THE MEDICAL CENTER OF AURORA

22-031 TMCA MDU Extended Renovation

1501 S POTOMAC ST
AURORA, CO 80012

PROVIDE A FULL-SIZE SET OF LEGIBLE APPROVED CONSTRUCTION DOCUMENTS **PRINTED IN COLOR** FOR REVIEW BY INSPECTOR

PLAN CHANGES WILL **REQUIRE AN APPROVED REVISION** BEFORE INSPECTION CAN BE APPROVED

ISSUE DATE: 03 FEBUARY 2023
PROJECT #: 22-031

ISSUE FOR CONSTRUCTION

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Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation.

Field Inspection consultation is available upon request. Call 303-739-7420 to request a consultation

Consultation for fire extinguisher placement is available upon request. Call 303-739-7420 prior to final Life Safety inspection to verify proposed locations.

Structural plan review is limited to a general survey for code compliance. No review is implied nor was undertaken to verify structural adequacy.

Provide U.L. Class 2A10BC minimum rating fire extinguishers at a maximum 75'-0" travel distance prior to the Certificate of Occupancy issuance 2015 IFC Table 906.3[1] and 2013 NFPA ...

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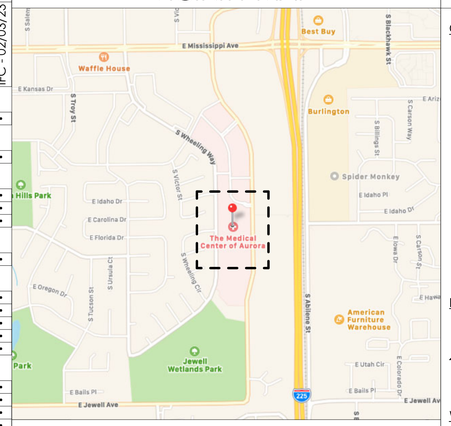
AT ALL TIMES DURING CONSTRUCTION, MAINTAIN REQUIRED EXITS, EXISTING STRUCTURAL ELEMENTS, FIRE PROTECTION AND SANITARY GUARDS PER **2015 IBC 3302.1**

This plan is reviewed to **IBC** but the existing building is NOT converted to **IBC**. The construction type listed is **UBC.** Occupancy group is **IBC.**

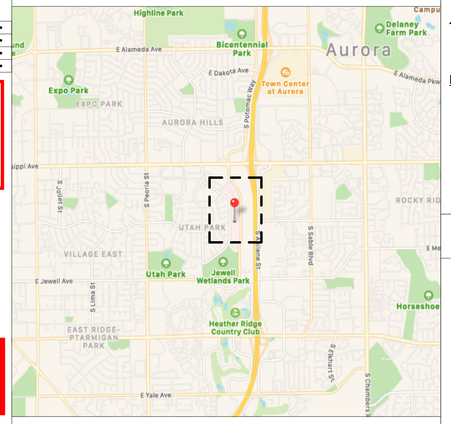
SEPARATE FIRE SPRINKLER PERMIT REQUIRED:
Due to the proposed work the general contractor is required to obtain the services of a fire sprinkler contractor to determine if a separate sprinkler permit is required. If it is determined that the spacing of the fire sprinkler heads is not in compliance, then a separate fire sprinkler permit is required. Approval of the documents is required prior to system installation or any request for inspection. A certificate of occupancy or final approval cannot be issued by the Building Division without this fire protection system. **2015 IFC, Section 105.7.1.**

SEPARATE FIRE ALARM PERMIT REQUIRED:
Due to the proposed work the general contractor is required to obtain the services of a fire alarm contractor to determine if a separate alarm permit is required. If it is determined that the spacing of the fire alarm devices is not in compliance, then a separate fire alarm permit is required. Approval of the documents is required prior to system installation or any request for inspection. A certificate of occupancy or final approval cannot be issued by the Building Division without this fire protection system. **2015 IFC, Section 105.7.6.**

VICINITY MAP

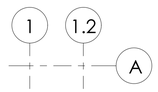


CITY MAP

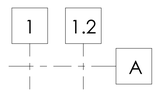


GENERAL SYMBOLS LEGEND

COLUMN GRID DESIGNATION

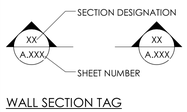


NEW GRID

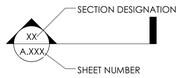


EXISTING GRID

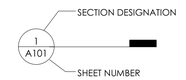
BUILDING SECTION TAG



WALL SECTION TAG



DETAIL CALLOUT TAG



NOTE TAGS

1 NOTE BY NUMBER

XX.XXX SPECIFICATION NOTE

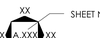
DOOR TAG

XXX DOOR TAG

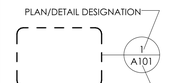
GLAZING TAG

GL-X GLAZING DESIGNATION PER SPECIFICATIONS

ARCHITECTURAL WOODWORK



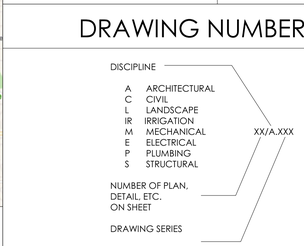
EXTERIOR ELEVATION TAG



INTERIOR ELEVATION TAG

ENLARGED PLAN / CALLOUT TAG

DRAWING NUMBER KEY



GENERAL PROJECT NOTES

1. REFER TO COMPLETE SET OF ISSUED CONTRACT DOCUMENTS FOR APPLICABLE NOTES, ABBREVIATIONS, AND SYMBOLS.
2. DO NOT SCALE THE DRAWING. IF DIMENSIONS ARE IN QUESTION, OBTAIN CLARIFICATION FROM THE ARCHITECT BEFORE CONTINUING.
3. DIMENSIONS SHOWN ON THE FLOOR PLANS FOR NEW CONSTRUCTION ARE TO THE FACE OF FINISH OF INTERIOR WALLS, TO CENTER LINE OF COLUMNS, AND TO FACE OF CONCRETE OR MASONRY WALLS, UNLESS OTHERWISE INDICATED. DIMENSIONS IN RENOVATED AREAS ARE FROM FINISH FACE OF EXISTING WALLS AND TO FINISH FACE OF NEW STUD WALLS, UNLESS OTHERWISE INDICATED.
4. FIELD MEASURE AND CONFIRM DIMENSIONS FOR OWNER PROVIDED EQUIPMENT AND FURNISHINGS. COORDINATE WITH THE OWNER ON DELIVERY AND INSTALLATION OR OFCI EQUIPMENT.
5. FINISH FLOOR ELEVATIONS ARE TO TOP OF FINISHED FLOORING PRODUCT, NOTED BY AFF (ABOVE FINISH FLOOR) UNLESS OTHERWISE NOTED.
6. COORDINATE EXACT SIZE AND PLACEMENT OF EQUIPMENT BASE AND HOUSEKEEPING PADS WITH EQUIPMENT TO BE PROVIDED.
7. WHERE NEW GYPSUM BOARD PARTITIONS ARE A CONTINUATION OF AN EXISTING PARTITION OR COLUMN ENCASEMENT, THE FACE OF THE NEW GYPSUM BOARD SHALL BE ALIGNED WITH THE FACE OF THE EXISTING SURFACE. WHERE A ONE HOUR PARTITION IS SHOWN AS A CONTINUATION OF A TWO-HOUR PARTITION OR COLUMN ENCASEMENT, THE FACE OF THE GYPSUM BOARD SHALL BE OFFSET AS REQUIRED TO PROVIDE FACE ALIGNMENT OF GYPSUM BOARD ON BOTH SIDES.
8. LEVEL FLOORS SO THAT THEY DO NOT EXCEED A 1/4" VARIANCE IN A 10'-0" RADIUS.
9. PIPING LOCATED ABOVE GRADE AND INSIDE THE BUILDING SHALL BE CONCEALED IN FURRED SPACES WITH THE EXCEPTION OF PIPING IN STAIRWAYS, EQUIPMENT ROOMS, AND POWERHOUSE. COORDINATE WITH OTHER TRADES TO PROVIDE FURRING FOR PIPING INSTALLED IN FINISHED AREAS.
10. PARTITION TYPES AND FIRE RESISTIVE RATINGS INDICATED ON A WALL ARE TO BE CONTINUOUS FOR THE LENGTH AND HEIGHT OF A PARTITION.
11. OPENINGS IN A RATED WALL, FLOOR, CEILING, AND ROOF ASSEMBLIES SHALL BE SEALED WITH A FIRE RESISTANT JOINT SYSTEM OR PROTECTED WITH A FIRE RATED CHASE.
12. EXIT SIGNS AND SMOKE DETECTORS LOCATED IN CEILINGS SHALL BE POSITIONED AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
13. WHERE MATERIALS ARE APPLIED TO, OR ARE IN DIRECT CONTACT WITH WORK INSTALLED BY ANOTHER SUBCONTRACTOR, COMMENCEMENT OF WORK IMPLIES ACCEPTANCE OF THE SUBSTRATE AS SUITABLE FOR THE APPLICATION INTENDED.
14. ISOLATE DISSIMILAR METALS TO PREVENT GALVANIC CORROSION.
15. SEALANTS EXPOSED TO VIEW SHALL BE CUSTOM COLOR AS SELECTED BY THE ARCHITECT.
16. COORDINATE LOCATION OF SEALANT AND COMPATIBILITY OF SEALANTS WITH ADJACENT WORK, INCLUDING MATERIALS AND OTHER CONTIGUOUS SEALANTS
17. CAULK AT JUNCTURE OF INTERIOR FACES OF DOOR FRAMES, VIEW WINDOW FRAMES, EXTERIOR WINDOW FRAMES, AND CABINET WORK WITH ADJACENT MATERIALS. MAINTAIN THE FIRE RATING OF CONSTRUCTION AROUND CABINETS, PANELS, AND BOXES RECESSED IN FIRE RATED WALL, FLOOR, AND CEILING ASSEMBLIES.
18. ACCESSORIES SUCH AS GRAB BARS, TOWEL BARS, PAPER DISPENSERS AND SOAP DISHES INSTALLED WITHIN 2' OF A URINAL, WATER CLOSET, SINK OR LAVATORY SHALL BE MOISTURE SEALED.
19. DO NOT HANG (SUPPORT) ANY ITEMS FROM METAL ROOF DECK. IT IS ACCEPTABLE TO ATTACH, I.E. CEILING SYSTEM WIRE HANGERS FROM JOISTS AND/OR BEAMS. IF NO JOIST OR BEAM, PROVIDE A STEEL STRIP.

ABBREVIATIONS LEGEND

ACC	ACCESSIBLE	NIC	NOT IN CONTRACT
AFF	ABOVE FINISHED FLOOR	NTS	NOT TO SCALE
APPROX	APPROXIMATE	OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
ARCH	ARCHITECTURAL	OFOI	OWNER FURNISHED, OWNER INSTALLED
B.O.___	BOTTOM OF ___	OPP	OPPOSITE
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED	PERP	PERPENDICULAR
CFOI	CONTRACTOR FURNISHED, OWNER INSTALLED	PLBG	PLUMBING
CL	CENTER LINE	PLYWD	PLYWOOD
CLG	CEILING	RE:	REFER TO ___
CLR	CLEAR	REF	REFRIGERATOR
CMU	CONCRETE MASONRY UNIT	REINF	REINFORCE, REINFORCING
COORD	COORDINATE	RO	ROUGH OPENING
CORR	CORRIDOR	ROW	RIGHT OF WAY
DBL	DOUBLE	SCHED	SCHEDULE
DEMO	DEMOLISH, DEMOLITION	SF	SQUARE FOOT(FEET)
EA	EACH	SIM	SIMILAR
ELEC	ELECTRIC(AL)	SPEC	SPECIFICATION
ELEV	ELEVATOR	STC	SOUND TRANSMISSION CLASS
EQ	EQUAL	STD	STANDARD
(E). EXST	EXISTING	STL	STEEL
FF	FINISH FACE	STRUCT	STRUCTURAL
FF EL	FINISHED FLOOR ELEVATION	T	TREAD
FLR	FLOOR	T&G	TONGUE & GROOVE
FO	FINISHED OPENING	TEMP	TEMPORARY
FP	FIRE PROTECTION	T.O.	TOP OF ___
FV	FIELD VERIFY	TOPO	TOPOGRAPHY, TOPOGRAPHIC
GALV	GALVANIZED	TYP	TYPICAL
GYP BD	GYPSUM BOARD	UL	UNDERWRITER'S LABORATORIES
GYP PLAS	GYPSUM PLASTER	UNFIN	UNFINISHED
INSUL	INSULATION	UNO	UNLESS NOTED OTHERWISE
LAV	LAVATORY	W/	WITH
LVR	LOUVER	W/O	WITHOUT
MAX	MAXIMUM	WC	WATER CLOSET
MECH	MECHANICAL	WD	WOOD
MFR	MANUFACTURER	X	BY
MIN	MINIMUM		
MISC	MISCELLANEOUS		

PROJECT DESCRIPTION

THE SCOPE WITHIN REPRESENTS THE RENOVATION OF THE EXISTING NURSE STATION IN THIS WING OF THE EMERGENCY DEPARTMENT. TWO REMAINING PATIENT ROOMS WILL BE UPGRADED TO MATCH THE EXISTING SECURE HOLD ROOMS. A WALL WILL BE ADDED TO EACH OF THE SECURE HOLD ROOMS TO REDUCE THE ROOM SIZE TO THE MAXIMUM DIMENSION PER CODE. DOORS WILL BE REPLACED AND A WINDOW ADDED FROM THE HALL TO EACH ROOM FOR PAITENT OBSERVATION.

PROJECT DATA

- **CODES/ LAWS:**
  CITY OF AURORA:
  2015 INTERNATIONAL BUILDING CODE (IBC)
  2015 INTERNATIONAL EXISTING BUILDING CODE (EIBC)
  2020 NATIONAL ELECTRICAL CODE (NEC)
  2015 INTERNATIONAL MECHANICAL CODE
  2015 INTERNATIONAL PLUMBING CODE
  2015 INTERNATIONAL FUEL GAS CODE
  2015 INTERNATIONAL FIRE CODE
  2015 INTERNATIONAL ENERGY CONSERVATION CODE
  2009 ICC / ANSI 117.1 ACCESSIBILITY CODE

  STATE OF COLORADO:
  2018 COLORADO DEPARTMENT OF HEALTH AND ENVIRONMENT - HOSPITAL LICENSING RULES
  2012 NFPA 101 - LIFE SAFETY CODE
  2018 FGI - GUIDELINES FOR DESIGN AND CONSTRUCTION OF HOSPITALS
  FEDERAL:
  2010 AMERICANS WITH DISABILITIES ACT GUIDELINES
- **OCCUPANCY CLASSIFICATION:**
  2015 IBC - GROUP I-2 (SECTION 308.4)
  2012 NFPA 101 - EXISTING HEALTHCARE OCCUPANCY (CHAPTER 19)
- **PRINCIPAL OCCUPANCY TYPE:** I-2
- **CONSTRUCTION TYPE:**
  UBC Type I-F.R.
  EXISTING: SBC - TYPE 1-A, UNRESTRAINED, FULLY SPRINKLERED
  NEW: 2015 IBC - TYPE 1-A, FULLY SPRINKLERED
  2012 NFPA 220 - TYPE 1 (332)

This plan was reviewed for adopted codes and NOT for compliance with **ADA** or **FHA** accessibility requirements. Contact 800-949-4232 (**ADA**) and 303-894-7822 x 325 (**FHA**) for federal accessibility requirements that apply to your project.

Provide a sign stating "EXIT" in raised, visual characters and braille adjacent to each door in an area of refuge, an exterior area for assisted rescue, an exit stairway or ramp, an exit passageway and the exit discharge. **2015 IBC 1013.4**

City of Aurora Building Division
Project: *TMCA MDU TENANT IMPROVEMENT*
Address: *1501 S POTOMAC ST*
Occupancy Group: *IBC I-2*
Construction Type: *UBC Type I-F.R.-SPK*
RSN: *1694804*
Permit: *23-2288942-LT*

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *Matt A.*
Date: *Mar 13, 2023*
2015 INTERNATIONAL CODES & 2020 NEC

RSN: *1694804*
Permit #: *23-2288942-LT*

PATH architecture + planning 21
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No.	Description	Date

STATE OF COLORADO
JOHN MENNO NAP
401729
LICENSED ARCHITECT
02/03/2023

22-031 TMCA MDU Extended Renovation

1501 S POTOMAC ST
AURORA, CO 80012

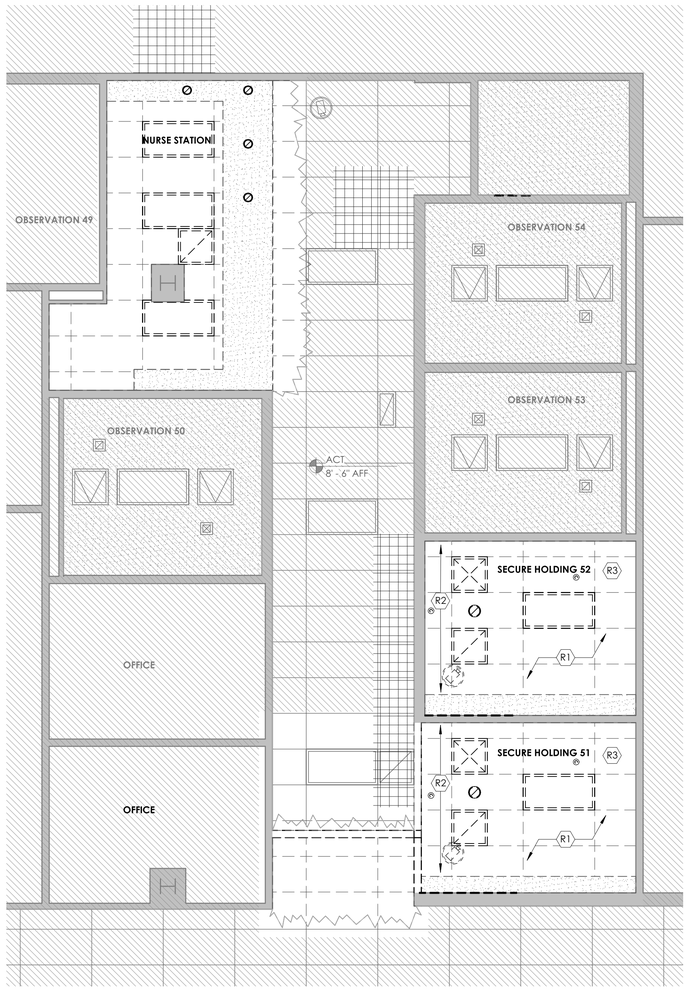
Issue	ISSUE FOR CONSTRUCTION
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Project Number	22-031
Drawn by	JL
Checked by	JMN

Sheet Title
COVER & DRAWING INDEX

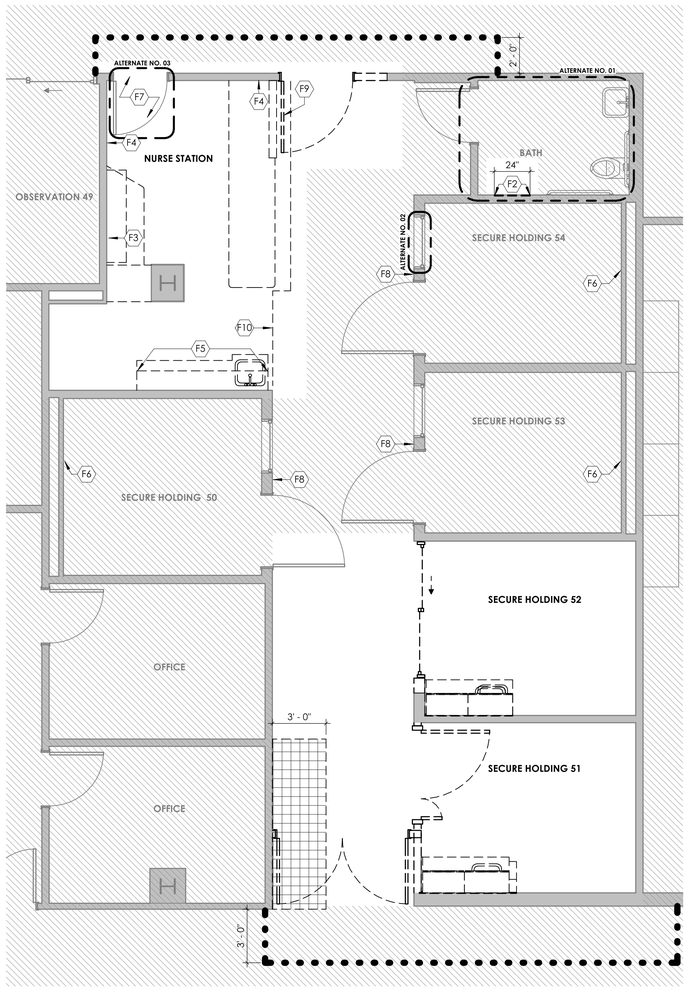
Sheet Number
G.101

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This sheet of drawings has not been reviewed for code compliance.



02- LEVEL 01 - DEMOLITION REFLECTED CEILING PLAN
1/4" = 1'-0"



01- LEVEL 01 - DEMOLITION FLOOR PLAN
1/4" = 1'-0"

DEMOLITION REFLECTED CEILING PLAN LEGEND

- EXISTING PARTITION TO REMAIN
- EXISTING PARTITION TO BE REMOVED
- OUT OF SCOPE
- EXISTING ENCLOSURE TO BE REMOVED, RETAIN MONITOR AND ALL CORDS/ACCESSORIES FOR REINSTALLATION
- FURR DOWN SOFFIT OVER MILLWORK TO BE REMOVED
- COORDINATE REMOVAL OF EXISTING CEILING FOR REPLACEMENT OF VAV BOX OR TIE POINTS FOR NEW HVAC. REFER TO MECHANICAL FOR FURTHER DETAILS.
- EXISTING SUPPLY DIFFUSER TO BE REMOVED, RE: MECHANICAL
- EXISTING RETURN DIFFUSER TO BE REMOVED, RE: MECHANICAL
- EXISTING FLUORESCENT LIGHT FIXTURE TO BE REMOVED, RE: ELECTRICAL
- ACOUSTIC CEILING TILE TO BE REMOVED WITHIN AREA INDICATED
- EXISTING CEILING MOUNTED SECURITY CAMERA
- EXISTING CEILING MOUNTED SECURITY CAMERA TO BE RELOCATED, RE: ELECTRICAL.

DEMOLITION REFLECTED CEILING PLAN NOTES

- R1 DETECTION, SECURITY AND FIRE SPRINKLER DEVICES TO BE REMOVED, RE: MPE.
- R2 CURTAIN AND TRACK TO BE REMOVED.
- R3 ALL ABOVE CEILING WOOD FRAMING TO BE REMOVED.

DEMOLITION GENERAL NOTES

1. REFER TO SPECIFICATIONS FOR INTERIM LIFE SAFETY MEASURES.
2. CONSTRUCT TEMPORARY PARTITIONS AS REQUIRED BY PHASING TO MINIMIZE THE SPREAD OF DUST AND NOISE.
3. THESE DRAWINGS HAVE BEEN DEVELOPED FROM EXISTING DRAWINGS WHICH MAY NOT REFLECT ACTUAL FIELD CONDITIONS. VERIFY THESE DRAWINGS WITH EXISTING FIELD CONDITIONS AND NOTIFY THE ARCHITECT IMMEDIATELY OF INCONSISTENCIES BETWEEN THEM AND ACTUAL CONDITIONS BEFORE PROCEEDING WITH CONSTRUCTION.
4. REMOVE EXISTING CONSTRUCTION AS INDICATED. TYPICAL WALL REMOVAL INCLUDES FINISHES AND MECHANICAL PLUMBING AND ELECTRICAL SYSTEMS CONTAINED THEREIN. REMOVE DOORS, CASEWORK, WINDOWS, FRAMES, AND OTHER FIXTURES AS REQUIRED. AFTER REMOVAL OF PIPE CHASES, PATCH HOLES IN EXISTING FLOORS OR WALLS TO REMAIN TO MEET ORIGINAL FIRE PROTECTION AND STRUCTURAL REQUIREMENTS. PATCH ADJOINING WALLS.
5. WHERE NEW FINISHES ARE TO BE INSTALLED ON EXISTING SURFACES, REMOVE THE EXISTING FINISH AND PREPARE SURFACE TO RECEIVE THE NEW FINISH.
6. COORDINATE WITH THE OWNER ANY ITEMS TO BE STORED AND/OR RELOCATED.
7. SEE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR DEMOLITION OF UTILITIES.
8. COORDINATE ALL FLOOR CHANNELING AND CORING WITH NEW MPE DEMOLITION AND NEW CONSTRUCTION SCOPE. GENERAL SCOPE AREAS INDICATED ON THIS DRAWING.
9. VERIFY THAT EXIT EGRESS IS MAINTAINED FOR ALL OCCUPIED AREAS OF THE BUILDING THROUGHOUT CONSTRUCTION.
10. DEMOLITION WORK SHALL BE EXECUTED IN CONFORMANCE WITH ALL CODES AND AS SET FORTH BY ALL GOVERNING AUTHORITIES.
11. BRACE ALL EXISTING STRUCTURES OR STRUCTURAL ELEMENTS AS NECESSARY DURING DEMOLITION.
12. DO NOT CUT ANY STRUCTURAL WORK WITHOUT PRIOR APPROVAL FROM THE DESIGN TEAM.
13. REPLACE OR REPAIR ANY EXISTING TO REMAIN FINISHES WHICH ARE DAMAGED DURING DEMOLITION (I.E. - CEILING GRID, CEILING TILE, WALL COVERING, FLOOR COVERING, ETC.
14. NOTIFY THE DESIGN TEAM IMMEDIATELY IF THE REMOVAL OF MECHANICAL EXISTING TO REMAIN ELECTRICAL, PLUMBING SYSTEMS OR COMPONENTS WILL ADVERSELY AFFECT THE OPERATION OF MEP SYSTEM OUTSIDE THE LIMIT OF EXISTING TO BE REMOVED - RE: NOTE 5 OF DEMOLITION GENERAL NOTES.
15. SCHEDULE ALL DEMOLITION WITH THE OWNER.

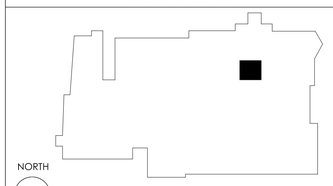
DEMOLITION FLOOR PLAN LEGEND

- EXISTING PARTITION TO REMAIN
- EXISTING PARTITION TO BE REMOVED
- OUT OF SCOPE
- EXISTING FLOOR AND BASE TO BE REMOVED WITHIN AREA INDICATED. PREPARE FOR INSTALLATION OF NEW SHEET FLOORING.
- EXISTING SLAB TO TO DEMOLISHED FOR NEW SINK FIXTURE.
- ANTICIPATED ICRA BARRIER REQUIREMENTS. PROVIDE NEGATIVE AIR MONITORS AT ALL LOCATIONS.

DEMOLITION KEYNOTES

- F1 PROTECT EXISTING FLOOR FINISH DURING CONSTRUCTION.
- F2 ALTERNATE NO. 01 CAREFULLY REMOVE TILE FROM CEILING TO 3' AFF.
- F3 EXISTING AAP TO BE REMOVED, RE: PLUMBING.
- F4 EXISTING PANIC BUTTON TO BE REMOVED, RE: ELECTRICAL.
- F5 HARVEST ALL CODE LOCKS FOR REUSE.
- F6 CUT INTO WALL AT ~72" AFF FOR NIGHTLIGHT, RE: ELECTRICAL.
- F7 ALTERNATE NO. 03 REMOVE DOOR AND SALVAGE EXISTING HARDWARE AND DOOR LIGHT FOR REUSE IN NEW DOOR.
- F8 ALTERNATE NO. 04 REMOVE GYPSUM BOARD AS REQUIRED TO INSTALL SECOND SWITCH FOR CONTROL OF NIGHTLIGHTS IN PATIENT ROOM.
- F9 REMOVE EXISTING DOOR AND CONFIRM WITH OWNER DESIRE TO KEEP OR DISCARD.
- F10 CAREFULLY TRIM AND PROTECT EXISTING FLOORING AT NEW CONSTRUCTION.

KEY PLAN



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2245 Curtis Street, Suite 200
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Consultant Team

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Greenwood Village, CO 80112
ph: 303.225.6320

No.	Description	Date

STATE OF COLORADO
JOHN MENNO HNP
401729
LICENSED ARCHITECT
02/03/2023

22-031 TMCA MDU Extended Renovation

1501 S POTOMAC ST
AURORA, CO 80012

Issue	ISSUE FOR CONSTRUCTION
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Checked by	JMN

Sheet Title
DEMOLITION FLOOR & REFLECTED CEILING PLANS

Sheet Number
D.201

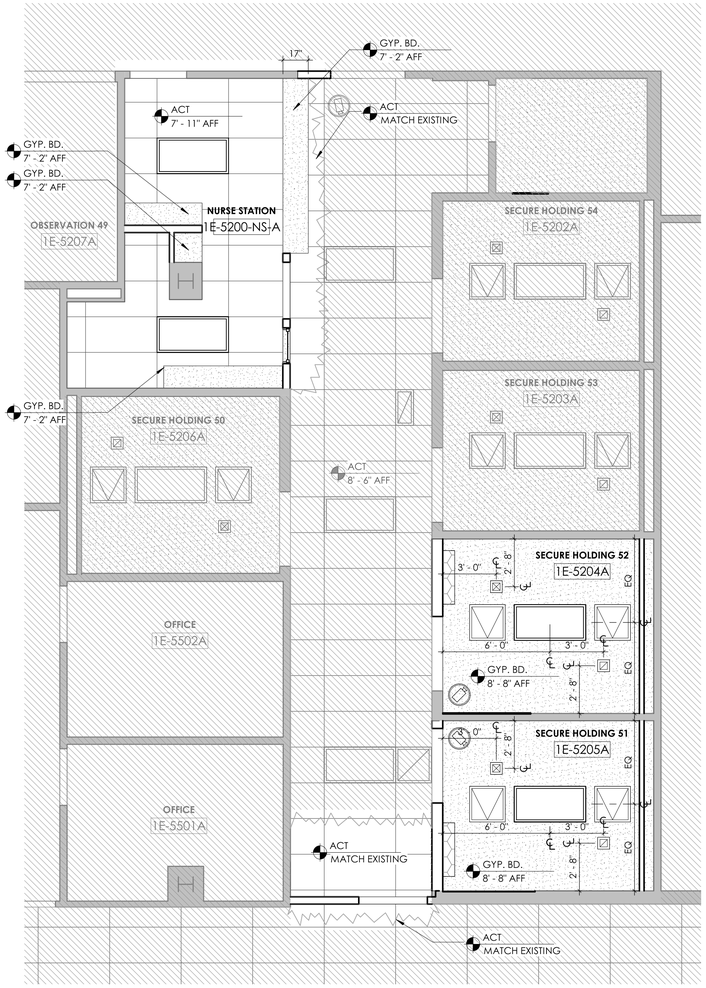
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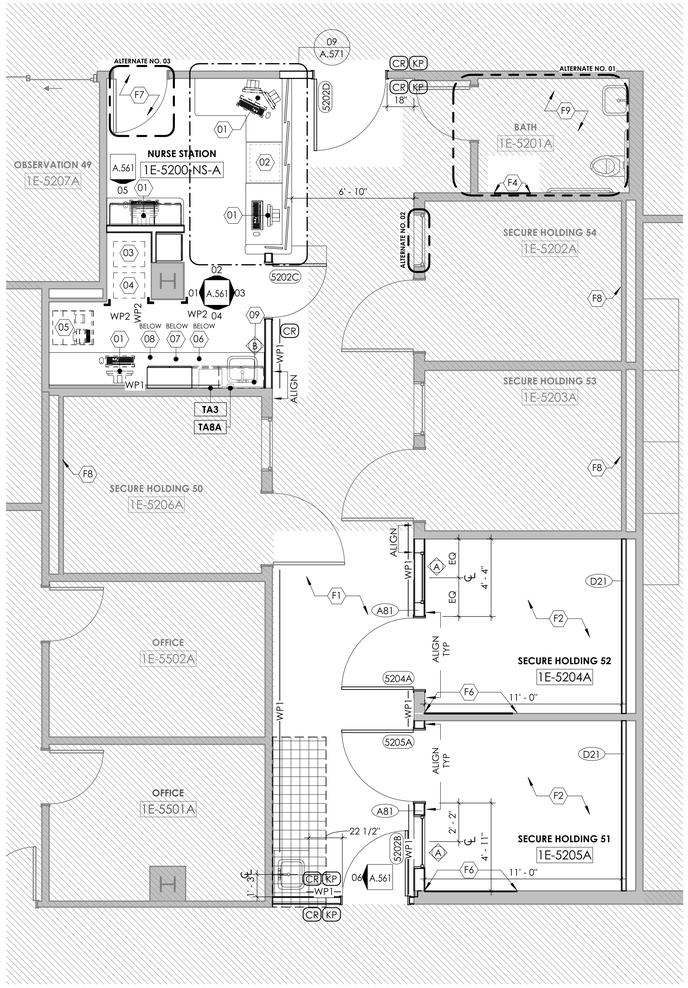
Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation.

Provide a sign stating "EXIT" in raised, visual characters and braille adjacent to each door in an area of refuge, an exterior area for assisted rescue, an exit stairway or ramp, an exit passageway and the exit discharge. **2015 IBC 1013.4**

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *Matt A.*
Date: *Mar 13, 2023*
2015 INTERNATIONAL CODES & 2020 NEC



02- LEVEL 01 - REFLECTED CEILING PLAN
1/4" = 1'-0"



01- LEVEL 01 - FLOOR PLAN
1/4" = 1'-0"

REFLECTED CEILING PLAN GENERAL NOTES

1. THE CONTRACTOR SHALL COMPARE THIS REFLECTED CEILING PLAN WITH ELECTRICAL LIGHTING PLANS, MECHANICAL SUPPLY, RETURN, AND EXHAUST PLANS. THE CONTRACTOR SHALL REPORT ANY OMISSIONS OR INCONSISTENCIES TO THE ARCHITECT.
2. SEE ELECTRICAL DRAWINGS FOR THE LOCATIONS OF CEILING MOUNTED SMOKE DETECTORS, SPEAKERS, EXIT SIGNAGE, FIRE ALARM DEVICES, WALL MOUNTED EXIT LIGHTS, ETC.
3. FOR FURTHER DIMENSIONS SEE ENLARGED PLANS, SECTIONS, ELEVATIONS, AND DETAILS.
4. COORDINATE GYPSUM BOARD FURR DOWN HEIGHTS WITH FULL HEIGHT CABINETS AND INTERIOR ELEVATIONS.
5. SPRINKLER HEAD LOCATIONS ARE NOT SHOWN ON ARCHITECTURAL REFLECTED CEILING PLANS.
6. REPLACE ALL SPRINKLER DEVICES IN PATIENT ROOMS. DEVICES SHALL SHALL BE BEHAVIORAL HEALTH TAMPER RESISTANT CONCEALED HEADS. ALL OTHER HEADS SHALL BE ADJUSTED TO MEET NEW CEILING CONDITIONS.
7. THE CONTRACTOR SHALL VERIFY THAT ACCESS PANELS OF TYPE SPECIFIED ARE INSTALLED IN NON-ACCESSIBLE TYPE CEILINGS WHERE SERVICE OR ADJUSTMENT TO MECHANICAL, PLUMBING, OR ELECTRICAL ITEMS MAY BE REQUIRED. ACCESS PANELS SHALL BE THE FIRE RATED TYPE EQUAL TO THE RATING OF THE CEILING IN WHICH THEY OCCUR.
8. RELOCATE SUPPLY DRAIN AND VENT PIPES TO MAINTAIN SCHEDULED CEILING HEIGHTS. COORDINATE RELOCATIONS WITH MEP ENGINEERS.
9 WHERE EXISTING LAY-IN CEILINGS ARE TO REMAIN, THE CONTRACTOR SHALL REPLACE ANY TILE THAT HAS BEEN DAMAGED WITH MATERIALS THAT MATCH THE EXISTING FOR COLOR, TEXTURE, PATTERN, ETC. IF UNIFORMITY CANNOT BE ACHIEVED, THE CONTRACTOR SHALL REPLACE THE ENTIRE CEILING WITHIN THE SPACE WITH NEW MATERIAL.
10. **REPLACE ALL SPRINLER DEVICES IN PATIENT ROOMS. DEVICES SHALL BE BEHAVIORAL HEALTH TAMPER RESISTANT CONCEALED HEADS. ALL OTHER HEADS SHALL BE ADJUSTED TO MEET NEW CEILING CONDITIONS.**

REFLECTED CEILING PLAN LEGEND

- OUT OF SCOPE
- SUSPENDED 2' x 4' ACOUSTICAL CEILING SYSTEM
- GYPSUM WALL BOARD CEILING
- CEILING TYPE / 1' - 0" AFF — CEILING HEIGHT DESIGNATION
- NEW RECESSED FLUORESCENT LIGHT FIXTURE
- EXISTING RECESSED FLUORESCENT LIGHT FIXTURE TO REMAIN
- SUPPLY AIR GRILLE REF: MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION
- RETURN AIR GRILLE REF: MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION
- LOCKING ACCESS PANEL. CONTRACTOR TO LOCATION IN FIELD ADJACENT TO JUNCTION BOXES/MECHANICAL CONTROLS/ETC ABOVE CEILING
- RECESSED CAN LIGHT FIXTURE
- EXISTING CEILING MOUNTED SECURITY CAMERA.
- EXISTING CEILING MOUNTED SECURITY CAMERA. RELOCATED. COORDINATED WITH FACILITY FOR EXACT LOCATION OF ROUGH IN.
- PROVIDE PROENC LIGATURE RESISTANT CEILING-MOUNTED TV ENCLOSURE SIZE NL26 INSTALLED TIGHT TO CORRIDOR WALLS, CENTERED ABOVE WINDOWS. COORDINATE WITH FACILITY FOR NEW MONITORS TO BE INSTALLED IN ENCLOSURE.
- COORDINATE REMOVAL OF EXISTING CEILING FOR REPLACEMENT OF VAV BOX OR TIE IN POINTS FOR NEW HVAC. REFER TO MECHANICAL FOR FURTHER DETAILS.

EQUIPMENT KEYNOTES

01	WORKSTATION	OFOI
02	PRINTER	OFOI
03	TELEMED	OFOI
04	VITA SIGN MACHINE	OFOI
05	MEDICATION DISPENSER	OFOI
06	UNDER THE COUNTER WASTE CAN	OFOI
07	SHRED, EXST (FREE STANDING)	OFOI
08	SHARPS DISPOSAL, EXST (FREE STANDING)	OFOI
09	SANITIZER	OFCI

FLOOR PLAN GENERAL NOTES

1. PARTITION TYPES ARE SCHEDULED ON A.541. REFER TO PARTITION TYPE SCHEDULE FOR LOCATION OF SOUND ATTENUATION BLANKETS.
2. REFER TO SHEET G.101 FOR ADDITIONAL GENERAL NOTES.
3. ALL PARTITIONS ARE TYPE "A41" UNLESS OTHERWISE NOTED.
4. DIMENSIONS SHOWN ON THE FLOOR PLANS FOR NEW CONSTRUCTION ARE TO THE FACE OF FINISH OF INTERIOR WALLS, TO CENTER LINE OF COLUMNS AND TO THE FACE OF CONCRETE OR MANSONRY WALLS, UNLESS OTHERWISE INDICATED. DIMENSIONS IN RENOVATED AREAS ARE FROM FINISH FACE OF EXISTING WALLS TO FINISH FACE OF NEW STUD WALL, UNLESS OTHERWISE INDICATED.
5. WHERE NEW GYPSUM BOARD PARTITIONS ARE A CONTINUATION OF AN EXISTING PARTITION OR COLUMN ENCASEMENT, THE FACE OF THE NEW GYPSUM BOARD SHALL BE ALIGNED WITH THE FACE OF THE EXISTING SURFACE. WHERE A ONE HOUR PARTITION IS SHOWN AS A CONTINUATION OF A TWO-HOUR PARTITION OR COLUMN ENCASEMENT, THE FACE OF THE GYPSUM BOARD SHALL BE ALIGNED. STUDS SHALL BE OFFSET AND ADDITIONAL LAYERS OF GYPSUM BOARD SHALL BE PROVIDED AS REQUIRED TO PROVIDE FACE ALIGNMENT OF GYPSUM BOARD.
6. SEE ARCHITECTURAL ENLARGED PLANS FOR TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
7. LAVATORIES AND SINKS SHALL BE ACCOMPANIED BY A PAPER TOWEL DISPENSER "TA2/3" AND SOAP DISPENSER "TA8" UNLESS OTHERWISE NOTED ON THE FLOOR PLANS.
8. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER. PROVIDE MINIMUM 1'-6" CLEAR AT THE PULL SIDE OF EVERY DOOR (EXCLUDING PATIENT BEDROOMS), UNLESS SPECIFICALLY DIMENSIONED. NOTED OR SHOWN OTHERWISE.
9. ALL LAVATORIES AND SINKS SHALL BE MOUNTED A MINIMUM OF 1'- 3" FROM THE CENTERLINE OF THE FIXTURE TO THE FINISHED FACE OF THE ADJACENT PARTITION. THESE WILL BE OFCI.

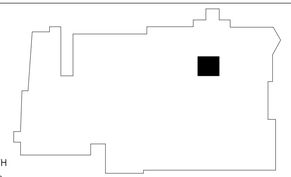
FLOOR PLAN LEGEND

- OUT OF SCOPE
- NEW CONSTRUCTION
- EXISTING TO REMAIN
- 1 — INTERIOR WINDOW TAG REF: A.541 FOR SCHEDULE
- XXX — DOOR TAG REF. A.541 FOR DOOR SCHEDULE
- A41 — PARTITION TAG REF. A.541 FOR TYPE CHARTS
- 1 / A.100 / 1 — INTERIOR ELEVATION TAG
- WP1 — SHEET/RAIL WALL PROTECTION RE: DETAILS ON SHEET I.201
- WP2 — WALL PROTECTION CORNER GUARD RE: DETAILS ON SHEET I.201
- CR — CARD READER
- KP — KEY PAD
- INFILL SAW CUT AREA WITH 3500 PSI MIN STRENGTH CONCRETE. DRILL AND EPOXY #4 BARS AT 16" OC IN EACH DIRECTION.

FLOOR PLAN KEYNOTES

- F1 PROTECT EXISTING FLOORING FINISH DURING CONSTRUCTION.
- F2 AT EXISTING WALLS TO REMAIN WITHIN THIS ROOM, PROVIDE AN ADDITIONAL LAYER OF GYPSUM WALL BOARD (IMPACT RESISTANT NOT REQUIRED) TO THE NEW HARD LID CEILING.
- F3 ULTIMA HEALTHZONE CEILING TILE.
- F4 **ALTERNATE NO. 01** REMOVE AND REPAIR THE SHOWER FIXTURE AND ACTIVATION DEVICE.
- F5 FILL AND LEVEL NEW SLAB.
- F6 REPAIR EXISTING WALL WITH IMPACT RESISTANT GYPSUM BOARD.
- F7 **ALTERNATE NO. 03** PROVIDE ADDITIVE PRICING TO REPLACE NURSE STATION DOOR WITH TWO TONE WOOD DOOR TO MATCH OTHER NEW DOORS. DOOR IS 3'0" X 7'0" NARROW VIEW. SALVAGE ALL HARDWARE AND DOOR LIGHT FOR REUSE.
- F8 **ALTERNATE NO. 04** REPAIR ALL WALL FINISHES FOLLOWING INSTALLATION OF NIGHTLIGHTS. RE ELECTIRCAL.
- F9 **ALTERNATE NO. 01** INSTALL SURFACE APPLIED COMPRESSIBLE SHOWER THRESHOLD AT DOOR TRANSITION. BASIS OF DESIGN - CAREPRODX - KTWSB5U

KEY PLAN



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Consultant Team

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Greenwood Village, CO 80112
ph: 303.225.6320

No.	Description	Date

STATE OF COLORADO
JOHN MENNO HAHN
401729
LICENSED ARCHITECT
02/03/2023

22-031 TMCA MDU Extended Renovation

1501 S POTOMAC ST
AURORA, CO 80012

Issue	ISSUE FOR CONSTRUCTION
Date	03 FEBUARY 2023
Project Number	22-031
Drawn by	JL/PY
Checked by	JMN

Sheet Title
FLOOR & REFLECTED CEILING PLANS

Sheet Number
A.201

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DOOR SCHEDULE

DOOR NO	ROOM NAME	DOOR SIZE W	HT	THK	TYPE	MTL	FINISH	GLZ	FRAME TYPE	FRAME MTL	FRAME FINISH	DETAILS HEAD	JAMB	SILL	FIRE RATING	DOOR HARDWARE	REMARKS
5204A	SECURE HOLDING 52	4' - 0"	7' - 0"	0' - 1 3/4"	N	SC	STN1	GL-1	A	HM	PNT	07/A.541	06/A.541	-	NR	6.01	1
5205A	SECURE HOLDING 51	4' - 0"	7' - 0"	0' - 1 3/4"	N	SC	STN1	GL-1	A	HM	PNT	07/A.541	06/A.541	-	NR	6.01	1
5202D	CORRIDOR	4' - 0"	7' - 0"	0' - 1 3/4"	N	SC	STN1/STN2	NA	A	HM	PNT	07/A.541	06/A.541	-	NR	9.01	2, 3
5202C	NURSE STATION	3' - 0"	7' - 0"	0' - 1 3/4"	N	SC	STN1	NA	A	HM	PNT	07/A.541	06/A.541	-	NR	9.02	2, 3, 4
5202B	CORRIDOR	3' - 8"	7' - 0"	0' - 1 3/4"	N	SC	STN1/STN2	NA	A	HM	PNT	07/A.541	06/A.541	-	NR	9.01	2, 3
Grand total: 5																	

NOTES:
1. SEE FINISH LEGEND FOR ADD ALTERNATE DOOR FINISH
2. INTERIOR STAIN - STAIN 1, EXTERIOR STAIN - STAIN 2 (MATCH EXISTING DOOR STAIN COLOR)
3. CARD READER/KEYPAD TO BE INSTALLED ON BOTH SIDES OF DOOR. COORDINATE WITH SECURITY CONTRACTOR.
4. DOOR TO BE 60" HI SLAB WITH FINISHED EDGES ON TOP AND SIDES. COORDINATE HINGES IN FRAME FOR SHORTER DOOR.

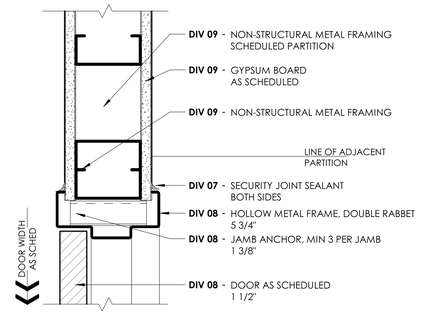
Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation.

Structural plan review is limited to a general survery for code compliance. No review is implied nor was undertaken to verify structural adequacy.

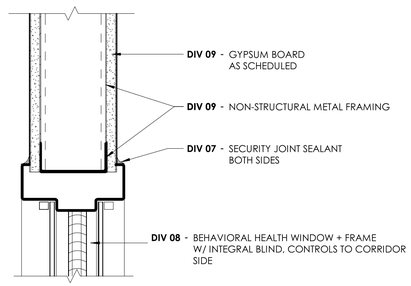
City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *Matt A.*
Date: *Mar 13, 2023*
2015 INTERNATIONAL CODES & 2020 NEC

Provide lever or other approved hardware on all new and relocated doors.
2009 ICC/ ANSI 117.1 309.4

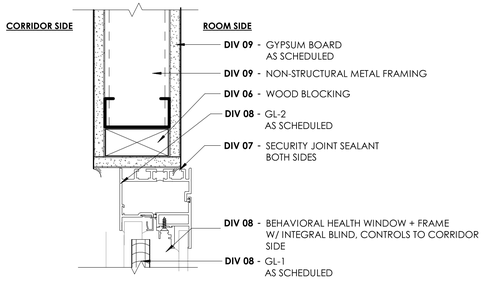
Install Tempered or Safety Glazing at all Full Lite doors, and other locations as required by 2015 IBC, Section 2406



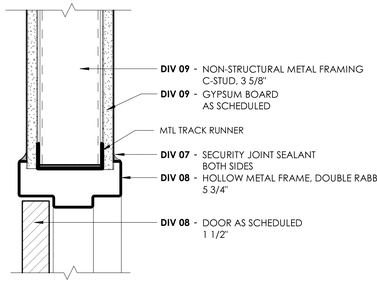
08 - JAMB DETAIL
3" = 1'-0"
@ TYP RATED/ NON-RATED DOOR



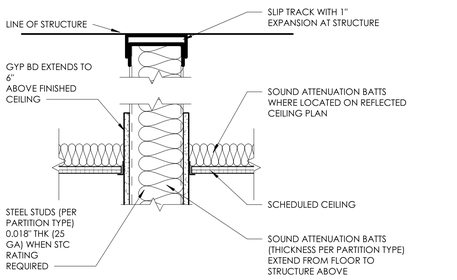
07 - HEAD/JAMB DETAIL @ TYPICAL INTERIOR WINDOW
3" = 1'-0"



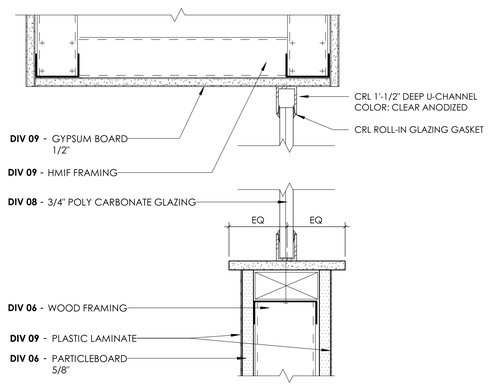
06 - HEAD/SILL/JAMB DETAIL @ TYPICAL INTERIOR WINDOW
3" = 1'-0"



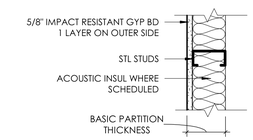
09 - HEAD DETAIL
3" = 1'-0"
@ TYP RATED/ NON-RATED DOORS



05 - PARTITION HEAD SECTION
1 1/2" = 1'-0"
@ NON-RATED W/ GYP BD TO 6" ABOVE CEILING



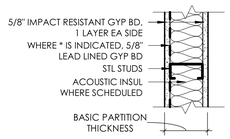
04 - NURSE STATION GLAZING
3" = 1'-0"



D

NOTE:
1. STC'S ARE PREDICTED USING THE "INSUL" COMPUTER PROGRAM.
2. STC'S ARE BASED ON 0.018" THICK (25 GA) STUDS.
3. REFER TO A.500 SERIES FOR BRACING.

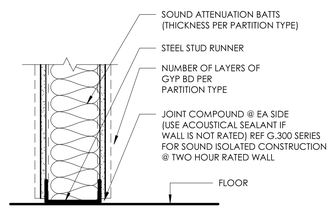
	D1_	STC	D2_	STC	D3_	STC	D4_	STC	D5_	STC	D6_	STC	D7_	STC	D8_	STC	D9_	STC
NON-RATED WITH GYP BD TO STRUCTURE ABOVE	D11	27	D21	29	D31	27	D41	30	D51	27	D61	30	D71	27	D81	31	D91	26
NON-RATED WITH GYP BD TO 6" ABOVE CEILING	D12		D22		D32		D42		D52		D62		D72		D82		D92	
NON-RATED WITH STUDS & GYP BD TO FINISHED CEILING	D13		D23		D33		D43		D53		D63		D73		D83		D93	
STUD SIZE	2 1/2"		2 1/2"		3 5/8"		3 5/8"		4"		4"		6"		6"		1 1/2"	
BASIC PARTITION THICKNESS	3 1/8"		3 1/8"		4 1/4"		4 1/4"		4 5/8"		4 5/8"		6 5/8"		6 5/8"		2 1/8"	
ACOUSTICAL INSULATION THICKNESS	-		2"		-		3"		-		3"		-		5 1/2"		1"	
ACOUSTICAL TEST NUMBER	NOTE 1		NOTE 1		NOTE 1		NOTE 1		NOTE 1		NOTE 1		NOTE 1		NOTE 1		NOTE 1	
FIRE TEST NUMBER (WHERE APPLICABLE)																		



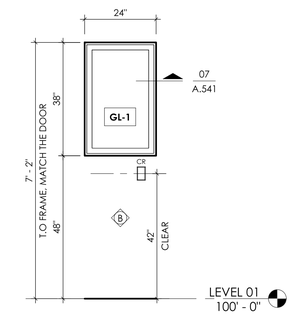
A

NOTE:
1. STC IS PREDICTED USING THE "INSUL" COMPUTER PROGRAM.
2. STC IS MODIFIED FROM THE REFERENCE.
3. STC IS BASED ON 0.018" THICK (25 GA) STUDS
4. WHERE AN * NEXT TO THE PARTITION TAG, A SINGLE LAYER OF LEAD LINED GYPSUM BOARD IN LIEU OF TYPE X GYPSUM BOARD ON THE PROCEDURE ROOM SIDE OF THE WALL. NOT TO BE USED FOR FIRE RATED WALLS.

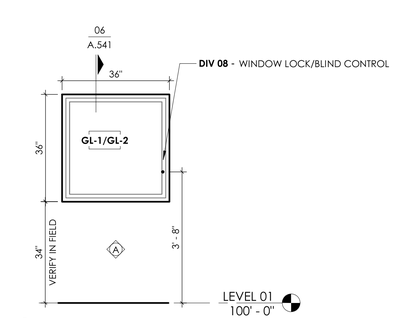
	A1_	STC	A2_	STC	A3_	STC	A4_	STC	A5_	STC	A6_	STC	A7_	STC	A8_	STC
1-HR RATED WITH GYP BD TO STRUCTURE ABOVE			A20	46	A30	39	A40	47	A50	39	A60	47	A70	40	A80	48
NON-RATED WITH GYP BD TO STRUCTURE ABOVE (SMOKE RESIST)	A11	39	A21	46	A31 (*)	39	A41 (*)	47	A51 (*)	39	A61 (*)	47	A71 (*)	40	A81 (*)	48
NON-RATED WITH GYP BD TO 6" ABOVE CEILING	A12		A22		A32 (*)		A42 (*)		A52 (*)		A62 (*)		A72 (*)		A82 (*)	
NON-RATED WITH STUDS & GYP BD TO FINISHED CEILING	A13		A23		A33		A43		A53		A63		A73		A83	
PARTIAL HEIGHT PARTITION, SEE FLOOR PLANS FOR HEIGHTS.	A14		A24		A34		A44		A54		A64		A74		A84	
STUD SIZE	2 1/2"		2 1/2"		3 5/8"		3 5/8"		4"		4"		6"		6"	
BASIC PARTITION THICKNESS	3 3/4"		3 3/4"		4 7/8"		4 7/8"		5 1/4"		5 1/4"		7 1/4"		7 1/4"	
ACOUSTICAL INSULATION THICKNESS	-		2"		-		3"		-		3"		-		5 1/2"	
ACOUSTICAL TEST NUMBER	SIM USG 860808		SIM SA 831001		SIM USG 860808		SIM USG 870717		SIM USG 860808		SIM SA 870717		SIM USG 860808 NOTE 3		SIM USG 870717 NOTE 4	
FIRE TEST NUMBER (WHERE APPLICABLE)	-		UL DES U419		UL DES U465		UL DES U465		UL DES U465		UL DES U465		UL DES U465		UL DES U465	



03 - PARTITION FLOOR SECTION
1 1/2" = 1'-0" WHERE STUDS & GYPSUM BOARD STOP AT THE FLOOR



02 - NURSE STATION - WINDOW
1/2" = 1'-0"



LEVEL 01
100' - 0"

01 - SECURE HOLDING - WINDOW
1/2" = 1'-0"

DOOR HARDWARE

SET 9.01
5202B, 5202D

QTY	TYPE	MODEL	MFR	FINISH
1EA	ELEC. CONT. HINGE	CFM83SLF-HD1 X ACC8 X HT	PEM	C
1EA	ELEC. MORT. LOCK	L9095JEU SL1 XL12-482 CON 12/24 VDC	SCH	630AM
1EA	CORE MEDECO CORE (KEYED BY OWNER)		**	630
1EA	CLOSER, PARALLEL	4050T X STD X TBTORX	LCN	AL
1EA	FLOOR STOP	FS436	IVE	US26D
1EA	WIRE HARNESS	CON-32P	SCH	NA
1EA	WIRE HARNESS	CON-192	SCH	NA
3EA	SILENCER	SR64	IVE	GRY
1EA	SEAL	588	PEM	GRY
2EA	CARD READER/KP	BY SECURITY VENDOR		

NOTES:
1. PROVIDE SF DISPOSABLE CONSTRUCTION CORE. PROVIDE REPLACEMENT MEDECO CORE TO OWNER. KEYING BY OWNER.
2. CLOSERS TO FACE OUTSIDE OF UNIT.
3. SMOKE SEAL ONLY AT 5202K.
4. CARD READER/KEYPAD AT BOTH SIDES OF DOOR FOR CONTROLLED EGRESS AND ENTRY.
   a. CARD READER/KEYPAD BY SECURITY CONTRACTOR.

SET 9.02
5202C

QTY	TYPE	MODEL	MFR	FINISH
2EA	HT SPRING HINGE	HT1502 4.5X4.5 SPRING HINGE HW WT	MCK	26D
1EA	POWER TRANSFER	EPT2	VON	US26D
1EA	ELEC. MORT. LOCK	L9092HDEU X SL1 X 10-072 X XL12 X-482 X GRN X 50231 X TORX	SCH	630AM
1EA	CORE MEDECO CORE (KEYED BY OWNER)		**	630
1EA	FLOOR STOP	FS436	IVE	US26D
1EA	WIRE HARNESS	CON-32P	SCH	NA
1EA	WIRE HARNESS	CON-192	SCH	NA
2EA	SILENCER	SR64	IVE	GRY
1EA	CARD READER/KP	BY SECURITY VENDOR		

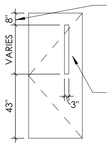
NOTES:
1. PROVIDE SF DISPOSABLE CONSTRUCTION CORE. PROVIDE REPLACEMENT MEDECO CORE TO OWNER. KEYING BY OWNER.
2. CLOSERS TO FACE OUTSIDE OF UNIT.
3. SMOKE SEAL ONLY AT 5202K.
4. CARD READER AT PASSAGE SIDE OF DOOR BY SECURITY CONTRACTOR.

SET 6.01
5204A, 5205A

QTY	TYPE	MODEL	MFR	FINISH
1EA	HINGE-CONT	CFM83SLF-HD1-HT	PEM	C
1EA	DEADLOCK	L464VDC X 09-717 X 10-079 SINGLE CYLINDER	SCH	629
1EA	CORE MEDECO CORE (KEYED BY OWNER)		**	630
1EA	PULL	KG40	KWG	630
1EA	ROLLER LATCH	591	ROC	US26
3EA	SILENCER	SR64	IVE	GRY

NOTES:
1. DEADBOLT KEYED FROM CORRIDOR SIDE ONLY.
2. KG40 PULL LOCATED ON CORRIDOR SIDE.
3. DEADBOLT PROVIDED WITH SF DISPOSABLE CONSTRUCTION CORE. PROVIDE REPLACEMENT MEDECO CORE TO OWNER. KEYING BY OWNER.

DOOR TYPES

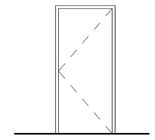


8" MIN ABOVE LITE OF DOORS REQUIRING 6" MIN SIDES. 9" MIN ABOVE LITE OF DOORS REQUIRING 9" MIN SIDES

9" @ EACH SIDE OF DOOR W/ A HOSPITAL LATCH, PANIC HARDWARE AND/OR 48" LEAF. 6" MIN AT EACH SIDE OF ALL OTHER DOORS

N
NARROW LITE
100 SQ IN MAX

DOOR FRAME TYPES



A
RABBETED

DOOR SCHEDULE ABBREVIATIONS

MATERIAL:
HM - HOLLOW METAL
SC - SOLID CORE WITH PLAIN-SLICED BOOK-MATCHED OAK WOOD VENEER
SR - SMOKE RESISTANT
(E) - EXISTING
NA - NOT APPLICABLE
GL-X - GLAZING, REFER TO SPECIFICATIONS FOR MORE INFORMATION

FINISH:
*REFER TO FINISH LEGEND FOR MORE INFORMATION
PNT - PAINTED FINISH
STN - STAINED, SEE NOTES BY NUMBER IN DOOR SCHEDULE

HARDWARE MANUFACTURERS:
IVE - IVES
VON - VON DUPREN
SCH - SCHLAGE
ROC - ROCKWOOD
KWG - KINGSWAY GROUP INC.
PEM - PEMKO
MCK - MCKINNEY
(ME) - MATCH EXISTING

HARDWARE FINISHES:
C - CLEAR ANODIZED
630 / US32D - SATIN STAINLESS STEEL
GRY - GREY

GLAZING TYPE LEGEND

TYPE	RE: TO SPECIFICATIONS FOR MORE INFORMATION
GL-1	PLASTIC GLAZING, 5/16" THICK
GL-2	TEMPERED GLAZING, 1/4" THICK

PARTITION TYPE GENERAL NOTES

1. REFER TO FLOOR PLAN SERIES A.200 FOR LOCATION OF PARTITION TYPES. ALL PARTITIONS ARE TYPE " A41 " UNLESS NOTED OTHERWISE. NOT ALL PARTITION TYPES SHOWN ARE UTILIZED.
2. REFER TO THE I.200 SERIES FOR FINAL FINISHES ON PARTITIONS. PARTITION TYPES IN CHARTS REFER TO BASE WALL ONLY.
3. WHEN BLOCKING REQUIRED IN A PARTITION, USE A MINIMUM .033" (20 GA) STUD.
4. PROVIDE ONE LAYER OF 5/8" GLASS MATT INTERIOR AT WALLS BEHIND SINKS AND LAVATORIES WITHOUT TILE. GLASS MATT INTERIOR TYPE BOARD SHALL BE INSTALLED WITHIN 2' OF ALL URINALS AND WATER CLOSETS, TO A HEIGHT OF A 4' AFF (AT WALLS W/ OUT TILE).
5. PROVIDE FIRE TREATED WOOD BLOCKING, SHEET METAL OR STEEL BACKING IN PARTITIONS TO SUPPORT WALL MOUNTED ITEMS AND EQUIPMENT. FOR EXAMPLE, AT CABINETS, HANDRAILS, GUARDRAILS, TOILET PARTITIONS AND ACCESSORIES, WALL-MOUNTED EQUIPMENT, ETC.
6. "LINE OF STRUCTURE" AS SHOWN AT THE HEAD CONDITIONS OF THE PARTITION DETAIL DOES NOT INDICATE THE EXACT CONSTRUCTION CONDITION.
7. ISOLATE NON-LOAD BEARING FRAMING FROM STRUCTURAL ELEMENTS TO PREVENT THE TRANSFER OF LOAD TO PARTITION FRAMING. STOP STUD BELOW METAL RUNNER (TOP TRACK) TO ALLOW FOR VERTICAL EXPANSION. SET TOP TRACK 1" BELOW DEFLECTION TRACK. DO NOT ATTACH STUDS TO TOP TRACK. DO NOT ATTACH GYPSUM BOARD TO THE DEFLECTION TRACK. THIS MAY ALSO BE ACHIEVED, AT THE CONTRACTORS OPTION, BY UTILIZING THE PROPRIETARY SYSTEM DESCRIBED IN THE PROJECT MANUAL.

ACOUSTICAL PARTITIONS

THE FOLLOWING NOTES APPLY TO ALL PARTITIONS DESIGNATED TO HAVE A SOUND TRASMISSION CLASS (STC) RATING ON THE PARTITION CHARTS. REFER TO DETAILS ON THE A.500 SERIES FOR PARTITION TYPES WITH A DESIGNATED STC RATING.

1. ALL ACOUSTICALLY CLASSED PARTITIONS SHALL BE CONSTRUCTED IN STRICT ACCORDANCE TO THE REFERENCED TEST.
2. STAGGER AND SEAL ALL JOINTS ON MULTIPLE GYPSUM BOARD LAYER PARTITIONS.
3. SEAL PARTITIONS AIR TIGHT AT FLOORS, SIDES, AND CEILINGS ON BOTH SIDES WITH NON-HARDENING ACOUSTICAL SEALANT, UON.
4. ALL BATTS AND BLANKETS IN RATED PARTITIONS MUST BEAR THE REQUIRED UL CLASSIFICATION MARKING AS TO FIRE- RESISTANCE. REFER TO CODE COMPLIANCE DETAILS IN THE G.300 SERIES.
5. AT ACOUSTICALLY RATED PARTITIONS, DO NOT FILL THE STUD CAVITY (DEPTH) FULLY WITH SOUND BATTS. THE WIDTH OF THE SOUND BATTS SHOULD BE SLIGHTLY SMALLER THAN CAVITY TO AVOID BATT COMPRESSION; HOWEVER, THE ENTIRE LENGTH AND HEIGHT OF THE PARTITION SHOULD HAVE CONTINUOUS AND UNINTERRUPTED SOUND ATTENUATION BATTS.
6. SEAL ALL WALL INTERSECTIONS AND CONTROL JOINTS AT ACOUSTICALLY CLASSED PARTITIONS.
7. SEAL ALL CONDUIT, STRUCTURAL, DUCT AND LARGE PIPE PENETRATIONS TO MAINTAIN THE ACOUSTIC RATING OF THE WALL.
8. OUTLETS ON OPPOSITE SIDES OF ACOUSTICALLY CLASSED PARTITIONS SHOULD BE SEPARATED BY A MINIMUM OF ONE STUD.
9. THE ARCHITECT SHALL OBSERVE THAT ALL BOXES REQUIRED TO BE ACOUSTICALLY SEALED ARE SEALED PRIOR TO CLOSING IN PARTITIONS AND INSTALLING DEVICES AND COVER PLATES.

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No.	Description	Date

STATE OF COLORADO
JOHN MENNO MAST
401729
LICENSED ARCHITECT
02/03/2023

22-031 TMCA MDU Extended Renovation

1501 S POTOMAC ST
AURORA, CO 80012

Issue	ISSUE FOR CONSTRUCTION
Date	03 FEBUARY 2023
Project Number	22-031
Drawn by	JL/TR
Checked by	JMN

Sheet Title
DOOR & WINDOW SCHEDULES & INTERIOR DETAILS

Sheet Number
A.541

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TYPICAL TOILET ACCESSORY MOUNTING HEIGHTS

TOILET ACCESSORY TAG

TA?? REFERS TO SPECIFICATIONS

*NOTE: TYPICAL MOUNTING HEIGHTS AND CLEARANCES ONLY - REFER TO FLOOR PLANS FOR ACTUAL FIXTURE ORIENTATION, WHERE APPLICABLE.

REACH RANGE (RR) TO OPERATION
RR: ≤ 48" AFF WHERE ≤ 20" COUNTER DEPTH

RR: ≤ 44" AFF WHERE >20"-25" COUNTER DEPTH W/ ACC KNEE SPACE BELOW

RR: ≤ 48" AFF WHERE COUNTERTOP W/ CABINET BELOW W/ 10" DEPTH & 34" MAX. HEIGHT

RR: ≤ 44" AFF WHERE COUNTERTOP W/ CABINET BELOW W/ > 10" - 24" DEPTH & 34" MAX. HEIGHT

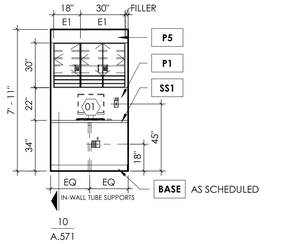
RR: 15"-48" AFF WHERE NO COUNTERTOP



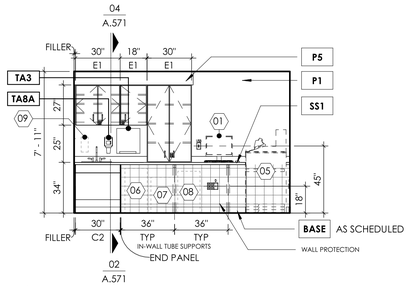
ELEVATION GENERAL NOTES

1 REFER TO ELEVATIONS FOR MODULAR CASEWORK LAYOUTS, NON-STANDARD SIZES, MODIFICATIONS, DOOR, DRAWER AND SHELF CONFIGURATIONS. RE DETAIL ON A.570 SERIES
2 COORDINATE WITH OWNER, EQUIPMENT PLANS AND ELECTRICAL DOCUMENTS FOR LOCATION OF ALL REQUIRED 2-1/2" GROMMETS AT ALL COUNTER TOP LOCATIONS.
3 PROVIDE PLASTIC LAMINATE FINISHED END PANELS AT ALL EXPOSED ENDS OF BASE AND UPPER CABINETS.
4 CONTRACTOR SHALL PROVIDE SECURE WALL ATTACHMENT FOR ALL CASEWORK TO BE PAINTED TO MATCH ADJACENT WALL COLOR.
5 FILLER STRIPS SHALL BE 1" MINIMUM. NOTIFY ARCHITECT CONCERNING AREAS SMALLER THAN 1".
6 ALL FILE CABINETS TO RECIEVE PENDIFLEX LETTER FILE INSERTS. REFER TO ELEVATIONS ON A.560 SERIES FOR NOTATION OF LOCKS.
7 PROVIDE 4" RUBBER COVE BASE AT ALL CASEWORK KICKSPACES
8 PROVIDE BLANK PANEL IN LIEU OF DRAWERS AT SINK LOCATIONS
9 PROVIDE 2" RADIUS CURVED EDGES AT ALL EXPOSED EDGES. RE DETAILS ON A.570 SERIES
10 PROVIDE PAPER TOWEL HOLDER AND 4" BACKSPLASH AT ALL SINK LOCATIONS.
11 REFER TO I.100 SERIES FOR CASEWORK FINISHES
12 PROVIDE IN-WALL TUBE SUPPORT FOR COUNTERTOP SUPPORT WHEN NECESSARY AND AS NOTED IN ELEVATIONS IN A.560 SERIES.

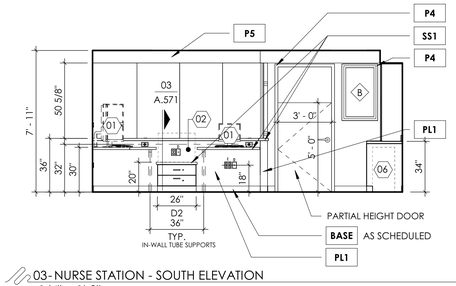
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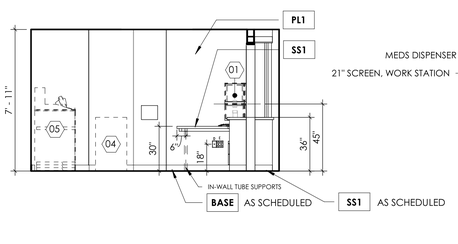
05- SECONDARY WORK STATION - WEST ELEVATION
1/4" = 1'-0"
NOTE: CODE LOCKS TO BE PROVIDED ON ALL CABINETS.



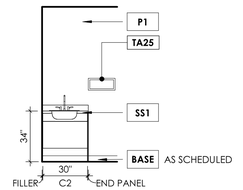
04- NURSE STATION - WEST ELEVATION
1/4" = 1'-0"
NOTE: CODE LOCKS TO BE PROVIDED ON ALL CABINETS.



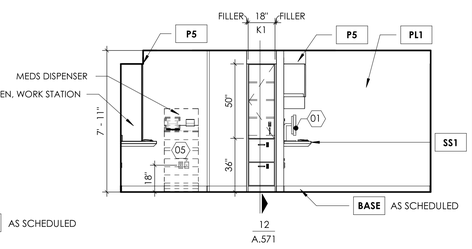
03- NURSE STATION - SOUTH ELEVATION
1/4" = 1'-0"
NOTE: CODE LOCKS TO BE PROVIDED ON ALL CABINETS.



02- NURSE STATION - EAST ELEVATION
1/4" = 1'-0"
NOTE: CODE LOCKS TO BE PROVIDED ON ALL CABINETS.



06- HANDWASH SINK - WEST ELEVATION
1/4" = 1'-0"



01- NURSE STATION - NORTH ELEVATION
1/4" = 1'-0"
NOTE: CODE LOCKS TO BE PROVIDED ON ALL CABINETS.

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No.	Description	Date

PROGRESS PRINTS
STATE OF COLORADO JOHN MENNO HIEBERT 401729 LICENSED ARCHITECT
02/03/2023

22-031 TMCA MDU Extended Renovation

1501 S POTOMAC ST
AURORA, CO 80012

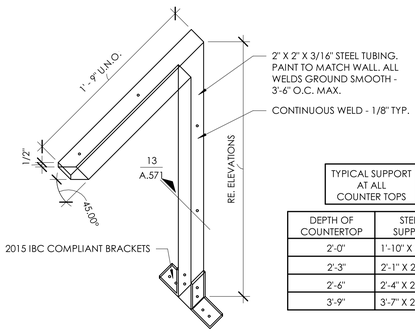
Issue	ISSUE FOR CONSTRUCTION
Date	03 FEBUARY 2023
Project Number	22-031
Drawn by	JL/TR
Checked by	JMN

Sheet Title
INTERIOR ELEVATIONS

Sheet Number
A.561

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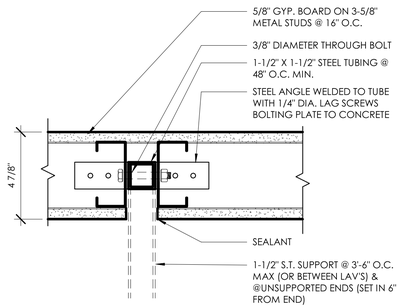
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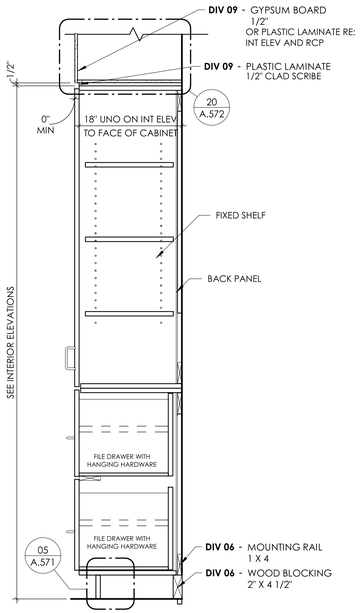
TYPICAL SUPPORT AT ALL COUNTER TOPS

DEPTH OF COUNTERTOP	STEEL TUBE SUPPORT SIZE
2'-0"	1'-10" X 2'-4 1/2"
2'-3"	2'-1" X 2'-4 1/2"
2'-6"	2'-4" X 2' - 4 1/2"
3'-9"	3'-7" X 2' - 4 1/2"

14- STEEL TUBE SUPPORT ISOMETRIC
1 1/2" = 1'-0"

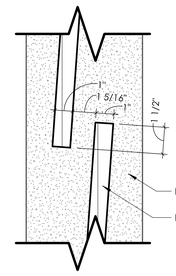


13- TYPICAL SECTION @ STEEL TUBE SUPPORT
3" = 1'-0"

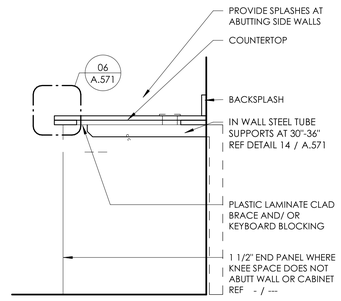


NOTES: REFER TO THIS TYPICAL DETAIL K1 FOR MATERIALS, DIMENSIONS AND DETAIL ENLARGEMENTS OF TYPE "K" FULL HEIGHT CABINETS.

12- K1 - FULL HEIGHT CABINET
1" = 1'-0"

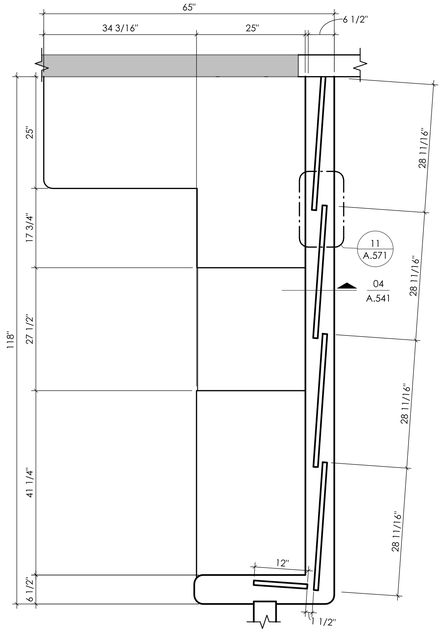


11- PLAN DETAIL AT NS GLAZING
3" = 1'-0"

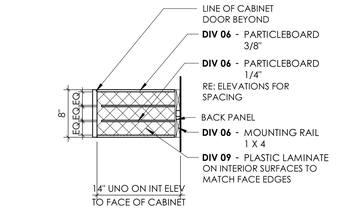


NOTE: PROVIDE APRON AND FILLER PANELS, AT UNDER COUNTER EQUIPMENT LOCATIONS. REF INTERIOR ELEVATIONS FOR LOCATIONS. REF TO INTERIOR FINISH PLAN FOR COUNTERTOP MATERIAL. IF PLASTIC LAMINATE COUNTERTOP REF 01 / A.572. IF SSM REF 06 / A.571

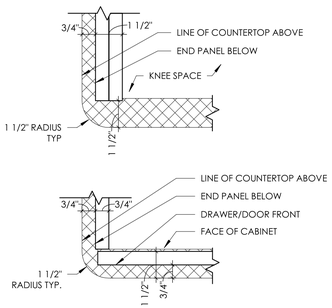
10- B2 - KNEE SPACE WITH INWALL SUPPORT
1" = 1'-0" KNEE SPACE OR U/C EQUIPMENT CONDITION



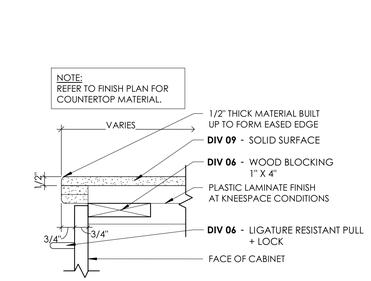
09- NURSE STATION PLAN DETAIL
3/4" = 1'-0"



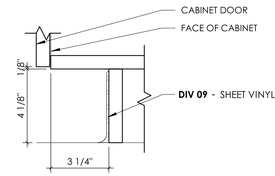
08- UPPER CABINET SLOT STORAGE
1" = 1'-0"



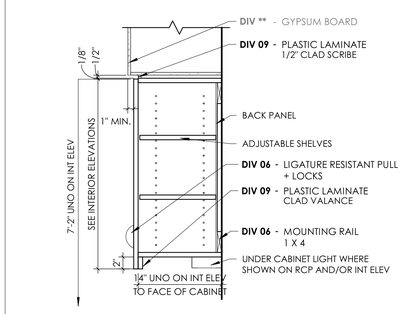
07- PLAN DETAIL COUNTER TOP CORNER
3" = 1'-0"



06- SECTION DETAIL - SOLID SURFACE MAT.
3" = 1'-0"

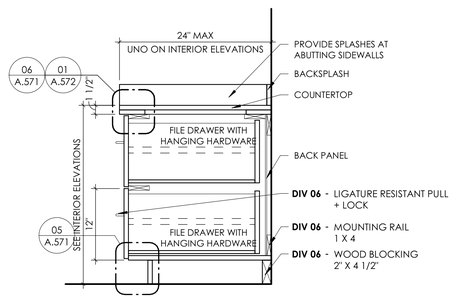


05- SECTION DETAIL - TOEKICK
3" = 1'-0"

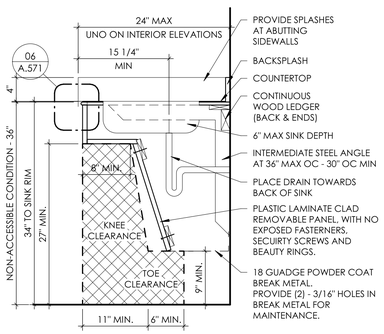


NOTE: REFER TO THIS TYPICAL DETAIL E1 FOR MATERIALS AND DIMENSIONS OF TYPE "E" UPPER CABINETS.

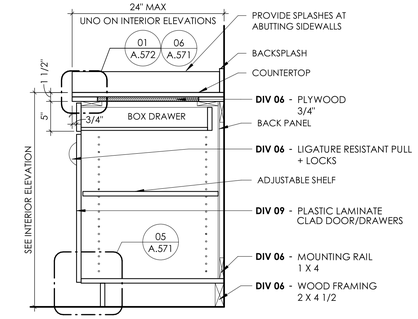
04- E1 - UPPER CABINET
1" = 1'-0" WITH DOORS



03- D2 - BASE CABINET
1" = 1'-0" 2 FILE DRAWERS



02- C2 - ACCESSIBLE SINK
1" = 1'-0"



NOTE: REFER TO THIS TYPICAL DETAIL A1 FOR MATERIALS, DIMENSIONS, AND DETAIL ENLARGEMENTS OF TYPE "A" BASE CABINETS. REFER TO INTERIOR FINISH PLAN FOR COUNTERTOP MATERIAL.

01- A1 - KNEE SPACE W/ DRAWER
1" = 1'-0" WITH DOOR + DRAWER

ARCHITECTURAL CASEWORK GENERAL NOTES

ALL CASEWORK:
1. ALL SECTION DETAILS ON THIS SHEET MAY NOT APPLY TO THIS PROJECT.
2. ARCHITECTURAL WOODWORK TYPES, WIDTHS, AND HEIGHTS ARE INDICATED ON THE A.56X SERIES SHEETS.
3. FIELD VERIFY EXISTING DIMENSIONS PRIOR TO FABRICATION. NOTIFY ARCHITECT OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO FABRICATION.
4. VERIFY AND COORDINATE CLEAR DIMENSIONS REQUIRED FOR OWNER-FURNISHED EQUIPMENT LOCATED WITHIN OR ADJACENT TO ANY CABINETS.
5. COORDINATE INSTALLATION OF SINKS WITH ASSOCIATED PIPING AND FITTINGS PLUS WITH INSTALLATION OF ACCESSIBLE COVER PANELS.
6. REQUIRED SCRIBES AND FILLER PIECES SHALL BE INSTALLED TO ALLOW PROPER OPERATION OF DRAWERS/DOORS. THEY SHALL BE EVENLY DISTRIBUTED AND OF EQUAL WIDTH ALONG A SINGLE RUN OF CABINETS. THEY SHALL BE 3" WIDE. MAXIMUM EXCEPT INSIDE CORNER FILLERS SHALL BE 2 1/2" WIDE MINIMUM. REF TO TYP. CASEWORK DETAILS ON SHEET A.571, INSIDE CORNER DETAIL.
7. WHERE BASE CABINETS INTERSECT AT INSIDE CORNER CONDITION PROVIDE WALL MOUNTED LEDGERS TO SUPPORT COUNTERTOP AT CORNERS. WHERE UPPER CABINETS INTERSECT AT INSIDE CORNER CONDITIONS PROVIDE HORIZONTAL FILLER PANEL FLUSH WITH BOTTOM OF CABINETS.
8. PROVIDE PLASTIC SCREW COVERS TO CONCEAL SCREW HEADS AT ALL SEMI-EXPOSED CABINET SURFACES. ALL EXPOSED SCREWS SHALL BE COUNTERSUNK.
9. CORE MATERIAL FOR SHELVING GREATER THAN 30" WIDE SHALL BE 1" THICK.
10. REFERENCE TOILET ACCESSORY LEGEND AND MOUNTING HEIGHTS IN A.500 SERIES.
11. PROVIDE FILLER PANELS AS NEEDED BETWEEN BUILT-IN APPLIANCES AND ADJACENT CABINETS OR WALLS.
12. ALL VERTICAL JOINTS BETWEEN CABINETS SHALL BE BUTT JOINTS. THEY SHALL LOOK "SEAMLESS" AND BE COVERED IN PLASTIC LAMINATE.
13. ALL EXPOSED SURFACES ON CABINETS WITHOUT DOORS SHALL BE CLAD IN PLASTIC LAMINATE UNO. NO EXPOSED MELAMINE UNO ON INTERIOR ELEVATIONS.

BASE CABINETS:
1. PROVIDE PLASTIC LAMINATE CLADDING ON ALL SURFACES OF BUILT IN DESKS AT KNEE SPACES AND EXPOSED ENDS OF DESK UNLESS NOTED OTHERWISE ON INTERIOR ELEVATIONS.
2. PROVIDE SCHEDULED BASE ALONG BOTTOM OF EXPOSED FRONTS, BACKS, SIDES, AND ENDS OF ALL FIXED CABINETS, PEDESTALS, VERTICAL SUPPORT PANELS, AND KNEE SPACES, ETC UNLESS NOTED OTHERWISE ON THE INTERIOR ELEVATIONS.
3. ALL DRAWER LENGTHS SHALL BE 20" UNLESS NOTED OTHERWISE. ALL DRAWERS GREATER THAN 30" WIDE SHALL HAVE TWO PULLS.
4. ALL HORIZONTAL AND VERTICAL REVEALS SHALL BE 1/8".
5. ALL TOEKICK SPACES SHALL BE 4 1/8" TALL X 3 1/4" DEEP UNLESS NOTED OTHERWISE. REF TO TYP CASEWORK DETAILS ON SHEET A.571.

COUNTERTOPS:
1. ALL COUNTERTOPS ARE TO BE 24" DEEP UNO ON INTERIOR ELEVATIONS.
2. ALL OUTSIDE COUNTERTOP CORNERS TO BE 1 1/2" RADIUS (IN PLAN) UNLESS NOTED OTHERWISE REF TO TYP. CASEWORK DETAILS ON SHEET A.571, COUNTERTOP CORNER DETAIL.
3. PROVIDE WALL MOUNTED BRACKETS (FIELD PAINTED FOR SUPPORT OF COUNTERTOPS AT KNEE SPACES. COUNTERTOPS SHALL BE SUPPORTED 30" MINIMUM - 36" MAXIMUM OC COORDINATE LOCATION WITH KEYBOARD TRAYS AND CPU HOLDERS. REF. INTERIOR ELEVATIONS FOR LOCATIONS OF COUNTERTOP BRACKETS.
4. LOCATE GROMMETS AT BACK OF COUNTERTOPS EVERY 36" OC WITH A MINIMUM OF 1 PER KNEE SPACE UNLESS NOTED OTHERWISE ON THE EQUIPMENT PLAN. COORDIANTE FINAL GROMMET LOCATIONS WITH OWNER. EXCEPTION: DO NOT PROVIDE GROMMETS AT ACCESSIBLE PORTION OF COUNTER. AS INDICATED ON THE EQUIPMENT PLANS.
5. REFER TO INTERIOR ELEVATIONS AND FINISH LEGEND FOR COUNTERTOP MATERIAL. ALL COUNTERTOPS AT SINKS TO BE SOLID SURFACE MATERIAL UNLESS NOTED OTHERWISE ON INTERIOR ELEVATIONS. REF TO TYP. CASEWORK DETAILS ON SHEET A.571 FOR SOLID SURFACE MATERIAL COUNTERTOP EDGE DETAIL AND FOR PLASTIC LAMINATE COUNTEROP EDGE DETAIL.
6. ALL BACK AND SIDE SPLASHES SHALL BE 4" TALL X 3/4" THICK IF PLASTIC LAMINATE. 1/2" THICK IF SOLID SURFACE MATERIAL UNO ON THE INTERIOR ELEVATIONS. ALL SPLASHES SHALL BE SCRIBED TO CONFORM TO THE SURFACE OF ABUTTING WALLS. ALL SPLASHES SHALL BE SEALED TO THE WALL WITH CLEAR SILICONE SEALANT. IF SOLID SURFACE. PROVIDE SPLASHES ON ALL REAR AND SIDE WALLS AT BASE CABINETS.

UPPER CABINETS:
1. TOP OF UPPER AND FULL HEIGHT CABINETS SHALL BE 7'-2" AFF UNLESS NOTED OTHERWISE ON INTERIOR ELEVATIONS. REF A.560 SERIES SHEETS.
2. REFERENCE SERIES A.220 AND A.560 FOR FURDOWN LOCATIONS. WALL CABINETS WITHOUT A FURR DOWN ABOVE SHALL RECEIVE A CONTINUOUS 6" HIGH SLOPED PANEL, FINISHED TO MATCH CABINETS UNLESS NOTED OTHERWISE.
3. WALL MOUNTED UPPER CABINETS SHALL INCLUDE ADJUSTABLE SHELVES UNLESS NOTED OTHERWISE.

CABINET HEIGHT	NUMBER OF SHELVES
UP TO 24"	1
25" THROUGH 42"	2
43" THROUGH 48"	3

4. TOPS AND BOTTOMS OF WALL HUNG CABINETS SHALL BE 3/4" THICK WITH PLASTIC LAMINATE ON ALL EXPOSED SURFACES.
5. BACKS OF WALL HUNG CABINETS SHALL BE 1/4" THICK UNLESS NOTED OTHERWISE. BACKS OF BASE CABINETS SHALL BE 1/4" THICK UNLESS NOTED OTHERWISE.

Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation.

SALES AND SERVICE COUNTERS AND WINDOWS SHALL COMPLY WITH SECTION **904.3, ICC/ANSI A117.1-2009** FOR ACCESSIBILITY REQUIREMENTS

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *Matt A.*
Date: *Mar 13, 2023*
2015 INTERNATIONAL CODES & 2020 NEC

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Salas O'Brien
Greenwood Village, CO 80112
9250 East Costilla Ave.
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No.	Description	Date

PROGRESS PRINTS
STATE OF COLORADO JOHN MENNO HUGHES 401729 LICENSED ARCHITECT
02/03/2023

22-031 TMCA MDU Extended Renovation

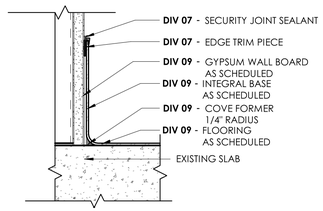
1501 S POTOMAC ST
AURORA, CO 80012

Issue	ISSUE FOR CONSTRUCTION
Date	03 FEBUARY 2023
Project Number	22-031
Drawn by	JL/TR
Checked by	JMN

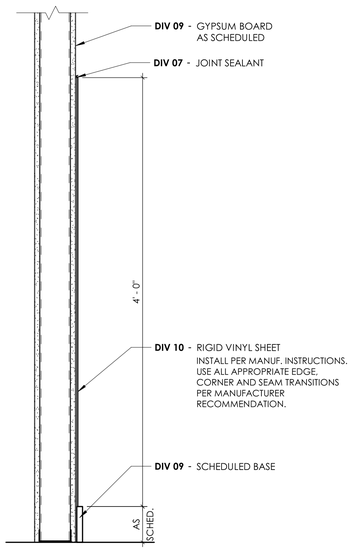
Sheet Title
TYPICAL CASEWORK ELEVATION, SECTIONS + DETAILS

Sheet Number
A.571

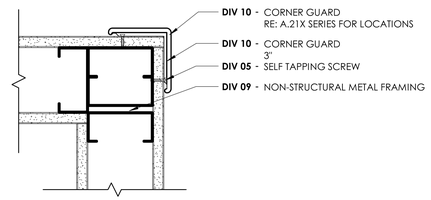
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05- TYPICAL INTEGRAL BASE
3" = 1'-0"

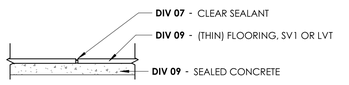


04- TYPICAL WALL PROTECTION SECTION
1 1/2" = 1'-0"



*NOTE: CORNER GUARD TO BE MOUNTED ABOVE SCHEDULE BASE

03- WP2 SINGLE CORNER GUARD - DETAIL
3" = 1'-0"

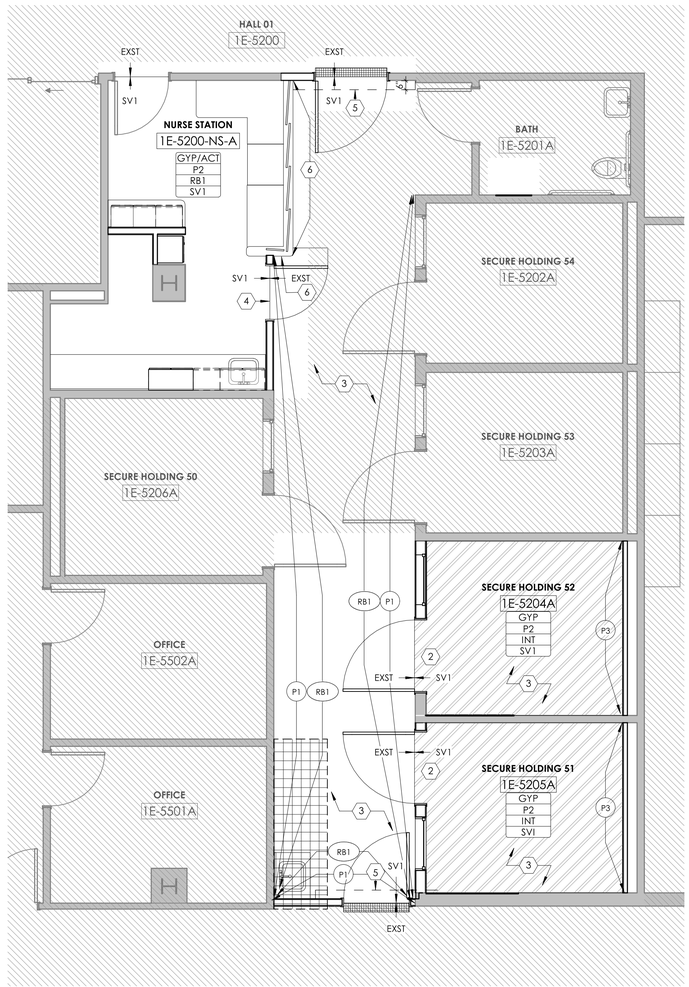


02- TR1 - SAME HEIGHT FLOORING TRANSITION
6" = 1'-0"

Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation.

TYP:
INSTALL FINISHES PER MANUFACTURER INSTALLATION INSTRUCTION. PROVIDE ON SITE FOR INSPECTION.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *Matt A.*
Date: *Mar 13, 2023*
2015 INTERNATIONAL CODES & 2020 NEC



01- LEVEL 01 - FINISH PLAN
1/4" = 1'-0"

FINISH LEGEND

CEILING
GYP
GYPSUM BOARD CEILING, PAINTED AS NOTED ON FINISH PLAN

MILLWORK
PL1
MANUF: WILSONART
COLOR: SHAKER CHERRY 7935K-07 TEXTURED GLOSS

SS1
MANUF: CORIAN
COLOR: CLAM SHELL
SIZE: 1/2" THICK

WALL PROTECTION
WP1 SHEET
MANUF: ACROVYN
STYLE: RIGID SHEET
SIZE: 4' X 10' X 0.060" THICK
COLOR: SLATE 209
*INCLUDE MANUF TRIM PIECES AS REQUIRED.

WP2 SINGLE CORNER GUARD
MANUF: ACROVYN
STYLE: SM-20N
SIZE: (1) 2 X 2 X REFER TO DETAIL HEIGHT
COLOR: SLATE 209

MISC
(ME) MATCH EXISTING

(E) EXISTING TO REMAIN

FLOORING
SV1
MANUF: MANNINGTON
STYLE: ENTWINED LINO
COLOR: HULL ETW102

MATERIAL TRANSITIONS
TOP OF INTEGRAL BASE SV1
MANUF: SCHLUTER
STYLE: JOLLY
COLOR: ANODIZED ALUMINUM

TR1 - EXISTING TO SV1

BASE
INT
6" H INTEGRAL BASE

RB1 (ONLY INSTALL AT LOCATIONS WHERE WP1 IS INDICATED)
MANUF: MANNINGTON
STYLE: OPTIMUM EDGE
COLOR: TAUPESTONE 909
NOTE: MITER INSIDE CORNERS. DO NOT USE PREMOLDED OUTSIDE CORNERS.

WALLS
P1
MANUF: SHERWIN WILLIAMS
COLOR: KILIM BEIGE SW6106
FINISH: SEMI-GLOSS

P2 (ROOM FIELD)
MANUF: SHERWIN WILLIAMS
COLOR: AMAZING GRAY SW7044
FINISH: SEMI-GLOSS

P3 (ACCENT)
MANUF: SHERWIN WILLIAMS
COLOR: GREEN EARTH
FINISH: SEMI-GLOSS

P4 (DOOR + WINDOW FRAMES)
MANUF: SHERWIN WILLIAMS
COLOR: TONY TAUPE SW7038
FINISH: SEMI-GLOSS

P5 (CEILINGS)
MANUF: SHERWIN WILLIAMS
COLOR: DOVER WHITE SW6385
FINISH: SEMI-GLOSS

WT1
MANUF: AMERICAN OLEAN
SIZE: 4X4
COLOR: ALMOND 0012
FINISH: GLOSS

DOORS
STN1
COLOR: TO MATCH WILSONART SHAKER CHERRY 7935K-07
TYPE: UV WATER-BASED
APPLICATION: IN FACTORY BY THE MANUFACTURER

STN2
COLOR: TO MATCH EXISTING EXTERIOR STAIN ON THE DOORS FROM THE UNIT. CG TO FIELD VERIFY.

FINISH PATTERN LEGEND

FLOOR FINISH

SV1

FINISH LEGEND KEYNOTES

1. PAINT EXISTING DOOR FRAME TO STOP ON RABBETED FRAME.
2. CARRY SHEET VINYL TO CORRIDOR EDGE OF DOOR FRAME.
3. ALL SEALETS IN THIS SPACE TO BE PICK PROOF SEALENT, COLOR TO BE COORDINATED WITH FINISHES.
4. CAREFULLY TRIM AND PROTECT EXISTING FLOORING AT NEW CONSTRUCTION.
5. INFILL WITH SV1 TO MIDDLE OF DOOR.
6. PROVIDE 4" SS1 WALL BASE.

FINISH LEGEND NOTES

WALL FINISH:
1. WALL TEXTURE SHALL MATCH FACILITY STANDARD, UNLESS NOTED OTHERWISE.
2. PAINT ALL WALLS LATEX EGGSHELL, UNLESS NOTED OTHERWISE. SEE FINISH LEGEND FOR DEFINITION.
3. PAINT ALL ELECTRICAL AND ACCESS WALL PANELS TO MATCH ADJACENT WALL FINISH.
4. ALL WET TILE WALLS (BATH AND SHOWER ENCLOSURES) SHALL BE COMPLETELY WRAPPED IN KERDI BY SCHLUTER.

WALL BASE:
1. ALL RUBBER BASE SHALL BE SEALED TIGHT TO FINISHED FLOOR.

FLOOR FINISH:
1. ALL FLOOR TRANSITIONS ARE TO OCCUR AT THE CENTERLINE OF DOOR WHEN DOOR IS IN CLOSED POSITION.
2. REFER TO I.101 SERIES FOR TRANSITION AND THRESHOLD DETAILS.
3. REFER TO INTERIOR FLOOR FINISH PLANS FOR ALL FLOOR PATTERNS.
4. INSTALL ALL LUXURY VINYL TILE IN ONE DIRECTION ONLY, TO MATCH THROUGHOUT, UNLESS NOTED OTHERWISE.

DOORS/WINDOWS:
1. INTERIOR HOLLOW METAL DOOR & FRAME, AND INTERIOR SURFACE OF EXTERIOR HOLLOW METAL DOOR & FRAME TO BE PAINTED TO MATCH FACILITY STANDARD, UNLESS NOTED OTHERWISE.

CEILING FINISH:
1. FURR-DOWN FINISH: VERTICAL AND HORIZONTAL SURFACES OF FURR-DOWN TO MATCH ADJACENT WALLS, UNLESS NOTED OTHERWISE.
2. REFER TO REFLECTED CEILING PLAN FOR ALL CEILING HEIGHTS.
3. PAINT ALL GYP. BD. CEILINGS LATEX EGGSHELL, UNLESS NOTED OTHERWISE. SEE FINISH LEGEND FOR DEFINITION.
4. PAINT ALL ACCESS PANELS IN CEILING TO MATCH ADJACENT CEILING FINISH.
5. PAINT ALL SIDES OF SOFFIT FOR GYP. CEILING ABOVE COLOR LISTED ON REFLECTED CEILING PLAN.
6. ALL CEILING GRID WALL ANGLES TO BE SEALED AT WALL WHERE PAINT OCCURS.

ACCESSORIES:
1. REFER TO EQUIPMENT PLAN AND DETAILS FOR WALL PROTECTION (WP) LOCATIONS. REFER TO INTERIOR FINISH LEGEND FOR SPECIFIC PROFILES AND COLORS.
2. PROVIDE CLEAR SILICONE JOINT SEALANT BETWEEN SHEET WALL PROTECTION TRIM AND FINISHED GYPSUM BOARD AS WELL AS SHEET WALL PROTECTION AND FLOORING BASE UNLESS NOTED OTHERWISE.
3. INSTALL ADA COMPLIANT SIGNAGE PROVIDED BY FACILITY AT ALL ROOMS WITHIN SCOPE UNLESS OTHERWISE INDICATED BY FACILITY.

FINISH PLAN GENERAL NOTES

1. REFER TO INTERIOR FINISH LEGEND THIS PAGE FOR FINISH MANUFACTURER AND COLOR INFORMATION.
2. REFER TO THIS PAGE FOR FLOOR TRANSITION DETAILS.
3. REFER TO A.22x SERIES REFLECTED CEILING PLANS FOR LOCATION OF CEILING FINISHES AND CEILING HEIGHTS.

FINISH PLAN LEGEND

ROOM FINISH TAG (REFERENCE I.101 SHEET)

ACT	CEILING FINISH
P	WALL FINISH
RB	WALL BASE FINISH
SV	FLOOR FINISH

* DENOTES MULTIPLE FINISHES. PLEASE REFER TO ENLARGED PLANS, DETAILS AND/OR ELEVATIONS FOR MORE INFORMATION.

OUT OF SCOPE

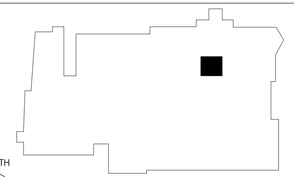
P4 — PAINT ACCENT

CPT — FINISH TAG

FLOORING TRANSITION

INFILL TO MATCH EXISTING CORRIDOR FINISH TO MIDDLE OF DOOR. PROVIDE SEALANT BETWEEN TWO MATERIALS.

KEY PLAN



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No.	Description	Date

STATE OF COLORADO
JOHN MENNO NAS
401729
LICENSED ARCHITECT
02/03/2023

22-031 TMCA MDU Extended Renovation

1501 S POTOMAC ST
AURORA, CO 80012

Issue	ISSUE FOR CONSTRUCTION
Date	03 FEBUARY 2023
Project Number	22-031
Drawn by	JL/PY
Checked by	JMN

Sheet Title
FINISH LEGEND, PLAN & DETAILS

Sheet Number
I.201

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MECHANICAL ABBREVIATIONS

AAV	AUTOMATIC AIR VENT (VALVE)
AB	AIR BLENDER
AC	AIR CONDITIONING UNIT OR AIR COMPRESSOR
ACH	AIR CHANGES PER HOUR
AD	ACCESS DOOR
AF	AIR FILTER
AFC	AUTOMATIC FLOW CONTROL DEVICE
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
ALUM	ALUMINUM
AMP	AMPERE
AMS	AIR FLOW MEASURING STATION
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
ARCH	ARCHITECT/ARCHITECTURAL
AS	AIR SEPARATOR
AUTO	AUTOMATIC
AVG	AVERAGE
BAS	BUILDING AUTOMATION SYSTEM
BD	BALANCING DAMPER
BDD	BACK-DRAFT DAMPER
BHP	BRAKE HORSEPOWER
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BTUH	BRITISH THERMAL UNIT PER HOUR
CAP	CAPACITY
CC	COOLING COIL
CCW	COUNTER CLOCKWISE
CD	CONDENSATE DRAIN
CF	CUBIC FEET
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CL	CENTER LINE
CO	CLEAN OUT OR CARBON MONOXIDE
CONT	CONTINUOUS, CONTINUATION
CP	COIL PUMP
CT	COOLING TOWER
CU	CONDENSING/ER UNIT
CU FT	CUBIC FEET
CV	CONSTANT AIR VOLUME
CW	COLD WATER OR CLOCKWISE
D	DRAIN
DB	DECIBEL OR DRY BULB TEMPERATURE
DDC	DIRECT DIGITAL CONTROL
DE	DRYER EXHAUST
DER	DRYER EXHAUST RISER
DEG.F	DEGREE FARENHEIT
DG	DOOR GRILLE
DIA	DIAMETER
DIFF	DIFFUSER
DISCH	DISCHARGE
DN	DOWN
DP	DIFFERENTIAL PRESSURE
DWG	DRAWING
DX	DIRECT EXPANSION
(E)	EXISTING
E	EXHAUST
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EBB	ELECTRIC BASEBOARD HEATER
EC	ELECTRICAL CONTRACTOR
ECH	ELECTRIC CABINET HEATER
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EFF	EFFICIENCY
EG	ETHYLENE GLYCOL-WATER SOLUTION (% GLYCOL BY VOLUME)
EHC	ELECTRIC HEATING COIL
ELEC	ELECTRIC/ELECTRICAL
EL/ELEV	ELEVATION
ENT	ENTERING
EQUIP OR EQT	EQUIPMENT
E/RF	EXHAUST/RETURN FAN
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
EUH	ELECTRIC UNIT HEATER
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
EXIST	EXISTING
F	FILTER
°F	DEGREE FARENHEIT
FA	FREE AREA
FD	FIRE DAMPER
FLA	FULL LOAD AMPERES
FLEX	FLEXIBLE
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOV	FUEL OIL VENT
FPB	FAN POWERED TERMINAL UNIT
FP	FIRE PROTECTION
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FS	FREEZE STAT
F/SD	COMBINATION FIRE/SMOKE DAMPER
FT	FEET OR FLASH TANK
FTR	FIN TUBE RADIATION (HOT WATER)
FV	FACE VELOCITY
GA	GAUGE
GAL	GALLON
GC	GENERAL CONTRACTOR
GD	GRAVITY DAMPER
GEN	GENERAL
GE	GENERAL EXHAUST
GER	GENERAL EXHAUST RISER
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
H	HUMIDISTAT
HC	HEATING COIL
HORIZ	HORIZONTAL
HP	HORSEPOWER OR HEAT PUMP
HR	HOUR
HTG	HEATING
HUM	HUMIDIFIER
HVAC	HEATING, VENTILATION & AIR CONDITIONING
HX	HEAT EXCHANGER
HZ	HERTZ
ID	INSIDE DIAMETER
IN OR "	INCH
INSUL.	INSULATION
IN W.C.	INCHES WATER COLUMN
IN W.G.	INCHES WATER GAUGE
KE	KITCHEN EXHAUST
KER	KTICHEN EXHAUST RISER
KW	KILOWATT
KWH	KILOWATT HOUR
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LL	LOW LIMIT OR LANDLORD
LP	LOW PRESSURE GAS
LRA	LOCKED ROTOR AMPERES
LVG	LEAVING
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MB	MIXING BOX
MBH	THOUSAND BTU PER HOUR
MIN	MINIMUM OR MINUTE(S)
MD	MOTORIZED DAMPER
MP	MEDIUM PRESSURE GAS
NC	NORMALLY CLOSE OR NOISE CRITERIA
NIC	NOT IN CONTRACT
NK	NECK
NO	NORMALLY OPEN
NO OR #	NUMBER
NR	NOT REQUIRED
NTS	NOT TO SCALE
NV	NATURAL VENTILATION
OA	OUTSIDE AIR
OAI	OUTSIDE AIR INTAKE
OBD	OPPOSED BLADE DAMPER
OD	OUTSIDE DIAMETER
OPNG	OPENING
OV	OUTLET VELOCITY OR OVAL
P	PUMP
CTP	COOLING TOWER PUMP
CWP	CONDENSER WATER PUMP
PC	PLUMBING CONTRACTOR
PCD	PUMPED CONDENSATE DISCAHRGE
PG	PROPYLENE GLYCOL-WATER SOLUTION (%GLYCOL BY VOLUME)
PLBG	PLUMBING
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAUGE
R	RETURN OR RISER
RA	RETURN AIR
REQ'D	REQUIRED
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RO	RELIEF OPENING
RP	RADIANT PANEL
RPM	REVOLUTIONS PER MINUTE
RV	RELIEF VALVE (VENT) OR ROOF VENTILATOR
S	SUPPLY
SA	SOUND ATTENUATOR
SF	SUPPLY FAN OR SQUARE FEET
SHT	SHEET
SL	SENSIBLE LOAD
SP	STATIC PRESSURE
SPECS	SPECIFICATIONS
SQ	SQUARE
SQ.FT.	SQUARE FEET
SS	STAINLESS STEEL
STD	STANDARD
STRUC	STRUCTURE/STRUCTURAL
T	THERMOSTAT/TEMPERATURE SENSOR
TD	TEMPERATURE DIFFERENCE OR TRANSFER DUCT
TEF	TOILET EXHAUST FAN
TER	TOILET EXHAUST RISER
TEMP	TEMPERATURE
TO	TRANSFER OPENING
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UC	UNDER-CUT (DOOR)
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
V	VENT
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VEL	VELOCITY
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
VSD	VARIABLE SPEED DRIVE
W	WATT
W/	WITH
WC	WATER COLUMN
WFD	WATER PRESSURE DROP
WMS	WIRE MESH SCREEN
WT	WEIGHT
XA	VARIABLE LENGTH ACCESS

SOUND ATTENUATOR

UC OR DG — DG: DOOR GRILLE; UC: DOOR UNDERCUT

T — THERMOSTAT

T — THERMOSTAT MOUNTED TO THERMOISOLATING PAD IF ON EXTERIOR COLUMN

T — DUCT MOUNTED THERMOSTAT

H — HUMIDISTAT

SD — SMOKE DETECTOR

CD — CARBON MONOXIDE DETECTOR

CO2 — CARBON DIOXIDE DETECTOR

N.I.C. - FUTURE TENANT BUILDOUT

REQUIRED MAINTENANCE CLEARANCE

IDENTIFICATION SYMBOLS

X — KEYED NOTE TAG

X / X — EQUIPMENT TAG; EQUIPMENT TAG NO.

X / M-X — SECTION NUMBER; DRAWING ON WHICH SECTION IS SHOWN

AIR DEVICES DATA TAG

DIFFUSE MARK; QUANTITY (CFM); A; 8"ØNK 105-S; NECK SIZE

S=SUPPLY
R=RETURN
T=TRANSFER
E=EXHAUST

DUCTWORK SYMBOLS

DOUBLE LINE

(E)12X12 — EXISTING DUCT

EXISTING DUCT OR ITEM TO BE REMOVED

EXISTING DUCT OR ITEM TO REMAIN

STD

BRANCH TAKE-OFF

RADIUS ELBOW

SQUARE TAP COLLAR

RADIUS TEE

BELLMOUTH CONNECTION TO RECT. DUCT

CONICAL TEE

WYE OR TEE

EXHAUST/RETURN AIR DEVICE

24X12 — RECT. DUCT DIMENSIONS (SIZE IN INCHES. FIRST DIM. IS SHOWN)

24Ø — ROUND DUCT DIMENSIONS DIAMETERS

24/12 — FLAT OVAL (SIZE IN INCHES) (FIRST DIM. IS SHOWN)

DUCT TRANSITION

ELBOW TURNED DOWN

ROUND DUCT DN

SUPPLY AIR DUCT

EXHAUST AND RETURN DUCT

OUTSIDE AIR INTAKE

FLEX. DUCT CONNECTION

FIRE DAMPER

FD

CLEAN OUT

MANUAL DAMPER

MOTORIZED (AUTOMATIC) DAMPER

MD

LOW LEAKAGE MOTORIZED DAMPER

LLMD

ACCESS DOOR

AD

CAP

DN — DUCT OFF-SET DN (IN DIRECTION OF FLOW)

UP — DUCT OFF-SET UP (IN DIRECTION OF FLOW)

FLEXIBLE DUCT

AIR TERMINAL UNIT

AIR TERMINAL UNIT W/REHEAT

PIPING SYMBOLS

(E)SERVICE — EXISTING PIPE

EXISTING PIPE OR ITEM TO BE REMOVED

EXISTING PIPE OR ITEM TO REMAIN

CD — CONDENSATE DRAIN

CWR — CONDENSER WATER RETURN

CWS — CONDENSER WATER SUPPLY

CTWR — COOLING TOWER WATER RETURN

CTWS — COOLING TOWER WATER SUPPLY

D — DRAIN

G — NATURAL GAS

HWR — HOT WATER HEATING RETURN

HWS — HOT WATER HEATING SUPPLY

V V — VENT

AIR SEPARATOR

DIRECTION OF FLOW ARROW

CONCENTRIC REDUCER

ECCENTRIC REDUCER

TEE

TEE TURNED DOWN

TEE TURNED UP

ELBOW 45°

ELBOW TURNED UP

ELBOW TURNED DOWN

PRESSURE GAUGE

FLANGE

CAPPED END CONNECTION

EXPANSION JOINT

FLEXIBLE CONNECTION

FM — FLOW METER

EXPANSION COMPENSATOR

BALL VALVE

PRESSURE INDEPENDANT FLOW CONTROL AND SHUT-OFF VALVE

BUTTERFLY VALVE

CHECK VALVE

HOSE END DRAIN VALVE

TRIPLE DUTY CHECK VALVE

GATE VALVE

GLOBE VALVE

MANUAL AIR VENT

M M — MOTORIZED 2-WAY OR 3-WAY CONTROL VALVE

SOLENOID VALVE

PRESSURE REDUCING VALVE

PRESSURE RELIEF VALVE

GAS COCK

PIPE UNION

STRAINER

SAFETY VALVE

VACUUM BREAKER

IN-LINE PUMP

PRESSURE GAUGE WITH COCK

THERMOMETER

FLOW SWITCH

PIPE ANCHOR

PIPE GUIDE

UNION

Y-TYPE STRAINER

Y-TYPE STRAINER WITH HOSE ENDED DRAIN VALVE

BASKET STRAINER

FILTER/DRYER

M — MOTOR ACTUATOR

T — CONDENSATE TRAP

PRESSURE-TEMPERATURE PORT

MECHANICAL CODE REFERENCE

REVIEW PER 2015 INTERNATIONAL CODES

2021 CITY OF AURORA BUILDING CODES AND AMENDMENTS
2015 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
2015 INTERNATIONAL BUILDING CODE (IBC)
2015 INTERNATIONAL MECHANICAL CODE (IMC)
2015 INTERNATIONAL PLUMBING CODE (IPC)
2015 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)

MECHANICAL DRAWING LIST

M.000 - MECHANICAL SYMBOLS, ABBREVIATIONS, AND NOTES
M.001 - MECHANICAL SCHEDULES AND DETAILS
M.002 - MECHANICAL SPECIFICATIONS
M.003 - MECHANICAL SPECIFICATIONS
M.100 - MECHANICAL PLANS

Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation. 2015 IBC 105.4.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *Y. Munoz*
Date: *Mar 10, 2023*
2015 INTERNATIONAL CODES & 2020 NEC

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No.	Description	Date

COLORADO LICENSED MICHAEL P. THOMPSON 53150 PROFESSIONAL ENGINEER
02.03.2023

TMCA MDU

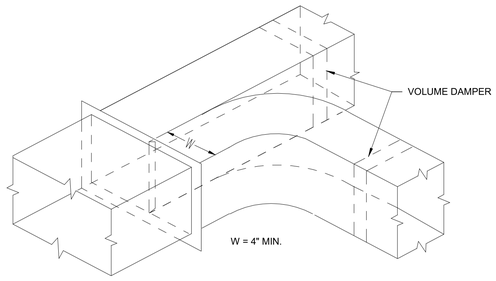
1501 S POTOMAC ST AURORA, CO 80012

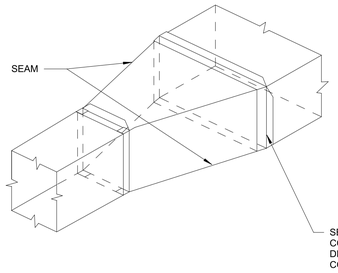
Issue	100% CD
Date	3 FEBRUARY 2023
Project Number	2022-05392-00
Drawn by	EV
Checked by	JH

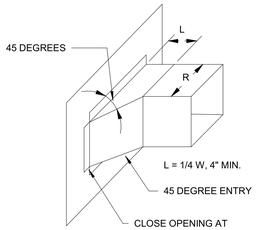
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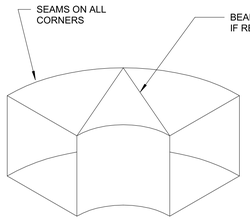
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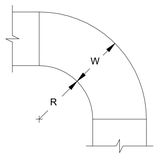
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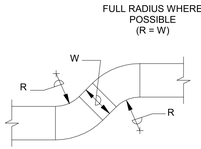


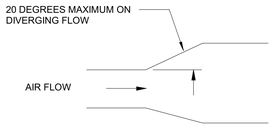


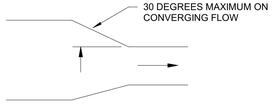






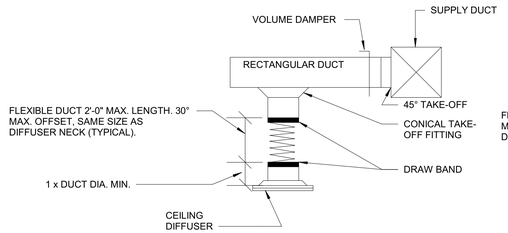


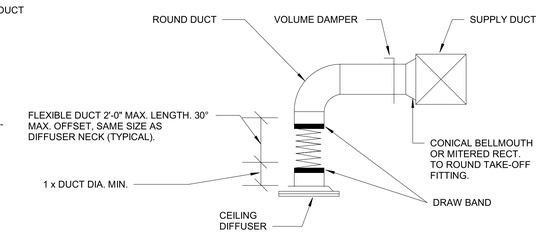


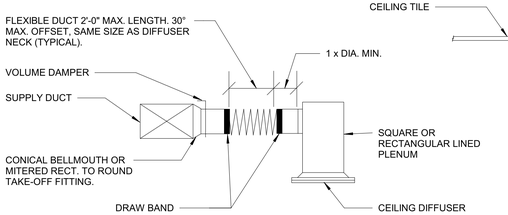


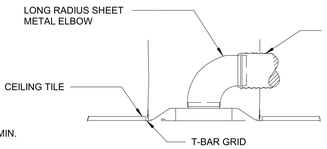
1 DUCT CONSTRUCTION

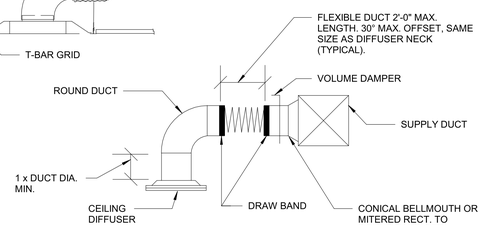
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NOTES:

1. SPIN COLLARS SHALL NOT BE PERMITED.
2. SPECIAL CONDITIONS THAT CAN NOT MEET ONE OF THESE STANDARDS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION ON A CASE BY CASE BASIS.
3. DETAILS ILLUSTRATE INSTALLATION WITH ROUND NECK DIFFUSERS AND DUCTS. SQUARE OR RECTANGULAR NECK DIFFUSERS AND DUCTS SHALL BE SIMILAR.

2 TYPICAL DIFFUSER INSTALLATION DETAIL

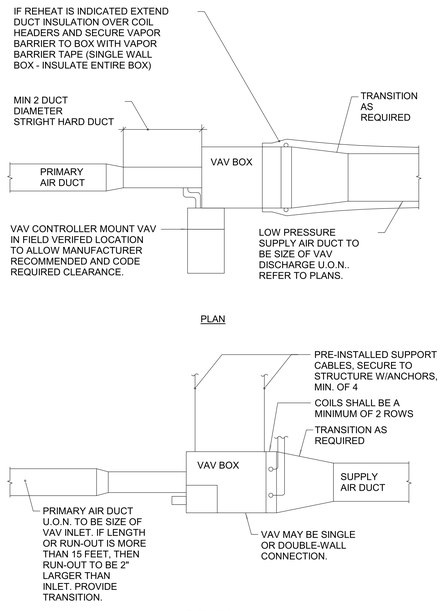
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VARIABLE AIR VOLUME BOX WITH HOT WATER REHEAT SCHEDULE (VAV)

TAG	AREA SERVED	INLET	MAX COOLING CFM	OCCUPIED MIN CFM	HEATING CFM	HEATING COIL DATA								UNIT TOTAL AIR PD (IN.)	VOLT/PH	MANUFACTURER	MODEL	REMARKS
						MBH	ROWS	EAT DB °F	LAT DB °F	EWT °F	LWT °F	GPM	MAX PD (FT.)					
VAV1-05	SECURE HOLDING 51-53	12	760	525	525	23.7	1	55	89	180	153	1.6	5	0.06	120V/1PH	JCI	TSS-WC	ALL
VAV1-10	NURSE STATION AND HALL	12	850	430	570	26.6	1	55	85.7	180	151	1.8	5	0.08	120V/1PH	JCI	TSS-WC	ALL

REMARKS:

1. PROVIDE PRESSURE INDEPENDENT CONTROL.
2. PROVIDE DISCONECT SWITCH.
3. PROVIDE ACCESS DOOR ON BOTTOM OF UNIT AND AT HEATING COIL.
4. PROVIDE DUST TIGHT CONSTRUCTION.
5. TEMPERATURE CONTROL CONTRACTOR TO PROVIDE FACTORY MOUNTED CONTROLLER.
6. PROVIDE FIBER FREE LINER.
7. PROVIDE ADJUSTABLE THERMOSTAT WITH OCCUPANCY OVERRIDE.



3 VAV BOX INSTALLATION

NOT TO SCALE

GRILLE, REGISTER, AND DIFFUSER SCHEDULE

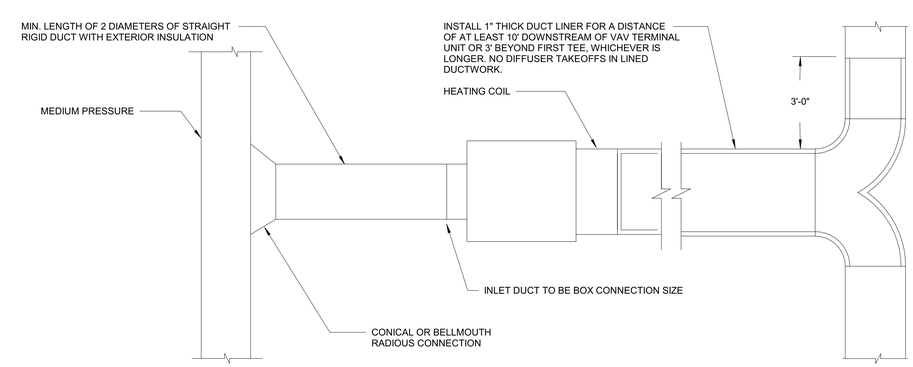
TAG	SERVICE	TYPE	FACE SIZE	INLET SIZE	DAMPER	MATERIAL / FINISH	MANUFACTURER	MODEL	REMARKS
A	SUPPLY/RETURN	MAX SECURITY GRILLE	10"X10"	SEE DRAWINGS	NO	STEEL	TITUS	SG-SD	1,2
B	SUPPLY	SQUARE PLAQUE GRILLE	24"x24"	SEE DRAWINGS	NO	STEEL	TITUS	OMNI	1,2

REMARKS:

1. COORDINATE FINISH WITH ARCHITECT PRIOR TO INSTALL.
2. PROVIDE WITH REMOTE ADJUSTABLE (NON-ELECTRONIC) DAMPER FOR BALANCING.

Heating system shall be capable of maintaining 68 degrees F a 3'0" above the floor.
2015 IMC 309, IRC 303.9 and IBC 1204.1

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *Y. Munoz*
Date: *Mar 10, 2023*
2015 INTERNATIONAL CODES & 2020 NEC



NOTE:

1. IF TOTAL LENGTH FROM MAIN TO INLET OF THE TERMINAL BOX EXCEEDS 5'-0", TRANSITION TO TWO ROUND DUCT SIZES GREATER THAN THE INLET.

4 VAV TERMINAL UNIT

NOT TO SCALE

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Greenwood Village, CO 80112
ph: 303.225.6320

No.	Description	Date

COLORADO LICENSED MICHAEL P THOMPSON 53150 PROFESSIONAL ENGINEER
02.03.2023

TMCA MDU

1501 S POTOMAC ST AURORA, CO 80012

Issue	100% CD
Date	3 FEBRUARY 2023
Project Number	2022-05392-00
Drawn by	EV
Checked by	JH

Sheet Title
MECHANICAL SCHEDULES AND DETAILS

Sheet Number
M.001

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MECHANICAL SPECIFICATIONS

GENERAL SPECIFICATIONS

1. HCA MAINTAINS PURCHASING AGREEMENTS FOR SELECT EQUIPMENT AND MATERIALS WHICH ARE OUTLINED IN THE HCA INNOVATION MEMORANDUMS. ALL MATERIALS AND EQUIPMENT PURCHASED UNDER THIS CONTRACT SHALL COMPLY WITH THE INNOVATION MEMORANDUMS. ALL PIPING RELATED ITEMS ARE TO BE PURCHASED THROUGH FERGUSON ENTERPRISE (ALTON LASSITER - 615-316-1848, ALTON.LASSITER@FERGUSON.COM).

2. WORK UNDER THIS SECTION IS SUBJECT TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, INCLUDING THE DRAWINGS, GENERAL AND SUPPLEMENTARY CONDITIONS OF THE ARCHITECTURAL SPECIFICATIONS.

3. THE DRAWINGS AND SPECIFICATIONS SHALL BE UNDERSTOOD TO COVER SYSTEMS OF HEATING, VENTILATION AND AIR CONDITIONING, INSULATION, BUILDING AUTOMATION SYSTEMS AND TEMPERATURE CONTROL, AND TESTING AND BALANCING. THE DRAWINGS AND SPECIFICATIONS ARE TO BE TAKEN TOGETHER. WORK SPECIFIED AND NOT SHOWN, OR WORK SHOWN AND NOT SPECIFIED, SHALL BE AS BINDING AS THOUGH REQUIRED BY BOTH THE DRAWINGS AND SPECIFICATIONS.

4. MINOR ITEMS AND ACCESSORIES OR DEVICES REASONABLY INFERABLE AS NECESSARY TO THE COMPLETE AND PROPER OPERATION OF ANY SYSTEM SHALL BE PROVIDED FOR SUCH SYSTEMS, WHETHER OR NOT THEY ARE SPECIFICALLY CALLED FOR BY THE SPECIFICATIONS OR THE DRAWINGS.

5. THE CONTRACTOR SHALL PROCURE AND PAY FOR ALL NECESSARY PERMITS AND LICENSE FEES, MAKE ARRANGEMENTS FOR INSPECTIONS, PAY ALL FEES IN CONNECTION THEREWITH, EXCEPT BUILDING PERMIT, AND PAY ALL APPLICABLE FEDERAL, STATE AND LOCAL TAXES.

6. THE CONTRACTOR SHALL GUARANTEE ALL WORK TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR IN ACCORDANCE WITH THE GENERAL CONDITIONS, UNLESS A LONGER PERIOD IS STIPULATED UNDER SPECIFIED HEADINGS. HE SHALL REPAIR OR REPLACE, AT NO ADDITIONAL COST TO THE OWNER, ANY MATERIAL OR EQUIPMENT DEVELOPING DEFECTS. REPAIRS OR REPLACEMENTS SHALL BEAR AN ADDITIONAL TWELVE (12) MONTHS GUARANTEE FROM THE TIME THE REPAIR OR REPLACEMENT IS COMPLETE. THIS REQUIREMENT SHALL BE BINDING, EVEN THOUGH IT WILL EXCEED PRODUCT GUARANTEES NORMALLY FURNISHED BY SOME MANUFACTURERS.

7. THE CONTRACTOR SHALL SUBMIT HIS OWN AND EACH MANUFACTURERS' WRITTEN CERTIFICATES AND WARRANTIES WHICH INDICATE THAT EACH ITEM OF EQUIPMENT FURNISHED, COMPLIES WITH ALL REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. GUARANTEES AND WARRANTIES SHALL COMMENCE FROM THE DATE OF THE SIGNED ACCEPTANCE BY THE OWNER OF A PARTICULAR ITEM OF EQUIPMENT OR A PARTICULAR DEFINED PORTION OF THE WORK.

8. ALL WORK SHALL BE INSTALLED IN CONFORMITY WITH ALL GOVERNMENTAL JURISDICTIONAL AUTHORITIES REGULATIONS, LAWS, RULES, OR ORDINANCES IN EFFECT AND GOVERNING SAME; SUCH RULES AND REGULATIONS AND LOCAL ORDINANCES TO BE CONSIDERED PART OF SPECIFICATIONS. MECHANICAL CONTRACTOR SHALL BE HELD STRICTLY RESPONSIBLE FOR ANY VIOLATION AND SHALL CHANGE HIS WORK TO CONFORM WITHOUT ADDITIONAL COST TO OWNER.

9. ALL WORK SHALL ALSO CONFORM TO THE PUBLISHED STANDARDS OF THE NATIONAL FIRE PROTECTION ASSOCIATION, AND ELECTRICAL WORK AND EQUIPMENT SHALL CONFORM TO REQUIREMENTS OF THE CURRENT ISSUE OF THE NATIONAL ELECTRICAL CODE. ALL MATERIALS, IN GENERAL, SHALL BE UNDERWRITERS' LABORATORIES LISTED AND SHALL BEAR UL LABEL WHERE LABELING SERVICE IS AVAILABLE.

10. WHERE JURISDICTIONAL RULES REQUIRE ASSISTANCE OF MECHANICS OF TRADES OTHER THAN THOSE ORDINARILY EMPLOYED BY A PARTICULAR MECHANICAL CONTRACTOR IN THE HANDLING, STORAGE OR SETTING OF SPECIAL EQUIPMENT, THE MECHANICAL CONTRACTOR SHALL EMPLOY SUCH TRADESMEN SO AS TO BE IN CONFORMANCE WITH LOCAL JURISDICTIONAL AGREEMENTS.

11. ANY SHUTDOWNS OF HVAC SYSTEMS SHALL BE COORDINATED WITH THE OWNER AND ASSUMED TO TAKE PLACE OVER NIGHTS AND WEEKENDS. ANY WORK REQUIRING OVERTIME SHALL INCLUDE THE COST FOR SUCH OVERTIME WORK AS A PART OF THE BASE BID PROPOSAL.

12. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY INTERFERENCE WITH OR DAMAGE TO ANY EXISTING UTILITIES AND SHALL REPAIR OR REPLACE ANY DAMAGED UTILITIES WITH THE LEAST POSSIBLE DELAY AND HOLD THE OWNER HARMLESS IN THE EVENT THAT THERE IS ANY DAMAGE.

13. CERTAIN ITEMS OF EQUIPMENT ARE SPECIFIED ON THE DRAWING EQUIPMENT SCHEDULES OR IN NOTES AS THE PRODUCT OF A SPECIFIC MANUFACTURER INCLUDING THE TRADE NAME, SIZE AND MODEL NUMBER. THIS IS TO ESTABLISH A STANDARD OF QUALITY AND TO MAKE PROVISIONS FOR POWER, SPACE ALLOWANCE, AND CONNECTIONS BY OTHER TRADES.

14. IF ALTERNATE MANUFACTURERS OTHER THAN THOSE NAMED IN THE DOCUMENTS ARE PROPOSED TO BE USED, THE BIDDER SHALL LIST SUCH OTHER ALTERNATE MANUFACTURERS ALONG WITH ANY COST ADDITIONS OR DEDUCTIONS FROM THE BASE BID PROPOSAL. IF THE OWNER ACCEPTS THE ALTERNATE MANUFACTURER, THE CONTRACT WILL SO STATE. IF THE CONTRACT DOES NOT CONTAIN THE NAMES OF ALTERNATE MANUFACTURERS, THE CONTRACTOR SHALL SUBMIT ONLY MANUFACTURERS NAMED IN THE DOCUMENTS.

15. IF THE MECHANICAL CONTRACTOR PROPOSES TO USE THE PRODUCT OF A MANUFACTURER OTHER THAN THE ONE NAMED IN THE DOCUMENTS, HE SHALL BE RESPONSIBLE FOR THAT ITEM OF EQUIPMENT FITTING IN PLACE WITH ADEQUATE CLEARANCES. FURTHER, IF DIFFERENT CONNECTIONS OR PROVISIONS ARE REQUIRED TO BE FURNISHED BY OTHER TRADES FROM THE PRODUCT NAMED IN THE DOCUMENTS, THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE OTHER TRADES OF ANY CHANGES, AND IF ADDITIONAL COSTS ARE REQUIRED BY THE OTHER TRADES, HE SHALL PAY SUCH COSTS.

16. THE ENGINEER HAS NO CONTRACTUAL RESPONSIBILITY IN CONNECTION WITH JOB SITE SAFETY MEASURES OR PRECAUTIONS AS RELATED TO MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES IN THAT REGARD. THE MECHANICAL CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE ARCHITECT/ENGINEER'S OBSERVATIONS OF THE MECHANICAL CONTRACTOR'S PERFORMANCE ARE NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE MECHANICAL CONTRACTOR'S SAFETY MEASURES IN, ON OR NEAR THE CONSTRUCTION SITE. IT SHALL BE THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH "SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION", VOLUME 36, NO.75, PART II OF THE FEDERAL REGISTER BY THE U.S. DEPARTMENT OF LABOR. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL SUCH SAFETY MEASURES AND SHALL CONSULT WITH THE STATE OR FEDERAL SAFETY INSPECTOR FOR INTERPRETATION WHENEVER IN DOUBT AS TO WHETHER SAFE CONDITIONS DO OR DO NOT EXIST; OR WHETHER HE IS OR IS NOT IN COMPLIANCE WITH STATE OR FEDERAL REGULATIONS.

17. THE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND SHOW GENERAL ARRANGEMENT OF ALL EQUIPMENT, PIPING, DUCTWORK, SERVICES, ETC. BECAUSE OF THE SMALL SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO SHOW ALL OFFSETS, FITTINGS, AND ACCESSORIES WHICH MAY BE REQUIRED. FURNISH ALL FITTINGS, AND ACCESSORIES THAT MAY BE REQUIRED TO MEET SUCH CONDITIONS AND TO FIT WORK OF OTHER TRADES.

18. FURNISH ONE DIGITAL AND THREE (3) HARD COPY SETS OF SHOP DRAWINGS, SHOWING ALL DETAILS OF CONSTRUCTION FOR THE FOLLOWING:
    A. DUCTWORK LAYOUTS
    B. VAV BOXES
    C. HYDRONIC PIPING ACCESSORIES
    D. AIR TERMINALS
    E. CONTROLS
    F. PRELIMINARY TEST AND BALANCE REPORT
    G. FINAL TEST AND BALANCE REPORT

19. REVIEW OF THE SHOP DRAWINGS IS RENDERED AS A SERVICE ONLY AND SHALL NOT BE CONSIDERED AS A GUARANTEE OF MEASUREMENTS OR OF BUILDING CONDITIONS; NOR SHALL IT BE CONSTRUED AS RELIEVING THE MECHANICAL CONTRACTORS OF BASIC RESPONSIBILITIES UNDER HIS CONTRACT.

20. ALL EQUIPMENT SUBMITTED AS SHOP DRAWINGS SHALL BE APPROVED BY THE GOVERNING JURISDICTIONAL AUTHORITIES PREVIOUS TO SUBMITTAL. SUBMISSION OF A SHOP DRAWING SHALL MEAN THAT APPROVAL HAS BEEN OBTAINED FOR INSTALLATION OF THE EQUIPMENT SUBMITTED FOR REVIEW.

21. AT COMPLETION OF THE PROJECT, ALL CHANGES AND DEVIATIONS FROM THE CONTRACT DOCUMENTS SHALL BE RECORDED BY THE MECHANICAL CONTRACTOR ON AS-BUILT DRAWINGS. SUPPLY TO THE ARCHITECT/ENGINEER DIGITAL COPIES AND FOUR PAPER BLUE LINE SETS.

22. THE OWNER, ARCHITECT, ENGINEER OR OTHERS WHO THEY MAY DESIGNATE SHALL BE PRIVILEGED TO ENTER AND OCCUPY THE BUILDING OR PORTIONS THEREOF, AT ANY TIME PRIOR TO COMPLETION OF THE MECHANICAL WORK WITHOUT PREJUDICE.

23. BEFORE MAKING ANY INSTALLATION, THE MECHANICAL CONTRACTOR SHALL CONFER WITH ALL OTHER CONTRACTORS WHOSE WORK MAY AFFECT THE WORK UNDER THEIR SECTIONS AND MAKE THE NECESSARY CHANGES TO AVOID INTERFERENCES OR IMPROPER EFFECT ON WORK TO BE PERFORMED BY ALL OTHER TRADES. IN THE EVENT THAT INTERFERENCES DEVELOP, THE ARCHITECT'S DECISION WILL BE FINAL AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR MOVING OF MISPLACED PIPING, DUCTS, CONDUIT AND/OR EQUIPMENT.

24. ALL MATERIALS AND/OR EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.

25. EACH MAJOR COMPONENT OF THE EQUIPMENT SHALL HAVE THE MANUFACTURER'S NAME, ADDRESS, MODEL NUMBER AND RATING ON A PLATE SECURELY AFFIXED IN A CONSPICUOUS PLACE. THE NAMEPLATE OF A DISTRIBUTING AGENT IS NOT ACCEPTABLE. ASME CODE RATINGS, OR OTHER DATA WHICH IS DIE-STAMPED INTO THE SURFACE OF THE EQUIPMENT SHALL BE IN A VISIBLE LOCATION.

26. USE ONLY NEW MATERIALS OF THE BEST QUALITY OF THEIR RESPECTIVE KINDS; LABOR SHALL BE DONE IN A THOROUGH WORKMANLIKE MANNER TO THE SATISFACTION OF THE ARCHITECT.

27. MATERIALS SHALL BE MANUFACTURED BY REPUTABLE MANUFACTURERS WHO HAVE BEEN PRODUCING THIS TYPE OF MATERIAL TO BE SOLD IN MAJOR CITIES IN THE UNITED STATES FOR A PERIOD OF AT LEAST FIVE (5) YEARS, UNLESS OTHERWISE NOTED HEREIN.

28. THE INSTALLATION OF ANY ACCESS PANEL IS STRICTLY LIMITED TO LOCATIONS AS INDICATED ON THE ARCHITECTURAL DRAWINGS OR APPROVED BY ARCHITECT.

29. FIRE STOPPING SHALL BE REQUIRED AT ALL FLOOR AND FIRE RATED WALL/PARTITION PENETRATIONS. FIRE STOPPING SYSTEMS SHALL BE AS DETAILED ON ARCHITECTURAL DRAWINGS.

30. DUCTWORK BEHIND THE GRILLES, REGISTERS, DIFFUSERS, ETC. WHICH IS EXPOSED TO VIEW THROUGH THE UNITS, SHALL BE GIVEN ONE (1) COAT OF PRIMER AND A FINISH COAT OF FLAT BLACK PAINT.

31. ALL WORKMANSHIP SHALL BE FIRST CLASS IN EVERY RESPECT AND SHALL BE PERFORMED ONLY BY SKILLED MECHANICS, RECOGNIZED AS SUCH IN THEIR RESPECTIVE TRADES.

32. FURNISH NECESSARY SCAFFOLDING, STAGING OR CRIBBING REQUIRED FOR THE COMPLETION OF THE WORK. SUCH SCAFFOLDING, ETC., SHALL BE REMOVED FROM THE PREMISES WHEN ITS USE IS NO LONGER REQUIRED ON THE JOB.

33. SHOULD DAMAGE TO ANY MECHANICAL, ELECTRICAL OR ARCHITECTURAL PART OF THE BUILDING OCCUR, PAY ALL COSTS TO THE RESPECTIVE SUBCONTRACTORS AFFECTED ON THE JOB TO MAKE REPAIRS AND/OR TEMPORARY CONNECTIONS REQUIRED.

34. OPENINGS MADE IN A FIRE RATED WALL, CEILING OR FLOOR SHALL BE EFFECTIVELY CLOSED AND REPAIRED SO THE FIRE RATING IS NOT REDUCED BELOW ORIGINAL FIRE RATING REQUIREMENTS.

35. FURNISH 8 COMPLETE PORTFOLIOS TO THE OWNER'S REPRESENTATIVE, CONTAINING AS- BUILT SHOP DRAWINGS, TEST AND BALANCE REPORTS, OPERATING INSTRUCTIONS, WARRANTIES, PARTS LISTS, WIRING DIAGRAMS, ETC., ON ALL EQUIPMENT FURNISHED UNDER THIS CONTRACTOR.

36. THE CONTRACTOR SHALL FURNISH A COMPETENT INSTRUCTOR TO ADVISE THE OWNER'S OPERATING PERSONNEL AS TO THE PROPER OPERATION, SERVICING, ETC., OF ALL EQUIPMENT AND SYSTEMS INSTALLED.

37. AT THE COMPLETION OF THE WORK, CONTRACTOR SHALL CLEAN ALL OF HIS WORK, EQUIPMENT, ETC., FREE FROM DUST, ETC., AND LEAVE THE WORK IN GOOD HOUSEKEEPING FASHION IN A MANNER ACCEPTABLE TO THE OWNER'S REPRESENTATIVE. PROVIDE NECESSARY FITTINGS, LAMPS, VALVES, ETC., AND LEAVE THE WORK CLEAN AND IN PERFECT OPERATING CONDITION.

38. WHEN DIRECTED, DURING CONSTRUCTION PERIOD, OPERATE SYSTEM WITH ALL FILTERS IN PLACE AND ALL CAULKING COMPLETE. DO NOT OPERATE OR PERMIT SUPPLY SYSTEM TO BE OPERATED WITHOUT FILTERS.

39. UNDER NO CIRCUMSTANCES SHALL ANY ITEMS OF NEW AIR HANDLING EQUIPMENT BE OPERATED FOR TEMPORARY HEAT OR VENTILATION WITHOUT FILTERS IN PLACE. IF THE UNIT IS USED BEFORE CONSTRUCTION IS COMPLETED, THE FILTERS SHALL BE REPLACED, THE UNIT AND COILS SHALL BE CLEANED AND THIS SET OF FILTERS SHALL NOT BE CONSIDERED AS THE SPARE SET OF FILTERS.

40. THE CONTRACTORS SHALL PROVIDE TEMPORARY HEAT AS REQUIRED FOR CONSTRUCTION AND FREEZE PROTECTION.

41. ALL TENDERS SUBMITTED ON THESE DRAWINGS AND SPECIFICATIONS SHALL BE BASED ON NEW MATERIALS AND APPARATUS OF MAKE AND QUALITY AS SPECIFIED. IF THE CONTRACTOR DESIRES, HE MAY ALSO TENDER ON MATERIALS AND APPARATUS WHICH SHALL BE OF SAME QUALITY AND OF SIMILAR SPECIFICATIONS TO THOSE AS HEREIN SPECIFIED, IN WHICH CASE HE SHALL STATE IN HIS TENDER ALL ADDITIONS OR DEDUCTIONS INVOLVED IN THE ALTERNATE MATERIALS AND APPARATUS, AND SHALL SPECIFY THE NAME OR MAKE ON WHICH HIS ALTERNATE IS BASED. WHEN NO ALTERNATES ARE GIVEN OR ACCEPTED PRIOR TO CONTRACT AWARD, THE MAKE SPECIFIED SHALL BE INSTALLED.

HVAC SYSTEM

1. THESE SPECIFICATIONS AND ACCOMPANYING DRAWINGS ARE TO COVER THE FURNISHINGS OF ALL LABOR, MATERIALS, EQUIPMENT, APPARATUS, SERVICE PERMANENT AND TEMPORARY FACILITIES AS NECESSARY TO THE HEATING AND AIR CONDITIONING WORK INVOLVED IN THE FURNISHING, INSTALLING, TESTING, ADJUSTING, RETESTING, READJUSTMENT AS REQUIRED AND DIRECTED, AND PLACING INTO APPROVED SATISFACTORY OPERATION THE COMPLETE RESPECTIVE SYSTEMS AS SHOWN ON THE DRAWINGS, CALLED FOR IN THE SPECIFICATIONS, AND AS REQUIRED BY THE JOB CONDITIONS.

2. BEFORE BEGINNING WORK, THE CONTRACTOR SHALL REVIEW THE MEDICAL EQUIPMENT VENDOR FINAL SHOP DRAWINGS FOR COORDINATION AND MEDICAL EQUIPMENT VENDOR EXPECTATIONS.

3. FURNISH AND INSTALL A COMPLETE AND OPERABLE SYSTEM FOR VENTILATING, HEATING AND AIR CONDITIONING CONSISTING OF, BUT NOT LIMITED TO:
    A. SUPPLY AND EXHAUST/RETURN DUCT SYSTEM
    B. GRILLES, DIFFUSERS, REGISTERS AND MANUAL VOLUME DAMPERS
    C. TESTING AND BALANCING

4. FURNISH ACCESS DOORS TO CEILING CONTRACTOR FOR ACCESS TO VALVES AND DAMPERS. ALL CONTROL DEVICES AND DAMPERS ABOVE INACCESSIBLE CEILINGS. LAY IN CEILINGS SHALL BE CONSIDERED ACCESSIBLE. PROVIDE 12"X12" (MIN.) ACCESS DOORS IN DUCTS FOR ACCESS TO FIRE DAMPERS, DUCT MOUNTED APPARATUSES, AND WHERE INDICATED FOR MAINTENANCE.

5. FURNISH AND INSTALL ALL INSULATION AS SPECIFIED.

6. FURNISH CUTTING AND CORING FOR INSTALLATION OF DUCTS AND EQUIPMENT. APPLICABLE STANDARDS AND CODES OF THE FOLLOWING:

    THE WORK UNDER THIS SECTION SHALL COMPLY WITH THE LATEST EDITION OF:
    A. IMC - INTERNATIONAL MECHANICAL CODE
    B. ASME - AMERICAN SOCIETY OF MECHANICAL ENGINEERS.
    C. ASHRAE - AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING
    D. ARI - AIR CONDITIONING AND REFRIGERATION INSTITUTE
    E. ASTM - AMERICAN SOCIETY FOR TESTING MATERIALS
    F. AABC - ASSOCIATED AIR BALANCE COUNCIL NFPA -NATIONAL FIRE PROTECTION ASSOCIATION
    G. SMACNA - SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION

7. EXERCISE CARE IN TRANSPORTING AND HANDLING TO AVOID DAMAGE TO FIXTURES, EQUIPMENT AND MATERIALS.

8. STORE MATERIALS ON THE SITE SO AS TO PREVENT DAMAGE.

9. KEEP EQUIPMENT AND MATERIALS CLEAN, DRY AND FREE FROM DELETERIOUS CONDITIONS.

10. ALL DUCTWORK SHALL BE FABRICATED FROM GALVANIZED SHEET STEEL OUTSIDE THE SHIELDING. THE DUCTS SHALL BE AIRTIGHT AND SHALL BE ANCHORED, BRACED AND REINFORCED TO PREVENT VIBRATION, LEAKAGE AND OIL CANNING. THE SPACING OF STIFFENERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA.

11. THE DUCTWORK SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE WITH 1 INCH X 1/8 INCH SOLID GALVANIZED STRAP HANGERS (BOTH SIDES OF DUCT AT POINT OF SUPPORT) WITH GAGES AND SPACING AS SPECIFIED IN SMACNA.

12. UNLESS OTHERWISE NOTED, ALL ROUND ELBOWS SHALL HAVE CENTER LINED RADIUS EQUAL TO 1-1/2 TIMES THE WIDTH OF THE DUCT. IF SPACE DOES NOT PERMIT, THEN PROVIDE 6" THROAT WITH SPLITTER VANES. SEE DUCT CONSTRUCTION DETAILS.

13. ALL DUCTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA STANDARDS. DUCTWORK UPSTREAM OF VAV BOXES SHALL BE +4" PRESSURE CLASS. DUCTWORK DOWNSTREAM OF VAV BOXES SHALL BE +2" AND ALL EXHAUST/RETURN DUCTWORK SHALL BE -2" PRESSURE CLASS. ALL DUCTWORK SHALL BE SEAL CLASS A.

14. ALL DUCTWORK SHALL BE 22 GAUGE MINIMUM.

15. ROUND DUCTS AND FITTINGS SHALL BE FACTORY FABRICATED SPIRAL LOCK SEAM DUCT WITH MACHINE FORMED FITTINGS AS MANUFACTURED BY UNITED SHEET METAL. ALL FITTINGS SHALL BE SEALED WITH FIRE RETARDANT DUCT SEALER.

16. FLEXIBLE DUCTS SHALL BE FLEX MASTER OR APPROVED EQUAL. INSULATED FLEXIBLE DUCTS, SECURED WITH WORM DRIVE STAINLESS STEEL CLAMPS. DUCTS SHALL BE U.L. LISTED AND HAVE 2" W.G. GAUGE WORKING PRESSURE. 4'-0" MAXIMUM LENGTH.

17. FOR ALL OPERABLE DEVICES IN WALLS OR ABOVE INACCESSIBLE SUSPENDED CEILINGS, PROVIDE MILCOR ACCESS DOORS WITH SAME KEYED LOCKS AND CONCEALED HINGES. LAY IN CEILINGS ARE CONSIDERED ACCESSIBLE. SIZE AS REQUIRED FOR ACCESS.
    A. STYLE DW IN DRYWALL NO. 16 GA. FRAME NO. 14 GA. PANEL
    B. STYLE AP IN PLASTER NO. 16 GA. FRAME NO. 14 GA. PANEL
    C. STYLE M IN MASONRY NO. 16 GA. FRAME NO. 14 GA. PANEL

18. PROVIDE AN ADJUSTABLE BUTTERFLY OR OPPOSED MULTI BLADE VOLUME DAMPERS IN DUCTWORK ON EVERY BRANCH SERVING AIR TERMINAL DEVICES ON ALL SUPPLY, RETURN AND EXHAUST AIR DUCTWORK. DAMPERS SHALL BE 2 GAGES HEAVIER THAN DUCT IN WHICH THE DAMPER IS INSTALLED. CONSTRUCTION SHALL BE GALVANIZED SHEET METAL. EACH DAMPER SHALL BE PROVIDED WITH DAMPER ROD HELD IN PLACE WITH A CLAMPING DEVICE. VISIBLE END OF THE DAMPER RODS SHALL BE FILE MARKED WITH MARKS PARALLEL TO THE BLADES.

19. FIRE DAMPERS SHALL BE COMPLETE WITH WALL FRAME, SLEEVES, ANGLE IRON STOPS, LATCHES, SPRINGS AND FUSIBLE LINK, ETC., AND SHALL BE INSTALLED WHERE SHOWN ON THE DRAWINGS AND ELSEWHERE AS REQUIRED IN ACCORDANCE WITH NATIONAL BUREAU OF FIRE UNDERWRITER REGULATION BULLETIN 90-A. AND THE CITY OF CHICAGO FIRE PREVENTION BUREAU. THE FIRE DAMPERS SHALL BEAR UL LABEL. FIRE DAMPER SHALL BE 98% FREE AREA, AND BE OF THE LOW RESISTANCE TYPE WITH 1-1/2 HOUR OR 3 HOUR FIRE RATING CORRESPONDING TO THE ASSOCIATED WALL/BARRIER RATING AS MANUFACTURED BY PHILLIPS-AIRE AMERICAN WARNING AND VENTILATING, INC., AIR BALANCE, INC., OR RUSKIN MANUFACTURING.

20. ALL SUPPLY, RETURN, AND EXHAUST AIR OUTLETS SHALL BE MOUNTED TIGHTLY WITH RUBBER GASKETS TO PREVENT AIR LEAKAGE.

21. OUTLETS SHALL BE SELECTED AND GUARANTEED BY THE MANUFACTURER TO HANDLE THE AIR QUANTITIES AS SHOWN ON THE DRAWINGS WITH MAXIMUM PRESSURE DROP THROUGH THE OUTLET NOT EXCEEDING 0.10 IN OF WATER.

22. UNLESS OTHERWISE NOTED, DIFFUSERS, REGISTERS OR GRILLES SHALL BE FABRICATED FROM ALUMINUM OR STEEL AND SHALL BE PROVIDED WITH A FINISH COAT OF WHITE BAKED ENAMEL PAINT, UNLESS NOTED OTHERWISE. DIFFUSERS, REGISTERS AND GRILLES SHALL BE AS MANUFACTURED BY TITUS, OR APPROVED EQUAL.

23. DRILLED-IN THREADED INSERTS: PHILLIPS "REDHEAD" DRILLED-IN THREADED INSERTS SHALL BE PROVIDED. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

24. PROVIDE ANCHOR BOLTS, NUTS SLEEVES FOR ANCHORING FANS, MOTORS AND ANY OTHER POWER-OPERATED EQUIPMENT.

25. ALL CONDITIONED SUPPLY AIR DUCTS SHALL BE INSULATED WITH 1 1/2" THICK FIBERGLASS INSULATION.

DUCTWORK:

1. DUCTWORK SHALL BE GALVANIZED SHEET METAL CONSTRUCTED & INSTALLED IN ACCORDANCE WITH THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION HVAC DUCT CONSTRUCTION STANDARDS, EXCEPT AS FOLLOWS:

2. INTERNAL LINING OF DUCTWORK SHALL NOT BE PERMITTED.

3. DUCTWORK THICKNESS SHALL BE 22 GAUGE MINIMUM EXCEPT FOR THE FOLLOWING:
    A. WHERE ANY WELDING OTHER THAN LONGITUDINAL SEAM IS PERFORMED, THE THICKNESS SHALL BE 18 GAUGE MINIMUM.

4. ROUND:
    A. ROUND DUCTS MAY BE SPIRAL OR LONGITUDINAL SEAM. LONGITUDINAL SEAMS SHALL BE CONTINUOUSLY WELDED. SNAPLOCK SEAMS ARE NOT PERMITTED.
    B. CRIMP JOINTS ARE NOT PERMITTED.
    C. PLEATED ELBOWS ARE NOT PERMITTED.
    D. ADJUSTABLE ELBOWS ARE NOT PERMITTED.
    E. MITERED ELBOWS WITH TURNING VANES ARE NOT PERMITTED IN ROUND DUCTWORK. USE RADIUS ELBOWS WITH CENTERLINE RADIUS AT LEAST AS GREAT AS THE DUCT WIDTH.

5. RECTANGULAR:
    A. BUTTON PUNCH SNAPLOCK SEAMS ARE NOT PERMITTED.
    B. TRANSVERSE (GIRTH) JOINTS T-4, 9, 17, 18, 20, AND 23 ARE NOT PERMITTED.
    C. MITERED ELBOWS WITH TURNING VANES ARE PERMITTED ONLY WHERE RADIUS ELBOWS WITH CENTERLINE RADIUS AT LEAST AS GREAT AS THE DUCT WIDTH IS NOT POSSIBLE.

6. SIZES OF NEW DUCT SHOWN ON DRAWINGS ARE FREE AIRWAYS SIZES, NOT OUTSIDE DIMENSIONS.

7. TEES SHALL HAVE 45^{O} BOOTS AND TAPS ARE TO BE CONICAL.

8. FOR FINAL CONNECTIONS TO DIFFUSERS AND MODULATING DAMPER BOXES, FLEXIBLE DUCTS MAY BE USED FOR A MAXIMUM OF 2'-0" FEET. FLEXIBLE DUCTS SHALL BE U.L. LISTED, WITH 1" THICK FIBERGLASS INSULATION W/ VAPOR BARRIER. INSTALL FULLY EXTENDED W/ A MAXIMUM OF ONE 90° CHANGE OF DIRECTION, IN LENGTHS NO GREATER THAN NECESSARY. USE GENEROUS RADIUS TURNS AND SUPPORT AS REQUIRED TO PREVENT EXCESSIVE SAGGING. FLEXIBLE ELBOWS AT THE DIFFUSER INLET IS NOT PERMITTED.

9. PROVIDE ADJUSTABLE OPPOSED BLADE OR BUTTERFLY DAMPERS FOR ALL NEW LOW PRESSURE SUPPLY & RETURN BRANCHES. EXTRACTORS AND SPLITTER DAMPERS ARE NOT PERMITTED.

10. SEAL ALL JOINTS OF NEW DUCTWORK. INSPECT EXISTING DUCTWORK FOR LEAKS & REPORT RESULTS BEFORE CONNECTING NEW DUCTWORK. ALL DUCTWORK WITHIN THE CONSTRUCTION LIMIT LINE IS SUBJECT TO LEAK TESTS AS REQUIRED AND WITNESSED BY THE OWNER. SEE LATEST BUILDING CONSTRUCTION STANDARDS FOR SPECIFIC TESTING REQUIREMENTS. ALL MEDIUM PRESSURE DUCTWORK UPSTREAM OF VAV AND FAN POWERED BOXES SHALL BE 3" W.G. PRESSURE CLASS, SEAL CLASS A. DUCT SEALANT SHALL BE WATER-BASED-UNITED McGILL OR APPROVED EQUAL. PRESSURE SENSITIVE TAPE IS UNACCEPTABLE. GASKETED FLANGES SHALL BE SEALED WITH A MASTIC.

11. PROTECT NEW & EXISTING DUCT OPENINGS FROM DUST & DIRT. CLEAN INSIDE & OUTSIDE OF NEW & EXISTING DUCTWORK IN AREA OF NEW WORK. REPLACE FILTERS AS REQUIRED DURING CONSTRUCTION PERIOD AND PROVIDE NEW SETS OF FILTERS AFTER COMPLETION OF WORK.

12. INSULATION
    A. INSULATION SHALL BE OWENS-CORNING, CERTAINTEED, ARMSTRONG, OR GUSTIN-BACON. NEW SUPPLY AIR DUCTWORK ABOVE CEILINGS SHALL BE INSULATED WITH MIN. 1-1/2" THICK, 1# DENSITY FIBERGLASS WRAP WITH FIRE RETARDANT VAPOR-BARRIER COVERING TO PROVIDE A MAXIMUM INSTALLED CONDUCTANCE OF 0.16.
    B. OVERLAP ALL SEAMS AND JOINTS & SECURE WITH MANUFACTURER APPROVED ADHESIVE TO PROVIDE CONTINUITY OF VAPOR BARRIER.
    C. ALL NEW SUPPLY DUCTWORK SHALL BE INSULATED.

This sheet of drawings has not been reviewed for code compliance.

PIPING:

1. HEATING WATER 2" OR SMALLER SHALL COPPER PIPE TYPE L WITH SOLDER JOINTS.

2. DIELECTRIC FITTINGS SHALL BE USED BETWEEN STEEL AND COPPER PIPING.

3. VICTAULIC AND "PRESSFIT" SHALL NOT BE USED FOR ANY HVAC PIPING. PRESSURE AND GROOVED FITTINGS ARE NOT ALLOWED.

4. PIPING INSULATION
    A. HEATING WATER PIPING INSULATION TO BE MIN. 1-1/2" THICK FOR PIPING 1-1/4" AND SMALLER, AND MIN. 2" THICK FOR PIPING 1-1/2" AND LARGER.
    B. HEATING WATER PIPING SHALL BE INSULATED WITH MOLDED FIBERGLASS WITH ASJ FINISH.
    C. PROVIDE HIGH DENSITY INSULATION INSERTS FOR PIPING LARGER THAN 2" DIAMETER.

6. GENERAL INSULATION
    A. FITTINGS ON FIBERGLASS PIPE INSULATION SHALL BE MITERED INSULATION UP TO 2" DIAMETER AND MOLDED FITTINGS FOR 2-1/2" AND LARGER. ALL INDOOR FITTING INSULATION SHALL BE COVERED WITH A TIGHT FITTING PVC JACKET.
    B. PROVIDE A SEMI-CYLINDRICAL GALVANIZED SHEET METAL INSULATION SHIELD AT ALL HANGERS TO REDUCE COMPRESSION OF INSULATION.

7. VALVES
    A. ACCEPTABLE MANUFACTURERS:
        a. BRONZE BODY VALVES: KITZ, NIBCO, GRINNELL, MILWAUKEE, OR KENNEDY
        b. BALL VALVES: KITZ, NIBCO, APOLLO, WATTS, MILWAUKEE, OR HAMMOND
    B. CLEANING AND FLUSHING
        a. FLUSH ALL PIPING WITH A MINIMUM VELOCITY OF 5 FT/SECOND FOR 30 MINUTES. ADD CLEANING MATERIALS AS RECCOMENDED BY CHEMAQUA AND BLOWDOWN STRAINER SCREENS. DRAIN THE SYSTEM AFTER CIRCULATING CHEMICAL CLEANER FOR 12 HOURS. AFTER SYSTEM IS DRAINED, REFILL WITH WATER AND SYSTEM CHEMICALS AS RECCOMENDED BY CHEMAQUA.

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MECHANICAL SPECIFICATIONS (CONT.)

7. VALVES (CONT.)
   - C. PROVIDE CLAMP LOCK HAND LEVER OPERATORS ON VALVES LESS THAN 8".
   - D. SHUTOFF VALVES FOR WATER PIPING 2" AND SMALLER SHALL BE BALL TYPE.
   - E. HYDRONIC VALVES
     - a. VALVES SHALL BE MANUFACTURED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND SHALL COMPLY WITH THE PERFORMANCE REQUIREMENTS OF ASTM F 2389 OR CSA B137.11. THE VALVES SHALL CONTAIN NO REWORK OR RECYCLED THERMOPLASTIC MATERIALS EXCEPT THAT GENERATED IN THE MANUFACTURER'S OWN PLANT FROM RESIN OF THE SAME SPECIFICATION FROM THE SAME RAW MATERIAL.
     - b. VALVES, OR ALTERNATES SPECIFICALLY DESIGNED FOR, SHALL BE NIRON AVAILABLE FROM NUPI AMERICAS AND PRODUCED USING MANUFACTURER AUTHORIZED MATERIALS.
   - F. BALL VALVES
     - a. APPLICATION: SHUTOFF 2" AND SMALLER
     - b. BODY: BRONZE WITH <15% ZINC
     - c. BALL AND TRIM: STAINLESS STEEL, VENTED BALL
     - d. CONNECTIONS: THREADED OR SOLDER ENDS
     - e. PRESSURE RATING: 125 PSI
     - f. ALLOWABLE SEAT/SEAL MATERIALS: PTFE, EPDM, NEOPRENE, BUNA-N
   - G. STRAINERS
     - a. APPLICATION: 2" AND SMALLER
     - b. BODY: BRONZE WITH <15% ZINC
     - c. PRESSURE RATING: 125 PSI
     - d. STRAINER SCREEN: STAINLESS STEEL WITH 3/64" MESH
     - e. CONNECTIONS: SCREWED ENDS
     - f. GENERALS: PROVIDE WITH THREADED NIPPLE AND SHUTOFF VALVE FOR BLOWDOWN

PIPE LABELING:

1. PROVIDE ADHESIVE BACKED PIPE MARKERS ON ALL PIPING IN THE PRIMARY AREA OF WORK.
2. LETTERING SHALL BE AT LEAST 1-1/2" HIGH.
3. PROVIDE FLOW DIRECTION ARROWS WRAPPING AROUND THE ENTIRE CIRCUMFERENCE OF THE PIPE ON BOTH THE UPSTREAM AND DOWNSTREAM ENDS OF THE PIPE LABEL.
4. HEATING WATER SHALL USE WHITE LETTERING ON GREEN BACKGROUND.
5. PROVIDE LABELS AT LEAST ONCE EVERY 20 FEET OR AT LEAST ONE IN EACH ROOM AT A MINIMUM.
6. APPLICATION SCHEDULE:
   - A. "HEATING WATER SUPPLY": WHITE LETTERS ON GREEN BACKGROUND
   - B. "HEATING WATER RETURN": WHITE LETTERS ON GREEN BACKGROUND
   - C. "DOMESTIC COLD WATER": WHITE LETTERS ON GREEN BACKGROUND
   - D. "DOMESTIC HOT WATER": WHITE LETTERS ON GREEN BACKGROUND
   - E. "DOMESTIC HOT WATER CIRCULATING": WHITE LETTERS ON GREEN BACKGROUND
   - F. "SANITARY SEWER": BLACK LETTERS ON YELLOW BACKGROUND
   - G. "SANITARY VENT": BLACK LETTERS ON YELLOW BACKGROUND
   - H. "OXYGEN": WHITE LETTERS ON GREEN BACKGROUND
   - I. "NITROGEN": WHITE LETTERS ON BLACK BACKGROUND
   - J. "WASTE ANESTHETIC GAS DISPOSAL": WHITE LETTERS ON PURPLE BACKGROUND
   - K. "MEDICAL VACUUM": BLACK LETTERING ON WHITE BACKGROUND

VALVE TAGS:

1. PROVIDE BRASS TAGS HUNG FROM VALVES WITH MINIMUM 1" HIGH ENGRAVED LETTERING FOR ALL NEW VALVES.
2. PROVIDE VALVE DIRECTORY IN CLOSEOUT DOCUMENTS.

CEILING INDICATORS:

1. PROVIDE COLORED MARKERS ON THE CEILING GRID INDICATING VALVE AND VAV BOX LOCATION ABOVE THE CEILING.

AIR TERMINAL UNITS:

1. VARIABLE VOLUME AIR TERMINAL UNITS TO BE PRESSURE INDEPENDENT, SINGLE DUCT, DDC CONTROL TYPE WITH HOT WATER REHEAT COIL PRE-ASSEMBLED UNIT WITH FACTORY INSTALLED PIPING AND CONTROLS AND SHALL BE PRE-COMMISSIONED.
2. AIR TERMINAL UNIT AIRFLOW AND SOUND PERFORMANCE RATINGS TO BE CERTIFIED IN ACCORDANCE WITH AHRI STANDARD 880. SPECIFY UNTIS FOR MAXIMUM 26 NC LEVEL AT 3" S.P. PROVIDE CRITERIA FOR SOUND POWER LEVELS AND NC LEVELS TO ENSURE MANUFACTURERS' RATINGS ARE COMPARABLE.
3. A DISCHARGE AIR TEMPERATURE SENSOR SHALL BE PROVIDED ON EACH TERMINAL UNIT.
4. ACCEPTABLE MANUFACTURERS:
   - A. JCI VAV READY UNTIS (VRU) WHERE JCI ALREADY EXISTS OR IN NEW FACILITIES. REFER TO INNOVATION MEMORANDUM NO. 9.
5. AIR TERMINAL UNITS SHALL BE PRESSURE INDEPENDENT TYPE.
6. ON TERMINAL UNTIS WITH A 6" OR GREATER INLET, MULTI-POINT FLOW SENSING DEVICES, FLOW RINGS OR FLOW CROSSES, BY UNIT MANUFACTURER SHALL BE USED IN CONJUNCTION WITH DDC CONTROLLER.
7. PROVIDE TERMINAL UNITS WITH MINIMUM 22-GAUGE WELDED GALVANIZED STEEL HOUSING, SLIP AND DRIVE DUCT CONNECTION, 1/2 INCH THICK INTERNAL FIBER FREE CLOSED CELL INSULATION.
8. AN 8" DIAMETER OR 7 3/4" BY 7 3/4" GASKETED HINGED ACCESS DOOR SHALL BE PROVIDED ON THE TERMINAL UNIT. DOOR FRAME MAY BE BOLTED, SEALED, OR FLANGED TO THE CASING. THE DOOR SHALL BE DOUBLE WALL CONSTRUCTION, GASKETED, AND INSULATED. THE DOOR SHALL BE HELD IN PLACE WITH A CAM LOCK LATCH ALLOWING QUICK ACCESS WITHOUT THE USE OF TOOLS.

TEMPERATURE CONTROLS:

1. EXISTING TEMPERATURE CONTROLS SYSTEM BY JOHNSON CONTROLS INC TO REMAIN. NEW EQUIPMENT TO TIE INTO EXISTING BAS.
2. COORDINATE ALL CONTROL WIRING AND POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR. CONTROL CONTRACTOR SHALL TERMINATE ALL POWER AND CONTROL WIRING TO CONTROL DEVICES.

TESTING AND BALANCING OF AIR SYSTEMS:

1. TESTING AND BALANCING OF AIR SYSTEMS SHALL BE PERFORMED BY AN INDEPENDENT SUB-CONTRACTOR DIRECT TO THE GENERAL CONTRACTOR SPECIALIZING IN SUCH WORK AND IS A MEMBER OF THE ASSOCIATED AIR BALANCE COUNCIL.
2. BALANCE AND TESTING SHALL NOT BEGIN UNTIL EACH SYSTEM HAS BEEN COMPLETED AND IS IN FULL WORKING ORDER. CONTRACTORS SHALL PUT ALL THEIR EQUIPMENT INTO FULL OPERATION AND SHALL CONTINUE THE OPERATION OF SAME DURING EACH WORKING DAY OF TESTING AND BALANCING.
3. TESTING AND BALANCING SHALL BE PERFORMED IN COMPLETE ACCORDANCE WITH THE SMACNA MANUAL OR THE AABC NATIONAL STANDARDS FOR FIELD MEASUREMENT AND INSTRUMENTATION AND THE LEGACY SPECIFICATIONS, SECTION.
4. UPON COMPLETION OF THE WORK, THE BALANCE CONTRACTOR SHALL COMPILE ALL TEST DATA AND SUBMIT 8 TYPEWRITTEN COPIES OF THE COMPLETE TEST DATA TO THE ARCHITECT FOR EVALUATION AND APPROVAL. ALL REPORTS SHALL BE MADE ON FORMS AS RECOMMENDED BY EITHER AGENCY.
5. PERFORM A PRE-BALANCE OF EXHAUST FAN EF-97-3 AND ALL ASSOCIATED AIR TERMINALS AS FOLLOWS:
   - A. FAN EF-97-3
     - a. TAG NAME
     - b. SERVICE
     - c. MANUFACTURER
     - d. MODEL
     - e. EXHAUST AIRFLOW (CFM)
     - f. TOTAL STATIC PRESSURE (IN. W.C.)
     - g. MOTOR HORSEPOWER (HP)
     - h. MOTOR AMPS (EA. PHASE)
   - B. AIR TERMINALS (GRILLES):
     - a. ROOM NAME & NUMBER
     - b. GRILLE # (EACH ROOM)
     - c. DESIGN CFM (FROM EXISTING DRAWINGS - AS INDICATED)
     - d. ACTUAL EXHAUST AIRFLOW (CFM)
6. THE BALANCE CONTRACTOR SHALL PERFORM THE FOLLOWING TESTS, AND BALANCE EACH SYSTEM IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:
   - A. ADJUST ALL SUPPLY, RETURN AND EXHAUST AIR DUCTS TO PROPER DESIGN AIR FLOWS.
   - B. ADJUST AND RECORD ALL ZONES TO PROPER DESIGN AIR FLOWS, BY MEANS OF DUCT TRAVERSE METHOD.
   - C. TEST AND ADJUST EACH DIFFUSER, GRILLE AND REGISTER TO WITHIN PLUS OR MINUS 10% OF DESIGN REQUIREMENTS. EACH GRILLE, DIFFUSER AND REGISTER SHALL BE IDENTIFIED AS TO LOCATION, SIZE, TYPE, MANUFACTURER OF AND ALL TESTED EQUIPMENT SHALL BE IDENTIFIED AND LISTED. MANUFACTURER'S RATINGS ON ALL EQUIPMENT SHALL BE USED TO MAKE REQUIRED CALCULATIONS AND FINAL DATE BALANCED.
   - D. READINGS AND TEST OF DIFFUSERS, GRILLES AND REGISTERS SHALL INCLUDE REQUIRED FPM VELOCITY, TEST RESULTANT VELOCITY, REQUIRED CFM, TEST RESULTANT CFM AFTER ADJUSTMENTS AND FINAL DATE BALANCED.
   - E. IN COOPERATION WITH THE EQUIPMENT OR CONTROL MANUFACTURER'S REPRESENTATIVE, ADJUST AUTOMATICALLY OPERATED DAMPERS TO OPERATE AS SPECIFIED, INDICATED AND/OR NOTED.
   - F. ADJUST ALL DIFFUSERS, GRILLES AND REGISTERS TO PROVIDED PROPER AIR DISTRIBUTION AND TO MINIMIZE DRAFTS IN ALL AREAS.
   - G. ADJUSTMENT OF ALL DAMPERS, FANS OR BLOWER SPEED, BELT TENSION, ETC., SHALL BE BY THIS CONTRACTOR. PROVIDE NEW SHEAVES OR BELTS IF REQUIRED FOR BALANCING.
7. AFTER THE AIR BALANCING WORK HAS BEEN COMPLETED, IT MAY BE NECESSARY TO PROVIDE COMFORT REBALANCE. THIS CONTRACTOR SHALL PROVIDE ALL BALANCE WORK FOR READJUSTMENTS.

This sheet of drawings has not been reviewed for code compliance.

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No.	Description	Date

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02.03.2023

TMCA MDU

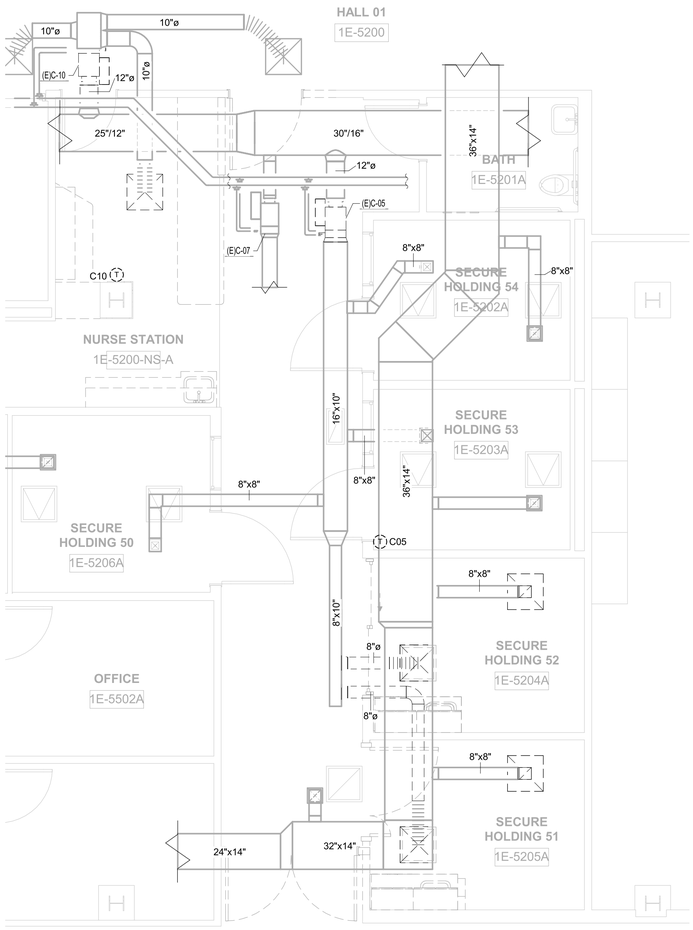
1501 S POTOMAC ST AURORA, CO 80012

Issue	100% CD
Date	3 FEBRUARY 2023
Project Number	2022-05392-00
Drawn by	Author
Checked by	Checker

Sheet Title
MECHANICAL SPECIFICATIONS

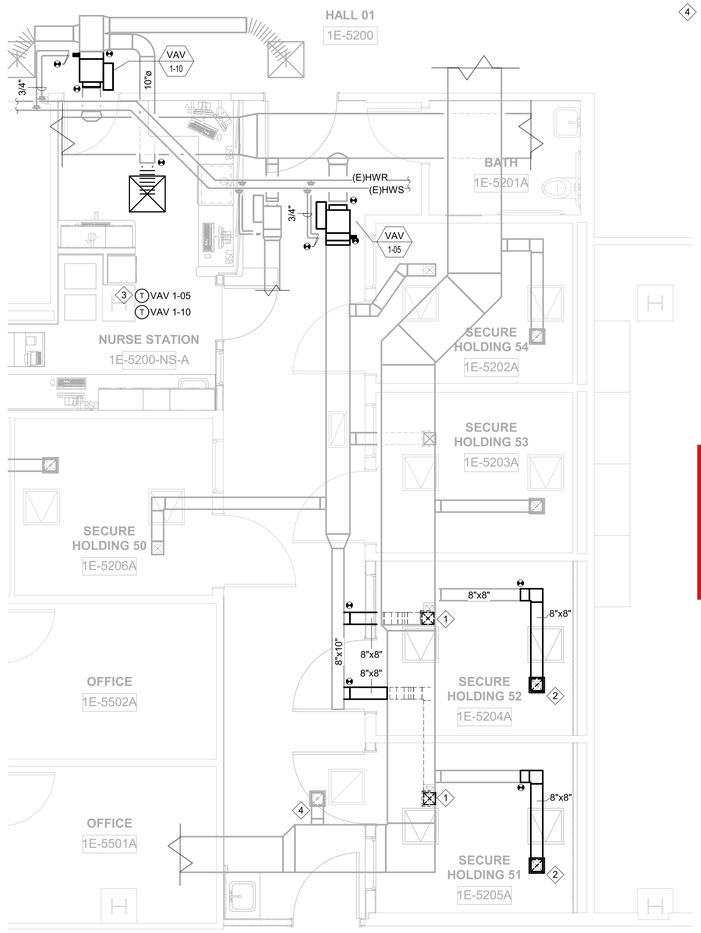
Sheet Number
M.003

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1 LEVEL 01-MECHANICAL DEMOLITION PLAN

1/4" = 1'-0"



2 LEVEL 01-MECHANICAL VENTILATION PLAN

1/4" = 1'-0"

KEYED NOTES:

1. REPLACE SUPPLY DIFFUSERS WITH GRD A1. RECONNECT TO DUCTWORK PER DRAWINGS AND BALANCE TO PREVIOUS ROOM SUPPLY AIRFLOW.
2. REPLACE RETURN GRILLES WITH GRD A1. RECONNECT TO DUCTWORK PER DRAWINGS AND BALANCE TO PREVIOUS ROOM SUPPLY AIRFLOW.
3. REMOTE MOUNTED EXAM ROOM THERMOSTAT TO BE LOCATED BEHIND NURSE STATION.
4. LOCATE TEMPERATURE SENSOR FOR VAV 1-05 IN BRANCH RETURN DUCT.

GENERAL NOTES:

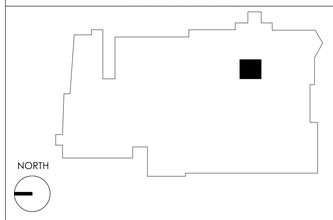
MEASURE AIR VOLUME AT EACH GRD TO BE IMPACTED BY PROJECT PRIOR TO BEGINNING CONSTRUCTION.

Plastic fire sprinkler piping exposed within a plenum shall be used only in wet pipe systems and shall have a maximum: peak optical density of 0.50; average optical density of 0.15; flame spread of 5 feet in accordance with UL 1887. Piping shall be listed and labeled.
2015 IMC 602.2.1.2

Provide proof of a flame spread less than 26 and a smoke development less than 50 for any material used in a plenum.
2015 IMC 602.2.1

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *Y. Munoz*
Date: *Mar 10, 2023*
2015 INTERNATIONAL CODES & 2020 NEC

KEY PLAN



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Issue	100% CD
Date	3 FEBRUARY 2023
Project Number	2022-05392-00
Drawn by	EV
Checked by	JH

Sheet Title
MECHANICAL PLANS

Sheet Number
M.100

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2/3/2023 4:41:12 PM

PLUMBING SYMBOL LIST

SYMBOL	DESCRIPTION
UNDERGROUND PIPING	
—SAN—	SANITARY SEWER
SUSPENDED PIPING	
SAN	SANITARY SEWER
	VENT
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER RETURN
VALVES	
	SHUT OFF VALVE
	CHECK VALVE
	CIRCUIT SETTER / BALANCING COCK
	HOT WATER RETURN BALANCING VALVE ASSEMBLY
	SOLENOID VALVE
	PRESSURE REDUCING VALVE
	PRESSURE & TEMPERATURE RELIEF VALVE
	(ANGLE) DRAIN VALVE
	VACUUM RELIEF VALVE
	BUTTERFLY VALVE
GENERAL	
	BACKFLOW PREVENTER
	WATER METER
	TEE (TOP)
	TEE (BOTTOM)
	90 DEGREE ELL TURNED DOWN
	90 DEGREE ELL TURNED UP (OR RISER UP AND DOWN)
	WASTE PIPE WITH TRAP
	GRADE/FLOOR CLEANOUT
	SUSPENDED CLEANOUT
	HOSE BIBB
	NON-FREEZE WALL HYDRANT
	FLOOR DRAIN/GARAGE DRAIN/AREA DRAIN
	OSD/HD
	FLOOR SINK
	TRENCH DRAIN
	UNION
	SLEEVE THROUGH WALL
	THERMOMETER
	PRESSURE GAUGE
	DIRECTION OF FLOW
	CAP
	POINT OF NEW CONNECTION
	NEW PIPE
	EXISTING PIPE
	EXISTING PIPE TO BE REMOVED

PLUMBING ABBREVIATION LIST

ABBREV.	DESCRIPTION
AD	AREA DRAIN
AFF	ABOVE FINISHED FLOOR
AG	AIR GAP
AP	ACCESS PANEL
BRT	BREAK TANK
BWV	BACKWATER VALVE
CLG	CEILING
CFU	COLD WATER FIXTURE UNIT
CI	CAST IRON
CO	CLEANOUT
CONN.	CONNECTION
CM	COFFEE MAKER
CHW	CHILLED WATER
CW	DISPOSER
D	DOMESTIC COLD WATER
DCV	DOUBLE CHECK VALVE
DF	DRINKING FOUNTAIN
DIA.	DIAMETER
DN	DOWN
DW	DISHWASHER
EL (ELEV)	ELEVATION
ET	EXPANSION TANK
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EXIST. (E)	EXISTING
FBO	FURNISHED BY OTHERS
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FIN.	FINISHED
FS	FLOOR SINK
G	GAS
GC	GENERAL CONTRACTOR
GF	GLASS FILLER
GPF	GALLONS PER FLUSH
GPM	GALLONS PER MINUTE
GS	GREASE SEPARATOR
HB	HOSE BIB
HD	HUB DRAIN
HFU	HOT WATER FIXTURE UNIT
HP	HOUSE PUMP
HS	HAND SINK
HT	HYDROPNEUMATIC TANK
HW	DOMESTIC HOT WATER
HWR	DOMESTIC HOT WATER RETURN
IE	INVERT ELEVATION
IM	ICE MAKER
IW	INDIRECT WASTE
KS	KITCHEN SINK
KW	KITCHEN WASTE
L (LAV)	LAVATORY
MH	MANHOLE
MR	MOP RECEPTOR
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NIC	NOT IN CONTRACT
NP	NON-POTABLE WATER
NTS	NOT TO SCALE
OSD	OSD
PC	PLUMBING CONTRACTOR
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
REF	REFRIGERATOR
ROB	ROD OUT BASIN
RPBP	REDUCED PRES. BACKFLOW PREVENTOR
RP	RETICULATING PUMP
S	SOIL
SAN	SANITARY PIPE
SB	SETTLING BASIN
SE	SEWAGE EJECTOR
SH	SHOWER
SK	SINK
SL	SLOPE
SLV	WALL SLEEVE
SP	SUMP PUMP
SS	SUMP PUMP
ST	SERVICE SINK
SD	SODA DISPENSER
SLV	WALL SLEEVE
SS	SERVICE SINK
TD	TRENCH DRAIN
TMV	THERMOSTATIC MIXING VALVE
TOB	TRIPLE OIL BASIN
TP	TRAP PRIMER
TYP.	TYPICAL
UG	UNDERGROUND
UR	URINAL
V	VENT
VB	VACUUM BREAKER
VIF	VERIFY IN FIELD
VR	VACUUM RELIEF VALVE
VTR	VENT THROUGH ROOF
W	WASTE
WC	WATER CLOSET
WCO	WALL CLEANOUT
WH	WATER HEATER
WS	WALL SPOUT
WSFU	WATER SUPPLY FIXTURE UNIT
WM	WASHING MACHINE
WM	WATER METER
WV	WATER VALVE BOX

NOTE: DISREGARD SYMBOLS & ABBREVIATIONS WHICH DO NOT APPLY TO THIS PROJECT.

CODE REFERENCE

CITY OF AURORA, CO LOCAL AMENDMENTS
2015 INTERNATIONAL BUILDING CODE
2015 INTERNATIONAL MECHANICAL CODE
2015 INTERNATIONAL PLUMBING CODE
2015 INTERNATIONAL ENERGY CONSERVATION CODE
2008 ASHRAE STANDARDS 170
2012 NFPA 99 STANDARDS
2018 FGI GUIDELINES FOR HOSPITALS

PLUMBING DRAWING LIST

P.000	PLUMBING AND MED GAS SYMBOLS AND ABBREVIATIONS	NO SCALE
P.001	PLUMBING AND MED GAS SPECIFICATIONS	NO SCALE
P.002	PLUMBING SCHEDULE AND DIAGRAMS	NO SCALE
P.101	PLUMBING PLANS	1/4"=1'-0"
MG.101	MEDICAL GAS PLAN	1/4"=1'-0"

MATERIAL LIST

SERVICE DESCRIPTION	MATERIAL
WASTE AND VENT (2-1/2" AND SMALLER) BELOW GROUND	PVC WASTE AND VENT PIPE AND FITTINGS BELOW GROUND: PVC PIPE, PVC SOCKET FITTINGS AND SOLVENT CEMENTED JOINS.
WASTE AND VENT (2-1/2" AND SMALLER) ABOVE GROUND	HUBLESS, CAST-IRON SOIL PIPE AND FITTINGS, CISPI-301 WITH EXTRA HEAVY HUBLESS COUPLINGS.
DOMESTIC WATER (3" AND SMALLER)	HARD TEMPERED, SEAMLESS COPPER TUBING, TYPE 'L' CONFIRMING TO ASSE STANDARD B-88. FITTINGS TO BE SOLDER JOINT WITH LEAD-FREE SOLDER.
MEDICAL GAS	HARD DRAWN SEAMLESS TYPE 'K' MEDICAL GAS TUBE: ASTM B819 AND MARKED ACCORDINGLY FOR SERVICE TYPE PER NFPA 99 STANDARDS. FITTINGS TO BE CLEANED AND LISTED FOR OXYGEN SERVICE. JOINTS TO BE BRAZED IN ACCORDANCE TO NFPA 99 AND MSS SP-73 BRAZING STANDARDS.

THE CITY OF AURORA BUILDING DIVISION DOES NOT PERMIT, REVIEW OR INSPECT BACKFLOW PREVENTION DEVICES ON BUILDING DOMESTIC WATER ENTRY. PLEASE CONTACT AURORA WATER - WATER SERVICE CROSS CONNECTION CONTROL 303-326-8510

MEDICAL GAS SYMBOL LIST

SYMBOL	DESCRIPTION
O2	OXYGEN PIPING
MA	MEDICAL COMPRESSED AIR PIPING
VAC	MEDICAL VACUUM PIPING
N2	NITROGEN PIPING
WAGD	WASTE ANESTHETIC GAS DISPOSAL PIPING
CO2	CARBON DIOXIDE PIPING
N2O	NITROUS OXIDE PIPING
(N)	NEW PIPE
(E)	EXISTING PIPE
	ZONE VALVE BOX (ZVB)
	SHUT-OFF VALVE
1 MA 1 O2 1 VAC 1 N2O	NUMBER AND TYPE OF OUTLETS REQUIRED
	EXISTING FIXTURE/EQUIPMENT/PIPING TO BE REMOVED
	NEW CONNECTION

Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation. 2015 IBC 105.4.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *Y. Munoz*
Date: *Mar 10, 2023*
2015 INTERNATIONAL CODES & 2020 NEC

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Issue	100% CD
Date	3 FEBRUARY 2023
Project Number	2022-05392-00
Drawn by	TL
Checked by	BM

Sheet Title
PLUMBING AND MED GAS SYMBOLS, AND ABBREVIATIONS

Sheet Number
P.000

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PLUMBING AND MEDICAL GAS SPECIFICATIONS

PART 1 – BASIC REQUIREMENT

1.01 RELATED REQUIREMENTS

A. THIS SPECIFICATION SHALL CONTROL ALL LABOR, SERVICES, MATERIALS AND EQUIPMENT AND PERFORMANCE OF ALL WORK REQUIRED FOR THE INSTALLATION OF ALL PLUMBING AND MEDICAL GAS WORK AS SPECIFIED IN THE FOLLOWING.

B. DEFINITIONS:

1. "PIPING" INCLUDES, IN ADDITION TO PIPE, ALL FITTINGS, VALVES, PIPE COVERING, HANGERS, AND OTHER SUPPORTS AND ACCESSORIES RELATED TO SUCH PIPING.
2. CONCEALED MEANS HIDDEN FROM SIGHT IN CHASES, FURRED SPACES, SHAFTS, HUNG CEILINGS, EMBEDDED IN CONSTRUCTION, IN CRAWL SPACES OR BURIED.
3. "EXPOSED" MEANS NOT INSTALLED UNDERGROUND OR "CONCEALED" AS DEFINED ABOVE.
4. "INVERT ELEVATIONS" MEANS THE ELEVATION OF THE INSIDE BOTTOM OF PIPE, OR RELATED DEVICE.
5. "PROVIDE" MEANS TO FURNISH AND INSTALL COMPLETE.

1.02 GENERAL REQUIREMENTS

A. ALL PLUMBING WORK SHALL BE INSTALLED IN STRICT CONFORMANCE TO CITY OF AURORA, COLORADO MUNICIPAL CODE, 2015 INTERNATIONAL BUILDING CODE, 2015 INTERNATIONAL PLUMBING CODE AND 2018 INTERNATIONAL ENERGY CODE

B. MEDICAL GAS WORK TO COMPLY WITH 2012 EDITION OF NFPA #99 STANDARDS AND SMC/HCA FACILITY STANDARDS.

C. ALL PLUMBING PRODUCTS, AS APPLICABLE, SHALL MEET NATIONAL STANDARD S.3874, REDUCTION OF LEAD IN DRINKING WATER ACT, AND NSF STANDARD 372.

D. CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING BID TO VERIFY SCOPE OF WORK.

E. ALL PRODUCTS AND EQUIPMENT SHALL BE UL LISTED AND APPROVED BY SMC.

F. EACH MAJOR COMPONENT OR PIECE OF EQUIPMENT TO HAVE THE MANUFACTURER'S NAME, ADDRESS, MODEL NUMBER AND RATING ON A PLATE SECURELY AFFIXED IN A CONSPICUOUS PLACE.

G. CODE RATINGS, LABELS OR OTHER DATA WHICH ARE DIE–STAMPED OR OTHERWISE AFFIXED TO THE SURFACE OF THE EQUIPMENT SHALL BE IN VISIBLE LOCATION.

H. CONTRACTOR SHALL COORDINATE PROPOSED WORK WITH EXISTING FIELD CONDITIONS INCLUDING ARCHITECTURAL BUILDING ELEMENTS, STRUCTURAL CONDITIONS, AND EXISTING MECHANICAL AND ELECTRICAL CONDITIONS.

I. CONTRACTOR SHALL ADHERE TO ALL BASE BUILDING AND CURRENT FACILITY STANDARDS AND REQUIREMENTS. SHUT–DOWN OF EXISTING BUILDING SYSTEMS FOR NEW PLUMBING CONNECTIONS SHALL BE AUTHORIZED, SCHEDULED AND PERFORMED IN ACCORDANCE TO BUILDING MANAGEMENT REQUIREMENTS. BUILDING SHALL BE NOTIFIED NO LESS THAN 72 HOURS PRIOR TO ANY SHUT–DOWNS. ACCESS TO AREAS OUTSIDE WORKS SPACES, SUCH AS ADJOINING SPACES AND SPACES IMMEDIATELY BELOW, SHALL BE PERFORMED IN ACCORDANCE TO BUILDING MANAGEMENT REQUIREMENTS.

1.03 WORK INCLUDED

A. INCLUDE ALL COSTS RELATED TO PROVIDE ALL PERMITS, LICENSES, INSPECTIONS, APPROVALS AND OTHER ARRANGEMENTS FOR WORK.

B. PROVIDE DEMOLITION OF EXISTING PLUMBING AND MEDICAL GAS INCLUDING REMOVAL OF ALL DEBRIS. COORDINATE WITH BUILDING MANAGEMENT EXISTING EQUIPMENT, FIXTURES OR DEVICES THAT SHALL BE RETAINED, CAREFULLY REMOVE AND TURN OVER TO OWNER. REMOVE ALL PIPING BACK TO ACTIVE SOURCE AND CAP LEAVING NO DEAD ENDS.

C. PRIOR TO DEMOLITION OF EQUIPMENT, FIXTURES OR TRIM, COORDINATE WITH OWNER ANY ITEMS TO BE RETAINED. CAREFULLY REMOVE SUCH ITEMS AND TURN OVER TO OWNER.

D. PROVIDE PLUMBING FIXTURES AS INDICATED ON PLUMBING AND ARCHITECTURAL DRAWINGS, FOR EXACT LOCATION OF PLUMBING FIXTURES, REFER TO ALL ARCHITECTURAL AND CONSULTANT PLANS AND ELEVATIONS.

E. PROVIDE ALL WASTES, TRAPS AND SUPPLIES WITH STOPS. MAKE ALL FINAL CONNECTIONS TO EACH FIXTURE, FAUCET, TAILPIECE, SINK FRAMES, ETC. FOR ALL FIXTURES.

E. MAKE NEW CONNECTIONS TO EXISTING BRANCH PIPING AS INDICATED ON PLANS AND RISER DIAGRAMS, AND AS NECESSARY TO COMPLETE THE WORK.

F. INSTALL PIPING WITH ADEQUATE PROVISIONS TO CONTROL EXPANSION AND CONTRACTION.

G. PROVIDE AND SET SLEEVES FOR ALL PIPING SYSTEMS PASSING THROUGH WALLS, FLOORS, PARTITIONS, ETC. SLEEVES SHALL BE SIZED AT LEAST TWO PIPE DIAMETERS LARGER THAN PIPING, OR OUTSIDE DIAMETER OF INSULATED PIPING.

H. ARRANGE FOR POWER TO SUPPORT ALL ELECTRICAL RELATED EQUIPMENT AND DEVICES.

I. PROVIDE ROUGH–IN AND FINAL CONNECTIONS TO ALL APPLIANCES AND EQUIPMENTS FURNISHED BY OTHERS, INCLUDING ALL REQUIRED DEVICES.

J. PROVIDE ALL CUTTING AND PATCHING OF BUILDING ELEMENTS AS REQUIRED FOR INSTALLATION OF WORK HERE IN SPECIFIED. ALL WORK SHALL BE COORDINATED AND APPROVED BY BUILDING AND ARCHITECTURAL FIELD REPRESENTATIVE PRIOR TO ANY WORK BEING PERFORMED.

K. PROVIDE FIRE–STOP AT ALL FLOOR AND WALL PENETRATIONS AS REQUIRED BY PROJECT PARAMETERS AND LOCAL CODE AUTHORITY.

L. PROVIDE ALL ACCESS PANELS. PLUMBING CONTRACTOR TO GIVE ALL LOCATIONS AND DIMENSIONS OF ALL REQUIRED ACCESS PANELS TO GENERAL CONTRACTOR. GENERAL CONTRACTOR WILL SUBMIT TO ARCHITECT FOR APPROVAL AND FINISH REQUIREMENTS PRIOR TO INSTALLATION.

M. COORDINATE PROPOSED WORK WITH ADDITIONAL TRADES AND OTHERS INVOLVED PRIOR TO ANY INSTALLATION WORK.

N. PROVIDE PIPING IDENTIFICATION FOR ALL PIPING SYSTEMS.

O. PROVIDE VALVE TAGS FOR ALL VALVES.

P. PROVIDE AS–BUILT DRAWINGS IN AUTOCAD 2014 FORMAT AT COMPLETION OF PROJECT.

Q. PROVIDE TWO COPIES OF OWNER'S OPERATION AND MAINTENANCE MANUALS WITH ALL PLUMBING EQUIPMENT, FIXTURES, TRIM AND DEVICES, MANUFACTURER'S MAINTENANCE INSTRUCTIONS AND MANUALS.

1.04 CLEANING

A. COORDINATE GENERAL CLEANUP WITH BUILDING MANAGEMENT.

B. PROVIDE ALL NECESSARY MEANS FOR ADEQUATE CLEANING, FLUSHING AND DRAINING TO PERMIT THOROUGH FLUSHING OF ALL THE PIPING SYSTEMS, INCLUDING BOTH WATER AND DRAINAGE.

C. PROVIDE DISINFECTION OF ALL DOMESTIC WATER PIPING IN ACCORDANCE WITH CODE, HEALTH DEPARTMENT AND APPLICABLE STANDARDS.

D. TESTING AND RESULTS SHALL BE PERFORMED AND DOCUMENTED BY A LABORATORY CERTIFIED IN ACCORDANCE TO PLUMBING CODE. IF RESULTS OBTAINED DO NOT MEET STANDARDS, DISINFECTION PROCEDURES SHALL BE REPEATED.

E. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PERMIT THE USE OF ANY PORTION OF DOMESTIC WATER SYSTEMS UNTIL SUCH SYSTEM HAS BEEN PROPERLY DISINFECTED, FLUSHED AND CERTIFIED.

1.05 FIELD TESTING

A. TESTING SHALL BE IN STRICT COMPLIANCE TO THE PLUMBING CODE AND NFPA.

B. NO WORK SHALL BE ENCLOSED, CONCEALED, COVERED UP OR USED UNTIL THE SYSTEMS HAVE BEEN INSPECTED AND APPROVED BY THE CODE OFFICIALS AND ARCHITECTURAL FIELD REPRESENTATIVE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO MAKE ALL NECESSARY ARRANGEMENTS FOR INSPECTIONS.

C. EACH SYSTEM SHALL BE TESTED FOR A MINIMUM OF 4 HOURS AT 1–1/2 TIMES IT'S DESIGN PRESSURE, OR GREATER WHERE INDICATED. WATER SYSTEMS SHALL BE TESTED AT 125 PSI MINIMUM FOR AT LEAST 4 HOURS. DRAINAGE WASTE AND VENT SYSTEMS SHALL BE TESTED AT 10 FOOT HEAD OF WATER OR 5 PSI AIR PRESSURE FOR AT LEAST 4 HOURS. SYSTEMS MAY BE TESTED IN SECTIONS.

D. LEAKING JOINTS DISCOVERED DURING TESTING SHALL BE REPLACED AND REMADE. ENTIRE SYSTEM OR PORTION SHALL BE RETESTED ACCORDINGLY.

E. FIXTURES AND EQUIPMENT SHALL BE TESTED IN ACCORDANCE TO MANUFACTURER'S INSTRUCTIONS.

F. MEDICAL GAS SHALL BE TESTED AND CERTIFIED IN ACCORDANCE TO CURRENT NFPA #99 STANDARDS.

PART 2 – BASIC MATERIALS

2.01 PIPES AND FITTINGS

A. BELOW GROUND WASTE AND VENT PIPING IN ALL SIZES SHALL BE SCHEDULE 40 PVC PIPE AND FITTINGS IN ACCORDANCE TO ANSI/ASTM 2665 AND ASTM D1785. JOINTS SHALL BE PRIMED AND SOLVENT WELDED IN ACCORDANCE TO ANSI/ASTM D2564. ALL PIPE, FITTINGS AND JOINING MATERIAL SHALL BE PROVIDED FROM ONE MANUFACTURER. HANGERS SHALL BE NON–ABRASIVE AND SPACED IN ACCORDANCE TO THE MANUFACTURER'S INSTRUCTIONS.

B. ABOVE GROUND DRAINAGE AND VENT PIPING: SERVICE WEIGHT HUBLESS CAST IRON PIPE, THOROUGHLY COATED WITH COAL TAR INSIDE AND OUTSIDE, CONFORMING TO ASTM A74 AND CAST IRON SOIL INSTITUTE STANDARD 301. FITTINGS SHALL BE HUBLESS CAST IRON SOIL FITTINGS OF THE SAME GRADE AND COATED IN THE SAME MANNER. MAKE ALL JUNCTIONS WITH COMBINATION "Y" AND 1/8 BEND FITTINGS. JOINTS SHALL BE MADE WITH EXTRA HEAVY DUTY HUBLESS COUPLINGS HAVING A STAINLESS STEEL CLAMPS AND SHIELD WITH A MINIMUM OF 4 CLAMPS FOR 4 INCH AND SMALLER PIPING AND 6 CLAMPS FOR 5 INCH AND LARGER PIPING SIMILAR TO HUSKY SERIES 4000.

C. COPPER WATER PIPE AND FITTINGS – 3 INCH AND SMALLER: PIPE SHALL BE HARD TEMPERED, SEAMLESS COPPER TUBING, TYPE "L" CONFORMING TO ASST. STANDARD B–88. FITTINGS IN COPPER TUBING 2–1/2 INCH AND SMALLER SHALL BE WROUGHT SWEAT TYPE FITTINGS MANUFACTURED OF SEAMLESS TUBING FORGED BRONZE OR BRASS ROD TO MEET SAME STANDARD B16.22. ALL FITTINGS IN COPPER TUBING 3–INCH AND LARGER MAY BE CAST RED BRONZE SOLDER TYPE FITTINGS MEETING ASST. STANDARD B16.18. IN ALL CASES WHERE COPPER PIPE CONNECTIONS ARE MADE TO PIPING OR AN ITEM OF EQUIPMENT OF A DISSIMILAR METAL, PROVIDE SOLID BRASS THREADED TRANSITION PIECES IF CONNECTION WILL BE CONCEALED. IF NOT CONCEALED, USE DIELECTRIC UNIONS. ALL JOINTS SHALL BE SOLDERED IN ACCORDANCE WITH THE COPPER DEVELOPMENT ASSOCIATION COPPER TUBE HANDBOOK USING LEAD–FREE SOLDER.

D. MEDICAL GAS: HARD DRAWN SEAMLESS TYPE "K" MEDICAL GAS TUBE; ASTM B819 AND MARKED ACCORDINGLY FOR SERVICE TYPE PER NEPA 99 STANDARDS. FITTINGS SHALL CLEANED AND LISTED FOR OXYGEN SERVICE. JOINTS SHALL BE BRAZED IN ACCORDANCE TO NFPA 99 AND MSS SP–73 BRAZING STANDARDS.

2.02 INSULATION

A. INSULATION SHALL COMPLY WITH APPLICABLE ENERGY CODE.

B. INSULATION SHALL BE TYPE I GRADE A GLASS FIBER PREFORMED PIPE INSULATION IN ACCORDANCE TO ASTM C 547 WITH FACTORY APPLIED VAPOR BARRIER ALUMINUM BACKING IN ACCORDANCE TO ASST. C 1136. FITTINGS SHALL BE FIELD INSULATED AND COVERED WITH PREFORMED PVC JACKETS. SEALANT AND ADHESIVES SHALL BE IN ACCORDANCE TO MANUFACTURER'S INSTRUCTIONS.

C. INSULATION THICKNESS:
   a. HOT WATER AND HOT CIRCULATING WATER PIPING 1–1/2 INCH AND LARGER: 1–1/2 INCH THICK.
   b. HOT WATER AND HOT CIRCULATING WATER PIPING 1–1/4 INCH AND SMALLER: 1 INCH THICK.
   c. COLD WATER AND CONDENSATE, ALL SIZES: 1 INCH THICK.
   d. STORM DRAINAGE ALL SIZES: 1 INCH THICK.

D. INSULATION SHALL RUN UNINTERRUPTED. PROVIDE OVERSIZED HANGERS AND INSULATION SADDLES FOR ALL INSULATED PIPING.

2.03 VALVES

A. PROVIDE VALVES FOR ALL PIPING SYSTEMS FOR PROPER CONTROL AND ISOLATION OF EQUIPMENT, FIXTURES AND DEVICES. PROVIDE VALVES FOR PROPER OPERATION OF EQUIPMENT.

B. APPROVED VALVES SHALL BE AS MANUFACTURED BY NIBCO AND APOLLO–CONBRACO. ALL VALVES SHALL BE LEAD FREE NSF61 LISTED FOR POTABLE PLUMBING APPLICATIONS.

C. SHUT OFF VALVES SHALL BE PROVIDED AT CONNECTION AND EXTENSION FROM EXISTING SYSTEMS, OUTSIDE EACH ROOM WHERE PLUMBING OCCURS, AND TO ISOLATE EACH ITEM OF EQUIPMENT, APPLIANCE AND FIXTURE.

D. BALL VALVES 2 INCH AND SMALLER: TWO–PIECE LEAD–FREE BRONZE BODY ASTM B 584, FULL PORT, 600 PSIG CWP, BLOW–OUT PROOF STEM, CHROME PLATED BALL, LEVER HANDLE AND THREADED CONNECTIONS, EQUAL TO CONBRACO MODEL NO. 82–20.

E. CHECK VALVES 2 INCH AND SMALLER SHALL BE: CLASS 125, BRONZE SWING CHECK VALVE WITH BRONZE DISC ASTM B 62, 200 PSIG CWP, Y–PATTERN HORIZONTAL FLOW, AND THREADED CONNECTIONS EQUAL TO NIBCO MODEL NO. T–413–B.

F. MEDICAL GAS VALVES SHALL BE 3–PIECE DESIGN CLEANED AND LISTED FOR OXYGEN SERVICE AS MANUFACTURED BY BEACON–MEDAES OR AMICO.

2.04 SUPPORTS AND HANGERS

A. PROVIDE ALL NECESSARY HANGERS, SUPPORTS, BUILDING ATTACHMENTS, SUPPLEMENTAL STEEL, ANCHORS, INSERTS, ETC., AS REQUIRED TO INSTALL THE PLUMBING WORK. HANGERS AND SUPPORTS SHALL BE CAPABLE OF SUPPORTING PIPE LOADS AND FULL CONTENTS WITH ALL RELATED DEVICES, PUMPS, ETC.

B. PIPE SHALL BE SUPPORTED IN ACCORDANCE TO CODE, MANUFACTURER REQUIREMENTS, MSS STANDARDS AND CONTRACT DOCUMENTS.

C. HANGERS, SUPPORTS AND RELATED ITEMS SHALL HAVE FACTORY COATED FINISHES THAT WILL NOT PROMOTE GALVANIC OR CORROSION ACTION. RODS, NUTS AND MISCELLANEOUS FASTENERS SHALL BE GALVANIZED.

D. ADDITIONAL HANGERS MUST BE PROVIDED AT ALL VALVE ASSEMBLIES, AUTOMATIC VALVES, BY–PASSES, OR ELSEWHERE, WHERE REQUIRED TO PROPERLY SUPPORT ANY ADDITIONAL PIPE LOADINGS.

E. MAXIMUM SPACING FOR HANGERS SHALL BE IN ACCORDANCE TO CODE. MSS STANDARDS AND PIPE MANUFACTURER INSTRUCTIONS. HANGERS SUPPORTING CAST IRON PIPE OF THE HUB AND SPIGOT TYPE IN 60 INCHES LENGTHS SHALL BE 60 INCHES O.C. HANGERS SHALL BE LOCATED AT THE PIPE HUB CONNECTIONS AND AT EACH FITTING.

F. REGARDLESS OF ANY OF THE ABOVE LISTED HANGER SPACING, PROVIDE A HANGER NOT MORE THAN 12 INCHES FROM EACH CHANGE IN DIRECTION OF PIP

2.05 IDENTIFICATION

A. PROVIDE ALL NEW AND MODIFIED PIPING STYSTEMS AND VALVES WITH IDENTIFICATION.

B. IDENTIFICATION AND COLOR CODING SHALL BE IN ACCORDANCE TO CURRENT FACILITY STANDARDS, NFPA STANDARDS AND ANSI/ASME STANDARDS.

C. PIPE SHALL BE IDENTIFIED ABOVE EACH ROOM, SPACE AND SPACING SHALL NOT EXCEED 20 FEET.

D. VALVE TAGS SHALL BE 1–1/2" DIAMETER BRASS, LABELED IN SEQUENCE TO CURRENT FACILITY STANDARDS.

PART 3 – BASIC EXECUTION

3.01 DOMESTIC WATER

A. PROVIDE NEW DOMESTIC WATER PIPING SYSTEMS COMPLETE TO SUPPORT PROPOSED WORK.

B. PROVIDE ALL VALVES IN THE DOMESTIC WATER SYSTEMS WHERE REQUIRED BY CODE AND AS INDICATED ON THE PLANS FOR PROPER CONTROL AND SERVICING OF THE PIPING SYSTEMS.

C. INSTALL WATER PIPING WITHIN HEATED AREAS OF THE BUILDING ONLY AND NOT IN AREAS SUBJECT TO FREEZING.

D. INSTALL WATER PIPING WITH PITCH TO DRAIN TOWARDS FIXTURE OR EQUIPMENTS SERVED.

E. PROVIDE DI–ELECTRIC UNIONS OR FITTINGS WHERE CONNECTIONS OCCUR BETWEEN DISSIMILAR MATERIALS.

F. INSULATE ALL DOMESTIC WATER SYSTEMS INCLUDING CONCEALED PIPING WITHIN WALLS AND CHASES.

3.02 MEDICAL GAS

A. MEDICAL GAS SYSTEM DEMOLITION AND INSTALLATION SHALL COMPLY WITH 2012 EDITION OF NFPA #99 AND CURRENT FACILITY STANDARDS.

B. SYSTEM TEST & CERTIFICATIONS SHALL BE IN STRICT COMPLIANCE WITH NFPA STANDARDS. TEST & CERTIFICATION SHALL CONSIST OF ALL PIPELINES WITHIN AFFECTED AREA OF SCOPE AND PIPELINE IMMEDIATELY UPSTREAM OF AREA AS PRESCRIBED IN NFPA 99. FINAL CROSS CONNECTION, CERTIFICATION AND PURITY TESTS SHALL BE CONDUCTED BY A THIRD PARTY AS DIRECTED BY SMC/HCA.

C. PROVIDE ALL REQUIRED CUTTING AND PATCHING FOR THE NEW MEDICAL GAS SYSTEMS.

D. PROVIDE A NOTORIZED DOCUMENT INDICATING ALL TEST RESULTS FOR SUBMISSION TO HEALTH DEPARTMENT AND FOR FACILITY RECORDS.

PART 4 – EQUIPMENT, FIXTURES AND DEVICES

4.01 GENERAL

A. INSTALL ALL ITEMS IN ACCORDANCE TO MANUFACTURER'S INSTRUCTIONS. PROVIDE ALL REQUIRED FACTORY AUTHORIZED START–UP SERVICES WHERE REQUIRED.

B. ITEMS SHALL BE SET, LEVELED, FASTENED AND CONNECTED COMPLETE WITH ALL REQUIRED TRIM, SUPPORTS, ETC. ALL FIXTURES SHALL BE PERFECT IN FINISH AND COLOR, SHALL BE SQUARE WITH RELATION TO FINISHED INTERIOR AND LOCATED AS INDICATED ON THE DRAWINGS.

C. ALL ITEMS SHALL BE PROVIDED WITH PROPER SUPPORT. PROVIDE AND ARRANGE FOR ALL NECESSARY WALL FRAMING AND BLOCKING.

D. AFTER WORK HAS BEEN COMPLETED, ALL ITEMS AND TRIM SHALL BE THOROUGHLY CLEANED.

E. PROVIDE ALL MEDICAL GAS EQUIPMENT AND DEVICES AS SPECIFIED. EQUIPMENT DEVICES, VALVES AND RELATED COMPONENTS SHALL BE FROM AMICO AND IN ACCORDANCE TO 2012 NFPA #99 STANDARDS.

This sheet of drawings has not been reviewed for code compliance.

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02.03.2023

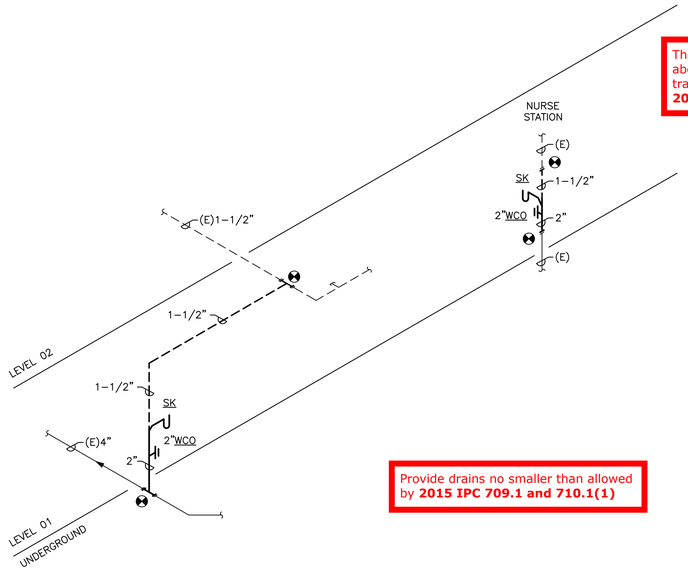
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Issue	100% CD
Date	3 FEBRUARY 2023
Project Number	2022-05392-00
Drawn by	TL
Checked by	BM

Sheet Title
PLUMBING AND MED GAS SPECIFICATIONS

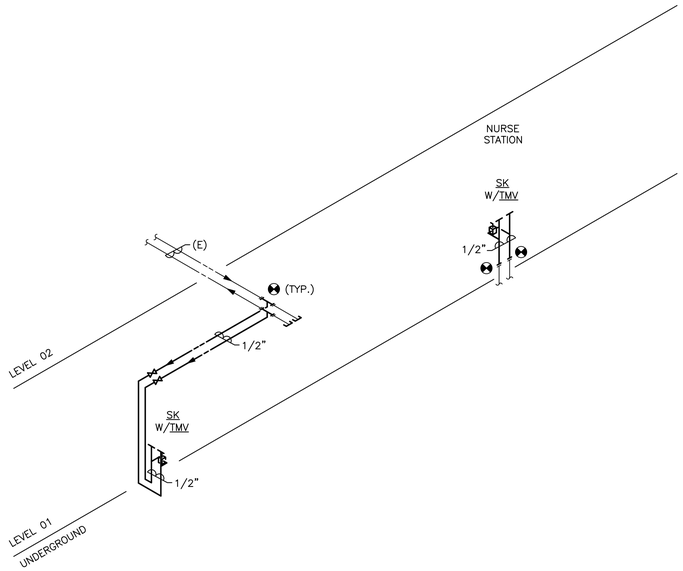
Sheet Number
P.001



The dry vent must rise 6" vertically above the flood level rim of the highest trapped fixture being vented.
2015 IPC 905.4

Provide drains no smaller than allowed by **2015 IPC 709.1 and 710.1(1)**

1 PLUMBING WASTE AND VENT PIPING DIAGRAMS
N.T.S.



2 PLUMBING WATER PIPING DIAGRAMS
N.T.S.

PLUMBING SCHEDULE

SK-1 SINGLE COMPARTMENT SINK, GOOSENECK FAUCET, BARRIER FREE

ELKAY ELUHAD191655 STAINLESS SINK, BARRIER FREE AND REAR CENTERSET DRAIN OUTLET
ZURN Z831B4-XL-FC 1.5 GOOSENECK, WRIST BLADES
PROFLO PFWTS WIDE TOP GRID DRAIN
PROFLO PFTPB100 17GA FLANGED TAILPIECE
PROFLO PFPTB403 1-1/2 17 GA P TRAP
PROFLO PFXQAC32C 1/4 TURN ANGLE VALVE (2)
PROFLO PFX146324 20" FLEX RISER (2)
PROFLO PFE7 1/2" CP ESCUTCHEON (2)

SK-2 SINGLE COMPARTMENT SINK, UNDERMOUNT, LIGATURE RESISTANT FAUCET

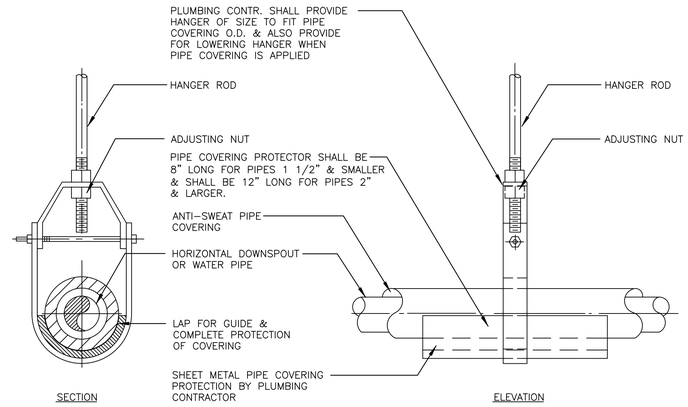
ELKAY ELUHAD191655 STAINLESS SINK, BARRIER FREE AND REAR CENTERSET DRAIN OUTLET
SPEAKMAN BSP SF370/SAL-5011 LIGATURE RESISTANT BATTERY OPERATED SENSOR FAUCET
PROFLO PFWTS WIDE TOP GRID DRAIN
PROFLO PFPTB403 1-1/2 17 GA P TRAP
PROFLO PFXQAC32C 1/4 TURN ANGLE VALVE (2)
PROFLO PFX146324 20" FLEX RISER (2)
PROFLO PFE7 1/2" CP ESCUTCHEON (2)

SH-1 SHOWER ADA LIGATURE RESISTANT

EXISTING BASE. CLEAN AND FLUSH EXISTING DRAIN PIPING TO ASSURE PROPER DRAINAGE CONDITIONS. GRAB BAR, SOAP DISH, FOLD-UP SEAT FURNISHED BY OTHERS.
ODDBALL OSP10A LIGATURE RESIST SHOWER VALVE AND TRIM.
BRADLEY BS24210 LIGATURE RESISTANT SHOWERHEAD.

TMV-1 THERMOSTATIC MIXING VALVE (POINT-OF-USE)

SYMMONS MAXLINE MODEL 8210CK (LAWLER, ARMSTRONG, POWERS OR LEONARD) THERMOSTATIC MIXING VALVE, MAX 2.06GPM@10PSI, MINIMUM THERMOSTATICALLY CONTROLLED FLOW RATE 0.25GPM. SOLID BRASS BODY, INTEGRAL SPRING CHECKS, STAINLESS-STEEL DEBRIS STRAINER, 3/8" COMPRESSION PORTS. TEMPERATURE CONTROL RANGE OF 59F-115F DEGREES. VANDAL-RESISTANT CAP WITH LIMIT STOP. MOUNTING BRACKET INCLUDED. 10-YEAR COMMERCIAL WARRANTY. 1070/1017 AND A112.18.1 CERTIFIED. NOTE: FIELD SET TEMPERATURE AT 110°F MAXIMUM.



TYPICAL DETAIL OF PIPE COVERING PROTECTOR FOR INSULATED PIPING
NOT TO SCALE

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *Y. Munoz*
Date: *Mar 10, 2023*
2015 INTERNATIONAL CODES & 2020 NEC

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02.03.2023

TMCA MDU

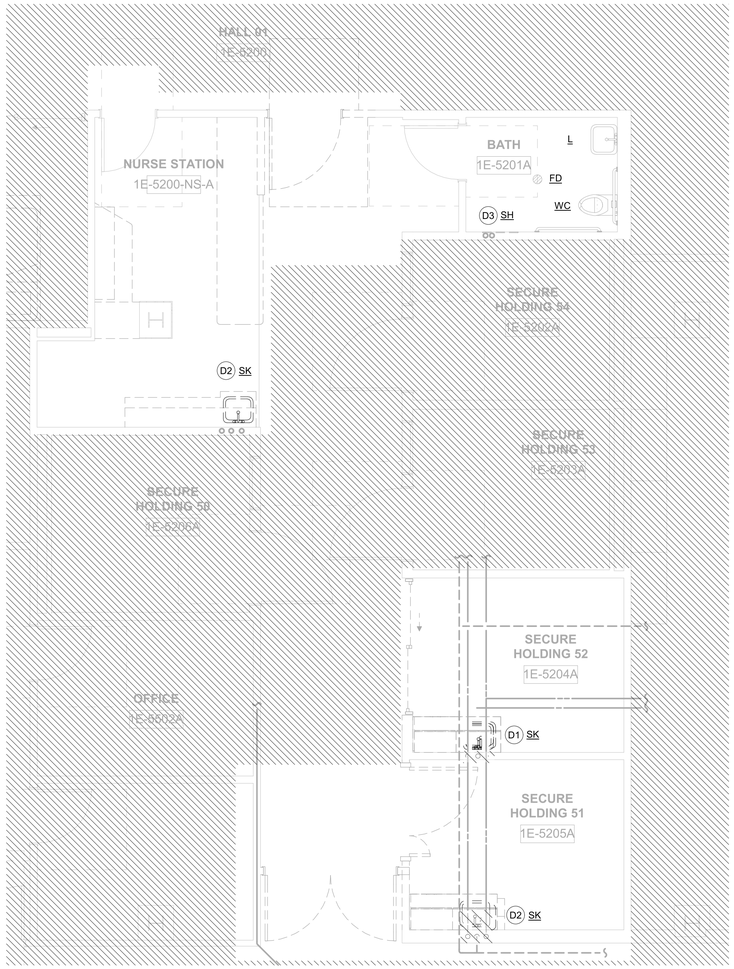
1501 S Potomac St.
Aurora, CO 80012

Issue	100% CD
Date	3 FEBRUARY 2023
Project Number	2022-05392-00
Drawn by	TL
Checked by	BM

Sheet Title
PLUMBING SCHEDULE DETAIL AND DIAGRAMS

Sheet Number
P.002

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1 LEVEL 01-PLUMBING DEMO PLAN

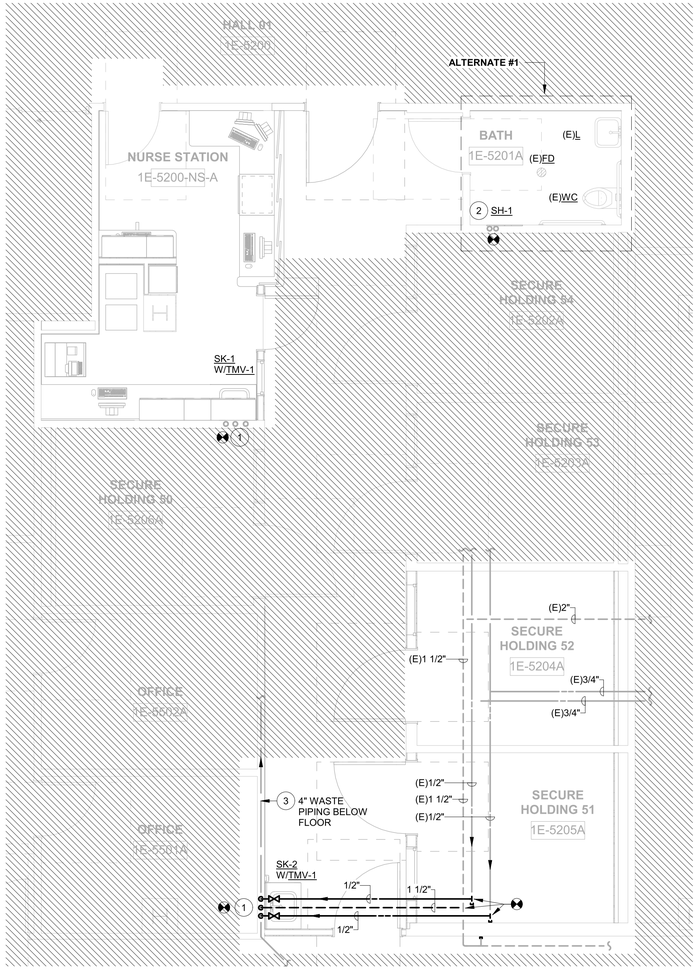
1/4" = 1'-0"

DEMOLITION KEY NOTES:

D1 CAREFULLY REMOVE EXISTING SINK, TRIM AND ALL RELATED DEVICES. REMOVE EXISTING PLUMBING BACK TO ACTIVE SOURCE AND CAP LEAVING NO DEAD ENDS. WATER PIPING SHALL BE PROVIDED WITH FULL LINE SIZE VALVE THEN CAPPED. COORDINATE WITH TMCA ANY ITEMS TO BE SALVAGED.

D2 CAREFULLY REMOVE EXISTING SINK, TRIM AND ALL RELATED DEVICES. PREPARE EXISTING PIPING TO CONNECT WITH NEW. REFER TO NEW WORK PLAN FOR NEW PLUMBING PIPING AND FIXTURE.

D3 CAREFULLY REMOVE EXISTING SHOWER VALVE AND HEAD. PREPARE ROUGH-INS TO ACCOMMODATE NEW ADA SHOWER VALVE AND HEAD. REFER TO NEW WORK PLAN FOR MORE INFO.



2 LEVEL 01-PLUMBING PLAN

1/4" = 1'-0"

DRAWING KEY NOTES:

1 INSTALL NEW SINK AND TRIM. PROVIDE NEW FULL LINE SIZE WALL CLEANOUT ASSEMBLY FOR FUTURE CONVENIENT ACCESS. LOCATE CLEANOUT BELOW OR ADJACENT TO SINK FOR EASE OF FUTURE ACCESS.

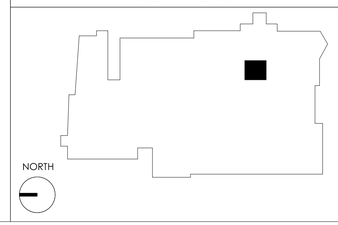
2 **ALTERNATE #1**: INSTALL NEW ADA SHOWER VALVE, HEAD AND TRIM. COORDINATE WITH GENERAL TRADE NECESSARY WALL OPENINGS AND PATCHING.

3 VERIFY EXACT LOCATION, SIZE AND ELEVATION OF EXISTING UNDERGROUND IN FIELD. COORDINATE WITH GENERAL TRADE NECESSARY FLOOR OPENING AND PATCHING. CLEAN AND FLUSH EXISTING PIPING TO ASSURE PROPER DRAINAGE CONDITIONS.

This plan was reviewed for adopted codes and **NOT** for compliance with **ADA** or **FHA** accessibility requirements. Contact 800-949-4232 (**ADA**) and 303-894-7822 x 325 (**FHA**) for federal accessibility requirements that apply to your project.

City of Aurora Building Division
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Date: *Mar 10, 2023*
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KEY PLAN



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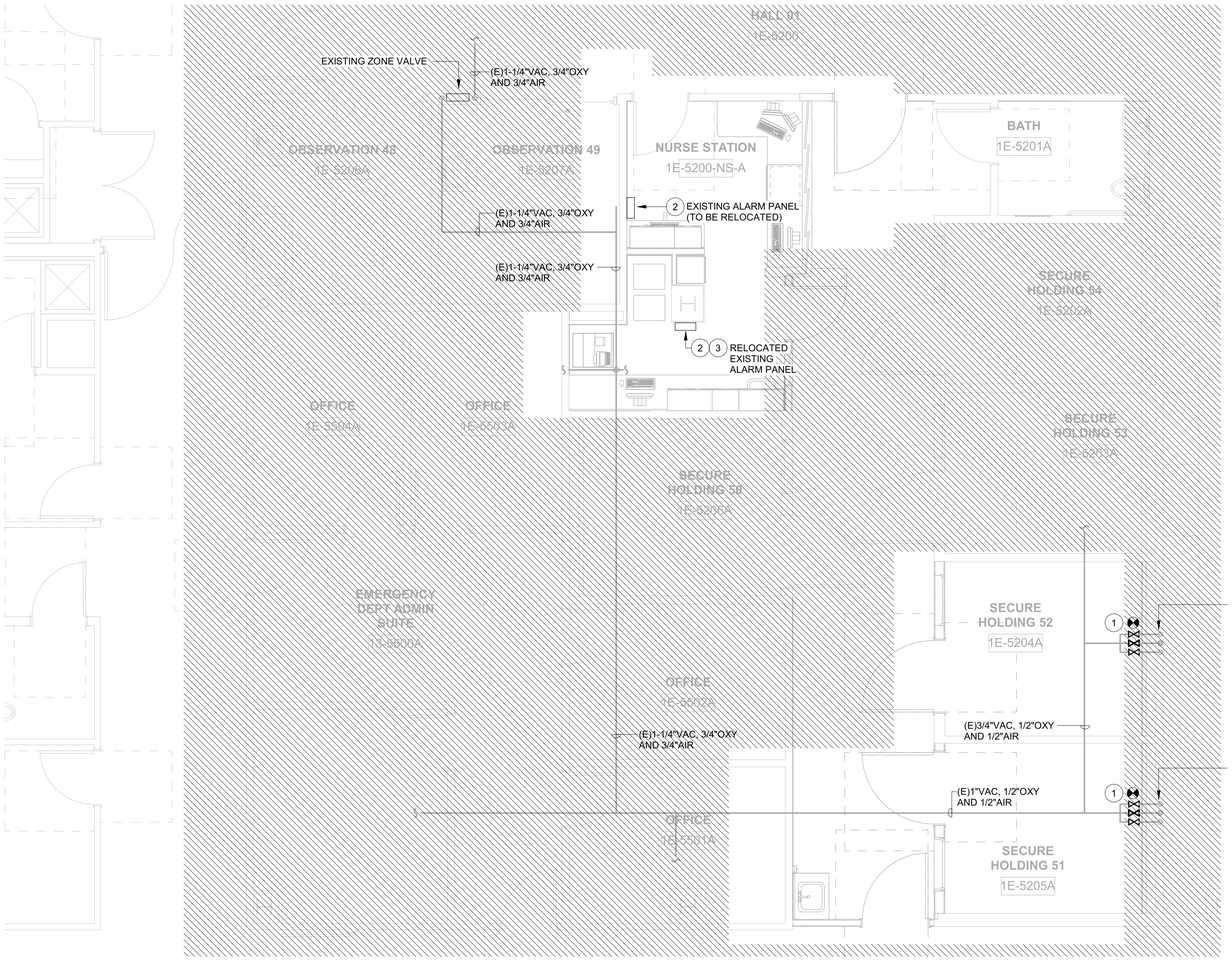
Sheet Title

PLUMBING PLANS

Sheet Number

P.101

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1 LEVEL 01-MEDICAL GAS PLAN

1/4" = 1'-0"

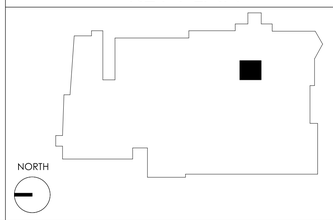
DRAWING KEY NOTES:

1. PROVIDE NEW SERVICE LINE VALVE IN EACH MEDICAL GAS LINE AND CLOSE-OFF GAS LINES.
2. PROVIDE RELOCATION OF EXISTING MEDICAL GAS AREA ALARM ASSEMBLY. EXTEND PIPING SYSTEMS FROM EXISTING LOCATION TO NEW ALARM PANEL LOCATION. COORDINATE WITH EXACT CONDITIONS IN FIELD.
3. **ALTERNATE #5**: PROVIDE A SEPARATE LINE ITEM COST TO REMOVE EXISTING AREA ALARM AND PROVIDE A NEW AREA ALARM PANEL IN NEW LOCATION. NEW AREA ALARM TO BE AMICO 'ALERT-3' DIGITAL LCD DISPLAY UNIT TO SUPPORT THE EXISTING PIPELINES, MEDICAL AIR, OXYGEN AND MEDICAL VACUUM.

Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation. 2015 IBC 105.4.

City of Aurora Building Division
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Date: *Mar 10, 2023*
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KEY PLAN



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Issue	100% CD
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Sheet Title

MEDICAL GAS PLAN

Sheet Number

MG.101

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GENERAL ELECTRICAL SYMBOLS

	CONDUIT STUBBED UP
	CONDUIT STUBBED DOWN
	FLEXIBLE CONDUIT
	MULTI-OUTLET ASSEMBLY
W W	WIREWAY
CT CT	CABLE TRAY
	JUNCTION BOX- EXPOSED OR IN CEILING
	JUNCTION BOX - WALL MOUNTED
	JUNCTION BOX WITH FLEXIBLE CONDUIT AND FINAL CONNECTION TO EQUIPMENT.
PDQ 13	EQUIPMENT IDENTIFICATION TAG

COMMUNICATIONS SYMBOLS

TTC	TELEPHONE TERMINAL CABINET
WALL FLOOR BOX POKE-THROUGH	SUBSCRIPT INDICATES THE FOLLOWING FOR BELOW WALL MOUNTED OUTLETS, (U.N.O.): "H" HANDICAP MOUNTED AT 48" A.F.F. "P" PAY PHONE MOUNTED AT 54" A.F.F. "W" WALL MOUNTED AT 54" A.F.F.
	TELEPHONE OUTLET
	DUPLEX TELEPHONE OUTLET
	DATA SYSTEMS OUTLET
	DUPLEX DATA SYSTEMS OUTLET
	COMBINATION TELEPHONE/ DATA SYSTEMS OUTLET
T T/D D	JUNCTION BOX WITH FLEXIBLE CONDUIT AND FINAL EQUIPMENT OR FURNITURE SYSTEM CONNECTION. SUBSCRIPTS INDICATE THE FOLLOWING: "T" - TELEPHONE "D" - DATA SYSTEMS "T/D" - COMBINATION TELEPHONE/ DATA SYSTEMS
I	INTERCOM, WALL OR CEILING MOUNTED
S	SPEAKER, WALL OR CEILING MOUNTED

FIRE ALARM SYMBOLS

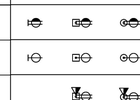
S	FIRE ALARM MANUAL PULL STATION
SD	SMOKE DETECTOR
D	HEAT DETECTOR
	VOICE SPEAKER
SV	VOICE SPEAKER WITH VISUAL ALARM
V	VISUAL STROBE
AV	AUDIBLE GENERAL ALARM WITH VISUAL STROBE
RA	REMOTE INDICATOR LIGHT FOR SMOKE DETECTOR
A	AUDIBLE GENERAL ALARM
FACP	FIRE ALARM CONTROL PANEL
FAAP	FIRE ALARM ANNUNCIATOR PANEL
MD	MAGNETIC DOOR HOLDER

POWER DEVICE SYMBOLS

WALL	FLOOR BOX	POKE-THROUGH	
			DUPLEX RECEPTACLE
			DOUBLE DUPLEX RECEPTACLE
			DUPLEX RECEPTACLE - SPLIT WIRED
			SINGLE RECEPTACLE
			COMBINATION DUPLEX RECEPTACLE TELEPHONE/ DATA SYSTEMS OUTLET
			COMBINATION DOUBLE DUPLEX RECEPTACLE TELEPHONE/ DATA SYSTEMS OUTLET
			SPECIAL RECEPTACLE - NEMA TYPE AS INDICATED
P	P	P	JUNCTION BOX WITH FLEXIBLE CONDUIT AND FINAL EQUIPMENT OR FURNITURE SYSTEM POWER CONNECTION
WP XX			ADJACENT LETTERS IN THE SYMBOLS ABOVE INDICATE THE FOLLOWING: "CR" INDICATES CHILD RESISTANT (SAFETY TYPE) "E" INDICATES RECEPTACLE FED BY EMERGENCY CIRCUIT "EP" INDICATES RECEPTACLE IS EXPLOSION PROOF "GFI" INDICATES RECEPTACLE HAS GROUND FAULT CIRCUIT INTERRUPTER "IG" INDICATES RECEPTACLE HAS ISOLATED GROUND "TVS" INDICATES RECEPTACLE HAS TRANSIENT VOLTAGE SURGE SUPPRESSION "WP" INDICATES RECEPTACLE HAS WATERPROOF COVER "XX" INDICATES RECEPTACLE CIRCUIT NUMBER
			DUPLEX RECEPTACLE - CEILING MOUNTED
			DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER TOP
			CLOCK OUTLET RECEPTACLE
			CLOCK OUTLET AND CLOCK FOR INTEGRATED CLOCK SYSTEM.
USB			DUPLEX RECEPTACLE WITH (2) USB PORTS
USB			OUTLET WITH (4) USB PORTS
TC			TIME CLOCK
PC			PHOTOCELL
OS XX		OS XX	CEILING OR WALL MOUNTED OCCUPANCY SENSOR
DIM XX			WALL MOUNTED DIMMABLE SWITCH

POWER EQUIPMENT SYMBOLS

	SURFACE MOUNTED DISTRIBUTION PANELBOARD
	SURFACE MOUNTED BRANCH CIRCUIT PANELBOARD
	RECESSED MOUNTED BRANCH CIRCUIT PANELBOARD
1-HDP-1	SWITCHBOARDS, DISTRIBUTION PANELBOARDS, MOTOR CONTROL CENTERS, PANELBOARDS, CABINETS, AND RELATED EQUIPMENT



"C" CRITICAL OR COMPUTER
"D" DISTRIBUTION
"E" EMERGENCY
"H" 480/277V, OR 480V
"ISP" ISOLATION
"K" KITCHEN
"L" LIGHTING
"L" 208/120V, OR 208V
"MCC" MOTOR CONTROL CENTER
"P" POWER
"Q" EQUIPMENT
"R" RECEPTACLE
"S" STANDBY
"SWBD" SWITCHBOARD
"XR" X-RAY

AS	NON-FUSED DISCONNECT SWITCH, "AS" INDICATES AMPERE RATING OF SWITCH
AS/AF	FUSED DISCONNECT SWITCH, "AS" INDICATES AMPERE RATING OF SWITCH AND "AF" INDICATES AMPERE RATING OF FUSE
	MAGNETIC MOTOR STARTER - NEMA SIZE AS INDICATED
AS	COMBINATION MOTOR STARTER AND NON-FUSED DISCONNECT, "AS" INDICATES AMPERE RATING OF SWITCH
M	UTILITY METER
T	TRANSFORMER
BGB	BUILDING GROUND BOX
ST	SHUNT TRIP
SPD	SURGE PROTECTION DEVICE
CM	CUSTOMER METER
EPO	EMERGENCY POWER OFF MUSHROOM PUSHBUTTON CONTROL STATION

LIGHTING SYMBOLS

F1 1a	2' X 4' LIGHTING FIXTURE.
F1 1a	2' X 2' LIGHTING FIXTURE.
F1 1a	1' X 4' LIGHTING FIXTURE.
F1 1a	LINEAR LIGHTING FIXTURE- LENGTH AS INDICATED.
F1 1a	WALL MOUNTED LINEAR LIGHTING FIXTURE- LENGTH AS INDICATED.
F1 F1 1a 1a	INCANDESCENT, HID, OR LED LIGHTING FIXTURE.
F1 F1 1a 1a	WALL MOUNTED INCANDESCENT, HID, OR LED LIGHTING FIXTURE
F1 E1	2' X 4' LIGHTING FIXTURE CONNECTED TO EMERGENCY CIRCUIT.
F1 E1	LINEAR LIGHTING FIXTURE CONNECTED TO EMERGENCY CIRCUIT.
F1 F1 E1	INCANDESCENT, HID, OR LED LIGHTING FIXTURE CONNECTED TO EMERGENCY CIRCUIT.

LIGHTING FIXTURES: "F1" INDICATES LIGHTING FIXTURE TYPE. REFER TO LIGHTING FIXTURE SCHEDULE FOR DESCRIPTION AND MOUNTING. "1" INDICATES CIRCUIT NUMBER. "a" INDICATES SWITCH CONTROL. SHADING OF LIGHTING FIXTURE OR "E" INDICATES LIGHTING FIXTURE CONNECTED TO EMERGENCY CIRCUIT.

F1 E2	BATTERY PACK, EMERGENCY LIGHTING UNIT
	REMOTE HEAD CONNECTED TO BATTERY PACK.
NEW #3 E3	"#X" INDICATES INSCRIPTION, ARROWS, AND SINGLE OR DOUBLE FACED, AS SHOWN BELOW. SHADED QUADRANTS INDICATES DIRECTION OF LIGHTED FACES.
#21 E5	
NEW #3N E3	
#21N E5	

"#1"	FIRE ESCAPE	"#14"	TRIANGLE
"#2A"	STAIRS	"#15"	ELEVATOR
"#3"	EXIT	"#16"	FIRE ESCAPE
"#4"	FIRE ESCAPE	"#17A"	STAIRS
"#5A"	STAIRS	"#18"	EXIT
"#6"	EXIT	"#19"	FIRE ESCAPE
"#7"	FIRE ESCAPE	"#20A"	STAIRS
"#8A"	STAIRS	"#21"	EXIT
"#9"	EXIT	"#22"	FIRE ESCAPE
"#10"	FIRE ESCAPE	"#23A"	STAIRS
"#11A"	STAIRS	"#24"	EXIT
"#12"	EXIT		
"#13"	EXIT - RECESSED		

3W XXa	LIGHT SWITCH, SINGLE POLE UNLESS NOTED OTHERWISE:

"a" INDICATES LIGHTS CONTROLLED
"D" INDICATES DIMMER SWITCH
"K" INDICATES KEY OPERATED
"LV" INDICATES LOW VOLTAGE
"MC" INDICATES MOMENTARY CONTACT
"P" INDICATES PILOT LIGHT
"TH" INDICATES THERMAL OVERLOAD PROTECTION
"XX" INDICATES CIRCUIT NUMBER
"WP" INDICATES WEATHERPROOF
"2P" INDICATES 2 POLE
"3P" INDICATES THREE POLE
"3W" INDICATES THREE-WAY
"4W" INDICATES FOUR-WAY

SECURITY SYMBOLS

	PUSH-BUTTON STATION
	BUZZER
	BELL
CH	CHIME
T TH	LOW VOLTAGE TRANSFORMER WITHIN PLENUM BOX
CCTV	CLOSED CIRCUIT TELEVISION CAMERA
CR	CARD READER
ES	ELECTRIC STRIKE
DC	DOOR CONTACT
MS	MOTION SENSOR

HEALTHCARE CALL SYMBOLS

1	SINGLE CALL STATION
3	TOILET BATH OR SHOWER CALL STATION
4	SINGLE CORRIDOR DOME ZONE LIGHT
5	NURSE CALL MASTER ANNUNCIATOR
8	DUTY STATION
9	STAFF DUTY STATION
23	CODE BLUE STATION

ABBREVIATIONS

NOTE: ABBREVIATIONS ARE ALPHABETICALLY LISTED BY DESCRIPTION.

ABBREV.	DESCRIPTION
AFF	ABOVE FINISHED FLOOR
ACL	ACROSS THE LINE
ALM	ALARM
AC	ALTERNATING CURRENT
A	AMPERE
AMP	AMPERE
AIC	AMPERES INTERRUPTING CAPACITY
AL	ALUMINUM
ANN	ANNUNCIATOR
ATS	AUTOMATIC TRANSFER SWITCH
BAL	BALLAST
BR	BRANCH
BRKR	BREAKER
BGB	BUILDING GROUND BOX
CAB	CABINET
CATV	CABLE TELEVISION
C.B.	CIRCUIT BREAKER
CCT	CIRCUIT
CCTV	CLOSED CIRCUIT TELEVISION
CLO	CLOSET
COAX	COAXIAL
C.U.	COEFFICIENT OF UTILIZATION
COMED	COMMONWEALTH EDISON COMPANY
C	CONDUIT
CONN	CONNECTION
CONV	CONVENIENCE
CU	COPPER
CUH	CABINET UNIT HEATER
CT	CURRENT TRANSFORMER
HZ	HERTZ (CYCLES/SECOND)
DC	DIRECT CURRENT
DS	DISCONNECT SWITCH
DPDT	DOUBLE POLE DOUBLE THROW
DPST	DOUBLE POLE SINGLE THROW
DO	DRAWOUT
DT	DUSTTIGHT
ELEC	ELECTRIC
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EM	EMERGENCY
EMT	ELECTRIC METALLIC TUBING (THIN WALL CONDUIT)
EQ	EQUIPMENT
EUH	ELECTRIC UNIT HEATER
EX	EXISTING
EP	EXPLOSION PROOF
FPB	FAN POWERED BOX
FA	FIRE ALARM
FDC	FIRE DEPARTMENT CONNECTION
FB	FLOORBOX
FLUOR	FLUORESCENT
FMC	FLEXIBLE METALLIC CONDUIT
F	FUSE
F.S.	FUSED SWITCH
GEN	GENERATOR
GRD	GROUND
GFI	GROUND FAULT INTERRUPTER
GHW	GALVANIZED HEAVYWALL STEEL CONDUIT
HV	HIGH VOLTAGE
HP	HORSE POWER
INC	INCANDESCENT
IC	INTERRUPTING CAPACITY
IMC	INTERMEDIATE GRADE CONDUIT
JB	JUNCTION BOX
KW	KILOWATT
KWH	KILOWATT-HOUR

ABBREV.	DESCRIPTION
KVA	KILOVOLT-AMPERE
KO	KNOCKOUT
LTG	LIGHTING
LS	LOUD SPEAKER
LV	LOW VOLTAGE
MH	MANHOLE
MFR	MANUFACTURER
MV	MULTI VAPOR
MERC.	MERCURY VAPOR
MTR	MOTOR
MCC	MOTOR CONTROL CENTER
MTD	MOUNTED
NEC	NATIONAL ELECTRICAL CODE
NEUT	NEUTRAL
NC	NORMALLY CLOSED
NO	NORMALLY OPENED
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PNL	PANEL
PH	PHASE
PT	POTENTIAL TRANSFORMER
PWR	POWER
PRI	PRIMARY
PROT.	PROTECTION OR PROTECTIVE
PA	PUBLIC ADDRESS
PB	PULL BOX
RT	RAINTIGHT
RECP	RECEPTACLE
RC	REMOTE CONTROL
R	RESISTANCE
REL	RELOCATE
SEC	SECONDARY
SC	SHORT CIRCUIT
SP	SINGLE POLE
SPST	SINGLE POLE SINGLE THROW
SPDT	SINGLE POLE DOUBLE THROW
SPKR	SPEAKER
SPEC	SPECIFICATION
SS	STAINLESS STEEL
STA	STATION
S	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SYM	SYMMETRICAL
SYS	SYSTEM
TC	TERMINAL CABINET
TEL	TELEPHONE
TEL CL.	TELEPHONE CLOSET
TTC	TELEPHONE TERMINAL CABINET
TV	TELEVISION
TERM.	TERMINAL
TX	TRANSFORMER
T	TRIP
TL	TWIST LOCK
UL	UNDERWRITER'S LABORATORIES
UNG	UNGROUNDED
UH	UNIT HEATER
UNO	UNLESS NOTED OTHERWISE
VP	VAPORPROOF
VT	VAPORTIGHT
V	VOLT
VA	VOLT-AMPERE
WT	WATERTIGHT
W	WATT
WP	WEATHERPROOF
XR	EXISTING TO BE REMOVED
XRL	EXISTING TO BE RELOCATED
XRW	EXISTING TO BE REWIRED

BRANCH CIRCUIT WIRING SCHEDULE

OCPD AMPS	1P-2W+G,2P-2W+G	2P-3W+G & 3P-3W+G	3P-4W+G
15	2#12, 1#12G, 3/4"C	3#12, 1#12G, 3/4"C	4#12, 1#12G, 3/4"C
20	2#12, 1#12G, 3/4"C	3#12, 1#12G, 3/4"C	4#12, 1#12G, 3/4"C
25	2#10, 1#10G, 3/4"C	3#10, 1#10G, 3/4"C	4#10, 1#10G, 3/4"C
30	2#10, 1#10G, 3/4"C	3#10, 1#10G, 3/4"C	4#10, 1#10G, 3/4"C
35	2#8, 1#10G, 3/4"C	3#8, 1#10G, 3/4"C	4#8, 1#10G, 3/4"C
40	2#8, 1#10G, 3/4"C	3#8, 1#10G, 3/4"C	4#8, 1#10G, 3/4"C
45	2#6, 1#10G, 3/4"C	3#6, 1#10G, 3/4"C	4#6, 1#10G, 1"C
50	2#6, 1#10G, 3/4"C	3#6, 1#10G, 3/4"C	4#6, 1#10G, 1"C
60	2#4, 1#10G, 3/4"C	3#4, 1#10G, 1"C	4#4, 1#10G, 1 1/4"C
70	2#4, 1#8G, 3/4"C	3#4, 1#8G, 1"C	4#4, 1#8G, 1 1/4"C
80	2#3, 1#8G, 1"C	3#3, 1#8G, 1"C	4#3, 1#8G, 1 1/4"C
90	2#2, 1#8G, 1"C	3#2, 1#8G, 1 1/4"C	4#2, 1#8G, 1 1/4"C
100	2#1, 1#8G, 1 1/4"C	3#1, 1#8G, 1 1/4"C	4#1, 1#8G, 1 1/2"C

This sheet of drawings has not been reviewed for code compliance.

GENERAL NOTES

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF LIGHTING AND CONTROLS, RECEPTACLES, COMMUNICATIONS DEVICES, FIRE ALARM DEVICES, AND LIFE SAFETY DEVICES.

2. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION OF HVAC, PLUMBING, AND FIRE PROTECTION EQUIPMENT.

3. REFER TO PANEL DIVISION LINES FOR BRANCH CIRCUIT HOMERUN PANELBOARD DEMARCATION LINES, UNLESS NOTED OTHERWISE.

4. BRANCH CIRCUIT WIRING FOR 120 VOLT 20 AMP CIRCUITS WIRED TO 208Y/120V SYSTEMS SHALL BE AS FOLLOWS: A. GENERAL RECEPTACLES AND LIGHTING LOADS: UP TO 100 FEET IN LENGTH: 3#12, 1#12N, 1#12G -3/4"C. OVER 100 FEET IN LENGTH: 3# 10, 1#10N, 1#10G -3/4"C.

5. BRANCH CIRCUIT WIRING FOR 277 VOLT 20 AMP CIRCUITS WIRED TO 480Y/277V SYSTEMS SHALL BE AS FOLLOWS: A. LIGHTING LOADS: UP TO 150 FEET IN LENGTH: 3# 12, 1#10N, 1#12G -3/4"C. OVER 150 FEET IN LENGTH: 3#10, 1#8N, 1#10G -3/4"C.

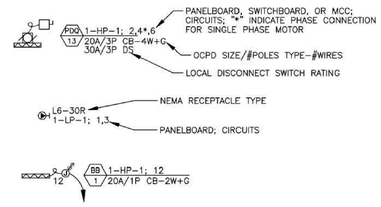
6. DISTANCES FOR BRANCH CIRCUIT WIRING, AS INDICATED IN NOTES 4 & 5 ABOVE, SHALL BE MEASURED FROM THE FINAL OCPD TO THE CENTER OF THE BRANCH CIRCUIT LOAD. SIZES ARE A MINIMUM AND CONTRACTOR MAY BE REQUIRED TO UP-SIZE TO ACCOUNT FOR VOLTAGE DROP.

7. BRANCH CIRCUIT CONDUCTORS SIZED AS INDICATED IN NOTES 4 & 5 ABOVE AND/OR ON PLAN SHALL BE ROUTED TO EACH ELECTRIC DEVICE CONNECTED TO THE INDICATED BRANCH CIRCUIT. PROVIDE WIRENUTS AND PIGTAILS SIZED TO MATCH THE CORRESPONDING OCPD LISTED IN THE BRANCH CIRCUIT WIRING SCHEDULE FOR ELECTRICAL DEVICE TERMINATIONS WHERE THE ELECTRICAL DEVICE LUGS CANNOT ACCOMMODATE THE INCREASED CONDUCTOR SIZE INDICATED ABOVE, U.N.O.

8. REFER TO THE BRANCH CIRCUIT WIRING SCHEDULE FOR MINIMUM INSTALLATION CRITERIA. BRANCH CIRCUIT WIRING SPECIFIED IN NOTES AND/OR ON PLAN OR OTHER SCHEDULES SHALL TAKE PRECEDENCE OVER THE INFORMATION PROVIDED IN THE SCHEDULE.

9. PROVIDE AN EQUIPMENT GROUNDING SCREW WITHIN THE RECEPTACLE OUTLET BOX FOR RECEPTACLES WITHOUT A SIDE-MOUNTED GROUNDING SCREW FOR TERMINATION OF THE BRANCH CIRCUIT EQUIPMENT GROUNDING CONDUCTOR.

10. ELECTRICAL DEVICE BRANCH CIRCUIT WIRING LEGEND:



11. MOUNTING HEIGHTS OF ELECTRICAL ITEMS SHALL BE AS LISTED BELOW ABOVE FINISHED FLOOR TO CENTERLINE, UNLESS NOTED OTHERWISE ON ARCHITECTURAL DRAWINGS OR AS REQUIRED BY CODE:

A. GENERAL RECEPTACLES	18"
B. PATIENT RECEPTACLES	18"
C. GENERAL TELE AND DATA OUTLETS	18"
D. PATIENT TELE AND DATA OUTLETS	18"
E. GENERAL TOGGLE SWITCHES	48"
F. FIRE ALARM PULL STATIONS	48"
G. SECURITY CALL STATIONS	48"
H. CLOCK AND PAGING SPEAKER OUTLETS	84"
I. FIRE ALARM AUDIO VISUAL DEVICES	80"
J. GENERAL WALL MOUNTED LIGHTS	90"
K. CORRIDOR WALL SCONCES (>4" DEEP)	66"
L. EXIT SIGNS	90"
M. INDIVIDUAL DISCONNECTS AND STARTERS	60"
N. GROUPED DISCONNECTS AND STARTERS	> 12" < 72"
O. PANELBOARD OVERCURRENT DEVICES	> 12" < 72"

13. CABLING AND OUTLETS SHALL BE FURNISHED AND INSTALLED BY THE OWNER'S COMMUNICATIONS CONTRACTOR. COORDINATE RACEWAY REQUIREMENTS WITH COMMUNICATIONS CONTRACTOR.

ELECTRICAL CODE REFERENCE

DESIGNED UNDER THE FOLLOWING CODES AND STANDARDS:
2020 NATIONAL ELECTRICAL CODE
2015 INTERNATIONAL BUILDING CODE
2015 INTERNATIONAL FIRE CODE

SHEET INDEX

SHEET #	SHEET NAME	95% CD
E.000	ELECTRICAL LEGENDS, NOTES, AND ABBREVIATIONS	X
E.001	ELECTRICAL SPECIFICATIONS	X
E.101	ELECTRICAL PLAN	X
E.102	LIGHTING PLAN	X

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02.03.2023

TMCA MDU

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Issue	100% CD
Date	3 FEBRUARY 2023
Project Number	2022-05392-00
Drawn by	JD
Checked by	MT

Sheet Title
ELECTRICAL SYMBOLS , ABBREVIATIONS & NOTES

Sheet Number
E.000

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DIVISION 16000 - ELECTRICAL

1. GENERAL

A. Requirements:

1) Products and execution shall be provided for a complete and fully operational electrical system throughout the extent of the project, in conformance with applicable codes, laws, ordinances and agency standards of governing bodies having jurisdiction, and in strict accordance with the contract documents, and building standards.

2) Products, including equipment, devices, fixtures, and materials shall be new unless noted otherwise, UL listed, and bear appropriate label.

3) Execution, including preparation, installation, starting, and testing shall be performed by skilled trades personnel, in compliance with the associated manufacturers recommendations, and coordinated with the other construction trades.

B. Applicable Laws and Agency Standards:

1)	American National Standards Institute	ANSI
2)	American Society for Testing and Materials	ASTM
3)	Americans with Disabilities Act	ADA
4)	Electrical Testing Laboratories	ETL
5)	Electronic/Telecommunications Industries Association	EIA/TIA
6)	Federal Aviation Administration	FAA
7)	Illuminating Engineering Society of North America	IESNA
8)	Institute of Electrical and Electronics Engineers	IEEE
9)	Insulated Cable Engineers Association	ICEA
10)	National Electrical Manufacturers Association	NEMA
11)	National Fire Protection Association	NFPA
12)	Underwriters' Laboratories	UL

D. Submittals:

4) Product Data shall be prepared and submitted for review prior to construction for the following products: cabinets, access panels, supports, raceway components, floor boxes, fire proof fittings, wire, fuses, circuit breakers, receptacles, toggle switches, slide dimmers, disconnect switches, motor starters, contactors, lighting fixtures, ballasts, lamps, controls, fire alarm devices, life safety devices, and electric heating equipment.

5) Shop Drawings shall be prepared and submitted for review prior to construction for the following products: metering equipment, distribution panelboards, branch panelboards, transformers, cable tray, dimming equipment, fire alarm equipment, and life safety equipment.

6) Test Results shall be prepared and submitted prior to project completion for cable insulation, grounding system, emergency system, fire alarm system, and life safety systems in accordance with authorities having jurisdiction, and applicable codes and agency standards.

7) Manufacturers Instructions shall be prepared and submitted prior to construction including installation manuals with application conditions and limitations for electrical apparatus use, storage, handling, protection, examination, preparation, installation, and starting.

8) Project Record Documents shall be prepared using AutoCAD or equivalent CAD package. Project Record Documents shall be submitted on reproducible media prior to project completion for electrical systems. Record actual location of equipment, devices, fixtures, etc. Record actual routing of overhead feeders. Record actual routing of feeders below slab and branch circuits within or below slab.

9) Maintenance Data shall be prepared and submitted prior to project completion for electrical apparatus including operation manuals and maintenance manuals.

F. Coordination:

1) Electrical Engineer: Notify the Engineer of any conflicting design information or any design intentions which are not readily interpreted from the contract documents prior to any product selection or execution of work. Notify the Engineer of any products which are damaged, unsuitable, incompatible, or non-compliant with any applicable codes or ordinances of any governing bodies having lawful jurisdiction.

2) Architect: Coordinate construction of the electrical system with the Architect. Final locations and mounting heights of electrical equipment, fire alarm equipment, receptacles, switches, communications devices, fire alarm devices, lighting fixtures, etc. shall be as directed by the Architect.

3) Construction Trades: Coordinate work with other construction trades.

4) Building Management: Meet on site with the building engineer to become familiar with building standards. Normal building working hours shall be recognized. After-hours work or temporary services shall be with prior written approval from building management. Enclose construction area from other areas to prevent transmission of dust, dirt and noise into other existing tenant areas. Product and waste transfer shall be coordinated with building management for scheduling of the elevators, deliveries, and waste removal.

5) Existing Building Systems: Review building standards with the building engineer. Perform a site visit to verify the existing site conditions. Costs associated with unforeseen conditions as result of not performing a site visit shall not be an entitlement for an increase to the contract. Construction shall be performed without interruption to the building power, communications, security, fire alarm and life safety systems, or interference to common areas, corridors, exits or existing tenants. Where any construction would interfere with the daily operations of the building or other tenants, after-hours work or temporary services shall be provided at no increase to the contract.

H. Warrantee and Guarantee

1) Provide warrantee and manufacturers certificate for each product, minimum of one year or longer as specified, from the date of occupancy. Repair and/or replace any equipment, devices, fixtures, materials, etc. with defect as required at no increase to the contract.

2) Provide guarantee of installation for a period of one year from the date of occupancy. Repair and/or reinstall any work with defect as required at no increase to the contract. Provide guarantee of rework for a period of one year from the completion of repair or reinstallation.

3) Damage caused to finishes, surfaces, ceiling tiles, equipment, etc. shall be repaired and/or replaced to match the pre-existing condition at no increase to the contract.

I. Pay fees and other charges incidental to the electrical work and obtain and pay for required liability and casualty insurance, permits, licenses, inspections, taxes, etc.

J. Construction shall be done during regular working hours and days, unless otherwise specified. Work required to be performed during overtime hours or days shall be as indicated.

K. Allow for 2 man-hours of training to the Owners staff for the operation of the electrical systems.

L. Substitutions are not acceptable.

2. PRODUCTS

A. Cabinets, enclosures and access panels shall be code gage steel with baked enamel finish and flangeless hinges and fasteners. Equipment bases shall be 3 inch high concrete, steel braced and reinforced with 1/4 inch chamfer, and shall extend a minimum of 2 inches around base of equipment. Vibration isolation shall be spring elements in suspended rods and isolation pads below equipment, electrical connections shall be flexible conduit.

B. Conduits shall be hot-dipped galvanized or electro-galvanized steel, minimum size shall be 3/4 inch, except power branch circuits may be 1/2 inch (unless noted otherwise) and flexible connections to recessed lighting fixtures which may be 3/8 inch. Flexible steel conduit shall be galvanized steel, with UL listed liquid tight jacket as required, for final connections to motors, recessed lighting fixtures, and life safety devices. Supports, including channels, angles, rods, and fasteners shall be hot-dipped galvanized steel. Conduits within the MRI scan room shall be aluminum. Manufacturer shall be Allied, LTV/Republic, Steelduct, or Wheatland.

C. Conduit fittings shall be steel, die cast fittings of pot metal are not acceptable. Electrical metallic tubing (EMT) fittings shall be compression type with insulated throats; set screw fittings are not acceptable. Intermediate metal conduit (IMC) and heavy wall conduit (HWG) fittings shall be of threaded joints; set screw and compression fittings are not acceptable. Conduit fittings within the MRI scan room shall be aluminum. Manufacturer shall be Appleton, Crouse Hinds/Midwest, OZ/GGedney, Raco, Steel City, or T&B.

D. Outlet boxes for all toggle switches, receptacles, communications devices, fire alarm devices, and life safety devices shall include plaster rings, device plates, and cover plates where required. Provide boxes suitable for plenum, wet, or hazardous locations as required. Device cover plates shall be stainless steel painted to match finish. Multi-gang outlet boxes shall include suitable one-piece device cover plate. Outlets located on opposite sides of a partition shall be staggered by 12 inches, minimum. Manufacturer shall be Appleton, Raco, or Steel City.

E. Wire shall be 600 Volt insulated copper, minimum size shall be No.12 AWG, wire sizes No.8 AWG and larger shall be stranded. Manufacturer shall be American Insulated Wire Corp., Cerro, Collyer, Capitol Wire and Cable, Okonite, Senetor, South Wire, or Triangle.

G. HCF-MC cable is acceptable for branch circuit wiring to feed new devices in existing walls. MC cable shall be terminated in a junction box in an accessible ceiling cavity within 24" of leaving the wall cavity. MC cable is not acceptable where not permitted by code, for feeders, or to feed mechanical equipment.

H. Cable supports shall be appropriate for the size of conduit and type of wire and cables. Cable lubricant shall be less than six percent solid residue after drying and shall not contain any waxes, greases, silicones, or glycol oils.

I. Local disconnect switches for electrically operated equipment shall be heavy duty within enclosure suitable for the location. Fusible disconnect switches 800 Amps and larger shall be bolted pressure, load-break type. Fusible and non-fusible disconnect switches 600 Amps and smaller shall be quick-make, quick-break type. Manufacturer shall be Cutler-Hammer, Siemens/ITE, or Square D.

J. Grounding system, including service and equipment grounding and bonding, shall be in accordance with code and shall connect all electrically operated equipment. Provide a separate green ground wire for each branch circuit and feeder.

K. Receptacles shall be duplex NEMA 5-20R, back and side wired, hospital grade, unless noted otherwise. Special receptacle configurations, duplex isolated ground receptacles, and duplex ground fault interrupter receptacles shall be as required or as indicated on the contract documents. General receptacle color shall be white and IG receptacle color shall be orange unless specified otherwise, verify color with Architect. Manufacturer shall be Bryant, Hubbell, Leviton, or Pass & Seymour.

L. Toggle switches shall be single pole 20 Amp, 120-277 Volt, back and side wired, specification grade, unless noted otherwise. Special switches, including 3-way, pilot light and momentary contact, shall be as required or as indicated on the contract documents. Color shall be white unless specified otherwise, verify color with Architect. Manufacturer shall be Bryant, Hubbell, Leviton, or Pass & Seymour.

M. Lighting fixtures shall include all appropriate accessories, mounting frame and trim for ceiling type. Lighting fixtures shall include coordinated air handling capability, plenum rating, damp label, wet label, and shall be explosion proof where required. Lighting fixtures recessed within grid type ceilings shall include securing clips as required by the local authority. Fixture manufacturer shall be as indicated;

3. EXECUTION

A. Penetrations and channels in floors and walls shall be via cutting and coring as required for the size of product, only in accordance with the Architect and Engineer recommendations, and as scheduled with the building management. Patch and fill sleeves, inserts, penetrations, and channels with appropriate code approved fire safing or filling to match or restore the original fire rating of the construction.

B. Make final connections to vibrating equipment, fixtures, and devices with flexible metal conduit or liquid tight flexible metal conduit as required. Extend ground wire through flexible connections.

C. Install conduit, fittings, supports, etc. in accordance with codes, standards, and manufacturers recommendations. The voltages identified in the following schedules are line-to-line or line-to-neutral. Interior concealed locations are those locations which are above ceilings, within walls, within floor slabs, and within dedicated electrical rooms. Conduit installation shall be as follows unless noted otherwise:

Voltage Location	0V thru 50V	Above 50V thru 250V	Above 250V thru 600V	Above 600V
Interior	EMT HWG	EMT		≤ 2"EMT
Concealed	Concealed			≥ 2
1/2"IMC				
Interior	EMT HWG		≤ 2"EMT	IMC
Exposed			≥ 2 1/2"IMC	
Exterior	EMT HWG		IMC	HWG
and Hazardous				
Locations				

D. Installations within air handling spaces, including plenum ceilings and built up air handling systems shall be approved for plenum installation and shall be in strict accordance with all applicable codes.

E. Installations within hazardous locations shall be listed for the Classification and Division of hazard. Install wiring and conduit complete with seals and explosion proof fittings in strict accordance with all applicable codes.

F. Install pull boxes, junction boxes, and outlet boxes in accordance with codes, standards, and manufacturers recommendations. Boxes shall include accessible covers, shall be fabricated of heavy gage galvanized steel, and shall be sized with code to adequately facilitate pulling and connecting the quantity of wires, cables, and feeders contained. Conduit terminations shall be made with bushings and locknuts. Supports for conduits and boxes shall be suspended directly to the building structural components and in no case shall they be attached to suspended ceiling grid, ductwork, or piping components.

G. Install feeders and branch circuit wiring in accordance with codes, standards, and manufacturers recommendations. Provide neutral sized at 200% or (2) neutral conductors where serving panels with 200% rated neutral bus, coordinate installation with panel manufacturers lug provisions. Install normal power, emergency power, fire alarm, and life safety systems within continuous metal raceways. Install concealed security and communications wiring within continuous metal raceways. Separate each system into independent raceways. Provide cable supports as required. Terminate cables per code and manufacturers recommendations. Provide (2) hole lugs for cables 250 kcmil and larger. Power wiring insulation shall be as follows unless noted otherwise:

Wire Location	300 kcmil and smaller	350 kcmil and larger	Environmental Conditions
Interior Locations	THHN/THWN	XHHW	dry
Exterior Locations	THHN/THWN THHN/THWN	XHHW XHHW-2	damp wet

H. Install grounding systems in accordance with codes, standards, and manufacturers recommendations.

I. Install lighting and associated controls, including fixtures, ballasts, lamps, toggle switches in accordance with codes, standards, and manufacturers recommendations.

J. Install single and multiple device cover plates as required. Extend existing devices to finished surface as required.

K. Install inscription plates and identification markings for products and wiring including the same inscriptions where indicated on the contract documents. Install plastic laminate nameplates on enclosures for each device within metering equipment, distribution panelboards, branch panelboards, motor starters, disconnect switches, transformers, and contactors. Nameplates shall be white with black core, 1-1/4 inches by 3 inches minimum, with 3/16 inch lettering, secured to equipment with two machine screws. Prepare and install type-written panel directory within each branch panel. Device plates shall be engraved for toggle switches and other devices whose function is not readily apparent. Markers shall be self-sticking for each wire and cable at terminations and at each accessible point in equipment and raceway.

L. Clean electrical apparatus prior to completion of construction. Keep work areas clean at all times.

M. Alterations and Demolition of existing systems shall be as follows:

1) Provide all alterations and demolition of the existing electrical installation as required, including any incidental materials to execute all removal, rerouting, relocation, and any other modifications for proper accommodation of all new construction as indicated on the contract documents. All alterations and demolition shall be as indicated on the contract documents or as required, including any modifications not specifically identified on any contract documents but required to complete all new construction.

2) Provide all modifications to existing equipment as required or as indicated on the contract documents in strict accordance with the existing product manufacturers recommendations.

3) Existing raceway, wire and cable extending through the construction area but serving areas outside the contract shall be rerouted and reconnected as required. All modifications shall be without any interruption to the building power, communications, security, fire alarm and life safety systems, or interference to other areas or tenants. Where any modifications would interfere with the daily operations of the building or other tenants, after-hours work or temporary services shall be provided with prior written approval from the building.

4) Existing conduit, wire, cable, supports, hangers, and other electrical installation which is removed, shall be completely removed, back to the first device or that equipment which is unaffected by the modifications. Conduit which is buried in concrete or otherwise inaccessible may be abandoned and capped at each end. All wire and cable shall be removed from any abandoned conduit.

5) Existing electrical materials and equipment, including lighting fixtures, switches, receptacles, speakers, conduit, outlet boxes, fittings, wire, cable, and other equipment and devices which are removed shall remain the property of the Owner and shall be stored or discarded as directed.

6) Reuse existing electrical products as indicated on the contract documents only as is found practical. Examine the condition of all such products, determine suitability for re-use, and periodically notify the Architect/Engineer of findings for final acceptance of re-use. Wire and cable for new construction or extension of an existing installation shall be new, in no case shall existing wire and cable be reused.

7) Refer to architectural demolition drawings for full extent and scope of partition and ceiling modifications.

a. Existing ceilings to remain shall not be altered except where removal and replacement of surfaces is required to modify systems within ceiling space.
b. Existing ceilings to be removed shall included demolition of all fixtures equipment, speakers, raceway, and wire, including any obsolete or previously abandoned products. Remaining areas shall only be altered as required and in accordance with the contract documents.
c. Existing partitions to remain shall not be altered except where removal and replacement of surfaces is required to modify systems within partitions.
d. Existing partitions to be removed shall include demolition of all devices, raceway and wire including any obsolete or previously abandoned products. Raceway and wiring systems serving other remaining areas shall only be altered as required and in accordance with the contract documents.
e. Existing floor mounted devices shall be demolished. Provide abandoning plates and fire proofing as required.

This sheet of drawings has not been reviewed for code compliance.

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02.03.2023

TMCA MDU

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Issue	100% CD
Date	3 FEBRUARY 2023
Project Number	2022-05392-00
Drawn by	JD
Checked by	MT

Sheet Title

ELECTRICAL SPECIFICATIONS

Sheet Number

E.001

2/6/2023 12:20:38 PM

PANEL DESIGNATION:	**LCB4A (EX)**			LOCATION: S01-1E-914			MOUNTING: SURFACE				FAULT DUTY: **10,000**
MLO: **X**		MAIN:		BUS: **125A**		VOLTS: **208/120**		PHASE: **3**			WIRE: **4**
EQUIPMENT		WATTS			BRKR		BRKR	WATTS			EQUIPMENT
DESCRIPTION	DMD	A	B	C	SIZE		SIZE	A	B	C	DESCRIPTION
SECURE HOLDING 51 (EX)	R				20/1	1 2	20/1				SECURE HOLDING 52 (EX)
SECURE HOLDING 51 & 52 (EX)	R				20/1	3 4	20/1				EXISTING LOAD
EXISTING LOADS	R				20/1	5 6	20/1				EXISTING LOAD
EXISTING LOADS	L				20/1	7 8	20/1				SECURE HOLDING 50 (EX)
EXISTING LOADS	L				20/1	9 10	20/1				SECURE HOLDING 50 (EX)
EXISTING LOADS	L				20/1	11 12	20/1				SPARE
SPARE					20/1	13 14	20/1				EXISTING LOAD
EXISTING LOADS	R				20/1	15 16	20/1				EXISTING LOAD
EXISTING LOADS	R				20/1	17 18	20/1				EXISTING LOAD
EXISTING LOADS	R				20/1	19 20	20/1				EXISTING LOAD
EXISTING LOADS	R				20/1	21 22	20/1				EXISTING LOAD
EXISTING LOADS	R				20/1	23 24	20/1				EXISTING LOAD
EXISTING LOADS	R				20/1	25 26	20/1				EXISTING LOAD
EXISTING LOADS	R				20/1	27 28	20/1				EXISTING LOAD
EXISTING LOADS	R				20/1	29 30	20/1				EXISTING LOAD
EXISTING LOADS	R				20/1	31 32	20/1				EXISTING LOAD
EXISTING LOADS	L				20/1	33 34	20/1				EXISTING LOAD
EXISTING LOADS	L				20/1	35 36	20/1				EXISTING LOAD
EXISTING LOADS	L				20/1	37 38					
EXISTING LOADS	G				20/1	39 40	100/3				G LCB4AA (EX)
SPARE					20/1	41 42					
TOTAL "A"					0						0.0 CONN.KVA
TOTAL "B"					0						0.0 CONN. AMPS
TOTAL "C"					0						0.0 DEMAND KVA
TOTAL "A,B,C "					0 CONN.						0.0 DEMAND AMPS
					0 DEMAND						0.0 DESIGN KVA
					0 DESIGN						0.0 DESIGN AMPS

CRITICAL

NOTES:
1. EXISTING PANEL SCHEDULE SHOWN FOR REFERENCE ONLY. VERIFY EXISTING CONDITIONS ON SITE.
2. EXISTING CIRCUITS REUSED; NO NET LOAD CHANGE ON THE PANEL.

PANEL DESIGNATION:	**LCB4AA (EX)**			LOCATION: S01-1E-914			MOUNTING: SURFACE				FAULT DUTY: **10,000**
MLO: **X**		MAIN:		BUS: **125A**		VOLTS: **208/120**		PHASE: **3**			WIRE: **4**
EQUIPMENT		WATTS			BRKR		BRKR	WATTS			EQUIPMENT
DESCRIPTION	DMD	A	B	C	SIZE		SIZE	A	B	C	DESCRIPTION
EXISTING LOADS	L				20/1	1 2	20/1				EXISTING LOAD
EXISTING LOADS	R				20/1	3 4	20/1				EXISTING LOAD
EXISTING LOADS	R				20/1	5 6	20/1				EXISTING LOAD
EXISTING LOADS	R				20/1	7 8	20/1				EXISTING LOAD
EXISTING LOADS	G				20/1	9 10	20/1				EXISTING LOAD
EXISTING LOADS	R				20/1	11 12	20/1				EXISTING LOAD
EXISTING LOADS	G				20/1	13 14	20/1				EXISTING LOAD
EXISTING LOADS	L				20/1	15 16	20/1				EXISTING LOAD
EXISTING LOADS	L				20/1	17 18	40/2				SPARE
NURSE CALL 1E-5200-NS-A	R	360			20/1	19 20					
EXISTING LOADS	R				20/1	21 22	40/3				SPARE
EXISTING LOADS	L				20/1	23 24					
NURSE CALL 1E-5200-NS-A	R	500			20/1	25 26	20/1				L EXISTING LOAD
NURSE CALL 1E-5200-NS-A	R		540		20/1	27 28	20/1				L EXISTING LOAD
NURSE CALL 1E-5200-NS-A	R			180	20/1	29 30	20/1				G EXISTING LOAD
EXISTING LOADS	R				20/1	31 32	20/1				G EXISTING LOAD
EXISTING LOADS	G				20/1	33 34	20/1				G EXISTING LOAD
SPARE					20/1	35 36	20/1				G EXISTING LOAD
EXISTING LOADS	R				20/1	37 38	20/1				G EXISTING LOAD
EXISTING LOADS	G				20/1	39 40					SPACE
EXISTING LOADS	R				20/1	41 42	20/1				G EXISTING LOAD
TOTAL "A"					0						0.0 CONN.KVA
TOTAL "B"					0						0.0 CONN. AMPS
TOTAL "C"					0						0.0 DEMAND KVA
TOTAL "A,B,C "					0 CONN.						0.0 DEMAND AMPS
					0 DEMAND						0.0 DESIGN KVA
					0 DESIGN						0.0 DESIGN AMPS

CRITICAL

NOTES:
1. EXISTING PANEL SCHEDULE SHOWN FOR REFERENCE ONLY. VERIFY EXISTING CONDITIONS ON SITE.
2. EXISTING CIRCUITS REUSED; NO NET LOAD CHANGE ON THE PANEL.

Every circuit and circuit modification shall be legibly Identified as to it's clear, evident and specific purpose or use. The identification shall include an approved degree of detail that allows each circuit to be distinguished from all others. 2020 NEC 408.4

PANEL DESIGNATION:	**LD - SEC 1 (EX)**			LOCATION: S01-1E-914			MOUNTING: SURFACE				FAULT DUTY: **10,000**
MLO: **X**		MAIN:		BUS: **225A**		VOLTS: **208/120**		PHASE: **3**			WIRE: **4**
EQUIPMENT		WATTS			BRKR		BRKR	WATTS			EQUIPMENT
DESCRIPTION	DMD	A	B	C	SIZE		SIZE	A	B	C	DESCRIPTION
EXISTING LOADS	G				20/1	1 2	20/1				R EXISTING LOAD
EXISTING LOADS	G				20/1	3 4	20/1				R EXISTING LOAD
EXISTING LOADS	G				20/1	5 6	20/1				G EXISTING LOAD
EXISTING LOADS	R				20/1	7 8	20/1				R EXISTING LOAD
EXISTING LOADS	G				20/1	9 10	20/1				R EXISTING LOAD
EXISTING LOADS	G				20/1	11 12	20/1				R EXISTING LOAD
SPARE					20/1	13 14	20/1				R EXISTING LOAD
SPARE					20/1	15 16	20/1				SPARE
SPARE					20/1	17 18	20/1				SPARE
SPARE					20/1	19 20	20/1				SPARE
SPARE					20/1	21 22	20/1				R EXISTING LOAD
SPARE					20/1	23 24	20/1				G EXISTING LOAD
SPARE					30/2	25 26	20/1				R EXISTING LOAD
						27 28	20/1				R EXISTING LOAD
SPARE					30/3	29 30	20/1				R EXISTING LOAD
						31 32	20/1				R EXISTING LOAD
SPARE					20/1	33 34	20/1				R EXISTING LOAD
SPARE					20/1	35 36	20/1				R EXISTING LOAD
SPARE					20/1	37 38	20/1				SPARE
EXISTING LOADS	G				20/1	39 40	20/1				SPARE
EXISTING LOADS	G				20/1	41 42	20/1				SPARE
TOTAL "A"					0						0.0 CONN.KVA
TOTAL "B"					0						0.0 CONN. AMPS
TOTAL "C"					0						0.0 DEMAND KVA
TOTAL "A,B,C "					0 CONN.						0.0 DEMAND AMPS
					0 DEMAND						0.0 DESIGN KVA
					0 DESIGN						0.0 DESIGN AMPS

NORMAL

NOTES:
1. EXISTING PANEL SCHEDULE SHOWN FOR REFERENCE ONLY. VERIFY EXISTING CONDITIONS ON SITE.
2. EXISTING CIRCUITS REUSED; NO NET LOAD CHANGE ON THE PANEL.

PANEL DESIGNATION:	**LD - SEC. 2 (EX)**			LOCATION: S01-1E-914			MOUNTING: SURFACE				FAULT DUTY: **10,000**
MLO: **X**		MAIN:		BUS: **225A**		VOLTS: **208/120**		PHASE: **3**			WIRE: **4**
EQUIPMENT		WATTS			BRKR		BRKR	WATTS			EQUIPMENT
DESCRIPTION	DMD	A	B	C	SIZE		SIZE	A	B	C	DESCRIPTION
NURSE CALL 1E-5200-NS-A	R	720			20/1	43 44	20/1				SPARE
EXISTING LOADS	R				20/1	45 46	20/1				SPARE
EXISTING LOADS	R				20/1	47 48	20/1				SPARE
EXISTING LOADS	R				15/1	49 50	20/1				SPARE
1E-5200-NS-A PRINTER	R		500		20/1	51 52	20/1				SPARE
NURSE CALL 1E-5200-NS-A	R			720	20/1	53 54	20/1				R EXISTING LOAD
EXISTING LOADS	R				20/1	55 56	20/1				G EXISTING LOAD
EXISTING LOADS	R				20/1	57 58	20/1				G EXISTING LOAD
EXISTING LOADS	R				20/1	59 60	20/1				G EXISTING LOAD
EXISTING LOADS	R				20/1	61 62	20/1				SPARE
NURSE CALL 1E-5200-NS-A	R		360		20/1	63 64	20/1				SPARE
SPARE					20/1	65 66	20/1				SPARE
SPARE					20/1	67 68	20/1				G EXISTING LOAD
EXISTING LOADS	G				20/1	69 70	20/1				G EXISTING LOAD
EXISTING LOADS	G				20/1	71 72	20/1				SPARE
EXISTING LOADS	G				20/1	73 74	20/1				R SECURE HOLDING 50 (EX)
EXISTING LOADS	G				20/1	75 76	20/1				R EXISTING LOAD
SPACE						77 78	20/1				R SECURE HOLDING 51 & 52 (EX)
SPACE						79 80					SPACE
SPACE						81 82					SPACE
SPACE						83 84					SPACE
TOTAL "A"					0						0.0 CONN.KVA
TOTAL "B"					0						0.0 CONN. AMPS
TOTAL "C"					0						0.0 DEMAND KVA
TOTAL "A,B,C "					0 CONN.						0.0 DEMAND AMPS
					0 DEMAND						0.0 DESIGN KVA
					0 DESIGN						0.0 DESIGN AMPS

NORMAL

NOTES:
1. EXISTING PANEL SCHEDULE SHOWN FOR REFERENCE ONLY. VERIFY EXISTING CONDITIONS ON SITE.
2. EXISTING CIRCUITS REUSED; NO NET LOAD CHANGE ON THE PANEL.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *Chris Dodson*
Date: *Mar 15, 2023*
2015 INTERNATIONAL CODES & 2020 NEC

Only highlighted or clouded revisions are approved on this review. All previous comments apply.

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No.	Description	Date
1	ASI-001	03/06/2023

COLORADO LICENSED MICHAEL P THOMPSON 50150 PROFESSIONAL ENGINEER
03.06.2023

TMCA MDU

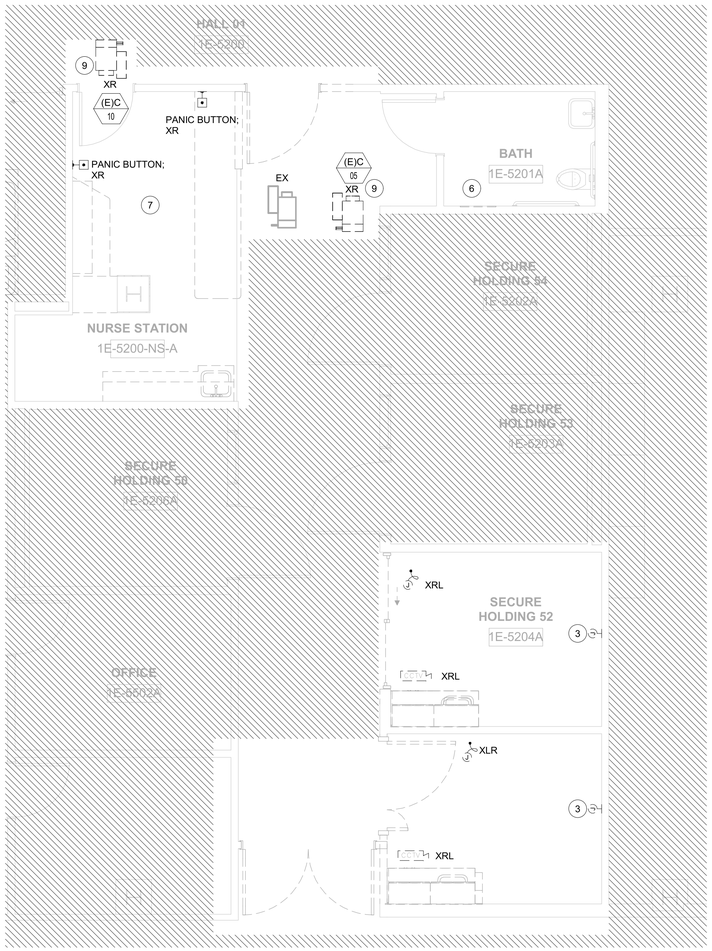
1501 S POTOMAC ST AURORA, CO 80012

Issue	100% CD
Date	3 FEBRUARY 2023
Project Number	2022-05392-00
Drawn by	JD
Checked by	MT

Sheet Title
ELECTRICAL PANEL SCHEDULES

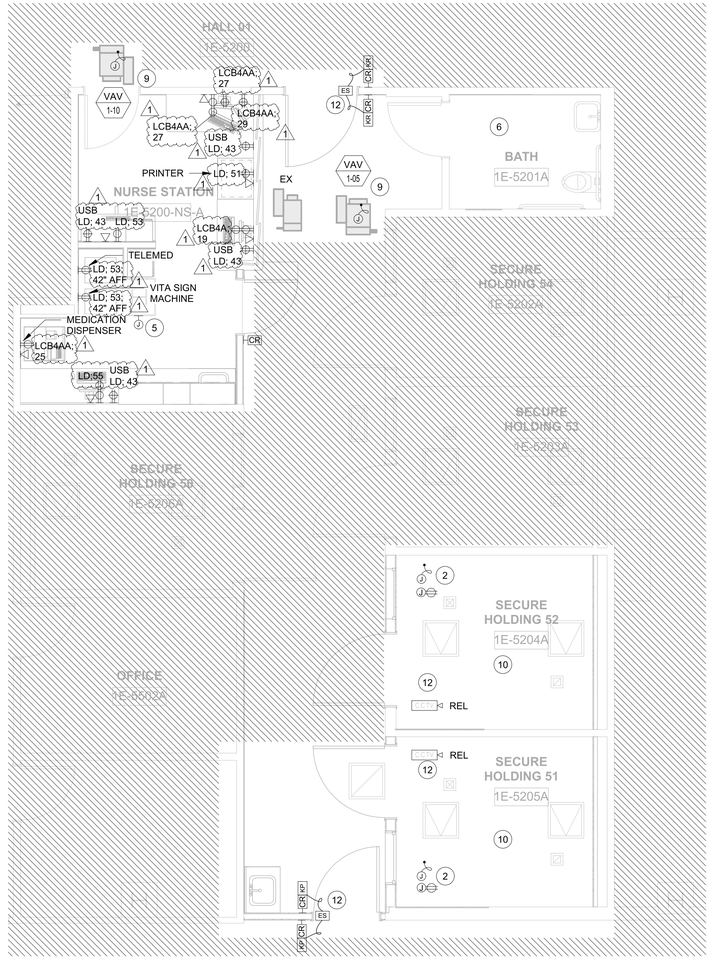
Sheet Number 1
E.002

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1 LEVEL 01-ELECTRICAL POWER DEMO PLAN

1/4" = 1'-0"



2 LEVEL 01-ELECTRICAL POWER PLAN

1/4" = 1'-0"

GENERAL NOTES:

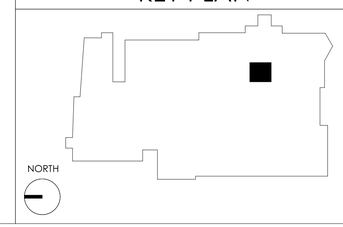
1. REFER TO ELECTRICAL SYMBOL LIST AND GENERAL NOTES ON SHEET E.000.
2. CONNECT ALL NORMAL RECEPTACLES TO LOCAL NORMAL PANEL, 'LD' SERVING THE AREA.
3. CONNECT EMERGENCY RECEPTACLES TO LOCAL CRITICAL PANEL, 'LCB4A' AND 'LCB4AA' SERVING THE AREA.
4. EXISTING PANELS 'LD', 'LCB4A', AND 'LCB4AA' ARE IN EXISTING ELECTRICAL ROOM S01-1E-914, APPROXIMATELY 35' NORTH AND 30' EAST OF THE PROJECT AREA.
5. REFER TO ARCHITECTURAL DRAWINGS FOR ALL FIXTURE LOCATIONS AND MOUNTING REQUIREMENTS.

ELECTRICAL KEYNOTES	
Key Value	Keynote Text
2	RELOCATE EXISTING CEILING MOUNTED TV OUTLET ASSEMBLY TO WALL EXTEND CONDUCTORS, CABLING, AND RACEWAY AS NECESSARY. VERIFY THE NEW LOCATION WITH ARCHITECT.
3	DEMOLISH EXISTING HEADWALL RECEPTACLE ASSEMBLY TO NEAREST ACCESSIBLE PULL BOX ABOVE CEILING.
5	EXTEND THE EXISTING WIRING AND RELOCATE TO THE NEW LOCATION OF THE MED GAS AREA ALARM PANEL (AAP) AND PROVIDE 120V POWER.
6	ALL EXISTING POWER AND LIGHTING TO REMAIN.
7	DEMOLISH ALL EXISTING POWER AND ALARM BUTTONS IN NURSE STATION. EXISTING CIRCUITS MAY BE SALVAGES AND REUSED AT NEW NURSE STATION WHERE PRACTICABLE.
9	DISCONNECT EXISTING 120V CIRCUIT FROM THE EXISTING VAV'S BEING DEMOLISHED AND EXTEND THE CIRCUIT TO THE REPLACEMENT VAVS.
10	ALL ELECTRICAL DEVICES, RECEPTACLES, FASTENERS, ETC., IN SECURE HOLDING ROOMS SHALL BE TAMPER-PROOF.
12	ROUGH IN REQUIREMENT FOR ALL SECURITY ACCESS SYSTEMS NEEDS TO BE VERIFIED WITH THE OWNERS SECURITY SYSTEM INSTALLERS.

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City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *Chris Dodson*
Date: *Mar 15, 2023*
2015 INTERNATIONAL CODES & 2020 NEC

KEY PLAN



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No.	Description	Date
1	ASI-001	03/06/2023

COLORADO LICENSED
CHARLES P THOMPSON
56150
PROFESSIONAL ENGINEER
03.06.2023

TMCA MDU

1501 S POTOMAC ST AURORA, CO 80012

Issue	100% CD
Date	3 FEBRUARY 2023
Project Number	2022-05392-00
Drawn by	JD
Checked by	MT

Sheet Title

ELECTRICAL PLAN

Sheet Number

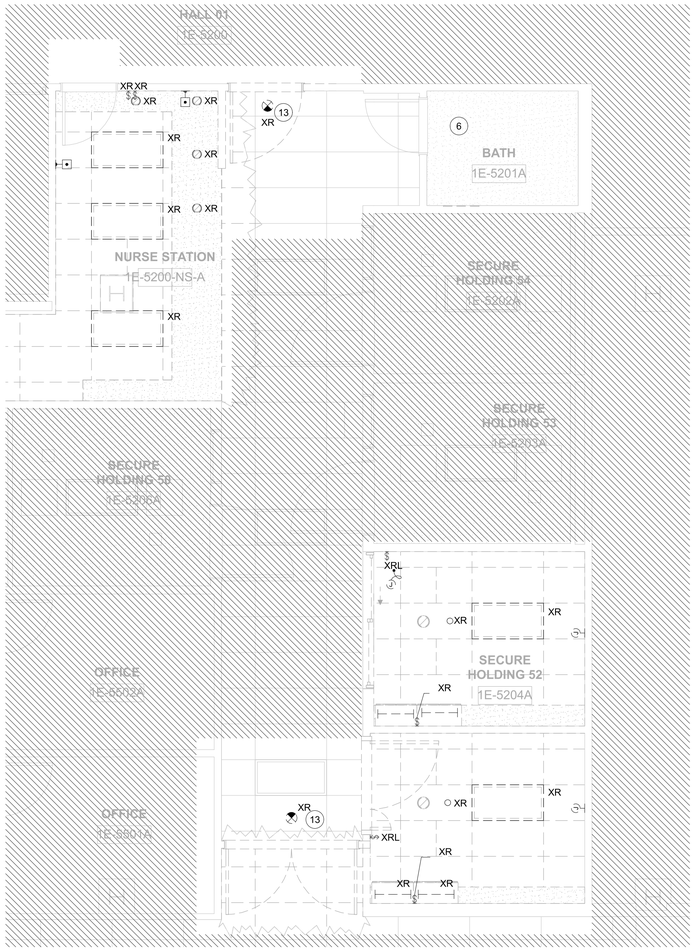
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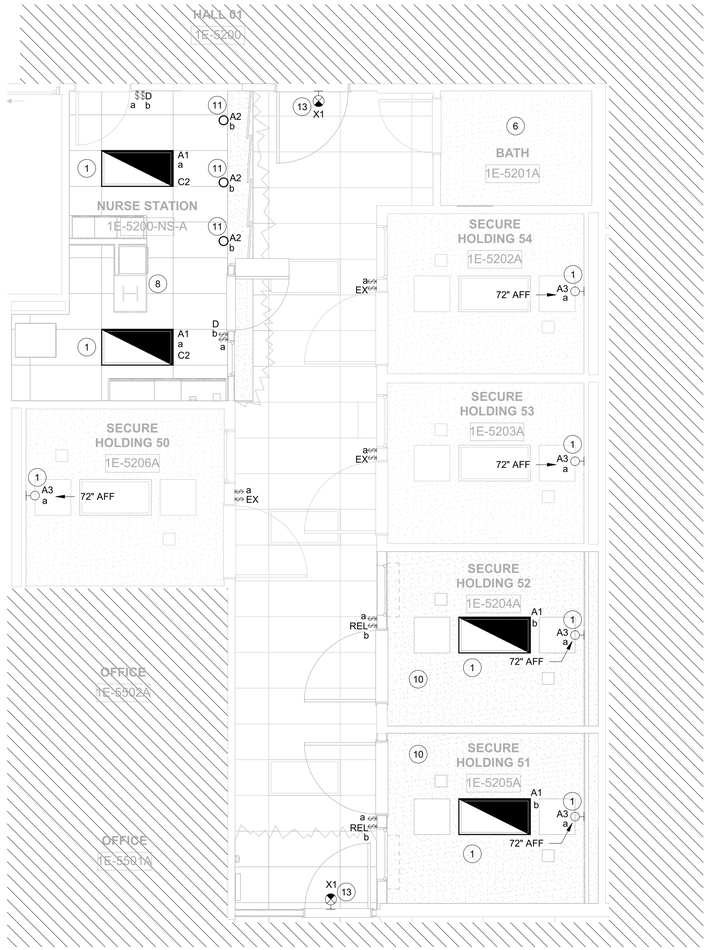
LIGHTING FIXTURE SCHEDULE

TAG	DESCRIPTION	LAMP		FIXTURE		MANUFACTURER	ITEM NUMBER	REMARKS
		QUANT	TYPE/CRI-CT	VOLT	WATTS			
A1	2'X4' TAMPER RESISTANT TROFFER	4	80 - 4000K	MVOLT	39.0	LUMINAIRE LED	RMP-R24-F-H16CRSP-D14CRSP-MIN10-50W-3000LM-40K-MVOLT-ALS-1ES-WHT-WL-GLR-*-*-YM	NOTES 1,2,3,4
A2	6" DOWNLIGHT	3	80-4000K	MVOLT	10.4	LITHONIA	LDN6-40/1025-L06-WR-LSS-MVOLT	NOTES 1,2,3,4
A3	PATIENT NIGHT LIGHT	5	80-4000K	MVOLT	2.0	KIRLIN	MTT-03NLT-HO-RCT-40K-BL-26	NOTES 1,2,3,4
X1	EXIT SIGN	2	80-4000K	277	4.5	LITHONIA	EDG-EDGR SERIES	NOTES 1,2,3,4,5

NOTES:
1. MANUFACTURERS' CATALOG NUMBERS ARE INTENTIONALLY INCOMPLETE; COORDINATE REQUIRED TRIM KITS, MOUNTING BRACKETS, LAMPS, FINISHES, ETC. WITH THE ARCHITECT, CONTRACT DOCUMENTS, SPECIFICATIONS, AND OTHER TRADES.
2. VERIFY TYPE OF CEILING OR WALL FOR MOUNTING OF LIGHTING FIXTURES PRIOR TO ORDERING.
3. COORDINATE ALL FIXTURE COLOR AND FINISH AND EXACT LOCATION WITH ARCHITECT.
4. SEE ELECTRICAL AND ARCHITECTURAL PLANS, DETAILS FOR ALL LIGHT FIXTURE QUANTITIES.
5. PROVIDE DIRECTIONAL CHEVRONS/ARROWS AS INDICATED ON PLANS.



1 LEVEL 01-ELECTRICAL LIGHTING DEMO PLAN
1/4" = 1'-0"



2 LEVEL 01-ELECTRICAL LIGHTING PLAN
1/4" = 1'-0"

GENERAL NOTES:

1. REFER TO ELECTRICAL SYMBOL LIST AND GENERAL NOTES ON SHEET E.000.
2. CONNECT ALL NORMAL RECEPTACLES TO LOCAL NORMAL PANEL, 'LD' SERVING THE AREA.
3. CONNECT ALL EMERGENCY RECEPTACLES TO LOCAL CRITICAL PANEL, 'LCB4A' SERVING THE AREA.
4. REFER TO ARCHITECTURAL DRAWINGS FOR ALL FIXTURE LOCATIONS AND MOUNTING REQUIREMENTS.

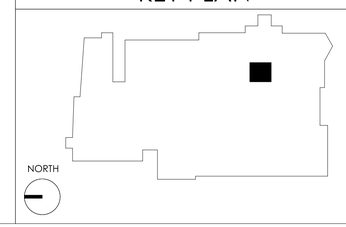
ELECTRICAL KEYNOTES	
Key Value	Keynote Text
1	CIRCUIT TO EXISTING CRITICAL BRANCH LIGHTING CIRCUIT ON PANEL LCB4A THAT PREVIOUSLY SERVED THE ROOM. VERIFY THE FIXTURE LOCATIONS WITH ARCHITECT.
6	ALL EXISTING POWER AND LIGHTING TO REMAIN.
8	REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS FOR ALL LIGHT FIXTURES IN NURSE STATION.
10	ALL ELECTRICAL DEVICES, RECEPTACLES, FASTENERS, ETC., IN SECURE HOLDING ROOMS SHALL BE TAMPER-PROOF.
11	WIRE DOWNLIGHTS TO EXISTING NORMAL EMERGENCY LIGHTING CIRCUIT SERVING THE AREA.
13	DISCONNECT EXISTING 120V CIRCUIT FROM THE EXISTING EXIT SIGN'S BEING DEMOLISHED AND EXTEND THE CIRCUIT TO THE NEW EXIT SIGN LOCATION. VERIFY THE MOUNTING AND LOCATION DETAILS WITH ARCHITECT.

Provide Emergency Illumination Equipment That complies with 2020 NEC 700.12(F) or NEC 700.

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Date: *Mar 15, 2023*
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No.	Description	Date

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02.03.2023

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1501 S POTOMAC ST AURORA, CO 80012

Issue	100% CD
Date	3 FEBRUARY 2023
Project Number	2022-05392-00
Drawn by	JD
Checked by	MT

Sheet Title
LIGHTING PLAN

Sheet Number
E.102

2/6/2023 12:27:07 PM