

-   
**SYSTEMATIC**  
ENGINEERING LLC  
STRUCTURAL ENGINEER:  
SYSTEMATIC ENGINEERING LLC  
3803 BARN OWL LANE  
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JWASTLE@SYSTEMATICENGINEERING.COM

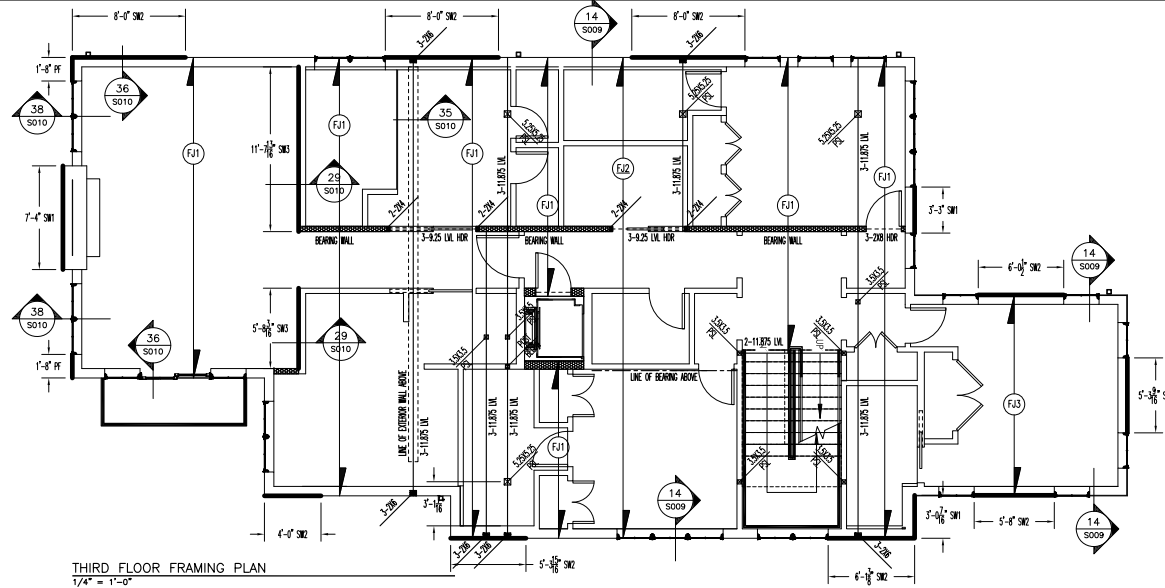
2023-01-13

No.	Description	Date
6	ARCH PLAN REVISIONS	07/19/24
2	ARCH WALL REVISIONS	5/08/23
3	ARCH WALL REVISIONS	5/14/23
4	DORA REVIEW	2/27/23
5	ARCH WALL REVISIONS	10/07/23

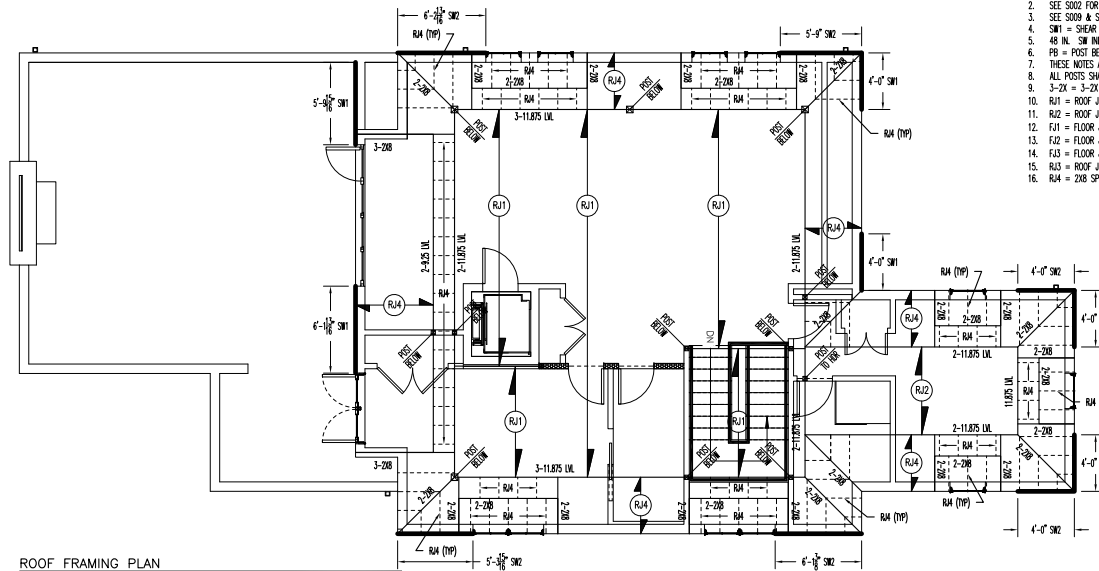
FRAMING  
PLANS

82814-3057A

82814-3  
Board of Zoning Adjustment  
District of Columbia  
CASE NO.20944  
EXHIBIT NO.57A3



THIRD FLOOR FRAMING PLAN  
1/4" = 1'-0"

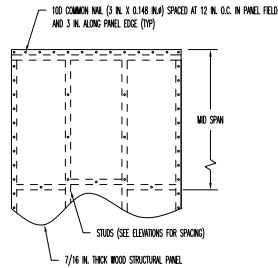


ROOF FRAMING PLAN  
1/4" = 1'-0"

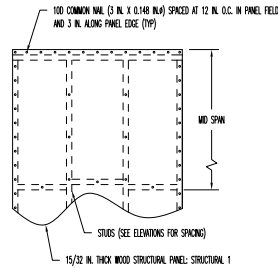
- NOTES:
1. SEE S001 FOR GENERAL NOTES.
  2. SEE S002 FOR SCHEDULES.
  3. SEE S009 & S010 FOR TYPICAL DETAILS TO BE APPLIED TO THE CONSTRUCTION OF THIS PROJECT.
  4. SWS1 = SHEAR WALL 1; SWS2 = SHEAR WALL 2; SWS3 = SHEAR WALL 3. SEE S002 FOR SCHEDULES.
  5. 48 IN. SW INDICATES 48-IN. WIDE SHEAR WALL PANEL X FULL HEIGHT OF WALL.
  6. PB = POST BELOW.
  7. THESE NOTES ARE APPLICABLE TO ALL PLANS ON THIS SHEET.
  8. ALL POSTS SHALL BE INSTALLED DOWN FOUNDATION.
  9. 3-2K = 3-2K BUILT-UP STUD. SEE SCHEDULE FOR STUD SIZE.
  10. RJ1 = ROOF JOIST 1 = TJI 360/11.875 JOIST SPACED AT 16-INCHES ON-CENTER.
  11. RJ2 = ROOF JOIST 2 = TJI 210/11.875 JOIST SPACED AT 16-INCHES ON-CENTER.
  12. FJ1 = FLOOR JOIST 1 = TJI 560/11.875 JOIST SPACED AT 16-INCHES ON-CENTER.
  13. FJ2 = FLOOR JOIST 2 = TJI 560/11.875 JOIST SPACED AT 16-INCHES ON-CENTER.
  14. FJ3 = FLOOR JOIST 3 = TJI 560/11.875 JOIST SPACED AT 16-INCHES ON-CENTER.
  15. RJ3 = ROOF JOIST 3 = TJI 210/11.875 JOIST SPACED AT 16-INCHES ON-CENTER.
  16. RJ4 = 2X8 SPA @ 16 IN. O.C.

No.	Description	Date
1	DOWN REVIEW	2/7/23
2	ADDITIONAL REVISIONS	10/17/23
3	ADDITIONAL REVISIONS	07/19/23

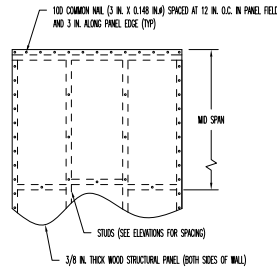




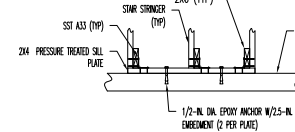
1 SHEAR WALL 2 FASTENING DETAIL  
NTS



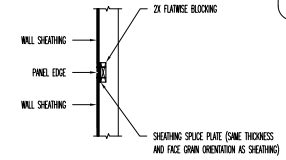
2 SHEAR WALL 1 FASTENING DETAIL  
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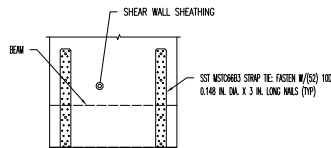
3 SHEAR WALL 3 FASTENING DETAIL  
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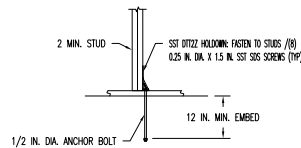
4 BOTTOM/STAIR RISER CONNECTION  
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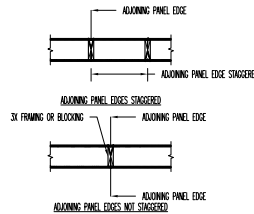
5 WALL SHEATHING SPLICE PLATE DETAIL  
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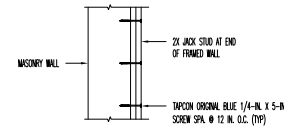
6 MSTC66B3 CONNECTION DETAIL  
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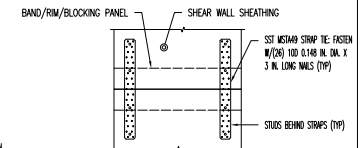
7 SST DTT2Z HOLDOWN DETAIL  
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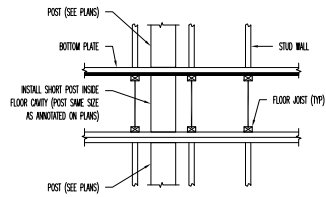
8 STRUCTURAL PANELS APPLIED TO BOTH WALL FACES  
NTS



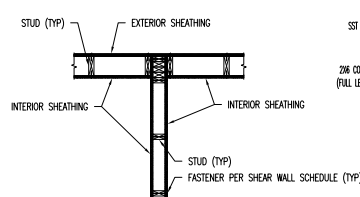
9 FRAMED WALL/MASONRY WALL CONNECTION  
NTS



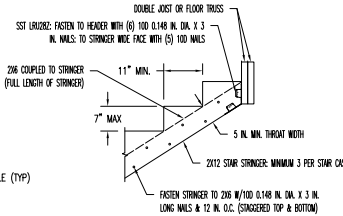
10 MSTA49 CONNECTION DETAIL  
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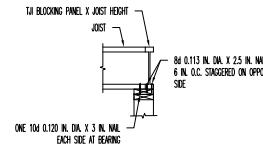
11 FLOOR CAVITY/POST BLOCKING  
NTS



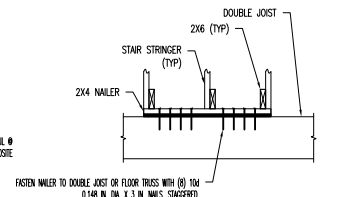
12 INTERIOR SHEAR WALL AT EXTERIOR WALL DETAIL  
NTS



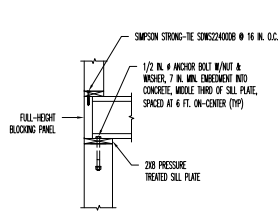
13 TYPICAL STAIR STRINGER HEADER CONNECTION  
NTS



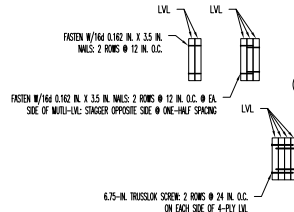
14 JOIST BLOCKING AND END BEARING CONNECTION  
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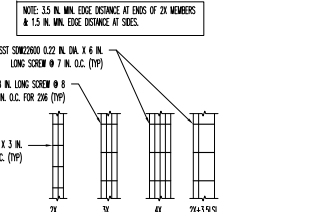
15 BOTTOM/STAIR RISER CONNECTION  
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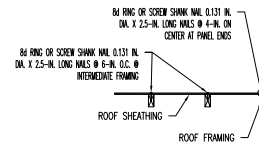
16 SILL PLATE CONNECTION DETAIL  
NTS



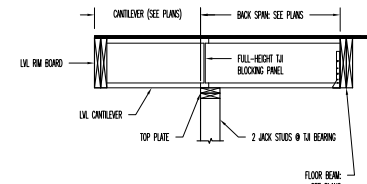
17 MULTI-PLY LVL FASTENING DETAIL  
NTS



18 BUILT-UP COLUMN DETAIL  
NTS



19 ROOF SHEATHING FASTENING DETAIL  
NTS

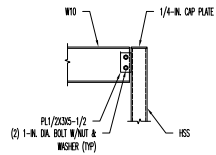


20 T&I CANTILEVER PERPENDICULAR TO FRAMING  
NTS

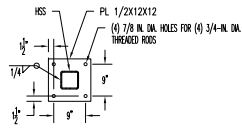
No.	Description	Date
1	ADD WALL W/DOOR	2/9/23



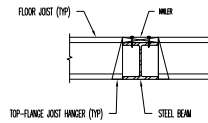




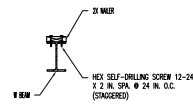
40 W10-TO-HSS TYPICAL DETAIL  
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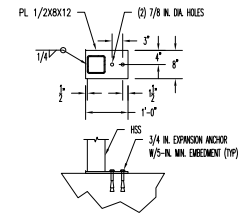
41 TYP HSS BASE DETAIL: BP1  
NTS



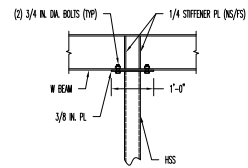
42 TJI-TO-STEEL BEAM CONNECTION DETAIL  
NTS



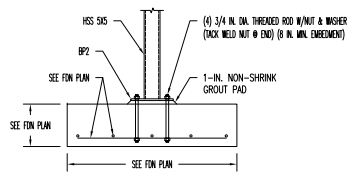
43 W-SHAPE TOP FLANGE NAILER DETAIL  
NTS



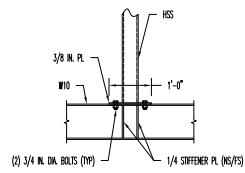
44 HSS POST BASE @ FDN WALL: BP2  
NTS



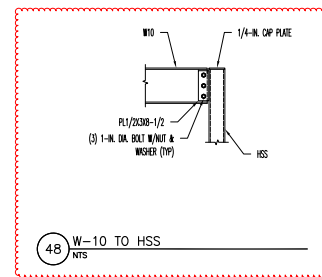
45 TYPICAL HSS TO BEAM CONNECTION  
NTS



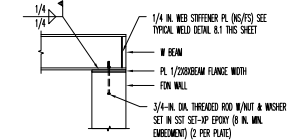
46 HSS TYPICAL FOUNDATION DETAIL  
NTS



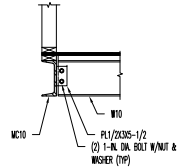
47 TYPICAL HSS TO BEAM CONNECTION  
NTS



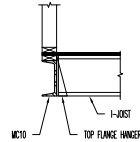
48 W-10 TO HSS  
NTS



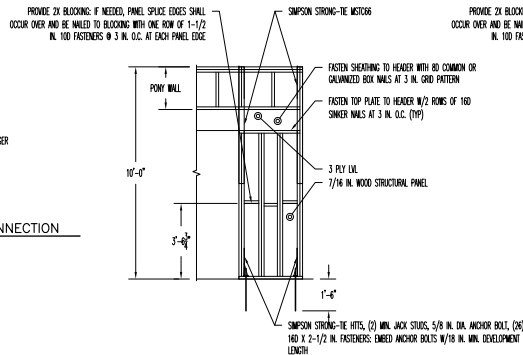
49 W-BEAM FDN BEARING DETAIL  
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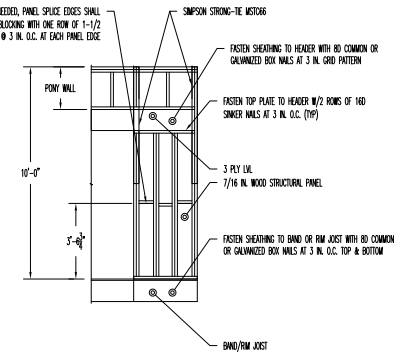
50 W10-TO-MC TYPICAL CONNECTION  
NTS



51 JOIST-TO-MC TYPICAL CONNECTION  
NTS



PF BRACED WALL PANEL DETAIL  
NTS



PF BRACED WALL PANEL DETAIL  
NTS

No.	Description	Date
1	ADD PLAN W/0606	07/27/23



**X. SCHEDULE OF SPECIAL INSPECTIONS**

MATERIAL/ACTIVITY	TYPE OF INSPECTION	Y / C / P	APPLICABLE TO THIS PROJECT	AGENT COMPLETED
GENERAL				
Pre-construction conference	Meeting with parties listed in Section 6 of DCRA (PM) to discuss Special Inspection procedures	Y	Scheduled by DCRA with the Contractor prior to commencement of work	
LABOR/INVOICING				
Site preparation (building)	Field testing and inspection	N	Field Review: IBC 1705.4	
Fill material (building)	Review submittals, field testing and inspection	N	Field Review: IBC 1705.4	
Fill compaction (building)	In-place density tests, lift thickness	N	Field Review: IBC 1705.4	
Excavation	Field inspection and verification of proper depth	Y	Field Review: IBC 1705.4	
Foundation subgrade	Field inspection of foundation subgrade prior to placement of concrete	Y	Field Review: IBC 1705.4	
DEEP FOUNDATION ELEMENTS				
Materials	Review product, sizes, and lengths	N	Submittal and Field Review: IBC 1705.7, 1705.8, 1705.9	
Test piles	Monitor driving of test piles	N	Field Review: IBC 1705.8, 9 or 10	
Installation	Monitor drilling, placement, plumb, driving of piles, including recording blows per foot, cut off, and tip elevation	N	Field Review: IBC 1705.2, 1705.3, 1705.7	
Load test	Monitor pile load test	N	Field Review: IBC 1705.8, 9 or 10	
CONCRETE				
Materials	Review products supplied versus certificates of compliance and mix design	Y	Submittal & Field Review: IBC 1703.1, ACI 318: Ch. 4 and 5; IBC 1004.2, 1010.2, 1060.3	
Installation of reinforcing steel, including pre-stressed tendons and anchor bolts as well as welding	Field inspection of placement	Y	Submittal and Field Review: ACI 318-3.5, 3.5.2, 3.8.4 and Ch. 7.8.1.3 and 21.2.6; AWS D1.4; IBC 1703.1, 1908.3, 1909.1, 1910.4	
Formwork installation	Field inspection	Y	Field Review: ACI 318: 6.1.1; IBC 1705.3	
Concreting operations and placement	Field inspection of placement/sampling	Y	Field Review: ACI 318: 1.6, 5.8, 5.8.10; ASTM C 177, C 31; IBC 1703.3, 1910.6, 1910.7, 1910.8, 1910.10	
Concrete curing	Field inspection of curing process	Y	Field Review: ACI 318: 5.11-13; IBC 1705.3, 1910.9	
Concrete strength	Evaluation of concrete strength	Y	Laboratory Testing: ACI 318: 6.2; IBC 1705.3	

Effective October 15, 2018

Page 41 of 46

MATERIAL/ACTIVITY	TYPE OF INSPECTION	Y/N C/ P	APPLICABLE TO THIS PROJECT EXTENT/REFERENCE	AGENT COMPLETED
<b>PRECAST CONCRETE</b>				
Verify fabrication/quality control procedures	In-plant inspection of fabrication/quality control procedures**	N	Submittal or Field Review: IBC 1705.3	
Erection and Installation	Review submittals and as-built assemblies; Field inspection of in-place precast	N	Submittal and Field Review: ACI 318; Ch. 16; IBC Table 1705.3	
<b>MASONRY (Level 1, Building Risk Category 1, H, N)</b>				
<b>GENERAL FORMS, FIELD OBSERVATIONS AND RISK CATEGORY 1, IIIII</b>				
Materials	Review of products supplied versus certificate of compliance and material submitted	Y	Submittal & Field Review: ACI 530/ASCE 5; ACI 530.1/ASCE 6; IBC 1705.4, 1708	
Strength	Testing/review of strength	Y	Submittal & Field Review: ACI 530/ASCE 5; ACI 530.1/ASCE 6; IBC 1705.4, 1708.2.2, 2105.3	
Mortar and Grout	Inspection of proportioning and mixing. Placement of mortar only.	Y	Field Review: IBC 1705.4; ACI 530/ASCE 5; ACI 530.1/ASCE 6	
Grout placement, including pre-stressing grout	Verification to ensure compliance	Y	Field Review: IBC 1705.4; ACI 530/ASCE 5; ACI 530.1/ASCE 6	
Grout tests	Verification to ensure compliance	Y	Field Review: IBC 1705.4; ACI 530/ASCE 5; ACI 530.1/ASCE 6; IBC 1705.4	
Mortar, grout, and prism specimens	Observe Preparation	Y	Field Review: IBC 1705.4; ACI 530.1/ASCE 6	
Reinforcement, pre-stressing tendons, and connectors	Inspect condition, size, location, and spacing	Y	Field Review: IBC 1704.5; ACI 530/ASCE 5; ACI 530.1/ASCE 6	
Welding of reinforcing bars	Inspection and testing of welds	N	Field Review: IBC 1705.4; ACI 530/ASCE 5; ACI 530.1/ASCE 6	
Pre-stressing force	Verify application and measurement	N	Field Review: IBC 1705.4; ACI 530/ASCE 5	
Protection	Inspect procedures for protection during cold and hot weather	N	Field Review: IBC 1705.4; ACI 530/ASCE 5; ACI 530.1/ASCE 6	
Anchorage	Inspection of anchorages	N	Field Review: ACI 530.1/ASCE 6, ASCE 6; IBC 1705.4; ACI 530/ASCE 5	
Masonry installation	Inspection of placement of masonry and joints (Periodic after the first 5000sq ft.)	N	Field Review: ACI 530/ASCE 5; ACI 530.1/ASCE 6; IBC 1705.4	
Brouting of pre-stressed tendons	Field inspection	N	Field Review: ACI 318: 18.3.4; IBC 1705.3	
Application of forces for pre-stressed concrete	Field inspection	N	Field Review: ACI 318: 18.20; IBC 1705.3	

Effective October 15, 2018

Page 42 of 46

STRUCTURAL STEEL	Y/N C/P	APPLICABLE TO THIS PROJECT		
		Y/N C/P	EXTENT/REFERENCE	AGENT COMPLETED
Verify fabrication/quality control procedures	In-plant inspection of fabrication/quality control procedures or submit Certificate of Compliance	Y	IBC 1704.2.5, IBC 1704.2.5.1, 1704.2.5.2, 1705.2	
Bolts, nuts, and washers – materials	Material identification markings	Y	Submittal & Field Review: IBC 1705.2.1; IBC 1705.2.2; IBC 1706; ASTM A588, Section A3.3	
Bolts, nuts, washers – installation	Inspection of in-place high-strength bolts, snug-tight joints, pre-tensioned and bearing type, and slip critical connections	Y	Submittal & Field Review: IBC 1705.2.1, 1705.2.2, AISC 360 Section M2.5	
Structural steel – materials	Material identification markings and review of Certificate of Compliance	Y	Submittal & Field Review: IBC 1705.2.1, 1705.2.2, 1706; ASTM A6, A588	
Structural steel details – installation	Inspection of member locations, structural details for bracing, connections, stiffening	Y	Submittal & Field Review: IBC 1705.2.1, 1705.2.2, AISC 360	
Weldfiller materials and welder certification	Review of identification markings, certificate of compliance, and welder certifications	Y	Submittal & Field Review: ASTM A588 360 A3.5	
Welds	Inspection and testing of welds	Y	Field Review: IBC 1705.2.2.1; AWS D1.1, D1.3	
Coldformed metal deck – materials	Review of identification marking manufacturer's certified test results	N	Submittal and Field Review: IBC 1705.2.2; ASTM D13	
Coldformed metal deck – installation	Review laps and welds	N	Submittal and Field Review: IBC 1705.2.2, AWS D1.3	
Coldformed light frame construction – welds	Review welding operation	N	Field Review: IBC 1705.10, 1705.10.2, 1705.10.3	
Coldform lightframe construction wind resistance – screws	Review screw attachment boring, anchoring hold down, bracing, diaphragms, struts	N	Field Review: IBC 1705.16, 1705.16.2, 1705.10.3	
Coldformed steel trusses spanning 60' or greater	Inspection of temporary and permanent restraints/bracing	N	Field review IBC 1705.2.2	
<b>WOOD</b>				
Verify fabrication/quality control procedures	In-plant inspection of fabrication/quality control procedures** or submit Certificate of Compliance	N	Submittal or Field Review: IBC 1704.2.5, 1705.5, 1705.5.2	
Metal plate connected wood/metal trusses spanning 60' or more	Review approved submittal and installation of restraint/bracing	N	Field Review: IBC 1704.2.5, 1705.5, 1705.2	
Joist Hangers – Materials/Installation	Review manufacturer's material and test standards	N	Field Review: IBC 1711, ASTM D 1761	
Highload Diaphragms – Installation	Review submittal and as-built assemblies; inspection of sheathing, framing size, nail and staple diameter and length, number of fastener lines, and fastener spacing	N	IBC 1705.5, 1705.5.1	
Wood Shear Walls – Installation	Review nailing, bolting, anchoring, fastening, Diaphragms, studs, bracing, and hold downs when fasteners are 4" on center	Y	Field Review: IBC 1705.10.1	

Effective October 15, 2018

Page 43 of 46

MAIN WIND FORCE RESISTING SYSTEM	Y/N C/P	APPLICABLE TO THIS PROJECT		
		Y/N C/P	EXTENT/REFERENCE	AGENT COMPLETED
Wind requirements	Review of the system components and installation for wood construction, cold-formed steel light frame construction, components, and cladding	N	Submittal and Field Review: IBC 1609.1.2, 1704.3.1, 1705.10, 1705.1705.4, 1705.4.1, 1705.4.2, 1710	
<b>SEISMIC FORCE RESISTING SYSTEMS</b>				
Seismic Requirements	Review of the designated seismic systems and seismic force resistance systems	N	Submittal and Field Review: IBC 1613, 1704.5.1, 1705.11, 1705.12, ASCE 7	
<b>SMOKE CONTROL</b>				
Special Inspection of Smoke control systems	Leakage testing and recording of device location, pressure difference testing, flow measurement and detection, and control verification	P	Field Review: IBC 1705.17, 1705.17.1, 1705.17.2	
<b>SPRAYED FIRE RESISTIVE MATERIAL, FIRE RESISTANT PENETRATIONS, JOINTS, MASTIC AND INTERMEDIATE FIRE RESISTANT COATING</b>				
Structural member surface conditions	Field Review of surface conditions prior to application	P	AWC 12-8; IBC 1705.13, 1705.13.2	
Application/thickness/density/bond strength	Field review of application operations, thickness, and density	P	ASTM E665, AWC 12-8; IBC 1705.13.2; 1705.13.1, 1705.13.3, 1705.13.4; IBC 1705.13.5, 1705.13.6	
Mastic & Intumescent Fire Resistant Coating	Field review of application operations and thickness	P	AWC 12-8; IBC 1705.14	
<b>EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS)</b>				
Application	Field Review of application/Installation	P	ASTM E2570, IBC 1705.15	
<b>SPECIAL CASES</b>				
Alternative Materials and Systems	As requested by Building Official, review system and installation	C/P	IBC 1705.1.1	
<b>INSPECTION AGENTS</b>				
Special Inspections Engineer of Record	FIWM		ADDRESS	TELEPHONE
Materials and Testing Laboratory				
Special Inspections Engineer of Record Smoke/N/A Control System			TBD	TBD
Additional Agents	N/A		TBD	TBD

Note: The Qualifications of the Special Inspections Engineer of Record and Testing Laboratories are subject to the Approval of the Chief Building Official. The Schedule of Special Inspections includes certain Architectural, Mechanical, Electric components, Storage Racks and Isolation Systems specified in Section 1705.11 of the Construction Code.

Effective October 15, 2018

Page 44 of 46



STRUCTURAL ENGINEER

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5122 CATHEDRAL AVENUE NW

SINGLE FAMILY DETACHED | ADDITION/ALTERATION

2023-01-13

No.	Description	Date



S012

SPECIAL INSPECTIONS

82814-3057A