



Albert N. Hopper, Jr.  
ARCHITECT

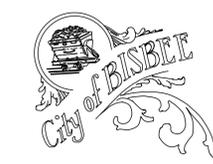
1008 West Blvd.  
Bisbee, AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
Structural Solutions, Inc.  
Tucson, AZ; 520-260-2692  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ; 520-881-8846  
LANDSCAPE ARCHITECT:



NEW CITY HALL  
FOR THE  
CITY OF BISBEE  
118 ARIZONA ST.  
BISBEE, ARIZONA



SHEET ISSUE  
DATE: April 5, 2022  
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Drawn By: Albert Hopper  
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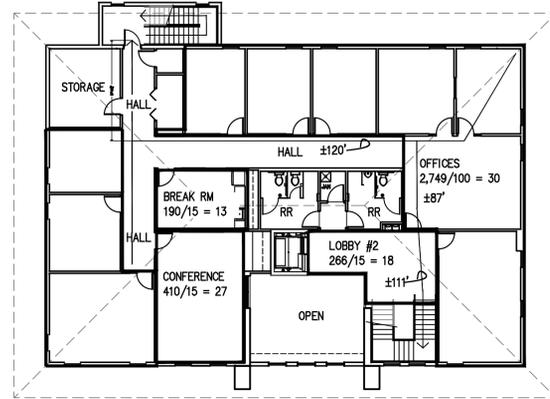
DRAWINGS ON THIS SHEET  
LOCATION MAPS  
INDEX TO DRAWINGS  
CODE REVIEW

SHEET

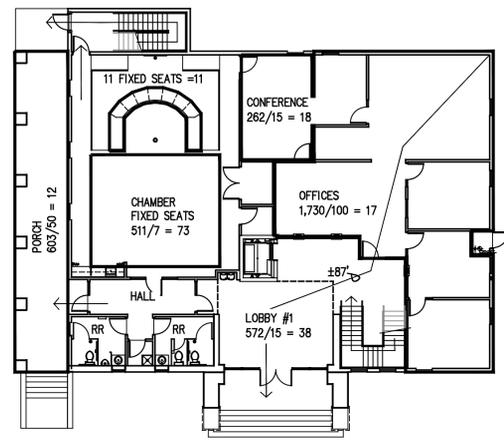
T-1 of

# NEW CITY HALL FOR THE CITY OF BISBEE

118 ARIZONA STREET, BISBEE ARIZONA



2ND FLOOR OCCUPANCY PLAN  
SCALE: 1/16" = 1'-0"



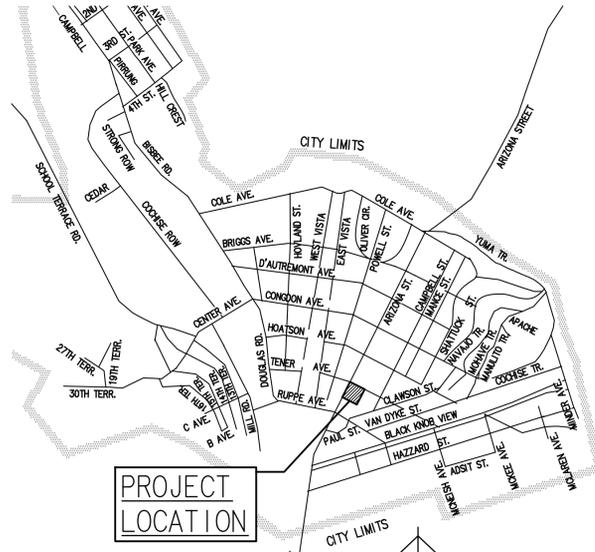
1ST FL OCCUPANCY PLAN  
SCALE: 1/16" = 1'-0"

NOTE: NO MAXIMUM EXIT TRAVEL DISTANCE IN THE BUILDING EXCEEDS 150 FEET. MAXIMUM ALLOWABLE FOR B OCCUPANCY IS 300 FEET PER IBC TABLE 1017.2

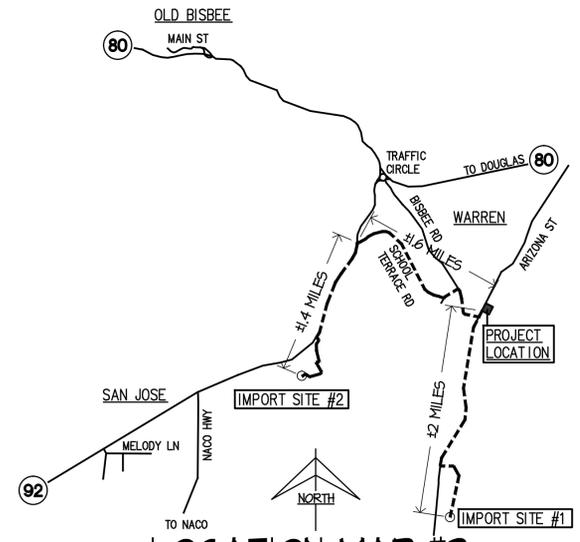
DEFERRED SUBMITTALS:

- FOR THE PURPOSES OF THIS SECTION, DEFERRED SUBMITTALS ARE DEFINED AS THOSE PORTIONS OF THE DESIGN THAT ARE NOT SUBMITTED AT THE TIME OF THE APPLICATION AND WHICH ARE TO BE SUBMITTED TO THE BUILDING OFFICIAL WITHIN A SPECIFIED PERIOD.
- DEFERRAL OF ANY SUBMITTAL ITEMS SHALL HAVE PRIOR APPROVAL OF THE BUILDING OFFICIAL. THE ARCHITECT OR ENGINEER OF RECORD SHALL LIST THE DEFERRED SUBMITTALS ON THE PLANS AND THE CONTRACTOR SHALL SUBMIT THE DEFERRED SUBMITTAL DOCUMENTS FOR REVIEW BY THE BUILDING OFFICIAL.
- SUBMITTAL DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER OF RECORD A MINIMUM OF 30 DAYS PRIOR TO FABRICATION. THE DOCUMENTS SHALL BE REVIEWED FOR GENERAL CONFORMANCE WITH THE DRAWINGS. A COPY OF THE DEFERRED SUBMITTAL DOCUMENTS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

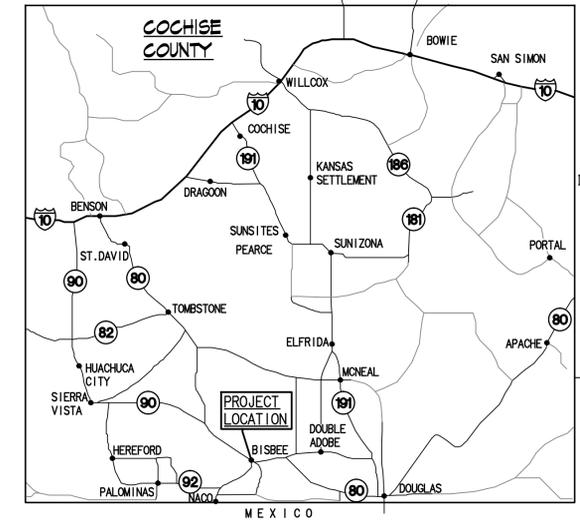
DEFERRED SUBMITTAL ITEMS:  
PREFABRICATED WOOD TRUSSES  
FIRE SPRINKLER SYSTEM



LOCATION MAP #3  
SCALE: NONE



LOCATION MAP #2  
SCALE: NONE  
NOTE: IMPORT SITE #1 IS ALSO THE LOCATION TO DEPOSIT DEBRIS FROM DEMOLITION ACTIVITIES.



LOCATION MAP #1  
SCALE: NONE

NO	SHEET	DESCRIPTION
1	T-1	LOCATION MAP, DRAWING INDEX, CODE REVIEW
2	S-1	SURVEY
3	G-1	EXISTING GRADES, DEMOLITION & EARTHWORK INFORMATION
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5	A-2	FIRST FLOOR PLAN
6	A-3	SECOND FLOOR PLAN
7	A-4	EXTERIOR ELEVATIONS, INTERIOR ELEVATIONS
8	A-5	SECTIONS
9	A-6	REFLECTED CEILING PLANS, SCHEDULES
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23	S-2-4	STRUCTURAL DETAILS
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47	E-3	ELECTRICAL SECOND FLOOR POWER PLAN
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49	E-5	ELECTRICAL SECOND FLOOR LIGHTING PLAN
50	E-6	ELECTRICAL LIGHTING DETAILS, FIXTURE SCHEDULE
51	E-7	ELECTRICAL FIRST FLOOR HVAC PLAN
52	E-8	ELECTRICAL SECOND FLOOR HVAC PLAN
53	E-9	ELECTRICAL FIRST FLOOR SPECIAL SYSTEMS PLAN
54	E-10	ELECTRICAL SECOND FLOOR SPECIAL SYSTEMS PLAN
55	E-11	ELECTRICAL FIRE ALARM SPECIFICATIONS, DETAILS
56	E-12	ELECTRICAL PANEL SCHEDULES
57	E-13	ELECTRICAL RISER DIAGRAM

CODE REVIEW:	
BUILDING USE:	BISBEE CITY HALL
OCCUPANCY GROUPS:	A-3 COUNCIL CHAMBERS: 1,322 SQ. FT. B) OFFICE (MAIN OCC.): 9,934 SQ. FT.
FIRST FLOOR AREA:	5,628 SQ. FT.
SECOND FLOOR AREA:	5,628 SQ. FT.
TOTAL BUILDING AREA:	11,256 SQ. FT.
TYPE OF CONST.:	V-B
ALLOWABLE AREA:	B) 27,000 SQ. FT.
OCCUPANT LOAD, A-3:	84 PER OCCUPANCY PLAN
OCCUPANT LOAD, B:	161 PER OCCUPANCY PLAN
EXITS REQUIRED:	2 TOTAL
EXITS PROVIDED:	3 TOTAL
EXIT WIDTH REQ'D:	245 X .15 IN. = 37 IN.
EXIT WIDTH PROVIDED:	3 DOORS X 36" = 108"
PLUMB. FIXT. REQ'D:	W.C. MEN: 2, WOMEN: 2 LAV MEN & WOMEN = 2 EACH
PLUMB. FIXT. PROV'D:	W.C. MEN: 2, WOMEN: 3 LAV MEN: 2, WOMEN: 2

ALL WORK SHALL COMPLY WITH THE FOLLOWING CODES AMENDED AND ADOPTED BY CITY OF BISBEE, ARIZONA  
2018 INTERNATIONAL BUILDING CODE  
2018 INTERNATIONAL PLUMBING CODE  
2018 INTERNATIONAL MECHANICAL CODE  
2018 INTERNATIONAL FIRE CODE INCLUDING APPENDIX B, C, D, AND I  
2018 INTERNATIONAL ENERGY CONSERVATION CODE  
2017 NATIONAL ELECTRICAL CODE  
ICC/ANSI A117.1-2009: ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES

- NOTES:  
1. THIS BUILDING WILL HAVE A FULLY AUTOMATIC FIRE SPRINKLER SYSTEM.  
2. PENETRATIONS INTO, OUT OF OR THROUGH THE 1 HOUR FIRE RATED FLOOR AND/OR ROOF SHALL COMPLY WITH THE 2018 EDITION OF IBC SECTION 714.5 AS FOLLOWS: 714.5 HORIZONTAL ASSEMBLIES. PENETRATIONS OF A FIRE-RESISTANCE-RATED FLOOR, FLOOR/CEILING ASSEMBLY OR THE CEILING MEMBRANE OF A ROOF/CEILING ASSEMBLY NOT REQUIRED TO BE ENCLOSED IN A SHAFT BY SECTION 712.1 SHALL BE PROTECTED IN ACCORDANCE WITH SECTIONS 714.5.1 THROUGH 714.5.4. THIS MAY BE ACCOMPLISHED BY BUT LIMITED TO THE INSTALLATION OF FIRE DAMPERS, 1 HOUR FIRE RATED "TENTS" OVER AND AROUND RECESSED FIXTURES, AND FIRE CAULKING PIPE PENETRATIONS.

THIS PROJECT IS IN CLIMATE ZONE 3.  
THE FOLLOWING MINIMUM VERTICAL FENESTRATION REQUIREMENTS SHALL BE COMPLIED WITH:  
FIXED FENESTRATION: U-FACTOR 0.46  
OPERABLE FENESTRATION: U-FACTOR 0.60  
ENTRANCE DOORS: U-FACTOR 0.77  
SHGC: 0.25  
FENESTRATION PRODUCTS SHALL BE RATED IN ACCORDANCE WITH THE NFRC



# TENNER AVENUE

R.O.W. = 50'



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Bisbee, AZ 85603  
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SHEET MANAGEMENT

Comm. No. 2201

Drawn By: Albert Hopper

Checked By: Albert Hopper

DRAWINGS ON THIS SHEET

SITE PLAN

DETAILS

NOTES

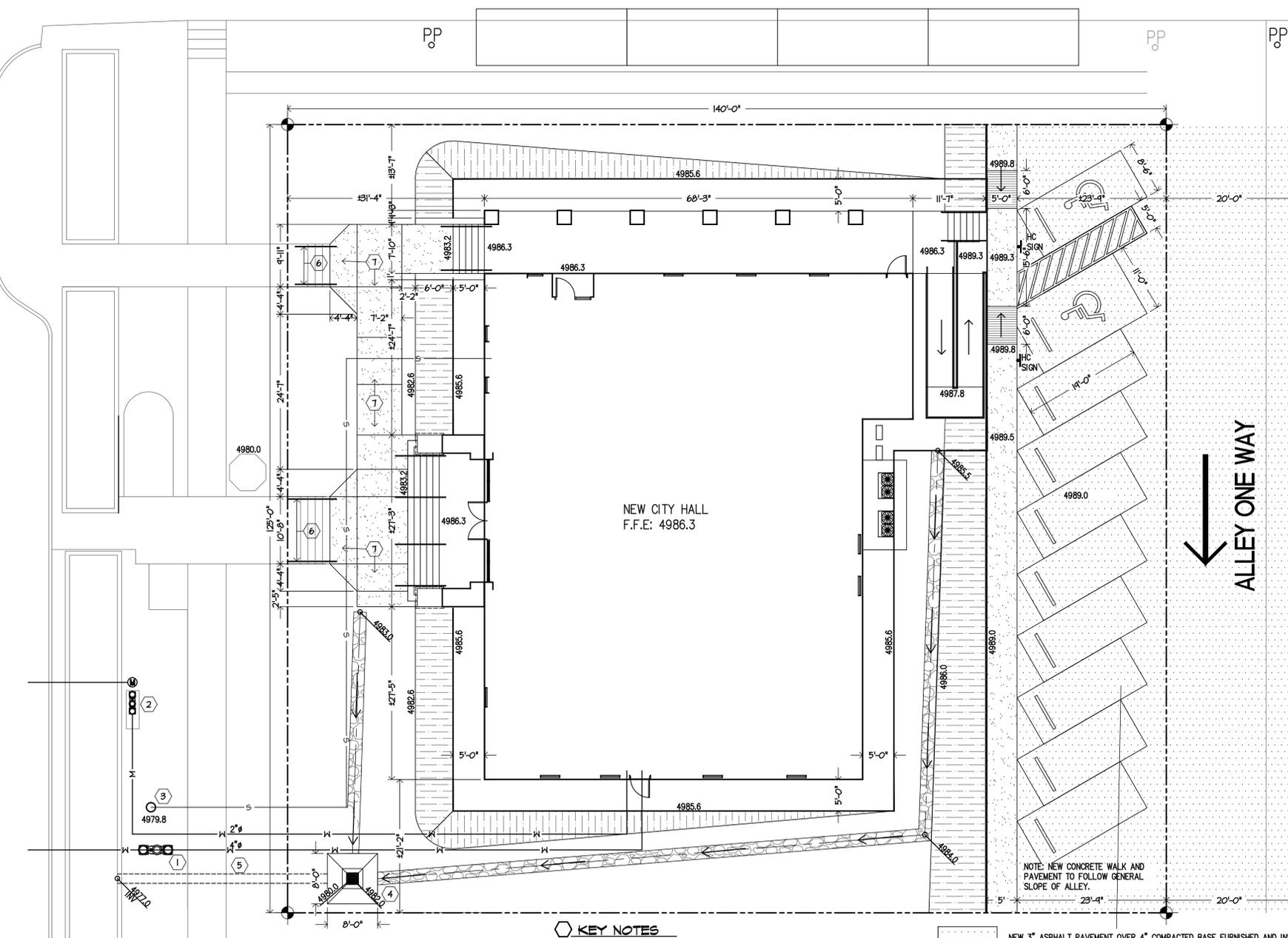
SHEET

A-1

of

# ARIZONA STREET

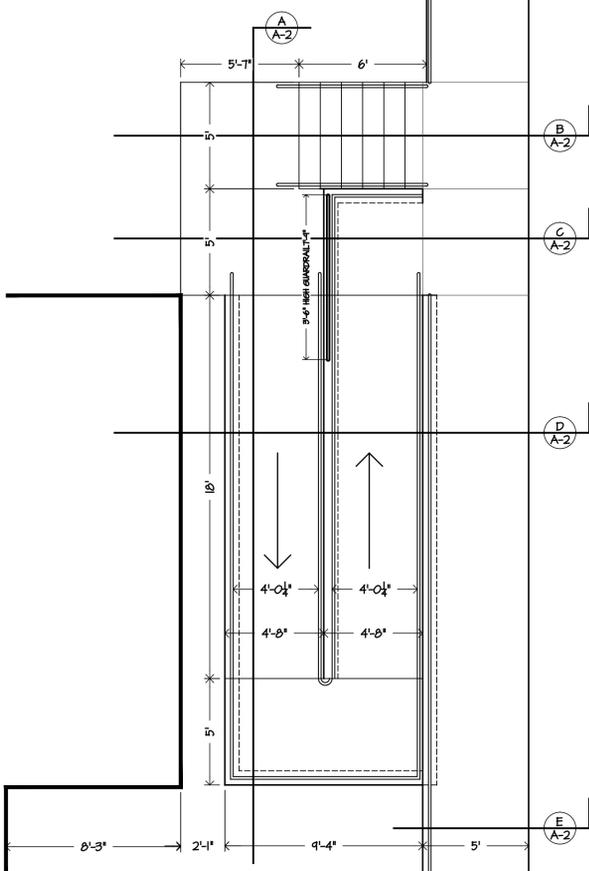
R.O.W. = 110'



NEW CITY HALL  
F.F.E: 4986.3

ALLEY ONE WAY

NOTE: NEW CONCRETE WALK AND PAVEMENT TO FOLLOW GENERAL SLOPE OF ALLEY.



## STEPS & RAMP

SCALE: 1/4" = 1'-0"

### KEY NOTES

1. CONCRETE SLABS FOR SIDEWALKS AND RAMPS SHALL BE 5" THICK WITH #4 HORIZ. REBAR AT 24" O.C. EACH WAY. EDGES EXPOSED TO GRADE SHALL BE 12" DEEP X 6" WIDE WITH #4 HORIZ. REBAR AT TOP AND BOTTOM.
2. CONCRETE STEPS SHALL BE MINIMUM 5" THICK AT THINNEST SECTION WITH #4 HORIZ. REBAR AT 24" O.C. EACH WAY & #4 HORIZ. REBAR AT NOSING.
3. RETAINING WALLS AT RAMPS SHALL HAVE A CONCRETE FOOTING 10" HIGH BY 1'-4" WIDE A MINIMUM OF 2' BELOW LOWEST RAMP LEVEL OR ADJACENT GRADE. FOOTING WILL HAVE 2-#4 HORIZ. REBAR CONT AT BOTTOM AND #4 VERT. REBAR @ 12" O.C. - BEAD DOWN INTO SLAB 2'-0". WALL SHALL BE 8X4X16 CONCRETE BLOCK FULLY GROUTED WITH #4 HORIZ. REBAR @ 12" O.C. AND AT TOP.
4. HANDRAILS SHALL BE STEEL TUBING OF PROFILE SHOWN ON DRAWINGS.
5. GUARDRAILS SHALL BE STEEL TUBING OF PROFILE SHOWN ON DRAWINGS. HORIZONTAL RAILS SHALL BE EQUALLY SPACED WITH THE CLEAR OPEN DISTANCE NOT TO EXCEED 4'.

NOTE: INSTALL ALL HANDRAIL AND GUARDRAIL POSTS INTO CONCRETE SLABS BY CORE DRILLING A MINIMUM 4" HOLE DEPTH BY 1 INCH DIAMETER LARGER THAN PIPE DIAMETER AND SET RAIL 4" DEPTH TO PROPER HEIGHT AND FILL AROUND POST WITH NON-EXPANSIVE GROUT.

### ARCHITECTURAL METALS:

1. STEEL TUBING: 12 GAUGE, SIZE 1-1/4", 1.660 O.D.
2. BOLTS: ASTM A-307, GRADE A.
3. HANDRAIL & GUARDRAIL FITTINGS: R & B WAGNER, INC. OR EQUAL, AS REQUIRED TO PROVIDE SMOOTH TRANSITIONS AND CONNECTIONS.

WORK: FABRICATE MATERIALS STRAIGHT AND SQUARE. JOIN MEMBERS SO INTERSECTIONS ARE PERPENDICULAR AND CORNERS ARE MITERED. FIT CUTS TIGHTLY WITH UNIFORM GAPS. WELD USING THE SHIELDED METAL ARC OR SUBMERGED ARC PROCESS. FACES OF FILLET WELDS SHALL BE UNIFORM. ROUND AND GRIND SMOOTH ALL EXPOSED JOINTS, CORNERS, ROUGH EDGES AND FINISH WELDS. FILL SPACES BETWEEN INTERMITTENT WELDS WITH IRON PUTTY. CLEAN ALL SURFACES AND PAINT WITH ONE COAT OF RED OXIDE PRIMER. INSTALL METAL WORK PLUMB, LEVEL AND TRUE. MEMBERS MAY BE FIELD CUT IF FINISHED AS SPECIFIED. ANCHOR SECURELY TO ADJACENT CONSTRUCTION. TOUCH UP SHOP COAT PRIMER.

## SITE PLAN

SCALE: 1" = 10'-0"

PARCEL NO.: 101-09-007A

LEGAL DESCRIPTION: LOTS 114, 116, 118, 120, AND 122, OF BLOCK 2, WARREN TOWNSITE, IN SECTION 23, T.23S., R.24E., G.&S.R.M., COCHISE COUNTY, ARIZONA.

ZONE: C-1.

### ADA ACCESSIBLE ROUTE NOTES:

1. LONGITUDINAL SLOPE OF ALL ACCESSIBLE ROUTES WITHIN SIDEWALKS / PARKING AREAS SHALL NOT EXCEED 1:20 (V:H) (5%).
2. ALL RAMPS LONGITUDINAL SLOPES SHALL NOT EXCEED 1:12 (V:H) (8.33%).
3. CROSS-SLOPES SHALL NOT EXCEED 1:50 (V:H) (2%).
4. PARKING LOTS GRADES / ELEVATIONS DEPICTED IN DRAWINGS SHALL BE ADJUSTED BY CONTRACTOR TO INSURE COMPLIANCE WITH THESE REQUIREMENTS.

### KEY NOTES

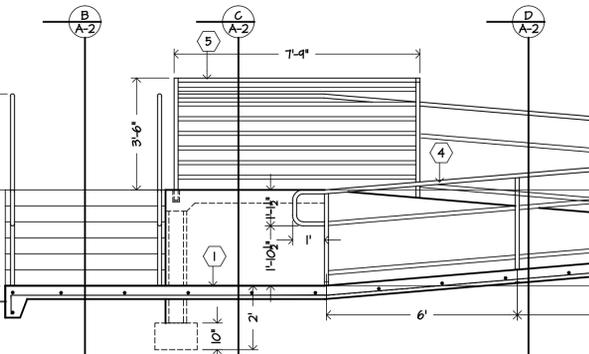
1. NEW 4" FIRE LINE FROM MAIN IN ARIZONA STREET TO NEW 4" RP BACKFLOW PREVENTER ASSEMBLY PER ARIZONA WATER COMPANY REQUIREMENTS.
2. EXISTING 2" METER LOCATION AND NEW RP BACKFLOW PREVENTER ASSEMBLY PER ARIZONA WATER COMPANY REQUIREMENTS.
3. EXISTING 4" SEWER CONNECTION, CONFIRM WITH THE CITY OF BISBEE PUBLIC WORKS DEPT.
4. JENSEN PRECAST DRAINAGE INLET, 24" X 24" X 42" DEEP - MODEL D1242436, COMPLETE WITH PEDESTRIAN MODEL S62424-DIP FRAME AND GRATE. ASSEMBLY TO BE PLACED ON A 6" BASE OF CRUSHED RUN. INLET TO BE CENTERED IN AN 8' X 8' X 5" THICK CONCRETE SLAB SLOPED TO DRAINAGE INLET.
5. 18" DIA. HDPE STORM DRAIN PIPE. EXTEND FROM DRAINAGE BOX TO FACE OF EXISTING DRAINAGE CHANNEL.
6. NEW STEEL TUBE - ADA COMPLIANT - HANDRAIL AT EXISTING STEPS PER SPECIFICATION AND DETAILS.
7. NEW 4" THICK CONCRETE SIDEWALK OVER 4" COMPACTED AGGREGATE BASE COURSE. THICKEN EDGES TO 6".

NEW 3" ASPHALT PAVEMENT OVER 4" COMPACTED BASE FURNISHED AND INSTALLED BY THE CITY OF BISBEE

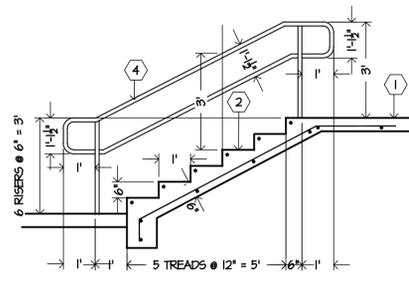
AREA WHERE EARTHWORK OPERATIONS ARE REQUIRED TO CONSTRUCT A LEVEL BUILDING PAD AT ELEVATION 4860.0. THE ROUGH ESTIMATE OF IMPORTED FILL IS FOR PLANNING PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ALL MATERIAL QUANTITIES.

AREA OF SLOPE OF COMPACTED MATERIAL WITH A SLOPE EQUAL TO BUT NOT GREATER THAN 2 HORIZONTAL TO 1 VERTICAL. SLOPE SHALL BE ROUGH GRADED, COMPACTED AND 4" MINIMUM - 8" MAXIMUM HARD ROCK RIPRAP OVER FILTER FABRIC INSTALLED FOR BANK PROTECTION PER GEOTECH REPORT.

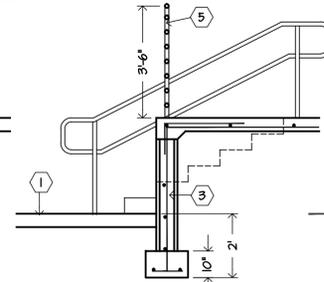
5' WIDE GRAVEL SWALE TO DRAINAGE INLET. IT IS INTENDED THAT THE RIPRAP SLOPE AND SWALE WILL BE LANDSCAPED IN THE FUTURE WITH NATIVE PLANT MATERIAL.



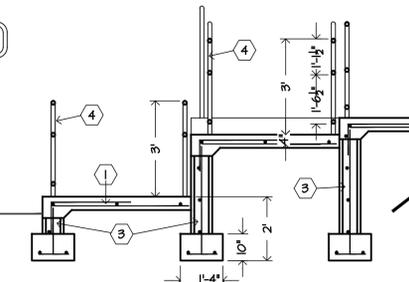
**A LOWER RAMP & LANDING**  
SCALE: 3/8" = 1'-0"



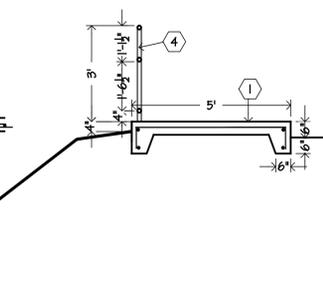
**B EXTERIOR STEPS**  
SCALE: 3/8" = 1'-0"



**C UPPER LANDING @ RAMP**  
SCALE: 3/8" = 1'-0"



**D RAMP**  
SCALE: 3/8" = 1'-0"



**E SIDEWALK @ E. PARKING**  
SCALE: 3/8" = 1'-0"



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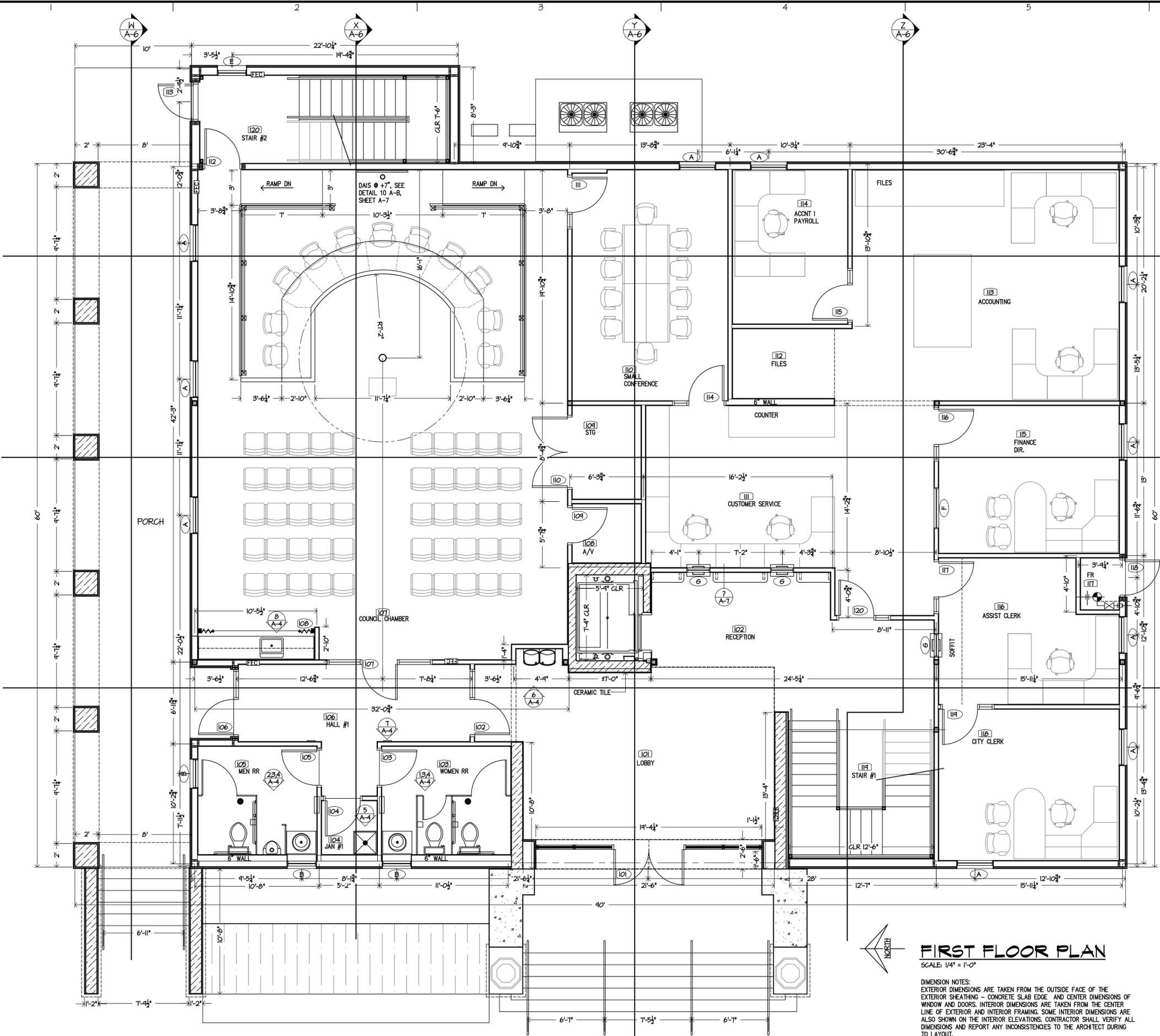
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DRAWINGS ON THIS SHEET  
1ST FLOOR PLAN

SHEET

A-2 of



**FIRST FLOOR PLAN**

SCALE: 1/4" = 1'-0"

DIMENSION NOTES:  
EXTERIOR DIMENSIONS ARE TAKEN FROM THE OUTSIDE FACE OF THE EXTERIOR SHEATHING - CONCRETE SLAB EDGE AND CENTER DIMENSIONS OF WINDOW AND DOORS. INTERIOR DIMENSIONS ARE TAKEN FROM THE CENTER LINE OF EXTERIOR AND INTERIOR FRAMING. SOME INTERIOR DIMENSIONS ARE ALSO SHOWN ON THE INTERIOR ELEVATIONS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND REPORT ANY INCONSISTENCIES TO THE ARCHITECT DURING TO LAYOUT.

**WALL LEGEND**

- TYPICAL EXTERIOR WALL: WOOD STUDS, SHEATHING - SEE STRUCTURAL EXTERIOR DRAWINGS; TYPAR MOISTURE MEMBRANE, 1" STYROFOAM INSULATION BOARD, METAL MESH, & 1/2" FIBERGLASS REINFORCED CEMENT STUCCO - EXTERIOR; 6" (R-19) FIBERGLASS BATT INSULATION & 5/8" TYPE 'X' DRYWALL - INTERIOR. NOTE: WOOD STUDS AT 12-STORY HEIGHT SHALL BE 2X8'S @ 16" O.C.
- TYPICAL 8" & 12" THICK MASONRY WALL: SEE STRUCTURAL DRAWINGS. INTERIOR FINISH: LAMINATED 1 LAYER 5/8" TYPE 'X' DRYWALL. EXTERIOR FINISH: 1/2" CEMENT STUCCO.
- TYPICAL INTERIOR PLUMBING PARTITION: 600S162-33 (6"x20GA) STEEL STUDS @ 16" O.C., 6" (R-19) FIBERGLASS SOUND BATT, 5/8" TYPE 'X' DRYWALL EACH SIDE. 5/8" CEMENT, FIBER-CEMENT OR GLASS MAT GYPSUM BOARD TO BE USED AS BASE FOR CERAMIC TILE MAINSCOT IN RESTROOMS.
- TYPICAL INTERIOR NON-BEARING PARTITION: UNLESS OTHERWISE NOTED: 362S162-33 (3-5/8"x20GA) STEEL STUDS @ 16" O.C., 4" (R-11) FIBERGLASS SOUND BATT, 5/8" TYPE 'X' DRYWALL EACH SIDE. EXTEND PARTITIONS TO UNDERSIDE OF CONTINUOUS 5/8" TYPE 'X' DRYWALL CEILING. SEE DETAIL 2 ON SHEET A-6



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ARCHITECT

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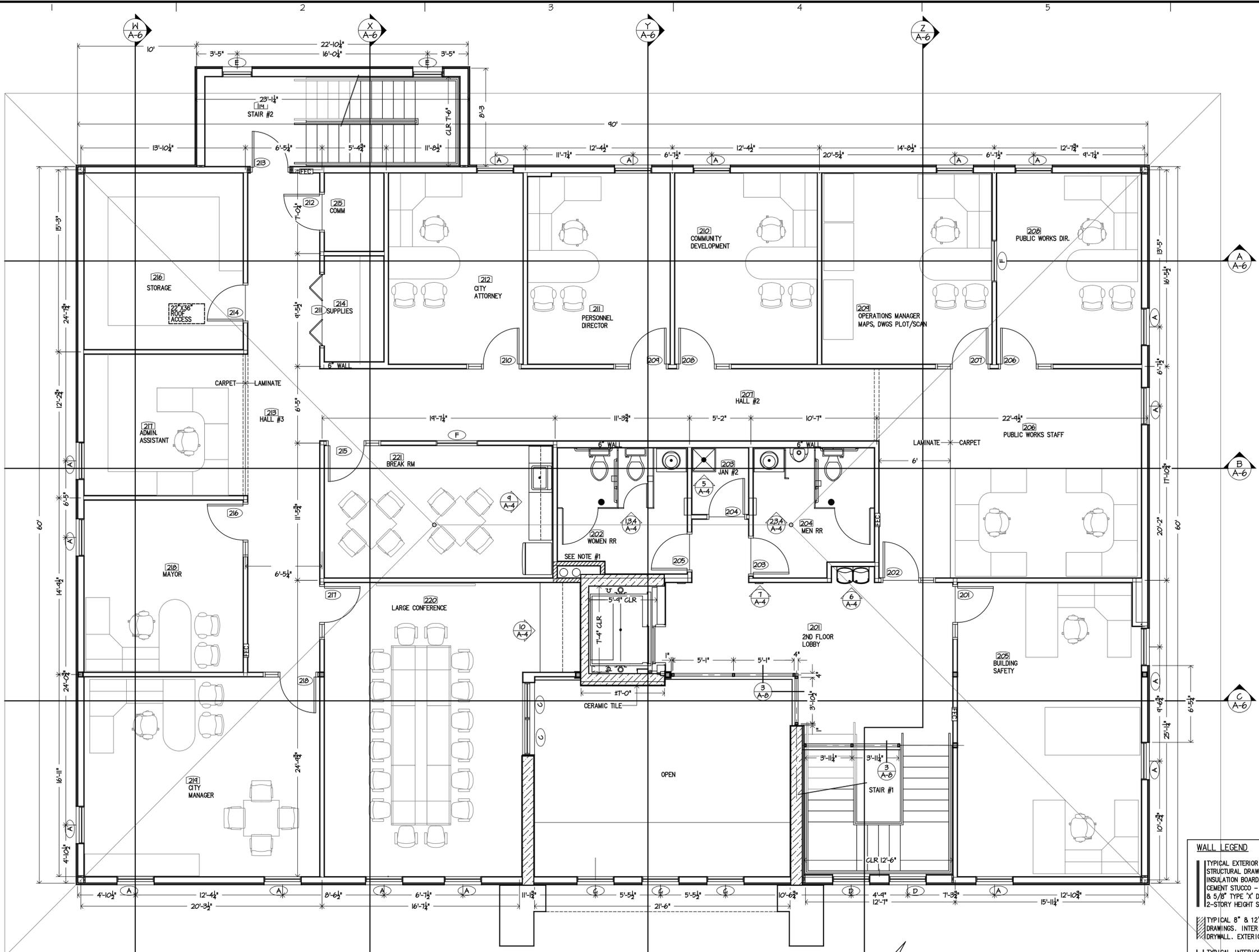
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DRAWINGS ON THIS SHEET  
2ND FLOOR PLAN

SHEET

A-3 of



NOTE #1: THIS IS A 1 HOUR FIRE RATED SHAFT FROM THE FIRE RATED CEILING AT THE UNDERSIDE OF THE 2ND FLOOR FRAMING TO THE FIRE RATED CEILING AT THE UNDERSIDE OF THE ROOF FRAMING AND CONSIST OF 3.625 STEEL STUDS AT 16" O.C. AND 1 LAYER OF 5/8" TYPE 'X' DRYWALL EACH SIDE. FIRE TAPE ALL JOINTS - FINISH EXPOSED SURFACES.

**SECOND FLOOR PLAN**  
SCALE: 1/4" = 1'-0"

DIMENSION NOTES:  
EXTERIOR DIMENSIONS ARE TAKEN FROM THE OUTSIDE FACE OF THE EXTERIOR SHEATHING - CONCRETE SLAB EDGE - AND CENTER DIMENSIONS OF WINDOW AND DOORS. INTERIOR DIMENSIONS ARE TAKEN FROM THE CENTER LINE OF EXTERIOR AND INTERIOR FRAMING. SOME INTERIOR DIMENSIONS ARE ALSO SHOWN ON THE INTERIOR ELEVATIONS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND REPORT ANY INCONSISTENCIES TO THE ARCHITECT DURING TO LAYOUT.

**WALL LEGEND**

- TYPICAL EXTERIOR WALL: WOOD STUDS, SHEATHING - SEE STRUCTURAL DRAWINGS; TYPAR MOISTURE MEMBRANE, 1" STYROFOAM INSULATION BOARD, METAL MESH, & 1/2" FIBERGLASS REINFORCED CEMENT STUCCO - EXTERIOR; 6" (R-19) FIBERGLASS BATT INSULATION & 5/8" TYPE 'X' DRYWALL - INTERIOR. NOTE: WOOD STUDS AT 12-STORY HEIGHT SHALL BE 2X8'S @ 16" O.C.
- TYPICAL 8" & 12" THICK MASONRY WALL: SEE STRUCTURAL DRAWINGS. INTERIOR FINISH: LAMINATED 1 LAYER 5/8" TYPE 'X' DRYWALL. EXTERIOR FINISH: 1/2" CEMENT STUCCO.
- TYPICAL INTERIOR PLUMBING PARTITION: 600S162-33 (6"x20GA) STEEL STUDS @ 16" O.C., 6" (R-19) FIBERGLASS SOUND BATTS, 5/8" TYPE 'X' DRYWALL EACH SIDE, 5/8" CEMENT, FIBER-CEMENT OR GLASS MAT GYPSUM BOARD TO BE USED AS BASE FOR CERAMIC TILE WAINSCOT IN RESTROOMS.
- TYPICAL INTERIOR NON-BEARING PARTITION: UNLESS OTHERWISE NOTED: 362S162-33 (3-5/8"x20GA) STEEL STUDS @ 16" O.C., 4" (R-11) FIBERGLASS SOUND BATTS, 5/8" TYPE 'X' DRYWALL EACH SIDE. EXTEND PARTITIONS TO UNDERSIDE OF CONTINUOUS 5/8" TYPE 'X' DRYWALL CEILING. SEE DETAIL 2 ON SHEET A-6



Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd.  
Bisbee, AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
Structural Solutions, Inc.  
Tucson, AZ; 520-260-2692  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ; 520-881-8846  
LANDSCAPE ARCHITECT:



NEW CITY HALL  
FOR THE  
CITY OF BISBEE  
118 ARIZONA ST.  
BISBEE, ARIZONA

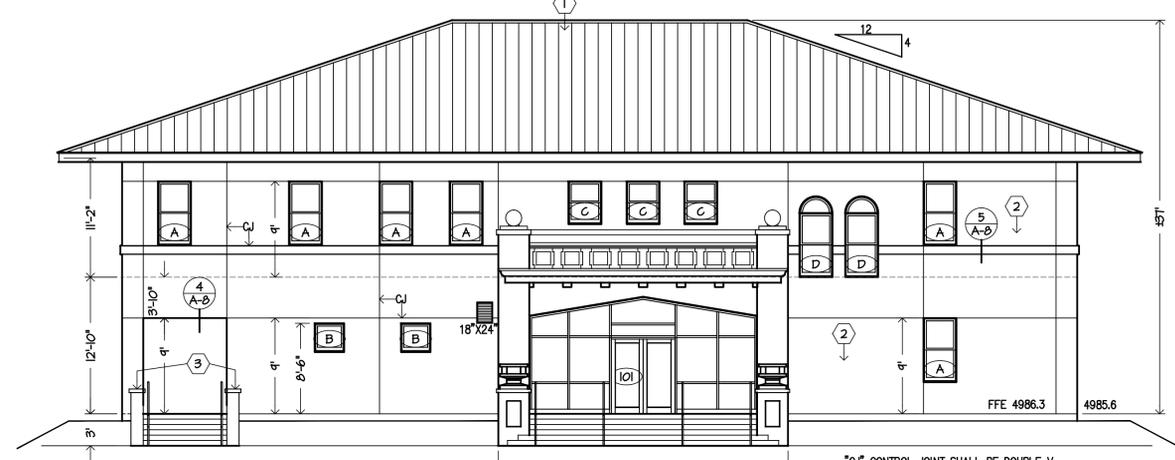


SHEET ISSUE  
DATE: April 5, 2022  
REVISIONS  
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C  
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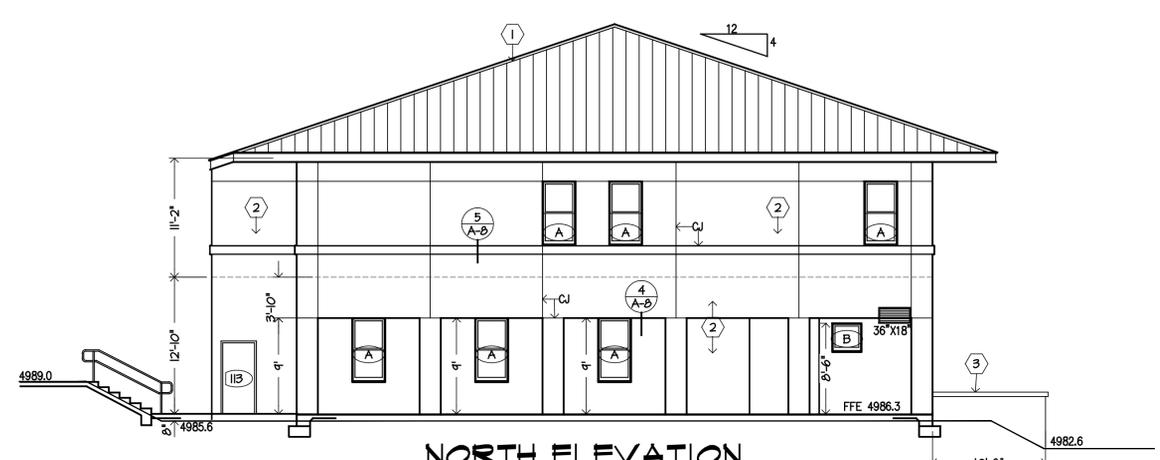
SHEET MANAGEMENT  
Comm. No. 2201  
Drawn By: Albert Hopper  
Checked By: Albert Hopper

DRAWINGS ON THIS SHEET  
EXTERIOR ELEVATIONS  
INTERIOR ELEVATIONS

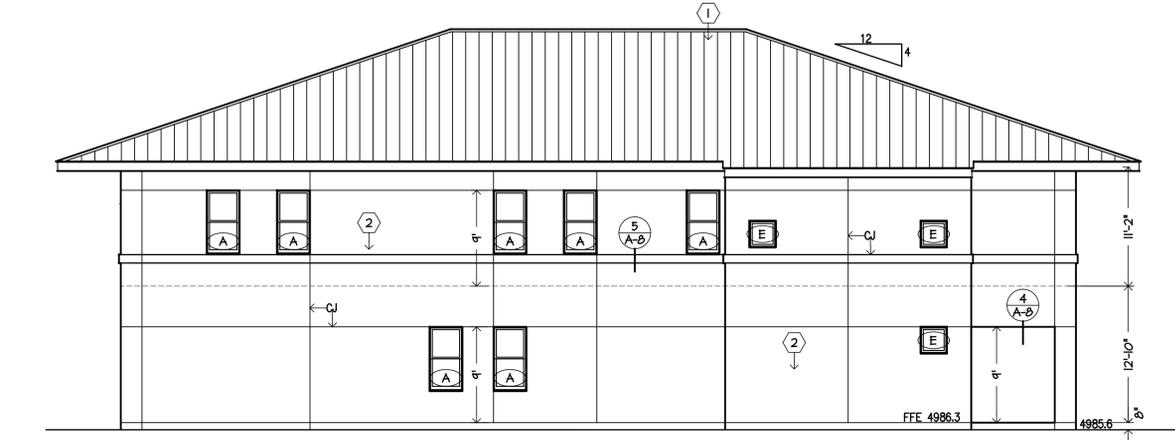
SHEET  
A-4 of



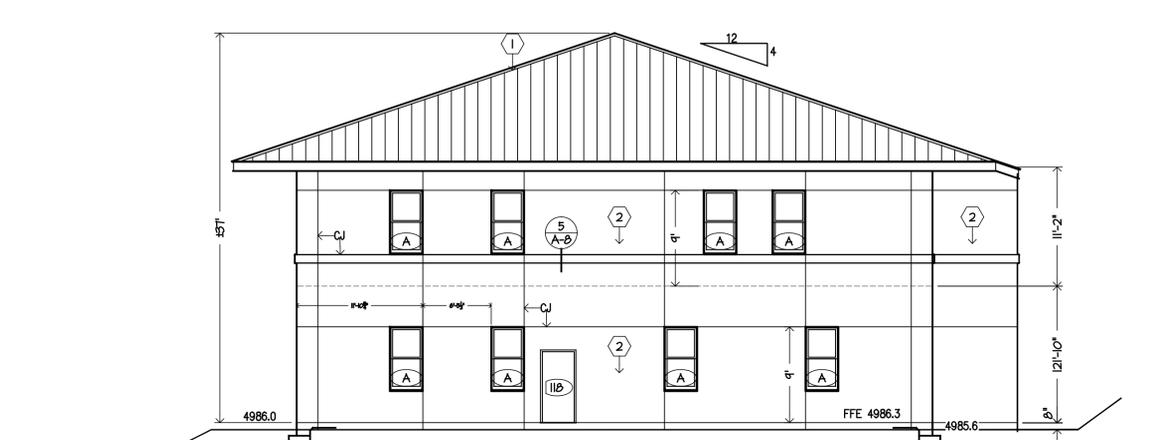
**WEST ELEVATION**  
SCALE: 1/8" = 1'-0"



**NORTH ELEVATION**  
SCALE: 1/8" = 1'-0"

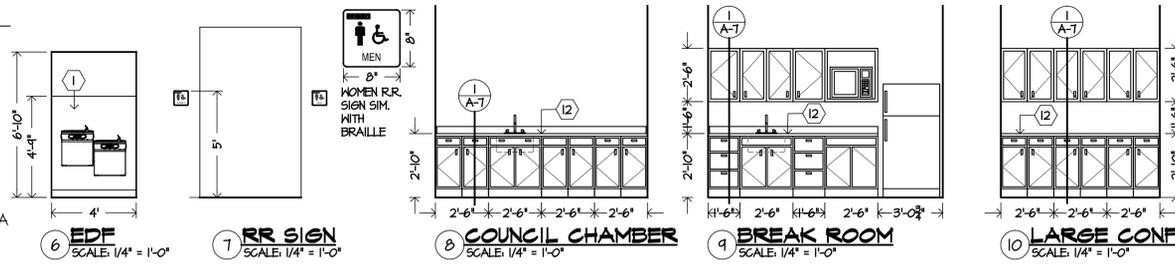
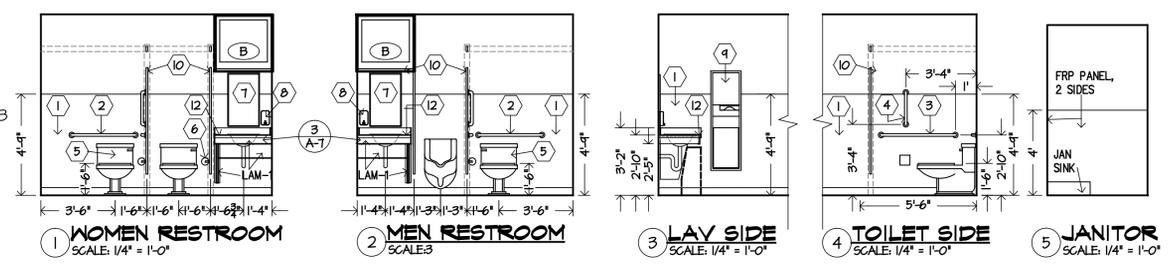


**EAST ELEVATION**  
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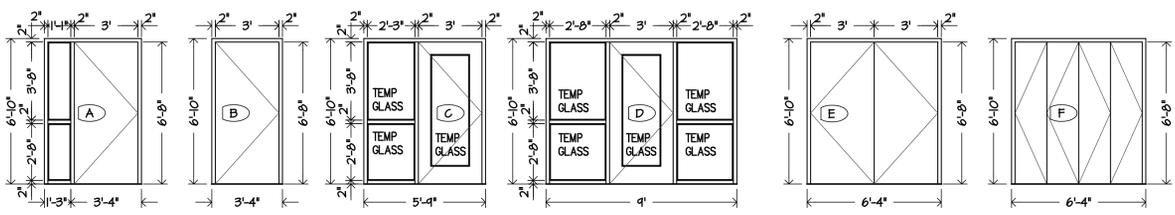


**SOUTH ELEVATION**  
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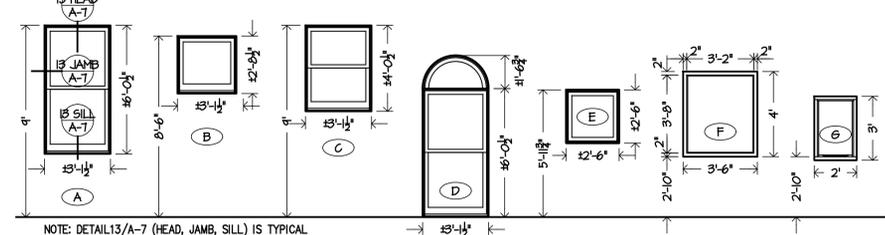
- KEY NOTES**
- ROOF FRAMING PER STRUCTURAL DRAWINGS, STANDING SEAM METAL ROOFING OVER UNDERLAYMENT, 3-1/2" (R-13) OPEN CELL SPRAY INSULATION AT UNDERSIDE OF SHEATHING AND 8-1/4" (R-25) FIBERGLASS BATT INSULATION WIRED BELOW SPRAY INSULATION.
  - EXTERIOR WALL: WALL FRAMING PER STRUCTURAL DRAWINGS, TYPAR MOISTURE MEMBRANE, 1" STYROFOAM INSULATION BOARD, METAL MESH, & 1/2" FIBERGLASS REINFORCED CEMENT STUCCO - EXTERIOR; 6" (R-19) BATT FIBERGLASS BATT INSULATION & 5/8" TYPE 'X' DRYWALL - INTERIOR.
  - EXTERIOR MASONRY WALLS PER STRUCTURAL DRAWINGS, 1/2" CEMENT STUCCO. AT NORTH STEPS INSTALL A CONCRETE CAP TO MATCH EXISTING MAIN STEPS.



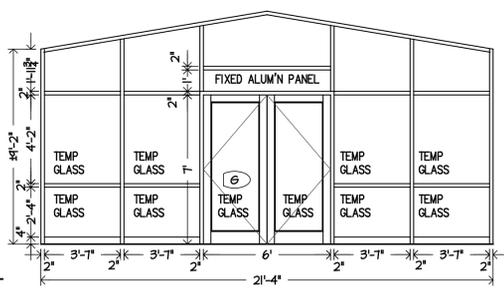
- KEY NOTES**
- CERAMIC TILE WAINSCOT, SEE DETAIL 11 - SHEET A-7
  - 36" LONG HORIZONTAL GRAB BAR BEHIND TOILET
  - 42" LONG HORIZONTAL GRAB BAR ALONG SIDE OF TOILET
  - 18" LONG VERTICAL GRAB BAR AT SIDE OF TOILET
  - HANDICAP HEIGHT TOILET
  - "TPD" TOILET PAPER DISPENSER
  - 18" WIDE X 30" HIGH MIRROR
  - LIQUID SOAP DISPENSER
  - PAPER TOWEL DISPENSER - WASTE RECEPTACLE
  - OVERHEAD BRACED TOILET PARTITION
  - ADA COMPLIANT RESTROOM SIGN
  - SOLID SURFACE: COUNTER TOP AND SPLASH.
- NOTE: REFRIGERATOR, RANGE/OVEN, & MICROWAVE OVEN SHALL BE FURNISHED AND INSTALLED BY THE OWNER



**DOOR ELEVATIONS**  
SCALE: 1/4" = 1'-0"



**WINDOW ELEVATIONS**  
SCALE: 1/4" = 1'-0"



**ENTRANCE ELEVATION**  
SCALE: 1/4" = 1'-0"



Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd.  
Bisbee, AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

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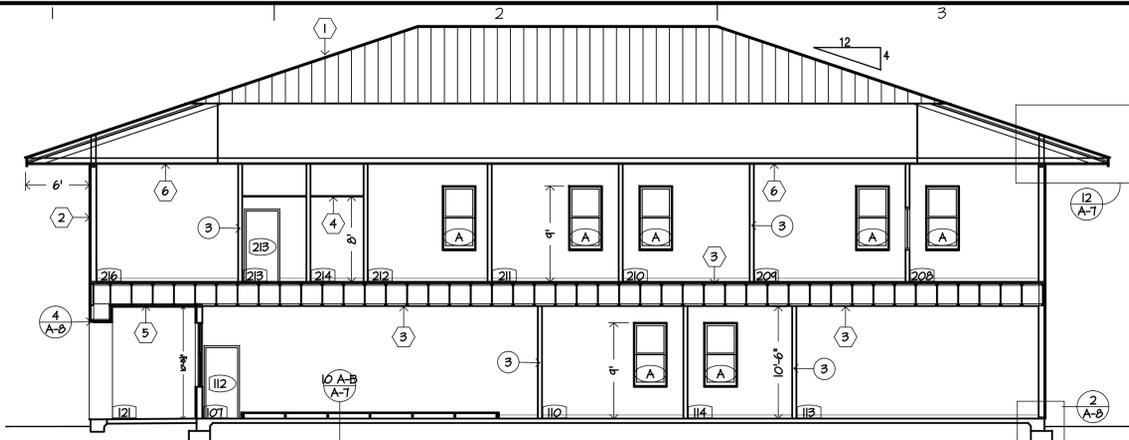
SHEET MANAGEMENT  
Comm. No. 2201  
Drawn By: Albert Hopper  
Checked By: Albert Hopper

DRAWINGS ON THIS SHEET  
BUILDING SECTIONS

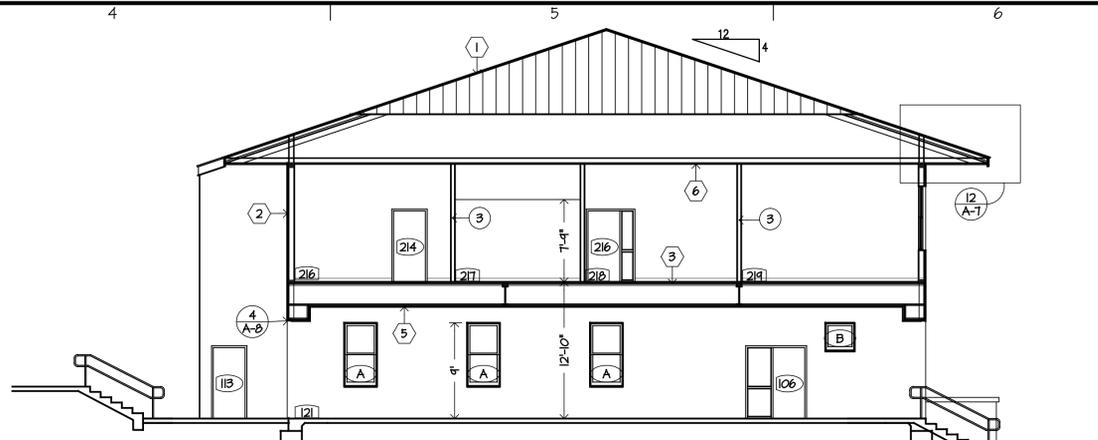
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A-5

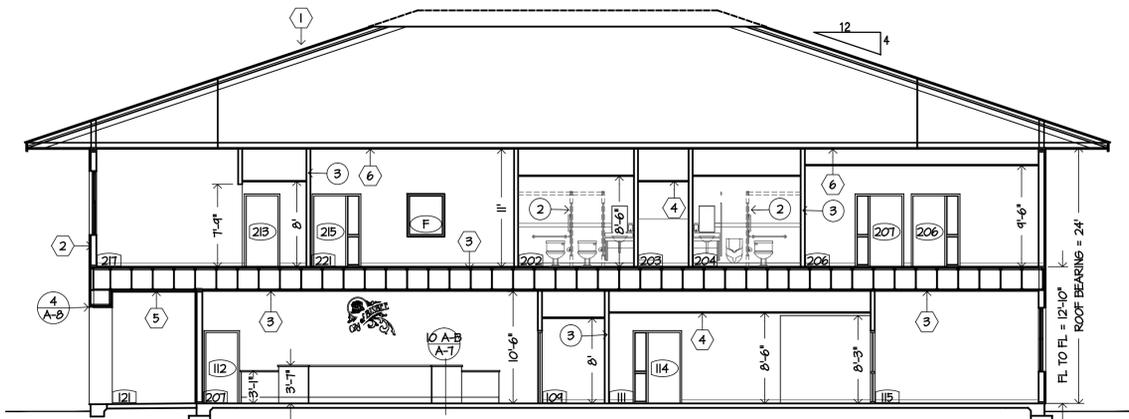
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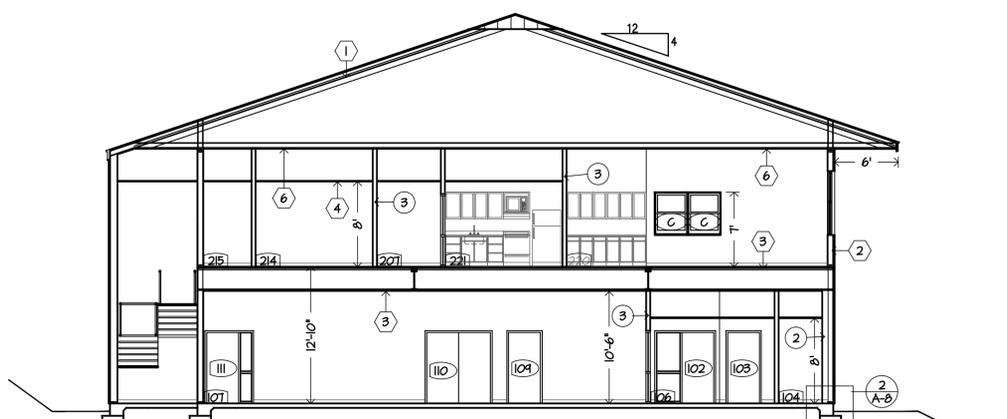
SECTION A-A  
SCALE: 1/8" = 1'-0"



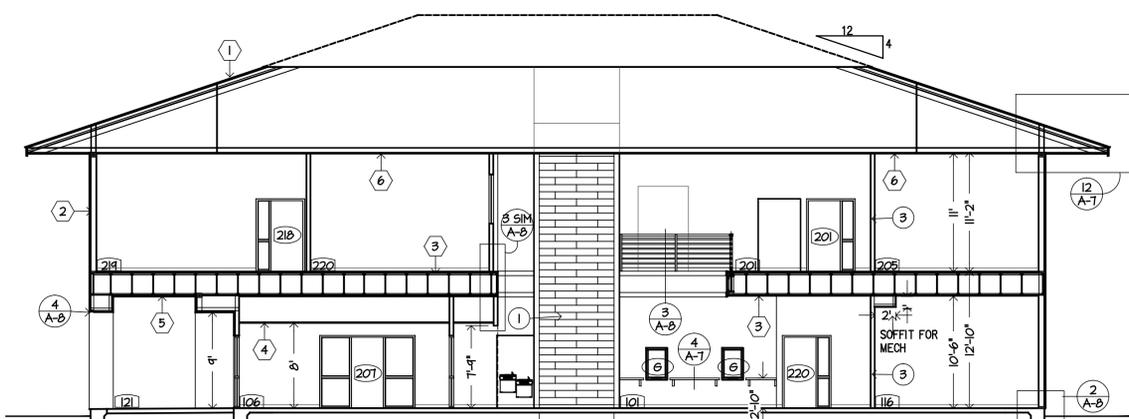
SECTION W-W  
SCALE: 1/8" = 1'-0"



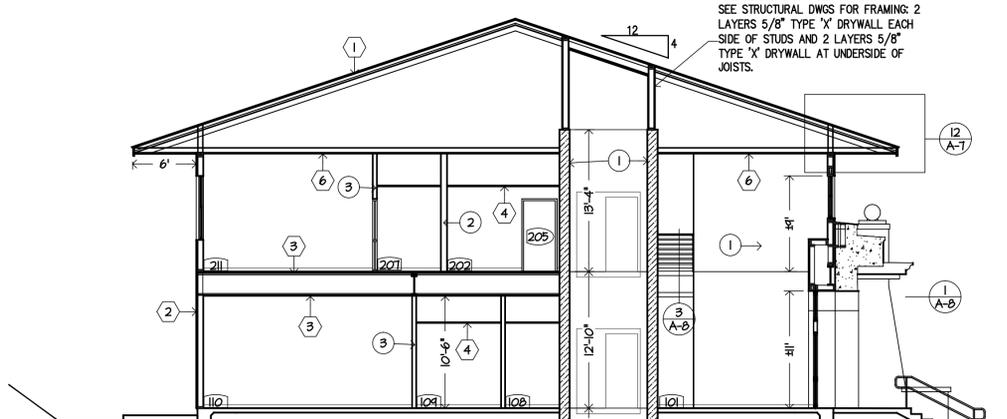
SECTION B-B  
SCALE: 1/8" = 1'-0"



SECTION X-X  
SCALE: 1/8" = 1'-0"

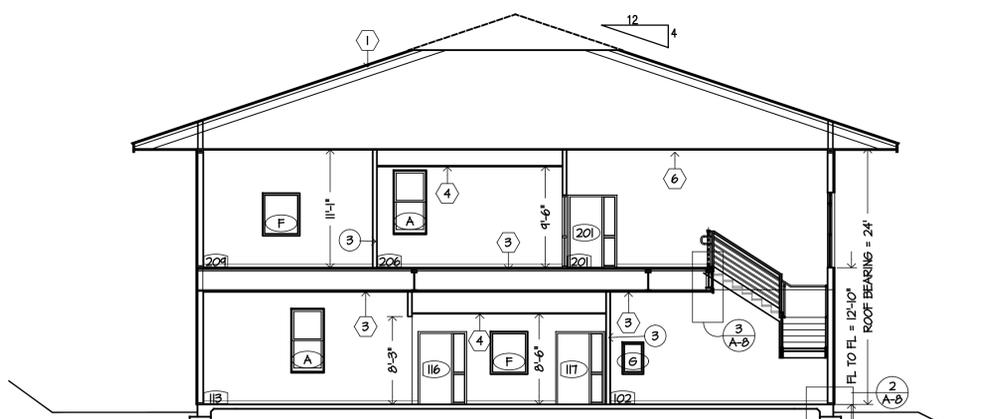


SECTION C-C  
SCALE: 1/8" = 1'-0"



SECTION Y-Y  
SCALE: 1/8" = 1'-0"

FIRE RATED SHAFT ABOVE MASONRY -  
SEE STRUCTURAL DWGS FOR FRAMING: 2  
LAYERS 5/8" TYPE 'X' DRYWALL EACH  
SIDE OF STUDS AND 2 LAYERS 5/8"  
TYPE 'X' DRYWALL AT UNDERSIDE OF  
JOISTS.



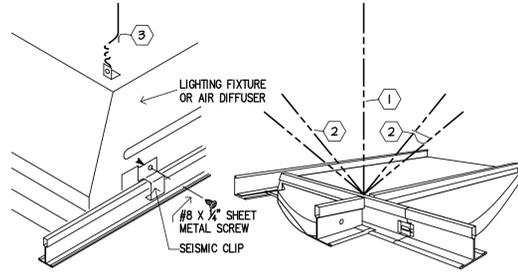
SECTION Z-Z  
SCALE: 1/8" = 1'-0"

- 1 TYPICAL 8" & 12" THICK MASONRY WALL: SEE STRUCTURAL DRAWINGS. INTERIOR FINISH: LAMINATED 1 LAYER 5/8" TYPE 'X' DRYWALL. EXTERIOR FINISH: 1/2" CEMENT STUCCO.
  - 6 TYPICAL INTERIOR PLUMBING PARTITION: 600S162-33 (6"x20GA) STEEL STUDS @ 16" O.C. WITH 5/8" TYPE 'X' DRYWALL EACH SIDE. 5/8" CEMENT, FIBER-CEMENT OR GLASS MAT GYPSUM BOARD TO BE USED AS BASE FOR CERAMIC TILE WAJNSCOT IN RESTROOMS.
  - 3 TYPICAL INTERIOR NON-BEARING PARTITION: UNLESS OTHERWISE NOTED: 362S162-33 (3-5/8"x20GA) STEEL STUDS @ 16" O.C. WITH 5/8" TYPE 'X' DRYWALL EACH SIDE. EXTEND PARTITIONS TO UNDERSIDE OF CONTINUOUS 5/8" TYPE 'X' DRYWALL CEILING. SEE DETAIL 2 ON SHEET A-6
- NOTE: NO STRUCTURAL MEMBER, INCLUDING STEEL BEAMS, WOOD FLOOR JOISTS, WOOD ROOF TRUSSES, OR ANY SUPPORTING WALL OR COLUMN MAY BE CUT OR OTHERWISE MODIFIED FOR THE PASSAGE OF PIPING OR ANY OTHER ELECTRICAL, PLUMBING, OR MECHANICAL EQUIPMENT THAT IS NOT EXPLICITLY ALLOWED IN THE STRUCTURAL DRAWINGS WITHOUT PRIOR APPROVAL BY THE ARCHITECT AND/OR STRUCTURAL ENGINEER.
- NOTE: ALL ELECTRICAL, PLUMBING, OR MECHANICAL PIPING AND FITTINGS SHALL BE RUN CONCEALED.

- KEY NOTES**
1. ROOF: STANDING SEAM METAL ROOFING OVER UNDERLAYMENT, SHEATHING OVER PRE-ENGINEERED WOOD TRUSSES - SEE STRUCTURAL DRAWINGS; 3-1/2" (R-13) OPEN CELL SPRAY INSULATION AT UNDERSIDE OF SHEATHING AND 8-1/4" (R-25) FIBERGLASS BATT INSULATION WIRED BELOW SPRAY INSULATION.
  2. EXTERIOR WALL: WOOD STUDS, SHEATHING - SEE STRUCTURAL DRAWINGS; TYPAR MOISTURE MEMBRANE, 1" STYROFOAM INSULATION BOARD, METAL MESH, & 1/2" FIBERGLASS REINFORCED CEMENT STUCCO - EXTERIOR; 6" (R-19) BATT FIBERGLASS BATT INSULATION & 5/8" TYPE 'X' DRYWALL - INTERIOR. NOTE: WOOD STUDS AT 2-STORY HEIGHT SHALL BE 2X8'S @ 16" O.C.
  3. SECOND FLOOR: 1-1/2" GYPCRETE, PLYWOOD OR OSB SHEATHING, 1" JOIST - SEE STRUCTURAL DRAWINGS; 2"x1/2" RC-1 RESILIENT CHANNEL @ 16" O.C. & 1 LAYER 5/8" TYPE X DRYWALL CONTINUOUS OVER ENTIRE AREA AT UNDERSIDE OF FLOOR FRAMING.
  4. SUSPENDED CEILINGS: ACOUSTIC PANEL: 2'-0"x2'-0"x3/4" MINERAL FIBER PANEL PER REFLECTED CEILING PLANS.
  5. PORCH CEILING AND BEAM: 1/2" SHEATHING, TYPAR MOISTURE BARRIER, 1" STYROFOAM RIGID INSULATION, 1/2" FIBERGLASS REINF. CEMENT STUCCO.
  6. SECOND FLOOR CEILING: 2"x1/2" RC-1 RESILIENT CHANNEL @ 16" O.C. & 1 LAYER 5/8" TYPE X DRYWALL CONTINUOUS OVER ENTIRE AREA AT UNDERSIDE OF ROOF FRAMING.

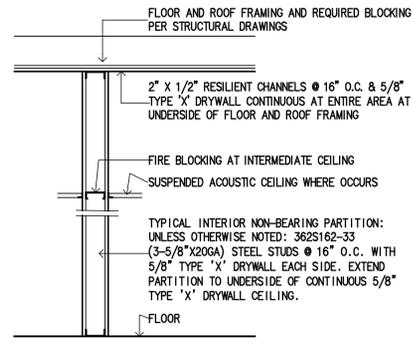


**SECOND FLOOR REFLECTED CEILING PLAN**  
SCALE: 1/8" = 1'-0"



**1 TYPICAL SUSPENDED CEILING**  
SCALE: N.T.S.

**KEY NOTES**  
SUSPENDED CEILING SYSTEM SHALL COMPLY WITH IBC SECTION 2506.2.1, WITH INSTALLATION PER ASTM-C636 (IBC STANDARD). U.N.O., CEILING SYSTEM SHALL BE SUPPORTED WITH MINIMUM 12 GA. WIRE ATTACHED TO WOOD STRUCTURE WITH 3" X 1/4" CLOSED EYE SCREWS - 1" MIN. EMBEDMENT.  
1. GRID SUPPORT: 1- VERT. WIRE @ 4'-0" O.C. EA. WAY TO MAIN RUNNERS, START @ 8" OR LESS FROM WALL.  
2. LATERAL SUPPORT: 4- DIAGONAL WIRES (45° OR LESS) IN LINE WITH GRID @ 12'-0" O.C. EA. WAY TO MAIN RUNNERS, START @ 6'-0" OR LESS FROM WALLS.  
3. LIGHT FIXTURE AND AIR DIFFUSER SUPPORT: 2- VERT. SLACK WIRES, 1 @ OPPOSITE CORNER OF FIXTURE.

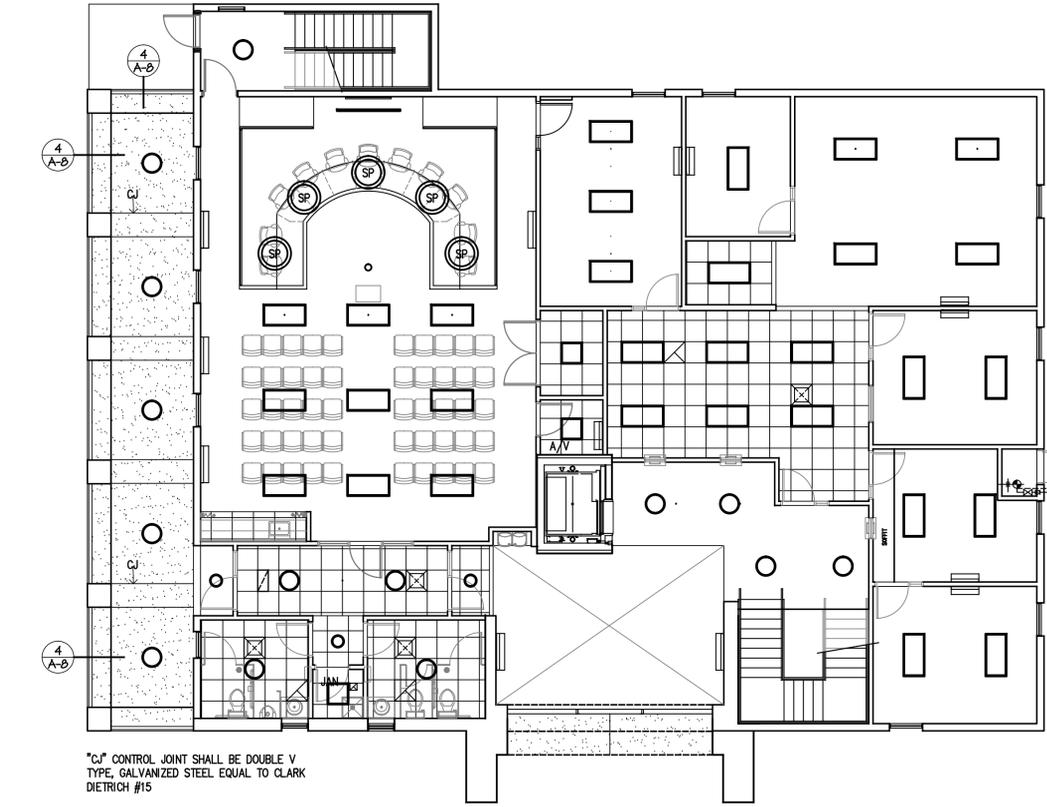


**2 TYPICAL INTERIOR PARTITION**  
SCALE: 3/4" = 1'-0"

- LEGEND**
- UNLESS NOTED OTHERWISE, ALL INTERIOR CEILINGS SHALL BE FINISHED DRYWALL AT THE UNDERSIDE OF THE FLOOR AND ROOF STRUCTURE.
  - 1/2" SHEATHING, TYPAR MOISTURE BARRIER, 1" STYROFOAM RIGID INSULATION, 1/2" FIBERGLASS REINF. CEMENT STUCCO.
  - STANDING SEAM METAL ROOFING OVER WITH TYPAR MOISTURE BARRIER, 1/2" CDX PLYWOOD OR OSB SHEATHING. LINE UP RIBS OF SOFFIT WITH RIBS OF ROOFING.
  - ACOUSTIC PANEL: 2'-0"x2'-0"x3/4" MINERAL FIBER PANEL, NRC = 0.70, CAC = 35, LIGHT REFLECT = 0.79, FIRE CLASS 'A', WHITE, EQUAL TO USG "F" FISURED BASIC ITEM #131 WITH A SHADOWLINE EDGE IN A 15/16" SUSPENDED CEILING GRID
  - TYPICAL 2'X4' SUSPENDED FLAT PANEL LED LIGHT FIXTURE EQUAL TO LITHONIA CAPNL. BOTTOM OF FIXTURE TO BE 9'-0" A.F.F.
  - TYPICAL 2'X2' RECESSED LED LIGHT FIXTURE
  - TYPICAL 15" SURFACE ROUND LED LIGHT FIXTURE
  - TYPICAL 11" SURFACE ROUND LED LIGHT FIXTURE
  - SPECIAL ROUND SUSPENDED LED LIGHT FIXTURE (TBD)
  - TYPICAL SUPPLY, RETURN & EXHAUST DIFFUSER
  - TYPICAL WALL MOUNTED FAN COIL AT CEILING

ALL ELECTRICAL AND MECHANICAL FIXTURES, DEVICES THAT PENETRATE THE 1 HOUR FIRE RATED CEILING AT THE FLOOR AND ROOF SHALL BE ENCASED WITH 5/8" TYPE 'X' DRYWALL TO MAINTAIN RATED ENVELOPE.

NOTE: ROOF ACCESS IN THE CEILING OF STORAGE #216 TO THE AREA BETWEEN THE ROOF AND CEILING OF THE ROOF STRUCTURE IS TO COMPLY WITH IBC SECTION 1208.2 AND IS NOT REQUIRED TO SERVICE ANY ELECTRICAL OR MECHANICAL EQUIPMENT OR FOR ANY OTHER PURPOSE. 22' X 36' - FIRE-RATED INSULATED PANEL WITH FLANGE SHALL BE EQUAL TO BEST ACCESS DOORS, SKU BA-PP-22-36, WWW.BESTACCESSDOORS.COM, 888-915-2938. DOOR SHALL HAVE A LOCK.



**FIRST FLOOR REFLECTED CEILING PLAN**  
SCALE: 1/8" = 1'-0"

**ROOM FINISH SCHEDULE:**

ROOM NAME	FLOOR	BASE-WNCT	CEILING	CLG. HT.
101 LOBBY & STAIR 1 AREA	DRYWALL	LAMINATE	VINYL DRYWALL	23'-10"
102 RECEPTION	DRYWALL	LAMINATE	VINYL DRYWALL	10'-6"
103 WOMEN RR	DRYWALL	CERT TILE	CERT TILE SUSP ACoust	8'-6"
104 JANITOR #1	DRYWALL	CONCRETE	CERT TILE	8'-0"
105 MEN RR	DRYWALL	CERT TILE	CERT TILE SUSP ACoust	8'-6"
106 HALL #1	DRYWALL	LAMINATE	VINYL SUSP ACoust	8'-0"
107 COUNCIL CHAMBER	DRYWALL	CARPET	VINYL DRYWALL	10'-6"
108 AUDI/VISUAL	DRYWALL	VINYL TILE	VINYL SUSP ACoust	8'-0"
109 STORAGE	DRYWALL	CONCRETE	VINYL SUSP ACoust	8'-0"
110 SMALL CONFERENCE	DRYWALL	CARPET	VINYL DRYWALL	10'-6"
111 CUSTOMER SERVICE	DRYWALL	CARPET	VINYL SUSP ACoust	8'-6"
112 FILES	DRYWALL	CARPET	VINYL SUSP ACoust	8'-6"
113 ACCOUNTING	DRYWALL	CARPET	VINYL DRYWALL	10'-6"
114 ACCT 1, PAYROLL	DRYWALL	CARPET	VINYL DRYWALL	10'-6"
115 FINANCE DIRECTOR	DRYWALL	CARPET	VINYL DRYWALL	10'-6"
116 ASSISTANT CLERK	DRYWALL	CARPET	VINYL DRYWALL	10'-6"
117 FIRE RISER	DRYWALL	CONCRETE	VINYL DRYWALL	10'-6"
118 CITY CLERK	DRYWALL	CARPET	VINYL DRYWALL	10'-6"
119 STAIR #1	DRYWALL	VINYL [1]	VINYL DRYWALL	10'-6"
120 STAIR #2	DRYWALL	VINYL [1]	VINYL DRYWALL	10'-6"
121 PORCH	CEM STUCCO	CONCRETE	-	10'-6"

201 2ND FLOOR LOBBY	DRYWALL	LAMINATE	CERT TILE	DRYWALL	11'-0"
202 WOMEN RR	DRYWALL	CERT TILE	CERT TILE	SUSP ACoust	8'-6"
203 JANITOR #2	DRYWALL	CERT TILE	CERT TILE	SUSP ACoust	8'-0"
204 MEN RR	DRYWALL	CERT TILE	CERT TILE	SUSP ACoust	8'-6"
205 BUILDING SAFETY	DRYWALL	CARPET	VINYL	DRYWALL	11'-0"
206 PUBLIC WORKS STAFF	DRYWALL	CARPET	VINYL	SUSP ACoust	9'-6"
207 HALL #2	DRYWALL	LAMINATE	VINYL	SUSP ACoust	8'-0"
208 PUBLIC WORKS DIR	DRYWALL	CARPET	VINYL	DRYWALL	11'-0"
209 OPERATIONS MANAGER	DRYWALL	CARPET	VINYL	DRYWALL	11'-0"
210 COMMUNITY DEVELOP'NT	DWYL	CARPET	VINYL	DRYWALL	11'-0"
211 PERSONNEL DIR.	DWYL	CARPET	VINYL	DRYWALL	11'-0"
212 CITY ATTORNEY	DWYL	CARPET	VINYL	DRYWALL	11'-0"
213 HALL #3	DWYL	LAMINATE	VINYL	SUSP ACoust	8'-0"
214 SUPPLIES	DRYWALL	VINYL TILE	VINYL	SUSP ACoust	8'-0"
215 COMMUNICATIONS	DWYL	VINYL TILE	VINYL	SUSP ACoust	8'-0"
216 STORAGE	DWYL	VINYL TILE	VINYL	DRYWALL	11'-0"
217 ADMIN. ASSISTANT	DWYL	CARPET	VINYL	DRYWALL	11'-0"
218 MAYOR	DWYL	CARPET	VINYL	DRYWALL	11'-0"
219 CITY MANAGER	DWYL	CARPET	VINYL	DRYWALL	11'-0"
220 LARGE CONFERENCE	DWYL	CARPET	VINYL	DRYWALL	11'-0"
221 BREAK ROOM	DWYL	LAMINATE	VINYL	DRYWALL	8'-10"

[1] VINYL STAIR TREADS AND RISERS, LANDINGS TO MATCH.  
NOTE: SUSPENDED CEILING HEIGHTS MAY HAVE TO BE ADJUSTED TO ACCOMMODATE MECHANICAL EQUIPMENT.

**DOOR SCHEDULE:**

DR#	SIZE	MATERIAL	FRAME	ELEV.	HDWR.	NOTES
101	PR3'-0" X 7'-0" X 1-3/4"	GLASS	ALUMINUM	F	1	
102	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. C	2		
103	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. B	2		
104	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. B	3		
105	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. B	2		
106	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. C	4		
107	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. D	2		
108	±10'-0" X 7'-0"					ACCORDION
109	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. B	3		
110	PR3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. E	5		
111	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. A	3		
112	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. B	4		ONE HOUR FIRE RATED
113	3'-0" X 6'-8" X 1-3/4"	HDL. MET.	HDL. MET. B	4		
114	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. A	3		
115	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. A	7		8X4 DOOR GRILLE
116	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. A	7		
117	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. A	7		
118	3'-0" X 6'-8" X 1-3/4"	HDL. MET.	HDL. MET. B	6		
119	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. A	7		8X4 DOOR GRILLE
120	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. A	7		
201	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. A	7		
202	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. A	7		
203	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. B	2		
204	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. B	3		
205	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. B	2		
206	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. A	7		
207	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. A	7		
208	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. A	7		
209	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. A	7		
210	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. A	7		
211	6'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. F			BI-FOLD
212	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. B	3		
213	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. B	4		ONE HOUR FIRE RATED
214	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. B	9		
215	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. A	3		
216	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. A	7		
217	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. A	3		
218	3'-0" X 6'-8" X 1-3/4"	S. C. WOOD	HDL. MET. A	7		

**WINDOW SCHEDULE:**

WIN#	NOM SIZE	TYPE	FRAME	NOTES	QTY
A	3'-1.5" W X 6'-0.5" H	SINGL HUNG	WD/ALUMN		26
B	2'-9" W X 2'-8.5" H	PICTURE	WD/ALUMN		3
C	3'-1.5" W X 4'-0.5" H	SINGL HUNG	WD/ALUMN		3
D	4' W X 2'-8" H	TRANSOM	WD/ALUMN		3
E	2'-6" W X 2'-8" H	PICTURE	WD/ALUMN		2
F	3'-6" W X 4'-0" H	FIXED	HDL. MET.	CLEAR SINGLE TEMP GLASS	3
G	2'-0" W X 3'-0" H	FIXED	ALUMN	TRANSACTION WINDOW	3

ALL WINDOWS SHALL BE OF WOOD CONSTRUCTION WITH ALUMINUM CLADDING ON THE EXTERIOR.

U= 0.27, SHGC= 0.29, 1-3/8" FIN SETBACK, WITH ALL REQUIRED HARDWARE, SCREENS, AND DUAL PANE CLEAR GLASS, ARGON FILLED, AND LOW 'E' COATING.

APPROVED WINDOW MANUFACTURERS ARE WEATHERSHIELD, PREMIUM SERIES; ANDERSEN WINDOWS, E SERIES; JELD-WEN, W-2500 SERIES; PELLA ARCHITECT SERIES. OTHER MANUFACTURERS MAY BE PRIOR APPROVED DURING BIDDING PROCESS.

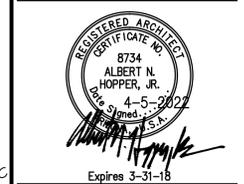
ALL WINDOWS SHALL BE COMPLETE WITH HARDWARE AND SCREENS. THE HEAD OF ALL WINDOWS SHALL BE AT 9'-0" ABOVE FINISH FLOOR EXCEPT AS NOTED: ALL WINDOWS SHALL HAVE APPROXIMATELY 1-1/16" BRICKMOUND AT THE JAMBS AND HEAD. CONTRACTOR SHALL SIZE THE FRAMING ROUGH OPENING TO ACCOMMODATE THIS ADDITIONAL WINDOW TRIM. EXTERIOR COLOR SHALL BE ANODIZED DARK BRONZE. OPERABLE WINDOWS MAY BE EITHER SINGLE OR DOUBLE HUNG.

WINDOW 'G': QUIKSERV SPEAK AROUND WINDOW 24" WIDE X 36" HIGH. THE UNIT IS COMPRISED OF BULLET RESISTANT FRAMING AND INCLUDES A 1/2" SPACING TO ALLOW COMMUNICATION WITH CUSTOMERS. THE GLAZING SHALL BE LEVEL 1 BALUSTIC MATERIAL. THE FRAME SHALL HAVE A CLEAR ANODIZED FINISH. THE UNIT SHALL BE COMPLETE WITH A STAINLESS STEEL SHELF BASE EXTENDING TO THE INTERIOR / EXTERIOR OF THE WINDOW WITH BULLET RESISTANT DEAL TRAY. QUIKSERV CORP., 11441 BRITMOORE PARK DRIVE, HOUSTON, TX 77041, 800-388-8307, 713-849-5882, WWW.QUIKSERV.COM

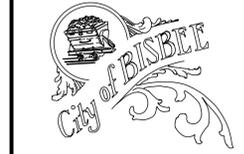


**Albert N. Hopper, Jr.**  
ARCHITECT  
1008 West Blvd.  
Bisbee, AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

**CONSULTANTS**  
CIVIL ENGINEER:  
STRUCTURAL ENGINEER:  
Structural Solutions, Inc.  
Tucson, AZ; 520-260-2642  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ; 520-881-8846  
LANDSCAPE ARCHITECT:



**NEW CITY HALL**  
FOR THE  
CITY OF BISBEE  
118 ARIZONA ST.  
BISBEE, ARIZONA



**SHEET ISSUE**  
DATE: April 5, 2022  
REVISIONS

**SHEET MANAGEMENT**  
Comm. No. 2201  
Drawn By: Albert Hopper  
Checked By: Albert Hopper

**DRAWINGS ON THIS SHEET**  
REFLECTED CLG PLANS  
SCHEDULES  
DETAILS

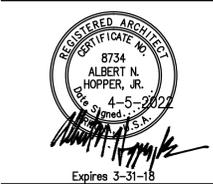


Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd.  
Bisbee, AZ 85603  
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SHEET ISSUE  
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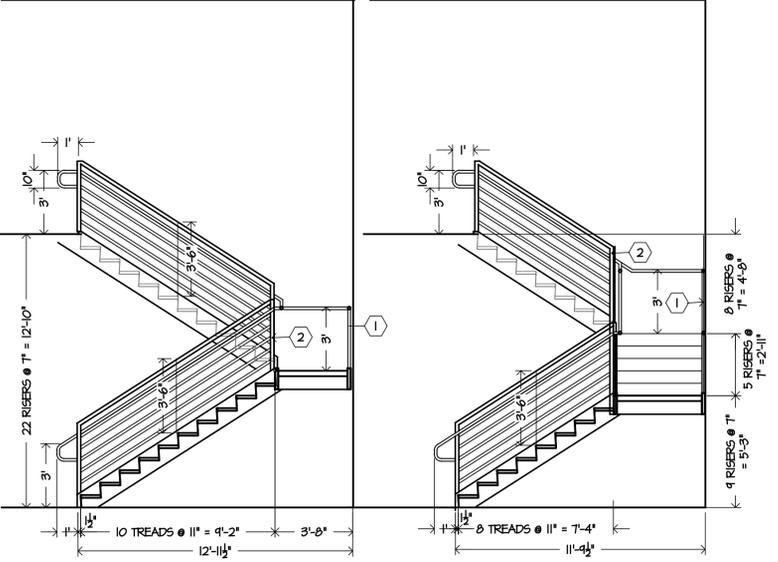
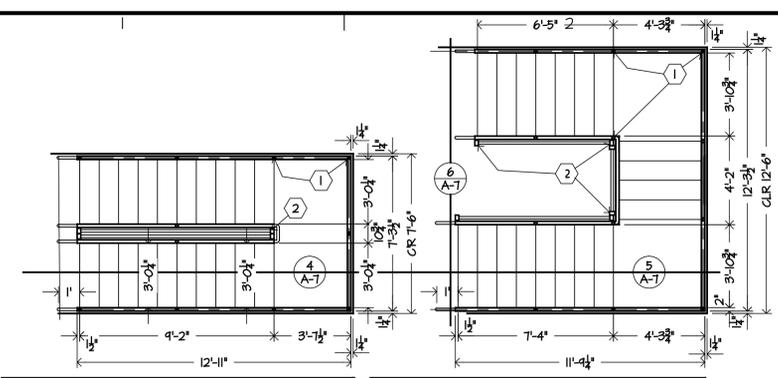
SHEET MANAGEMENT  
Comm. No. 2201  
Drawn By: Albert Hopper  
Checked By: Albert Hopper

DRAWINGS ON THIS SHEET  
STAIRS  
DAIS  
DETAILS

SHEET

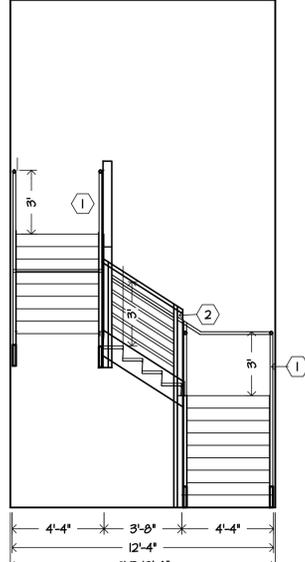
A-7 of

**KEY NOTES**  
1. TYP. STEEL TUBING: 12 GAUGE, SIZE 1-1/4", 1.660 O.D. VERTICAL HANDRAIL SUPPORT WELDED TO TOP OF 2 X 12 STEEL STRINGER.  
2. TYPICAL 2" X 3" STEEL TUBE VERTICAL GUARD RAIL SUPPORT WELDED TO SIDE OF 2 X 12 STEEL STRINGER. PROVIDE SPACERS AS REQUIRED TO MAINTAIN 1-1/2" CLEARANCE WITH HANDRAIL.  
NOTE: THIS WORK SHALL COMPLY WITH THE "ARCHITECTURAL METALS" SPECIFICATIONS ON SHEET A-1.

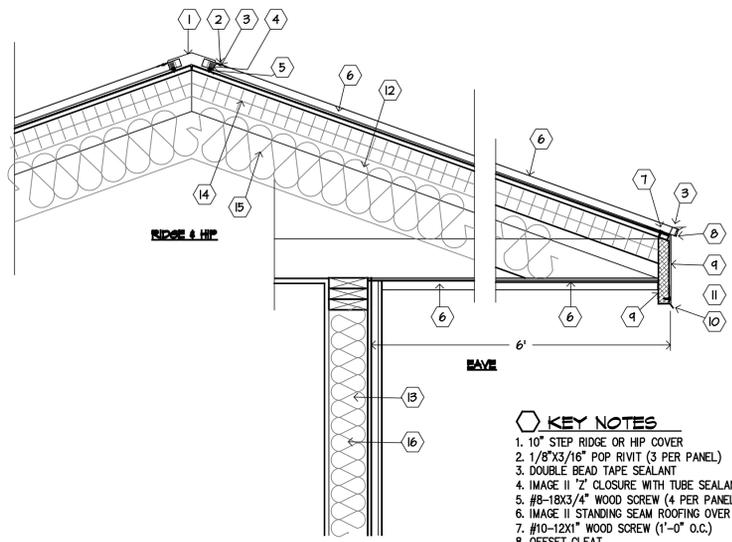


7 STAIR #2  
SCALE: 1/4" = 1'-0"

8 STAIR #1  
SCALE: 1/4" = 1'-0"

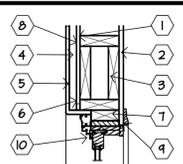


9 STAIR #1  
SCALE: 1/4" = 1'-0"

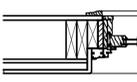


**KEY NOTES**  
1. 10" STEP RIDGE OR HIP COVER  
2. 1/8"X3/16" POP RIVET (3 PER PANEL)  
3. DOUBLE BEAD TAPE SEALANT  
4. IMAGE II "Z" CLOSURE WITH TUBE SEALANT  
5. #8-18X3/4" WOOD SCREW (4 PER PANEL)  
6. IMAGE II STANDING SEAM ROOFING OVER UNDERLAYMENT  
7. #10-12X1" WOOD SCREW (1'-0" O.C.)  
8. OFFSET CLEAT  
9. 24 GA EAVE FLASHING, CUSTOM BENT  
10. CLEAT  
11. 1-1/2"X9-1/2" 1.3 TIMBERSTRAND LSL RIMBOARD  
12. WOOD TRUSS AND ROOF SHEATHING, SEE STRUCTURAL  
13. STUD AND BEARING PLATE FRAMING, SEE STRUCTURAL  
14. 3-1/2" (R-13) OPEN CELL SPRAY INSULATION AT UNDERSIDE OF SHEATHING  
15. 8-1/4" (R-25) FIBERGLASS BATT INSULATION WIRED BELOW SPRAY INSULATION  
16. 6" R-19 FIBERGLASS BATT INSULATION

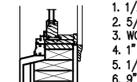
12 ROOF DETAILS  
SCALE: 1" = 1'-0"



HEAD



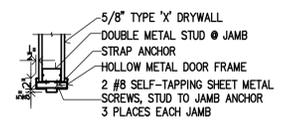
JAMB



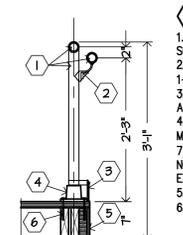
SILL

**KEY NOTES**  
1. 1/2" OSB SHEATHING  
2. 5/8" DRYWALL  
3. WOOD HEADER - SEE STRUCTURAL  
4. 1" EXTRUDED STYROFOAM INSULATION  
5. 1/2" FIBERGLASS REINF. CEMENT STUCCO  
6. 9" BUTYL SELF-ADHESIVE WATERPROOF FLASHING WHITE  
7. RIPPED 2X8 TO WIDTH OF WINDOW PROFILE & SHM.  
8. "TYVEK" OR EQUAL BUILDING WRAP  
9. 2-1/4" (WM366) WOOD WINDOW TRIM  
10. WINDOW WITH 1-11/16" BRICKMOULD AT JAMBS & HEAD

13 WINDOW DETAILS  
SCALE: 1" = 1'-0"



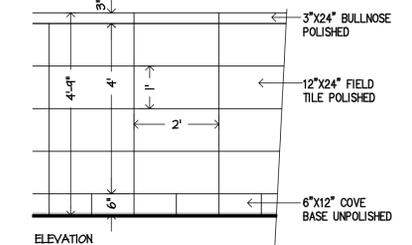
14 TYP HOL-MET FRAME  
SCALE: 3/4" = 1'-0"



15 DAIS RAIL  
SCALE: 3/4" = 1'-0"

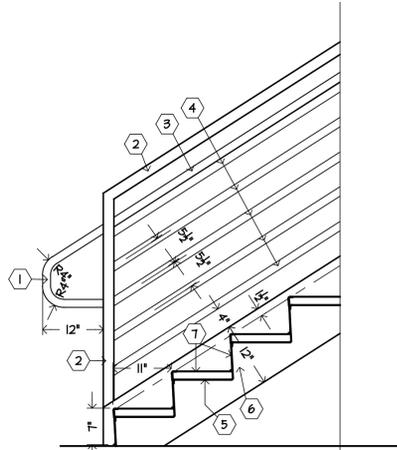
**KEY NOTES**  
1. ALUMINUM ANODIZED PIPE SIZE 1-1/2" IPS SCHEDULE 40.  
2. 85N ADJUSTABLE HANDRAIL BRACKET KIT 1-1/2" IPS.  
3. H94102 4" 6063 T6 BEVELED TOEPLATE ANODIZED ALUMINUM WITH TOE BOARD CLAMP.  
4. 45SBC-8 SQUARE BASE FLANGE ALUMINUM MAGNESIUM 1-1/2" IPS (1.94" ID). FOUR 7/16" HOLES.  
NOT SHOWN: A. 162-8 PLUS END CAP @ ALL EXPOSED ENDS. B. 130F-8 ELBOW  
5. 7" VINYL STAIR RISER.  
6. 3/8" X 4" LAG SCREWS.

HANDRAIL SYSTEM SHALL BE INTERNA-RAIL ALUMINUM HANDRAIL MANUFACTURED BY HOLLANDER MANUFACTURING. RAIL MATERIALS AVAILABLE AT BUYRAILINGS, 71 COMMERCE DRIVE, BROOKFIELD, CT 06804, TEL: 1-877-810-4116, SALES@BUYRAILINGS.COM. FURNISH AND INSTALL ALL REQUIRED FLUSH FITTINGS AND CONNECTORS REQUIRED FOR A COMPLETE SYSTEM. RAIL SYSTEM SHALL HAVE A CLEAR ANODIZED FINISH.

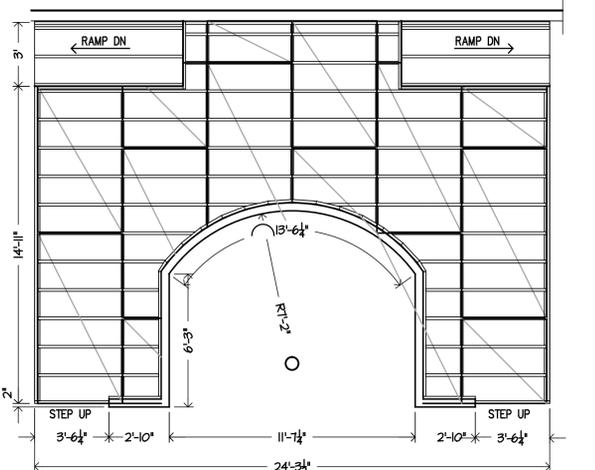


11 RESTROOM WALL TILE PATTERN  
SCALE: 1/2" = 1'-0"

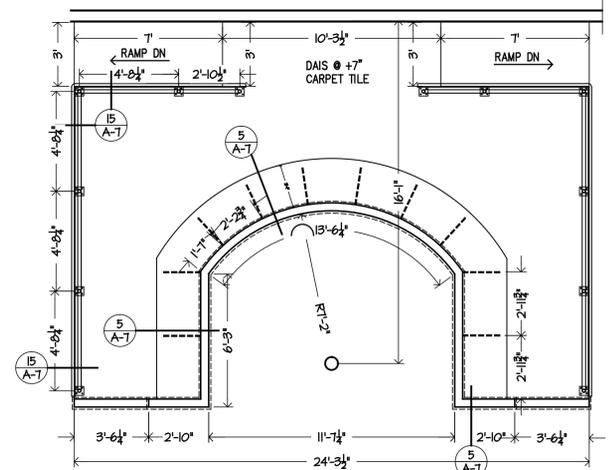
**KEY NOTES**  
1. 1-1/2" STEEL TUBE HANDRAIL GRIP @ 36" ABOVE FINISH FLOOR.  
2. 2" X 3" STEEL TUBE GUARDRAIL VERTICAL @ 42" ABOVE STAIR TREAD NOSING.  
3. 1-1/2" STEEL TUBE HANDRAIL @ 36" ABOVE STAIR TREAD NOSING.  
4. 1-1/2" STEEL TUBE INTERMEDIATE RAIL @ 5-1/2" O.C. OR 4" MAXIMUM SPACE BETWEEN RAILS.  
5. PRE-FORMED STEEL PAN RISER & TREAD PER STAIR DIMENSIONS WITH CONCRETE FILLED PANS. SEE STRUCTURAL DRAWINGS.  
6. 2" X 1/2" STRUCTURAL STEEL TUBE STRINGERS. SEE STRUCTURAL DRAWINGS.  
7. VINYL RISER COVERING AND HEAVY DUTY STAIR TREAD WITH SQUARE NOSING EQUAL TO ROPPE OR BURKE. TREADS SHALL HAVE VISUALLY IMPAIRED STRIP OF A DIFFERENT COLOR. LANDINGS SHALL BE MATCHING VINYL TILE OR SHEET. COLORS SHALL BE SELECTED FROM A FULL RANGE OF SOLID COLORS.  
NOTE: THIS WORK WILL COMPLY WITH THE "ARCHITECTURAL METALS" SPECIFICATIONS ON SHEET A-1.



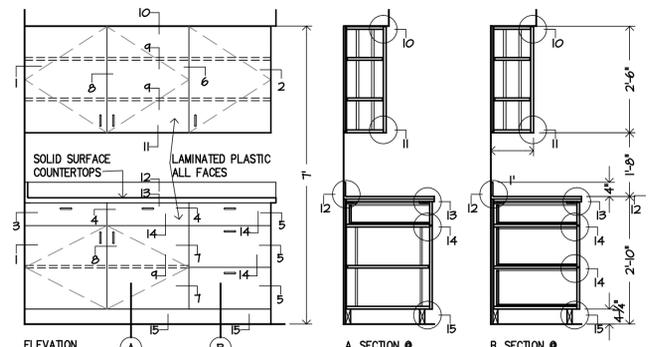
6 TYPICAL STAIR DETAIL  
SCALE: 3/4" = 1'-0"



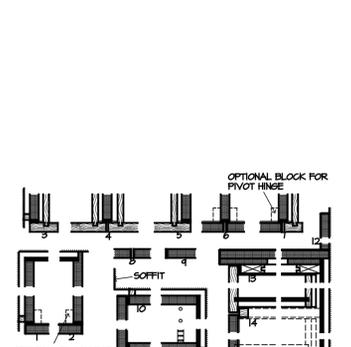
10A DAIS FLOOR FRAMING  
SCALE: 1/4" = 1'-0"  
1-1/8" PLYWOOD OR OSB T&G SHEATHING GLUED & SCREWED TO 2X6 FIRE RETARDANT WOOD SLEEPERS ON SHIMS @ 16" O.C. 2X6 BLOCKING AT ALL PANEL POINTS.



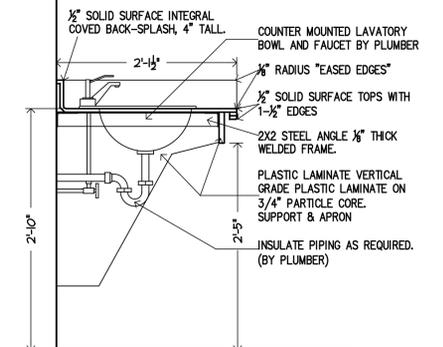
10B DAIS PLATFORM  
SCALE: 1/4" = 1'-0"



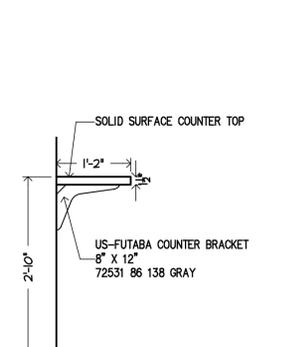
1 CABINET CONSTRUCTION  
SCALE: 1/2" = 1'-0"



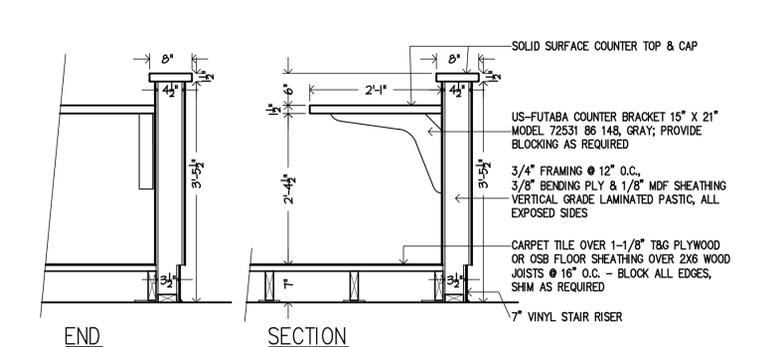
2 CABINET DETAILS  
SCALE: 2" = 1'-0"



3 LAVATORY COUNTER  
SCALE: 1" = 1'-0"



4 RECEPTION COUNTER  
SCALE: 3/4" = 1'-0"



5 COUNCIL DAIS COUNTER  
SCALE: 3/4" = 1'-0"



Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd.  
Bisbee, AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

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CIVIL ENGINEER:

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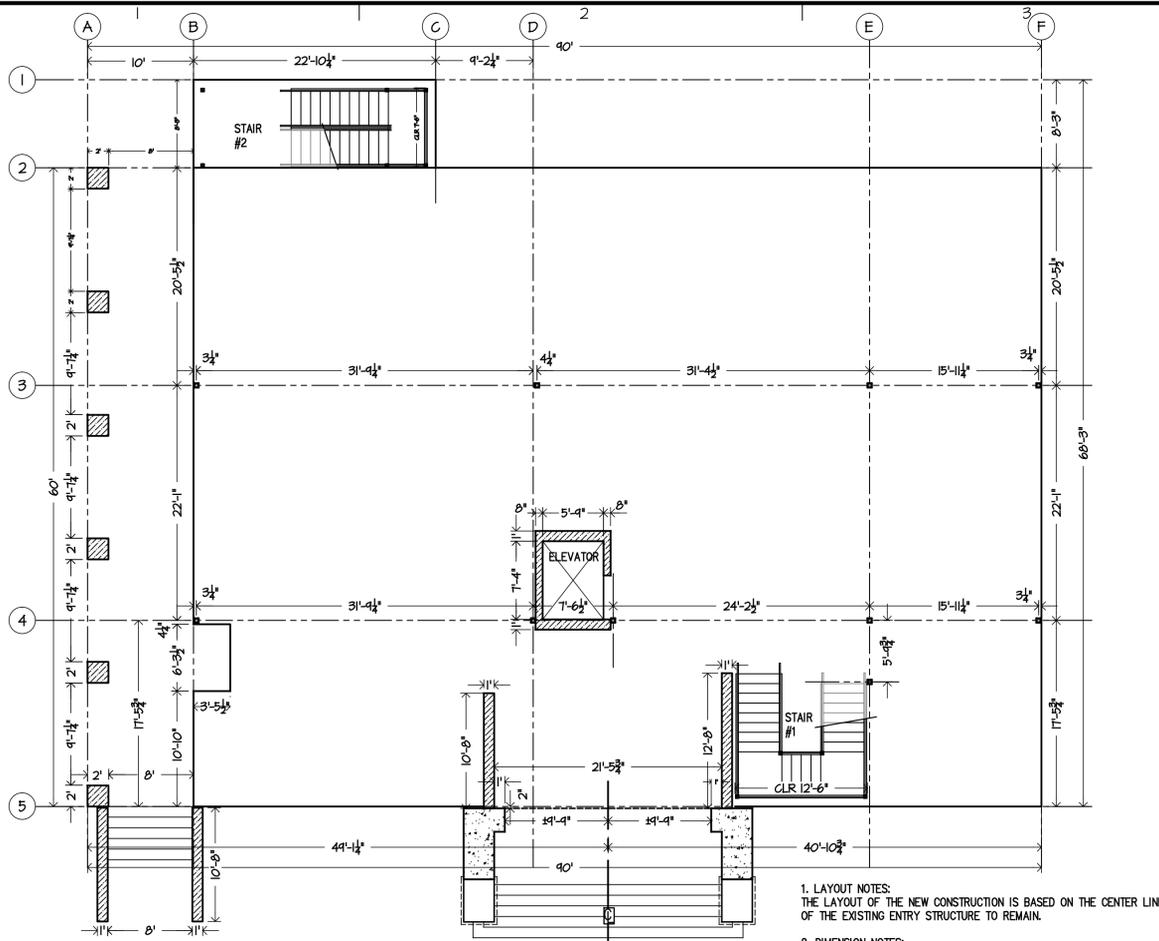
SHEET MANAGEMENT  
Comm. No. 2201  
Drawn By: Albert Hopper  
Checked By: Albert Hopper

DRAWINGS ON THIS SHEET

LAYOUT PLAN  
ROOF PLAN  
MAIN ENTRY  
DETAILS

SHEET

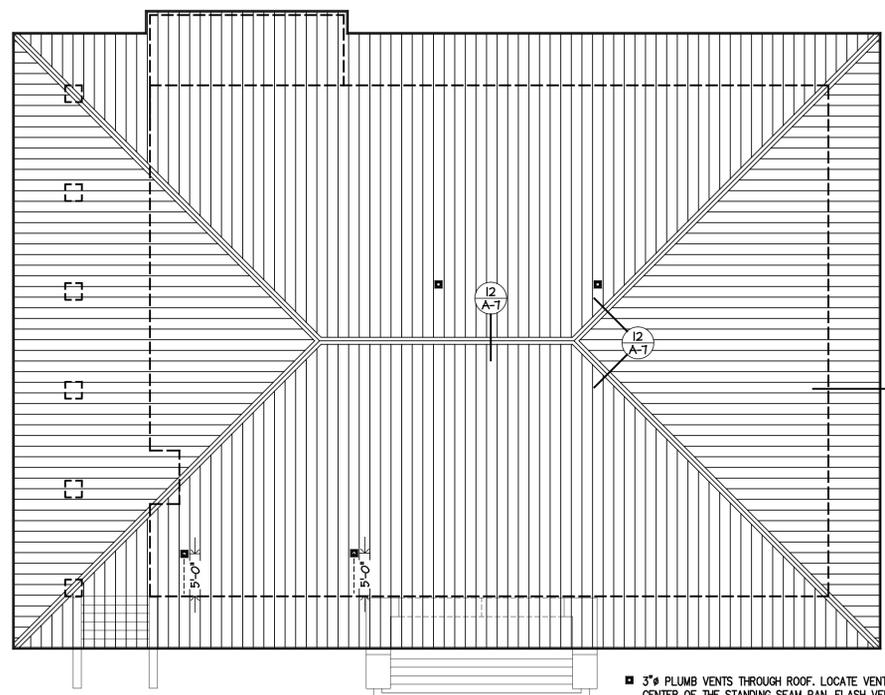
A-8 of



1. LAYOUT NOTES:  
THE LAYOUT OF THE NEW CONSTRUCTION IS BASED ON THE CENTER LINE OF THE EXISTING ENTRY STRUCTURE TO REMAIN.

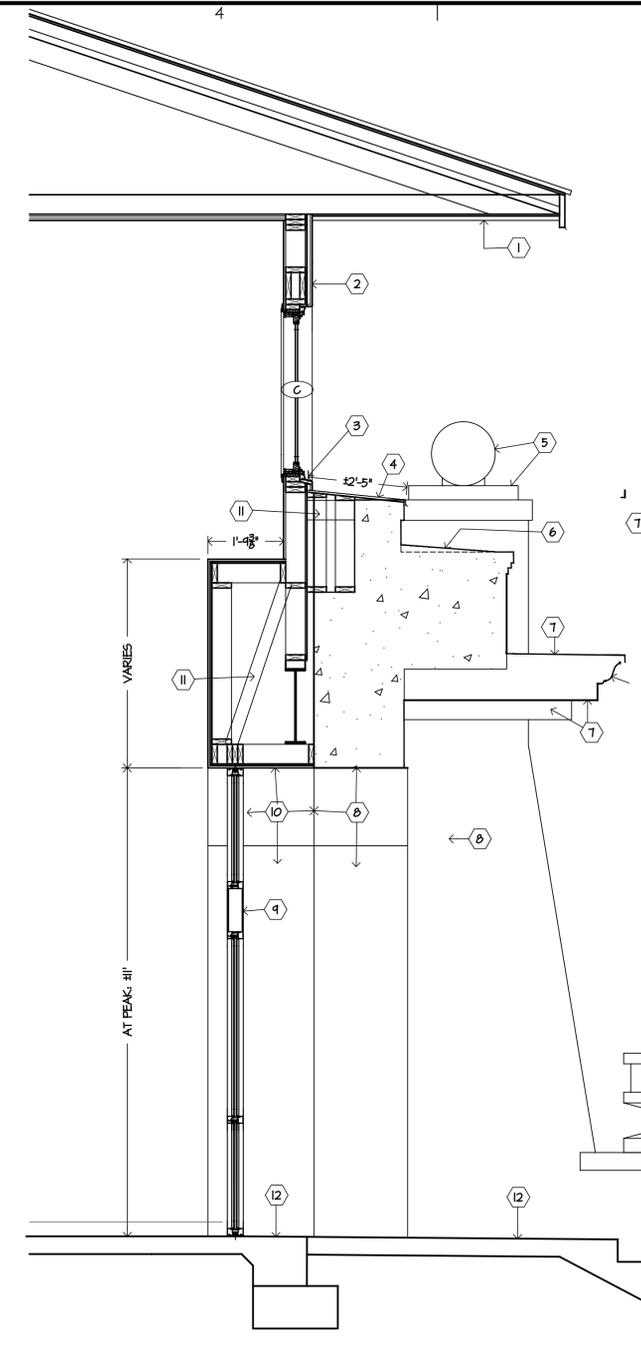
2. DIMENSION NOTES:  
EXTERIOR DIMENSIONS ARE TAKEN FROM THE OUTSIDE FACE OF THE EXTERIOR SHEATHING - CONCRETE SLAB EDGE AND THE CENTER LINE OF STEEL COLUMNS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND REPORT ANY INCONSISTENCIES TO THE ARCHITECT DURING LAYOUT.

LAYOUT PLAN  
SCALE: 1/8" = 1'-0"



3" PLUMB VENTS THROUGH ROOF. LOCATE VENTS IN THE CENTER OF THE STANDING SEAM PAN. FLASH VENT PIPE TO ROOF WITH OATLEY MODEL 14053, STANDARD MASTER FLASH OR EQUAL BY DEKTEK PREMIUM EPDM BOOTS. INSTALL BOOT ON SEAL TAPE AND ATTACHED TO METAL ROOF WITH GASKETED SELF TAPING SCREWS. USE A STAINLESS STEEL CLAMP AT THE TOP OF THE BOOT TO PIPE.

ROOF PLAN  
SCALE: 1" = 10'-0"

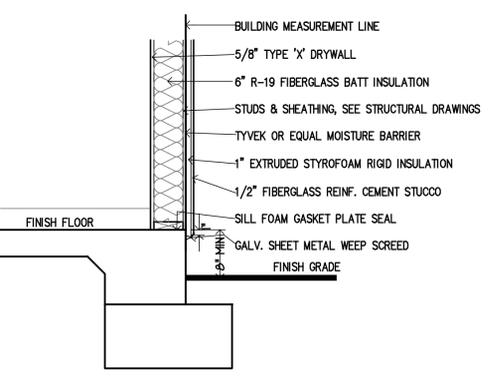


KEY NOTES

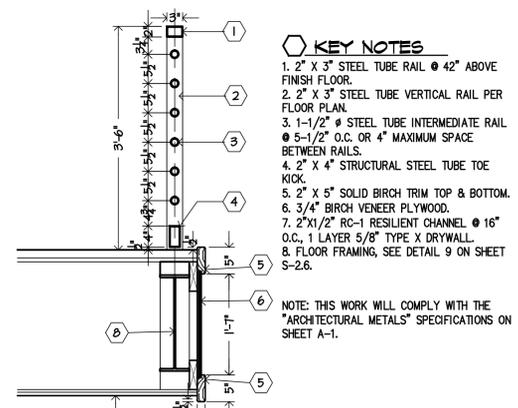
- ROOF OVERHANG & SOFFIT, SEE DETAIL 12 - SHEET A-7.
- TYPICAL NEW EXTERIOR WALL FRAMING AND FINISH.
- EXTEND WINDOW FLASHING UNDER SHEET METAL COVER.
- 18 GAUGE GALV. SHEET METAL FLASHING OVER SELF ADHERED ROOFING UNDERLAYMENT AND 5/8" SHEATHING. POP RIVET AND SEAL ALL NECESSARY JOINTS IN SHEET METAL.
- REPAIR EXISTING CONCRETE ENTRY ELEMENTS. WORK SHALL BE CARRIED OUT BY WORKERS EXPERIENCED IN CONCRETE REPAIR AND RESTORATION ACCORDING TO RECOMMENDATIONS BY THE NATIONAL PARK SERVICE STANDARDS FOR REHABILITATION. SUBMIT A WORK PLAN WITH INFORMATION ABOUT PERSONNEL, MATERIALS USED AND WORK SCHEDULE FOR REVIEW BY THE ARCHITECT. WORK MAY INCLUDE REMOVAL AND REPLACEMENT OF DETERIORATED PARTS USING APPROPRIATE MATERIALS.
- REPAIR AND SEAL EXISTING SHEET METAL FLASHING AND FINISH WITH AN ELASTOMERIC COATING.
- REPAIR EXISTING SHEET METAL CORNICE. WORK SHALL BE CARRIED OUT BY WORKERS EXPERIENCED IN SHEET METAL REPAIR AND RESTORATION ACCORDING TO RECOMMENDATIONS BY THE NATIONAL PARK SERVICE STANDARDS FOR REHABILITATION. SUBMIT A WORK PLAN WITH INFORMATION ABOUT PERSONNEL, MATERIALS USED AND WORK SCHEDULE FOR REVIEW BY THE ARCHITECT. WORK MAY INCLUDE REMOVAL AND REPLACEMENT OF DETERIORATED PARTS USING APPROPRIATE MATERIALS.
- REMOVE NON-ORIGINAL PLASTER AND OTHER SURFACES AND APPLY NEW MATCHING ROUGH CEMENT STUCCO FINISH.
- NEW ALUMINUM & GLASS STOREFRONT ENTRY, SEE ENTRANCE ELEVATION - SHEET A-4.
- NEW WOOD FRAME CONSTRUCTION PER STRUCTURAL DRAWINGS, WATER PROOF MEMBRANE COVERING OVER SHEATHING, 1/2" EXTRUDED STYROFOAM BACKING, WIRE MESH LATH AND CEMENT STUCCO WITH A ROUGH FINISH TO MATCH EXISTING ADJACENT SURFACES.
- NEW WOOD FRAME CONSTRUCTION PER STRUCTURAL DRAWINGS, SHEATHING AND 5/8" TYPE 'X' DRYWALL.
- SLOPE CONCRETE SLAB AWAY FROM ENTRY 1/8" PER FOOT.

NOTE: ALL NEW AND EXISTING STUCCO, CONCRETE ELEMENTS, AND SHEET METAL SHALL BE PAINTED PER PAINT SCHEDULE, SPECIFICATION 9.8 ON SHEET A-9.

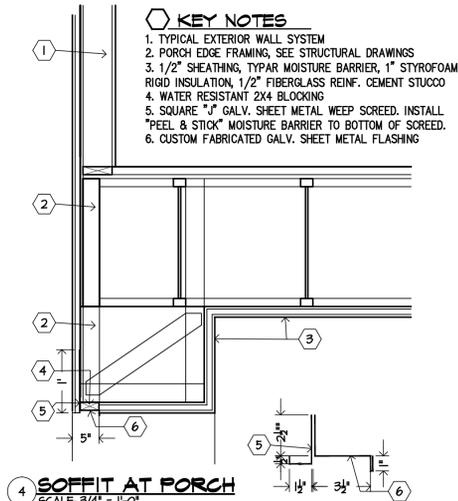
1 MAIN ENTRY  
SCALE: 1/2" = 1'-0"



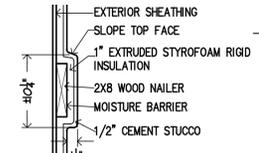
2 PLATE @ EXT. WALL  
SCALE: 3/4" = 1'-0"



3 INTERIOR GUARDRAIL  
SCALE: 3/4" = 1'-0"



4 SOFFIT AT PORCH  
SCALE: 3/4" = 1'-0"



5 HORIZ. BAND  
SCALE: 1" = 1'-0"

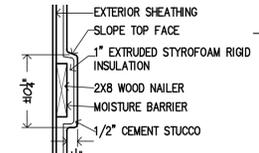
KEY NOTES

- TYPICAL EXTERIOR WALL SYSTEM
- PORCH EDGE FRAMING, SEE STRUCTURAL DRAWINGS
- 1/2" SHEATHING, TYPAR MOISTURE BARRIER, 1" STYROFOAM RIGID INSULATION, 1/2" FIBERGLASS REIN. CEMENT STUCCO
- WATER RESISTANT 2X4 BLOCKING
- SQUARE 1" GALV. SHEET METAL WEEP SCREED. INSTALL \*PEEL & STICK\* MOISTURE BARRIER TO BOTTOM OF SCREED.
- CUSTOM FABRICATED GALV. SHEET METAL FLASHING

KEY NOTES

- 2" X 3" STEEL TUBE RAIL @ 42" ABOVE FINISH FLOOR.
- 2" X 3" STEEL TUBE VERTICAL RAIL PER FLOOR PLAN.
- 1-1/2" STEEL TUBE INTERMEDIATE RAIL @ 5-1/2" O.C. OR 4" MAXIMUM SPACE BETWEEN RAILS.
- 2" X 4" STRUCTURAL STEEL TUBE TOE KICK.
- 2" X 5" SOLID BIRCH TRIM TOP & BOTTOM.
- 3/4" BIRCH VENEER PLYWOOD.
- 2" X 1/2" RC-1 RESILIENT CHANNEL @ 16" O.C., 1 LAYER 5/8" TYPE X DRYWALL.
- FLOOR FRAMING, SEE DETAIL 9 ON SHEET S-2.6.

NOTE: THIS WORK WILL COMPLY WITH THE "ARCHITECTURAL METALS" SPECIFICATIONS ON SHEET A-1.



EXTERIOR SHEATHING  
SLOPE TOP FACE  
1" EXTRUDED STYROFOAM RIGID INSULATION  
2X8 WOOD NAILER  
MOISTURE BARRIER  
1/2" CEMENT STUCCO



ELECTRICAL SYMBOLS

	LIGHT FIXTURE OUTLET - CEILING (LETTER INDICATES FIXTURE TYPE).
	LIGHT FIXTURE OUTLET - WALL (LETTER INDICATES FIXTURE TYPE).
	LENSED LIGHT FIXTURE (LETTER INDICATES FIXTURE TYPE).
	STRIP LIGHT FIXTURE (LETTER INDICATES FIXTURE TYPE).
	LIGHT TRACK AND FIXTURE (LETTERS INDICATE FIXTURE TYPES).
	JUNCTION BOX.
	EXIT SIGN (CEILING MOUNT OR WALL MOUNT).
	TOGGLE SWITCHES - SINGLE POLE, DOUBLE POLE, 3-WAY AND 4-WAY.
	TOGGLE SWITCH WITH PILOT LIGHT (LIGHT INDICATING ON).
	MANUAL MOTOR STARTER WITH MOTOR RUNNING OVERLOAD PROTECTION -SINGLE POLE, 2-POLE.
	DUPLEX CONVENIENCE RECEPTACLE.
	DUPLEX CONVENIENCE RECEPTACLE WITH ONE HALF SWITCHED.
	DUPLEX CONVENIENCE RECEPTACLE MOUNTED UNDER COMMON COVER WITH ADJACENT DEVICE.
	DUPLEX CONVENIENCE RECEPTACLE FLUSH CEILING MOUNTED.
	DUPLEX CONVENIENCE RECEPTACLE WITH ISOLATED GROUND. PROVIDE INSULATED/ISOLATED GROUND CONDUCTOR IN CIRCUIT PER NEC 250.146 (D).
	DUPLEX CONVENIENCE RECEPTACLE - GROUND FAULT CIRCUIT INTERRUPTING.
	QUADRAPLEX RECEPTACLE. (2-GANG BOX WITH 2 DUPLEX RECEPTACLES.)
	DIAGONAL LINE INDICATES DEVICE IS MOUNTED AT ABOVE COUNTER HEIGHT.
	MULTI-OUTLET ASSEMBLY (WIREMOLD PLUGMOLD 2100, U.N.O.).
	FLOOR DUPLEX RECEPTACLE.
	FLOOR TELEPHONE/DATA OUTLET.
	DOUBLE-GANG BOX MOUNTED AT RECEPTACLE HEIGHT, STUB-OUT 1-INCH CONDUIT TO ABV. ACCESSIBLE CLG., U.N.O. OUTLETS & WIRING BY OTHERS.
	TELEPHONE/DATA OUTLET ROUGH-IN, SINGLE GANG OUTLET AT RECEPTACLE HEIGHT, STUB-OUT 1-INCH CONDUIT TO ABV. ACCESSIBLE CLG., U.N.O.
	TELEPHONE OUTLET ROUGH-IN, SINGLE GANG OUTLET AT RECEPTACLE HEIGHT, U.N.O. STUB-OUT 3/4-INCH CONDUIT TO ABV. ACCESSIBLE CLG., U.N.O. "W" DENTOTES "WALL" TELEPHONE OUTLET +53" AFF.
	FUSTAT HOLDER WITH FUSTAT, ADAPTER AND SWITCH OR RECEPTACLE AS REQUIRED TO MAKE EQUIPMENT CONNECTION.
	SPECIAL OUTLET - PROVIDE OUTLET, ASSEMBLE AND MAKE ALL EQUIPMENT CONNECTIONS AS REQUIRED.
	TELEVISION OUTLET, SINGLE GANG AT RECEPTACLE HEIGHT, STUB-OUT 3/4-INCH CONDUIT TO ABV. ACCESSIBLE CLG., U.N.O.
	THERMOSTAT OUTLET.
	CEILING MOUNTED EXHAUST FAN.
	SAFETY SWITCH, NON-FUSED (PLAN).
	SAFETY SWITCH, FUSED (PLAN).
	FUSED SWITCH (ON DIAGRAM).
	NON-FUSED SWITCH (ON DIAGRAM).
	CIRCUIT BREAKER (ON DIAGRAM).
	PANELBOARD.
	TELEPHONE/DATA TERMINAL BOARD. 4' X 4' (OR SIZE AS NOTED) 3/4-INCH A-C PLYWOOD WITH #6 BC GROUND TO MAIN ELECTRIC GROUND.
	MAGNETIC STARTER AS NOTED.
	MAGNETIC STARTER CONTROLS ETC. FURNISHED WITH EQUIPMENT, CONNECT AS REQUIRED.
	MOTOR OUTLET CONNECT AS REQUIRED.
	CIRCUIT RUN IN CEILING OR WALL.
	CIRCUIT RUN IN OR UNDER FLOOR.
	CIRCUIT RUN TO PANEL, OR AS NOTED.
	GROUND EXTEND AND CONNECT TO APPROVED GROUND.
	STUB-OUT CONDUIT TO LOCATION AS INDICATED. (IF NOT INDICATED STUB TO ABOVE ACCESSIBLE CEILING INSIDE BUILDING OR UNDERGROUND IF OUTSIDE OF BUILDING.)
	DENOTES NEUTRAL, CIRCUIT, OR SWITCHED OR TRAVELER CONDUCTORS, RESPECTIVELY. WHEN NO TICK MARKS SHOWN PROVIDE TWO CONDUCTORS. CONTRACTOR IS RESPONSIBLE TO PROVIDE CORRECT QUANTITY OF CONDUCTORS IN EACH CIRCUIT RUN.
BC	BARE COPPER.
C.B.	CIRCUIT BREAKER
CWR	CONTROL WIRING AS REQUIRED.
DN	DOWN
(E) or EXIST	EXISTING
EDF	ELECTRIC DRINKING FOUNTAIN.
EG	EQUIPMENT GROUND
GND	GROUND
FBO	FURNISHED BY OTHERS, ELECTRICAL CONTRACTOR TO INSTALL AND PROVIDE SERVICE, ETC. TO AND CONNECT AS SHOWN AND/OR AS REQUIRED.
IG	ISOLATED GROUND PER NEC 250.146 (D).
M.B.	MAIN BREAKER (IN A PANELBOARD OR SWITCHBOARD).
MLO	MAIN LUGS ONLY.
(N)	NEW.
NIC	NOT IN CONTRACT.
NL	NIGHT LIGHT.
NTS	NOT TO SCALE.
(R)	REMOVE.
TRANSF.	TRANSFORMER.
UG	UNDERGROUND.
UNO	UNLESS NOTED OTHERWISE.
WP	WEATHERPROOF. (NEMA 3R)

REFER TO SHEET E-9 FOR SPECIAL SYSTEMS AND FIRE ALARM SYMBOLS.

ELECTRICAL SPECIFICATIONS

- ENTIRE ELECTRICAL INSTALLATION SHALL COMPLY WITH 2017 EDITION OF NFPA-70, NATIONAL ELECTRICAL CODE (NEC) AS ADOPTED BY AUTHORITY HAVING JURISDICTION AND ALL LOCAL CODES AND ORDINANCES PERTAINING TO ELECTRICAL AND LIGHTING INSTALLATION. MATERIALS AND EQUIPMENT SHALL BE LISTED IN ACCORDANCE WITH THE REQUIREMENTS OF NEC ARTICLE 110.3.
- REFER TO ARCHITECTURAL AND GENERAL CONDITIONS FOR PERMITS.
- INCLUDE AND PAY AS DIRECTED ALL COSTS FOR SERVING ELECTRICAL, TELEPHONE AND CABLE TELEVISION UTILITY CHARGES, INCLUDING ALL ADDITIONAL WORK, MATERIALS, ETC. REQUIRED TO PROVIDE THE COMPLETE ELECTRICAL, TELEPHONE AND CABLE TV INSTALLATION FOR THIS PROJECT. MAKE APPLICATIONS TO ALL UTILITY COMPANIES FOR NEW SERVICES AND COORDINATE ELECTRICAL SERVICE WORK WITH UTILITY COMPANY'S DRAWINGS AND REQUIREMENTS.
- UNLESS INDICATED OTHERWISE, ALL WIRING FOR POWER, LIGHTING AND CONTROLS SHALL BE INSTALLED CONCEALED IN APPROVED RACEWAY. RACEWAYS SHALL BE IN ACCORDANCE WITH NEC REQUIREMENTS EXCEPT AS NOTED BELOW:
  - SUPPORT EXPOSED CONDUITS AT 5'-0" INTERVALS AND WITHIN 18" OF BOX OR TERMINATION.
  - EXPOSED RACEWAYS ARE PERMITTED IN UNFINISHED SPACES OR WHERE SPECIFICALLY APPROVED BY ARCHITECT.
  - PROVIDE FLEXIBLE METALLIC CONDUIT (LIQUID TIGHT WHEN INSTALLED OUTDOORS OR IN WET LOCATIONS) FOR MOTORS, A/C UNITS, MACHINERY WHICH MUST BE MOVED FOR ADJUSTMENT AND TRANSFORMERS. FLEX CONDUIT SHALL BE USED IN LENGTHS NOT TO EXCEED 3'-0". USE CLAMP TYPE CONNECTORS FOR FLEX -- NO SCREW-IN TYPES.
  - DO NOT USE ELECTRICAL NON-METALLIC TUBING FOR ANY PART OF THE RACEWAY SYSTEM.
  - RACEWAYS FOR BRANCH CIRCUITS IN PATIENT CARE AREAS SHALL BE ALL METALLIC TYPE PER NEC 517.13. THIS INCLUDES WIRING TO RECEPTACLES, LIGHTING AND LIGHT SWITCHES, AND OTHER EQUIPMENT IN THE PATIENT CARE AREA.
- TYPES AC AND MC CABLES SHALL BE PERMITTED TO BE USED IN LIEU OF CONDUCTORS INSTALLED IN RACEWAYS FOR 20A AND SMALLER BRANCH CIRCUITS.
  - INSTALLATION OF AC AND MC CABLES SHALL BE IN ACCORDANCE WITH NEC REQUIREMENTS FOR SUCH CABLE USE.
  - TYPES NM, NMC, SE AND UF CABLES ARE NOT APPROVED AND SHALL NOT BE USED.
- PROVIDE A GREEN INSULATED COPPER EQUIPMENT GROUNDING CONDUCTOR IN ALL LINE VOLTAGE RUNS (BRANCH CIRCUITS AND FEEDERS). SIZE IN ACCORDANCE WITH NFPA-70, 2017 EDITION, TABLE 250.122 OR AS INDICATED, WHICHEVER IS LARGER. GROUND WIRE SHALL BE PROVIDED WHETHER OR NOT INDICATED ON THE DRAWINGS.
- INSTALL ALL CIRCUITS AS SHOWN ON PLAN. WHEN POINT-TO-POINT WIRING IS NOT INDICATED ON THE PLANS, CONNECT ALL OUTLETS TO CIRCUITS AS INDICATED. POINT-TO-POINT CONNECTIONS TO BE DETERMINED BY INSTALLING CONTRACTOR.
- CONDUCTORS:
  - UNLESS OTHERWISE INDICATED, CONDUCTORS SHALL BE COPPER, MINIMUM SIZE NO. 12 AWG WITH "THHN" OR "THWN", "THWN-2" XHHW OR XHHW-2 INSULATION.
  - PROVIDE LARGER CONDUCTORS WHEN INDICATED.
  - WHEN INDICATED (AL) ON DRAWINGS, ALUMINUM CONDUCTORS EQUAL TO ALCAN STABLOY COMPACT STRANDED AA-8000 SERIES ALLOY SHALL BE USED. LUGS FOR ALUMINUM CONDUCTORS SHALL BE LISTED AL/CU TYPE. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS WITH A LISTED JOINT COMPOUND AND TIGHTEN WITH TORQUE WRENCH TO MANUFACTURER'S RECOMMENDED VALUES.
  - COLOR CODE CONDUCTORS IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS.
- OUTLETS AND WIRING DEVICES:
  - MINIMUM BOX SIZE SHALL BE 4" SQUARE x 1.5" DEEP WITH ONE OR TWO GANG PLASTER RING AS REQUIRED. PROVIDE LARGER BOXES WHEN NECESSARY FOR THE QUANTITY OF CONDUCTORS INSTALLED OR WHEN INDICATED.
  - TOGGLE SWITCHES: 20A 125-277V P&S CSB20AC1 SERIES, OR EQUAL EATON, HUBBELL OR LEVITON COMMERCIAL SPECIFICATION GRADE.
  - RECEPTACLES, COMMERCIAL SPECIFICATION GRADE:
    - 20A, 125V DUPLEX P&S CR20 SERIES EXCEPT USE 15A, 125V CR15 IF ONLY ONE RECEPTACLE ON 15A CIRCUIT.
    - DUPLEX, 20A, 125V GROUND FAULT CIRCUIT INTERRUPTING P&S 2097 SERIES, EXCEPT USE 15A, 125V IF ONLY ONE OUTLET ON 15A CIRCUIT.
    - SPECIAL RECEPTACLES AS NOTED.
    - PROVIDE "TAMPER RESISTANT" TYPE RECEPTACLE DEVICES IN LOCATIONS DESCRIBED BY NEC 406.12 AND OTHER LOCATIONS WHEN SO INDICATED.
    - RECEPTACLES IN DAMP AND WET LOCATIONS SHALL COMPLY WITH NEC 406.9 (A) AND 406.9 (B), AS APPLICABLE, AND SHALL HAVE "WEATHER RESISTANT" TYPE WIRING DEVICES.
  - COLOR OF SWITCH AND RECEPTACLE DEVICES SHALL BE AS SELECTED BY ARCHITECT.
  - DEVICE COVER PLATES SATIN FINISHED STAINLESS STEEL #302. USE STANDARD SIZE PLATES, DO NOT USE OVERSIZE OR JUMBO PLATES.
  - MOUNTING HEIGHTS:
    - SWITCHES: +46" AFF TO CENTER OF BOX.
    - RECEPTACLES AND TEL/DATA: +16" AFF TO CENTER OF BOX, EXCEPT OVER COUNTER TOPS, ETC. +46" AFF OR HEIGHT AS NOTED.
  - MOUNT RECEPTACLES VERTICAL WITH GROUNDING POLE AT BOTTOM OR TO THE RIGHT SIDE WHEN RECEPTACLES MOUNTED HORIZONTAL ORIENTATION.
  - OUTLET AND SWITCH BOXES SHALL BE RIGIDLY SUPPORTED. IN FRAME WALLS PROVIDE BRACING BETWEEN STUDS BEHIND BOXES TO PREVENT BACKWARD MOVEMENT OF BOXES.
  - PROVIDE PROPER SUPPORT FOR ALL LIGHTING FIXTURES. FIXTURES WHICH WEIGH OVER 25 POUNDS SHALL NOT BE SOLELY SUPPORTED BY THE OUTLET BOX. LIGHT FIXTURES IN GRID TYPE CEILINGS SHALL BE SUPPORTED IN ACCORDANCE WITH THE BUILDING CODE REQUIREMENTS AND NEC 410.36 (B).
  - TELEPHONE/DATA AND SIMILAR OUTLETS IN STUD WALLS SHALL BE MUD RING ONLY (NO BOX) WITH EMT RACEWAY STUBBED UP FROM TOP OF OUTLET TO ACCESSIBLE CEILING OR AS INDICATED. IN MASONRY WALLS PROVIDE DEEP OUTLET BOX. MOUNT AT SAME HEIGHT AS ADJACENT RECEPTACLE OUTLETS, UNLESS OTHERWISE NOTED.
- DISTRIBUTION AND CONTROL EQUIPMENT SHALL BE EATON, ABB/GE INDUSTRIAL SOLUTIONS, SCHNEIDER ELECTRIC, OR SIEMENS OF THE TYPE AND RATINGS INDICATED. EQUIPMENT SHALL BE SUITABLE FOR INTENDED USE SUCH AS WEATHERPROOF WHEN INSTALLED OUTDOORS. SERVICE AND METERING EQUIPMENT SHALL COMPLY WITH POWER COMPANY REQUIREMENTS.
- ALL EQUIPMENT SHALL HAVE PROPER OVERCURRENT PROTECTION. THE FUSE SIZES

INDICATED ON THE DRAWINGS FOR MOTORS AND EQUIPMENT ARE BASED ON EQUIPMENT SIZES AS SPECIFIED. SUBSTITUTIONS OF EQUIPMENT AS WELL AS CHANGE IN MANUFACTURER MAY MAKE OVERCURRENT DEVICES OF A DIFFERENT RATING NECESSARY. THE CONTRACTOR SHALL VERIFY THE ACTUAL NAMEPLATE AMPERE RATING OF ALL EQUIPMENT AND SHALL SELECT FUSES TO COMPLY WITH THE NAMEPLATE RATING.

- PROVIDE IDENTIFICATION NAMEPLATES FOR ALL CONTROL SWITCHES FOR HVAC AND OTHER EQUIPMENT AND ON EACH PANEL, DISCONNECT, STARTER, TIME SWITCH, ETC. NAMEPLATES SHALL BE ENGRAVED LAMINATED BAKELITE, SCREWED OR RIVETED TO EQUIPMENT. DO NOT USE STAMPED METAL NAMEPLATES OR DYMO TAPE. ADDITIONAL IDENTIFICATION/MARKING/LABELING REQUIREMENTS:
  - ARC FLASH WARNING PER NEC 110.16 (B) FOR SERVICE DISCONNECTS RATED 1,200A OR LARGER.
  - AVAILABLE FAULT CURRENT AT SERVICE ENTRANCE EQUIPMENT PER NEC 110.24.
  - PROVIDE CIRCUIT DIRECTORIES IN ELECTRICAL PANELS COMPLIANT WITH NEC 408-4 (A).
  - MARK SWITCHBOARDS AND PANELBOARDS TO INDICATE SOURCE OF SUPPLY PER NEC 408-4 (B).

- ALL MATERIALS FURNISHED BY THIS CONTRACTOR SHALL BE NEW AND IN FIRST CLASS CONDITION. THE MANUFACTURER AND CATALOG NUMBERS SPECIFIED HEREIN AND ON THE DRAWINGS ARE TO ESTABLISH DESIGN, STYLE, AND LEVEL OF QUALITY. EQUAL PRODUCTS OF OTHER MANUFACTURERS ARE ACCEPTABLE.
- FURNISH ALL MANUFACTURER'S INSTALLATION AND OPERATING INSTRUCTIONS FOR ELECTRIC EQUIPMENT TO OWNER. ASSEMBLE ALL IN 3-RING BINDER.
- VERIFY EXACT ELECTRICAL REQUIREMENTS OF EQUIPMENT FURNISHED BY OTHERS AND COMPLY WITH THOSE REQUIREMENTS AT NO ADDITIONAL COST TO OWNER.
- THIS CONTRACT SHALL INCLUDE ALL CONTINGENCIES WHICH MAY ARISE AND MAY BE REQUIRED BY ALTERATION AND DEMOLITION WORK. THIS TO INCLUDE ALL REMOVAL, RELOCATION AND REWORKING OF EXISTING ELECTRICAL OUTLETS, CONDUIT, WIRING, AND EQUIPMENT AND ANY NECESSARY SPLICING OR EXTENSION OF EXISTING CONDUIT AND WIRING SYSTEMS.

INDICATE ACTUAL PANEL NAME  
INDICATE SPECIFIC VOLTAGE & PHASE FOR EACH PANEL  
INDICATE SPECIFIC POWER SOURCE SUPPLYING THE PANEL

CIRCUIT DIRECTORY		
PANEL A 120/208V-3 -4W PANEL SUPPLIED FROM SES#1	LIGHTING CIRCUITS SUPPLYING EXIT SIGNS/EMERGENCY LIGHTING UNITS IDENTIFIED BY (EM).	
LIGHTS ROOM #121	1	2
LIGHTS ROOM #122		
LIGHTS ROOM #123 (EM)		
RECEPTACLE ROOM #120	3	4
RECEPTACLE ROOM #121		
LIGHTS ROOM #123		
DRINKING FOUNTAIN	5	6
RECEPTACLE ROOM #129	7	8
ETC.	9	10
	11	12
	13	14
	15	16
	17	18
	19	20

FIRST CARD  
(UP TO 20 CIRCUITS)

21	22	RECEPTACLE WEST WALL 1ST. OUTLET N.W. CORNER
23	24	RECEPTACLE WEST WALL 2ND OUTLET N.W. CORNER
25	26	RECEPTACLE WEST WALL 3RD OUTLET N.W. CORNER
27	28	ETC.
29	30	
31	32	
33	34	
35	36	
37	38	
39	40	
41	42	

SECOND CARD  
(PROVIDE IF PANEL LARGER THAN 20 CIRCUITS)

PANEL DIRECTORY DETAIL

NOTES:

- PANEL DIRECTORY WHEN INSTALLED SHALL BE COVERED BY A CLEAR PLASTIC COVER. DIRECTORY SHALL CONTAIN THE FOLLOWING INFORMATION: 1) TYPE OF CIRCUIT SERVED; 2) ROOM OR ROOMS SERVED WITH THE ACTUAL ROOM NUMBER WHICH IS FINALLY USED (ROOM NUMBERS MAY BE CHANGED WHEN BUILDING IS COMPLETED.); 3) NOTE ALL CIRCUITS SUPPLYING EMERGENCY LIGHTING AND EXIT SIGN UNIT EQUIPMENT. EXAMPLES ARE SHOWN ON FIRST CARD.
- IF PANEL SERVES ONE ROOM THEN INDICATE CIRCUITS AS SHOWN ON SECOND CARD.
- DIRECTORIES SHALL BE TYPEWRITTEN EXCEPT USE SOFT PENCIL FOR "SPARE". DO NOT WRITE "SPACE" - LEAVE CARD BLANK.
- REFER TO SHEETS E-12 & E-13 FOR PANEL SCHEDULES.

**ENGINEERED DESIGN GROUP**  
CONSULTING MECHANICAL-ELECTRICAL-PLUMBING REFRIGERATION & FIRE PROTECTION ENGINEERS

EDG PROJECT # 22w-027  
951 N. AVENUE WAY, TUCSON AZ, 85711  
PH: (520)981-8886 FAX: (520)981-5647  
Web Site: www.edg-ce.com  
CERTIFICATE OF AUTHORIZATION #26A2816500

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**Albert N. Hopper, Jr.**  
**ARCHITECT**

1008 West Blvd  
Bisbee, AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
Structural Solutions, Inc.  
Tucson, AZ; 520-260-2692  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ; 520-881-8896  
LANDSCAPE ARCHITECT:



**NEW CITY HALL**  
**FOR THE**  
**CITY OF BISBEE**  
**118 ARIZONA ST.**  
**BISBEE, ARIZONA**



SHEET ISSUE

DATE:  
REVISIONS

- 1
- 2
- 3
- 4

SHEET MANAGEMENT

Comm. No. 2201  
Drawn By: IYP/DWC  
Checked By: DWC

DRAWINGS ON THIS SHEET

LOCATION MAPS  
ELECTRICAL SPECS &  
SYMBOLS

SHEET





Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd  
Bisbee, AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

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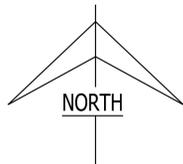
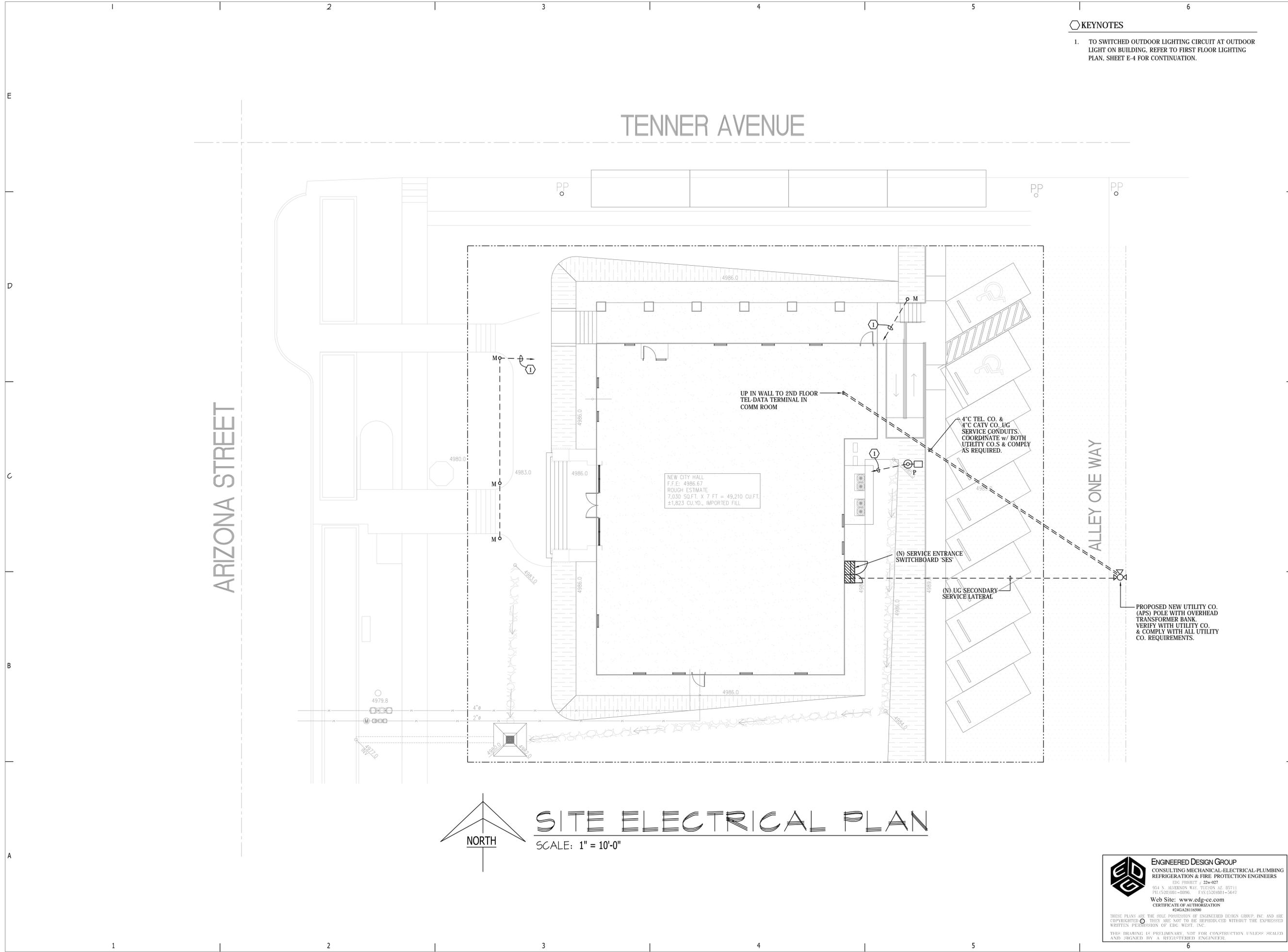
DRAWINGS ON THIS SHEET

SITE ELECTRICAL PLAN

SHEET

KEYNOTES

1. TO SWITCHED OUTDOOR LIGHTING CIRCUIT AT OUTDOOR LIGHT ON BUILDING. REFER TO FIRST FLOOR LIGHTING PLAN. SHEET E-4 FOR CONTINUATION.



# SITE ELECTRICAL PLAN

SCALE: 1" = 10'-0"

**ENGINEERED DESIGN GROUP**  
CONSULTING MECHANICAL-ELECTRICAL-PLUMBING  
REFRIGERATION & FIRE PROTECTION ENGINEERS

EDG PROJECT # 22w-027  
924 N. ALVERNON WAY, TUCSON, AZ, 85711  
PH: (520)981-8896 FAX: (520)881-5647  
Web Site: [www.edg-ce.com](http://www.edg-ce.com)  
CERTIFICATE OF AUTHORIZATION #20A2816500

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Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd  
Bisbee, AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
Structural Solutions, Inc.  
Tucson, AZ; 520-260-2692  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ; 520-881-8896  
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SHEET ISSUE

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- REVISIONS
- 1
  - 2
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SHEET MANAGEMENT  
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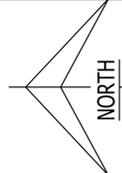
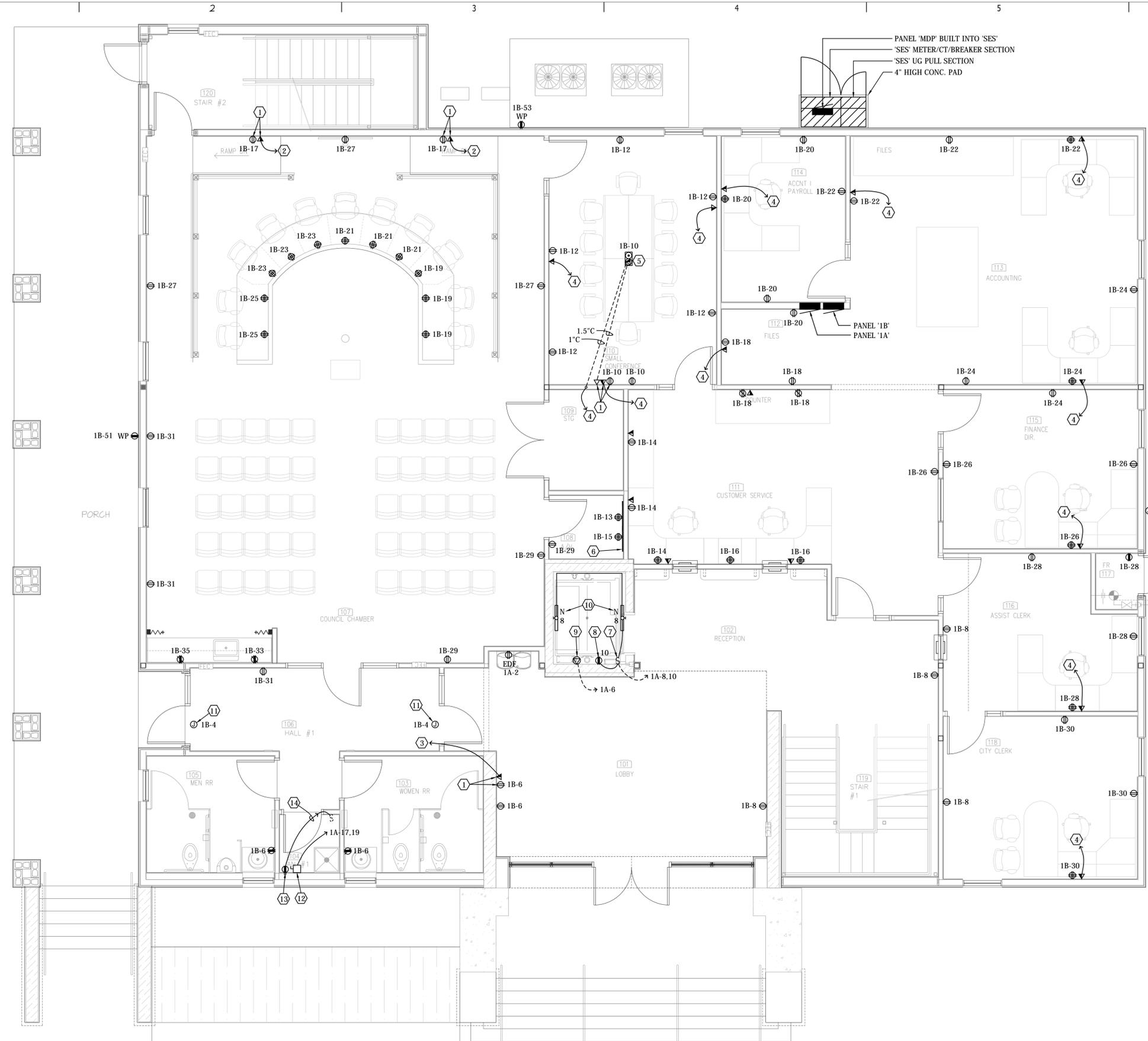
DRAWINGS ON THIS SHEET  
1ST FLOOR POWER PLAN

SHEET

1 of 2

KEYNOTES

1. HIGH ON WALL FOR TELEVISION - VERIFY HEIGHT WITH A/V EQUIPMENT VENDOR.
2. 3/4" C TO TEL-DATA BACKBOARD IN RM #215
3. 3/4" C TO ACCESSIBLE CEILING SPACE IN RM #106.
4. 1" C TO ACCESSIBLE CEILING SPACE IN RM #111.
5. WIREMOLD WFB-4 SERIES FLUSH FLOOR BOX WITH (2) DUPLEX RECEPTACLES. PROVIDE PLATES & FILLERS AS REQUIRED FOR LOW VOLTAGE DEVICES. COORDINATE w/ LOW VOLTAGE VENDOR. PROVIDE BRUSHED ALUMINUM FINISH METAL COVER.
6. A/V EQUIPMENT BACKBOARD, REFER TO SHEET E-9.
7. LIGHT SWITCH FOR ELEVATOR PIT LIGHTS WHERE ACCESSIBLE FROM 1ST FLOOR ELEVATOR LANDING. +46" ABOVE FIRST FLOOR LEVEL.
8. GFCI DUPLEX RECEPTACLE +54" ABOVE PIT FLOOR LEVEL OR +6" ABOVE FIRST FLOOR LEVEL, WHICH EVER IS LOWER.
9. NEMA 5-30R SINGLE RECEPT +54" ABOVE PIT FLOOR LEVEL OR +6" ABOVE FIRST FLOOR LEVEL, WHICH EVER IS LOWER. FOR SUMP PUMP, 3/4HP, 115V.
10. LIGHTS IN ELEVATOR PIT +12" ABOVE PIT FLOOR ON PIT WALLS. COORDINATE LOCATION WITH ELEVATOR EQUIPMENT.
11. FOR ACCESSIBLE DOOR OPERATOR. COORDINATE EQUIPMENT & REQUIRED ROUGH-INS WITH THE ACTUAL DOOR OPERATOR EQUIPMENT PROVIDED.
12. 30/2 NON-FUSED SAFETY SWITCH & HARDWIRE TO WATER HEATER. 3.0KW, 208V-1PH.
13. HIGH ON WALL FOR HOT WATER RECIRC. PUMP. COORDINATE LOCATION WITH PLUMBING.
14. TO CIRCUIT 1A-4 AT TIMER SWITCH FOR EF-1 (TO HOT CIRCUIT, NOT SWITCHED WIRE).
15. 120VAC FOR IRRIGATION CONTROLLER. COORDINATE LOCATION w/LANDSCAPING.



# FIRST FLOOR POWER PLAN

SCALE: 1/4" = 1'-0"

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PH: (520) 881-8896 FAX: (520) 881-5647  
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Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd  
Bisbee, AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
Structural Solutions, Inc.  
Tucson, AZ; 520-260-2692  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ; 520-881-8896  
LANDSCAPE ARCHITECT:



NEW CITY HALL  
FOR THE  
CITY OF BISBEE  
118 ARIZONA ST.  
BISBEE, ARIZONA



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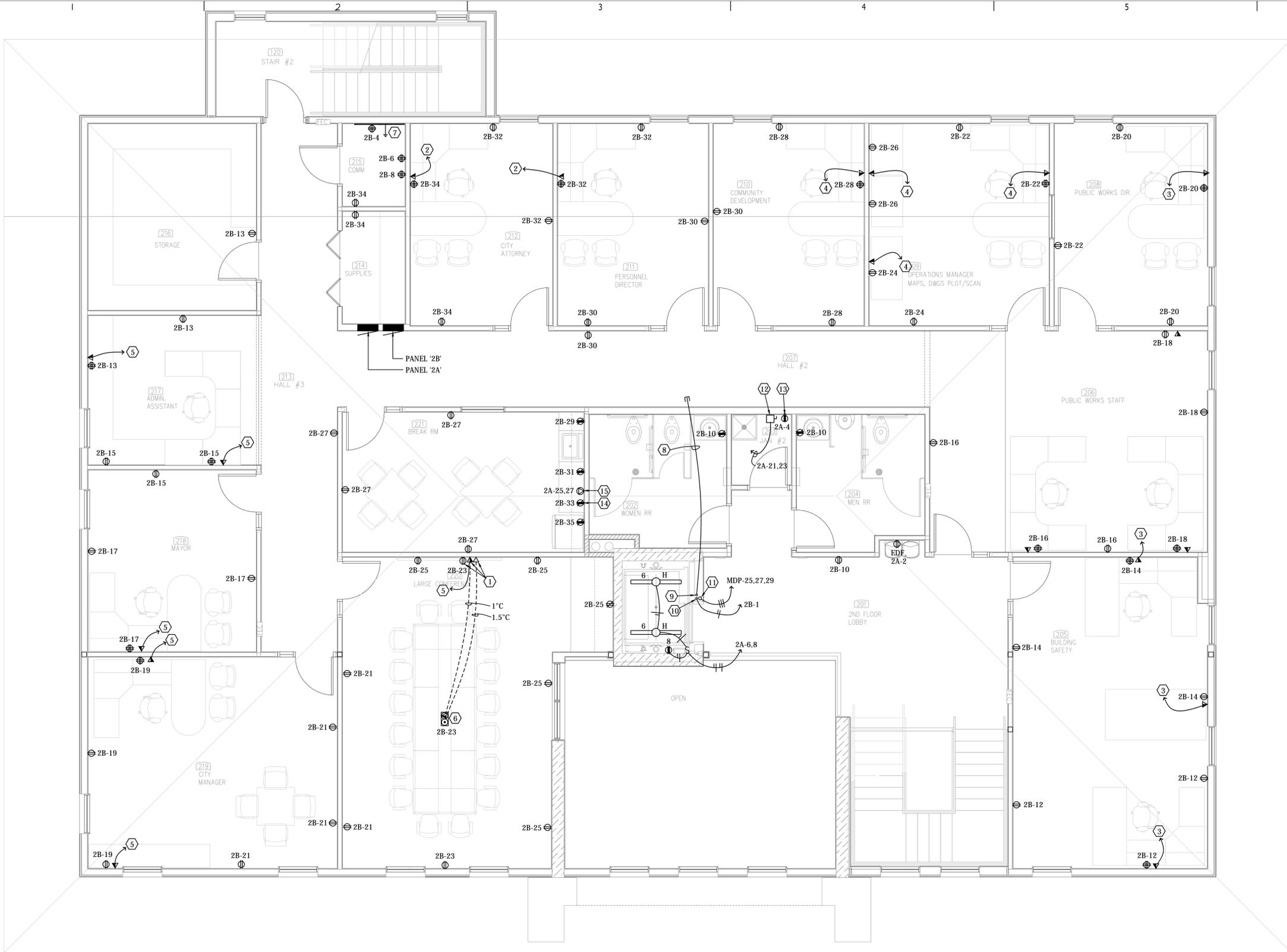
2ND FLOOR POWER PLAN

SHEET

E-3 of

KEYNOTES

1. HIGH ON WALL FOR TELEVISION - VERIFY HEIGHT WITH A/V EQUIPMENT VENDOR.
2. 1" C TO TEL-DATA BACKBOARD IN RM #215
3. 1" C TO ACCESSIBLE CEILING SPACE IN RM #207.
4. 1" C TO ACCESSIBLE CEILING SPACE IN HALL #207.
5. 1" C TO ACCESSIBLE CEILING SPACE IN HALL #213.
6. WIREMOLD WFB-4 SERIES FLUSH FLOOR BOX WITH (2) DUPLEX RECEPTACLES. PROVIDE PLATES & FILLERS AS REQUIRED FOR LOW VOLTAGE DEVICES. COORDINATE W/ LOW VOLTAGE VENDOR. PROVIDE BRUSHED ALUMINUM FINISH METAL COVER.
7. TEL/DATA BACKBOARD. REFER TO SHEET E-10.
8. 3/4" C TO ACCESSIBLE CEILING SPACE IN HALL #207.
9. STUB INTO ELEVATOR EQUIPMENT AT LOCATION FOR ELEVATOR CAR TELEPHONE.
10. STUB INTO ELEVATOR EQUIPMENT AT LOCATION FOR ELEVATOR CAR LIGHT. LOCKABLE DISCONNECT FOR ELEVATOR CAR LIGHT IS PROVIDED AS PART OF THE ELEVATOR EQUIPMENT AT 2ND FLOOR LANDING.
11. STUB INTO ELEVATOR EQUIPMENT AT LOCATION FOR ELEVATOR MAIN POWER. LOCKABLE DISCONNECT FOR ELEVATOR MAIN POWER IS PROVIDED AS PART OF THE ELEVATOR EQUIPMENT AT 2ND FLOOR LANDING.
12. 30/2 NON-FUSED SAFETY SWITCH & HARDWIRE TO WATER HEATER. 3.0KW. 208V-1PH.
13. HIGH ON WALL FOR HOT WATER RECIRC. PUMP. COORDINATE LOCATION WITH PLUMBING.
14. IN UPPER CABINET FOR MICROWAVE OVEN.
15. NEMA 14-50R SINGLE RECEPTACLE +6" AFF INSIDE BASE CABINET.



**SECOND FLOOR POWER PLAN**  
 SCALE: 1/4" = 1'-0"

**ENGINEERED DESIGN GROUP**  
 CONSULTING MECHANICAL-ELECTRICAL-PLUMBING  
 REFRIGERATION & FIRE PROTECTION ENGINEERS  
 EDG PROJECT # 22-027  
 804 N. ALYBURN WAY, TUCSON, AZ, 05711  
 PH: (520) 881-8896 FAX: (520) 881-2647  
 Web Site: www.edg-cc.com  
 CERTIFICATE OF AUTHORIZATION  
 #2643816500

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Bisbee, AZ 85603  
Phone: 520-249-6691  
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ELECTRICAL ENGINEER:  
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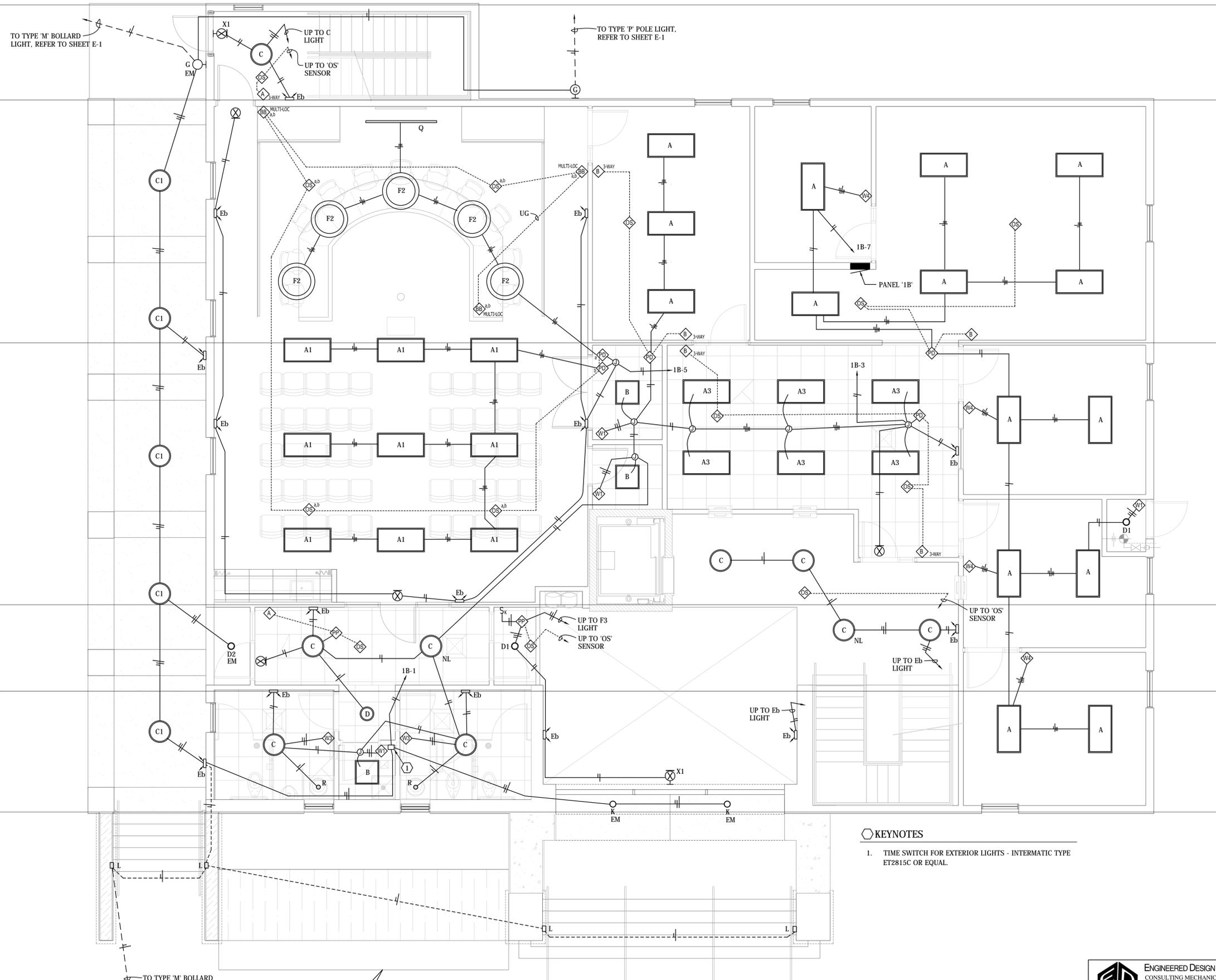
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1ST FLOOR LIGHTING PLAN

SHEET

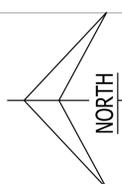


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**KEYNOTES**

1. TIME SWITCH FOR EXTERIOR LIGHTS - INTERMATIC TYPE ET2815C OR EQUAL.



**FIRST FLOOR LIGHTING PLAN**

SCALE: 1/4" = 1'-0"

**ENGINEERED DESIGN GROUP**  
CONSULTING MECHANICAL-ELECTRICAL-PLUMBING  
REFRIGERATION & FIRE PROTECTION ENGINEERS

EDG PROJECT # 22w-027  
924 N. ALDENWAY WAY, TUCSON, AZ, 85711  
PH: (520)881-8896 FAX: (520)881-5647  
Web Site: www.edg-ce.com  
CERTIFICATE OF AUTHORIZATION  
#20A2818500

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E  
D  
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KEYNOTES

- REFER TO POWER PLAN, SHEET E-3 FOR LIGHTING IN ELEVATOR HOISTWAY.



Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd  
Bisbee, AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
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Tucson, AZ; 520-260-2692  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060  
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EDG West Electrical Engineering  
Tucson, AZ; 520-881-8896  
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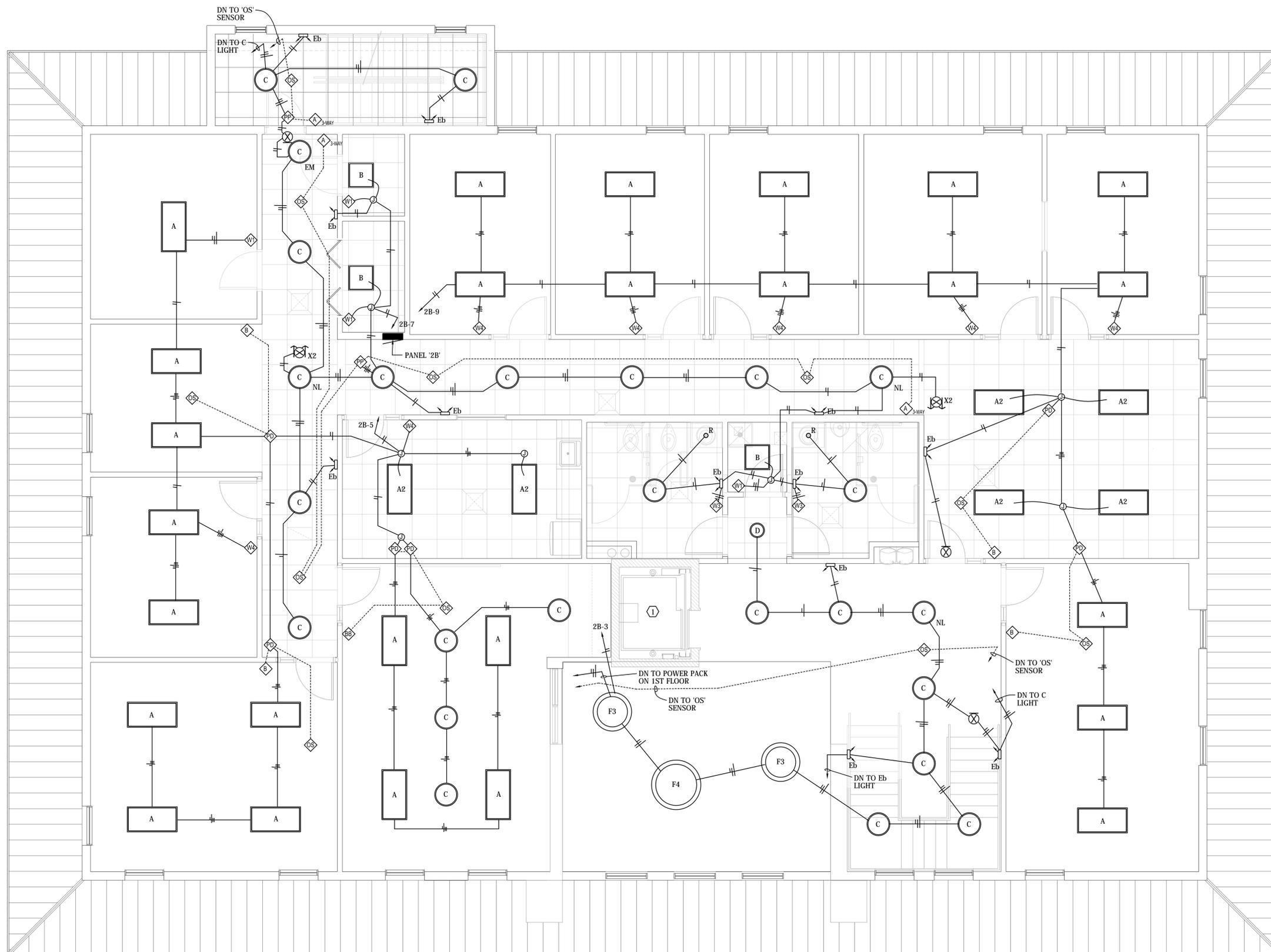
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2ND FLOOR LIGHTING PLAN

SHEET

E-5

of



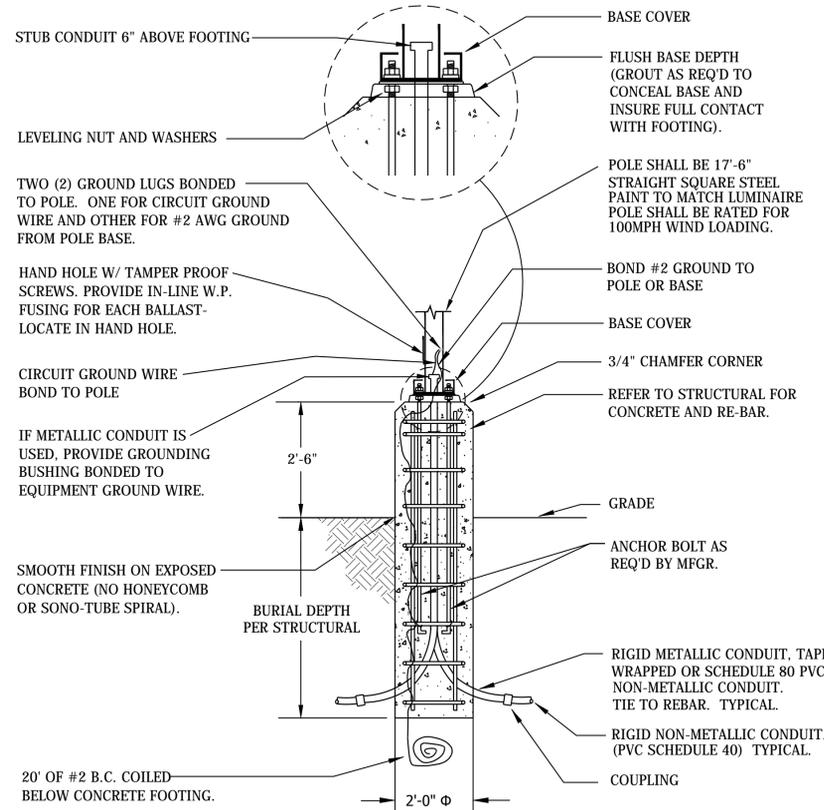
# SECOND FLOOR LIGHTING PLAN

SCALE: 1/4" = 1'-0"

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CONSULTING MECHANICAL-ELECTRICAL-PLUMBING  
REFRIGERATION & FIRE PROTECTION ENGINEERS  
EDG PROJECT # 22-0027  
924 S. ALBUQUERQUE WAY, TUCSON, AZ, 85711  
PH: (520) 881-8896 FAX: (520) 881-5647  
Web Site: www.edg-ce.com  
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INTERNATIONAL ENERGY CONSERVATION CODE 2018 INTERIOR COMPLIANCE				
1. INTERIOR LIGHTING POWER:				
BUILDING AREA TYPE	AREA SQ. FT.	TABLE C405.3.2 (1) ALLOWABLE WATTS/SF	TOTAL INTERIOR POWER WATTS ALLOWED	ACTUAL CONNECTED LIGHTING POWER (WATTS)
TOWN HALL	10800	0.80W/SF x 0.9 = 0.72W/SF	7,776	4,975
TOTALS			7,776	4,975
EXIT SIGNS UTILIZE LED TYPE SOURCES AND ARE RATED LESS THAN 5W/FACE. 4,975W/10,800SQ.FT. = 0.46W/SQ.FT.				
2. LIGHTING CONTROLS:				
INTERIOR LIGHTING CONTROLS COMPLY WITH THE REQUIREMENTS OF SECTION C405.2.				
THE FOLLOWING EXCEPTIONS APPLY WHEN MARKED 'X':				
<input type="checkbox"/>	C405.2 EXCEPTION 1. - SECURITY AND EMERGENCY AREAS CONTINUOUSLY LIGHTED.			
<input checked="" type="checkbox"/>	C405.2 EXCEPTION 2. - INTERIOR EXIT STAIRWAYS, INTERIOR EXIT RAMPS AND EXIT PASSAGEWAYS.			
<input checked="" type="checkbox"/>	C405.2 EXCEPTION 3. - EMERGENCY EGRESS LIGHTING THAT IS NORMALLY OFF.			
<input checked="" type="checkbox"/>	C405.2.1.1 EXCEPTION TO 2. - FULL AUTOMATIC-ON CONTROLS PROVIDED IN PUBLIC CORRIDORS, STAIRWAYS, RESTROOMS, BUILDING ENTRANCES & LOBBIES, ETC.			
<input type="checkbox"/>	C405.2.2 EXCEPTION 1. - TIME SWITCH CONTROLS NOT REQUIRED IN PATIENT CARE SPACES (LIGHT REDUCTION CONTROLS PROVIDED).			
<input type="checkbox"/>	C405.2.2 EXCEPTION 2. - TIME SWITCH CONTROLS NOT REQUIRED IN AREA WHERE AUTOMATIC SHUT-OFF ENDANGER OCCUPANT SAFETY OR SECURITY (LIGHT REDUCTION CONTROLS PROVIDED).			
<input type="checkbox"/>	C405.2.2 EXCEPTION 3. - TIME SWITCH CONTROLS NOT REQUIRED - LIGHTING INTENDED FOR CONTINUOUS OPERATION.			
<input checked="" type="checkbox"/>	C405.2.3 DAYLIGHT RESPONSIVE CONTROLS NOT PROVIDED BECAUSE DAYLIGHT ZONES ARE INDIVIDUALLY LESS THAN 150W EACH OF GENERAL LIGHTING.			
<input type="checkbox"/>	C405.2.3 DAYLIGHT RESPONSIVE CONTROLS PROVIDED ONLY IN DAYLIGHT ZONES THAT ARE RATED INDIVIDUALLY MORE THAN 150W EACH OF GENERAL LIGHTING.			
WHEN REQUIRED, AUTOMATIC CONTROLS ARE PROVIDED AS FOLLOWS:				
<input checked="" type="checkbox"/>	OCCUPANCY SENSING SWITCHING IN ALL AREAS REQUIRING LIGHTING CONTROLS.			
<input type="checkbox"/>	OCCUPANCY SENSING SWITCHING AS REQUIRED BY C405.2.1 AND TIME SWITCH CONTROLS IN ACCORDANCE WITH C405.2.2.			
3. SECTION C406 ADDITIONAL ENERGY EFFICIENCY OPTIONS: THIS PROJECT CALCULATED PER OPTION 2 REDUCED LIGHTING POWER.				
4. INTERIOR LIGHTING SYSTEM IS IN COMPLIANCE WITH IECC 2018 EDITION.				



2 FIXTURE "P" POLE & BASE DETAIL  
N.T.S.

OCCUPANCY SENSING LIGHT SWITCH  
SYMBOL LEGEND/DESCRIPTION

SYMBOL INDICATES LINE VOLTAGE WALL SWITCHBOX TYPE OCCUPANCY SENSOR LIGHT CONTROLLER. MOUNT AT NORMAL LIGHT SWITCH LOCATION. U.N.O. NORMAL LINE VOLTAGE CIRCUIT WIRING CONNECTS TO THIS DEVICE. SAME AS REGULAR LIGHT SWITCH. PROGRAM DEVICE FOR MANUAL ON, AUTOMATIC OFF OF CONNECTED LIGHTING LOAD.  
- SENSOR SWITCH TYPE WSX-PDT-SA, OR EQUAL.

SYMBOL SAME AS TYPE EXCEPT PROGRAMMED FOR AUTOMATIC ON & AUTOMATIC OFF OF CONNECTED LIGHTING LOAD.  
- SENSOR SWITCH TYPE WSX-PDT, OR EQUAL.

SYMBOL SAME AS TYPE EXCEPT WITH 0 - 10V DIMMING. DEVICE PROGRAMMED FOR AUTOMATIC TURN ON OF LIGHTS TO 50% OF FULL BRIGHTNESS AND AUTOMATIC TURN-OFF IF NO OCCUPANCY, WITH MANUAL OVERRIDE OF DIMMING AND ON/OFF.  
- SENSOR SWITCH TYPE WSX-PDT-D, OR EQUAL.

THE FOLLOWING SYMBOLS DENOTE DEVICES THAT ARE DIGITAL LIGHTING CONTROL TYPE DEVICES UTILIZING LOW VOLTAGE SENSORS AND WALL CONTROL DEVICES WITH LINE VOLTAGE RELAY/POWER PACKS (OR ROOM CONTROLLERS) IN THE CEILING SPACES -- EQUAL OF ACUITY CONTROLS NLIGHT SYSTEM OR WATTSTOPPER DIGITAL LIGHTING CONTROL, OR APPROVED EQUAL:

SYMBOL INDICATES 2-BUTTON WALL CONTROLLER (ON, OFF) MOUNTED AT NORMAL LIGHT SWITCH HEIGHT.

SYMBOL INDICATES 3-BUTTON WALL CONTROLLER (ON/OFF, RAISE, LOWER) MOUNTED AT NORMAL LIGHT SWITCH HEIGHT.

SYMBOL INDICATES (2) 3-BUTTON WALL CONTROLLERS (ON/OFF, RAISE, LOWER) MOUNTED AT NORMAL LIGHT SWITCH HEIGHT IN COMMON 2-GANG BOX. (DO NOT USE SINGLE DEVICE WITH 6-BUTTONS.)

SYMBOL INDICATES CEILING MOUNT DUAL TECH OCCUPANCY SENSOR.

SYMBOL INDICATES 0-10V DIMMING RELAY/POWER PACK LOCATED IN ACCESSIBLE ABOVE CEILING SPACE.

SYMBOL INDICATES RELAY/POWER PACK (NO DIMMING) LOCATED IN ACCESSIBLE ABOVE CEILING SPACE.

OCCUPANCY SENSING LIGHT SWITCH  
EQUIPMENT SPECIFICATION

- EQUIPMENT SHALL BE AS MANUFACTURED BY SENSOR SWITCH DIVISION OF ACUITY CONTROLS, UNLESS OTHERWISE INDICATED. EQUAL PRODUCTS EQUAL PRODUCTS AS MANUFACTURED BY WATT-STOPPER, EATON-GREENGATE, HUBBELL CONTROL SOLUTIONS, LUTRON AND PHILIPS MAY BE USED.
- SUBMIT COMPLETE SHOP DRAWINGS INCLUDING PLAN LAYOUT SHOWING EXACT LOCATION AND TYPE OF EACH DEVICE AND INDICATING COVERAGE OF SENSORS. NOTE THAT CEILING SENSOR LAYOUTS ON ELECTRICAL PLANS ARE CONCEPTUAL TO SHOW DESIGN CONCEPT AND AREAS OF REQUIRED COVERAGE. IF NECESSARY, ADDITIONAL SENSORS SHALL BE PROVIDED FOR COMPLETE COVERAGE OF ALL AREAS.
- INCLUDE ALL NECESSARY AND INCIDENTAL EQUIPMENT, MATERIALS, WIRING AND LABOR AS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM.
- VERIFY SYSTEM VOLTAGE AND PROVIDE LINE VOLTAGE SENSORS, POWER PACKS, ETC. IN CORRECT VOLTAGE FOR EACH LOCATION WHERE APPLIED.
- WALL SWITCH SENSORS SHALL CONNECT TO NEUTRAL WIRE AND SHALL NOT USE THE EQUIPMENT GROUND WIRE FOR POWERING THE SENSOR.
- ANY SENSOR OR DEVICE REQUIRING FIELD ADJUSTMENT OR CALIBRATION SHALL BE ADJUSTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- DEVICE COLORS:
  - CEILING SENSORS SHALL BE FURNISHED WITH WHITE COLOR UNLESS CEILING IS DARK COLOR IN WHICH CASE BLACK COLOR SENSORS SHALL BE PROVIDED.
  - COORDINATE COLOR OF WALL MOUNT DEVICES TO MATCH OTHER WIRING DEVICES USED.
- WALL MOUNT DEVICE COVER PLATES SHALL BE SAME MANUFACTURER, TYPE AND MATERIAL AS USED FOR OTHER WIRING DEVICES IN THIS CONTRACT.
- LIGHTING CONTROL DEVICES SHALL BE PROGRAMMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ENERGY CODE ADOPTED IN THE JURISDICTION WHERE THE INSTALLATION IS MADE.
  - IN GENERAL, SYSTEMS WITHOUT DIMMING SHALL BE PROGRAMMED FOR VACANCY TYPE OPERATION (MANUAL ON, AUTOMATIC OFF).
 

EXCEPTION 1: SYSTEMS IN LOBBIES, RECEPTION, STAIR #1, STAIR #2, HALL #1, HALL #2 AND HALL #3 SHALL BE PROGRAMMED FOR AUTOMATIC ON/OFF CONTROL. WALL CONTROLLERS IN THESE AREAS ARE TO OVERRIDE AUTOMATIC FUNCTIONS ONLY.

EXCEPTION 2: TYPE WALL CONTROLLER AND DIGITAL CONTROLS IN RESTROOMS AND CORRIDORS SHALL BE PROGRAMMED FOR AUTOMATIC ON WHEN OCCUPANCY DETECTED AND AUTOMATIC OFF AFTER 20 MINUTE TIME-OUT IF NO OCCUPANCY DETECTED.
  - DIMMING SYSTEMS SHALL BE PROGRAMMED FOR AUTOMATIC TURN-ON TO 50% LIGHT LEVEL AND AUTOMATIC OFF IF NO OCCUPANCY DETECTED, UNLESS INDICATED OTHERWISE.

1 OCCUPANCY SENSING LIGHT SWITCH CONTROLS LEGEND/SPECIFICATIONS  
N.T.S.

LIGHT FIXTURE SCHEDULE									
MRK	MOUNT	MFR	CATALOG NUMBER	NO.	LAMPS TYPE	REMARKS	INPUT		
							W	VA	VOLT
A	CABLE PEND	LITHONIA	CPANL 2X4 AL06 SW W7 M2 PACDNF36	-	5354LUMENS 45W LED 3500°K	2X4 LED FLAT PANEL SEE NOTES #2 & 3 SET TO 3500K, MED. LUMENS	45	50	120
A1	CABLE PEND	LITHONIA	CPANL 2X4 AL06 SW W7 M2 PACDNF36	-	4363LUMENS 36W LED 3500°K	2X4 LED FLAT PANEL SEE NOTES #2 & 3 SET TO 3500K, LOW LUMENS	36	40	120
A3	REC	LITHONIA	CPANL 2X4 AL06 SW W7 M2 PWS1856LV	-	5354LUMENS 45W LED 3500°K	2X4 LED FLAT PANEL SEE NOTE #3 SET TO 3500K, MED. LUMENS	45	50	120
A4	REC	LITHONIA	CPANL 2X4 AL06 SW W7 M2 PWS1856LV	-	4363LUMENS 36W LED 3500°K	2X4 LED FLAT PANEL SEE NOTE #3 SET TO 3500K, LOW LUMENS	36	40	120
B	REC	LITHONIA	CPANL 2X2 AL06 SW W7 M4 PWS1856LV	-	2617LUMENS 22W LED 3500°K	2X2 LED FLAT PANEL SEE NOTE #3 SET TO 3500K, LOW LUMENS	22	25	120
C	SURF	PRUDENTIAL	P3918 LED35 MO FWA TMW D1 SC UNV SUR X3 DM01	-	2350LUMENS 33W LED 3500°K	18" ROUND DOWNLIGHT	33	35	120
C1	SURF	PRUDENTIAL	P3918 LED27 LO FWA TMW D1 SC UNV SUR X3 DM01	-	1350LUMENS 15W LED 2700°K	18" ROUND DOWNLIGHT	19	20	120
D	SURF	JUNO	JSF 11IN 13LM 35K 90CRI MVOLT ZT WH	-	1300LUMENS 15W LED 3500°K	11" ROUND DOWNLIGHT	15	15	120
D1	SURF	JUNO	JSF 7IN 10LM 35K 90CRI MVOLT ZT WH	-	1000LUMENS 13W LED 3500°K	7" ROUND DOWNLIGHT	13	15	120
D2	SURF	JUNO	JSF 11IN 13LM 27K 90CRI MVOLT ZT WH E10WLCP	-	1300LUMENS 15W LED 2700°K	11" ROUND DOWNLIGHT WITH BATTERY BACKUP	15	20	120
Eb	WALL	LITHONIA	ELM2L SDRT	2	LED 220 LUMENS	EMERGENCY BATTERY LIGHT	-	5	120
F2	SURF	PRUDENTIAL	O-30 LED35 HO FWA TMW D1 SC UNV SUR X3 DM01	-	103W LED 3850 LUMENS 3500K	3' DIA. DECORATIVE SURFACE MOUNT WITH 1" SPACER	103	105	120
F3	CABLE PEND	PRUDENTIAL	O-30 LED35 SO FWA TMW D9 SC UNV CA96 X3 ND	-	76W LED 3400 LUMENS 3500K	3' DIA. DECORATIVE PENDANT. VERIFY SUSPENSION LENGTH w/ ARCHITECT	76	80	120
F4	CABLE PEND	PRUDENTIAL	O-40 LED35 SO FWA TMW D9 SC UNV CA96 X3 ND	-	105W LED 4600 LUMENS 3500K	4' DIA. DECORATIVE PENDANT. VERIFY SUSPENSION LENGTH w/ ARCHITECT	105	105	120
G	WB	LITHONIA	WPX1 LED 30K MVOLT DDBXD	-	1537 LUMENS 11W LED 3000°K	FULLY SHIELDED WALL PACK	11	15	120
G EM	WB	LITHONIA	WPX1 LED 30K MVOLT E14WC DDBXD	-	1537 LUMENS 11W LED 3000°K	FULLY SHIELDED WALL PACK W/ BATTERY BACK-UP	11	20	120
H	SURF	LITHONIA	ZLID L48 5000LM FST MVOLT 35K 80CRI WH	-	39W LED 5000 LUMENS 3500K	4' LONG LENSED STRIP	39	40	120
K EM	REC	GOTHAM	EVO6 27/20 AR MWD LSS MVOLT EZ10 ELR	-	1729 LUMENS 19.7W LED 2700°K	6" DOWNLIGHT W/ BATTERY BACKUP	20	25	120
L	REC	WAC	WL-LED100 27 BZ	-	68 LUMENS 3.5W LED 2700°K	FULLY SHIELDED STEP LIGHT	4	5	120
M	GROUND	LITHONIA	DSXB LED 12C 700mA 30K ASY MVOLT PE L/AB4 DDBTDX	-	2173 LUMENS 31W LED 3000°K	FULLY SHIELDED 42" BOLLARD - PROVIDE CONC	31	35	120
N	WALL	LITHONIA	DMW2 4000LM PCL WD MVOLT GZI 35K 80CRI STSL	-	40W LED 3500K 4893 LUMENS	NEMA 4X ELEV. PIT LIGHT	40	40	120
P	POLE	LITHONIA	DSX1 LED P3 30K T3M MVOLT DDBXD	-	11680 LUMENS 102W LED 3000°K	FULLY SHIELDED POLE LIGHT. REFER TO DETAIL THIS SHEET FOR POLE & BASE	102	110	120
Q	SURF	PRUDENTIAL	MW LED35 SO 4' TMW SC UNV SUR X3 DM01	-	38W LED 3788 LUMENS 3500K	4' LONG SURFACE WALL GRAZER	38	40	120
R	REC	LITHONIA	LDN4 35/07 LO4 AR LSS MVOLT GZ10	-	750 LUMENS 8.6W LED 3500°K	4" DOWNLIGHT	9	10	120
X	REC	LITHONIA	EDGR 1 G EL SD	-	GREEN LED	EXIT SIGN WITH BATTERY BACK-UP. 1-FACE, RECESSED TOP MOUNT	3.8	5	120
X1	BACK WALL	LITHONIA	EDG 1 G EL SD	-	GREEN LED	EXIT SIGN WITH BATTERY BACK-UP. 1-FACE, BACK WALL MOUNT	2.6	5	120
X2	REC	LITHONIA	EDGR 2 GMR EL SD (PROVIDE ARROWS AS INDICATED ON PLAN)	-	GREEN LED	EXIT SIGN WITH BATTERY BACK-UP. 2-FACE, RECESSED TOP MOUNT	3.8	5	120

LIGHT FIXTURE SCHEDULE NOTES:

- VERIFY FINISHES/COLOR OF LIGHT FIXTURES WITH ARCHITECT. COMPLY WITH ARCHITECT'S FINISHES/COLOR SELECTIONS.
- PROVIDE 12" LONG 4-POINT AIRCRAFT CABLE SUSPENSION FOR TYPES A & A1 FIXTURES.
- FIELD SWITCHABLE FIXTURE. SET COLOR TEMP AND LUMEN OUTPUT & WATTAGE TO RATING INDICATED.



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PH: (520)981-8896 FAX: (520)981-5647  
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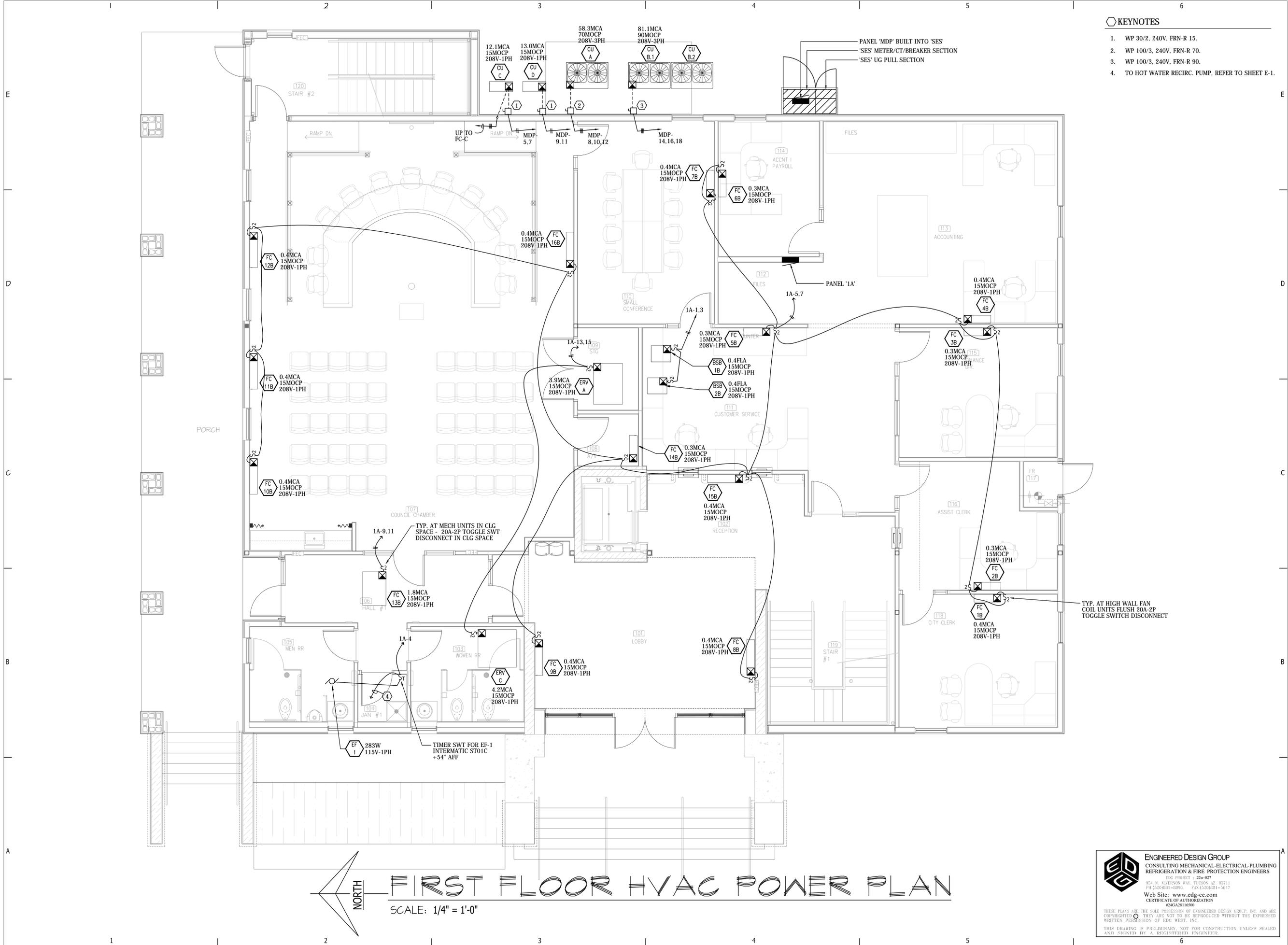
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DRAWINGS ON THIS SHEET  
LIGHTING DETAILS

SHEET

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KEYNOTES

1. WP 30/2, 240V, FRN-R 15.
2. WP 100/3, 240V, FRN-R 70.
3. WP 100/3, 240V, FRN-R 90.
4. TO HOT WATER RECIRC. PUMP, REFER TO SHEET E-1.



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STRUCTURAL ENGINEER:  
Structural Solutions, Inc.  
Tucson, AZ; 520-260-2692  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ; 520-881-8896  
LANDSCAPE ARCHITECT:



NEW CITY HALL  
FOR THE  
CITY OF BISBEE  
118 ARIZONA ST.  
BISBEE, ARIZONA



SHEET ISSUE

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Comm. No.	2201
Drawn By:	DWC
Checked By:	DWC

DRAWINGS ON THIS SHEET  
1st Floor HVAC  
Power Plan

**ENGINEERED DESIGN GROUP**  
CONSULTING MECHANICAL-ELECTRICAL-PLUMBING  
REFRIGERATION & FIRE PROTECTION ENGINEERS

EDG PROJECT # 22-0027  
824 S. ALFORD WAY, TUCSON, AZ 85711  
PH (520)881-8896 FAX (520)881-6417  
Web Site: www.edg-ce.com  
CERTIFICATE OF AUTHORIZATION #240A2816500

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**Albert N. Hopper, Jr.**  
ARCHITECT

1008 West Blvd  
Bisbee, AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
Structural Solutions, Inc.  
Tucson, AZ; 520-260-2692  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
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**DRAWINGS ON THIS SHEET**

2nd Floor HVAC  
Power Plan

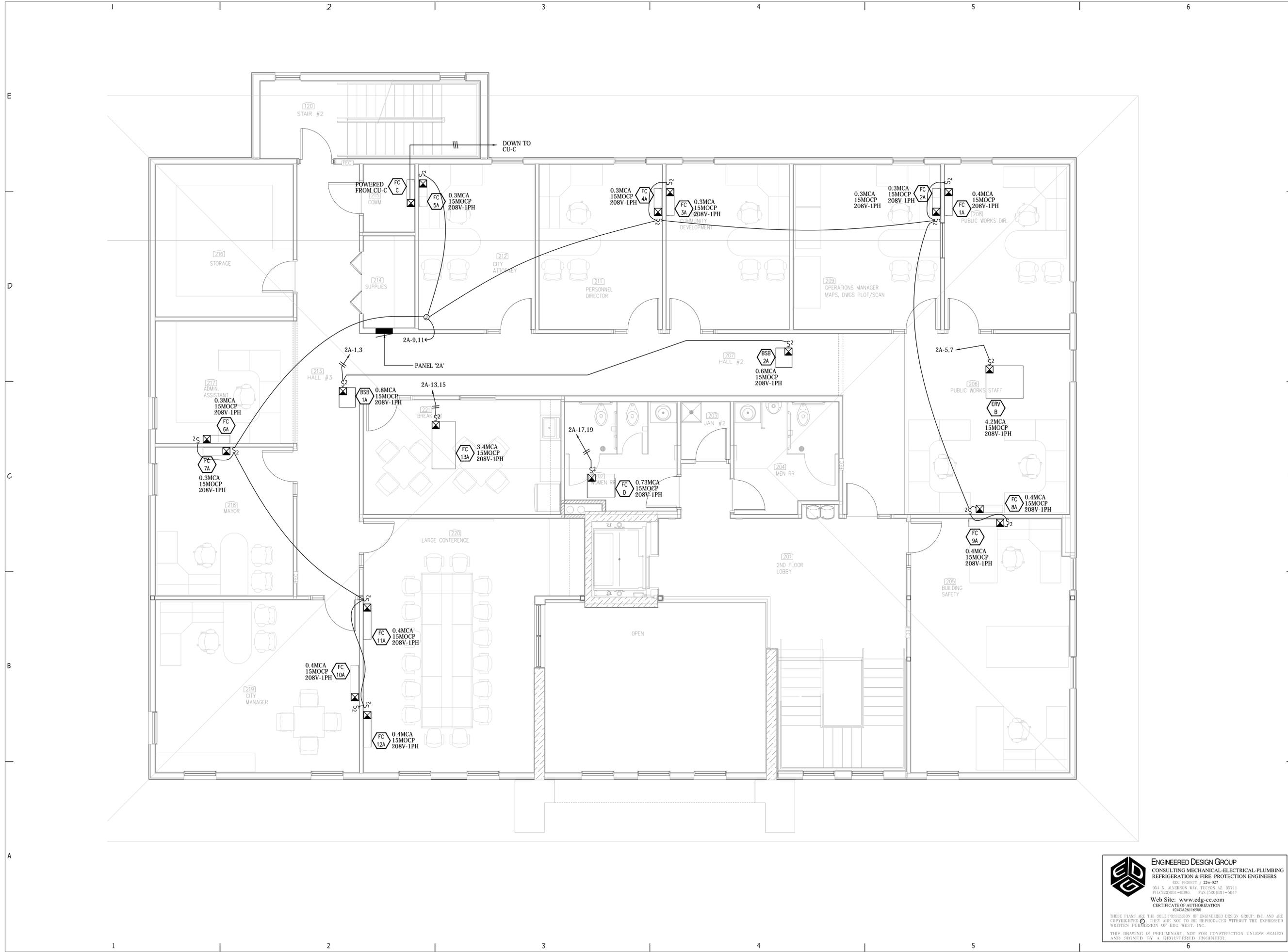
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CONSULTING MECHANICAL-ELECTRICAL-PLUMBING  
REFRIGERATION & FIRE PROTECTION ENGINEERS  
EDG PROJECT # 22-027  
954 S. ALVORDWAY, TUCSON, AZ, 85711  
PH: (520) 881-8896 FAX: (520) 881-5647  
Web Site: www.edg-cc.com  
CERTIFICATE OF AUTHORIZATION  
#2462816500

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Bisbee, AZ 85603  
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LANDSCAPE ARCHITECT:



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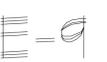
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Checked By: DWC

DRAWINGS ON THIS SHEET

FIRST FLOOR  
SPECIAL SYSTEMS PLAN

SHEET



of

KEYNOTES

1. 4'W x 8' H x 3/4" PLYWOOD BACKBOARD FOR A/V EQUIPMENT & SYSTEMS.
2. 4"C UG STUB-UPS AT DAIS MILLWORK AND A/V BACKBOARD.
3. +9'-0" AFF FOR TV MONITOR HDMI CONNECTION. COORDINATE BACKBOX TYPE WITH LOW VOLTAGE VENDOR.
4. 1-GANG J-BOX WITH BLANK COVER +9'-0" AFF.
5. 1-GANG J-BOX WITH BLANK COVER FLUSH IN CLG.
6. 3/4"C TO A/V EQUIPMENT BACKBOARD.
7. 1.5"C TO A/V EQUIPMENT BACKBOARD.
8. 3/4"C TO TEL/DATA BACK BOARD ON 2ND FLOOR.
9. 4"C FROM A/V TERMINAL BACKBOARD TO TEL/DATA BACK BOARD ON 2ND FLOOR.
10. (2) 4"C FROM ACCESSIBLE CEILING SPACE TO TEL/DATA BACK BOARD ON 2ND FLOOR.
11. 2-POLE FLOW SWITCH WITH LINE-VOLTAGE WIRING FOR OUTSIDE FIRE BELL ON 1-POLE AND LOW VOLTAGE FIRE ALARM WIRING TO MONITOR MODULE ON OTHER POLE.
12. 3/4"C STUB-OUT IN ABOVE ACCESSIBLE CEILING.
13. 2"C BETWEEN ACCESSIBLE CEILING SPACES IN HALL #1 AND CUSTOMER SERVICE.
14. 2.5"C UG STUB-UP AT DAIS MILLWORK.
15. 2.5"C UP TO TEL-DATA BACKBOARD IN COMM RM.

SPECIAL SYSTEMS LEGEND

FIRE ALARM

- CD - CANDELA (RATING FOR STROBE LIGHT).
- FA - FIRE ALARM.
- FACP - FIRE ALARM CONTROL PANEL.
- FSD - FIRE/SMOKE DAMPER.
- HD - HEAT DETECTOR.
- NAC - NOTIFICATION APPLIANCE CIRCUIT.
- SD - SMOKE DETECTOR.
- ZAM - ADDRESSABLE MODULE.
- MANUAL ALARM STATION.
- SPOT TYPE HEAT DETECTOR.
- SPOT TYPE SMOKE DETECTOR.
- FS - FLOW SWITCH - PROVIDE ADDRESSABLE MONITOR MODULE.
- TS - FIRE SPRINKLER VALVE SUPERVISORY SWITCH - PROVIDE ADDRESSABLE MODULE.
- C - ADDRESSABLE CONTROL MODULE.
- M - ADDRESSABLE MONITOR MODULE.
- V - STROBE - 15CD STROBE U.N.O..
- F - HORN/STROBE - 15CD STROBE U.N.O..

ACCESS CONTROL

- CR - 1-GANG FLUSH OUTLET BOX +42" AFF FOR CARD READER.
  - RE - 1-GANG FLUSH OUTLET BOX IN CEILING FOR REQUEST TO EXIT SENSOR.
- NOTE: ACCESS CONTROL SYSTEM EQUIPMENT & WIRING PROVIDED BY OWNER'S LOW VOLTAGE EQUIPMENT VENDOR. COORDINATE ALL ROUGH-INS WITH THAT VENDOR.

SECURITY

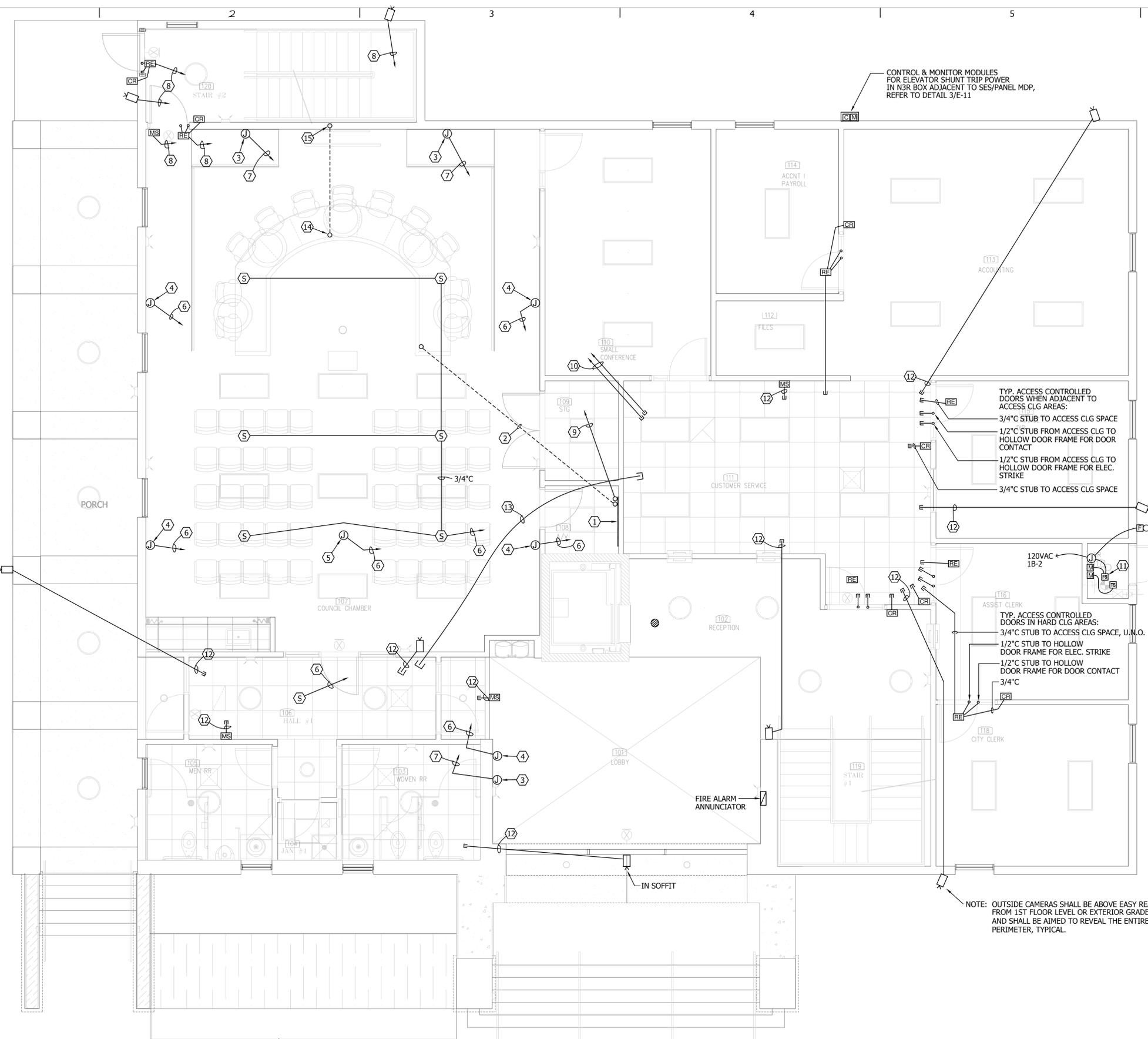
- MS - 1-GANG FLUSH OUTLET BOX FOR MOTION SENSOR. MOUNT +8'-6" AFF U.N.O.
- CS - 1-GANG FLUSH OUTLET BOX FOR SECURITY CAMERA. MOUNT +9" AFF IN INTERIOR LOCATIONS & +10" AFF IN EXTERIOR LOCATIONS. EQUIPMENT & WIRING BY LOW VOLTAGE VENDOR.

LOUDSPEAKERS

- S - FLUSH CEILING LOUDSPEAKER. OBTAIN BACKBOX FROM LOW VOLTAGE VENDOR & PROVIDE EMT RACEWAY TO BACK-BOX WHEN INDICATED.

SPECIAL SYSTEMS NOTES:

1. REFER TO POWER PLANS FOR TELEPHONE & DATA OUTLET ROUGH-INS WHICH ARE INDICATED ADJACENT TO POWER RECEPTACLES.
2. PROVIDE EMT RACEWAYS TO ALL OUTLETS FOR LOW VOLTAGE SYSTEMS LOCATED IN NON-ACCESSIBLE (HARD) CEILING AREAS. WHERE T-GRID ACCESSIBLE CEILINGS ARE PROVIDED, LOW VOLTAGE SYSTEM WIRING MAY BE RUN IN THE ACCESSIBLE ABOVE CEILING SPACES.
3. FIRE STOP ALL CABLES AND CONDUITS RUN THROUGH FIRE RATED WALL OR CEILING ASSEMBLIES. REFER TO ARCHITECTURAL FOR FIRE STOPPING REQUIREMENTS.
4. REFER TO SHEET E-11 FOR FIRE ALARM SPECIFICATIONS, DIAGRAM & PROGRAMMING MATRIX.
5. COORDINATE ALL SPECIAL SYSTEMS OUTLETS WITH OWNER'S SPECIAL SYSTEMS CONTRACTOR AT TIME OF ROUGH-IN AND COMPLY AS REQUIRED.



NORTH  
FIRST FLOOR SPECIAL SYSTEMS PLAN  
SCALE 1/4" = 1'-0"

**ENGINEERED DESIGN GROUP**  
CONSULTING MECHANICAL-ELECTRICAL-PLUMBING REFRIGERATION & FIRE PROTECTION ENGINEERS  
EDG PROJECT # 2201-027  
964 N. ALVERSON WAY, TUCSON AZ 85711  
PH: (520) 981-8896, FAX: (520) 981-6647  
Web Site: www.edg-ce.com  
CERTIFICATE OF AUTHORIZATION #3662316008

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Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd.  
Bisbee, AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
Structural Solutions, Inc.  
Tucson, AZ; 520-260-2692  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060  
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EDG West Electrical Engineering  
Tucson, AZ; 520-881-8896  
LANDSCAPE ARCHITECT:



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KEYNOTES

- 4'W x 8' H x 3/4" PLYWOOD BACKBOARD FOR TEL/ DATA EQUIPMENT & SYSTEMS.
- #2/0 (CU) GROUND DOWN TO MAIN GROUND BUS BAR IN ELECTRIC SERVICE ENTRANCE.
- INCOMING TEL & CATV UTILITY SERVICE CONDUITS & CONDUITS DOWN TO 1ST FLOOR STUB-UP HERE.
- (2) 4"C FROM COMM ROOM THRU WALL TO ABOVE CEILING IN HALL #3 (FOR LOW VOLTAGE WIRING). FIRE STOP AFTER CABLES ARE INSTALLED.
- ELEVATOR CONTROLLER. COORDINATE EXACT LOCATION WITH ELEVATOR VENDOR.
- FIRE ALARM CONTROL MODULES FOR ELEVATOR CAPTURE TO 1ST FLOOR, CAPTURE TO 2ND FLOOR AND FIRE HAT. LOCATE MODULES WHERE ACCESSIBLE ABOVE RESTROOM CEILING.
- ADJACENT TO FIRE SPRINKLER HEAD IN HOISTWAY, COORDINATE LOCATION WITH FIRE SPRINKLER SUB-CONTRACTOR.
- STUB 3/4"C FROM DEVICE BOX TO ABOVE ACCESSIBLE CEILING.

SPECIAL SYSTEMS NOTES:

- REFER TO POWER PLANS FOR TELEPHONE & DATA OUTLET ROUGH-INS WHICH ARE INDICATED ADJACENT TO POWER RECEPTACLES.
- PROVIDE EMT RACEWAYS TO ALL OUTLETS FOR LOW VOLTAGE SYSTEMS LOCATED IN NON-ACCESSIBLE (HARD) CEILING AREAS. WHERE T-GRID ACCESSIBLE CEILINGS ARE PROVIDED, LOW VOLTAGE SYSTEM WIRING MAY BE RUN IN THE ACCESSIBLE ABOVE CEILING SPACES.
- FIRE STOP ALL CABLES AND CONDUITS RUN THROUGH FIRE RATED WALL OR CEILING ASSEMBLIES. REFER TO ARCHITECTURAL FOR FIRE STOPPING REQUIREMENTS.
- REFER TO SHEET E-11 FOR FIRE ALARM SPECIFICATIONS, DIAGRAM & PROGRAMMING MATRIX.
- REFER TO SPECIAL SYSTEMS SYMBOL LEGEND ON SHEET E-9, WHICH APPLY TO WORK SHOWN ON THIS SHEET.

SHEET ISSUE

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DRAWINGS ON THIS SHEET

SECOND FLOOR  
SPECIAL SYSTEMS PLAN

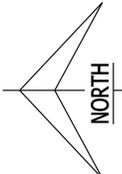
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EDG PROJECT # 2201-027  
964 N. ALVERNON WAY, TUCSON AZ 85711  
PH: (520) 981-8896 FAX: (520) 981-6647  
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# SECOND FLOOR SPECIAL SYSTEMS PLAN

SCALE: 1/4" = 1'-0"



Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd.  
Bisbee, AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
Structural Solutions, Inc.  
Tucson, AZ; 520-260-2692  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ; 520-881-8896  
LANDSCAPE ARCHITECT:



NEW CITY HALL  
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CITY OF BISBEE  
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SHEET MANAGEMENT  
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DRAWINGS ON THIS SHEET  
FIRE ALARM  
SPECS & DETAILS

SHEET

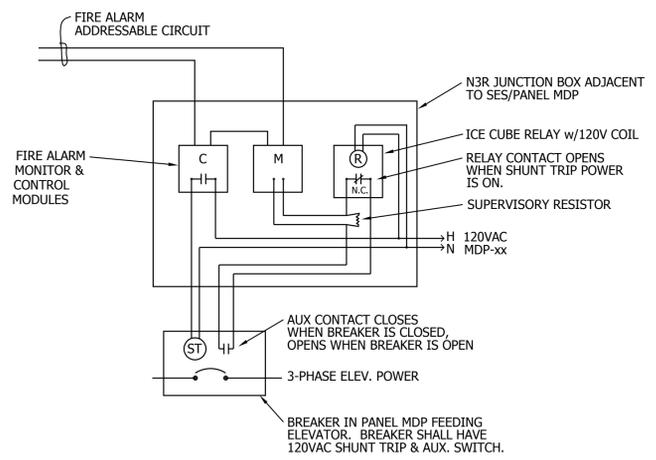
### FIRE ALARM SPECIFICATIONS

- 1.1 SCOPE AND GENERAL REQUIREMENTS
  - A. PROVIDE ALL EQUIPMENT AND ACCESSORIES FOR A MICROPROCESSOR BASED, ELECTRICALLY SUPERVISED, CLASS "B" FIRE ALARM SYSTEM AS DESCRIBED HEREIN AND AS INDICATED; TO BE WIRED, CONNECTED, AND LEFT IN FIRST CLASS OPERATING CONDITION FOR A COMPLETE OPERATING SYSTEM.
  - B. SYSTEM REQUIRED IS A LIMITED SCOPE FIRE ALARM SYSTEM PROVIDING THE FOLLOWING FUNCTIONS:
    1. FIRE SPRINKLER MONITORING AND SUPERVISION.
    2. ELEVATOR CAPTURE AND RECALL.
    3. SHUNT TRIP ELEVATOR POWER SUPPLY AND SUPERVISION OF SHUNT TRIP POWER SOURCE.
  - C. ALL EQUIPMENT, WIRING AND OPERATION OF THE SYSTEM SHALL COMPLY WITH LOCAL AND NATIONAL CODES AND ORDINANCES. SPECIFIC REFERENCE IS MADE TO CURRENT ADOPTED EDITIONS OF:
    1. NFPA 70
    2. NFPA 72
    3. INTERNATIONAL FIRE CODE
    4. CITY OF BISBEE FIRE CODE REQUIREMENTS
    5. AMERICANS WITH DISABILITIES ACT (ADA)
    6. CONFORM TO LATEST LOCAL REGULATIONS CURRENTLY IN FORCE.
  - D. EQUIPMENT AND ACCESSORIES FURNISHED UNDER THE TERMS OF THIS SPECIFICATION SHALL BE THE STANDARD PRODUCTS OF A SINGLE MANUFACTURER SHALL BE U.L. LISTED AND LABELED.
- 1.2 BASIC PERFORMANCE
  - A. ALARM AND TROUBLE SIGNALS FROM EACH ADDRESSABLE DEVICE SHALL BE DIGITALLY ENCODED ONTO A CLASS B (NFPA STYLE 4) MULTIPLEX COMMUNICATION SYSTEM
  - B. INITIATION DEVICE CIRCUIT SHALL BE WIRED CLASS B (NFPA STYLE B).
  - C. INDICATING APPLIANCE CIRCUITS SHALL BE WIRED CLASS B (STYLE Y).
  - D. SUPERVISORY DEVICE CIRCUIT SHALL BE WIRED CLASS B (NFPA STYLE B).
  - E. NO SIGNAL CIRCUIT SHALL BE INITIALLY LOADED IN EXCESS OF 85% OF ITS RATED AMPERE CAPACITY.
  - F. FIRE ALARM SYSTEM EQUIPMENT SHALL BE POWERED FROM DEDICATED 20 AMPERE, 120 VOLT CIRCUITS. THE CIRCUIT BREAKERS IN THE PANELS FEEDING THE SYSTEM SHALL HAVE A HANDLE LOCK-ON DEVICE AND SHALL BE IDENTIFIED IN THE CIRCUIT DIRECTORY. THE PANEL NAME AND CIRCUIT NUMBERS SHALL ALSO BE IDENTIFIED ON THE FIRE ALARM PANELS.
  - G. THE SYSTEM SHALL CONTAIN BATTERY BACKUP POWER. THE BATTERIES SHALL BE RECHARGEABLE LEAD CALCIUM AND BE OF THE SEALED MAINTENANCE FREE TYPE. THE PANEL SHALL CONTAIN A BATTERY CHARGER TO INSURE FULLY POWERED BATTERIES AT ALL TIMES.
  - H. PROVIDE AN INTERNAL DIGITAL ALARM COMMUNICATING TRANSMITTER (DACT) FOR COMMUNICATING ALARM AND SUPERVISORY CONDITIONS TO AN APPROVED CENTRAL MONITORING STATION. THE DACT SHALL BE PROGRAMMED TO REPORT TO THE CENTRAL MONITORING STATION AS SELECTED BY OWNER.
  - I. A FLOOR PLAN MAP OF THE BUILDING SHALL BE MADE AND REFERENCE MADE TO ZONE LOCATION WORDING TO GEOGRAPHIC LOCATION WITHIN THE BUILDING. THE MAP SHALL BE COLOR CODED AND PROTECTED BY A GLASSED FRAME SECURELY FASTENED TO THE WALL IN THE IMMEDIATE AREA OF THE FIRE ALARM PANEL.
  - J. CONTRACTOR SHALL SUBMIT PLANS TO THE AUTHORITY HAVING JURISDICTION (AHJ) FOR APPROVAL PRIOR TO INSTALLATION. COMPLY WITH ALL AHJ REQUIREMENTS AT NO ADDITIONAL COST. SHOP DRAWINGS SHALL BE SUBMITTED ON SAME SIZE DRAWING SHEETS AS THE BID DOCUMENTS.
- 1.3 SUBMITTALS
  - A. SUBMIT FOR APPROVAL COMPLETE SHOP DRAWINGS FOR SYSTEM. THIS TO INCLUDE DRAWINGS OF PANEL LAYOUT, COMPONENT LIST, BATTERY CALCULATIONS AND SYSTEM WIRING DIAGRAM AS SUBMITTED TO THE AHJ. CATALOG CUTS ONLY ARE NOT ACCEPTABLE.
    1. PROVIDE 1/4" SCALE FLOOR PLAN SHOWING EVERY DEVICE AND ACTUAL CONDUIT LAYOUTS AND WIRING IN EACH CONDUIT OR CIRCUIT.
    2. INDICATE CIRCUIT NUMBER FOR EACH DEVICE WHEN MORE THAN ONE CIRCUIT RUN IN A COMMON CONDUIT.
    3. DRAWINGS SHALL BE PREPARED BY NICET LEVEL 3 (MINIMUM) CERTIFIED FIRE ALARM DESIGNER OR AN ARIZONA REGISTERED PROFESSIONAL ELECTRICAL OR FIRE PROTECTION ENGINEER.
    4. DRAWINGS SHALL BE PREPARED ON THE SAME SIZE DRAWING SHEETS AS THE BID DOCUMENTS.
  - B. AS PART OF MAINTENANCE AND OPERATING INSTRUCTIONS, INCLUDE SCHEMATIC WIRING DIAGRAMS AND PARTS LISTS FOR ALL COMPONENTS AND ASSEMBLIES.
  - C. PROVIDE WIRING DIAGRAMS FOR COMPONENTS CAPABLE OF BEING CONNECTED TO THE SYSTEM AND INTERFACES TO EQUIPMENT SUPPLIED BY OTHERS.
- 2.1 PRODUCTS:
  - A. ALL EQUIPMENT AND COMPONENTS SHALL BE NEW, AND THE MANUFACTURER'S CURRENT MODEL.
- 2.2 MANUFACTURERS
  - A. THE CATALOG NUMBERS LISTED ARE THOSE OF THE EDWARDS DIVISION OF UNITED TECHNOLOGIES AND INDICATES QUALITY AND TYPE OF MATERIAL AS WELL AS OPERATING CHARACTERISTICS. EQUAL PRODUCTS AS MANUFACTURED BY AUTOCALL, FCI-GAMEWELL, NOTIFIER, SIEMENS AND SIMPLEX ARE ACCEPTABLE. WHEN A SUBSTITUTE MANUFACTURER PRODUCES MORE THAN ONE PRODUCT OF A GIVEN TYPE, THE PRODUCT WHICH MOST CLOSELY MATCHES THE EQUIPMENT SPECIFIED HEREIN SHALL BE USED.
- 2.3 FIRE ALARM CONTROL PANEL
  - A. EDWARDS IO-SERIES FIRE ALARM CONTROL PANEL, OR APPROVED EQUAL.
  - B. PROVIDE CABINET(S) OF SUFFICIENT SIZE TO ACCOMMODATE THE EQUIPMENT. THE CABINET(S) SHALL BE EQUIPPED WITH LOCKS AND TRANSPARENT DOOR PANEL PROVIDING FREEDOM FROM TAMPERING YET ALLOWING FULL VIEW OF THE VARIOUS LIGHTS AND CONTROLS. THE SYSTEM CONTROL PANEL SHALL BE SURFACE MOUNTED WHERE INDICATED.
- 2.4 ZONE ADAPTER MODULE
  - A. ZONE ADAPTER MODULES SHALL BE USED FOR MONITORING OF WATERFLOW, VALVE TAMPER, FIRE SUPPRESSION SYSTEMS, NON-ADDRESSABLE DETECTORS, AND FOR CONTROL OF EVACUATION INDICATING APPLIANCES AND AHU SYSTEMS. PROVIDE SIGA TYPE DEVICES OF THE TYPE AND FUNCTIONS AS REQUIRED FOR THE POINT OF APPLICATION.

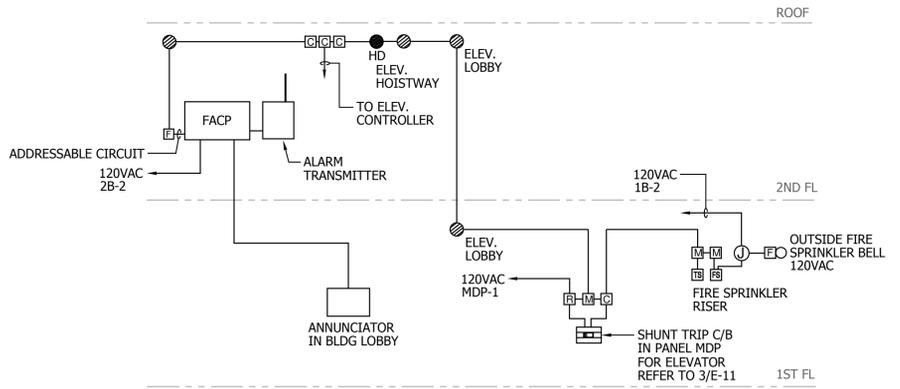
- 2.5 NOTIFICATION APPLIANCES
  - A. VISUAL ALARM NOTIFICATION APPLIANCES WITHOUT AUDIBLE DEVICE SHALL BE GENESIS G4 SERIES LED STROBES, WALL MOUNTED. USE ONLY WHERE VISUAL ONLY DEVICES ARE INDICATED.
    1. CANDELA RATING SHALL BE FIELD ADJUSTABLE TO 15, 30, 75 OR 110CD. INSTALLED VISUAL DEVICE CANDELA SETTING SHALL BE 15CD UNLESS OTHERWISE INDICATED.
    2. PROVIDE RED COLOR DEVICES.
  - B. HORN/STROBE NOTIFICATION APPLIANCES SHALL BE GENESIS G4LF SERIES LED HORN/STROBES, WALL MOUNTED.
    1. CANDELA RATING OF THE STROBE SHALL BE FIELD ADJUSTABLE TO 15, 30, 75 OR 110CD. INSTALLED STROBE CANDELA SETTING SHALL BE 15CD UNLESS OTHERWISE INDICATED.
    2. AUDIBLE DEVICE SHALL BE FIELD ADJUSTABLE TO THREE DBA SETTINGS (LOW, MEDIUM AND HIGH) AND SHALL PROVIDE A TEMPORAL CODE 3 SIGNAL.
    3. AUDIBLE VOLUME SETTING SHALL BE SET AT LOW IN ROOMS 400 SF AND SMALLER, AT MEDIUM IN ROOMS 401-1000 SF AND AT HIGH IN ROOMS LARGER THAN 1000 SF.
    4. PROVIDE RED COLOR DEVICES.
  - C. PROVIDE SYNC MODULE ON EACH NOTIFICATION APPLIANCE CIRCUIT TO OPERATE THE ALARM SIGNALS SYNCHRONOUS FOR BOTH AUDIBLE AND VISUAL SIGNALS.
- 2.7 MANUAL ALARM STATIONS
  - A. SEMI-FLUSH, NON-CODED, ADDRESSABLE TYPE SIGA-278 DOUBLE ACTION NON-BREAKGLASS ALARM STATIONS.
- 2.8 AUTOMATIC DETECTORS
  - A. SPOT TYPE SMOKE DETECTOR: PHOTOELECTRIC SIGA-PD DETECTOR WITH TYPE SIGA-SB STANDARD DETECTOR BASE.
  - B. HEAT DETECTOR: 135° FIXED TEMPERATURE SIGA-HFD WITH SIGA-SB STANDARD BASE. ONLY USE FOR ELEVATOR CAPTURE/SHUT-DOWN.
- 2.9 CONDUCTORS
  - A. CONDUCTORS FOR SYSTEM SHALL BE 98% MINIMUM CONDUCTIVITY COPPER.
  - B. FOR 24V DC CIRCUITS USE #14 AWG OR LARGER SOLID CONDUCTOR. STRANDED WIRE IS NOT ACCEPTABLE. INSULATION FOR ALL CIRCUITS TYPE "THHN" EXCEPT FOR UNDERGROUND CIRCUITS USE TYPE "THW" OR "XHHW." DO NOT USE TYPE "THHN OR "THW" WIRE FOR UNDERGROUND CIRCUITS. SEE PART 3 OF THIS SECTION FOR COLOR CODING.
  - C. FOR 120V AC CIRCUITS CONDUCTORS SHALL BE AS SPECIFIED IN ELECTRICAL SPECIFICATIONS.
  - D. CONDUCTORS FOR ADDRESSABLE CIRCUIT SHALL BE WEST PENN TYPE PER MANUFACTURER'S RECOMMENDATION.
- 3.1 INSTALLATION OF EQUIPMENT
  - A. INSTALLATION SHALL BE ACCOMPLISHED IN A PROFESSIONAL MANNER BY QUALIFIED PERSONNEL REGULARLY ENGAGED IN AND EXPERIENCED IN THIS TYPE OF WORK
  - B. SYSTEM SHALL BE FULLY PROGRAMMED TO MEET ALL OF THE NOTIFICATION AND CONTROL REQUIREMENTS OF THE APPLICABLE BUILDING, FIRE AND MECHANICAL CODES AND STANDARDS AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
  - C. WHEN PROGRAMMING EQUIPMENT, USE FINAL ROOM NAMES AND NUMBERS WHICH MAY NOT NECESSARILY BE THE SAME AS THE ROOM NAMES AND NUMBERS USED ON THE BID AND/OR CONSTRUCTION DRAWINGS.
- 3.2 INSTALLATION OF CONDUIT AND JUNCTION BOXES
  - A. ALL WIRING SHALL BE INSTALLED IN APPROVED RACEWAYS AND IN ACCORDANCE WITH FIRE CODE REQUIREMENTS. CONDUITS AND BOXES SHALL BE INSTALLED IN ACCORDANCE WITH THE ELECTRICAL SPECIFICATIONS.
  - B. ALL JUNCTION AND PULL BOXES AND THEIR COVERS SHALL BE PAINTED RED. PAINTING SHALL BE DONE PRIOR TO BOX INSTALLATION.
  - C. ALL METALLIC RACEWAYS SHALL HAVE ELECTRICAL GROUND CONTINUITY BACK TO THE F.A.C.P.
- 3.3 FIELD WIRING INSTALLATION
  - A. INSTALL ALL SYSTEM WIRING IN APPROVED RACEWAYS PER PARAGRAPH 3.2, OR AS APPROVED FIRE ALARM CABLE INSTALLED WITHOUT RACEWAY OR CONDUIT. ALL EXPOSED WIRING BELOW 8' AFF SHALL BE IN APPROVED RACEWAY (EMT).
  - B. WHEN MORE THAN ONE ZONE OR CIRCUIT OCCUPIES A JUNCTION OR PULL BOX, ALL CONDUCTORS SHALL BE IDENTIFIED WITH ZONE NUMBERS.
  - C. FIELD WIRING SHALL BE COLOR CODED AND BE CONSISTENT THROUGHOUT THE ENTIRE INSTALLATION
 

RED AND BLACK	=	SIGNAL DEVICES (HORNS AND BELLS)
YELLOW AND BLUE	=	INITIATING DEVICES (MANUAL STATION, HEAT AND SMOKE DETECTORS)
ORANGE AND BROWN	=	FLOW AND TAMPER SWITCHES
WHITE AND VIOLET	=	AUXILIARY (DOOR RELEASE/DOOR LATCH RELEASE AND HVAC SHUTDOWN)
  - D. WIRING CARRYING LINE VOLTAGE (120V AC) AND WIRING CARRYING LOW VOLTAGE (24V AC OR DC) SHALL NOT SHARE THE SAME CONDUIT.
- 3.4 INSTRUCTION TO OWNER
  - A. CONTRACTOR SHALL PROVIDE INSTRUCTION TO OWNER WITH REGARD TO PROPER USE AND OPERATION OF SYSTEM. THIS TO INCLUDE NOT LESS THAN TWO HOURS TIME WITH MANUFACTURER/SUPPLIER'S REPRESENTATIVE ON SITE TO DEMONSTRATE ALL ASPECTS OF THE SYSTEM.
  - B. PROVIDE MAINTENANCE AND OPERATING INSTRUCTIONS IN ACCORDANCE WITH DIVISION 1 AND THE ELECTRICAL SPECIFICATIONS.
- 3.6 TESTING AND ACCEPTANCE
  - A. CONDUCT A COMPLETE AND THOROUGH TEST TO INSURE THAT THE SYSTEM WILL SATISFY ALL THE REQUIREMENTS OF NFPA-72 AND THE LOCAL FIRE CODE, AS WELL AS THIS SPECIFICATION.
  - B. AFTER THE AUTHORITY HAVING JURISDICTION AND ARCHITECT HAVE BEEN SATISFIED THAT THE INSTALLATION MEETS ALL REQUIREMENTS, AN INSTRUCTIONAL SESSION SHALL BE SCHEDULED WITH THE OWNER TO DEMONSTRATE THE OPERATION AND THE FUNCTION OF ALL CONTROLS.

END



- FIRE ALARM RISER DIAGRAM NOTES:**
1. REFER TO PLANS FOR EXACT QUANTITY AND LOCATIONS OF DEVICES.
  2. DIAGRAM IS CONCEPTUAL. NOT ALL DEVICES ARE SHOWN. CONTRACTOR SHALL PREPARE SHOP DRAWINGS SHOWING ALL DETAIL OF SYSTEM, INCLUDING POINT-TO-POINT CONDUIT RUNS. REFER TO SPECIAL SYSTEMS PLANS FOR FIRE ALARM DEVICES.
  3. FIRE ALARM SHOP DRAWINGS FOR FIRE ALARM PERMITTING IS A DEFERRED SUBMITTAL.



### System Inputs

	Activate General Alarm Audible Sounder	Activate General Alarm Visual Indicator	Activate Supervisory Alarm Audible	Activate Supervisory Alarm Visual Indicator	Activate Trouble Alarm Audible Sounder	Activate Trouble Alarm Visual Indicator	Activate Point Identification Visual Indicator	Silence Exterior Alarm Bell - 120VAC, not FA control	Transmit Horns, Strobes and Horn/Strobes	Transmit General Fire Alarm Signal to Supervisory Station	Activate Supervisory Signal to Supervising Station	Capture Elevator to 1st Floor	Operate Elevator Main Power Shunt-Trip
1 Manual Pull Stations	X	X											
2 Spot type Smoke Detector (at FACP)			X	X									
3 Fire Sprinkler System Flow Switch	X	X											
4 Fire Sprinkler System Valve Tamper Switch			X	X									
5 Ground Fault					X	X	X						
6 Open Circuit					X	X	X						
7 Notification Appliance Short Circuit													
8 Silence Feature at FACP activated							X						
9 Elevator Lobby 1st Floor Smoke Detector			X	X				X		X		X	
10 Elevator Lobby 2nd Floor Smoke Detector			X	X				X		X	X		
11 Elevator Hoistway & Machine Rm Smoke Det.			X	X				X	X	X	X		
12 Elevator Hoistway & Machine Rm Heat Det.			X	X				X	X	X			
13 Elevator Monitor Shunt-Trip Power			X	X				X		X		X	
14 -													

\* Notification not provided because building does not require a fire alarm system per IBC Section 907.

### 2 FIRE ALARM PROGRAMMING MATRIX

**ENGINEERED DESIGN GROUP**  
CONSULTING MECHANICAL-ELECTRICAL-PLUMBING REFRIGERATION & FIRE PROTECTION ENGINEERS

EDG PROJECT # 22-0-027  
864 N. ALVERNON WAY, TUCSON AZ 85711  
PH: (520) 981-8896, FAX: (520) 981-6647  
Web Site: www.edg-ce.com  
CERTIFICATE OF AUTHORIZATION #3642316008

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THIS DRAWING IS PRELIMINARY. NOT FOR CONSTRUCTION UNLESS SEALED AND SIGNED BY A REGISTERED ENGINEER.

PANEL 2A										SHORT CIRCUIT RATING: FULLY RATED <input checked="" type="checkbox"/> SERIES RATED <input type="checkbox"/> 10 KAIC									
TYPE BOLT-ON BREAKERS										VOLTAGE 120/208V-3Φ-4W									
FLUSH <input checked="" type="checkbox"/> SURFACE <input type="checkbox"/> NEMA 1 <input checked="" type="checkbox"/> NEMA 3R <input type="checkbox"/>										BUS 100A MAIN LUGS ONLY									
CIRCUIT DESCRIPTION	# WIRES	WIRE SIZE	EG SIZE	COND. SIZE	CIRCUIT BRKR/NO.	ΦA	ΦB	ΦC	CIRCUIT NO. BRKR/WIRES	# WIRES	WIRE SIZE	EG SIZE	COND. SIZE	CIRCUIT DESCRIPTION					
BSB-11, BSB-21	2	12	12	1/2	15/1	200			15/1	2	12	12	1/2	GF EDF					
					2/3	300			2/3	2	12	12	1/2						
					4/2	200			4/2	2	12	12	1/2	HOT WATER RECIRC					
					5/2	180			5/2	2	12	12	1/2						
ERV-B	2	12	12	1/2	15/5	500			15/5	2	12	12	1/2	ELEVATOR HOISTWAY LTS					
					7/2	100			7/2	2	12	12	1/2						
					8/2	500			8/2	2	12	12	1/2	ELEV. HOISTWAY RECEIPT					
FC-1A THRU FC-12A	2	12	12	1/2	15/9	500			15/9	2	12	12	1/2	SPARE					
					11/2	500			11/2	2	12	12	1/2	SPARE					
FC-13A	2	12	12	1/2	15/13	400			15/13	2	12	12	1/2	SPARE					
					14/2	400			14/2	2	12	12	1/2	SPARE					
FC-D	2	12	12	1/2	15/17	100			15/17	2	12	12	1/2	SPARE					
					18/2	100			18/2	2	12	12	1/2	SPARE					
WATER HEATER WH-2	2	12	12	1/2	20/21	1500			20/21	2	12	12	1/2	SPACE					
					22/2	1500			22/2	2	12	12	1/2	SPACE					
3.0KW	2	12	12	1/2	23/2	1500			23/2	2	12	12	1/2	SPACE					
50A RECEPTACLE	3	8	10	3/4	25/40	4000			25/40	3	8	10	3/4	SPACE					
					27/2	4000			27/2	2	12	12	1/2	SPACE					
SPACE	-	-	-	-	29/2	-			29/2	2	12	12	1/2	SPACE					
					30/2	-			30/2	2	12	12	1/2	SPACE					

TOTAL VOLT-AMPS	5680	6780	2700
16 KVA	57 AMPS		
STUB (4) 3/4" FROM PANEL 2A TO ABV. CLG SPACE BY PANEL 2A LOCATION.			

\* INDICATES CONTINUOUS DUTY LOAD AT 125% DEMAND

PANEL 1A										SHORT CIRCUIT RATING: FULLY RATED <input type="checkbox"/> SERIES RATED <input checked="" type="checkbox"/> 65/10KAIC w/ REMOTE LINE SIDE FEEDER C/B									
TYPE BOLT-ON BREAKERS										VOLTAGE 120/208V-3Φ-4W									
FLUSH <input checked="" type="checkbox"/> SURFACE <input type="checkbox"/> NEMA 1 <input checked="" type="checkbox"/> NEMA 3R <input type="checkbox"/>										BUS 225A MAIN LUGS ONLY									
CIRCUIT DESCRIPTION	# WIRES	WIRE SIZE	EG SIZE	COND. SIZE	CIRCUIT BRKR/NO.	ΦA	ΦB	ΦC	CIRCUIT NO. BRKR/WIRES	# WIRES	WIRE SIZE	EG SIZE	COND. SIZE	CIRCUIT DESCRIPTION					
BSB-1B, BSB-2B	2	12	12	1/2	15/1	170			15/1	2	12	12	1/2	GF EDF					
					2/3	300			2/3	2	12	12	1/2						
					4/2	170			4/2	2	12	12	1/2	EF-1 & HOT WATER RECIRC					
					5/2	500			5/2	2	12	12	1/2						
ERB-A & ERV-C	2	12	12	1/2	15/5	900			15/5	2	12	12	1/2	ELEVATOR SUMP PUMP SP-1					
					7/2	1590			7/2	2	12	12	1/2						
					8/2	900			8/2	2	12	12	1/2	ELEVATOR PIT LIGHTS					
					9/2	100			9/2	2	12	12	1/2						
FC-1B THRU FC-12B, 14B, 15B, 16B	2	12	12	1/2	15/9	600			15/9	2	12	12	1/2	ELEVATOR PIT RECEIPT					
					11/2	180			11/2	2	12	12	1/2	SPARE					
FC-13B	2	12	12	1/2	15/13	200			15/13	2	12	12	1/2	SPARE					
					14/2	200			14/2	2	12	12	1/2	SPARE					
WATER HEATER WH-1	2	12	12	1/2	20/17	1500			20/17	2	12	12	1/2	SPARE					
					18/2	1500			18/2	2	12	12	1/2	SPARE					
3.0KW	2	12	12	1/2	20/21	1500			20/21	2	12	12	1/2	SPACE					
SPACE	-	-	-	-	22/2	-			22/2	2	12	12	1/2	SPACE					
SPACE	-	-	-	-	23/2	-			23/2	2	12	12	1/2	SPACE					
SPACE	-	-	-	-	25/2	-			25/2	2	12	12	1/2	SPACE					
SPACE	-	-	-	-	27/2	-			27/2	2	12	12	1/2	SPACE					
SPACE	-	-	-	-	29/2	-			29/2	2	12	12	1/2	SPACE					
SPACE	-	-	-	-	31/2	-			31/2	2	12	12	1/2	SPACE					
SPACE	-	-	-	-	32/2	-			32/2	2	12	12	1/2	SPACE					
SPACE	-	-	-	-	33/2	-			33/2	2	12	12	1/2	SPACE					
SPACE	-	-	-	-	35/2	-			35/2	2	12	12	1/2	SPACE					
SPACE	-	-	-	-	37/2	-			37/2	2	12	12	1/2	SPACE					
SPACE	-	-	-	-	39/2	-			39/2	2	12	12	1/2	SPACE					
SPACE	-	-	-	-	41/2	-			41/2	2	12	12	1/2	SPACE					
					42/3	2700			42/3	3				REFER TO FEEDER DIAGRAM PANEL 2A					

TOTAL VOLT-AMPS	8850	8430	7290
25 KVA	74 AMPS		
STUB (4) 1" FROM PANEL 1A TO ABV. CLG SPACE IN ROOM #111.			

\* INDICATES CONTINUOUS DUTY LOAD AT 125% DEMAND

PANEL 1B										SHORT CIRCUIT RATING: FULLY RATED <input type="checkbox"/> SERIES RATED <input checked="" type="checkbox"/> 65/10KAIC w/ REMOTE LINE SIDE FEEDER C/B									
TYPE BOLT-ON BREAKERS										VOLTAGE 120/208V-3Φ-4W									
FLUSH <input checked="" type="checkbox"/> SURFACE <input type="checkbox"/> NEMA 1 <input checked="" type="checkbox"/> NEMA 3R <input type="checkbox"/>										BUS 225A MAIN LUGS ONLY									
CIRCUIT DESCRIPTION	# WIRES	WIRE SIZE	EG SIZE	COND. SIZE	CIRCUIT BRKR/NO.	ΦA	ΦB	ΦC	CIRCUIT NO. BRKR/WIRES	# WIRES	WIRE SIZE	EG SIZE	COND. SIZE	CIRCUIT DESCRIPTION					
* OUTSIDE LIGHTS	2	12	12	1/2	20/1	-			20/1	2	12	12	1/2	HB FIRE SPRINKLER BELL					
					2/3	10			2/3	2	12	12	1/2						
* LIGHTS	2	12	12	1/2	20/3	900			20/3	2	12	12	1/2	ACCESSIBLE DOOR OPERATOR					
					4/2	360			4/2	2	12	12	1/2						
* LIGHTS	2	12	12	1/2	20/5	1200			20/5	2	12	12	1/2	RECEPT - 101, 103, 105					
					6/2	720			6/2	2	12	12	1/2						
* LIGHTS	2	12	12	1/2	20/7	800			20/7	2	12	12	1/2	RECEPT - 101, 116, 118					
					8/2	720			8/2	2	12	12	1/2						
SPARE	-	-	-	-	20/9	-			20/9	2	12	12	1/2	RECEPT - 110					
					10/2	720			10/2	2	12	12	1/2						
SPARE	-	-	-	-	20/11	-			20/11	2	12	12	1/2	RECEPT - 110					
					12/2	900			12/2	2	12	12	1/2						
A/V EQUIPMENT	2	12	12	1/2	20/13	600			20/13	2	12	12	1/2	RECEPT - 111					
					14/2	720			14/2	2	12	12	1/2						
A/V EQUIPMENT	2	12	12	1/2	20/15	600			20/15	2	12	12	1/2	RECEPT - 111					
					16/2	720			16/2	2	12	12	1/2						
RECEPT - 107 TV'S	2	12	12	1/2	20/17	600			20/17	2	12	12	1/2	RECEPT - 111, 112					
					18/2	720			18/2	2	12	12	1/2						
RECEPT - 107 DAIS	2	12	12	1/2	20/19	1080			20/19	2	12	12	1/2	RECEPT - 112,114					
					20/21	900			20/21	2	12	12	1/2						
RECEPT - 107 DAIS	2	12	12	1/2	20/21	1080			20/21	2	12	12	1/2	RECEPT - 113, 114					
					22/2	900			22/2	2	12	12	1/2						
RECEPT - 107 DAIS	2	12	12	1/2	20/23	1080			20/23	2	12	12	1/2	RECEPT - 113, 115					
					24/2	900			24/2	2	12	12	1/2						
RECEPT - 107 DAIS	2	12	12	1/2	20/25	720			20/25	2	12	12	1/2	RECEPT - 111, 115					
					26/2	900			26/2	2	12	12	1/2						
RECEPT - 107	2	12	12	1/2	20/27	540			20/27	2	12	12	1/2	RECEPT - 116, 117					
					28/2	900			28/2	2	12	12	1/2						
RECEPT - 107, 108	2	12	12	1/2	20/29	540			20/29	2	12	12	1/2	RECEPT - 118					
					30/2	720			30/2	2	12	12	1/2						
RECEPT - 106, 107	2	12	12	1/2	20/31	540			20/31	2	12	12	1/2	IRRIGATION CONTROL					
					32/2	360			32/2	2	12	12	1/2						
RECEPT - 107 COUNTER	2	12	12	1/2	20/33	180			20/33	2	12	12	1/2	SPARE					
					34/1	-			34/1	2	12	12	1/2						
RECEPT - 107 COUNTER	2	12	12	1/2	20/35	180			20/35	2	12	12	1/2	SPARE					
					36/1	-			36/1	2	12	12	1/2						
SPARE	-	-	-	-	20/37	-			20/37	2	12	12	1/2	SPARE					
					38/1	-			38/1	2	12	12	1/2						
SPARE	-	-	-	-	20/39	-			20/39	2	12	12	1/2	SPARE					
					40/1	-			40/1	2	12	12	1/2						
SPARE	-	-	-	-	20/41	-			20/41	2	12	12	1/2	SPARE					
					42/1	-			42/1	2	12	12	1/2						
SPACE	-	-	-	-	43	-			43	2	12	12	1/2	SPACE					
					44	-			44	2	12	12	1/2						
SPACE	-	-	-	-	45	-			45	2	12	12	1/2	SPACE					
					46	-			46	2	12	12	1/2						
SPACE	-	-	-	-	47	-			47	2	12	12	1/2	SPACE					
					48	-			48	2	12	12	1/2						
SPACE	-	-	-	-	49	-			49	2	12	12	1/2	SPACE					
					50	-			50	2	12	12	1/2						
OUTSIDE RECEIPT	2	12	12	1/2	20/51	180			20/51	2	12	12	1/2	SPACE					
					52	-			52	2	12	12	1/2						
OUTSIDE RECEIPT	2	12	12	1/2	20/53	180			20/53	2	12	12	1/2	SPACE					
					54	-			54	2	12	12	1/2						

SUB-FEED BREAKER - PANEL 2B	REFER TO FEEDER DIAGRAM	7280	9800	6300
TOTAL VOLT-AMPS		15330	16880	14040
		47 KVA	141 AMPS	

\* INDICATES CONTINUOUS DUTY LOAD AT 125% DEMAND

PANEL 2B										SHORT CIRCUIT RATING: FULLY RATED <input type="checkbox"/> SERIES RATED <input checked="" type="checkbox"/> 65/10KAIC w/ REMOTE LINE SIDE FEEDER C/B									
TYPE BOLT-ON BREAKERS										VOLTAGE 120/208V-3Φ-4W									



Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd.  
Bisbee, AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
Structural Solutions, Inc.  
Tucson, AZ; 520-260-2692  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ; 520-881-8896  
LANDSCAPE ARCHITECT:



NEW CITY HALL  
FOR THE  
CITY OF BISBEE  
118 ARIZONA ST.  
BISBEE, ARIZONA

SHEET ISSUE

DATE: 4-5-2022

REVISIONS

- 1
- 2
- 3
- 4

SHEET MANAGEMENT

Comm. No. 2201  
Drawn By: DWC  
Checked By: DWC

DRAWINGS ON THIS SHEET

FEEDER DIAGRAM

CALCULATIONS

SHEET

E-13 of

PANEL MDP		SHORT CIRCUIT RATING: FULLY RATED <input type="checkbox"/> SERIES RATED <input checked="" type="checkbox"/> 65/22KAIC w/ LINE SIDE MAIN DEVICE							
TYPE BUILT INTO SERVICE ENTRANCE 'SES'		VOLTAGE 120/208V-3Ø-4W							
FLUSH <input type="checkbox"/> SURFACE <input type="checkbox"/> NEMA 1 <input type="checkbox"/> NEMA 3R <input checked="" type="checkbox"/>		BUS 600A MAIN FEEDER DIAG.							
		ΦA	ΦB	ΦC					
CIRCUIT DESCRIPTION	# WIRES	WIRE SIZE	EG COND. SIZE	CIRCUIT BRKR. NO.	CIRCUIT NO.	# WIRES	WIRE SIZE	EG COND. SIZE	CIRCUIT DESCRIPTION
ELEVATOR SHUNT TRIP CONTROL POWER	2	12	12	1/2	20	1	-	-	-
SPARE	-	-	-	-	20	3	-	-	-
CU-C	2	12	12	1/2	20	5	-	-	-
12.1 MCA	-	-	-	-	7	-	1260	7000	TVSS
CU-D	2	12	12	1/2	20	9	-	-	CU-A
13.0 MCA	-	-	-	-	11	-	1360	7000	58.3 MCA
SPACE	-	-	-	-	13	-	-	-	CU-B
SPACE	-	-	-	-	15	-	9740	-	81.1 MCA
SPACE	-	-	-	-	17	-	-	-	SPACE
SPACE	-	-	-	-	19	-	-	-	SPACE
SPACE	-	-	-	-	21	-	-	-	SPACE
SPACE	-	-	-	-	23	-	-	-	SPACE
ELEVATOR - 20HP	3	1	6	1.5	150	25	7200	8850	REFER TO FEEDER DIAGRAM
SHUNT TRIP C/B WITH	-	-	-	-	27	-	7200	8430	PANELS 1A & 2A
AUX. CONTACT	-	-	-	-	29	-	7200	7290	-
PANELS 1B & 2B	REFER TO FEEDER DIAGRAM	200	31	15330	30	-	-	-	3-POLE SPACE FOR FUTURE
		33	-	-	32	-	-	-	SOLAR POWER
		35	-	-	34	-	-	-	INTERCONNECTION
		37	-	-	36	-	-	-	-
		39	-	-	38	-	-	-	-
		41	-	-	40	-	-	-	-
					42	-	-	-	-
TOTAL VOLT-AMPS		49380	50610	47890					
		148 KVA		422 AMPS					

\* INDICATES CONTINUOUS DUTY LOAD AT 125% DEMAND

NOTE: PANEL MDP LAYOUT SHOWN FOR EATON BRAND EQUIPMENT. IF SUBSTITUTE EQUIPMENT IS USED AND CANNOT FIT ALL BREAKERS AND SPACES INDICATED INTO THE PANEL, THEN PROVIDE AN ADDITIONAL NEMA 3R, 225A MLO PANELBOARD LOCATED ADJACENT TO THE SWITCHBOARD AND RELOCATE BREAKERS FEEDING CONDENSING UNITS INTO THAT PANEL. PROVIDE 225/3 CIRCUIT BREAKER IN MDP TO SUPPLY THE ADDITIONAL PANEL, FEED WITH 4-#4/0 & 1-#4 EG TWHN (CU) 2.5"C. ADDED PANEL 65KAIC FULLY RATED.

**Fault Current Calculations**

F1: PER APS TABLE 800.2-1 (INCLUDING NOTE #1) = 39,066A

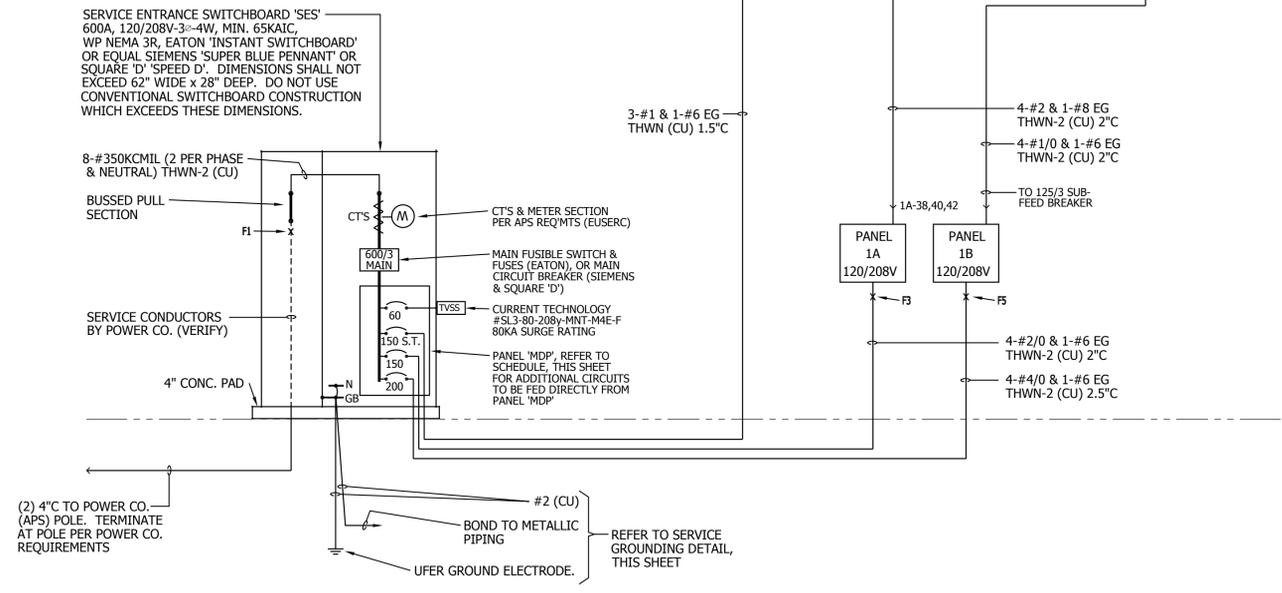
F2:  $f = \frac{1.73 \times 39,066 \times 80}{7,493 \times 208} = 3.476$ ,  $M = \frac{1}{1 + 3.47} = 0.23$   
 $F2 = 39,066A \times 0.23 = 8,990A$  (ELEVATOR)

F3:  $f = \frac{1.73 \times 39,066 \times 25}{11,424 \times 208} = 0.711$ ,  $M = \frac{1}{1 + 0.711} = 0.59$   
 $F3 = 39,066A \times 0.59 = 23,050A$  (PANEL 1A)

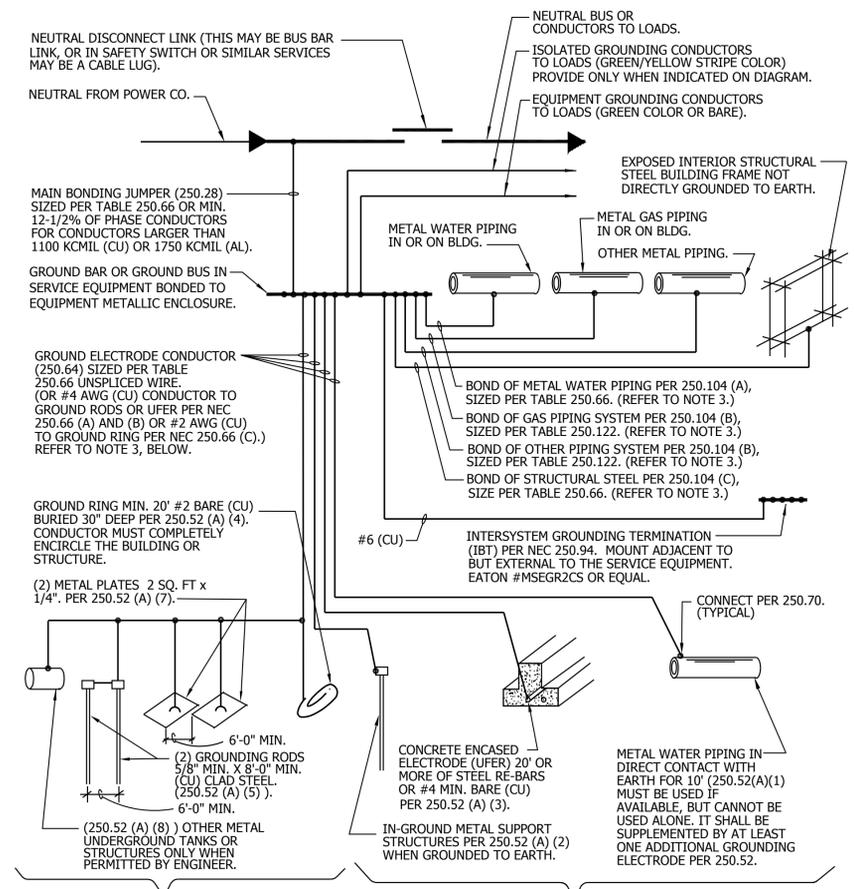
F4:  $f = \frac{1.73 \times 23,050 \times 50}{5,907 \times 208} = 1.62$ ,  $M = \frac{1}{1 + 1.62} = 0.38$   
 $F4 = 23,050A \times 0.38 = 8,770A$  (PANEL 2A)

F5:  $f = \frac{1.73 \times 39,066 \times 25}{16,673 \times 208} = 0.487$ ,  $M = \frac{1}{1 + 0.487} = 0.67$   
 $F5 = 39,066A \times 0.67 = 26,180A$  (PANEL 1B)

F6:  $f = \frac{1.73 \times 26,180 \times 50}{8,925 \times 208} = 1.22$ ,  $M = \frac{1}{1 + 1.22} = 0.45$   
 $F6 = 26,180A \times 0.45 = 11,780A$  (PANEL 2B)



### 1 SCHEMATIC FEEDER WIRING DIAGRAM



### 2 SERVICE GROUNDING DETAIL

- SCALE: N.T.S. © 2019 EDG WEST, INC.
- NOTES:
- CODE SECTION REFERENCES TO 2017 NFPA-70, NATIONAL ELECTRICAL CODE. SERVICE GROUNDING SHALL COMPLY WITH NEC ARTICLE 250 IN ITS ENTIRETY.
  - GROUNDING CONDUCTOR SIZES ON FEEDER DIAGRAM SHALL APPLY IF LARGER THAN CODE MINIMUM CONDUCTOR SIZES INDICATED ON THIS DETAIL.
  - GROUNDING AND BONDING CONDUCTORS RUN EXPOSED ON BUILDING EXTERIORS NOT PROTECTED IN LOCKED YARDS, PATIOS OR SIMILAR SPACES SHALL BE RUN IN SCHEDULE 80 RIGID NON-METALLIC CONDUIT (PVC) FOR PHYSICAL PROTECTION.
  - COMPLY WITH SERVING ELECTRIC UTILITY COMPANY REQUIREMENTS FOR SERVICE GROUNDING IF THOSE REQUIREMENTS DIFFER FROM THAT SHOWN HEREIN.

**ENGINEERED DESIGN GROUP**  
 CONSULTING MECHANICAL-ELECTRICAL-PLUMBING REFRIGERATION & FIRE PROTECTION ENGINEERS

EDG PROJECT # 2201-027  
 964 N. ALVERNON WAY, TUCSON, AZ 85711  
 PH: (520) 981-8896, FAX: (520) 981-6647  
 Web Site: www.edg-ce.com  
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Albert N. Hopper, Jr.  
ARCHITECT

3114 N. Wilson Ave.  
Tucson, AZ 85719  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
Structural Solutions, Inc.  
Tucson, AZ; 520-260-2692  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ; 520-881-8846  
LANDSCAPE ARCHITECT:



NEW CITY HALL  
FOR THE  
CITY OF BISBEE  
118 ARIZONA ST.  
BISBEE, ARIZONA



SHEET ISSUE  
DATE: April 5, 2022  
REVISIONS  
1  
2  
3  
4

SHEET MANAGEMENT  
Comm. No. 2201  
Drawn By: Albert Hopper  
Checked By: Albert Hopper

DRAWINGS ON THIS SHEET  
(E) GRADES PLAN  
EARTHWORK DIAGRAM  
DEMOLITION NOTES

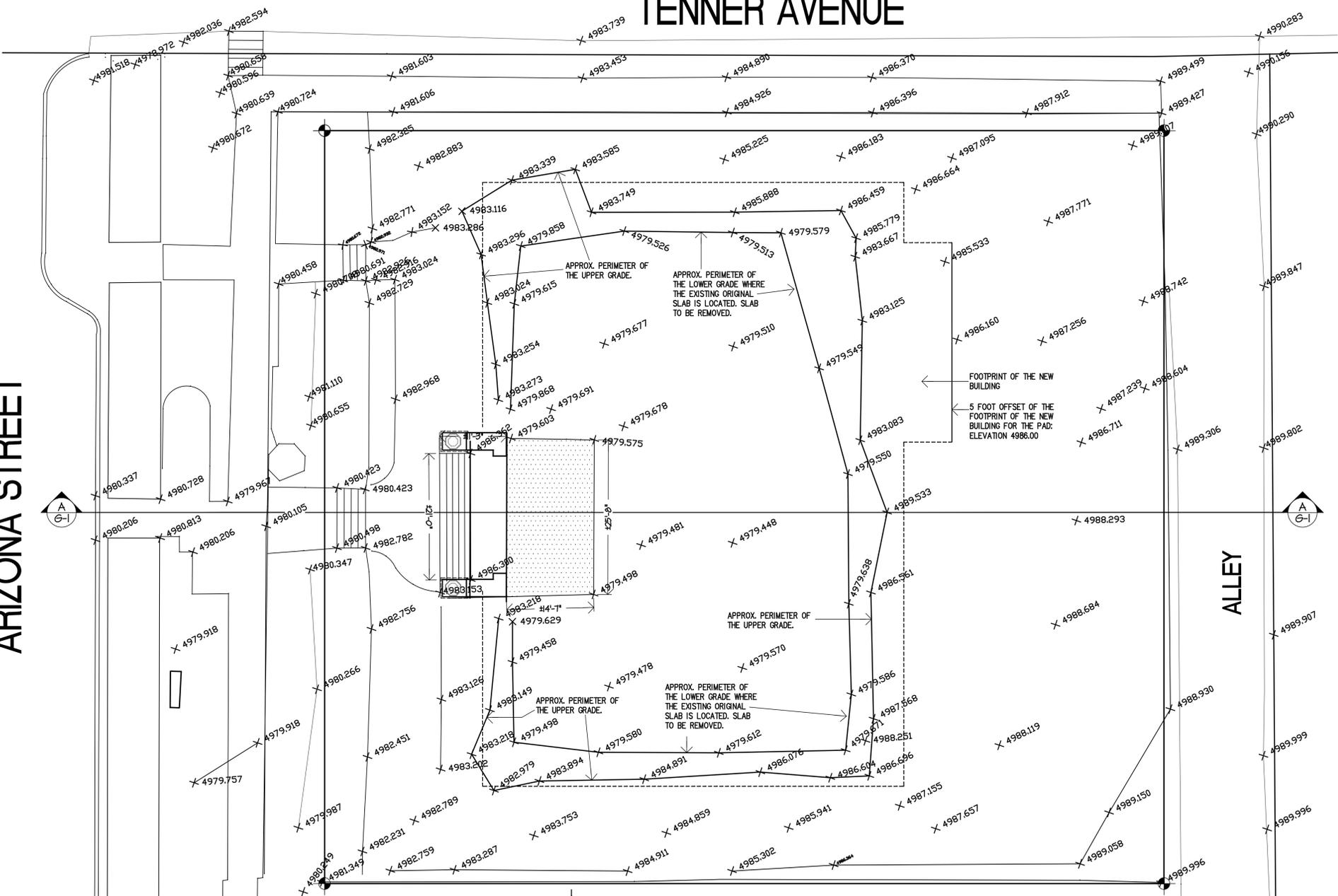
SHEET

G-1 of

# TENNER AVENUE

# ARIZONA STREET

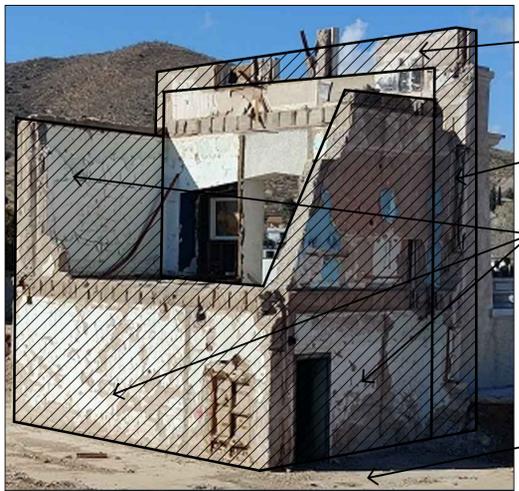
# ALLEY



EXISTING GRADES PLAN  
SCALE: 1" = 10'-0"

### KEY NOTES

1. LINE REPRESENTS LOCATION OF EAST AND WEST PROPERTY LINES.
2. EXISTING ENTRY STRUCTURE TO REMAIN. PROTECT STRUCTURE FROM ADDITIONAL DEMOLITION WORK.
3. EXISTING ORIGINAL BASEMENT FLOOR SLAB AND REMAINING BASEMENT WALLS AND FOOTINGS TO BE DEMOLISHED. DEBRIS SHALL BE DEPOSITED AT IMPORT #1 LOCATION SHOWN ON MAP #2 ON TITLE SHEET, T-1
4. APPROXIMATE EXISTING GRADE TO REMAIN.
5. NEW FINISHED GRADE: 4985.6.
6. NEW CONCRETE SIDEWALK.
7. PROFILE OF THE NEW BUILDING.



**SELECTIVE DEMOLITION:**  
THE INTENT OF THE DEMOLITION SCOPE OF WORK IS TO CAREFULLY REMOVE EXISTING CONCRETE WALLS, SLABS AND STEPS THAT WERE LEFT FROM A PREVIOUS DEMOLITION PROJECT TO LEAVE ONLY THE EXISTING ENTRY STRUCTURE. DEMOLITION DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF ON CITY OF BISBEE PROPERTY APPROXIMATELY (2) MILES SOUTH ON ARIZONA STREET. CITY OF BISBEE PERSONNEL WILL ARRANGE FOR DELIVERY AND DISPOSAL.

THE FOUNDATIONS OF THE EXISTING STRUCTURE TO REMAIN APPEAR TO GO BELOW THE ORIGINAL BASEMENT FLOOR SLAB. IT IS UNDERSTOOD THE REMAINING ENTRY STRUCTURE IS SELF SUPPORTING.

1. THE EXISTING DOUBLE SET OF CONCRETE STEPS ARE PART OF THE STRUCTURAL SYSTEM OF THE FLOOR SLAB TO BE REMOVED AND SHALL BE CAREFULLY REMOVED. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
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5. NON-ORIGINAL SMOOTH PLASTER ON THE ENTRY STRUCTURE THAT WILL REMAIN VISIBLE SHALL BE REMOVED.
6. REMOVE EXISTING BASEMENT SLAB AND ANY REMNANTS OF PLUMBING PIPING, ETC.

## SELECTIVE DEMOLITION

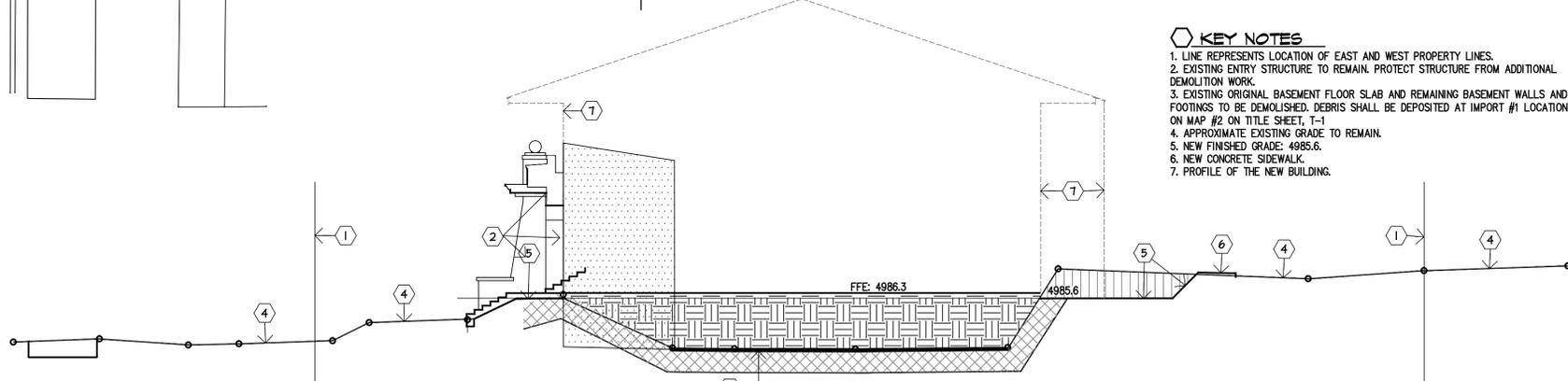
SCALE: 1" = 10'-0"

## DIAGRAMMATIC SECTION A-A

SCALE: 1" = 10'-0"

ALL EARTHWORK OPERATIONS SHALL BE CARRIED OUT ACCORDING TO THE GEOTECHNICAL REPORT #22040, DATED APRIL 7, 2022 AND ADDENDUM NO. 1, DATED APRIL 19, 2022, PREPARED BY PATTISON ENGINEERING, LLC.

INITIAL IMPORT QUANTITY ESTIMATE. CONTRACTOR SHALL DETERMINE ACTUAL QUANTITY. 7,030 SQ.FT. X 7 FT = 49,210 CU.FT. OR APPROX. 11,823 CU.YD. IMPORTED FILL.



- THIS HATCH PATTERN REPRESENTS THE AREA OF COMPACTED IMPORT MATERIAL TO BE RAISED TO ELEVATION 4986.30 PER GEOTECHNICAL REPORT.
- THIS HATCH PATTERN REPRESENTS THE AREA OF EXISTING DISTURBED MATERIAL TO BE OVER-EXCAVATED AND RE-COMPACTED PER GEOTECHNICAL REPORT.
- THIS HATCH PATTERN REPRESENTS THE AREA OF MATERIAL THAT MAY BE CUT AND REUSED AS APPROVED FILL.
- THIS HATCH PATTERN REPRESENTS THE APPROXIMATE AREA OF THE REMAINING ORIGINAL STRUCTURE THAT MUST BE CAREFULLY DEMOLISHED BEHIND THE ENTRY STRUCTURE TO REMAIN. DEMOLITION DEBRIS SHALL BE DEPOSITED AT IMPORT #1 SITE SHOWN ON LOCATION MAP #2 ON TITLE SHEET, T-1.



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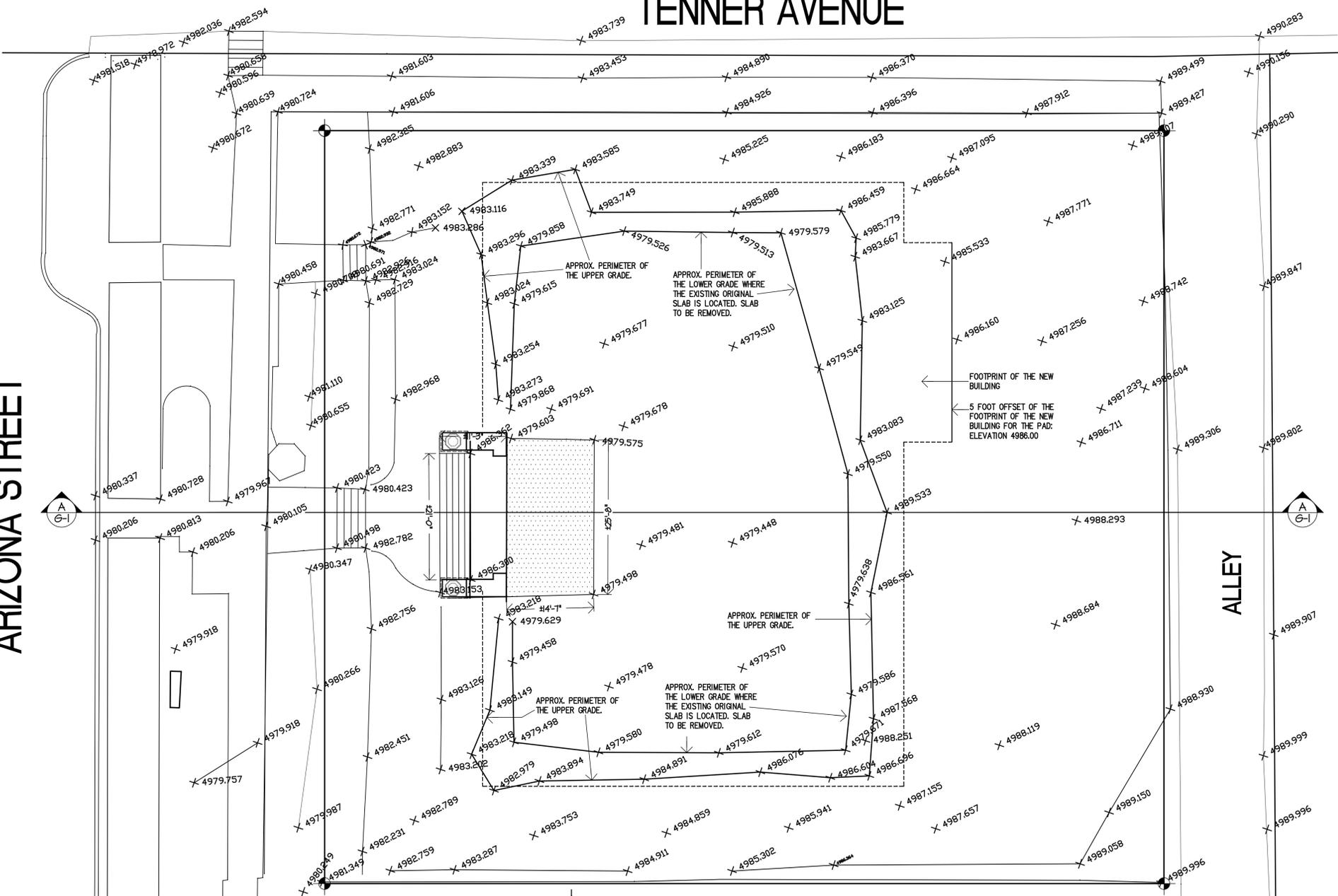
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G-1 of

# TENNER AVENUE

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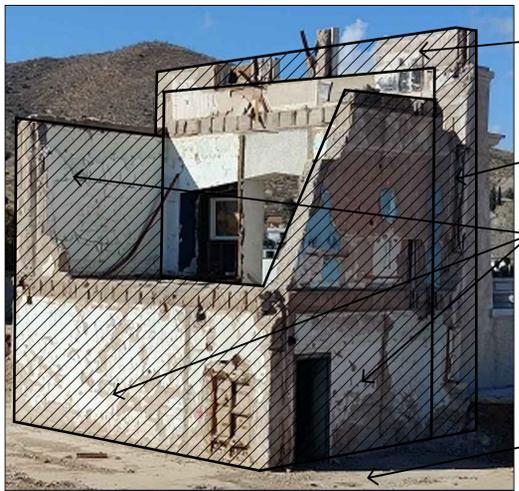
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SCALE: 1" = 10'-0"

### KEY NOTES

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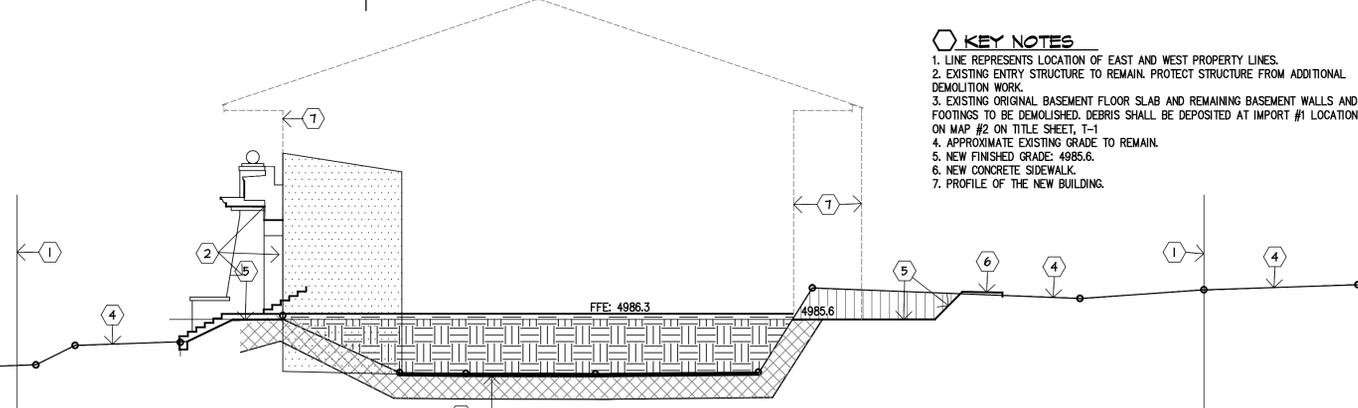
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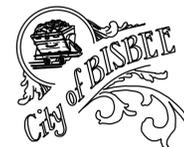
3114 N. Wilson Ave.  
Tucson, AZ 85719  
Phone: 520-249-6691  
anhop45@gmail.com

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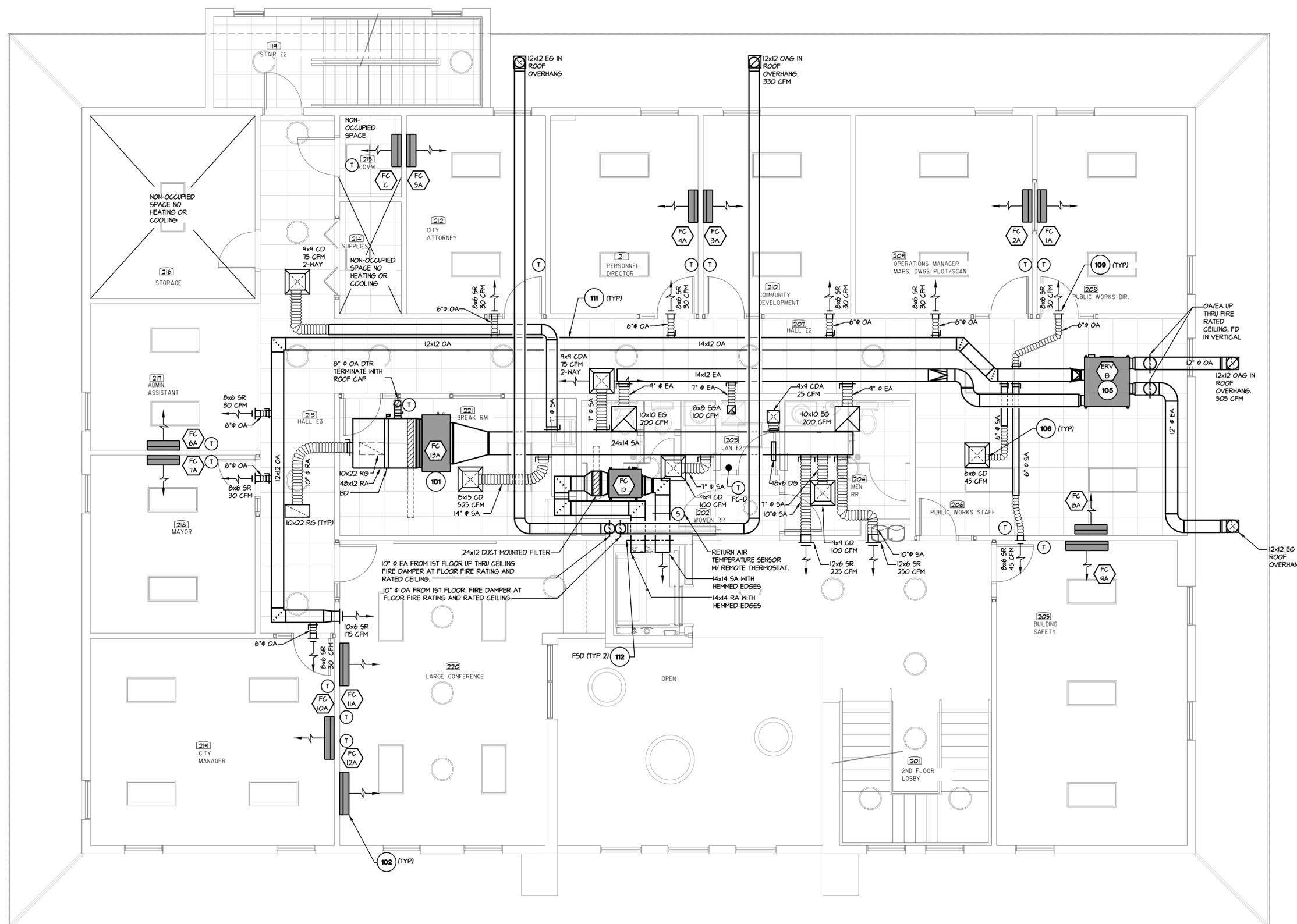
Comm. No. 2201  
Drawn By: LAS  
Checked By: PEH

DRAWINGS ON THIS SHEET

MECHANICAL 2ND FLOOR  
PLAN

SHEET

M2



24x12 DUCT MOUNTED FILTER  
10" Ø EA FROM 1ST FLOOR UP THRU CEILING  
FIRE DAMPER AT FLOOR FIRE RATING AND  
RATED CEILING.  
10" Ø OA FROM 1ST FLOOR, FIRE DAMPER AT  
FLOOR FIRE RATING AND RATED CEILING.

RETURN AIR  
TEMPERATURE SENSOR  
W/ REMOTE THERMOSTAT.  
14x14 SA WITH  
HEM-MED EDGES  
14x14 RA WITH  
HEM-MED EDGES

MECHANICAL 2ND FLOOR PLAN  
SCALE: 1/4" = 1'-0"





Albert N. Hopper, Jr.  
ARCHITECT

3114 N. Wilson Ave.  
Tucson, AZ 85719  
Phone: 520-249-6691  
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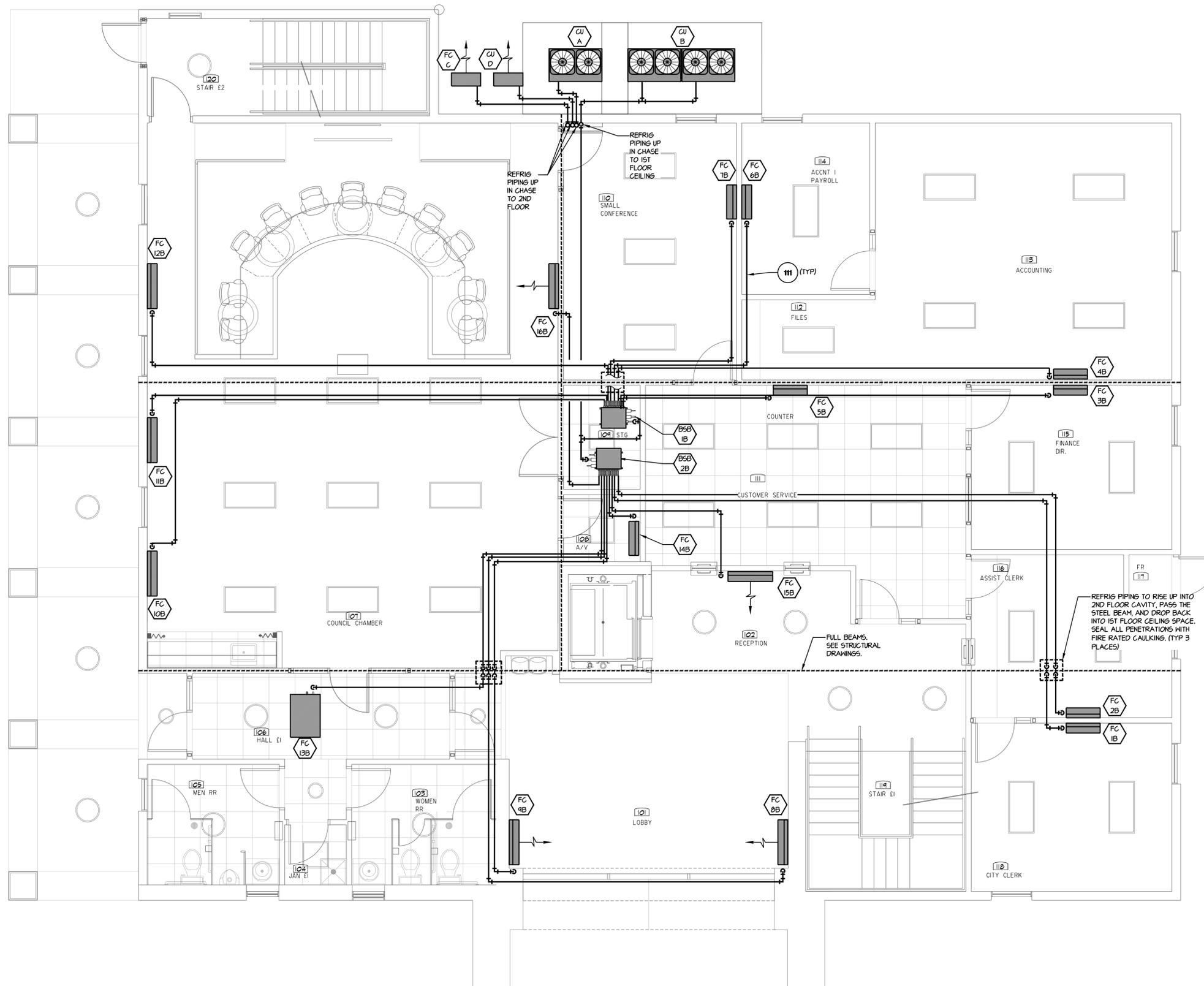
Comm. No. 2201  
Drawn By: LAS  
Checked By: PEH

DRAWINGS ON THIS SHEET

MECHANICAL 1ST FLOOR  
PIPING PLAN

SHEET

M3



MECHANICAL 1ST FLOOR PIPING PLAN

SCALE: 1/4" = 1'-0"





Albert N. Hopper, Jr.  
ARCHITECT

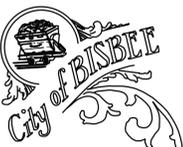
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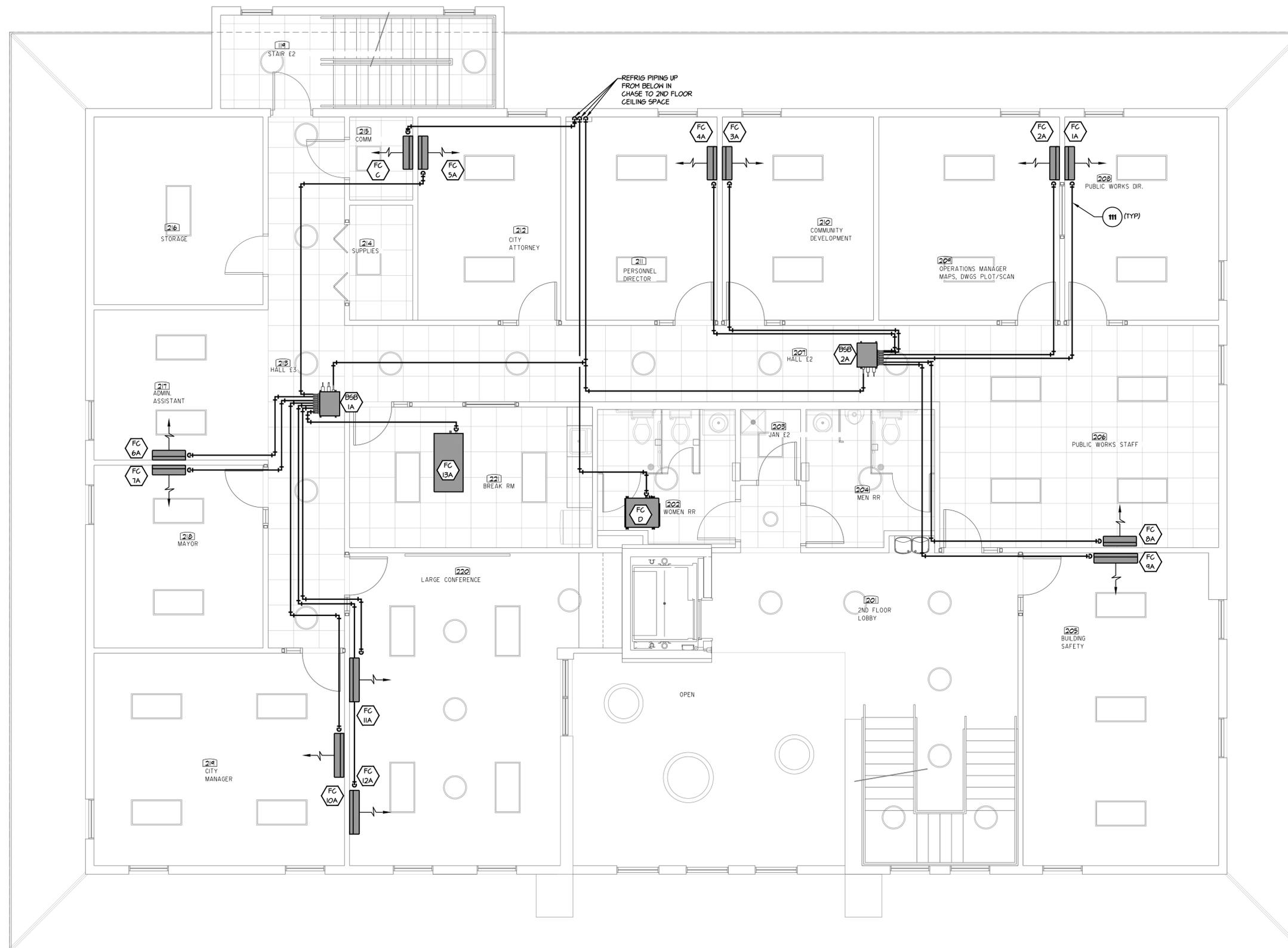
DRAWINGS ON THIS SHEET

MECHANICAL 2ND FLOOR  
PIPING PLAN

SHEET

M4

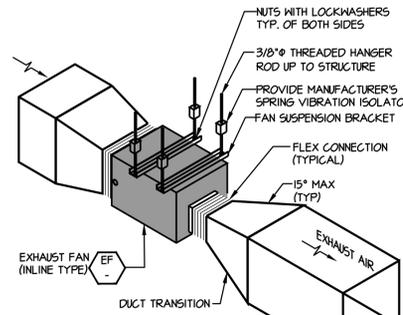
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### MECHANICAL 2ND FLOOR PIPING PLAN

SCALE: 1/4" = 1'-0"



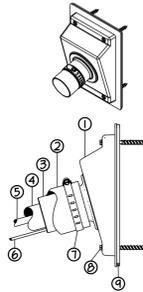


NOTES:  
 1. TERMINATION OF EA DUCT SHALL BE MIN OF 10' FROM ANY INTAKE VENT OR SUPPLY FAN.  
 2. PROVIDE ADEQUATE SERVICE SPACE AROUND FAN FOR FAN REMOVAL, MOTOR AND DRIVE ACCESS.

**EXHAUST FAN - INLINE**

N.T.S.

104

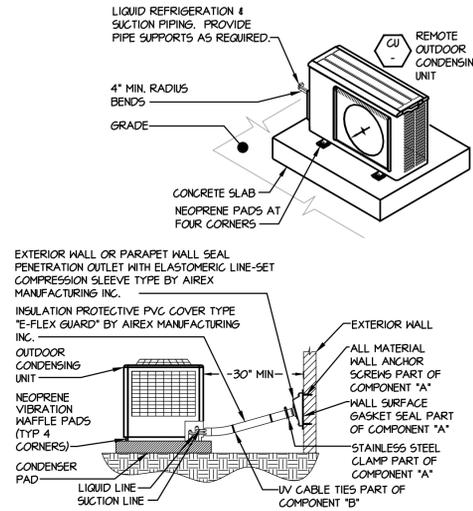


- EXTERIOR WALL OR PARAPET WALL SEAL PENETRATION OUTLET WITH ELASTOMERIC LINE-SET COMPRESSION SLEEVE BY AIREX MANUFACTURING INC.
- INSULATION PROTECTIVE PVC COVER TYPE "E-FLEX GUARD" BY AIREX MANUFACTURING INC.
- ELASTOMERIC LINE-SET COMPRESSION & VIBRATION SLEEVE
- INSULATION FOR REFRIGERATION LIQUID LINE
- REFRIGERATION LIQUID LINE
- MECHANICAL CONNECTION SECURED WITH STAINLESS STEEL CLAMP
- WALL FASTENERS SELF TAPPING 3/8" HEX HEAD 1/4" DIAMETER ALL MATERIAL ANCHORS SCREWS WITH ELASTOMERIC WASHERS
- WALL SURFACE SEAL ELASTOMERIC GASKET

**CONDENSING UNIT DETAIL**

N.T.S.

103



**DUCTLESS AIR CONDITIONER SPLIT SYSTEM DETAIL**

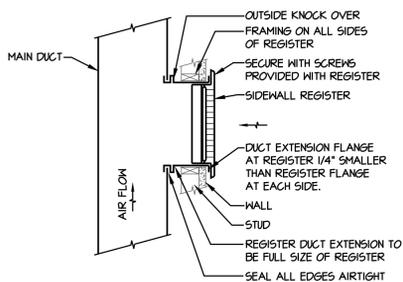
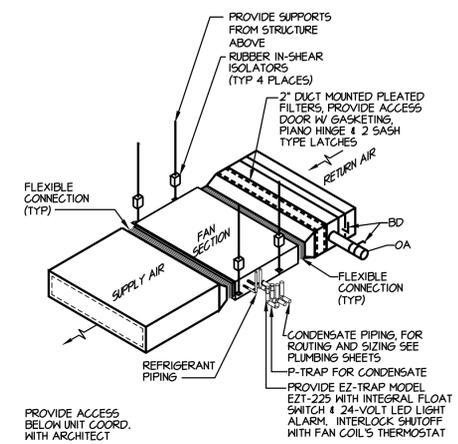
N.T.S.

102

**FAN COIL DETAIL (HORIZ)**

N.T.S.

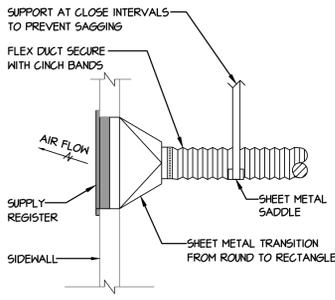
101



**SIDEWALL REGISTER CONNECTION DETAIL**

N.T.S.

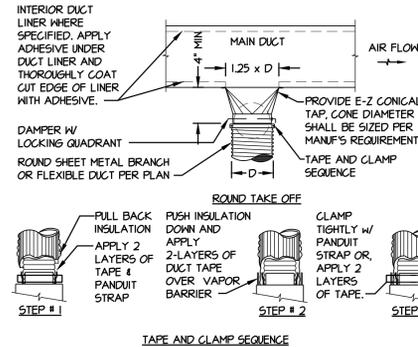
110



**SUPPLY REGISTER DETAIL**

N.T.S.

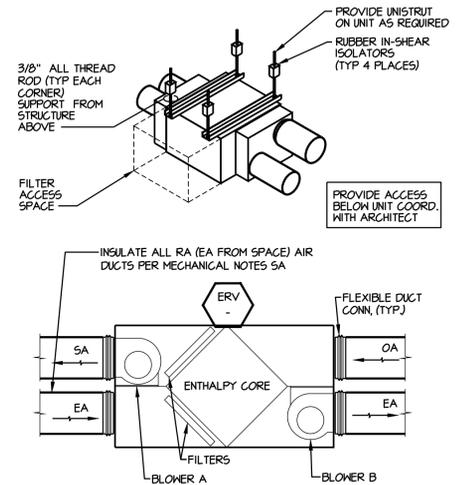
109



**CEILING DIFFUSER AND FLEXIBLE DUCT DETAIL**

N.T.S.

106



**ENERGY RECOVERY VENTILATOR DETAIL**

N.T.S.

105

**BASIC FIRE DAMPER INSTALLATION REQUIREMENT KEYNOTES:**

A. RETAINING ANGLES ALL AROUND. SIZE PER FOLLOWING SCHEDULE:

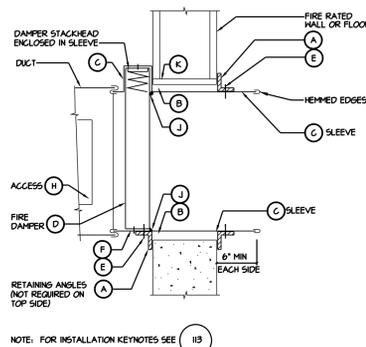
MAX. DUCT SIZE	ANGLE SIZE
24x24	1-1/2"x1/2"x1/4" GA
36x36	2"x1-1/2"x1/8"
48x48	2"x1-1/2"x1/8"
60x60	2"x1-1/2"x1/8"
84x84	2-1/2"x1-1/2"x3/16"

- B. CLEARANCE: 1/8" PER LINEAR FOOT OF OPENING, BOTH DIMENSIONS (1/2" MAXIMUM)  
 C. 16 GA. STEEL SLEEVE (14 GA. OVER 24" WIDTH)  
 D. U.L. APPROVED FIRE DAMPER (CURTAIN OR BLADE TYPE), LISTED FOR HORIZONTAL, VERTICAL, OR CEILING INSTALLATION AS APPLICABLE.  
 E. SECURE RETAINING ANGLES TO SLEEVE ONLY ON 8" CENTERS WITH: 1. 1/2" LONG WELD OR 2. 1/4" BOLTS AND NUTS, OR 3. NO. 10 STEEL SCREWS, OR 4. MINIMUM 3/16" STEEL RIVETS.  
 F. SECURE DAMPER TO SLEEVE ON 8" CENTERS WITH: 1/2" LONG WELD, OR  
 1/4" BOLTS AND NUTS IN HOLES PROVIDED, OR NO. 10 STEEL SCREWS, OR MINIMUM 3/16" STEEL RIVETS  
 G. SECURE DUCT TO SLEEVE WITH A BREAKAWAY OR SLIP DUCT CONNECTION.  
 H. PROVIDE HINGED AND GASKETED ACCESS PANEL IN SIDE OR BOTTOM OF DUCT ON LATCH SIDE OF DAMPER. 16x12 MINIMUM SIZE (OR DUCT SIZE LESS 2" ON SMALLER DUCTS).  
 I. ATTACH FRAME TO DUCT WITH 5/8" SCREW AT 6" O.C.

**FIRE DAMPER INSTALLATION NOTES**

N.T.S.

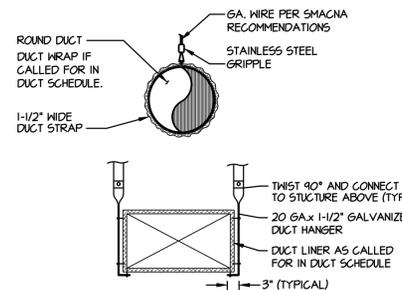
113



**FIRE DAMPER THRU WALL - TYPE B**

N.T.S.

112



**DUCT HANGER DETAIL**

N.T.S.

111



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**DRAWINGS ON THIS SHEET**  
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SHEET  
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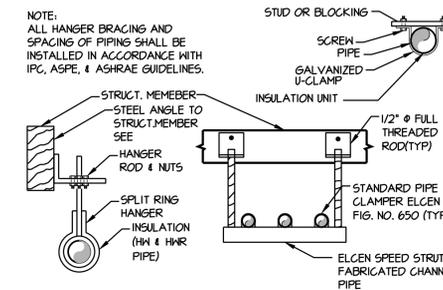


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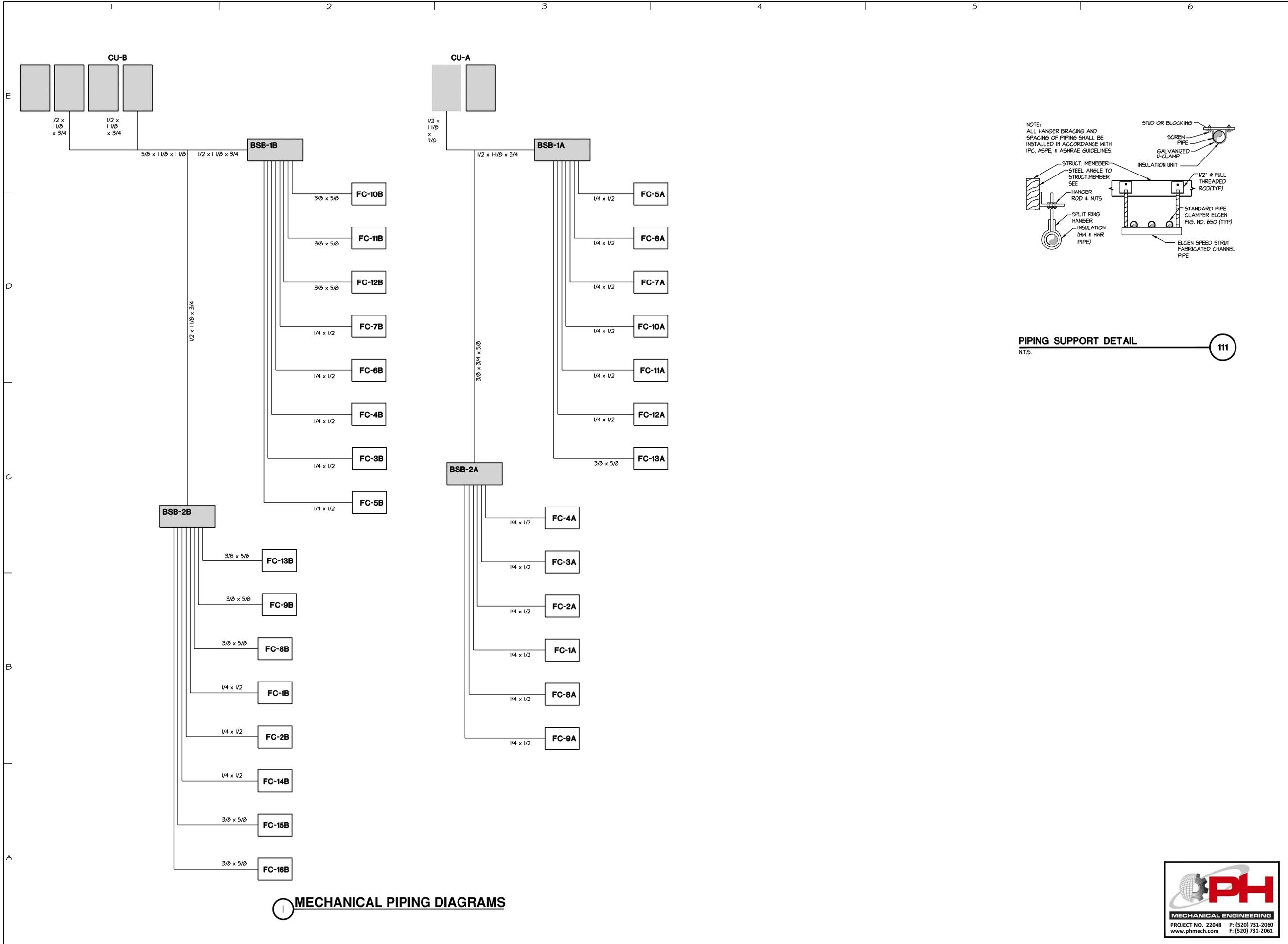
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**PIPING SUPPORT DETAIL**

N.T.S.

111



**MECHANICAL PIPING DIAGRAMS**



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MECHANICAL DETAILS  
AND PIPING DIAGRAMS



SHEET

M6

of

### ELEVATOR SPLIT SYSTEM SCHEDULE

INDOOR UNIT (FAN COIL)												
MARK	SERVES	MFGR / MODEL	NOM TONS	DISCHARGE/TYPE	CFM-HIGH/MED/LOW	COOLING CAP. MBH	HEATING	ELECTRICAL	FLA	WATTS	HxWxD (IN)	LBS
FC-D	ELEVATOR	DAIKIN FDMQ12RVJU	1.0	CEILING CONCEALED	342/332	10.8	13.6	208/1/60	0.73	130	10x20x32	70

OUTDOOR UNIT (HEAT PUMP)											
MARK	MFGR / MODEL	SEER	HSPF	ELECTRICAL	MCA	MFA	HxWxD (IN)	LBS	REMARKS		
CJ-D	DAIKIN RXL12GMVJU	18	10.8	208/1/60	13	15	22x21x12	115	①②③④⑤⑥⑦⑧⑨		

- BASIS OF DESIGN OR EQUAL.
- PROVIDE INTEGRAL FACTORY CONDENSATE PUMP, SEE PLUMBING PLANS FOR CONDENSATE ROUTING AND TERMINATION.
- PROVIDE ALL FEATURES STANDARD TO THE UNIT SCHEDULED.
- REMOTE DUCT MOUNTED TEMPERATURE SENSOR AND REMOTE THERMOSTAT CONTROLLER.
- PROVIDE LOW AMBIENT WIND BAFFLE.

### ERV SCHEDULE

INDOOR FAN COIL UNIT (DESIGN CONDITIONS: COOLING - 105°F DB/80°F WB, HEATING 70°F DB/41°F WB)														
MARK	MRF AND MODEL	NOM TONS	UNIT TYPE	STD FLOW CFM	EXT SP * W.G.	TEMPERATURE RECOVERY EFFICIENCY PERCENTAGE- COOLING	TEMPERATURE RECOVERY EFFICIENCY PERCENTAGE- HEATING	MCA	MAX FUSE AMPS	ELECTRICAL V/PH/Hz	FILTER	DIMENSIONS LxWxH	UNIT WEIGHT	REMARKS
ERV-A	DAIKIN VAM410GVJU	NA	ERV	330	0.7	68	66	3.9	15	208-230/1/60	INTERNAL RESIN NET	48x44x16	150	①
ERV-B	DAIKIN VAM600GVJU	NA	ERV	505	0.7	72	70	4.2	15	208-230/1/60	INTERNAL RESIN NET	48x44x16	150	①
ERV-C	DAIKIN VAM600GVJU	NA	ERV	525	0.7	72	70	4.2	15	208-230/1/60	INTERNAL RESIN NET	48x44x16	150	①

- EQUIPMENT INSTALLER SHALL BE FACTORY TRAINED BY THE MANUFACTURER PRIOR TO INSTALLING ANY EQUIPMENT OR COMPONENTS.

### HEAT RECOVERY VARIABLE REFRIGERANT VOLUME (VRV) SPLIT SYSTEM SCHEDULE

OUTDOOR HEAT PUMP UNIT (DESIGN CONDITIONS: COOLING - 104°F DB/61°F WB OA, 75°F DB/62°F WB RA, HEATING 41°F DB/43°F WB)									
MARK	NOM TONS	MFR AND MODEL UNIT TYPE	TOTAL CLG CAPACITY MBH/ EER/IEER	MIN EER/IEER REQ	TOTAL HEATING CAPACITY MBH/COP MIN COP REQ	ELECTRICAL	WEIGHT LBS/ DIMENSIONS HxWxD	REMARKS	
CJ-A	12	DAIKIN REYQ144XATJA HEAT RECOVERY	136.9 MBH/ 11.6 EER / 21.6 IEER	10.4 EER/ 12.1 IEER	135.4 MBH/ 3.42 COP / 3.2 COP REQ	208V-230V- 3 PHASE / 50.3 MCA / 70 MOP	61x31x49	①②③④⑤	
CJ-B	18	DAIKIN REYQ216XATJA HEAT RECOVERY	195.1 MBH / 12.3 EER / 21.7 IEER	10.4 EER/ 12.1 IEER	214.7 MBH / 3.5 COP / 3.2 COP REQ	208V-230V- 3 PHASE / 40.1 MCA / 100 MOP	67x31x49 67x31x44	①②③④⑤⑥⑦	

REMARKS	ABBREVIATIONS
<ol style="list-style-type: none"> <li>PROVIDE &amp; INSTALL FACTORY RECOMMENDED CONTROLS: 7-DAY PROGRAMMABLE CONTROLLER, CONTROL WIRING, CONDUIT AND BRANCH PIPING KITS AS RECOMMENDED BY THE MANUFACTURER.</li> <li>EQUIPMENT INSTALLER SHALL BE FACTORY TRAINED BY THE MANUFACTURER PRIOR TO INSTALLING ANY EQUIPMENT OR COMPONENTS.</li> <li>PROVIDE AND INSTALL (1) OUTDOOR UNIT MULTI CONNECTION PIPING KIT. INSTALL PER MANUFACTURER'S INSTALLATION REQUIREMENTS.</li> <li>PROVIDE &amp; INSTALL FACTORY RECOMMENDED CONTROLS: CENTRALIZED CONTROLLER, CONTROL WIRING, CONDUIT AND BRANCH PIPING KITS AS RECOMMENDED BY THE MANUFACTURER.</li> <li>PROVIDE &amp; INSTALL FACTORY RECOMMENDED BRANCH SELECTORS BOXES AS REQUIRED TO ALLOW FOR SIMULTANEOUS HEATING OR COOLING OF ALL FAN COILS CONNECTED TO THIS SYSTEM.</li> <li>EACH OUTDOOR UNIT SHALL INCLUDE A VENTILATED NEMA 4 UL508A SINGLE-POINT POWER PANEL (SPPP) WITH THRU-THE-DOOR MAIN INLET DISCONNECT. PANEL SHALL INCLUDE CLASS J TIME DELAY, DUAL ELEMENT FUSES FOR TERMINATION BY THE EC ON THE LINE SIDE LUGS, VOLTAGE/PHASE MONITORING, FUSED PRIMARY/SECONDARY CONTROL TRANSFORMER, 15-AMP GFCI RECEPTACLE WITH TRANSFORMER, AND ALL REQUIRED BRANCH CIRCUIT PROTECTION, POWER WIRING FROM SPPP TO MODULE TERMINATION BLOCKS SHALL BE PROVIDED BY THE EQUIPMENT MANUFACTURER AS PART OF THEIR STARTUP SERVICES.</li> <li>EACH CONDENSING UNIT WILL MECHANICALLY SHIP/RIG IN (2) MODULES, BUT REQUIRE ONLY (1) ELECTRICAL CONNECTION.</li> </ol>	MCA MFA MFC MOP TOCA  MINIMUM CIRCUIT AMPS MAXIMUM FUSE AMPS MAXIMUM STARTING CURRENT MAXIMUM OVER CURRENT PROTECTION TOTAL OVERCURRENT AMPS

### EXHAUST FAN SCHEDULE

MARK	SERVES	MFGR AND MODEL	TYPE	CFM	DTR	ESP IN WG	FAN RPM	MOTOR DATA				DISCONNECT	BACK DRAFT DAMPER	SONES	WEIGHT	REMARKS
								SPEED	WATTS	HP	ELECTRIC					
EF-1	RESTROOMS	COOK-GN-140	INLINE	500	10x10	0.5	1625	1	283	-	115/1/60	YES	YES	5.5	30	②③

- BASIS OF DESIGN EQUIPMENT SELECTED AT AN ALTITUDE OF 2500 FEET.
- PROVIDE MANUFACTURER'S HANGING ISOLATION KIT, ROOF CAP AND ALUMINUM GRILLE.
- PROVIDE INTERMATIC MODEL 5101, 7-DAY HEAVY DUTY PROGRAMMABLE TIMER OR EQUAL. FAN TO BE CONTROLLED BY TIMER. FAN TO OPERATE DURING OCCUPIED HOURS.

### DUCTLESS HEAT PUMP UNIT SCHEDULE

INDOOR UNIT										OUTDOOR UNIT													
MARK	NOM TONS	MFGR	MODEL	TYPE	CFM-H/LOW	UNIT WEIGHT	ELECT	KW	DIMENSIONS HxWxD	COOLING CAPACITY AT ARI STANDARD CONDITIONS			HEATING AT STANDARD CONDITIONS			ELECTRICAL DATA							
										TOTAL MBH	ARI SEER	MIN SEER REQ	CAPACITY MBH	HSPF	MIN HSPF REQ	MARK	MODEL	ELECTRICAL	MCA	MOP	UNIT WEIGHT	DIMENSIONS HxWxD	REMARKS
FC-C	3/4	DAIKIN	FTX09NMVJU	WALL MTD	417/51	25 LBS	208-230/1/60	0.7	12"x31"x4"	9.0	14.0	14.0	10	9.0	8.2	CJ-C	RX09NMVJU	208-230/1/60	12.1	15	75 LBS	22"x21"x12"	①②③④

- PROVIDE MANUFACTURER'S THERMOSTAT.
- REFRIGERANT SHALL BE R410A.
- PROVIDE INTEGRAL FACTORY CONDENSATE PUMP.
- ELECTRICAL CONTRACTOR TO PROVIDE POWER CONNECTION TO OUTDOOR UNIT. INDOOR UNIT TO BE SUB-FED FROM OUTDOOR UNIT.

### HEAT RECOVERY VARIABLE REFRIGERANT VOLUME (VRV) SPLIT SYSTEM SCHEDULE

INDOOR HEAT PUMP UNIT																	
MARK	MRF AND MODEL	NOM TONS	UNIT TYPE	STD FLOW CFM	EXT SP * W.G.	TOTAL COOLING CAPACITY MBH	SENSIBLE COOLING CAPACITY	TOTAL HEATING MBH	MCA	MAX FUSE AMPS	FAN WATS	ELECTRICAL V/PH/Hz	DUCT MOUNT FILTER RACK	DIMENSIONS LxWxH	UNIT WEIGHT	REMARKS	
FC-1A	DAIKIN FXAQ12PVJU	1	WALL MOUNTED UNIT	300	0.1	9.9	7.9	14.0	0.4	15	40	208-230/1/60	INTERNAL RESIN NET	32x10x12	30	②③④	
FC-2A	DAIKIN FXAQ07PVJU	1/2	WALL MOUNTED UNIT	260	0.1	6.2	5.7	8.7	0.3	15	40	208-230/1/60	INTERNAL RESIN NET	32x10x12	30	②③④	
FC-3A	DAIKIN FXAQ07PVJU	1/2	WALL MOUNTED UNIT	260	0.1	6.2	5.7	8.7	0.3	15	40	208-230/1/60	INTERNAL RESIN NET	32x10x12	30	②③④	
FC-4A	DAIKIN FXAQ07PVJU	1/2	WALL MOUNTED UNIT	260	0.1	6.2	5.7	8.7	0.3	15	40	208-230/1/60	INTERNAL RESIN NET	32x10x12	30	②③④	
FC-5A	DAIKIN FXAQ07PVJU	1/2	WALL MOUNTED UNIT	260	0.1	6.2	5.7	8.7	0.3	15	40	208-230/1/60	INTERNAL RESIN NET	32x10x12	30	②③④	
FC-6A	DAIKIN FXAQ07PVJU	1/2	WALL MOUNTED UNIT	260	0.1	6.2	5.7	8.7	0.3	15	40	208-230/1/60	INTERNAL RESIN NET	32x10x12	30	②③④	
FC-7A	DAIKIN FXAQ07PVJU	1/2	WALL MOUNTED UNIT	260	0.1	6.2	5.7	8.7	0.3	15	40	208-230/1/60	INTERNAL RESIN NET	32x10x12	30	②③④	
FC-8A	DAIKIN FXAQ12PVJU	1	WALL MOUNTED UNIT	300	0.1	9.9	7.9	14.0	0.4	15	40	208-230/1/60	INTERNAL RESIN NET	32x10x12	30	②③④	
FC-9A	DAIKIN FXAQ24PVJU	2	WALL MOUNTED UNIT	635	0.1	19.7	15.6	27.5	0.4	15	43	208-230/1/60	INTERNAL RESIN NET	42x10x12	50	②③④	
FC-10A	DAIKIN FXAQ18PVJU	1-1/2	WALL MOUNTED UNIT	500	0.1	14.8	11.9	21.0	0.4	15	43	208-230/1/60	INTERNAL RESIN NET	42x10x12	50	②③④	
FC-11A	DAIKIN FXAQ18PVJU	1-1/2	WALL MOUNTED UNIT	500	0.1	14.8	11.9	21.0	0.4	15	43	208-230/1/60	INTERNAL RESIN NET	42x10x12	50	②③④	
FC-12A	DAIKIN FXAQ18PVJU	1-1/2	WALL MOUNTED UNIT	500	0.1	14.8	11.9	21.0	0.4	15	43	208-230/1/60	INTERNAL RESIN NET	42x10x12	50	②③④	
FC-13A	DAIKIN FXM48PBVJU	4	HORIZONTAL ABV. CEILING UNIT	1375	0.5	39.6	31.9	55.9	3.4	15	350	208-230/1/60	4	28x56x12	125	①②③④	
FC-1B	DAIKIN FXAQ12PVJU	1	WALL MOUNTED UNIT	300	0.1	9.9	7.9	14.0	0.4	15	40	208-230/1/60	INTERNAL RESIN NET	32x10x12	30	②③④	
FC-2B	DAIKIN FXAQ07PVJU	1/2	WALL MOUNTED UNIT	260	0.1	6.2	5.7	8.7	0.3	15	40	208-230/1/60	INTERNAL RESIN NET	32x10x12	30	②③④	
FC-3B	DAIKIN FXAQ07PVJU	3/4	WALL MOUNTED UNIT	280	0.1	7.8	6.7	11.1	0.3	15	40	208-230/1/60	INTERNAL RESIN NET	32x10x12	30	②③④	
FC-4B	DAIKIN FXAQ18PVJU	1-1/2	WALL MOUNTED UNIT	500	0.1	14.8	11.9	21.0	0.4	15	43	208-230/1/60	INTERNAL RESIN NET	42x10x12	50	②③④	
FC-5B	DAIKIN FXAQ07PVJU	1/2	WALL MOUNTED UNIT	260	0.1	6.2	5.7	8.7	0.3	15	40	208-230/1/60	INTERNAL RESIN NET	32x10x12	30	②③④	
FC-6B	DAIKIN FXAQ07PVJU	1/2	WALL MOUNTED UNIT	260	0.1	6.2	5.7	8.7	0.3	15	40	208-230/1/60	INTERNAL RESIN NET	32x10x12	30	②③④	
FC-7B	DAIKIN FXAQ18PVJU	1-1/2	WALL MOUNTED UNIT	500	0.1	14.8	11.9	21.0	0.4	15	43	208-230/1/60	INTERNAL RESIN NET	42x10x12	50	②③④	
FC-8B	DAIKIN FXAQ24PVJU	2	WALL MOUNTED UNIT	635	0.1	19.7	15.6	27.5	0.4	15	43	208-230/1/60	INTERNAL RESIN NET	42x10x12	50	②③④	
FC-9B	DAIKIN FXAQ24PVJU	2	WALL MOUNTED UNIT	635	0.1	19.7	15.6	27.5	0.4	15	43	208-230/1/60	INTERNAL RESIN NET	42x10x12	50	②③④	
FC-10B	DAIKIN FXAQ24PVJU	2	WALL MOUNTED UNIT	635	0.1	19.7	15.6	27.5	0.4	15	43	208-230/1/60	INTERNAL RESIN NET	42x10x12	50	②③④	
FC-11B	DAIKIN FXAQ24PVJU	2	WALL MOUNTED UNIT	635	0.1	19.7	15.6	27.5	0.4	15	43	208-230/1/60	INTERNAL RESIN NET	42x10x12	50	②③④	
FC-12B	DAIKIN FXAQ24PVJU	2	WALL MOUNTED UNIT	635	0.1	19.7	15.6	27.5	0.4	15	43	208-230/1/60	INTERNAL RESIN NET	42x10x12	50	②③④	
FC-13B	DAIKIN FXM48PBVJU	2	HORIZONTAL ABV. CEILING UNIT	675	0.4	19.8	16.8	28.0	1.8	15	350	208-230/1/60	4 SQ FT	28x40x12	100	①②③④	
FC-14B	DAIKIN FXAQ07PVJU	1/2	WALL MOUNTED UNIT	260	0.1	6.2	5.7	8.7	0.3	15	40	208-230/1/60	INTERNAL RESIN NET	32x10x12	30	②③④	
FC-15B	DAIKIN FXAQ24PVJU	2	WALL MOUNTED UNIT	635	0.1	19.7	15.6	27.5	0.4	15	43	208-230/1/60	INTERNAL RESIN NET	42x10x12	50	②③④	
FC-16B	DAIKIN FXAQ24PVJU	2	WALL MOUNTED UNIT	635	0.1	19.7	15.6	27.5	0.4	15	43	208-230/1/60	INTERNAL RESIN NET	42x10x12	50	②③④	

- FAN COIL UNIT SHALL HAVE SINGLE POINT POWER CONNECTION. FAN COILS ARE EQUIPPED WITH FLOAT SWITCH (WITH FAULT LIGHT INDICATOR AT LOCAL THERMOSTAT CONTROL) IN CONDENSATE PAN FOR SAFETY SHUT OFF IN THE EVENT THE LINE IS CLOGGED OR THE INTEGRAL CONDENSATE PUMP FAILS.
- PROVIDE ALL FEATURES STANDARD TO THE UNIT SCHEDULED INCLUDING INTEGRAL CONDENSATE PUMP.
- EQUIPMENT INSTALLER SHALL BE FACTORY TRAINED BY THE MANUFACTURER PRIOR TO INSTALLING ANY EQUIPMENT OR COMPONENTS.
- PROVIDE & INSTALL FACTORY RECOMMENDED CONTROLS: 7-DAY PROGRAMMABLE CONTROLLER, CONTROL WIRING, CONDUIT AND BRANCH PIPING KITS AS RECOMMENDED BY THE MANUFACTURER.
- THERMOSTAT TEMPERATURE SENSORS TO BE THE BRIGHIUM-MADOKA REMOTE CONTROLLERS.

### VRV BRANCH SELECTOR BOX SCHEDULE

MARK	MANUFACTURER AND MODEL	RATED CAPACITY MBH	ELECTRICAL V/PH/Hz	MCA/MOP	OP WEIGHT IN LBS
B5B-1A	B5B054TVJ	(8) 54	208/230-1-60	0.8 / 15	75
B5B-2A	B5B054TVJ	(6) 54	208/230-1-60	0.6 / 15	75
B5B-1B	B5B054TVJ	(8) 54	208/230-1-60	0.8 / 15	75
B5B-2B	B5B054TVJ	(8) 54	208/230-1-60	0.8 / 15	75



Albert N. Hopper, Jr.  
ARCHITECT  
  
3114 N. Wilson Ave.  
Tucson, AZ 85719  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:  
  
STRUCTURAL ENGINEER:  
Structural Solutions, Inc.  
Tucson, AZ; 520-260-2642  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ; 520-881-8846  
LANDSCAPE ARCHITECT:



NEW CITY HALL  
FOR THE  
CITY OF BISBEE  
118 ARIZONA ST.  
BISBEE, ARIZONA



SHEET ISSUE  
DATE:  
REVISIONS  
▲  
▲  
▲

SHEET MANAGEMENT  
Comm. No. 2201  
Drawn By: LAS  
Checked By: PEH

DRAWINGS ON THIS SHEET  
MECHANICAL  
SCHEDULES

SHEET  
M7

DUCT CONSTRUCTION TABLE		
DUCT TYPE	DUCT MATERIAL	INSULATION
SUPPLY/RETURN AIR	SHEET METAL	1 1/2" LINER
GENERAL EXHAUST	SHEET METAL	NONE
EA/ OA FROM INTERIOR SPACE TO ERY	SHEET METAL	1 1/2" LINER
FLEX SA	FLEXIBLE POLYESTER, PVC OR EQUIVALENT	R-6
FLEX RA	FLEXIBLE POLYESTER, PVC OR EQUIVALENT	R-6

NOTES:  
1. GAUGES AND INSTALLATION SHALL BE ACCORDING TO LATEST SMACNA.  
2. SIZES SHOWN ON PLAN FOR DUCTS WITH LINER ARE ACTUAL SHEET METAL DIMENSIONS.  
3. IF INSULATED DUCTS ARE LOCATED OUTSIDE BUILDING ENVELOPE INSULATION UPSIZE TO 2"

OUTSIDE AIR VENTILATION SCHEDULE PER- IMC-2018 TABLE 403.3									
ROOM NAME & NUMBER	AREA FT <sup>2</sup>	PEOPLE PER 1000 FT <sup>2</sup>	TOTAL PEOPLE	O.A. PER PERSON	CFM/FT <sup>2</sup>	OA REQ	CORRECTED O.A. TOTAL	UNIT SERVING	REMARKS
112-113 OFFICE	513	5	2.6	5	0.06	44	EZ= 0.8 VOZ=55	ERV-A	60 CFM
114 OFFICE	130	5	0.7	5	0.06	11	EZ= 0.8 VOZ=14	ERV-A	30 CFM
115 OFFICE	145	5	1.0	5	0.06	17	EZ= 0.8 VOZ=21	ERV-A	30 CFM
116 OFFICE	143	5	1.0	5	0.06	16	EZ= 0.8 VOZ=21	ERV-A	30 CFM
118 OFFICE	144	5	1.0	5	0.06	17	EZ= 0.8 VOZ=21	ERV-A	30 CFM
110 CONFERENCE	262	50	13.1	5	0.06	81	EZ= 0.8 VOZ=102	ERV-A	105 CFM
111 CUSTOMER SERVICE	383	5	1.4	5	0.06	33	EZ= 0.8 VOZ=41	ERV-A	45 CFM
106 HALL	155	35	5.4	10	0.12	13	MAX. ZP = 0.24 VOU / EV = 35	FC-13B	40 CFM
104 JAN	22	NA	NA	NA	0.12	3			
107 CHAMBERS	1322	50	66.1	5	0.06	410	EZ= 0.8 VOZ=512	ERV-C	525 CFM
205 OFFICE	361	5	1.8	5	0.06	31	EZ= 0.8 VOZ=41	ERV-B	45 CFM
206 OFFICE	385	5	1.4	5	0.06	33	EZ= 0.8 VOZ=41	ERV-B	45 CFM
208 OFFICE	144	5	1.0	5	0.06	16	EZ= 0.8 VOZ=21	ERV-B	30 CFM
209 OFFICE	224	5	1.1	5	0.06	14	EZ= 0.8 VOZ=24	ERV-B	30 CFM
210 OFFICE	191	5	1.0	5	0.06	16	EZ= 0.8 VOZ=21	ERV-B	30 CFM
211 OFFICE	191	5	1.0	5	0.06	16	EZ= 0.8 VOZ=21	ERV-B	30 CFM
212 OFFICE	181	5	0.9	5	0.06	15	EZ= 0.8 VOZ=19	ERV-B	30 CFM
217 OFFICE	163	5	0.8	5	0.06	14	EZ= 0.8 VOZ=18	ERV-B	30 CFM
218 OFFICE	142	5	1.0	5	0.06	16	EZ= 0.8 VOZ=20	ERV-B	30 CFM
219 OFFICE	331	5	1.7	5	0.06	28	EZ= 0.8 VOZ=30	ERV-B	30 CFM
220 CONFERENCE	447	50	22.4	5	0.06	194	EZ= 0.8 VOZ=114	ERV-B	175 CFM
203 JAN	26	NA	NA	NA	0.12	3			
207, 213 CORRIDOR	534	NA	NA	NA	0.06	32	MAX. ZP = 0.24 VOU / EV = 204	FC-13A	205 CFM
201 STAIRS	483	NA	NA	NA	0.06	24			
201 BREAK RM	212	35	1.4	10	0.12	100			

MECHANICAL LEGEND		
SYMBOL	ABBREV.	ITEM
	R	REFRIGERANT
		FLEX CONNECTION
	SA	SUPPLY AIR DUCT
	RA	RETURN AIR DUCT
	EA	EXHAUST AIR DUCT
	AP	ACCESS PANEL
	RG	RETURN AIR GRILLE - KRUEGER MODEL EGC-5 PROVIDE LAY-IN CEILING FRAME. COORDINATE FINISH WITH ARCHITECT.
	RG A	RETURN AIR GRILLE - KRUEGER MODEL EGC-5 PROVIDE SURFACE MOUNT FRAME. COORDINATE FINISH WITH ARCHITECT.
	CD	SUPPLY AIR CEILING DIFFUSER - KRUEGER MODEL 5H PROVIDE 24x24 PANEL LAY-IN CEILING FRAME. # OBD. COORDINATE FINISH WITH ARCHITECT.
	CDA	SUPPLY AIR CEILING DIFFUSER - KRUEGER MODEL 4 OBD. COORDINATE FINISH WITH ARCHITECT.
	SR	SUPPLY REGISTER - KRUEGER MODEL 880-v. STANDARD FRAME AND OBD. COORDINATE FINISH WITH ARCHITECT.
	EG	EXHAUST GRILLE - KRUEGER MODEL EGC-5 PROVIDE ALUMINUM OBD # SURFACE MOUNT FRAME. COORDINATE FINISH WITH ARCHITECT.
	EGA	EXHAUST GRILLE - KRUEGER MODEL EGC-5. ALUMINUM LAY-IN. COORDINATE FINISH WITH ARCHITECT.
	EG B	EXHAUST REGISTER - KRUEGER MODEL 880-v. STANDARD FRAME AND OBD. COORDINATE FINISH WITH ARCHITECT.
	OAG	OUTSIDE AIR GRILLE - KRUEGER MODEL EGC-5 PROVIDE ALUMINUM OBD # SURFACE MOUNT FRAME WITH INSECT SCREEN. COORDINATE FINISH WITH ARCHITECT.
	ML	EXTRUDED ALUMINUM LOUVER - POTTORFF MODEL ECV-545 WITH INSECT SCREEN. COORDINATE FINISH WITH ARCHITECT.
	DG	DOOR GRILLE - KRUEGER MODEL 800A. DOUBLE FLAT FRAME. COORDINATE FINISH WITH ARCHITECT.
	BD	MANUAL BALANCE DAMPER (BUTTERFLY) FLEX DUCTWORK
	T	THERMOSTAT
	TC	INTERMATIC MODEL STO1. 7-DAY HEAVY DUTY PROGRAMMABLE TIMER OR EQUAL
	FD	FIRE DAMPER
	DTR	DUCT THRU ROOF
	DTW	DUCT THRU WALL
	SA	SUPPLY AIR
	RA	RETURN AIR
	EA	EXHAUST AIR
	TA	TRANSFER AIR
	OA	OUTSIDE AIR
	(E)	EXISTING
	Ø	FLEX OR ROUND DUCTWORK
	DN	DOWN
	CLG	CEILING
	TV	TURNING VANES
	ABV	ABOVE
	OH	OVERHEAD
	BLW	BELOW
	AFF	ABOVE FINISHED FLOOR
	C.O.	CONDENSATE DRAIN CLEAN OUT
	OBD	OPPOSED BLADE DAMPER
	UNO	UNLESS NOTED OTHERWISE

NOTE: SOME OF THE ITEMS MAY NOT APPLY TO THIS PROJECT.

MECHANICAL NOTES	
<b>PART I - GENERAL:</b>	
1.01 - ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL CODES, LAWS, RULES, AND REGULATIONS OF ALL NATIONAL, STATE, COUNTY, AND LOCAL AUTHORITIES HAVING JURISDICTION OVER THE PREMISES. THIS SHOULD INCLUDE, BUT NOT BE LIMITED TO, THE INTERNATIONAL MECHANICAL CODE (IMC 2018), INTERNATIONAL BUILDING CODE (IBC 2018), INTERNATIONAL ENERGY CONSERVATION CODE (IECC 2018), AND THE NATIONAL FIRE PROTECTION ASSOCIATION. IN CASE OF DIFFERENCES, THE MOST RESTRICTIVE OF SAID REGULATIONS SHALL GOVERN. HOWEVER, THIS SHALL NOT BE CONSTRUED TO RELIEVE THIS CONTRACTOR FROM COMPLYING WITH REQUIREMENTS OF THE PLANS AND SPECIFICATIONS WHICH MAY BE IN EXCESS OF CODE REQUIREMENTS.	2.08 - ALL DUCTS SHALL BE CONSTRUCTED OF NEW GALVANIZED PRIME STEEL. GAUGES AND INSTALLATION SHALL BE ACCORDING TO LATEST SMACNA "HVAC DUCT CONSTRUCTION STANDARDS". ALL DUCTWORK SHALL BE HUNG WITH SHEET METAL STRAP HANGERS FASTENED TO STRUCTURE ABOVE. ALL DUCT JOINTS, INCLUDING BRANCH DUCT CONNECTIONS, SHALL BE SEALED WITH HARDCAST OR EQUIVALENT CMG DUCT SEALER. THE SIZES OF INTERNALLY LINED DUCTS SHOWN ON DRAWINGS ARE ACTUAL OUTSIDE DUCT DIMENSIONS.
1.02 - CONTRACTOR TO SECURE AND PAY FOR ALL REQUIRED PERMITS AND INSPECTIONS.	2.09 - ALL SUPPLY AND RETURN AIR DUCTS AND PLENUMS SHALL BE THERMALLY INSULATED, PER THE 2018 IECC. SUPPLY AND RETURN AIR DUCTS LOCATED OUTSIDE THE BUILDING SHALL HAVE A MINIMUM OF R-8. SUPPLY AND RETURN AIR DUCTS IN UNCONDITIONED SPACE SHALL HAVE A MINIMUM R-6. DUCTS LOCATED WITHIN A BUILDING ENVELOPE ASSEMBLY SHALL BE SEPARATED FROM THE BUILDING EXTERIOR OR UNCONDITIONED SPACES BY A MINIMUM OF R-8. THE LINER SHALL MEET THE LIFE SAFETY STANDARDS AS ESTABLISHED BY NFPA 90A AND 90B. ALL LEADING EDGES OF EXPOSED DUCT LINER SHALL BE PROTECTED WITH SHEET METAL. THE LINER SHALL BE GLUED AND PINNED PER SMACNA RECOMMENDATIONS. A FOIL JACKET SHALL COVER WRAP INSULATION. DUCTS INSIDE CONDITIONED SPACE SHALL NOT BE WRAPPED OR LINED UNLESS NOTED OTHERWISE.
1.03 - FURNISH AND INSTALL ALL EQUIPMENT AND MATERIAL AS SHOWN. THIS SHALL INCLUDE ALL ITEMS NECESSARY TO COMPLETE THE INSTALLATION WHETHER SPECIFICALLY MENTIONED OR NOT.	2.10 - REFRIGERANT SUCTION LINES LESS THAN OR EQUAL TO 1 1/2" DIAMETER SHALL BE INSULATED WITH 1/2" ARMAFLEX AND LINES GREATER THAN 1 1/2" DIAMETER SHALL BE INSULATED WITH 1" ARMAFLEX. ARMAFLEX EXPOSED TO WEATHER SHALL BE COVERED WITH A SMOOTH, 0.020" THICK ALUMINUM JACKET. CONDENSATE PIPING LOCATED ABOVE FINISHED CEILING SHALL BE INSULATED WITH 1/2" ARMAFLEX. A KRAFT PAPER REINFORCED, FOIL VAPOR BARRIER, WITH SELF-SEALING ADHESIVE JOINTS SHALL COVER INSULATION ON INTERIOR PIPING.
1.04 - MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO SHOW THE APPROXIMATE LOCATION OF OUTLETS, DUCTWORK, EQUIPMENT, AND PIPING. DIMENSIONS GIVEN IN FIGURE ON THE PLANS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS. ALL DIMENSIONS, WHETHER GIVEN IN FIGURES OR SCALED, SHALL BE VERIFIED IN THE FIELD. NO DUCTWORK SHALL BE FABRICATED UNTIL DUCT CLEARANCES ARE FIELD VERIFIED.	2.11 - PROVIDE CURBS AND FLASHINGS WHERE DUCTWORK PASSES THROUGH THE ROOF.
1.05 - BEFORE SUBMITTING A BID, CAREFULLY STUDY ALL CONSTRUCTION DOCUMENTS. CAREFULLY EXAMINE THE PREMISES AND ANY EXISTING WORK. DETERMINE IN ADVANCE, THE METHODS OF INSTALLING AND CONNECTING THE EQUIPMENT, AND BE THOROUGHLY FAMILIAR WITH ALL THE REQUIREMENTS OF THE CONTRACT.	2.12 - THE CONTRACTOR IS RESPONSIBLE FOR BACK CHECKING THE ARCHITECTURAL DRAWINGS AND EXAMINING THE WALL/CEILING TYPES TO ENSURE PROPER INSTALLATION OF FIRE/FIRE SMOKE DAMPERS.
1.06 - BY THE ACT OF SUBMITTING A PROPOSAL FOR THE WORK REQUIRED AND INCLUDED IN THE CONTRACT, THE CONTRACTOR SHALL BE DEEMED TO HAVE MADE SUCH STUDY AND EXAMINATION, AND TO BE FAMILIAR WITH AND ACCEPT ALL CONDITIONS OF THE SITE.	2.13 - EQUIPMENT SHALL BE INSTALLED TO PERMIT ACCESS FOR SERVICE AND MAINTENANCE. ALL EQUIPMENT SHALL BE INSTALLED AS RECOMMENDED BY THE EQUIPMENT MANUFACTURERS.
1.07 - THE MECHANICAL SYSTEMS HAVE BEEN DESIGNED AROUND THE MAKES AND SIZES OF EQUIPMENT NAMED IN THE EQUIPMENT SCHEDULES AND SHOWN ON THE DRAWINGS. OTHER MAKES OF EQUIPMENT NAMED IN THIS SPECIFICATION, SHOWN ON THE DRAWINGS, OR APPROVED BY THE ARCHITECT MAY BE FURNISHED AT THIS CONTRACTOR'S OPTION. IT IS, HOWEVER, THIS CONTRACTOR'S RESPONSIBILITY TO BE SURE THAT SUCH EQUIPMENT HAS EQUIVALENT CAPACITY, THE SAME ELECTRICAL CHARACTERISTICS, SUBSTANTIALLY THE SAME PHYSICAL DIMENSIONS AND CAN BE INSTALLED IN THE SPACE AVAILABLE WITH AMPLE WORKING SPACE AROUND IT. ANY ADDITIONAL COSTS RESULTING FROM EQUIPMENT OR MATERIAL SUBSTITUTION SHALL BE BORNE BY THIS CONTRACTOR.	2.14 - ALL PIPING SHALL BE ACCURATELY CUT AND INSTALLED IN PLACE WITHOUT FORCING. CHANGES IN DIRECTION SHALL BE MADE WITH FITTINGS. BENDING OF PIPING EXCEPT ANNEALED COPPER WILL NOT BE ACCEPTED. REDUCING FITTINGS RATHER THAN BUSHINGS SHALL BE USED WHERE PIPE SIZES CHANGE. TEE FITTINGS SHALL NOT BE USED FOR CONVERGING OR DIVERGING FLOW. A BRANCH TEE AND ONE ELBOW SHALL BE USED INSTEAD. ELBOWS SHALL HAVE A LONG RADIUS WITH A CENTERLINE RADIUS EQUAL TO 1-1/2 TIMES THE PIPE DIAMETER.
1.08 - THE FOLLOWING IS A LIST OF ADDITIONAL EQUIPMENT APPROVED FOR USE ON THIS PROJECT SUBJECT TO SECTION 1.06 ABOVE.	2.015 - ISOLATE ALL COPPER FROM CONTACT WITH STEEL, CONCRETE, OR MASONRY.
1. AIR CONDITIONING UNITS; TRANE/MITSUBISHI, DAIKIN, SAMSUNG, CARRIER, LG, FUJITSU	2.16 - BALANCE ALL AIR QUANTITIES AS INDICATED ON THE DRAWINGS (1) OR (1) 10% IN ACCORDANCE WITH SMACNA OR AECB BALANCING PROCEDURES. MAKE-UP AIR TO KITCHEN HOODS SHALL BE BALANCED NO HIGHER THAN AIR QUANTITY SCHEDULED. SUBMIT AN ELECTRONIC COPY OF THE BALANCE REPORTS INCLUDING EQUIPMENT VOLTAGE AND AMP READINGS. AN AGENCY INDEPENDENT OF CONTRACTOR SHALL DO THE BALANCING. FINAL AIR BALANCE REPORT SHALL BE SUBMITTED TO THE MECHANICAL INSPECTOR PRIOR TO CALLING FOR FINAL INSPECTION.
2. EXHAUST FANS; GREENHECK, COOK, THIN CITY	2.17 - PRIOR TO USE OR CONCEALMENT OF ANY PORTION OF THE GREASE DUCT SYSTEM, THE CONTRACTOR SHALL PERFORM A LEAKAGE TEST IN THE PRESENCE OF THE CODE OFFICIAL PER IMC SECTION 506.3.2.5.
3. AIR DEVICES; KRUEGER, TITUS, NAILOR, RUSKIN, PRICE, TUTTLE & BAILEY	2.18 - CONTRACTOR TO PROVIDE PERFORMANCE TEST OF VENTILATION SYSTEM SERVING COMMERCIAL COOKING APPLIANCES IN COMPLIANCE WITH IMC 507.6 AND CONTAINMENT TEST PER IMC 507.6.1.
1.09 - THE CONTRACTOR SHALL SUBMIT AN ELECTRONIC COPY OF SHOP DRAWINGS ON THE FOLLOWING ITEMS:	2.19 - REFRIGERANT PIPING SHALL BE TRIPLE EVACUATED WITH DRY NITROGEN AND HAVE A 12-HOUR HOLDING TEST PERFORMED PER MANUFACTURER'S RECOMMENDATIONS. THE ARCHITECT'S REPRESENTATIVE SHALL INSPECT THE TEST. A WRITTEN REPORT OF TEST RESULTS SHALL BE SUBMITTED FOR APPROVAL AND SIGNED BY THE INSPECTING PARTY.
1. AIR CONDITIONING UNITS	2.20 - AT ALL TIMES, KEEP THE BUILDING AND PREMISES IN A NEAT MANNER. THOROUGHLY CLEAN UP AT END OF CONSTRUCTION.
2. AIR DEVICES	2.21 - RECORD ALL CHANGES FROM CONTRACT DRAWINGS INCLUDING "FOUND" CONDITIONS AND SUBMIT TO ARCHITECT "RECORD DRAWINGS" AT CLOSE OF PROJECT.
3. EXHAUST FANS	2.22 - FILTERS TO BE MINIMUM MERV-8. INSTALL A NEW SET OF FILTERS AFTER FINAL INSPECTION.
1.10 - PROVIDE ALL OPENINGS THROUGH THE WALLS OR ROOF.	2.23 - FURNISH TO THE ARCHITECT AN ELECTRONIC FILE OF THE OPERATING AND MAINTENANCE MANUALS. MANUALS SHALL CONTAIN MANUFACTURER'S CUT SHEETS, SPARE PARTS LIST, SEQUENCE OF OPERATION, AND A PREVENTATIVE MAINTENANCE SCHEDULE.
1.11 - ELECTRICAL HIGH VOLTAGE POWER WIRING, CONDUIT, DISCONNECT SWITCHES, FUSES, ETC., SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.	2.24 - GUARANTEE WORK TO BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIAL FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. PROVIDE AN ADDITIONAL FOUR-YEAR WARRANTY ON ALL AIR CONDITIONING COMPRESSORS.
<b>PART II - EXECUTION:</b>	
2.01 - FURNISH AND INSTALL THE EQUIPMENT AND MATERIAL OF THE SIZE, QUALITY, CAPACITY AND PERFORMANCE INDICATED. THE EQUIPMENT SHALL BE NEW WITH THE MAKE, MODEL NUMBER, SIZE OR CAPACITY STAMPED ON IT OR ON A NAMEPLATE AFFIXED THERETO.	END OF SPECIFICATIONS
2.02 - AIR CONDITIONING REFRIGERANT PIPING SHALL BE ACR REFRIGERATION, HARD TEMPERED TUBING. CLEAN AND CAP TUBING WITH WROUGHT COPPER FITTINGS.	
2.03 - AIR CONDITIONING CONDENSATE PIPING 1" OR SMALLER SHALL BE TYPE "M" HARD DRAWN COPPER WITH PLUGGED TEES FOR CLEANOUTS. AIR CONDITIONING CONDENSATE PIPING 1" OR LARGER SHALL BE TYPE DWV HARD DRAWN COPPER WITH PLUGGED TEES FOR CLEANOUTS. PLUMBING CONTRACTOR SHALL INSTALL CONDENSATE PIPING.	
2.04 - JOINTS IN COPPER AIR CONDITIONING REFRIGERANT PIPING SHALL BE MADE WITH SILFOS AND FLUX AS RECOMMENDED BY THE BRAZING ALLOY MANUFACTURER. DURING BRAZING, THE PIPE AND FITTINGS SHALL BE KEPT FULL OF INERT GAS, DRY NITROGEN, OR CO2 TO PREVENT FORMATION OF SCALE.	
2.05 - PROVIDE DIELECTRIC UNIONS OR FLANGES WHERE PIPING JOINS OTHER PIPING OF DISSIMILAR METALLURGY.	
2.06 - ALL PIPING INSIDE THE BUILDING SHALL BE SUPPORTED BY ADJUSTABLE STEEL CLEVIS HANGERS SPACED PER ASHRAE RECOMMENDATIONS AND SUSPENDED FROM THE BUILDING CONSTRUCTION BY ALL-THREAD RODS, STRAP, WIRE, OR CHAIR WIRES ARE NOT PERMITTED. WHERE SUSPENDED FROM STEEL STRUCTURAL MEMBERS, APPROPRIATE CLAMPS SHALL BE USED.	
2.07 - PAINT ALL VISIBLE SHEET METAL DUCTWORK BEHIND GRILLES AND REGISTERS FLAT BLACK. PAINT ALL INTERIOR EXPOSED DUCTWORK WITH TWO COATS OF PRIMER AND TWO COATS OF ENAMEL. COORDINATE COLOR WITH ARCHITECT. PAINT ALL SHEET METAL DUCTWORK EXPOSED TO WEATHER WITH TWO COATS OF AN APPROVED ALL-WEATHER PAINT, WHITE IN COLOR.	



Albert N. Hopper, Jr.  
ARCHITECT

3114 N. Wilson Ave.  
Tucson, AZ 85719  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
Structural Solutions, Inc.  
Tucson, AZ; 520-260-2642  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ; 520-881-8846  
LANDSCAPE ARCHITECT:



NEW CITY HALL  
FOR THE  
CITY OF BISBEE  
118 ARIZONA ST.  
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SHEET ISSUE  
DATE:  
REVISIONS



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DRAWINGS ON THIS SHEET  
MECHANICAL NOTES



SHEET  
M8



Albert N. Hopper, Jr.  
ARCHITECT

3114 N. Wilson Ave.  
Tucson, AZ 85719  
Phone: 520-249-6691  
anhop45@gmail.com

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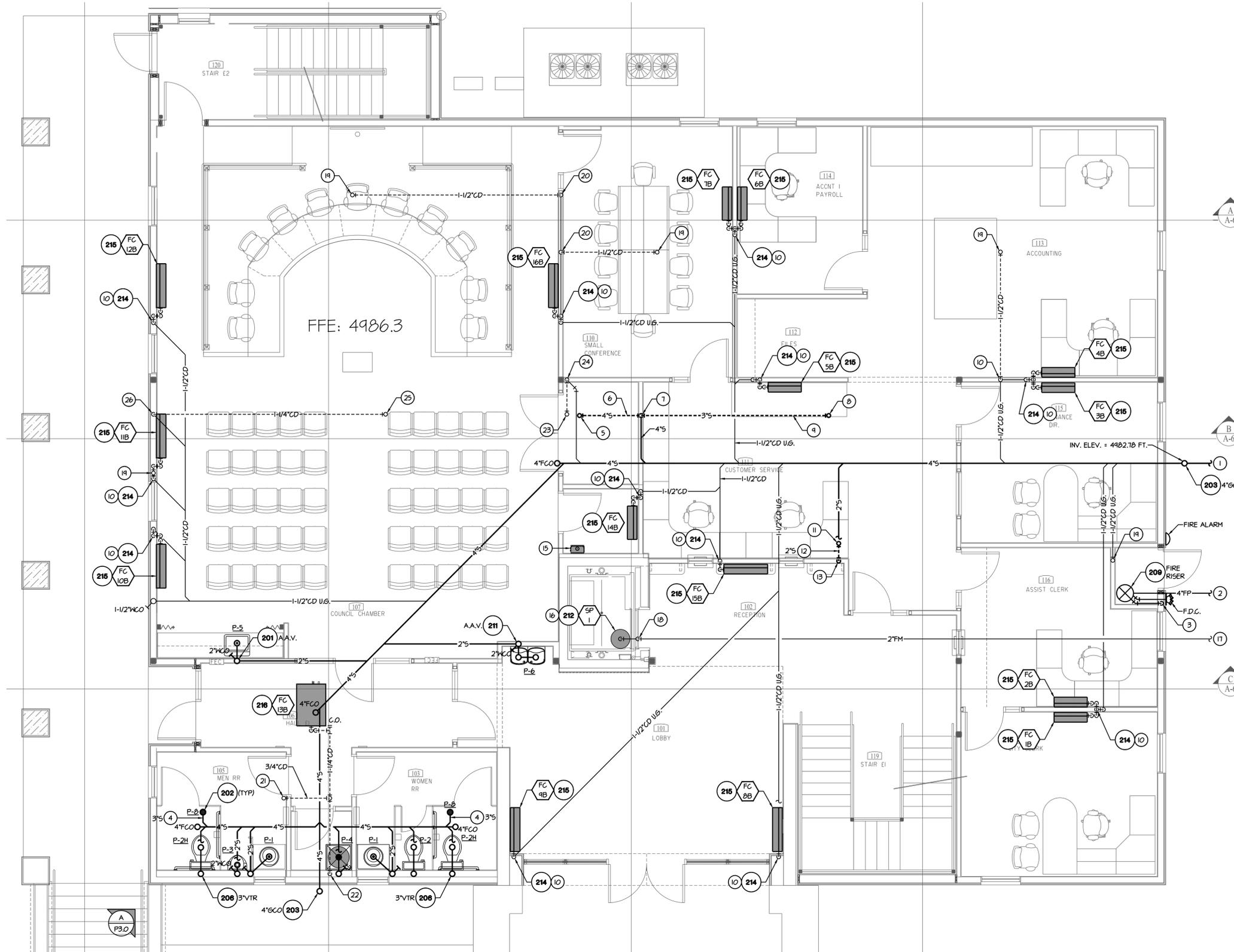
DRAWINGS ON THIS SHEET

PLUMBING  
WASTE 1ST  
FLOOR PLAN

SHEET



of



PLUMBING WASTE 1ST FLOOR PLAN

GENERAL NOTES:

A. PIPING SHOWN DASHED LOCATED IN CLG. SPACE.

KEYNOTES:

- FOR CONTINUATION OF 4"FP SEE SITE PLANS.
- FOR CONTINUATION OF 4"FP SEE SITE PLANS.
- ROUTE FP MAIN DRAIN TO DAYLIGHT.
- THIS 3"S BRANCH LINE UTILIZE COMBINATION WASTE VENT SYSTEM.
- 4"S DN. FROM 2ND FLOOR.
- 4"S IN CLG. SPACE SHOWN DASHED.
- 4"S DN. IN WALL.
- 3"S DN. FROM 2ND FLOOR.
- 3"S IN CLG. SPACE SHOWN DASHED.
- 1-1/2"CD DN. IN WALL TO U.G.
- 2"S DN. FROM 2ND FLOOR.
- 2"S IN CLG. SPACE SHOWN DASHED.
- 2"S DN. IN WALL.
- ROUTE 1"DR FAN DRAIN FROM MAT. HTR. TO M.S.
- SUMP PUMP CONTROL PANELS.
- 2"FM UP FROM ELEVATOR SUMP PUMP.
- 2"FM ROUTE UNDER BLDG. TERMINATE TO ROCK SNIFFL. SEE ARCH. SITE PLAN.
- 2"FM UP ON ELEVATOR SHAFT WALL.
- 1-1/2"CD DN. FROM 2ND FLOOR.
- 1-1/2"CD DN. IN WALL.
- 3/4"CD DN. FROM 2ND FLOOR.
- 1-1/4"CD DN. IN WALL TO M.S.
- 1"CD DN. FROM 2ND FLOOR.
- 1"CD DN. IN WALL TO U.G.
- 1-1/4"CD DN. FROM 2ND FLOOR.
- 1-1/4"CD DN. IN WALL TO U.G.



PROJECT NO. 22048 P: (520) 731-2060  
www.phmech.com F: (520) 731-2061



Albert N. Hopper, Jr.  
ARCHITECT

3114 N. Wilson Ave.  
Tucson, AZ 85719  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
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Tucson, AZ; 520-260-2642  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ; 520-881-8896  
LANDSCAPE ARCHITECT:



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**KEYNOTES:**

1. 4" DN. TO 1ST FLOOR CLG. SPACE.
2. 3" DN. TO 1ST FLOOR CLG. SPACE.
3. 2" DN. TO 1ST FLOOR CLG. SPACE.
4. ROUTE 1" DR PAN DRAIN FROM MAT. HTR. TO M.S.
5. 3/4" DN. IN WALL DN. TO 1ST FLOOR CLG. SPACE.
6. 1-1/2" DN. IN WALL TO 1ST FLOOR CLG. SPACE.
7. 1-1/4" DN. IN WALL TO 1ST FLOOR CLG. SPACE.
8. 1" DN. IN WALL TO 1ST FLOOR CLG. SPACE.
9. 1-1/2" DN. IN WALL TO 1ST FLOOR.

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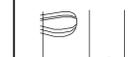
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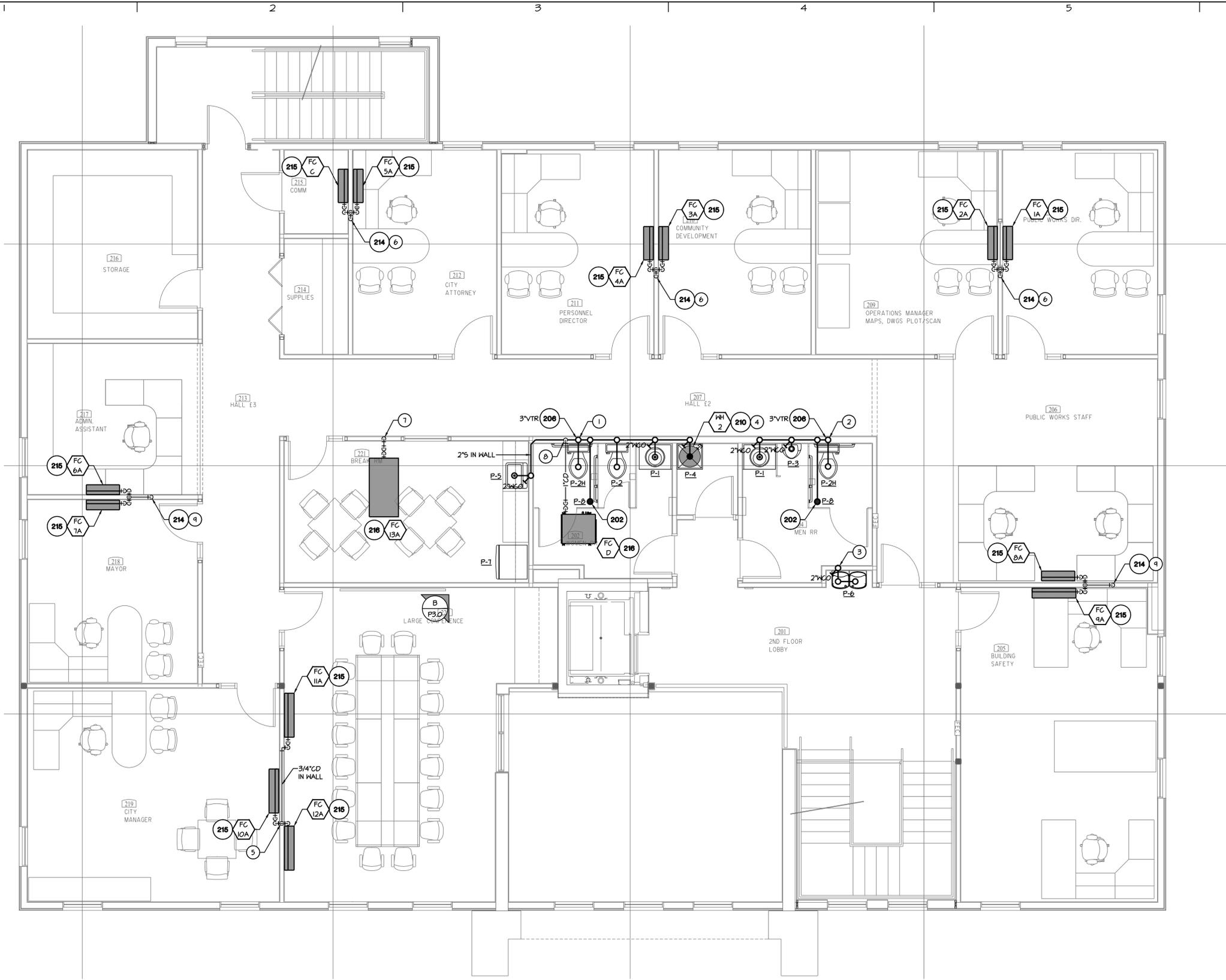
**DRAWINGS ON THIS SHEET**

PLUMBING  
WASTE 2ND  
FLOOR PLAN

**SHEET**



of



**PLUMBING WASTE 2ND FLOOR PLAN**





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ARCHITECT

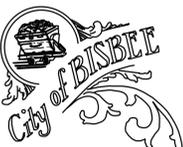
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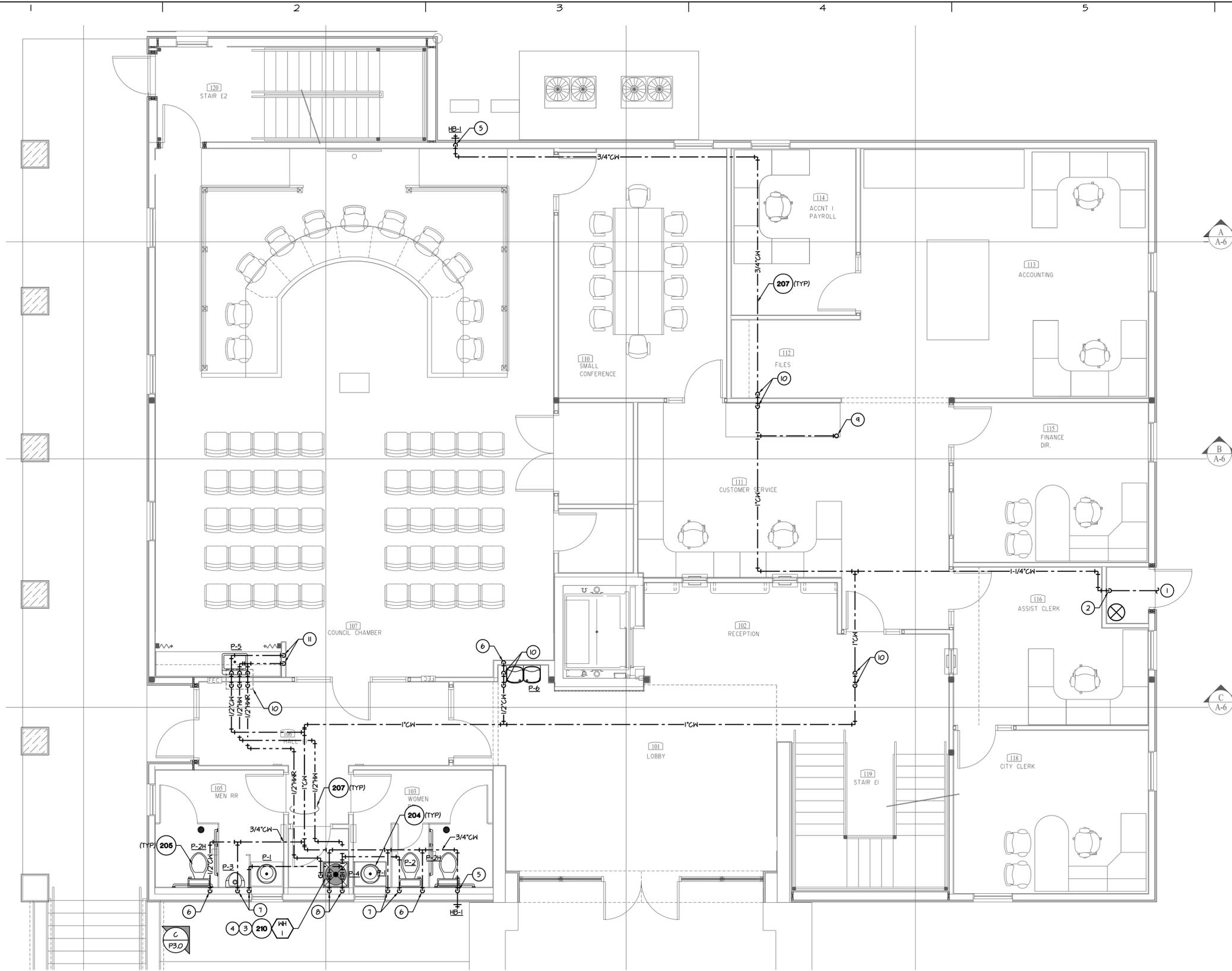
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DRAWINGS ON THIS SHEET

PLUMBING  
WATER 1ST  
FLOOR PLAN

SHEET

P2.0 of



KEYNOTES:

1. FOR CONTINUATION OF 1-1/4" CW SEE SITE PLANS.
2. 1-1/4" CW UP ON WALL TO BLDG. CLG. SPACE.
3. 3/4" CW HH UP/DN. TO/FROM NAT. HTR.
4. 1/2" HR DN. TO RCP.
5. 3/4" CW DN. IN WALL TO FIXTURE(S).
6. 1/2" CW DN. IN WALL TO FIXTURE.
7. 1/2" CW HH DN. IN WALL TO FIXTURE.
8. 3/4" CW HH DN. IN WALL TO FIXTURE.
9. 1" CW UP TO 2ND FLOOR.
10. PIPE INTO 2ND FLOOR CAVITY AND PIPE BACK DOWN ONCE PASS STRUCTURAL BEAM. PROVIDE FIRE CAULKING AT PENETRATION.
11. 1/2" CW HH DN. IN WALL, ROUTE UNDERCOUNTER TO FIXTURE.

PLUMBING WATER 1ST FLOOR PLAN





Albert N. Hopper, Jr.  
ARCHITECT

3114 N. Wilson Ave.  
Tucson, AZ 85719  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
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Tucson, AZ; 520-731-2060

ELECTRICAL ENGINEER:  
ED&S West Electrical Engineering  
Tucson, AZ; 520-881-8846

LANDSCAPE ARCHITECT:



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**GENERAL NOTES:**

A. NO STRUCTURAL MEMBER, INCLUDING STEEL BEAMS, WOOD FLOOR JOISTS, WOOD ROOF TRUSSES, OR ANY SUPPORTING WALL OR COLUMN MAY BE CUT OR OTHERWISE MODIFIED FOR THE PASSAGE OF PIPING OR ANY OTHER PLUMBING AND/OR MECHANICAL EQUIPMENT WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT AND/OR STRUCTURAL ENGINEER. ANY STRUCTURAL MEMBER MODIFIED WITHOUT WRITTEN APPROVAL WILL BE ENTIRELY REPLACED AT THE CONTRACTOR'S EXPENSE.

**KEYNOTES:**

1. 1"CN UP FROM 1ST FLOOR.
2. 3/4"CN/4" UP/DN. TO/FROM WAT. HTR.
3. 1/2"HR DN. TO RCP.
4. 3/4"CN/4" DN. IN WALL TO FIXTURE.
5. 1/2"CN DN. IN WALL TO FIXTURE.
6. 1/2"CN/4" DN. IN WALL TO FIXTURE.

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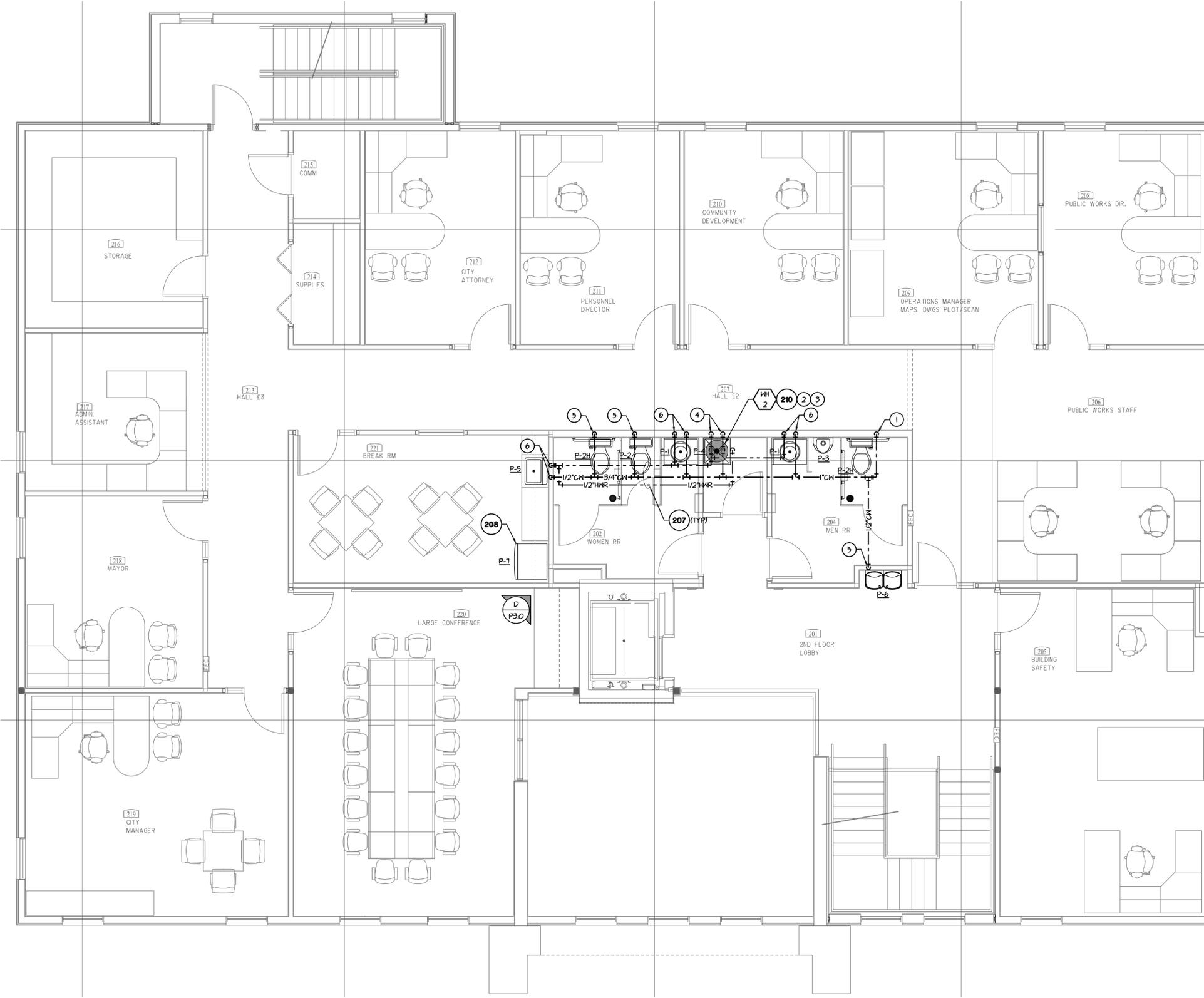
**DRAWINGS ON THIS SHEET**

PLUMBING  
WATER 2ND  
FLOOR PLAN

SHEET

P2.1

of



PLUMBING WATER 2ND FLOOR PLAN



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www.phmech.com F: (520) 731-2061



Albert N. Hopper, Jr.  
ARCHITECT

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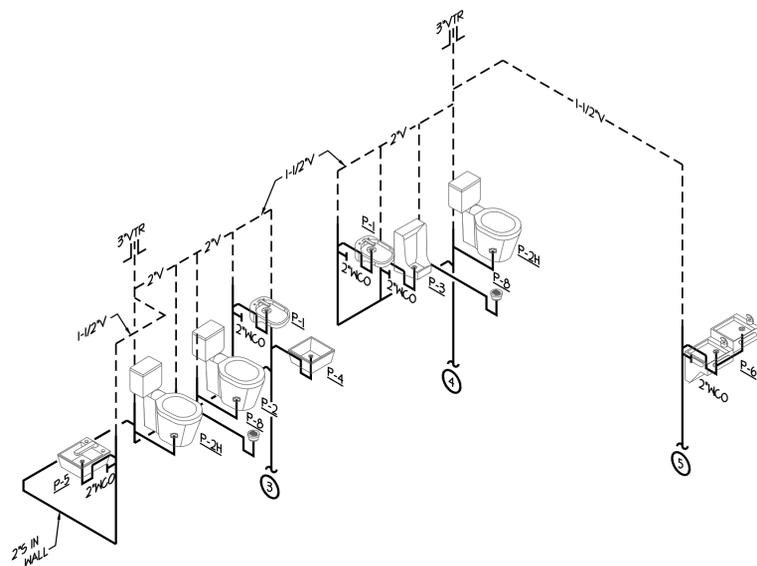
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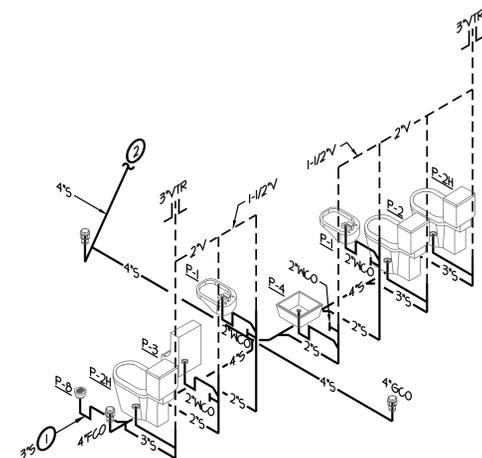
PLUMBING  
ISOMETRIC

SHEET

P3.0 of



PARTIAL WASTE ISOMETRIC  
NTS. (B)



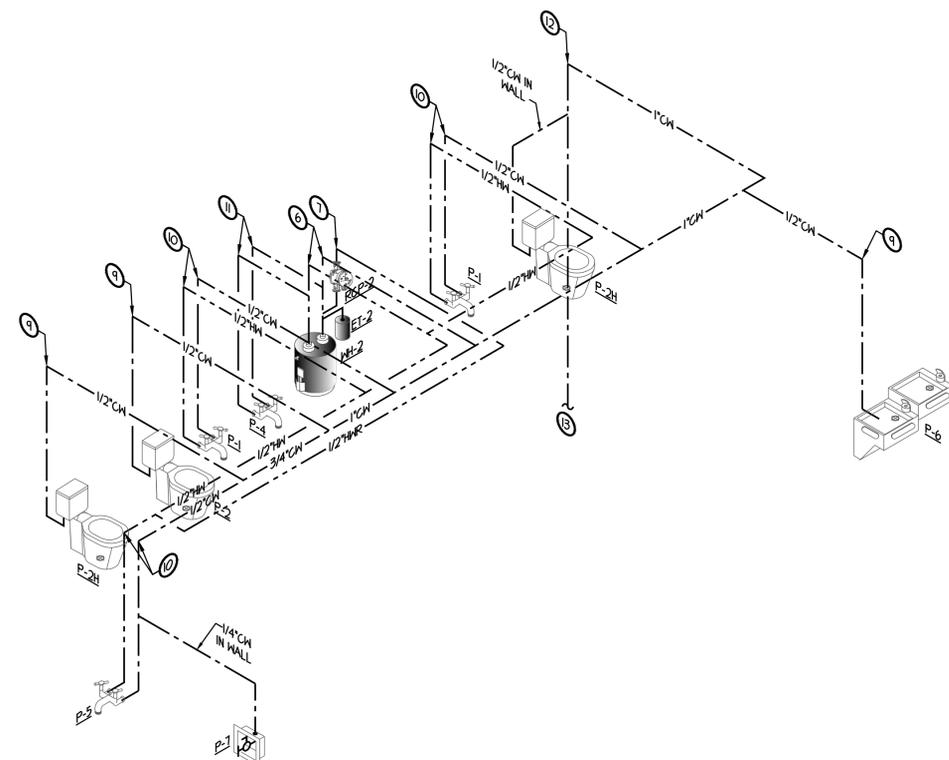
PARTIAL WASTE ISOMETRIC  
NTS. (A)

GENERAL ISOMETRIC NOTE:

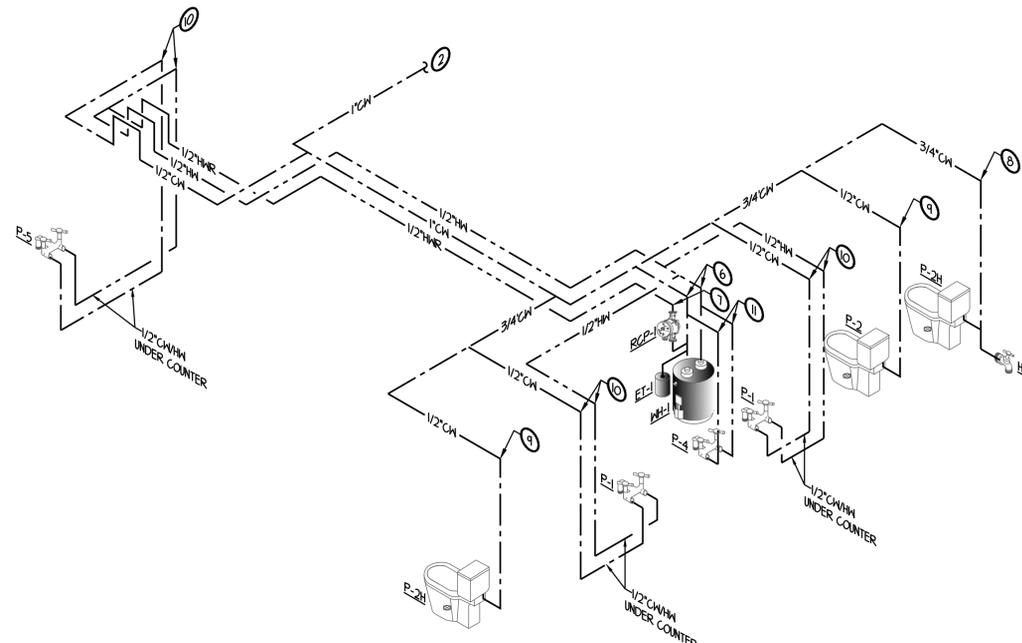
- SEE PLUMBING SCHEDULE FOR INDIVIDUAL FIXTURE WASTE & VENT SIZE.
- SEE PLUMBING SCHEDULE FOR INDIVIDUAL FIXTURE CAVNH PIPE SIZE.
- IF S.O.V.'S ARE LOCATED ABOVE HARD CEILING, PROVIDE ACCESS PANELS AS REQ'D. COORDINATE WITH ARCHITECT.
- PROVIDE S.O.V.'S ON CAVNH PIPES TO ISOLATE GROUPS OF FIXTURES, EVEN IF NOT SHOWN ON THESE PLANS.

KEYNOTES:

- THIS 3\"/>
- SEE PLO FOR CONTINUATION.
- 4\"/>
- 3\"/>
- 2\"/>
- 3/4\"/>
- 1/2\"/>
- 3/4\"/>
- 1/2\"/>
- 1/2\"/>
- 1\"/>
- 1\"/>

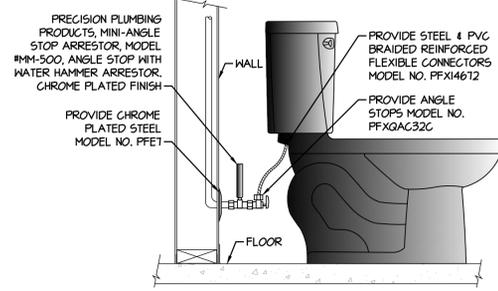


PARTIAL WATER ISOMETRIC  
NTS. (D)



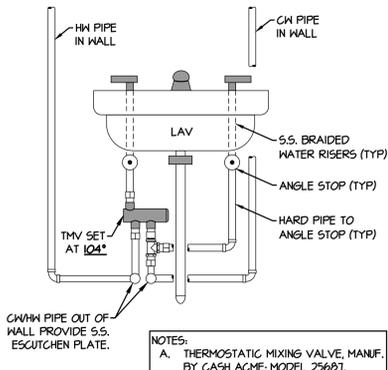
PARTIAL WATER ISOMETRIC  
NTS. (C)





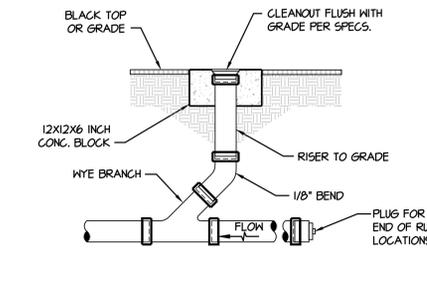
**WATER HAMMER ARRESTOR FOR WATER CLOSET DETAIL**

NT.S. **205**



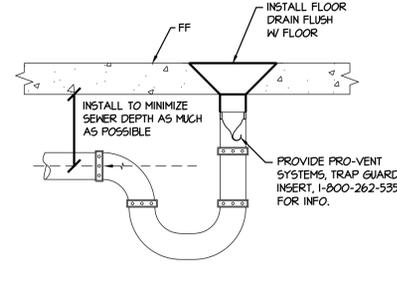
**THERMOSTATIC (UNDER LAV) MIXING VALVE DETAIL**

NT.S. **204**



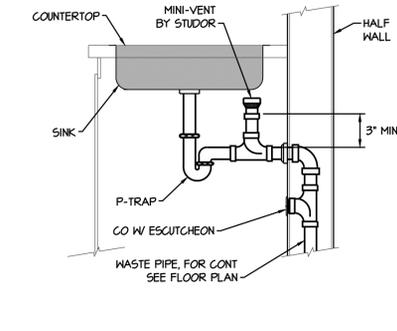
**SURFACE CLEANOUT DETAIL**

NT.S. **203**



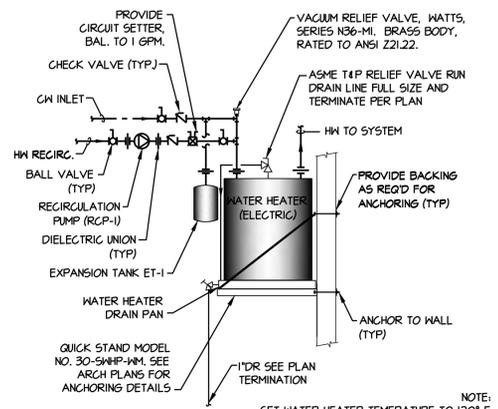
**FLOOR DRAIN W/ TRAP GUARD DETAIL**

NT.S. **202**



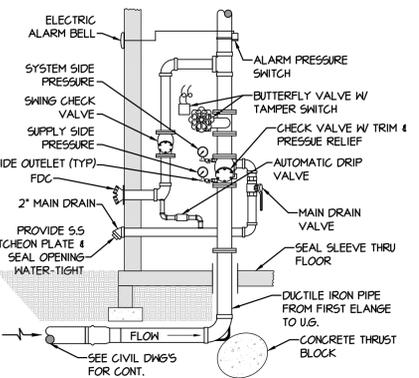
**AIR ADMITTANCE VALVE VENT DETAIL**

NT.S. **201**



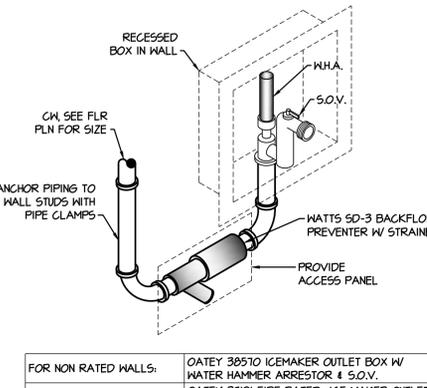
**ELECTRIC WATER HEATER W/ RECIRCULATION DETAIL**

NT.S. **210**



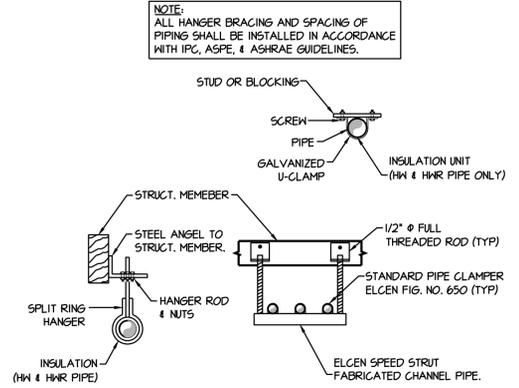
**FIRE RISER DETAIL**

NT.S. **209**



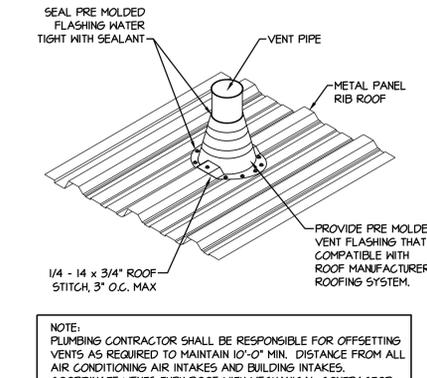
**REFRIGERATOR RECESSED BOX W/ W.H.A. AND S.O.V. DETAIL**

NT.S. **208**



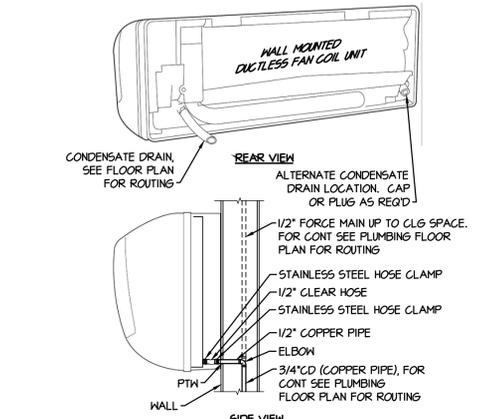
**PIPE SUPPORT DETAIL**

NT.S. **207**



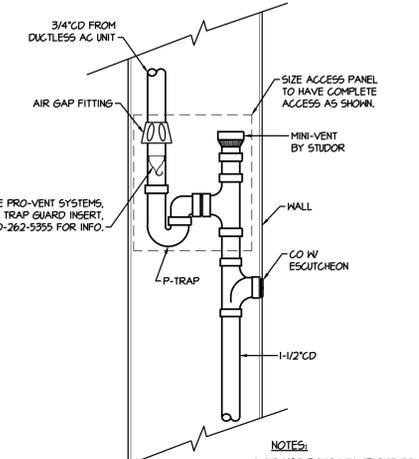
**DRINKING STATION AIR ADMITTANCE VALVE DETAIL**

NT.S. **211**



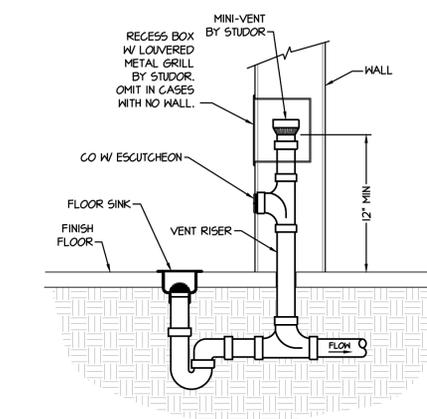
**WALL MOUNTED DUCTLESS FAN COIL UNIT DETAIL**

NT.S. **215**



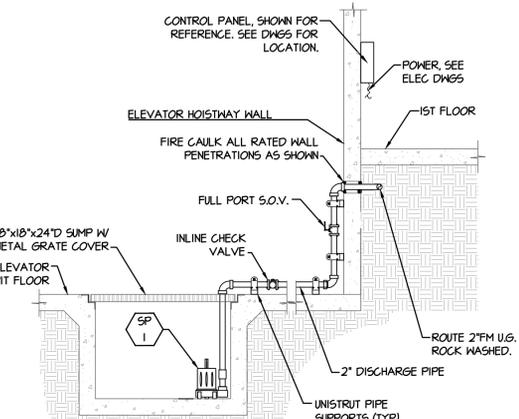
**CONDENSATE DRAIN TO P-TRAP IN WALL DETAIL**

NT.S. **214**



**FLOOR SINK AIR ADMITTANCE VALVE VENT DETAIL**

NT.S. **213**



**SUMP PUMP DETAIL**

NT.S. **212**



**Albert N. Hopper, Jr. ARCHITECT**

3114 N. Wilson Ave.  
Tucson, AZ 85719  
Phone: 520-249-6691  
anhop45@gmail.com

**CONSULTANTS**  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
Structural Solutions, Inc.  
Tucson, AZ; 520-260-2692  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ; 520-881-8896  
LANDSCAPE ARCHITECT:



**NEW CITY HALL FOR THE CITY OF BISBEE**  
118 ARIZONA ST.  
BISBEE, ARIZONA



**SHEET ISSUE**

DATE:  
REVISIONS:

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**SHEET MANAGEMENT**  
Comm. No. 2201  
Drawn By: TTT  
Checked By: PEH

**DRAWINGS ON THIS SHEET**  
PLUMBING  
DETAILS



### PLUMBING PLAN NOTES

<p><b>PART I GENERAL REQUIREMENTS:</b></p> <p>1.01 ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL CODES, LAWS, RULES AND REGULATIONS OF ALL NATIONAL, COUNTY, STATE AND LOCAL AUTHORITIES HAVING JURISDICTION OVER THE PREMISES. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, THE 2012 INTERNATIONAL PLUMBING CODE (IPC 12), THE INTERNATIONAL BUILDING CODE AND THE INTERNATIONAL FIRE PROTECTION ASSOCIATION. IN CASE OF DIFFERENCES, SAID REGULATIONS SHALL GOVERN. HOWEVER, THIS SHALL NOT BE CONSTRUED TO RELIEVE THE CONTRACTOR FROM COMPLYING WITH REQUIREMENTS OF THE PLANS AND SPECIFICATIONS, WHICH MAY BE IN EXCESS OF CODE REQUIREMENTS.</p> <p>1.02 PLUMBING DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO SHOW THE APPROXIMATE LOCATION OF FIXTURES, EQUIPMENT AND PIPING. DIMENSIONS GIVEN IN FIGURES ON THE PLANS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS AND ALL DIMENSIONS, WHETHER GIVEN IN FIGURES OR SCALED, SHALL BE VERIFIED IN THE FIELD.</p> <p>1.03 BEFORE SUBMITTING A BID, THE CONTRACTOR SHALL CAREFULLY STUDY THE MECHANICAL AND PLUMBING DRAWINGS AND ALL ASSOCIATED CONSTRUCTION DOCUMENTS. HE SHALL ALSO MAKE A CAREFUL EXAMINATION OF THE PREMISES AND ANY EXISTING CONDITIONS, INCLUDING INVERTS TO ENSURE PROPER SLOPE MAY BE OBTAINED. HE SHALL DETERMINE, IN ADVANCE, THE METHODS OF INSTALLING AND CONNECTING THE APPARATUS, THE MEANS TO BE PROVIDED FOR GETTING THE EQUIPMENT INTO PLACE, AND SHALL MAKE HIMSELF THOROUGHLY FAMILIAR WITH ALL OF THE REQUIREMENTS OF THE CONTRACT.</p> <p>1.04 BY THE ACT OF SUBMITTING A PROPOSAL FOR THE WORK REQUIRED AND INCLUDED IN THE CONTRACT, THE CONTRACTOR SHALL BE DEEMED TO HAVE MADE SUCH STUDY AND EXAMINATION, AND TO BE FAMILIAR WITH AND ACCEPT ALL CONDITIONS OF THE SITE.</p> <p>1.05 MAKE ARRANGEMENTS FOR AND PAY FOR ALL FEES, PERMITS, LICENSES, CONNECTION CHARGES AND INSPECTIONS REQUIRED FOR PLUMBING WORK; PERFORM REQUIRED TESTS AND SECURE REQUIRED INSPECTIONS PRIOR TO BACK-FILLING.</p> <p>1.06 WRAP ALL PIPING IN BLOCK WALLS OR PENETRATING CONCRETE WITH 10 MIL POLYVINYL TAPE.</p> <p>1.07 CONTRACTOR SHALL FURNISH ANY MISCELLANEOUS ITEMS NORMALLY USED, SPECIFICALLY MENTIONED OR NOT, TO RENDER A COMPLETE INSTALLATION.</p> <p>1.08 ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS. EQUAL EQUIPMENT MAY BE USED ON THE PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THAT SUCH EQUIPMENT HAS EQUAL CAPACITY, THE SAME ELECTRICAL CHARACTERISTICS, AND SUBSTANTIALLY THE SAME PHYSICAL DIMENSIONS AND CAN BE INSTALLED IN THE SPACE AVAILABLE WITH AMPLE WORKING SPACE AROUND IT. ANY EXTRA COSTS RESULTING FROM EQUIPMENT SUBSTITUTION SHALL BE BORNE BY THIS CONTRACTOR.</p> <p>1.09 PER SECTION 602.3.4 OF THE IPC UPON COMPLETION OF DOMESTIC WATER, PERFORM A STERILIZATION OF THE DOMESTIC WATER SYSTEM OR THE PART THEREOF. THE SYSTEM OR THE PART THEREOF SHALL BE FILLED WITH A WATER/CHLORINE SOLUTION CONTAINING AT LEAST 50 PPM OF CHLORINE, AND THE SYSTEM OR PART THEREOF SHALL BE VALVED OFF AND ALLOWED TO STAND FOR 24 HOURS; OR THE SYSTEM OR THE PART THEREOF SHALL BE FILLED WITH A WATER/CHLORINE SOLUTION CONTAINING 200 PPM OF CHLORINE AND ALLOWED TO STAND FOR 3 HOURS. FOLLOWING THE REQUIRED STANDING TIME, THE SYSTEM SHALL BE FLUSHED WITH CLEAN POTABLE WATER UNTIL THE CHLORINE IS RIGID FROM SYSTEM. START AND FINISH INSPECTIONS SHALL BE PERFORMED BY THE OWNER'S REPRESENTATIVE. CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR ENGINEER AND INSPECTOR BY AN APPROVED AGENCY (A BACTERIOLOGICAL EXAMINATION) THAT NO CONTAMINATION PERSISTS IN THE SYSTEM. IF LESS THAN 10' OF NEW PIPE IS ADDED THIS STEP MAY BE ELIMINATED.</p> <p>1.10 CONTRACTOR SHALL GUARANTEE ALL PARTS AND LABOR FOR ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE.</p> <p>1.11 MAKE NOTE OF ANY CHANGES MADE IN LAYOUT AND INCORPORATE IN "RECORD" DRAWINGS.</p>	<p>1.02 THE CONTRACTOR SHALL SUBMIT AN ELECTRONIC COPY OF SHOP DRAWINGS FOR ALL PLUMBING EQUIPMENT, FIXTURES AND PIPING MATERIALS USED ON THIS PROJECT.</p> <p>1.03 CONTRACTOR SHALL MAINTAIN PREMISES IN CLEAN CONDITION AT END OF EACH DAY AND THOROUGHLY CLEAN UP AT END OF CONSTRUCTION.</p> <p><b>PART 2 CONSTRUCTION REQUIREMENTS:</b></p> <p>2.01 ALL OVERHEAD PIPING TO BE SUSPENDED FROM STRUCTURE ABOVE WITH PIPE HANGERS.</p> <p>2.02 ALL PLUMBING FIXTURES TO HAVE ACCESSIBLE STOPS.</p> <p>2.03 ALL UNDER GROUND WATER PIPE SHALL HAVE A BLUE #18 INSULATED TRACER WIRE SECURELY ATTACHED TO IT AT 8' O.C. AND SHALL HAVE 12" OF TRACER WIRE SECURELY ATTACHED TO IT AT 8' O.C. AND SHALL HAVE 12" OF TRACER WIRE ACCESSIBLE ABOVE GRADE AT THE TERMINATION AND BE SECURELY ATTACHED AT THAT POINT.</p> <p>2.04 ALL JOINTS IN COPPER TUBING SHALL BE MADE WITH APPROVED COPPER FITTINGS. PIPE SHALL BE CUT SQUARELY AND REAMED TO ITS FULL INNER DIAMETER. JOINTS SHALL BE PROPERLY FLUXED WITH AN APPROVED TYPE FLUX AND MADE UP WITH APPROVED SOLDER. SOLDERERS AND FLUXES WITH A LEAD CONTENT WHICH EXCEEDS THO-TENTHS (0.20) OF (1) PERCENT ARE PROHIBITED IN POTABLE WATER PIPING SYSTEMS.</p> <p>2.05 ANY PIPING EXPOSED IN FIRE WALLS, EXPOSED IN RETURN AIR PLENUM OR EXPOSED TO OUTSIDE ELEMENTS SHALL BE CAST IRON OR COPPER. WHERE REQUIRED, PENETRATIONS THRU RATED WALLS MUST BE SEALED WITH FIRE STOPS CONFORMING TO LATEST I.B.C.</p> <p>2.06 ALL UNDER GROUND WASTE PIPES SHALL HAVE A GREEN #18 INSULATED TRACER WIRE SECURELY ATTACHED TO IT AT 8' O.C. AND SHALL HAVE 12" OF TRACER WIRE ACCESSIBLE ABOVE GRADE AT THE CLEANOUT AND BE SECURELY ATTACHED AT THAT POINT.</p> <p>2.07 PLUMBER TO FINISH AND INSTALL THE A/C CONDENSATE DRAIN PIPING.</p> <p>2.08 PROVIDE DIELECTRIC UNIONS AT CONNECTION TO A/C UNITS, 4 WATER HEATER.</p> <p>2.09 PIPE INSULATION:</p> <ol style="list-style-type: none"> <li>COLD WATER PIPING IN AREAS WHERE PIPE MIGHT BE SUBJECT TO FREEZING SHALL BE INSULATED. INSULATION SHALL BE 1/2" THICK ON 1/2" PIPE AND 1" THICK ON 3/4" PIPE AND LARGER. PROVIDE METAL JACKET IN AREAS SUBJECT TO UV RAYS.</li> <li>FOR AUTOMATIC-CIRCULATING HOT WATER SYSTEMS, HOT WATER (ABOVE 4' BELOW GRADE) SHALL BE INSULATED WITH 1" THICK INSULATION. INSULATION CONDUCTIVITY SHALL NOT EXCEED 0.21 BU PER IN.</li> <li>PIPE INSULATION SHALL BE NON-COMPRESSIBLE TYPE HARD SECTION AT ALL HANGERS AND ANY OTHER PLACE WHERE REQUIRED. INSULATION SHALL MEET IECC SECTION 404.5 REQUIREMENTS.</li> </ol> <p>2.10 ALL WASTE, VENT, DRAINAGE AND WATER PIPING SHALL BE TESTED PER I.P.C. BEFORE BEING CONCEALED IN ANY WAY. ALL JOINTS SHALL BE MADE DRIPTIGHT BEFORE BEING CONCEALED.</p> <p>2.11 G.C.O. &amp; H.C.O. &amp; F.C.O. (GRADE, WALL &amp; FLOOR CLEAN OUTS) EXTERIOR SURFACED AREAS: ROUND COATED CAST IRON BODY WITH CAST IRON NON-SKID COVER AND PLUG, MODEL 4225 MANUFACTURED BY SMITH. INTERIOR FINISHED FLOOR AREAS: COATED CAST IRON BODY WITH ROUND NICKEL BRONZE SCORRIATED COVER, MODEL 4020 MANUFACTURED BY SMITH. INTERIOR FINISHED WALL AREAS: LINE TYPE WITH COATED CAST IRON BODY AND CAST IRON LEAD SEAL PLUG, AND ROUND STAINLESS STEEL ACCESS COVER SECURED WITH MACHINE SCREW, MODEL 4402 MANUFACTURED BY SMITH.</p>
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### PLUMBING FIXTURES SCHEDULE AND SPECIFICATIONS

MARK	EQUIPMENT	QTY	WATER FIXTURE UNITS		HM FIXTURE UNITS		WASTE FIXTURE UNITS		FIXTURE CONNECTION SIZES						REMARKS	
			FU	TOTAL FU	FU	TOTAL FU	FU	TOTAL FU	WASTE RISER	TRAP ARM	INCO SIZE	V	CM	HM		
P-1	LAVATORY (COUNTER MOUNTED OVAL)	4	1	4	.75	3.00	1	4	2"	1-1/2"	2"	1-1/2"	1/2"	1/2"	BASIN: AMERICAN STANDARD "RONDALYN" MODEL NO. 0491.019 FAUCET: WOLVERINE BRASS MODEL NO. 33493 "ETERNITY" DUAL OPERATION	1.2.5.
P-2	WATER CLOSET (FLOOR MOUNTED FLUSH TANK)	2	2.5	5.0	-	-	3	6	3"	3"	-	2"	1/2"	-	BOWL: AMERICAN STANDARD, "CADET", MODEL NO. 2462.100 SEAT: CHURCH MODEL NO. 245C	1.3.4.
P-2H	WATER CLOSET (ADA FLOOR MOUNTED FLUSH TANK)	4	2.5	10.0	-	-	3	12	3"	3"	-	2"	1/2"	-	BOWL: AMERICAN STANDARD, "CADET RIGHT HEIGHT" MODEL NO. 2461.016 SEAT: CHURCH MODEL NO. 245C	1.3.4.
P-3	URINAL (WATERLESS, WALL MOUNTED)	2	-	-	-	-	2	4	2"	1-1/2"	2"	1-1/2"	-	-	AMERICAN STANDARD "FLOWISE" WATERLESS URINAL MODEL NO.6154, INCLUDES MOUNTING HARDWARE & WALL BRACKET.	1.
P-4	MOP SINK (FLOOR MOUNTED)	2	3	6	2.25	4.50	2	4	2"	2"	-	1-1/2"	3/4"	3/4"	BASIN: FIAT MODEL NO. MSB-2424, 24" X 24" FAUCET: FIAT MODEL NO. 830-AA WALL-MOUNTED SERVICE FAUCET HOSE & BRACKET; FIAT #832-AA. MOP HANGER: FIAT, MODEL NO. 8849C WITH STAINLESS STEEL WALL GUARD & HOSE HANGER, 4 RACK.	1.
P-5	BREAK ROOM SINK (SINGLE COMP COUNTER MOUNTED)	2	2	4	1.5	3.00	2	4	2"	2"	2"	1-1/2"	1/2"	1/2"	BASIN: ELKAY, CELEBRITY SINKS, MODEL #6GR2521, 25" x 21-1/4" x 5-3/8" FAUCET: ELKAY MODEL #LK810H1014, DECK MOUNTED FAUCET	1.
P-6	ELECTRIC WATER FOUNTAIN (ADA HIGH/LOW WALL MOUNT)	2	2	4	-	-	1	2	2"	1-1/2"	2"	1-1/2"	1/2"	-	ELKAY, MODEL EZ25TLB.C. REFRIGERATED WATER COOLER, 115VAC/160 HZ, 5.0 AMP.	1.
P-7	REFRIGERATOR	1	5	0.5	-	-	-	-	-	-	-	-	1/4"	-	OWNER SPECIFIED, AND CONTRACTOR INSTALLED. PROVIDE RECESSED BOX W/ 5.0.V.	1.
P-8	FLOOR DRAIN	4	-	-	-	-	2	8	2"	2"	-	1-1/2"	-	-	ZURN MODEL Z-415-5B. FLOOR DRAIN WITH DURACOATED CAST IRON BODY WITH 2" BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR W/ TYPE B' NICKEL BRONZE STRAINER.	1.
HB-1	HOSE BIBB	1	2.5	2.5	-	-	-	-	-	-	-	-	3/4"	-	WOODFORD MODEL 40HT BRASS ADA WALL FAUCET W/ OPTIONAL LEVER HANDLE	1.
HB-1	HOSE BIBB	1	1	1	-	-	-	-	-	-	-	-	3/4"	-	WOODFORD MODEL 40HT BRASS ADA WALL FAUCET W/ OPTIONAL LEVER HANDLE	1.
NEW FIXTURES TOTAL				31.0		10.50		44								

**REMARKS:**

- CONTRACTOR TO PROVIDE ALL NECESSARY PARTS FOR A COMPLETE INSTALLATION.
- 25 GAL. PER ACTIVATION IS SET FOR 15 SEC.
- SEAT NOTE: THE CONTRACTOR SHALL ENSURE THAT THE COMBINATION OF THE SEAT AND WATER CLOSET DOES NOT EXCEED 14" A.F.F. TO INCLUDE THE REAR PORTION OF THE SEAT AT THE HINGE.
- THE CONTRACTOR IS RESPONSIBLE FOR ORDERING THE WATER CLOSET WITH THE FLUSH HANDLE ON THE OPEN SIDE OF THE WATER CLOSET TO COMPLY WITH ADA REQUIREMENTS.
- PROVIDE OFFSET TAILPIECE & P-TRAP W/ INSULATED COVER AS MANUFACTURED BY TRUEBRO.
- SEE ARCHITECTURAL DRAWINGS FOR SPECIFICATION.
- SHALL BE THIRD PARTY LISTED. REFERENCE SECTIONS 303.4 & 402, IPC2012.

### PLUMBING LEGEND & SYMBOLS

—A—	SEWER LINE
—B—	VENT LINE
—C—	COLD WATER LINE
—D—	HOT WATER LINE
—E—	HOT WATER RETURN LINE
—F—	CONDENSATE LINE
—G—	FIRE PROTECTION SHUT OFF VALVE (BALL VALVE)
—H—	CAP
—I—	WALL CLEAN-OUT RISER, HASTE/VENT RISER, CAPPED U.S.
—J—	90° ELBOW
—K—	45° ELBOW
—L—	90° ELBOW DN
—M—	90° ELBOW UP
—N—	TEE
—O—	TEE DN
—P—	TEE UP
—Q—	REDUCER
—R—	UNION
—S—	Y-STRAINER
—T—	HOSE BIBB
—U—	INDIRECT DRAIN
—V—	GATE VALVE
—W—	GLOBE VALVE
—X—	CHECK VALVE
—Y—	W/A. WATER HAMMER ARRESTOR
—Z—	POINT OF NEW CONNECTION (P.O.C.)
—AA—	KEYNOTE TAG
—AB—	EQUIPMENT TAG
—AC—	DETAIL CALL-OUT
—AD—	ISOMETRIC CALL-OUT
—AE—	ARROW POINT IN DIRECTION OF VIEW
—AF—	ABOVE
—AG—	FINISH FLOOR ELEVATION
—AH—	AIR CONDITIONING DOWN
—AI—	EXIST.
—AJ—	VENT THRU ROOF WITH WALL CLEANOUT
—AK—	OVERHEAD
—AL—	UNDER GROUND
—AM—	PIPE THRU WALL
—AN—	PIPE THRU ROOF
—AO—	GRADE CLEANOUT
—AP—	FLOOR CLEANOUT
—AQ—	CAST IRON
—AR—	INDIRECT WASTE
—AS—	UNLESS NOTED OTHERWISE THOUSAND BTUS PER HOUR

### WATER HEATER SYSTEM SCHEDULE

MARK	ELECTRIC WATER HEATER (WH)						RECIRCULATING PUMP (RCP)				EXPANSION TANK (ET)					
	MFR	MODEL	STORAGE (GALLONS)	DIMENSIONS (DIAM/HT)	RECOVERY	HTG. ELEM.	ELEC.	TOTAL WEIGHT	MFR	MODEL NO.	ELEC.	HEAD/GPM	MFR	MODEL NO.	CAPACITY	MAX ACCEPT. FACTOR
WH-1 RCP-1 ET-1	BRADFORD WHITE	LE120L3-3	19	18" DIA/34"	18 GPH	3 KW NON-SIM	208V/1Ø 14.4 F.L.A.	216 LBS	GRANDFOS ALPHA2	15-555F/LC	115V/Ø 0.65 AMPS	14 FT/ 21	AMTROL	ST-12-C	6.4 GAL	0.50

NOTE: RCP SHALL MEET SECTION IECC 2018 C404.6J

### WATER PIPE SIZING

PIPE SIZE	F.I.J. TANK	F.I.J. FLUSH	GPM
1/2"	3	-	3
3/4"	8	-	8
1"	20	-	16
1-1/4"	48	10	27
1-1/2"	90	30	40
2"	235	110	70

### SUMP PUMP SCHEDULE

MARK	SERVICE	MFR	MODEL	SIMPLEX/ DUPLX	PUMP			MOTOR		REMARKS
					AUTOMATIC/ MANUAL	GPM	FT. HEAD	HP	V/PH	
SP-1	ELEVATOR PIT	EBARA	EPO-1 PUMP, E15100	SIMPLEX	AUTOMATIC	50	20	3/4	115/1	1.2.

NOTE:

- PUMP SHALL BE PURCHASED AND INSTALLED PER MFR'S INSTRUCTIONS WITH ALL COMPONENTS NEC. FOR A COMPLETE ELEVATOR SUMP PUMP SYSTEM.
- PUMP PUMP, ENCLOSURE, CONTROLS & INSTALLATION SHALL COMPLY WITH SECTION 112, IPC 2012, REGARDLESS IF SHOWN OR NOT. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT & MATERIAL AS NECESSARY FOR A COMPLETE WORKING SYSTEM.

### WATER CALCULATIONS

TOTAL WATER DEMAND	31 FU's = 24 GPM
WATER PIPE SIZE CRITERIA	
AVAIL. PRESS. FROM WATER MAIN IN STREET:	60 PSI
PRESS. LOSS AT EXISTING WATER METER	2" MTR SIZE 1 PSI
PRESS. LOSS AT NEW	1-1/4" RFBP 10.0 PSI
AVAIL. PRESSURE AFTER RFBP:	49.0 PSI
PRESS. REGULATOR (SET PRESS. TO 78 MAX PSI):	0.0 PSI
AVAIL. PRESSURE TO BLDG:	49.0 PSI
PRESS. REQD AT FURTHEST FIXTURE:	20.0 PSI
PRESS. LOSS IN ELEV.	0.43 x 20 = 8.60 PSI
PRESSURE AVAILABLE FOR PIPE LOSSES:	20.4 PSI
DEVELOPED LENGTH OF PIPE FROM STREET MAIN TO FURTHEST FIXTURE	230 FT
PIPE LOSS CALCULATION	
20.4 PSI x 100	1.10 PSI/100 FT OF PIPE (ALLOWABLE PRESSURE LOSS PER 100 FT. OF PIPE)
230 FT	25% FITTINGS = 2815 FT

### PIPE MATERIAL SCHEDULE

PIPING SYSTEM	ABBREVIATION	PIPING MATERIAL
SANITARY DRAINAGE & VENT (ABOVE & BELOW GRADE)	SV	HUBLESS CAST IRON, ABS, OR PVC
POTABLE WATER ABOVE GRADE	CM, HM OR HWR	TYPE L HARD DRAWN COPPER
POTABLE WATER - (BELOW GRADE, OUTSIDE OF BLDG. FOOT PRINT)	CM	PVC OR PEX
CONDENSATE DRAIN - 1" & SMALLER	CD	TYPE M HARD DRAWN COPPER
CONDENSATE DRAIN - 1-1/4" & LARGER	CD	TYPE DWV HARD DRAWN COPPER
FIRE PROTECTION - 3" & LARGER (BELOW GRADE)	FP	DUCTILE IRON
FIRE PROTECTION (ABOVE GRADE)	FP	SCHEDULE 10 OR 40 BLACK STEEL
FORCE MAIN FOR ELEVATOR & LOADING DOCK SUMP PUMPS	FM	IRON PIPE BLACK/ GALVANIZED, W/ THREADED FITTINGS OR TYPE DWV COPPER PIPE W/ BROUGHT COPPER FITTINGS AND SOLDERED JOINTS
FORCE MAIN FOR DUCTLESS UNITS	FM	TYPE M HARD DRAWN COPPER

**GENERAL NOTES:**

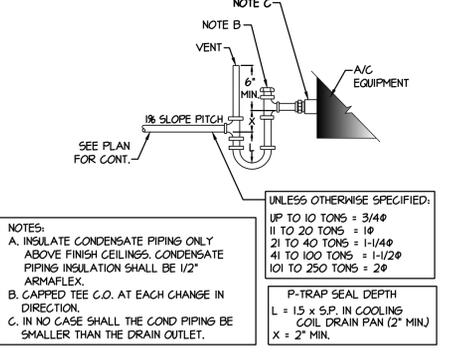
- REFER TO SPECIFICATIONS FOR FITTINGS, INSTALLATION REQUIREMENTS AND FURTHER INFORMATION.
- NO PLASTIC (ABS OR PVC) PIPING TO BE ALLOWED IN RETURN AIR PLENUM.
- WASTE PIPING 2" & SMALLER TO SLOPE AT 1/4 IN/ FT., 3" & LARGER TO SLOPE 1/8" IN/ FT. UNO.
- SLOPE ALL CONDENSATE PIPING AT 1/8 IN/ FT.
- ANY PIPING IN FIRE WALLS, IN RETURN AIR PLENUM, OR EXPOSED TO OUTSIDE ELEMENTS SHALL BE CAST IRON OR COPPER.
- PENETRATIONS THRU WALLS MUST BE SEALED WITH FIRE STOPS CONFORMING TO LATEST I.B.C.

### FIRE PROTECTION BASIS OF DESIGN

- APPLICABLE STANDARDS: THE MOST STRINGENT OF:
  - NFPA 13, LATEST EDITION
- SYSTEM TYPE: PROVIDED WET PIPE SYSTEM
- OCCUPANCY CLASSIFICATION AND GROUP:
  - OFFICE AREA: LIGHT HAZARD
  - STAIRWELLS: LIGHT HAZARD
- AVAILABLE WATER SUPPLY (AT NEAREST STREET MAIN HYDRANT):
  - PSI STATIC, \* GPM FLOW, \* PSI RESIDUAL.
- DATA WAS DERIVED FROM A MULTIPLE HYDRANT TEST WITH ONE CONTROL HYDRANT AND TWO FLOW HYDRANTS
- FIRE PROTECTION CONTRACTOR TO TEST HYDRANT TO OBTAIN FIRE FLOW BEFORE STARTING ANY CALCULATIONS.

### FIRE PROTECTION NOTES

- THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE A WET-PIPE FIRE SPRINKLER SYSTEM DESIGNED AND INSTALLED ACCORDANCE WITH NFPA 13, LATEST ADOPTED EDITION.
- SYSTEM TO BE DESIGNED FOR THE HAZARD OCCUPANCY AND DENSITY EQUAL AS CALLED IN BASIS OF DESIGN SUBMIT SHOP DRAWINGS AND EQUIPMENT LITERATURE FOR REVIEW AND APPROVAL BY THE FIRE DEPARTMENT, AND ARCHITECT/ENGINEER.
- ALL SYSTEM PIPING SHALL BE CONCEALED UNLESS OTHERWISE NOTED. CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING IF PIPING CANNOT BE CONCEALED. COORDINATE HEAD AND PIPE LOCATION WITH CEILING GRID PATTERN, AIR CONDITIONING DUCT WORK AND WORK OF OTHER TRADES.
- ALL HANGERS, HANGER SPACINGS, SHAY BRACING AND SHAY BRACE SPACING TO MEET REQUIREMENTS OF THE LATEST ADOPTED EDITION OF NFPA-13.
- SPRINKLER HEADS TO BE IN ACCORDANCE WITH NFPA-13 FOR THE USE REQUIRED. CENTER HEADS IN AT LEAST ONE-DIRECTION IN CEILING TILES. PROVIDE SPARE SPRINKLER HEADS AS REQUIRED BY NFPA-13.
- ALL FIRE PROTECTION INFORMATION SHOWN ON THE DRAWINGS IS FOR REFERENCE ONLY. THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE ENGINEERED DRAWINGS OF THE FIRE PROTECTION SYSTEM. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND HYDRAULIC CALCULATIONS TO THE ARCHITECT/ ENGINEER FOR REVIEW.
- ALL FIRE FLOW INFORMATION SHALL BE REVERIFIED BEFORE STARTING DESIGN.
- UNDERGROUND PIPING TO 5'-0" OUT FROM BLDG. SHALL BE CEMENT LINED DUCTILE IRON PIPING WITH MECHANICAL JOINT FITTINGS & MEGA-LUGS.
- OVERHEAD SPRINKLER MAIN PIPING SHALL BE DYNAFLOW PIPE AS MANUFACTURED BY ALLIED TUBE & CONDUIT. FITTINGS AND COUPLINGS SHALL BE UL/FM GROOVED STYLE. OUTLETS SHALL BE WELDED PER NFPA-13.
- OVERHEAD BRANCH LINE PIPING SHALL BE XL/BT PIPE AS MANUFACTURED BY ALLIED TUBE & CONDUIT, FITTINGS SHALL BE THREADED CAST OR MALLEABLE IRON.
- HANGERS SHALL BE UL LISTED AND INSTALLED IN ACCORDANCE WITH NFPA-13 LATEST ADOPTED EDITION.
- COORDINATE THE DESIGN WITH THE INSURANCE UNDERWRITER FOR ANY REQUIREMENTS ABOVE AND BEYOND THE PREVIOUSLY MENTIONED REQUIREMENTS.
- THIS CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO THE BIDDING. NOTIFY THE ARCHITECT /ENGINEER OF ANY CONFLICTS WHICH MAY AFFECT THE SCOPE OF WORK.



### A/C UNIT CONDENSATE DRAIN TRAP DETAIL

N.T.S.



**Albert N. Hopper, Jr.**  
ARCHITECT

3114 N. Wilson Ave.  
Tucson, AZ 85719  
Phone: 520-249-6691  
anhop45@gmail.com

**CONSULTANTS**  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
Structural Solutions, Inc.  
Tucson, AZ; 520-260-2642

MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060

ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ; 520-881-8846

LANDSCAPE ARCHITECT:



**NEW CITY HALL FOR THE CITY OF BISBEE**  
118 ARIZONA ST.  
BISBEE, ARIZONA



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PLUMBING  
SCHEDULES  
& NOTES



SHEET  
P5.0 of

## GENERAL STRUCTURAL NOTES:

- (THE FOLLOWING SHALL APPLY UNLESS NOTED OTHERWISE ON THESE DRAWINGS)
- ALL CONSTRUCTION SHALL CONFORM TO THESE SPECIFICATIONS, NOTES AND DRAWINGS AND TO THE 2018 INTERNATIONAL BUILDING CODES (IBC) AND LOCAL BUILDING CODE AMENDMENTS.
  - OMISSIONS OR CONFLICTS BETWEEN VARIOUS ELEMENTS, NOTES, PLANS AND DETAILS SHALL BE BROUGHT TO THE ATTENTION OF THE EOR AND RESOLVED BEFORE PROCEEDING WITH ANY WORK.
  - WHERE ANY DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL STRUCTURAL NOTES AND SPECIFICATIONS, THE GREATER REQUIREMENTS SHALL GOVERN. WHERE NO SPECIFIC DETAIL IS SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.
  - THE STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OR SEQUENCE OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR, AND PROVIDE ALL, MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. THESE MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO: BRACING, SHORING OF LOADS DUE TO CONSTRUCTION EQUIPMENT, CONSTRUCTION LOADS, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL SCAFFOLDING, BRACING AND SHORING. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS. THE STRUCTURAL ENGINEER WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION, NOR WILL THE STRUCTURAL ENGINEER BE RESPONSIBLE FOR ANY CONSTRUCTION SITE SAFETY, OR THE SAFETY PRECAUTIONS AND THE PROGRAMS INCIDENT THERETO.
  - FOUNDATION DIMENSIONS AND PLAN CONFIGURATIONS ARE EXTRACTED FROM THE ARCHITECTURAL DRAWINGS AND EXISTING CONDITIONS (WHERE OCCUR) AND ARE PROVIDED TO IDENTIFY GENERAL CONSTRUCTION DIMENSIONS AND CONFIGURATIONS. THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL HORIZONTAL AND VERTICAL DIMENSIONS WITH OTHER DISCIPLINES AND FIELD CONDITIONS PRIOR TO COMMENCING WORK, AND NOTIFY THE STRUCTURAL ENGINEER IN WRITING OF ANY DIMENSIONAL DISCREPANCIES. THE STRUCTURAL ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR ANY DIMENSIONAL ASPECTS OF THIS PROJECT AND DOES NOT ASSUME ANY LIABILITY WITH RESPECT TO THE DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS. FURTHERMORE, THE CONTRACTOR SHALL VERIFY THE DEFINED ARCHITECTURAL DIMENSIONS, FOR EXAMPLE, DIMENSIONS TO FACE OF FINISH, FACE OF CONCRETE, FACE OF STUD, ETC. DO NOT USE SCALED DIMENSIONS.
  - THE CONTRACTOR SHALL VERIFY THE LOCATION AND SIZES OF ALL EMBEDDED ITEMS, FRAMING MATERIALS, CONFIGURATIONS AND LOCATIONS OF ALL ARCHITECTURAL FEATURES SUCH AS BUT NOT LIMITED TO: CURBS, DEPRESSIONS, SLOPES, SHELVES, PATIOS, PORCHES, AND STOPS. ANY DISCREPANCIES AND OMISSIONS SHALL BE RESOLVED WITH THE ARCHITECT.
  - SEE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:
    - SIZE AND LOCATION OF ALL DOOR AND WINDOW OPENINGS.
    - SIZE AND LOCATION OF OPENINGS THRU ROOF AND FLOOR.
    - SIZE AND LOCATION OF ALL INTERIOR AND EXTERIOR NON-BEARING PARTITIONS.
    - SIZE AND LOCATION OF ALL CONCRETE CURBS, FLOOR AND ROOF DRAINS, SLOPES AND DEPRESSED AREAS, CHANGES IN LEVEL OR ELEVATION, CHAMFERS, CORNER FORMERS, GROOVES, BLOCK-OUTS, OPENINGS AND INSERTS, PAVING SITE WORK, CURBS, SITE WALLS AND SITE STRUCTURES ETC.
    - DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
  - SEE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:
    - WALL AND SLAB OPENINGS FOR MECHANICAL PIPE RUNS, TRENCHES, FLOOR DRAINS, ROOF DRAINS, SUMPS, BLOCK-OUTS, ETC.
    - WALL AND SLAB OPENINGS FOR ELECTRICAL CONDUIT RUNS, BOXES, JUNCTION BOXES IN WALLS, COLUMNS, SLABS ETC.
    - SLEEVES, SLEEVE CLUSTERS, BLOCK-OUTS, AND CONCRETE INSERTS AND OPENINGS FOR EQUIPMENT AND FIXTURES.
    - SIZE AND LOCATION OF MACHINE, TRANSFORMER, SWITCHGEAR AND EQUIPMENT CURBS, BASES AND PADS, AND ANCHOR BOLTS FOR ANCHORED ITEMS.
  - CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS OR ROOFS SO AS NOT TO EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT.
  - ALL STRUCTURAL FRAMING AND CONNECTIONS HAVE BEEN DESIGNED FOR THE FINAL COMPLETED CONDITION AND WITH CODE REQUIRED LOADINGS, ONLY, AND HAVE NOT BEEN INVESTIGATED FOR POTENTIAL LOADING ENCOUNTERED DURING ERECTION AND CONSTRUCTION PROCESSES. THE INVESTIGATION OF THE STRUCTURAL FRAMING AND CONNECTIONS FOR ADEQUACY DURING THE ERECTION AND CONSTRUCTION PROCESSES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
  - REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL AND SITE DRAWINGS FOR LOCATION AND DETAILS OF BLOCK-OUTS, INSERTS AND OPENINGS, CURBS, EQUIPMENT BASES AND PADS, SITE WORK ITEMS, ETC. AND DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS.
  - ALL DETAILS SHOWN SHALL BE INCORPORATED INTO THE PROJECT AT ALL APPROPRIATE LOCATIONS, WHETHER SPECIFICALLY INDICATED OR NOT. DETAILS NOTED AS "TYPICAL" OR "TYP" ARE TYPICAL DETAILS AND MAY OR MAY NOT BE REFERENCED ON THE DRAWINGS, BUT SHALL BE INCORPORATED INTO THE PROJECT AT ALL APPROPRIATE LOCATIONS, WHETHER SPECIFICALLY REFERENCED OR NOT, UNLESS NOTED OTHERWISE.
  - NOT ALL ROOF, FLOOR OR WALL OPENINGS ARE SHOWN ON THE STRUCTURAL DRAWINGS. FOR THE EXACT SIZE, NUMBER AND LOCATION OF OPENINGS COORDINATE WITH OTHER TRADES AND DRAWINGS. IT SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE EXACT SIZE, NUMBER AND LOCATION OF OPENINGS WITH THE APPROPRIATE SUBCONTRACTOR, SUPPLIER, MANUFACTURER, ETC. AND ALL OPENINGS SHALL BE PROPERLY SPACED AND REINFORCED AS APPROVED BY THE STRUCTURAL ENGINEER.
  - THE CONTRACTOR MAY PROVIDE SUBSTITUTIONS NOTED "APPROVED EQUAL," "OR EQUAL" OR AS NECESSARY DUE TO AVAILABILITY. OPTIONS FOR SUBSTITUTION ARE FOR THE CONTRACTOR'S CONVENIENCE WHERE SUBSTITUTIONS ARE PROPOSED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CHANGES NECESSARY INCLUDING THE COORDINATION OF ALL DETAILING. THE CONTRACTOR SHALL SUBMIT TO THE STRUCTURAL ENGINEER ALL MANUFACTURER'S DOCUMENTATION, CATALOGS, BACK-UP DATA, ETC. PROPOSED OPTIONS SHALL NOT BE INSTALLED WITHOUT WRITTEN CONSENT FROM THE STRUCTURAL ENGINEER OF RECORD.
  - WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDUM.
  - ANY ENGINEERING DESIGN PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW SHALL BEAR THE SEAL OF A CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE OF ARIZONA.
  - DESIGN LIVE LOADS:
    - ROOF LIVE LOAD: 20 PSF (REDUCIBLE)
    - OFFICE LIVE LOAD: 50 PSF (REDUCIBLE) AND 2000 LB CONCENTRATED
    - CORRIDOR LIVE LOAD: 80 PSF AND 2000 LB CONCENTRATED
    - LOBBY LIVE LOAD: 100 PSF
    - STAIRS AND EXITS: 100 PSF
  - DESIGN LATERAL LOADS:
    - WIND:
      - BASIC WIND SPEED 105 MPH.
      - EXPOSURE 'C', RISK CATEGORY II
    - SEISMIC:
      - EQUIVALENT LATERAL FORCE ANALYSIS
      - SITE CLASS = D,  $S_{DS} = .264$ ,  $S_{D1} = .130$ ,  $I_e = 1.0$
      - SEISMIC DESIGN CATEGORY 'B'
      - DESIGN BASE SHEAR:
        - $V = 0.043M$  FOR PLYWOOD SHEARWALLS
        - $V = 0.080M$  FOR INTERMEDIATE REINFORCED CMU

## SPECIAL INSPECTIONS:

- SPECIAL INSPECTIONS PAID FOR BY THE OWNER SHALL BE PERFORMED BY A QUALIFIED SPECIAL INSPECTOR ACTING AS THE OWNER'S AGENT, AS REQUIRED BY SECTION 1704 OF THE 2018 INTERNATIONAL BUILDING CODE (IBC 2018). THE FOLLOWING TYPES OF WORK REQUIRE SPECIAL INSPECTIONS BY A QUALIFIED SPECIAL INSPECTOR UNDER THE DIRECT SUPERVISION OF AN ARIZONA REGISTERED ENGINEER FAMILIAR WITH THE TYPE OF WORK:
  - A. FOUNDATION EXCAVATIONS PRIOR TO CONCRETE PLACEMENT.
  - B. REINFORCED CONCRETE CONSTRUCTION.
  - C. MASONRY CONSTRUCTION.
  - D. EPOXY APPLICATIONS.
  - E. POST INSTALLED ANCHORS.
  - F. STRUCTURAL STEEL FIELD WELDING AND NON-APPROVED FABRICATOR SHOP WELDS.
- THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON FOR THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION, CURRENTLY LISTED WITH THE LOCAL JURISDICTION AS A QUALIFIED SPECIAL INSPECTOR AND WORKING UNDER THE DIRECT SUPERVISION OF AN ARIZONA REGISTERED ENGINEER.
- SPECIAL INSPECTION AND TESTING REPORTS SHALL BE SUBMITTED DIRECTLY TO THE BUILDING OFFICIAL AND TO STRUCTURAL SOLUTIONS INC.
- ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CONTRACTOR AND CORRECTED. DISCREPANCIES NOT CORRECTED SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND STRUCTURAL SOLUTIONS INC.
- THE CONTRACTOR SHALL PROVIDE A MINIMUM 24 HOUR NOTICE FOR SPECIAL INSPECTION OF CONSTRUCTION OR OPERATIONS REQUIRING SPECIAL INSPECTIONS.

## DEFERRED SUBMITTALS:

- DEFERRED SUBMITTAL DOCUMENTS INCLUDING BUT NOT LIMITED TO DRAWINGS, CALCULATIONS, MATERIAL CERTIFICATES ETC., ARE THOSE DOCUMENTS DESIGNED BY, PREPARED BY, SEALING, OR REVIEWED BY, AND ARE THE RESPONSIBILITY OF OTHER DESIGN PROFESSIONALS. DEFERRED SUBMITTAL DOCUMENTS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER OF RECORD FOR REVIEW. AFTER REVIEW AND NOTATION BY THE STRUCTURAL ENGINEER THAT THE DEFERRED SUBMITTALS ARE IN GENERAL CONFORMANCE WITH THE STRUCTURAL DOCUMENTS THE DEFERRED SUBMITTAL DOCUMENTS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL FOR REVIEW.
- REVIEW IS INTENDED ONLY AS AN AID TO THE CONTRACTOR IN OBTAINING CORRECT DEFERRED SUBMITTALS DOCUMENTS. RESPONSIBILITY FOR CORRECTNESS AND COMPLETENESS SHALL REST WITH THE CONTRACTOR. DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE STRUCTURAL ENGINEER AND THEREFORE MUST BE VERIFIED BY THE CONTRACTOR. PROCESSES, TECHNIQUES OF CONSTRUCTION, SAFETY PROCEDURES, OR COORDINATION OF THE WORK WITH THAT OF ANY OTHER TRADE WILL NOT BE REVIEWED.
- DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTED DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL. THE FOLLOWING ITEMS SHALL BE CLASSIFIED AS DEFERRED SUBMITTALS.
  - A. PRE-FABRICATED METAL PLATE CONNECTED WOOD TRUSSES.

## SHOP DRAWINGS AND SUBMITTALS:

- THE CONTRACTOR SHALL SUBMIT TO THE STRUCTURAL ENGINEER AND ARCHITECT SHOP DRAWINGS FOR THE FOLLOWING:
  - A. PRE-FABRICATED METAL PLATE CONNECTED WOOD TRUSSES
  - B. WOOD LJOIST
  - C. PRE-FABRICATED STAIR
  - D. STRUCTURAL STEEL
  - E. CONCRETE AND GYP-CRETE MIX DESIGNS
- PRIOR TO SUBMISSION OF ANY SHOP DRAWINGS TO THE STRUCTURAL ENGINEER, THE GENERAL CONTRACTOR SHALL REVIEW THEM FOR CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL CORRECT NON-CONFORMING ITEMS, IDENTIFY CONFLICTS BETWEEN DISCIPLINES, THOROUGHLY REVIEW SHOP DRAWINGS WITH ALL DISCIPLINES. GENERAL CONTRACTOR CORRECTIONS AND COMMENTS SHALL BE IDENTIFIED WITH CLOUDS OR FLAGS. THE REVIEWED SHOP DRAWINGS AND PRODUCT DATA SHALL BE DATED AND STAMPED "REVIEWED", IMPLYING CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS. SHOP DRAWINGS OR PRODUCT DATA NOT BEARING A REVIEW STAMP BY THE GENERAL CONTRACTOR SHALL BE RETURNED WITHOUT A STRUCTURAL REVIEW.
- ANY CHANGES, SUBSTITUTIONS, OR DEVIATIONS FROM THE ORIGINAL CONSTRUCTION DRAWINGS SHALL BE CLOUDED BY THE MANUFACTURER OR FABRICATOR. ANY CHANGES, SUBSTITUTIONS, OR DEVIATIONS WHICH ARE NOT CLOUDED OR FLAGGED BY SUBMITTING PARTIES, SHALL NOT BE CONSIDERED ALLOWED AFTER THE ENGINEER'S REVIEW UNLESS NOTED ACCORDINGLY BY THE STRUCTURAL ENGINEER.
- THE SHOP DRAWINGS DO NOT REPLACE THE ORIGINAL CONTRACT DRAWINGS, ITEMS OMITTED OR SHOWN INCORRECTLY AND WHICH ARE NOT NOTED AS ALLOWED BY THE STRUCTURAL ENGINEER ARE NOT TO BE CONSIDERED CHANGES TO THE ORIGINAL CONTRACT DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ITEMS OMITTED OR SHOWN INCORRECTLY ARE CONSTRUCTED IN ACCORDANCE WITH THE ORIGINAL CONTRACT DRAWINGS.
- THE SHOP DRAWINGS SHALL BE REVIEWED FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT. REVIEW IS INTENDED ONLY AS AN AID TO THE CONTRACTOR IN OBTAINING CORRECT SHOP DRAWINGS. RESPONSIBILITY FOR CORRECTNESS AND COMPLETENESS SHALL REST WITH THE CONTRACTOR. DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE STRUCTURAL ENGINEER AND THEREFORE MUST BE VERIFIED BY THE CONTRACTOR. PROCESSES, TECHNIQUES OF CONSTRUCTION, SAFETY PROCEDURES, OR COORDINATION OF THE WORK WITH THAT OF ANY OTHER TRADE WILL NOT BE REVIEWED.
- ALL SHOP DRAWINGS SHALL BE SUBMITTED ELECTRONICALLY IN A PORTABLE DOCUMENT FORMAT (PDF).
- ALLOW A MINIMUM OF 10 WORKING DAYS FOR THE REVIEW OF SHOP DRAWINGS BY THE STRUCTURAL ENGINEER.

# STRUCTURAL NOTES

## FOUNDATIONS: (BASED UPON SOILS REPORT)

- FOUNDATION DESIGN BASED ON SOILS REPORT #22-040 BY PATTISON ENGINEERING, DATED 4/7/22 AND ADDENDUM#1 DATED 4/19/22. DESIGN SOIL BEARING PRESSURE = 2000 PSF AT 1'-6" BELOW LOWEST ADJACENT FINISHED GRADE. SPREAD FOOTINGS SHALL BEAR ON FIRM UNDISTURBED SOIL AND/OR ENGINEERED FILL PER THE GEOTECHNICAL REPORT. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR ANY GEOTECHNICAL ASPECTS OF THIS PROJECT.
- THE CONTRACTOR SHALL RETAIN THE GEOTECHNICAL REPORTS IDENTIFIED ABOVE AND SHALL INCORPORATE ALL RECOMMENDATIONS WITHIN INCLUDING BUT NOT LIMITED TO COMPACTION REQUIREMENTS, SLAB AND FOUNDATION SUBGRADE PREPARATION, ETC. A COPY OF THE REPORT SHALL BE ON-SITE THE DURATION OF EARTHWORK OPERATIONS AND DURING CONSTRUCTION. WHERE ANY CONFLICTS OCCUR BETWEEN THE GEOTECHNICAL REPORT AND THE STRUCTURAL DRAWINGS THE MORE STRINGENT REQUIREMENTS SHALL BE IMPLEMENTED. THE GEOTECHNICAL ENGINEER/REPRESENTATIVE SHALL BE PRESENT TO OBSERVE CLEARING AND THE CLEARED SURFACES, BEFORE AND DURING SUBSEQUENT SCARIFICATION, FOR EVIDENCE OF DISTURBED OR LOOSE ZONES REQUIRING ADDITIONAL REMOVAL AND DURING ALL FILL AND BACKFILL OPERATIONS. ALL CONSTRUCTION SHALL COMPLY WITH ALL OF THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT.
- CONTRACTOR SHALL EMPLOY AN ARIZONA REGISTERED GEOTECHNICAL ENGINEER TO PERFORM NECESSARY TESTING AND INSPECTIONS FOR QUALITY CONTROL AND TO ENSURE THAT THE REQUIREMENTS OF THE GEOTECHNICAL REPORT ARE COMPLIED WITH. TEST REPORTS SHALL BE SUBMITTED DIRECTLY TO THE BUILDER AND ENGINEER FROM THE GEOTECHNICAL ENGINEER, WITH COPY TO CONTRACTOR. INCLUDE THE FOLLOWING INFORMATION IN THE REPORTS:
  - A. TEST REPORT ON BORROW MATERIALS.
  - B. VERIFICATION OF EACH FOOTING SUBGRADE - FIELD DENSITY TEST REPORTS.
  - C. ONE OPTIMUM MOISTURE-MAXIMUM DENSITY CURVE FOR EACH TYPE OF SOIL ENCOUNTERED.
- CONTRACTOR SHALL COORDINATE AND VERIFY ALL HORIZONTAL DIMENSIONS AND CONFIGURATIONS WITH THE ARCHITECTURAL DRAWINGS.
- CONTRACTOR SHALL COORDINATE AND VERIFY ALL VERTICAL DIMENSIONS, INCLUDING TOP OF FOOTING, TOP OF SLAB, ETC WITH THE ARCHITECTURAL AND SITE DRAWINGS.
- REFER TO ARCHITECTURAL DRAWINGS FOR LIMITS AND LOCATIONS OF EXTERIOR SLABS AND SLAB JOINTS, ETC. - TYPICAL.
- PROVIDE KEYPED CONSTRUCTION JOINTS AT ALL FOUR STOPS PER TYPICAL DETAILS.
- FILLED EXCAVATIONS OR BURIED STRUCTURES SUCH AS CESSPOOLS, CISTERNS, EXISTING FOUNDATIONS, ETC. ENCOUNTERED DURING SITE CLEARING OR EXCAVATION SHALL BE BROUGHT TO THE ATTENTION OF THE SOILS ENGINEER IMMEDIATELY.
- ABANDONED FOOTINGS, UTILITIES, ETC., THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED AS DIRECTED BY THE SOILS ENGINEER.
- SLOPE ALL EXTERIOR FINISHED GRADES AWAY FROM THE BUILDING AT A MINIMUM OF 5% SLOPE FOR A MINIMUM DISTANCE OF 10 FEET MEASURED PERPENDICULAR FROM FACE OF WALL AT BUILDING PERIMETER.
- FINISHED GRADE SHALL BE 8" MINIMUM BELOW SILL PLATES AT WOOD FRAMED WALLS.

## REINFORCING STEEL:

- REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60 ( $F_y = 60$  KSI) DEFORMED BARS FOR ALL BARS, EXCEPT #2 BARS, WHICH SHALL BE SMOOTH REINFORCING TO BE HELDED SHALL CONFORM TO ASTM A106, GRADE 60 ( $F_y = 60$  KSI) LOW ALLOY DEFORMED BARS, WELDED WIRE FABRIC PER ASTM A185. WIRE PER ASTM A82. WELDING OF REINFORCING SHALL BE ACCORDING TO AWS D1.4. NO TACK WELDING OF REINFORCING BARS ALLOWED.
- ALL REINFORCING STEEL SHALL BE DETAILED AND PLACED IN CONFORMANCE WITH THE LATEST EDITIONS OF ACI 318 AND THE CRSI MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION, AND AS MODIFIED BY THE DRAWINGS. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
- ALL REINFORCING STEEL, INCLUDING WELDED WIRE FABRIC IN SLAB ON GRADE, SHALL BE ACCURATELY PLACED AND SUPPORTED BY GALVANIZED METAL CHAIRS, SPACERS OR HANGERS. PROVIDE THE FOLLOWING MINIMUM CLEAR CONCRETE COVERAGE:
  - A. CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:
    - ALL REINFORCING 3"
  - B. EXPOSED TO EARTH OR WEATHER:
    - #6 AND LARGER 2"
    - #5 AND SMALLER 1-1/2"
    - COLUMNS (TO TIEES) 1-1/2"
    - BEAMS (TO STIRRUPS) 1-1/2"
  - C. ALL OTHERS PER LATEST EDITION OF ACI 318.
- UNLESS NOTED OTHERWISE, LAP SPLICES IN CONCRETE SHALL BE CLASS "B" TENSION LAP SPLICES PER THE LATEST EDITION OF ACI 318 AS DEFINED IN THE CONCRETE LAP SPLICE SCHEDULE. STAGGER ALTERNATE SPLICES A MINIMUM OF ONE LAP LENGTH. LAP WELDED WIRE FABRIC SO THAT THE OVERLAP BETWEEN OUTERMOST CROSS WIRES OF EACH SHEET IS NOT LESS THAN THE CROSS WIRE SPACING PLUS 2 INCHES. ALL SPLICE LOCATIONS SUBJECT TO APPROVAL AND SHALL BE MADE ONLY WHERE INDICATED ON THE DRAWINGS.
- UNLESS NOTED OTHERWISE, LAP SPLICES IN MASONRY SHALL BE PER THE LATEST EDITION OF ACI 530-II AND AS DEFINED IN THE MASONRY LAP SPLICE SCHEDULE. STAGGER ALTERNATE SPLICES A MINIMUM OF ONE LAP LENGTH.
- EXTEND ALL HORIZONTAL REINFORCING CONTINUOUS AROUND CORNERS AND INTERSECTIONS OR PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZONTAL BARS AT CORNERS AND INTERSECTIONS OF FOOTINGS AND WALLS PER TYPICAL DETAILS.
- ALL SPLICED BARS SHALL BE PLACED AT THE SAME EFFECTIVE DEPTH UNLESS NOTED OTHERWISE. REINFORCING BARS NOTED OR SHOWN AS "CONTINUOUS" IN ELEVATION DETAILS OR WITH LENGTH NOT SPECIFIED SHALL BE FULLY CONTINUOUS WITHOUT SPLICE.
- REINFORCING BAR HOOKS SHALL BE STANDARD ACI HOOKS UNLESS NOTED OTHERWISE.

## MASONRY:

- MASONRY WORK SHALL CONFORM TO ALL REQUIREMENTS OF IBC CHAPTER 21, ACI 530, "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES".
- HOLLOW CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C40, GRADE N, TYPE I,  $F_m=1500$  PSI, NET COMPRESSIVE STRENGTH OF 1400 PSI PER ASTM C140, LAID UP IN RUNNING BOND.
- MORTAR SHALL CONFORM TO ASTM C270, TYPE S, PROPORTIONED PER ACI 530 TABLE C-1, BELOW. MORTAR SHALL BE FREE OF ANY ADDITIVES. MASONRY CEMENT SHALL NOT BE USED.

TABLE C-1: ASTM 270 MORTAR PROPORTION SPECIFICATION REQUIREMENTS			
MORTAR COURSE	PROPORTIONS BY VOLUME (CEMENTITIOUS MATERIALS)		AGGREGATE RATIO <sup>2</sup>
	PORTLAND CEMENT	HYDRATED LIME	
S	1	OVER 1/4 TO 1/2	2 1/4 TO 3

NOTE:  
1. THE CONTRACTOR SHALL MIX MATERIALS IN VOLUMETRIC PROPORTIONS GIVEN IN ASTM C 270 AND ACI 530 TABLE C-1, REPRODUCED ABOVE.  
2. TIMES THE SUM OF THE VOLUMES OF CEMENTITIOUS MATERIALS GIVEN IN ASTM C 270 AND ACI 530 TABLE C-1, REPRODUCED ABOVE.  
3. PER ASTM C 476 HAS A MAXIMUM AGGREGATE THAT WILL PASS THROUGH A 3/8" OPENING.
- CONTRACTOR SHALL CONFORM TO PROPORTION SPECIFICATION ASTM C416 AND ACI 530 FOR FINE AND COARSE GROUT. GROUT SHALL BE FREE OF ANY ADDITIVES AND PROPORTIONED PER ACI 530 TABLE C-7, AS FOLLOWS:

TABLE C-7: GROUT PROPORTIONS BY VOLUME			
GROUT COURSE	CEMENTITIOUS		AGGREGATE DAMP/LOOSE <sup>2</sup>
	CEMENT	LIME	
1	0-1/10	2 3/4 TO 3	1 TO 2

NOTE:  
1. THE CONTRACTOR SHALL MIX MATERIALS IN VOLUMETRIC PROPORTIONS GIVEN IN ASTM C 416 AND REFER ACI 530 TABLE C-7, REPRODUCED ABOVE.  
2. AGGREGATE PROPORTION TIMES THE SUM OF THE VOLUMES OF CEMENTITIOUS MATERIAL FOR DAMP LOOSE AGGREGATES.  
3. PER ASTM C 476 HAS A MAXIMUM AGGREGATE THAT WILL PASS THROUGH A 3/8" OPENING.

- HORIZONTAL JOINT REINFORCING SHALL BE HOT DIPPED GALVANIZED LADDER TYPE WITH #17 WIRE SIZE CONFORMING TO ASTM A951 WITH ASTM A153 CLASS B-2 COATING. CROSS RODS SHALL BE SPACED NO MORE THAN 16" O.C. PROVIDE LENGTHS OF NOT LESS THAN 10'-0" WITH PREFABRICATED TEE AND CORNER UNITS. INSTALL WITH 5/8" MINIMUM COVER EACH FACE OF WALL AND LAP SPLICES 6" MINIMUM. PROVIDE REINFORCEMENT NOT MORE THAN 8" FROM TOP AND BOTTOM OF WALL, 8" ABOVE AND BELOW OPENINGS AND EXTEND 12" MINIMUM BEYOND JAMBS WHERE NOT CONTINUOUS.
- SEE DETAILS AND NOTES ON DRAWINGS, FOR SIZE AND SPACING OF REINFORCING BARS, LAP SPLICES OF REINFORCING IN MASONRY SHALL BE AS INDICATED ON THE DRAWINGS. TIE ALL VERTICAL BARS AT 8'-0" VERTICALLY WITH SINGLE WIRE LOOP TIE. DOVELS SHALL MATCH SIZE AND SPACING OF ALL VERTICAL REINFORCING. EXTEND ALL HORIZONTAL BOND BEAM REINFORCING IN MASONRY CONTINUOUS AROUND CORNERS AND INTERSECTIONS OR PROVIDE BENT CORNER BARS TO MATCH AND LAP HORIZONTAL BOND BEAM REINFORCING AT CORNERS AND INTERSECTIONS. ALL REINFORCING IN MASONRY SHALL BE ACCURATELY LOCATED AND THE POSITION MAINTAINED DURING GROUTING.
- ALL CELLS AND COURSES WITH REINFORCING AND ADDITIONAL GROUT SPACES AS REQUIRED BY THE DRAWINGS SHALL BE FILLED SOLID WITH GROUT. MAXIMUM GROUT LIFT SHALL BE 5'-0" WITH EACH GROUT POUR STOPPING 1-1/2 INCHES BELOW THE TOP COURSE OF LIFT OR 1/2" BELOW THE TOP COURSE AT A BOND BEAM. PLACE GROUT CONTINUOUSLY. DO NOT INTERRUPT GROUTING FOR MORE THAN ONE HOUR. MECHANICALLY VIBRATE GROUT IN VERTICAL SPACES IMMEDIATELY AFTER POURING AND AGAIN ABOUT 5 MINUTES LATER.
- UNLESS NOTED OTHERWISE ON THE DRAWINGS, PROVIDE VERTICAL MASONRY CONTROL JOINTS SUCH THAT NO STRAIGHT RUN OF WALL EXCEEDS 24'-0". COORDINATE LOCATIONS WITH BUILDER.
- ERECTED MASONRY SHALL BE FOG SPRAYED EVERY 8 HOURS FOR 48 HOURS FOLLOWING INSTALLATION WHEN THE AIR TEMPERATURE EXCEEDS 100 DEGREES DURING THE FIRST 48 HOURS AFTER ERECTION.

## CAST-IN-PLACE CONCRETE: (NO SPECIAL INSPECTION REQUIRED)

- CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" AND ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE". CONCRETING SHALL MEET THE REQUIREMENTS OF THE FOLLOWING: ACI 305 FOR HOT WEATHER, AND ACI 306 FOR COLD WEATHER.
- ALL CONCRETE SHALL BE READY MIXED CONCRETE IN ACCORDANCE WITH ASTM C44. MINIMUM 28 DAY COMPRESSIVE STRENGTH SHALL BE 3000 PSI (DESIGNED FOR 2500 PSI). MINIMUM CEMENT CONTENT SHALL BE 5.5 SACKS PER CUBIC YARD.
- CEMENT SHALL CONFORM TO ASTM C150, TYPE II. AGGREGATE SHALL BE PER ASTM C33. MAXIMUM 3" SLUMP FOR SLABS ON GRADE, 4" FOR OTHER CONCRETE. CONCRETE CONTAINING SUPERPLASTICIZING ADMIXTURE SHALL HAVE FIELD-VERIFIED 3" MAXIMUM SLUMP PRIOR TO ADDING ADMIXTURE AND 8" MAXIMUM SLUMP AT PLACEMENT. CONCRETE MIXES SHALL BE DESIGNED BY A CONCRETE PRODUCTION FACILITY IN ACCORDANCE WITH ACI 301.
- CONCRETE SHALL BE FREE OF CHLORIDE.
- NO FLY ASH ADDITIVES SHALL BE USED IN CONCRETE WHEN USED IN FLATWORK OR ARCHITECTURALLY EXPOSED CONCRETE. WHEN USED, FLY ASH SHALL CONFORM TO ASTM C618, CLASS F. FLY ASH SHALL NOT REPLACE MORE THAN 15% OF CEMENT BY WEIGHT.
- SLAB ON GRADE SHALL BE PER PLAN WITH 4" OF COMPACTED BASE COURSE BENEATH THE SLAB, UNLESS NOTED OTHERWISE ON THE DRAWINGS. SLABS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION, ACI 302I, "CONCRETE FLOORS ON GROUND", THE PORTLAND CEMENT ASSOCIATION AND ACI 318. DO NOT TAMP SLABS. USE ROLLER BUG, VIBRATING SCREED OR BULL-FLOAT ONLY.
- PROVIDE AIR-ENTRAINING ADMIXTURE AT ALL EXPOSED CONCRETE AT A RATE ADEQUATE TO PROVIDE 5.0% AIR AT POINT OF PLACEMENT, TESTED IN ACCORDANCE WITH ASTM C233.
- PROVIDE SLEEVES FOR UTILITY OPENINGS IN CONCRETE BEFORE PLACING CONCRETE. DO NOT CUT ANY CONFLICTING REINFORCING. CORING CONCRETE IS NOT PERMITTED. NOTIFY THE STRUCTURAL ENGINEER IN WRITING THRU THE ARCHITECT IN PRIOR TO CONSTRUCTION OF CONDITIONS NOT SHOWN ON THE DRAWINGS. NO PIPES, CONDUITS, DUCTS ETC. SHALL BE LOCATED IN OR THRU COLUMNS OR FOOTINGS.
- PROVIDE 3/4" CHAMFER OR RADIUS AT ALL EXPOSED CORNERS AND EDGES, UNLESS NOTED OTHERWISE.
- PROVIDE CONSTRUCTION JOINTS AS SHOWN ON THE PLAN AND IN THE DETAILS AT EXPOSED CONCRETE. NO CONSTRUCTION JOINTS OTHER THAN THOSE SHOWN ON THE DRAWINGS SHALL BE INSTALLED IN WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER. CONSTRUCTION JOINTS IN FOUNDATIONS SHALL BE LOCATED AT THE CONTRACTOR'S OPTION WITHIN THE REQUIREMENTS HEREIN. ALL CONSTRUCTION JOINTS SHALL BE KEYPED PER TYPICAL DETAILS.
- OPENINGS, POCKETS, BLOCK-OUTS, ETC., SHALL NOT BE PLACED IN CONCRETE SLABS, DECKS, BEAMS, JOIST, COLUMNS, WALLS, ETC., UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS. NOTIFY THE STRUCTURAL ENGINEER IN WRITING WHERE DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, BLOCK-OUTS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS. DO NOT PROCEED UNTIL DIRECTED BY THE STRUCTURAL ENGINEER IN WRITING.
- CONCRETE SHALL NOT BE DROPPED MORE THAN FIVE FEET VERTICALLY WITHOUT USE OF TREMIES.
- CONCRETE FOOTINGS AND PADS MAY BE POURED AGAINST NEAT EXCAVATIONS PROVIDED THE REQUIRED CONCRETE COVERAGE FOR REINFORCING IS MAINTAINED.
- MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED, EXCEPT THAT SLABS ON GRADE NEED BE VIBRATED ONLY AROUND UNDER-FLOOR DUCTS, ETC. CAST CLOSURE POUR AROUND COLUMNS AFTER COLUMN DEAD LOAD IS APPLIED.
- CONCRETE WHICH HAS CONTAINED WATER FOR MORE THAN 40 MINUTES (60 MINUTES IF AIR TEMPERATURE EXCEEDS 85°) SHALL NOT BE USED. RE-TEMPERING OF CONCRETE IS NOT PERMITTED.
- CURE EXPOSED CONCRETE FOR A MINIMUM OF 7 DAYS IN ACCORDANCE WITH ACI 308, ACI 360, ACI 302I PROCEDURES IN ORDER TO PREVENT CRACKING. CURE WITH CURING AND SEALING COMPOUND, MOIST CURING, MOISTURE-RETAINING COVER CURING, OR COMBINATIONS THEREOF. WHERE CURING COMPOUND IS USED, APPLY AT A RATE SPECIFIED BY THE MANUFACTURER, BUT NOT LESS THAN 1 GALLON PER 200 SQUARE FEET OF SURFACE AREA.
- FLOOR SLABS SHALL BE PLACED TO ACCOMPLISH A CLASS-A TOLERANCE, POURED LEVEL TO WITHIN 1/8" IN 10'-0" AS DETERMINED BY A 10'-0" STRAIGHTEDGE PLACED ANYWHERE ON THE SLAB IN ANY DIRECTION.
- QUALITY ASSURANCE: CONCRETE TEST CYLINDERS TAKEN AND TESTED FOR COMPRESSIVE STRENGTH PER ASTM C31, C34. CONCRETE SAMPLED AND SLUMP PER ASTM C172 FOR EACH CLASS OF CONCRETE USED. THE FREQUENCY OF CONCRETE TESTING SHALL BE IN ACCORDANCE WITH IBC 1905 BASED ON CONCRETE QUANTITIES. WHEN THE TOTAL QUANTITY OF A GIVEN CLASS OF CONCRETE IS LESS THAN 50 CUBIC YARDS, STRENGTH TEST ARE NOT REQUIRED PROVIDED EVIDENCE OF SATISFACTORY STRENGTH SHOWN BY THE RESULTS OF RECENT TEST DATA IS RETURNED AS SATISFACTORY FOLLOWING SUBMITTAL TO THE STRUCTURAL ENGINEER. ALL SAMPLING AND TESTING OF CONCRETE SHALL BE PERFORMED BY A QUALIFIED TESTING AGENCY.



Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd  
Bisbee AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
Structural Solutions Inc.  
Tucson, AZ; 520-396-4669  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ; 520-881-8846  
LANDSCAPE ARCHITECT:



EXPIRES: 9.30.24

NEW CITY HALL  
FOR THE  
CITY OF BISBEE  
118 ARIZONA ST.  
BISBEE, ARIZONA



SHEET ISSUE

DATE:

REVISIONS



SHEET MANAGEMENT

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Drawn By: Jq

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DRAWINGS ON THIS SHEET

STRUCTURAL NOTES

SHEET



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## STRUCTURAL STEEL:

- STRUCTURAL STEEL CONSTRUCTION SHALL CONFORM WITH THE LATEST AISC "CODE OF STANDARD PRACTICE", AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN", INCLUDING COMMENTARY, AND APPLICABLE PROVISIONS OF AISC "STRUCTURAL WELDING CODE".
- ALL STEEL FABRICATION SHALL BE PERFORMED AT A FABRICATION SHOP APPROVED BY THE AUTHORITY HAVING JURISDICTION AND/OR AISC. AT THE COMPLETION OF FABRICATION THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE AUTHORITY HAVING JURISDICTION STATING THAT THE MATERIALS SUPPLIED AND WORK PERFORMED BY THE FABRICATOR ARE IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.
- STRUCTURAL STEEL PROPERTIES:
  - WIDE FLANGE SHAPES: ASTM A992 (F<sub>y</sub> = 50 KSI).
  - STRUCTURAL PLATES AND OTHER SHAPES: ASTM A36 (F<sub>y</sub> = 36 KSI).
  - SQUARE AND RECTANGULAR HSS: ASTM A500 GRADE B (F<sub>y</sub> = 46 KSI).
- HEADED STUDS SHALL BE NELSON GRANULAR FLOW-FILLED HEADED ANCHOR STUDS OR APPROVED EQUAL MADE FROM COLD FINISHED LOW CARBON STEEL, AND SHALL CONFORM TO ASTM A108, GRADES 1015 OR 1020 WITH A MINIMUM TENSILE STRENGTH OF 50,000 PSI. STUD WELDING INSPECTION AND TESTING SHALL CONFORM TO AWS S11. WELDING OF STUDS SHALL BE DONE WITH AUTO-TIMED ELECTRIC-ARC FULL PULSION STUD WELDS PER THE MANUFACTURER'S REQUIREMENTS.
- STEEL BOLTS AND NUTS: REGULAR HEXAGON-HEAD BOLTS, ASTM A307, GRADE A WITH HEX NUTS, ASTM A 563 AND WHERE INDICATED AND FLAT WASHERS.
- HIGH-STRENGTH BOLTS, NUTS, AND WASHERS: ASTM A325, TYPE 1, HEAVY HEX STEEL STRUCTURAL BOLTS; ASTM A563 HEAVY HEX CARBON-STEEL NUTS; AND ASTM F436 HARDENED CARBON-STEEL WASHERS.

- STAINLESS-STEEL BOLTS AND NUTS AS SPECIFIED. REGULAR HEXAGON-HEAD ANNEALED STAINLESS-STEEL BOLTS, ASTM F593; WITH NUTS, ASTM F594; AND, FLAT WASHERS, ALLOY GROUP 1.
- ANCHOR BOLTS AND PLAIN THREADED RODS: ASTM A36 OR A307, GRADE A.
- HEADED ANCHOR RODS: ASTM F1554, GRADE 36.
- LAG BOLTS: ASME B18.2.1
- PLAIN WASHERS: ROUND, ASME B18.22.1
- ALL NUTS SHALL BE INSTALLED WITH STEEL WASHERS AND TIGHTENED TO THE "SNUG TIGHT" CONDITION AS DEFINED BY AISC UNLESS OTHERWISE NOTED.
- ALL EXTERIOR FASTENERS SHALL BE ZINC-PLATED WITH COATING COMPLYING WITH ASTM B 633 OR ASTM F 1941, CLASS Fx/Zn 5, UNLESS NOTED OTHERWISE.
- WELDING ELECTRODES SHALL CONFORM TO AWS D11, GRADE E70XX, E90 SERIES ELECTRODES SHALL BE USED FOR ASTM A106 REINFORCING BARS, ALL WELDING SHALL BE DONE BY WELDERS HOLDING VALID CERTIFICATES ISSUED BY AN ACCEPTED TESTING AGENCY AND HAVING CURRENT EXPERIENCE IN TYPE OF WELDS SHOWN ON THE DRAWINGS OR NOTES. ALL WELDING PER AMERICAN WELDING SOCIETY STANDARDS.
- PROVIDE FABRICATOR'S STANDARD RUST-INHIBITING PRIMER SHOP PAINT FOR ALL STEEL SURFACES EXCEPT SURFACES ENCASED IN CONCRETE, OR TO RECEIVE SPRAY-APPLIED FIREPROOFING.
- WHERE NOT REFERENCED ON THE DRAWINGS/DETAILS PROVIDE AN 1/8" WELDED CAP FLATE AT ALL EXPOSED ENDS OF TUBES AND PIPES.
- DRYPACK FOR COLUMN BASE PLATES AND BEARING PLATES SHALL BE FIVE STAR GROUT OR AN EQUAL NON-METALLIC SHRINKAGE-RESISTANT GROUT.

## PREMANUFACTURED STEEL STAIRS:

- THE STAIR MANUFACTURER SHALL BE RESPONSIBLE FOR THE COMPLETE DESIGN AND FABRICATION OF THE STAIRS AND HANDRAILS. STAIR MANUFACTURER SHALL SUBMIT DESIGN CALCULATIONS AND SHOP DRAWINGS FOR ALL STAIRS AND HANDRAILS FOR REVIEW PRIOR TO MANUFACTURE. DESIGN SHALL INCLUDE A COMPLETE VERTICAL AND LATERAL LOAD ANALYSIS. CALCULATIONS AND SHOP DRAWINGS SHALL BE SEALED BY A CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE OF ARIZONA. ALL SHOP MADE ASSEMBLIES SHALL USE STRUCTURAL STEEL HSS STRINGERS AND FORMED STEEL SHEET TREADS, RISERS AND LANDINGS. USE ALL WELDED CONSTRUCTION.
- THE DRAWINGS AND THESE NOTES INDICATE THE GENERAL CONCEPT, ONLY. PROVIDE ADDITIONAL FRAMING AS NECESSARY FOR THE COMPLETE DESIGN AND INSTALLATION OF THE STAIRS.
- STAIRS AND HANDRAILS SHALL BE DESIGNED FOR DEAD, WIND, AND SEISMIC LOADS, AND THE FOLLOWING LIVE LOADS:
  - TREADS AND LANDINGS: UNIFORM LOAD OF 100 PSF OR A CONCENTRATED LOAD OF 300 LBS SO LOCATED AS TO PRODUCE MAXIMUM STRESSES.
  - HANDRAILS AND TOPRAILS: CONCENTRATED LOAD OF 200 LBS APPLIED AT ANY POINT IN ANY DIRECTION AND A UNIFORM LOAD OF 50 PLF APPLIED SIMULTANEOUSLY IN BOTH VERTICAL AND HORIZONTAL DIRECTIONS.
- THE FOLLOWING MINIMUM REQUIREMENTS SHALL BE MET UNLESS NOTED OTHERWISE:
  - LANDINGS: 3" CONCRETE WITH #3 REINFORCING AT 12" O.C. EACH WAY OVER 12 GAUGE STEEL PAN.
  - LANDING STIFFENERS: 12x2 SPACED AT 24" O.C. MAXIMUM.
  - STRINGERS: HSS 12x2 MINIMUM.
  - LANDING BEAMS: HSS 6x6 MINIMUM.
  - TREADS: 2" CONCRETE WITH #3 LONGITUDINAL BARS OVER 10 GAUGE STEEL PAN.
  - ALL BENT STRINGERS SHALL BE CONTINUOUS, WELDED ALL AROUND WITH FULL PENETRATION WELDS.
- FOR STAIR DIMENSIONS, INCLUDING STEP RISE AND RUN, NON-SLIP SURFACES, ETC., SEE ARCHITECTURAL DRAWINGS.

## ROUGH CARPENTRY AND PLYWOOD:

- WOOD FRAMING SHALL CONFORM TO IBC CHAPTER 23.
- FRAMING LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF THE WESTERN WOOD PRODUCTS ASSOCIATION OR THE WEST COAST LUMBER INSPECTION BUREAU. ALL SAWN LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY. MAXIMUM MOISTURE CONTENT SHALL NOT EXCEED 19%. TIMBERS, 5" AND THICKER, SHALL BE FREE OF HEART CENTERS. ALL SAWN LUMBER SHALL BE DOUGLAS FIR-LARCH WITH THE FOLLOWING MINIMUM PROPERTIES:

JOIST BEAMS	SPECIES	GRADE	F <sub>b</sub> (PSI)	E (PSI)
WIDTH 4" OR LESS	DF-L	NO.2	875	1,600,000
WIDTH OVER 4"	DF-L	NO.1	875	1,600,000

FOSTS

4x4	DF-L	NO.2	875	1,600,000
4x6	DF-L	NO.2	875	1,600,000
6x6 OR LARGER	DF-L	NO.1	1200	1,600,000

STUDS

ALL	DF-L	NO.2	875	1,600,000
LEDGERS AND PLATES	DF-L	NO.2	875	1,600,000

\*BASE DESIGN VALUES, ADJUSTMENT FACTORS ARE NOT APPLIED

- PRESERVATIVE/PRESSURE TREATED DOUGLAS FIR SHALL BE INCISED PARALLEL TO GRAIN A MAXIMUM DEPTH OF 0.4 INCHES, A MAXIMUM LENGTH OF .375 INCHES, AND DENSITY OF INCISIONS UP TO 100 PER SQUARE FOOT. WOOD SHALL BEAR THE QUALITY MARK OF AN INSPECTION AGENCY. THE QUALITY MARK SHALL BE ON A STAMP OR LABEL AFFIXED TO THE TREATED WOOD, AND SHALL INCLUDE THE FOLLOWING INFORMATION: IDENTIFICATION OF TREATING MANUFACTURER, TYPE OF PRESERVATIVE USED, MINIMUM PRESERVATIVE RETENTION (PCR), END USE FOR WHICH THE PRODUCT IS TREATED, IDENTITY OF THE ACCREDITED INSPECTION AGENCY STANDARD TO WHICH THE PRODUCT IS TREATED.
- ALL PLYWOOD SHALL BE APA RATED SHEATHING, MANUFACTURED IN USA, CONFORMING TO PRODUCT STANDARD I-89 AND HAVE AN EXTERIOR OR EXPOSURE I DURABILITY CLASSIFICATION, AND SHALL BEAR THE STAMP OF AN ICBO APPROVED TESTING AGENCY. LAY UP FLOOR AND ROOF WITH LONG DIMENSION PERPENDICULAR TO SUPPORTS AND STAGGER JOINTS. CONNECT TO ALL BLOCKING WITH SCHEDULED NAILS AT 6" MIN. UNO. ALL NAILING SHALL BE WITH COMMON NAILS. ALL PLYWOOD SHALL BE OF THE FOLLOWING MINIMUM THICKNESS, SPAN/INDEX RATIO, AND SHALL BE CONNECTED AS FOLLOWS:

USE	THICKNESS	SPAN RATING	EDGE NAILING	FIELD NAILING
ROOF	1 1/2	40/20	10d AT 4"	10d AT 12"
SHEARWALL	1 5/8	24/16	SEE SCHED	SEE SCHED
FLOOR (BLOCKED)**	1"	48	#8 AT 4"	#8 AT 12"

\*\*FLOOR SHEATHING SHALL BE TONGUE AND GROOVE AND THE CONNECTION SHALL BE WITH AN APA AFG-OI QUALIFIED GLUE AND 3" SCREWS. SHEATHING SHALL BE FULLY CONNECTED PRIOR TO THE SETTING TIME OF THE ADHESIVE.

- APA RATED SHEATHING (I.E. WATERBOARD AND ORIENTED STRAND BOARD) CONFORMING TO SPAN/INDEX RATIO MAY BE SUBSTITUTED FOR PLYWOOD AT OWNER'S OPTION AND ONLY IN AREAS NOT EXPOSED TO WEATHER. ALL OVERHANGS, PATIO ROOFS WHERE OCCUR SHALL BE PLYWOOD.
- ALL NAILING SHALL BE WITH COMMON NAILS. ALL NAILING NOT NOTED SHALL BE ACCORDING TO TABLE 2304.10.1 OF THE IBC.
- AT FRAMING CLIPS, STRAPS, HANGERS ETC., ALL NAIL HOLES INCLUDING ALL OPTIONAL UPLIFT HOLES SHALL BE FILLED PER CURRENT CATALOG WITH NAILS FOR MAXIMUM LOAD CAPACITY, UNLESS SPECIFICALLY NOTED OTHERWISE.
- DO NOT NOTCH, DRILL OR SPLICE JOISTS, BEAMS OR LOAD BEARING OR STRUCTURAL STUDS WITHOUT PRIOR APPROVAL OF STRUCTURAL ENGINEER.

- JOIST HANGERS AND ALL OTHER MISCELLANEOUS FRAMING ANCHORS AND CONNECTORS SHALL BE AS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY OR EQUAL BY OTHER MANUFACTURER WITH CURRENT ICBO APPROVAL. MULTIPLE, SKEWED AND/OR SLOPED HANGERS SHALL BE SUPPLIED BY THE CONTRACTOR WHERE NECESSARY. ALL NAIL HOLES IN JOIST HANGERS AND MISCELLANEOUS FRAMING ANCHORS SHALL BE FILLED WITH NAILS OF THE LARGEST SIZE SHOWN IN THE MANUFACTURER'S LATEST CATALOG.
- STANDARD CUT WASHERS SHALL BE USED UNDER ALL BOLT AND NUTS BEARING AGAINST WOOD. ALL NUTS SHALL BE TIGHTENED.
- WOOD STUD WALLS SHALL BE 2x6 AT 16" O.C. UNLESS NOTED OTHERWISE ON PLANS. ANCHOR BOLTS AT SILL PLATE SHALL BE PER TYPICAL STUD WALL FRAMING DETAIL UNLESS NOTED OTHERWISE, REFER TO SHEARWALL SCHEDULE. ANCHOR BOLTS SHALL BE PLACED AT ALL JAMBS, CORNERS, INTERSECTIONS AND WALL ENDS. ALL BOTTOM PLATES SHALL HAVE A MINIMUM OF 2 ANCHOR BOLTS PER EACH LENGTH. ALL BOTTOM PLATES OR SILLS IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED WOOD STAMPED BY AN APPROVED AGENCY PER NOTE 3.

- MANUFACTURED LUMBER CONNECTORS SHALL BE BY SIMPSON STRONG-TIE COMPANY INC. AT CONTRACTORS OPTION OTHER MANUFACTURED CONNECTORS MAY BE USED BUT THE CONTRACTOR SHALL PROVIDE ALL DOCUMENTATION INCLUDING CURRENT ICC REPORTS OUTLINES A COMPARISON ON A ONE FOR ONE BASIS TO PROVE "OR EQUAL".
- LAG BOLTS SHALL CONFORM TO ANSI/ASME B 18.21, SQUARE AND HEX BOLTS AND SCREWS (UNLESS OTHERWISE NOTED) SHALL BE BORED PRIOR TO INSTALLATION FOR THE FULL LENGTH OF THE LAG BOLT. THE THREADED PORTION OF THE LAG BOLT SHALL BE INSERTED IN ITS LEAD HOLE BY TURNING WITH A WRENCH, NO DRIVING WITH A HAMMER SHALL BE PERMITTED. PROVIDE SOAP OR OTHER LUBRICANT ON THREADS FACILITATE INSTALLATION AND TO PREVENT DAMAGE TO WOOD OR BOLT. THE PENETRATION LENGTH OF THE THREADED PORTION OF LAG BOLT INTO A MEMBER SHALL NOT INCLUDE THE REDUCED PORTION (THREADED OR GINLET POINT) OF THE SHANK. LAG BOLTS SHALL BE FULLY THREADED OVER THE FULL EMBEDMENT DEPTH SPECIFIED. WASHERS SHALL BE USED UNDER ALL LAG BOLT HEADS AND NUTS BEARING ON WOOD. LAG BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

BOLT DIAMETER	UNTREADED SHANK	THREADED SHANK	THREADED SHANK
1/4"	1/4"	5/32"	3/8"
3/8"	3/8"	5/64"	11/64"
1/2"	1/2"	5/16"	5/64"
5/8"	5/8"	13/32"	5/16"
3/4"	3/4"	1/2"	13/32"
7/8"	7/8"	39/64"	33/64"
1"	1"	23/32"	5/8"

\*LUMBER GROUP SPECIES TO BE VERIFIED BY THE CONTRACTOR.

## PREFABRICATED WOOD I-JOIST:

- JOISTS SHALL HAVE CURRENT ICBO APPROVAL. DESIGN, FABRICATION AND ERECTION IN ACCORDANCE WITH THE APPLICABLE ICBO REPORT.
- REBUILT RED-I JOIST PRODUCTS HAVE BEEN SPECIFIED ON THE DRAWINGS. THE MINIMUM PROPERTIES FOR EACH SERIES ARE AS DEFINED IN THE JOIST SPECIFIER'S GUIDE RED0024-10/12 DATED 2020.
- DO NOT NOTCH OR DRILL JOIST EXCEPT AS INDICATED BY THESE DRAWINGS.
- ALTERNATE JOIST MAY BE SUPPLIED PROVIDED THE DEPTHS ARE EQUAL, DESIGN PROPERTIES, RESISTIVE MOMENT, VERTICAL SHEAR, AND EI ARE ALL EQUAL OR BETTER. THE CONTRACTOR SHALL SUBMIT ALL NECESSARY INFORMATION TO PROVE THE PROPOSED JOIST ARE EQUAL OR BETTER.
- JOIST FLANGES SHALL BE SOLID SAWN OR LAMINATED WITH THE LATERAL STRENGTH AND RESISTANCE TO WITHDRAWAL VALUES FOR NAILS MEETING OR EXCEEDING THOSE FOR DOUGLAS FIR LARCH (SPECIFIC GRAVITY = .50).

# STRUCTURAL NOTES

## GLULAM BEAMS:

- GLULAM BEAMS SHALL BE DOUGLAS FIR-LARCH 24F-V8 WITH THE SPECIFIED MINIMUM PROPERTIES TOP AND BOTTOM : F<sub>b</sub>= 2400PSI, F<sub>v</sub>= 265 PSI, F<sub>c</sub> (PERPENDICULAR) = 650 PSI, E = 1,800,000 PSI.
- ALL EXPOSED GLULAM BEAMS SHALL BE ARCHITECTURAL APPEARANCE GRADE PER AITC REQUIREMENTS.
- FABRICATION AND HANDLING PER THE LATEST AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC) STANDARDS. ALL BEAMS SHALL BEAR AITC STAMP AND CERTIFICATE AND GRADE STAMP. ALL BEAMS SHALL BE FABRICATED WITH WATERPROOF GLUE. APPEARANCE GRADE REQUIREMENTS SHALL BE AS SHOWN ON THE DRAWINGS.
- THE CONTRACTOR SHALL NOTIFY THE OWNER, ARCHITECT AND STRUCTURAL ENGINEER THRU THE ARCHITECT IN WRITING OF ANY DAMAGE OCCURRING DURING TRANSPORT, STORAGE PRIOR TO INSTALLATION, DURING INSTALLATION. ANY FIXES SHALL BE PER THE MANUFACTURER'S REQUIREMENTS AND TO THE ARCHITECT'S SATISFACTION.
- CAMBER BEAMS AS SHOWN ON THE DRAWINGS. IF NO CAMBER SPECIFIED, CAMBER SIMPLE SPAN GLULAM BEAMS TO MANUFACTURER'S STANDARD CAMBER. DO NOT CAMBER CANTILEVERED BEAMS.
- ALL BOLTS USED AT CONNECTIONS OF GLULAM BEAMS SHALL HAVE STEEL WASHERS AND TIGHTENED NUTS.

## PREFAB METAL PLATE CONNECTED WOOD TRUSSES:

- THE TRUSS MANUFACTURER SHALL BE RESPONSIBLE FOR THE COMPLETE DESIGN, FABRICATION AND ERECTION PROCEDURES FOR ALL TRUSSES, BLOCKING, INCIDENTAL FRAMING, FRAMING FOR OPENINGS NOT SHOWN ON DRAWINGS, TEMPORARY AND PERMANENT BRACING, AND BRIDGING, AND ALL OTHER ITEMS REQUIRED FOR THE COMPLETE AND SAFE INSTALLATION OF THE TRUSS SYSTEM. THE MANUFACTURER SHALL DESIGN THE TRUSSES FOR THE FOLLOWING SERVICE LOADS (UNFACTORED):

LIVE LOADS:	TOP CHORD LIVE LOADS AT ROOF	20 PSF
DEAD LOADS: <td>BOTTOM CHORD LIVE LOAD AT ROOF</td> <td>10 PSF TYPICAL NON-COINCURRENT</td>	BOTTOM CHORD LIVE LOAD AT ROOF	10 PSF TYPICAL NON-COINCURRENT
TOP CHORD DEAD LOADS AT ROOF	18 PSF	
BOTTOM CHORD DEAD LOAD AT ROOF	7 PSF	
TOP CHORD DEAD LOADS AT FLR	8 PSF	
BOTTOM CHORD DEAD LOAD AT FLR	7 PSF	
PARTITION LOADS FLOOR:	20 PSF	
TOP CHORD DEAD LOAD (FIXED)	18 PSF	
WIND LOADS:	ROOF (UNFACTORED)	#10 PSF NET
MECHANICAL LOADS (UNFACTORED):	SERVICE LEVEL SEE PLAN	
SPECIAL LOADS (UNFACTORED):	SERVICE LEVEL SEE PLAN	
- PREFABRICATED WOOD TRUSSES SHALL BE DESIGNED AND FABRICATED IN ACCORDANCE WITH THE LATEST ANSI/TPI - NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSSES TO SUPPORT THE LOADS INDICATED IN NOTE 1 ABOVE AND ANY SPECIAL LOADS INDICATED ON THE STRUCTURAL PLANS AND DETAILS. THE CONTRACTOR SHALL SUBMIT DESIGN CALCULATIONS AND SHOP DRAWINGS SEALED BY AN ENGINEER REGISTERED IN THE STATE OF ARIZONA FOR REVIEW PRIOR TO MANUFACTURE. THE TRUSS MANUFACTURER SHALL SUBMIT CALCULATIONS AND SHOP DRAWINGS TO INCLUDE BUT NOT LIMITED TO: DESIGN LOADS, ALLOWABLE STRESSES, STRESS DIAGRAM, DESIGN CALCULATION AND DRAWING FOR EACH INDIVIDUAL TRUSS, BEARING CONDITIONS, CONNECTION DETAILS, BRIDGING, BRACING AND ERECTION DRAWINGS, INDIVIDUAL TRUSS DESIGN DRAWINGS AND TRUSS PLACEMENT DIAGRAM(S) IDENTIFYING THE LOCATION FOR EACH INDIVIDUAL TRUSS. THE TRUSS PLACEMENT DIAGRAM SHALL BE PROVIDED AS PART OF THE TRUSS SUBMITTAL PACKAGE TO THE BOR AND THE JURISDICTION APPROVED SET DELIVERED WITH THE SHIPMENT OF TRUSSES TO THE JOB SITE SEALED BY THE RESPONSIBLE ENGINEER. TRUSS PLACEMENT DIAGRAMS SHALL NOT DEVIATE FROM THE PERMITTED STRUCTURAL DRAWINGS.
- ALL TOP AND BOTTOM CHORD AND WEB MATERIAL SHALL BE DOUGLAS FIR-LARCH, HEM FIR OR SPRUCE PINE FIR OR AS OTHERWISE SPECIFIED ON THE DRAWINGS.
- LIVE LOAD DEFLECTIONS SHALL BE LIMITED TO SPAN/360 OR 3/4" MAXIMUM FOR SIMPLE SPAN MEMBERS AND 2 TIMES THE SPAN/360 OR 3/4" MAX FOR CANTILEVER MEMBERS.
- DEAD AND LIVE LOAD DEFLECTIONS SHALL BE LIMITED TO SPAN/240 OR 3/4" MAXIMUM FOR SIMPLE SPAN MEMBERS AND 2 TIMES THE SPAN/240 OR 3/4" MAX. FOR CANTILEVER MEMBERS.
- ROOF TRUSS DURATION OF LOAD FACTOR SHALL BE 1.25 MAXIMUM. ALL TRUSSES SHALL BE CAMBERED FOR 15 TIMES THE DESIGN DEAD LOAD.
- HORIZONTAL DISPLACEMENT AT SCISSOR TRUSSES SUBJECTED TO DEAD AND LIVE LOADS SHALL BE LIMITED TO 3/8" MAXIMUM.
- THE MAXIMUM DIFFERENCE IN THE VERTICAL DEFLECTION FOR ANY TWO ADJACENT TRUSSES SHALL NOT EXCEED 1/2".
- BRACING AND BRIDGING SIZES AND SPACING BY TRUSS MANUFACTURER IN ACCORDANCE WITH THE LATEST RECOMMENDATIONS OF THE ANSI/TPI - NATIONAL DESIGN STANDARD FOR METAL PLATE WOOD TRUSSES AND/OR AS DETAILED HIGHER MORE STRINGENT. INSTALL AND LAP BRACING AND BRIDGING PER LATEST RECOMMENDATIONS. SPECIAL BRACING MAY BE REQUIRED FOR MULTIPLE OR CANTILEVER TRUSSES AND HIND UPLIFT CONDITIONS. AT A MINIMUM PROVIDE BOTTOM CHORD BRIDGING AT 1/4 POINTS OF THE TRUSS SPAN OR 12'-0" MAXIMUM, WHICHEVER SMALLER. PROVIDE 2x4 WEB MEMBER BRACING AT MID-LENGTH OF ALL WEB MEMBERS OVER 8'-0" LONG.
- ADDITIONAL TRUSSES SHALL BE SUPPLIED AS REQUIRED TO SUPPORT MECHANICAL EQUIPMENT.
- CONNECTOR PLATES (GANGNAIL OR EQUAL) SHALL HAVE CURRENT ICBO APPROVAL AND SHALL BE DESIGNED AND SIZED FOR TWICE THE CALCULATED LOAD.
- ALL CONNECTORS SPECIFIED BY THE MANUFACTURER SHALL HAVE CURRENT ICC APPROVAL AND SHALL BE DESIGNED AND SIZED FOR TWICE THE CALCULATED LOAD. NO OFF-SETS FOR CONNECTIONS WILL BE PERMITTED.
- THE ENGINEER RESPONSIBLE FOR THE DESIGN OF THE PREFABRICATED WOOD TRUSSES SHALL CERTIFY IN WRITING THAT THE TRUSSES HAVE BEEN INSTALLED AND CONSTRUCTED IN CONFORMANCE WITH THE TRUSS PLANS AND SPECIFICATIONS.

## SPECIAL INSPECTION PROGRAM:

- THIS INSPECTION AND OBSERVATION PROGRAM APPLIES ONLY TO THE STRUCTURAL DRAWINGS AND SPECIFICATIONS BY STRUCTURAL SOLUTIONS INC.. THE CONTRACTOR SHALL COORDINATE IN A TIMELY MANNER INSPECTION AND OBSERVATION OF THE PROJECT WITH THE DESIGN PROFESSIONAL OF RECORD THROUGH THE ARCHITECT. THIS PROGRAM IS PREPARED FOR THE SUN AND SHIELD CHURCH BY STRUCTURAL SOLUTIONS INC.
- SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE 2012 INTERNATIONAL BUILDING CODE, SECTION 1704 (SPECIAL INSPECTIONS), AND THE IBC ADMINISTRATIVE CODE SECTION 104 (INSPECTIONS). INSPECTIONS SHALL BE PERFORMED BY A QUALIFIED INSPECTOR APPROVED BY THE LOCAL BUILDING JURISDICTION. THE INSPECTOR, EMPLOYED BY THE OWNER, SHALL PERFORM INSPECTIONS IN ACCORDANCE WITH THE FOLLOWING SPECIAL INSPECTION PROGRAM. SPECIAL INSPECTION PROGRAMS ARE EMPLOYED TO MINIMIZE THE RISK OF PROBLEMS ARISING DURING CONSTRUCTION AND ARE FOR THE OWNER'S PROTECTION ONLY AND IN NO WAY REDUCE THE CONTRACTOR'S SOLE RESPONSIBILITY FOR MEANS, MEAS AND METHODS. NOR DO THEY REDUCE THE CONTRACTOR'S SOLE RESPONSIBILITY FOR STRICT CONFORMANCE TO ALL CONSTRUCTION DOCUMENTS AND FOR ALL QUALITY CONTROL MEASURES. IN ALL CASES, CONTRACTORS (INCLUDING, WITHOUT LIMITATION, THE GENERAL CONTRACTOR, SUBCONTRACTORS, SUB-SUBCONTRACTORS, MATERIAL-PERSONS AND OTHERS) SHALL RETAIN THE RESPONSIBILITY FOR THE QUALITY OF THEIR WORK AND ADHERING TO THE PLANS, SPECIFICATIONS AND ALL APPLICABLE CODES. SPECIAL INSPECTIONS ARE NOT INTENDED FOR QUALITY CONTROL FOR THE CONTRACTOR, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL QUALITY CONTROL.
- THE INDIVIDUAL OR FIRM TO PERFORM THE SPECIAL INSPECTIONS SHALL BE A QUALIFIED PERSON WHOM SHALL HAVE DEMONSTRATED COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL, AND IS CURRENTLY LISTED ON AN APPROVED LIST OF SPECIAL INSPECTORS IN THE APPLICABLE JURISDICTION. INSPECTIONS PERFORMED BY A QUALIFIED TESTING LABORATORY BY APPROPRIATELY CERTIFIED INSPECTORS (ACI, IBC, ICBO ETC.) AND HAVING DEMONSTRATED COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL SHALL BE APPROVED BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALL WORK OF THE TESTING LAB SHALL BE UNDER THE DIRECT SUPERVISION OF A QUALIFIED REGISTERED ENGINEER. THE QUALIFIED SPECIAL INSPECTOR EMPLOYED BY THE OWNER SHALL PERFORM SPECIAL INSPECTIONS OF THE FOLLOWING PORTIONS THE WORK:
  - STRUCTURAL STEEL WELDING (SHOP AND FIELD)
- THE SPECIAL INSPECTOR'S DUTIES AND RESPONSIBILITIES SHALL BE IN ACCORDANCE WITH THE IBC AND THE BUILDING OFFICIAL'S DUTIES AND RESPONSIBILITIES SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
  - NOTIFY THE CONTRACTOR OF DEFICIENCIES ON THE SITE AND THE TYPE OF INSPECTION TO BE PERFORMED.
  - OBSERVE THE WORK FOR WHICH THEY ARE RESPONSIBLE TO INSPECT FOR CONFORMANCE WITH CONTRACT STRUCTURAL DRAWINGS, SPECIFICATIONS, ENGINEER OF RECORD REVISED SHOP DRAWINGS AND ANY APPLICABLE CODES OF THE UBC AND LOCAL CODES. USE OF SHOP DRAWINGS SHALL BE FOR REFERENCE ONLY AND SHALL BE USED IN CONJUNCTION WITH THE APPROVED PLANS AND SPECIFICATIONS FOR INSPECTION PURPOSES.
  - SPECIAL INSPECTORS SHALL BRING NON-COMFORMANCE ITEMS TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTIVE ACTION. ANY ITEM NOT RESOLVED/COMPLETED PRIOR TO THE INSPECTOR DEPARTING THE JOB SITE OR ABOUT TO BE INCORPORATED INTO THE WORK MUST BE NOTED IN THE SPECIAL INSPECTOR'S WRITTEN REPORT. THE ARCHITECT AND ENGINEER OF RECORD SHALL BE NOTIFIED, AS WELL AS DESIGNATED OTHERS. A RECORD SHALL BE MAINTAINED OF OUTSTANDING ISSUES REQUIRING CORRECTIVE ACTION.
  - THE INSPECTOR'S REPORTS SHALL BE DELIVERED TO THE CONTRACTOR, ARCHITECT AND ENGINEER OF RECORD WITHIN 48 HOURS. THE REPORTS SHALL BE DELIVERED TO THE BUILDING OFFICIAL ON A WEEKLY BASIS OR AS OTHERWISE DESIGNATED. THESE REPORTS SHALL CONTAIN (AS A MINIMUM) THE FOLLOWING ITEMS:
    - DESCRIPTION OF INSPECTION LOCATION, AND TESTS PERFORMED.
    - NON-COMFORMING ITEMS AND OUTSTANDING ISSUES, WITH REFERENCES TO THE APPLICABLE REQUIREMENTS OF THE APPROVED PLANS OR SPECIFICATIONS.
    - NAME AND TITLE(S) OF THE INDIVIDUALS NOTIFIED OR CONTACTED DURING THE INSPECTION.
  - GUIDELINE TASKS FOR SPECIAL INSPECTION CATEGORIES
  - INSPECTIONS SHALL BE PERFORMED FOLLOWING THE GUIDELINES OF THE INSPECTOR'S CERTIFYING AGENCY AND THE STANDARD OF PRACTICE IN THE INDUSTRY. SPECIFIC TASKS SHALL BE DEFINED BY THE AGENCY EMPLOYED BY THE INSPECTOR FOR EACH INSPECTION CATEGORY. ALL OBSERVATIONS SHALL BE IN STRICT CONFORMANCE WITH TESTING AND OBSERVATION REQUIREMENTS OF THE IBC, ACI, AISC, ASTM, AASHTO OR OTHER APPROPRIATE AGENCY.

## REINFORCED CONCRETE

- CONTINUOUS INSPECTION IS ALWAYS REQUIRED:
  - DURING PREPARATION OR CONSTRUCTION OF COMPRESSION SAMPLES, BEAMS, PRIORS OR PANELS.
  - BEFORE AND DURING THE PLACEMENT OF CONCRETE AROUND ANCHOR BOLTS WHEN APPLICABLE PER SECTION 1012.5.
  - AT THE START AND DURING EACH PHASE OF THE PROJECT TO ASCERTAIN PROPOSED CONFORMITY OF MATERIALS, PERSONNEL QUALIFICATIONS AS REQUIRED, AND PROCEDURES WITH THE APPLICABLE CODES, PLANS AND SPECIFICATIONS.
  - REINFORCEMENT VERIFICATION PRIOR TO CLOSING OF FORMS OR THE DELIVERY OF CONCRETE TO THE JOBSITE.
  - DURING THE PLACEMENT OF CONCRETE.
  - AT EACH FREQUENCY AS TO CLEARLY CONFIRM THE PLACEMENT OF TIES, HOOPS, STIRRUPS, CONNECTIONS, AND ANY ADDITIONAL SPECIFIED REINFORCEMENT (I.E. AT OPENINGS, BEAMS, CORNERS, COLUMNS, PIERS AND CAISSONS) BEFORE THEY ARE COVERED.
  - DURING SAMPLING OF CONCRETE AT DISCHARGE FROM MIXER.
  - FOR VERIFICATION OF DELIVERED MIX DESIGN BEFORE ANY CONCRETE IS PLACED.

## STRUCTURAL MASONRY

- CONTINUOUS INSPECTION AS REQUIRED BY SECTION 1704.5:
  - DURING PREPARATION AND TAKING OF PRISMS OR TEST SPECIMENS.
  - CLEARANCE OF CLEAR GROUT SPACES AND IMMEDIATELY PRIOR TO CLOSING CLEAN OUTS.
  - DURING ALL GROUTING OPERATIONS.
- PERIODIC INSPECTION IS REQUIRED:
  - AT THE START AND DURING EACH PHASE OF THE PROJECT TO CONFIRM MATERIAL CERTIFICATIONS AND TESTING REQUIREMENTS, PERSONNEL QUALIFICATIONS AS REQUIRED, AND PROCEDURES WITH THE APPLICABLE CODES, PLANS AND SPECIFICATIONS.
  - AT EACH FREQUENCY AS NECESSARY, TO VERIFY THAT THE CLEANLINESS, MORTAR PROJECTIONS AND REINFORCEMENT CLEARANCES WITHIN GROUT SPACES, CONFORM TO MINIMUM REQUIREMENTS.
  - TO VERIFY THAT THE GROUT POURS AND CONSTRUCTION JOINTS ARE IN COMPLIANCE WITH SECTION 2104.
  - CHECK TO VERIFY THAT ALL DOWELS, ANCHOR BOLTS AND INSERTS ARE SECURED IN PLACE.

## STRUCTURAL STEEL WELDING:

- THE SPECIAL INSPECTOR SHALL:
  - ASCERTAIN THAT ALL FABRICATION AND ERECTION BY WELDING IS PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPROVED PLANS, SPECIFICATIONS, AND THE CURRENTLY ENFORCED IBC AND AWS STANDARDS.
  - VERIFY THAT ONLY MATERIALS AND PROCEDURES CONFORMING TO THE REQUIREMENTS OF AWS, AISC OR ASTM, AND SPECIFIED ON APPROVED PLANS ARE USED.
  - REVIEW ALL WELDING PROCEDURE SPECIFICATION (WPS) AS APPROVED BY THE DPR, AND VISUALLY INSPECT THE PREPARATIONS, WELDING PROCESS, ELECTRODES AND EQUIPMENT USED, FOR COMPLIANCE TO WPS.
  - VERIFY THAT INDIVIDUAL CERTIFICATIONS OF WELDERS, WELDING OPERATORS AND TACK WELDERS ARE CURRENT AND IN ACCORDANCE WITH THE WORK TO BE PERFORMED.
  - PROVIDE CONTINUOUS INSPECTION FOR FULL PENETRATION FIELD WELDS AND OTHER WELDING AS SPECIFIED.
- WHEN SPECIFIED, PERIODIC INSPECTION OF WORK IN PROGRESS AND VISUAL INSPECTION OF ALL WELDS PRIOR TO COMPLETION OR SHOP WELDS PRIOR TO SHIPMENT:
  - SINGLE-PASS FILLET WELDS NOT EXCEEDING 5/16" (14mm).
  - FLOOR AND ROOF DECK WELDING.
  - WELDED STUDS IN STRUCTURAL DIAPHRAGM OR COMPOSITE SYSTEMS.
  - COLD-FORMED STUDS AND JOISTS.
  - STAIR AND RAILING SYSTEMS.
  - REINFORCING STEEL, NOT LARGER THAN NO. 5 BARS.
- CONTINUOUS VISUAL INSPECTION IS REQUIRED FOR ALL OTHER WELDING.

## STRUCTURAL OBSERVATION PROGRAM:

(REF 2018 INTERNATIONAL BUILDING CODE, CH 17)

### SPECIAL INSPECTION MATERIALS TESTING AND STRUCTURAL OBSERVATION GENERAL

- THE DESIGN PROFESSIONAL OF RECORD (DPR) SHALL SUBMIT A STRUCTURAL OBSERVATION PROGRAM TO THE BUILDING OFFICIAL FOR APPROVAL PRIOR TO ISSUANCE OF THE BUILDING PERMIT. THE PROGRAM SHALL IDENTIFY THE PORTION OF THE WORK REQUIRING STRUCTURAL OBSERVATION AND DESCRIBE THE DUTIES OF THE STRUCTURAL OBSERVER (REF 106.1).
- THE OWNER OR ITS DESIGNEE SHALL EMPLOY THE DESIGN PROFESSIONAL RESPONSIBLE FOR THE STRUCTURAL DESIGN OR ANOTHER ENGINEER OR ARCHITECT APPROVED BY THE BUILDING OFFICIAL TO PERFORM STRUCTURAL OBSERVATION (REF 1704).

### DEFINITIONS:

- DPR: ENGINEER OF RECORD/DESIGN PROFESSIONAL OF RECORD.
- SPECIAL INSPECTOR: A QUALIFIED PERSON APPROVED BY THE BUILDING OFFICIAL WHO HAS DEMONSTRATED COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION. DUTIES INCLUDE VISUAL OBSERVATIONS AND FIELD MEASUREMENTS OF MATERIALS, OBTAINING SPECIMENS FOR TEST AND RELATED ACTIONS INCLUDING PREPARATION OF REPORTS. (REF 1704.1).
- STRUCTURAL OBSERVATION INSPECTOR: THE VISUAL OBSERVATION, BY THE DESIGN PROFESSIONAL APPROVED BY THE BUILDING OFFICIAL, INCLUDING BUT NOT LIMITED TO THE ELEMENTS AND CONNECTIONS OF THE STRUCTURAL SYSTEM, FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS, AT SIGNIFICANT CONSTRUCTION STAGES AND AT COMPLETION OF THE STRUCTURAL SYSTEM. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR THE SPECIAL AND MUNICIPAL INSPECTIONS REQUIRED BY CODES AND SPECIFICATIONS. (REF 1702).
- APPROVED FABRICATOR: A FABRICATOR QUALIFIED BY AN ACCREDITED BODY APPROVED BY THE BUILDING OFFICIAL TO PERFORM WORK OFF SITE, WITHOUT SPECIAL INSPECTION. (REF 1702).

### STRUCTURAL OBSERVATION

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE STRUCTURAL OBSERVATION INSPECTOR WITH A CONSTRUCTION SCHEDULE AND SAFE ACCESS FOR PERFORMING INSPECTIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE DESIGN PROFESSIONAL 48 HOURS IN ADVANCE OF REQUIRED OBSERVATION(S) FOR SCHEDULING PURPOSES. FAILURE BY THE CONTRACTOR TO MEET OBSERVATION SCHEDULES MAY REQUIRE REMOVAL OF ANY SUBSEQUENT WORK FOR OBSERVATION/REMOVAL, AND REPLACEMENT OF ANY FINISHED WORK AND/OR FRAMING DAMAGED BY THE REMOVAL PROCESS OR AS REQUIRED FOR CORRECTIVE ACTION SHALL BE AT THE CONTRACTOR'S EXPENSE. APPROVAL BY THE MUNICIPAL INSPECTOR DOES NOT REPLACE OBSERVATION BY THE DESIGN PROFESSIONAL. APPROVAL BY THE DESIGN PROFESSIONAL DOES NOT REPLACE THE INSPECTION PROCESS BY THE MUNICIPAL INSPECTOR AND ANY OTHER INSPECTION REQUIREMENTS.
- A PRE-CONSTRUCTION MEETING SHALL BE HELD TO REVIEW THE SCHEDULE AND DETAILS OF THE STRUCTURAL SYSTEM TO BE OBSERVED. THE MEETING SHALL INCLUDE THE PARTY RESPONSIBLE FOR THE STRUCTURAL OBSERVATION, THE CONTRACTOR, SPECIAL INSPECTOR, AND SUBCONTRACTORS.
- THE STRUCTURAL OBSERVER SHALL, AS A MINIMUM, PERFORM STRUCTURAL OBSERVATIONS AT THE FOLLOWING STAGES OF CONSTRUCTION:
  - CONCRETE AND REINFORCING STEEL: AFTER EXCAVATION OR FORMING AND PLACEMENT OF REINFORCING STEEL, PRIOR TO CONCRETE PLACEMENT AND CLOSING OF FORMS.
  - MASONRY: DURING SIGNIFICANT PHASES OF MASONRY CONSTRUCTION TO OBSERVE REINFORCEMENT PLACEMENT AND GROUT PLACING.
  - WOOD FRAMING: AFTER HOOD ERECTION, PRIOR TO CEILING ENCLOSURES.
  - UPON COMPLETION OF ROOF SHEATHING AND NAILING, OBSERVE NEW AND EXISTING ROOF NAILING.
  - BEFORE INSTALLATION OF FINISH MATERIAL ON WALLS THAT WOULD COVER ANY STRUCTURAL CONNECTIONS.
  - AT COMPLETION OF THE STRUCTURAL SYSTEM.
  - OTHER SPECIFIED STAGES AS REQUIRED.

### INSPECTION REPORTS

- THE STRUCTURAL OBSERVATION INSPECTOR SHALL SUBMIT INSPECTION REPORTS TO THE DPR, THE BUILDING OFFICIAL, OWNER, AND OTHER DESIGNATED PERSONS AT A REASONABLE FREQUENCY, AS ESTABLISHED IN THE PER-CONSTRUCTION MEETING.
- THE STRUCTURAL OBSERVATION INSPECTOR SHALL SUBMIT TO THE BUILDING OFFICIAL A WRITTEN STATEMENT THAT THE SITE VISITS HAVE BEEN MADE AND IDENTIFY ANY REPORTED DEFICIENCIES WHICH, TO THE BEST OF THE STRUCTURAL OBSERVERS KNOWLEDGE, HAVE NOT BEEN RESOLVED.



Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd  
Bisbee AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

### CONSULTANTS

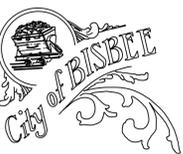
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
Structural Solutions Inc.  
Tucson, AZ; 520-396-4669  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ; 520-881-8846  
LANDSCAPE ARCHITECT:



EXPIRES: 9.30.24

NEW CITY HALL  
FOR THE  
CITY OF BISBEE  
118 ARIZONA ST.  
BISBEE, ARIZONA



### SHEET ISSUE

DATE:

REVISIONS



### SHEET MANAGEMENT

Comm. No. 2201

Drawn By: Jq

Checked By: Jq

### DRAWINGS ON THIS SHEET

STRUCTURAL NOTES



SHEET

50.2

of

# STRUCTURAL NOTES

## SPECIAL INSPECTION REQUIREMENTS:

WORK REQUIRING SPECIAL INSPECTION DURING:	SPECIAL INSPECTION	CONTINUOUS/PERIODIC	
		CONTINUOUS	PERIODIC
GRADING & FOUNDATION	A. PLACEMENT OF COMPACTED FILL, GRADING AND EXCAVATIONS		X
CONCRETE	A. DURING CONCRETE PLACEMENT $f'c > 2500$ psi. 1. FOUNDATION/FOOTINGS. 2. ALL OTHER STRUCTURAL CONCRETE. 3. NOT REQUIRED FOR SLABS-ON-GRADE.		X
	B. DURING PLACEMENT OF NON-SHRINK GROUT	X	
	C. MOLDING OF COMPRESSION TEST SAMPLES	X	
	D. PLACEMENT OF CONCRETE, FOR BOLTS OR EMBEDS AS SPECIFIED (REF. 1912.5)	X	
	E. PLACEMENT OF HIGH STRENGTH GROUT AND TAKING SAMPLES.	X	
	F. VERIFICATION AND USE OF THE APPROVED DESIGN MIX		X
POST INSTALLED ANCHORS	A. INSTALLATION OF ADHESIVE ANCHORS, RODS, DOVELS, SHALL BE CONTINUOUSLY INSPECTED DURING INSTALLATION	X	
	B. EXPANSION ANCHORS IN CONCRETE OR MASONRY	X	
REINF-STEEL	A. PLACEMENT OF REINFORCING		X
	B. SAMPLING FOR TESTING	X	
	C. MILL REPORT VERIFICATION AND MATERIAL IDENTIFICATION		X
WELDING	A. SHOP FABRICATION / WELDING IN NON-APPROVED SHOPS	X	X
	B. STRUCTURAL FIELD WELDING (REF. 1704.3.1)	X	X
	C. SHEAR CONNECTORS INSPECTION AND FIELD TEST	X	X
	D. REINFORCING STEEL WELDING (REF. 1903.5.2)	X	
STRUCTURAL STEEL	A. VERIFICATION OF MILL REPORTS AND IDENTIFICATION OF STEEL OR PHYSICAL TESTING.		X
	B. ERECTION AND INSPECTION OF SURFACES		X
	C. STRUCTURAL STEEL ERECTION (REF. 1704.3.2)		X
MASONRY	A. PLACEMENT OF MASONRY UNITS		X
	B. MASONRY PRISM CONSTRUCTION, MORTAR AND GROUT SAMPLING	X	
	C. MORTAR AND GROUT SAMPLING	X	
	D. MATERIALS CERTIFICATION		X
	E. MASONRY WALLS COMPLETION		X
OFF-SITE FAB-RIGATORS	A. FABRICATORS NOT APPROVED BY BUILDING OFFICIAL TO PERFORM WORK OFF-SITE, WITHOUT SPECIAL INSPECTION (1704.2)	X	X

## INSPECTION SCHEDULE NOTES:

- ITEMS MARKED WITH AND "X" SHALL BE INSPECTED IN ACCORDANCE WITH IBC 1700 BY A CERTIFIED SPECIAL INSPECTOR FROM AN AGENCY APPROVED BY THE JURISDICTION.
- SPECIAL INSPECTION SHALL NOT BE REQUIRED FOR WORK IN AN APPROVED FABRICATOR'S SHOP PER IBC 1701.7. VERIFY APPROVAL WITH JURISDICTION PRIOR TO FABRICATION.
- CONTINUOUS SPECIAL INSPECTION REQUIRES THE INSPECTOR SHALL BE ON-SITE AT ALL TIMES THAT WORK REQUIRING SPECIAL INSPECTION IS PERFORMED. PERIODIC SPECIAL INSPECTION SHALL ALLOW INSPECTION AT THE INTERVALS NECESSARY TO CONFIRM THAT WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE WITH THE REQUIREMENTS.
- ALL WELDS SHALL BE VISUALLY INSPECTED.
- ALL COMPLETE PENETRATION WELDS SHALL BE TESTED ULTRASONICALLY.
- PERIODIC SPECIAL INSPECTION SHALL BE ALLOWED FOR SHOP WELDING OF ASTM A106 REINFORCEMENT NO. 5 OR SMALLER USED FOR EMBEDDED ITEMS, PROVIDED THAT: THE MATERIALS AND THE QUALIFICATIONS OF WELDING PROCEDURES AND WELDERS ARE VERIFIED PRIOR TO THE START OF WORK, THAT PERIODIC INSPECTIONS ARE MADE OF WORK IN PROGRESS, AND THAT A VISUAL INSPECTION OF ALL WELDS IS MADE PRIOR TO SHIPMENT OF SHOP WELDED ITEMS.
- STRUCTURAL OBSERVATION SHALL MEAN THE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM BY THE ENGINEER OF RECORD FOR THE GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS AT SIGNIFICANT CONSTRUCTION STAGES AND AT COMPLETION OF THE STRUCTURAL FRAMING SYSTEM PRIOR TO COVER. THE CONTRACTOR SHALL PROVIDE AT LEAST TWO WORKING DAYS NOTICE TO THE ENGINEER OF RECORD PRIOR TO COVERING OF SYSTEMS REQUIRING OBSERVATION. STRUCTURAL OBSERVATION BY THE ENGINEER OF RECORD DOES NOT REPLACE OR HAVE REQUIREMENTS FOR BUILDING INSPECTION BY THE JURISDICTION NOR REQUIREMENTS FOR SPECIAL INSPECTIONS.
- STRUCTURAL OBSERVATION FOR CONCRETE CONSTRUCTION SHALL CONSIST OF OBSERVATION AT OR NEAR THE COMPLETION OF FORMWORK, REBAR, AND PT TENDON PLACEMENT AND PRIOR TO CONCRETE PLACEMENT ON ALL PT SLABS.
- STRUCTURAL OBSERVATION FOR WOOD CONSTRUCTION SHALL CONSIST OF OBSERVATION AT OR NEAR THE COMPLETION OF THE FIRST ELEVATED WOOD FLOOR FOR ANCHOR BOLT AND HOLD-DOWN INSTALLATION, SHEATHING AND STRAPPING NAILING, AND AT OR NEAR COMPLETION OF THE ROOF FRAMING PRIOR TO PLACEMENT OF THE ROOFING.
- THE SPECIAL INSPECTOR SHALL PROVIDE THE BUILDING OFFICIAL, OWNER, ARCHITECT, ENGINEER OF RECORD, AND CONTRACTOR WITH COPIES OF ALL REPORTS AND TEST RESULTS (IBC 1704.1.2)

## STRUCTURAL ABBREVIATIONS\*:

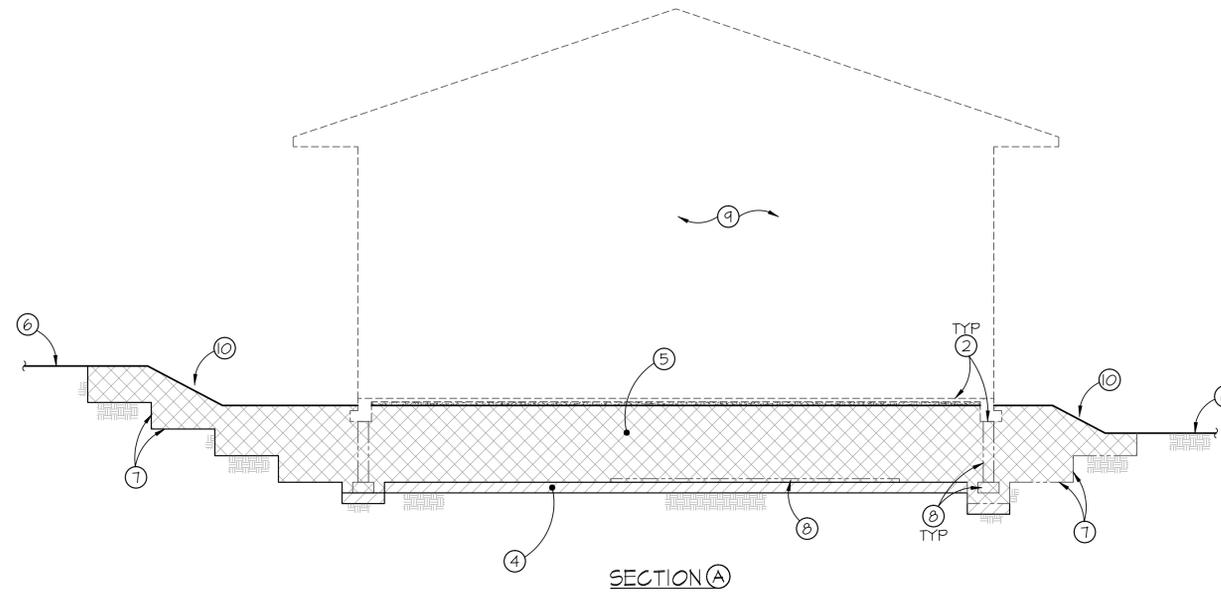
MARK	DEFINED	MARK	DEFINED
Ø	DIAMETER	GT	GIRDER TRUSS
#	POUND/NUMBER	HGR	HANGER
°	DEGREE	HDR	HEADER
∠	AND	HK	HOOK
/	PER	HSS	HOLLOW STRUCTURAL SECTION
@	AT	HT	HEIGHT
CL	CENTERLINE	HORIZ	HORIZONTAL
PL	PLATE, PROPERTY LINE	JST	JOIST
±	PLUS OR MINUS	IN	INCH
AB	ANCHOR BOLT	KP	KING POST
ADJ	ADJACENT	KS	KING STUD
ALT	ALTERNATE	K	KIRBY
ARCHL	ARCHITECTURAL	L	STEEL ANGLE
BAL	BALANCE	LL	DOUBLE STEEL ANGLE
BLDG	BUILDING	LL	LIVE LOAD
BLK(%)	BLOCKING	LLV	LAMINATED VENEER LUMBER
BM	BEAM	MAS	MASONRY
BN	BOUNDARY NAIL	MAX	MAXIMUM
BOD	BOTTOM OF DECK	MB	MACHINE BOLT
BOF	BOTTOM OF FOOTING	MFR	MANUFACTURER
BOT	BOTTOM	MFR'D	MANUFACTURED
BRDG	BRIDGING	MIN	MINIMUM
BRG	BEARING	M-L	MICRO-LAM BEAM
BTWN	BETWEEN	MTL	METAL
C	CAMBER	(N)	NEW
CANTI	CANTILEVER	NS	NEAR SIDE
CAS	CONCRETE ANCHOR STUD	NTS	NOT TO SCALE
C-C	CENTER TO CENTER	OC	ON CENTER
CFS	COLD FORMED STEEL	OSB	ORIENTED STRAND BOARD
CJ	CONSTRUCTION JOINT	PFN	PENETRATION
CLR	CLEAR(ANCE)	PNL	PANEL
CMU	CONCRETE MASONRY UNIT	PSF	POUNDS PER SQUARE FOOT
CNTR	CENTER	PSI	POUNDS PER SQUARE INCH
CONN	CONNECTION	PLY	PLYWOOD
CONT	CONTINUOUS	R/R	REMOVE AND REPLACE
COORD	COORDINATE	REQ'D	REQUIRED
CONTR	CONTRACTOR	RTU	ROOF TOP UNIT
CTJ	CONTROL JOINT	SCHED	SCHEDULE
d	PENNY, NAIL	SHT'G	SHEATHING
DBL	DOUBLE	SI	SPECIAL INSPECTION
DIA	DIAMETER	SIM	SIMILAR
DIAG	DIAGONAL	SN	STRUCTURAL NOTES
DTL	DETAIL	SPA	SPACE
DEFL	DEFLECTION	SQ	SQUARE
DF	DOUGLAS FIR	STD	STANDARD
DL	DEAD LOAD	STL	STEEL
Dp	DITTO, THE SAME	SPL	SHEARWALL
DOWL(S)	DOVEL(S)	T&B	TOP AND BOTTOM
DN	DOWN	T&G	TONGUE AND GROOVE
(E)	EXISTING	TD	TOEDOWN
EA	EACH	THK	THICK
EE	EACH END	THRD'D	THREADED
EF	EACH FACE	TN	TOENAIL
ES	EACH SIDE	TOC	TOP OF CONCRETE
EW	EACH WAY	TOF	TOP OF FOOTING
EN	EDGE NAIL	TOS	TOP OF SHEATHING/STEEL
ECCF	ENGINEER CONTROLLED COMPACTED FILL	TOL	TOP OF LEDGER
EOR	ENGINEER OF RECORD	TOW	TOP OF WALL
EQ	EQUAL	TRANS	TRANSVERSE
FT	FOOT	TRP	TRIPPLE
FDN	FOUNDATION	TS	TRIM STUD
FN	FACE NAIL	TYP	TYPICAL
FOC	FACE OF CONCRETE	UNO	UNLESS NOTED OTHERWISE
FOM	FACE OF MASONRY	VERT	VERTICAL
FOS	FACE OF STUD	VIF	VERIFY IN FIELD
FOW	FACE OF WALL	WF	WIDE FLANGE
FS	FAR SIDE	W	WITH
FTG	FOOTING	W/O	WITHOUT
GC	GENERAL CONTRACTOR	WL	WIND LOAD
GA	GAUGE	WP	WORKING POINT
GALV	GALVANIZED	WT	WEIGHT
GLB	GLULAM BEAM	WWF	WELDED WIRE FABRIC

\*THIS LIST APPLIES ONLY TO THE STRUCTURAL DRAWINGS. NOT ALL ABBREVIATIONS ARE DEFINED HERE. REFER TO PROPRIETARY SUPPLIER CATALOG(S) AND CONSTRUCTION DICTIONARIES FOR ADDITIONAL ABBREVIATIONS.

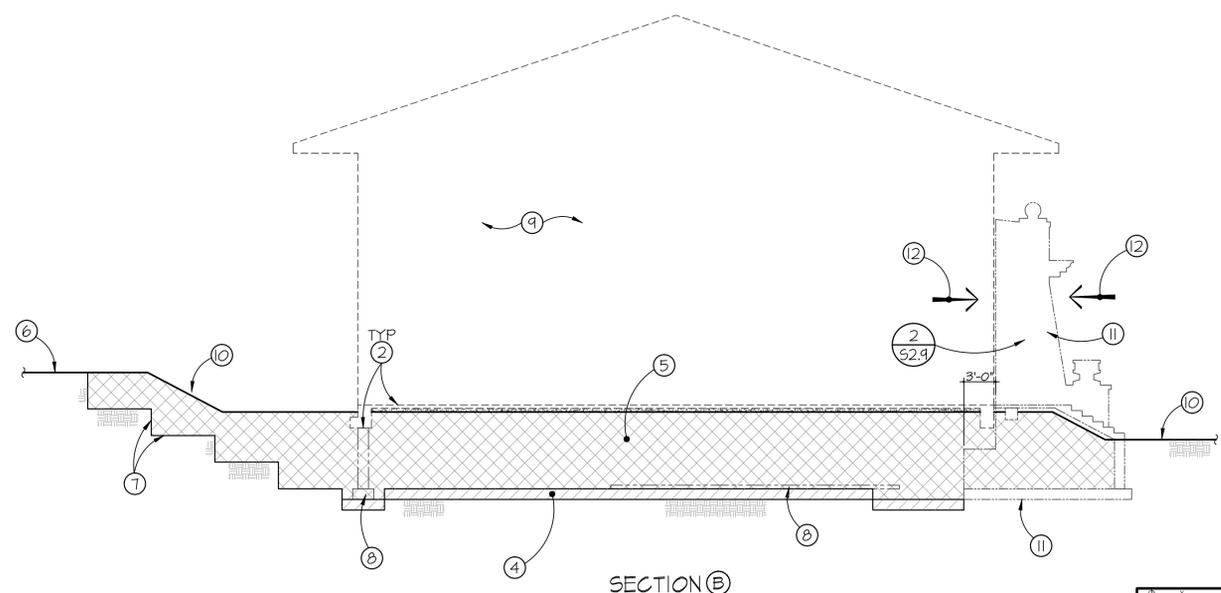
SYMBOL	DEFINITION
DETAIL NO. - SHEET NO. -	DETAIL REFERENCE WITH DETAIL AND SHEET NUMBER.
☁	REVISION CLOUD AND REVISION NUMBER.
①	KEYNOTE REFERENCE ON PLAN.
▭	FOOTING AS INDICATED ON FOUNDATION PLAN.
F- /C-	FOOTING AND COLUMN CALL-OUT REFERENCED ON PLAN COORDINATE WITH APPROPRIATE SCHEDULE AS OCCURS.
H	HOLD-DOWN AS OCCURS ON PLANS
▨	CMU WALL AS SHOWN ON PLANS.
▨	WOOD OR CFS STUD WALL AS SHOWN ON PLANS.
▨	WOOD OR CFS STUD SHEARWALL AS SHOWN ON PLANS.
(E) CONSTR	ITALICIZED PRINT AS OCCURS ON PLANS/DETAILS.
FRAMING TYPE SPACING	FRAMING DESIGNATION PER FRAMING PLAN.
ELEV = 100'-0"	ELEVATION AS OCCURS ON PLANS/DETAILS.
▨	STRUCTURAL WALL BELOW PER FRAMING PLAN.
▨	HEADER PER FRAMING PLAN.
---	JOIST/TRUSS PER FRAMING PLAN.

## KEYNOTES - EARTHWORK DETAIL

- ALL EARTHWORK OPERATIONS SHALL BE SPECIAL INSPECTED.
- FOUNDATIONS AND SLABS SHALL BEAR EXCLUSIVELY ON ENGINEERED FILL.
- ALL FILL SOILS SHALL HAVE LOW EXPANSION POTENTIAL AND SHALL BE ENGINEERED CONTROLLED COMPACTED FILL (ECCF) SOILS APPROVED BY AND PLACEMENT/COMPACTION OBSERVED BY THE GEOTECHNICAL REPRESENTATIVE FOR PATTISON ENGINEERING, LLC.
- ▨ - INDICATES 12" MINIMUM SCARIFIED/COMPACTED SOILS. SCARIFY, MOISTEN OR DRY AS REQUIRED, AND COMPACT THE EXPOSED SOILS BENEATH DEMOLISHED FOOTINGS AND SLABS IN BUILDING AREA TO A MINIMUM DEPTH OF 12".
- ▨ - INDICATES ENGINEERED CONTROLLED COMPACTED FILL, ECCF.
- (E) GRADE AS OCCURS.
- AT SLOPING CONDITIONS BENCH BETWEEN EXISTING SOILS AND ECCF PER ONSITE GEOTECH.
- REMOVE ALL EXISTING BUILDING PARTS INCLUDING, SLABS, WALLS, ETC. OF THE ORIGINAL BUILDING CONSTRUCTION EXCEPT THE FRONT ENTRY FEATURE - REFER TO KEYNOTE #11.
- NEW 2-STORY BISBEE CITY HALL BUILDING.
- REFER TO SITE PLAN FOR GRADES, TYPICAL.
- ENTRY FEATURE TO REMAIN INCLUDING ALL FOUNDATIONS AND DETAILS IN ADDITION TO ARCHITECTURAL DRAWINGS. STRUCTURAL OBSERVATION TO OCCUR AT RELEVANT STAGES OF DEMO AND PRIOR TO ECCF PLACEMENT TO OBSERVE EXISTING CONDITIONS.
- SHORE EXISTING ENTRY FEATURE AS REQUIRED DURING DEMO AND BACKFILL/COMPACTION OPERATIONS.



THE CONTRACTOR SHALL RETAIN AND KEEP A COPY ON SITE OF THE GEOTECHNICAL REPORT BY PATTISON ENGINEERING #22-040, DATED 4/1/22 AND ADDENDUM DATED 4/19/22. THE RECOMMENDATIONS PER THE GEOTECHNICAL REPORT BY SHALL BE CONSIDERED REQUIREMENTS FOR THE FOUNDATION SYSTEM FOR THE NEW BISBEE CITY HALL. THE GEOTECHNICAL REPORT APPLIES UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED ON THESE STRUCTURAL DRAWINGS.



## TYP - EARTHWORK DETAIL

SCALE: 1/8" = 1'-0"



Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd  
Bisbee AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
Structural Solutions Inc.  
Tucson, AZ; 520-346-4664  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ; 520-881-8896  
LANDSCAPE ARCHITECT:



NEW CITY HALL  
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## SHEET ISSUE

DATE:  
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## SHEET MANAGEMENT

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Checked By: jq

DRAWINGS ON THIS SHEET  
STRUCTURAL NOTES  
EARTHWORK DETAIL

SHEET

50.3 of



Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd  
Bisbee AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
Structural Solutions Inc.  
Tucson, AZ, 520-396-4669  
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PH Mechanical Engineering  
Tucson, AZ, 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ, 520-881-8846  
LANDSCAPE ARCHITECT:



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Drawn By: Jq

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DRAWINGS ON THIS SHEET

FOUNDATION PLAN

SHEET

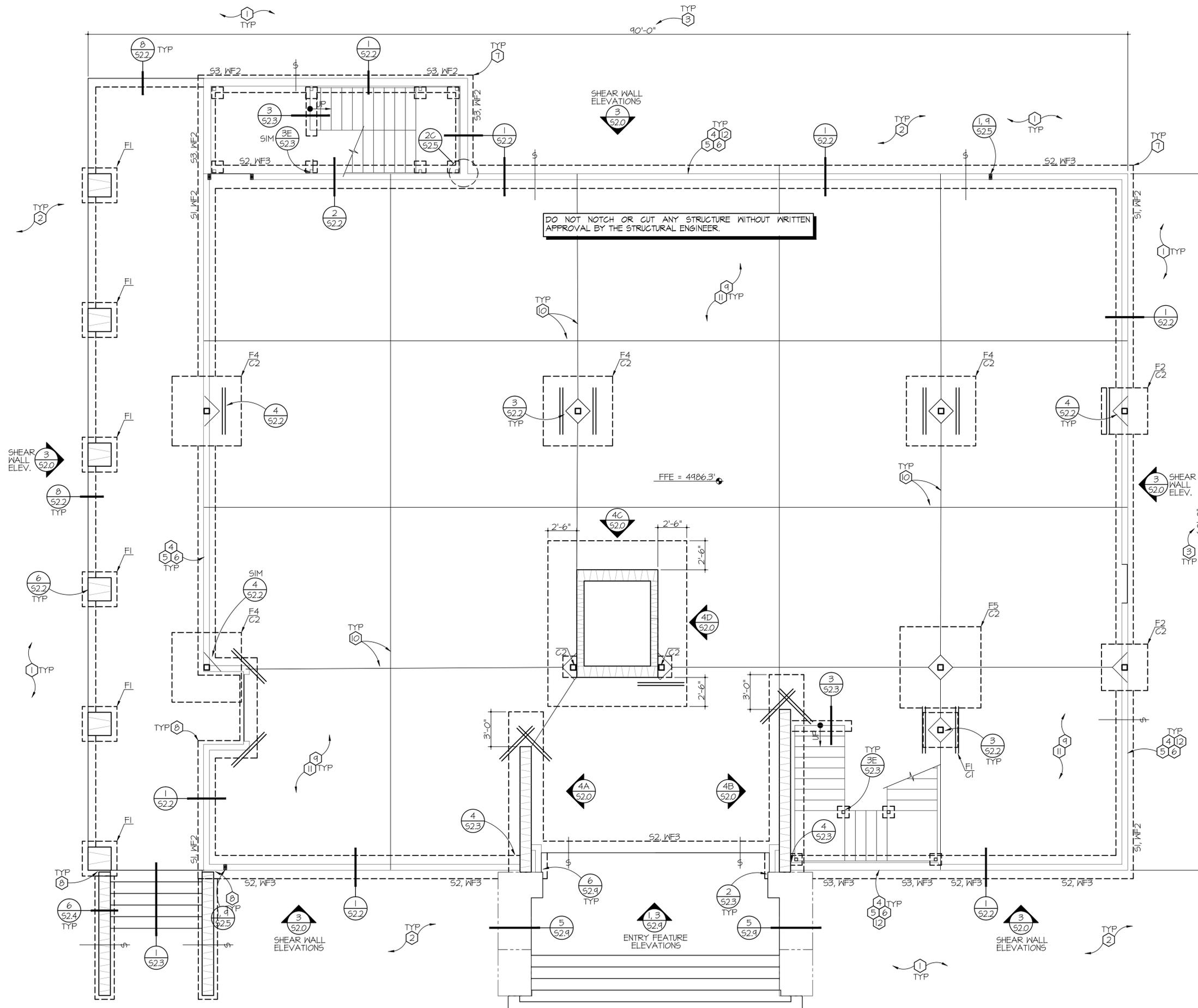


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FOUNDATION PLAN NOTES

- 1 SEE ARCHITECTURAL PLANS FOR LOCATIONS AND LIMITS OF SITE WORK, SIDEWALKS, CURBS, SITE WALLS, ETC. - TYP. REFER TO DETAIL 1/52.3 FOR DETAILS.
- 2 GRADE AT PERIMETER OF BUILDING SHALL SLOPE AWAY FROM BUILDING AND SHALL BE MAINTAINED AROUND FULL PERIMETER OF THE BUILDING FOR THE LIFE OF THE BUILDING PER DETAIL 1/52.1.
- 3 DIMENSIONS AND ELEVATIONS ARE EXTRACTED FROM THE ARCH. DWGS FOR THE CONTRACTOR'S CONVENIENCE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORD. DIMENSIONAL CONVENTION, DIMENSIONS AND ELEVATIONS W/ THE ARCH. DWGS. DIMENSIONS SHOWN ON THE STRUCTURAL DWGS SHALL BE LIMITS. WHERE DIMENSIONS CONFLICT WITH THE STRUCTURAL DRAWINGS THE CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER IN WRITING THRU THE ARCHITECT. THE STRUCTURAL ENGINEER ASSUMES NO RESPONSIBILITY FOR DIMENSIONS.
- 4 PROVIDE 1/2" PREFORMED JOINT FILLER AT ALL LOCATIONS WHERE EXTERIOR SLABS ABUT THE BUILDING UNO, ON THE ARCHITECTURAL DRAWINGS.
- 5 SEE STRUCTURAL NOTES, TYPICAL DETAILS AND EARTHWORK DETAIL 1/50.3 FOR EARTHWORK REQUIREMENTS.
- 6 STEP FOOTINGS AS REQ'D PER TYP DETAILS 1/52.1 AT MONO FOOTINGS AND 8/52.1 AT CMU WALL FOOTINGS TO MAINTAIN BOTTOM OF FOOTING AT 1'-6" MINIMUM BELOW FINISHED GRADE OR FINISHED FLOOR ELEVATION WHICHEVER IS LOWER, TO ACCOMMODATE VARYING GRADES AND AS REQUIRED TO ACCOMMODATE MECHANICAL, PLUMBING AND ELECTRICAL (MP&E).
- 7 ALL REINFORCING IN FOOTINGS, STEPMALLS, AND WALLS SHALL BE CONTINUOUS AROUND ALL CORNERS AND THRU INTERSECTIONS PER DETAIL 6/52.1 - TYPICAL.
- 8 1" CLEAR (MORTAR FREE) JOINT BETWEEN FINISHES OF WOOD STUCCOED WALLS AND CMU SITE WALLS, TYPICAL. AT CMU PIER PROVIDE JOINT PER ARCH.
- 9 5" CONCRETE SLAB OVER 4" A.B.C. - REINFORCE SLAB W/ #4 AT 24" LOCATED 1 1/2" CLEAR FROM TOP OF SLAB - TYPICAL. INSTALL OVER VAPOR BARRIER WHERE MOISTURE SENSITIVE FLOOR COVERINGS ARE USED PER DTL 14/52.1.
- 10 INDICATES SLAB CONTROL JOINT OR SLAB CONSTRUCTION JOINT PER DETAIL 12/52.1 - TYPICAL.
- 11 REINFORCE SLAB AT PENETRATIONS PER DETAIL 13/52.1.
- 12 REFER TO DETAIL 1/52.5 FOR LAYOUT OF EXTERIOR WOOD FRAMED WALLS, TYPICAL.

- LEGEND:
- F.- INDICATES SPREAD FOOTING PER SCHEDULE 52.0.
  - WF.- INDICATES WALL FOOTING PER SCHEDULE 52.0.
  - S.- INDICATES WOOD STUD WALL PER SCHEDULE 52.0.
  - C.- INDICATES COLUMN PER SCHEDULE 52.0.
  - SW.- INDICATES SHEARWALL PER SCHEDULE 3/52.3. INSTALL SHEATHING ON SIDE OF WALL W/ 'SKL' SYMBOL. LENGTH OF SHEARWALL CONTINUOUS AS SHOWN ON PLAN.
  - H.- INDICATES HOLD DOWN PER SCHEDULE 52.0. REF TO ARCH. FOR EXACT LOCATION OF JAMBS.
  - SC.- INDICATES SLAB CONTROL JOINTS PER DETAIL 12/52.1. SPACED AS SHOWN ON PLAN.
  - CMU.- INDICATES CMU WALL CONSTRUCTION PER DETAILS.
  - STEP.- INDICATES STEP(S) IN FOOTING PER 7/52.1 (8/52.1 AT CMU) TO MAINTAIN BOTTOM OF FOOTING AT 1'-6" MINIMUM BELOW FINISHED GRADE OR FINISHED FLOOR ELEVATION WHICHEVER IS LOWER AND TO ACCOMMODATE GRADES, MECHANICAL, PLUMBING AND ELECTRICAL (MP&E) AS REQUIRED.
  - REFER TO DEFINITIONS PER STRUCTURAL NOTES FOR ADDITIONAL DEFINITIONS.



FOUNDATION PLAN  
1/8"=1'-0"

STRUCTURAL SOLUTIONS, INC. "Solving Your Structural Engineering Needs"

5815 East Newberry Street - Tucson, Arizona 85711  
Office: 520.396.4669 - Cell: 520.390.9882 - jatty@structuralsolutionsinc.com



Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd  
Bisbee AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

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DRAWINGS ON THIS SHEET

L2 - FLR FRMG PLAN

SHEET

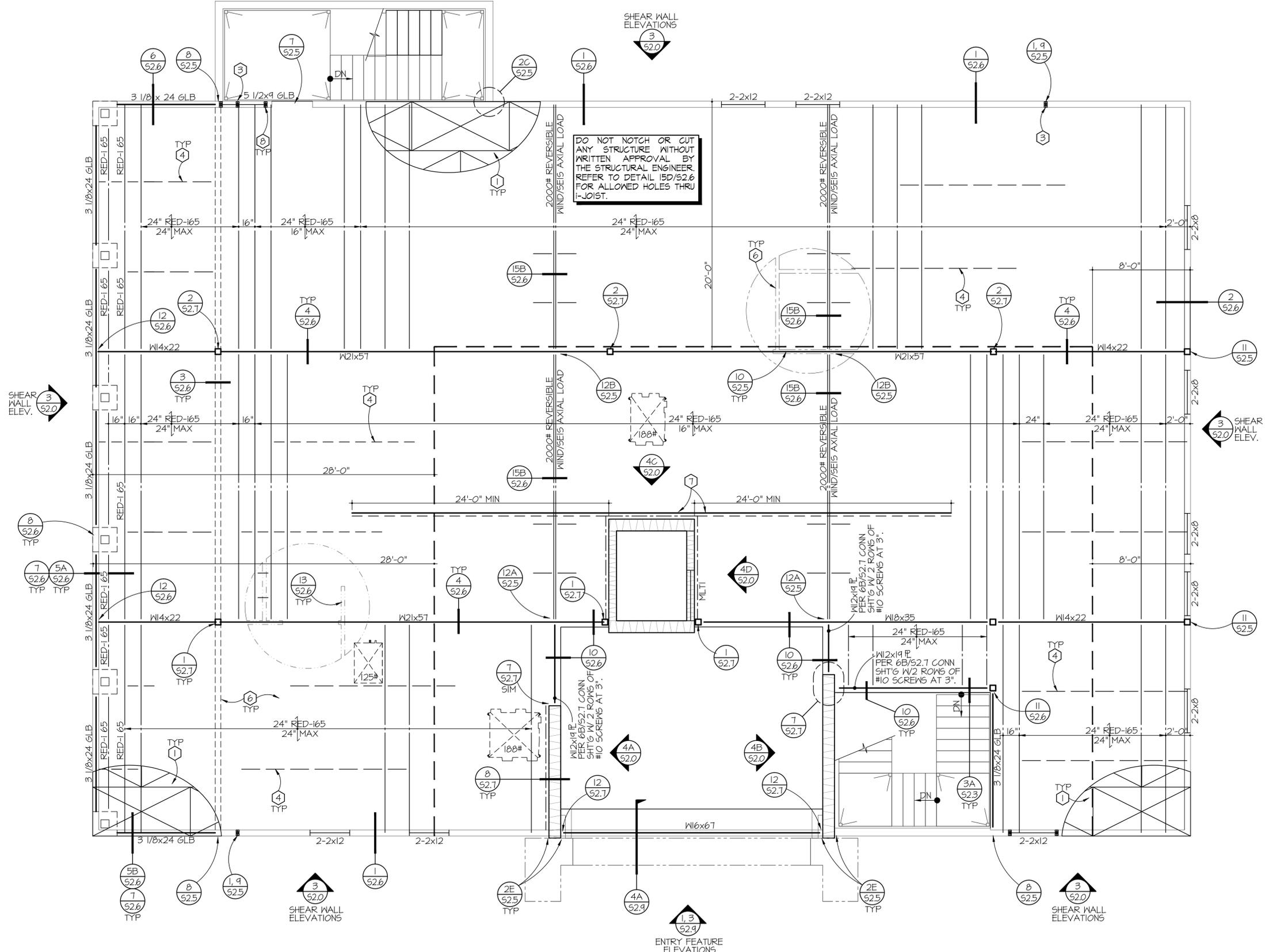
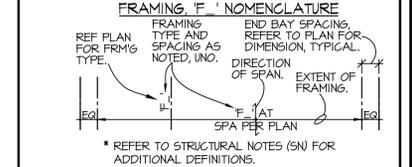
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L2 FLOOR FRAMING PLAN NOTES

- 1 FLOOR SHEATHING GLUED AND SCREWED, TYPICAL AT FLOORS. FOR LAYUP AND ATTACHMENT SEE DTL 3/52.5 AND STRUCTURAL NOTES.
- 2 DIMENSIONS AND ELEVATIONS ARE EXTRACTED FROM THE ARCH. DWGS AND SHOWN FOR LIMITATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE DIMENSIONAL CONVENTION, DIMENSIONS AND ELEVATIONS W/ THE ARCH. DWGS. DIMENSIONS SHOWN ON THE STRUCTURAL DWGS SHALL BE LIMITS, WHERE DIMENSIONS CONFLICT WITH THE STRUCTURAL DRAWINGS THE CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER IN WRITING THRU THE ARCHITECT. THE STRUCTURAL ENGINEER ASSUMES NO RESPONSIBILITY FOR DIMENSIONS.
- 3 DOUBLE STUDS TO MATCH WALL FRAMING BENEATH ALL ROOF GIRDER AND HIP GIRDER TRUSSES - TYPICAL THROUGHOUT. REFER TO 10/52.5 FOR DETAILS AT CONCENTRATED LOADS.
- 4 CONTINUOUS ROWS OF SIMPSON TENSION BRIDGING AT 1/3 SPAN POINTS.
- 5 SPLICE CONTINUOUS DOUBLE TOP PLATE PER DETAIL 1/52.5, TYP.
- 6 PROVIDE 1/2" CLEAR FROM FLOOR FRAMING TO TOP OF NON-BEARING PARTITION WALLS BELOW AND BRACE PER DETAIL 14/52.6.
- 7 2 ROWS OF C516 CONTINUOUS (DO NOT SPLICE) AS SHOWN. CONN TO 2x6 FLAT BLK/GLEDGER PER DETAIL 17B/52.6. INSTALL BENEATH OSB.
- 8 ADD TRIM STUDS WHERE GIRDER POST BEARS ON LINTEL.

LEGEND:  
RED-1 - WOOD I-JOIST AS SPECIFIED REF DETAILS AND STRUCTURAL NOTES (SN).  
GLB - INDICATES GLULAM BEAM AS SPECIFIED ON PLAN AND STRUCTURAL NOTES (SN).  
WLX - INDICATES WIDE FLANGE BEAM AS SPECIFIED ON PLAN AND STRUCTURAL NOTES (SN).  
MLT - INDICATES MASONRY LINTEL PER 4/52.4.  
- - - INDICATES NON BEARING PARTITIONS, ABOVE.  
- - - INDICATES NON BEARING PARTITIONS, BELOW.  
- - - INDICATES CMU CONSTRUCTION.  
- - - INDICATES BRIDGING LINES PER DETAIL 15E/52.6.  
- - - INDICATES CORRIDOR FLOOR LIVE LOAD = 80PSF.  
- - - INDICATES LOBBY FLOOR LIVE LOAD = 100PSF.  
- - - INDICATES TILE AREA DEAD LOAD = 50PSF.  
- - - INDICATES AREA OF FULLY BLOCKED SHEATHING.



DO NOT NOTCH OR CUT ANY STRUCTURE WITHOUT WRITTEN APPROVAL BY THE STRUCTURAL ENGINEER. REFER TO DETAIL 15D/52.6 FOR ALLOWED HOLES THRU I-JOIST.

L2 - FLOOR FRAMING PLAN



1/4"=1'-0"



SHEET



Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd  
Bisbee AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
Structural Solutions Inc.  
Tucson, AZ, 520-396-4669  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ, 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ, 520-881-8896  
LANDSCAPE ARCHITECT:

ROOF FRAMING PLAN NOTES

- 5/8" PLYWOOD ROOF SHEATHING - TYPICAL AT ROOFS, UNO. LAYUP AND ATTACHMENT SEE TYP - HORIZONTAL PANEL SHEATHING DETAIL AND STRUCTURAL NOTES.
- DIMENSIONS AND ELEVATIONS ARE EXTRACTED FROM THE ARCH. DWGS AND SHOWN FOR LIMITATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE DIMENSIONAL CONVENTION, DIMENSIONS AND ELEVATIONS W/ THE ARCH. DWGS. DIMENSIONS SHOWN ON THE STRUCTURAL DWGS SHALL BE LIMITS. WHERE DIMENSIONS CONFLICT WITH THE STRUCTURAL DRAWINGS THE CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER IN WRITING THRU THE ARCHITECT. THE STRUCTURAL ENGINEER ASSUMES NO RESPONSIBILITY FOR DIMENSIONS.
- DOUBLE STUDS TO MATCH WALL FRAMING BENEATH ALL GIRDER AND HIP GIRDER TRUSSES - TYPICAL THROUGHOUT. REF 9/52.4 FOR GIRDER CONNECTION.
- ROOF OF 2x4 BOTTOM CHORD BRIDGING AT 1/3 TRUSS SPAN POINTS AND AT 12'-0" OC. MAXIMUM. ALL BRIDGING AND BRACING SHALL BE DESIGNED AND PROVIDED BY THE TRUSS MFR, REF 14/52.8 FOR MINIMUM REQUIREMENTS.
- SPLICE CONTINUOUS DOUBLE TOP PLATE PER DETAIL 1/52.5 - TYPICAL.
- PROVIDE 1/2" CLEAR FROM BOTTOM OF ROOF FRAMING TO TOP OF NONBEARING WALLS AND BRACE NON-BEARING PARTITION WALLS PER DETAIL 12/52.8.
- PROVIDE CONTINUOUS BLOCKING AT ALL HIP AND RIDGES.
- Ⓜ - INDICATES STRAP HOLD DOWN PER DETAIL 5/52.2, SIMILAR
- Ⓜ - ADD TRIM STUDS WHERE GIRDER POST BEARS ON LINTEL.
- TRUSS MFR SHALL ACQUIRE THE FIRE SPRINKLER DRAWINGS AND DESIGN TRUSSES FOR CONCENTRATED LOADS FROM PIPING COORDINATING HANGING POINTS ETC FOR THE PIPING OVER 2" PER THE FOLLOWING SCHEDULE.

CONCENTRATED LOAD		
DIAMETER	WT/FT	REMARKS
2 1/2" SCH 40	8 LBS/FT	-
3" SCH 40	11 LBS/FT	-
4" SCH 40	17 LBS/FT	-
5" SCH 40	26 LBS/FT	-
6" SCH 40	32 LBS/FT	-

LEGEND:  
 'LT' - TRUSSES AS SPECIFIED REF 2/52.0 AND SN.  
 'GLB' - INDICATES GLULAM BEAM AS SPECIFIED ON PLAN AND PER STRUCTURAL NOTES (SN).  
 'MLX' - INDICATES WIDE FLANGE BEAM AS SPECIFIED ON PLAN AND PER STRUCTURAL NOTES (SN).  
 - - - INDICATES NON BEARING PARTITIONS, BELOW.  
 - - - INDICATES BRIDGING LINES PER DETAILS

FRAMING 'E' NOMENCLATURE  
 REF PLAN FOR FRMG TYPE  
 END BAY SPACING, REFER TO PLAN FOR DIMENSION, TYPICAL.  
 TYPE AND SPACING AS NOTED, UNO.  
 DIRECTION OF SPAN.  
 EXTENT OF FRAMING.  
 SPA PER PLAN

\* REFER TO STRUCTURAL NOTES (SN) FOR ADDITIONAL DEFINITIONS.



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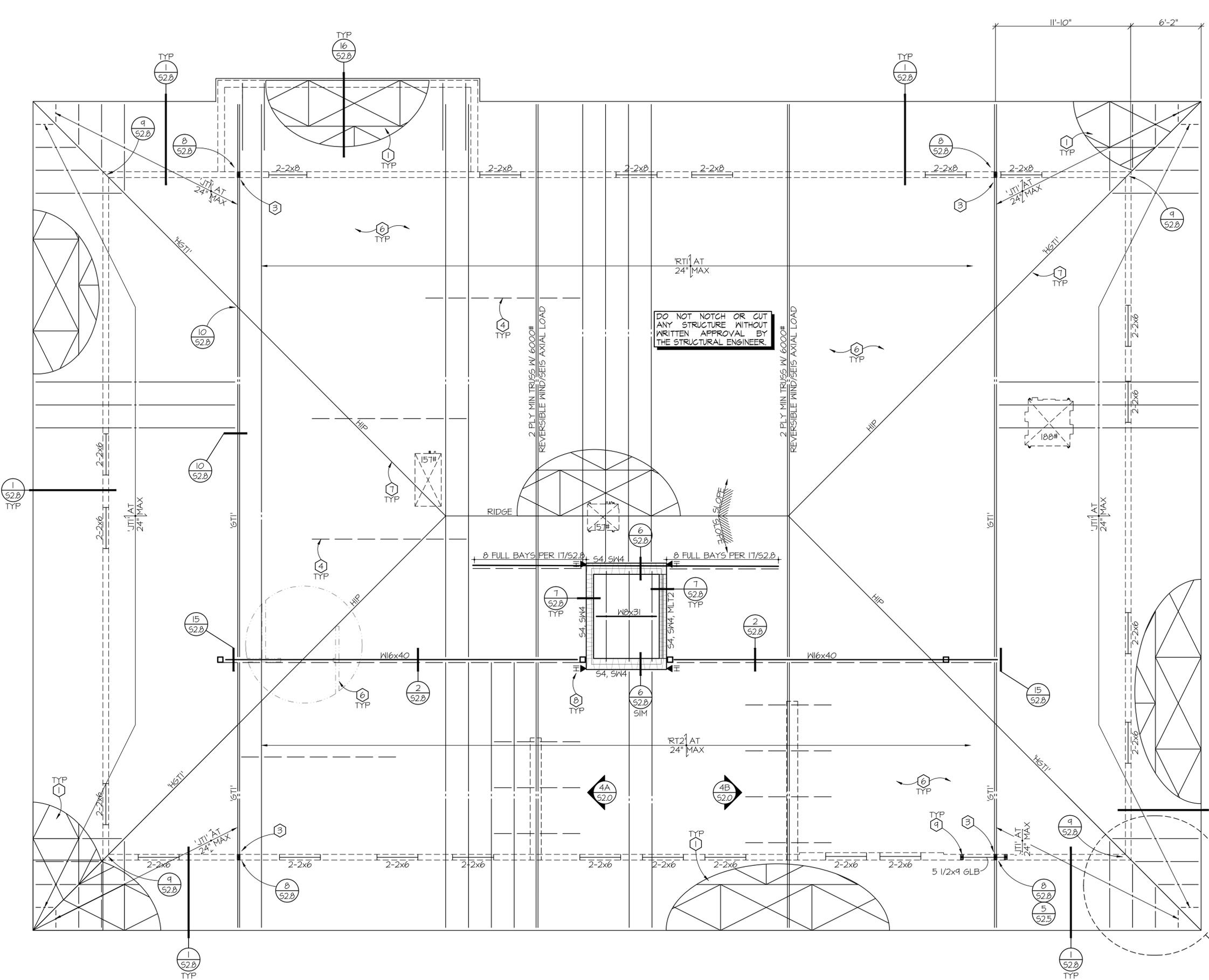
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DRAWINGS ON THIS SHEET  
ROOF FRAMING PLAN

SHEET

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DO NOT NOTCH OR CUT ANY STRUCTURE WITHOUT WRITTEN APPROVAL BY THE STRUCTURAL ENGINEER.

ROOF FRAMING PLAN  
1/4"=1'-0"



5815 East Hawthorne Street - Tucson, Arizona 85711  
Office: 520.396.4669 - Cell: 520.260.9882  
jqu@structuralsolutionsinc.com

### FOOTING SCHEDULE (F\_)

MARK	WIDTH, 'W'	THICKNESS, 'T'	REINFORCING
WF1	1'-0" x CONT.	SEE DTL5	2#5 CONT.
WF2	1'-6" x CONT.	SEE DTL5	2#5 CONT.
WF3	2'-0" x CONT.	SEE DTL5	3#5 CONT.
F1	3'-0" SQ.	12"	3#5 EACH WAY
F2	4'-0" SQ.	12"	4#5 EACH WAY
F3	5'-0" SQ.	12"	5#5 EACH WAY
F4	6'-0" SQ.	1'-2"	6#6 EACH WAY

### WD STUD WALL SCHEDULE (S\_)

MARK	WALL STUDS	SPACING	REMARKS
S1	2x6 DF#2	24" OC	REF TYP DTL5
S2	2-2x6 DF#2	24" OC	REF TYP DTL5
S3	2-2x8 DF SEL STR	24" OC	REF TYP DTL5
S4	2x6 DF#2	16" OC	REF TYP DTL5

### COLUMN (C\_) SCHEDULE

MARK	TYPE	BASE CONNECTION	REMARKS
C1	H55 5 1/2x5 1/2x1/4	REF 3/52.2	-
C2	H55 5 1/2x5 1/2x3/8	REF 3,4/52.2	-

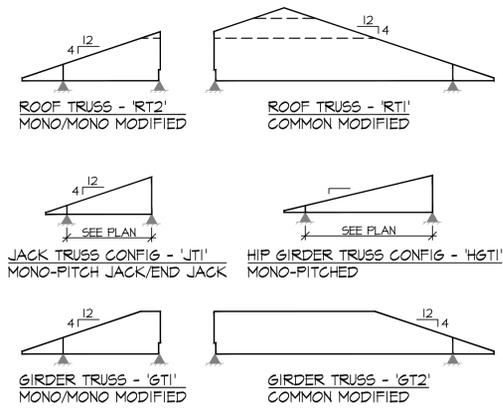
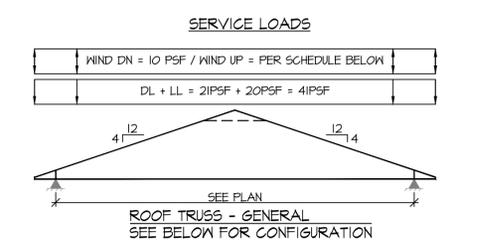
### HOLDOWN SCHEDULE (H\_)

MARK	TYPE	CONNECTIONS	DETAIL REF
H1	1.5THD8'	STRAP TIE CONN TO DBL 2x AT SWL END W/ 20-16d SINKERS	5/52.2
H2	2-CS16'	2-CS16 PER DETAIL	9/52.5

**NOTES:**  
 1. ALL MANUFACTURED HOLDOWNS SHALL BE BY THE SIMPSON STRONGTIE COMPANY. THE INSTALLATION SHALL BE IN STRICT CONFORMANCE WITH THE MANUFACTURER'S REQUIREMENTS.  
 2. ALL HOLDOWNS SHALL BE CONNECTED TO DBL STUDS MIN AT THE SHEARWALL ENDS W/THE MAX SIZE AND NUMBER OF CONNECTORS PER THE CURRENT SIMPSON CATALOG.

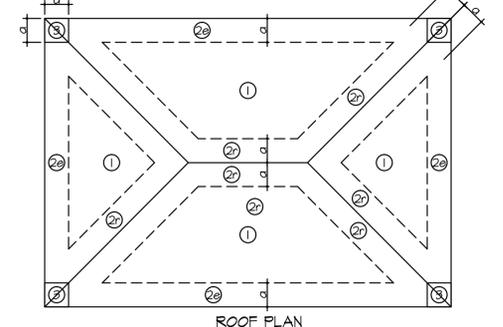
### TRUSS DIAGRAMS/PROFILE:

- THE PURPOSE OF THIS GRAPHIC DIAGRAM IS TO DEFINE MINIMUM LOADING REQUIREMENTS AND BASIC TRUSS CONFIGURATIONS. THE TRUSS FABRICATOR SHALL RETAIN A FULL SET OF THE PERMIT DRAWINGS AND SHALL COORDINATE ALL TRUSS DIMENSIONS, IE LENGTHS, SLOPES, ETC WITH THE ARCHITECTURAL DRAWINGS. ADDITIONALLY, THE FABRICATOR SHALL COORDINATE ALL END CONDITIONS, SPECIAL LOADS, ETC, WITH THE STRUCTURAL DRAWINGS/DETAILS.
- MINIMUM REQUIREMENTS: CHORDS FOR TRUSSES AND GIRDERS SHALL BE PER 2x6 MINIMUM WITH SPECIFIC GRAVITY OF 0.50 MIN. . MAXIMUM TRUSS SPACING SHALL BE 24" OC MAX. ADD TRUSSES AS REQUIRED TO ACCOMMODATE THIS REQUIREMENT.
- 'RT\_' - INDICATES ROOF TRUSS PER PLAN.
- 'JT\_' - INDICATES JACK TRUSS OR END JACK TRUSS PER PLAN.
- 'GT\_' - INDICATES ROOF GIRDER TRUSS WITH MINIMUM 3-PLYS OR AS OTHERWISE INDICATED OR NEEDED PER MANUFACTURER AND WITH 2x6 BOTTOM CHORD PER PLAN.
- 'HG\_' - INDICATES HIP GIRDER TRUSS PER .
- ▲ - INDICATES TRUSS BEARING. ALL TRUSSES ARE 2 POINT BEARING.
- END CONDITIONS AS OCCUR, REFER TO DETAILS.
- REFER TO STRUCTURAL NOTES FOR DEFLECTION CRITERIA, ADDITIONAL DESIGN LOADS AND OTHER DESIGN REQUIREMENTS.
- DESIGN ALL ROOF TRUSSES FOR AN ADDITIONAL 250# CONCENTRATED DEAD LOAD LOCATED ALONG SPAN TO PRODUCE THE MAX DESIGN STRESS FOR EA TRUSS EA LOAD CASE AS APPLIES.
- BRACING AN BRIDGING PER MFR WITH MINIMUM PER DETAIL 14/52.8.
- PROVIDE AUXILIARY WEB MEMBER AT SPECIAL LOADS WHERE OCCUR PER 11/52.8.
- MINIMUM DESIGN SERVICE LOADS - REF ALSO TO NOTES 5.02.



#### UPLIFT LOADS

MARK	UPLIFT-INTERIOR	UPLIFT-OVERHANG
①	16.5 PSF	N/A
②	25.1 PSF	N/A
③	N/A	27.9 PSF
④	N/A	30.1 PSF



### TRUSS CONFIGURATION/LOADING

### KEYNOTES - SW\_ (FTAO)

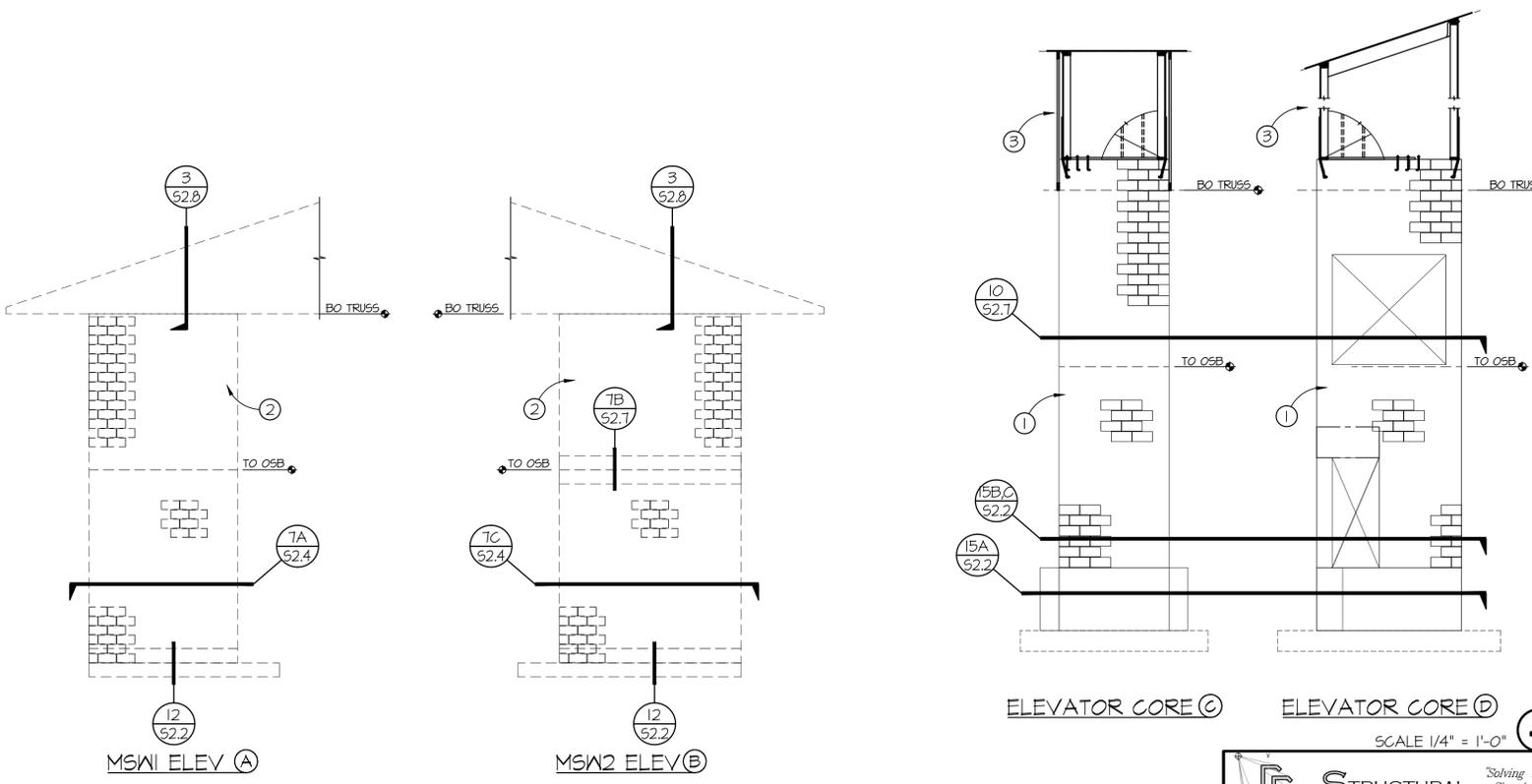
- EXTERIOR FACE OF ALL EXTERIOR WALLS SHALL BE CONTINUOUSLY SHEATHED. SHEARWALL SHEATHING AND CONNECTIONS PER SHEARWALL SCHEDULE AS SPECIFIED ON ELEVATION. REFERENCE SHEARWALL SCHEDULE 3/52.5.
- CONT CS16 STRAP INSTALLED PER 4/52.5. DO NOT SPLICE STRAP. INSTALL STRAP OVER 2x4 FLAT BLK'G BETWEEN SILL/HEADERS FULL LENGTH OF SWL AS SHOWN.
- ▲ - INDICATES STRAP HOLD DOWN PER DETAIL 5/52.2 AND FLR TO FLR TIE PER DETAIL 9/52.5 AS OCCUR.
- OPENINGS PER PLAN REFER TO ARCH'L DWGS FOR EXACT DIMENSIONS.
- WHERE CONFIGURATIONS VARY FROM SHOWN, NOTIFY THE STRUCTURAL ENGINEER IN WRITING THRU THE ARCHITECT.



### WOOD PANEL SHEARWALL ELEVS, SW1

### KEYNOTES - MASONRY CONSTRUCTION

- ELEVATOR CORE PER PLAN AND DETAILS.
- 12" CMU SHEARWALLS LOCATED NEAR BUILDING ENTRANCE
- REF TO ROOF FRAMING PLAN.



### SCHEDULES

### TYP - MASONRY ELEMENTS



Albert N. Hopper, Jr.  
 ARCHITECT

1008 West Blvd  
 Bisbee AZ 85603  
 Phone: 520-249-6691  
 anhop45@gmail.com

CONSULTANTS  
 CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
 Structural Solutions Inc.  
 Tucson, AZ; 520-346-4669  
 MECHANICAL ENGINEER:  
 PH Mechanical Engineering  
 Tucson, AZ; 520-731-2060  
 ELECTRICAL ENGINEER:  
 EDG West Electrical Engineering  
 Tucson, AZ; 520-881-8846  
 LANDSCAPE ARCHITECT:



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 SCHEDULES/ELEVS

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Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd  
Bisbee AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

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Tucson, AZ; 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ; 520-881-8846  
LANDSCAPE ARCHITECT:



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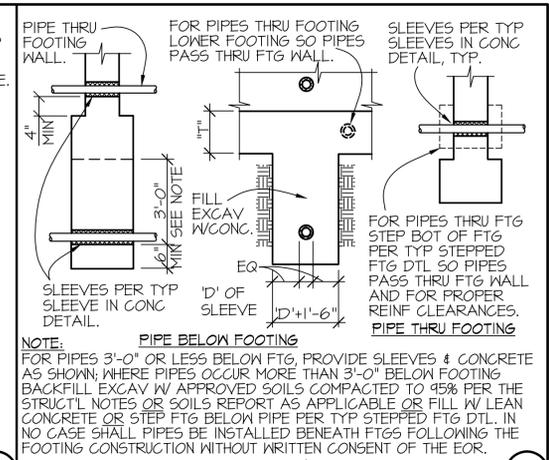
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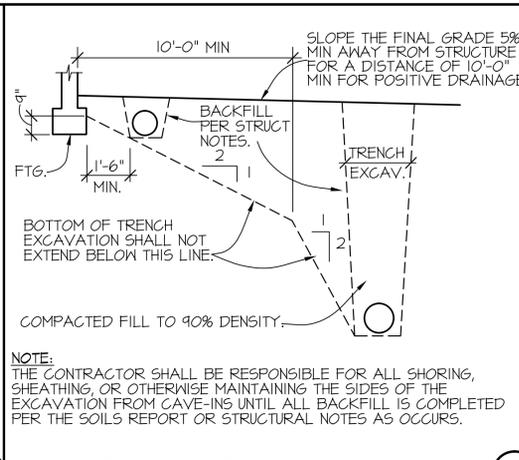
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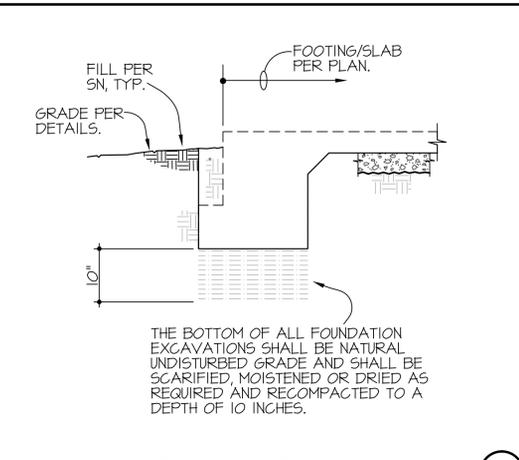
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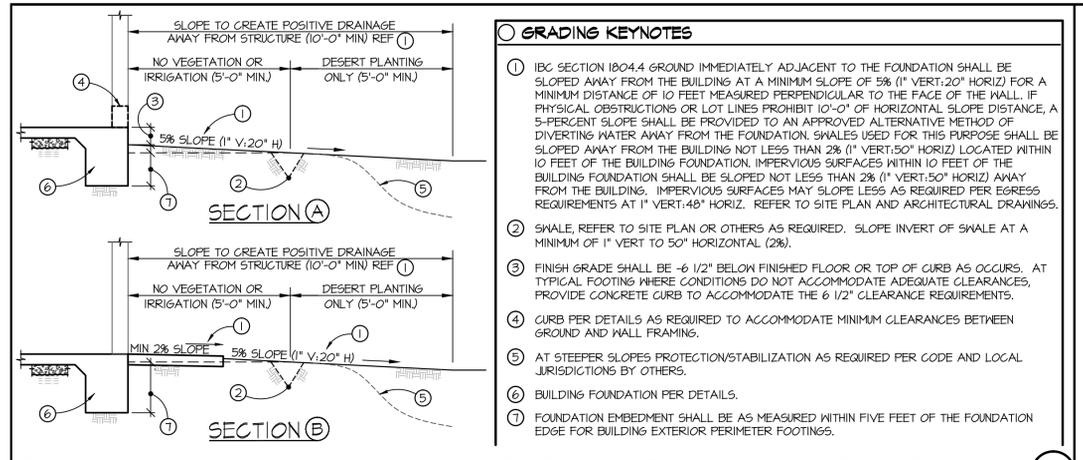
TYP - PIPES BELOW/THRU FTGS 4



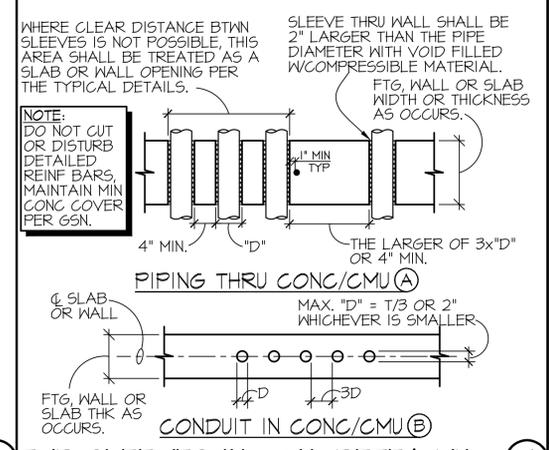
TYP - EXCAVATION ADJ TO FTG 3



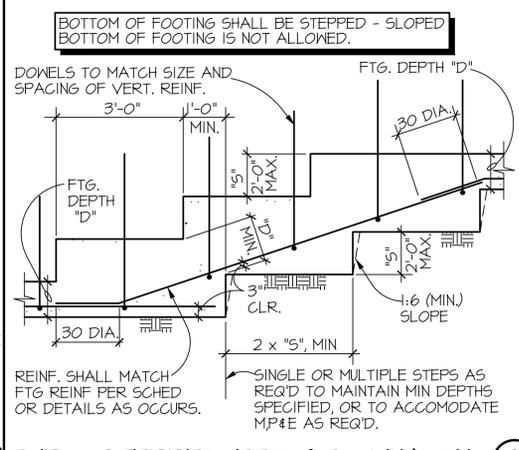
TYP - FOOTING PREPARATION 2



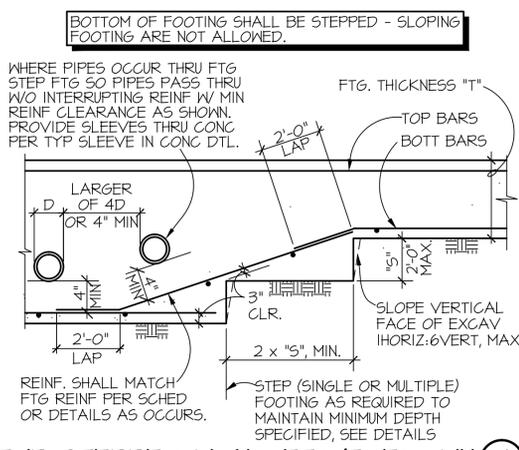
TYP - MINIMUM GRADING REQUIREMENTS AT BUILDING PERIMETER 1



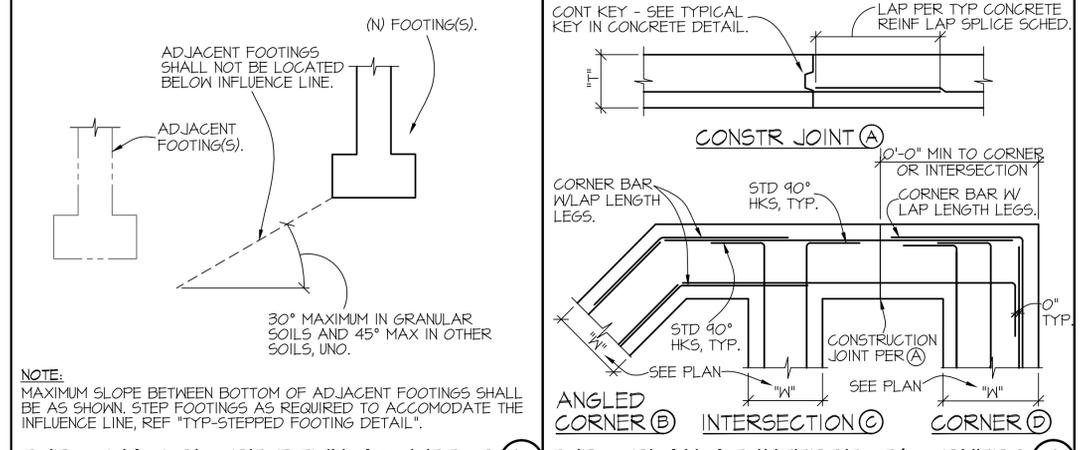
TYP-SLEEVES IN CONCRETE/CMU 9



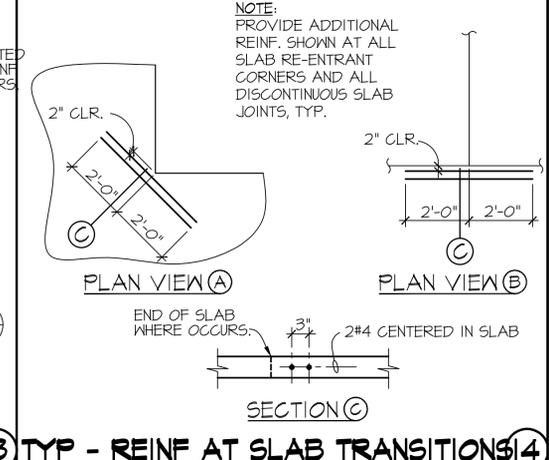
TYP - STEPPED FTG AT CMU/CONC 8



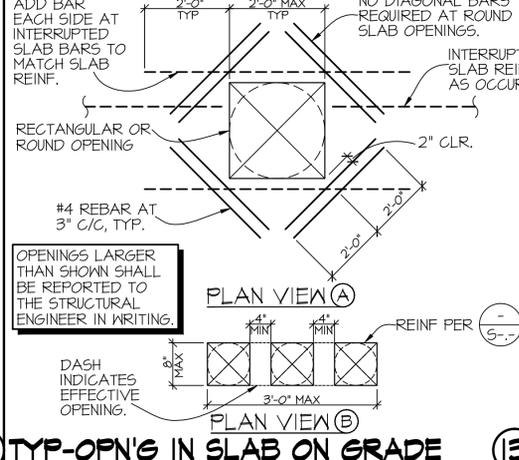
TYP-STEPPED MONO FTG/TOEDOWN 7



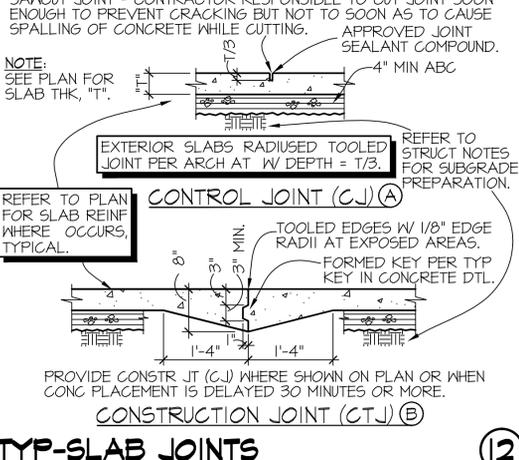
TYP - PLAN AT INTERSECT/CORNERS 6



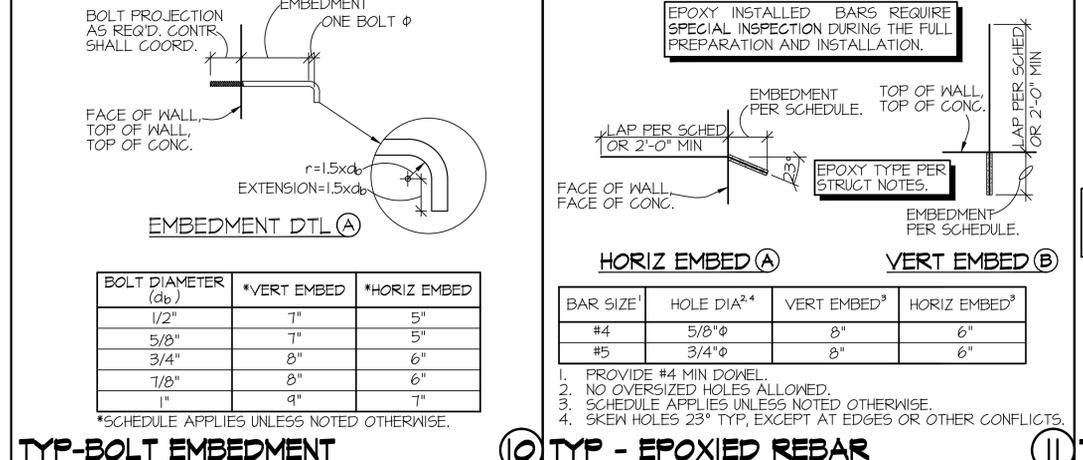
TYP - REINF AT SLAB TRANSITIONS 14



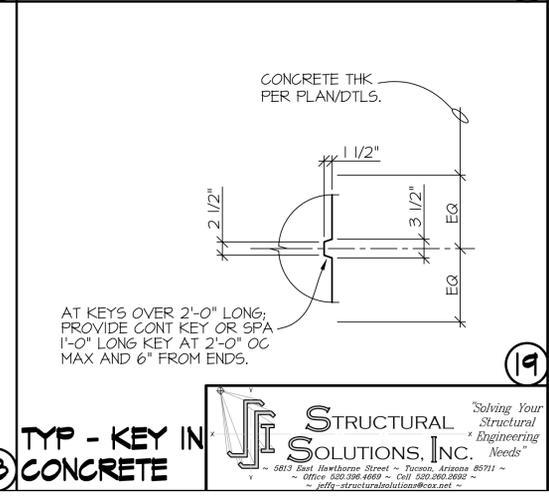
TYP - OPN'G IN SLAB ON GRADE 13



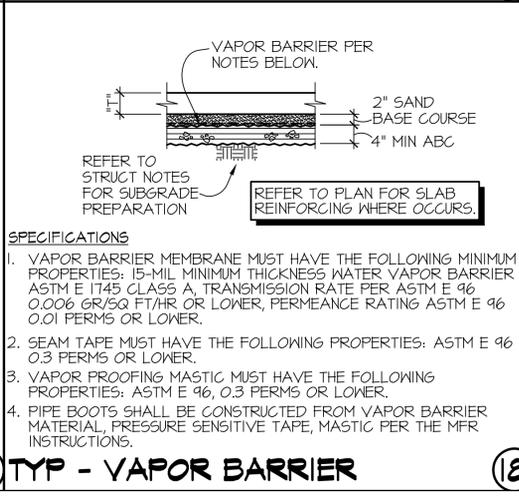
TYP-SLAB JOINTS 12



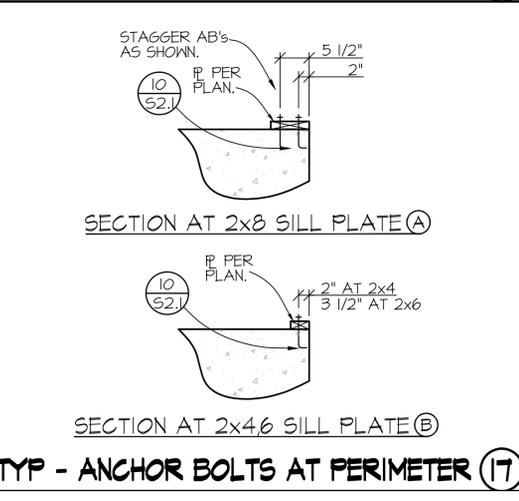
TYP-EPOXIED REBAR 11



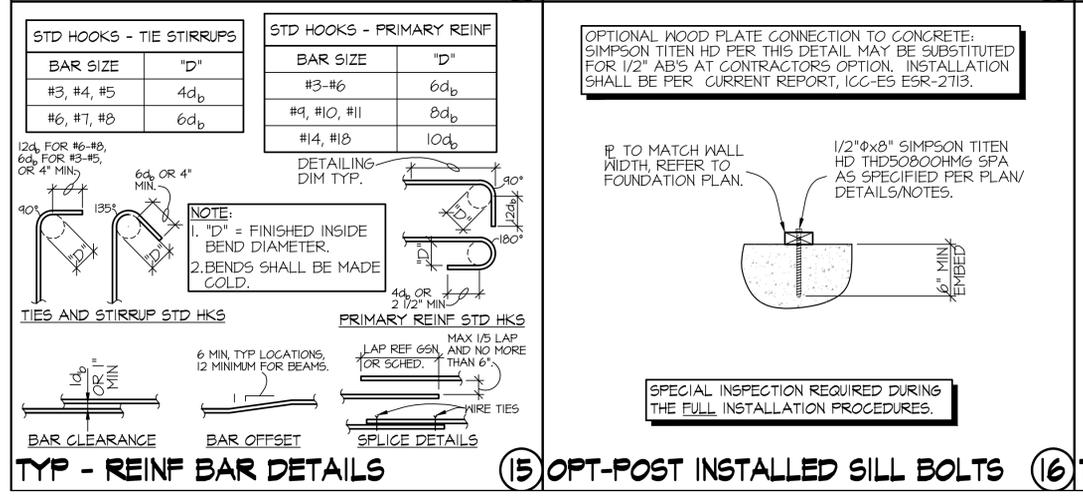
TYP - KEY IN CONCRETE 19



TYP - VAPOR BARRIER 17



TYP - ANCHOR BOLTS AT PERIMETER 16



OPT-POST INSTALLED SILL BOLTS 15

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Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd  
Bisbee AZ 85603  
Phone: 520-249-6691  
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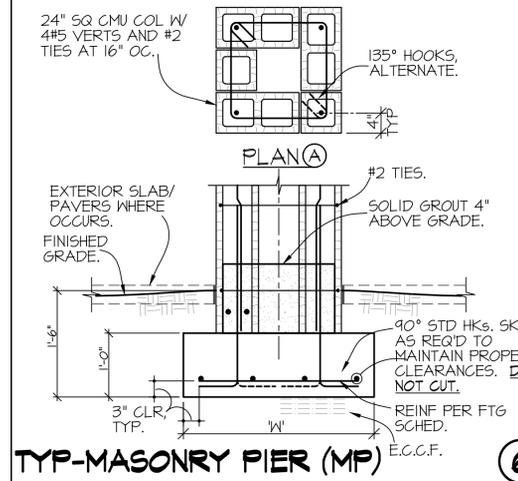
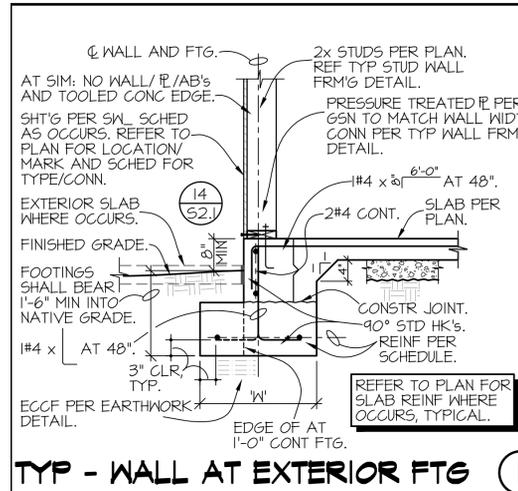
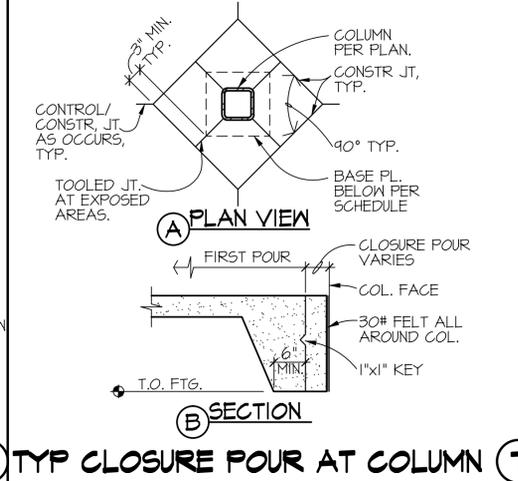
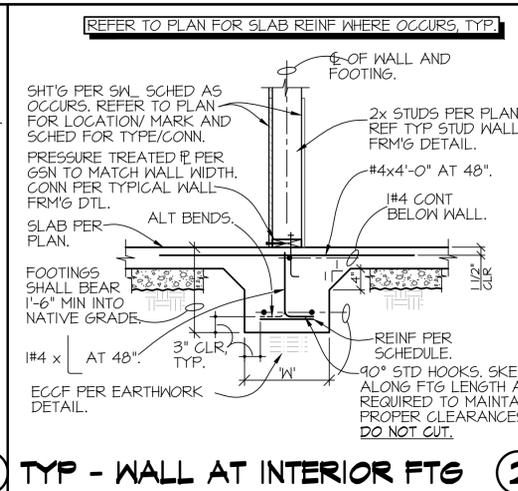
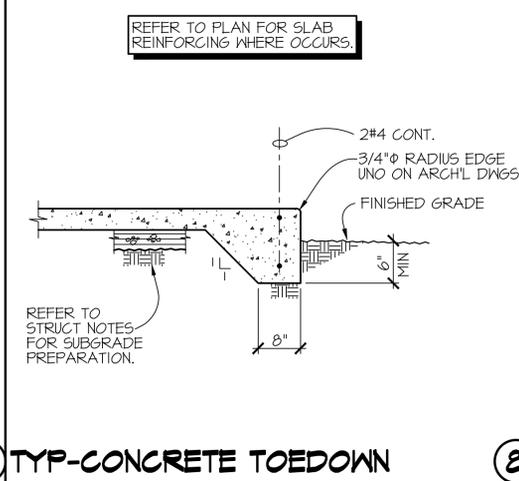
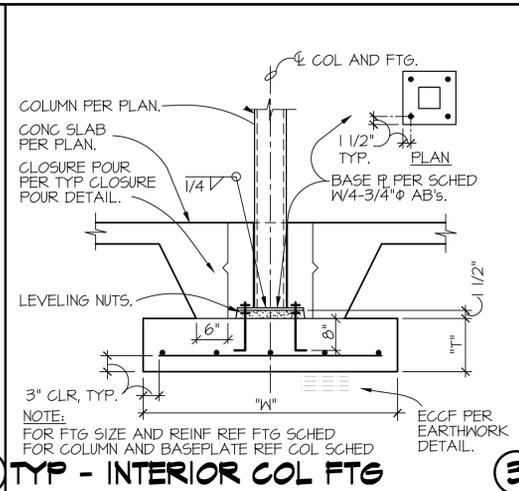
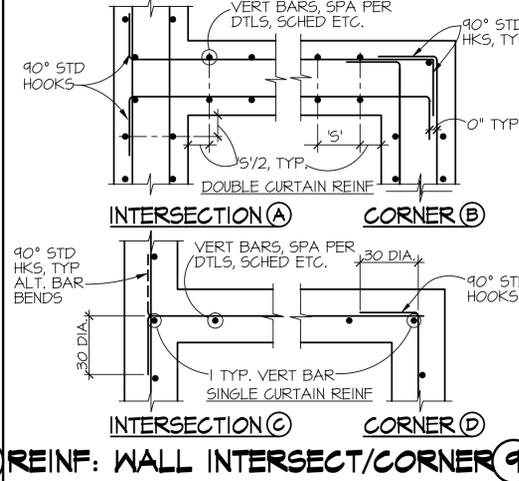
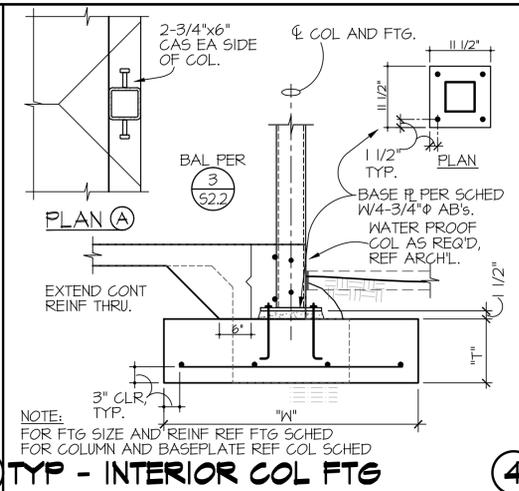
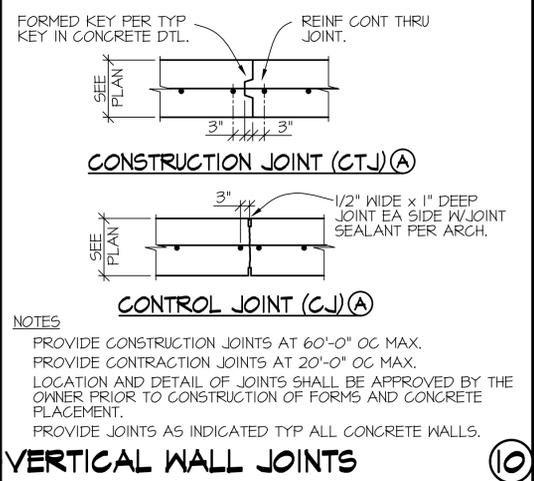
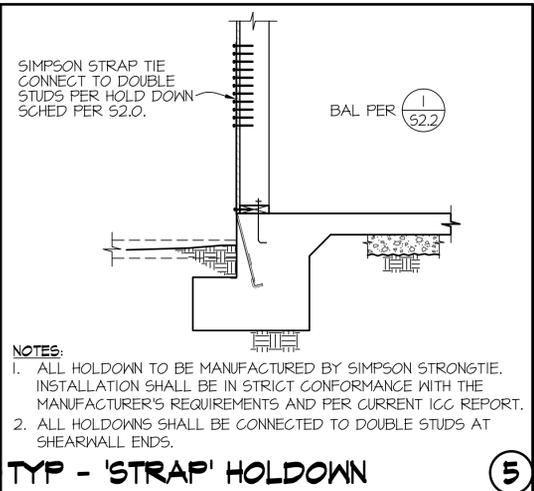
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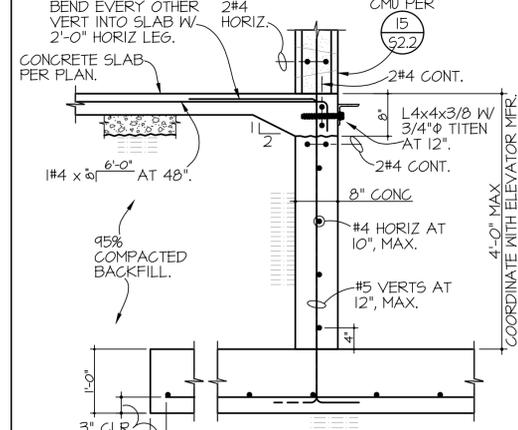
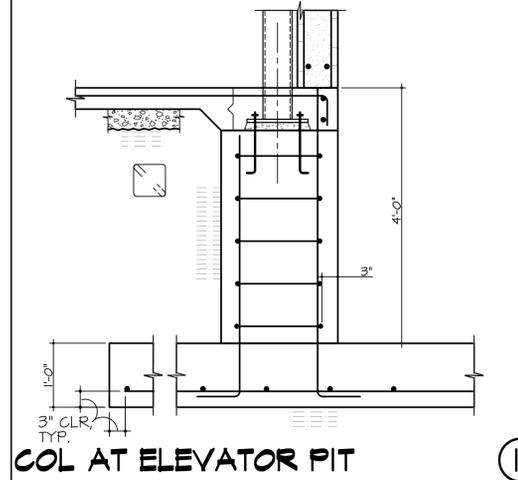
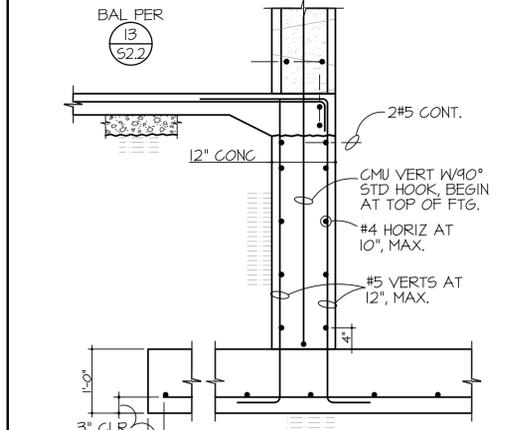
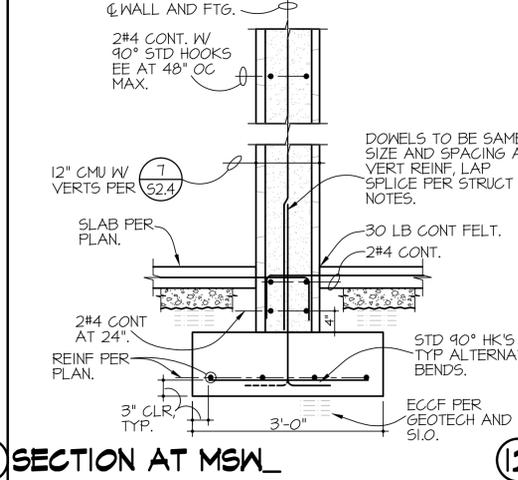
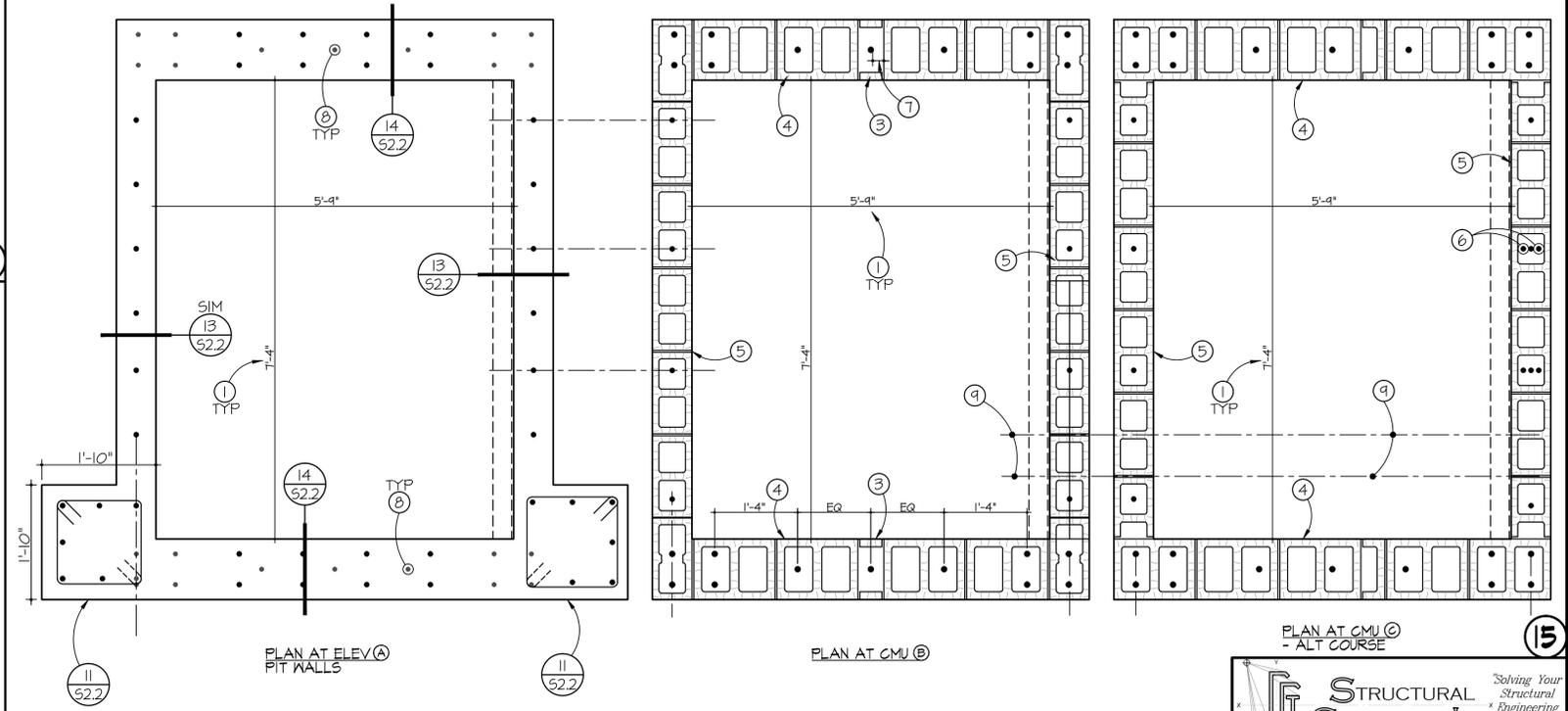
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- KEYNOTES - ELEVATOR PIT/ELEVATOR CORE
1 COORDINATE EXACT INTERIOR DIMENSIONS OF ELEVATOR CORE W/ THE ARCHITECT AND VERIFY W/ THE ELEVATOR SUPPLIER/MFR. WHERE DIMENSIONS VARY MORE THAN 4" FROM SHOWN NOTIFY THE STRUCTURAL ENGINEER IN WRITING. AT NON-MODULAR MASONRY PROVIDE WET-SAWN UNITS CONFIGURED WITH ALTERNATING COURSES AND SOAPS AS SHOWN AND AS REQUIRED. INSURE CELLS AND REINFORCING CONTINUITY AND MINIMUM CLEARANCES.
2 PROVIDE SOAPS WHERE NON-MODULAR DIMENSIONS AFFECT REINFORCED CELLS.
3 12" SOLID GROUTED CMU W/ #5 VERTS AT 16" OC AND #46 AT ENDS AS SHOWN AND 2#4s HORIZONTAL AT 48" OC TYP.
4 8" SOLID GROUTED CMU W/ #5 VERTS AT 24" OC AND #46 AT ENDS AS SHOWN AND 2#4s HORIZONTAL AT 48" OC TYP.
5 2#5 AT JAMB OF OPENING.
6 1" MINIMUM CLEARANCE BETWEEN CMU AND VERT, TYPICAL.
7 CMU VERT W/ 90° STD HOOK, BEGIN AT TOP OF FTG.
8 ALIGN WEBS AT ALTERNATING COURSES.





Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd  
Bisbee AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

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Tucson, AZ; 520-731-2060  
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LANDSCAPE ARCHITECT:



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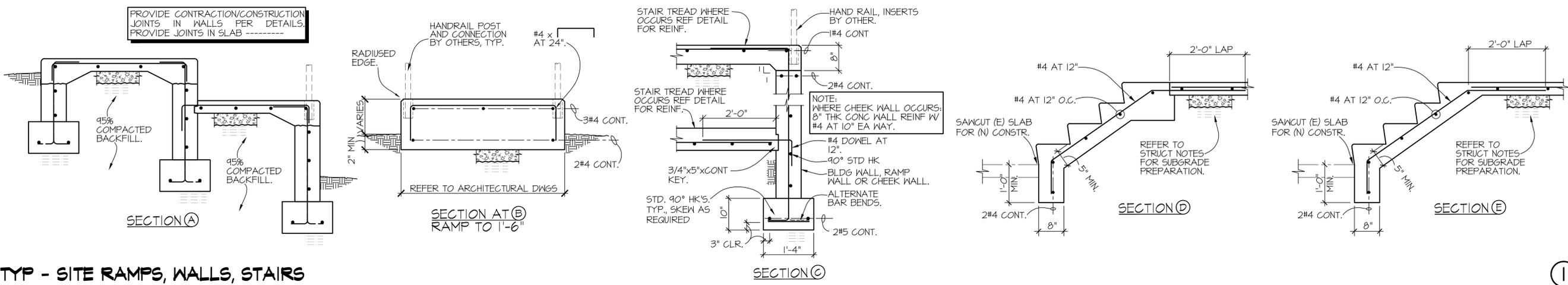
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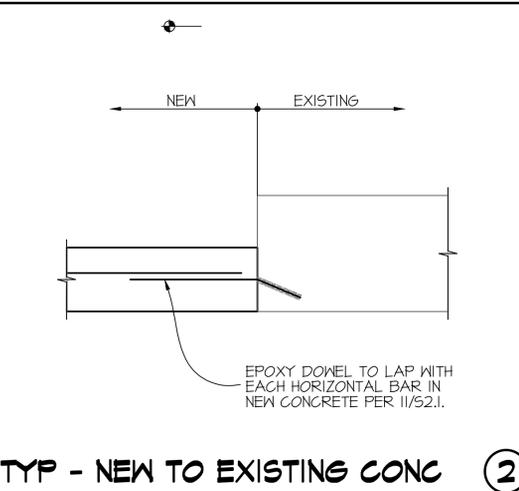
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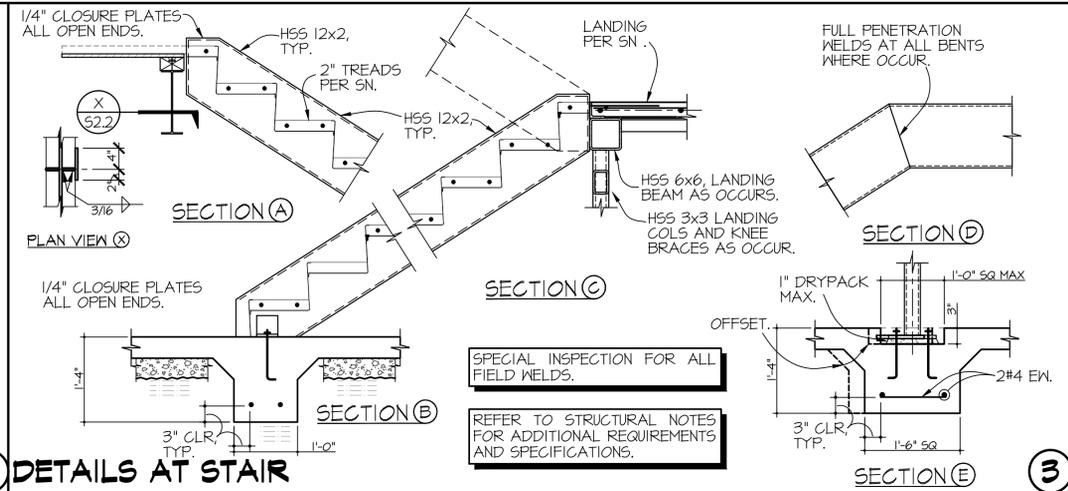
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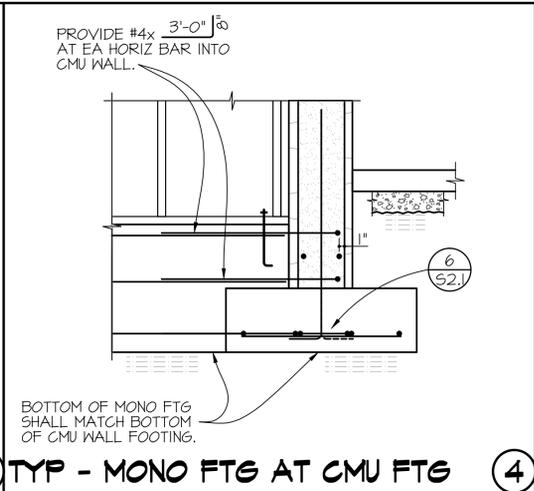
TYP - SITE RAMPS, WALLS, STAIRS



TYP - NEW TO EXISTING CONC

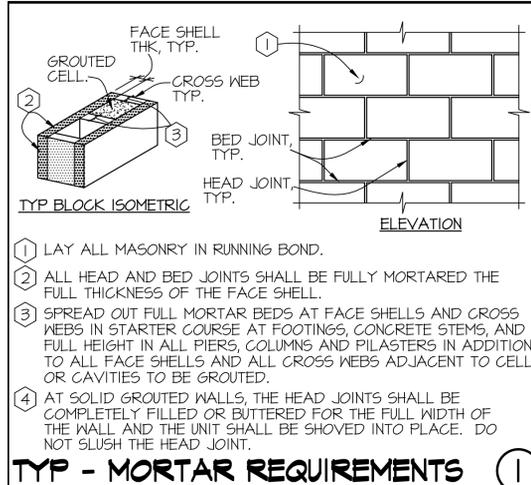


DETAILS AT STAIR



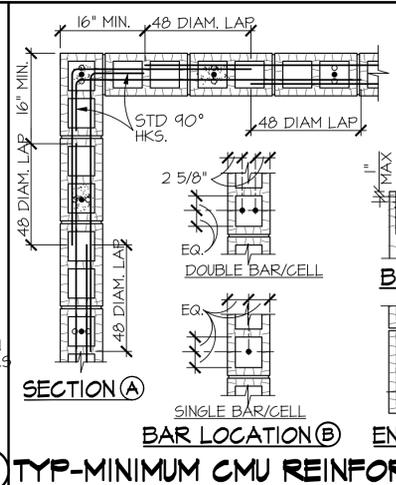
TYP - MONO FTG AT CMU FTG





**TYP - MORTAR REQUIREMENTS**

- LAY ALL MASONRY IN RUNNING BOND.
- ALL HEAD AND BED JOINTS SHALL BE FULLY MORTARED THE FULL THICKNESS OF THE FACE SHELL.
- SPREAD OUT FULL MORTAR BEDS AT FACE SHELLS AND CROSS WEBS IN STARTER COURSE AT FOOTINGS, CONCRETE STEMS, AND FULL HEIGHT IN ALL PIERS, COLUMNS AND PILASTERS IN ADDITION TO ALL FACE SHELLS AND ALL CROSS WEBS ADJACENT TO CELLS OR CAVITIES TO BE GROUTED.
- AT SOLID GROUTED WALLS, THE HEAD JOINTS SHALL BE COMPLETELY FILLED OR BUTTERED FOR THE FULL WIDTH OF THE WALL AND THE UNIT SHALL BE SHOVED INTO PLACE. DO NOT SLUSH THE HEAD JOINT.



**TYP-MINIMUM CMU REINFORCING DETAILS**

**NOTES:**

- WHERE VERT. OR HORIZ. BARS ARE SHOWN IN THIS DETAIL, PROVIDE BARS OF SAME SIZE AND DETAIL AS SHOWN ON DRAWINGS FOR WALLS. WHERE SIZE IS NOT SHOWN, USE AT LEAST #5 VERTS. AND #4 HORIZ.
- (\*) INDICATES LOCATION OF VERT. BARS PLACED AT CENTERLINE OF WALL. (1 BAR PER CELL). (6) INDICATES LOCATION OF VERT BARS PLACED AT EACH FACE OF WALL. (2 BARS PER CELL) SEE DRAWINGS FOR VERTICAL REINFORCING.

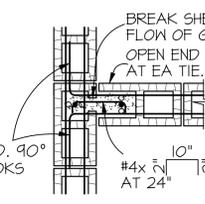
**BOND BEAM**

CONT REINF IN 8" DEEP GROUTED BOND BEAM, REF PER WALL SCHED.

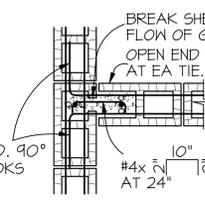
REINF WALL ENDS W/VERTS PER DTL/SCHED OR DTL'S AT SPECIAL REINF AT LINTELS.



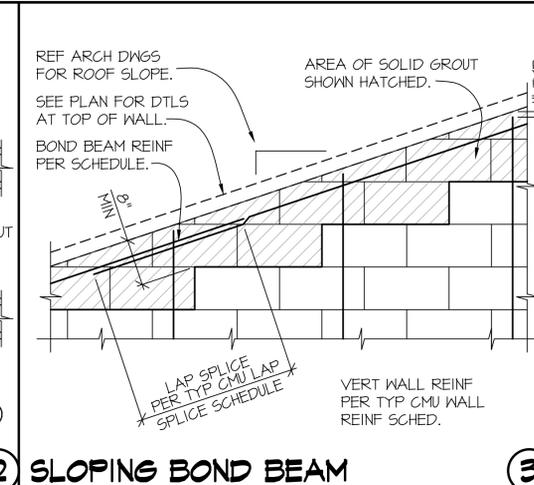
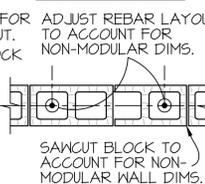
**END OF WALL**



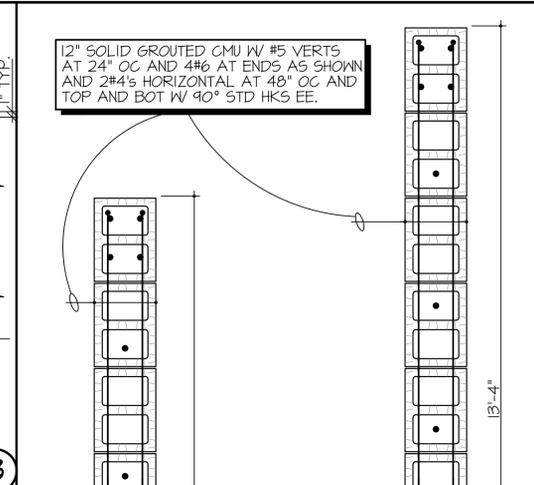
**INTERSECTION**



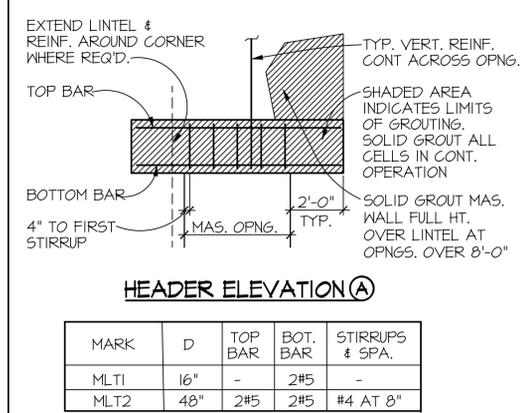
**NON-MODULAR WALL LENGTHS**



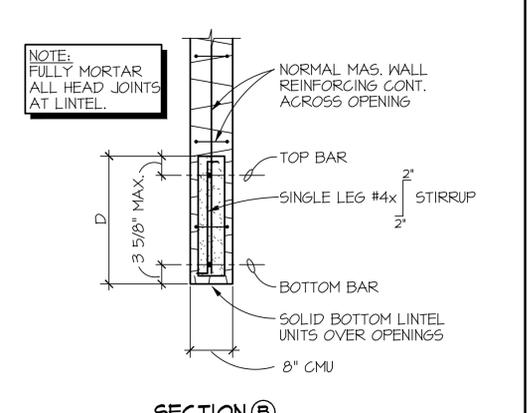
**SLOPING BOND BEAM**



**PLAN AT MSW**



**TYP - MASONRY LINTEL (MLT\_) DETAILS**



**TYP - TITEN BOLT**

CONNECTOR/FIXTURE PER DETAILS. EMBEDMENT PER SCHEDULE.

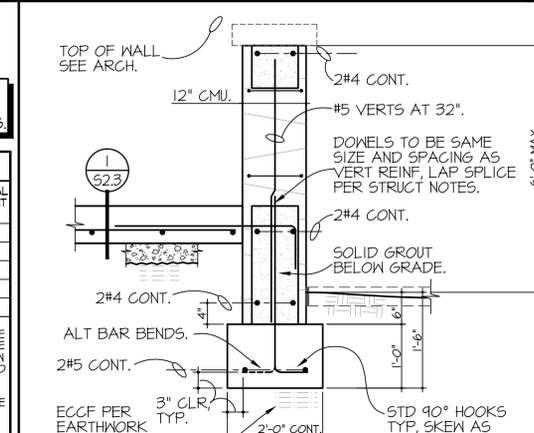
OVER-DRILL PER SCHEDULE. SPECIAL INSPECTION REQUIRED DURING THE FULL PERPARATION AND INSTALLATION PROCEDURES.

TITEN HD DIAMETER	BIT AND FINISHED HOLE DIAMETER		VERTICAL EMBEDMENT DEPTH	HORIZONTAL EMBEDMENT DEPTH
	CARBIDE BIT DIAMETER	MIN (IN)		
1/4"	1/4"	0.260	0.268	1/8"
3/8"	3/8"	0.340	0.348	1/4"
1/2"	1/2"	0.520	0.530	1/2"
5/8"	5/8"	0.650	0.660	1/2"
3/4"	3/4"	0.775	0.787	1/2"

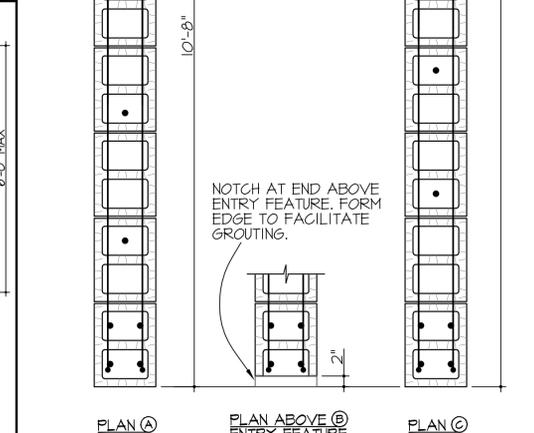
**NOTES:**

- DRILLED HOLE IN THE BASE MATERIAL WITH A CARBIDE DRILL BIT WITH THE SAME DIAMETER AS THE NOMINAL DIAMETER OF THE ANCHOR TO BE INSTALLED. DRILL THE HOLE TO SPECIFIED EMBEDMENT DEPTH PLUS MINIMUM OVER-DRILL (SEE TABLE ABOVE) TO ALLOW THE THREAD TAPPING JUST TO SETTLE. BLOW HOLE CLEAN WITH COMPRESSED AIR AND TUBE INSERTED TO THE BOTTOM OF THE HOLE.
- TIGHTEN THE ANCHOR TO THE BASE MATERIAL UNTIL THE HEX WASHER HEAD CONTACTS THE CONNECTED FIXTURE.
- EMBEDMENT SHALL APPLY UNLESS NOTED OTHERWISE, REFER TO DETAILS.

**TYP - TITEN BOLT**



**TYP - 12" CMU SITE WALL**



**PLAN AT MSW**

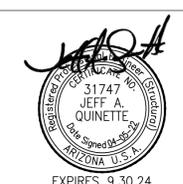


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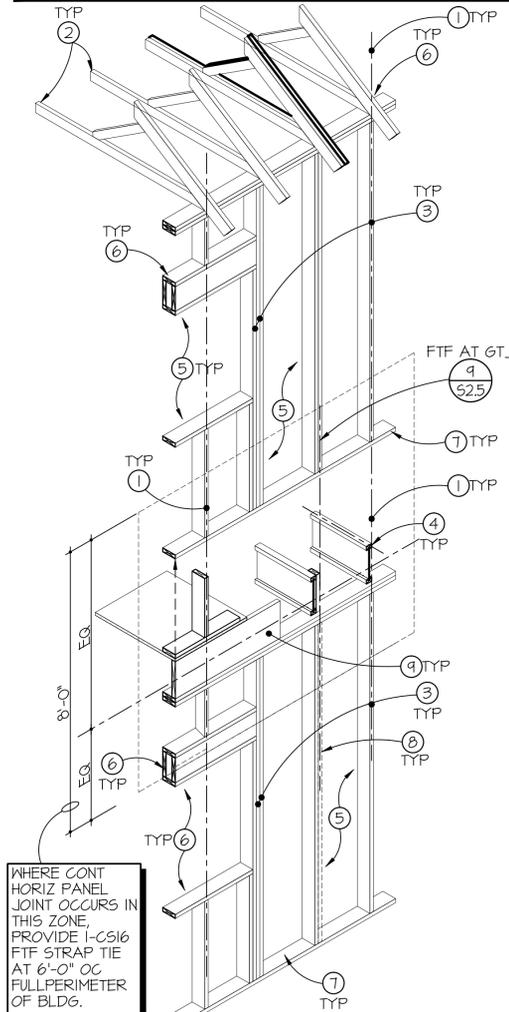


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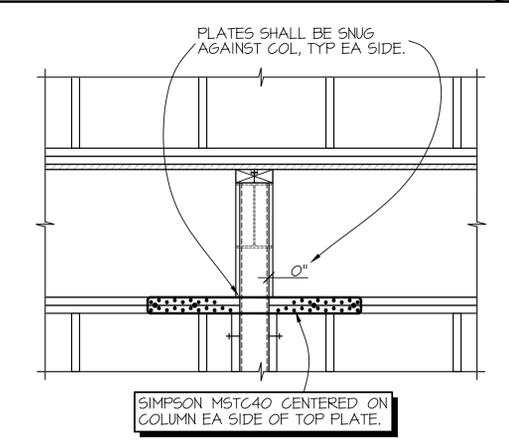
**KEYNOTES - ISOMETRIC FRAMING**

- ALIGN ROOF TRUSSES/2ND LEVEL STUDS/ FLOOR I-JOIST/ 1ST FLOOR STUDS. THE FRAMING CONTRACTOR SHALL FIELD COORD WALL APPLICABLE DRAWING AND SUPPLIERS. ROOF TRUSSES PER PLAN, TYPICAL.
- WALL STUDS PER PLAN.
- FLOOR I-JOIST PER PLAN.
- WALL FRAMING PER TYPICAL STUD WALL FRAMING DETAIL.
- OPENING FRAMING PER PLAN/DETAILS.
- CONFIGURATIONS CONNECTIONS PER DETAILS.
- AT GT, ADD SQUASH BLK'G AND STUDS TO FOUNDATION TO MATCH STUDS ABOVE W/FTF AT FLOOR.
- RIM JOIST - SPLICE ONLY OVER STUDS. DO NOT SPLICE OVER OPENINGS, LOCATE 2'-0" MIN FROM JAMB.

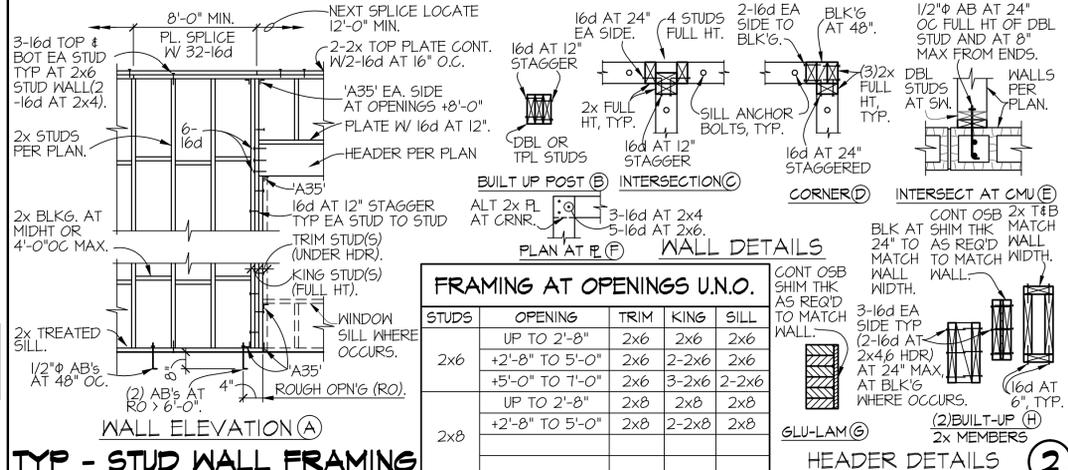
THIS DETAIL IS A GRAPHICAL ISOMETRIC REPRESENTATION OF TYP ROOF FLOOR AND WALL FRAMING AND BEARING CONDITIONS. REFER TO PLANS AND DETAILS FOR SPECIFIC INFORMATION AND EXACT CONFIGURATIONS.



**TYP - ISO ROOF/WALL/FLR DTL** ①



**TYP - SPLICED TOP PLATE** ⑪



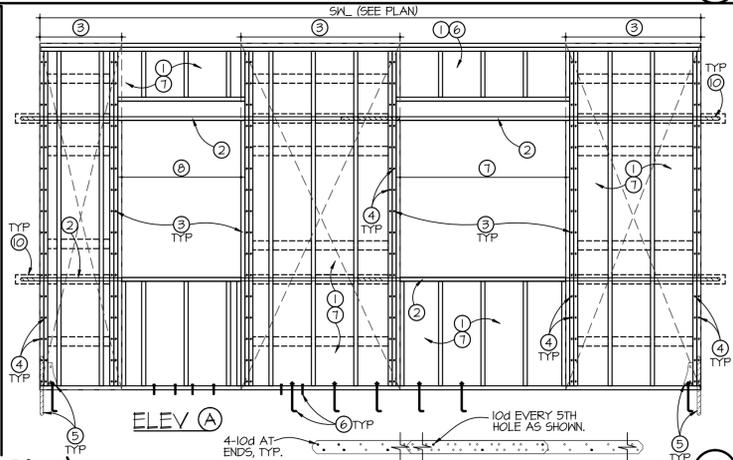
**FRAMING AT OPENINGS U.O.**

STUDS	OPENING	TRIM	KING	SILL
	UP TO 2'-8"	2x6	2x6	2x6
2x6	+2'-8" TO 5'-0"	2x6	2-2x6	2x6
	+5'-0" TO 7'-0"	2x6	3-2x6	2-2x6
2x8	UP TO 2'-8"	2x8	2x8	2x8
	+2'-8" TO 5'-0"	2x8	2-2x8	2x8

**TYP - STUD WALL FRAMING**

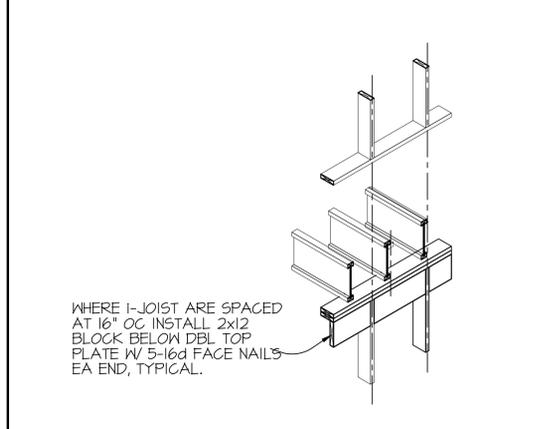
**KEYNOTES - SWL (FTAO)**

- SHEATHING AND CONNECTIONS PER SWL MARK SPECIFIED ON ELEVATIONS AND SWL SCHEDULE.
- CONT CS16 STRAP INSTALLED OVER OSB SHT'G W/10d PER DETAIL (B) TO HEADER/SILL/2x4 FLAT BLK'G AS SHOWN AND AS OCCURS, FULL LENGTH OF SWL. DO NOT SPLICE STRAP.
- AT PIERS 12'-0" AND LESS FULLY BLOCK ALL PANEL EDGES FULL HEIGHT AS SHOWN. CONNECT PANEL EDGES WITH THE SMALLER "BOUNDARY CONNECTION" SPACING SPECIFIED IN THE SWL SCHEDULE.
- 8d AT 4" OC FULL HEIGHT OF KING STUDS EACH SIDE OF EA OPENING AND DBL STUDS AND AT SWL ENDS.
- HOLD DOWN/FLOOR-TO-FLOOR TIE PER PLAN SCHEDULE/DETAILS AS OCCURS.
- SILL CONNECTION PER SWL SCHEDULE.
- BLOCK PANEL EDGES AS SPECIFIED BY SWL TYPE, REFER TO PLAN AND SCHEDULE.
- OPENING PER PLAN.
- 2-OPENINGS SHOWN, DETAIL SIMILAR AT SINGLE AND MULTIPLE OPENINGS IN SWL.
- EXTEND STRAP/BLK'G AROUND CORNER 16" OR 1-BAY BEYOND SWL END, TYPICAL.

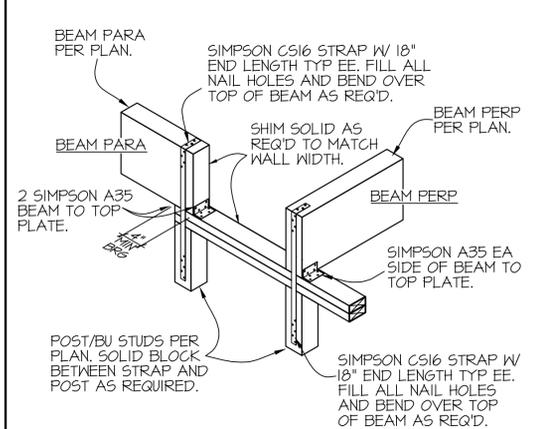


**TYP - SHEARWALL (FTAO)** NO SCALE

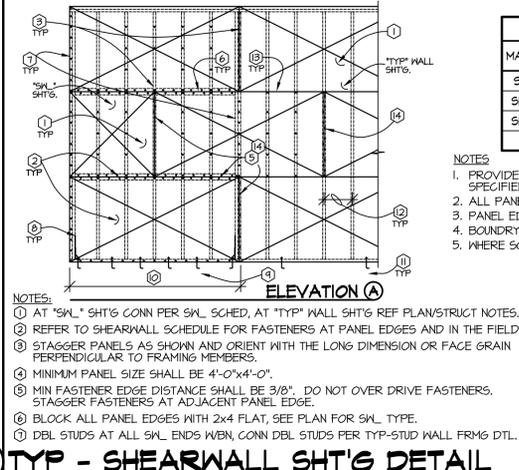
**TYP - BEAM AT DBL TOP PLATE** ③



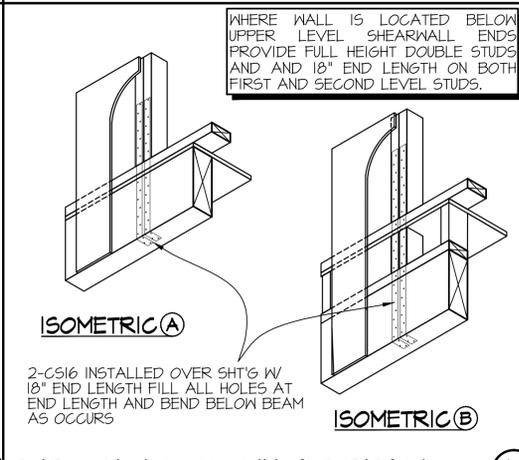
**TYP - ISO WHERE TJI'S AT 16" OC** ⑦



**TYP - FLOOR TO FLOOR TIE (FTF)** ⑨



**TYP - SHEARWALL SHT'G DETAIL** ③

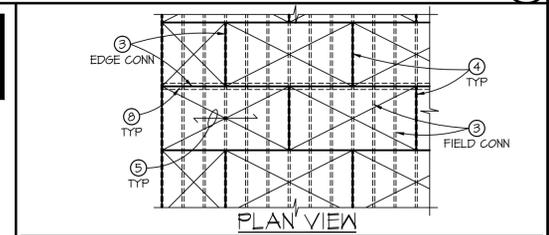


**TYP - HOLD DOWN AT BEAM** ⑤

**WOOD STUD SHEARWALL SCHEDULE (SWL)**

MARK	SHT'G	CONNECTOR AND SPACING	ANCHOR BOLTS	SILL PLATE	REMARKS
SW1	5/32" OSB	10d AT 6"	10d AT 12"	1/2" @ 32"	2-16d AT 24" UNBLOCKED
SW2	5/32" OSB	10d AT 6"/4"	10d AT 12"	1/2" @ 32"	2-16d AT 24" REF 4/5/2.5
SW3	5/32" OSB	10d AT 6"	10d AT 12"	1/2" @ 32"	2-16d AT 24" BLOCKED
	5/32" OSB	10d AT 3"	10d AT 12"		N/A BLOCKED

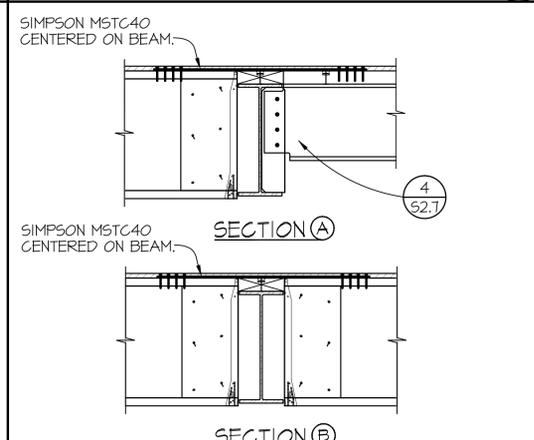
- NOTES**
- PROVIDE CONTINUOUS SHEATHING AND CONNECTIONS AT ALL EXTERIOR WALLS. WHERE NO SWL SPECIFIED SHEATH AND CONNECT PER SW1 TYP AT ALL EXTERIOR WALLS.
  - ALL PANEL EDGES FULL LENGTH AND HEIGHT OF SWL SHALL BE BLOCKED PER KEYNOTE 6.
  - PANEL EDGES AT SWL ARE NOT REQUIRED TO BE BLOCKED AS INDICATED BY SCHEDULE.
  - BOUNDARY NAILING (BN) SPECIFIED SHALL OCCUR AT SWL ENDS FULL HEIGHT OF SWL PER KEYNOTE 7.
  - WHERE SCREWS ARE SPECIFIED PROVIDE SIMPSON KENTL2125 SCREWS SPACED AS SPECIFIED.



**TYP - SHEATHING**

- TONGUE AND GROOVE FLOOR SHT'G TYP AT ALL FLOOR LOCATIONS, WHERE OCCURS.
- ROOF SHT'G AS INDICATED BY PLAN KEYNOTE TYPICAL AT ALL ROOF LOCATIONS.
- PANEL EDGE/FIELD CONNECTIONS - REFER TO THE STRUCTURAL NOTES FOR THE SPACING OF THE CONNECTORS AT PANEL EDGES AND IN THE FIELD, TYPICAL.
- STAGGER SHEATHING PANELS AS SHOWN.
- ORIENT LONG DIMENSION OF THE SHEATHING PANEL (OR FACE GRAIN) PERPENDICULAR TO THE SUPPORTING FRAMING MEMBERS.
- MINIMUM PANEL WIDTH 2'-0" MIN X 2 JOIST BAYS LONG, UNO.
- MINIMUM EDGE DISTANCE FOR CONNECTORS SHALL BE 3/8". DO NOT OVER DRIVE THE CONNECTORS. STAGGER CONNECTORS AT THE ADJACENT PANEL EDGE.
- BLOCK PANEL EDGES PER DETAILS AND WHERE INDICATED ON THE FRAMING PLANS.

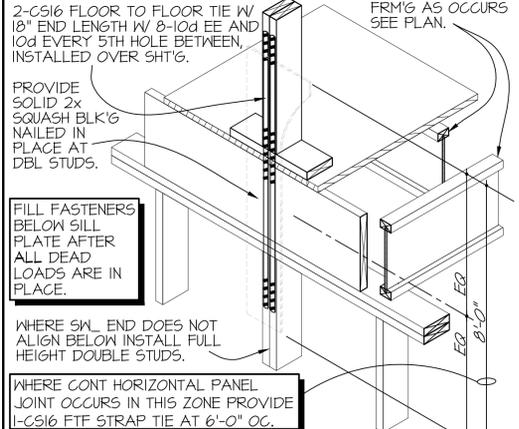
**TYP - HORIZ PANEL SHT'G** NO SCALE ⑥



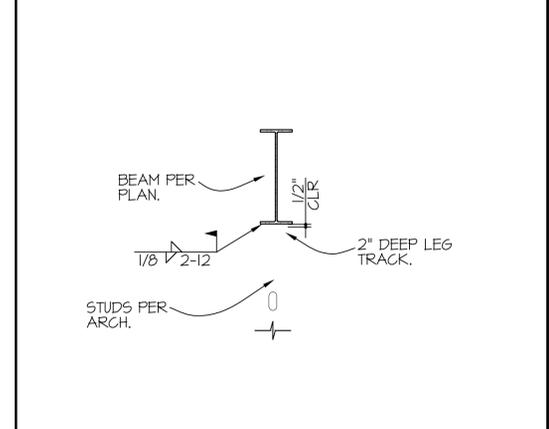
**TYP - DRAG SPLICE** ⑫



**TYP - PARTITION WALL AT STL** ⑩



**TYP - SPLICED TOP PLATE** ⑪



**TYP - DRAG SPLICE** ⑫



**Albert N. Hopper, Jr.**  
ARCHITECT

1008 West Blvd  
Bisbee AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
Structural Solutions Inc.  
Tucson, AZ, 520-396-4669  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ, 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ, 520-881-8846  
LANDSCAPE ARCHITECT:



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DRAWINGS ON THIS SHEET  
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52.5





Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd  
Bisbee AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
Structural Solutions Inc.  
Tucson, AZ, 520-396-4669  
MECHANICAL ENGINEER:  
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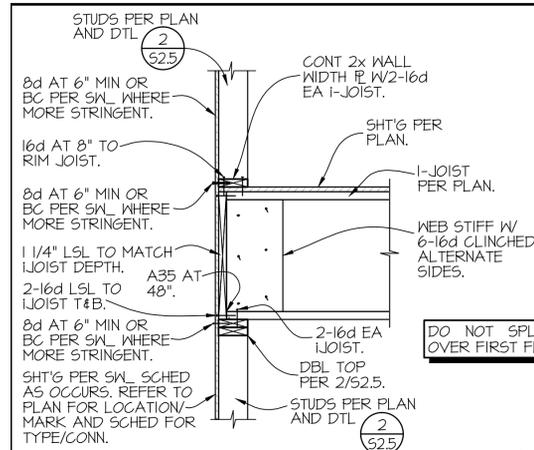
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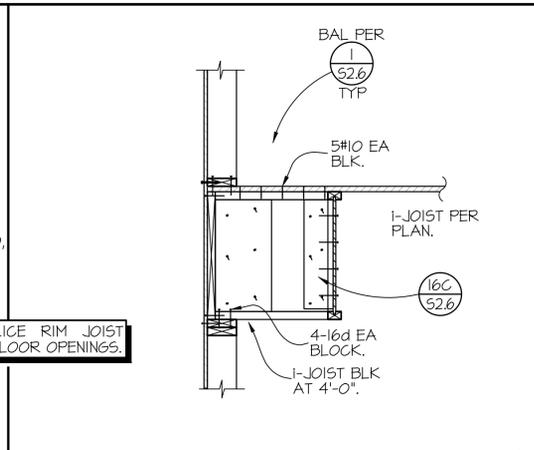
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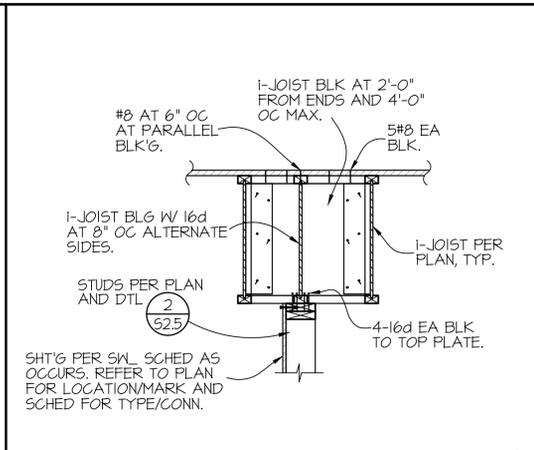
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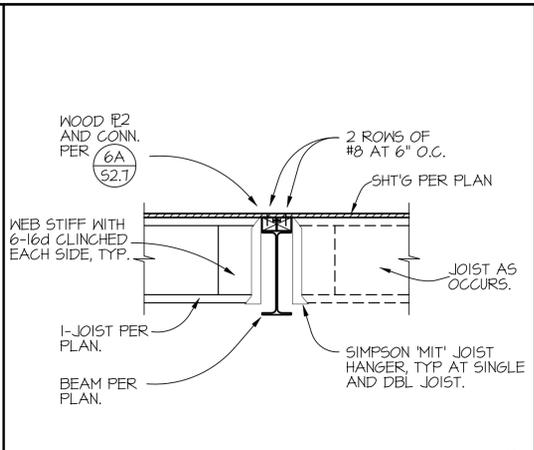
TYP - IJOIST AT BRG WALL



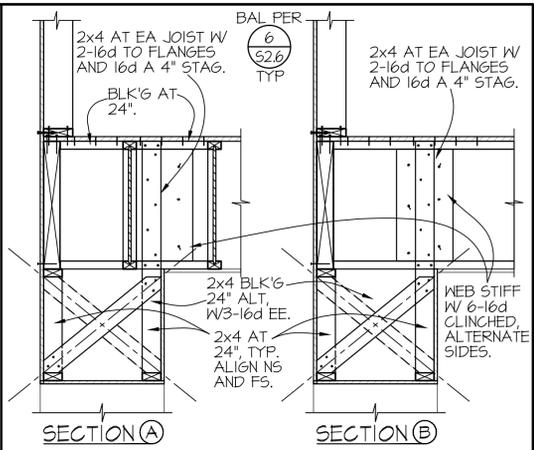
TYP - IJOIST AT NON-BRG WALL



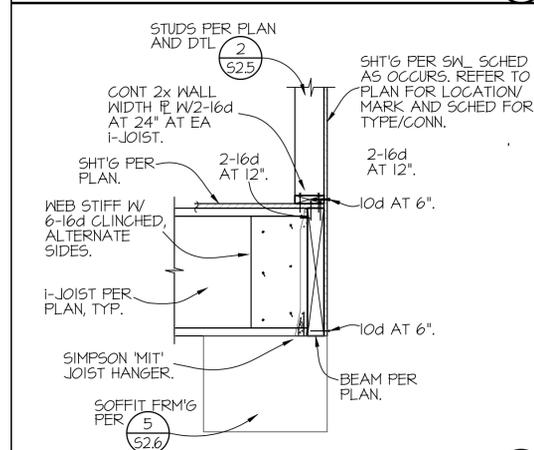
TYP - IJOIST AT NON-BRG WALL



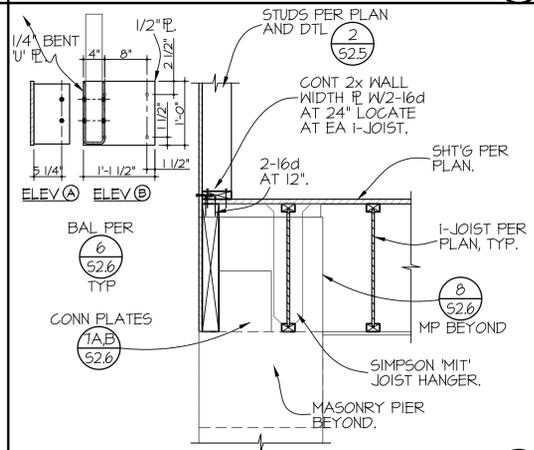
TYP - IJOIST AT STEEL BEAM



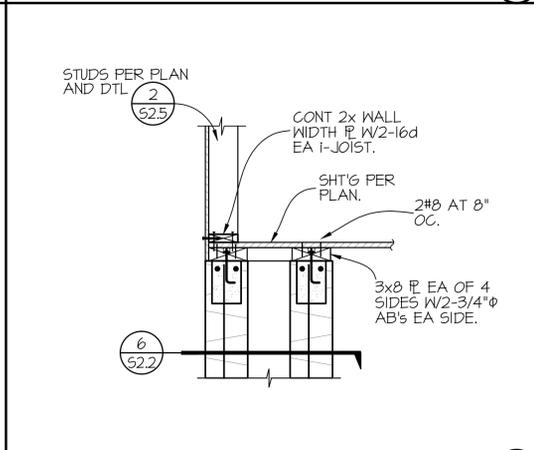
TYP - SOFFIT FRM'G AT PORCH



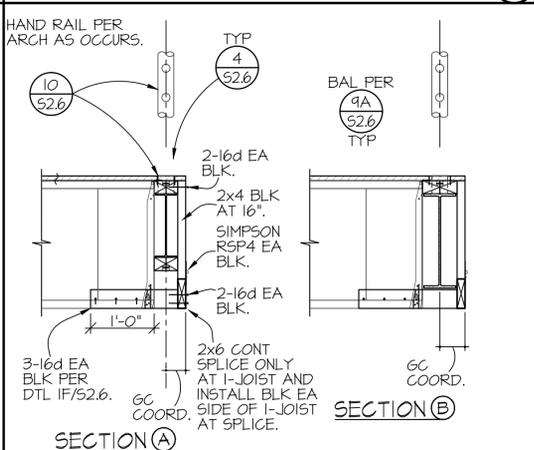
TYP - IJOIST AT GLB



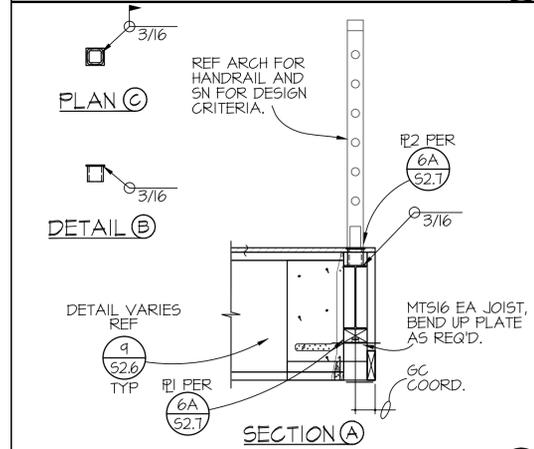
TYP - IJOIST/GLB AT PORCH



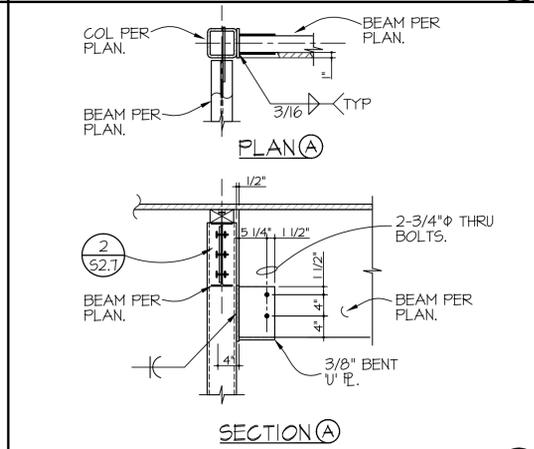
TYP - MASONRY PIER (MP)



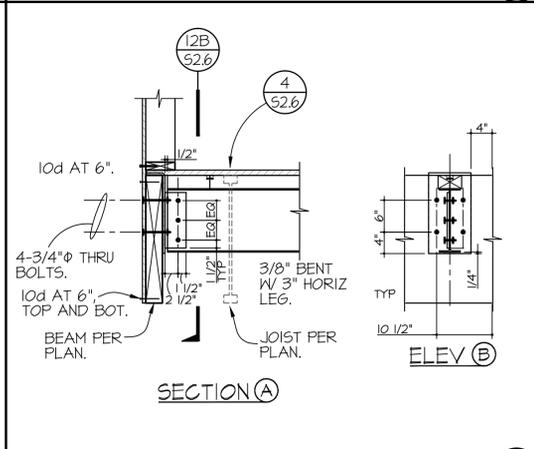
TYP - BEAM AT EDGE



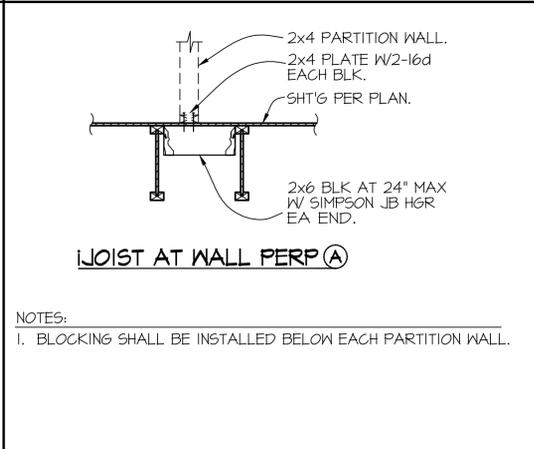
TYP - HANDRAIL AT BEAM



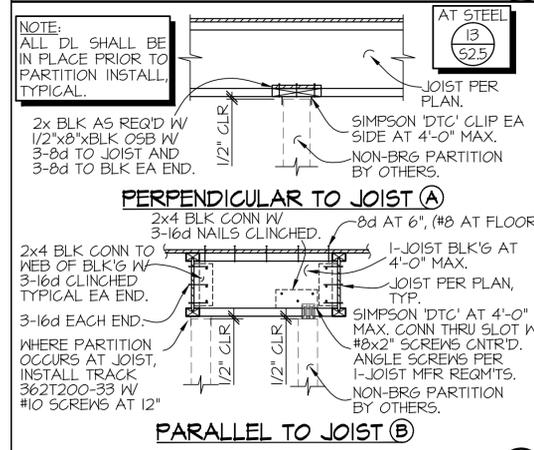
DETAIL AT GLB TO COLUMN



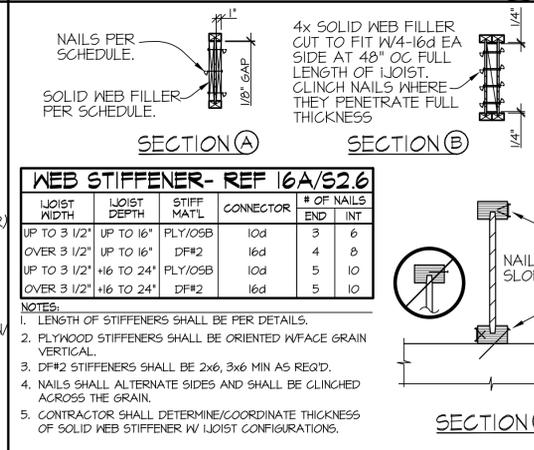
STEEL BEAM TO WOOD BEAM



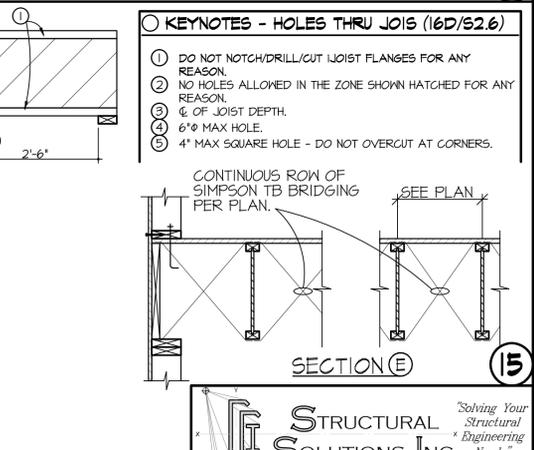
TYP - PARTITION AT IJOIST



TYP - CONN AT NON-BRG WALL



TYP - IJOIST TYPICAL DETAILS



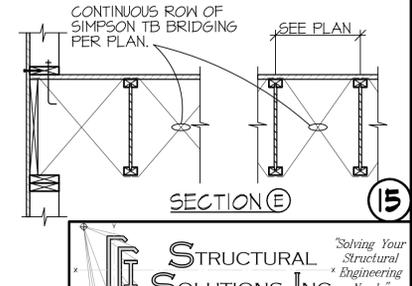
KEYNOTES - HOLES THRU JOIS (16D/52.6)

WEB STIFFENER - REF 16A/52.6

JOIST WIDTH	JOIST DEPTH	STIFF MATL	CONNECTOR	# OF NAILS	END INT
UP TO 3 1/2"	UP TO 16"	PLY/OSB	10d	3	6
OVER 3 1/2"	UP TO 16"	DF#2	16d	4	8
UP TO 3 1/2"	+16 TO 24"	PLY/OSB	10d	5	10
OVER 3 1/2"	+16 TO 24"	DF#2	16d	5	10

NOTES:  
1. LENGTH OF STIFFENERS SHALL BE PER DETAILS.  
2. PLYWOOD STIFFENERS SHALL BE ORIENTED W/FACE GRAIN VERTICAL.  
3. DF#2 STIFFENERS SHALL BE 2x6, 3x6 MIN AS REQ'D.  
4. NAILS SHALL ALTERNATE SIDES AND SHALL BE CLINCHED ACROSS THE GRAIN.  
5. CONTRACTOR SHALL DETERMINE/COORDINATE THICKNESS OF SOLID WEB STIFFENER W/ JOIST CONFIGURATIONS.

- KEYNOTES - HOLES THRU JOIS (16D/52.6)
- DO NOT NOTCH/DRILL/CUT JOIST FLANGES FOR ANY REASON.
  - NO HOLES ALLOWED IN THE ZONE SHOWN HATCHED FOR ANY REASON.
  - 6" OF JOIST DEPTH.
  - 6" MAX HOLE.
  - 4" MAX SQUARE HOLE - DO NOT OVERCUT AT CORNERS.



TYP - IJOIST TYPICAL DETAILS





Albert N. Hopper, Jr.  
ARCHITECT

1008 West Blvd  
Bisbee AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
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Tucson, AZ, 520-346-4669  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ, 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ, 520-881-8846  
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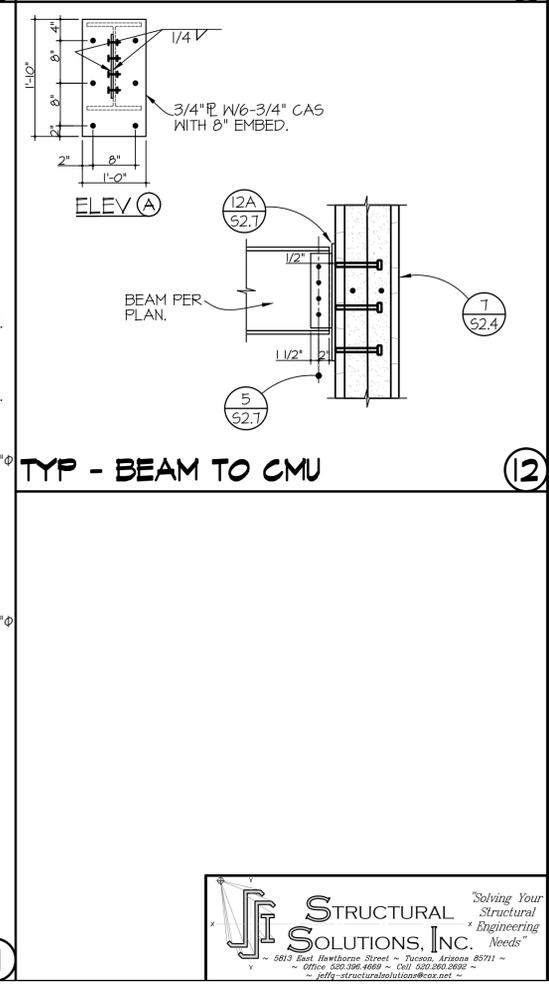
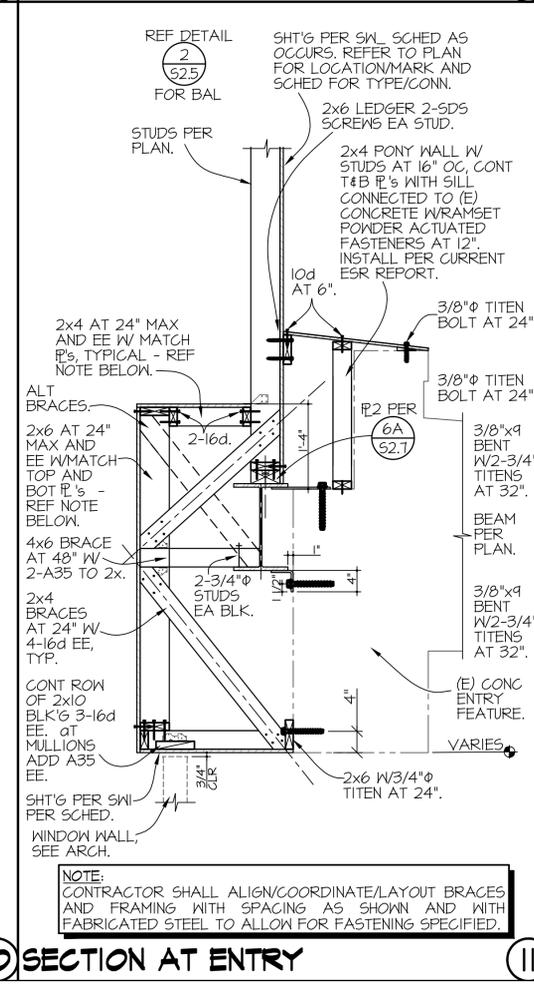
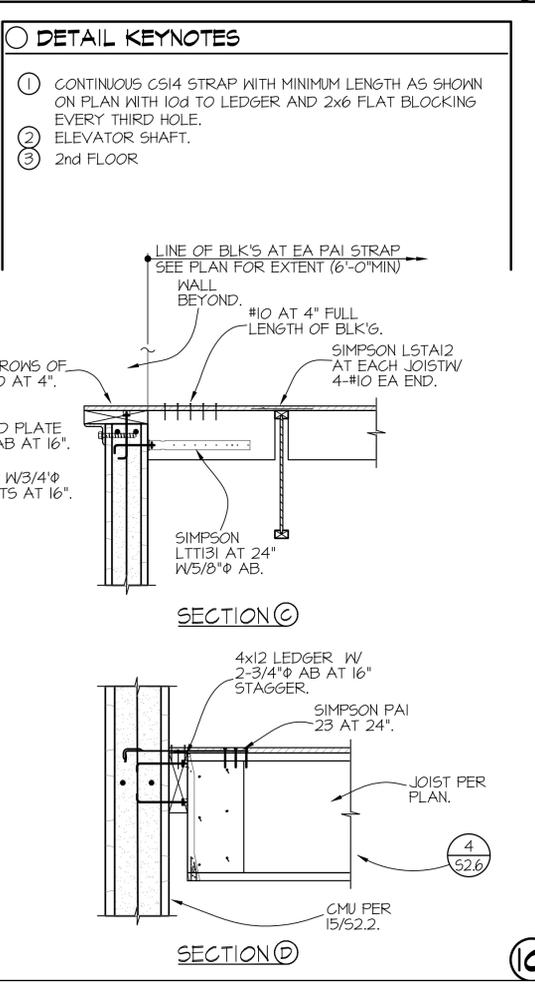
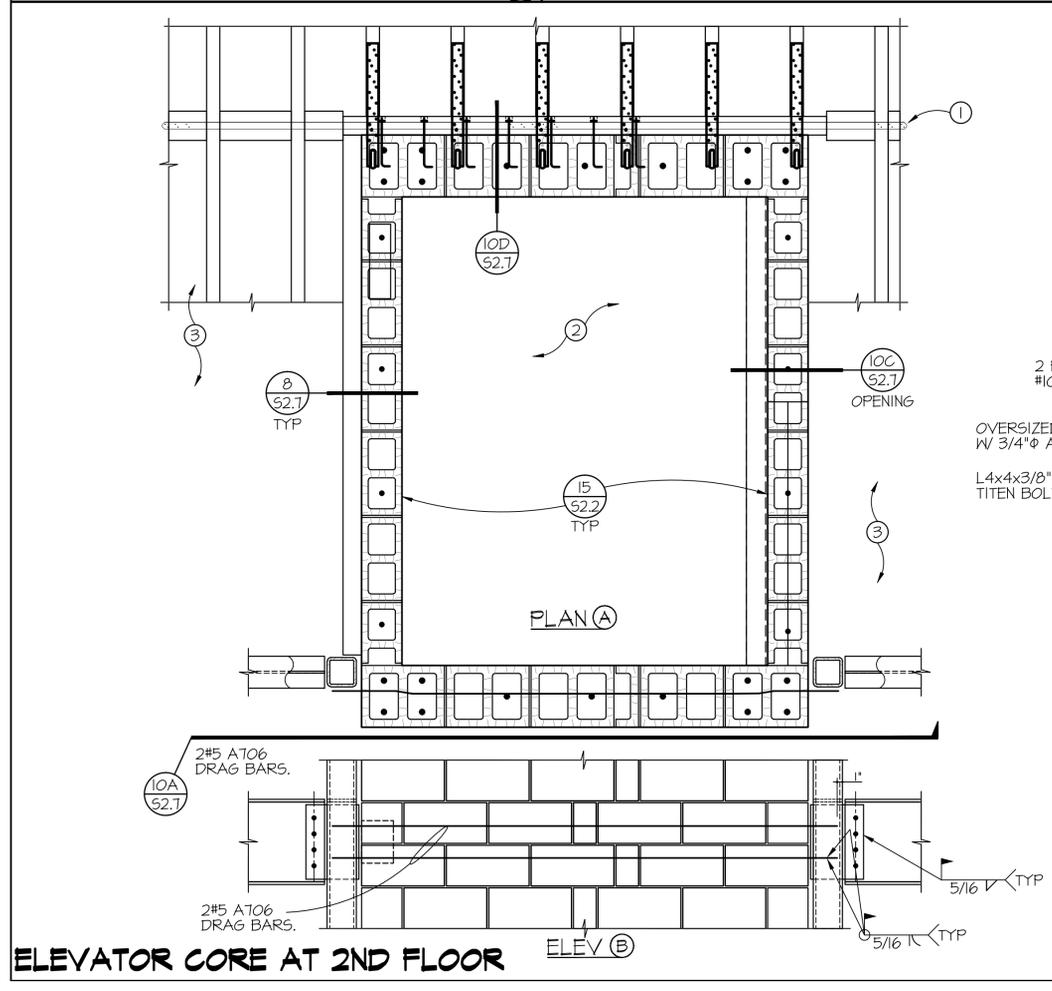
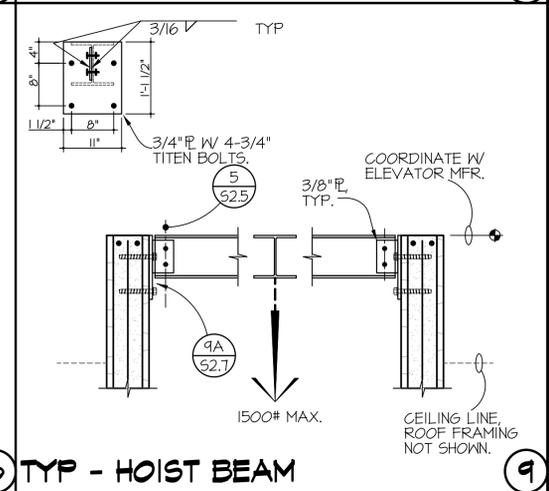
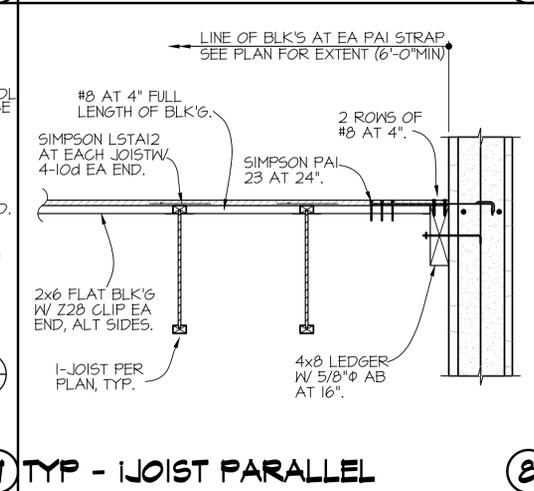
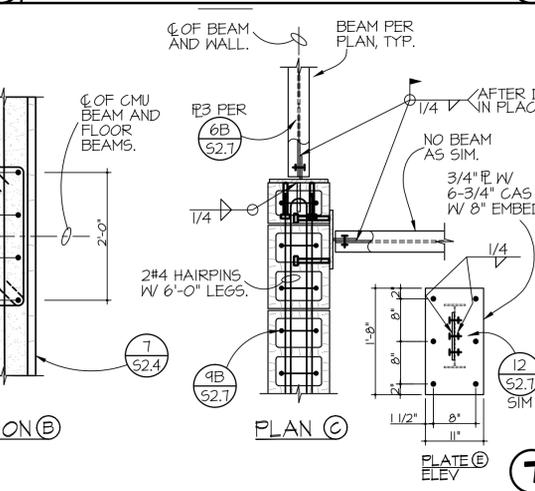
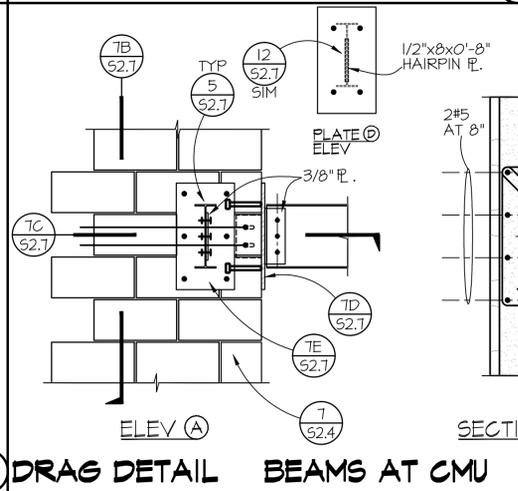
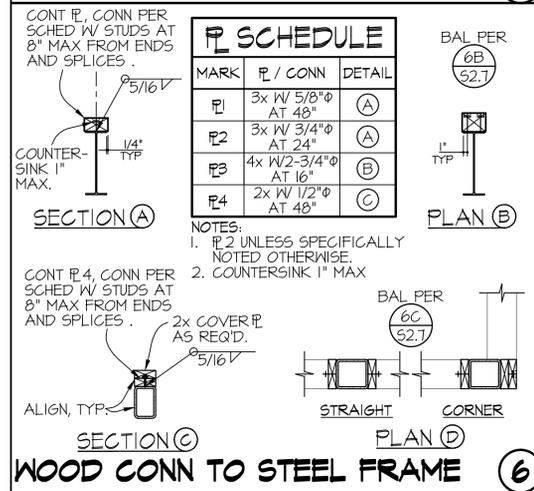
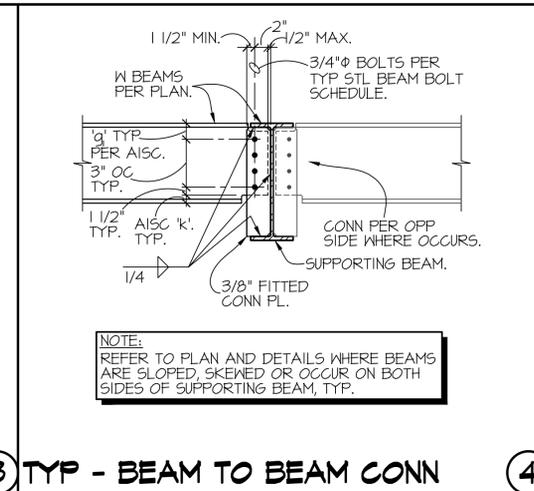
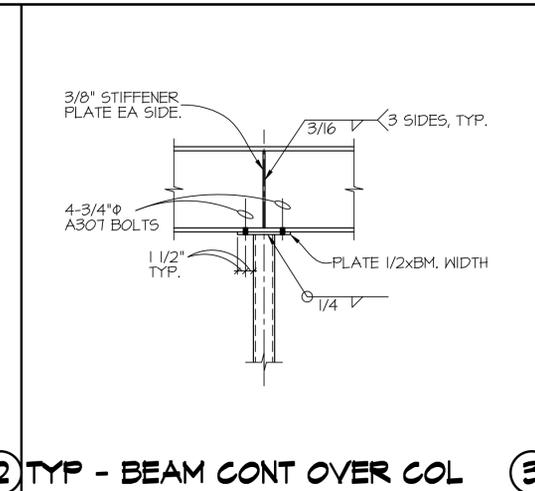
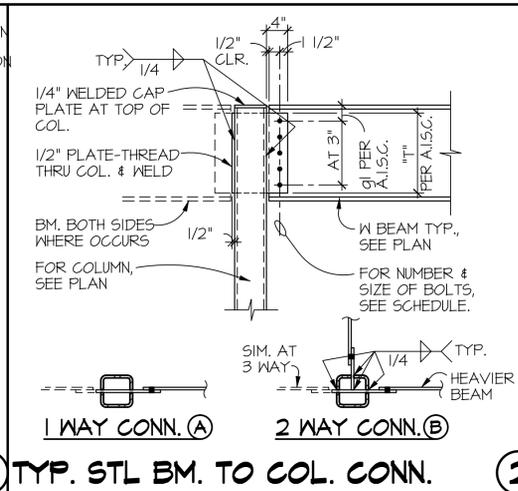
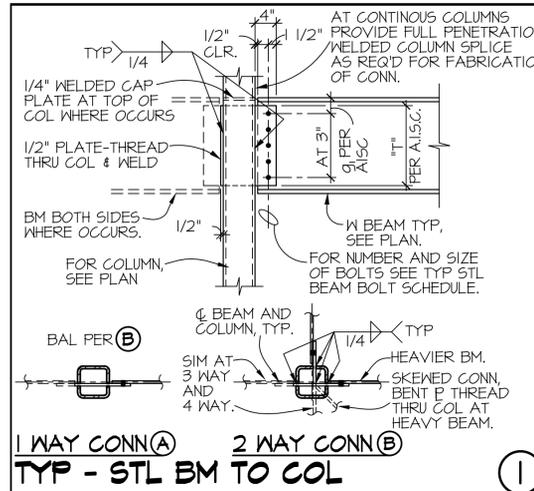
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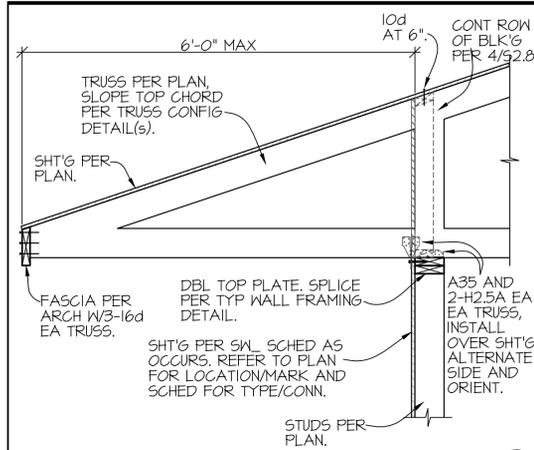
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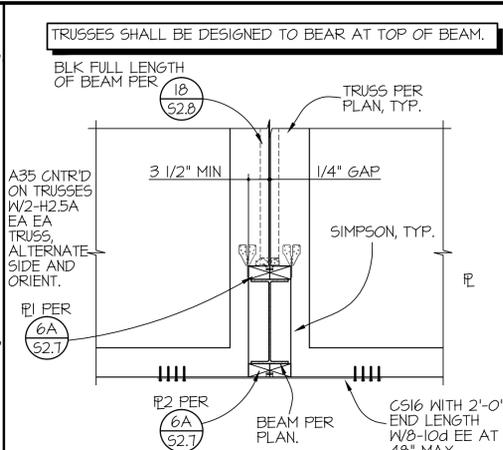
BEAM DEPTH (INCHES)	NO. OF 3/4" DIAM. A325-N BOLTS
36	10
33	9
30	8
24 & 27	7
21	6
18	5
16	4
10, 12 & 14	3
8	2
5 & 6	2



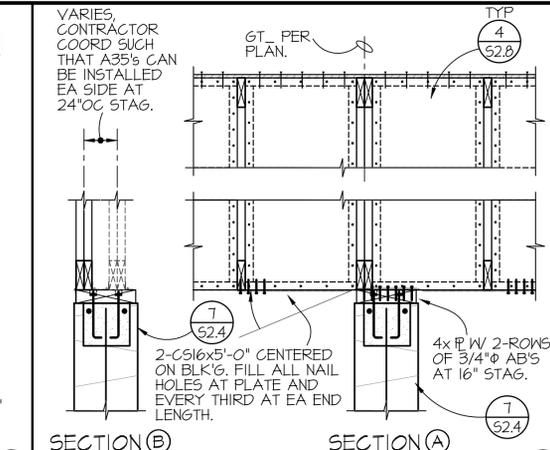
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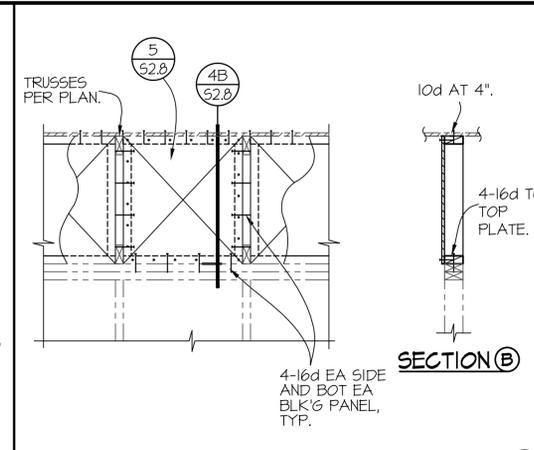
**1 TYP - ROOF TRUSS AT BEARING**



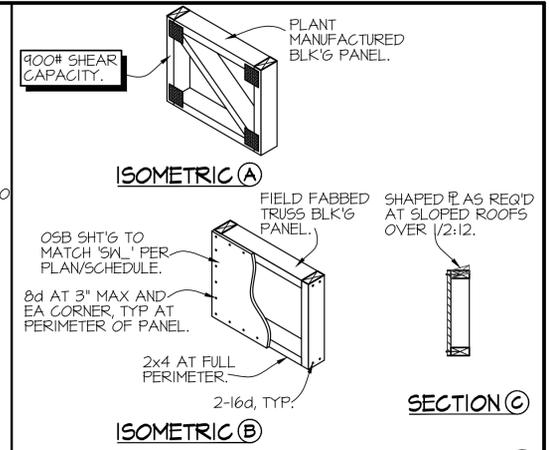
**2 TYP - ROOF TRUSS BEAM**



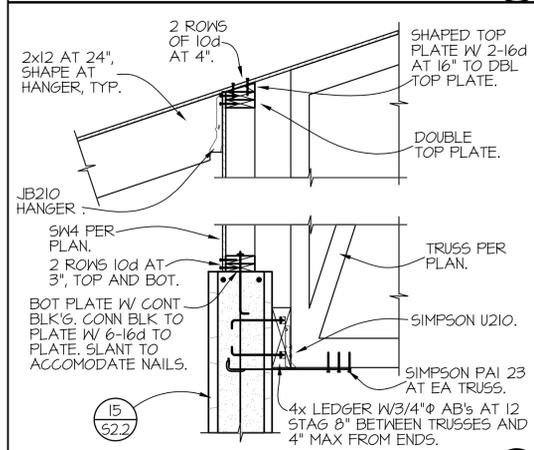
**3 DETAIL AT CMU SW**



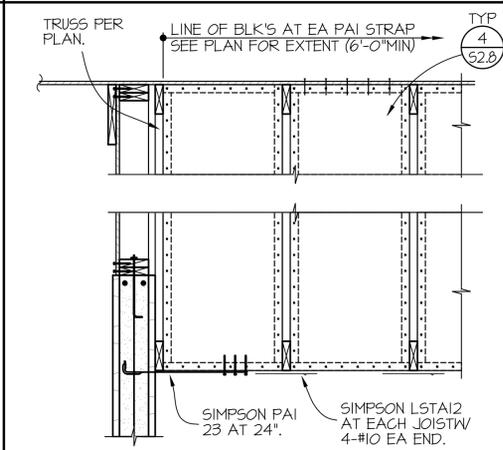
**4 TYP - BLK'G PANEL DETAIL**



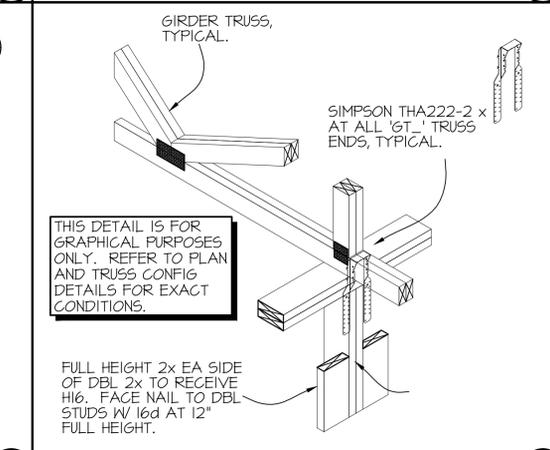
**5 TYP - BLOCKING PANEL**



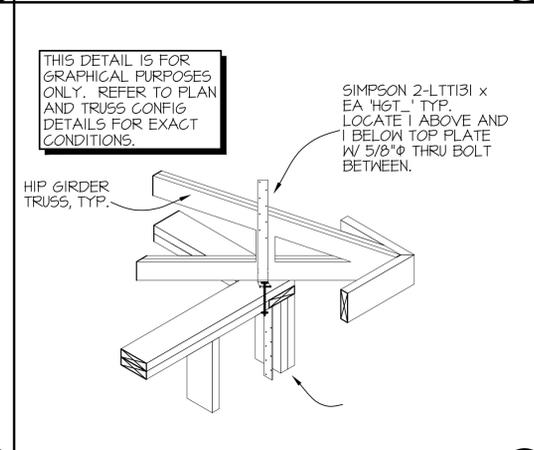
**6 DETAIL AT TOP OF ELEVATOR**



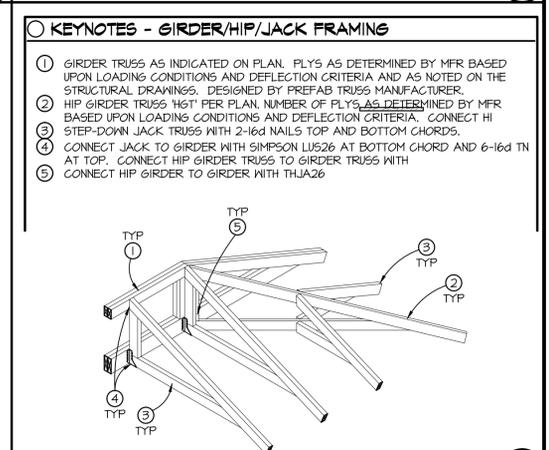
**7 DETAIL AT TOP OF ELEVATOR**



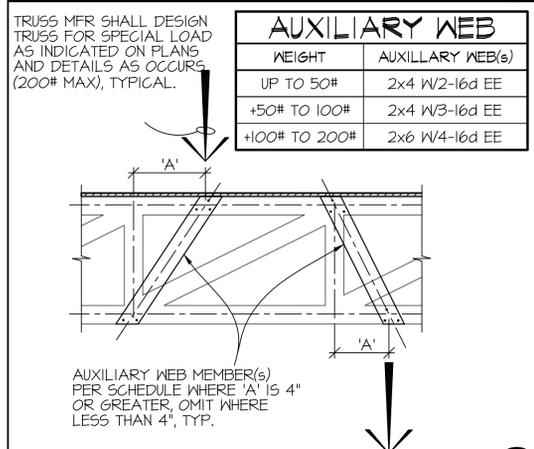
**8 TYP - GIRDER TO WALL FRMS**



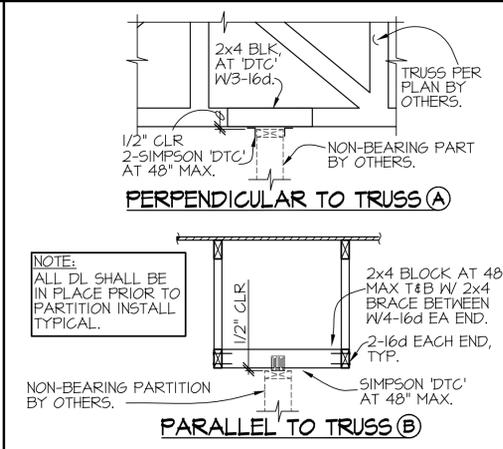
**9 TYP - GIRDER TO WALL FRMS**



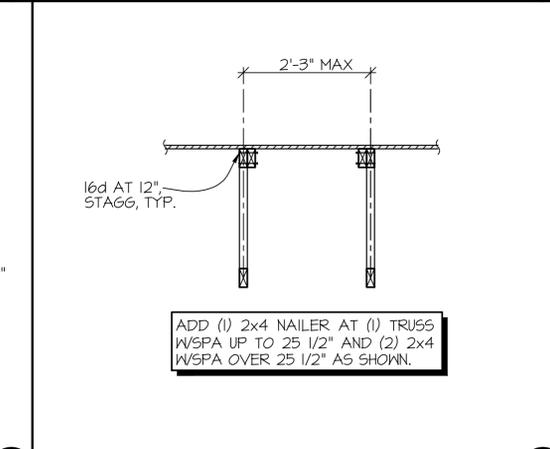
**10 TYP - GIRDER/HIP/JACK FRM'S**



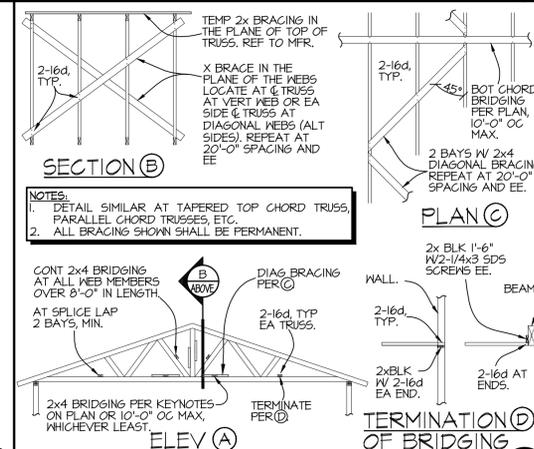
**11 TYP - AUXILIARY WEB MEMBER**



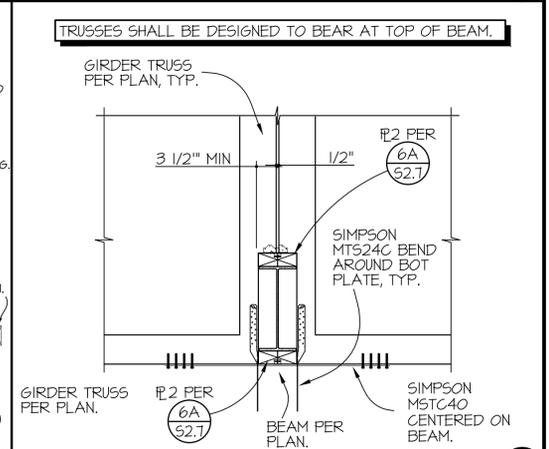
**12 TYP - NON BRG PARTITION**



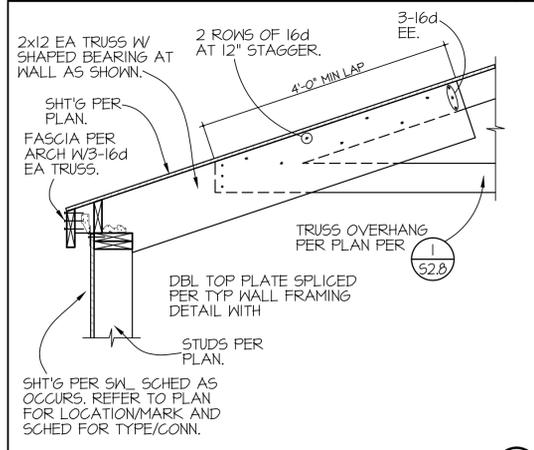
**13 TYP - REPAIR AT SPA OVER 2'-0**



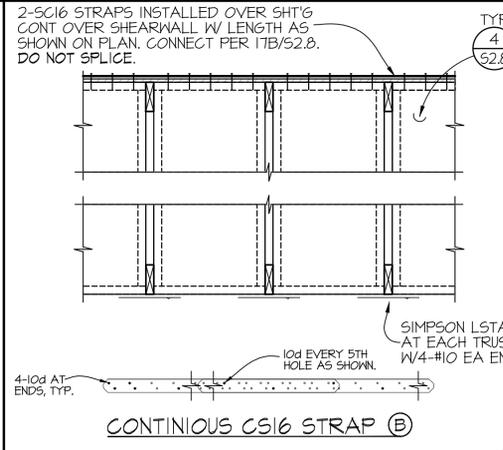
**14 TYP - TRUSS BRIDGING/BRACING**



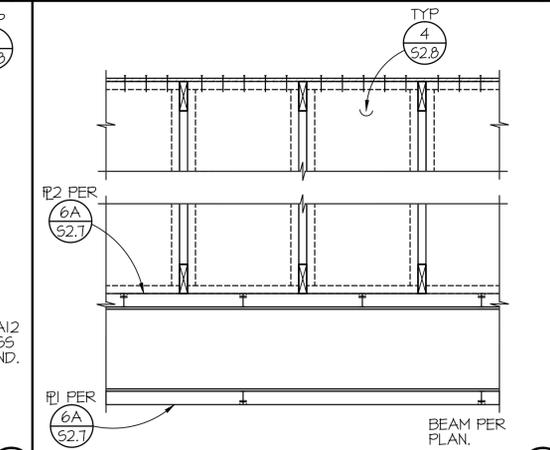
**15 GIRDER TRUSS AT BEAM**



**16 DETAIL AT STAIR ROOF**



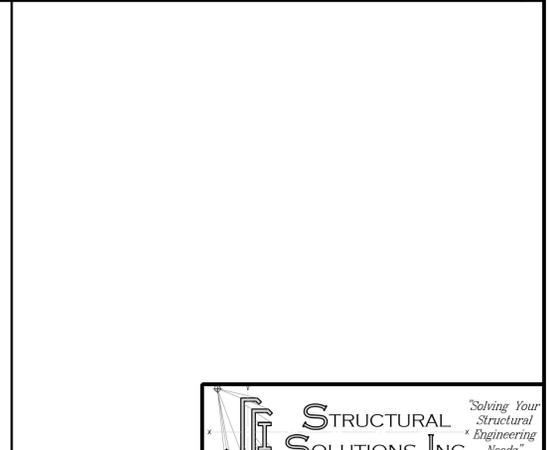
**17 TYP - BLOCKING/STRAPPING**



**18 TYP - BLOCKING AT BEAM**



**19 TYP - GIRDER TO WALL FRMS**



**20 TYP - GIRDER TO WALL FRMS**



**Albert N. Hopper, Jr.**  
ARCHITECT  
1008 West Blvd  
Bisbee AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

STRUCTURAL ENGINEER:  
Structural Solutions Inc.  
Tucson, AZ; 520-346-4669  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060  
ELECTRICAL ENGINEER:  
EDG West Electrical Engineering  
Tucson, AZ; 520-881-8846  
LANDSCAPE ARCHITECT:



**NEW CITY HALL**  
FOR THE  
CITY OF BISBEE  
118 ARIZONA ST.  
BISBEE, ARIZONA



SHEET ISSUE  
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REVISIONS  
1  
2  
3  
4

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Comm. No. 2201  
Drawn By: Jq  
Checked By: Jq

DRAWINGS ON THIS SHEET  
STRUCTURAL DETAILS

SHEET  
52.8





Albert N. Hopper, Jr.  
ARCHITECT

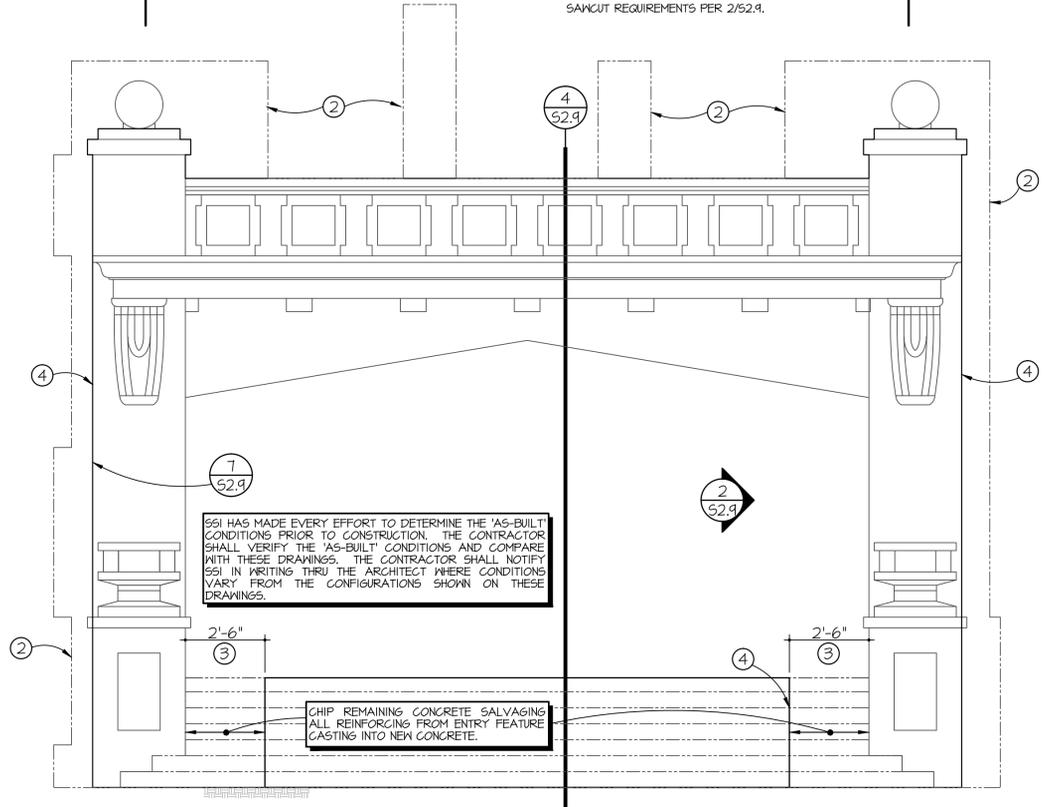
1008 West Blvd  
Bisbee AZ 85603  
Phone: 520-249-6691  
anhop45@gmail.com

CONSULTANTS  
CIVIL ENGINEER:

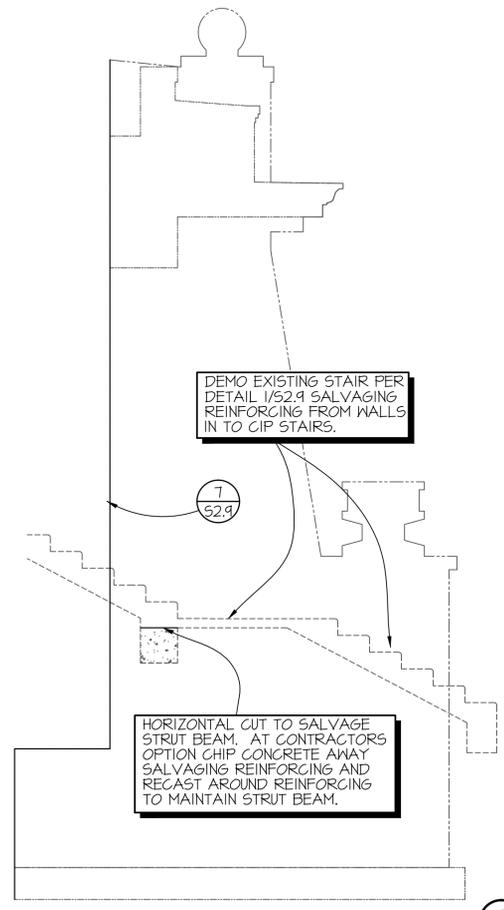
STRUCTURAL ENGINEER:  
Structural Solutions Inc.  
Tucson, AZ; 520-396-4669  
MECHANICAL ENGINEER:  
PH Mechanical Engineering  
Tucson, AZ; 520-731-2060  
ELECTRICAL ENGINEER:  
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LANDSCAPE ARCHITECT:



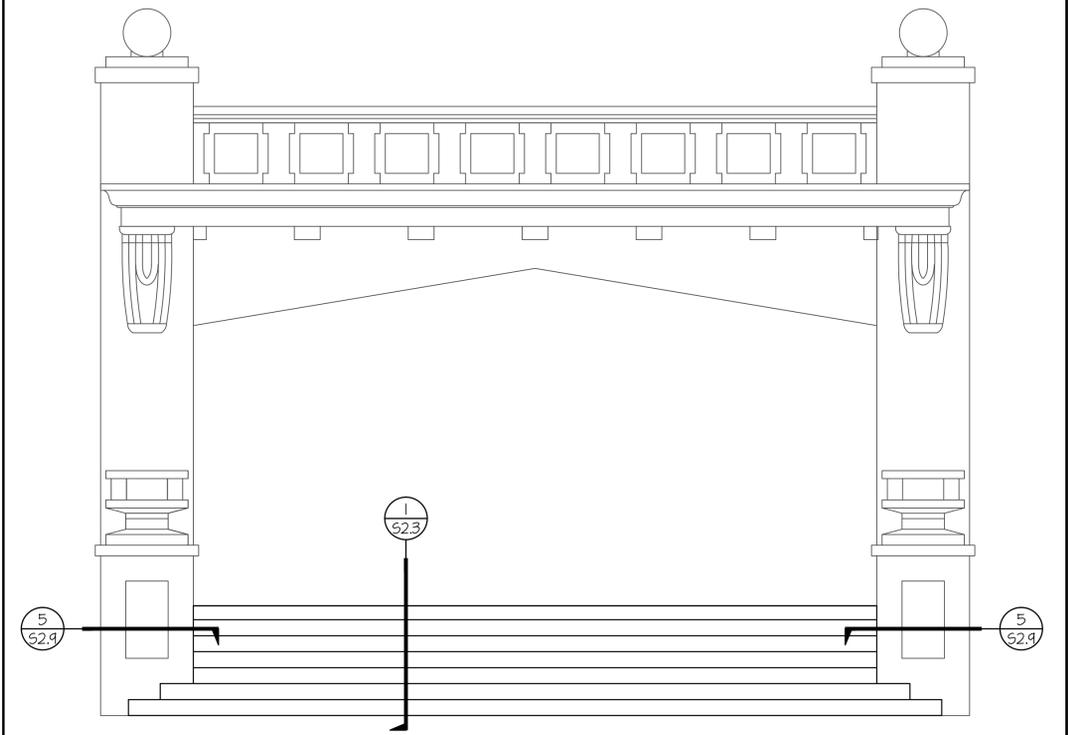
- ENTRY FEATURE - ELEVATION KEYNOTES**
- 1 PRIOR TO ANY DEMO A PRE-DEMOLITION MEETING SHALL BE HELD WITH PARTIES AS DIRECTED BY THE ARCHITECT. APPROXIMATE EDGE OF EXISTING ENTRY STRUCTURE TO BE DEMOLISHED - COORDINATE WITH ARCHITECTURAL AND EXISTING CONDITIONS.
  - 2 SALVAGE ALL REINFORCING EXTENDING FROM ENTRY FEATURE PER DETAILS. CAUTIOUSLY CHIP REMAINING STAIRS AWAY SALVAGING REINFORCING AND CAST INTO THE NEW CONCRETE.
  - 3 APPROXIMATE LOCATION OF SAWCUT COORDINATE WITH ARCHITECTURAL DRAWINGS AND STRUCTURAL DETAILS. SAWCUT REQUIREMENTS PER 2/52.4.



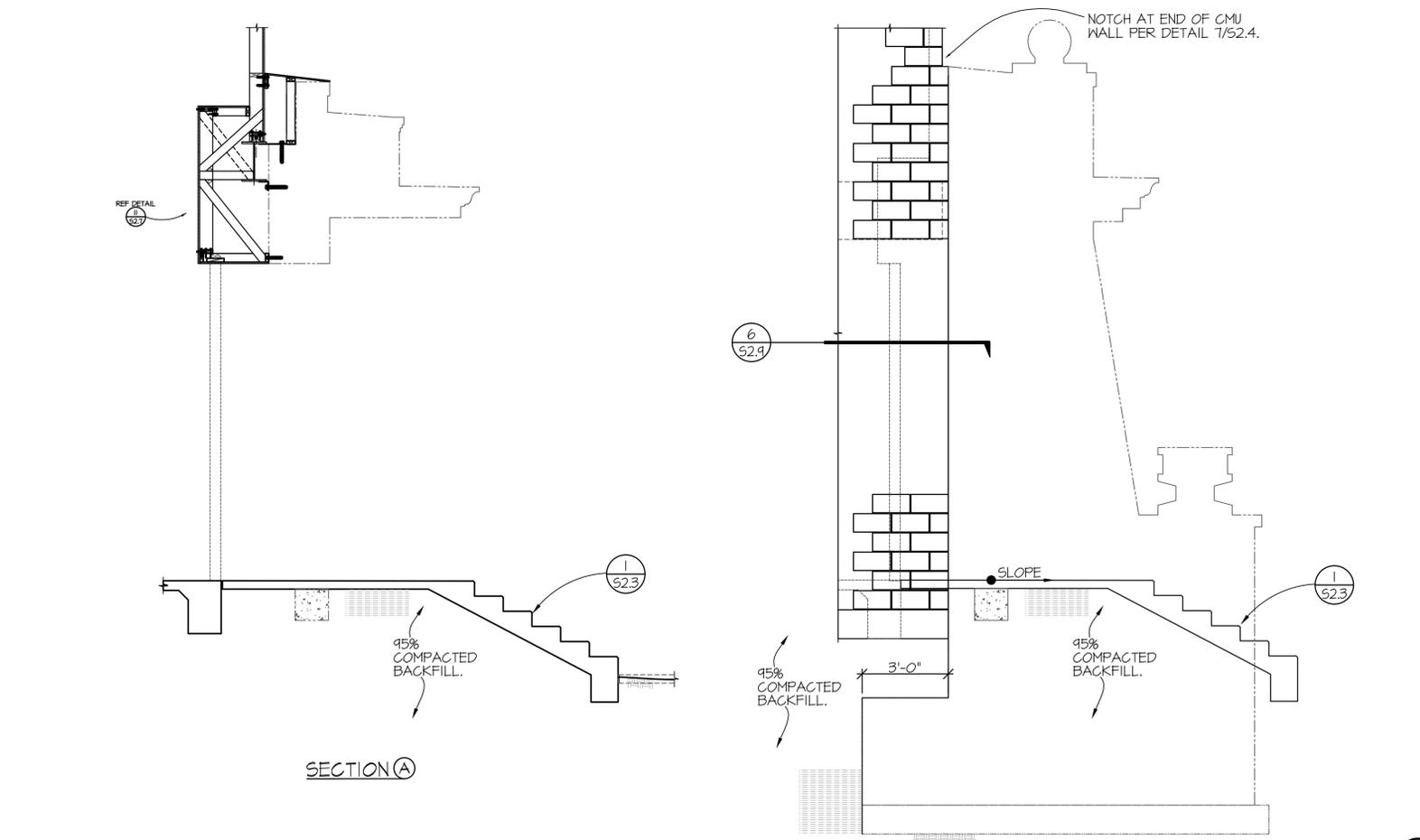
EXISTING ENTRY FEATURE - FRONT ELEVATION DEMO SCALE 3/8" = 1'-0" 1



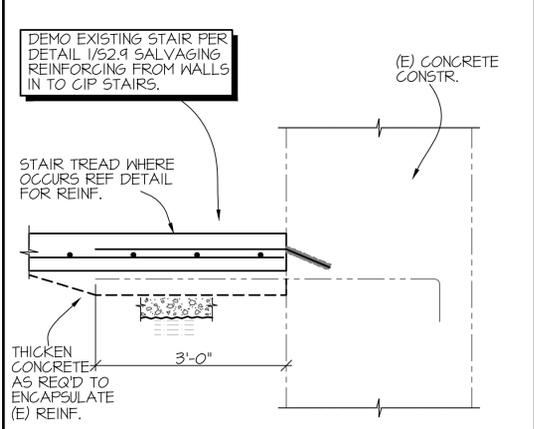
EXISTING ENTRY FEATURE TO REMAIN - FRONT ELEVATION SCALE 3/8" = 1'-0" 2



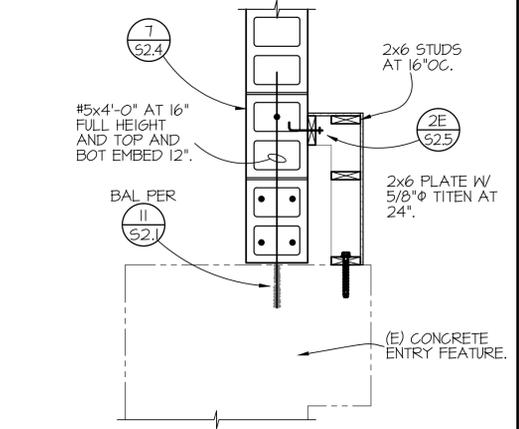
EXISTING ENTRY FEATURE TO REMAIN - FRONT ELEVATION SCALE 3/8" = 1'-0" 3



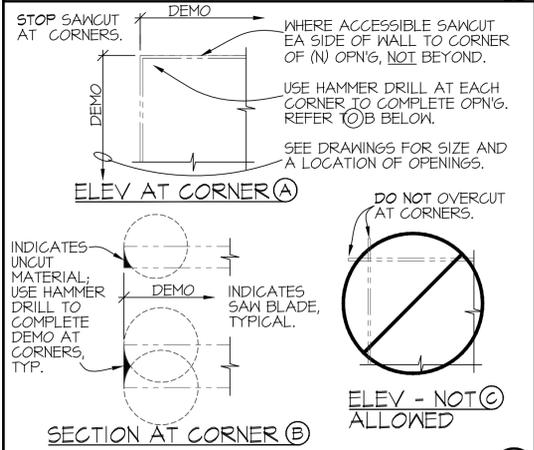
SECTIONS AT ENTRY SCALE 3/8" = 1'-0" 4



SECTION AT (N) STAIR TO (E) 5



PLAN AT (N) CMU TO (E) 6



TYP - SAWCUT REQUIREMENTS 7

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