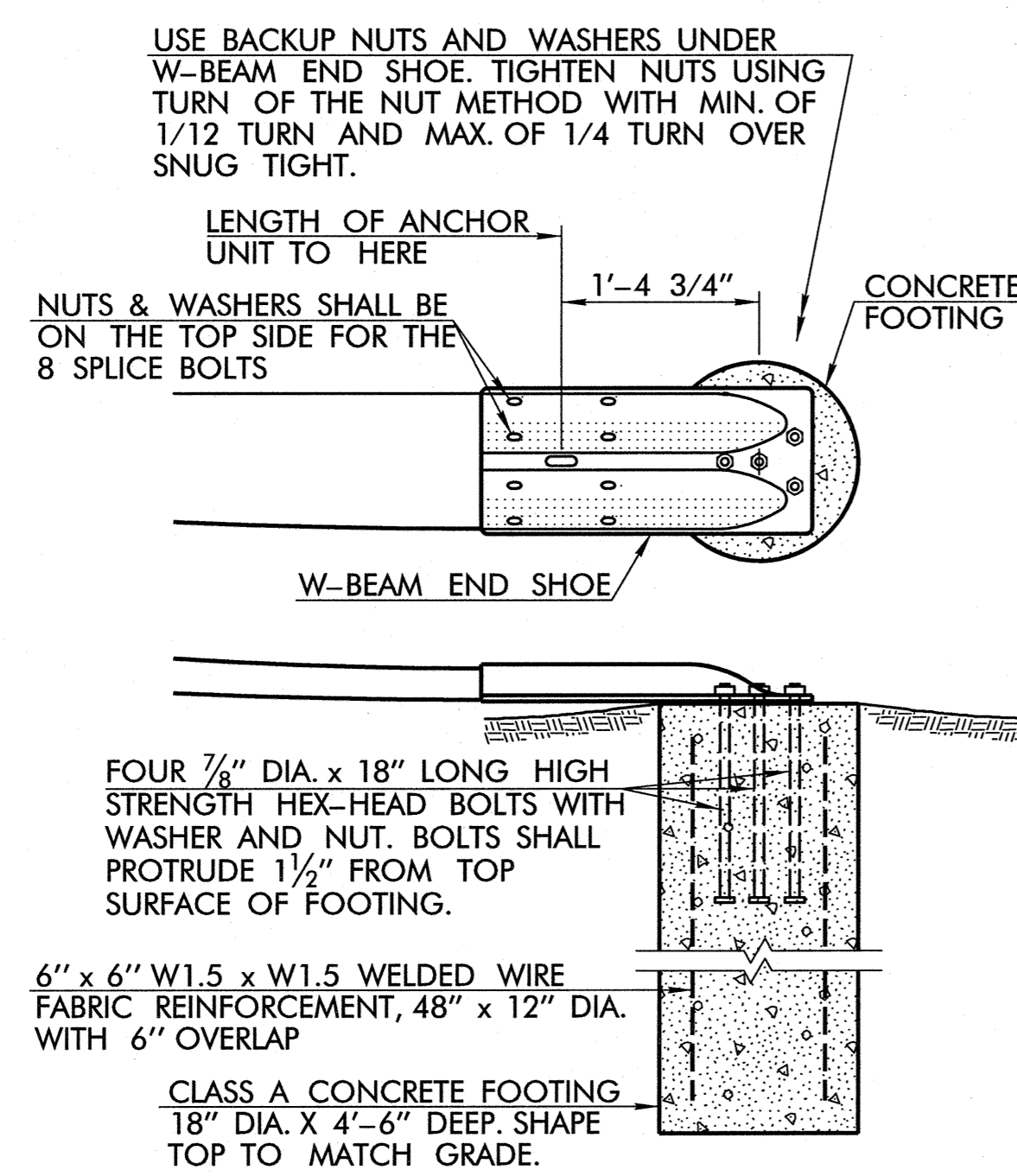
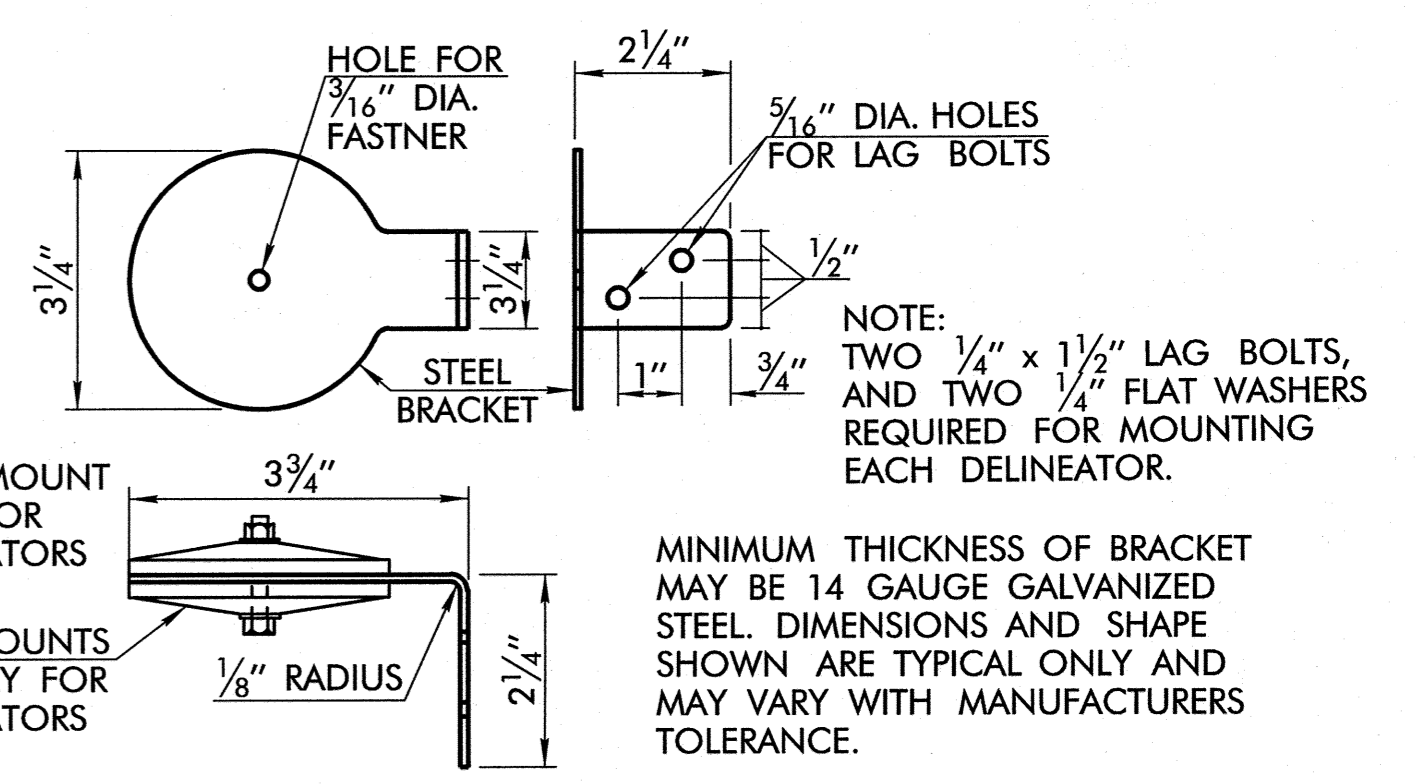
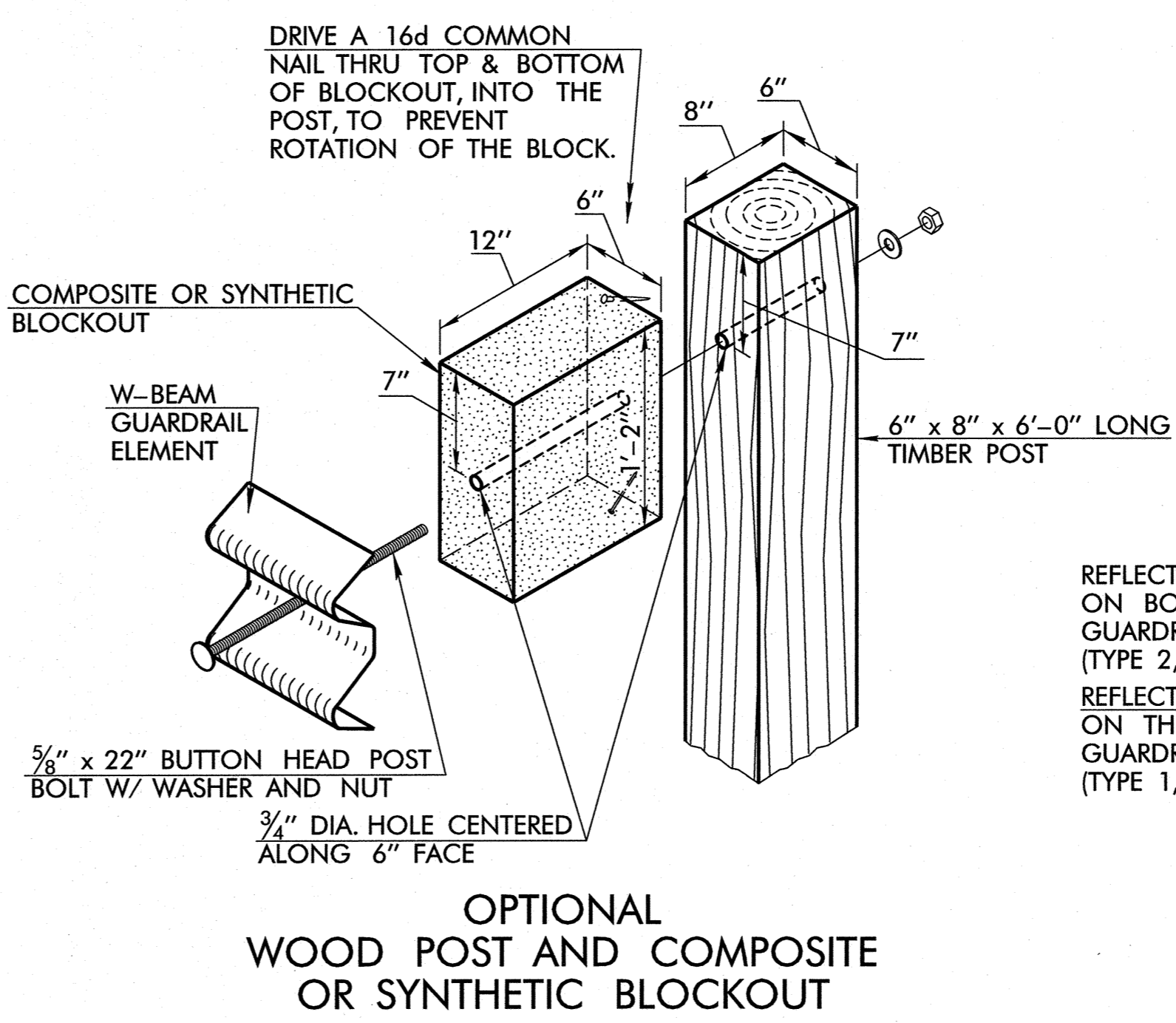
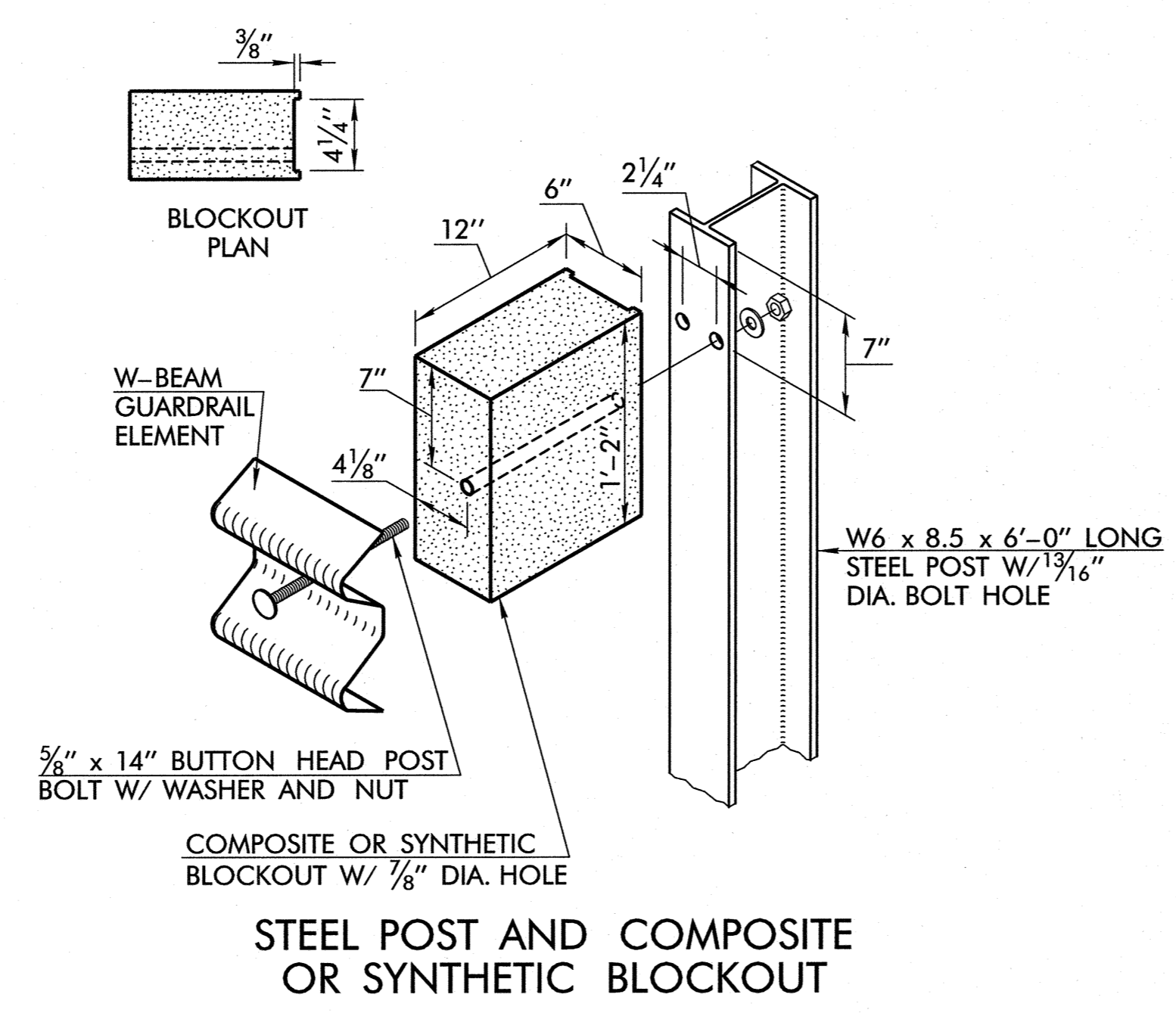


REVISIONS	
DESCRIPTION	DATE

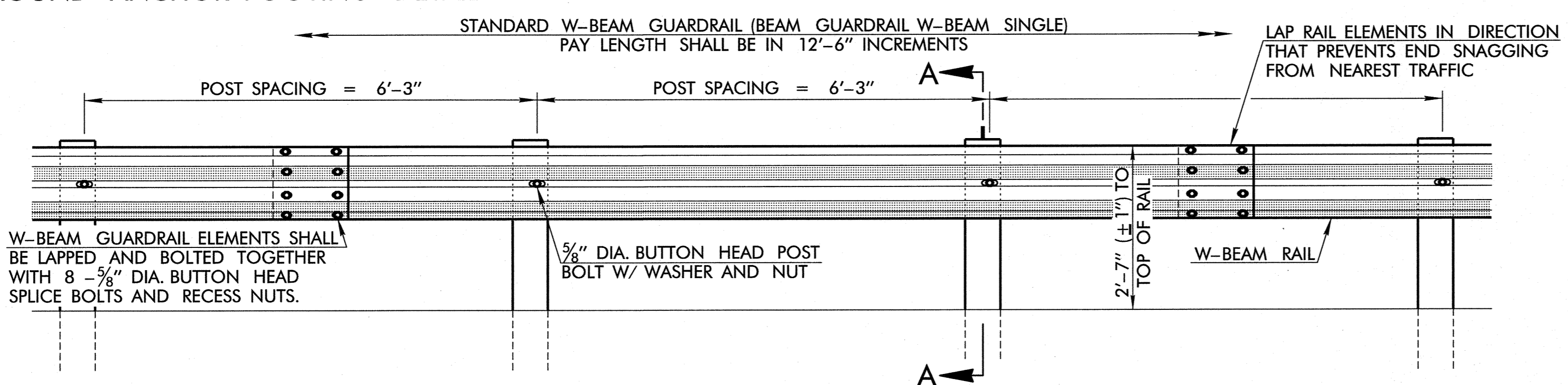


GROUND ANCHOR FOOTING DETAIL

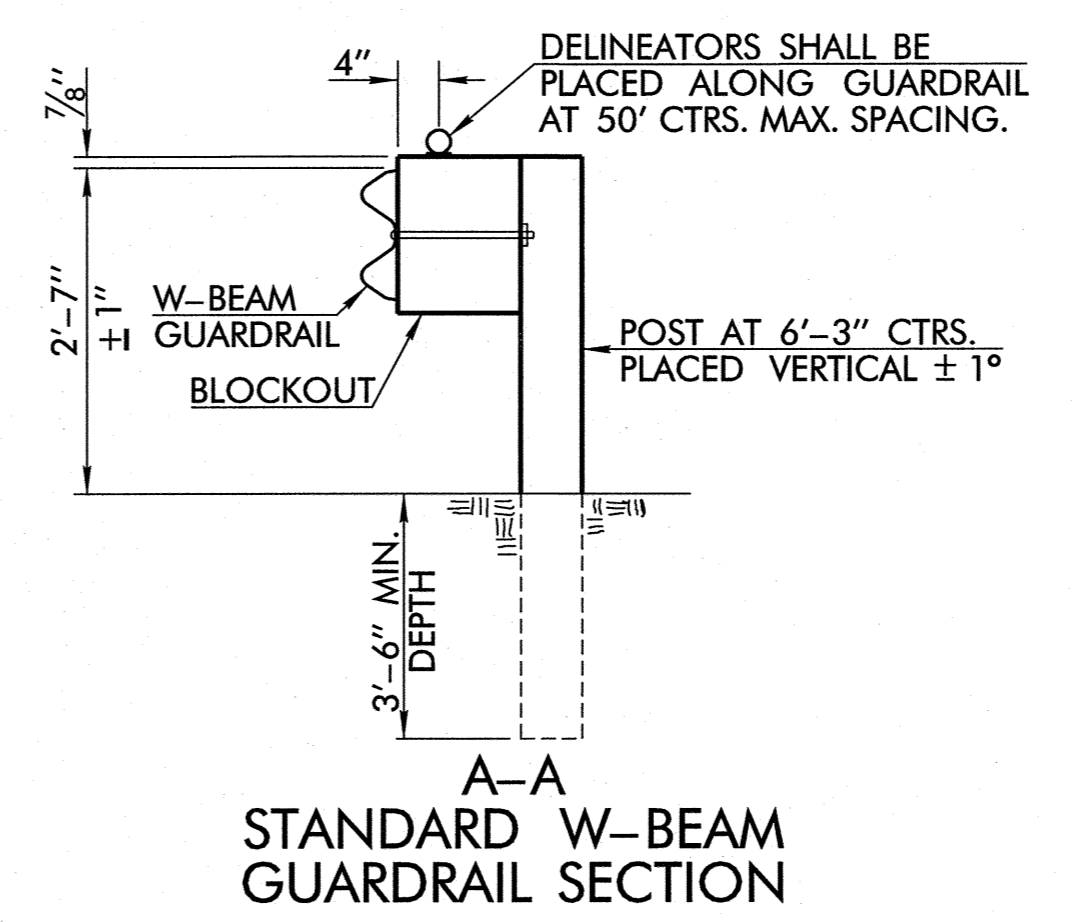


TYPICAL BRACKET FOR MOUNTING 3/4" ROUND DELINEATOR TO GUARD RAIL BLOCKOUT

CONTRACTOR MAY USE ALTERNATE DELINEATORS LISTED ON TRAFFIC ENGINEERING DIVISIONS QUALIFIED PRODUCTS LIST (QPL). THE USE OF ALTERNATE DELINEATORS (NOT DESCRIBED IN THIS STANDARD) MUST BE APPROVED BY THE RESIDENT ENGINEER.



STANDARD W-BEAM GUARDRAIL ELEVATION

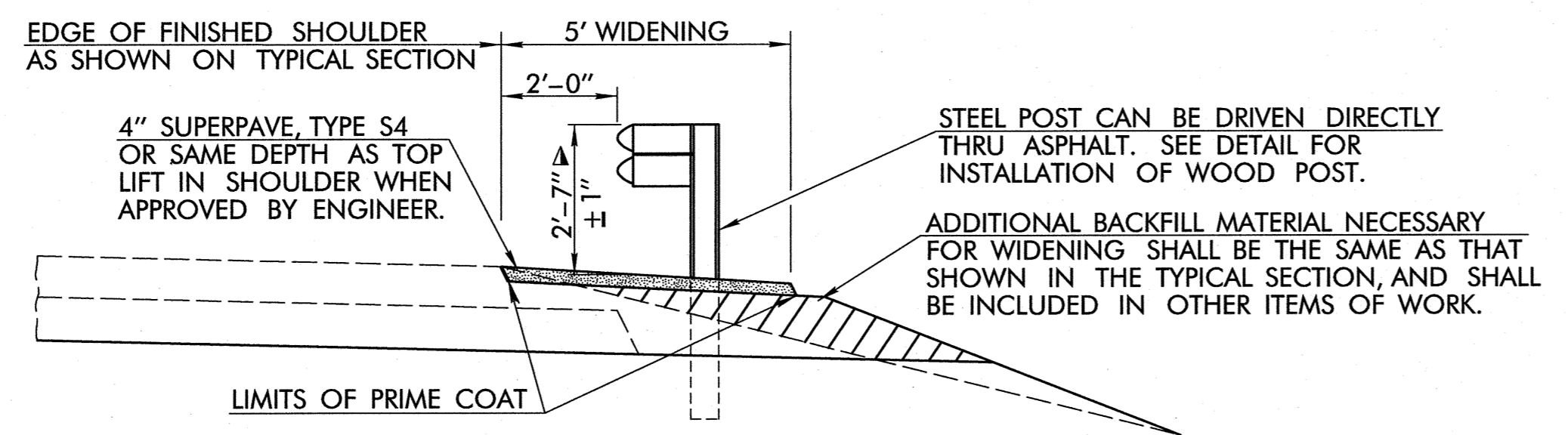


OPTIONAL TYPE POSTS OR BLOCKOUTS FOR STANDARD GUARDRAIL

THE CONTRACTOR MAY, AT HIS OPTION, SELECT AND USE ONE OF THE TYPE POSTS AND BLOCKOUTS SHOWN ABOVE, OR AN APPROVED ALTERNATE. THIS POST & BLOCKOUT CHOICE MUST BE USED ON THE ENTIRE PROJECT. ALTERNATE POST (INCLUDING SPECIAL SHAPES) MAY BE USED UPON THE APPROVAL OF THE ENGINEER. ALTERNATE BLOCKOUTS SUCH AS WOOD MAY BE USED IF PRODUCT HAS BEEN EVALUATED AND APPROVED BY ODOT.

GENERAL NOTES

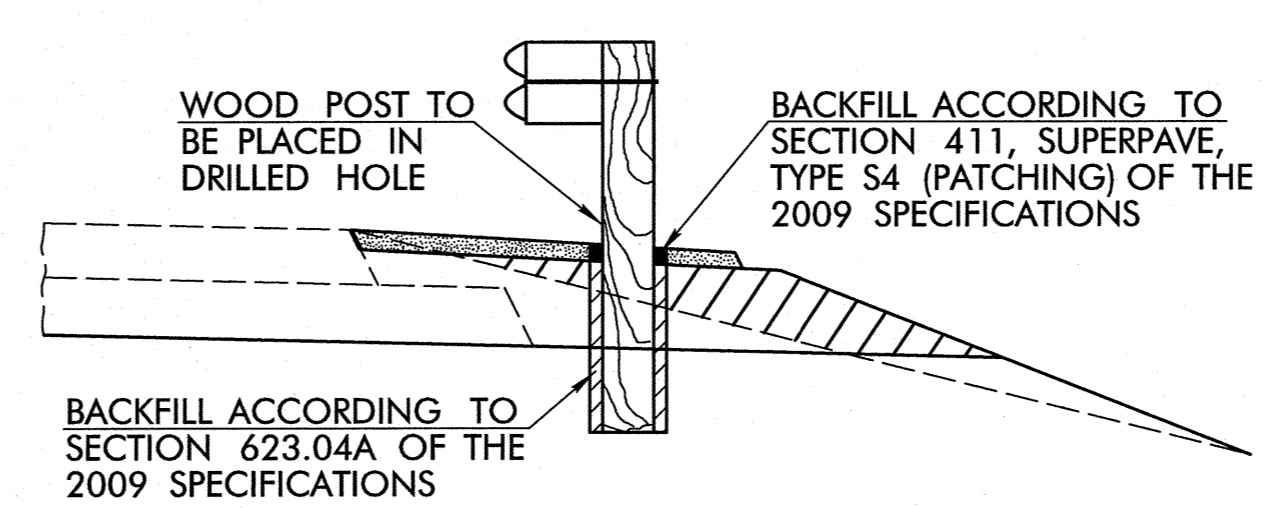
1. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS.
2. STANDARD GUARDRAIL WITH 6'-3" POST SPACING MEETS NHCPR-350, TEST LEVEL 3. IF A RIGID HAZARD IS TO BE LEFT BEHIND THE GUARDRAIL, WITHIN 3'-0" OF THE RAIL, CONSIDER USING A DIFFERENT TREATMENT.
3. IF OPTIONAL WOOD POSTS AND BLOCKOUTS ARE USED, THEN THEY SHALL BE STRESS GRADE 1200F.
4. ALL STANDARD GUARDRAIL AND GUARDRAIL EXTRUDER TERMINALS SHALL BE OFFSET SO THAT RAIL FACE IS TWO FEET OUTSIDE THE SHOULDER. FOR TRANSITION FROM BRIDGE RAIL TO TWO FOOT OFFSET, BEGINNING AT THE GUARDRAIL BRIDGE CONNECTION, TRANSITION THE STANDARD GUARDRAIL, AT A 30:1 TAPER, UNTIL THE RAIL REACHES THE OFFSET DISTANCE.
5. ALL GUARDRAIL, METAL POSTS, PLATES AND HARDWARE SHALL BE GALVANIZED AFTER FABRICATION.
6. ANY FIELD CUTS OR HOLES DRILLED IN GALVANIZED MATERIALS SHALL BE COATED WITH A ZINC OXIDE PAINT. SEE SECTION 730 OF THE 2009 SPECIFICATIONS.
7. GUARDRAIL DELINEATORS (TYPE 2, CODE 1) WILL BE REQUIRED FOR ALL TWO-LANE ROADWAYS. ALL OTHER ROADWAYS WILL REQUIRE GUARDRAIL DELINEATORS (TYPE 1, CODE 1).



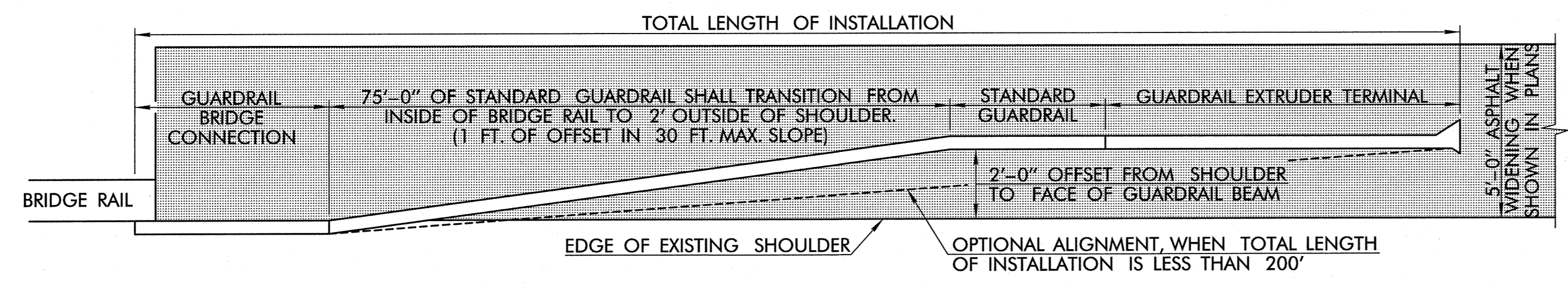
DETAIL OF SHOULDER WIDENING FOR STANDARD GUARDRAIL

△ MEASURE FROM TOP OF RAIL, GUARDRAIL TO BE INSTALLED WITH THIS DIMENSION. WHEN INSTALLING GUARDRAIL IN AN AREA WITH NO SHOULDER WIDENING, THE RAIL HEIGHT SHALL BE MEASURED AS FOLLOWS:

- FOR NEGATIVE GRADE SHOULDERS, MEASURE TO A LINE FROM THE SHOULDER ON THE SAME SLOPE AS THE SHOULDER.
- FOR POSITIVE GRADE & LEVEL SHLDRS, MEASURE FROM A LINE LEVEL WITH THE EDGE OF SHOULDER.



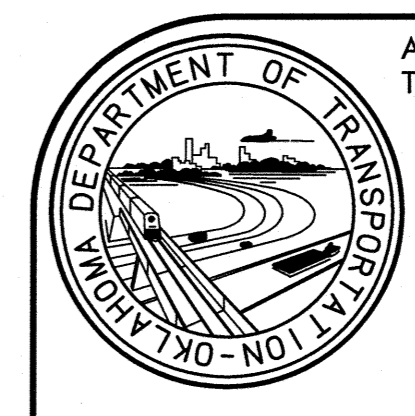
INSTALLATION OF WOOD POST IN ASPHALT WIDENING



TYPICAL GUARDRAIL INSTALLATION AT BRIDGE

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
623(A)	BEAM GUARDRAIL W-BEAM SINGLE	L.F.
623(F)	GUARDRAIL TRAIL END TURNDOWN (31")	EA.
853	GUARDRAIL DELINEATORS (TYPE 1, CODE 1)	EA.
853	GUARDRAIL DELINEATORS (TYPE 2, CODE 1)	EA.

NOTE: PAY ITEM GUARDRAIL ANCHOR UNIT-TURN DOWN INCLUDES ALL LABOR AND MATERIALS TO INSTALL 25'-0" TWISTED RAIL ELEMENT, W-BEAM END SHOE, CONC. FOOTING, AND FOUR ANCHOR BOLTS.



APPROVED BY TRAFFIC ENGINEER: *David Smith* DATE: 4/9/2012

TRAFFIC STANDARD

GUARDRAIL AND HARDWARE

(1 OF 2)

(31" SYSTEM)