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.

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.

INSTALL

## GENERAL NOTES

1. THESE GENERAL NOTES PERTAIN TO WORK DESCRIBED ON ALL CONTRACT DOCUMENTS.

14. THE CONTRACTOR SHALL PURSUE WORK IN A CONTINUOUS AND DILIGENT MANNER TO INSURE TIMELY COMPLETION OF THE PROJECT.

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

## PROPERTY INFORMATION

ADDRESS	431 PRATER WAY, SPARKS NV 89431			
APN	033-183-02			
BLOCK	С			
LOT	183			
SUBDIVISION	CANTLON TRACT			
ZONE	GENERAL COMMERCIAL			
F.A.R.	EXISTING			

## DESIGN CRITERIA

PER CITY OF SPARKS, BASED ON THE 2018 BUILDING CODES:

2010 ADA STANDARDS

- 2018 INTERNATIONAL BUILDING CODE
- 2018 UNIFORM MECHANICAL CODE 2018 UNIFORM PLUMBING CODE
- 2018 INTERNATIONAL ENERGY CONSERVATION CODE
- 2018 INTERNATIONAL EXISTING BUILDING CODE

2017 NATIONAL ELECTRICAL CODE

2018 NORTHERN NEVADA AMENDMENTS

OCCUPANCY GROUP NON-SEPARATED OR SEPARATED USES	В
CONSTRUCTION TYPE	III-B
FULLY SPRINKLERED	YES

## SCOPE OF WORK

INTERIOR IMPROVEMENTS CONSISTING OF REMOVING AND/OR ADDING WALLS, DOORS, CASEWORK, LIGHTING, ELECTRICAL, PLUMBING, AND MECHANICAL, INCLUSIVE OF ADA UPGRADES, FOR THE FOLLOWING AREAS:

- 1. CITY HALL CLERK/CUSTOMER SERVICE AREA
- 2. BUILDING DEPARTMENT MAIL ROOM AND MAIN LEVEL FINANCE OFFICES 3. BASEMENT FINANCE & CUSTOMER SERVICE OFFICES
- 4. I.T. OFFICES 5. NORTHEAST RESTROOMS

SEE SHEET a200 FOR KEY PLAN OF SPECIFIED AREAS.

VICINITY MAP

SITE



## OWNER **CITY OF SPARKS** (775) 224-2976

(775) 507-7200

(775) 787-7552

FORMGREY STUDIO LLC 650 SOUTH ROCK BOULEVARD #14, RENO NV 89502 NHUDSON@FORMGREY.COM

## PROJECT TEAM

431 PRATER WAY, SPARKS NV 89431 ROB BIDART: RBIDART@CITYOFSPARKS.US

ARCHITECTURAL

## MECHANICAL, PLUMBING, & ELECTRICAL

KIMLEY-HORN AND ASSOCIATES, INC. 5370 KIETSKE LAND, SUITE 100, RENO NV 89511

MATT MYRES: MATT.MYRES@KIMLEY-HORN.COM

# SEPARATE SUBMITTALS

FIRE SPRINKLER SUBMITTAL

## **CITY ENGINEER**

ION R. ERICSON, PE, P.T.O.E.

DATE

# SHEET INDEX

GENERAL a001 TITLE SHEET

## ARCHITECTURAL

- a002 GENERAL CONSTRUCTION NOTES AND GENERAL SPECIFICATIONS a003.1 GENERAL ACCESSIBILITY DETAILS 1
- a003.2 GENERAL ACCESSIBILITY DETAILS 2
- a200 KEY PLANS
- a201 NEW FINANCE OFFICE & BUILDING DEPT. MAIL ROOM
- a202 CLERK/CUSTOMER SERVICE - PLANS, SECTIONS, ELEVATIONS **RESTROOMS - PLANS, SECTIONS, ELEVATIONS**
- a203 a204 I.T. OFFICES - PLANS, SECTIONS, ELEVATIONS
- a205 BASEMENT CUSTOMER SERVICE OFFICES - PLANS, SECTIONS, ELEVATIONS

## STRUCTURAL

- S-0 **SPECIFICATIONS**
- FRAMING PLANS S-1 S-2 FRAMING DETAILS

## MECHANICAL

- MECHANICAL SYMBOLS AND LEGEND m001
- m002 MECHANICAL SPECIFICATIONS
- m100 OVERALL PLAN m101 CUSTOMER SERVICE MECHANICAL DEMO PLAN
- I.T. OFFICES MECHANICAL DEMO PLAN m102
- m103 FINANCIAL OFFICES MECHANICAL DEMO PLAN
- BASEMENT MECHANICAL DEMO PLAN m104
- m201 CUSTOMER SERVICE MECHANICAL PLAN m202 I.T. OFFICES MECHANICAL PLAN
- m203 FINANCE OFFICES MECHANICAL PLAN
- m204 BASEMENT MECHANICAL PLAN

## PLUMBING

- p001 PLUMBING SYMBOLS AND LEGENDS
- p002 PLUMBING SPECIFICATIONS p101 FINANCE RESTROOM PLUMBING DEMO PLAN
- p201 FINANCE RESTROOM PLUMBING PLAN
- p600 PLUMBING DETAILS ELECTRICAL

e001	ELECTRICAL SYMBOL LEGEND & DRAWING SCHEDULE
e002	ELECTRICAL SPECIFICATIONS
e101	OVERALL ELECTRICAL POWER PLANS
e201	ELECTRICAL PLANS - CLERKS MAIN LEVEL
e202	ELECTRICAL PLANS - CLERKS BASEMENT
e203	ELECTRICAL PLANS - CLERKS BASEMENT
e204	ELECTRICAL PLANS - FINANCE OFFICES
e205	ELECTRICAL PLANS - FINANCE OFFICES
e206	ELECTRICAL PLANS - FINANCE RESTROOMS
e207	ELECTRICAL PLANS - I.T. OFFICES
e208	ELECTRICAL PLANS - I.T. OFFICES
e601	ELECTRICAL SCHEDULES & DETAILS
e602	ELECTRICAL PANEL SCHEDULES
e603	ELECTRICAL PANEL SCHEDULES

## TITLE SHEET, PROJECT INFORMATION, CODES





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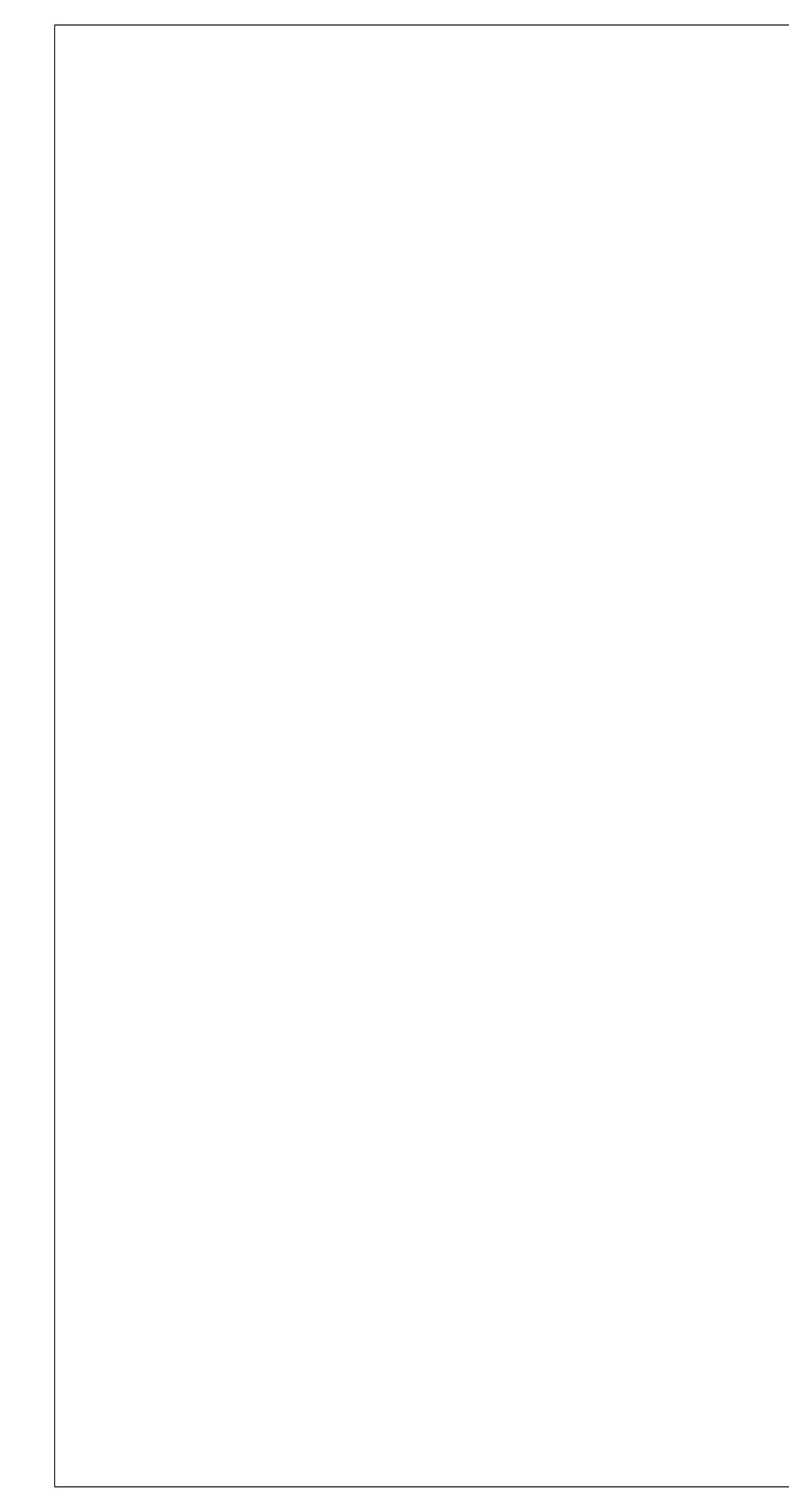
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> 431 Prater Way Sparks NV 89431



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## GENERAL CONSTRUCTION NOTES & GENERAL SPECIFICATIONS

## DIVISION 1 - GENERAL REQUIREMENTS: THE ARCHITECT.

B. ALL DIMENSIONS ARE TO FACE OF STUD OR STRUCTURE UNLESS NOTED OTHERWISE.

## **DIVISION 2 - EXISTING CONDITIONS:**

DIVISION 3 - CONCRETE: NOT A PART

**DIVISION 4 - MASONRY:** 

NOT A PART

#### **DIVISION 5 - METALS:** A. STRUCTURAL STEEL FRAMING

DIVISION 6 - WOOD, PLASTICS, AND COMPOSITES: A. ROUGH CARPENTRY: SEE DRAWINGS FOR EXISTING WOOD FRAMED WALL(S) TO BE REMOVED AND RE-BUILT. ALL

- OTHER EXISTING WALLS TO REMAIN.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION: A. SOUND BATT INSULATION AS SHOWN ON DRAWINGS.

#### DIVISION 8 - OPENINGS:

- DOOR NOTES:
- EXISTING/NEW OPENING(S).

#### DIVISION 9 - FINISHES: GENERAL:

- AND PRODUCT USED.

#### FINISH NOTES:

- PERMISSIBLE BY BUDGET UNLESS NOTED OTHERWISE.
- PROJECT TO BE LOW VOC CONTENT.
- E. PAINT: COLOR SW1641, ACRYLIC SEMI-GLOSS
- F. <u>BASE:</u> BURKE, COLOR 523 "BLACK/BROWN", 4", TYPE TS RUBBER COVE
- J. <u>CEILING TILES:</u> ARMSTRONG CORTEGA 769A 24"x48" ACOUSTIC TILE CEILING SYSTEM

#### NON-STRUCTURAL METAL FRAMING:

THE INSTALLATION OF NON-STRUCTURAL STEEL FRAMING SHALL COMPLY WITH ASTMC754. A. FRAMING SYSTEM: Z-FURRING: IN DEPTH REQUIRED BY INSULATION, 1-1/4-INCH (32-MM) FACE FLANGE, 7/8-INCH (22-MM) WALL-ATTACHMENT FLANGE, AND 0.018 INCH (0.45 MM) THICK. B. ACCESSORIES: INSTALL SUPPLEMENTARY FRAMING, AND BLOCKING TO SUPPORT FIXTURES, EQUIPMENT SERVICES,

WALL BOARD: ALL NEW INTERIOR WALL AND CEILING FACES ARE TO BE SHEATHED WITH 5/8" MOLD/MOISTURE AND IMPACT RESISTANT GYPSUM BOARD, SEE DRAWINGS. SCREW ALL GYPSUM BOARD TO WALL STUDS, PLATES, BLOCKING, ETC. WITH BUGLE HEAD DRY WALL SCREWS AT 6"o.c. TAPE, TEXTURE, AND PAINT GYPSUM BOARD ACCORDING TO INTERIORS FINISH SCHEDULE. ALL DRYWALL CORNERS TO BE METAL 90 DEGREE SQUARE CORNERS. A. WALLS: ALL INTERIOR WALLS SHALL RECEIVE SMOOTHEST FINISH PERMISSIBLE BY BUDGET. PAINT PER FINISH

MATERIAL SCHEDULE. B. CEILINGS AT BATHROOMS: ALL EXISTING INTERIOR CEILINGS TO REMAIN AS NOTED. PREPARE CEILING SURFACE FOR NEW FINISH. CEILINGS SHALL RECEIVE SMOOTHEST FINISH PERMISSIBLE BY PAINT MANUFACTURER. INTERIOR PAINT: ALL INTERIOR PAINT SHALL BE SHERWIN WILLIAMS INTERIOR ACRYLIC LATEX SEMI-GLOSS, COLOR: SW1011 WHITE.

#### FINISHED CEILINGS:

EXISTING GYPSUM BOARD CEILINGS: EXISTING CEILING SURFACE SHALL BE PREPARED FOR NEW PAINT. SEE MANUFACTURER'S INSTRUCTIONS. EXISTING SUSPENDED CEILINGS: EXISTING SUSPENDED CEILINGS TO REMAIN SHALL BE PROTECTED IN PLACE FROM DAMAGE DUE TO NEW CONSTRUCTION. NEW SUSPENDED CEILINGS:

1. MANUFACTURER: ARMSTRONG CEILINGS.

## **DIVISION 10 - SPECIALTIES:**

TOILET, BATH, AND SPECIALTIES - SEE SHEET a203

#### **DIVISION 11 - EQUIPMENT:** NOT A PART

**DIVISION 12 - FURNISHINGS:** 

NOT A PART

## DIVISION 13 - SPECIAL CONSTRUCTION:

NOT A PART

#### DIVISION 14-21 - NOT USED

#### DIVISION 22 - PLUMBING: TOILET, BATH, AND SPECIALTIES - SEE SHEET a203

DIVISION 23 - HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)

- MECHANICAL NOTES:
- B. EXHAUST FANS: SEE MECHANICAL.

#### DIVISION 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. A. LIGHTING: LITHONIA 'EPANL' FLAT PANEL LED LIGHT FIXTURES, 2'x2'.

B. SECURE ACCESS CONTROL: PER OWNER.

A. ALL DIMENSIONS ARE TO BE FIELD VERIFIED. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF

A. DEMOLITION: INCLUDES DEMOLITION AND REMOVAL OF SELECTED PORTIONS OF THE BUILDING.

1. DIMENSIONAL LUMBER SHALL BE CONSTRUCTION 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.

A. DOORS AND WINDOWS: ALL EXISTING DOORS AND WINDOWS TO REMAIN U.N.O.

1. EXISTING DOORS ARE INDICATED IN DRAWINGS TO BE REMOVED, REFINISHED AND/OR REINSTALLED INTO

2. ALL DOOR HARDWARE SHALL BE AS INDICATED IN "DOOR HARDWARE SCHEDULE".

A. SUBMITTALS: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL

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.

A. USE FIBERGLASS REINFORCED MESH JOINT TAPE AT ALL GYPSUM WALL BOARD JOINTS. B. ALL INTERIOR WALLS AND PATCHED WALLS (AND RESTROOM CEILINGS) SHALL RECEIVE SMOOTHEST FINISH

C. ALL PAINTS AND PRIMERS SHALL BE ZERO VOC CONTENT. MISCELLANEOUS ADHESIVES AND SEALANTS WITHIN

D. ALL INTERIOR FINISH MATERIAL SELECTIONS SHALL BE APPROVED BY OWNER.

G. STAIN: COLOR "FRUITWOOD", SHERWIN WILLIAMS OIL BASED SW3204 H. <u>CARPET:</u> LEES "FLAMESTITCH III", 879 NEEDLEPOINT CARPET TILE. USE MANUFACTURER SPECIFIED ADHESIVE.

HEAVY TRIM, GRAB BARS, TOILET ACCESSORIES, FURNISHINGS, OR SIMILAR CONSTRUCTION.

2. PRODUCT LINE: 769A CORTEGA SQUARE LAY-IN, FLAT WHITE 24" x 48", 15/16" GRID. 3. SUBMITTALS: SUBMIT MANUFACTURER'S PRODUCT LITERATURE FOR REVIEW BY OWNER OR ARCHITECT.

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.

GENERAL CONSTRUCTION NOTES AND GENERAL SPECIFICATIONS





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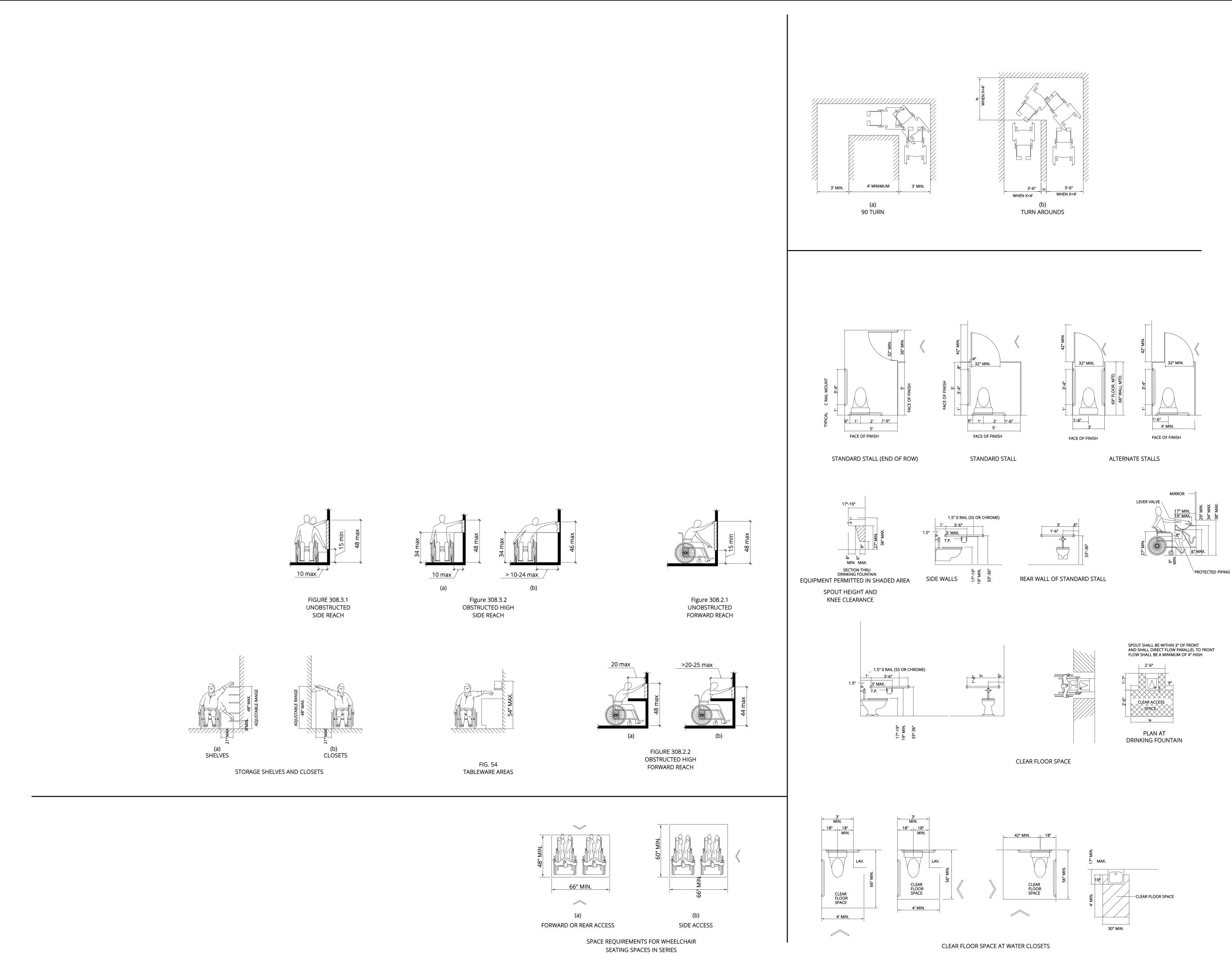
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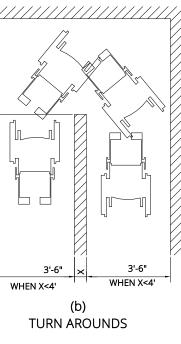
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GENERAL ACCESSIBILITY DETAILS 1

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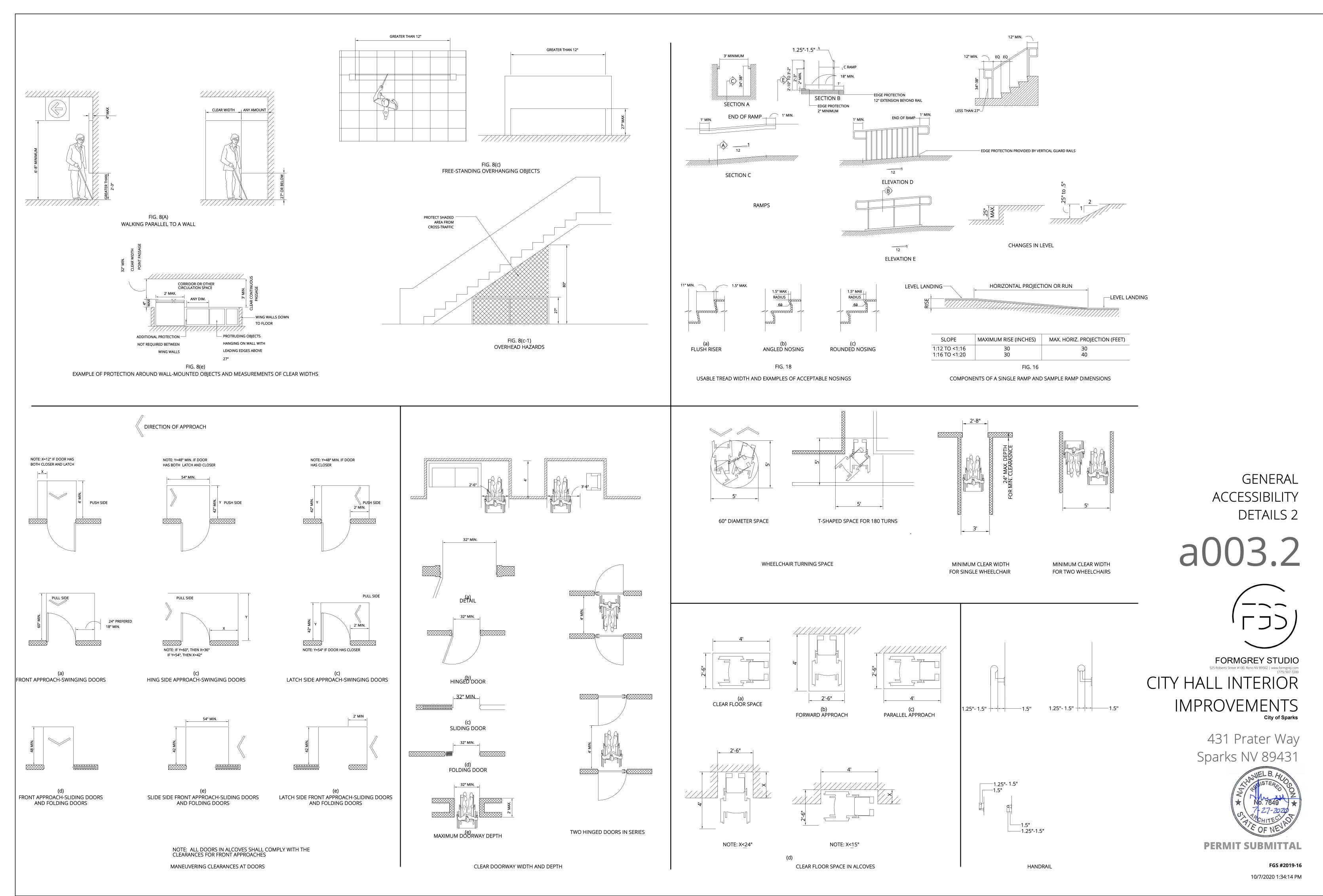
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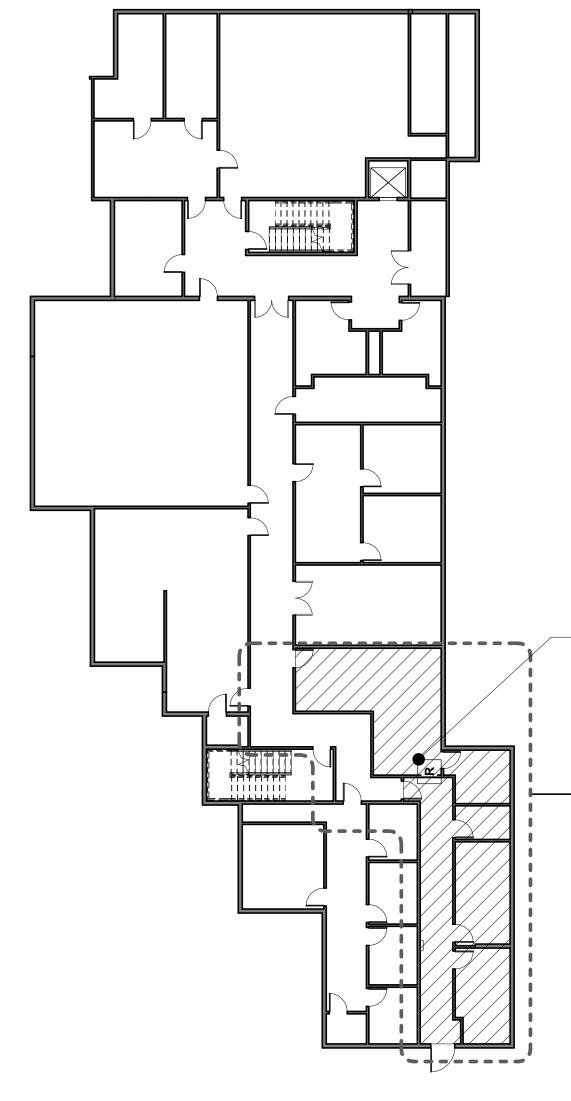


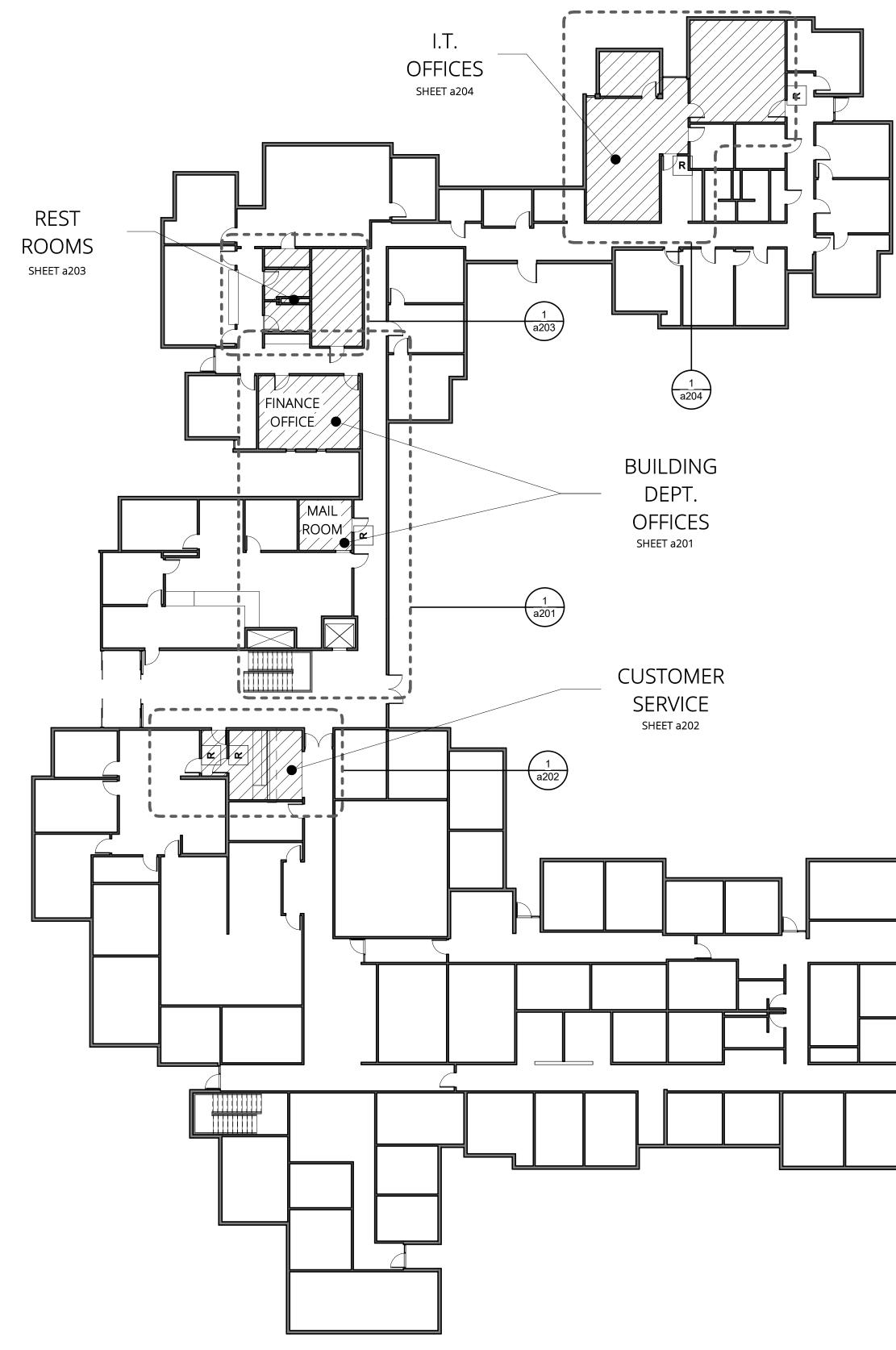
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OVERALL BASEMENT LEVEL KEY PLAN







1 a205





# KEY PLANS a200



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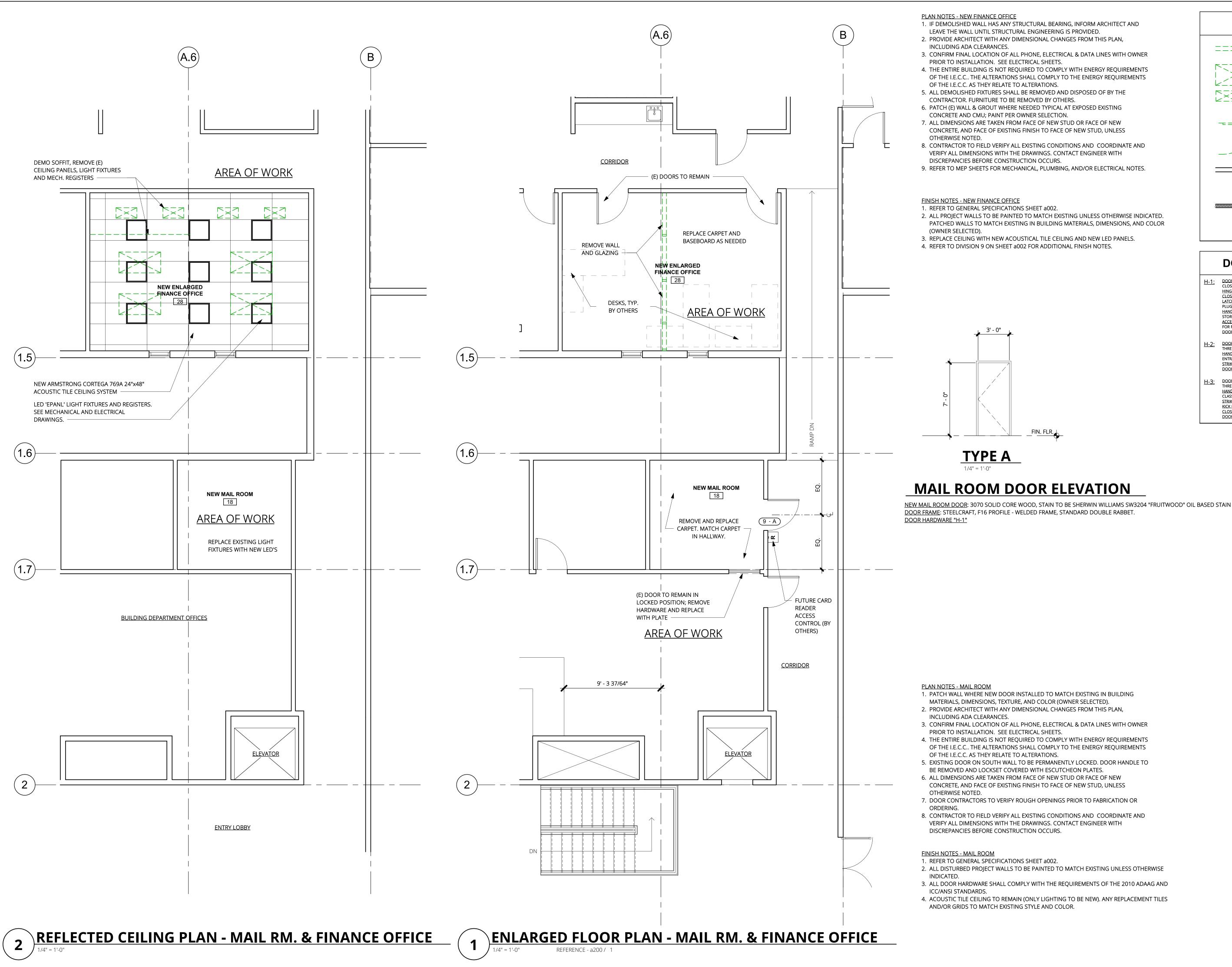
IMPROVEMENTS City of Sparks

> 431 Prater Way Sparks NV 89431



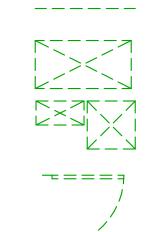
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WALL TO BE REMOVED



\_\_\_\_

FIXTURE TO BE REMOVED

DOOR TO BE REMOVED

EXISTING WALL TO REMAIN

NEW WALLS: 3 5/8" METAL STUDS @ 16" O/C WITH 5/8" EACH SIDE; FULL HEIGHT TO CEILING EVERY OTHER STUD TO STRUCTURE ABOVE; R-11 SOUND ATTENUATION BATT INSULATION WHERE INDICATED; 5/8" WATER RESISTANT GYP. BD. IN WET AREAS.

## DOOR HARDWARE SCHEDULE

- H-1: DOOR FRAME: STEELCRAFT, F16 PROFILE WELDED FRAME, STANDARD DOUBLE RABBET (PROVIDE CLOSER REINFORCEMENT). HINGES: THREE HAGER BB1279, 4-1/2" X 4-1/2" BALL BEARING, 5 KNUCKLE STEEL HINGE. CLOSING DEVICE: LCN 4040XP SERIES (PARALLEL ARM PUSH SIDE), ALUMINUM FINISH. LATCH: HES 9600 SERIES, SURFACE MOUNTED ELECTRIC STRIKE (COLOR 630) WITH 9000-MTK PLUG-IN BRIDGE RECTIFIER. HANDLE AND LOCK: SCHLAGE ND80PD X RHODES S626, W/ SCHLAGE LARGE FORMAT IC CORE, STOREROOM LOCK
- ACCESS CONTROL (WHERE INDICATED): INSTALL CONDUIT FROM CEILING TO BOX ON LATCH SIDE FOR FUTURE ACCESS CONTROL READER TO BE STALLED BY OTHERS. ALSO SEE ELECTRICAL. DOOR STOP: IVES WALL BUMPER WS406/407-CCV, US26, OR IVES FLOOR MOUNTED 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 ND53PD X RHODES S626, W/ SCHLAGE LARGE FORMAT IC CORE, ENTRANCE LOCK. STRIKE PLATE: 2-3/4" LONG T-STRIKE PLATE. DOOR STOP: IVES WALL BUMPER WS406/407-CCV, US26, OR IVES FLOOR MOUNTED
- 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

KICK PLATE: 8" H X 34" W W/ RIVET INSTALL, SATIN CHROME CLOSING DEVICE: LCN 4040XP SERIES (PARALLEL ARM PUSH SIDE), ALUMINUM FINISH. DOOR STOP: IVES WALL BUMPER WS406/407-CCV, US26, OR IVES FLOOR MOUNTED

## NEW FINANCE OFFICE & BUILDING DEPT. MAIL ROOM





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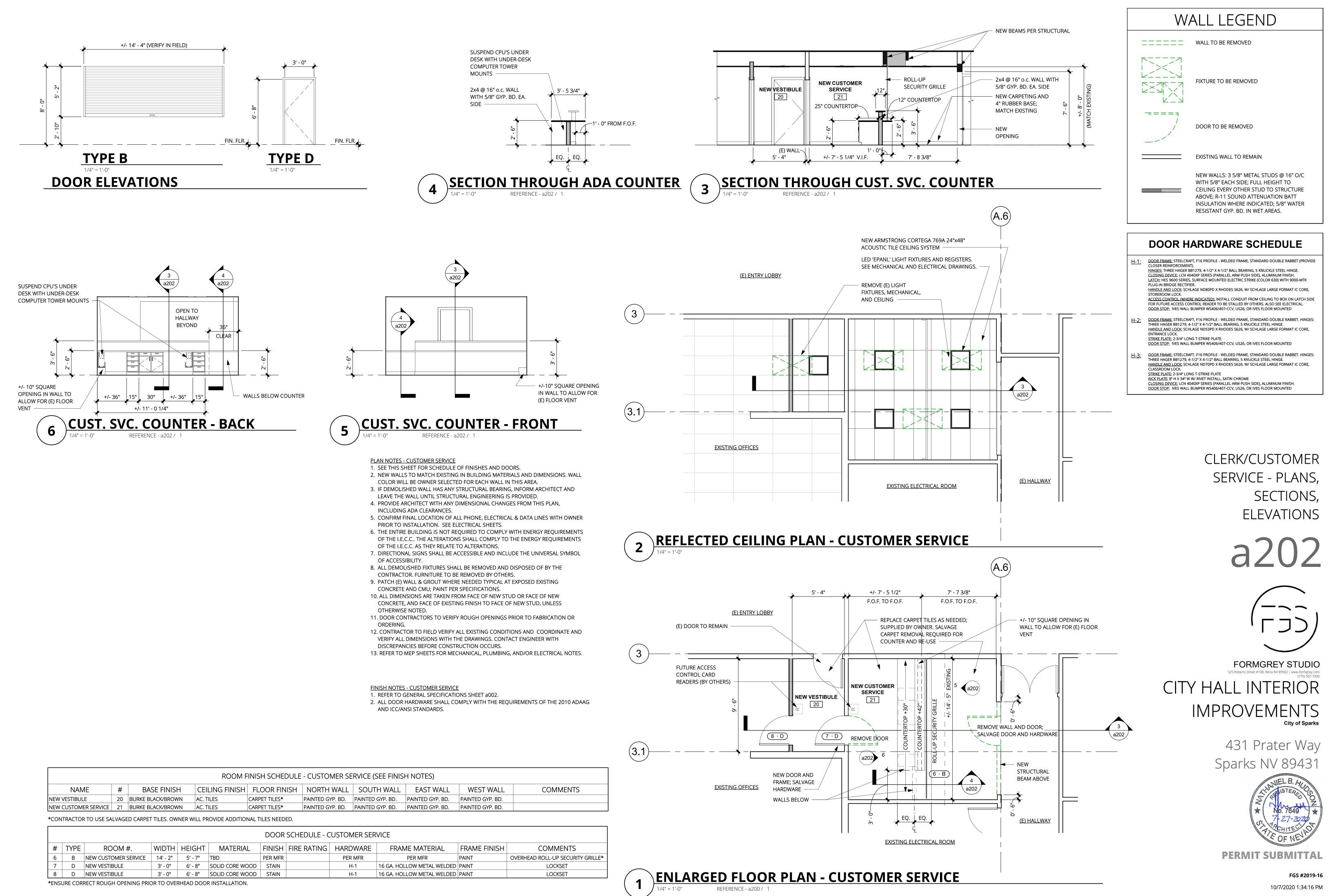
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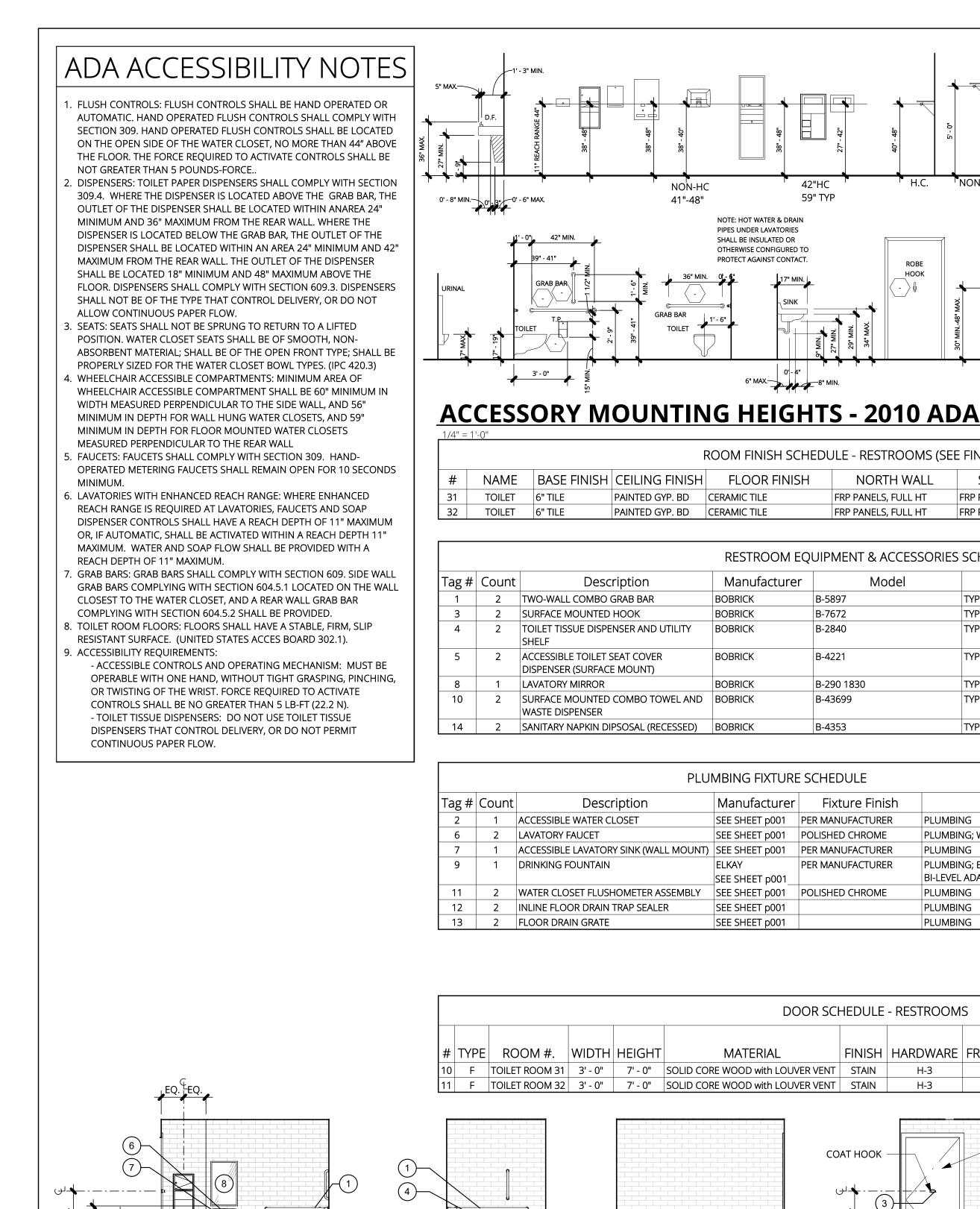
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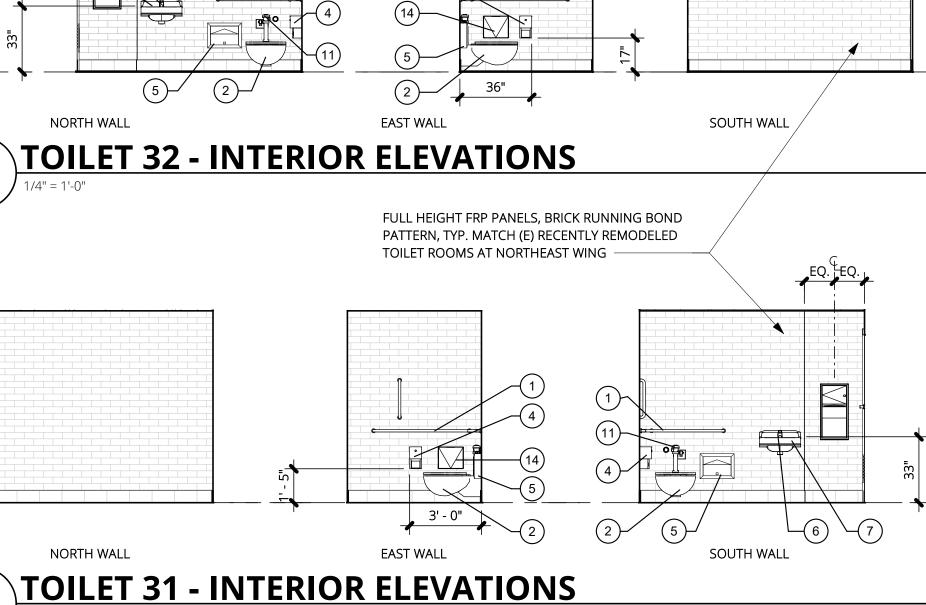
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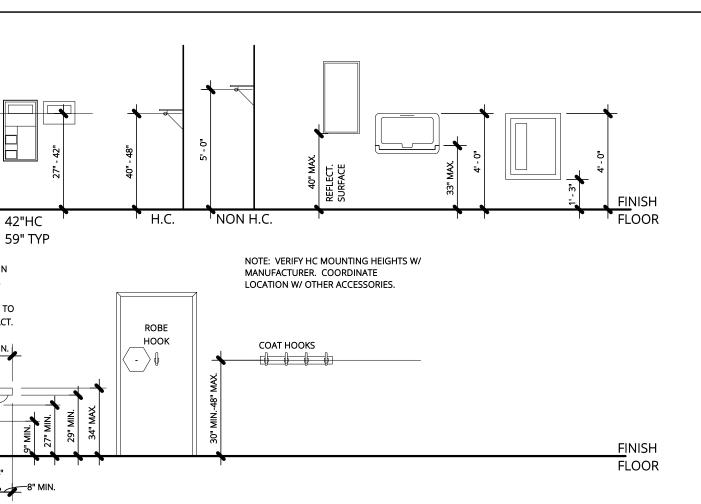
ALL	WEST WALL	COMMENTS
. BD.	PAINTED GYP. BD.	
. BD.	PAINTED GYP. BD.	

AL	FRAME FINISH	COMMENTS
	PAINT	OVERHEAD ROLL-UP SECURITY GRILLE*
VELDED	PAINT	LOCKSET
VELDED	PAINT	LOCKSET





3



ι	JLE - RESTROOMS (SEE	E FINISH NOTES)		
	NORTH WALL	SOUTH WALL	EAST WALL	WEST WALL
	FRP PANELS, FULL HT	FRP PANELS, FULL HT	FRP PANELS, FULL HT	FRP PANELS, FULL HT
	FRP PANELS, FULL HT	FRP PANELS, FULL HT	FRP PANELS, FULL HT	FRP PANELS, FULL HT

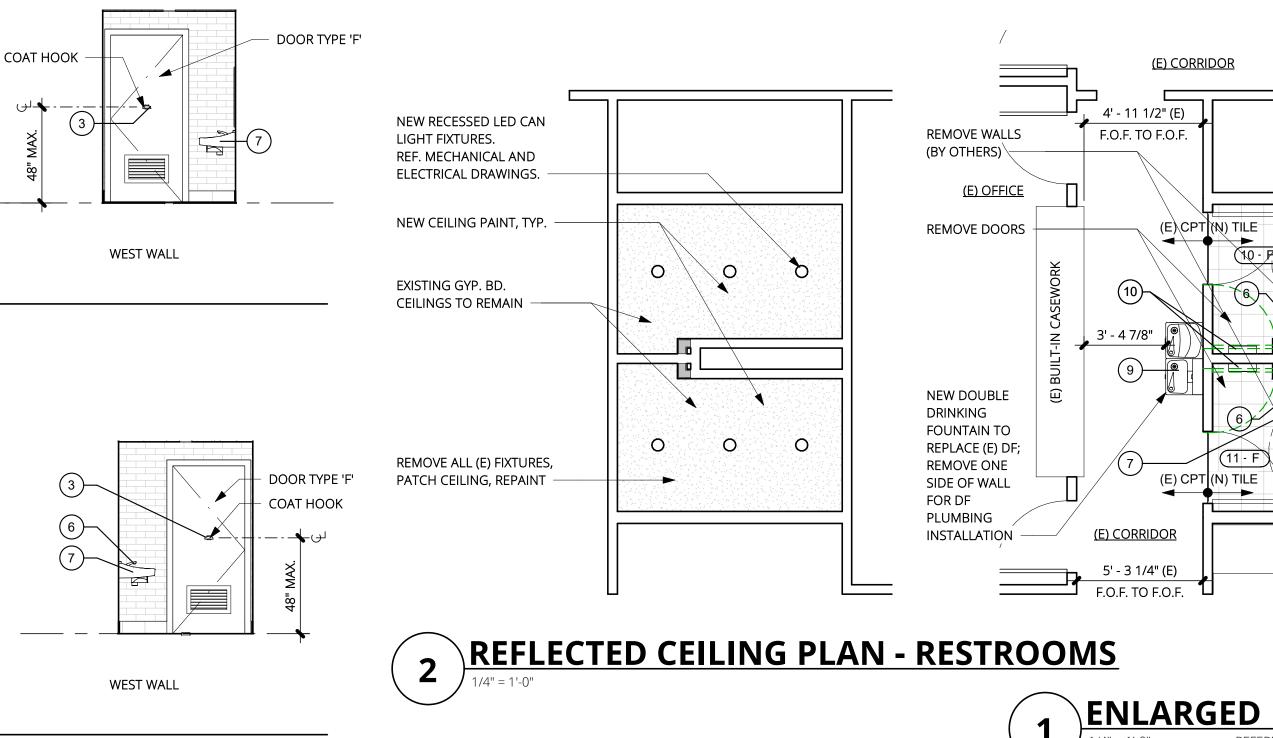
#### **RESTROOM EQUIPMENT & ACCESSORIES SCHEDULE**

<u> </u>							
	Model	Fixture Finish	Comments				
	B-5897	TYPE 304 SS, SATIN FINISH					
	B-7672	TYPE 304 SS, SATIN FINISH					
	B-2840	TYPE 304 SS, SATIN FINISH					
	B-4221	TYPE 304 SS, SATIN FINISH					
	B-290 1830	TYPE 304 SS, SATIN FINISH	18"x30" STAINLESS STEEL,WELDED FRAME				
	B-43699	TYPE 304 SS, SATIN FINISH					
	B-4353	TYPE 304 SS, SATIN FINISH					

CHEDULE	
Fixture Finish	Comments
R MANUFACTURER	PLUMBING
DLISHED CHROME	PLUMBING; WITH MIXING VALVE
R MANUFACTURER	PLUMBING
R MANUFACTURER	PLUMBING; BOTTLE FILLING STATION and BI-LEVEL ADA COOLER
DLISHED CHROME	PLUMBING
	PLUMBING
	PLUMBING

## DOOR SCHEDULE - RESTROOMS

			FRAME	
FINISH	HARDWARE	FRAME MATERIAL	FINISH	COMMENTS
STAIN	H-3	HOLLOW METAL	PAINT	DEADBOLT/VACANT OR IN USE LOCK
STAIN	H-3	HOLLOW METAL	PAINT	DEADBOLT/VACANT OR IN USE LOCK



**DEMOLITION NOTES - RESTROOMS (BY OTHERS)** 

- 1. REMOVAL OF (E) TILE/CARPET/VCT FLOORING AND COVE BASE AND ANY REQUIRED ASBESTOS AND/OR MOLD ABATEMENT TO BE DONE BY OTHERS AND IS NOT IN THIS PROJECT SCOPE.
- 2. COMPLETE REMOVAL OF ALL MOUNTED FIXTURES BY OTHERS AND IS NOT IN THIS PROJECT SCOPE. OWNER TO DETERMINE IF REUSED, DISPOSED OR TO BE RETURNED TO OWNER FOR STORAGE. COMPLETE REMOVAL OF WAINSCOT AND MOLDINGS BY OTHERS.
- 3. DOOR AND DOOR HARDWARE TO BE REMOVED COMPLETELY AND DISPOSED. 4. DRINKING FOUNTAIN TO BE REMOVED BY OTHERS COMPLETELY AND DISPOSED.
- 5. COMPLETE REMOVAL OF ALL ACCESSORIES BY OTHERS AND IS NOT IN THIS PROJECT SCOPE.
- 6. ALL DAMAGED SUBFLOOR AND/OR FRAMING TO BE REPLACED BY OTHERS AND IS NOT IN THIS PROJECT SCOPE.

FINISH NOTES - RESTROOMS

- 1. REFER TO GENERAL SPECIFICATIONS SHEET a002.
- 2. ALL FLOOR TILE TO MATCH EXISTING COLOR AND TEXTURE (IN EXISTING REMODELED COMMUNITY SERVICES RESTROOMS IN ADJACENT BUILDING) UNLESS OTHERWISE INDICATED.
- FINISHES RESTROOMS (MATCH EXISTING REMODELED TOILET ROOMS) A. TILE: MANUFACTURER AND LINE: DALTILE FLOOR TILE: COLOR "GRIS LINEN" - UNPOLISHED GLAZED PAVER TILE, SIZE: 12" X 24". PATTERN: INSTALL IN RUNNING-BOND PATTERN IN NORTH/SOUTH DIRECTION
- COVE BASE: GLAZED TILE. MATCH EXISTING REMODELED TOILET ROOM. COLOR; #0109, "ARCHITECTURAL GRAY", SIZE: 6" X 6". B. WALLS: FRP, MARLITE, SYMMETRIX WITH SANI-COAT SUBWAY C100-G63
- WHITE OR APPROVED EQUAL. C. CEILING AND DOOR FRAME PAINT: SHERWIN-WILLIAMS SW1641 WHITE
- ORGANDY PROMAR 400 ZERO SEMI-GLOSS . PROVIDE ADA COMPLIANT FLOORING TRANSITIONS AS SPECIFIED AT ALL
- FLOORING TRANSITION AREAS. SEE ELEVATIONS AND ACCESSIBILITY PLANS FOR MOUNTING HEIGHTS.
- 5. REMOUNT EXISTING WASTE LINES TO NEW LOCATIONS AS INDICATED.
- 6. REMOUNT EXISTING DOMESTIC HOT AND COLD WATER LINES TO NEW LOCATIONS.
- 7. ALL DOOR HARDWARE SHALL COMPLY WITH THE REQUIREMENTS OF THE 2010 ADAAG AND ICC/ANSI STANDARDS.

16. INSTALLATION:

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. 17. 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. 18. CONTRACTOR TO PROTECT AND MAINTAIN EXISTING CORRIDOR. FIXTURES TO

REMAIN AND ALL FINISHES THROUGHOUT THE CONSTRUCTION. 29. INSTALL NEW MAIN COLD WATER SHUT-OFF VALVE FOR PROJECT AREA IN ADJACENT ELECTRICAL ROOM NEAR WATER HEATER.

NOTES.

11 - F

5' - 0" CLEAF

TOILET

32

-(12)

#### PLAN NOTES - RESTROOMS

1. SEE THIS SHEET FOR SCHEDULE OF FIXTURES AND ACCESSORIES. 2. NEW WALLS TO MATCH EXISTING IN BUILDING MATERIALS AND DIMENSION 3. CONTRACTOR TO PREP EXISTING FLOOR FOR NEW TILE.

4. IF DEMOLISHED WALL HAS ANY STRUCTURAL BEARING, INFORM ARCHITECT AND LEAVE THE WALL UNTIL STRUCTURAL ENGINEERING IS PROVIDED. 5. PROVIDE ARCHITECT WITH ANY DIMENSIONAL CHANGES FROM THIS PLAN,

INCLUDING ADA CLEARANCES. 6. ELEVATIONS FOR EACH TOILET ROOM ARE TYPICALLY THE SAME DIMENSIONS AND CONFIGURATIONS.

7. THE ENTIRE BUILDING IS NOT REQUIRED TO COMPLY WITH ENERGY REQUIREMENTS OF THE I.E.C.C.. THE ALTERATIONS SHALL COMPLY TO THE ENERGY REQUIREMENTS OF THE I.E.C.C. AS THEY RELATE TO ALTERATIONS. 8. WHERE BUILT IN STORAGE ELEMENTS ARE PROVIDED, AT LEAST ONE SHALL

COMPLY WITH (2009) ICC A117.1. 9. WHERE PROVIDED, COAT HOOKS AND SHELVES IN TOILET ROOMS AND DRESSING AREAS, AT LEAST ONE TYPE SHALL BE ACCESSIBLE AND PROVIDED IN ACCESSIBLE TOILET ROOMS AND DRESSING AREAS.

10. CONTROLS, OPERATING MECHANISMS, AND HARDWARE FOR OPERATION BY OCCUPANTS IN ACCESSIBLE SPACES, ALONG ACCESSIBLE ROUTES, OR PART OF ACCESSIBLE ELEMENTS SHALL BE ACCESSIBLE.

11. DIRECTIONAL SIGNS SHALL BE ACCESSIBLE AND INCLUDE THE UNIVERSAL SYMBOL OF ACCESSIBILITY. 12. ALL DIMENSIONS ARE TAKEN FROM FACE OF NEW STUD OR FACE OF NEW

CONCRETE, AND FACE OF EXISTING FINISH TO FACE OF NEW STUD, UNLESS OTHERWISE NOTED. 13. WINDOW AND DOOR CONTRACTORS TO VERIFY ROUGH OPENINGS PRIOR TO

FABRICATION OR ORDERING CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND COORDINATE AND VERIFY ALL DIMENSIONS WITH THE DRAWINGS. CONTACT ENGINEER WITH DISCREPANCIES BEFORE CONSTRUCTION OCCURS.

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

20. REFER TO MEP SHEETS FOR MECHANICAL, PLUMBING, AND/OR ELECTRICAL

WALL LEGEND

WALL TO BE REMOVED

\_\_\_\_

\_\_\_\_

FIXTURE TO BE REMOVED

DOOR TO BE REMOVED

EXISTING WALL TO REMAIN

NEW WALLS: 3 5/8" METAL STUDS @ 16" O/C WITH 5/8" EACH SIDE; FULL HEIGHT TO CEILING EVERY OTHER STUD TO STRUCTURE ABOVE; R-11 SOUND ATTENUATION BATT INSULATION WHERE INDICATED; 5/8" WATER RESISTANT GYP. BD. IN WET AREAS.

## DOOR HARDWARE SCHEDULE

DOOR FRAME: STEELCRAFT, F16 PROFILE - WELDED FRAME, STANDARD DOUBLE RABBET (PROVIDE <u>H-1:</u> CLOSER REINFORCEMENT). HINGES: THREE HAGER BB1279, 4-1/2" X 4-1/2" BALL BEARING, 5 KNUCKLE STEEL HINGE. CLOSING DEVICE: LCN 4040XP SERIES (PARALLEL ARM PUSH SIDE), ALUMINUM FINISH. LATCH: HES 9600 SERIES, SURFACE MOUNTED ELECTRIC STRIKE (COLOR 630) WITH 9000-MTK PLUG-IN BRIDGE RECTIFIER HANDLE AND LOCK: SCHLAGE ND80PD X RHODES S626, W/ SCHLAGE LARGE FORMAT IC CORE,

STOREROOM LOCK ACCESS CONTROL (WHERE INDICATED): INSTALL CONDUIT FROM CEILING TO BOX ON LATCH SIDE FOR FUTURE ACCESS CONTROL READER TO BE STALLED BY OTHERS. ALSO SEE ELECTRICAL. DOOR STOP: IVES WALL BUMPER WS406/407-CCV, US26, OR IVES FLOOR MOUNTED

- DOOR FRAME: STEELCRAFT, F16 PROFILE WELDED FRAME, STANDARD DOUBLE RABBET. HINGES: <u>H-2:</u> 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. STRIKE PLATE: 2-3/4" LONG T-STRIKE PLATE. DOOR STOP: IVES WALL BUMPER WS406/407-CCV, US26, OR IVES FLOOR MOUNTED
- DOOR FRAME: STEELCRAFT, F16 PROFILE WELDED FRAME, STANDARD DOUBLE RABBET. HINGES: <u>H-3:</u> 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

KICK PLATE: 8" H X 34" W W/ RIVET INSTALL, SATIN CHROME CLOSING DEVICE: LCN 4040XP SERIES (PARALLEL ARM PUSH SIDE), ALUMINUM FINISH. DOOR STOP: IVES WALL BUMPER WS406/407-CCV, US26, OR IVES FLOOR MOUNTED

## **RESTROOMS - PLANS,** SECTIONS, ELEVATIONS



FORMGREY STUDIO

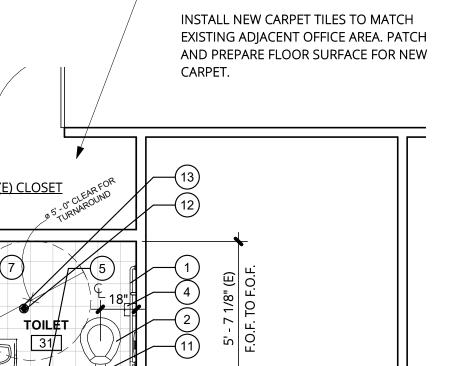
**CITY HALL INTERIOR** IMPROVEMENTS **City of Sparks** 

> 431 Prater Way Sparks NV 89431



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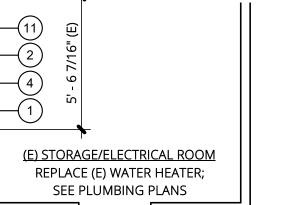
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**REMOVE (E) FLOOR DRAIN SINK** 

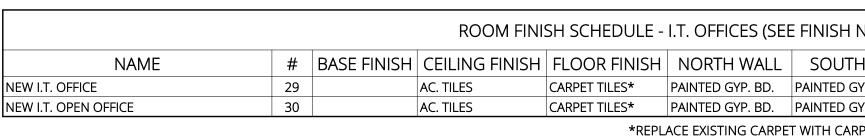
AND WATER LINES IN CLOSET

WALLS AROUND CHASE TO BE REMOVED TO STUDS BY OTHERS

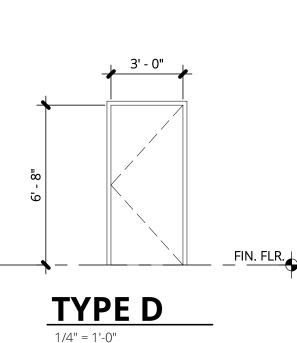


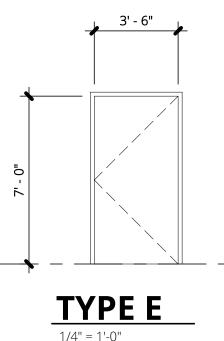
**ENLARGED FLOOR PLAN - RESTROOMS** 

(E) CORRIDOR



	DOOR SCHEDULE - I.T. OFFICES										
#	TYPE	ROOM #.	WIDTH	HEIGHT	MATERIAL	FINISH	FIRE RATING	HARDWARE	FRAME MATERIAL	FRAME FINISH	COMMENTS
12	D	NEW I.T. OPEN OFFICE ENTRY	3' - 0"	6' - 8"	SOLID CORE WOOD	STAIN		H-1	EXISTING HOLLOW METAL	PAINT	SECURITY WITH SELF-CLOSER
13	D	NEW I.T. OFFICE	3' - 0"	6' - 8"	SOLID CORE WOOD	STAIN		H-2	16 GA. HOLLOW METAL WELDED	PAINT	LOCKSET
14	E	NEW I.T. SERVER ROOM	3' - 6"	7' - 0"	SOLID CORE WOOD	STAIN		H-1	16 GA. HOLLOW METAL WELDED	PAINT	SECURITY WITH SELF-CLOSER

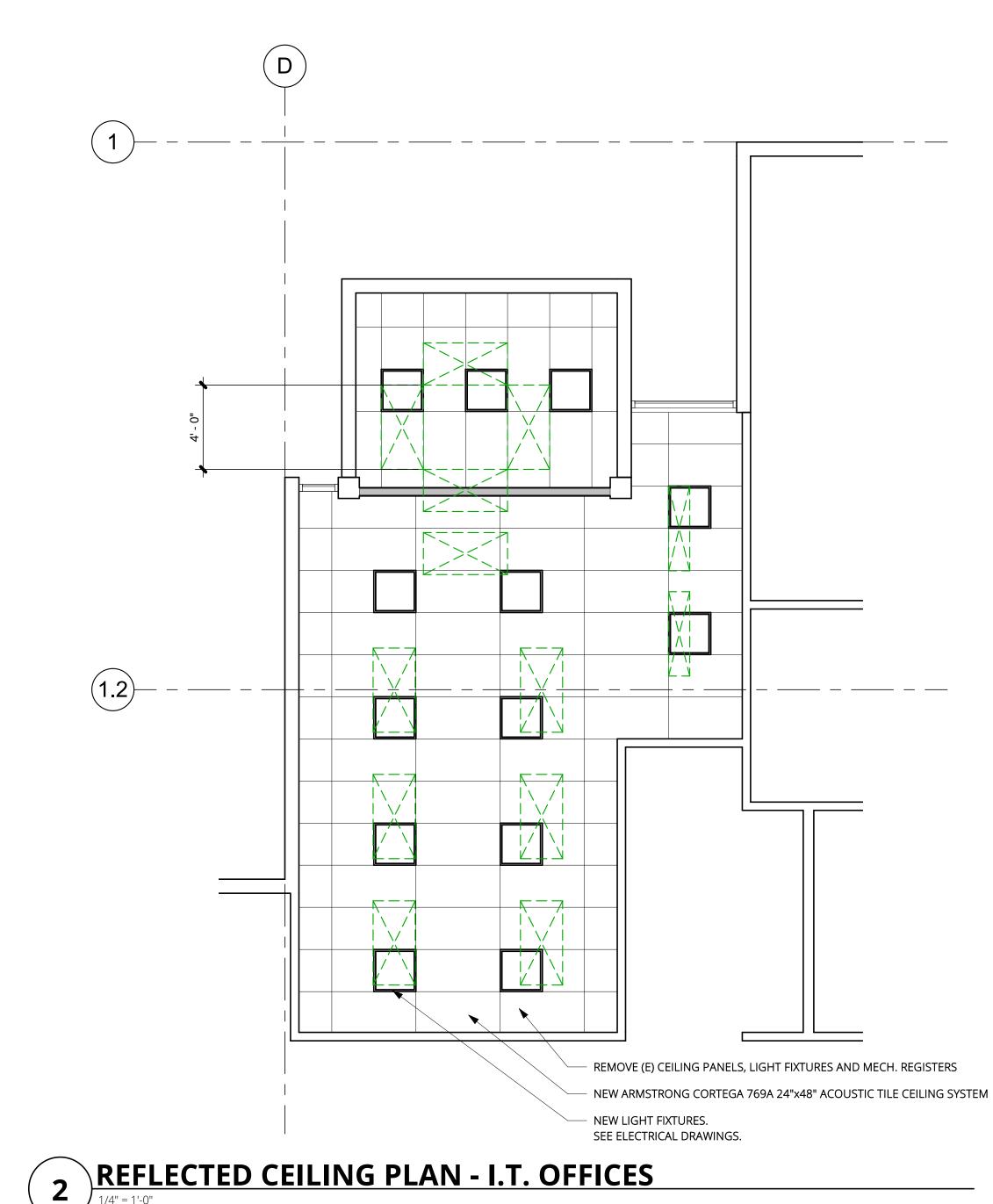




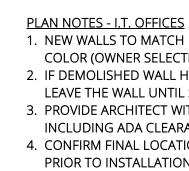


## **DOOR ELEVATIONS**

1/4" = 1'-0"



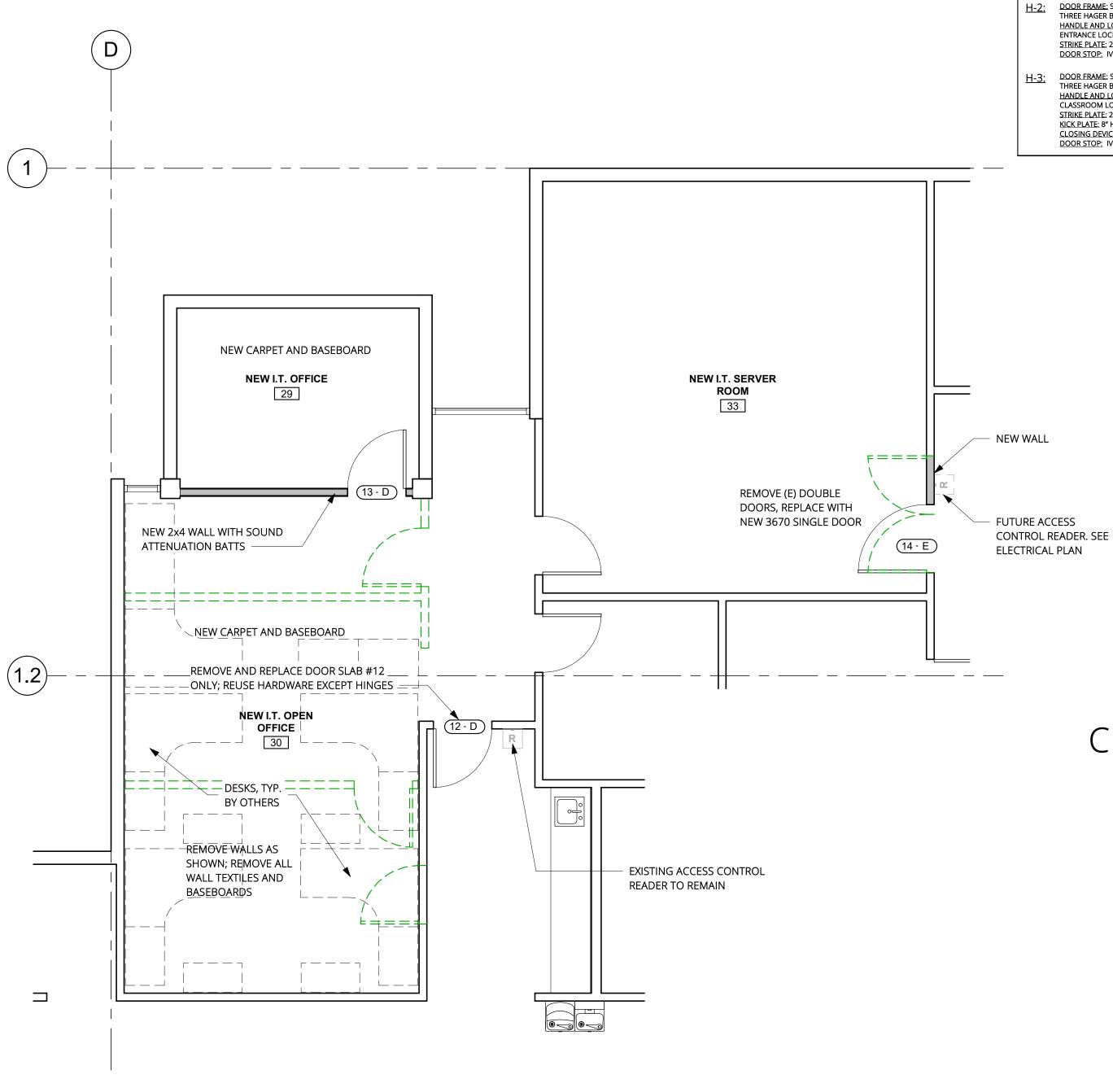
I NOTES)			
TH WALL	EAST WALL	WEST WALL	COMMENTS
GYP. BD.	PAINTED GYP. BD.	PAINTED GYP. BD.	
GYP. BD.	PAINTED GYP. BD.	PAINTED GYP. BD.	
RPET TILES			



- OF ACCESSIBILITY.

- OTHERWISE NOTED. ORDERING.

<u>FINISH NOTES - I.T. OFFICES</u>



ENLARGED FLOOR PLAN - I.T. OFFICES REFERENCE - a200 / /4" = 1'-0"

#### 1. NEW WALLS TO MATCH EXISTING IN BUILDING MATERIALS, DIMENSIONS, AND COLOR (OWNER SELECTED). 2. IF DEMOLISHED WALL HAS ANY STRUCTURAL BEARING, INFORM ARCHITECT AND LEAVE THE WALL UNTIL STRUCTURAL ENGINEERING IS PROVIDED. \_\_\_\_\_ 3. PROVIDE ARCHITECT WITH ANY DIMENSIONAL CHANGES FROM THIS PLAN, INCLUDING ADA CLEARANCES. 4. CONFIRM FINAL LOCATION OF ALL PHONE, ELECTRICAL & DATA LINES WITH OWNER PRIOR TO INSTALLATION. SEE ELECTRICAL PLANS. 5. THE ENTIRE BUILDING IS NOT REQUIRED TO COMPLY WITH ENERGY REQUIREMENTS

OF THE I.E.C.C.. THE ALTERATIONS SHALL COMPLY TO THE ENERGY REQUIREMENTS OF THE I.E.C.C. AS THEY RELATE TO ALTERATIONS. 6. DIRECTIONAL SIGNS SHALL BE ACCESSIBLE AND INCLUDE THE UNIVERSAL SYMBOL

7. ALL DEMOLISHED FIXTURES SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. FURNITURE TO BE REMOVED BY OTHERS.

8. PATCH (E) WALL & GROUT WHERE NEEDED TYPICAL AT EXPOSED EXISTING CONCRETE AND CMU; PAINT PER SPECIFICATIONS.

9. ALL DIMENSIONS ARE TAKEN FROM FACE OF NEW STUD OR FACE OF NEW CONCRETE, AND FACE OF EXISTING FINISH TO FACE OF NEW STUD, UNLESS

10. DOOR CONTRACTORS TO VERIFY ROUGH OPENINGS PRIOR TO FABRICATION OR

11. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND COORDINATE AND VERIFY ALL DIMENSIONS WITH THE DRAWINGS. CONTACT ENGINEER WITH DISCREPANCIES BEFORE CONSTRUCTION OCCURS. 12. REFER TO MEP SHEETS FOR MECHANICAL, PLUMBING, AND/OR ELECTRICAL NOTES.

1. REFER TO GENERAL SPECIFICATIONS SHEET a002. 2. ALL DOOR HARDWARE SHALL COMPLY WITH THE REQUIREMENTS OF THE 2010 ADAAG AND ICC/ANSI STANDARDS.

WALL LEGEND

WALL TO BE REMOVED

FIXTURE TO BE REMOVED

~===7

\_\_\_\_\_

DOOR TO BE REMOVED

EXISTING WALL TO REMAIN

NEW WALLS: 3 5/8" METAL STUDS @ 16" O/C WITH 5/8" EACH SIDE; FULL HEIGHT TO CEILING EVERY OTHER STUD TO STRUCTURE ABOVE; R-11 SOUND ATTENUATION BATT INSULATION WHERE INDICATED; 5/8" WATER RESISTANT GYP. BD. IN WET AREAS.

## DOOR HARDWARE SCHEDULE

H-1: DOOR FRAME: STEELCRAFT, F16 PROFILE - WELDED FRAME, STANDARD DOUBLE RABBET (PROVIDE CLOSER REINFORCEMENT). HINGES: THREE HAGER BB1279, 4-1/2" X 4-1/2" BALL BEARING, 5 KNUCKLE STEEL HINGE. CLOSING DEVICE: LCN 4040XP SERIES (PARALLEL ARM PUSH SIDE), ALUMINUM FINISH. LATCH: HES 9600 SERIES, SURFACE MOUNTED ELECTRIC STRIKE (COLOR 630) WITH 9000-MTK PLUG-IN BRIDGE RECTIFIER. HANDLE AND LOCK: SCHLAGE ND80PD X RHODES S626, W/ SCHLAGE LARGE FORMAT IC CORE, STOREROOM LOCK.

ACCESS CONTROL (WHERE INDICATED): INSTALL CONDUIT FROM CEILING TO BOX ON LATCH SIDE FOR FUTURE ACCESS CONTROL READER TO BE STALLED BY OTHERS. ALSO SEE ELECTRICAL. DOOR STOP: IVES WALL BUMPER WS406/407-CCV, US26, OR IVES FLOOR MOUNTED

- 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 ND53PD X RHODES S626, W/ SCHLAGE LARGE FORMAT IC CORE, ENTRANCE LOCK. STRIKE PLATE: 2-3/4" LONG T-STRIKE PLATE. DOOR STOP: IVES WALL BUMPER WS406/407-CCV, US26, OR IVES FLOOR MOUNTED
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CLOSING DEVICE: LCN 4040XP SERIES (PARALLEL ARM PUSH SIDE), ALUMINUM FINISH. DOOR STOP: IVES WALL BUMPER WS406/407-CCV, US26, OR IVES FLOOR MOUNTED

I.T. OFFICES - PLANS, SECTIONS, ELEVATIONS



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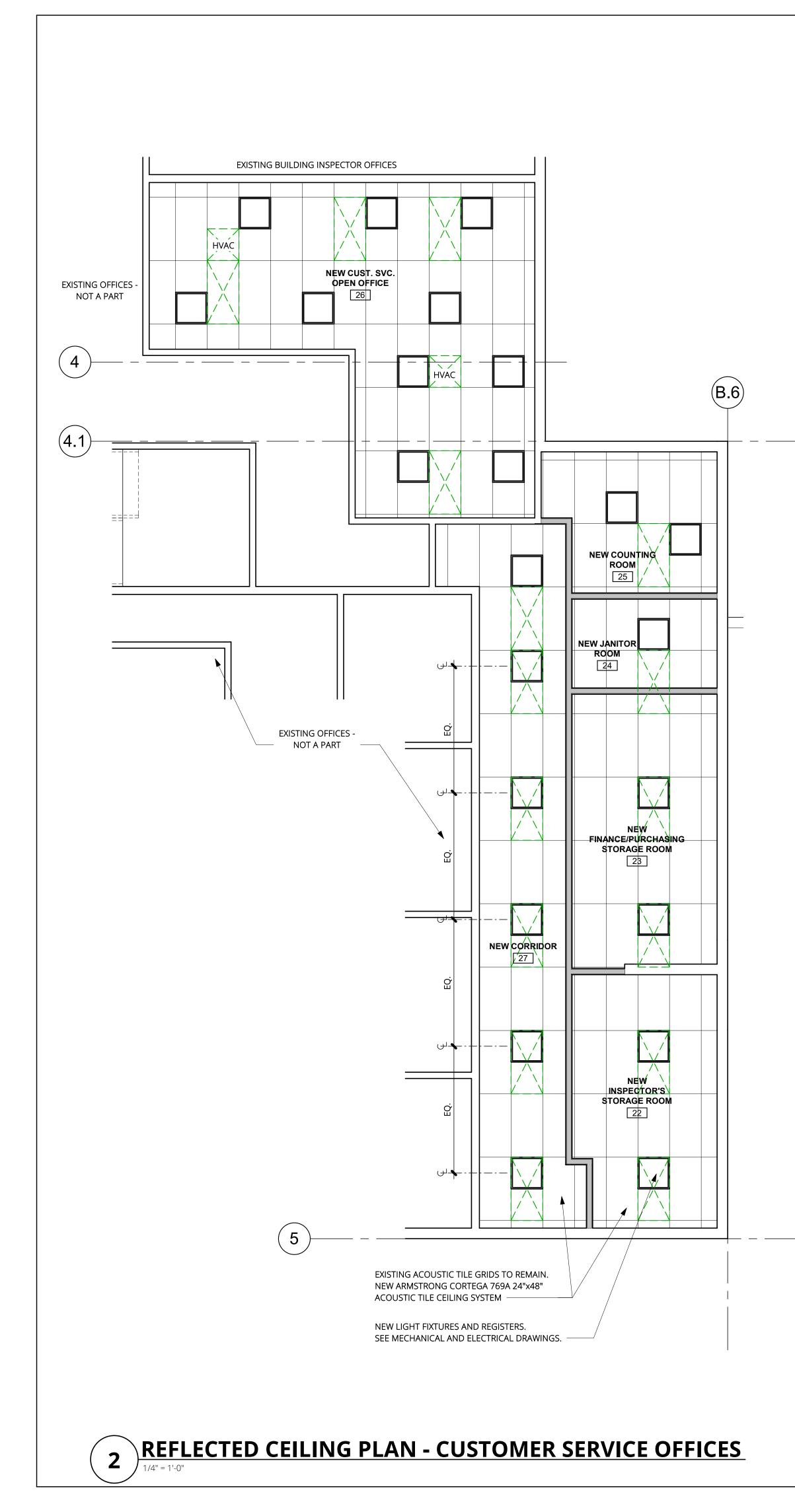
CITY HALL INTERIOR IMPROVEMENTS City of Sparks

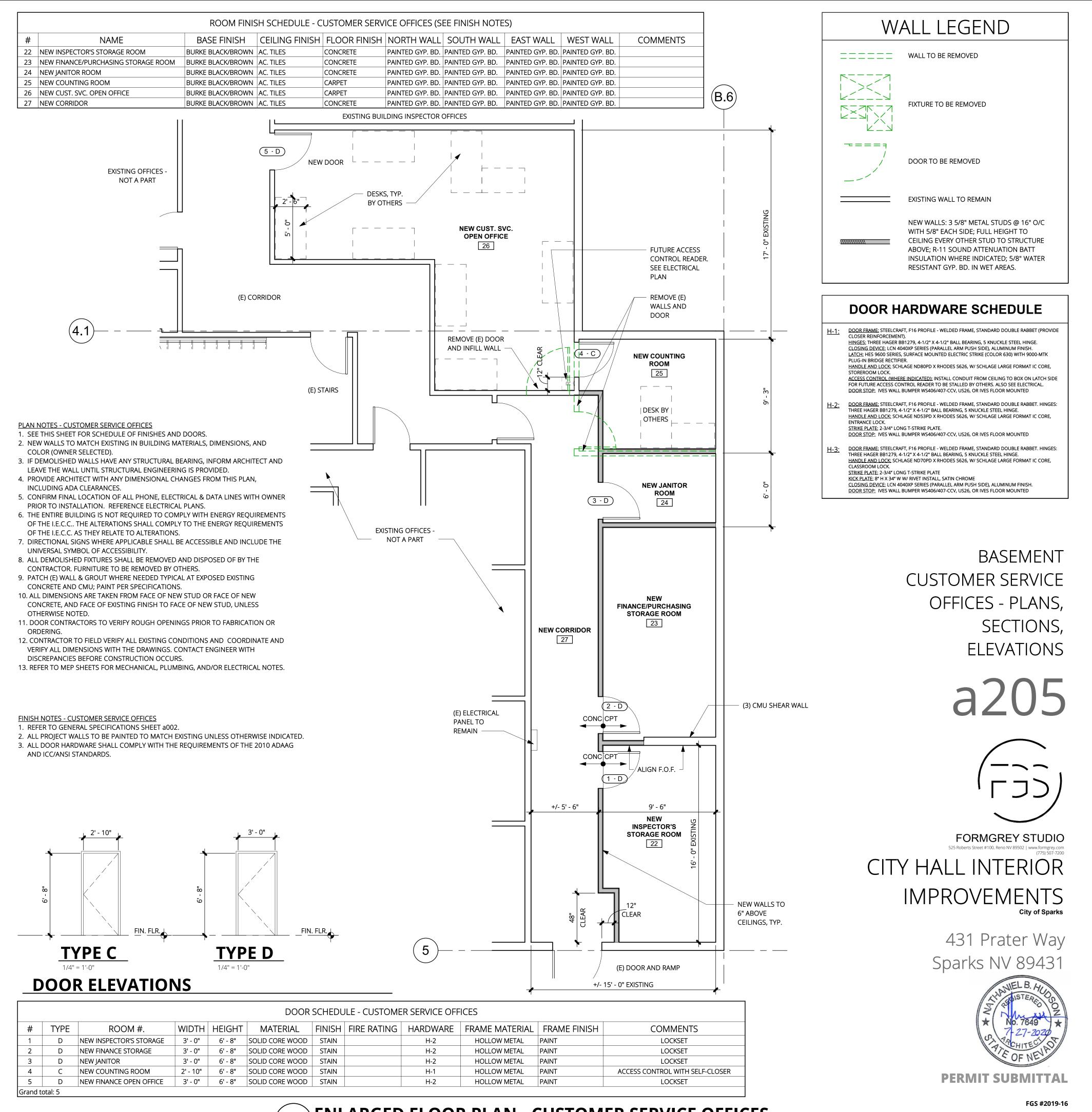
> 431 Prater Way Sparks NV 89431



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**ENLARGED FLOOR PLAN - CUSTOMER SERVICE OFFICES** REFERENCE - a200 / 2

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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.

#### 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.

**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.

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

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.

#### **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 "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.

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.

#### **DESIGN CRITERIA**

RISK CATEGORY: II - TABLE 1604.5

VERTICAL LOADS

AREA	DESIGN DEAD LOAD	LIVE LOAD	CONCENTRATED LOADS
ROOF	15 PSF	20 PSF	
FLOOR	76 PSF	50 PSF	2,000 LBS

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.

CONSTRUCTION GRAD	E (F <sub>b</sub> = 1000 PSI, F <sub>c</sub>
7) UTILITY AND STANDA	RD GRADES NOT I
FRAMING LUMBER (MAI CORPORATION OR PRE INSTALLATION DRAWIN	-APPROVED EQUA
MICROLAM LVL:	F <sub>b</sub> = 2600 PSI E =

MICROLAM LVL:	F <sub>b</sub> = 2600 PSI E = 200
PARALLAM PSL:	F <sub>b</sub> = 2900 PSI E = 220
PARALLAM PSL POST:	F <sub>b</sub> = 2400 PSI E = 180
TIMBERSTRAND LSL:	F <sub>b</sub> = 2325 PSI E = 155
RIM MATERIAL: TIMB	ERSTRAND LSL
**FOR 5.25 x 7.25 OK TO	USE LP SOLID START

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.

				PRESERVATIVE TREATMENT (1)	CONNECTORS & FASTENERS (2)(3)
RY	2	FOUNDATION SILL PLATES, TOP PLATES & LEDGERS	2x, 4x, 6x, OR GLU-LAM (FIR) ,	CCA, SBX	GALV (G60)
		ON CONCRETE OR MASONRY WALLS (4)	LSL	ACQ, CBA, CA	GALV (G185)
2		FRAMING, DECKING, POSTS & LEDGERS	2x, & 4x (FIR)	CCA	GALV (G90)
г К				ACQ, CBA, CA	GALV (G185)
	]		2x, & 4x (CEDAR)	NONE	GALV (G90)
5	5	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 IBC (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 OF 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 IBC SECTION 2308.5.9-10 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 <u>PRESERVATIVE TREATED WOOD REQUIREMENTS</u> 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:** 

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

#### <u>WOOD</u>

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.

<u>GLUE-LAMINATED MEMBERS:</u> 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<sub>b</sub> = 900 PSI, F<sub>v</sub>= 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" F<sub>c</sub> = 1650 PSI)

HALL BE MANUFACTURED BY TRUS JOIST JAL, IN ACCORDANCE WITH APPROVED SHOP AND

MICROLAM LVL:	F <sub>b</sub> = 2600 PSI	E = 200
PARALLAM PSL:	F <sub>b</sub> = 2900 PSI	E = 220
PARALLAM PSL POST:	F <sub>b</sub> = 2400 PSI	E = 180
IMBERSTRAND LSL:	F <sub>b</sub> = 2325 PSI	E = 155
RIM MATERIAL: TIME	BERSTRAND LS	L
*FOR 5.25 x 7.25 OK TO	<b>USE LP SOLID</b>	START

PERMITTED.

00 KSI 200 KSI \* 300 KSI 550 KSI

LVL IN LIEU OF PSL

## SPECIAL INSPECTION SCHEDU

EAS REQUIRING SPECIAL INSPECTION:	FREQUENCY		COMMENTS	
	CONTINUOUS	PERIODIC		
NCRETE CONSTRUCTION (IBC 1705.3)				
POST-INSTALLED ANCHORS	x		IN ACCORDANCE WITH APPI INSPECTIONS ALLOWED IF S	
RUCTURAL 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		х	VERIFY TYPE AND GRADE O	
WELDER IDENTIFICATION		X	VERIFY THERE IS A SYSTEM HAS WELDED A JOINT OR M	
FIT-UP GROOVE WELDS		X	VERIFY JOINT PREPARATION BACKING	
ACCESS HOLES		х	VERIFY CONFIGURATION AN	
FIT-UP FILLET WELDS		Х	VERIFY ALIGNMENT, GAPS A TACK WELD QUALITY, AND L	
DURING WELDING (TABLE N5.4-2, AISC 360-10):				
USE OF QUALIFIED INSPECTORS		Х	VERIFY THAT WELDERS ARE	
CONTROL AND HANDLING OF WELDING CONSUMABLES		х	VERIFY PACKAGING AND EX	
CRACKED TACK WELDS		Х	VERIFY WELDING IS NOT OV	
ENVIRONMENTAL CONDITIONS		X	VERIFY WIND SPEED IS WITI TEMPERATURE	
WPS FOLLOWED		Х	VERIFY ITEMS SUCH AS WEI WELDING MATERIALS, SHIEI APPLIED, INTERPASS TEMPE POSITION	
WELDING TECHNIQUES		X	VERIFY INTERPASS AND FIN LIMITATIONS, AND QUALITY	
AFTER WELDING (TABLE N5.4-3, AISC 360-10):				
WELDS CLEANED		Х	VERIFY THAT WELDS HAVE	
SIZE, LENGTH, AND LOCATION OF WELDS	X			
WELDS MEET VISUAL ACCPETANCE CRITERIA	Х			
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		х	ALL FABRICATED STEEL AND TO VERIFY COMPLIANCE WI PLANS	
ANCHOR RODS/EMBEDS SUPPORTING STRUCTURAL STEEL		x	SHALL BE ON THE PREMISE RODS/EMBEDMENTS. VERIF ELEMENT AND THE EXTENT PLACEMENT OF CONCRETE	

#### STATEMENT OF SPECIAL INSPECTIONS

SPECIAL INSPECTIONS AND STRUCTURAL TESTING SHALL BE PROVIDED BY AN INDEPENDENT AGENCY EMPLOYED BY THE OWNER F IDENTIFIED IN THIS SECTION AND IN OTHER AREAS OF THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS, UNLESS WAIVI 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:

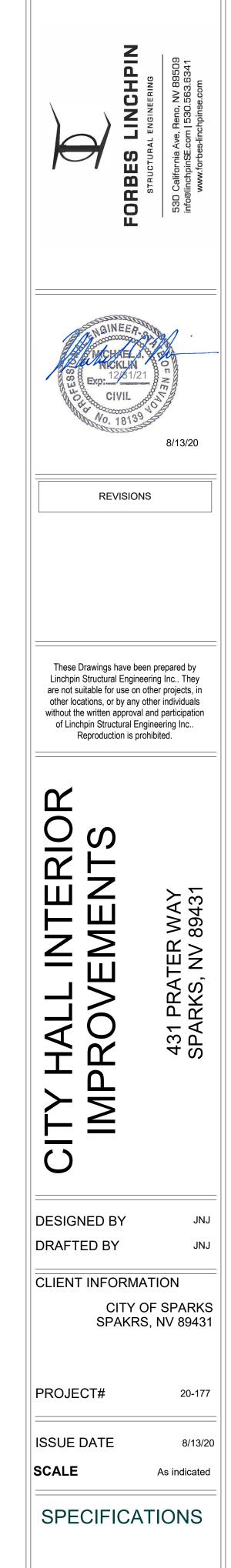
- THE SPECIAL INSPECTOR SHALL REVIEW ALL WORK LISTED BELOW FOR CONFORMANCE WITH THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS AND THE 2018 IBC. THE SPECIAL INSPECTOR SHALL FURNISH SPECIAL INSPECTION REPORTS TO THE EOR, CONTRACTOR, OWNER AND BUILDING
- OFFICIAL ON A WEEKLY BASIS, OR MORE FREQUENTLY 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. 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: THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE OWNER AND THE BUILDING OFFICIAL PRIOR TO a. 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". 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. ALL WORK REQUIRING SPECIAL INSPECTION SHALL REMAIN ACCESSIBLE AND EXPOSED UNTIL IT HAS BEEN OBSERVED BY THE SPECIAL INSPECTOR.

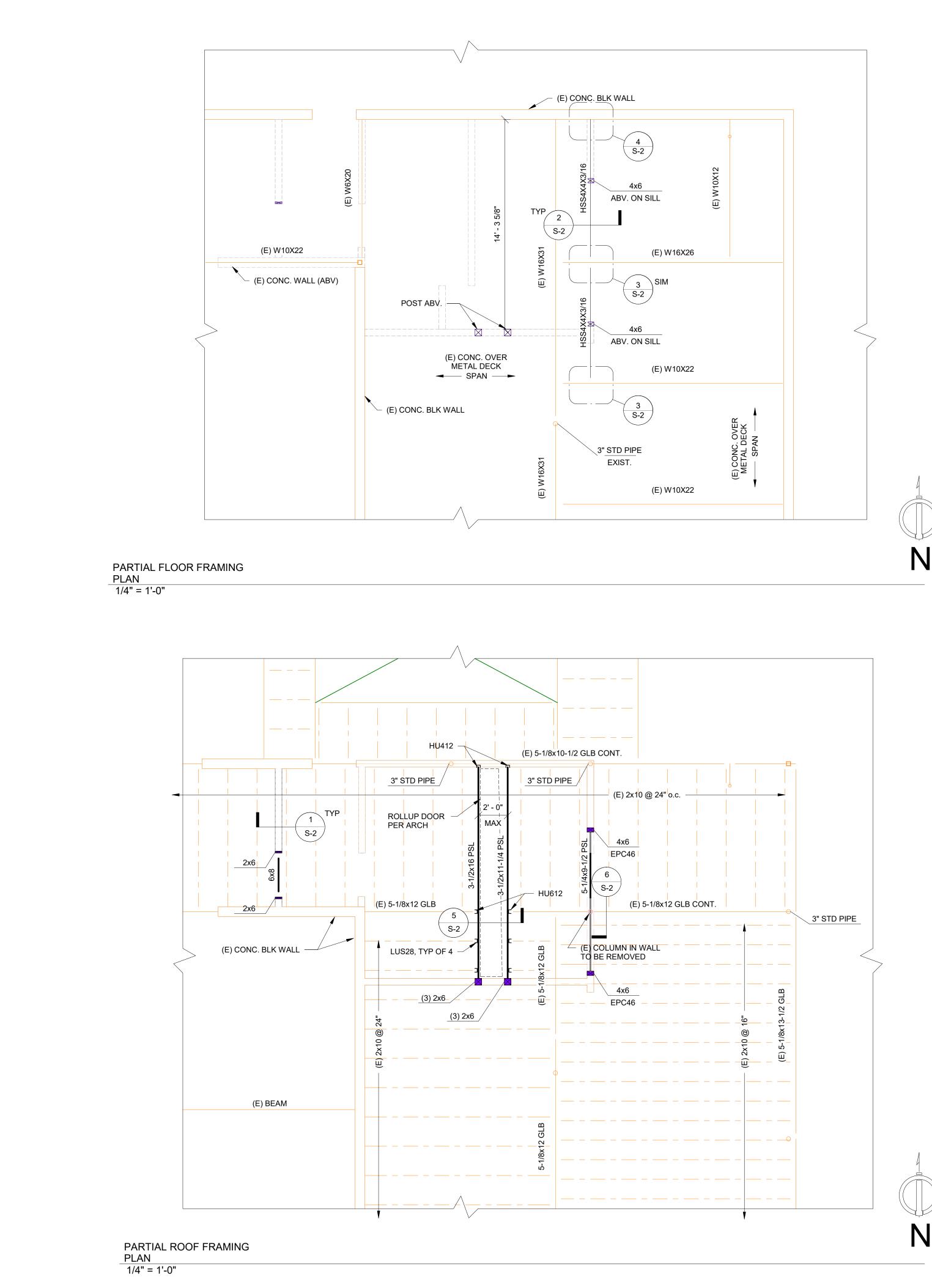
PLEASE SEE THE "SPECIAL INSPECTION SCHEDULE" FOR THE TYPES, EXTENTS AND FREQUENCY OF SPECIFIC ITEMS REQUIRING SPECIAL INSPECTIONS AND STRUCTURAL TESTS AS PART OF THIS PROJECT.

LE
APPROVED ICC-ES REPORT. PERIODIC IF STATED IN ES REPORT
E OF MATERIAL
TEM IN PLACE TO IDENTIFY THE WELDER WHO R MEMBER.
TION, DIMENSIONS, CLEANLINESS, TACKING, AND
AND FINISH
PS AT ROOT, CLEANLINESS OR STEEL SURFACES, ND LOCATION
ARE APPROPRIATELY QUALIFIED
EXPOSURE CONTROL
OVER A CRACKED TACK WELD
WITHIN LIMITS AS WELL AS PRECIPITATION AND
WELDING EQUIPMENT SETTINGS, TRAVEL SPEED, HIELDING GAS TYPE/FLOW RATE, PREHEAT MPERATURE MAINTAINED, AND PROPER
FINAL CLEANING; EACH PASS IS WITHIN PROFILE ITY OF EACH PASS
VE BEEN PROPERLY CLEANED
AND THEIR CONNECTIONS SHALL BE INSPECTED WITH THE DETAILS SHOWN IN THE APPROVED
ISES DURING THE PLACEMENT OF ANCHOR RIFY DIAMETER, GRADE, TYPE, AND LENGTH OF ENT OR DEPTH OF EMBEDMENT PRIOR TO ETE.
FOR THE ITEMS /ED BY THE

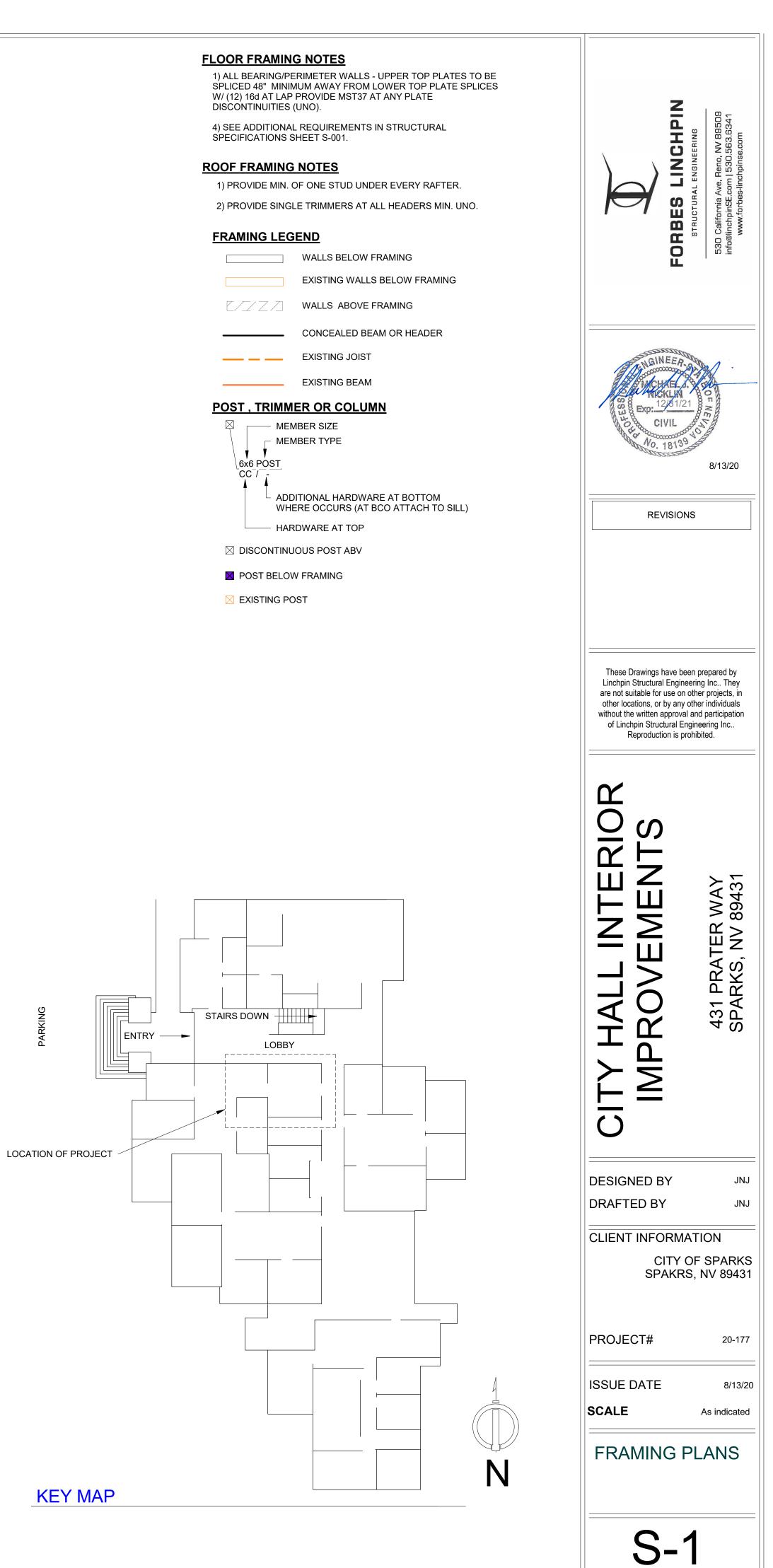
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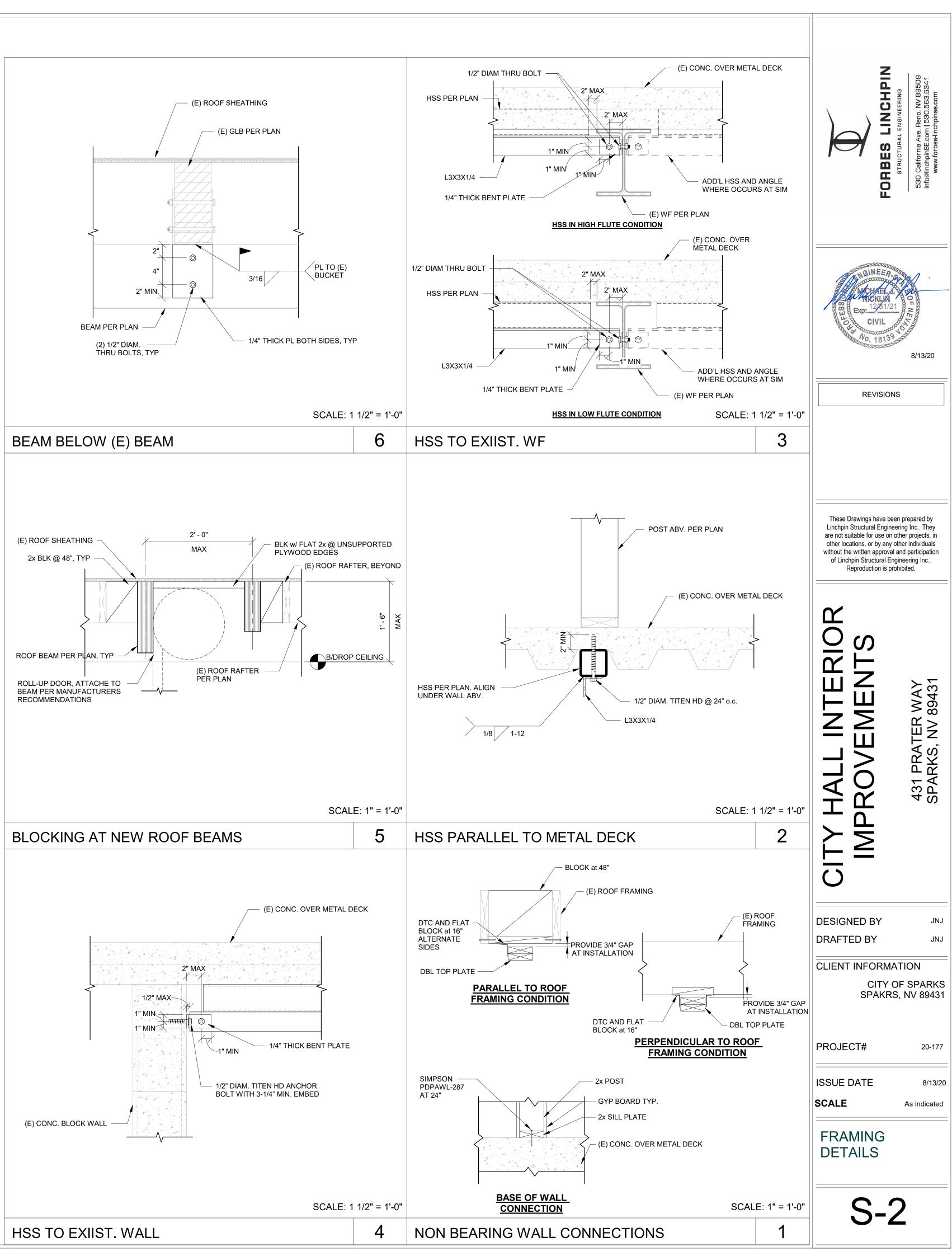
WWF - WELDED WIRE FABRIC





JJ Ν





## MECHANICAL SYMBOL LIST

	MECHA	Ν
z 12" X 12"		
1 0R 12" X 12"	<b>–</b> 1	
< <u>12 ∧ 12</u>	$\rightarrow$	
ζ	V.D.	
v.u.	Щ	
F		
	S.D.	
	F.S.D.	
	EX.	
ىرىپ 12" X 12" \ 12"		
OR		
	, ™	
² <u>₩₩</u>	́FLEX	
	T.V.'S	
	S.A.	
	S.A.	
	R.A.	
	R.A.	
	E.A.	
	E.A.	
	— M.D.	
2 <b>2</b> 0.B.C	O.B.D.	
RD	— RD	
RL	— RL	
——— RS ——	— RS	
— <del>Li</del>	— S.T.R.	
	S.T.R.	
	P.T.R.	
	RV	
	2VAL	
	3VAL	
I	U	
	— F	
	— FL	
$\longrightarrow$	— CR	
<u> </u>	— ER	
Ŷ	P.R.G.	
Ū	TH.	
$ \rightarrow $	A.A.V.	
$\begin{pmatrix} \downarrow \downarrow \\ \chi \end{pmatrix}$	M.A.V.	
↔ 	V.B.	
<u> </u>	— P.D.	
O	— P.U.	
	T.D.V.	
	-O P.U.	

DUCT W/ SIZE INDICATED (FIRST FIG. IS SIDE SHOWN)
MANUAL VOLUME / BALANCING DAMPER
DUCT WITH ACOUSTIC LINING
FIRE DAMPER
SMOKE DAMPER
COMBINATION FIRE / SMOKE DAMPER
EXTRACTOR
SQUARE TO ROUND DUCT TRANSITION
DUCT SIZE TRANSITION
FLEXIBLE DUCT CONNECTOR
FLEXIBLE DUCT
SPLITTER DAMPER
TURNING VANES
SUPPLY AIR DUCT DOWN
SUPPLY AIR DUCT UP
RETURN AIR DUCT DOWN
RETURN AIR DUCT UP
EXHAUST AIR DUCT DOWN
EXHAUST AIR DUCT UP
MOTORIZED DAMPER
OPPOSED BLADE DAMPER
REFRIGERANT DISCHARGE PIPING
REFRIGERANT LIQUID PIPING
REFRIGERANT SUCTION PIPING
STRAINER
STRAINER WITH 3/4" HOSE END DRAIN VALVE
PRESSURE - TEMPERATURE RELIEF VALVE
PRESSURE RELIEF VALVE
2-WAY CONTROL VALVE
3-WAY CONTROL VALVE
UNION
FLANGE
FLEXIBLE PIPING CONNECTOR
CONCENTRIC REDUCER
ECCENTRIC REDUCER
PRESSURE GAUGE WITH GAUGE COCK
THERMOMETER
AUTOMATIC AIR VENT
MANUAL AIR VENT
VACUUM BREAKER
PIPING TEE DOWN
PIPING TEE UP
TRIPLE DUTY VALVE
PIPING ELBOW UP
PIPING ELBOW DOWN
BRANCH - TOP CONNECTION

L v  $\overline{\mathbb{EQ}}$  $\langle 1 \rangle$ (T)S SD 

DLS INDICATED BELOW MAY NOT APPEAR ON THIS PROJECT)			
	BRANCH - BOTTOM CONNECTION		
	BRANCH - SIDE CONNECTION		
	ARROW INDICATES DIRECTION OF FLOW		
A.P.	ACCESS PANEL		
	MECHANICAL EQUIPMENT INDICATED (SEE SCHEDULE)		
	DIFFUSER OR GRILLE INDICATED (SEE SCHEDULE)		
Τ.	THERMOSTAT		
S.E.N.	SENSOR		
S.D.E.T.	SMOKE DETECTOR		
T.C.C.	TEMPERATURE CONTROL PANEL		
P.O.D.	POINT OF DISCONNECT		
DOC			

P.O.C. POINT OF CONNECTION AFF ABOVE FINISHED FLOOR

AFG ABOVE FINISHED GRADE

BDD BACKDRAFT DAMPER

BHP BRAKE HORSEPOWER

BTUH BRITISH THERMAL UNITS PER HOUR

CFH CUBIC FEET PER HOUR

CFM CUBIC FEET PER MINUTE

CLG CEILING

DB DRY BULB TEMPERATURE

DOWN DN

EXISTING (E)

EAT ENTERING AIR TEMPERATURE

ESP EXTERNAL STATIC PRESSURE

EWT ENTERING WATER TEMPERATURE

GA GAUGE

GAL GALLON

GPH GALLONS PER HOUR

GPM GALLONS PER MINUTE

HD HEAD

HORSEPOWER HP

HOUR HR

KW KILOWATTS

LAT LEAVING AIR TEMPERATURE

LPC LOW PRESSURE CONDENSATE RETURN

LPS LOW PRESSURE STEAM

LWT LEAVING WATER TEMPERATURE

MAX MAXIMUM

MBH BRITISH THERMAL UNITS PER HOUR (THOUSANDS)

MIN MINIMUM

MUA MAKE-UP AIR

NEW (N)

NOM NOMINAL

OA OUTSIDE AIR

PD PRESSURE DROP RPM **REVOLUTION PER MINUTE** 

SF SQUARE FEET

SP STATIC PRESSURE

STD STANDARD

TEMPERATURE

TDV TRIPLE DUTY VAVLE

TYP TYPICAL

## GENERAL MECHANICAL NOTES

1. DUE TO THE SMALL SCALE OF THE DRAWINGS, IT IS IMPOSSIBLE TO SHOW ALL REQUIRED OFFSETS, ELEVATIONS, ETC., IT IS THEREFORE THE CONTRACTORS RESPONSIBILITY TO VERIFY THE REQUIRED, ROUTING, ELEVATION, AND PLACEMENT OF EQUIPMENT AND PROVIDE REQUIRED OFFSETS INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS AND THE SPECIFICATIONS TO MEET THE INTENT OF THE DESIGN. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

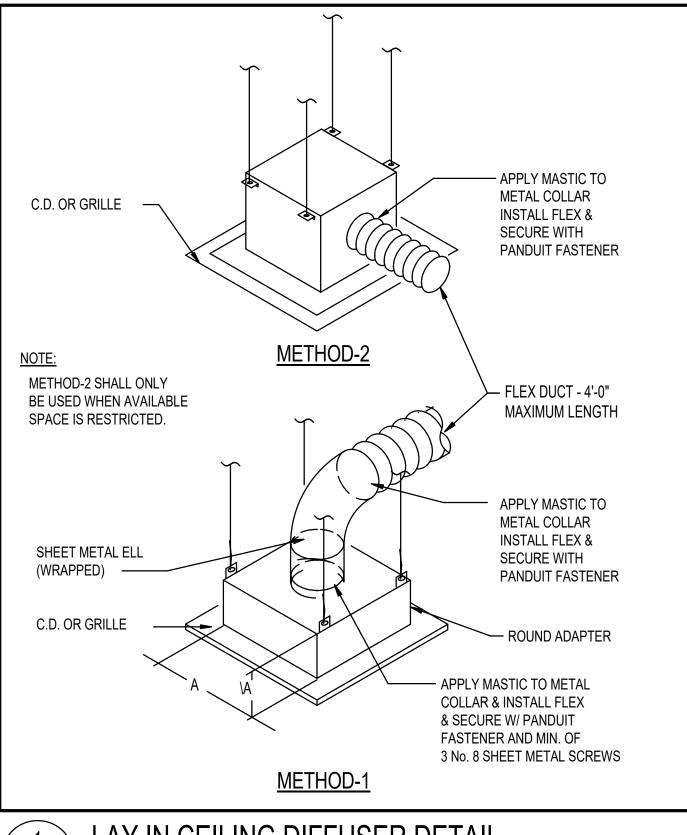
2. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE CUTTING, SAWCUTTING OPENINGS OF WALLS, CEILINGS, SOFFITS AS REQUIRED FOR THE INSTALLATION OF EQUIPMENT AND DUCTWORK AS REQUIRED.

3. ALL DUCTWORK IN CONCEALED AREAS SHALL HAVE 1\" FIBERGLASS BLANKET INSULATION w/ ALL-SERVICE JACKET MANUFACTURED FROM KRAFT PAPER, REINFORCING SCRIM, ALUMINUM FOIL, AND VINYL FILM. INSULATION SHALL HAVE A MOLD, HUMIDITY, AND EROSION RESISTANT SURFACE THAT COMPLIES w/ THE CURRENT MECHANICAL CODE AND ASTM C553, TYPE II. INSULATION APPLIED TO THE EXTERIOR OF ANY DUCTS SHALL HAVE A FLAME SPREAD RATING THAT IS IN ACCORDANCE WITH NFPA 255, ASTM E84 OR UL 723, THE MATERIALS USED SHALL HAVE A FLAME-SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED RATING OF NOT MORE THAN 50.

4. ALL FACTORY PRODUCED AIR DUCT SHALL BE RATED FOR THE LISTED PRESSURES AND IN ACCORDANCE WITH THE ADOPTED MECHANICAL CODE. ALL DUCTWORK CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS AND REQUIREMENTS OF THE DUCT MANUAL AND SHEET METAL CONSTRUCTION FOR VENTILATING-AIR CONDITIONING SYSTEMS, LATEST EDITION, AS ISSUED BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION, INC. (SMACNA). LOW PRESSURE ROUND DUCTS SHALL BE UNITED SHEET METAL SPIRAL UNIRIB DUCT WITH UNITED UNIWELD FITTINGS. MATERIALS SHALL BE GALVANIZED STEEL OF GAUGES SHOWN IN THE LOW PRESSURE MANUAL UNLESS SPECIFICALLY NOTED OTHERWISE ON PLANS.

5. THE CONTRACTOR SHALL REVIEW ALL INSTALLATION INSTRUCTIONS FOR ALL EQUIPMENT TO BE SUBMITTED ON PRIOR TO BID AND PROVIDE ANY RFI'S TO THE OWNER PRIOR TO BID. CONTRACTOR SHALL KEEP INSTALLATION INSTRUCTIONS FOR ALL LISTED EQUIPMENT ON THIS PROJECT AT THE JOBSITE AND SHALL HAVE THEM ACCESSIBLE FOR THE FIELD INSPECTOR UPON REQUEST.

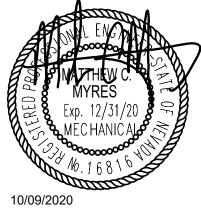
	DIFFUSER and REGISTER SCHEDULE							
SYM	DESCRIPTION	MANUFACTURER and MODEL NUMBER	NECK SIZE	OBD	FINISH and MATERIAL	REMARKS		
(ES)	EXISTING CEILING MOUNTED SUPPLY DIFFUSER	N/A	VARIES	N/A	VARIES	-		
(ER)	EXISTING CEILING / WALL MOUNTED RETURN GRILLE	N/A	VARIES	N/A	VARIES	-		
(EE)	EXISTING CEILING EXHAUST GRILLE	N/A	VARIES	N/A	VARIES	-		
	CEILING MOUNTED DIFFUSER, ROUND NECK, T-BAR, 3 WAY THROW, LAY-IN	KRUEGER SHV-03 SERIES	SEE PLANS	NO	STEEL	24"x24" MODULE, COORDINATE FRAME TYPE WITH THE NEW CEILING CONDITIONS		
2	CEILING MOUNTED DIFFUSER, ROUND NECK, HIGH PERFORMANCE, 4 WAY THROW, LAY-IN	KRUEGER 1400 SERIES	SEE PLANS	NO	STEEL	24"x24" MODULE, COORDINATE FRAME TYPE WITH THE NEW CEILING CONDITIONS		
3	CEILING MOUNTED RETURN GRILLE, LAY-IN, EGGCRATE GRID	KRUEGER EGC5 SERIES	SEE PLANS	NO	WHITE ALUMINUM	24"x24" MODULE, COORDINATE FRAME TYPE WITH THE NEW CEILING CONDITIONS		
$\langle 4 \rangle$	CEILING MOUNTED EXHAUST GRILLE, SURFACE MOUNT, EGGCRAGE GRID	KRUEGER EGC5 SERIES	10"x10"	NO	WHITE ALUMINUM _	10"x10" MODULE, COORDINATE FRAME TYPE WITH THE NEW CEILING CONDITIONS		



LAY IN CEILING DIFFUSER DETAIL m001 SCALE:NONE

•

Horn INC 9511  $\Rightarrow$ Kimley ШЩΔ≥ တ ပိ



## MECHANICAL SYMBOLS AND LEGEND



## **CITY OF SPARKS CITY HALL** City of Sparks, Nevada

## 431 Prater Way

No.	Description	Date

## MECHANICAL SPECIFICATIONS

A.	GEI	NERAL	D.	DFM	IOLITIO
	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	E.	1. 2.	DEMOL ALL EXI OWNER PROPE
		CONDITIONS.	E.	00 1.	TTING, I ALL CL
	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		2.	CUTTIN
		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		3.	WATEF OWNE
		THE APPROPRIATE SUBCONTRACTOR.	F.	PR	ODUCT
	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.		1. 2.	USE AI AFTER IN THE
	4.	PROVIDE ALL PERMITS AND FEES AS REQUIRED FOR THE MECHANICAL WORK.		Ζ.	APPRO
	5.	CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE PROJECT BEFORE BIDDING.	G.	SEL	SMIC R
	6.	ALL WORK SHALL BE IN ACCORDANCE WITH THE 2012 INTERNATIONAL BUILDING CODE (IBC), 2012 INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2012 INTERNATIONAL FIRE CODE (IFC), 2012 UNIFORM MECHANICAL CODE (UMC), 2012 UNIFORM PLUMBING CODE (UPC), 2011 NATIONAL ELECTRICAL	0.	1.	ALL EQ IBC.
		CODE (NEC), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) STANDARDS, AND ALL OTHER APPLICABLE CODES, RULES, AND LOCAL REQUIREMENTS.		2.	REFER
	7.	GUARANTEE ALL WORK AND MATERIALS FOR A PERIOD OF ONE YEAR.			ASSOC ENGIN
	8.	ALL DIMENSIONS AND MEASUREMENTS SHALL BE VERIFIED AT THE JOBSITE BEFORE FABRICATION	H.	EQI	JIPMEN
	0	AND/OR INSTALLATION OF THE EQUIPMENT.		1.	EQUIP
	9.	PROVIDE AND INSTALL ALL EQUIPMENT, DUCT, PIPING, AND CONTROLS AS SHOWN ON THE DRAWINGS.		2.	INSTAL
B.	SUE	BMITTALS		3.	SECUF
	1.	FURNISH FOUR (4) SETS OF SUBMITTALS (BOUND WITH COVER) OF MANUFACTURER'S DATA SHEETS FOR ALL MATERIALS AND EQUIPMENT FOR APPROVAL OF THE ARCHITECT/ENGINEER PRIOR TO	Ι.	DU	CTWOR
		PURCHASE AND INSTALLATION. INCOMPLETE SUBMITTALS WILL NOT BE REVIEWED.		1.	AIR DI
	2.	ELECTRONIC SUBMITTALS IN ADOBE PDF FORMAT, IN LIEU OF PAPER COPIES, WILL ONLY BE ACCEPTED IF PRIOR WRITTEN AUTHORIZATION IS GRANTED BY THE OWNER.		2.	EDITIC RECTA
	3.	SUBSTITUTIONS			ACCOI W.G. P
		SUBSTITUTION IS ANY EQUIPMENT OR MATERIAL OTHER THAN THAT LISTED BY THE MANUFACTURER AND MODEL NUMBER IN THE EQUIPMENT SCHEDULE OR THIS SPECIFICATION.		3.	DUCTS
		REQUIREMENTS FOR SUBMISSION OF SUBSTITUTE PRODUCTS FOR APPROVAL:			SO TH
		A. SUBMITTAL SHEETS SHOWING SEVERAL TYPES OR SIZES OF EQUIPMENT SHALL BE CLEARLY MARKED TO INDICATE THE SPECIFIC EQUIPMENT BEING PROPOSED.		4.	FITTIN OR WI ELBOV
		B. A REQUEST FOR SUBSTITUTION OR APPROVED EQUAL CONSTITUTES A REPRESENTATION THAT CONTRACTOR: HAS INVESTIGATED THE PROPOSED PRODUCT AND DETERMINED THAT IT IS EQUAL TO OR SUPERIOR IN ALL RESPECTS TO THAT SPECIFIED, WILL PROVIDE THE SAME WARRANTIES OR BONDS		5.	TIMES
		FOR THE PROPOSED PRODUCT AS FOR THE PRODUCT SPECIFIED, WILL COORDINATE THE INSTALLATION OF AN ACCEPTED PRODUCT INTO THE WORK AND MAKE SUCH OTHER CHANGES AS MAY BE REQUIRED TO MAKE THE WORK COMPLETE IN ALL RESPECTS, WAIVES ALL CLAIMS FOR ADDITIONAL COSTS UNDER HIS RESPONSIBILITY WHICH MAY SUBSEQUENTLY BECOME APPARENT, WILL PAY FOR		υ.	BE GA SECUF
		ANY ADDITIONAL COSTS ASSOCIATED WITH THE SUBSTITUTION INCLUDING ADDITIONAL WORK REQUIRED BY THE STRUCTURAL AND/OR ELECTRICAL CONTRACTOR OR ANY OTHER TRADE INCLUDING ADDITIONAL DESIGN WORK REQUIRED BY THE OWNER AND ANY CONSULTANT. ANY SUBSTITUTE PRODUCT WHICH DOES NOT GIVE SATISFACTORY RESULTS IN THE OPINION OF THE OWNER SHALL BE		6. 7.	ALL DU SEAL # AT ALL
	4.	REPLACED WITH THE SPECIFIED PRODUCT AT NO COST TO THE OWNER, OR CONSULTANTS. 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.			CONNI AS MA EQUAL
	F	ALLOW TEN (10) WORKING DAYS AFTER RECEIPT OF SUBMITTALS IN THE ENGINEER'S OFFICE BEFORE REVIEWED SUBMITTALS WILL BE RETURNED.		8.	FLEXIE ASSEN BONDE INSUL
	5.	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).		0	FLEXIE
C.				9.	FLEXIE
	1.	ALL WORK TO BE PERFORMED BY QUALIFIED PERSONNEL NORMALLY ENGAGED IN THE RESPECTIVE LINE OF WORK.			BONDE INSUL/ FLEXIE
	2.	PERFORM ALL WORK IN A MANNER NOT TO DISTURB THE NORMAL OPERATION OF THE BUILDING.		40	
	3.	COORDINATE ALL WORK WITH THE OWNER'S REPRESENTATIVE.		10.	FLEXIE
	э. 4.	COORDINATE ALL WORK WITH THE OTHER TRADES.			BONDE INSUL/
	5.	THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL WORK ACCEPTABLE TO THE			FLEXIE
		OWNER'S REPRESENTATIVE.		11.	MANU

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

XISTING EQUIPMENT REMOVED DURING THE COURSE OF THIS PROJECT SHALL BE OFFERED TO R AND SHALL BE DELIVERED TO OWNER ON SITE. ALL REMAINING EQUIPMENT BECOMES THE ERTY OF THIS CONTRACTOR AND SHALL BE REMOVED FROM THE SITE.

#### PATCHING, AND PAINTING

UTTING AND PATCHING TO BE PERFORMED BY THE GENERAL CONTRACTOR.

ING OF ALL OPENINGS SHALL BE COORDINATED WITH THE OWNER'S ENGINEERING ESENTATIVE.

R WILL NOT BE USED FOR CONCRETE CUTTING WITHOUT THE DIRECT SUPERVISION OF THE ER'S ENGINEERING REPRESENTATIVE.

#### HANDLING

ALL MEANS NECESSARY TO PROTECT ALL MATERIALS AND EQUIPMENT BEFORE, DURING, AND R INSTALLATION AND TO PROTECT THE MATERIALS AND WORK OF THE OTHER TRADES.

E EVENT OF DAMAGE, IMMEDIATELY MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY TO THE OVAL OF THE ENGINEER AND AT NO ADDITIONAL COST TO THE OWNER.

#### RESTRAINTS

QUIPMENT, DUCTWORK, PIPING, AND CONDUIT SHALL BE SEISMICALLY RESTRAINED PER THE 2012

RENCES: INTERNATIONAL BUILDING CODE (IBC) SECTION 1613.1, AMERICAN SOCIETY OF CIVIL NEERS (ASCE 7) SECTION 13.6, SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL CIATION (SMACNA) SEISMIC RESTRAINT MANUAL, AND AMERICAN SOCIETY OF PLUMBING VEERS (ASPE) PLUMBING ENGINEERING DESIGN HANDBOOK.

PMENT SHALL BE AS SPECIFIED IN THE EQUIPMENT SCHEDULE OR AN APPROVED EQUAL IF NOTED. ALL EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS.

JRELY FASTEN ALL EQUIPMENT TO PREVENT MOVEMENT DUE TO WIND OR SEISMIC FORCES.

STRIBUTION DUCT SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH CURRENT ONS OF THE ASHRAE GUIDE AND WITH S.M.A.C.N.A. DUCT CONSTRUCTION STANDARDS

ANGULAR AND ROUND DUCTWORK SHALL BE CONSTRUCTED FROM GALVANIZED STEEL IN RDANCE WITH THE LATEST EDITION S.M.A.C.N.A. "HVAC DUCT CONSTRUCTION STANDARDS" FOR 2" PRESSURE SYSTEMS. FIBERGLASS DUCT WILL NOT BE PERMITTED.

S LINED WITH INSULATION SHALL BE INCREASED IN SIZE TO ALLOW FOR INSULATION THICKNESS HAT DIMENSIONS SHOWN ON DRAWINGS WILL BE NET INSIDE DIMENSIONS.

NGS: ROUND TO RECTANGULAR DUCT CONNECTIONS SHALL BE MADE AS SHOWN ON DRAWINGS /ITH CONICAL SHAPED PREFORMED FITTINGS. TURNING VANES SHALL BE USED FOR ALL MITERED WS IN RECTANGULAR DUCT. CENTERLINE RADIUS OF ALL ELBOWS SHALL BE ONE AND ONE HALF THE DIAMETER OF THE DUCT.

'S SHALL BE PROVIDED WITH HANGERS TO PREVENT ANY BENDING OR SAGGING. HANGERS SHALL ALVANIZED STRAP IRON LOOPS WHICH SHALL BE FASTENED TO OVERHEAD CONSTRUCTION IN A JRE MANNER. SIZE, GAUGE, AND SPACING SHALL BE PER S.M.A.C.N.A. STANDARDS.

DUCT JOINTS SHALL BE SEALED WITH S.M.A.C.N.A. APPROVED TAPE AND POLYMER ADHESIVES AIR . #33 OR DESIGN POLYMERICS #DP1010 WATER BASED DUCT SEALANT OR APPROVED EQUAL.

. DUCT CONNECTIONS TO UNITS, AND WHERE INDICATED, FURNISH AND INSTALL HEAVY FLEXIBLE IECTIONS 6" MINIMUM LENGTH. MATERIAL USED FOR FLEXIBLE CONNECTIONS SHALL BE VENTFAB ANUFACTURED BY VENTFABRIC, METALFAB AS MANUFACTURED BY DURODYNE, OR APPROVED

IBLE DUCTWORK LOCATED WITHIN THE CONDITIONED SPACE SHALL BE A FACTORY FABRICATED MBLY CONSISTING OF A FLAME RESISTANT, DOUBLE LAMINATION OF POLYESTER INNER LINER ED TO A COATED SPRING STEEL WIRE HELIX, 11/2" THICK FIBERGLASS INSULATION FOR AN TING VALUE OF R4.2, AND AN OUTER VAPOR BARRIER JACKET OF METALIZED POLYESTER FILM. IBLE DUCT TO BE ATCO UPC-030. FLEXIBLE DUCT RUNOUTS SHALL NOT EXCEED 5 FEET IN LENGTH.

IBLE DUCTWORK LOCATED IN UNCONDITIONED SPACE SHALL BE A FACTORY FABRICATED MBLY CONSISTING OF A FLAME RESISTANT, DOUBLE LAMINATION OF POLYESTER INNER LINER DED TO A COATED SPRING STEEL WIRE HELIX, 2" THICK FIBERGLASS INSULATION FOR AN LATING VALUE OF R6. AND AN OUTER VAPOR BARRIER JACKET OF METALIZED POLYESTER FILM. IBLE DUCT TO BE ATCO UPC-036. FLEXIBLE DUCT RUNOUTS SHALL NOT EXCEED 5 FEET IN LENGTH.

IBLE DUCTWORK LOCATED IN UNCONDITIONED SPACE SHALL BE A FACTORY FABRICATED MBLY CONSISTING OF A FLAME RESISTANT, DOUBLE LAMINATION OF POLYESTER INNER LINER DED TO A COATED SPRING STEEL WIRE HELIX, 21/2" THICK FIBERGLASS INSULATION FOR AN LATING VALUE OF R8, AND AN OUTER VAPOR BARRIER JACKET OF METALIZED POLYESTER FILM. IBLE DUCT TO BE ATCO UPC-031. FLEXIBLE DUCT RUNOUTS SHALL NOT EXCEED 5 FEET IN LENGTH.

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.

#### GRILLES, REGISTERS, AND DIFFUSERS

- 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.
- COORDINATE LOCATIONS WITH CEILING GRID DESIGN AND LIGHT FIXTURE PATTERN.
- K. DUCT INSULATION
  - ACCEPTABLE MANUFACTURERS: CERTAINTEED, KNAUF, JOHNS MANVILLE, AND OWENS CORNING.
  - ROUND SUPPLY AND RETURN DUCT AND FITTINGS LOCATED WITHIN THE CONDITIONED SPACE SHALL BE EXTERNALLY INSULATED WITH JOHNS MANVILLE MICROLITE 75 (OR EQUAL) 11/2" THICK, 3/4# DENSITY FIBERGLASS BLANKET INSULATION WITH FSK VAPOR BARRIER JACKET. ROUND SUPPLY AND RETURN DUCT AND FITTINGS EXPOSED WITHIN THE AREA THAT IT SERVES SHALL NOT BE INSULATED.
  - RECTANGULAR SUPPLY AND RETURN DUCT AND FITTINGS LOCATED WITHIN THE CONDITIONED SPACE SHALL BE INTERNALLY LINED WITH JOHNS MANVILLE PERMACOTE LINACOUSTIC R-300 (OR EQUAL) 1" THICK, 11/2# DENSITY ACOUSTICAL DUCT LINER. ADJUST DUCT SIZE TO ACCOMMODATE LINER AND GIVE NET DIMENSIONS SHOWN ON DRAWINGS.
  - 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.
  - RECTANGULAR SUPPLY AND RETURN DUCT AND FITTINGS LOCATED IN UNCONDITIONED SPACE SHALL BE INTERNALLY LINED WITH JOHNS MANVILLE PERMACOTE LINACOUSTIC R-300 (OR EQUAL) 11/2" THICK, R-6 MINIMUM INSULATING VALUE, 11/2# DENSITY ACOUSTICAL DUCT LINER. ADJUST DUCT SIZE TO ACCOMMODATE LINER AND GIVE NET DIMENSIONS SHOWN ON DRAWINGS.
- 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 MECHANICAL CONTRACTOR

#### M. 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.
- AFTER COMPLETION OF THE INSTALLATION WORK, TEST AND REGULATE ALL COMPONENTS OF THE NEW SYSTEMS TO THE SATISFACTION OF THE OWNER'S ENGINEERING REPRESENTATIVE.
- AIR BALANCE CONTRACTOR TO SUPPLY NEW DRIVE COMPONENTS REQUIRED TO PROVIDE AIR FLOWS INDICATED. THE DRIVE SHALL BE SELECTED AT NOT LESS THAN TWO TIMES THE RATE NAME PLATE HORSEPOWER OF THE FAN MOTOR AND BE FIXED PITCH (VARIABLE PITCH SHEAVES WILL NOT BE PERMITTED EXCEPT TO DETERMINE PROPER SHEAVE SIZE).
- 4. AIR SYSTEM: ALL COMPONENTS SHALL BE TESTED AND ADJUSTED TO -0 TO +10%. REPORT SHALL INCLUDE SCHEDULED (NAMEPLATE) AND TESTED DATA. PROVIDE FAN/MOTOR RPM, AIR PRESSURE DROP FOR INDIVIDUAL COMPONENTS, TSP, ESP, CFM, VOLTAGE, AMPS, HP, AND SHEAVE SIZES (AS APPLICABLE) FOR ALL EQUIPMENT, AIR OUTLETS, AND AIR INLETS.
- DIFFUSERS, GRILLES, REGISTERS: ADJUST THROW PATTERN AS SHOWN ON THE DRAWINGS. ADJUST AIR QUANTITIES WITHIN -0 TO +10% OF THE DESIGN AIR QUANTITIES.

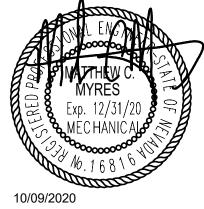
#### N. IDENTIFICATION

- 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.
- 2. IDENTIFY ALL EQUIPMENT WITH PLASTIC NAMEPLATES
- IDENTIFY CONTROL PANELS AND MAJOR COMPONENTS OUTSIDE PANELS WITH PLASTIC NAMEPLATES. TAG AUTOMATIC CONTROLS, INSTRUMENTS, AND RELAYS. KEY TO CONTROL SCHEMATIC.

#### O. RELATED WORK

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





# MECHANICAL **SPECIFICATIONS** m002

## **CITY OF SPARKS CITY HALL**

## 431 Prater Way

No.	Description	Date		

#### PERMIT SET 192079012 192079013

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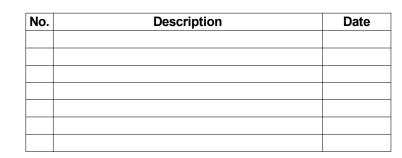


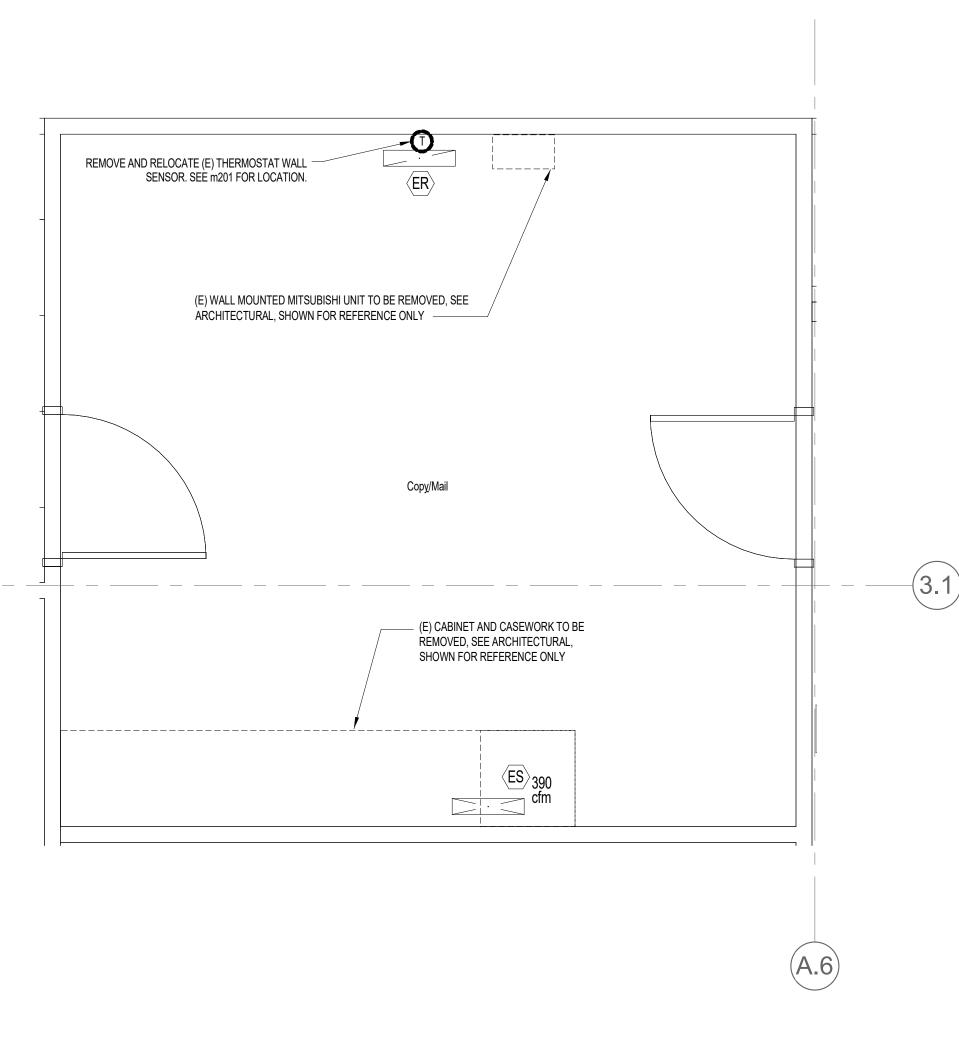
# -(3.1)

# OVERALL PLAN **m100**

# **CITY OF SPARKS** CITY HALL City of Sparks, Nevada

## 431 Prater Way







CUSTOMER SERVICE MECHANICAL PLAN - DEMO SCALE: 1/2" = 1'-0"



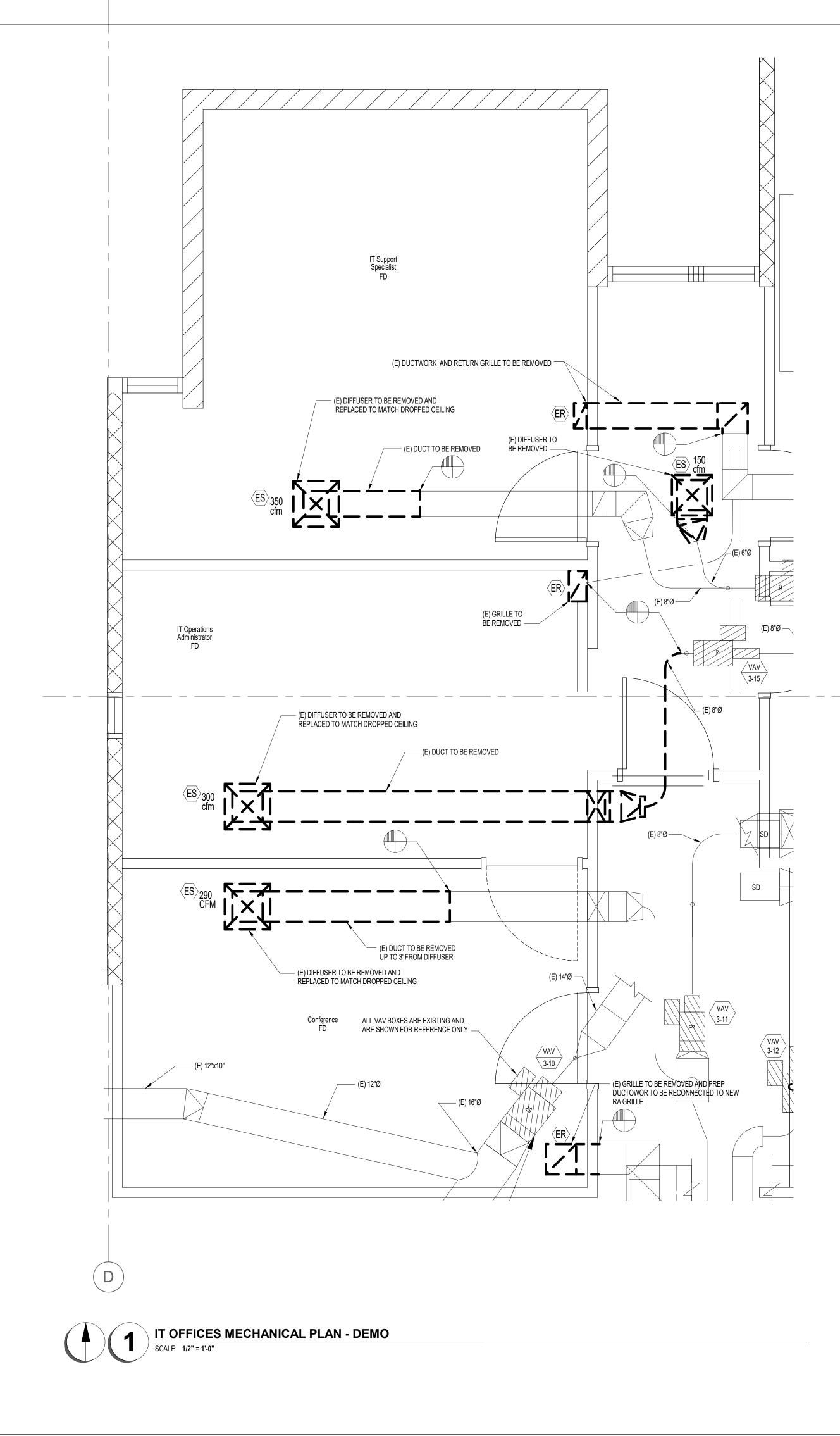
## CUSTOMER SERVICE MECHANICAL DEMO PLAN





## 431 Prater Way

No.	Description	Date		



(1.2)



## 431 Prater Way

**IT OFFICES** 

**m102** 

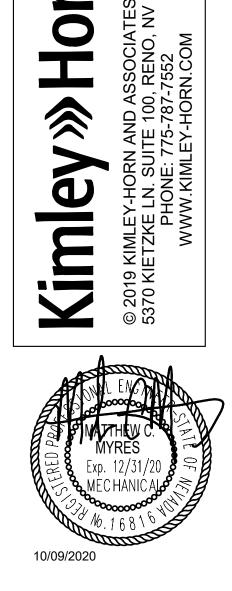
PLAN

MECHANICAL DEMO

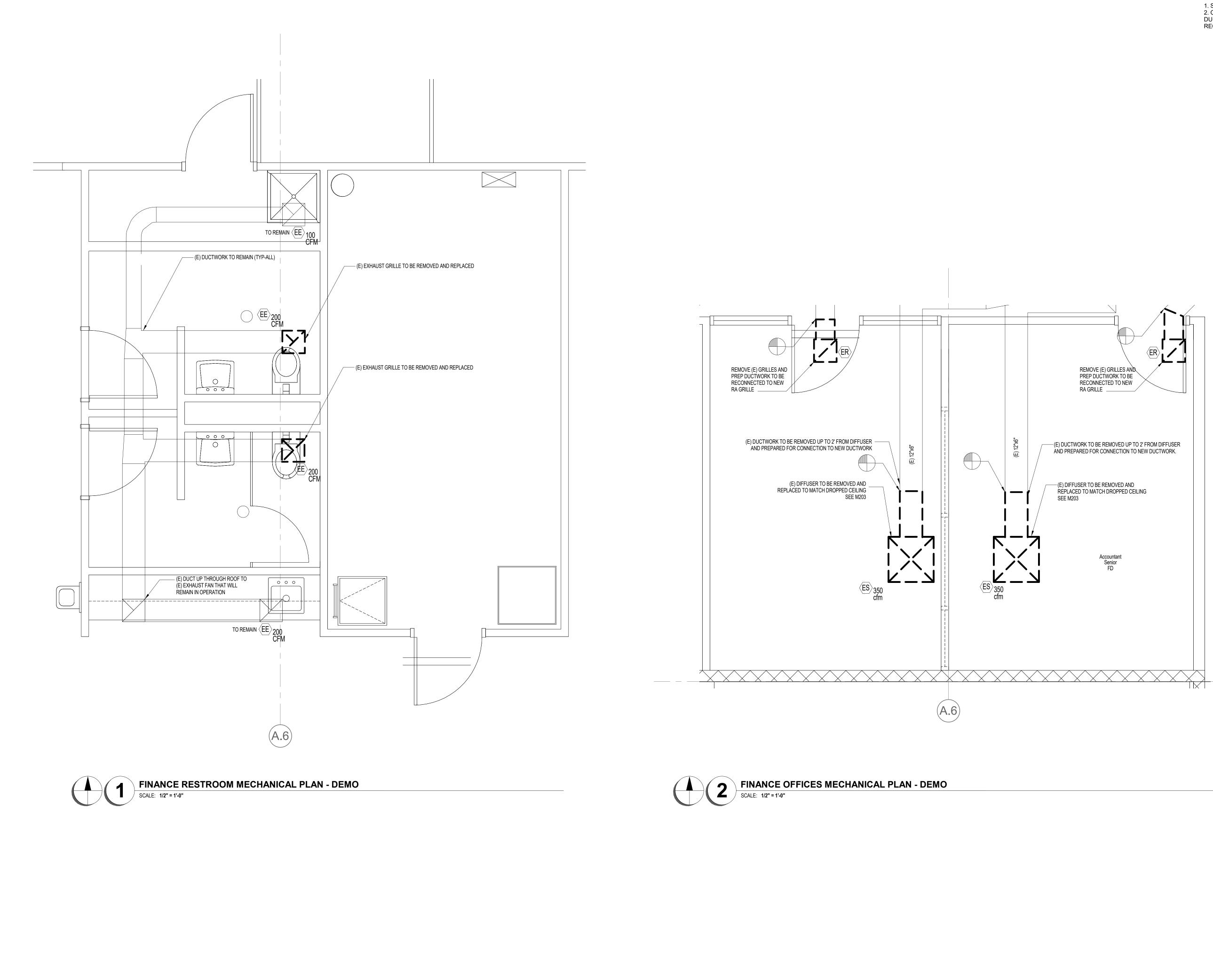
No.	Description	Date		

PERMIT SET 192079012 192079013 192079014 10/9/2020 1:07:24 PM

GENERAL NOTE: 1. SEE SHEET m202 FOR NEW DUCTWORK LAYOUT. 2. CONTRACTOR MUST BE SELECTIVE WITH THE REMOVAL OF (E) DUCTWORK AND SHALL PREP THE (E) DUCTWORK TO REMAIN FOR RECONNECTION TO NEW.



1. 1 1 1

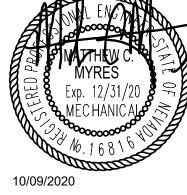


1.5

1. SEE SHEET m203 FOR NEW DUCTWORK LAYOUT. 2. CONTRACTOR MUST BE SELECTIVE WITH THE REMOVAL OF (E) DUCTWORK AND SHALL PREP THE (E) DUCTWORK TO REMAIN FOR RECONNECTION TO NEW.



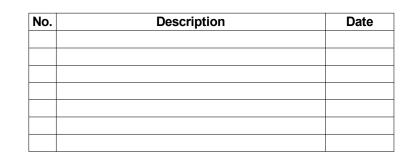
INC 951

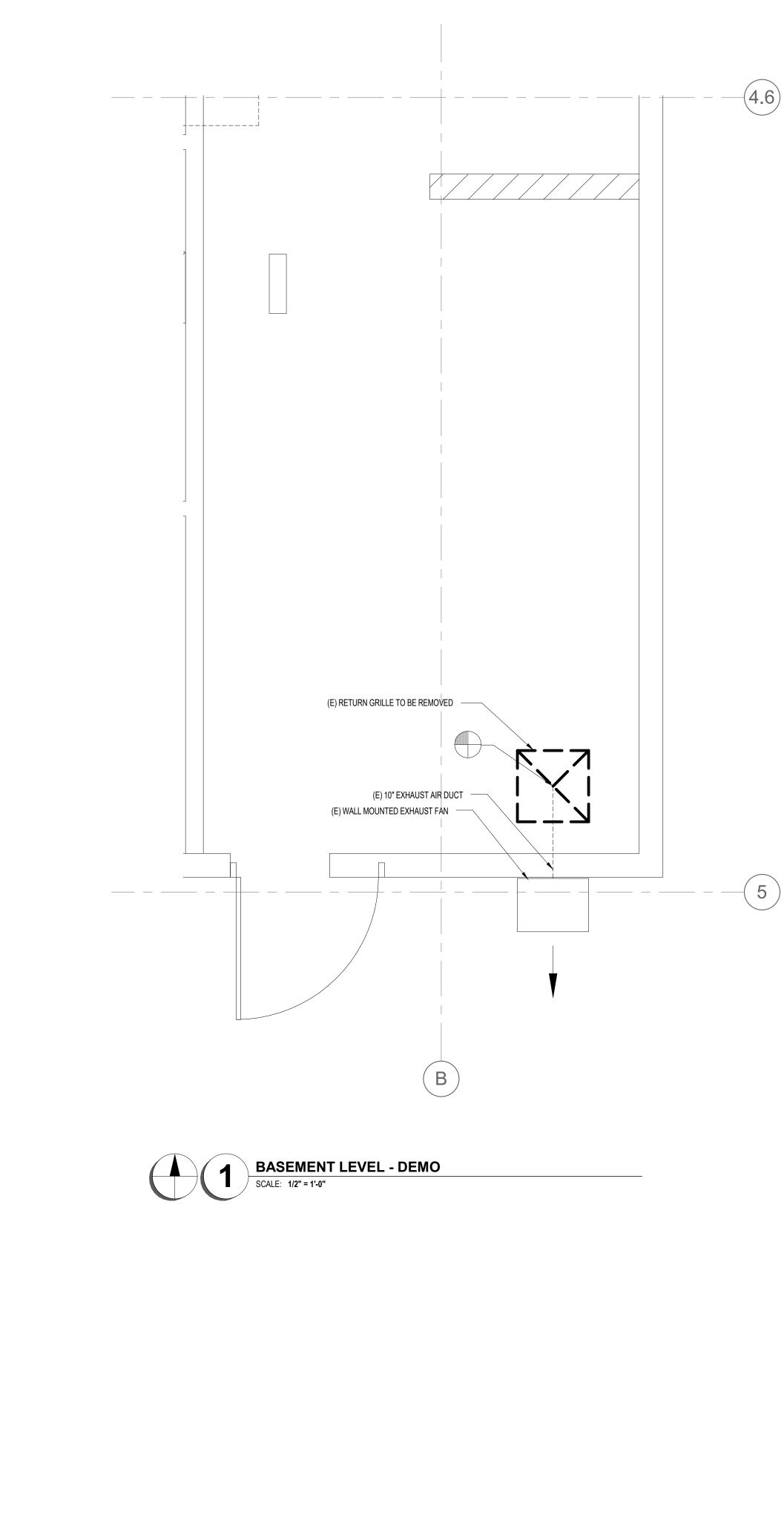


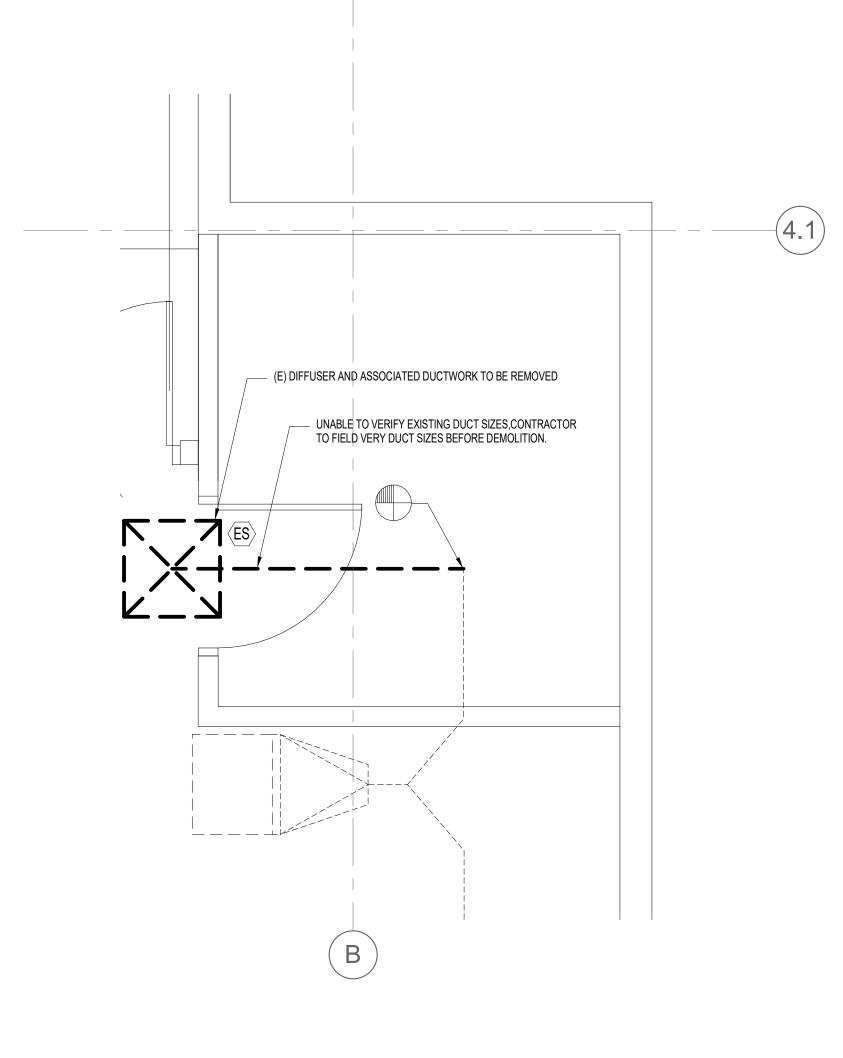




## 431 Prater Way









**CITY OF SPARKS** CITY HALL City of Sparks, Nevada

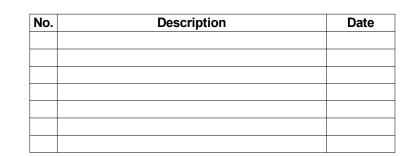
## 431 Prater Way

BASEMENT

**m104** 

PLAN

**MECHANICAL DEMO** 



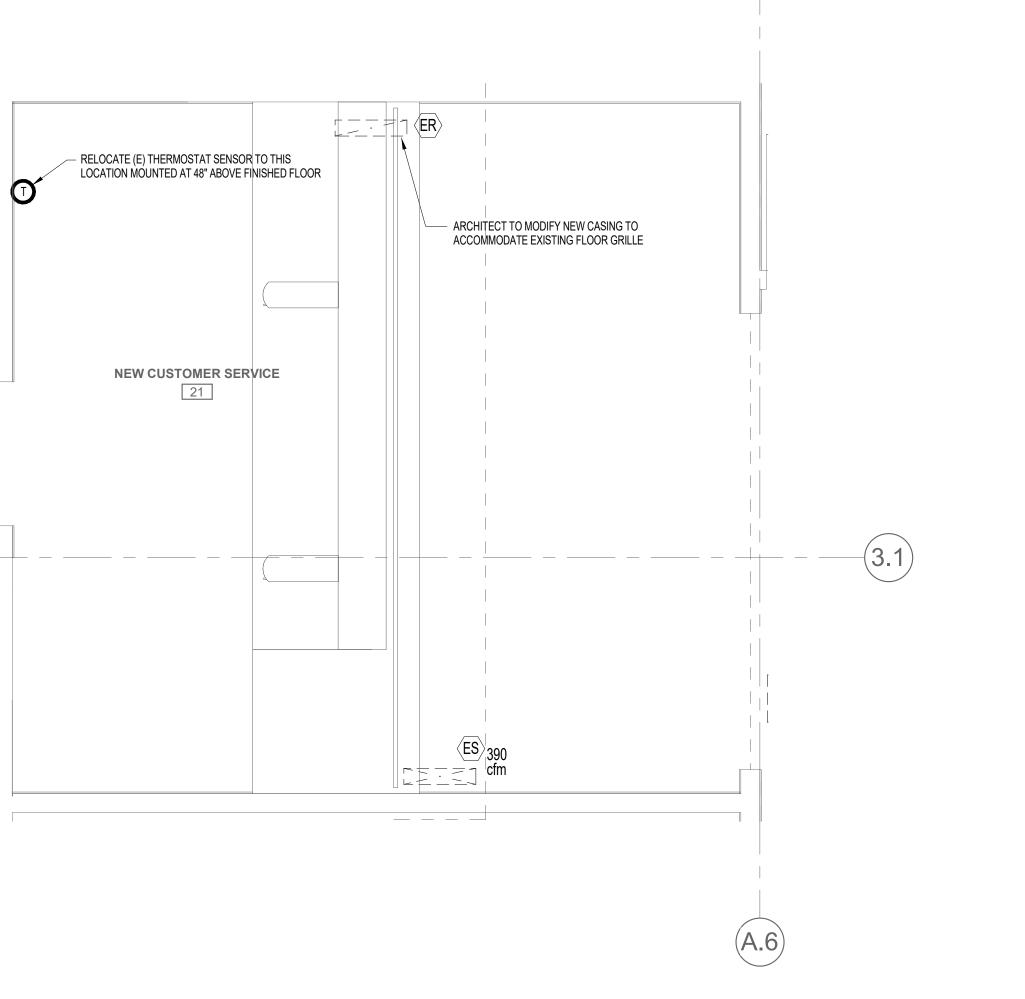
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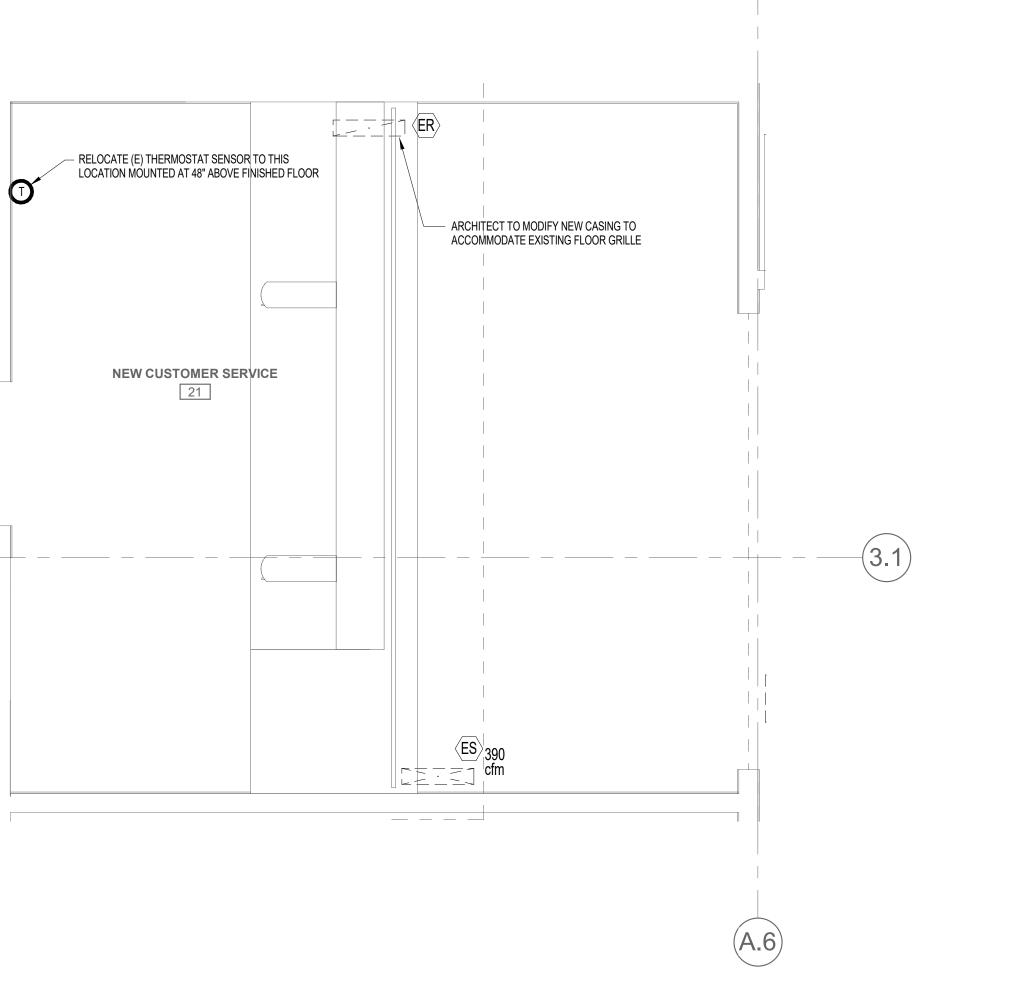
GENERAL NOTE: 1. SEE SHEET m204 FOR NEW DUCTWORK LAYOUT. 2. CONTRACTOR MUST BE SELECTIVE WITH THE REMOVAL OF (E) DUCTWORK AND SHALL PREP THE (E) DUCTWORK TO REMAIN FOR RECONNECTION TO NEW.



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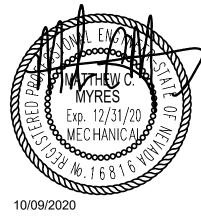
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## **CUSTOMER SERVICE MECHANICAL PLAN**



# **CITY OF SPARKS** CITY HALL City of Sparks, Nevada

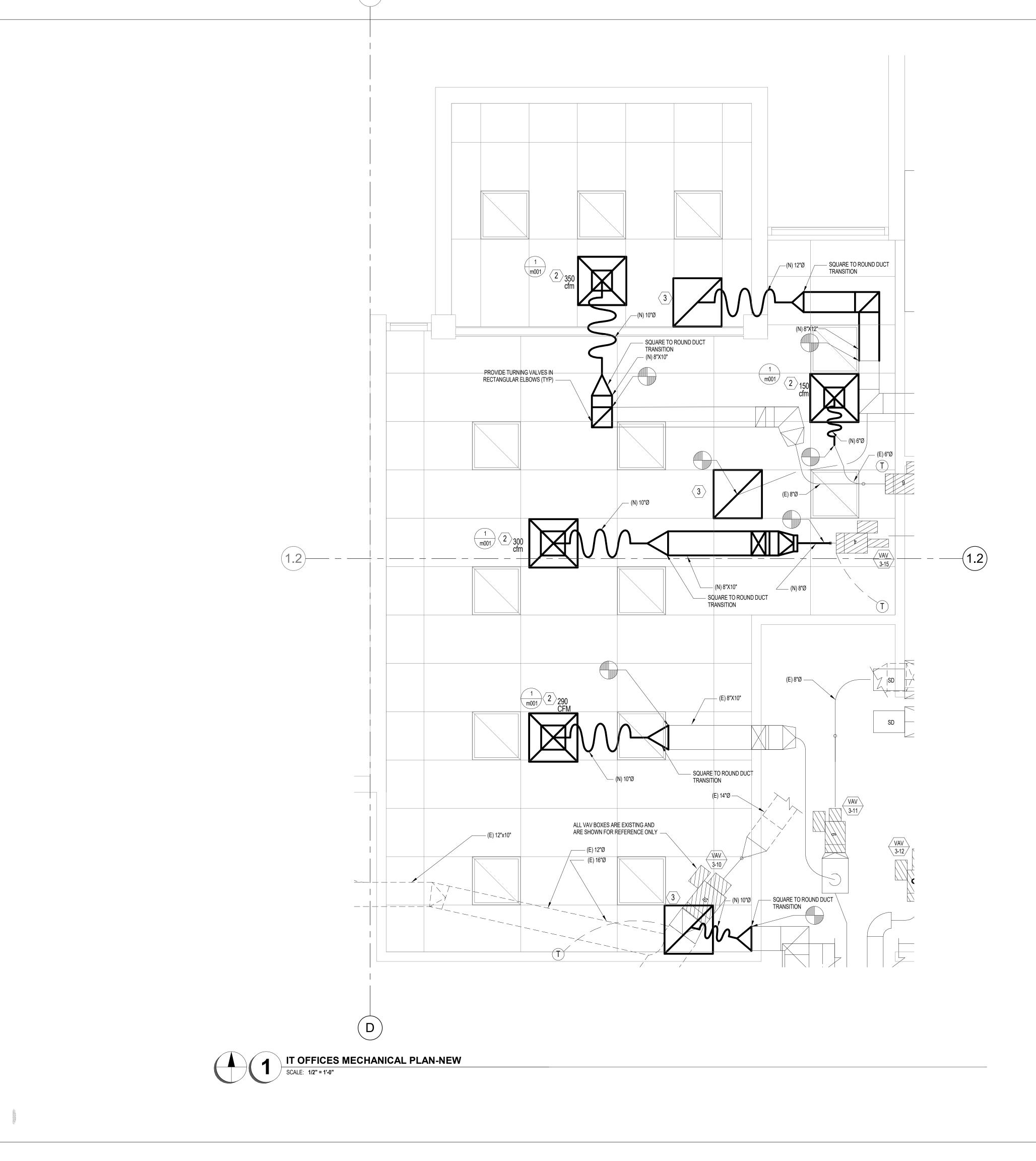
## 431 Prater Way

No.	Description	Date		

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GENERAL NOTE:

- ARCHITECT TO PROVIDE NEW DROP CEILING TO ACCOMMODATE NEW DIFFUSERS AND DUCT MODIFICATIONS.
   PROVIDE ALL DUCT TRANSITIONS AS REQUIRED. FIELD VERIFY BEFORE ORDERING MATERIALS.



- ARCHITECT TO PROVIDE NEW DROP CEILING TO ACCOMMODATE NEW DIFFUSERS AND DUCT MODIFICATIONS.
   PROVIDE ALL DUCT TRANSITIONS AS REQUIRED. FIELD VERIFY BEFORE ORDERING MATERIALS.



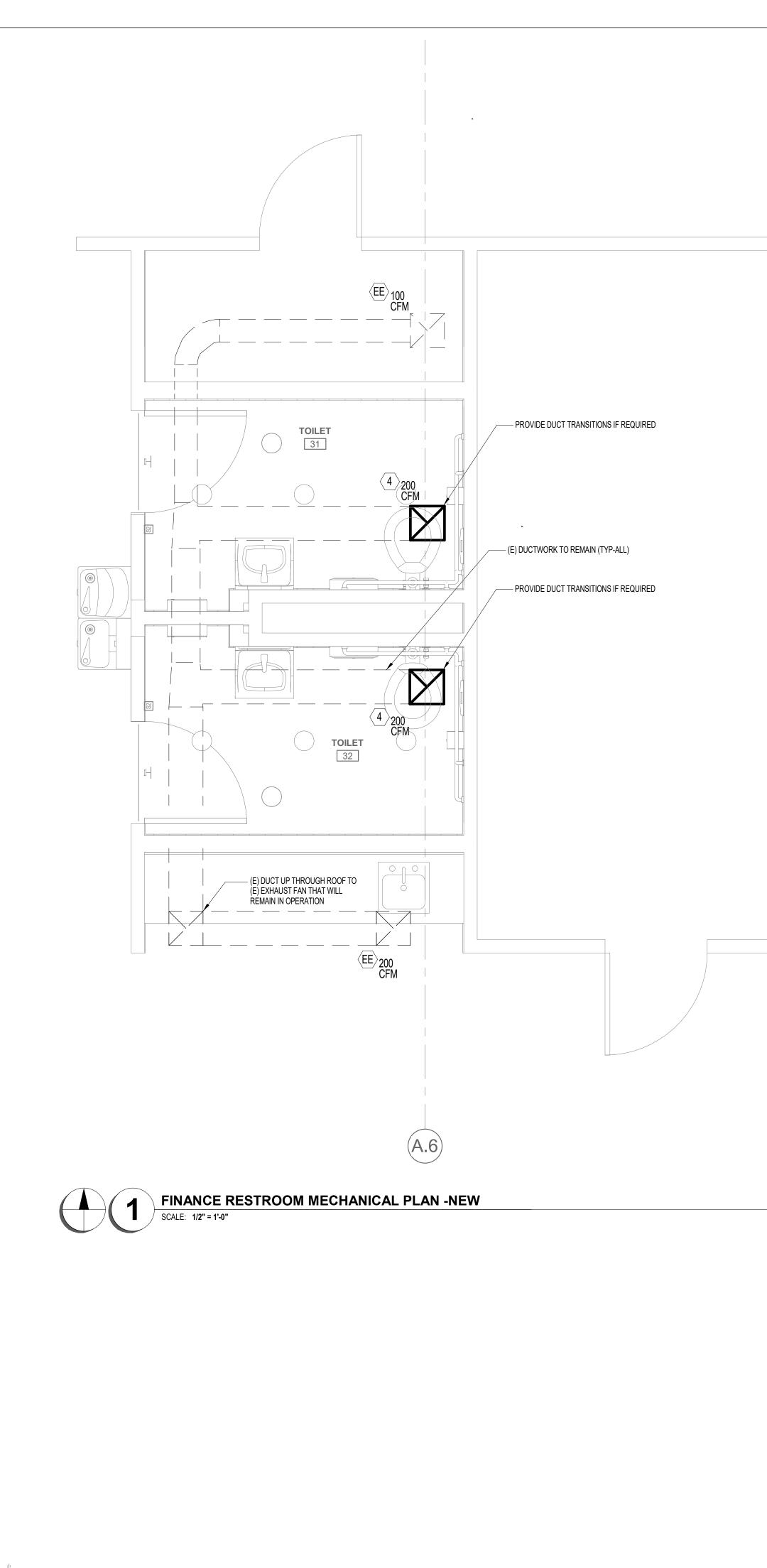
10/09/2020

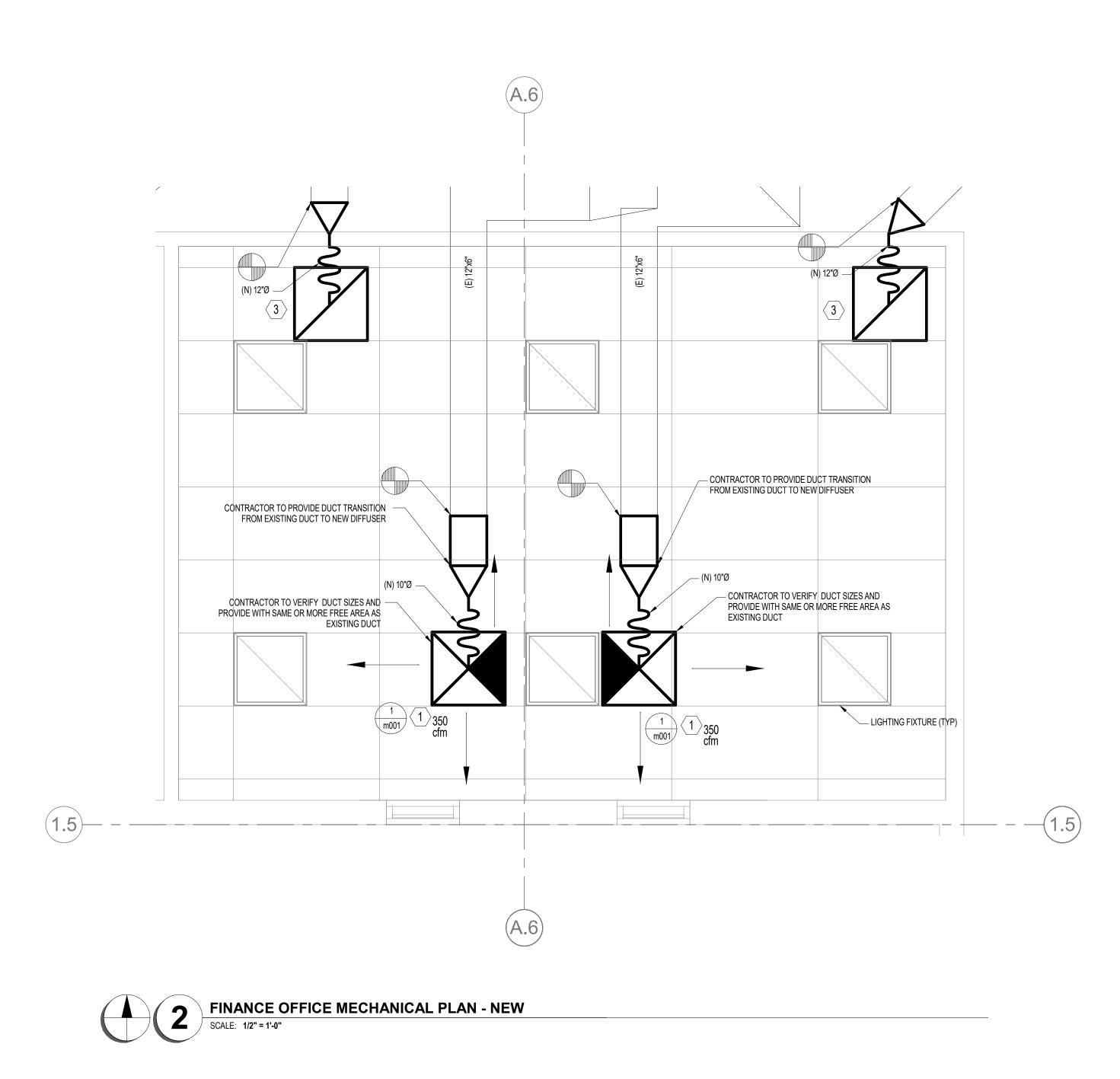


# **CITY OF SPARKS** CITY HALL City of Sparks, Nevada

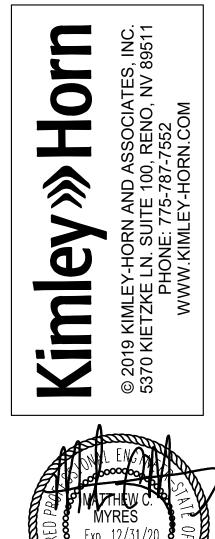
## 431 Prater Way

No.	Description	Date





- ARCHITECT TO PROVIDE NEW DROP CEILING TO ACCOMMODATE NEW DIFFUSERS AND DUCT MODIFICATIONS.
   PROVIDE ALL DUCT TRANSITIONS AS REQUIRED. FIELD VERIFY BEFORE ORDERING MATERIALS.

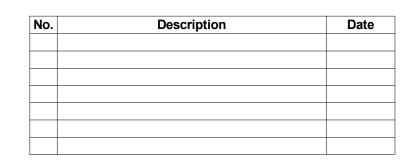


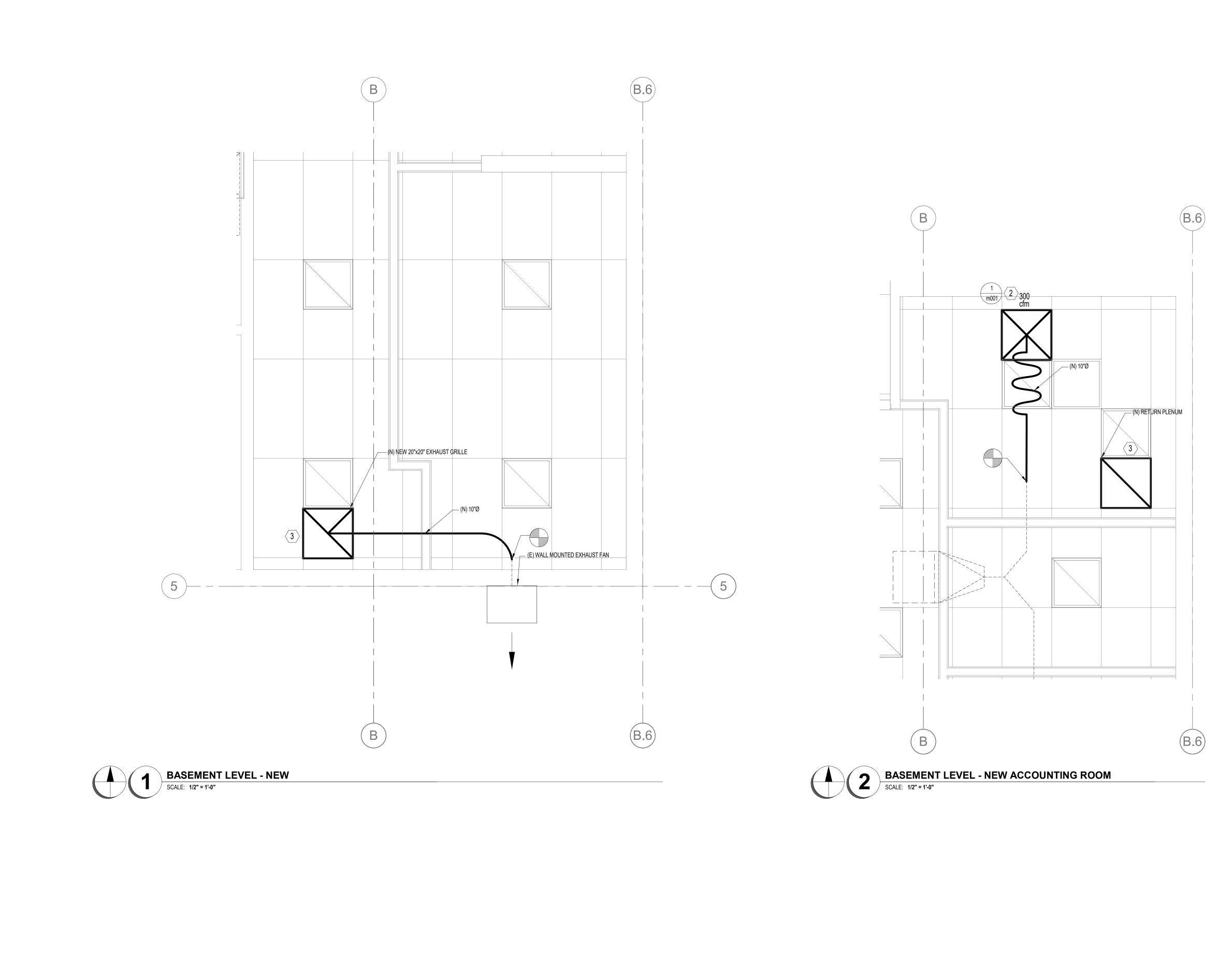


# FINANCE OFFICES MECHANICAL PLAN **m203**

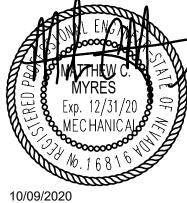


## 431 Prater Way











BASEMENT MECHANICAL PLAN





## 431 Prater Way

No.	Description	Date		

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GENERAL NOTE:

- ARCHITECT TO PROVIDE NEW DROP CEILING TO ACCOMMODATE NEW DIFFUSERS AND DUCT MODIFICATIONS.
   PROVIDE ALL DUCT TRANSITIONS AS REQUIRED. FIELD VERIFY BEFORE ORDERING MATERIALS.

	PLUMBIN	G SYMBOL LIST	(NOTE: ALL OF THE	SYMBOLS IN	DICATED BELOW MAY
	S or W	SOIL OR WASTE PIPING (BELOW GRADE / FLOOR)	₽	TH.	THERMOMETER
	S or W	SOIL OR WASTE PIPING (ABOVE GRADE / FLOOR)		V.B.	VACUUM BREAKER
	V	SOIL OR WASTE VENT PIPING		- C.O.	CLEANOUT PLUG
RDL	RDL,SDL	STORM OR ROOF DRAIN PIPING (BELOW GRADE / FLOOR)	Φ	F.C.O.	FLOOR CLEANOUT
RDL	RDL,SDL	STORM OR ROOF DRAIN PIPING (ABOVE GRADE / FLOOR)		G.C.O.	GRADE CLEANOUT
ODL	ODL	OVERFLOW ROOF DRAIN PIPING (BELOW GRADE / FLOOR)	<u>_</u>	W.C.O.	WALL CLEANOUT
ODL	ODL	OVERFLOW ROOF DRAIN PIPING (ABOVE GRADE / FLOOR)	<del></del>	P.D.	PIPING TEE DOWN
D	D	DRAIN PIPING	O	P.U.	PIPING TEE UP
IW	IW	INDIRECT WASTE PIPING	0	P.U.	PIPING ELBOW UP
C	С	CONDENSATE DRAIN PIPING	<del></del>	P.D.	PIPING ELBOW DOWN
	CW	COLD WATER PIPING			BRANCH - TOP CONNEC
	HW	HOT WATER PIPING (105 <sup>^</sup> - 125 <sup>^</sup> F)			BRANCH - BOTTOM CON
	HWR	HOT WATER RECIRCULATION PIPING (SPECIFY TEMP)			BRANCH - SIDE CONNEC
т т	Т	TEMPERED WATER (120 <sup>^</sup> F)	T	P.T.	PLUGGED TEE
TR	TR	TEMPERED WATER RETURN PIPING	]	C.O.P.	CAP ON END OF PIPE
— — TP — —	TP	TRAP PRIMER WATER PIPING		:	ARROW INDICATES DIRE
LPG	LPG	LIQUID PROPANE GAS (7" W.C.)	P	Р	POWER POINT CONNEC
G	G	GAS - LOW PRESSURE (LESS THAN 2 PSI)		F.L.S.	FLOOR SINK
MG	MG	GAS - MEDIUM PRESSURE (2-3 PSI)		F.D.	FLOOR DRAIN
——— HG ———	HG	GAS - HIGH PRESSURE (5 PSI AND ABOVE)	$\bigcirc$		PLUMBING FIXTURE SCH
——— A ———	А	COMPRESSED AIR PIPING	$\langle 1 \rangle$		KITCHEN EQUIPMENT CO
FOS	FOS	FUEL OIL SUPPLY PIPING		V.T.R.	PLUMBING VENT THRU F
FOR	FOR	FUEL OIL RETURN PIPING	$\square$ $\land$	A.P.	ACCESS PANEL
	G.V.	GATE VALVE		AFF	ABOVE FINISHED FLOOF
	GLV	GLOBE VALVE		AFG	ABOVE FINISHED GRAD
φ	BLV	BALL VALVE		BTUH	BRITISH THERMAL UNITS
₽	ANV	ANGLE VALVE		CD	CONDENSATE DRAIN PI
iĢi	B.F.V.	BUTTERFLY VALVE		CFH	CUBIC FEET PER HOUR
	C.H.V.	CHECK VALVE		DN	DOWN
——————————————————————————————————————	G.C.	GAS COCK, GAS STOP		(E)	EXISTING
—	B.V.	BALANCING VALVE		GA	GAUGE
+	H.B.	HOSE BIBB		GAL	GALLON
\$	H.V.	3/4" HOSE END DRAIN VALVE		GPH	GALLONS PER HOUR
⊃	S.O.V.	SHUT-OFF VALVE IN RISER		GPM	GALLONS PER MINUTE
	BP	DOUBLE CHECK BACKFLOW PREVENTION ASSEMBLY		HD	HEAD
	R.P.B.P.	REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY		HR	HOUR
				MAX	MAXIMUM
	G.P.R.	GAS PRESSURE REDUCING VALVE		MBH	BRITISH THERMAL UNITS
	S.T.R.	STRAINER		MIN	MINIMUM
+ ×	S.T.R.V.	STRAINER WITH 3/4" HOSE END DRAIN VALVE		(N)	NEW
	P.T.R.	PRESSURE - TEMPERATURE RELIEF VALVE		NOM	NOMINAL
	RV	PRESSURE RELIEF VALVE		PD	PRESSURE DROP
	U			T.J.	THROUGH JOISTS
	F			TYP	TYPICAL
	FL	FLEXIBLE PIPING CONNECTOR (U.L. LABELED FOR GAS PIPING)		U.F.	UNDER FLOOR
↓) ■	RED.			WC	WATER COLUMN
	W.H.A.	WATER HAMMER ARRESTOR			

## PLUMBING PROJECT NOTES

P.R.G.

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.

PRESSURE GAUGE WITH GAUGE COCK

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.

4. THE CONTRACTOR SHALL REVIEW ALL INSTALLATION INSTRUCTIONS FOR ALL EQUIPMENT TO BE SUBMITTED ON PRIOR TO BID AND PROVIDE ANY RFI'S TO THE OWNER PRIOR TO BID.

Ŷ

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

LOW MAT NOT AFPEAR ON THIS PROJECT)
IETER
BREAKER
T PLUG
EANOUT
EANOUT
ANOUT
E DOWN
E UP
BOW UP
BOW DOWN
TOP CONNECTION
BOTTOM CONNECTION
SIDE CONNECTION
TEE
ND OF PIPE
DICATES DIRECTION OF FLOW
OINT CONNECTION FOR HOT WATER MAINT. SYSTEM
NK
RAIN
G FIXTURE SCHEDULE - (SEE SCHEDULE)
EQUIPMENT CONNECTION SCHEDULE - (SEE SCHEDULE)
G VENT THRU ROOF
PANEL
NISHED FLOOR

IISHED GRADE

HERMAL UNITS PER HOUR

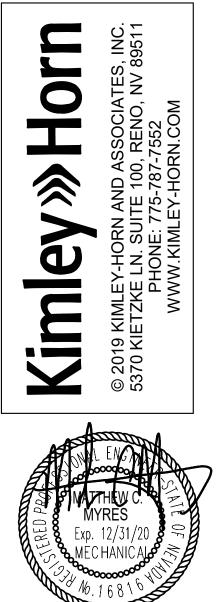
ATE DRAIN PIPING

T PER HOUR

IERMAL UNITS PER HOUR (THOUSANDS)

	PLUMBING FIXTURE SCHEDULE							
SYM	DESCRIPTION	MANUFACTURER & MODEL NO.	TRIM	W	CONNECTIONS W V HW			REMARKS
L-1	LAVATORY WALL HUNG (ADA COMPLIANT)	KOHLER MODEL NO. 5-2035-1-0 "PINOIR" (OR APPROVED EQUAL)	SINGLE FAUCET HOLE, WALL HUNG SINK, WHITE PORCELAIN, OVAL BASIN, OVERFLOW DRAIN. WALL HANGER INCLUDED. PROVIDE WITH SLOAN EAF-100-P FAUCET.	2"	1 1/2"	3/4"	<u>CW</u> 3/4"	ADA COMPLIANT WHEN INSTALLED PER MANUFACTURERS INSTRUCTIONS
WC-1	WALL MOUNTED WATER CLOSET (ADA COMPLIANT)	AMERICAN STANDARD MODEL 3351.101 "AFWALL MILLENNIUM FLOWISE" (OR APPROVED EQUAL)	HIGH EFFICIENCY 1.6 GPF WALL MOUNTED ELONGATED FLUSHOMETER VALVE TOILET, VITREOUS CHINA, PERMANENT EVERCLEAN SURFACE, TOP SPUD. PROVIDE WITH 5901.100 HEAVY DUTY AMERICAN STANDARD SEAT, PROVIDE WITH 1.6 GPF AC POWERED HARDWIRED SLOAN FLUSHOMETER ROYAL OPTIMA 111 ESS-1.6. PROVIDE JR SMITH 10" THICK ADJUSTABLE HORIZONTAL NARROW WALL CARRIER MODEL # 0140D	4"	2"	N/A	11⁄2"	ADA COMPLIANT WHEN INSTALLED PER MANUFACTURERS INSTRUCTIONS
EWC-1	MECHANICAL PUSHBAR ACTUATED WATER COOLER (ADA COMPLIANT) WITH BOTTLE FILLER	ELKAY MODEL No. LZSTL8WSLK	BI-LEVEL, BARRIER-FREE, WALL MOUNTED REFRIGERATED WATER COOLER WITH SELF-CLOSING EASY-TOUCH CONTROLS REQUIRING LESS THAN 3 POUNDS OF FORCE TO OPERATE. UNIT SHALL PROVIDE 8.0 GPH OF 50°F WATER WITH 80°F ENTERING WATER AND 90°F AMBIENT. PROVIDE AND INSTALL MANUFACTURERS CANE SKIRT. PROVIDE COMPLETE WITH MOUNTING PLATE, STOP, SUPPLY, TRAP, CANE SKIRT AND BOTTLE FILLER MODEL No. LZWSRK.	2"	11/2"	N/A	1/2"	UNIT SHALL BE DESIGNED FOR WHEELCHAIR USE AND MEET ADA REQUIREMENTS. ELEC: 120V/1PH/60HZ. FLA: 5.0 AMPS OPERATING WEIGHT: 150 LBS.
FS-1	FLOOR SINK	ZURN MODEL Z1900	12"x12"x6", CAST IRON BODY AND SQUARE, WHITE ACID RESISTING PORCELAIN ENAMEL INTERIOR AND TOP.	2"	N/A	N/A	N/A	INSTALL PER MANUFACTURERS INSTRUCTIONS
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	<u>1</u> "-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. INCLUDE DU-U FOR MULTIPLE CONNECTIONS.	N/A	N/A	N/A	1, " 2	INSTALL PER MANUFACTURERS INSTRUCTIONS
ET-1	EXPANSION TANK	AMTROL-X-TROL MODEL No. ST-5C	PRE-CHARGED THERMAL EXPANSION TANK. TANK SHALL HAVE AN ACCEPTANCE VOLUME OF 2.0 GALLONS WITH A 150 PSI MAXIMUM WORKING PRESSURE, 240°F MAXIMUM WORKING TEMPERATURE, AND 55 PSI FACTORY PRESET PRESSURE. 1.4 FLA. ELECTRICAL: 120V, SINGLE PHASE, 60HZ	N/A	N/A	3/4"	N/A	UNIT SHALL BE DESIGNED AND BUILT FOR USE ON FRESH POTABLE WATER SYSTEMS.
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
L	1		I		I			

	PLUMBING EQUIPMENT SCHEDULE							
SYM	DESCRIPTION	MANUFACTURER & MODEL NO.	TRIM	W	CONNEC V	TIONS HW	CW	REMARKS
WH-1	ELECTRIC WATER HEATER	AO SMTIH MODEL No. E6-40H45DV	40 GALLON, DUAL 4500-WATT COPPER HEATING ELEMENTS, FOAM INSULATED, 90°F RISE AT 154 GPH	N/A	N/A	3/4"	3/4"	ENERGY FACTORY (EF) OF 0.90. ELECTRICAL SERVICE REQUIRED.



10/09/2020

PLUMBING SYMBOLS AND LEGENDS p001

# **CITY OF SPARKS** CITY HALL City of Sparks, Nevada

## 431 Prater Way

No.	Description	Date

## PLUMBING SPECIFICATIONS

- A. GENERAL
  - 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.
  - PROVIDE ALL PERMITS AND FEES AS REQUIRED FOR THE PLUMBING WORK. 2.
  - CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE PROJECT 3. **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

- 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.
- UPON COMPLETION OF THE PROJECT, AND PRIOR TO FINAL ACCEPTANCE 3. PAYMENT, SUBMIT ONE (1) SET OF AS-BUILT DRAWINGS AND THREE SETS OF **OPERATING AND MAINTENANCE INSTRUCTIONS (BOUND IN 3-RING BINDERS)**

#### C. WORKMANSHIP

- 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.
- COORDINATE ALL WORK WITH THE OWNER'S REPRESENTATIVE. 3.
- COORDINATE ALL WORK WITH THE OTHER TRADES. 4.
- 5. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL WORK ACCEPTABLE TO THE OWNER'S REPRESENTATIVE.
- D. PRODUCT HANDLING
  - 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

- 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
  - 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.
  - PROVIDE 10'-0" MINIMUM CLEARANCE BETWEEN PLUMBING VENTS AND ANY 4. 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.
  - WATER PIPING ABOVE GRADE SHALL BE ASTM B88, TYPE "L", HARD DRAWN 6. 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

- 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.
- SUPPORT ALL PIPING IN WALLS WITH HOLD-RITE PIPE SUPPORT SYSTEM OR EQUAL PIPING AT FLUSH VALVES SHALL BE HELD SECURELY IN PLACE TO PREVENT ANY 3.

#### H. VALVES & SPECIALTIES

MOVEMENT.

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.

#### 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.
- ISOLATE ALL PIPING THROUGH CONCRETE WITH 1/2 " THICK CLOSED CELL FOAM. 3.
- 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 11/4" 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.

#### 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.

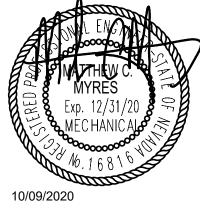
#### M. TESTING & CHLORINATION

- 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
- 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:

	WITH N
WATER	120 PS
	IN PSI

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





# PLUMBING **SPECIFICATIONS** p002

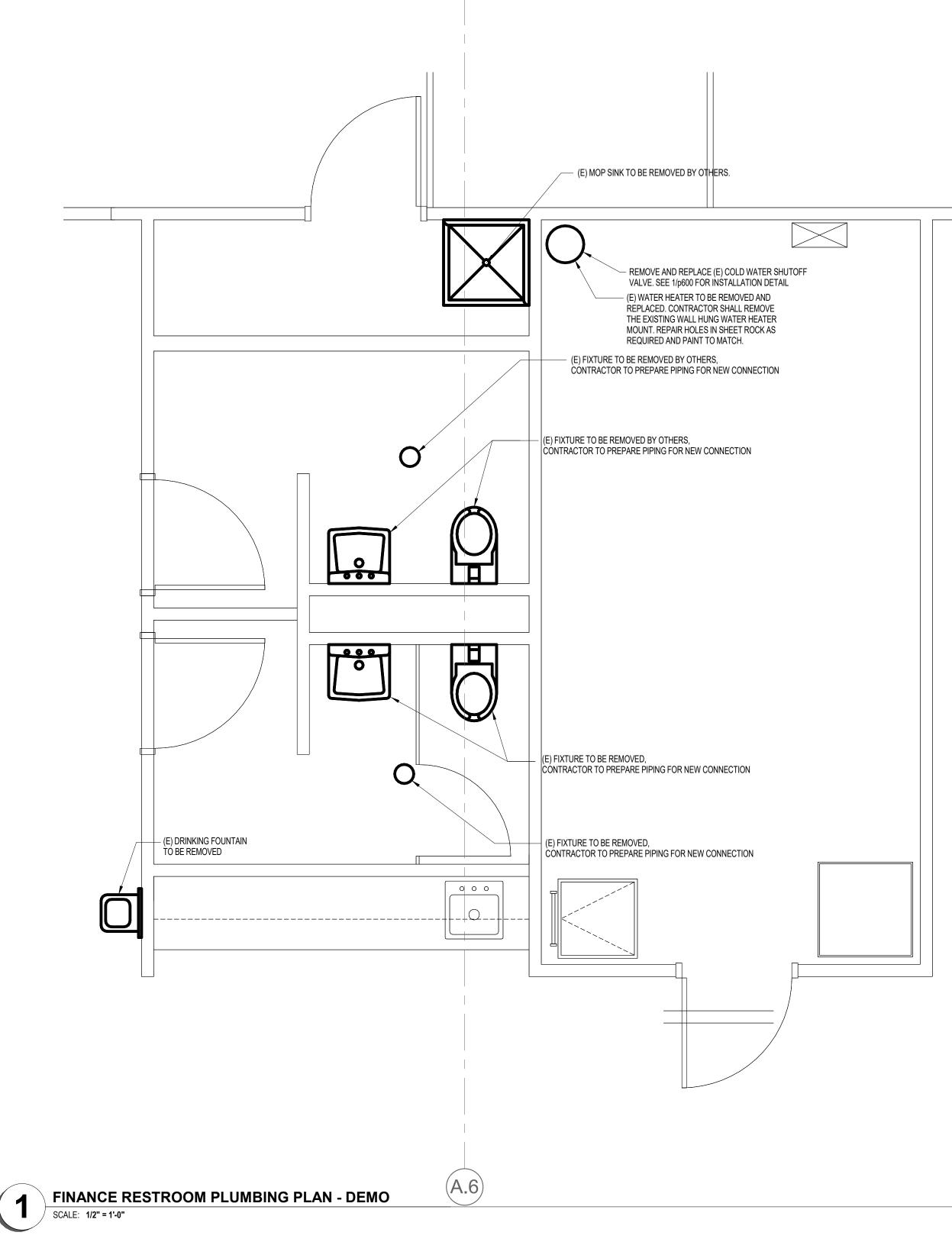
## **CITY OF SPARKS CITY HALL**

## **431 Prater Way**

No.	Description	Date

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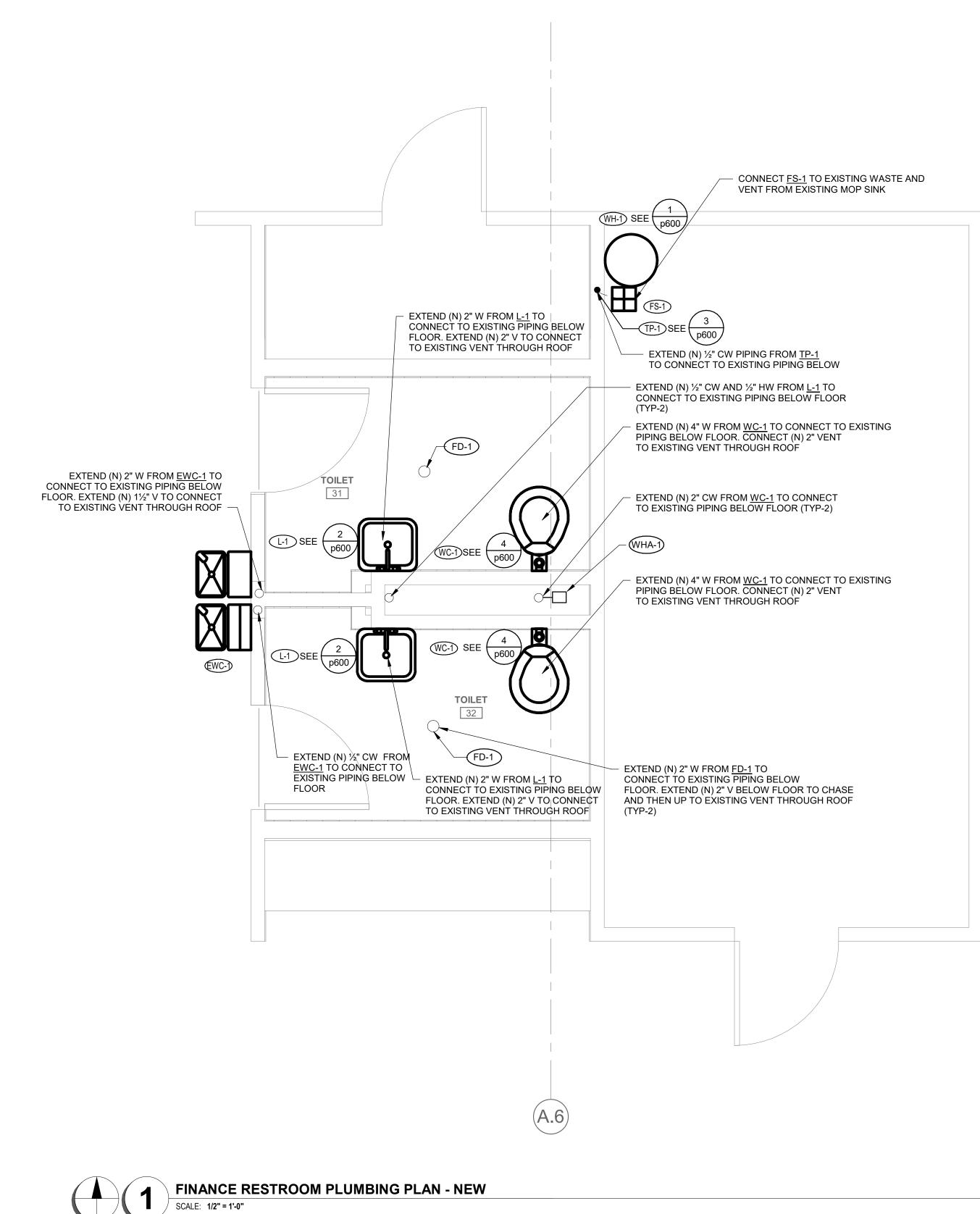
FINANCE RESTROOM PLUMBLING DEMO PLAN

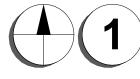




## 431 Prater Way

No.	Description	Date







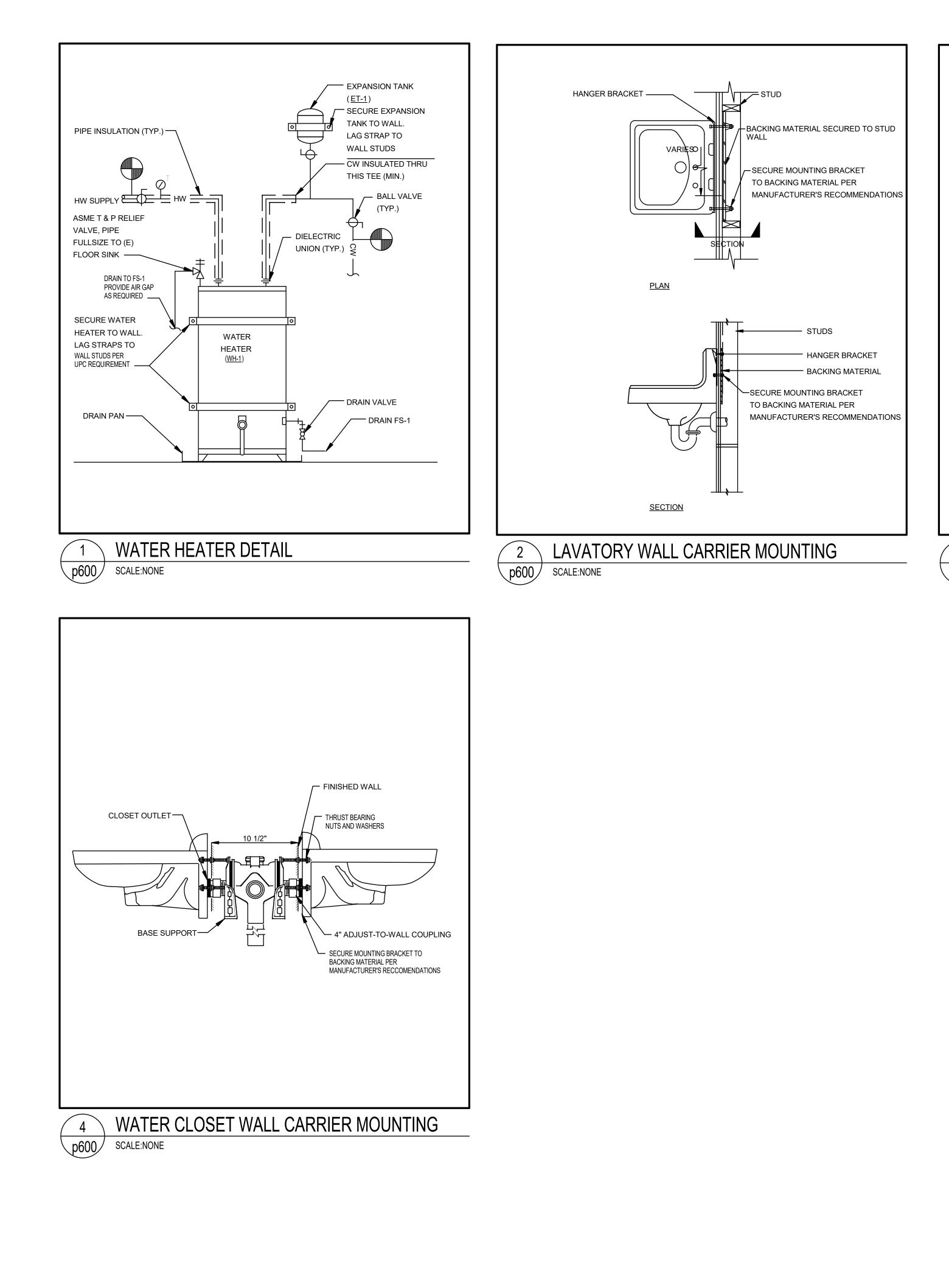
FINANCE RESTROOM PLUMBING PLAN

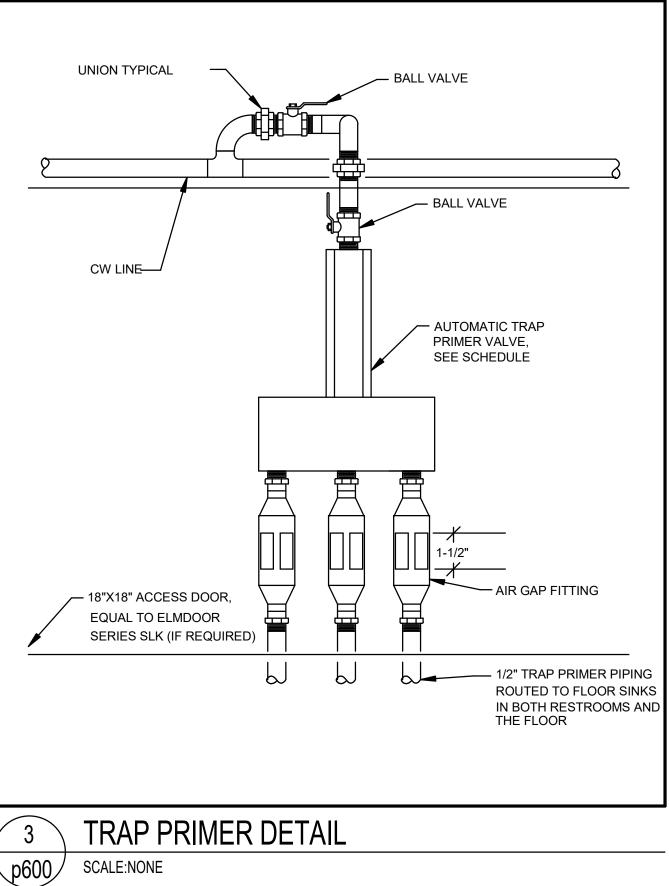


# **CITY OF SPARKS** CITY HALL City of Sparks, Nevada

## 431 Prater Way

No.	Description	Date







## 10/09/2020

# PLUMBING DETAILS p600

## CITY OF SPARKS CITY HALL City of Sparks, Nevada

## 431 Prater Way

No.	Description	Date

## ELECTRICAL SYMBOLS

ONDUIT AND RA	CEWAY	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
A-1	HOMERUN INDICATING PANEL AND CIRCUIT NUMBER.	NA
A-[1,3,5]	HOMERUN WITH CIRCUIT NUMBER IN BRACKETS INDICATING MULTI-PHASE LOAD.	NA
N HA-1	"ON" INDICATES CIRCUITING SPLIT AT DIFFERENT LOCATIONS	NA
•	CONDUIT UP.	NA
Ģ	CONDUIT DOWN.	NA
E	CONDUIT STUB AND CAP.	NA
OWER DEVICES		
	DUPLEX CONVENIENCE OUTLET, +18" AFF (TYPICAL).	(UON) W
-#	DUPLEX CONVENIENCE OUTLET, COUNTER HEIGHT +48" AFF (TYPICAL).	W, FVMH
	CONVENIENCE OUTLET W/ GFCI PROTECTION.	W
⊕ ⊕ <sub>WP</sub>	CONVENIENCE OUTLET W/ GFCI PROTECTION & WEATHER PROOF-IN-USE COVER.	W, FVMH
<u></u> ₩P	DUPLEX CONVENIENCE OUTLET W/ DEDICATED CIRCUIT & ISOLATED GROUND.	W
=⊖ <sub>IG</sub> =⊕	DOUBLE DUPLEX CONVENIENCE OUTLET.	W
₩ 	DUPLEX CONVENIENCE OUTLET, CEILING MOUNTED, FVMH.	C, FVMH
	FLOOR BOX.	FL
ଡ U <sub>USE</sub>	SPECIAL PURPOSE OUTLET, NEMA CONFIGURATION AND VOLTAGE AS NOTED.	W, FVMH
	JUNCTION BOX, SPECIFIC USE AS NOTED.	W, FVMH
		(UON)
\$		W
\$ <sub>M</sub>	MOTOR RATED SWITCH.	W
	DISCONNECT, HEAVY DUTY, NON-FUSIBLE.	W
P	DISCONNECT, HEAVY DUTY, FUSIBLE.	W, FVMH
$\boxtimes$	MAGNETIC MOTOR STARTER.	W
	COMBINATION MOTOR STARTER & DISCONNECT.	W, FVMH
	VARIABLE FREQUENCY DRIVE.	W
ALL	ELECTRICAL PANEL, SURFACE MOUNTED.	W
ALL	ELECTRICAL PANEL, FLUSH MOUNTED.	C, FVMH
	TRANSFORMER.	FL
	DISTRIBUTION PANELBOARD.	W, FVMH
/ALL	INVERTER.	W, FVMH
	EQUIPMENT CALLOUT.	
/ALL	AUXILIARY SYSTEM CABINET.	W, FVMH
/ALL	TELECOMMUNICATIONS TERMINATION BOARD.	W, FVMH
GHTING (REFER	TO LIGHTING FIXTURE SCHEDULE FOR DETAILS)	MOUNTING (UON)
( <b>L#</b> )	LIGHTING FIXTURE TAG, INDICATING FIXTURE ID.	
	RECESSED LIGHT FIXTURE.	С
	HALF SHADING AND/OR 'EM' TAG INDICATES FIXTURE W/ 90 MIN. EMEGENCY BACKUP.	w
	RECESSED VOLUMETRIC TROFFER, 1'X4', 2'X2', 2'X4'	С
	STRIP LIGHT FIXTURE.	С
	LINEAR LIGHTING FIXTURE.	C, W, FL
	RECESSED SQUARE DOWNLIGHT FIXTURE.	C
0	RECESSED AND/OR SEMI-RECESSED ROUND DOWNLIGHT FIXTURE.	c
<u> </u>		
·····V		C, W
$\Box \bigcirc$	VANITY FIXTURE. EXIT SIGN, SINGLE FACE. ARROWS INDICATE PATH OF EGRESS. REFER TO PLANS FOR	W
/ALL	EALLOIGH, OINGLE LAGE, ANNUMO INDIGALLEATING THERE STATES AT A STATE AND THE	<b></b> ,
	MOUNTING. ON UNSWITCHED LEG. EXIT SIGN, DOUBLE FACE. ARROWS INDICATE PATH OF EGRESS. REFER TO PLANS FOR	FVM FVM

GHTING CONTR	OLS	MOUNTING (UON)
\$	LIGHT SWITCH, SINGLE POLE, +48" AFF.	W
\$\$	DUAL LEVEL SWITCHING, ONE SWITCH TO CONTROL OUTBOARD LAMPS, ONE SWITCH TO CONTROL INBOARD LAMPS. PROVIDE (3)#12s IN FLEX TO FIXTURES.	w
\$ <sub>3</sub>	THREE-WAY SWITCH, +48" AFF.	w
\$ <sub>4</sub>	FOUR-WAY SWITCH, +48" AFF.	w
\$ <sub>K</sub>	KEYED SWITCH, +48" AFF.	w
\$ <sub>L</sub>	LIGHT SWITCH, SINGLE POLE, LIGHTED HANDLE, +48" AFF.	w
\$ <sub>M</sub>	FRACTIONAL HORSEPOWER MOTOR RATED MANUAL STARTER.	FVM
\$ <sub>0</sub>	LOW VOLTAGE MOMENTARY OVERRIDE SWITCH, +48" AFF.	w
\$ <sub>LV</sub>	LOW VOLTAGE DIMMING SWITCH, +48" AFF.	w
\$ <sub>OS</sub>	LOW VOLTAGE DIMMING SWITCH, DUAL TECHNOLOGY OCCUPANCY SENSOR +48" AFF.	w
\$ <sub>T</sub>	DIGITAL TIME SWITCH, +48" AFF.	w
\$ <sub>0</sub>	MOMENTARY CONTACT SWITCH, +48" AFF.	W
×*	OCCUPANCY SENSOR, DUAL TECHNOLOGY.	С
¢	PHOTOELECTRICAL SENSOR.	С
LECOMMUNICA	TIONS DEVICES	MOUNTING (UON)
$\mathbf{\nabla}$	TELE/DATA OUTLET +18" AFF.	W
$\bigtriangledown$	DATA OUTLET +18" AFF.	w
▼	TELEPHONE OUTLET +18" AFF.	W
$\nabla \mathbf{V}$	COUNTER HEIGHT MOUNTED DEVICE +46" AFF.	w
	FLOOR BOX MOUNTED COMMUNICATIONS DEVICE.	FL

## 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
4PST	FOUR POLE SINGLE T
4W	FOUR WIRE
Ą	AMPERE
A/C	AIR CONDITIONIG
AC	ALTERNATING CURRE
	AMERICANS WITH DIS
ADJ	ADJACENT
AFC	AVAILABLE FAULT CU
AFF	ABOVE FINISHED FLO
AIC	AMPERE INTERRUPTII
AL	ALUMINUM
ALCP	AREA LIGHT CONTAC
ALT	ALTERNATE
AMP	AMPERE
APPROX.	APPROXIMATE / APPR
AR	AS REQUIRED
ARCH	ARCHITECTURAL / AR
ATS	AUTOMATIC TRANSFE
AWG	AMERICAN WIRE GAU
BB	BUCK BOOST
BFB	BACK FEED BREAKER
BLDG	BUILDING
BRKR	BREAKER
BTU	<b>BRITISH THERMAL UN</b>
С	CEILING
CATV	COMMUNITY ANTENN
СВ	CIRCUIT BREAKER
CFBA	CUSTOM COLOR / FIN
CFCI	CONTRACTOR FURNIS
	INSTALLED
CFOI	CONTRACTOR FURNIS
CKT	CIRCUIT
-	CENTERLINE
CLG	CEILING
00	CONVENIENCE OUTLE
CU	COPPER
DA	DAMPER ACTUATOR
dB	DECIBLE, UNIT OF SO
DEMO	DEMOLITION
DEPT	DEPARTMENT
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DISC	DISCONNECT
DN	DOWN
	DOUBLE POLE DOUBL
DWG	DRAWINGS
<u>E</u>	EAST
EA	EACH
EC	EMPTY CONDUIT WITH
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV	ELEVATOR
EM	EMERGENCY
EMT	ELECTRICAL METALLI
ENT	ELECTRICAL NONMET

## ELECTRICAL SYMBOLS

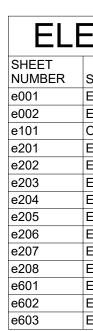
## E THROW THROW ENT FV ISABILITIES ACT FV JRRENT OOR / GRADE TING CAPACITY GE GF GF CTOR PANEL GN ROXIMATELY HP RCHITECT HP HV HV ER SWITCH JGE I/O NA TELEVISION KV KV NISH SELECTED BY ARCHITECT KVA KW KWI NISHED OWNER INSTALLED LET, RECEPTACLE MAX MC MCZ MCZ MCZ MEC MEC MH MIN MIN MIN MIN MIN OUND LEVEL BLE THROW N N TH PULL WIRE NA NC NEC NFC LIC CONDUIT TALLIC CONDUIT

## ABBREVIATIONS

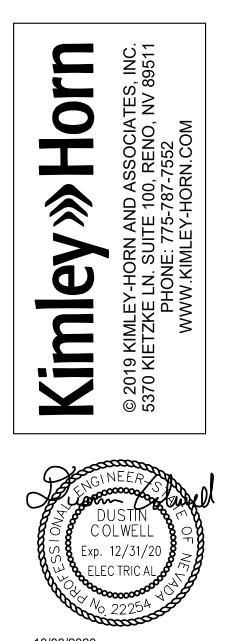
EPO	EMERGENCY POWER OFF
EQUIP	EQUIPMENT
EXIST	EXISTING
FA	FIRE ALARM
FAA	FIRE ALARM ANNUCIATOR
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
FLA	FULL LOAD AMPERES
FMC	FLEXIBLE METAL CONDUIT
FPEN	FUSE PER EQUIPMENT NAMEPLATE
FSD	FIRE SMOKE DAMPER
FVM	FIELD VERIFY MOUNTING
FVMH	FIELD VERIFY MOUNTING HEIGHT
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
G	GROUND
GALV	GALVANIZED
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
1/0	INPUT / OUTPUT
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
IN/IS	
IR	INFRARED
KV	
KVA	
KVAR	
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
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
N	NORTH
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRIC CODE NATIONAL ELECTRIC MANUFACTURERS ASSOCIATION

## ABBREVIATIONS

NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NO.	NUMBER
NTS	NOT TO SCALE
00	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
PVC	POLYVINYL CHLORIDE
QTY	QUANTITY
R	REMOVE / DEMOLISH
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
SQ ST	SUARE SINGLE THROW
STRUCT	STRUCTURAL
SWBD	SWITCHBOARD
SWGR	SWITCHBOARD
TP TOD	
TSP	
TV	
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP	
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)
XFMR	TRANSFORMER
XP	EXPLOSION PROOF



NUMBER OF SHEETS IN SET: 14



10/08/2020

ELECTRICAL SYMBOL LEGEND & DRAWING SCHEDULE

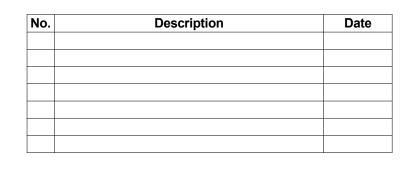


## ELECTRICAL DRAWING SCHEDULE

SHEET NAME
ELECTRICAL SYMBOL LEGEND & DRAWING SCHEDULE
ELECTRICAL SPECIFICATIONS
OVERALL ELECTRICAL POWER PLANS
ELECTRICAL PLANS - CLERKS MAIN LEVEL
ELECTRICAL PLANS - CLERKS BASEMENT
ELECTRICAL PLANS - CLERKS BASEMENT
ELECTRICAL PLANS - FINANCE OFFICES
ELECTRICAL PLANS - FINANCE OFFICES
ELECTRICAL PLANS - FINANCE RESTROOMS
ELECTRICAL PLANS - IT OFFICES
ELECTRICAL PLANS - IT OFFICES
ELECTRICAL SCHEDULES & DETAILS
ELECTRICAL PANEL SCHEDULES
ELECTRICAL PANEL SCHEDULES

# **CITY OF SPARKS** CITY HALL City of Sparks, Nevada

## 431 Prater Way



- 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. <u>RESPONSIBILITY</u>: 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. <u>MINIMUM REQUIREMENTS</u>: 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. <u>DEFINITIONS</u>:
- AHJ: AUTHORITY HAVING JURISDICTION. ASSEMBLY: AN INSTALLATION OR SYSTEM OF MULTIPLE COMPONENTS REQUIRING MULTIPLE CONNECTIONS. (EXAMPLES: TRASH COMPACTOR, MOTORIZED DOOR, HVAC SPLIT SYSTEM, ETC.). 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 2015 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. <u>CONNECTIONS</u>: 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.
- 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. <u>AS-BUILT</u>: 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. <u>IECC COMPLIANCE:</u> 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.

## ELECTRICAL SPECIFICATIONS

- 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.
- 1.23. SPECIFICATIONS BOOK: THE SPECIFICATIONS CONTAIN SIGNIFICANT INFORMATION, CONDITIONS, AND PROCEDURES WHICH MAY HAVE A SUBSTANTIAL IMPACT ON THIS CONTRACTOR'S COSTS. DO NOT SUBMIT A BID ON THIS PROJECT UNLESS THE SPECIFICATIONS HAVE BEEN THOROUGHLY REVIEWED. THE GENERAL NOTES CONTAINED HEREIN ARE COMPLIMENTARY TO THE SPECIFICATIONS BOOK, AND IN COMPARISON THE MORE STRINGENT REQUIREMENT(S) SHALL GOVERN.
- 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 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, HUBBELL, THOMAS WIRING DEVICES: HUBBELL, LEVITON, LEGRAND, WIREMOLD
- 2.3. CIRCUITING: ALL WIRING SHALL BE IN CONDUIT, CONCEALED 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 BE USED ONLY WITH SPECIFIC PERMISSION FROM THE ENGINEER. MC CABLE USE SHALL BE LIMITED TO CIRCUITING SOLUTIONS IN TIGHT CONDITIONS WHERE CONDUIT AND WIRE CIRCUITING CANNOT FIT. HOMERUNS AND FEEDERS SHALL BE CONDUIT AND WIRE.
- 2.6. WIRING: ALL WIRE SHALL BE COPPER UNLESS OTHERWISE NOTED, 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. <u>DISTRIBUTION SWITCHGEAR</u>: 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

- 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. <u>TEMPORARY CONSTRUCTION POWER</u>: 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.
- 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 DRAWING.

#### FIRE/SMOKE DAMPER VAV TERMINAL (NO FAN) TEMPERATURE CONTROL PANEL

FIRE ALARM PANEL

POWER SOURCE EMERGENCY NORMAL (VERIFY) EMERGENCY (VERIFY) 1 EMERGENCY

- DOOR HOLDING/LATCHING DEVICES EMERGENCY 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. <u>COMMUNICATIONS SYSTEMS</u>: 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.
- <u> PART FOUR SPECIAL SYSTEMS</u> 4.1. <u>DESIGN/BUILD FIRE ALARM SYSTEM</u>: THESE DOCUMENTS DO NOT INDICATE DEVICES, OUTLETS.
- CONNECTIONS, AND CIRCUITRY NECESSARY FOR A COMPLETE FIRE ALARM SYSTEM. PROVIDE A COMPLETE, NEW FIRE ALARM DETECTION AND ALARM SYSTEM WITH CLASS 1 CIRCUITING INCLUDING, BUT NOT LIMITED TO, INITIATING DEVICES, DUCT DETECTORS, ADA HORN/STROBES, ETC. WHICH SHALL BE IN FULL COMPLIANCE WITH ALL LOCAL, STATE, AND ADA REQUIREMENTS. CONTROL PANEL SHALL INCLUDE INTEGRAL STANDBY BATTERIES, CHARGER, AND MUNICIPAL TIE MODULE OR AGENCY APPROVED AUTO-DIALER CONNECTED TO THE TELEPHONE SYSTEM (CONNECTION AND MONITORING CHARGES BY OWNER). SUBMIT PROPOSED DESIGN AND OBTAIN FIRE MARSHAL APPROVED SHOP DRAWINGS PRIOR TO COMMENCEMENT OF WORK. AFTER RECEIPT OF PLAN APPROVAL BY THE FIRE MARSHAL, PROVIDE ONE (1) SET OF STAMPED DRAWINGS (PRINT OR ELECTRONIC COPY) ALONG WITH AN APPROVED EQUIPMENT SUBMITTAL TO THE ELECTRICAL ENGINEER. ALL CONNECTIONS TO SYSTEM SHALL BE PERFORMED BY FACTORY-
- CERTIFIED TECHNICIAN AND SHALL BE ACCEPTED BY OWNER'S SYSTEM-MONITORING AGENCY. 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.

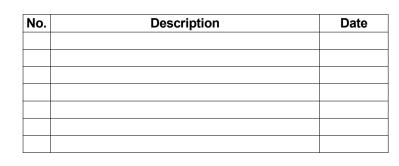
## <u>20A CIRCUIT</u> YES NO NO

NO

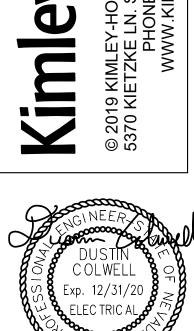


# **CITY OF SPARKS CITY HALL**

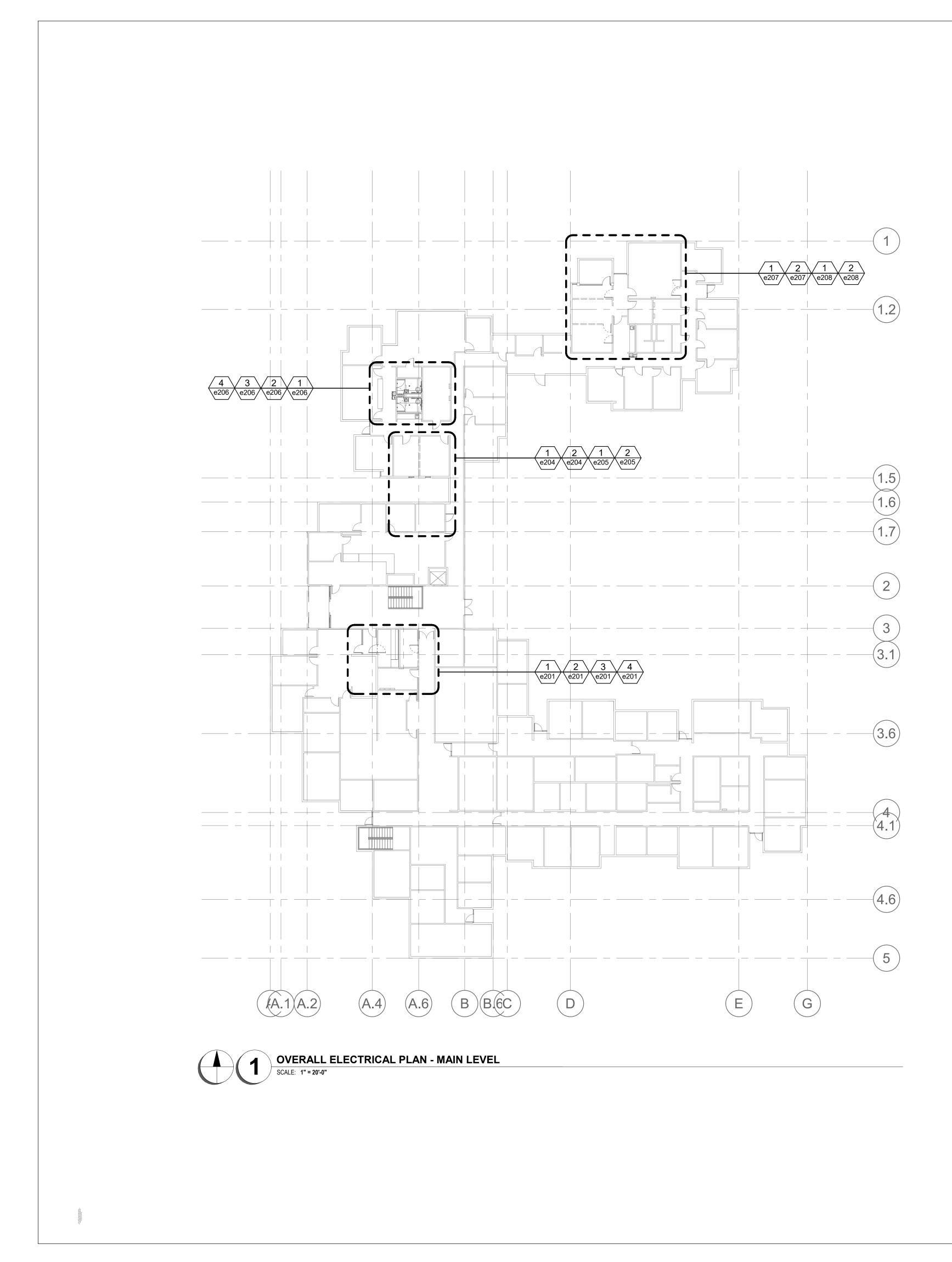
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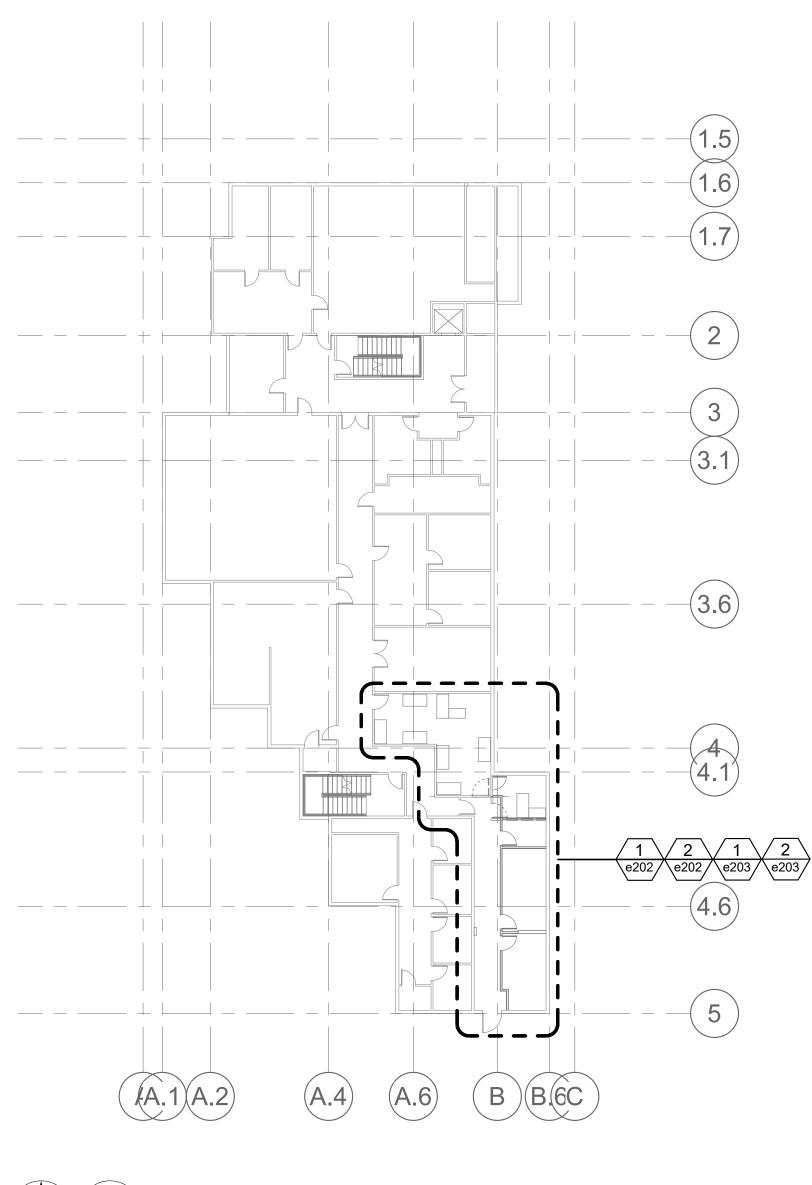












**OVERALL ELECTRICAL PLAN - BASEMENT** SCALE: 1" = 20'-0"

## GENERAL NOTES

(1.5)

1.6)

(1.7)

(2)

3

(3.1)

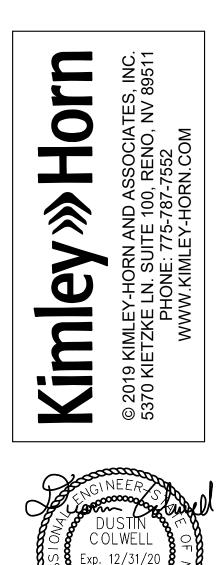
3.6

4.1

4.6)

- 5

- 1. EXISTING CONDITIONS ARE INDICATED ON THE DRAWINGS WITH HALF-TONE LINE WORK, DEMOLITION WORK IS INDICATED WITH FULL-TONE, DASHED LINE WORK, AND NEW OR PROPOSED WORK IS INDICATED WITH FULL-TONE, SOLID LINE WORK.
- 2. VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH WORK. FIELD CONFLICTS AND/OR DISCREPANCIES IN THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.

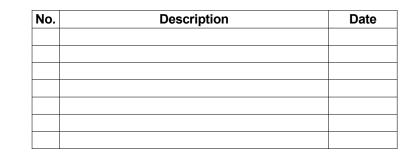


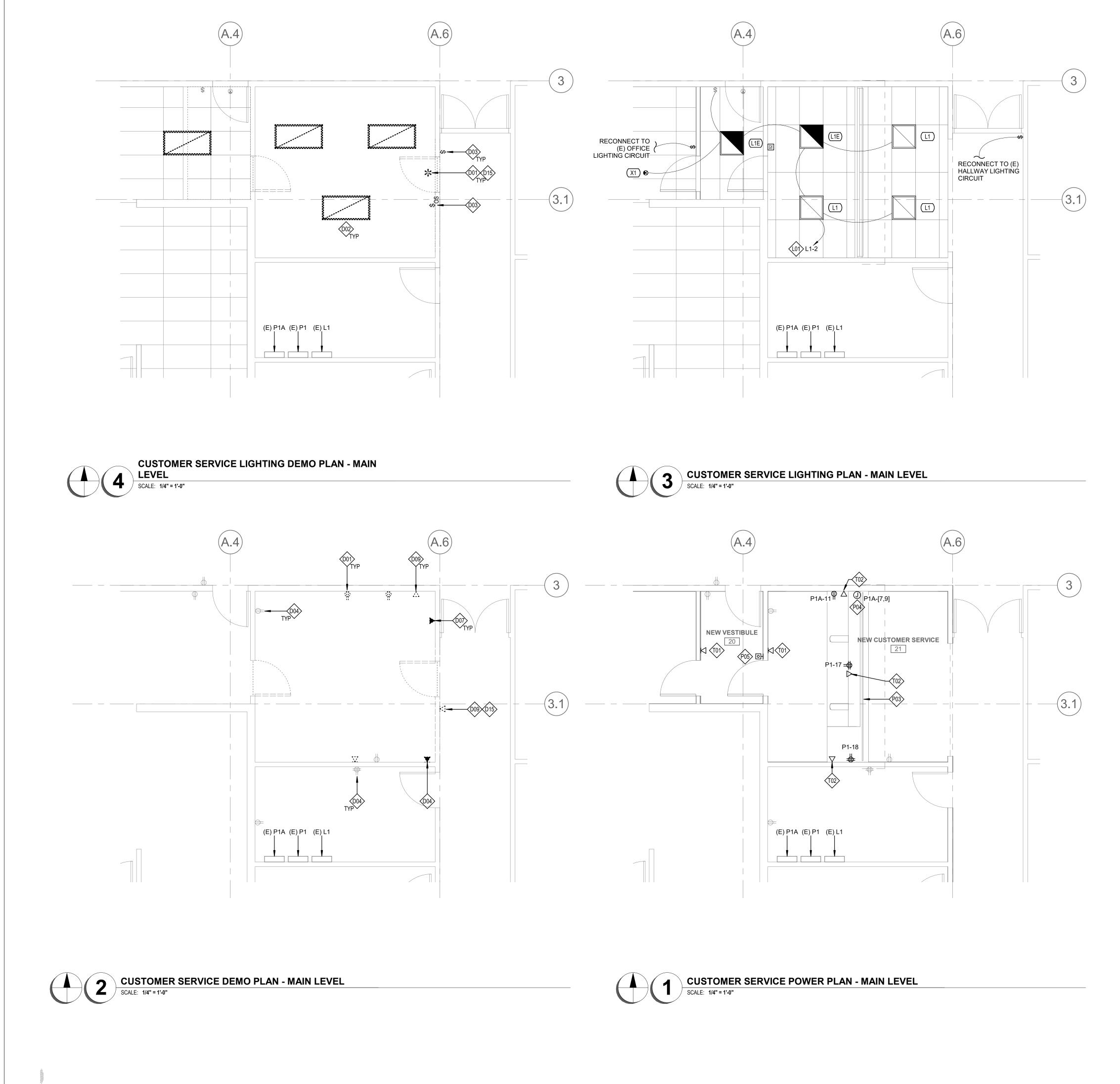




# **CITY OF SPARKS** CITY HALL City of Sparks, Nevada

## 431 Prater Way





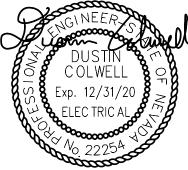
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## ♦ SHEET KEYNOTES

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.
D04	EXISTING WIRING DEVICE TO REMAIN, PROTECT IN PLACE.
D07	EXISTING TELECOMMUNICATION DEVICE TO REMAIN, PROTECT IN PLACE.
D09	EXISTING TELECOMMUNICATION DEVICE TO BE REMOVED. DISCONNECT FROM EXISTING SOURCE AND REMOVE ASSOCIATED CONDUIT AND CABLING.
D15	REMOVE EQUIPMENT OR DEVICE AND SALVAGE TO OWNER.
L01	CONNECT CIRCUIT TO EXISTING 277V SOURCE MADE AVAILABLE/SPARE FROM DEMOLITION. PROVIDE CONDUIT AND CONDUCTORS AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM. FIELD VERIFY.
P03	FINAL FURNITURE EQUIPMENT DESIGN BY OTHERS. COORDINATE EXACT LOCATIONS AND REQUIREMENTS AS REQUIRED. FIELD VERIFY.
P04	ROLL-UP DOOR: PROVIDE JUNCTION BOX AND DEDICATED CIRCUIT FOR SECURITY ROLL-UP DOOR. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH EQUIPMENT MANUFACTURER. FIELD VERIFY PRIOR TO ROUGH-IN.
P05	ROLL-UP DOOR CONTROL SWITCH: COORDINATE EXACT LOCATION AND REQUIREMENTS FOR CONTROL SWITCH WITH OWNER AND EQUIPMENT MANUFACTURER. FIELD VERIFY PRIOR TO ROUGH-IN.
T01	ACCESS CONTROL SYSTEM CARD READER. PROVIDE SINGLE GANG JUNCTION BOX WITH MUD RING AT +42" AFF AND 1" C. EMT FROM BOX TO +6" ABOVE FINISHED CEILING. TELECOMMUNICATIONS EQUIPMENT CONNECTIONS BY OTHERS.

TELECOMMUNICATIONS DEVICE. PROVIDE SINGLE GANG JUNCTION BOX WITH MUD T02 RING AT +18" AFF AND 1" C. EMT FROM BOX TO +6" ABOVE FINISHED CEILING. TELECOMMUNICATIONS DEVICES, CABLING, AND CONNECTIONS BY OTHERS.





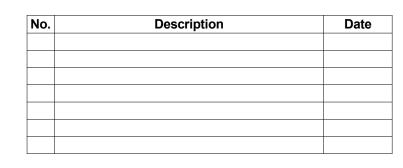
10/08/2020

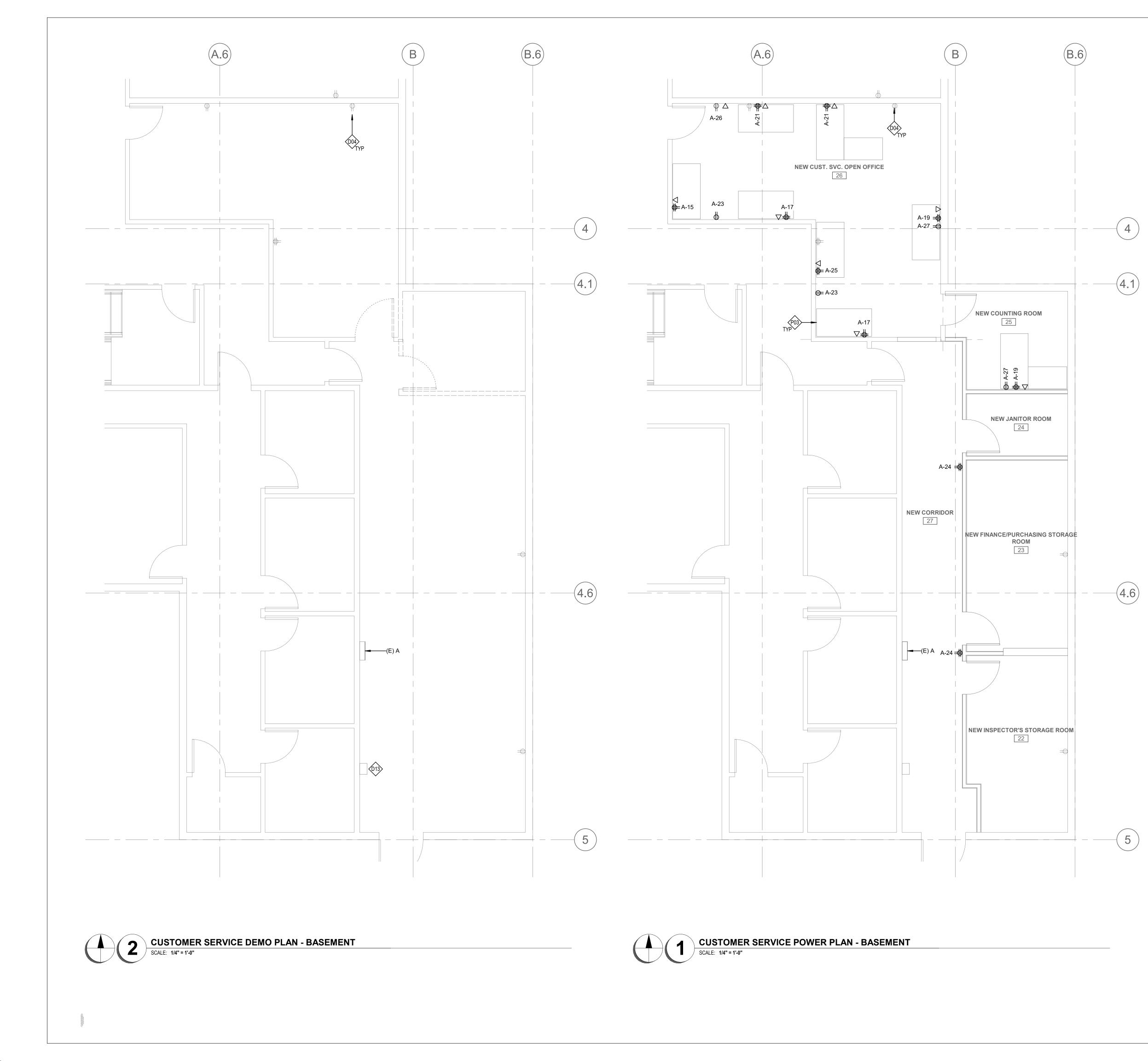
## ELECTRICAL PLANS - CLERKS MAIN LEVEL



## **CITY OF SPARKS** CITY HALL City of Sparks, Nevada

## 431 Prater Way





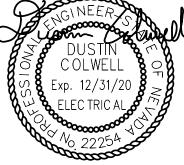
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- 2. VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH WORK. FIELD CONFLICTS AND/OR DISCREPANCIES IN THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.

## SHEET KEYNOTES

D04 EXISTING WIRING DEVICE TO REMAIN, PROTECT IN PLACE.

- D13 EXISTING ACCESS CONTROL SYSTEM DEVICE TO REMAIN, PROTECT IN PLACE.
- P03 FINAL FURNITURE EQUIPMENT DESIGN BY OTHERS. COORDINATE EXACT LOCATIONS AND REQUIREMENTS AS REQUIRED. FIELD VERIFY.



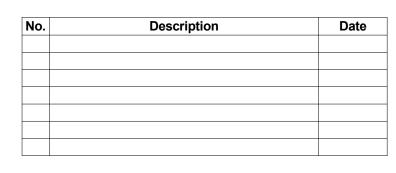


10/08/2020

## ELECTRICAL PLANS - CLERKS BASEMENT **e202**

## CITY OF SPARKS CITY HALL City of Sparks, Nevada

## 431 Prater Way





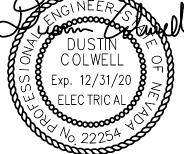
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## ♦ SHEET KEYNOTES

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.
- D06 EXISTING PANIC STROBE TO REMAIN, PROTECT IN PLACE.
- D13 EXISTING ACCESS CONTROL SYSTEM DEVICE TO REMAIN, PROTECT IN PLACE.



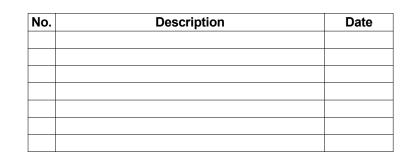


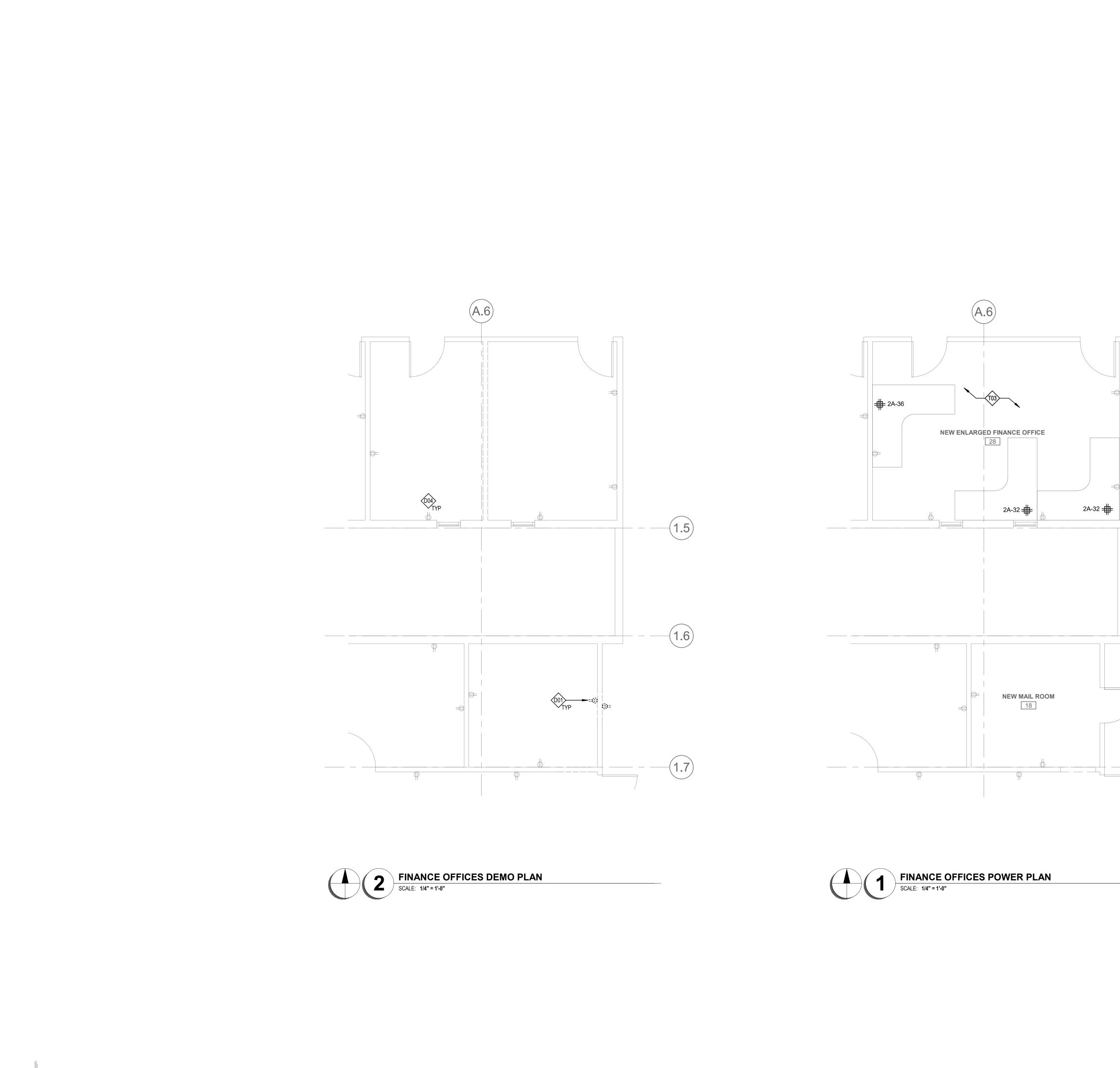
10/08/2020

## ELECTRICAL PLANS - CLERKS BASEMENT **e203**

## CITY OF SPARKS CITY HALL City of Sparks, Nevada

## 431 Prater Way





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## ♦ SHEET KEYNOTES

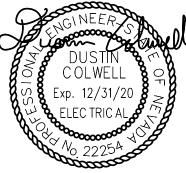
(1.5)

1.6

----(1.7)

- 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.
- EXISTING WIRING DEVICE TO REMAIN, PROTECT IN PLACE. D04
- T03 TELECOMMUNICATIONS WORK IN THIS AREA BY OTHERS. PROTECT EXISTING COMMUNICATIONS DEVICES IN PLACE.





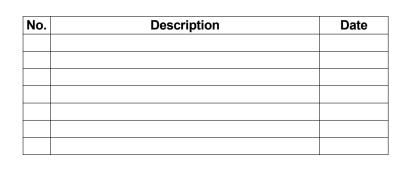
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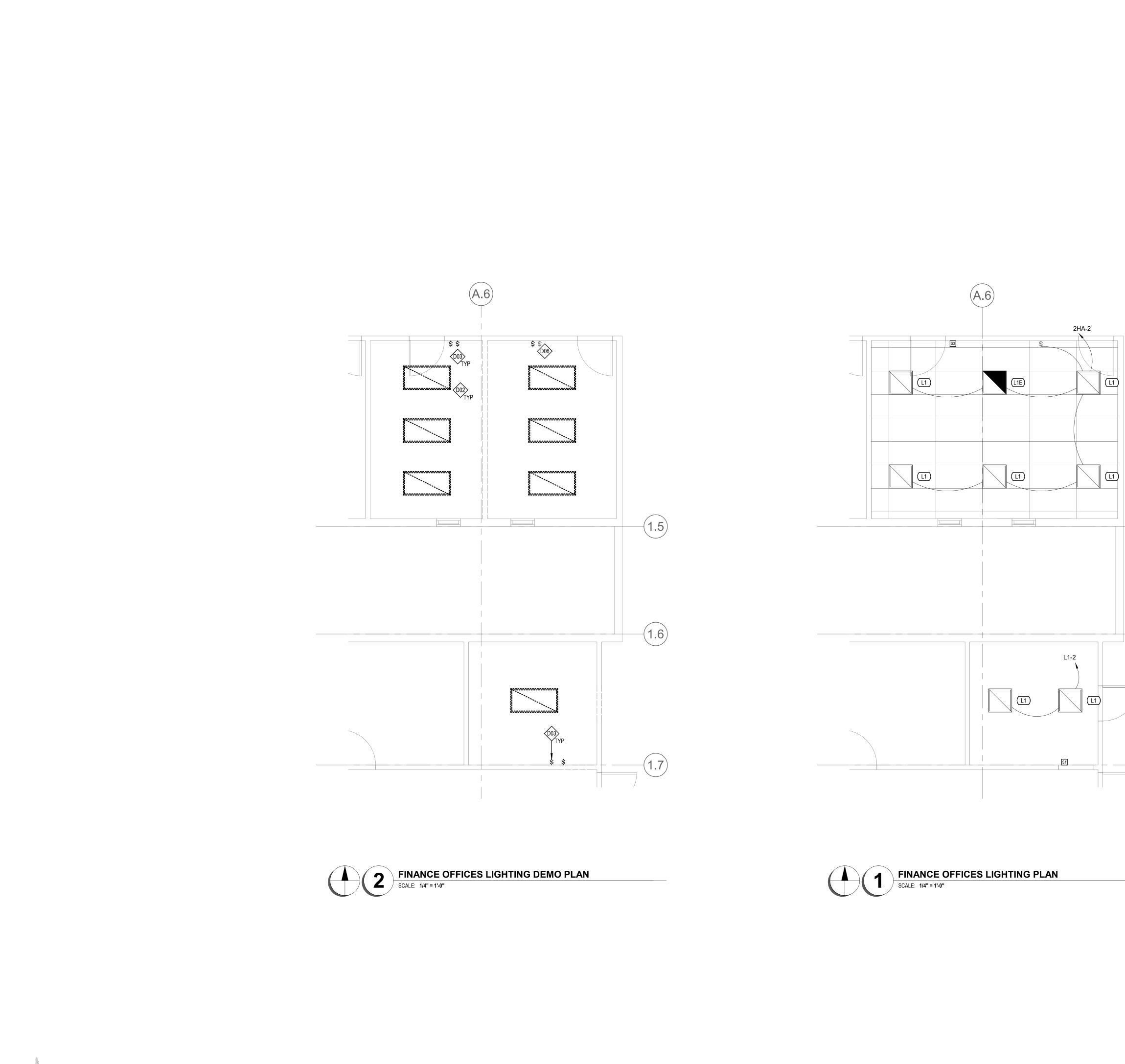
## ELECTRICAL PLANS - FINANCE OFFICES



# **CITY OF SPARKS** CITY HALL City of Sparks, Nevada

## 431 Prater Way





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## SHEET KEYNOTES

D02	EXISTING LIGHTING FIXTURE TO BE REMOVED.
D03	EXISTING LIGHTING DEVICE TO BE REMOVED.

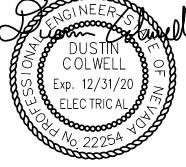
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D06 EXISTING PANIC STROBE TO REMAIN, PROTECT IN PLACE.





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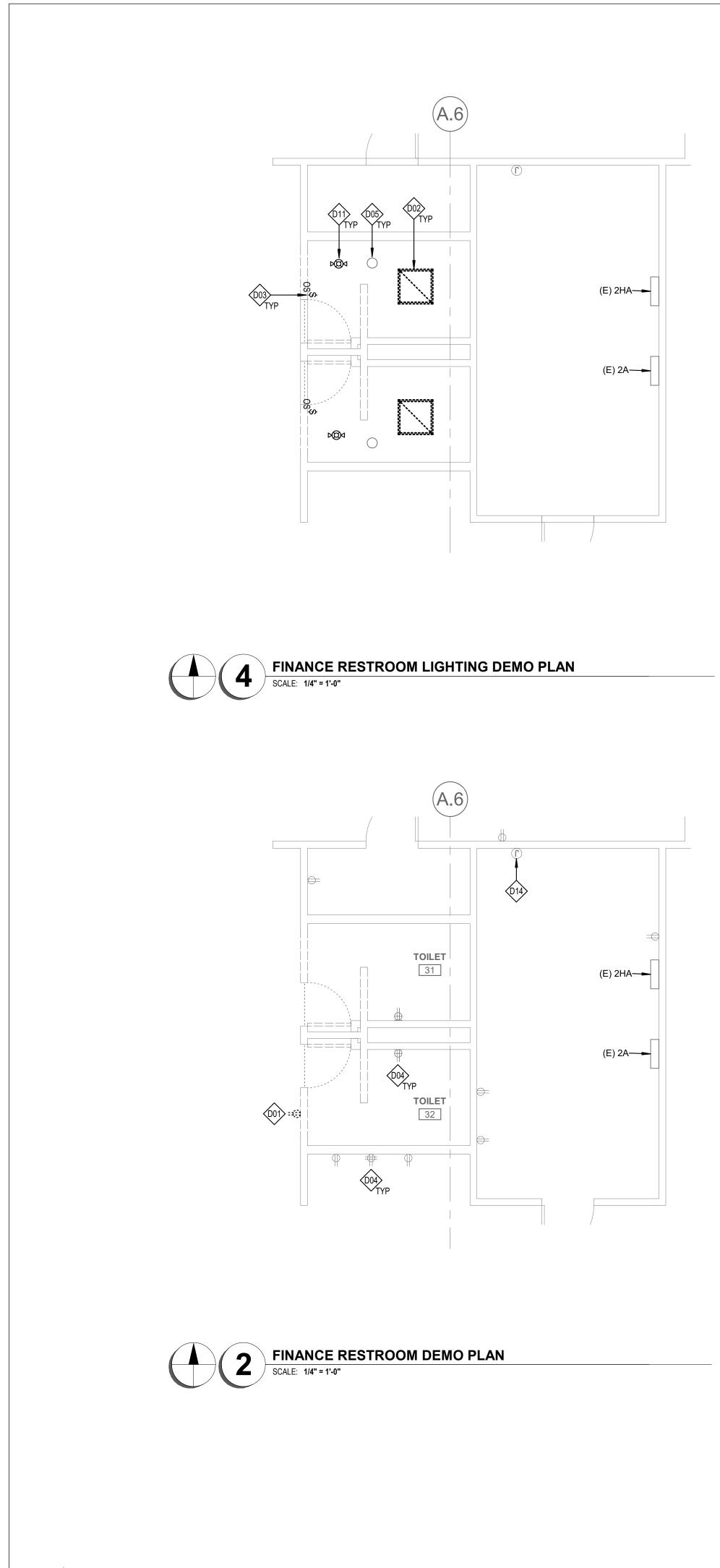
## ELECTRICAL PLANS - FINANCE OFFICES

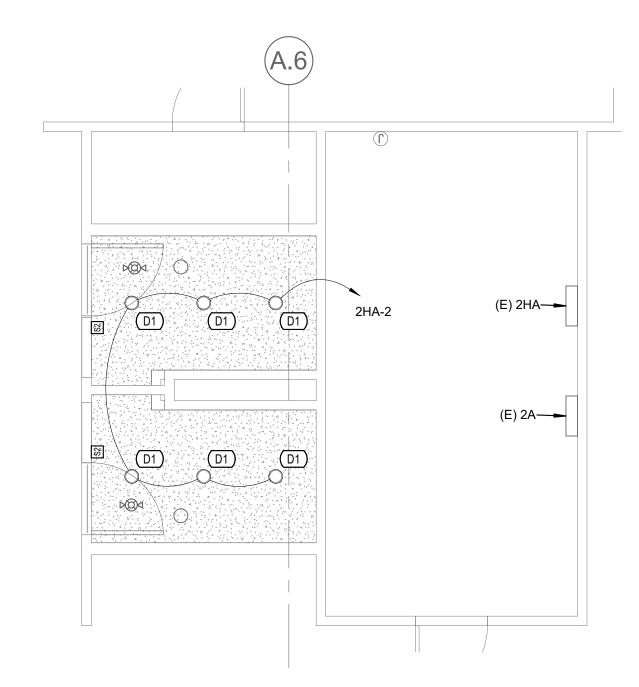


# **CITY OF SPARKS** CITY HALL City of Sparks, Nevada

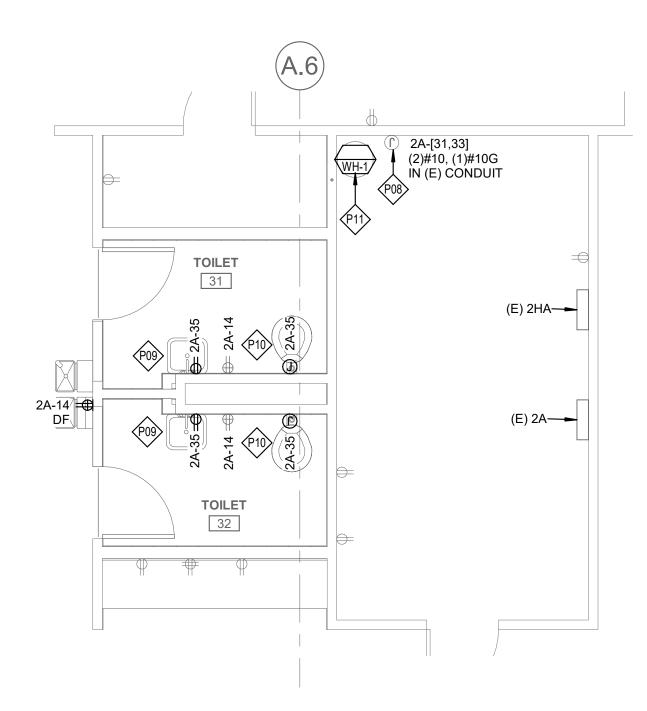
## 431 Prater Way

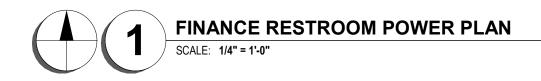
No.	Description	Date











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- D03 EXISTING LIGHTING DEVICE TO BE REMOVED.
- D04 EXISTING WIRING DEVICE TO REMAIN, PROTECT IN PLACE.
- D05 EXISTING LIGHTING FIXTURE TO REMAIN, PROTECT IN PLACE.
- D11 EXISTING FIRE ALARM DEVICE TO REMAIN AND PROTECT IN PLACE. ANY NECESSARY MODIFICATIONS TO THE FIRE ALARM SYSTEM BY OTHERS.
- D14 EXISTING WIRING DEVICE TO REMAIN, PROTECT IN PLACE. DISCONNECT FROM EXISTING WATER HEATER TO BE DEMOLISHED.
- P01 RECONNECT TO EXISTING 120V CIRCUIT MADE AVAILABLE FROM DEMOLITION. PROVIDE CONDUIT AND CONDUCTORS AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM. FIELD VERIFY.
- P08 CONNECT NEW WATER HEATER TO EXISTING 120V CIRCUIT MADE AVAILABLE FROM DEMOLITION. PROVIDE CONDUIT AND CONDUCTORS AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM. FIELD VERIFY.
- P09 PROVIDE SINGLE GANG JUNCTION BOX FOR AUTOMATIC SINK. FIELD VERIFY EXACT LOCATION WITH ARCHITECTURAL AND PLUMBING PRIOR TO ROUGH-IN.
- P10 PROVIDE SINGLE GANG JUNCTION BOX FOR AUTOMATIC TOILET. FIELD VERIFY EXACT LOCATION WITH ARCHITECTURAL AND PLUMBING PRIOR TO ROUGH-IN.
- P11 REFER TO MECHANICAL PLANS FOR EQUIPMENT INFORMATION.



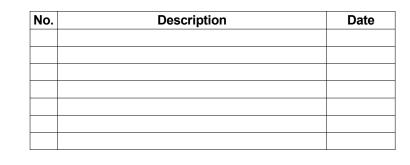


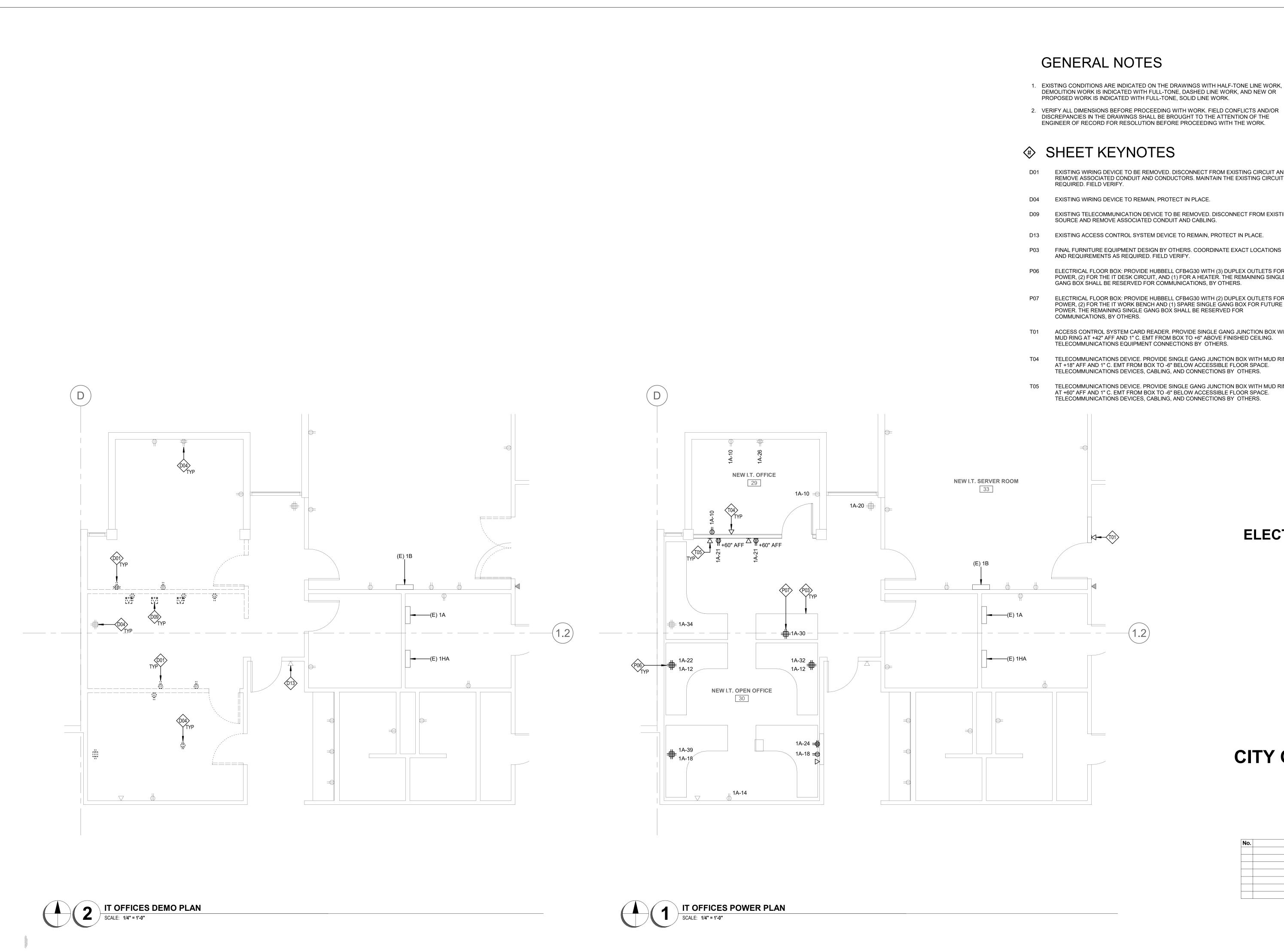
10/08/2020



## CITY OF SPARKS CITY HALL City of Sparks, Nevada

## 431 Prater Way





- 1. EXISTING CONDITIONS ARE INDICATED ON THE DRAWINGS WITH HALF-TONE LINE WORK, DEMOLITION WORK IS INDICATED WITH FULL-TONE, DASHED LINE WORK, AND NEW OR PROPOSED WORK IS INDICATED WITH FULL-TONE, SOLID LINE WORK.
- 2. VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH WORK. FIELD CONFLICTS AND/OR DISCREPANCIES IN THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.

## ♦ SHEET KEYNOTES

- EXISTING WIRING DEVICE TO BE REMOVED. DISCONNECT FROM EXISTING CIRCUIT AND REMOVE ASSOCIATED CONDUIT AND CONDUCTORS. MAINTAIN THE EXISTING CIRCUIT AS
- EXISTING WIRING DEVICE TO REMAIN, PROTECT IN PLACE.
- EXISTING TELECOMMUNICATION DEVICE TO BE REMOVED. DISCONNECT FROM EXISTING SOURCE AND REMOVE ASSOCIATED CONDUIT AND CABLING.
- D13 EXISTING ACCESS CONTROL SYSTEM DEVICE TO REMAIN, PROTECT IN PLACE.
- ELECTRICAL FLOOR BOX: PROVIDE HUBBELL CFB4G30 WITH (3) DUPLEX OUTLETS FOR POWER, (2) FOR THE IT DESK CIRCUIT, AND (1) FOR A HEATER. THE REMAINING SINGLE
- ELECTRICAL FLOOR BOX: PROVIDE HUBBELL CFB4G30 WITH (2) DUPLEX OUTLETS FOR POWER, (2) FOR THE IT WORK BENCH AND (1) SPARE SINGLE GANG BOX FOR FUTURE POWER. THE REMAINING SINGLE GANG BOX SHALL BE RESERVED FOR
- ACCESS CONTROL SYSTEM CARD READER. PROVIDE SINGLE GANG JUNCTION BOX WITH MUD RING AT +42" AFF AND 1" C. EMT FROM BOX TO +6" ABOVE FINISHED CEILING. TELECOMMUNICATIONS EQUIPMENT CONNECTIONS BY OTHERS.
- T04 TELECOMMUNICATIONS DEVICE. PROVIDE SINGLE GANG JUNCTION BOX WITH MUD RING AT +18" AFF AND 1" C. EMT FROM BOX TO -6" BELOW ACCESSIBLE FLOOR SPACE. TELECOMMUNICATIONS DEVICES, CABLING, AND CONNECTIONS BY OTHERS.
- T05 TELECOMMUNICATIONS DEVICE. PROVIDE SINGLE GANG JUNCTION BOX WITH MUD RING AT +60" AFF AND 1" C. EMT FROM BOX TO -6" BELOW ACCESSIBLE FLOOR SPACE. TELECOMMUNICATIONS DEVICES, CABLING, AND CONNECTIONS BY OTHERS.

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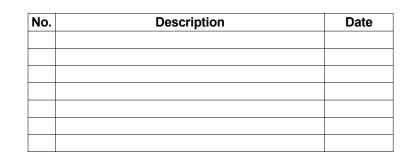


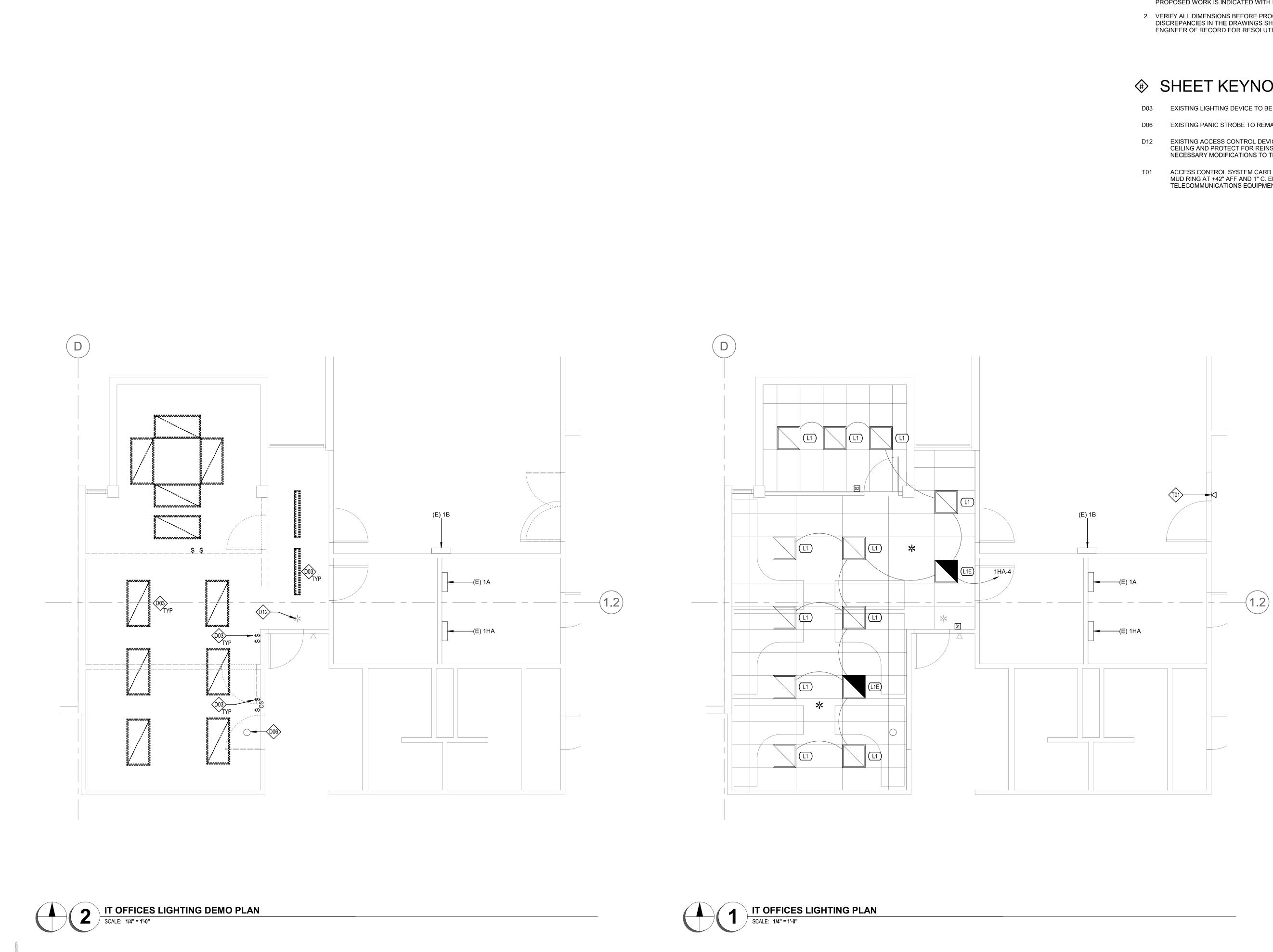
10/08/2020

# ELECTRICAL PLANS - IT OFFICES e207

## **CITY OF SPARKS** CITY HALL City of Sparks, Nevada

## 431 Prater Way



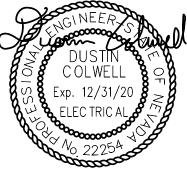


- 1. EXISTING CONDITIONS ARE INDICATED ON THE DRAWINGS WITH HALF-TONE LINE WORK, DEMOLITION WORK IS INDICATED WITH FULL-TONE, DASHED LINE WORK, AND NEW OR PROPOSED WORK IS INDICATED WITH FULL-TONE, SOLID LINE WORK.
- 2. VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH WORK. FIELD CONFLICTS AND/OR DISCREPANCIES IN THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.

## ♦ SHEET KEYNOTES

- D03 EXISTING LIGHTING DEVICE TO BE REMOVED.
- EXISTING PANIC STROBE TO REMAIN, PROTECT IN PLACE.
- EXISTING ACCESS CONTROL DEVICE TO REMAIN. REMOVE FOR CONSTRUCTION OF NEW CEILING AND PROTECT FOR REINSTALLATION. FIELD VERIFY REQUIREMENTS. ANY NECESSARY MODIFICATIONS TO THE SECURITY SYSTEM BY OTHERS.
- ACCESS CONTROL SYSTEM CARD READER. PROVIDE SINGLE GANG JUNCTION BOX WITH MUD RING AT +42" AFF AND 1" C. EMT FROM BOX TO +6" ABOVE FINISHED CEILING. TELECOMMUNICATIONS EQUIPMENT CONNECTIONS BY OTHERS.



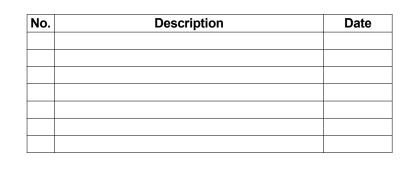


10/08/2020

# ELECTRICAL PLANS - IT OFFICES e208

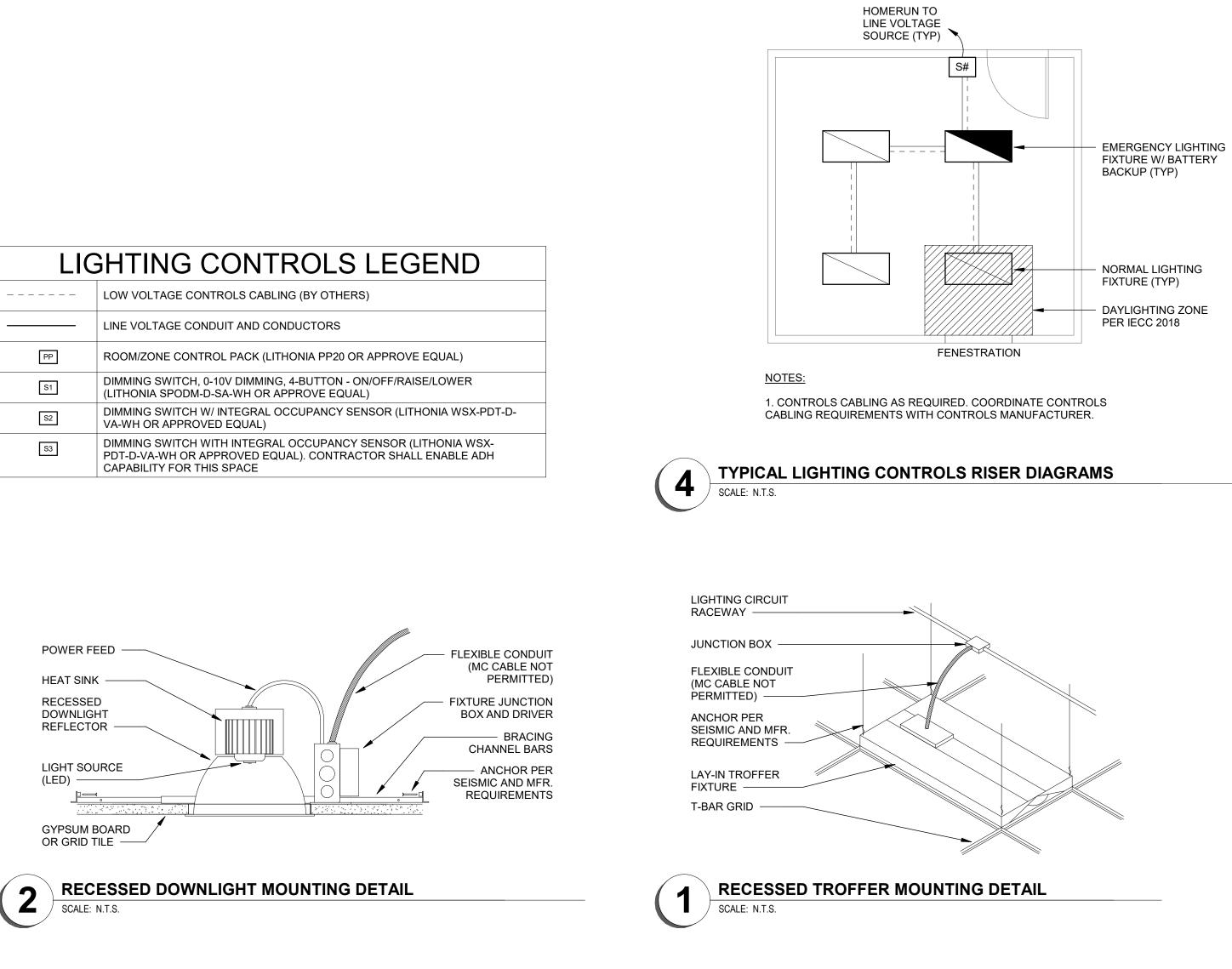
# **CITY OF SPARKS** CITY HALL City of Sparks, Nevada

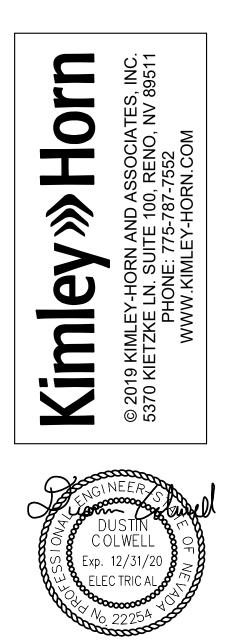
## 431 Prater Way



D1 L1		SSED DOWNLIG T FIXTURE, 80C							
L1E	2X2 LED LIGH	T FIXTURE, 80C	RI, 5000K, 200	0 LUMEN, 0-1	0V DIMM	ING, 90	) MIN BA	TTERY B	ACKL
L2 L2E		T FIXTURE, 80C T FIXTURE, 80C		,				TTERY B	ACKL
X1 X2		NGLE FACE, WH NGLE FACE, WH							
ړړ \]		eck Software or Lightin			Certifi	icate	Ð		
Project Energy Co Project Titl Project Typ	e:	2018 IECC Sparks City Ha Alteration	II Remodel						
Constructi	on Site:	Owner/Agen Rob Bidar City of Sp Sparks, N rbidart@c	t arks	Kimley 5370 K Suite 1 Reno, I 775-20	/Contractor: -Horn & Assoc letzke Lane 00 VV 89511 0-1970 Isen@kimley-P				
Allowed	Interior Lighting F	ower A Area Category		B Floor Area (ft2)	C Allowed Watts / ft2		D wed Watts B X C)		
1-Sparks (	ity Hall (Town Hall)			2472	0.80 Fotal Allowed W	atts =	1978 1978		
Dronose									
Propose	d Interior Lighting Fixture ID : Descri	Power A ption / Lamp / Wattage	Per Lamp / Ballast	B Lamps Fixture		D Fixture Watt.	E (C X D)		
Sparks C D1: LEU L1,L1E, Interior Interior Complian building p systems applicabl	Fixture ID : Descri ty Hall ( Town Hall 24 ) Panel 33W: L2,L2E: LED Panel 33W Lighting PASSES Lighting Compliant ce Statement: The pro- plans, specifications, a have been designed to e mandatory requirent	A ption / Lamp / Wattage 72 sq.ft.) ce Statement oposed interior lighting in of other calculations su o meet the 2018 IECC re- tents listed in the Inspec	alteration project rep bmitted with this per quirements in COMc <i>l</i> tion Checklist.	B Lamps Fixture 1 1 1	6 51 Total Propose curment is con and to comp	Fixture Watt. 23 33 ed Watts = esistent witerior light	E (C X D) 138 1683 1821 ith the ting		
Sparks C D1: LEU L1,L1E, Interior Interior Complian building p systems applicabl	Fixture ID : Descri ty Hall ( Town Hall 24 ) Panel 33W: L2,L2E: LED Panel 33W Lighting PASSES Lighting Complian ce Statement: The polans, specifications, a have been designed to e mandatory requirent olwell, Engineer of R	A ption / Lamp / Wattage 72 sq.ft.) ce Statement oposed interior lighting a ind other calculations su o meet the 2018 IECC re- bents listed in the Inspect ecord	alteration project rep bmitted with this per quirements in COM <i>cl</i>	B Lamps Fixture 1 1 1	6 51 Total Propose curment is con and to comp	Fixture Watt. 23 33 ed Watts =	E (C X D) 138 1683 1821 ith the ting		
Sparks C D1: LEC L1,L1E, Interior Compliant Systems applicable Dustin C Name - T	Fixture ID : Descri	A ption / Lamp / Wattage 72 sq.ft.)  ce Statement oposed interior lighting a nd other calculations su meet the 2018 IECC re- the cord  I Remodel ical\192079013 - Sparks  I GENERAL  I ALL LIGHTING LIGHTING CONTROLS  I GENERAL  I ALL LIGHTING SHALL HAVE  I ALL EMERGEI REMOTELY M BATTERY BAG SWITCH.  I INTERIOR LIG COMPATIBLE  A DAYLIGHTING A FIXTURES FIXTURE IN THE 20  S OCCUPANCY A ALL LIGHTING OCCUPAN	alteration project rep bmitted with this per quirements in COMCI tion Checklist. Duow Jurd ignature s City Hall IT Remode s SEQUENCE OF C S SEQUENCE OF C S SHALL BE HIGH E THE ABILITY TO RI NCY LIGHTING SH. OUNTED OR INTE CKUP ARE INDICAT HTING CONTROLS S SPECIFIED WITH TO BE CONTROLL	B Lamps Fixture 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	<pre># of Fixtures 6 51 Total Propose cument is come proposed int 1 and to comp 10/08 Date 10/08 Date 00108 Date FileCC.cck</pre>	Fixture Watt. 23 33 ed Watts = esistent with terior light by with an 3/2020 Ry BACK URES W E WITH II D-10V DIN HALL BE ELL DIMM COFF/MAN RMITTED	E (C X D) 138 1693 1821 Ath the ting hy E: 08/22/20 1 of 6 TROLS. OW ESIRED. UP EITHER ITH EMERC NTEGRAL 1 MING INTEGRAL 1 MING INTEGRAL 1 MING INTEGRAL 1 MING	TO THE EQUIRED	

BUILDING LIGHTING FIXTURE SCHEDULE						
	SOURCE	VOLTAGE	LOAD	MOUNTING	MANUFACTURER & MODEL NUMBER	NOTES
	LED	277 V	21 VA	CEILING, RECESSED	LITHONIA WF6-LED-50K-MVOLT-MW OR APPROVED EQUAL	
	LED	277 V	32 VA	CEILING, RECESSED	LITHONIA EPANL-2X2-2000LM-80CRI-50K-MIN1-ZT-MVOLT OR APPROVED EQUAL	
	LED	277 V	32 VA	CEILING, RECESSED	LITHONIA EPANL-2X2-2000LM-80CRI-50K-MIN1-ZT-MVOLT-E10WCP OR APPROVED EQUAL	
	LED	120 V	32 VA	CEILING, RECESSED	LITHONIA EPANL-2X2-2000LM-80CRI-50K-MIN1-ZT-MVOLT OR APPROVED EQUAL	
	LED	120 V	32 VA	CEILING, RECESSED	LITHONIA EPANL-2X2-2000LM-80CRI-50K-MIN1-ZT-MVOLT-E10WCP OR APPROVED EQUAL	
	LED	277 V	2 VA	FIXTURE MOUNTING PER PLAN	ISOLITE ELTMR-EM-G-1C-WH OR APPROVED EQUAL	
	LED	120 V	2 VA	FIXTURE MOUNTING PER PLAN	ISOLITE ELTMR-EM-G-1C-WH OR APPROVED EQUAL	



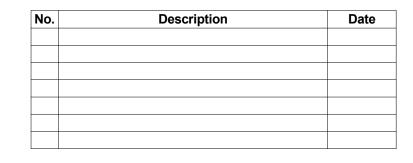


10/08/2020



**CITY OF SPARKS** CITY HALL City of Sparks, Nevada

## 431 Prater Way



## BRANCH PANEL: 1A

VOLTS: 120/208 WY PHASES: 3

LOCATION: REFER TO PLANS SUPPLY FROM: MSB

WIRES: 4 MOUNTING: SURFACE ENCLOSURE: NEMA 1 TRIP POLES CKT CIRCUIT DESCRIPTION Α В 0 VA 0 VA 3 (E) SPARE 100 A 3 0 VA 🛛 0 VA 5 0 7 (E) RR, WTR FNTN 313 20 A 1 0 VA 0 VA 9 (E) RECEP KITCHEN GFI 20 A 1 0 VA 900 VA 11 (E) RECEP 315 20 A 1 13 (E) RECEP 315, 315 20 A 1 0 VA 0 VA 15 (E) RECEP 313, 314, 31SS5 20 A 1 0 VA 🛛 0 VA 17 (E) RECP SERVER RM 20 A 1 19 (E) SERVER RM EX FANS 20 A 1 0 VA 0 VA 21 ELEC RM, IT MON (NOTE 3) 20 A 1 360 VA | 360 VA | 20 A 1 23 (E) ATTIC RECAP 0 VA 0 VA 25 27 (E) A/C UNIT 20 A 2 0 VA | 0 VA 29 31 (E) A/C UNIT 0 20 A 2 0 VA 360 VA 33 (E) AHU CONTROLS 20 A 1 0 VA 360 VA 35 (E) AHU CONTROLS 20 A 1 20 A 1 0 VA 0 VA 37 (E) ELEC RM 39 IT DESK 20 A 1 360 VA 0 VA 41 (E) SPACE -- | --TOTAL LOAD: 360 VA 2340 VA TOTAL AMPS: 3 A 22 A LOAD CLASSIFICATION CONNECTED LOAD DEMAND FACTOR EST. EQUIPMENT 360 VA 100.00% RECEPTACLE 100.00% 6660 VA 6

NOTES:

LOAD DELTA= 2.8A @ 120/208V, 3-PHASE. 1.) DISCONNECT THE LIGHTING LOAD CONNECTED PANEL SCHEDULE. FIELD VERIFY REQUIREMENTS. 2.) DISCONNECT EXISTING FIRE SUPPRESSION SYSTEM CONNECTED TO THIS BREAKER. REMOVAL OF FIRE SUPPRESSION SYSTEM BY OTHERS. 3.) CONNECT NEW LOAD TO EXISTING CIRCUIT AS REQUIRED.

			E	BRAN	CH F	PANEL	.: 2A	<u> </u>						
	Location: Refer TC Supply From: MSB Mounting: Surface Enclosure: Type 1	PLANS	3			PHAS	TS: 120/2 ES: 3 ES: 4	208 WYE				MA MAIN	C. RATING: 10K INS TYPE: MCB S RATING: 225 A B RATING: 225 A	
СКТ	CIRCUIT DESCRIPTION	TRIP	POLES	l l	4	E	3	0	<b>)</b>	POLES	TRIP	CIRC	UIT DESCRIPTION	СКТ
1	(E) RM 308 S WALL	20 A	1	0 VA	0 VA					1	20 A	(E) RM 3	00, 301, 302	2
3	(E) RM 308, 309	20 A	1			0 VA	0 VA			1	20 A	(E) RM 3	00, 301, 302, HALL	4
5	(E) RM 309	20 A	1					0 VA	0 VA	1	20 A	(E) RM 3	00 FLOOR RECEPT	6
7	(E) RM 308 COPIER	20 A	1	0 VA	0 VA					1	20 A	(E) RM 3	20, 321, 322	8
9	(E) RM 308 COPIER	20 A	1			0 VA	0 VA			1	20 A	(E) RM 3	20, 321, 322	10
11	(E) RM 308 N WALL	20 A	1					0 VA	0 VA	1	20 A	(E) KITC	HEN GFCI	12
13	(E) RM 308 N WALL	20 A	1	0 VA	1860 VA					1	20 A	(E) RES	TROOMS, DF	14
15	(E) SECURITY PANEL	20 A	1			0 VA	0 VA			1	20 A	(E) REC	EP 323	16
17	(E) ELEC RM	20 A	1					0 VA	0 VA	1	20 A	(E) REC	EP 323, 326	18
19	(E) ELEC RM	20 A	1	0 VA	0 VA					1	20 A	(E) REC	EP 326	20
21	(E) ATTIC RECEPT	20 A	1			0 VA	0 VA			1	20 A	(E) REC	EP 323	22
23	(E) AIR HANDLER PNL	20 A	1					0 VA	0 VA	1	20 A	(E) REC	EP 323	24
25	(E) AIR HANDLER PNL	20 A	1	0 VA	0 VA					1	20 A	(E) REC	EP COUNTERTOP GF	-1 26
27	(E) RM 306 FLOOR RECEPT	20 A	1			0 VA	0 VA			1	20 A	(E) REC	EP COUNTERTOP GF	-1 28
29	(E) RM 308	20 A	1					0 VA	0 VA	1	20 A	(E) REC	EP RR 308	30
31	EQ ELECTRIC WATER		0	2250 VA	720 VA					1	20 A	CO FINA	NCE FLOOR BOX	32
33	HEATER	30 A	2			2250 VA	0 VA			1	20 A	AHU-2 &	3 RECEP	34
35	EQ AUTO FAUCET/TOILET	20 A	1					1200 VA	360 VA	1	20 A	CO FINA	NCE FLOOR BOX	36
37	(E) SPACE			0 VA	0 VA							(E) SPA	CE	38
39	(E) SPACE					0 VA	0 VA					(E) SPA	CE	40
41	(E) SPACE							0 VA	0 VA			(E) SPA	CE	42
		TOTAL	LOAD:	4830	) VA	2250	) VA	1560	) VA					
		TOTAL	AMPS:	41	А	20	A	13	A	_				
LOA	D CLASSIFICATION		CO	NNECTED	LOAD D	EMAND FA	CTOR	EST. DEM/	AND			PANEL	TOTALS	
EQU	IPMENT			6600 VA	۱ I	100.00%	6	6600 V	۹					
REC	EPTACLE			2040 VA	۱ I	100.00%	6	2040 V	۹	ΤΟΤΑ	L CON	N. LOAD:	8640 VA	
										TOTAL	. EST. D	DEMAND:	8640 VA	
											TOTA	CONN.:	24 A	
										TOTAL	. EST. D	DEMAND:	24 A	
NOT														
LOA	D DELTA= 7.33A @ 120/208V, 3	-PHASE	Ξ.											

LOAD DELTA= 7.33A @ 120/208V, 3-PHASE.

VYE					C. RATING: 10K	
VIL					INS TYPE: MCB	
					S RATING: 225 A	
					B RATING: 220 A	
				WIC	DIVATING: 200 A	
(	)	POLES	TRIP	CIRC	UIT DESCRIPTION	СК
		1	20 A	(E) RECI	EP 326, 327, 328,	2
		1	20 A	(E) RECI	EP 326, 327, 328, 329	4
VA	0 VA	. 1	20 A	(E) RECI	EP 328, 329	6
		1	20 A	(E) RECI	EP 327	8
		1	20 A	IT HEAT	ER	10
VA	1800 V	<b>/A</b> 1	20 A	IT HEAT	ER	12
		1	20 A	(E) RECI	EP 312, 320, HALL	14
		1	20 A	(E) RECI	EP HALL PLOTTER	16
VA	1800 V	<b>/A</b> 1	20 A	IT HEAT	ER	18
		1	20 A	(E) CO I	T DESK DEDICATED	20
		1	20 A	IT DESK	,	22
VA	360 V	<b>A</b> 1	20 A	IT DESK	,	24
		1	20 A	(E) RECI	EP 322	26
		1	20 A	(E) SPA	RE (NOTE 1)	28
VA	360 V	<b>A</b> 1	20 A		H (NOTE 2)	30
		1	20 A	IT DESK	DED, 310 (NOTE 3)	32
		1	20 A	IT BENC	H, 324 (NOTE 3)	34
VA	0 VA	. 1	20 A	(E) RECI	EP 323	36
		1	20 A	(E) RECI	EP COUNTERTOP	38
		1	20 A	(E) REC	EP COUNTERTOP	40
VA	0 VA	. 1	20 A	(E) RECI	EP RR	42
4320	) VA					I
39	А					
. DEM	AND			PANEL	TOTALS	
360 VA	<b>`</b>					
660 V/	4	ΤΟΤΑ	L CON	N. LOAD:	7020 VA	
		TOTAL	EST. D	EMAND:	7020 VA	
			TOTA	CONN.:	19 A	
		TOTAL	EST. D	EMAND:	19 A	
					O PANEL 1HA. REFEF BREAKER. REMOVAL	

#### ENCLOSURE: NEMA 1 POLES TRIP CKT CIRCUIT DESCRIPTION TRIP POLES В С Α 20 A 1 0 VA 0 VA 1 (E) H20 HEATER 1 20 A 3 (E) EXIT LIGHTS 0 VA **480 VA** 20 A | 1 | 1 20 A L 0 VA 0 VA 1 20 A 5 (E) TIMECLOCK/NGT LGTS 20 A 1 7 (E) HALL LIGHTING 20 A 1 0 VA 0 VA 20 A 1 9 (E) SPARE 20 A 1 0 VA 0 VA 20 A 1 11 (E) SPARE 20 A 1 0 VA 0 VA 1 20 A 13 (E) SPARE 20 A 1 0 VA 0 VA 15 (E) SPARE 20 A 1 30 A 0 VA 0 VA 3 17 (E) SPARE 20 A 1 0 VA 0 VA 19 (E) SPARE 20 A 1 0 VA 0 VA 20 A 1 3 | 15 A | ( 21 (E) SPARE 0 VA 0 VA 23 (E) SPARE 20 A 1 0 VA 0 VA 0 VA 🛛 0 VA 27 (E) XMFR T1 3 30 A 125 A 3 0 VA 0 VA 0 VA 0 VA 29 0 VA 🛛 0 VA 33 (E) SERVER RM UPS 60 A 0 VA 0 VA 20 A 3 - 3 35 0 VA 0 VA 0 VA 0 VA 37 39 (E) SPARE 90 A 3 20 A 0 VA 0 VA 41 0 VA 0 VA TOTAL LOAD: 0 VA 480 VA 0 VA TOTAL AMPS: 0 A 0 A 2 A LOAD CLASSIFICATION CONNECTED LOAD DEMAND FACTOR EST. DEMAND LIGHTING 480 VA 125.00% 600 VA TOTAL CONN. TOTAL EST. DEI TOTAL C TOTAL EST. DEI

NOTES: LOAD DELTA= -0.3A @ 277/480V, 3-PHASE.

LOCATION: REFER TO PLANS

SUPPLY FROM: MSB

MOUNTING: SURFACE

			E	RAN	CH F	PANEL	_: 2ŀ	HA						
	Location: Refer TC Supply From: MSB Mounting: Surface Enclosure: Nema 1	) PLANS	8			PHAS	_TS: 480, SES: 3 RES: 4	/277 WYE				MA	C. RATING: 14K INS TYPE: MLO S RATING: 250 A	
СКТ	CIRCUIT DESCRIPTION	TRIP	POLES		A		В		С	POLES	TRIP	CIRC	UIT DESCRIPTION	СКТ
1	(E) HALLWAY LIGHTING	20 A	1	0 VA	318 VA					1	20 A	ELEC RI	M, RR, 303, 304, 305	2
3	(E) E-LIGHTS	20 A	1			0 VA	0 VA			1	20 A	(E) RM 3	08, 309	4
5	(E) SPARE	20 A	1					0 VA	0 VA	1	20 A	(E) TIME	CLOCK/NIGHT	6
7	(E) EXIT LIGHTS	20 A	1	0 VA	0 VA					1	20 A	(E) SPA	RE	8
9	(E) SPARE	20 A	1			0 VA	0 VA			1	20 A	(E) RM 3	06, 307	10
11	(E) SPARE	20 A	1					0 VA	0 VA	1	20 A	(E) SPA	RE	12
13	(E) SPARE	20 A	1	0 VA	0 VA					1	20 A	(E) SPA	RE	14
15	(E) SPARE	20 A	1			0 VA	0 VA			1	20 A	(E) SPA	RE	16
17	(E) SPARE	20 A	1					0 VA	0 VA	1	20 A	(E) SPA	RE	18
19	(E) SPARE	20 A	1	0 VA	0 VA					1	20 A	(E) SPA	RE	20
21	(E) SPARE	20 A	1			0 VA	0 VA			1	20 A	(E) SPA	RE	22
23	(E) SPARE	20 A	1					0 VA	0 VA	1	20 A	(E) SPA	RE	24
25	(E) SPARE	20 A	1	0 VA	0 VA							(E) SPA	CE	26
27	(E) SPARE	20 A	1			0 VA	0 VA					(E) SPA	CE	28
29	(E) SPARE	20 A	1					0 VA	0 VA			(E) SPA	CE	30
31	(E) SPACE			0 VA	0 VA							(E) SPA	CE	32
33	(E) SPACE					0 VA	0 VA					(E) SPA	CE	34
35	(E) SPACE							0 VA	0 VA			(E) SPA	CE	36
37	(E) SPACE			0 VA	0 VA							(E) SPA	CE	38
39	(E) SPACE					0 VA	0 VA					(E) SPA	CE	40
41	(E) SPACE							0 VA	0 VA			(E) SPA	CE	42
		TOTAL	LOAD:	318	3 VA	0	VA	0	VA	'				
		TOTAL	_ AMPS:	1	A	0	A	(	) A	_				
LOA	D CLASSIFICATION		COI	NECTED	LOAD D	EMAND FA	CTOR	EST. DEM	IAND			PANEL	TOTALS	
LIGH	ITING			318 VA	<b>\</b>	125.00%	%	398 V.	A					
										ΤΟΤΑ	L CON	N. LOAD:	318 VA	
										TOTAL	EST. D	EMAND:	398 VA	
											ΤΟΤΑ	L CONN.:	0 A	
										TOTAL	EST. D	EMAND:	0 A	
NOT	ES:		I		I		I		I					

LOAD DELTA= -0.2A @ 277/480V, 3-PHASE.

#### BRANCH PANEL: 1HA VOLTS: 480/277 WYE

PHASES: 3 WIRES: 4

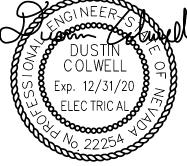
A.I.C. RATING: 14K MAINS TYPE: MLO MAINS RATING: 250 A	
CIRCUIT DESCRIPTION	СКТ
(E) LTG RM	2
LTG RM 313,320-323,326	4
(E) SPARE	6
(E) SPARE	8
(E) SPARE	10
(E) SPARE	12
	14
(E) A/C UNIT	16
	18
	20
(E) A/C UNIT	22
	24
	26
(E) AC-2, CU-2	28
	30
	32
(E) A/C UNIT	34
	36
	38
(E) A/C UNIT	40
	42

PANEL	TOTALS
LOAD:	480 VA
MAND:	600 VA
CONN.:	1 A
MAND:	1 A

## GENERAL NOTES

1. EXISTING CONDITIONS AS INDICATED ON THE PANEL SCHEDULES ARE BASED ON THE AVAILALBE ASBUILT DRAWINGS AND CASUAL FIELD OBSERVATION AND ARE FOR REFERENCE ONLY. PROPOSED MODIFICATIONS TO THE EXISTING PANEL AND LOADS ARE INDICATED WITH FULL-TONE, BOLD TYPE FONT. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY THE ENGINEER OF RECORD OF DISCREPANCIES DISCOVERED FOR RESOLUTION.





10/08/2020

# ELECTRICAL PANEL SCHEDULES e602

## **CITY OF SPARKS** CITY HALL City of Sparks, Nevada

## 431 Prater Way

No.	Description	Date

			E	BRAN	CH	PANEL	.: A						
	Location: New Cor Supply From: DS2 Mounting: Surface Enclosure: Type 1		27			PHAS	.TS: 120, ES: 3 ES: 4	/208 WYE				A.I.C. RATING: 10K MAINS TYPE: MLO MAINS RATING: 250 A	
СКТ	CIRCUIT DESCRIPTION	TRIP	POLES		A	E	3	(	C	POLES	TRIP	CIRCUIT DESCRIPTION	СКТ
1	LTG CUST. SERV. / STOR.	20 A	1	738 VA	0 VA					1	20 A (E) COPIER		2
3	(E) RECEP HALLWAY	20 A	1			0 VA	0 VA			1	20 A	(E) RECEP RM 421	4
5	(E) RECEP RM 421, 422	20 A	1					0 VA	0 VA	1	20 A	(E) RECEP RM 426	6
7	(E) RECEP RM 423, 424	20 A	1	0 VA	0 VA					1	20 A	(E) RECEP RM 424	8
9	(E) VAV XFMR PNL 1	20 A	1			0 VA	0 VA			1	20 A	(E) RECEP RM 423	10
11	(E) VAV XFMR PNL 2	20 A	1					0 VA	0 VA	1	20 A	(E) RECEP RM 422	12
13	(E) VAV XFMR PNL 3	20 A	1	0 VA	0 VA					1	20 A	(E) RECEP RM 411	14
15	CO CUST SERV DESKS	20 A	1			360 VA	0 VA			1	20 A	(E) RECEP RM 411	16
17	CO CUST SERV DESKS	20 A	1					720 VA	0 VA	1	20 A	(E) RECEP RM 411	18
19	CO CUST SERV DESKS	20 A	1	720 VA	0 VA					1	20 A	(E) RECEP HR HALL	20
21	CO CUST SERV DESKS	20 A	1			720 VA	0 VA			1	20 A	(E) RECEP HR HALL	22
23	CO CUST SERV HEATERS	20 A	1					1800 VA	720 VA	1	20 A	HALL RECEP	24
25	CO CUST SERV DESKS	20 A	1	360 VA	600 V/	4				1	20 A	PRINTER	26
27	CO CUST SERV HEATERS	20 A	1			1800 VA	0 VA					(E) SPACE	28
29	(E) SPACE							0 VA	0 VA			(E) SPACE	30
		TOTA	L LOAD:	241	8 VA	2880	AV C	3240	AV C				
		TOTAL	_ AMPS:	20	AC	25	λ	28	3 A	_			
LOAI	D CLASSIFICATION		CO	NNECTED	LOAD	DEMAND FA	CTOR	EST. DEM	AND			PANEL TOTALS	
REC	EPTACLE			7800 V/	۹	100.00%	6	7800 V	Ą				
LIGH	TING			738 VA	۱ I	125.00%	6	923 VA	۸	ΤΟΤΑ	L CON	N. LOAD: 8538 VA	
										TOTAL	EST. E	DEMAND: 8723 VA	
											ΤΟΤΑ	L CONN.: 24 A	
										TOTAL	EST. E	DEMAND: 24 A	
NOT	ES:												
LOAI	D DELTA= 21.02A @ 120/208V,	3-PHAS	SE.										

				BF	RAN	CH	PANE	L: P	1
	LOCATION: REFER TO	PLANS	S				VC	LTS: 120	)/208 V
	SUPPLY FROM: DS2						PHA	SES: 3	
	MOUNTING: SURFACE						WI	RES: 4	
	ENCLOSURE: TYPE 1								
СКТ	CIRCUIT DESCRIPTION	TRIP	POLE	ES		A		В	
1	(E) RECEP RM	20 A	1		0 VA	0 V/	۹		
3	(E) RECEP RM 100,103	20 A	1				0 VA	0 VA	
5	(E) RECEP RR,RR CNTL,DF	20 A	1						0
7	(E) RECEP RM 105	20 A	1		0 VA	0 V/	4		
9	(E) RECEP TM 113 PRINTER	20 A	1				0 VA	0 VA	
11	(E) RECEP RM 112,113	20 A	1						0
13	(E) RECEP RM 104,113	20 A	1		0 VA	0 V/	4		
15	(E) RECEP RM 110,111, HALL	20 A	1				0 VA	0 VA	
17	CUST SERV MAIN DESK	20 A	1						36
19	(E) RECEP RM 120	20 A	1		0 VA	0 V A	۹		
21	(E) RECEP RM 120	20 A	1				0 VA	0 VA	
23	(E) RECEP RM 120	20 A	1						0
25	(E) RECEP RM 120,126,150,	20 A	1		0 VA	0 V A	۹		
27	(E) RECEP RM 150, HALL	20 A	1				0 VA	0 VA	
29	(E) RECEP RM 126,141,150,	20 A	1						0
31	(E) RECEP RM 142-144	20 A	1		0 VA	0 V A	4		
33	(E) RECEP RM 142-144	20 A	1				0 VA	0 VA	
35	(E) RECEP RM 141-142	20 A	1						0
37	(E) SMOKE DETECT/MAG D	20 A	1		0 VA	0 V A	4		
39	(E) BASEMENT EXHAUST	20 A	1				0 VA	0 VA	
41	(E) H20 COOLER	20 A	1						0
		TOTAI	L LOA	D:	0	VA	0	VA	
		ΤΟΤΑΙ			0	А		) A	
LOA	D CLASSIFICATION		C	CONN	NECTED	LOAD	DEMAND F	ACTOR	EST
REC	EPTACLE				720 VA	<u>۱</u>	100.00	%	-
NOT	ES:								
LOA	D DELTA= 0.5A @ 120/208V, 3-I	PHASE.							
	_								
1									

MOUNTING: SURFACE ENCLOSURE: NEMA 1WIRES: 4MAINSCKTCIRCUIT DESCRIPTIONTRIPPOLESABCPOLESTRIPCIRCUI1(E) LTG MAIN LOBBY WEST20 A10 VA226 VAA120 ALTG CUST3(E) LTG MAIN LOBBY WEST20 A10 VA0 VA0 VA120 ALTG CUST3(E) LTG RM 160-16520 A1AA0 VA0 VA120 A(E) LTG R5(E) LTG RM 160-16520 A10 VA0 VA0 VA120 A(E) LTG R7(E) LTG RM 15020 A10 VA0 VA0 VA120 A(E) LTG R9(E) LTG BLDG 100 HALLWAY20 A10 VA0 VA0 VA120 A(E) LTG R11(E) LTG RM 120-12520 A10 VA0 VA0 VA120 A(E) LTG E13(E) SPARE20 A10 VA0 VA0 VA120 A(E) LTG E	RM 144-147         8           RM 140-143,148         10           EXT, TIMECLOCK         12           EMERGENCY         14           EXIT/BUG EYES         16           E         18
ENCLOSURE: NEMA 1           CKT         CIRCUIT DESCRIPTION         TRIP         POLES         A         B         C         POLES         TRIP         CIRCUI           1         (E) LTG MAIN LOBBY WEST         20.A         1         0 VA         226 VA          1         20.A         LTG CUITO         TRIP         CIRCUI           3         (E) LTG MAIN LOBBY WEST         20.A         1         0 VA         0 VA         0 VA         1         20.A         (E) LTG RM 160-165         20.A         1         0 VA         0 VA         0 VA         1         20.A         (E) LTG RM 150         20.A         1         0 VA         0 VA         0 VA         1         20.A         (E) LTG RM 150         20.A         1         0 VA         0 VA         1         20.A         (E) LTG RM 120-125         20.A         1         0 VA         0 VA         1         20.A         (E) LTG RM 120-125         20.A         1         0 VA         0 VA         1         20.A         (E) LTG EI         (E) LTG RM 120-125         20.A         1         0 VA         0 VA         1         20.A         (E) LTG RM         (E) LTG EI         (E) SPARE         20.A         1         0 VA         0 VA <td< td=""><td>JIT DESCRIPTION         CKT           ST. SERV         2           RM 100-103         4           RM 110-114         6           RM 144-147         8           RM 140-143,148         10           EXT, TIMECLOCK         12           EMERGENCY         14           EXIT/BUG EYES         16           E         18</td></td<>	JIT DESCRIPTION         CKT           ST. SERV         2           RM 100-103         4           RM 110-114         6           RM 144-147         8           RM 140-143,148         10           EXT, TIMECLOCK         12           EMERGENCY         14           EXIT/BUG EYES         16           E         18
CKT         CIRCUIT DESCRIPTION         TRIP         POLES         A         B         C         POLES         TRIP         CIRCUI           1         (E) LTG MAIN LOBBY WEST         20 A         1         0 VA         226 VA         Image: Constraint of the state of the stat	SERV         2           RM 100-103         4           RM 110-114         6           RM 144-147         8           RM 140-143,148         10           EXT, TIMECLOCK         12           EMERGENCY         14           EXIT/BUG EYES         16           E         18
1       (E) LTG MAIN LOBBY WEST       20 A       1       0 VA       226 VA       1       20 A       1       20 A       LTG CUSS         3       (E) LTG MAIN LOBBY EAST       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG RM         5       (E) LTG RM 160-165       20 A       1       0 VA       0 VA       0 VA       0 VA       1       20 A       (E) LTG RM         7       (E) LTG RM 150       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG R         9       (E) LTG BLDG 100 HALLWAY       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG R         11       (E) LTG RM 120-125       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG EI         13       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG EI         14       (E) SPARE       20 A       1       0 VA       0 VA       1       20 A       (E) LTG EI         15       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A </td <td>SERV         2           RM 100-103         4           RM 110-114         6           RM 144-147         8           RM 140-143,148         10           EXT, TIMECLOCK         12           EMERGENCY         14           EXIT/BUG EYES         16           E         18</td>	SERV         2           RM 100-103         4           RM 110-114         6           RM 144-147         8           RM 140-143,148         10           EXT, TIMECLOCK         12           EMERGENCY         14           EXIT/BUG EYES         16           E         18
1       (E) LTG MAIN LOBBY WEST       20 A       1       0 VA       226 VA       1       20 A       1       20 A       LTG CUSS         3       (E) LTG MAIN LOBBY EAST       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG RM         5       (E) LTG RM 160-165       20 A       1       0 VA       0 VA       0 VA       0 VA       1       20 A       (E) LTG RM         7       (E) LTG RM 150       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG R         9       (E) LTG BLDG 100 HALLWAY       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG R         11       (E) LTG RM 120-125       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG EI         13       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG EI         14       (E) SPARE       20 A       1       0 VA       0 VA       1       20 A       (E) LTG EI         15       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A </td <td>SERV         2           RM 100-103         4           RM 110-114         6           RM 144-147         8           RM 140-143,148         10           EXT, TIMECLOCK         12           EMERGENCY         14           EXIT/BUG EYES         16           E         18</td>	SERV         2           RM 100-103         4           RM 110-114         6           RM 144-147         8           RM 140-143,148         10           EXT, TIMECLOCK         12           EMERGENCY         14           EXIT/BUG EYES         16           E         18
3       (E) LTG MAIN LOBBY EAST       20 A       1       0       0       VA       0       VA       1       20 A       (E) LTG R         5       (E) LTG RM 160-165       20 A       1       0       VA       0       VA       0       VA       1       20 A       (E) LTG R         7       (E) LTG RM 150       20 A       1       0       VA       0       VA       0       VA       1       20 A       (E) LTG R         9       (E) LTG BLDG 100 HALLWAY       20 A       1       0       VA       0       VA       1       20 A       (E) LTG R         11       (E) LTG RM 120-125       20 A       1       0       VA       0       VA       0       VA       1       20 A       (E) LTG R         13       (E) SPARE       20 A       1       0       VA       0       VA       0       VA       1       20 A       (E) LTG R         15       (E) SPARE       20 A       1       0       VA       0       VA       1       20 A       (E) LTG R         16       (E) SPARE       20 A       1       0       VA       0       VA       1       20 A       (E) SP	RM 100-103         4           RM 110-114         6           RM 144-147         8           RM 140-143,148         10           EXT, TIMECLOCK         12           EMERGENCY         14           EXIT/BUG EYES         16           E         18
5       (E) LTG RM 160-165       20 A       1       0       0       0 VA       0 VA       1       20 A       (E) LTG R         7       (E) LTG BLDG 100 HALLWAY       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG R         9       (E) LTG BLDG 100 HALLWAY       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG R         11       (E) LTG RM 120-125       20 A       1       0 VA       0 VA       0 VA       0 VA       1       20 A       (E) LTG R         13       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG R         15       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG R         17       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         21       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         23       (E) SPACE         0 VA       0 VA       0 VA	RM 110-114         6           RM 144-147         8           RM 140-143,148         10           EXT, TIMECLOCK         12           EMERGENCY         14           EXIT/BUG EYES         16           E         18
7       (E) LTG RM 150       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG R         9       (E) LTG BLDG 100 HALLWAY       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG R         11       (E) LTG RM 120-125       20 A       1       0 VA       0 VA       0 VA       0 VA       1       20 A       (E) LTG E         13       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG E         15       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG E         16       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG E         17       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         21       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         23       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       0 VA       1       20 A       (E)	RM 144-147         8           RM 140-143,148         10           EXT, TIMECLOCK         12           EMERGENCY         14           EXIT/BUG EYES         16           E         18
9       (E) LTG BLDG 100 HALLWAY       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG R         11       (E) LTG RM 120-125       20 A       1       0 VA       0 VA       0 VA       0 VA       1       20 A       (E) LTG R         13       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       0 VA       1       20 A       (E) LTG R         15       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG R         17       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         19       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         23       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         25       (E) SPACE         0 VA       0 VA         (E) SPACE         27       (E) SPACE         0 VA       0 VA       0 VA         (E)	RM 140-143,148         10           EXT, TIMECLOCK         12           EMERGENCY         14           EXIT/BUG EYES         16           E         18
11       (E) LTG RM 120-125       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG EX         13       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG EX         15       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) LTG EX         17       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       0 VA       1       20 A       (E) LTG EX         17       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         19       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         21       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         23       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         25       (E) SPACE         0 VA       0 VA       0 VA         (E) SPACE	EXT, TIMECLOCK 12 EMERGENCY 14 EXIT/BUG EYES 16 E 18
13       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       0 VA       1       20 A       (E) LTG EI         15       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       0 VA       1       20 A       (E) LTG EI         17       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       0 VA       1       20 A       (E) LTG EI         19       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         21       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         23       (E) SPARE       20 A       1       0 VA       0 VA <td>MERGENCY14EXIT/BUG EYES16E18</td>	MERGENCY14EXIT/BUG EYES16E18
15       (E) SPARE       20 A       1       0       0 VA       0 VA       0 VA       1       20 A       (E) LTG E         17       (E) SPARE       20 A       1       0       0 VA       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         19       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         21       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         23       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         23       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         25       (E) SPACE         0 VA       0 VA       0 VA       0 VA         (E) SPACE         27       (E) SPACE         0 VA       0 VA       0 VA       0 VA         (E) SPACE         31       (E) SPACE         0 VA <td>EXIT/BUG EYES 16 E 18</td>	EXIT/BUG EYES 16 E 18
17       (E) SPARE       20 A       1       Image: constraint of the synthesis of the synthesynthesis of the	E 18
19       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         21       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         23       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         23       (E) SPARE       20 A       1       0 VA       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         25       (E) SPACE         0 VA       0 VA       0 VA         (E) SPACE         27       (E) SPACE         0 VA       0 VA       0 VA       0 VA         (E) SPACE         29       (E) SPACE         0 VA       0 VA       0 VA       0 VA         (E) SPACE         31       (E) SPACE         0 VA       0 VA       0 VA         (E) SPACE         33       (E) SPACE          (E) SPACE       0 VA       0 VA       0 VA	
21       (E) SPARE       20 A       1        0 VA       0 VA       0 VA       1       20 A       (E) SPARE         23       (E) SPARE       20 A       1        0 VA       0 VA       0 VA       0 VA       1       20 A       (E) SPARE         25       (E) SPACE         0 VA       0 VA       0 VA       1       20 A       (E) SPARE         27       (E) SPACE         0 VA       0 VA       0 VA         (E) SPACE         29       (E) SPACE         0 VA	E 20
23       (E) SPARE       20 A       1       Image: Constraint of the system	L   20
25       (E) SPACE         0 VA       0 VA       0 VA       0 VA         (E) SPACE         27       (E) SPACE         0 VA       0 VA       0 VA       0 VA         (E) SPACE         29       (E) SPACE          0 VA       0 VA       0 VA       0 VA         (E) SPACE         31       (E) SPACE         0 VA       0 VA       0 VA         (E) SPACE         33       (E) SPACE         0 VA       0 VA       0 VA         (E) SPACE         35       (E) SPACE          (E) SPACE         (E) SPACE	E 22
27       (E) SPACE          0 VA       0 VA       0 VA         (E) SPACE         29       (E) SPACE         0 VA       0 VA       0 VA       0 VA         (E) SPACE         31       (E) SPACE         0 VA       0 VA       0 VA         (E) SPACE         33       (E) SPACE         0 VA       0 VA       0 VA         (E) SPACE         35       (E) SPACE         Image: Constraint of the second sec	E 24
29       (E) SPACE          (E) SPACE         (E) SPACE         31       (E) SPACE         0 VA       0 VA       0 VA         (E) SPACE         33       (E) SPACE         0 VA       0 VA       0 VA       0 VA         (E) SPACE         35       (E) SPACE         Image: Comparison of the second secon	E 26
31       (E) SPACE         0 VA       0 VA       0 VA         (E) SPACE         33       (E) SPACE          0 VA       0 VA       0 VA       0 VA         (E) SPACE         35       (E) SPACE          (E) SPACE       0 VA       0 VA       0 VA       0 VA        (E) SPACE	E 28
33       (E) SPACE         0 VA       0 VA         (E) SPACE         35       (E) SPACE          (E) SPACE       0 VA       0 VA       0 VA       0 VA        (E) SPACE	E 30
33       (E) SPACE         0 VA       0 VA         (E) SPACE         35       (E) SPACE          (E) SPACE       0 VA       0 VA       0 VA       0 VA        (E) SPACE	E 32
	E 34
37         (E) SPACE           0 VA         0 VA           (E) SPACE	E 36
	E 38
39     (E) SPACE       (E) SPACE      (E) SPACE	E 40
41 (E) SPACE (E) SPACE	
TOTAL LOAD: 226 VA 0 VA 0 VA	I
TOTAL AMPS: 1 A 0 A 0 A	
LOAD CLASSIFICATION CONNECTED LOAD DEMAND FACTOR EST. DEMAND PANEL TO	OTALS
LIGHTING 226 VA 125.00% 283 VA	<u></u>
TOTAL CONN. LOAD: 2	226 VA
TOTAL EST. DEMAND: 2	
TOTAL CONN.: 0	
TOTAL EST. DEMAND: 0	
NOTES:	
LOAD DELTA= -0.1A @ 277/480V, 3-PHASE.	

BRANCH PANEL: L1

VOLTS: 480/277 WYE

LOCATION: REFER TO PLANS

3 WYE A.I.C. RATING: 10K MAINS TYPE: MLO MAINS RATING: 250 A POLES TRIP CIRCUIT DESCRIPTION CKT 1 20 A (E) RECEP RM 100 1 20 A (E) RECEP RM 100-102 0 VA 0 VA 1 20 A (E) RECEP RM... 1 20 A (E) RECEP RM 104-106,110 1 20 A (E) RECEP RM... 0 VA 0 VA 1 20 A (E) RECEP RM... 12 1 20 A (E) MAIN ENTRY DOOR CNT... 14 1 20 A (E) RECEP RM 110-112 **360 VA 360 VA** 1 20 A **CUST SERV MAIN DESK** 1 20 A (E) RECEP RM 115,121,. 20 1 20 A (E) RECEP RM 122-124 22 0 VA 0 VA 1 20 A (E) RECEP RM 122-124 24 1 20 A (E) RECEP RM 147-148 1 20 A (E) RECEP RM 145-146,148 28 0 VA 0 VA 1 20 A (E) RECEP RM 145-147 30 1 20 A (E) RECEP RM 140,147 1 20 A (E) RECEP RM 140... 0 VA 0 VA 1 20 A (E) MAILROOM A/C CNTL 36 2 20 A (E) MAILROOM A/C CONDENSER 38 40 0 VA 0 VA 1 20 A (E) ROOFTOP FANS 42 720 VA 6 A L. DEMAND PANEL TOTALS 720 VA TOTAL CONN. LOAD: 720 VA \_\_\_\_\_ TOTAL EST. DEMAND: 720 VA TOTAL CONN.: 2 A TOTAL EST. DEMAND: 2 A

			E	BRAN	CHF	PANEL	_: P	1A				
	Location: Refer to Supply from: DS2 Mounting: Surface Enclosure: Type 1		8			PHAS	.TS: 120 ES: 3 ES: 4	0/208 WYE				A.I.C. R/ MAINS MAINS R/
скт	CIRCUIT DESCRIPTION	TRIP	POLES		4	E	3	(	2	POLES	TRIP	CIRCUIT
1	(E) RM 110 DEDICATED	20 A	1	0 VA	0 VA					1	20 A	(E) SPARE
3	(E) RM 110 DED OCE	20 A	1			0 VA	0 VA			1	20 A	(E) SPARE
5	(E) KIOSK RECEPT.	20 A	1					0 VA	0 VA	1	20 A	(E) SPARE
7 9	EQ ROLL-UP GRILLE	20 A	2	750 VA	0 VA	750 VA	0 VA			1	20 A 20 A	(E) SPARE (E) SPARE
-	EQ PRINTER	20 A	1			100 44		500 VA	0 VA	1	20 A	(E) SPARE
	(E) SPARE	20 A	1	0 VA	0 VA				0 1/1	1	20 A	(E) SPARE
	(E) SPARE	20 A	1	0 1/1	0 1/1	0 VA	0 VA			1	20 A	(E) SPARE
	(E) SPARE	20 A	1			0 1/1	0 1/1	0 VA	0 VA	1	20 A	(E) SPARE
	(E) SPACE			0 VA	0 VA			0 1/1	0 1/1			(E) SPACE
	(E) SPACE			0 1/1	0 1/1	0 VA	0 VA					(E) SPACE
	(E) SPACE						0 17	0 VA	0 VA			(E) SPACE
	(E) SPACE			0 VA	0 VA			0 171	0 111			(E) SPACE
	(E) SPACE			0 17 1		0 VA	0 VA					(E) SPACE
	(E) SPACE							0 VA	0 VA			(E) SPACE
	(E) SPACE			0 VA	0 VA							(E) SPACE
	(E) SPACE			• • • •		0 VA	0 VA					(E) SPACE
	(E) SPACE							0 VA	0 VA			(E) SPACE
	(E) SPACE			0 VA	0 VA				_			(E) SPACE
	(E) SPACE			-	_	0 VA	0 VA					(E) SPACE
	(E) SPACE							0 VA	0 VA			(E) SPACE
		TOTAL	LOAD:	750	VA	750	VA		VA			(_) = 1 = 2
			AMPS:		A	7			A			
LOAD	O CLASSIFICATION			NNECTED	LOAD	EMAND FA	CTOR	EST. DEM	AND			PANEL TOT
EQU	PMENT			2000 VA	4	100.00%	6	2000 V	A			
										ΤΟΤΑ	L CON	N. LOAD: 200
										TOTAL	EST. D	EMAND: 200
											ΤΟΤΑ	L CONN.: 6 A
										TOTAL	. EST. D	DEMAND: 6 A
					1							

A.I.C. RATING: 14K MAINS TYPE: MLO

A.I.C. RATING: 10K MAINS TYPE: MLO MAINS RATING: 125 A CIRCUIT DESCRIPTION CKT (E) SPARE (E) SPARE (E) SPARE (E) SPARE (E) SPARE (E) SPARE (E) SPARE

6

8

10

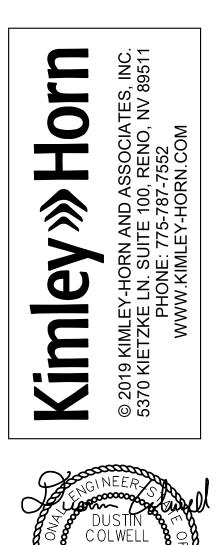
	(E) SPARE	12
	(E) SPARE	14
<b>۱</b>	(E) SPARE	16
<b>۱</b>	(E) SPARE	18
	(E) SPACE	20
	(E) SPACE	22
	(E) SPACE	24
	(E) SPACE	26
	(E) SPACE	28
	(E) SPACE	30
	(E) SPACE	32
	(E) SPACE	34
	(E) SPACE	36
	(E) SPACE	38
	(E) SPACE	40
	(E) SPACE	42

PANEL TOTALS

NN. LOAD: 2000 VA DEMAND: 2000 VA AL CONN.: 6 A DEMAND: 6 A

## GENERAL NOTES

1. EXISTING CONDITIONS AS INDICATED ON THE PANEL SCHEDULES ARE BASED ON THE AVAILALBE ASBUILT DRAWINGS AND CASUAL FIELD OBSERVATION AND ARE FOR REFERENCE ONLY. PROPOSED MODIFICATIONS TO THE EXISTING PANEL AND LOADS ARE INDICATED WITH FULL-TONE, BOLD TYPE FONT. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY THE ENGINEER OF RECORD OF DISCREPANCIES DISCOVERED FOR RESOLUTION.



10/08/2020

# **ELECTRICAL PANEL** SCHEDULES e603

## **CITY OF SPARKS** CITY HALL City of Sparks, Nevada

## 431 Prater Way

No.	Description	Date