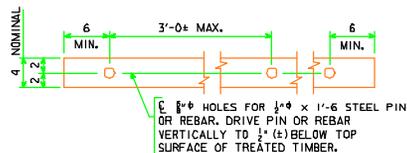
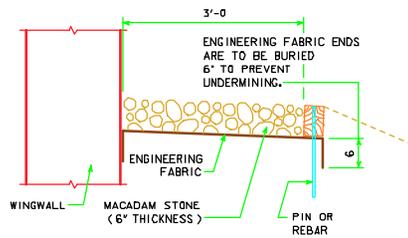


**DETAIL "D"**  
TOP VIEW OF WING ARMORING

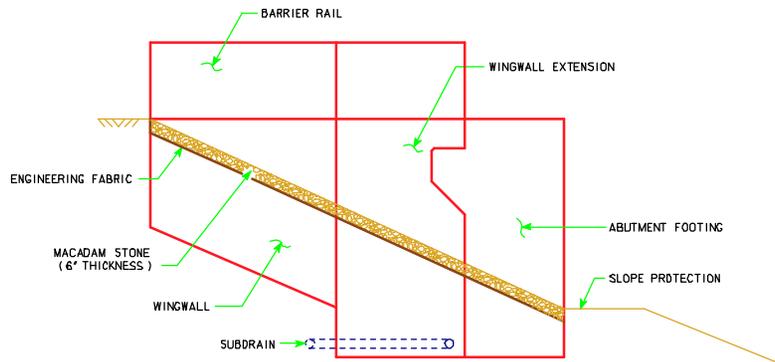
0° SKEW IS SHOWN, SIMILAR FOR ALL SKEWS.



**4" x 6" TREATED TIMBER**  
EDGING DETAILS



**SECTION A-A**



**PROFILE VIEW OF WING ARMORING**

**SUBDRAIN NOTES:**

SEE BT30-MS1-04 AND "GENERAL ELEVATION DATA" SHEETS FOR DETAILS OF PLACING ALL SUBDRAINS AND SUBDRAIN OUTLETS REQUIRED FOR THIS STRUCTURE.

THE BRIDGE CONTRACTOR IS TO INSTALL SUBDRAINS BEHIND THE ABUTMENT. THE SUBDRAINS SHALL BE 4" IN DIAMETER AND MEET THE REQUIREMENTS OF SECTION 4143.01 B OF THE CURRENT I.D.O.T. STANDARD SPECIFICATION. THE SUBDRAIN OUTLET SHALL CONSIST OF A 6'-0" LENGTH OF PIPE WITH A REMOVABLE RODENT GUARD.

THE DIMENSIONS SHOWN FOR THE PROPOSED SUBDRAINS ARE BASED ON THE PROPOSED GRADING LAYOUT OF BRIDGE BERMS. THE DIMENSIONS SHOWN ARE FOR ESTIMATING ONLY. REQUIRED LENGTHS AND GENERAL LOCATIONS OF SUBDRAINS ARE SUBJECT TO CHANGE DUE TO FIELD ADJUSTMENTS OF THE GRADING LAYOUT.

THE COST OF FURNISHING AND PLACING SUBDRAIN (INCLUDING EXCAVATION), GRANULAR BACKFILL, POROUS BACKFILL, AND SUBDRAIN OUTLET IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)"; NO EXTRA PAYMENT WILL BE MADE.

**MACADAM STONE SLOPE PROTECTION NOTES:**

SEE BT30-MS1-04 AND "GENERAL ELEVATION DATA" SHEETS FOR PLACING A MACADAM STONE SLOPE PROTECTION UNDER OVERHEAD STRUCTURES.

THE BRIDGE BERM FORESLOPE SHALL BE COMPACTED AND SHAPED AS SHOWN ON THESE PLANS, THE SITUATION PLAN AND AS DIRECTED BY THE ENGINEER. THE BERM FORESLOPE SHALL BE FIRM WHEN THE ENGINEERING FABRIC AND MACADAM STONE ARE PLACED.

THE ENGINEERING FABRIC SHALL MEET THE REQUIREMENTS OF 4196.01 C. IF THE ENGINEERING FABRIC IS LAPPED THE LAPS SHALL BE A MINIMUM OF ONE FOOT IN LENGTH, SINGLE FASHION WITH UP SLOPE LAP PIECE ON TOP AND STAPLED FOR CONTINUITY.

THE MACADAM STONE SHALL MEET THE REQUIREMENTS OF 4122.02, COARSE MATERIAL (NO CHOKE STONE IS ALLOWED).

WOOD PRESERVATIVE TREATMENT FOR THE TIMBER EDGING SHALL MEET THE REQUIREMENTS FOR GUARDRAIL POSTS, SAWED FOUR SIDES, AS SPECIFIED IN 4161.

THE MACADAM STONE SHALL BE DEPOSITED, SPREAD, CONSOLIDATED AND SHAPED BY MECHANICAL OR HAND METHODS THAT WILL PROVIDE UNIFORM DEPTH AND DENSITY AND PROVIDE UNIFORM SURFACE APPEARANCE.

PAYMENT FOR "MACADAM STONE SLOPE PROTECTION" WILL BE MADE ON A SQUARE YARD BASIS FOR SLOPE PROTECTION CONSTRUCTED INCLUDING THE AREAS OF WING ARMORING. THE UNIT PRICE BID PER SQUARE YARD SHALL INCLUDE ALL COSTS FOR MATERIAL AND LABOR REQUIRED TO CONSTRUCT THE SLOPE PROTECTION SHOWN ON THESE PLANS.

THE BERM FORESLOPE SHAPING AND COMPACTING AND THE DISPOSAL OF EXCESS SOIL FROM SHAPING OR TRENCHING SHALL BE CONSIDERED INCIDENTAL TO PLACING THE SLOPE PROTECTION. WHERE EROSION CONTROL WORK HAS BEEN COMPLETED THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY PLANT MATERIALS DESTROYED ADJACENT TO THE SLOPE PROTECTION AREA. THE CONTRACTOR SHALL REPLANT, RESEED AND REMULCH ALL DISTURBED AREAS, DESIGNATED BY THE ENGINEER, IN ACCORDANCE WITH SECTION 2601 OF THE CURRENT STANDARD SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE.

MACADAM STONE SHALL BE PLACED ALONG THE SIDE OF THE WING AND ABUTMENT FOOTING. THIS IS TYPICAL AT EACH CORNER OF THE BRIDGE UNLESS OTHERWISE NOTED IN THE PLANS. THE MACADAM STONE AT THESE LOCATIONS SHALL BE UNDERLAYED WITH ENGINEERING FABRIC MEETING THE REQUIREMENTS OF 4196.01 C.

LATEST REVISION DATE	 APPROVED BY BRIDGE ENGINEER	 STANDARD DESIGN - 30' ROADWAY, 2 SPAN BRIDGES	
		<b>PRETENSIONED PRESTRESSED BULB TEE CONCRETE BEAM BRIDGES</b>	
		ALL SPANS	JULY, 2004
<b>WING ARMORING DETAILS</b>		<b>BT30-MS2-04</b>	