



NOTE: PLAN VIEW OF EXISTING PIER COLUMN SHOWN, EXISTING ABUTMENTS TO BE TREATED IN THE SAME MANNER.

**CONCRETE REPAIR DETAIL**  
NOT TO SCALE

**SUBSTRUCTURE REPAIR NOTES:**

1. ABUTMENTS & PIER COLUMNS SHALL BE REPAIRED USING THE FOLLOWING ITEMS:
  - 580J3 REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS I
  - 580J4 REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II
  - 580J5 REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS III
2. THIS WORK SHALL INCLUDE REMOVAL AND DISPOSAL OF UNSOUND AND DELAMINATED CONCRETE FROM ALL PORTIONS OF ABUTMENTS AND PIERS TO REMAIN AS DIRECTED BY THE ENGINEER. THE PREPARED SURFACES SHALL BE THOROUGHLY BLAST CLEAN TO REMOVE ALL LOOSE MATERIAL AND ANY CONTAMINANTS OR EFFLORESCENCE. THE REINFORCING STEEL (IF EXPOSED) SHALL BE BLAST CLEAN. THE MATERIAL USED TO FILL A PATCH SHALL BE PLACED AND FINISHED OR FORMED SO THAT THE FINAL SURFACE WILL HAVE THE SAME SCORE MARKS AND EXTERIOR FACE APPEARANCE AS THE ORIGINAL SURFACES BEING REPAIRED. THE SURFACE SHALL BE THOROUGHLY WETTED PRIOR TO PLACEMENT OF PATCHING MATERIAL OR NEW CONCRETE. IMMEDIATELY PRIOR TO PLACEMENT, THE SURFACE SHALL BE COATED WITH NEAT CEMENT PASTE, MIXED TO THE CONSISTENCY OF THICK LATEX PAINT (THOROUGHLY BRUSHED INTO THE SURFACE). WHEN "OVERHEAD AND VERTICAL CONCRETE REPAIR MATERIAL" CONFORMING WITH SUBSECTION 780.02 IS USED, THE BONDING AGENT (IF ANY REQUIRED) AND ITS APPLICATION PROCEDURE SHALL COMPLY WITH THE REQUIREMENTS OF THE PATCHING MATERIAL MANUFACTURER. PAYMENT FOR BONDING AGENT SHALL BE INCIDENTAL TO ITEM 580J3, 580J4, OR 580J5.
3. THE LIMITS FOR REMOVAL OF CONCRETE UNDER ITEM 580J3, "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS I" SHALL BE FROM THE EXISTING CONCRETE SURFACE TO A MAXIMUM DEPTH OF THE OUTSIDE FACE OF THE REINFORCING STEEL. ALL WORK AND MATERIALS NECESSARY FOR PREPARING A PATCH AND FILLING IT SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 580J3. THE EDGES OF ALL PATCHES SHALL BE SAW CUT IN STRAIGHT LINES TO A MINIMUM DEPTH OF 1 INCH. IF MORE THAN 1/4 OF THE REBAR IS EXPOSED OR THE BOND BETWEEN THE REBAR AND THE CONCRETE IS BROKEN, THEN PROCEED TO ITEM 580J4.
4. THE LIMITS FOR REMOVAL OF CONCRETE UNDER ITEM 580J4, "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II" SHALL BE FROM THE EXISTING CONCRETE SURFACE TO A MINIMUM DEPTH OF 3/4 ± 1/4" INSIDE THE INSIDE FACE OF REINFORCING STEEL AND TO A MAXIMUM DEPTH OF 6" FROM THE EXISTING CONCRETE SURFACE. ALL WORK AND MATERIALS NECESSARY FOR PREPARING A PATCH AND FILLING SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 580J4. THE EDGES OF ALL PATCHES SHALL BE SAW CUT IN STRAIGHT LINES TO A MINIMUM DEPTH OF 1 INCH.
5. THE LIMITS FOR REMOVAL OF CONCRETE UNDER THE ITEM 580J5, "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS III" SHALL BE FROM THE EXISTING CONCRETE SURFACE TO A DEPTH OF GREATER THAN 6". ALL WORK AND MATERIALS NECESSARY FOR PREPARING A PATCH AND FILLING IT SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 580J5. THE FILLING MATERIAL MAY BE EITHER "CONCRETE HPC CLASS AA, HPC CLASS A, HPC CLASS B" OR AN ACCEPTABLE PNEUMATICALLY APPLIED CONCRETE. THE EDGES OF ALL PATCHES SHALL BE SAW CUT IN STRAIGHT LINES TO A MINIMUM DEPTH OF 1 INCH.
6. IF PNEUMATICALLY APPLIED CONCRETE IS SELECTED FOR REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II OR III, THEN THIS TYPE OF CONCRETE REPAIR SHALL BE CONFINED ONLY TO VERTICAL AND OVERHEAD SURFACES OF THE SUBSTRUCTURE. ALSO, THE BRIDGE BEARINGS AND BEAMS SHALL BE COMPLETELY PROTECTED FROM REBOUND MATERIAL DURING PNEUMATICALLY APPLIED CONCRETE APPLICATION PROCEDURES.

**STATE OF VERMONT  
AGENCY OF TRANSPORTATION**

Town Of	GUILFORD	Bridge No.	<b>3N&amp;S</b>
Highway No.	I-91	Log Sta.	
		Surv. Sta.	
I-91 OVER BROAD BROOK & BROAD BROOK ROAD			
<b>SUBSTRUCTURE REPAIR DETAILS (3N&amp;S)</b>			
Designed By	M.J. MOZER	Drawn By	G.K. MORZE
Checked By	Date	Bridge Design Supervisor	
P.W. SZUSTAK	01/03	J.P. HALSTEAD	Date 01/03
PROJECT	GUILFORD	PROJECT NO.	IM 091-(133)
TVGA CAD Drawing No.	G subprdt.dgn	Date	06/10/08
Bridge Sheet No.	BRIS1	Sheet	77 of 114

**TVGA** TVGA ENGINEERING,  
SURVEYING, P. C.