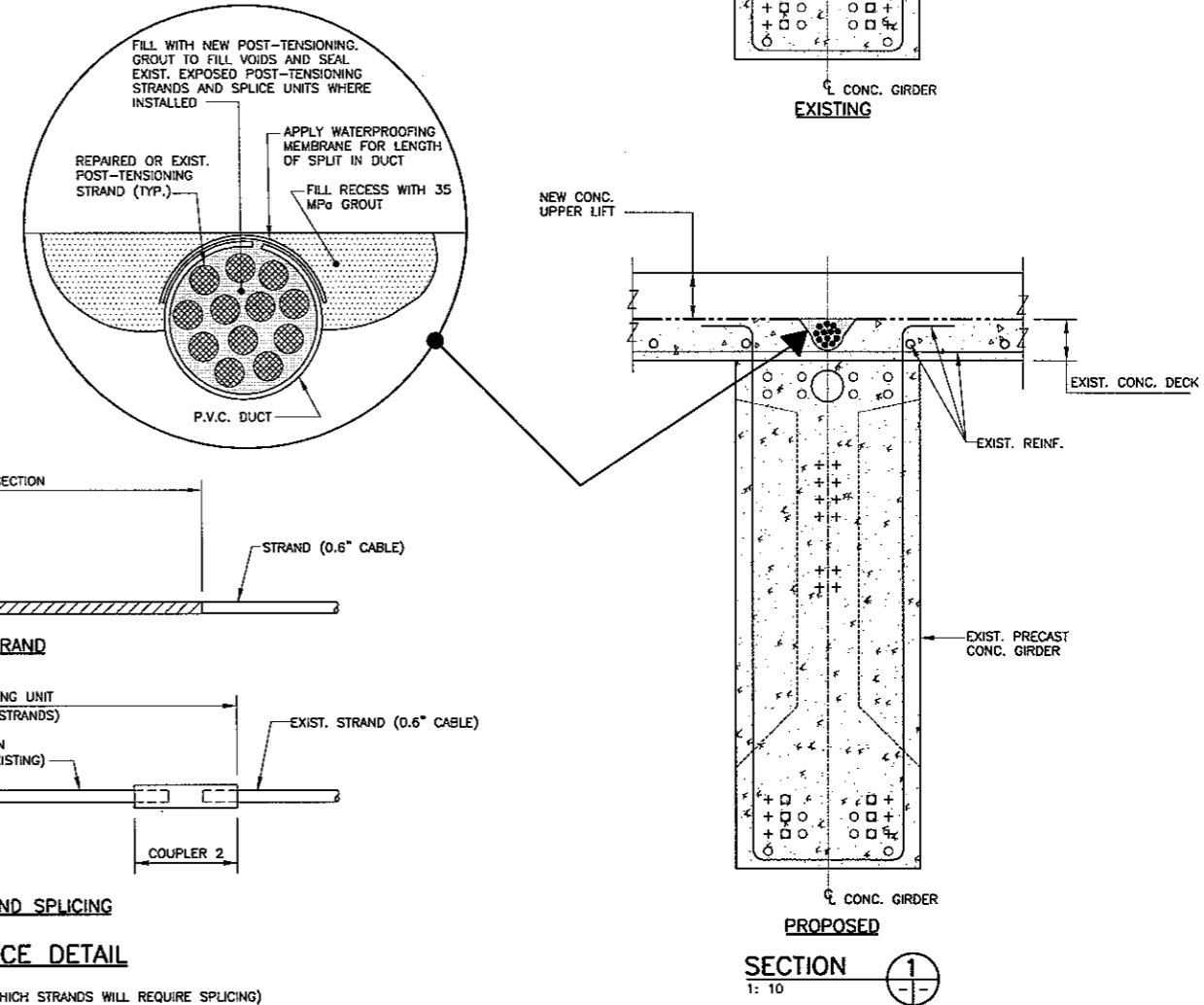
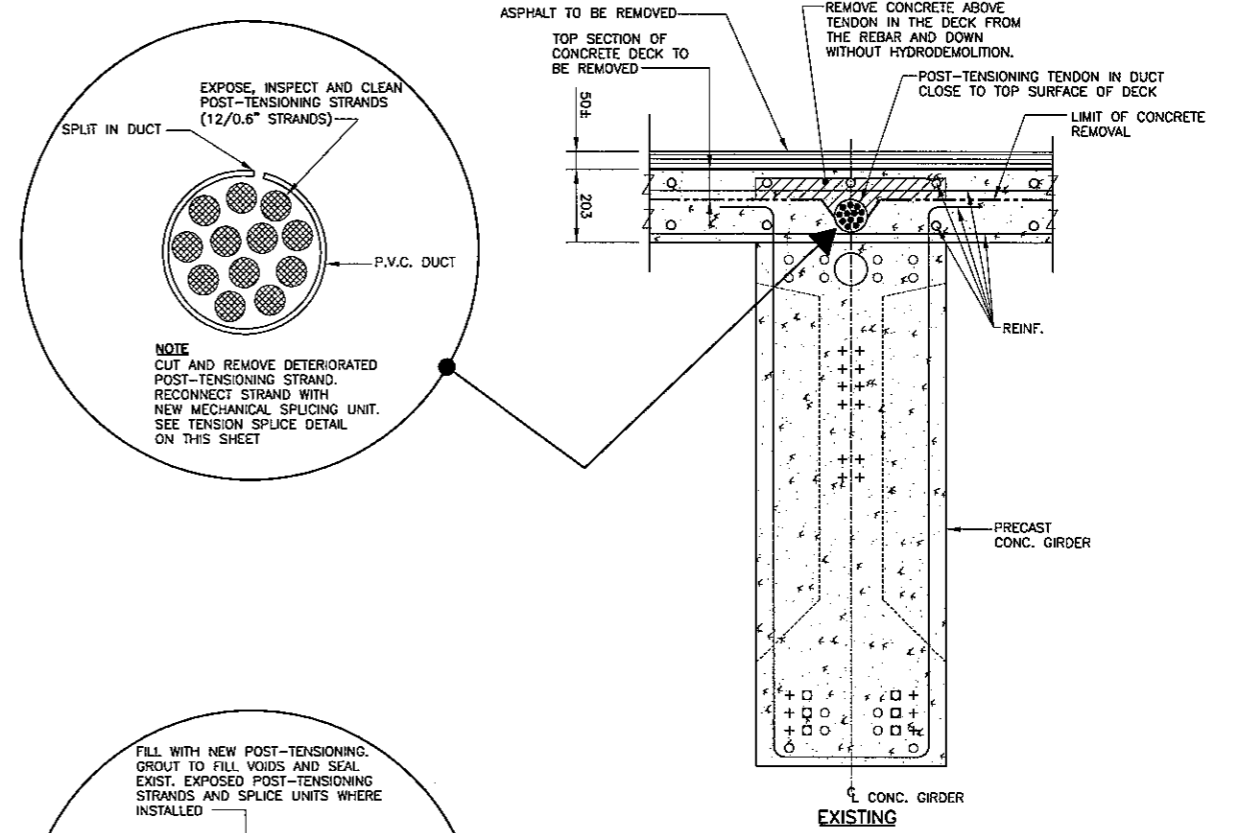


**EXISTING POST-TENSIONING TENDON IN DECK AT PIER LOCATIONS**

1: 25 **NOTE:**  
7 EXISTING POST-TENSIONING TENDONS IN THE DECK ARE TO BE INSPECTED AT EACH PIER LOCATION. SEE EXISTING BRIDGE DECK DRAWING (ON SHEET NO. 10) FOR LOCATIONS OF POST-TENSIONING TENDONS IN PLAN.



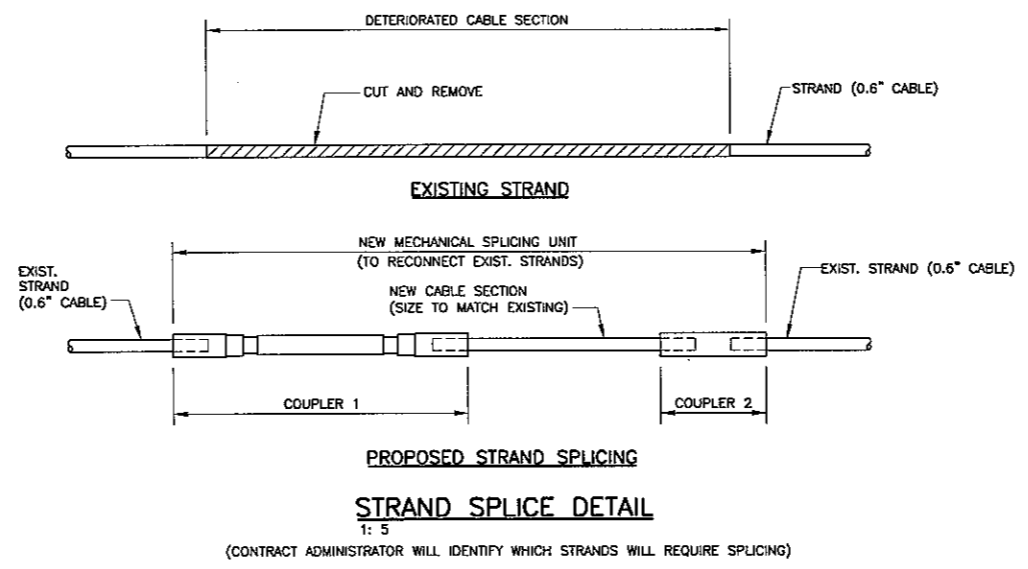
**POST-TENSIONING REPAIR**

**REMEDIAL REPAIRS TO POST-TENSIONING TENDONS.**

1. THE INTENT OF THIS WORK IS TO INSPECT THE P/T DUCTS LOCATED IN THE DECK ABOVE THE PIERS FOR COMPLETENESS OF GROUT FILL. IF NOT COMPLETELY FILLED, THE UNFILLED LENGTH OF DUCT IN THE DECK IS TO BE OPENED, THE STRANDS INSPECTED AND REPAIRED AS REQUIRED, AND THE VOIDS GROUTED. FINALLY THE SPLIT LENGTH OF THE P.V.C. DUCT IS TO BE WATERPROOFED.
2. THERE ARE 28 SUCH LOCATIONS. (7 OVER EACH PIER)
3. IT IS IMPORTANT THAT FOR THE ENTIRE TIME THE DUCTS ARE EXPOSED, THEY BE KEPT DRY. NO WATER SHOULD ENTER THE DUCTS.

**INSPECTION AND REPAIR METHOD:**  
(WHERE INSPECTION IS INDICATED, THE INSPECTION IS BY THE CONTRACT ADMINISTRATOR.)

1. REMOVE DECK CONCRETE FROM APPROXIMATELY THE TOP 1/3 OF THE CIRCUMFERENCE FOR THE LENGTH OF THE P.V.C. DUCT IN THE DECK (APPROXIMATELY 4 TO 7 METRES) AND CLEAN THE DUCT OF ALL RESIDUAL TAPE AND SEALANTS.
2. SPREAD OPEN THE SPLIT AT THE TOP OF THE DUCT AND INSPECT THE INSIDE FOR THE COMPLETENESS OF THE ORIGINAL GROUT INJECTION. IT MAY BE NECESSARY TO CUT AWAY SOME OF THE DUCT TO INSPECT THE TENDON AND TO CARRY OUT THE NECESSARY SPLICING AND GROUTING.
3. IF SOME OF THE STRANDS OF THE TENDON ARE NOT COVERED IN GROUT, LIGHTLY BLAST-GRIT THE STRANDS. INSPECT THE STRANDS FOR CORROSION. WHERE CORRODED, REMOVE THE CORROSION WITH A LIGHT GRIT BLAST. THE CONTRACT ADMINISTRATOR WILL DECIDE WHICH AND HOW MANY OF THE STRANDS MAY NEED TO HAVE NEW SECTIONS SPLICED INTO THEM. (ON THE WEST STRUCTURE IN 2005, A TOTAL OF 8 STRANDS AT 2 OF THE 28 LOCATIONS WERE SPLICED.) ENGAGE A SPECIALIST IN POST-TENSIONING REPAIR TO CARRY OUT THE STRAND SPLICING. THE REPAIRED STRANDS ARE TO BE TENSIONED TO ABOUT 37% OF THEIR ALLOWABLE WITH A RECENTLY CALIBRATED TORQUE WRENCH.
4. WHERE THE DUCTS BELOW THE DECK ARE NOT COMPLETELY FILLED WITH GROUT, INSERT INJECTION TUBE AS FAR DOWN THE DUCT INTO THE GIRDER AS POSSIBLE AND INJECT BY PRESSURE AS MUCH GROUT AS POSSIBLE FILLING FROM THE BOTTOM UP.
5. COVER ALL STRAND AND SPLICES THAT MAY HAVE BEEN INSTALLED AND UNCOVERED STRAND IN THE DECK, WITH GROUT.
6. CLEAN AND PRIME EXPOSED DUCT WITH A SOLVENT COMPATIBLE WITH THE MASTIC TYPE SEALANT USED IN THE NEXT STEP.
7. APPLY A SOLVENT-BASED (EMULSION TYPES WILL LIKELY NOT CURE FAST ENOUGH) MASTIC TYPE SEALANT TO EITHER SIDE OF THE SPLICE IN THE DUCT OR IF NO DUCT IS LEFT TO CLOSE, APPLY THE SEALANT TO THE TOP OF THE STRAND GROUT.
8. INSTALL AN OPEN WEAVE FIBREGLASS MEMBRANE INTO THE ABOVE MASTIC TYPE SEALANT BEFORE IT CURES.
9. APPLY A SECOND HEAVY COAT OF MASTIC TYPE SEALANT.
10. COVER THE SEALANT WITH A UV PROTECTANT IF THE SEALANT IS SUSCEPTIBLE TO BREAKDOWN UNDER UV LIGHT.
11. USING A STANDARD PREMIXED BAGGED GROUT, FILL THE RECESS ALONG THE EDGES OF THE PIPE TO KEEP WATER FROM PONDING IN THE RECESS.



B.M. ELEV.	DESIGNED BY: R.A.W.		ENGINEER'S SEAL	ENGINEER'S SEAL		MARYLAND TWIN BRIDGES REHABILITATION PROJECT EAST BRIDGE REHABILITATION	CITY DRAWING NUMBER: B108-06-15
	DRAWN BY: N.B.G.						SHEET 15 OF 38
	CHECKED BY: R.A.W.		CONSULTANT PROJECT NO. 05-5069-1000				
	REVIEWED BY: S.S.R.		EXISTING POST-TENSIONING TENDONS INSPECTION AND REMEDIAL REPAIRS				
2 ISSUED FOR TENDER 02/07/06 N.B.G.	HOR. SCALE: AS NOTED	RELEASED FOR CONSTRUCTION: [Signature]					
1 ISSUED FOR CITY REVIEW 12/14/05 N.B.G.	DATE: DEC. 2005	DATE: DEC. 2005					