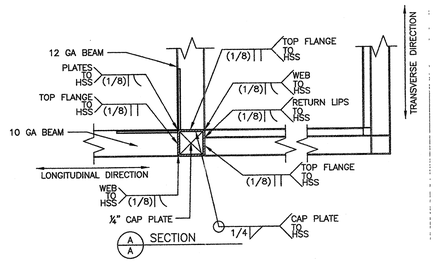
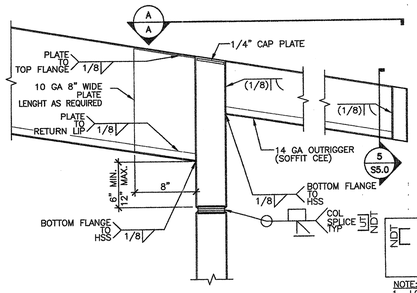
AGENCY TRACKING NO. 63321-356
FILE NO. 15-6

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120240
AC___ FLS___ SS___
DATE JAN 0 2 2020



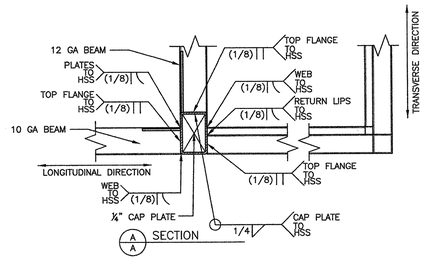


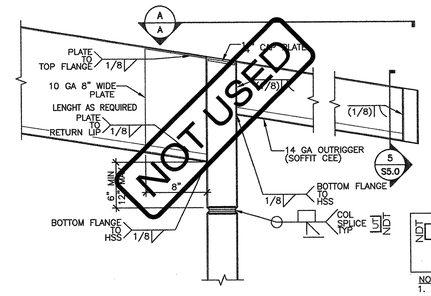
NDT DENOTES NON-DESTRUCTIVE TESTING REQUIRED FOR THE DENOTED WELD IN ACCORDANCE WITH THE NON-DESTRUCTIVE TESTING NOTES ON THIS SHEET.

NOTE:
1. LONGITUDINAL ROOF BEAM SHOWN; TRANSVERSE ROOF BEAM SIMILAR

☒ TYPICAL ROOF CHANNEL TO HSS DETAIL - (LOW SEISMIC)

SCALE 1 1/2"=1'-0" 1A





NDT DENOTES NON-DESTRUCTIVE TESTING REQUIRED FOR THE DENOTED WELD IN ACCORDANCE WITH THE NON-DESTRUCTIVE TESTING NOTES ON THIS SHEET.

NOTE:
1. LONGITUDINAL ROOF BEAM SHOWN; TRANSVERSE ROOF BEAM SIMILAR

☐ TYPICAL ROOF CHANNEL TO HSS DETAIL - (HIGH SEISMIC)

SCALE 1 1/2"=1'-0" 1B

THE WELDING PROCEDURE QUALIFICATION TEST RECORD AND WELDING PROCEDURE SPECIFICATION FOR THIS WELD SHALL BE PREPARED IN ACCORDANCE WITH AWS D1.1-10 & AWS D1.3-08 SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW AND SUBMITTAL TO THE D.S.A. TYPICAL ALL DETAILS THIS SHEET. ALL WELDS USED IN PRIMARY MEMBERS AND CONNECTIONS IN THE LATERAL FORCE-RESISTING SYSTEMS SHALL BE MADE WITH FILLER METAL THAT HAS A MINIMUM CHARPY V-NOTCH TOUGHNESS OF 20 FT.-LBS AT ZERO DEGREES F, AS DETERMINED BY AWS CLASSIFICATION.

GENERAL NOTES

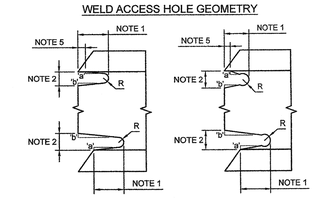
NON-DESTRUCTIVE TESTING OF COMPLETE JOINT PENETRATION GROVE WELDS AT THE MOMENT-RESISTING BEAM-TO-COLUMN CONNECTIONS SHALL COMPLY WITH AISC 341-10 CHAPTER J PER CBC 1705A.2.1.

1. WELDS SUBJECT TO THE REQUIREMENTS OF NON-DESTRUCTIVE TESTING ARE NOTED ON THESE DRAWINGS WITH THE SYMBOL: NDT
2. ALL WELDS DESIGNATED FOR NON-DESTRUCTIVE TESTING REQUIRE MAGNETIC PARTICLE TESTING (MT) TO BE PERFORMED ON 25% OF THOSE WELDS.
3. ULTRASONIC TESTING (UT) IS TO BE PERFORMED ON 100% OF WELDS DENOTED WITH THE SYMBOL UT, AND IS ONLY REQUIRED ON THOSE DESIGNATED WELDS.
4. ULTRASONIC TESTING (UT) IS ONLY REQUIRED WHERE THE THICKNESS OF THE COLUMN IS 5/16" OR GREATER. UT IS NOT REQUIRED WHERE THE COLUMN THICKNESS IS LESS THAN 5/16". MAGNETIC PARTICLE TESTING (MT) IS STILL REQUIRED.
5. ULTRASONIC TESTING (UT) IS NOT REQUIRED ON WELDS FROM STRUCTURAL STEEL CHANNEL BEAM FLANGES TO COLUMNS AS UT TESTING IS NOT APPROPRIATE FOR SECTIONS WITH VARYING DEPTHS. MAGNETIC PARTICLE TESTING (MT) IS STILL REQUIRED.

NON-DESTRUCTIVE TESTING NOTES

1. FILLER METALS SHALL CONFORM TO THE REQUIREMENTS OF THE AISC SEISMIC PROVISIONS.
2. WELDING PROCEDURES SHALL BE IN ACCORDANCE WITH THE AISC SEISMIC PROVISIONS.
3. QUALITY CONTROL AND QUALITY ASSURANCE SHALL BE IN ACCORDANCE WITH THE AISC SEISMIC PROVISIONS.
4. WELD ACCESS HOLES SHALL BE IN ACCORDANCE WITH AISC 360-10, SECTION J1.6, AND SHALL BE CONSTRUCTED PER THE FOLLOWING DETAILS & NOTES.

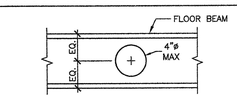
WELD ACCESS HOLE GEOMETRY



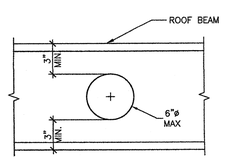
NOTES: THESE ARE TYPICAL DETAILS FOR JOINTS WELDED FROM ONE SIDE AGAINST STEEL BACKING WHERE WELD ACCESS HOLES ARE REQUIRED.

1) LENGTH: GREATER OF 1.5tw OR 1-1/2 IN. (38 MM)
2) HEIGHT: GREATER OF 1.0tw OR 3/4 IN. (19 MM) BUT NEED NOT EXCEED 2 IN. (50 MM)
3) R: 3/8 IN. MIN. (10 MM). GRIND THE THERMALLY CUT SURFACES OF WELD ACCESS HOLES IN HEAVY SHAPES AS DEFINED IN SECTIONS A3.1(c) AND (d) OF AISC 360-10.
4) SLOPE 'a' FORMS A TRANSITION FROM THE WEB TO THE FLANGE. SLOPE 'b' MAY BE HORIZONTAL.
5) THE BOTTOM OF THE TOP FLANGE IS TO BE CONTOURED TO PERMIT THE TIGHT FIT OF BACKING BARS WHERE THEY ARE TO BE USED.

REQ. FOR FR. MOMENT CONNECTIONS



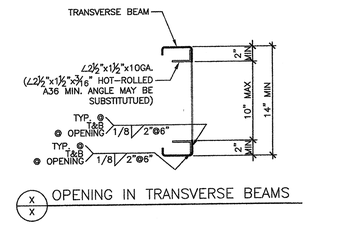
4" OPENING IN FLOOR BEAM



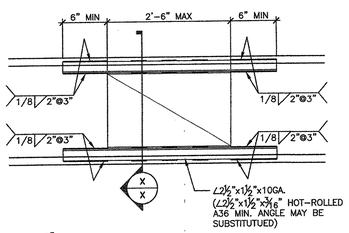
6" OPENING IN ROOF BEAM

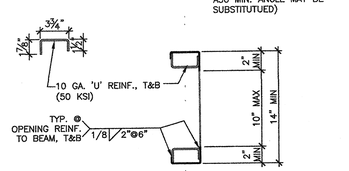
OPENING IN BEAMS

SCALE 1 1/2"=1'-0" 6



X X OPENING IN TRANSVERSE BEAMS





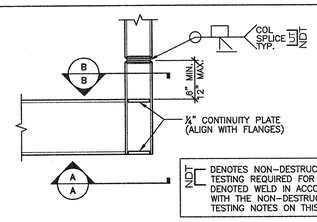
OPTIONAL OPENING REINFORCEMENT

NOT USED

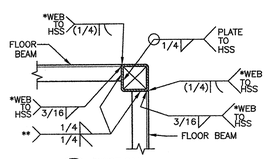
3

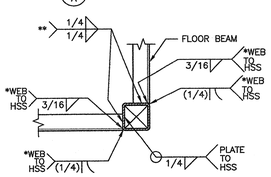
OPENING @ ROOF BEAMS (TRANSVERSE BEAMS)

SCALE 1 1/2"=1'-0" 4



NDT DENOTES NON-DESTRUCTIVE TESTING REQUIRED FOR THE DENOTED WELD IN ACCORDANCE WITH THE NON-DESTRUCTIVE TESTING NOTES ON THIS SHEET.



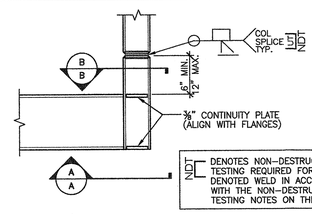


* FULL PEN WELD MAY BE USED AS AN ALTERNATIVE TO THE DOUBLE SIDED BEAM WEB-TO-COLUMN WELD SHOWN. NDT UT

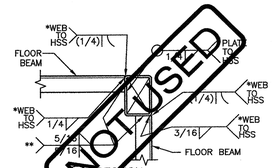
** FULL PEN WELD MAY BE USED AS AN ALTERNATIVE TO THE DOUBLE SIDED FLANGE-TO-COLUMN WELDS SHOWN. NDT

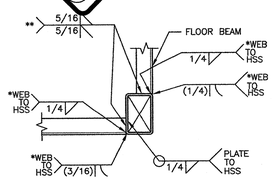
☒ TYP. CORNER TO FLOOR BM DETAIL (LOW SEISMIC)

SCALE 1 1/2"=1'-0" 5A



NDT DENOTES NON-DESTRUCTIVE TESTING REQUIRED FOR THE DENOTED WELD IN ACCORDANCE WITH THE NON-DESTRUCTIVE TESTING NOTES ON THIS SHEET.





* FULL PEN WELD MAY BE USED AS AN ALTERNATIVE TO THE DOUBLE SIDED BEAM WEB-TO-COLUMN WELD SHOWN. NDT UT

** FULL PEN WELD MAY BE USED AS AN ALTERNATIVE TO THE DOUBLE SIDED FLANGE-TO-COLUMN WELDS SHOWN. NDT NDT

☐ TYP. CORNER TO FLOOR BM DETAIL (HIGH SEISMIC)

SCALE 1 1/2"=1'-0" 5B

AMS American Modular Systems
787 Spreckels Ave , Manteca, CA 95336
Phone (209) 825-1921 - Fax (209) 825-7018
www.americanmodular.com

INTELLECTUAL-PROPERTY & PROPRIETARY RIGHTS STATEMENT
COPYRIGHT © AMERICAN MODULAR SYSTEMS (AMS)
AMS OWNS ALL COPYRIGHT AND OTHER INTELLECTUAL-PROPERTY AND PROPRIETARY RIGHTS IN THESE DRAWINGS, SPECIFICATIONS, AND THE MATERIAL CONTAINED HEREIN. CERTAIN ELEMENTS SHOWN IN THESE DOCUMENTS ARE REGISTERED TRADEMARKS OF AMS. ALL PATENTABLE MATERIALS CONTAINED IN THESE DOCUMENTS AND ORIGINATING WITH AMS WILL REMAIN THE SOLE PROPERTY OF AMS. THESE DRAWING, SPECIFICATIONS, AND THE MATERIAL CONTAINED HEREIN MAY NOT BE REPRODUCED, PUBLISHED, DISPLAYED, DISTRIBUTED, MODIFIED, OR OTHERWISE DISPOSED OF (DIRECTLY OR INDIRECTLY) AND MAY NOT BE USED (DIRECTLY OR INDIRECTLY) TO ASSIST IN THE COMPOSITION, SALE, OR OTHER MAKING OF, OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE CONSTRUCTION, DESIGN, OR OTHER MAKING OF, ANY BUILDINGS (MODULAR OR OTHERWISE), DRAWINGS, SPECIFICATIONS, PRINTS, APPARATUS, OR PARTS THEREOF, EXCEPT AS EXPRESSLY PERMITTED BY WRITTEN CONSENT OF, OR IN A WRITTEN AGREEMENT WITH, AMS. SUBMITTAL OR DISTRIBUTION TO MEET OFFICIAL REGULATORY REQUIREMENTS WILL NOT BE CONSTRUED AS PUBLICATION IN DEROGATION OF AMS'S COPYRIGHT OR OTHER INTELLECTUAL-PROPERTY OR PROPRIETARY RIGHTS.

PRE-CHECKED SET NAME

24'x40' THRU 120'x40' HIGH PITCH MODULAR BUILDINGS

SITE SPECIFIC PROJECT NAME

SHEET TITLE

MOMENT FRAME CONNECTION DETAILS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

LICENSED ARCHITECT ANTHONY PATRICK CONNOR No C12631 Ren 3-31-18 STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER ANTHONY D. FRANCIS No. S3385 STRUCTURAL STATE OF CALIFORNIA

6-20-18
RST18175

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
02 117846
AC___ FLS___ SS___
DATE AUG - 2 2018

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02-115726
AC___ FLS___ SS___
DATE 10-11-2018

PRE-CHECK (PC) DOCUMENT
CODE 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

REVISIONS
1
2
3
4

DRAWN BY:
SCALE: AS NOTED
DATE

SHEET NUMBER

S5.1-02