IGTC CHIMES EXPANSION TENANT BUILDOUT

5026 SOUTH STATE STREET MURRAY, UTAH 84107

11 FEBRUARY 2022

CONSTRUCTION DOCUMENTS

ENGINEERING CONSULTANTS

ELECTRICAL

324 S. STATE STREET, SUITE 400 SALT LAKE CITY, UTAH 84111

PHONE: 801-401-8422

MECHANICAL & PLUMBING



VAN BOERUM & FRANK ASSOCIATES KEVIN MCENTIRE 330 SOUTH 300 EAST SALT LAKE CITY, UT 84111 PHONE: 801.530.3148

MARK REVISION DATE

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SHEET DESCRIPTION:

233 SOUTH PLEASANT GROVE BLVD.

SUITE #105 PROJ. MAN.: PLEASANT GROVE, UTAH 84062 CHECKED BY: PHONE: (801) 769-3000

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PROJECT: IGTC CHIMES EXPANSION TENANT BUILDOUT

> **★**\NO. 12158576-0301/★ 5026 SOUTH STATE STREET MURRAY, UTAH 84107

COVER SHEET

ACCESSORY OCCUPANCY:

INTERIOR WALL AND CEILING

ACCESSIBILITY:

ADDITIONAL REQUIREMENTS:

B OCCUPANCY. (IBC 508.2), NO SEPARATION REQUIRED (IBC 508.2.4)

0 HOUR EXTERIOR WALL PROTECTION IS REQUIRED BASED ON SITE

LAYOUT WHERE ALL FIRE SEPARATION DISTANCES ARE GREATER

THAN 30'-0" (IBC TABLE 601 & 602).

C ROOMS AND ENCLOSED SPACES

B EXIT ENCLOSURES AND PASSAGEWAYS.

TO BE INSTALLED IN ACCORDANCE WITH IBC 804

100 FEET:B OCCUPANCY (IBC TABLE 1006.2.1)

300 FEET: B OCCUPANCY (IBC 1016.1 & TABLE 1016.2)

2 HOUR PRIMARY STRUCTURE, BEARING WALLS INTERIOR AND

2 HOUR FLOOR CONSTRUCTION AND ASSOCIATED SECONDARY

1 HOUR ROOF CONSTRUCTION AND ASSOCIATED SECONDARY

MAXIMUM DEAD-END CORRIDOR LENGTH NOT TO EXCEED

TO BE PROVIDED IN ACCORDANCE WITH IBC 1011.4 AND 1110.

NOT REQUIRED DUE TO SPRINKLER EXCEPTION ((IBC 718.3.3)

A FIRE ALARM SYSTEM IS EXISTING THROUGHOUT BUILDING AND IS TO

CONTRACTOR TO SUBMIT FIRE SPRINKLER AND FIRE ALARM PLANS TO

THE CITY FIRE DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO

ONE 2A10BC FIRE EXTINGUISHER FOR EVERY 6,000 S.F. SPACED

WITHIN 75' TRAVEL DISTANCE MAXIMUM [IBC TABLE 906.3(1)].

BE MODIFIED AS REQUIRED FOR MODIFICATIONS (IBC 718.4.3) SEE

ACCESSIBILITY (IBC CHAPTER II AND ICC A117.1-2009

0 HOUR NON-BEARING WALLS AND PARTITIONS INTERIOR

GROUP B (IBC TABLE 803.9):

B CORRIDORS.

EXTERIOR

MEMBERS

MEMBERS

TWO PROVIDED

ELECTRICAL

COMMENCEMENT OF WORK.

50' (IBC 1020.4 EXCEPTION 2).

TWO EXITS REQUIRED. (IBC TABLE 1015.1)

(IBC 601)

DEFERRED SUBMITTALS

DEFERRED SUBMITTALS ARE TO BE MADE IN COMPLIANCE WITH SECTION 107.3.4.1 OF THE 2015 INTERNATIONAL BUILDING CODE. DEFERRED SUBMITTAL DOCUMENTS SHALL RESUBMITTED TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL HAVING JURISDICTION WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND THAT THEY HAVE BEEN FOUND TO BE IN GENERAL COMPLIANCE WITH THE DESIGN OF THE PROJECT. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND APPROVED. THE DEFERRED SUBMITTAL SHALL BE SUBMITTED TO THE BUILDING OFFICIAL HAVING JURISDICTION PRIOR TO INSPECTIONS. THE WORK

RELATED TO THE DEFERRED SUBMITTALS IS NOT TO COMMENCE

FIRE SUPPRESSION SYSTEM

UNTIL THE BUILDING OFFICIAL HAS APPROVED THE SUBMITTAL. THE

FOLLOWING CONSTRUCTION DOCUMENTS SHALL BE SUBMITTED AS A DEFERRED SUBMITTAL.

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS SHALL BE PROVIDED BY THE OWNER IN ACCORDANCE WITH 2018 INTERNATIONAL BUILDING CODE CHAPTER

THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.

THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE OWNER, THE BUILDING OFFICIAL, THE ARCHITECT OF RECORD. THE ENGINEER OF RECORD, AND TO THE CONTRACTOR. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE PROPER DESIGN AUTHORITY AND TO THE BUILDING OFFICIAL PRIOR TO THE COMPLETION OF THAT PHASE OF THE WORK.

THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT DOCUMENTING THAT THE SPECIAL INSPECTION WORK WAS, TO THE BEST OF HIS KNOWLEDGE, IN CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE 2018 INTERNATIONAL BUILDING CODE.

SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING WORK: SUSPENDED CEILING SYSTEMS AND THEIR ANCHORAGE (IF NOT PROVIDED BY CITY INSPECTORS).

DIMENSION NOTES

- ALL PLAN DIMENSIONS, UNLESS OTHERWISE NOTED, ARE TO: COLUMN GRID ON CENTERLINES.
 - THE FACE OF STUD.
- DOOR LOCATIONS NOT DIMENSIONED ARE:
 - JAMB FACE 4" FROM FACE OF STUD. CENTERLINE OF DOOR ON CENTERLINE OF DOOR OR CORRIDOR.
- NOTED DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE DIMENSIONS; DETAILS OVER SMALLER SCALE DRAWINGS
- "FLOOR LINE" REFERS TO TOP OF CONCRETE SLABS. FOR DEPRESSED FLOORS AND CURBS, SEE STRUCTURAL DRAWINGS.
- VERIFY ALL ROUGH-IN, CONCRETE PAD, OR PLATFORM DIMENSIONS FOR EQUIPMENT PROVIDED IN THIS PROJECT, OR BY OTHERS.
- FINISHED FLOOR ELEVATIONS ARE TO TOP OF CONCRETE OR GYPCRETE, UNLESS NOTED OTHERWISE
- CEILING HEIGHT DIMENSIONS ARE TO FINISHED SURFACES, UNLESS NOTED OTHERWISE.

ABBREVIATIONS

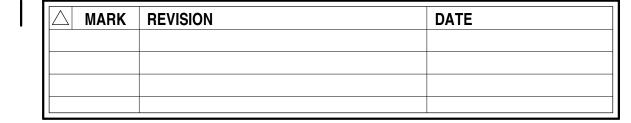
A.F.F. = ABOVE FINISHED FLOOR C.F.C.I. = CONTRACTOR FURNISHED, CONTRACTOR INSTALLED C.F.O.I. = CONTRACTOR FURNISHED, OWNER INSTALLED O.F.O.I. = OWNER FURNISHED. OWNER INSTALLED O.F.C.I. = OWNER FURNISHED, CONTRACTOR INSTALLED O.C. = ON CENTER MIN. = MINIMUM TYP. = TYPICAL MIR. = MIRRORED

SIM. = SIMILAR F.V. = FIELD VERIFY CL = CENTERLINE EQ = EQUAL

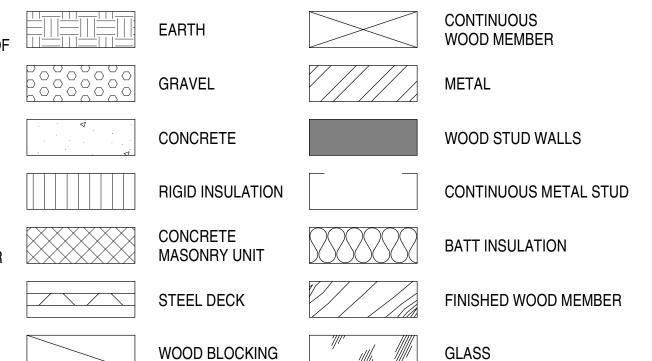
T.B.D. = TO BE DETERMINED

SPECIFICATIONS:

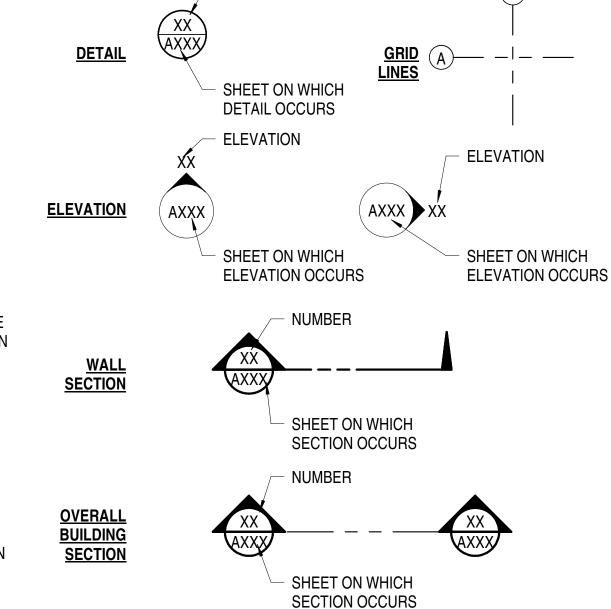
WHEREAS NO WRITTEN SPECIFICATION IS BEING PROVIDED FOR THE ARCHITECTURAL PORTION OF THIS PROJECT, IT IS THE EXPECTATION THAT ALL WORK WILL BE PERFORMED TO THE HIGHEST LEVEL OF CRAFTSMANSHIP, TOLERANCES, MANUFACTURER RECOMMENDATIONS, AND CONSTRUCTION STANDARDS OF REGULATING AGENCIES AS IS APPLICABLE FOR BEST PRACTICES WITHIN EACH TRADE. PRODUCTS HAVE BEEN SPECIFIED WITHIN THE DRAWING SET TO THE LEVEL THE ARCHITECT FEELS IS NECESSARY FOR BIDDING PURPOSES. IF QUESTIONS ARISE DURING BIDDING REGARDING PRODUCT SPECIFICATIONS OR ALTERNATES. SUBCONTRACTORS SHALL CONTACT THE GENERAL CONTRACTOR, WHO MAY SUBMIT FORMAL RFI'S DURING THE BIDDING PROCESS IN SOME SITUATIONS, SPECIFIC PRODUCTS HAVE BEEN INDICATED IN THE PLANS. THE INTENT OF THE DRAWINGS IS FOR THESE PRODUCTS TO BE INCLUDED IN THE BASE BID. TO KEEP BIDDING COMPETITIVE, OTHER PRODUCTS MAY BE SUGGESTED AS ALTERNATIVES, HOWEVER THE BASE BID MUST INCLUDE THE INDICATED PRODUCTS. ALTERNATES MAY BE SUBMITTED AS VALUE ENGINEERING "DEDUCT ALTERNATES", WHICH WILL BE REVIEWED AFTER BIDDING TO DETERMINE WHETHER THEY WILL BE ACCEPTED.







SYMBOL LEGEND



DETAIL NUMBER

SYMBOL LEGEND

CEILING TAG	X X'-XX"	SHEET NOTE	X
<u>DOOR</u>	$\langle \overline{\mathbf{XXX}} \rangle$	WORK POINT OR ELEV. BENCH MARK	•
WINDOW	\widehat{X}	ADA CLEAR DISTANCE	
WALL TYPES	X	ADA CLEAR DISTANCE	
<u>GLAZING</u>	\widehat{X}	<u>MATCHLINE</u>	MATCHLINE SEE DWG

233 SOUTH PLEASANT GROVE BLVD. SUITE #105 PLEASANT GROVE, UTAH 84062 PHONE: (801) 769-3000	PROJECT #: 21-075 PROJ. MAN.: JSJ CHECKED BY: GWT
ARCHITECTURE cma@cmautah.com	THE INFORMATION HEREIN IS THE PROPERTY OF CURTIS MINER ARCHITECTURE AND MAY NOT BE REPRODUCED WITHOUT WRITTEN CONSENT. © 2021 CURTIS MINER ARCHITECTURE, LLC
IOJECT: IGTC CHIMES EXPANSION TENANT BUILDOUT 5026 SOUTH STATE STREET MURRAY, UTAH 84107	JONATHAN S. JOHNSON 12158576-0301
IEET DESCRIPTION:	SHEET:

CODE COMPLIANCE & GENERAL

DRAWING INFORMATION

DATE: 11 FEBRUARY 2022



D

OF EGRESS AREA OUT OF SCOPE AREA OUT OF SCOPE COMMON PATH OF EGRESS AREA OUT OF SCOPE AREA OUT OF SCOPE EGRESS PATH 2 AREA OUT OF SCOPE



△ MARK	REVISION	DATE

SHEET NOTES

EXISTING FIRE EXTINGUISHER CABINET WITH FIRE EXTINGUISHER INSIDE. CONTRACTOR TO ASSURE FIRE EXTINGUISHERS NOTED ARE UP TO DATE WITH INSPECTIONS.

TRAVEL PATHS

EGRESS PATH LENGTH COMMON PATH OF EGRESS 60'-9 1/4" EGREES PATH 1 191'-7 1/4"

MAXIMUM ALLOWABLE TRAVEL DISTANCE = 300' MAXIMUM ALLOWABLE COMMON PATH OF EGREES = 100'

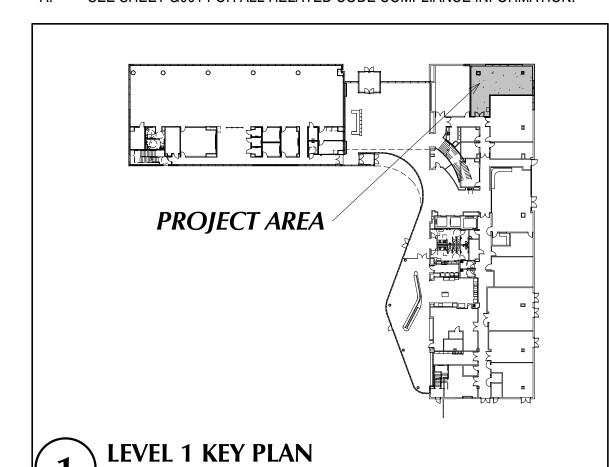
EGREES PATH 2

- EGRESS PATH 1

- EGRESS PATH 2

GENERAL NOTES

A. SEE SHEET G001 FOR ALL RELATED CODE COMPLIANCE INFORMATION.



CURTIS MINER ARCHITECTURE

G101 | SCALE: 1/64" = 1'-0"

233 SOUTH PLEASANT GROVE BLVD.

DATE: 11 FEBRUARY 2022
PROJECT #: 21-075
PROJ. MAN.: JSJ
PLEASANT GROVE, UTAH 84062
PHONE: (801) 769-3000
cma@cmautah.com

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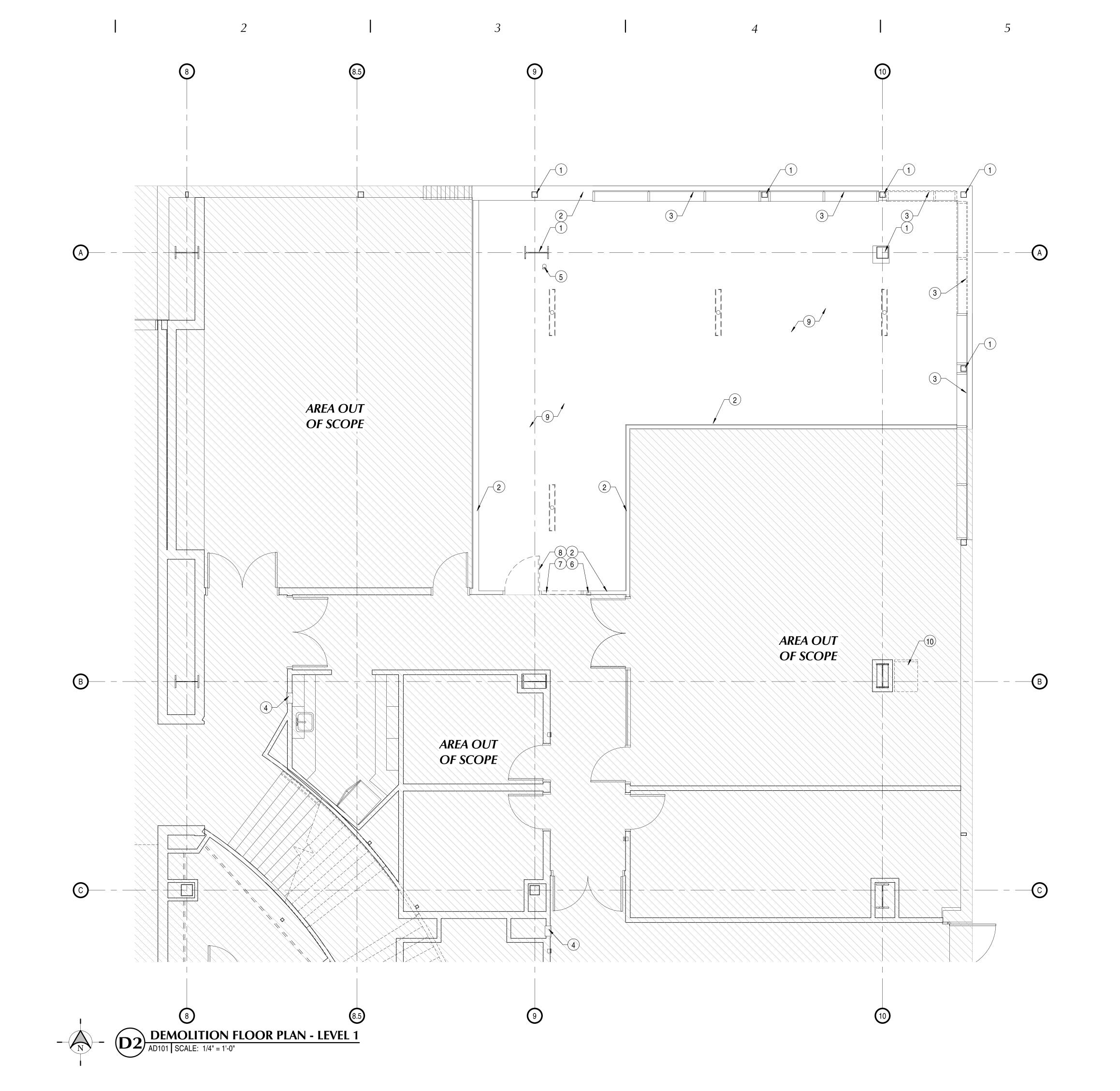
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PROJECT: IGTC CHIMES EXPANSION TENANT BUILDOUT



SHEET DESCRIPTION: LIFE SAFETY PLAN - LEVEL 1

SHEET: G101



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SHEET NOTES

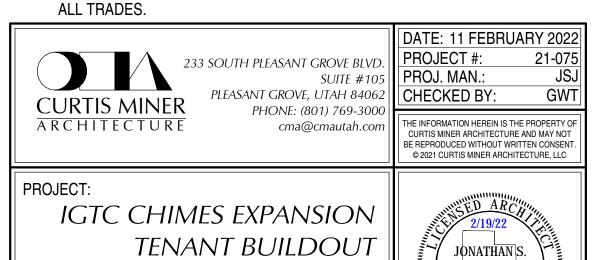
- EXISTING STRUCTURAL STEEL COLUMN TO REMAIN. PROTECT FIRE PROTECTIVE SPRAY FROM DAMAGE AS REQUIRED.
- 2. EXISTING WALL TO REMAIN.
- EXISTING WINDOW SYSTEM TO REMAIN.
- EXISTING FIRE EXTINGUISHER TO REMAIN.
- EXISTING PLUMBING PIPE TO REMAIN. EXISTING CARD READER TO REMAIN.
- DEMOLISH EXISTING WALL AS REQUIRED FOR NEW DOOR OPENING. COORDINATE EXTENT WITH NEW CONSTRUCTION.
- DEMOLISH EXISTING DOOR, DOOR FRAME, AND ASSOCIATED HARDWARE
- REMOVE EXISTING LIGHTING AND FIRE ALARM DEVICES THROUGHOUT ROOM. AT OWNER'S OPTION, SAVE FOR REUSE.
- 10. REMOVE EXISTING AUDIO VISUAL RACK AND RELOCATE PER REVISED PLANS TO NEW LOCATION. SEE ELECTRICAL.

GENERAL NOTES

- GENERAL CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, AND ASSEMBLIES PRIOR TO DEMOLITION AND CONSTRUCTION. REPORT ANY SIGNIFICANT DISCREPANCIES TO THE ARCHITECT.
- GENERAL CONTRACTOR TO PROVIDE TEMPORARY PROTECTION DURING DEMOLITION AND CONSTRUCTION FOR ALL EXISTING MATERIALS THAT ARE TO REMAIN. THIS MAY INCLUDE PROVIDING TEMPORARY BARRIERS OR PARTITIONS TO PROTECT ADJACENT AREAS FROM DUST AND OR DAMAGE
- FOR WALLS, DOORS, FLOORS, CEILINGS, ETC. AREAS WHERE PLUMBING, MECHANICAL AND ELECTRICAL WORK IS TO BE DONE ARE TO BE PATCHED AND REPAIRED TO MATCH EXISTING ADJACENT MATERIALS AND FINISHES UNLESS OTHERWISE NOTED. SUCH AS HOLES LEFT BY REMOVAL OF PANEL, PHONES, CONDUITS, THERMOSTATS, PIPING,
- ELECTRICAL FOR EXTENT OF WORK. CONTRACTOR SHALL VERIFY DIMENSIONS FOR NEW DOOR OPENINGS IN EXISTING WALLS.

CONTROLS, ETC. COORDINATE WITH PLUMBING, MECHANICAL AND

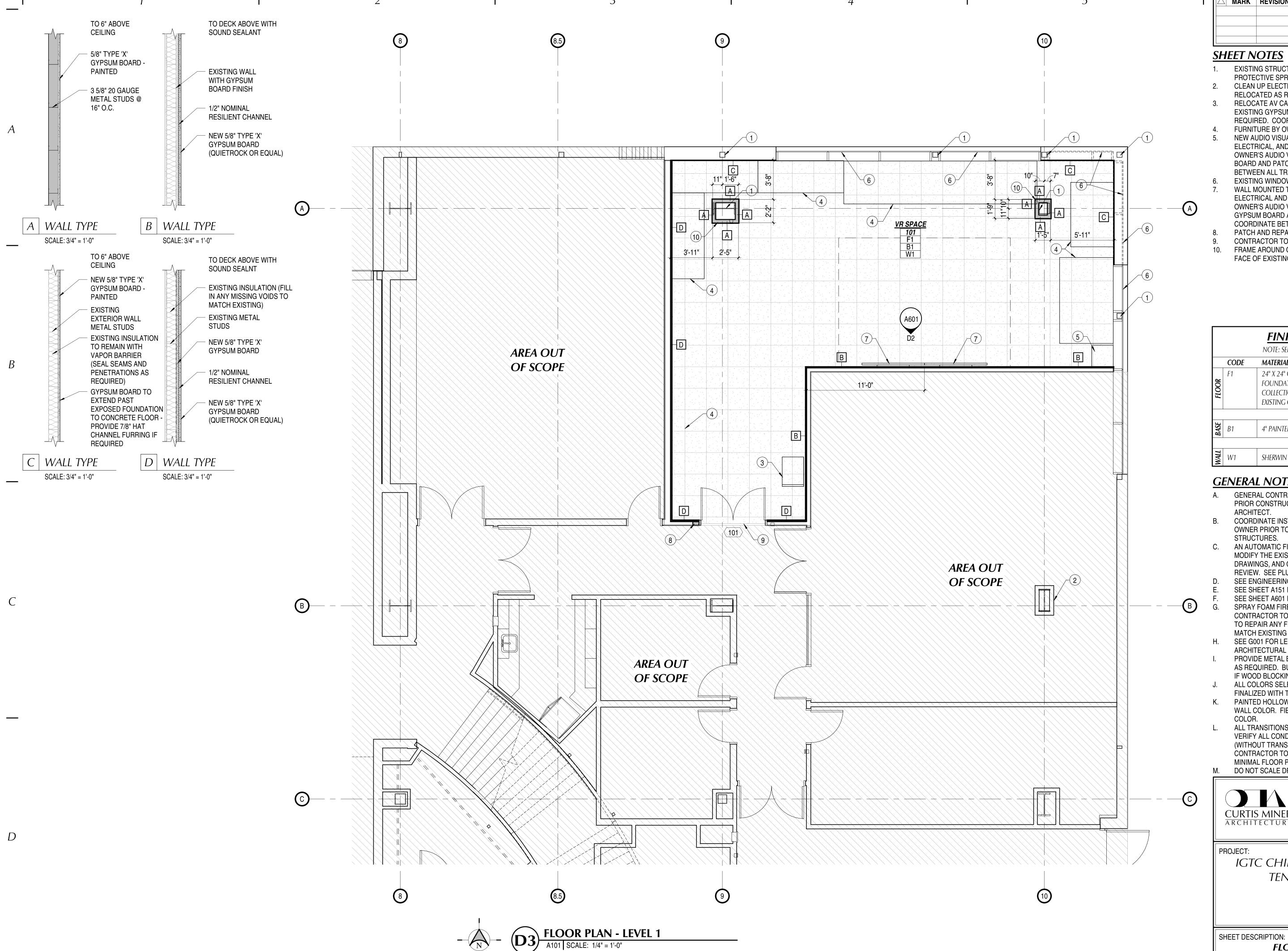
- SEE ENGINEERING SHEETS FOR ADDITIONAL INFORMATION.
- F. SOME DEMOLITION WILL NEED TO OCCUR IN ORDER TO ROUTE NEW ELECTRICAL CONDUIT DOWN EXISTING WALLS FOR THE NEW TELEVISIONS AND FOR AUDIO VISUAL EQUIPMENT. COORDINATE LOCATIONS BETWEEN



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SHEET DESCRIPTION:

SHEET: **DEMOLITION FLOOR PLAN -**AD101 LEVEL 1



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SHEET NOTES

EXISTING STRUCTURAL STEEL COLUMN TO REMAIN. PROTECT FIRE PROTECTIVE SPRAY FROM DAMAGE AS REQUIRED.

- CLEAN UP ELECTRICAL TERMINATIONS WHERE AUDIO VISUAL CABINET WAS RELOCATED AS REQUIRED. PATCH AND REPAIR WALL AS REQUIRED
- RELOCATE AV CABINET TO THIS LOCATION. SOME DEMOLITION OF EXISTING GYPSUM BOARD AND PATCHING AND REPAIRING WILL BE REQUIRED. COORDINATE BETWEEN ALL TRADES. SEE ELECTRICAL
- FURNITURE BY OWNER. COORDINATE ELECTRICAL NEEDS.
- NEW AUDIO VISUAL RACK O.F.O.I.. CONTRACTOR TO PROVIDE ELECTRICAL, AND CONDUIT AS REQUIRED. COORDINATE ALL DETAILS WITH OWNER'S AUDIO VISUAL VENDOR. SOME DEMOLITION OF EXISTING GYPSUM BOARD AND PATCHING AND REPAIRING WILL BE REQUIRED. COORDINATE BETWEEN ALL TRADES. SEE ELECTRICAL.
- EXISTING WINDOWS TO REMAIN.
- WALL MOUNTED TELEVISION O.F.O.I.. CONTRACTOR TO PROVIDE CONDUIT, ELECTRICAL AND BACKING AS REQUIRED. COORDINATE ALL DETAILS WITH OWNER'S AUDIO VISUAL VENDOR. SOME DEMOLITION OF EXISTING GYPSUM BOARD AND PATCHING AND REPAIRING WILL BE REQUIRED.
- COORDINATE BETWEEN ALL TRADES. SEE ELECTRICAL PATCH AND REPAIR WALL AS REQUIRED WHERE DOOR WAS REMOVED
- CONTRACTOR TO ASSURE A SMOOTH FLOORING TRANSITION.
- FRAME AROUND COLUMN AS TIGHT AS POSSIBLE. DIMENSIONS ARE TO THE FACE OF EXISTING STUDS AND NEW STUDS.

		NOTE: SEE INTERIOR ELEVATIONS FOR EXT	ES -SHAW EXTRAORDINARY JS 68504 (MATCH
	CODE	MATERIAL	
FLOOR	F1	24" X 24" CARPET TILES -SHAW FOUNDATION TILE, EXTRAORDINARY COLLECTION STRATUS 68504 (MATCH EXISTING ORIENTATION)	
BASE	B1	4" PAINTED MDF BASE BOARD - MATCH E	XISTING

GENERAL NOTES

- GENERAL CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR CONSTRUCTION. REPORT ANY SIGNIFICANT DISCREPANCIES TO THE
- COORDINATE INSTALLATIONS OF ALL "AFTER CONTRACT" ASSEMBLIES WITH OWNER PRIOR TO CONSTRUCTION OF ADJOINING OR RELATED STRUCTURES.
- AN AUTOMATIC FIRE SPRINKLER SYSTEM IS EXISTING WITHIN THE SPACE. MODIFY THE EXISTING SYSTEM TO BE COMPLIANT WITH NFPA 13. PROVIDE DRAWINGS, AND CALCULATIONS AS REQUIRED FOR FIRE MARSHAL REVIEW. SEE PLUMBING FOR ADDITIONAL INSTRUCTIONS.
 - SEE ENGINEERING SHEETS FOR ADDITIONAL INFORMATION.
 - SEE SHEET A151 FOR REFLECTED CEILING PLAN INFORMATION.
- SEE SHEET A601 FOR DOOR INFORMATION AND FOR INTERIOR ELEVATIONS. SPRAY FOAM FIRE PROTECTION IS EXISTING AND MUST REMAIN. CONTRACTOR TO MAINTAIN AND PROTECT FROM DAMAGE. CONTRACTOR TO REPAIR ANY FIRE PROOFING DAMAGED AS PART OF THIS PROJECT TO
- SEE G001 FOR LEGENDS, SYMBOLS, ABBREVIATIONS AND OTHER
- ARCHITECTURAL GENERAL INFORMATION. PROVIDE METAL BACKING / WOOD BLOCKING FOR WALL MOUNTED ITEMS AS REQUIRED. BUILDING TYPE IS OF NON-COMBUSTIBLE CONSTRUCTION.
- IF WOOD BLOCKING IS TO BE PROVIDED, IT MUST BE FIRE TREATED. J. ALL COLORS SELECTIONS AND FINISH MATERIALS AND STYLES SHALL BE FINALIZED WITH THE OWNER DURING CONSTRUCTION.
- PAINTED HOLLOW METAL (STEEL) DOOR TRIM SHALL MATCH THE ADJACENT WALL COLOR. FIELD VERIFY COLOR IN CORRIDOR MATCHES THE "W-1"
- ALL TRANSITIONS SHALL BE ADA COMPLIANT. CONTRACTOR TO FIELD VERIFY ALL CONDITION. PREFERENCE IS TO HAVE A SMOOTH TRANSITION (WITHOUT TRANSITION MATERIAL STRIP) CARPET TO CARPET. CONTRACTOR TO VERIFY ALL CONDITIONS. INCLUDE AN ALLOWANCE FOR MINIMAL FLOOR PREPARATION (LEVELING) IN BID.
- DO NOT SCALE DRAWINGS.

MATCH EXISTING FIRE RATINGS.



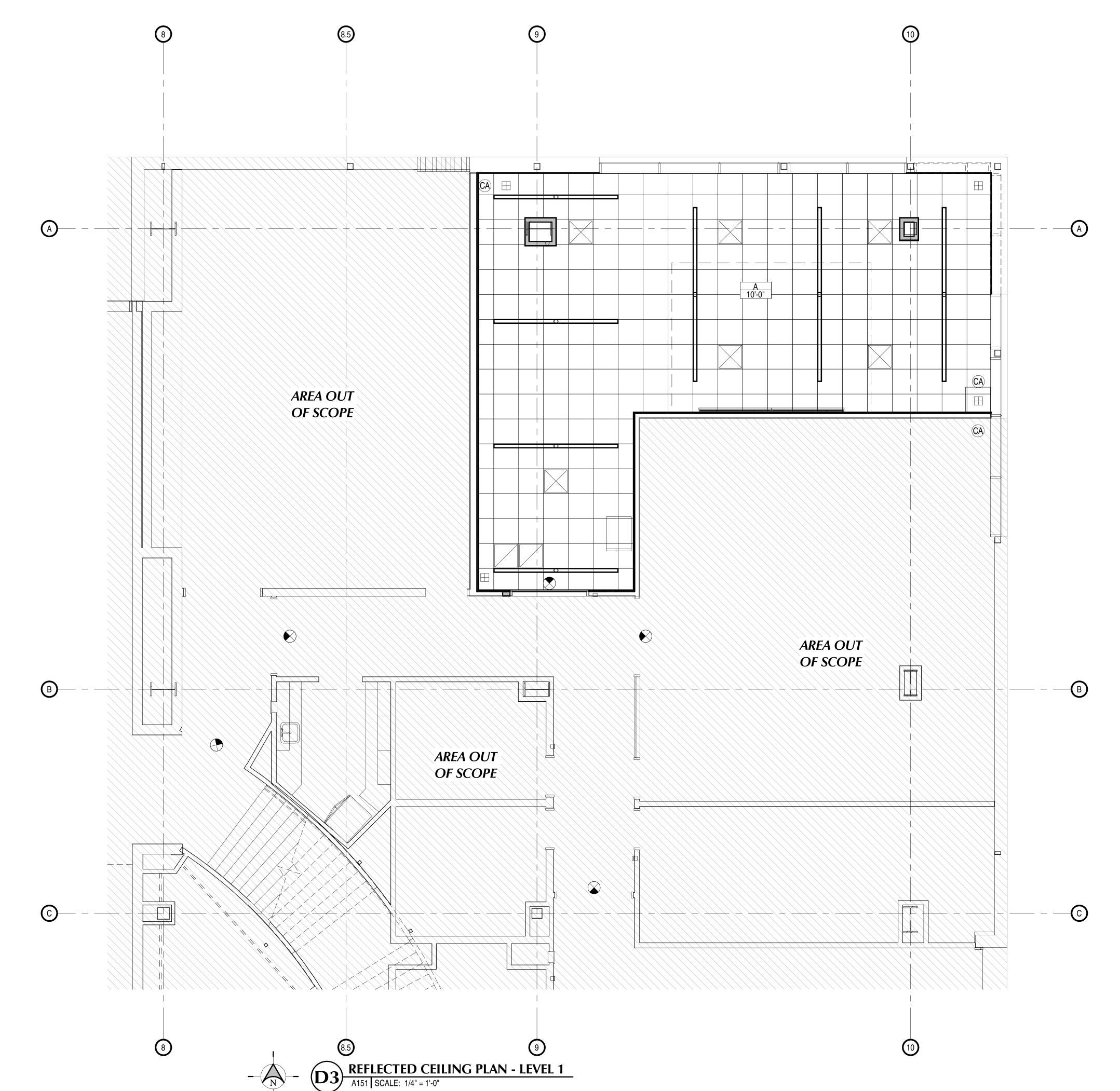
PROJECT:

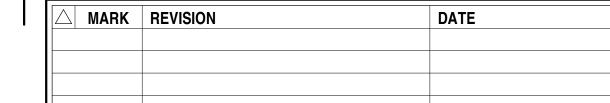
IGTC CHIMES EXPANSION TENANT BUILDOUT

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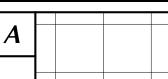
SHEET: FLOOR PLAN - LEVEL 1

A101





CEILING LEGEND



2x2 SUSPENDED CEILING SYSTEM WITH GRID: CHICAGO METALLIC 1200 SERIES 15/16". TILE: ROCKFON ALASKA DB SLT WITH TEGULAR EDGE. SEE DETAIL D1/A501

ELECTRICAL/MECHANICAL SYMBOLS

LINEAR LIGHT FIXTURE		EXIT SIGN
SUPPLY DIFFUSER	(CA)	CAMERA
RETURN AIR DIFFUSER		WIRELESS ACCESS POINT
EXHAUST FAN		

GENERAL NOTES

- A. GENERAL CONTRACTOR SHALL VERIFY ALL CONDITIONS, DIMENSIONS, AND ASSEMBLIES PRIOR TO CONSTRUCTION. REPORT ANY SIGNIFICANT DISCREPANCIES TO THE ARCHITECT.
- B. AN AUTOMATIC FIRE SPRINKLER SYSTEM IS EXISTING WITHIN THE SPACE. MODIFY THE EXISTING SYSTEM TO BE COMPLIANT WITH NFPA 13. PROVIDE DRAWINGS, AND CALCULATIONS AS REQUIRED FOR FIRE MARSHAL REVIEW. SEE PLUMBING FOR ADDITIONAL INSTRUCTIONS. FIRE SPRINKLERS TO BE CENTERED IN CEILING TILES.
- C. MECHANICAL, ELECTRICAL, FIRE SPRINKLER, AND CEILING SUBCONTRACTORS SHALL COORDINATE THEIR WORK. IN CASE OF CONFLICT, THE REFLECTED CEILING PLAN SHALL TAKE PRECEDENCE.

 D. SEE ENGINEERING SHEETS FOR ADDITIONAL REQUIREMENTS.
- E. SEE DETAIL D2/A501 AND D3/A501 FOR TYPICAL SEISMIC BRACING.
 F. SEE DETAIL C2/A501 FOR TYPICAL SEISMIC LIGHT BRACING.
- G. SEE DETAIL B4/A501 FOR TYPICAL WALL BRACING.
 H. CEILING HEIGHTS SHOWN ARE ABOVE FINISH FLOOR IN WHICH THEY ARE

I. DO NOT SCALE D	RAWINGS.		
		DATE: 11 FEBRU	
	233 SOUTH PLEASANT GROVE BLVD.	PROJECT #:	21-075
	SUITE #105	PROJ. MAN.:	JSc



5026 SOUTH STATE STREET MURRAY, UTAH 84107

SHEET DESCRIPTION:

REFLECTED CEILING PLAN - LEVEL

SHEET: **A151**

MARK REVISION DATE

NOTE: ALL METAL STUD 18 GAUGE LATERAL

FRAMING TO BE IN ACCORDANCE WITH AMERICAN IRON AND STEEL INSTITUTE STANDARDS.

STABILITY STRAP BOTH SIDES. LAP STRAP SPLICES 4" MIN. SCREWS AS REQUIRED AT EACH STUD SOLID BLOCKING LOCATED AT EACH END OF WALL AND ADJACENT TO OPENINGS SCREWS AS REQUIRED

METAL STUD BLOCKING DETAIL

NOTE: ALL METAL STUD

FRAMING TO BE IN ACCORDANCE WITH AMERICAN IRON AND STEEL INSTITUTE STANDARDS. CHANNEL FASTENED TO STRUCTURE ABOVE. PERMITTING PARTITION TO SLIDE AT TOP WHILE RESTRAINING IT FROM LATERAL MOVEMENT ACOUSTICAL SEALANT METAL STUD

FRAMING TO BE IN ACCORDANCE WITH AMERICAN IRON AND STEEL

INSTITUTE STANDARDS. 18 GAUGE LATERAL STABILITY STRAP BOTH SCREW STRAP TO EACH STUD - MULTIPLE MEMBERS AT ENDS AS REQUIRED **BOTTOM TRACK - GAUGE** AS REQUIRED TO

NOTE: ALL METAL STUD

TRANSFER LOADS SCREW AS REQUIRED STRUCTURAL ANGLE AND ANCHOR BOLTS AS REQUIRED

NOTE: ALL METAL STUD

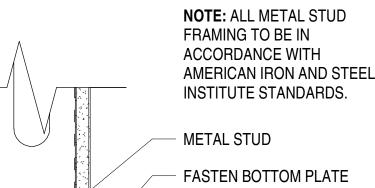
FRAMING TO BE IN

STEEL INSTITUTE

ACCORDANCE WITH

AMERICAN IRON AND

METAL STUD STRAP DETAIL A501 | SCALE: NOT TO SCALE



STANDARDS. TOP TRACK SECTION OF TRACK USED AS HEADER CONNECTION CRIPPLE STUD HEAD TRACK METAL STUD CLOSURE TRACK EXTENDED ABOVE OPENING AS REQUIRED FOR STRENGTH MULTIPLE STUDS BACK-TO-BACK AS REQUIRED BOTTOM TRACK

TENANT BUILDOUT

5026 SOUTH STATE STREET MURRAY, UTAH 84107

233 SOUTH PLEASANT GROVE BLVD.

DATE: 11 FEBRUARY 2022

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A501

PROJECT #:

SUITE #105 | PROJ. MAN.:

PLEASANT GROVE, UTAH 84062 CHECKED BY:

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PHONE: (801) 769-3000

IGTC CHIMES EXPANSION

CURTIS MINER

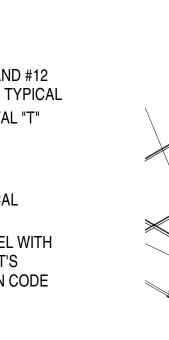
ARCHITECTURE

PROJECT:

SHEET DESCRIPTION: SHEET: MISCELLANEOUS DETAILS

LAY-IN LIGHT FIXTURE 12 GAUGE WIRES AT EACH CORNER. ANCHOR WIRES TO STRUCTURE ABOVE. WIRES TO BE

SEISMIC LIGHT DETAIL A501 SCALE: 1" = 1'-0"



@ 4'-0" O.C. LAY-IN CEILING PANEL MAIN RUNNER 12 GAUGE SPLAY WIRES **CROSS RUNNER**

> SEISMIC CEILING DETAIL A501 SCALE: 1" = 1'-0"



PROVIDED WITH POSITIVE BRACING.

SUSPENDED CEILING SYSTEM.

SUSPENDED CEILING SYSTEM NOTES:

BY IBC, ASCE 7, AND CISCA 3-4.

AND CISCA 3-4.

SUSPENDED CEILING SYSTEMS SHALL BE INSTALLED IN

ALL CEILINGS ARE TO HAVE VERTICAL COMPRESSION

IN EACH HORIZONTAL DIRECTION SHALL HAVE 3/4"

BE FREE TO SLIDE ON THE CLOSURE ANGLE.

A MINIMUM OF 3 TURNS IN 1-1/2" OF RUN.

CEILING DISCONTINUITY.

12'-0" O.C. EACH WAY.

SQUARE FEET.

COMPLIANCE WITH IBC 808.1.1.1, ASTM C635/636, ASCE 7,

STRUTS, SEISMIC BRACING, HANGERS, ETC., AS REQUIRED

HEAVY DUTY T-BAR SYSTEM WITH PERIMETER SUPPORTING

CLOSURE ANGLE AND CODE COMPLIANT SEISMIC CLIPS IS

REQUIRED. ATTACHED ONE END OF THE CEILING GRID TO

CLEARANCE FROM THE WALL AND SHALL REST UPON THE

SPLAY WIRES AS REQUIRED BY IBC, ASCE 7, AND CISCA 3-4.

COMPONENT AND ARE TO BE TIED TIGHT AT EACH END WITH

DECKING IN AN APPROVED MANNER PER CISCA 3-4 DO NOT

ANCHOR TO BRIDGING. WIRES SHALL NOT ATTACH TO OR BEND AROUND INTERFERING MATERIAL OR EQUIPMENT,

ALL SPLAY WIRES ARE TO BE IN LINE WITH ATTACHED

ANCHOR WIRES ONLY TO STRUCTURAL MEMBERS AND

NOT SHALL THEY BE LESS THAN 6" TO ANY UNBRACED

SIMILAR DEVICE SHALL BE USED WHERE OBSTRUCTIONS

SUPPORT ALL RUNNERS AT 8" MAXIMUM FROM WALL OR

PROVIDE SEISMIC SEPARATION JOINTS OR FULL HEIGHT

PARTITIONS FOR CEILING AREAS GREATER THAN 2,500

SUPPORTED AND BRACED INDEPENDENT FROM THE

12. PROVIDE 2" OVERSIZE RINGS, SLEEVES OR ADAPTERS

MOVEMENT FOR AT LEAST 1" MOVEMENT IN ALL

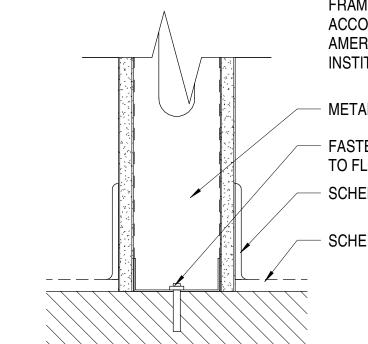
THROUGH THE CEILING TILE TO ALLOW FOR FREE

DIRECTIONS FOR FIRE SPRINKLER HEADS AND OTHER

HORIZONTAL PIPING OR DUCTWORK. A TRAPEZE OR

THE CLOSURE ANGLE IN EACH DIRECTION. THE OTHER END

A501 SCALE: 1 1/2" = 1'-0"



A501 SCALE: NOT TO SCALE

(C4) A501 | SCALE: 3" = 1'-0"

WALL DEFLECTION DETAIL

MAIN RUNNERS AND #12 MAX WIRES @ 48" O.C. TYPICAL SUSPENDED METAL "T" _3/4" LAY-IN ACOUSTICAL CEILING TILE 15/16" WALL ANGEL WITH CODE COMPLIANT'S SEISMIC CLIPS AN CODE REQUIRED CAP WALL LINE

ACOUSTICAL CEILING DETAIL

STRUT 12 GAUGE HANGER WIRE 10. CHANGES IN CEILING PLANE ELEVATION SHALL BE 11. CABLE TRAYS AND ELECTRICAL CONDUITS SHALL BE

TIED TIGHT AT EACH END

WITH A MINIMUM OF 3

ADJUSTABLE LENGTH

VERTICAL COMPRESSION

TURNS IN 1-1/2" OF RUN

SIMILAR PENETRATIONS. 13. SPECIAL INSPECTION REQUIRED OF SUSPENDED CEILING SYSTEMS.

A501 SCALE: 3" = 1'-0"

FOUR-WAY DIAGONAL BRACING AND COMPRESSION STRUTS PROVIDE CEILING HORIZONTAL RESTRAINT TO THE STRUCTURE ABOVE FOR CEILING AREAS GREATER THAN 1.000 SQUARE FEET TO MINIMIZE DIAPHRAGM LOADS.

AMERICAN IRON AND STEEL TO FLOOR STRUCTURE SCHEDULED BASE SCHEDULED FLOOR

WALL TO FLOOR DETAIL

METAL STUD FRAMING DOOR DETAIL

HARDWARE GROUP 1 (101)

| EA | ELECTRIC HINGE

EA | FLUSH BOLT

 $\mathsf{5} \mid \mathsf{EA} \mid \mathsf{HINGE}$, FULL $\mathsf{MORTISE}$

EA DUST PROOF STRIKE

| EA | SURFACE CLOSER

| EA | FRAMLESS HARNESS

EA | KICK PLATE

EA | WALL STOP

| EA | GASKETING

A601 | SCALE: 1/4" = 1'-0"

│ │ EA │ DOOR HARNESS

EA POWER SUPPLY

EA ACCESS CONTROL MORT LOCK

| EA | CONCEALED OVERHEAD HOLDER/STOP | 698H

EA TWIN V10 MORTISE CYLINDER

DOOR HARDWARE

TA2714

2945

351 O

401

S44BL

QC-C1500P

QC-CxxP

NOTES: DOOR NORMALLY CLOSED AND LOCKED. ACCESS BY VALID CREDENTIAL AT CARD READER OR BY KEY

OVERRIDE, DOOR REMAINS LOCKED IF POWER IS LOST, FREE EGRESS AT ALL TIMES.

570

A2714-QC12

SN200-82271-24V LNL LC

K1050 10" HIGH CSK BEV

AQD SERIES AS REQ'D

V6551 OR AS REQ'D TO MATCH FACILITY STANDARD

DOOR SIZE MATERIAL US26D MK US26D MK US26D RO US26D RO MARK TYPE US26D SA US26D AA WOOD | STEEL 1 3/4" EN SA EN SA

DOOR SCHEDULE NOTES: US32D RO

US26D RO

- PE - MK

- MK

- SU

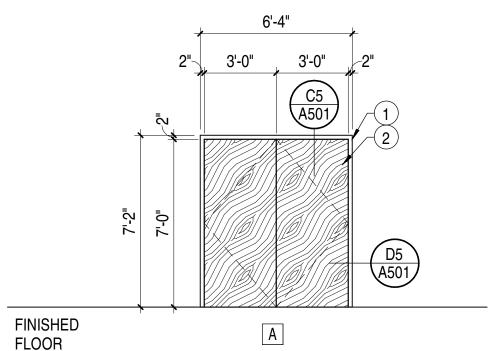
1- CONTRACTOR IS RESPONSBILE TO COORDINATE ALL ELECTRICAL NEEDS FOR CARD READERS AND SHALL PROVIDE ANY INFRASTRUCTURE NECESSARY FOR A FULLY FUNCTIONAL SYSTEM (INCLUDING CONDUIT RACEWAYS).

DOOR SCHEDULE

MARK REVISION DATE

SHEET NOTES

- PAINTED HOLLOW METAL (STEEL) DOOR FRAME.
- STAINED AND SEALED SOLID CORE WOOD DOOR TO MATCH EXISTING.
- PAINTED GYPSUM BOARD. SEE A101 FOR COLOR.
- SCHEDULED BASE. TELEVISION - O.F.O.I.. CONTRACTOR TO PROVIDE ELECTRICAL AND BACKING AS REQUIRED. COORDINATE ALL DETAILS WITH OWNER'S AUDIO VISUAL
- VENDOR. SCHEDULED DOOR BEYOND.
- AUDIO VISUAL RACK.

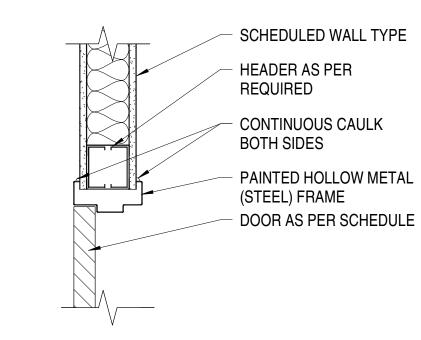


COMMENTS

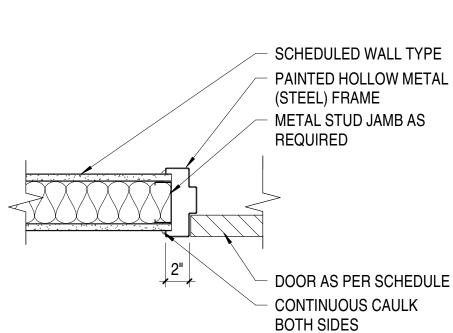
CARD READER, EAST DOOR LEAF OPERABLE IN NORMAL

OPERATION, WEST LEAF FIXED WITH MANUAL FLUSH BOLTS

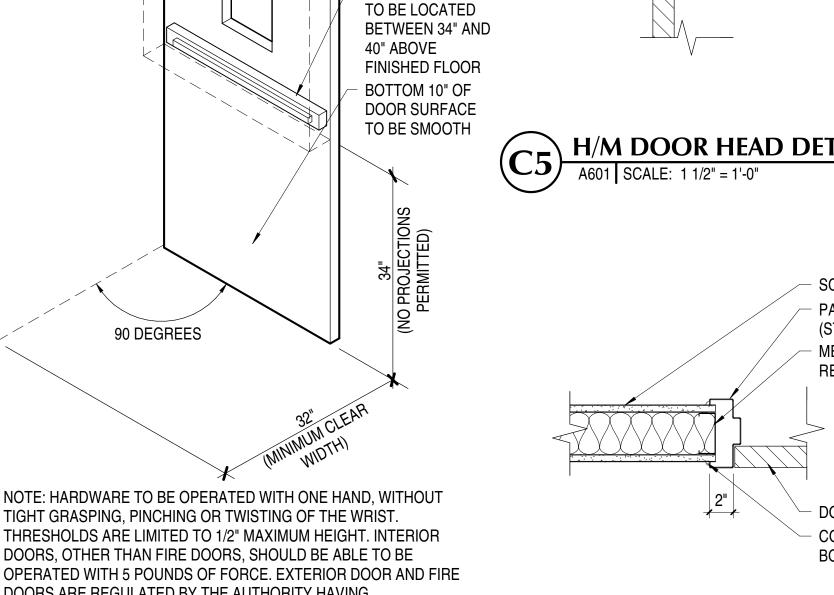
DOOR TYPES A601 SCALE: 1/4" = 1'=0'



H/M DOOR HEAD DETAIL A601 SCALE: 1 1/2" = 1'-0"



ACCESSIBLE DOOR A601 | SCALE: 1/4" = 1'-0"



DOOR CLOSER

4" MAXIMUM

PROJECTION

INTO CLEAR

WHERE VISION

LIGHTS SHOULD

LIGHTS ARE

EXTEND TO

WITHIN 43" OF

FINISHED FLOOR

DOOR HARDWARE

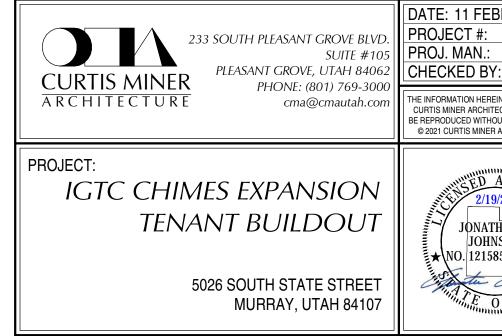
PROVIDED,

DOORS ARE REGULATED BY THE AUTHORITY HAVING JURISDICTION. REFER TO ANSI STANDARD A117.1 FOR APPROACH REQUIREMENTS.



GENERAL NOTES

- THE CONTRACTOR IS TO VERIFY THE DIMENSIONS OF ALL OPENINGS PRIOR TO THE FABRICATION OF ALL DOORS AND FRAMES.
- DUE TO MULTIPLE USE, SOME OF THE DETAILS REFERRED TO ON THE DOOR SCHEDULE ARE REVERSED OR TURNED FROM THE DIRECTION SHOWN ON THE FLOOR PLANS. THE INTENT OF THE DETAILS IS TO BE FOLLOWED.
- CONSULT THE ARCHITECT WHEN QUESTIONS ARISE. ALL EXIT ACCESS DOORS AND EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY, SPECIAL KNOWLEDGE, OR EFFORT. USE OF MANUAL FLUSH BOLTS, EDGE BOLTS, TOP OR BOTTOM BOLTS, ETC.. IS PROHIBITED.
- DOOR CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO AN OPEN POSITION OF 12 DEGREES WILL BE 5 SECONDS MINIMUM.
- FIRE DOORS SHALL HAVE THE MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY. THE REQUIRED FORCE FOR PUSHING OPEN OR PULLING OPEN DOORS OTHER THAN FIRE DOORS SHALL BE 5 POUNDS. THESE FORCES DO NOT APPLY TO THE FORCE REQUIRED TO RETRACT LATCH BOLTS OR DISENGAGE OTHER DEVICES THAT HOLD THE DOOR IN A CLOSED POSITION.
- F. THE BOTTOM 10" OF ALL DOORS EXCEPT AUTOMATIC DOORS, POWER ASSISTED DOORS, AND SLIDING DOORS SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION. WHEN NARROW STILE AND RAIL DOORS ARE USED, A 10" MINIMUM, SMOOTH PANEL, EXTENDING THE FULL WIDTH OF THE DOOR, SHALL BE INSTALLED ON THE PUSH SIDE(S) OF THE DOOR WHICH ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION. CAVITIES CREATED BY KICK PLATES SHALL BE CAPPED.
- ALL DOOR LOCKSETS AND PANIC DEVICES SHALL BE ADA COMPLIANT
- LEVER TYPE. CAULK HEAD, JAMBS, AND SILLS OF ALL DOORS AND WINDOWS WITH
- SEALANT CONTINUOUSLY APPLIED TO BOTH SIDES OF THE FRAMES. KEYING TO BE PROVIDED BY CONTRACTOR. COORDINATE KEYING TYPE
- AND SCHEDULE WITH OWNER. ALL DOOR CLOSURES TO BE SET IN ACCORDANCE WITH THE ADA REDUCED OPENING FORCE REQUIREMENTS.



SHEET DESCRIPTION:

DOORS AND INTERIOR **ELEVATIONS** SHEET: A601

DATE: 11 FEBRUARY 2022

THE INFORMATION HEREIN IS THE PROPERTY

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JONATHAN S.

JOHNSON

★\NO. 12158576-0301/★

PROJECT #:

LEGEND OF MECHANICAL SYMBOLS AND ABBREVIATIONS

2

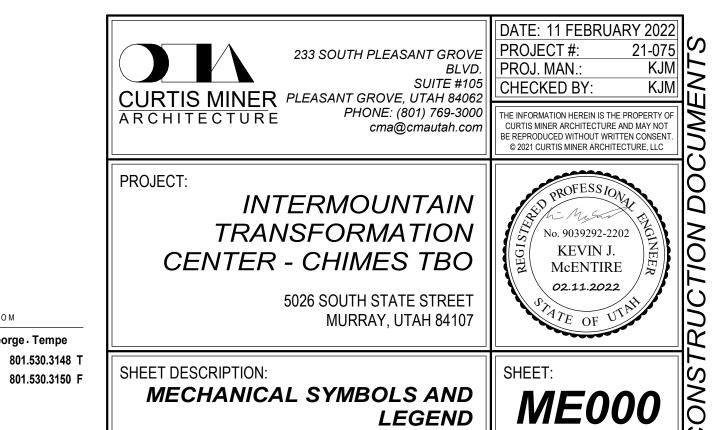
DUCTWORK/GRILLES <u>PIPING</u> **EQUIPMENT** → OR — — SHUT OFF VALVE POSITIVE PRESSURE DUCT - RISE **UNIT HEATER** $\neg \Phi \vdash \mathsf{OR} \neg \Box \Box$ POSITIVE PRESSURE DUCT - DROP BALL VALVE INLINE PUMP NEGATIVE PRESSURE DUCT - RISE **BUTTERFLY VALVE** INLINE PUMP NEGATIVE PRESSURE DUCT - DROP MOTOR OPERATED BUTTERFLY VALVE FAN GATE VALVE ROUND DUCT - RISE **ROUND DUCT - DROP** GATE VALVE - NON RISING STEM <u>FIRE</u> UNDER FLOOR DUCT OR —∰ ANGLE VALVE —>><\---OR —-__ GLOBE VALVE VALVE TURNING VANES NRS GATE VALVE WITH ⊢∜⊢or⊸Ѽ⊢ SUPERVISION PLUG VALVE CEILING SUPPLY DIFFUSER FLOW SWITCH SHUT OFF PLUG VALVE FOR CEILING RETURN REGISTER FOR USE WITH PRESSURE GAUGE CEILING EXHAUST REGISTER, FIRE RISER 12X12 OR-D-CHECK VALVE (BALANCE TO MATCH SUPPLY IF RETURN CFM IS NOT SHOWN) TOP FIGURES INDICATE 0 LATERAL STRAINER WITH BLOW-OFF VALVE, SPRINKLER HEAD 24X10 SIDEWALL SUPPLY NECK SIZE. BOTTOM PROVIDE HOSE END WITH CAP WHERE DISCHARGE REGISTER FIGURE INDICATES CFM. IS NOT PIPED TO DRAIN FIRE SPRINKLER WATER 24X10 SIDEWALL EXHAUST OR ———F——— F&T=FLOAT & THERMOSTATIC RETURN REGISTER <u>7'</u>___200__ 12X12 CEILING SUPPLY DIFFUSER WITH FLEXIBLE DUCT RPBP REDUCED PRESSURE BACKFLOW PREVENTOR W/ DRAIN PAN 12X12 CEILING AIR GRILLE WITH FLEXIBLE DUCT **ANNOTATIONS** PRESSURE REDUCING VALVE EXTERNAL PRESSURE —Ѿ┴OR─Ű CEILING RETURN AIR GRILE PRESSURE REDUCING VALVE SELF CONTAINED PLUMBING W/ SOUND BOOT **FIXTURES** 3-1" SLOTS @ 48" 400 LINEAR DIFFUSER WITH PLENUM AND FLEXIBLE DUCT ATC - 2 WAY VALVE CONNECTION. NO. OF SLOTS & SIZE OF SLOT ON TOP, POINT OF CONNECTION ACTIVE LENGTH AND CFM ON BOTTOM ATC - 3 WAY VALVE FLEXIBLE DUCT CONNECTION ——──OR — 🔂 SECTION TAG - TOP FIGURE IS SECTION NO. \backslash M-101 BOTTOM FIGURE IS SHEET NO. SOLENOID VALVE FLEXIBLE DUCT 0.0 GPM CALIBRATED BALANCING FLAT OVAL DUCT WITH NET INSIDE 12/8 FO VALVE WITH GPM INDICATED DIMENSIONS SHOWN IN INCHES. DETAIL TAG - TOP FIGURE IS DETAIL NO. BOTTOM FIGURE IS SHEET NO. M101 RECTANGULAR DUCT WITH NET INSIDE **VENTURI FLOW METER** 12/8 DIMENSIONS SHOWN IN INCHES. __GPM__{||}|_LB/HR. ROUND DUCT WITH NET INSIDE DIMENSIONS **EQUIPMENT IDENTIFICATION** 12ø FLOW METER ORIFICE SHOWN IN INCHES. $\langle 1 \rangle$ KEYED NOTE IDENTIFICATION RELIEF VALVE INCLINED RISE WITH RESPECT TO AIR FLOW 15° - NOMINAL INCLINE WITH RADIUS INCLINED DROP TURNS=DEPTH OF DUCT. AIR VENT-MANUAL S R/W=1. ROUND DUCT SIMILAR TO RECTANGULAR FLOW SWITCH SENSOR RECTANGULAR TO RECTANGULAR OR ROUND TO ROUND DUCT TRANSFORMATION MAXIMUM 15° INCLUDED ANGLE T 12/12 8/8 PRESSURE SWITCH THERMOSTAT EXCEPT WHERE SHOWN OTHERWISE. TEMPERATURE AND PRESSURE 7 12/12 12ø d RECTANGULAR TO ROUND DUCT TRANSFORMATION TEST PORT BRANCH DUCT SPLIT WITH 6" WIDTH AND MIN. R=WIDTH OF BRANCH DUCT DOWNSTREAM. THERMOMETER WELL ELBOW TURNING VANE OPTIONAL. _45° ___D ___D TAP ENTRY AREA EQUALS 150% OF BRANCH AREA THERMOMETER - TEMP RANGE AS INDICATED ½ 12Ø 12/12 } PRESSURE GAUGE WITH HIGH EFFICIENCY FITTING SHUT OFF PLUG VALVE PRESSURE GAUGE WITH PIGTAIL MANUAL VOLUME DAMPER —||—or—⊕— FIRE DAMPER IN DUCT, W/ ACCESS PANEL REQD. UNION COMBINATION FIRE/SMOKE DAMPER W/ ACCESS PANEL **FLANGE** —⊠— OR —[⊠]— FLEXIBLE EXPANSION JOINT SMOKE DAMPER W/ ACCESS PANEL ---REDUCER BACK DRAFT DAMPER ATC OR OR ATC DAMPER ECCENTRIC REDUCER BRANCH - BOTTOM CONNECTION ACCESS PANEL IN DUCT OR PLENUM BRANCH - TOP CONNECTION SINGLE DUCT AIR TERMINAL BOX VARIABLE OR CONSTANT VOLUME. MIN. 1-1/2 TERMINAL INLET SIZE STRAIGHT DUCT AT TERMINAL INLET. BRANCH - SIDE CONNECTION RISE OR DROP —----4-WAY BLOW RISER - DOWN (ELBOW) 3-WAY BLOW PATTERN 0----2-WAY BLOW RISER - UP (ELBOW) PATTERN PIPE CAP 2-WAY BLOW PATTERN ARROW INDICATES DIRECTION OF FLOW IN 1-WAY BLOW PATTERN _____> LEADER INDICATES DOWNWORD SLOPE VALVE IN RISE

OR

90° ELBOW

45° ELBOW

MARK REVISION DATE



LEGEND

VBFA WWW.VBFA.COM Murray · Logan · St. George · Tempe 181 East 5600 South Murray, UT 84107

VBFA Project Number: 21529

FIRE PROTECTION GENERAL NOTES

- NO FIRE PROTECTION LINE SHALL BE DESIGNED OR INSTALLED PRIOR TO CLOSE COORDINATION WITH ALL OTHER DISCIPLINES. DUCTWORK, MECHANICAL PIPING AND PLUMBING TAKE SPACE PRECEDENCE OVER FIRE PROTECTION PIPING. FAILURE TO COMPLY WILL RESULT IN THE FIRE PROTECTION REMOVAL AND REINSTALLATION AT THE FIRE PROTECTION CONTRACTORS EXPENSE.
- ALL WORK DONE SHALL BE PERFORMED WITH WATER CONTROL IN MIND. CONTAINMENT OF WATER IS NECESSARY TO PREVENT WATER FROM DAMAGING SURROUNDING AREA.
- COORDINATE EXACT LOCATION OF PIPING WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUITS, DUCTWORK, MECHANICAL AND PLUMBING PIPING, AND ALL OTHER TRADES AND ALL EXISTING CONDITIONS.
- FIRE SUPPRESSION CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE AND/OR REROUTE ANY AND ALL FIRE PROTECTION PIPING, VALVING, SUPPORTS OR SYSTEMS, OTHERWISE WITHIN THE FIRE SUPPRESSION DISCIPLINE REGARDLESS OF WHO INSTALLED THEM OR WHEN THEY WERE INSTALLED, IN ORDER TO ACCOMMODATE MECHANICAL, PLUMBING, ELECTRICAL OR OTHER SYSTEMS. COORDINATE WORK WITH MECHANICAL. ELECTRICAL. PLUMBING OR OTHER CONTRACTORS UNTIL SUBSTANTIAL COMPLETION OF PROJECT.

MECHANICAL PIPING GENERAL NOTES

- PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE PIPING SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
- UNLESS OTHERWISE NOTED: ALL MECHANICAL PIPING IS OVERHEAD TO RUN ABOVE DUCTWORK AND TIGHT TO UNDERSIDE OF STRUCTURE.
- WHERE VALVING OR EQUIPMENT IS LOCATED ABOVE HARD CEILINGS PROVIDE AN ACCESS DOOR IN CEILING. MINIMUM ACCESS DOOR SIZE OF 24"X24".
- 4. NO PIPING TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S, AND MCC'S.
- 5. SLEEVE PIPING THRU WALLS/FOUNDATIONS WHERE REQUIRED.
- INSTALL PIPING SO THAT ALL VALVES, STRAINERS, UNIONS, TRAPS, FLANGES, AND OTHER APPURTENANCES REQUIRING ACCESS ARE ACCESSIBLE.
- ALL VALVES SHALL BE INSTALLED SO THAT VALVE REMAINS IN SERVICE WHEN EQUIPMENT OR PIPING ON EQUIPMENT SIDE OF VALVE IS REMOVED.
- PROVIDE AN AIR VENT AT THE HIGH POINT OF EACH DROP IN THE HEATING AND CHILLED WATER PIPING SYSTEM.
- INSTALL ALL PIPING WITHOUT FORCING OR SPRINGING.
- 10. ALL VALVES SHALL BE ADJUSTED FOR SMOOTH AND EASY OPERATION.
- 11. PROVIDE ISOLATION VALVES AT EACH EXIT/ENTRANCE INTO SHAFT WHETHER OR NOT SHOWN.
- 12. ALL PIPE AND DUCT SIZES SHALL REMAIN THE SAME SIZE SHOWN, IN THE DIRECTION OF FLOW, UNTIL SHOWN OTHERWISE.
- 13. COORDINATE LOCATION OF THERMOSTAT WITH ARCHITECTURAL FURNISHING PLANS. MOUNT THERMOSTAT AT HEIGHT AS SPECIFIED ON ARCHITECTURAL.
- 14. CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.

MECHANICAL GENERAL NOTES

- 1. COORDINATE EXACT PLACEMENT OF DIFFUSERS, GRILLES, AND REGISTERS WITH ARCHITECTURAL REFLECTED CEILING PLAN, TYPICAL.
- 2. SEE DETAIL FOR DIFFUSER CONNECTIONS TO DUCTWORK, TYPICAL.
- 3. BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE NECK INLET SIZE OF THE DIFFUSERS, REGISTER OR GRILLE IT SERVES UNLESS NOTED OTHERWISE, TYPICAL.
- COORDINATE EXACT MOUNTING LOCATION OF ALL THERMOSTATS WITH LATEST REVISION OF ARCHITECTURAL ELEVATION AND FURNISHINGS PLANS, TYPICAL.
- THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CAULKING AND SEALING ALL PENETRATIONS IN FIRE AND SMOKE RATED PARTITIONS TO MAINTAIN RATINGS. SEE SPECIFICATION, TYPICAL.
- 6. THE MECHANICAL CONTRACTOR SHALL PROVIDE FIRE, SMOKE OR COMBINATION FIRE/SMOKE DAMPERS AT ALL LOCATIONS SHOWN ON THE CONTRACT DOCUMENTS AND AS REQUIRED TO MEET THE INTEGRITY OF ALL SMOKE AND FIRE PARTITIONS. THE CONTRACTOR SHALL REFER TO THE LATEST ARCHITECTURAL LIFE SAFETY PLANS FOR ALL FIRE AND SMOKE PARTITION LOCATIONS. DAMPERS ARE TO BE PROVIDED WITH SHUTOFF/TEST SWITCH AT EACH LOCATION.
- PROVIDE AND INSTALL TURNING VANES IN ALL SQUARE LOW PRESSURE DUCTWORK AT ELBOWS OR TEES, TYPICAL.
- INSTALL ALL TERMINAL BOXES IN EASILY ACCESSIBLE AND SERVICEABLE LOCATIONS, MEETING ALL MANUFACTURERS REQUIRED CLEARANCES ON EACH SIDE, SEE DETAILS, TYPICAL.
- CONTRACTOR SHALL OFF-SET, TRANSITION AND PROVIDE CHANGES AS REQUIRED FOR COORDINATION WITH OTHER TRADES, TYPICAL.
- 10. DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS. REFER TO MECHANICAL SPECIFICATIONS FOR EXTENT OF DUCT INSULATION AND LINER.
- 11. PROVIDE AND INSTALL REMOTE DAMPER OPERATORS FOR ALL DAMPERS INSTALLED ABOVE INACCESSIBLE CEILINGS, SEE MECHANICAL SPECIFICATIONS FOR EQUIPMENT REQUIREMENTS, TYPICAL.
- 12. PROVIDE AND INSTALL HIGH EFFICIENCY TAKE-OFF FITTINGS AND BALANCING DAMPER AT ALL BRANCH CONNECTIONS TO LOW PRESSURE DUCTWORK.
- 13. PROVIDE AND INSTALL HIGH EFFICIENCY OR CONICAL TAKE-OFFS AT ALL BRANCH CONNECTIONS TO MEDIUM PRESSURE DUCTWORK.
- 14. WHERE DUCTWORK CROSSES, SUPPLY DUCTWORK IS USUALLY BELOW RETURN AND EXHAUST DUCT. RETURN DUCTWORK IS USUALLY BELOW EXHAUST DUCTS.
- 15. AT LOCATIONS WHERE DIFFUSERS OR GRILLES ARE UNDER DUCTWORK, CONTRACTOR TO FABRICATE TRANSITION BOOT FROM FLEX CONNECTION TO DIFFUSER OR GRILLE WITH BALANCING DAMPER, TYPICAL.
- 16. THE MECHANICAL CONTRACTOR SHALL PROVIDE CEILING MOUNTED ACCESS DOORS FOR ALL FIRE, SMOKE AND COMBINATION FIRE/SMOKE DAMPERS INSTALLED ABOVE INACCESSIBLE CEILING. FIELD VERIFY EXACT INSTALLATION LOCATIONS PRIOR TO COMMENCING WORK AND COORDINATE INSTALLATIONS WITH LATEST ARCHITECTURAL REFLECTED CEILING PLANS.
- MECHANICAL CONTRACTOR SHALL ENSURE THAT ALL EQUIPMENT IS PROVIDED AND INSTALLED WITH CLEARANCES PER MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR SHALL MAINTAIN PROPER SERVICE SPACE FOR COIL PULLS, BAS DEVICES, MAINTENANCE ACCESS, ETC.
- 18. ALL VAV BOXES TO HAVE REHEAT COILS, EXCEPT AS NOTED. PROVIDE A MINIMUM OF TWO DUCT DIAMETERS OF STRAIGHT ROUND DUCT TO INLET OF VAV BOX. BOX SHALL BE HARD CONNECTED (CONICAL) TO MEDIUM PRESSURE DUCT, TYPICAL.
- 19. PROVIDE ACCESS DOORS TO ACCESS VAV BOX CONTROLS ABOVE HARD CEILINGS. PROVIDE MIN. 24" X 24".
- 20. ALL PIPE AND DUCT SIZES SHALL REMAIN THE SAME SIZE SHOWN, IN THE DIRECTION OF FLOW, UNTIL SHOWN OTHERWISE.
- 21. ALL DUCTWORK ABOVE HARD CEILINGS SHALL BE EXTENDED ALL THE WAY TO THE SUPPLY DIFFUSERS, RETURN GRILLS OR EXHAUST GRILLS WHETHER OR NOT HARD DUCT OR FLEX DUCT IS SHOWN ON PLANS. FLEX DUCT WILL NOT BE ALLOWED TO DIFFUSERS OR GRILLS ABOVE HARD CEILINGS. FLEX DUCT WILL BE REQUIRED IN AREAS ABOVE T-BAR CEILINGS.
- 22. NEW DUCTWORK, PIPING AND EQUIPMENT SHALL BE COORDINATED WITH STRUCTURE, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUIT, PLUMBING, MECHANICAL AND FIRE PROTECTION PIPING, MEDICAL GASES, ALL OTHER TRADES AND ALL OTHER EXISTING CONDITIONS.
- 23. THE CONTRACTOR SHALL INFORM THE DESIGNER OF ANY PROPOSED DEVIATIONS FROM THE CONTRACT DOCUMENTS.
- 24. PROVIDE ACCESS TO ALL TEMPERATURE CONTROLS ABOVE CEILING. LOCATE IN ACCESSIBLE LOCATION. WHERE THERE ARE HARD CEILINGS THE CONTRACTOR SHALL PROVIDE 24"X24" ACCESS DOOR.

\triangle MARK	REVISION	DATE

RCHITECTURE PHONE: (801)	
OJECT: INTERMOUNT TRANSFORMAT CENTER - CHIMES 7 5026 SOUTH STATE S MURRAY, UTAL	TON No. 9039292-2202 KEVIN J. McENTIRE 02.11.2022

233 SOUTH PLEASANT GROVE

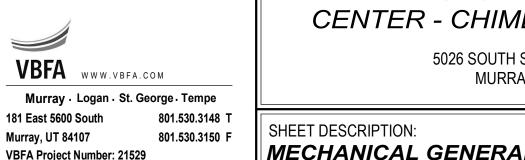
BLVD. PROJ. MAN.: SUITE #105 CHECKED BY

SHEET:

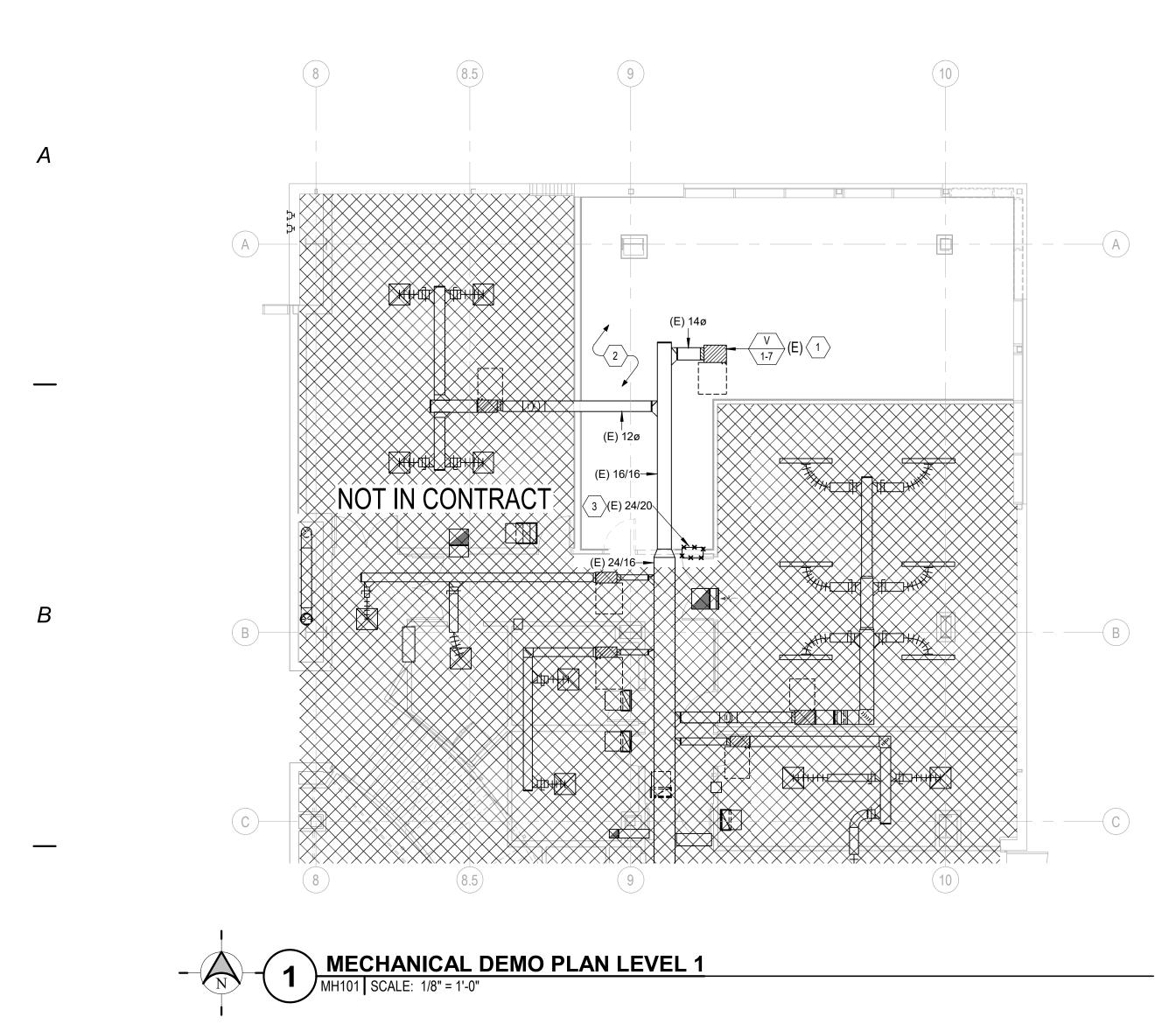
ME001

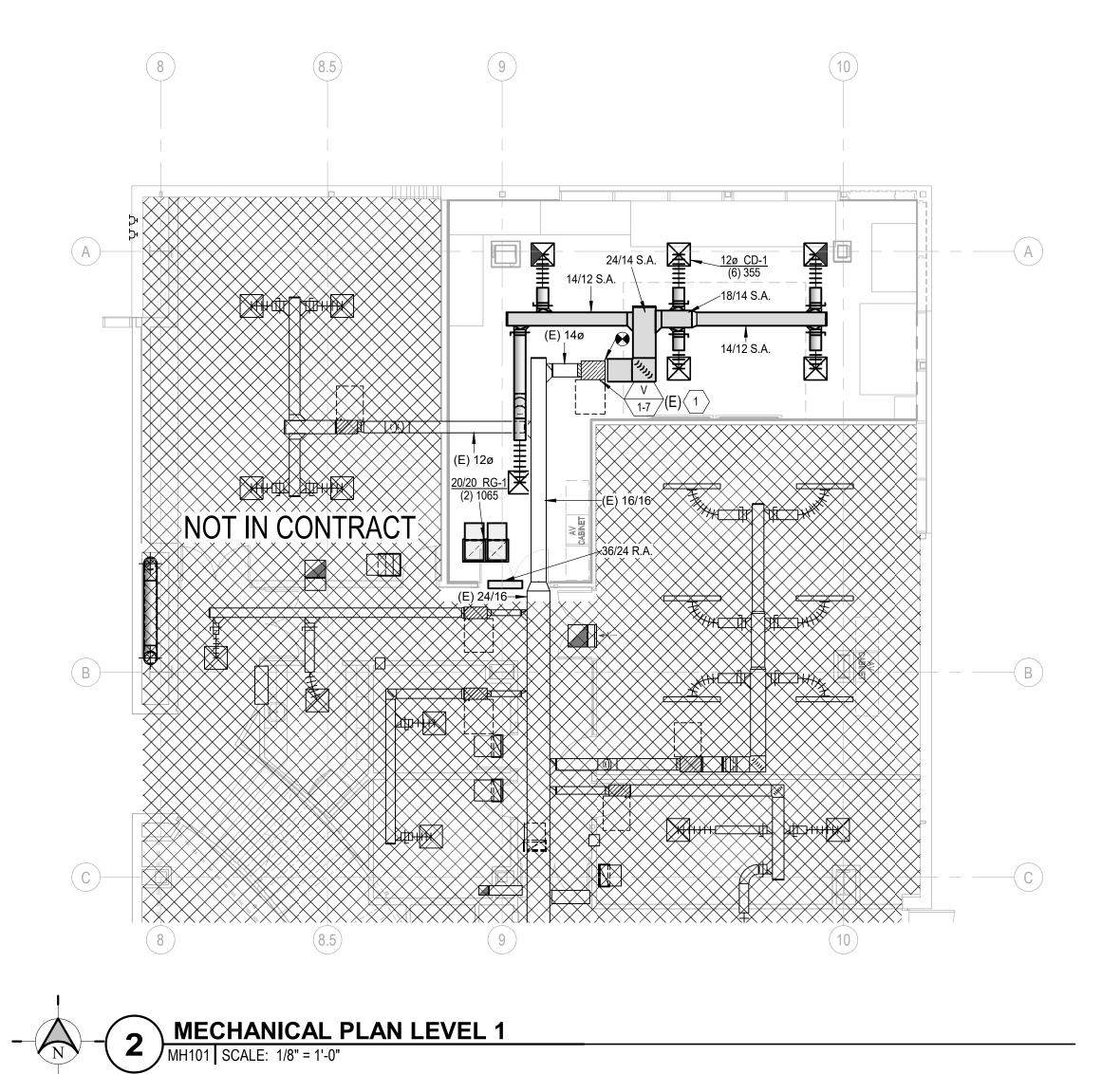
SHEET DESCRIPTION: **MECHANICAL GENERAL NOTES**

CURTIS MINER PLEASANT GROVE, UTAH 84062



ARCHITECTURE

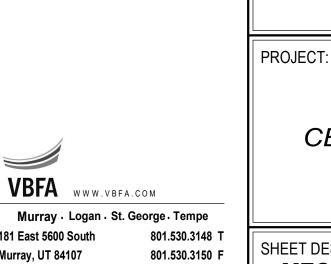




MARK REVISION DATE

KEYED NOTES

- THIS EXISTING VAV BOX IS TO REMAIN IN SERVICE. PROTECT FROM DAMAGE.
- UNLESS OTHERWISE NOTED, THE EXISTING DUCTWORK IN THE REMODEL AREA IS TO REMAIN IN SERVICE. PROTECT FROM
- THIS EXISTING TRANSFER AIR DUCT IS TO BE REMOVED. A NEW LARGER TRANSFER AIR DUCT WILL BE INSTALLED IN THE SAME PLACE.

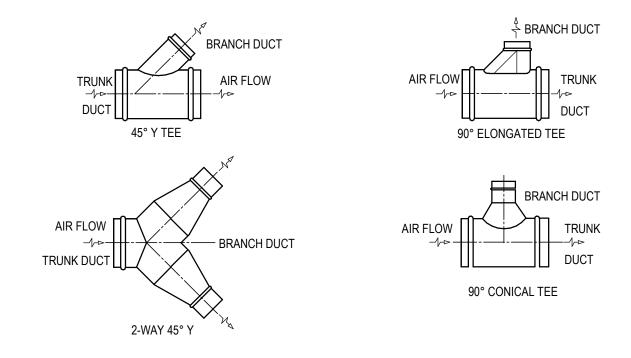


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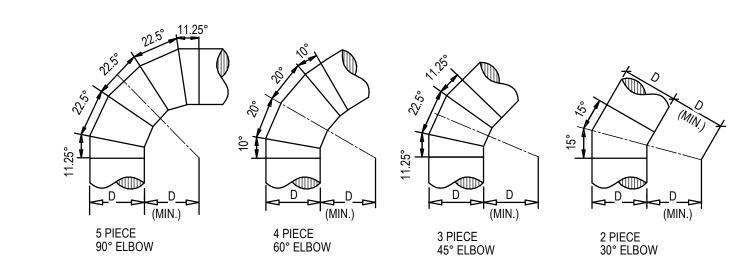
Murray, UT 84107 8
VBFA Project Number: 21529

SHEET DESCRIPTION: MECHANICAL PLANS LEVEL 1	SHEET: MH101	ONSTRUC
INTERMOUNTAIN TRANSFORMATION CENTER - CHIMES TBO 5026 SOUTH STATE STREET	PROFESSION No. 9039292-2202 KEVIN J. McENTIRE 02.11.2022	CTION DOC
233 SOUTH PLEASANT GROVE BLVD. SUITE #105 CURTIS MINER ARCHITECTURE PLEASANT GROVE, UTAH 84062 PHONE: (801) 769-3000 cma@cmautah.com	DATE: 11 FEBRUARY 2022 PROJECT #: 21-075 PROJ. MAN.: KJM CHECKED BY: KJM THE INFORMATION HEREIN IS THE PROPERTY OF CURTIS MINER ARCHITECTURE AND MAY NOT BE REPRODUCED WITHOUT WRITTEN CONSENT. © 2021 CURTIS MINER ARCHITECTURE, LLC	CUMENTS

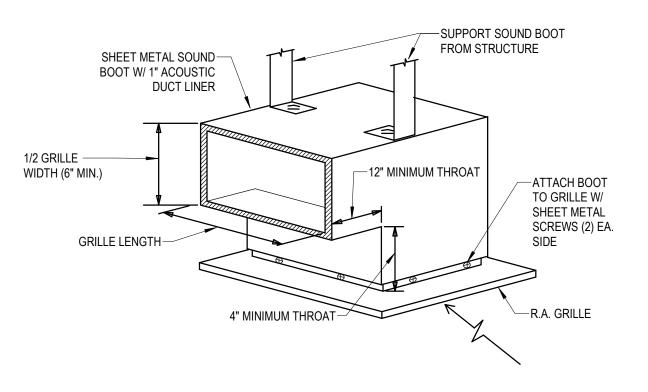
BRANCH DUCT TAKE-OFF & DAMPER DETAIL



ROUND DUCT BRANCH **TAKE-OFF DETAIL**

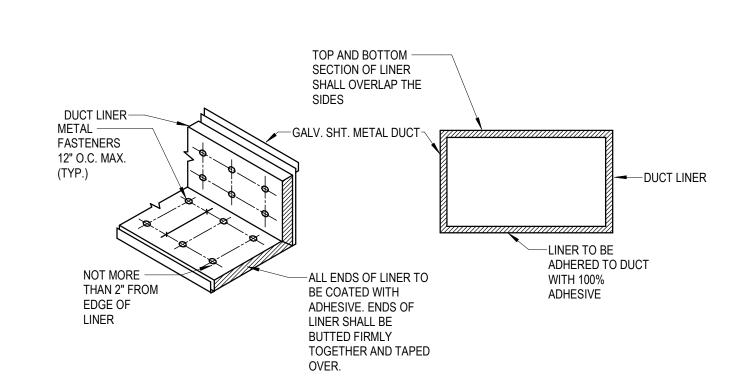


9 ROUND DUCT ELBOWS DETAIL
NOT TO SCALE



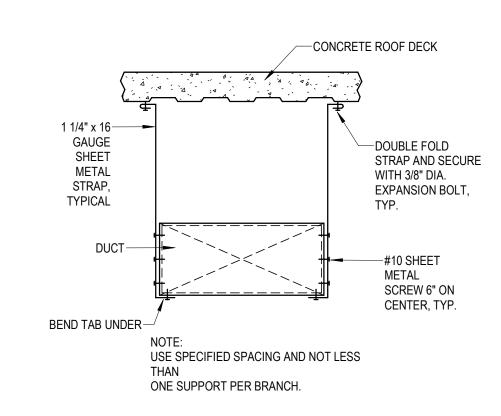
RA GRILLE WITH SOUND BOOT

DETAIL NOT TO SCALE

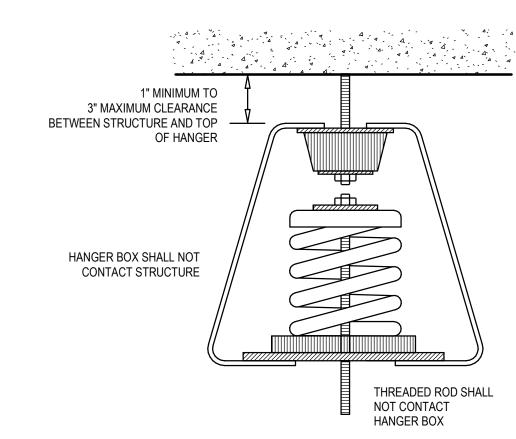


RECTANGULAR DUCT LINER

5 DETAIL NOT TO SCALE



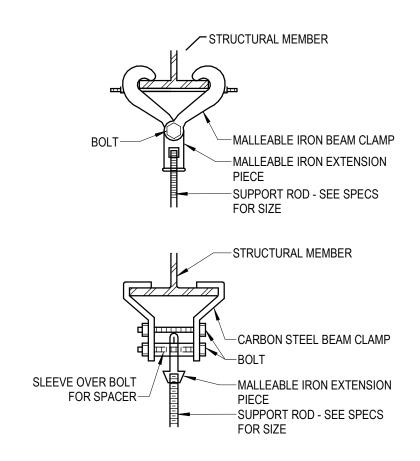
6 RECTANGULAR DUCT DETAIL NOT TO SCALE



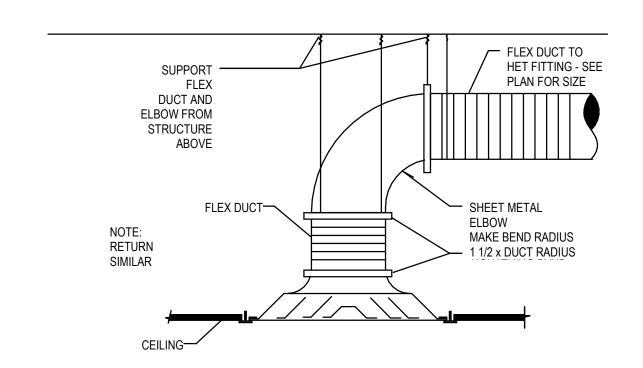
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VIBRATION ISOLATION HANGER CLEARANCE DETAIL



BEAM CLAMPS FOR PIPE OR 2 EQUIPMENT SUPPORT NOT TO SCALE



DIFFUSER CONNECTION

3 DETAIL NOT TO SCALE





RESTRAINT CONNECTIONS TO

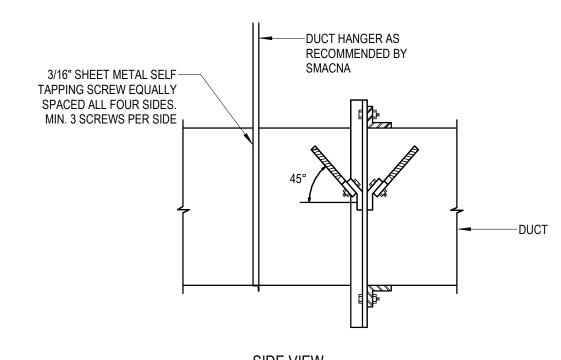
6 CONCRETE

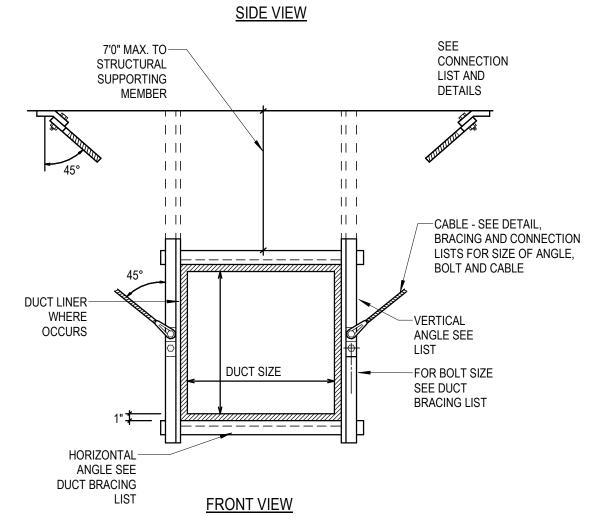
NOT TO SCALE

ANCHOR BOLT GAGES:-—CONTRACTOR MAY WELD INSERT, SEE TYPE I - 1 1/8" BRACING
SCHEDULE CONCRETE (LT. ANGLE TO STEEL TYPE II,III - 1 3/8" TYPE IV - 1 3/4" DECKING INSTEAD OF USING INSERTS (WELD WT. OR STEELANGLE 3" x 3" x 1/4" -8" LONG -STEEL DECKING A325 BOLT ---ANGLE BRACKET -REFER TO BRACING SCHEDULE--REFER TO BRACING SCHEDULE-B TYPE I, II, III, IV (WELD THICKNESS EQUAL TO THICKNESS OF ANGLE) NOTE: SEISMIC DETAILS SHOWN HERE ARE FOR REFERENCE ONLY TO ILLUSTRATE TYPICAL SEISMIC REQUIREMENTS. REFER TO SPECIFICATIONS FOR REQUIRED SEISMIC DESIGN AND APPLICATION.

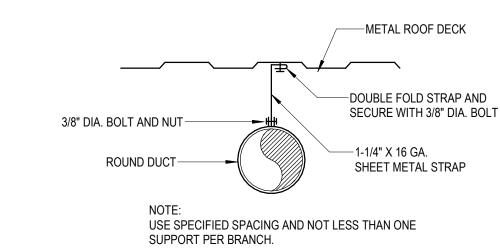
RESTRAINT CONNECTIONS TO

4 STEEL NOT TO SCALE





CABLE BRACING FOR 5 RECTANGULAR DUCTS
NOT TO SCALE



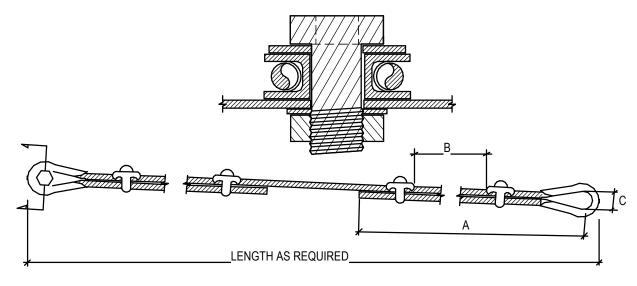
ROUND DUCT SUPPORT

1 DETAIL NOT TO SCALE

---FLEX DUCT VOLUME DAMPER-REMOTE CEILING OPERATOR WHERE DAMPER IS INACCESIBLE RECTANGLE TO ROUND TRANSITION AIR FLOW

FLEX DUCT WITH HIGH 2 EFFICIENCY FITTING DETAIL
NOT TO SCALE

-RECTANGULAR DUCT



1. CABLES, THIMBLES, CLIPS, GROMMETS & FLAT WASHERS ARE TO BE FURNISHED BY RESTRAINT MANUFACTURER. ALL OTHER HARDWARE TO BE PROVIDED BY CONTRACTOR.

2. ENTIRE SYSTEM TO BE EQUAL TO AMBER BOOTH.

3. CABLE CLIPS MUST BE ORIENTED AS SHOWN WITH SHORT END OF CABLE ON THE CURVED PART OF THE CLIP.

	CABLE SCHEDULE						
CABLE DIA.	CABLE DESIGN	А	В	С	BOLT SIZE	ALLOWABLE LOAD (lbf)	BREAKING STRENGTH (lbf)
4 /0"	77/40 0 41 1/	F 4/4"	4.5/01	E (O!)	2/0"	660	2000
1/8"	7X19 GALV.	5-1/4"	1-5/8"	5/8"	3/8"	660	2000
3/16"	7X19 GALV.	5-3/4"	1-7/8"	5/8"	3/8"	1400	4200
1/4"	7X19 GALV.	6-3/4"	2-3/8"	11/16"	3/8"	2330	7000
5/16"	7X19 GALV.	7-3/8"	2-5/8"	13/16"	5/8"	3260	9800
3/8"	7X19 GALV.	8-7/8"	3-1/4"	1"	5/8"	4800	14400
7/16"	6X19 IWRC	17"	3-5/8"	1"	5/8"	5920	17800
1/2"	6X19 IWRC	18"	3-7/8"	1-1/8"	3/4"	7660	23000

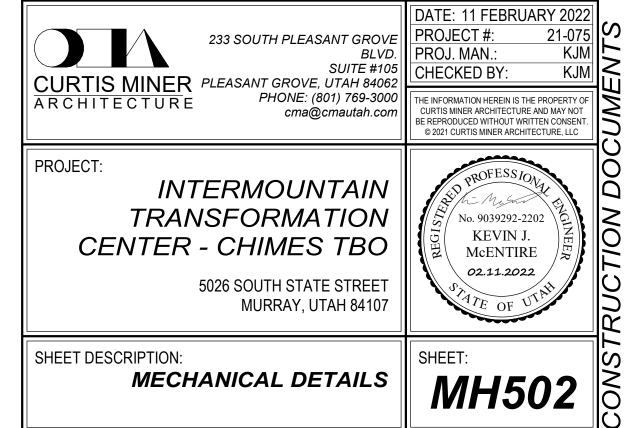
CABLE RESTRAINT DETAIL

SCALE: 12" = 1'-0"



VBFA Project Number: 21529

Murray, UT 84107



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			DUCT CABL	E BRACING LIST			
OUCT SIZE MAX.)	*WT/ LIN FT (MAX)	BOLT SIZE	HORIZONTAL ANGLE	VERTICAL ANGLE	CABLE DIA.**	CABLE DES.	ANCHOR CONN. TYPE
12"	5#	3/8"	2 X 2 X 16 GA	2 X 2 X 12 GA	1/8"	7x19 GALV_	I
18"	8#	3/8"	2 X 2 X 16 GA	2-1/2 X 2-1/2 X 12 GA	1/8"	7x19 _GALV	I
24"	10#	3/8"	2 X 2 X 16 GA	2-1/2 X 2-1/2 X 12 GA	1/8"	7x19 _GALV	I
30"	13#	3/8"	2 X 2 X 16 GA	2-1/2 X 2-1/2 X 12 GA	1/8"	7x19 _GALV	I
42"	20#	3/8"	2-1/2 X 2-1/2 X 16 GA	4 X 4 X 12 GA	3/16"	7x19 _GALV	II
54"	27#	3/8"	2-1/2 X 2-1/2 X 16 GA	4 X 4 X 12 GA	3/16"	7x19 _GALV	II
60"	36#	3/8"	3 X 3 X 16 GA	4 X 4 X 12 GA	3/16"	7x19 _GALV	II
84"	53#	3/8"	4 X 4 X 14 GA	4 X 4 X 1/4	1/4"	7x19 _GALV	III
96"	80#	1/2"	4 X 4 X 12 GA	5 X 3 X 1/4	5/16"	7x19	IV

* MAXIMUM WEIGHT OF DUCTS OR COMBINATIONS OF DUCTS PER LINEAR FOOT. THE DUCTS MAXIMUM DIMENSION SHALL GOVERN WHAT BRACING IS REQUIRED. FOR ANCHOR CONNECTIONS SEE LIST. SEE DUCT BRACING DETAILS.

** TWO CABLES REQUIRED AT EACH RESTRAINT POINT, EACH CABLE TO BE INSTALLED 45° TO HORIZONTAL AND 45° TO LONGITUDINAL DIRECTION OF DUCT.

3 DUCT CABLE BRACING LIST
SCALE: 12" = 1'-0"

			TO STRUC	TURAL SUPPORTING MEM	IBERS	
TYPE	MAX. LOAD CAPACITY POUNDS	LT. V	ANCHO	P'S REDHEAD RS TO CONC. HARD ROCK	CONC. CAST-IN PLACE INSERT	BOLT OF STL.BM. CLAMP
 	500 1000	3/8" 3/8"		3/8" 3/8"	3/8" 1/2"	3/8" 3/8"
III IV	1500 2000	3/8" 1/2"		3/8" 1/2"	1/2" 5/8"	3/8" 1/2"
V VI	3000 4000	2-1/2 2-5/8		2-1/2" 2-5/8"	2-1/2" 2-5/8"	5/8" 5/8"
TYPE_	SPREADER SIZE	BOLT THRU WOOD	SPAN- CRETE ROD	ANGLE TO SUPPORT STRUCTURAL MEMB		ROD SIZE FOR PIPES
 	C4X5.4 C5X6.7	1/2" 3/4"	3/8" 3/8"	3X2X1/4"X0'-3" LLH 3-1/2X2-1/2X5/16X0'-3	" LLH	1/2" 1/2"

3-1/2X2-1/2X7/16X0'-4" LLH

2-3-1/2X2-1/2X7/16X0'-4"

7/8" *

7/8" **

5X3X1/2X0'-4" LLH

2-5X3X1/2X0'-4"

SCHEDULE FOR TYPICAL CONNECTIONS

NOTES:

C6X8.5

C8X11.5

C9X13.4

C10X15.3

- 1 FOR SLABS LESS THAN 5" THICK ONLY, THIN SLAB INSERTS MAY BE USED.
- *2 FOR USE W/CONC. CAST-IN PLACE INSERTS OR PHILLIPS REDHEAD IN HARD ROCK ONLY.
- **3 FOR USE WITH CONC. CAST-IN PLACE INSERTS ONLY.
- ***4 WHERE TYPE III CONNECTIONS ARE REQUIRED FOR WOOD SYSTEMS, TYPE II CONNECTIONS SHALL BE USED WITH REDUCED RESTRAINT SPACING TO 20 FT. O.C. WHERE TYPE IV CONNECTIONS ARE REQUIRED FOR WOOD SYSTEMS, TYPE II CONNECTIONS SHALL BE USED WITH REDUCED RESTRAINT SPACING TO 15 FT. O.C. WHERE TYPE V CONNECTIONS ARE REQUIRED FOR WOOD SYSTEMS, TYPE II CONNECTIONS SHALL BE USED WITH REDUCED RESTRAINT SPACING TO 10
- THE MECHANICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE STRUCTURAL ENGINEER AND THEN TO THE MECHANICAL ENGINEER, SHOWING CONNECTION TYPE AND LOCATION OF ALL RESTRAINT CONNECTIONS TO THE STRUCTURE.
- 6 FOR ESSENTIAL FACILITIES WHERE CONCRETE ANCHOR BOLTS OF THE "REDHEAD" EXPANSION TYPE ARE LOADED IN PULL OUT, 50 PERCENT OF THE BOLTS (ALTERNATE BOLTS IN ANY GROUP ARRANGEMENT) SHALL BE PROOF TESTED TO TWICE THE ALLOWABLE LOAD. IF THERE ARE FAILURES, THE IMMEDIATELY ADJACENT BOLTS MUST THEN ALSO BE TESTED.
- & "HILTI" AND "RAMSET" ANCHORS ARE EQUAL SUBSTITUTES FOR "REDHEAD".

SCHEDULE FOR TYPICAL CONNECTION TO STRUCTURAL SUPPORTING MEMBERS

SCALE: 12" = 1'-0"

DUCT BRACING GENERAL NOTES

LATERAL BRACING SYSTEM. A TYPICAL VERTICAL SUPPORT SYSTEM MUST ALSO BE USED. 2 BRACE ALL RECTANGULAR DUCTS OF AREA 6 SQ. FT. AND

1 DETAILS SHOWN PROVIDE GENERAL GUIDELINES FOR A

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LARGER. BRACE ALL ROUND DUCTS 28" IN DIAMETER AND 3 CABLE RESTRAINTS AND BRACING NOT TO EXCEED 30'-0" CENTERS AND SHALL BE PROVIDED AT EACH TURN, AT

EXCEED 15'-0" FROM FLEXIBLE CONNECTION. 4 WHEN COMBINING DUCT GROUPS ON COMMON BRACING SYSTEMS, USE WEIGHTS AND DIMENSIONS FROM BRACING

THE END OF EACH DUCT RUN, AND ON EACH SIDE OF FLEXIBLE CONNECTIONS. BRACE POINTS SHALL NOT

5 ALL HOLES IN ANGLES ARE TO BE 1/16 INCH OVERSIZED. PLACE STANDARD CUT WASHERS BETWEEN SHEET METAL ANGLES AND NUT.

6 DUCTS NOT BRACED SHALL BE INSTALLED WITH A 6" MIN. CLEARANCE TO VERTICAL CEILING HANGER WIRES.

7 REHEAT BOXES AND OTHER ITEMS WHICH ATTACH TO THE DUCT SYSTEM SHALL BE BRACED INDEPENDENTLY OF THE DUCTS.

8 ALL SHEET METAL FOR BRACING TO BE FY = 33 KSI MINIMUM. GAUGE FOR SHEET METAL BRACING SHALL BE AS FOLLOWS: 16 GA =(0.0598 INCH)

12 GA= (0.1046 INCH) 9 MINIMUM DISTANCE FROM EDGE OF ANGLE TO BOLTS

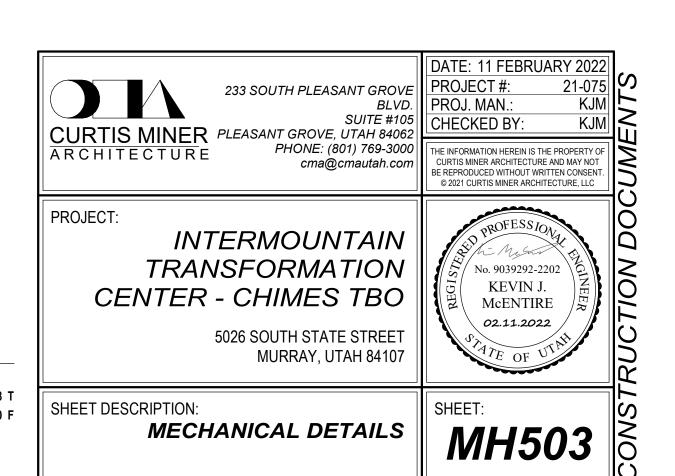
14 GA = (0.0747INCH)

S	HALL BE AS FOLLOWS	<u>-</u>
	BOLT DIAMETER	DISTANCE FROM EDGE
	1/4" TO 1/2"	1"
	5/8"	1 1/8"
	3/4"	1 1/4"
	7/8"	1 1/2"

10 DO NOT FASTEN RESTRAINT SYSTEM TO TWO DISSIMILAR PARTS OF A BUILDING THAT MAY RESPOND IN A DIFFERENT MODE DURING AN EARTHQUAKE. FOR EXAMPLE, A WALL AND A ROOF. 11 ALTERNATE EVERY OTHER CABLE RESTRAINT IN OPPOSITE DIRECTION (SHOWN DOTTED).

DUCT BRACING GENERAL

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	LEVEL 1 VAV BOX SCHEDULE																	
		AIR COIL																
			COOLING	HEATING		ENTERING	ING LEAVING S.P. LOSS NC AT TOTAL ENT. MAX. FLUID BALA											
	MANUFACTURER	INLET	MAXIMUM	MAXIMUM	MINIMUM	AIR TEMP.	AIR TEMP.	AT MAX	1" H2O	HEAT	FLUID	FLUID		PRESSURE	MIN.	PIPE	VALVE	
	AND	SIZE	AIR (5)	AIR	AIR (3)	DB	DB	CFM (4)	(1)	LOAD	FLOW	TEMP	WORKING	DROP	COIL	SIZE	SIZE	
ID	MODEL NUMBER	(IN)	(CFM)	(CFM)	(CFM)	(DEG. F)	(DEG. F)	(IN H20)	S.P.	(MBTUH)	(GPM)	(DEG. F)	FLUID	(FT)	ROWS	(IN)	(IN)	REMARKS
V-1-7	TITUS-ESV-3	14	2130	1320	640	52	90	0.65	26	46.1	3	140	H. WATER	1	2	3/4	3/4	1,2,3,4,5,6,7

1. MAXIMUM DISCHARGE NC AT BOX DIFFERENTIAL PRESSURE BASED ON ARI STANDARD 880-89

2. COIL HEATING CAPACITY BASED ON HEATING MAXIMUM AIR FLOW (60% OF MAXIMUM COOLING CFM FOR THAT BOX SIZE).

3. MINIMUM CFM IS THE LOWEST CONTROLLABLE CFM SETTING (BASED ON 400 FPM INLET VELOCITY) UNLESS SHOWN HIGHER IN THIS SCHEDULE.

4. MAXIMUM STATIC PRSSURE DROP PERMISSABLE ACROSS BOX AND COIL AT MAXIMUM COOLING CFM.

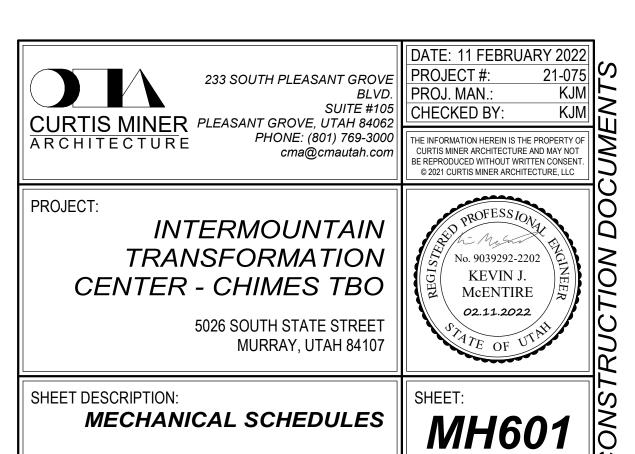
5. BOX COOLING MAXIMUM IS THE SUM OF DIFFUSERS CFM VALUES AS SHOWN IN THE DRAWINGS.

6. PRESSURE INDEPENDENT TYPE BOX.

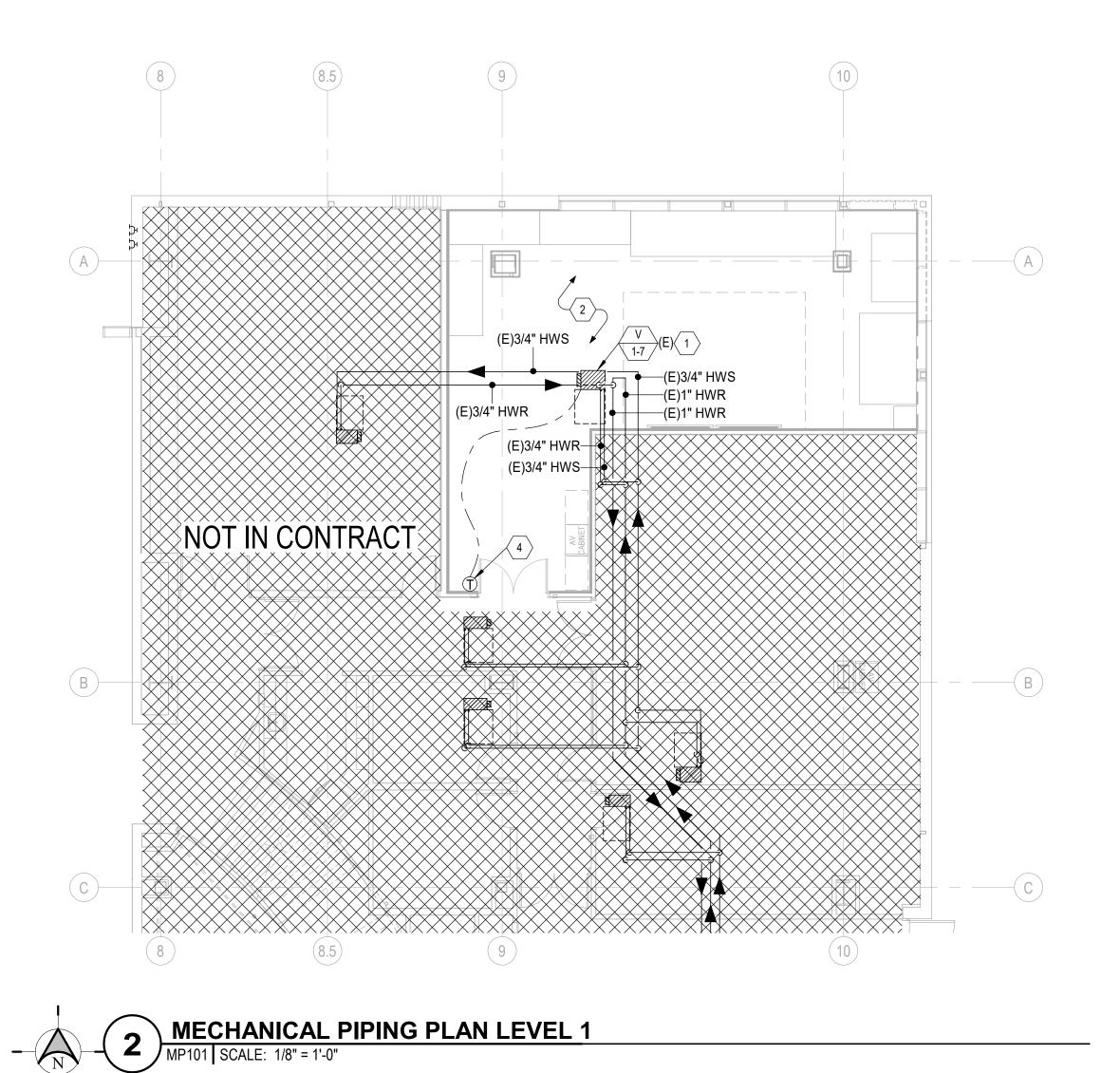
7. EXISTING VAV BOX & REHEAT COIL THAT ARE TO BE REUSED. REBALANCE THE AIRFLOW THE NEW VALUES LISTED IN THIS SCHEDULE.

GRILLES, REGISTERS AND DIFFUSERS												
ID	MANUFACTURER	MODEL	MAX NC	DESCRIPTION								
CD-1	TITUS	OMNI	30	SQUARE PLAQUE FACE CEILING DIFFUSERS. REMOVABLE FACE, C.W./O.B.D. FRAME SHALL BE FOR SURFACE OR LAY-IN MOUNTING AS REQUIRED BY CEILING TYPE. LAY-IN FRAMES SHALL BE 24" x 24" OR 12" x 12" AS REQUIRED TO FIT CEILING TILE SPACE AVAILABLE.								
RG-1	TITUS	PAR	30	PERFORATED FACE RETURN AIR UNIT, REMOVABLE FACE & CORE. FRAME SHALL BE FOR SURFACE OR LAY-IN MOUNTING AS REQUIRED BY CEILING TYPE. LAY-IN FRAMES SHALL BE 24" x 24", 24" x 12" OR 12" x 12" AS REQUIRED TO FIT CEILING TILE SPACE AVAILABLE. AIR QUANTITY SHALL MATCH ROOM SUPPLY OR EXHAUST AIR QUANTITY.								





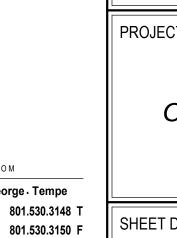
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KEYED NOTES

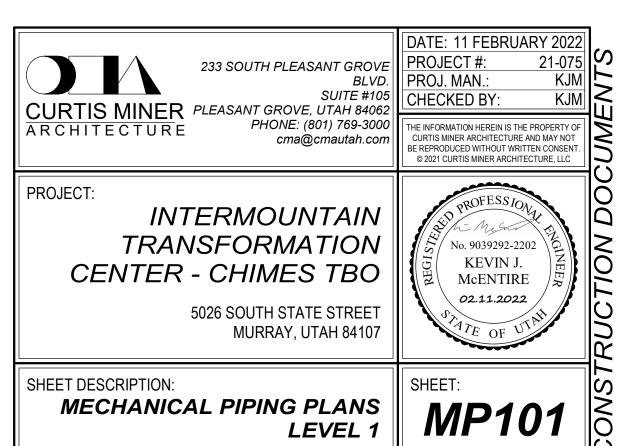
- 1. THIS EXISTING VAV BOX IS TO REMAIN IN SERVICE. PROTECT FROM DAMAGE.
- 2. UNLESS OTHERWISE NOTED, THE EXISTING HEATING HOT WATER PIPING IN THE REMODEL AREA IS TO REMAIN IN SERVICE. PROTECT FROM DAMAGE.
- 3. THIS EXISTING THERMOSTAT IS TO BE REMOVED AND SALVAGED FOR REUSE. PROTECT FROM DAMAGE.
- 4. REINSTALL THE SALVAGED THERMOSTAT ON THE WALL IN THIS LOCATION.

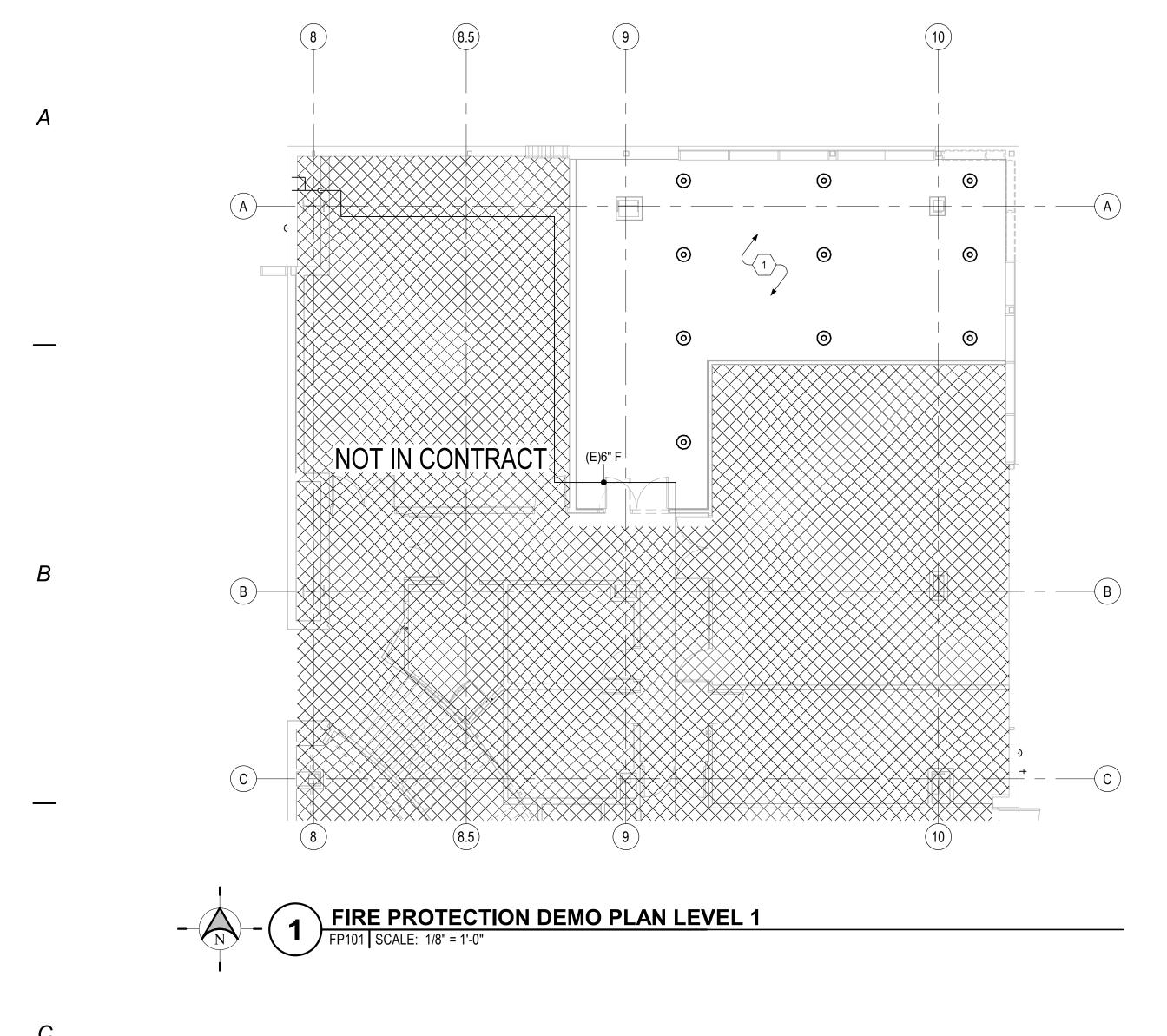


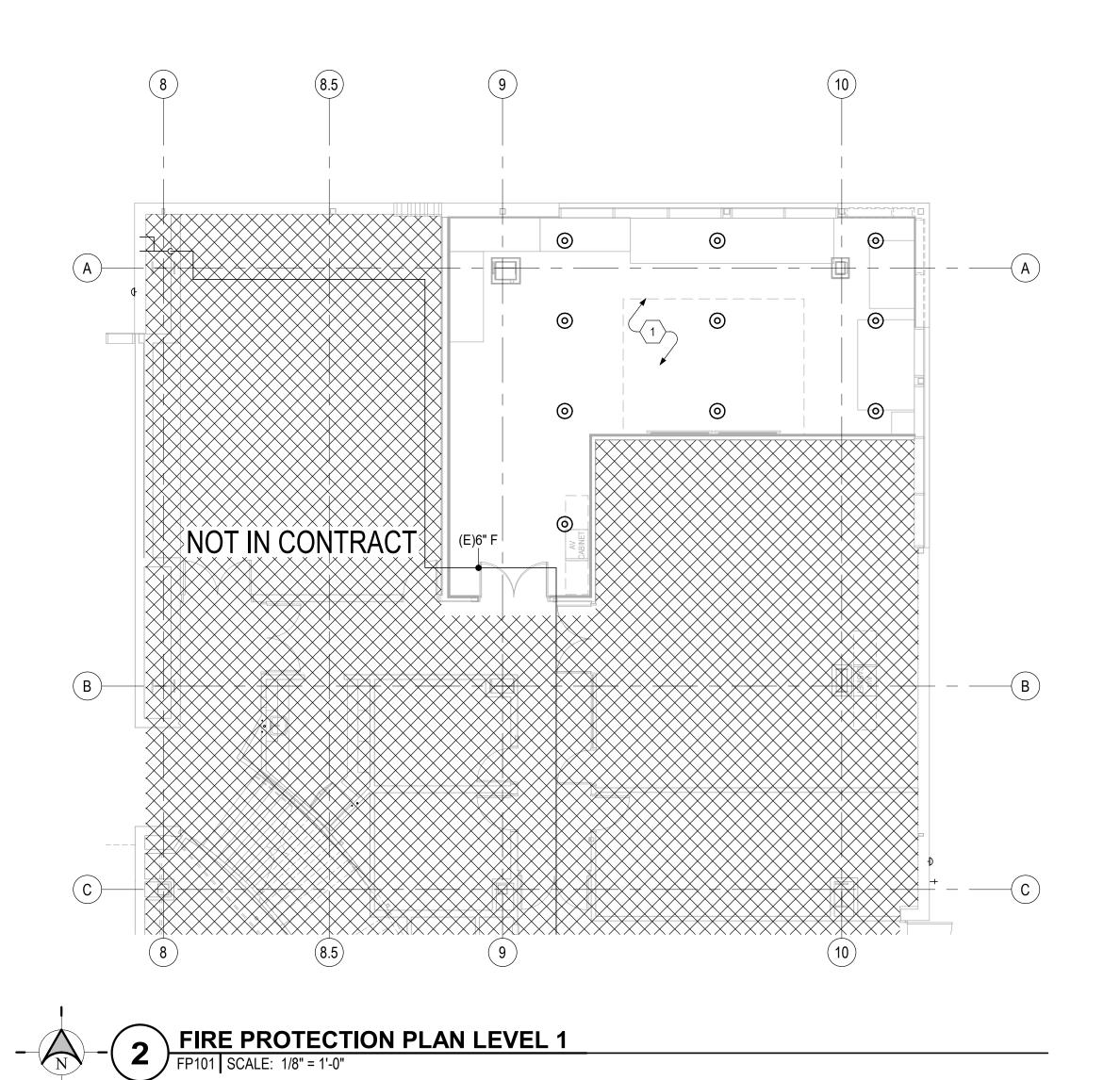
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KEYED NOTES

THE FIRE SPRINKLERS SHOWN ON THIS DRAWING ARE IN THEIR APPROXIMATE EXISTING LOCATIONS. ALL FIRE SPRINKLERS IN THE REMODEL AREA ARE TO BE REPLACED WITH NEW QUICK RESPONSE FIRE SPRINKLERS. RELOCATE AND REPLACE SPRINKLER HEAD WITH A NEW HEAD, REMOVE, OR ADD FIRE SPRINKLERS AS REQUIRED BY NFPA CHAPTER 13, TYPICAL. PROVIDE FLEXIBLE SPRINKLER PIPING TO THE NEW FIRE SPRINKLERS SO THE FIRE SPRINKLERS CAN BE LOCATED IN THE CENTER OF CEILING TILES. FIELD VERIFY THE EXTENT OF WORK.



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233 SOUTH PLEASANT GROVE BLVD. SUITE #105 SUITE #105 PLEASANT GROVE, UTAH 84062 PHONE: (801) 769-3000 cma@cmautah.com	DATE: 11 FEBRUARY 2022 PROJECT #: 21-075 PROJ. MAN.: KJM CHECKED BY: KJM THE INFORMATION HEREIN IS THE PROPERTY OF CURTIS MINER ARCHITECTURE AND MAY NOT BE REPRODUCED WITHOUT WRITTEN CONSENT. © 2021 CURTIS MINER ARCHITECTURE, LLC
PROJECT: INTERMOUNTAIN TRANSFORMATION CENTER - CHIMES TBO 5026 SOUTH STATE STREET MURRAY, UTAH 84107	ROFESSIONAL ENTRE OZ.11.2022
SHEET DESCRIPTION: FIRE PROTECTION PLANS LEVEL 1	SHEET: (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4

SYMBOLS LEGEND

DETAIL INDICATOR: A5 INDICATES DETAIL NUMBER. E-501

ELEVATION OR SECTION INDICATOR, INTERIOR: A5 INDICATES

ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING

INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN.

SHEET WHERE ELEVATION OR SECTION IS SHOWN.

ROOM IDENTIFIER WITH ROOM NAME AND NUMBER.

MECHANICAL EQUIPMENT INDICATOR. "X-X" INDICATES

EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.

BREAK, STRAIGHT: TO BREAK PARTS OF DRAWING

MATCH LINE INDICATOR: CENTER, EXTRA WIDE LINE.

EXISTING TO REMAIN LINE: THIN LINE

DEMOLITION LINE: DASHED, MEDIUM LINE

SCHEDULE FOR ADDITIONAL INFORMATION.

WIRING TURNED UP OR TOWARDS OBSERVER.

WIRING TURNED DOWN OR AWAY FROM OBSERVER.

ELECTRICAL SPECIFICATIONS.

TO ONE-LINE DIAGRAM.

JUNCTION BOX.

CONNECTION.

LADDER RACK.

PROTECTION.

75 CANDELA RATING.

DETECTOR, SMOKE.

FIRE ALARM

PULL BOX.

ADA ACCESS PUSH PLATE

JUNCTION BOX, CEILING.

ELECTRICAL POWER AND DISTRIBUTION

SCHEDULE FOR REQUIREMENTS.

PANELBOARD CABINET, FLUSH MOUNTED.

DISTRIBUTION PANEL OR SWITCHBOARD.

FIRE ALARM MANUAL PULL STATION.

NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT

EQUIPMENT MARK SHOWN ON EQUIPMENT SCHEDULE. "XMDP"

KITCHEN EQUIPMENT INDICATOR. "X-X" INDICATES EQUIPMENT

MARK SHOWN ON EQUIPMENT SCHEDULE. "XKP" IDENTIFIES

PANEL EQUIPMENT IS CIRCUITED TO. REFER TO EQUIPMENT

BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF

USE #12 CONDUCTORS, EXCEPT #10 CONDUCTORS SHALL BE

INSTALLED IF DISTANCES EXCEED THOSE SPECIFIED IN THE

BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF

NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS.

NUMBER IN BOX REFERS TO THE CONDUCTOR AND CONDUIT

CONDUIT STUB. DIMENSION RECORD DRAWINGS AND MARK.

IUNCTION BOX, SYSTEMS FURNITURE COMMUNICATION

JUNCTION BOX, SYSTEMS FURNITURE POWER CONNECTION.

MECHANICAL EQUIPMENT CONNECTION. REFER TO EQUIPMENT

PANELBOARD CABINET, SURFACE MOUNTED, 1 SECTION.

PANELBOARD CABINET, SURFACE MOUNTED, 2 SECTION.

SWITCH, TOGGLE MOTOR STARTER WITH OVERLOAD

LIGHTING RELAY, CONTACTOR PANEL, OR DIMMING ENCLOSURE.

DETECTOR, SMOKE, DUCT WITH HOUSING AND SAMPLING TUBE.

ALARM, HORN/STROBE, ONE ASSEMBLY, CEILING MOUNTED.

ALARM, HORN, CEILING MOUNTED. SUBSCRIPT INDICATES

SPEAKER, EVACUATION, COMBINATION STROBE.

ALARM, STROBE, CEILING MOUNTED. SUBSCRIPT

SUBSCRIPT INDICATES CANDELA RATING.

INDICATES CANDELA RATING.

CONDUCTOR & CONDUIT ("CC") SCHEDULE INDICATOR. REFER

ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND

LOW VOLTAGE WIRING: DIVIDE, MEDIUM LINE.

ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND

IDENTIFIES PANEL EQUIPMENT IS CIRCUITED TO. REFER TO

SYMBOL DESCRIPTION

E-501

E-201

ROOM NAME

CU-1

WIRING METHODS

WIRING.

REFERENCE AND LINE SYMBOLS

KEYNOTE INDICATOR.

REVISION INDICATOR.

EQUIPMENT INDICATOR.

NEW LINE: MEDIUM LINE

4W

ADJ

AFF

SINGLE POLE

FOUR-WIRE

ADJACENT

SINGLE-PHASE

TWO-CONDUCTOR

ABOVE COUNTER

ARMORED CABLE

THREE-CONDUCTOR

AMERICANS WITH DISABILITIES

ABOVE FINISHED FLOOR

ABBREVIATIONS

NOTE: ALL ABBREVIATIONS MAY NOT BE USED.

kV

kVA

kVAR

kWh

LED

LFMC

INFRARED

KILOVOLT

KILOWATT

CONDUIT

KILOVOLT AMPERE

KILOWATT HOUR

KILOVOLT AMPERE REACTIVE

LIQUID TIGHT FLEXIBLE METAL

LIGHT EMITTING DIODE

LOCKED ROTOR AMPS

J-BOX JUNCTION BOX

GENERAL ELECTRICAL NOTES

- CLARIFICATION METHODS: AT THE TIME OF BIDDING, BIDDERS SHALL FAMILIARIZE THEMSELVES WITH THE DRAWINGS AND SPECIFICATIONS. ANY QUESTIONS, MISUNDERSTANDINGS, CONFLICTS, DELETIONS, DISCONTINUED PRODUCTS, CATALOG NUMBER DISCREPANCIES. DISCREPANCIES BETWEEN THE EQUIPMENT SUPPLIED AND THE INTENT OR FUNCTION OF THE EQUIPMENT, ETC, SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER IN WRITING FOR CLARIFICATION PRIOR TO ISSUANCE OF THE FINAL ADDENDUM AND BIDDING OF THE PROJECT. WHERE DISCREPANCIES OR MULTIPLE INTERPRETATIONS OCCUR, THE MOST STRINGENT (WHICH IS GENERALLY RECOGNIZED AS THE MOST COSTLY) THAT MEETS THE INTENT OF THE DOCUMENTS SHALL BE ENFORCED.
- EXPOSED STRUCTURE AREAS (EXCLUDING MECHANICAL, ELECTRICAL, AND COMMUNICATION SPACES): INSTALL RACEWAYS BETWEEN DECK AND STRUCTURE WHEREVER POSSIBLE IN EXPOSED STRUCTURE CEILING AREAS. ROUTE RACEWAYS IN CONCEALED AREAS WHEREVER POSSIBLE REFER ALL CONDITIONS WHERE RACEWAYS MUST BE INSTALLED WHICH CANNOT COMPLY WITH THESE REQUIREMENTS TO THE ARCHITECT.
- SUBMITTALS: PROVIDE ORIGINAL ELECTRONIC PDF FORMAT, BOUND. BOOKMARKED (EACH SECTION AND PRODUCT), AND HIGHLIGHTED, JOB NAME AND SUBCONTRACTOR SHALL BE ON THE FRONT COVER. PREPARE INDEX OF EQUIPMENT SUBMITTED IN EACH TAB.
- REFLECTED CEILING PLANS: COORDINATE THE LOCATION OF LIGHT FIXTURES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. REFER ALL DISCREPANCIES TO THE ARCHITECT AND ENGINEER.
- ALL WORK SHALL BE DONE ACCORDING TO THE CURRENT NATIONAL ELECTRIC CODE (NEC). IBC. NFPA. AND IFC. COMPLIANCE AND FINAL APPROVAL IS SUBJECT TO THE ON SITE FIELD INSPECTION OF THE AHJ.

ELECTRICAL S	HEET INDEX

EE001	SHEET INDEX, ABBREVIATIONS, AND GENERAL NOTES							
EE501	ELECTRICAL DETAILS							
EE701	TYPICAL MOUNTING HEIGHT DETAILS							
EE702	TYPICAL MOUNTING HEIGHT DETAILS							
EE801	ELECTRICAL SPECIFICATIONS							
ED101	LEVEL 1 ELECTRICAL DEMOLITION PLAN							
ED102	LEVEL 1 CEILING DEMOLITION PLAN							
EP101	LEVEL 1 POWER PLAN							
EP601	PANEL SCHEDULES							
EL101	LEVEL 1 LIGHTING PLAN							
EL601	INTERIOR LIGHTING FIXTURE SCHEDULE							
EY101	LEVEL 1 AUXILIARY PLAN							

SYMBOLS LEGEND SYMBOL DESCRIPTION WIRING DEVICES RECEPTACLE, DUPLEX: NEMA 5-20R. RECEPTACLE, DUPLEX, ABOVE COUNTER: NEMA 5-20R. RECEPTACLE, DUPLEX, CEILING: NEMA 5-20R. RECEPTACLE. DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER: NEMA 5-20R. RECEPTACLE, QUADRAPLEX: NEMA 5-20R. RECEPTACLE, SPECIAL PURPOSE. PROVIDE RECEPTACLE TO MATCH EQUIPMENT PLUG. FLUSH FLOOR BOX. "#" SHOWN ON DRAWINGS. REFER TO WIRING DEVICE SCHEDULE IN THE ELECTRICAL SPECIFICATIONS FOR CONFIGURATION AND DEVICES. FLUSH FIRE RATED POKE THRU. "#" SHOWN ON DRAWINGS. REFER TO WIRING DEVICE SCHEDULE IN THE ELECTRICAL SPECIFICATIONS FOR CONFIGURATION AND DEVICES. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET STRUCTURED CABLING TWO-WAY EMERGENCY COMMUNICATION DEVICE PER IBC, WALL MOUNTED IN RECESSED BOX. ELEPHONE TERMINAL BOARD, FIRE TREATED PLYWOOD PAINTED. LAN RACK, FLOOR STANDING. DATA COMMUNICATIONS DEVICE (1 DATA). DATA COMMUNICATIONS DEVICE (1 DATA WALL PHONE). DATA COMMUNICATIONS DEVICE (2 DATA). DATA COMMUNICATIONS DEVICE (3 DATA). DATA COMMUNICATIONS DEVICE (4 DATA). DATA COMMUNICATIONS DEVICE (6 DATA). WAP DATA COMMUNICATIONS DEVICE WIRELESS ACCESS POINT (2 LIGHTING (REFER TO FIXTURE SCHEDULE FOR SYMBOLS) FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK OR CONNECTED TO GENERATOR AS INDICATED: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. EM EMERGENCY. NIGHT LIGHT: DO NOT SWITCH. EGRESS DIRECTION ARROW (EXIT SIGNS). LOW VOLTAGE LIGHTING TRANSFORMER. EXIT SIGN: SINGLE FACE; CEILING MOUNTED EXIT SIGN: SINGLE FACE; WALL MOUNTED EXIT SIGN: DOUBLE FACE; CEILING MOUNTED EXIT SIGN: DOUBLE FACE; WALL MOUNTED LIGHTING CONTROL OCCUPANCY SENSOR, DUAL TECHNOLOGY, OMNI-DIRECTIONAL, CEILING. OCCUPANCY SENSOR, DUAL TECHNOLOGY, WALL. ➂ OCCUPANCY SENSOR, DUAL TECHNOLOGY, DIRECTIONAL. OCCUPANCY SENSOR, ULTRASONIC, OMNI-DIRECTIONAL, CEILING. OCCUPANCY SENSOR CONTROL RELAY. VACANCY SENSOR, DUAL TECHNOLOGY, OMNI-DIRECTIONAL, CEILING. VACANCY SENSOR, DUAL TECHNOLOGY, WALL. PHOTOCELL. SWITCH/VACANCY SENSOR COMBO, DUAL TECHNOLOGY, WALL.

DIMMER SWITCH/VACANCY SENSOR

CCTV CAMERA/ENCLOSURE WITH LENS, TYPICAL. SEE SCHEDULE.

CARD ACCESS DOOR TYPE #1 OR AS NOTED. SEE

COMBO, DUAL TECHNOLOGY, WALL

CCTV

SECURITY

CR

SCHEDULE.

CARD READER.

ABOVE FINISHED GRADE LTG LIGHTING AMPERE INTERRUPTING LV LOW VOLTAGE CAPACITY MAX MAXIMUM ALUMINUM MC METAL CLAD AMP AMPERE MCA MINIMUM CIRCUIT AMPS ANN **ANNUNCIATOR** MCB MAIN CIRCUIT BREAKER AMPS SHORT CIRCUIT MCC MOTOR CONTROL CENTER ATS AUTOMATIC TRANSFER MOTOR CIRCUIT PROTECTION MDP MAIN DISTRIBUTION PANEL **AUDIO VISUAL** MH MANHOLE AMERICAN WIRE GAGE MIN MINIMUM CEILING MOUNTED MLO MAIN LUGS ONLY CIRCUIT BREAKER MOCP MAXIMUM OVERCURRENT CCBA CUSTOM COLOR AS SELECTED PROTECTION BY ARCHITECT NOT APPLICABLE CLOSED CIRCUIT TELEVISION NORMALLY CLOSED CUSTOM FINISH AS SELECTED CFBA NATIONAL ELECTRICAL CODE NEC BY ARCHITECT NOT IN CONTRACT CIRCUIT NIGHT LIGHT CND CONDUIT NO NORMALLY OPEN CO CONVENIENCE OUTLET NTS NOT TO SCALE CP CONTROL PANEL OC ON CENTER CURRENT TRANSFORMER CT OVER CURRENT PROTECTION OCP CU COPPER OFP OBTAIN FROM PLANS UNIT OF SOUND LEVEL dBA PF POWER FACTOR DPDT DOUBLE POLE, DOUBLE PH PHASE PNL PANEL EA EACH PT POTENTIAL TRANSFORMER EM **EMERGENCY** PAN/TILT/ZOOM PTZ EMT ELECTRICAL METALLIC TUBING QUANTITY EPO EMERGENCY POWER OFF REFLECTED CEILING PLAN EQUIP EQUIPMENT START/STOP EX **EXISTING** SCA SHORT CIRCUIT AMPS FURNITURE MOUNTED STANDARD COLOR AS SCBA FIRE ALARM SELECTED BY ARCHITECT FIRE ALARM CONTROL PANEL SQUARE FOOT (FEET) FULL LOAD AMPS STANDARD FINISH AS SFBA FMC FLEXIBLE METAL CONDUIT SELECTED BY ARCHITECT FOB FREIGHT ON BOARD SURGE PROTECTIVE DEVICE FVNR FULL VOLTAGE SINGLE POLE, DOUBLE THROW NON-REVERSING SPEC SPECIFICATION GROUND SINGLE POLE, SINGLE THROW SPST GEN GENERATOR SWBD SWITCHBOARD GFCI GROUND FAULT INTERRUPTER SWITCHGEAR SWGR GFP **GROUND FAULT PROTECTION** TWIST LOCK HD **HEAVY DUTY** TWISTED PAIR HIGH INTENSITY DISCHARGE HID TELEPHONE TERMINAL BOARD HAND-OFF-AUTOMATIC HOA **TELEVISION** HP HORSE POWER TRANSIENT VOLTAGE SURGE TVSS HPF HIGH POWER FACTOR SUPPRESSER HV HIGH VOLTAGE TYP TYPICAL HERTZ UNDERFLOOR INPUT/ OUTPUT UGND UNDERGROUND ISOLATED GROUND VOLTS INTERMEDIATE METAL VA VOLT AMPERE CONDUIT VFC/VF VARIABLE FREQUENCY MOTOR INSULATED/ ISOLATED CONTROLLER W/ WITH WITHOUT W/O WEATHERPROOF XFMR TRANSFORMER

DEFINITIONS

NOTE: ALL DEFINITIONS MAY NOT BE USED.

INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.

DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES.

APPROVED: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS.

FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.

TECHNOLOGY SYSTEMS: THE TERM "TECHNOLOGY SYSTEMS" IS USED TO DESCRIBE ALL LOW VOLTAGE SYSTEMS GENERALLY REFERRED TO AS "SPECIAL SYSTEMS". THESE SYSTEMS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO ALL SYSTEMS WHICH UTILIZE VOLTAGES OF LESS THAN 71 VOLTS SUCH AS SOUND SYSTEMS, VIDEO SYSTEMS, TV SYSTEMS, SECURITY SYSTEMS, VOICE AND DATA CABLING SYSTEMS, ETC...

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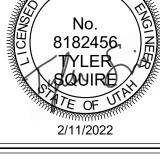
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PROJECT #:

PROJECT:

IGTC CHIMES EXPANSION TENANT BUILDOUT

> **5026 SOUTH STATE STREET** MURRAY, UTAH 84107



SHEET DESCRIPTION: SHEET INDEX, ABBREVIATIONS, AND GENERAL NOTES SHEET:



AS REQUIRED FOR TYPE OF CONSTRUCTION. TYPICAL \$
OUTLET BOX BAR STRAPS OUTLET BOX NOTES: 1. TYPICAL FOR WOOD AND METAL STUD ROUGH-IN.

2. PLASTER RINGS NOT SHOWN.

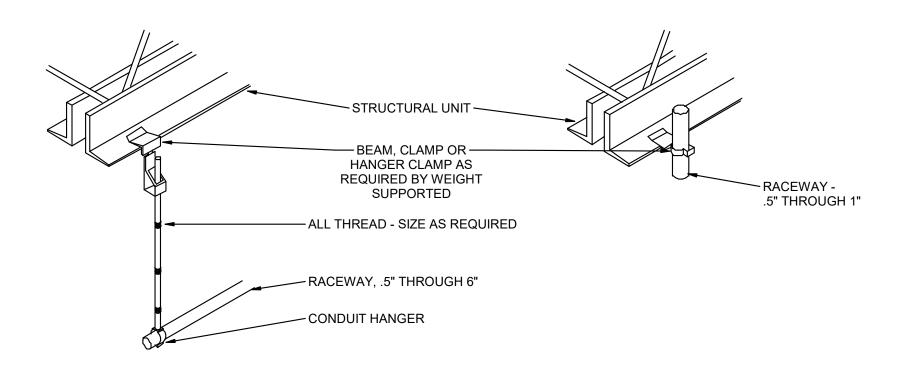
3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND WITH ALL APPLICABLE SHOP DRAWINGS.

4. IN ACCORDANCE WITH IBC 714.3.2 EXCEPTION 1, OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS IN THE SAME STUD SPACE IN A RATED FIRE SEPARATION WALL MUST BE SEPARATED BY A MINIMUN OF 24" HORIZONTAL DISTANCE.

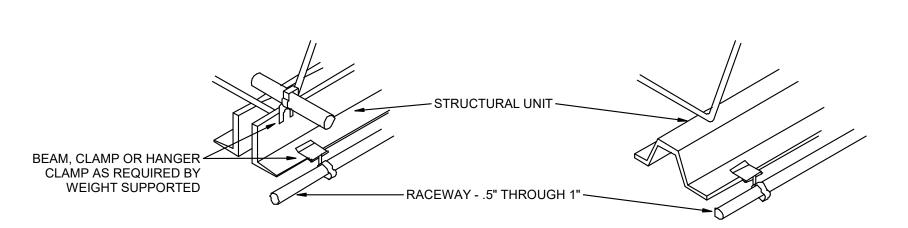
5. IN NON-RATED WALLS, OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS MUST BE SEPARATED BY 16" FOR SOUND ATTENUATION.

TYPICAL ROUGH-IN REQUIREMENTS DETAIL SCALE: 1/8" = 1'-0"

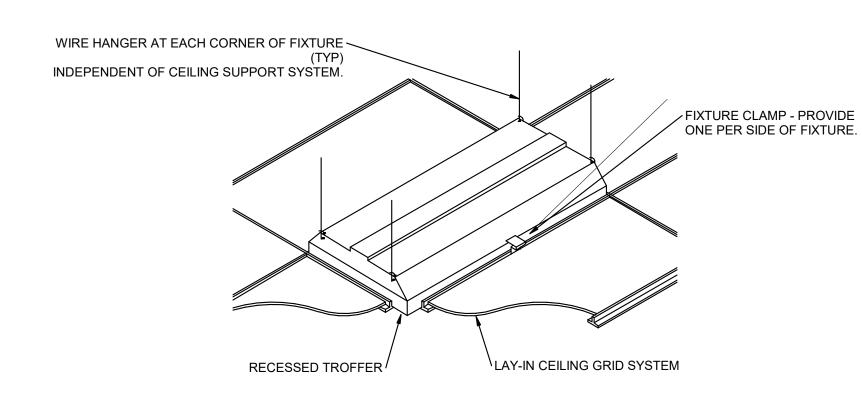
TIE WIRE SHALL NOT BE USED AS A COMPONENT OF ANY RACEWAY HANGER SYSTEM.



- PROVIDE CONDUIT SUPPORTS IN ACCORDANCE WITH NEC SPACING REQUIREMENTS FOR TYPE OF RACEWAY REQUIRED.



TYPICAL RACEWAY SUPPORT METHODS DETAIL SCALE: 1/8" = 1'-0"



RECESSED FIXTURE MOUNTING DETAIL

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

5026 SOUTH STATE STREET MURRAY, UTAH 84107 2/11/2022 SHEET: SHEET DESCRIPTION: **ELECTRICAL DETAILS** EE501

PHONE: (801) 769-3000

cma@cmautah.com

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ARCHITECTURE
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EXPANSION TENANT

IGTC CHIMES

BUILDOUT

PROJECT:

SPECTRUM ENGINEERS

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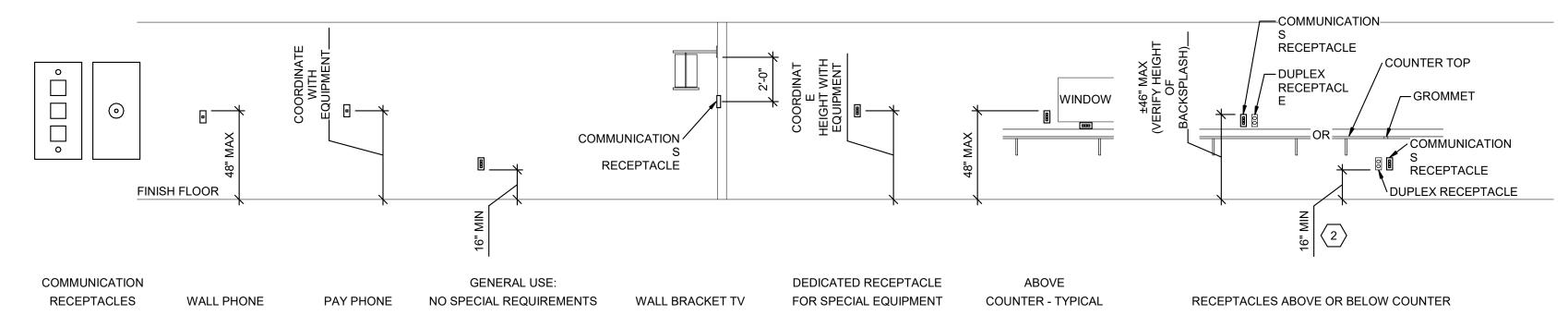
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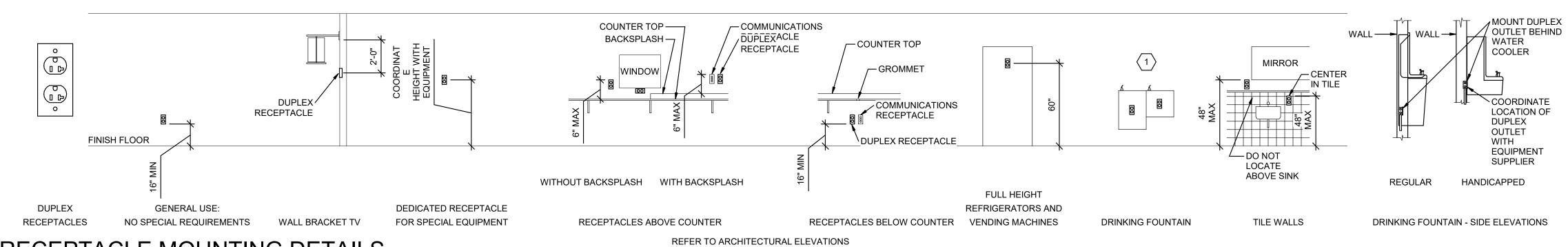
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DATE

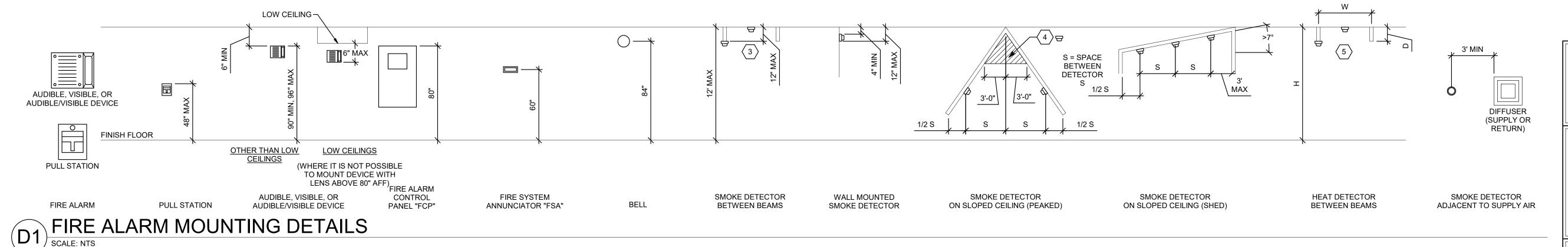


B1 COMMUNICATIONS MOUNTING DETAILS SCALE: NTS





REFER TO ARCHITECTURAL ELEVATIONS FOR PLACEMENT OF OUTLETS.



MARK REVISION DATE

GENERAL SHEET NOTES

- DETERMINE MOUNTING HEIGHTS OF ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE FOLLOWING ORDER OF PRIORITY:
- 1 ELEVATIONS (ARCHITECTURAL, ELECTRICAL, MECHANICAL, ETC).
- 2 EQUIPMENT SHOP DRAWINGS.
- 3 FIELD INSTRUCTIONS.
- LOCATE RECEPTACLES SERVING THE SAME TYPE OF USE AT A UNIFORM HEIGHT UNLESS DIRECTED OTHERWISE.
- MECHANICAL, ELECTRICAL, AND COMMUNICATION ROOMS: COORDINATE LOCATION OF LIGHTING AND POWER RECEPTACLES WITH EQUIPMENT, PIPING, AND DUCTWORK. DO NOT INSTALL RECEPTACLES BEHIND EQUIPMENT OR WHERE OTHERWISE INACCESSIBLE. POSITION LIGHTING REGARDLESS OF WHERE SHOWN ON DRAWING TO PROVIDE PROPER ILLUMINATION.
- MOUNT RECEPTACLE BOXES FOR SWITCHES AND RECEPTACLES WITH LONG AXIS OF THE DEVICE VERTICAL UNLESS OTHERWISE INDICATED.
- 5. SET BOXES WITH PLASTER RINGS FLUSH WITH FINISHED SURFACE.
- LOCATE BOX COVERS OR DEVICE PLATES SO THEY WILL NOT SPAN DIFFERENT TYPES OF BUILDING FINISHES EITHER VERTICALLY OR HORIZONTALLY.
- VERIFY ALL DOOR CONDITIONS ON ARCHITECTURAL DRAWINGS PRIOR TO INSTALLING SWITCHES.
- LOCATE WIREING DEVICES WHICH ARE ADJACENT AND ARE COMPATIBLE VOLTAGES IN ONE PLATE.
- WHERE DEVICES ARE LOCATED IN CLOSE PROXIMITY OF THE SAME VERTICAL PLANE, ALIGN DEVICES VERTICALLY PER THE TYPICAL WALL MOUNTED DEVICES ALIGNMENT DETAIL, UNLESS OTHERWISE INDICATED.

SHEET KEYNOTES

- LOCATE RECEPTACLES BEHIND DRINKING FOUNTAINS.
- REFER TO ARCHITECTURAL ELEVATIONS FOR PLACEMENT OF OUTLETS.
- LOCATE AT BOTTOM OF BEAMS (OR JOISTS) OR AT CEILING. (REDUCE SPACING BY .5 PERPENDICULAR TO BEAM OR JOIST DIRECTION.) FOR OTHER CONDITIONS, REFER TO NFPA 72.
- LOCATE DETECTOR ANYWHERE IN SHADED AREA BUT NOT IN TOP 4" OF PEAK.
- LOCATE AT BOTTOM OF BEAMS IF D/H < .1 OR W/H < .4; OTHERWISE, LOCATE IN BEAM POCKET. FOR D > 4 REDUCE SPACING .33 PERPENDICULAR TO BEAMS.

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PROJECT:

IGTC CHIMES **EXPANSION TENANT** BUILDOUT

> 5026 SOUTH STATE STREET MURRAY, UTAH 84107

2/11/2022 SHEET:

SHEET DESCRIPTION: TYPICAL MOUNTING HEIGHT EE701 **DETAILS**

FORWARD REACH TO LIGHT AND FAN SWITCHES AS WELL AS THERMOSTAT FINISH FLOOR INACCESSIBLE ? STUD IN $\stackrel{-1}{-}$ OUTLET LESS THAN 15" ABOVE BETWEEN FLOOR PERMISSIBLE 30" X 48" CLEAR FLOOR – SPACE PERPENDICULAR TO THE WALL FOR A FORWARD REACH TO CONTROLS ADDITIONAL OUTLET IN 2 & LOCATION WALL MOUNTED PENDANT LIGHT FIXTURE LIGHT FIXTURE PENDANT EXIT SIGNS BOXES ON OPPOSITE SIDES OF WALL BOX MOUNTING DETAILS

SCALE: 1/8" = 1'-0" LIGHTING MOUNTING DETAILS C2 ADA DETAIL

SCALE: 1/8" = 1'-0" SCALE: 1/8" = 1'-0" KING STUD/ FRAMING (TYP) FIRE ALARM -HORN/STROBE (TYP) SIGNAGE (SEE ARCHITECTURAL PLANS AND VOLUME -CONTROL ENVIRONMENTAL -AND MOUNTING HEIGHTS) EQEQ DOOR (TYP) — CONTROLS FIRE ALARM — (THERMOSTAT) PULL STATION CARD READER EQEQ DATA RECEPTACL FINISHED FLOOR FINISHED FLOOR TYPICAL WALL MOUNTED DEVICES ALIGNMENT DETAIL

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

MARK REVISION DATE

GENERAL SHEET NOTES

- DETERMINE MOUNTING HEIGHTS OF ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE FOLLOWING ORDER OF PRIORITY:
- 1 ELEVATIONS (ARCHITECTURAL, ELECTRICAL, MECHANICAL, ETC).
- 2 EQUIPMENT SHOP DRAWINGS.
- 3 FIELD INSTRUCTIONS.
- LOCATE RECEPTACLES SERVING THE SAME TYPE OF USE AT A UNIFORM HEIGHT UNLESS DIRECTED OTHERWISE.
- MECHANICAL, ELECTRICAL, AND COMMUNICATION ROOMS: COORDINATE LOCATION OF LIGHTING AND POWER RECEPTACLES WITH EQUIPMENT, PIPING, AND DUCTWORK. DO NOT INSTALL RECEPTACLES BEHIND EQUIPMENT OR WHERE OTHERWISE INACCESSIBLE. POSITION LIGHTING REGARDLESS OF WHERE SHOWN ON DRAWING TO PROVIDE PROPER ILLUMINATION.
- . MOUNT RECEPTACLE BOXES FOR SWITCHES AND RECEPTACLES WITH LONG AXIS OF THE DEVICE VERTICAL UNLESS OTHERWISE INDICATED.
- 5. SET BOXES WITH PLASTER RINGS FLUSH WITH FINISHED SURFACE.
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- . WHERE DEVICES ARE LOCATED IN CLOSE PROXIMITY OF THE SAME VERTICAL PLANE, ALIGN DEVICES VERTICALLY PER THE TYPICAL WALL MOUNTED DEVICES ALIGNMENT DETAIL, UNLESS OTHERWISE INDICATED.

○ SHEET KEYNOTES

- 1. LOCATE RECEPTACLES BEHIND DRINKING FOUNTAINS.
- 2. REFER TO ARCHITECTURAL ELEVATIONS FOR PLACEMENT OF OUTLETS.
- LOCATE AT BOTTOM OF BEAMS (OR JOISTS) OR AT CEILING. (REDUCE SPACING BY .5 PERPENDICULAR TO BEAM OR JOIST DIRECTION.) FOR OTHER CONDITIONS, REFER TO NFPA 72.
- 4. LOCATE DETECTOR ANYWHERE IN SHADED AREA BUT NOT IN TOP 4" OF PEAK.
- LOCATE AT BOTTOM OF BEAMS IF D/H < .1 OR W/H < .4; OTHERWISE, LOCATE IN BEAM POCKET. FOR D > 4 REDUCE SPACING .33 PERPENDICULAR TO BEAMS.

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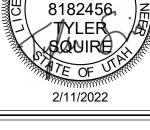
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PROJECT:

IGTC CHIMES EXPANSION TENANT BUILDOUT

5026 SOUTH STATE STREET MURRAY, UTAH 84107



SHEET DESCRIPTION: TYPICAL MOUNTING HEIGHT **DETAILS** SHEET: **EE702** FLEXIBLE METAL CONDUIT

PARALLEL

WHERE SUBJECT TO PHYSICAL DAMAGE. CEILINGS, AND FLOORS. RUN CONCEALED RACEWAYS WITH A MINIMUM OF BENDS IN THE SHORTEST PRACTICAL

SECTION 260500 - COMMON WORK RESULTS FOR ELECTRICAL MATERIALS AND INSTALLATION SHALL COMPLY WITH THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE, OTHER APPLICABLE NFPA SECTIONS, STATE AND LOCAL CODES, AND RECOGNIZED INDUSTRY STANDARDS AND PRACTICES. LISTING AND LABELING: PROVIDE PRODUCTS THAT ARE UL LISTED AND LABELED NEMA COMPLIANCE: COMPLY WITH CONSTRUCTION AND INSTALLATION REQUIREMENTS OF APPLICABLE NEMA STANDARDS. SUBMITTALS: SUBMIT PRODUCT DATA AND SHOP DRAWING ON THE FOLLOWING EQUIPMENT WIRING DEVICES LIGHTING FIXTURES

PRIOR TO SUBMITTING BID, VISIT SITE TO VERIFY ALL EXISTING CONDITIONS AND ANY ITEMS THAT WILL AFFECT WORK OF THIS PROJECT. INCLUDE ALL COSTS IN BID.

MAINTAIN A SET OF REDLINED AS-BUILT DRAWINGS AND DELIVER TO OWNER UPON COMPLETION OF PROJECT.

PROTECT ADJACENT MATERIALS INDICATED TO REMAIN. INSTALL AND MAINTAIN DUST AND NOISE BARRIERS TO KEEP DIRT, DUST, AND NOISE FROM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE PROTECTION AND BARRIERS AFTER DEMOLITION OPERATIONS ARE

LOCATE, IDENTIFY, AND PROTECT ELECTRICAL SERVICES WITHIN OR PASSING THROUGH DEMOLITION AREA AND SERVING OTHER AREAS OUTSIDE THE DEMOLITION LIMITS. MAINTAIN SERVICES TO AREAS OUTSIDE DEMOLITION LIMITS. WHEN SERVICES MUST BE INTERRUPTED. INSTALL TEMPORARY SERVICES FOR AFFECTED AREAS. COORDINATE POWER INTERRUPTIONS ONE WEEK IN ADVANCE WITH OWNER. IF POWER INTERRUPTIONS DISTURB NORMAL OPERATIONS, THEN POWER INTERRUPTIONS ARE ONLY ALLOWED DURING NON-BUSINESS OR NON-OPERATION HOURS.

PATCH AND REPAIR SURFACES THAT ARE DISTURBED OR DAMAGED AS A RESULT OF ELECTRICAL INSTALLATION. RESTORE SURFACES TO ORIGINAL CONDITION.

INSTALLATION OF FIRE-STOPPING SEALANT: INSTALL UL-LISTED SEALANT, INCLUDING FORMING, PACKING, AND OTHER ACCESSORY MATERIALS, TO FILL OPENINGS AROUND ELECTRICAL SERVICES PENETRATING FLOORS AND WALLS, TO PROVIDE FIRE-STOPS WITH FIRE-RESISTANCE RATINGS INDICATED FOR FLOOR OR WALL ASSEMBLY IN WHICH PENETRATION OCCURS. COMPLY WITH INSTALLATION REQUIREMENTS ESTABLISHED BY **TESTING AND INSPECTING AGENCY**

SECTION 260519 - RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

PROVIDE STEEL RACEWAY, FITTING, AND BOX SYSTEM FOR ALL WIRING, EXCEPT FOR PLASTIC CONDUIT MAY BE INSTALLED UNDERGROUND.

RIGID STEEL CONDUIT: ANSI C80.1.

INTERMEDIATE METAL CONDUIT: ANSI C80.6.

PLASTIC-COATED STEEL CONDUIT AND FITTINGS: NEMA RN 1. PLASTIC-COATED INTERMEDIATE METAL CONDUIT AND FITTINGS: NEMA RN 1

ELECTRICAL METALLIC TUBING AND FITTINGS: ANSI C80.3 WITH SET-SCREW OR COMPRESSION-TYPE FITTINGS. CAST FITTINGS ARE NOT ALLOWED.

FLEXIBLE METAL CONDUIT: ZINC-COATED STEEL.

LIQUIDTIGHT FLEXIBLE METAL CONDUIT: FLEXIBLE STEEL CONDUIT WITH PVC JACKET FITTINGS: NEMA FB 1, COMPATIBLE WITH CONDUIT/TUBING MATERIALS AND SUITABLE FOR

RIGID NONMETALLIC CONDUIT (RNC): NEMA TC 2, SCHEDULE 40 OR 80 PVC.

PVC CONDUIT AND TUBING FITTINGS: NEMA TC 3; MATCH TO CONDUIT OR CONDUIT/TUBING TYPE AND MATERIAL. OUTLET AND DEVICE BOXES: USE ONE OF THE FOLLOWING:

SHEET METAL BOXES: NEMA OS 1

PROVIDE MINIMUM 3/4" RACEWAY.

OUTDOORS WIRING METHODS: USE THE FOLLOWING WIRING METHODS:

1. EXPOSED: RIGID OR INTERMEDIATE METAL CONDUIT

2. CONCEALED: RIGID OR INTERMEDIATE METAL CONDUIT.

SHALL BE USED FOR BENDS GREATER THAN 22 DEGREES.

4. PENETRATING CONCRETE FLOORS AND FOUNDATIONS: WRAPPED RIGID METAL CONDUIT (MINIMUM 4' EACH SIDE). 5. CONNECTION TO VIBRATING EQUIPMENT (INCLUDING TRANSFORMERS AND HYDRAULIC.

PNEUMATIC, OR ELECTRIC SOLENOID OR MOTOR-DRIVEN EQUIPMENT): LIQUIDTIGHT

6. BOXES AND ENCLOSURES: NEMA TYPE 3R OR TYPE 4.

DIRECT BURIED CONDUIT OUTSIDE A BUILDING SHALL NOT BE LESS THAN 24" DEEP, WITH MAGNETIC "YELLOW WARNING" RIBBON 12" DIRECTLY ABOVE AND 6" BELOW FINIISHED GRADE MEASURED FROM THE TOP OF THE CONDUIT.

INDOORS WIRING METHODS: USE THE FOLLOWING WIRING METHODS:

CONNECTION TO VIBRATING EQUIPMENT, INCLUDING TRANSFORMERS AND HYDRAULIC, PNEUMATIC. OR ELECTRIC SOLENOID OR MOTOR-DRIVEN EQUIPMENT: FLEXIBLE METAL CONDUIT WITH MINIMUM 18" OF LIQUID-TIGHT FLEXIBLE CONDUIT (MAXIMUM OF 6 FEET) EXCEPT IN WET OR DAMP LOCATIONS USE LIQUIDTIGHT FLEXIBLE METAL CONDUIT (MAXIMUM

2. DAMP OR WET LOCATIONS: RIGID STEEL CONDUIT.

3. EXPOSED: ELECTRICAL METALLIC TUBING, RIGID OR INTERMEDIATE METAL CONDUIT

4. CONCEALED: ELECTRICAL METALLIC TUBING.

5. CONNECTION FOR CONDUIT IN CRAMPED QUARTERS OR MISALIGNMENT EXIST. FLEXIBLE METAL CONDUIT (MINIMUM 1/2") CONCEAL CONDUIT AND EMT, ÚNLESS OTHERWISE INDICATED, WITHIN FINISHED WALLS,

INSTALL RACEWAYS LEVEL AND SQUARE AND AT PROPER ELEVATIONS. RUN PERPENDICULAR AND AT RIGHT ANGLES TO BUILDING AND STRUCTURAL ELEMENTS. RUN PARALLEL OR BANKED RACEWAYS TOGETHER, ON COMMON SUPPORTS WHERE PRACTICAL MAKE BENDS IN PARALLEL OR BANKED RUNS FROM SAME CENTER LINE TO MAKE BENDS

SUPPORT RACEWAYS AS FOLLOWS. IN COMPLIANCE WITH DIVISION 16 SECTION "SUPPORTING DEVICES": TWO SUPPORTS PER 10' RUN, WITHING 12" OF A COUPLING, FITTING OR BEND GREATER THAN 45 DEGREES, AND WITHIN 12" OF EVERY BOX TO WHICH THE RACEWAY IS ENTERING OR EXITING.

DISTANCE CONSIDERING THE TYPE OF BUILDING CONSTRUCTION AND OBSTRUCTIONS, EXCEPT AS OTHERWISE INDICATED.

RACEWAYS EMBEDDED IN SLABS: INSTALL IN MIDDLE THIRD OF THE SLAB THICKNESS WHERE PRACTICAL, AND LEAVE AT LEAST 1 INCH (25 MM) CONCRETE COVER.

JOINTS AND TERMINATIONS: JOIN RACEWAYS WITH FITTINGS DESIGNED AND APPROVED FOR THE PURPOSE AND MAKE JOINTS AND TERMINATIONS TIGHT

MAKE RACEWAY TERMINATIONS TIGHT. USE BONDING BUSHINGS OR WEDGES AT CONNECTIONS SUBJECT TO VIBRATION.

2. USE BONDING JUMPERS WHERE JOINTS CANNOT BE MADE TIGHT.

USE INSULATED THROAT OR EQUAL TYPE PLASTIC BUSHINGS FOR BOX CONNECTIONS TO PROTECT CONDUCTORS.

4. CONNECTORS ON FLEXIBLE CONDUIT AND MC CABLE SHALL BE THREADED TYPE - NOT PUSH-IN QUICK CONNECT TYPE.

INSTALL 200-LB NYLON PULL CORD IN ALL EMPTY RACEWAYS. CAP RACEWAY USING A BLANK COVER SIMILAR TO ADJACENT WIRING DEVICE COVERS. ALL FUTURE RACEWAYS SHALL TERMINATE IN AN ACCESSIBLE CEILING SPACE UNLESS

NOTED OTHERWISE, EXTEND AS NECESSARY. RECORD CIRCUIT NUMBERS ON THE INSIDE BACK OF RECEPTACLE AND LIGHTING OUTLET

BOXES USING A PERMANT MARKER OR PERMANENT LABEL PROVIDE GROUNDING CONNECTIONS FOR RACEWAY, BOXES, AND COMPONENTS AS INDICATED AND INSTRUCTED BY MANUFACTURER. TIGHTEN CONNECTORS AND TERMINALS. INCLUDING SCREWS AND BOLTS. ACCORDING TO EQUIPMENT MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES FOR EQUIPMENT CONNECTORS. WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT INDICATED, TIGHTEN CONNECTORS AND TERMINALS ACCORDING TO TIGHTENING TORQUES SPECIFIED IN UL STANDARD 486A.

SECTION 260526 - LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

WIRES AND CABLES: TYPE THHN/THWN COPPER CONDUCTOR.

SOLID CONDUCTOR FOR 10 AWG AND SMALLER; STRANDED CONDUCTOR FOR LARGER THAN

CONNECTORS AND SPLICES: UL-LISTED FACTORY-FABRICATED WIRING CONNECTORS OF SIZE, AMPACITY RATING, MATERIAL, AND TYPE AND CLASS FOR APPLICATION AND FOR SERVICE INDICATED. SELECT TO COMPLY WITH PROJECT'S INSTALLATION REQUIREMENTS AND AS SPECIFIED IN THE "EXECUTION" ARTICLE.

DO NOT PROVIDE THE FOLLOWIN G UNLESS APPROVED BY THE DIRECTOR: EXPOSED CABLE WIRING

2. SPLICES IN PANELBOARD, SWITCHBOARD ENCLOSURES, OR IN CONDUIT BODIES. DO NOT USE ALLUMINUM CONDUCTORS OR NON-METALLIC SHEATHED CABLE

COLOR-CODING OF SECONDARY PHASE CONDUCTORS: COLOR CODE SWITCH LEGS, FRAVELERS AND OTHER WIRING FOR BRANCH CIRCUITS OTHER THAN THOSE LISTED BELOW. PERMANENTLY POST COLOR CODE AT EACH BRANCH PANELBOARD. USE THE FOLLOWING COLORS FOR SERVICE, FEEDER AND BRANCH-CIRCUIT PHASE CONDUCTORS:

1. 208/120-V CONDUCTORS:

 PHASE A: BLACK. b. PHASE B: RED. PHASE C: BLUE

NEUTRAL WHITE GROUND: GREEN

INSULATED GROUND: GREEN WITH WHITE STRIPE.

480/277-V CONDUCTORS:

. PHASE B: YELLOW

PHASE C: VIOLET NEUTRAL: GRAY e. GROUND: GREEN.

3. ORANGE IS RESERVED FOR THE HIGH-LEG OF CENTER-TAPPED DELTA SYSTEM.

4. #8 AND LARGER CONDUCTORS MAY BE TAPED WITH 8" OF HALF-LAPPED COLORED TAPE AT TERMINATIONS AND PULL BOXES.

INSTALL WIRES AND CABLES AS INDICATED, ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AND THE NECA "STANDARD OF INSTALLATION."

PULL CONDUCTORS INTO RACEWAY SIMULTANEOUSLY WHERE MORE THAN ONE IS BEING INSTALLED IN SAME RACEWAY

CONDUCTOR SPLICES: KEEP TO MINIMUM.

INSTALL SPLICES AND TAPES THAT POSSESS EQUIVALENT OR BETTER MECHANICAL STRENGTH AND INSULATION RATINGS THAN CONDUCTORS BEING SPLICED.

USE SPLICE AND TAP CONNECTORS THAT ARE COMPATIBLE WITH CONDUCTOR MATERIAL. DO NOT USE PUSH-IN TYPE QUICK-WIRE DEVICES OR WIRE CONNECTORS. WIRING AT OUTLETS: INSTALL WITH AT LEAST 12 INCHES (300 MM) OF SLACK CONDUCTOR AT

CONNECT OUTLETS AND COMPONENTS TO WIRING AND TO GROUND AS INDICATED AND INSTRUCTED BY MANUFACTURER. TIGHTEN CONNECTORS AND TERMINALS, INCLUDING SCREWS AND BOLTS, ACCORDING TO EQUIPMENT MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUES FOR EQUIPMENT CONNECTORS. WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT INDICATED, TIGHTEN CONNECTORS AND TERMINALS ACCORDING TO

METAL CLAD (MC) CABLE

MC CABLE MAY BE USED FOR FINAL CONNECTIONS TO DEVICES AND AT THE TAIL END OF THE ELECTRICAL CIRCUITS BUT NEVER FOR HOMERUNS OR IN THE ELECTRICAL ROOM.

SECTION 260529 - WIRING DEVICES

FIGHTENING TORQUES SPECIFIED IN UL STANDARD 486A.

WIRING DEVICES: COMPLY WITH NEMA STANDARD WD 1, "GENERAL PURPOSE WIRING COLOR: AS SELECTED BY ARCHITECT/OWNER, EXCEPT AS OTHERWISE INDICATED OR

WIRING. COMPLY WITH FEDERAL SPECIFICATION W-C-596 AND HEAVY-DUTY GRADE OF UL STANDARD 498. "ELECTRICAL ATTACHMENT PLUGS AND RECEPTACLES." PROVIDE NRTL LABELING OF DEVICES TO VERIFY THESE COMPLIANCES. GROUND-FAULT CIRCUIT INTERRUPTER (GECI) RECEPTACLES: UL STANDARD 943 "GROUND FAULT CIRCUIT INTERRUPTERS." FEED-THROUGH TYPE, WITH INTEGRAL NEMA 5-20R DUPLEX

STANDARD DUPLEX RECEPTACLES: 20A DEVICES; PROVIDE NYLON FACE, BACK AND SIDE

RECEPTACLE ARRANGED TO PROTECT CONNECTED DOWNSTREAM RECEPTACLES ON THE SAME CIRCUIT. DESIGN UNITS FOR INSTALLATION IN A 2-3/4-INCH (70-MM) DEEP OUTLET BOX SNAP SWITCHES: 20A DEVICES; PROVIDE NYLON FACE, QUIET-TYPE A.C. SWITCHES, NRTL

AND WITH FEDERAL SPECIFICATION W-S-896 TELEPHONE JACK: RJ-45, 8-POSITION, MODULAR, LATCHING-PLUG TYPE, FLUSH IN FACE OF

LISTED AND LABELED AS COMPLYING WITH UL STANDARD 20 "GENERAL USE SNAP SWITCHES,"

WALL PLATES: SINGLE AND COMBINATION TYPES THAT MATE AND MATCH WITH CORRESPONDING WIRING DEVICES. FEATURES INCLUDE THE FOLLOWING:

1. COLOR: MATCHES WIRING DEVICE EXCEPT AS OTHERWISE INDICATED.

2. PLATE-SECURING SCREWS: METAL WITH HEADS COLORED TO MATCH PLATE FINISH.

MATERIAL FOR FINISHED SPACES: NYLON EXCEPT AS OTHERWISE INDICATED. 4. MATERIAL FOR UNFINISHED SPACES: STAINLESS STEEL

WIRING DEVICES SHALL CONNNECT CONDUCTORS USING THREADED SCREWS. DO NOT USE PUSH-IN QUICK-WIRE CONNECTIONS.

DO NOT USE GFCI FEED-THROUGHS

INSTALL DEVICES AND ASSEMBLIES PLUMB AND SECURE. PROTECT DEVICES AND ASSEMBLIES DURING PAINTING AND INSTALL WALL PLATES WHEN PAINTING IS COMPLETE ARRANGEMENT OF DEVICES: EXCEPT AS OTHERWISE INDICATED, MOUNT FLUSH, WITH LONG DIMENSION VERTICAL, AND GROUNDING TERMINAL OF RECEPTACLES ON TOP. GROUP ADJACENT SWITCHES UNDER SINGLE, MULTIGANG WALL PLATES.

SECTION 260533 - LIGHTING CONTROL DEVICES

MANUFACTURERS: INTERMATIC, INC.

2. PARAGON ELECTRIC CO.

INDOOR OCCUPANCY SENSORS

HUBBELL LIGHTING INC. LEVITON MFG. COMPANY INC. LITHONIA LIGHTING.

SENSOR SWITCH, INC COOPER/GREENGATE CONTROLS

WATT STOPPER (THE).

GENERAL DESCRIPTION: WALL- OR CEILING-MOUNTING, SOLID-STATE UNITS WITH A SEPARATE OPERATION: UNLESS OTHERWISE INDICATED, TURN LIGHTS ON WHEN COVERED AREA IS

ADJUSTABLE OVER A MINIMUM RANGE OF 1 TO 15 MINUTES. 2. SENSOR OUTPUT: CONTACTS RATED TO OPERATE THE CONNECTED RELAY, COMPLYING

OCCUPIED AND OFF WHEN UNOCCUPIED: WITH A TIME DELAY FOR TURNING LIGHTS OFF.

RELAY UNIT: DRY CONTACTS RATED FOR 20-A BALLAST LOAD AT 120- AND 277-V AC. FOR 13-A TUNGSTEN AT 120-V AC, AND FOR 1 HP AT 120-V AC. POWER SUPPLY TO SENSOR SHALL BE 24-V DC, 150-MA, CLASS 2 POWER SOURCE AS DEFINED BY NFPA 70.

MOUNTING:

a. SENSOR: SUITABLE FOR MOUNTING IN ANY POSITION ON A STANDARD OUTLET BOX. RELAY: EXTERNALLY MOUNTED THOUGH A 1/2-INCH (13-MM) KNOCKOUT IN A STANDARD ELECTRICAL ENCLOSURE. TIME-DELAY AND SENSITIVITY ADJUSTMENTS: RECESSED AND CONCEALED BEHIND

INDICATOR: LED, TO SHOW WHEN MOTION IS BEING DETECTED DURING TESTING AND NORMAL OPERATION OF THE SENSOR.

6. BYPASS SWITCH: OVERRIDE THE ON FUNCTION IN CASE OF SENSOR FAILURE. DUAL-TECHNOLOGY TYPE: CEILING MOUNTING; DETECT OCCUPANCY BY USING A

PARTICULAR TECHNOLOGY OR COMBINATION OF TECHNOLOGIES THAT CONTROLS ON AND OFF FUNCTIONS SHALL BE SELECTABLE IN THE FIELD BY OPERATING CONTROLS ON UNIT. 1. SENSITIVITY ADJUSTMENT: SEPARATE FOR EACH SENSING TECHNOLOGY.

COMBINATION OF PIR AND ULTRASONIC DETECTION METHODS IN AREA OF COVERAGE

DETECTOR SENSITIVITY: DETECT OCCURRENCES OF 6-INCH (150-MM) MINIMUM MOVEMENT OF ANY PORTION OF A HUMAN BODY THAT PRESENTS A TARGET OF AT LEAST 36 SQ. IN. (232 SQ. CM), AND DETECT A PERSON OF AVERAGE SIZE AND WEIGHT MOVING AT LEAST 12 INCHES (305 MM) IN EITHER A HORIZONTAL OR A VERTICAL MANNER AT AN APPROXIMATE SPEED OF 12 INCHES/S (305 MM/S)

DETECTION COVERAGE (STANDARD ROOM): DETECT OCCUPANCY ANYWHERE WITHIN A CIRCULAR AREA OF 1000 SQ. FT. (93 SQ. M) WHÉN MOUNTED ON A 96-INCH- (2440-MM-) HIGH

MULTIPOLE CONTACTORS

MANUFACTURERS:

ALLEN-BRADLEY/ROCKWELL AUTOMATION. ASCO POWER TECHNOLOGIES, LP; A DIVISION OF EMERSON ELECTRIC CO. CUTLER-HAMMER: EATON CORPORATION.

GE INDUSTRIAL SYSTEMS; TOTAL LIGHTING CONTROL. SIEMENS SQUARE D.

DESCRIPTION: ELECTRICALLY OPERATED AND MECHANICALLY HELD, COMPLYING WITH

CURRENT RATING FOR SWITCHING: LISTING OR RATING CONSISTENT WITH TYPE OF LOAD SERVED, INCLUDING TUNGSTEN FILAMENT, INDUCTIVE, AND HIGH-INRUSH BALLAST (BALLAST WITH 15 PERCENT OR LESS TOTAL HARMONIC DISTORTION OF NORMAL LOAD CONTROL-COIL VOLTAGE: MATCH CONTROL POWER SOURCE. CONDUCTORS AND CABLES

POWER WIRING TO SUPPLY SIDE OF REMOTE-CONTROL POWER SOURCES: NOT SMALLER THAN NO. 12 AWG. COMPLYING WITH DIVISION 16 SECTION " CONDUCTORS AND CABLES." CLASSES 2 AND 3 CONTROL CABLE: MULTICONDUCTOR CABLE WITH STRANDED COPPER CONDUCTORS NOT SMALLER THAN NO. 18 AWG, COMPLYING WITH DIVISION 16 SECTION

CLASS 1 CONTROL CABLE: MULTICONDUCTOR CABLE WITH STRANDED COPPER CONDUCTORS NOT SMALLER THAN NO. 14 AWG, COMPLYING WITH DIVISION 16 SECTION INSTALL UNSHIELDED, TWISTED-PAIR CABLE FOR CONTROL AND SIGNAL TRANSMISSION

CONDUCTORS, COMPLYING WITH DIVISION 16 SECTION "VOICE AND DATA COMMUNICATION

WIRING WITHIN ENCLOSURES: BUNDLE, LACE, AND TRAIN CONDUCTORS TO TERMINAL POINTS. SEPARATE POWER-LIMITED AND NONPOWER-LIMITED CONDUCTORS ACCORDING TO CONDUCTOR MANUFACTURER'S WRITTEN INSTRUCTIONS. SIZE CONDUCTORS ACCORDING TO LIGHTING CONTROL DEVICE MANUFACTURER'S WRITTEN

SPLICES, TAPS, AND TERMINATIONS: MAKE CONNECTIONS ONLY ON NUMBERED TERMINAL STRIPS IN JUNCTION, PULL, AND OUTLET BOXES; TERMINAL CABINETS; AND EQUIPMENT

TIGHTEN ELECTRICAL CONNECTORS AND TERMINALS ACCORDING TO MANUFACTURER'S

PUBLISHED TORQUE-TIGHTENING VALUES. IF MANUFACTURER'S TORQUE VALUES ARE NOT INDICATED, USE THOSE SPECIFIED IN UL 486A AND UL 486B. PERFORM THE FOLLOWING FIELD TESTS AND INSPECTIONS AND PREPARE TEST REPORTS

AFTER INSTALLING TIME SWITCHES AND SENSORS, AND AFTER ELECTRICAL CIRCUITRY HAS BEEN ENERGIZED. ADJUST AND TEST FOR COMPLIANCE WITH REQUIREMENTS.

2. OPERATIONAL TEST: VERIFY ACTUATION OF EACH SENSOR AND ADJUST TIME DELAYS. SECTION 260543 - HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

INSTRUCTIONS, UNLESS OTHERWISE INDICATED.

MANUFACTURED SUPPORTING DEVICES: RACEWAY SUPPORTS: CLEVIS HANGERS, RISER CLAMPS, CONDUIT STRAPS, THREADED C-CLAMPS WITH RETAINERS, CEILING TRAPEZE HANGERS, WALL BRACKETS, AND SPRING

2. FASTENERS: TYPES, MATERIALS, AND CONSTRUCTION FEATURES AS FOLLOWS:

EXPANSION ANCHORS: CARBON STEEL WEDGE OR SLEEVE TYPE. TOGGLE BOLTS: ALL STEEL SPRINGHEAD TYPE. POWDER-DRIVEN THREADED STUDS: HEAT-TREATED STEEL, DESIGNED

SPECIFICALLY FOR THE INTENDED SERVICE. 3. U-CHANNEL SYSTEMS: 16-GAGE STEEL CHANNELS, WITH 9/16-INCH- DIAMETER HOLES, AT A MINIMUM OF 8 INCHES ON CENTER, IN TOP SURFACE. PROVIDE FITTINGS AND ACCESSORIES THAT MATE AND MATCH WITH U-CHANNEL AND ARE OF THE SAME

FABRICATED SUPPORTING DEVICES: SHOP-OR FIELD-FABRICATED SUPPORTS OR MANUFACTURED SUPPORTS ASSEMBLED FROM U-CHANNEL COMPONENTS.

1 STEEL BRACKETS: FABRICATED OF ANGLES CHANNELS AND OTHER STANDARD STRUCTURAL SHAPES. CONNECT WITH WELDS AND MACHINE BOLTS TO FORM RIGID

EXECUTION

INSTALL SUPPORTING DEVICES TO FASTEN ELECTRICAL COMPONENTS SECURELY AND PERMANENTLY TO BUILDING STRUCTURE IN ACCORDANCE WITH NEC REQUIREMENTS. COORDINATE WITH THE BUILDING STRUCTURAL SYSTEM AND WITH OTHER ELECTRICAL RACEWAY SUPPORTS: COMPLY WITH THE NEC AND THE FOLLOWING REQUIREMENTS:

1. CONFORM TO MANUFACTURER'S RECOMMENDATIONS FOR SELECTION AND INSTALLATION OF SUPPORTS. 2. STRENGTH OF EACH SUPPORT SHALL BE ADEQUATE TO CARRY PRESENT AND FUTURE LOAD MULTIPLIED BY A SAFETY FACTOR OF AT LEAST FOUR, BUT IN NO CASES SHALL BE

INSTALL INDEPENDENT AND LISTED INDIVIDUAL AND MULTIPLE (TRAPEZE) RACEWAY HANGERS AND RISER CLAMPS AS NECESSARY TO SUPPORT RACEWAYS. PROVIDE U-BOLTS, CLAMPS, ATTACHMENTS, AND OTHER HARDWARE NECESSARY FOR HANGER ASSEMBLY AND FOR SECURING HANGER RODS AND CONDUITS. MISCELLANEOUS SUPPORTS: SUPPORT MISCELLANEOUS ELECTRICAL COMPONENTS AS

LESS THAN 200 LBS IN THE STRENGTH OF EACH SUPPORT.

BARS. FILL HOLES THAT ARE NOT USED.

REQUIRED TO PRODUCE THE SAME STRUCTURAL SAFETY FACTORS AS SPECIFIED FOR RACEWAY SUPPORTS. INSTALL METAL CHANNEL RACKS FOR MOUNTING CABINETS PANELBOARDS, DISCONNECTS, CONTROL ENCLOSURES, PULL BOXES, JUNCTION BOXES, TRANSFORMERS, AND OTHER DEVICES. IN OPEN OVERHEAD SPACES, SUPPORT SHEET METAL BOXES INDEPENDANTLY AND DIRECTLY FROM THE BUILDING STRUCTURE OR BY BAR HANGERS. WHERE BAR HANGERS

ARE USED, ATTACH THE BAR TO RACEWAYS ON OPPOSITE SIDES OF THE BOX AND SUPPORT

THE RACEWAY WITH AN APPROVED TYPE OF FASTENER NOT MORE THAN 24 INCHES FROM OUTLET BOXES: PROVIDE OUTLET BOXES WITH RIGID SUPPORT USING METAL BAR HANGERS

FASTENING: UNLESS OTHERWISE INDICATED, FASTEN ELECTRICAL ITEMS AND THEIR SUPPORTING HARDWARE SECURELY TO THE BUILDING STRUCTURE, INCLUDING BUT NOT LIMITED TO CONDUITS, RACEWAYS, CABLES, CABLE TRAYS, BUSWAYS, CABINETS, PANELBOARDS, TRANSFORMERS, BOXES, DISCONNECT SWITCHES, AND CONTROL COMPONENTS IN ACCORDANCE WITH THE FOLLOWING:

FASTEN BY MEANS OF WOOD SCREWS OR SCREW-TYPE NAILS ON WOOD, TOGGLE

CONCRETE OR SOLID MASONRY, AND MACHINE SCREWS, WELDED THREADED STUDS, OR

PROVIDED WITH LOCK WASHERS AND NUTS MAY BE USED INSTEAD OF EXPANSION BOLTS

SPRING-TENSION CLAMPS ON STEEL. THREADED STUDS DRIVEN BY A POWDER CHARGE AND

BOLTS ON HOLLOW MASONRY UNITS. CONCRETE INSERTS OR EXPANSION BOLTS ON

AND MACHINE OR WOOD SCREWS DO NOT WELD CONDUIT PIPE STRAPS OR ITEMS OTHER THAN THREADED STUDS TO STEEL STRUCTURES. IN PARTITIONS OF LIGHT STEEL CONSTRUCTION, USE SHEET METAL SCREWS. 2. HOLES CUT TO DEPTH OF MORE THAN 1-1/2 INCHES IN REINFORCED CONCRETE BEAMS

OR TO DEPTH OF MORE THAN 1/4 INCH IN CONCRETE SHALL NOT CUT THE MAIN REINFORCING

ENSURE THAT THE LOAD APPLIED TO ANY FASTENER DOES NOT EXCEED 25 PERCENT OF THE PROOF TEST LOAD. USE VIBRATION- AND SHOCK- RESISTANT FASTENERS FOR ATTACHMENTS TO CONCRETE SLABS.

SECTION 260548 – GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

GROUNDING AND BONDING PRODUCTS: TYPES AS INDICATED. WHERE TYPES, SIZES, RATINGS, AND QUANTITIES INDICATED DIFFER FROM NEC REQUIREMENTS, THE MORE STRINGENT REQUIREMENTS AND THE GREATER SIZE, RATING, AND QUANTITY INDICATIONS GOVERN.

CONDUCTOR MATERIALS: COPPER.

EQUIPMENT GROUNDING CONDUCTOR: GREEN INSULATED. GROUNDING ELECTRODE CONDUCTOR: STRANDED CABLE

BARE COPPER CONDUCTORS: CONFORM TO THE FOLLOWING:

1. SOLID CONDUCTORS: ASTM B-3 2. ASSEMBLY OF STRANDED CONDUCTORS: ASTM B-8

TINNED CONDUCTORS: ASTM B-33.

BRAIDED BONDING JUMPERS: COPPER TAPE, BRAIDED FROM NO. 30-GAGE BARE COPPER WIRE AND TERMINATED WITH COPPER FERRULES.

WIDE, EXCEPT AS INDICATED

PRESSURE CONNECTORS: HIGH-CONDUCTIVITY PLATED UNITS.

BOLTED CLAMPS: HEAVY-DUTY UNITS LISTED FOR THE APPLICATION EXOTHERMIC WELDED CONNECTIONS: PROVIDED IN KIT FORM AND SELECTED FOR THE

GROUND RODS: COPPER-CLAD STEEL, 3/4 INCH BY 10 FEET, MINIMUM.

EQUIPMENT GROUNDING CONDUCTOR APPLICATION: COMPLY WITH NEC ARTICLE 250 FOR SIZES AND QUANTITIES OF EQUIPMENT GROUNDING CONDUCTORS. EXCEPT WHERE LARGER SIZES OR MORE CONDUCTORS ARE INDICATED. INSTALL EQUIPMENT GROUND CONDUCTORS IN

SIGNAL AND COMMUNICATIONS: FOR TELEPHONE, ALARM, AND COMMUNICATION SYSTEMS PROVIDE A #4 AWG MINIMUM GREEN INSULATED COPPER CONDUCTOR IN RACEWAY FROM THE GROUNDING ELECTRODE SYSTEM TO EACH TERMINAL CABINET OR CENTRAL EQUIPMENT

SEPARATELY DERIVED SYSTEMS REQUIRED BY NEC TO BE GROUNDED SHALL BE GROUNDED AS APPROVED BY THE AUTHORITY HAVING JURISDICTION.

ELECTRODE AS INDICATED IN ADDITION TO SEPARATE EQUIPMENT GROUNDING CONDUCTOR RUN WITH SUPPLY BRANCH CIRCUIT

GROUND RODS: LOCATE A MINIMUM OF ONE-ROD LENGTH FROM EACH OTHER AND AT LEAST THE SAME DISTANCE FROM ANY OTHER GROUNDING ELECTRODE. INTERCONNECT GROUND RODS WITH BARE CONDUCTORS BURIED AT LEAST 24 INCHES BELOW GRADE. CONNECT BARE CABLE GROUND CONDUCTORS TO GROUND RODS BY MEANS OF EXOTHERMIC WELDS EXCEPT AS OTHERWISE INDICATED. MAKE THESE CONNECTIONS WITHOUT DAMAGING THE COPPER COATING OR EXPOSING THE STEEL. DRIVE RODS UNTIL TOPS ARE 6 INCHES BELOW FINISHED

FLOOR OR FINAL GRADE EXCEPT AS OTHERWISE INDICATED.

GROUNDING ELECTRODE CONDUCTOR: PROVIDE INSULATED COPPER CONDUCTOR, SIZED AS INDICATED, IN CONDUIT. BOND THE GROUND CONDUCTOR CONDUIT TO THE CONDUCTOR AT EACH END. WHERE A DIELECTRIC FITTING IS INSTALLED IN THE MAIN METALLIC WATER SERVICE PIPE, CONNECT THE GROUND CONDUCTOR TO THE STREET SIDE OF THE FITTING. DO NOT INSTALL A GROUNDING JUMPER AROUND DIELECTRIC FITTINGS. BOND THE GROUND CONDUCTOR CONDUIT TO THE CONDUCTOR AT EACH END.

PIPING TO ELECTRICALLY BYPASS WATER METERS. USE ELSEWHERE FOR FLEXIBLE BONDING AND GROUNDING CONNECTIONS ROUTE GROUNDING AND BONDING CONDUCTORS USING THE SHORTEST AND STRAIGHTEST

BRAIDED-TYPE BONDING JUMPERS: INSTALL TO CONNECT GROUND CLAMPS ON WATER METER

UFER GROUND: FABRICATE WITH 20 FEFT OF CONDUCTOR LAID LENGTHWISE IN EXCAVATION FOR FOUNDATION OR FOOTINGS. INSTALL SO CONDUCTOR IS WITHIN 2 INCHES OF THE BOTTOM OF THE CONCRETE. WHERE BASE OF FOUNDATION IS LESS THAN 20 FEET IN LENGTH, COIL EXCESS CONDUCTOR AT BASE OF FOUNDATION. BOND CONDUCTOR TO REINFORCING STEEL AT FOUR LOCATIONS, MINIMUM. EXTEND CONDUCTOR BELOW GRADE AND CONNECT TO BUILDING GROUNDING GRID, GROUNDING ELECTRODE CONDUCTOR, OR GROUNDING

CONNECTIONS: MAKE CONNECTIONS IN SUCH A MANNER AS TO MINIMIZE POSSIBILITY OF GALVANIC ACTION OR FLECTROLYSIS. SELECT CONNECTORS, CONNECTION HARDWARE CONDUCTORS, AND CONNECTION METHODS SO METALS IN DIRECT CONTACT WILL BE

EXOTHERMIC WELDED CONNECTIONS: USE FOR CONNECTIONS TO STRUCTURAL STEEL AND

CONNECTIONS TO GROUND RODS AND PLATE ELECTRODES. COMPLY WITH MANUFACTURER'S

FOR UNDERGROUND CONNECTIONS EXCEPT THOSE AT TEST WELLS. INSTALL AT

WRITTEN RECOMMENDATIONS. WELDS THAT ARE PUFFED UP OR THAT SHOW CONVEX SURFACES INDICATING IMPROPER CLEANING ARE NOT ACCEPTABLE. TIGHTEN GROUNDING AND BONDING CONNECTORS AND TERMINALS, INCLUDING SCREWS AND

DIES RECOMMENDED BY THE MANUFACTURER OF THE CONNECTORS. PROVIDE EMBOSSING DIE CODE OR OTHER STANDARD METHOD TO MAKE A VISIBLE INDICATION THAT A CONNECTOR HAS BEEN ADEQUATELY COMPRESSED ON THE CONDUCTOR. MOISTURE PROTECTION: WHERE INSULATED CONDUCTORS ARE CONNECTED TO GROUND RODS OR GROUND BUSES, INSULATE THE ENTIRE AREA OF THE CONNECTION AND SEAL

LOCATION WHERE A MAXIMUM GROUND RESISTANCE LEVEL IS SPECIFIED, AT SERVICE DISCONNECT ENCLOSURE GROUND TERMINAL, AND AT GROUND TEST WELLS. MEASURE GROUND RESISTANCE WITHOUT THE SOIL BEING MOISTENED BY ANY MEANS OTHER THAN NATURAL PRECIPITATION OR NATURAL DRAINAGE OR SEEPAGE AND WITHOUT CHEMICAL PERFORM TESTS BY THE 2-POINT METHOD IN ACCORDANCE WITH SECTION 9.03 OF IEEE 87 "GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE AND EARTH SURFACE

GROUND/RESISTANCE MAXIMUM VALUES SHALL BE AS FOLLOWS:

POTENTIALS OF A GROUNDING SYSTEM."

DEFICIENCIES: WHERE GROUND RESISTANCES EXCEED SPECIFIED VALUES, AND IF DIRECTED MODIFY THE GROUNDING SYSTEM TO REDUCE RESISTANCE VALUES. WHERE MEASURES ARE DIRECTED THAT EXCEED THOSE INDICATED THE PROVISIONS OF THE CONTRACT, COVERING CHANGES WILL APPLY.

SECTION 265100 - INTERIOR LIGHTING

LESS THAN ONE FOR LESS THAN 10.

COMPLY WITH THE REQUIREMENTS SPECIFIED IN THE ARTICLES BELOW AND LIGHTING FIXTURE

SUPPORTED TO PREVENT WARPING AND SAGGING. DOORS, FRAMES, AND OTHER INTERNAL ACCESS: SMOOTH OPERATING AND FREE FROM LIGHT I FAKAGE UNDER OPERATING CONDITIONS ARRANGE TO PERMIT RELAMPING WITHOUT USE OF

REFLECTING SURFACES: MINIMUM REFLECTANCES AS FOLLOWS, EXCEPT AS OTHERWISE

- WHITE SURFACES: 85 PERCENT.
- SPECULAR SURFACES: 83 PERCENT.

MOUNT A SINGLE FIXTURE. FINISH SAME AS FIXTURE

3. DIFFUSING SPECULAR SURFACES: 75 PERCENT 4. LAMINATED SILVER METALLIZED FILM: 90 PERCENT

LENSES, DIFFUSERS, COVERS, AND GLOBES: 100 PERCENT VIRGIN ACRYLIC PLASTIC OR WATER WHITE, ANNEALED CRYSTAL GLASS EXCEPT AS INDICATED.

1. PLASTIC: HIGHLY RESISTANT TO YELLOWING AND OTHER CHANGES DUE TO AGING,

EXPOSURE TO HEAT AND UV RADIATION. LENS THICKNESS: 0.125 INCHES, MINIMUM. SINGLE-STEM HANGERS: 1/2-INCH STEEL TUBING WITH SWIVEL BALL FITTING AND CEILING

CANOPY. FINISH SAME AS FIXTURE. TWIN-STEM HANGERS: TWO, 1/2-INCH STEEL TUBES WITH SINGLE CANOPY ARRANGED TO

ROD HANGERS: 3/16-INCH DIAMETER CADMIUM PLATED, THREADED STEEL ROD. HOOK HANGER: INTEGRATED ASSEMBLY MATCHED TO FIXTURE AND LINE VOLTAGE AND

FLUORESCENT FIXTURES: CONFORM TO UL 1570, "FLUORESCENT LIGHTING FIXTURES." ELECTRONIC BALLASTS: CONFORM TO UL 935, "FLUORESCENT-LAMP BALLASTS." SOLID-STATE, FULL-LIGHT-OUTPUT, ENERGY-SAVING TYPE COMPATIBLE WITH ENERGY-SAVING LAMPS. CONFORM TO FCC REGULATIONS PART 15, SUBPART J. FOR ELECTROMAGNETIC INTERFERENCE. CONFORM TO IEEE C62.41. "GUIDE FOR SURGE VOLTAGES IN LOW-VOLTAGE

AC POWER CIRCUITS." CATEGORY A, FOR RESISTANCE TO VOLTAGE SURGES FOR NORMAL

- AND COMMON MODES. BALLASTS MUST BE APPROVED BY USU. 1. CERTIFICATION: BY ELECTRICAL TESTING LABORATORY (ETL).
- 2. LABELING: BY CERTIFIED BALLAST MANUFACTURERS ASSOCIATION (CBM).

EQUIPPED WITH THREADED ATTACHMENT, CORD, AND LOCKING-TYPE PLUG.

- 3. TYPE: CLASS P, HIGH-POWER-FACTORY TYPE EXCEPT AS INDICATED OTHERWISE
- 4. SOUND RATING: A RATING, EXCEPT AS INDICATED OTHERWISE
- 5. VOLTAGE: 120/277 UNIVERSAL
- 6. MINIMUM POWER FACTOR: 90 PERCENT
- 7. MINIMUM OPERATING FREQUENCY: 20,000 HZ. 8. THIRD HARMONIC CONTENT OF BALLAST CURRENT: LESS THAN 10 PERCENT.
- APPROVED BALLASTS
- OSRAM SYLVANIA QUICKTRONIC HIGH EFFICIENCY (QHE) ADVANCE OPTANIUM

ON TRICKLE CHARGE WHEN NORMAL VOLTAGE IS RESTORED.

- EXIT SIGNS: CONFORM TO UL 924, "EMERGENCY LIGHTING AND POWER EQUIPMENT," AND THE
- 2. MINIMUM HEIGHT OF LETTERS: CONFORM TO LOCAL CODE.

3. ARROWS: INCLUDE AS INDICATED

1. SIGN COLORS: CONFORM TO LOCAL CODE

UNIVERSAL ULTIM 8

4. LAMPS FOR AC OPERATION: LED. EMERGENCY LIGHTING UNITS: CONFORM TO UL 924, "EMERGENCY LIGHTING AND POWER

EQUIPMENT" REQUIREMENTS FOR "UNIT EQUIPMENT." PROVIDE SELF-CONTAINED UNITS WITH

THE FOLLOWING FEATURES AND ADDITIONAL CHARACTERISTICS AS INDICATED. BATTERY: SEALED, MAINTENANCE-FREE, LEAD-ACID TYPE WITH 10 YEAR NOMINAL LIFE

2. CHARGER: MINIMUM TWO-RATE, FULLY-AUTOMATIC, SOLID-STATE TYPE, WITH SEALED

OPERATION: RELAY AUTOMATICALLY TURNS LAMP ON WHEN SUPPLY CIRCUIT VOLTAGE DROPS TO 80-PERCENT OF NOMINAL OR BELOW. LAMP AUTOMATICALLY DISCONNECTS FROM BATTERY WHEN VOLTAGE APPROACHES DEEP-DISCHARGE LEVEL

RELAY DISCONNECTS LAMPS AND BATTERY AUTOMATICALLY RECHARGES AND FLOATS

WIRE GUARD: WHERE INDICATED, PROVIDE HEAVY CHROME PLATED WIRE GUARD TIME-DELAY RELAY: PROVIDE TIME-DELAY RELAY IN EMERGENCY LIGHTING UNIT

CONTROL CIRCUIT ARRANGED TO HOLD UNIT "ON" FOR FIXED INTERVAL AFTER RESTORATION

RESTRIKE AND DEVELOP ADEQUATE OUTPUT. EMERGENCY FLUORESCENT POWER SUPPLY: CONFORM TO UL 924, "EMERGENCY LIGHTING

OF POWER FROM AN OUTAGE. PROVIDE ADEQUATE TIME DELAY TO PERMIT HID LAMPS TO

1. INTERNAL TYPE: SELF-CONTAINED, MODULAR, BATTERY-INVERTER UNIT FACTORY-MOUNTED WITHIN THE FIXTURE BODY. A. TEST SWITCH AND LED INDICATOR LIGHT: VISIBLE AND ACCESSIBLE WITHOUT

OPENING FIXTURE OR ENTERING CEILING SPACE. B. BATTERY: SEALED, MAINTENANCE-FREE, NICKEL-CADMIUM TYPE, WITH A MINIMUM NOMINAL 10-YEAR LIFE.

C. CHARGER: FULLY-AUTOMATIC, SOLID-STATE, CONSTANT-CURRENT TYPE.

STEEL PARTS FINISH: MANUFACTURER'S STANDARD FINISH APPLIED OVER CORROSION-

RESISTANT PRIMER, FREE OF STREAKS, RUNS, HOLIDAYS, STAINS, BLISTERS, AND DEFECTS.

VOLTAGE DROPS TO 80-PERCENT OF NOMINAL OR BELOW. RELAY DISCONNECTS LAMP AND BATTERY AUTOMATICALLY RECHARGES WHEN NORMAL VOLTAGE IS RESTORED. LAMPS: PROVIDE LAMPS FOR EACH FIXTURE INDICATED. CONFORM TO ANSI STANDARDS, C78 SERIES APPLICABLE TO EACH TYPE OF LAMP. LAMPS SHALL BE TCLIP COMPLIANT. WHERE LAMPS ARE NOT INDICATED, PROVIDE LAMPS RECOMMENDED BY MANUFACTURER.

OPERATION: RELAY AUTOMATICALLY TURNS 2 LAMPS ON WHEN SUPPLY CIRCUIT

REMOVE FIXTURES SHOWING EVIDENCE OF CORROSION DURING PROJECT WARRANTY PERIOD AND REPLACE WITH NEW FIXTURES. OTHER PARTS: MANUFACTURER'S STANDARD FINISH.

INSTALLATION: UNLESS OTHERWISE INDICATED, INSTALL LIGHTING FIXTURES AS FOLLOWS:

3. PROVIDE INDEPENDENT SAFETY WIRES ATTACHED TO STRUCTURE AT THE DIAGONAL CORNDERS OF LIGHTIGN FIXTURES IN COMPLIANCE WITH SEISMIC REQUIREMENTS. 4. SUPPORT FOR RECESSED AND SEMIRECESSED FIXTURES: INSTALLED UNITS MAY BE

SUPPORTED FROM SUSPENDED CEILING SUPPORT SYSTEM. INSTALL CEILING SYSTEM

NOT MORE THAN 6 INCHES FROM FIXTURE CORNERS. FIXTURES SMALLER THAN CEILING GRID: INSTALL A MINIMUM OF FOUR RODS OR WIRES FOR EACH FIXTURE AND LOCATE AT CORNER OF THE CEILING GRID WHERE THE FIXTURE IS LOCATED. DO NOT SUPPORT FIXTURES BY CEILING ACOUSTICAL PANELS.

SUPPORT RODS OR WIRES AT A MINIMUM OF FOUR RODS OR WIRES PER FIXTURE LOCATED

SUPPORT FIXTURES INDEPENDENTLY WITH AT LEAST TWO 3/4-INCH METAL CHANNELS SPANNING AND SECURED TO THE CEILING TEES. C. INSTALL SUPPORT CLIPS FOR RECESSED FIXTURES, SECURELY FASTENED TO CEILING GRID MEMBERS. AT OR NEAR EACH FIXTURE CORNERS.

SUPPORT FOR SUSPENDED FIXTURES: BRACE PENDANTS AND RODS THAT ARE 4-FEET

FLUORESCENT FIXTURES WITH TWIN-STEM HANGERS. FOR CONTINUOUS ROWS, USE TUBING

LONG OR LONGER TO LIMIT SWINGING. SUPPORT STEM MOUNTED SINGLE-UNIT SUSPENDED

OR STEM FOR WIRING AT ONE POINT AND TUBING OR ROD FOR SUSPENSION FOR EACH UNIT

B. FIXTURES OF SIZES LESS THAN CEILING GRID: CENTER IN THE ACOUSTICAL PANEL.

LENGTH OF CHASSIS, INCLUDING ONE AT EACH END. PROVIDE SWIVEL BASES FOR STEMS SUPPORTING LIGHT FIXTURES WHICH EXCEED 12" IN LENGTH. 6. LAMPING: LAMP UNITS ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

RECESSED LIGHTING FIXTURES IN ACOUSTICAL TILE CEILING SHALL BE LOCATED

CENTERED OF A SINGLE TILE.

ADJUSTING AND CLEANING: CLEAN FIXTURES UPON COMPLETION OF INSTALLATION. USE METHODS AND MATERIALS RECOMMENDED BY MANUFACTURER. ADJUST AIMABLE FIXTURES TO PROVIDE REQUIRED LIGHT INTENSITIES.

MARK | REVISION DATE

> Salt Lake City, UT 8411 801-328-5151 fax: 801-328-5155 www.spectrum-engineers.com

> > PROJECT #:

BLVD. | PROJ. MAN.

SUITE #105 CHECKED BY:

DATE: 11 FEBRUARY 2022

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ARCHITECTURE cma@cmautah.com PROJECT: IGTC CHIMES **EXPANSION TENANT**

CURTIS MINER PLEASANT GROVE, UTAH 84062

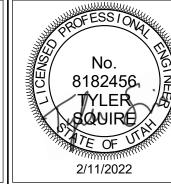
233 SOUTH PLEASANT GROVE

PHONE: (801) 769-3000

BUILDOUT

MURRAY, UTAH 84107

5026 SOUTH STATE STREET



SHEET DESCRIPTION: **ELECTRICAL SPECIFICATIONS**

WITH UL 773A. SENSOR SHALL BE POWERED FROM THE RELAY UNIT.

GROUND BUS: BARE ANNEALED COPPER BARS OF RECTANGULAR CROSS-SECTION.

BONDING STRAP CONDUCTOR/CONNECTORS: SOFT COPPER, 0.05 INCH THICK AND 2 INCHES

CONNECTOR PRODUCTS: LISTED AND LABELED AS GROUNDING CONNECTORS FOR THE MATERIALS WITH WHICH USED.

SPECIFIC TYPES, SIZES, AND COMBINATIONS OF CONDUCTORS AND OTHER ITEMS TO BE

ALL FEEDER AND BRANCH CIRCUIT RACEWAYS.

METAL POLES SUPPORTING OUTDOOR LIGHTING FIXTURES: GROUND POLE TO A GROUNDING

INSTALLATION, GENERAL: GROUND ELECTRICAL SYSTEMS AND EQUIPMENT IN ACCORDANCE WITH NEC EXCEPT WHERE GROUNDING IN EXCESS OF NEC REQUIREMENTS IS INDICATED.

MAY BE SUBJECTED TO STRAIN, IMPACT, OR DAMAGE, EXCEPT AS INDICATED.

ELECTRODE. GALVANICALLY COMPATIBLE.

BOLTS. IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUES FOR CONNECTORS AND BOLTS. WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT INDICATED, TIGHTEN CONNECTIONS TO COMPLY WITH TIGHTENING TORQUE VALUES SPECIFIED IN UL 486A AND UL 486B. COMPRESSION-TYPE CONNECTIONS: USE HYDRAULIC COMPRESSION TOOLS TO PROVIDE THE CORRECT CIRCUMFERENTIAL PRESSURE FOR COMPRESSION CONNECTORS. USE TOOLS AND

AGAINST MOISTURE PENETRATION OF THE INSULATION AND CABLE. TESTS: SUBJECT THE COMPLETED GROUNDING SYSTEM TO A MEGGER TEST AT EACH TREATMENT OR OTHER ARTIFICIAL MEANS OF REDUCING NATURAL GROUND RESISTANCE

1. EQUIPMENT RATED 500 KVA AND LESS: 10 OHMS.

PROVIDE 10% SPARE LAMPS, DIFFUSERS, AND GLASS FOR EACH LIGHT FIXTURE TYPE WITH NOT

SHEET METAL COMPONENTS: STEEL, EXCEPT AS INDICATED. COMPONENTS ARE FORMED AND

ACCIDENTAL FALLING DURING RELAMPING AND WHEN SECURED IN THE OPERATING POSITION.

METAL PARTS: FREE FROM BURRS AND SHARP CORNERS AND EDGES.

SETTING AND SECURING: SET UNITS PLUMB, SQUARE, AND LEVEL WITH CEILING AND WALLS, AND SECURE ACCORDING TO MANUFACTURER'S PRINTED INSTRUCTIONS AND APPROVED SHOP DRAWINGS. 2. CONNECT EQUIPMENT GROUNDING CONDUCTOR TO FIXTURE HOUSING.

TOOLS ARRANGE DOORS FRAMES LENSES DIFFUSERS AND OTHER PIECES TO PREVENT

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

D

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GENERAL SHEET NOTES

- UNLESS NOTED OTHERWISE REMOVE ALL LIGHTING FIXTURES, DEVICES AND EQUIPMENT SHOW DASHED. REMOVE CONDUIT AND WIRING BACK TO PANELBOARD OF ORIGIN OR TO FIRST ACTIVE DEVICE THAT REMAINS.
- B PRIOR TO SUBMITTING BID, VISIT THE SITE AND FIELD VERIFY THE EXTENT OF ELECTRICAL DEMOLITION WORK TO MEET THE INTENT OF THE BID DOCUMENTS AND INCLUDE ALL COSTS IN BID.
- C PRIOR TO THE REMOVAL OF ANY ELECTRICAL EQUIPMENT OR WIRING, FIELD VERIFY THAT THE EQUIPMENT OR WIRING IS INACTIVE OR NO LONGER IN USE.
- D ALL ITEMS INDICATE TO REMAIN (OR NOT EXPLICITY SHOWN TO BE DEMOLISHED) SHALL BE PROTECTED DURING ALL PHASES OF CONSTRUCTION.

○ SHEET KEYNOTES

- PROVIDE DATA AND CODE BLUE IA4100 2-WAY SPEAKER PHONE SYSTEM. COORDINATE EXACT LOCATION OF COMMUNICATIONS BOX WITH ARCHITECT PRIOR TO ROUGH-IN.
- POWER AND DATA FOR VENDING MACHINES. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH EQUIPMENT PRIOR TO ROUGH-IN.
- EXISTING CIRCUITS FEEDING FURNITURE FEEDS TO BE REMOVED MAY BE REUSED FOR NEW ELECTRICAL CIRCUITING (1LA-10,12,14). FIELD VERIFY EXACT CIRCUITS AVAILABLE. PROVIDE UPDATED TYPEWRITTEN PANEL SCHEDULES AT THE COMPLETION OF THE PROJECT.
- EXISTING SPARE CIRCUITS INTENDED FOR USE IN THIS SPACE ARE TERMINATED IN A JUNCTION BOX MOUNTED TO THE CEILING DECK ABOVE AND MAY BE USED FOR NEW ELECTRICAL CIRCUITING (1LA-38,40,42). FIELD VERIFY EXACT CIRCUITS AVAILABLE. PROVIDE UPDATED TYPEWRITTEN PANEL SCHEDULES AT THE COMPLETION OF THE PROJECT.

SPECTRUM ENGINEERS 324 S. State St., Suite 400 Salt Lake City, UT 84111 800-678-7077 801-328-5151 fax: 801-328-5155

www.spectrum-engineers.com



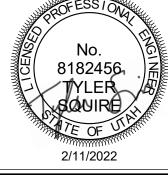
DATE: 11 FEBRUARY 2022 233 SOUTH PLEASANT GROVE
BLVD.
SUITE #105
CURTIS MINER PLEASANT GROVE, UTAH 84062
ARCHITECTURE
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PROJECT:

IGTC CHIMES EXPANSION TENANT BUILDOUT

5026 SOUTH STATE STREET MURRAY, UTAH 84107



SHEET DESCRIPTION: LEVEL 1 ELECTRICAL
DEMOLITION PLAN

SHEET:

LEVEL 1 CEILING DEMOLTION PLAN

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

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GENERAL SHEET NOTES

- UNLESS NOTED OTHERWISE REMOVE ALL LIGHTING FIXTURES, DEVICES AND EQUIPMENT SHOW DASHED. REMOVE CONDUIT AND WIRING BACK TO PANELBOARD OF ORIGIN OR TO FIRST ACTIVE DEVICE THAT REMAINS.
- B PRIOR TO SUBMITTING BID, VISIT THE SITE AND FIELD VERIFY THE EXTENT OF ELECTRICAL DEMOLITION WORK TO MEET THE INTENT OF THE BID DOCUMENTS AND INCLUDE ALL COSTS IN BID.
- C PRIOR TO THE REMOVAL OF ANY ELECTRICAL EQUIPMENT OR WIRING, FIELD VERIFY THAT THE EQUIPMENT OR WIRING IS INACTIVE OR NO LONGER IN USE.
- D ALL ITEMS INDICATE TO REMAIN (OR NOT EXPLICITY SHOWN TO BE DEMOLISHED) SHALL BE PROTECTED DURING ALL PHASES OF CONSTRUCTION.

○ SHEET KEYNOTES

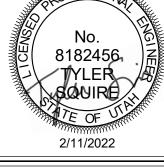




PROJECT:

IGTC CHIMES EXPANSION TENANT BUILDOUT

5026 SOUTH STATE STREET MURRAY, UTAH 84107



SHEET DESCRIPTION: LEVEL 1 CEILING DEMOLITION PLAN

SHEET:

AREA OUT OF SCOPE 1LA-10 「〈 4 〉 \Rightarrow WAP 3 ∇ \Rightarrow B ₩ AREA OUT OF SCOPE V # V # ΔФ $\nabla \Phi \Phi$ φΔ 8 8.5 9 10 1 LEVEL 1 POWER PLAN
SCALE: 1/4" = 1'-0"

CP1

CP1

MARK REVISION DATE

GENERAL SHEET NOTES

- COORDINATE ALL AUDIO/VISUAL ROUGH-IN WITH A/V INSTALLERS PRIOR TO INSTALLATION.
- B COORDINATE ALL LOW-VOLTAGE ROUGH-IN (INCLUDING TELECOM AND SECURITY) WITH IHC AND LOW-VOLTAGE INSTALLERS PRIOR TO INSTALLATION.

○ SHEET KEYNOTES

- PROVIDE DATA AND CODE BLUE IA4100 2-WAY SPEAKER PHONE SYSTEM.
 COORDINATE EXACT LOCATION OF COMMUNICATIONS BOX WITH ARCHITECT PRIOR TO ROUGH-IN.
- POWER AND DATA FOR VENDING MACHINES. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH EQUIPMENT PRIOR TO ROUGH-IN.
- PROVIDE ROUGH-IN FOR WIRELESS ACCESS POINT. PROVIDE CEILING MOUNTED 4-SQUARE, DEEP JUNCTION BOX WITH 1" CONDUIT TO CABLE TRAY. COORDINATE WITH IHC LOW-VOLTAGE INSTALLERS.
- PROVIDE PAC526 AV JUNCTION BOX BEHIND AV EQUIPMENT RACK WITH 2EA. 2" CONDUITS AND 1 EA 1" CONDUIT STUBBED TO CEILING. COORDINATE INSTALLATION WITH AV INSTALLERS PRIOR TO ROUGH-IN.
- PROVIDE PAC526 AV JUNCTION BOX FOR EACH AV MONITOR WITH 2 EA. 1" CONDUITS FROM JUNCTION BOX STUBBED TO ABOVE ACCESSIBLE CEILING AND 1 EA. 1" CONDUIT STUBBED TO FLOOR. COORDINATE INSTALLATION WITH AV INSTALLERS PRIOR TO ROUGH-IN.
- 6 MAINTAIN EXISTING ELECTRICAL CIRCUIT.
- EXTEND EXISTING ELECTRICAL CIRCUIT TO THIS LOCATION. REFER TO ELECTRICAL DEMOLITION SHEET FOR ADDITIONAL INFORMATION. FIELD VERIFY EXACT CIRCUITS AVAILABLE. PROVIDE UPDATED TYPEWRITTEN PANEL SCHEDULES AT THE COMPLETION OF THE PROJECT.
- 8 PROVIDE RECESSED 8" SQUARE JUNCTION BOX FOR AV CONNECTIONS. PROVIDE 2 EA 2" CONDUITS STUBBED TO ABOVE THE ACCESSIBLE CEILING.



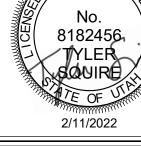
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PROJECT:

IGTC CHIMES EXPANSION TENANT BUILDOUT

5026 SOUTH STATE STREET MURRAY, UTAH 84107



SHEET DESCRIPTION: LEVEL 1 POWER PLAN SHEET: **EP101**

EXISTING PANEL: "1LA" PANEL SIZE & TYPE: MAIN SIZE AND TYPE: CABINET: NOTES: SURFACE 120/208V, 3 PH 4 WIRE | 22" W x 6" D, BOLT-ON | 225 AMPERE MAIN LUGS ACCESSORIES: PANEL DIRECTORY IDENTIFICATION GROUNDING BAR

1	ACCE	SSORI	IES:	F	PANEL	DIRE	CTORY, IDENTIFICATION, GROUNDIN	NG BA	AR					AIC	RATI	NG: 10	0000			
No. Mark Poule Tot Print CO Decision CO Poul Tot Print CO Poul Tot Print CO Decision Tot Print Tot Print CO Poul Tot Print Tot Print CO Poul Tot Print Tot Print CO Poul Tot Print Tot Print	скт	0	СР	LO	AD (k	VA)		Р	HASE	LOA	D			LO	AD (k\	/A)	00	P	СКТ	
1		AMP	POLE	L			DESCRIPTION	-	4	Е	3	(;	DESCRIPTION	СО	PWR	LTG	POLE	AMP	NO
15			1	1		+		0.2	0.4									1	20	2
7	3	20	1	0.0	0.2	0.0	PWR: FIRE PIT CONTROLS			0.2	1.0			CO: BOARD ROOM 103	0.7	0.3	0.0	1	20	4
10	5	20	1	0.0	0.0	0.7	CO: FLOOR BOXES BOARD ROOM					0.7	0.5	CO: BOARD ROOM 103	0.5	0.0	0.0	1	20	6
11 10	7	20	1				SPARE	0.0	0.2					PWR: GROWTH 105	0.2	0.0	0.0	1	20	8
11 20	9	20	1	0.0	0.0	0.2	CO: CHIMES AV RACK (NEW)			0.2	0.2			CO: CHIMES AV RACK (NEW)	0.2	0.0	0.0	1	20	10
13	11	20	1				SPARE					0.0	0.7	` ,	0.7	0.0	0.0	1	20	12
15 20	13		1					0.0	0.2					, ,				1	20	14
17			1	0.0	0.0	0.5		.	-	0.5	0.5			` '				1	20	16
19 20			1									0.5	0.9					1	20	18
1			1					0.2	0.7									1	20	20
25 20			1					0.2	0.7	0.2	0.4							1	20	22
15			1							0.2	0.4	0.2	0.2					1	20	24
27			1					0.5	0.2			0.2	0.2					1	20	26
19			1				·	0.5	0.2	0.0	1.5							1	20	28
19			1							0.0	1.5	0.2	1.5					1	20	30
39			1					0.2	1 5			0.2	1.5					1	20	32
15			1					0.2	1.5	0.0	0.2							1		
37 30			1							0.0		0.0	0.4					1	20	34
19			1					0.5	<u> </u>			υ.0	U.4					1	20	36
14			1					0.0	0.4					` ,				1	20	38
18			1			-				0.7				` ′				1	20	40
15 15 15 15 15 15 15 15			1			-						0.9	0.5	` ,				1	20	42
17			1					0.7	1.0									1	20	44
19			1	_						0.5								1	20	46
ST 1	47	20	1	0.0	0.7	0.0	PWR: DRINKING FOUNTAIN					0.7	0.3	CO: ELEVATOR CTRL RM 128	0.2	0.0	0.1	1	20	48
183 20	49	20	1	0.0	0.0	0.4	CO: ROOM 127, 130	0.4	0.2					CO: SHOWER 2 126	0.2	0.0	0.0	1	20	50
155 20	51	20	1	0.0	0.0	2.2	CO: FLOORBOXES BISTRO 122			2.2	0.2			CO: SHOWER 1 124	0.2	0.0	0.0	1	20	52
17	53	20	1	0.0	0.0	2.2	CO BISTRO 122					2.2	0.4	CO: ROOM 100, 122	0.4	0.0	0.0	1	20	54
59 20	55	20	1	0.0	0.0	1.4	CO: FLOORBOXES BISTRO 122	1.4	0.4					CO: BISTRO 122	0.4	0.0	0.0	1	20	56
61 20 1 0.0 0.0 0.5 CO. SERVICEMATERIAL. 0.5 0.5 0.5 CO. BOILER ROOM 114 0.4 0.0 0.0 1	57	20	1	0.0	0.0	0.5	CO: REC OFF 119			0.5	0.4			CO: BISTRO 122	0.4	0.0	0.0	1	20	58
61 20 1 0.0 0.0 0.5 CO. SERVICEMATERIAL. 0.5 0.5 0.5 CO. BOILER ROOM 114 0.4 0.0 0.0 1	59	20	1	0.0	0.0	0.9	CO: SERVICE/MATERIAL					0.9	0.4	CO ROOM 116, 117	0.4	0.0	0.0	1	20	60
83 20	61	20	1		0.0		CO: SERVICE/MATERIAL	0.5	0.5					CO MAIN ELECTRICAL 115	0.5		0.0	1	20	62
65 20			1			-				0.7	0.4							1	20	64
67 20			1			-				5		0.5	0.4					1	20	66
89 20 1 0.0 0.0 0.4 SEC PANEL ACSI b MAIN ELEC 115 0.4 0.6 0.6 PWR: CH-28 CHILLER ROOM 113 0.0 0.6 0.0 1			1					0.5	1.5			0.0	0.1					1	20	68
71			1			-		0.0	1.0	0.4	0.6							1	20	70
73			1			 				0.4		0.2	0.6					1	20	72
75	-		1			-		0.0	0.4			0.2	0.6					1		
77			•			H		0.2	0.1	0.4	0.4			PWR: FC-16 MOTOR KITCHEN 121	0.0				20	74
79		20	2	0.0	0.2	1	PWR: FC-15 MTR ELEV CTRL RM			0.1	0.1									76
81 20												0.1	1.0					1	20	78
83 20			1			-		0.6	0.5									1	20	80
85 20			1			-				0.6	0.7							1	20	82
87 20			1									1.5	0.6					1	20	84
89 20 2 0.0 1.2 0.0 PWR: E-01 FRZR CNDSR REC 0.6 0.5 PWR: ATC PANEL CHILLER RM 113 0.0 0.5 0.0 1						+		1.5	8.0									1	20	86
91			•							1.5								1	20	88
93 20 2 0.0 2.6 0.0 PWR: E-05 CLR CNDSR REC 1.3 0.2		20	2	0.0	1.2	0.0	PWR: E-01 FRZR CNDSR REC					0.6	0.5					1	20	90
95	-							0.6	0.5									1	20	92
97 20 1 0.0 1.0 0.0 PWR: PANEL FPS 1.0 0.5 0.5 0.0 0.1 1.0 99 20 1 0.0 0.2 0.0 POWER SWITCHABLE GLASS 0.2 0.4 0.2 0.4 0.2 CO: MONITOR BISTRO 122 0.4 0.0 0.0 0.1 1.0 0.0 0.2 0.0 PWR: DOOR 104B 0.2 0.5 0.4 0.4 0.2 CO: GROWTH 105 0.5 0.0 0.0 1.0 1.0 0.0		20		0.0	2.6	0.0	PWR: E-05 CLR CNDSR REC			1.3	0.2							1	20	94
99 20 1 0.0 0.2 0.0 POWER SWITCHABLE GLASS 101 20 1 0.0 0.4 0.0 POWER MOTORIZED SHADES 103 20 1 0.0 0.2 0.0 PWR: DOOR 104B 105 20 1 0.0 0.0 0.4 CC: MONITOR BISTRO 122 107 20 1 0.0 0.0 0.4 CC: MONITOR BISTRO 122 108 20 1 0.0 0.0 0.4 CC: MONITOR BISTRO 122 109 20 1 0.0 0.0 0.0 SMOKE CURTAIN RELAY 109 20 1 0.0 0.0 0.0 SMOKE CURTAIN RELAY 109 20 1 0.0 0.0 0.0 SMOKE DAMPER RELAY 109 20 1 0.0 0.0 0.0 MOTOR MAIN ELECTRICAL-1 115-1 109 20 3 0.0 2.3 0.0 MOTOR TEC-1 111-1 117 20 3 0.0 2.3 0.0 MOTOR TEC-1 111-1 118 20 3 0.0 2.3 0.0 MOTOR TEC-1 111-1 129 20 3 0.0 2.3 0.0 MOTOR TEC-1 111-1 120 3 0.0 0.0 0.0 SMOKE CURTAIN RELAY 120 3 0.0 0.0 SMOKE CURTAIN RELAY 121								4 -				1.3	0.2					1	20	96
101 20			1			-		1.0	0.5	6 -								1	20	98
103 20			1							0.2		<u>.</u>	0.5		-			1	20	100
105 20			•			-		0.7	<u> </u>			υ.4	0.2					1	20	102
107 20			1					0.2	0.5	0.4	0.4							1	20	104
109 20			7							υ.4	_	0.4	0.5		_			1	20	106
111 20 1 0.0 0.0 0.0 SMOKE DAMPER RELAY W 0.0 0.5 W CO: STORAGE 119A 0.5 0.0 0.0 1 113 20 2 0.0 0.6 0.0 MOTOR MAIN ELECTRICAL-1115-1 W 0.3 0.2 CO: KITCHEN 134 0.2 0.0 0.0 1 115 0.0 0.0 1 117 20 3 0.0 2.3 0.0 MOTOR TEC-1 111-1 0.8 0.2 0.8 0.2 CO: KITCHEN 134 0.2 0.0 0.0 1 119 0.0			•					0.0	0.5			υ.4	U.5					1	20	108
113			•					0.0	0.5	0.0	0.5							1	20	110 112
115 0.0 0.8 0.0 1 1 1 1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1 1 1 1 0.0 0.0 0.0 0.0 1 1 1 1 0.0			•			-				0.0		0.2	0.2						20	112
117 20 3 0.0 2.3 0.0 MOTOR TEC-1 111-1		-		+	0.0	+	IVIOTOR IVIAIN ELECTRICAL-1 115-1	0.3	0.0			υ.3	0.2					1	20	114
119 13.1 0.0 3 121					22	_	 MOTOR TEC 4 444 4	0.3	U.Ö	0.0	0.3							1	20	116
121		-		+	∠.3	+	IVIOTOR TEG-1 TTT-T			υ.δ	∪.∠	0 0	11						20	118
123 20 3 0.0 2.3 0.0 MOTOR TEC-1 111-1 0.8 4.4				 				ΩB	11			0.0	7.4	INIOTONIZED GATES	0.0					120
125 0.0 0.2 0.0 1 127 0.8 0.4 CO BOARD ROOM 103 0.4 0.0 0.0 1 129 20 1 0.0 0.0 0.4 CO TEAM ROOM 132 0.4 0.2 PWR: DOOR 106A 0.0 0.0 0.0 0.0 1 131 20 1 0.0 0.0 1.1 CO TEAM ROOM 132 1.1 0.7 MOTOR CHILLER ROOM 113 0.0 0.0 0.0 1 133 20 1 0.0 0.0 0.0 COURTYARD SIGN LIGHTING 0.0 0.0 SPARE 1 135 20 1 SPARE 0.0 0.0 SPARE 1 <td></td> <td>20</td> <td>3</td> <td>0.0</td> <td>23</td> <td>0.0</td> <td> MOTOR TEC_1 111 1</td> <td>0.6</td> <td>7.4</td> <td></td> <td>4.4</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>124</td>		20	3	0.0	23	0.0	 MOTOR TEC_1 111 1	0.6	7.4		4.4									124
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137 20 1 SPARE 1 0.0 0.0 SPARE 1 1 139 20 1 SPARE 0.0 0.0 SPARE 1 1			1					5.0	5.0	0.0	0.0							1	20	136
139 20 1 SPARE 0.0 0.0 0.0 SPARE 1- 1			1							5.5		0.0	0.0					1	20	138
			1					0.0	0.0			5.0	5.5					1	20	140
141 20 1 SPARE 0.0 0.0 SPARE 1	141	20	1				SPARE	5.0	5.0	0.0	0.0			SPARE				1	20	142
143 20 1 SPARE 0.0 0.0 SPARE 1			1							5.5		0.0	0.0					1	20	144
TOTALS: CONNECTED kVA PER PHASE 27 26 29 CONNECTED TOTAL kVA = 79			•			1		2	7	2					ED T	⊥ V IATC	<u></u>	79		
CONNECTED AMPS PER PHASE 223 213 245 AVERAGE CONNECTED AMPS PER PHASE = 220		_ _																		
CONNECTED AMPS PER PHASE 223 213 245 AVERAGE CONNECTED AMPS PER PHASE = 220 NEC DIVERSIFIED LOAD CALCULATIONS	NEO D	11/552	SIEIED '	1045	CALC	NII A7		22		Z 1				AVERAGE CONNECTED AME	S PE	.r r ПА	J⊑ =	LLU		
NEC DIVERGII ILD LUAD CALCULATIONS	NEC D	,ıveks	ורובט	LUAD	CALC	JULAI	10113													

DIVERSIFIED TOTAL kVA = 83 LIGHTING & CONTINUOUS LOADS: **0.1 kVA @ 125% = 0.1 kVA** - 100% CONNECTED LOAD PLUS 25% RECEPTACLES: 33.5 kVA @ 100% = 33.5 kVA - FIRST 10kVA @ 100%, REMAINDER @ 50% AVERAGE AMPS PER PHASE = 229

MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC ALL OTHER LOADS @ 100% : 49.0 kVA

SPECTRUM ENGINEERS 324 S. State St., Suite 400 Salt Lake City, UT 84111 800-678-7077 801-328-5151 fax: 801-328-5155 www.spectrum-engineers.com

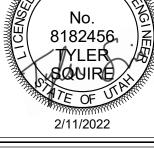
CURTIS MINER ARCHITECTURE	233 SOUTH PLEASANT GROVE BLVD. SUITE #105 PLEASANT GROVE, UTAH 84062 PHONE: (801) 769-3000	DATE: 11 FEBRUA PROJECT #: PROJ. MAN.: CHECKED BY:	21-075 JSJ GWT
ARCHITECTURE	cma@cmautah.com	CURTIS MINER ARCHITECTURE BE REPRODUCED WITHOUT WRIT © 2021 CURTIS MINER ARCHITI	TEN CONSENT.
PROJECT:	IGTC CHIMES	PROFESS 10	VA,

MARK REVISION

DATE

EXPANSION TENANT BUILDOUT

> 5026 SOUTH STATE STREET MURRAY, UTAH 84107



SHEET DESCRIPTION:

SHEET: PANEL SCHEDULES

GENERAL SHEET NOTES ○ SHEET KEYNOTES CIRCUIT TO EXISTING LIGHTING CIRCUIT PREVIOUSLY FEEDING LIGHTING IN THIS AREA.

DATE

MARK REVISION





PROJECT:

IGTC CHIMES EXPANSION TENANT BUILDOUT

5026 SOUTH STATE STREET MURRAY, UTAH 84107

2/11/2022

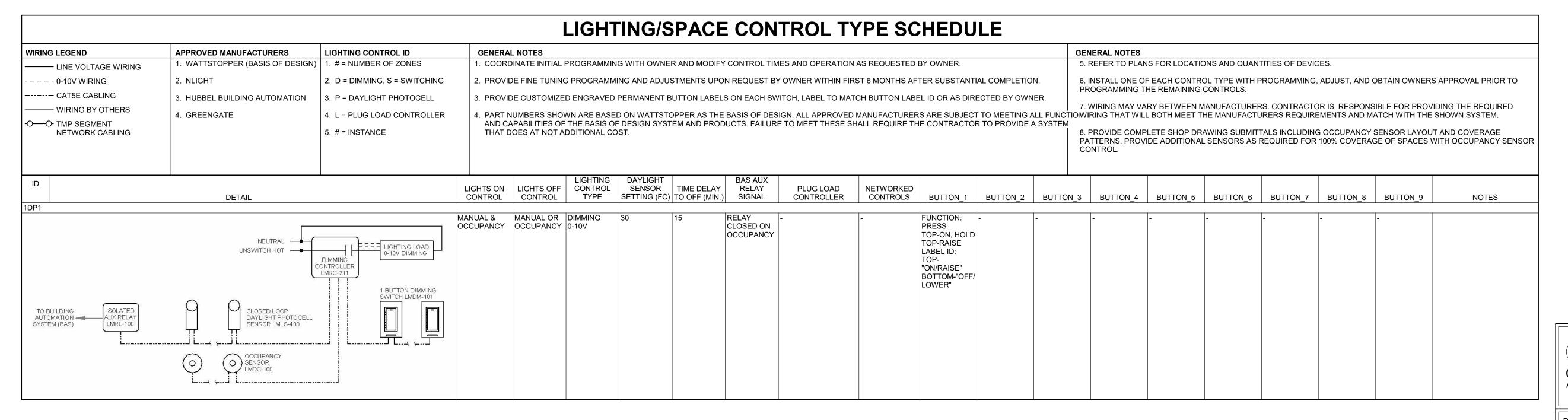
SHEET DESCRIPTION: LEVEL 1 LIGHTING PLAN

SHEET: **EL101**

△ MARK	REVISION	DATE

									IN	NTER	RIOR	RLIG	HTI	NG F	IXT	URE S	CHEI	DULE						
									ABI	BRE\	/IAT	ION	S											NOTES
LUMINAIRE OPTIONS ARHR - AIR RETURN AND HEAT REJECTION DL - DAMP LOCATION EQC - EARTHQUAKE CLIPS F - FUSING HLD - HINGED AND LATCHED DOOR HS - HOUSE SIDE SHIELD PS - PHOTOCELL SWITCH QRS - QUARTZ RESTRIKE ST - STATIC WG - WIRE GUARD WL - WET LOCATION 1. VERIFY THE PROPER MOUNTING KITS OR ACCESSORIES TO FACILITATE INST 2. COMPLY WITH THE "INTERIOR LIGHTING" SECTION OF THE SPECIFICATIONS. 3. REFER TO SPECIFICATIONS FOR IMPORTANT TECHNICAL REQUIREMENTS FOR 4. ALL FIXTURES SHALL BE APPROVED BY UL OR ANOTHER ACCEPTABLE TEST PROPOSED.	B C F G P PL R S W	- RECES - SURFA - WALL	NG GE ANT SSED ACE DWN AT EA	LLASTS, A	NE EB ET ATION ON THE		NS Y BATTERY P Y TRANSFER	PACK DEVICE	DI () () () () () () () () () (RS - RAF PS - PRO OPI PSMH - PUI ELE PPLF - PRO LVTM - LOV (EL IMMING E D2 - 2 W D3 - 3 W D4 - 4 W DD - DIG SDP - STE ALLAST N ANSI WATTS BB-#L:	ERATION SE START M ECTRONIC) DVIDE POWE V VOLTAGE V VOLTAGE ECTRONIC) SALLAS VIRE DIMMER VIRE DIMMER FOR DIMMER FOR DIMMER EP DIMMER EP DIMMER BB = Balla #L = Num	METAL HALL ER LINE FILT TRANSFORI TRANSFORI TRANSFORI ER R R R BALLAST DN imum Wattag ast Type ast Type ast Type	IDE (CWA OF	ETIC) ed Voltage			- SILVER - GOLD - CLEAR - PAINTE - EXTRUI - STEEL - GALVAI - CAST A - COLOR BA - STAND ARCHIT A - CUSTO ARCHIT - MEETS STAND - THERM PROTE	EWHITE R ED WHITE IDED ALUMINUM INIZED STEEL R BY ARCHITECT DARD COLOR BY TECT DM COLOR BY TECT S FEDERAL DARD 209D MALLY ECTED ESS	WW - WALL WASH	ICK (OPAL) R)) ITED) LENS RMANCE LENS SS LENS ED DIFFUSER E ELE FLE IRAIN LOUVERS I PLASTIC PROTECTOR	SC - SPECUPR - PRISM FDR - FULL DS - DIFFULL COWN II IR - IRIDES SL - SILVER GL - GOLD CA - CLEAF CIE CLASS DIR - DIREC SD - SEMID GEN - GENER	/OPEN JLAR SPECULAR SE (WHITE ENAMEL) JLAR (COLORED) MATIC DEPTH REFLECTOR SE (SEMI SPECULAR) RIDESCENT SCENT R R ALZAK SIFICATIONS TLIGHTING PINECT LIGHTING ECT LIGHTING ECT LIGHTING ECT LIGHTING ECT LIGHTING ECT LIGHTING) SILVER	PROVIDE UNIT PRICES AND FIXTURE BRAND SELECTED FOR ADD/DELETE CHANGES FOR EACH FIXTURE TYPES SHOWN WITHIN 48 BUSINESS HOURS OF THE BID DATE. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY DISQUALIFY THE PRODUCTS AND EMPOWER THE ENGINEER TO DETERMINE FAIR VALUE FOR FIXTURE AND INSTALLATION CHANGES, WITHOUT FURTHER INPUT FROM THE CONTRACTOR OR INSTALLER. CONTRACTOR ALLOWANCE PRICES ARE ACCURATE WHEN THIS JOB WAS SPECIFIED, CONTRACTOR AND ELECTRICAL DISTRIBUTOR SHALL VERIFY THIS ALLOWANCE AND REPORT ANY PROBLEMS TO THE ENGINEER BEFORE THE BID. ALLOWANCE PRICE MAY OR MAY NOT INCLUDE LAMP(S) OR FREIGHT AS NOTED, AND DO NOT INCLUDE ANY TAXES.
									LIGHTING	3 FIXTURE S	CHEDULE	- INTERIC)R			•							•	
LUMINAIRE						LAMP	BALI			FINISH				C	OPTICS					MANUFACTURER	(CATALOG SERIES)			
		NOMINAL	L SIZE	ÜRE			CONNI	ECTED																
ID TYPE (CR-10) RECESSED FLUSH LED	10'	HLQIM 4"	g MAX DEPTH	DIAMETER/ APERTI	ST, EQC, HLD	LAMP COLOR 4000K	VOLTS 277	WATTS 60	HOUSING	TRIM	ОТНЕК	CIE TYPE DIR	FINISH	DIFFUSER	REFLECTOR	LUMINAIRE LUMENS 4500	OPTIONS	OPTION 1 AXIS (BMRLED-B2-75	OPTION 2	OPTION 3	OPTION 4	OPTION 5	ОРТІО	DN 6

(BMRLED-B2-750-40-SOFL6-W-UNV-D1-X





	www.spectrum-engineers.com
233 SOUTH PLEASANT GROVE BLVD. SUITE #105 CURTIS MINER PLEASANT GROVE, UTAH 84062	DATE: 11 FEBRUARY 2022 PROJECT #: 21-075 PROJ. MAN.: JSJ CHECKED BY: GWT
PHONE: (801) 769-3000 cma@cmautah.com	THE INFORMATION HEREIN IS THE PROPERTY OF CURTIS MINER ARCHITECTURE AND MAY NOT BE REPRODUCED WITHOUT WRITTEN CONSENT. © 2021 CURTIS MINER ARCHITECTURE, LLC
ROJECT: IGTC CHIMES EXPANSION TENANT	No. 8182456
BUILDOUT	TYLER
5026 SOUTH STATE STREET MURRAY, UTAH 84107	2/11/2022

SHEET DESCRIPTION: INTERIOR LIGHTING FIXTURE SCHEDULE

RECESSED FLUSH LED

MARK REVISION DATE GENERAL SHEET NOTES A CONNECT ALL NEW FIRE ALARM DEVICES TO EXISTING SIEMENS FIRE ALARM SYSTEM. ○ SHEET KEYNOTES PROVIDE ROUGH-IN FOR SECURITY CAMERAS. PROVIDE CEILING MOUNTED 4-SQUARE, DEEP JUNCTION BOX WITH 1" CONDUIT TO CABLE TRAY.





PROJECT:

IGTC CHIMES EXPANSION TENANT BUILDOUT

5026 SOUTH STATE STREET MURRAY, UTAH 84107

2/11/2022

SHEET DESCRIPTION: LEVEL 1 AUXILIARY PLAN SHEET: **EY101**

1 LEVEL 1 AUXILIARY PLAN

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