
37.5	26.0	TALL FESCUE	95	90
5.0	4.0	RED TOP	95	90
15.0	10.0	BIRDSFOOT TREFOL	98	85
5.0	4.0	ANNUAL RYE GRASS	95	85
100.0	70.0			

SEEDING NOTES

SEED MIXTURE: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.

SEED: TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE ENGINEER.

FERTILIZER: FORMULA 10-20-10, TO BE USED WITH SEED, APPLIED AT THE RATE OF 560 kg/ha. (HYDRO SEEDERS MAY USE 19-19-19 FORMULA).

AGRICULTURAL LIMESTONE: TO BE APPLIED AT THE RATE OF 4500 kg/ha, OR AS DIRECTED BY THE ENGINEER.

HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 4500 kg/ha, OR AS DIRECTED BY THE ENGINEER.

TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.



STATE OF VERMONT AGENCY OF TRANSPORTATION			
Town Of	RIPTON	Bridge No.	BRIDGE #17
Highway No.	TH 18	Log Sta.	
		Surv. Sta.	
TH 18 OVER SOUTH BRANCH MIDDLEBURY RIVER			
GENERAL NOTES			
Designed By	B P GUZAS	Drawn By	W J GAYNOR
Checked By	Date	Bridge Design Supervisor	
Y I LIU	8/09	R L JOY	Date 10/09
PROJECT	RIPTON	PROJECT NO.	FH 010-1(2)
I.G.C. Info.		Sheet	16 of 26
Bridge Sheet No.			