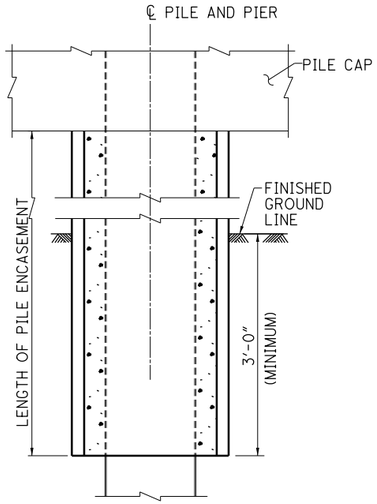
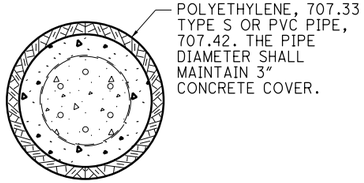
ITEM SPECIAL - PILE ENCASEMENT

ENCASE ALL CAST-IN-PLACE REINFORCED CONCRETE PILES FOR THE CAPPED PILE PIERS IN CLASS C CONCRETE. PROVIDE A CONCRETE SLUMP BETWEEN 6 AND 8 INCHES WITH THE USE OF A SUPERPLASTICIZER. PLACE THE CONCRETE WITHIN A FORM THAT CONSISTS OF POLYETHYLENE PIPE (707.33), OR PVC PIPE (707.42) WHICH SHALL BE LEFT IN PLACE. THE ENCASEMENT SHALL EXTEND FROM 3 FEET BELOW THE FINISHED GROUND SURFACE UP TO 1'-6" BELOW THE BOTTOM OF THE CONCRETE PIER CAP. POSITION THE PIPE SO THAT AT LEAST 3 INCHES OF CONCRETE COVER IS PROVIDED AROUND THE EXTERIOR OF THE PILE.

THE DEPARTMENT WILL MEASURE PILE ENCASEMENTS BY THE NUMBER OF LINEAR FEET. THE DEPARTMENT WILL DETERMINE THE SUM AS THE LENGTH MEASURED ALONG THE AXIS OF EACH PILE FROM THE BOTTOM OF THE ENCASEMENT TO THE TOP OF THE ENCASEMENT, AS PER LIMITS NOTED ABOVE. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR: ITEM SPECIAL - PILE ENCASEMENT.



PILE ENCASEMENT



ITEM SPECIAL - PATCHING CONCRETE STRUCTURES, MISC.: ABUTMENT BACKWALL

IN ADDITION TO THE WORK ITEMS REQUIRED IN 519, THIS ITEM WILL INCLUDE, THE CORING OF THE DECK TO PLACE THE CONCRETE, THE DRILLING OF DOWEL HOLES FOR THE PLACEMENT OF THE EPOXY REINFORCING STEEL AND THE WIDENING OF THE ABUTMENT SEATS AS DETAILED IN THESE PLANS AND DESCRIBED IN THE FOLLOWING NOTE.

PROVIDE A CONCRETE MIX AT A SLUMP THAT ALLOWS THE CONCRETE MIX TO BE PUMPED THROUGH A 4" DIAMETER ACCESS HOLE FROM THE TOP OF THE DECK AND SELF CONSOLIDATE, FILLING THE PATCH LOCATIONS OF THE UNDERSIDE OF THE DECK, THE ABUTMENT SEAT AND VERTICAL ABUTMENT WALL. THE FINAL CONCRETE MIX WILL BE SELF CONSOLIDATING CONCRETE USING AN APPROVED SELF CONSOLIDATING ADMIXTURE.

WHEN PERFORMING THE DISINTEGRATED CONCRETE REMOVAL, PROVIDE PATCHES WITH A MINIMUM DEPTH OF 4 INCHES AND NO GREATER THAN 6 INCHES. AREAS TO BE PATCHED WILL HAVE SQUARED EDGES AND BE ROUGHLY SQUARE OR RECTANGLE IN SHAPE.

AVOID DAMAGING OR DEBONDING THE REINFORCING, OR SHATTERING THE CONCRETE, BEYOND THE AREA TO BE PATCHED.

AFTER LOCATING THE EXISTING REINFORCING STEEL USING A PACHOMETER, DRILL 4" DIAMETER HOLES THROUGH THE BRIDGE DECK MISSING THE REBAR.

DRILL DOWEL HOLES FOR INSTALLATION OF THE EPOXY COATED REINFORCING STEEL. INSTALL THE REINFORCING STEEL ACCORDING TO ITEM 510 USING EPOXY GROUT, 705.20. IF AN EXISTING STEEL BAR IS ENCOUNTERED AT THE SAME LOCATION AS A PROPOSED DOWEL HOLE MOVE THE DOWEL HOLE TO EITHER SIDE OF THE EXISTING BAR. THE DEPARTMENT WILL PAY FOR THE DOWEL HOLES AND GROUT AT THE UNIT BID PRICE FOR ITEM 510 - DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT.

AFTER PLACEMENT OF THE REINFORCING STEEL AND THE DRILLING OF THE HOLES, PUMP THE CONCRETE INTO THE CORE HOLES UNTIL THE PATCH AREAS ARE FILLED AND ALL AIR VOIDS ARE DETERMINED TO HAVE BEEN ELIMINATED.

THE SLAB BRIDGE SEAT WILL ALSO BE WIDENED TO MATCH THE EXISTING ABUTMENT FOOTER WIDTH. REFER TO THE RESPECTIVE STRUCTURE SHEET FOR MORE DETAILS REGARDING THE WIDENING.

PLACE THE CONCRETE THROUGH THE 4" DIAMETER CORE HOLES BY PUMPING AND FREE FALL. ASSURE THE CONCRETE HAS COMPLETELY FILLED THE PATCH VOIDS BEFORE MOVING TO ANOTHER 4" ACCESS HOLE. USE VIBRATION EQUIPMENT TO HELP CONSOLIDATE THE CONCRETE MIX. CONTINUE PLACING THE CONCRETE INTO THE CORE HOLES AND FINISH THE CONCRETE IN THE HOLES LEVEL WITH THE DECK CONCRETE. THIS WORK MUST BE COMPLETED PRIOR TO OVERLAYING THE DECK.

WHEN THE FORMWORK IS REMOVED, THE PROJECT ENGINEER WILL DETERMINE IF THE NEW CONCRETE IS FLUSH WITH THE UNDERSIDE OF THE DECK. IF THERE ARE VOIDS FOUND BETWEEN THE NEW CONCRETE AND THE UNDERSIDE OF THE DECK, THE CONTRACTOR WILL PRESSURE GROUT THE VOIDS UNTIL ALL MATERIAL IS FOUND TO BE IN CONTACT WITH ONE ANOTHER. THE GROUT MATERIAL WILL ACHIEVE AT LEAST 4000 PSI IN 7 DAYS AND CONSIST OF CEMENT AND SAND MEETING ODOT MATERIAL SPECIFICATIONS.

THE DEPARTMENT WILL MEASURE THE NUMBER OF CUBIC YARDS DETERMINED BY THE CALCULATIONS FROM THE PLAN DIMENSION FOR THE ABUTMENT WIDENING WORK. THE DEPARTMENT WILL MEASURE THE NUMBER OF CUBIC YARDS FOR THE PATCHED AREAS BY DETERMINING THE SQUARE YARDAGE OF ACTUAL PATCHED AREAS AND MULTIPLYING BY A DEPTH OF 0.167 YARDS TO CALCULATE THE VOLUME OF CUBIC YARDS.

THE DEPATRMENT WILL PAY FOR THE ACCEPTED QUANTITY OF CUBIC YARDS.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER CU. YD. FOR ITEM SPECIAL - PATCHING CONCRETE STRUCTURE, MISC.: ABUTMENT BACKWALL, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK, EXCEPT FOR THE EPOXY COATED REINFORCING STEEL WHICH WILL BE PAID FOR SEPARATELY.

DESIGN AGENCY
ODOT DISTRICT ONE
CAPITAL PROGRAMS

DESIGNED	DRAWN	REVIEWED	DATE
MJM	MJM	JRC	01/21/20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RDM		6900909	

GENERAL NOTES
BRIDGE NO. PUT-108-0168
S.R. 108 OVER MILLER CITY CUTOFF

PUT-108-1.68
PID No. 98516

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