GENERAL NOTES:

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2001, AND ITS LATEST REVSIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DATED 2002, AND ITS LATEST REVISIONS.

2. DESIGN IS FOR MS-22.5 LIVE LOADING.

3. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 20 DEGREES C UNLESS NOTED OTHERWISE.

4. EXISTING SIGNS NOT REUSED SHALL REMAIN THE PROPERTY OF THE TOWN OF BETHEL. THESE SIGNS SHALL BE STOCKPILED ON THE PROJECT AND THEN LOADED ON A TRUCK SUPPLIED BY THE TOWN. CONTACT THE TOWN ROAD FOREMAN (234-9722) TO ARRANGE FOR REMOVAL FROM THE PROJECT.

5. ACCESS TO ALL DRIVES WITHIN THE PROJECT APPROACH LIMITS SHALL BE MAINTAINED AT ALL TIMES EXCEPT AS NOTED BELOW.

6. TH 66 MAY REQUIRE TEMPORARY DAILY CLOSURE TO VEHICLES DURING CONSTRUCTION OF THE RETAINING WALLS ALONG IT. COORDINATION FOR AND THE CONDITIONS OF ANY TEMPORARY CLOSURES OF TH 66 SHALL BE MADE BETWEEN THE CONTRACTOR AND THE TOWN OF BETHEL. RESIDENTS WILL BE NOTIFIED PRIOR TO ALL CLOSURES. TH 66 MAY BE CLOSED NO EARLIER THAN 9:00 AM AND SHALL BE REOPENED BY 5:00 PM DAILY TO ALLOW RESIDENTS ACCESS TO THEIR HOMES. THE TOWN OF BETHEL WILL WORK OUT PARKING ARRANGEMENTS WITH EFFECTED RESIDENTS.

7. TACK COAT: EMULSIFIED ASPHALT IS TO BE APPLIED AT A RATE OF 0.068 KG/SM BETWEEN SUCCESSIVE COURSES OF PAVEMENT OR AS DIRECTED BY THE ENGINEER.

8. THE STONEFILL TYPE III UNDER THE BRIDGE SHALL BE PLACED BEFORE THE GIRDERS ARE SET.

9. FLEMMING BRACKETS SHALL BE DESIGNED BY THE CONTRACTOR, BUT SHALL BE LIMITED TO A MAXIMUM SPACING OF 1200mm.

10. THE DECK POUR FOR SPAN NO. 2 IS TO BE PLACED IN ONE CONTINUOUS PLACEMENT WITH A MAXIMUM DURATION OF EIGHT HOURS. IF CIRCUMSTANCES BEYOND THE CONTRACTORS CONTROL PREVENT THIS FROM BEING ACCOMPLISHED, AN ADDITIONAL CONSTRUCTION JOINT SHALL BE USED. A 96 HOUR DELAY BETWEEN THE COMPLETION OF ONE DAYS PLACEMENT AND THE BEGINNING OF ANOTHER PLACEMENT SHALL BE OBSERVED.

11. ALL REINFORCING STEEL IN THE VOIDED SLABS, OVERLAY, CONCRETE DECK, APPROACH SLABS, CURB AND SIDEWALK SHALL BE EPOXY COATED. WHEN EPOXY COATED REINFORCING STEEL IS CUT, THE UNCOATED ENDS SHALL BE REPAIRED WITH MATERIALS AND PROCEDURES APPROVED BY THE COATING MANUFACTURER. FLAME CUTTING OF EPOXY COATED REINFORCING STEEL WILL NOT BE PERMITTED.

12. REMOVAL OF THE PAVEMENT ON THE TEMPORARY DETOUR SHALL BE PAID FOR UNDER THE ITEM 203.28 "EXCAVATION OF SURFACES AND PAVEMENTS".

13. THE LOWER RETAINING WALL FROM APPROXIMATE CHANNEL STA 4+031 TO 4+035 LEFT ALONG THE RIVER SHALL BE REPLACED AS REQUIRED TO CONSTRUCT ABUTMENT NO. 2. THE COST OF REPLACING THE WALL SHALL BE PAID FOR UNDER ITEM 501.34 "CONCRETE, HIGH PERFORMANCE CLASS B" AND ITEM 507.15 "REINFORCING STEEL". SEE DETAIL THIS SHEET. THE PAY LIMITS FOR REPLACEMENT SHALL BE WITHIN THE NEAT LINE LIMITS OF THE COFFERDAM AS SHOWN ON SHEET 30.

14. ITEM 529.15 "REMOVAL OF STRUCTURE" SHALL BE USED FOR REMOVAL OF THE OLD SUPERSTRUCTURE AND ANY PORTIONS OF THE SUBSTRUCTURE, NOT REMOVED UNDER THE ITEMS 208.35 "COFFERDAM EXCAVATION ROCK" OR 203.27 "UNCLASSIFIED CHANNEL EXCAVATION". THE EXISTING TEMPORARY BRIDGE SHALL BE REMOVED UNDER ITEM 529.15 "REMOVAL OF STRUCTURE (MOD)" SEE SPECIAL PROVISIONS

15. THE EXISTING PIER IS TO BE REMOVED TO STREAMBED ELEVATION AND SHALL BE INCLUDED UNDER THE ITEM 529.15 "REMOVAL OF STRUCTURE"

16. THE FILL WITHIN THE LIMITS OF THE TEMPORARY ABUTMENTS SHALL BE REMOVED UNDER THE ITEM 203.15 "COMMON EXCAVATION". THE FILL MAY BE USED TO SHAPE AND MODIFY SLOPES THROUGH OUT THE PROJECT. THE RESIDENT ENGINEER MAY DETERMINE USE FOR THE FILL AS IT IS EXCAVATED. ALL UNUSED FILL WILL WILL BE DISPOSED OF BY THE CONTRACTOR.

17. PLANS FROM THE ORIGINAL BRIDGE CONSTRUCTION AND A MODIFICATION HAVE BEEN INCLUDED AS AN AID IN LOCATING BURIED STRUCTURES THAT MAY BE ENCOUNTERED WHILE INSTALLING SOIL NAILS.

18. THE CONTRACTOR SHALL MONITOR THE VERTICAL AND HORIZONTAL ALIGNMENT OF THE RAILROAD TRACKS DURING OPERATIONS THAT COULD AFFECT THE TRACK STABILITY, AND PROVIDE DAILY REPORTS TO NEW ENGLAND CENTRAL RAILROAD AND THE RESIDENT ENGINEER. IF MOVEMENT IS DETECTED GREATER THAN 6mm, THE WORK SHALL BE HALTED IMMEDIATELY AND THE ROAD MASTER OF THE NEW ENGLAND CENTRAL RAILROAD @ (802)527-3585 AND THE PROJECT MANAGER SHALL BE NOTIFIED. TRACK MONITORING WILL NOT BE PAID FOR DIRECTLY BUT SHALL BE CONSIDERED INCIDENTAL TO OTHER CONTRACT ITEMS. SEE SPECIAL PROVISIONS FOR MONITORING PLAN DETAILS.

19. ALL DRAINAGE MATERIALS REQUIRED FOR THE MSE WALL AND THEIR INSTALLATION SHALL BE INCIDENTAL TO ITEM 526.30 "MECHANICALLY STABILIZED EARTH (MSE) WALL". SEE SHEET 52 FOR DETAILS.

20. TO AVOID DAMAGING THE NAILS, THE SOIL NAIL WALL IS TO BE CONSTRUCTED AFTER ALL WORK IS COMPLETE FOR ABUTMENT NO. 1 AND THE APPROACH IS GRADED TO THE BOTTOM OF THE PAVEMENT.

21. RETAINING WALL #6 BETWEEN CHANNEL STA 4+048.000 AND STA 4+068.000 LEFT SHALL BE CONSTRUCTED USING "REDI-ROCK" BLOCKS OR EQUIVALENT AND SHALL MATCH THE EXISTING WALL CONSTRUCTED DURING THE INSTALLATION OF THE TEMPORARY BRIDGE. ALL MATERIALS AND DRAINAGE REQUIRED PER MANUFACTURERS SPECIFICATIONS SHALL BE PAID FOR UNDER THE ITEM 526.20 CONCRETE BIN-TYPE RETAINING WALL (MOD-"REDI-ROCK MSE").

22. THE SPACE BETWEEN THE CAST IN PLACE COPING ON THE TOP OF THE MSE WALL AND THE TOE OF THE ABUTMENT SHALL BE FILLED WITH 20 mm WASHED STONE. PAYMENT FOR THE 20 mm WASHED STONE SHALL BE MADE UNDER THE ITEM 613.10 "STONE FILL TYPE I (MOD. 3).

CONCRETE:

23. THE MINIMUM COVER FOR REINFORCING STEEL IN THE SUBSTRUCTURES SHALL BE 50 mm ALONG WALL FACES AGAINST EARTH, AND 80 mm ELSEWHERE UNLESS DETAILED OTHERWISE.

24. REINFORCING STEEL TOLERANCES SHALL BE AS FOLLOWS:
SPACING +/- 25 mm
CLEARANCE +/- 6 mm

25. THE KEY IN CONCRETE CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT. UPWARD KEYS SHALL BE PLACED INTEGRALLY WITH THE CONCRETE BELOW THE JOINT.

26. JOINTS AND SCORE MARKS IN THE CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

27. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 25mm X 25mm.

28. WATER REPELLENT (MOD-SILANE) SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES, EXCEPT THE UNDER SIDE OF THE BRIDGE DECKS BETWEEN DRIP NOTCH.

29. ALL VERTICAL CONCRETE SURFACES NOT USING FORM LINERS OR EXPOSED AGGREGATE TEXTURING SHALL BE GIVEN A RUBBED FINISH PER VAOT STANDARD SPECIFICATIONS SUB-SECTION 501.16 (a)2. PAYMENT FOR THE RUBBED FINISH SHALL BE INCIDENTAL TO THE APPLICABLE CONCRETE ITEM.

30. THE CONCRETE IN THE SUPERSTRUCTURE INCLUDING THE CURB AND SIDEWALK SHALL BE "CONCRETE, HIGH PERFORMANCE CLASS A" EXCEPT THE OVERLAY ON SPAN #1 AND RAIL IN BOTH SPANS SHALL BE "CONCRETE, HIGH PERFORMANCE CLASS AA". ALL OTHER CONCRETE SHALL BE "CONCRETE, HIGH PERFORMANCE CLASS B" UNLESS OTHERWISE NOTED.

31. PRIOR TO PLACING THE OVERLAY ON SPAN ONE, BEAM PROFILES ON SPAN TWO MUST BE COMPLETE SO ADJUSTMENTS MAY BE MADE FOR FINAL GRADE.

32. ALL CONCRETE FORMED WITH LINERS SHALL BE STAINED ACCORDING TO MANUFACTURER SPECIFICATIONS. THE PAYMENT FOR ALL STAIN WORK SHALL BE UNDER ITEM 513.30 STRUCTURAL PAINTING (MODIFIED). SEE SPECIAL PROVISIONS FOR MORE DETAIL CONCERNING THIS ITEM. NO STAINS WERE USED

33. PRIOR TO PLACING ANY FORM LINERS FOR PERMANENT WALLS, THE CONTRACTOR SHALL CONSTRUCT A TEST PANEL UTILIZING THE FORM LINER SYSTEM. THE SIZE OF THE TEST PANEL SHALL BE AS ORDERED BY THE RESIDENT ENGINEER BUT SHALL BE A MINIMUM FACE OF 1200 mm BY 2400 mm. THE CONTRACTOR SHALL DEMONSTRATE FORM LINER APPLICATION PATTERN AND COLORING OF CONCRETE FOR THE APPROVAL OF THE RESIDENT ENGINEER PRIOR TO PERFORMING ANY PERMANENT WORK ON THE WALL. ALL COSTS INVOLVED IN THE TEST PANEL SHALL BE INCIDENTAL TO ITEM 602.25, STONE MASONRY FACING (MODIFIED FORM LINER).

GRANITE CURBING ON BRIDGE:

34. BEFORE INSTALLATION OF THE GRANITE BRIDGE CURB THE CONTRACTOR SHALL PROVIDE THE RESIDENT ENGINEER WITH A TECHNICAL DATA SHEET FOR THE PROPOSED EPOXY FOR SECURING ANCHORS TO THE GRANITE CURBING. THE TECHNICAL DATA SHEET SHALL INCLUDE SPECIFICATIONS, AND MANUFACTURERS APPLICATION INSTRUCTIONS. THE RESIDENT ENGINEER SHALL APPROVE THE PRODUCT PRIOR TO ANY INSTALLATION.

35. THE EPOXY COATED ANCHORS SHALL BE SHIPPED FROM THE SUPPLIER CUT TO LENGTH WITH A TOTAL SHOP APPLIED EPOXY COATING MEETING THE REQUIREMENTS FOR EPOXY COATED REINFORCING STEEL.

36. THE BLOCKS FOR THE GRANITE BRIDGE CURB MAY BE SHOP ASSEMBLED WITH THE ANCHORS WITH PERMISSION FROM THE RESIDENT ENGINEER.

SUBSTRUCTURES:

37. PHASE CONSTRUCTION OF ABUTMENT NO. 2 MAY BE NECESSARY IF THE CONSTRUCTION OF COFFERDAMS INTERFERES WITH THE EXISTING TEMPORARY STRUCTURE. IF PHASE CONSTRUCTION IS REQUIRED THE CONTRACTOR SHALL NOT BE ENTITLED TO ADDITIONAL COMPENSATION FOR LOST TIME OR EXTRA COSTS ABOVE THE UNIT BID PRICE.

38. THE BRIDGE SEAT UNDER THE BEARING DEVICES SHALL BE LEVEL. THE TOPS OF THE ABUTMENTS AND PIER AROUND THE BEARINGS SHALL BE SLOPED 0.020 AWAY FROM THE BEARINGS.

39. CONCRETE PORTIONS OF THE ABUTMENT AND WINGWALLS ABOVE THE ADJACENT BRIDGE SEAT ELEVATIONS SHALL NOT BE PLACED UNTIL THE GIRDERS HAVE BEEN PLACED AND THE BEAM PROFILES HAVE BEEN TAKEN AND THE FINISH GRADE HAS BEEN DETERMINED BY THE RESIDENT ENGINEER.

40. PATTERNED CONCRETE SHALL BE STAINED USING CUSTOM ROCK INTERNATIONAL (CRI) PIGMENTED STAIN OR EQUIVALENT. STAIN SHALL BE APPLIED PER MANUFACTURES RECOMENDATIONS PRIOR TO APPLYING WATER REPELLENT. ALL STAINING SHALL BE PAID FOR UNDER THE ITEM 513.30 "STRUCTURAL PAINTING FIELD APPLIED (MOD)" SEE SPECIAL PROVISIONS.

Metric

SUBSTRUCTURES ON LEDGE:

41. THE FOOTINGS FOR ABUTMENT 2 AND THE PIER SHALL BE FOUNDED ON LEDGE, WHICH HAS BEEN CLEANED OF ALL LOOSE ROCK AND OTHER DEBRIS. THE LEDGE SHALL BE REMOVED AS REQUIRED TO ENSURE THE FOOTINGS ARE PLACED ON COMPETENT ROCK.

42. LEDGE THAT IS EXCAVATED FOR THE PLACEMENT OF FOOTINGS SHALL BE EXCAVATED TO PROVIDE A LEVEL SURFACE OR AS DIRECTED BY THE RESIDENT ENGINEER.

43. A MAXIMUM OF 150mm OVERBREAKAGE WILL BE REPLACED WITH "CONCRETE, HIGH PERFORMANCE CLASS B". OVERBREAKAGE BEYOND 150mm WILL BE REPLACED WITH "CONCRETE, HIGH PERFORMANCE CLASS B" AT THE EXPENSE OF THE CONTRACTOR.

44. FOR ALL SUBSTRUCTURE UNITS WHERE LEDGE IS WITHIN 300mm OF THE BOTTOM OF THE FOOTING AS DESIGNED, THE FOOTING MAY BE POURED TO THE TOP OF THE LEDGE USING "CONCRETE, HIGH PERFORMANCE CLASS B".

45. FOR ALL SUBSTRUCTURE UNITS WHERE LEDGE IS BELOW THE BOTTOM OF FOOTING BY MORE THAN 300mm, A LEDGE PROFILE SHALL BE PROVIDED TO THE PROJECT MANAGER TO DETERMINE IF THE FOOTING MAY BE LOWERED OR IF A SUBFOOTING IS REQUIRED.

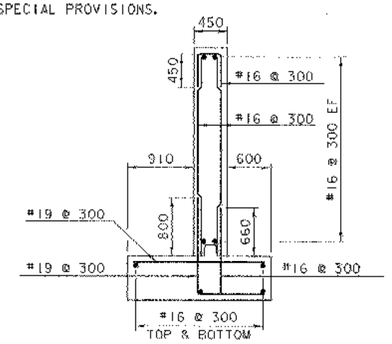
46. IF LEDGE IS ABOVE THE DESIGN BOTTOM OF FOOTING, THE FOOTING ELEVATION MAY BE RAISED. BEFORE ANY ADJUSTMENT IS MADE IN FOOTING ELEVATIONS THE PROJECT MANAGER SHALL BE CONTACTED FOR APPROVAL.

47. #25 DOWELS SHALL BE DRILLED AND GROUTED INTO LEDGE AS SHOWN ON THE PLANS. THE DOWELS SHALL HAVE A 600mm EMBEDMENT IN THE LEDGE AND SHALL EXTEND IN THE FOOTING A MINIMUM OF 450mm UNLESS NOTED OTHERWISE. THE DRILLING AND GROUTING SHALL BE PAID FOR UNDER THE ITEM 507.16 "DRILLING AND GROUTING DOWELS", HOWEVER, THE DOWELS SHALL BE PAID FOR UNDER THE ITEM 507.15 "REINFORCING STEEL".

UTILITIES:

48. UNDERGROUND UTILITIES LOCATED ALONG THE RAILROAD SHALL BE AVOIDED DURING THE CONSTRUCTION OF THE DROP INLET AND THE JACKING AND BORING OF THE 600 mm PIPE (DRAINAGE FLAG #8)

49. 150 mm UTILITY DUCTS SHALL BE INSTALLED IN THE SIDEWALK OF THE BRIDGE AS SHOWN ON THE PLANS. ANY UTILITY WORK NECESSARY BEYOND THE LIMITS OF THE BRIDGE WILL BE THE RESPONSIBILITY OF THE UTILITY COMPANY. SEE THE UTILITY SPECIAL PROVISIONS.



RETAINING WALL TYPICAL SECTION

(WALL ALONG RIVER @ WW #31
NOT TO SCALE

1. THE DIMENSIONS FOR THE WALL SHOWN ABOVE ARE ASSUMED AND SHALL BE VERIFIED PRIOR TO REPLACING THE LOWER RETAINING WALL EFFECTED BY THE CONSTRUCTION OF ABUTMENT #2. THE CONTRACTOR SHALL MATCH THE GEOMETRY INCLUDING FOOTING DEPTH OF THE EXISTING WALL.

2. 13 m^3 OF CONCRETE CLASS B AND 2160 KG OF REINFORCING STEEL FOR THE REPLACEMENT OF THE WALL WHICH MUST BE REMOVED FOR THE PURPOSE OF CONSTRUCTING ABUTMENT #2 HAVE BEEN INCLUDED IN THE QUANTITIES REQUIRED FOR ABUTMENT #2. BECAUSE THE SIZE OF THE WALL AND REINFORCING STEEL REQUIRED MAY CHANGE BASED ON ACTUAL WALL GEOMETRY, NO REINFORCING STEEL HAS BEEN SCHEDULED. THE CONTRACTOR SHALL DETERMINE THE ACTUAL AMOUNT OF CONCRETE AND REINFORCING STEEL REQUIRED.

PROJECT:	PROJECT NO.:
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SQUAD LEADER: C.P. WILLIAMS	CHECKED BY: M. GAGULIC
GENERAL NOTES	SHEET: 31 OF 130