

**BEARING REPAIR NOTES:**

- 1. BEARINGS SHALL BE REPLACED OR MODIFIED IN ACCORDANCE WITH BEARING TREATMENT DETAIL 'A', 'D', 'X', OR 'Y'. THE BEARING CONDITIONS SUMMARY TABLE ON SHEET 19 SHOWS WHICH BEARING TREATMENT DETAIL APPLIES TO EACH BEARING. THE BEARING TREATMENT DETAILS ARE SHOWN ON SHEETS 20 TO 23. DESCRIPTIONS AND PAYMENT FOR EACH BEARING TREATMENT DETAIL ARE AS FOLLOWS:
  - BEARING TREATMENT DETAIL 'A': REPLACE EXISTING EXPANSION BEARINGS AT ABUTMENTS IN KIND, ITEM 531.10, "BEARING DEVICE ASSEMBLY (STEEL FLT. EXP. BRGS.)."
  - BEARING TREATMENT DETAIL 'D': MODIFY EXISTING EXPANSION BEARINGS TO FIXED BEARINGS AT ABUTMENTS, ITEM 531.10, "BEARING DEVICE ASSEMBLY (STEEL FLT. FIXED BRGS.)."
  - BEARING TREATMENT DETAIL 'X': REPLACE EXISTING EXPANSION AND FIXED BEARINGS AT PIERS WITH FABRIC EXPANSION BEARINGS, ITEM 531.10, "BEARING DEVICE ASSEMBLY (FABRIC TFE EXP. BRGS.)."
  - BEARING TREATMENT DETAIL 'Y': REPLACE EXISTING FIXED BEARINGS AT PIERS WITH FABRIC FIXED BEARINGS, ITEM 531.10, "BEARING DEVICE ASSEMBLY (FABRIC FIXED BRGS.)."

THE JACKING AND SHORING REQUIRED FOR BEARING TREATMENT DETAILS 'A' AND 'D' WILL BE PAID UNDER ITEM 502.11, "SHORING SUPERSTRUCTURE BEARINGS (FROM BRIDGE SEAT)".

- 2. ALL OTHER ABUTMENT BEARINGS REQUIRING REPLACEMENT OR MODIFICATION, AS DETERMINED BY THE RESIDENT ENGINEER WILL BE PAID FOR UNDER ITEM 531.10, BEARING TREATMENT 'A', 'D', 'X' OR 'Y' SHALL BE USED WHERE APPLICABLE.
- 3. JACKING AND SHORING FOR BEARINGS REQUIRING JCPG (I.E., JACKING, CLEANING, PAINTING AND GREASING) AS SHOWN IN THE BEARING CONDITIONS SUMMARY ON SHEET 19 WILL BE PAID UNDER ITEM 502.11, "SHORING SUPERSTRUCTURE BEARINGS (FROM BRIDGE SEAT)". THESE BEARINGS WILL BE JACKED THE MINIMUM DISTANCE REQUIRED TO CLEAN THE BEARINGS IN PLACE. ALL BEARINGS WHICH REQUIRE ONLY CPG (I.E., CLEANING, PAINTING AND GREASING) AT THE ABUTMENTS WILL NOT BE JACKED UNLESS OTHERWISE ORDERED BY THE RESIDENT ENGINEER. THE COST FOR CPG SHALL BE SUBSIDIARY TO ITEM 513.30, "STRUCTURAL PAINTING, FIELD APPLIED" AND ITEM 513.41, "SURFACE PREPARATION, FIELD". ALL WORK REQUIRED FOR JACKING AND SHORING ADDITIONAL ABUTMENT BEARINGS, AS ORDERED BY THE RESIDENT ENGINEER, SHALL BE PAID UNDER ITEM 502.11, "SHORING SUPERSTRUCTURE BEARINGS (FROM BRIDGE SEAT)". IT SHOULD BE NOTED THAT MANY ENDS OF THE BEAMS AND THE BEARINGS AT THE ABUTMENTS AND PIERS HAVE AN EXISTING GREASE COATING WHICH MUST BE REMOVED PRIOR TO ANY CLEANING AND PAINTING.

- 4. AFTER REMOVAL OF ALL DIRT, DEBRIS, AND OTHER FOREIGN MATERIAL, AND INSPECTION OF THE BRIDGE SEATS, THE RESIDENT ENGINEER SHALL DETERMINE IF THE CONCRETE UNDER THE EXISTING BEARING DEVICES AT THE ABUTMENTS NEEDS REPAIR. THESE AREAS WILL BE REPAIRED IN ADDITION TO THE ABUTMENT REPAIRS ALREADY NOTED ON THE ABUTMENT REPAIR AREAS SHEET. ALL UNSOUND AND DETERIORATED CONCRETE UNDER THE BEARINGS AT ABUTMENTS SHALL BE REMOVED AND REPLACED WITH CONCRETE, CLASS "AA" OR "A" EITHER UNDER ITEM 580.14, "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II" OR ITEM 580.15, "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS III". THE NEW CONCRETE SURFACES AROUND THE BEARINGS SHALL SLOPE AWAY (TOWARD THE FRONT OF THE ABUTMENT) A MINIMUM OF 1/4" PER FOOT OR AS PRACTICAL. THE CONCRETE UNDER THE BEARINGS SHALL BE LEVEL. "OVERHEAD AND VERTICAL CONCRETE REPAIR MATERIAL" AND OTHER PATCHING MATERIAL WILL NOT BE ALLOWED TO BE USED UNDER THE BEARINGS (I.E., ONLY CONCRETE CLASS "AA" OR "A" WILL BE ALLOWED). ALL WORK AND MATERIAL REQUIRED TO PERFORM THIS WORK (EXCLUDING JACKING AND SHORING) SHALL BE PAID UNDER ITEM 580.14, "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II", OR ITEM 580.15 "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS III" AS DETERMINED BY THE RESIDENT ENGINEER.
- 5. THE CONTRACTOR WILL BE PAID ONLY ONCE FOR JACKING AND SHORING ANY ONE ABUTMENT BEARING. ANY SHORING OF ADJACENT BEAMS, REQUIRED ONLY TO REPAIR OR REPLACE THE BEARING OR BRIDGE SEAT IN QUESTION, SHALL BE SUBSIDIARY TO THE UNIT PRICE BID FOR THE SHORING OF THE BEARING OR BRIDGE SEAT BEING REPAIRED OR REPLACED. THE ENTIRE SUPERSTRUCTURE WILL BE JACKED AND SHORED AT EACH PIER TO ALLOW RECONSTRUCTION OF THE PIER AND REPLACEMENT OF ALL PIER BEARINGS, UNDER ITEM 502.10, "SHORING SUPERSTRUCTURE (AT PIERS 1, 2 AND 3)".
- 6. ALL BEARINGS SHALL CONFORM TO SUBSECTIONS 531 AND 731.
- 7. SHOP DRAWINGS CONFORMING TO SUBSECTION 531.03 MUST BE SUBMITTED, AND INCLUDE THE WELDING PROCEDURE IF THE STAINLESS STEEL PLATE IS TO BE WELDED TO THE SOLE PLATE, OR THE BONDING PROCEDURE IF THE STAINLESS STEEL PLATE IS TO BE BONDED TO THE SOLE PLATE. BONDING PROCEDURES ARE ALSO REQUIRED FOR BONDING THE TFE TO THE FABRIC PAD OR FOR BONDING LAMINATIONS WITHIN THE PAD.
- 8. ALL STEEL USED IN THE BEARINGS (EXCEPT STAINLESS STEEL) SHALL BE AASHTO M183 AND GALVANIZED OR METALIZED PER SUBSECTION 531.04 (B) OF THE GENERAL SPECIAL PROVISIONS FOR ALL PROJECTS. THIS INCLUDES ANY SHIM PLATES THAT MAY BE REQUIRED.
- 9. ANY GALVANIZED AREAS THAT ARE WELDED IN THE FIELD (OR OTHERWISE DAMAGED) MUST BE COATED WITH ZINC RICH COATING AFTERWARDS IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 513 - PROTECTIVE COATINGS.
- 10. DRILL HOLES (IN CONCRETE AT ABUTMENTS) FOR NEW ANCHOR BOLTS SHALL BE 2-1/2" DIAMETER IF ANCHOR BOLTS ARE TO BE GROUTED, AND 2" DIAMETER IF ANCHOR BOLTS ARE TO BE INSTALLED USING EPOXY MORTAR. ALL COSTS FOR DRILLING AND GROUTING NEW ANCHOR BOLTS SHALL BE INCLUDED IN ITEM 531.10.
- 11. ALL EXISTING SLOTTED HOLES IN EXPANSION BEARINGS OR BEAM FLANGES WILL BE CLEANED OF FOREIGN MATERIAL (DIRT, RUST, CONCRETE, ETC.) WITH THE COST SUBSIDIARY TO THE COST OF ALL OTHER BEARINGS BEING REPAIRED OR REPLACED.
- 12. AFTER CLEANING, FILL ALL HOLES IN THE BEAM FLANGES AND BEARING PLATES (WHERE EXISTING ANCHOR BOLTS HAVE BEEN REMOVED) WITH JOINT SEALER, POLYURETHANE, WITH THE COST TO BE SUBSIDIARY TO THE COST OF THE BEARING BEING REPAIRED OR REPLACED.
- 13. THE WORK REQUIRED TO REMOVE EXISTING ANCHOR BOLTS, BEARINGS AND BEARING PLATES IN ORDER TO INSTALL NEW BEARINGS AS SHOWN IN THESE PLANS, SHALL BE SUBSIDIARY TO ITEM 531.10, "BEARING DEVICE ASSEMBLY".

- 14. ALL BRIDGE SEATS SHALL BE CLEANED OF ALL FOREIGN MATERIAL (AFTER ALL OTHER WORK AT SEATS IS DONE) WITH THE COSTS SUBSIDIARY TO BEARING ITEMS. PARTICULAR CARE SHALL BE USED TO ENSURE AREAS OF BLOCKOUTS IN CURTAIN WALLS ARE CLEAN.
- 15. IF EXISTING SHIM PLATES ARE ENCOUNTERED DURING THE REPLACEMENT OF ABUTMENT BEARINGS, THEY SHALL BE REPLACED WITH STEEL SHIMS, WITH THE COST BEING SUBSIDIARY TO ITEM 531.10, "BEARING DEVICE ASSEMBLY". SHIMS SHALL BE GALVANIZED OR METALIZED.
- 16. NEW PLATES REQUIRED FOR BEARINGS BEING REPLACED IN KIND SHALL BE FABRICATED TO MATCH EXACTLY THE DIMENSIONS (INCLUDING RADIUS IF REQUIRED) OF THE PLATES BEING REPLACED. HOLES ARE ONLY REQUIRED IN THE NEW PLATES AT THE LOCATIONS INDICATED IN THE BEARING TREATMENT DETAILS. THE CONTRACTOR SHALL VERIFY THE DIMENSIONS OF THE EXISTING PLATES BEFORE THE CONTRACTOR ORDERS ANY NEW BEARING PLATES.

**STATE OF VERMONT  
AGENCY OF TRANSPORTATION**

Town Of	SOUTH BURLINGTON	Bridge No.	68
		Log Sta.	
Highway No. U.S.	2	Surv. Sta.	
U.S. 2 OVER I-89			
<b>BEARING REPAIR NOTES</b>			
Designed By	S.M. HODGDON	Drawn By	B.J. MASSE
Checked By	T.S. BRYANT	Date	1/00
		Bridge Design Supervisor	C.D. BAKER Date 1/00
PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK (36)
VHB Cad Drawing No.	50929BERN	Date	1/00
Bridge Sheet No.		Sheet	18 of 75