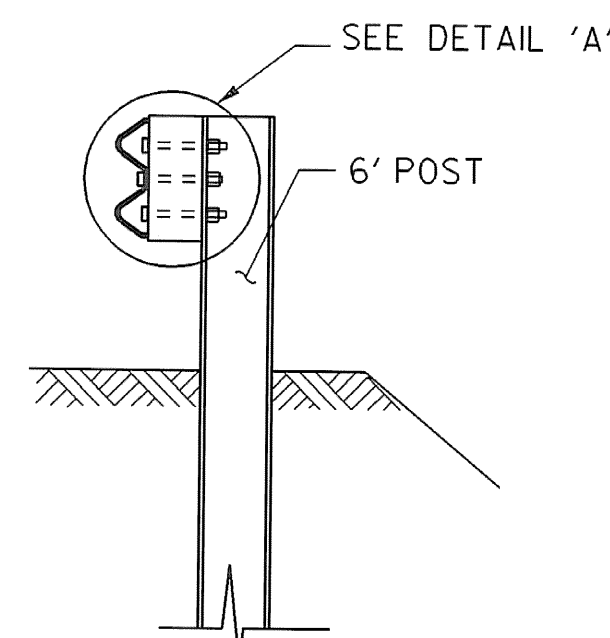


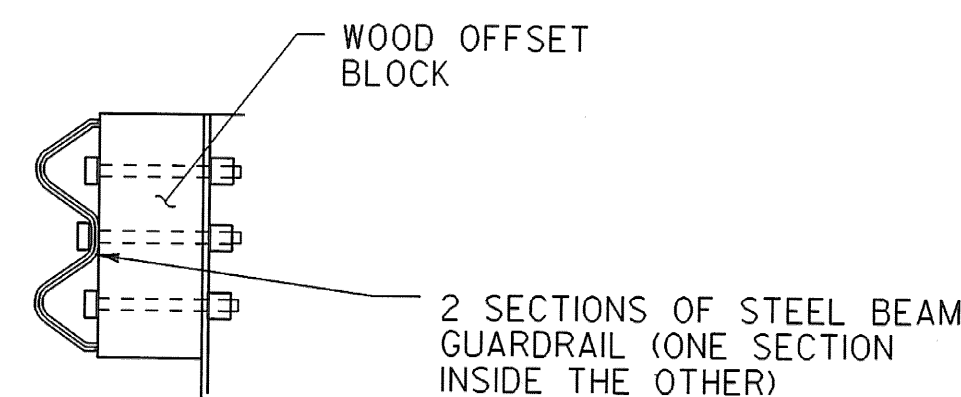
**STEEL BEAM GUARDRAIL AT SMALL CULVERTS DETAIL**

**BEGINEND SMALL CULVERTS DETAIL**  
 STA 80+94 TO 81+56 RT  
 STA 84+14 TO 84+89 LT  
 STA 136+24 TO STA 136+99 LT

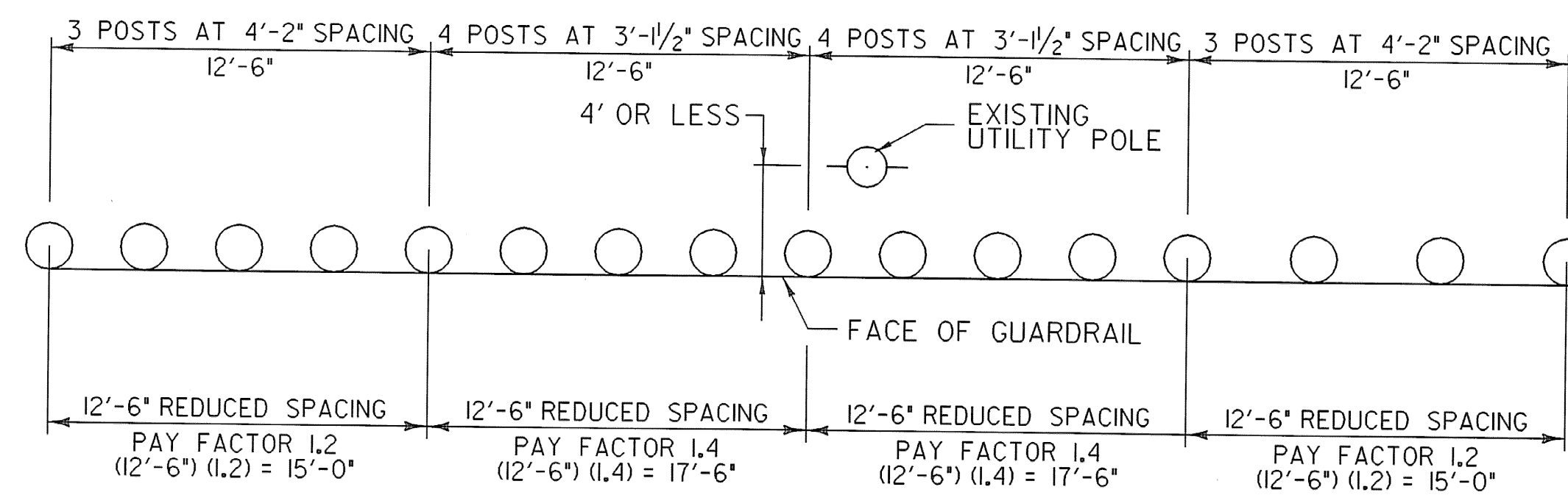


**SECTION A-A**

- NOTES:  
 1. SEE STANDARD G-1 FOR STEEL BEAM GUARDRAIL DETAILS.  
 2. THIS DETAIL TO BE USED AS INDICATED ON THE LAYOUT SHEETS OR AS DIRECTED BY THE RESIDENT ENGINEER.

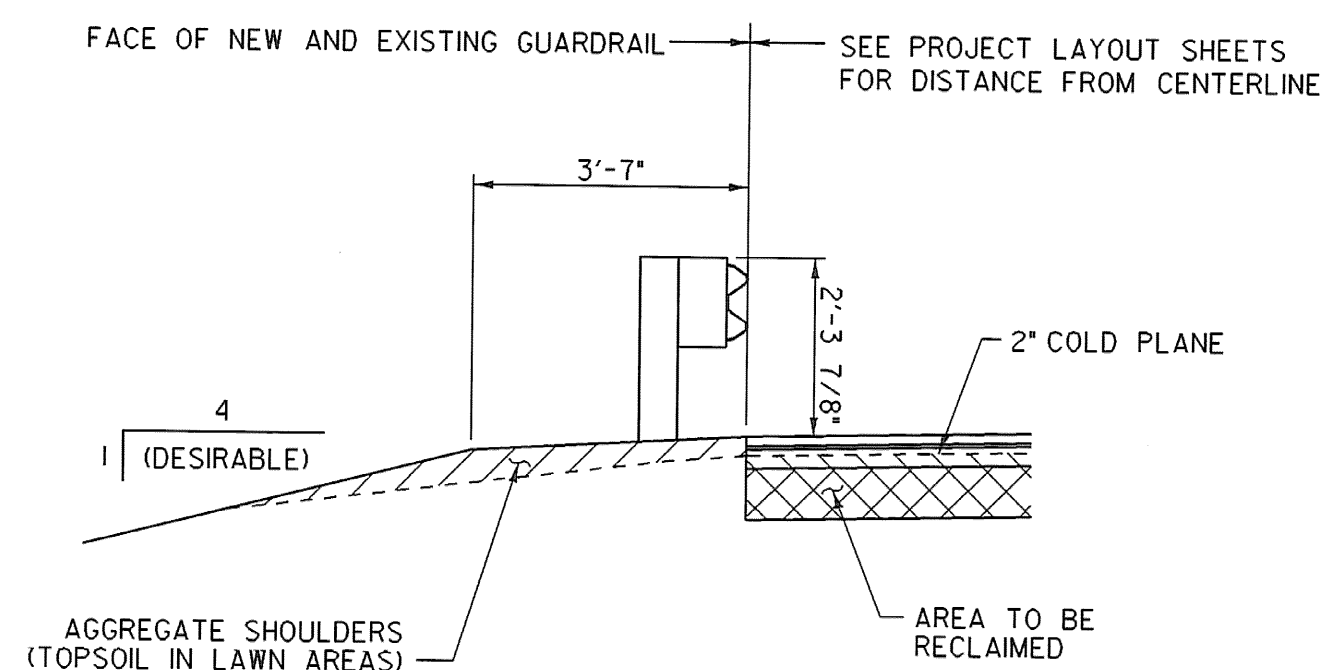


**DETAIL A**

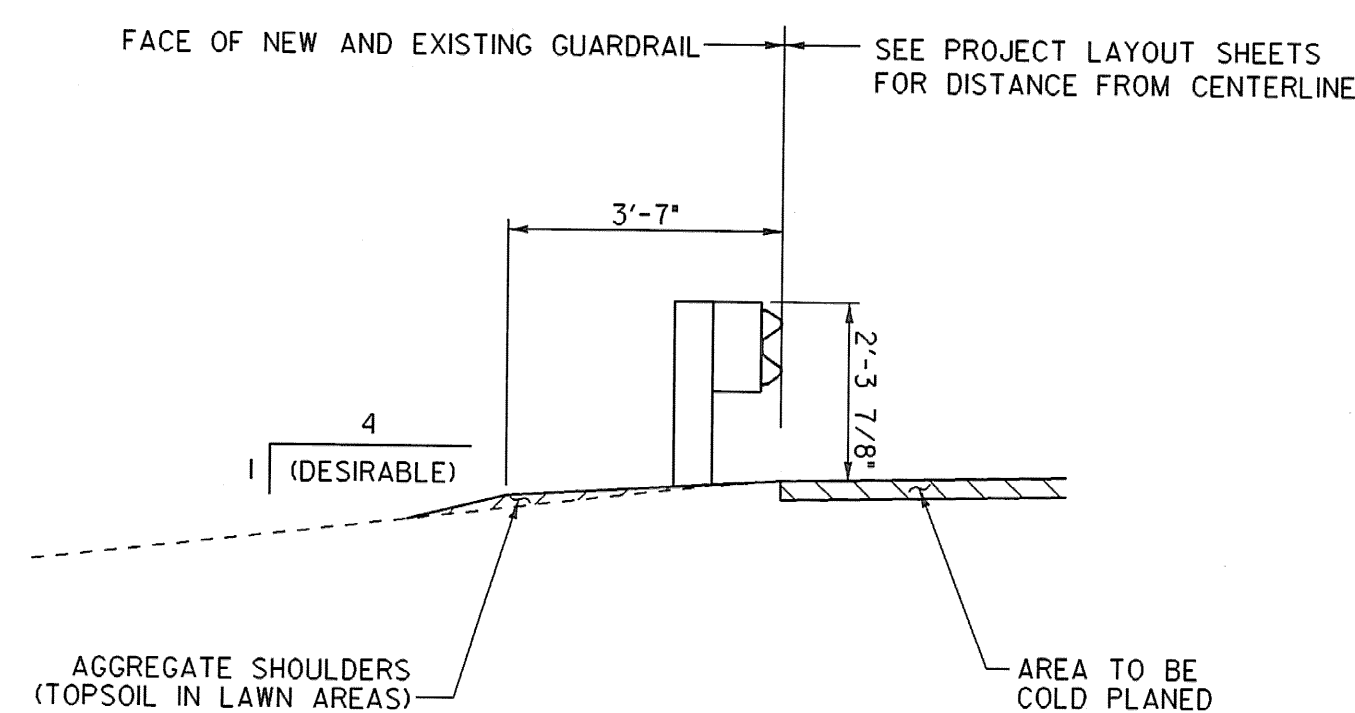


**STEEL BEAM GUARDRAIL POST SPACING AT UTILITY POLE DETAIL**

**BEGINEND UTILITY POLE SPACING DETAIL**  
 STA 75+86 TO STA 76+36 RT  
 STA 135+61 TO STA 136+11 LT



**TYPICAL SECTION AT GUARDRAIL COLD PLANE AND RECLAIM AREAS**



**TYPICAL SECTION AT GUARDRAIL COLD PLANE AREAS**

NOT TO SCALE

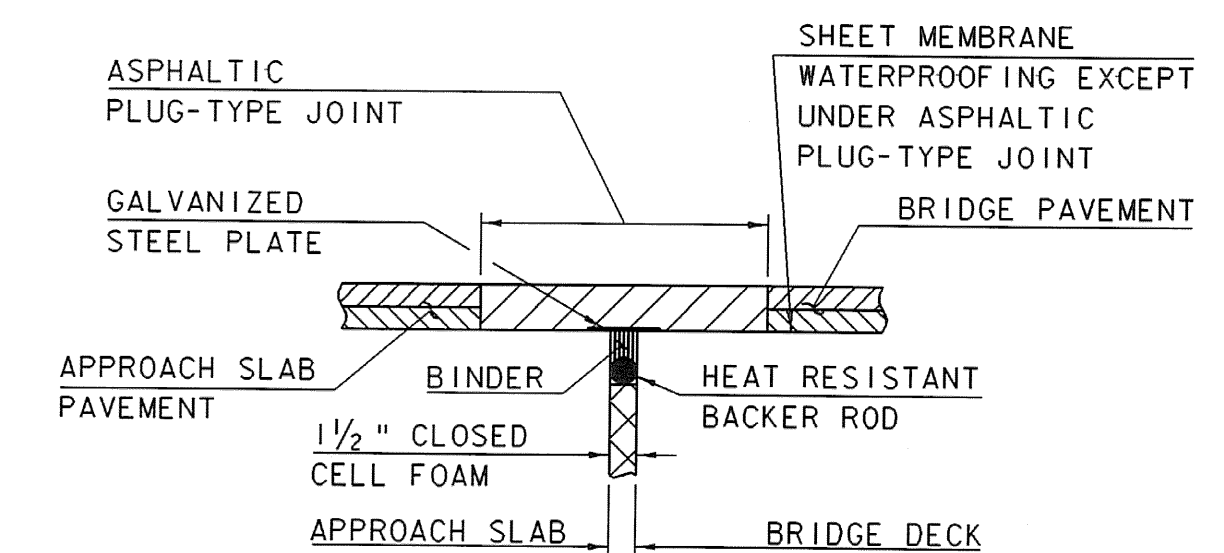
**ASPHALTIC PLUG JOINT NOTES**

**1. INSTALLATION**

- LOCATE THE JOINT CENTRALLY OVER THE DECK OVERLAY EXPANSION GAP OR FIXED JOINT MARKED OUT TO THE MANUFACTURER'S RECOMMENDED WIDTH.
- REMOVE THE BITUMINOUS CONCRETE PAVEMENT FULL DEPTH AS SHOWN ON THE PLANS. THE PAVEMENT SHALL BE DRY AND SAW CUT TO THE LIMITS REQUIRED TO PLACE THE JOINT. A PNUMATIC HAMMER AND CHISEL MAY BE USED ADJACENT TO THE CURB ONLY WHEN SAW CUTTING IS NOT POSSIBLE.
- BLAST CLEAN THE JOINT AREA OF DEBRIS AND ASPHALT. THOROUGHLY DRY THE JOINT AREA WITH COMPRESSED AIR PRIOR TO APPLYING BINDER MATERIAL.
- REPAIR SPALLED AND DEFECTIVE CONCRETE WITH AN APPROVED MATERIAL AS AGREED UPON BY THE ENGINEER.
- PLACE PROPERLY SIZED HEAT RESISTANT BACKER ROD IN THE MOVEMENT GAP ALLOWING FOR 1" +/- OF BINDER ABOVE THE ROD.
- HEAT AND PLACE THE BINDER MATERIAL AS RECOMMENDED BY THE MANUFACTURER.
- PLACE 1/4" THICK BY 8" WIDE SECTIONS OF STEEL PLATE OVER THE CENTER OF THE MOVEMENT GAP. SECURE THE PLATES FROM MOVING BY INSERTING LOCATING PINS THROUGH THE PRESTAMPED HOLES INTO BACKER ROD AND COVER WITH HOT BINDER. THE STEEL PLATES MAY BE OMITTED WHERE THE ENGINEER DETERMINES THAT THE APPROACH SLAB OR BRIDGE DECK WILL PROVIDE INADEQUATE SUPPORT AND WHERE VERTICAL MOVEMENT OF THE PLATES MIGHT OCCUR.
- HEAT AND MIX THE BINDER MATERIAL AND AGGREGATE AS RECOMMENDED BY THE MANUFACTURER.
- INSTALLATION OF MATERIAL, COMPACTION, AND TOP COATING SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
- IMMEDIATELY AFTER TOP COATING, CAST AN ANTI-SKID MATERIAL OVER THE JOINT TO REDUCE THE RISK OF TRACKING.
- PROTECTED JOINT FROM TRAFFIC UNTIL THE MATERIAL HAS COOLED TO 51 DEG C (125 DEG F) +/-.

**2. WEATHER LIMITATIONS. (APPLY BINDER MATERIAL ONLY WHEN THE FOLLOWING CONDITIONS PREVAIL OR AS RECOMMENDED BY THE MANUFACTURER):**

- THE AMBIENT AIR TEMPERATURE IS AT LEAST 10 DEG C (50 DEG F) AND RISING.
- THE ROAD SURFACE IS DRY.
- WEATHER CONDITIONS OR OTHER CONDITIONS ARE FAVORABLE AND ARE EXPECTED TO REMAIN SO FOR THE PERFORMANCE OF SATISFACTORY WORK.



**ASPHALTIC PLUG-TYPE JOINT DETAIL (NOT TO SCALE)**

**TYPICAL SHEET #3**

PROJECT NAME:	SPRINGFIELD
PROJECT NUMBER:	STP 0136(1)
FILE NAME: ...02C084\...02C084_typ.dgn	PLOT DATE: 06-JAN-2009
PROJECT LEADER: K. UPMAL	DRAWN BY: B. KIPPAN, PAPPAS
DESIGNED BY: B. KIPPAN, PAPPAS	CHECKED BY: N. PAPPAS
IPARM FILE NAME: 02c084_typ_03	SHEET 5 OF 68