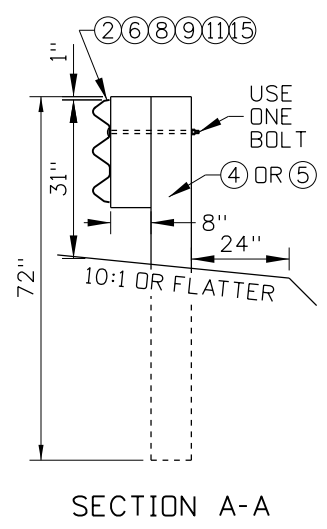
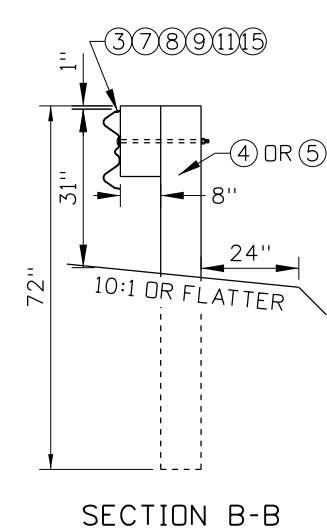


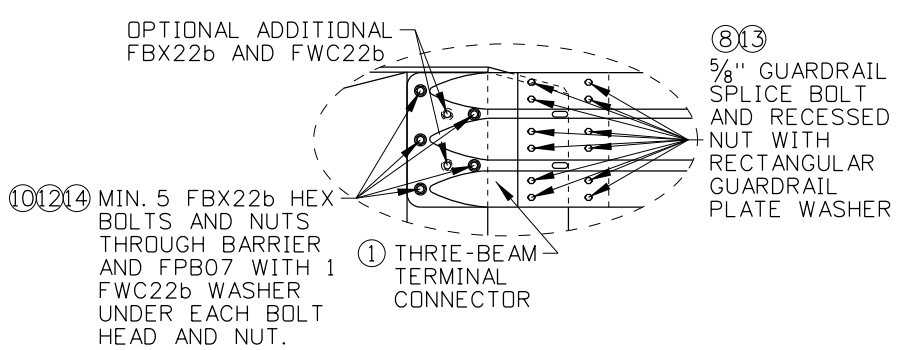
LOW SPEED GUARDRAIL TRANSITION



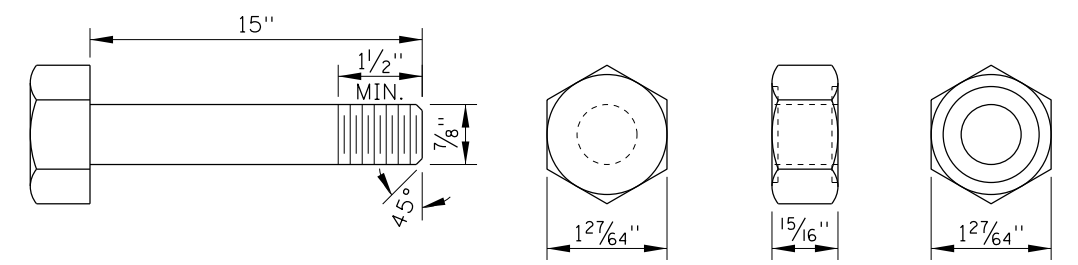
SECTION A-A



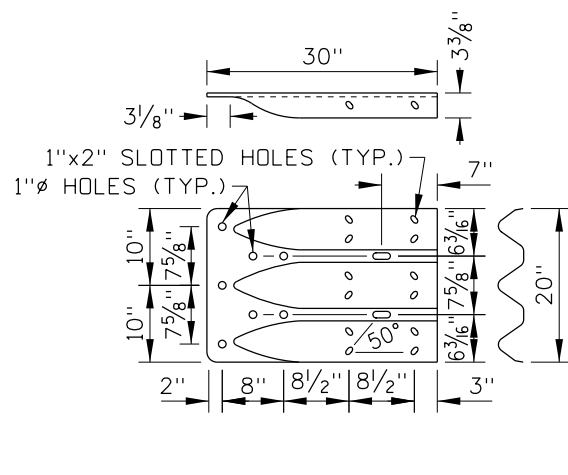
SECTION B-B



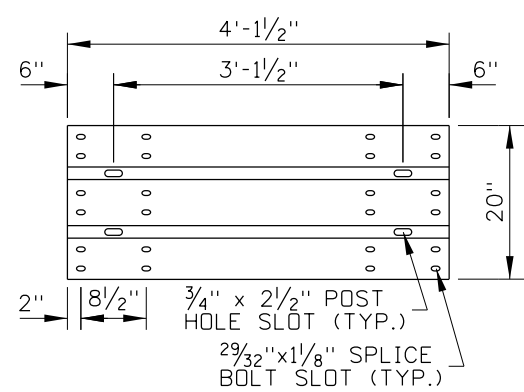
CONNECTOR BOLT DETAIL



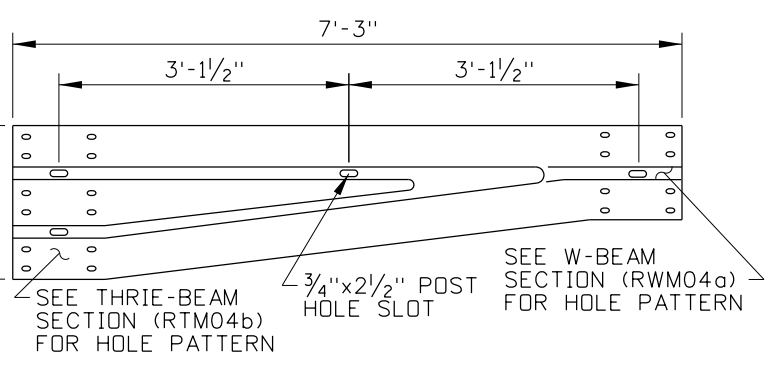
STRUCTURAL HEX BOLT AND NUT
FBX22b



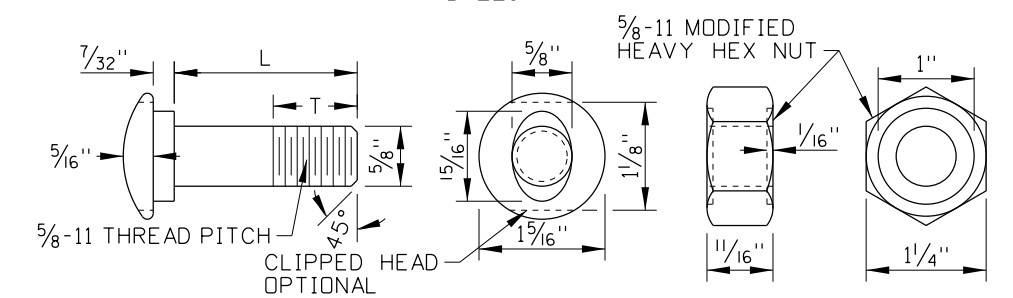
THRIE-BEAM
TERMINAL CONNECTOR
RTE01b (10 GAUGE)



4-SPACE THRIE-BEAM GUARDRAIL
RTM04b (10 GAUGE)



ASYMMETRICAL W-THRIE BEAM TRANSITION SECTION
RWT01b (10 GAUGE)



BOLT DIMENSION TABLE

DESIGNATOR	L	T
FBB01	1 1/4"	1 1/8"
FBB03	10"	4"
FBB04	18"	4"

GUARDRAIL BOLT AND RECESSED NUT
FBB01, FBB03, FBB04

REVISIONS

NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	08-18	RDL						
2	02-20	RDL						

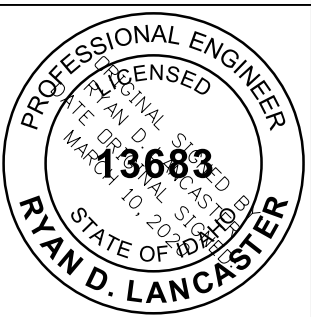
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CADD FILE NAME: 612-10_0420.dgn
DRAWING DATE: JUNE, 2017

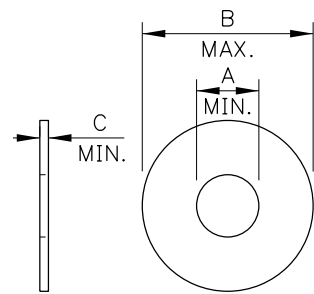
IDAHO TRANSPORTATION DEPARTMENT
BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN
DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING
GUARDRAIL TRANSITION
LOW SPEED

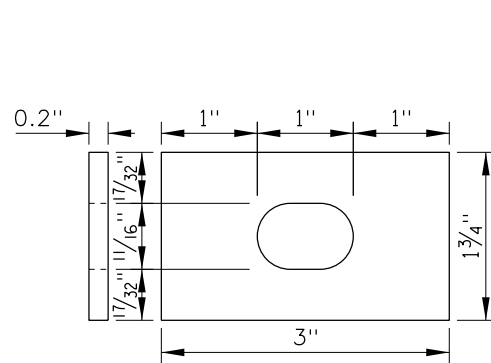
ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho
English
STANDARD DRAWING NO. 612-10
SHEET 1 OF 2



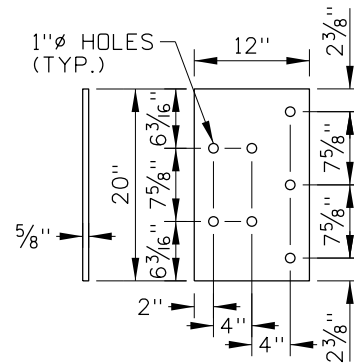


WASHER DIMENSION TABLE			
DESIGNATOR	A	B	C
FWC16a	0.649"	1.780"	0.090"
FWC22b	0.938"	1.780"	0.136"

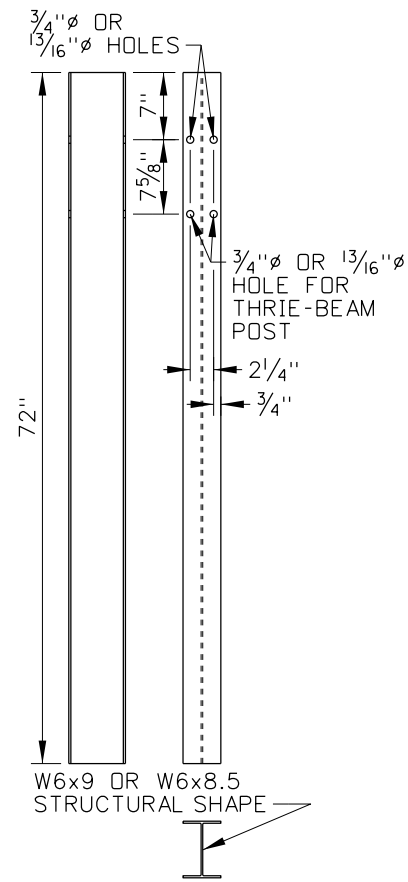
⑪⑫ ROUND WASHERS
FWC16a, FWC22b



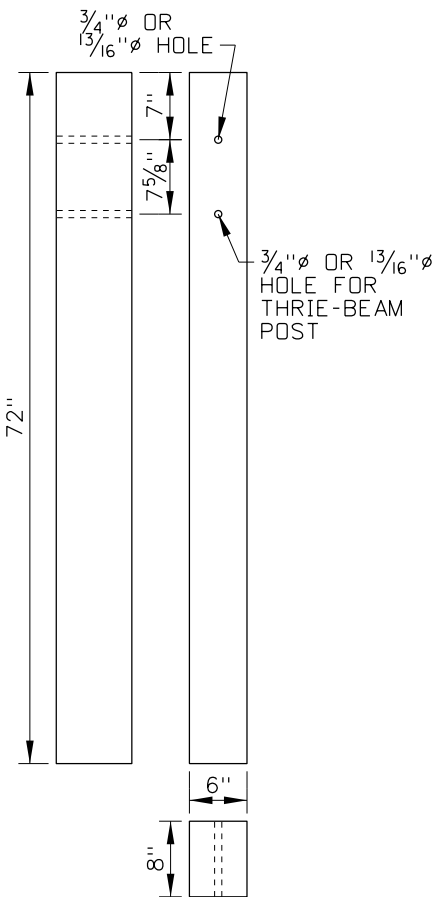
⑬ RECTANGULAR GUARDRAIL
PLATE WASHER
FWR03



⑭ THRIE-BEAM TERMINAL
CONNECTOR PLATE
FPB07

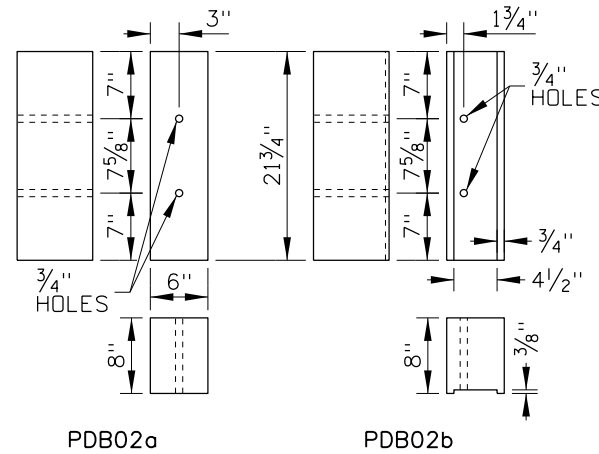


④ WIDE-FLANGE
PWE01

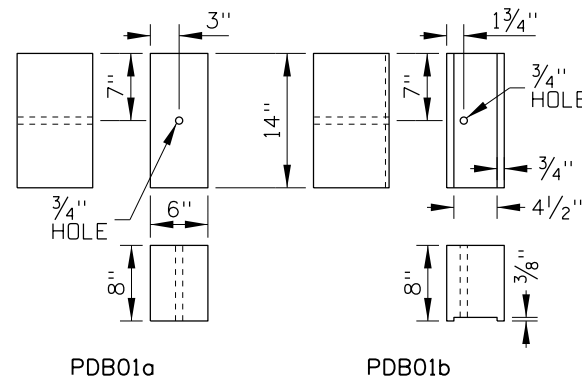


⑤ TIMBER
PDE02

GUARDRAIL POSTS



⑥ THRIE-BEAM TIMBER BLOCKOUTS



⑦ W-BEAM TIMBER BLOCKOUTS

LOW SPEED GUARDRAIL TRANSITION HARDWARE COMPONENTS TABLE				
ITEM NO.	COMPONENT DESCRIPTION	QTY.	WIDE-FLANGE POST	TIMBER POST
①	THRIE-BEAM TERMINAL CONNECTOR	1	RTE01b	RTE01b
②	4-SPACE THRIE-BEAM GUARDRAIL	1	RTM04b	RTM04b
③	ASYMMETRICAL W-THRIE BEAM TRANSITION SECTION	1	RWT01b	RWT01b
④	72" WIDE-FLANGE GUARDRAIL POST	3	PWE01	-
⑤	72" TIMBER GUARDRAIL POST	3	-	PDE02
⑥	THRIE-BEAM BLOCKOUT	1	PDB02b OR POLYETHYLENE	PDB02a
⑦	W-BEAM BLOCKOUT	2	PDB01b OR POLYETHYLENE	PDB01a
⑧	5/8" GUARDRAIL SPLICE BOLT AND RECESSED NUT	32	FBB01	FBB01
⑨	5/8" GUARDRAIL BOLT AND RECESSED NUT	3	FBB03	FBB04
⑩	7/8" X 15" STRUCTURAL HEX BOLT & NUT	5	FBX22b	FBX22b
⑪	5/8" PLAIN ROUND WASHER	3	FWC16a	FWC16a
⑫	7/8" HARDENED ROUND WASHER	10	FWC22b	FWC22b
⑬	RECTANGULAR GUARDRAIL PLATE WASHER	12	FWR03	FWR03
⑭	THRIE-BEAM TERMINAL CONNECTOR PLATE	1	FPB07	FPB07
⑮	16D GALVANIZED NAIL	6	-	N/A

NOTES

1. THE GUARDRAIL TRANSITION SHOWN IS A MASH TEST LEVEL 2 TRANSITION. USE THE TRANSITION ON HIGHWAYS WHERE THE POSTED SPEED LIMIT IS 40 MPH OR LESS AND WHERE A SEMI-RIGID GUARDRAIL, SUCH AS 31" W-BEAM GUARDRAIL, JOINS A RIGID BARRIER, SUCH AS A BRIDGE RAIL, BRIDGE PARAPET OR CONCRETE BARRIER.
2. PROVIDE BARRIER HARDWARE AS SHOWN AND AS SPECIFIED IN THE PUBLICATION "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE." WHERE THE GUIDE AND PLANS CONFLICT, PROVIDE HARDWARE COMPONENTS AS SHOWN ON THE PLANS.
3. WIDE-FLANGE OR TIMBER POSTS MAY BE USED UNLESS OTHERWISE INDICATED. USE THE SAME POST MATERIAL AS IN THE ADJOINING 31" W-BEAM GUARDRAIL.
4. USE TIMBER OR POLYETHYLENE BLOCKOUTS WITH WIDE-FLANGE POSTS. USE TIMBER BLOCKOUTS WITH TIMBER POSTS.
5. NAIL TIMBER BLOCKOUTS TO TIMBER POSTS TO RESTRICT BLOCK ROTATION.
6. WHEN WIDE-FLANGE POSTS ARE USED AND WHEN PRACTICAL, INSTALL THE BOLT (FBB03) ON THE UPSTREAM SIDE OF THE POST IN RELATION TO THE ADJACENT TRAFFIC.
7. OVERLAP SPLICES SO THAT THE EXPOSED W-BEAM EDGE IS DOWNSTREAM OF THE ADJACENT TRAFFIC.
8. PROVIDE A MINIMUM OF 12'-6" OF 31" W-BEAM GUARDRAIL BETWEEN THE GUARDRAIL TRANSITION AND A GUARDRAIL TERMINAL OR ANCHOR.
9. INSTALL RECTANGULAR GUARDRAIL PLATE WASHERS UNDER GUARDRAIL NUTS AT THE SPLICE BETWEEN THE THRIE-BEAM GUARDRAIL AND THRIE-BEAM TERMINAL CONNECTOR.
10. A CONNECTOR PLATE TO KEEP THE THRIE-BEAM TERMINAL CONNECTOR IN A VERTICAL PLANE IS OPTIONAL. SEE THE DETAIL ON THE HIGH SPEED GUARDRAIL TRANSITION STANDARD DRAWING.
11. DELINEATE THE TRANSITION. SEE THE DELINEATOR STANDARD DRAWING.
12. DRAWING NOT TO SCALE.

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
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IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN
DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING
GUARDRAIL TRANSITION
LOW SPEED

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

English

STANDARD DRAWING NO. 612-10

SHEET 2 OF 2

PROFESSIONAL ENGINEER
LICENSED
13683
RYAN D. LANCASTER
STATE OF IDAHO