

DESIGN CRITERIA

- STRUCTURE HAS BEEN DESIGNED TO COMPLY WITH 2021 MICHIGAN REHABILITATION BUILDING CODE FOR EXISTING BUILDING AND SUBSEQUENT REFERENCE STANDARDS.
- RISK CATEGORY: II
- SNOW:

GROUND SNOW	25 PSF
SNOW EXPOSURE FACTOR	0.9
THERMAL FACTOR	1.0
SLOPE FACTOR(S)	1.0
IMPORTANCE FACTOR	1.0
FLAT-ROOF SNOW	20 PSF
RAIN-ON-SNOW SURCHARGE	5 PSF
DESIGN SNOW	20 PSF

SEISMIC:	
SEISMIC DESIGN CATEGORY	B
IMPORTANCE FACTOR	1.0
SITE CLASS	D
SS	0.09 g
S1	0.044 g
SDS	0.144 g
SD1	0.105 g
SEISMIC FORCE RESISTING SYSTEM	Ordinary Reinforced Masonry Shear wall
RESPONSE MODIFICATION COEFFICIENT, R	2.0
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE
SEISMIC RESPONSE COEFFICIENT, CS	0.091

WIND:	
BASIC WIND SPEED	VULT = 108 MPH VASD = 74 MPH
EXPOSURE CLASS	B
INTERNAL PRESSURE COEFFICIENT, GCp1	+0.18
MAIN WIND FORCE PRESSURE (STRENGTH LEVEL)	21 PSF

COMPONENTS & CLADDING:

ROOF COMPONENTS	ZONE 1	ZONE 2	ZONE 3
SUPPORT BEAMS (A>100 SF)	+10/-24 PSF	+10/-28 PSF	+10/-28 PSF
ROOF SHEATHING (A=50 SF)	+11/-26 PSF	+11/-35 PSF	+12/-42 PSF
DECK FASTENERS (A=10 SF)	+11/-26 PSF	+11/-44 PSF	+11/-66 PSF
WALL COMPONENTS	ZONE 4	ZONE 5	
A=200 SF	+22/-24 PSF	+22/-25 PSF	
A=50 SF	+22/-24 PSF	+22/-27 PSF	
A=20 SF	+24/-26 PSF	+24/-32 PSF	

C & C NOTES:

- THE PRESSURES LISTED ARE IN ACCORDANCE IBC AND ASCE 7, AND THE DESIGN FORCES USED BY THE SUBCONTRACTOR FOR A SPECIFIC APPLICATION ARE THE RESPONSIBILITY OF THE SUBCONTRACTOR.
- WIND PRESSURES ARE ULTIMATE DESIGN LEVEL.
- SEE ASCE 7 FOR ZONE DEFINITIONS AND EXTENT OF ZONES.
- SUBMIT DESIGN CALCULATIONS SIGNED AND SEALED BY A LICENSED ENGINEER IN THE PROJECT'S JURISDICTION FOR ANY DESIRED MODIFICATION TO THE STATED PRESSURES.

GENERAL

- DURING THE CONSTRUCTION PERIOD, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF PERSONNEL AND PROPERTY ON AND AROUND THE JOBSITE. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING, BRACING, GUYS, ETC. IN ACCORDANCE WITH ALL NATIONAL, STATE, AND LOCAL SAFETY ORDINANCES. TEMPORARY BRACING, SHORING, GUYS, ETC. SHALL AVOID EXCESSIVE STRESSES AND HOLD STRUCTURAL ELEMENTS IN PLACE DURING CONSTRUCTION. THE STRUCTURE SHOULD NOT BE CONSIDERED STABLE UNTIL ALL STRUCTURAL ELEMENTS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- ALL DRAWINGS AND SPECIFICATIONS ARE CONSIDERED TO BE A PART OF THE CONTRACT DOCUMENTS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES OR OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE START OF CONSTRUCTION SO A CLARIFICATION CAN BE ISSUED. ANY WORK THAT DEVIATES FROM OR IS PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT THEIR OWN EXPENSE AND AT NO EXPENSE TO THE OWNER OR THE DESIGN PROFESSIONALS.
- THE CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING ALLOWABLE CONSTRUCTION LOADS AND FOR DETERMINING SEQUENCES OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE AND SAFETY OF WORKERS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO: FALSEWORK, FORMWORK, STAGING, BRACING, AND SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. OBSERVATION VISITS TO THE SITE BY THE ARCHITECT SHALL NOT INCLUDE INSPECTION OR APPROVAL OF THE ABOVE ITEMS AND DO NOT IN ANY WAY RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITIES FOR THE ABOVE. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.
- ALL DIMENSIONS AND SITE CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE JOBSITE PRIOR TO BID SUBMITTAL. START OF SHOP DRAWINGS, START OF CONSTRUCTION, AND/OR FABRICATION OF MATERIALS. IF DISCREPANCIES ARE ENCOUNTERED, OR CONDITIONS DEVELOP THAT ARE NOT COVERED BY THE CONTRACT DOCUMENTS, THE ARCHITECT SHALL BE NOTIFIED FOR CLARIFICATION.
- STRUCTURAL SUBSTITUTIONS MAY BE ALLOWED WITH THE APPROVAL OF THE STRUCTURAL ENGINEER. SUPPLIER SHALL PROVIDE SIGNED AND SEALED DESIGN CALCULATIONS OR SUITABLE PRODUCT LITERATURE FOR THE COMPONENTS. ALL PRODUCT SUBSTITUTIONS SHALL INCLUDE A CODE EVALUATION REPORT SPECIFIC TO THE BUILDING CODE LISTED IN THE DESIGN CRITERIA.
- STRUCTURAL DRAWINGS INCLUDE DESIGN REQUIREMENTS AND DIMENSIONS FOR STRUCTURAL INTEGRITY BUT DO NOT SHOW ALL DETAIL DIMENSIONS TO FIT INTRICATE ARCHITECTURAL AND MECHANICAL DETAILS. CONTRACTOR SHALL CONSTRUCT THE WORK SO IT WILL CONFORM TO THE CLEARANCES REQUIRED BY ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DESIGN.

- ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED TO BE CONSTRUCTION STANDARDS. IF CLARIFICATION IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
- DO NOT SCALE DRAWINGS. PRINTED DIMENSIONS HAVE PRECEDENCE OVER SCALED DRAWINGS AND LARGE-SCALE OVER SMALL-SCALE DRAWINGS. CONTRACTOR TO DETERMINE FINAL DIMENSION WITH ARCHITECT.
- TYPICAL DETAILS SHALL APPLY TO SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY REFERENCED. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK.
- SEE ARCHITECTURAL, ELECTRICAL, AND MECHANICAL DRAWINGS FOR DETAILS, CONDITIONS, PITS, TRENCHES, PADS, DEPRESSIONS, ROOF FLOOR OPENINGS, TOP OF WALL ELEVATIONS, STAIRS, SLEEVES, ITEMS TO BE EMBEDDED OR ATTACHED TO STRUCTURAL ELEMENTS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS. FOR THESE NON-STRUCTURAL ELEMENTS SHOWN ON STRUCTURAL DRAWINGS, THEY ARE FOR GENERAL INFORMATION ONLY.
- ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR MECHANICAL, ELECTRICAL, AND PLUMBING WITH APPROPRIATE TRADE CONTRACTORS. OPENING SIZES AND LOCATIONS SHOWN FOR DUCTS, PIPE, INSERTS, AND OTHER PENETRATIONS WHEN SHOWN ARE FOR GENERAL INFORMATION ONLY AND SHALL BE VERIFIED PRIOR TO FORMING.
- THE EXACT WEIGHTS, DIMENSIONS, AND LOCATIONS OF ALL MECHANICAL UNITS AND ELECTRICAL GEAR SUPPORTED ON STRUCTURAL FRAMING SHALL BE DETERMINED AND COORDINATED BY THE CONTRACTOR PRIOR TO DETAILING THE STRUCTURAL FRAMING SUPPORTING THOSE UNITS. IF THE UNIT WEIGHTS ARE GREATER THAN THE WEIGHTS SHOWN ON THE STRUCTURAL DRAWINGS, THE STRUCTURAL ENGINEER SHALL BE NOTIFIED PRIOR TO DETAILING THE STRUCTURE. UNIT WEIGHTS, DIMENSIONS, AND LOCATIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE APPROXIMATE ONLY AND SHALL NOT BE USED FOR DETAILING THE STRUCTURE.
- PROVIDE TEMPORARY BLOCKOUTS AND TEMPORARY OPENINGS IN THE STRUCTURE AS REQUIRED TO PERMIT INSTALLATION OF ALL WORK. BLOCKOUTS AND TEMPORARY OPENINGS SHALL BE LOCATED, CONFIGURED, DETAILED, AND INFILLED IN A MANNER THAT ALTERS NEITHER THE STRENGTH OF THE STRUCTURAL FRAMING NOR THE STRENGTH OF CONNECTIONS. INFILL ALL BLOCKOUTS AND TEMPORARY OPENINGS USING THE MATERIALS SPECIFIED FOR THE FRAMING AT THE LOCATIONS WHERE THE BLOCKOUTS AND OPENINGS OCCUR. SUBMIT DRAWINGS INDICATING THE LOCATIONS, DIMENSIONS, AND DETAILS OF ALL PROPOSED BLOCKOUTS AND OPENINGS AND DETAILS INDICATING THE MANNER IN WHICH THE BLOCKOUTS AND OPENINGS WILL BE INFILLED.
- NO HOLES, NOTCHES, BLOCK-OUTS, ETC. ARE ALLOWED IN STRUCTURAL ELEMENTS UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER.
- PENETRATIONS IN CONCRETE SHALL BE CAST-IN-PLACE AND SHALL NOT BE PERMITTED EXCEPT AS SHOWN IN THE STRUCTURAL DRAWINGS.
- BEFORE SUBMITTING A PROPOSAL FOR THIS WORK, CONTRACTOR SHALL VISIT THE PREMISES AND BECOME FULLY ACQUAINTED WITH FIELD CONDITIONS, TEMPORARY CONSTRUCTION REQUIRED, QUANTITIES AND TYPE OF EQUIPMENT, ETC. THE PROPOSAL SHALL INCLUDE ALL SUMS REQUIRED TO DO THE WORK.
- ELEMENTS SUCH AS NON-BEARING PARTITIONS, ETC. ATTACHED TO AND/OR SUPPORTED BY THE STRUCTURE SHALL TAKE INTO ACCOUNT DEFLECTIONS AND OTHER STRUCTURAL MOVEMENTS. THE STRUCTURAL FRAMING WAS DESIGNED TO LIMIT DRIFT AND DEFLECTION OF THE STRUCTURAL SYSTEM TO LESS THAN THE MAXIMUM PERMITTED DEFLECTIONS LISTED IN THE BUILDING CODE. THE CONTRACTOR SHALL COORDINATE THE WORK OF OTHER TRADES TO ACCOMMODATE THESE DEFLECTIONS AND TO ACCOMMODATE CONSTRUCTION TOLERANCES.

SUBMITTALS

- SUBMITTALS ARE:
 - CONCRETE MIX DESIGNS
 - MATERIAL PRODUCT DATA FOR STRUCTURAL MATERIALS
 - CONCRETE AND MASONRY REINFORCING
 - STEEL FABRICATION AND MISCELLANEOUS METALS
- SUBMITTALS SHALL BE REVIEWED AND COORDINATED PRIOR TO SUBMITTING TO THE ARCHITECT. EACH SHOP DRAWING SUBMITTED SHALL BE STAMPED INDICATING REVIEW BY THE CONSTRUCTION MANAGER/GENERAL CONTRACTOR AND REVIEW BY THE ARCHITECT SHALL NOT BEGIN UNTIL THIS IS COMPLETE. WORK SHALL NOT BEGIN WITHOUT REVIEW BY THE DESIGN PROFESSIONALS.
- SUBMITTALS SHALL BE REVIEWED BY THE DESIGN PROFESSIONALS FOR GENERAL CONFORMANCE WITH DESIGN CONCEPT ONLY. NOTATIONS MADE BY THE DESIGN PROFESSIONALS ON THE SHOP DRAWINGS DO NOT RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE REQUIREMENTS OF THE DRAWINGS.
- FOR ADDITIONAL INFORMATION ON REQUIRED SUBMITTALS, SEE INDIVIDUAL MATERIAL SECTIONS.

EXISTING CONDITIONS / DEMOLITION

- EXISTING CONDITIONS:
 - EXISTING STRUCTURAL INFORMATION SHOWN WAS OBTAINED FROM EXISTING DRAWINGS DATED 04/10/2000 BY JAY DESAI CONSULTING ENGINEERS.
 - ALL INFORMATION SHOWN ON THE DRAWINGS RELATIVE TO EXISTING CONDITIONS IS GIVEN AS THE BEST PRESENT KNOWLEDGE. CONTRACTOR TO VERIFY EXISTING INFORMATION, DIMENSIONS, AND SIZES AS REQUIRED TO COMPLETE THEIR WORK. WHERE ACTUAL CONDITIONS CONFLICT WITH THE DRAWINGS, THEY SHALL BE REPORTED TO THE ARCHITECT SO CLARIFICATION MAY BE MADE. MODIFICATION OF CONSTRUCTION DETAILS SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE ARCHITECT.
- ALL DEMOLITION SHALL BE CARRIED OUT IN SUCH A WAY TO PREVENT DAMAGE TO EXISTING ELEMENTS WHICH ARE TO REMAIN.
- ALL ELEMENTS WHICH ARE TO REMAIN AND WHICH ARE DAMAGED DURING DEMOLITION WORK SHALL BE REPLACED AT NO ADDED COST. CONTRACTOR SHALL PROVIDE AND BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF ADJACENT EXISTING SURFACES AND AREAS WHICH MAY BE DAMAGED AS A RESULT OF NEW WORK.
- CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS OF EXISTING STRUCTURE AND SITES THAT ARE AFFECTED BY NEW WORK BEFORE PROCEEDING WITH FABRICATION AND CONSTRUCTION.
- ALL CONSTRUCTION IS NEW UNLESS IDENTIFIED AS EXISTING, "(E)". THE CONTRACTOR SHALL VERIFY ALL EXISTING BUILDING INFORMATION AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO FABRICATION OF ANY STRUCTURAL COMPONENT. NEW SLABS ARE TO BE AT THE SAME ELEVATIONS AS ADJACENT EXISTING SLABS UNLESS FOUNDATION ELEVATIONS OR COLUMN LENGTHS SHALL BE ADJUSTED WITH THE APPROVAL OF THE STRUCTURAL ENGINEER TO ACHIEVE MATCHING SLAB ELEVATIONS.
- REINFORCING STEEL IN EXISTING CONCRETE SHALL BE LOCATED PRIOR TO INSTALLATION OF NEW OPENINGS OR CORING OF HOLES IN THE CONCRETE. REINFORCING STEEL MAY NOT BE CUT WITHOUT APPROVAL FROM THE ENGINEER.
- SHORING:
 - SHORING DRAWINGS AND CALCULATIONS BY OTHERS, AS REQUIRED, ARE NOT INCLUDED IN THIS PACKAGE. SHORING DRAWINGS AND STRUCTURAL CALCULATIONS SHALL BE PROVIDED BY CONTRACTOR FOR REVIEW.
 - SHORING / UNDERPINNING OF EXISTING BUILDINGS OR IMPROVEMENTS SHALL BE PROVIDED BEFORE EXISTING SUPPORTING WALLS, SLABS, FOUNDATIONS, PAVEMENT, ETC. ARE CUT, MODIFIED, OR REMOVED.

EARTHWORK

- FOUNDATION DESIGN IS IN ACCORDANCE WITH THE INFORMATION SHOWN ON THE EXISTING BUILDING DRAWINGS. NO NEW GEOTECHNICAL REPORT HAS BEEN PROVIDED BY THE OWNER FOR THIS PROJECT.
- A GEOTECHNICAL ENGINEER SHALL BE EMPLOYED TO VERIFY THAT THE PRESUMED ALLOWABLE BEARING PRESSURE WILL BE ACHIEVED PRIOR TO CONSTRUCTION. THAT ENGINEER SHALL DEVELOP AND ENSURE IMPLEMENTATION OF A SITE SUBGRADE PREPARATION PROGRAM AS REQUIRED TO ACHIEVE THE PRESUMED SOIL BEARING PRESSURE. FOOTING AND SLAB-ON-GRADE SUBGRADE PREPARATION SHALL BE IN COMPLIANCE WITH THE APPLICABLE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION.
- ANY TESTS, INSPECTIONS, FIELD OBSERVATIONS, OR APPROVAL FROM THE GEOTECHNICAL ENGINEER SHALL BE PERFORMED PRIOR TO PLACEMENT OF CONCRETE. ALTERATIONS TO SITE PREPARATION OR GRADING SHALL BE REPORTED TO THE GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION.
- ALL EXCAVATIONS SHALL BE PROPERLY AND SAFELY BACKFILLED. DO NOT PLACE BACKFILL BEHIND RETAINING / BASEMENT WALLS BEFORE CONCRETE HAS ATTAINED SPECIFIED COMPRESSIVE STRENGTH. CONTRACTOR SHALL BRACE OR PROTECT ALL WALLS BELOW GRADE FROM LATERAL LOADS UNTIL SUPPORTING FLOORS ARE COMPLETELY IN PLACE AND HAVE ATTAINED 7-DAY STRENGTH MINIMUM. BACKFILLING IS NOT PERMITTED FOR FOUNDATION WALLS UNTIL SUPPORTED SLAB TOP AND BOTTOM ARE IN PLACE OR THE WALL IS ADEQUATELY BRACED TO RESIST LATERAL LOADS.
- SOIL BEHIND RETAINING WALLS AND BASEMENT WALLS SHALL BE DRAINED TO ELIMINATE HYDROSTATIC PRESSURE BEHIND THE WALL. DESIGN OF SUCH WALL DRAINAGE SYSTEMS IS THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL PROVIDE DE-WATERING OF EXCAVATIONS FROM SURFACE WATER, GROUNDWATER, OR SEEPAGE. DETAILS OF GROUNDWATER INFORMATION SHALL BE OBTAINED FROM THE GEOTECHNICAL REPORT. IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION, PROCEDURES SHALL BE IMPLEMENTED AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
- PROVIDE SHORING WHERE THERE IS INSUFFICIENT SPACE FOR STABLE-SLOPED EMBANKMENTS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL CRIBBING, SHEETING, SHORING, ETC. REQUIRED FOR CONSTRUCTION OF THE PROJECT AND SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING, AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS, AND UTILITIES. CONTRACTOR SHALL SUBMIT DESIGN CALCULATIONS AND SHOP DRAWINGS SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE PROJECT'S JURISDICTION.
- CONTRACTOR SHALL INVESTIGATE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FILL MATERIAL OR BURIED STRUCTURES SUCH AS CESSPOOLS, CISTERNS, AND FOUNDATIONS. IF ANY SUCH MATERIAL OR STRUCTURES ARE FOUND, ARCHITECT SHALL BE NOTIFIED IMMEDIATELY.
- ANY REQUIRED IMPORT FILL SHALL HAVE A LOW POTENTIAL FOR EXPANSION AND SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO IMPORTING.
- UTILITY LINES SHALL NOT BE PLACED THROUGH OR BELOW FOUNDATIONS WITHOUT THE STRUCTURAL ENGINEER'S APPROVAL. BELOW GRADE UTILITY OR PIPE ELEVATIONS WHERE SHOWN, ARE INDICATED FOR REFERENCE ONLY. REQUIRED ELEVATIONS SHALL BE DETERMINED BY OTHERS AND COORDINATED WITH THE FOUNDATIONS.
- WHERE GRADE ELEVATIONS ARE APPROXIMATELY EQUAL ON BOTH SIDES OF WALLS, BACKFILL SHALL BE PLACED SO THAT IT IS NOT UNBALANCED BY MORE THAN 2 FEET ON EITHER SIDE.
- ALL REQUIRED BACKFILL AND UTILITY TRENCH BACKFILL WITHIN THE BUILDING AREA SHALL BE COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.

SHALLOW FOUNDATIONS

- SEE THE GEOTECHNICAL REPORT FOR SHALLOW FOUNDATION REQUIREMENTS.
- SHALLOW FOUNDATIONS SHALL HAVE THE FOLLOWING MINIMUM NET ALLOWABLE SERVICE LOAD BEARING PRESSURES:

NET ALLOWABLE BEARING PRESSURE	2,500 PSF
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- FOUNDATION ELEVATIONS SHOWN INDICATE LOCATIONS WHERE ADEQUATE SOIL BEARING PRESSURE IS ANTICIPATED. IF INADEQUATE BEARING CAPACITY IS ENCOUNTERED, CONTACT STRUCTURAL ENGINEER FOR RESOLUTION. BEARING ELEVATIONS ARE ESTIMATED FROM SOIL BORING DATA INDICATED IN THE GEOTECHNICAL REPORT. DETERMINATION OF FINAL BEARING ELEVATIONS AND FIELD VERIFICATION OF ALLOWABLE BEARING PRESSURE SHALL BE MADE BY AN EXPERIENCED, QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO PLACING FOUNDATIONS.
- ALL FOUNDATIONS SHALL BEAR BELOW THE FROST DEPTH, OR LOWER WHERE INDICATED ON FOUNDATION PLAN. IN CASE OF CONFLICT, NOTIFY THE DESIGN PROFESSIONALS IN ADVANCE OF ANY CONSTRUCTION TO ALLOW FOR ADJUSTMENT.
- FOUNDATIONS SHALL BE PLACED ON UNDISTURBED SOIL OR COMPACTED STRUCTURAL FILL, AND CLEAN AND FREE OF LOOSE DEBRIS AND STANDING WATER AT TIME OF CONCRETE PLACEMENT.
- NEW FOOTING BEARING ELEVATIONS SHALL MATCH ADJACENT EXISTING FOOTING BEARING ELEVATIONS WHERE OCCURRING UNON.
- THE SLOPE BETWEEN THE LOWER EDGES OF ADJACENT FOOTINGS SHALL NOT EXCEED 45 DEGREES WITH THE HORIZONTAL LOOK IN THE GEOTECHNICAL REPORT. CONTACT STRUCTURAL ENGINEER WHERE ADEQUATE SLOPE IS NOT ACHIEVED.

CAST-IN-PLACE CONCRETE

- ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, AND ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE UNON.
- CONCRETE MATERIALS SHALL CONFORM TO:

PORTLAND LESTONE CEMENT	ASTM C595, TYPE II
PORTLAND CEMENT	ASTM C150, TYPE I ASTM C150, TYPE III
FLY ASH	ASTM C618, TYPE C OR F
SLAG CEMENT	ASTM C989
FINE AND COARSE AGGREGATE	ASTM C33
WATER	POTABLE
AIR-ENTRAINING ADMIXTURE	ASTM C260
WATER REDUCING ADMIXTURE	ASTM C494
- CONCRETE STRENGTHS SHALL CONFORM TO:

LOCATION	fc AT 28 DAYS (PSI)	MAX PERMITTED W/C
ALL FOUNDATION CONCRETE UNON	4000	0.50
- AIR ENTRAINMENT:

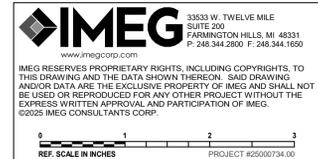
NOMINAL MAXIMUM AGGREGATE SIZE	REQUIRED AIR CONTENT
3/8"	6%
1/2"	5.5%
3/4"	5%
1"	4.5%

 - CONCRETE IN THESE LOCATIONS SHALL BE AIR ENTRAINED WITH THE APPROPRIATE PERCENTAGE AIR CONTENT LISTED IN THE TABLE ABOVE AS APPLICABLE FOR THE INDICATED EXPOSURE CLASS AND NOMINAL MAXIMUM AGGREGATE SIZE IN THE CONCRETE MIX. THE REQUIRED AIR CONTENT VALUE MAY BE REDUCED BY 1% FOR ALL CONCRETE WITH COMPRESSIVE STRENGTH GREATER THAN 5000 PSI. THE PERMITTED TOLERANCE ON THE REQUIRED AIR CONTENT IS ±1.5%.

STRUCTURAL ABBREVIATION KEY			
ABBR:	DESCRIPTION:	ABBR:	DESCRIPTION:
#	NUMBER OR POUNDS	KSF	KIPS PER SQUARE FOOT
@	AT	KSI	KIPS PER SQUARE INCH
∅	DEGREE	LBS	POUNDS
(E)	EXISTING	LL	LIVE LOAD
A.B.	ANCHOR BOLT	LLH	LONG LEG HORIZONTAL
ARCH	ARCHITECT, -URE, -URAL	LLV	LONG LEG VERTICAL
B.O.	BOTTOM OF	LONG	LONGITUDINAL
BF	BEAM FLANGE WIDTH	LSH	LONG SIDE HORIZONTAL
BM	BEAM	LSV	LONG SIDE VERTICAL
B.N.	BOUNDARY NAILING	LT WT	LIGHTWEIGHT
BOTT	BOTTOM	MAX	MAXIMUM
BTWN	BETWEEN	MECH	MECHANICAL
CFSF	COLD FORM STEEL FRAMING	MANUF	MANUFACTURER
CGS	CENTER OF GRAVITY OF THE TENDON	MIN	MINIMUM
CJP	COMPLETE JOINT PENETRATION WELD	NIC	NOT IN CONTRACT
CLR	CLEAR	NTS	NOT TO SCALE
CL	CENTERLINE	OH	OPPOSITE HAND
CMU	CONCRETE MASONRY UNIT	OPNG	OPENING
COL	COLUMN	OSB	ORIENTED STRAND BOARD
CONC	CONCRETE	PCF	POUNDS PER CUBIC FOOT
CONN	CONNECTION	P.H.	PENTHOUSE
CONST	CONSTRUCTION	PJP	PARTIAL JOINT PENETRATION WELD
CONT	CONTINUOUS	PLT	PLATE
COORD	COORDINATION	PLF	POUNDS PER LINEAR FOOT
DIA	DIAMETER	PSF	POUNDS PER SQUARE FOOT
DL	DEAD LOAD	PSI	POUNDS PER SQUARE INCH
DET	DETAIL	PT	POST-TENSION, -ED, -ING
DWG	DRAWING	R	REINFORCING, -MENT, -ED
DWL	DOWEL	REQD	REQUIRED
EA	EACH	RTU	ROOF TOP UNIT
EF	EACH FACE	SC	SLIP CRITICAL
EFF	EFFECTIVE	SCHED	SCHEDULE
EL	ELEVATION	SFRS	SEISMIC FORCE-RESISTING SYSTEM
ELEC	ELECTRICAL	SIM	SIMILAR
EMBED	EMBEDMENT	SL	SNOW LOAD
E.N.	EDGE NAILING	S.M.S.	SHEET METAL SCREW
EOD	EDGE OF DECK	SP	SPACE(S)
EOS	EDGE OF SLAB	SPECS	SPECIFICATION(S)
EQ	EQUAL	SQ	SQUARE
EQUIP	EQUIPMENT	STIFF	STIFFENER
ETC	ETCETERA	STL	STEEL
EW	EACH WAY	SYM	SYMMETRICAL
EXP	EXPANSION	T&B	TOP AND BOTTOM
EXT	EXTERIOR	T.O.	TOP OF
f'c	CONCRETE COMPRESSIVE STRENGTH	TC	PRE-TENSIONED BOLT
FDN	FOUNDATION	TEMP	TEMPERATURE
F.N.	FIELD NAILING	IF	BEAM FLANGE THICKNESS
FTG	FOOT	THK	THICK
F.T.	FOOTING	TRANS	TRANSVERSE
Fy	YIELD STRESS	TYP	TYPICAL
GA	GAGE OR GAUGE	UNON	UNLESS OTHERWISE NOTED
GALV	GALVANIZED	VERT	VERTICAL
GLB	GLULAM BEAM	VIF	VERIFY IN FIELD
GT	GIRDER TRUSS	w/	WITH
HORIZ	HORIZONTAL	WP	WORK POINT
HSA	HEADED STUD ANCHOR	WT	WEIGHT
HSB	HIGH STRENGTH BOLT	WWR	WELED WIRE REINFORCING
JT	JOINT		
K, KIP	KILOPOUND (1,000 POUNDS)		

STRUCTURAL SHEET INDEX

SHEET NUMBER	SHEET NAME	PROGRESS SET 2024.05.13	ISSUED FOR PERMIT 2024.07.21
S.001	GENERAL NOTES	X	X
S.002	SPECIAL INSPECTION SCHEDULES	X	X
S.003	SPECIAL INSPECTION SCHEDULES	X	X
S.101	FIRST FLOOR PLAN	X	X
S.102	ROOF FRAMING PLAN	X	X
S.103	ROOF FRAMING PLAN	X	X
S.900	SECTIONS AND DETAILS	X	X
S.901	SECTIONS AND DETAILS	X	X
S.902	SECTIONS AND DETAILS	X	X
S.903	SECTIONS AND DETAILS	X	X
S.904	SECTIONS AND DETAILS	X	X
GRAND TOTAL: 11			



ISSUED FOR	DATE
PROGRESS SET	20250513
PERMIT	20250721

ARCHITECTURAL DESIGN

RESIDENTIAL COMMERCIAL INDUSTRIAL

G.A.V. ASSOCIATES, INC.
54051 RICHMOND LAKE RD., STE. 100A
FARMINGTON, MICHIGAN 48330
Ph: (248) 988-9101
WEB: WWW.GAVASSOCIATES.COM



ADDITIONS AND RENOVATIONS TO:
 ISLAMIC ASSOC. OF GREATER DETROIT
 879 WEST AUBURN ROAD
 ROCHESTER HILLS, MICHIGAN

DRAWN:	DESIGNED:	CHECKED:
Author	Designer	Checker

SCALE : AS NOTED

FILE NAME :

JOB # : 09129

SHEET TITLE
GENERAL NOTES

SHEET #
S.001

5. REQUIRED NOMINAL MAXIMUM COARSE AGGREGATE SIZE:

CONCRETE ELEMENT	REQUIRED NOMINAL MAXIMUM COARSE AGGREGATE SIZE*
ALL CONCRETE UON	1"

- * SMALLER NOMINAL MAXIMUM COARSE AGGREGATE SIZE SHALL BE USED WHERE REQUIRED PER ACI 318.
- COMBINED AGGREGATE GRADING FOR STRUCTURAL SLABS: 8-22% BY WEIGHT OF AGGREGATE SHALL BE RETAINED ON EACH SIEVE BELOW THE MAXIMUM AGGREGATE SIZE SIEVE AND ABOVE THE #100 SIEVE.
 - "ROUGH JOINTS" ARE JOINTS ROUGHENED TO AN AMPLITUDE OF 1/4" AND FREE AND CLEAN OF LAITANCE. PROVIDE ROUGH JOINTS AT ALL CONSTRUCTION JOINTS UON.
 - PROVIDE TEMPLATES TO SET EMBEDDED ITEMS.
 - PROVIDE CONTINUOUS BENTONITE WATERSTOPS IN ALL CONSTRUCTION JOINTS IN BELOW GRADE CONCRETE CONSTRUCTION. COORDINATE WATERSTOPS WITH ARCHITECTURAL DRAWINGS.
 - PROJECTING CORNERS OF BEAMS, WALLS, COLUMNS, ETC. SHALL BE FORMED WITH A 3/4" CHAMFER UON ON ARCHITECTURAL DRAWINGS.
 - SLOPE SLABS TO DRAINS. SEE ARCHITECTURAL AND MEP DRAWINGS FOR DRAIN LOCATIONS AND SLOPE REQUIREMENTS. SLAB THICKNESSES SHOWN ON DRAWINGS ARE MINIMUMS.
 - NOTIFY THE ARCHITECT 48 HOURS MINIMUM PRIOR TO ALL POURS.
 - CONTRACTOR SHALL SURVEY ALL CONCRETE WORK WITHIN 48 HOURS OF PLACING CONCRETE TO ENSURE PLACEMENT IS IN ACCORDANCE WITH PROJECT REQUIREMENTS.
 - ALL FORMWORK, SHORING, AND RESHORING SHALL BE DESIGNED BY THE CONTRACTOR'S ENGINEER LICENSED IN THE PROJECT'S JURISDICTION. ALL SUBMISSIONS SHALL BE SIGNED AND SEALED.
 - CORING OF CONCRETE IS NOT PERMITTED UNLESS APPROVED BY THE STRUCTURAL ENGINEER. SUBMIT LOCATIONS OF PROPOSED CONCRETE CORES.
 - REINFORCING STEEL SHALL NOT BE DAMAGED WHEN DRILLING CONCRETE.
 - ADHERE TO ACI 305R AND ACI 306R FOR HOT AND COLD WEATHER CONCRETE CONSTRUCTION.
 - DRYPACK AND GROUT SHALL HAVE A MINIMUM 28-DAY STRENGTH OF 7000 PSI.
 - THE PROPOSED MATERIALS AND MIX DESIGN SHALL BE FULLY DOCUMENTED AND REVIEWED BY THE TESTING AND INSPECTION AGENCY. RESPONSIBILITY FOR OBTAINING THE REQUIRED DESIGN STRENGTH IS THE CONTRACTOR'S. SUBMIT TEST DATA ON EACH PROPOSED MIX FOR REVIEW IN ACCORDANCE WITH THE APPLICABLE CODE. MIX DESIGNS SUBMITTED WITHOUT THE REQUIRED TEST DATA WILL BE RETURNED WITHOUT REVIEW.
 - SUBMIT TEST DATA ON EACH PROPOSED MIX FOR REVIEW IN ACCORDANCE WITH CBC SECTION 1903A AND 1904A.
 - SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, LOCATIONS, AND DETAILS OF ALL ARCHITECTURAL FEATURES IN THE CONCRETE. SEE ARCHITECTURAL DRAWINGS AND PROJECT SPECIFICATIONS FOR REQUIREMENTS FOR ALL CONCRETE FINISHES.

LINTELS

- PROVIDE LINTELS OVER ALL OPENINGS AND RECESSES IN MASONRY CONSTRUCTION. LINTELS ARE NOT REQUIRED OVER OPENINGS 12" OR LESS IN WIDTH THAT ARE AT LEAST 1 COURSE BELOW THE BOND BEAM AT THE TOP OF WALL.
- PENETRATIONS NOT IDENTIFIED ON THE DOCUMENTS ARE TO BE TREATED IN A MANNER SIMILAR TO THE IDENTIFIED LOCATIONS.
- ALL LINTELS SHALL HAVE A MINIMUM OF 8" END BEARING AND DO NOT REQUIRE BEARING PLATES UON.
- TEMPORARY SHORING OF CMU LINTELS MUST BE PROVIDED UNTIL CMU HAS REACHED 75% OF DESIGN STRENGTH.
- ALL STEEL LINTELS IN EXTERIOR WALL CONSTRUCTION SHALL BE HOT-DIP GALVANIZED UON.
- AT STEEL WIDE FLANGE LINTELS WITH SPANS LONGER THAN 16", PROVIDE GROUTED TIE/SOAP BLOCKS TO STEEL BEAM WEB WITH WELDED METAL TIES AT 16".

STEEL

- STRUCTURAL STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "DETAILING FOR STEEL CONSTRUCTION" AND FABRICATED AND ERECTED IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS".
- STRUCTURAL STEEL SHALL CONFORM TO ASTM STANDARDS AS NOTED BELOW:

WIDE FLANGE AND WT SHAPES	ASTM A992	Fy=50 KSI
ANGLE SHAPES	ASTM A572	Fy=50 KSI
PLATES	ASTM A572	Fy=50 KSI
ANCHOR RODS	ASTM F1554, GR 36	Fy=36 KSI
HIGH STRENGTH BOLTS	ASTM F3125, GR A325	Fu=120 KSI
HIGH STRENGTH TWIST-OFF BOLTS	ASTM F3125, GR F1852	Fu=120 KSI
HEAVY HEX NUTS	ASTM A563	
WASHERS FOR HIGH STRENGTH BOLTS	ASTM F436	
WELDING	AWS D1.1, 70KSI FILLER METAL	

- HIGH STRENGTH BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH AISC "SPECIFICATIONS FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS". SEE DETAILS FOR BOLT SIZE AND MATERIAL ASTM DESIGNATION.
- ALL BOLTED CONNECTIONS SHALL BE GRADE A325 BEARING TYPE BOLTS UON. ALL BOLTS SHALL BE INSTALLED TO A MINIMUM SMUG TIGHT CONDITION UON.
- FULLY TENSIONED HIGH STRENGTH BOLTS AND SLIP CRITICAL HIGH STRENGTH BOLTS SHALL USE TENSION-CONTROL "TWIST-OFF" BOLTS OR BE INSTALLED USING THE TURN OF THE NUT METHOD.
- EXCEPT WHERE DETAILED OTHERWISE, FABRICATOR SHALL SELECT ASD BOLTED (OR WELDED EQUIVALENT) SIMPLE SHEAR CONNECTIONS PER AISC 360 PART 10 TO SUPPORT LOADS INDICATED ON THE STRUCTURAL DRAWINGS. WHEN LOADS ARE NOT SHOWN, CONNECTION SHALL SUPPORT 60% OF THE TOTAL UNIFORM LOAD CAPACITY FOR EACH GIVEN BEAM SIZE AND SPAN AS LISTED IN AISC 360 TABLE 3-6. FOR COMPOSITE MEMBERS, CONNECTION SHALL SUPPORT 80% OF THE TOTAL UNIFORM LOAD CAPACITY FOR EACH BEAM SIZE AND SPAN.
- BEAM REACTIONS GIVEN ON THE CONTRACT DOCUMENTS SHALL SUPERSEDE THE PREVIOUS NOTE. IN NO CASE SHALL THE CONNECTIONS BE DESIGNED FOR AN ASD END REACTION LESS THAN 12 KIPS.
- FIELD CONNECTIONS SHALL BE WELDED OR BOLTED. SHOP CONNECTIONS SHALL BE WELDED UON. WELDS INDICATED WITH A SHOP WELD SYMBOL MAY BE MADE IN THE FIELD WITH THE APPROVAL OF THE STRUCTURAL ENGINEER. LOCATIONS OF ALL FIELD WELDS SHALL BE CLEARLY SHOWN ON THE SHOP DRAWINGS. WELDS SHALL BE DESIGNED TO BE FULLY EQUIVALENT IN STRENGTH TO BOLTED CONNECTIONS DETAILED TO MINIMIZE BENDING IN THE CONNECTION.
- WELD LENGTHS INDICATED ON THE DRAWINGS ARE THE NET EFFECTIVE LENGTH REQUIRED. WHERE WELD LENGTH IS NOT SPECIFIED, PROVIDE WELD ALONG ENTIRE INTERSECTION OF THE JOINED PARTS. WHERE FILLET WELD SYMBOL IS GIVEN WITHOUT INDICATION OF SIZE, USE MINIMUM WELD SIZE AS SPECIFIED IN AISC 360, TABLE J2.4.
- ALL WELDING OF STRUCTURAL STEEL SHALL BE PERFORMED BY CERTIFIED WELDERS WITH EXPERIENCE AND CERTIFICATION IN THE TYPES OF WELDING INDICATED. WELDERS SHALL HAVE BEEN RECENTLY QUALIFIED AS PRESCRIBED IN "QUALIFICATION PROCEDURES" OF THE AMERICAN WELDING SOCIETY (AWS).
- BEAMS SHALL BE CAMBERED UPWARD WHERE SHOWN ON THE DRAWINGS. WHERE NO UPWARD CAMBER IS INDICATED, ANY MILL CAMBER SHALL BE DETAILED UPWARD IN THE BEAMS.

- SPlicing OF STEEL MEMBERS WHERE NOT DETAILED ON THE DRAWINGS IS PROHIBITED WITHOUT THE PRIOR APPROVAL OF THE STRUCTURAL ENGINEER AS TO LOCATION, TYPE OF SPLICE, AND CONNECTION TO BE MADE.
- PROVIDE ONE SHOP COAT OF PAINT ON ALL STRUCTURAL STEEL NOT COVERED WITH CONCRETE, FIREPROOFING, MASONRY, OR AT CONTACT SURFACES AT HIGH STRENGTH BOLTS.
- CUTS, HOLES, OPENINGS, ETC. REQUIRED IN STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES SHALL BE SHOWN ON THE SHOP DRAWINGS. BURNING OR TORCHING OF HOLES, CUTS, AND OTHER FIELD MODIFICATIONS SHALL NOT BE ALLOWED, EXCEPT BY WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER.
- SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, ETC. FOR MISCELLANEOUS STEEL NOT DETAILED SPECIFICALLY ON THE STRUCTURAL DRAWINGS.
- GROUT FOR BASE AND BEARING PLATES SHALL BE A NON-SHRINK, NON-METALLIC PRODUCT. MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE 7,000 PSI. INSTALL GROUT PRIOR TO APPLYING SIGNIFICANT LOADING TO MEMBER.
- THE STRUCTURAL STEEL FABRICATOR SHALL FURNISH SHOP DRAWINGS OF ALL STRUCTURAL STEEL FOR REVIEW AND APPROVAL BEFORE FABRICATION.
- ALL WELDING ELECTRODES SHALL BE E70XX UON. WELDING ELECTRODES FOR ASTM A913, GR65 MEMBERS AND THEIR CONNECTIONS SHALL BE E80XX.

POST-INSTALLED ANCHORS

1. BASIS OF DESIGN ANCHORS:

INSTALLATION CONDITION	ANCHOR TYPE
EXPANSION ANCHORS INTO CONCRETE	HILTI KWIK BOLT T22 (ESR-4266)
SCREW ANCHORS > 1/4"Ø INTO CONCRETE	HILTI KWIK HUS-EZ (ESR-3027)
ADHESIVE ANCHORS INTO CONCRETE	HILTI SAFE-SET SYSTEM w/ HIT-HY 200 V3 AND HIT-Z ROD (ESR-4868) or HILTI SAFE-SET SYSTEM w/ HIT-HY 200 V3 AND HAS-E THREADED ROD (ESR-4868) or HILTI SAFE-SET SYSTEM w/ HIT-RE 500 V3 AND HAS-E THREADED ROD (ESR-3814) FOR ALL ADHESIVE ANCHORS, HOLES SHALL BE HAMMER DRILLED AND HOLES MAY BE DRY OR WATER SATURATED.
EXPANSION ANCHORS INTO GROUTED CMU	HILTI KWIK T22 (ESR-4561)
SCREW ANCHORS > 1/4"Ø INTO GROUTED CMU	HILTI KWIK HUS-EZ (ESR-3056)
SCREW ANCHORS = 1/4"Ø INTO CONCRETE OR GROUTED CMU	HILTI KWIK-CON II+
ADHESIVE ANCHORS IN GROUTED CMU OR SOLID BRICK	HILTI HIT-HY 270 SYSTEM w/ HAS-E THREADED ROD (ESR-4143)
ADHESIVE ANCHORS INTO HOLLOW CMU, BRICK OR MULTI-WYTHE BRICK WALLS	HILTI HIT-HY 270 SYSTEM w/ HAS-E THREADED ROD AND APPROPRIATE SCREEN TUBE (ESR-4144)
ADHESIVE DOWELING FOR ANCHORING REINFORCING BARS INTO (E) CONCRETE	HILTI SAFE-SET SYSTEM w/ HIT-HY 200 V3 ADHESIVE (ESR-4868) or HILTI SAFE-SET SYSTEM w/ HIT-RE 500 V3 ADHESIVE (ESR-3814)
POWDER-ACTUATED FASTENERS (PAF's) IN CONCRETE	HILTI X-U FASTENERS (ESR-2269)

- ALTERNATIVE ANCHORS MAY BE USED IF APPROVED IN WRITING BY THE STRUCTURAL ENGINEER. THE CONTRACTOR SHALL SUBMIT CALCULATIONS SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE PROJECT'S JURISDICTION VERIFYING PROPOSED ALTERNATIVE ANCHORS WILL PROVIDE THE SAME OR GREATER LOAD-CARRYING CAPACITY AS THE SPECIFIED ANCHORS. THE CONTRACTOR SHALL SUBMIT EVALUATION REPORTS. EACH ANCHOR CONFIGURATION SHALL BE EVALUATED AND COMPARED TO THE SPECIFIED ANCHOR.
- CRACKED CONCRETE IS ASSUMED FOR ALL ANCHORAGE DESIGN CONDITIONS UNLESS IT CAN BE DEMONSTRATED THROUGH ENGINEERING ANALYSIS THAT THE CONCRETE REMAINS UNCRACKED DURING THE GOVERNING ULTIMATE LOAD STATE.
- POST-INSTALLED ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.
- THE CONTRACTOR SHALL ARRANGE FOR AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR EACH SPECIFIED ANCHOR TYPE. THE STRUCTURAL ENGINEER SHALL RECEIVE DOCUMENTATION VERIFYING ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS HAVE BEEN TRAINED PRIOR TO COMMENCEMENT OF INSTALLING ANCHORS.
- INSTALLATION OF ADHESIVE ANCHORS SHALL BE PERFORMED BY PERSONNEL CERTIFIED BY AN APPROVED CERTIFICATION PROGRAM. CERTIFICATION SHALL INCLUDE WRITTEN AND PERFORMANCE TESTS IN ACCORDANCE WITH THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM OR EQUIVALENT. THE ACCEPTABILITY OF CERTIFICATIONS OTHER THAN THE ACI/CRSI ADHESIVE INSTALLER CERTIFICATION WILL BE DETERMINED BY THE STRUCTURAL ENGINEER.
- CONCRETE SHALL HAVE ACHIEVED DESIGN STRENGTH PRIOR TO INSTALLING POST-INSTALLED ANCHORS. ADHESIVE ANCHORS SHALL BE INSTALLED IN CONCRETE THAT HAS CURED FOR A MINIMUM OF 21 DAYS.
- ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ANCHORS AND PROXIMITY OF ANCHORS TO EDGES OF CONCRETE OR MASONRY. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.
- POST-INSTALLED ANCHORS AND DOWELS SHALL BE INSTALLED IN A MANNER THAT DOES NOT DAMAGE REINFORCING STEEL, CONDUIT OR OTHER EMBEDDED ITEMS. REINFORCING STEEL SHALL BE LOCATED BY NON-DESTRUCTIVE MEANS PRIOR TO DRILLING HOLES. PLATES AND BRACKETS THROUGH WHICH ANCHORS WILL BE INSTALLED SHALL NOT BE FABRICATED UNTIL AFTER REINFORCING STEEL IS LOCATED AND ANCHOR LOCATIONS ARE ADJUSTED. CONTRACTOR SHALL NOTIFY STRUCTURAL ENGINEER TO OBTAIN ALTERNATIVE ANCHOR LAYOUT WHERE ANCHORS MUST BE RELOCATED TO AVOID INTERFERENCE WITH REINFORCING STEEL.
- ADHESIVE ANCHORING SYSTEMS ARE PERMITTED TO BE USED FOR INSTALLATION OF REINFORCING STEEL INTO EXISTING CONCRETE ONLY WHERE SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS OR WITH APPROVAL FROM THE STRUCTURAL ENGINEER. LOCATIONS WHERE REINFORCING STEEL WAS INCORRECTLY PLACED OR MISSED SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.
- WHERE POST-INSTALLED MECHANICAL ANCHOR EMBEDMENT DEPTHS ARE SPECIFIED, THOSE DEPTHS ARE THE REQUIRED MINIMUM NOMINAL EMBEDMENT DEPTHS. WHERE MECHANICAL ANCHOR EMBEDMENT DEPTHS ARE NOT INDICATED, THE ANCHORS SHALL BE INSTALLED TO THE MAXIMUM EMBEDMENT DEPTH NOTED IN THE MANUFACTURER'S PRODUCT TECHNICAL GUIDE.
- ADHESIVE ANCHORS SHALL BE INSTALLED WITH A MINIMUM 6" EMBEDMENT DEPTH UON.
- QUALIFICATION OF ANCHORS SHALL INCLUDE THE TESTING AND EVALUATION OF ANCHORS BY AN INDEPENDENT TESTING AND EVALUATION AGENCY ACCREDITED UNDER ISO/IEC 17025 CONFORMING TO THE REQUIREMENTS OF ISO/IEC 17011. THE INTERNATIONAL CODE COUNCIL EVALUATION SERVICE (ICC-ES) SHALL SERVE AS THE DEFAULT TESTING AND INSPECTION AGENCY UNLESS OTHERWISE APPROVED BY THE STRUCTURAL ENGINEER.
- THE ICC EVALUATION SERVICE REPORT (ESR) SHALL BE IN CONFORMANCE WITH THE ICC-ES CRITERIA AS INDICATED.

GENERAL (2021)

- THE STRUCTURAL ENGINEER DOES NOT PROVIDE INSPECTIONS OF CONSTRUCTION. STRUCTURAL ENGINEER MAY MAKE PERIODIC OBSERVATIONS OF THE CONSTRUCTION. SUCH OBSERVATIONS SHALL NOT REPLACE REQUIRED INSPECTIONS BY THE GOVERNING AUTHORITIES OR SERVE AS "SPECIAL INSPECTIONS" AS MAY BE REQUIRED BY CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE.
 - SEE ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS OR SPECIFICATIONS FOR TESTING AND INSPECTION REQUIREMENTS OF NON-STRUCTURAL COMPONENTS.
 - DUTIES OF THE INSPECTION AGENCY PER IBC CHAPTER 17:
 - SUBMIT A PROPOSED TESTING AND INSPECTION PROGRAM TO THE OWNER, THE ARCHITECT AND THE STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL AT LEAST TWO WEEKS PRIOR TO COMMENCEMENT OF WORK.
 - PERFORM ALL TESTING AND INSPECTION REQUIRED PER APPROVED TESTING AND INSPECTION PROGRAM.
 - FURNISH INSPECTION REPORT TO THE BUILDING OFFICIAL, THE OWNER, THE ARCHITECT, STRUCTURAL ENGINEER AND THE GENERAL CONTRACTOR. THE REPORTS SHALL BE COMPLETED AND FURNISHED WITHIN 48 HOURS OF INSPECTED WORK.
 - SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE SPECIAL INSPECTION AGENCY'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.
 - SPECIAL INSPECTIONS AND TESTS ARE REQUIRED FOR MATERIALS AND SYSTEMS REQUIRED TO BE INSTALLED IN ACCORDANCE WITH ADDITIONAL MANUFACTURER'S INSTRUCTIONS THAT PRESCRIBE REQUIREMENTS NOT CONTAINED IN CHAPTER 17 OF THE IBC OR IN STANDARDS REFERENCED BY THE IBC. THESE ITEMS INCLUDE:
 - POST-INSTALLED ANCHORS - INSPECTION
- THE FOLLOWING WORK SHALL BE INSPECTED BY THE SPECIAL INSPECTOR UNLESS SPECIFICALLY WAIVED BY THE BUILDING OFFICIAL.

CONCRETE CONSTRUCTION (2021)

VERIFICATION AND INSPECTION TASK	CONTINUOUS	PERIODIC	MATERIAL STD REFERENCE	IBC REFERENCE
INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT	-	X	ACI 318: CH 20, 25.2, 25.3, 26.6.1-26.6.3	-
REINFORCING BAR WELDING:			AWS D1.4 ACI 318: 26.6.4	
a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706	-	X	-	-
b. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"	-	X	-	-
c. INSPECTS ALL OTHER WELDS	X	-	-	-
INSPECT ANCHORS CAST IN CONCRETE	-	X	ACI 318: 17.8.2	-
INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS:				
a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS	X	-	ACI 318: 17.8.2.4	-
b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED ABOVE	-	X	ACI 318: 17.8.2	-
VERIFY USE OF REQUIRED DESIGN MIX	-	X	ACI 318: CH 19, 26.4.3, 26.4.4	1904.1, 1904.2
PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	X	-	ASTM C172, ASTM C31, ACI 318: 26.5, 26.12	-
INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X	-	ACI 318: 26.5	-
VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	-	X	ACI 318: 26.5.3-26.5.5	-
INSPECT PRESTRESSED CONCRETE FOR:				
a. APPLICATION OF PRESTRESSING FORCES, AND	X	-	ACI 318: 26.10	-
b. GROUTING OF BONDED PRESTRESSING TENDONS	X	-	ACI 318: 26.10	-
INSPECT ERECTION OF PRECAST CONCRETE MEMBERS	-	X	ACI 318: 26.9	-
FOR PRECAST CONCRETE DIAPHRAGM CONNECTIONS OR REINFORCEMENT AT JOINTS CLASSIFIED AS MODERATE OR HIGH DEFORMABILITY ELEMENTS (MDE OR HDE) IN STRUCTURES ASSIGNED TO SDC C, D, E, OR F, INSPECT SUCH CONNECTIONS AND REINFORCEMENT IN THE FIELD FOR:			ACI 318: 26.13.1.3	
a. INSTALLATION OF THE EMBEDDED PARTS	X	-	-	-
b. COMPLETION OF THE CONTINUITY OF REINFORCEMENT ACROSS JOINTS	X	-	ACI 550.5	-
c. COMPLETION OF CONNECTIONS IN THE FIELD	X	-	-	-
INSPECT INSTALLATION TOLERANCES OF PRECAST CONCRETE DIAPHRAGM CONNECTIONS FOR COMPLIANCE WITH ACI 550.5	-	X	ACI 318: 26.13.1.3	-
VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS	-	X	ACI 318: 26.11.2	-
INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	-	X	ACI 318: 26.11.1.2(b)	-

STRUCTURAL STEEL - INSPECTION TASKS PRIOR TO BOLTING (AS A MINIMUM) (2021)

VERIFICATION AND INSPECTION TASK	QC	QA	RCSC 1st EDITION SECTIONS
MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	O	P	2.1, 9.1 N5.6-1
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	O	O	FIG. C-2.1, 9.1
CORRECT FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM THE SHEAR PLANE)	O	O	2.3.2, 2.7.2, 9.1
CORRECT BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	O	O	4, 8LE N5.6-1
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	O	O	3, 9.1, 9.35.6-1
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	P	O	7, 9.2E N5.6-1
PROTECTION STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS, AND OTHER FASTENER COMPONENTS	O	O	2.2, 8, 9.15.6-1

- O=OBSERVE AND P=PERFORM

IMEG
 33033 W. TWELVE MILE SUITE 200
 FARMINGTON HILLS, MI 48331
 P: 248.344.2800 F: 248.344.1650
 www.imegcorp.com

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RESIDENTIAL COMMERCIAL INDUSTRIAL

G.A.V. ASSOCIATES, INC.
 5805 CHURCH LANE RD., STE. 100A
 FARMINGTON, MICHIGAN 48330
 PH: (248) 988-9101
 WEB: WWW.GAVASSOCIATES.COM



ADDITIONS AND RENOVATIONS TO:
 ISLAMIC ASSOC. OF GREATER DETROIT
 879 WEST AUBURN ROAD
 ROCHESTER HILLS, MICHIGAN

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 SPECIAL INSPECTION SCHEDULES

SHEET #
S.002

STRUCTURAL STEEL - INSPECTION TASKS AFTER BOLTING (AS A MINIMUM) (2021)

VERIFICATION AND INSPECTION TASK	QC	QA	RCSC ¹⁰⁰ SECTIONS
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	P	P	-TABLE N5.6-3

STRUCTURAL STEEL - INSPECTION TASKS PRIOR TO WELDING (AS A MINIMUM) (2021)

VERIFICATION AND INSPECTION TASK	QC	QA	AWS D1.1 CLAUSES
WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS	P	O	-TABLE N5.4-1
WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE	P	P	6.3BLE N5.4-1
MANUFACTURER CERTIFICATES FOR WELDING CONSUMABLES AVAILABLE	P	P	6.2BLE N5.4-1
MATERIAL IDENTIFICATION (TYPE/GRADE)	O	O	6.2BLE N5.4-1
WELDER IDENTIFICATION	O	O	6.4 (WELDER QUALIFICATION)
FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY)			
a. JOINT PREPARATIONS	O	O	6.5.2.E N5.4-1
b. DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL)	O	O	5.22LE N5.4-1
c. CLEANLINESS (CONDITION OF STEEL SURFACES)	O	O	5.14LE N5.4-1
d. TACKING (TACK WELD QUALITY AND LOCATION)	O	O	5.17LE N5.4-1
e. BACKING TYPE AND FIT (IF APPLICABLE)	O	O	5.9, 5.21.1.1-1
FIT-UP OF CJP GROOVE WELDS OF HSS T-, Y- & K- JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY)			
a. JOINT PREPARATIONS	P	O	9.11.2E N5.4-1
b. DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL)	P	O	9.11.2E N5.4-1
c. CLEANLINESS (CONDITION OF STEEL SURFACES)	P	O	9.11.2E N5.4-1
d. TACKING (TACK WELD QUALITY AND LOCATION)	P	O	9.11.2E N5.4-1
CONFIGURATION AND FINISH OF ACCESS HOLES	O	O	6.5.2, 5.16 (& SEE AISC 360 SECT. J1.6)
FIT-UP OF FILLET WELDS	O	O	TABLE N5.4-1
a. DIMENSIONS (ALIGNMENT, GAPS AT ROOT)	O	O	5.21.1E N5.4-1
b. CLEANLINESS (CONDITION OF STEEL SURFACES)	O	O	5.14LE N5.4-1
c. TACKING (TACK WELD QUALITY AND LOCATION)	O	O	5.17LE N5.4-1
CHECK WELDING EQUIPMENT	O	-	6.2, 5.1045.4-1

2. O=OBSERVE AND P=PERFORM

STRUCTURAL STEEL - INSPECTION TASKS DURING WELDING (AS A MINIMUM) (2021)

VERIFICATION AND INSPECTION TASK	QC	QA	AWS D1.1 CLAUSES
USE OF QUALIFIED WELDERS	O	O	6.4BLE C-N5.4-2
CONTROL AND HANDLING OF WELDING CONSUMABLES	O	O	6.2BLE N5.4-2
a. PACKAGING	O	O	5.3.1.E N5.4-2
b. EXPOSURE CONTROL	O	O	5.3.2 (FOR SMAW), 5.3.3 (FOR SAW)
NO WELDING OVER CRACKED TACK WELDS	O	O	5.17LE N5.4-2
ENVIRONMENTAL CONDITIONS			
a. WIND SPEED WITHIN LIMITS	O	O	5.11.1E N5.4-2
b. PRECIPITATION AND TEMPERATURE	O	O	5.11.2E N5.4-2
WPS FOLLOWED	O	O	6.3.3, 6.5.2, 5.5, 5.20 ¹⁻⁴ N5.4-2
a. SETTINGS ON WELDING EQUIPMENT	O	O	TABLE N5.4-2
b. TRAVEL SPEED	O	O	TABLE N5.4-2
c. SELECTED WELDING MATERIALS	O	O	TABLE N5.4-2
d. SHIELDING GAS TYPE/FLOW RATE	O	O	TABLE N5.4-2
e. PREHEAT APPLIED	O	O	5.6, 5.7N5.4-2
f. INTERPASS TEMPERATURE MAINTAINED (MIN/MAX)	O	O	TABLE N5.4-2
g. PROPER POSITION (F, V, H, OH)	O	O	TABLE N5.4-2
WELDING TECHNIQUES	O	O	6.5.2, 6.5.3, 5.23
a. INTERPASS AND FINAL CLEANING	O	O	5.29.1E N5.4-2
b. EACH PASS WITHIN PROFILE LIMITATIONS	O	O	TABLE N5.4-2
c. EACH PASS MEETS QUALITY REQUIREMENTS	O	O	TABLE N5.4-2
PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	P	P	-TABLE N5.4-2

2. O=OBSERVE AND P=PERFORM

STRUCTURAL STEEL - INSPECTION TASKS AFTER WELDING (AS A MINIMUM) (2021)

VERIFICATION AND INSPECTION TASK	QC	QA	AISC 360	AWS D1.1 CLAUSES
WELDS CLEANED	O	O	TABLE N5.4-3	5.29.1
SIZE, LENGTH, AND LOCATION OF WELDS	P	P	TABLE N5.4-3	6.5.1
WELDS MEET VISUAL ACCEPTANCE CRITERIA			TABLE N5.4-3	6.5.3
a. CRACK PROHIBITION	P	P	TABLE N5.4-3	TABLE 6.1(1)
b. WELD/BASE-METAL FUSION	P	P	TABLE N5.4-3	TABLE 6.1(2)
c. CRATER CROSS-SECTION	P	P	TABLE N5.4-3	TABLE 6.1(3)
d. WELD PROFILES	P	P	TABLE N5.4-3	TABLE 6.1(4), 5.24
e. WELD SIZE	P	P	TABLE N5.4-3	TABLE 6.1(6)
f. UNDERCUT	P	P	TABLE N5.4-3	TABLE 6.1(7)
g. POROSITY	P	P	TABLE N5.4-3	TABLE 6.1(8)
ARC STRIKES	P	P	TABLE N5.4-3	5.28
k-AREA1	P	P	TABLE N5.4-3	-
WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES2	P	P	TABLE N5.4-3	5.16, 6.5.2 (& SEE AISC 360 SECT. J1.6)
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	P	P	TABLE N5.4-3	5.9, 5.30
REPAIR ACTIVITIES	P	P	TABLE N5.4-3	6.5.3, 5.25
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	P	P	TABLE N5.4-3	6.5.4, 6.5.5
NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR	O	O	TABLE N5.4-3	-

2. O=OBSERVE AND P=PERFORM

3.

1. WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE k-AREA, VISUALLY INSPECT THE WEB k-AREA FOR CRACKS WITHIN 3" OF THE WELD. THE VISUAL INSPECTION SHALL BE PERFORMED NO SOONER THAN 48 HOURS FOLLOWING COMPLETION OF THE WELDING.

2. AFTER ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES ARE WELDED, VISUALLY INSPECT THE WELD ACCESS HOLE FOR CRACKS.

SOILS (2021)

VERIFICATION AND INSPECTION TASK	CONTINUOUS	PERIODIC
VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	-	X
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	-	X
PERFORM CLASSIFICATIONS AND TESTING OF COMPACTED FILL MATERIAL	-	X
DURING FILL PLACEMENT, VERIFY USE OF PROPER MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT. VERIFY DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	-
PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	-	X

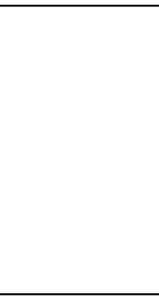
STRUCTURAL STEEL - INSPECTION TASKS DURING BOLTING (AS A MINIMUM) (2021)

VERIFICATION AND INSPECTION TASK	QC	QA	RCSC ¹⁰⁰ SECTIONS
FASTENER ASSEMBLIES PLACED IN ALL HOLES AND WASHERS AND NUTS ARE POSITIONED AS REQUIRED	O	O	7.1(1), 8.1, 9.1
JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	O	O	8.1, 9.1N5.6-2
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	O	O	8.2, 9.2N5.6-2
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	O	O	8.2, 9.2N5.6-2

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ADDITIONS AND RENOVATIONS TO:
 ISLAMIC ASSOC. OF GREATER DETROIT
 879 WEST AUBURN ROAD
 ROCHESTER HILLS, MICHIGAN

DRAWN:	DESIGNED:	CHECKED:
Author	Designer	Checker

SCALE : AS NOTED

FILE NAME :

JOB #: 09129

SHEET TITLE
 SPECIAL INSPECTION SCHEDULES

SHEET #
S.003

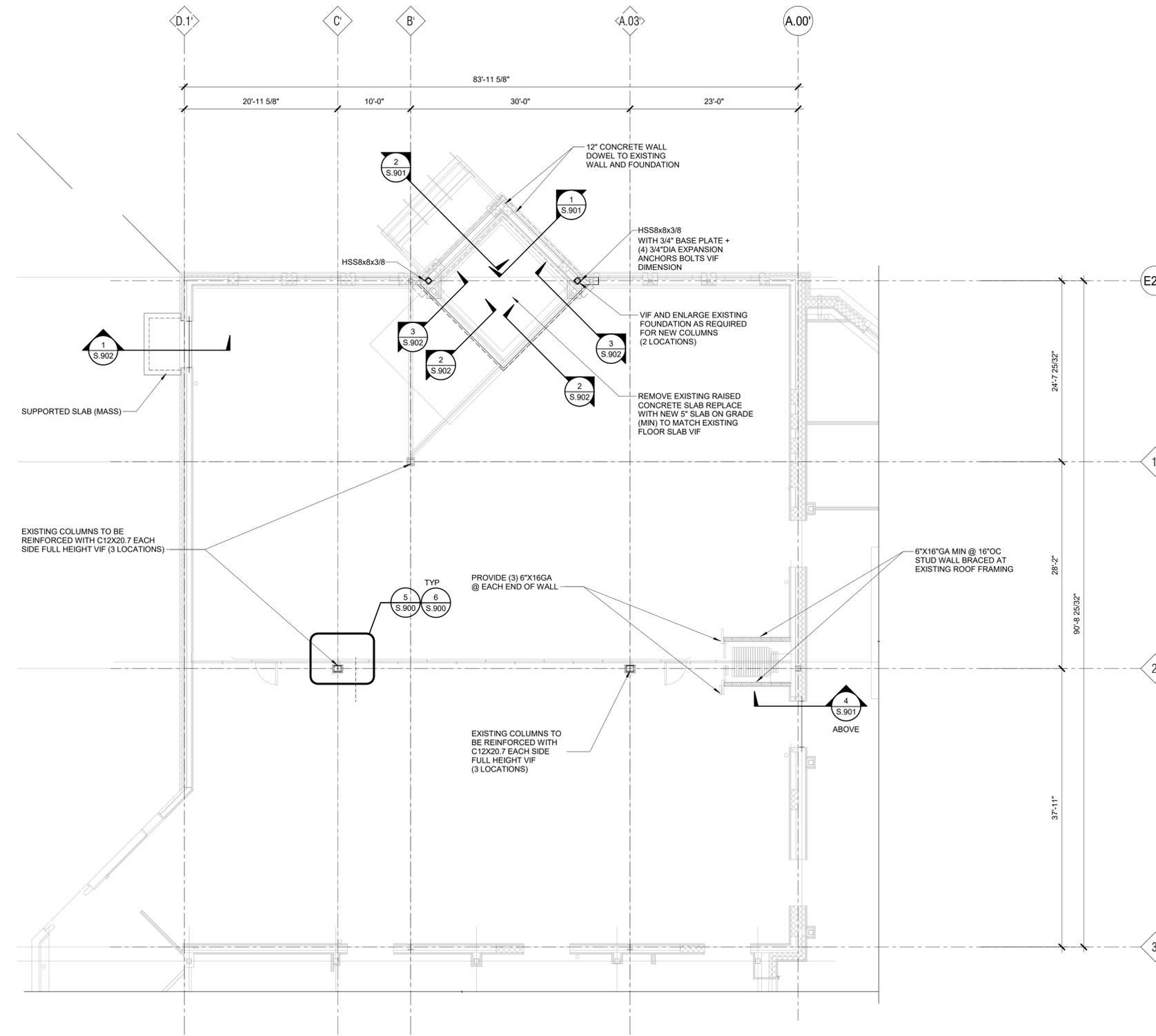
GENERAL CONCRETE SHEET NOTES:

1. TOP OF SLAB EL (XXX-XX') UON.
2. EXTERIOR T.O. FOOTING EL (XXX-XX') UON.
3. INTERIOR T.O. FOOTING EL (XXX-XX') UON.
4. EXTERIOR T.O. WALL EL (XXX-X') UON.
5. T.O. PIER EL (XXX-XX') UON.
6. BFR INDICATES BRACE FRAME ELEVATION. SEE FRAME ELEVATIONS.
7. SEE GENERAL NOTES AND TYPICAL SECTIONS FOR ADDITIONAL INFORMATION.
8. CONTRACTOR VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
9. SEE ARCHITECTURAL DRAWINGS FOR SLAB CONTOURS, VALLEYS AND RIDGES, FLOOR DRAINS, CURBS, ETC.
10. CONTRACTOR TO VERIFY UNDERGROUND UTILITIES LOCATIONS AND INVERT ELEVATIONS. DROP TOP OF FOOTING ELEVATIONS AS REQUIRED TO ALLOW MECHANICAL PIPE TO PASS OVER FOOTING.
11. PROVIDE PIPE SLEEVES AT ALL LOCATIONS WHERE MECHANICAL PIPES PENETRATE WALL. VERIFY LOCATIONS WITH MECHANICAL DRAWINGS. SEE DETAIL.

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PERMIT	2/20/2013

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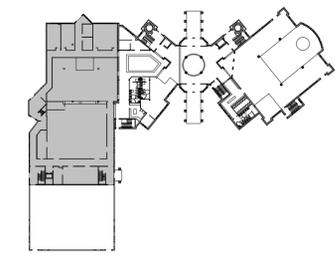
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1 FIRST FLOOR PLAN
1/8" = 1'-0"
NORTH



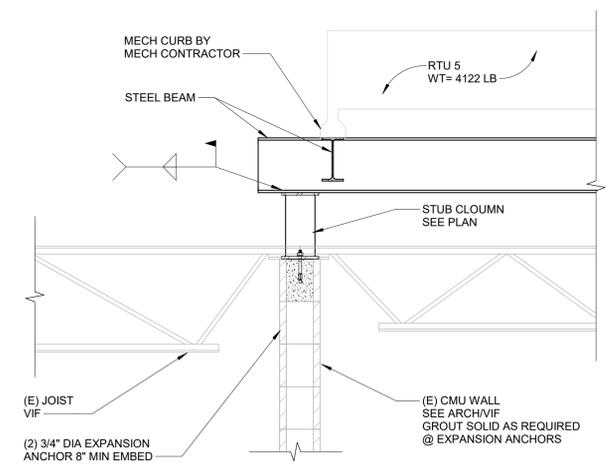
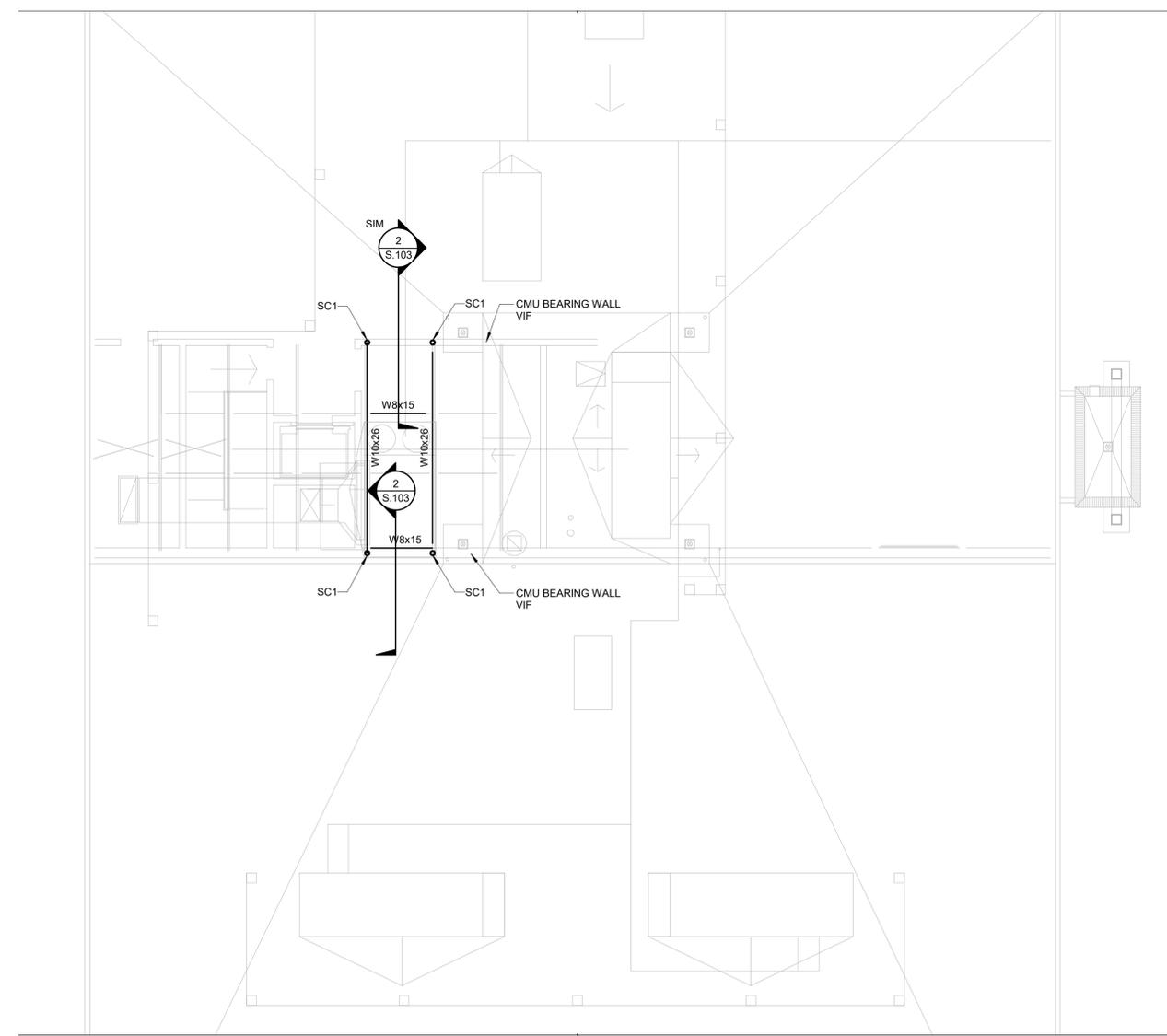
KEY PLAN
NO SCALE

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ROCHESTER HILLS, MICHIGAN

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SCALE : AS NOTED		
FILE NAME :		
JOB #: 09129		
SHEET TITLE FIRST FLOOR PLAN		
SHEET # S.101		

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PERMIT	20250721

- STEEL ROOF FRAMING NOTES:**
1. DECK BEARING ELEVATION NOTED ON PLAN.
 2. SEE GENERAL NOTES AND TYPICAL DETAILS FOR ADDITIONAL INFORMATION.
 3. BEAMS AND/OR JOISTS TO BE EQUALLY SPACED BETWEEN SUPPORTS UON.
 4. ROOF DECK SHALL BE 1 1/2" B (20 GA) DECK, 2-SPAN MIN. PROVIDE 364 FASTENING WITH 5/8"Ø PUDDLE WELDS AND (2)#10 SIDELAP SCREWS.
 5. SC 1 5" DIA STUB COLUMN WITH 12"x7"x5/8" BASEPLATE WITH (2) 3/4" DIA EXPANSION ANCHOR TO BEARING WALL BELOW. SEE SCHEDULE FOR ROOF DECK INFORMATION.
 6. SEE TYPICAL ROOF OPENING DETAILS. NOTE: NOT ALL OPENINGS MAY BE SHOWN. GENERAL CONTRACTOR TO COORDINATE FINAL OPENING LOCATIONS AND DIMENSIONS WITH MEP CONTRACTOR AND ARCH.



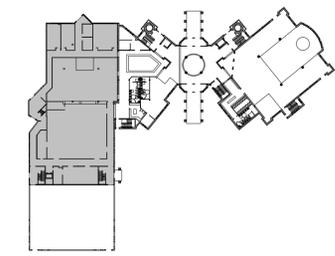
1 ROOF FRAMING PLAN
1/8" = 1'-0"

2 SECTION
3/4" = 1'-0"

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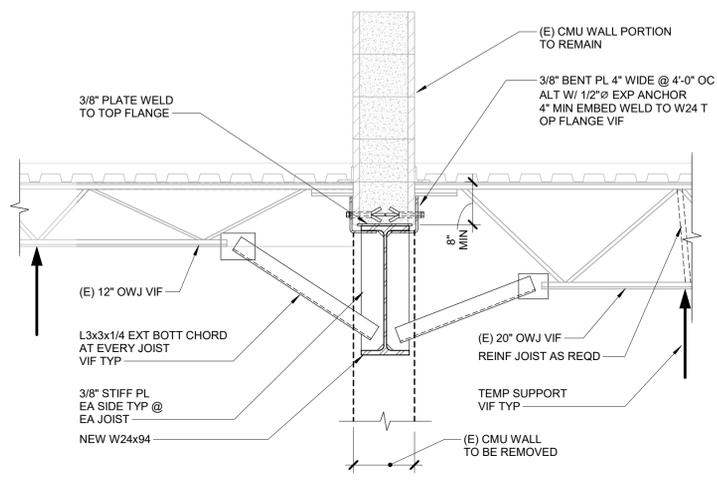


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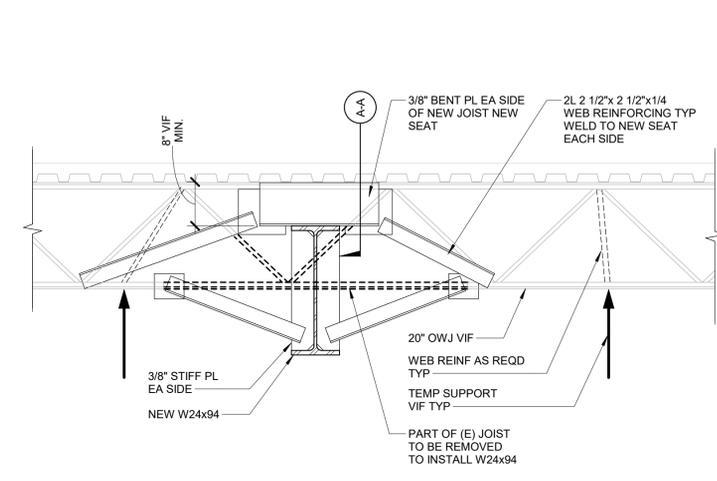
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FILE NAME :		
JOB #: 09129		
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SHEET # S.103		

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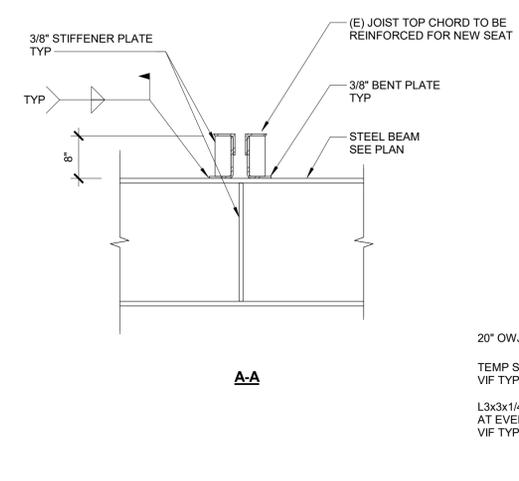
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1 SECTION
3/4" = 1'-0"

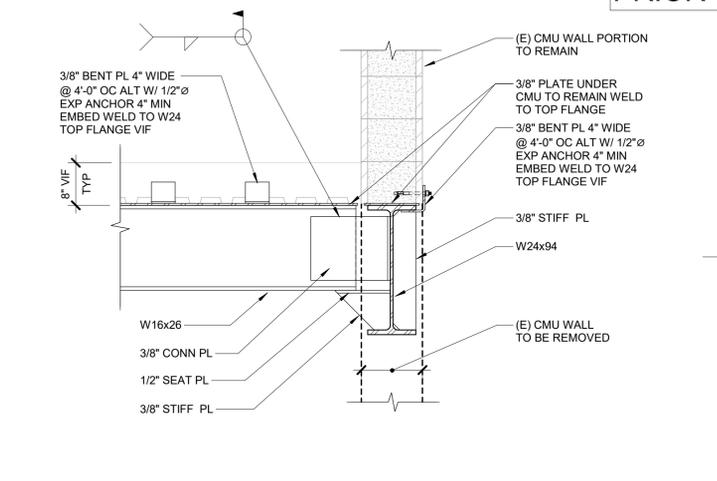


2 SECTION
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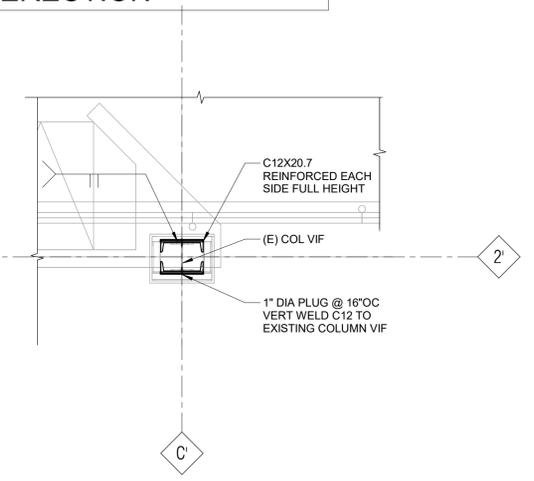


3 SECTION
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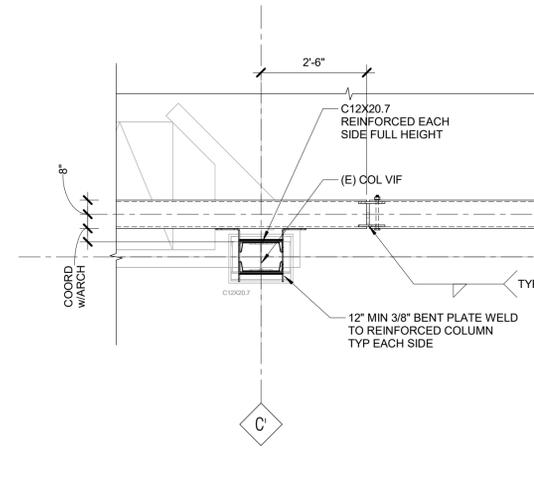
PROVIDE WRITTEN SEQUENCE OF INSTALLATION FOR REVIEW PRIOR TO ERECTION



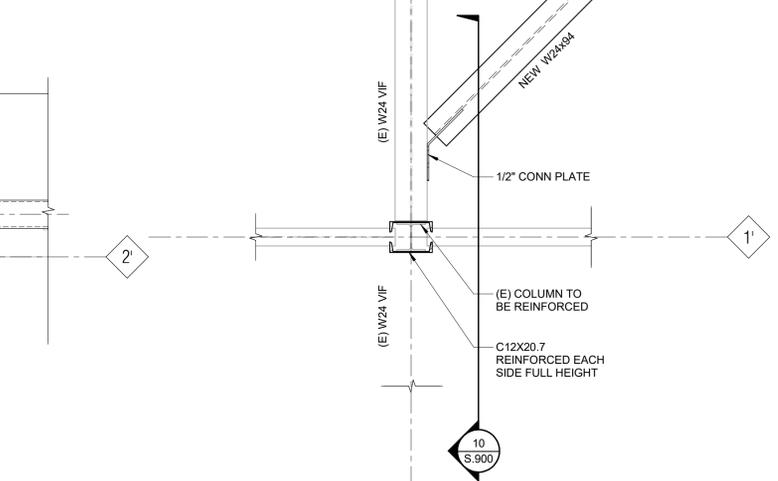
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3/4" = 1'-0"



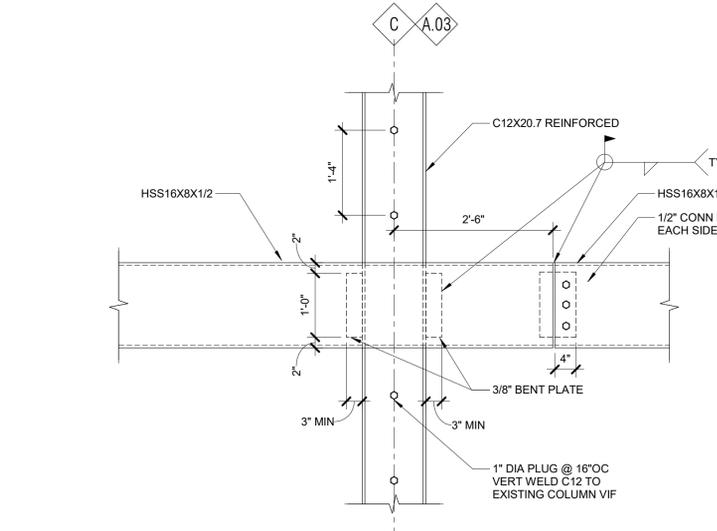
5 PLAN
1/2" = 1'-0"



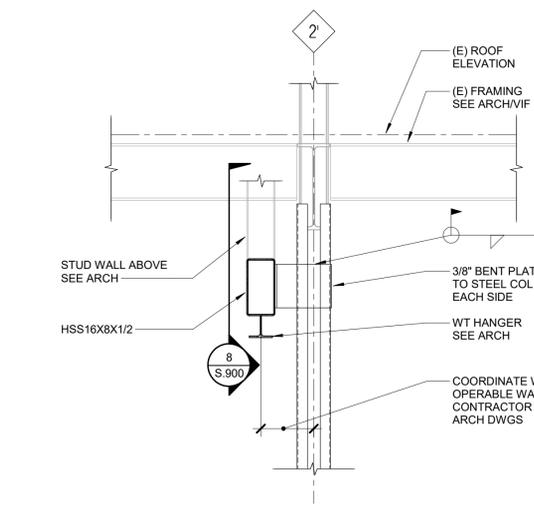
6 PLAN
1/2" = 1'-0"



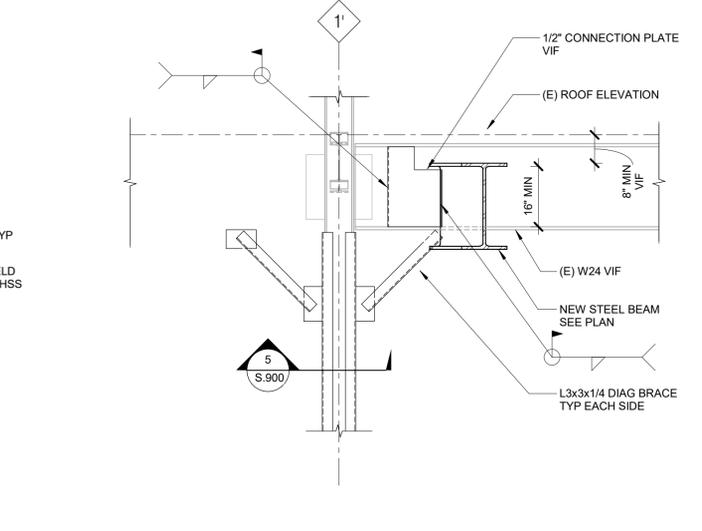
7 PLAN
1/2" = 1'-0"



8 SECTION
3/4" = 1'-0"



9 SECTION
1/2" = 1'-0"



10 SECTION
1/2" = 1'-0"

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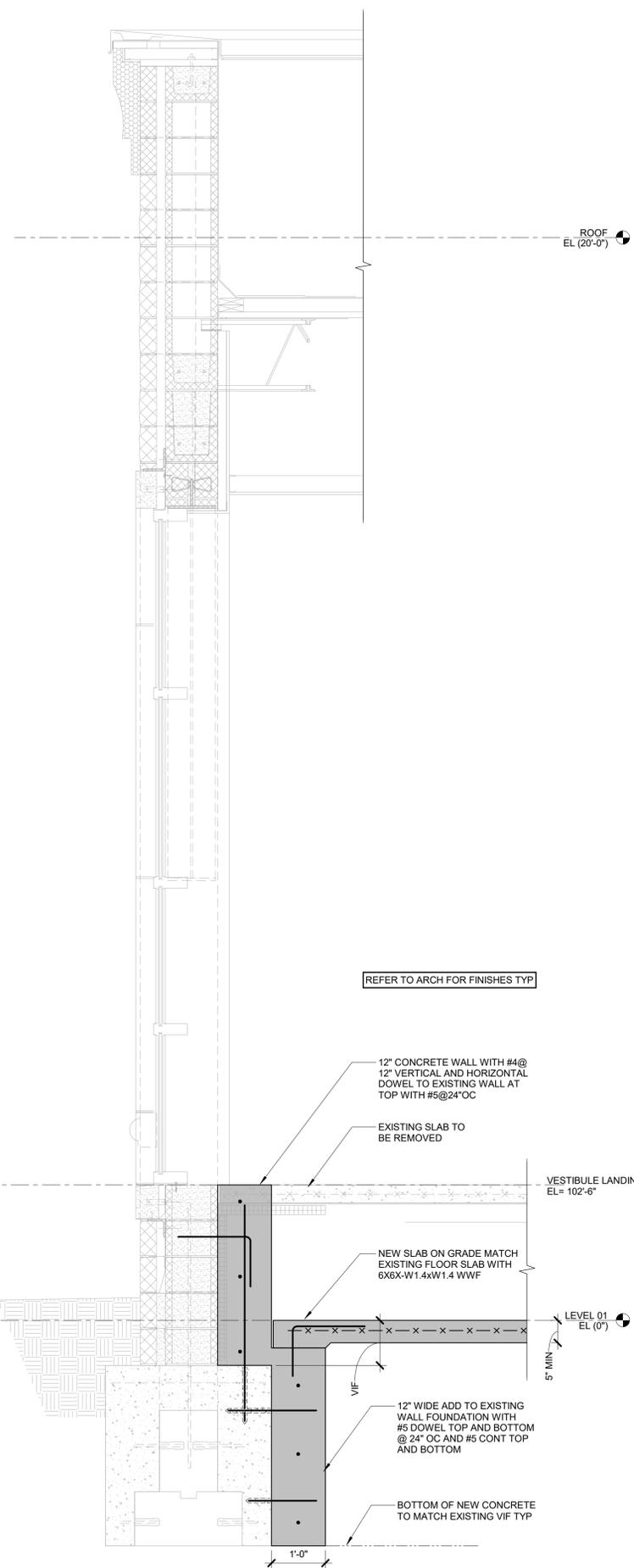
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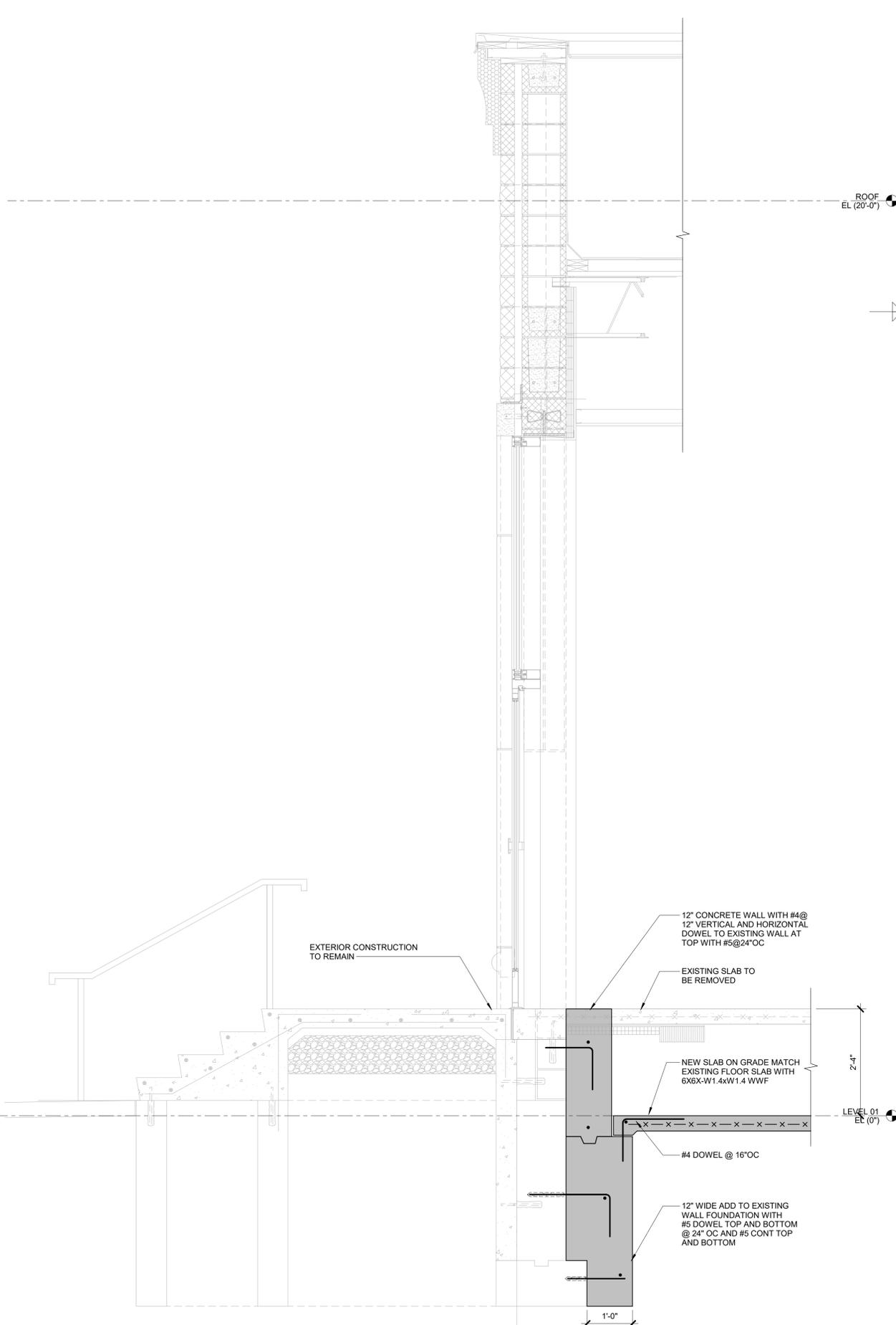


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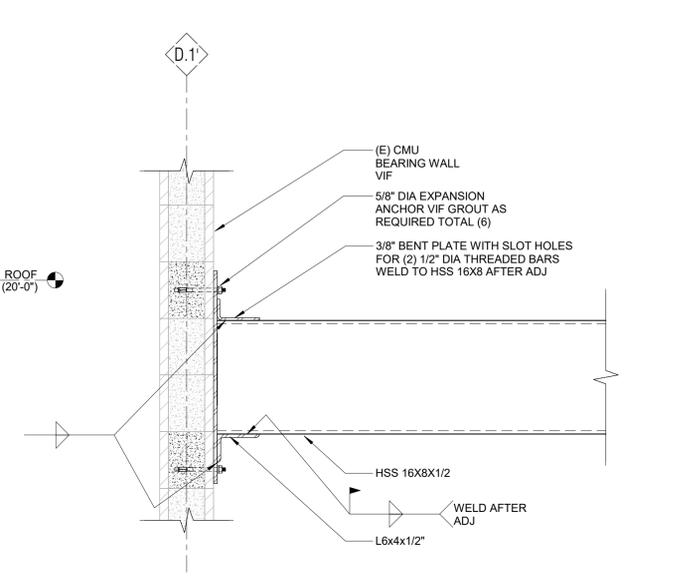
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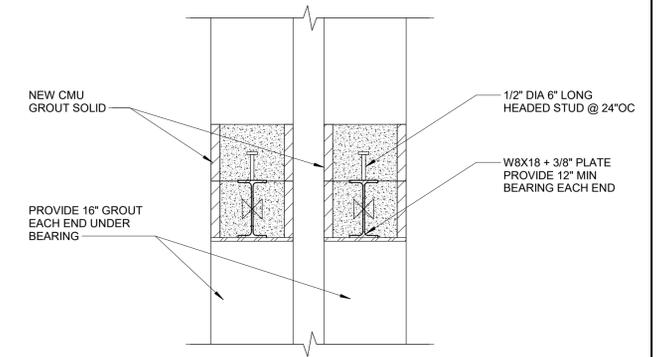
1 SECTION
 3/4" = 1'-0"



2 SECTION
 3/4" = 1'-0"



3 SECTION
 1" = 1'-0"



4 SECTION
 1" = 1'-0"

TYP NEW DOUBLE DOOR HEADER @ EXPANSION JOINT (DBL 12" CMU WALLS)

NOTE:
 1. REFER TO DETAIL 1/902 FOR ADDITIONAL INFORMATION
 2. PROVIDE TEMPORARY SHORING AS REQUIRED

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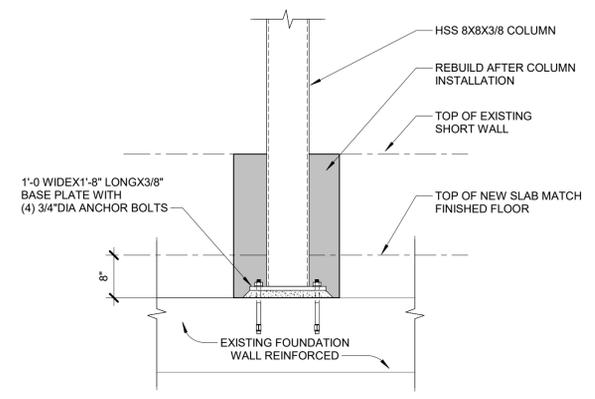


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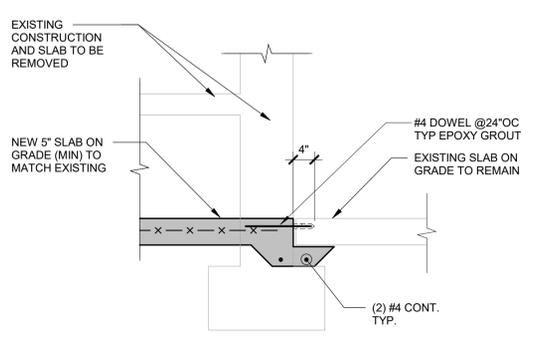
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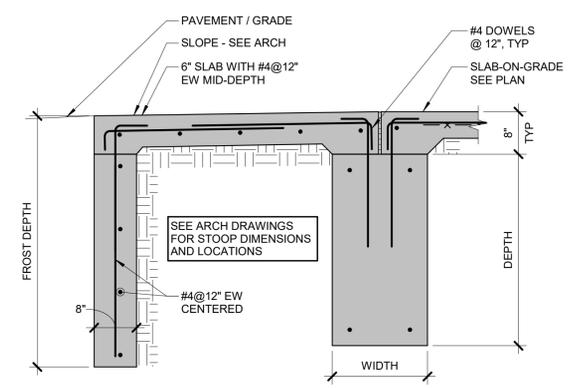
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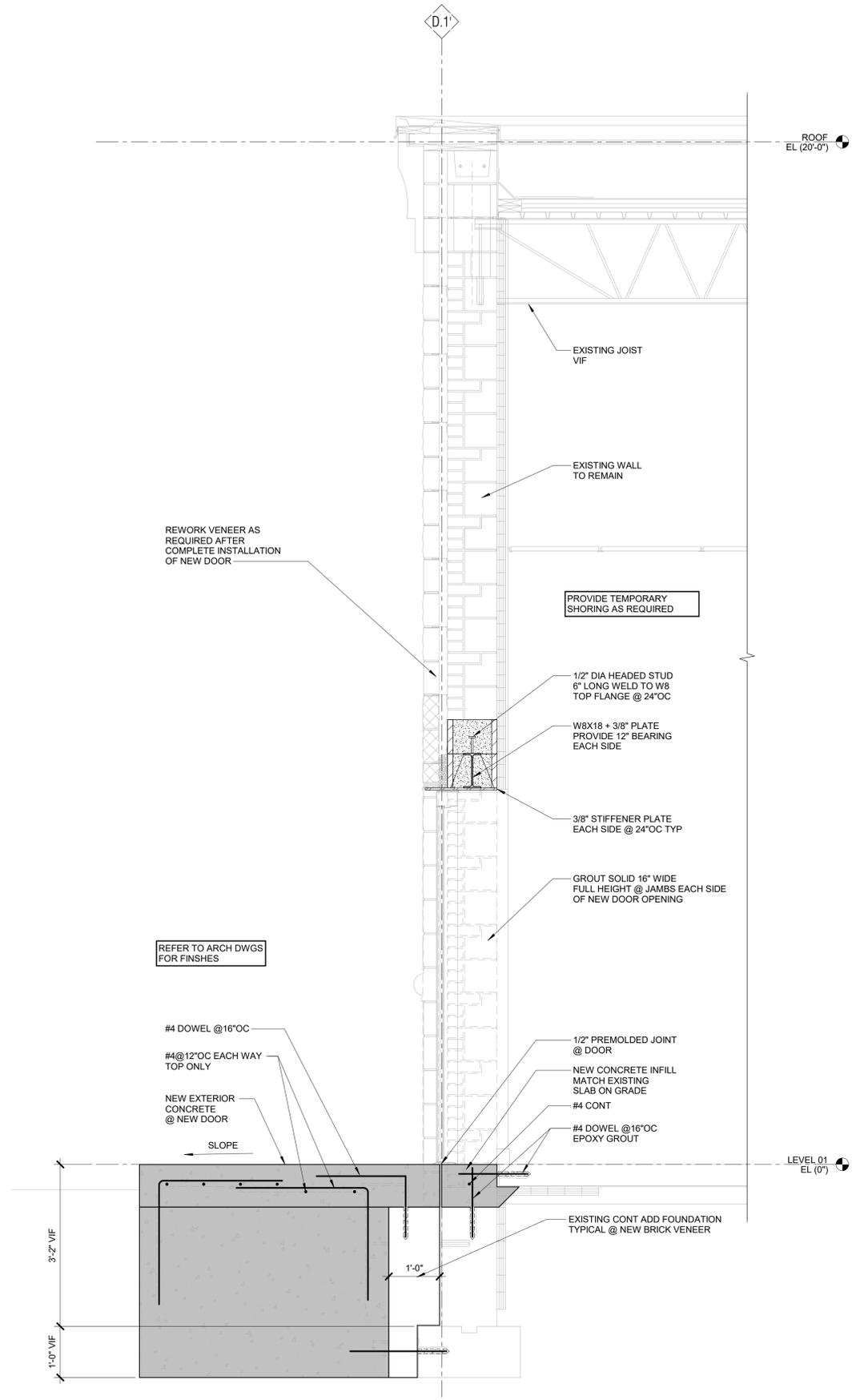
3 3/4" = 1'-0"



2 3/4" = 1'-0"



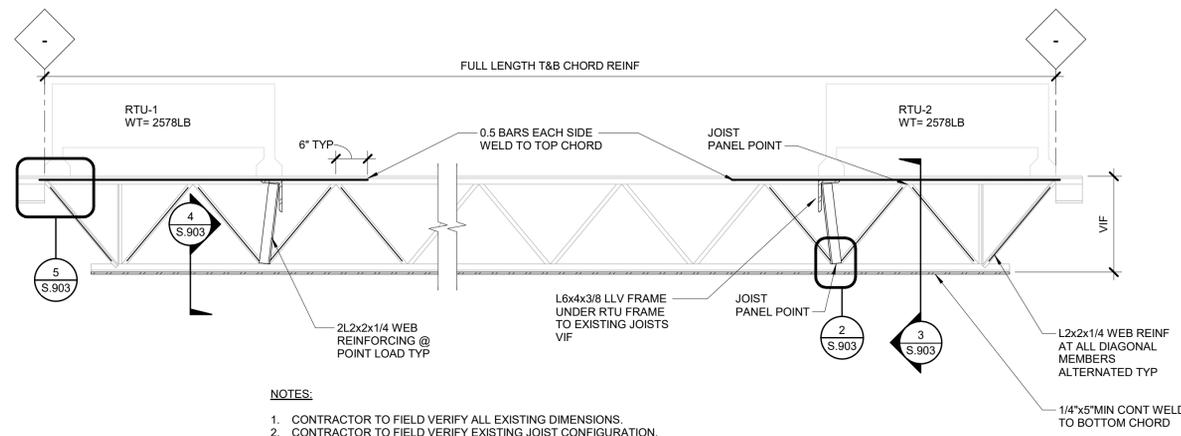
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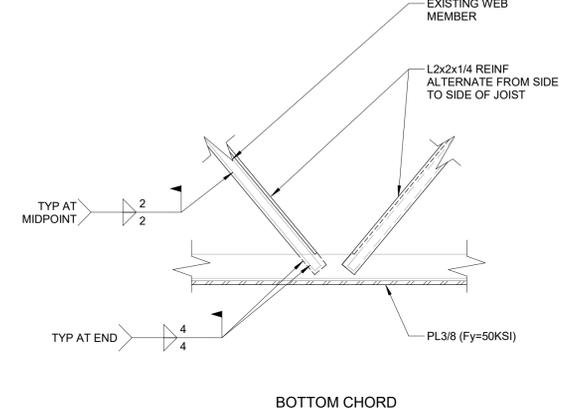
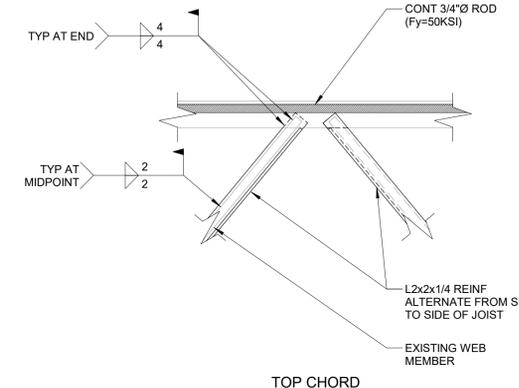
1 3/4" = 1'-0"

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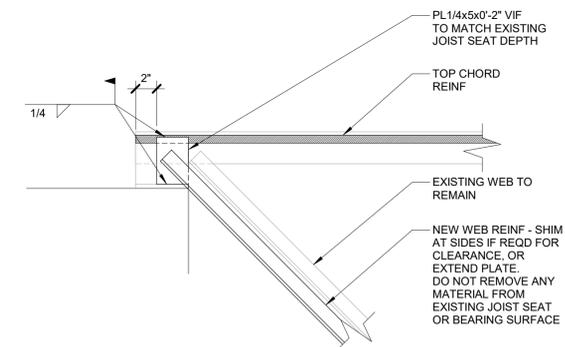
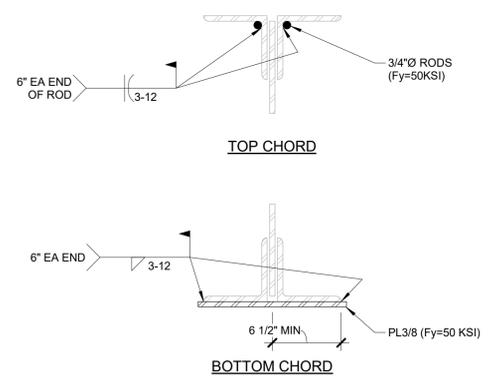
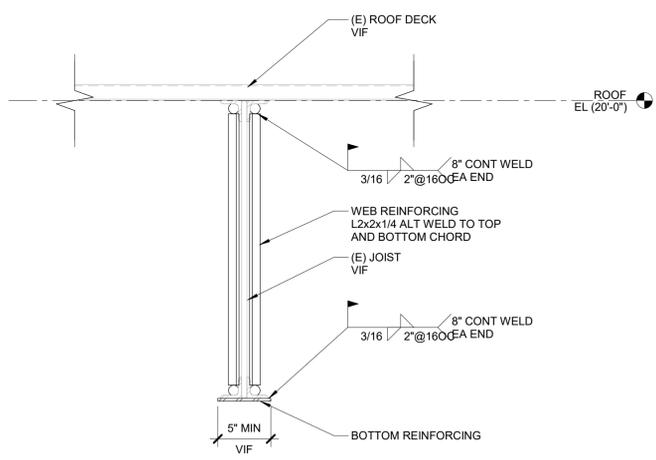


- NOTES:**
1. CONTRACTOR TO FIELD VERIFY ALL EXISTING DIMENSIONS.
 2. CONTRACTOR TO FIELD VERIFY EXISTING JOIST CONFIGURATION, FIELD MEASURE JOIST PANEL POINTS AND MEMBER SIZES.
 3. PROVIDE TEMPORARY SHORING AND BRACING FOR EXISTING JOISTS BEFORE AND DURING OPERATIONS AND UNTIL THE WORK IS SAFELY COMPLETED.
 4. CONTRACTOR SHALL USE CARE DURING WELDING TO PREVENT DISTORTION OF EXISTING JOIST MEMBERS.
 5. THE CUT OFF LENGTH FOR TOP CHORD, BOTTOM CHORD AND WEB MEASURED FROM SUPPORT CENTER LINE TO NEAREST JOIST PANEL POINT.



1 JOIST REINFORCEMENT TYPE 1 TOTAL 4)
 3/4" = 1'-0"
 9200-03

2 EXISTING JOIST WEB AND CHORD REINFORCEMENT
 1 1/2" = 1'-0"
 9200-08



3 SECTION
 1 1/2" = 1'-0"

4 TOP AND BOTTOM CHORD REINFORCEMENT
 1 1/2" = 1'-0"
 9200-09

5 JOIST SEAT AND CHORD REINFORCEMENT
 1 1/2" = 1'-0"
 9200-05

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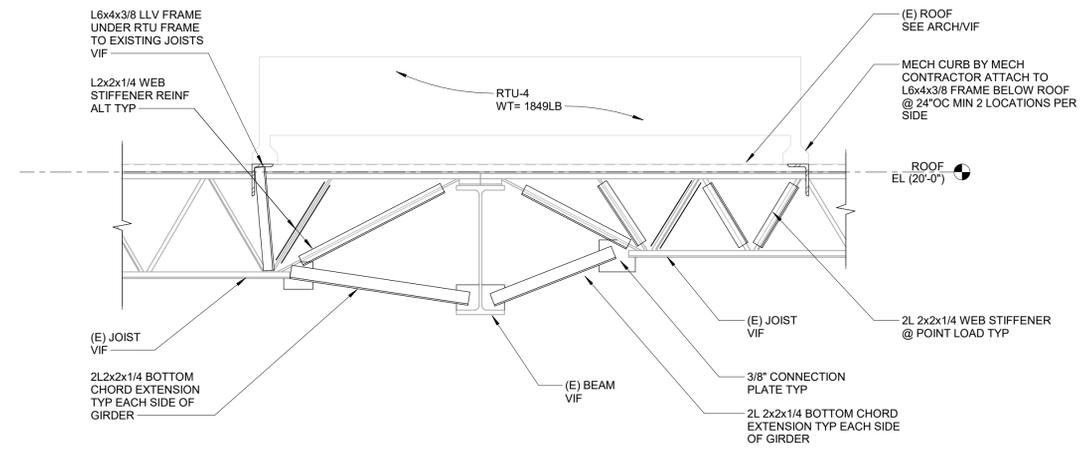
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ADDITIONS AND RENOVATIONS TO:
 ISLAMIC ASSOC. OF GREATER DETROIT
 879 WEST AUBURN ROAD
 ROCHESTER HILLS, MICHIGAN

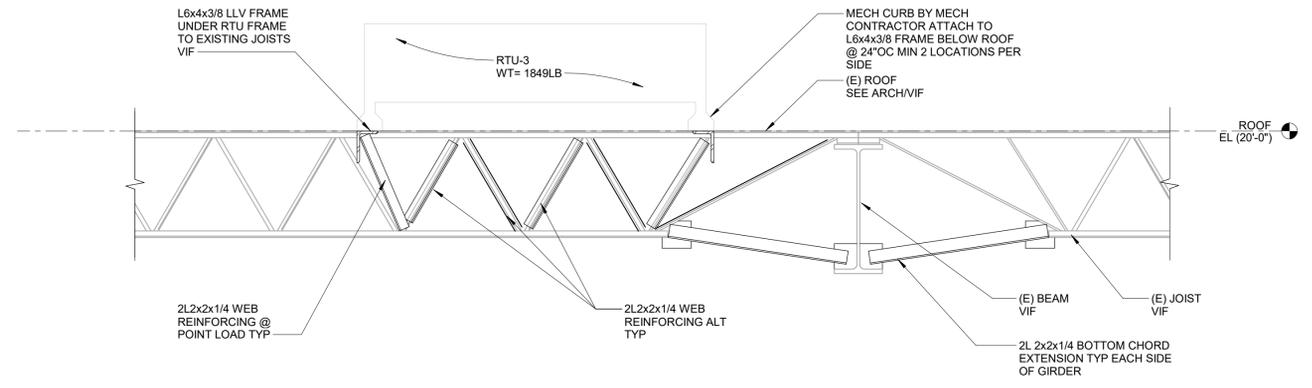
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ARCHITECTURAL DESIGN
RESIDENTIAL COMMERCIAL INDUSTRIAL
G.A.V. ASSOCIATES, INC
 34051 RICHARD LAKE RD., STE. 100A
 FARMINGTON, MICHIGAN 48334
 PH: (248) 888-9101
 WEB: WWW.GAVASSOCIATES.COM



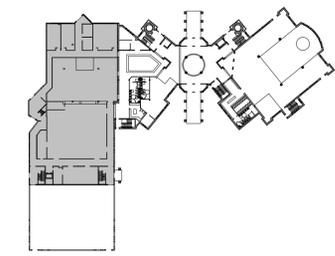
1 **JOIST REINFORCEMENT TYPE 2 (TOTAL 3)**
 3/4" = 1'-0"



2 **JOIST REINFORCEMENT TYPE 3 (TOTAL 4)**
 3/4" = 1'-0"

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0 1 2 3
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KEY PLAN
 NO SCALE

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