#### GENERAL

THESE DEWINDS SHOW DON'T HE COMPLETE MAY STRAINE, THE "FORWARD CONCRETA MAD MATERIAL SHALL CONCRETA CANALLY. CONTROLLING MAY CONTROLLING MAD MATERIAL SHALL CONCRETA CANALLY. CONTROLLING MAY CONTROLLING MAY

ALL BUILDING CODES AND REFERENCE MATERIALS SHALL BE THE LATEST EDITIONS ACCEPTED BY THE AUTHORITY HAVING THIS SOUTH ON

#### DESIGN LOADS AND CODES

<ul> <li>MASONRY TO CAN/CSA S304.1</li> </ul>		
SPECIFIED UNIFORM LOADS U.N.O. ON PLANS, kPb (PSF)	LIVE LOAD	SUPERIMPOS DEAD LOAD
ROOF (SNOW =0.8 Ss + Sr) PLUS DRIFT WHERE APPLICABLE	1.3(27)	0.5 (1
INFORTANCE	Is (ULS) = 1.15 Is (SLS) = 0.9	
GROUND SNOW So	1,5 (31)	
RAIN COMPONENT Sr	0.1(2)	
BOILER ROOM	12 (250)	2.0 (42)
NUSEUM (GROUND FLOOR)	7.2 (150)	2.0 (42)
2ND FLOOR OFFICE	2.4 (50)	2.7 (56)
(SDL INCLUDES 1-2kPa FOR RAISED FLO	ORS)	
OTHER 2ND LEVEL FLOORS (U.N.O.)	4.8 (100)	2.7 (56)
(SDL INCLUDES 1,2kPa FOR RAISED FLO		
OTHER MAIN LEVEL FLOORS (U.N.O.)	4.8 (100)	2.0 (42)
ROOF TOP GARDEN	4.8 (100)	4.4 (92)
(INCLUDES 3.6kPa SOIL IN SDL OF ROD		
GATHERING SPACE MEZZANINE	4.8 (100)	1.0(20)
GATHERING SPACE TERRACE	4.8 (100)	1.7 (35)

SUPERIMPOSED DEAD LOADS INCLUDE ITEMS SUCH AS FINISHES, CONCRETE TOPPING, INSULATION, ROOFING, MECHANICAL AND ELECTRICAL FIXTURES.

ADD SLIDING AND DRIFTING SNOW LOADS TO THE NOTED BASE SNOW LOAD.

LATERAL LOADS INHERE APPLICABLE TO PART 4 OF THE BUILDING CODE)

SEISMIC LOAD PARAMETERS	Re = 1.5 F	a = 1.3
	IE = 1.3	
	Sa (0.2)	-0.053
	Sa (0.5)	=0.004
	Sa (1.0)	-0.018
	Se (2-0)	=0.078
	Sa (5.0)	-0.016
	Sa (10-0)	=0.008
	PGA	-0.031
	PGV	-0.023
SOIL CLASS	SITE CLASS 1	
HOURLY WIND PRESSURES	g 1/10	=0.27 kPz
	q 1/50	=0.35 kPx

# FOUNDATIONS

PILE CAPACITIES AS NOTED BELOW ARE USED FOR THE DESIGN OF THE FOUNDATION. THE BEARING SURFACE AND PACTORED BEARING PRESSURE SMALL BE REVIEWED AND APPROVED BY THE GOTTICHNICAL BEGINGER PRICE TO FOOTING, PILE, AND CAP CONSTRUCTION. NOTIFY THE ENGINEER IMMIDIATELY IF THE SOIL BEARING OR PILE CAPACITY IS LESS THAN THAT ASSUMED.

CENTRE FOOTINGS AND PILES BENEATH WALLS AND COLUMNS U.N.O.

UNLESS NOTED OTHERWISE DO NOT BACKFILL AGAINST RETAINING AND BASEMENT WALLS OR GRADE BEANS UNITS.

- THE CONCRETE HIS CURBED FOR 14 DAYS MUDHUM AND HAS REACHED 100% OF SPECIFED STRENGTH AND,

- THE SLAD OR GARRE CON THE COVER SIZE HAS CURED FOR 7 DAYS AND,

- ALL INTERHEBURITE AND GOSLADO FLOOR SLAGEOSSTRUCTION IS COMPLETE AND THE CONCRET HAS CURBED FOR 7 DAYS AND,

AND THE CONCRETE HAS CURBED FOR 7 DAYS MINIMUM.

ASSUMED FACTORED BEARING RESISTANCE FOR PILES:

ALL PILES ARE ASSUMED TO PENETRATE AT LEAST 2 PILE DIAMETERS INTO COMPETENT LINE STONE.

ALL PILES PREPARATION AND FABRICATION IS TO BE REVIEWED BY THE GEOTECHNICAL ENGINEER.

### FIELD REVIEW

THE FOLLOWING STRUCTURAL ELEMENTS REQUIRE FIELD REVIEW BY THE ENGINEER PRIOR TO CONCEALMENT.

- REINFORCING STEEL FOR CONCRETE WOOD FRAMING STRUCTURAL STEEL

ALL WORK SHALL BE COMPLETE AND THOROUGHLY INSPECTED BY THE CONTRACTOR TO ENSURE THE WORK CONFORMS TO THE CONSTRUCTION DOCUMENTS PROFICE OF REQUESTING FIELD REVIEW. PROVIDE A REMINING OF 86 HOURS ADVANCE WOTTER AND SAFE ACCESS FOR THE EMBINEER TO PERFORM THE FIELD REVIEW. THE STRUCTURES BROAL REPAIRS LEVELY SPOSSED.

### SHOP DRAWINGS

SUBMIT 4 SETS OF SHOP DRAWINGS TO THE ARCHITECT AND ENGINEER AND ALLOW 5 WORKING DAYS FOR REVIEW BY THE ENGINEER.

ALL SHOP DRAWINGS SUBMITTED MUST BE COMPLETED, SIGNED AND SEALED BY THE SUPPLIER'S PROFESSIONAL ENGINEER. THE SUPPLIER'S PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE COMPONENTS' DETAILING, DESIGN AND FIELD REVIEW AND MUST BE REGISTERED IN ARBETTA.

UPON COMPLETION OF THE WORK, THE PROFESSIONAL ENGINEER RESPONSIBLE FOR THE SHOP DRAWING COMPONENTS SHALL SUBMIT TO THE ENGINEER OF RECORD A SIGNED AND SEALED LETTER CERTIFYING CONFORMITY OF THE WORK TO THE CONTRACT DOCUMENTS AND APPLICABLE CODES.

#### CONCRETE

CODE REFERENCES AND CONFORMANCE:

- CONCRETE DESIGN TO CSI-AZ23.3
   CONCRETE AND PERSONANCE OF WORK TO CSI-AZ23.1
   CONCRETE TOR PRINKING SURFACES SHALL COMPORT TO CSI-AZ3.1
   PRECAST CONCRETE SHALL CONFORM TO CSI-AZ3.4
   TESTING OF CONCRETE AND MATERIAL SHALL COMPORT TO CSI-AZ3.2
   TORMOREN TO CSI-AZ63.3 NO MORE REGULATIONS.

MIN 28(U.N.O.) DAY STRENGTH	AGGREGATE SIZE (MAX)	EXPOSURE CLASS
25 NPA	20NN (3/4")	
5 25 MPA	20NN (3/4")	
S 25 MPA	20NN (3/4")	F2
25 MPA	20NN (3/4")	F2
32 MPA	20NN (3/4")	C2
32 MPA	20MM (3/4")	C2
BEANS		
30 MPA	20MM (3/4")	
35NPA	20ИИ (3/4")	C1
CKS.		
5)		
SOMPA	20MM (3/4°)	CXL
	STRENGTH  5 S HPA  6 25 HPA  5 S HPA  5 S HPA  30 NPA  50 NPA  30 NPA  30 NPA  30 NPA  30 NPA  30 NPA	5 5 HPA 200HC (3/4") 5 25 HPA 200HC (3/4") 5 25 HPA 200HC (3/4") 25 HPA 200HC (3/4") 25 HPA 200HC (3/4") 32 HPA 200HC (3/4") 33 HPA 200HC (3/4") 35 HPA 200HC (3/4") 35 HPA 200HC (3/4") 35 HPA 200HC (3/4")

PILES & PILE EXTENSIONS 25MPA (56DAYS) 20MM (3/4") PILE CAPS 25MPA 20MM (3/4") MECHANICAL CHAMBER WALLS AND BASE, AND STAIR/BLEVATOR PIT WALLS AND BASE BELOW F.F.I. AS ABOVE BUT WITH KRYTON WATERPROOFING ADMIXTURE ADDED PER SUPPLIERS SPECIFICATIONS. SEE ARCHITECTS DRAWNINGS FOR ADDITIONAL WATERPROC

MADIPUL SUMP FOR CONCRETE SHALL BE BINN = 20MM, AIR CONTENT SHALL CORRESPOND TO EMPOSITE CLASS. DO NOT USE ADMIXTURES OTHER THAN SUPERACHICZER, AIR ENTENDMENT ADMIXTURE OF STRAMAGO WATER REQUESTS WITHOUT PROCE APPROVA. HOW THE DESCRIPE. DO NOT ADD WATER FOR MORRABILITY IN THE FIELD BEYOND THE AMOUNT THAT WAS SPECIFIED FOR THE DESCRIPE.

THE CONTRACTOR SHALL SUBMIT CONCRETE NIX DESIGNS TO THE MATERIAL TESTING AGENCY AND THE ENGINEER FOR REVIEW PRIOR TO COMMENCING WORK.

CONCRETE TESTING SHALL BE PERFORMED BY AN IMDEPENDENT MATERIAL TESTING AGENCY RETAINED BY THE OWNER. CONDUCT CONCRETE TESTS POR BACH MIX DESIGN AND POUR, AND FOR BACH JOD CUBIC METERS WHERE POUR VOLUME EXCEEDS JOD CUBIC METERS.

IF THE CONTRACTOR OR THE MATERIAL TESTING AGENCY SUSPECTS THE QUALITY OF THE CONCRETE DELIVERED THEN NOTIFY THE ENGINEER FOR FURTHER INSTRUCTIONS OR BUEST THE SUSPECT CONCRETE DELIVERED, REJECTION OF CONCRETE SHALL BE AT THE SUPPLIERS EXPENSE.

ALL HOT AND COLD WEATHER CONCRETE WORK SHALL CONFORM TO CSA A23.1. THE TEMPERATURE IS DEPICTED TO SE 5 DEGREES CELSUIS OR COLDER WITHIN DAYS OF PLACING CONCRETE THE CONTRACTOR SHALL SUBMIT PROVISIONS FOR COLD WEATHER CONCRETE WORK TO THE ENGINEER FOR APPROVAL.

THE CONTRACTOR IS RESPONSIBLE FOR THE ENGINEERING DESIGN OF FORM IN CONFORMITY TO CSS \$150.3 AND WIZE REQUIREMENTS AND RESHORING O SUSPENDED CONCRETE EMERITS. WIT FOUR NOMITLOCATIONS TO THE ENGINEER FOR REPUBLY PRIOR TO CONSTRUCTION.

DO NOT WET DOWEL REINFORCING, ANCHOR BOLTS AND OTHER EMBEDDED COMPONENTS. ACCURATELY INSTALL AND SCOLERLY THE ALL REINFORCING, PREDEDDED ATTS, ANCHOR BOLTS, C. USE TIBE-ALLE REPRODUCED ATTS, ANCHOR BOLTS, MASSINGY BERRA DOWELS AND OT SPREDDED COMPONENTS REQUIREST TOHER OTHER OTHER OTHER AND AND AND ANCHOR BOLTS, MASSINGY BERRA DOWELS AND OTHER DOWNERS AND OTHER OTHER OTHER OTHER OF WALL UNLO.

CAMBER THE TOP AND BOTTOM SURFACES OF SUSPENDED SLABS, SLAB BANDS AND BEAMS 6NM FOR EACH 3000MM OF SPAN.

DO NOT KENOVE FORMS FOR SUSPENDED SLABS, SLAB BANDS, BEAMS MO WALL BEAMS WITH. THE CONCRETE HAS REACHED STRENGTH OF I TYPEN, STRENGTH OF CONCRETE SHALL BE DETERMINED FORM TESTING OF FIELD CASED CYLINDERS. THE SUSPENDED STRUCTURE SHALL BE RESPONDED AFTER FORM REPOWAL. THE RESPONDED WITH STRUCTURE SHALL BE RESPONDED AFTER FORM REPOWAL. THE CONTRACTOR PRIOR TO FORM REMOVAL. THE SINGER SHALL REMAIN IN PLACE WITH THE CONTRACTOR PRIOR TO FORM REMOVAL.

#### CONCRETE REINFORCEMENT

CODE REFERENCE AND CONFORMANCE:

ALL REINFORCING SHALL BE NEW, CLEAN, CORROSION FREE AND UNDAMAGED. USE WELDIABLE GRADE WHIBER REINFORCEMENT WILL BE WELDED AND FOR CONCRETE SHARVALLS WITH DUCTILLITY "SCREATER THAN 2.0 DO NOT WELD REINFORCING OR USE MECHANICAL REINFORCING FOR USE MECHANICAL REINFORCING FOR USE MECHANICAL REBAR COUPLERS WITHOUT WRITTEN APPROVAL FROM THE ENGINEER.

ALL REINFORCING SHALL BE ACCURATELY PLACED, CHAIRED AND SECURELY TIED TO RESTRICT DISPLACEMENT AND TO MAINTAIN THE SPECIFIED CONCRETE COME

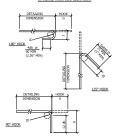
CHAIRS SHALL BE OF NON-CORRODING MATERIAL WHERE THE CONCRETE SURFACES ARE EXPOSED TO VIEW, TO THE EXTERIOR ENVIRONMENT OR TO CORROSIVE ENVIRONMENTS. ALL OTHER CHAIRS MAY BE PLASTIC COXTED. SUPPLY MID PLACE EPCXY COATED REBAR AS SHOWN ON THE STRUCTURAL DRAWNINGS IN CONFORMITY WITH AND WHERE REQUIRED BY CAN/CSS-6413. USE ONLY PLASTIC CHAIRS AND PLASTIC COATED WIRE TIES IN CONTRACT WITH EPCXY COATED REBAR, FIELD APPLY EPCXY FER MANUFACTURER'S RECOMMENDATION WHERE EPCXY COATED REST DAMAGED.

FIRE RESISTANCE RATING	0-2 HOURS	2-3 HOURS
ALL SURFACES CAST AGAINST GROUND	75MM (3")	75NM (3°)
FORMED SURFACES EXPOSED TO GROUND	50MM (2")	50NN (2")
WALLS	32MM (1.1/4")	32NM (1.1/4)
INTERIOR COLUMNS (TO VERTICAL BARS)	40MM (1.1/2°)	40MM (1.1/2)
EXTERIOR COLUMNS (TO VERTICAL BARS)	50MM (2")	50MM (21)
SLABS (U.N.O.)	2599 (1")	32MM (1.1/4)
SLAB BANDS, GRADE BEAMS AND BEAMS	40MM (1 1/2")	40MM (1 1/2
TOP BARS OF PARKING		
SLABS/SLAB BANDS/BEAMS	45MM (1.3/4")	45MM (1.3/4
BOTTOM BARS OF PARKING		
SLABS/SLAB BANDS/BEAMS	30MM (1.1/4")	30MM (1.1/4)
SLAB ON GRADE	40MM (1.1/2")	40MM (1.1/2

REINFORCING NOMENCLATURE:



#### STANDARD HOOK CONFIGURATION:



				STEB	GRADE			
BAR		400 R c	r 500 R			400 W	or 500 W	
SIZE	ID	)	G	A	1D	J	G	A
10M	70	93	140	150	60	83	130	150
15M	100	132	180	220	90	122	170	210
20M	120	159	220	260	100	139	200	260
25M	150	200	280	340	150	200	280	340
30M	250	310	400	420	200	260	350	410
354	300	371	480	510	250	321	430	490

BARS DRAWN W/ A SOLID LINE ARE TOP BARS OR AT NEAR FACE AS APPLICABLE.

BARS DRAWN W/ A DASHED LINE ARE BOTTOM BARS OR AT FAR FACE AS APPLICABLE. U.N.O.

# ALL SPLICE LENGTHS SHELL BE FULL TENSION SPLICES U.N.O. SPLICE LENGTHS WOOD FRAME ARE AS FOLLOWS:

| CONCRETE STREAM | 25 MPs | 30 MPs | 35 MPs | 40 MPs | 45 MPs | 80 MPs | 40 MPs | 4

INCREASE SPLICE LENGTH BY FACTOR OF 1.7 FOR EPOXY COATED HORIZONTAL BARS WITH JODINM (12") OR MORE CONCRETE BELOW REBAR AND BY FACTOR O 1.5 FOR EPOXY COATED HORIZONTAL BARS WITH LESS THAN 300MM (12") OF CONCRETE BELOW REBAR BEING SPLICED.

ALL SUPPENDED SLABS AND WALLS SHALL BE REINFORCED IN TWO PERPENDICULAR DIRECTIONS WITH PRINCIPAL REPRODUCTION AS SHAWN ON THE DRAWINGS AND TEMPERATURE REPRODUCTION OF THE OTHER DIRECTION PER NUMBER PRINCIPAL SO SHEDULE BELOW. WHERE PRINCIPAL REPRODUCTION OF THE PRINCIPAL REPR

FOR OTHER SUSPENDED SLAB DEPTHS THE AREA OF STEEL REINFORCING SHALL BE 0.7N OF THE SLAB CROSS SECTIONAL AREA AND SPACED NO MORE THAN 500MM NOR 5 TIMES THE SLAB THICKNESS APART.

VERT. 15M(9450 (18") CENTERED & HOR, 10M(9300 (12") CENTERED

VERT. 15M(9450 (18") CENTERED & HOR. 15M(9450 (18") CENTERED

VERT. 15M(8500 (20") EACH FACE & HOR. 15M500 (20") EACH FACE

EXCEPT FOR EXTERIOR BASEMENT WALLS AND RETAINING WALLS, PLACE HALF OF THE REBAR AREA ON EACH WALL FACE IN EACH DIRECTION.

EMBEDDED CONDUITS, DUCTS, PIPES,

SMALL CONDUTTS, PIPES AND SLEEVES WITH DIAMETER EQUAL TO OR LESS THAN 32MS SHALL BE PLACED WITH A HIDRIUM CLEAR DISTANCE OF 500MN FROM THE PACE OF COLUMNS AND WALLS. ALL OTHER CONDUTTS, PIPES, SLEEVES, DUCTS AND OPENINGS SHALL BE PLACED WITH A HIDRIUM CLEAR DISTANCE OF 900MM FROM THE FACE OF COLUMNS AND WALLS.

THE MAXIMUM OUTER DIAMETER OF CONDUIT OR PIPE IS ONE QUARTER (1/4) OF THE SLAB THICKNESS. THE MAXIMUM TOTAL DEPTH OF CONDUIT OR PIPE CROSSINGS IS ONE THIRD (1/3) OF THE SLAB THICKNESS.

OPENINGS THROUGH BEAMS, TRANSFER WALLS AND SHEARWALLS IN ANY DIRECTION ARE NOT PERMITTED UNLESS THEY ARE SPECIFICALLY DETAILED AND SHOWN ON THE STRUCTURAL DRAWMING.

PLACE ALL CONDUITS, DUCTS AND PIPES AT MID-DEPTH OR MID-WIDTH OF CONCRETE HEMBER.

SLEEVES AND OPENINGS IN CONCRETE

MINIMUM SUSPENDED SLAB REINFORCING IN TWO PERPENDICULAR DIRECTIONS:

SLAB THICKNESS

MINIMUM WALL REINFORCING:

CODE REFERENCES AND CONFORMANCE:

- ALL WOOD AND FRAMING MATERIALS CSA-886
   ALL DIMERSONAL LUNGER TO NLLGA, GRADON BILES
   YENKOOD SHATMEN TO CSA. STANDARD DISL (OR DIZL IN APPLICABLE)
   LUG SERVIS TO CSA. STANDARD SIM
   ANNIS MOS PRISES TO CSA. STANDARD BIL
   MISL STEEL INARCHARE TO CSA. STANDARD BIL
   MISL STEEL STREET, TO CSA. STANDARD BIL
   MISL STEEL INARCHARE TO CSA. STANDARD BIL
   MISL STEEL INARCHARE TO CANACCA 9402 (PT=2004PA YIELD STRENGTH)
   FROMINGT OT DAYS, UNLESS NOTTO DIFFENISE.

LUMBER GRADE SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE

STRUCTURAL ELEMENT	LUMBER GRADE
JOIST & RAFTERS	ENGINEERED I-JOIST
TIMBER JOISTS & RAFTERS	K.D. SPF No.2 OR BETTE
STUDS AND BUILT-UP POSTS	K.D. SPF No.2 OR BETTE
WALL PLATES	D.FIR No.2 OR BETTER
TIMBER POSTS AND BEAMS	D.FIR No.1
SHEATHING	D-FIR PLYWOOD (CSA 01
PSL BEAMS	2.28
PSL COLUMNS	1-85
LVL	2.0E
LSL	1.55E

STORE ALL FRAMING MATERIAL IN DRY, WELL VENTED CONDITION. RAISE FRAMING MATERIAL OFF THE GROUND WITH CRIBBING.

ISOLATE ALL TIMBER FROM CONCRETE AND MASONRY SURFACES WITH PEEL AND STICK OR OTHER APPROVED MATERIAL.

BUILT-UP (B/U) MEMBERS SHALL CONSIST OF MINIMUM 2 PLYS OF DIMENSIONA LUNGER WITH LANDIATION NAILING PER TYPECAL DETAIL. HEADERS SHALL BE MINIMUM 2-38X235 (2-2XL0) BUILT-UP BEAM.

SUPPORT POINT LOADS FROM BEAMS, HEADERS, GIRDER TRUSSES AND FOSTS WITH SOLID OR BUILT-UP HEMBERS ACROSS THE FULL AREA OF THE SUPPORTED WHEMBER. CARRY SUPPORT DOWN TO CONCRETE FOUNDATIONS. FULLY BLOCK FULLY BLOC

USE MINIMUM DOUBLE BEARING STUDS FOR BEAMS AND HEADERS WITH SPAN GREATER THAN 2400MM (8-0"). "2B+1K" INDICATES 2 BEARING STUDS + 1 KING STUD.

INSTALL DOUBLE JOISTS UNDER NON-LOAD BEARING PARTITIONS PARALLEL TO THE

USE JOIST HANGERS WITH MINIMUM 6.8 KN (1500 LBS) CAPACITY FOR ALL FLUSH FRANCING, U.N.O. ON PLANS.

PASTEN SIL, PLATES TO CONCRETE FOUNDATIONS WITH MINIMAM 169449C/SSMI LONG ((x/#xicn)\* CAST-IN-FALUE ARCHORS AT 12000M (x-4") OR CENTRE FLUS ONE ADDITIONAL ARCHOR AT WALL (DISC, DOC 6" OF CENTRES, WALL STEEDERS LONG AND CONNESS. USE HIRMAND 3 ARCHOR ROSP FRA WALL SECONDATE, SEE AND FOR ADDITIONAL AND CHIS FOR STEENAMALS.

NHERE STUD WALLS ABUT CONCRETE, FASTEN END OF WALL TO CONCRETE WITH (6MM# (5/8°#) ANCHORS AT 900MM (36°) ON CENTRE THROUGH A DOUBLE STUD.

SHEATHING FOR EXTEROR WALLS AND SHEARWALLS SHALL BE MIXIMUM 12HM (1/27) THOS (U.M.O.), DRILL ADEQUATE HOLES THROUGH EXTEROR WALLS FOR WHILE FOR EXTRA WITH MEMBER JAY: COMPONE MULLS AT 150MH (6°) DO CENTER AUDIG PARKL LEGGES AND AT 30MPH (12°) AUDIG INTERPREDIATE FRAMBIUM U.M.O. ALSO REFER TO SHEARWALL SO SHOULE. SHEATHING FOR ROOFS SHALL BE MINIMUM 16MM (5/8") THICK (U.N.O.) WITH 2-1/2" COMMON NAILS AND FOR FLOORS SHALL BE 19MM (3/4") THICK (U.N.O.)

WITH 29" CONMON NAILS. NAIL SPACING SHALL BE MINIMUM 100MM (4") ALONG PANEL EDGES, 300MM (12") ALONG INTERMEDIATE FRAMING U.M.O. ALSO REFER TO DIAPHRAGM SCHEDULE.

NAIL LENGTH	DIAMETER			
NATE EDITOR	IMPERIAL (IN)	METRIC (mm)		
2 ½" (8d)	0.128	3.25		
3* (10d)	0.144	3.66		
3 N. (16q)	0.16	4.06		
4"	0.192	4.88		
5"	0.232	5.89		
6"	0.276	7.01		

THE CONTRACTOR SHALL SCHOOL SHARMER AND DESCRIPTIONS FIRST ALL
CONSCILATORS FOR SHEED CONTRACTIONS OF OPERATIONS FOR ALL
CONSCILATORS FOR SHEED CONTRACTORS HAVE SHEED FOR THE SHEED FOR

ALL FASTENERS/HARDWARE IN CONTACT W/ TREATED WOOD ARE TO BE DOUBLE HD GALV. (G185) (INCLUDING NAILS) OR STAINLESS STEEL TYP.

# GLUED LAMINATED TIMBER-GLULAM (GL)

SHOWN ON THE STRUCTURE, DOBARDON.

FOR TURN, COSS CENTRO, MARKE OF ANY PERS, CARREST, DUCTS WE BEING STREET, S

THE CLEAR DISTANCE BETWEEN OFENDINGS SHALL BE AT LEAST TWICE THE LARGER (QUALIFICATION CODE FOR INMAINCITURES SHALL BE QUALIFIED TO CANCIS-0.177-489) (R2003 (QUALIFICATION CODE FOR INMAINCITURES OF STRUCTURAL GLUES-LAMINATE TIMES).

AL CONDUCT, FIRE AND COLORATE NUMBER PAULIA TO BEDIESCHIES ONLY.

3) PROVIDE SALES FOR ALL CALLANS. PROVIDE ETERIOR SALES FOR ALL CALLANS. PROVIDE SALES FOR ALL CALLANS. PROVIDE ETERIOR SALES FOR ALL CALLANS. PROV

5). APALY SEALANT TO ALL DRILLED, CUT, NOTCHED, DAPPED AND ROUTERED SURFACES ETC.

WHEN DIMENSIONS FOR THE INSTALLATION OF SECONDARY COMPONENTS ARE GIVEN ON CONSULTANT FRANCINGS, THE CONTRACTION ES STILL REQUIRED TO CHECK DIMENSIONS FROM THE SUPPLIES PRIOR TO PALICABLE CONSTRUCTION.

MY GROUP OF OPERINGS AND/OR SLEEVES GREATER THAN 10% OF MY SQUARE NETER OF WALL OR SURE IS NOT PERMITTED UNLESS IT IS SPECIFICALLY DETAILED NOT THE THIRD IN DEAVINGS.

6) ALL GLULAN MEMBERS SHALL CONFORM TO CSA 086.1 AND GLULAM MANUFACTURER NUST QUALIFY LINDER CSA STANDARGO 0177.

8) SUBHIT 4 SETS OF SHOP DRAWINGS SHOWING ALL APPLICABLE DETAILS AND MATERIAL SPECIFICATIONS TO THE ENGINEER FOR REVIEW RICKOR TO FABRICATION AND PORAWING SHALL BE ACCOMPANIED BY A CERTIFICATE OF CONFORMANCE TO MANUFACTURING STANDARD. (SEE "SHOP DRAWINGS" NOTES)

9)AFFIX AUTHORIZED LABEL TO ALL MEMBERS SUPPLIED (U.N.O.), ALSO IDENTIFIED AND MEMBER WITH MARK NUMBER, NO MARK IS TO BE APPLIED TO A VISUALLY EXPOSED SURFACE (U.N.O.)

10)STORE GLULAM OFF THE GROUND WITH SPACER BLOCKS PLACED BETWEEN MEMBERS, PROVIDE PROTECTION FROM WEATHER STAINING, MILDEW/FUNGUS AND CONENSATION.

11) UNLESS OTHERWISE NOTED, USE HOT DIPPED GALVANIZED OR STAINLESS STEEL CONNECTORS, STEEL HARDWARE TO BE CSA 44W OR BETTER AND BOLTS SHALL BE A307, STAINLESS STEEL TO BE GRADE 304 OR BETTER.

## STRUCTURAL COMPOSITE LUMBER

ACCEPTABLE STRUCTURAL COMPOSITE LUMBER PRODUCTS INCLUDE:

- TJI ENGINEERED I JOST (ENGINEERED BY SUPPLIER)
   LS. LAMINATED STRAND LUMBER (1.5E TIMBERSTRAND)
   LVL LAMINATED VENEER LUMBER (1.5E WS MICROLLAM, GANG-LAM 2.0E OR
- TECLAM 2.0E)

  PSL PARALLEL STRAND LUMBER (2.0E WS PARALLAM)

HANDLE AND STORE MATERIAL IN DRY VENTILATED CONDITION PER MANUFACTURER'S RECOMMENDATIONS.

REFER TO THE MANUFACTURER'S RECOMMENDATIONS FOR MULTI-LAMINATE CONSTRUCTION AND RESTRICTIONS ON HOLE CUTTING AND DRILLING DO NOT USE STRUCTURAL COMPOSITE LUMBER IN EXPOSED EXTERIOR APPLICATIONS UNLESS TREATED AND SEALED TO THE APPROVAL OF THE

ENGINEERED FLOOR JOISTS AND BEAMS SHALL BE DESIGNED BY THE SUPPLIERS PROFESSIONAL ENGINEER FOR THE LOADING SHOWN ON THE DRAWNICS WITH CONSIDERATION FOR VIBBATION CONTROL. SUBMIT SIGNED AND SEALED SHOP DRAWNINGS FOR REVIEW. SEE GENERAL NOTES UNDER SHOP DRAWNINGS FOR ADDITIONAL REQUIREMENTS.

LIVE AND TOTAL DEFLECTION SHALL NOT BE MORE THAN L/600 AND L/300 RESPECTIVELY FOR FLOOR SYSTEMS. LIVE AND TOTAL DEFLECTION SHALL NOT BE MORE THAN L/480 AND L/300 FOR ROOF SYSTEMS.

## STRUCTURAL AND MISCELLANEOUS STEEL

FABRICATION, ERECTION, STRUCTURAL DESIGN AND DETAILING OF ALL STRUCTURAL STEEL AND CONNECTIONS SHALL COMPLY WITH CANSI-SIG.

SUBMIT SHOP DRAWINGS (4 SETS LINLO) FOR STELL FARRICATIONS TO THE EMISIBRER AND ARCHITECT FOR REVIEW FIRDS TO FARRICATION, ALL SHULP BOMININGS SHALL SHOW ALL DETAILS, MATERIAL SECURIORIOS AND SHALL BE SEALED FOR CONNECTION DESCRIPTION FOR THE FARRICATIONS PROPESSIONAL EMISIBED REGISTERED IN ALBERTS.

THE PROFESSIONAL ENGINEER SEALING THE SHOP DRAWINGS SHALL BE RESPONDENCE FOR INSPECTING THE INSTALLATION OF THEIR DESIGN CONFORMENTS FOR CONFORMENT SHOULD SELECT AND THE SECON PROVIDED THE SHALL UNDIN CONFLICTION OF THEIR WORK, PROVIDE CERTIFICATION OF SUBSTANTIAL CONFORMENT OF THE CONSULTANT.

WELDING SHALL CONFORM TO CSA WS9 AND SHALL BE PERFORMED BY CERTIFIED WELDERS, FARRICATION SHOPS SHALL BE APPROVED BY THE CANADAM WELDING BURBLI TO CSA W47.1. CERTIFICATES SHALL BE SUPPLIED TO THE ENGINEER UPON REQUEST.

THE GENERAL REQUIREMENTS FOR STRUCTURAL STEEL SHALL CONFORM TO CANS-GAO 20 AND TO CANS-GAO 20 AND TO CANS-GAO 20 FOR QUALITY.

GRADES OF MATERIAL (U.N.O.): GANCES OF MITTERAL (LICALLY,
FINAL THAN STORM (PRS)
STRUCTURAL PRF

UNLESS NOTED OTHERWISE APPLY ONE COAT OF SHOP PRIMER TO ALL STEEL WORK, PROVIDE WELDABLE PRIMER WHERE APPLICABLE.

ALL MEMBERS DESIGNATED AS DIAPHRACM CHORD NEMBERS AND ALL PERINETER EDGE ANGLES SHALL BE CONNECTED BY FULL STRENGTH GROOVE WELDS OR BY FULL STRENGTH SPLICE PLATES ON EACH LEG TO FORM CONTINUOUS COMPRESSION AND TENSION HORBERS.

BOLTS, WELDS, AND BURNED OR SCRATCHED SURFACES SHALL BE TOUCHED UP WITH SHOP PRINER AT COMPLETION OF ERECTION.

THE FABRICATOR AND WELDERS SHALL SUBMIT CSA CERTIFICATES OF QUALIFICATIONS TO THE STRUCTURAL ENGINEER PRIOR TO FABRICATION.

#### SECONDARY BUILDING COMPONENTS AND THEIR ATTACHMENT

THE DESIGN OF SECONDARY COMPONENTS IS NOT THE RESPONSIBILITY OF STRUCTURAL SOLUTIONS BNUMBERING INC. SUCH COMPONENTS OF THE PROJECT STRUCTURAL SOLUTIONS BNUMBERING INC. SUCH COMPONENTS OF THE PROJECT SHALL BE DESIGNED, DETAILED, SPECIALLY PROMISERS THE SPECIALLY PROMISERS. THE SPECIALLY PROMISERS THE SPECIAL SHOULDER AND SHALL PROVIDE SEALED SHOP DRAWMINGS, REVIEW THE COMPONENTS IN THE FIELD AND PROVIDE SCHEDULES SO AND SECTO THE AUTHORISHMENT SHALL BE AND SECTION FOR THE PROPERTY OF THE STRUCTURE SHALL BE AND SECTION FOR AUTHORISHMENT SHALL BE AND SECTION FOR SHALL BE AND SECTION FOR AUTHORISHMENT SHALL DISSIDITION.

THE CONTRACTOR SHALL RESIDE THE DIMENSIONS OF SCHOOLING STROUGH SHAPE OF THE CONTRACTOR SHALL RESIDE THE DIMENSIONS OF SCHOOLING CONTRACTOR ARE COORDINATED WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, DIMELONE, STRUCTURAL, AND ALL OTHER CORSTRUCTURATION SHAPE OF THE CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE SECONDAY CORPORATES ROPORDEY IT THIO THE STRUCTURE. THE CONTRACTOR SHALL COMPIREN AND CHECK ALL REQUIRED DIMENSIONS FROM MANUFACTURES.

EXAMPLES OF NON-STRUCTURAL COMPONENTS INCLUDE, BUT ARE NOT LIMITED TO:

- HANDRAILS, GUARDRAILS, RAILINGS, FLAG POSTS, REMOVABLE CANOPIES, ALLMINUM AND FARRIC CANOPIES, CELLINGS, VEHICLE PROTECTION SYSTEMS, ORNAMENTAL BUILDING COMPONENTS.
  ARCHITECTURAL PRECAST CONCRETE, GLASS BLOCK, BRICK, BLOCK AND STONE
- ARCHETCHIAN PRECIST CONCRETE, GASS BLOCK, BRICK, BLOCK AND STONE WORKER.
  CURTAIN WALL SYSTEMS, CLADOING, INTERIOR AND EXTERIOR STEEL STUD WALLS, SYSTEMS, AND BRICKING AND BRICKING STEEL STUD WALLS, SYSTEMS AND BRICKING OF RECHANICAL AND ELECTRICAL SYSTEMS AND OTHER EQUIPMENT FOR SITH GARN'T ABO LITERAL LIAGS.
  OF THE REQUIPMENT FOR SITH GARN'T ABO LITERAL LIAGS.
  ELEVATORS, ESCALATIONS AND CONVEYING SYSTEMS INCLIDING PROPRIETARY SUPPRIF FAMOL.

IN ADDITION TO CONSTRUCTION TOLERANCE, SECONDARY COMPONENTS SHALL BE DETAILED FOR THE FOLLOWING BUILDING MOVEMENTS AND DEFLECTIONS:

 VERTICAL DEFLECTIONS OF BEAMS, SLABS AND DECKING: #25MM (1") DIFFERENTIAL DEFLECTION AT EDGE BEAMS AND EDGE OF SLABS: #16MM (5/8") 2) HORIZONTAL DRIFT BETWEEN FLOORS DUE TO WIND AND EARTHQUAKE:

— DRIFT WITHOUT DAMAGE TO SECONDARY COMPONENTS: #13MM (1/2\*)
— DRIFT WITHOUT COLLARSE TO SECONDARY COMPONENTS: #5MMM (2\*)

ABBREVIATION

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# STRUCTURAL SOLUTIONS





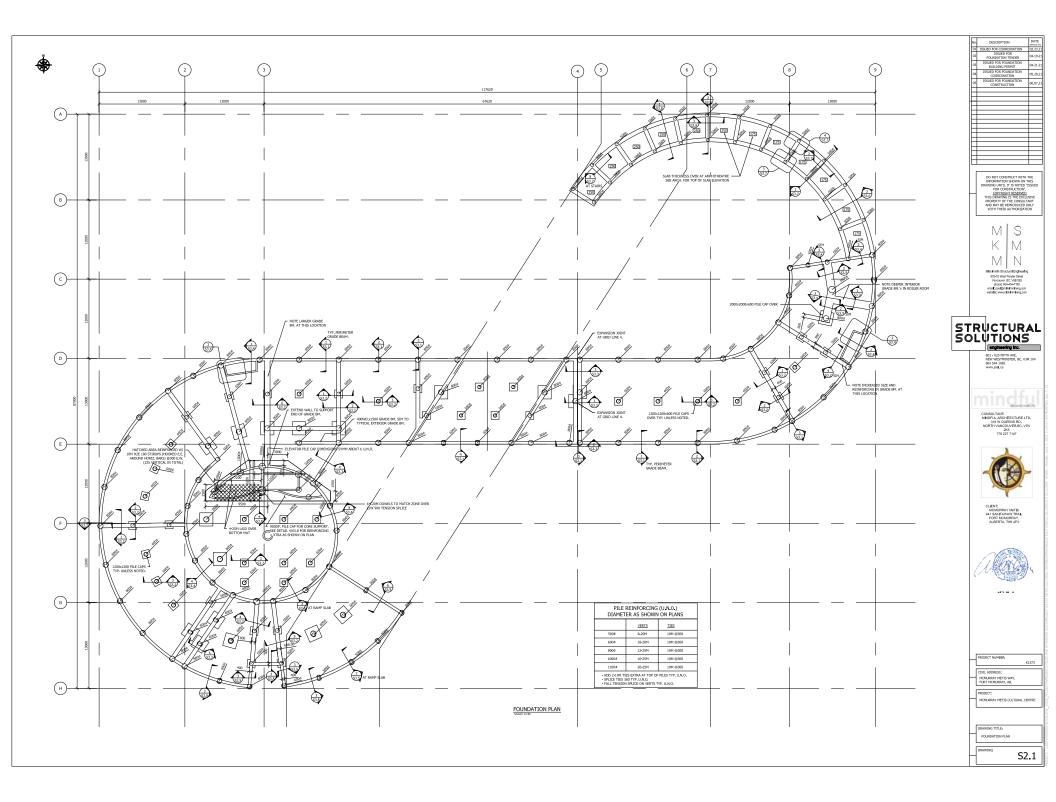


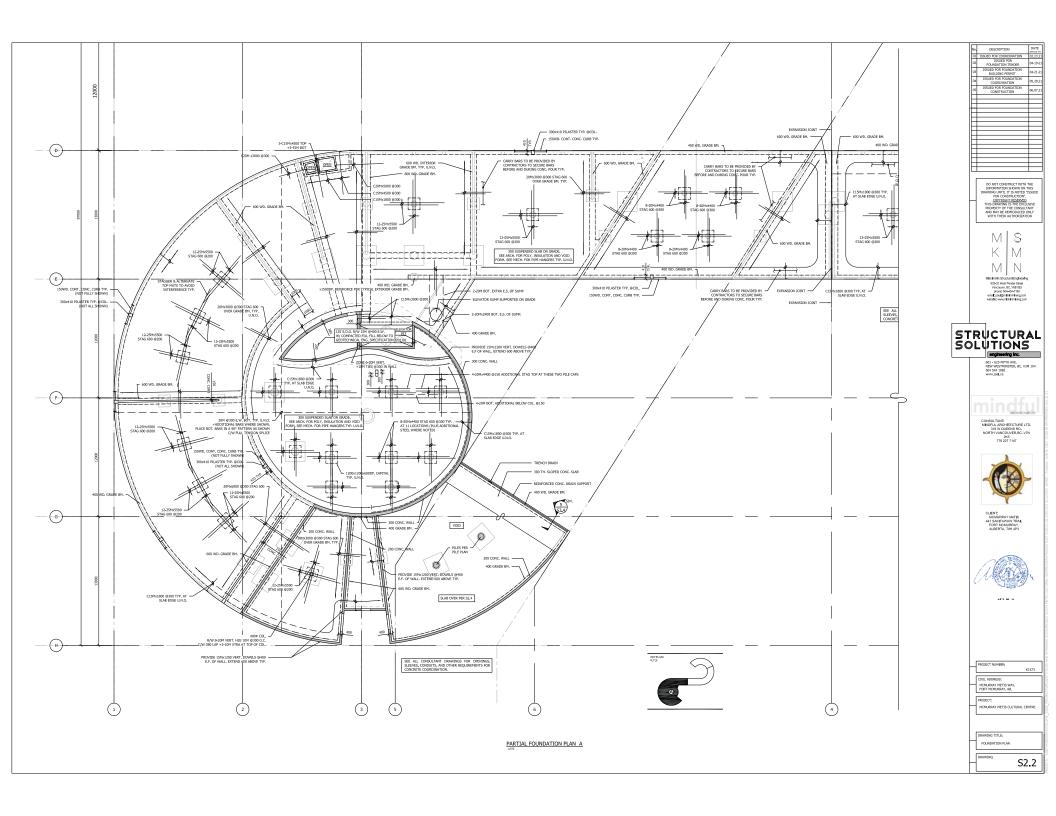
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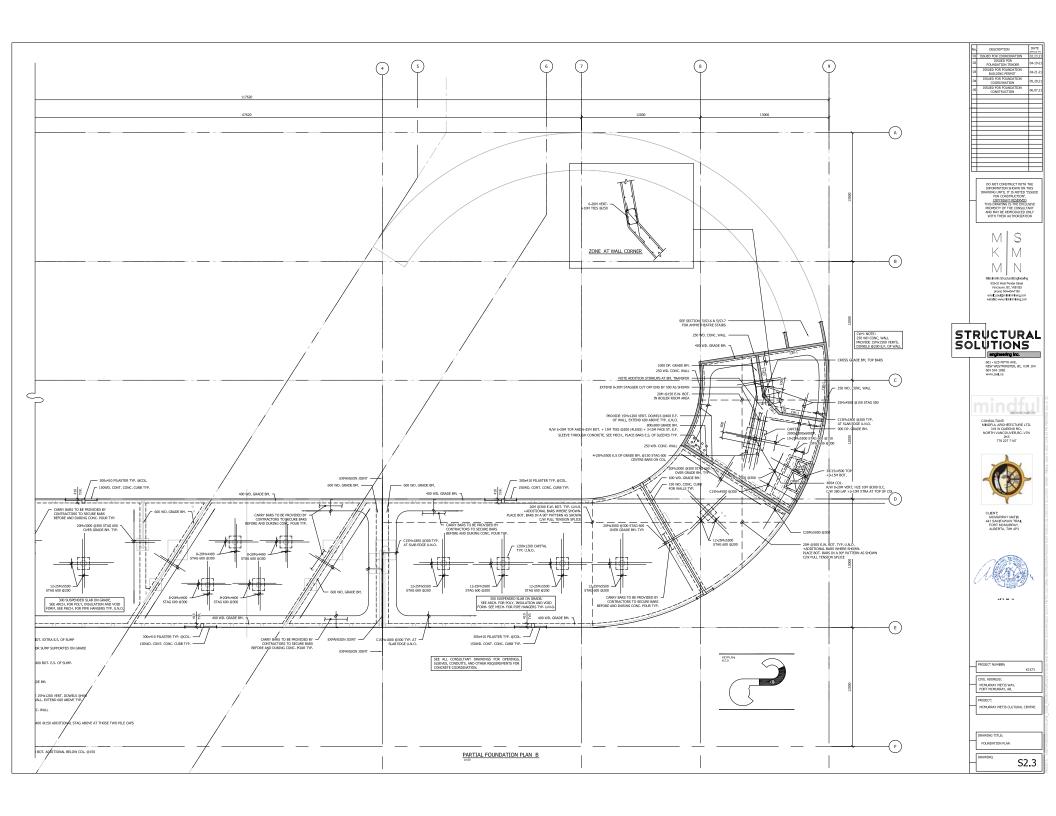
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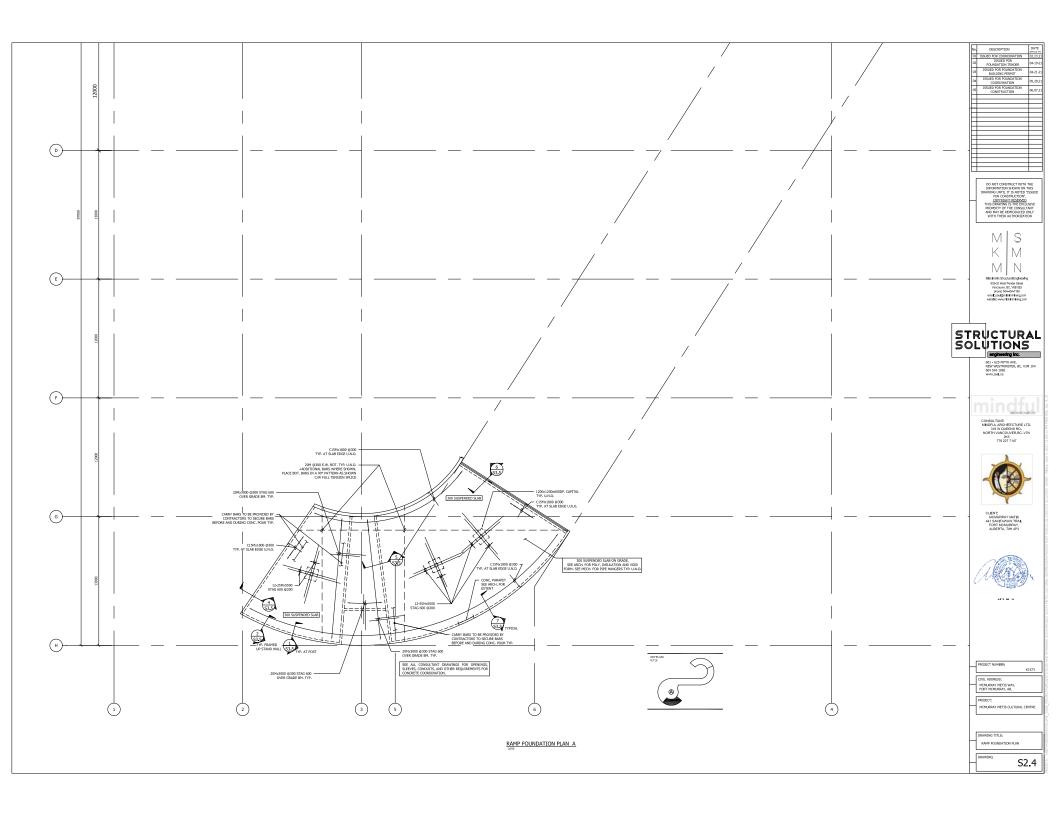
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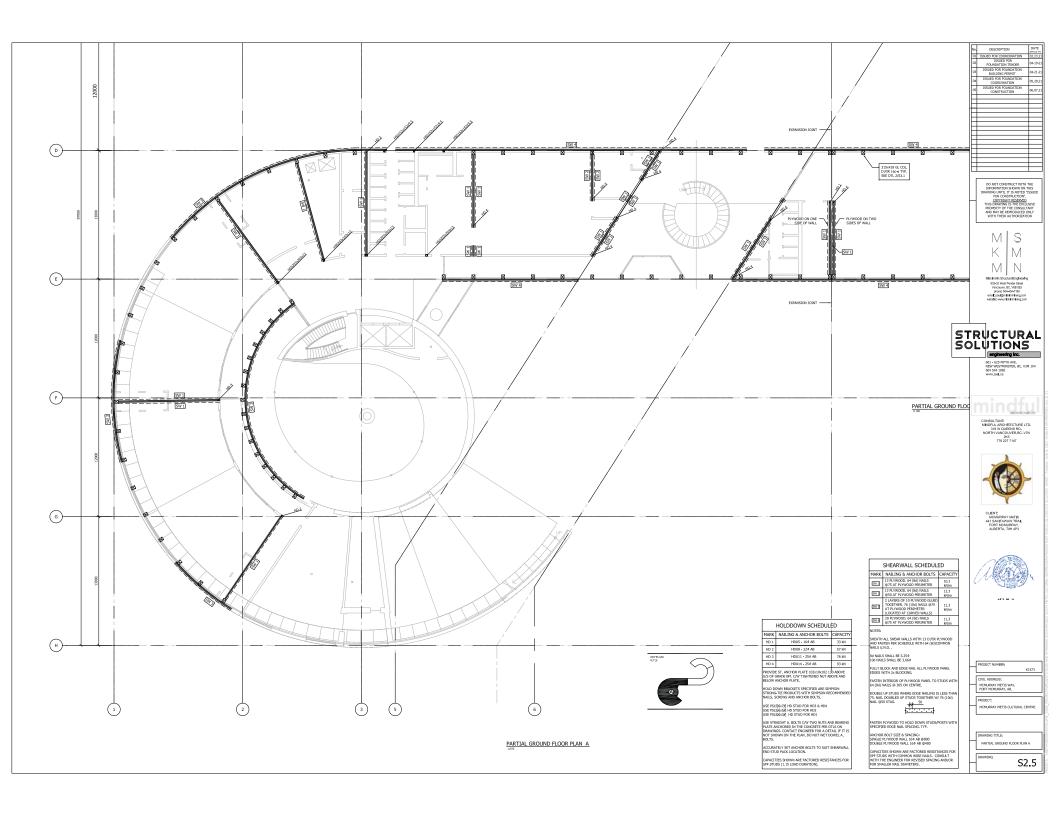
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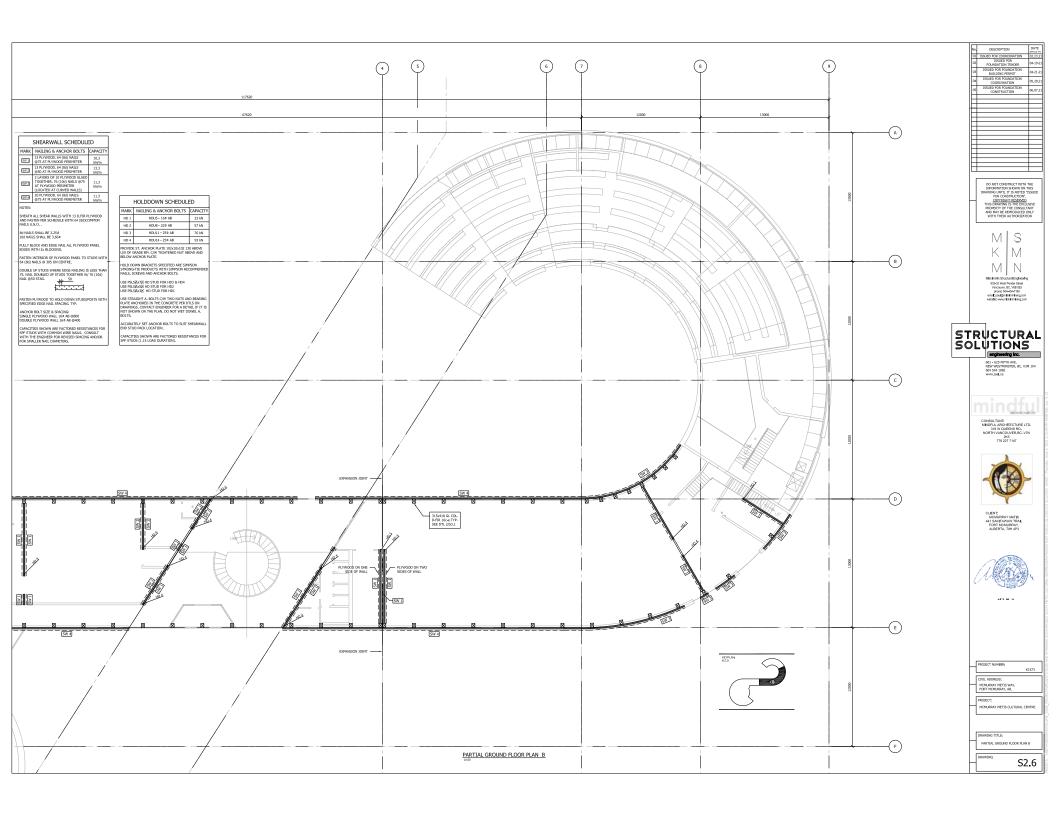


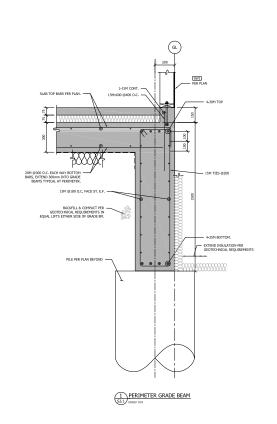


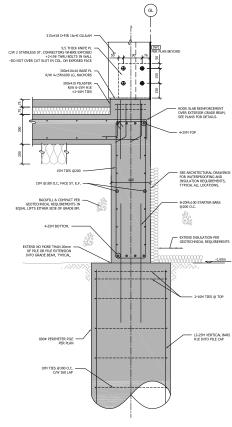




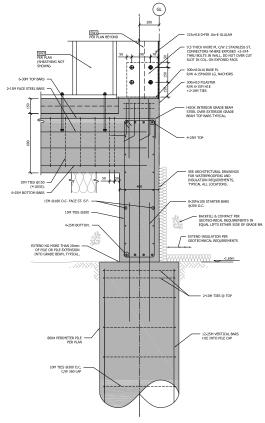




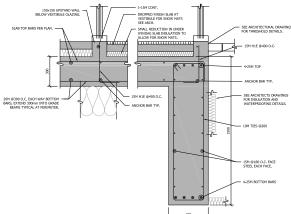




PERIMETER GRADE BEAM @ COLUMN/PILE \$2.1 GOLUMN/PILE







PERIMETER GRADE BEAM AT VESTIBULE/ENTRANCE SOLL: 1:10

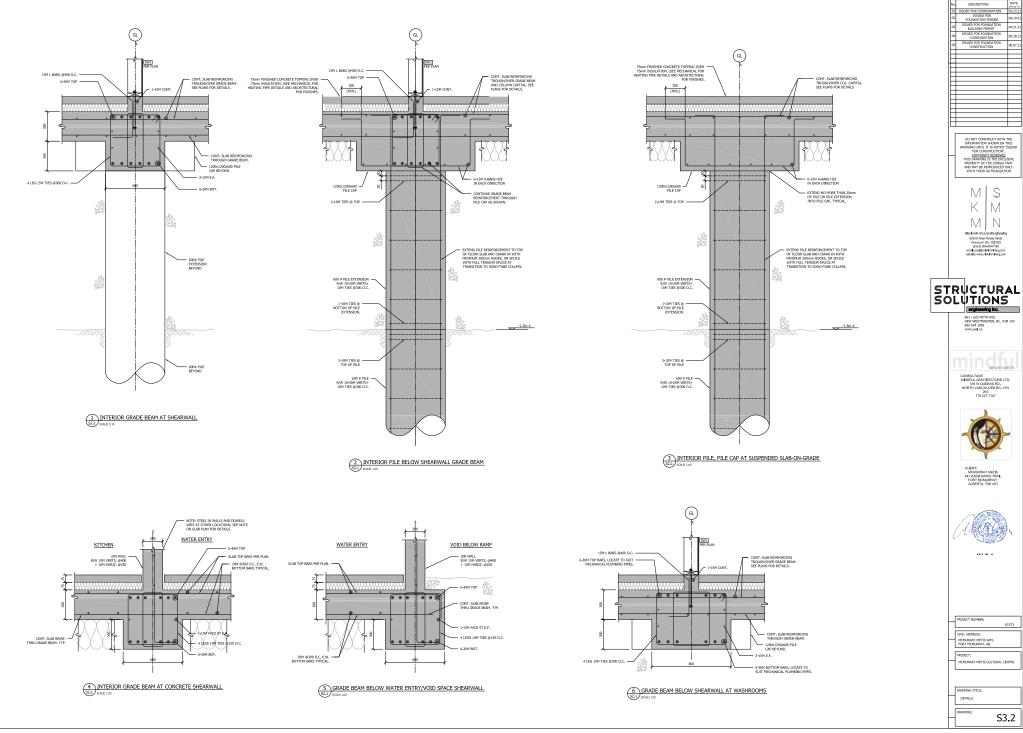
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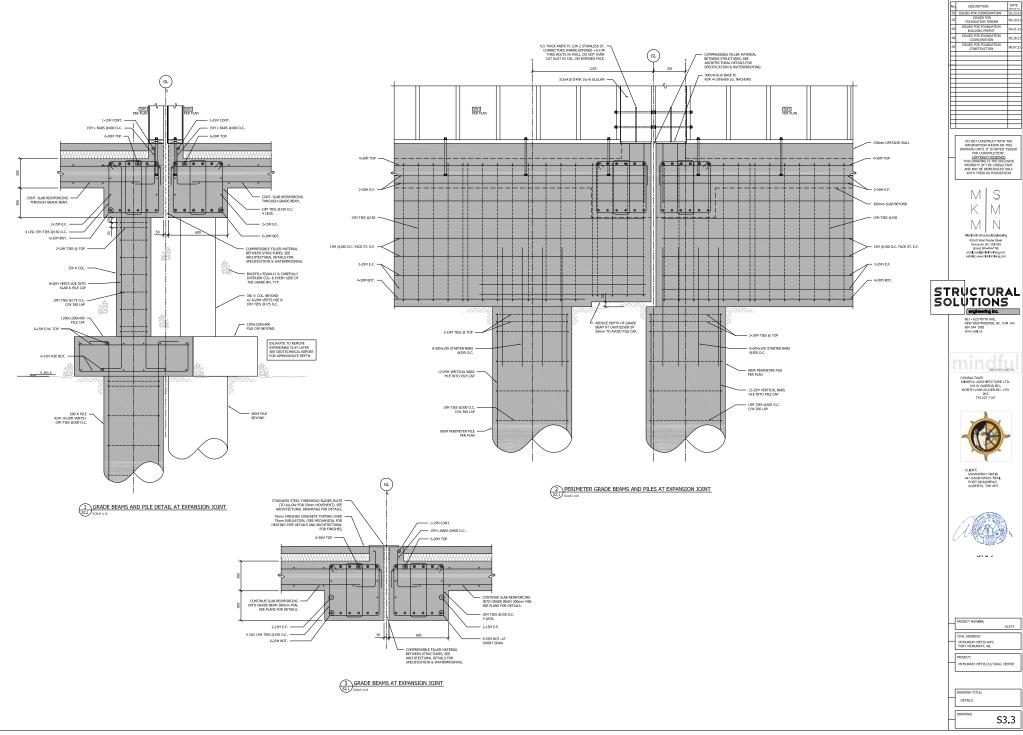
STRUCTURAL SOLUTIONS

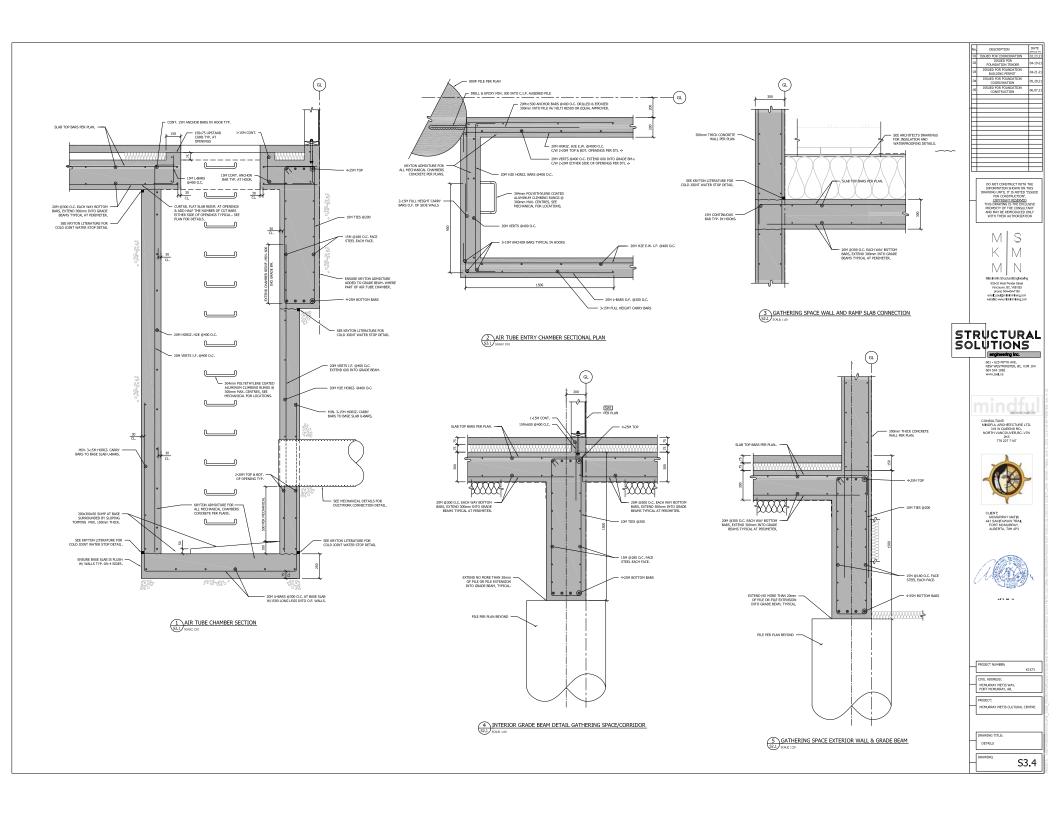


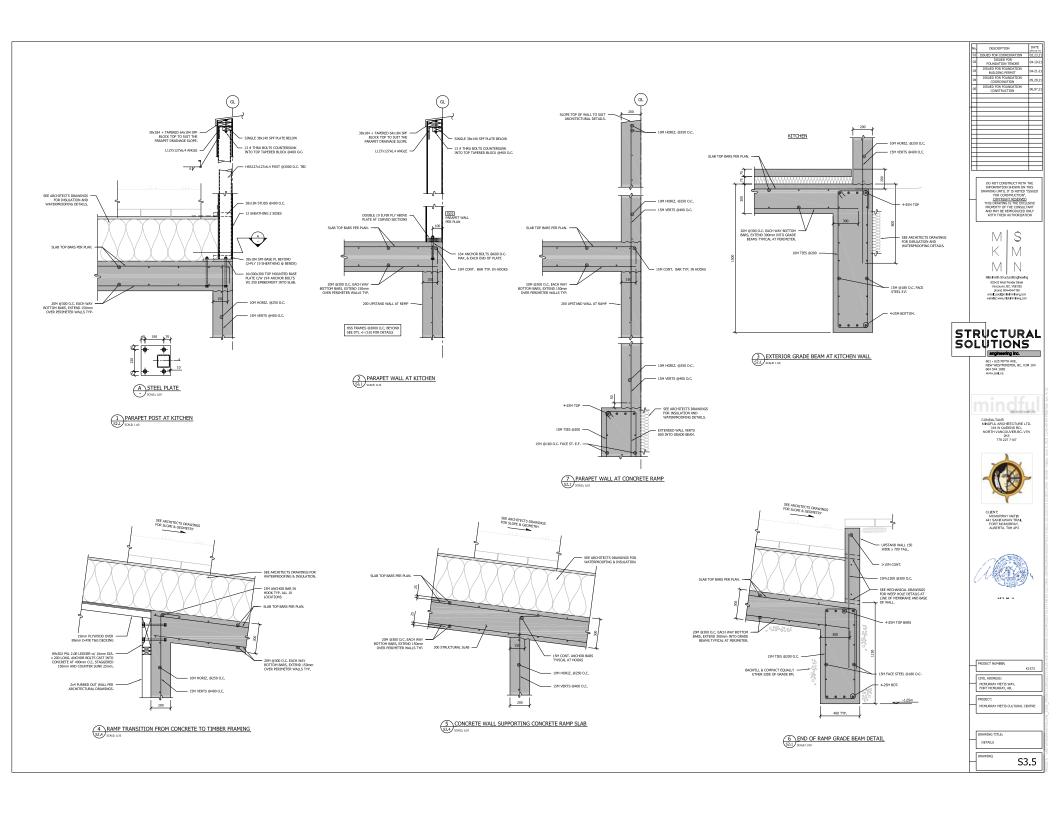
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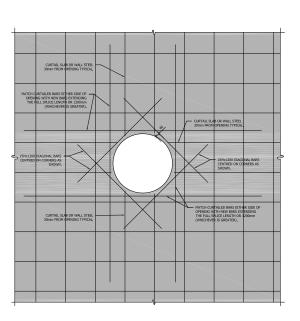
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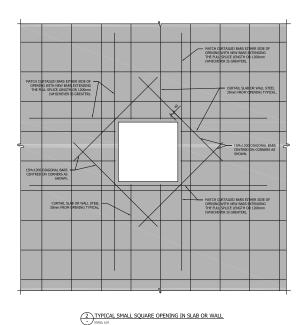


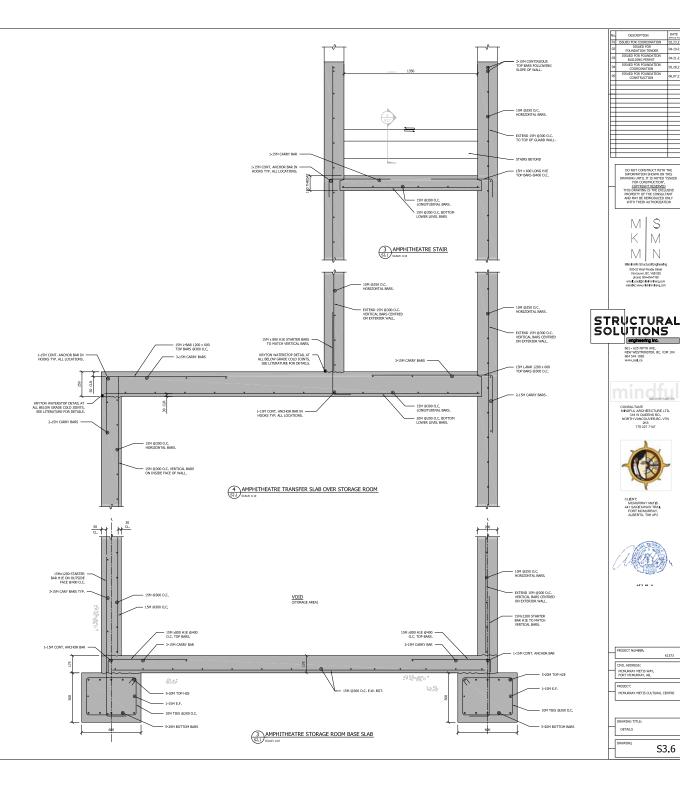




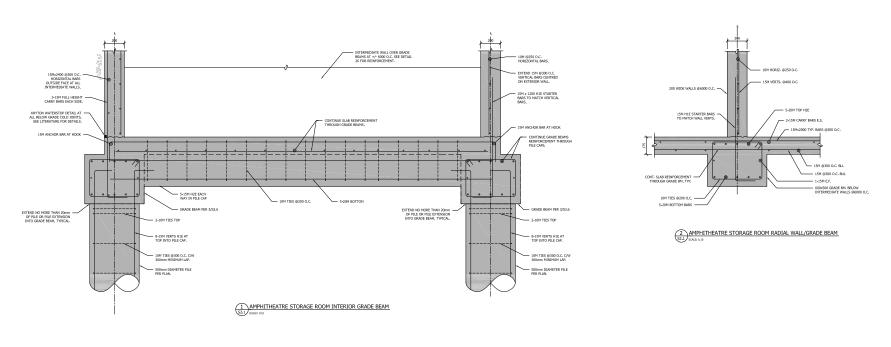


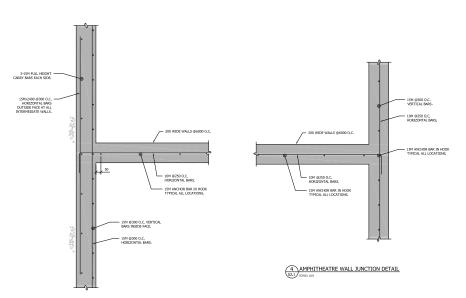
TYPICAL SMALL CIRCULAR OPENING IN SLAB OR WALL
- SOUR ICHO



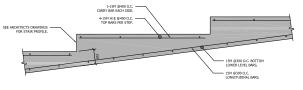


S3.6





3 AMPHITHEATRE WALL JUNCTION DETAIL SOLE: 1:10



5 AMPHITHEATRE STAIR SECTION
SQL12 SCALE: 1:10

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STRUCTURAL SOLUTIONS

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PROJECT NUMBER:

CIVIL ADDRESS: MCMURRAY METI FORT NCHURRAY

> PROJECT: MCNURRAY METIS CULTURAL CEN

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