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50 Cove Street
Portland, ME
SI Job # 17-0127

DESIGN LIVE LOADS: 2015 IBC, MUEBC
 * Snow 60 psf (Pg)
 * Wind 120 mph, exp C, 3 second gust
 * Upper Level Office/Retail 80 psf
 * First Floor Retail 100 psf

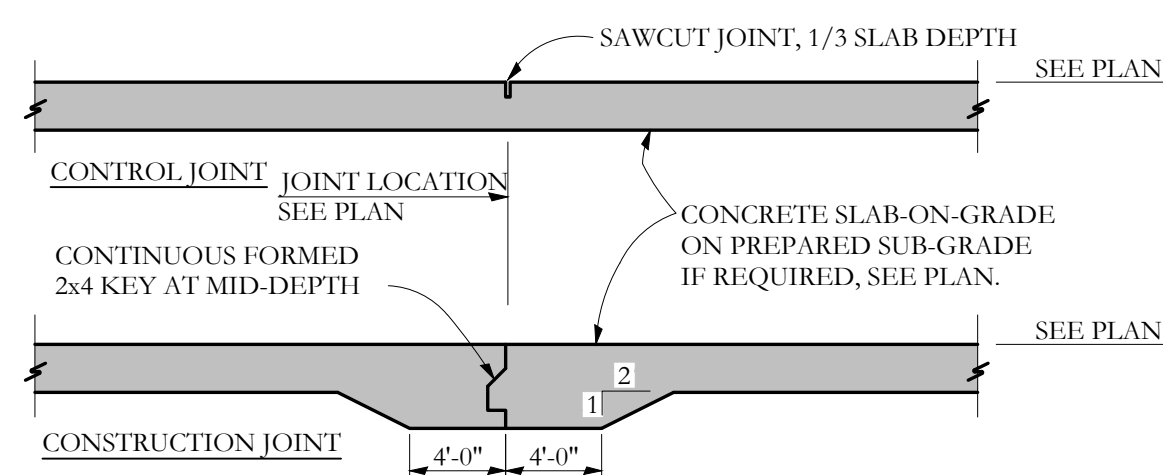
FOUNDATION:
 * Foundations are designed in accordance with Summit Geoenvironmental Services Report No 17004 dated 2/24/17 and addendum dated 2/3/18.
 * Footings shall be placed on prepared subgrade tested and approved by soils engineer. See soils report for additional information regarding site and subgrade preparation.
 * Allowable bearing pressure = 500 psf. Bear on prepared subgrade approved by the Soils Engineer. -typ

FOUNDATION WALLS:
 * Design lateral soil pressure (equivalent fluid pressure):
 Walls: 50 pcf.
 * Backfill all retaining walls with free draining granular material except the top two feet.
 * Slope perimeter grade away from building.
 * Place concrete continuously without horizontal cold joints.

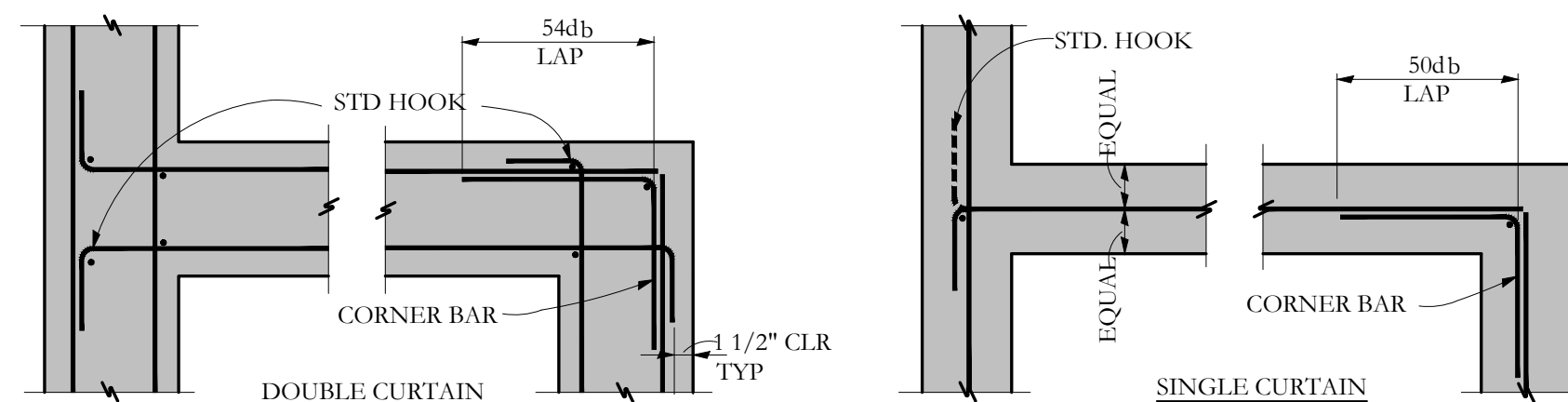
CONCRETE AND REINFORCEMENT:
 * Concrete shall conform to applicable provisions of ACI-301 and 318.
 Minimum 28 day compressive strength (f'c) as follows:
 Footings: 3,000 psi
 Foundation Walls: 4,000 psi w/4-6% air entrainment
 Interior Slabs: 3,500 psi w/fibermesh
 Exterior Slabs: 4,000 psi w/4-6% air entrainment and fiber mesh
 * Cement Type: I/II
 * Deformed reinforcement: ASTM A615 grade 60, except bars specified to be field-bent, stirrups, and ties which shall be grade 40.
 * Fibermesh: 100% virgin polypropylene, fibrillated fibers as manufactured by Fibermesh Co. per ASTM C-1116 type 1114.1.3 and ASTM C-1116 performance level one, 1.5 lb. per cubic yard.
 * Welded Wire Fabric (WWF): ASTM A185. See also plan.
 * Typical minimum foundation reinforcing: 2 #4 top and bottom, (except as noted) continuous at corners and steps.
 * Reinforcement shall be fabricated and placed per ACI Manual of Standard Practice (ACI-315). At splices, lap bars 50 diameters unless noted otherwise.
 * Minimum 2 #4 around all four sides of all openings, extend min. 2'-0" beyond openings.
 * Concrete cover over reinforcing: 1 1/2" for concrete placed against forms; 3" for concrete placed against earth. See also drawings.
 * In continuous members, splice top bars at mid span and bottom bars over supports.
 * Keep reinforcement clean and free of dirt, oil, and scale. Oil forms prior to placing reinforcement.
 * Expansion Anchors shall be ICC-ES approved, installed in accordance with manufacturers specifications.
 In concrete: Wedge Type

STRUCTURAL STEEL:
 * Angles, misc.: ASTM A36
 * W shapes: ASTM A992
 * HSS: ASTM A500 GRADE B
 * Anchor Bolts: ASTM A36
 * Expansion Anchors shall be ICC-ES approved, installed in accordance with manufacturers specifications.
 In concrete: Wedge Type
 * All exterior & below grade steel shall be hot dip galvanized -typ.
 * All interior steel shall be shop primed -typ verify w/ arch.

WOOD FRAMING:
 * Dimension Lumber is designed and shall be supplied using BASE VALUES Design Criteria.
 SPF #2 and better (Maximum Moisture Content 19%) U.O.N.
 Plates: Sill plates: Pressure Treated SPF or Southern Pine
 * "Pressure treated lumber" shall be framing material of the specified species which has been pressure treated with a decay and insect resistant solution, meeting all current standards for wood in contact with concrete or earth.
 Sill plates in contact with masonry or concrete foundations, footings or slabs may be treated Timber Strand LSL (zinc borate treatment). Sodium borate treatment may also be acceptable for sill plate applications when protected from weather.
 Acceptable treatment mediums for wood in contact with earth or in exterior applications include ACQ-C and ACQ-D (Alkaline Copper Quaternary) and copper azole (CBA-A and CBA-B).
 DO NOT USE WOODS WHICH HAVE BEEN TREATED WITH AMMONIA BASED CARRIERS.
 All connectors shall meet the recommendations of the pressure treated wood manufacturer, but shall be not less than Hot Dipped Galvanized meeting requirements of ASTM A653, such as Simpson ZMAX (G185). All screws, nails and bolts shall match hangers and other connectors, and shall meet ASTM A123 for individual connectors, and ASTM A153 for fasteners.
 For durability, it is our recommendation that connectors used in exposed conditions with treated lumber be stainless steel.
 Do not mix galvanized and stainless products.
 Do not allow aluminum to contact treated wood.
 Top and Bottom Plates: SPF No 2 and better
 SPF U.O.N: 2 x 4 and 2 x 6 to 8'-0: stud grade
 2 x 4 over 8'-0: standard and better
 2x 6 over 8'-0: No. 2 and better



TYPICAL JOINTS AT INTERIOR SLAB-ON-GRADE
NO SCALE



TYPICAL CONCRETE WALL INTERSECTIONS
NO SCALE

- * Laminated Veneer Lumber (LVL): Manufactured 1 3/4" wide Microlams (ML) by Ilevel/Trus Joist or equivalent. Fb=2,600 psi, E=1,900,000 psi, Fv=285 psi, depth noted on plans.
- * All plywood and oriented strand board (OSB) sheathing shall be engineered grades with APA grade stamp indicating appropriate maximum spacing of supports.
 Floor sheathing: nominal 3/4", APA Sturd-I-Floor "24" tongue & groove glued and nailed.
 Wall sheathing: 7/16" OSB laminated with foam, ZIP-R or approved equal
 Roof sheathing: 19/32" OSB
- * Nail wall sheathing with 16d commons at 3" o.c. at panel edges, and 12" o.c. intermediate framing U.N.O. BLOCK AND NAIL ALL EDGES BETWEEN STUDS. Sheathing shall be continuous from bottom plate to top plate. Cut in "L" and "T" shapes around openings. Lap sheathing over rim joists min. 4" at all floors to tie upper and lower stud walls together. Minimum height of sheathing panels shall be 16" to assure that plates are tied to studs. Use minimum 3-8d per stud and nail plates with edge nail spacing.
- * Sole plate at all perimeter walls and at designated shear walls shall be nailed as for braced panels with 3-16d x 3 1/2" long box nails (coated or deformed shank) per 16". 12d nails are not acceptable.
- * SHEATH ALL EXTERIOR WALLS.
- * Minimum nailing shall comply with IBC Table 2304.9.1 except where more or larger nailing shown on drawings.
- * Pre-engineered, prefabricated trusses shall be designed for the fabricator by a Professional Engineer Registered in the State of construction, and shall comply with Code Requirements.
- * Truss to truss connections specified shall be by truss supplier, unless specifically noted on the drawings. Truss supplier shall specify all floor and roof truss bracing and bridging.
 Max LL def=1/600 and 1" max. Max SL def=1/480 and 3/4" max -typ UNO
 All floor trusses over 16' long to be cambered to compensate for deflection due to 8 psf deadload.
- * All roof rafters, joists, beams shall be anchored to supports with metal framing anchors.
- * Double joists under partitions where joists are parallel to partitions.
- * Provide continuous wall studs each side of wall openings equal to one half or greater of number of studs interrupted by openings.
- * All wall studs shall be continuous from floor to floor or from floor to roof.
- * Cross bridge all dimension lumber roof and floor joists at midspan and provide solid blocking or rim joists at all joist supports and joist ends.
- * Metal connectors: Simpson Strong Tie unless otherwise noted, installed with number and type of nails to achieve maximum rated capacity. Note that heavy duty and skewed hangers may require special order.
- * All beams shall be braced against rotation at points of bearing.
- * Drypack grout all beam pockets full after beams are set.
- * Unless otherwise indicated, install two lengths of solid blocking x joist depth x 12 inches long in floor framing under column loads. Columns must have a continuous load path to foundation.
- * Lead holes for lag bolts shall be 60% to 70% of lag shank diameter in compliance with AITC criteria.

SHOP DRAWINGS:
 * Construction Documents are copyrighted and shall not be copied for use as erection plans or shop details.
 * Use of SI Inc.'s electronic files as base for shop drawings requires prior approval by SI Inc, signed release of liability by subcontractor, payment of an administration fee of \$100 per drawing sheet to SI Inc, and deletion of SI Inc's name and Logo from all sheets so used.
 * The General Contractor and his subcontractors shall submit in writing any requests to modify the plans or specifications.
 * All shop and erection drawings shall be checked and stamped by the General Contractor prior to submission for Engineer's review.
 Unchecked submittals will be returned without review.
 Furnish one (1) reproducible and two (2) prints of shop and erection drawings to the Structural Engineer for review prior to fabrication for:
 -reinforcing steel,
 -structural steel
 -engineered lumber joist
 -pre-engineered wood trusses
 Submit in a timely manner to permit ten (10) working days for review.
 Shop drawings submitted for review do not constitute "in writing" unless specific suggested changes are clearly marked.
 In any event, such changes by means of the shop drawing submittal process become the responsibility of the one initiating such change.

FIELD VERIFICATION OF EXISTING CONDITIONS:
 * Contractor shall thoroughly inspect and survey existing structure to verify conditions that affect the work shown on the drawings.
 * Contractor shall report any variations or discrepancies to the Architect before proceeding.

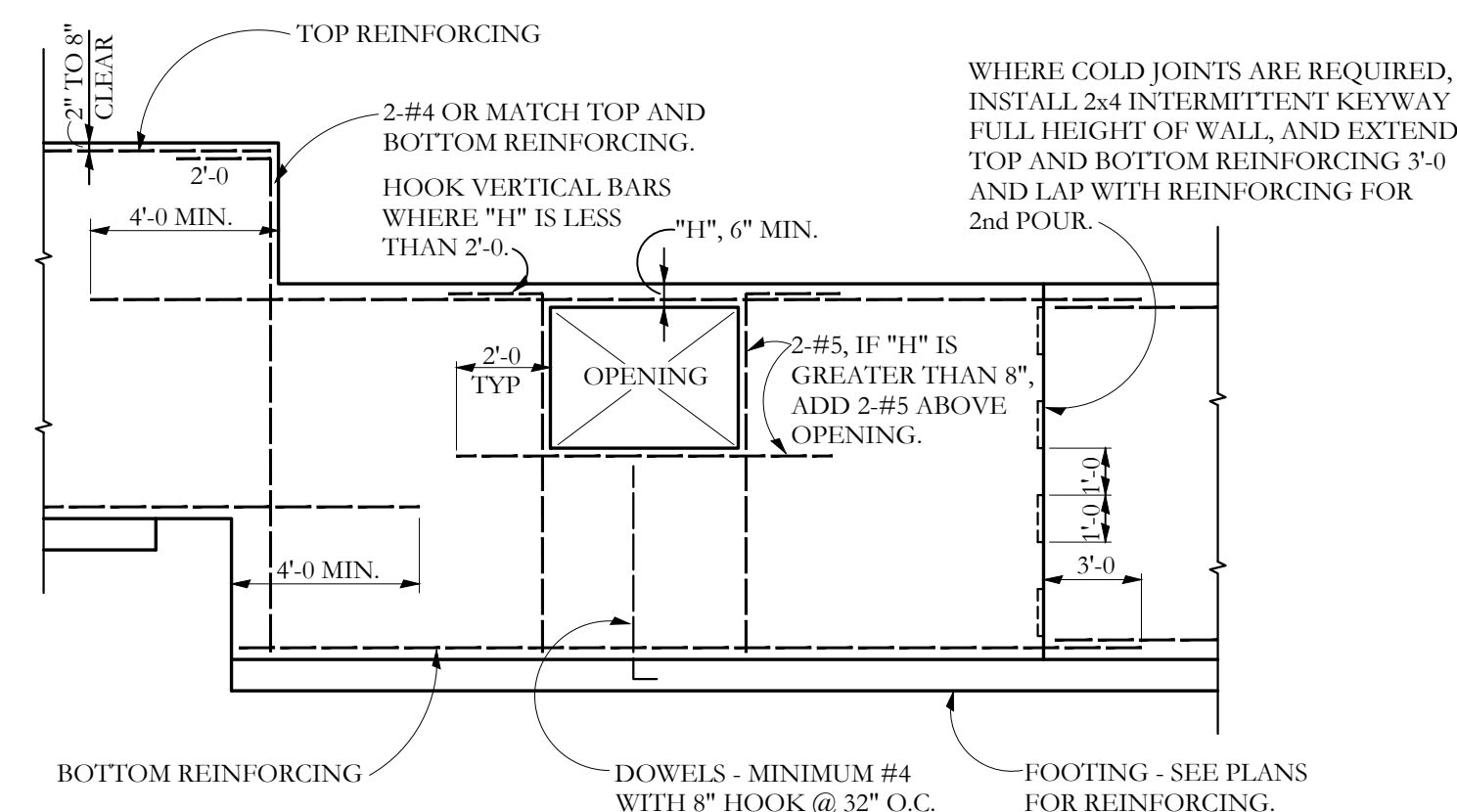
STRUCTURAL ERECTION AND BRACING REQUIREMENTS:
 * The structural drawings illustrate the completed structure with elements in their final positions, properly supported and braced.
 * The contractor, in the proper sequence, shall provide proper shoring and bracing as may be required to achieve the final completed structure.
 * These construction documents contain typical and representative details to assist the contractor.
 * Details shown apply at all similar conditions unless otherwise indicated.
 * Although due diligence has been applied to make the drawings as complete as possible, not every detail is illustrated, nor is every exceptional condition addressed.
 * All proprietary connections shall be installed in accordance with the manufacturers' recommendations.
 * All work shall be accomplished in a workmanlike manner and in accordance with the applicable code and local ordinances.
 * The general contractor is responsible for coordination of all work, including layout and dimension verification, materials coordination, shop drawing review, and the work of subcontractors.
 * Any discrepancies or omissions discovered in the course of the work shall be immediately reported to the architect for resolution.
 Continuation of work without notification of discrepancies relieves the architect and engineer from all consequences.
 * Unless otherwise specifically indicated, the drawings do not describe methods of construction.
 * The contractor, in the proper sequence, shall perform or supervise all work necessary to achieve the final completed structure, and to protect the structure, workmen, and others during construction.
 * Such work shall include, but not be limited to, bracing, shoring for construction equipment, shoring for excavation, formwork, scaffolding, safety devices and programs of all kinds, support and bracing for cranes and other erection equipment.
 * Do not backfill against basement or retaining walls until supporting slabs and floor framing are in place and securely anchored, unless adequate bracing is provided.
 * Temporary bracing shall remain in place until all floors, walls, roofs and any other supporting elements are in place.
 * The architect and engineer bear no responsibility for the above items, and observation visits to the site do not in any way include inspection of them.

* These plans have been engineered for construction at one specific building site. Builder assumes ALL responsibility for use of these plans at Any Other building site. Plans shall not be used for construction at any other building site without specific review by the engineer.
 * Observations of foundation reinforcing or framing required by the owner, lender, insurer, building department or any other party will be accomplished by the engineer at the owner's expense. At least 24 hours advance notice is requested.
 * All slabs on grade shall be separated from adjacent structural and finish elements to allow free movement of the slab, unless specifically shown and noted otherwise.

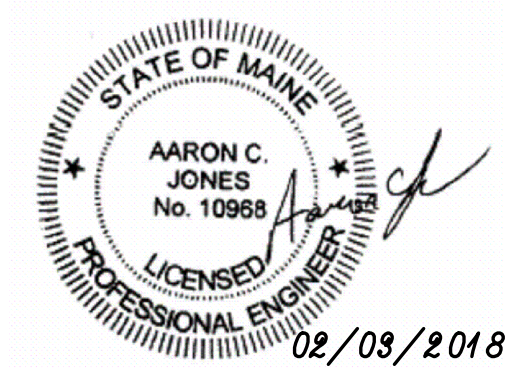
ABBREVIATIONS KEY			
AB	Anchor Rod (Bolt)	EF	Each Face
ADDD	Additional	EJ	Expansion Joint
ADJ	Adjustable	ELEV	Elevation
AFF	Above Finished Floor	ELEC	Electric (Electrical)
ALT	Alternate	ENGR	Engineer
AMT	Amount	EQ	Equal
ANCH	Anchor, Anchorage	EQUIP	Equipment
APPROX	Approximate	EQUIV	Equivalent
ARCH	Architect, -ural	ES	Each Side
ATR	All Thread Rod	EST	Estimate
AVG	Average	E-W	East to West
BC	Bottom of Concrete	EXC	Excavate
BL	Brick Ledge	EXP	Expansion
BLK	Block	EXT	Exterior
BLKG	Blocking	FND	Foundation
BM	Beam	FF	Far Face, Finished Floor
BOT	Bottom	F-F	Face to Face
BRG	Bearing	FIG	Figure
BW	Bottom of Wall	FL	Flush
CB	Counterbore	FLG	Flange
CF	Cubic Foot	FLR	Floor
CG	Center of Gravity	FO	Face of
CIP	Cast in Place	FP	Full Penetration
CJ	Construction Joint (Control Joint)	FS	Far Side
CLG	Ceiling	FTG	Footing
CLR	Clear	GA	Gage (Gauge)
CM	Construction Manager (Management)	GALV	Galvanized
CMU	Concrete Masonry Unit	GC	General Contractor
COL	Column	GEN	General
COM	Common	GL	Glue laminated (Glulam)
COMB	Combination	GND	Ground
CONC	Concrete	GR	Grade
CONN	Connection	GT	Girder Truss
CONT	Continue (Continuous)	GYP BD	Gypsum Board
COORD	Coordinate, -tion	HAS	Headed Anchor Stud
CS	Countersink	HORIZ	Horizontal
CTR	Center	HT	Height
CY	Cubic Yard	ID	Inside Diameter
DAB	Deformed Anchor Bar	IF	Inside Face
DET	Detail	INT	Interior (Intermediate)
DEV	Develop	JB	Joist Bearing
DIAG	Diagonal	JST	Joist
DIM	Dimension	JT	Joint
DL	Dead Load	K	Kip (1,000 lbs)
DN	Down	LD	Load
DP	Drilled Pier	LL	Live Load
DT	Double Tee	LLH	Long Leg Horizontal
DWG	Drawing	LLV	Long Leg Vertical
DWL	Dowel	LOC	Location
EA	Each	LSL	Laminated Strand Lumber (generic term)
ECC	Eccentric	LT	Light
E-E	End to End	LVL	Laminated Veneer Lumber (generic term)
MACH	Machine	MATL	Material
MASY	Masonry	MAX	Maximum
MATL	Material	MB	Machine bolt
MECH	Mechanical	MEZZ	Mezzanine
MFR	Manufacture, -er, -ed	MIN	Minimum
ML	Microlam (Trus-joist brand LVL)	MO	Masonry Opening
MTL	Metal	MTL	Metal
NF	Near Face	NIC	Not In Contract
NS	Near Side	NTS	Not to Scale
N-S	North to South	OCJ	OSHA Column Joist
OD	Outside Diameter	OD	Outside Diameter
OF	Outside Face	OP	Opposite
OH	Opposite Hand	OPNG	Opening
OPP	Opposite	OSB	Oriented Strand Board
OSB	Oriented Strand Board	PAF	Powder Actuated Fastn
PC	Precast	PC	Precast
PCF	Pounds Per Cubic Foot	PCF	Pounds Per Cubic Foot
PEN	Penetration	PERP	Perpendicular
PERP	Perpendicular	PL	Property Line
PL	Property Line	PLF	Pounds per Linear Foot
PLF	Pounds per Linear Foot	PNL	Panel
PNL	Panel	PP	Panel Point
PP	Panel Point	PS	Prestressed
PS	Prestressed	PSF	Pounds per Square Foot
PSF	Pounds per Square Foot	PSI	Pounds per Square Inch
PSI	Pounds per Square Inch	PSL	Parallel Strand Lumber (generic term)
PT (1)	Post Tensioned	PT (1)	Post Tensioned
PT (2)	Pressure Treated	PT (2)	Pressure Treated
PTN	Partition	PWD	Plywood
PWD	Plywood	QTY	Quantity
QTY	Quantity	R	Radius
R	Radius	RE	Reference (refer to)
RE	Reference (refer to)	RECT	Rectangle
RECT	Rectangle	REINF	Reinforce, -ed, -ing
REINF	Reinforce, -ed, -ing	REQ	Required
REQ	Required	REQMT	Requirement
REQMT	Requirement	RET	Retaining
RET	Retaining	RM	Room
RM	Room	RMO	Rough Masonry Opening
RMO	Rough Masonry Opening	RO	Rough Opening
RO	Rough Opening	SC	Slip-Critical
SC	Slip-Critical	SCH	Schedule
SCH	Schedule	SDST	Self-Drilling Self-Tapping
SDST	Self-Drilling Self-Tapping	SECT	Section
SECT	Section	SF	Square Feet
SF	Square Feet	SFT	Sheet
SFT	Sheet	SHTG	Sheathing
SHTG	Sheathing	SIM	Similar
SIM	Similar	SLH	Short Leg Horizontal
SLH	Short Leg Horizontal	SLV	Short Leg Vertical
SLV	Short Leg Vertical	SOG	Slab on Grade
SOG	Slab on Grade	SP	Spaces
SP	Spaces	SPEC	Specifications
SPEC	Specifications	SQ	Square
SQ	Square	ST	Snug Tight
ST	Snug Tight	STD	Standard
STD	Standard	STIFF	Stiffener
STIFF	Stiffener	STL	Steel
STL	Steel	STRUC	Structure, -al
STRUC	Structure, -al	SUPP	Support
SUPP	Support	SY	Square Yard
SY	Square Yard	SYM	Symmetrical
SYM	Symmetrical	T&B	Top and Bottom
T&B	Top and Bottom	T&G	Tongue and Groove
T&G	Tongue and Groove	TB	Top of Beam
TB	Top of Beam	TC	Top of Concrete
TC	Top of Concrete	TD	Top of Deck
TD	Top of Deck	THD	Thread
THD	Thread	THK	Thick, -ness
THK	Thick, -ness	TI	Top of Joist
TI	Top of Joist	TL	Total Load
TL	Total Load	TPG	Topping
TPG	Topping	TRANS	Transverse
TRANS	Transverse	TW	Top of Wall
TW	Top of Wall	TP	Typical
TP	Typical	ULT	Ultimate
ULT	Ultimate	UNO	Unless Noted Otherwise
UNO	Unless Noted Otherwise	VERT	Vertical
VERT	Vertical	VIF	Verify in Field
VIF	Verify in Field	WA	Wedge Anchor
WA	Wedge Anchor	WP	Work Point
WP	Work Point	WT	Weight
WT	Weight	WWF	Welded Wire Fabric
WWF	Welded Wire Fabric	XS	Extra Strong
XS	Extra Strong	XSECT	Cross-section
XSECT	Cross-section	XXS	Double Extra Strong
XXS	Double Extra Strong	(E)	Existing
(E)	Existing	(N)	New
(N)	New	(R)	Remove
(R)	Remove		

Structural Drawing Index

S1.0	General Notes, Etc.
S1.1	Foundation and Ramp Framing Plans
S1.2	Second Floor Framing Plan
S1.3	Roof Framing Plan
S2.1	Details



TYPICAL REINFORCING AT STEPS AND OPENINGS
NO SCALE



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REVISIONS
 1 -
 2 -
 3 -
 4 -
 5 -

GENERAL NOTES
 DRAWN BY ACJ
 SHEET TITLE
 AS NOTED

ISSUE DATE 2/3/18
 SHEET SCALE AS NOTED

S1.0