2013 CBC FIRE-RESISTIVE STANDARD DETAILS

Issue Date :	02/18/2014
Revision :	Date :

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DRAWING INDEX

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NARRATIVE

2013 California Building Code (2013 CBC) Fire Resistive Details document contains OSHPD Pre-Approved Details (OPD), which may be incorporated into construction documents. These details have been reviewed for compliance with the 2013 CBC and, when used as shown, without modifications, are deemed to comply with code. They are intended to cover common conditions that occur on many projects. It is anticipated that use of these details will facilitate the design, review, and construction process.

The Narrative and supporting Flowchart, which follows the Narrative, are provided to assist in selecting applicable details from the OPD for incorporation into the construction documents. It is to be used only as a guide and does not provide complete step-by-step instructions for use of the OPD. Narrative comment numbers correspond to the numbered items on the Flowchart.

The following steps apply to use of OPD:

1.Define Project Parameters

A .Construction Classification by Type of Construction.

i. The Registered Design Professional (RDP) in responsible charge shall identify the minimum requirements for the fire resistance ratings of building elements, based on the provisions of Chapter 6 of the CBC.

B. Coordination with Primary Structural Elements.

i. The RDP in responsible charge shall identify with the Structural Engineer of Record (SEOR) the primary structural elements and the methods for providing the required fire protection in compliance with CBC Table 601.

ii. The RDP in responsible charge shall identify and coordinate the project conditions where primary structural elements and architectural and MEP systems may be in conflict.

C.Coordination of Non-structural Building Elements.

i. The RDP in responsible charge shall identify the non-structural building elements to be constructed and their compliance to the requirements of Chapter 7, *Fire and Smoke Protection Features,* of the CBC, for the specific use within the project.

ii. The RDP in responsible charge shall identify the unique conditions which apply to the use of the OPD under consideration.

2. Verify Applicability of the OPD
(refer to PIN 51)

A. The OPD's allow design professionals to incorporate pre-approved details into their project construction documents when they satisfy the following conditions.

i. The RDP in responsible charge determines the applicability of the OPD for the specific project conditions, and the project specific details for those conditions may not otherwise be met by tested and listed assemblies of the manufacturer's products specified.

ii. The OPD details must be directly applicable to the project conditions, without modification.

B. Substitutions of items shown in the OPD are not permitted, unless specifically allowed by the OPD itself.

C. Changes to the OPD to accommodate variations of the project conditions are not permitted. In such cases, project specific details are required.

D. OPD shall not be used as a basis of comparison for Engineering Judgements.

3. Select Appropriate Details from OPD

A. Review the OPD General Notes before the start of the OPD selection process. The General Notes provide detailed specifications of the materials and the workmanship associated with the details. The RDP in responsible charge shall confirm the applicability of the OPD details and the specifications noted in this section.

B. The protection of primary structural elements of the project shall not be compromised. Details indicating connections of miscellaneous framing to primary steel shall have protective construction (i.e. spray fireproofing) replaced as acceptable to manufacturer and OSHPD.

C. Non-structural partitions of fire resistive construction shall comply with approved tested assemblies, listed by accepted testing agencies.

D. Select the type of condition which the detail needs to address – intersection of fire-resistive assemblies or penetrations of fire resistive assemblies.

E. For Intersections of fire-resistive assemblies, select the applicable fire-resistive rating for the partition components of the detail.

i. One-hour fire resistive details begin with sheet FR1.00, and Two-hour fire resistive details begin with sheet FR2.00.
ii. Select the condition for the type of intersection – intersections with protected columns begin with detail FR1.10 or FR2.10; intersections with rated floor/roof decks begin with FR1.20 and FR2.20; intersections with exterior wall construction begin with FR1.30 and FR2.30.
iii. Select the appropriate detail based on the particular detail condition, e.g. column orientation, adjacent wall construction, etc.

F. For Penetrations of fire-resistive assemblies, select the type of components to be detailed.

i. Select details by type of component penetrating rated assembly, e.g. shaft enclosure, ductwork, piping, fixture, etc.
ii. Select detail appropriate to the specific field condition.

4. Implementation and Use of OPD During Plan Review

Refer to PIN 51.

5. Implementation and Use of OPD During Construction Process

Refer to PIN 51.

A. During construction, OPD's are treated as any other detail in the approved documents.

B. Pre-approved details submitted after the construction documents have been approved and a building permit has been issued shall be used and/or processed in accordance with Code Application Notice 2 -107.4 "Amended Construction Documents." Pre-approved details may be applied as alternates to the approved details shown on the permitted construction documents only on a one for one basis and with written consents of the registered design professional and the registered design professional in responsible charge and in concurrence incorporated without any modification. Pre-approved details are subject to field confirmation during which the applicability of pre-approved details for specific project conditions shall be evaluated.

C. Changing the scope of a project (adding additional space to the construction area or modifying the spaces of the original design, for example) does constitute a "material alteration" to the project, even if OPD can be used for all conditions. In such a case, an Amended Construction Document must be submitted to OSHPD field staff for review and approved prior to add or modification.

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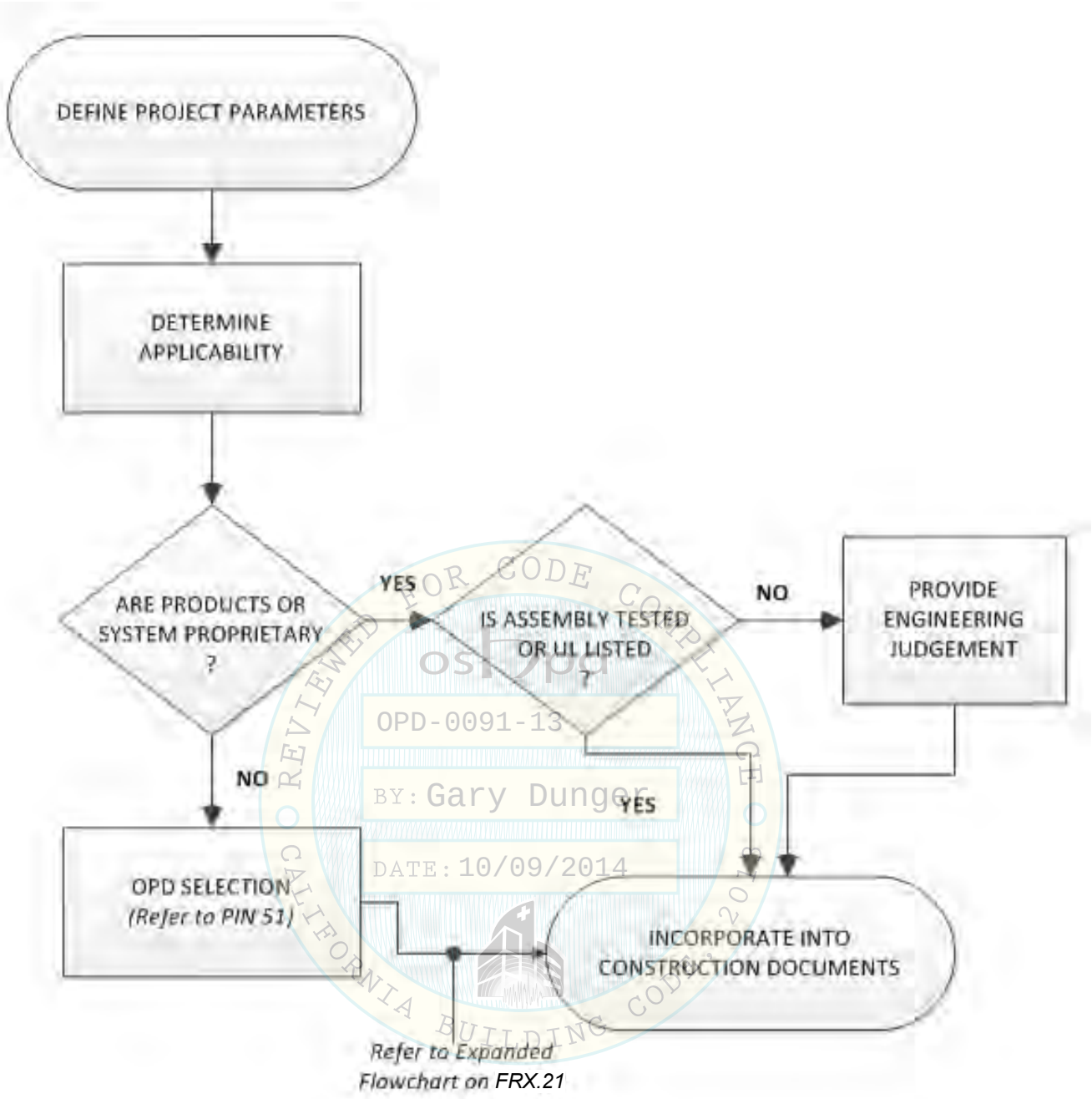

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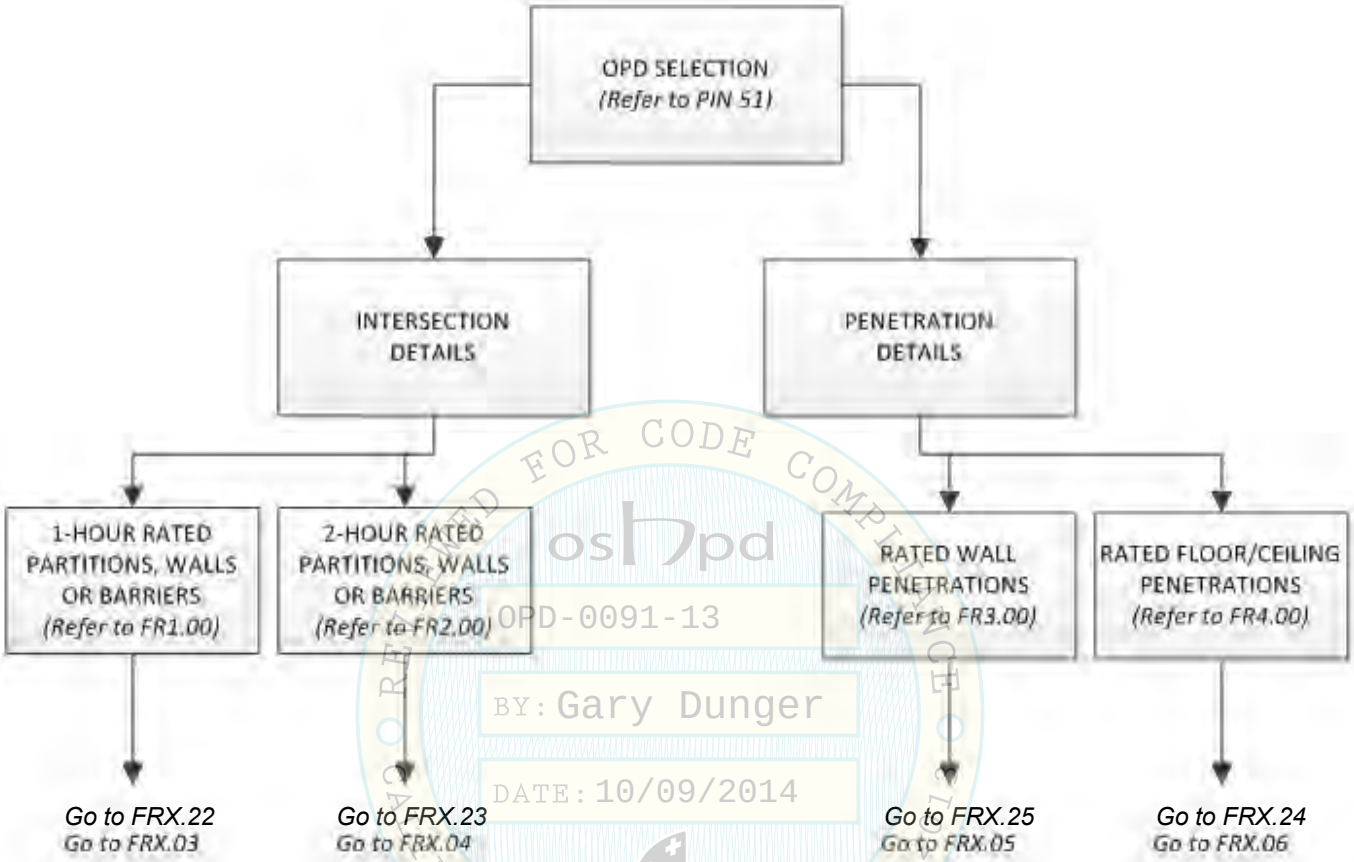
Sheet Title : APPLICATION FLOWCHART - OVERVIEW OF OPD USE			FRX.20



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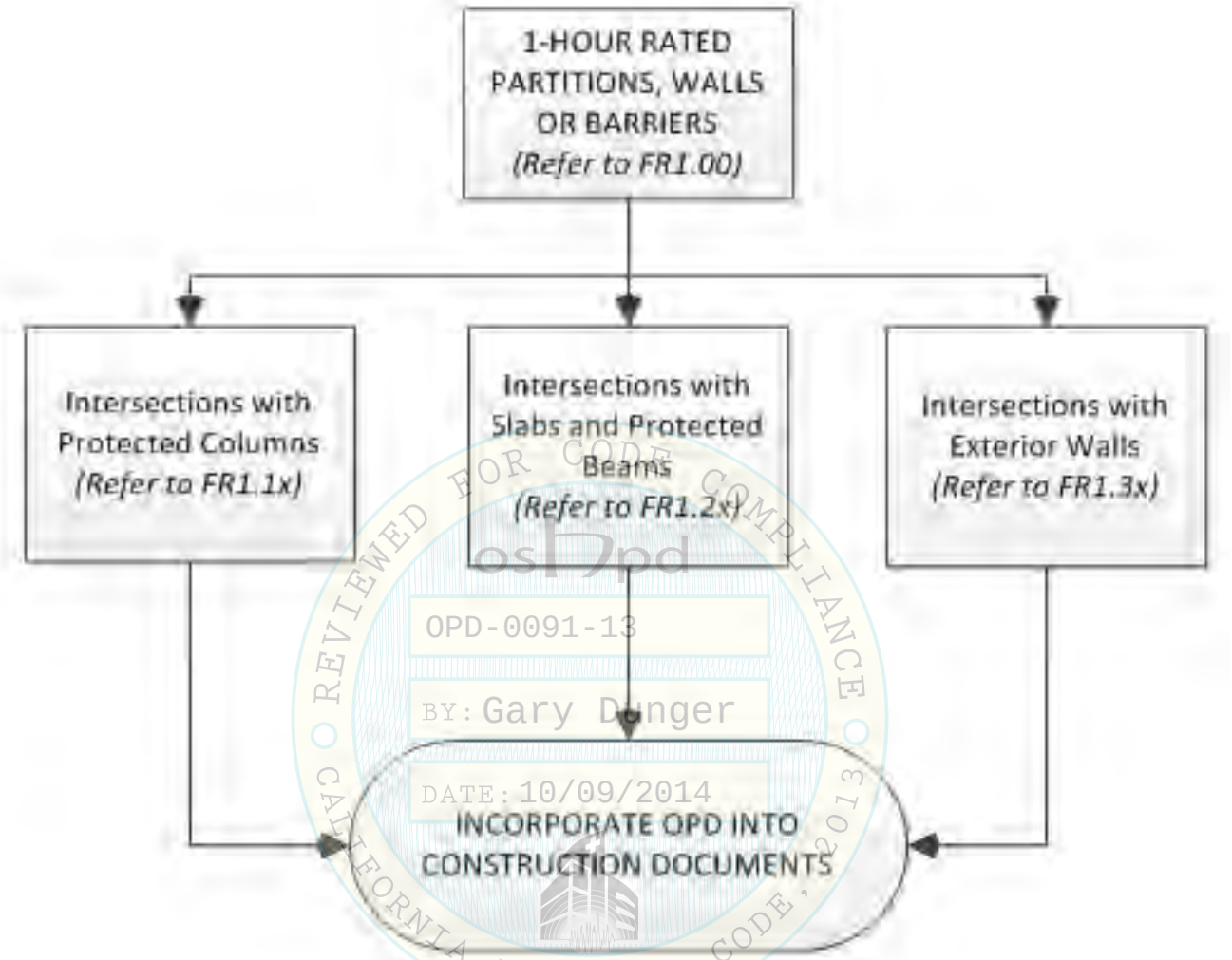

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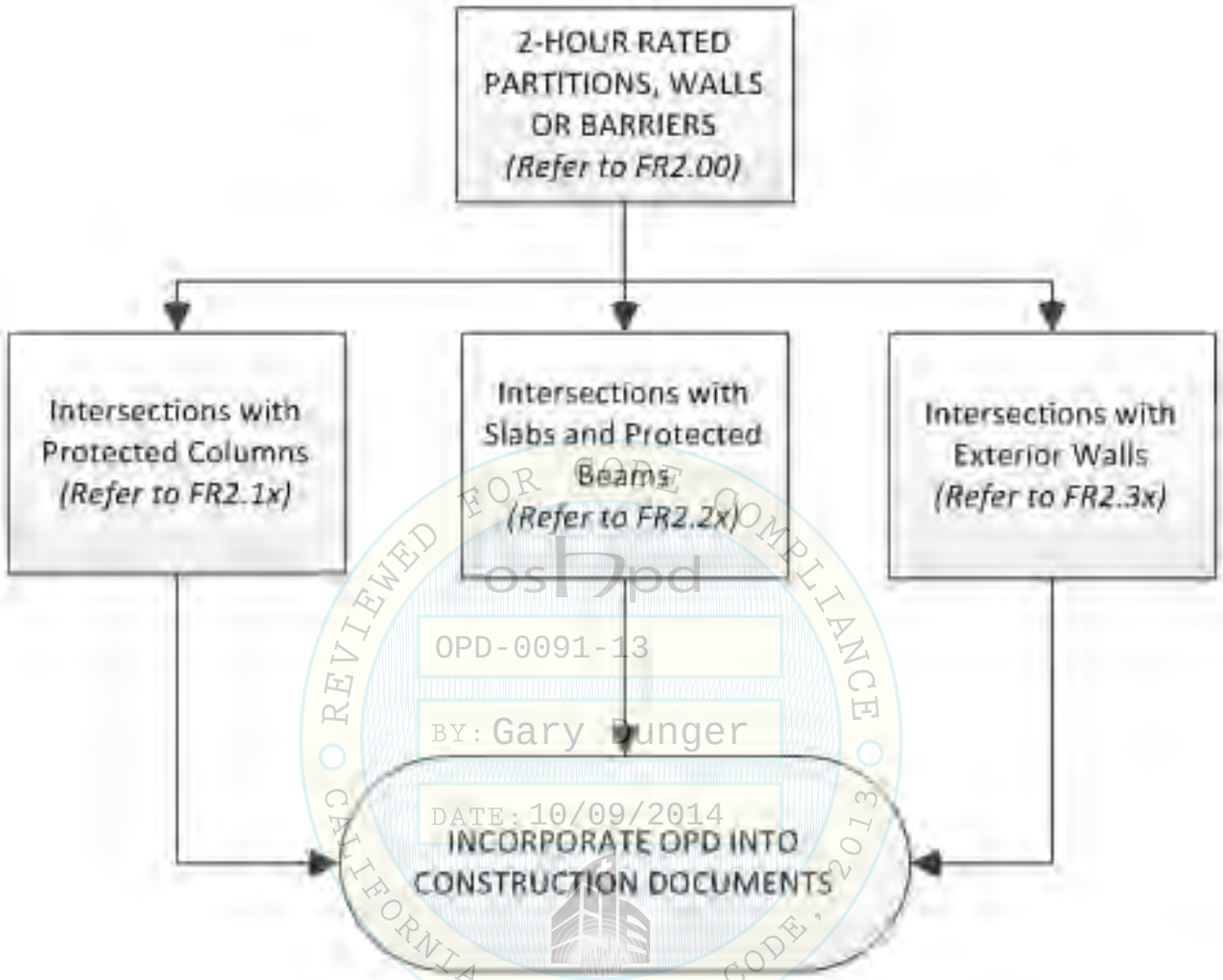

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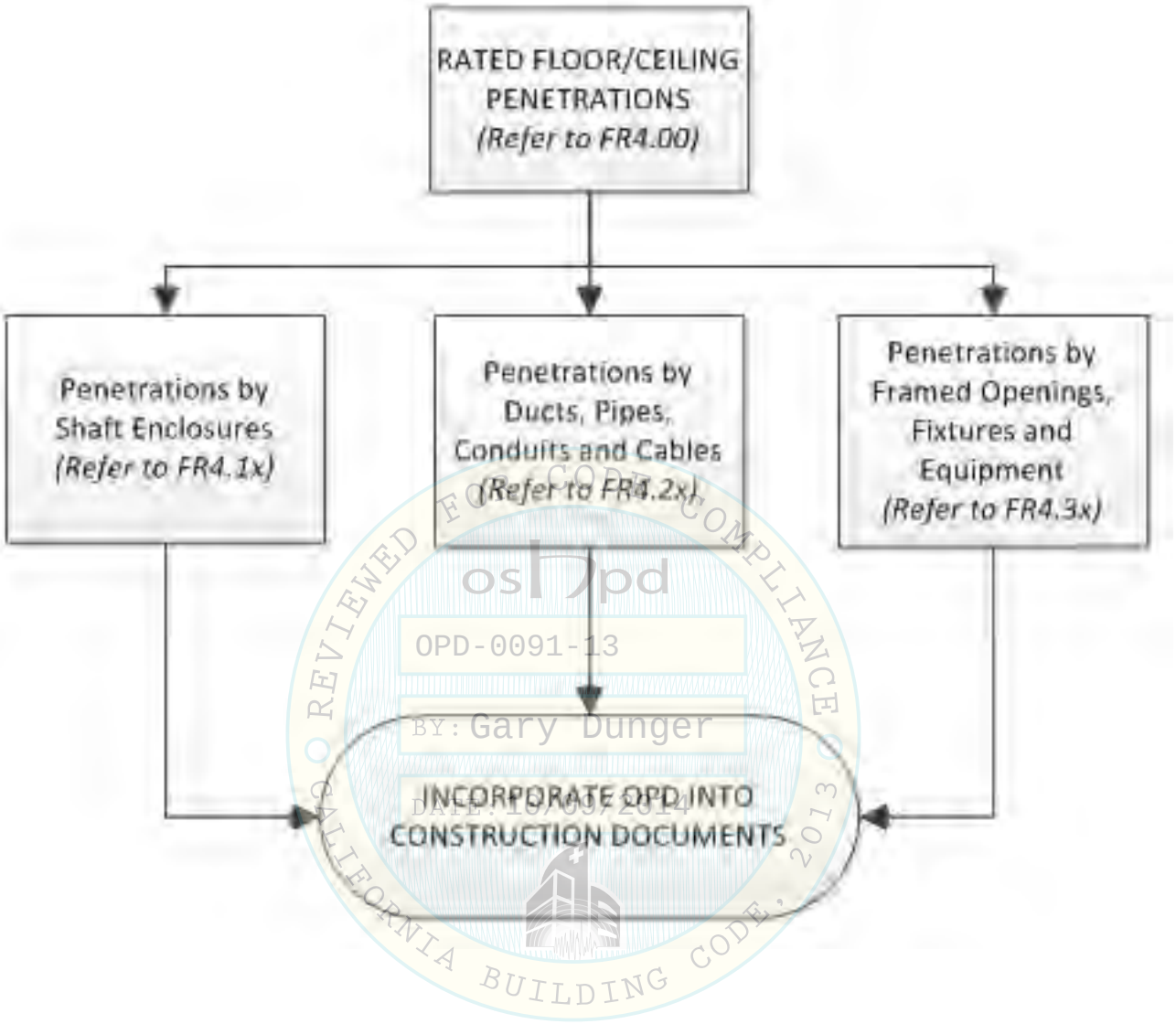

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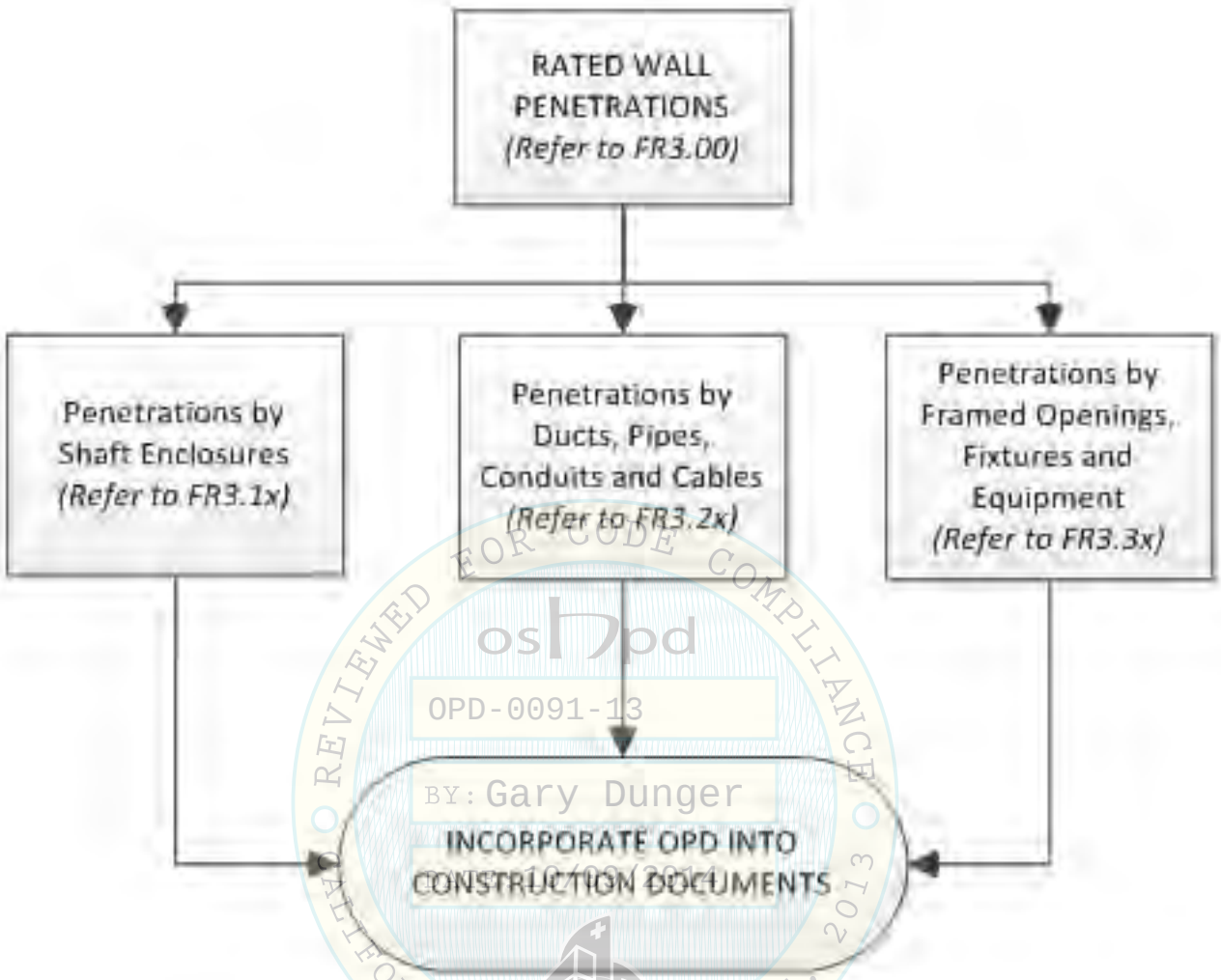

Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS			OPD No:
Sheet Title : APPLICATION FLOWCHART - RATED PENETRATIONS			FRX.25

GENERAL NOTES

1. CONSTRUCTION, WORKMANSHIP AND MATERIAL SHALL CONFORM TO THE 2013 CALIFORNIA BUILDING CODE (CBC 2013).

2. THE CONTRACTOR SHALL NOTIFY OSHPD AND THE REGISTERED DESIGN PROFESSIONL (RDP) IN RESPONSIBLE CHARGE WHERE A CONFLICT OR DISCREPANCY OCCURS BETWEEN THE CONSTUCTION DRAWINGS AND ANY OTHER PORTION OF THE CONTRACT DOCUMENTS, FIELD CONDITIONS, OR WHERE ANY CONDITIONS ARISE NOT COVERED BY THESE DOCUMENTS WHEREIN WORK WILL NOT COMPY WITH CODE REQUIREMENTS.

3. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO CONSTRUCT THE HOSPITAL BUILDING IN ACCORDANCE WITH THE CALIFORNIA BUILDING STANDARD CODE, 2013 (CBSC 2013). SHOULD ANY CONDITION DEVELOP NOT COVERED BY THE APPROVED CONSTRUCTION DOCUMENTS WHEREIN THE WORK WILL NOT COMPLY WITH CBSC 2013, A CHANGE ORDER DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY OSHPD BEFORE PROCEEDING WITH THE WORK.

4. THE FIRE-RESISTANCE RATING OF BUILDING ELEMENTS, COMPONENT OR ASSEMBLIES SHALL BE DETERMINED IN ACCORDANCE WITH ASTM E 119 OR UL 263 OR IN ACCORDANCE WITH CBC SECTION 703.3.

5. WHERE FIRE RESISTIVE PARTITIONS, WALLS AND BARRIERS ARE CONSTRUCTED OF GYPSUM BOARD TO MEET THE FIRE AND SMOKE PROTECTION FEATURES IN ACCORDANCE WITH CBC CHAPTER 7, THEY SHALL MEET THE REQUIREMENTS OF THE FOLLOWING:

    i. THE DOCUMENTED REQUIREMENTS OF TESTING AND LISTING AGENCIES FOR MANUFACTURER'S PROPRIETARY MATERIALS AND CONSTRUCTION METHODS AS SHOWN IN THE TEST REPORT – E.G. UNDERWRITERS LABORATORIES, INTERTEK'S WARNOCK-HERSEY, ETC., OR

    ii. THE GENERIC FILE NUMBERS OF WALLS AND INTERIOR PARTITIONS DOCUMENTED IN THE GYPSUM ASSOCIATION'S PUBLICATION, "FIRE RESISTANCE DESIGN MANUAL, OR

    iii. THE PRESCRIPTIVE CONSTRUCTION ITEMS LISTED IN CBC TABLE 721.1(2) FOR WALLS AND PARTITIONS.

6. WHERE STRUCTURAL MEMBERS ARE PROTECTED WITH SPRAYED FIRE-RESISTANT MATERIALS (SFRM) THEY SHALL MEET THE FIRE RESISTANCE RATING REQUIREMENTS OF SECTION 704 OF THE CBC AND THE FOLLOWING:

    i. THE DOCUMENTED REQUIREMENTS OF TESTING AND LISTING AGENCIES FOR MANUFACTURER'S PROPRIETARY MATERIALS AND CONSTRUCTION METHODS AS SHOWN IN THE TEST REPORT – E.G. UNDERWRITERS LABORATORIES, INTERTEK'S WARNOCK-HERSEY, ETC.

7. WHERE STRUCTURAL MEMBERS ARE PROTECTED WITH OTHER NON-COMBUSTIBLE INSULATING MATERIALS, THEY SHALL MEET THE FIRE RESISTANCE RATING REQUIREMENTS OF SECTION 704 OF THE CBC AND THE FOLLOWING:

    i. THE PRESCRIPTIVE CONSTRUCTION ITEMS LISTED IN CBC TABLE 721.1(1) FOR MINIMUM PROTECTION OF STRUCTURAL PARTS.

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8. STRUCTURAL DECKS SHALL BE CONSTRUCTED TO MEET THE REQUIREMENTS OF RATED HORIZONTAL ASSEMBLIES IN ACCORDANCE WITH CBC SECTION 711, AND SHALL MEET THE REQUIREMENTS OF THE FOLLOWING:

    i. THE DOCUMENTED REQUIREMENTS OF TESTING AND LISTING AGENCIES FOR MANUFACTURER'S PROPRIETARY MATERIALS AND CONSTRUCTION METHODS AS SHOWN IN THE TEST REPORT – E.G. UNDERWRITERS LABORATORIES, INTERTEK'S WARNOCK-HERSEY, ETC., OR
    ii. THE PRESCRIPTIVE CONSTRUCTION ITEMS LISTED IN CBC TABLE 721.1(3) FOR MINIMUM PROTECTION OF FLOOR AND ROOF SYSTEMS.

9. THE RDP IN RESPONSIBLE CHARGE SHALL VERIFY THAT THE USE OF THE OPD IN PROVIDING AN ACCEPTABLE FIRE RESISTIVE RATING FOR SPECIFIC CONDITIONS, WILL ALSO MEET ANY ACOUSTICAL CRITERIA THAT MAY OTHERWISE BE REQUIRED BY THE PROJECT DESIGN CRITERIA.

10. INDIVIDUAL DETAILS WITHIN THIS OPD TYPICALLY RELY UPON OTHER DETAILS FOR INFORMATION ESSENTIAL TO THEIR APPLICATION. OPD'S ARE TO BE USED IN CONJUNCTION WITH ALL RELATED, APPLICABLE DETAILS WITHIN THIS OPD PACKAGE INCLUDING THE GENERAL NOTES.

11. OPD PROVIDE OPTIONS FOR SOME COMPONENTS, SUCH AS FRAMING MEMBER SIZES, FASTENERS, ETC. THE RDP IN RESPONSIBLE CHARGE SHALL CLEARLY IDENTIFY ALL COMPONENTS SELECTED FOR USE IN THE PROJECT-SPECIFIC CONDITIONS.

12. OPD SHALL NOT BE USED AS THE BASIS FOR ENGINEERING JUDGMENTS SUBMITTED TO THE OFFICE PURSUANT TO CBC SECTION 703.3 AND OSHPD CODE APPLICATION NOTICE 2-703.3

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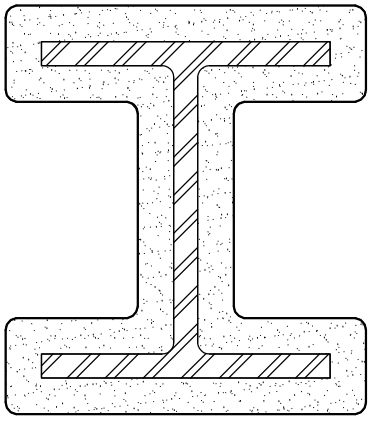
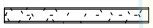


STRUCTURAL STEEL COLUMN W/ SPRAY APPLIED FIREPROOFING. REFER STRUCTURAL DRAWINGS

COLD FORMED METAL STUD. REFER ARCHITECTURAL DRAWINGS FOR WALL TYPE.

COLD FORMED SHAFT STUD. REFER ARCHITECTURAL DRAWINGS FOR WALL TYPE.



GYPSUM BOARD. REFER ARCHITECTURAL DRAWINGS FOR WALL TYPE.

COMPRESSED MINERAL WOOL MEETING UL (OR EQUALIVALENT) STANDARDS FOR SAFING PRODUCTS

FIRE SEALANT

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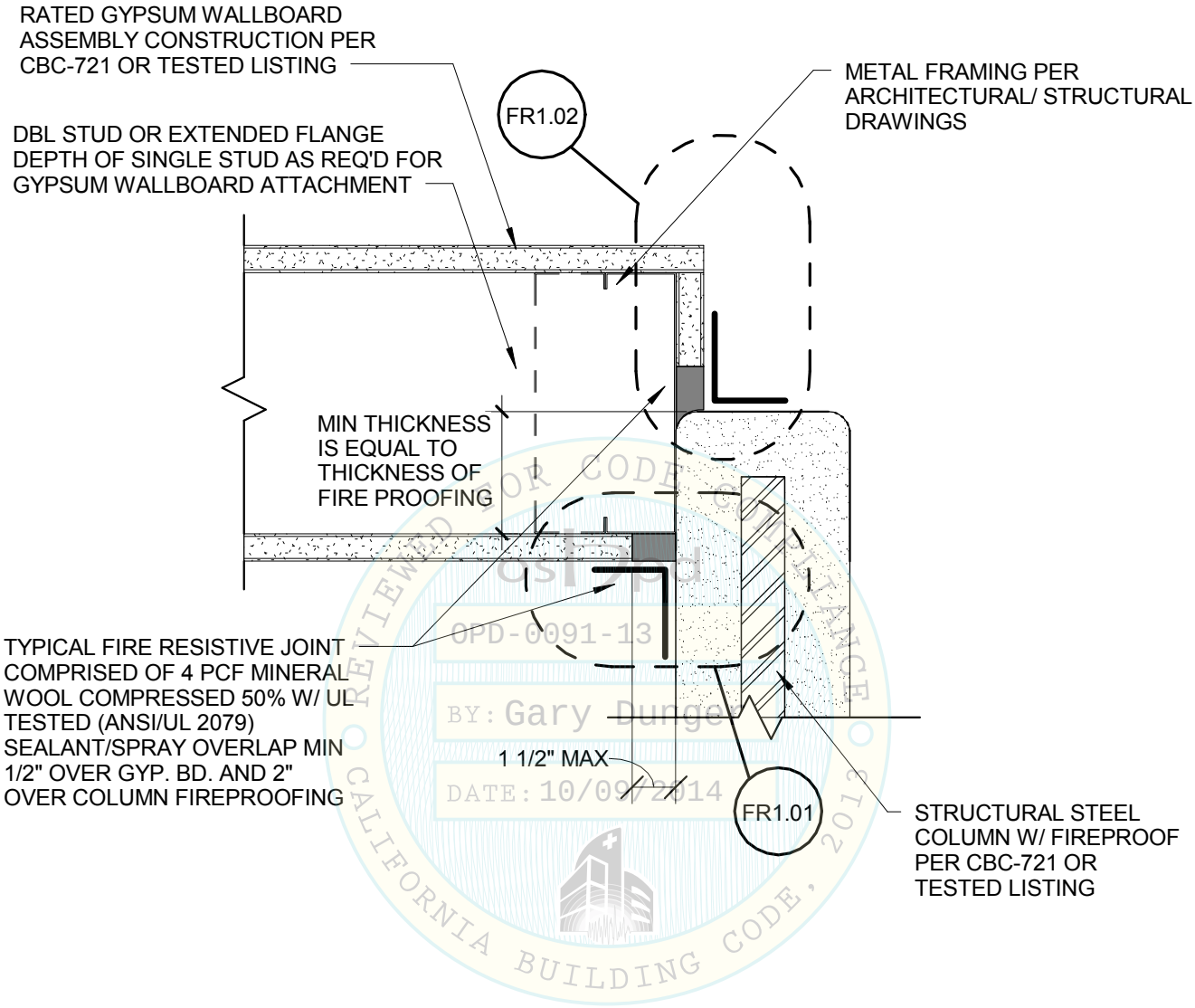
Sheet Title : GRAPHICS LEGEND	FR0.02



Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS		OPD No:
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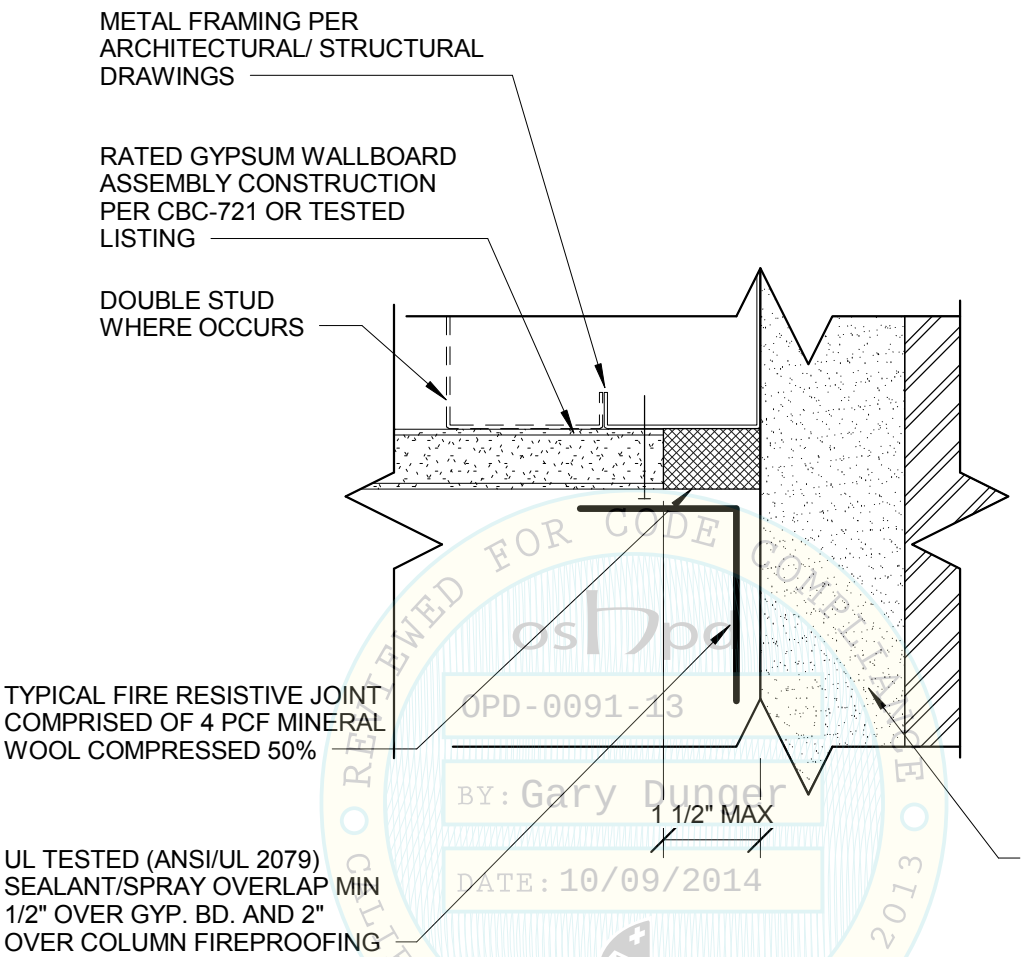

NOTES:
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2. THE FIRE RESISTIVE RATING OF STEEL COLUMN MUST BE EQUAL OR GREATER THAN WALL RATING.
3. "WET" THICKNESS OF SEALANT TO BE MIN. 1/8" TESTED IN ACCORDANCE WITH ASTM E1966 (ANSI/UL 2079).

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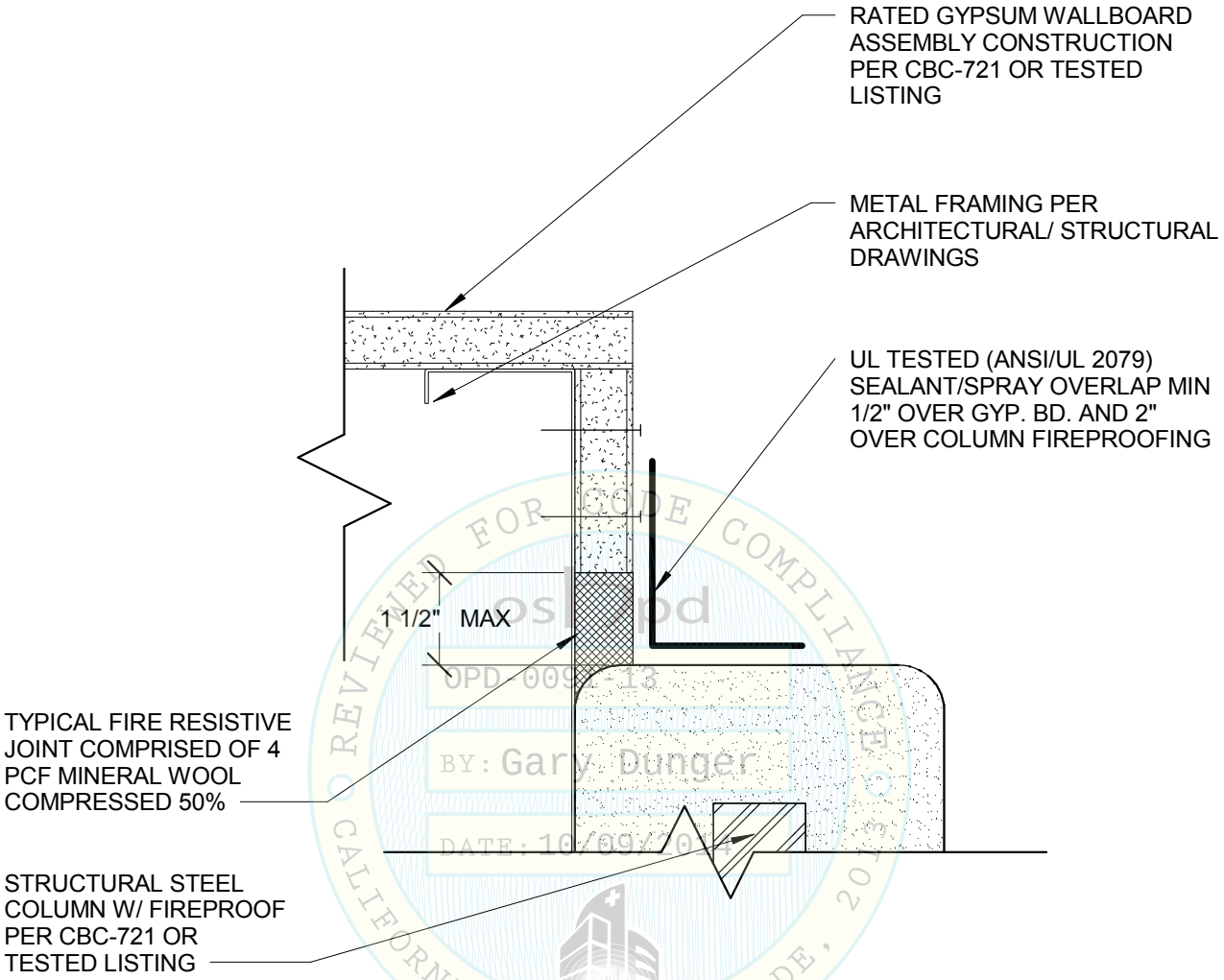

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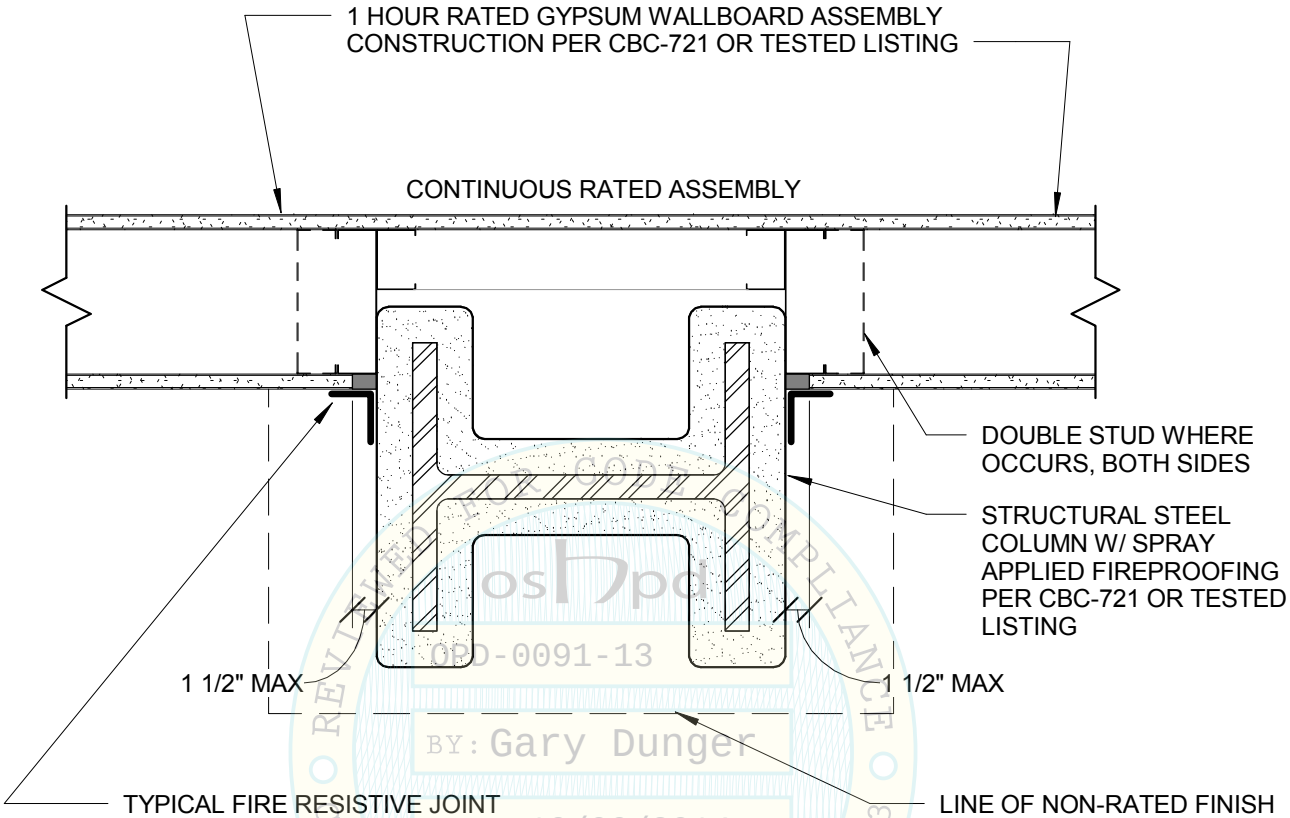

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4. SEE FR1.00, FR1.01, FR1.02 FOR JOINT DESCRIPTION

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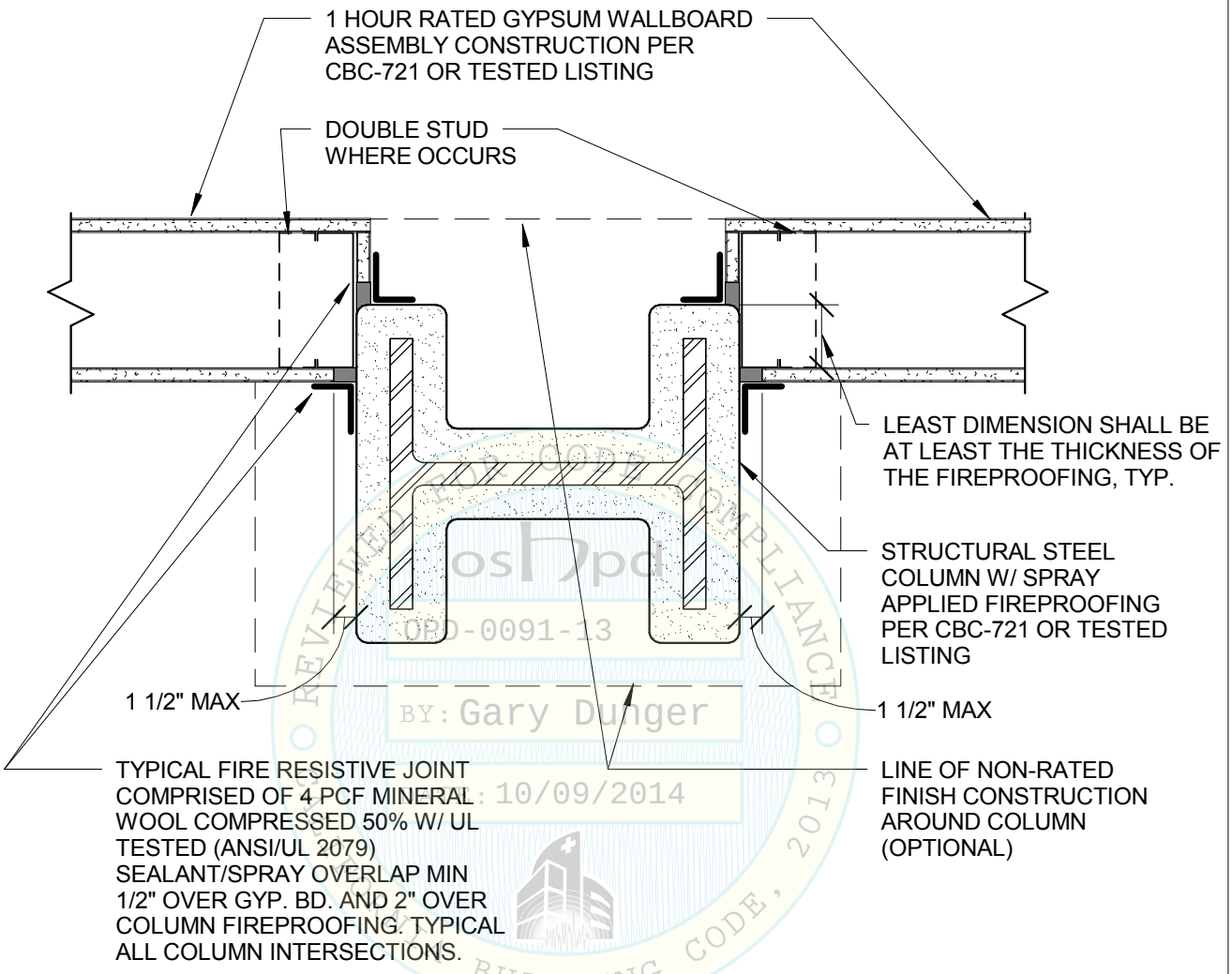

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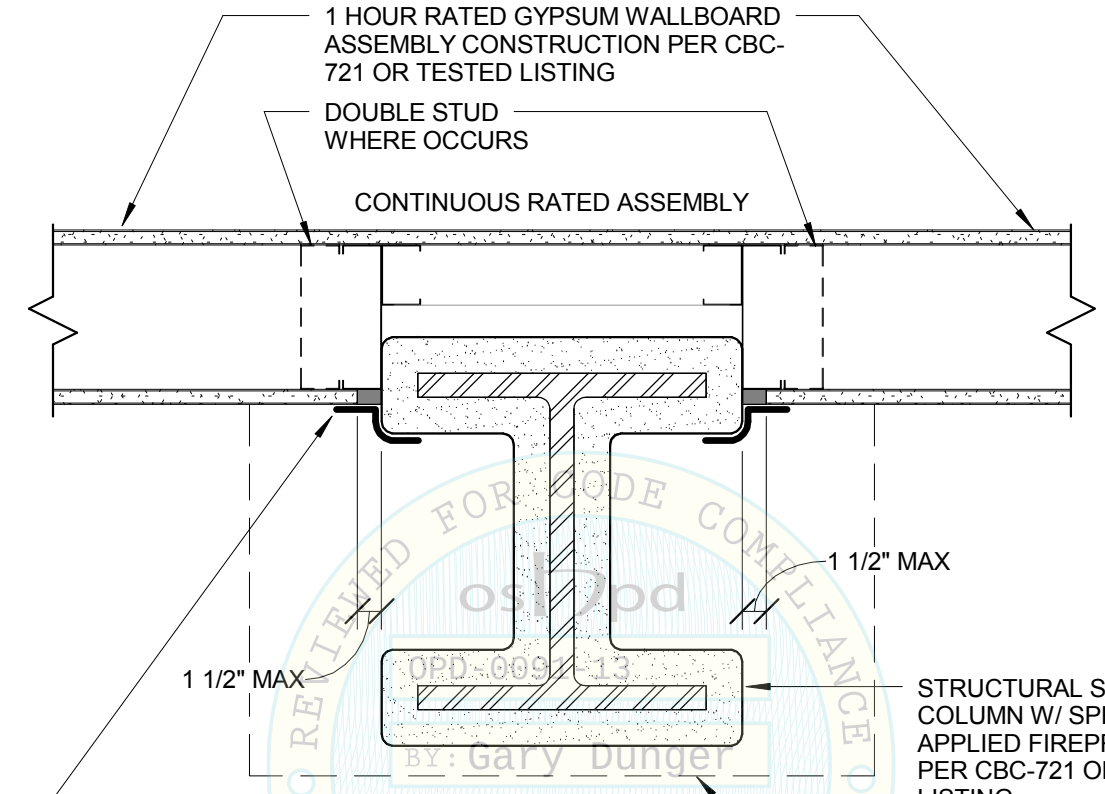

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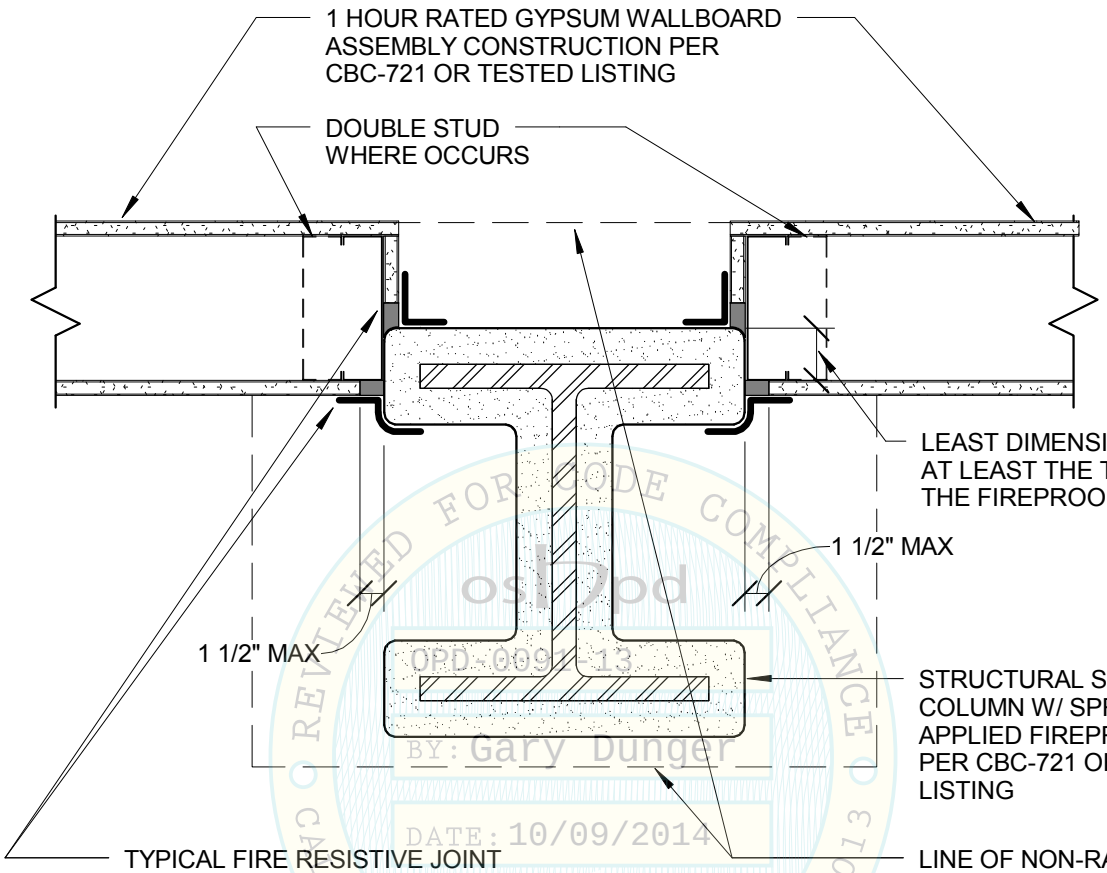

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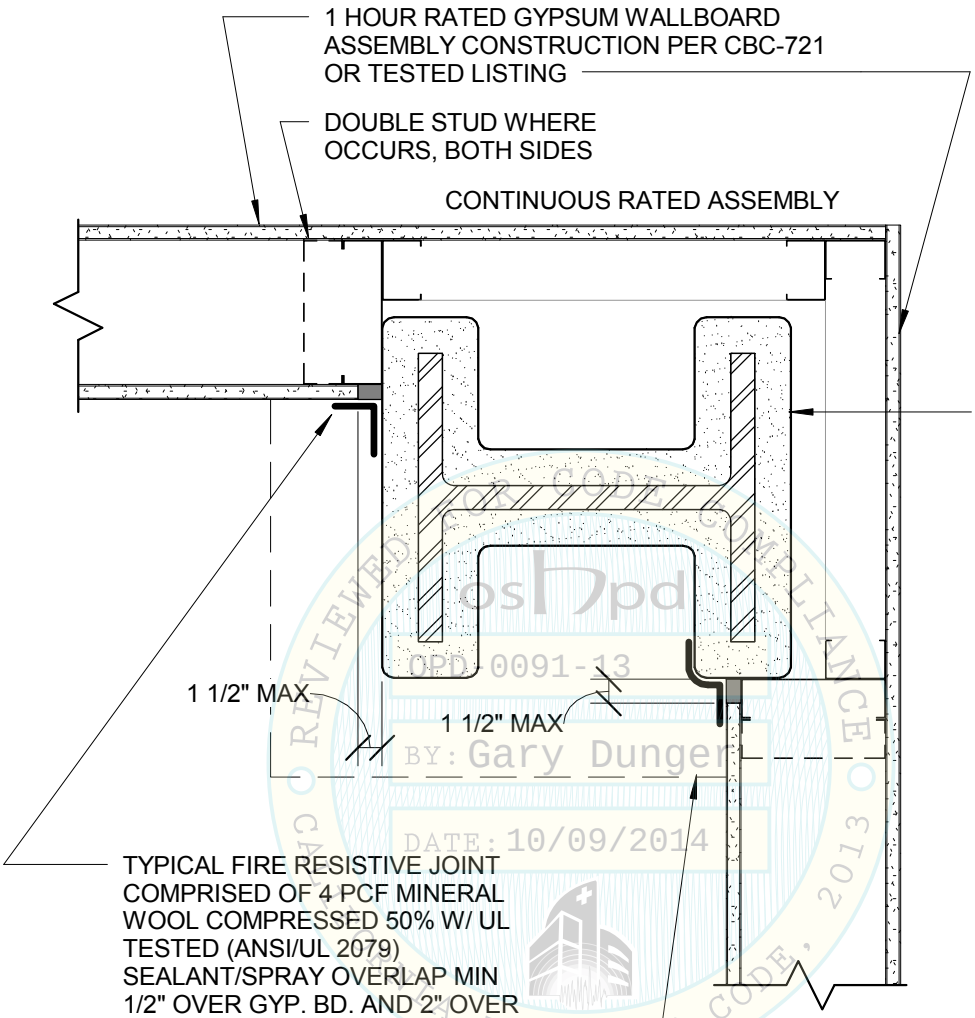

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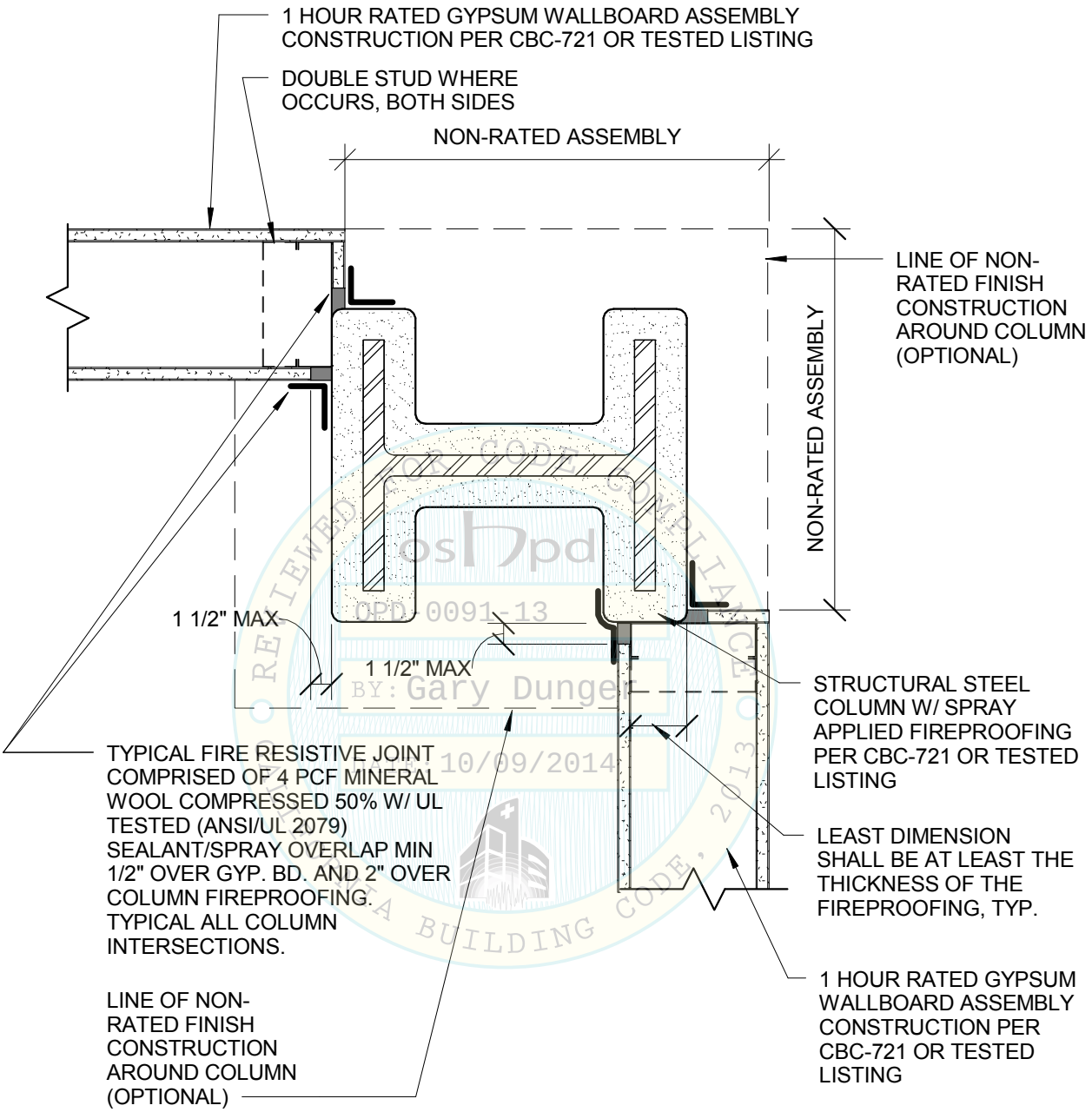

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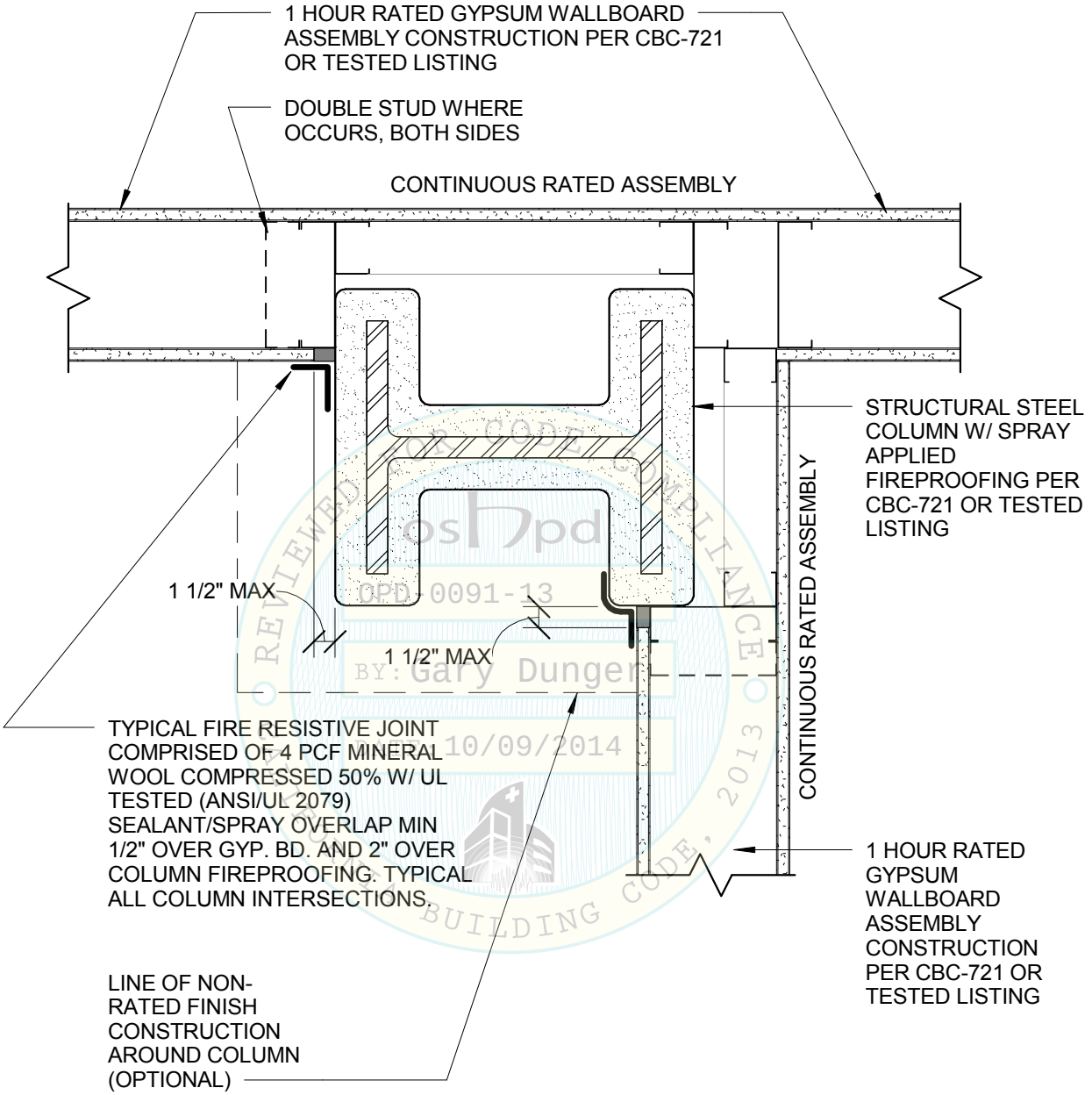

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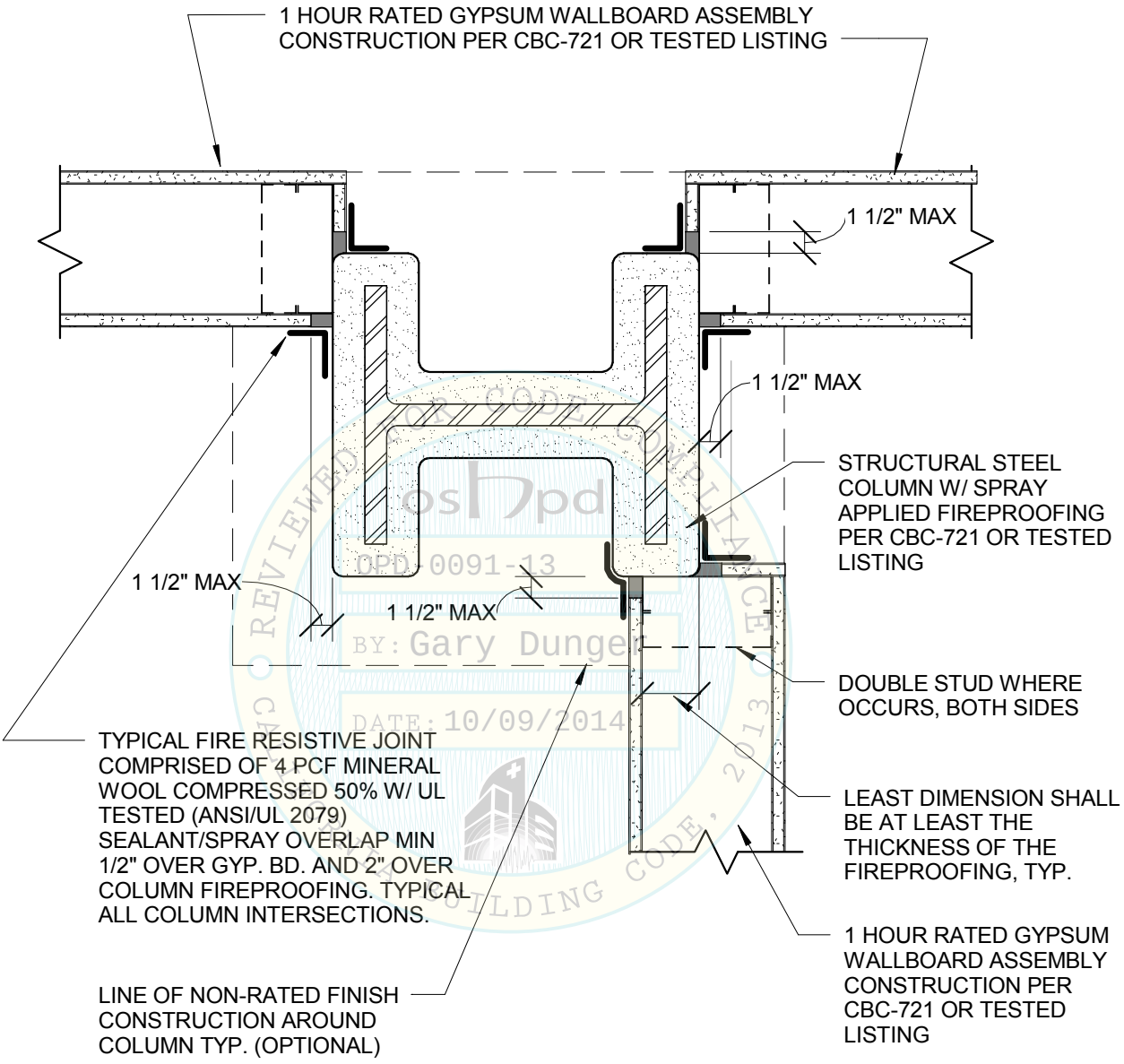

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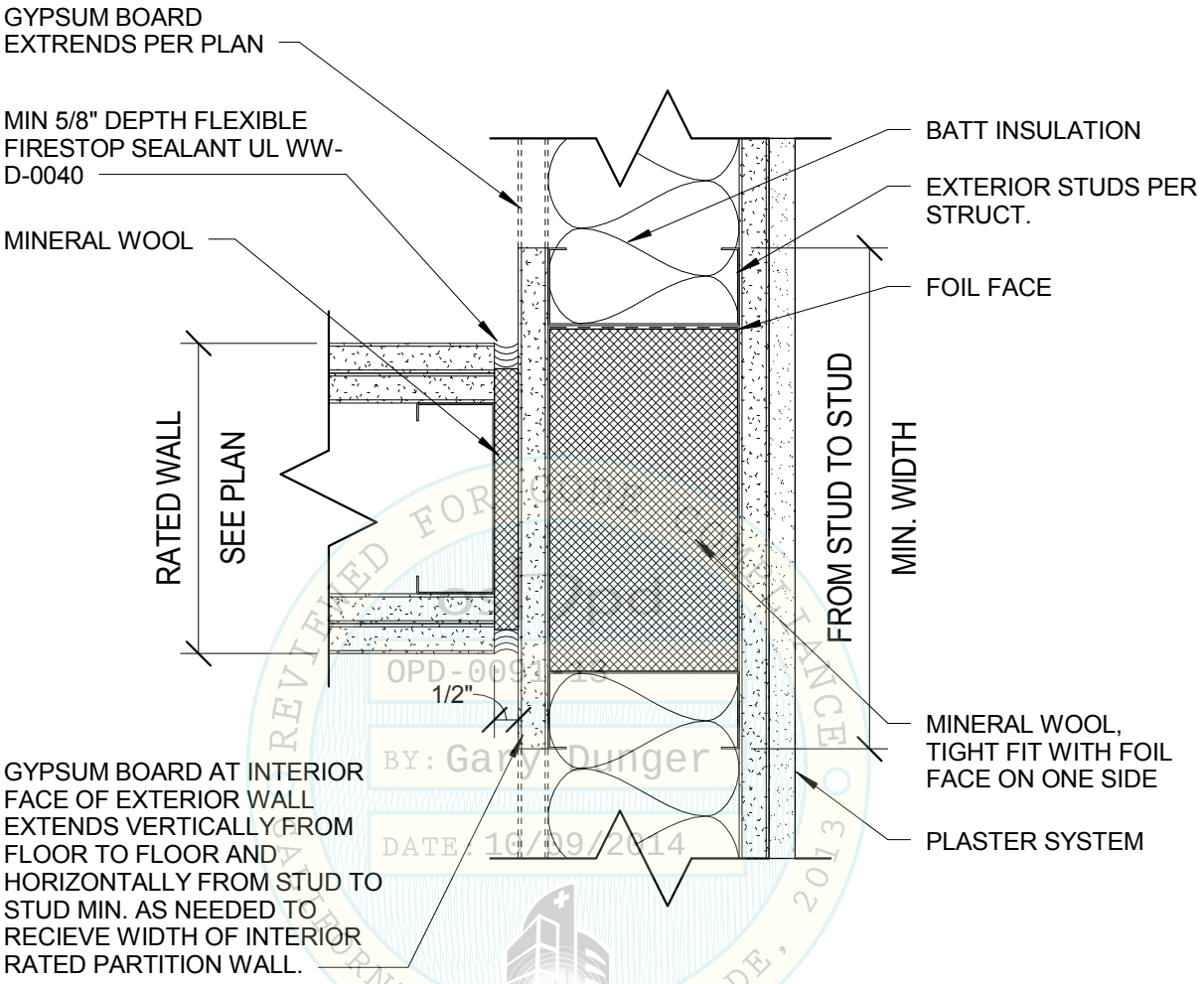
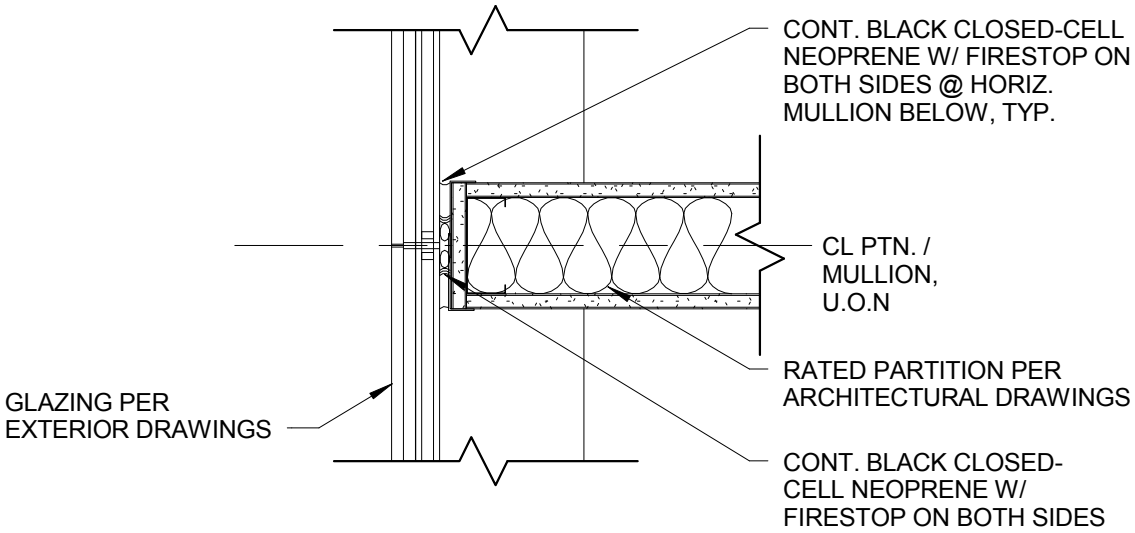
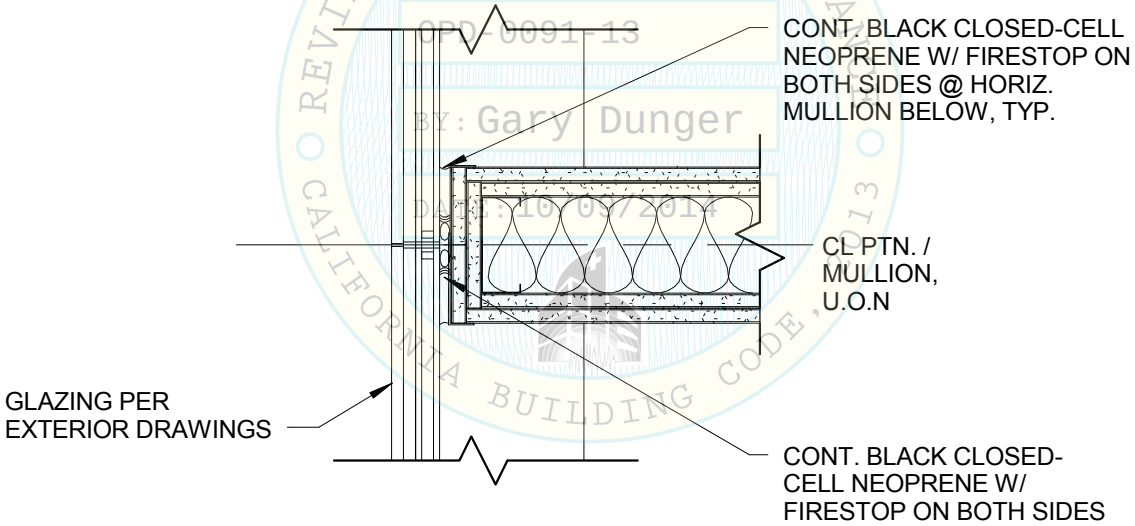


Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS		OPD No:
Sheet Title : RATED INTERIOR WALL TERMINATION AT EXTERIOR PLASTER WALL		FR1.33

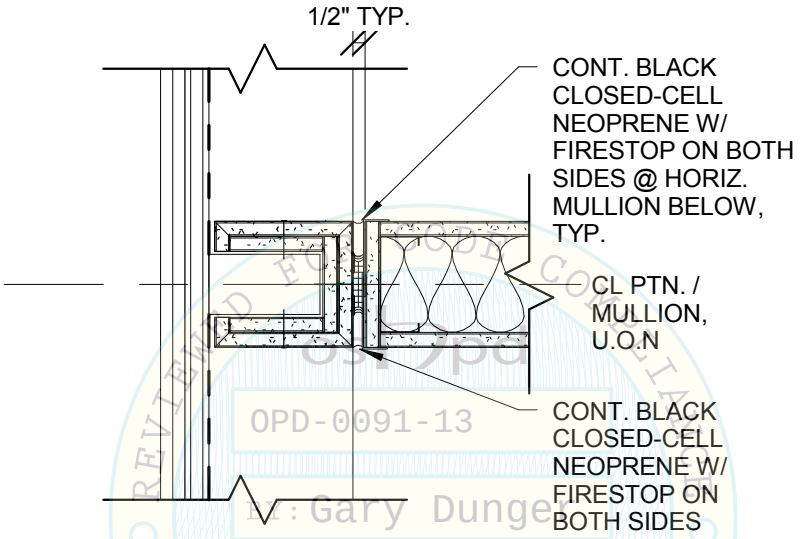


TYP. 1 HR. RATED PTN.



TYP. 2 HR. RATED PTN.

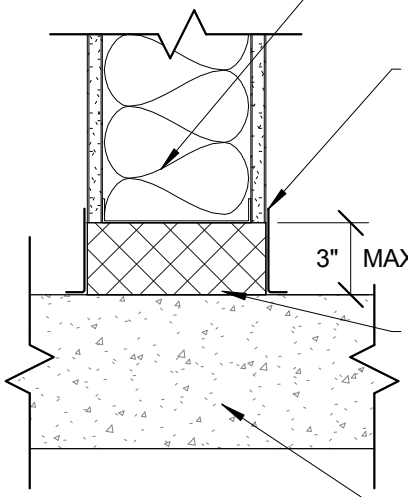
Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS	OPD No:
Sheet Title : PARTITION TERMINATION @ GLAZING	FR1.35



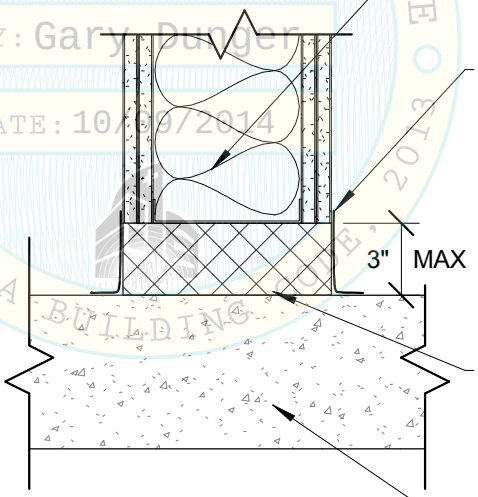
TYP. DRYWALL WRAPPED MULLION PTN.

NOTE:
1. JOINT TRANSITIONS FROM VERTICAL AND HORIZONTAL MULLIONS TO RATED PARTITION ARE TO BE SEISMICALLY COMPATIBLE WITH BUILDING MOVEMENTS.

Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS	OPD No:
Sheet Title : PARTITION TERMINATION @ MULLION - WRAPPED	FR1.38



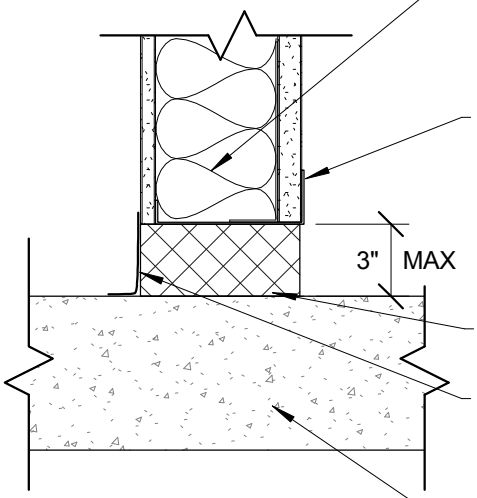
1 HR. PARTITION



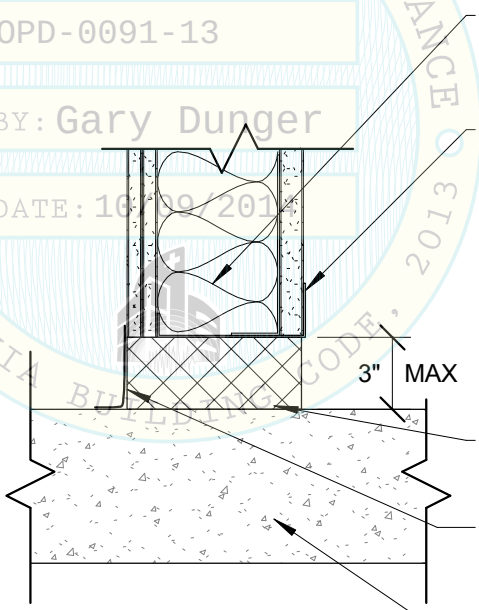
2 HR. PARTITION

NOTE:
1. PRECAST PANELS SHOWN ARE CURTAIN WALL SUPPORTED CONCRETE PANELS WITH SEISMIC DRIFT MOVEMENTS. CONCRETE PRECAST MATERIAL TO BE FULL DEPTH OF PANEL.

Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS	OPD No:
Sheet Title : PARTITION TERMINATION TO PRECAST	FR1.39



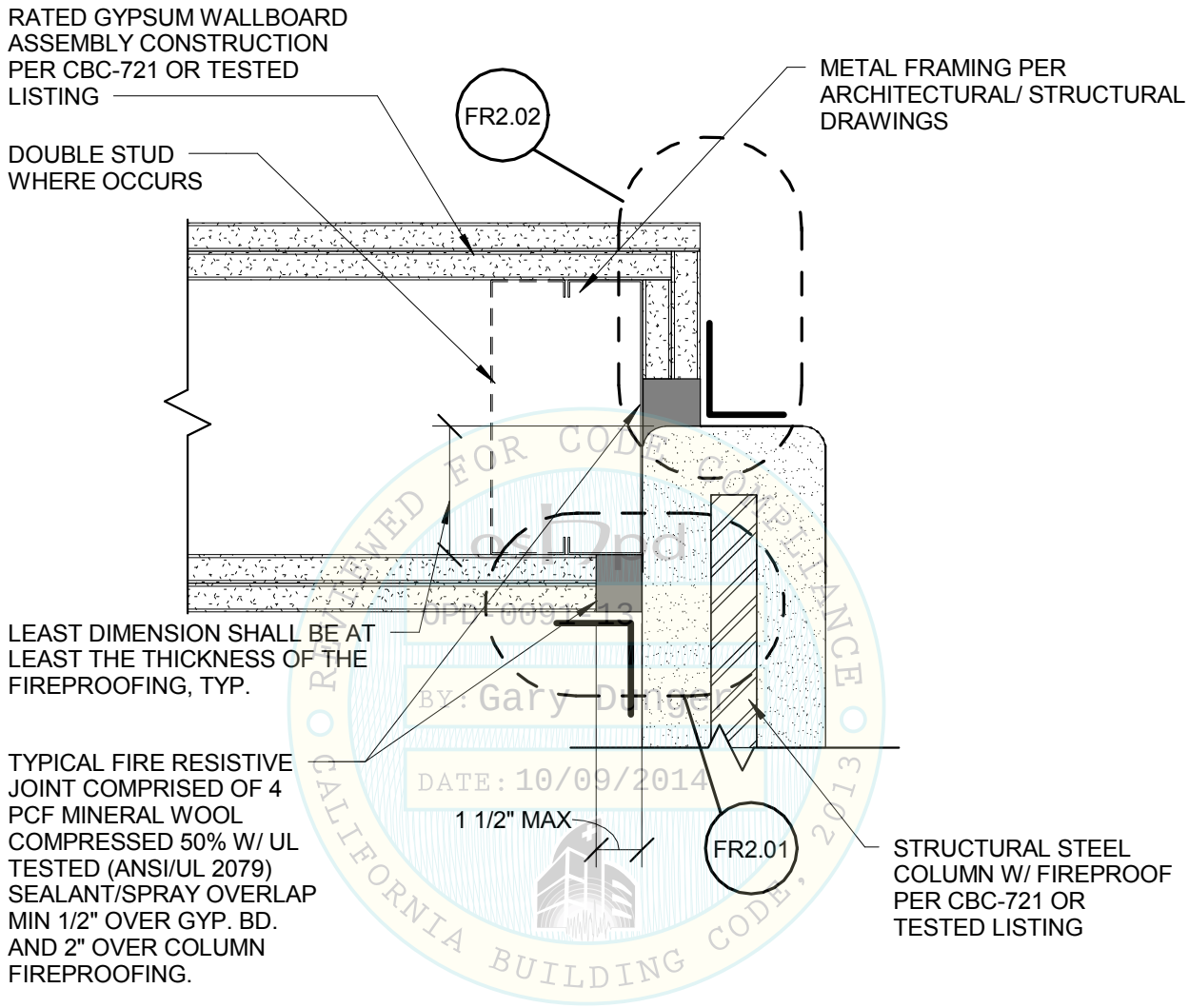
1 HR. SHAFT



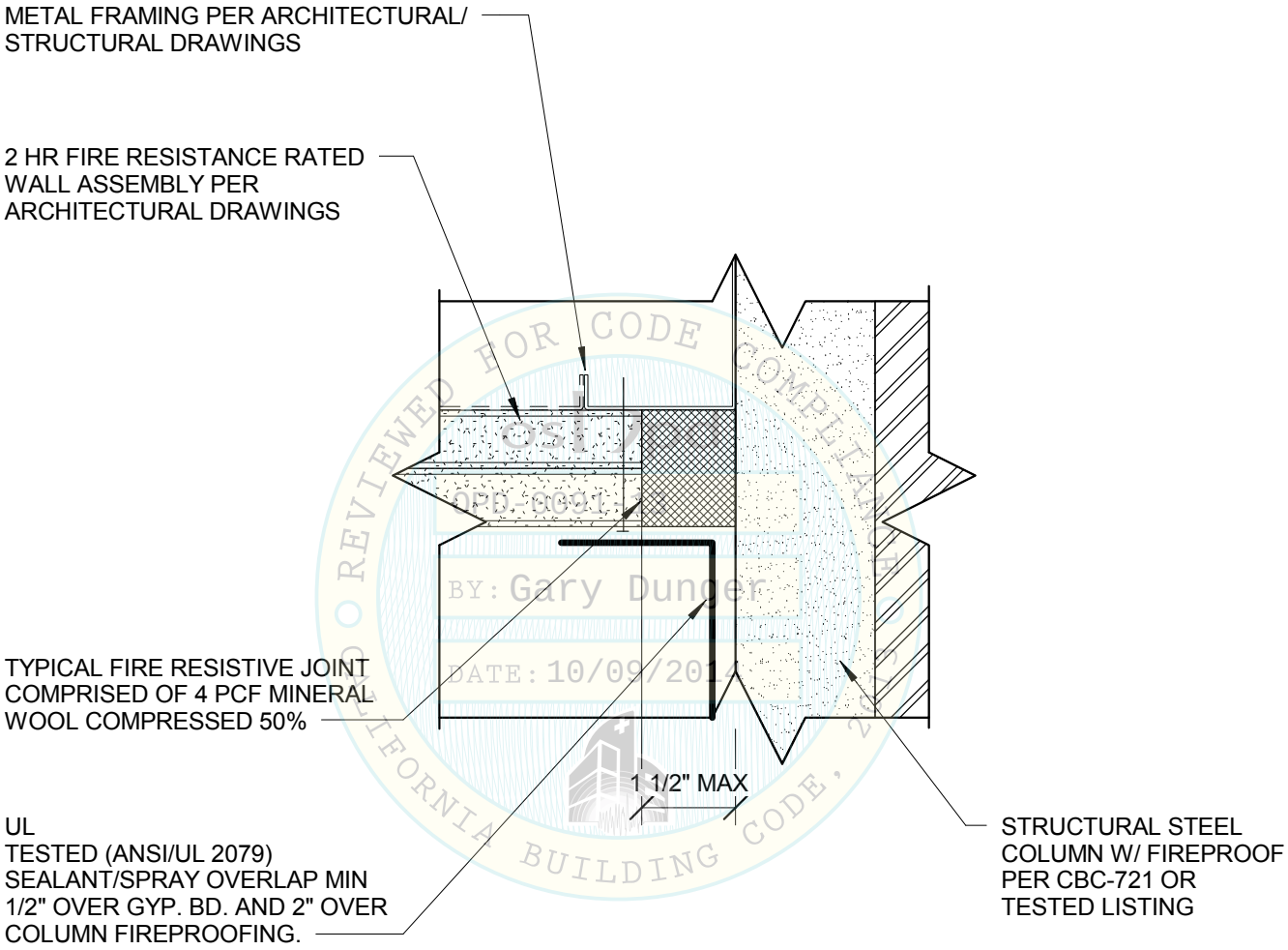
2 HR. SHAFT

NOTE:
1. PRECAST PANELS SHOWN ARE CURTAIN WALL SUPPORTED CONCRETE PANELS WITH SEISMIC DRIFT MOVEMENTS. CONCRETE PRECAST MATERIAL TO BE FULL DEPTH OF PANEL.

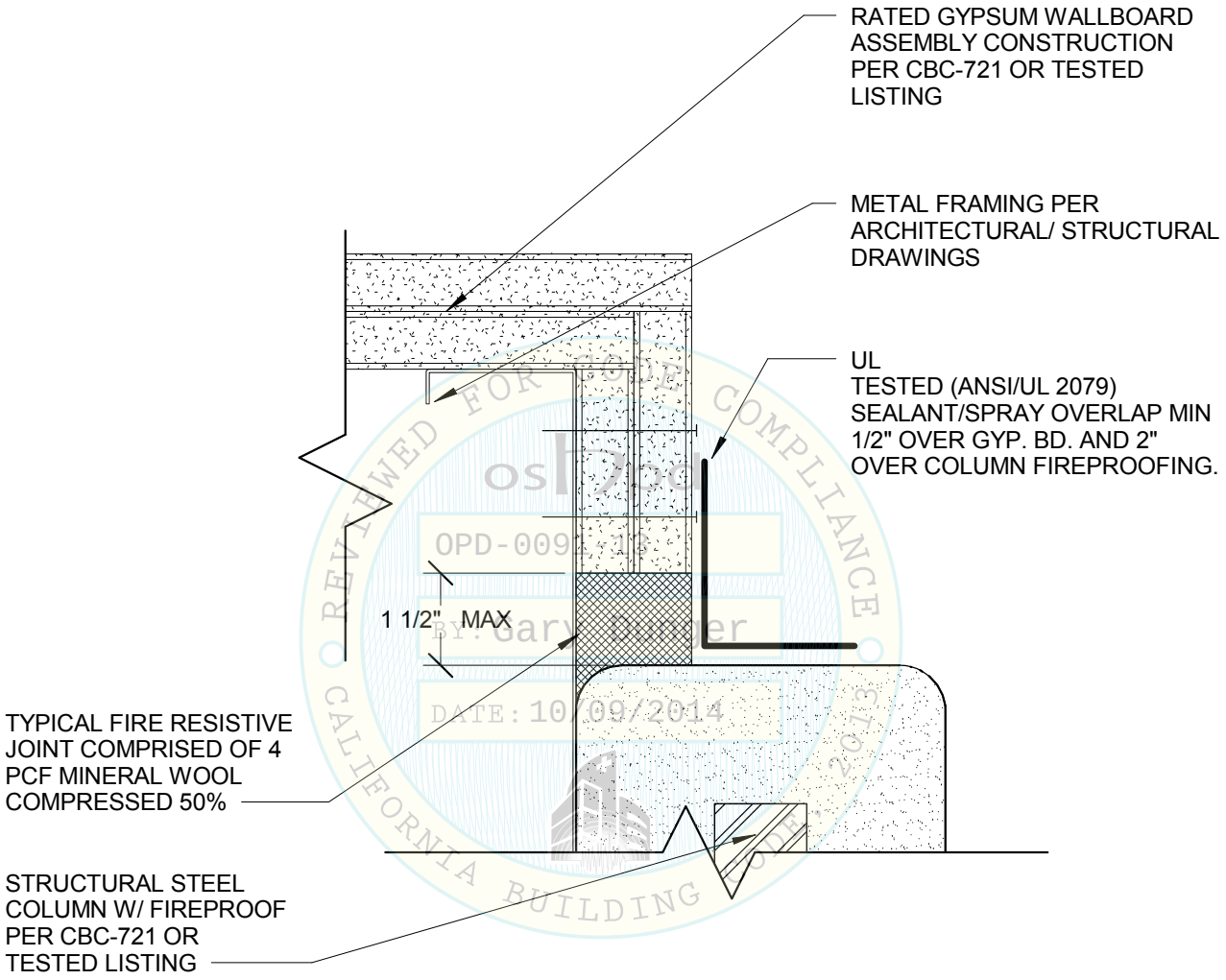
Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS	OPD No:
Sheet Title : SHAFTWALL TERMINATION TO PRECAST	FR1.40



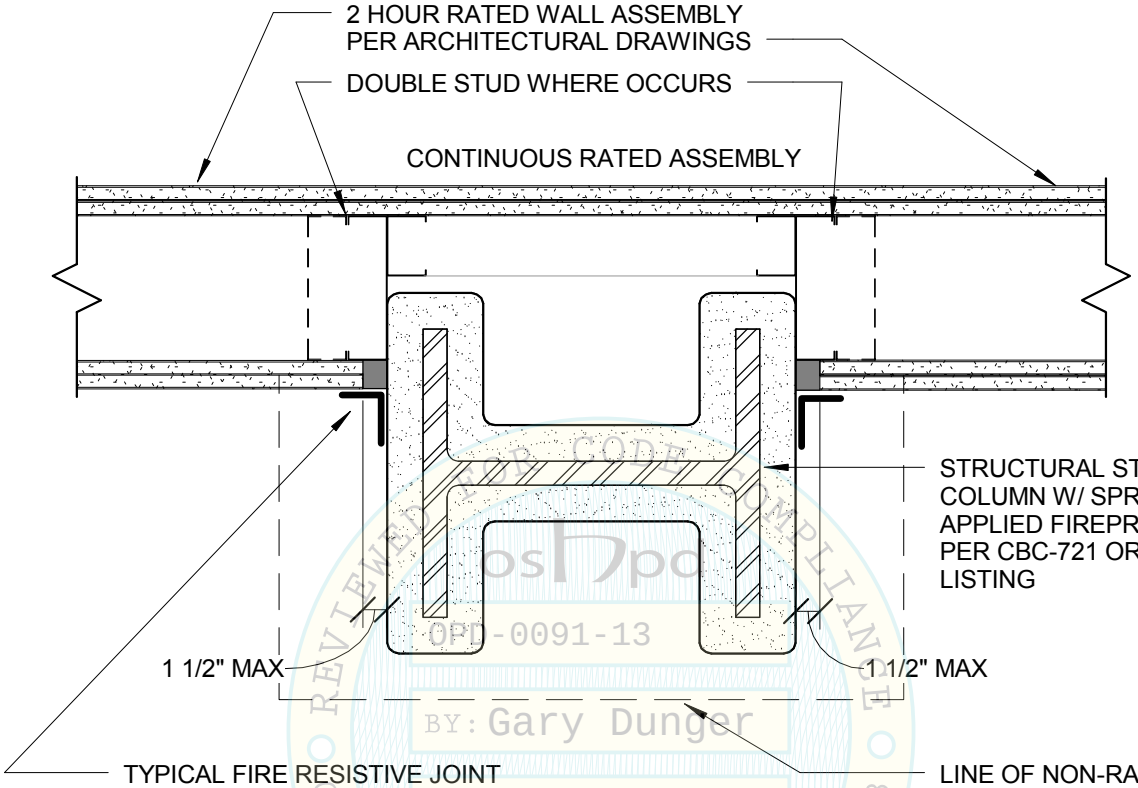
Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS	OPD No:
Sheet Title : BASIC JOINT DETAIL FOR 2-HR-FR RATED WALL ASSEMBLIES - COMPOSITE @ JOINTS	FR2.00



Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS	OPD No:
Sheet Title : BASIC JOINT DETAIL FOR 2-HR-FR RATED WALL ASSEMBLIES - FACE JOINT	FR2.01

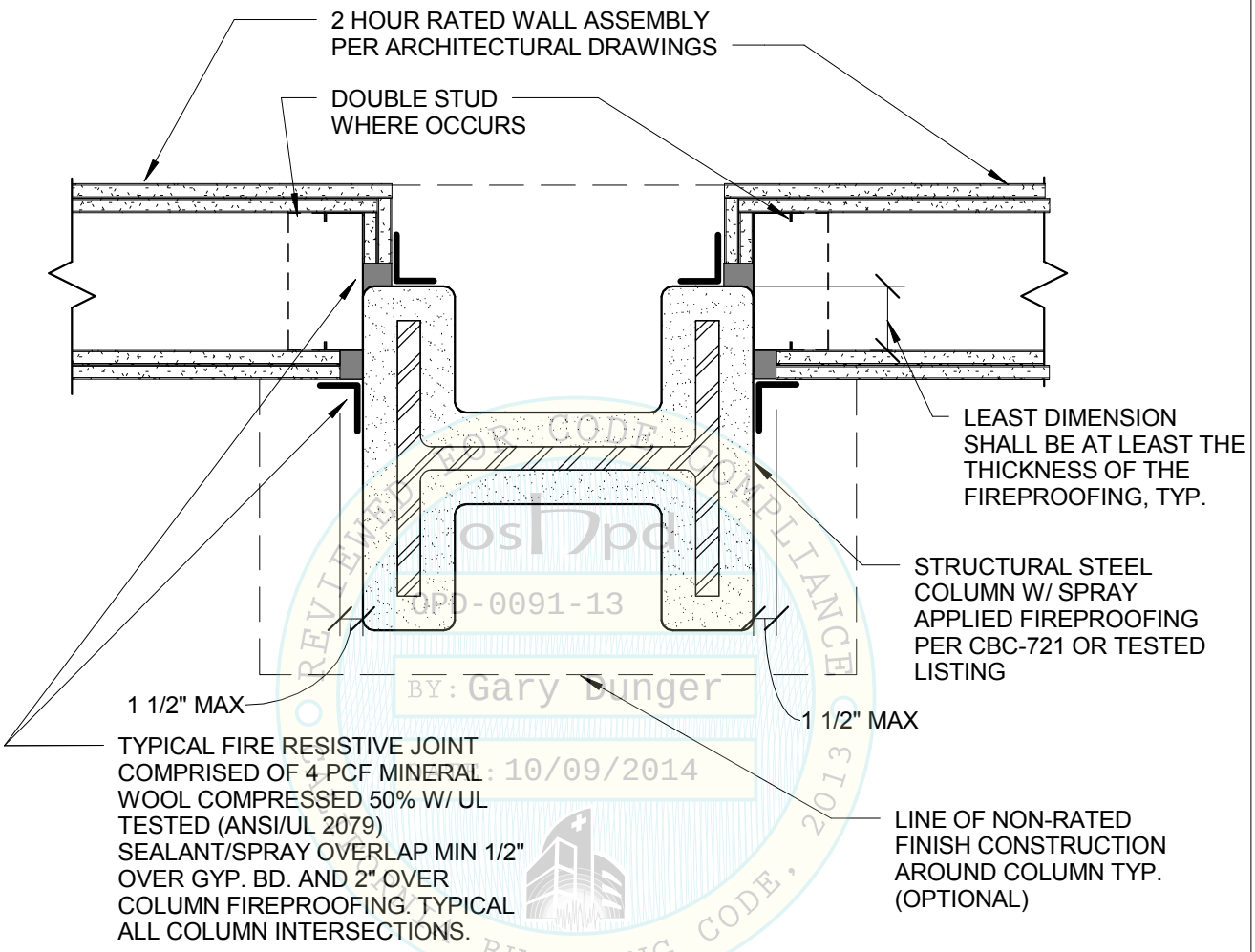


Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS	OPD No:
Sheet Title : BASIC JOINT DETAIL FOR 2-HR-FR RATED WALL ASSEMBLIES - END JOINT	FR2.02



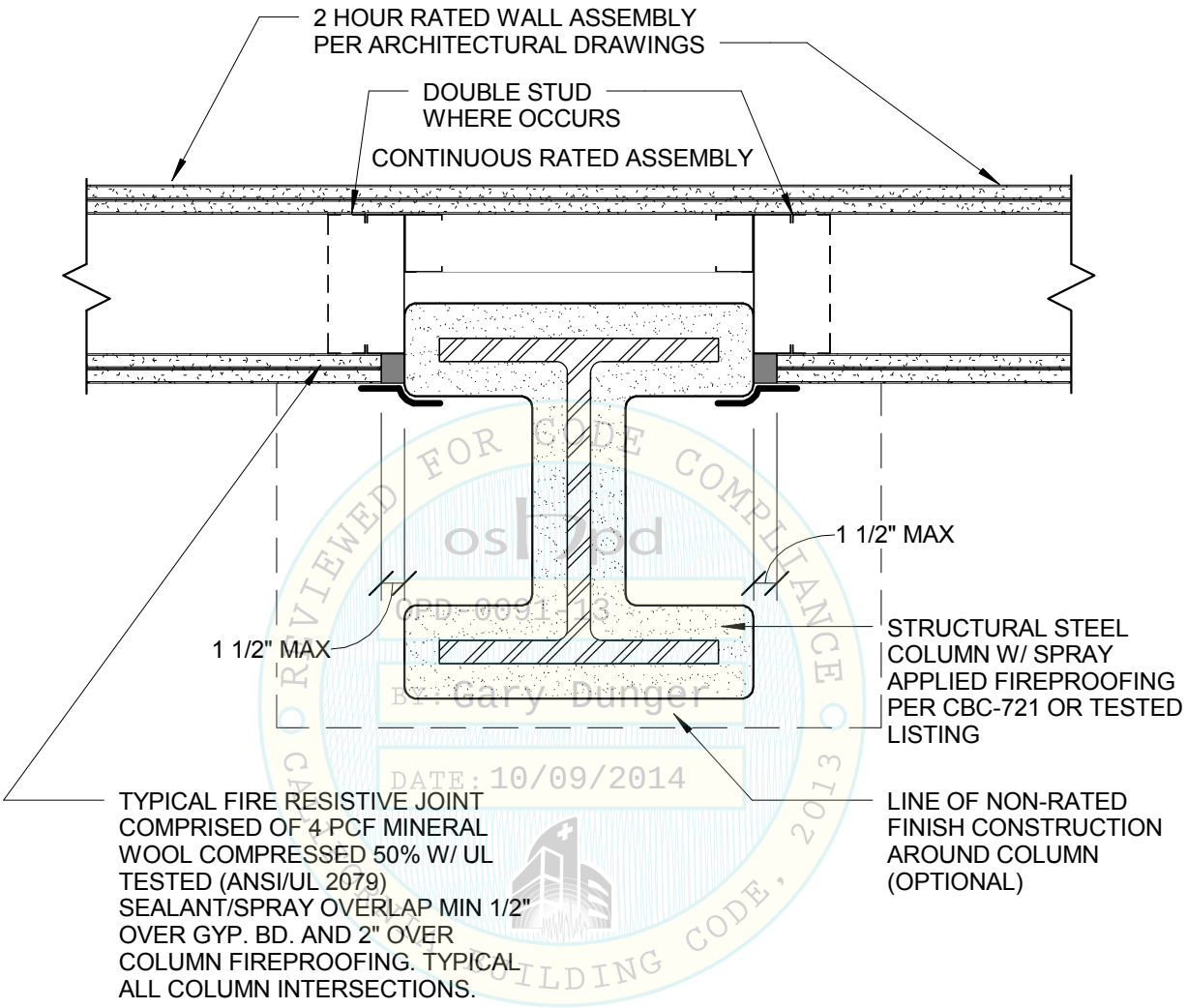
NOTES:
1. MAXIMUM SEPARATION BETWEEN EDGE OF GYPSUM WALLBOARD AND FACE OF FIREPROOFING IS 1 1/2".
2. THE FIRE RESISTIVE RATING OF STEEL COLUMN MUST BE EQUAL OR GREATER THAN WALL RATING.
3. "WET" THICKNESS OF SEALANT TO BE MIN. 1/8" TESTED IN ACCORDANCE WITH ASTM E1966 (ANSI/UL 2079).
4. SEE FR2.00, FR2.01, FR2.02 FOR JOINT DESCRIPTION

Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS	OPD No:
Sheet Title : INTERSECTION OF 2-HR-FR PARTITION, WALL AND BARRIER AT PROTECTED COLUMN	FR2.10



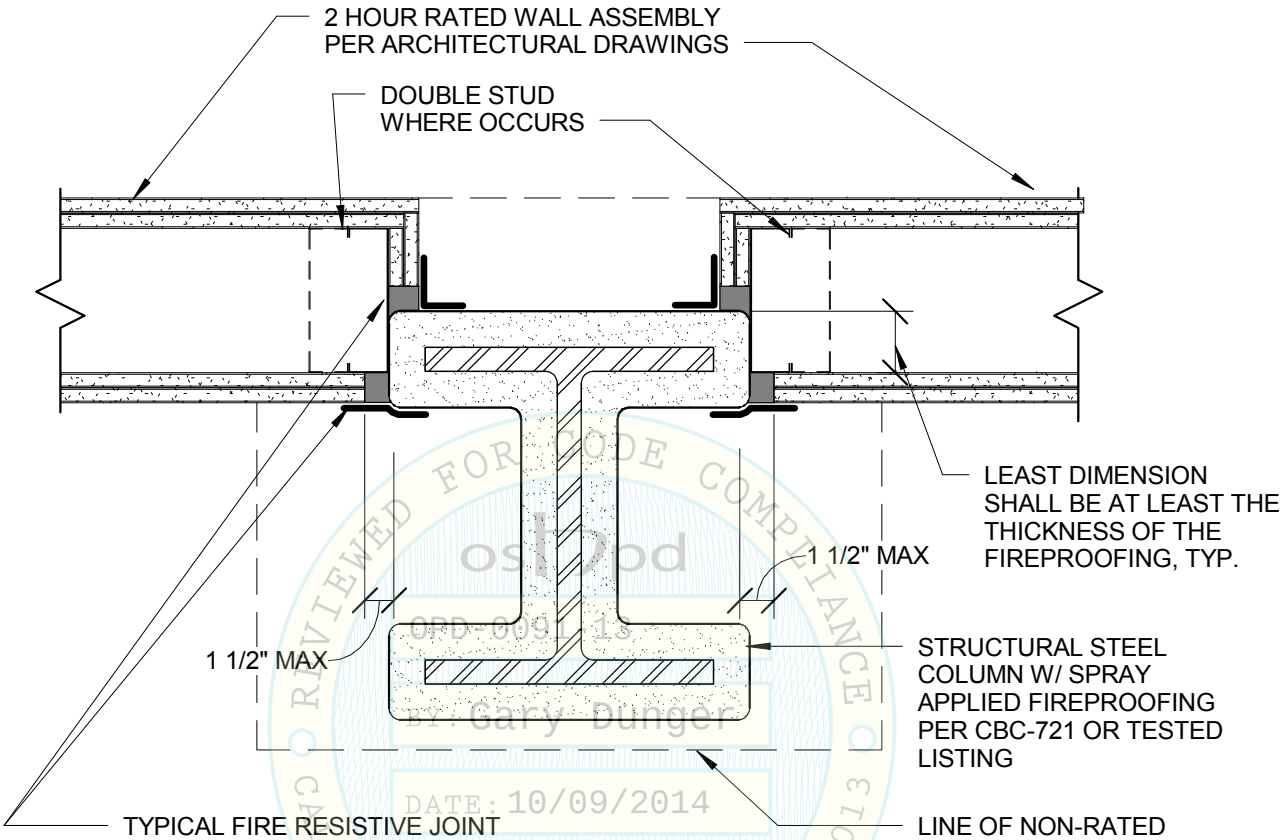
NOTES:
1. MAXIMUM SEPARATION BETWEEN EDGE OF GYPSUM WALLBOARD AND FACE OF FIREPROOFING IS 1 1/2".
2. THE FIRE RESISTIVE RATING OF STEEL COLUMN MUST BE EQUAL OR GREATER THAN WALL RATING.
3. "WET" THICKNESS OF SEALANT TO BE MIN. 1/8" TESTED IN ACCORDANCE WITH ASTM E1966 (ANSI/UL 2079).
4. SEE FR2.00, FR2.01, FR2.02 FOR JOINT DESCRIPTION

Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS	OPD No:
Sheet Title : INTERSECTION OF 2-HR-FR PARTITION, WALL AND BARRIER AT PROTECTED COLUMN	FR2.11



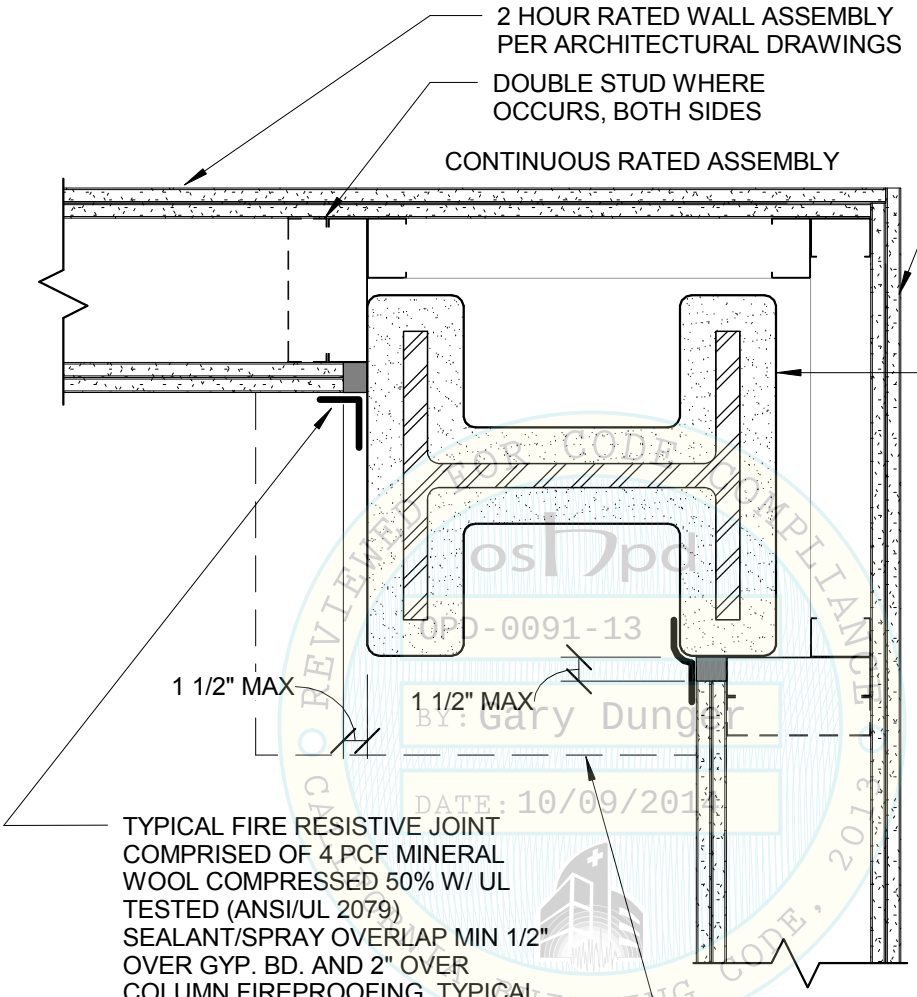
NOTES:
1. MAXIMUM SEPARATION BETWEEN EDGE OF GYPSUM WALLBOARD AND FACE OF FIREPROOFING IS 1 1/2".
2. THE FIRE RESISTIVE RATING OF STEEL COLUMN MUST BE EQUAL OR GREATER THAN WALL RATING.
3. "WET" THICKNESS OF SEALANT TO BE MIN. 1/8" TESTED IN ACCORDANCE WITH ASTM E1966 (ANSI/UL 2079).
4. SEE FR2.00, FR2.01, FR2.02 FOR JOINT DESCRIPTION

Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS	OPD No:
Sheet Title : INTERSECTION OF 2-HR-FR PARTITION, WALL AND BARRIER AT PROTECTED COLUMN	FR2.12



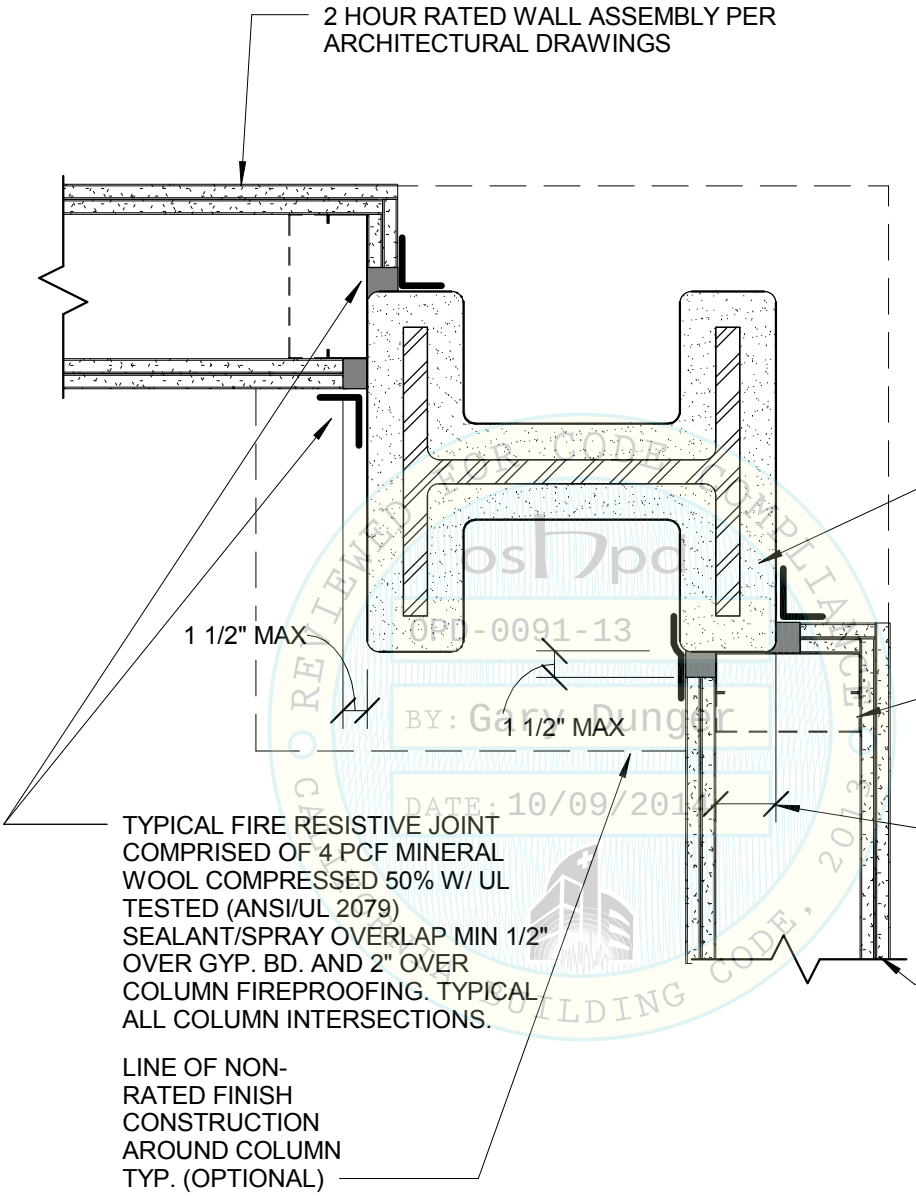
NOTES:
1. MAXIMUM SEPARATION BETWEEN EDGE OF GYPSUM WALLBOARD AND FACE OF FIREPROOFING IS 1 1/2".
2. THE FIRE RESISTIVE RATING OF STEEL COLUMN MUST BE EQUAL OR GREATER THAN WALL RATING.
3. "WET" THICKNESS OF SEALANT TO BE MIN. 1/8" TESTED IN ACCORDANCE WITH ASTM E1966 (ANSI/UL 2079).
4. SEE FR2.00, FR2.01, FR2.02 FOR JOINT DESCRIPTION

Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS	OPD No:
Sheet Title : INTERSECTION OF 2-HR-FR PARTITION, WALL AND BARRIER AT PROTECTED COLUMN	FR2.13



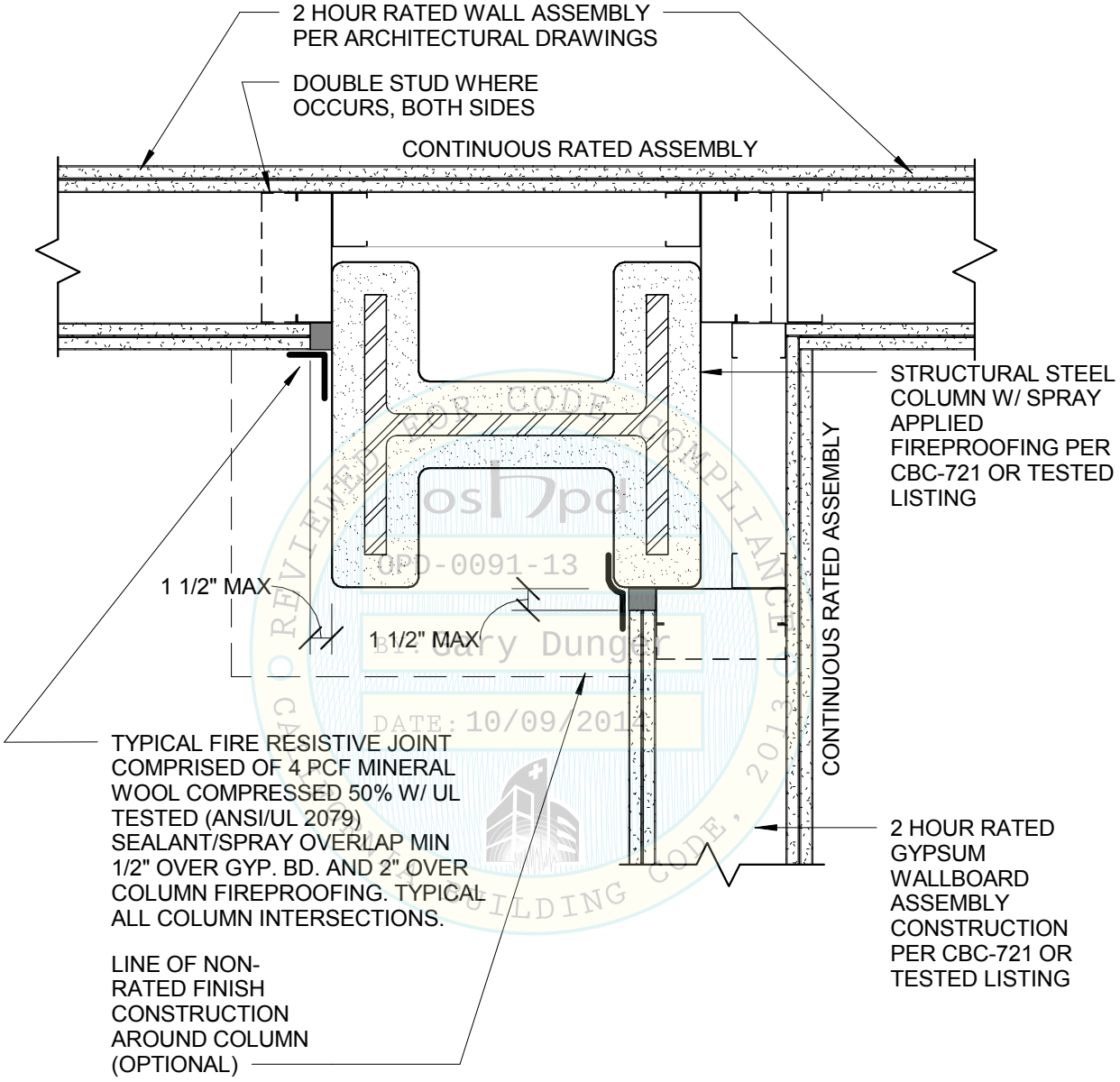
NOTES:
1. MAXIMUM SEPARATION BETWEEN EDGE OF GYPSUM WALLBOARD AND FACE OF FIREPROOFING IS 1 1/2".
2. THE FIRE RESISTIVE RATING OF STEEL COLUMN MUST BE EQUAL OR GREATER THAN WALL RATING.
3. "WET" THICKNESS OF SEALANT TO BE MIN. 1/8" TESTED IN ACCORDANCE WITH ASTM E1966 (ANSI/UL 2079).
4. SEE FR2.00, FR2.01, FR2.02 FOR JOINT DESCRIPTION

Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS		OPD No:
Sheet Title : INTERSECTION OF 2-HR-FR PARTITION, WALL AND BARRIER AT PROTECTED COLUMN		FR2.14



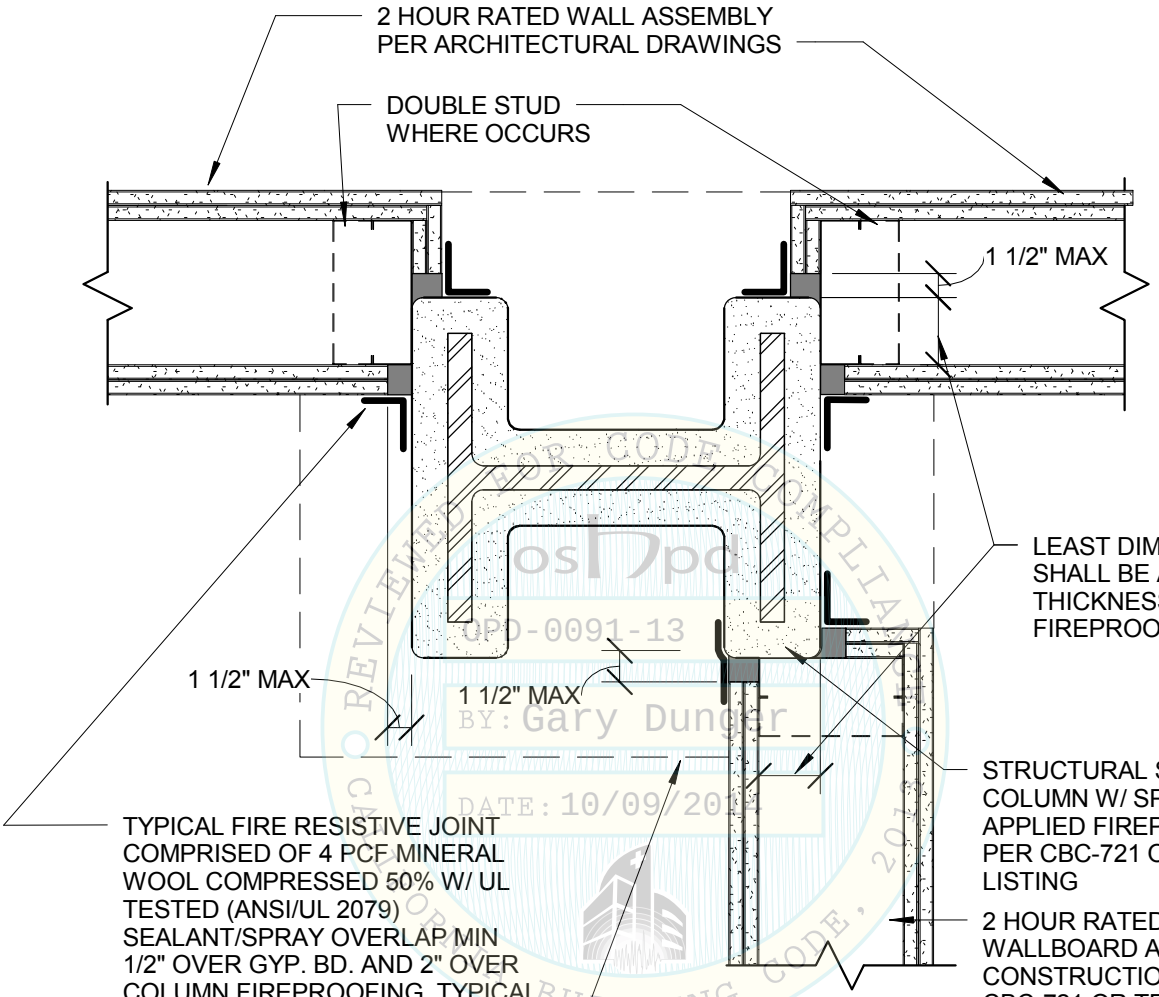
NOTES:
1. MAXIMUM SEPARATION BETWEEN EDGE OF GYPSUM WALLBOARD AND FACE OF FIREPROOFING IS 1 1/2".
2. THE FIRE RESISTIVE RATING OF STEEL COLUMN MUST BE EQUAL OR GREATER THAN WALL RATING.
3. "WET" THICKNESS OF SEALANT TO BE MIN. 1/8" TESTED IN ACCORDANCE WITH ASTM E1966 (ANSI/UL 2079).
4. SEE FR2.00, FR2.01, FR2.02 FOR JOINT DESCRIPTION

Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS	OPD No:
Sheet Title : INTERSECTION OF 2-HR-FR PARTITION, WALL AND BARRIER AT PROTECTED COLUMN	FR2.15



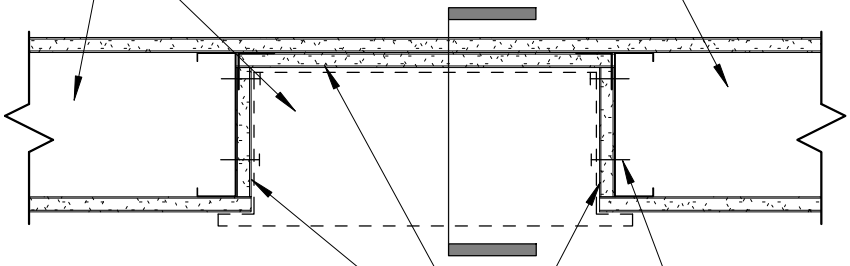
NOTES:
1. MAXIMUM SEPARATION BETWEEN EDGE OF GYPSUM WALLBOARD AND FACE OF FIREPROOFING IS 1 1/2".
2. THE FIRE RESISTIVE RATING OF STEEL COLUMN MUST BE EQUAL OR GREATER THAN WALL RATING.
3. "WET" THICKNESS OF SEALANT TO BE MIN. 1/8" TESTED IN ACCORDANCE WITH ASTM E1966 (ANSI/UL 2079).
4. SEE FR2.00, FR2.01, FR2.02 FOR JOINT DESCRIPTION

Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS	OPD No:
Sheet Title : INTERSECTION OF 2-HR-FR PARTITION, WALL AND BARRIER AT PROTECTED COLUMN	FR2.16

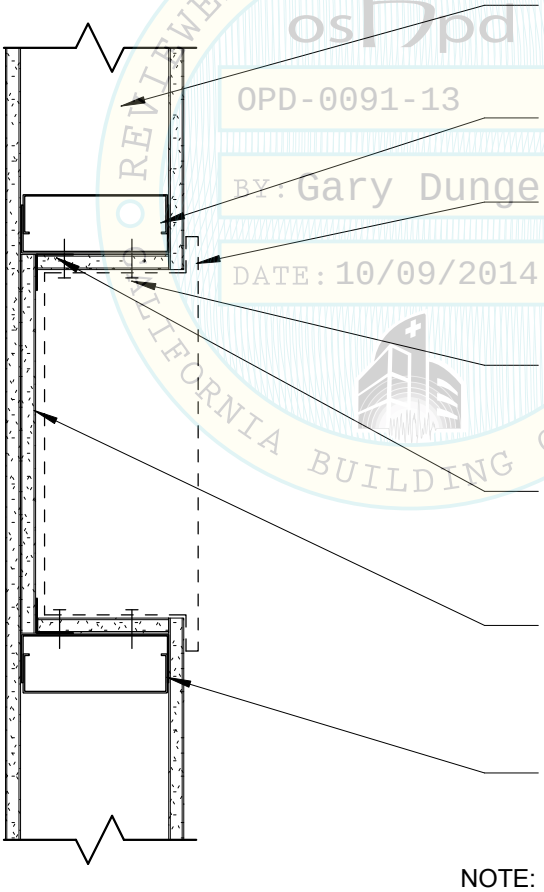


NOTES:
1. MAXIMUM SEPARATION BETWEEN EDGE OF GYPSUM WALLBOARD AND FACE OF FIREPROOFING IS 1 1/2".
2. THE FIRE RESISTIVE RATING OF STEEL COLUMN MUST BE EQUAL OR GREATER THAN WALL RATING.
3. "WET" THICKNESS OF SEALANT TO BE MIN. 1/8" TESTED IN ACCORDANCE WITH ASTM E1966 (ANSI/UL 2079).
4. SEE FR2.00, FR2.01, FR2.02 FOR JOINT DESCRIPTION

Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS		OPD No:
Sheet Title : INTERSECTION OF 2-HR-FR PARTITION, WALL AND BARRIER AT PROTECTED COLUMN		FR2.17



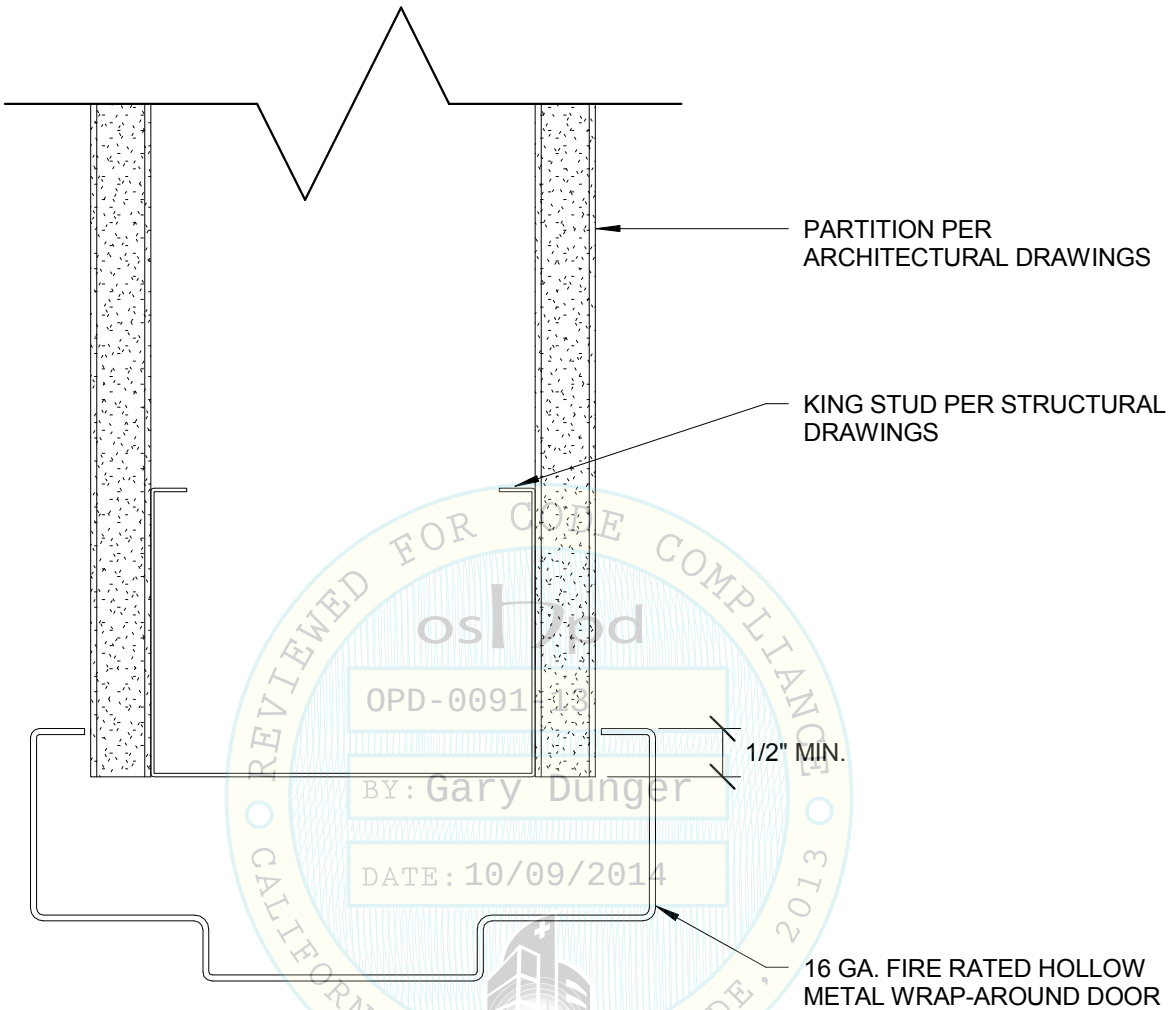
1. PLAN



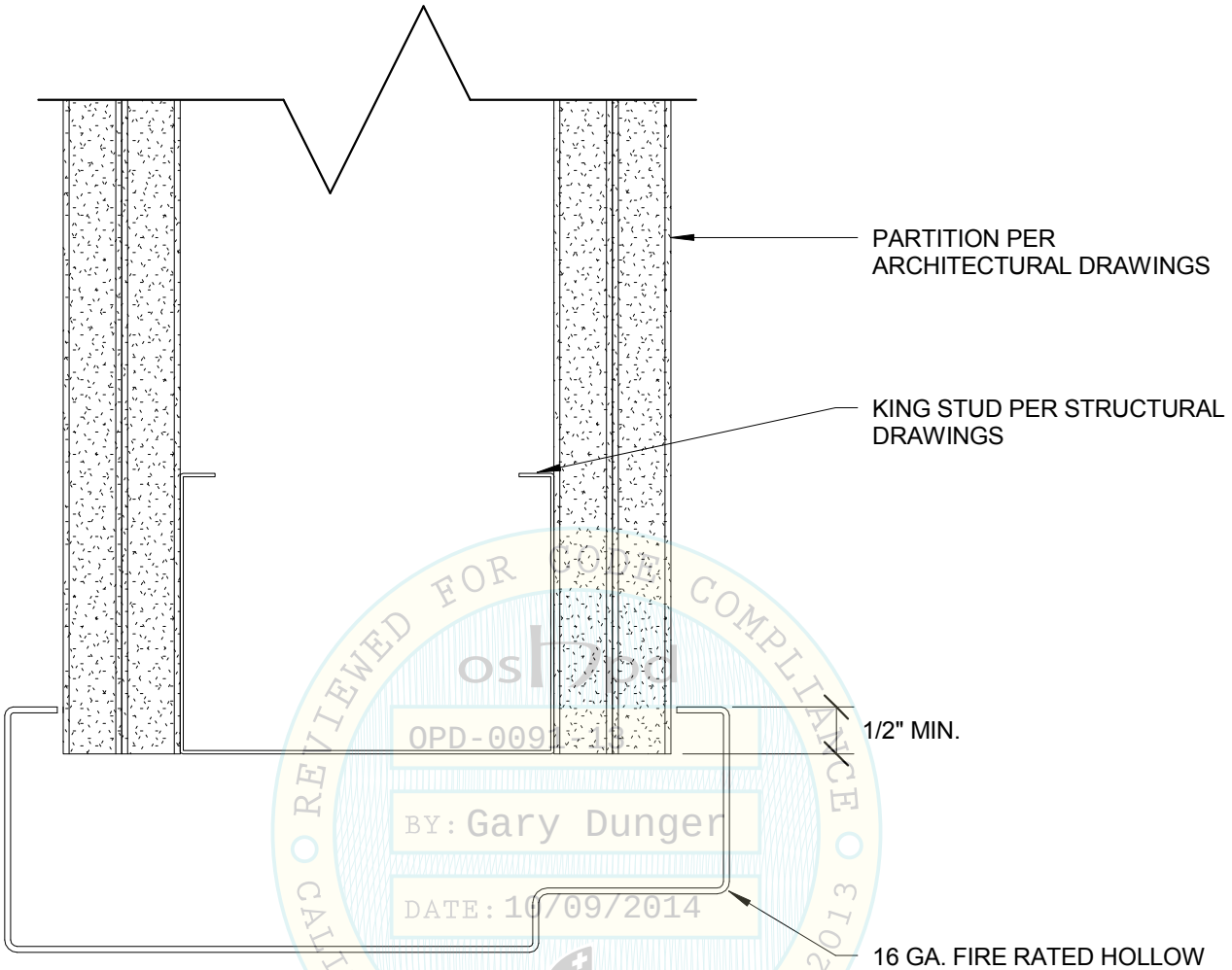
NOTE:
ALL PENETRATIONS TO MEET UL LISTING FOR PENETRATIONS.

2. SECTION

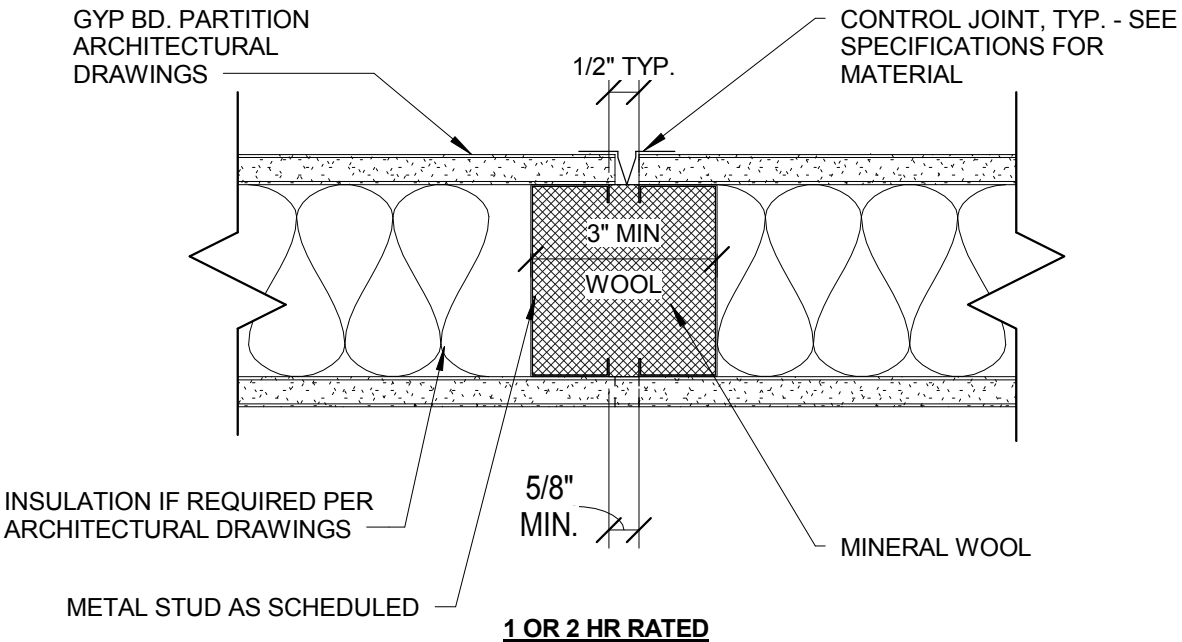
Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS	OPD No:
Sheet Title : 1 HR. "5-SIDED BOX" @ RECESSED M.E.P. CABINETS	FR3.01



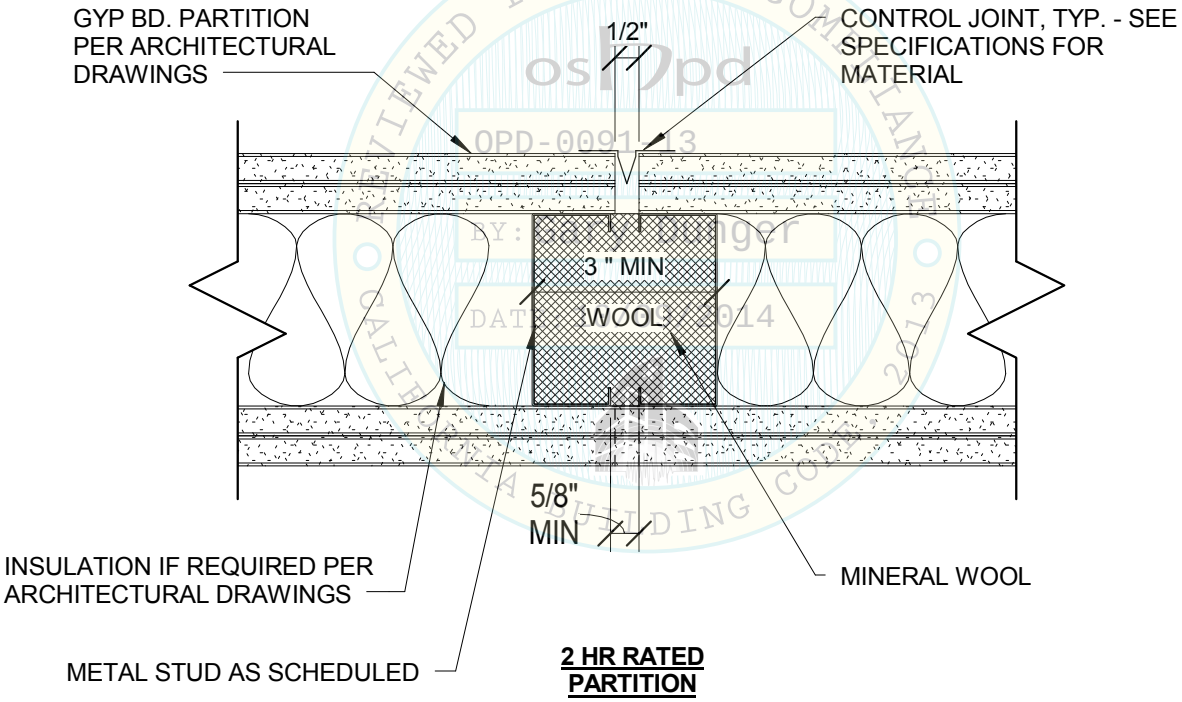
Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS		OPD No:
Sheet Title : HOLLOW METAL DOOR JAMB @ 1 HR-RATED WALLS		FR3.02



Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS		OPD No:
Sheet Title : HOLLOW METAL DOOR JAMB @ 2HR-RATED WALL		FR3.03



1 OR 2 HR RATED PARTITION

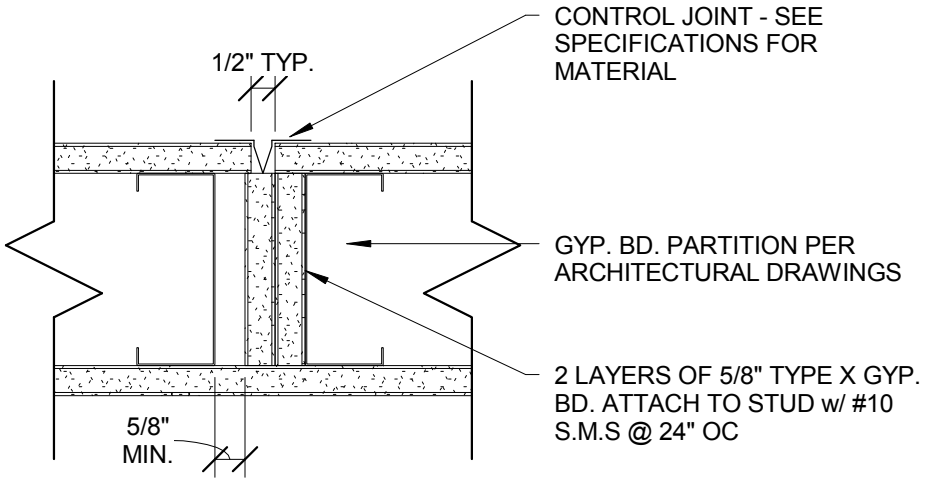


2 HR RATED PARTITION

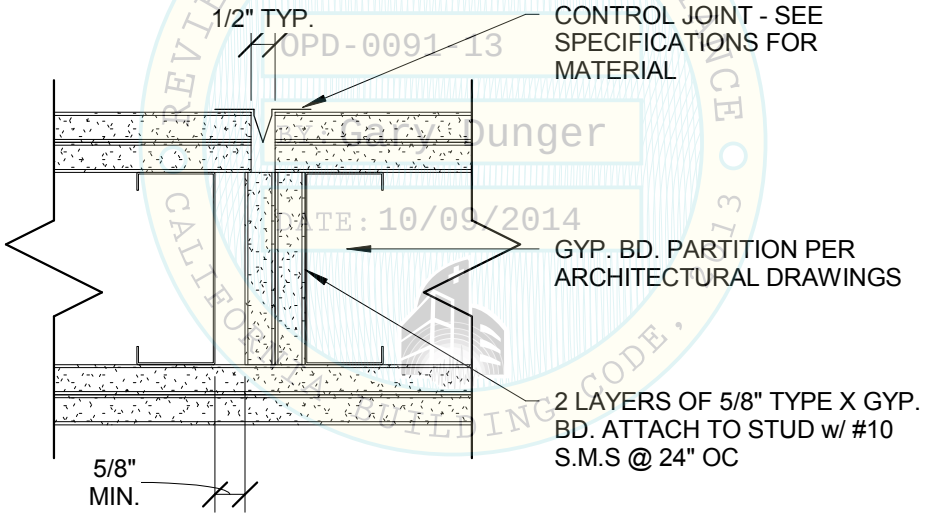
NOTE:
1. CONTROL JOINT MATERIAL MAY TERMINATE 6" ABOVE CEILING LINE. CONTINUE JOINT WITH GYP. BD. TAPE - DO NOT FILL JOINT WITH TAPING COMPOUND.

2. THROUGH JOINTS ARE NOT PERMITTED. OFFSET CONTROL JOINT AT BOTH SIDES OF WALL A MINIMUM OF ONE STUD BAY

Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS		OPD No:
Sheet Title : GYP. BD. CONTROL JOINT @ RATED PARTITIONS - MINERAL WOOL		FR3.04



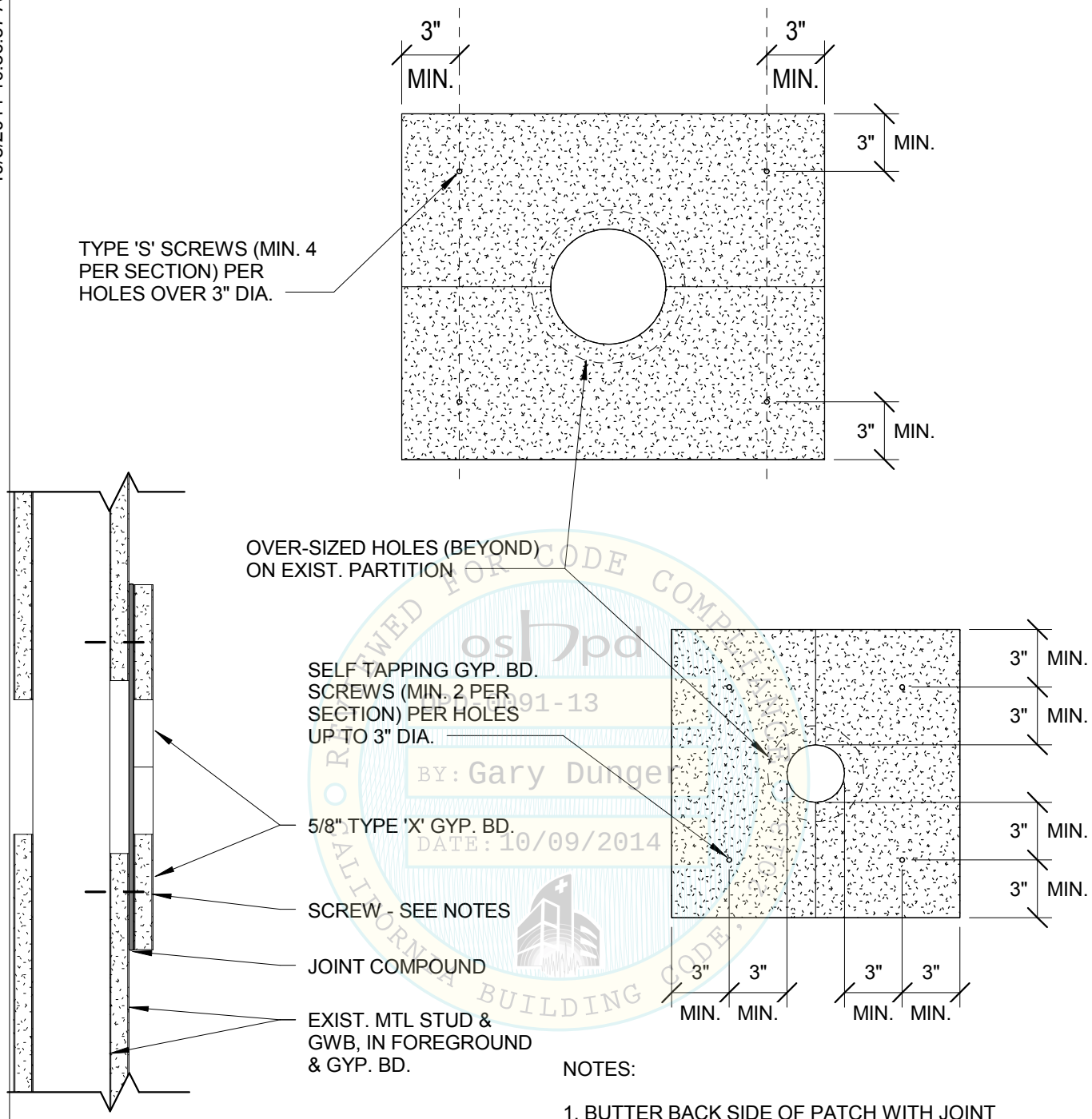
1 OR 2 HR. RATED PARTITION



2 HR. RATED PARTITION

NOTE:
CONTROL JOINT MATERIAL MAY TERMINATE 6" ABOVE CEILING LINE. CONTINUE JOINT WITH GYP. BD. TAPE - DO NOT FILL JOINT WITH TAPING COMPOUND.

Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS	OPD No:
Sheet Title : GYP. BD. CONTROL JOINT @ RATED PARTITIONS - GYP. BD.	FR3.05

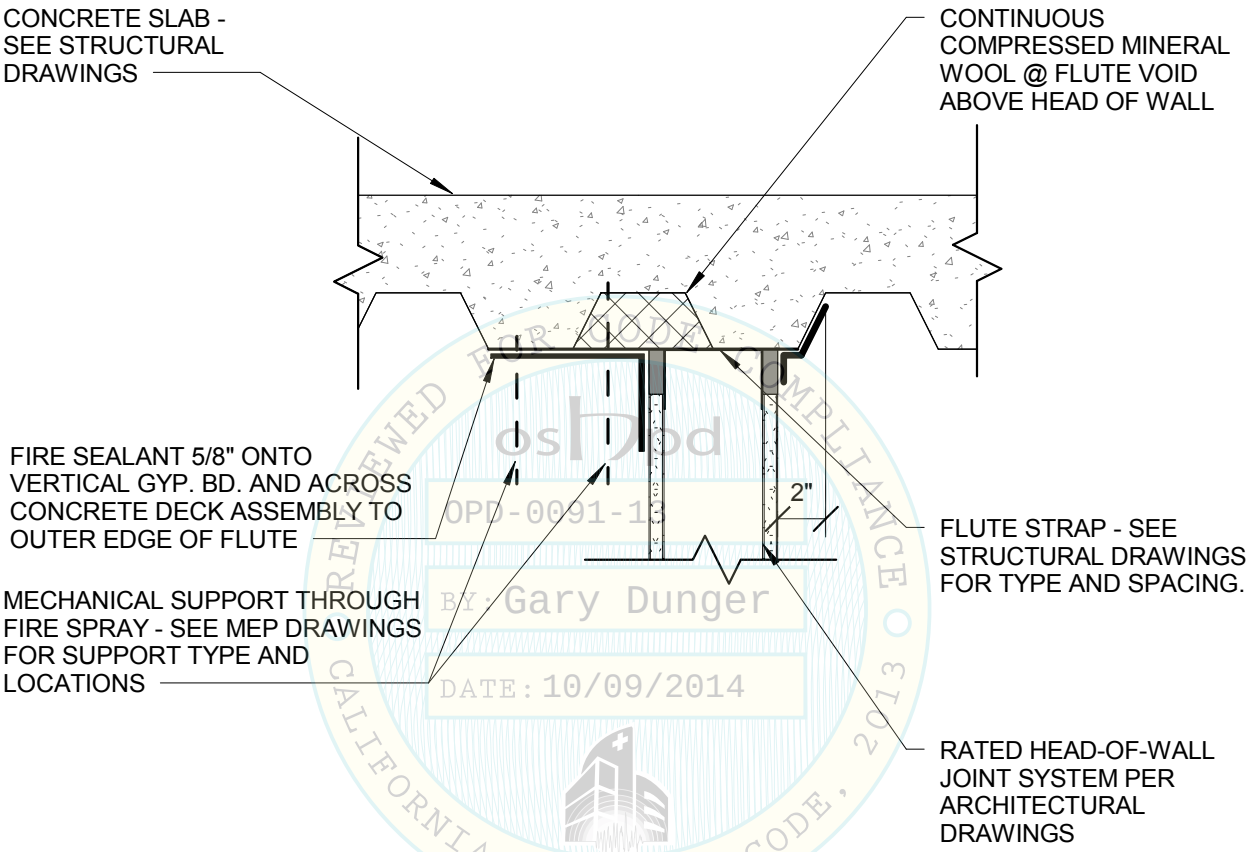


NOTES:

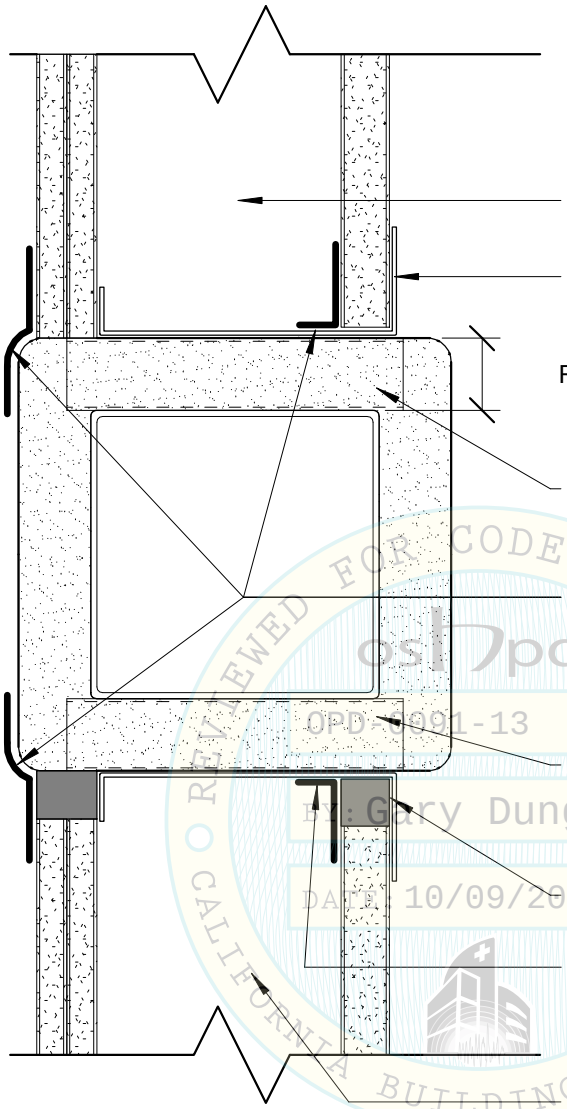
1. BUTTER BACK SIDE OF PATCH WITH JOINT COMPOUND OR GYPSUM FIRE SEALANT

2. LEAVE ALL SCREWS EXPOSED

Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS	OPD No:
Sheet Title : RATED WALL BLOW-OUT PATCH @ PENETRATION	FR3.06

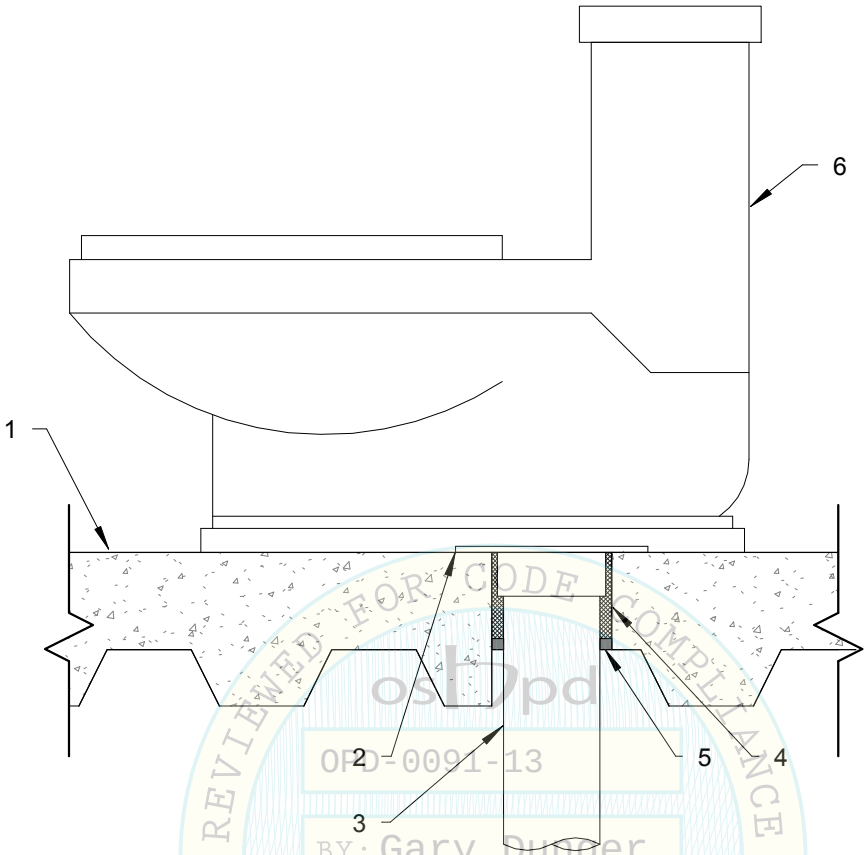


Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS	OPD No:
Sheet Title : PENETRATION AT TOP OF WALL	FR3.07



SHAFT SIDE

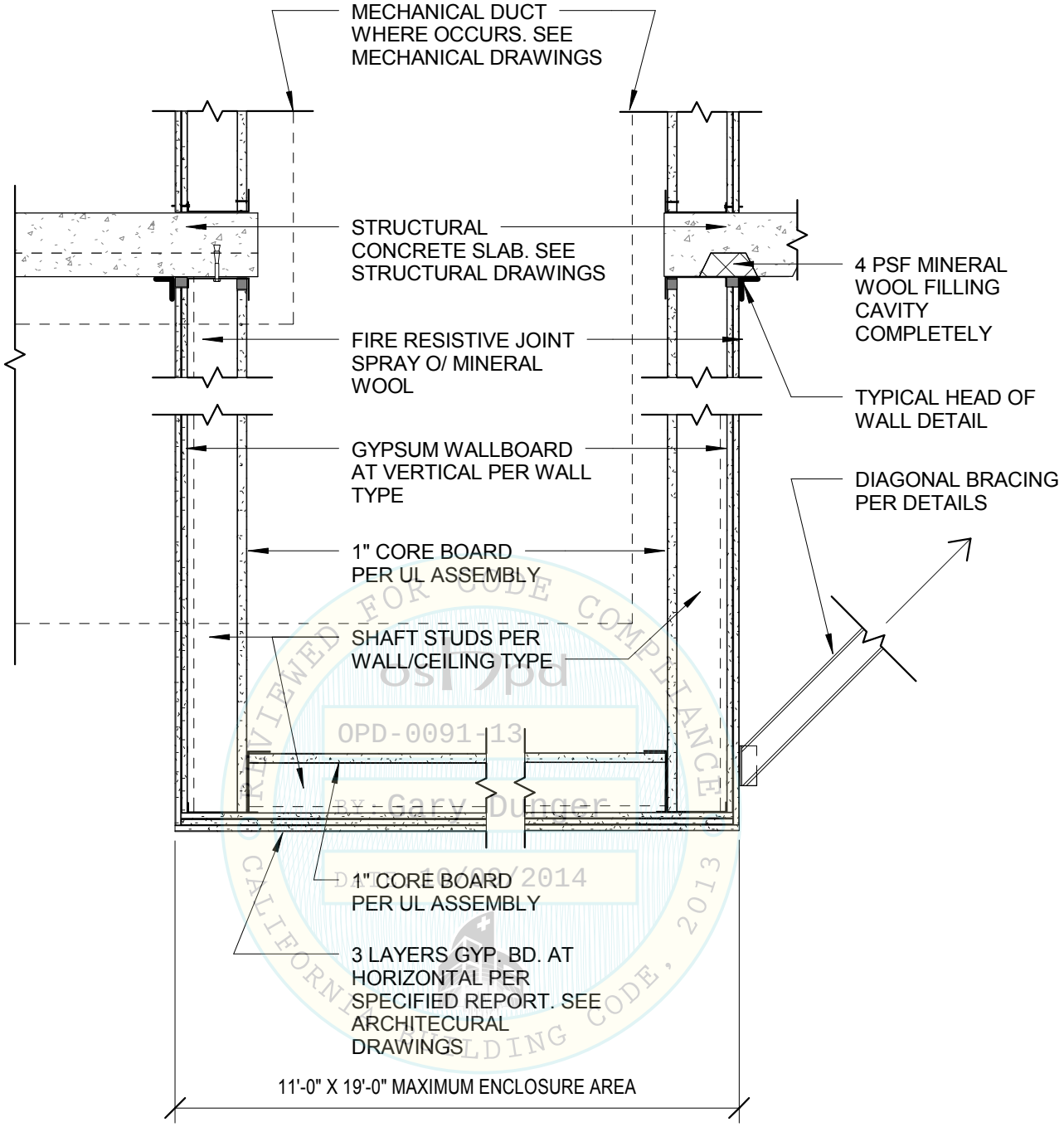
Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS		OPD No:
Sheet Title : SHAFT WALL @ HORIZONTAL INTERMEDIATE TUBE STEEL, BEAM OR SUPPORT		FR3.08



1. CONCRETE FLOOR OVER METAL DECKING ASSEMBLY (MINIMUM 2-1/2" THICK) (2HR. FIRE-RATING).
2. CAST IRON CLOSET FLANGE SIZED TO ACCOMMODATE DRAIN PIPE AND SECURED TO CONCRETE FLOOR WITH CONCRETE ANCHORS.
3. MAXIMUM 4" NOMINAL DIAMETER CAST IRON PIPE.
4. MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED AND RECESSED FROM BOTTOM OF CONCRETE FLOOR TO ACCOMMODATE SEALANT.
5. INTUMESCENT FIRESTOP SEALANT.
6. FLOOR MOUNTED WATER CLOSET.

NOTES: 1. MAXIMUM DIAMETER OF OPENING = 5"
2. ANNULAR SPACE = MINIMUM 3/8"

Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS		OPD No:
Sheet Title : FLOOR SLAB PENETRATION OR WATER CLOSET WASTE LINE		FR4.01



NOTES:
1. DETAIL BASED ON ICBO EVALUATION REPORT ER-3579.
2. REPORTS NER-258, NER-506, ER-2541, AND ER-4924 MAY BE SUBSTITUTED FOR ER-3579 WITH APPROPRIATE ALTERATIONS TO HORIZONTAL DRYWALL CONFIGURATION.
3. PROVIDE REPORT ON DOCUMENTS OF RECORD AND REFERENCE LOCATION.

Section Title : OSHPD FIRE RESISTIVE STANDARD DETAILS	OPD No:
Sheet Title : VERTICAL DUCT SHAFT BOTTOM DETAILS	FR4.02