

22. GALVANIZE ANCHOR ASSEMBLIES AFTER FABRICATION ACCORDING TO AASHTO M232/M 232.

23. DESIGN VALUES

- a. CONCRETE COMPRESSIVE STRENGTH: $f_c = 5,000$ PSI.
- b. POST-TENSIONING STRANDS: 0.5 INCH DIAMETER, 270 KSI, LOW RELAXATION 7-WIRE STRANDS.
- c. ASSUMED MODULUS OF ELASTICITY IS 28,500 KSI.
- d. THERE SHALL BE 2 STRANDS PER CONDUIT.
- e. THE JACKING FORCE PER STRAND = 32 KIPS

24. THE CORRUGATED STEEL PIPE SHALL MEET THE REQUIREMENTS OF SUBSECTION 711.01 AND SHALL BE GALVANIZED PER SUBSECTION 726.08 OF THE STANDARD SPECIFICATIONS. ALL COSTS ASSOCIATED WITH PLACING THE CORRUGATED STEEL PIPE, WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROPRIATE PRECAST ABUTMENT ITEM.

25. WING WALLS SHALL NOT BE BACKFILLED UNTIL THE GROUT FOR THE MECHANICAL SPLICE CONNECTORS HAS REACHED 85% OF THE MANUFACTURER SPECIFIED DESIGN STRENGTH.

PREFABRICATED BRIDGE UNITS (PBU)

26. STRUCTURAL STEEL MEMBERS DESIGNATED "CVN" IN THE PLANS SHALL BE CHARPY V-NOTCH TESTED IN ACCORDANCE WITH SUBSECTION 714.01.

27. ALL PERMANENT STRUCTURAL STEEL SHALL BE GALVANIZED OR METALLIZED AND MEET THE REQUIREMENTS OF SECTION 506 OF THE STANDARD SPECIFICATIONS.

28. TEMPORARY DIAPHRAGMS SHALL ONLY BE REQUIRED DURING THE CASTING AND CURING OF THE PBU DECK. THE TEMPORARY DIAPHRAGMS SHALL CONFORM TO AASHTO M270/M 270 GRADE 345 (GRADE 50). PAYMENT FOR TEMPORARY DIAPHRAGMS WILL BE INCLUDED IN ITEM 900.640 "SPECIAL PROVISION (PREFABRICATED BRIDGE UNIT SUPERSTRUCTURE) (FPQ)".

29. THE DECK FOR THE PREFABRICATED BRIDGE UNITS SHALL BE CAST SIMULTANEOUSLY.

30. ANY HOLES IN THE WEBS OF THE FASCIA BEAMS NOT OTHERWISE FILLED OR IN THE DIAPHRAGM STIFFENER PLATES AFTER REMOVAL OF THE TEMPORARY DIAPHRAGMS SHALL BE FILLED WITH BUTTON HEAD BOLTS. THESE BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH SUBSECTION 506.19.

31. ANY CONNECTIONS NOT DETAILED ON THE PLANS SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE PROJECT MANAGER FOR APPROVAL.

32. ALL FIELD CONNECTIONS SHALL BE MADE WITH 7/8" DIAMETER HIGH STRENGTH BOLTS IN 15/16" DIAMETER HOLES, PER SECTION 506 UNLESS OTHERWISE NOTED.

33. FLEMING BRACKETS OR SIMILAR FALSE WORK SHALL BE PLACED AT A MAXIMUM SPACING OF 4 FEET. THE BRACKETS SHALL BEAR NEAR THE BOTTOM FLANGE AND IN NO CASE SHALL THEY BEAR ABOVE THE BOTTOM QUARTER WEB.

34. AFTER THE SUPERSTRUCTURE STEEL HAS BEEN ERECTED AT THE DECK CASTING SITE, AND BEFORE ANY FORMWORK OR OTHER LOADS ARE ADDED TO THE GIRDERS, BEAM PROFILES SHALL BE TAKEN AS DIRECTED BY THE RESIDENT ENGINEER FOR USE IN DETERMINING DECK FORMWORK ELEVATIONS.

35. BEAM WEBS AND CROSS FRAMES SHALL BE PLUMB IN FINAL POSITION.

36. ALL WELDING TO THE STRUCTURAL STEEL SHALL BE COMPLETED PRIOR TO GALVANIZING OR METALLIZING.

37. DUE TO STABILITY CONCERNS, THE CONTRACTOR SHALL SUBMIT THE ERECTION PLAN A MINIMUM OF 30 CALENDAR DAYS PRIOR TO THE BRIDGE CLOSURE PERIOD. UNDER NO CIRCUMSTANCES SHALL A BRIDGE CLOSURE PERIOD BEGIN PRIOR TO HAVING AN ACCEPTED ERECTION PLAN.

38. THE FABRICATOR MAY ALTER THE DESIGN AS DETAILED IN THESE PLANS TO ACCOMMODATE THEIR SPECIFIC OPERATION. THIS ALTERATION SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN STATE OF VERMONT TO MEET SPECIFIED CRITERIA AND SHALL BE APPROVED BY THE PROJECT MANAGER.

SUPERSTRUCTURE LONGITUDINAL CLOSURE POURS

39. THE CONCRETE EDGES ALONG THE LONGITUDINAL CLOSURE POURS SHALL BE TREATED TO PROVIDE A ROUGHENED/ EXPOSED COURSE AGGREGATE SURFACE. THE AMPLITUDE OF THE EXPOSED COURSE AGGREGATE SHALL BE A MINIMUM OF 1/8" AND BE COMPLETED PRIOR TO ERECTION OF THE BEAMS. THE FABRICATOR SHALL INDICATE THE METHOD USED TO ACHIEVE THIS PROFILE ON THE FABRICATION DRAWINGS AND METHOD USED TO PROTECT THE REINFORCING STEEL.

40. PRIOR TO THE CONCRETE PLACEMENT OF THE LONGITUDINAL CLOSURE POUR, THE JOINT SHALL BE SATURATED WITH WATER IN ACCORDANCE WITH SECTION 501 OF THE STANDARD SPECIFICATIONS.

ABUTMENT CLOSURE/END DIAPHRAGM

41. AFTER THE CONCRETE HAS BEEN PLACED AND THE FINISHING OPERATIONS CONCLUDED IT SHALL NOT BE WALKED ON OR DISTURBED IN ANY MANNER, INCLUDING THE REMOVAL OF FORMS FOR 12 HOURS.

H-PILES

42. THE PILES SHALL BE HP 12X63.

43. TO PREVENT DAMAGE TO THE PILES, PILE SHOES ARE REQUIRED AND SHALL CONFORM TO SUBSECTION 505.04 (f).

44. THE CONTRACTOR MAY DRIVE THE PILES IN THE 14 DAY PERIOD PRIOR TO THE BRIDGE CLOSURE PERIOD. THIS WORK SHALL BE DONE DURING DAILY LANE CLOSURES.

45. PILES SHALL BE DRIVEN TO A NOMINAL PILE DRIVING RESISTANCE (R_{NDR}) OF 255 KIPS, PROVIDED A MINIMUM PENETRATION OF 18 FEET BELOW THE BOTTOM OF PILE CAP HAS BEEN REACHED.

46. A MINIMUM OF ONE DYNAMIC PILE TESTS SHALL BE CONDUCTED AT EACH ABUTMENT. PAYMENT WILL BE MADE UNDER ITEM 505.45, "DYNAMIC PILE LOADING TEST".

47. FOR ESTIMATING PURPOSES, THE PILE TIP ELEVATIONS WERE ASSUMED AS SHOWN ON THE BORING LOGS. THE ACTUAL IN PLACE LENGTHS MAY VARY.

48. THE TOPS OF THE PILES SHALL NOT VARY FROM THE POSITION SHOWN ON THE PLANS BY MORE THAN 3 INCHES. THE PILE ORIENTATION SHALL NOT VARY BY MORE THAN 5 DEGREES. THE CONTRACTOR SHALL DEMONSTRATE TO THE SATISFACTION OF THE ENGINEER HOW THE TOLERANCES WILL BE MET. THESE MEASURES SHALL BE DEMONSTRATED IN A SUBMITTAL TO BE ACCEPTED BEFORE PILE PLACEMENT COMMENCES.

MISCELLANEOUS

49. THE "STONE FILL, TYPE III" UNDER THE BRIDGE AS SHOWN IN THE PLANS SHALL BE PLACED BEFORE THE NEW BEAMS ARE SET.

50. IT IS ANTICIPATED THAT DEWATERING ACTIVITIES WILL BE REQUIRED DURING ABUTMENT EXCAVATION, PLACEMENT, AND BACKFILLING. THE CONTRACTOR'S ATTENTION IS DIRECTED TOWARDS SUBSECTION 204.10 OF THE STANDARD SPECIFICATIONS FOR PROPERLY CONSTRUCTING, IN THE DRY, A FOUNDATION OR STRUCTURAL COMPONENT.

51. EPSC EXISTING CONDITIONS SHEET AND EPSC PLAN SHEET HAVE BEEN INCLUDED AS A REFERENCE FOR SUBMITTALS.

52. ITEM 404.65 "EMULSIFIED ASPHALT" IS TO BE APPLIED AT A RATE OF 0.025 GAL/SY BETWEEN SUCCESSIVE COURSES OF PAVEMENT AND AT A RATE OF 0.080 GAL/SY ON ALL COLD PLANED SURFACES OR AS DIRECTED BY THE ENGINEER.

53. ITEM 520.10, "MEMBRANE WATERPROOFING, SPRAY APPLIED" SHALL BE APPLIED TO THE BRIDGE DECK AS PER THE MANUFACTURER'S INSTRUCTIONS AND EXTEND ONTO THE APPROACH SLABS 2 FEET BEYOND THE BEGIN BRIDGE/END OF BRIDGE ALONG WITH 2 INCHES VERTICALLY ONTO THE SURFACE OF THE BRIDGE RAIL.



54. THE FABRICATOR MAY ALTER THE LOCATION OF THE HORIZONTAL CONSTRUCTION JOINT AS DETAILED IN THESE PLANS TO ACCOMMODATE THEIR SPECIFIC OPERATION. THIS ALTERATION SHALL BE SUBMITTED TO AND APPROVED BY THE PROJECT MANAGER. ALL ASSOCIATED COSTS WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROPRIATE PRECAST ITEM.

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DESIGNED BY:	J. GRIGAS
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