REINFORCING NOTES:

a) NON-WELDABLE REINFORCEMENT

THE ENGINEER FOR REVIEW UPON REQUEST.

9. MINIMUM SLAB REINFORCING UNLESS NOTED OTHERWISE:

10. MINIMUM WALL REINFORCING UNLESS NOTED OTHERWISE:

12. MINIMUM LAP LENGTHS UNLESS NOTED OTHERWISE

425mm(17

600mm(24")

750mm(30")

1180mm(47")

1400mm(55")

1670mm(66")

CONCRETE SHOWN ON ALL CONSTRUCTION DOCUMENTS.

11. WALLS AND SLABS TO HAVE 2-15M ADDITIONAL AT ALL FREE EDGES.

FOR EPOXY COATED BARS, VALUES SHALL BE INCREASED BY 50%.

18. DOWELS IN FOOTINGS TO MATCH SIZE AND SPACING OF VERTICAL BARS ABOVE.

- SOLID LINE -

- 15M3000 MEANS: 7 - 15M BARS, 3000mm LONG

20. REINFORCING STEEL ON DRAWING SHALL BE SHOWN AS NOTED BELOW:

BOTTOM BARS - BROKEN LINE ———————

- TOP UPPER LAYER

- BOTTOM UPPER LAYER

- BOTTOM LOWER LAYER

- TOP LOWER LAYER

b) WELDABLE REINFORCEMENT

c) WELDABLE WIRE MESH

STANDARDS BELOW:

200mm(8") SLAB

250mm(10") SLAB

150mm(6") WALL

200mm(8") WALL

250mm(10") WALL

300mm(12") WALL

SHALL BE WELDABLE.

THE BAR DIAMETER

BUL

21. REINFORCING NOTATION:

THE STRUCTURAL DRAWINGS.

ON THE STRUCTURAL DRAWINGS.

22. HOOK SHOWN ARE CSA STANDARD HOOKS.

EPOXY ANCHOR NOTES:

WITH MANUFACTURER'S INSTRUCTIONS.

REINFORCING BARS:

A307 THREADED ANCHOR ROD:

15M

20M

25M

30M

35M

1. CONCRETE REINFORCING SHALL BE STANDARD DEFORMED BILLET STEEL BARS CONFORMING TO THE

CSA G30.18

CSA G30.5

4. NO CONCRETE SHALL BE POURED UNTIL REINFORCING HAS BEEN REVIEWED BY THE ENGINEER AND FOUND

7. MILL CERTIFICATES FOR ALL REINFORCING SHALL BE RETAINED BY THE CONTRACTOR AND BE PROVIDED TO

=10M @ 250mm(10") OR 15M @ 450mm(18")o/c EACH WAY

UNLESS APPROVED BY ENGINEER, LAP SPLICES NOT SHOWN ON DRAWINGS SHALL NOT BE ALLOWED.

13. OPENINGS IN WALLS AND SLABS SHALL HAVE 2-15M EXTRA EACH SIDE EXTENDING 600mm(24") PAST CORNERS,

ADDITIONAL TO ALL OTHER REQUIREMENTS. INCLUDE REINFORCING FOR MASONRY AND NON-STRUCTURAL

PLUS 1-15M 1200mm(48") DIAGONAL TOP AND BOTTOM AT EACH CORNER UNLESS NOTED OTHERWISE.

14. CONTINGENCY REINFORCING, WITH "ADD" AND "DELETE" UNIT PRICES INCLUDED IN BID, TO BE PROVIDED

15. REINFORCING FOR CONCRETE FRAME MEMBERS AND SHEARWALLS WITH Rd GREATER THAN 2.0

16. HOOKS ON ALL TIES SHALL BE AT LEAST 135 DEGREES AND HAVE A MINIMUM LEG LENGTH OF 6 TIMES

17. NO SPLICES PERMITTED WITHOUT THE ENGINEERS APPROVAL WHERE BAR LENGTHS HAVE BEEN GIVEN ON

19. APPROVAL REQUIRED FROM ENGINEER FOR ANY SLAB OR BEAM POUR JOINTS NOT SPECIFICALLY INDICATED

3 - C15M1500 MEANS: 3 - 15M BARS, 1500mm LONG WITH 90° CSA STANDARD HOOK

1. HILTI HIT ADHESIVE ANCHOR SYSTEM HY-200R AND REBAR TO BE INSTALLED IN ACCORDANCE

10M IN 9/16" (14mm) DIA HOLE 4" (100mm) MINIMUM DEPTH

15M IN 13/16"(20mm) DIA HOLE 5" (127mm) MINIMUM DEPTH

1/2"(13mm) Ø IN 5/8"(16mm) DIA HOLE 4 1/2" (115mm) MINIMUM DEPTH

5/8"(16mm) Ø IN 3/4"(19mm) DIA HOLE 5" (127mm) MINIMUM DEPTH

3/4" (19mm) Ø IN 7/8"(22mm) DIA HOLE 6" (150mm) MINIMUM DEPTH

20M IN 1" (25mm) DIA HOLE 7" (178mm) MINIMUM DEPTH

(LENGTH INCLUDES STANDARD HOOK)

=10M @ 400mm(16")o/c VERT. & 10M @ 300mm(12")o/c HORZ. CENTRED

=15M @ 500mm(20")o/c VERT. & 15M @ 450mm(18")o/c HORZ. CENTRED

=10M @ 500mm(20")o/c VERT. & 10M @ 400mm(16")o/c HORZ. EACH FACE

=10M @ 400mm(12")o/c VERT. & 10M @ 300mm(12")o/c HORZ. EACH FACE

8. ALL REINFORCING BARS SHALL BE CONTINUOUS AND ADEQUATELY LAPPED AT SPLICES. HORIZONTAL

3. DO NOT WET DOWEL REINFORCING UNLESS APPROVED IN WRITING BY THE ENGINEER.

6. REINFORCING SHALL BE CLEAN AND FREE OF OIL, DEBRIS, HEAVY CORROSION OR DAMAGE.

REINFORCEMENT SHALL BE BENT AND LAPPED AT ALL CORNERS AND INTERSECTIONS.

=10M @ 300mm(12")o/c EACH WAY

=15M @ 375mm(15")o/c EACH WAY

=15M @ 300mm(12")o/c EACH WAY

CONCRETE TOPPING OVER STEEL DECK 152x152 MW9.1xMW9.1 WELDED WIRE MESH.

TO BE IN GENERAL CONFORMANCE WITH CONSTRUCTION DRAWINGS.

5. REINFORCING SHALL BE 400 MPa YIELD STRESS UNLESS NOTED OTHERWISE

CSA G30.18W

ALL REINFORCEMENT SHALL BE ACCURATELY PLACED AND SECURELY TIED TO PREVENT DISPLACEMENT IN ORDER

TO MAINTAIN MINIMUM COVER AND SPACING REQUIREMENTS. PLASTIC CHAIRS SHALL BE USED AS REQUIRED.

2. CONSTRUCTION TO BE TO BCBC REQUIREMENTS AND ALL FEDERAL AND MUNICIPAL REGULATIONS AND BYLAWS. ALL REFERENCE STANDARDS ARE TO THE EDITION LISTED IN DIVISION B, PART ONE OF THE 2024 BCBC, UNLESS NOTED OTHERWISE.

3. DESIGN LOADS: (kPa)

ESIGN LOADS: (kPa)			<u>WIND</u>	SNOW					
SPECIFIED UNIFORM LOADS	LIVE	SUPER IMPOSED DEAD LOADS	q50 = 0.48 q10 = 0.36	Ss = 1.1 Sr = 0.4					
ROOF	1.28	0.75	SEISMIC CRITERIA						
FLOOR	2.4	0.75	SITE CLASSIFICATION	DN: D					
IMPORTANCE FACTORS	<u>ULS</u>	SLS	Sa(0.2) = 0.711 Sa(0.5) = 0.681	PGA = 0.326 PGV = 0.555					
Is (SNOW) = Iw (WIND) = Ie (EQ) =	1 1 1	0.9 0.75 *	Sa(1.0) = 0.463 Sa(2.0) = 0.285 Sa(5.0) = 0.096 Sa(10.0) = 0.034	Rd = 3.0 Ro = 1.7					
*SEISMIC INTERSTOR	*SEISMIC INTERSTOREY DRIFT LIMIT= 0.025 Hs								

THE CONTRACTOR MUST ENSURE THAT CONSTRUCTION LOADS IMPOSED ON THE STRUCTURE DO NOT EXCEED THE SPECIFIED DESIGN LOADS NOTED ABOVE. SUPERIMPOSED DEAD LOADS ARE NON-STRUCTURAL DEAD LOADS WHICH INCLUDE ROOFING MATERIALS, ARCHITECTURAL TOPPINGS, MECH. AND ELECT. FIXTURES AND CONDUITS, PAVERS AND CEILING FINISHES.

- 4. THE CONTRACTOR SHALL COMPARE ALL RELATED DRAWINGS PRIOR TO BEGINNING CONSTRUCTION. ENGINEER AND ARCHITECT SHALL BE NOTIFIED IMMEDIATELY IF ANY DISCREPANCIES OR INCONSISTENCIES ARE FOUND BETWEEN STRUCTURAL, ARCHITECTURAL, MECHANICAL OR ELECTRICAL DRAWINGS.
- 5. ALWAYS READ WRITTEN DIMENSIONS. DO NOT SCALE OFF THE DRAWINGS OR CAD FILES.
- 6. ONLY BUILD FROM ISSUED FOR CONSTRUCTION DRAWINGS.
- 7. SUPPLY OF RECORD DRAWINGS IS OUTSIDE THE SCOPE OF SERVICES.
- 8. DESIGN OF SECONDARY COMPONENTS, INCLUDING THEIR CONNECTIONS TO THE STRUCTURE IS THE RESPONSIBILITY OF OTHERS. SEE SECONDARY COMPONENTS AND THEIR ATTACHMENTS FOR ADDITIONAL INFORMATION.
- 9. IF CONFLICTS RELATED TO STRUCTURAL WORKS ARE FOUND IN THE CONSTRUCTION DOCUMENTS, THE MORE STRINGENT PROVISIONS SHALL BE USED, UNLESS APPROVED BY THE ENGINEER. SPECIFICATIONS SHALL CONTROL OVER THESE CONSTRUCTION DOCUMENTS ONLY WHERE THE SPECIFICATIONS PROVIDE FOR MORE STRINGENT REQUIREMENTS.
- 10. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE CORRECTION OF DEFICIENCIES, AS DIRECTED BY THE ENGINEER.
- 11. THE DESIGN AND INSPECTION OF FALSEWORK, SHORING AND RESHORING ARE THE RESPONSIBILITY OF THE CONTRACTOR, SHALL CONFORM TO WCB STANDARDS AND AS REQUIRED TO KEEP THE STRUCTURE PLUMB AND LEVEL DURING CONSTRUCTION.
- 12. THESE DRAWINGS SHOW REQUIREMENTS FOR COMPLETED STRUCTURE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY BRACING REQUIRED FOR CONSTRUCTION LOADINGS AND STABILITY UNTIL THE PROJECT IS COMPLETE.
- 13. REVIEW OF WORK, OR ANY PORTION OF WORK, BY THE ENGINEER SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBLITY AND OBLIGATION TO COMPLY WITH CONTRACT DRAWINGS
- 14. DO NOT INSTALL OPENINGS, UNLESS NOTED ON DRAWINGS.
- 15. ALL SHOP DRAWING REVIEWS WILL BE FOR THE SOLE PURPOSE OF REVIEWING GENERAL CONFORMANCE WITH THE DESIGN CONCEPTS ONLY. THE DETAILED DESIGN REMAINS THE RESPONSIBILITY OF THE FABRICATOR/CONTRACTOR. ALL PORTIONS SHALL BE ERECTED AND ASSEMBLED IN ACCORDANCE WITH APPROVED SHOP AND ERECTION DRAWINGS. NO ERECTION OR FABRICATION SHALL TAKE PLACE WITHOUT THE ENGINEER HAVING REVIEWED AND APPROVED THE SHOP AND ERECTION DRAWINGS.

FIELD REVIEW:

- ONLY WORK SHOWN ON THE STRUCTURAL CONSTRUCTION DOCUMENTS BY MCELHANNEY LTD. WILL BE REVIEWED.
- 2. GENERAL CONTRACTOR TO REVIEW SUB-CONTRACTORS WORK PRIOR TO ENGINEERS FIELD REVIEW.
- 3. QUALITY CONTROL OF WORK IS THE CONTRACTORS RESPONSIBILITY.
- 4. MINIMUM 7 DAY NOTICE SHALL BE GIVEN PRIOR TO CONCEALMENT OF ANY STRUCTURAL ITEMS. THESE ITEMS INCLUDE AND ARE NOT LIMITED TO, WOOD FRAMING AND SHEATHING. REFER TO RELATED SECTIONS FOR INSPECTION REQUIREMENTS FOR EACH MATERIAL. ANY ADDITIONAL MATERIAL TESTING SHALL BE AT THE EXPENSE OF THE CONTRACTOR AND AT THE ENGINEERS DIRECTION.
- NUMBER OF REVIEWS AND ITEMS REVIEWED WILL BE AT THE DISCRETION OF THE ENGINEER TO DETERMINE GENERAL CONFORMANCE WITH THE DESIGN INTENT
- ADDITIONAL FIELD REVIEWS REQUIRED DUE TO DEFICIENT OR INCOMPLETE WORK WILL BE AT THE EXPENSE
- ENGINEER TO BE NOTIFIED OF CONSTRUCTION SCHEDULE IN ORDER TO SCHEDULE FIELD REVIEWS. IF THE ENGINEER IS NOT AFFORDED THE OPPORTUNITY TO REVIEW THE STRUCTURAL WORKS PRIOR TO CONCEALMENT, FINAL CERTIFICATION OF THE PROJECT WILL NOT BE ISSUED.

FOUNDATIONS:

- FOUNDATION DESIGN BASED ON THE SOILS REPORT BY TERRAN GEOTECHNICAL CONSULTANTS LTD. DATED JUNE 11,2024 WITH A SLS OF 75kPa AND A ULS 112.5kPa BEARING PRESSURE. IF SOIL IS WEAKER THAN ASSUMED BEARING CAPACITY, NOTIFY ENGINEER AND PROVIDE REVISED FOUNDATION TO ENGINEERS APPROVAL.
- 2. GEOTECHNICAL ENGINEER SHALL BE A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE
- RECOMMENDATIONS GIVEN BY GEOTECHNICAL ENGINEER AND IN SOILS REPORT TO BE FOLLOWED FOR SOIL PREPARATION AND DRAINAGE
- 4. CONTRACTOR IS RESPONSIBLE FOR ORGANISING GEOTECHNICAL REVIEWS AND CONFIRMATION OF DESIGN BEARING CAPACITY OF SOIL PRIOR TO PLACING FOUNDATIONS.
- OWNER TO RETAIN AN APPROVED GEOTECHNICAL TESTING AGENCY TO PERFORM DENSITY TESTING OF SOIL PRIOR TO PLACING SLABS ON GRADE OR DURING SOIL LIFTS AS SPECIFIED BY THE GEOTECH. CARE TO BE TAKEN TO ENSURE SOILS ARE NOT DISTURBED AFTER APPROVAL.
- 6. CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SITE DRAINAGE.
- RETAINING WALLS TO BE BACKFILLED WHEN CONCRETE REACHES FULL DESIGN STRENGTH, UNLESS APPROVED IN WRITING BY THE ENGINEER. ANY SLABS OR COMPONENTS SUPPORTING THE RETAINING WALL TO BE IN PLACE
- 8. PROVIDE 50mm (2") CONCRETE GROUND SEAL UNLESS GEOTECH APPROVES IN WRITING OTHERWISE.
- 9. SEE ARCHITECTURAL DRAWINGS FOR ELEVATIONS AND DRAINAGE SLOPES.
- 10. A GEOTECHNICAL ENGINEER RETAINED BY THE CONTRACTOR WILL DESIGN AND SUPERVISE ALL SHORING AND UNDERPINNING OF ADJACENT STRUCTURES. ALL COSTS ARE TO BE COVERED BY THE CONTRACTOR.
- 11. SOIL SURFACES FOR BEARING ARE TO BE PROTECTED AGAINST FREEZING PRIOR TO AND AFTER FOOTINGS ARE PLACED.
- 12. IF ANY FOOTING DEPTHS OR ELEVATIONS ARE SHOWN, THEY ARE FOR BIDDING PURPOSES ONLY AND ARE NOT FINAL. DEPTHS AND ELEVATIONS MAY VARY DUE TO SITE CONDITIONS.
- 13. FOOTINGS TO BE CENTERED UNDER COLUMNS AND WALLS UNLESS NOTED OTHERWISE.
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CONCRETE NOTES:

1. PROVIDE CONCRETE AND PERFORM WORK TO CSA-A23.1. PROVIDE HOT AND COLD WEATHER PROTECTION IN ACCORDANCE WITH CSA-A23.1. ALL CONCRETE TO BE NORMAL WEIGHT 23.6KN/ CUm (150PSF) TYPE GU CEMENT. MAXIMUM 19mm (3/4") AGGREGATE FOR ALL CONCRETE. MINIMUM 28 DAY COMPRESSIVE STRENGTHS AS INDICATED BELOW:

LOCATION	STRENGTH MPA	MAX W/C	SLUMP RANGE	EXPOSURE CLASS	AIR ENTRAINMENT
EXTERIOR SLAB	35	0.40	3" TO 4" (75 TO 100mm)	C-1	6 TO 8 %
FOOTINGS & PEDESTALS	25	0.55	3" TO 4" (75 TO 100mm)	N	-
FOUNDATION WALLS	25	0.55	3" TO 4" (75 TO 100mm)	F-2	6 TO 8 %
FLOOR SLAB	35	0.40	3" TO 4" (75 TO 100mm)	N	-

- *SLUMPS NOTED ARE BEFORE THE ADDITION OF A SUPERPLASTICIZER.
- 2. CHLORIDE-TYPE ADMIXTURES ARE NOT PERMITTED IN THE CONCRETE.
- 3. MIX DESIGNS SHALL BE PROVIDED FOR THE ENGINEER AND CONCRETE TESTING AGENCY FOR REVIEW AND APPROVAL PRIOR TO CONCRETE PLACEMENT.
- 4. CONCRETE MUST BE TESTED IN ACCORDANCE WITH CSA-A23.2 BY AN ENGINEER APPROVED INDEPENDENT TESTING AGENCY. UNLESS NOTED OTHERWISE, A MINIMUM OF 3 TEST CYLINDERS SHALL BE CAST FOR EACH 50 CUM OR EACH DAYS POUR, WHICHEVER IS LESS. TEST 1 CYLINDER AT 7 DAYS AND 2 AT 28 DAYS AND SUBMIT WRITTEN REPORTS FOR REVIEW BY THE ENGINEER, REPORTS SHALL IDENTIFY LOCATIONS WHERE THE CONCRETE TESTED WAS LOCATED WITHIN THE STRUCTURE.
- 5. ALL CONCRETE WORKS TO BE IN ACCORDANCE WITH CSA-A23.1.
- 6. REFER TO ARCHITECTURAL DRAWINGS FOR TIE LAYOUTS, SLAB ELEVATIONS, FORMWORK PANEL LAYOUT, SLOPES, REVEALS AND REGLETS.
- 7. OPENINGS, BLOCKOUTS, NAILERS, SLEEVES AND PIPES ARE TO BE APPROVED BY THE ENGINEER PRIOR TO POUR.
- STRIPPING OF FORMS FOR STRUCTURAL ELEMENTS WILL BE ONLY AFTER CONCRETE HAS REACHED 50% OF THE 28 DAY STRENGTH FOR WALLS AND COLUMNS AND 70% OF THE 28 DAY STRENGTH FOR SLABS AND BEAMS. CONCRETE STRENGTH WILL BE DETERMINED BY FIELD CURED CYLINDERS.
- 9. SLAB RESHORING MUST BE APPROVED BY SHORING ENGINEER BEFORE STRIPPING FORMWORKS. RESHORING SHALL REMAIN UNTIL 28 DAY CONCRETE STRENGTH HAS BEEN ACHIEVED.
- 10. ENSURE STEPS ARE TAKEN TO MINIMIZE CRACKING AND SHRINKAGE, THIS MAY INCLUDE COVERING AND DAMPENING CONCRETE SURFACE DURING CURING.
- 11. EXPANSION ANCHORS TO BE HILTI KB3 OR APPROVED EQUIVALENT. EPOXY ANCHORS TO USE HILTI HIT RE-500 EPOXY OR APPROVED EQUIVALENT.
- 12. DO NOT ADD WATER TO THE CONCRETE ONSITE.
- 13. PROVIDE 19mm (3/4") CHAMFER ON ALL EXPOSED CORNERS.

SURFACES PLACED IN CONTACT WITH GROUND:

- 14. ALL CONSTRUCTION DEBRIS TO BE REMOVED FROM FORMS OR SLABS ON GRADE PRIOR TO PLACING
- 15. UNLESS NOTED OTHERWISE, ALL STEEL REINFORCING MUST HAVE THE FOLLOWING CONCRETE COVER:

FIRE RATING 75mm (3") 75mm (3") 50mm (2") 50mm (2") 40mm (1.5")

32mm(1.25") 32mm(1.25"

FORMED SURFACES TO BE EXPOSED TO GROUND, WEATHER, OR WATER: SLAB ON GRADE (FROM TOP OF SLAB):

- 16. REJECT ALL CONCRETE WHEN TIME BETWEEN BATCHING AND PLACING EXCEEDS 1hr 20mins.
- 17. DO NOT USE ADMIXTURES WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- 18. CONSOLIDATE ALL CONCRETE USING MECHANICAL VIBRATORS.
- 19. PROTECT CONCRETE FROM ADVERSE WEATHER CONDITIONS IN ACCORDANCE WITH CSA-A23.1 OR AS DETERMINED BY THE ENGINEER.
- 20. CONSTRUCTION JOINTS: AS SHOWN ON THE DRAWINGS OR AS APPROVED BY THE ENGINEER.
- 21. MAXIMUM TOLERANCES OF CONCRETE WORK (TOLERANCES SHALL NOT BE CUMULATIVE). DEVIATION FROM VERTICAL LINE - 1 IN 500 DEVIATION FROM FLAT SURFACE - WALLS AND FLOORS - 1 IN 500
 - DEVIATION FROM HORIZONTAL 1 IN 500 **DEVIATION FROM BUILDING LINE - 6mm** DEVIATION FROM CROSS-SECTIONAL DIMENSION - 6mm
- 22. NON-STRUCTURAL CONCRETE SUCH AS ARCHITECTURAL TOPPING, CIVIL WORK, ETC. IS SPECIFIED BY OTHERS.
- 23. NON-SHRINK GROUT SHALL BE NON-METALLIC CEMENTITOUS PASTE WITH A MINIMUM 7 DAY COMPRESSIVE STRENGTH OF 50MPA.

WOOD SHEATHING

- 1. ALL SHEATHING SHALL CONFORMING TO CSA 0121 AND 0151.
- 2. SHEETS SHALL BE PLACED WITH FACE GRAIN RUNNING PERPENDICULAR TO SUPPORTING MEMBERS IN A STAGGERED PATTERN.
- 3. SHANK DIAMETERS OF COMMON NAILS SHALL BE AS FOLLOWS: 3" (76mm) = 3.66mm Ø 2.5" (64mm) = 3.25mm Ø

2" $(50\text{mm}) = 2.84\text{mm} \varnothing$

- 4. UNLESS NOTED OTHERWISE, WALL SHEATHING TO BE 11mm(7/16") SHEATHING FASTENED WITH 64mm (2 1/2") LONG COMMON NAILS @ 150mm(6") O/C AT SHEET EDGES AND @ 300mm(12") AT INTERMEDIATE STUDS.
- 5. UNLESS NOTED OTHERWISE, FLOOR SHEATHING TO BE 16mm(5/8") T&G SHEATHING GLUED AND FASTENED WITH 64mm(2 1/2") LONG COMMON NAILS @ 150mm(6") O/C AT SHEET EDGES AND @ 250mm(10") O/C AT INTERMEDIATE
- 6. UNLESS NOTED OTHERWISE, ROOF SHEATHING TO BE 16mm(5/8") T&G SHEATHING FASTENED WITH 64mm (2 1/2") LONG COMMON NAILS @ 150mm(6") O/C AT SHEET EDGES AND @ 300mm(12") AT INTERMEDIATE
- 7. SHEARWALLS AND EXTERIOR BEARING WALLS UNLESS NOTED OTHERWISE :
- i) WALLS ARE TO BE CONSTRUCTED WITH ONE SIDE 11mm(7/16") SHEATHING ON WOOD STUDS (REFER TO ABOVE FOR MINIMUM NAILING REQUIREMENTS).
- ii) SHEARWALLS MUST BE CONNECTED TO FLOOR AND ROOF SHEATHING (TRUSS BLOCKS OR JOISTS ADDED AS REQUIRED) WITH MINIMUM 75mm(3") LONG COMMON NAILS @ 100mm(4") O/C.

WOOD FRAME

- 1. WOOD FRAMING SHALL CONFORM TO CAN/CSA 086.1.
- 2. UNLESS NOTED OTHERWISE, JOISTS, BUILT-UP BEAMS AND POSTS, STUD FRAMING, TOP AND BOTTOM PLATES SHALL BE KILN DRIED SPF #2 AND BETTER AND SOLID WOOD POSTS AND BEAMS SHALL BE DOUGLAS FIR #1.
- 3. UNLESS NOTED OTHERWISE, MINIMUM LINTEL SHALL BE 1-44x241 (1 3/4" x 9 1/2") LSL OR 2 38x235 (2"x10").
- 4. UNLESS NOTED OTHERWISE, FRAMING, BRIDGING, BLOCKING AND NAILING SHALL BE IN ACCORDANCE WITH PART 9 OF THE 2010 NATIONAL BUILDING CODE OF CANADA (SEE LINE 1 UNDER THE GENERAL HEADING ON
- 5. UNLESS NOTED OTHERWISE, FLOOR JOISTS ARE TO BE 38x235 @ 400mm (2"x10" @ 16") o/c. MIN. ROOF JOISTS AS PER PLANS.
- 6. UNLESS NOTED OTHERWISE, UNDER BEAM ENDS, STUDS SHALL BE LAMINATED SOLID TO MATCH BEAM WIDTH AND CARRY LOADS THROUGH TO CONCRETE FOUNDATION BELOW. JOIST SPACES SHALL BE FULLY BLOCKED BELOW POINT LOADS.
- 7. UNLESS NOTED OTHERWISE LOAD BEARING WALLS ARE TO BE CONSTRUCTED OUT OF 38x140 @400mm (2"x6" @16") o/c STUDS ON THE EXTERIOR OF THE STRUCTURE AND EITHER 38x89 @400mm (2"x4" @16") OR 38x140 @400mm (2"x6" @16") o/c STUDS ON THE INTERIOR OF THE STRUCTURE.
- 8. UNLESS NOTED OTHERWISE, STUD WALLS ARE TO BE ANCHORED TO THE CONCRETE FOUNDATION WITH 16mm Ø x 250mm LONG (5/8"Ø x 10") ANCHOR BOLTS WITH STANDARD NUT & WASHER AT TOP & STANDARD WASHER AND DOUBLE NUT AT BOTTOM SPACED @ 1m (40") o/c. AND AT 200mm(8") FROM ENDS AND CORNERS OF WALLS AND EDGES OF WINDOW AND DOOR OPENINGS.

STRUCTURAL COMPOSITE LUMBER - PSL, LVL, AND LSL

- 1. ALL STRUCTURAL COMPOSITE LUMBER WORK SHALL BE PERFORMED IN ACCORDANCE WITH CSA 086.
- 2. UNLESS NOTED OTHERWISE, THE FOLLOWING STRUCTURAL COMPOSITE LUMBER PRODUCTS MANUFACTURED BY WEYERHAEUSER OR LOUISIANA PACIFIC ARE ACCEPTABLE:

PSL (Parallel Strand Lumber)			
BEAMS	2.2E PARALLAM PSL		
COLUMNS	1.8E PARALLAM PSL		
LVL (Laminated Veneer Lumber)	2.0E MICROLLAM LVL		
	SOLIDSTART LVL 2900Fb-2.0E		
LSL (Laminated Strand Lumber)	1.3E TIMBERSTRAND LSL		
	1.55E TIMBERSTRAND LSL		

- 3. ALL STRUCTURAL COMPOSITE LUMBER SHALL MEET OR EXCEED THE STRUCTURAL PROPERTIES OF THE PRODUCTS LISTED ABOVE. ANY SUBSTITUTION MUST HAVE THE WRITTEN APPROVAL OF THE EOR.
- 4. WHERE CONNECTION FORCES ARE SHOWN ON THE DRAWINGS, CONNECTIONS SHALL BE DESIGNED BY A SPECIALTY STRUCTURAL ENGINEER. REGISTERED IN THE AUTHORITY HAVING JURISDICTION. RETAINED BY THE SUPPLIER AND EXPERIENCED IN THE DESIGN OF THIS WORK.
- a) DRAWINGS AND CALCULATIONS OF COMPONENTS DESIGNED BY THE SUPPLIER SHALL BE SIGNED AND SEALED BY THE SPECIALTY ENGINEER.
- b) THE SPECIALTY ENGINEER SEALING THE SUPPLIER'S SHOP DRAWINGS IS ALSO RESPONSIBLE FOR ALL FIELD REVIEW OF HIS OR HER WORK. THE SPECIALTY ENGINEER SHALL PROVIDE SIGNED AND SEALED LETTERS OF ASSURANCE TO THE EOR CONFIRMING THE WORK HAS BEEN COMPLETED IN ACCORDANCE WITH THE FINAL REVIEWED SHOP DRAWINGS AND ALL STRUCTURAL REQUIREMENTS.
- 5. SUBMIT SHOP DRAWINGS SHOWING FABRICATION AND ERECTION OF ALL COMPOSITE LUMBER
- COMPONENTS TO THE EOR FOR REVIEW PRIOR TO FABRICATION. 6. MARK MEMBERS FOR IDENTIFICATION DURING ERECTION, STAMP EACH MEMBER INDICATING GRADE. MANUFACTURER'S NAME, PLANT NUMBER, THIRD-PARTY CERTIFICATION AND CODE EVALUATION AGENCIES. ENSURE MARKS WILL BE CONCEALED IN FINAL ASSEMBLY FOR MEMBERS EXPOSED TO VIEW. CLEARLY MARK
- 7. MANUFACTURER IS RESPONSIBLE TO SUPPLY ALL STEEL HANGERS AND BRACKETS REQUIRED TO SUPPORT THE MEMBER, UNLESS NOTED OTHERWISE. STEEL HARDWARE TO BE ASTM A36 OR BETTER AND BOLTS SHALL BE A307 HOT DIP GALVANIZE ALL STEEL CONNECTORS INCLUDING FASTENERS, WHERE EXPOSURE TO RAIN DURING OR AFTER CONSTRUCTION MAY CAUSE RUSTING/STAINING OF WOOD EXPOSED TO VIEW.
- 8. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR HANDLING, STORAGE INSTALLATION AND DETAILING

OF STRUCTURAL COMPOSITE LUMBER, INCLUDING FASTENING OF MULTIPLE LAMINATIONS.

- 9. SITE CUTTING OR BORING OF MEMBERS, OTHER THAN WHAT IS SHOWN ON APPROVED SHOP DRAWINGS, IS NOT
- PERMITTED WITHOUT WRITTEN CONSENT OF THE EOR. 10. ALL ACCESSORIES ARE TO BE PAINTED IN ACCORDANCE WITH ARCHITECT'S SPECIFICATIONS OR HOT DIPPED GALVANIZED PRIOR TO SHIPPING TO SITE. SEE "STRUCTURAL STEEL" SECTION OF THESE GENERAL NOTES FOR GALVANIZATION REQUIREMENTS.
- 11. REFER TO ARCHITECTURAL DRAWINGS FOR FINISH REQUIREMENTS. ALL EXPOSED PSL SHALL BE ARCHITECTURAL QUALITY FINISHED UNLESS NOTED OTHERWISE.

	DRAWING LIST					
No.	DWG. No.	DWG. TITLE				
1	S1.0	GENERAL NOTES				
2	S2.0	FOUNDATION PLAN AND ROOF FRAMING PLAN				
3	S3.0	TYPICAL SECTIONS AND DETAILS				

14. CONCRETE FOOTINGS POURED IN STANDING WATER SHALL BE PLACED IN CONFORMANCE WITH CSA A23.1. 2024-06-26 | ISSUED FOR CONSTRUCTION RP | RP | AB existing facilities by hand digging or hydrovac and advise the engineer of potential conflicts. Date | Drawn | Design | App'd Description

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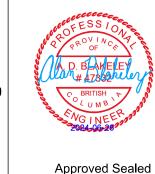
McElhanney Ltd 1211 Ryan Road Courtenay BC

Canada V9N 3R6

Tel 250 338 5495

PERMIT NUMBER 1003299

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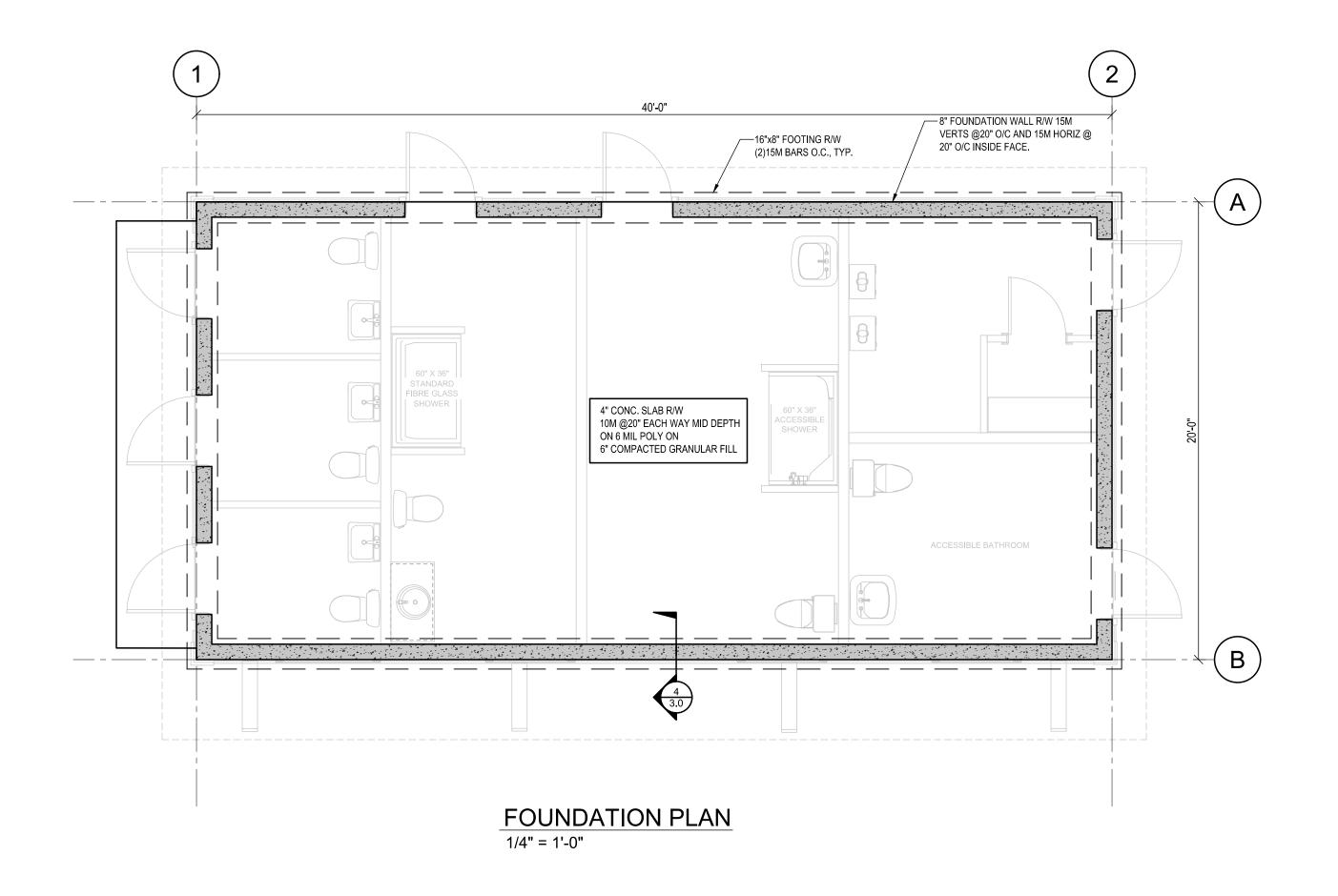


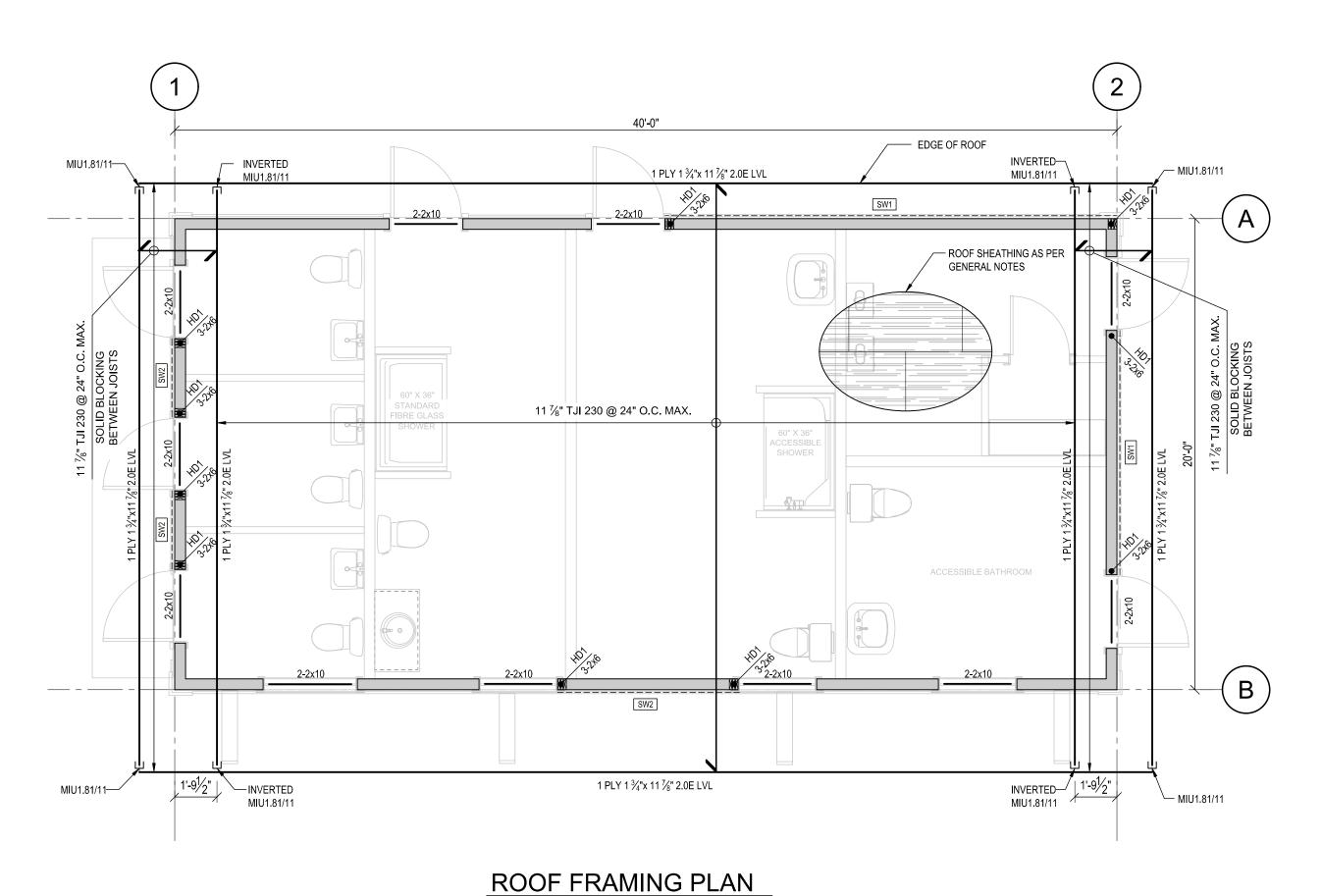
PORT McNEILL MARINA WASH HOUSE 1600 BEACH Dr, PORT McNEILL, BC

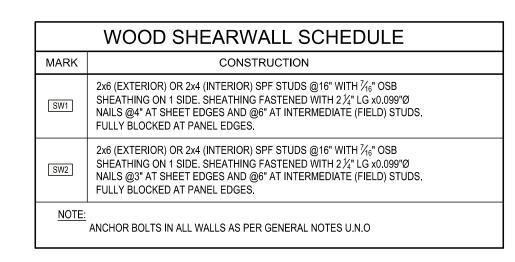
STRUCTURAL

GENERAL NOTES

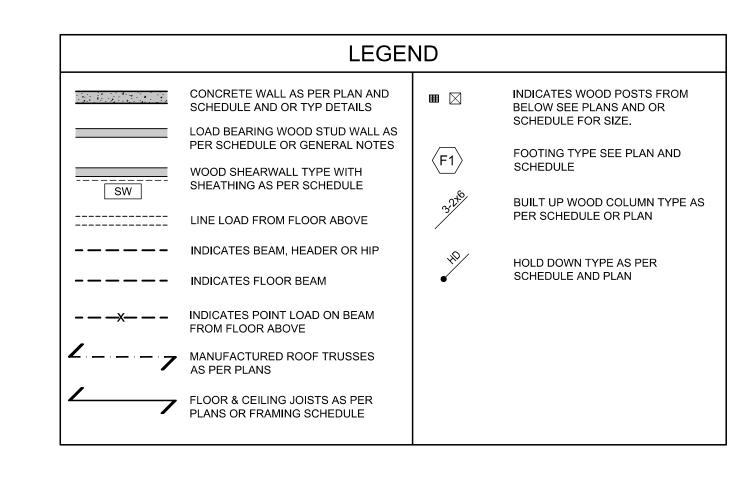
Project Number 2211-72004







	HOLD DOWN SCHEDULE
MARK	DESCRIPTION
HD1	SIMPSON STHD14 C/W (30) 3" LONG x0.144" Ø NAILS INTO POST



dwg							This drawing and design is the property of McElhanney Ltd. (McElhanney) and shall not be
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015/							from the use or reliance upon, or any changes made to, this drawing, by any third party, including contractors, suppliers, consultants and stakeholders, or their employees or agents,
(S 2(without McElhanney's prior written consent. Information on existing underground facilities may not be complete or accurate. McElhanney, its employees and directors are not responsible nor
Š							liable for the location of any underground conduits, pipes, cables or other facilities whether
E B	0	2024-06-26	ISSUED FOR CONSTRUCTION	RP	RP	AB	shown or omitted from this plan. Prior to construction contractor shall expose locations of all existing facilities by hand digging or hydrovac and advise the engineer of potential conflicts.
Ē	Rev	Date	Description	Drawn	Design	App'd	

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1/4" = 1'-0"

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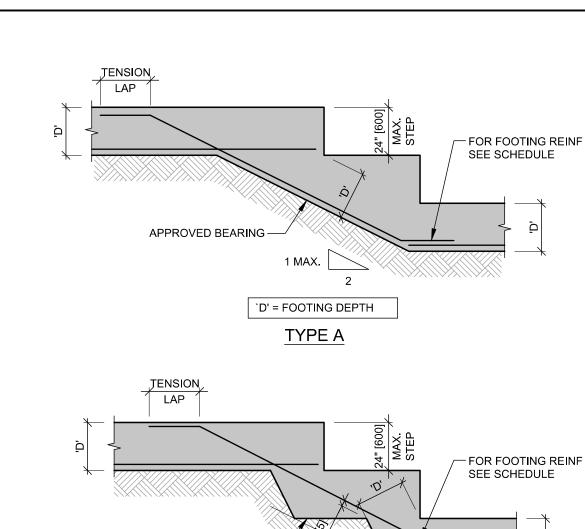
PORT McNEILL MARINA WASH HOUSE

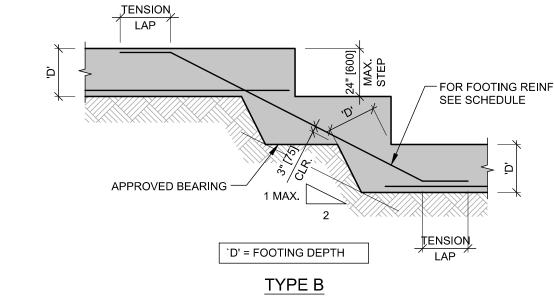
1600 BEACH Dr, PORT McNEILL, BC

STRUCTURAL FOUNDATION PLAN AND ROOF FRAMING PLAN

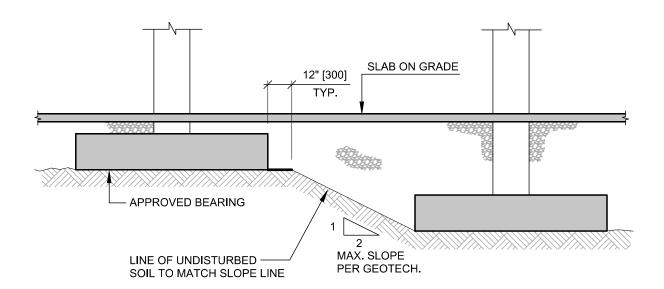
Drawing No.

Project Number 2211-72004

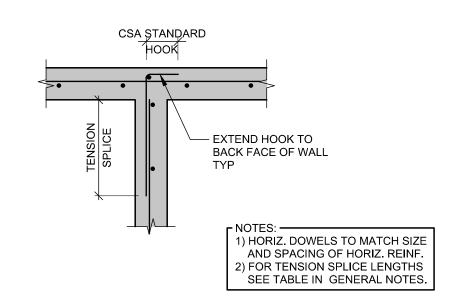


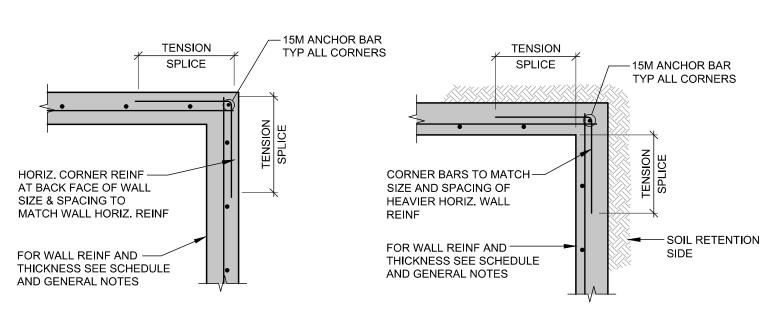


TYPICAL STEPPED STRIP FOOTING



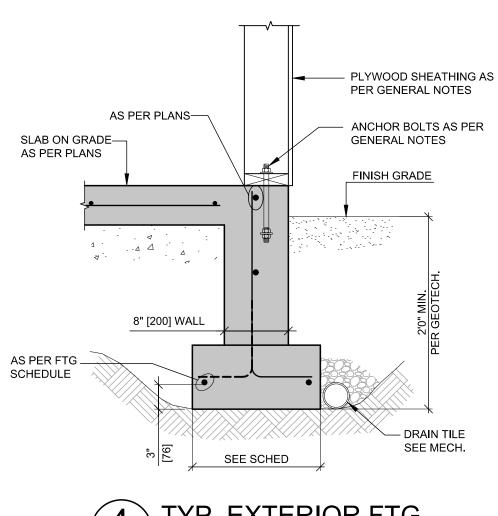
TYPICAL ADJACENT FOOTING 1/4" = 1'-0"

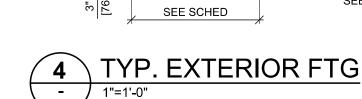


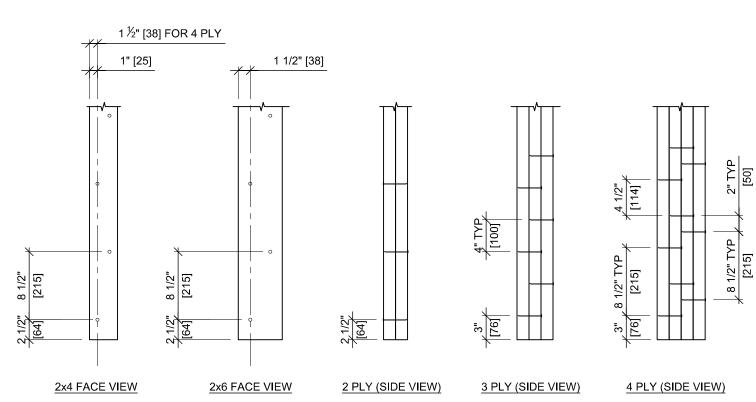


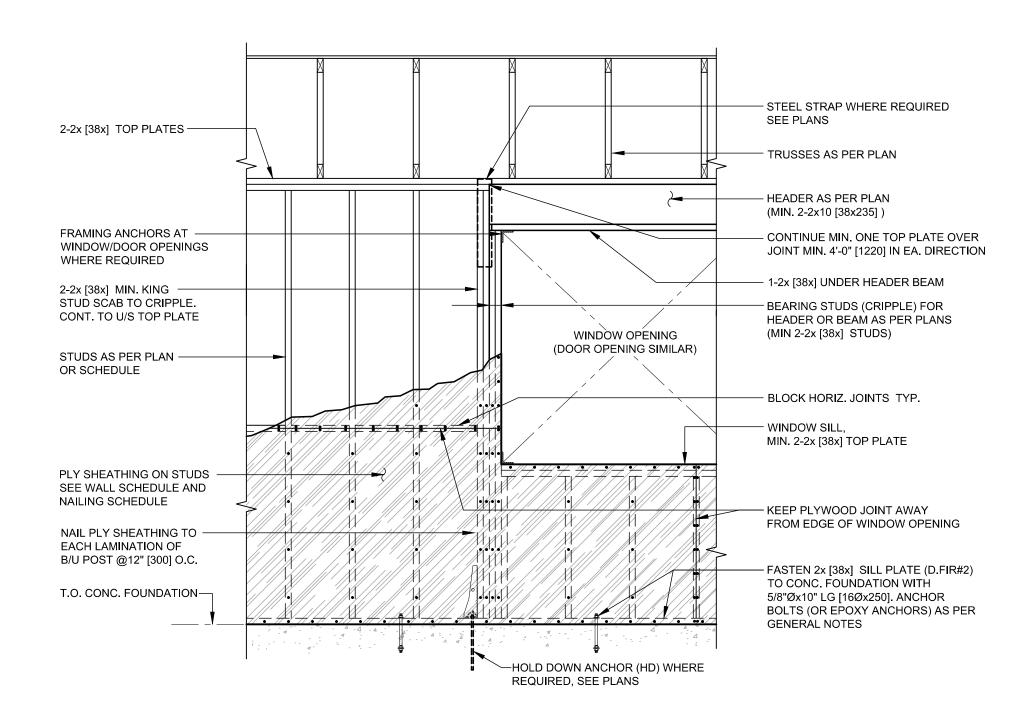
TYP. HORIZONTAL REINFORCEMENT $^{\prime}$ AT WALL CORNERS U.N.O.

SINGLE CURTAIN EXTERIOR WALLS

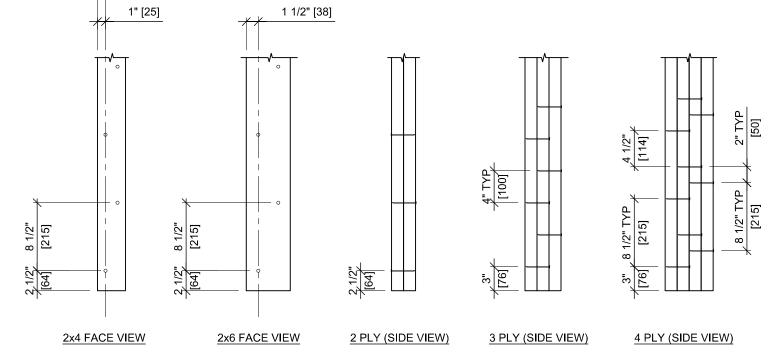








5 TYPICAL STUD WALL FRAMING DETAIL



TYP NAILING FOR BUILT-UP WOOD POST

wg						
24x36.dwg						
2015\MCE						
015\						
BLOCKS 2(
E BL	0	2024-06-26	ISSUED FOR CONSTRUCTION	RP	RP	AB
Ē	Rev	Date	Description	Drawn	Design	App'd

SINGLE CURTAIN

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STRUCTURAL TYPICAL SECTIONS AND DETAILS Drawing No. S3.0

Project Number 2211-72004