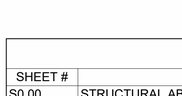
THE AMALGAMATED SUGAR COMPANY
EVAPORATOR EXPANSION PROJECT
VEI PROJECT E24140

STRUCTURAL ABBREVIATIONS

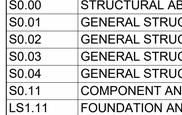
ABBREV	ABBREVIATION
ACI	AMERICAN CONCRETE INSTITUTE
ADD	ADDITIVE
ADDL	ADDITIONAL
AFF	ABOVE FINISHED FLOOR
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
ALT	ALTERNATE/ALTERNATIVE
ALUM	ALUMINUM
ARCH	ARCHITECTURE/ARCHITECTURAL
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS
AWS	AMERICAN WELDING SOCIETY
B/	BOTTOM OF
BLDG	BUILDING
BLK	BLOCK
BM	BEAM
BOT	BOTTOM
BP	BASE PLATE/BEARING PLATE
BRG	BEARING
BTWN	BETWEEN
C	CHANNEL
CB	CONCRETE BEAM
CC	CONCRETE COLUMN
CF	CUBIC FEET (FOOT)
CIP	CAST IN PLACE
CJ	CONTRACTION JOINT
CL	CENTERLINE
CLR	CLEAR/CLEARANCE
CM	CONCRETE MASONRY
CMU	CONCRETE MASONRY UNIT
CO	COMPANY
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CONN	CONNECTION
CONST	CONSTRUCTION
COORD	COORDINATE
CSJ	CONSTRUCTION JOINT
CTR	CENTER
CTRD	CENTERED
CY	CUBIC YARD
DEPT	DEPARTMENT
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIST	DISTANCE
DL	DEAD LOAD
DN	DOWN
DWG	DRAWING
EA	EACH
EE	EACH END
EF	EACH FACE
EHPA	EMERGENCY HURRICANE PROTECTION AREA
EJ	EXPANSION JOINT
ELEC	ELECTRIC/ELECTRICAL
EL, ELEV	ELEVATION
ENGR	ENGINEER
EOD	EDGE OF DECK
EOR	ENGINEER OF RECORD
EQ SP	EQUAL SPACED
ES	EACH SIDE
EW	EACH WAY
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
F	FOUNDATION
FD	FLOOR DRAIN
FDN	FOUNDATION
FF	FINISHED FLOOR
FIN	FINISH
FIN GR	FINISH GRADE
FLR	FLOOR
FS	FAR SIDE
FT	FEET/FOOT
FTG	FOOTING
FV	FIELD VERIFY
GA	GAGE/GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
GC	GENERAL CONTRACTOR
GEN	GENERAL
GL	GRID LINE
GS	GALVANIZED STEEL
HD	HOT DIPPED
HDG	HOT DIPPED GALVANIZED
HORIZ	HORIZONTAL
HSA	HEADED STUD ANCHOR
HSS	HOLLOW STRUCTURAL SECTION
HT	HEIGHT
I	MOMENT OF INERTIA
ID	INSIDE DIAMETER
IF	INSIDE FACE
IN.	INCH
INT	INTERIOR
JST	JOIST
JT	JOINT
K	KIP (1000 LB)
KLF	KIPS PER LINEAL FOOT
KSI	KIPS PER SQUARE INCH
KWY	KEYWAY

ABBREV	ABBREVIATION
LB	POUND
LGTH	LENGTH
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG.	LONGITUDINAL
LSL	LAMINATED STRAND LUMBER
LT WT	LIGHT WEIGHT
LVL	LAMINATED VENEER LUMBER
MATL	MATERIAL
MAX	MAXIMUM
MB	MASONRY BEAM
MC	MISCELLANEOUS CHANNEL/MASONRY COLUMN
MECH	MECHANICAL
MET	METAL
MFR	MANUFACTURE/MANUFACTURER
MID	MIDDLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MPH	MILES PER HOUR
NGVD	NATIONAL GEODETIC VERTICAL DATUM
NIC	NOT IN CONTRACT
NO	NUMBER
NS	NEAR SIDE
NTS	NOT TO SCALE
OC	ON CENTERS
OD	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
OPNG	OPENING
OPP	OPPOSITE
OSB	ORIENTED STRAND BOARD
P/C	PRECAST CONCRETE/PILE CAP
P/T	POST TENSIONED
PAR	PARALLEL
PCB	PRECAST CONCRETE BEAM
PCC	PRECAST CONCRETE COLUMN
PCF	POUNDS PER CUBIC FEET
PEMB	PRE-ENGINEERED METAL BUILDING
PEN	PENETRATION
P.J.	PANEL JOINT CENTERLINE
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PLMG	PLUMBING
PLY.	PLYWOOD
PREFAB	PREFABRICATED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSL	PARALLEL STRAND LUMBER
PT	PRESSURE TREATED
R/W	REINFORCED WITH
RCMDS	RECOMMENDATIONS
RD	ROOF DRAIN
REF	REFERENCE
REINF	REINFORCING
REQD	REQUIRED
REV	REVISION
RTU	ROOF TOP UNIT
SB	SOFFIT BEAM
SCHED	SCHEDULE
S.F.	SQUARE FEET
SF	STRIP FOUNDATION
SIM	SIMILAR
SPC	SPACE/SPACES
SPECS	SPECIFICATIONS
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STRUCT	STRUCTURAL
SYM	SYMMETRICAL
T/	TOP OF
TB	TIE BEAM
T&B	TOP AND BOTTOM
TDS	TURN DOWN SLAB
TE	THICKENED EDGE
TEMP	TEMPERATURE
TENS	TENSION
THD	THREAD/THREADED
THK	THICK
TOL	TOLERANCE
TRANS	TRANSVERSE
TS	TUBE STEEL
TS	THICKENED SLAB
TWF	THICKENED WALL FOUNDATION
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VOL	VOLUME
W	WIDE FLANGE SECTION
W/	WITH
W/O	WITHOUT
WD	WOOD
WF	WALL FOOTING
WP	WORKING POINT
WS	WELDED STUD
WT	WEIGHT/STRUCTURAL TEE SECTION
WWF	WELDED WIRE FABRIC
@	AT DESIGNATION
#	POUNDS / REBAR SIZE NUMBER
+/-	PLUS OR MINUS, FIELD VERIFY QUANTITY
L	ANGLE
&	AND

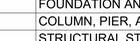
STRUCTURAL SYMBOLS AND LEGEND



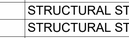
SECTION / DETAIL MARK



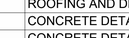
PLAN / DETAIL MARK



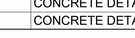
ELEVATION MARK



RECESS OR STEP IN SLAB



SLOPED SURFACE



PLAN NOTE

MOMENT CONNECTION

COLUMN AND FOUNDATION TYPE MARKS

SPOT ELEVATION, TYPICALLY TOP OF ITEM TAGGED (T/WALL, T/FOUNDATION, ETC)

INCREASED FLOOR LOAD AREA IN PSF

SPAN DIRECTION

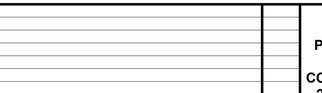

NORTH ARROW

COLUMN GRID LINE


CONCRETE PIER


METAL ROOF PANEL


CONCRETE SLAB ON METAL DECK



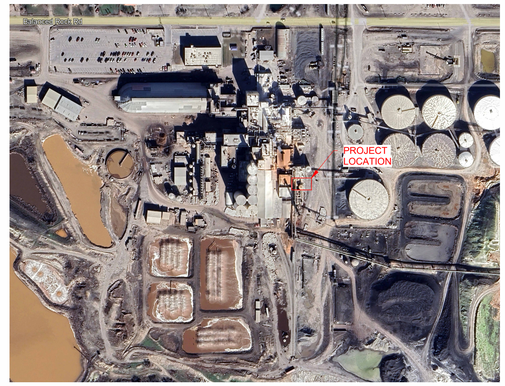
TYPICAL BEAM DESIGNATION

WALL TYPES

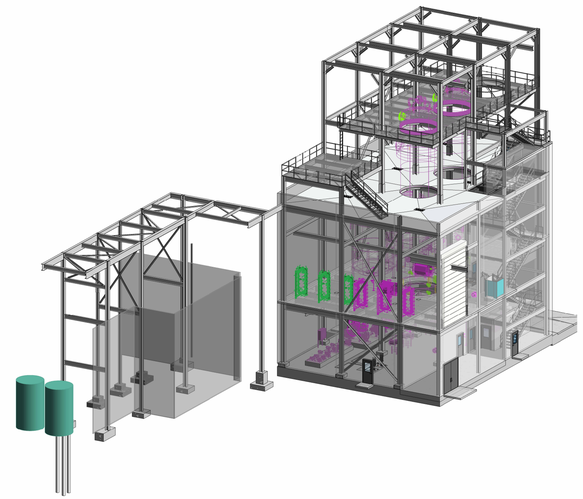
LOAD BEARING MASONRY WALL

LOAD BEARING MASONRY WALL

NOTE: SYMBOLS AND LEGEND SHOWN ARE GENERIC AND DO NOT NECESSARILY INDICATE ACTUAL OCCURRENCES IN THESE DRAWINGS.



1 SITE LOCATION PLAN
NTS


2 PROJECT ISOMETRIC VIEW

STRUCTURAL SHEET INDEX	
SHEET #	SHEET TITLE
S0.00	STRUCTURAL ABBREVIATIONS, SYMBOLS AND LEGEND, AND STRUCTURAL SHEET INDEX
S0.01	GENERAL STRUCTURAL NOTES AND SPECIFICATIONS
S0.02	GENERAL STRUCTURAL NOTES AND SPECIFICATIONS
S0.03	GENERAL STRUCTURAL NOTES AND SPECIFICATIONS
S0.04	GENERAL STRUCTURAL NOTES AND SPECIFICATIONS
S0.11	COMPONENT AND CLADDING DIAGRAM AND TABLES
LS1.11	FOUNDATION AND SLAB ON GRADE PLAN
S1.01	FOUNDATION AND SLAB ON GRADE PLAN
S1.02	COLUMN, PIER, AND BASEPLATE SCHEDULE
S2.01	STRUCTURAL STEEL FRAMING PLANS
S2.02	STRUCTURAL STEEL FRAMING PLANS
S2.03	STRUCTURAL STEEL FRAMING PLANS
S2.12	ROOFING AND DRAINAGE PLAN
S3.01	CONCRETE DETAILS AND SECTIONS
S3.02	CONCRETE DETAILS AND SECTIONS
S3.03	CONCRETE DETAILS AND SECTIONS

STRUCTURAL SHEET INDEX	
SHEET #	SHEET TITLE
S4.11	BUILDING ELEVATIONS
S4.01	BRACED FRAME ELEVATIONS
S4.02	BRACED FRAME ELEVATIONS
S4.12	BUILDING ELEVATIONS
S5.01	STRUCTURAL STEEL FRAMING DETAILS AND SECTIONS
S5.02	STRUCTURAL STEEL FRAMING DETAILS AND SECTIONS
S5.03	STRUCTURAL STEEL FRAMING DETAILS AND SECTIONS
S5.05	STRUCTURAL STEEL FRAMING DETAILS AND SECTIONS
S5.04	STRUCTURAL STEEL FRAMING DETAILS AND SECTIONS
S5.11	STAIR DIAGRAMS AND DETAILS
S5.12	STAIR DIAGRAMS AND DETAILS
S6.01	TYPICAL MASONRY DETAILS AND SECTIONS
S7.01	ROOFING AND PARAPET DETAILS
S7.02	WALL PANEL DETAILS
S7.03	DOOR OPENING DETAILS AND SECTIONS

No.	Date	By	Revision	Ad. No.
C	2025.06.20	DV	OWNER COMMENTS	
B	2025.04.25	DV	ISSUED FOR BID	
A	2025.04.11	DV	ISSUED FOR APPROVAL (70% CHECKSET)	

PRELIMINARY NOT FOR CONSTRUCTION 20 JUNE 2025

4990 Royal Gulf Circle
Fort Myers, FL 33966
Ph: 239.768.1778, Fax: 239.210.2168
http://www.veiglobal.com

Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
STRUCTURAL ABBREVIATIONS, SYMBOLS AND LEGEND, AND STRUCTURAL SHEET INDEX

AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
Project: E24140
Dwg: S0.00
Revision:

C:\Users\dviele\Documents\E24140 ASC Evaporator STR R25 backup_diviele@veiglobal.com.rvt

GENERAL NOTES AND STRUCTURAL SPECIFICATIONS

1. GENERAL NOTES

1.1. NO PROVISION OF ANY REFERENCED STANDARD SPECIFICATION, MANUAL OR CODE (WHETHER OR NOT SPECIFICALLY INCORPORATED BY REFERENCE IN THE CONTRACT DOCUMENTS) SHALL BE EFFECTIVE TO CHANGE THE DUTIES AND RESPONSIBILITIES OF OWNER, CONTRACTOR, ENGINEER, SUPPLIER, OR ANY OF THEIR CONSULTANTS, AGENTS, OR EMPLOYEES FROM THOSE SET FORTH IN THE CONTRACT DOCUMENTS. NOR SHALL IT BE EFFECTIVE TO ASSIGN TO THE STRUCTURAL ENGINEER OF RECORD OR ANY OF THE STRUCTURAL ENGINEER OF RECORD'S CONSULTANTS, AGENTS, OR EMPLOYEES ANY DUTY OR AUTHORITY TO SUPERVISE OR DIRECT THE FURNISHING OR PERFORMANCE OF THE WORK OR ANY DUTY OR AUTHORITY TO UNDERTAKE RESPONSIBILITIES CONTRARY TO THE PROVISIONS OF THE CONTRACT DOCUMENTS.

1.2. CONTRACT DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO, THE STRUCTURAL DOCUMENTS (DRAWINGS AND SPECIFICATIONS), BUT DO NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR MATERIAL PREPARED AND SUBMITTED BY THE CONTRACTOR.

1.3. REFERENCE TO STANDARD SPECIFICATIONS OF ANY TECHNICAL SOCIETY, ORGANIZATION, OR ASSOCIATION OR TO CODES OF LOCAL OR STATE AUTHORITIES, SHALL MEAN THE LATEST STANDARD, CODE, SPECIFICATION OR TENTATIVE SPECIFICATION ADOPTED AT THE DATE OF TAKING BIDS, UNLESS SPECIFICALLY STATED OTHERWISE.

1.4. CONTRACT DOCUMENTS SHALL GOVERN IN THE EVENT OF A CONFLICT WITH THE CODE OF PRACTICE OR SPECIFICATIONS OF ACI, PCI, AISC, SJI OR OTHER STANDARDS. WHERE A CONFLICT OCCURS WITHIN THE CONTRACT DOCUMENTS, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.

1.5. COPIES OF THE SITE SUBSURFACE INVESTIGATION WILL BE MADE AVAILABLE UPON REQUEST. THE OWNER WILL NOT BE RESPONSIBLE FOR INTERPRETATION OR CONCLUSIONS DRAWN THEREFROM BY THE CONTRACTOR. THE DATA IS MADE AVAILABLE FOR THE CONVENIENCE OF THE CONTRACTOR AND IS NOT GUARANTEED TO REPRESENT ALL CONDITIONS THAT MAY BE OCCURRED.

1.6. MATERIAL, WORKMANSHIP, AND DESIGN SHALL CONFORM TO THE REFERENCED BUILDING CODE.

1.7. CONTRACTOR SHALL COORDINATE THE STRUCTURAL DOCUMENTS WITH THE MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL DOCUMENTS. ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY OR OMISSION.

1.8. CONTRACTOR SHALL VERIFY EXISTING DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS BEFORE STARTING WORK. OWNER/ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY.

1.9. CONTRACTOR SHALL HAVE THE STRUCTURE LOCATION STAKED AND CERTIFIED BY A LICENSED SURVEYOR. IF DISCREPANCIES BETWEEN ACTUAL LINES AND ELEVATIONS EXIST, NOTIFY STRUCTURAL ENGINEER BEFORE PROCEEDING WITH LAYOUT OF STRUCTURE.

1.10. CONTRACTOR SHALL VERIFY THE STRUCTURALLY SUPPORTED MECHANICAL EQUIPMENT WEIGHTS, OPENING SIZES AND LOCATIONS IDENTIFIED ON THE STRUCTURAL DRAWINGS WITH MECHANICAL DRAWINGS.

1.11. CONTRACTOR SHALL VERIFY THAT MISCELLANEOUS FRAMING SHOWN ON THE STRUCTURAL DRAWINGS FOR MECHANICAL EQUIPMENT, OWNER-FURNISHED ITEMS, PARTITIONS, ETC. IS CONSISTENT WITH THE REQUIREMENTS OF SUCH ITEMS.

1.12. CONTRACTOR HAS SOLE RESPONSIBILITY FOR MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION.

1.13. THE STRUCTURE IS STABLE ONLY IN ITS COMPLETED FORM. TEMPORARY SUPPORTS REQUIRED FOR STABILITY DURING ALL INTERMEDIATE STAGES OF CONSTRUCTION SHALL BE DESIGNED, FURNISHED, AND INSTALLED BY THE CONTRACTOR.

1.14. CONTRACTOR HAS SOLE RESPONSIBILITY TO COMPLY WITH ALL OSHA REGULATIONS.

1.15. ELECTRONIC DRAWING FILES WILL NOT BE PROVIDED TO THE CONTRACTOR. REPRODUCTION OF STRUCTURAL DRAWINGS FOR SHOP DRAWINGS IS NOT PERMITTED.

1.16. REVIEW OF SUBMITTALS OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW AND CHECK ALL SUBMITTALS AND SHOP DRAWINGS BEFORE SUBMITTING TO THE STRUCTURAL ENGINEER. CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS.

1.17. DETAILS LABELED "TYPICAL" ON THE STRUCTURAL DRAWINGS APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THE TYPICAL DETAILS UNLESS THOSE LOCATIONS ARE SPECIFICALLY DETAILED OTHERWISE.

1.18. SCALING OF DRAWINGS SHALL NOT BE USED TO OBTAIN OR VERIFY ANY DIMENSION SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE ENGINEER FOR ANY DIMENSION NOT PROVIDED ON THE DRAWINGS.

2. CODE/DESIGN CRITERIA

2.1. STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, 2018 EDITION.

2.2. UNIFORM FLOOR LIVE LOADS (REDUCED AS ALLOWED BY THE BUILDING CODE), UNLESS NOTED OTHERWISE IN THE DRAWINGS:

2.2.1.	CATWALKS AND ACCESS PLATFORMS	75	PSF
2.2.2.	PIPING ALLOWANCE	20	PSF
2.2.3.	STAIRS	100	SF
2.2.4.	MANUFACTURING HEAVY	250	SF

2.3. UNIFORM ROOF LIVE LOADS (REDUCED AS ALLOWED BY THE BUILDING CODE):

2.3.1.	ROOF	20	SF

2.4. SNOW LOADS

2.4.1.	GROUND SNOW LOAD	PG = 30 PSF
2.4.2.	SNOW EXPOSURE COEFFICIENT	C_E = 0.9
2.4.3.	SNOW LOAD IMPORTANCE FACTOR	I = 1.1
2.4.4.	THERMAL FACTOR	C_T= 1.2
2.4.5.	PONDING AND DRIFT EFFECTS HAVE BEEN INCLUDED IN THE DESIGN.	

2.5. CONCENTRATED FLOOR LOADS - DISTRIBUTED OVER AN AREA OF 2-1/2 SQUARE FEET, UNLESS NOTED OTHERWISE:

2.5.1.	CATWALK AND ACCESS PLATFORMS	300	LB
2.5.2.	MANUFACTURING HEAVY	3000	LB

2.6. DEAD LOADS (IN ADDITION TO STRUCTURE SELF-WEIGHT):

2.6.1.	PIPING ALLOWANCE	20 PSF
2.6.2.	GRATING	15 PSF
2.6.3.	ROOFING	10 PSF

2.7. WIND LOADS:

2.7.1.	BASIC WIND SPEED	117 MPH
2.7.2.	EXPOSURE,	C
2.7.3.	RISK CATEGORY	II
2.7.4.	INTERNAL PRESSURE COEFFICIENT	
2.7.5.	ENCLOSED BUILDINGS	GC_{pi}= +/- 0.18
2.7.6.	SEE COMPONENT AND CLADDING DESIGN WIND PRESSURE DIAGRAM	

2.8. EARTHQUAKE LOADS:

2.8.1.	OCCUPANCY CATEGORY,	F-1
2.8.2.	SEISMIC IMPORTANCE FACTOR,	1.0
2.8.3.	MAPPED SPECTRAL ACCELERATION FOR SHORT PERIODS	S_S =0.197
2.8.4.	MAPPED SPECTRAL ACCELERATION FOR A 1 SECOND PERIOD	S_1 =0.083
2.8.5.	SHORT PERIOD DESIGN SPECTRAL RESPONSE COEFFICIENT	S_{DS} =0.170
2.8.6.	1 SECOND PERIOD DESIGN SPECTRAL RESPONSE COEFFICIENT	S_{D1} =0.083
2.8.7.	SITE CLASS C (REFER TO GEOTECHNICAL REPORT)	
2.8.8.	SEISMIC DESIGN CATEGORY B	
2.8.9.	BASIC SEISMIC-FORCE RESISTING SYSTEM: STEEL ORDINARY CONCENTRICALLY BRACED FRAMES AND ORDINARY REINFORCED MASONRY SHEAR WALLS	
2.8.10.	SEISMIC RESPONSE COEFFICIENT	CS =0.044
2.8.11.	SEISMIC MODIFICATION FACTOR	R = 3.0
2.8.12.	SEISMIC BASE SHEAR	V=278.6 KIPS

2.9. UNLESS NOTED OTHERWISE CALCULATED INDIVIDUAL MEMBER DEFLECTIONS (IN INCHES) DO NOT EXCEED THE FOLLOWING:

	LIVE LOAD	SNOW/WIND LOAD	DEAD + LIVE LOAD
ROOF MEMBERS:	L/240	L/240	L/180
FLOOR MEMBERS:	L/360		L/240

WHERE, L = SPAN LENGTH (IN INCHES) BETWEEN SUPPORTS. (FOR CANTILEVERS, L IS TWICE THE LENGTH OF THE CANTILEVER.) NOTE THAT THE TOTAL MAXIMUM CALCULATED FLOOR SYSTEM DEFECTION WILL BE THE SUM OF THE DEFLECTIONS OF THE SUPPORTED ELEMENTS IN A BAY.

THE CALCULATED DEFLECTION FOR INDIVIDUAL MEMBERS SUPPORTING MASONRY DO NOT EXCEED L/600 FOR DESIGN LOADS APPLIED AFTER THE INSTALLATION OF THE MASONRY.

2.10. SPECIAL INSPECTIONS:

2.10.1. THE STRUCTURAL TESTING/INSPECTION AGENCY WILL PERFORM SPECIAL INSPECTIONS AS REQUIRED BY CHAPTER 17 OF THE BUILDING CODE.

2.10.2. SPECIAL INSPECTION AS REQUIRED BY CHAPTER 17 OF THE BUILDING CODE ARE REQUIRED FOR STRUCTURAL COMPONENTS AND ASSEMBLIES WHICH ARE NOT FABRICATED AT THE CONSTRUCTION JOB SITE INCLUDING BUT NOT LIMITED TO FLOOR AND ROOF TRUSSES AND JOISTS OF WOOD AND STEEL MATERIALS, STRUCTURAL STEEL FRAMING, AND PRECAST CONCRETE, JOISTS, BEAMS, COLUMNS, SLABS, WALLS AND CLADDING.

2.10.3. SPECIAL INSPECTION AS REQUIRED BY CHAPTER 17 OF THE BUILDING CODE MAY BE WAIVED FOR ITEMS WHICH ARE PRODUCED ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION. APPROVAL SHALL BE BASED UPON REVIEW OF THE FABRICATOR'S WRITTEN PROCEDURAL AND QUALITY CONTROL MANUALS AND BY PERIODIC AUDITING OF FABRICATION PRACTICES BY AN APPROVED SPECIAL INSPECTION AGENCY. THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE CHIEF COMMERCIAL BUILDING INSPECTOR OR HIS DESIGNEE WHICH STATES THAT THE FABRICATION WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.

2.10.4. THE PROJECT CONTRACTOR WILL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PERFORM INSPECTIONS AS REQUIRED BY CHAPTER 17 OF THE BUILDING CODE DURING CONSTRUCTION OF THE PROJECT. DOCUMENTATION THAT SUMMARIZES THE QUALIFICATION AND CREDENTIALS OF EACH SPECIAL INSPECTOR AND DEMONSTRATES COMPETENCE FOR INSPECTION OF EACH PARTICULAR TYPE OF CONSTRUCTION REQUIRING SPECIAL INSPECTION SHALL BE SUBMITTED TO THE CHIEF COMMERCIAL BUILDING INSPECTOR OR HIS DESIGNEE FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

2.10.5. APPROVED SPECIAL INSPECTORS SHALL FURNISH INSPECTION REPORTS TO THE CHIEF COMMERCIAL BUILDING INSPECTOR OR HIS DESIGNEE AND TO THE OWNER WHICH INDICATES THAT THE WORK INSPECTED WAS DONE IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. A FINAL REPORT WHICH DOCUMENTS THE RESULTS OF THE SPECIAL INSPECTIONS PERFORMED INCLUDING CORRECTION OF ANY DISCREPANCIES IDENTIFIED DURING INSPECTION SHALL BE SUBMITTED PERIODICALLY AT A FREQUENCY APPROVED BY THE CHIEF COMMERCIAL BUILDING INSPECTOR PRIOR TO CONSTRUCTION.

2.11. NO PROVISIONS HAVE BEEN MADE FOR FUTURE VERTICAL EXPANSION. DESIGN HAVE BEEN COMPLETED TO INCLUDE A FUTURE BAY TO THE EAST SIMILAR TO THE CURRENT EAST BAY.

3. FOUNDATION NOTES

3.1. FOUNDATION DESIGN IS BASED ON THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT PREPARED BY STRATA, REPORT NUMBER TF24239E DATED JANUARY 7, 2025. STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR SUBSURFACE CONDITIONS ENCOUNTERED IN THE FIELD DIFFERENT TO THOSE ASSUMED FOR DESIGN.

3.2. CONTRACTOR MAY EXAMINE THE SITE AND MAKE THEIR OWN SUBSURFACE EXPLORATION AT NO ADDITIONAL COST TO THE OWNER. NOTIFY OWNER PRIOR TO MAKING ANY SUBSURFACE EXPLORATIONS.

3.3. NOTIFY THE OWNER/STRUCTURAL ENGINEER 48 HOURS PRIOR TO THE BEGINNING OF EXCAVATION WORK.

3.4. LOCATE EXISTING UTILITIES BY CAREFUL HAND EXCAVATION. IF UTILITIES ARE TO REMAIN IN PLACE, PROVIDE PROTECTION FROM DAMAGE DURING CONSTRUCTION OPERATIONS. COOPERATE WITH OWNER AND UTILITY COMPANIES IN KEEPING RESPECTIVE SERVICES AND FACILITIES IN OPERATION. DO NOT INTERRUPT EXISTING UTILITY SERVICES AND FACILITIES UNLESS WRITTEN PERMISSION IS GIVEN BY THE OWNER AND THEN ONLY AFTER TEMPORARY UTILITY SERVICES HAVE BEEN PROVIDED.

3.5. SHOULD UNCHARTED OR INCORRECTLY CHARTED PIPING OR OTHER UTILITIES BE ENCOUNTERED DURING EXCAVATION, CONSULT WITH OWNER IMMEDIATELY FOR DIRECTIONS.

3.6. REPAIR DAMAGED SERVICES TO SATISFACTION OF UTILITY OWNER.

3.7. FOOTINGS HAVE BEEN DESIGNED WITH AN ALLOWABLE BEARING CAPACITY OF 5000 PSF.

3.8. STRUCTURAL TESTING/INSPECTION AGENCY SHALL CERTIFY THE BEARING MEDIUM.

3.9. NO FOOTINGS SHALL BEAR ON ROCK. UNDERCUT ROCK A MINIMUM OF 2 FEET

3.10. UNDERCUT THE ENTIRE BUILDING AREA TO THE EXTENT FIVE FEET BEYOND THE BUILDING ENVELOPE AND A DEPTH OF SIX FEET AND REPLACE WITH COMPACTED STRUCTURAL FILL AS REQUIRED BY THE GEOTECHNICAL REPORT.

3.11. GROUNDWATER MAY BE ENCOUNTERED DURING THE FOUNDATION EXCAVATION. PROVIDE A SYSTEM FOR CONTROLLING THE GROUNDWATER TO A LEVEL AT LEAST THREE FEET BELOW THE LOWEST POINT OF THE EXCAVATION.

3.12. KEEP EXCAVATIONS DRY BY SLOPING THE GROUND AWAY FROM HOLES AND TRANCHES. AREAS FOUND TO BE SOFT OR SLUMPING SHALL HAVE THE SOFT SOIL REMOVED AND REPLACES WITH THE SPECIFIED STRUCTURAL FILL AND COMPACTED AS OUTLINED HEREIN.

3.13. GRANULAR STRUCTURAL FILL

3.13.1. ALLOWABLE USES: GENERAL STRUCTURAL FILL AND OVER-EXCAVATIONS

3.13.2. SOIL CLASSIFIED AS GW, GP, GP-GM, SP AND SP-SM ACCORDING TO THE USCS,AND MEETING THE GRADATION OF 6- INCH MINUS AND LESS THAN 10% PASSING #200 SIEVE

3.13.3. SOIL MEETING REQUIREMENTS STATED IN THE LATEST EDITION OF THE IDAHO STANDARD FOR PUBLIC WORKS CONSTRUCTION (ISPWC), SECTION 801 - AGGREGATE SUBBASE, WITH A MAXIMUM PARTICLE SIZE OF 6 INCHES

3.14. GENERAL STRUCTURAL FILL

3.14.1. ALLOWABLE USES: GENERAL SITE GRADING

3.14.2. STRUCTURAL FILL SHALL CONSIST OF SOIL CLASSIFIED AS GW, GP, GP-GM, GM, SW, SP, SP-SM, SM, SP-SC, SC,ML OR CL ACCORDING TO THE USCS.

3.14.3. MAXIMUM PARTICLE SIZE MUST BE LESS THAN 6 INCHES

3.14.4. SOIL CONSISTING OF INERT EARTH MATERIALS WITH LESS THAN 3% ORGANICS OR OTHER DELETERIOUS SUBSTANCES (WOOD, METAL, PLASTIC, WASTE, ETC.)

3.15. PLACEMENT OF FILL/SUBBASE

3.15.1. DO NOT PLACE ON SUBGRADE THAT CONTAINS FROST, MUD, OR IS FROZEN.

3.15.2. STRUCTURAL FILL SHALL BE PLACED AND COMPACTED IN 10-INCH MAXIMUM THICK LOOSE LAYER.

3.15.3. STRUCTURAL FILL SHALL CONTAIN NO ORGANIC MATERIAL AND BE APPROVED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT. STRUCTURAL FILL UNDER SLABS AND WITHIN 5'-0" OF THE BUILDING FOOTPRINT SHALL BE PLACED IN LIFTS OF THICKNESS DETERMINED BY THE INDEPENDENT TESTING AGENCY AND COMPACTED TO AT LEAST 95% OF ITS MODIFIED PROCTOR MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D1557. THE TOP 12" SUB-BASE UNDER SLABS ON GRADE SHALL BE COMPACTED TO AT LEAST 98% OF ITS MODIFIED PROCTOR MAXIMUM DRY DENSITY. ALL BACKFILL, COMPACTION AND PROOF ROLLING OPERATIONS SHALL BE OBSERVED BY AN INDEPENDENT TESTING LABORATORY.

3.15.4. SLABS-ON-GRADE SHALL BE PLACED ON A 4" GRANULAR BASE, COMPACTED TO 95% OF ITS MODIFIED PROCTOR MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D1557, AND COVERED WITH A 10 MIL CONTINUOUSLY SEALED VAPOR BARRIER. THE BASE FOR SLABS-ON-GRADE SHALL BE INSPECTED BY A GEOTECHNICAL ENGINEER PRIOR TO EACH PLACEMENT OF CONCRETE.

3.15.5. BACKFILL SHALL NOT BE PLACED AGAINST EXTERIOR OR RETAINING WALLS UNTIL THE WALLS HAVE ACHIEVED THEIR DESIGN STRENGTH AND THEIR LATERAL SUPPORT ELEMENTS ARE INSTALLED. PROVIDE ADEQUATE DRAINAGE AT BASEMENT AND RETAINING WALLS.

3.15.6. COMPACT BACKFILL BEHIND WALLS SHALL BE PLACED IN LAYERS OF 10_ INCHES.

3.15.7. COMPACT BACKFILL BEHIND WALLS TO 95% OF THE MAXIMUM DRY DENSITY AS MEASURED BY THE MODIFIED PROCTOR, ASTM D1557

3.16. REMOVE EXCESS EXCAVATED MATERIALS FROM THE JOB SITE AND LEAVE SITE IN "CLEAN" CONDITION UPON COMPLETION

3.17. TESTING/INSPECTION AGENCY SHALL PERFORM THE FOLLOWING QUALITY RELATED ITEMS

3.17.1. VERIFY STRUCTURAL FILL COMPLIES WITH THE GENERAL NOTES AND GEOTECHNICAL REPORT, IF APPLICABLE.

3.17.2. DETERMINE PARTICLE SIZE, LIQUID LIMIT, PLASTIC LIMIT, PLASTICITY INDEX, AND MAXIMUM DENSITY OF EACH SOIL TYPE.

3.17.3. PERFORM A SUFFICIENT NUMBER OF FIELD DENSITY TESTS TO VERIFY COMPACTION OF STRUCTURAL FILL. AS A MINIMUM, PERFORM ONE TEST PER LIFT FOR EVERY 1500 SQUARE FEET OF FILL PLACED.

3.18. FOOTINGS SHALL BE CENTERED ABOUT COLUMN LINES UNLESS NOTED OTHERWISE.

3.19. ALL FOOTINGS AND TURN DOWN SLAB EDGES SHALL PENETRATE TO A MINIMUM DEPTH OF 24" BELOW FINISHED GRADE.

3.20. SIDES OF FOUNDATIONS SHALL BE FORMED UNLESS CONDITIONS PERMIT EARTH FORMING.

3.21. FOUNDATIONS POURED AGAINST EARTH REQUIRE THE FOLLOWING PRECAUTIONS:

3.21.1. SLOPE SIDES OF EXCAVATIONS AS APPROVED BY A GEOTECHNICAL ENGINEER.

3.21.2. CLEAN UP SLOUGHING PRIOR TO AND DURING CONCRETE PLACEMENT.

3.21.3. WHERE STEPPED FOUNDATIONS ARE NECESSARY, THE STEPS SHALL NOT BE STEEPER THAN ONE VERTICAL TO TWO HORIZONTAL.

4. CONCRETE REINFORCEMENT NOTES

4.1. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60 DEFORMED BAR, UNLESS NOTED OTHERWISE.

4.2. REINFORCING STEEL SUBJECT TO WELDING SHALL CONFORM TO ASTM A706, GRADE 60, DEFORMED BAR, USE ONLY LOW HYDROGEN (E80XX) ELECTRODES, AND WELD IN ACCORDANCE WITH AWS D12.1 AND OR AWS D1.4. WELD ONLY AS INDICATED.

4.3. WELDED WIRE REINFORCEMENT SHALL CONFORM TO ASTM A185 AND HAVE MINIMUM SIDE AND END LAPS OF 8". WWR SHALL BE PROVIDED IN FLAT SHEETS ONLY.

4.4. BEFORE PLACING CONCRETE, CLEAN REINFORCEMENT OF FOREIGN PARTICLES AND COATINGS.

4.5. SUBMIT SHOP DRAWINGS WHICH ADEQUATELY DEPICT THE REINFORCING BAR SIZES, SPACING, LOCATIONS, AND QUANTITIES OF REINFORCING STEEL AND WIRE FABRIC, BENDING AND CUTTING SCHEDULES, SPLICE LENGTHS, STIRRUP SPACING, SUPPORTING AND SPACING DEVICES. DETAIL REINFORCING STEEL IN ACCORDANCE WITH ACI 315 AND CRSI STANDARDS. WRITTEN DESCRIPTION OF REINFORCEMENT WITHOUT ADEQUATE SECTIONS, ELEVATIONS, AND DETAILS IS NOT ACCEPTABLE.

4.6. SPLICES SHALL BE CLASS B IN ACCORDANCE WITH ACI 318, UNLESS NOTED OTHERWISE. REINFORCEMENT SHALL BE SPLICED ONLY AT LOCATIONS SHOWN OR NOTED IN THE STRUCTURAL DOCUMENTS, EXCEPT REINFORCEMENT MARKED "CONTINUOUS" CAN BE SPLICED AT LOCATIONS DETERMINED BY CONTRACTOR. SPLICES AT OTHER LOCATIONS SHALL BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER.

4.7. TENSILE SPLICERS SHALL BE CAPABLE OF DEVELOPING 125% OF THE REINFORCING STEEL ASTM SPECIFIED MINIMUM YIELD STRENGTH. TENSION COUPLERS MAY BE USED AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

No.	Date	By	Revision	Ad. No.
C	2025.06.20	DV	OWNER COMMENTS	
B	2025.04.25	SW	ISSUED FOR BID	
A	2025.04.11	SW	ISSUED FOR APPROVAL (70% CHECKSET)	

PRELIMINARY
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CONSTRUCTION
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4990 Royal Gulf Cr
Fort Myers, FL 33966
Ph: 239.768.1778, Fax: 239.210.2168
www.veiglobal.com
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Title:
AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
GENERAL NOTES AND STRUCTURAL SPECIFICATIONS

Amalgamated Sugar
AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 2025.04.10
Chkd By: S. WILSON
Dsgn By: D. VIELE
Project: E24140
Dwg: S0.01
Dwg Size: 24X36
Revision: C

S:\CM\2024 Projects\E24140 ASC Evaporator Project\Drawings\Struct\E24140 GENERAL NOTES 2025.04.10.dwg (S0.01)Plotted on: Jun, 20, 2025- 10:50AM by David Viele

GENERAL NOTES AND STRUCTURAL SPECIFICATIONS

4.8. COMPRESSION SPLICERS SHALL BE THE MECHANICAL TYPE SUCH THAT THE COMPRESSION STRESS IS TRANSMITTED BY THE END BEARING HELD IN CONCENTRIC CONTACT.

4.9. PROVIDE DOWELS FROM FOUNDATIONS THE SAME SIZE AND NUMBER AS THE VERTICAL WALL OR COLUMN REINFORCING, UNLESS NOTED OTHERWISE.

4.10. PLACE, SUPPORT, AND SECURE REINFORCEMENT AGAINST DISPLACEMENT IN ACCORDANCE WITH ACI 318 AND RSI STANDARDS. DO NOT DEVIATE FROM ALIGNMENT OR MEASUREMENT.

4.11. BEND BARS COLD. DO NOT HEAT BARS. NO FIELD BENDING OF CARS PARTIALLY EMBEDDED IN CONCRETE IS PERMITTED, UNLESS SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER AND CHECKED BY THE TESTING/INSPECTION AGENCY FOR CRACKS.

4.12. PROVIDE MINIMUM CONCRETE COVER FOR REINFORCEMENTS AS FOLLOWS, UNLESS NOTED OTHERWISE:

4.12.1. CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3" CLEAR

4.12.2. EXPOSED TO EARTH AND WEATHER:

#6 AND LARGER: 2" CLEAR

#5 AND SMALLER: 1-1/2" CLEAR

4.12.3. NOT EXPOSED TO EARTH OR WEATHER:

SLABS, WALLS, JOISTS:

#14 AND LARGER: 1-1/2" CLEAR

#11 AND SMALLER: 3/4" CLEAR

BEAMS, COLUMNS:

PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS: 1-1/2" CLEAR

4.12.4. MASONRY REINFORCING STEEL SHALL BE PLACED IN THE CENTER OF THE WALL UNLESS NOTED OTHERWISE.

4.1. FURNISH AND INSTALL DOWELS OR MECHANICAL SPLICES AT INTERSECTIONS OF WALLS, COLUMN, AND PIERS TO PERMIT CONTINUOUS REINFORCEMENT OR DEVELOPMENT LENGTHS AT SUCH INTERSECTIONS.

4.2. ALL DOWELS AND TERMINATING BARS SHALL HAVE A STANDARD 90 DEGREE HOOK, UNLESS NOTED OTHERWISE.

4.3. ADHESIVE FOR DOWELS IN EXISTING CONCRETE SHALL BE HIT HY200 INJECTION ADHESIVE SUPPLIED BY HILTI FASTENING SYSTEMS, OR APPROVED EQUAL.

4.4. MINIMUM EMBEDMENT LENGTH FOR DOWELS IN EXISTING CONCRETE SHALL BE 12 BAR DIAMETERS, UNLESS NOTED OTHERWISE.

4.5. DO NOT SPLICE REINFORCEMENT EXCEPT AS INDICATED ON STRUCTURAL DRAWINGS.

4.6. ALL HORIZONTAL REINFORCING SHALL BE CONTINUOUS THROUGH CONTRACTION AND/OR CONSTRUCTION JOINTS AND AROUND CORNERS UNLESS NOTED OTHERWISE.

5. CAST-IN-PLACE CONCRETE NOTES

5.1. CONCRETE CONSTRUCTION SHALL CONFORM TO THE FOLLOWING AMERICAN CONCRETE INSTITUTE (ACI) CODES AND SPECIFICATIONS, LATEST EDITION.

5.1.1. ACI 301: "SPECIFICATIONS FOR STRUCTURAL CONCRETE"

5.1.2. ACI 315: "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT"

5.1.3. ACI 318: "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"

5.2. THE READY-MIX CONCRETE PLANT SHALL BE CERTIFIED FOR CONFORMANCE WITH THE REQUIREMENTS OF THE NATIONAL READY-MIX CONCRETE ASSOCIATION.

5.3. THE STRUCTURAL TESTING/INSPECTION AGENCY SHALL PROVIDE SPECIAL INSPECTION AS REQUIRED BY CHAPTER 17 OF THE BUILDING CODE.

5.4. ESTABLISH CONCRETE MIX DESIGN IN ACCORDANCE WITH ACI 318, CHAPTER 5

5.5. SUBMIT CONCRETE MIX DESIGNS. INCLUDE THE FOLLOWING

5.5.1. TYPE AND QUANTITIES OF MATERIALS.

5.5.2. SLUMP

5.5.3. AIR CONTENT

5.5.4. FRESH UNIT WEIGHT

5.5.5. AGGREGATES SIEVE ANALYSIS

5.5.6. DESIGN COMPRESSIVE STRENGTH

5.5.7. LOCATION OF PLACEMENT IN STRUCTURE

5.5.8. METHOD OF PLACEMENT

5.5.9. METHOD OF CURING

5.5.10. 7-DAY AND 28-DAY COMPRESSIVE STRENGTHS.

5.6. CONCRETE SUPPLIER SHALL SUBMIT CERTIFICATIONS THAT THE MATERIALS USED MEET APPLICABLE ASTM SPECIFICATIONS. MIX DESIGNS NOT CONFORMING TO THE ABOVE WILL BE REJECTED.

5.7. CONCRETE SHALL HAVE MINIMUM SPECIFIED 28-DAY COMPRESSIVE STRENGTH, F'C OF 4000 PSI, UNLESS NOTED OTHERWISE.

5.8. DESIGN CONCRETE WITH A MAXIMUM SLUMP OF FIVE INCHES. IF A SLUMP OF GREATER THAN FIVE INCHES IS DESIRED, IT SHALL BE ACHIEVED WITH A HIGH-RANGE WATER REDUCER. DESIGN THE CONCRETE MIX WITH A HIGH RANGE WATER REDUCER SLUMP OF 2 1/2 INCHES +/- 1 INCH. THE MAXIMUM SLUMP AFTER HIGH-RANGE WATER REDUCERS ARE ADDED SHALL BE EIGHT INCHES.

5.9. NORMAL WEIGHT CONCRETE SHALL HAVE A FRESH UNIT WEIGHT OF 140 TO 152 PCF.

5.10. NO ENTRAINED AIR IS REQUIRED IN CONCRETE PLACED IN THE FOUNDATION.

5.11. EXTERIOR NORMAL WEIGHT CONCRETE, ENTRAINED AIR CONTENT SHALL BE 6.0 PERCENT

5.12. CONCRETE ELEMENTS SHALL HAVE A MAXIMUM WATER CEMENT RATIO OF 0.50, UNLESS NOTED OTHERWISE.

5.13. PORTLAND CEMENT SHALL CONFORM TO ASTM C150, TYPE 1, UNLESS NOTED OTHERWISE.

5.14. FINE AND COARSE AGGREGATE OF GRAVEL OR CRUSHED STONE SHALL CONFORM TO ASTM C33. SIZE COARSE AGGREGATE IN ACCORDANCE WITH ACI 318. COARSE AGGREGATE SIZE SHALL BE NO GREATER THAN 3/4"

5.15. WATER SHALL BE POTABLE AND FREE OF DELETERIOUS MATERIALS IN ACCORDANCE WITH ACI 318.

5.16. AIR ENTRAINING AGENT SHALL CONFORM TO ASTM C260.

5.17. WATER REDUCING AGENT SHALL CONFORM TO ASTM C494.

5.18. HIGH-RANGE WATER REDUCERS (SUPERPLASTICIZERS) SHALL CONFORM TO ASTM C494. HIGH-RANGER WATER REDUCERS ARE TO BE ADDED AT DOSAGE RECOMMENDED BY THE MANUFACTURER. THE SLUMP OF THE CONCRETE SHALL BE ONE TO FOUR INCHES AT THE TIME THAT THE HIGH-RANGE WATER REDUCERS ARE ADDED. DO NOT PERMIT FRESH CONCRETE CONTAINING SUPERPLASTICIZERS TO COME IN CONTACT WITH FRESH CONCRETE NOT CONTAINING SUPERPLASTICIZERS.

5.19. USE NO CHLORIDES OF ANY FORM IN CONCRETE.

5.20. AN ACRYLIC CURING COMPOUND MEETING THE REQUIREMENTS OF ASTM C1315 AND ALL LOCAL, STATE, AND FEDERAL VOLATILE ORGANIC CARBON REGULATIONS MAY BE USED AT THE CONTRACTOR'S OPTION.

5.21. FLY ASH SHALL BE CLASS F FLY ASH WITH A LOSS ON IGNITION OF LESS THAN FIVE PERCENT OR CLASS C FLY ASH WITH A LOSS ON IGNITION OF LESS THAN ONE PERCENT IN ACCORDANCE WITH ASTM C618.

5.22. NON-CHLORIDE ACCELERATORS AND RETARDERS SHALL CONFORM TO ASTM C494.

5.23. WATER MAY BE ADDED TO THE BATCH ONLY IF NEITHER THE MAXIMUM PERMISSIBLE WATER/CEMENT RATIO NOR THE MAXIMUM SLUMP IS EXCEEDED

5.24. PLACEMENT OF CONCRETE

5.24.1. DEPOSIT CONCRETE AS NEAR AS PRACTICAL TO FINAL POSITION TO PREVENT SEGREGATION OF CONCRETE

5.24.2. NO FLOWING OF CONCRETE WITH VIBRATORS.

5.24.3. PLACE FLOORS AND SLAVS IN ACCORDANCE WITH ACI 302.

5.24.4. DO NOT USE ALUMINUM EQUIPMENT IN PLACING AND FINISHING CONCRETE.

5.24.5. PLACE THICKENED SLABS FOR PARTITIONS INTEGRAL WITH FLOOR SLABS.

5.24.6. DEPOSIT CONCRETE WITHIN 90 MINUTES AFTER BATCHING.

5.24.7. CONSOLIDATE CONCRETE IN ACCORDANCE WITH ACI 301 TO ACI 309.

5.25. OUTSIDE DIAMETER FOR PIPES OR CONDUITS CAST WITHIN A FORMED SLAB OR WALL SHALL NOT EXCEED ONE-QUARTER THE SLAB OR WALL THICKNESS INCLUDING CROSSINGS, SHALL BE LOCATED WITH AT LEAST 3 CONDUIT DIAMETERS CLEAR BETWEEN THEM, AND SHALL BE NO CLOSER THAN 10 TIMES THE SLAB THICKNESS FROM ANY COLUMN UNLESS SPECIFICALLY DETAILED AND SHOWN IN THE STRUCTURAL DOCUMENTS. ALL PIPES AND CONDUITS SHALL BE PLACED IN THE MIDDLE THIRD OF THE SLAB OR WALL THICKNESS UNLESS SPECIFICALLY DETAILED OTHERWISE IN THE STRUCTURAL DOCUMENTS. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATION OF SLEEVES, ACCESSORIES, ETC.

5.26. UNLESS SPECIFICALLY DETAILED AND SHOWN ON THE STRUCTURAL DOCUMENTS PENETRATIONS OR OPENINGS IN SLABS OR WALLS SHALL:

5.26.1. NOT EXCEED 10 INCHES IN ANY DIMENSION

5.26.2. NOT BE LOCATED WITHIN 6 INCHES FROM ANY EDGE OF SLAB OR WALL

5.26.3. NOT BE LOCATED WITHIN A BEAM OR COLUMN CROSS SECTION

5.26.4. NOT BE CLOSER THAN 10 TIMES THE SLAB THICKNESS FROM A CONCENTRATED LOAD GREATER THAN 2000 LBS OR COLUMN.

5.26.5. WHEN PLACED IN GROUPS SHALL BE PLACED WITH NO LESS THAN ONE PENETRATION OR OPENING DIAMETER CLEAR BETWEEN THEM.

5.27. CONSTRUCTION JOINT LOCATIONS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER. NO HORIZONTAL CONSTRUCTION JOINTS ARE PERMITTED EXCEPT THOSE SHOWN ON THE STRUCTURAL DRAWINGS.

5.28. ALL DEFECTIVE AREAS IN CONCRETE INCLUDING, BUT NOT LIMITED TO, HONEY-COMBING, SPALLS, AND CRACKS WITH WIDTHS EXCEEDING 0.016 INCH SHALL BE REPAIRED UNLESS DIRECTED OTHERWISE BY THE STRUCTURAL ENGINEER.

5.29. CONCRETE SLABS ON GRADE SHALL NOT BE LOADED UNTIL A MINIMUM OF 60% OF THE DESIGN CONCRETE STRENGTH HAS BEEN ATTAINED AND THE CONCRETE IS AT LEAST THREE DAYS OLD. ALL OTHER CONCRETE MEMBERS SHALL NOT BE LOADED UNTIL THE SPECIFIED CONCRETE DESIGN STRENGTH HAS BEEN ATTAINED.

5.30. CONCRETE SHALL BE TESTED IN ACCORDANCE WITH ACI 301 AND THE SPECIFICATIONS FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS. AT A MINIMUM CONCRETE SPECIMENS SHALL BE TAKEN FOR EVERY 75 YARDS OR PORTION THEREOF FOR EACH MIX DESIGN PLACED IN A DAY. CONCRETE TEST REPORTS SHALL BE AVAILABLE ON SITE FOR INSPECTION.

5.31. CONTRACTION JOINTS

5.31.1. UNLESS NOTED OTHERWISE, CONTRACTION JOINTS SHALL BE SPACED NO FARTHER APART THAN 15 FT OC IN EACH DIRECTION CREATING PANELS WITH AN ASPECT RATIO NOT GREATER THAN 1.5:1.

5.31.2. OBTAIN STRUCTURAL ENGINEER'S APPROVAL FOR LOCATION OF CONTRACTION JOINTS.

5.31.3. DO NOT PLACE CONTRACTION JOINTS IN FRAMED FLOORS, COMPOSITE SLABS, OR SHEAR WALLS.

5.31.4. SAW-CUT CONTRACTION JOINTS SHALL BE INSTALLED WITHIN 12 HOURS OF SLAB PLACEMENT.

5.32. "CJ" ON THE FOUNDATION PLAN INDICATES A KEY-FORMED CONSTRUCTION JOINT OR SAW-CUT CONTRACTION JOINT IN THE CONCRETE SLAB ON GRADE.

5.33. PROVIDE 3/4 INCH CHAMFER AT ALL CORNERS.

5.34. CONCRETE SHALL RECEIVE THE FOLLOWING FINISHES, UNLESS NOTED OTHERWISE:

5.34.1. FORMED SURFACES SHALL RECEIVE A SMOOTH-FORM FINISH IN ACCORDANCE WITH ACI 301.

5.34.2. OFFSET BETWEEN ADJACENT PIECES OF FORMWORK FACING MATERIAL SHALL NOT EXCEED "CLASS A" TOLERANCE REQUIREMENTS OF ACI 117 (1/8" MAXIMUM OFFSET).

5.34.3. INTERIOR SLABS SHALL RECEIVE A STEEL TROWELED FINISH IN ACCORDANCE WITH AC1 301.

5.34.4. EXTERIOR SLABS AND WHERE A NONSLIP FINISH IS REQUIRED, PROVIDE A BROOM FINISH IN THE DIRECTION OF SLOPE. SLABS SHALL DRAIN FREELY WITH A MAXIMUM VARIATION FROM THE INDICATED PLANE OF 1/8" IN 10'-0".

5.35. CONCRETE CURING PROCEDURES SHALL BEGIN IMMEDIATELY FOLLOWING THE COMMENCEMENT OF THE FINISHING OPERATION.

5.36. PERFORM COLD WEATHER CONCRETING IN ACCORDANCE WITH ACI 306.

5.37. PERFORM HOT WEATHER CONCRETING IN ACCORDANCE WITH ACI 305.

5.38. PROTECT CONCRETE FROM DRYING FROM EXCESSIVE TEMPERATURES AND WIND FOR THE FIRST SEVEN DAYS.

5.39. MAINTAIN CONCRETE AFTER PLACEMENT WITH MINIMAL MOISTURE LOSS AT RELATIVELY CONSTANT TEMPERATURE FOR THE PERIOD NECESSARY FOR HYDRATION OF CEMENT AND HARDENING OF CONCRETE (NOT LESS THAN 7 DAYS). COMPLY WITH THE REQUIREMENTS OF ACI 308: "STANDARD PRACTICE FOR CURING CONCRETE"; AMERICAN CONCRETE INSTITUTE. A COMBINATION CURING AND SEALING COMPOUND SHALL BE APPLIED AFTER THE CONCRETE HAS BEEN FINISHED OR THE FORMS REMOVED. COMPOUND SHALL MEET THE REQUIREMENTS OF ASTM C1315.

5.40. OBTAIN STRUCTURAL ENGINEER'S WRITTEN APPROVAL PRIOR TO CUTTING CONCRETE FOR INSTALLATION OF OTHER WORK.

5.41. NOTIFY STRUCTURAL ENGINEER OF ANY DEFECTIVE AREAS IN CONCRETE TO BE PATCHED OR REPAIRED. REPAIR AND PATCH DEFECTIVE AREAS WITH NON-SHRINK GROUT. CUT OUT DEFECTIVE AREAS OVER TWO INCHES IN DIAMETER TO SOLID CONCRETE, BUT NOT LESS THAN A DEPTH OF ONE INCH. MAKE EDGES OF CUTS PERPENDICULAR TO THE CONCRETE SURFACE.

6. CONCRETE MASONRY NOTES

6.1. CONCRETE MASONRY CONSTRUCTION SHALL CONFORM TO THE FOLLOWING AMERICAN CONCRETE INSTITUTE (ACI) CODES AND SPECIFICATIONS, LATEST EDITION.

6.1.1. ACI 530: "BUILDING CODE REQUIREMENTS FOR MASONRY CONSTRUCTION"

6.1.2. ACI 530.1: "SPECIFICATIONS FOR MASONRY STRUCTURES"

6.2. CONCRETE MASONRY UNITS SHALL CONFORM TO GRADE 'N', MOISTURE CONTROLLED TYPE I REQUIREMENTS OF ASTM C90. MINIMUM 28-DAY COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNITS SHALL BE F'M = 1500 PSI.

6.3. MORTAR SHALL COMPLY WITH THE BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY AND SHALL BE OF THE FOLLOWING TYPE:

6.3.1. WALLS BELOW GRADE: TYPE M

6.3.2. BEARING WALLS: TYPE M OR S

6.4. CONCRETE MASONRY UNITS SHALL BE GROUTED WITH 2,500 PSI COARSE GROUT AS SHOWN IN THE STRUCTURAL DOCUMENTS. GROUT FOR REINFORCED AND NONREINFORCED MASONRY SHALL CONFORM TO ASTM C476.

6.5. PROVIDE CONTINUOUS HORIZONTAL JOINT REINFORCEMENT WITH NO. 9 GAGE GALVANIZED TRUSS TYPE MASONRY REINFORCING AT 16" C/C VERTICALLY, UNLESS NOTED OTHERWISE. PROVIDE SPECIAL ACCESSORIES FOR CORNERS, INTERSECTIONS, ETC.

6.6. WHERE CELLS ARE TO BE FILLED WITH GROUT, PROVIDE ADDITIONAL FULL MORTAR BED ALONG CROSS WEBS ENCLOSING GROUTED CELLS.

6.7. BLOCK COURSING SHOWN ON STRUCTURAL PLANS MAY NOT BE REPRESENTATIVE OF ACTUAL COURSING.

6.8. FIRST COURSE OF CONCRETE MASONRY UNITS SHALL BE PLACED ON A FULL BED OF MORTAR.

6.9. CAST DOWELS WITH ACI STANDARD HOOKS, IN FOUNDATIONS FOR WALLS ABOVE. DOWELS SHALL BE THE SAME SIZE AND SPACING OF VERTICAL REINFORCEMENT, UNLESS NOTED OTHERWISE.

6.10. PROVIDE CONTROL JOINTS IN ALL CONCRETE MASONRY WALLS AT LOCATIONS APPROVED BY THE ENGINEER AT A MAXIMUM SPACING OF 3 TIMES THE WALL HEIGHT OR 40'-0", WHICHEVER IS LESS.

6.11. SUBMIT WRITTEN CONSTRUCTION PROCEDURES PRIOR TO THE START OF MASONRY CONSTRUCTION.

7. STRUCTURAL STEEL NOTES

7.1. STRUCTURAL STEEL CONSTRUCTION SHALL CONFORM TO THE FOLLOWING AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) CODES AND SPECIFICATIONS, LATEST EDITIONS.

7.1.1. AISC FIFTEENTH EDITION: "STEEL CONSTRUCTION MANUAL"

7.2. STEEL FABRICATOR SHALL MEET THE QUALIFICATIONS STATED IN THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS, COMM. N6: APPROVED FABRICATORS AND ERECTORS

7.3. ERECTORS SHALL BE EXPERIENCED IN ERECTING STRUCTURAL SYSTEMS SIMILAR IN COMPLEXITY OF THIS PROJECT AS EVIDENCED BY 10 COMPLETED PROJECTS.

7.4. ERECTOR SHALL HAVE A MINIMUM OF 5 YEARS OF EXPERIENCE IN THE ERECTION OF STRUCTURAL STEEL OR MEET THE QUALIFICATIONS STATED PREVIOUSLY THAT ARE REFERENCED TO THE AISC SPECIFICATIONS.

7.5. THE STRUCTURAL TESTING/INSPECTION AGENCY SHALL PROVIDE SPECIAL INSPECTION AS REQUIRED BY CHAPTER 17 OF THE BUILDING CODE

7.6. NOTIFY STRUCTURAL ENGINEER AND STRUCTURAL TESTING/INSPECTION AGENCY AT LEAST 48 HOURS PRIOR TO STRUCTURAL STEEL FABRICATION AND ERECTION.

7.7. STORE MATERIALS OFF OF THE GROUND TO PERMIT EASY ACCESS FOR INSPECTION AND IDENTIFICATION. STORE STEEL MEMBERS AND PACKAGED ITEMS INA MANNER THAT PROVIDES PROTECTION AGAINST CONTACT WITH DELETERIOUS MATERIALS.

7.8. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS, UNLESS NOTED OTHERWISE:

ASTM A992	FY = 50 KSI	W-SHAPES, WT-SHAPES
ASTM A36	FY = 36 KSI	M AND S SHAPES, CHANNELS, ANGLES, PLATES, AND BARS.
ASTM A53 GRADE	FY = 35 KSI	PIPE
ASTM A500 GRADE C	FY = 46 KSI	ROUND HSS
ASTM A500 GRADE C	FY = 50 KSI	RECTANGULAR HSS

7.9. WELDED CONNECTIONS SHALL CONFORM TO THE LATEST RECOMMENDATIONS OF:

7.9.1. AISC AMERICAN INSTITUTE OF STEEL CONSTRUCTION

7.9.2. AWS AMERICAN WELDING SOCIETY

7.10. USE ELECTRODES CONFORMING TO AWS D1.1, E70XX, UNLESS OTHERWISE NOTED. PROPERLY STORE ELECTRODES TO MAINTAIN FLUX QUALITY.

7.11. DO NOT ERECT STEEL WHERE ANCHOR BOLTS WILL NOT HAVE FULL THREADS.

7.12. BOLTS AND ANCHORS:

7.12.1. BOLTED CONNECTIONS SHALL BE TYPE N (THREADS INCLUDED IN SHEAR PLANE) WITH MINIMUM 3/4" DIAMETER A325 BOLTS. BOLTS SHALL BE FULLY TENSIONED; SUBMIT PROPOSED BOLT TIGHTENING PROCEDURE FOR REVIEW.

7.12.2. NON-HIGH-STRENGTH BOLTS SHALL CONFORM TO ASTM A307, GRADE A, WHERE NOTED ON THE DRAWINGS

7.12.3. HARDENED STEEL WASHERS SHALL CONFORM TO ASTM F436.

7.12.4. HEADED STEEL STUDS SHALL CONFORM TO THE REQUIREMENTS OF AWS D1.1 AND HAVE A MINIMUM 3/4" DIAMETER AND BE PROVIDED WITH HEAT-RESISTANT CERAMIC ARC SHIELDS.

7.12.5. SPLINE-TYPE TENSION CONTROL BOLTS, PLAIN HARDENED WASHERS, AND SUITABLE NUTS ARE AN ACCEPTABLE ALTERNATE DESIGN BOLT ASSEMBLY.

7.12.6. COMPRESSIBLE-WASHER-TYPE DIRECT TENSION INDICATORS CONFORMING TO ASTM F959 ARE AN ACCEPTABLE ALTERNATE DESIGN BOLT ASSEMBLY.

7.12.7. ENSURE FASTENERS ARE LUBRICATED PRIOR TO INSTALLATION.

7.12.8. EXPANSION ANCHORS AS SHOWN ON CONTRACT DOCUMENTS SHALL BE HILTI KWIK BOLT 3 ANCHORS MANUFACTURED BY HILTI FASTENING SYSTEMS, OR APPROVED EQUAL. INSTALL IN ACCORDANCE

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C	2025.06.20	DV	OWNER COMMENTS	
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20 JUNE 2025

4990 Royal Gulf Cr
Fort Myers, FL 33966
Ph: 239.768.1778, Fax: 239.210.2168
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Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
GENERAL NOTES AND STRUCTURAL SPECIFICATIONS

AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 2025.04.10
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
Project: E24140
Dwg: S0.02
Revision: C

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GENERAL NOTES AND STRUCTURAL SPECIFICATIONS

WITH THE MANUFACTURER'S RECOMMENDATIONS. STANDARD EMBEDMENT, ANCHOR SPACING, AND EDGE DISTANCE SHALL BE PER MANUFACTURER'S REQUIREMENTS UNLESS NOTED OTHERWISE.

7.12.9. ADHESIVE ANCHORS AS SHOWN ON CONTRACT DOCUMENTS SHALL CONSIST OF AN ALL-THREAD GRADE A36 STEEL ANCHOR WITH HIT HY200 INJECTION ADHESIVE SUPPLIED BY HILTI FASTENING SYSTEMS, OR APPROVED EQUAL. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. STANDARD EMBEDMENT, ANCHOR SPACING, AND EDGE DISTANCE SHALL BE PER MANUFACTURER'S REQUIREMENTS UNLESS NOTED OTHERWISE. MINIMUM EMBEDMENT IS TO BE DEFINED AS 1/2 THE STANDARD EMBEDMENT LENGTH AS DEFINED BY SUPPLIER.

7.12.10. BOLTS SHALL BE INSTALLED IN HOLES OF THE CONNECTION AND BROUGHT TO A SNUG-TIGHT CONDITION. TIGHTEN CONNECTION PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID PART TO THE FREE EDGES OF THE CONNECTION TO MINIMIZE RELAXATION OF THE BOLTS.

7.12.11. INSTALLATION AND TIGHTENING OF BOLTS SHALL CONFORM TO THE AISC SPECIFICATIONS FOR STRUCTURAL JOINTS.

7.13. CUT, DRILL, OR PUNCH HOLES PERPENDICULAR TO METAL SURFACES. DO NOT ENLARGE HOLES BY BURNING. DRILL OR PUNCH HOLES IN BEARING PLATES. REMOVE BURRS.

7.14. STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED ACCORDING TO THE AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".

7.15. SHOP DRAWINGS

7.15.1. SUBMIT SHOP DRAWINGS WHICH ADEQUATELY DEPICT THE STRUCTURAL ELEMENTS AND CONNECTIONS SHOWN IN THE CONTRACT DOCUMENTS.

7.15.2. SHOP DRAWINGS SHALL CLEARLY INDICATE THE PROFILES, SIZES, ASTM GRADE, SPACING, AND LOCATIONS OF ALL STRUCTURAL STEEL MEMBERS, INCLUDING CONNECTIONS, ATTACHMENTS, ANCHORAGES, FRAMED OPENINGS, SIZES AND TYPES OF FASTENERS, METHOD OF TIGHTENING FASTENERS, CAMBERS, AND THE NUMBER, TYPE AND SPACING OF THE HEADED SHEAR CONNECTORS.

7.15.3. CONNECTIONS SHALL BE DETAILED BASED ON THE DESIGN INFORMATION PROVIDED IN THE CONTRACT DOCUMENTS. CONNECTIONS SHALL BE DESIGNED FOR THE SERVICE LOAD REACTION VALUES SHOWN ON THE STRUCTURAL DRAWINGS. FOR STEEL MEMBERS WHOSE REACTIONS ARE NOT SHOWN, THE DESIGN REACTION SHALL BE OBTAINED FROM THE TABLES ENTITLED "MAXIMUM TOTAL UNIFORM LOAD" IN PART 3 OF THE AISC "MANUAL OF STEEL CONSTRUCTION", 13TH EDITION. THE DESIGN REACTION IS EQUAL TO HALF THE TABULATED VALUE FOR NONCOMPOSITE BEAMS AND EQUAL TO THE TABULATED VALUE FOR COMPOSITE BEAMS.

7.15.4. SHOP DRAWINGS SHALL INDICATE ALL REQUIRED FIELD WELDING. DO NOT PAINT STEEL TO BE FIELD WELDED.

7.15.5. SHOP CONNECTIONS MAY BE WELDED OR BOLTED. FIELD CONNECTIONS SHALL BE BOLTED UNLESS NOTED OTHERWISE.

7.15.6. DEVIATION FROM THE CONNECTION DETAILS DEPICTED IN THE CONTRACT DOCUMENTS SHALL NOT BE PERMITTED WITHOUT WRITTEN PERMISSION FROM THE STRUCTURAL ENGINEER.

7.15.7. REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE FULL RESPONSIBILITY FOR THE DESIGN AND ADEQUACY OF SUCH CONNECTIONS.

7.15.8. STRUCTURAL ENGINEER SHALL BE COMPENSATED BY THE CONTRACTOR FOR THE COST INVOLVED IN THE REDESIGN OF CONNECTIONS FOR THE CONVENIENCE OF THE CONTRACTOR. SINGLE ANGLE CONNECTIONS ARE NOT PERMITTED.

7.16. PROVIDE THE FOLLOWING MINIMUMS, UNLESS OTHERWISE NOTED ON THE DRAWINGS:

7.16.1. MINIMUM ROWS OF BOLTS:

W8 AND W10	2 ROWS
W12, W14, AND W16	3 ROWS
W18 AND W21	4 ROWS
W24 AND W27	6 ROWS

7.16.2. 3/8" GUSSET, CONNECTION PLATES, AND ANGLES

7.16.3. 3/16" FILLET WELDS

7.16.4. MINIMUM BOLTS FOR BRACING CONNECTIONS:

ANGLES	2 BOLTS
WT-SHAPES, W-SHAPES, PIPE, AND HSS	4 BOLTS
INTERSECTION OF "X" BRACING	2 BOLTS

7.16.5. USE PREQUALIFIED WELDED JOINTS IN ACCORDANCE WITH AISC AND THE STRUCTURAL WELDING CODE OF THE AMERICAN WELDING SOCIETY. "NON-PREQUALIFIED JOINTS" SHALL BE QUALIFIED PRIOR TO FABRICATION.

7.17. ALL CONNECTIONS FOR BRACING AND TRUSS MEMBERS SHALL BE DESIGNED FOR 50% OF MEMBER TENSION CAPACITY, UNLESS NOTED OTHERWISE.

7.18. PROVIDE INTERMEDIATE CONNECTIONS FOR DOUBLE ANGLE MEMBERS IN ACCORDANCE WITH SECTION E6 OF AISC SPECIFICATION.

7.19. PROVIDE CONNECTIONS FOR EXPANSION AND CONTRACTION WHERE STEEL BEAMS CONNECT TO CONCRETE WALLS OR CONCRETE COLUMNS AND AT EXPANSION JOINTS. SECURE NUTS ON BOLTS AGAINST LOOSENING.

7.20. DO NOT USE FLAME CUTTING TO CORRECT ERRORS UNLESS AUTHORIZED IN WRITING. RE-ENTRANT CORNERS SHALL HAVE A MINIMUM RADIUS OF ONCE ICE AND BE FREE OF NOTCHES. NOTCHES AND GOUGES RESULTING FROM FLAME CUTTING SHALL BE FINISHED TO A SMOOTH APPEARANCE.

7.21. REMOVE MILL SCALE.

7.22. FIELD MODIFICATIONS, REVISIONS, AND ADDITIONS TO THE DESIGN DOCUMENTS SHALL BE APPROVED BY THE ENGINEER PRIOR TO START OF WORK.

7.23. STEEL CONSTRUCTION SHALL BE INSPECTED BY AN INDEPENDENT TESTING AGENCY. REFER TO PROJECT SPECIFICATIONS FOR REQUIREMENTS IN ADDITION TO THE FOLLOWING:

7.23.1. BOLTED CONNECTIONS SHALL BE INSPECTED IN ACCORDANCE WITH AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS".

7.23.2. ALL FILLET WELDS SHALL BE VISUALLY INSPECTED.

7.23.3. ALL JOINT PENETRATION WELDS SHALL BE TESTED IN ACCORDANCE WITH AMERICAN WELDING SOCIETY D1.1.

7.23.4. WELDING OF SHEAR CONNECTORS SHALL BE TESTED IN ACCORDANCE WITH AMERICAN WELDING SOCIETY D1.1.

7.23.5. WRITTEN REPORT SHALL BE SUBMITTED DESCRIBING ALL INSPECTIONS AND INDICATING ANY NON-CONFORMING WORK.

7.23.6. RE-INSPECT ALL NON-CONFORMING WORK AFTER IT IS CORRECTED.

7.23.7. CONTRACTOR IS RESPONSIBLE FOR THE COST OF ALL TESTS INDICATING NON-CONFORMING WORK.

7.24. PROVIDE 1/2" VENT HOLES FOR GROUTING IN COLUMN BASE PLATES GREATER THAN 144 SQUARE INCHES. PROVIDE ONE HOLE FOR EACH 144 SQUARE INCHES OR FRACTION THERE OF. SPACE HOLES SYMMETRICALLY, NOT TO INTERFERE WITH ANCHOR BOLTS, AND AS CLOSE AS PRACTICAL TO THE CENTER OF EACH 144 SQUARE INCH AREA.

8. FLOOR PLATE AND GRATING NOTES

8.1. PROVIDE RAISED PATTERN FLOOR PLATES CONFORMING TO ASTM A786, AS INDICATED IN THE CONTRACT DOCUMENTS UNLESS NOTED OTHERWISE.

8.2. CONNECTIONS:

8.2.1. AT INTERIOR SUPPORTS; PROVIDE 2" IN 8" OF 3/16" MINIMUM FILLET WELD STAGGERED ON EACH SIDE OF SUPPORT.

8.2.2. AT EXTERIOR SUPPORTS; PROVIDE 2" IN 8" OF 3/16" MINIMUM FILLET WELD.

8.3. COATING:

8.3.1. FLOOR PLATE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123. NOTIFY ENGINEER OF ANY DESIGN REQUIREMENT THAT MAY CAUSE DISTORTION, WARPAGE, OR EMBRITTLEMENT.

8.4. PROVIDE PLAIN STEEL BAR GRATING AND ACCESSORIES FABRICATED FROM THE FOLLOWING MATERIALS, UNLESS NOTED OTHERWISE.

8.4.1. METAL BAR GRATING BEARING BAR SIZE AND MATERIAL AS INDICATED IN THE CONTRACT DOCUMENTS.

8.4.1.1. GALVANIZED: PROVIDE BAR MATERIAL CONFORMING TO ASTM A1011, WITH AN ALLOWABLE BENDING STRESS OF 18,000 PSI MINIMUM. GALVANIZED GRATING AND ATTACHMENTS PER ASTM 123. DETAIL AND FABRICATE GRATING IN A MANNER CONSISTENT WITH THE HOT DIP GALVANIZING PROCESS. NOTIFY THE ENGINEER OF ANY DESIGN REQUIREMENT THAT MAY RESULT IN DISTORTION, WARPING OR EMBRITTLEMENT.

8.4.1.2. TOE PLATE: WHERE TOE PLATE IS ATTACHED TO GRATING PROVIDE SAME MATERIAL AS GRATING.

8.4.1.3. FASTENERS: PROVIDE SADDLE CLIPS WITH SAME MATERIAL AS SPECIFIED GRATING AND 3/16" MINIMUM DIAMETER SELF TAPPING STAINLESS STEEL SCREWS.

8.5. SUBMIT SHOP DRAWINGS WHICH ADEQUATELY DEPICT THE GRATING ELEMENTS, FASTENERS AND LAYOUT SHOWN IN THE CONTRACT DOCUMENTS.

8.6. UNLESS SPECIFICALLY NOTED AS TEMPORARY OR REMOVABLE ALL GRATING IS PERMANENT.

8.7. SECURELY FASTEN GRATING TO SUPPORTING STRUCTURE USING A MINIMUM OF 4 ANCHORS PER SHEET. PROVIDE ADDITIONAL ANCHORS AT INTERMEDIATE SUPPORTS INSTALL GRATING SO BEARING BARS ARE IN COMPLETE CONTACT WITH SUPPORTING STRUCTURE. PROVIDE ADDITIONAL ANCHORS TO ELIMINATE BOWING OR CURLING.

8.8. PROVIDE PERMANENT TOE PLATE AT FLOOR OPENINGS, EQUIPMENT OPENINGS, AND ANNULAR SPACES AROUND PIPE PENETRATIONS GREATER THAN 1" AND LESS THAN 12" WIDE. HANDRAIL AT ALL OPENINGS GREATER THAN 12" IN WIDTH.

8.8.1. WHERE HANDRAIL IS PRESENT, ATTACH TOE PLATE TO HANDRAIL.

8.8.2. WHERE HANDRAIL IS NOT PRESENT, ATTACH TOE PLATE TO GRATING.

8.9. LOCATE GRATING TO PROVIDE AN ½" TYPICAL, 1" MAXIMUM GAP BETWEEN THE EDGE OF GRATING AND ADJACENT WALL, SLAB OR OTHER STRUCTURE.

8.10. FIELD CUT ALL OPENINGS LESS THAN 6" IN ALL DIMENSIONS. PROVIDE TOE PLATE USING ONE OF THE FOLLOWING METHODS:

8.10.1. CUT ROUND OPENING IN GRATING AND INSTALL PIPE SLEEVE.

8.10.2. CUT SQUARE OPENING IN GRATING AND INSTALL TOE PLATE AS REQUIRED.

8.11. OBTAIN PRIOR APPROVAL FROM THE ENGINEER FOR ANY FIELD CUT OPENINGS GREATER THAN 6" IN ANY DIMENSION.

8.12. REPAIR ABANDONED OPENINGS BY ONE OF THE FOLLOWING METHODS AS APPROVED BY THE ENGINEER:

8.12.1. REPLACE WITH A NEW GRATING.

8.12.2. REMOVE TOE PLATE AND COVER OPENING WITH PLATE.

8.12.3. REMOVE TOE PLATE AND FIT NEW PIECE OF GRATING INTO OPENING. THE OPENING SHALL BE CUT SQUARE BEFORE NEW PIECE IS PLACED. LAP BEARING BARS 2" MINIMUM AND FIELD WELD.

8.13. UNLESS NOTED OTHERWISE, STAIR TREADS SHALL BE FABRICATED TO THE FOLLOWING SPECIFICATIONS:

8.13.1. TREAD MATERIAL SHALL BE LIGHT DUTY WELDED STEEL

8.13.2. STAIR TREADS SHALL BE OF THE SAME TYPE AND SPACING AS REQUIRED TO MATCH W-19-4 1 1/2"X3/16" GRATING

8.13.3. BEARING BAR SIZE SHALL BE BASED ON TREAD LENGTH AND SHALL BE SELECTED IN ACCORDANCE WITH THE NAAMM METAL BAR GRATING MANUAL

8.13.4. NOSING:

8.13.4.1. CHECKERPLATE NOSING SHALL BE USED WITH STEEL TREADS

8.13.5. CARRIER END PLATES SHALL BE ATTACHED BY WELDING IN ACCORDANCE WIL THE NAAMM METAL BAR GRATING MANUAL

8.13.6. TREADS SHALL BE GALVANIZED UNO

9. STEEL HANDRAIL NOTES

9.1. REFER TO STRUCTURAL STEEL NOTES FOR ADDITIONAL INFORMATION.

9.2. MATERIALS:

9.2.1. POSTS: 1 1/2" DIAMETER SCHEDULE 40, ASTM A53, GRADE B, STEEL PIPE.

9.2.2. RAILS: 1 1/2" DIAMETER SCHEDULE 40, ASTM A53, GRADE B, STEEL PIPE.

9.2.3. TOE PLATE: 1/4" X 4" ASTM MIN. A36 STEEL PLATE.

9.2.4. STEEL BRACKETS: ASTM A36 STEEL

9.2.5. BOLTS: 3/4" DIA MINIMUM ASTM A307 BOLTS FOR STEEL BRACKET TO STEEL CONNECTIONS.

9.2.6. 3/4" DIA MINIMUM EXPANSION ANCHORS FOR STEEL BRACKET TO CONCRETE CONNECTIONS.

9.3. COATING: POSTS, RAILS, TOE PLATES, AND STEEL BRACKETS SHALL BE SHOP PAINTED IN ACCORDANCE WITH THE PAINTING SPECIFICATION.

9.4. SUBMIT SHOP AND ERECTION DRAWINGS TO ENGINEER FOR REVIEW.

9.5. SHOP FABRICATED HANDRAILS SHALL BE WELDED CONSTRUCTION. WELDS SHALL BE GROUND SMOOTH. RAILS SHALL BE SMOOTH AND FREE OF SHARP EDGES, BURRS, OR PROJECTIONS.

9.6. HANDRAILS ARE PERMANENT UNLESS SPECIFICALLY NOTED AS TEMPORARY OR REMOVABLE ON THE PLANS.

9.7. ENSURE RAILINGS, POSTS, AND CONNECTIONS ARE CAPABLE OF RESISTING A HORIZONTAL LOADING OF 50 PLF APPLIED AT THE TOP RAIL WITH A SIMULTANEOUS LOAD OF 100 PLF APPLIED VERTICALLY DOWNWARD OR 200 LB CONCENTRATED LOAD APPLIED AT ANY POINT IN ANY DIRECTION WITHOUT EXCEEDING THE ALLOWABLE STRESSES INCREASED BY ONE-THIRD. MAXIMUM POST SPACING IS 5'-0". PROVIDE POSTS WITHIN 2'-0" OF CORNERS.

9.8. LOCATE HANDRAILS OUTSIDE BRACING IN BRACED BAYS UNLESS NOTED OTHERWISE.

9.9. SPLICE TOE PLATE WITH BACKER PLATE WITH FOUR 3/8" DIAMETER ROUND HEAD GALVANIZED BOLTS. SLOT BACKER PLATE HOLES FOR ADJUSTMENT. INSTALL BOLT ROUND HEADS ON TRAFFIC SIDE.

9.10. WALL BRACKETS SHALL BE HEAVY DUTY PAINTED STEEL, WAGNER #1938R, OR APPROVED EQUAL, 4'-0" MAXIMUM SPACING.

9.11. PROVIDE 6" EXTENSION OF STAIR RAILS PAST BOTTOM AND TOP RISER WHEN RAILS ARE NOT CONTINUOUS.

9.12. SUBMIT ALTERNATES TO ITEMS LISTED IN THESE NOTES TO ENGINEER FOR APPROVAL.

9.13. FIELD FABRICATED HANDRAILS INCLUDE NEW HANDRAILS FABRICATED IN THE FIELD, SHOP FABRICATED HANDRAILS ALTERED IN THE FIELD, EXISTING HANDRAILS ALTERED IN THE FIELD.

9.13.1. ALL FIELD FABRICATED HANDRAILS MUST BE APPROVED BY THE ENGINEER.

9.13.2. FIELD FABRICATED HANDRAILS SHALL BE WELDED CONSTRUCTION.

9.13.3. FIELD WELDED HANDRAILS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS AND DIMENSIONS.

10. STEEL LADDER NOTES

10.1. REFER TO STRUCTURAL STEEL NOTES FOR ADDITIONAL INFORMATION.

10.2. PROVIDE OSHA APPROVED LADDERS WHERE INDICATED.

10.3. LADDER CAGES:

10.3.1. FOR LADDERS FROM GRADE PROVIDE CAGES WHEREVER NOTED ON THE PLANS AND WHERE PLATFORM ELEVATION IS 20'-0" OR GREATER ABOVE GRADE.

10.3.2. FOR LADDERS BETWEEN PLATFORMS PROVIDE CAGES WHERE DISTANCE BETWEEN PLATFORMS EXCEEDS 20'-0".

10.4. RUNG AT T/LADDER TO MATCH LANDING ELEVATION.

10.5. A SELF-CLOSING SAFETY GATE IS REQUIRED AT ALL LADDER ACCESS OPENINGS. GATES SHALL BE ISP POLYURETHANE, MODEL SG-27 AS MANUFACTURED BY INTREPID INDUSTRIES, OR APPROVED EQUAL. FOR WALK-THRU EXIT ARRANGEMENTS, PROVIDE RIGHT HAND HINGE. FOR SIDE ACCESS, HINGE WILL DEPEND ON ARRANGEMENT - FOR RIGHT SIDE EXIT PROVIDE RIGHT HAND HINGE; FOR LEFT SIDE EXIT, PROVIDE LEFT HAND HINGE.

11. METAL DECK NOTES

11.1. DECK DESIGN IS BASED ON THE STEEL DECK INSTITUTE DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS AND ROOF DECKS.

11.2. PROVIDE FLOOR DECK WITH THE FOLLOWING MINIMUM PROPERTIES:

11.2.1. 1 1/2 INCH DEPTH

11.2.2. 20 GAGE THICKNESS

11.2.3. 33,000 PSI YIELD STRESS

11.2.4. G90 GALVANIZED COATING

11.3. PROVIDE ROOF DECK WITH THE FOLLOWING MINIMUM PROPERTIES:

11.3.1. 1 ½ INCH DEPTH

11.3.2. 22 GAGE THICKNESS

11.3.3. 33,000 PSI YIELD STRESS

11.3.4. G90 GALVANIZED COATING

11.4. DECK IS SPECIFIED BASED ON A THREE SPAN CONDITION. FURNISH HEAVIER GAGE DECK IF REQUIRED FOR ONE OR TWO SPAN CONDITIONS.

11.5. PROVIDE AND FASTEN METAL DECK TO CONFORM TO THE REQUIREMENTS OF FACTORY MUTUAL FOR CLASS 1 ROOF INSTALLATION.

12. WALL SIDING

12.1. PROVIDE COMPONENTS AS PRODUCED BY A MANUFACTURER WITH NOT LESS THAN FIVE YEARS OF SUCCESSFUL EXPERIENCE IN THE FABRICATION OF COMPONENTS OF THE TYPE AND QUALITY REQUIRED.

12.2. SYSTEM SHALL BE INSTALLED BY A FIRM THAT HAS NOT LESS THAN FIVE YEARS OF SUCCESSFUL EXPERIENCE IN THE INSTALLATION OF SYSTEMS SIMILAR TO THOSE REQUIRED FOR THIS PROJECT.

12.3. STACK MATERIALS ON PLATFORMS OR PALLETS, COVERED WITH TARPAULINS OR OTHER SUITABLE WEATHER TIGHT VENTILATED COVERING. STORE METAL SHEETS OR PANELS SO THAT WATER ACCUMULATIONS WILL DRAIN FREELY. DO NOT STORE SHEETS OR PANELS IN CONTACT WITH OTHER MATERIALS WHICH MIGHT CAUSE STAINING.

12.4. ROOFING AND SIDING PANELS

12.4.1. PROVIDE SIDING AND ROOFING SHEETS FORMED TO THE PANEL PROFILE SHOWN ON THE DRAWINGS OR APPROVED EQUAL. STEEL PANELS SHALL BE SINGLE SHEETS, OF APPROXIMATE OVERALL DEPTH AND CONFIGURATION SHOWN ON DRAWINGS. CONNECTION BETWEEN PANELS SHALL BE BY INTERLOCKING JOINTS FILLED SEALED PER MANUFACTURER'S RECOMMENDATION. FURNISH WALL PANELS IN ONE CONTINUOUS LENGTH FOR FULL HEIGHT OR AT LEAST ONESTORY HEIGHT WITH NO HORIZONTAL JOINTS, EXCEPT AT OPENINGS. FURNISH ROOF PANELS IN ONE CONTINUOUS LENGTH OF ROOF SPAN AND PROVIDE CUT-OUTS AS REQUIRED FOR PASSAGE OF PIPES, CONDUITS, VENTS AND THE LIKE.

12.4.2. PROVIDE 2" LS-36 INSULATED STEEL PANELS, 36" WIDE, 26-GA. (FY = 60KSI) STRUCTURAL QUALITY AND SHALL HAVE A "GALVALUME" COATING OF CORROSION RESISTANT, ALUMINUM-ZINC ALLOY APPLIED BY A CONTINUOUS HOT DIPPING PROCESS IN ACCORDANCE WITH ASTM A924.

12.4.3. FLASHING SHALL BE OF THE SAME MATERIAL AND FINISH AS THE ROOF AND WALL PANELS.

12.5. PROVIDE FASTENERS OF SIZE, TYPE AND HOLDING STRENGTH AS RECOMMENDED BY THE MANUFACTURER.

12.5.1. PROVIDE STAINLESS STEEL, METAL-BACKED, NEOPRENE WASHERS UNDER HEADS OF FASTENERS BEARING ON WEATHER SIDE OF PANELS.

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C	2025.06.20	DV	OWNER COMMENTS	
B	2025.04.25	SW	ISSUED FOR BID	
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20 JUNE 2025

4990 Royal Gulf Cr
Fort Myers, FL 33966
Ph: 239.768.1778, Fax: 239.210.2168
www.veiglobal.com
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Title:
AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
GENERAL NOTES AND STRUCTURAL SPECIFICATIONS

Amalgamated Sugar
AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 2025.04.10
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
Project: E24140
Dwg: S0.03
Revision: C

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12.5.2. LOCATE AND SPACE FASTENINGS IN TRUE VERTICAL AND HORIZONTAL ALIGNMENT. USE PROPER TYPE FASTENING TOOLS TO OBTAIN CONTROLLED UNIFORM COMPRESSION FOR POSITIVE SEAL WITHOUT RUPTURE OF NEOPRENE WASHER.

12.5.3. PROVIDE FASTENERS WITH HEADS MATCHING COLOR OF ROOFING OR SIDING SHEETS.

12.6. SHEET METAL ACCESSORIES

12.6.1. PROVIDE SHEET METAL ACCESSORIES COMPATIBLE WITH SUPPLIED STEEL ROOFING AND SIDING PANELS.

12.6.2. PROVIDE SHEET METAL ACCESSORIES FACTORY FORMED OF THE SAME MATERIAL AND FINISH AS THE ROOFING AND SIDING.

12.6.3. GUTTERS

12.6.3.1. GUTTERS SHALL MATCH THE MATERIAL AND FINISH OF THE WALL AND ROOF PANELS.

12.6.3.2. MANUFACTURERS STANDARD SUPPORT BRACKET SHALL BE SPACED AT A MAXIMUM OF 48" OC

12.6.3.3. DOWNSPOUTS SHALL MATCH THE MATERIAL AND FINISH OF THE GUTTERS.

12.6.3.4. PRECAST CONCRETE SPLASH BLOCKS SHALL BE LOCATED AT THE BOTTOM OF EACH DOWNSPOUT.

12.7. INSTALL PANELS IN ACCORDANCE WITH THE MANUFACTURER'S APPROVED ERECTION INSTRUCTIONS AND DIAGRAMS, EXCEPT AS SPECIFIED OTHERWISE. PANELS SHALL BE IN FULL AND FIRM CONTACT WITH SUPPORTS AND WITH EACH OTHER AT SIDE AND END LAPS. ALL CUT ENDS AND EDGES, INCLUDING THOSE AT OPENINGS THROUGH THE SHEETS SHALL BE SEALED COMPLETELY. PROVIDE MOLDED CLOSURE STRIPS WHERE INDICATED AND WHENEVER SHEETS TERMINATE WITH OPEN ENDS AFTER INSTALLATION.

12.8. ARRANGE AND NEST SIDELAP JOINTS SO THAT PREVAILING WINDS BLOW OVER, NOT INTO, LAPPED JOINTS. LAP RIBBED OR FLUTED SHEETS ONE FULL RIB CORRUGATION. APPLY PANELS AND ASSOCIATED ITEMS FOR NEAT AND WEATHER TIGHT ENCLOSURE. AVOID "PANEL CREEP" OR APPLICATION NOT TRUE TO LINE. PROTECT FACTORY FINISHES FROM DAMAGE.

12.8.1. PROVIDE WEATHER SEAL UNDER RIDGE CAP. FLASH AND SEAL ROOF PANELS AT EAVE AND RAKE WITH RUBBER, NEOPRENE, OR OTHER CLOSURES TO EXCLUDE WEATHER.

12.8.2. FLUTED SECTIONS SHALL BE FITTED WITH METAL CLOSURES AT THE TOP AND BOTTOM OF ALL VERTICAL AND SLOPING RUNS AT WALL OPENINGS.

12.8.3. DEFECTIVE MATERIAL, SUCH AS BENT, BUCKLED, OR SCARRED PANELS, SHALL NOT BE ERECTED. IF SUCH PANELS ARE ERECTED, THEY SHALL BE REMOVED AND REPLACED.

12.8.4. THE SIDING, ROOFING, CORNERS, CLOSURES, AND FLASHINGS SHALL BE INSTALLED WITHOUT WRINKLES, BUCKLES, OR DIMPLES.\

12.8.5. SIDE LAP JOINTS OF BOTH INTERIOR AND EXTERIOR SHEETS SHALL BE SEALED IN A MANNER TO PRODUCE A WEATHER TIGHT JOINT. SEALING SHALL CONSIST OF A CAULKING COMPOUND, FACTORY-APPLIED GASKET MATERIAL, OR A COMBINATION THEREOF. THE INTERIOR SHEET SHALL SERVE AS A VAPOR BARRIER. THE EXTERIOR SHEET SHALL BE ALLOWED TO BREATHE.

12.8.6. LAPS OF EXTERIOR SHEETS INCLUDING COVERS, SHALL BE CAULKED. INSULATION AT THE TOP AND BOTTOM OF ALL RUNS AND AT WALL OPENINGS SHALL BE ADEQUATELY PROTECTED AGAINST DAMPNESS AND DISPLACEMENT. INSULATION THAT GETS WET DURING ERECTION SHALL BE DRIED OR REPLACED.

12.8.7. AFTER THE WORK HAS BEEN COMPLETED, THE SURFACE OF THE SHEETING SHALL BE INSPECTED FOR INTEGRITY OF THE COATING. WHERE THE COATING IS SCRATCHED OR SCRAPED OFF, TOUCH UP SUCH PLACES WITH A COATING OF IDENTICAL COLOR COMPATIBLE WITH THE SHOP FINISH. SHEETING SCRATCHED, DENTED, OR OTHERWISE DAMAGED WHICH, AFTER REPAIR AND TOUCH-UP, DOES NOT PRESENT A UNIFORM APPEARANCE FROM THE CLOSEST GROUND OR PUBLIC APPROACH, SHALL BE REPLACED.

12.9. APPLY ELASTOMERIC SEALANT CONTINUOUSLY BETWEEN METAL BASE CHANNEL (SILL ANGLE) AND CONCRETE, AND ELSEWHERE AS NECESSARY FOR WATERPROOFING. HANDLE AND APPLY SEALANT AND BACK UP IN ACCORDANCE WITH THE SEALANT MANUFACTURER'S RECOMMENDATIONS. SEALANTS ARE TO BE APPROVED BY OWNER.

12.9.1. ALIGN BOTTOMS OF WALL PANELS AND FASTEN PANELS WITH BLIND RIVETS, BOLTS, OR SELF-TAPPING SCREWS. FASTEN FLASHINGS, TRIM AROUND OPENINGS, AND SIMILAR ELEMENTS WITH SELF-TAPPING SCREWS. FASTEN DOOR FRAMES WITH MACHINE SCREWS OR BOLTS. WHEN BUILDING HEIGHT REQUIRES TWO ROWS OF PANELS AT GABLE ENDS, ALIGN LAP OF GABLE PANELS OVER WALL PANELS AT EAVE HEIGHT. FOR INSULATED SIDING AND ROOFING, THE INTERIOR PANEL SHALL BE FASTENED TIGHTLY AGAINST EACH GIRT.

12.9.2. INSTALL SCREW FASTENERS WITH POWER TOOL HAVING CONTROLLED TORQUE ADJUSTED TO COMPRESS NEOPRENE WASHER TIGHTLY WITHOUT DAMAGE TO WASHER, SCREW THREADS, OR PANELS. INSTALL SCREWS IN PREDRILLED HOLES.

12.10. INSTALL LOUVERS AND OTHER SHEET METAL ACCESSORIES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS FOR POSITIVE ANCHORAGE TO BUILDING AND WEATHER TIGHT MOUNTING. ADJUST OPERATING MECHANISM FOR PRECISE OPERATION.

12.11. FIELD PAINTING

12.11.1. PRIOR TO APPLICATION OF FINISH COATS, CLEAN COMPONENT SURFACES OF MATTER THAT COULD PRECLUDE PAINT BOND.

12.11.2. TOUCH UP ABRASIONS, MARKS, SKIPS OR OTHER DEFECTS TO SHOP-PRIMED AND FINISHED SURFACES WITH SAME TYPE MATERIAL.

12.11.3. PROTECT WORK OF OTHER TRADES. CORRECT PAINTING RELATED DAMAGES BY CLEANING, REPAIRING OR REPLACING, AND REFINISHING, AS DIRECTED BY ENGINEER.

12.11.4. PERFORM PREPARATION AND CLEANING PROCEDURES IN STRICT ACCORDANCE WITH COATING MANUFACTURER'S INSTRUCTIONS FOR EACH SUBSTRATE CONDITION.

12.11.5. REMOVE HARDWARE AND ACCESSORIES AND SIMILAR ITEMS IN PLACE AND NOT TO BE FINISH-PAINTED, OR PROVIDE SURFACE-APPLIED PROTECTION. REINSTALL REMOVED ITEMS.

12.11.6. MIX, PREPARE, AND STORE PAINTING AND FINISHING MATERIALS IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS.

12.11.7. APPLY PAINTING AND FINISHING MATERIALS IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS. USE APPLICATORS AND TECHNIQUES BEST SUITED FOR MATERIAL AND SURFACES TO WHICH APPLIED.

12.11.8. APPLY ADDITIONAL COATS WHEN UNDERCOATS OR OTHER CONDITIONS SHOW THROUGH FINAL COAT, UNTIL PAINT FILM IS OF UNIFORM FINISH, COLOR, AND APPEARANCE.

12.12. WHERE ALUMINUM SURFACES COME IN CONTACT WITH FERROUS METAL OR OTHER INCOMPATIBLE MATERIALS, KEEP ALUMINUM SURFACES FROM DIRECT CONTACT BY APPLICATIONS TO THE OTHER MATERIAL AS FOLLOWS:

12.12.1. ONE COAT OF ZINC CHROMATE PRIMER, FS TT-P-645, FOLLOWED BY TWO COATS OF ALUMINUM PAIN, SSPC-PAINT 101.

12.12.2. IN LIEU OF TWO COATS OF ALUMINUM PAINT, APPLY ONE COAT OF HIGH-BUILD BITUMINOUS PAINT, SSPC-PAINT 12, APPLIED TO A THICKNESS OF 1/16 IN. OVER ZINC CHROMATE PRIMER.

12.12.3. PAINT ALUMINUM SURFACE WHERE IT IS IMPRACTICAL TO PAINT THE OTHER SURFACE.

13. PAINTINGS AND COATINGS

13.1. THE TERM PAINT AS USED IN THIS SPECIFICATION INCLUDES ENAMELS, EPOXIES, URETHANES, ALKYD PAINTS, RUBBERIZED PAINTS, FILLERS, PRIMERS, SEALERS, STAINS, ETC. COLORS WILL BE AS SELECTED BY OWNER. ALL SECOND AND/OR FINISHED COATS SHALL BE COMPATIBLE WITH THE PRIME COATS.

13.2. CONTRACTOR SHALL REVIEW THE SPECIFICATIONS AND THE ACCOMPANYING PLANS WITH THE PAINT/COATING MANUFACTURER. INCONSISTENCIES BETWEEN THESE SPECIFICATIONS AND THE MANUFACTURER'S STANDARDS SHALL BE SUBMITTED PRIOR TO APPLICATION OF PAINT/COATING MATERIALS. UNLESS NOTIFIED TO THE CONTRARY, THE SPECIFICATIONS SHALL BE CONSIDERED IN COMPLIANCE WITH THE MANUFACTURER'S STANDARDS. SHOULD SUBSEQUENT PAINT/COATING FAILURE OCCUR WITHIN THE PERIOD OF TIME ESTABLISHED IN THE PAINT/COATING MANUFACTURER'S WARRANTY, THE CORRECTIVE MEASURES SHALL BE THE RESPONSIBILITY OF CONTRACTOR IN COMPLIANCE WITH THE TERMS DEFINED IN THE WARRANTY. NO PAINT/COATING CONTAINING LEAD WILL BE PERMITTED.

13.3. THE PAINT/COATING MANUFACTURER'S REQUIREMENTS, INCLUDING APPLICATION PROCEDURES FOR HIS PAINT/COATING MATERIALS, SHALL BE IN WRITING AND BECOME A PART OF THESE SPECIFICATIONS AND SHALL BE FOLLOWED IN DETAIL. ALL SAFETY PRECAUTIONS RECOMMENDED BY THE PAINT/COATING MANUFACTURER AND/OR OWNER SHALL BE STRICTLY ADHERED TO AT ALL TIMES WHEN THE WORK IS IN PROGRESS.

13.4. PROTECTIVE COATING SPECIFIED HEREIN SHALL BE APPLIED BY QUALIFIED APPLICATORS ONLY. A QUALIFIED APPLICATOR SHALL BE DEFINED AS A BUSINESS CONCERN REGULARLY ENGAGED IN APPLICATION OF COATINGS. WORKMEN EMPLOYED SHALL BE SKILLED IN THE PARTICULAR JOB ASSIGNED.

13.5. CONTRACTOR SHALL USE EXTREME DILIGENCE TO ENSURE THAT VEHICLES, EQUIPMENT, HARDWARE, FIXTURES, MATERIALS, ETC. ARE PROTECTED AGAINST PAINT SPILLAGE, OVERSPRAY, ETC. SUCH OCCURRENCES SHALL BE CORRECTED AT CONTRACTOR'S EXPENSE.

13.6. COVERS INSTALLED TO PROTECT NAMEPLATES, HARDWARE, AND SPRINKLER HEADS FROM OVERSPRAY OF COATING MATERIALS, ETC., SHALL BE REMOVED BY CONTRACTOR AS A FUNCTION OF HIS CLEAN-UP OPERATIONS.

13.7. SCAFFOLDING AND STAGING REQUIRED FOR THE PROPER EXECUTION OF THE WORK SHALL BE ERECTED, MAINTAINED, AND REMOVED BY CONTRACTOR, IN A SAFE MANNER, USING LADDERS OR METAL STAGING AS REQUIRED. EXTREME CARE SHALL BE TAKEN IN FASTENING, BRACING, AND HANDLING THE STAGING OR SCAFFOLDING TO AVOID DAMAGING WALLS, FLOORS, OR EQUIPMENT, ETC.

13.8. SURFACES AND EQUIPMENT NOT BEING PAINTED SHALL BE PROTECTED FROM PAINT DRIPPINGS OR OTHER DAMAGE BY THE USE OF DROP CLOTHS, OR OTHER MEANS.

13.9. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFE, PROPER HANDLING, STORAGE AND DISPOSAL OF ALL PAINT PRODUCTS, OILY RAGS, DROP CLOTHS, ETC. IN CONNECTION WITH HIS WORK. DISPOSAL OF ALL WASTE PAINT, SOLVENTS OR ANY LEFT OVER MATERIAL SHALL BE THE RESPONSIBILITY OF CONTRACTOR.

13.10. CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES, AND SHALL SCHEDULE HIS WORK IN SUCH A MANNER THAT IT WILL NOT INTERFERE WITH THE INSTALLATION OF EQUIPMENT OR OTHER WORK.

13.11. PAINTING OF CARBON STEEL SURFACES SHALL BE PERFORMED IN CONFORMANCE WITH THE PROCEDURES DETAILED IN THE STEEL STRUCTURES PAINTING COUNCIL MANUAL (SSPC).

13.12. PAINTING AND COATING SYSTEMS

13.12.1. SYSTEM NUMBER ONE: PAINTING OF STRUCTURAL STEEL

13.12.1.1. SURFACE PREPARATION: ABRASIVE BLAST TO A "COMMERCIAL" STANDARD OF CLEANLINESS, AS PER SSPC SP6 WITH MINIMAL SURFACE PROFILE OF 2 - 2.5 MILS

13.12.1.2. COATING SYSTEM:

PRIMER: SHERWIN WILLIAMS ZINC CLAD II (85) INORGANIC ZINC RICH COATING AT A DFT OF 2.0 TO 4.0 MILS

INTERMEDIATE: SHERWIN WILLIAMS MACROPOXY 646 FAST CURE EPOXY MASTIC AT A DFT OF 5.0 TO 10.0 MILS

TOP COAT: SHERWIN WILLIAMS ACROLON 218 HS ACRYLIC POLYURETHANE AT A DFT OF 3.0 TO 6.0 MILS

COLOR: STRUCTURAL STEEL: PANTONE 425C

COLOR: HANDRAILS AND LADDERS: SAFETY YELLOW

13.1. SYSTEM NUMBER TWO: PAINTING OF CONCRETE MASONRY UNITS

13.1.0.1. SURFACE PREPARATION: SSPC-SP13/NACE 6

13.1.0.2. COATING SYSTEM:

PRIMER: SHERWIN WILLIAMS MACROPOXY 646 FAST CURE EPOXY MASTIC AT A DFT OF 5.0 TO 10.0 MILS

TOP COAT: SHERWIN WILLIAMS ACROLON 218 HS ACRYLIC POLYURETHANE AT A DFT OF 3.0 TO 6.0 MILS

COLOR: PANTONE 7541 C

14. GROUT

14.1. NON-SHRINK GROUT

14.1.1. PROVIDE A NON-SHRINK, NON-METALLIC GROUT THAT COMPLIES WITH ASTM SPECIFICATION C1107

14.1.2. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI AT 28 DAYS.

14.1.3. PROVIDE CLEAN POTABLE WATER THAT IS FREE OF DELETERIOUS SUBSTANCES.

14.1.4. STORE AND PROJECT NON-SHRINK GROUT FROM MOISTURE AND CONTAMINATION.

14.1.5. REMOVE MUD, DIRT, AND OTHER FOREIGN MATERIALS FROM AREAS TO BE GROUTED.

14.1.6. MIX GROUT TO ITS FLUID, SELF LEVELING CONSISTENCY IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. DO NOT RETEMPER GROUT. DO NOT EXCEED MANUFACTURER'S MAXIMUM LIMIT ON WATER CONTENT OR USE AT A CONSISTENCY WHICH PRODUCES FREE BLEEDING. MIX GROUT IN A PADDLE-TYPE MORTAR MIXER. DO NOT MIX BY HAND.

14.1.7. CONSOLIDATE GROUT TO PROVIDE UNIFORMITY. DO NOT VIBRATE.

14.1.8. USE FORMS TO CONTAIN GROUT

14.1.9. PROJECT GROUT AND AREAS TO BE GROUTED FROM EXCESSIVE HEAT AND COLD IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. PROTECT FROM EXCESSIVE DRYING SHRINKAGE RESULTING FROM WIND OR DIRECT SUNLIGHT. PROTECT AREAS GROUTED FROM EXCESSIVE VIBRATIONS FOR THREE DAYS.

14.2. EPOXY GROUT

14.2.1. APPLICATOR MUST HAVE PRIOR EXPERIENCE APPLYING SPECIFIED PRODUCT OR SIMILAR PRODUCTS OR HAVE MANUFACTURER'S REPRESENTATIVE ON SITE ENSURING THAT PREPARATION AND APPLICATION ARE PERFORMED CORRECTLY.

14.2.2. PROVIDE A NON-SHRINK, NON-METALLIC, NON-CORROSIVE EPOXY GROUT SPECIFICALLY FOR USE IN SUPPORTING HEAVY EQUIPMENT.

14.2.3. THERE SHALL BE NO MEASURED SHRINKAGE WHEN TESTED IN ACCORDANCE WITH ASTM C827 MODIFIED PROCEDURE WITH A MINIMUM EFFECTIVE BEARING AREA 9EBA0 OF 95 PERCENT COVERAGE OF THE TESTED BASE PLATE.

14.2.4. COMPRESSIVE STRENGTH SHALL BE A MINIMUM OF 10,000 PSI AT SEVEN DAYS WHEN TESTED IN ACCORDANCE WITH ASTM C579.

14.2.5. PROVIDE FLOW CONSISTENCY AS NECESSARY FOR THE PARTICULAR APPLICATION.

14.2.6. PROVIDE CLEAN, POTABLE WATER THAT IS FREE OF DELETERIOUS SUBSTANCES.

14.2.7. MATERIALS MUST BE DELIVERED IN ORIGINAL, UNOPENED CONTAINERS WITH THE MANUFACTURER'S LABELS INCLUDING PRODUCT NAME AND BATCH NUMBERS.

14.2.8. STORE MATERIAL IN A DRY AREA, ABOVE GROUND, PROTECT FROM MOISTURE AND HUMIDITY.

14.2.9. PREPARE CONCRETE SURFACES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

14.2.10. ENSURE CONCRETE SURFACES ARE CLEAN AND ROUGH. REMOVE DIRT DUST, OIL, DEBRIS, PAINT, CURING COMPOUNDS, SEALERS, FORM RELEASE AGENTS, AND UNSOUND OR LOOSE CONCRETE. REMOVE ANY RESIDUES PRESENT ON CONCRETE SURFACES.

14.2.11. REMOVE FOREIGN MATTER FROM STEEL SURFACES TO BE IN CONTACT WITH GROUT. CLEAN CONTACT STEEL SURFACES AS NECESSARY BY WIRE BRUSHING AND WIPING DUST CLEAN.

14.2.12. MIX GROUT TO ITS FLUID, SELF LEVELING CONSISTENCY IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. DO NOT RETEMPER GROUT. DO NOT EXCEED MANUFACTURER'S MAXIMUM LIMIT ON WATER CONTENT OR USE AT A CONSISTENCY WHICH PRODUCES FREE BLEEDING. MIX GROUT IN A PADDLE-TYPE MORTAR MIXER. DO NOT MIX BY HAND.

14.2.13. PLACE GROUT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

14.2.14. PLACE MATERIALS IMMEDIATELY AFTER MIXING IS COMPLETE. PLACE WITHIN MAXIMUM ALLOWABLE TIME.

14.2.15. USE FORMS TO CONTAIN GROUT

14.2.16. PROJECT GROUT AND AREAS TO BE GROUTED FROM EXCESSIVE HEAT AND COLD IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. PROTECT FROM EXCESSIVE DRYING SHRINKAGE RESULTING FROM WIND OR DIRECT SUNLIGHT.

14.2.17. PROTECT GROUT FROM DAMAGE, HEAVY TRAFFIC, ETC. UNTIL IT HAS FULLY CURED.

15. ANCHOR BOLT NOTES

15.1. UNLESS OTHERWISE NOTED, ANCHOR RODS SHALL CONFORM TO ASTM F1554, GRADE A36, WITH SUPPLEMENT S1 AND SHALL BE HEADED RODS OR THREADED RODS WITH HEAVY HEXAGONAL NUT WELDED TO THE BOTTOM OF THE THREADED ROD.

15.2. WASHERS SHALL PLAIN HARDENED WASHERS CONFORMING TO ASTM F436.

15.3. PROVIDE THICK PLATE WASHERS IN ACCORDANCE WITH TABLE 14-2 OF THE AISC IN LIEU OF TOP STEEL WASHER ON BASE PLATES WITH OVERSIZED HOLES.

15.4. ANCHOR BOLTS SHALL BE LOCATED AND SECURED IN POSITION PRIOR TO PLACEMENT OF CONCRETE. LOCATE ANCHOR BOLTS BY USING TEMPLATES WITH TWO NUTS TO SECURE IN POSITION.

15.5. WHERE INDICATED IN THE DRAWINGS, ANCHOR BOLT SLEEVES SHALL BE HIGH DENSITY POLYETHYLENE PLASTIC, UNLESS NOTED OTHERWISE. PLASTIC SLEEVES SHALL BE "WILSON ANCHOR SLEEVES" AS MANUFACTURED BY SINCO PRODUCTS INCORPORATED, EAST HAMPTON, CT OR APPROVED EQUAL.

15.6. UNLESS OTHERWISE NOTED, ANCHOR BOLTS SHALL BE THREADED FOR FULL PROJECTION ABOVE ROUGH CONCRETE.

15.7. ANCHOR BOLTS MAY BE USED FOR BASE PLATE LEVELING WITH DOUBLE NUTS. PRIOR TO TIGHTENING, THE BASE PLATE MUST BE HARD SHIMMED AND THE LEVELING NUTS BACKED OFF 3 FULL TURNS. EACH ANCHOR BOLT MUST HAVE ITS OWN SHIM PACK AND THE BOLT TIGHTENED PRIOR TO GROUTING.

15.8. BASE PLATES SHALL BE GROUTED IMMEDIATELY AFTER LEVELING. NO MOISTURE OR FOREIGN MATERIALS SHALL BE ALLOWED TO COME INTO CONTACT WITH THE UNDERSIDE OF PLATE OR ANCHOR BOLT SLEEVES PRIOR TO GROUTING.

No.	Date	By	Revision	Ad. No.
C	2025.06.20	DV	OWNER COMMENTS	
B	2025.04.25	SW	ISSUED FOR BID	
A	2025.04.11	SW	ISSUED FOR APPROVAL (70% CHECKSET)	

PRELIMINARY
NOT FOR
CONSTRUCTION
20 JUNE 2025

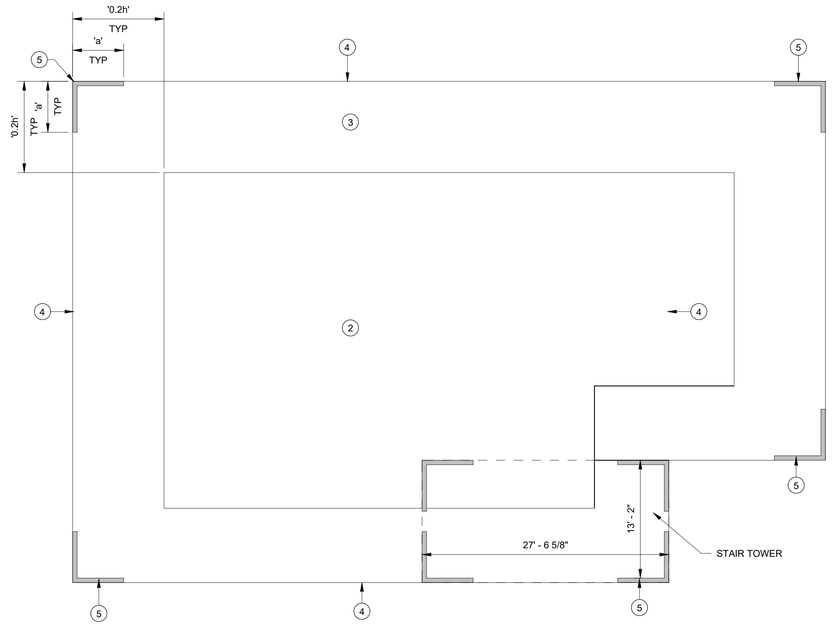
4990 Royal Gulf Cr
Fort Myers, FL 33966
Ph: 239.768.1778, Fax: 239.210.2168
www.veiglobal.com
VEI GLOBAL ENGINEERING

Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
GENERAL NOTES AND STRUCTURAL SPECIFICATIONS

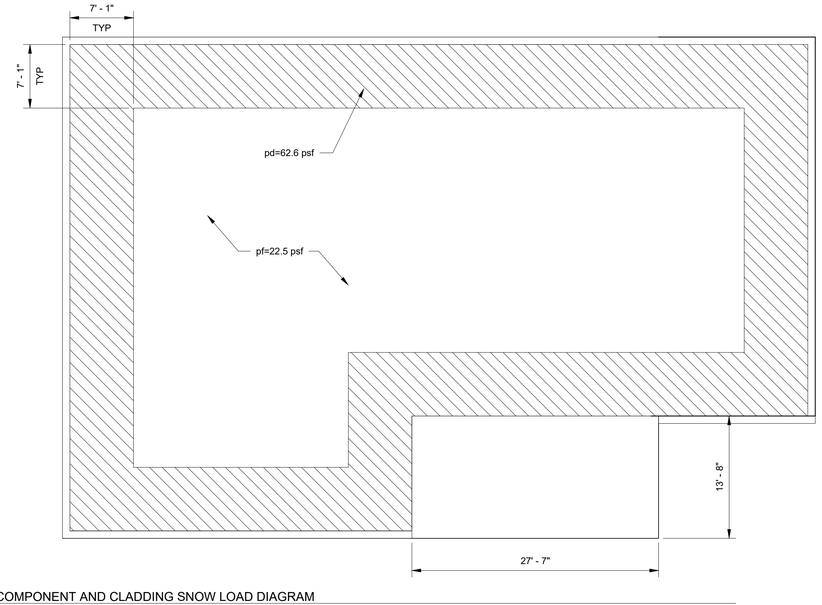
Amalgamated Sugar
AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 2025.04.10
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
Project: E24140
Dwg: S0.04
Revision: C

S:\CM\2024 Projects\E24140 ASC Evaporator Project\Drawings\Struct\E24140 GENERAL NOTES 2025.04.10.dwg (S0.04)Plotted on: Jun, 20, 2025- 10:50AM by David Viele



1 COMPONENT AND CLADDING WIND LOAD DIAGRAM
1/8" = 1'-0"



2 COMPONENT AND CLADDING SNOW LOAD DIAGRAM
1/8" = 1'-0"

C&C WIND PRESSURE PLAN NOTES:

1. PRESSURES SHOWN AS NOMINAL COMPONENTS AND CLADDING PRESSURES HAVE BEEN CONVERTED FROM ULTIMATE PRESSURES USING A 0.6 MULTIPLIER FACTOR. NO FURTHER REDUCTION IS ALLOWED.

   A - INDICATES TRIBUTARY AREA IN S.F.
   a - INDICATES END ZONE WIDTH IN FT.
   h - MEAN ROOF HEIGHT IN FT.
   Vult - INDICATES ULTIMATE DESIGN WIND SPEED IN MPH
   Vasd - INDICATES NOMINAL DESIGN WIND SPEED IN MPH

2. GROSS PRESSURES ARE FOR WINDOWS, DOORS, VENEER, LIGHT GAGE METAL FRAMING, METAL DECK ATTACHMENTS, ROOFING, ROOFING ACCESSORIES AND OTHER BUILDING COMPONENTS AND CLADDING.

3. GROSS PRESSURES SHALL BE LINEARLY INTERPOLATED FOR (A) NOT SHOWN IN TABLE.

4. POSITIVE PRESSURES INDICATE PRESSURES ACTING TOWARD A PROJECTED SURFACE. NEGATIVE PRESSURES INDICATE PRESSURES ACTING AWAY FROM A PROJECTED SURFACE.

5. ROOF AND ZONES (1) THRU (3)

6. WALL ZONES (4) AND (5)

7. NET DESIGN ROOF PRESSURES SHALL BE CALCULATED USING THE SELFWEIGHT (DEAD LOAD) OF THE MATERIALS. HOWEVER, THE MAXIMUM REDUCTION OF WIND UPLIFT PRESSURES SHALL BE LIMITED TO THE SELF WEIGHT OF THE ROOF SYSTEM PLUS 5 PSF FOR SUPERIMPOSED DEAD LOADS.

8. INTERNAL PRESSURE COEFFICIENT FOR ENCLOSED BUILDING EQUALS +0.18 AND -0.18.

9. ROOF TOP EQUIPMENT SHALL BE DESIGNED FOR A NOMINAL LATERAL PRESSURE OF XX PSF AND A SIMULTANEOUS NOMINAL UPLIFT PRESSURE OF 49 PSF (ROOF TOP EQUIPMENT PER FBC SECTION 1620.6 WITH Qh = 62 PSF)

10. AT ALCOVES AND CANOPIES, THE TOTAL UPLIFT PRESSURE ON THE ALCOVE SOFFIT OR CANOPY SHALL EQUAL THE WALL PRESSURE IN THAT AREA.

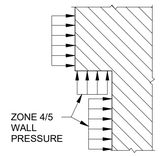
11. NOMINAL PARAPET DESIGN WIND PRESSURE LOAD CASES:
    LOAD CASE 1: OUTSIDE FACE: +105 PSF (ZONE 4) AND +105 PSF (ZONE 5)
    INSIDE FACE: +105 PSF (ZONE 2) AND +105 PSF (ZONE 3)
    LOAD CASE 2: OUTSIDE FACE: -62 PSF (ZONE 4) AND -71 PSF (ZONE 5)
    INSIDE FACE: +105 PSF
    NOTE THAT CASE 1 & CASE 2 WIND PRESSURES ARE APPLIED INDEPENDENTLY.

ULTIMATE C&C WIND PRESSURES (ASCE 7-16)

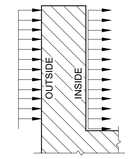
BUILDING	a (FT)	h (FT)	Vult (MPH)	Vasd (MPH)	A (SF)	ROOF ZONE (2) (PSF)	ROOF ZONE (3) (PSF)	WALL ZONE (4) (PSF)	WALL ZONE (5) (PSF)
MAIN	5'-8"	51'-0"	117	90	<10	+16 - 81	+16 - 81	+36 -39	+36 -47
					20	+16 - 76	+16 - 76	+34 -37	+34 -44
					50	+16 - 69	+16 - 69	+32 -35	+32 -40
					100+	+16 - 64	+16 - 64	+30 -33	+30 -37

FM GLOBAL ROOFING REQUIREMENTS

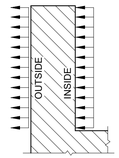
MATERIAL	ZONE (2)	ZONE (3)
ROOF	1-120	1-120
FASCIA	1-60	1-60
COPING	1-75	1-60
GUTTER	1-75	1-60



SECTION AT ALCOVE



PARAPET LOAD CASE 1



PARAPET LOAD CASE 2

No.	Date	By	Revision	Ad. No.
C	2025.06.20	DV	OWNER COMMENTS	
B	2025.04.25	DV	ISSUED FOR BID	
A	2025.04.11	DV	ISSUED FOR APPROVAL (70% CHECKSET)	

PRELIMINARY NOT FOR CONSTRUCTION 20 JUNE 2025

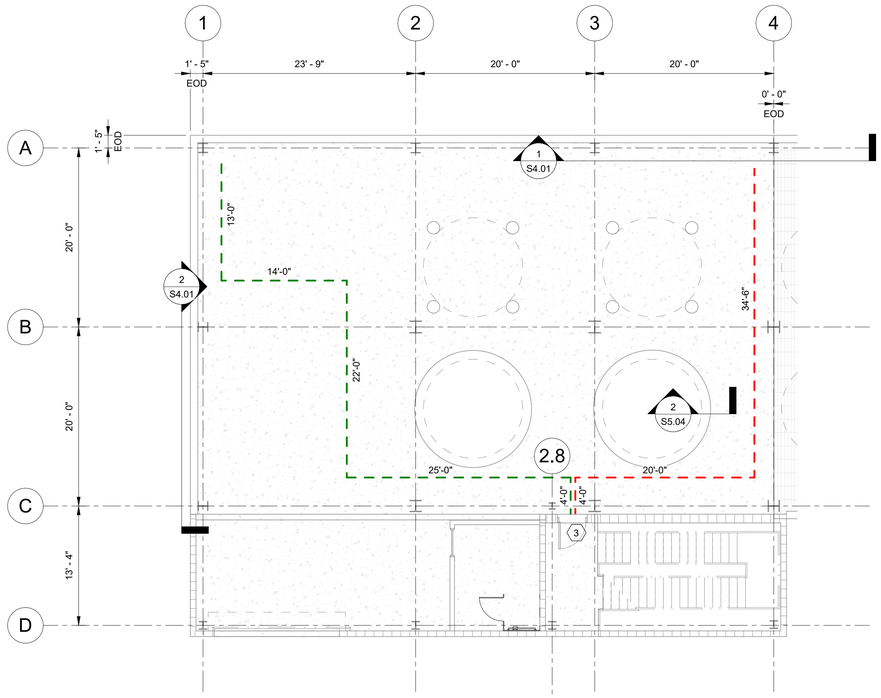
4990 Royal Gulf Circle
Fort Myers, FL 33966
Ph: 239.768.1778, Fax: 239.210.2168
http://www.veiglobal.com

Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
COMPONENT AND CLADDING DIAGRAM AND TABLES
PROJECT SUBTITLE

AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
Project: E24140
Dwg: S0.11
Revision: C

C:\Users\dviele\Documents\E24140 ASC Evaporator STR R25 backup_dviele@veiglobal.com.rvt



1 LIFE SAFTEY PLAN 2ND FLOOR (FFE 127'-7")
1/8" = 1'-0"

KEYNOTE LEGEND

1. — — — INDICATES COMMON PATH OF EGRESS TRAVEL A
2. — — — INDICATES COMMON PATH OF AGRESS TRAVEL B
3. EXIT DOOR TO STAIR WELL (2 HR FIRE PROTECTION)

ROOFING PLAN NOTES

CODE SUMMARY

PROJECT DESCRIPTION:

NEW CONSTRUCTION OF MODERATE, FACTORY AND INDUSTRIAL

APPLICABLE CODES AND STANDARDS

INTERNATIONAL BUILDING CODE, 2018 EDITION

USE AND OCCUPANCY CLASSIFICATION

SECTION 302 CLASSIFICATION	GROUP F-1 MODERATE HAZARD FACTORY INDUSTRIAL (FOOD PROCESSING ESTABLISHMENTS)

OCCUPANCY SEPARATION

"NON-SEPARATED OCCUPANCIES" REQUIRING NO FIRE SEPARATION BETWEEN OCCUPANCIES

CONSTRUCTION CLASSIFICATION

1.	TYPE OF CONSTRUCTION:	IIB
2.	TABLE 504.3 ALLOWABLE HEIGHT:	55 FEET
3.	TABLE 504.4 ALLOWABLE STORIES:	11 STORIES
4.	ALLOWABLE SQUARE FOOTAGE:	15,500 SF
5.	ACTUAL NUMBER OF STORIES :	3

TYPE OF CONSTRUCTION

TABLE 601 FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (BUT NOT LESS THAN THE FIRE-RESISTANCE RATING REQUIRED BY OTHER SECTIONS OF THIS CODE)

STRUCTURAL FRAME	0-HOUR
BEARING WALLS, EXTERIOR	0-HOUR
BEARING WALLS, INTERIOR	0-HOUR
NONBEARING WALLS AND PARTITIONS, EXTERIOR	0-HOUR
NONBEARING WALLS AND PARTITIONS, INTERIOR	0-HOUR
FLOOR CONSTRUCTION	0-HOUR
ROOF CONSTRUCTION	0-HOUR

OTHER

ALL DOORS SHALL BE PROVIDED WITH HARDWARE HAVING A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND SHALL COMPLY W/ THE INTERNATIONAL BUILDING CODE, 2015 (IBC), SECTION 1008 AND SECTION 1020.2 OF IBC, 2015.

MEANS OF EGRESS

TABLE 1004.1.2 MAXIMUM FLOOR AREA ALLOWANCE PER OCCUPANT

AGRICULTURAL	300 (GROSS)

TABLE 1005.3.2 EGRESS WIDTH PER OCCUPANT SERVED

SECTION 1010.1.1 MINIMUM DOOR WIDTH	32"

TABLE 1017.02 EXIT ACCESS TRAVEL DISTANCE

GROUP F-1	200 FEET

EXIT TRAVEL DISTANCE:

ONE (1) EXIT 75 FEET

TABLE 1020.1 CORRIDOR FIRE-RESISTANCE RATING GROUP F-1, SPRINKLERED	0-HOUR (BUT NOT LESS THAN THE FIRE-RESISTANCE RATING BY OTHER SECTIONS OF THE CODE)
SECTION 1020.2 MINIMUM CORRIDOR WIDTH	44"
SECTION 1020.4 MAX DEAD-END CORRIDOR EXCEPTION 2	20 FEET

TABLE 1006.3.1 MINIMUM NUMBER OF EXITS FOR OCCUPANT LOAD

OCCUPANT LOAD 1-500	1
PROVIDED	1

GROSS FLOOR AREA SUMMARY

NET FLOOR AREA (PROCESS BUILDING):

FIRST FLOOR	3,800 SF
SECOND FLOOR	3,100 SF
THIRD FLOOR (ROOF)	2,600 SF
FOURTH FLOOR (MEZZANINE)	,300 SF

OCCUPANT LOAD

FIRST FLOOR	13
SECOND FLOOR	11
THIRD FLOOR (ROOF)	9
FOURTH FLOOR (MEZZANINE)	5
TOTAL	= 36 PERSONS

EGRESS CAPACITY REQUIRED

REQUIRED: 36" PROVIDED: 44"

EXIT LIGHTS:

1. EXIT LIGHTS SHALL BE INSTALLED PER THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE AND THE LOUISIANA BUILDING CODE
2. EMERGENCY LIGHTING WITH BATTERY BACK-UP SHALL BE INSTALLED PER THE REQUIREMENTS OF THE NCE AND THE INTERNATIONAL BUILDING CODE.
3. HAND HELD FIRE EXTINGUISHERS SHALL BE INSTALLED AND MAINTAINED PE NFPA LIFE SAFETY CODE, AND THE PROVISIONS OF SECTION 906 OF 2018 IBC

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PRELIMINARY NOT FOR CONSTRUCTION 20 JUNE 2025

4990 Royal Gulf Circle
Fort Myers, FL 33966
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http://www.veiglobal.com
VEI GLOBAL ENGINEERING

Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
FOUNDATION AND SLAB ON GRADE PLAN

Amalgamated Sugar

AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
Project: E24140
Dwg: LS1.11
Revision: C

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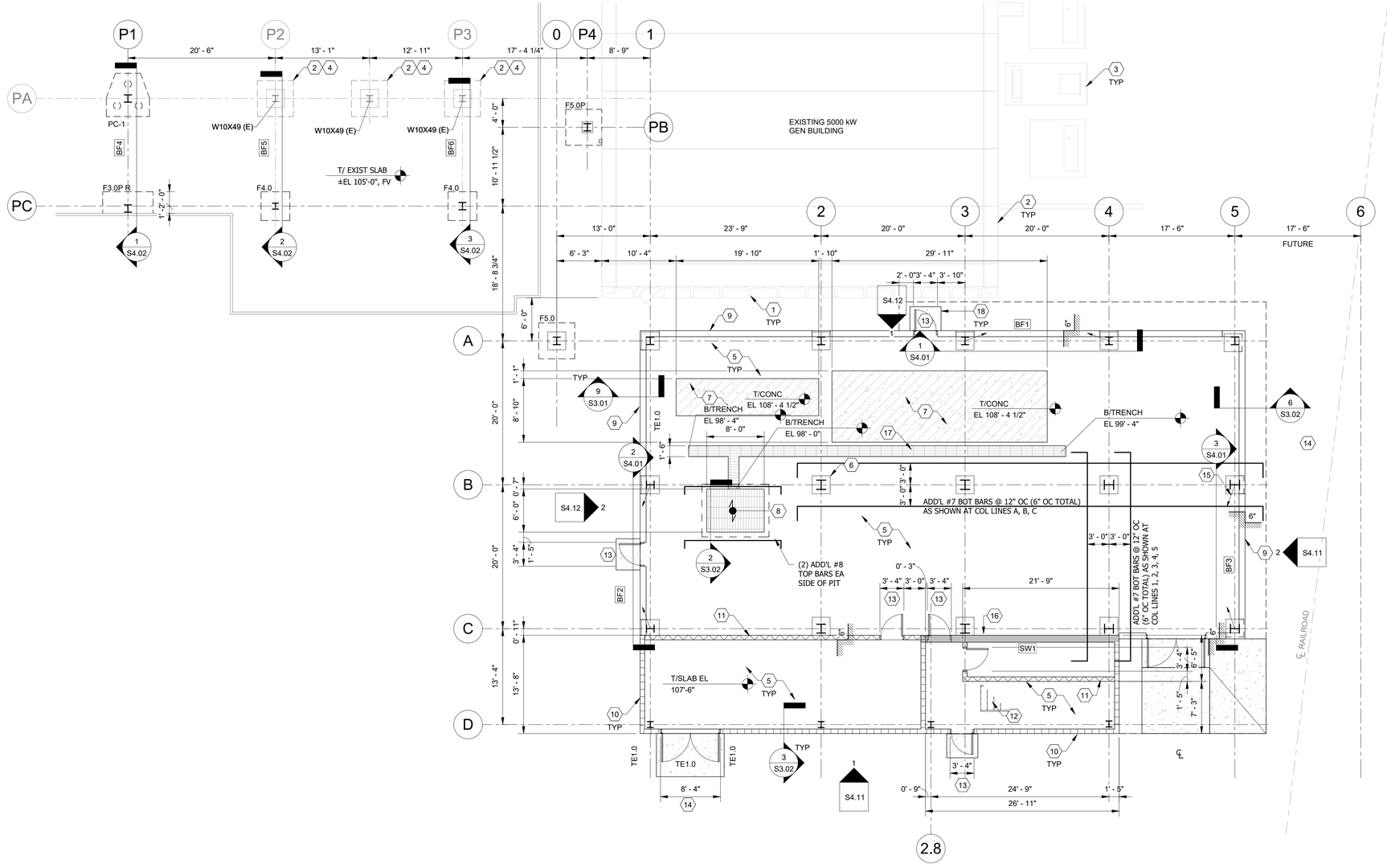

1 FOUNDATION AND SLAB ON GRADE PLAN
1/8" = 1'-0"

2.8

KEYNOTE LEGEND

1. EXISTING PRECAST DOUBLE TEE WALLS
2. EXISTING CONC FOUNDATION
3. EXISTING CONC EQUIPMENT PAD
4. EXISTING CONC COLUMN/PIER
5. 36" CONC MAT FOUNDATION W/ #8 TOP BARS @ 12" OC EA WAY, AND #7 BOTTOM BARS @ 12" OC EA WAY (2 LAYERS) ON WELL COMPACTED STRUCTURAL FILL. ADDITIONAL REINF REQD AS SHOWN.
6. CONC PIER, SEE S1.02 FOR PIER AND BASE PLATE DESIGNATION
7. 30" CONC EQUIP PAD, REINF W/ #6 @ 12" OC T&B AND (2) #4 SIDE BARS AT PERIMETER, SEE DET 5/S3.02
8. CONC SUMP PIT W/ 2" X 3/16" W-19-4 GALV METAL BAR GRATING, T/GRTG EL = 107'-0"
9. GIRT-PANEL WALL SYSTEM W/ 3" INSULATED METAL WALL PANELS (METL-SPAN, LS-36 INSULATED ROOF AND WALL PANELS, FM APPROVAL STANDARD FM 4881) AND 8" WALL GIRTS ON CONT CONC CURB. SEE ELEVATIONS FOR SIZE AND SPACING
10. 8" CMU BLOCK REINF W/ #5 VERT @ 24" OC IN GROUT FILLED CELLS AND #5 VERT AT ALL WALL CORNERS, TERMINATIONS, DOOR JAMBS, AND INTERSECTIONS. PROVIDE BOND BEAM (BB-1) AT EACH FLOOR. SEE SHEET S6.01 FOR CMU DETAILS AND SECTIONS.
11. 8" CMU BLOCK PARTITION REINF W/ #5 VERT @ 48" OC IN GROUT FILLED CELLS AND #5 VERT AT ALL WALL CORNERS, TERMINATIONS, DOOR JAMBS, AND INTERSECTIONS. SEE SHEET S6.01 FOR CMU DETAILS AND SECTIONS.
12. STEEL-METAL PAN STAIR ASSEMBLY. SEE STAIR DIAGRAMS AND DETAILS ON SHEETS S5.11 AND S5.12.
13. DOOR 101, SEE DET 1/S7.03
14. DOOR 102, SEE DET 1/S7.03
15. STEEL WT VERTICAL BRACE UP, SEE FRAMING ELEVATIONS ON SHEET S4.01
16. SW1 INDICATES 12" CMU SHEAR WALL REINF W/ # 7 @ 8" OC AT ALL CORNERS, TERMINATIONS, DOOR JAMBS, AND INTERSECTIONS. PROVIDE TIE BEAM AT EACH FLOOR (TB-1). SEE SHEET S6.01 FOR CMU DETAILS AND SECTIONS.
17. ±12" DEEP TRENCH DRAIN , SEE DET 4/S3.02
18. 6" CONC DOOR LANDING W/ #4 @ 12" OC AT MID DEPTH OF SLAB

GENERAL NOTES

1. REFER TO SHEET S0.01 THROUGH S0.04 FOR GENERAL NOTES AND STRUCTURAL SPECIFICATIONS
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND COORDINATE W/ EXISTING CONDITIONS . STRUCTURAL ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES.
3. ALL STRUCTURAL STEEL INCLUDING FRAMING MEMBERS, CONNECTION MEMBERS, HARDWARE, BASE PLATES, AND ANCHOR BOLTS TO BE HOT DIP GALVANIZED.
4. CONTRACTOR SHALL COORDINATE DIMENSIONS W/ MECHANICAL DRAWINGS AND EXISTING CONDITIONS. STRUCTURAL ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES.
5. FX.X INDICATES ISOLATED FOUNDATION DESIGNATION, SEE DET 8/S3.01
6. PC-X INDICATES PILE CAP. SEE DET 1/S3.03
7. REFER TO DET 10/S5.01 FOR BASE PLATE DETAILS.
8. REFER TO DET 10/S3.01 FOR PIER DETAILS
9. SEE SHEET S.102 FOR PIER, BASE PLATE, AND COLUMN DESIGNATION AND REQUIREMENTS.

   UNFACTORED COLUMN REACTIONS AT PILE CAP ARE AS FOLLOWS:

DEAD LOAD:	17.9 KIPS
LIVE LOAD:	27.8 KIPS
WIND LOAD VERT:	20.1 KIPS (ULT)
WIND LOAD LAT:	3.0 KIPS (ULT)

STRUCTURAL ELEVATIONS

- T/FDN EL 105' - 6"
- T/SLAB EL 107' - 0", UNO
- T/PIER EL = 109' - 0", UNO (SEE SHEET S1.02)

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FOUNDATION AND SLAB ON GRADE PLAN

AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
Project: E24140
Dwg: S1.01
Revision: C

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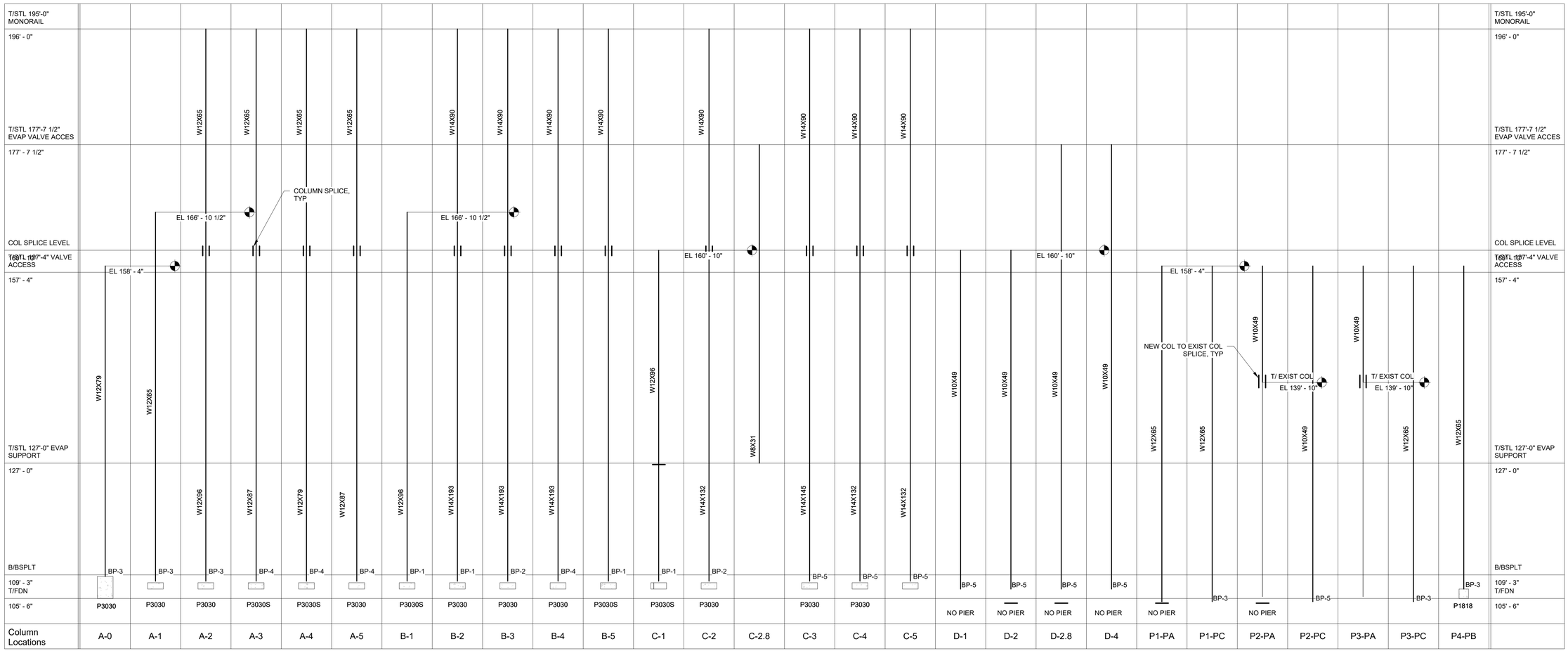

NOTES:

1. SEE DET 4/S5.04 FOR TYPICAL COLUMN SPLICE DETAIL
2. SEE DET 8/S5.02 FOR TYPICAL COLUMN SPLICE AT EXISTING COLUMN

COLUMN, PIER, AND BASE PLATE SCHEDULE
1/8" = 1'-0"

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COLUMN, PIER, AND BASEPLATE SCHEDULE

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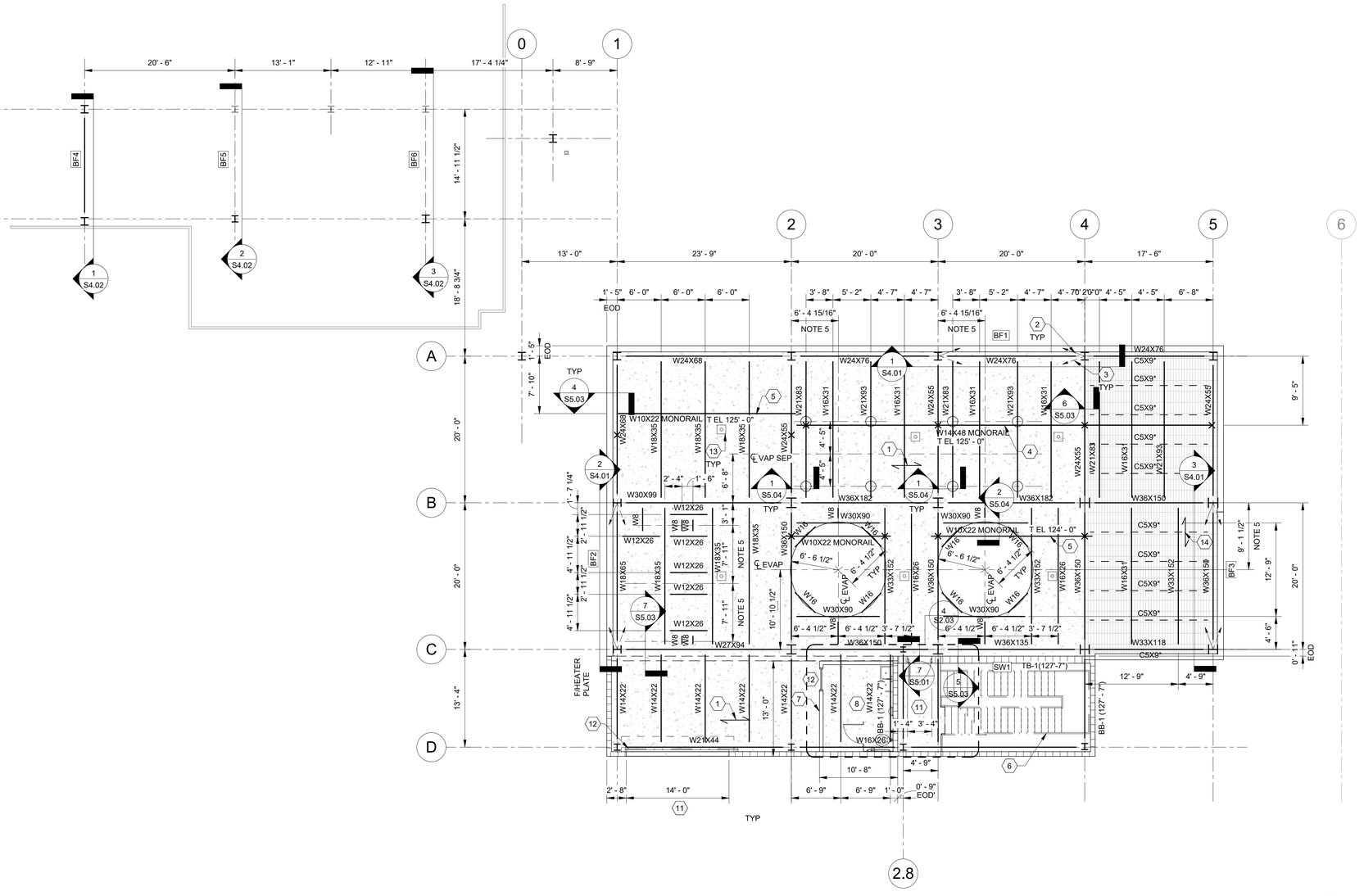

1 STEEL FRAMING PLAN EL 127'-0"
1/8" = 1'-0"

2.8

KEYNOTE LEGEND

1. 5 1/2" NORMAL WEIGHT CONC ON 1 1/2", 20 GAGE, TYPE 'VL' DECKING. REINF W/ #4 @ 12" OC AT MID DEPTH OF SLAB (7" TOTAL THICKNESS). SEE DET 8/S5.03 AND GEN SPEC FOR ATTACHMENT RQMTS.
2. INDICATES STEEL WT VERTICAL BRACE DOWN
3. INDICATES STEEL WT VERTICAL BRACE UP
4. 4 TON CAPACITY MONORAIL BEAM, SEE DET 4/S5.02
5. 1 TON CAPACITY MONORAIL BEAM, SEE DET 4/S5.02
6. STEEL-METAL PAN STAIR ASSEMBLY. SEE STAIR DIAGRAMS AND DETAILS ON SHEETS S5.11 AND S5.12.
7. 4" CFS STUD WALL
8. BATHROOM FINISH, FURNITURE, FIXTURES, ELECTRICAL, AND PLUMBING BY CONTRACTOR.
9. DOOR 101, SEE DET 1/S7.03
10. DOOR 103, SEE DET 1/S7.03
11. DOOR 201, SEE DET 1/S7.03
12. REMOVABLE STEEL HANDRAIL, SEE DET 9/S5.03
13. FLOOR DRAINS. SLOPE SLAB TO FLOOR DRAINS. T/ CONC LP EL = 127' - 5". SEE MECH DWGS FOR FLOOR DRAIN TYPE AND LOCATIONS. SEE DET
14. SPAN DIRECTION OF W-19-4 2" X 3/16" GALV METAL BAR GRATING, SERRATED. SEE DET 2/S5.02

GENERAL NOTES

1. REFER TO SHEET S0.01 THROUGH S0.04 FOR GENERAL NOTES AND STRUCTURAL SPECIFICATIONS
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND COORDINATE W/ EXISTING CONDITIONS . STRUCTURAL ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES.
3. ALL STRUCTURAL STEEL INCLUDING FRAMING MEMBERS, CONNECTION MEMBERS, HARDWARE, BASE PLATES, AND ANCHOR BOLTS TO BE HOT DIP GALVANIZED.
4. CONTRACTOR SHALL COORDINATE DIMENSIONS W/ MECHANICAL DRAWINGS AND EXISTING CONDITIONS. STRUCTURAL ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES.
5. COORDINATE EXACT LOCATIONS OF EQUIPMENT W/ MECH DWGS AND EQIUIP MNFR DWGS AND NOTIFY ENGINEER OF ANY DISCREPANCIES. STRUCTURAL FRAMING LAYOUT IS CRITICAL TO THE EQUIPMENT DIMENSIONS AND ELEVATIONS.
6. BB-X INDICATES BOND BEAM, SEE DET 6/S6.01
7. W8 INDICATES W8X18
8. W16 INDICATES W16X67
9. C5x9* INDICATES CONTINUOUS CHANNEL @ EQ SPACES W/ T/STL EL = 127'-5". SEE DET 10/S5.02
10. REFER TO DET 6/S5.04 FOR PIPE PENETRATION DETAILS AT FLOOR DECK.

EQUIPMENT LOADS (EQUIP SUPPLIERS TO CONFIRM):

1. EVAPORATORS
   - A. DEAD LOADS 193.0 KIPS
   - B. OPERATING LOAD 574.1 KIPS
   - C. SEISMIC SHEAR 40.2 KIPS
2. VAPOR SEPARATOR:
   - A. DEAD LOADS 31.0 KIPS
   - B. OPERATING LOAD 200.4 KIPS
   - C. SEIMIC SHEAR 14.0 KIPS
3. JUICE HEATERS:
   - A. DEAD LOAD 7.96 KIPS
   - B. OPERATING LOAD 9.09 KIPS

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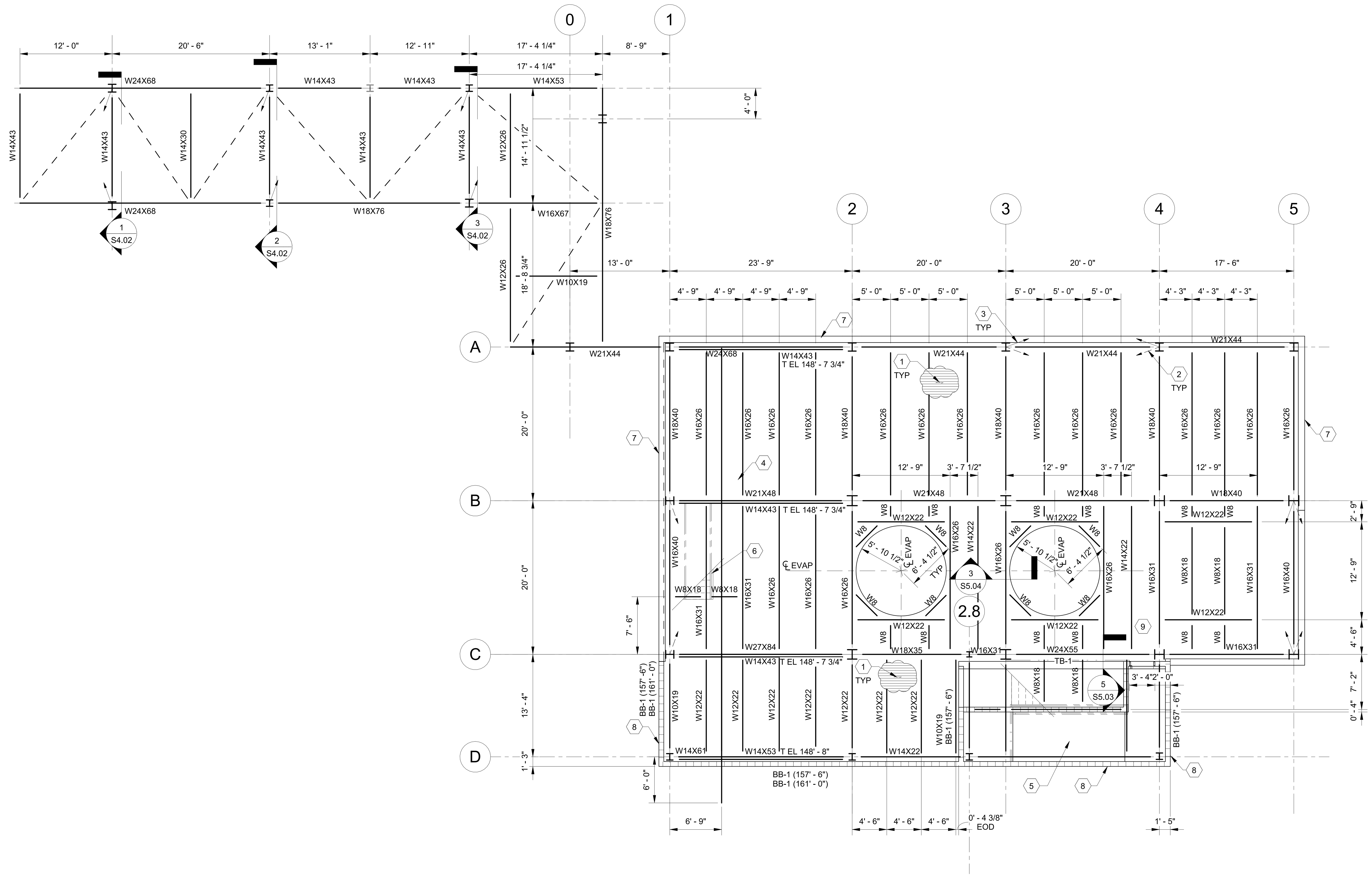

1 STEEL FRAMING PLAN EL 157'-4"
1/8" = 1'-0"

KEYNOTE LEGEND

1. 1 1/2", 20 GAGE, TYPE 'B' ROOF DECK. GALVANIZED G90. ROOFING ASSEMBLY TO CONSIST OF TPO MEMBERANE OVER 1/2" COVER BOARD OVER TAPERED 6" (MIN) INSULATION ON METAL DECK. SEE DET 8/S5.03 FOR FASTENING RQMTS.
2. INDICATES STEEL WT VERTICAL BRACE DOWN
3. INDICATES STEEL WT VERTICAL BRACE UP
4. 7-TON CAPACITY 'TELESCOPING' MONORAIL BEAM BY DELEGATED DESIGN ENGINEER. B/HOOK EL = 143' - 0", MIN.
5. STEEL-METAL PAN STAIR ASSEMBLY. SEE STAIR DIAGRAMS AND DETAILS ON SHEETS S5.11 AND S5.12.
6. METAL GRATED INDUSTRAIL TYPE STAIR ASSEMBLY. SEE STAIR DIAGRAMS AND DETAILS ON SHEETS S5.11 AND S5.12.
7. PANEL WALL PARAPET, T/PARAPET EL = 161'-0"
8. CMU PARAPET/ T/PARAPET EL = 161'-0"
9. DOOR 101. SEE DET 1/S7.03
10. 8" CMU BLOCK REINF W/ #5 VERT @ 32" OC IN GROUT FILLED CELLS AND #5 VERT AT ALL WALL CORNERS, TERMINATIONS, DOOR JAMBS, AND INTERSECTIONS. SEE SHEET S6.01 FOR CMU DETAILS AND SECTIONS.

GENERAL NOTES

1. REFER TO SHEET S0.01 THROUGH S0.04 FOR GENERAL NOTES AND STRUCTURAL SPECIFICATIONS .
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND COORDINATE W/ EXISTING CONDITIONS . STRUCTURAL ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES.
3. ALL STRUCTURAL STEEL INCLUDING FRAMING MEMBERS, CONNECTION MEMBERS, HARDWARE, BASE PLATES, AND ANCHOR BOLTS TO BE HOT DIP GALVANIZED.
4. CONTRACTOR SHALL COORDINATE DIMENSIONS W/ MECHANICAL DRAWINGS AND EXISTING CONDITIONS. STRUCTURAL ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES.
5. COORDINATE EXACT LOCATIONS OF EQUIPMENT W/ MECH DWGS AND EQIUIP MNFR DWGS AND NOTIFY ENGINEER OF ANY DISCREPANCIES. STRUCTURAL FRAMING LAYOUT IS CRITICAL TO THE EQUIPMENT DIMENSIONS AND ELEVATIONS.
6. BB-X INDICATES BOND BEAM, SEE DET
7. W8 INDICATES W8X18

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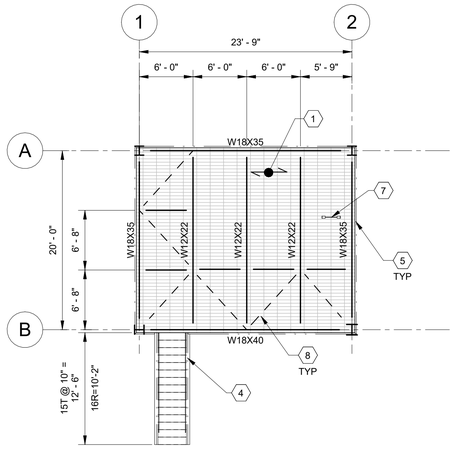
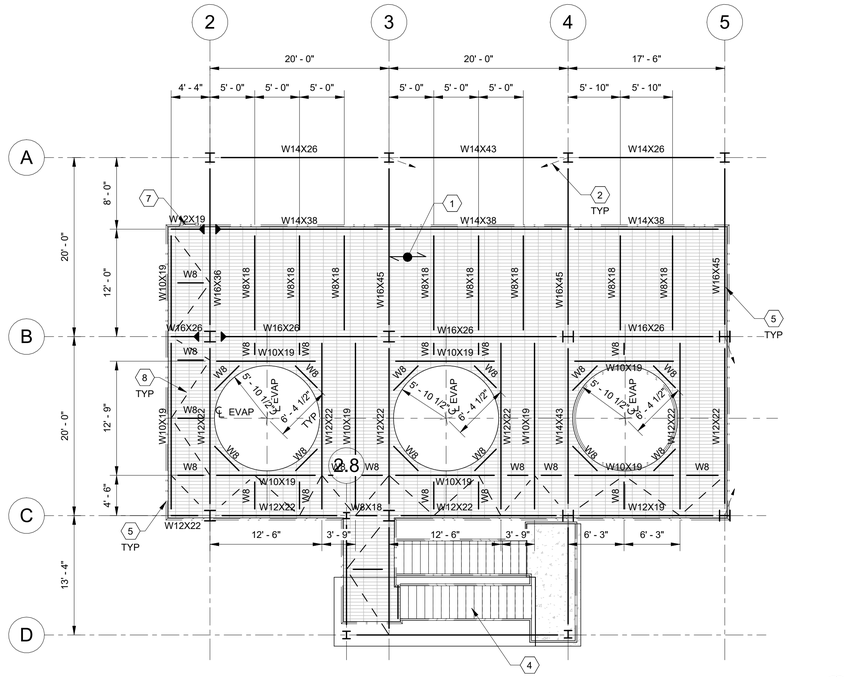


3 T/STL 166'-10 1/2" VALVE ACCESS
1/8" = 1'-0"



1 STEEL FRAMING PLAN EL 177'-7 1/2"
1/8" = 1'-0"

GENERAL NOTES

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2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND COORDINATE W/ EXISTING CONDITIONS . STRUCTURAL ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES.
3. ALL STRUCTURAL STEEL INCLUDING FRAMING MEMBERS, CONNECTION MEMBERS, HARDWARE, BASE PLATES, AND ANCHOR BOLTS TO BE HOT DIP GALVANIZED.
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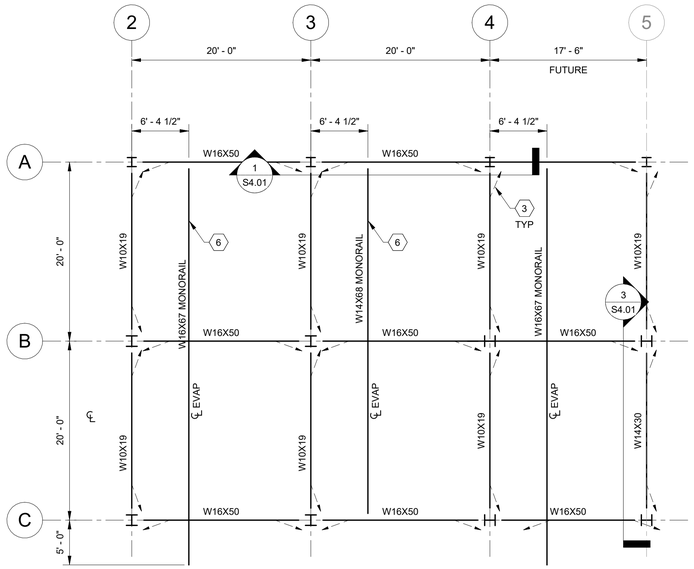
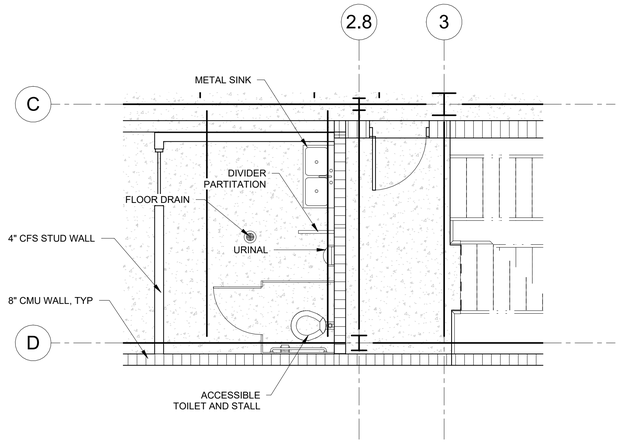
5. COORDINATE EXACT LOCATIONS OF EQUIPMENT W/ MECH DWGS AND EQIUIP MNFR DWGS AND NOTIFY ENGINEER OF ANY DISCREPANCIES. STRUCTURAL FRAMING LAYOUT IS CRITICAL TO THE EQUIPMENT DIMENSIONS AND ELEVATIONS.
6. W8 INDICATES W8X18

KEYNOTE LEGEND

1. SPAN DIRECTION OF 1 1/2" X 3/16" W-19-4 GALV METAL BAR GRATING, SERRATED. SEE DET 1/S5.03
2. INDICATES STEEL WT VERTICAL BRACE DOWN
3. INDICATES STEEL W8X18 KNEE BRACE
4. METAL GRATED INDUSTRIAL TYPE STAIR ASSEMBLY. SEE STAIR DIAGRAMS AND DETAILS ON SHEETS S5.11 AND S5.12.
5. STEEL GUARD RAILING, SEE DET 2/S5.03
6. 7 TON CAPACITY MONORAIL BEAM ON EVAPORATOR CENTERLINE
7. STEEL LADDER DOWN, SEE DET 3/S5.03
8. L4X4X3/8 HORIZONTAL BRACING (T/STL EL (-3"). SEE DET 5/S5.02



2 T/STL 196'-0" MONORAIL
1/8" = 1'-0"



4 ENLARGED BATHROOM PLAN
1/4" = 1'-0"

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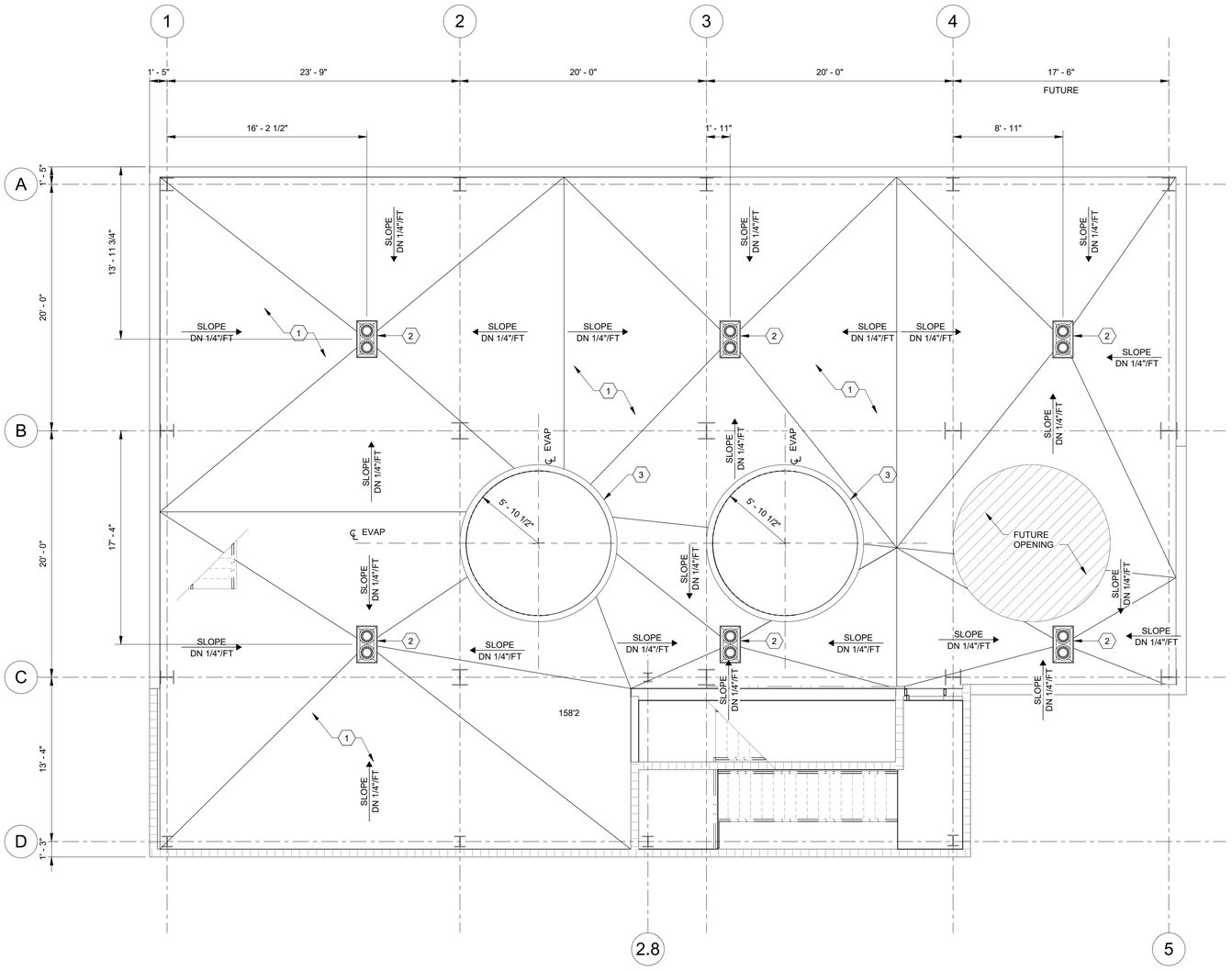

1 ROOFING PLAN EL 158'-2"
3/16" = 1'-0"

ROOFING NOTES

1. REFER TO SHEET S0.01 THROUGH S0.04 FOR GENERAL NOTES AND STRUCTURAL SPECIFICATIONS.
2. ALL ROOF SLOPES AS SHOWN ARE TO BE REVIEWED AND APPROVED BY THE ROOFING SUPPLIER.
3. CRICKETS ARE TO BE PROVIDED WITH SUFFICIENT DEPTH AND SLOPE TO ACCOMMODATE PROPER DRAINAGE ON ROOF AT ALL EQUIPMENT AND PENETRATIONS.
4. COORDINATE ALL ROOF PENETRATIONS WITH MECHANICAL DRAWINGS.
5. ALL STORM DRAWINGS, INCLUDING CLEANOUTS AND EXTERIOR SPORTS TO BE LOCATED AWAY FROM SIDEWALK/WALKWAYS
6. SEE STRUCTURAL PLAN SHEETS FOR WALL AND DECK DEMENSIONS
7. SEE SHEET S7.01 FOR ROOFING DETAILS.

KEYNOTE LEGEND

1. TPO MEMBRANE OVER 1/2" COVER BOARD OVER 3" MIN RIGID INSULATION ON STRUCTURAL METAL DECK. SEE S2.02 FOR STRUCTURAL DECK REQUIREMENTS. ROOF TO COMPLY WITH FM GLOBAL ASSEMBLY NO. 309406-0-194470.
2. ROOF AND OVERFLOW DRAINS. SEE MECH DRAWINGS AND DETAIL 2/S7.01
3. CURB TO BE PROVIDED AT EVAPORATOR CUT OUTS. SEE DETAIL 5/S7.01

No.	Date	By	Revision	Ad. No.
C	2025.06.20	DV	OWNER COMMENTS	
B	2025.04.25	DV	ISSUED FOR BID	
A	2025.04.11	DV	ISSUED FOR APPROVAL (70% CHECKSET)	

PRELIMINARY NOT FOR CONSTRUCTION 20 JUNE 2025

4990 Royal Gulf Circle
Fort Myers, FL 33966
Ph: 239.768.1778, Fax: 239.210.2168
http://www.veiglobal.com

Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
ROOFING AND DRAINAGE PLAN

AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE

Dwg Size: 24X36

Project: E24140
Dwg: S2.12

Revision: C

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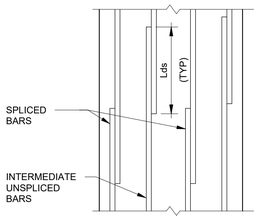
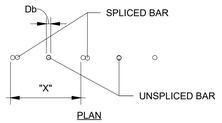


ELEVATION



PLAN

NOTE:
S= X - Db WHERE:
S= CLEAR BAR SPACING TO BE USED FOR DETERMINATION OF SPLICE LENGTH CATEGORY.
X= CLEAR DISTANCE BETWEEN ADJACENT SPLICED BARS.
Db= DIAMETER OF INTERMEDIATE UNSPLICED BARS.
Lds= LAP SPLICE DEVELOPMENT LENGTH, SEE TABULATED VALUES.

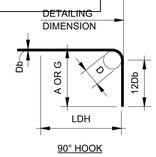
LENGTH OF LAP SPLICES AND BAR EMBEDMENT SHALL BE AS SHOWN IN TABLE, UNLESS OTHERWISE NOTED:

MIN SPLICE LENGTH FOR DEFORMED BARS				
	BAR SIZE	3000 PSI	4000 PSI	5000 PSI
		*CLASS B	*CLASS B	*CLASS B
T<12"	#3	23"	20"	17"
	#4	29"	25"	23"
	#5	37"	32"	29"
	#6	43"	38"	34"
	#7	63"	55"	50"
	#8	72"	63"	56"
	#9	81"	71"	63"

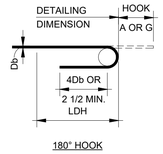
NOTE:
1. WHERE DEPTH OF FRESH CONCRETE BELOW SPLICED REINF BARS IS GREATER THAN 12", MULTIPLY TABULATED SPLICE LENGTH BY 1.3.
2. "Db" IS BAR DIAMETER.
3. FOR ALL REINF SPLICES UTILIZE CLASS "B" SPLICE, U.N.O. ON PLANS OR DETAILS.

1 TYPICAL LAP SPLICE SCHEDULE
3/4" = 1'-0"

NOTES:
1. MULTIPLY TABULATED VALUES BY 1.2 FOR EPOXY COATED REINFORCEMENT.
2. DIVIDE TABULATED VALUES BY 0.75 FOR REINFORCEMENT IN LIGHTWEIGHT CONCRETE.



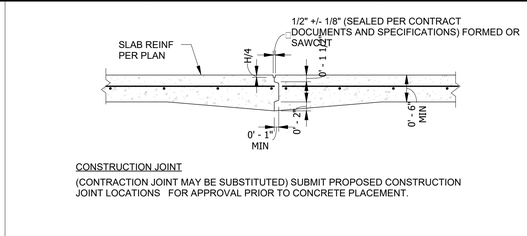
90° HOOK



180° HOOK

RECOMMENDED END HOOKS, ALL GRADES							
BARS SIZE	FINISHED BEND DIAMETER D (IN.)	180° HOOKS		90° HOOK	F'c = 3000 PSI	F'c = 4000 PSI	F'c = 5000 PSI
		A OR G, (IN.)	J, (IN.)	A OR G, (IN.)	LDH	LDH	LDH
#3	2 1/4	5	4	6	9	8	7
#4	3	6	4	8	11	10	9
#5	4 1/2	7	5	10	14	12	11
#6	2 1/2	8	6	12	17	15	13
#7	5 1/4	10	7	14	20	17	15
#8	6	11	8	16	22	19	17
#9	9 1/2	15	11 3/4	19	25	22	20
#10	10 3/4	17	13 1/4	22	28	25	22

2 TYPICAL END HOOK SCHEDULE
3/4" = 1'-0"



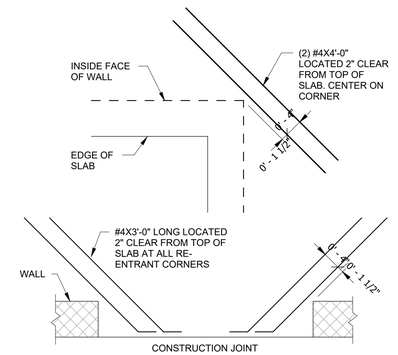
CONSTRUCTION JOINT

(CONTRACTION JOINT MAY BE SUBSTITUTED) SUBMIT PROPOSED CONSTRUCTION JOINT LOCATIONS FOR APPROVAL PRIOR TO CONCRETE PLACEMENT.

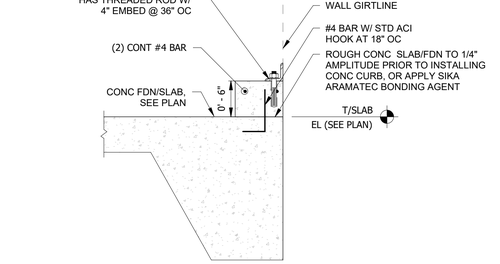
CONTRACTION JOINT

SEE PLAN FOR SLAB THICKNESS AND REINF. CONTROL JOINTS TO BE LOCATED AS SHOWN ON PLANS AND AT 3H MAX AND SHALL BE SAW CUT AS SOON AS POSSIBLE BUT NO LATER THAN 8 HOURS AFTER CONCRETE PLACEMENT.

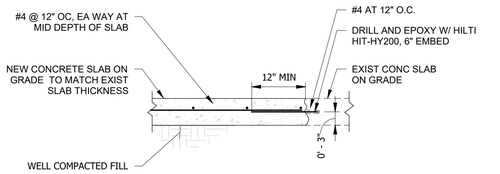
3 TYPICAL SLAB ON GRADE CONTROL JOINTS (WITH REINF)
3/4" = 1'-0"



4 TYPICAL RE-ENTRANT CORNER REINFORCING
3/4" = 1'-0"

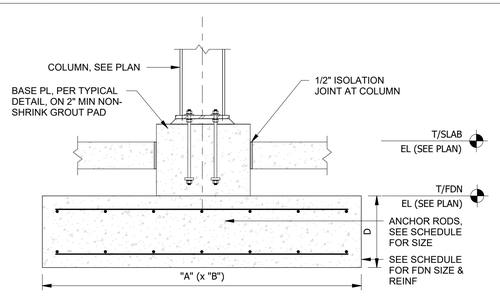


5 TYPICAL SLAB REPAIR DETAIL - MAX 3'-0" WIDTH
3/4" = 1'-0"

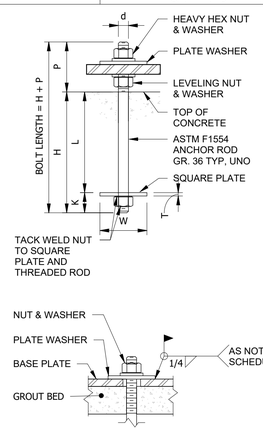


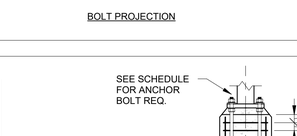
6 TYPICAL SLAB REPAIR DETAIL - GREATER THAN 3'-0" WDITH
3/4" = 1'-0"

9 TYPICAL CONCRETE CURB
1" = 1'-0"



NOTE: EMBEDMENT AT MAT FOUNDATIONS IS MEASURED FROM THE TOP OF MAT FOUNDATION AND NOTE AT THE TOP OF THE PIER.





BOLT PROJECTION

LETTERED DIMENSIONS		ANCHOR ROD DIAMETER (F1554 GR. 36)							
		1/2	5/8	3/4	7/8	1	1 1/4	1 1/2	1 3/4
BASE PL HOLE DIA.		1	1 1/8	1 5/16	1 9/16	1 13/16	2 1/16	2 5/16	2 3/4
SQUARE PLATE	W	2	2	2 1/2	2 3/4	3	4 1/4	4 1/2	5 1/2
	T	1/2	1/2	1/2	3/4	3/4	1	1	1
	HOLE DIA.	5/8	3/4	7/8	1	1 1/8	1 3/8	1 5/8	1 7/8
L, UNO		8	10	12	15	17	22	27	35
H = L+K, UNO		9½	11½	14	17	19	24½	30	38½
K		1½	1½	2	2	2	2½	3	3½
P (MIN)		6			8			10	
PLATE WASHER		1/4"x2"x2"			3/8"x3"x3"			1/2"x4"x4"	
HOLE DIAMETER		9/16	11/16	13/16	15/16	1 1/16	1 5/16	1 9/16	1 13/16

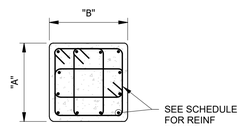
*ANCHOR EMBEDMENT DEPTH "H" BASED ON 6" MIN SPACING UP TO 1"Ø AND 8" MIN SPACING OVER 1"Ø, f'c = 4000 PSI, AND PURE TENSION LOADING.

FOUNDATION SCHEDULE					
FDN DESIGNATION	DIMENSION "A"	DIMENSION "B"	FDN THICKNESS	REBAR (EA WAY T&B UNO)	REMARKS
F3.0P	3'-0"	5'-0"	1'-6"	(4) #5 LONG, (6) #5 TRANS	T/FDN = T/EXIST SLAB
F4.0	4'-0"	5'-0"	1'-6"	(5) #6	T/FDN = T/EXIST SLAB
F5.0P	5'-0"	5'-0"	1'-6"	(6) #6	COORD LOCATION W/ STRUCTURAL ENG
F5.0	5'-0"	5'-0"	1'-6"	(6) #6	

8 TYPICAL STEEL COLUMN AND PIER SPREAD FOUNDATION SCHEDULE
3/4" = 1'-0"

PIER SCHEDULE						
M	SIZE		REINFORCING		TYPE	COMMENTS
	A	B	VERTICAL	TIES		
P1818	1' - 6"	1' - 6"	(8) #6	#4 @ 6"	II	
P3030	2' - 6"	2' - 6"	(12) #8	#4 @ 6"	I	
P3030S	2' - 6"	2' - 6"	(20) #7	#4 @ 3"	III	HOOK AT TOP OF VERT BARS

NOTES:
1. PROVIDE STANDARD ACI HOOKS AT BOTTOM OF VERT BARS AT ALL PIERS



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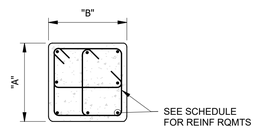

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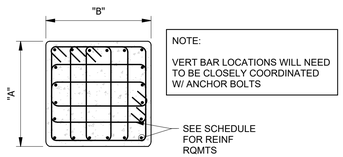

TYPE I

NOTE:
VERT BAR LOCATIONS WILL NEED TO BE CLOSELY COORDINATED W/ ANCHOR BOLTS

10 TYPICAL PIER SCHEDULE AND DETAILS
3/4" = 1'-0"

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Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
CONCRETE DETAILS AND SECTIONS

AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
Project: E24140
Dwg: S3.01
Revision: C

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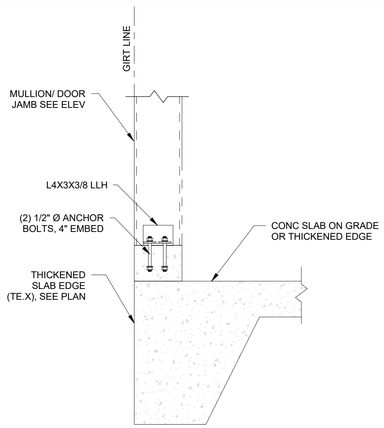
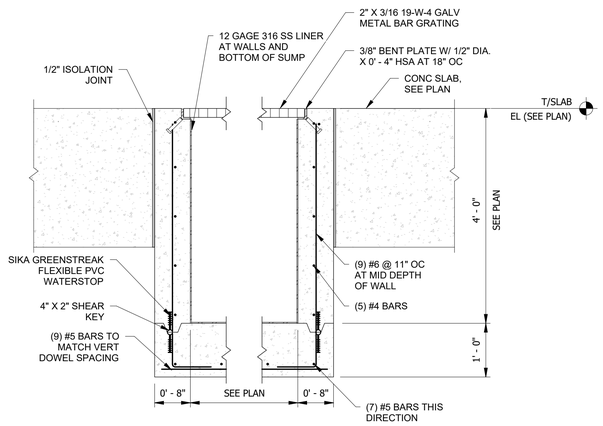
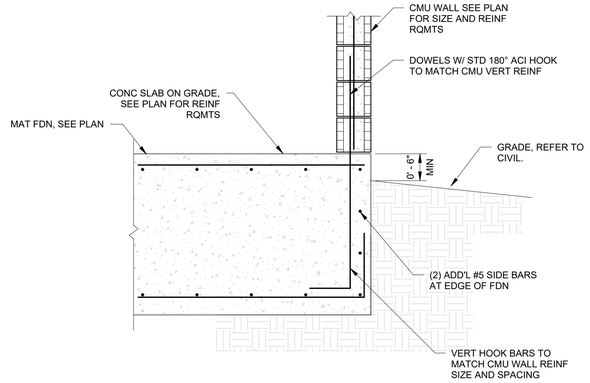


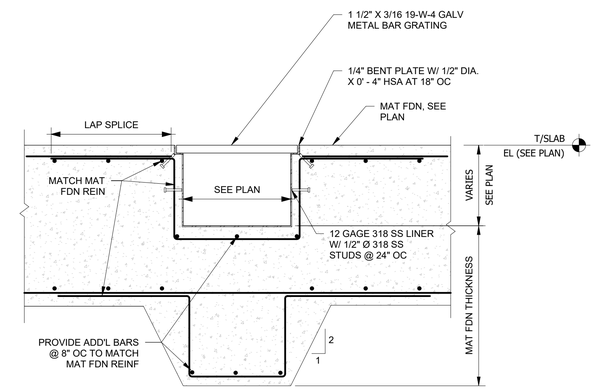
1 TYP GIRT CONNECTION DETAIL
1" = 1'-0"



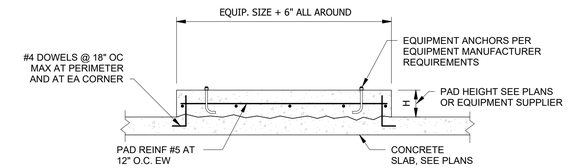
2 SECTION AT SUMP PIT (OR LARGE TRENCHES)
3/4" = 1'-0"



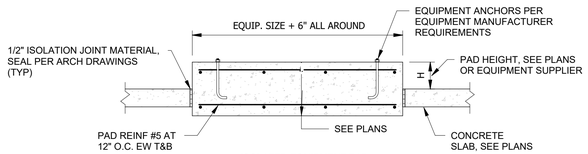
3 TYPICAL SECTION AT CMU WALL AT MAT FDN
3/4" = 1'-0"



4 TYPICAL TRENCH DETAIL AT MAT FDN
3/4" = 1'-0"



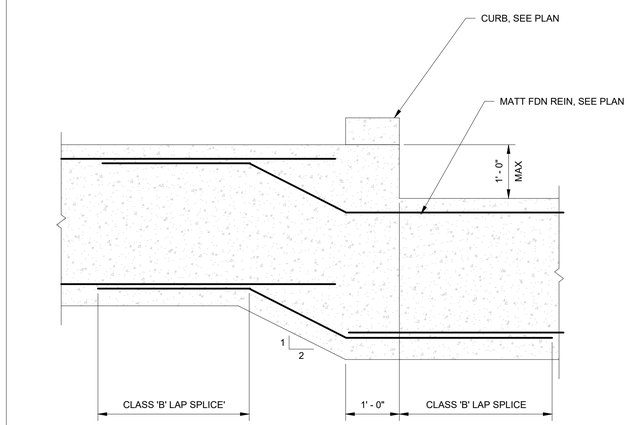
HOUSE KEEPING PAD



ISOLATED EQUIPMENT PAD

REFER TO MECHANICAL OR ELECTRICAL PLANS & SPECIFICATIONS FOR EQUIPMENT REQUIREMENTS, PAD SIZE, ACCESSORIES, AND LOCATIONS

5 TYPICAL EQUIPMENT PAD / HOUSE KEEPING PAD
3/4" = 1'-0"



6 STEP AT MAT FOUNDATION REIN DETAIL
3/4" = 1'-0"

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Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
CONCRETE DETAILS AND SECTIONS

Amalgamated Sugar

AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
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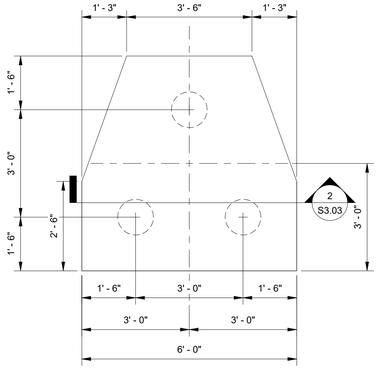
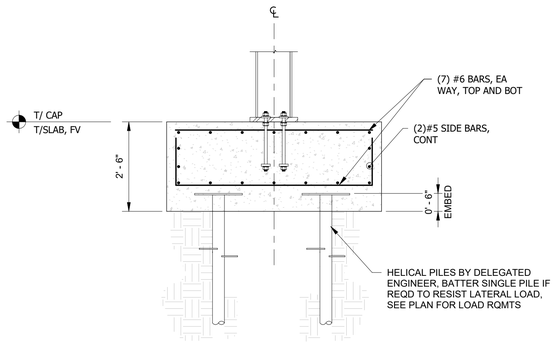


1 PILE CAP DETAILS
1/2" = 1'-0"



2 TYPICAL PILE CAP SECTION
1/2" = 1'-0"

HELICAL PILES NOTES AND SPECIFICATIONS

1. EACH HELICAL PILE AND HELICAL ANCHOR SHALL BE INSTALLED AT THE LOCATION AND TO THE ELEVATION, MINIMUM LENGTH, INSTALLATION TORQUE, AND ALLOWABLE CAPACITIES SHOWN ON THE PLANS OR AS ESTABLISHED. THIS WORK ALSO PERTAINS TO LOAD TESTING AND PRE-LOADING HELICAL PILES AND HELICAL ANCHORS (IF REQUIRED ON THE DRAWINGS).

2. AT A MINIMUM, THE FOLLOWING SHOULD BE SUPPLIED FROM THE MANUFACTURER:
   A. A PRODUCT CATALOG AND ALL NECESSARY TECHNICAL DATA SUFFICIENT TO QUALIFY THE PROPOSED PRODUCT SUBSTITUTION.
   B. EVIDENCE SHOWING MANUFACTURER HAS AT LEAST TEN (10) YEARS EXPERIENCE IN THE DESIGN AND MANUFACTURE OF HELICAL PILES AND HELICAL ANCHORS.
   C. CURRENT ICC-ES PRODUCT EVALUATION REPORT OR COMPLETE DESCRIPTION OF PRODUCT TESTING AND ENGINEERING CALCULATIONS USED TO ASSESS PRODUCT CAPACITY.
   D. CURRENT ISO 9001:2008 CERTIFICATION.

3. DUE TO THE SPECIAL REQUIREMENTS FOR INSTALLATION OF HELICAL PILES, HELICAL ANCHORS AND BRACKETS, ALL HELICAL PILES, HELICAL ANCHORS, AND BRACKETS SHALL BE INSTALLED BY AN ORGANIZATION SPECIALIZING IN THE INSTALLATION OF THOSE PRODUCTS. AND THE FOLLOWING SHOULD BE SUBMITTED BY THE INSTALLER:
   A. EVIDENCE OF HAVING INSTALLED HELICAL PILES AND HELICAL ANCHORS ON AT LEAST TEN (10) PROJECTS, INCLUDING PROJECT NAME, NUMBER AND TYPE OF HELICAL PILES OR HELICAL ANCHORS, PROJECT LOCATION, AND CLIENT CONTACT INFORMATION.
   B. LIST OF INSTALLATION AND TESTING EQUIPMENT AND DETAILED DESCRIPTION OF PROPOSED METHOD OF INSTALLATION AND LOAD TESTING HELICAL PILES AND HELICAL ANCHORS (IF TESTING IS REQUIRED).
   C. CURRENT ANSI//AWS WELDING CERTIFICATE AND DOCUMENTATION OF WELDER EXPERIENCE WITHIN THE LAST 5 YEARS (IF WELDING IS REQUIRED).
   D. DUE TO THE SPECIAL REQUIREMENTS FOR DESIGN OF HELICAL PILES, HELICAL ANCHORS, AND BRACKETS, ALL HELICAL PILES, HELICAL ANCHORS, AND BRACKETS SHALL BE DESIGNED A PILE DESIGN PROFESSIONAL THAT IS LICENSED IN THE STATE OF IDAHO.

4. A CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER FOR REVIEW AND APPROVAL, SHOP DRAWINGS AND SPECIFICATIONS FOR THE HELICAL PILES AND HELICAL ANCHORS INTENDED FOR USE ON THE PROJECT AT LEAST 14 CALENDAR DAYS PRIOR TO PLANNED START OF INSTALLATION.

5. CONTRACTOR'S PILE DESIGN PROFESSIONAL SHALL SUBMIT TO THE ENGINEER DESIGN CALCULATIONS FOR THE HELICAL PILES, HELICAL ANCHORS, AND BRACKETS INTENDED FOR USE ON THE PROJECT AT LEAST 14 CALENDAR DAYS PRIOR TO PLANNED START OF INSTALLATION. THE SHOP DRAWINGS SHALL INCLUDE THE FOLLOWING:
   A. REDUCTION IN SHAFT DIMENSION AND STRENGTH BY THE SACRIFICIAL THICKNESS ANTICIPATED BASED ON CORROSION LOSS OVER THE DESIGN LIFE FOR PROJECT SOIL CONDITIONS.
   B. CONSIDERATIONS FOR DOWNDRAG, BUCKLING, AND EXPANSIVE SOILS (AS APPROPRIATE).
   C. MINIMUM INSTALLATION DEPTH TO REACH BEARING STRATUM AND TO ACHIEVE PULLOUT CAPACITY (IF REQUIRED).
   D. SOIL BEARING AND PULLOUT CAPACITY.
   E. LATERAL RESISTANCE OF THE SHAFT
   F. ESTIMATED PILE HEAD MOVEMENT AT DESIGN LOADS.

6. WORK SHALL NOT BEGIN UNTIL ALL THE SUBMITTALS HAVE BEEN RECEIVED AND APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL ALLOW THE ENGINEER A REASONABLE NUMBER OF DAYS TO REVIEW, COMMENT, AND RETURN THE SUBMITTAL PACKAGE AFTER A COMPLETE SET HAS BEEN RECEIVED. ALL COSTS ASSOCIATED WITH INCOMPLETE OR UNACCEPTABLE SUBMITTALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

7. ALL HELICAL PILE, HELICAL ANCHOR, AND BRACKET ASSEMBLIES SHALL BE FREE OF STRUCTURAL DEFECTS AND PROTECTED FROM DAMAGE. STORE HELICAL PILES, HELICAL ANCHORS, AND BRACKET ASSEMBLIES ON WOOD PALLETS OR SUPPORTS TO KEEP FROM CONTACTING THE GROUND. DAMAGE TO MATERIALS SHALL BE CAUSE FOR REJECTION.

8. IT IS THE CONTRACTOR'S PILE DESIGN PROFESSIONAL'S RESPONSIBILITY TO SELECT THE APPROPRIATE SIZE AND TYPE OF HELICAL PILES, HELICAL ANCHORS, AND BRACKETS TO SUPPORT THE DESIGN LOADS SHOWN ON THE DRAWINGS. THESE SPECIFICATIONS AND THE DRAWINGS PROVIDE MINIMUM REQUIREMENTS TO AID THE CONTRACTOR IN MAKING APPROPRIATE MATERIALS SELECTIONS. THE SIZE AND NUMBER OF HELICAL BEARING PLATES MUST BE SUCH THAT THE HELICAL PILES AND HELICAL ANCHORS ACHIEVE THE APPROPRIATE TORQUE AND CAPACITY IN THE SOILS AT THE SITE WITHIN THE MINIMUM AND MAXIMUM LENGTH REQUIREMENTS. FAILURE TO ACHIEVE PROPER TORQUE AND CAPACITY SHALL RESULT IN CONTRACTOR REPLACING HELICAL PILES AND HELICAL ANCHORS AS APPROPRIATE TO SUPPORT THE REQUIRED LOADS. ALL MATERIAL REPLACEMENTS SHALL BE ACCEPTABLE TO ENGINEER.

9. THE DESIGN STRENGTH OF THE HELICAL BEARING PLATES, SHAFT CONNECTIONS, BRACKETS, AND THE PILE SHAFT ITSELF SHALL BE SUFFICIENT TO SUPPORT THE DESIGN LOADS SPECIFIED ON THE DRAWINGS TIMES APPROPRIATE SERVICE LOAD FACTORS. IN ADDITION, ALL HELICAL PILES AND HELICAL ANCHORS SHALL BE MANUFACTURED TO THE FOLLOWING CRITERIA.

10. HELICAL PILES, HELICAL ANCHORS, AND BRACKETS SHALL BE HOT-DIP GALVANIZED (PER ASTM A123 OR A153 AS APPLICABLE).

11. THE HELICAL PILE AND HELICAL ANCHOR SHAFT CONNECTIONS SHALL CONSIST OF AN EXTERNAL SLEEVE CONNECTION OR A WELDED CONNECTION. EXTERNAL SLEEVE CONNECTIONS SHALL BE IN-LINE, STRAIGHT AND RIGID AND SHALL HAVE A MAXIMUM TOLERABLE SLACK OF 1/16-INCH. WELDED CONNECTIONS SHALL CONSIST OF A FULL PENETRATION GROOVE WELD ALL-AROUND THE CENTRAL SHAFT. SHAFT CONNECTIONS SHALL HAVE A FLEXURAL STRENGTH AT LEAST AS GREAT AS THE SHAFT ITSELF.

12. CONTRACTOR SHALL TAKE REASONABLE EFFORT TO LOCATE ALL UTILITIES AND STRUCTURES ABOVE AND UNDERGROUND IN THE AREA OF THE WORK. CONTRACTOR SHALL POT HOLE TO DETERMINE THE EXACT LOCATION OF UNDERGROUND UTILITIES AND BURIED STRUCTURES WITHIN A DISTANCE FROM A HELICAL PILE OR HELICAL ANCHOR EQUAL TO THREE TIMES THE MAXIMUM HELIX DIAMETER. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF UTILITIES AND STRUCTURES SHOWN ON THE DRAWINGS. COSTS OF AVOIDING, RELOCATING, OR REPAIR OF UTILITIES NOT SHOWN ON DRAWINGS SHALL BE PAID BY OWNER AS EXTRA WORK.

13. CONTRACTOR SHALL REVIEW DRAWINGS AND SOIL BORINGS IN THE CONTRACT DOCUMENTS TO DETERMINE SUBSURFACE CONDITIONS FOR SIZING AND INSTALLATION OF HELICAL PILES AND HELICAL ANCHORS. IN ADDITION, CONTRACTOR SHALL MAKE A SITE VISIT TO OBSERVE CONDITIONS PRIOR TO THE START OF WORK.

14. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY CONDITION THAT WOULD AFFECT PROPER INSTALLATION OF HELICAL PILES AND HELICAL ANCHORS IMMEDIATELY AFTER THE CONDITION IS REVEALED. CONTRACTOR SHALL HALT INSTALLATION WORK UNTIL THE MATTER CAN BE RESOLVED UPON MUTUAL SATISFACTION OF CONTRACTOR, OWNER, AND ENGINEER. COSTS ASSOCIATED WITH CONSTRUCTION DELAYS, PRODUCT SUBSTITUTIONS, PILE OR ANCHOR RELOCATIONS, OR OTHER RELATED COSTS SHALL BE THE RESPONSIBILITY OF THE OWNER IF THE RESULT OF AN UNFORESEEN CONDITION THAT COULD NOT BE INFERRED BY A REASONABLE CONTRACTOR FROM THE DRAWINGS AND CONSTRUCTION DOCUMENTS.

15. CONTRACTOR SHALL NOTIFY ENGINEER AT LEAST 24 HOURS PRIOR TO INSTALLATION OF HELICAL PILES OR HELICAL ANCHORS TO SCHEDULE QUALITY ASSURANCE OBSERVATIONS REQUIRED ON THE DRAWINGS.

16. UNLESS SHOWN ON THE DRAWINGS, THE NUMBER AND SIZE OF HELICAL BLADES SHALL BE DETERMINED BY THE CONTRACTOR'S PILE DESIGN PROFESSIONAL IN ORDER TO ACHIEVE THE REQUIRED TORQUE AND TENSILE/BEARING CAPACITY FOR THE SOIL CONDITIONS AT THE SITE. THE RATIO OF DESIGN LOAD TO THE TOTAL AREA OF THE HELICAL BEARING PLATES SHALL NOT EXCEED THE ALLOWABLE BEARING CAPACITY.

17. CONSTANT AXIAL FORCE (CROWD) SHALL BE APPLIED WHILE ROTATING HELICAL PILES AND HELICAL ANCHORS INTO THE GROUND. THE CROWD APPLIED SHALL BE SUFFICIENT TO ENSURE THAT THE HELICAL PILE AND HELICAL ANCHOR ADVANCES INTO THE GROUND A DISTANCE EQUAL TO AT LEAST 80% OF THE BLADE PITCH PER REVOLUTION DURING NORMAL ADVANCEMENT.

18. THE TORSIONAL STRENGTH RATING OF THE HELICAL PILE OR HELICAL ANCHOR SHALL NOT BE EXCEEDED DURING INSTALLATION. BOLT HOLE ELONGATION DUE TO TORSION OF THE SHAFT OF A HELICAL ANCHOR AT THE DRIVE TOOL SHALL BE LIMITED TO ¼ INCH. HELICAL ANCHORS WITH BOLT HOLE DAMAGE EXCEEDING THIS CRITERION SHALL BE UNINSTALLED, REMOVED, AND DISCARDED.

19. WHEN THE TERMINATION CRITERIA OF A HELICAL PILE OR HELICAL ANCHOR IS OBTAINED, THE CONTRACTOR SHALL ADJUST THE ELEVATION OF THE TOP END OF THE SHAFT TO THE ELEVATION SHOWN ON THE DRAWINGS OR AS REQUIRED. THIS ADJUSTMENT MAY CONSIST OF CUTTING OFF THE TOP OF THE SHAFT AND DRILLING NEW HOLES TO FACILITATE INSTALLATION OF BRACKETS TO THE ORIENTATION SHOWN ON THE DRAWINGS. ALTERNATIVELY, INSTALLATION MAY CONTINUE UNTIL THE FINAL ELEVATION AND ORIENTATION OF THE PRE-DRILLED BOLT HOLES ARE IN ALIGNMENT. CONTRACTOR SHALL NOT REVERSE THE DIRECTION OF TORQUE AND BACK-OUT THE HELICAL PILE OR HELICAL ANCHOR TO OBTAIN THE FINAL ELEVATION.

20. THE CONTRACTOR SHALL INSTALL BRACKETS IN ACCORDANCE WITH HELICAL PILE MANUFACTURER'S DETAILS OR AS SHOWN ON THE DRAWINGS.

21. ALL HELICAL PILE AND HELICAL ANCHOR COMPONENTS INCLUDING THE SHAFT AND BRACKET SHALL BE ISOLATED FROM MAKING A DIRECT ELECTRICAL CONTACT WITH ANY CONCRETE REINFORCING BARS OR OTHER NON-GALVANIZED METAL OBJECTS SINCE THESE CONTACTS MAY ALTER CORROSION RATES.

22. AFTER INSTALLATION, HELICAL ANCHORS SHALL BE PRE-TENSIONED IF INDICATED ON THE DRAWINGS.

23. HELICAL PILES AND HELICAL ANCHORS SHALL BE ADVANCED UNTIL ALL OF THE FOLLOWING CRITERIA PROVIDED BY THE PILE DESIGN PROFESSIONAL ARE SATISFIED.

24. HELICAL PILES AND HELICAL ANCHORS SHALL BE INSTALLED AS CLOSE TO THE SPECIFIED INSTALLATION AND ORIENTATION ANGLES AS POSSIBLE. TOLERANCE FOR DEPARTURE FROM INSTALLATION AND ORIENTATION ANGLES SHALL BE +/- 5 DEGREES.

25. HELICAL PILES, HELICAL ANCHORS, AND BRACKET ASSEMBLIES SHALL BE INSTALLED AT THE LOCATIONS AND TO THE ELEVATIONS SHOWN ON THE PLANS. TOLERANCES FOR BRACKET ASSEMBLY PLACEMENT SHALL BE +/- 1 INCH IN BOTH DIRECTIONS PERPENDICULAR TO THE SHAFT AND +/- 1/4 INCH IN A DIRECTION PARALLEL WITH THE SHAFT UNLESS OTHERWISE SPECIFIED.

No.	Date	By	Revision	Ad. No.
B	2025.06.20	DV	OWNER COMMENTS	
A	2025.04.25	DV	ISSUED FOR BID	

PRELIMINARY NOT FOR CONSTRUCTION 20 JUNE 2025

4990 Royal Gulf Circle
Fort Myers, FL 33966
Ph: 239.768.1778, Fax: 239.210.2168
http://www.veiglobal.com
VEI GLOBAL ENGINEERING

Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
CONCRETE DETAILS AND SECTIONS

Amalgamated Sugar

AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
Project: E24140
Dwg: S3.03
Revision: B

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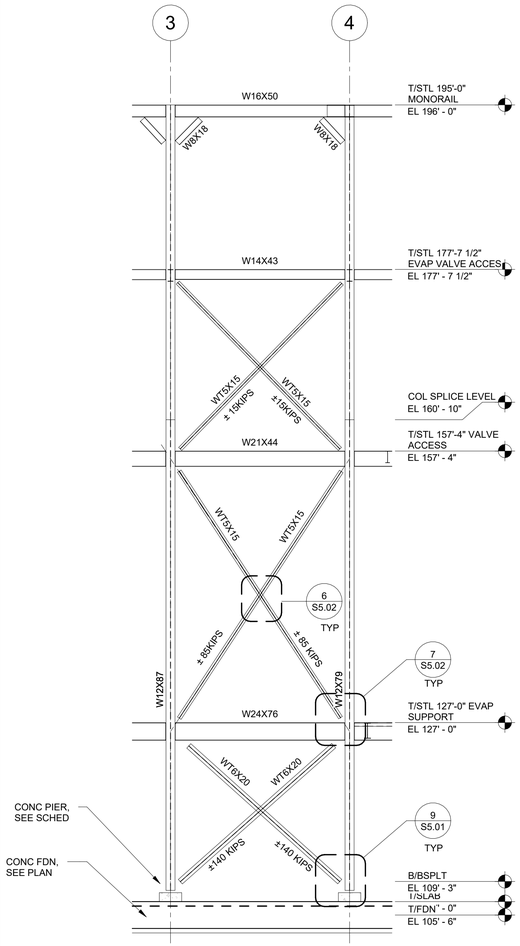
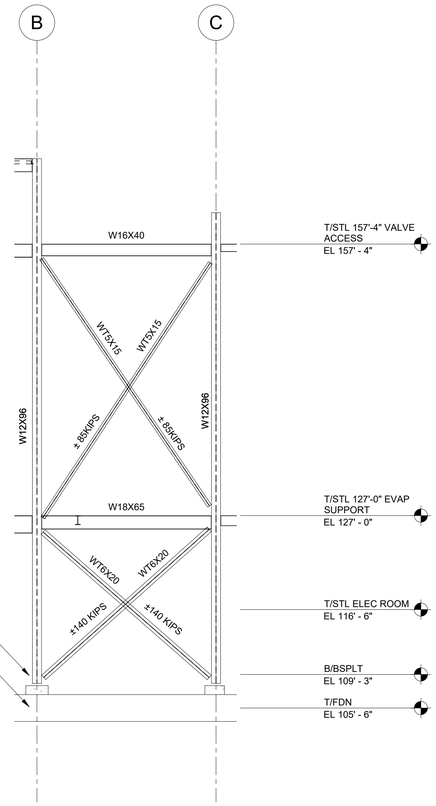
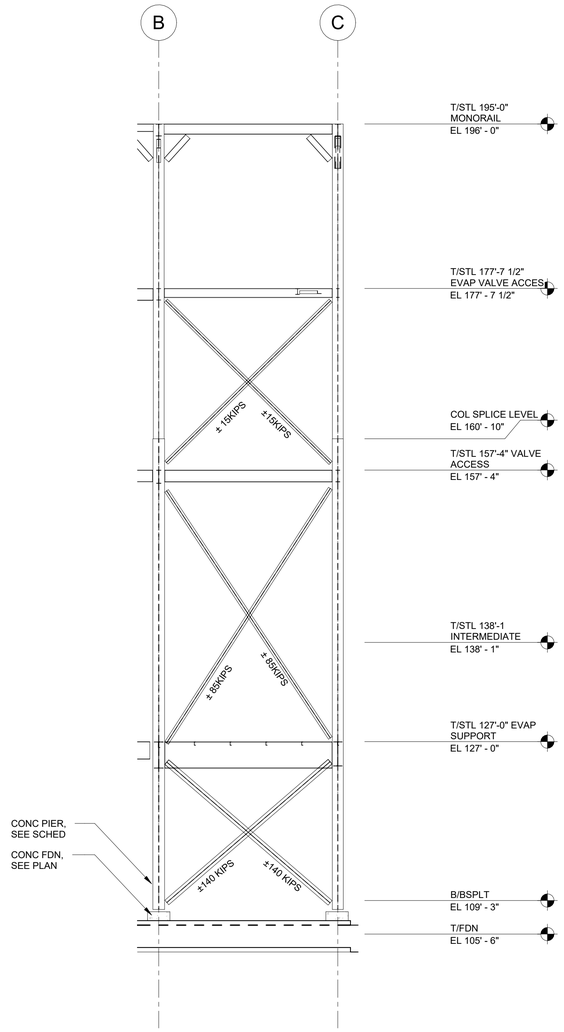


1 BRACED FRAME 1 (BF1) ELEVATION
1/8" = 1'-0"



2 BRACED FRAME 2 (BF2) ELEVATION
1/8" = 1'-0"



3 BRACED FRAME 3 (BF3) ELEVATION
1/8" = 1'-0"

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Fort Myers, FL 33966
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Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
BRACED FRAME ELEVATIONS

Amalgamated Sugar

AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE

Dwg Size: 24X36

Project: E24140
Dwg: S4.01

Revision: B

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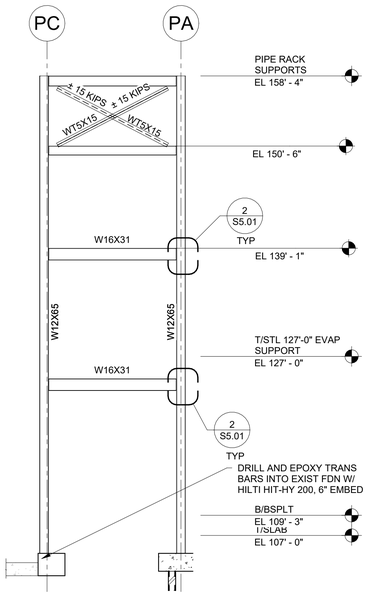
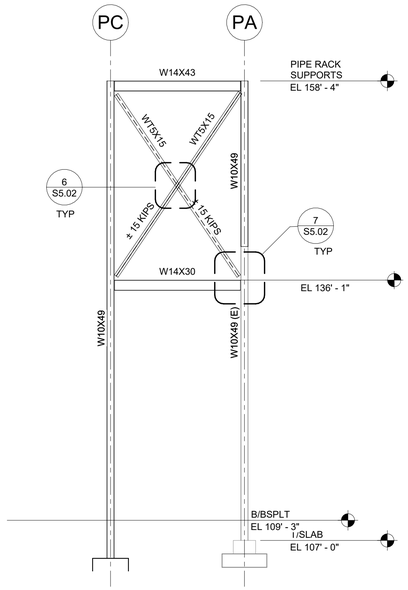
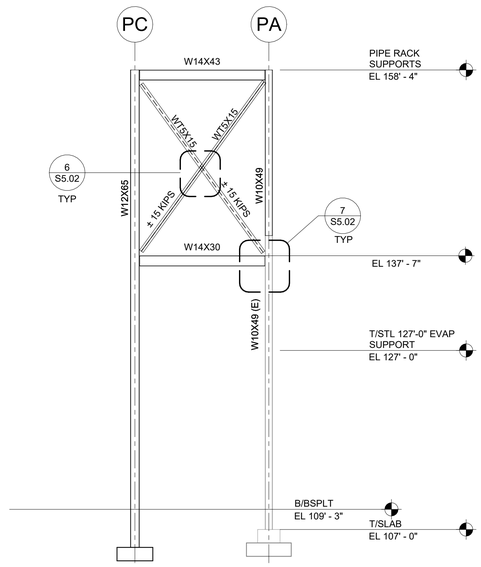


1 BRACED FRAME 4 (BF 4) ELEVATION
1/8" = 1'-0"



2 BRACED FRAME 5 (BF5) ELEVATION
1/8" = 1'-0"



3 BRACED FRAME 6 (BF 6) ELEVATION
1/8" = 1'-0"

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Fort Myers, FL 33966
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Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
BRACED FRAME ELEVATIONS

AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE

Dwg Size: 24X36

Project: E24140
Dwg: S4.02

Revision: B

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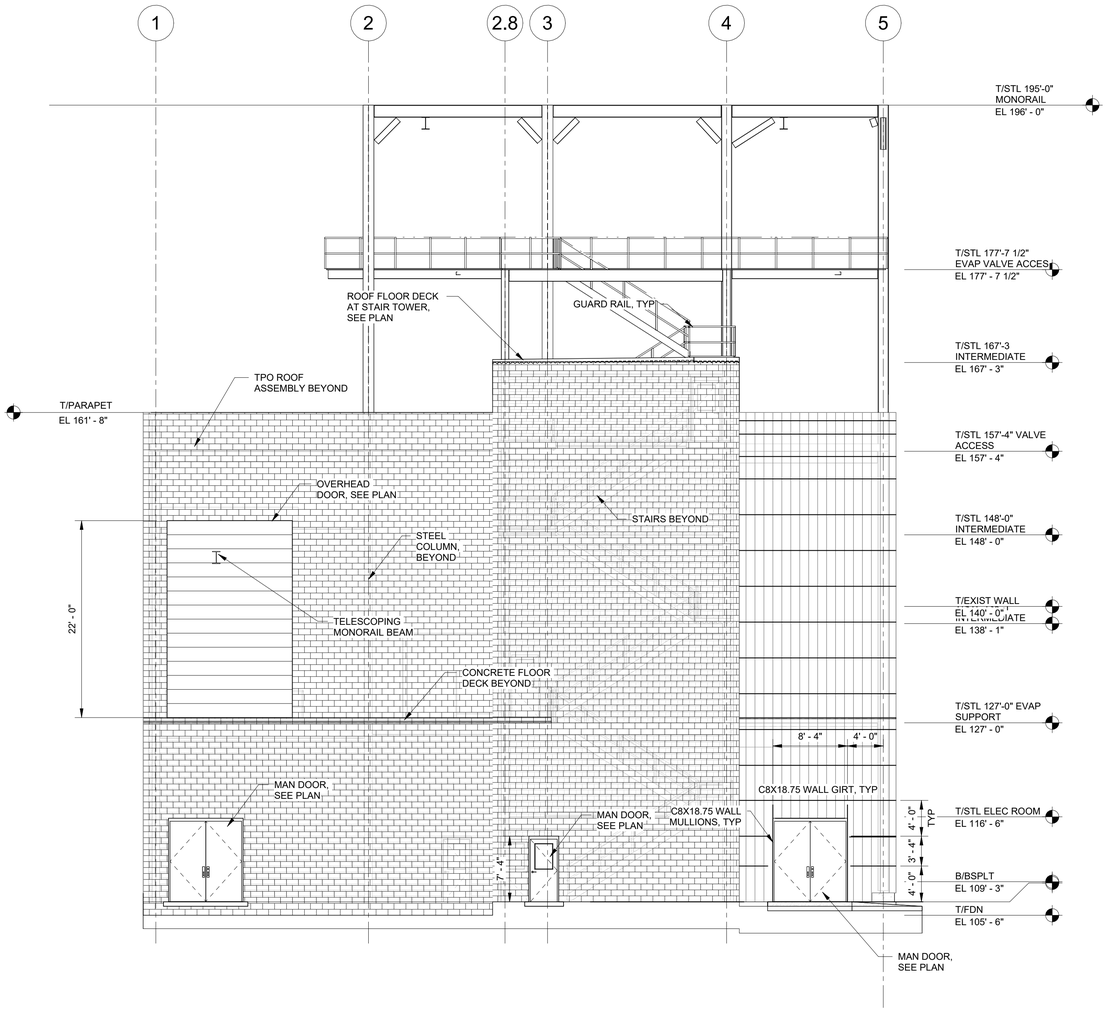
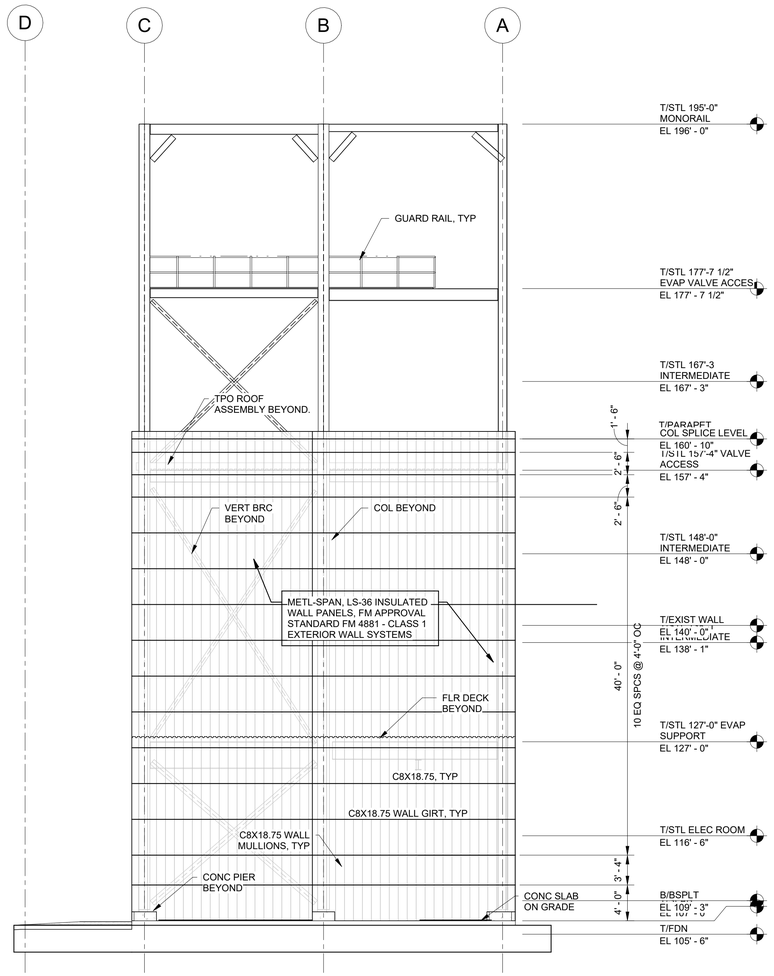


1 SOUTH BUILDING ELEVATION (LOOKING NORTH)
1/8" = 1'-0"



2 EAST BUILDING ELEVATION (LOOKING WEST)
1/8" = 1'-0"

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C	2025.06.20	DV	OWNER COMMENTS	
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Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
BUILDING ELEVATIONS

Amalgamated Sugar

AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
Project: E24140
Dwg: S4.11
Revision: C

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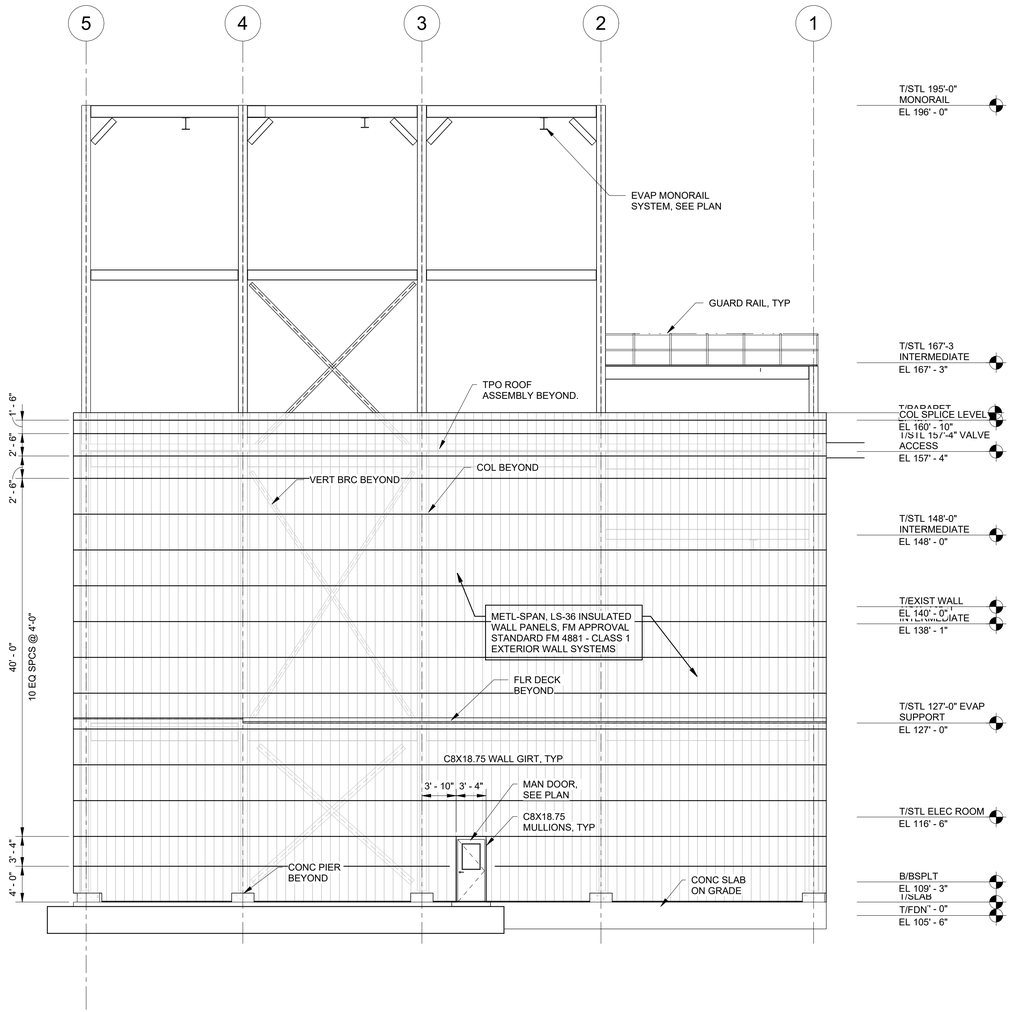
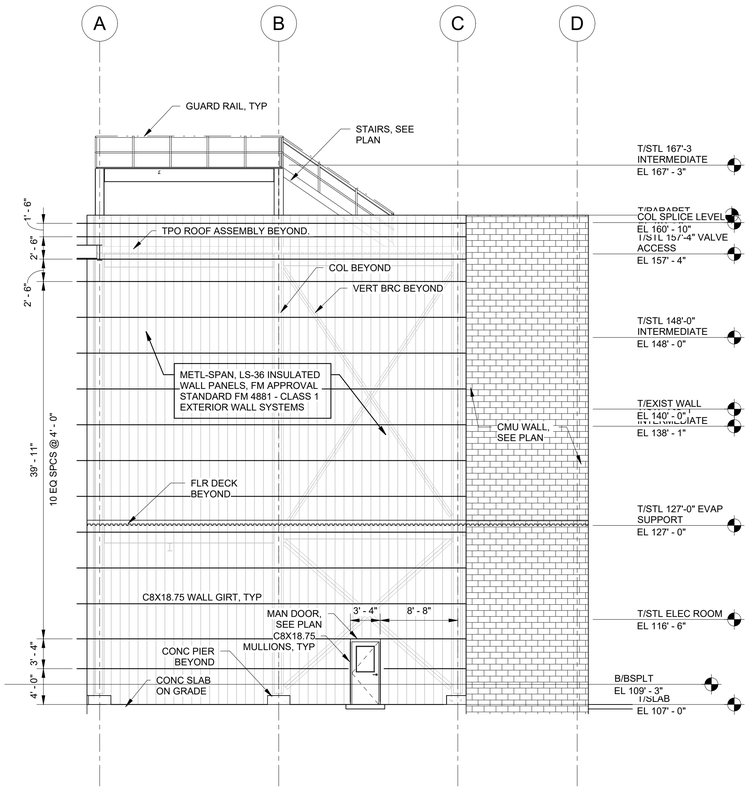


1 NORTH BUILDING ELEVATION (LOOKING SOUTH)
1/8" = 1'-0"



2 WEST BUILDING ELEVTION (LOOKING EAST)
1/8" = 1'-0"

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Amalgamated Sugar

AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
Project: E24140
Dwg: S4.12
Revision: C

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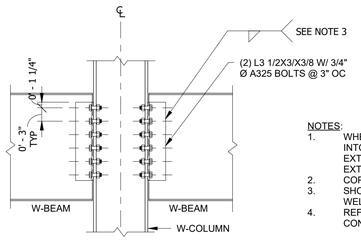
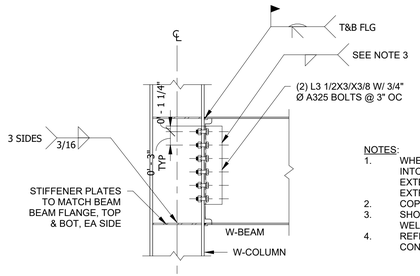


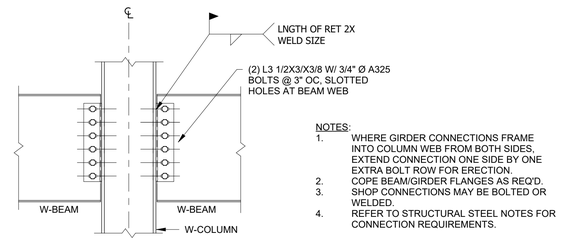
NOTES:
1. WHERE GIRDER CONNECTIONS FRAME INTO COLUMN WEB FROM BOTH SIDES, EXTEND CONNECTION ONE SIDE BY ONE EXTRA BOLT ROW FOR ERECTION.
2. COPE BEAM/GIRDER FLANGES AS REQ'D.
3. SHOP CONNECTIONS MAY BE BOLTED OR WELDED.
4. REFER TO STRUCTURAL STEEL NOTES FOR CONNECTION REQUIREMENTS.

1 TYPICAL BEAM/GIRDER TO COLUMN CONNECTION
3/4" = 1'-0"



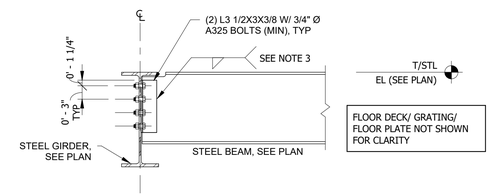
NOTES:
1. WHERE GIRDER CONNECTIONS FRAME INTO COLUMN WEB FROM BOTH SIDES, EXTEND CONNECTION ONE SIDE BY ONE EXTRA BOLT ROW FOR ERECTION.
2. COPE BEAM/GIRDER FLANGES AS REQ'D.
3. SHOP CONNECTIONS MAY BE BOLTED OR WELDED.
4. REFER TO STRUCTURAL STEEL NOTES FOR CONNECTION REQUIREMENTS.

2 TYPICAL BEAM/GIRDER TO COLUMN MOMENT CONNECTION
3/4" = 1'-0"



NOTES:
1. WHERE GIRDER CONNECTIONS FRAME INTO COLUMN WEB FROM BOTH SIDES, EXTEND CONNECTION ONE SIDE BY ONE EXTRA BOLT ROW FOR ERECTION.
2. COPE BEAM/GIRDER FLANGES AS REQ'D.
3. SHOP CONNECTIONS MAY BE BOLTED OR WELDED.
4. REFER TO STRUCTURAL STEEL NOTES FOR CONNECTION REQUIREMENTS.

3 TYPICAL BEAM/GIRDER TO EXIST COLUMN CONNECTION
3/4" = 1'-0"

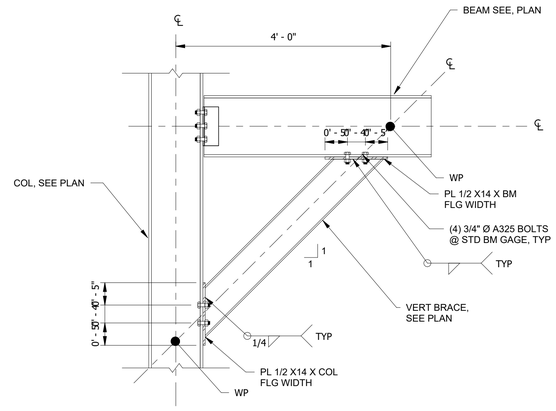


NOTES:
1. COPE BEAM FLANGE AS REQUIRED, TOP & BOTTOM (REINFORCE WHERE REQUIRED TO SUSTAIN AISC SPECIFIED CAPACITY)
2. SHOP CONNECTIONS MAY BE BOLTED OR WELDED
3. REFER TO STRUCTURAL STEEL NOTES FOR MINIMUM CONNECTION REQUIREMENTS

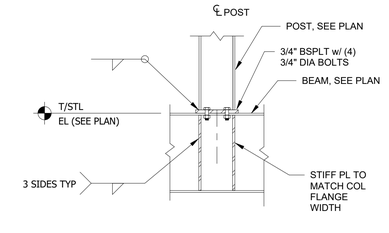
4 TYPICAL NEW BEAM TO NEW GIRDER CONNECTION
3/4" = 1'-0"

NOTES:
1. COPE BEAM FLANGE AS REQUIRED, TOP & BOTTOM (REINFORCE WHERE REQUIRED TO SUSTAIN AISC SPECIFIED CAPACITY)
2. SHOP CONNECTIONS MAY BE BOLTED OR WELDED
3. REFER TO STRUCTURAL STEEL NOTES FOR MINIMUM CONNECTION REQUIREMENTS

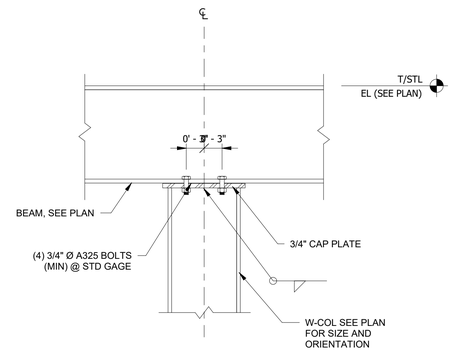
5 TYPICAL NEW BEAM TO NEW GIRDER MOMENT CONNECTION
3/4" = 1'-0"



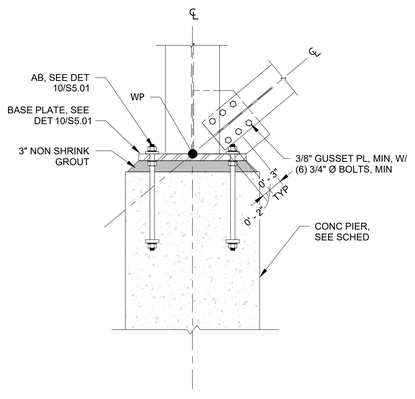
6 TYP KNEE BRACE DETAIL
3/4" = 1'-0"



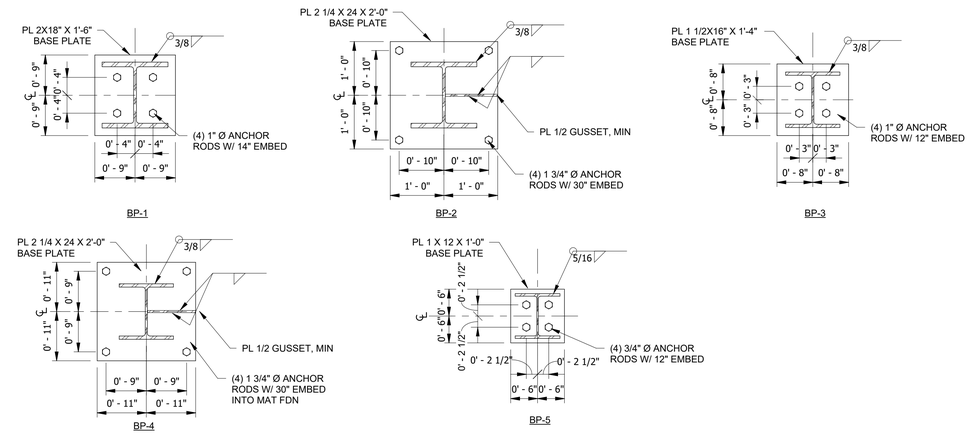
7 TYP POST TO BEAM CONNECTION - AB
3/4" = 1'-0"



8 TYP BEAM TO COLUMN CANTILEVER CONN
1" = 1'-0"



9 BASEPLATE CONN AT WT VERT BRACE
3/4" = 1'-0"



10 BASE PLATE CONN DETAILS
3/4" = 1'-0"

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Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
STRUCTURAL STEEL FRAMING DETAILS AND SECTIONS

Amalgamated Sugar

AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
Project: E24140
Dwg: S5.01
Revision:

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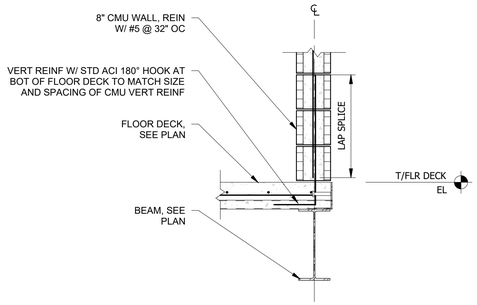
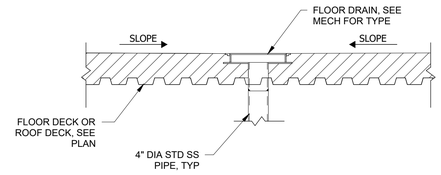
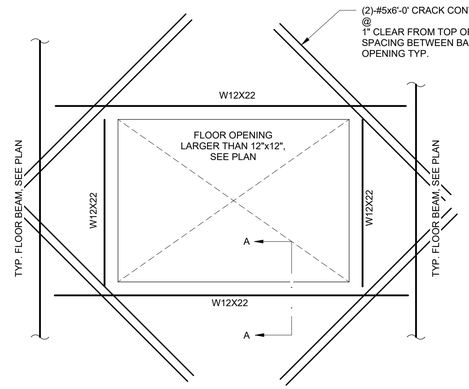


1 TYPICAL CMU WALL AT ELEVATED FLOOR
3/4" = 1'-0"

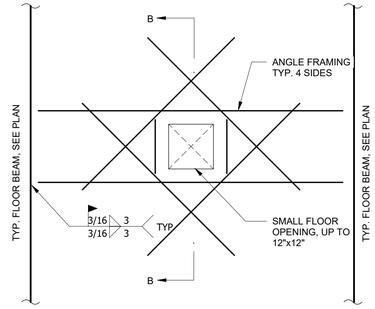


2 TYPICAL ELEVATED FLOOR DRAIN DETAIL
3/4" = 1'-0"

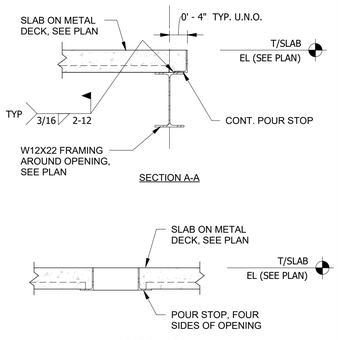


PLAN VIEW - LARGE OPENING

ANGLE FRAMING AROUND OPENINGS AND POUR STOPS SHALL BE L4X4X3/8 FOR 4" SLABS, L5X3X3/8 FOR 5" SLABS, AND L6X4X3/8 FOR 6" SLABS.



PLAN VIEW - SMALL OPENING

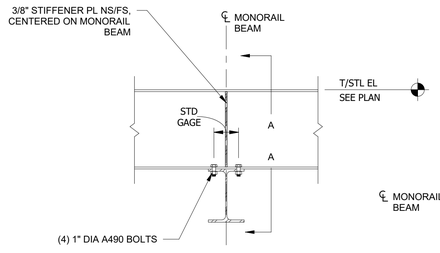


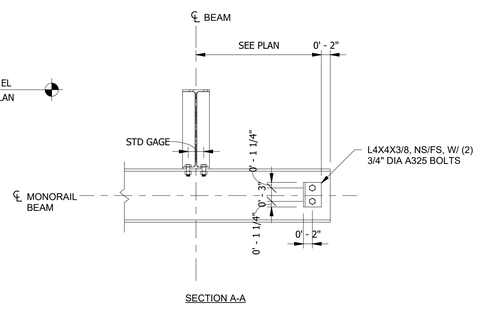
SECTION A-A

SECTION B-B

COORD. LOCATION & SIZE OF FLOOR OPENINGS W/ MEP AND ARCHITECTURAL DRAWINGS

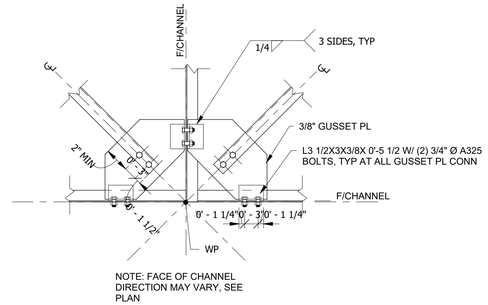
3 TYPICAL FLOOR OPENING REINFORCING DETAIL
3/4" = 1'-0"





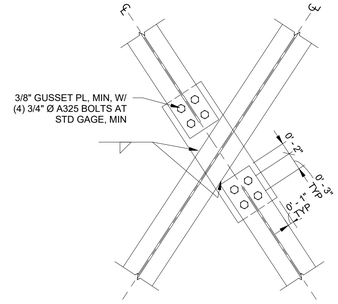
SECTION A-A

4 VEi TYPICAL MONORAIL BEAM CONNECTION
3/4" = 1'-0"

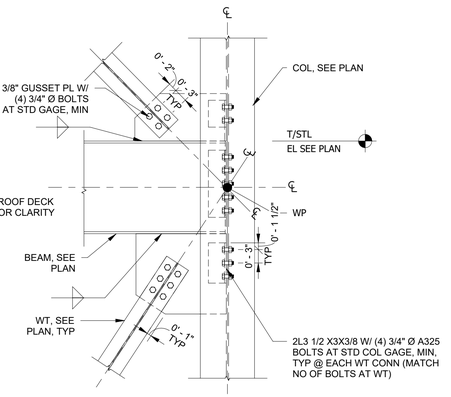


NOTE: FACE OF CHANNEL DIRECTION MAY VARY, SEE PLAN

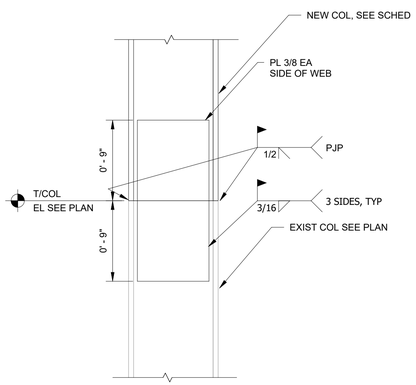
5 TYPICAL HORIZONTAL BRACING CONNECTION (W/GRATING)
3/4" = 1'-0"



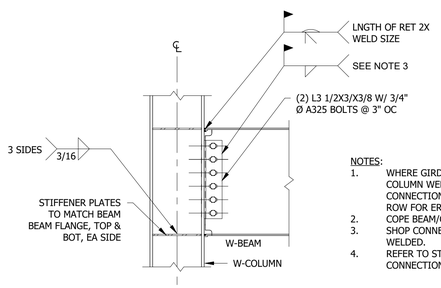
6 TYP WT VERT BRACING INTERSECT CONN
1" = 1'-0"



7 TYP WT BRACE CONN AT BEAM/COL
3/4" = 1'-0"

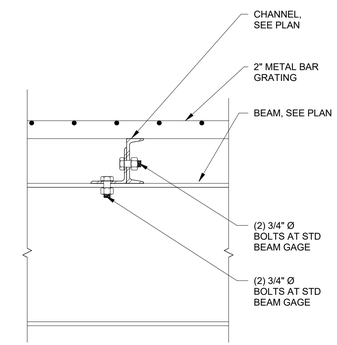


8 NEW TO EXIST COL SPLICE CONN
1 1/2" = 1'-0"



NOTES:
1. WHERE GIRDER CONNECTIONS FRAME INTO COLUMN WEB FROM BOTH SIDES, EXTEND CONNECTION ONE SIDE BY ONE EXTRA BOLT ROW FOR ERECTION.
2. COPE BEAM/GIRDER FLANGES AS REQ'D.
3. SHOP CONNECTIONS MAY BE BOLTED OR WELDED.
4. REFER TO STRUCTURAL STEEL NOTES FOR CONNECTION REQUIREMENTS.

9 TYPICAL BEAM/GIRDER TO COLUMN MOMENT CONNECTION
3/4" = 1'-0"



10 CHANNEL SECONDARY BEAM TO FLOOR BEAM CONN
1 1/2" = 1'-0"

No.	Date	By	Revision	Ad. No.
C	2025.06.20	DV	OWNER COMMENTS	
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A	2025.04.11	DV	ISSUED FOR APPROVAL (70% CHECKSET)	

PRELIMINARY NOT FOR CONSTRUCTION 20 JUNE 2025

4990 Royal Gulf Circle
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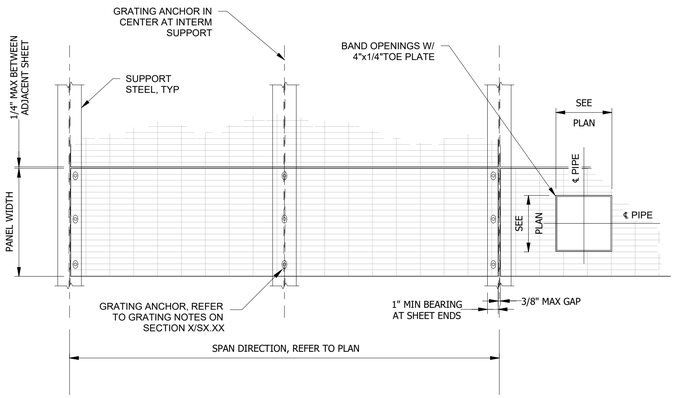
Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
STRUCTURAL STEEL FRAMING DETAILS AND SECTIONS

Amalgamated Sugar

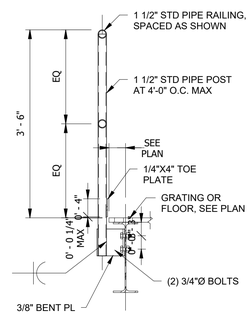
AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
Project: E24140
Dwg: S5.02
Revision: C

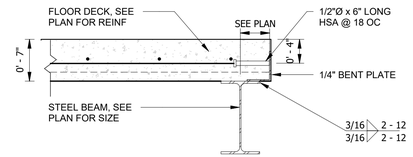
C:\Users\dviele\Documents\E24140 ASC Evaportator STR R25 backup_dviele@veiglobal.com.rvt



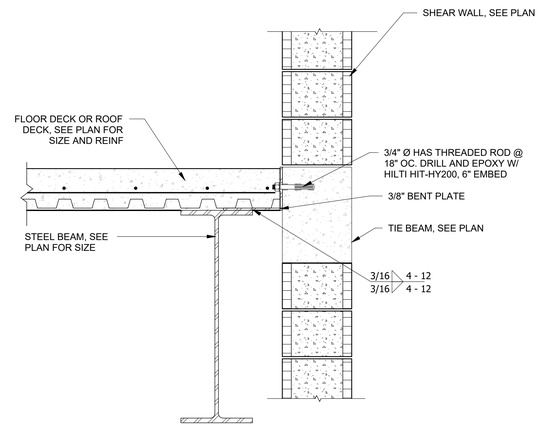
1 TYPICAL GRATING SUPPORT DETAIL
1" = 1'-0"



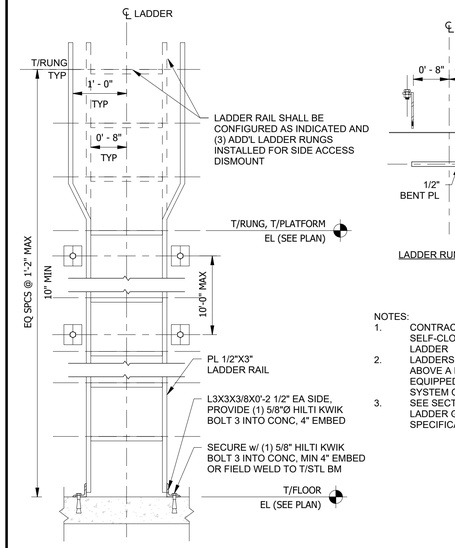
2 TYPICAL HANDRAIL DETAIL AT BEAM
3/4" = 1'-0"

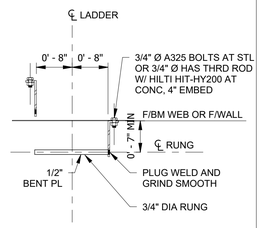


4 TYPICAL SLAB EDGE AT BEAM (GIRT WALLS AND OPENINGS)
1" = 1'-0"



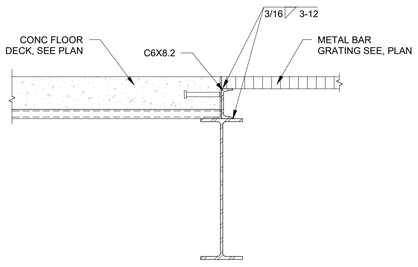
5 TYPICAL ROOF/FLOOR DECK EDGE AT BEAM (SHEAR WALL)
1" = 1'-0"



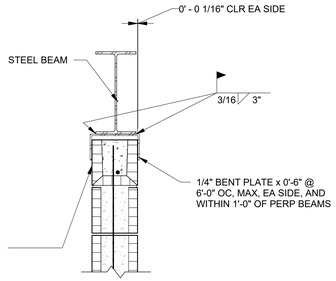


NOTES:
1. CONTRACTOR SHALL SUPPLY AND INSTALL SELF-CLOSING SAFETY GATE FOR EACH LADDER
2. LADDERS EXTENDING MORE THAN 24'-0" ABOVE A LOWER LEVEL SHALL BE EQUIPPED WITH A PERSONAL FALL ARREST SYSTEM OR A LADDER SAFETY SYSTEM. SEE SECTION XXX ON S-XX-XXXX FOR LADDER GENERAL NOTES AND SPECIFICATIONS
3. SEE SECTION XXX ON S-XX-XXXX FOR LADDER GENERAL NOTES AND SPECIFICATIONS

3 TYPICAL STEEL LADDER DETAIL
3/4" = 1'-0"

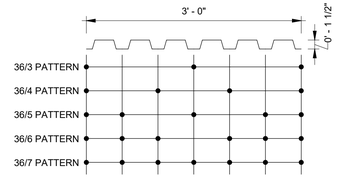


6 SECTION AT GRATING EDGE
1" = 1'-0"



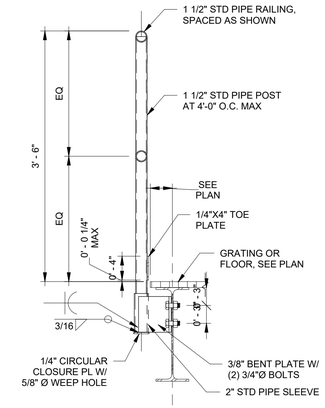
7 TYP NLB CMU WALL AT BEAM
1" = 1'-0"

FLOOR DECK FASTENING PATTERN		
BUILDING	ZONE	FLOOR DECK MINIMUM FASTENING PATTERN
ROOF	1	36/7 3/4" PUDDLE WELDS WITH (10 #10 TEK SCREW SIDELAPS
FLOOR	1	36/7 3/4" PUDDLE WELDS WITH (10 #10 TEK SCREW SIDELAPS



TYPE "C" DECK

8 ROOF AND FLOOR DECK FASTENING SCHEDULE & PATTERN
1" = 1'-0"



9 TYPICAL REMOVEABLE HANDRAIL DETAIL AT W-SHAPE
1" = 1'-0"

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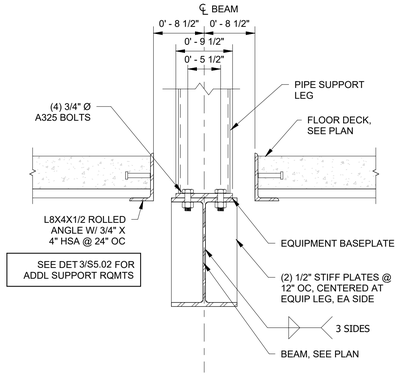
STRUCTURAL STEEL FRAMING DETAILS AND SECTIONS

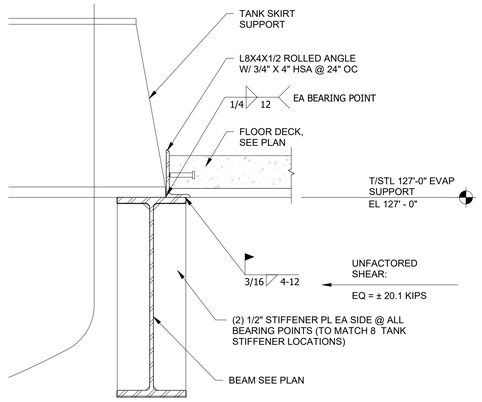
AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
Project: E24140
Dwg: S5.03
Revision: C

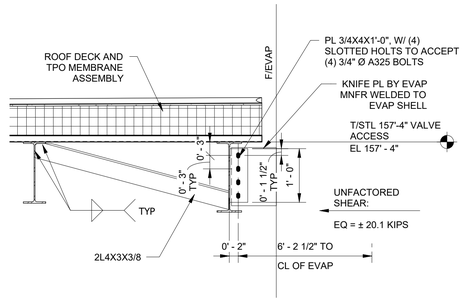
C:\Users\dviele\Documents\E24140 ASC Evaporatator STR R25 backup_dviele@veiglobal.com.rvt



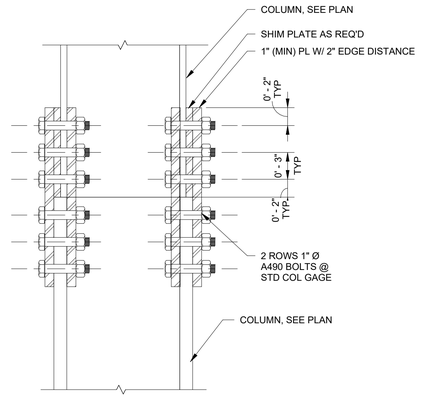
1 SECTION AT VAPOR SEPERATOR CONNECTION
1" = 1'-0"



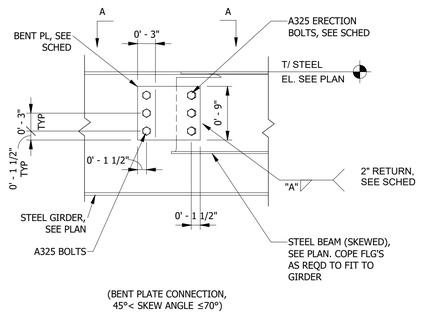
2 SECTION AT EVAPORATOR SUPPORT
1" = 1'-0"



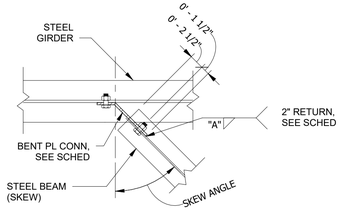
3 SECTION AT ROOF CONNECTION TO EVAP
3/4" = 1'-0"



4 TYPICAL COLUMN SPLICE DETAIL
1 1/2" = 1'-0"



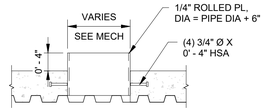
(BENT PLATE CONNECTION, 45°< SKEW ANGLE ≤70°)



PLAN DETAIL A-A

NOTES:
1. METAL DECK/PANEL NOT SHOWN FOR CLARITY.
2. COPE BEAM FLANGE AS REQUIRED, TOP & BOTTOM.

5 TYP SKEW BEAM TO GIRDER CONNECTION
1" = 1'-0"



NOTE: SEE MECH DRAWINGS FOR LOCATIONS AND DIAMETERS OF ALL PIPE PENETRATIONS AT CONC FLOORS

6 PIPE PENETRATION DETAIL AND SCHEDULE
3/4" = 1'-0"

No.	Date	By	Revision	Ad. No.
C	2025.06.20	DV	OWNER COMMENTS	
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PRELIMINARY NOT FOR CONSTRUCTION 20 JUNE 2025

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Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
STRUCTURAL STEEL FRAMING DETAILS AND SECTIONS

Amalgamated Sugar

AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
Project: E24140
Dwg: S5.04
Revision: C

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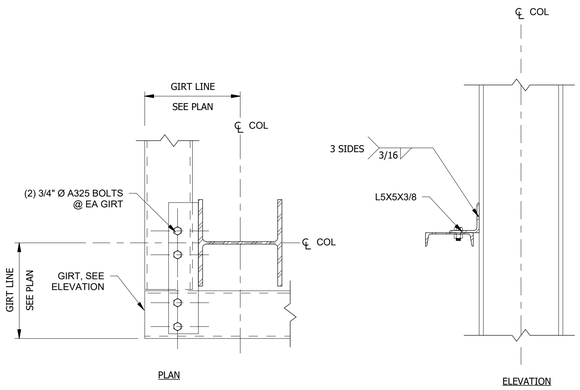
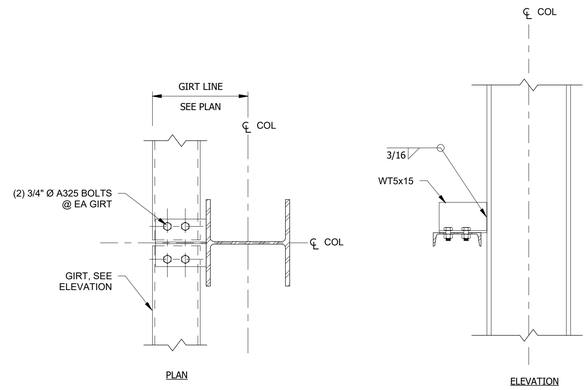
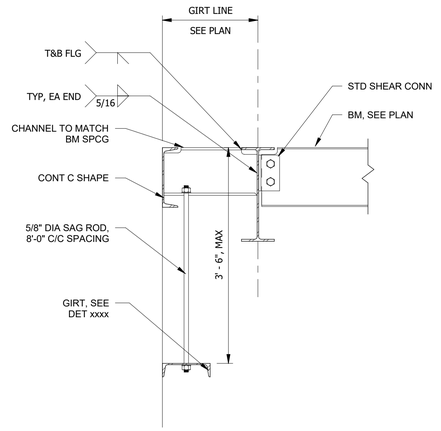


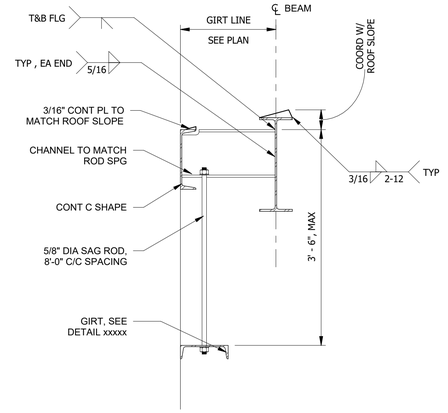
1 TYP GIRT CONNECTION DETAIL
1" = 1'-0"



2 TYP GIRT CONNECTION DETAIL
1" = 1'-0"



3 TYP GIRT LINE AT ROOF BEAM (PARALLEL TO PANEL)
1" = 1'-0"



4 TYP GIRT LINE AT ROOF BEAM (PERPENDICULAR TO PANEL)
1" = 1'-0"

No.	Date	By	Revision	Ad. No.
B	2025.06.20	DV	OWNER COMMENTS	
A	2025.04.25	DV	ISSUED FOR BID	

**PRELIMINARY
NOT FOR
CONSTRUCTION
20 JUNE 2025**

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http://www.veiglobal.com

VEI GLOBAL ENGINEERING

Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
STRUCTURAL STEEL FRAMING DETAILS AND SECTIONS

Amalgamated Sugar

AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE

Dwg Size: 24X36

Project: E24140
Dwg: S5.05

Revision: B

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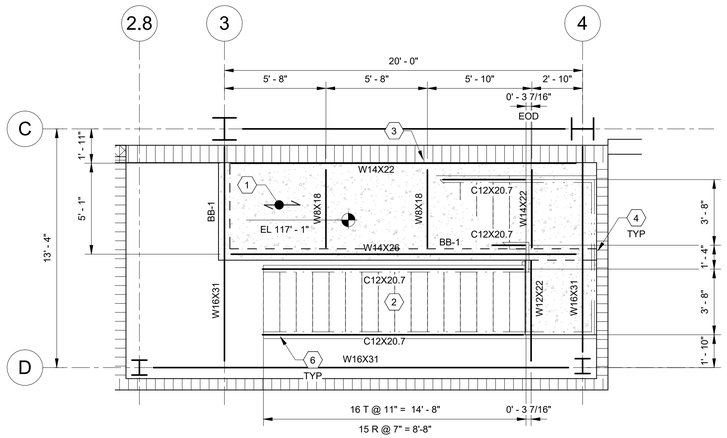
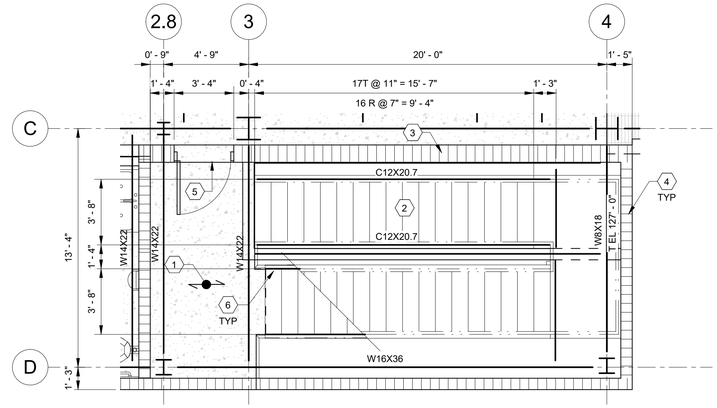
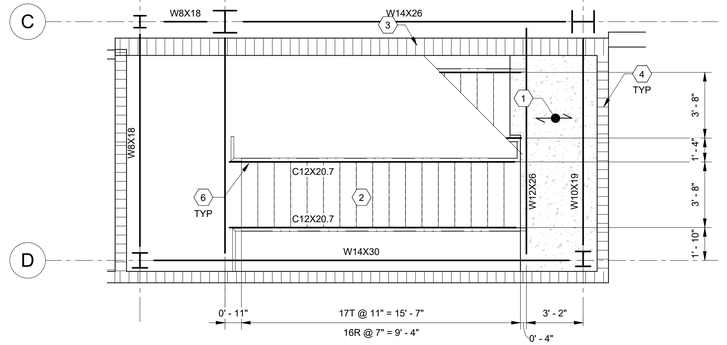


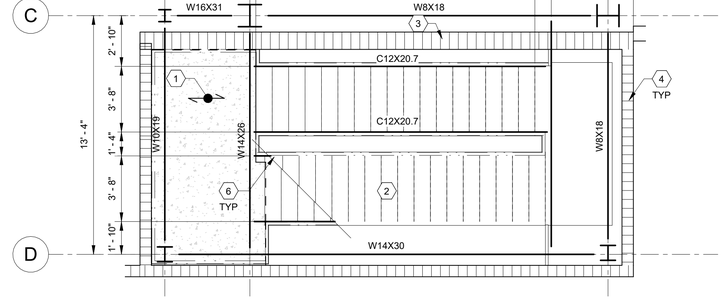
1 T/STL EL 116'-6" ELEC ROOM AND STAIRS
1/4" = 1'-0"



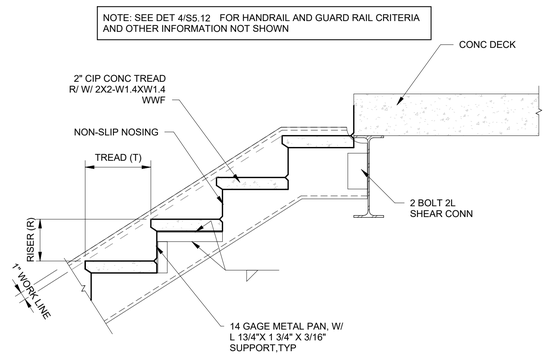
2 STAIR PLAN T/STL EL 127'-0"
1/4" = 1'-0"



3 T/STL 138'-1 INTERMEDIATE
1/4" = 1'-0"



4 T/STL 148'-0" INTERMEDIATE
1/4" = 1'-0"



5 CONCRETE-METAL PAN TREAD
1" = 1'-0"

KEYNOTE LEGEND

1. 5" NORMAL WEIGHT CONC ON 1 1/2", 20 GAGE, TYPE 'VL' DECKING. REOMF W/ #4 @ 12" OC AT MID DEPTH OF SLAB (7" TOTAL THICKNESS). SEE DET 8/S5.03 AND GEN SPEC FOR ATTACHMENT RQMTS.
2. METAL PAN STAIRS, SEE DET 5/S5.11
3. 12" CMU BLOCK WALL
4. 8" CMU BLOCK WALL
5. EXIT DOOR, SEE PLAN
6. STEEL HANDRAIL
7. ADD CONC TOPPING AS REQUIRED TO ATTAIN ROOF ELEVATION AT ENTRANCE AND EXITS.
8. METAL BAR GRATING STAIR ASEEMBLY, SEE DET 4/S5.12
9. 1 1/2", 20 GAGE, TYPE 'B' ROOF DECK. GALVANIZED G90. ROOFING ASSEMBLY TO CONSIST OF TPO MEMBERANE OVER 1/2" COVER BOARD OVER TAPERED 6" (MIN) INSULATION ON METAL DECK. SEE DET 8/S5.03 FOR FASTENING RQMTS.

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Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
STAIR DIAGRAMS AND DETAILS

Amalgamated Sugar

AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
Project: E24140
Dwg: S5.11
Revision: C

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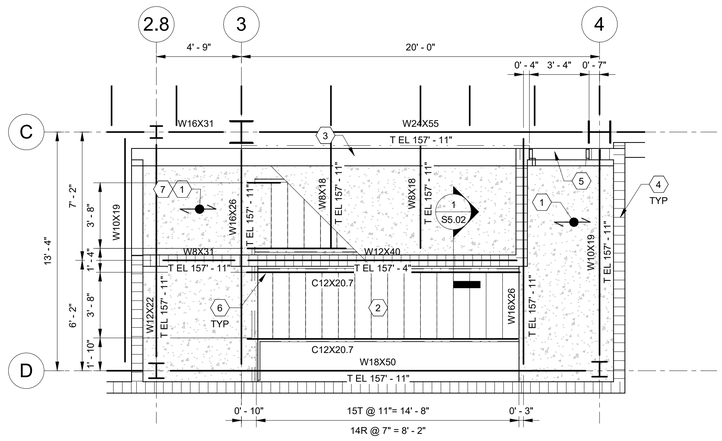
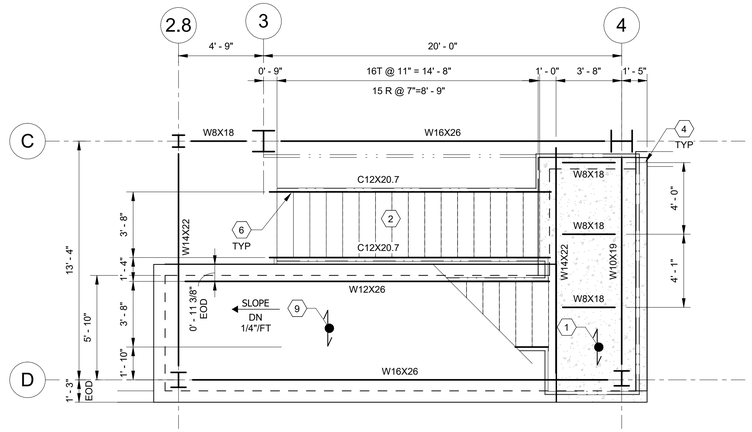
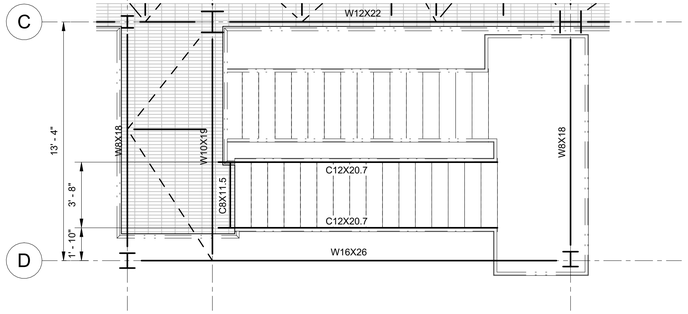


1 STAIR PLAN T/STL EL 157'-4"
1/4" = 1'-0"



2 T/STL 167'-3 INTERMEDIATE
1/4" = 1'-0"



3 STAIR PLAN T/STL EL 177'-7 1/2"
1/4" = 1'-0"

4 TYPICAL STEEL STAIR DETAIL
3/4" = 1'-0"

KEYNOTE LEGEND

1. 5" NORMAL WEIGHT CONC ON 1 1/2", 20 GAGE, TYPE "VL" DECKING. REOMF W/ #4 @ 12" OC AT MID DEPTH OF SLAB (7" TOTAL THICKNESS). SEE DET 8/S5.03 AND GEN SPEC FOR ATTACHMENT RQMTS.
2. METAL PAN STAIRS, SEE DET 5/S5.11
3. 12" CMU BLOCK WALL
4. 8" CMU BLOCK WALL
5. EXIT DOOR, SEE PLAN
6. STEEL HANDRAIL
7. ADD CONC TOPPING AS REQUIRED TO ATTAIN ROOF ELEVATION AT ENTRANCE AND EXITS.
8. METAL BAR GRATING STAIR ASEEMBLY, SEE DET 4/S5.12
9. 1 1/2", 20 GAGE, TYPE 'B' ROOF DECK. GALVANIZED G90. ROOFING ASSEMBLY TO CONSIST OF TPO MEMBERANE OVER 1/2" COVER BOARD OVER TAPERED 6" (MIN) INSULATION ON METAL DECK. SEE DET 8/S5.03 FOR FASTENING RQMTS.

No.	Date	By	Revision	Ad. No.
C	2025.06.20	DV	OWNER COMMENTS	
B	2025.04.25	DV	ISSUED FOR BID	
A	2025.04.11	DV	ISSUED FOR APPROVAL (70% CHECKSET)	

PRELIMINARY NOT FOR CONSTRUCTION 20 JUNE 2025

4990 Royal Gulf Circle
Fort Myers, FL 33966
Ph: 239.768.1778, Fax: 239.210.2168
http://www.veiglobal.com

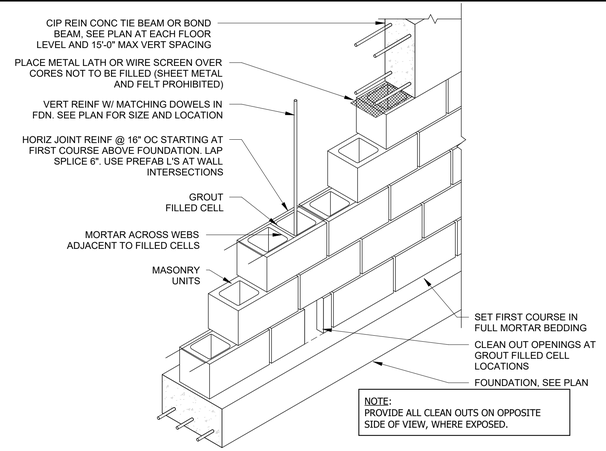
Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
STAIR DIAGRAMS AND DETAILS

Amalgamated Sugar

AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

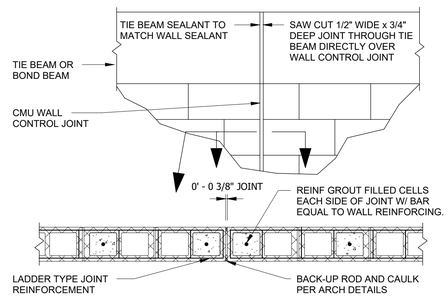
Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
Project: E24140
Dwg: S5.12
Revision: C

C:\Users\dviele\Documents\E24140 ASC Evaportator STR R25 backup_dviele@veiglobal.com.rvt



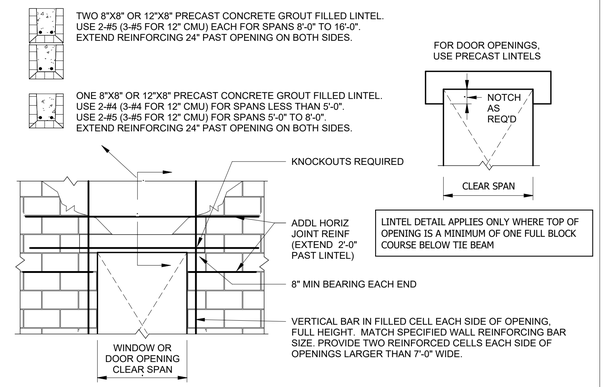
NOTE:
PROVIDE ALL CLEAN OUTS ON OPPOSITE SIDE OF VIEW, WHERE EXPOSED.

1 TYPICAL MASONRY WALL CONSTRUCTION
3/4" = 1'-0"

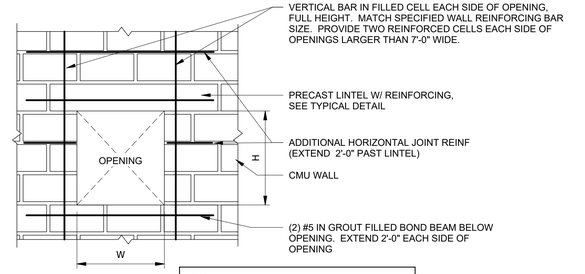


NOTES:
1. DISCONTINUE JOINT REINFORCING AT CONTROL JOINTS.
2. CONTROL JOINTS TO BE LOCATED AT 30'-0" OC MAX REFER TO PLANS AND ARCHITECTURAL DRAWINGS FOR LOCATIONS, SPACING AND ADDITIONAL REQUIREMENTS.
3. JOINT IN TIE BEAM MAY BE FORMED USING 3/4" CHAMFER STRIP IN FORMS.
4. TIE BEAM REINFORCING CONTINUOUS ACROSS JOINT.

2 TYPICAL MASONRY CONTROL JOINT
3/4" = 1'-0"

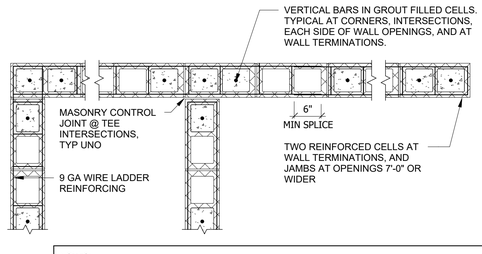


3 TYPICAL MASONRY WALL OPENING LINTEL DETAIL
3/4" = 1'-0"



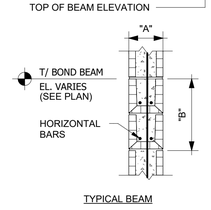
NOTE:
TYPICAL FOR OPENINGS AT WINDOWS, LOUVERS, DUCT CHASES, OR OTHER UTILITIES.

4 TYPICAL MASONRY WALL OPENING REINFORCING
3/4" = 1'-0"



NOTES:
1. TYPICAL WIRE LADDER REINFORCEMENT FOR ALL CMU WALLS SPACED @ 16" O.C. VERTICALLY. PROVIDE ADDITIONAL LAYERS ABOVE AND BELOW WINDOW AND DOOR OPENINGS.
2. SEE PLAN FOR SIZE AND SPACING OF VERTICAL REINFORCING BARS.
3. USE PREFABRICATED L-SHAPED WIRE SEGMENTS AT WALL INTERSECTIONS.
4. TERMINATE HORIZONTAL WIRE REINFORCING AT CONTROL JOINTS.

5 TYPICAL HORIZONTAL WALL REINFORCING / VERTICAL CORNER REINFORCING
3/4" = 1'-0"



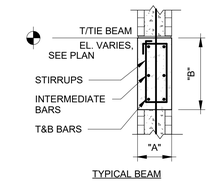
TYPICAL BEAM

BOND BEAM SCHEDULE

BEAM DESIGNATION	SIZE "A"	SIZE "B"	REBAR (EA CELL)
BB-1	8"	16"	(2) #5

NOTES:
1. LAP SPLICE TOP, BOTTOM, AND BOND BEAM BARS PER SPLICE SCHEDULE.
2. SEE PLANS FOR BOND BEAM ELEVATIONS.
3. ALL BOND BEAMS SHALL BE CONTINUOUS, UNLESS OTHERWISE NOTED.
4. FOR TYPICAL BOND BEAMS WITH ELEVATION THAT VARIES, STEP BOND BEAM AS REQUIRED TO FOLLOW ROOF SLOPE. SEE STEPPED BOND BEAM DETAIL.
5. BOND BEAMS SHALL BEAR A MINIMUM OF 8" ON MASONRY WALLS, WITH THE CELLS UNDER THE POINT OF BEARING REINFORCED AND GROUTED SOLID.

6 CMU BOND BEAM SCHEDULE
3/4" = 1'-0"



TYPICAL BEAM

CONCRETE BEAM AND TIE BEAM SCHEDULE

BEAM DESIGNATION	SIZE "A"	SIZE "B"	REBAR (T & B)	STIRRUPS	NOTES
TB-1	12"	16"	(2) - #6	#3 @ 8"	
TB-2	8"	16"	(2) - #5	#3 @ 8"	

NOTES:
1. LAP SPLICE TOP AND BOTTOM BARS PER SPLICE SCHEDULE.
2. SEE PLANS FOR TIE BEAM ELEVATIONS.
3. ALL TIE BEAMS SHALL BE CONTINUOUS, UNLESS OTHERWISE NOTED.
4. FOR TYPICAL TIE BEAMS WITH ELEVATION THAT VARIES, STEP TIE BEAM AS REQUIRED TO FOLLOW ROOF SLOPE. SEE STEPPED TIE BEAM DETAIL.
5. TIE BEAMS AND CONCRETE BEAMS SHALL BEAR A MINIMUM OF 8" ON MASONRY WALLS, WITH THE CELLS UNDER THE POINT OF BEARING REINFORCED AND GROUTED SOLID.
6. WHERE BEAMS INTERSECT A MASONRY WALL, WITHOUT FORMING A T- OR L-SHAPED BEAM CONFIGURATION, BEAM SHALL FULLY BEAR ON WALL FOR FULL DEPTH OF WALL AND FULL WIDTH OF BEAR. ALL CELLS UNDER BEAM BEARING SHALL BE GROUTED SOLID AND REINFORCED. TOP & BOTTOM BARS SHALL BE TERMINATED IN STANDARD 90° HOOKS. WHERE A T- OR L-SHAPED BEAM INTERSECTION IS FORMED, TOP & BOTTOM BARS SHALL BE LAP SPLICED WITH CORNER OR INTERSECTION BARS.

9 TYP CONCRETE BEAM / TIE BEAM SCHEDULE
3/4" = 1'-0"

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PRELIMINARY NOT FOR CONSTRUCTION 20 JUNE 2025

4990 Royal Gulf Circle
Fort Myers, FL 33966
Ph: 239.768.1778, Fax: 239.210.2168
http://www.veiglobal.com
VEI GLOBAL ENGINEERING

Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
TYPICAL MASONRY DETAILS AND SECTIONS

Amalgamated Sugar
AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
Project: E24140
Dwg: S6.01
Revision: C

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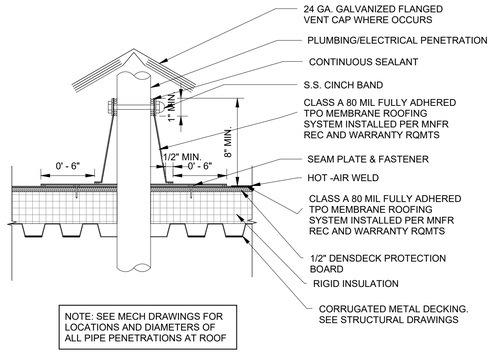
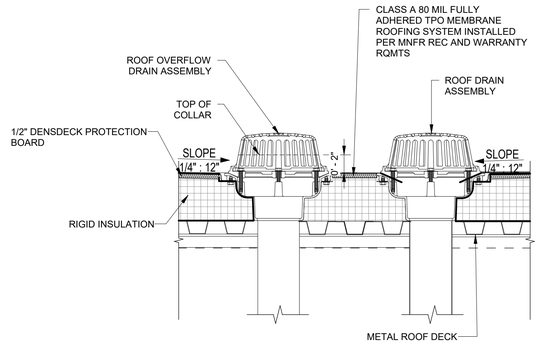
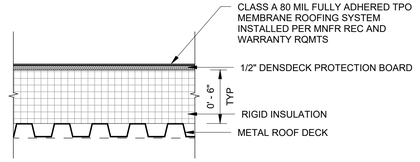


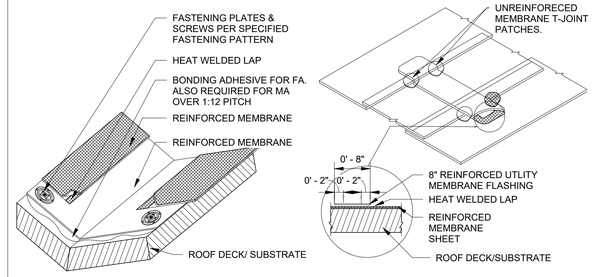
1 PIPE PENETRATION DETAIL
1 1/2" = 1'-0"



2 ROOF DRAIN DETAIL
1 1/2" = 1'-0"



3 TPO ASSEMBLY
1 1/2" = 1'-0"



NOTE:

1. FLEECE BACKED MEMBRANE MAY ALSO BE ADHERED WITH HOT ASPHALT.
2. FA SYSTEMS DO NOT GET MECHANICALLY ATTACHED.
3. FOR VALLEYS GREATER THAN 2:12 VALLEY MATERIAL MUST BE A HALF SHEET OR LESS.

NOTE:

1. FOR HEAT WELDING LAPS USE 1 1/2" WELD WITH MACHINE ROBOT WELDER AND 2" WELD WITH HAND WELDER.
2. APPLY TPO CUT EDGE SEALANT TO ALL CUT REINFORCED TPO EDGES.

4 TPO VALLEY & COVER STRIP
3/4" = 1'-0"

NOTES:

1. ATTACH NAILER TO DECK WITH SUITABLE FASTENERS
2. WHEN POSSIBLE, THE MECHANICAL UNITS SHOULD NOT BE SET UNTIL THE ROOF MEMBRANE AND FLASHING HAVE BEEN INSTALLED.

5 CURB DETAIL AT EVAP OPENING
1 1/2" = 1'-0"

6 PARAPET DETAILAT CMU WALL OR GIRT WALL
1 1/2" = 1'-0"

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PRELIMINARY NOT FOR CONSTRUCTION 20 JUNE 2025

4990 Royal Gulf Circle
Fort Myers, FL 33966
Ph: 239.768.1778, Fax: 239.210.2168
http://www.veiglobal.com

Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
ROOFING AND PARAPET DETAILS

Amalgamated Sugar

AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
Project: E24140
Dwg: S7.01
Revision: C

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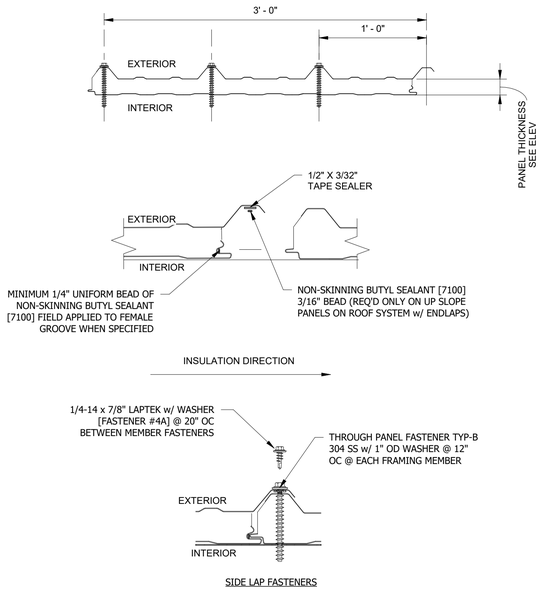
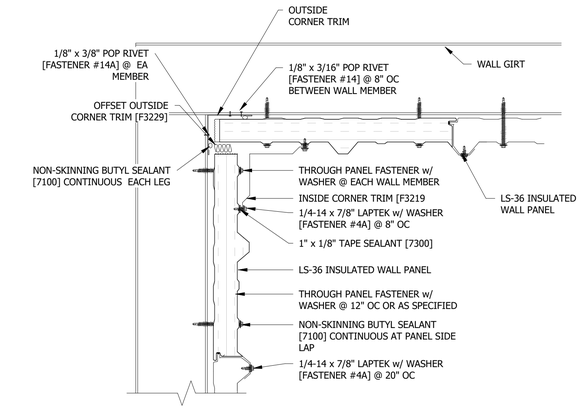
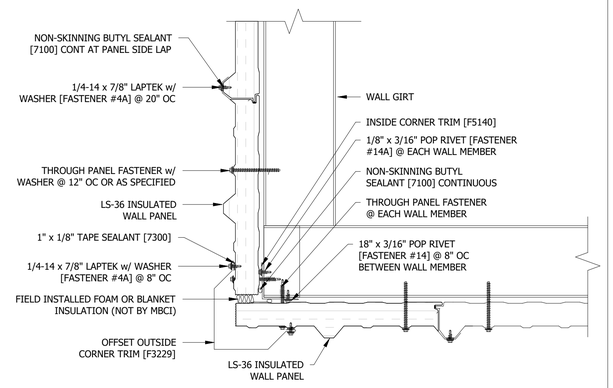


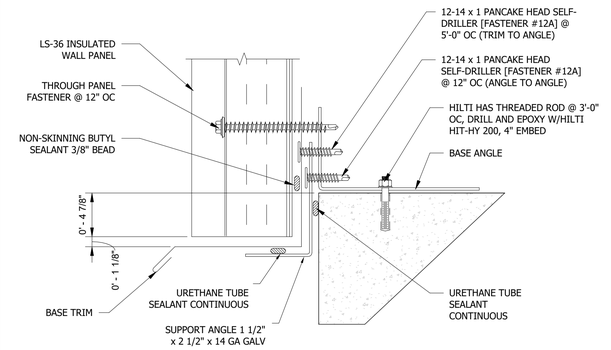
1 IMP PANEL - PANEL ATTACHEMENT DETAIL
1 1/2" = 1'-0"



2 IMP PANEL - INSIDE CORENR TRIM DETAIL
1 1/2" = 1'-0"



3 IMP PANEL - OUTSIDE CORNER TRIM
1 1/2" = 1'-0"



4 IMP PANEL - BASE DETAIL
1 1/2" = 1'-0"

5 IMP PANEL - DOOR HEAD DETRAIL
1 1/2" = 1'-0"

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PRELIMINARY NOT FOR CONSTRUCTION 20 JUNE 2025

4990 Royal Gulf Circle
Fort Myers, FL 33966
Ph: 239.768.1778, Fax: 239.210.2168
http://www.veiglobal.com

Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
WALL PANEL DETAILS

AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
Project: E24140
Dwg: S7.02
Revision: C

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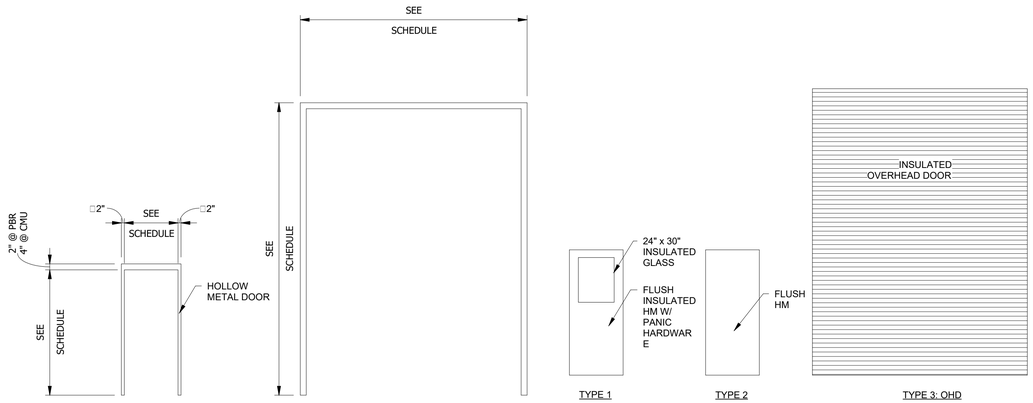
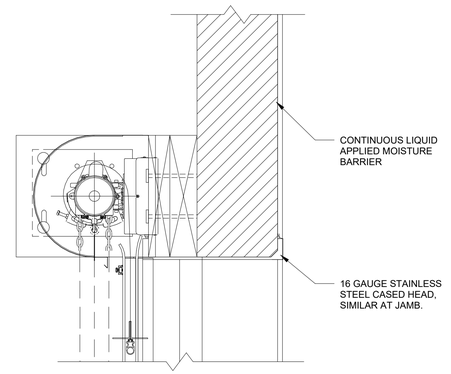
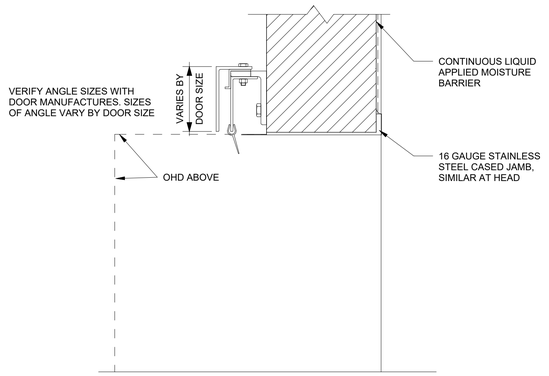
DOOR SCHEDULE												
DOOR No	DOOR					FRAME						
	TYPE	MATERIAL	FINISH	SIZE (W X H X T)	SERIES/ GAGE	TYPE	MATERIAL	FINISH	HEAD	JAMB	SILL	REMARKS
101	1	HOLLOW METAL	PAINT	3'-0" x 7'-0" x 1 3/4"	N/A	A	HOLLOW METAL	PAINT	-	-	-	PANIC HARDWARE
102	2	HOLLOW METAL	PAINT	8'-0" x 9'-0" x 1 3/4"	N/A	A	HOLLOW METAL		-	-	-	DOUBLE DOOR/ PANIC HARDWARE
103	1	HOLLOW METAL	PAINT	3'-0" x 9'-0" x 1 3/4"	N/A	A	HOLLOW METAL		-	-	-	INTERIOR
201	3	STEEL	HDG	10'-0" x 14'-0"	N/A	B	N/A	HDG	-	-	-	EXTERIOR



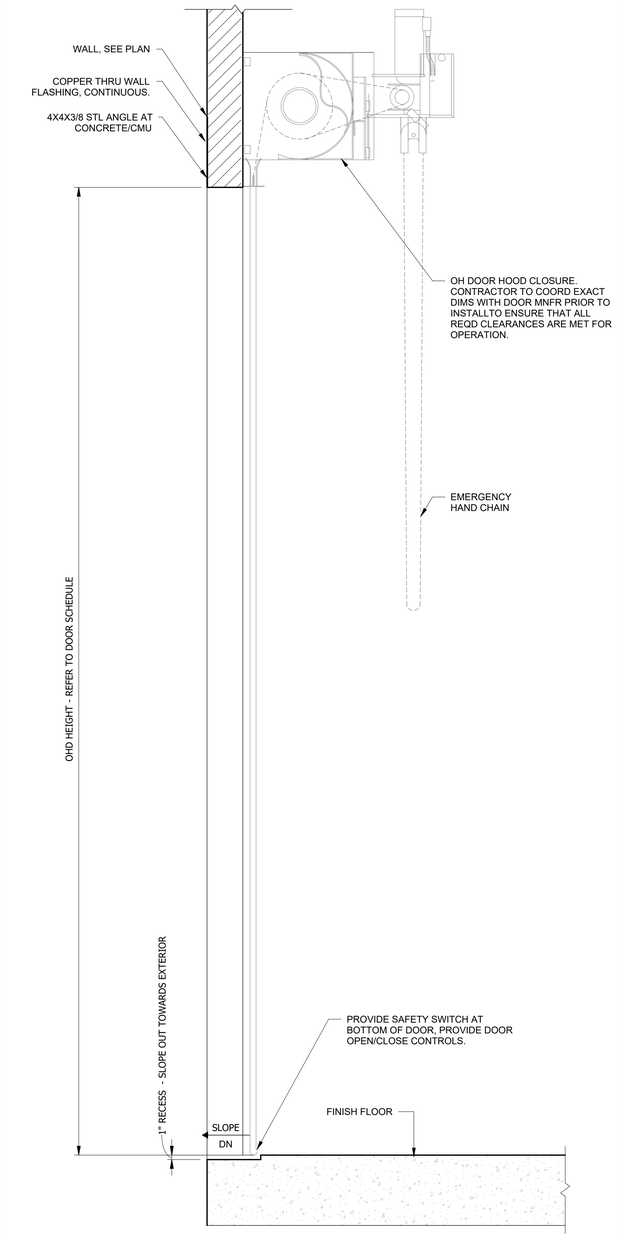
1 DOOR SCHEDULE AND DETAILS.
3/4" = 1'-0"



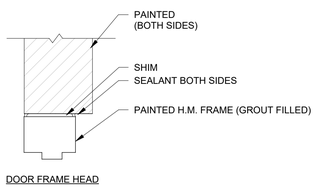
2 EXTERIOR OHD HEAD DETAIL
1 1/2" = 1'-0"

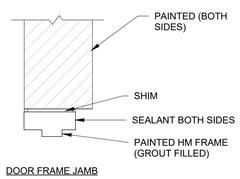


3 EXTERIOR OHD JAMB DETAIL
1 1/2" = 1'-0"



4 TYPICAL SECTION AT OVERHEAD DOO
3/4" = 1'-0"





5 MAN DOOR HEAD AND JAMB DETAILS
3/4" = 1'-0"

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Title: AMALGAMATED SUGAR COMPANY EVAPORATOR PROJECT
DOOR OPENING DETAILS AND SECTIONS

AMALGAMATED SUGAR COMPANY
2320 ORCHARD DRIVE EAST
TWIN FALLS, ID 83301

Date: 04/11/25
Chkd By: S. WILSON
Dsgn By: D. VIELE
Dwg Size: 24X36
Project: E24140
Dwg: S7.03
Revision: C

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