STRUCTURAL NOTES

1. DESIGN CRITERIA: (ANCHORAGE, ALASKA)
CODE: 2009 I.B.C. (ASCE7–05)
OCCUPANCY CATEGORY II

GRAVITY LOADS

ROOF: SNOW LOADS

1. GROUND SNOW LOAD	(Pg)	= 50 P.S.F.
2. ROOF SNOW LOAD	(Pf)	= 40 P.S.F.
3. SNOW IMPORTANCE FACTOR	(Is)	= 1.0
4. SNOW EXPOSURE FACTOR	(Ce)	= 1.0
5. THERMAL FACTOR	(Ct)	= 1.0
6. ADDITIONAL SNOW DRIFT PER BUILDING CODE(S).		
LIVE LOAD		= 20 P.S.F. (USE SNOW LOAD)
DEAD LOAD		= 18 P.S.F.

FLOOR: LIVE LOADS (– INDICATES NOT USED)

1. UPPER FLOORS	= – P.S.F.
2. FIRST FLOOR	= 100 P.S.F.
3. CORRIDORS	= 100 P.S.F.
4. PARTITIONS	= 15 P.S.F.
5. STAIRS	= – P.S.F.
6. STORAGE	= 125 P.S.F.
7. MECHANICAL	= 125 P.S.F.
DEAD LOAD (SLAB ON GRADE)	= – P.S.F.

LATERAL LOADS

WIND:

1. 3 SECOND GUST WIND SPEED (V3S)		= 110 M.P.H.	
2. WIND IMPORTANCE FACTOR	(Iw)	= 1.0	
3. EXPOSURE CATEGORY		= B	
4. MAIN WIND FORCE RESISTING SYSTEM Q_h WIND LOAD		= 18.5 P.S.F.	
5. WALL COMPONENTS AND CLADDING	(A > 50 SQ. FT.)	(A > 20 SQ. FT.)	
WALLS		= –20 P.S.F.	= –21 P.S.F.
WITHIN 6 FEET OF EDGES		= –23 P.S.F.	= –25 P.S.F.
6. ROOF COMPONENTS AND CLADDING	(A > 50 SQ. FT.)	(A > 10 SQ. FT.)	
ROOF		= –21 P.S.F.	= –21 P.S.F.
WITHIN 6 FEET OF EDGES		= –28 P.S.F.	= –33 P.S.F.
WITHIN 6 FEET OF CORNERS		= –33 P.S.F.	= –46 P.S.F.

SEISMIC:

1. USE GROUP		II
2. SEISMIC IMPORTANCE FACTOR	(Ie)	= 1.0
3. SITE CLASS		= D (ASSUMED)
4. SPECTRAL ACCELERATION		
SHORT PERIOD	(Ss)	= 1.517
ONE SECOND	(S1)	= 0.568
5. SPECTRAL RESPONSE	(SDS)	= 1.0
	(SDI)	= 0.55
6. DESIGN CATEGORY		= D
7. SEISMIC RESISTING SYSTEM: PLYWOOD SHEARWALL		
8. RESPONSE MODIFICATION	(R)	= 6.5
9. SEISMIC RESPONSE	(cs)	= 0.15
10. DESIGN BASE SHEAR	V	= $C_sW/1.4$
11. ANALYSIS METHOD: EQUIVALENT LATERAL FORCE PROCEDURE ALLOWABLE STRESS DESIGN		

2. FOUNDATION: FOUNDATION LEVELS SHOWN ON THE PLANS ARE ESTIMATED. CONTRACTOR TO VERIFY ACTUAL CONDITIONS. ALL DEBRIS, ORGANIC MATERIAL, FROZEN GROUND, REMNANTS OF PRIOR CONSTRUCTION OR ANY DELETERIOUS ON–SITE MATERIAL SHALL BE REMOVED PRIOR TO PLACEMENT OF FOUNDATIONS. EXTERIOR FOOTINGS SHALL BE PLACED A MINIMUM OF 42 INCHES BELOW FINISH GRADE. COMPACT EXISTING SOIL TO 95% MD BEFORE FOOTINGS OR STRUCTURAL FILL ARE PLACED. ALL BACKFILL SHALL BE CLEAN, NON–FROST SUSCEPTIBLE (TYPE II–A), SANDY GRAVEL COMPACTED TO 95% MD. ALLOWABLE SOIL BEARING = 2,500 P.S.F. ALLOWABLE SOIL BEARING SHALL BE VERIFIED BY OWNER.

3. CONCRETE: CONCRETE SHALL HAVE THE MINIMUM QUALITIES PER SCHEDULE, MEASURED, MIXED AND PLACED IN ACCORDANCE WITH ACI STANDARD 304. PROVIDE 5.0 SACK MIX AS A MINIMUM. IF ADDITIONAL SLUMP (UP TO 8 INCHES IS DESIRED FOR PUMPING, A SUPER–PLASTICIZED ADMIXTURE MAY BE ADDED. PRIOR TO CONCRETE PLACEMENT, THE CONTRACTOR MUST SUBMIT A CONCRETE MIX DESIGN PREPARED IN ACCORDANCE WITH THE SPECIFICATIONS TO THE ENGINEER FOR REVIEW AND APPROVAL.

CONCRETE MATERIALS SCHEDULE

STRUCTURAL ELEMENT	f'c CONCRETE COMPRESSIVE STRENGTH @ 28 DAYS (PSI) MIN	WATER CEMENT RATIO MAX	SLUMP ± 1"	AIR ENTRAINMENT % ± 2%	REMARKS
ALL FOOTING U.N.O.	3000	0.50	4	–	
SLAB–ON–GRADE (INTERIOR)	3000	0.45	4	–	
EXTERIOR CONCRETE EXPOSED TO THE WEATHER	4500	0.45	4	6	

CONCRETE FOOTINGS AND WALLS SHALL BE REINFORCED WITH REINFORCING STEEL COMPLYING WITH ASTM A–615, GRADE 60. ALL WELDED REINFORCING SHALL BE ASTM A706 GRADE 60. ALL STEEL SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH ACI 318–08 AND ACI SP–66–04. BARS SHALL BE SECURELY TIED IN PLACE WITH #16 DOUBLE ANNEALED IRON WIRE. BARS SHALL BE SUPPORTED ON CHAIRS OR WELL CURED CONCRETE BLOCKS. MINIMUM DEPTH OF COVER FOR REINFORCING TO BE:

CONCRETE PLACED ON GROUND	3"
FORMED SURFACES EXPOSED OR ON GROUND	1–1/2"
INTERIOR SURFACES EXPOSED	3/4"

ALL SPLICES SHALL BE LAPPED 44 DIAMETERS. HOOKED BARS TO HAVE STANDARD ACI HOOKS UNO. PROVIDE CORNER BARS TO MATCH HORIZONTAL REINFORCING AT ALL FOOTING AND WALL CORNERS AND JOINTS. PROVIDE SHOP DRAWINGS FOR APPROVAL.

CONCRETE SLABS TO BE 4 OR 6 INCHES IN THICKNESS AS SHOWN ON PLANS. PLACE SLAB REINFORCING IN CENTER OF SLAB. ALL CONCRETE SLABS SHALL BE REINFORCED WITH WELDED WIRE FABRIC IN ACCORDANCE WITH ASTM A–185, GRADE 60 UNLESS OTHERWISE NOTED. WELDED WIRE REINFORCEMENT IS TO BE SUPPLIED IN FLAT SHEETS ONLY. LAP WELDED WIRE REINFORCEMENT TWO FULL MESH LENGTHS AT SPLICES AND WIRE TOGETHER.

CONCRETE SLABS TO BE CURED BY METHOD COMPATIBLE WITH SPECIFIED FLOOR FINISH. WHERE ACCEPTABLE USE A LIQUID MEMBRANE–CURING COMPOUND AT THE MANUFACTURERS RECOMMENDED COVERAGE. SAW JOINTS TO BE CUT AS SOON AS POSSIBLE WITHOUT RAVELING THE SURFACE.

SLEEVES, INSERTS, MECHANICAL OPENINGS, CONDUITS, PIPES, RECESSES, DEPRESSIONS, CURBS AND OTHER EMBEDDED ITEMS TO BE PROVIDED FOR AS SHOWN ON THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND AS REQUIRED BY EQUIPMENT MANUFACTURERS. INSTALLATION OF THESE ITEMS TO BE COORDINATED AND PROVIDED FOR PRIOR TO PLACING CONCRETE.

LEVELING GROUT TO BE NON–SHRINK, NON–METALLIC TYPE, FACTORY PREMIXED GROUT IN ACCORDANCE WITH ASTM C 1107, HAVING A MINIMUM COMPRESSIVE STRENGTH OF NOT LESS THAN 5000 P.S.I.

CONCRETE ENCASED GROUND ELECTRODE (UFER) SHALL BE PROVIDED IN ACCORDANCE WITH THE NEC AND THE ELECTRICAL DESIGN DRAWINGS.

4. ALL POST–INSTALLED DRILLED ANCHORS SET IN CONCRETE SHALL BE:

A. GALVANIZED ALLTHREAD SET IN HILTI HY 200–A ADHESIVE OR EQUAL. SET AT THE DEPTH SHOWN. SET PER MANUFACTURERS INSTRUCTIONS SO THAT THE HOLE IS FILLED WITH ADHESIVE WHEN COMPLETE.
1/2"ø EMBED 4 1/4"
5/8"ø EMBED 5"
3/4"ø EMBED 6 5/8"

B. SIMPSON TITEN HD SCREW ANCHORS. SET TO DEPTH SHOWN. INSTALL PER MANUFACTURES INSTRUCTIONS.

5. MASONRY MATERIALS: (NOT USED)

6. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "AISC MANUAL" 14TH EDITION. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING SCHEDULE:

STEEL MATERIALS SCHEDULE

STRUCTURAL ELEMENT OR SHAPE	SPECIFICATION	GRADE	REMARKS
W SHAPES	ASTM A–992	50	Fy = 50 KSI
S, M, HP, C, L AND PLATES	ASTM A–36	36	Fy = 36 KSI
HSS, TS	ASTM A500	B	Fy = 46 KSI
STD STL PIPE	ASTM A–53	B	Fy = 35 KSI
ANCHOR RODS	ASTM F–1554	36	GALVANIZED
ANCHOR BOLTS	ASTM A–307	A	GALVANIZED
BOLTS – STL TO STL	ASTM A325–N	–	

STRUCTURAL STEEL CONNECTIONS TO BE SHOP WELDED AND FIELD BOLTED UNLESS OTHERWISE NOTED. FABRICATE AND INSTALL BEAMS WITH NATURAL CAMBER UP.

ALL ANCHOR BOLTS AND ANCHOR RODS SHALL BE PER SCHEDULE. LOCATE ALL ANCHORS WITH TEMPLATES PRIOR TO PLACING CONCRETE. ANCHOR BOLTS AND ANCHOR RODS SHALL BE TIGHTENED TO A SNUG TIGHT CONDITION.

WELDING TO BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS) "STRUCTURAL WELDING CODE – ANSI/AWS D1.1" (LATEST EDITION) USE E70XX ELECTRODES UNLESS OTHERWISE INDICATED ON THE DRAWINGS. ALL WELDS TO BE 3/16–INCH MINIMUM. ALL WELDS SHALL HAVE FILLER METAL WITH CHARPY V–N TOUGHNESS OF 20FT–LBS @ –20°F.

ALL WELDING SHALL BE BY CERTIFIED WELDERS PER THE AMERICAN WELDING SOCIETY FOR THE ROD AND POSITION USED. ALL STEEL FABRICATION SHALL BE PERFORMED BY AN AISC CERTIFIED SHOP OR SHALL BE INDEPENDENTLY SPECIAL INSPECTED TO MEET AISC REQUIREMENTS. THE STEEL FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE ENGINEER AT THE COMPLETION OF THE FABRICATION.

APPLY TWO COATS OF PRIMER PAINT TO ALL METAL WORK EXCEPT THOSE PORTIONS TO BE FIELD WELDED, OR TO RECEIVE FIRE PROOFING. PRIMER PAINT SHALL BE FABRICATORS STANDARD AND SURFACE PREPARATION SHALL COMPLY WITH SSPC SP2 & SP3, UNLESS NOTED OTHERWISE.

PROVIDE SHOP DRAWINGS FOR APPROVAL.

STATE OF ALASKA 49TH Nelson M. Franklin NO. 3659-E 8-25-15 REGISTERED PROFESSIONAL ENGINEER

ADAMS HILL CENTER
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ORIGINAL FULL SIZE DRAWINGS ARE 22"x34". 11x17 SIZE DRAWINGS ARE HALF SCALE.

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STRUCTURAL NOTES CONTINUED:

7. STRUCTURAL GRADE LUMBER: STRUCTURAL GRADE LUMBER SHALL COMPLY WITH THE NATIONAL LUMBER MANUFACTURERS ASSOCIATION "NATIONAL SPECIFICATIONS FOR STRESS GRADE LUMBER". LUMBER SHALL BE HEM–FIR, NO. 2 OR BETTER UNLESS OTHERWISE NOTED. ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH SOIL, MASONRY, OR CONCRETE SHALL BE PRESSURE TREATED WITH AN APPROVED WOOD PRESERVATIVE. ALL NAILING TO BE PER I.B.C. TABLE 2304.9.1 UNLESS OTHERWISE SHOWN. ALL FASTENERS EXPOSED TO THE WEATHER SHALL BE GALVANIZED.

8. PLYWOOD PANELS SHALL BE STAMPED WITH APA GRADE TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION AND SHALL MEET U.S. PRODUCT STANDARDS P.S. 1–09 OR PS 2–10. ALL PLYWOOD SHALL HAVE EXTERIOR GLUE.

   WALL SHEATHING SHALL BE APA 15/32 INCH CD, EXPOSURE 1, PANEL IDENTIFICATION INDEX 24/0. ALL PANEL EDGES TO BE SUPPORTED ON 2 INCH NOMINAL FRAMING. REFER TO SHEAR WALL SCHEDULE FOR NAILING REQUIREMENT FOR ALL WALLS MARKED WITH A SHEAR WALL TYPE. OTHER PLYWOOD WALL SHEATHING SHALL BE NAILED WITH 10D NAILS AT 6 INCH C–C ALL PANEL EDGES AND 12 INCH C–C AT INTERMEDIATE SUPPORTS. ALL NAILS IN EXTERIOR WALL SHALL BE GALVANIZED UNLESS OTHERWISE NOTED.

   ROOF SHEATHING SHALL BE APA 5/8 INCH CD, EXPOSURE 1, PANEL IDENTIFICATION INDEX 40/20. INSTALL FACE GRAIN PERPENDICULAR TO SUPPORTS. STAGGER END PANEL JOINTS. NAIL AT 6 INCH C–C ALL SUPPORTED PANEL EDGES; 4 INCHES C–C TO BLOCKING OVER WALLS; AND AT 12 INCH C–C AT INTERMEDIATE SUPPORTS UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL NAILS SHALL BE 10D COMMON NAILS.

9. GLUED LAMINATED TIMBERS: GLUED LAMINATED TIMBERS SHALL COMPLY WITH ANSI/AITC A190.1. COMBINATIONS SHALL BE Fb = 2,400 PSI. (V–4) SHIPPING PROTECTION SHALL CONFORM TO AITC STANDARD 111. CAMBER SHALL BE 1–1/2 TIMES DEAD LOAD DEFLECTION.

10. ALL ROOF JOISTS SHALL BE OF THE SIZE, TYPE AND SPACING INDICATED ON THE DRAWINGS AND MANUFACTURED BY BOISE CASCADE, OR EQUAL. PROVIDE BRIDGING AND BLOCKING PER MANUFACTURER. PROVIDE SHOP DRAWINGS WITH DETAILS FOR APPROVAL.

11. LAMINATED VENEER LUMBER: FRAMING MEMBERS INDICATED AS ML OR LVL ARE LAMINATED VENEER LUMBER AS MANUFACTURED BY BOISI CASCADE, TRUS JOIST MACMILLAN OR EQUAL. LAMINATED VENEER LUMBER SHALL BE OF DOUGLAS FIR VENEERS WITH EXTERIOR ADHESIVES WHICH COMPLY WITH ASTM D2559. MULTIPLE MEMBERS FORMING BEAMS SHALL BE SIDE NAILED WITH (2) ROWS OF 16D NAILS AT 1'–0" OC.

12. SHOP DRAWINGS: THE CONTRACTOR SHALL REVIEW, STAMP WITH HIS APPROVAL, DATE AND SIGN ALL SHOP DRAWINGS REQUIRED BY THE CONTRACT DRAWINGS PRIOR TO SUBMITTAL TO THE ENGINEER. AT THE TIME OF SUBMISSION, THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING OF ANY DEVIATION IN THE SHOP DRAWINGS FROM THE REQUIREMENTS OF THE CONTRACT DRAWINGS.

13. SPECIAL INSPECTIONS: SPECIAL INSPECTIONS AND STRUCTURAL OBSERVATIONS ARE REQUIRED AS APPLICABLE AND IN ACCORDANCE WITH IBC CHAPTER 17. SEE SHEET S0.2 AND S0.3 FOR THE QUALITY ASSURANCE PLAN REQUIREMENTS.

14. DEFERRED SUBMITTALS:
    - STOREFRONT / GLAZING.
    - ROOFTOP MECHANICAL ATTACHMENTS.
    - ROOFING ATTACHMENT SYSTEM.

QUALITY ASSURANCE PLAN

STATEMENT OF SPECIAL INSPECTIONS

SPECIAL INSPECTION AND TESTING ARE REQUIRED BY IBC SECTION 1704, 1707 AND 1708, AND ARE IDENTIFIED IN THE FOLLOWING TABLES. THESE INSPECTIONS INCLUDE ALL WIND AND SEISMIC RESISTING COMPONENTS. ALL SUBMITTALS AND SPECIAL INSPECTION SHALL MEET THE REQUIREMENTS OF AISC 341–10 CHAPTER J.

OWNER RESPONSIBILITY

AS PART OF THE QUALITY ASSURANCE PLAN, THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PROVIDE INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED AS REQUIRED IN IBC SECTION 1704. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION. THESE INSPECTIONS ARE IN ADDITION TO THE INSPECTIONS SPECIFIED IN IBC SECTION 109. SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE CONTRACTOR, TO THE BUILDING OFFICIAL, AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS DONE IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.

CONTRACTOR RESPONSIBILITY

THE CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND– OR SEISMIC–FORCE–RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM OR A WIND– OR SEISMIC–RESISTING COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR SHALL PROVIDE NOTICE TO THE SPECIAL INSPECTOR PRIOR TO COMPLETION OF WORK REQUIRING SPECIAL INSPECTION. THE CONTRACTOR SHALL MAINTAIN THE REPORTS ON SITE FOR REVIEW. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION AND IF NOT CORRECTED, TO THE ATTENTION OF THE ENGINEER OF RECORD AND THE BUILDING OFFICIAL.

ALL REQUIRED CERTIFICATES OF COMPLIANCE SHALL BE SUBMITTED TO THE OWNER AND THE BUILDING OFFICIAL.

NOTES:

1. TABLE BELOW IS MODIFIED FOR PROJECT SPECIFIC CONDITIONS AND REQUIREMENTS.
2. ITEMS MARKED WITH AN **X** ARE REQUIRED INSPECTIONS EITHER CONTINUOUS OR PERIODIC AS INDICATED.
3. CONTINUOUS SPECIAL INSPECTION = CONTINUOUS SPECIAL INSPECTION IS THE FULL TIME OBSERVATION OF THE WORK BY THE SPECIAL INSPECTOR PRESENT IN THE WORK AREA WHENEVER WORK IS BEING PERFORMED. CONTINUOUS SPECIAL INSPECTION SHALL BE PERFORMED WHERE SPECIFIED FOR TIMES AS SHOWN IN THE TABLE BELOW.
4. PERIODIC SPECIAL INSPECTION = PERIODIC SPECIAL INSPECTION IS THE INTERMITTENT OBSERVATION OF THE WORK BY A SPECIAL INSPECTOR PRESENT IN THE WORK AREA WHILE WORK IS BEING PERFORMED. THE INTERMITTENT OBSERVATION PERIODS SHALL BE AT TIMES OF SIGNIFICANT WORK AND SHALL BE RECURRENT OVER THE COMPLETE WORK PERIOD. PERIODIC SPECIAL INSPECTION SHALL BE PERFORMED WHERE SPECIFIED FOR ITEMS AS SHOWN IN THE TABLE BELOW.

IBC CHAPTER 1704.7 REQUIRED VERIFICATION AND INSPECTION OF SOILS [1] [2]

VERIFICATION AND INSPECTION	CONT. INSP.	PER. INS.	REFERENCED STANDARD	IBC REFERENCE	REMARKS
1. Verify materials below footings are adequate to achieve design bearing capacity.	–	X		1704.7	Visual
2. Verify excavations are extended to proper depth and have reached proper material.	–	X		1704.7	Visual
3. Perform classification and testing of controlled fill materials.	–	X		1704.7	Visual
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of controlled fill.	–	X		1704.7	Visual
5. Prior to placement of controlled fill, observe subgrade and verify that site has been prepared properly.	–	X		1704.7	Visual

IBC TABLE 1704.4 REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION [1] [2]

VERIFICATION AND INSPECTION	CONT. INSP.	PER. INS.	REFERENCED STANDARD	IBC REFERENCE	REMARKS
1. Inspection of reinforcing steel, including prestressing tendons, and placement.	–	X	ACI 318: 3.5, 7.1–7.7	1913.4	
2. Inspection of reinforcing steel welding in accordance with Table 1704.3, Item 5b.	–	–	AWS D1.4 ACI 318: 3.5.2	–	
3. Inspect bolts to be installed in concrete prior to and during placement of concrete where allowable loads have increased.	X	–	–	1911.5	
4. Post installed concrete anchors.	–	X	ACI 318: 3.8.6, 8.1.3, 21.2.8	1912.1	Per manufacturer
5. Verifying use of required design mix.	–	X	ACI 318: Ch. 4, 5.2–5.4	1904.2.2, 1913.2, 1913.3	
6. At the time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	X	–	ASM C 172 ASTM C 31 ACI 318: 5.6, 5.8	1913.1	Strength test: One set per each day or 150 cubic yards
7. Inspection of concrete and shotcrete placement for proper application techniques.	X	–	ACI 318: 5.9, 5.10	1913.6, 1913.7, 1913.8	
8. Inspection for maintenance of specified curing temperature and techniques.	–	–	ACI 318: Ch. 16	–	
9. Verification of in–situ concrete strength, prior to stressing of tendons in posttensioned concrete and prior to removal of shores and forms from beams and structural slabs.	–	–	ACI 318: 6.2	–	
10. Inspect form work for shape, location and dimensions of concrete member being formed.	–	X	ACI 318: 6.1.1	–	

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QUALITY ASSURANCE PLAN CONTINUED:

IBC TABLE 1704.3 REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION [1] [2]					
VERIFICATION AND INSPECTION	CONT. INSP.	PER. INS.	REFERENCED STANDARD	IBC REFERENCE	REMARKS
1. Material verification of high-strength bolts, nuts and washers:					
a. Identification markings to conform to ASTM standards specified in the approved construction documents.	–	X	Applicable ASTM material specifications: AISC 360, Section A3.3	–	Foundation anchor rods. Bolted connections
b. Manufacturer's certificate of compliance required.	–	–	–	–	
2. Inspection of high-strength bolting:					
a. Bearing-type connections.	–	X	AISC 360, Section M2.5	1704.3.3	Snug tight with twist off bolts. Visual only.
b. Moment frame connections.	–	–			
3. Material verification of structural steel and cold formed deck:					
a. Identification markings to conform to ASTM standards specified in the approved construction documents.	–	–	ASTM A 6 or ASTM A 568		
b. Manufacturer's certificate of compliance required.	–	–	ASTM A 6 or ASTM A 568		
4. Material verification of weld filler materials:					
a. Identification markings to conform to AWS specified in the approved construction documents.	–	X	AISC 360, Section A3.5	–	
b. Manufacturer's certificate of compliance required.	–	–	–	–	
5. Inspection of welding:					
a. Structural steel and cold formed steel deck:					All shop welding to be preformed and inspected by AISC certified shop
1) Complete & partial penetration groove welds.	–	–	AWS D1.1	1704.3.1	
2) Multipass fillet welds.	–	–			
3) Single-pass fillet welds > 5/16", plug and slot welds	–	–			
4) Single-pass fillet welds ≤ 5/16"	–	X			Visual only.
5) Floor and roof deck welds.	–	–	AWS D1.3	–	Visual only.

IBC CHAPTER 17 REQUIRED VERIFICATION AND INSPECTION OF OTHER CONSTRUCTION [1] [2]					
VERIFICATION AND INSPECTION	CONT. INSP.	PER. INS.	REFERENCED STANDARD	IBC REFERENCE	REMARKS
1. Structural Wood	–	X		1707.3	Wall sheathing, Roof sheathing
2. Cold Formed Steel Framing	–	–		1707.4	Exterior curtain wall
3. Pier Foundations, Pile Foundations	–	–		1704.8 1704.9	
4. Storage Racks and Access Floors	–	–		1707.5	
5. Architectural Components	–	X		1707.6 1705.4.2	Exterior Walls Suspended Ceilings Roof Cladding
6. Mechanical and Electrical Components	–	X		1707.7	HVAC attachments
7. Sprayed Fire Resistant Materials	–	–		1704.12	
8. Intumescent Fire Resistant Coatings	–	–		1704.13	
9. Exterior Insulation and Finish System	–	X		1704.14	See architect
10. Special Cases	–	–		1704.15	

STATE OF ALASKA 49TH Nelson M. FrankNin NO. 3659-E REGISTERED PROFESSIONAL ENGINEER 8-25-15

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SHEET NO. S0.3
OF: NINE

HEADER SCHEDULE

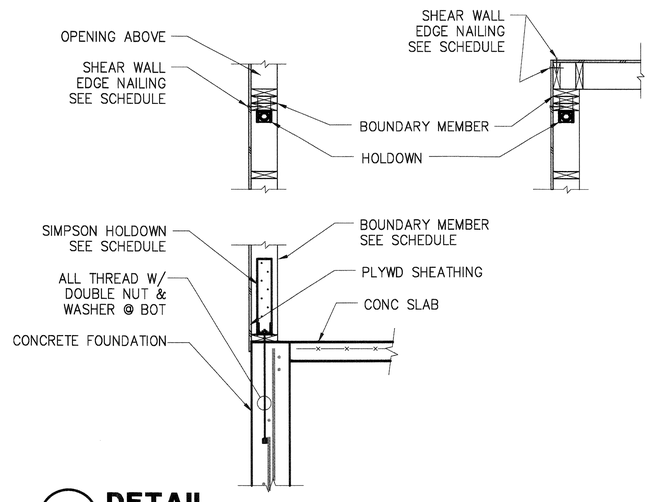
MARK	SIZE	BEARING STUDS	THRU STUDS
H-1	(2) 2x12	(1) 2x6	(1) 2x6
H-2	3 1/8"x12" GLB	–	SEE 3/S2.3

1. ALL HEADERS ARE HEM FIR #1 OR DF #2 OR GLB AS NOTED.
2. ALL HEADERS ARE AS SHOWN.
   PROVIDE (1) BEARING STUD AND (1) THROUGH STUD SPANS UP TO 4'-0".
   PROVIDE (2) BEARING STUDS AND (2) THROUGH STUD SPANS UP TO 7'-0"
   UNLESS OTHERWISE SHOWN.
3. AT INTERIOR WALLS VERTICAL STRAPS EACH SIDE OF SUPPORT MAY BE USED TO REPLACE THRU STUDS.
4. NO THRU STUDS REQUIRED WHERE BEAM OR HEADER END MEETS ADJOINING WALL.

HOLDOWN SCHEDULE

WALL MARK	HOLDOWN	STUDS MIN	FASTENER	ANCHOR	MIN. EMBED.	DETAIL
⟨5⟩	HDU5-SDS2.5	(2) 2x6	SEE MFR.	5/8" DIA ALL THREAD	40"	1/S0.4
⟨11⟩	HDU11-SDS2.5	DF 6x6	SEE MFR.	1" DIA ALL THREAD	40"	1/S0.4
⟨C⟩	HSS 5x5x1/4	–	–	(2) 3/4" DIA ALL THREAD	20"	2/S2.3

1. HOLDOWN LOCATIONS SHOWN ARE APPROXIMATE, REFER TO ARCHITECT FOR OPENING LOCATIONS. FASTENERS SHALL BE ATTACHED TO THE STUDS OR BOUNDARY MEMBER AT THE SIDE OF OPENING ABOVE.
2. ALL HOLDOWN BOLTS SHALL BE GALVANIZED WITH DOUBLE NUT AND WASHER BOTTOM.



1 DETAIL

SCALE: 3/4" = 1'-0"

SHEAR WALL SCHEDULE

MARK	SHEATHING	EDGE FASTENER	PL-PL FASTENER	ANCH. BOLT
△6	15/32 CDX	10d @ 6" O.C.	16d @ 8" OC.	5/8"ø x12" @ 2'-8"
△4	15/32 CDX	10d @ 4" O.C.	16d @ 4" OC.	5/8"ø x12" @ 1'-4"
△44	(2) 15/32 CDX	10d @ 4" O.C.	16d @ 4" OC.	5/8"ø x12" @ 1'-0"

NOTES FOR TYP SHEAR WALL.

1. SHEAR WALL SCHEDULE INDICATES SHEATHING AND NAILING REQUIREMENTS FULL LENGTH OF WALL OR GRID. SEE FRAMING PLANS FOR WALL LOCATIONS BELOW THAT LEVEL. SHEAR WALL NAILING SHOWN IS FOR EDGES AND ALL HOLDOWN FRAMING MEMBERS. NAIL OTHER FIELD MEMBERS AT 12 INCHES ON CENTER.
2. ALL FRAMING SHALL BE HEM FIR. NO. 2 MIN AT 16" OC. UNO.
3. ALL SHEATHING SHALL BE 15/32 CDX PLYWOOD WITH ALL EDGES BLOCKED
4. SEE PLAN AND HOLDOWN SCHEDULE FOR END OF WALL AND WALL OPENING CONDITIONS.
5. ALL ANCHOR BOLTS SHALL BE GALVANIZED WITH A 3"x3"x1/4 PLATE WASHER.
6. VERTICAL STUDS AT PANEL JOINTS AND BOTTOM PLATE SHALL BE 4x6 MIN OR (2) STUDS NAILED TOGETHER WITH (2) ROWS 16d @ 6" OC FOR TYPE △3 & △4 WALLS.
7. VERTICAL STUDS AT PANEL JOINTS AND BOTTOM PLATE SHALL BE 4x6 MIN FOR TYPE △44 WALLS.
8. TOP PLATES SHALL BE 2x6 VERSA STUDS AND CONNECT THE TOP VERSA STUD TOP PLATE JOINT WITH AN MST 48 STRAP AT ALL △44 WALLS.

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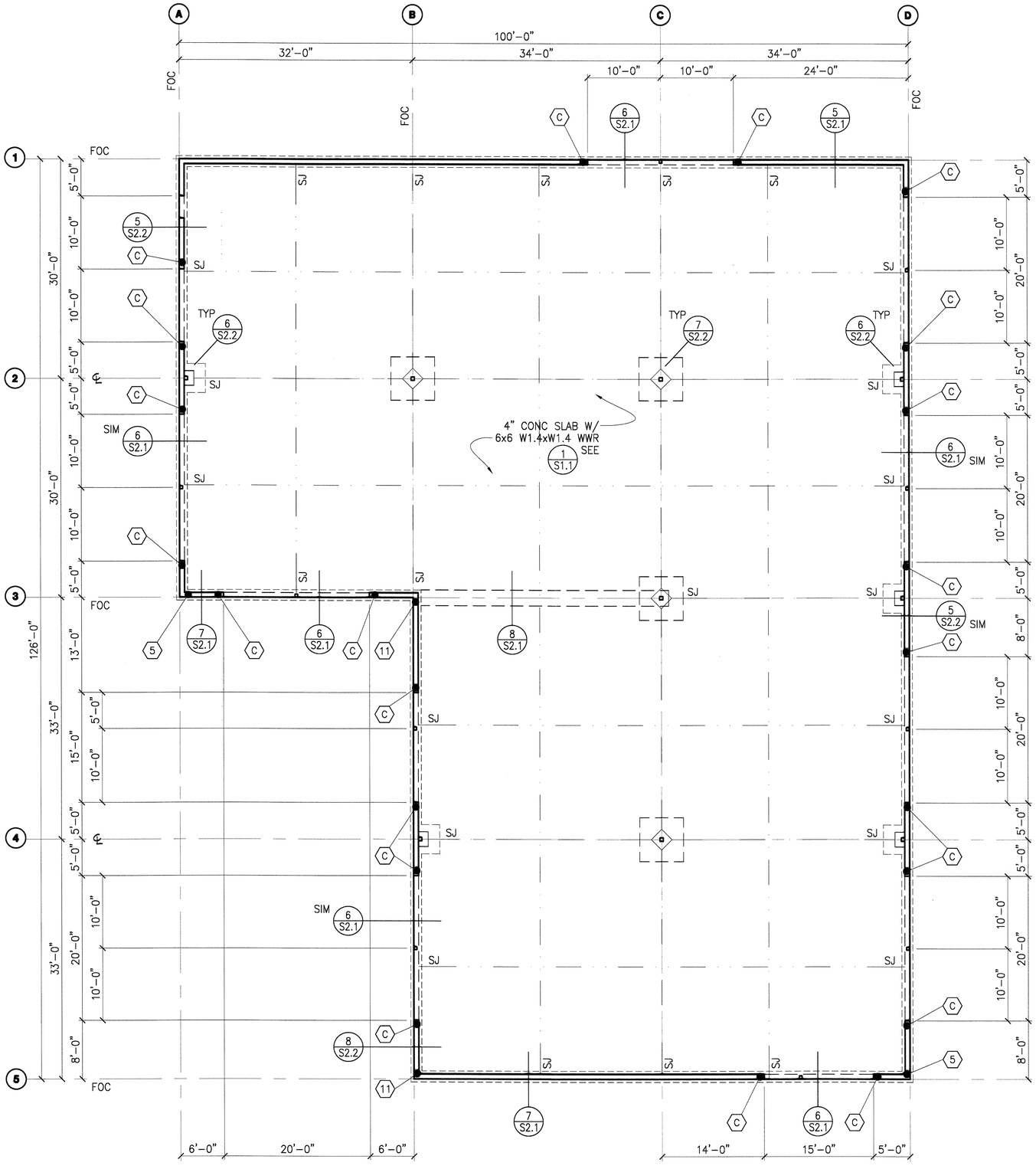

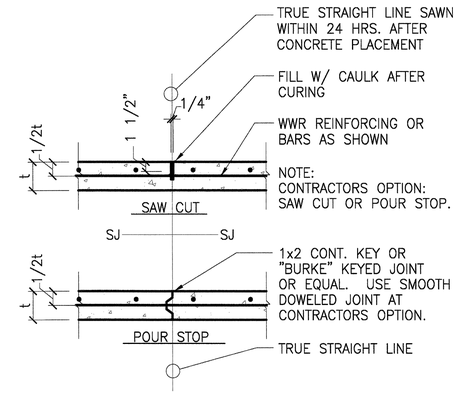

1 DETAIL

SCALE: 3/4" = 1'-0"

FOUNDATION PLAN

FOC – FACE OF CONC

(X) – INDICATES SHEARWALL HOLDOWN, SEE SCHEDULE

SCALE: 1/8" = 1'-0"

NORTH

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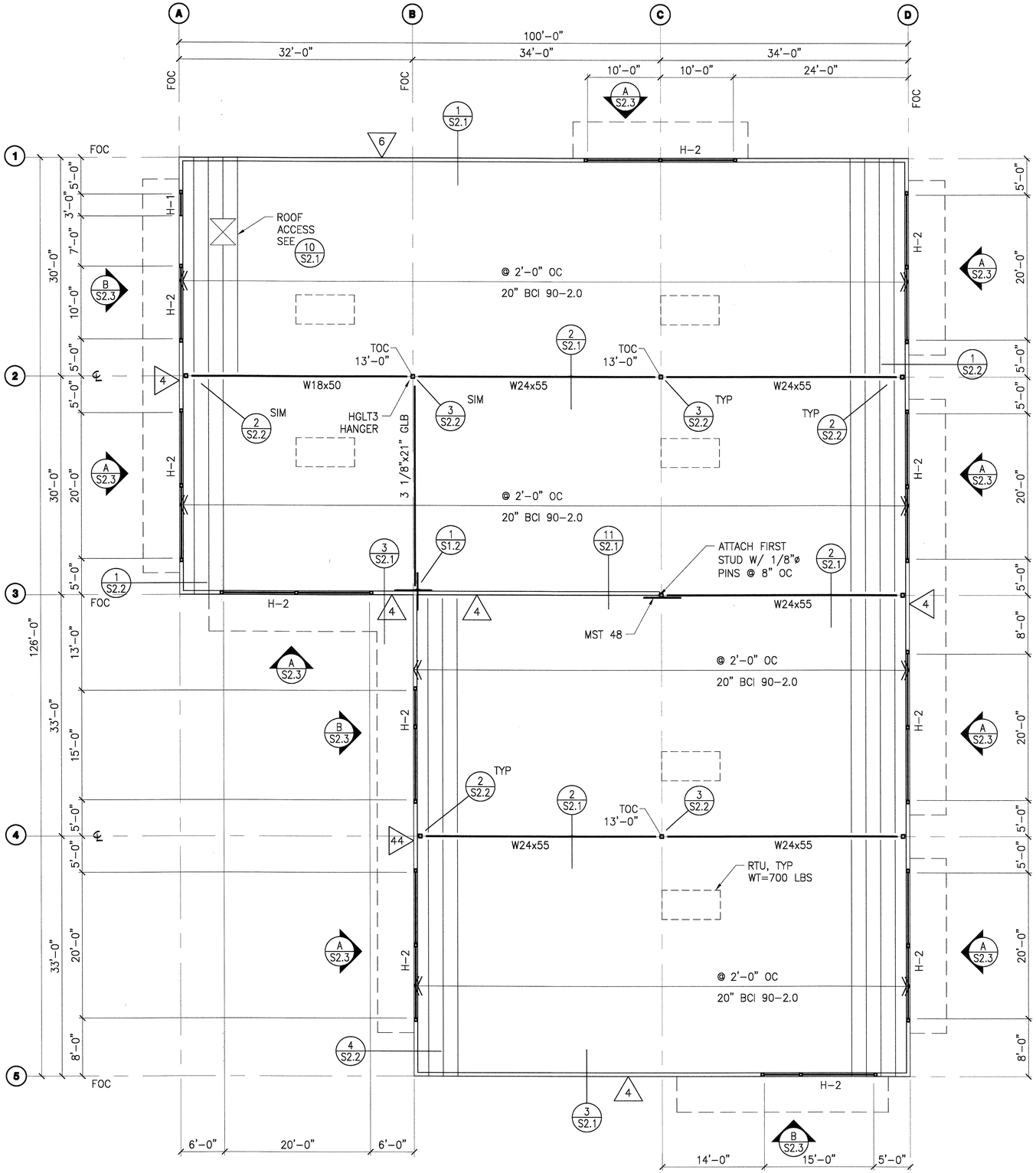

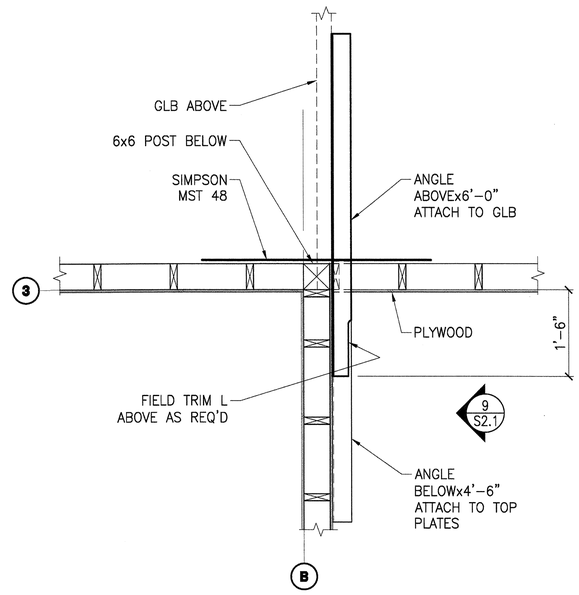

1 DETAIL (PLAN VIEW)

SCALE: 3/4" = 1'-0"

BEAM CONNECTION BOLT SCHEDULE

SIZE	CONN PLATE	LENGTH MIN.	NUMBER OF BOLTS	COMMENTS
W 18	PL 5/16" x 3 1/2" x L	15	(5) 3/4"ø	SEE 2 S2.2 & 3 S2.2
W 21-24	PL 5/16" x 3 1/2" x L	18	(6) 3/4"ø	

2 DETAIL

SCALE: 3/4" = 1'-0"

NOTE:
CO-ORDINATE LOCATION OF ROOFTOP RTU W/ MECHANICAL. PROVIDE ADDITIONAL JOISTS OR REINFORCING AT ROOF PENETRATIONS AS REQUIRED.

ROOF FRAMING PLAN

SCALE: 1/8" = 1'-0"

FOC - FACE OF CONC / FACE OF STUD
X - INDICATES SHEARWALL, SEE SCHEDULE
TOC - TOP OF COL. 13'-8 1/2" TYP UNO.

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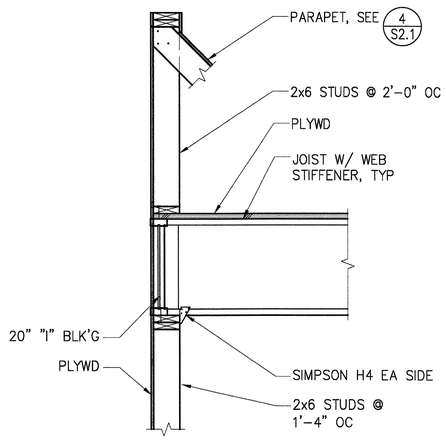

1 DETAIL

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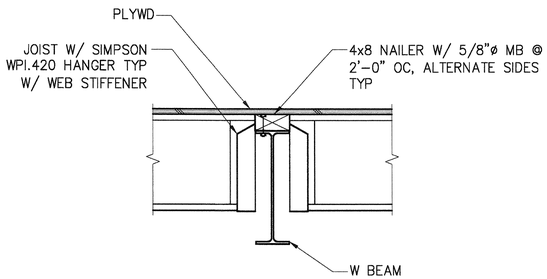

2 DETAIL

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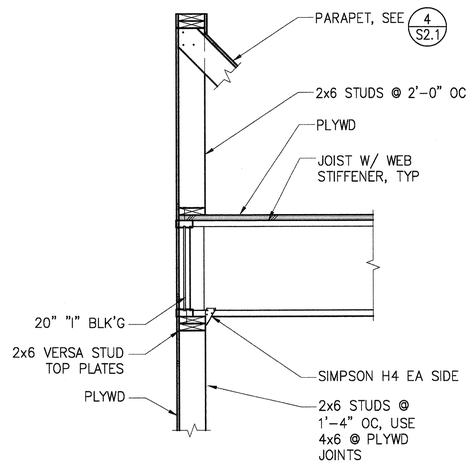
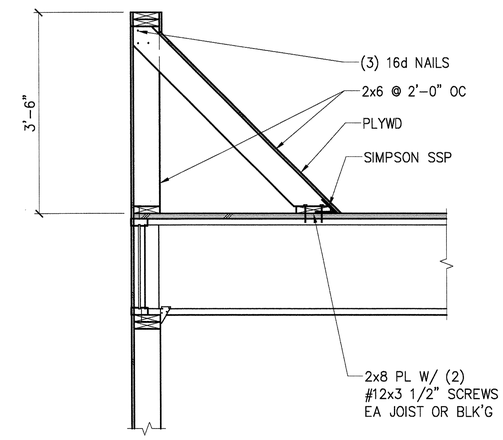


3 DETAIL

SCALE: 3/4" = 1'-0"



4 DETAIL

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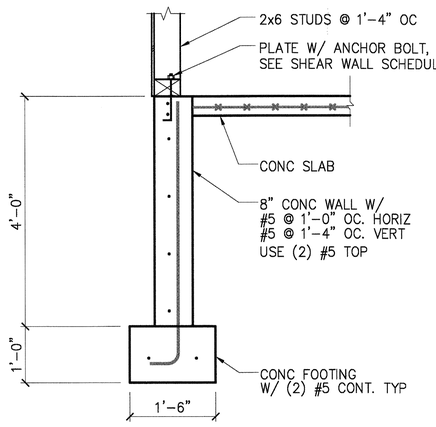

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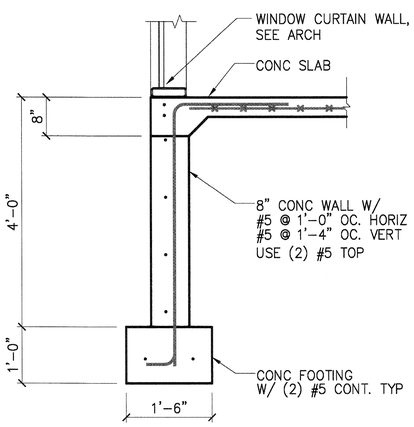
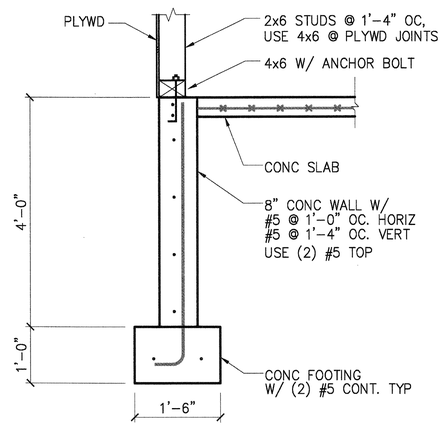


6 DETAIL

SCALE: 3/4" = 1'-0"



7 DETAIL

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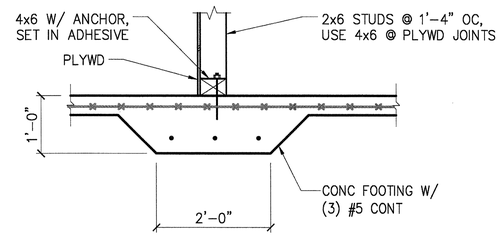
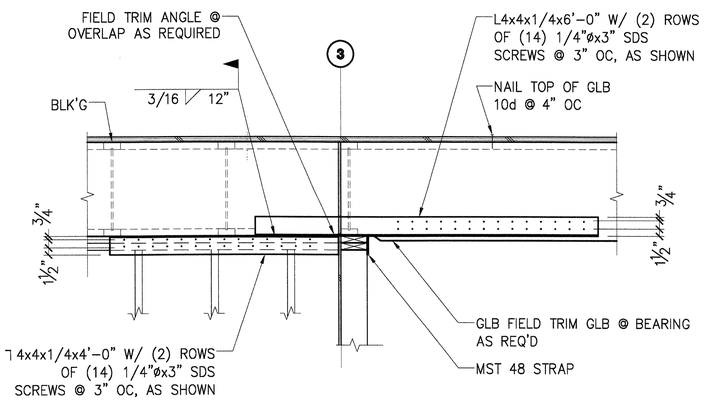


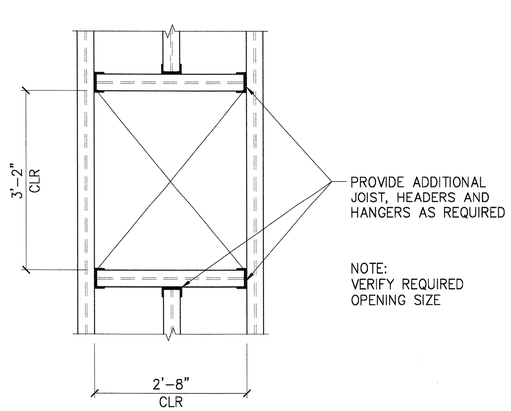
8 DETAIL

SCALE: 3/4" = 1'-0"



9 DETAIL

SCALE: 3/4" = 1'-0"



10 DETAIL

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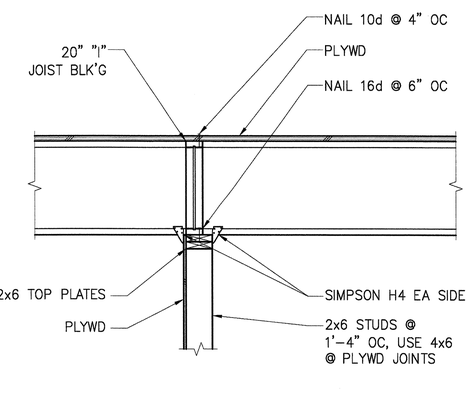

11 DETAIL

SCALE: 3/4" = 1'-0"

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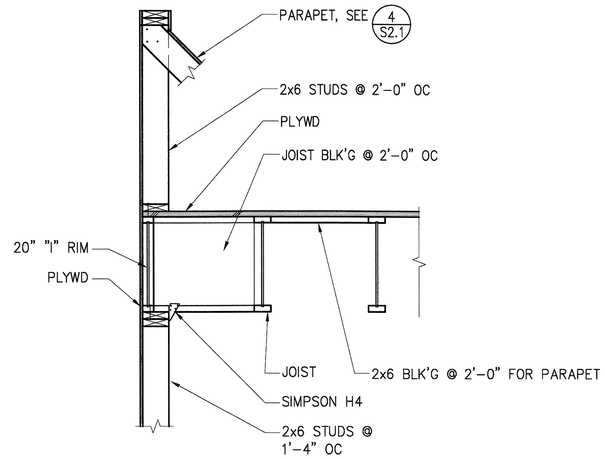

1 DETAIL

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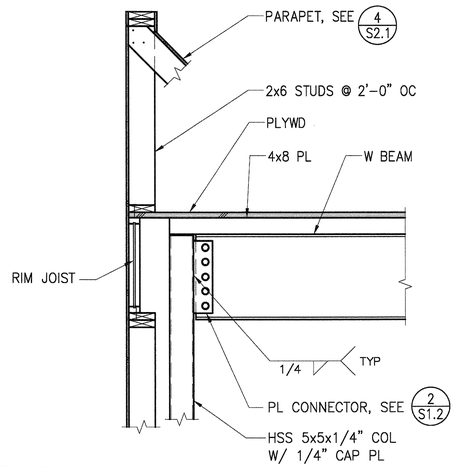

2 DETAIL

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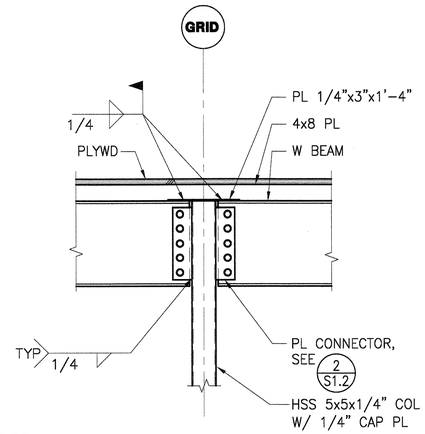

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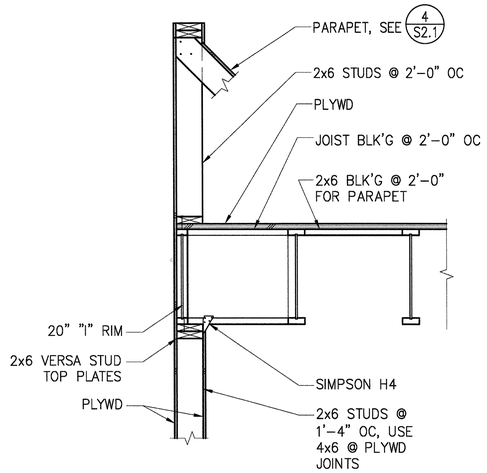

4 DETAIL

SCALE: 3/4" = 1'-0"

5 DETAIL

SCALE: 3/4" = 1'-0"

6 DETAIL

SCALE: 3/4" = 1'-0"

7 DETAIL

SCALE: 3/4" = 1'-0"

8 DETAIL

SCALE: 3/4" = 1'-0"

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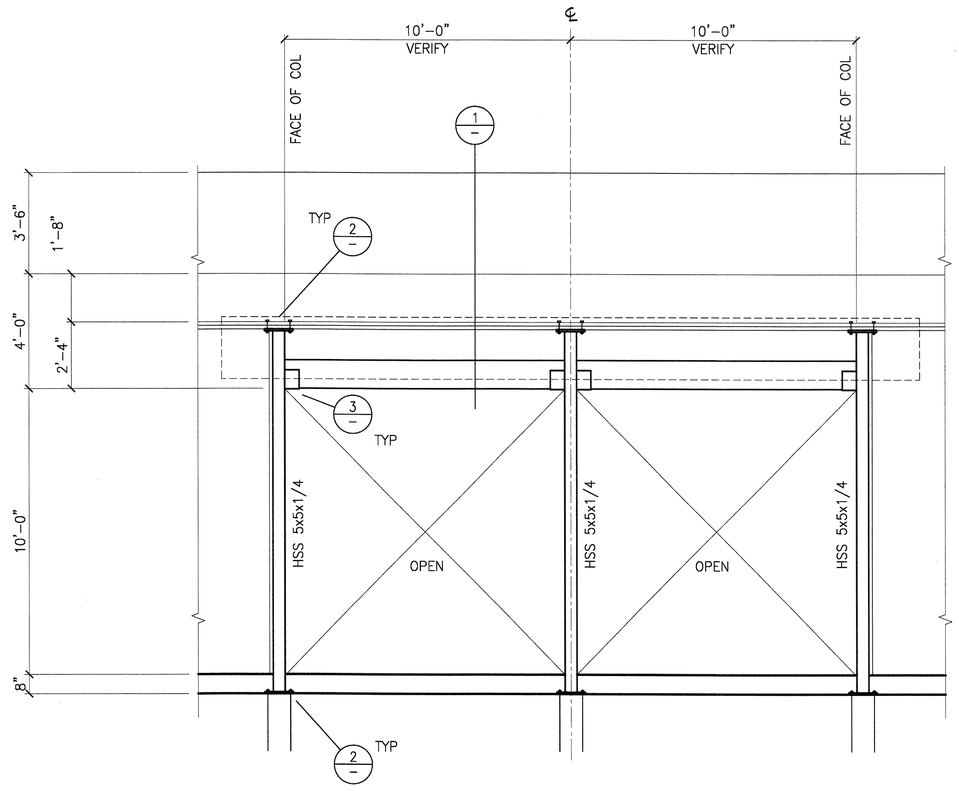
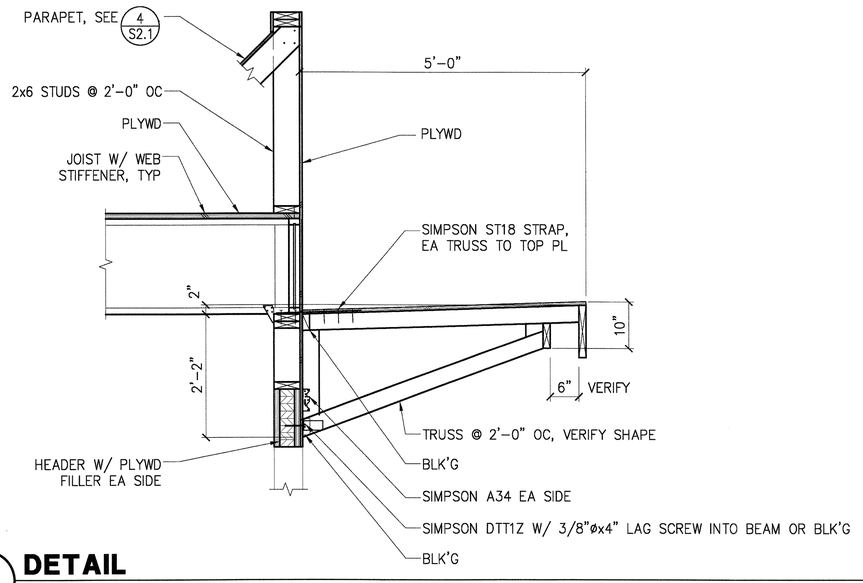


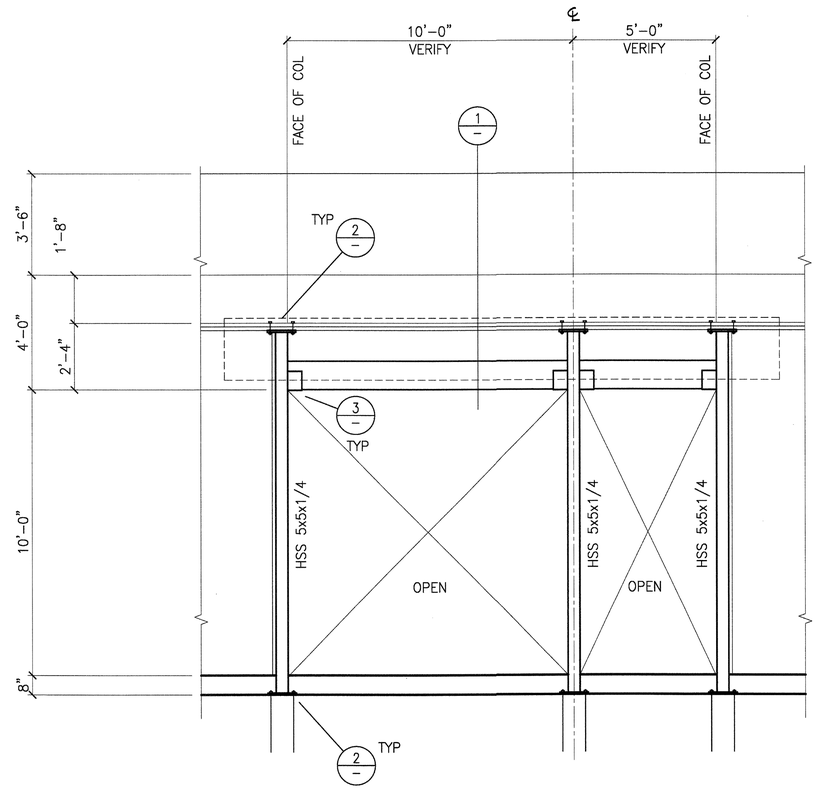
A PARTIAL WALL ELEVATION

SCALE: 3/8" = 1'-0"



1 DETAIL

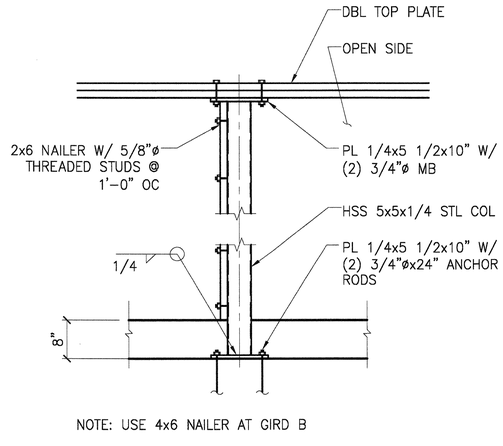
SCALE: 3/4" = 1'-0"



NOTE: SEE ARCH FOR ORIENTATION.

B PARTIAL WALL ELEVATION

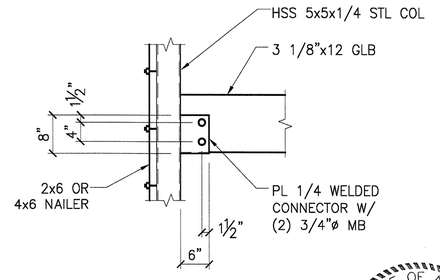
SCALE: 3/8" = 1'-0"



NOTE: USE 4x6 NAILER AT GIRD B

2 DETAIL

SCALE: 3/4" = 1'-0"



3 DETAIL

SCALE: 3/4" = 1'-0"

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