City of Sparks

Fire Station 2 - Remodel

JON R. ERICSON, P.E., PTOE
CITY ENGINEER

PWP #WA-2021-318
BID #21/22-001

SHEET INDEX

COVER SHEET

a000

FORMGREY STUDIO
525 Roberts Street #100, Reno NV 89502 | www.formgrey.com | (775) 507-7200

CITY OF SPARKS FIRE STATION 2

City of Sparks, Nevada

2900 N. Truckee Ln
Sparks, NV 89434

NATHANIEL B. HUDSON
REGISTERED
6/08/2021
No. 7649
ARCHITECT
STATE OF NEVADA

BID SET 06-17-21

FGS #FGS# 2018-20

6/17/2021 9:42:04 PM

SYMBOL LIST

N — NORTH ARROW

12 / 3 — ROOF SLOPE

1/2" SLOPE — ROOF SLOPE PLAN

72 — PROPOSED CONTOUR LINE

72 — EXISTING CONTOUR LINE

TILE|CARPET — CHANGE IN FLOOR MATERIAL

PROPERTY CORNER

F.F. — SPOT ELEVATION

DIRECTION OF DRAINAGE

F.F. MAIN LEVEL 0'-0" — LEVEL ELEVATION

PROPERTY LINE

ASPHALT

A9.1 — MATCH LINE

SHEET ON WHICH DRAWN

BATT INSULATION

BRICK

CENTERLINE

CMU BLOCK

E E E E E — ELECTRICAL LINE

CONCRETE

X X X X X — FENCE LINE

E.I.F.S.

G G G G G — GAS LINE

GRADE / EARTH

PH PH PH PH PH — PHONE LINE

GRAVEL

SS SS SS SS SS — SANITARY SEWER

GYPSUM BOARD

SD SD SD SD SD — STORM DRAIN

GYPSUM SHEATHING

TV TV TV TV TV — TELEVISION LINE

ORIENTED STRAND BOARD

W W W W W — WATER LINE

PLYWOOD SHEATHING

DETAIL NUMBER / 2 / A9.1 / SHEET NUMBER — BUILDING SECTION CUT

RIGID INSULATION

DETAIL NUMBER / 2 / A9.1 / SHEET NUMBER — WALL SECTION CUT

SAND / MORTER / PLASTER

STEEL

DETAIL NUMBER / 2 / A9.1 / SHEET NUMBER — DETAIL CALLOUT

STONE

TECTUM

DETAIL NUMBER / 2 / A9.1 / SHEET NUMBER — DETAIL CALLOUT

WOOD FINISH

6" — WALL THICKNESS

GLASS

ELEVATION NUMBER / 1 / 2 / A9.1 / 4 / 3 / SHEET NUMBER — ELEVATION BUBBLE

WOOD FRAMING (THROUGH MEMBER)

WOOD FRAMING (INTERRUPTED MEMBER)

NAME / # — ROOM NAME & NUMBER

A / 1 — GRID LINES

WINDOW NUMBER / # / X / WINDOW TYPE — WINDOW SYMBOL
FLOOR PLANS AND EXTERIOR ELEVATIONS

REVISION CLOUD & NUMBER

DOOR NUMBER / # - X / DOOR TYPE — DOOR SYMBOL
FLOOR PLANS AND EXTERIOR ELEVATIONS

+0'-0" — CEILING HEIGHT

VARIOUS NOTES — NOTE AREA

— ACCESSORY SYMBOL

GENERAL NOTES

1. THESE GENERAL NOTES PERTAIN TO WORK DESCRIBED ON ALL CONTRACT DOCUMENTS.
2. THE CONTRACT DOCUMENTS CONSIST OF THE OWNER CONTRACTOR AGREEMENT, THE CONDITIONS OF CONTRACT (GENERAL, SUPPLEMENTARY, AND OTHER CONDITIONS), THE DRAWINGS, THE SPECIFICATIONS, AND ALL ADDENDA ISSUED PRIOR TO AND ALL MODIFICATIONS ISSUED AFTER EXECUTION OF THE CONTRACT.
3. FORMGREY STUDIO, LLC IS THE AUTHOR OF THESE PLANS AND CLAIMS A COPYRIGHT IN THESE PLANS AND THE DESIGNS CONTAINED IN THESE PLANS. THIS CLAIM IS MADE UNDER TITLE 17 OF THE UNITED STATES CODE AND ALL APPLICABLE TREATIES AND FOREIGN LAWS. THESE COPYRIGHTED DRAWING FILES ARE TO BE USED FOR REFERENCE ONLY. FORMGREY STUDIO, LLC WILL TAKE NO RESPONSIBILITY FOR ANY CHANGES MADE TO THESE DOCUMENTS BY ANOTHER PARTY AND NO LICENSE IS GIVEN FOR TRANSFER OF THESE COPYRIGHTS TO ANOTHER PARTY.
4. THE WORK COMPRISES THE COMPLETED CONSTRUCTION REQUIRED BY THE CONTRACT DOCUMENTS AND INCLUDES ALL LABOR NECESSARY TO PRODUCE SUCH CONSTRUCTION, AND ALL MATERIALS AND EQUIPMENT INCORPORATED OR TO BE INCORPORATED IN SUCH CONSTRUCTION.
5. SHOP DRAWINGS, PRODUCT DATA AND SAMPLES ARE NOT A PART OF THE CONTRACT DOCUMENTS. THE ARCHITECT WILL REVIEW THEM, BUT ONLY FOR CONFORMANCE WITH THE DESIGN CONCEPT OF THE WORK AND WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR ANY DEVIATION FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE ARCHITECTS REVIEW OF SHOP DRAWINGS, PRODUCT DATA OR SAMPLES.
6. THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE THE CONTRACT DOCUMENTS AND SHALL AT ONCE REPORT TO THE ARCHITECT ANY ERROR, INCONSISTENCY OR OMISSIONS HE MAY DISCOVER. THE CONTRACTOR SHALL PERFORM NO PORTION OF THE WORK AT ANY TIME WITHOUT CONTRACT DOCUMENTS OR, WHERE REQUIRED, APPROVED SHOP DRAWINGS, PRODUCT DATA OR SAMPLES FOR SUCH PORTION OF THE WORK.
7. ALL WORK IS TO CONFORM WITH THE CONTRACT DOCUMENTS. DRAWINGS ARE NOT TO BE SCALED FOR INFORMATION IF UNABLE TO LOCATE DIMENSIONS FOR ANY ITEM OF WORK, CONSULT WITH THE ARCHITECT BEFORE PROCEEDING WITH CONSTRUCTION.
8. IN THE EVENT CERTAIN FEATURES OF THE CONSTRUCTION ARE NOT FULLY SHOWN ON THE CONTRACT DOCUMENTS, THEN THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS FOR SIMILAR CONDITIONS THAT ARE SHOWN OR CALLED FOR AND SHALL BE REVIEWED BY THE ARCHITECT.
9. ALL WORK SHALL BE PERFORMED WITHIN STRICT CONFORMANCE TO THE MINIMUM STANDARDS OF THE CURRENT EDITION OF THE INTERNATIONAL BUILDING CODE AND ALL APPLICABLE NATIONAL, STATE, AND LOCAL LAWS, REGULATIONS AND ORDINANCES.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE GENERAL SAFETY DURING CONSTRUCTION, AND ALL WORK SHALL CONFORM TO PERTINENT SAFETY REGULATIONS.
11. THE CONTRACTOR SHALL COORDINATE LOCATIONS OF ANY AND ALL MECHANICAL, TELEPHONE, ELECTRICAL, LIGHTING AND PLUMBING INCLUDING ALL PIPING, DUCT WORK AND CONDUIT. COORDINATE ALL REQUIRED CLEARANCES FOR INSTALLATION AND MAINTENANCE OF THE ABOVE EQUIPMENT.
12. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING HIS/HER BEST SKILL AND ATTENTION, HE/SHE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACTS AND OMISSIONS OF HIS/HER EMPLOYEES, SUBCONTRACTORS AND THEIR AGENTS AND EMPLOYEES, AND OTHER PERSONS PERFORMING ANY WORK UNDER A CONTRACT WITH THE CONTRACTOR.
14. THE CONTRACTOR SHALL PURSUE WORK IN A CONTINUOUS AND DILIGENT MANNER TO INSURE TIMELY COMPLETION OF THE PROJECT.
15. THE CONTRACTOR AT ALL TIMES SHALL KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY HIS/HER OPERATIONS. AT THE COMPLETION OF THE WORK, HE/SHE SHALL REMOVE ALL HIS/HER WASTE MATERIALS AND RUBBISH FROM AND ABOUT THE PROJECT AS WELL AS ALL HIS/HER TOOLS, CONSTRUCTION EQUIPMENT, MACHINERY, AND SURPLUS MATERIALS.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND/OR PROTECTION OF ALL EXISTING AND PROPOSED PIPING, UTILITIES, STRUCTURES, ADJACENT STREETS, AND IMPROVEMENTS DURING THE PERIOD OF CONSTRUCTION.
17. UNLESS OTHERWISE PROVIDED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL PROVIDE AND PAY FOR ALL LABOR, MATERIAL, EQUIPMENT, TOOLS, CONSTRUCTION EQUIPMENT, MACHINERY, WATER, HEAT, UTILITIES, TRANSPORTATION, AND OTHER FACILITIES AND SERVICES NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK.
18. THE CONTRACTOR SHALL SUBMIT WEEKLY JOB STATUS REPORTS TO THE ARCHITECT. THE REPORT SHALL STATE ACTUAL PROGRESS OF THE JOB AND LIST ANY CHANGES OR CONDITIONS WITHIN THE SCOPE OF THE CONTRACT DOCUMENTS AFFECTING THE JOB PROGRESS.
19. WHERE CONFLICTS OCCUR, COORDINATE THE LAYOUT AND EXACT LOCATION OF ALL PARTITIONS, DOORS, TELEPHONES AND ELECTRICAL/COMMUNICATION OUTLETS AND SWITCHES WITH ARCHITECT IN THE FIELD BEFORE PROCEEDING WITH CONSTRUCTION.
20. WHERE CONFLICT IS ENCOUNTERED BETWEEN THE CONTRACT DOCUMENTS THAT WILL MATERIALLY AFFECT THE QUALITY OR EXTENT OF THE WORK, SUCH CONFLICT SHALL BE RESOLVED TO THE SATISFACTION OF THE ARCHITECT BEFORE THE AFFECTED ITEMS AND/OR MATERIALS ARE PURCHASED, FABRICATED AND/OR INSTALLED.
21. WHERE PRE-MANUFACTURED OR PRE-FABRICATED ITEMS AND/OR MATERIALS ARE TO BE INSTALLED - THE CONTRACTOR SHALL VERIFY ROUGH OR FINISHED DIMENSIONS IN THE FIELD PRIOR TO PURCHASE OR FABRICATION.
22. THE CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS TO BE FREE FROM DEFECTS FOR A MINIMUM OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE, AND PROMPTLY REMEDY SUCH DEFECTS AND ANY SUBSEQUENT DAMAGE CAUSED BY THE DEFECTS OR REPAIR THEREOF, AT NO EXPENSE TO THE OWNER. GUARANTEE PERIODS OF GREATER THAN ONE YEAR MAY BE REQUIRED AND CONTAINED WITHIN THE CONTRACT DOCUMENTS.
23. UNLESS OTHERWISE PROVIDED IN THE CONTRACT DOCUMENTS THE CONTRACTOR SHALL SECURE AND PAY FOR THE BUILDING PERMIT AND FOR ALL OTHER PERMITS AND GOVERNMENTAL FEES, LICENSES AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK.
24. WHERE ANY ITEM AND/OR MATERIAL IS INDICATED IN THE CONTRACT DOCUMENTS, AND NOT NECESSARILY DETAILED IN EACH SPECIFIC CASE, BUT IS REQUIRED FOR A COMPLETE AND PROFESSIONAL INSTALLATION - SUCH ITEM AND/OR MATERIAL SHALL BE PROVIDED AS IF SHOWN AND DETAILED IN FULL. PROVIDE MEANS TO FURNISH AND INSTALL.

CODES

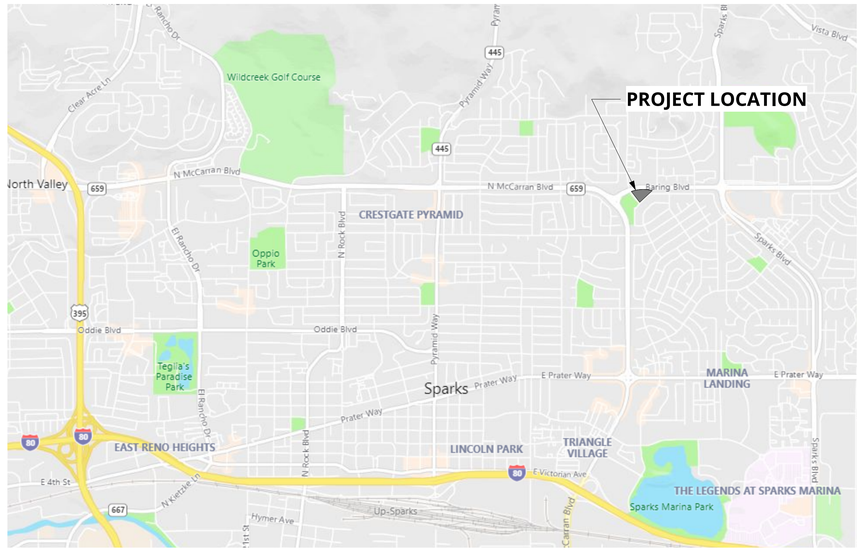
BASED ON THE 2018 INTERNATIONAL BUILDING CODE

OCCUPANCY GROUP	R-2 [DORMITORY AND LIVING AREA] S-2 [APPARATUS ROOM AND HOSE ROOM]
CONSTRUCTION TYPE	V-B
ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE PLANE *EXISTING BUILDING HAS AUTOMATIC FIRE SPRINKLER SYSTEM	R-2 60 S-2 60 *EXISTING BUILDING HEIGHT IS APPROXIMATELY 22 FEET IN HEIGHT *NO CHANGE IN BUILDING HEIGHT PROPOSED
ALLOWABLE NUMBER OF STORIES ABOVE GRADE PLANE *EXISTING BUILDING HAS AUTOMATIC FIRE SPRINKLER SYSTEM	R-2 3 S-2 3 *EXISTING BUILDING ONE STORY *NO CHANGE IN NUMBER OF STORIES PROPOSED
ALLOWABLE AREA FACTOR *EXISTING BUILDING IS ONE STORY WITH AN AUTOMATIC FIRE SPRINKLER SYSTEM	R-2 28,000 S-2 54,000 EXISTING AREA SUMMARY: R-2 1,971 S-2 3,099 *PROPOSED ADDITION: +128 sf
REQUIRED SEPARATION	1-HOUR [R-2 TO S-2] EXISTING MASONRY WALL

2018 INTERNATIONAL BUILDING CODE
2018 INTERNATIONAL EXISTING BUILDING CODE
2018 UNIFORM MECHANICAL CODE
2018 UNIFORM PLUMBING CODE
2018 INTERNATIONAL ENERGY CONSERVATION CODE
2018 INTERNATIONAL FUEL GAS CODE
2018 NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 54 AND 58 CODE
2017 NATIONAL ELECTRICAL CODE
2018 NORTHERN NEVADA AMENDMENTS
2018 INTERNATIONAL FIRE CODE
2018 NORHTERN NEVADA INTERNATIONAL FIRE CODE AMENDMENTS

PLUMBING FIXTURE COUNT

	*EXISTING BUILDING, NO CHANGE OF USE - 5 OCCUPANTS, SEE SHEET a003	
FIXTURE TYPE	EXISTING	PROPOSED
WATER CLOSET	2	2
URINALS	NONE EXISTING	N/A
LAVATORIES	2	3
BATHTUB OR SHOWER	1	PROPOSED
DRINKING FOUNATIN	NONE, EXISTING OCCUPANCY HAS FULL KITCHEN	NONE, EXISTING OCCUPANCY HAS FULL KITCHEN
OTHER	1 SERVICE SINK EXISTING MUD ROOM	SERVICE SINK TO BE REMOVED EXISTING MUD ROOM TO REMAIN



N

VICINITY MAP

1" = 2000'-0"

PROJECT TEAM

OWNER

CITY OF SPARKS
P.O. BOX 857
SPARKS, NV 89432

BRIAN CASON
CAPITAL PROJECTS MANAGER
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ARCHITECTURAL

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STRUCTURAL

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MECHANICAL & PLUMBING

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5370 KIETZKE LANE #100
RENO, NV 89511

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RENO, NV 89511

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JOE.NIELSEN@KIMLEY-HORN.COM

PROPERTY INFORMATION

ADDRESS:	2900 N. TRUCKEE LN., SPARKS, NV 89434
APN.:	036-091-29
AREA:	57,891 sq. ft. (1.329 acres)
LOT:	N/A
SUBDIVISION:	N/A
ZONING:	PF (PUBLIC FACILTY)
FIRE RISK RATING:	LOW
FEMA FLOOD ZONE:	X

PROJECT INFORMATION

a001

FORMGREY STUDIO
903 E 4th Street, Reno, NV 89512 | www.formgrey.com | (775) 507-7200

CITY OF SPARKS
FIRE STATION 2
City of Sparks, Nevada

2900 N. Truckee Ln
Sparks, NV 89434

NATHANIEL B. HUDSON — REGISTERED — 6/08/2021 — No. 7649 — ARCHITECT — STATE OF NEVADA

BID SET 06-17-21

FGS #FGS# 2018-20

6/17/2021 9:42:05 PM

CONSTRUCTION NOTES & SPECIFICATIONS

1. GENERAL REQUIREMENTS:
A. ALL DIMENSIONS ARE TO BE FIELD VERIFIED. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
B. ALL DIMENSIONS ARE TO FACE OF STUD OR STRUCTURE UNLESS NOTED OTHERWISE.

3. CONCRETE
A. INTERIOR: CAST-IN-PLACE CONCRETE SLABS AT MAIN LEVEL FLOORS SHALL BE 4" SLABS OVER 6" TYPE 2 CLASS B AGGREGATE BASE COMPACTED TO 95% MINIMUM RELATIVE COMPACTION. ALL CONCRETE THAT IS TO BE EXPOSED SHALL BE TROWELED TO A SMOOTH FINISH WITH NO CURING AGENT APPLIED.
B. EXTERIOR: CAST-IN-PLACE EXTERIOR SLABS SHALL BE 4" SLABS OVER 6" TYPE 2 CLASS B AGGREGATE BASE COMPACTED TO 95% MINIMUM RELATIVE COMPACTION. USE CITY OF SPARKS APPROVED MIX DESIGN FOR 4,000 psi CONCRETE.
1. BROOM FINISH
C. SEE STRUCTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

4. MASONRY:
A. GENERAL: ALL EXISTING MASONRY WALLS TO REMAIN, UNLESS NOTED OTHERWISE. SEE DRAWINGS FOR MASONRY TO BE REMOVED. PREPARE SURFACES FOR NEW INTERIOR FINISH AS INDICATED IN DRAWINGS.

6. WOOD, PLASTICS, AND COMPOSITES
A. ROUGH CARPENTRY: SEE DRAWINGS FOR EXISTING WOOD FRAMED WALL TO BE REMOVED AND RE-BUILT. ALL OTHER EXISTING WALLS TO REMAIN.
1. DIMENSIONAL LUMBER SHALL BE CONSTRUCTION GRADE OR BETTER FOR LIGHT FRAMING USES.
2. ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED.
3. PROVIDE SOLID 2x BLOCKING BEHIND ALL WALL MOUNTED ACCESSORIES AND FIXTURES.

7. THERMAL AND MOISTURE PROTECTION:
A. INSULATION:
1. EXISTING EXTERIOR WALLS, RIGID FOAM INSULATION TO REMAIN.
2. EXISTING CEILING, INSULATION TO REMAIN.
3. NEW EXTERIOR WALL(S): R-21 FIBERGALSS BATT INSULATION.
4. NEW CEILING(S): R-38 FIBERGLASS BATT INSULATION.
B. WEATHER-RESISTANT EXTERIOR ENVELOPE: INSTALL NOT FEWER THAN ONE LAYER OF NO.15 ASPHALT FELT, COMPLYING WITH ASTM D226 FOR TYPE 1 FELT OR OTHER APPROVED MATERIALS, SHALL BE ATTACHED TO THE STUDS OR SHEATHING, IN SUCH A MANNER AS TO PROVIDE A CONTINUOUS WATER-RESISTIVE BARRIER BEHIND THE EXTERIOR WALL VENEER.
C. FLASHING: FLASHING SHALL BE INSTALLED IN SUCH A MANNER SO AS TO PREVENT MOISTURE FROM ENTERING THE WALL OR TO REDIRECT THAT MOISTURE TO THE EXTERIOR. USE 26 GA. MINIMUM GALVANIZED SHEET METAL (PRE-FINISHED OR PAINT TO MATCH ADJACENT SURFACES). WHERE SELF-ADHERED MEMBRANES ARE USED AS FLASHINGS OF FENESTRATION IN WALL ASSEMBLIES, THOSE SELF-ADHERED FLASHINGS SHALL COMPLY WITH AAMA 711.
D. VAPOR RETARDER: INSTALL APPROVED CLASS I OR II VAPOR RETARDER ON WARM SIDE OF WALL. INSTALL 10mil UNDER SLAB VAPOR BARRIER AT CONDITIONED SPACE.
E. SUBMITTALS: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.

8. OPENINGS
A. DOORS AND WINDOWS: SEE PLANS FOR LOCATIONS OF NEW DOORS AND WINDOWS.
DOOR NOTES:
1. EXISTING DOORS INDICATED IN DRAWINGS TO BE REMOVED, REFINISHED AND REINSTALLED INTO EXISTING OPENING.
2. ALL DOOR HARDWARE SHALL BE AS INDICATED IN "DOOR HARDWARE SCHEDULE".
3. EXIT DOORS SHALL BE MARKED SO THAT THEY ARE READILY DISTINGUISHABLE FROM THE ADJACENT CONSTRUCTION.
4. ALL EXTERIOR DOORS SHALL BE WEATHER TIGHT ALL AROUND.
5. NEW WINDOWS SHALL BE DUAL PANE LOW-E COMPOSITE FRAME ANDERSEN 100 SERIES OR APPROVED EQUAL.

9. FINISHES:
GENERAL:
A. SUBMITTALS: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.
B. QUALITY ASSURANCE: COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS THAT HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

FINISH NOTES:
1. USE FIBERGLASS REINFORCED MESH JOINT TAPE AT ALL GYPSUM WALL BOARD JOINTS.
2. ALL INTERIOR WALL AND CEILINGS SHALL RECEIVE SMOOTHEST FINISH PERMISSIBLE BY BUDGET UNLESS NOTED OTHERWISE.
3. ALL PAINTS AND PRIMERS SHALL BE ZERO VOC CONTENT. MISCELLANEOUS ADHESIVES AND SEALANTS WITHIN PROJECT TO BE LOW VOC CONTENT.
4. ALL INTERIOR FINISH MATERIAL SELECTIONS SHALL BE APPROVED BY OWNER OR ARCHITECT.

FINISHED FLOORING:
EXISTING FLOOR: EXISTING FLOOR SURFACE SHALL BE REMOVED AND REPLACED AS INDICATED IN PLANS. FILL ALL CRACKS, CHIPS, OR DIVOTS WITH APPROVED PATCHING COMPOUND.
A. NEW FLOORING:
1. LUXURY VINYL TILE (LVT): J+J FLOORING, FRAMEWORK V5001. INSTALL PER MANUFACTUERES INSTRUCTIONS.
2. COLOR: BEAM 1015
3. INSTALLATION PATTERN: CONFIRM WITH OWNER
4. SUBMIT MANUFACTURER'S PRODUCT INFORMATION FOR APPROVAL BY ARCHITECT AND OWNER.
B. WALL BASE: 4" THERMOSET RUBBER WALL BASE
1. MANUFACTURER: BURKE FLOORING.
2. PRODUCT LINE: TYPE TS.
3. COLOR: BLACKBROWN - 523
4. SUBMITTALS: SUBMIT MINIMUM, 6-INCH SAMPLE INDICATING COLOR AND PATTERN. APPROVED SAMPLES WILL BE USED DURING INSTALLATION FOR PRODUCT MATCH.

FINISHED WALLS AND CEILINGS:
EXISTING WALLS AND CEILINGS: EXISTING WALL AND CEILING SURFACES SHALL BE PREPARED FOR NEW PAINT. SEE MANUFACTURER'S INSTRUCTIONS.
EXISTING ACOUSTIC CEILING TILE TO BE REMOVED. ABATEMENT, IF REQUIRED, BY OWNER.
NEW WALLS AND CEILINGS:
1. USE 5/8" GYPSUM WALL BOARD AT ALL NEW WALLS AND CEILINGS.
2. AT BATHROOMS AND SHOWER ROOMS USE MOLD/MOISTURE RESISTANT GYPSUM BOARD.
3. WHEN ALIGNING TO AN EXISTING ADJACENT SURFACE, MATCH THICKNESS AS REQUIRED.
4. ALL INTERIOR WALL AND CEILINGS SHALL RECEIVE SMOOTHEST FINISH PERMISSIBLE BY BUDGET UNLESS NOTED OTHERWISE.
5. ALL PAINTS AND PRIMERS SHALL BE ZERO VOC CONTENT. MISCELLANEOUS ADHESIVES AND SEALANTS WITHIN PROJECT TO BE LOW VOC CONTENT.
6. AT SHOWER ENCLOSURES: Schluter SHOWER SYSTEM, INSTALL PER MFR. INSTRUCTIONS.
7. SHOWER: ACRYLIC OR FIBERGLASS THREE-SIDED SHOWER SURROUND. COORDINATE WITH OWNER.
8. ALL INTERIOR FINISH MATERIAL SELECTIONS SHALL BE APPROVED BY OWNER OR ARCHITECT.

10. SPECIALTIES:
TOILET AND BATH ACCESSORIES:
GENERAL NOTES:
A. MANUFACTURERS:
SUBJECT TO COMPLIANCE WITH REQUIREMENTS, MANUFACTURERS OFFERING TOILET ACCESSORIES THAT MAY BE INCORPORATED IN THE PROJECT INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
A & J WASHROOM, AMERICAN SPECIALTIES, BOBRICK WASHROOM EQUIPMENT, INC., HADRIAN INC.
SEE DRAWINGS FOR FIXTURE AND ACCESSORY SCHEDULE.
B. ACCESSIBILITY REQUIREMENTS:
1. ACCESSIBLE CONTROLS AND OPERATING MECHANISM: MUST BE OPERABLE WITH ONE HAND, WITHOUT TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LB-FT (22.2 N).
2. TOILET TISSUE DISPENSERS: DO NOT USE TOILET TISSUE DISPENSERS THAT CONTROL DELIVERY, OR DO NOT PERMIT CONTINUOUS PAPER FLOW.
C. INSTALLATION:
1. INSTALL ACCESSORIES ACCORDING TO MANUFACTURERS' WRITTEN INSTRUCTIONS, USING FASTENERS APPROPRIATE TO SUBSTRATE INDICATED AND RECOMMENDED BY UNIT MANUFACTURER. INSTALL UNITS LEVEL, PLUMB, AND FIRMLY ANCHORED IN LOCATIONS AND AT HEIGHTS INDICATED.
2. INSTALL ACCESSORIES IN LOCATIONS, AND AT HEIGHTS INDICATED ON DRAWINGS.
3. IF MOUNTING HEIGHTS AND CLEARANCES ARE NOT INDICATED ON DRAWINGS, COMPLY WITH REQUIREMENTS OF SECTION 504, ADA, AND ANSI STANDARDS TO ACCOMMODATE USE OF ACCESSORY ITEMS BY THE DISABLED.
4. SECURE MIRRORS TO WALLS IN A CONCEALED, TAMPER-RESISTANT MANNER WITH SPECIAL HANGERS, TOGGLE BOLTS, OR SCREWS. SET UNITS LEVEL, PLUMB, AND SQUARE AT LOCATIONS INDICATED, ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS FOR THE SUBSTRATE INDICATED.
5. INSTALL GRAB BARS TO WITHSTAND DOWNWARD LOAD OF AT LEAST 250 LB-FT (1112 N), TESTED ACCORDING TO METHOD IN ASTM F446.
D. ADJUSTING AND CLEANING:
1. ADJUST ACCESSORIES FOR UNENCUMBERED, SMOOTH OPERATION, AND VERIFY THAT MECHANISMS FUNCTION PROPERLY. REPLACE DAMAGED OR DEFECTIVE ITEMS.
2. REMOVE TEMPORARY LABELS AND PROTECTIVE COATINGS.
3. CLEAN AND POLISH EXPOSED SURFACES ACCORDING TO MANUFACTURER'S WRITTEN RECOMMENDATIONS.

RESTROOM ACCESSORIES: SEE DRAWINGS FOR FIXTURE AND ACCESSORY SCHEDULE AND FOR TYPICAL ADA MOUNTING HEIGHTS.

22. PLUMBING:
A. COMMERCIAL PLUMBING FIXTURES:
WATER CLOSET: ADA COMPLIANT, WALL MOUNTED - SEE FIXTURE SCHEDULE. ALSO SEE PLUMBING.
LAVATORY: ADA COMPLIANT, COUNTERTOP MOUNTED - SEE FIXTURE SCHEDULE. ALSO SEE PLUMBING.
LAVATORY FAUCET: ADA COMPLIANT - SEE FIXTURE SCHEDULE. ALSO SEE PLUMBING.
SHOWER PAN: ACRYLIC SHOWER PAN - SEE FIXTURE SCHEDULE. ALSO SEE PLUMBING.
FLOOR DRAIN: SEE PLUMBING.

23. HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)
MECHANICAL NOTES:
A. EXISTING DUCTS TO BE REMOVED AND REPLACED WITH EXPOSED GALVANIZED SPIRAL DUCTS. ALL DUCTS AND FITTINGS SHALL BE SECURELY JOINED BY MALE OR FEMALE CONNECTING COLLAR OR SLEEVE, WITH HIGH VELOCITY DUCT SEALANT APPLIED TO THE SURFACE OF CONNECTIONS AND APPROVED FASTENING DEVICES. LONGITUDINAL SEAMS MUST BE SEALED. LAYOUT SHALL BE COORDINATED WITH ARCHITECT BUT DESIGNED BY HVAC CONSULTANT.
EXHAUST FANS: SEE MECHANICAL.

26. ELECTRICAL:
ELECTRICAL NOTES:
INSTALL ENERGY STAR-LABELED OR ENERGY STAR ADVANCED LIGHTING PACKAGE FOR ALL INTERIOR LIGHTING. LIGHT FIXTURES IN UNCONDITIONED SPACES MUST BE AIRTIGHT (IE, ICAT FIXTURES)
A. LIGHTING: SURFACE MOUNTED LED LIGHT FIXTURES. SEE ELECTRICAL.

GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL TRASH GENERATED BY THE CONSTRUCTION.
2. CONTRACTOR SHALL PROVIDE FOR FIRE SAFETY AT ALL TIMES DURING CONSTRUCTION. ANY OPERATIONS UTILIZING TORCHES OR OTHER HEAT PRODUCING EQUIPMENT SHALL HAVE FIRE EXTINGUISHER PRESENT AT ALL TIMES.
3. CONTRACTOR SHALL NOT SCALE DRAWINGS AND SHALL PROMPTLY REPORT ANY DISCREPANCIES TO THE ARCHITECT FOR RESOLUTION.
4. CONTRACTOR TO COMPLY WITH ALL APPLICABLE INTERNATIONAL BUILDING CODES (IBC) AND CURRENT EDITIONS OF INDUSTRY STANDARDS.
5. CONTRACTOR SHALL DISTRIBUTE ONLY COMPLETE PLANS AND SPECIFICATIONS. CONTRACTOR SHALL REVIEW EXISTING CONDITIONS AND NOTIFY ARCHITECT OF ANY INCONSISTENCIES PRIOR TO BIDDING AND ANY CONSTRUCTION.
6. CONTRACTOR TO COORDINATE WITH OWNER'S REPRESENTATIVE AND SECURITY SERVICES TO GAIN ACCESS TO BUILDING FOR CONSTRUCTION.
7. CONTRACTOR TO COORDINATE WITH OWNER'S REPRESENTATIVE FOR PARKING LOCATIONS & STAGING AREA.
8. DESIGNATED WORK HOURS TO BE MONDAY-FRIDAY 7:00AM -5:00PM, OR AS NEGOTIATED.
9. CONTRACTOR TO COORDINATE WITH OWNER'S REPRESENTATIVE BY EMAIL OR FAX FOR REMOVAL OF FURNISHINGS PROVIDING A MINIMUM OF THREE DAYS NOTICE.
10. CONTRACTOR TO REVIEW GENERAL CONDITIONS IN SPECIFICATIONS FOR HOURS OF WORK, STAGING AREAS, PARKING REQUIREMENTS, ETC.
11. THIS PROJECT IS SUBJECT TO 2018 IBC, AND THE ACCESSIBILITY STANDARDS LISTED. ANY CONFLICT BETWEEN THESE SHALL BE RESOLVED BY COMPLYING WITH THE ITEM THAT PROVIDES THE GREATEST ACCESSIBILITY.
12. OWNER-SUPPLIED BUILT IN FURNISHINGS, FIXTURES, ACCESSORIES, AND EQUIPMENT- WHETHER OR NOT INDICATED ON DRAWINGS MAY BE REQUIRED TO COMPLY WITH ACCESSIBILITY CODES. ALL OWNER-SUPPLIED BUILT-IN FURNISHINGS, FIXTURES, ACCESSORIES, AND EQUIPMENT SHALL BE FURNISHED IN THE QUANTITIES, CONFIGURATIONS, AND LOCATIONS REQUIRED TO COMPLY WITH ACCESSIBILITY CODES.

GENERAL NOTES &
SPECIFICATIONS

a002

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CITY OF SPARKS
FIRE STATION 2
City of Sparks, Nevada

2900 N. Truckee Ln
Sparks, NV 89434

NATHANIEL B. HUDSON
REGISTERED
6/08/2021
No. 7649
ARCHITECT
STATE OF NEVADA

BID SET 06-17-21

FGS #FGS# 2018-20

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OCCUPANCY: R-2
MAX. OCCUPANT LOAD OF SPACE: 18
MAX. COMMON PATH OF EGRESS TRAVEL DISTANCE: 125 FEET

EGRESS CAPACITY FACTOR: 0.2

*BUILDING EQUIPPED WITH AUTOMATIC SPRINKLER SYSYTEM

* EXISTING BUILDING IS DESIGNED FOR AN OCCUPANT LOAD OF 18
CURRENT FIRE DEPARTMENT STAFFING LEVELS: 5 PER SHIFT
(10 OCCUPANTS AT SHIFT CHANGE −30-60 MINUTES)

OCCUPANT LOAD

ROOM NAME	NUMBER	LEVEL	AREA	FUNCTION OF SPACE	LOAD FACTOR	OCCUPNAT LOAD (ROUND UP)
ENTRY	101	GROUND FLOOR	79 SF	BUSINESS AREA	200	1
ALARM ROOM	102	GROUND FLOOR	75 SF	BUSINESS AREA	150	1
SHIFT COMMANDER	103	GROUND FLOOR	108 SF	SLEEPING AREA	200	1
BATH	104	GROUND FLOOR	37 SF	ACCESSORY	0	
DINING AREA	105	GROUND FLOOR	152 SF	RESIDENTIAL	200	1
KITCHEN	106	GROUND FLOOR	96 SF	RESIDENTIAL	200	1
PATIO	107	GROUND FLOOR	127 SF	RESIDENTIAL	50	3
LIVING AREA	108	GROUND FLOOR	486 SF	RESIDENTIAL & BUSINESS	200	3
BATHROOM	109	GROUND FLOOR	47 SF	ACCESSORY	25	2
SLEEPING ROOM	113	GROUND FLOOR	90 SF	SLEEPING AREA	200	1
SLEEPING ROOM	114	GROUND FLOOR	87 SF	SLEEPING AREA	200	1
SLEEPNG ROOM	115	GROUND FLOOR	87 SF	SLEEPING AREA	200	1
SLEEPING ROOM	116	GROUND FLOOR	90 SF	SLEEPING AREA	200	1
ADA RESTROOM	117	GROUND FLOOR	58 SF	ACCESSORY	200	1
SHOWER	118	GROUND FLOOR	42 SF	ACCESSORY	0	
GROUND FLOOR: 15			1660 SF			18

EXITING LEGEND

- X — OCCUPANT LOAD
- PATH OF EGRESS TRAVEL
- a | b | c — a - OCCUPANT LOAD AT EXIT; b - PROVIDED EGRESS WIDTH; c - REQUIRED EGRESS WIDTH

OCCUPANCY LOAD / EXIT PLAN

1/4" = 1'-0"

OCCUPANT LOAD / EXIT PLAN

a003

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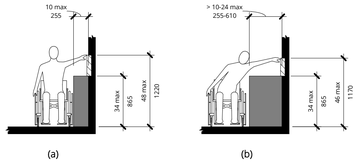


Figure 308.3.2
Obstructed High Side Reach

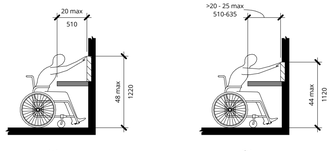


Figure 308.2.2
Obstructed High Forward Reach

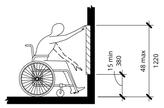


Figure 308.1
Unobstructed Forward Reach

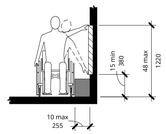


Figure 308.3.1
Unobstructed Side Reach

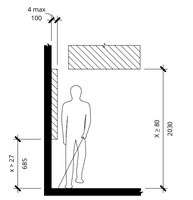


Figure 307.2
Limits of Protruding Objects

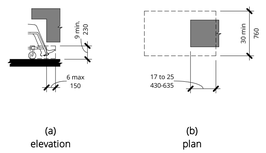


Figure 306.2
Toe Clearance

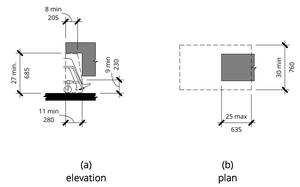


Figure 306.3
Knee Clearance

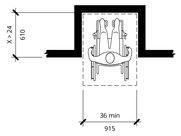


Figure 305.7.1
Maeuvering Clearance in an Alcove,
Forward Approach

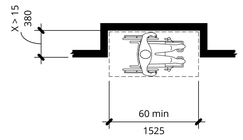


Figure 305.7.2
Maeuvering Clearance in an Alcove,
Parallel Approach

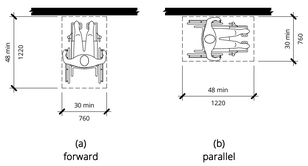


Figure 305.5
Position of Clear Floor or Ground Space

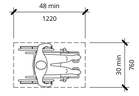
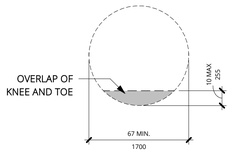
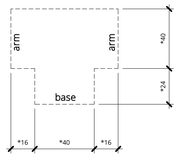


Figure 305.3
Clear Floor or Ground Space



Circular Turning Space
*ANSI '16 Best Practice



T-Shaped Turning Space
*ANSI '16 Best Practice

Figure 302.2
Carpet Pile Height

Figure 303.2
Vertical Change in Level

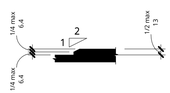


Figure 303.3
Beveled Change in Level

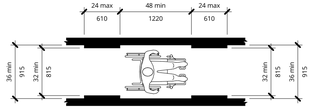


Figure 403.5.1
Clear Width of an Accessible Route

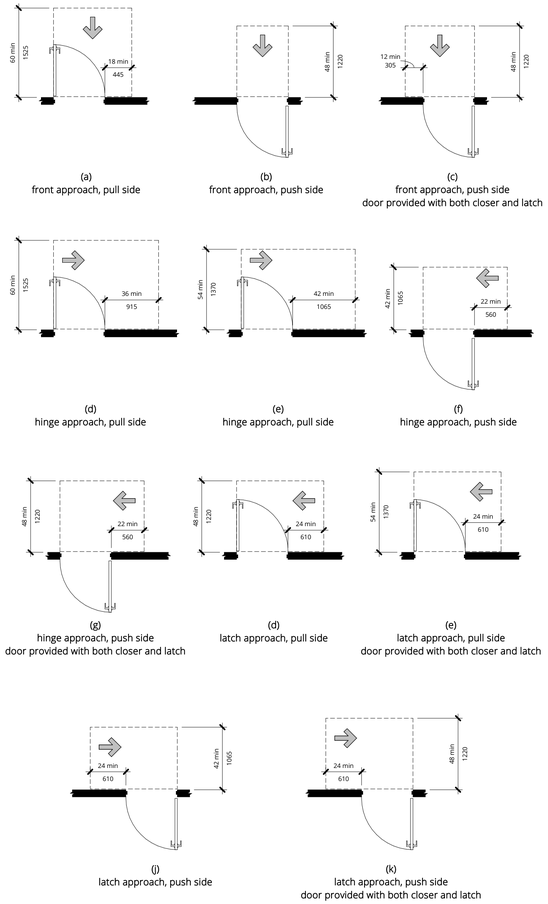


Figure 404.2.4.1
Maneuvering Clearances at Manual Swinging Doors and Gates

Convention	Description
36 / 915	dimension showing English units (in inches unless otherwise specified) above the line and SI units (in millimeters unless otherwise specified) below the line
6 / 150	dimension for small measurements
33-36 / 840-915	dimension showing a range with minimum - maximum
min	minimum
max	maximum
>	greater than
≥	greater than or equal to
<	less than
≤	less than or equal to
	boundary of clear floor space or maneuvering clearance
	centerline
	a permitted element or its extension
	direction of travel or approach
	a wall, floor, ceiling or other element cut in section or plan
	a highlighted element in elevation or plan
	location zone of element, control or feature

ACCESSIBILITY
DETAILS

a004

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SITE PLAN

1" = 20'-0"

SITE PLAN

a100

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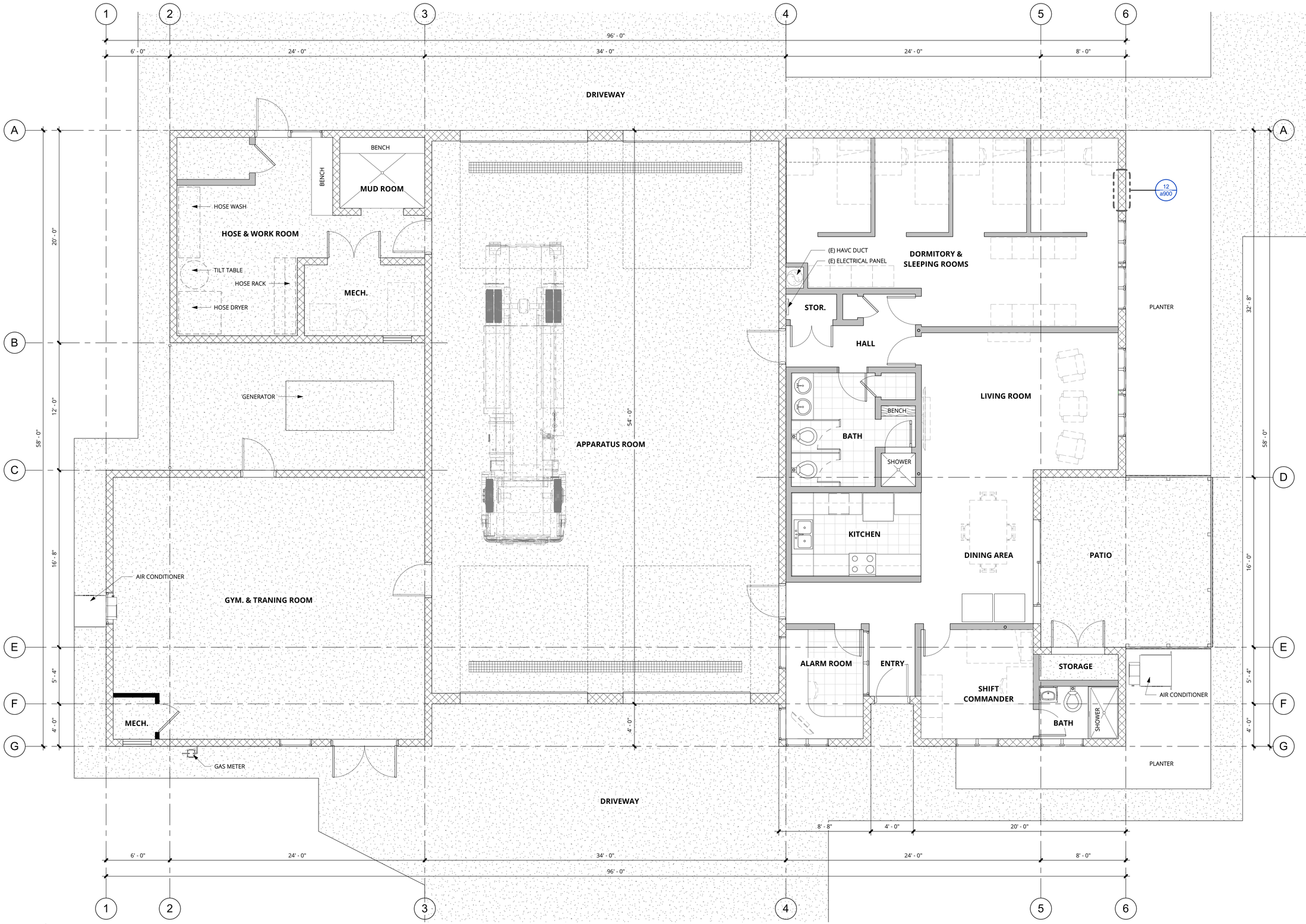

EXISTING FLOOR PLAN

1/4" = 1'-0"

EXISTING FLOOR PLAN

a200

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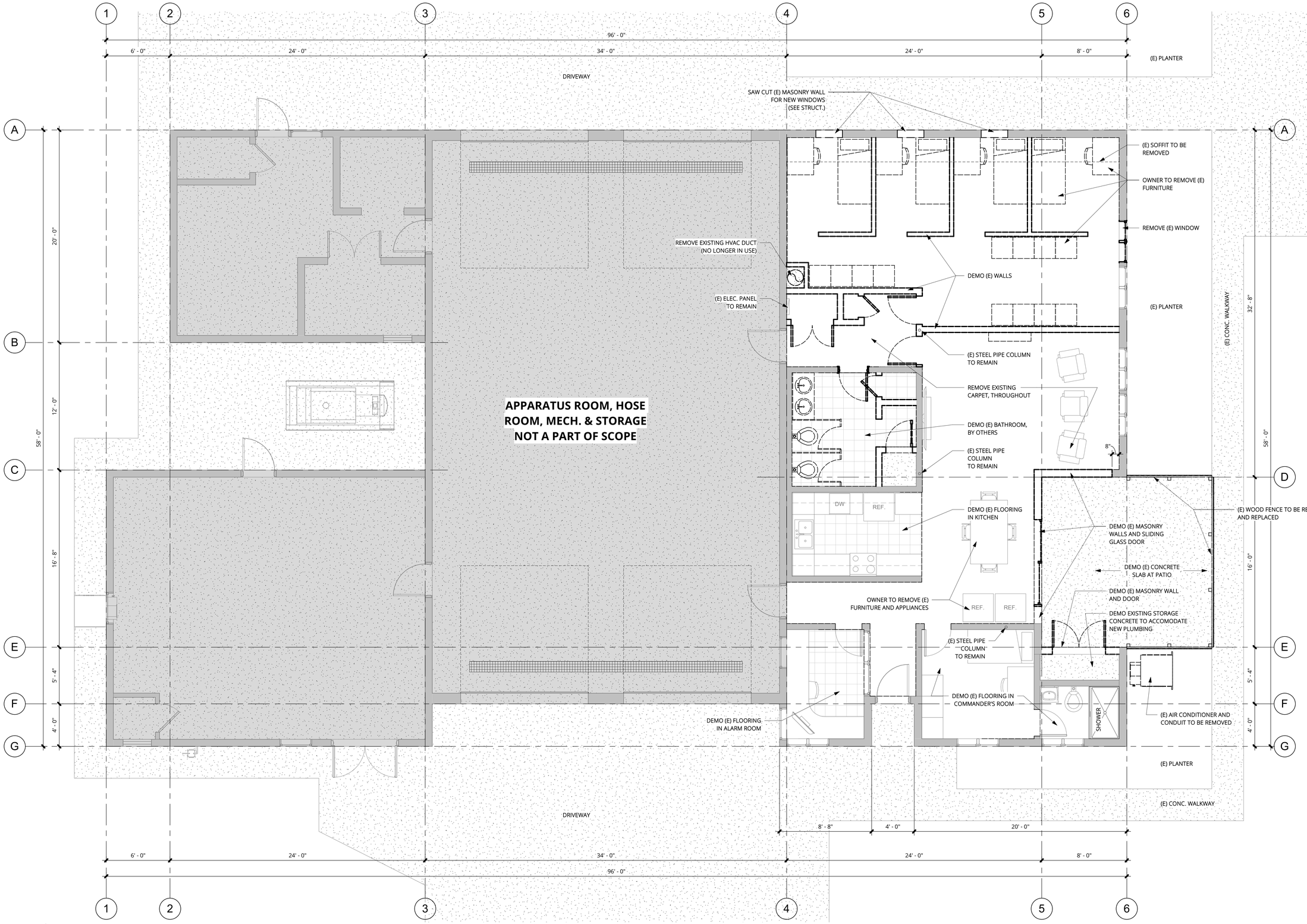

DEMO FLOOR PLAN

1/4" = 1'-0"

DEMO FLOOR PLAN

a201

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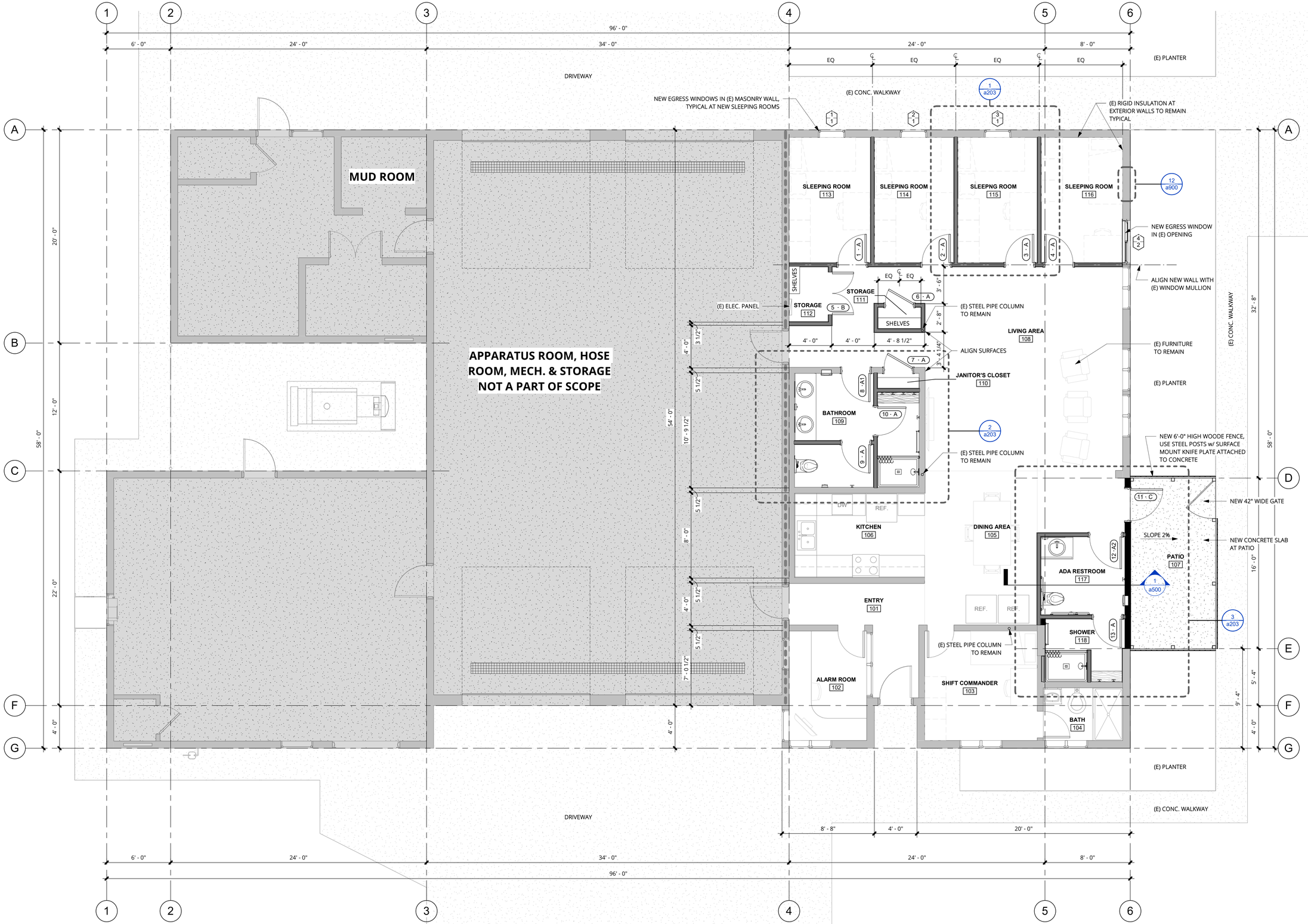

PROPOSED FLOOR PLAN

1/4" = 1'-0"

PROPOSED FLOOR PLAN

a202

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INTERIOR FINISH SCHEDULE

#	ROOM	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	CEILING	COMMENTS
101	ENTRY	F-1	B-1	W-1	W-1	W-1	W-1	C-1	
102	ALARM ROOM	F-1	B-1						
103	SHIFT COMMANDER	F-1	B-1						
104	BATH	F-1	B-1						
105	DINING AREA	F-1	B-1	W-1	W-1	W-1	W-1	C-1	
106	KITCHEN	F-1	[E] CABINET TOE-KICK	W-1	W-1	W-1	W-1	C-1	
108	LIVING AREA	F-1	B-1	W-1	W-1	W-1	W-1	C-1	
109	BATHROOM	F-1	B-1	W-1	W-1	W-1	W-1	C-1	W-2 AT SHOWER
110	JANITOR'S CLOSET	F-1	B-1	W-1	W-1	W-1	W-1	C-1	
111	STORAGE	F-1	B-1	W-1	W-1	W-1	W-1	C-1	
112	STORAGE	F-1	B-1	W-1	W-1	W-1	W-1	C-1	
113	SLEEPING ROOM	F-1	B-1	W-1	W-1	W-1	W-1	C-1	
114	SLEEPING ROOM	F-1	B-1	W-1	W-1	W-1	W-1	C-1	
115	SLEEPNG ROOM	F-1	B-1	W-1	W-1	W-1	W-1	C-1	
116	SLEEPING ROOM	F-1	B-1	W-1	W-1	W-1	W-1	C-1	
117	ADA RESTROOM	F-1	B-1	W-1	W-1	W-1	W-1	C-1	
118	SHOWER	F-1	B-1	W-1	W-1	W-1	W-1	C-1	W-2 AT SHOWER

FINISH MATERIALS

FLOOR	F-1:	EXISTING FLOOR SURFACE SHALL BE REMOVED AND REPLACED AS INDICATED IN PLANS. FILL ALL CRACKS, CHIPS, OR DIVOTS WITH APPROVED PATCHING COMPOUND. NEW FLOORING: LUXURY VINYL TILE (LVT): J+J FLOORING, FRAMEWORK V5001. INSTALL PER MANUFACTUERES INSTRUCTIONS. COLOR: BEAM 1015
BASE	B-1:	4" THERMOSET RUBBER WALL BASE - BURKE FLOORING TYPE TS
WALL	W-1:	GYPSUM BOARD, LEVEL 4 - SMOOTH FINISH SHERWIN WILLIAMS INTERIOR ACRYLIC LATEX SEMI-GLOSS, SW1011 WHITE
	W-2:	ACRYLIC OR FIBERGLASS THREE-SIDED SHOWER SURROUND. COORDINATE WITH OWNER.
CEILING	C-1:	GYPSUM BOARD, LEVEL 4 - SMOOTH FINISH SHERWIN WILLIAMS INTERIOR ACRYLIC LATEX SEMI-GLOSS, SW1011 WHITE
COUNTERTOP	CT-1:	SOLID SURFACE COUNTERTOP CORIAN, SILESTONE, OR APPROVED EQUAL. COORDINATE WITH OWNER.
BENCH	BN-1:	WOOD SHOWER BENCH, COORDINATE WITH OWNER.

PLUMBING FIXTURE SCHEDULE

TYPE MARK	COUNT	DESCRIPTION	MANUFACTURER	MODEL	COMMENTS
P1	2	WALL MOUNT WATER CLOSET	American Standard	3351.101	ADA COMPLIANT, CENTOCO TOILET SEAT MODEL 500
P2	2	ELECTRONIC SENSOR FLUSHOMETER	Sloan	G2 SERIES	
P3	3	BATHROOM LAVATORY	American Standard	0496.221.020	ADA COMPLIANT
P4	3	OPTIMA SENSOR FAUCET	Sloan	EAF-100	PLUG-IN TYPE
P5	2	48" x 36" ACRYLIC SHOWER BASE	American Standard	A8004L-CO.020	WITH THREE-SIDED SURROUND, COORDINATE WITH OWNER
P6	2	SHOWER ONLY TRIM KIT	American Standard	TU052500.002	WITH WATER SAVING SHOWER HEAD AND CARTRIDGE

BATHROOM ACCESSORIES SCHEDULE

TYPE MARK	COUNT	DESCRIPTION	MANUFACTURER	MODEL	COMMENTS
A1	2	RECESSED COMBINATION TOWEL AND WASTE UNIT	Bobrick	B-4369	
A2	3	WELDED FRAME MIRROR	Bobrick	B-290 1830	18" x 30"
A3	2	SURFACE MOUNTED SOAP DISPENSER			OWNER SUPPLIED AND INSTALLED
A4	1	42" STRAIGHT GRAB BAR - HORIZONTAL	Bobrick	B-5806x42	STAINLESS STEEL - SATIN FINISH
A5	1	36" STRAIGHT GRAB BAR - HORIZONTAL	Bobrick	B-5806x36	STAINLESS STEEL - SATIN FINISH
A6	1	18" STRAIGHT GRAB BAR - VERTICAL	Bobrick	B-5806x18	STAINLESS STEEL - SATIN FINISH
A7	2	SURFACE MOUNTED SEAT COVER DISPENSER	Bobrick	B-4221	STAINLESS STEEL - SATIN FINISH
A8	2	RECESSED MULTI-ROLL TOILET TISSUE DISPENSER	Bobrick	B-4388	STAINLESS STEEL - SATIN FINISH, NON-LOCKING
A9	2	SHOWER CURTAIN ROD w/ HOOKS & CURTAIN	Bobrick	B-6107 x 48	STAINLESS STEEL - SATIN FINISH, VINYL CURTAIN
A10	2	24" TOWEL BAR	Bobrick	B-674 x 24	
A11	9	SURFACE MOUNTED ROBE HOOK	Bobrick	B-6727	
A12	3	WALL MOUNTED STAINLESS STEEL SHELF	Bobrick	B-295	

SEE SHEET a800 FOR DOOR SCHEDULE.

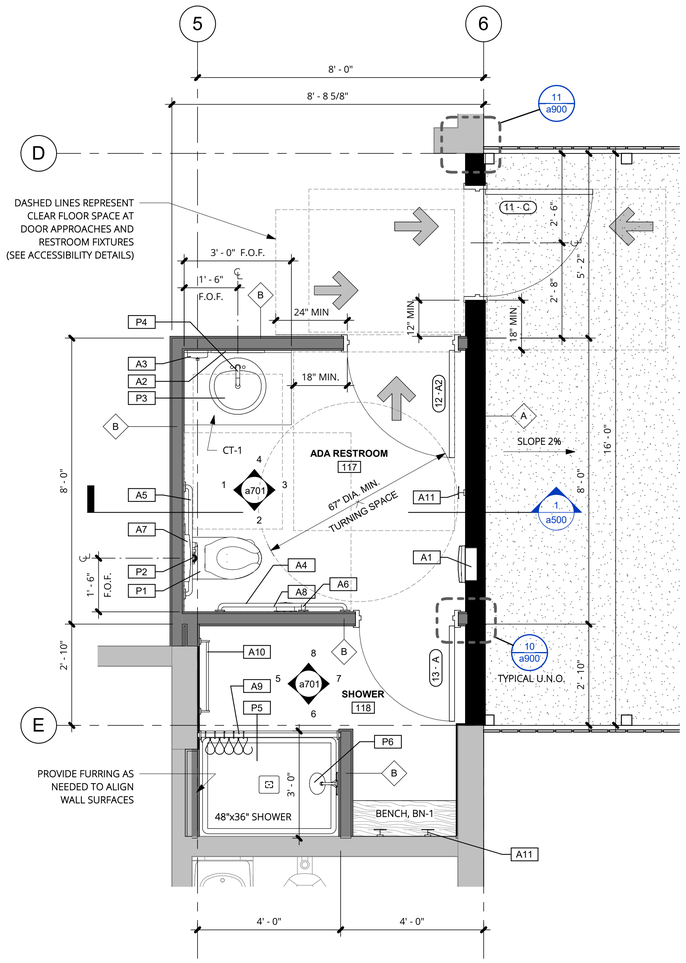
WALL TYPES LEGEND

EXISTING WALL TO REMAIN

EXISTING SEPARATION WALL TO REMAIN

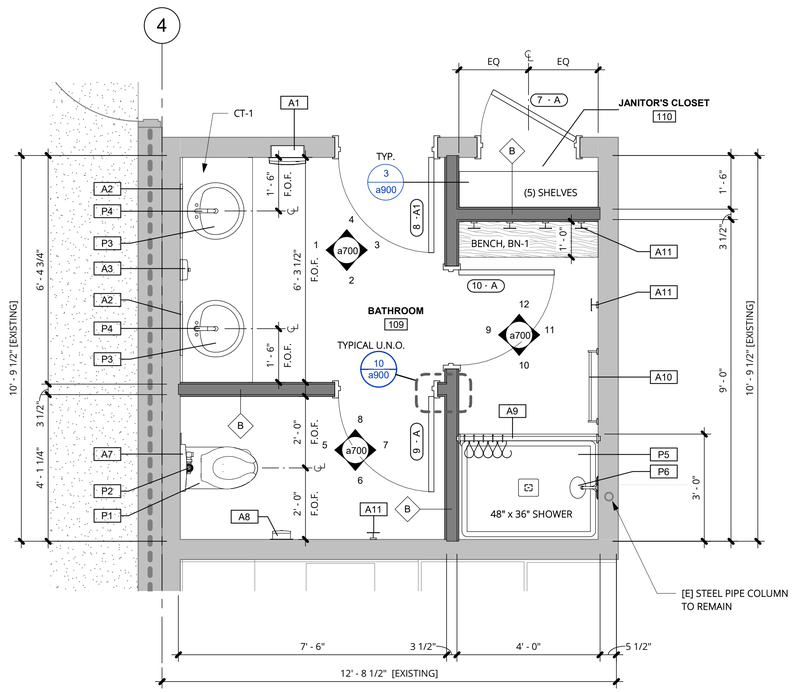
A — NEW EXTRIOR STUDWALL
2x6 STUDS @ 16" O.C.
R-21 BATT INSULATION
INTERIOR FINISH - 5/8" GYPSUM WALL BOARD
(USE MOLD/MOISTURE RESISTANT GYPSUM WALL BOARD AT BATHROOMS AND SHOWER ROOMS)
EXTERIOR FINSH: MATCH EXISTING WOOD SIDING OVER APPROVED WEATHER RESITANT BARRIER

B — NEW INTERIOR STUDWALL
2x4 STUDS @ 16" O.C.
3-1/2" SOUND ATTENUATION BATT INSULATION
INTERIOR FINISH - 5/8" GYPSUM WALL BOARD, EACH SIDE
(USE MOLD/MOISTURE RESISTANT GYPSUM WALL BOARD AT BATHROOMS AND SHOWER ROOMS)



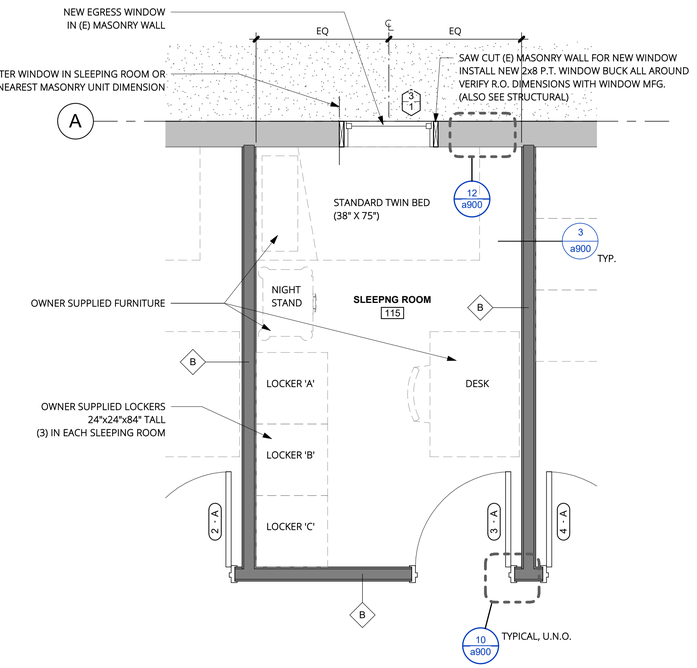
3 ENLARGED BATHROOM ADDITION

1/2" = 1'-0" REFERENCE - a202 /1



2 ENLARGED BATHROOM PLAN

1/2" = 1'-0" REFERENCE - a202 /1



1 ENLARGED SLEEPING ROOM PLAN

1/2" = 1'-0" REFERENCE - a202 /1

ENLARGED FLOOR PLANS

a203

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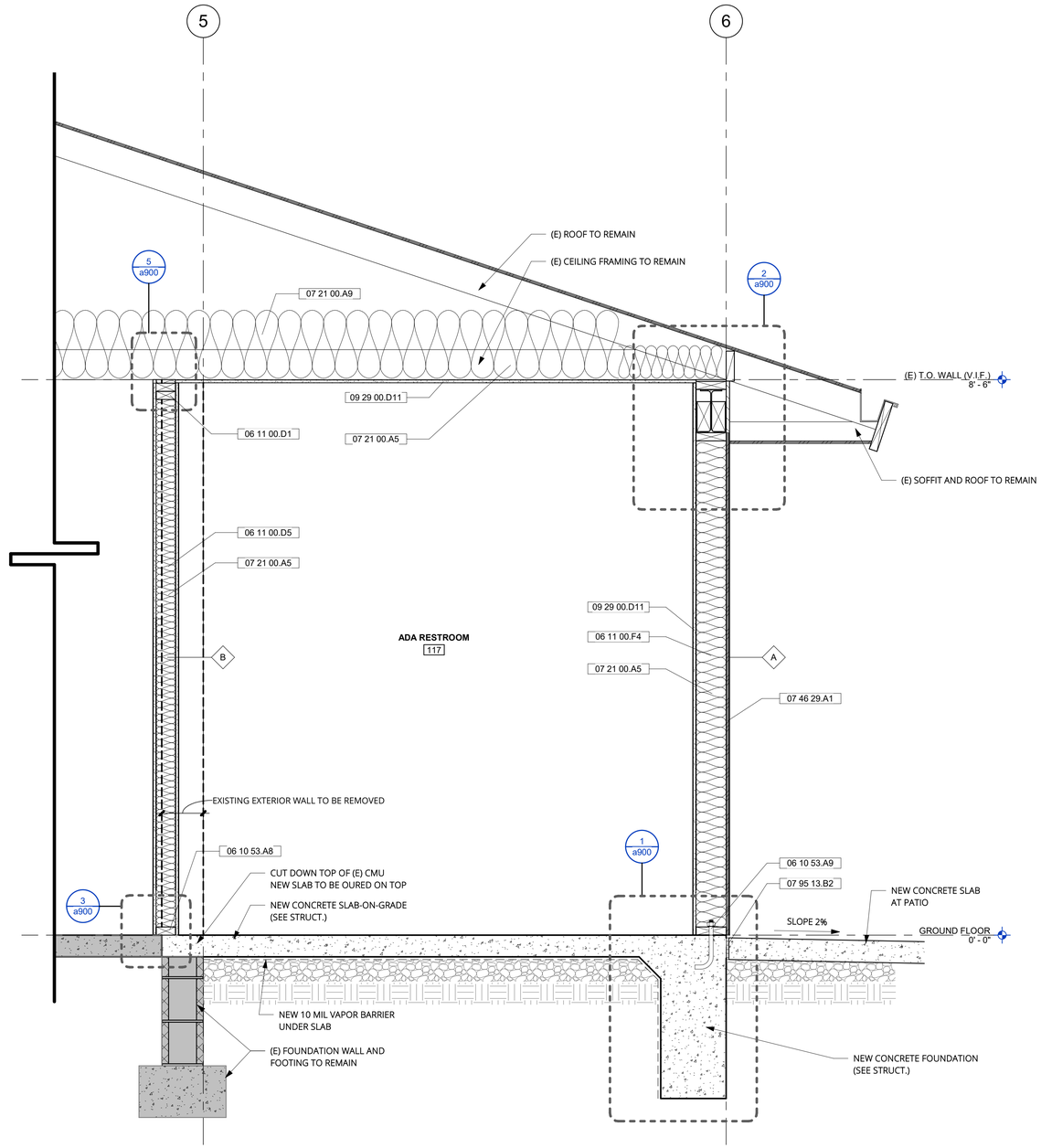
KEYNOTE LEGEND	
#	KEYNOTE TEXT
06 10 53.A8	2x4, pressure treated
06 10 53.A9	Sill Plate and Anchor Bolts, see structural drawings
06 11 00.D1	2x4
06 11 00.D5	2x4 Framing @ 16" O.C.
06 11 00.F4	2x6 Framing @ 16" O.C.
07 21 00.A5	R-21 Batt Insulation
07 21 00.A9	R-38 Batt Insulation
07 46 29.A1	Plywood Siding
07 95 13.B2	1/2" Expansion Joint
09 29 00.D11	5/8" Type "X" Gypsum Wallboard



1 PARTIAL BUILDING SECTION AT NEW ADA RESTROOM ADDITION

1" = 1'-0"

SECTIONS

a500

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CITY OF SPARKS
FIRE STATION 2
City of Sparks, Nevada

2900 N. Truckee Ln
Sparks, NV 89434

NATHANIEL B. HUDSON
REGISTERED
6/08/2021
No. 7649
ARCHITECT
STATE OF NEVADA

BID SET 06-17-21

FGS #FGS# 2018-20

6/17/2021 9:42:21 PM

DEMO CEILING PLAN

1/4" = 1'-0"

DEMO CEILING PLAN

a600

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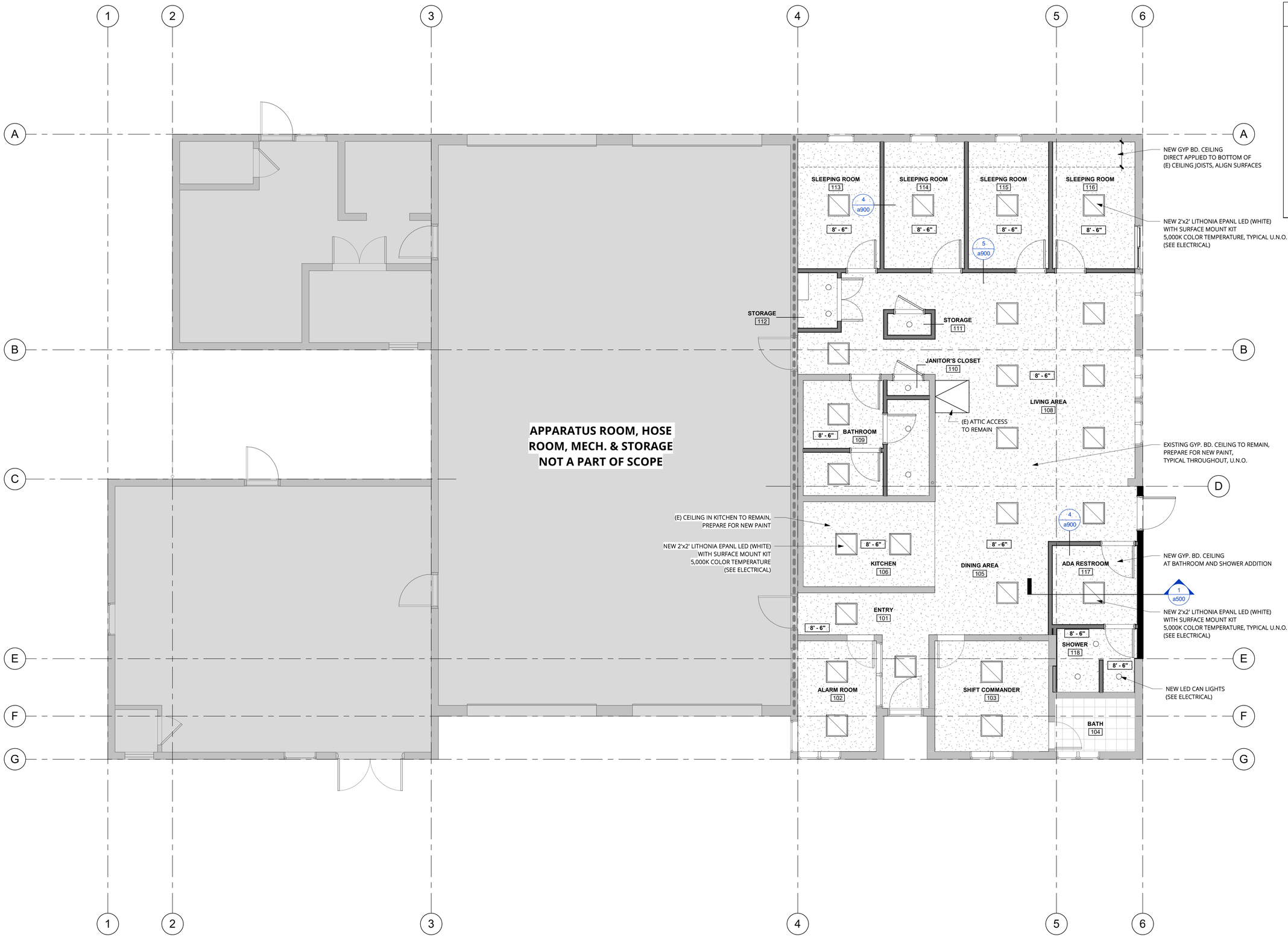

CEILING LEGEND

- 5/8" GYP. BD. CEILING TO INDICATED HEIGHT
- [E] CEILING TILES TO REMAIN
- 2'x2' LED LIGHT PANEL SURFACE MOUNTED
- 6" RECESSED LED FIXTURE

PROPOSED REFLECTED CEILING PLAN

1/4" = 1'-0"

PROPOSED REFLECTED CEILING PLAN

a601

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CITY OF SPARKS FIRE STATION 2

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Sparks, NV 89434

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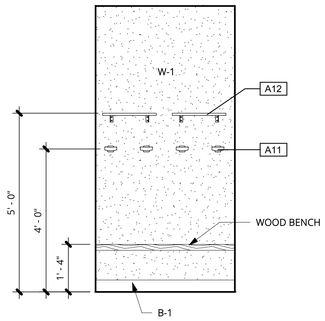
BID SET 06-17-21

FGS #FGS# 2018-20

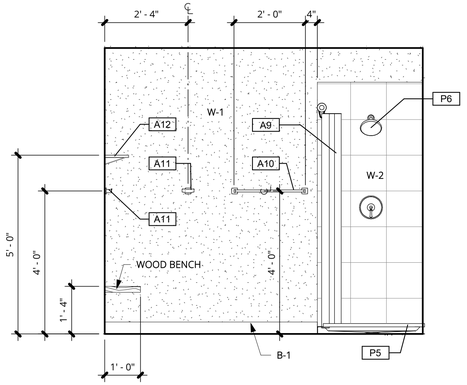
6/17/2021 9:42:22 PM

INTERIOR ELEVATION NOTES

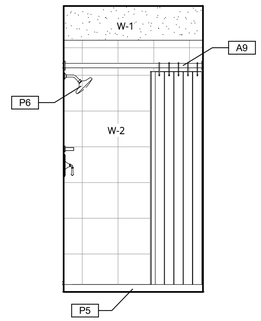
1. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
2. CONTRACTOR SHALL BE RESPONSIBLE TO "PROTECT IN PLACE" ANY BUILDING ELEMENT OR OWNER FURNISHINGS NOT INCLUDED IN THE SCOPE OF WORK DURING CONSTRUCTION.
3. DO NOT SCALE THE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE.
4. DIMENSIONS AT INTERIOR ELEVATIONS ARE FROM FACE-OF-FINISH (F.O.F.) TO FACE-OF-FINISH, UNLESS NOTED OTHERWISE.
5. SEE SCHEDULES FOR PLUMBING FIXTURE AND ACCESSORIES DESCRIPTIONS.
6. PROVIDE SOLID BACKING/BLOCKING BEHIND ALL WALL MOUNTED ACCESSORIES.
7. ALL FINISH MATERIALS NOT SPECIFIED SHALL BE COORDINATED WITH OWNER AND/OR ARCHITECT.
8. WHERE NEW CONSTRUCTION MEETS EXISTING, ALIGN SURFACES AND MATCH MATERIALS, TEXTURES, AND FINISHES.



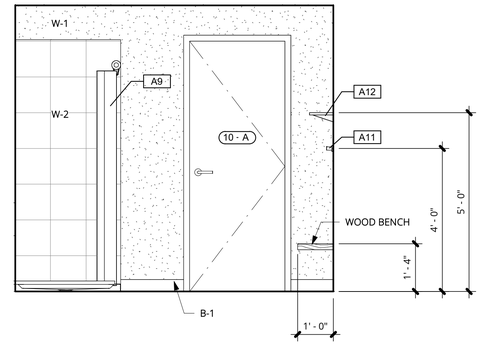
12 SHOWER 110 ELEV. 4
1/2" = 1'-0" REFERENCE - a203 /2



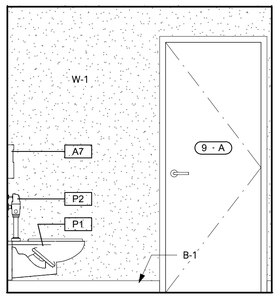
11 SHOWER 110 ELEV. 3
1/2" = 1'-0"



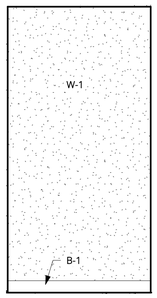
10 SHOWER 110 ELEV. 2
1/2" = 1'-0" REFERENCE - a203 /2



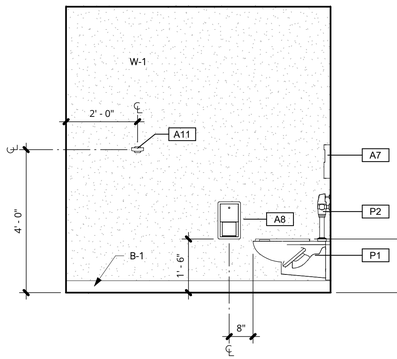
9 SHOWER 110 ELEV. 1
1/2" = 1'-0"



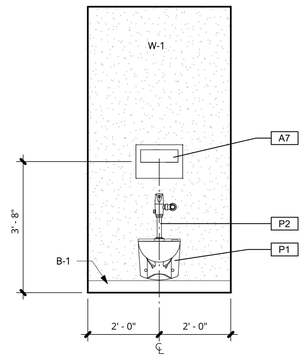
8 WATER CLOSET ELEV. 4
1/2" = 1'-0" REFERENCE - a203 /2



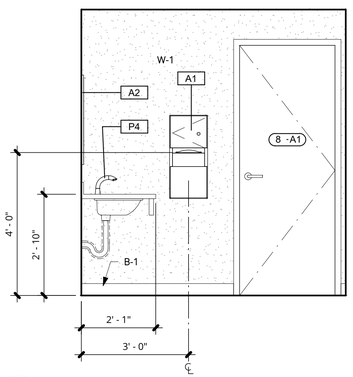
7 WATER CLOSET ELEV. 3
1/2" = 1'-0" REFERENCE - a203 /2



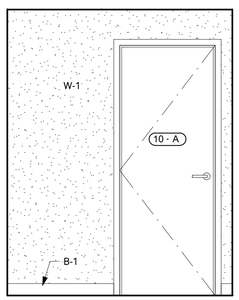
6 WATER CLOSET ELEV. 2
1/2" = 1'-0"



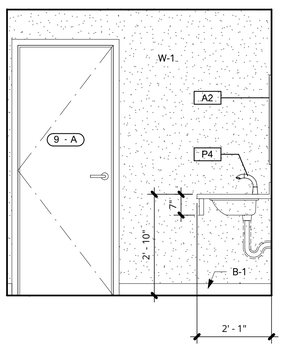
5 WATER CLOSET ELEV. 1
1/2" = 1'-0" REFERENCE - a203 /2



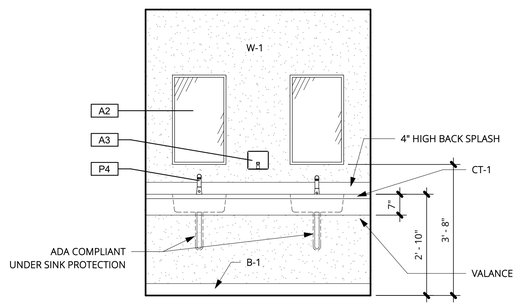
4 BATHROOM ELEV. 4
1/2" = 1'-0"



3 BATHROOM ELEV. 3
1/2" = 1'-0"



2 BATHROOM ELEV. 2
1/2" = 1'-0"



1 BATHROOM ELEV. 1
1/2" = 1'-0"

SEE SHEET a203 FOR PLUMBING FIXTURE AND RESTROOM ACCESSORIES SCHEDULES

INTERIOR ELEVATIONS

a700

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CITY OF SPARKS
FIRE STATION 2
City of Sparks, Nevada
2900 N. Truckee Ln
Sparks, NV 89434

NATHANIEL B. HUDSON REGISTERED ARCHITECT STATE OF NEVADA
6/08/2021
No. 7649

BID SET 06-17-21

FGS #FGS# 2018-20

6/17/2021 9:42:24 PM

INTERIOR ELEVATION NOTES

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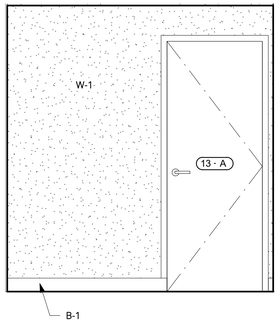
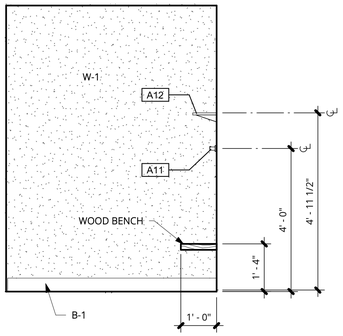
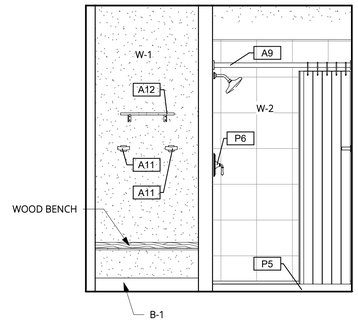


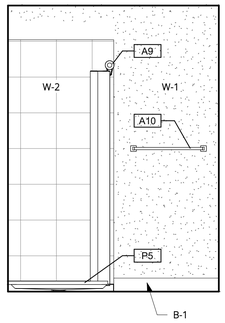
8 SHOWER 118 ELEV. 4
1/2" = 1'-0"



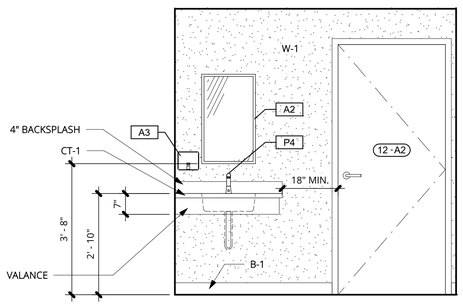
7 SHOWER 118 ELEV. 3
1/2" = 1'-0"



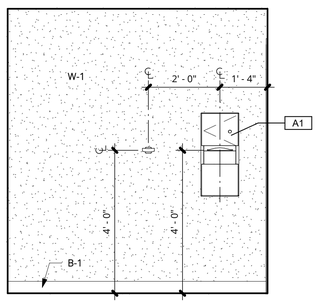
6 SHOWER 118 ELEV. 2
1/2" = 1'-0"



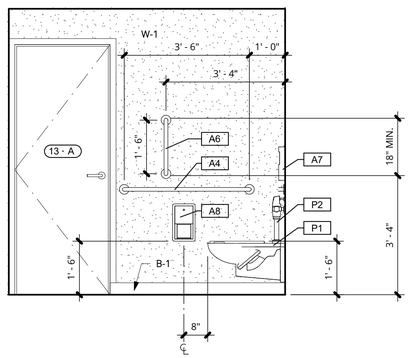
5 SHOWER 118 ELEV. 1
1/2" = 1'-0"



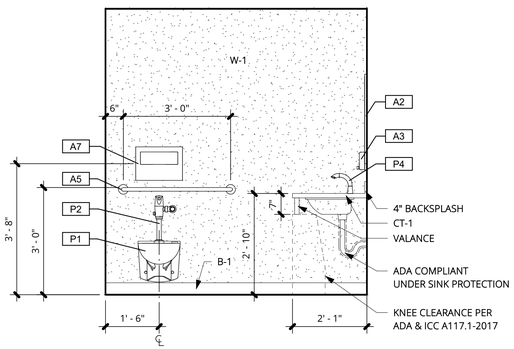
4 ADA RESTROOM ELEV. 4
1/2" = 1'-0"



3 ADA RESTROOM ELEV. 3
1/2" = 1'-0"



2 ADA RESTROOM ELEV. 2
1/2" = 1'-0"



1 ADA RESTROOM ELEV. 1
1/2" = 1'-0"

SEE SHEET a203 FOR PLUMBING FIXTURE AND RESTROOM ACCESSORIES SCHEDULES

INTERIOR ELEVATIONS

a701

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REGISTERED
6/08/2021
No. 7649
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ARCHITECT

BID SET 06-17-21

FGS #FGS# 2018-20

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DOOR HARDWARE SCHEDULE

H-1
DOOR FRAME: STEELCRAFT, F16 PROFILE - WELDED FRAME, STANDARD DOUBLE RABBET
HINGES: THREE HAGER BB1279, 4-1/2" X 4-1/2" BALL BEARING - 5 KNUCKLE STEEL HINGE
HANDLE AND LOCK: SCHLAGE ND50PD X RHODES S626, W/ SCHLAGE LARGE FORMAT IC CORE, ENTRANCE/OFFICE LOCK
STRIKE PLATE: 2-3/4" LONG T-STRIKE PLATE

H-2
DOOR FRAME: STEELCRAFT, F16 PROFILE - WELDED FRAME, STANDARD DOUBLE RABBET
HINGES: THREE HAGER BB1279, 4-1/2" X 4-1/2" BALL BEARING - 5 KNUCKLE STEEL HINGE
HANDLE AND LOCK: SCHLAGE ND70PD X RHODES S626, w/ SCHLAGE LARGE FORMAT IC CORE, CLASSROOM LOCK
STRIKE PLATE: 2-3/4" LONG T-STRIKE PLATE
* DOOR PAIR, SURFACE MOUNT DROP PIN BOLT ON SLAVE DOOR

H-3
DOOR FRAME: STEELCRAFT, F16 PROFILE - WELDED FRAME, STANDARD DOUBLE RABBET
HINGES: THREE HAGER BB1279, 4-1/2" X 4-1/2" BALL BEARING - 5 KNUCKLE STEEL HINGE
HANDLE AND LOCK: SCHLAGE ND70PD X RHODES S626, w/ SCHLAGE LARGE FORMAT IC CORE, CLASSROOM LOCK
STRIKE PLATE: 2-3/4" LONG T-STRIKE PLATE

H-4
DOOR FRAME: STEELCRAFT, F16 PROFILE - WELDED FRAME, STANDARD DOUBLE RABBET
HINGES: THREE HAGER BB1279, 4-1/2" X 4-1/2" BALL BEARING - 5 KNUCKLE STEEL HINGE
HANDLE: SCHLAGE ND70PD X RHODES S626, w/ SCHLAGE LARGE FORMAT IC CORE, CLASSROOM LOCK
STRIKE PLATE: 2-3/4" LONG T-STRIKE PLATE
DEADBOLT: SCHLAGE B571, ONE-SIDED DEABOLT WITH VISUAL OCCUPANCY INDICATOR, WITH EMERGENCY KEY OVERRIDE

H-5
DOOR FRAME: STEELCRAFT, F16 PROFILE - WELDED FRAME, STANDARD DOUBLE RABBET
HINGES: THREE HAGER BB1279, 4-1/2" X 4-1/2" BALL BEARING - 5 KNUCKLE STEEL HINGE
HANDLE AND LOCK: SCHLAGE ND53PD X RHODES S626, w/ SCHLAGE LARGE FORMAT IC CORE, ENTRANCE LOCK
DEADBOLT: SCHLAGE B660P X RHODES S626
STRIKE PLATE: 2-3/4" LONG T-STRIKE PLATE
WEATHERSTRIPPING: HAGER 736 PRESS-ON WEATHERSTRIPPING (JAMBS AND HEAD)
DOOR BOTTOM: HAGER 788S DOOR BOTTOM
THRESHOLD: HAGER 4432 - 6" ADA RAMP THRESHOLD

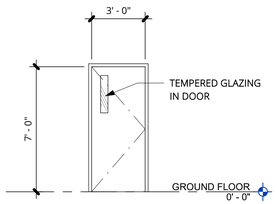
DOOR SCHEDULE

#	TYPE	ROOM #.	WIDTH	HEIGHT	MATERIAL	FINISH	HARDWARE	FRAME MATERIAL	FRAME FINISH	COMMENTS
1	A	SLEEPING ROOM - 113	2' - 8"	7' - 0"	S.C. WOOD	STAIN - SHERWIN WILLIAMS, 3204 FRUITWOOD	H-1	HOLLOW METAL	PAINT	FULLY GASKETED FOR PRIVACY
2	A	SLEEPING ROOM - 114	2' - 8"	7' - 0"	S.C. WOOD	STAIN - SHERWIN WILLIAMS, 3204 FRUITWOOD	H-1	HOLLOW METAL	PAINT	FULLY GASKETED FOR PRIVACY
3	A	SLEEPING ROOM - 115	2' - 8"	7' - 0"	S.C. WOOD	STAIN - SHERWIN WILLIAMS, 3204 FRUITWOOD	H-1	HOLLOW METAL	PAINT	FULLY GASKETED FOR PRIVACY
4	A	SLEEPING ROOM - 116	2' - 8"	7' - 0"	S.C. WOOD	STAIN - SHERWIN WILLIAMS, 3204 FRUITWOOD	H-1	HOLLOW METAL	PAINT	FULLY GASKETED FOR PRIVACY
5	B	STORAGE - 112	4' - 0"	7' - 0"	S.C. WOOD	STAIN - SHERWIN WILLIAMS, 3204 FRUITWOOD	H-2	HOLLOW METAL	PAINT	PAIR - 2'-0" x 7'-0", SURFACE MOUNT DROP PIN BOLT ON SLAVE DOOR
6	A	STORAGE - 112	2' - 8"	7' - 0"	S.C. WOOD	STAIN - SHERWIN WILLIAMS, 3204 FRUITWOOD	H-3	HOLLOW METAL	PAINT	
7	A	JANITOR'S CLOSET - 110	2' - 8"	7' - 0"	S.C. WOOD	STAIN - SHERWIN WILLIAMS, 3204 FRUITWOOD	H-3	HOLLOW METAL	PAINT	
8	A1	BATHROOM - 109	2' - 8"	7' - 0"	S.C. WOOD	STAIN - SHERWIN WILLIAMS, 3204 FRUITWOOD	H-1	HOLLOW METAL	PAINT	
9	A	BATHROOM - 109	2' - 8"	7' - 0"	S.C. WOOD	STAIN - SHERWIN WILLIAMS, 3204 FRUITWOOD	H-4	HOLLOW METAL	PAINT	FULLY GASKETED FOR PRIVACY
10	A	BATHROOM - 109	2' - 8"	7' - 0"	S.C. WOOD	STAIN - SHERWIN WILLIAMS, 3204 FRUITWOOD	H-4	HOLLOW METAL	PAINT	FULLY GASKETED FOR PRIVACY
11	C	LIVING - 108	3' - 0"	7' - 0"	S.C. WOOD	PAINT EXT., STAIN INT.	H-5	HOLLOW METAL	PAINT	ADA COMPLIANT, SINGLE VISION LITE - EXTERIOR DOOR, PROVIDE WEATHERSTRIPPING ALL AROUND
12	A2	ADA RESTROOM - 117	3' - 0"	7' - 0"	S.C. WOOD	STAIN - SHERWIN WILLIAMS, 3204 FRUITWOOD	H-4	HOLLOW METAL	PAINT	ADA COMPLIANT
13	A	SHOWER - 118	2' - 8"	7' - 0"	S.C. WOOD	STAIN - SHERWIN WILLIAMS, 3204 FRUITWOOD	H-4	HOLLOW METAL	PAINT	FULLY GASKETED FOR PRIVACY

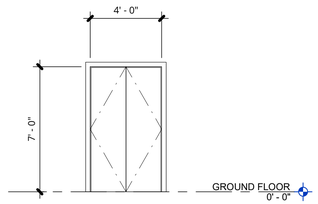
Grand total: 13

DOOR AND WINDOW NOTES

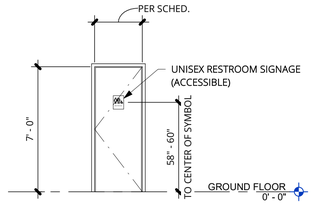
1. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
2. CONTRACTOR SHALL BE RESPONSIBLE TO "PROTECT IN PLACE" ANY BUILDING ELEMENT OR OWNER FURNISHINGS NOT INCLUDED IN THE SCOPE OF WORK DURING CONSTRUCTION.
3. DO NOT SCALE THE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE.
4. EXIT DOORS SHALL BE MARKED SO THAT THEY ARE READILY DISTINGUISHABLE FROM THE ADJACENT CONSTRUCTION.
5. HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERABLE PARTS ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST TO OPERATE. SUCH HARDWARE SHALL BE 34" MINIMUM AND 48" MAXIMUM ABOVE THE FLOOR OR GROUND.
6. THRESHOLDS AT DOORWAYS SHALL BE 1/2" HIGH MAXIMUM.
7. DOOR SURFACES WITHIN 10 INCHES OF THE FLOOR OR GROUND MEASURED VERTICALLY SHALL BE A SMOOTH SURFACE ON THE PUSH SIDE EXTENDING THE FULL WIDTH OF THE DOOR. PARTS CREATING HORIZONTAL OR VERTICAL JOINTS IN SUCH SURFACE SHALL BE WITHIN 1/16" OF THE SAME PLANE AS THE OTHER. CAVITIES CREATED BY ADDED KICK PLATES SHALL BE CAPPED.
8. ALL FINISH MATERIALS NOT SPECIFIED SHALL BE COORDINATED WITH OWNER AND/OR ARCHITECT.
9. "T" - SIGNIFIES TEMPERED GLAZING IN NOTED LOCATION.



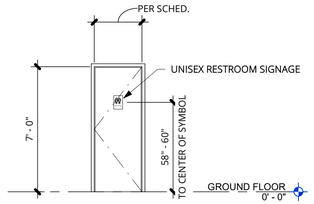
C
1/4" = 1'-0"



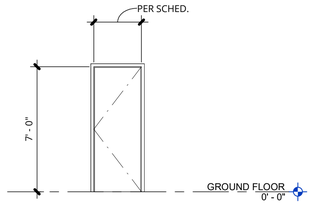
B
1/4" = 1'-0"



A2
1/4" = 1'-0"



A1
1/4" = 1'-0"



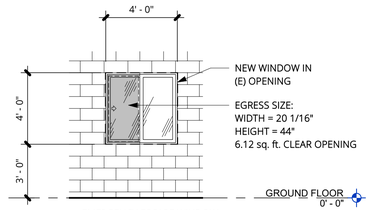
A
1/4" = 1'-0"

DOOR TYPES

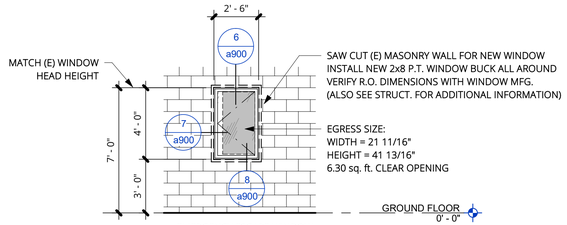
WINDOW SCHEDULE

#	TYPE	ROOM #	WIDTH	HEIGHT	HEAD HEIGHT	MATERIAL	OPERATION	ELEVATION	COMMENTS
1	1	SLEEPING ROOM - 113	2' - 6"	4' - 0"	7' - 0"	COMPOSITE	CASEMENT	1	SAW CUT [E] MASONRY WALL, 2x8 WINDOW BUCK
2	1	SLEEPING ROOM - 114	2' - 6"	4' - 0"	7' - 0"	COMPOSITE	CASEMENT	1	SAW CUT [E] MASONRY WALL, 2x8 WINDOW BUCK
3	1	SLEEPING ROOM - 115	2' - 6"	4' - 0"	7' - 0"	COMPOSITE	CASEMENT	1	SAW CUT [E] MASONRY WALL, 2x8 WINDOW BUCK
4	2	SLEEPING ROOM - 116	4' - 0"	4' - 0"	7' - 0"	COMPOSITE	HORIZONTAL SLIDER	2	NEW WINDOW IN [E] OPENING

Grand total: 4



2
1/4" = 1'-0"



1
1/4" = 1'-0"

WINDOW TYPES

DOORS AND
WINDOWS

a800

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Sparks, NV 89434

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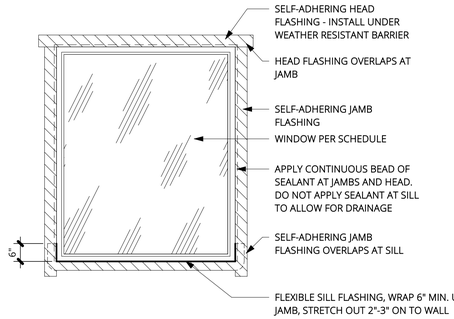
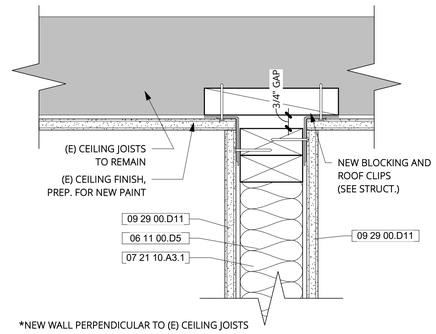
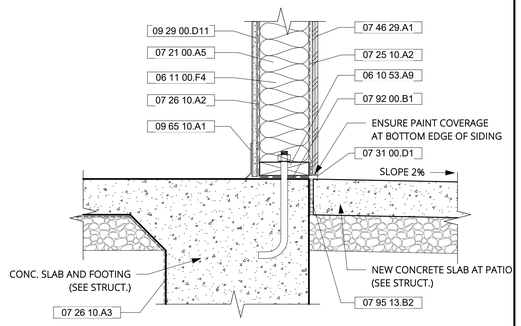


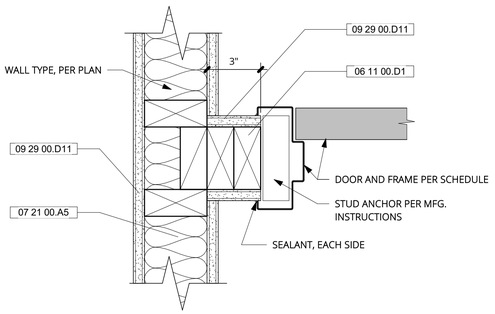
9 WINDOW FLASHING
1/2" = 1'-0"



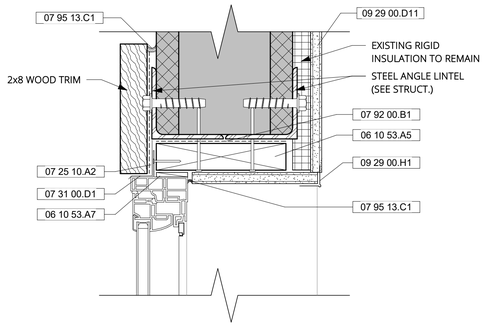
5 T.O. NEW WALL (PERP.)
3" = 1'-0" REFERENCE - a500 /1



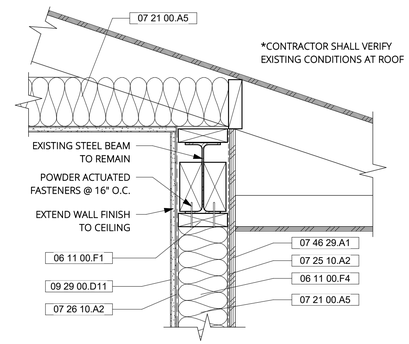
1 NEW WALL AT FOUNDATION
1 1/2" = 1'-0"



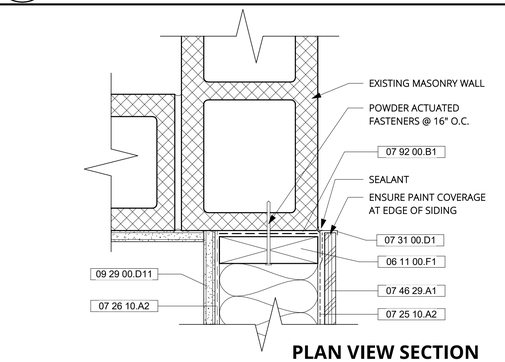
10 TIGHT DOOR JAMB
3" = 1'-0"



6 WINDOW HEAD
3" = 1'-0" REFERENCE - a800 /1

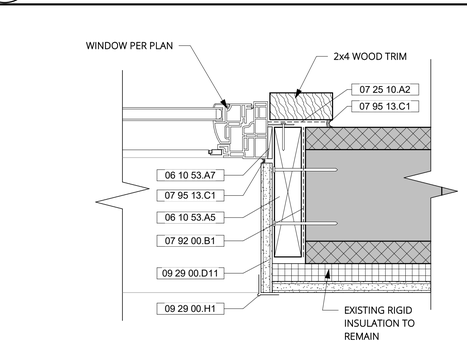


2 NEW WALL AT (E) ROOF
1 1/2" = 1'-0"

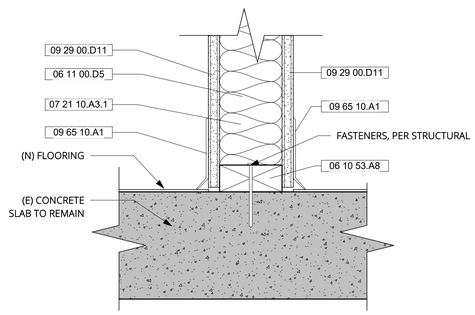


PLAN VIEW SECTION

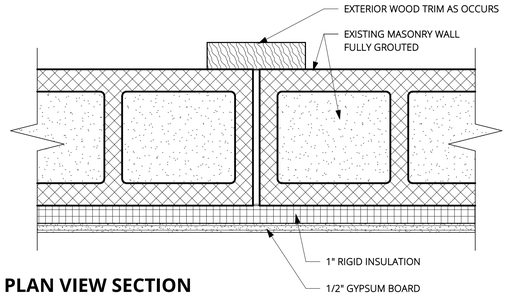
11 NEW WALL TO (E) MASONRY
3" = 1'-0"



7 WINDOW JAMB
3" = 1'-0" REFERENCE - a800 /1

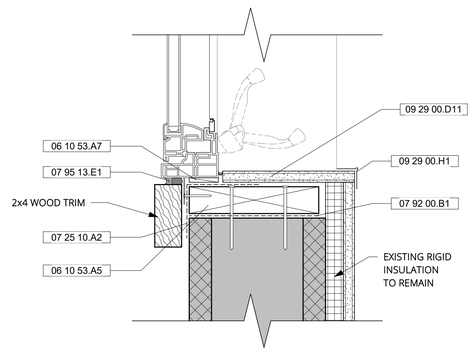


3 BOTTOM OF NEW WALL
3" = 1'-0" REFERENCE - a203 /1

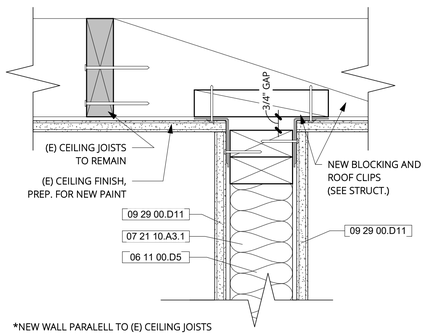


PLAN VIEW SECTION

12 (E) EXTERIOR WALL
3" = 1'-0"



8 WINDOW SILL
3" = 1'-0" REFERENCE - a800 /1



4 T.O. NEW WALL (PARALLEL)
3" = 1'-0" REFERENCE - a601 /1

KEYNOTE LEGEND

#	KEYNOTE TEXT
06 10 53.A5	2x8, pressure treated
06 10 53.A7	Shim as needed
06 10 53.A8	2x4, pressure treated
06 10 53.A9	Sill Plate and Anchor Bolts, see structural drawings
06 11 00.D1	2x4
06 11 00.D5	2x4 Framing @ 16" O.C.
06 11 00.F1	2x6
06 11 00.F4	2x6 Framing @ 16" O.C.
07 21 00.A5	R-21 Batt Insulation
07 21 10.A3.1	3 1/2" sound attenuation batts
07 25 10.A2	Weather-Resistant Barrier
07 26 10.A2	Vapor barrier on warm side of structure, typ.
07 26 10.A3	Vapor barrier - minimum 10 mil at all under-floor areas, typ.
07 31 00.D1	26 Ga. Metal Flashing
07 46 29.A1	Plywood Siding
07 92 00.B1	Sill plate gasket, install per manufacturer's instructions
07 95 13.B2	1/2" Expansion Joint
07 95 13.C1	Caulking
07 95 13.E1	Backer Rod w/ Sealant
09 29 00.D11	5/8" Type "X" Gypsum Wallboard
09 29 00.H1	Corner Bead
09 65 10.A1	4" Rubber Base

DETAILS

a900

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NATHANIEL B. HUDSON
REGISTERED
6/08/2021
No. 7649
ARCHITECT
STATE OF NEVADA

BID SET 06-17-21

FGS #FGS# 2018-20

6/17/2021 9:42:29 PM

PRINT DATE:6/8/2021 9:38:55 AM

CONCRETE

CAST-IN-PLACE CONCRETE

CODES, SPECIFICATIONS, AND STANDARDS; CONCRETE WORK SHALL CONFORM TO THE FOLLOWING CODES, SPECIFICATIONS, AND STANDARDS, AND THE STANDARDS AND SPECIFICATIONS THEY REFERENCE. THE CONTRACTOR SHALL OBTAIN AND HAVE READILY AVAILABLE ON SITE THE LATEST VERSION OF THE "ACI MANUAL OF CONCRETE PRACTICE":

ACI:
1. ACI 116 'CEMENT AND CONCRETE TERMINOLOGY'.
2. ACI 301 'STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE'.
3. ACI 302.1R-15 'GUIDE TO CONCRETE FLOOR AND SLAB CONSTRUCTION'.
4. ACI 304R-00 'GUIDE FOR MEASURING, MIXING, TRANSPORTING, AND PLACING CONCRETE'.
5. ACI 305.1R-14 'HOT WEATHER CONCRETING'.
6. ACI 306.1-90 'COLD WEATHER CONCRETING'.
7. ACI 308.1-11 'STANDARD SPECIFICATION FOR CURING CONCRETE'.
8. ACI 309R-05 'STANDARD PRACTICE FOR CONSOLIDATION OF CONCRETE'.
9. ACI 311.4R-05 'GUIDE FOR CONCRETE INSPECTION'.
10. ACI 315R-18 'DETAILS AND DETAILING OF CONCRETE REINFORCEMENT'.
11. ACI 318 'BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE'.
12. ACI 506R 'GUIDE FOR SHOTCRETING'.

ASTM:
1. ASTM C33 'STANDARD SPECIFICATION FOR CONCRETE AGGREGATES'.
2. ASTM C94 'STANDARD SPECIFICATION FOR READY-MIX CONCRETE'.
3. ASTM C150 'STANDARD SPECIFICATION FOR PORTLAND CEMENT'.
4. ASTM C260 'STANDARD SPECIFICATION FOR AIR-ENTRAINED ADMIXTURES FOR CONCRETE'.
5. ASTM C309 'STANDARD SPECIFICATION FOR LIQUID MEMBRANE-FORMING COMPOUNDS FOR CURING CONCRETE'
6. ASTM C494 'STANDARD SPECIFICATION FOR CHEMICAL ADMIXTURES FOR CONCRETE'.
7. ASTM C595 'STANDARD SPECIFICATION FOR BLENDED HYDRAULIC CEMENTS'.
8. ASTM C618 'STANDARD SPECIFICATION FOR ... FLY-ASH...', MAXIMUM LOSS ON IGNITION SHALL BE 1.0%.
9. ASTM C1017 'STANDARD SPECIFICATION FOR CHEMICAL ADMIXTURES FOR USE IN PRODUCING FLOWING CONCRETE'.
10. ASTM C1116 'SYNTHETIC FIBER REINFORCED CONCRETE AND SHOTCRETE'.
11. ASTM C1218 'STANDARD TEST METHOD FOR WATER-SOLUBLE CHLORIDE IN MORTAR AND CONCRETE'.

MIX DESIGNS: THE CONTRACTOR SHALL DESIGN CONCRETE MIXES THAT MEET OR EXCEED THE REQUIREMENTS OF THE CONCRETE MIX TABLE. THE MIX DESIGNS SHALL FACILITATE ANTICIPATED PLACEMENT METHODS, WEATHER, REBAR CONGESTION, ARCHITECTURAL FINISHES, CONSTRUCTION SEQUENCING, STRUCTURAL DETAILS, AND ALL OTHER FACTORS REQUIRED TO PROVIDE A STRUCTURALLY SOUND, AESTHETICALLY ACCEPTABLE FINISHED PRODUCT. WATER-REDUCING ADMIXTURES WILL LIKELY BE REQUIRED TO MEET THESE REQUIREMENTS. CONCRETE MIX DESIGNS SHALL CLEARLY INDICATE THE TARGET SLUMP. SLUMP TOLERANCE SHALL BE ± 1-1/2 INCHES.

AGGREGATE: COARSE AND FINE AGGREGATE SHALL CONFORM TO ASTM C 33

CEMENT: CEMENT SHALL CONFORM TO ASTM C 150 TYPE II PORTLAND CEMENT, UNLESS NOTED OTHERWISE.

ALTERNATE MIX DESIGNS: VARIATIONS TO THE MIX DESIGN PROPORTIONS MAY BE ACCEPTED IF SUBSTANTIATED IN ACCORDANCE WITH ACI 318, CHAPTER 26. PROVIDE SUBMITTALS A MINIMUM OF TWO WEEKS PRIOR TO BID FOR DETERMINATION OF ACCEPTABILITY.

ADMIXTURES: ADMIXTURES SHALL BE BY MASTER BUILDERS, W.R. GRACE, OR PRE-APPROVED EQUAL. ALL MANUFACTURERS RECOMMENDATIONS SHALL BE FOLLOWED.

WATER: SHALL BE CLEAN AND POTABLE.

MAXIMUM CHLORIDE CONTENT: THE MAXIMUM WATER SOLUBLE CHLORIDE CONTENT SHALL NOT EXCEED 0.15% BY WEIGHT OF CEMENTITIOUS MATERIAL UNLESS NOTED OTHERWISE.

CONCRETE EXPOSED TO WEATHER: PROVIDE 5.0% TOTAL AIR CONTENT FOR ALL CONCRETE EXPOSED TO WEATHER AFTER COMPLETION OF CONSTRUCTION. TOTAL AIR CONTENT IS THE SUM OF ENTRAINED AIR PROVIDED BY ADMIXTURES AND NATURALLY OCCURRING ENTRAPPED AIR. AIR CONTENT SHALL BE TESTED PRIOR TO BEING PLACED IN THE PUMP HOPPER OR BUCKET; IT IS NOT REQUIRED TO BE TESTED AT THE DISCHARGE END OF THE PUMP HOSE. THE TOLERANCE ON TOTAL AIR SHALL BE +2.0% AND -1.5% WITH THE AVERAGE OF ALL TESTS NOT LESS THAN THE SPECIFIED AMOUNT.

ITEM	f'c (PSI) DESIGN 2500 f'c (PSI)	MAX. W/C RATIO	MIN. (2) FLYASH (PCY)	MAX. AGG. SIZE (IN)	NOTES	MIN. CEMENTITOUS (1) MATERIAL (SACKS/YARD)
BASEMENT, RETAINING, AND STEM WALLS	4500 at 28 DAYS	0.45	100	1		5-1/2
FOUNDATIONS	4500 at 28 DAYS	0.45	--	1		5
SLAB ON GRADE	3500 at 28 DAYS	0.45	100	1	3	5-1/2
COLUMNS AND SHEAR WALLS U.N.O.	4000 at 28 DAYS	0.50	--	3/8		5-1/2
ELEVATED BEAMS & SLABS	4000 at 28 DAYS	0.45	100	1		5-1/2
ALL OTHER CONCRETE	4000 at 28 DAYS	0.50	--	1		5-1/2

CONCRETE MIX NOTES:

1. TOTAL CEMENTITOUS MATERIAL IS THE SUM OF ALL CEMENT PLUS FLYASH.

2. AT THE CONTRACTORS OPTION, FLYASH MAY BE SUBSTITUTED FOR CEMENT BUT SHALL NOT EXCEED 25% BY WEIGHT OF TOTAL CEMENTITIOUS MATERIAL.

3. FIBROUS CONCRETE REINFORCEMENT SHALL BE "FIBERMESH" MANUFACTURED BY SI CONCRETE SYSTEMS OR PRE-APPROVED EQUAL AND SHALL CONFORM TO ASTM C-1116 TYPE III 4.1.3, PERFORMANCE LEVEL 1, AND SHALL BE 100 PERCENT VIRGIN POLYPROPYLENE, FIBRILLATED FIBERS CONTAINING NO REPROCESSED OLEFIN MATERIALS AND SPECIFICALLY MANUFACTURED FOR USE AS CONCRETE SECONDARY REINFORCEMENT. DOSAGE SHALL FOLLOW MANUFACTURER'S RECOMMENDATION BUT NOT BE LESS THAN 1.5 LB/CU. YD.

CONCRETE PLACEMENT

PLACE CONCRETE FOLLOWING ALL APPLICABLE ACI RECOMMENDATIONS. CONCRETE SHALL BE PROPERLY CONSOLIDATED PER ACI 309 USING INTERIOR MECHANICAL VIBRATORS; DO NOT OVER-VIBRATE. CONCRETE SHALL BE POURED MONOLITHICALLY BETWEEN CONSTRUCTION OR EXPANSION JOINTS. IF CONCRETE IS PLACED BY THE PUMP METHOD, HORSES SHALL BE PROVIDED TO SUPPORT THE HOSE. WEATHER FORECASTS SHALL BE MONITORED AND ACI RECOMMENDATIONS FOR HOT AND COLD WEATHER CONCRETING SHALL BE FOLLOWED AS REQUIRED. CONCRETE SHALL NOT FREE FALL MORE THAN 5 FEET DURING PLACEMENT WITHOUT WRITTEN APPROVAL OF ENGINEER.

FORMWORK STRIPPING

1) COLUMNS & WALLS - COLUMNS AND WALLS NOT SUPPORTING FRAMING WEIGHT MAY BE STRIPPED AS SOON AS FORMS CAN BE REMOVED WITHOUT DAMAGING THE CONCRETE AND THE CONCRETE HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 500 PSI.

2) BEAMS & SLABS - BEAMS AND SLABS MAY BE STRIPPED AND BECOME SELF-SUPPORTING AS SOON AS THEIR COMPRESSIVE STRENGTH REACHES 75% OF THE SPECIFIED DESIGN STRENGTH. RESHORING SHALL BE PROVIDED FOR ALL CONSTRUCTION LOADS THEREAFTER PER THE GENERAL CONTRACTOR.

COLD WEATHER PLACEMENT

1) COLD WEATHER IS DEFINED BY ACI 306 AS "A PERIOD WHEN FOR MORE THAN 3 SUCCESSIVE DAYS THE MEAN DAILY TEMPERATURE DROPS BELOW 40° F."
2) NO CONCRETE SHALL BE PLACED ON FROZEN OR PARTIALLY FROZEN GROUND. THAWING WITH HEATERS AND SUBSEQUENTLY COMPACTING THE GROUND IS PERMISSIBLE.
3) CONCRETE MIX TEMPERATURES SHALL BE AS SHOWN BELOW. HEATING OF WATER AND/OR AGGREGATES MAY BE REQUIRED TO ATTAIN THESE TEMPERATURES.
4) THE CONCRETE MAY REQUIRE PROTECTION FOR 4-7 DAYS AFTER PLACING. IF TEMPERATURES REMAIN BELOW FREEZING, INSULATING BLANKET COVERAGE IS REQUIRED. IF TEMPERATURES ARE SLIGHTLY BELOW FREEZING (30° F MIN.) AT NIGHT AND ABOVE FREEZING DURING THE DAY, KRAFT PAPER WITH COMPLETE COVERAGE MAY BE USED IN LIEU OF INSULATED BLANKETS.
5) NO ADDITIVES CONTAINING CHLORIDES SHALL BE USED. USE "POZZUTEC 20" BY MASTER BUILDERS OR "POLARSET" BY W.R. GRACE OR PRE-APPROVED EQUAL.

CONDITION OF PLACEMENT AND CURING		WALLS & SLABS	FOOTINGS
MIN. TEMP. FRESH CONCRETE AS MIXED FOR WEATHER INDICATED, DEGREES F.	ABOVE 30° F. 0 TO 30° F. BELOW 0° F.	60 65 70	55 60 65
MIN. TEMP. FRESH CONCRETE AS PLACED AND MAINTAINED, DEGREES F.		55	50
MAX. ALLOWABLE GRADUAL DROP IN TEMP. THROUGHOUT FIRST 24 HOURS AFTER END OF PROTECTION, DEGREES F.		50	40

CONTROL AND CONSTRUCTION JOINTS

CONSTRUCTION JOINTS SHALL MEET THE REQUIREMENTS OF ACI 301 SECTIONS 2.2.2.5 AND 5.3.2.6. KEYWAYS PER SECTION 2.2.2.5B ARE NOT REQUIRED UNLESS DETAILED ON THE STRUCTURAL DRAWINGS. SPECIAL BONDING METHODS PER SECTION 5.3.2.6 SHALL BE SATISFIED BY ITEM 3 BELOW UNLESS OTHERWISE DETAILED ON THE STRUCTURAL DRAWINGS. WHERE CONSTRUCTION JOINTS ARE NOT SHOWN ON PLAN OR ADDITIONAL CONSTRUCTION JOINTS ARE REQUIRED, SUBMIT PROPOSED JOINTING FOR ENGINEER'S APPROVAL. PROVIDE CONSTRUCTION JOINTS AS INDICATED BELOW UNLESS NOTED OTHERWISE ON THE PLANS:

1. SLABS ON GRADE: PROVIDE CONSTRUCTION AND/OR CONTROL JOINTS AT 13 FEET OC FOR SLABS ON GRADE. PERPENDICULAR SPACING RATIO SHALL NOT EXCEED 1.5.

2. WALLS AND COLUMNS: COORDINATE CONSTRUCTION JOINTS WITH ARCHITECTURAL REVEALS.

3. BONDING AGENT: WHERE BONDING AGENT IS SPECIFICALLY CALLED OUT ON THE STRUCTURAL DRAWINGS, USE "WELD CRETE" BY LARSON PRODUCTS CORPORATION OR PRE-APPROVED EQUAL. FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS.

EMBEDDED ITEMS

EMBEDDED CONDUIT IS NOT PERMITTED IN SLAB EXCEPT WHERE SPECIFICALLY SHOWN. IT SHALL BE PLACED AND REINFORCED PER THE TYPICAL CONCRETE DETAILS. NO ALUMINUM ITEMS SHALL BE EMBEDDED IN ANY CONCRETE. ALL EMBED PLATES SHALL BE SECURELY FASTENED IN PLACE.

CONCRETE CURING AND SEALING

CURING PROCEDURES SHALL COMMENCE IMMEDIATELY AFTER FINISHING CONCRETE TO MAINTAIN CONCRETE IN A MOIST CONDITION. VERIFY CURING AND/OR SEALING PRODUCTS ARE COMPATIBLE WITH FLOOR COVERINGS SHOWN ON THE ARCHITECTURAL DRAWINGS. FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS.

ITEM	CURING METHOD
ALL SLABS ON GRADE	2,3, & 5
BASEMENT WALLS	4
ELEVATED SLABS NOT EXPOSED TO EARTH OR WEATHER	2,3, & 5
ALL OTHER CONCRETE	NONE

CONCRETE CURING NOTES:

1. PROVIDE PRE-APPROVED MOIST CURE METHOD FOR A MINIMUM OF 7 DAYS.

2. WHEN THE ESTIMATED EVAPORATION RATE IS GREATER THAN 0.2 PSF/HOUR, PROVIDE A SPRAY APPLIED EVAPORATION RETARDER IMMEDIATELY AFTER CONCRETE PLACEMENT. THE EVAPORATION RATE MAY BE CALCULATED PER ACI 305 FIGURE 2.1.5.

3. APPLY A LIQUID MEMBRANE FORMING CURING COMPOUND PER MANUFACTURER'S RECOMMENDATIONS TO ALL EXPOSED SURFACES IMMEDIATELY AFTER FINAL FINISHING.

4. APPLY A LIQUID MEMBRANE FORMING CURING COMPOUND PER MANUFACTURER'S RECOMMENDATIONS TO ALL FORMED SURFACES IMMEDIATELY AFTER FORM REMOVAL. NOT REQUIRED IF FORMWORK REMAINS IN PLACE FOR MORE THAN 7 DAYS.

5. APPLY A SILANE SEALER WITH A MINIMUM SOLIDS CONTENT OF 40% PER MANUFACTURER'S RECOMMENDATIONS.

GROUT

NON-SHRINK GROUT: MASTER BUILDERS "MASTERFLOW 555" OR PRE-APPROVED EQUAL. GROUT SHALL CONFORM TO CRD-C621 AND ASTM C1107 GRADE B WHEN TESTED AT A FLUID CONSISTENCY PER CRD- C611-85 FOR 30 MINUTES. GROUT MAY BE PLACED FROM A 25 SECOND FLOW TO A STIFF PACKING CONSISTENCY. FILL OR PACK ENTIRE SPACE UNDER PLATES OR FLOW TO A STIFF PACKING CONSISTENCY. FILL OR PACK ENTIRE SPACE UNDER PLATES OR SHAPES. NO GROUTING SHALL BE DONE BELOW 40° F.

EPOXY: USE TWO-PART LOW-SAG EPOXY. GROUT MAY CONTAIN QUARTZ SAND AGGREGATE AS PROPORTIONED BY THE MANUFACTURER. USE EQUIPMENT WHICH WILL ACCURATELY MIX AND DISPENSE THE COMPONENTS. HOLE SHALL BE DRY AND CLEANED WITH WIRE BRUSH AND PRESSURIZED AIR JUST PRIOR TO INSTALLING GROUT. THE REBAR OR ROD SHALL BE CLEAN AND INSTALLED SLOWLY, AND SHALL BE ROTATED AS IT IS PUSHED INTO THE HOLE. COLD WEATHER GROUTING SHALL BE DONE WITH PROPER GROUT FORMULA. FIRST STAGES OF THE GROUTING OPERATION SHALL BE INSPECTED.

REINFORCING STEEL

REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60 (GRADE A706 FOR WELDED BARS UNLESS OTHERWISE NOTED, GRADE 40 FOR BEND OUT BARS). DETAIL, FABRICATE AND PLACE PER ACI 315 AND ACI 318. HORIZONTAL BEAM BARS, VERTICAL COLUMN BARS AND VERTICAL SHEAR WALL BARS SHALL MEET THE REQUIREMENTS OF ACI 318 SECTION 21.2.5. REINFORCEMENT SHALL COMPLY WITH ASTM A706 FOR LOW-ALLOY STEEL. BILLET STEEL A615 GRADE 60 REINFORCEMENT MAY BE USED IF THE ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES NOT EXCEED THE SPECIFIED STRENGTH BY MORE THAN 18,000 PSI AND THE RATIO OF THE ACTUAL ULTIMATE TENSILE STRESS TO THE ACTUAL YIELD STRENGTH IS NOT LESS THAN 1.25.

WELDED WIRE FABRIC REINFORCEMENT SHALL CONFORM TO ASTM A-82 AND A-185. LAP ONE FULL MESH ON SIDES AND ENDS.

REINFORCING SPLICE AND DEVELOPMENT LENGTH SCHEDULE

BAR SIZE	MINIMUM LAP SPLICE LENGTHS ("Ls") TOP BARS(1)(2)	MINIMUM LAP SPLICE LENGTHS ("Ls") OTHER BARS (2)	MINIMUM DEVELOPMENT LENGTHS ("Ld") TOP BARS(1)(2)	MINIMUM DEVELOPMENT LENGTHS ("Ld") OTHER BARS (2)	MINIMUM EMBEDMENT LENGTH FOR STANDARD END HOOKS ("Ldh") (3)
#3	1'-7"	1'-4"	1'-3"	1'-0"	0'-9"
#4	2'-1"	1'-7"	1'-7"	1'-3"	1'-0"
#5	2'-8"	2'-1"	2'-1"	1-7"	1'-3"
#6	3'-10"	3'-0"	3'-0"	2'-3"	1'-6"
#7	5'-3"	4'-0"	4'-0"	3'-1"	1'-9"
#8	6'-10"	5'-3"	5'-3"	4'-0"	2'-0"
#9	8'-8"	6'-8"	6'-8"	5'-2"	2'-4"
#10	10'-11"	8'-5"	8'-5"	6'-6"	2'-7"

SPLICE TABLE NOTES:
1. "TOP BARS" ARE HORIZONTAL BARS WITH MORE THAN 12" DEPTH OF CONCRETE CAST BELOW THEM.
2. LENGTHS SHALL BE INCREASED BY 50% FOR EPOXY COATED BARS WITH COVER LESS THAN THREE TIMES THE BAR DIAMETER OR CLEAR SPACING IS LESS THAN SIX TIMES THE BAR DIAMETER. LENGTHS SHALL BE INCREASED BY 20% FOR ALL OTHER EPOXY COATED BARS.
3. LENGTHS MAY BE REDUCED BY 30% WHEN A MINIMUM 2 1/2" COVER IS PROVIDED.

REINFORCING COUPLERS: "CADWELD" OR "LENTON" BY ERICO PRODUCTS, INC., MBT BAR-LOCK, "NO-SLIP" BY FOX-HOWLETT INDUSTRIES, INC., OR PRE-APPROVED EQUAL. COUPLER MUST DEVELOP THE TENSILE STRENGTH OF THE BAR UNO.

REINFORCING STEEL COVER

PROVIDE CONCRETE COVER OVER REINFORCEMENT AS FOLLOWS, UNLESS NOTED OTHERWISE.

CONCRETE CAST AGAINST EARTH ------------ 3"
EXPOSED TO WEATHER OR EARTH ------------ 2"
TIES ON BEAMS AND COLUMNS ------------ 1-1/2"
WALLS AND SLABS NOT EXPOSED TO WEATHER---- 3/4"

STATEMENT OF SPECIAL INSPECTION

SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING:

1) SOILS AND FOUNDATION PREPARATION PER GEOTECHNICAL REPORT.
2) EPOXY GROUT - IF REQUIRED (TO BE PERFORMED BY ENGINEER).
3) STRUCTURAL STEEL PER IBC CHAPTER 17, AISC 360 CHAPTER N, AND AISC 341 CHAPTER J.

SPECIAL INSPECTION: SPECIAL INSPECTION SHALL BE PROVIDED BY AN INDEPENDENT TESTING LABORATORY PER THE REQUIREMENTS OF IBC CHAPTER 17 AND THE LOCAL BUILDING OFFICIAL OR APPLICABLE JURISDICTION AND THE CONTRACT DOCUMENTS. THE SPECIAL INSPECTOR SHALL SUBMIT INSPECTION REPORTS AND A FINAL SIGNED REPORT TO THE BUILDING OFFICIAL FOR THE ITEMS LISTED IN THE QUALITY ASSURANCE/SPECIAL INSPECTION SECTION.

WOOD

WOOD SHEATHING (STRUCTURAL): SHEATHING ON ROOF SURFACES SHALL BE PLYWOOD ONLY. SHEATHING ON FLOOR AND WALLS SHALL BE PLYWOOD OR ORIENTED STRAND BOARD (OSB). PLYWOOD SHEATHING SHALL BE 5-PLY MINIMUM WHERE INDICATED AS 3/4" OR THICKER. WOOD SHEATHING SHALL BE "STRUCTURAL I" CONFORMING TO PS1-95 AND/OR PS2-92. ALL PANELS SHALL BEAR THE STAMP OF AN APPROVED GRADING AGENCY.

GLUE-LAMINATED MEMBERS: CONFORM TO ANSI/AITC A190.1. MEMBERS SHALL BE 24F-V4 DF/DF FOR SIMPLE SPANS AND 24F-V8 DF/DF FOR CANTILEVERED SPANS WITH E=1.8x10^6 PSI AND EWS3 DF FOR COLUMNS, ALL WITH EXTERIOR GLUE. ARCHITECTURAL APPEARANCE GRADE WHERE EXPOSED TO VIEW; INDUSTRIAL APPEARANCE WHERE NOT EXPOSED TO VIEW. ALL MEMBERS TO HAVE AITC OR APA-EWS STAMP.

FRAMING LUMBER: STANDARDS: EACH PIECE SHALL BEAR THE GRADE TRADEMARK OF AN AGENCY ACCREDITED BY THE AMERICAN LUMBER STANDARD COMMITTEE (ALSC) TO GRADE UNDER ALSC CERTIFIED GRADING RULES. ALL NEW FRAMING LUMBER SHALL HAVE 19% MAXIMUM MOISTURE CONTENT AT TIME OF INSTALLATION AND FABRICATION.

SPECIES AND GRADE (BASE DESIGN VALUE)
1) 6x BEAMS AND HEADERS: "DOUG FIR-LARCH" NO. 1 (F_b = 1350 PSI, F_v = 170 PSI)

2) 2x to 4x JOISTS, PURLINS AND HEADERS: "DOUG FIR-LARCH" NO. 2 (F_b = 900 PSI, F_v= 180 PSI)

3) INTERIOR NON-BEARING STUD WALLS: "DOUG FIR-LARCH" CONSTRUCTION GRADE (F_b = 1000 PSI, F_c = 1650 PSI)

4) 2x & 3x T&G DECKING: "DOUG FIR-LARCH" SELECT (F_b = 1750 PSI, F_c = 1150 PSI)

5) 2x DECKING FOR EXTERIOR USE: "REDWOOD" NO. 2 (F_b= 925 PSI, F_c = 950 PSI)

6) THE MINIMUM GRADE OF ALL OTHER STRUCTURAL FRAMING: "DOUG FIR-LARCH" CONSTRUCTION GRADE (F_b = 1000 PSI, F_c = 1650 PSI)

7) UTILITY AND STANDARD GRADES NOT PERMITTED.

FRAMING LUMBER (MANUFACTURED): SHALL BE MANUFACTURED BY TRUS JOIST CORPORATION OR PRE-APPROVED EQUAL, IN ACCORDANCE WITH APPROVED SHOP AND INSTALLATION DRAWINGS.

MICROLAM LVL: F_b = 2600 PSI E = 2000 KSI
PARALLAM PSL: F_b = 2900 PSI E = 2200 KSI **
PARALLAM PSL POST: F_b = 2400 PSI E = 1800 KSI
TIMBERSTRAND LSL: F_b = 2325 PSI E = 1550 KSI
RIM MATERIAL: TIMBERSTRAND LSL
**FOR 5.25 x 7.25 OK TO USE LP SOLID START LVL IN LIEU OF PSL

MEMBERS HAVE BEEN DESIGNED TO SERVICEABILITY AND OTHER PERFORMANCE-BASED REQUIREMENTS, WHICH MAY EXCEED MINIMUM DESIGN LOADS AND CODE REQUIREMENTS. SUBSTITUTIONS MUST MEET OR EXCEED MOMENT, SHEAR, AND STIFFNESS OF THOSE MEMBERS SPECIFIED AT THE SAME DEPTH AND SPACING.

PRESERVATIVE TREATED WOOD REQUIREMENTS:
TREATMENTS OTHER THAN THOSE LISTED BELOW ARE NOT PERMITTED.

EXPOSURE		APPLICATION	SPECIFIED MATERIAL	PRESERVATIVE TREATMENT (1)	CONNECTORS & FASTENERS (2)(3)
	DRY	FOUNDATION SILL PLATES, TOP PLATES & LEDGERS ON CONCRETE OR MASONRY WALLS (4)	2x, 4x, 6x, OR GLU-LAM (FIR) , LSL	CCA, SBX	GALV (G60)
				ACQ, CBA, CA	GALV (G185)
	WET	FRAMING, DECKING, POSTS & LEDGERS	2x, & 4x (FIR)	CCA	GALV (G90)
				ACQ, CBA, CA	GALV (G185)
			2x, & 4x (CEDAR)	NONE	GALV (G90)
		BEAMS & COLUMNS	6x OR GLU-LAM (FIR)	CCA	GALV (G90)
				ACQ, CBA, CA	GALV (G185)
			6x OR GLU-LAM (CEDAR)	NONE	GALV (G90)

1. CCA: CHROMATED COPPER ARSENATE
   SBX: DOT SODIUM BORATE
   ACQ: ALKALINE COPPER QUAT
   CBA & CA: COPPER AZOLE

2. CONNECTORS: JOIST HANGERS, STRAPS, FRAMING CONNECTORS, COLUMN CAPS AND BASES, ETC.
   FASTENERS: MACHINE BOLTS, ANCHOR BOLTS AND LAG SCREWS WITH ASSOCIATED PLATE WASHERS AND NUTS. NAILS, SPIKES, WOOD SCREWS, ETC.

3. G60, G90 & G185 PER ASTM A653 BATCH/POST HOT-DIP GALVANIZED PER ASTM A123 FOR CONNECTORS, AND ASTM A153 FOR FASTENERS. MECHANICALLY GALVANIZED FASTENERS PER ASTM B695, CLASS 55 OR GREATER.

4. AT CONTRACTOR'S OPTION, LEDGERS AND TOP PLATES A MINIMUM OF 8 FEET ABOVE GRADE ON CONCRETE OR MASONRY WALLS MAY BE UN-TREATED IF COMPLETELY SEPARATED FROM THE WALL BY A SELF ADHERING ICE & WATER SHIELD BARRIER (40 MIL MINIMUM).

GENERAL REQUIREMENTS: PROVIDE MINIMUM NAILING PER 2016 CBC TABLE 2304.10.1 OR MORE, AS OTHERWISE SHOWN. STAGGER ALL NAILING TO PREVENT SPLITTING OF WOOD MEMBERS. PRESSURE TREAT ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY, WITH THE EXCEPTION OF INTERIOR CONCRETE TOPPING ON WOOD FLOOR SYSTEMS. HOLES AND CUTS IN 3X OR 4X PLATES SHOULD BE TREATED WITH A 20% SOLUTION FO COPPER NAPHTHENATE. BOLT HOLES IN WOOD MEMBERS SHALL BE A MINIMUM OF 1/32" TO A MAXIMUM OF 1/16" LARGER THAN THE BOLT DIAMETER. PROVIDE CUT WASHERS WHERE BOLT HEADS, NUTS, AND LAG SCREW HEADS BEAR ON WOOD. PROVIDE A MINIMUM 3X3X1/4 PLATE WASHER ON ALL ANCHOR BOLTS WHICH CONNECT MUD SILLS TO FOUNDATION. DO NOT NOTCH OR DRILL STRUCTURAL MEMBERS, EXCEPT AS ALLOWED BY CBC SECTION 2308.7 OR AS RESTRICTED BY PLANS OR DETAILS, OR AS APPROVED PRIOR TO INSTALLATION. ALL JOIST WITHIN 18" AND GIRDERS WITHIN 12" OF FINNISH GRADE SHALL BE PRESERVATIVE TREATED WOOD. REFER TO PRESERVATIVE TREATED WOOD REQUIREMENTS IN THESE GENERAL NOTES FOR GALVANIZING REQUIREMENTS FOR CONNECTORS AND FASTENERS.

FRAMING CONNECTORS: SHALL HAVE ICC APPROVAL AND BE MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, SAN LEANDRO, CA, OR PRE-APPROVED EQUAL. PROVIDE MAXIMUM SIZE AND QUANTITY OF NAILS OR BOLTS PER MANUFACTURER, EXCEPT AS NOTED OTHERWISE. PROVIDE LEAD HOLES AS REQUIRED TO PREVENT SPLITTING OF WOOD MEMBERS. REFER TO PRESERVATIVE TREATED WOOD REQUIREMENTS IN THESE GENERAL NOTES FOR GALVANIZING REQUIREMENTS FOR CONNECTORS AND FASTENERS.

CARPENTRY

NAILS: CONNECTION DESIGNS ARE BASED ON "COMMON WIRE" NAILS WITH THE FOLLOWING PROPERTIES:

PENNYWEIGHT	DIAMETER (INCHES)	LENGTH (INCHES)
8d	0.131	2-1/2
10d	0.148	3
16d	0.162	3-1/2
20d	0.192	4

EPOXY GROUT

EPOXY GROUT FOR POST INSTALLED AND REINFORCING BAR ANCHORS SHALL BE:

- SET XP FOR TEMPERATURES ABOVE 50º FAHRENHEIT
- AT-XP FOR ALL TEMPERATURES
- SET-3G FOR ALL RETROFIT HOLDOWN ANCHORS
- OTHER APPROVED EQUAL

INSTALL PER MANUFACTURER'S ICC REPORT AND RECOMMENDATIONS.

SPECIAL INSPECTION

SPECIAL INSPECTION IS REQUIRED UNLESS ANCHORAGE IS NOT DESIGNED FOR STRUCTURAL LOADING, AS NOTED (NSIR).

WHEN SPECIAL INSPECTION IS REQUIRED, IT INCLUDES:
1. ADHESIVE PRODUCT DESCRIPTION, INCLUDING THE ADHESIVE PRODUCT NAME AND EXP. DATE, ADHESIVE MIXING PROCEDURE FOR THE SET-PAC CARTRIDGE (IF USED), AND USE OF PROPER NOZZLES FOR ALL CARTRIDGES DESCRIBED IN ESR REPORT.
2. ANCHOR BOLT OR REBAR MATERIAL GRADE, DIAMETER, LENGTH, AND CLEANLINESS.
3. REQUIRED DRILL BIT DIAMETER AND COMPLIANCE WITH ANSI B212.15-1994 OR APPROVED SUBSTITUTE PER ER REPORT.
4. HOLE DEPTH AND CLEANLINESS.
5. VERIFICATION OF OF PHYSICAL PROPERTIES OF THE CONCRETE, CONCRETE MASONRY WALL CONSTRUCTION, SUBSTRATE TEMPATURE AT THE TIME OF INSTALLATION, ACTUAL GEL TIME WHEN ANCHORS ARE INSTALLED NOT DISTURBED; AND VERIFICATION OF ANCHOR INSTALLATION AND LOCATION

STRUCTURAL STEEL

DETAILING, FABRICATION AND ERECTION

ALL WORKMANSHIP SHALL CONFORM TO THE CURRENT AISC MANUAL OF STEEL CONSTRUCTION AND AISC 360 CURRENT EDITION.

STEEL MEMBERS ARE EQUALLY SPACED BETWEEN DIMENSION POINTS UNLESS NOTED OTHERWISE.

ALL FABRICATION SHALL BE PERFORMED BY A FABRICATOR CERTIFIED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ERECTION AIDS AND JOINT PREPARATIONS THAT INCLUDE BUT ARE NOT LIMITED TO, ERECTION ANGLES, LIFT HOLES, AND OTHER AIDES, WELDING PROCEDURES, REQUIRED ROOT OPENINGS, ROOT FACE DIMENSIONS, GROOVE ANGLES, BACKING BARS, WELD EXTENSION TABS, COPES, SURFACE ROUGHNESS VALUES AND TAPERS OF UNEQUAL PARTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLIANCE WITH ALL CURRENT OSHA REQUIREMENTS.

HOLES, COPES, OR OTHER CUTS OR MODIFICATIONS OF THE STRUCTURAL STEEL MEMBERS SHALL NOT BE MADE IN THE FIELD WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.

ALL STRUCTURAL STEEL SURFACES SHALL BE SHOP PAINTED. ALL STEEL EXPOSED TO WEATHER SHALL HAVE TWO COATS OF PAINT. ALL EXPOSED STRUCTURAL STEEL SHALL SATISFY AISC REQUIREMENTS FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS) UNLESS WAIVED IN WRITING BY ARCHITECT.

MATERIAL PROPERTIES

WIDE FLANGE SECTIONS: ASTM A992 (Fy = 50 KSI)
OTHER SHAPES AND PLATES: ASTM A36 (Fy = 36 KSI)
STRUCTURAL STEEL PIPES: ASTM A53, GRADE B, TYPE E OR S (Fy = 35 KSI)
STEEL STRUCTURAL TUBING: ASTM A500, GRADE B, (Fy =46 KSI).
MACHINE BOLTS (M.B.): ASTM A307, GRADE A
HIGH-STRENGTH BOLTS: A325-ASTM F1852, A490-ASTM A490
ANCHOR BOLTS (A.B.): ASTM F1554, GRADE 36, CLASS 2A

WELDING:

STRUCTURAL STEEL: WELD IN ACCORDANCE WITH "STRUCTURAL WELDING CODE" AWS D-1.1. 70 KSI MINIMUM WELD MATERIAL.

CERTIFICATION: ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS. WELDERS SHALL BE PREQUALIFIED FOR EACH POSITION AND WELD TYPE WHICH THE WELDER WILL BE PERFORMING. IF WELDERS ARE NOT CERTIFIED, CONTRACTOR SHALL PAY FOR ANY INSPECTIONS BY TESTING AGENCY THAT WOULD NOT HAVE BEEN REQUIRED IF SHOP WAS CERTIFIED. WITHOUT CERTIFICATION, ALL WELDS SHALL BE CONSIDERED FIELD WELDS.

WELD TABS (ALSO KNOWN AS WELD "EXTENSION" TABS OR "RUN OFF" TABS SHALL BE USED. AFTER THE WELD HAS BEEN COMPLETED THE WELD TABS SHALL BE REMOVED AND THE WELD END GROUND TO A SMOOTH CONTOUR. WELD "DAMS" OR "END DAMS" SHALL NOT BE USED.

THE PROCESS CONSUMABLES FOR ALL WELD FILLER METAL INCLUDING TACK WELDS, ROOT PASS, AND SUBSEQUENT PASSES DEPOSITED IN A JOINT SHALL BE COMPATIBLE.

ALL WELD FILLER METAL AND WELD PROCESS SHALL PROVIDE CHARPY V-NOTCH TOUGHNESS RATING PER LATEST EDITION OF AISC 341.

COORDINATION NOTES

ANY DISCREPANCIES FOUND AMONG THE DRAWINGS, THESE GENERAL NOTES, AND THE SITE CONDITIONS SHALL BE REPORTED TO THE ENGINEER, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. ANY WORK DONE BY THE GENERAL CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE GENERAL CONTRACTOR'S RISK. THE GENERAL CONTRACTOR SHALL VERIFY AND COORDINATE DIMENSIONS AMONG ALL DRAWINGS PRIOR TO PROCEEDING WITH ANY WORK OR FABRICATION. THE STRUCTURE HAS BEEN DESIGNED TO RESIST CODE REQUIRED VERTICAL AND LATERAL FORCES AFTER THE CONSTRUCTION OF ALL STRUCTURAL ELEMENTS HAS BEEN COMPLETED. STABILITY OF THE STRUCTURE PRIOR TO COMPLETION IS THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THIS RESPONSIBILITY INCLUDES BUT IS NOT LIMITED TO JOB SITE SAFETY; ERECTION MEANS, METHODS, AND SEQUENCES; TEMPORARY SHORING, FORMWORK, AND BRACING; USE OF EQUIPMENT AND CONSTRUCTION PROCEDURES. PROVIDE ADEQUATE RESISTANCE TO LOADS ON THE STRUCTURES DURING CONSTRUCTION PER SEI/ASCE STANDARD NO. 37-02 "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION." CONSTRUCTION OBSERVATION BY THE STRUCTURAL ENGINEER IS FOR GENERAL CONFORMANCE WITH DESIGN ASPECTS ONLY AND IS NOT INTENDED IN ANY WAY TO REVIEW THE CONTRACTOR'S CONSTRUCTION PROCEDURES.

STANDARDS
ALL METHODS, MATERIALS, AND WORKMANSHIP SHALL CONFORM TO THE 2018 INTERNATIONAL BUILDING CODE (IBC) AS AMENDED AND ADOPTED BY THE LOCAL BUILDING OFFICIAL OR APPLICABLE JURISDICTION.

CONTRACT DRAWINGS / DIMENSIONS

ARCHITECTURAL DRAWINGS ARE THE PRIME CONTRACT DRAWINGS. CONSULTANT DRAWINGS BY OTHER DISCIPLINES ARE SUPPLEMENTARY TO ARCHITECTURAL DRAWINGS. REPORT DIMENSIONAL OMISSIONS OR DISCREPANCIES BETWEEN ARCHITECTURAL DRAWINGS AND STRUCTURAL, MECHANICAL, ELECTRICAL OR CIVIL DRAWINGS TO ARCHITECT PRIOR TO PROCEEDING WITH WORK.

STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. PRIMARY STRUCTURAL ELEMENTS ARE DIMENSIONED ON STRUCTURAL PLANS AND DETAILS AND OVERALL LAYOUT OF STRUCTURAL PORTION OF WORK. SOME SECONDARY ELEMENTS ARE NOT DIMENSIONED SUCH AS: WALL CONFIGURATIONS (INCLUDING EXACT DOOR AND WINDOW LOCATIONS), ALCOVES, SLAB SLOPES AND DEPRESSIONS, CURBS, ETC. VERTICAL DIMENSIONAL CONTROL IS DEFINED BY ARCHITECTURAL WALL SECTIONS AND BUILDING SECTIONS. STRUCTURAL DETAILS SHOW DIMENSIONAL RELATIONSHIPS TO CONTROL DIMENSIONS DEFINED BY ARCHITECTURAL DRAWINGS. DETAILING AND SHOP DRAWING PRODUCTION FOR STRUCTURAL ELEMENTS WILL REQUIRE DIMENSIONAL INFORMATION CONTAINED IN BOTH ARCHITECTURAL AND STRUCTURAL DRAWINGS.

STRUCTURAL OBSERVATION

ENGINEER OF RECORD SHALL PERIODICALLY OBSERVE CONSTRUCTION AT THE FOLLOWING SIGNIFICANT STAGES OF CONSTRUCTION. THESE OBSERVATIONS ARE IN ADDITION TO REQUIRED SPECIAL INSPECTION.

FOUNDATION
TO BE MADE AFTER EXCAVATIONS FOR FOOTINGS ARE COMPLETE AND ANY REQUIRED REINFORCING STEEL IS IN PLACE. FOR FORMED CONCRETE FOUNDATIONS, ALL FORMWORK SHALL BE IN PLACE. ALL CAST-IN ANCHORS SHALL BE INSTALLED TO THE FORMWORK. ALL MATERIALS FOR THE FOUNDATION SHALL BE ON THE JOB SITE, EXCEPT CONCRETE WHERE IT IS READY MIXED IN ACCORDANCE WITH THE CODE.

FRAMING
OBSERVATION OF THE VERTICAL (STRUCTURAL FRAMING AND SHEATHING) AND LATERAL (WIND AND SEISMIC) FORCE RESISTING SYSTEMS.

INTERMEDIATE OBSERVATION IS REQUIRED PRIOR TO CONCEALING ANY WORK REQUIRING OBSERVATION.

FINAL OBSERVATION TO BE MADE AFTER THE ROOF, ALL STRUCTURAL FRAMING, SHEAR WALLS, LATERAL BRACING, TIES, COLLECTORS, DRAGS, AND SHEAR DIAPHRAGMS ARE CONSTRUCTED.

NOTIFICATION
NOTIFY THE ENGINEER AT LEAST THREE BUSINESS DAYS PRIOR TO THE DATE UPON WHICH OBSERVATION IS REQUIRED.

REPORT
AT CONCLUSION OF WORK, ENGINEER SHALL PREPARE A STATEMENT DESCRIBING SITE VISITS, REPORTING WORK OBSERVED, IDENTIFYING KNOWN REMAINING DEFICIENCIES AND STATING APPARENT CONFORMANCE TO INTENT OF PLANS.

GENERAL NOTES

1. UNLESS EXPLICITLY STATED IN THESE CONSTRUCTION DOCUMENTS, BY NOTE OR CLARIFICATION LETTER, THE ENTIRE SCOPE OF WORK REPRESENTED BY THESE DOCUMENTS SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

2. THESE CONSTRUCTION DOCUMENTS REPRESENT THE DESIGN INTENT OF THE DESIGN TEAM BASED ON DIMENSIONS OF EXISTING SITE AND/OR FIELD CONDITIONS. ACTUAL CONDITIONS MAY REQUIRE MODIFICATIONS OF THE CONSTRUCTION DETAILS TO ACHIEVE THE DESIGN INTENT. CONTRACTOR SHALL NOTIFY DESIGN TEAM IN WRITING OF ANY DISCREPANCIES RELATED TO EXISTING SITE AND/OR FIELD CONDITIONS PRIOR TO CONTINUING ANY WORK.

3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO RECORD ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE CONSTRUCTION DOCUMENTS AND TO BRING THEM TO THE ATTENTION OF THE DESIGN TEAM PRIOR TO COMMENCING ANY WORK. ANY DEVIATION FROM THE CONDITIONS SHOWN IN THESE CONSTRUCTION DOCUMENTS SHALL REQUIRE WRITTEN APPROVAL FROM THE DESIGN TEAM.

4. DO NOT SCALE THE DRAWINGS. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN TEAM PRIOR TO COMMENCING ANY WORK.

5. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY. WORK REQUIRED TO BE DONE BY ONE DOCUMENT AND NOT BY OTHERS SHALL BE DONE AS IF REQUIRED BY ALL.

6. THE CONTRACTOR AND SUBCONTRACTOR SHALL MAKE NO STRUCTURAL SUBSTITUTIONS, CHANGES, OR MODIFICATIONS WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.

7. CONTRACTORS AND SUBCONTRACTORS SHALL ENSURE THAT ALL WORK IS PERFORMED IN A PROFESSIONAL AND WORKMANLIKE MANNER BY SKILLED MECHANICS OF THE TRADE. SUBCONTRACTORS AND SUPPLIERS ARE HEREBY NOTIFIED THAT THEY ARE TO CONFER AND COOPERATE FULLY WITH EACH OTHER DURING THE COURSE OF CONSTRUCTION TO DETERMINE THE EXACT EXTENT AND OVERLAP OF EACH OTHER'S WORK AND TO SUCCESSFULLY COMPLETE THE EXECUTION OF THE WORK IN A TIMELY MANNER.

8. BUILDER'S SET: THIS SET OF DRAWINGS HAS BEEN PREPARED SUFFICIENT TO OBTAIN A BUILDING PERMIT. ALL MATERIALS AND METHODS OF CONSTRUCTION NECESSARY TO COMPLETE THE PROJECT ARE NOT NECESSARILY DESCRIBED IN THIS "BUILDER'S SET". THE IMPLEMENTATION OF THE DRAWINGS REQUIRES THE CONTRACTOR OR BUILDER TO BE THOROUGHLY KNOWLEDGEABLE WITH THE APPLICATIONS OF CODES AND THE METHODS OF CONSTRUCTION SPECIFIC TO THIS PROJECT AND TYPE OF CONSTRUCTION.

9. UNLESS SPECIFICALLY SHOWN OR NOTED ON THE DRAWINGS, NO STRUCTURAL MEMBER SHALL BE CUT, NOTCHED, BORED, OR OTHERWISE WEAKENED WITHOUT THE PERMISSION OF THE STRUCTURAL ENGINEER.

10. ALL WATERPROOFING, FLASHING, AND DRAINAGE ARE TO BE DESIGNED AND PROVIDED BY THE BUILDER.

ABBREVIATIONS

AB - ANCHOR BOLT
ABV - ABOVE
ADDL - ADDITIONAL
ADJ - ADJACENT
ARCH - ARCHITECTURAL
AYC - ALASKAN YELLOW CEDAR
BLKG - BLOCKING
BLW - BELOW
BN - BOUNDARY NAILS
BTWN - BETWEEN
CBC - CALIFORNIA BUILDING CODE
CJ - CONSTRUCTION JOINT
CL - CENTERLINE
COL - COLUMN
CONC - CONCRETE
CONT - CONTINUOUS
CVG - CONTINUOUS VERTICAL GRAIN
DIAM - DIAMETER
DF - DOUGLAS FIR
DFPT - DOUGLAS FIR PRESSURE TREATED
DL - DEAD LOAD
DN - DOWN
E - EXISTING
ELECT - ELECTRICAL
EN - EDGE NAIL
ENGR - ENGINEER
ES - EACH SIDE
EW - EACH WAY
FDN - FOUNDATION
FF - FINISH FLOOR
FOHC - FREE OF HEART CORE
FOS - FACE OF STUD
FS - FAR SIDE
GA - GAGE
GALV - GALVANIZED
GC - GENERAL CONTRACTOR
GLB - GLUED LAMINATED BEAM
GYP - GYPSUM BOARD
HD - HOLDOWN
HORIZ - HORIZONTAL
HSS - HOLLOW STRUCTURAL SECTION
IBC - INTERNATIONAL BUILDING CODE
INTR - INTERMEDIATE
INV - INVERTED
K - KIPS
KP - KING POST
KS - KING STUD
LL - LIVE LOAD
LLV - LONG LEG VERTICAL
LLH - LONG LEG HORIZONTAL
LSL - LAMINATED STRAND LUMBER
LVL - LAMINATED VENEER LUMBER
LWT - LIGHTWEIGHT
MAX - MAXIMUM
MECH - MECHANICAL
MFR - MANUFACTURER
MIN - MINIMUM
MISC - MISCELLANEOUS
N - NEW
NS - NEAR SIDE
OC - ON CENTER
OCEW - ON CENTER EACH WAY
OF - OUTER FACE
OH - OPPOSITE HAND
OPNG - OPENING
PL - PLATE
PLF - POUNDS PER LINEAR FOOT
PSF - POUNDS PER SQUARE FOOT
PSL - PARALLEL STRAND LUMBER
PT - PRESSURE TREATED
PW - PLYWOOD
REINF - REINFORCEMENT
RO - ROUGH OPENING
SCHED - SCHEDULE
SHTG - SHEATHING
SIM - SIMILAR
SMS - SHEET METAL SCREW
SOG - SLAB ON GRADE
STAG - STAGGERED
STD HK - STANDARD HOOK
STIFF - STIFFENER
STL - STEEL
SW - SHEARWALL
SYM - SYMMETRICAL
T&B - TOP & BOTTOM
T&G - TONGUE AND GROOVED
THRU - THROUGH
TN - TOE NAIL
TS - TUBE STEEL
TYP - TYPICAL
UBC - UNIFORM BUILDING CODE
UNO - UNLESS NOTED OTHERWISE
VERT - VERTICAL
VIF - VERIFY IN FIELD
w/ - WITH
WWF - WELDED WIRE FABRIC

DESIGN CRITERIA

RISK CATEGORY: II - TABLE 1604.5

VERTICAL LOADS

AREA	DESIGN DEAD LOAD	LIVE LOAD	CONCENTRATED LOADS
ROOF	15 PSF	25 PSF	--

SNOW: FOR SITES OVER 25 PSF.
P_g = 30 PSF (GROUND SNOW LOAD)
$P_f = .7P_gC_eC_t$ I = 25 PSF (FLAT ROOF SNOW LOAD)
I_s = 1.1, C_e = 1.0, C_t = 1.1, C_s = 1.0

LATERAL FORCES
WIND:
ALTERNATE HEIGHTS METHOD
- EXPOSURE CATEGORY = C
- RISK CATEGORY = II
- BASIC WIND SPEED, V = 120 MPH
- $P_{net} = .00256V^2K_zC_{net}K_{zt}$
- K_z = 1.0
- P_{net} = 17 PSF

SEISMIC:
$V = C_sW$
$C_s = S_{ds}/(R/I)$; $0.044\ S_{ds}*I_e < C_s < S_{d1}/((R/I_e)*T)$
- SEISMIC IMPORTANCE FACTOR, I_e = 1.25
- SPECTRAL RESPONSE ACCELERATION S_s = 1.435, S_1 = 0.502
- SITE CLASS PER TABLE 20-3.1 OF ASCE 7-16 = D
- SPECTRAL RESPONSE COEFFICIENTS: S_{ds} = 1.148, S_{d1} = 0.602
- SEISMIC DESIGN CATEGORY = D
- ANALYSIS PROCEDURE USED = EQUIVALENT LATERAL FORCE ANALYSIS
- RESPONSE MODIFICATION FACTOR PER TABLE 12.2-1 (ASCE 7-16) R = 5.0
- C_s = 0.287
- DESIGN BASE SHEAR, V = 25.6 KIPS (ULTIMATE)

SHOP DRAWINGS

THE FOLLOWING SHOP DRAWINGS/SUBMITTALS SHALL BE PROVIDED FOR REVIEW AND APPROVAL BY THE STRUCTURAL ENGINEER PRIOR TO FABRICATION OR DELIVERY.

		STRUCTURAL ENGR.	BLDG. DEPT.
1.	STRUCTURAL STEEL	X	

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PROFESSIONAL ENGINEER STATE OF NEVADA
MICHAEL J. NICKLIN
Exp. 12/31/21
CIVIL
No. 18139

6/17/21

REVISIONS

CITY OF SPARKS FIRE STATION 2

2900 N. TRUCKEE LANE
SPARKS, NV 89434

DESIGNED BY JNJ
DRAFTED BY ACB

CLIENT INFORMATION
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431 PRATER WAY
SPARKS, NV 89431

PROJECT# 20-020

ISSUE DATE 6/17/21
SCALE As indicated

SPECIFICATIONS

S-0

SPECIAL INSPECTION SCHEDULE

AREAS REQUIRING SPECIAL INSPECTION:	FREQUENCY		COMMENTS
	CONTINUOUS	PERIODIC	
FABRICATORS (IBC 1704.2.5)	X		IF FABRICATOR IS APPROVED, ON-SITE INSPECTION IS NOT REQUIRED BUT A CERTIFICATE OF COMPLETION MUST BE PROVIDED TO THE B.O. (IBC 1704.2.5.2)
CONCRETE CONSTRUCTION (IBC 1705.3)			
REINFORCING STEEL PLACEMENT		X	VERIFY SIZE, CLEARANCES, SPLICES, AND PROPER TIES
EMBEDDED BOLTS OR PLATES	X		
VERIFY REQUIRED DESIGN MIX		X	VERIFY MIX DESIGN MEETS STREGTH AND EXPOSURE REQUIREMENTS LISTED ON APPROVED PLANS
CONCRETE PLACEMENT/SAMPLING	X		INCLUDES SAMPLING FOR AIR, SLUMP, STRENGTH, AND TEMPERATURE TECHNIQUES
INSPECT FORMWORK		X	VERIFY SHAPE, LOCATION, AND MEMBER DIMENSIONS
POST-INSTALLED ANCHORS	X		IN ACCORDANCE WITH APPROVED ICC-ES REPORT. PERIODIC INSPECTIONS ALLOWED IF STATED IN ES REPORT
STRUCTURAL STEEL CONSTRUCTION (IBC 1705.2, 1705.11, AND 1705.12)			
PRIOR TO WELDING (TABLE N5.4-1, AISC 360-10):			
VERIFY WELDING PROCEDURES	X		
MATERIAL IDENTIFICATION		X	VERIFY TYPE AND GRADE OF MATERIAL
WELDER IDENTIFICATION		X	VERIFY THERE IS A SYSTEM IN PLACE TO IDENTIFY THE WELDER WHO HAS WELDED A JOINT OR MEMBER.
FIT-UP GROOVE WELDS		X	VERIFY JOINT PREPARATION, DIMENSIONS, CLEANLINESS, TACKING, AND BACKING
ACCESS HOLES		X	VERIFY CONFIGURATION AND FINISH
FIT-UP FILLET WELDS		X	VERIFY ALIGNMENT, GAPS AT ROOT, CLEANLINESS OR STEEL SURFACES, TACK WELD QUALITY, AND LOCATION
DURING WELDING (TABLE N5.4-2, AISC 360-10):			
USE OF QUALIFIED INSPECTORS		X	VERIFY THAT WELDERS ARE APPROPRIATELY QUALIFIED
CONTROL AND HANDLING OF WELDING CONSUMABLES		X	VERIFY PACKAGING AND EXPOSURE CONTROL
CRACKED TACK WELDS		X	VERIFY WELDING IS NOT OVER A CRACKED TACK WELD
ENVIRONMENTAL CONDITIONS		X	VERIFY WIND SPEED IS WITHIN LIMITS AS WELL AS PRECIPITATION AND TEMPERATURE
WPS FOLLOWED		X	VERIFY ITEMS SUCH AS WELDING EQUIPMENT SETTINGS, TRAVEL SPEED, WELDING MATERIALS, SHIELDING GAS TYPE/FLOW RATE, PREHEAT APPLIED, INTERPASS TEMPERATURE MAINTAINED, AND PROPER POSITION
WELDING TECHNIQUES		X	VERIFY INTERPASS AND FINAL CLEANING; EACH PASS IS WITHIN PROFILE LIMITATIONS, AND QUALITY OF EACH PASS
AFTER WELDING (TABLE N5.4-3, AISC 360-10):			
WELDS CLEANED		X	VERIFY THAT WELDS HAVE BEEN PROPERLY CLEANED
SIZE, LENGTH, AND LOCATION OF WELDS	X		
WELDS MEET VISUAL ACCPETANCE CRITERIA	X		
ARC STRIKES	X		
K-AREA	X		
BACKING AND WELDING TABS REMOVED	X		
REPAIR ACTIVITIES	X		
DOCUMENT ACCEPTANCE/REJECTION OF WELD	X		
OTHER STEEL INSPECTIONS (SECTION N5.7, AISC 360-10, TABLES J8-1 AND J10-1, AISC 341-10):			
STRUCTURAL STEEL DETAILS		X	ALL FABRICATED STEEL AND THEIR CONNECTIONS SHALL BE INSPECTED TO VERIFY COMPLIANCE WITH THE DETAILS SHOWN IN THE APPROVED PLANS

STATEMENT OF SPECIAL INSPECTIONS

SPECIAL INSPECTIONS AND STRUCTURAL TESTING SHALL BE PROVIDED BY AN INDEPENDENT AGENCY EMPLOYED BY THE OWNER FOR THE ITEMS IDENTIFIED IN THIS SECTION AND IN OTHER AREAS OF THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS, UNLESS WAIVED BY THE BUILDING OFFICIAL (SEE IBC CHAPTER 17).

THE NAMES AND CREDENTIALS OF THE SPECIAL INSPECTORS TO BE USED SHALL BE SUBMITTED TO THE BUILDING OFFICIAL FOR APPROVAL.

DUTIES OF THE SPECIAL INSPECTOR:

a. THE SPECIAL INSPECTOR SHALL REVIEW ALL WORK LISTED BELOW FOR CONFORMANCE WITH THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS AND THE 2018 IBC.
b. THE SPECIAL INSPECTOR SHALL FURNISH SPECIAL INSPECTION REPORTS TO THE EOR, CONTRACTOR, OWNER AND BUILDING OFFICIAL ON A WEEKLY BASIS, OR MORE FREQUENTLY AS REQUIRED BY THE BUILDING OFFICIAL. ALL ITEMS NOT IN COMPLIANCE SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, AND IF UNCORRECTED, TO THE EOR AND THE BUILDING OFFICIAL.
c. ONCE CORRECTIONS HAVE BEEN MADE BY THE CONTRACTOR, THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT TO THE BUILDING OFFICIAL STATING THAT THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE SPECIAL INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS AS WELL AS THE APPLICABLE WORKMANSHIP PROVISIONS OF THE 2018 IBC.

DUTIES AND RESPONSIBILITIES OF THE CONTRACTOR:

a. THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE OWNER AND THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF WORK. IN ACCORDANCE WITH IBC 1704.4, THE STATEMENT OF RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGEMENT OF THE SPECIAL INSPECTION REQUIREMENTS CONTAINED WITHIN THIS "STATEMENT OF SPECIAL INSPECTIONS".
b. THE CONTRACTOR SHALL NOTIFY THE RESPONSIBLE SPECIAL INSPECTOR THAT WORK IS READY FOR INSPECTION AT LEAST ONE WORKING DAY (24 HOURS MINIMUM) BEFORE SUCH INSPECTION IS REQUIRED.
c. ALL WORK REQUIRING SPECIAL INSPECTION SHALL REMAIN ACCESSIBLE AND EXPOSED UNTIL IT HAS BEEN OBSERVED BY THE SPECIAL INSPECTOR.

PLEASE SEE THE "SPECIAL INSPECTION SCHEDULE" FOR THE TYPES, EXTENTS AND FREQUENCY OF SPECIFIC ITEMS REQUIRING SPECIAL INSPECTIONS AND STRUCTURAL TESTS AS PART OF THIS PROJECT.

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MICHAEL J. NICKLIN
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No. 18139

6/17/21

REVISIONS

CITY OF SPARKS FIRE STATION 2

2900 N. TRUCKEE LANE
SPARKS, NV 89434

DESIGNED BY JNJ
DRAFTED BY ACB

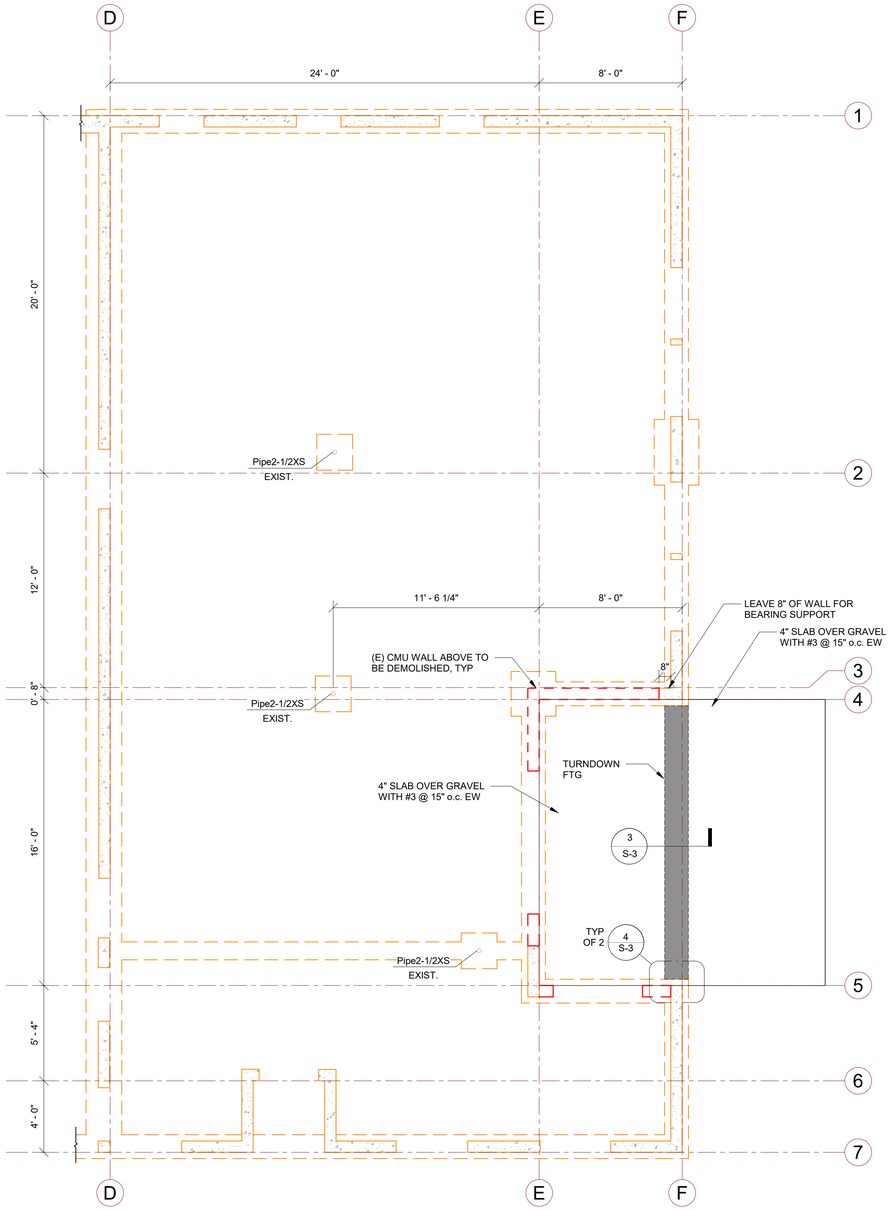
CLIENT INFORMATION
CITY OF SPARKS
431 PRATER WAY
SPARKS, NV 89431

PROJECT# 20-020

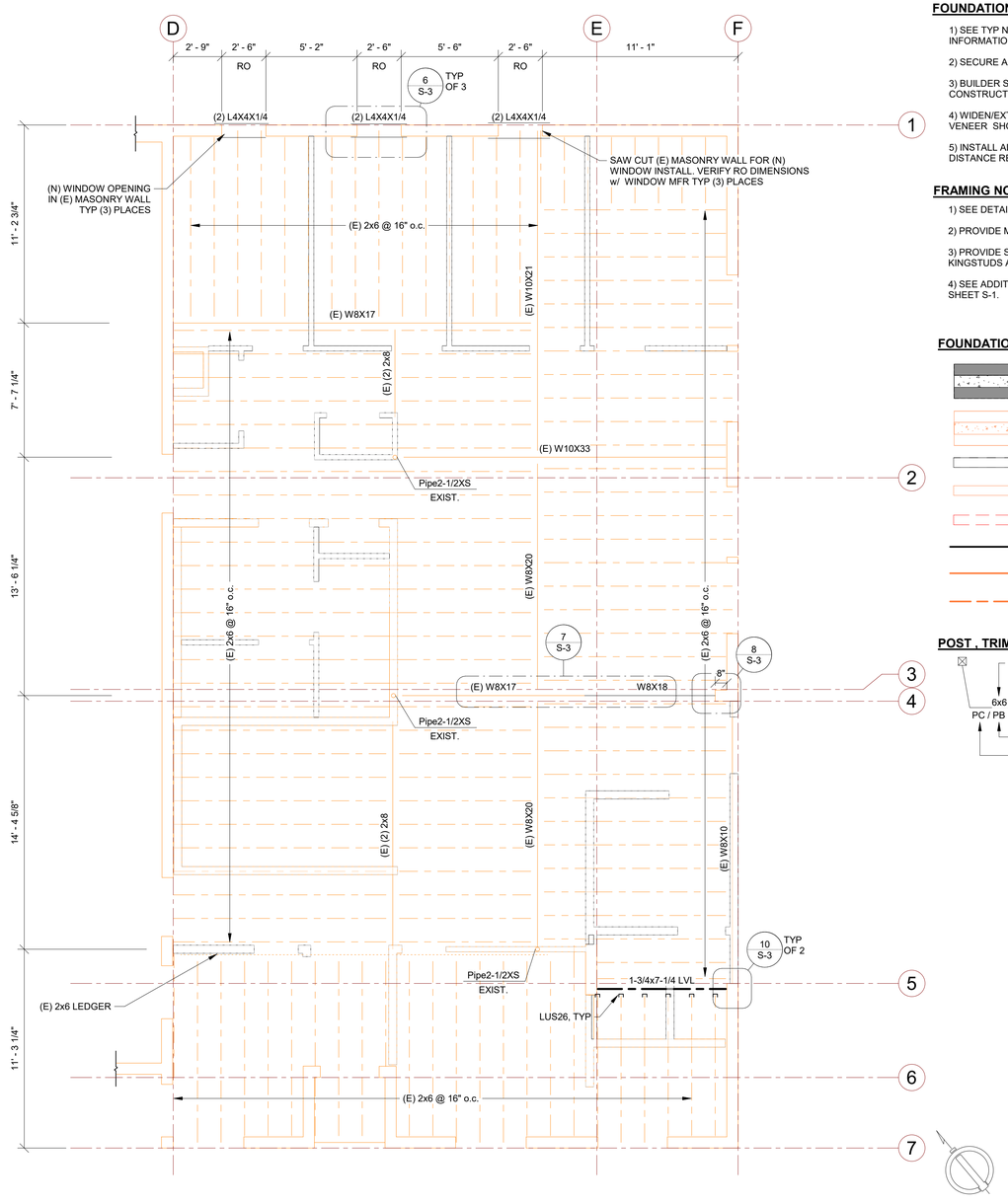
ISSUE DATE 6/17/21
SCALE 1" = 1'-0"

SPECIAL INSPECTIONS

S-1



FOUNDATION PLAN
1/4" = 1'-0"



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

FOUNDATION NOTES

1) SEE TYP NOTES AND DETAILS ON SHEET S-1 FOR ADDITIONAL INFORMATION.

2) SECURE ALL HOLDOWN ANCHORS WITHIN FORMWORK PRIOR TO POUR.

3) BUILDER SHALL CHECK AND VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.

4) WIDEN/EXTEND FOOTINGS AS REQUIRED TO PROVIDE SUPPORT FOR ANY VENEER SHOWN ON ARCHITECTURAL DRAWINGS.

5) INSTALL ALL HOLDOWN ANCHORS PER MANUFACTURER SPECS & EDGE DISTANCE REQUIREMENTS.

FRAMING NOTES

1) SEE DETAIL 5/S-3 FOR CONNECTION AT NON-BEARING WALLS.

2) PROVIDE MIN. OF ONE STUD UNDER EVERY TRUSS OR RAFTER.

3) PROVIDE SINGLE TRIMMERS AT ALL HEADERS MIN. UNO. INSTALL KINGSTUDS AS REQUIRED PER TYPICAL TRIMMER/KINGSTUD DETAIL

4) SEE ADDITIONAL REQUIREMENTS IN STRUCTURAL SPECIFICATIONS SHEET S-1.

FOUNDATION & FRAMING LEGEND

- NEW FOOTING
- EXISTING FOOTING
- WALLS BELOW FRAMING
- (E) WALLS BELOW FRAMING
- (E) WALLS TO BE DEMOLISHED
- CONCEALED BEAM OR HEADER
- (E) BEAM OR HEADER
- (E) CEILING JOIST

POST , TRIMMER OR COLUMN

MEMBER SIZE
6x6
PC / PB
HARDWARE AT BOTTOM
HARDWARE AT TOP
(WHERE OCCURS)

N

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FOUNDATION AND FRAMING PLANS

S-2

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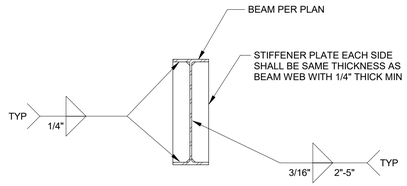
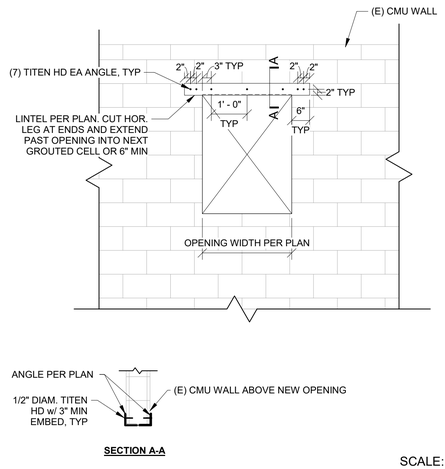


SCALE: 1" = 1'-0"

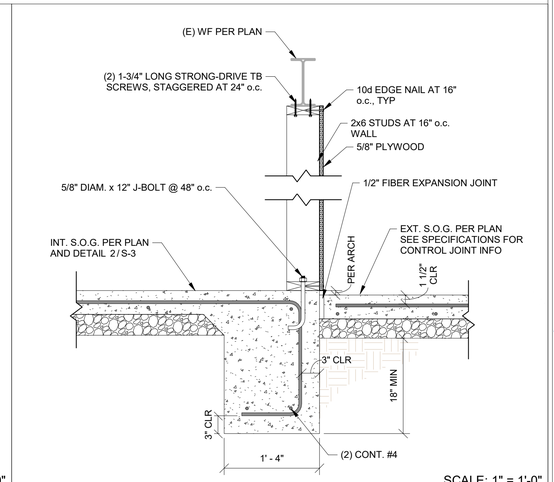
BEAM (WF) STIFFENER PLATE 9



SECTION A-A

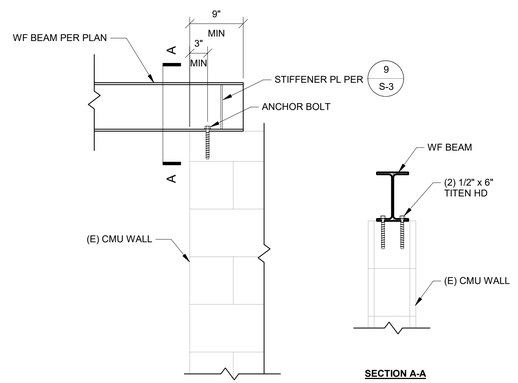
SCALE: 1/2" = 1'-0"

LINTEL IN (E) MASONRY WALL 6



SCALE: 1" = 1'-0"

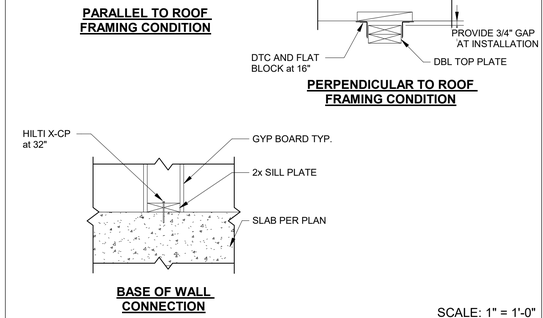
STUDWALL OVER TURNDOWN FTG 3



SECTION A-A

SCALE: 1" = 1'-0"

WF TO T/ (E) MASONRY WALL 8



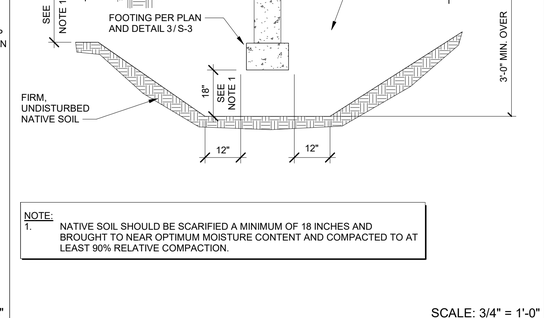
PARALLEL TO ROOF FRAMING CONDITION

PERPENDICULAR TO ROOF FRAMING CONDITION

BASE OF WALL CONNECTION

SCALE: 1" = 1'-0"

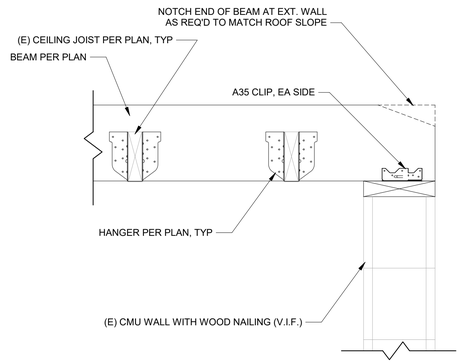
NON BEARING WALL CONNECTIONS 5



NOTE:
1. NATIVE SOIL SHOULD BE SCARIFIED A MINIMUM OF 18 INCHES AND BROUGHT TO NEAR OPTIMUM MOISTURE CONTENT AND COMPACTED TO AT LEAST 90% RELATIVE COMPACTION.

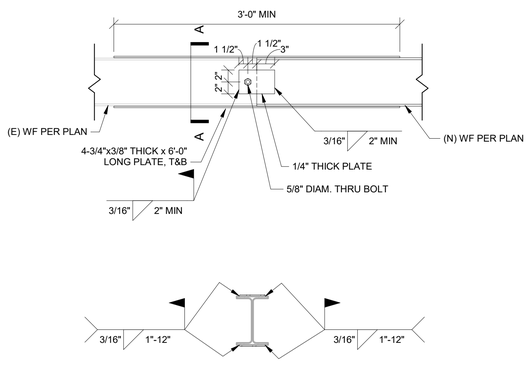
SCALE: 3/4" = 1'-0"

TYPICAL SOILS PREPARATION 2



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

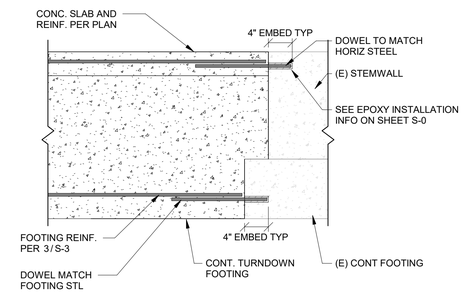
(E) JOISTS TO BEAM 10



SECTION A-A

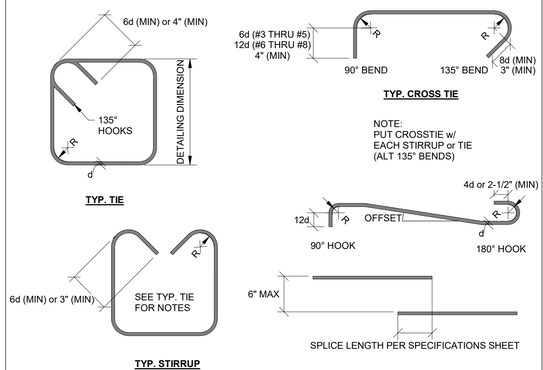
SCALE: 1" = 1'-0"

WF TO (E) WF 7



SCALE: 1" = 1'-0"

NEW FOOTING DOWEL INTO (E) FOOTING 4



BEND RADIUS:
R = 3d FOR #3 THRU #8
R = 4d FOR #9 THRU #11
R = 5d FOR #14 THRU #18

SEE SPECIFICATIONS SHEET FOR SPLICE LENGTH

SCALE: 1" = 1'-0"

BENDS AND HOOKS 1

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SCALE	As indicated

DETAILS

S-3

PRINT DATE:6/8/2021 9:38:58 AM

MECHANICAL SPECIFICATIONS

A. GENERAL

1. THE INFORMATION INDICATED ON THESE DRAWINGS AS EXISTING IS BASED UPON INFORMATION TAKEN FROM AS-BUILT DRAWINGS, FIELD INVESTIGATION, AND INFORMATION OBTAINED FROM SUBMITTAL DATA, ETC. THE PLANS DO NOT GUARANTEE ACCURACY BUT ARE ONLY AN INDICATION OF EXISTING CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY EXACT CONDITIONS SUCH AS EQUIPMENT PLACEMENT, DUCTWORK (SIZE, ROUTING, AND ELEVATION), PIPING (SIZE, ROUTING, AND ELEVATION), ETC. THE DRAWINGS ARE INTENDED TO PROVIDE THE CONTRACTOR AN INDICATION OF THE SYSTEM INSTALLED IN THE FACILITY TO DATE. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE ADJUSTMENTS TO THE DRAWING INFORMATION AS REQUIRED TO MATCH EXISTING FIELD CONDITIONS.
2. THE CONTRACTOR SHALL INSTALL THE NEW EQUIPMENT, DUCTWORK, AND PIPING AROUND ALL EXISTING OBSTACLES INCLUDING: ELECTRICAL CONDUIT, DOMESTIC WATER PIPING, WASTE AND VENT PIPING, ACID WASTE AND VENT PIPING, CHILLED AND HEATING WATER PIPING, AND FIRE SPRINKLER PIPING. PROVIDE OFFSETS TO AVOID RELOCATION OF OTHER UTILITIES. RELOCATE UTILITIES IF THEY ARE IN CONFLICT WITH THE MECHANICAL SYSTEM INSTALLATION, CAUSE DEVIATIONS IN THE DESIGN INTENT, UNSATISFACTORY OPERATION, NOISY CONDITIONS, OR INTERFERE WITH MAINTENANCE. IT IS THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO COORDINATE ANY UTILITY RELOCATION WITH THE APPROPRIATE SUBCONTRACTOR.
3. PROVIDE ALL NECESSARY LABOR, MATERIALS, EQUIPMENT, SERVICES AND INSURANCES TO COMPLETE THE HEATING, VENTILATING AND AIR CONDITIONING WORK WITHIN THE FULL INTENT OF THE DRAWINGS AND SPECIFICATIONS CONTAINED HEREON AND TO THE ENTIRE SATISFACTION OF THE ARCHITECT/ENGINEER.
4. PROVIDE ALL NECESSARY LABOR, MATERIALS, EQUIPMENT, SERVICES AND INSURANCES TO COMPLETE THE HEATING, VENTILATING AND AIR CONDITIONING WORK WITHIN THE FULL INTENT OF THE DRAWINGS AND SPECIFICATIONS CONTAINED HEREON AND TO THE ENTIRE SATISFACTION OF THE ARCHITECT/ENGINEER.
5. PROVIDE ALL PERMITS AND FEES AS REQUIRED FOR THE MECHANICAL WORK.
6. CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE PROJECT BEFORE BIDDING.
7. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2018 INTERNATIONAL BUILDING CODE (IBC), 2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2018 INTERNATIONAL FIRE CODE (IFC), 2018 UNIFORM MECHANICAL CODE (UMC), 2018 UNIFORM PLUMBING CODE (UPC), 2017 NATIONAL ELECTRICAL CODE (NEC), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) STANDARDS, AND ALL OTHER APPLICABLE CODES, RULES, AND LOCAL REQUIREMENTS.
8. GUARANTEE ALL WORK AND MATERIALS FOR A PERIOD OF ONE YEAR.
9. ALL DIMENSIONS AND MEASUREMENTS SHALL BE VERIFIED AT THE JOBSITE BEFORE FABRICATION AND/OR INSTALLATION OF THE EQUIPMENT.
10. PROVIDE AND INSTALL ALL EQUIPMENT, DUCT, PIPING, AND CONTROLS AS SHOWN ON THE DRAWINGS.

B. SUBMITTALS

1. ELECTRONIC SUBMITTALS IN ADOBE PDF FORMAT, IN LIEU OF PAPER COPIES, WILL BE ACCEPTABLE.
2. SUBSTITUTED ITEMS SHALL BE SUBMITTED WITH MANUFACTURER'S DESCRIPTIVE DATA AND MUST SHOW EQUALITY TO EQUIPMENT SPECIFIED. INFORMATION ON SUBSTITUTED ITEMS MUST BE COMPLETE, INCLUDING, BUT NOT LIMITED TO: DESIGN, CONSTRUCTION MATERIALS, CONSTRUCTION QUALITY, AND SOUND LEVELS. ENGINEER WILL NOT RESEARCH INFORMATION REQUIRED TO COMPARE EQUIPMENT. ENGINEER RESERVES THE RIGHT TO REQUIRE SPECIFIED EQUIPMENT.
3. SUBMIT MANUFACTURER'S DESCRIPTIVE DATA WITHIN TEN (10) WORKING DAYS AFTER AWARD OF THE CONTRACT. MATERIALS AND EQUIPMENT SHALL NOT BE ORDERED PRIOR TO SUBMITTAL APPROVAL. ALLOW TEN (10) WORKING DAYS AFTER RECEIPT OF SUBMITTALS IN THE ENGINEER'S OFFICE BEFORE REVIEWED SUBMITTALS WILL BE RETURNED.
4. UPON COMPLETION OF THE PROJECT, AND PRIOR TO FINAL ACCEPTANCE PAYMENT, SUBMIT AS-BUILT DRAWINGS AND OPERATING AND MAINTENANCE INSTRUCTIONS.

C. WORKMANSHIP

1. ALL WORK TO BE PERFORMED BY QUALIFIED PERSONNEL NORMALLY ENGAGED IN THE RESPECTIVE LINE OF WORK.
2. PERFORM ALL WORK IN A MANNER NOT TO DISTURB THE NORMAL OPERATION OF THE BUILDING.
3. COORDINATE ALL WORK WITH THE OWNER'S REPRESENTATIVE.
4. COORDINATE ALL WORK WITH THE OTHER TRADES.
5. THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL WORK ACCEPTABLE TO THE OWNER'S REPRESENTATIVE.

D. DEMOLITION

1. DEMOLITION WORK SHALL NOT CREATE ANY DUST PROBLEMS IN THE WORKING SPACES.

E. CUTTING, PATCHING, AND PAINTING

1. ALL CUTTING AND PATCHING TO BE PERFORMED BY THE GENERAL CONTRACTOR.
2. CUTTING OF ALL OPENINGS SHALL BE COORDINATED WITH THE OWNER'S ENGINEERING REPRESENTATIVE.
3. WATER WILL NOT BE USED FOR CONCRETE CUTTING WITHOUT THE DIRECT SUPERVISION OF THE OWNER'S ENGINEERING REPRESENTATIVE.
4. USE ONLY IF NO ARCHITECT ON PROJECT. WALL SURFACES SHALL BE PRIMED AND PAINTED. PAINT TYPE AND COLOR SHALL BE AS SPECIFIED BY THE OWNER'S REPRESENTATIVE.

F. PRODUCT HANDLING

1. USE ALL MEANS NECESSARY TO PROTECT ALL MATERIALS AND EQUIPMENT BEFORE, DURING, AND AFTER INSTALLATION AND TO PROTECT THE MATERIALS AND WORK OF THE OTHER TRADES.
2. IN THE EVENT OF DAMAGE, IMMEDIATELY MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY TO THE APPROVAL OF THE ENGINEER AND AT NO ADDITIONAL COST TO THE OWNER.

G. SEISMIC RESTRAINTS

1. ALL EQUIPMENT, DUCTWORK, PIPING, AND CONDUIT SHALL BE SEISMICALLY RESTRAINED PER THE 2018 IBC.
2. REFERENCES: INTERNATIONAL BUILDING CODE (IBC) SECTION 1613.1, AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE 7) SECTION 13.6, SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION (SMACNA) SEISMIC RESTRAINT MANUAL, AND AMERICAN SOCIETY OF PLUMBING ENGINEERS (ASPE) PLUMBING ENGINEERING DESIGN HANDBOOK.

H. DUCTWORK

1. AIR DISTRIBUTION DUCT SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH CURRENT EDITIONS OF THE ASHRAE GUIDE AND WITH S.M.A.C.N.A. DUCT CONSTRUCTION STANDARDS.
2. DUCTS LINED WITH INSULATION SHALL BE INCREASED IN SIZE TO ALLOW FOR INSULATION THICKNESS SO THAT DIMENSIONS SHOWN ON DRAWINGS WILL BE NET INSIDE DIMENSIONS.
3. DUCTS SHALL BE PROVIDED WITH HANGERS TO PREVENT ANY BENDING OR SAGGING. HANGERS SHALL BE GALVANIZED STRAP IRON LOOPS WHICH SHALL BE FASTENED TO OVERHEAD CONSTRUCTION IN A SECURE MANNER. SIZE, GAUGE, AND SPACING SHALL BE PER S.M.A.C.N.A. STANDARDS.
4. FLEXIBLE DUCTWORK LOCATED IN UNCONDITIONED SPACE SHALL BE A FACTORY FABRICATED ASSEMBLY CONSISTING OF A FLAME RESISTANT, DOUBLE LAMINATION OF POLYESTER INNER LINER BONDED TO A COATED SPRING STEEL WIRE HELIX, 2" THICK FIBERGLASS INSULATION FOR AN INSULATING VALUE OF R6, AND AN OUTER VAPOR BARRIER JACKET OF METALIZED POLYESTER FILM. FLEXIBLE DUCT TO BE ATCO UPC-036. FLEXIBLE DUCT RUNOUTS SHALL NOT EXCEED 5 FEET IN LENGTH.
5. MANUAL VOLUME DAMPERS: AIR BALANCE INC. MODELS AC-111 AND AC-112 OR APPROVED EQUAL. DAMPERS SHALL BE FURNISHED WITH INSULATION STANDOFFS AND LOCKING QUADRANT HANDLES. RESIDENTIAL TYPE WILL NOT BE PERMITTED.

I. GRILLES, REGISTERS, AND DIFFUSERS

1. AN AIR DISTRIBUTION SCHEDULE IS SHOWN ON DRAWINGS. UNITS OF EQUAL PERFORMANCE, CONSTRUCTION, AND SOUND CRITERIA BY MAJOR MANUFACTURERS WILL BE CONSIDERED FOR APPROVAL. SEE SUBSTITUTION REQUIREMENTS.
2. COORDINATE LOCATIONS WITH CEILING GRID DESIGN AND LIGHT FIXTURE PATTERN.

J. DUCT INSULATION

1. ACCEPTABLE MANUFACTURERS: CERTAINTEED, KNAUF, JOHNS MANVILLE, AND OWENS CORNING.
2. ROUND SUPPLY AND RETURN DUCT AND FITTINGS LOCATED IN UNCONDITIONED SPACE SHALL BE EXTERNALLY INSULATED WITH JOHNS MANVILLE MICROLITE 100 (OR EQUAL) 2" THICK, R-6 MINIMUM INSTALLED INSULATING VALUE, 1# DENSITY FIBERGLASS BLANKET INSULATION WITH FSK VAPOR BARRIER JACKET.

K. TESTING AND BALANCING

1. TEST & BALANCE TO BE CONDUCTED BY RAGLEN SYSTEM BALANCE OR A MEMBER OF THE ASSOCIATED AIR BALANCE COUNCIL, AND THEY SHALL SUBMIT THREE (3) COPIES OF A FINAL SYSTEM PERFORMANCE REPORT TO THE ENGINEER FOR APPROVAL AND BEFORE THE FINAL INSPECTION.
2. AFTER COMPLETION OF THE INSTALLATION WORK, TEST AND REGULATE ALL COMPONENTS OF THE NEW SYSTEMS TO THE SATISFACTION OF THE OWNER'S ENGINEERING REPRESENTATIVE.
3. DIFFUSERS, GRILLES, REGISTERS: ADJUST THROW PATTERN AS SHOWN ON THE DRAWINGS. ADJUST AIR QUANTITIES WITHIN -0 TO +10% OF THE DESIGN AIR QUANTITIES.

L. IDENTIFICATION

1. PLASTIC NAMEPLATES: LAMINATED THREE LAYER WITH ENGRAVED BLACK LETTERS ON A LIGHT CONTRASTING BACKGROUND COLOR. INSTALL PLASTIC NAMEPLATES WITH CORROSION RESISTANT MECHANICAL FASTENERS, OR ADHESIVE.

M. RELATED WORK

1. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL ALL POWER WIRING AND EQUIPMENT DISCONNECTS, UNLESS INCLUDED WITH EQUIPMENT, TO MAKE SYSTEM OPERATIONAL.

MECHANICAL SYMBOL LIST

(NOTE: ALL OF THE SYMBOLS INDICATED BELOW MAY NOT APPEAR ON THIS PROJECT)

RL	RL	REFRIGERANT LIQUID PIPING	CLG	CEILING
RS	RS	REFRIGERANT SUCTION PIPING	DB	DRY BULB TEMPERATURE
	U	UNION	DDC	DIRECT DIGITAL CONTROL
	P.D.	PIPING TEE DOWN	DL	DOOR LOUVER
	P.U.	PIPING TEE UP	DN	DOWN
	P.U.	PIPING ELBOW UP	(E)	EXISTING
	P.D.	PIPING ELBOW DOWN	EAT	ENTERING AIR TEMPERATURE
		BRANCH - TOP CONNECTION	EDB	ENTERING DRY BULB
		BRANCH - BOTTOM CONNECTION	°F	DEGREES FARENHEIT
OR		ARROW INDICATES DIRECTION OF FLOW	F.A.	FROM ABOVE
	P.O.C.	POINT OF CONNECTION - NEW ITEMS TO EXISTING ITEMS	F.B.	FROM BELOW
	P.O.D.	POINT OF DISCONNECTION	FT.	FEET
	S.A.	SUPPLY AIR DUCT DOWN	LAT	LEAVING AIR TEMPERATURE
	S.A.	SUPPLY AIR DUCT UP	MAX	MAXIMUM
	R.A.	RETURN AIR DUCT DOWN	MBH	BRITISH THERMAL UNITS PER HOUR (THOUSANDS)
	R.A.	RETURN AIR DUCT UP	MIN	MINIMUM
	E.A.	EXHAUST AIR DUCT DOWN	(N)	NEW
	E.A.	EXHAUST AIR DUCT UP	RL / RS	REFRIGERANT LIQUID LINE / REFRIGERANT SUCTION LINE
	S.A.D.	SUPPLY AIR DIFFUSER WITH FLEX CONNECTION	S.E.E.R.	SEASONAL ENERGY EFFICIENCY RATIO
	R.A.G.	RETURN AIR GRILLE OPEN TO CEILING SPACE	SP	STATIC PRESSURE
EQ #		MECHANICAL EQUIPMENT INDICATED (SEE SCHEDULE)	STD	STANDARD
T	T.	THERMOSTAT	T	TEMPERATURE
R	R.	ROOM TEMPERATURE SENSOR	T.A.	TO ABOVE
	AFF	ABOVE FINISHED FLOOR	T.B.	TO BELOW
	AFG	ABOVE FINISHED GRADE	TYP	TYPICAL
	BDD	BACKDRAFT DAMPER	WB	WET BULB TEMPERATURE
	BTUH	BRITISH THERMAL UNITS PER HOUR		
	CFM	CUBIC FEET PER MINUTE		

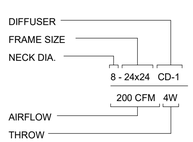
EXHAUST FAN SCHEDULE

SYM	EQUIPMENT DESCRIPTION	MANUFACTURER / MODEL	CAPACITIES	EQUIPMENT FEATURES	ELECTRICAL LOADS	NOTES:
EF 1	EXHAUST FAN	COOK MODEL No. 70C15DH	175 CFM AT .25" SP, 5.1 SONES, 48 dBA, AND 60 LwA	ROOF MOUNTED CENTRIFUGAL DOWNBLAST FAN	115V 1Ø 60HZ	1. SOUND LEVELS SHOWN IN THIS SCHEDULE ARE OBTAINED FROM THE MANUFACTURER'S PUBLISHED DATA. SOUND LEVELS WILL VARY DEPENDING ON THE ACTUAL INSTALLATION. SOUND LEVELS MAY EXCEED THE DATA NOTED IN THIS SCHEDULE.

(E) ROOFTOP UNIT SCHEDULE

SYM	EQUIPMENT DESCRIPTION	MANUFACTURER / MODEL	CAPACITIES	INPUT (MBH)	ELECTRICAL LOADS	NOTES:
SEE PLANS	ROOFTOP UNIT	TRANE MODEL No. 4YCC30118A1040A	600 CFM	40	208V 1Ø 60HZ	

AIR DISTRIBUTION SCHEDULE



NOTE: COLOR SHALL BE STANDARD WHITE FINISH.

TAG	MANUF.	TYPE	FACE	FRAME	MODEL	REMARKS
CD-1	KRUEGER	SUPPLY	DROP FACE	GYPSUM BOARD	1400 SERIES	STEEL
RG-1	KRUEGER	RETURN	EGGCRATE	GYPSUM BOARD	EGC5	ALUMINUM
EG-1	KRUEGER	EXHAUST	EGGCRATE	GYPSUM BOARD	EGC5	ALUMINUM

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MECHANICAL SCHEDULES, SPECIFICATIONS, AND SYMBOLS

m001

SPARKS FIRE STATION 2 DORMITORY REMODEL
City of Sparks

2900 N Truckee Lane
Sparks, NV 89434

No.	Description	Date

BID SET 06/17/2021
192079008

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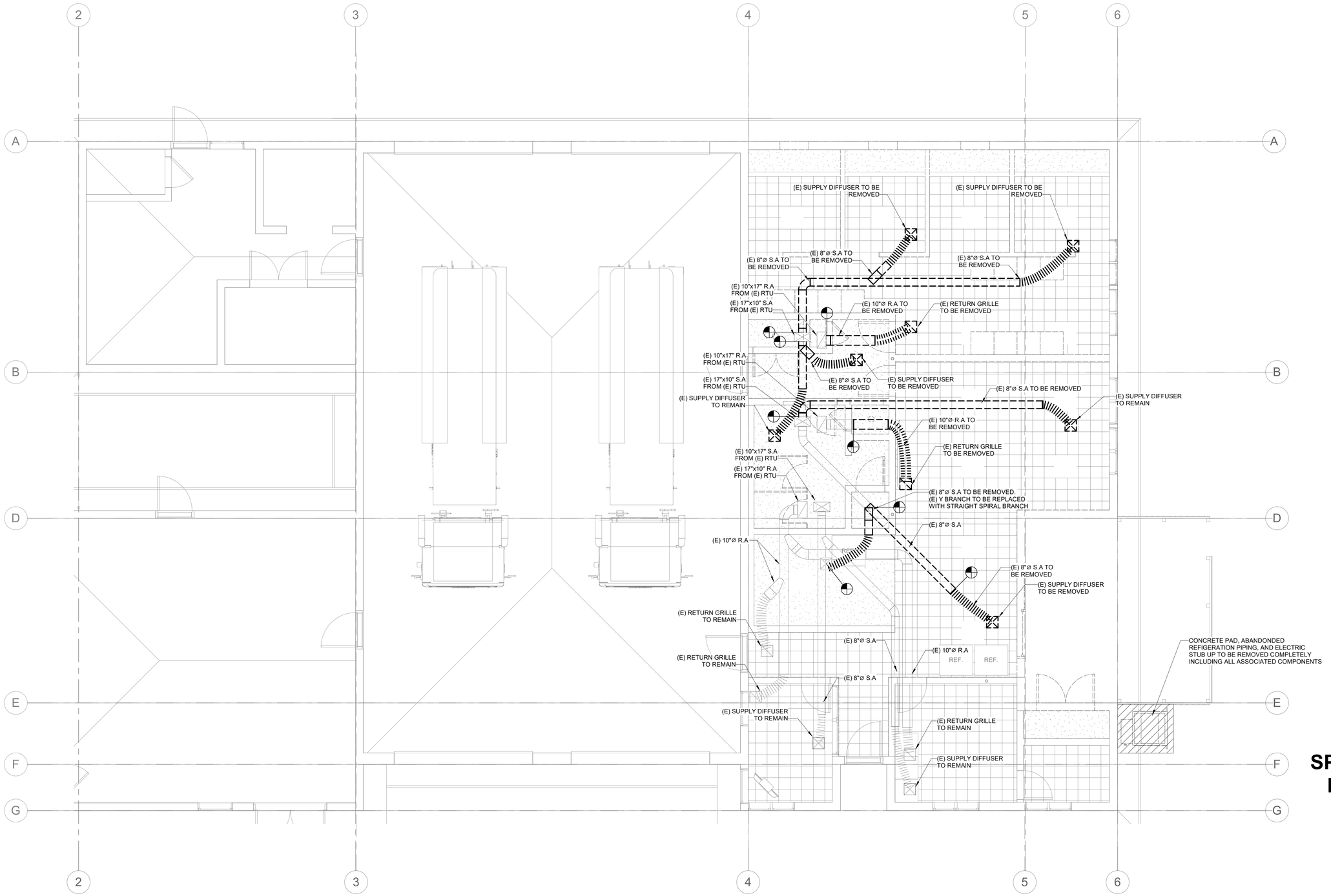

1 **MECHANICAL DEMO PLAN**
SCALE: 1/4" = 1'-0"

MECHANICAL DEMO PLAN
m101

SPARKS FIRE STATION 2 DORMITORY REMODEL
City of Sparks

2900 N Truckee Lane
Sparks, NV 89434

No.	Description	Date

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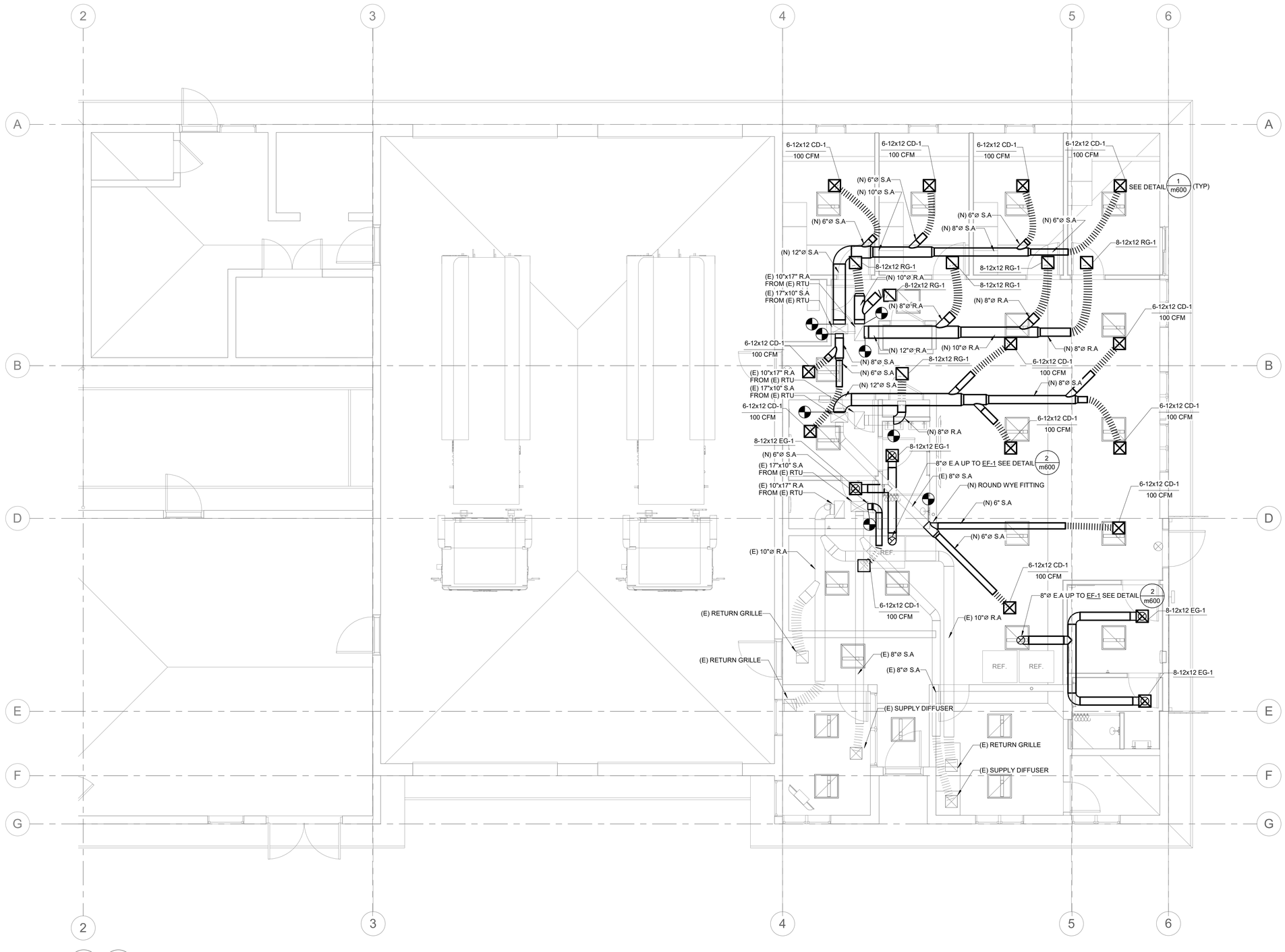

1 MECHANICAL CEILING PLAN
SCALE: 1/4" = 1'-0"

MECHANICAL CEILING PLAN
m201

SPARKS FIRE STATION 2 DORMITORY REMODEL
City of Sparks

2900 N Truckee Lane
Sparks, NV 89434

No.	Description	Date

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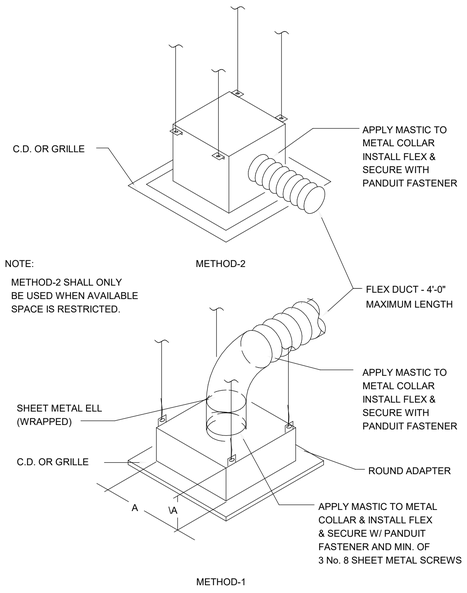
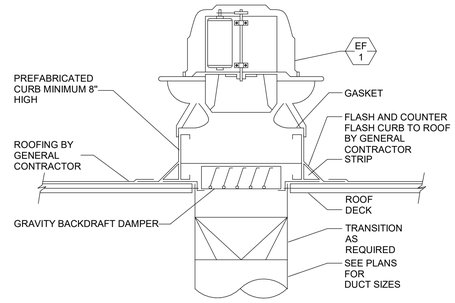


1 LAY IN CEILING DIFFUSER DETAIL
SCALE: N.T.S.



2 ROOF EXHUAST FAN DETAIL
SCALE: N.T.S.

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MECHANICAL DETAILS

m600

SPARKS FIRE STATION 2 DORMITORY REMODEL

City of Sparks

2900 N Truckee Lane
Sparks, NV 89434

No.	Description	Date

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PLUMBING SYMBOL LIST

(NOTE: ALL OF THE SYMBOLS INDICATED BELOW MAY NOT APPEAR ON THIS PROJECT)

S or W	SOIL OR WASTE PIPING (BELOW GRADE / FLOOR)	
S or W	SOIL OR WASTE PIPING (ABOVE GRADE / FLOOR)	
V	SOIL OR WASTE VENT PIPING	
RDL	RDL,SDL	STORM OR ROOF DRAIN PIPING (BELOW GRADE / FLOOR)
RDL	RDL,SDL	STORM OR ROOF DRAIN PIPING (ABOVE GRADE / FLOOR)
ODL	ODL	OVERFLOW ROOF DRAIN PIPING (BELOW GRADE / FLOOR)
ODL	ODL	OVERFLOW ROOF DRAIN PIPING (ABOVE GRADE / FLOOR)
D	D	DRAIN PIPING
IW	IW	INDIRECT WASTE PIPING
C	C	CONDENSATE DRAIN PIPING
	CW	COLD WATER PIPING
	HW	HOT WATER PIPING (105^ - 125^ F)
	HWR	HOT WATER RECIRCULATION PIPING (SPECIFY TEMP)
T	T	TEMPERED WATER (120^ F)
TR	TR	TEMPERED WATER RETURN PIPING
TP	TP	TRAP PRIMER WATER PIPING
LPG	LPG	LIQUID PROPANE GAS (7" W.C.)
G	G	GAS - LOW PRESSURE (LESS THAN 2 PSI)
MG	MG	GAS - MEDIUM PRESSURE (2-3 PSI)
HG	HG	GAS - HIGH PRESSURE (5 PSI AND ABOVE)
A	A	COMPRESSED AIR PIPING
FOS	FOS	FUEL OIL SUPPLY PIPING
FOR	FOR	FUEL OIL RETURN PIPING
G.V.	GATE VALVE	
GLV	GLOBE VALVE	
BLV	BALL VALVE	
ANV	ANGLE VALVE	
B.F.V.	BUTTERFLY VALVE	
C.H.V.	CHECK VALVE	
G.C.	GAS COCK, GAS STOP	
B.V.	BALANCING VALVE	
H.B.	HOSE BIBB	
H.V.	3/4" HOSE END DRAIN VALVE	
S.O.V.	SHUT-OFF VALVE IN RISER	
BP	DOUBLE CHECK BACKFLOW PREVENTION ASSEMBLY	
R.P.B.P.	REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY	
G.P.R.	GAS PRESSURE REDUCING VALVE	
S.T.R.	STRAINER	
S.T.R.V.	STRAINER WITH 3/4" HOSE END DRAIN VALVE	
P.T.R.	PRESSURE - TEMPERATURE RELIEF VALVE	
RV	PRESSURE RELIEF VALVE	
U	UNION	
F	FLANGE	
FL	FLEXIBLE PIPING CONNECTOR (U.L. LABELED FOR GAS PIPING)	
RED.	REDUCER	
W.H.A.	WATER HAMMER ARRESTOR	
P.R.G.	PRESSURE GAUGE WITH GAUGE COCK	

TH.	THERMOMETER	
V.B.	VACUUM BREAKER	
C.O.	CLEANOUT PLUG	
F.C.O.	FLOOR CLEANOUT	
G.C.O.	GRADE CLEANOUT	
W.C.O.	WALL CLEANOUT	
P.D.	PIPING TEE DOWN	
P.U.	PIPING TEE UP	
P.U.	PIPING ELBOW UP	
P.D.	PIPING ELBOW DOWN	
	BRANCH - TOP CONNECTION	
	BRANCH - BOTTOM CONNECTION	
	BRANCH - SIDE CONNECTION	
P.T.	PLUGGED TEE	
C.O.P.	CAP ON END OF PIPE	
OR	ARROW INDICATES DIRECTION OF FLOW	
P	POWER POINT CONNECTION FOR HOT WATER MAINT. SYSTEM	
F.L.S.	FLOOR SINK	
F.D.	FLOOR DRAIN	
	PLUMBING FIXTURE SCHEDULE - (SEE SCHEDULE)	
1	KITCHEN EQUIPMENT CONNECTION SCHEDULE - (SEE SCHEDULE)	
V.T.R.	PLUMBING VENT THRU ROOF	
A.P.	ACCESS PANEL	
AFF	ABOVE FINISHED FLOOR	
AFG	ABOVE FINISHED GRADE	
BTUH	BRITISH THERMAL UNITS PER HOUR	
CD	CONDENSATE DRAIN PIPING	
CFH	CUBIC FEET PER HOUR	
DN	DOWN	
(E)	EXISTING	
GA	GAUGE	
GAL	GALLON	
GPH	GALLONS PER HOUR	
GPM	GALLONS PER MINUTE	
HD	HEAD	
HR	HOUR	
MAX	MAXIMUM	
MBH	BRITISH THERMAL UNITS PER HOUR (THOUSANDS)	
MIN	MINIMUM	
(N)	NEW	
NOM	NOMINAL	
PD	PRESSURE DROP	
T.J.	THROUGH JOISTS	
TYP	TYPICAL	
U.F.	UNDER FLOOR	
WC	WATER COLUMN	

PLUMBING PROJECT NOTES

1. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL FLOOR PLANS FOR EXACT LOCATIONS OF ROUGH-IN FOR ALL UNITS AS SHOWN ON THE ENLARGED PLUMBING PLANS.
2. ALL PLUMBING SYSTEMS AND COMPONENTS SHALL BE INSTALLED PER 2012 U.P.C.
3. THE UNIT WATER PLANS HAVE BEEN SIZED ACCORDING THE TO LONGEST DEVELOPED LENGTH FOR THE UNIT TYPE. SOME UNITS HAVE LESS TOTAL DEVELOPED LENGTH OF WATER PIPING. THE CONTRACTOR SHALL IDENTIFY THESE UNITS AND MAY ADJUST THE WATER PIPE SIZES IN ACCORDANCE WITH 2012 U.P.C. TABLE 610.4 USING THE OVER 60 PSI WATER PRESSURE RANGE.

PLUMBING FIXTURE SCHEDULE

SYM	DESCRIPTION	MANUFACTURER & MODEL NO.	TRIM	CONNECTIONS W	CONNECTIONS V	CONNECTIONS HW	CONNECTIONS CW	REMARKS
L-1	LAVATORY UNDER COUNTER SINK	SEE ARCHITECTURAL DRAWINGS		2"	1 1/2"	3/4"	3/4"	
WC-1	WALL MOUNTED WATER CLOSET	SEE ARCHITECTURAL DRAWINGS		4"	2"	N/A	1 1/2"	
SH-1	SHOWER ONLY TRIM KIT	SEE ARCHITECTURAL DRAWINGS		2"	2"	N/A	1 1/2"	
SH-2	SHOWER ONLY TRIM KIT	SEE ARCHITECTURAL DRAWINGS		2"	2"	N/A	1 1/2"	
WHA-1	WATER HAMMER ARRESTER	WATTS SERIES LF15M2	LEAD FREE COMPLIANT FOR USE IN PORTABLE WATER SYSTEMS. MAXIMUM ALLOWABLE PRESSURE OF 150 PSI AND A TEMPERATURE RANGE OF 33°F-180°F, CAPABLE OF BEING INSTALLED IN CONCEALED LOCATIONS, AND INSTALLED AS CLOSE TO INDICATED FIXTURE AS POSSIBLE.	N/A	N/A	N/A	1/2" - 1"	INSTALL ON ALL FIXTURES WITH QUICK CLOSING VALVES SUCH AS URINALS, WATER CLOSETS.
TP-1	TRAP PRIMER ASSEMBLY	PPP MODEL NO. PR-500	AUTOMATICALLY ACTIVATED WHEN SENSING 10 PSI DROP. PRIMES UP TO TWO P TRAPS. OPERATING RANGE BETWEEN 20 AND 80 PSI	N/A	N/A	N/A	1/2"	INSTALL PER MANUFACTURERS INSTRUCTIONS
ET-1	EXPANSION TANK	WESSELS MODEL NO. TTA-5	3.5 GALLON BLADDER TYPE EXPANSION TANK WITH CARBON STEEL SHELL AND HEADS. MAXIMIM DESIGN PRESSURE OF 150 PSIG AND -20°F TO 240°F TEMPERATURE RANGE. TANK SHALL BE EQUIPPED WITH A NPT STAINLESS STEEL SYSTEM CONNECTION AND A .302"-32 CHARGING VALVE CONNECTION.	N/A	N/A	N/A	3/4"	INSTALL PER MANUFACTURERS INSTRUCTIONS
FD-1	FLOOR DRAIN	ZURN MODEL No. FD-2200-PV2	5"Ø CAST IRON GRATE WITH 2" PIPE CONNECTION.	2"	N/A	N/A	N/A	INSTALL PER MANUFACTURERS INSTRUCTIONS
BT-1	BUFFER TANK	AMTROL MODEL No. HWBT300-4/4	CLOSED LOOP HEATING SYSTEM. WATER TEMPERATURE NOT TO EXCEED 450°F, SYSTEM PRESSURE NOT TO EXCEED MAX PRESSURE OF TANK	N/A	N/A	3/4"	3/4"	INSTALL PER MANUFACTURERS INSTRUCTIONS

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06/17/2021

PLUMBING SYMBOLS, SCHEDULES, AND LEGEND

p001

SPARKS FIRE STATION 2 DORMITORY REMODEL

City of Sparks

2900 N Truckee Lane
Sparks, NV 89434

No.	Description	Date

BID SET 06/17/2021

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PLUMBING SPECIFICATIONS

A. GENERAL
1. PROVIDE ALL NECESSARY LABOR, MATERIALS, EQUIPMENT, SERVICES AND INSURANCES TO COMPLETE THE PLUMBING WORK WITHIN THE FULL INTENT OF THE DRAWINGS AND SPECIFICATIONS CONTAINED HEREON AND TO THE ENTIRE SATISFACTION OF THE ARCHITECT/ENGINEER.
2. PROVIDE ALL PERMITS AND FEES AS REQUIRED FOR THE PLUMBING WORK.
3. CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE PROJECT BEFORE BIDDING.
4. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2018 INTERNATIONAL BUILDING CODE (IBC), 2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2018 INTERNATIONAL FIRE CODE (IFC), 2018 UNIFORM MECHANICAL CODE (UMC), 2018 UNIFORM PLUMBING CODE (UPC), 2017 NATIONAL ELECTRICAL CODE (NEC), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) STANDARDS, AND ALL OTHER APPLICABLE CODES, RULES, AND LOCAL REQUIREMENTS.
5. GUARANTEE ALL WORK AND MATERIALS FOR A PERIOD OF ONE YEAR.
6. ALL DIMENSIONS AND MEASUREMENTS SHALL BE VERIFIED AT THE JOBSITE BEFORE FABRICATION AND/OR INSTALLATION OF THE FIXTURES.
7. DRAWINGS ARE DIAGRAMMATIC TO SHOW BASIC SIZING. COORDINATE THE RUNNING OF ALL MAINS WITH THE ENGINEER. ANY MAJOR REROUTING SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE FOR APPROVAL.

B. SUBMITTALS
1. ELECTRONIC SUBMITTALS IN ADOBE PDF FORMAT, IN LIEU OF PAPER COPIES, WILL ONLY BE ACCEPTED.
2. SUBSTITUTED ITEMS SHALL BE SUBMITTED WITH MANUFACTURER'S DESCRIPTIVE DATA AND MUST SHOW EQUALITY TO EQUIPMENT SPECIFIED. INFORMATION ON SUBSTITUTED ITEMS MUST BE COMPLETE, INCLUDING, BUT NOT LIMITED TO: DESIGN, CONSTRUCTION MATERIALS, CONSTRUCTION QUALITY, AND SOUND LEVELS. ENGINEER WILL NOT RESEARCH INFORMATION REQUIRED TO COMPARE EQUIPMENT. ENGINEER RESERVES THE RIGHT TO REQUIRE SPECIFIED EQUIPMENT.
3. UPON COMPLETION OF THE PROJECT, AND PRIOR TO FINAL ACCEPTANCE PAYMENT, SUBMIT ONE (1) SET OF AS-BUILT DRAWINGS AND THREE SETS OF OPERATING AND MAINTENANCE INSTRUCTIONS (BOUND IN 3-RING BINDERS).

C. WORKMANSHIP
1. ALL WORK TO BE PERFORMED BY QUALIFIED PERSONNEL NORMALLY ENGAGED IN THE RESPECTIVE LINE OF WORK.
2. PERFORM ALL WORK IN A MANNER NOT TO DISTURB THE NORMAL OPERATION OF THE BUILDING.
3. COORDINATE ALL WORK WITH THE OWNER'S REPRESENTATIVE.
4. COORDINATE ALL WORK WITH THE OTHER TRADES.
5. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL WORK ACCEPTABLE TO THE OWNER'S REPRESENTATIVE.

D. PRODUCT HANDLING
1. USE ALL MEANS NECESSARY TO PROTECT ALL MATERIALS AND FIXTURES BEFORE, DURING, AND AFTER INSTALLATION AND TO PROTECT THE MATERIALS AND WORK OF THE OTHER TRADES.
2. IN THE EVENT OF DAMAGE, IMMEDIATELY MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY TO THE APPROVAL OF THE ENGINEER AND AT NO ADDITIONAL COST TO THE OWNER.

E. CUTTING, PATCHING, AND PAINTING
1. ALL CUTTING AND PATCHING TO BE PERFORMED BY THE GENERAL CONTRACTOR.
2. CUTTING OF ALL OPENINGS SHALL BE COORDINATED WITH THE OWNER'S ENGINEERING REPRESENTATIVE.
3. WATER WILL NOT BE USED FOR CONCRETE CUTTING WITHOUT THE DIRECT SUPERVISION OF THE OWNER'S ENGINEERING REPRESENTATIVE.

F. PIPING
1. WASTE AND VENT PIPING BELOW GRADE WITHIN 5 FEET OF BUILDING SHALL BE SCHEDULE 40 ABS DWV PIPE AND FITTINGS CONFORMING TO ASTM D2661 OR D2751 WITH SOLVENT WELD JOINTS MEETING ASTM D2855 USING ASTM D2564 SOLVENT CEMENT. PIPE SHALL BE BEDDED IN 12" OF SAND.
2. WASTE AND VENT PIPING ABOVE GRADE SHALL BE SCHEDULE 40 ABS DWV PIPE AND FITTINGS CONFORMING TO ASTM D2661 OR D2751 WITH SOLVENT WELD JOINTS MEETING ASTM D2235.
3. GRADE WASTE PIPING 1/4" PER FOOT (2%) OR AS APPROVED BY THE LOCAL CODE AUTHORITY.
4. PROVIDE 10'-0" MINIMUM CLEARANCE BETWEEN PLUMBING VENTS AND ANY OUTSIDE AIR INTAKES.
5. WATER PIPING BELOW GRADE WITHIN 5 FEET OF BUILDING SHALL BE COPPER TUBING, ASTM B42, HARD DRAWN WITH ANSI/AWWA C105 POLYETHYLENE JACKET OR DOUBLE LAYER, HALF-LAPPED 10 MIL POLYETHYLENE TAPE WITH WROUGHT COPPER FITTINGS AND SILVER BRAZED JOINTS.
6. WATER PIPING ABOVE GRADE SHALL BE ASTM B88, TYPE "L", HARD DRAWN COPPER WITH WROUGHT COPPER FITTINGS. USE 95/5 TIN-ANTIMONY LEAD FREE SOLDER ON PIPING UNDER 2" AND SILVER BRAZED JOINTS ON PIPING 2" AND OVER.

G. HANGERS & SUPPORTS
1. PROVIDE SPLIT RING HANGERS FOR ALL PIPING. HANGER SPACING SHALL BE PER UPC TABLE 3-2 AND SHALL BE LOCATED AT ALL CHANGES IN DIRECTION.
2. SUPPORT ALL PIPING IN WALLS WITH HOLD-RITE PIPE SUPPORT SYSTEM OR EQUAL.
3. PIPING AT FLUSH VALVES SHALL BE HELD SECURELY IN PLACE TO PREVENT ANY MOVEMENT.

H. VALVES & SPECIALTIES
1. BALL VALVES (UP TO 2"): BRONZE BODY, STAINLESS STEEL BALL, TEFLON SEATS, FULL PORT, THREADED ENDS, LEVER HANDLE. VALVE TO BE "LEAD-FREE" COMPLIANT PER THE REDUCTION OF LEAD IN DRINKING WATER ACT.

I. ISOLATION
1. ISOLATE ALL DISSIMILAR METALS WITH ISOLATORS EQUALING OR EXCEEDING THE QUALITY OF "EPCO" DIELECTRIC UNIONS.
2. ISOLATE ALL COPPER PIPING FROM DISSIMILAR SUPPORTS.
3. ISOLATE ALL PIPING THROUGH CONCRETE WITH 1/2" THICK CLOSED CELL FOAM.
4. ISOLATE ALL PIPING AT STUDS WITH POLYETHYLENE PIPE INSULATORS.

J. INSULATION
1. ACCEPTABLE MANUFACTURERS: CERTAINTEED, KNAUF, JOHNS MANVILLE, AND OWENS CORNING.
2. COLD WATER PIPING ABOVE CEILING SHALL BE INSULATED WITH 1/2" THICK FIBERGLASS PIPE INSULATION WITH VAPOR BARRIER AND PRE-MOLDED PVC FITTING COVERS. DO NOT INSULATE VALVES, UNIONS, ETC.
3. HOT WATER AND HOT WATER RETURN PIPING SHALL BE INSULATED WITH FIBERGLASS PIPE INSULATION WITH VAPOR BARRIER AND PRE-MOLDED FITTING COVERS. 1/2" THICK ON PIPES SIZES UP TO 1". 1" THICK ON PIPE SIZES 1¼" AND OVER. DO NOT INSULATE VALVES, UNIONS, ETC.
4. HOT WATER AND HOT WATER RETURN PIPING BELOW FLOOR SLAB IN BUILDING SHALL BE INSULATED WITH 1" THICK CLOSED CELL FOAM. INSULATION TO BE SLIPPED OVER PIPE. DO NOT CUT LENGTHWISE.

K. SEISMIC RESTRAINTS
1. ALL EQUIPMENT, PIPING, AND CONDUIT SHALL BE SEISMICALLY RESTRAINED PER THE 2018 IBC.

L. OTHER MATERIAL
1. ALL OTHER MATERIAL, NOT SPECIFICALLY DESCRIBED BUT REQUIRED FOR A COMPLETE JOB, SHALL BE NEW AND FIRST QUALITY, FURNISHED AND INSTALLED BY THE PLUMBING CONTRACTOR.

M. TESTING & CHLORINATION
1. ALL PIPING SHALL BE TESTED IN THE PRESENCE OF AN INSPECTOR BEFORE WORK IS CONCEALED. NOTIFY THREE DAYS PRIOR TO TESTS.
2. FLUSH ALL PIPING TO REMOVE ANY FOREIGN MATERIAL.
3. CHLORINATE ALL NEW WATER PIPING PRIOR TO USE FOR 24-HOUR PERIOD WITH A MINIMUM OF 50 PARTS PER MILLION OR AS REQUIRED TO ACHIEVE A CHLORINE RESIDUAL OF 10 MILLIGRAMS PER LITER AT COMPLETION OF A 24-HOUR PERIOD. ALL PROCEDURES SHALL BE IN ACCORDANCE WITH AWWA STANDARD C651 AND THE STATE HEALTH DEPARTMENT.
4. TEST PIPING AT COMPLETION OF ROUGHING-IN, IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

WASTE AND VENT	10' HIGH WATER COLUMN FOR 15 MINUTES WITH NO DROP IN WATER LEVEL
WATER	120 PSI W/WATER FOR 4 HOURS WITH NO DROP IN PSI

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PLUMBING SPECIFICATIONS

p002

SPARKS FIRE STATION 2 DORMITORY REMODEL

City of Sparks

2900 N Truckee Lane
Sparks, NV 89434

No.	Description	Date

BID SET 06/17/2021

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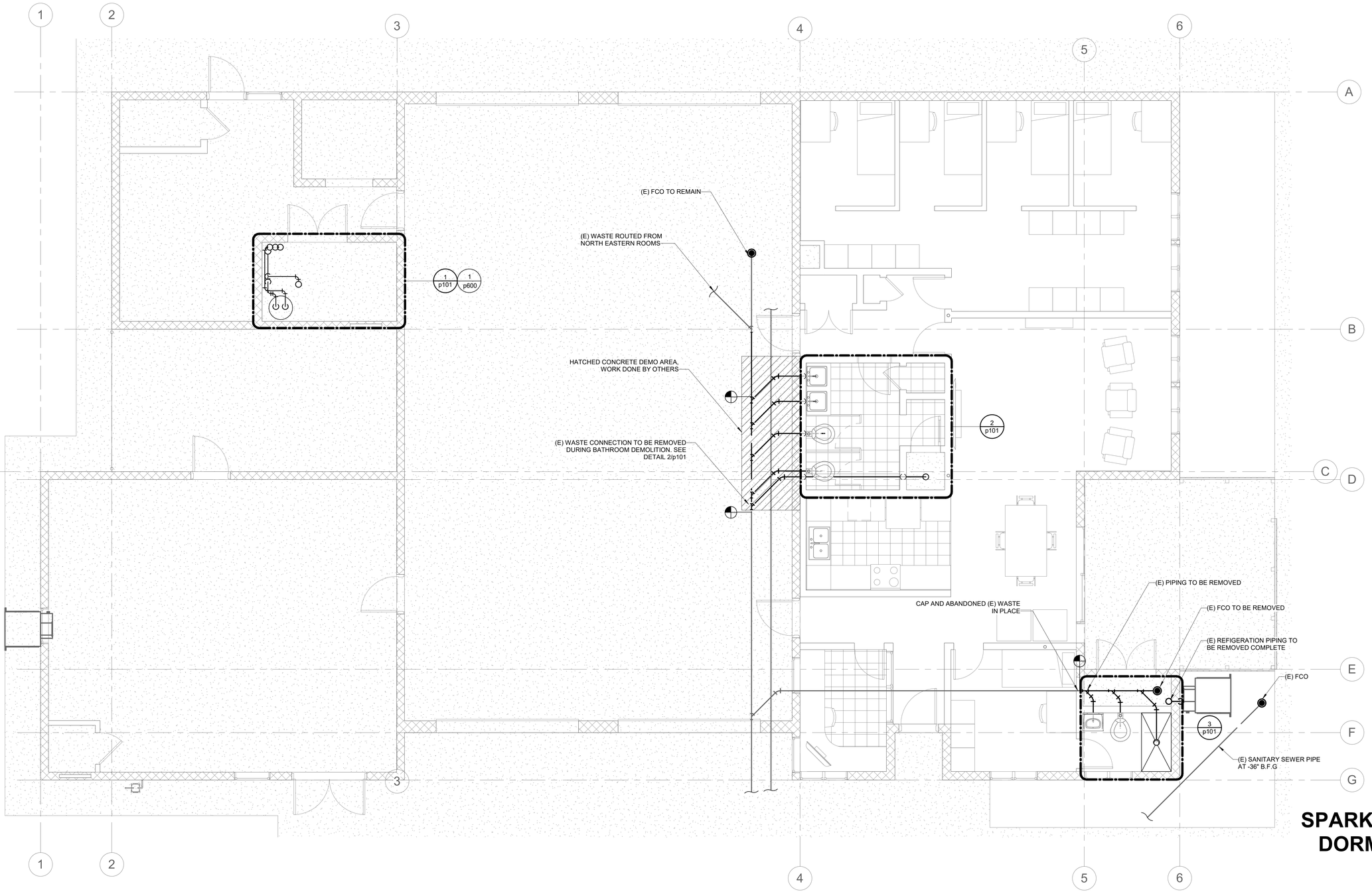

1 PLUMBING OVERALL DEMO PLAN
SCALE: 1/4" = 1'-0"

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PLUMBING OVERALL DEMO PLAN

p100

SPARKS FIRE STATION 2 DORMITORY REMODEL

City of Sparks

2900 N Truckee Lane
Sparks, NV 89434

No.	Description	Date

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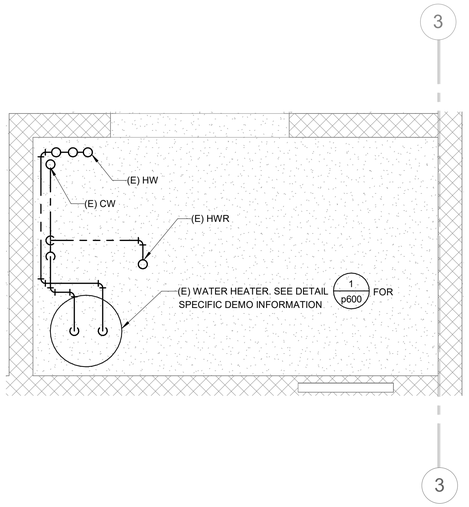

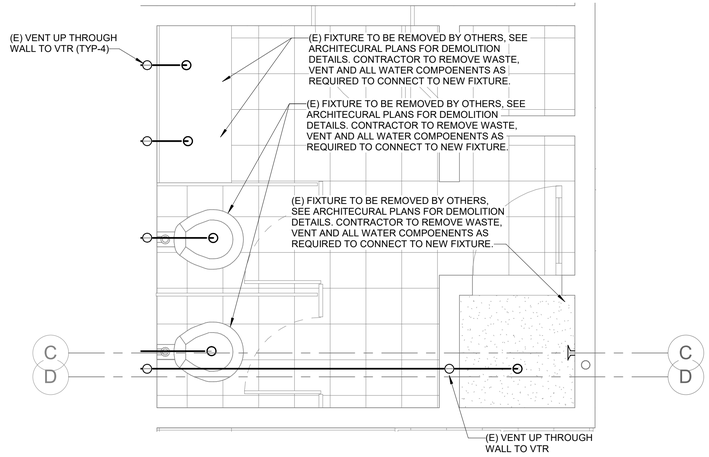

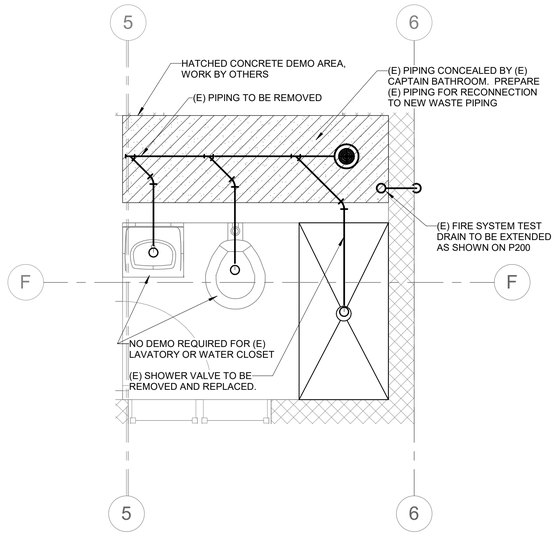

1 PLUMBING ENLARGED DEMO PLAN - WATER HEATER ROOM

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

2 PLUMBING ENLARGED DEMO PLAN - BATHROOM

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

3 PLUMBING ENLARGED DEMO PLAN - CAPTAIN'S BATHROOM

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

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MATTHEW G. MYRES
Exp. 12/31/19
MECHANICAL
No. 16816

06/17/2021

PLUMBING ENLARGED DEMO PLANS

p101

SPARKS FIRE STATION 2 DORMITORY REMODEL

City of Sparks

2900 N Truckee Lane
Sparks, NV 89434

No.	Description	Date

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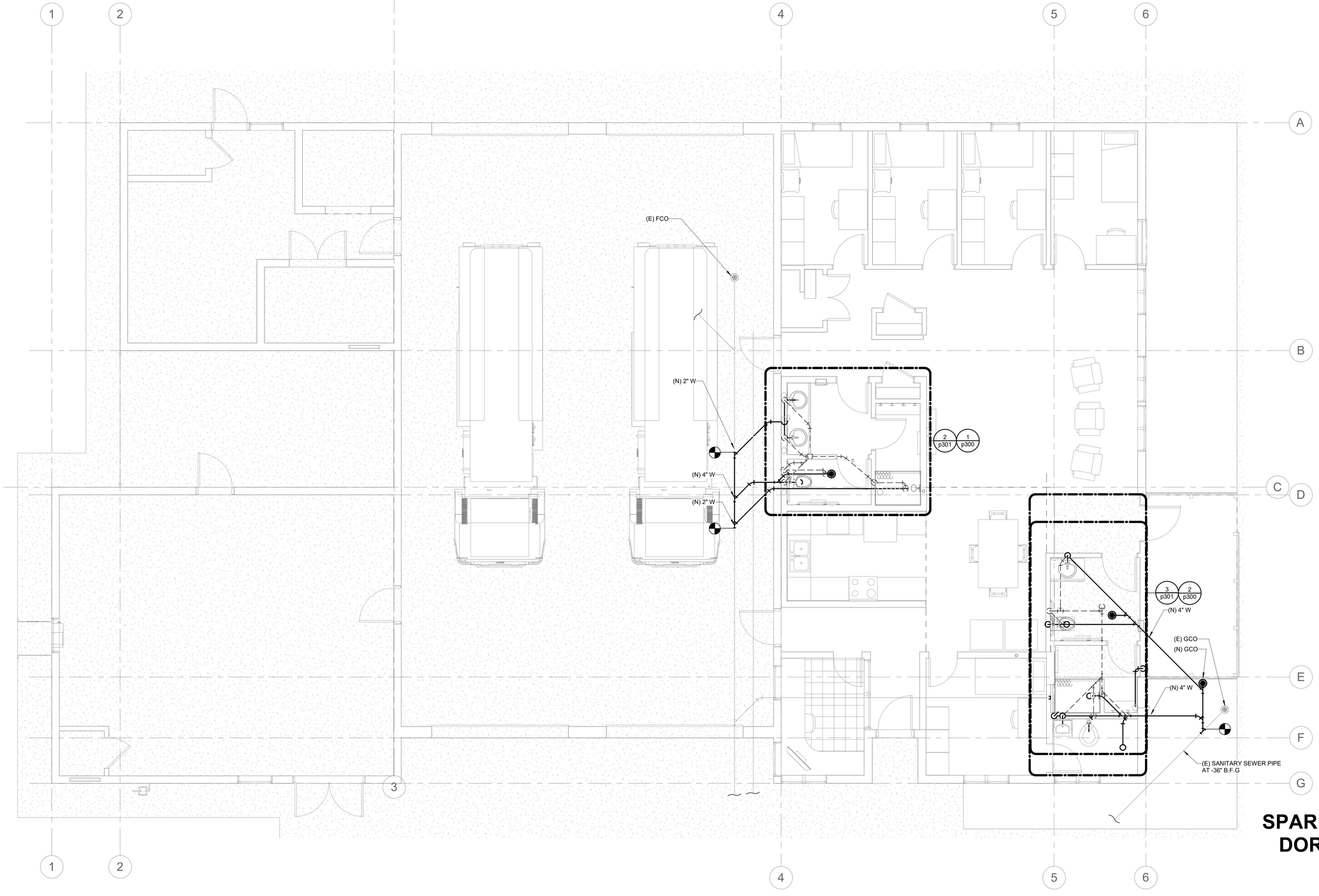

PLUMBING OVERALL FLOOR PLAN - WASTE AND VENT

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

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MATTHEW MYRES
MECHANICAL
STATE OF NEVADA No. 16817

06/17/2021

PLUMBING OVERALL FLOOR PLAN - WASTE AND VENT

p200

SPARKS FIRE STATION 2 DORMITORY REMODEL

City of Sparks

2900 N Truckee Lane
Sparks, NV 89434

No.	Description	Date

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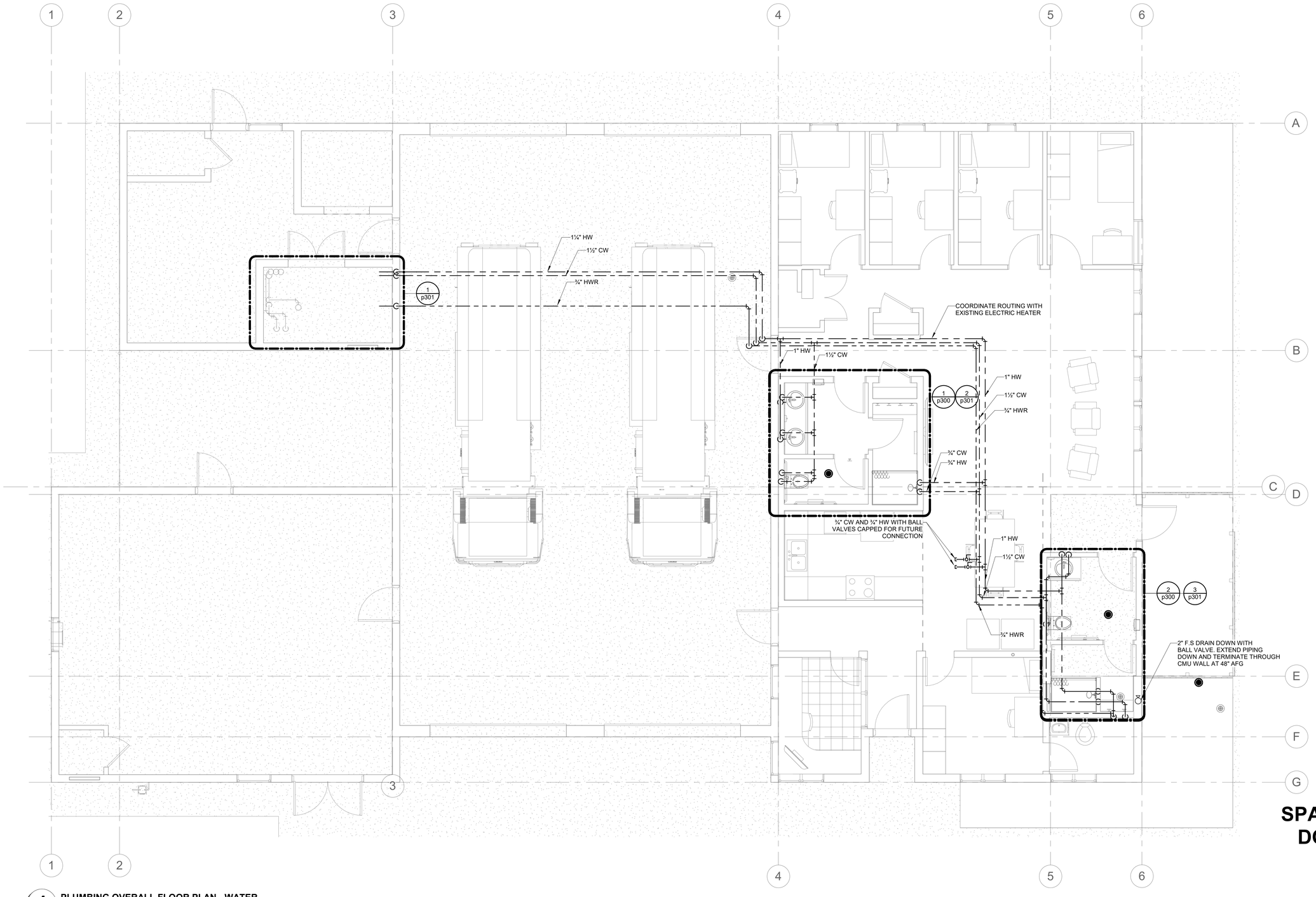

1 PLUMBING OVERALL FLOOR PLAN - WATER
SCALE: 1/4" = 1'-0"

MATTHEW MYRES
MECHANICAL ENGINEER
STATE OF NEVADA No. 16817

06/17/2021

PLUMBING OVERALL FLOOR PLAN - WATER

p201

SPARKS FIRE STATION 2 DORMITORY REMODEL

City of Sparks

2900 N Truckee Lane
Sparks, NV 89434

No.	Description	Date

BID SET 06/17/2021
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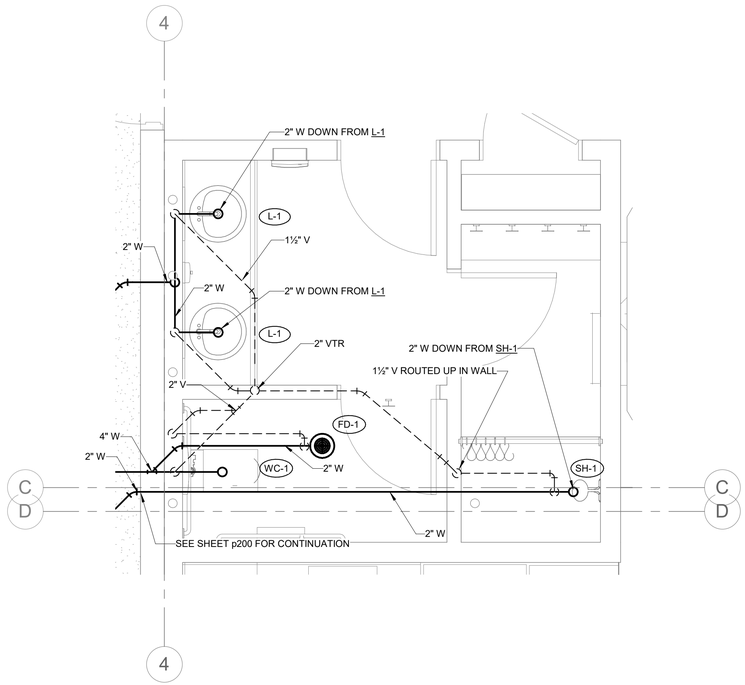
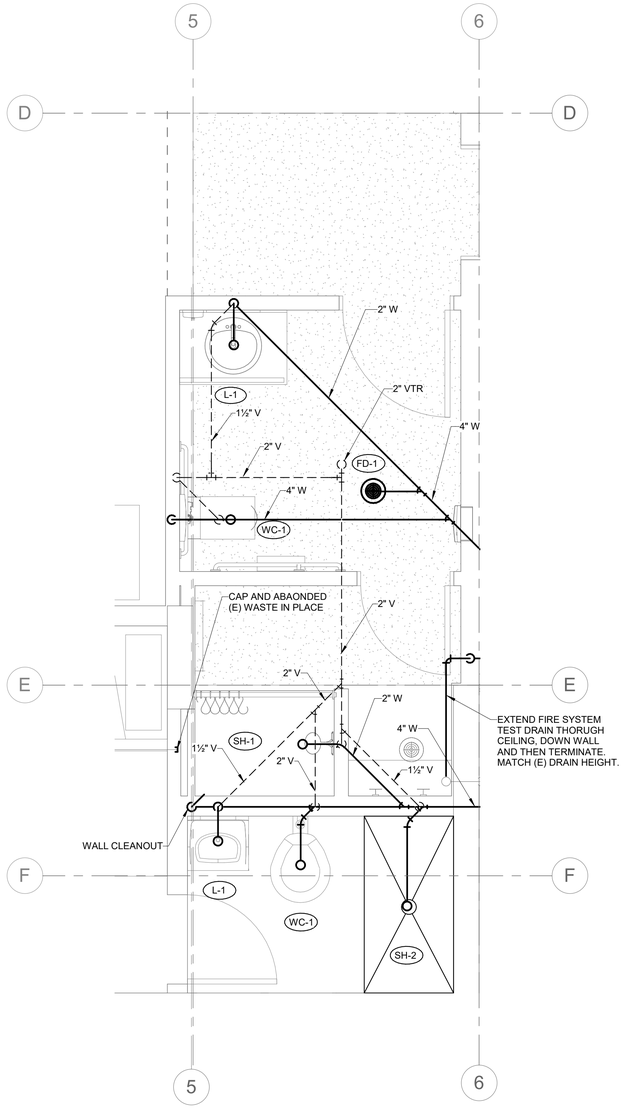


1 PLUMBING ENLARGED FLOOR PLAN - BATHROOM WASTE AND VENT

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



2 PLUMBING ENLARGED FLOOR PLAN - BATHROOM ADDITION WASTE AND VENT

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

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PLUMBING ENLARGED FLOOR PLAN - WASTE AND VENT

p300

SPARKS FIRE STATION 2 DORMITORY REMODEL

City of Sparks

2900 N Truckee Lane
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No.	Description	Date

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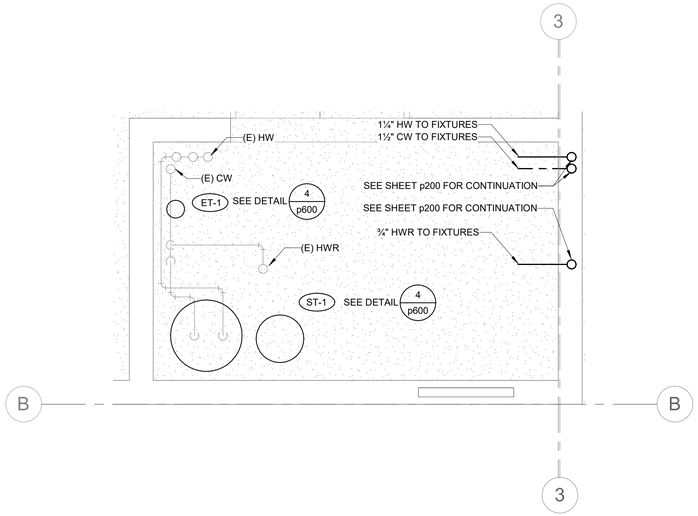
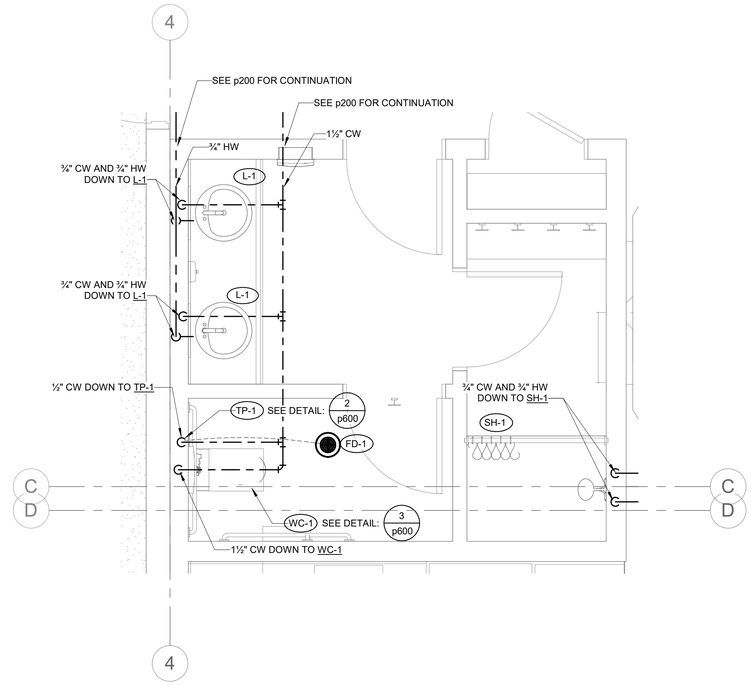


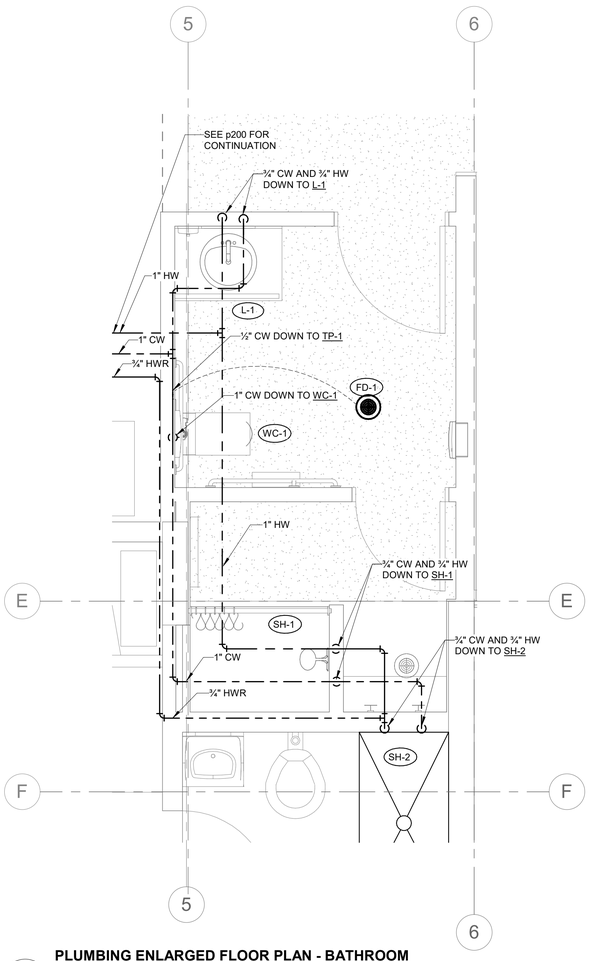
1 PLUMBING ENLARGED FLOOR PLAN - WATER HEATER ROOM

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



2 PLUMBING ENLARGED FLOOR PLAN - BATHROOM

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



3 PLUMBING ENLARGED FLOOR PLAN - BATHROOM ADDITION

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

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PLUMBING ENLARGED FLOOR PLANS - WATER AND GAS

p301

SPARKS FIRE STATION 2 DORMITORY REMODEL

City of Sparks

2900 N Truckee Lane
Sparks, NV 89434

No.	Description	Date

BID SET 06/17/2021

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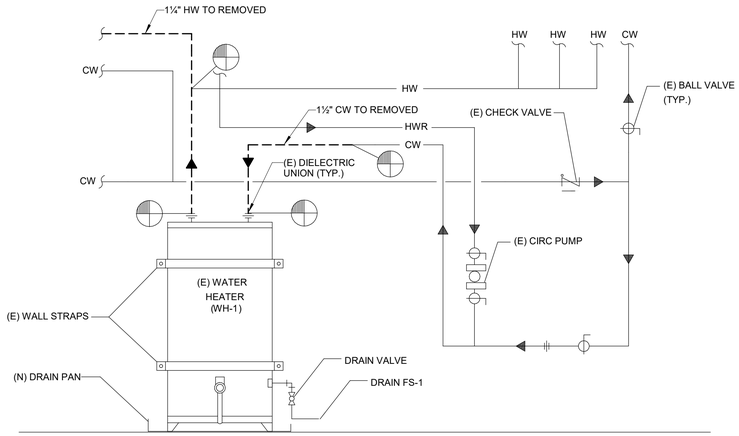
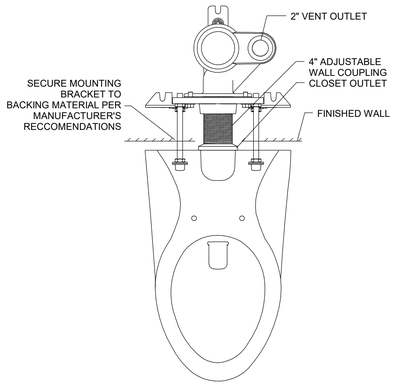
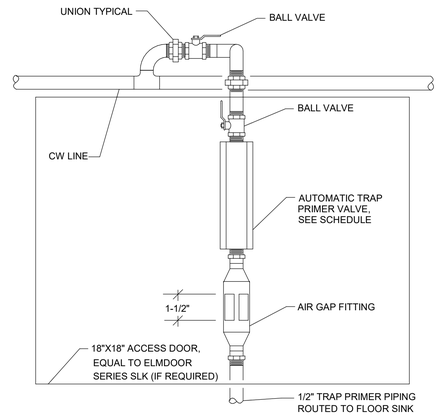
6/17/2021 7:26:52 PM



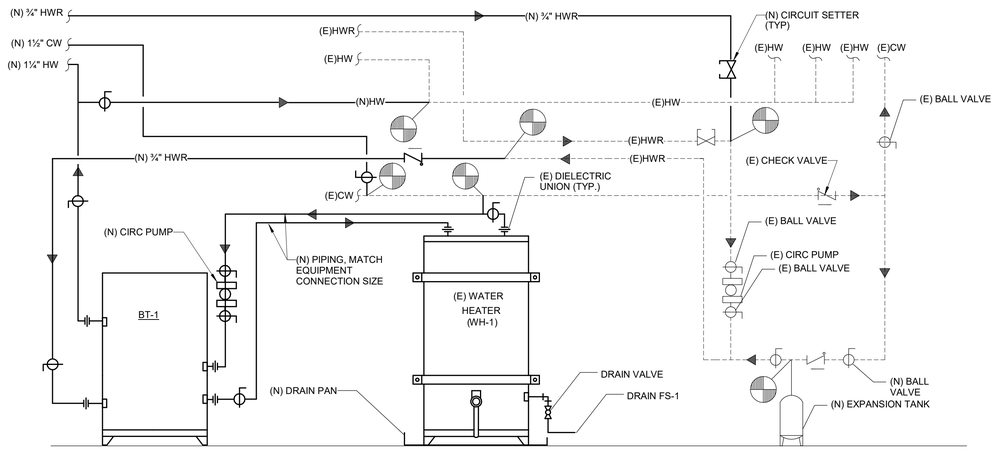
1 WATER HEATER DEMO DETAIL
SCALE: N.T.S.



2 WATER CLOSET MOUNTING DETAIL
SCALE: N.T.S.



3 TRAP PRIMER DETAIL
SCALE: N.T.S.



4 WATER HEATER PIPING MODIFICATION DETAIL
SCALE: N.T.S.

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PLUMBING DETAILS

p600

SPARKS FIRE STATION 2 DORMITORY REMODEL

City of Sparks

2900 N Truckee Lane
Sparks, NV 89434

No.	Description	Date

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ELECTRICAL SYMBOLS

CONDUIT AND RACEWAY		MOUNTING (UON)
	CONDUIT RUN IN OR ON CEILING OR WALL.	NA
	CONDUIT RUN IN FLOOR, UNDER FLOOR, OR UNDERGROUND.	NA
	MARKS INDICATE QTY OF CONDUCTORS IN CONDUIT EXCLUDING GROUND. NO MARKS INDICATE (2) CONDUCTORS. ADD GROUND PER NEC FOR EMT & NON-METALLIC CONDUIT.	NA
	LONG MARK INDICATES GROUND FOR ISOLATED GROUNDING SYSTEM. SIZE PER NEC.	NA
	BRANCH CIRCUIT (DIAGRAMMATIC)	NA
LA-1	HOMERUN INDICATING PANEL AND CIRCUIT NUMBER.	NA
LA-[1,3,5]	HOMERUN WITH CIRCUIT NUMBER IN BRACKETS INDICATING MULTI-PHASE LOAD.	NA
ON HA-1	"ON" INDICATES CIRCUITING SPLIT AT DIFFERENT LOCATIONS	NA
	CONDUIT DOWN.	NA
	CONDUIT UP.	NA
	CONDUIT STUB AND CAP.	NA
POWER DEVICES		MOUNTING (UON)
	DUPLEX CONVENIENCE OUTLET, +18" AFF (TYPICAL).	W, +18" AFF
	DUPLEX CONVENIENCE OUTLET, COUNTER HEIGHT +48" AFF (TYPICAL).	W, FVMH
	CONVENIENCE OUTLET W/ GFCI PROTECTION.	W, +18" AFF
WP	CONVENIENCE OUTLET W/ GFCI PROTECTION & WEATHER PROOF-IN-USE COVER.	W, +18" AFF
IG	DUPLEX CONVENIENCE OUTLET W/ DEDICATED CIRCUIT & ISOLATED GROUND.	W, +18" AFF
MON	DUPLEX CONVENIENCE OUTLET FOR MONITOR. COORDINATE WITH ARCH/OWNER.	W, +60" AFF
USB	DUPLEX CONVENIENCE OUTLET WITH INTEGRAL USB CHARGING PORTS.	W, +18" AFF
DF	DUPLEX CONVENIENCE OUTLET FOR DRINKING FOUNTAIN. COORDINATE WITH MECH.	W, +30" AFF
REF	DUPLEX CONVENIENCE OUTLET W/ DEDICATED CIRCUIT FOR REFRIGERATOR.	W, +42" AFF
DISP	DUPLEX CONVENIENCE OUTLET W/ DEDICATED CIRCUIT FOR WASTE DISPOSAL.	W, +18" AFF
	DOUBLE DUPLEX CONVENIENCE OUTLET.	W, +18" AFF
	DUPLEX CONVENIENCE OUTLET, CEILING MOUNTED, FVMH.	C, FVMH
	QUAD RECEPTACLE IN FLOOR BOX.	FL
	DUPLEX RECEPTACLE IN FLOOR BOX.	FL
	SPECIAL PURPOSE OUTLET, NEMA CONFIGURATION AND VOLTAGE AS NOTED.	W, FVMH
USE	JUNCTION BOX, SPECIFIC USE AS NOTED.	W, FVMH
TELECOMMUNICATION DEVICES		MOUNTING (UON)
	DATA OUTLET	W
	TELEPHONE OUTLET	W
	DATA/TELEPHONE OUTLET	W
	WIRELESS ACCESS POINT (WAP)	C
FIRE ALARM		MOUNTING (UON)
	SMOKE DETECTOR.	C
D	DUCT SMOKE DETECTOR.	FVM
CO	SMOKE/CO DETECTOR.	FVM
	HEAT DETECTOR.	C
FS	FLOW SWITCH.	W
TS	TAMPER SWITCH.	W
RM	RELAY MODULE.	FVM
MM	MONITOR MODULE	W
CO	CARBON MONOXIDE DETECTOR.	W
	FIRE STROBE, CEILING MOUNTED.	C
	FIRE HORN STROBE, CEILING MOUNTED.	C
	FIRE LOUDSPEAKER, CEILING MOUNTED.	C
	FIRE STROBE, WALL MOUNTED AT +84" AFF.	W
	FIRE HORN STROBE, WALL MOUNTED AT +84" AFF.	W
	FIRE HORN STROBE, WALL MOUNTED.	C
	FIRE HORN STROBE, WALL MOUNTED.	C
	FIRE HORN STROBE, WALL MOUNTED.	C
WALL	FIRE ALARM CONTROL PANEL, SURFACE MOUNTED.	W
AUDIO/VIDEO		MOUNTING (UON)
	AUDIO SPEAKER	FVM

ELECTRICAL SYMBOLS

LIGHTING (REFER TO LIGHTING FIXTURE SCHEDULE FOR DETAILS)		MOUNTING (UON)
(L#)	LIGHTING FIXTURE TAG, INDICATING FIXTURE ID.	
EM	HALF SHADING AND/OR 'EM' TAG INDICATES FIXTURE W/ 90 MIN. EMEGENCY BACKUP.	W
	RECESSED VOLUMETRIC TROFFER, 1'X4', 2'X2', 2'X4'	C
	STRIP LIGHT FIXTURE.	C
	LINEAR LIGHTING FIXTURE.	C, W, FL
	RECESSED SQUARE DOWNLIGHT FIXTURE.	C
	RECESSED AND/OR SEMI-RECESSED ROUND DOWNLIGHT FIXTURE.	C
	TRACK AND TRACK LIGHT FIXTURE.	C, W
WALL	VANITY FIXTURE.	W
	EXIT SIGN, SINGLE FACE. ARROWS INDICATE PATH OF EGRESS. REFER TO PLANS FOR MOUNTING. ON UNSWITCHED LEG ON CIRCUIT.	FVM
	EXIT SIGN, DOUBLE FACE. ARROWS INDICATE PATH OF EGRESS. REFER TO PLANS FOR MOUNTING. ON UNSWITCHED LEG ON CIRCUIT.	FVM
LIGHTING CONTROLS		MOUNTING (UON)
S	LINE VOLTAGE LIGHT SWITCH, SINGLE POLE, +48" AFF.	W, +48" AFF
S_3	THREE-WAY SWITCH, +48" AFF.	W, +48" AFF
S_4	FOUR-WAY SWITCH, +48" AFF.	W, +48" AFF
S_D	LINE VOLTAGE DIMMER SWITCH, +48" AFF.	W, +48" AFF
S_K	KEYED SWITCH, +48" AFF.	W, +48" AFF
S_L	LIGHT SWITCH, SINGLE POLE, LIGHTED HANDLE, +48" AFF.	W, +48" AFF
S_O	MOMENTARY OVERRIDE SWITCH, +48" AFF.	W, +48" AFF
S_{LV}	LOW VOLTAGE DIMMING SWITCH, +48" AFF.	W, +48" AFF
S_{OS}	LINE VOLTAGE DIMMING SWITCH, OCCUPANCY SENSOR +48" AFF.	W, +48" AFF
S_T	DIGITAL TIME SWITCH, +48" AFF.	W, +48" AFF
S_O	MOMENTARY CONTACT SWITCH, +48" AFF.	W, +48" AFF
OS	OCCUPANCY SENSOR, DUAL TECHNOLOGY.	C
PC	PHOTOELECTRIC SENSOR.	C
HE	CONTROL ETHERNET GATEWAY HUB. REFER TO LIGHTING CONTROLS RISER DIAGRAM.	FVM
PP	CONTROL POWER PACK. REFER TO LIGHTING CONTROLS RISER DIAGRAM.	FVM
S#	CONTROL DEVICE. REFER TO LIGHTING CONTROLS RISER DIAGRAM.	W, +48" AFF
ONELINE		
M	CT METER.	
	BREAKER.	
LSI	BREAKER WITH GFI PROTECTION, "LSI" INDICATES TRIP SETTINGS LONG, SHORT, & INSTANTANEOUS.	
	GROUND.	
GND	GROUND BUSBAR.	
NEUT	NEUTRAL BUSBAR.	
	TRANSFORMER PAD MOUNTED.	
	ATS.	
	PANELBOARD.	
EQUIPMENT		MOUNTING (UON)
M	MOTOR RATED SWITCH.	FVM
	MOTOR RATED HAND-OFF-AUTO SWITCH.	FVM
	EMERGENCY POWER OFF SWITCH, MUSHROOM TYPE.	W, FVMH
	DISCONNECT, HEAVY DUTY, NON-FUSIBLE.	W
	DISCONNECT, HEAVY DUTY, FUSIBLE.	W, FVMH
	MAGNETIC MOTOR STARTER.	W
	COMBINATION MOTOR STARTER & DISCONNECT.	W, FVMH
	VARIABLE FREQUENCY DRIVE.	W
WALL	ELECTRICAL PANEL, SURFACE MOUNTED.	W
WALL	ELECTRICAL PANEL, FLUSH MOUNTED.	W
	TRANSFORMER.	FL
	DISTRIBUTION PANELBOARD.	W, FVMH
WALL	INVERTER.	W, FVMH
WIR-1 AC1 AC 1	EQUIPMENT CALLOUT.	
WALL	AUXILIARY SYSTEM CABINET.	W, FVMH

ABBREVIATIONS

1P	ONE POLE
1PH	SINGLE PHASE
2/C	TWO-CONDUCTOR
2P	TWO POLE
3/C	THREE-CONDUCTOR
3P	THREE POLE
3PH	THREE PHASE
3W	THREE WIRE
4PDT	FOUR POLE DOUBLE THROW
4PST	FOUR POLE SINGLE THROW
4W	FOUR WIRE
A/C	AIR CONDITIONIG
AC	ALTERNATING CURRENT
ACS	ACCESS CONTROL SYSTEM
ADA	AMERICANS WITH DISABILITIES ACT
ADJ	ADJACENT
AFC	AVAILABLE FAULT CURRENT
AFF	ABOVE FINISHED FLOOR / GRADE
AIC	AMPERE INTERRUPTING CAPACITY
AL	ALUMINUM
ALCP	AREA LIGHT CONTACTOR PANEL
ALT	ALTERNATE
AMP	AMPERE
APPROX.	APPROXIMATE / APPROXIMATELY
AR	AS REQUIRED
ARCH	ARCHITECTURAL / ARCHITECT
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BB	BUCK BOOST
BFB	BACK FEED BREAKER
BLDG	BUILDING
BRKR	BREAKER
BTU	BRITISH THERMAL UNIT
C	CEILING
CATV	COMMUNITY ANTENNA TELEVISION
CB	CIRCUIT BREAKER
CFBA	CUSTOM COLOR / FINISH SELECTED BY ARCHITECT
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CFOI	CONTRACTOR FURNISHED OWNER INSTALLED
CKT	CIRCUIT
CL	CENTERLINE
CLG	CEILING
CO	CONVENIENCE OUTLET, RECEPTACLE
CU	COPPER
DA	DAMPER ACTUATOR
dB	DECIBLE, UNIT OF SOUND LEVEL
DEMO	DEMOLITION
DEPT	DEPARTMENT
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DISC	DISCONNECT
DN	DOWN
DPDT	DOUBLE POLE DOUBLE THROW
DWG	DRAWINGS
E	EAST
EA	EACH
EC	EMPTY CONDUIT WITH PULL WIRE
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV	ELEVATOR
EM	EMERGENCY
EMB	EXTERNAL MAINTENANCE BYPASS
EMT	ELECTRICAL METALLIC CONDUIT
ENT	ELECTRICAL NONMETALLIC CONDUIT
EPO	EMERGENCY POWER OFF

ABBREVIATIONS

EQUIP	EQUIPMENT
EXIST	EXISTING
FA	FIRE ALARM
FAA	FIRE ALARM ANNUCIATOR
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
FLA	FULL LOAD AMPERES
FMC	FLEXIBLE METAL CONDUIT
FPEN	FUSE PER EQUIPMENT NAMEPLATE
FSD	FIRE SMOKE DAMPER
FVM	FIELD VERIFY MOUNTING
FVMH	FIELD VERIFY MOUNTING HEIGHT
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
G	GROUND
GALV	GALVANIZED
GEC	GROUNDING ELECTRODE CONDUCTOR
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
GND	GROUND
HD	HEAVY DUTY
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HPS	HIGH-PRESSURE SODIUM
HV	HIGH VOLTAGE
HVAC	HEATING, VENTILATION & AIR CONDITIONING
Hz	HERTZ, UNIT OF FREQUENCY
I/O	INPUT / OUTPUT
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
IN/IS	INSULATED / ISOLATED
IR	INFRARED
KV	KILOVOLT
KVA	KILOVOLT AMPERE
KVAR	KILOVOLT AMPERE REACTIVE
KW	KILOWATT
KWH	KILOWATT HOUR
LED	LIGHT EMITTING DIODE
LFNC	LIQUID TIGHT FLEXIBLE NONMETALLIC CONDUIT
LPS	LOW-PRESSURE SODIUM
LRA	LOCKED ROTOR AMPERES
LTG	LIGHTING
LV	LOW VOLTAGE
MAX	MAXIMUM
MBJ	MAIN BONDING JUMPER
MC	METAL CLAD
MCA	MINIMUM CIRCUIT AMPERES
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MAN HOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MOCP	MAXIMUM OVER-CURRENT PROTECTION
MON	MONITOR
N	NORTH
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRIC MANUFACTURERS ASSOCIATION
NFC	NATIONAL FIRE CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION

ABBREVIATIONS

NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NO.	NUMBER
NTS	NOT TO SCALE
OAE	OR APPROVED EQUAL
OC	ON CENTER
OCP	OVER-CURRENT PROTECTION
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
OHD	OVERHEAD DOOR
OL	OVERLOAD
PF	POWER FACTOR
PH	PHASE
PNL	PANEL
PROJ	PROJECTOR
PVC	POLYVINYL CHLORIDE
QTY	QUANTITY
R	RELOCATED DEVICE / EQUIPMENT
RAU	REMOTE ANNUNCIATOR UNIT
RCP	REFLECTED CEILING PLAN
REF	REFRIGERATOR
REV	REVISIONS / REVISED
RMC	RIGID METAL CONDUIT
RNC	RIGID NONMETALLIC CONDUIT
RPM	REVOLUTIONS PER MINUTE
RR	REMOVE & RELOCATE
S	SOUTH
S/N	SWITCH NEUTRAL
S/S	START / STOP
SCA	SHORT CIRCUIT AMPERES
SF	SQUARE FOOT / FEET
SFBA	STANDARD FINISH / COLOR BY ARCHITECT
SPD	SURGE PROTECTION DEVICE
SPDT	SINGLE POLE DOUBLE THROW
SPEC	SPECIFICATION
SPST	SINGLE POLE SINGLE THROW
SQ	SQUARE
ST	SINGLE THROW
STRUCT	STRUCTURAL
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TEMP	TEMPORARY
TL	TWISTLOCK
TP	TWISTED PAIR
TSP	TWISTED SHIELDED PAIR
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION (CABLE)
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP	TYPICAL
UF	UNDERFLOOR / UNDERSLAB
UGND	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
UNSW	UNSWITCHED
UPS	UNINTERRUPTIBLE POWER SOURCE
V	VOLTS / VOLTAGE
VA	VOLT AMPERE
VFD	VARIABLE FREQUENCY DRIVE
W	WEST
W/	WITH
W/O	WITHOUT
WH	WATER HEATER
WP	WEATHER PROOF (NEMA 3R)
X	REMOVE / DEMOLISH
XF	TRANSFORMER
XP	EXPLOSION PROOF
Y	WYE

ELECTRICAL DRAWING SCHEDULE

SHEET NUMBER	SHEET NAME
e001	ELECTRICAL SYMBOL LEGEND & ABBREVIATIONS
e002	ELECTRICAL SPECIFICATIONS
e101	POWER PLANS
e102	LIGHTING PLANS
e602	ELECTRICAL SCHEDULES & DETAILS

NUMBER OF SHEETS IN SET: 5

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06/17/2021

ELECTRICAL SYMBOL LEGEND & ABBREVIATIONS

e001

SPARKS FIRE STATION 2 DORMITORY REMODEL

City of Sparks

2900 N Truckee Lane
Sparks, NV 89434

No.	Description	Date

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ELECTRICAL SPECIFICATIONS

PART ONE - GENERAL

1.1. THE WORK: ALL WORK SHALL BE NEW UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL PROVIDE THE WORK SHOWN ON THE DRAWINGS AND SPECIFIED FOR ITS INDIVIDUAL SECTIONS OF WORK. THE WORD "WORK" IS DEFINED AS ALL LABOR, TRANSPORTATION, MATERIAL, EQUIPMENT, TOOLS, INSTALLATION, SUPERVISION AND ANY OTHER INCIDENTAL ITEMS OR SERVICES NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE COMPLETE SYSTEMS, WHICH SHALL BE PROVIDED BY THIS CONTRACTOR WHETHER OR NOT SPECIFICALLY INDICATED OR NOTED.

1.2. RESPONSIBILITY: THIS CONTRACTOR IS SOLELY RESPONSIBLE FOR THE ACTIONS OF ITS PERSONNEL, SUPPLIERS, AND SUB-CONTRACTORS. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE PERFORMANCE OF ALL WORK AS MAY BE REQUIRED TO ACCOMMODATE OR SUPPORT THE ELECTRICAL WORK. EXAMPLES: PAINTING, STRUCTURAL SUPPORTS, CUTTING AND PATCHING, EXCAVATION AND BACKFILL, CONCRETE PADS, ROOF JACKS, ETC. REQUIRING THIS CONTRACTOR'S ENGAGEMENT OF APPROPRIATE TRADES TO PERFORM SUCH WORK FOR THE PROPER INSTALLATION AND OPERATION OF COMPLETE ELECTRICAL SYSTEMS.

1.3. MINIMUM REQUIREMENTS: THESE SPECIFICATIONS ESTABLISH THE MINIMUM REQUIREMENTS FOR THE WORK AND MATERIALS, EQUIPMENT AND METHODS TO BE PROVIDED. THE DRAWINGS MAY INDICATE REQUIREMENTS WHICH EXCEED THESE MINIMUMS.

1.4. GENERAL CONDITIONS: ALL GENERAL CONDITIONS, SPECIAL REQUIREMENTS OR GENERAL REQUIREMENTS OF THE CONSTRUCTION SPECIFICATIONS ARE MADE PART OF THIS SPECIFICATION AND HAVE THE SAME FORCE AND EFFECT AS IF COMPLETELY REPRODUCED.

1.5. DEFINITIONS:
AHJ: AUTHORITY HAVING JURISDICTION.
ASSEMBLY: AN INSTALLATION OR SYSTEM OF MULTIPLE COMPONENTS REQUIRING MULTIPLE CONNECTIONS. (EXAMPLES: TRASH COMPACTOR, MOTORIZED DOOR, HVAC SPLIT SYSTEM, ETC.).
APPROVED EQUAL: ACCEPTED BY THE ENGINEER AS EQUAL.
FF&E: FURNISHINGS, FIXTURES AND EQUIPMENT - PROVIDED BY OTHERS AT JOBSITE. RECEIVE, PROTECT, STORE, ASSEMBLE, INSTALL AND CONNECT. PROVIDE MINIMUM 5X STRUCTURAL BACKING. (EXAMPLES: CHANDELIERS, PROJECTORS, ETC.).
PROVIDE: FURNISH, INSTALL, ACTIVATE, AND COMMISSION.

1.6. CODES: ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE 2017 EDITION OF THE NATIONAL ELECTRICAL CODE (NEC), THE 2018 EDITION OF THE INTERNATIONAL ENERGY CONSERVATION CODE (IECC), AND ALL OTHER ADOPTED APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

1.7. PERMITS: PAY ALL FEES AND OBTAIN ALL PERMITS AND INSPECTIONS REQUIRED FOR THE WORK.

1.8. DRAWINGS: DRAWINGS ARE DIAGRAMMATIC AND SCHEMATIC IN NATURE, AND INDICATE THE TYPE, SIZE, ARRANGEMENT AND LOCATIONS OF MATERIALS AND EQUIPMENT. WORK INCLUDES CERTAIN COMPONENTS, APPURTENANCES, AND RELATED SPECIALTIES THAT MAY NOT BE SHOWN. PROVIDE ALL NECESSARY ITEMS TO COMPLETE THE WORK ACCORDING TO INDUSTRY STANDARDS. IT IS THE INTENT OF THE DRAWINGS AND SPECIFICATIONS TO REQUIRE FINISHED WORK, TESTED AND READY FOR OPERATION. DO NOT SCALE DRAWINGS. ARRANGEMENT OF EQUIPMENT AND ROUTING OF FEEDERS AND BRANCH CIRCUITING SHALL BE PLUMB AND AT RIGHT ANGLES TO BUILDING CONSTRUCTION, AND MAY REQUIRE MODIFICATION DUE TO UNFORESEEN CONDITIONS REQUIRING ONSITE REVISIONS DURING CONSTRUCTION. (SEE ALSO "BIDDING").

1.9. COORDINATION: THIS PROJECT REQUIRES A HIGH LEVEL OF COORDINATION AND COOPERATION WITH OWNER, ARCHITECT, OTHER TRADES, VENDORS, AND SPECIALTY CONTRACTORS. CAREFULLY EXAMINE ALL CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, SHOP DRAWINGS, ETC. FOR ALL GENERAL CONSTRUCTION, STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL, AND SPECIALTY CONTRACTOR WORK. PRIOR TO ROUGH-IN, COORDINATE THE WORK WITH ALL OTHER TRADES, TAKING RESPONSIBILITY FOR THE PROPER FITTING OF MATERIAL INTO THE BUILDING AS PLANNED WITHOUT INTERFERENCE WITH OTHER WORK. ESTABLISH AND VERIFY LOCATIONS, HEIGHTS, CONNECTION METHODS, ETC. WITH EQUIPMENT INSTALLER (AND OWNER, ARCHITECT, AND/OR INTERIOR DESIGNER FOR FF&E ITEMS), AND MAKE REASONABLE MODIFICATIONS IN THE LAYOUTS NEEDED TO PREVENT CONFLICTS WITH OTHER TRADES IN ORDER TO PROVIDE ACCESS FOR THE PROPER EXECUTION OF THE WORK.

1.10. IDENTICAL: ALL WORK REQUIRED FOR IDENTICAL ITEMS AND ASSEMBLIES OF THE PROJECT SHALL BE PROVIDED, ALTHOUGH EACH SPECIFIC IDENTICAL ITEM MAY NOT BE SHOWN IN DETAIL.

1.11. VERIFICATION: CHECK AND VERIFY ALL SIZES, DIMENSIONS, AND CONDITIONS BEFORE STARTING ANY WORK. ANY DEVIATION(S) OR PROBLEM(S) SHALL BE TRANSMITTED TO THE ENGINEER FOR REVIEW.

1.12. CONNECTIONS: CONNECT ALL EQUIPMENT, SYSTEMS, AND ASSEMBLIES PROVIDED BY OTHERS INCLUDING CONTROLS, SAFETY DEVICES AND INTERCONNECTIONS. EXCEPTION: DO NOT INTERCONNECT THE CONTROL SYSTEMS OF THOSE MECHANICAL AND PLUMBING SYSTEMS WHICH ARE SPECIFICALLY NOTED TO BE THE RESPONSIBILITY OF THOSE TRADES. PROVIDE FUSIBLE DISCONNECT SWITCHES AND MOTOR STARTERS FOR ALL EQUIPMENT EXCEPT THOSE ITEMS WHICH ARE SPECIFICALLY LISTED WITH INTEGRAL STARTERS/DISCONNECT SWITCHES. WHERE STARTERS AND/OR DISCONNECT SWITCHES ARE FURNISHED TOGETHER WITH EQUIPMENT, RECEIVE, INSTALL, AND CONNECT THOSE ITEMS.

1.13. SUBMITTAL: SUBMIT TO THE ENGINEER COMPLETE ELECTRONIC SETS OF SHOP DRAWINGS AND TECHNICAL DATA SHEETS FOR ALL EQUIPMENT AND MATERIALS SPECIFIED HEREIN. THE ENGINEER SHALL REVIEW SHOP DRAWINGS AND TECHNICAL DATA SHEETS FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS AND ISSUE A WRITTEN ASSESSMENT TO THE OWNER PRIOR TO COMMENCEMENT OF WORK. THE ENGINEER'S FAILURE TO CORRECT ERRORS IN THE SUBMITTAL SHALL NOT RELIEVE THE CONTRACTOR OF THE OBLIGATION TO PERFORM THE WORK AS SHOWN AND/OR SPECIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ENGINEERING FEES NECESSARY TO CHANGE PROJECT DOCUMENTS BASED ON ALTERNATE SUBMITTAL PACKAGES/EQUIPMENT SUBSTITUTIONS.

1.14. OR-EQUAL SUBSTITUTIONS: ALL PROPOSED "OR EQUAL" SUBSTITUTIONS SHALL BE SUBMITTED TO THE ENGINEER FOR CONSIDERATION PRIOR TO BIDDING AND AFTER ALL REQUIREMENTS ASSOCIATED WITH SUBSTITUTED EQUIPMENT AND/OR MATERIALS HAVE BEEN COORDINATED WITH OTHER BUILDING TRADES, INCLUDING ALL MECHANICAL, STRUCTURAL, AND/OR ARCHITECTURAL ELEMENTS. THE OWNER'S REPRESENTATIVE SHALL PRE-APPROVE ANY PROPOSED SUBSTITUTION IN WRITING. IDENTIFY AND ANNOTATE ALL REVISED REQUIREMENTS PER BUILDING TRADE ON THE SHOP DRAWINGS. ALSO IDENTIFY ALL COST DEBITS OR CREDITS IN WRITING FOR THE PROPOSED CHANGES PER BUILDING TRADE AND SUMMARIZE THESE AS A TOTAL NET-TO-OWNER CHARGE OR CREDIT FOR CONSIDERATION.

1.15. AS-BUILT: UPON COMPLETION OF CONSTRUCTION, SUPPLY THE ENGINEER WITH AS-BUILT DOCUMENTS ACCURATELY SHOWING THE MATERIALS AND EQUIPMENT AS INSTALLED. PROVIDE OPERATION AND MAINTENANCE MANUAL(S) CONTAINING APPROVED SHOP DRAWINGS, OPERATING AND MAINTENANCE INSTRUCTION FOR SWITCHGEAR, LIGHTING FIXTURES, CONTROLS, AND SPECIALTY EQUIPMENT.

1.16. GUARANTEE: ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A MINIMUM OF ONE (1) YEAR FROM DATE OF ACCEPTANCE BY OWNER (LONGER IF REQUIRED BY GENERAL AND/OR SPECIAL CONDITIONS). IN ADDITION, THE INSTALLATION SHALL BE GUARANTEED TO PERFORM AS SPECIFIED AND FULFILL EACH AND EVERY REQUIREMENT OF THE DRAWINGS AND SPECIFICATIONS WHEN OPERATED IN ACCORDANCE WITH THE CONTRACTOR'S INSTRUCTIONS. SHOULD THE INSTALLATION IN ANY WAY FAIL TO DO SO, THE CONTRACTOR WILL, WITHOUT DELAY AND WITHOUT COST TO THE OWNER, PROVIDE WHATEVER ADDITIONAL EQUIPMENT, MATERIAL, AND LABOR REQUIRED TO CORRECT THE DEFICIENCY AND COMPLY WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. WHERE SPECIFIED EQUIPMENT HAS A LONGER GUARANTEE PERIOD, THE TERMS OF THAT GUARANTEE SHALL GOVERN (EXAMPLE: LED SYSTEM WITH 5 YEAR GUARANTEE). INCANDESCENT LAMPS ARE EXEMPT BUT SHALL BE NEW AND UNUSED AT THE TIME OF FINAL ACCEPTANCE.

1.18. IECC COMPLIANCE: COMPLY WITH ALL REQUIREMENTS SET FORTH IN THE IECC COMPLIANCE CERTIFICATE INCLUDED IN THESE DOCUMENTS. HIRE A COMMISSIONING AGENT TO COMPLY WITH AND PERFORM ALL ASPECTS OF SECTION C408 OF THE 2012 IECC.

BIDDING

1.19. SITE VISIT: CONTRACT DOCUMENTS INDICATE NEW WORK TO BE PERFORMED AND DO NOT PURPORT TO SHOW ALL EXISTING CONDITIONS. VISIT THE SITE PRIOR TO SUBMITTING A BID TO BECOME FAMILIAR WITH EXISTING CONDITIONS. COMPARE THE WORK SPECIFIED IN THE CONTRACT DOCUMENTS AGAINST EXISTING CONDITIONS, AND IDENTIFY AND ANNOTATE ALL WORK OR CONDITIONS THAT ARE DIFFERENT FROM THE CONTRACT DOCUMENTS OR THEIR INTENT. UPON DISCOVERY, IMMEDIATELY NOTIFY AND REPORT IN WRITING ANY DISCREPANCIES TO THE ENGINEER. NO EXTRAS OR CHANGE ORDERS WILL BE ALLOWED FOR FAILURE TO PERFORM THE PRE-BID SITE VISIT.

1.20. BASIS OF PROPOSAL: PROPOSAL SHALL BE BASED ON MANUFACTURERS AND MODELS AS LISTED UNLESS "OR EQUAL" IS INDICATED. PROVIDE SUBSTITUTION REQUESTS A MINIMUM OF FIVE (5) BUSINESS DAYS PRIOR TO BID DATE CLOSING TO ALLOW TIME FOR DUE CONSIDERATION OF PROPOSED ALTERNATE AND SUBSEQUENT NOTIFICATION TO ALL OTHER BIDDERS IN THE EVENT SUBSTITUTION IS DEEMED ACCEPTABLE. DETERMINATION OF SUBSTITUTION EQUALITY RESTS SOLELY WITH THE ENGINEER.

1.21. VALUE ENGINEERING (V.E.) INITIATIVES: IN ADDITION TO THE "AS SPECIFIED/OR EQUAL" BASE BID, A COST REDUCTION INITIATIVE(S) MAY BE PROPOSED BASED ON SUBSTITUTIONS OF EQUIPMENT, MATERIALS, AND/OR METHODS. EACH SUCH PROPOSAL SHALL INCLUDE A DATA SHEET(S) ON THE SPECIFIED ITEM(S), THE PROPOSED SUBSTITUTE(S), AND THE NET CREDIT TO THE OWNER, INCLUDING ALL CREDITS AND CHARGES FROM ALL MEMBERS OF THE CONSTRUCTION TEAM. THE ENGINEER WILL REVIEW AND RENDER AN OPINION TO THE OWNER. IF THE V.E. INITIATIVE IS DECLINED, PROVIDE THE SPECIFIED EQUIPMENT/MATERIAL/METHOD. IF THE V.E. INITIATIVE IS ACCEPTED, AND IF SUCH ACCEPTANCE RESULTS IN A REQUIREMENT TO REVISE ANY DESIGN DOCUMENTS, THE CHARGES FOR THESE REVISIONS SHALL BE BILLED TO THE CONTRACTOR AND THE INVOICING SHALL BE SETTLED BEFORE THE PROJECT IS SIGNED OFF FOR FINAL ACCEPTANCE.

1.22. BIDDING: THE CIVIL, ARCHITECTURAL, MECHANICAL, KITCHEN, AND/OR INTERIOR DRAWINGS CONTAIN DETAILED DESCRIPTIONS, CIRCUITING, AND CONNECTION REQUIREMENTS WHICH ARE PART OF THIS CONTRACTOR'S RESPONSIBILITIES. DO NOT SUBMIT BIDS ON THIS PROJECT PRIOR TO REVIEWING ALL PROJECT DRAWINGS, SPECIFICATIONS, AND ADDENDA.

PART TWO - PRODUCTS

2.1. EQUIPMENT STANDARDS: ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND OF THE HIGHEST QUALITY AVAILABLE ("SPECIFICATION GRADE"). EQUIPMENT SHALL BE CONSTRUCTED TO NEMA STANDARDS AND SHALL BE LABELED FOR THEIR INTENDED PURPOSE BY A RECOGNIZED TESTING AGENCY ACCEPTABLE TO THE AHJ (U.L., CSA, ETL, ETC.).

2.2. ACCEPTABLE MANUFACTURERS AND SUPPLIERS: WHERE EQUIPMENT AND MATERIALS ARE NOT SPECIFIED BY NAME THEY ARE DEEMED TO BE GENERIC, SUBJECT TO THE REQUIREMENTS LISTED HEREIN. THESE MANUFACTURERS ARE CONSIDERED CAPABLE OF OFFERING EQUIVALENT PRODUCTS. MINIMUM STANDARD IN ALL INSTANCES IS COMMERCIAL GRADE:
SWITCHGEAR: EATON, GENERAL ELECTRIC, SIEMENS, SQUARE D
LIGHT FIXTURES: ACUITY, COOPER, ELITE, HUBBELL, THOMAS
WIRING DEVICES: HUBBELL, LEGRAND, LEVITON, WIREMOLD

2.3. CIRCUITING: ALL WIRING SHALL BE IN CONDUIT, CONCEALED WHERE POSSIBLE EXCEPT WHERE NOTED. EMT WITH STEEL INSULATED THROAT SET SCREW FITTINGS MAY BE USED IN DRY, PROTECTED INTERIOR LOCATIONS. PVC SCHEDULE 40 SHALL BE USED BELOW GRADE AT MINIMUM -24". WRAPPED RIGID ELBOWS AND RISERS SHALL BE USED FOR ALL THROUGH-GRADE TRANSITIONS AND STUB-UPS. RGS OR IMC CONDUIT WITH THREADED FITTINGS SHALL BE USED IN ALL LOCATIONS WHERE EXPOSED TO THE ELEMENTS OR SUBJECT TO PHYSICAL DAMAGE. IMC OR RIGID CONDUIT BELOW GRADE SHALL BE HALF-LAP WRAPPED WITH 20 MIL PVC TAPE. TYPE ENT RACEWAY IS NOT ALLOWED. CONNECT RECESSED AND SUSPENDED LIGHTING FIXTURES, MOTORIZED AND/OR VIBRATING EQUIPMENT WITH STEEL FLEX OR SEALTITE CONDUIT. ALL CONDUIT SHALL HAVE PULL CORD IF OTHERWISE EMPTY.

2.4. MC CABLE: MC CABLE MAY NOT BE USED EXCEPT WITH SPECIFIC PERMISSION FROM THE ENGINEER. HOMERUNS AND FEEDERS SHALL BE CONDUIT AND WIRE.

2.6. WIRING: ALL WIRE SHALL BE COPPER UNLESS OTHERWISE NOTED. ALL WIRE SHALL BE STRANDED IN SIZES #8 AWG AND LARGER. SINGLE PHASE BRANCH CIRCUITS SHALL INCLUDE A SEPARATE NEUTRAL WIRE WITH EACH PHASE WIRE. NEUTRAL SHALL BE WHITE WITH COLOR STRIPE MATCHING COLOR OF PHASE WIRE. HOMERUNS TO PANELBOARDS SHALL BE MINIMUM #12 AWG CU IN 3/4" CONDUIT UNLESS OTHERWISE NOTED.

2.8. FUSES AND CIRCUIT BREAKERS: FUSES AND CIRCUIT BREAKERS SHALL BE SIZED PER ACTUAL RESPECTIVE APPLICATION (i.e., MOTOR CIRCUIT PROTECTOR, GROUND FAULT CIRCUIT INTERRUPTER, ARC FAULT CIRCUIT INTERRUPTER, ETC.). FUSES SHALL BE DUAL ELEMENT, CURRENT-LIMITING, AND SHALL BE INTERCHANGEABLE BETWEEN FRAME SIZES WITH STANDARD FACTORY FUSE REDUCERS. PROVIDE LOCKABLE SPARE FUSE CABINET WITH (3) SPARE FUSES OF EACH SIZE USED.

2.9. DISTRIBUTION SWITCHGEAR: SWITCHGEAR SHALL HAVE COPPER BUS AND HEAVY GAUGE HOUSINGS. SWITCHGEAR IN LOCATIONS OTHER THAN LOCKED ELECTRIC ROOMS SHALL HAVE LOCKABLE COVERS. SWITCHGEAR SHALL HAVE NO LESS THAN 20% SPARE BUSSED AND USABLE SPACE, MEASURED AS A PERCENTAGE OF THE SPACE OCCUPIED BY SPECIFIED CIRCUIT BREAKERS, SWITCHES, ETC.

2.10. SERVICE SWITCHGEAR: IN ADDITION TO THE ABOVE, SERVICE SWITCHGEAR SHALL MEET THE REQUIREMENTS OF THE SERVING UTILITY.

2.11. PANELBOARDS: PANELS SHALL HAVE COPPER BUS AND HARDWARE, BOLT-ON CIRCUIT BREAKERS, FLUSH MONO-FLAT TRIM, PIANO HINGED DOORS AND COVER (DOOR-IN-DOOR) WITH LOCKABLE MASTER-KEYED FLUSH LATCHES. FLUSH-MOUNTED PANELS SHALL HAVE EMPTY CONDUITS STUBBED TO ACCESSIBLE ATTIC SPACE: (1) 3/4" CONDUIT FOR EACH THREE (3) SPARE/SPACE CIRCUITS.

2.12. SAFETY SWITCHES: SWITCHES SHALL BE GENERAL DUTY UP TO 250 VOLTS, HEAVY DUTY ABOVE 250 VOLTS. FUSIBLE SWITCHES SHALL BE FUSED PER THE NAMEPLATE REQUIREMENTS OF THE EQUIPMENT BEING CONNECTED.

2.13. MOTOR STARTERS: STARTERS SHALL BE MINIMUM NEMA SIZE 1 WITH INTEGRAL CONTROL TRANSFORMER, RED NEON "RUN" PILOT LIGHT AND "ON-OFF-AUTO" SELECTOR SWITCH ON COVER. OVERLOAD DEVICES SHALL BE SIZED PER THE NAMEPLATE AMPERAGE OF THE EQUIPMENT BEING CONTROLLED.

2.14. CONTACTORS: CONTACTORS SHALL BE ELECTRICALLY HELD WITH "ON-OFF-AUTO" SELECTOR SWITCH ON COVER.

2.15. RATINGS: ALL ELECTRICAL EQUIPMENT SHALL BE FULLY RATED FOR BRACING IN EXCESS OF THE MAXIMUM AVAILABLE FAULT CURRENT CALCULATED AND SHOWN AT THE EQUIPMENT CONNECTION POINT WITHIN THE DISTRIBUTION SYSTEM. MINIMUM RATING SHALL BE 10K AIC.

2.16. WIRING DEVICES: WIRING DEVICES (SWITCHES, RECEPTACLES, ETC.) SHALL BE SPECIFICATION GRADE "DECORA" STYLE, MINIMUM 20-AMP RATED. COVER PLATES SHALL BE NYLON. DEVICE AND PLATE COLOR(S) SHALL BE AS SPECIFIED BY ARCHITECT OR INTERIOR DESIGNER - VERIFY PRIOR TO COMMENCEMENT OF WORK. WIRING DEVICES EXPOSED TO THE ELEMENTS SHALL HAVE WEATHERPROOF-IN-USE LOCKABLE COVERS. RAISED STEEL BOX COVERS MAY BE USED IN UTILITY AREAS. REFER TO FOOD SERVICE NOTES (IF APPLICABLE TO THIS PROJECT) FOR ADDITIONAL REQUIREMENTS.

2.17. TRANSFORMERS: TRANSFORMERS SHALL BE TYPE TP-1 MINIMUM, WITH ALUMINUM WINDINGS, RATED FOR 150°C RISE (UNLESS OTHERWISE NOTED), MOUNTED ON RUBBER-IN-SHEAR VIBRATION ISOLATORS, CONNECTED WITH FLEXIBLE CONDUIT. PUBLISHED AND MEASURED NOISE RATING SHALL NOT EXCEED NEMA TP-20 MAXIMUM.

2.18. LIGHTING FIXTURES: LIGHT FIXTURES SHALL BE PROVIDED WITH ALL ASSOCIATED HARDWARE (HANGER BARS, PENDANTS, STEMS, RESTRAINTS, CHAINS, CORDS, LAMPS, ETC.). LENSES SHALL BE ACRYLIC, REFLECTORS SHALL BE ANODIZED. FLUORESCENT BALLASTS SHALL BE ELECTRONIC, PROGRAM RAPID START, THD LESS THAN 10%. FLUORESCENT LAMPS SHALL HAVE MINIMUM CRI OF 80%. INCANDESCENT LAMPS SHALL BE 130 VOLT, INSIDE FROST, MINIMUM 2000 HOUR LIFE. LOW VOLTAGE INCANDESCENT LAMPS SHALL BE HIR HALOGEN, MINIMUM 3000 HOUR LIFE. EXTERIOR LIGHTING FIXTURES SHALL BE INSTALLED TO PREVENT WATER, DUST AND INSECT INTRUSION, WITH GASKETING FOR DOOR/BACKPLATE AND SEALANT AT THE WIRING ENTRY POINT. REFER TO LIGHTING FIXTURE SCHEDULE WITHIN PLAN SET FOR ADDITIONAL REQUIREMENTS (LED CRITERIA, ETC.).

2.17. TAMPERPROOF: ALL EQUIPMENT AND CIRCUITING ACCESSIBLE BY THE PUBLIC SHALL BE DEMONSTRATED TO BE TAMPERPROOF AND VANDAL RESISTANT. OPENABLE DEVICES AND EQUIPMENT SHALL BE PAD LOCKABLE.

PART THREE - EXECUTION

3.1. GROUNDING: GROUND ALL EQUIPMENT AND SYSTEM NEUTRAL IN ACCORDANCE WITH THE REQUIREMENTS OF NEC ARTICLE 250. PROVIDE CODE-SIZED EQUIPMENT GROUNDING CONDUCTOR IN ALL FEEDERS AND BRANCH CIRCUIT RACEWAYS. WHERE ISOLATED GROUNDS ARE INDICATED, PROVIDE INSULATED CONDUCTOR (GREEN WITH YELLOW STRIPE).

3.2. UTILITY SERVICES: PROVIDE POWER AND COMMUNICATIONS SYSTEM SERVICES IN ACCORDANCE WITH THE REQUIREMENTS OF THE SERVING UTILITIES. CONTRACTOR TO PROVIDE ARC FLASH STUDY AND LABELLING ON ALL NEW EQUIPMENT IN ACCORDANCE WITH NEC. PROVIDE EXCAVATION, RACEWAY, STRUCTURES, GROUNDING, ETC. AS DIRECTED. POWER SERVICES AND DISTRIBUTION SYSTEM AIC RATING SHALL EXCEED MAXIMUM AVAILABLE FAULT CURRENT THROUGH UTILITY SERVICE TRANSFORMER. CONTACT SERVING UTILITIES AND OBTAIN THEIR REQUIREMENTS PRIOR TO BID. (UTILITY SERVICE AND LINE EXTENSION CHARGES PAID BY OTHERS).

3.3. TEMPORARY CONSTRUCTION POWER: PROVIDE TEMPORARY ELECTRICAL POWER DISTRIBUTION AND LIGHTING AS REQUIRED FOR ALL TRADES THAT REQUIRE SERVICE DURING THE COURSE OF THIS PROJECT IN COMPLIANCE WITH ALL NEC AND OSHA REQUIREMENTS. OWNER SHALL NOT BE RESPONSIBLE FOR TEMPORARY POWER CHARGES. COORDINATE DURATION AND SCHEDULING OF OUTAGES WITH OWNER AS REQUIRED.

3.4. LOCATIONS: INDICATED LOCATIONS OF ALL OUTLETS AND EQUIPMENT ARE SUBJECT TO CHANGE. SHIFT/RELOCATE/RECONFIGURE ANY OUTLET, EQUIPMENT OR CONNECTION POINT UP TO 10' AS DIRECTED BY ENGINEER AT NO ADDED COST.

3.5. WORKMANSHIP: THE WORK SHALL BE INSTALLED PARALLEL AND AT RIGHT ANGLES TO THE BUILDING LINES, LEVEL AND PLUMB. THE WORK SHALL BE WELL SUPPORTED AND SOLIDLY MOUNTED. DRESS AND TIE WIRING IN PANELBOARDS AND SWITCHGEAR. THE WORK SHALL BE LEFT CLEAN WITH NO DIRT, DENTS, ABRASIONS, PAINT SPLATTERS, OR OTHER IRREGULARITIES.

3.6. FIRE STOPPING: ALL PENETRATED FIRE RATED SURFACES SHALL BE FIRE SEALED WITH APPROVED U.L. LISTED SEALANTS AS LISTED WITHIN ARCHITECTURAL SPECIFICATIONS. DO NOT EXCEED MAXIMUM ALLOWABLE SURFACE PENETRATIONS DEPENDENT ON RATING OF SURFACES. REFER TO ARCHITECTURAL DRAWINGS FOR DETERMINATION OF PENETRATION LOCATIONS THROUGH FIRE RATED ASSEMBLIES.

3.7. SUPPORTS AND HANGERS: PROVIDE 3" HIGH HOUSEKEEPING CONCRETE PAD BENEATH FLOOR MOUNTED EQUIPMENT, EXTENDING 3" BEYOND EQUIPMENT FOOTPRINT. SUPPORT AND ALIGN ALL RACEWAYS, CABINETS, BOXES, BACK BOXES, FIXTURES, AND EQUIPMENT FROM STRUCTURE. SECURE ALL SUPPORTING METHODS BY MEANS OF TOGGLE BOLTS IN HOLLOW MASONRY, EXPANSION BOLTS IN SOLID MASONRY, CONCRETE PRESET INSERTS OR EXPANSION BOLTS IN CONCRETE, MACHINE SCREWS OR BOLTS IN METAL, AND WOOD SCREWS IN WOOD CONSTRUCTION. ALL SUPPORTING SYSTEMS AND COMPONENTS SHALL BE RATED FOR A MINIMUM OF FIVE (5) TIMES THE ACTUAL LOAD.

3.8. SLEEVES AND PENETRATIONS: PENETRATIONS OF ALL SURFACES SHALL BE PROVIDED WITH SLEEVES THAT SHALL BE SEALED WITH LIKE MATERIALS AND SHALL BE FINISHED WITH ESCUTCHEON PLATES. PENETRATIONS BELOW GRADE LEVEL SHALL BE WATERTIGHT. PENETRATIONS AT EXTERIOR WALLS SHALL BE WEATHERPROOF. ROOF PENETRATIONS SHALL BE FLASHED AND COUNTER FLASHED.

3.9. EXPANSION AND CONTRACTION: RACEWAYS PASSING THROUGH BUILDING EXPANSION JOINTS, ON ROOF, AND IN AREAS OF TEMPERATURE VARIATIONS GREATER THAN 30°F SHALL BE INSTALLED WITH EXPANSION FITTINGS.

3.10. IDENTIFICATION: IDENTIFY ALL EQUIPMENT, SWITCHBOARD CIRCUITS AND ELECTRICALLY-CONNECTED EQUIPMENT WITH ENGRAVED NAMEPLATES. BOXES SHALL BE MARKED WITH PANEL AND CIRCUIT NUMBERS (PERMANENT PEN ACCEPTABLE ABOVE CEILING). NAMEPLATES SHALL BE FASTENED WITH A MINIMUM OF TWO (2) SCREWS. PANEL DIRECTORIES SHALL BE TYPED. CONDUCTORS SHALL BE TAGGED WITH CIRCUIT NUMBERS AT SOURCE, JUNCTION BOXES, AND ALL OUTLET BOXES WITH PERMANENT ADHESIVE MARKER STRIP. PANEL DIRECTORIES SHALL BE TYPED. IDENTIFY WIRING DEVICES WITH SELF ADHESIVE CLEAR SATIN FINISH LABELS WITH SOURCE AND CIRCUIT NUMBER.

3.11. ELECTRIC ROOM CODE COMPLIANCE: DUE TO THE DIAGRAMMATIC NATURE OF THE DESIGN DOCUMENTS (ELECTRICAL, MECHANICAL, PLUMBING, FIRE SPRINKLER, ETC.), COORDINATE WITH ALL OTHER SUBCONTRACTORS AT THE START OF THIS PROJECT TO INFORM AND VERIFY THAT NO FOREIGN SYSTEMS OR EQUIPMENT ARE MOUNTED ABOVE ELECTRICAL EQUIPMENT OR PASS THROUGH THE DESIGNATED ELECTRIC ROOMS, AND THAT A MINIMUM OF 7'-0" IS PROVIDED AS CLEAR HEADROOM ALONG ACCESS PATHS TO ELECTRIC ROOMS. ANY REROUTING OR RELOCATION OF SYSTEMS THAT A SUBCONTRACTOR FEELS WILL COMPROMISE THE DESIGN INTENT SHALL BE DESCRIBED IN WRITING AND FORWARDED TO THE DESIGN ENGINEER FOR FURTHER REVIEW. ALL PIPING TO HVAC UNITS THAT COOL ELECTRIC ROOMS SHALL BE LOCATED ABOVE ENTRY DOOR. THE SPRINKLER PIPING TO PROVIDE PROTECTION FOR THE ELECTRIC ROOM IS PREFERRED TO ENTER THE ROOM ABOVE THE ENTRY DOOR AND RUN DOWN THE AISLE SPACES OF THE ROOM. ALL INSTALLATIONS SHALL BE FULLY COORDINATED AMONGST ALL TRADES.

3.12. ELECTRICALLY-OPERATED EQUIPMENT: VERIFICATION AND SUBSTITUTION: FEEDERS AND OVER-CURRENT DEVICES (INCLUDING STARTERS, DISCONNECTS, ETC.) HAVE BEEN DESIGNED BASED ON INFORMATION PROVIDED BY THE RESPONSIBLE CONSULTANT AND/OR DESIGNATED SUPPLIER. PRIOR TO ROUGH-IN, COORDINATE WITH THE APPROPRIATE TRADE AND/OR INSTALLER TO DETERMINE THAT THE ACTUAL NAMEPLATE ELECTRICAL REQUIREMENTS MATCH THIS DESIGN. ALL ADDITIONAL ELECTRICAL COSTS RELATED TO THE CONNECTION OF EQUIPMENT WHICH VARIES FROM THE ORIGINAL SPECIFICATIONS SHALL BE RESOLVED WITHIN THE CONSTRUCTION TEAM AT NO ADDITIONAL COST TO THE OWNER.

3.13. ADDITIONAL SYSTEMS AND EQUIPMENT CONNECTIONS: IN ADDITION TO EQUIPMENT POWER FEEDERS AND CONNECTIONS INDICATED ON THE ELECTRICAL DRAWINGS, PROVIDE 120V CONTROL POWER CONNECTIONS TO SMOKE/FIRE DAMPERS, VAV BOXES, TEMPERATURE CONTROL, FIRE ALARM PANELS, DOOR HOLDING/LATCHING DEVICES, ETC. AS INDICATED IN THE PROJECT DRAWINGS AND SPECIFICATIONS AS WELL AS ALL DESIGN-BUILD SYSTEM DRAWINGS.

ITEM	POWER SOURCE	MAX NO. PER 20A CIRCUIT	PROVIDE SMOKE DETECTORS
FIRE/SMOKE DAMPER	EMERGENCY	10	YES
VAV TERMINAL (NO FAN)	NORMAL (VERIFY)	10	NO
TEMPERATURE CONTROL PANEL	EMERGENCY (VERIFY)	1	NO
FIRE ALARM PANEL	EMERGENCY	1	NO
DOOR HOLDING/LATCHING DEVICES	EMERGENCY	10	NO

3.14. HOURS OF OPERATION: CONDUCT WORK TO MINIMIZE DISRUPTION OF OWNER'S ONGOING BUSINESS OPERATIONS. PROVIDE BARRICADES, NOISE ABATEMENT, AND DUST CONTAINMENT MEASURES TO ENSURE THE SAFETY AND COMFORT OF PATRONS, STAFF, AND WORKERS. INTERRUPTIONS OF EXISTING POWER, COMMUNICATIONS, AND/OR FIRE ALARM SYSTEMS SHALL BE PERFORMED ONLY AT SUCH TIMES AS DIRECTED BY OWNER OR RESIDENT ENGINEER. OUTAGES SHALL BE MOMENTARY IN NATURE, EACH SUCH OUTAGE (OR OPERATION WHICH MAY POSE RISK OF AN ACCIDENTAL OUTAGE) SHALL BE SCHEDULED A MINIMUM OF FORTY-EIGHT (48) HOURS IN ADVANCE.

3.15. COMMUNICATIONS SYSTEMS: THE ELECTRICAL CONTRACTOR SHALL PROVIDE OUTLETS AND RACEWAYS FOR COMMUNICATION SYSTEMS AS INDICATED HEREIN, INCLUDING TELEPHONE, DATA, POINT-OF-SALE, SOUND, SECURITY, AUDIO/VISUAL, CCTV, MATV, ETC. CABLING AND DEVICES SHALL BE INSTALLED AND TERMINATED BY OTHERS.

PART FOUR - SPECIAL SYSTEMS

4.1. DESIGN-BUILD FIRE ALARM SYSTEM: MODIFICATIONS TO THE EXISTING FIRE ALARM SYSTEM BY OTHERS.

4.2. THIRD PARTY TESTING: PROVIDE ALL ASSOCIATED COSTS FOR THIRD PARTY TESTING OF ALL EQUIPMENT, CONDUCTORS, GROUND FAULT, GROUND FAULT COORDINATION STUDY WITH REPORT PREPARATION, ETC. AS REQUIRED BY THE NEC, AHJ, AND ALL OTHER GOVERNING AUTHORITIES.

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PROFESSIONAL ENGINEER - STATE OF NEVADA
DUSTIN COLWELL
Exp. 12/31/22
ELECTRICAL
No. 22254

06/17/2021

ELECTRICAL SPECIFICATIONS

e002

SPARKS FIRE STATION 2 DORMITORY REMODEL

City of Sparks

2900 N Truckee Lane
Sparks, NV 89434

No.	Description	Date

BID SET 06/17/2021
192079008

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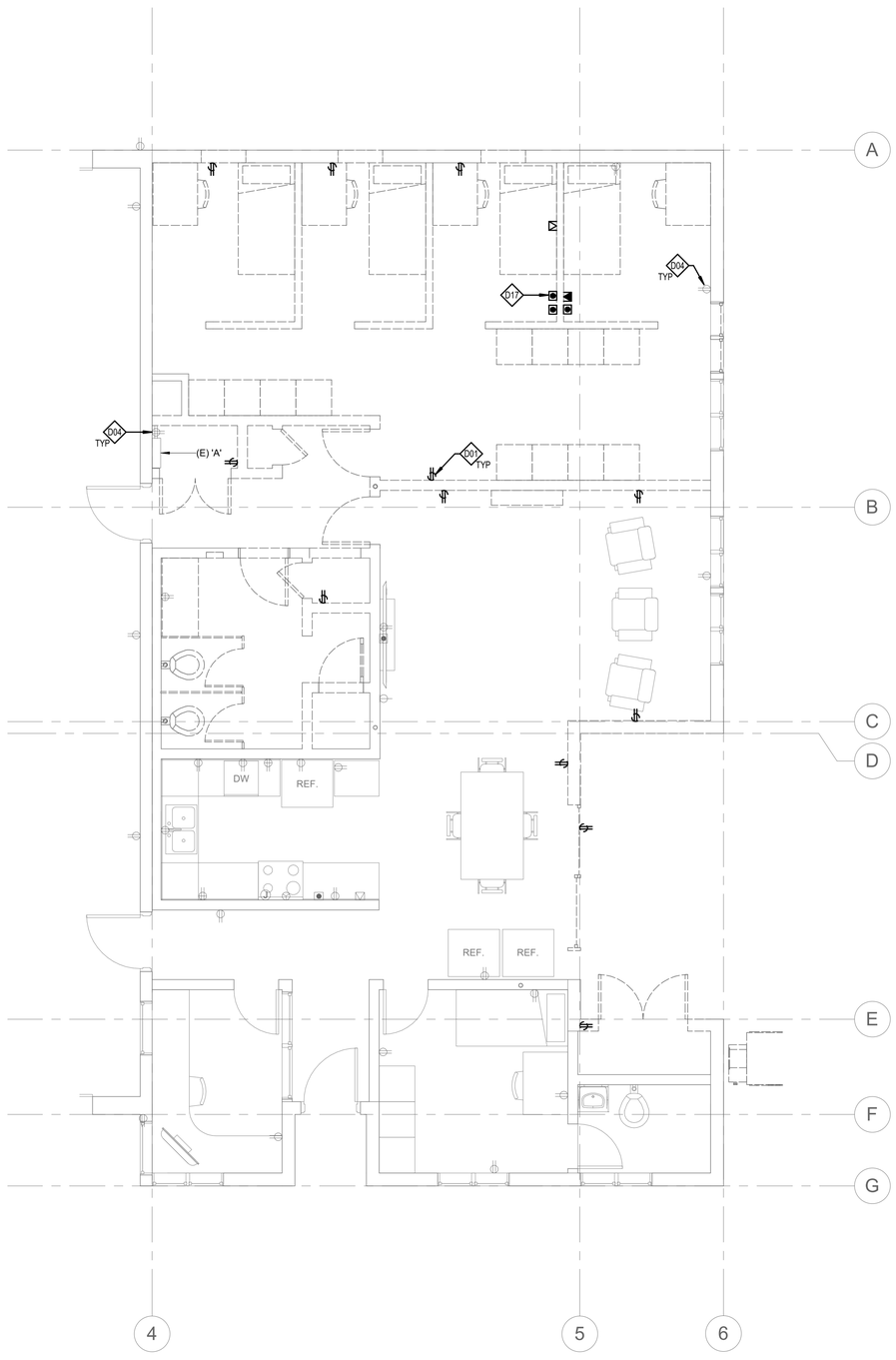
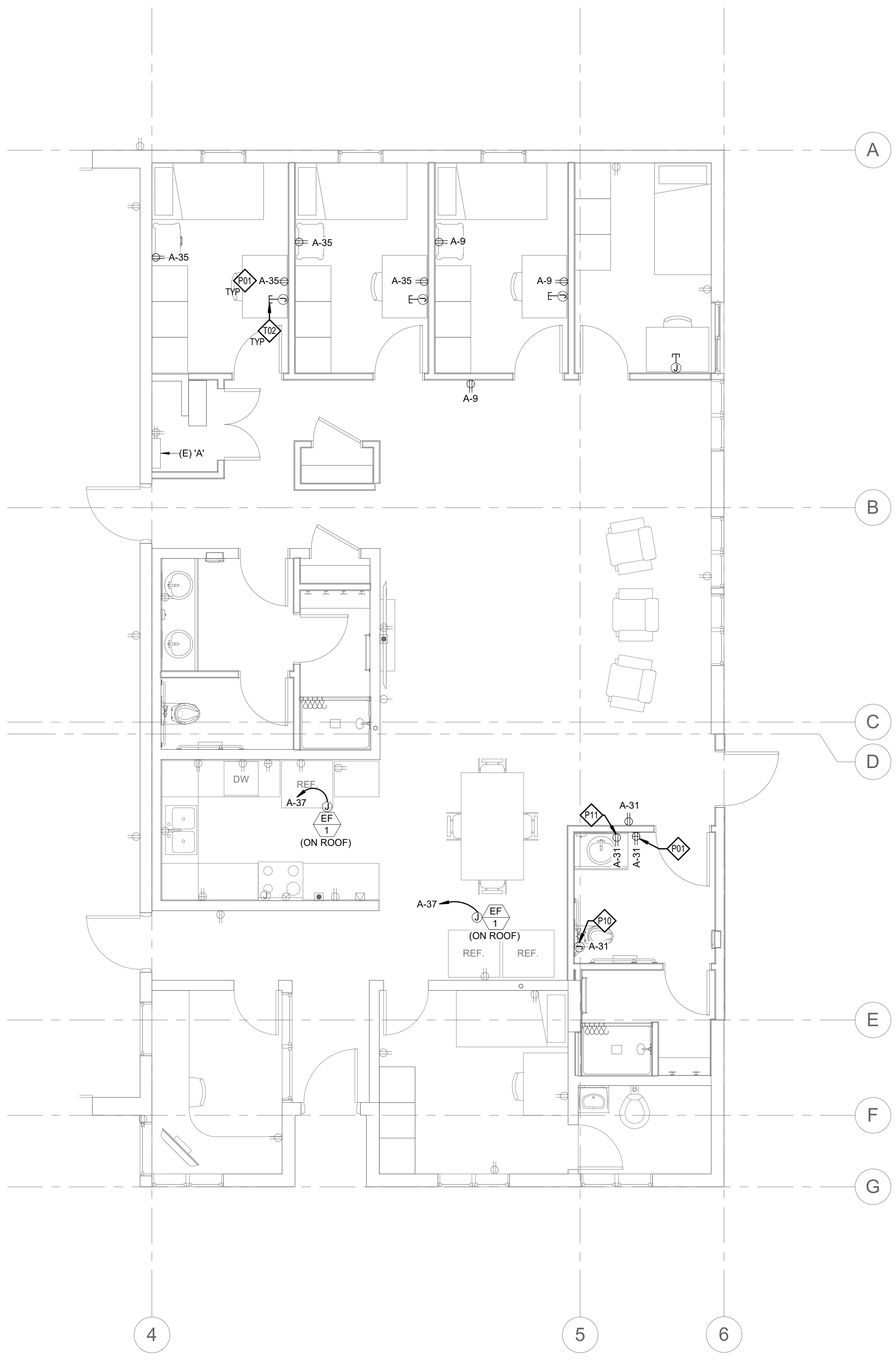


2 **POWER PLAN - LEVEL 1 DEMO**
SCALE: 1/4" = 1'-0"



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

SHEET KEYNOTES

D01	EXISTING WIRING DEVICE TO BE REMOVED. DISCONNECT FROM EXISTING CIRCUIT AND REMOVE ASSOCIATED CONDUIT AND CONDUCTORS. MAINTAIN THE EXISTING CIRCUIT AS REQUIRED. FIELD VERIFY.
D04	EXISTING WIRING DEVICE TO REMAIN, PROTECT IN PLACE.
D17	EXISTING DATA AND CATV TO BE REMOVED AND IF POSSIBLE SALVAGE TO OWNER.
P01	CONNECT TO EXISTING 120V CIRCUIT MADE AVAILABLE FROM DEMOLITION. PROVIDE CONDUIT AND CONDUCTORS AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM. FIELD VERIFY.
P10	PROVIDE JUNCTION BOX FOR FLUSH VALVE.
P11	PROVIDE DUPLEX RECEPTACLE FOR AUTOMATIC FAUCET.
T02	TELECOMMUNICATIONS DEVICE. PROVIDE SINGLE GANG JUNCTION BOX WITH MUD RING AT +18" AFF AND 1" C. EMT FROM BOX TO +6" ABOVE FINISHED CEILING. TELECOMMUNICATIONS EQUIPMENT CONNECTIONS BY OTHERS.

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POWER PLANS

e101

SPARKS FIRE STATION 2 DORMITORY REMODEL

City of Sparks

2900 N Truckee Lane
Sparks, NV 89434

No.	Description	Date

BID SET 06/17/2021
192079008

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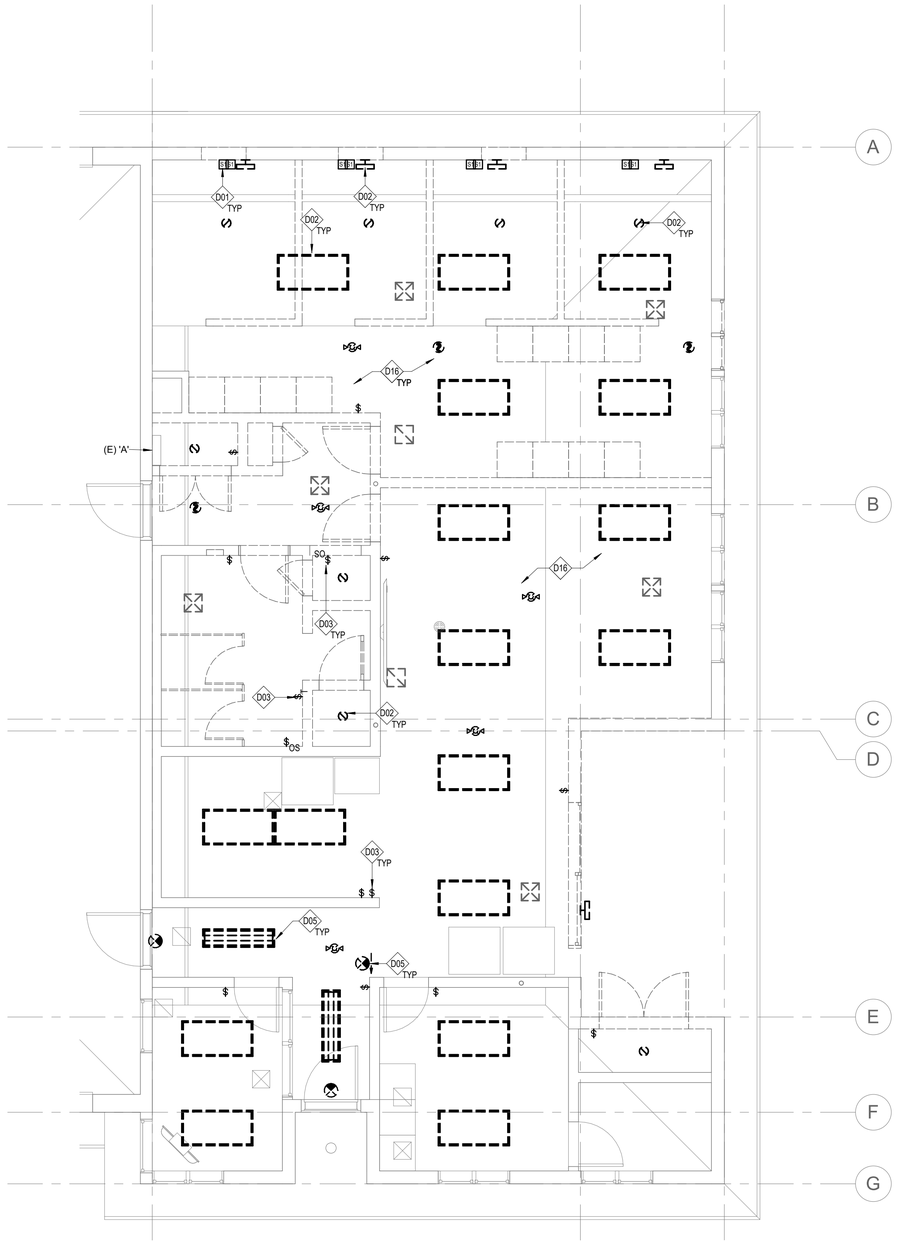
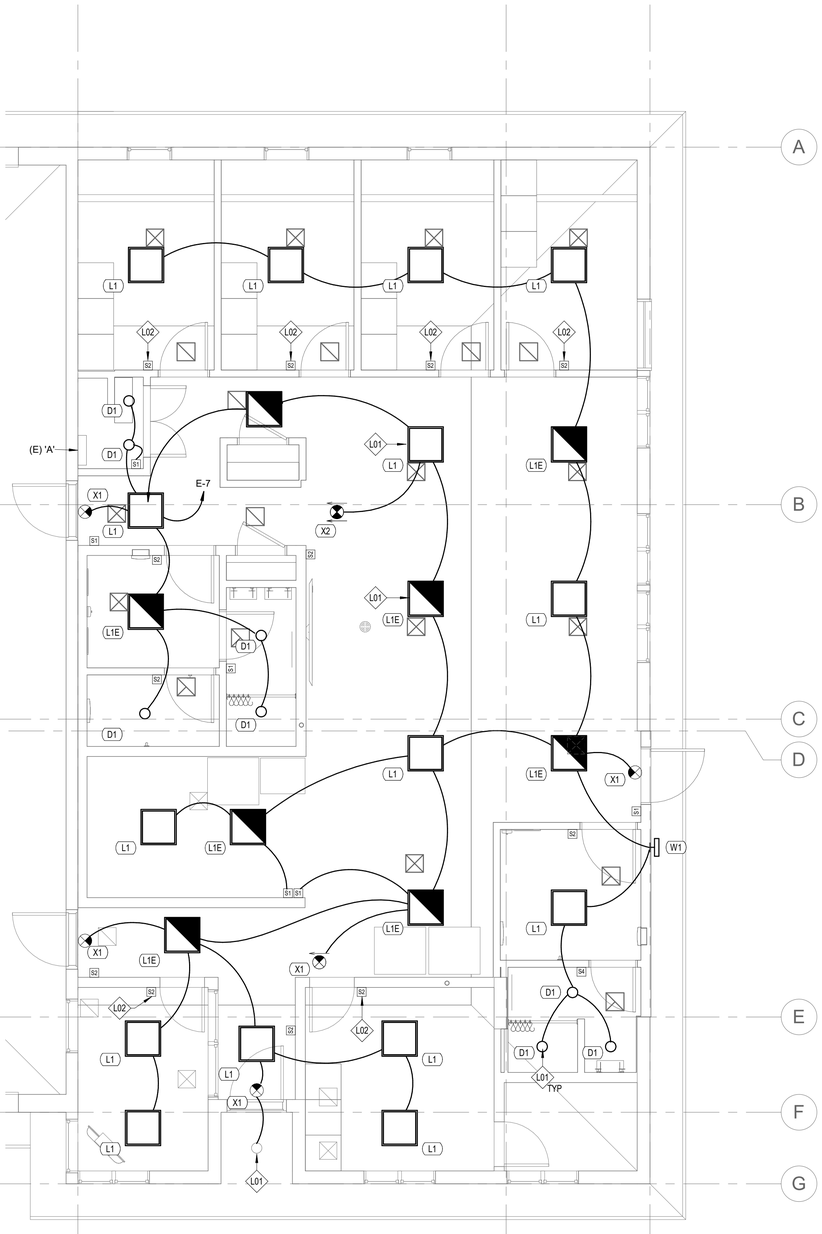


2 LIGHTING PLAN - LEVEL 1 DEMO
SCALE: 1/4" = 1'-0"



1 LIGHTING PLAN - LEVEL 1
SCALE: 1/4" = 1'-0"

SHEET KEYNOTES

D01 EXISTING WIRING DEVICE TO BE REMOVED. DISCONNECT FROM EXISTING CIRCUIT AND REMOVE ASSOCIATED CONDUIT AND CONDUCTORS. MAINTAIN THE EXISTING CIRCUIT AS REQUIRED. FIELD VERIFY.

D02 EXISTING LIGHTING FIXTURE TO BE REMOVED.

D03 EXISTING LIGHTING DEVICE TO BE REMOVED.

D05 EXISTING LIGHTING FIXTURE TO REMAIN, PROTECT IN PLACE.

D16 EXISTING FIRE ALARM DEMOLITION BY OTHERS.

L01 CONNECT CIRCUIT TO EXISTING 120V SOURCE MADE AVAILABLE/SPARE FROM DEMOLITION. PROVIDE CONDUIT AND CONDUCTORS AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM. FIELD VERIFY.

L02 CONTRACTOR SHALL ENABLE ADH CAPABILITY FOR TYPE 'S1' SWITCH FOR THIS SPACE.

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06/17/2021

LIGHTING PLANS

e102

SPARKS FIRE STATION 2 DORMITORY REMODEL

City of Sparks

2900 N Truckee Lane
Sparks, NV 89434

No.	Description	Date

BID SET 06/17/2021
192079008

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BUILDING LIGHTING FIXTURE SCHEDULE

FIXTURE ID	DESCRIPTION	SOURCE	VOLTAGE	LOAD	MOUNTING	MANUFACTURER & MODEL NUMBER	NOTES
D1	6" LED DOWNLIGHT, 80CRI, 5000K, 0-10V DIMMING	LED	120 V	21 VA	CEILING, RECESSED	LITHONIA WF6-LED-50K-MVOLT-MW OR APPROVED EQUAL	
L1	2X2 LED LIGHT FIXTURE, 80CRI, 5000K, 2000 LUMEN, 0-10V DIMMING	LED	120 V	32 VA	CEILING, RECESSED	LITHONIA EPANL-2X2-2000LM-80CRI-50K-MIN1-ZT-MVOLT-DGA22 OR APPROVED EQUAL	
L1E	2X2 LED LIGHT FIXTURE, 80CRI, 5000K, 2000 LUMEN, 0-10V DIMMING, 90 MIN BATTERY BACKUP	LED	120 V	32 VA	CEILING, RECESSED	LITHONIA EPANL-2X2-2000LM-80CRI-50K-MIN1-ZT-MVOLT-E10WCP-DGA22 OR APPROVED EQUAL	
W1	EXTERIOR LED WALL PACK	LED	120 V	15 VA	WALL, SURFACE	LITHONIA OLWX1-LED-13W-50K OR APPROVED EQUAL	
X1	SINGLE FACE, GREEN LETTERS, LED EXIT SIGN	LED	120 V	2 VA	CEILING, SURFACE	ISOLITE ELT-FT-EM-G-1C-BA OR APPROVED EQUAL	
X2	DOUBLE SIDED FACE, GREEN LETTERS, LED EXIT SIGN	LED	120 V	2 VA	CEILING, SURFACE	ISOLITE ELT-FT-EM-G-2M-BA OR APPROVED EQUAL	

BRANCH PANEL: E

LOCATION:
SUPPLY FROM:
MOUNTING: Surface
ENCLOSURE: Type 1

VOLTS: 120/240 Single
PHASES: 1
WIRES: 3

A.I.C. RATING: 10K
MAINS TYPE: MLO
MAINS RATING: 100 A

CKT	CIRCUIT DESCRIPTION	TRIP	POLES	A		B		POLES	TRIP	CIRCUIT DESCRIPTION	CKT
1	(E) LTS: STOR; HOSE, MECH, MUD	20 A	1	700 VA	150 VA			1	20 A	(E) EXIT LTS	2
3	(E) LTS: APPARATUS ROOM	20 A	2			1575 VA	720 VA	1	20 A	(E) REC., ALARM RM.	4
5				1575 VA	1200 VA			2	20 A	(E) OVERHEAD DOOR - EAST	6
7	**LTG DORMATORIES**	20 A	1			**744 VA**	1200 VA				8
9	**(E) SPARE**	20 A	1	**0 VA**	1200 VA			2	20 A	(E) OVERHEAD DOOR - WEST	10
11	**(E) SPARE**	20 A	1			**0 VA**	1200 VA				12
13	(E) BATTERY CHARGER	20 A	1	1500 VA	500 VA			1	20 A	(E) AUTO. LT. CONTROL CIR.	14
15	(E) LTS: DORM & TRAINING	20 A	1			1250 VA	500 VA	1	20 A	FACP	16
17	(E) FUEL OIL PUMP 1/2 HP	20 A	1	950 VA	0 VA			--	--	(E) SPACE	18
19	(E) SPARE	20 A	1			0 VA	0 VA	--	--	(E) SPACE	20
21	(E) SPARE	20 A	1	0 VA	0 VA			--	--	(E) SPACE	22
23	(E) SPARE	20 A	1			0 VA	0 VA	--	--	(E) SPACE	24
25											26
27											28
29											30
31											32
33											34
35											36
37											38
39											40
41											42
	TOTAL LOAD:			7775 VA		7189 VA					
	TOTAL AMPS:			65 A		60 A					

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	EST. DEMAND	PANEL TOTALS	
Spare	14220 VA	100.00%	14220 VA		
LIGHTING	744 VA	125.00%	930 VA	TOTAL CONN. LOAD:	744 VA
				TOTAL EST. DEMAND:	930 VA
				TOTAL CONN.:	3 A
				TOTAL EST. DEMAND:	4 A

NOTES:

BRANCH PANEL: A

LOCATION: STORAGE 112
SUPPLY FROM:
MOUNTING: SURFACE
ENCLOSURE: NEMA 1

VOLTS: 120/208 Wye
PHASES: 3
WIRES: 4

A.I.C. RATING: 10K
MAINS TYPE:
MAINS RATING: 225 A

CKT	CIRCUIT DESCRIPTION	TRIP	POLES	A		B		C		POLES	TRIP	CIRCUIT DESCRIPTION	CKT
1	(E) REC. APPARATUS ROOM	--	--	0 VA	0 VA					--	--	(E) AC UNIT	2
3	(E) SPRINKLER CLOCK	--	--			0 VA	0 VA			--	--	(E) AC UNIT	4
5	(E) HOSE, MECH, TTIS	--	--					0 VA	0 VA	--	--	(E) GARBAGE DISPOSAL	6
7	(E) REST ROOM LIVING ROOM	--	--	0 VA	0 VA					--	--	(E) SMALL APPLIANCES	8
9	**CO DORMITORIES**	20 A	1			**540 VA**	0 VA			--	--	(E) FUEL PUMP	10
11	(E) CAPT. REST ROOM	--	--					0 VA	0 VA	--	--	(E) UNIT HEATER	12
13	(E) AIR COMPRESSOR	--	--	0 VA	0 VA					--	--	(E) UNIT HEATER	14
15	(E) AIR COMPRESSOR	--	--			0 VA	0 VA			--	--	(E) EXTERIOR LIGHTS	16
17	(E) CONDENSOR UNIT	--	--					0 VA	0 VA	--	--	(E) ROOFTOP GFI	18
19	(E) CONDENSOR UNIT	--	--	0 VA	0 VA					--	--	(E) ROOFTOP GFI	20
21	(E) KITCHEN RANGE	--	--			0 VA	0 VA			1	20 A	(E) SPARE	22
23	(E) KITCHEN RANGE	--	--					0 VA	0 VA	--	--	(E) EXHAUST SYSTEM	24
25	(E) SIGN	--	--	0 VA	0 VA					--	--	(E) EXHAUST SYSTEM	26
27	(E) SMALL APPLIANCES...	--	--			0 VA	0 VA			--	--	(E) AC UNIT	28
29	(E) SMALL APPLIANCES...	--	--					0 VA	0 VA	--	--	(E) AC UNIT	30
31	**CO RESTROOMS**	20 A	1	**460 VA**	0 VA					--	--	(E) SOUTH ATTIC HEATERS	32
33	(E) ROOF EXHAUST FANS	--	--			0 VA	0 VA			--	--	(E) SOUTH ATTIC HEATERS	34
35	**CO DORMITORIES**	20 A	1					**720 VA**	0 VA	--	--	(E) RANGE	36
37	**EXHAUST FANS**	20 A	1	**148 VA**	0 VA					--	--	(E) ATTIC HEATERS CENTER	38
39	(E) AC UNIT	--	--			0 VA	0 VA			--	--	(E) ATTIC HEATERS CENTER	40
41	(E) AC UNIT	--	--					0 VA	0 VA	1	20 A	(E) SPARE	42
	TOTAL LOAD:			608 VA		540 VA		720 VA					
	TOTAL AMPS:			5 A		5 A		6 A					

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	EST. DEMAND	PANEL TOTALS	
EQUIPMENT	198 VA	100.00%	198 VA		
RECEPTACLE	1670 VA	100.00%	1670 VA	TOTAL CONN. LOAD:	1868 VA
				TOTAL EST. DEMAND:	1868 VA
				TOTAL CONN.:	5 A
				TOTAL EST. DEMAND:	5 A

NOTES:

COMcheck Software Version 4.1.4.1
Interior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: Sparks Fire Station 2 Dormitory Remodel
Project Type: Alteration

Construction Site:
2900 N Truckee Lane
SPARKS, NV 89434

Owner/Agent:
Rob Bidart
City of Sparks
Sparks, NV
rbidart@cityofsparks.us

Designer/Contractor:
Kimley-Horn & Associates
5370 Kietzke Lane
Suite 100
Reno, NV 89511
775-200-1970
joe.nielsen@kimley-horn.com

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-SPARKS FIRE STATION 2 DORMITORY REMODEL (Fire Station)	1600	0.53	848
		Total Allowed Watts =	848

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
SPARKS FIRE STATION 2 DORMITORY REMODEL (Fire Station 1600 sq.ft.)				
L1,L1E: LED Panel 33W:	1	21	33	693
D1: 6" LED Down Light: Other:	1	8	12	96
			Total Proposed Watts =	789

Interior Lighting PASSES

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.4.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

DUSTIN COLWELL - ENGINEER OF RECORD — Name - Title
Signature
06/08/2021 — Date

Project Title: Sparks Fire Station 2 Dormitory Remodel — Report date: 09/18/20
Data filename: K:\REN_Mechanical\192079008 Sparks Fire Station _2 Dormatory Remodel\Calculations\ELEC IECC.cck — Page 1 of 6

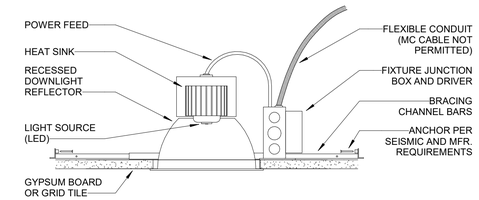
LIGHTING CONTROLS LEGEND

- - - - - - -	LOW VOLTAGE CONTROLS CABLING (BY OTHERS)
———	LINE VOLTAGE CONDUIT AND CONDUCTORS
S1	DIMMING SWITCH, 0-10V DIMMING, 4-BUTTON - ON/OFF/RAISE/LOWER (LITHONIA SPODM-D-WH OR APPROVE EQUAL)
S2	DIMMING SWITCH W/ INTEGRAL OCCUPANCY SENSOR (LITHONIA WSX-PDT-D-WH OR APPROVED EQUAL)

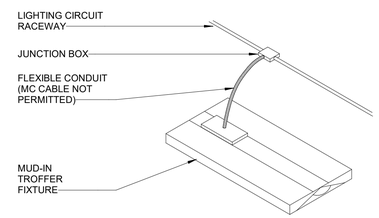
LIGHTING CONTROLS SEQUENCE OF OPERATIONS

1. GENERAL
   1. ALL LIGHTING SHALL BE HIGH EFFICIENCY LED WITH DIMMING CONTROLS. OWNER SHALL HAVE THE ABILITY TO REDUCE TOTAL LUMEN OUTPUT AS DESIRED.
   2. ALL EMERGENCY LIGHTING SHALL BE EMERGENCY BATTERY BACKUP EITHER REMOTELY MOUNTED OR INTEGRAL TO THE FIXTURE. FIXTURES WITH EMERGENCY BATTERY BACKUP ARE INDICATED ON THE PLANS. PROVIDE WITH INTEGRAL TEST SWITCH.
   3. INTERIOR LIGHTING CONTROLS SHALL BE LOW VOLTAGE, 0-10V DIMMING COMPATIBLE.
   4. DAYLIGHTING
      A. FIXTURES SPECIFIED WITH DAYLIGHTING CONTROLS SHALL BE INTEGRAL TO THE FIXTURE TO BE CONTROLLED BY AUTOMATIC PHOTOCELL DIMMING AS REQUIRED IN THE 2018 IECC.
   5. OCCUPANCY
      A. ALL LIGHTING SHALL BE CONTROLLED BY AUTOMATIC OFF/AUTOMATIC ON OCCUPANCY SENSOR CONTROLS, AS PERMITTED UNDER 2018 IECC. CONTRACTOR SHALL COORDINATE WITH END USER TO SET DELAY TIMES FOR OCCUPANCY SENSORS TO A MAXIMUM OF 30 MINUTES.
      B. THE LIGHTING IN THE HALLWAYS, LOBBIES, AND OTHER EGRESS AREAS SHALL BE HAVE NO OCCUPANCY SENSOR CONTROLS AS PERMITTED BY THE 2018 IECC.

3 LIGHTING CONTROLS SEQUENCE OF OPERATIONS
SCALE: 1/8" = 1'-0"



2 RECESSED DOWNLIGHT MOUNTING DETAIL
SCALE: 1/8" = 1'-0"



1 RECESSED TROFFER MOUNTING DETAIL
SCALE: 1/8" = 1'-0"

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DUSTIN COLWELL — No. 22254 — STATE OF NEVADA — REGISTERED PROFESSIONAL ENGINEER — ELECTRICAL — Exp. 12/31/2021

06/17/2021

ELECTRICAL SCHEDULES & DETAILS

e602

SPARKS FIRE STATION 2 DORMITORY REMODEL

City of Sparks

2900 N Truckee Lane
Sparks, NV 89434

No.	Description	Date

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