140 N VALLEY ROAD, XENIA, OH 045385

ISSUED FOR BID FEBRUARY 2023

PROJECT IMAGE



VICINITY MAP

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ELECTRICAL E-001 E-002 ED101 E-101 E-201 E-501 E-601	SPECIFICATIONS ELECTRICAL DEMOLITION PLAN LIGHTING PLAN POWER PLANS ELECTRICAL DETAILS ELECTRICAL ONE-LINE DIAGRAM & PANEL SCHEDULE

PROJECT INFORMATION

PROJECT LOCATION: 140 N VALLEY ROAD, XENIA, OH 45385

LOCATION MAP

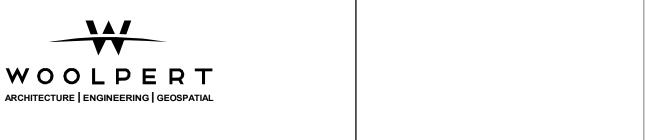


PROJECT SITE





PROJECT TEAM



ME OR UNDER MY SUPERVISION (NAME AND LICENSE)

Robert Voisard 02/20/2023 (NAME AND LICENSE)

G-001

DESIGNED BY: F. HEISTERKAMP DRAWN BY: F. HEISTERKAMP

10012540

J. ELDER

02/20/2023

PRELIMINARY

NOT FOR

CONSTRUCTION

GREENE COUNTY INTERIOR TERMINAL 119 RENOVATION

2017 OHIO BUILDING CODE (2015 INTERNATIONAL BUILDING CODE) 2017 OHIO FIRE CODE (2015 INTERNATIONAL FIRE CODE)

MECHANICAL

PROJECT TYPE: INTERIOR RENOVATION

ARCHITECTURAL THIS WORK WAS PREPARED BY

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION DOUGLAS

(NAME AND LICENSE)

ELECTRICAL THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

SHEET NAME: **COVER SHEET**

CHECKED BY:

PROJECT NO:

DATE ISSUED:

LEWIS. WACKSON

GENERAL NOTES:

CONSTRUCTION SHALL CONFORM TO ALL GOVERNING CODES.

- ALL CONTRACTORS SUBMITTING BID PROPOSALS FOR THIS PROJECT ARE REQUIRED TO VISIT THE SITE PRIOR TO BIDDING TO VERIFY EXISTING CONDITIONS AND FEASIBILITY OF DESIGN INTENT OF THESE CONSTRUCTION DOCUMENTS (CONSTRUCTION DRAWINGS AND SPECIFICATIONS). ANY VARIATION IN SITE CONDITIONS AND CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE CONTRACTING OFFICER OR OWNER'S REPRESENTATIVE'S ATTENTION IN WRITING IMMEDIATELY AND (5) BUSINESS DAYS PRIOR TO BID DATE, THE SUBMISSION OF BID PROPOSAL'S SHALL BE CONSIDERED EVIDENCE THAT THE CONTRACTOR HAS VISITED THE SITE, VERIFIED ITS CONDITIONS AND IS PREPARED TO PERFORM WORK AS INTENDED IN THESE DOCUMENTS. NO EXTRA PAYMENT'S SHALL BE ALLOWED DUE TO THE CONTRACTORS CLAIMS FOR EXTRA WORK REQUIRED BY THEIR FAILURE TO VISIT THE SITE.
- 3. DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE CONTRACTING OFFICER OR OWNER'S REPRESENTATIVE BEFORE CONTINUING WITH THE WORK.
- 4. EACH CONTRACTOR IS RESPONSIBLE FOR COORDINATING THEIR WORK WITH ALL SURROUNDING CONSTRUCTION ELEMENTS AND TRADES
- 5. EACH CONTRACTOR IS RESPONSIBLE FOR CREATING ALL OPENINGS, PENETRATIONS, LINTELS, ETC. AS REQUIRED TO PERFORM THEIR PORTION OF WORK. AT FIRE RATED PARTITIONS, CLOSE OPENINGS / PENETRATIONS / ETC. WITH FIRESTOPPING THAT MATCHES OR EXCEEDS THE PARTITION RATING.
- 6. IT IS THE CONTRACTOR'S RESPONSIBILITY FOR THE COORDINATION OF ALL DRAWINGS AND SPECIFICATIONS AS REQUIRED TO PERFORM THE WORK AS CALLED FOR, SHOWN AND REASONABLY IMPLIED IN THE CONTRACT DOCUMENTS. ASBESTOS CONTAINING MATERIALS SHALL NOT BE USED ON ANY PROJECT.
- 8. FINISH AND PAINT WALLS BEFORE INSTALLING CASEWORK, EQUIPMENT, FIXTURES, ELEC. PANELS, BOXES, SURFACE CONDUIT, ETC., IF
- APPLICABLE. 9. CONTRACTOR TO INSTALL WOOD OR METAL BLOCKING FOR ALL CASEWORK, EQUIPMENT, HANDRAILS, RESTROOM ACCESSORIES,
- FIXTURES, ETC. AS RECOMMENDED BY MANUFACTURER, IF NOT OTHERWISE SHOWN HEREIN. 10. IF DISCREPANCIES BETWEEN PLANS OR SPECIFICATIONS OCCUR THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER OR OWNER'S REPRESENTATIVE. TREAT ANYTHING MENTIONED IN THE SPECIFICATIONS BUT NOT SHOWN ON THE DRAWINGS OR SHOWN ON THE DRAWINGS BUT NOT INCLUDED IN THE SPECIFICATIONS AS IF SHOWN OR MENTIONED IN BOTH. IF DISCREPANCIES BETWEEN THE
- DRAWINGS AND SPECIFICATIONS, THE SPECIFICATIONS TAKE PRECEDENCE. 11. FOR INSTALLATION OF ALL WORK WHICH IS DEPENDENT ON CONDITION OF SUBSTRATE, CAREFULLY INSPECT AND VERIFY SUITABILITY OF SUBSTRATE FOR INSTALLATION OF WORK. DO NOT INSTALL WORK OVER UNSUITABLE OR UNACCEPTABLE SUBSTRATES. CORRECT UNACCEPTABLE SUBSTRATES BEFORE INSTALLING WORK. CONTRACTOR IS RESPONSIBLE FOR ALL GRINDING. LEVELING, SANDING.
- PATCHING, ETC. TO CORRECT ALL EXISTING SURFACES TO PREPARE FOR NEW FINISHES. 12. MOUNTING HEIGHTS OF ELECTRICAL, PLUMBING, MECHANICAL, AND OTHER DEVICES SHALL COMPLY WITH HEIGHTS INDICATED ON
- DRAWINGS. NOTIFY CONTRACTING OFFICER OR OWNER'S REPRESENTATIVE IF CONFLICTS ARE ENCOUNTERED. 13. ALL EXPOSED METAL, METAL DECK, STRUCTURAL, BAR JOISTS, CONDUITS, PIPES, ANGLES, BRACKETS, DUCT, ETC. SHALL NOT BE PAINTED UNLESS NOTED OTHERWISE.
- 14. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ANY EXISTING ANCHORS, BRACKETS, ETC. AND PATCH LIKE NEW BEFORE INSTALLING NEW FINISHES.
- 15. FIRECAULK ALL PENETRATIONS IN GYPSUM BOARD WHERE IT ACTS AS A THERMAL BARRIER TO ISOLATE SPRAY-IN FOAM INSULATION FROM INSIDE OF BUILDING.
- 16. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS IN THE FIELD PRIOR TO ORDERING OR FABRICATION OF MATERIALS OR THE BEGINNING OF CONSTRUCTION. NOTIFY ARCHITECT AND OWNER REPRESENTATIVE OF ALL DISCREPANCIES. ALL WORK REQUIRING MEASURING TO BE DONE ACCORDING TO FIGURES ON DRAWINGS. DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND DRAWINGS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT AND OWNER REPRESENTATIVE. CONTRACTOR TO SUBMIT SPECIFIC DISCREPANCY FOR ARCHITECT REVIEW, PRIOR TO COMMENCING WITH THE WORK IN QUESTION.
- 17. THE CONTRACTOR SHALL ARRANGE FOR THE PREMISES TO BE MAINTAINED IN AN ORDERLY MANNER, FREE OF DUST AND DEBRIS, THROUGHOUT THE COURSE OF THE WORK. PROVIDE AND MAINTAIN TEMPORARY BARRICADES AS REQUIRED TO PROTECT THE PUBLIC AND OWNERS PERSONNEL DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING STRUCTURE OR EQUIPMENT. ANY SUCH DAMAGE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 18. CONTRACTOR SHALL PROVIDE DAILY OR MORE FREQUENT GENERAL CLEAN UP IN COMPLIANCE WITH OWNER'S REQUIREMENTS OF AREAS WITHIN THE LIMITS OF CONSTRUCTION, AND FINAL CLEAN UP AT CONCLUSION OF WORK.
- 19. CONTRACTOR TO REVIEW OTHER DRAWINGS ISSUED FOR THIS PROJECT FOR ADDITIONAL INFORMATION FROM OTHER TRADES TO COORDINATE THE REQUIRED SCOPE OF WORK.
- 20. INTERIOR DIMENSIONS ARE TO FACE OF EXTERIOR STUD, FACE OF MASONRY, FACE OF CONCRETE, CENTERLINE OF COLUMNS, OR FACE OF INTERIOR STUD UNLESS OTHERWISE NOTED.
- 21. ALL MATERIALS, FIXTURES AND EQUIPMENT INDICATED IN THE CONSTRUCTION DOCUMENTS SHALL BE NEW AND AS SPECIFIED, UNLESS IDENTIFIED OTHERWISE.
- 22. ALL NEW FINISHED AND PATCHED SURFACES SHALL BE SMOOTH, CONTINUOUSLY FREE OF IMPERFECTIONS AND IN PROPER CONDITION TO RECEIVE THE SPECIFIED FINISH. PATCHED AREAS SHALL MATCH THE ADJACENT MATERIALS CONSTRUCTION AND FINISH.
- 23. ALL FLOORS ON EITHER SIDE OF A DOORWAY OR OPENING SHALL BE LEVEL AND HAVE MAXIMUM ELEVATION DIFFERENCE OR THRESHOLD HEIGHT OF 1/2".
- 24. DOOR OPENINGS NOT LOCATED BY DIMENSION SHALL BE 4" FROM THE FACE OF STUD TO FACE OF STUD OF DOOR FRAME JAMB UNLESS NOTED OTHERWISE.
- 25. DOOR SIZES, STYLES, AND SPECIFICATIONS, ROUGH OPENING SIZES AND EXACT LOCATIONS TO BE CHECKED AND VERIFIED BY THE
- CONTRACTOR BEFORE ORDERING AND BEFORE CONSTRUCTION BEGINS. 26. ALL PENETRATIONS OF FIRE RATED FLOORS, WALLS AND CEILINGS TO BE SEALED WITH PROPER APPROVED MATERIALS TO THE FULL
- THICKNESS OF THE CONSTRUCTION ELEMENTS.
- 27. FIRE STOP ALL FLOORS, WALLS AND CEILINGS AS REQUIRED BY APPLICABLE CODE. 28. ALL WOOD BLOCKING IN INTERIOR WALLS TO BE FIRE RETARDANT TREATED IN ACCORDANCE WITH SPECIFICATIONS.
- 29. INSTALL SEALANT AT EXTERIOR SIDE OF ALL JOINTS, SEAMS, CONNECTIONS OR OPENINGS WHICH WOULD ALLOW WATER OR AIR INFILTRATION EXCEPT AS NOTED OTHERWISE. SEALANT COLOR TO MATCH ARCHITECT'S SAMPLE. COLOR REQUIRES ARCHITECT'S
- 30. PROVIDE FIRE EXTINGUISHER COMPLYING WITH NFPA 10, AS INDICATED ON LIFE SAFETY DRAWINGS WITH MAX TRAVEL DISTANCE OF 75'. THE LOCATIONS OF EXISTING UTILITIES HAVE BEEN PREPARED FROM DOCUMENTS PROVIDED BY THE OWNER AND MAY NOT REPRESEI THE ACTUAL FIELD CONDITIONS. CONTRACTOR TO REVIEW ALL OWNER DOCUMENTS AND BECOME FAMILIAR WITH ALL EXISTING UTILITIES. THE CONTRACTOR HAS THE RESPONSIBILITY TO VERIFY LOCATIONS IN THE FIELD BY EMPLOYING FIELD UTILITY LOCATING SERVICES
- BEFORE CONSTRUCTION STARTS, AND COORDINATE ALL NEW UTILITY LOCATIONS, CONNECTIONS AND PENETRATIONS 32. THE SUBCONTRACTOR SHALL VERIFY AND COORDINATE, WITH ALL TRADES, THE SIZES AND LOCATIONS OF ALL OPENINGS FOR MECHANICAL, PLUMBING, AND ELECTRICAL EQUIPMENT, EQUIPMENT PADS, OR BASES AS WELL AS POWER, WATER, AND DRAIN INSTALLATIONS BEFORE PROCEEDING WITH WORK. SUBCONTRACTOR SHALL PROVIDE COORDINATION DRAWINGS FOR PROPER PLACEMENT OF ALL TRADES' WORK. ALL CONCERNS, SPACE LIMITATIONS OR STRUCTURAL CONFLICTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT, PRIOR TO COMMENCING WITH THE WORK IN QUESTION.
- 33. IT IS THE SUBCONTRACTOR'S RESPONSIBILITY TO COORDINATE AND LOCATE ELECTRICAL, DATA, AND PHONE RECEPTACLES, SWITCHES, ETC. TO AVOID CONFLICTS WITH CASEWORK, DOORS, AND OTHER TRADES.

4454 IDEA CENTER BOULEVARD DAYTON, OH 45430-1500

800.414.1045

PRELIMINARY NOT FOR CONSTRUCTION

JACK

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EWIS

TERMINA NTERIOR

RENOV,

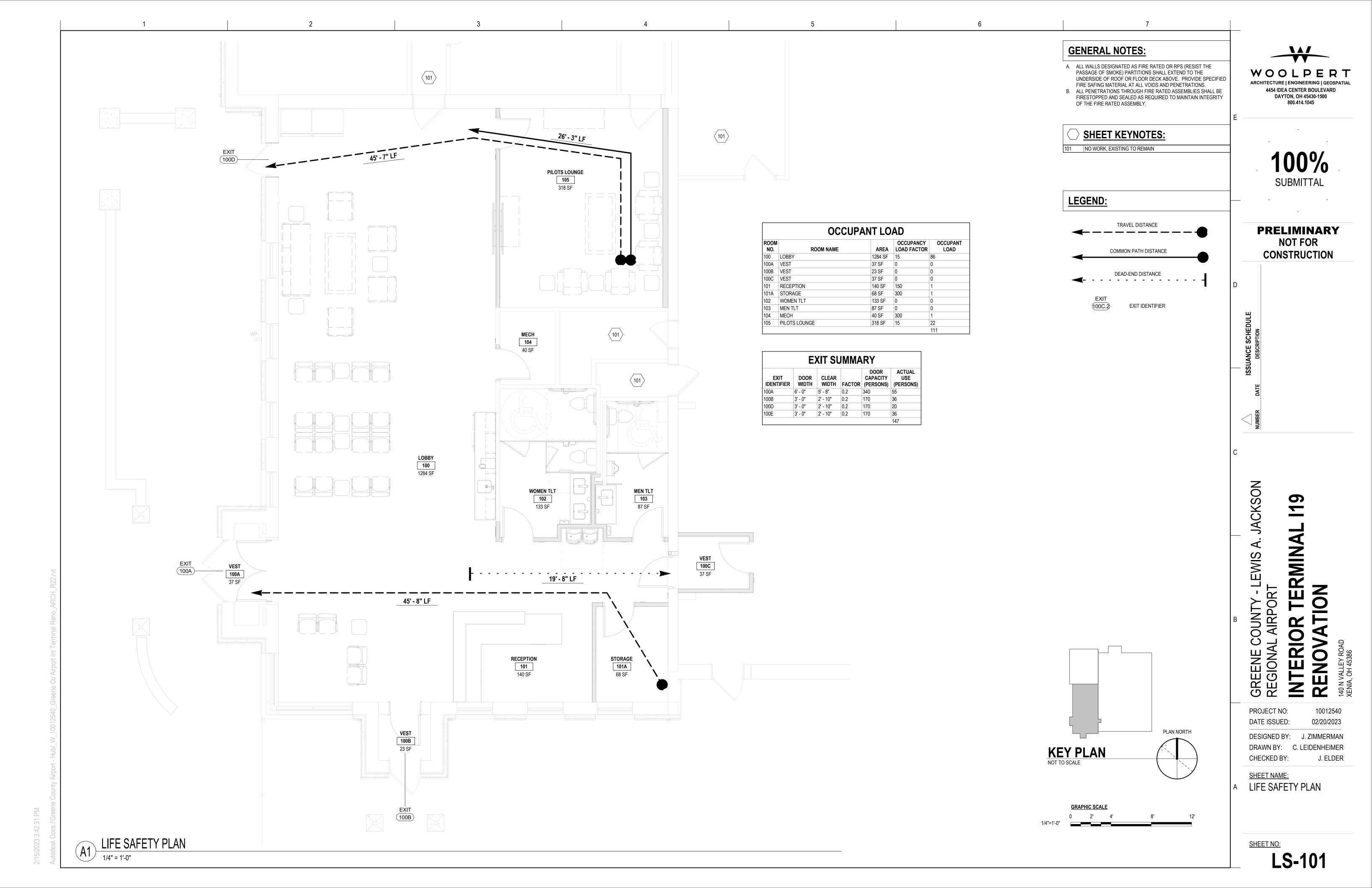
J. ELDER

PROJECT NO: DATE ISSUED:

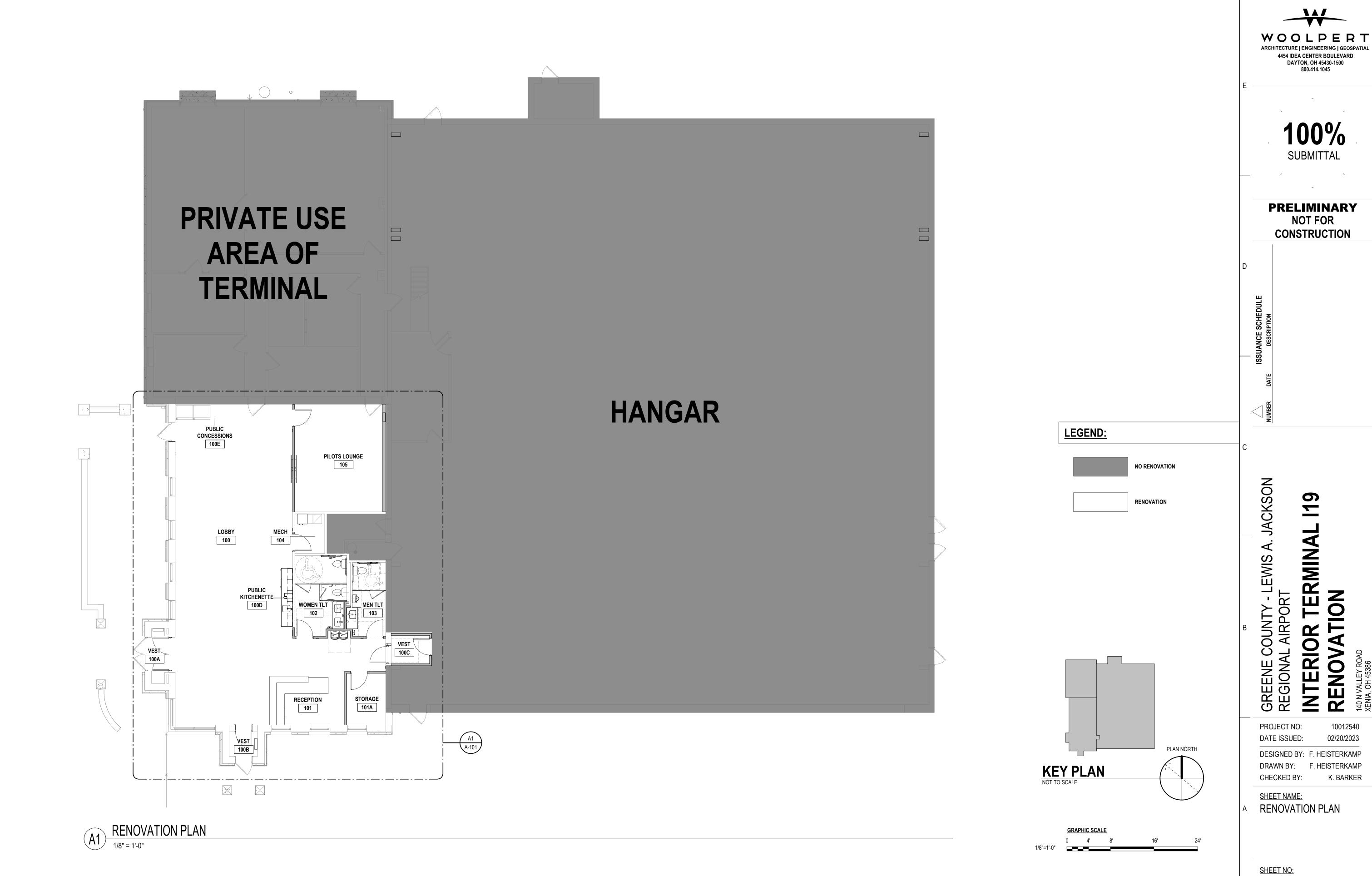
10012540 02/20/2023

DESIGNED BY: F. HEISTERKAMP DRAWN BY: F. HEISTERKAMP CHECKED BY:

SHEET NAME: **GENERAL NOTES**



2/15/2023 3:42:17 PM



2/15/2023 3:42:17 PM

GENERAL NOTES:

- A. ALL DIMENSIONS TO BE VERIFIED IN FIELD PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT OF ALL DISCREPANCIES PRIOR TO STARTING
- B. ALL EXISTING MATERIALS TO REMAIN WHICH ARE DAMAGED OR OTHERWISE DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE PATCHED AND REPAIRED TO MATCH EXISTING ADJACENT
- MATERIALS SO THAT REPAIR IS IMPERCEPTIBLE. C. REFER TO MEP DRAWINGS FOR OTHER DISCIPLINE DEMOLITION SCOPE OF WORK.
- D. CONTRACTOR SHALL MAINTAIN ALL REQUIRED EXITS UNOBSTRUCTED, ILLUMINATED AND PROTECTED FROM CONSTRUCTION ACTIVITIES.
- E. CONTRACTOR TO CLEAN AREAS ADJACENT TO DEMOLITION AREA OF DUST, DIRT AND DEBRIS CAUSED BY DEMOLITION OPERATIONS. F. PROMPTLY DISPOSE OF DEMOLISHED MATERIALS. DO NOT ALLOW
- DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE. TRANSPORT DEMOLISHED MATERIALS AND LEGALLY DISPOSE OF THEM. G. CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY CONFLICTS BETWEEN EXISTING CONSTRUCTION AND CONSTRUCTION DOCUMENTS.
- H. THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE THE CONTRACT DOCUMENTS WITH EACH OTHER AND SHALL IMMEDIATELY REPORT ANY ERRORS, INCONSISTENCIES OR OMISSIONS TO THE CONTRACTING OFFICER OR OWNER'S REPRESENTATIVE. IF THE CONTRACTOR PERFORMS ANY CONSTRUCTION ACTIVITY KNOWING IT INVOLVES A RECOGNIZED ERROR, INCONSISTENCY OR OMISSION IN THE CONTRACT DOCUMENTS WITHOUT SUCH NOTICE TO THE CONTRACTING OFFICER OR OWNER'S REPRESENTATIVE, THE CONTRACTOR SHALL ASSUME APPROPRIATE RESPONSIBILITY FOR SUCH PERFORMANCE AND SHALL BEAR AN APPROPRIATE AMOUNT OF THE ATTRIBUTABLE COSTS FOR CORRECTION.
- I. ALL INTERIOR FINISHES ARE TO BE DEMOLISHED IN THE SCHEDULED RENOVATION AREA. J. GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR ASBESTOS
- MATERIAL ABATEMENT FOR DEMO AREAS PER THE HAZARDOUS MATERIAL REPORT IN THE PROJECT SPECIFICATIONS.

SHEET KEYNOTES:

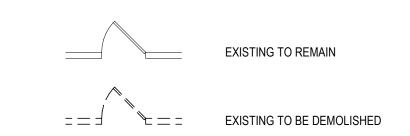
108 EXISTING VENDING MACHINES TO BE RELOCATED BY OWNER. REFER TO NEW WORK FOR NEW SCHEDULED LOCATION. NO WORK, EXISTING TO REMAIN

LEGEND:

KEY PLAN

NOT TO SCALE

GRAPHIC SCALE



PLAN NORTH

WOOLPERT ARCHITECTURE | ENGINEERING | GEOSPATIAL 4454 IDEA CENTER BOULEVARD

DAYTON, OH 45430-1500 800.414.1045

PRELIMINARY NOT FOR CONSTRUCTION

SON GREENE COUNTY - LEWIS A. JACK REGIONAL AIRPORT **TERMINAL**

RENOVATION INTERIOR

PROJECT NO: 10012540 02/20/2023 DATE ISSUED:

DESIGNED BY: F. HEISTERKAMP DRAWN BY: F. HEISTERKAMP

K. BARKER CHECKED BY: SHEET NAME: FLOOR PLAN -

DEMOLITION

SHEET NO:

AD101



GENERAL NOTES:

A. ALL DIMENSIONS TO BE VERIFIED IN FIELD PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT OF ALL DISCREPANCIES PRIOR TO STARTING

B. ALL EXISTING MATERIALS TO REMAIN WHICH ARE DAMAGED OR OTHERWISE DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE PATCHED AND REPAIRED TO MATCH EXISTING ADJACENT

MATERIALS SO THAT REPAIR IS IMPERCEPTIBLE. C. REFER TO MEP DRAWINGS FOR OTHER DISCIPLINE DEMOLITION

SCOPE OF WORK. D. CONTRACTOR SHALL MAINTAIN ALL REQUIRED EXITS UNOBSTRUCTED, ILLUMINATED AND PROTECTED FROM

CONSTRUCTION ACTIVITIES. E. CONTRACTOR TO CLEAN AREAS ADJACENT TO DEMOLITION AREA OF DUST, DIRT AND DEBRIS CAUSED BY DEMOLITION OPERATIONS.

F. PROMPTLY DISPOSE OF DEMOLISHED MATERIALS. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE. TRANSPORT DEMOLISHED MATERIALS AND LEGALLY DISPOSE OF THEM. G. CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY CONFLICTS

BETWEEN EXISTING CONSTRUCTION AND CONSTRUCTION DOCUMENTS.

H. THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE THE CONTRACT DOCUMENTS WITH EACH OTHER AND SHALL IMMEDIATELY CONTRACTING OFFICER OR OWNER'S REPRESENTATIVE. IF THE CONTRACTING OFFICER OR OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL ASSUME APPROPRIATE RESPONSIBILITY FOR SUCH PERFORMANCE AND SHALL BEAR AN APPROPRIATE AMOUNT OF THE ATTRIBUTABLE COSTS FOR CORRECTION.

I. ALL INTERIOR FINISHES ARE TO BE DEMOLISHED IN THE SCHEDULED RENOVATION AREA.

J. GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR ASBESTOS MATERIAL ABATEMENT FOR DEMO AREAS PER THE HAZARDOUS MATERIAL REPORT IN THE PROJECT SPECIFICATIONS.

SHEET KEYNOTES:

NO WORK, EXISTING TO REMAIN

LEGEND:

EXISTING GYPSUM BOARD CEILING TO BE DEMOLISHED

PLAN NORTH

EXISTING CEILING GRID AND TILE TO BE DEMOLISHED

SON 0 JACK **TERMINAL** - LEWIS A. INTERIOR RENOV

WOOLPERT

4454 IDEA CENTER BOULEVARD

DAYTON, OH 45430-1500 800.414.1045

PRELIMINARY

NOT FOR

CONSTRUCTION

PROJECT NO:

10012540 02/20/2023 DATE ISSUED:

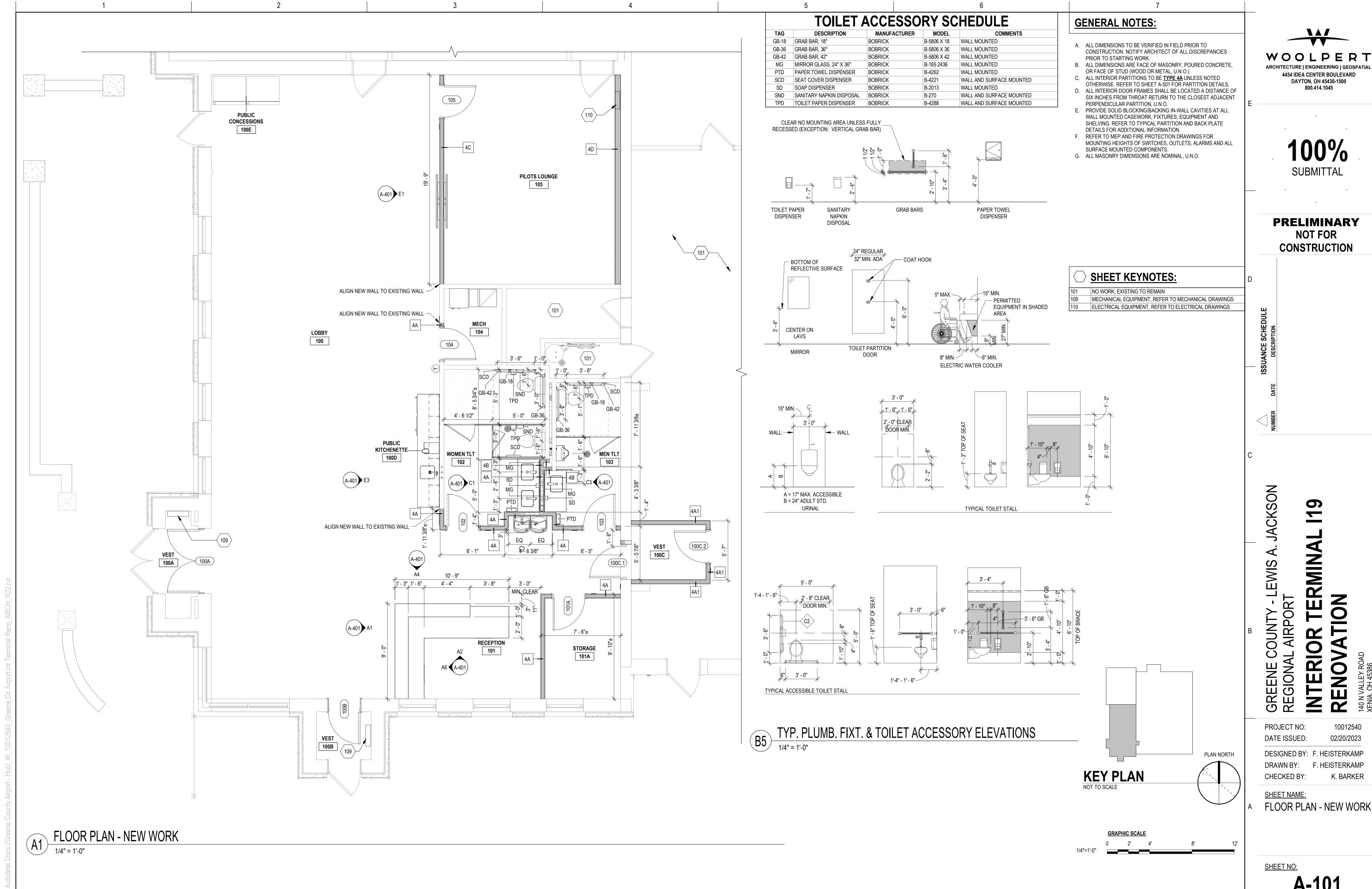
DESIGNED BY: F. HEISTERKAMP DRAWN BY: F. HEISTERKAMP CHECKED BY: K. BARKER

SHEET NAME:

REFLECTED CEILING PLAN - DEMOLITION

SHEET NO:

AD102



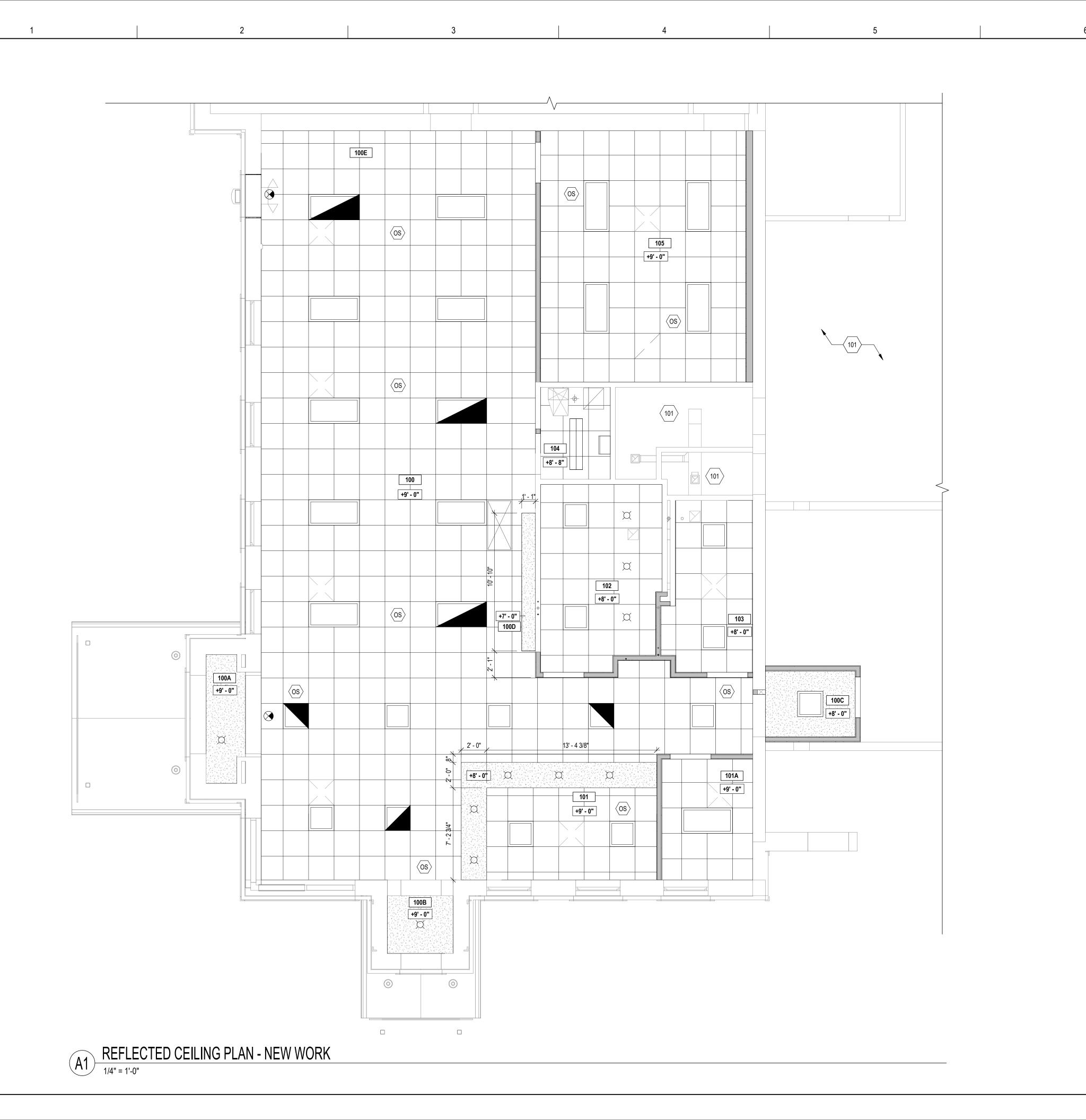
4454 IDEA CENTER BOULEVARD DAYTON, OH 45430-1500 800.414.1045

PRELIMINARY

RENOVATION 140 N VALLEY ROAF XENIA, OH 45386

10012540 02/20/2023

K. BARKER



GENERAL NOTES:

A. IN THE CASE OF MINOR DISCREPANCIES BETWEEN MEP AND ARCHITECTURAL DOCUMENTS IN THE LOCATION OF CEILING MOUNTED COMPONENTS, THE ARCHITECTURAL REFLECTED CEILING PLAN SHALL GOVERN. NOTIFY ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.

B. REFER TO MEP AND FIRE PROTECTION DRAWINGS FOR DETAILED

INFORMATION, LOCATION AND ADDITIONAL INFORMATION. C. LIGHTS, DIFFUSERS, SPRINKLER HEADS, EXIT SIGNS, SMOKE DETECTORS, SPEAKERS, STROBES AND MISCELLANEOUS DEVICES SHALL BE CENTERED IN THE CEILING TILE IN WHICH THEY OCCUR, U.N.O.

D. ALL GYPSUM BOARD CEILING WITHIN 4'-0" OF PERIMETER SHALL BE MOISTURE RESISTANT.

E. SMOKE AND HEAT DETECTORS TO BE GREATER THAN 3'-0" RFOM MECHANICAL DIFFUSERS.

WOOLPERT 4454 IDEA CENTER BOULEVARD DAYTON, OH 45430-1500 800.414.1045

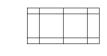
SHEET KEYNOTES:

NO WORK, EXISTING TO REMAIN

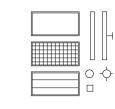
PRELIMINARY NOT FOR CONSTRUCTION

LEGEND:

GYPSUM BOARD CEILING, SOFFIT OR BULKHEAD



2' x 2' SUSPENDED ACOUSTIC CEILING TILES



LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS



EMERGENCY / NIGHT LIGHT FIXTURES, REFER TO ELECTRICAL DRAWINGS



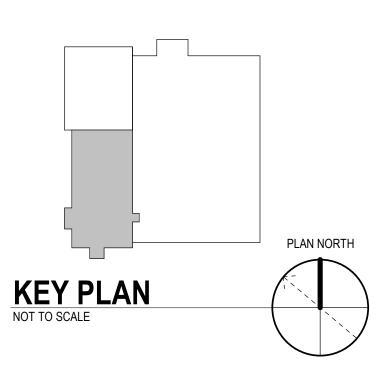
HVAC SUPPLY, RETURN, EXHAUST DIFFUSER. REFER TO MECHANICAL DRAWINGS



ACCESS PANEL

SMOKE DETECTOR

SPEAKER



GRAPHIC SCALE

PROJECT NO: DATE ISSUED: DESIGNED BY: F. HEISTERKAMP

GREENE COUNTY - LEWIS A. REGIONAL AIRPORT

SON

JACK

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INTERIOR TERMINAL

RENOVATION

10012540

02/20/2023

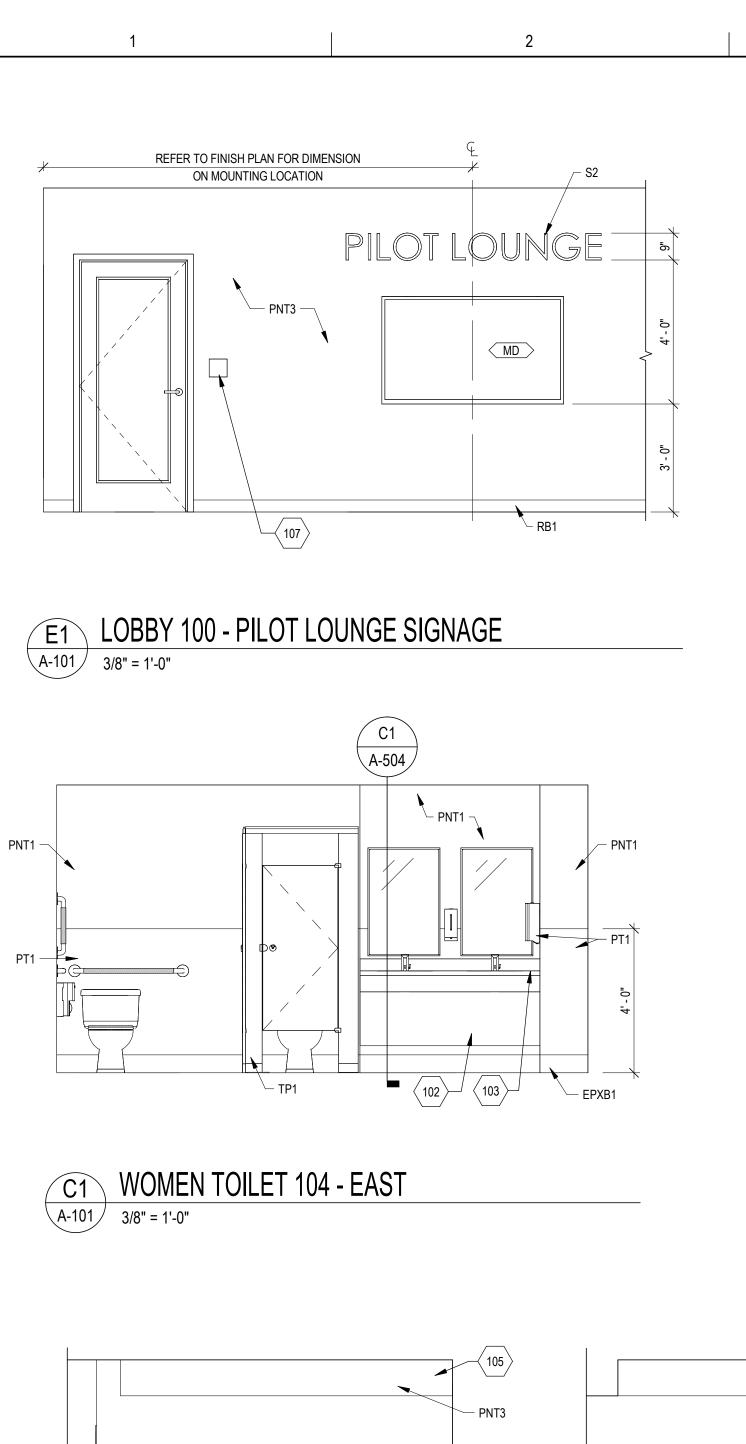
140 N VALLEY ROAD XENIA, OH 45386

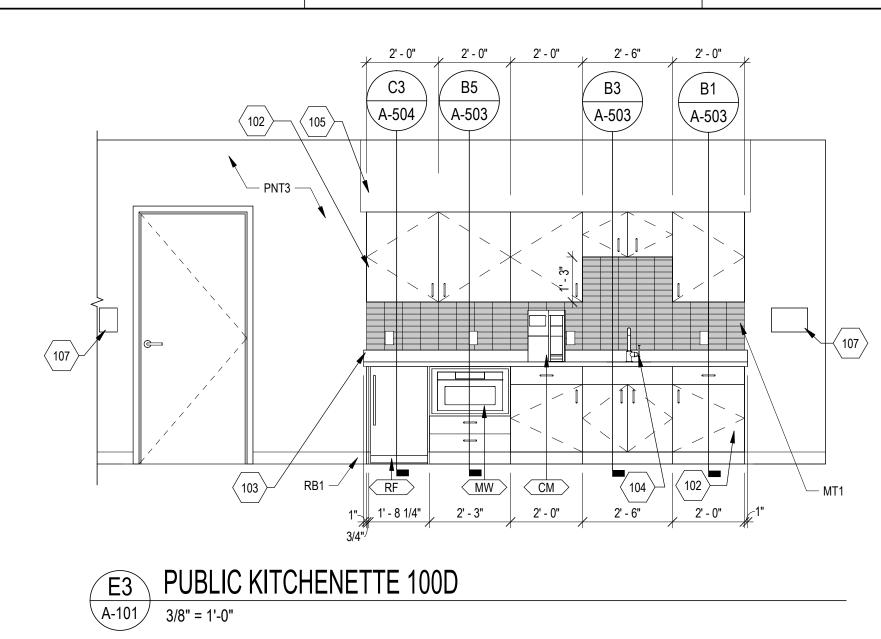
DRAWN BY: F. HEISTERKAMP K. BARKER CHECKED BY:

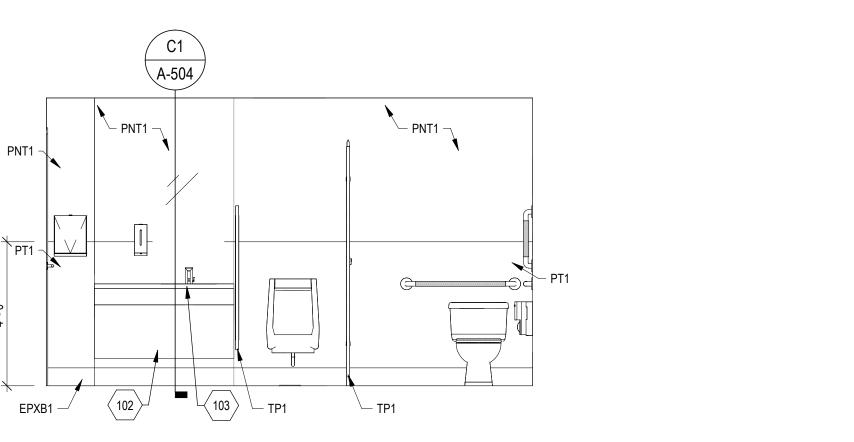
SHEET NAME:

REFLECTED CEILING PLAN - NEW WORK

SHEET NO:

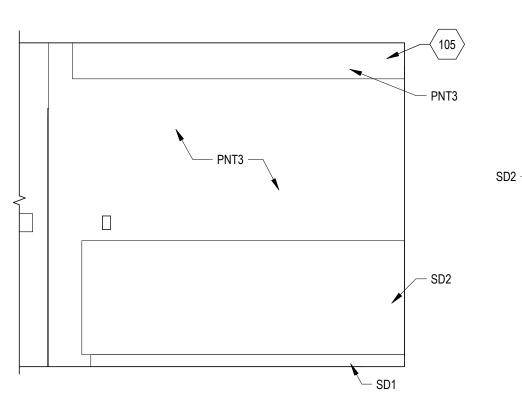




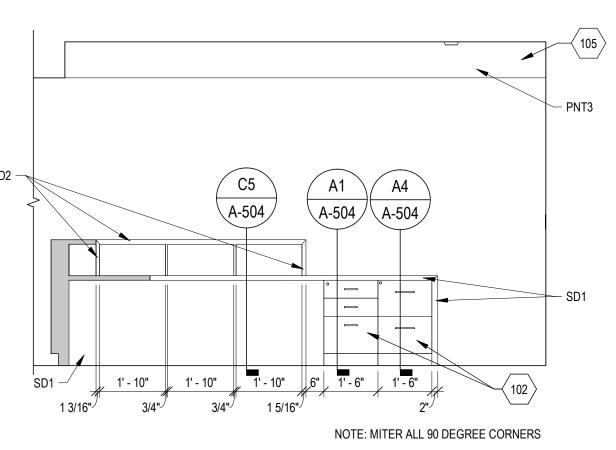


C3 MEN TOILET 103 - WEST

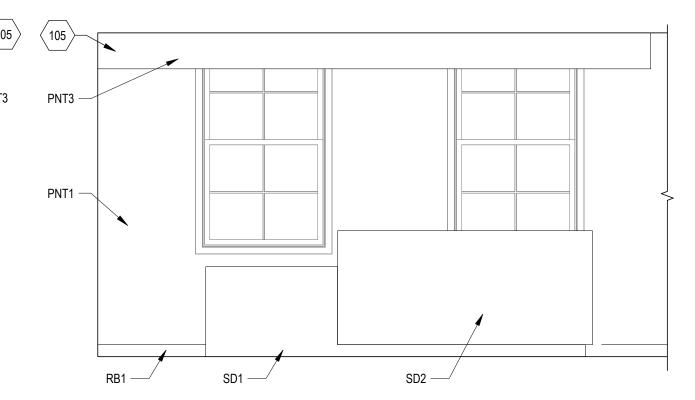
A-101 3/8" = 1'-0"



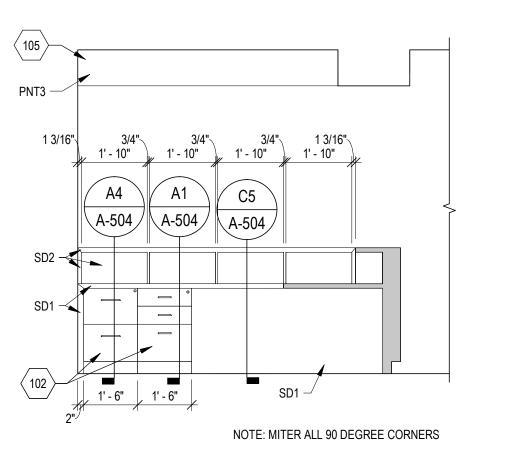
RECEPTION 101 - EAST A-101 3/8" = 1'-0"



RECEPTION 101 - NORTH



RECEPTION 101 - SOUTH



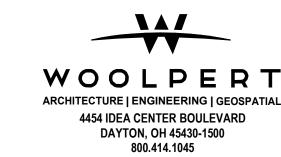
RECEPTION 101 - WEST A6 RECEPT A-101 3/8" = 1'-0"

> **GRAPHIC SCALE** 0 1' 2' 3' 4'

GENERAL NOTES:

- A. REFERENCE THE FINISH SCHEDULE AND LEGEND FOR CASEWORK
- MATERIALS FINISH COLORS.

 B. REFERENCE THE EQUIPMENT SCHEDULE ON SHEET A-701 FOR ALL ITEMS TAGGED WITH THE FOLLOWING SYMBOL:



SUBMITTAL

SHEET KEYNOTES:

102	PLASTIC LAMINATE CABINETRY
103	SOLID SURFACE COUNTERTOP AND BACKSPLASH
104	SINK, REFER TO PLUMBING DRAWINGS
105	GYPSUM WALLBOARD SOFFIT
107	INTERIOR SIGNAGE, REFER TO SIGNAGE SCHEDULE

PRELIMINARY NOT FOR CONSTRUCTION

SON

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GREENE COUNTY - LEWIS A. JACK: REGIONAL AIRPORT INTERIOR TERMINAL RENOVATION

140 N VALLEY ROAD XENIA, OH 45386 10012540 02/20/2023

PROJECT NO: DATE ISSUED:

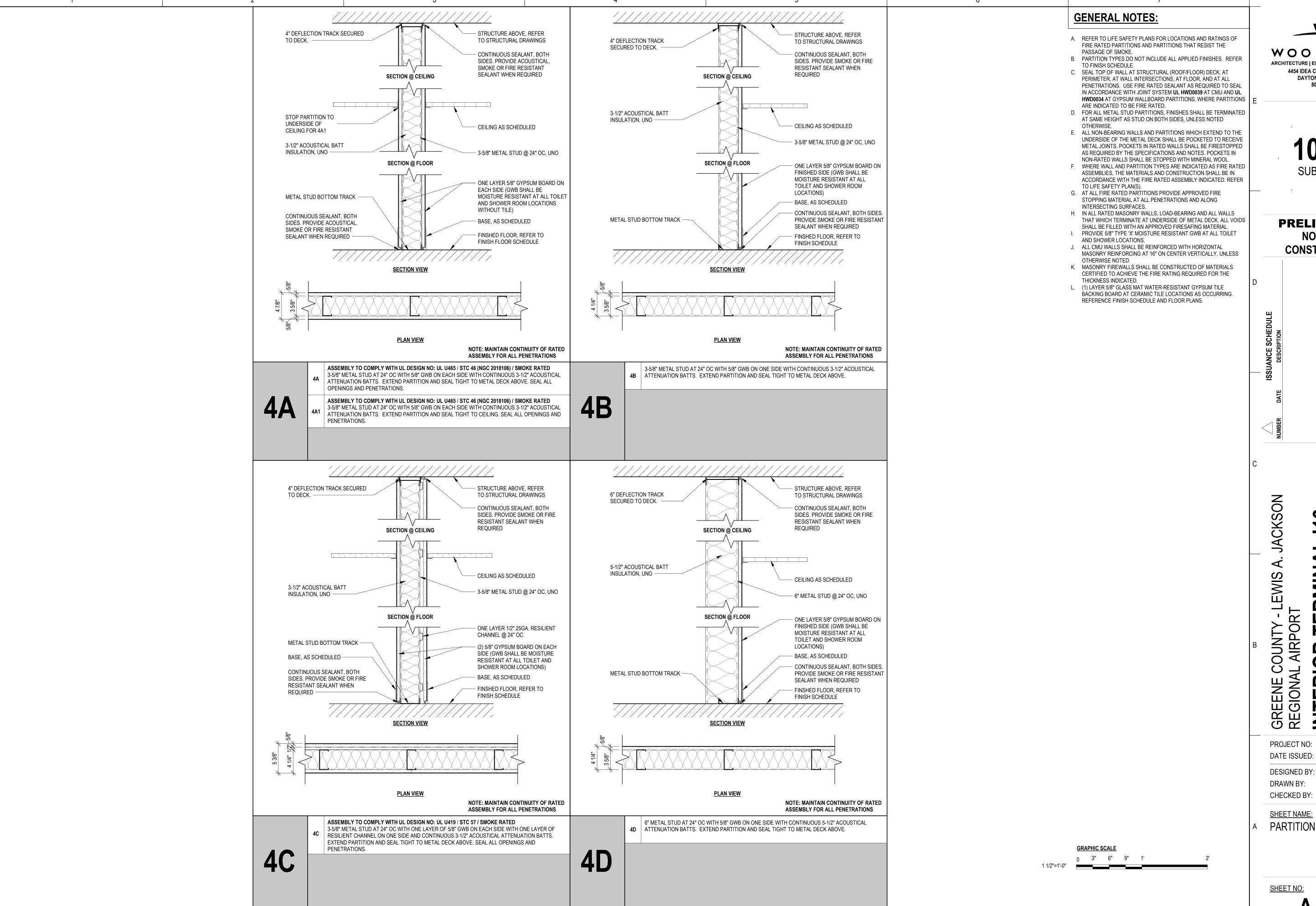
DESIGNED BY: F. HEISTERKAMP DRAWN BY: F. HEISTERKAMP

K. BARKER CHECKED BY:

SHEET NAME:

INTERIOR ELEVATIONS

SHEET NO:



4454 IDEA CENTER BOULEVARD DAYTON, OH 45430-1500

800.414.1045

PRELIMINARY NOT FOR CONSTRUCTION

TERMIN/

NTERIO ENO

10012540 02/20/2023

DESIGNED BY: F. HEISTERKAMP

DRAWN BY: F. HEISTERKAMP J. ELDER CHECKED BY:

SHEET NAME: PARTITION TYPES

TYPICAL FIXTURE BRACING DETAIL

12 GA. VERTICAL HANGER WIRE 4' - 0" F = ZICpWp WHERE Cp = TRIBUTARY AREA x WEIGHT OF CLG. (4# / S.F. MIN.) **CROSS RUNNER** 3 TURNS MIN. 45 DEG. SPLAY WIRE IN 1 1/2" (TYP.) **BRACING IN PLANE OF** MAIN RUNNER. ALL WIRES ATTACHED TO MAIN RUNNER. 4 SPLICE -DIRECTIONS. F = ZICpWpNOTE: SPLAY BRACING TO BE PROVIDED @ 12'-0" O.C. EACH WAY

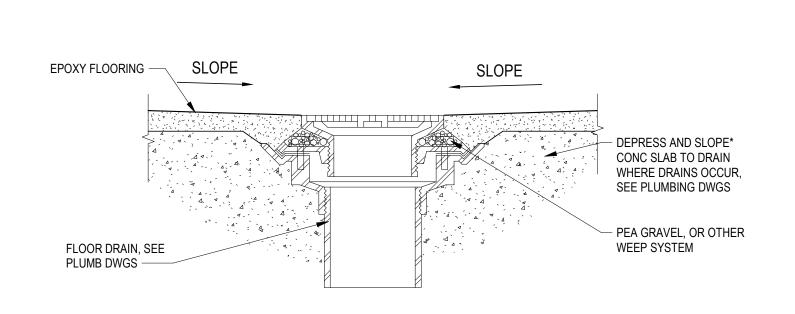
TYPICAL SWAY BRACING AT APC CEILING

— #12 WIRE W/ 3 TURNS AT 4'-0" O.C. 1/2" CLEAR AT ADJACENT WALLS 1/2" ~ CONTINUOUS ANGLE MAIN CHANNELS 1 1/2" X 16 GAUGE AT 4'-0" O.C. 7/8" FURRING CHANNELS AT 16" O.C. EDGE TRIM - FEATHER OUT JOINT 5/8 " GYPSUM BOARD CLG REFER TO RCP - ELASTOMERIC SEALANT OVER BACKER ROD FINISHED FACE OF WALL-

TYPICAL DETAIL AT GWB CEILING

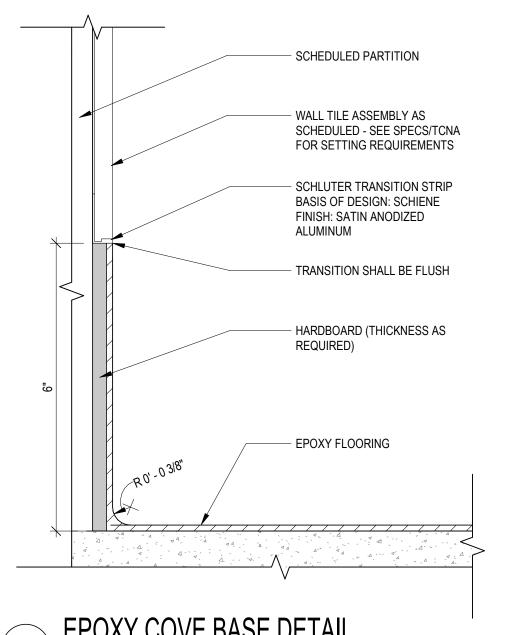
SOLID SURFACE WINDOW SILL, SD1 W/ 1" OVERHANG AND APRON. HEAT WELD COMPONENTS INTO ONE EXISTING ALUMINUM ASSEMBLY. CONTINUOUS LENGTH STOREFRONT WINDOW -PER OPENING WIDTH -WOOD NAILER W/ SHIM. FASTEN TO SUBSTRATE WITH CONTINUOUS SEALANT -2" L FASTENERS (TYPE DEPENDENT ON SUBSTRATE) AT 8" OC, STAGGERED -CONTINUOUS SEALANT DEPTH PER OPENING COORDINATE WITH EXISTING SUBSTRATE

TYPICAL SOLID SURFACE WINDOW STOOL DETAIL



SLOPE TO FLOOR DRAIN DETAIL - EPOXY FLOORING

3" = 1'-0"



EPOXY COVE BASE DETAIL

GRAPHIC SCALE 0 6" 1' 2' 3' 4' 5' 6' WOOLPERT 4454 IDEA CENTER BOULEVARD DAYTON, OH 45430-1500 800.414.1045

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SON

6 JACK **TERMINAL** $\stackrel{\cdot}{\triangleleft}$ **LEWIS** GREENE COUNTY -REGIONAL AIRPORT

INTERIOR TER 140 N VALLEY ROAD XENIA, OH 45386

10012540 PROJECT NO: 02/20/2023 DATE ISSUED:

DESIGNED BY: F. HEISTERKAMP

DRAWN BY: F. HEISTERKAMP J. ELDER CHECKED BY:

SHEET NAME: **CEILIING AND** MISCELLANEOUS DETAILS

SHEET NO:

B. REFERENCE THE EQUIPMENT SCHEDULE ON SHEET A-701 FOR ALL ITEMS TAGGED WITH THE FOLLOWING SYMBOL:

3/4" PLYWD DOOR FRONT W/

SURFACES AND VINYL EDGE

(1" PLYWD IF OVER 3'-0") W/

SURFACES AND VINYL EDGE

CONTINUOUS WD

BLOCKING

PLAM ON ALL

DRAWER PULL

3/4" PLYWD DRAWER FRONT W/

AND VINYL EDGE BANDING

FINISH FLOOR AS SCHEDULED

- BASE AS SCHEDULED

PLAM ON ALL EXPOSED SURFACES

EXPOSED SURFACES

PLAM ON ALL EXPOSED

2 SHELVES PER CABINET

PLAM ON ALL EXPOSED

3/4" PLYWD SHELVES

BANDING

BANDING

- DOOR PULL

WOOLPERT ARCHITECTURE | ENGINEERING | GEOSPATIAL 4454 IDEA CENTER BOULEVARD DAYTON, OH 45430-1500

800.414.1045

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SON JACK \triangleleft **EWIS**

4 **TERMIN** NO. OUNTY -INTERIOR RENOVATI REENE CO

PROJECT NO:

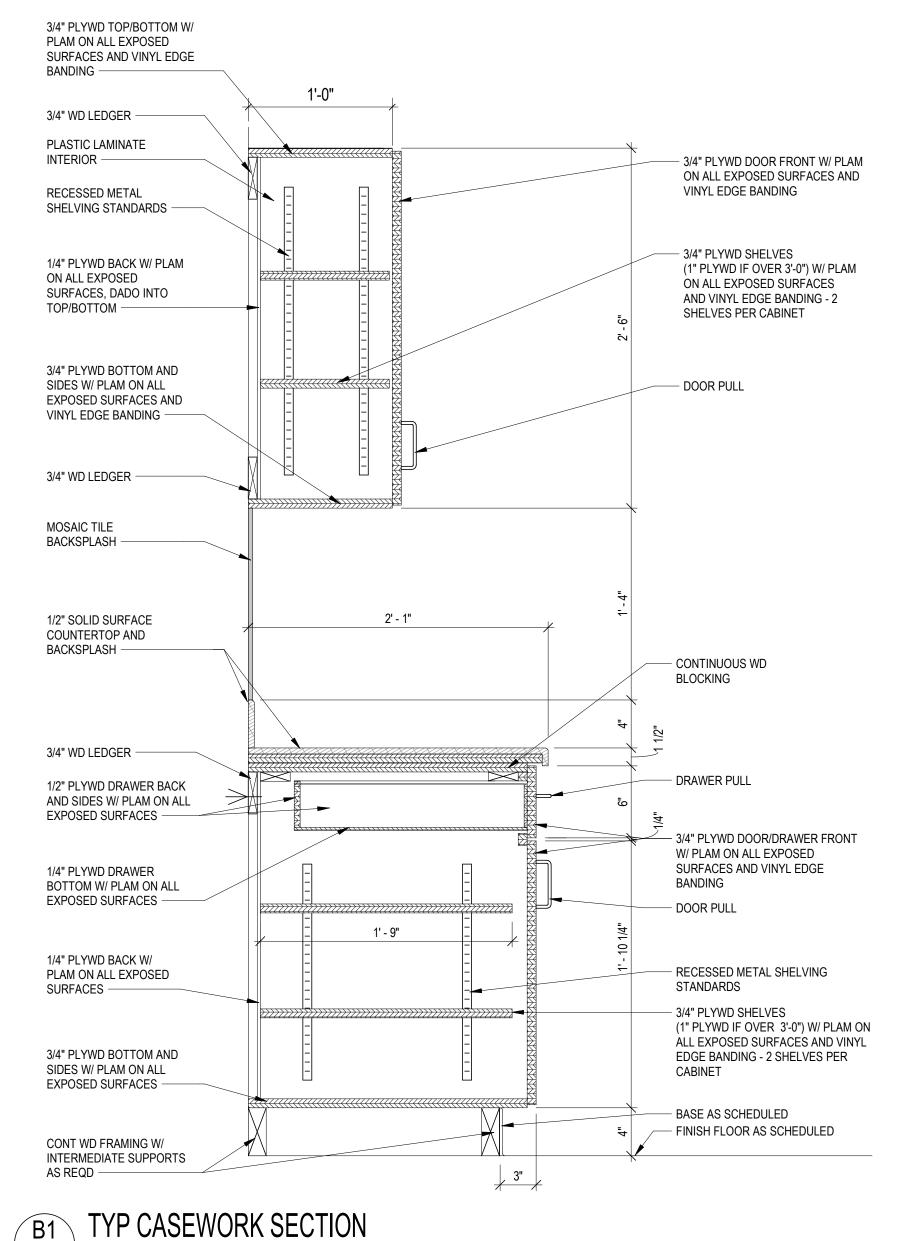
140 N VALLEY ROAD XENIA, OH 45386

10012540 02/20/2023 DATE ISSUED:

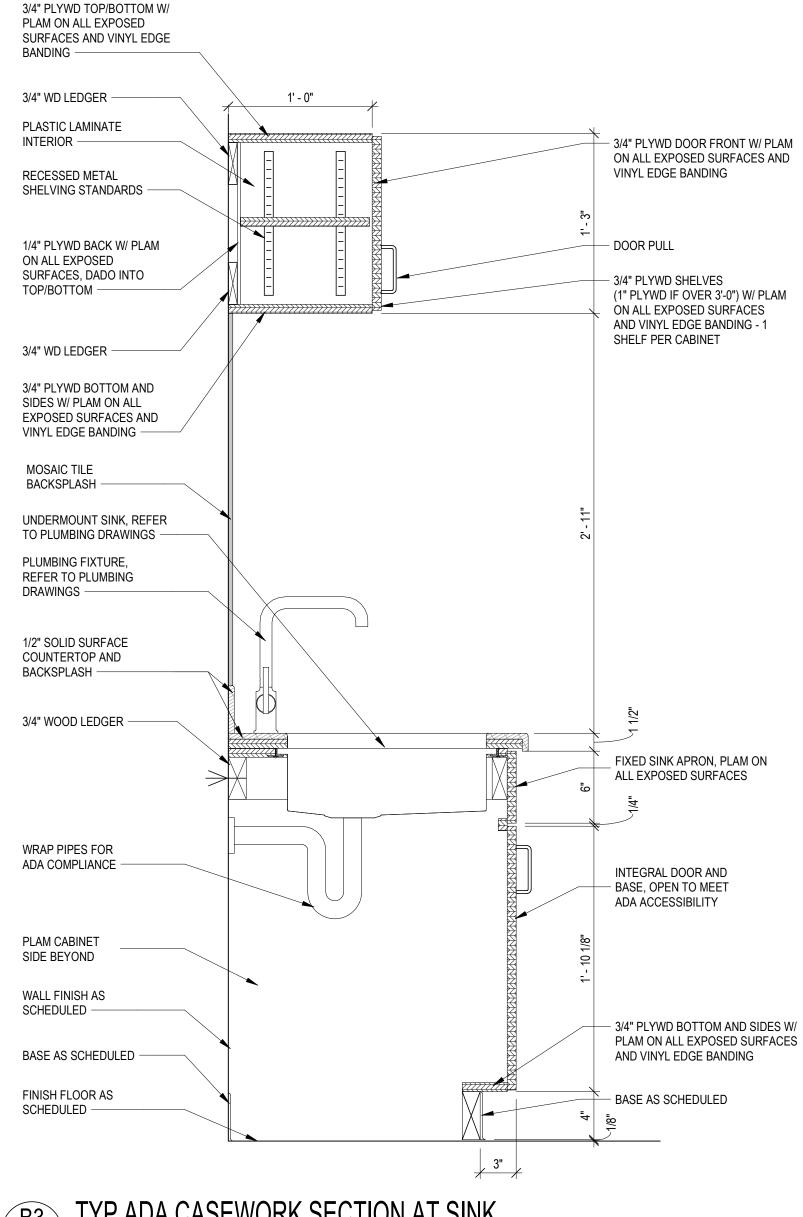
DESIGNED BY: F. HEISTERKAMP DRAWN BY: F. HEISTERKAMP K. BARKER CHECKED BY:

SHEET NAME:

CASEWORK DETAILS



A-401 1 1/2" = 1'-0"



TYP ADA CASEWORK SECTION AT SINK A-401 1 1/2" = 1'-0"

AS REQD -TYP MICROWAVE CUBBY CASEWORK SECTION

1 1/2" = 1'-0"

3/4" PLYWD TOP/BOTTOM W/

SURFACES AND VINYL EDGE

1' - 0"

PLAM ON ALL EXPOSED

BANDING -

3/4" WD LEDGER

PLAM INTERIOR -

RECESSED METAL

ON ALL EXPOSED

TOP/BOTTOM -

3/4" WD LEDGER

SHELVING STANDARDS -

1/4" PLYWD BACK W/ PLAM

SURFACES, DADO INTO

3/4" PLYWD BOTTOM AND

EXPOSED SURFACES AND

SIDES W/ PLAM ON ALL

VINYL EDGE BANDING -

1/2" SOLID SURFACE

COUNTERTOP AND

BACKSPLASH -

3/4" WD LEDGER

PLAM INTERIOR -

ON ALL EXPOSED SURFACES -

DUPLEX RECEPTACLE -

3/4" PLYWD BOTTOM AND

1/2" PLYWD DRAWER BACK

AND SIDES W/ PLAM ON ALL

EXPOSED SURFACES -

1/4" PLYWD DRAWER

EXPOSED SURFACES -

CONT WD FRAMING W/

INTERMEDIATE SUPPORTS

BOTTOM W/ PLAM ON ALL

SIDES W/ PLAM ON ALL

EXPOSED SURFACES -

1/4" PLYWD BACK W/ PLAM

MOSAIC TILE BACKSPLASH -

2' - 1"

MICROWAVE SHELF -

COORDINATE WITH

OWNER ON PRODUCT

SPECIFICATION

DETAILS

GRAPHIC SCALE 0 3" 6" 9" 1'

√A-401

A. REFERENCE THE FINISH SCHEDULE AND LEGEND FOR CASEWORK

B. REFERENCE THE EQUIPMENT SCHEDULE ON SHEET A-701 FOR ALL

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SON

JACK

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INTERIOR RENOVATI

PROJECT NO: DATE ISSUED:

10012540 02/20/2023 DESIGNED BY: F. HEISTERKAMP

DRAWN BY: F. HEISTERKAMP K. BARKER CHECKED BY:

SHEET NAME:

CASEWORK DETAILS

SHEET NO:

GENERAL NOTES: A. REFER TO SPECIFICATIONS FOR DOOR HARDWARE REQUIREMENTS, INCLUDING SUBMITTAL REQUIREMENTS. B. ALL HARDWARE TO BE COORDINATED WITH ELECTRICAL, SECURITY AND ACCESS CONTROL REQUIREMENTS. C. REFER TO FINISH SCHEDULE FOR MORE INFORMATION ON WOOD DOOR FINISH.

D. SMOKE RATED DOORS TO RESIST THE PASSAGE OF SMOKE; SMOKE SEALS NOT REQUIRED. DOORS REQUIRED TO BE SELF-CLOSING AND POSITIVE LATCHING.

E. FIRE RATED DOORS ARE REQUIRED TO BE SELF-CLOSING AND POSITIVE LATCHING.

F. REFER TO SHEET A-702 FOR SILL / FLOOR TRANSITION DETAILS.

- 1. ALUMINUM STOREFRONT ASSEMBLY. HARDWARE AND TYPICAL HEAD, JAMB AND SILL DETAILS SHALL BE PROVIDED BY
- 2. ALL DOOR HARDWARE BY STC ASSEMBLY MANUFACTURER.

DOOR SCHEDULE NOTES

MANUFACTURER.\

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4454 IDEA CENTER BOULEVARD

DAYTON, OH 45430-1500

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SON

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- LEWIS A.

0

TERMINAL RENOVATION INTERIOR

140 N VALLEY ROAD XENIA, OH 45386

10012540 02/20/2023

PROJECT NO:

DATE ISSUED:

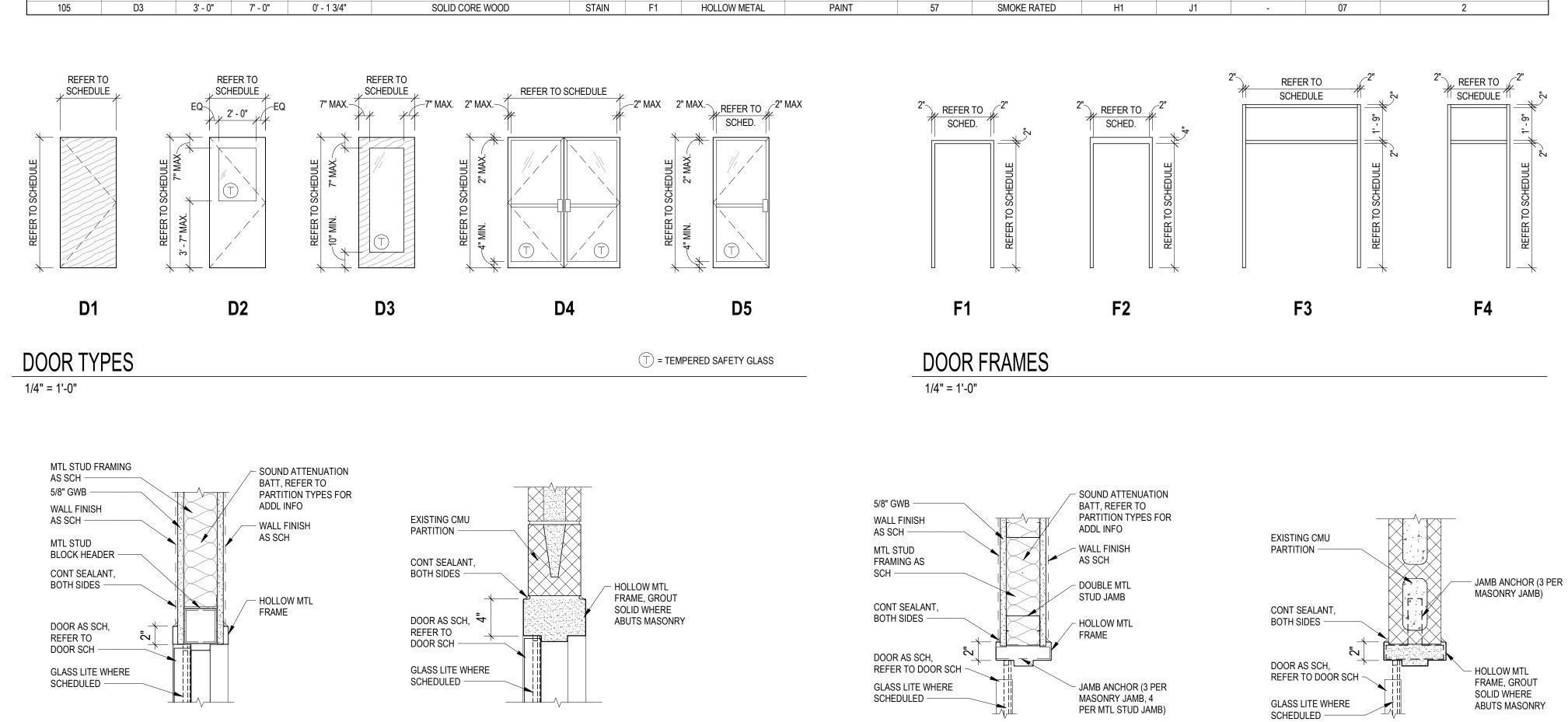
DESIGNED BY: F. HEISTERKAMP DRAWN BY: F. HEISTERKAMP CHECKED BY: J. ELDER

SHEET NAME:

DOOR SCHEDULE, TYPES AND DETAILS

SHEET NO:

A-601



<u>H2</u>

DOOR DETAILS

<u>H1</u>

1 1/2" = 1'-0"

GRAPHIC SCALE

<u>J2</u>

FINISH LEGEND

APC

FINISH

SUEDE

HONED

SOFTGRAIN

EGGSHELL

FLAT

EGGSHELL

SEMI-GLOSS

MATTE

NATURAL SATIN

APC1

APC1

APC1

APC1

APC1

24" X 24" X 3/4"

24" X 24"

24" X 24"

12" X 36"

12" X 36"

18" X 12-3/16" X 5/16" SHEET

6" X 18" X 3/8"

4"H

1" THICK

FIELD VERIFY PRIOR TO ASSEMBLY

PNT1

PT1. PNT1

PT1, PNT1

PNT1

PNT1. PNT3

STYLE / TYPE / COLOR

ULTIMA 1911 15/16" BEVELED TEGULAR / WHITE

ABRASIVE ACTION II 02578 / WINTER GRAY 19103

SQUARE UP 04990 / BALI BLUE 71616

DUR-A-QUARTZ / Q28-24

DUR-A-QUARTZ / INTEGRAL COVE BASE / Q28-24

#545 BLEACHED WOOD

ACROVYN 4000 / .040" THICK / 1472 PUTTY

ARTIFICE / PCAR HONED METAL 10771

ARTIFICE / PCAR PILLAR 10773

PERFIT MOSAIX / CALACATTA DOLOMITI PT31 / MARBLE 2X6 STRAIGHT STACK

5TH AVE ELM 7966K-12 / AEON SCRATCH RESISTANCE

SW 7005 PURE WHITE

SW 7757 HIGH REFLECTIVE WHITE

SW 7602 INDIGO BATIK

SW 7018 DOVETAIL

ARTICULO / EDITORIAL WHITE AR06

BASEWORKS THERMOSET / 29 MOON ROCK

FLXSIGN / BACKER COLOR: 711 ASH / COPY COLOR: 708 SOFT WHITE

ALUMINUM LETTERS - NATURAL SATIN / FONT TYPE: CENTURY GOTHIC

HI-MACS / AURORA GRAY M608

HI-MACS / URBAN CONCRETE G316

STAINLESS STEEL / DIAMOND PATTERN FINISH

VINPRO-S 1/8" VPS 30 ATGB / BRUSHED NICKEL ANODIZED ALUMINUM

VINPRO-T 1" VPTL 3/25 ATGB / BRUSHED NICKEL ANODIZED ALUMINUM

REDUCER 1/8" SSR-XX-B / 29 MOON ROCK

REDUCER 3/8" CRS-XX-B / 29 MOON ROCK

SPECIES: SELECT WHITE MAPLE / STAIN COLOR: RIVERSTONE RI18

JOLLY 5/16" A 80 AT / SATIN NICKEL ANODIZED ALUMINUM

FINISH SCHEDULE NOTES

INSTALLATION

MONOLITHIC

VERTICAL ASHLAR

INSTALL WITH PT1 AND MT1

36" AFF, RAILROADED, INSTALL ABOVE SCHEDULED BASE

INSTALL AS INDICATED ON THE FINISH PLAN

INSTALL AS INDICATED ON THE FINISH PLAN

INSTALL AS INDICATED ON INTERIOR ELEVATIONS

STAGGERED BRICK - JOINT PATTERN. UTILIZE COORDINATING TRIM 12" JOLLY S1/212J FOR TRIM WHERE REQUIRED.

INSTALL NO TOE STYLE ON CARPET TILE AND TOE STYLE ON RESILIENT FLOORING

REFERENCE THE INTERIOR ELEVATIONS FOR DIMENSIONS AND MOUNTING LOCATION

REFERENCE THE FLOOR TRANSITION DETAILS FOR MORE INFO

INSTALL PLUMB AT MT1'S EXPOSED TILE EDGES AT BACKSPLASH.

PROVIDE PLASTIC LAMINATE, PLAM1 CABINETRY AND SOLID SURFACE, SD1 COUNTERTOPS AND BACKSPLASHES. PROVIDE SIDE SPLASHES AS INDICATED IN INTERIOR ELEVATIONS. PROVIDE TOILET PARTITIONS, TP1.

GENERAL NOTES:

A. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD. 3. ALL EXISTING MATERIALS TO REMAIN WHICH ARE DAMAGED OR OTHERWISE DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE PATCHED AND REPAIRED TO MATCH EXISTING ADJACENT MATERIALS SO THAT REPAIR IS IMPERCEPTIBLE

C. ON ALL ARCHITECTURAL SHEETS, ALL MATERIALS NOTED ARE NEW UNLESS SPECIFICALLY NOTED AS EXISTING. ALL MATERIALS NOTED AS EXISTING SHALL REMAIN UNLESS SPECIFICALLY NOTED TO BE REMOVED. SEE DEMOLITION AND NEW WORK NOTES FOR SPECIFIC NOTES.

D. ALL FLOOR FINISH TRANSITIONS SHALL BE CONCEALED BY A CLOSED DOOR.

E. HATCH PATTERNS ON FINISH PLANS ARE REPRESENTATIONAL ONLY TO DISTINGUISH COLOR CHANGES. UNLESS OTHERWISE

I. ALL INTERIOR SIGNAGE TO BE S1.

F. ALL WOOD DOORS TO BE WD1. G. ALL HOLLOW METAL DOORS AND FRAMES TO BE PAINTED, PNT4. H. ALL EXTERIOR WINDOWS TO INCLUDE WINDOW STOOL, SD1.

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- A. ALL SIGNAGE QUANTITIES, TEXT, AND ROOM NUMBERS TO BE VERIFIED BY OWNER AND ARCHITECT PRIOR TO SIGNAGE ORDER PLACEMENT.
- C. INTERIOR SIGNAGE DESCRIPTION U.O.N. ON SIGN ELEVATION:
- b. TEXT FONT TYPE: HELVETICA (ADA-COMPLIANT)
- c. RAISED CHARACTERS: MINIMUM 1/32" RAISED TEXT. HEIGHT
- d. RAISED PICTOGRAMS: MINIMUM 1/32" RAISED SYMBOLS AS SHOWN ON ELEVATIONS.
- g. FOLLOW SIGNAGE MOUNTING HEIGHTS FOR TYPICAL MOUNTING APPLICATIONS. SEE SIGNAGE PLAN AND SIGNAGE SCHEDULE FOR ATYPICAL MOUNTING INFORMATION.

<u>GEN</u>	<u>IERAL</u>	<u>. SIGN</u>	<u>AGE</u>	NO ⁻	<u>ΓES</u>

B. SIGNAGE SHALL COMPLY WITH ADA AND ANSI A117.1 U.O.N.

a. SIGN FACE FINISH: TBD

AS INDICATED ON ELEVATIONS.

e. BRAILLE: GRADE II, SAME COLOR AS SIGN FACE f. MOUNTING METHOD: ADHESIVE TAPE MOUNT.

SON

JACK

- LEWIS A.

GREENE COUNTY - I REGIONAL AIRPORT

TERMINAL

INTERIOR

DESIGNED BY: F. HEISTERKAMP

RENOVATION

10012540 02/20/2023

K. BARKER

140 N VALLEY ROAD XENIA, OH 45386

						EQI	JIPMENT SCHEDULE								
TAG															
CM	COFFEEMAKER	-	Х	X	X	-	TO BE DETERMINED BY OWNER. INFRASTRUCTURE IN PLACE FOR RECOMMENDED PRODUCT: KEURIG COMMERCIAL / K-3500 / FINISH: BLACK AND SILVER / 12.4"W x 19"D x 17.25"H								
MD	MONITOR DISPLAY	-	Х	Х	-	Х	TO BE DETERMINED BY OWNER								
MW	MICROWAVE DRAWER	-	Х	Х	-	-	TO BE DETERMINED BY OWNER								
RF	REFRIGERATOR - UNDERCOUNTER ADA	-	Х	Х	-	-	TO BE DETERMINED BY OWNER. INFRASTRUCTURE IN PLACE FOR ADA HEIGHT SPECIFIC PRODUCT ONLY.								
VM	VENDING MACHINE - EXISTING	-	-	X	-	-	-								

EX-CMU, GWB

EX-GWB, GWB

EX-GWB, GWB

EX-GWB, EX-CMU, GWB

EX-GWB, GWB

EPXB1

EPXB1

EPXB1

MANUFACTURER

ARMSTRONG CEILINGS

TARKETT

TARKETT

DUR-A-FLEX

DUR-A-FLEX

CUSTOM BUILDING PRODUCTS

CONSTRUCTION SPECIALTIES

TARKETT

TARKETT

DALTILE

WILSONART

SHERWIN WILLIAMS

SHERWIN WILLIAMS

SHERWIN WILLIAMS

SHERWIN WILLIAMS

DALTILE

TARKETT

2/90 SIGNS

WOODI AND MANUFACTURING

LX HAUSYS

LX HAUSYS

ASI GLOBAL PARTITIONS

SCHLUTER

SCHLUTER

TARKETT

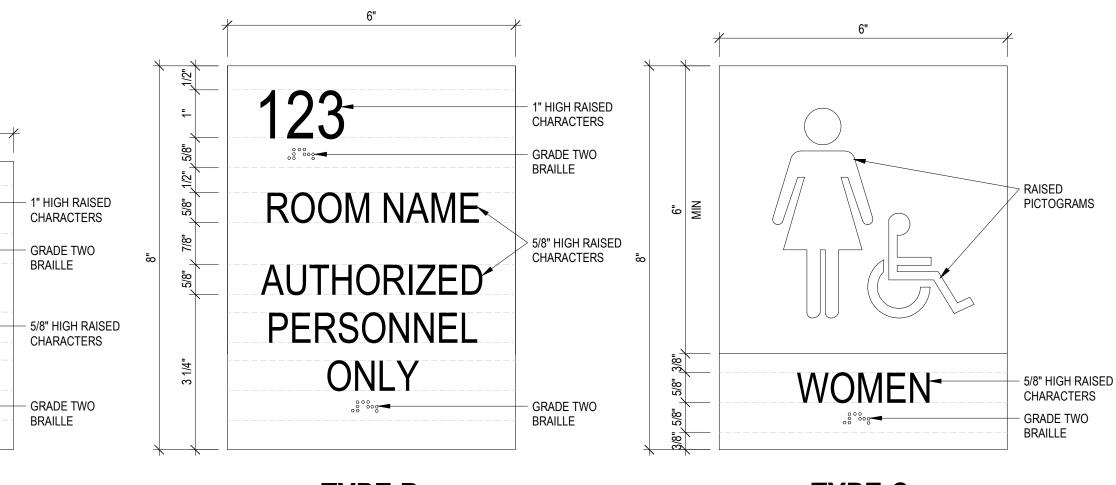
TARKETT

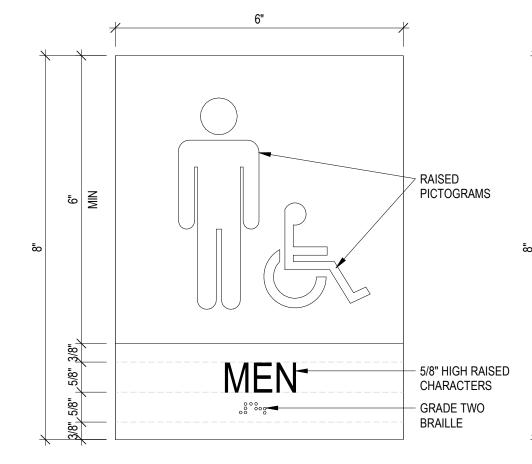
SCHLUTER

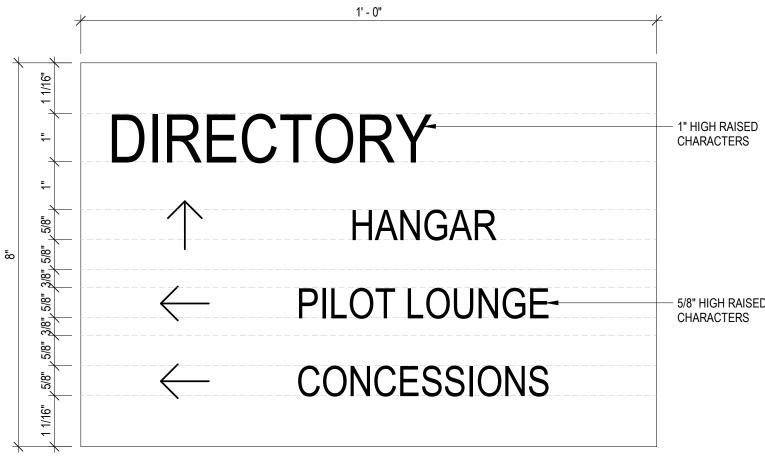
VT INDUSTRIES

RB1

	SIGNAG	E SCHE	DULE
ROOM NUMBER	ROOM NAME	SIGN TYPE	SIGN TEXT
100	LOBBY	E	SEE SIGN TYPICAL FOR TEXT
100C	VEST	A	HANGAR
100C	VEST	A	
101A	STORAGE	A	STORAGE
102	WOMEN TLT	С	WOMEN
103	MEN TLT	D	MEN
104	MECH	В	MECHANICAL AUTHORIZED PERSONNEL ONLY
105	PILOTS LOUNGE	A	PILOT'S LOUNGE







TYPE A TYPE B TYPE C TYPE D **TYPE E**

TYPICAL SIGNAGE (S1 TYPE)

ROOM NAME-

ROOM NAME

ROOM

NAME

MATERIAL

SOLID SURFACE - CASEWORK, WINDOW STOOLS, & RECEPTION DESK

FINISH

LVT1, LVT2, CPT1

CPT1

CPT1

EX CONC

LVT1

LVT1

LVT1

LVT1

EPX1

EPX1

EPX1

CPT2

NUMBER

100D

TAG

CPT2

EPXB1

LVT1

LVT2

VEST

VEST

VEST

PUBLIC KITCHENETTE

PUBLIC CONCESSIONS

RECEPTION

WOMEN TLT

PILOTS LOUNGE

ACOUSTICAL PANEL CEILING

CARPET TILE - WALK OFF

EPOXY FLOORING - BASE

IMPACT RESISTANT PANEL

LUXURY VINYL TILE - FIELD

LUXURY VINYL TILE - ACCENT

PLASTIC LAMINATE - CASEWORK

PAINT - HM DOORS AND FRAMES

SOLID SURFACE - RECEPTION DESK

PORCELAIN TILE - WALL

SIGNAGE - INTERIOR

TOILET PARTITIONS

TRANSITION - FLOOR

TRANSITION - FLOOR

TRANSITION - FLOOR

TRANSITION - FLOOR

TRANSITION - WALL

WOOD DOOR

SIGNAGE - DIMENSIONAL

MOSAIC TILE - CASEWORK BACKSPLASH

CARPET TILE

PAINT - FIELD

PAINT - CEILING

PAINT - ACCENT

RUBBER BASE

GROUT

EPOXY FLOORING

STORAGE

MEN TLT

MECH

GRAPHIC SCALE

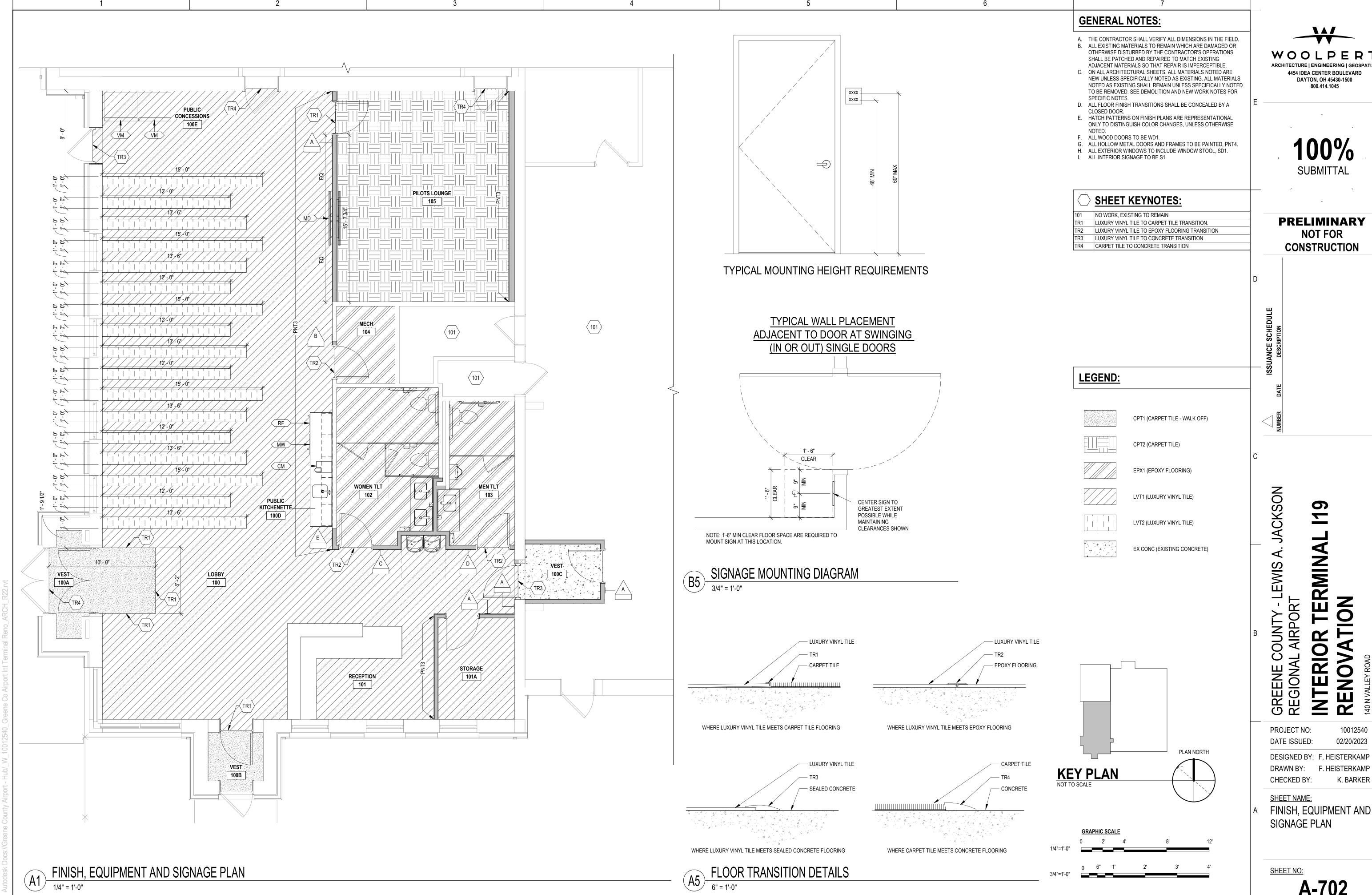
SHEET NAME: FINISH, EQUIPMENT AND SIGNAGE SCHEDULE

PROJECT NO:

DATE ISSUED:

CHECKED BY:

SHEET NO:



WOOLPERT 4454 IDEA CENTER BOULEVARD

PRELIMINARY NOT FOR CONSTRUCTION

> RENOV, 140 N VALLEY ROAE XENIA, OH 45386

XFMR TRANSFORMER

Ø PHASE

GENERAL NOTES:

1. INSTALL ELECTRICAL SYSTEM IN ACCORDANCE WITH ALL STATE CODES, LOCAL CODES AND THE LATEST LOCALLY ADOPTED N.E.C. AND ITS APPENDICES, UNLESS OTHERWISE DIRECTED SPECIFICALLY BY THESE PLANS.

- 2. FOR CLARITY, ONLY EXISTING LIGHT FIXTURES, SWITCHES, RECEPTACLES, ETC. ARE SHOWN WHICH ARE PERTINENT TO THIS WORK.
- 3. FOR CLARITY, THE QUANTITY OF BRANCH CIRCUIT CONDUCTORS ARE NOT SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL BRANCH CIRCUITRY. RECORD AS-BUILT CIRCUIT PATHS AND PRESENT DRAWINGS FOR ENGINEER VERIFICATION WHEN REQUESTED BY ENGINEER.
- 4. EXISTING CIRCUITS WITH NEW OR REVISED LOADS SHALL HAVE THE CIRCUIT DIRECTORY UPDATED TO REFLECT NEW LOAD.
- 5. REFER TO ARCHITECTURAL SHEETS FOR ALL FIRE-RATED PARTITION LOCATIONS AND RATINGS.
- 6. CONTRACTOR SHALL PROVIDE ALL FIRESTOPPING FOR CONDUIT OR CABLE TRAY PENETRATIONS THAT PENETRATE ACOUSTICAL RATED OR SMOKE AND FIRE RATED ASSEMBLIES. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL RATED ASSEMBLIES. ALL RATED PENETRATIONS SHALL BE FIRESTOPPED TO ORIGINAL ASSEMBLY RATING. ALL NON-RATED FLOOR PENETRATIONS SHALL BE SEALED WATER TIGHT WITH A FLEXIBLE SEALANT.
- OPENINGS IN NEW WALLS AND FLOORS SHALL BE PLANNED AND COORDINATED WITH GENERAL CONTRACTOR FOR THE INSTALLATION OF APPROPRIATE SLEEVES. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL CORE-DRILLS REQUIRED FOR INSTALLATION OF ELECTRICAL WORK.
- 8. PRIOR TO CORE DRILLING OR DESTRUCTIVE REMOVAL OF EXISTING FLOOR AREAS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATION WITH OWNER AND ELECTRONICALLY SCAN FLOOR FOR EXISTING CIRCUITRY, PIPING, ETC, WHICH MAY BE ENCOUNTERED AND BRING POTENTIAL CONFLICTS TO THE ATTENTION OF THE ENGINEER WHERE IN CONFLICT WITH ELECTRICAL INSTALLATION.
- 9. VERIFY AND COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF ALL DEVICES MOUNTED IN CASEWORK OR ABOVE COUNTERS WITH SPECIFIC EQUIPMENT FURNISHED. CONTRACTOR SHALL COORDINATE EXACT HEIGHT OF DEVICES DESIGNED AS OVER COUNTER WITH CASE WORK AND FURNITURE DRAWINGS. ROUTING OF CIRCUITRY INSTALLED IN CASEWORK, CABINETRIES, ETC. SHALL BE COORDINATED FOR PROPER CONCEALMENT AND FUNCTION OF CASEWORK, CABINETRIES, ETC.
- 10. VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION, TRENCHING OR DRILLING.
- 11. ON ALL ELECTRICAL TRENCHING THE ELECTRICAL CONTRACTOR SHALL REVISIT SITE IN 6 MONTHS AND CHECK TRENCHES FOR SETTLEMENT. ADDITIONAL BACKFILL AND RE-SEEDING SHALL BE DONE FOR PROPER GRADE LEVELING. THE ELECTRICAL CONTRACTOR SHALL BEAR
- 12. IN THE SPACE ABOVE THE CEILING USED AS A RETURN AIR PLENUM, THE ELECTRICAL CONTRACTOR SHALL INSURE THAT ALL ELECTRICAL WIRING, CABLES, BUSHINGS AND CABLE TIES ARE PLENUM RATED.
- 13. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL ACCESS PANELS REQUIRED FOR ELECTRICAL WORK.
- 14. CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING AS REQUIRED FOR HIS WORK. OPENINGS IN WALLS, FLOORS AND CEILINGS SHALL BE FILLED IN, PATCHED, PAINTED AND FINISHED IN A MANNER TO MATCH THE QUALITY OF THE EXISTING AREA.
- 15. ALL EXPOSED METAL CONDUITS ARE TO BE PAINTED TO MATCH THE ADJACENT SURFACE. PAINTING OF CONDUIT IS TO BE BY THE ELECTRICAL CONTRACTOR.
- 16. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL REQUIRED JUNCTION BOXES, PULL BOXES, ETC. FOR A COMPLETE INSTALLATION PER THE N.E.C. AND LOCAL CODES.
- 17. ALL CONDUCTORS AND EQUIPMENT LUGS SHALL BE RATED FOR 75 DEGREE CELSIUS MINIMUM.
- 18. ALL ITEMS INCLUDED ON THESE DRAWINGS AND THE SPECIFICATIONS SHALL BE INCLUDED IN THE CONTRACTORS BID. ANY ITEMS THAT ARE UNCLEAR OR FOUND TO BE INCORRECT BY THE CONTRACTOR SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER AT LEAST 7 CALENDAR DAYS PRIOR TO THE BID DUE DATE.
- 19. COORDINATE WORK WITH OTHER TRADES. COORDINATION OR SCHEDULING SHALL BE THE RESPONSIBILITY OF THE INVOLVED CONTRACTORS.
- 20. ALL CIRCUIT DIRECTORIES SHALL BE COORDINATED WITH OWNER FOR CORRECT CALL-OUT OF ROOM NUMBERS/ROOM NAMES.
- 21. IN AREAS WHERE SYSTEM CABLING GOES THROUGH CMU WALLS THE ELECTRICAL CONTRACTOR SHALL PROVIDE 3/4" CONDUIT STUB (MINIMUM) FOR ROUTING OF CABLES. ELECTRICAL CONTRACTOR TO SEAL AROUND CONDUIT OPENING.

LIGHTING & POWER NOTES:

- 1. LIGHT FIXTURES DESIGNATED AS "NIGHT LIGHTS" SHALL BE ON UNSWITCHED CIRCUIT, UNLESS
- LIGHT FIXTURES DESIGNATED AS "EMERGENCY LIGHTS" SHALL BE SWITCHED AND PROVIDED WITH EMERGENCY DRIVER ON UNSWITCHED CIRCUIT (SAME CIRCUIT AS SWITCH LEG), UNLESS
- . EXIT LIGHTS SHALL BE ON UNSWITCHED CIRCUIT, UNLESS NOTED.
- . ALL RECESSED DOWNLIGHTS MOUNTED IN GRID CEILING SHALL BE CENTERED IN CEILING TILE, UNLESS NOTED.
- VERIFY CEILING TYPES PER THE ARCHITECTURAL REFLECTED CEILING PLAN. PROVIDE APPROPRIATE TYPE FIXTURE, LAY-IN FOR GRID, FLANGE FOR DRYWALL, ETC.
- . IN ALL MECHANICAL ROOMS COORDINATE EXACT LOCATION OF LIGHT FIXTURES WITH HVAC AND PLUMBING EQUIPMENT AND HVAC DUCTWORK.
- CONDUCTORS FOR BRANCH CIRCUITRY ARE #12 AWG MINIMUM, UNLESS NOTED.
- 8. ALL HOMERUN CONDUCTORS BACK TO PANEL SHALL BE #10 AWG MINIMUM, UNLESS NOTED.
- ALL WIRING SHALL BE INSTALLED IN 3/4" CONDUIT, MINIMUM, UNLESS NOTED OTHERWISE. CONDUIT SHALL BE CONCEALED IN CEILING OR WALLS WHEREVER POSSIBLE.
- ALL UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC, UNLESS NOTED OTHERWISE. UNDERGROUND PVC CONDUITS SHALL HAVE RIGID GALVANIZED STEEL ELBOWS.
- 1. ALL SWITCHES AND RECEPTACLES DESIGNATED TO BE RELOCATED SHALL BE PROVIDED WITH NEW DEVICE AND COVER PLATE.
- 12. PROVIDE A GREEN GROUND CONDUCTOR IN ALL BRANCH CIRCUITRY. REFER TO SPECS FOR OTHER GROUNDING CONDUCTOR TYPES. GROUNDING BY MEANS OF RACEWAY SHALL NOT BE
- 13. PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR ALL SINGLE POLE CIRCUITS. SHARING OF NEUTRALS SHALL NOT BE PERMITTED.
- 14. ALL CONDUIT DROPS FOR PLENUM RATED CABLES SHALL BE PROVIDED WITH A CONDUIT BUSHING ABOVE THE CEILING.
- 15. WHERE TERMINATED IN A J-BOX, ALL SPARE CIRCUITRY SHALL BE LABELED WITH PANEL AND CIRCUIT NUMBER.
- COORDINATE ELECTRICAL REQUIREMENTS FOR NEW OR RENOVATED WORK WITH THE PLUMBING AND MECHANICAL CONTRACTORS. VERIFY VOLTAGE, PHASE AND ACCESSORY REQUIREMENTS, SUCH AS MOTOR STARTERS AND DISCONNECTS. PROVIDE ALL NECESSARY AUXILIARY CONTACTS, RELAY, ETC. IN MOTOR STARTERS FOR REQUIRED CONTROL OF MECHANICAL EQUIPMENT.
- WHEN A DEVICE IS REMOVED AND RE-INSTALLED, DEVICE SHALL BE CLEANED BEFORE RE-INSTALLATION.
- 18. ALL LIGHT FIXTURES ARE TO BE SUPPORTED BY SUPPORT WIRES DIRECTLY FROM STRUCTURE ABOVE AND NOT FROM CEILING GRID SUPPORTS. CONDUIT AND CIRCUITRY TO BE SUPPORTED INDEPENDENTLY AND NOT FROM LIGHT FIXTURE SUPPORT WIRES.
- 19. DO NOT SUPPORT CONDUIT OFF OF CEILING GRID, CEILING GRID SUPPORTS, MECHANICAL SUPPORTS, OR ANY OTHER TRADE'S SUPPORTS. INSTALL CONDUITS AND BOXES ON SEPARATE SUPPORTS FROM BAR JOIST OR STRUCTURE.
- 20. DO NOT SUPPORT ELECTRICAL EQUIPMENT AND DEVICES FROM METAL ROOF DECK. PROVIDE SUPPORT FROM CONCRETE SLABS, BAR JOISTS, STRUCTURAL BEAMS, COLUMNS OR UNISTRUT BETWEEN STRUCTURAL ELEMENTS.
- 1. ALL GFCI TYPE RECEPTACLES TO BE INSTALLED AS SEPARATELY CONNECTED RECEPTACLES. FEED-THROUGH OR GFI TYPE BREAKERS NOT ALLOWED UNLESS NOTED OTHERWISE.
- 22. ALL RECEPTACLES OR J-BOX LOCATIONS FOR POWER TO ELECTRIC WATER COOLERS SHALL BE COORDINATED WITH THE INSTALLATION LOCATIONS OF THE ELECTRIC WATER COOLERS, UNLESS NOTED. ALL CIRCUITS FOR WATER COOLERS ARE TO BE GFCI PROTECTED.
- 23. ALL DASHED CIRCUITRY IS ROUTED BELOW FLOOR SLAB OR BELOW GRADE UNLESS NOTED
- 24. FIXTURE WHIPS (HEAT LOOPS) (#18 GA. WITH GROUND IN FLEXIBLE CONDUIT OR MC CABLE EXTENDED FROM HARD-PIPED JUNCTION BOXES) MAY BE USED FOR A FEED TO A SINGLE LIGHT FIXTURE UNIT ONLY. FIXTURE WHIPS FEEDING MULTIPLE LIGHT FIXTURES MAY NOT BE USED.

DEVICE MOUNTING HEIGHT (TO TOP OF DEVICE):

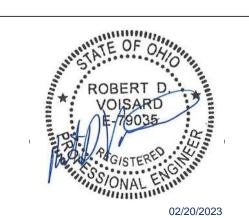
COORDINATE MOUNTING HEIGHTS WITH ARCHITECTURAL PLANS AND ELEVATIONS.

- RECEPTACLES MOUNTED AT 20" AFF, UNLESS NOTED.
- SWITCHES MOUNTED AT 48" AFF, UNLESS NOTED.
- TELECOM OUTLETS MOUNTED AT 20" AFF, UNLESS NOTED.
- "C" DEVICES TO BE MOUNTED ABOVE COUNTER AND BACKSPLASH. COORDINATE WITH ARCHITECTURAL DRAWINGS AND APPROVED SHOP DRAWINGS FOR CASEWORK.
- 5. "TV" DEVICES TO BE MOUNTED AT 68" AFF. COORDINATE WITH ARCHITECTURAL DRAWINGS.

DEMOLITION NOTES:

- 1. THE DEMOLITION DRAWINGS ARE DERIVED FROM FIELD OBSERVATIONS AND EXISTING DRAWINGS. NOT ALL DEVICES ARE SHOWN. SOME WERE HIDDEN DURING SITE INVESTIGATIONS. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ELECTRICAL DEMOLITION WORK REQUIRED FOR THE INSTALLATION OF NEW ELECTRICAL WORK AND WORK REQUIRED BY OTHER TRADES.
- THE ELECTRICAL CONTRACTOR SHALL NOTE ANY EXISTING DAMAGE ON CEILING TILES, LIGHT FIXTURES, WALLS, FLOORS, FURNITURE, PAVING, ETC. PRIOR TO THE START OF ANY WORK. THE CONTRACTOR SHALL PHOTOGRAPH THESE ITEMS AND SUBMIT THEM TO THE ENGINEER BEFORE BEGINNING WORK.
- 3. ALL EXISTING CEILING TILES TO REMAIN WHICH ARE DAMAGED BY THIS CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED WITH NEW CEILING TILES (MATCHING EXISTING) AT THIS CONTRACTOR'S EXPENSE.
- 4. ALL LIGHT FIXTURES, RECEPTACLES, TELECOMMUNICATION DEVICES, ETC. TO BE REMOVED SHALL HAVE OPENINGS PATCHED TO MATCH EXISTING CONDITIONS. NOTE THAT SOME LOCATIONS MAY BE ABLE TO BE REUSED. ALL CUTTING AND PATCHING OF ELECTRICAL WORK SHALL BE BY THE ELECTRICAL CONTRACTOR.
- 5. ALL DEMO'D CIRCUITS WITH NO REMAINING LOAD SHALL BE RE-LABELED "SPARE" IN EXISTING
- 6. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR MOVING AND PROTECTING ALL OWNER OWNED FURNITURE, EQUIPMENT ETC. AS REQUIRED TO PERFORM THE WORK OF THIS PROJECT.
- THE ELECTRICAL CONTRACTOR SHALL DISPOSE OF ALL DEMOLISHED EQUIPMENT EXCEPT WHERE NOTED OTHERWISE.
- 8. WHEN A DEVICE IS REMOVED THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL REQUIRED CIRCUITRY TO MAINTAIN CONTINUITY OF ALL DOWNSTREAM DEVICES TO REMAIN.
- 9. ALL ITEMS TO BE REMOVED SHALL BE DISPOSED OF PROPERLY OFFSITE OR TURNED OVER TO THE OWNER AT THE OWNER'S DISCRETION.

4454 IDEA CENTER BOULEVARD



DAYTON, OH 45430-1500

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R. VOISARD

R. VOISARD

PROJECT NO: 10012540 02/20/2023 DATE ISSUED:

DESIGNED BY: DRAWN BY: CHECKED BY:

P. DIETERLEN

SHEET NAME:

ELECTRICAL LEGENDS

COMPLIANCE WITH CODES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE MOST RECENTLY ADOPTED NATIONAL ELECTRIC CODE, INTERNATIONAL BUILDING CODE, NFPA 72, 99, AND 101, OHSA REQUIREMENTS, AND ALL REGULATIONS LAWS, AND ORDINANCES WHICH MAY BE APPLICABLE. ALL ELECTRICAL MATERIAL SHALL BE LISTED BY UL (UNDERWRITER'S LABRATORIES, INC.).

PERMITS, LICENSES, AND INSPECTION FEES

1. THE ELECTRICAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITES, LICENSES, AND INSPECTION FEES REQUIRED FOR THE ELECTRICAL INSTALLATION SHOWN ON THE DRAWINGS

<u>GUARANTEE</u>

1. THE ELECTRICAL CONTRACTOR SHALL GUARANTEE THE ENTIRE ELECTRICAL SYSTEM FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPATANCE BY OWNER AND SHALL MAKE ALL REQUIRED REPAIRS AND REPLACEMENTS AND RENDER FREE SERVICES, LABOR AND MATERIALS DURING THE GUARANTEE PERIOD.

ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER AND SHALL FIT THE SPACE PROVIDED.

COORDINATION

- CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES AS REQUIRED TO PROVIDE THE BEST OVERALL SYSTEMS INSTALLATION
- 2. IN CASE OF CONFLICT, THE PROJECT COORDINATOR SHALL DECIDE THE PROPER LOCATION OR ARRANGEMENT, AND ANY COSTS IN REVISIONS OR RELOCATING EQUIPMENT OR MATERIAL SHALL BE AT THE EXPENSE OF THE CONTRACTOR RESPONSIBLE FOR THE WORK.

SEISMIC MOUNTING

- THE ENTIRE INSTALLATION OF THIS PROJECT SHALL CONFORM TO CODES LISTED ABOVE.
- SUSPENDED RECTANGULAR UNITS OF EQUIPMENT SHALL BE PROVIDED WITH A MINIMUM OF ONE SWAY BRACE AT EACH CORNER.
- 3. SUSPENDED RUNS OF CONDUIT AND BUSDUCT SHALL BE PROVIDED WITH TRANSVERSE AND LONGITUDINAL SWAY BRACING MEETING THE SPACING LIMITATIONS. PROVIDE A TRANSVERSE AND LONGITUDINAL SWAY BRACE AT THE BEGINNING AND END OF EACH CONTINOUS RUN GREATER THAN 12' AD WITHIN 24" OF ONE END OF EACH HORIZONTAL OFFSET OF 45 DEGREES OR MORE AND
- WITHIN 24" OF THE TOP AND BOTTOM OF EACH VERITCAL OFFSET. 4. LATERAL/TRANSVERSE SWAY BRACES SHALL BE INSTALLED WITIN 24" OF EVERY OTHER FLEXIBLE COUPLING NOT REQURIED FOR FLEXIBILITY DUE TO DIFFERENTIAL MOVEMENT OF CONDUIT.
- LATERAL/TRANSVERSE SWAY BRACES SHALL BE INSTALLED AT THE END OF EACH RUN OF CONDUIT, ETC. 6' OR LONGER.
- 6. MAXIMUM SPACING OF TRANSVERSE AND LONGITUDINAL SWAY BRACING:
 - SINGLE HANGER SUPPORTED RUNS OF EMT CONDUIT LESS THAN 2-1/2"
 - TRANSVERSE SWAY BRACING: MAX. SPACING 15'
 - LONGITUDINAL SWAY BRACING: MAX. SPACING 80'
 - SINGLE HANGER SUPPORTED RUNS OF EMT CONDUIT 2-1/2" AND LARGER
 - TRANSVERSE SWAY BRACING: MAX. SPACING 20' LONGITUDINAL SWAY BRACING: MAX. SPACING 40'
- 7. FIXTURE IN SUSPENDED CEILING OVER 144 SQ FT A. FIXTURES UP TO 56 LBS REQUIRE TWO SUPPORT WIRES AND MUST BE POSITIVELY ATTACHED TO CEILING FRAMING MEMBERS.
- B. FIXTURES SUCH AS RECESSED CANS, EXIT SIGNS, OR SIMILIAR SMALL LIGHTWEIGHT FIXTURES REQUIRE ONE SUPPORT WIRE AND MUST BE POSITIVELY ATTACHED TO CEILING FRAMING
- C. THE FIXTURE SUPPORT WIRE MAY BE USED TO ATTACH THE BRANCH CIRCUIT WIRING FOR THE FIXTURE.
- D. FIXTURES OVER 56 LBS NEED INDEPENDENT SUPPORT.

QUALITY ASSURANCE STANDARDS

- 1. COMPATIBILITY: PROVIDE PRODUCTS WHICH ARE COMPATIBLE WITH OTHER PRODUCTS OF THE ELECTRICAL WORK, AND WITH OTHER WORK REQUIRING INTERFACE WITH THE ELECTRCIAL WORK, INCLUDING ELECTRICAL CONNECTIONS AND CONTROL DEVICES. FOR EXPOSED ELECTRICAL WORK, COORDINATE COLORS AND FINISHED WITH OTHER WORK. DETERMINE IN ADVANCE OF PURCHASE THAT EQUIPMENT AND MATERIAL PROPOSED FOR INSTALLATION WILL FIT INTO THE CONFINES INDICATED, LEAVING ADEQUATE CLEARANCE AS REQUIRED BY APPLICABLE CODES, AND FOR ADJUSTMENT, REPAIR, OR REPLACEMENT.
- 2. ALL EQUIPMENT FURNISHED BY THE ELCTRICAL CONTRACTOR SHALL BE NEW AND HSALL BE OF THE LATEST, STANDARD CATALOG PRODUCTS. WHERE TWO OR MORE ITEMS OS THE SAME KIND ARE REQUIRED, THEY SHALL BE THE PRODUCT OF THE SAME MANUFACTURER.
- 3. THE WORK SHALL MEE THE STANDARDS SET FORTH IN THE APPLICABLE PORTIONS OF THE FOLLOWING RECOGNIZED CODES AND STANDARDS:
- ASSOCIATION OF EDISON ILLUMINATING COMPANIES (AEIC)
- CERTIFIED BALLAST MANUFACTURERS (CBM)
- FACTORY MUTUAL (FM) INSULATED CABLE ENGINEERING ASSOCIATION (ICEA)
- NATIONAL ELECTRIC CODE 2017 (NEC 2017)
- NATIONAL ELECTRICAL CONTRACTOR'S ASSOCIATION (NECA)
- NATIONAL ELECTRICAL MANUFACTURERS' ASSOCIATION (NEMA) H. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
- I. UNDERWRITERS' LABRATORIES, INC. (UL)

START-UP AND TESTING

1. THE ELECTRICAL SYSTEM SHALL BE TESTED AND FOUND FREE OF DEFECTS (PRIOR TO UNATTENDED OPERATION) UPON COMPLETION OF THE INSTALLATION.

SHOP DRAWINGS

- 1. SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO RELEASE OF ORDER FOR THE FOLLOWING:
- B. WIRING DEVICES C. LIGHTING CONTROLS
- D. SAFETY AND DISCONNECT SWITCHES
- E. PANELBOARDS

MAINTENANCE MANUALS

1. SUBMIT TWO COPIES, INCLUDING WIRING DIAGRAMS, MAINTENANCE AND OPERATING INSTRUCTIONS, PARTS LISTING, AND COPIES OF ALL OTHER SUBMITTALS REQURED BY THE DIVISION. ORGANIZE EACH MAINTENANCE MANUAL WITH TABLE OF CONTENTS, INDEX, AND THUMB-TAB MARKED FOR EACH SECTION OF INFORMATION. DING IN 2", 3-RING BINDERS, VINYL COVERED, WITH POCKETS TO CONTAIN FOLDED SHEETS. PROPERLY LABEL CONTENTS ON SPINE AND FACE OF BINDER.

CUTTING AND PATCHING

1. ALL CUTTING THAT MAY BE NECESSARY FOR THE INSTALLATION OF THE WORK AND ANY REQUIRED PATCHING THAT RESULTS THEREFROM SHALL BE DONE BY THE PROPER TRADE INVOLVED AND SHALL BE INCLUDED AS PART OF THE ELECTRICAL CONTRACTOR'S WORK. COLUMNS, BEAMS, GIRDERS, OR JOISTS SHALL NOT BE CUT.

GENERAL

- 1. THE ELECTRICAL CONTRACTOR SHALL PROVIDE TEMPORARY CONSTRUCTION LIGHTING.
- THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE OF WORK PRIOR TO SUBMITTING A PROPOSAL AND SHALL FULLY ACQUAINT HIMSELF WITH ALL CONDITIONS AT THE SITE.
- 3. THE ELECTRICAL CONTRACTOR SHALL PROVIDE NEW PANELBOARD CIRCUIT DIRECTORIES TO REFLECT ALL CHANGES MADE TO BRANCH CIRCUITS.

<u>RACEWAYS</u>

- 1. THE WIRING OF ELECTRICAL SYSTEMS SHALL BE MECHANICALLY PROTECTED. ALL FEEDERS SHALL BE ROUTED IN EMT. EXTERIOR CONDUIT SHALL BE GRS.
- 2. MC CABLE SHALL BE USED FOR BRANCH CIRCUITS IN EXISTING WALLS AND CEILINGS, SIX FOOT WHIP CONECTS FROM J-BOX TO LUMINAIRE AND FOR FLEXIBLE CONNECTION TO EQUIPMENT.
- 3. MC CABLE SHALL BE USED FOR A NORMAL BRANCH WIRING FOR LIGHT FIXTURES THAT ARE 7'-6" A.F.F 4. ALL CONDUITS SHALL BE INSTALLED IN A FIRST CLASS MANNER, RUN PARALLEL OR AT RIGHT ANGLES TO WALLS, BEAMS, OR COLUMS. NO "SHORT-CUT" DIAGONAL METHOD WILL BE ALLOWED. PROVIDE
- EXPANSION FITTINGS WHERE CONDUITS PASS THROUGH STRUCTURAL EXPANSION JOINTS.
- MINIMUM CONDUIT SIZE SHALL BE 3/4".

OUTLET BOXES, PULL BOXES, AND CONDUIT FITTINGS

- 1. PROVIDE OUTLET BOXES, PULL BOXES, AND CONDUIT FITTINGS EQUAL TO THE APPLETON ELECTRIC COMPANY MODELS LISTED BELOW. STEEL CITY, NATIONAL AND RACO ARE ALSO ACCEPTABLE A. LIGHTING BOXES (CONCEALED) - #40-3/4
 - B. LIGHTING BOXES (CONCRETE) #OCR SERIES
- C. LIGHTING BOXES (EXPOSED) #4S-3/4 OR 4O-3/4
- 2. SWITCH, RECEPTACLES, TELE/DATA, AND JUNCTION BOXES (FLUSH) #4SD-3/4 OR #255 WHERE SEPERATE EXTENSION OR PLASTER RING CANNOT BE UTILIZED.

PROVIDE SOLID COPPER CONDUCTORS TYPE THHN (90°C DRY), OR TWN (75°C WET OR DRY) FOR ALL CONDUCTORS NO. 10 AWG AND SMALLER. MINIMUM SIZE SHALL BE 12 AWG UNLESS OTHERWISE NOTED. 2. PROVIDE STRANDED COPPER CONDUCTORS TYPE RHW, THW, THWN (75°C WET OR DRY), OR THHN (90°C DRY) FOR ALL CONDUCTORS NO. 8 AWG OR LARGER.

WIRING DEVICES

- WIRING DEVICES (SWITCHES AND RECEPTACLES) SHALL BE UL LISTED. ALL WIRING DEVICES SHALL BE SPECIFICATION GRADE, RATED 20 AMPS. COLORS SHALL BE DETERMINED BY ARCHITECT.
- 2. ALL 120V RECEPTACLES ARE TO BE TAMPER RESISTANT.

ELECTRICAL SYSTEM IDENTIFICATION

- 1. CABLE/CONDUCTOR IDENTIFICATION: COORDINATE A UNIFORM AND CONSISTENT SCHEME OF COLOR IDENTIFICATION THROUGHOUT THE BUILDING SYSTEM. IDENTIFICATION SHALL BE BY THE PERMANENT COLOR OF THE SELECTED COVERING. ON LARGE CONDUCTORS, SECURE IDENTIFICATION BY MEANS OF PAINTED COLOR BONDING OR PLASTIC TAPE. COLOR SCHEME SHALL BE AS FOLLOWS:
- A. 120/240 VOLT
- a. PHASE A: BLACK
- b. PHASE B: RED
- c. NEUTRAL: WHITE
- d. GROUND: GREEN
- 2. IDENTIFICATION OF EQUIPMENT: A. ALL MAJOR EQUIPMENT SHALL HAVE A MNUFACTURER'S LABEL IDENTIFYING THE MANUFACTURER'S ADDRESS EQUIPMENT MODEL AND SERIAL NUMBER, EQUIPMENT SIZE, AND OTHER PERTINENT DATA. CARE SHALL BE TAKEN NOT TO OBLITERATE THIS NAMEPLATE IN ANY WAY.
- B. A BLACK-WHITE LAMINATED PLASTIC ENGRAVED IDENTIFYING NAMEPLATE SHALL BE SECURED BY SCREW TO EACH PANELBOARD, AND INDIVIDUAL MOTOR STARTER OR DISCONNECT SWITCH. IDENTIFYING NAMEPLATES SHALL HAVE 1/2" HIGH ENGRAVED LETTERS. EACH SWITCHBOARD, DISTRIBUTION PANEL, AND MOTOR CONTROL CENTER DEVICES SHALL HAVE A NAMEPLATE SHOWING THE LOAD SERVED IN 1/4" HIGH ENGRAVED LETTERS.
- C. CARDHOLDERS AND DIRECTORY CARDS SHALL BE FURNISHED FOR CIRCUIT IDENTIFICATION IN PANELBOAR. CARDHOLDERS SHALL BE LOCATED ON INSIDE OF PANEL DOOR AND SHALL BE IN A METAL FRAME
- WITH CLEAR PLASTIC FRONT. CIRCUIT LISTS SHALL BE TYPEWRITTEN. CIRCUIT DESCRIPTION SHALL INCLUDE THE NAME OR EACH ITEM OF EQUIPMENT SERVED. D. RECEPTACLES SHALL HAVE THE PANEL AND CIRCUIT NUMBER LOCATION ON BACK SIDE OF COVER PLATE.

<u>GROUNDING</u>

1. GROUNDING SHALL MEET CRITERIA SET FORTH IN SECTION 250-50 OF THE NATIONAL ELECTRIC CODE.

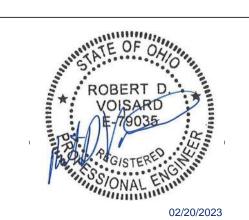
SAFETY SWITCHES

- 1. PROVIDE SAFETY SWITCHES THAT ARE SINGLE-THROW WITH NON-TEASIBLE POSITIVE QUICK-MAKE, QUICK-BREAK CONTACT MECHANISM, FUSIBLE OR NON-FUSIBLE AS INDICATED DUAL HORSEPOWER RATED, DEAD-FRONT, AND FRONT ACCESSIBLE. THE SWITCH HANDLE SHALL PHYSICALLY INDICATE THE "ON" AND "OFF" POSITIONS AND SHALL BE CAPABLE OF BEING PADLOCKED IN EITHER POSITION.
- 2. THE SAFETY SWITCHED SHALL BE HEAVY DUTY RATED AS MANUFACTURED BY SQUARE D, ITE (SIEMENS), CUTLER HAMMER OR GENERAL ELECTRIC.

LIGHT FIXTURES

- 1. LIGHTING EQUIPMENT IS SHOWN ON THE FIXTURE SCHEDULE ON THE DRAWINGS TO ESTABLISH GENERAL REQUIREMENTS AND MINIMUM QUALITY.
- 2. LIGHT FIXTURES SHALL BE EQUIPPED WITH PROPER ACCESSORIES, LENSES LOUVERS, REFLECTORS, SHIELDS, HANGERS, CLIPS, FRAMES, LAMPS, BALLASTS, DRIVERS, AND OTHER CONSTRUCTION FEATURES, AND SHALL BE PROPERLY PAINTED FOR PROTECTION AND PRESERVATION APPROPRIATE TO THE PLACE INSTALLED.
- 3. ALL LIGHT FIXTURES SHALL BE UL APPROVED AND SHALL BEAR IBEW LABELS.





PRELIMINARY NOT FOR CONSTRUCTION

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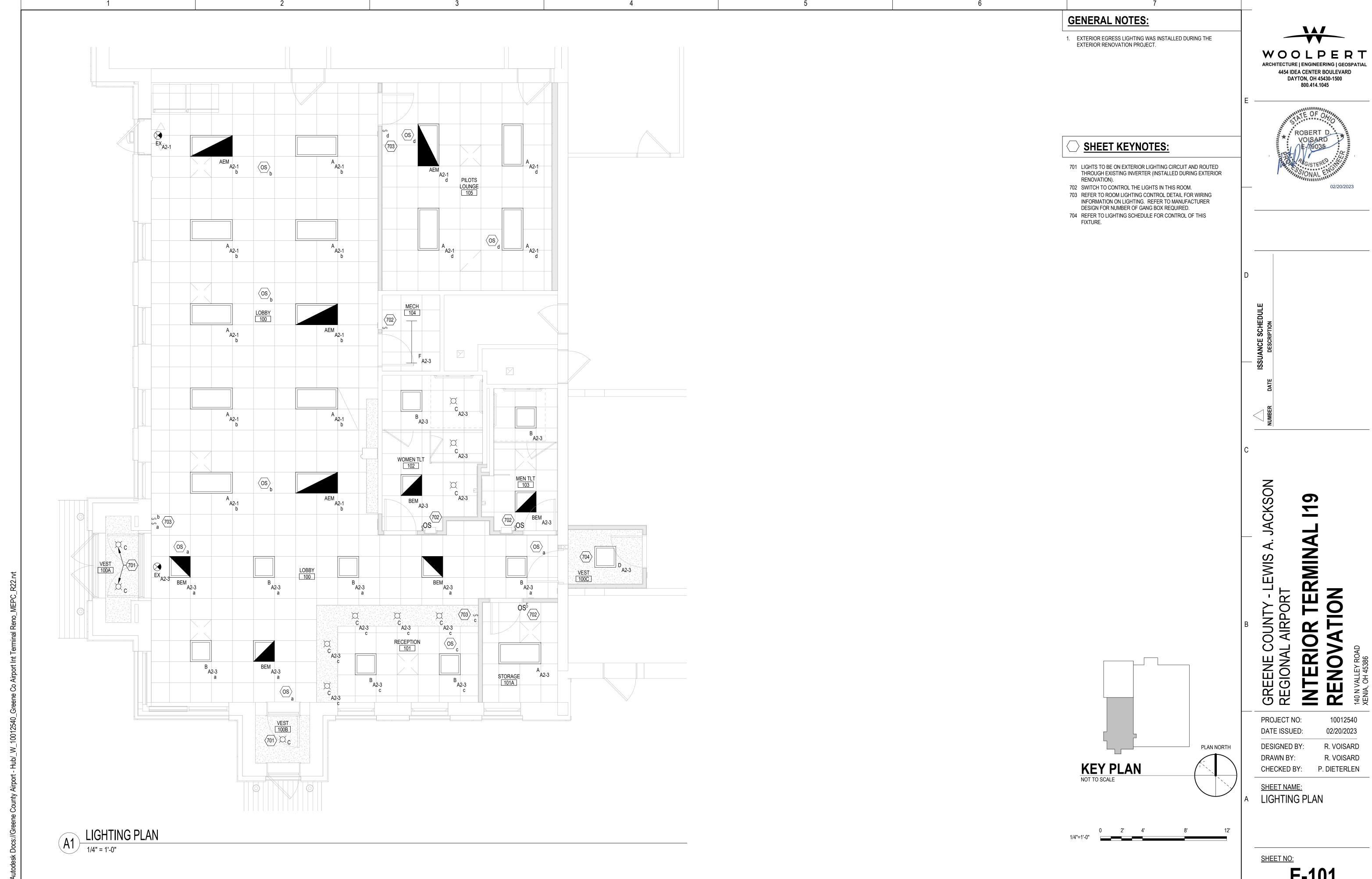
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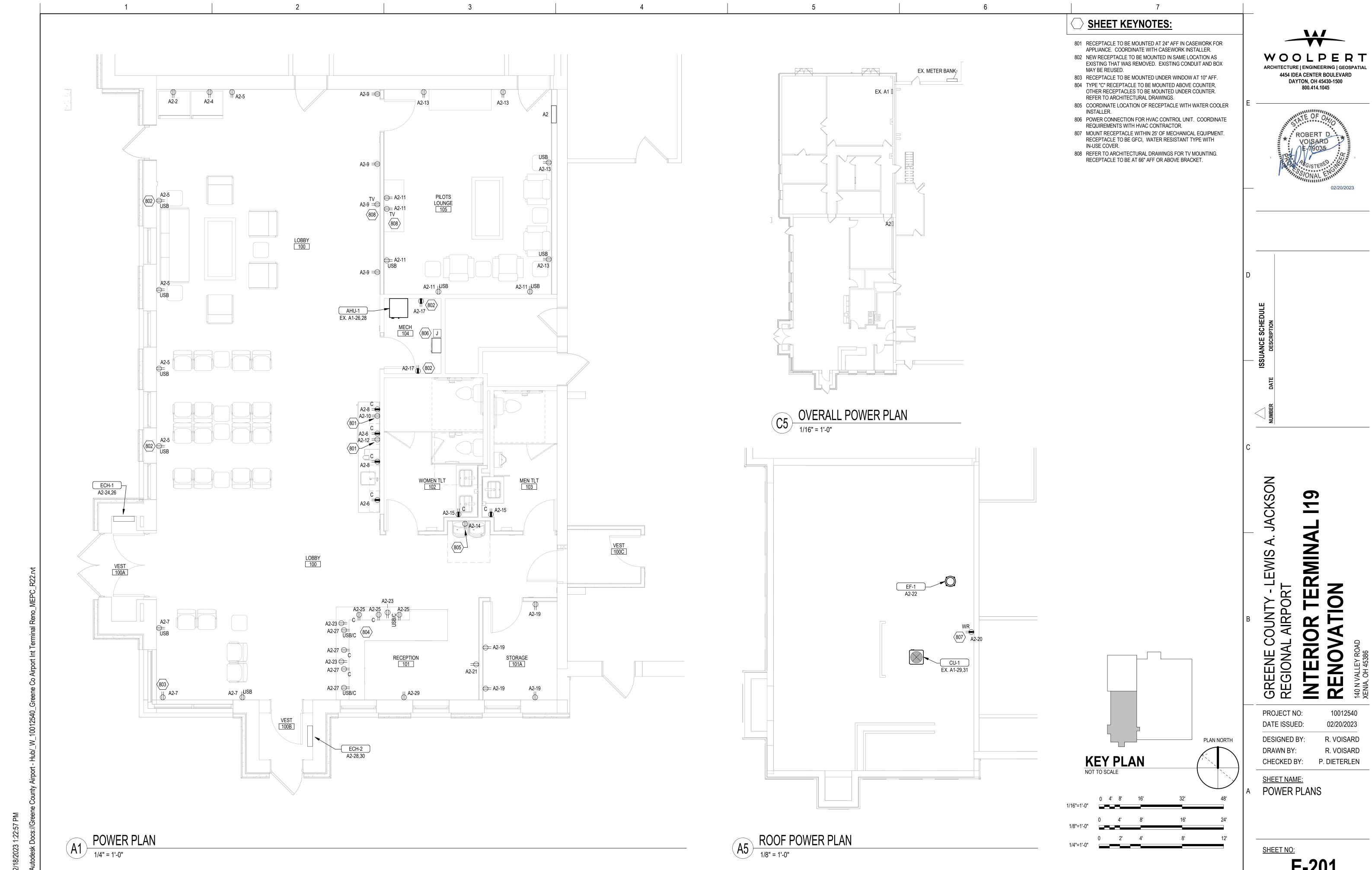
PROJECT NO: 10012540 12/02/22 DATE ISSUED: **DESIGNED BY:** R. VOISARD

DRAWN BY: R. VOISARD CHECKED BY: P. DIETERLEN

SHEET NAME: **SPECIFICATIONS**

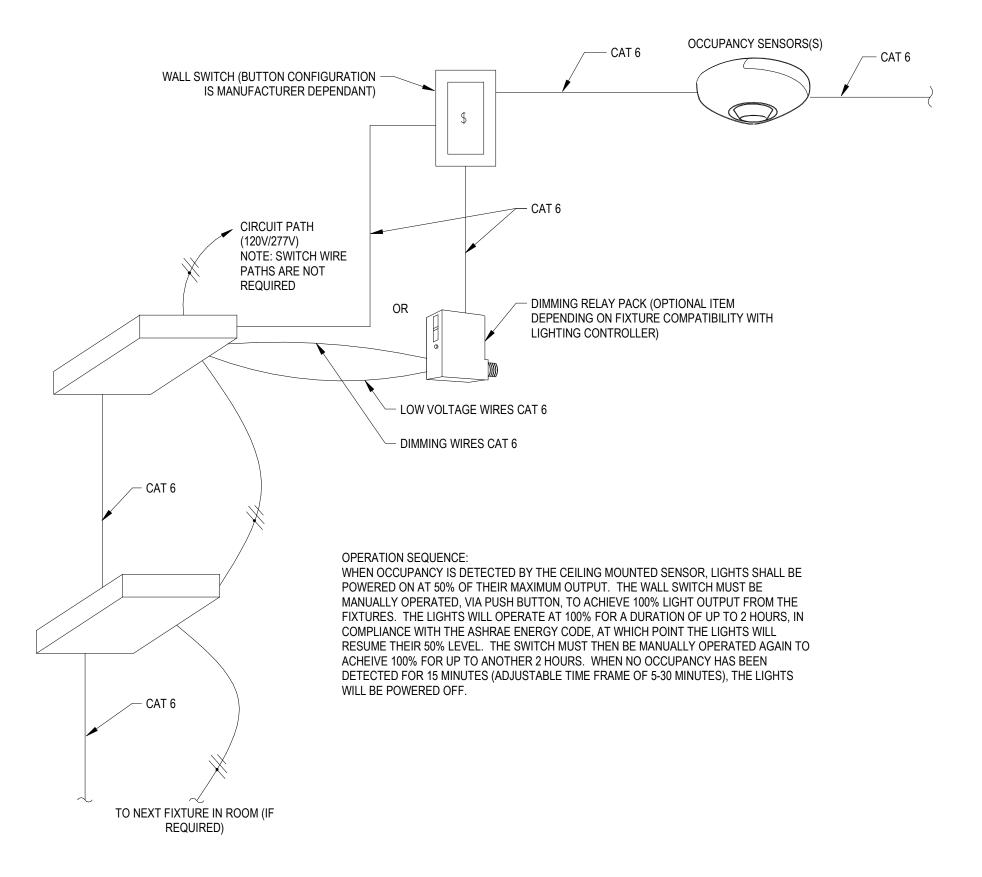


E-101



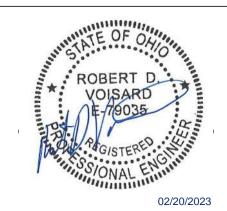
E-201

E-501



ROOM LIGHTING CONTROL WITH CEILING MOUNTED C1 OCCUPANCY SENSOR NTS

WOOLPERT 4454 IDEA CENTER BOULEVARD DAYTON, OH 45430-1500 800.414.1045



SON

GREENE COUNTY - LEWIS A. JACK: REGIONAL AIRPORT INTERIOR TERMINAL

RENOVATION

10012540 02/20/2023 R. VOISARD

DESIGNED BY: R. VOISARD DRAWN BY: P. DIETERLEN

CHECKED BY:

PROJECT NO:

DATE ISSUED:

SHEET NAME: ELECTRICAL DETAILS

LOCATION: **MOUNTING:** SURFACE MAIN DEVICE: MLO **BUS AMPS**: 225

VOLTAGE: 120/240V, 1Ø, 3W A.I.C. RATING:

SPECIAL: ITALICIZED CIRCUIT BREAKERS ARE EXISTING AND LOADS ARE ESTIMATED BASED ON FIELD CONDITIONS. CIRCUIT BREAKERS THAT HAVE LOADS REMOVED SHALL HAVE THE CIRCUIT BREAKER RE-LABELED AS SPARE. LOADS IN LOAD CLASSIFICATION DO

	# of Circuits 42									KER RE-LABE TING LOADS.		SPARE. LOADS IN LO	OAD CLASSIFI	CATION DO
NOTES	LOAD DESCRIPTION	BKR	POLES	СКТ		A	ı	В	СКТ	POLES	BKR	LOAD DESC	RIPTION	NOTES
	BAY LIGHTS	20	1	1	1100	1260			2	1	20	RECEPT		
	BAY LIGHTS	20	1	3			1100	1260	4	1	20	RECEPT		
	OFFICE LIGHTS	20	1	5	800	1440			6	1	20	RECEPT		
	BAY LIGHTS	20	1	7			1200	1440	8	1	20	RECEPT		
	HALLWAY LIGHTS	20	1	9	600	1260			10	1	20	RECEPT		
	SPARE	20	1	11			0	800	12	1	20	COPIER		
	AIR CONDITIONER &	00		13	4968	0			14	1	20	SPARE		
	FURNACE	60	2	15			4968	0	16	1	20	SPARE		
	DANIEL AG	405		17	12705	180			18	1	20	GW AVIATION RE	CEPT	
1	PANEL A2	125	2	19			12046	180	20	1	20	GW AVIATION RE	CEPT	
	TD 4 // ED 0001 / DE0EDT			21	1600	180			22	1	20	GW AVIATION BE	NCH	
	TRAILER 220V RECEPT	30	2	23			1600	180	24	1	20	DEDICATED REC	EPT	
	MELDED COOK DECEDE	00		25	1200	3600			26		50	A11114		
	WELDER 220V RECEPT	30	2	27			1200	3600	28	_ 2	50	AHU-1		2
	011.4	00		29	3936				30					
2	CU-1	60	2	31			3936		32					
				33					34					
				35					36					
				37					38					
				39					40					
				41					42					
				L LOAD:		kVA		kVA						
LOADC	LASSIFICATION	CONIA	TOTA	L AMPS:	290 DEMAN).2 A		.3 A FIMATE	n			PANEL TOTALS		
HVAC	LASSIFICATION		56 VA		80.00%			3205 VA				PANEL TOTALS		
LIGHTIN	IG		67 VA		100.00			467 VA			CC	NNECTED LOAD:	68339 VA	
MTR			20 VA		125.00			650 VA				MATED DEMAND:		
RECEPT	TS .	127	80 VA		89.12%	6	11	390 VA				CTED CURRENT:		
										E	ST. DE	MAND CURRENT:	263.4	
				1			1		1				I .	

NOTES:

CIRCUIT BREAKER IS EXISTING AND WILL BE REUSED FOR NEW PANEL A2.
 PROVIDE NEW CIRCUIT BREAKER FOR EXISTING PANEL (EATON - PRL1)

PANELBOARD: A2

LOCATION: PILOTS LOUNGE 105 MOUNTING: RECESSED MAIN DEVICE: MLO

VOLTAGE: 120/240V, 1Ø, 3W A.I.C. RATING: SPECIAL:

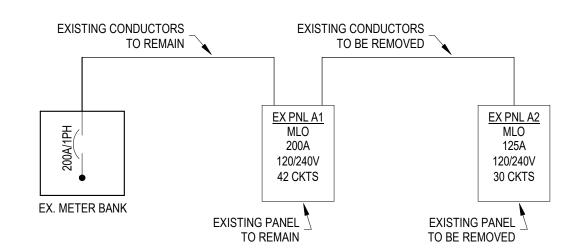
NOTES	LOAD DESCRIPTION	BKR	POLES	СКТ		4	l	3	СКТ	POLES	BKR	LOAD DESCR	RIPTION	NOTES
	LIGHTING	20	1	1	633	800			2	1	20	RECEPT - VENDIN	NG	1
	LIGHTING	20	1	3			834	800	4	1	20	RECEPT - VENDIN	NG	1
	RECEPTS - LOBBY	20	1	5	900	360			6	1	20	RECEPTS - COUN	ITER	
	RECEPTS - LOBBY	20	1	7			540	360	8	1	20	RECEPTS - COUN	ITER	
	RECEPTS - LOBBY	20	1	9	720	800			10	1	20	RECEPT - REFRIG	SERATOR	
	RECEPTS - PILOTS LOUNGE	20	1	11			900	1000	12	1	20	RECEPT - MICRO	WAVE	
	RECEPTS - PILOTS LOUNGE	20	1	13	720	600			14	1	20	RECEPT - WATER	COOLER	1
	RECEPTS - RESTROOMS	20	1	15			360	500	16	1	20	HVAC CONTROL F	PANEL	
	RECEPTS - MECH 104	20	1	17	360	0			18	1	20	SPARE		
	RECEPTS - STORAGE 101A	20	1	19			720	180	20	1	20	RECEPT - ROOF		
	RECEPTS - RECEPTION 101	20	1	21	180	1320			22	1	20	EF-1		
	RECEPTS - RECEPTION 101	20	1	23			540	1296	24	0	00	E011.4		
	RECEPTS - RECEPTION 101	20	1	25	540	1296			26	2	20	ECH-1		
	RECEPTS - RECEPTION 101	20	1	27			720	1296	28	0	00	FOLLO		
	RECEPTS - RECEPTION 101	20	1	29	180	1296			30	2	20	ECH-2		
2	EVICTING WATER LIEATER	20	2	31			2000		32					
2	EXISTING WATER HEATER	30	2	33	2000				34					
	SPARE	20	1	35			0	0	36	1	20	SPARE		
	SPARE	20	1	37	0	0			38	1	20	SPARE		
	SPARE	20	1	39			0	0	40	1	20	SPARE		
	SPARE	20	1	41	0	0			42	1	20	SPARE		
				L LOAD:		kVA		kVA						
I OAD CI	LASSIFICATION	CONN	IECTED	_ AMPS:	DEMAN	.9 A		.4 A FIMATE I	D			PANEL TOTALS		
HVAC	LAGGII IOATION		34 VA		80.00%			147 VA				TANLE TOTALS		
LIGHTIN	G	146	67 VA		100.00	%	1	467 VA			CONNECTED LOAD: 24751 VA			
MTR			20 VA		125.009			650 VA		ESTIMATED DEMAND: 22654 VA				
RECEPT	S	127	80 VA		89.12%	ó	11	390 VA				MAND CURRENT:		

NOTE: PER NEC 220.87, ONE YEAR OF UTILITY BILLS SHOWING DEMAND PER MONTH PERMIT LOADS ON PANELS TO EXCEED CAPACITY OF PANEL AND OVERCUREENT PROTECTION. REFER TO LOAD SUMMARY DOCUMENTATION ON THIS SHEET.

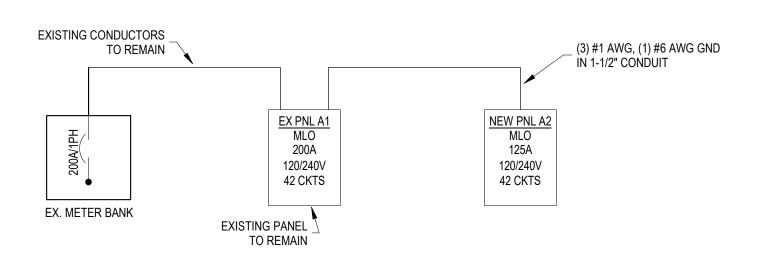
1. PROVIDE GFCI TYPE CIRCUIT BREAKER
2. PROVIDE NEW FEED TO EXISTING WATER HEATER. UTILIZE (3)#10, (1)#10 GND. IN 3/4" CONDUIT.

EXISTING ONE LINE DIAGRAM NOTES:

- A. PRE-DESIGN FIELD OBSERVATION ASSUMED THAT EXISTING PANEL A2 IS FED FROM EXISTING PANEL A1. CONTRACTOR TO VERIFY AND NOTIFY ENGINEER IF DIFFERENT.
- B. ALL LOADS IN EXISTING PANEL A2 ARE ASSUMED TO BE REMOVED. IF THERE IS A LOAD THAT IS NOT BEING DEMO'D, IT IS TO BE REFED FROM NEW PANEL A2.

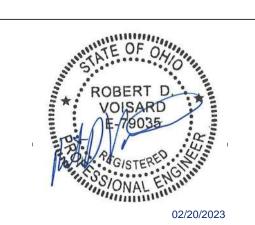






PROPOSED ONE-LINE DIAGRAM

5	nect=200 Amps	
Voltage	power factor (assumed)	Amps
240	0.85	94.6
240	0.85	92.6
240	0.85	90.7
240	0.85	90.7
		90.7
240	0.85	
240	0.85	111.8
240	0.85	104.9
240	0.85	103.9
240	0.85	90.7
240	0.85	90.7
240	0.85	96.6
240	0.85	117.6
		117.6
		147.1
240 240 240 240	0.85 0.85 0.85 0.85	27.6 40.0 40.0 14.7
240	0.85	12.3
		134.6
240	0.85	32.8
240	0.85	30.0
240	0.85	10.8
240	0.85	10.8
240	0.85	7.4
240	0.85	62.7
		154.5
240	0.85	137.6
240	0.00	172.0
		200.0
		200.0
	0.85	240



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R. VOISARD

PROJECT NO: 10012540 02/20/2023 DATE ISSUED: R. VOISARD

DESIGNED BY: DRAWN BY:

CHECKED BY: P. DIETERLEN SHEET NAME:

ELECTRICAL ONE-LINE DIAGRAM & PANEL SCHEDULE

SHEET NO:

E-601

4000K

LITHONIA

LED

LED

4000

LIGHT SOURCE

CURVED REFELCTOR, LAY-IN GRID,

MOUNTING, WHITE EXIT SIGN, WHITE WITH RED

LENS

INTEGRAL OCCUPANCY SENSOR WITH ON/OFF AND AUTO DIMMING, DRYWALL

LETTERING AND 90 MINUTE BATTERY 4 FOOT STRIP LIGHT WITH ACRYLIC

LIGHTING FIXTURE SCHEDULE

APIR DGA22

LQM S W 3 R 120/277 EL N

CSS L48 AL03 MVOLT SWW3 80CRI

MODEL #3

COOPER

COOPER

HUBBELL

HUBBELL

NOTES

									EQ	UIPMENT DAT	A SCHEDULE									
	LOCATION	1		EQUIPME	NT INFORMA	ATION		CIRCUIT INFORMATION					STARTER	}	CON	TROL		DISCONNEC	CT	
PLAN MARK	NAME	NO	FLA	MCA	МОСР	VOLT	PH	PANEL	NO.	APPARENT LOAD	WIRE & CONDUIT SIZE	TYPE	FURNISH	INSTALL	FURNISH	INSTALL	TYPE	FURNISH	INSTALL	NOTES
AHU-1			30.0	37.5	50	240	1	EX. A1	26,28	7200 VA	3/4"C - 2#6, 1#10 GND				MC	MC	NF D/S	EC	EC	
CU-1				41.0	60	240	1	EX. A1	29,31	7872 VA	3/4"C - 2#6, 1#10 GND				MC	MC	D/S	MC	EC	
ECH-1				15.6	20	240	1	A2	24,26	2995 VA	3/4"C - 2#12, 1#12 GND				MC	MC		MC	MC	
ECH-2				15.6	20	240	1	A2	28,30	2995 VA	3/4"C - 2#12, 1#12 GND				MC	MC		MC	MC	
EF-1			11.0	13.8	20	120	1	A2	22	1320 VA	3/4"C - 2#12, 1#12 GND				MC	MC	MRS	EC	EC	

D/S DISCONNECT SWITCH

EC ELECTRICAL CONTRACTOR MC MECHANICAL CONTRACTOR

120

120

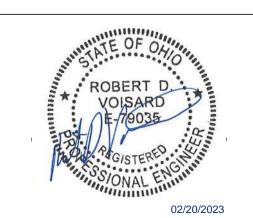
120

EX

F

MRS MOTOR RATED SWITCH NF NON-FUSED

WOOLPERT 4454 IDEA CENTER BOULEVARD DAYTON, OH 45430-1500 800.414.1045



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GREENE COUNTY - LEWIS A. JACK REGIONAL AIRPORT INTERIOR TERMINAL

RENOVATION 140 N VALLEY ROAD XENIA, OH 45386

PROJECT NO: 10012540 DATE ISSUED: 02/20/2023

R. VOISARD DESIGNED BY: DRAWN BY:

R. VOISARD CHECKED BY: P. DIETERLEN

SHEET NAME: LIGHTING & EQUIPMENT

SCHEDULES

SHEET NO:

E-701

GENERAL MECHANICAL SYMBOLS HVAC SYMBOLS MECHANICAL ABBREVIATIONS ROUND ILC INLINE CENTRIFUGAL FAN **REVISION NUMBER -**POINT WHERE NEW RECTANGULAR DUCT SIZE TAG (WIDTH x HEIGHT) AMPS INCH SHOWN ON PLANS /#\ CONNECTS TO EXISTING ABV ABOVE INVERT INV AC AIR CONDITIONING LAT LEAVING AIR TEMPERATURE OVAL DUCT SIZE TAG (WIDTH / HEIGHT) KEYNOTE < # > ACR ACR COPPER REFRIG. PIPE POUND - NUMBER OF DETAIL ON SHEET AD AREA DRAIN LB/HR POUNDS PER HOUR --- NUMBER OF SHEET WHERE 16"Ø ROUND DUCT SIZE TAG (DIAMETER) ADD ADDENDUM LDB LEAVING DRY BULB TEMPERATURE PIPE BREAK SYMBOL DETAIL APPEARS AFF ABOVE FINISHED FLOOR LIQUID PROPANE ____ DUCT BEING DEMOLISHED EXISTING DUCT TAG (E) AFUE ANNUAL FUEL UTILIZATION EFFICIENCY LP LOW PRESSURE ALT ALTERNATE LOW PRESSURE STEAM LPS THERMOSTAT (T) ROOM NAME AND NUMBER ALUM ALUMINUM LVR LOUVER #### RA RETURN AIR SUPPLY AIR SA ACCESS PANEL LWB LEAVING WET BULB TEMPERATURE HUMIDISTAT (H) AP APD AIR PRESSURE DROP LEAVING WATER TEMPERATURE LWT VENTILATION AIR VA EA EXHAUST / RELIEF AIR ARCH ARCHITECT/ARCHITECTURAL MOTORIZED SWITCH (S) ITEM TO BE DEMOLISHED ALL SERVICE INSULATION JACKET MA MIXED AIR OUTSIDE AIR OA TA TRANSFER AIR MAT MATERIAL BUILDING AUTOMATION SYSTEM HVAC EMERGENCY SHUTOFF SWITCH (E) BDD BACKDRAFT DAMPER MAX MAXIMUM AREA NOT IN CONTRACT ONE THOUSAND BTU PER HOUR BELOW FINISHED FLOOR CARBON DIOXIDE SENSOR (C) **DUCTWORK SYMBOLS LEGEND** BHP BRAKE HORSEPOWER MECHANICAL CONTRACTOR BLW BELOW MINIMUM CIRCUIT AMPS MCA RECTANGULAR SUPPLY/OUTSIDE AIR DUCT RISE EQUIPMENT TAG MARK-### MARK-### EXISTING EQUIPMENT TAG BOD BOTTOM OF DUCT MCF ONE THOUSAND CUBIC FEET BOP BOTTOM OF PIPE MD MANUAL DAMPER BR BRAZED MECH MECHANICAL AIR DEVICE TAG SC-100 DROP ROUND SUPPLY/OUTSIDE AIR DUCT RISE BTU BRITISH THERMAL UNITS MATT FACED FIBERGLASS BTUH BRITISH THERMAL UNITS PER HOUR MFR MANUFACTURER MECHANICAL PIPING SYMBOLS DROP RECTANGULAR RETURN/TRANSFER AIR DUCT RISE C-AL CORRUGATED ALUMINUM MALLEABLE IRON CALCIUM SILICATE INSULATION MIN MINIMUM DROP OI TO ROUND RETURN/TRANSFER AIR DUCT RISE CAP CAPACITY MISC MISCELLANEOUS CCP CALCIUM CARBONATE POWDER MTR MOTOR CUBIC FEET MUA MAKE-UP/AIR CF STEAM CONDENSATE RETURN COR — HEATING HOT WATER SUPPLY DROP RECTANGULAR EXHAUST/RELIEF AIR DUCT RISE CFM CUBIC FEET PER MINUTE NOISE CRITERIA CHW CHILLED WATER NORMALLY CLOSED DROP O ROUND EXHAUST/RELIEF AIR DUCT RISE CI NOT IN CONTRACT CAST IRON CHILLED WATER SUPPLY ← CHS ← PG ← PROPANE GAS CENTERLINE NUMBER CLG NORMALLY OPEN CEILING NO STANDARD RECTANGULAR ELBOW RECTANGULAR TRANSITION CLP CENTERLINE OF PIPE NOT TO SCALE NTS CMC CEILING MOUNTED CENTRIFUGAL FAN OXYGEN CO CLEAN OUT OUTSIDE AIR DUAL TEMPERATURE RETURN —DTR — REF-HG REFRIGERANT-HOT GAS CONC CONCRETE OPPOSED BLADE DAMPER RADIUS RECTANGULAR ELBOW RECTANGULAR TO ROUND TRANSITION OBD DUAL TEMPERATURE SUPPLY \(\to\)DTS \(\to\)STEAM CPVC CHLORINATED PVC ON CENTER PLUMBING CONTRACTOR CS CARBON STEEL CU COPPER PRESSURE DROP ROUND TRANSITION ROUND ELBOW CW COLD WATER PGGS PAINT GRIP GALVANIZED STEEL CONDENSER WATER CW PLBG PLUMBING EXISTING PIPE (E)—(E)—— BELOW GROUND PIPING D DEGREE PP POLYPROPYLENE RECTANGULAR BRANCH TAKEOFF RECTANGULAR TO ROUND TAKEOFF DRAIN PARTS PER MILLION PIPING BEING DEMOLISHED $\t ----$ DB DECIBEL PRESS PRESSURE PRV PRESSURE REGULATING VALVE DB DRY BULB ROUND WYE ROUND TAKEOFF WITH DAMPER DCW DOMESTIC COLD WATER PRESSURE SENSOR - PIPE TEE UP DIRECT DIGITAL CONTROLS POUNDS PER SQUARE INCH DOMESTIC HOT WATER PSIG POUNDS PER SQUARE INCH GAUGE **DUCT ACCESSORIES** ○ **→** PIPE RISE DIA PVC POLYVINYL CHLORIDE DIAMETER - REDUCING 45 DN DOWN PVCGS PVC COATED GALVANIZED STEEL - PIPE TEE DEGREE TEE DUCT SILENCER (SOUND ATTENUATOR) PWR POWER DS CAPPED PIPE - 45 DEGREE TEE BACKDRAFT DAMPER 🖂 BDD MANUAL OPPOSED/PARALLEL DT DUAL TEMPERATURE RA RETURN AIR - PIPE DROP **BLADE DAMPER** E-AL EMBOSSED ALUMINUM ROOM CRITERIA LEVEL FIRE DAMPER EΑ RADIANT CEILING PANEL EACH RCP MOTORIZED OPPOSED/PARALLEL EA EXHAUST AIR RD ROOF DRAIN BLADE DAMPER ENTERING AIR TEMPERATURE REC RECESSED SMOKE DAMPER EC ELECTRICAL CONTRACTOR RECT RECTANGULAR EDB ENTERING DRY BULB TEMPERATURE RED REDUCER SECURITY BARS GRAVITY DAMPER ELEC ELECTRICAL REFRIG. REFRIGERANT EQUIP EQUIPMENT RELATIVE HUMIDITY MANUAL BALANCE DAMPER EWB ENTERING WET BULB TEMPERATURE RLA RELIEF AIR TRANSFER AIR OPENING EWT ENTERING WATER TEMPERATURE RM ROOM EXH EXHAUST ROOF MOUNTED CENTRIFUGAL FAN EXIST EXISTING RMP ROOF MOUNTED PROPELLER FAN **AIR DEVICE LEGEND** F DEGREES FAHRENHEIT RPM REVOLUTIONS PER MINUTE *SUPPLY DIFFUSER (HARD CONNECTION) SIDEWALL SUPPLY FD FLOOR DRAIN RELIEF VALVE FD FIRE DAMPER SWITCH FFJ FOIL FACED JACKET SUPPLY AIR **FIBERGLASS** SENSIBLE CAPACITY RETURN GRILLE SIDEWALL RETURN FIBERGLASS BOARD INSULATION SCH SCHEDULE (HARD CONNECTION) OR EXHAUST GRILLE FGW FIBERGLASS WRAP SCREWED (THREADED) SCR FLOOR SMOKE DAMPER EXHAUST GRILLE LINEAR SLOT DIFFUSER FLA FULL LOAD AMPS SQUARE FOOT (HARD CONNECTION) FLG FLANGE SURFACE MOUNT FLGD FLANGED SHUT OFF VALVE TERMINAL SUPPLY AIR DIFFUSER WITH FMG FOAM GLASS STATIC PRESSURE FLEXIBLE RUNOUT AND DAMPER FUEL OIL FΟ SQUARE FUEL OIL VENT STAINLESS STEEL FUEL OIL RETURN STM STEAM *NOTE: NO ARROWS INDICATES DIFFUSER HAS 4-WAY THROW. SWEAT CONNECTION IF ARROWS ARE SHOWN, THROW IS AS INDICATED. FUEL OIL SUPPLY SW FEET PER MINUTE SWLD SOLVENT WELD FPP FAN POWERED PARALLEL VAV THERMOSTAT ONE-WAY THREE-WAY FPS FAN POWERED SERIES VAV TOTAL CAPACITY FLOW SWITCH TEMPERATURE DROP FS FOOT/FEET TEMP TEMPERATURE FTR FIN TUBE RADIATION TH THICKNESS FW FEED WATER THRD THREADED **MECHANICAL EQUIPMENT ABBREVIATIONS** GAGE (GAUGE) TOD TOP OF DUCT TOP OF JOIST GAL TOJ GALLON GALVANIZED TOS TOP OF STEEL ELECTRIC HEATER **GENERAL CONTRACTOR** TEMPERATURE SENSOR ACC AIR COOLED CONDENSER ΕT EXPANSION TANK GALLONS PER HOUR T/S PIPE TYPE OR SCHEDULE ACCU AIR COOLING CONDENSING UNIT FURNACE GPM **GALLONS PER MINUTE** TYP TYPICAL AIR HANDLING UNIT FAN COIL UNIT **GROOVED PIPE** UPBLAST CENTRIFUGAL FAN AIR SEPARATOR GRAVITY ROOF VENTILATOR GS GALVANIZED STEEL UC FLEXIBLE UNICELLULAR STEAM BOILER HEAT RECOVERY UNIT HUMIDIFIER (HUMIDITY) VOLTS HEATING/VENTILATING UNIT **HEATING CONTRACTOR** VARIABLE AIR VOLUME CHILLED WATER PUMP HOT WATER BOILER HWB HEAT FUSION VENTILATING CONTRACTOR CONDENSATE RETURN PUMP HEATING WATER PUMP HORSE POWER VENT VENTILATION COOLING TOWER HEAT EXCHANGER HIGH PRESSURE STEAM WB WET BULB CONDENSING UNIT OUTDOOR UNIT **HUMIDITY SENSOR** WROUGHT CARBON STEEL CUH CABINET UNIT HEATER RETURN/RELIEF FAN HTG HEATING WROUGHT COPPER CWP CONDENSER WATER PUMP ROOFTOP UNIT WCU RTU WELDED CONNECTION HTR HEATER WLD DUAL TEMPERATURE PUMP SUPPLY FAN ELECTRIC CABINET HEATER **UNIT HEATER** HEATING HOT WATER WMP WALL MOUNTED PROPELLER FAN HYD HYDRANT WPD WATER PRESSURE DROP EDC ELECTRIC DUCT COIL UNIT VENTILATOR ID INDIRECT WT WEIGHT (OR DENSITY) EXHAUST FAN VAV TERMINAL UNIT $\frac{\text{* NOTE *}}{\text{THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY}}$ **HVAC DESIGN CRITERIA** NOT BE USED IN THIS SET OF DRAWINGS. **GENERAL DESIGN INFORMATION** BUILDING LOCATION: XENIA, OHIO ELEVATION: 823' **INDOOR DESIGN CONDITIONS (WHEN OCCUPIED) OUTDOOR DESIGN CONDITIONS** INDOOR SUMMER DRY BULB: SUMMER DRY BULB: 91.1°F INDOOR SUMMER RELATIVE HUMIDITY: 50% SUMMER WET BULB: 74.4°F INDOOR WINTER DRY BULB: WINTER DRY BULB: 3.2°F INDOOR WINTER RELATIVE HUMIDITY: UNCONTROLLED

WOOLPER ARCHITECTURE | ENGINEERING | GEOSPATIAL 4454 IDEA CENTER BOULEVARD DAYTON, OH 45430-1500 800.414.1045

PRELIMINARY NOT FOR CONSTRUCTION

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RMIN 핕 ERIO OVA Ž W

SEENE CO PROJECT NO: 10012540 DATE ISSUED: 12/02/2022 **DESIGNED BY:** D. THOMA

E. REEVE DRAWN BY: M. BEHRMANN CHECKED BY:

SHEET NAME: MECHANICAL LEGENDS

800.414.1045

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DESIGNED BY:

MECHANICAL NOTES

GENERAL:

- INSTALL THE H.V.A.C. SYSTEM AS INDICATED IN ACCORDANCE WITH ALL STATE AND LOCAL CODES COORDINATE ALL WORK WITH OTHER TRADES. REWORK OF PIPING, DUCTWORK, EQUIPMENT LOCATION, CONDUIT, ETC. AS A RESULT OF POOR PLANNING. COORDINATION OR SCHEDULING SHALL BE THE RESPONSIBILITY OF THE INVOLVED CONTRACTORS. NOTIFY THE ARCHITECT/ENGINEER OF ANY CONFLICTS PRIOR TO START OF WORK.
- THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ANY FRAMING REVISIONS, EQUIPMENT LOCATIONS, ADDITION OF CONTROLS, ELECTRICAL CIRCUITING REVISIONS, ETC. THAT RESULT FROM USING EQUIPMENT OTHER THAN THOSE INDICATED ON THE DRAWINGS. APPROVAL OF THE SHOP DRAWINGS BY THE ARCHITECT/ENGINEER WILL NOT WAIVE THE CONTRACTOR OF THIS RESPONSIBILITY.
- THE MECHANICAL CONTRACTOR SHALL HAVE THE FINAL RESPONSIBILITY FOR SYSTEM START UP, TRAINING, WARRANTY AND TURN OVER TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTRUCTING THE OWNER ON ANY ROUTINE MAINTENANCE REQUIRED DURING THE WARRANTY PERIOD.
- ALL ITEMS INCLUDED ON THESE DRAWINGS AND THE SPECIFICATIONS SHALL BE INCLUDED IN THE CONTRACTORS BID. ANY ITEMS THAT ARE UNCLEAR OR FOUND TO BE INCORRECT BY THE CONTRACTOR SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER PRIOR TO THE BID DUE DATE. EXCLUSIONS OF WORK FROM THE BID ARE NOT ACCEPTABLE.
- 6. ALL WORK INDICATED ON THE MECHANICAL DRAWINGS SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR
- UNLESS SPECIFICALLY NOTED OTHERWISE. THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL FIRESTOPPING FOR DUCT AND PIPE PENETRATIONS THAT PENETRATE FIRE RATED ASSEMBLIES. SEE ARCHITECTURAL DRAWINGS OR REFER TO THE OWNERS RECORD DRAWINGS FOR LOCATIONS OF FIRE RATED ASSEMBLIES. ALL FLOOR PENETRATIONS SHALL BE FIRESTOPPED AND
- SEALED WATER TIGHT WITH A FLEXIBLE SEALANT. THE MECHANICAL CONTRACTOR SHALL PATCH ALL WALLS, CEILINGS OR FLOORS WHERE EQUIPMENT, CONTROLS, CONDUIT, DUCTWORK OR PIPING HAS BEEN REMOVED, RELOCATED OR INSTALLED NEW. PATCHING SHALL MATCH
- EXISTING SURFACES WITH RESPECT TO MATERIALS, COLOR AND TEXTURE. THE MECHANICAL CONTRACTOR SHALL PROVIDE ROOF PATCHING FOR ANY ROOF PENETRATIONS NOT SPECIFICALLY IDENTIFIED ON THE ARCHITECTURAL DRAWINGS. ALL PATCHING SHALL BE PERFORMED IN A MANNER CONSISTENT
- WITH THE ROOF SYSTEMS CURRENT WARRANTY REQUIREMENTS AND MANUFACTURERS RECOMMENDATIONS. 10. THE MECHANICAL CONTRACTOR SHALL NOT PERFORM ANY WELDING OR TORCH CUTTING OPERATIONS WITHIN THE OCCUPIED BUILDING WITHOUT OBTAINING PERMISSION OR A BURN PERMIT FROM THE OWNER.
- 11. VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATION, TRENCHING OR DRILLING. 12. VERIFY THE LOCATION OF CONCEALED PIPING, CONDUIT, DUCTWORK, WIRING, ETC. PRIOR TO CUTTING OR DRILLING THROUGH WALLS, FLOORS, CEILINGS OR ROOF DECKS.

PIPING NOTES:

- PITCH ALL CONDENSATE PIPING NO LESS THAN 1/8" PER 10' TOWARD THE FLOOR DRAINS, ROOF DRAINS OR SPLASH
- BLOCKS. 2. ALL PIPING SHALL BE PROVIDED WITH SEISMIC RESTRAINTS IN ACCORDANCE WITH THE SEISMIC RESTRAINT MANUAL: GUIDELINES FOR MECHANICAL SYSTEMS, 3RD EDITION 2008, AS PUBLISHED BY THE SHEET METAL AND AIR
- CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION, INC. (SMACNA) AS WELL AS ALL LOCAL CODES. PROVIDE P-TRAPS WITH CLEANOUT ON ALL FAN COIL UNITS, UNIT VENTILATORS, DX FURNACE COIL CONDENSATE DRAIN CONNECTIONS. PIPE PER MANUFACTURERS RECOMMENDATIONS.

EQUIPMENT - GENERAL:

- 1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE SERVICE ACCESS SPACE FOR ALL EQUIPMENT WITH OTHER TRADES TO MAINTAIN PROPER CLEARANCES FOR EQUIPMENT MAINTENANCE AND OPERATION. VARIATIONS IN THE EQUIPMENT ORDERED AND THAT SHOWN ON THE DRAWINGS SHALL BE COORDINATED BEFORE
- THE INSTALLATION OF ANY PIPING, DUCTWORK, EQUIPMENT PADS, CONDUIT ETC. THE H.V.A.C. EQUIPMENT AND SYSTEM SHALL NOT BE USED TO TEMPORARILY HEAT, COOL OR DEHUMIDIFY THE SPACE DURING CONSTRUCTION (PRIOR TO SUBSTANTIAL COMPLETION) WITHOUT APPROVAL BY THE OWNER. THE WARRANTY PERIOD SHALL NOT BEGIN UNTIL SUBSTANTIAL COMPLETION. THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY ADDITIONAL CHARGES TO EXTEND THE EQUIPMENT WARRANTY PERIOD AS NECESSARY.

- MECHANICAL SUPPORTS, INTERIOR, FINISHED SPACE: EXPOSED UNPAINTED, PRIMED OR NON-PLATED STEEL SUPPORTS, HANGERS, BRACKETS, ETC., LOCATED WITHIN INTERIOR FINISHED SPACES VIEWABLE BY THE GENERAL BUILDING POPULATION SHALL BE PAINTED WITH ONE COAT OF RUST INHIBITIVE PRIMER AND TWO COATS OF ENAMEL OR ACRYLIC PAINT. COLOR AND FINISH TO BE SELECTED BY THE ARCHITECT.
- MECHANICAL SUPPORTS, MECHANICAL ROOMS: UNPAINTED, PRIMED OR NON-PLATED STEEL SUPPORTS. HANGERS, BRACKETS, ETC., LOCATED WITHIN MECHANICAL OR UTILITY ROOMS SHALL BE PAINTED WITH ONE COAT OF RUST INHIBITIVE PRIMER AND TWO COATS OF ENAMEL OR ACRYLIC PAINT. PAINT GLOSS GRAY OR
- NON-INSULATED PIPING, NON-INSULATED DUCTWORK, AND CONDUIT, INTERIOR, FINISHED SPACE: EXPOSED, NON-INSULATED PIPING, NON-INSULATED DUCTWORK, AND CONDUIT LOCATED WITHIN INTERIOR FINISHED SPACES. VIEWABLE BY THE GENERAL BUILDING POPULATION. SHALL BE PAINTED WITH ONE COAT OF RUST INHIBITIVE PRIMER AND TWO COATS OF ENAMEL OR ACRYLIC PAINT. COLOR AND FINISH TO BE SELECTED BY
- THE ARCHITECT. INSULATED PIPING AND DUCTWORK, INTERIOR, FINISHED SPACE: EXPOSED, INSULATED PIPING AND DUCTWORK, LOCATED WITHIN INTERIOR FINISHED SPACES, VIEWABLE BY THE GENERAL BUILDING POPULATION, SHALL BE PAINTED WITH TWO COATS OF LATEX PAINT. COLOR AND FINISH TO BE SELECTED BY THE ARCHITECT.
- NON-INSULATED PIPING, NON-INSULATED DUCTWORK, AND CONDUIT, MECHANICAL ROOMS: NON-INSULATED PIPING, NON-INSULATED DUCTWORK, AND CONDUIT LOCATED WITHIN MECHANICAL AND UTILITY ROOMS SHALL BE PAINTED WITH ONE COAT OF RUST INHIBITIVE PRIMER AND TWO COATS OF GLOSS ENAMEL OR ACRYLIC PAINT PER THE COLOR CODE LOCATED ON THE PIPE SCHEDULE.
- INSULATED PIPING AND DUCTWORK, MECHANICAL ROOMS: WHERE PVC OR FOIL FACED JACKETS HAVE NOT BEEN SPECIFIED PER THE PIPE AND DUCT SCHEDULES ON EXPOSED, INSULATED PIPING AND DUCTWORK LOCATED WITHIN MECHANICAL ROOMS, PAINT THE ALL SERVICE JACKET WITH TWO COATS OF GLOSS LATEX PAINT, PAINT PIPE PER THE COLOR CODE LOCATED ON THE PIPE SCHEDULE, PAINT DUCTWORK WHITE.
- WHERE GALVANIZED DUCTWORK REQUIRES PAINTING PROVIDE A PAINT GRIP FINISH OR CHEMICALLY CLEAN
- AND PREPARE THE DUCT SURFACE PRIOR TO PAINTING. DO NOT PAINT OVER NAME PLATES, WARNING SIGNS, IDENTIFICATION LABELS, ETC.

TEMPERATURE CONTROL NOTES:

- 1. LABEL ALL CONTROL PANELS, ACTUATORS, SENSORS, ETC WITH 1/8" THICK PLASTIC LAMINATE SIGNS. SEE DRAWINGS FOR LABEL AND LETTERING REQUIREMENTS. LABEL DESIGNATIONS SHALL BE CONSISTENT WITH THE DRAWINGS, TEMPERATURE CONTROL SYSTEM MANUAL AND DIAGRAMS.
- 2. MOUNT THERMOSTATS AND SENSORS 48" (FRONT REACH) OR 54" SIDE REACH ABOVE FINISH FLOOR. DO NOT MOUNT IN DIRECT SUNLIGHT OR NEAR HEAT PRODUCING EQUIPMENT.
- 3. ALL COVERS AND TRIM ON SENSORS LOCATED IN OCCUPIED SPACES TO BE WHITE. 4. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL SMOKE DETECTORS FOR THE H.V.A.C SYSTEM. THE
- ELECTRICAL CONTRACTOR SHALL ALSO PROVIDE ALL WIRING BETWEEN THE STARTERS OR DRIVES AND THE FIRE ALARM SYSTEM AS REQUIRED TO SHUT DOWN THE EQUIPMENT IN THE EVENT OF A FIRE AS DESCRIBED BY THE SEQUENCE OF OPERATION. THE BUILDING AUTOMATION SYSTEM (BAS) SHALL NOT BE USED AS PART OF THE FIRE ALARM SYSTEM.
- THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY AND ALL INTERFACE WIRING REQUIRED BETWEEN THE TEMPERATURE CONTROL SYSTEM AND THE FIRE ALARM SYSTEM. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE INTERFACE TERMINALS AS PART OF THE FIRE ALARM SYSTEM AS REQUIRED TO PROVIDE THE SPECIFIED SEQUENCE OF OPERATION.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL MOTOR STARTERS AND DISCONNECT SWITCHES FOR H.V.A.C. EQUIPMENT UNLESS THEY ARE INCLUDED WITH THE EQUIPMENT AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS. COORDINATE STARTER REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR AND THE BAS CONTRACTOR PRIOR TO ORDERING
- WHERE AUXILIARY CONTACTS ARE REQUIRED IN STARTERS PROVIDED BY THE ELECTRICAL CONTRACTOR, THE MECHANICAL CONTRACTOR SHALL COORDINATE THE QUANTITY AND TYPE OF CONTACTS WITH THE ELECTRICAL
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE CIRCUIT BREAKERS IN THE ELECTRICAL PANELS THAT ARE SPECIFICALLY DEDICATED FOR THE TEMPERATURE CONTROL SYSTEM. COORDINATE THE QUANTITY AND SIZES WITH THE BAS CONTRACTOR. SEE ELECTRICAL DRAWINGS FOR LOCATION.
- 9. THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL TEMPERATURE CONTROL SYSTEM WIRING AND CONDUIT REGARDLESS OF VOLTAGE AS REQUIRED TO PROVIDE THE SPECIFIED SEQUENCE OF OPERATION OR SATISFY ANY MANUFACTURER REQUIREMENTS. POWER AND CONTROL WIRING AND CONDUIT FOR VALVE ACTUATORS, DAMPER ACTUATORS, REFRIGERANT MONITORS, CARBON DIOXIDE SENSORS, TEMPERATURE CONTROL PANELS, RELAYS, INDICATOR LIGHTS, REMOTE CONTROL PANELS, SOLENOID VALVES AND OTHER SIMILAR DEVICES THAT ARE PART OF THE H.V.A.C SYSTEM SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR. SEE ELECTRICAL DRAWINGS FOR THE LOCATION OF CIRCUIT BREAKERS SPECIFICALLY DEDICATED FOR TEMPERATURE CONTROL SYSTEM COMPONENTS.
- 10. ALL CONDUIT SHALL BE CONCEALED WITHIN THE WALL OR CEILING CAVITY WITH THE EXCEPTION OF MECHANICAL ROOMS, ELECTRICAL ROOMS, OR WHERE NOTED OTHERWISE. CONDUIT MAY BE EXPOSED AT THE CEILING LEVEL OF AREAS WITHOUT CEILINGS (EXPOSED STRUCTURE). COORDINATE THE ROUGH-IN OF CONDUIT AND JUNCTION BOXES IN MASONRY WALLS WITH THE GENERAL CONTRACTOR. SURFACE MOUNTED RACEWAYS OR EXPOSED
- CABLE ARE NOT ACCEPTABLE UNLESS SPECIFICALLY NOTED OTHERWISE. 11. IT SHALL BE THE MECHANICAL CONTRACTORS RESPONSIBILITY TO COORDINATE ALL TEMPERATURE CONTROL SYSTEM REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR PRIOR TO THE PURCHASE OR INSTALLATION OF ANY OF THE ELECTRICAL POWER OR TEMPERATURE CONTROL SYSTEM COMPONENT.
- 12. ALL DAMPER ACTUATORS FOR DUCT SYSTEMS OR EQUIPMENT THAT COMMUNICATES DIRECTLY WITH THE OUTDOORS SHALL BE SPRING RETURN TYPE TO CLOSE IN THE EVENT OF A POWER FAILURE.
- 13. ALL DAMPERS ON THE INLET OR OUTLET OF THE FAN SHALL BE OPEN PRIOR TO STARTING THE FAN. PROVIDE ANY TIME DELAYS OR END SWITCHES AS REQUIRED.
- 14. PROVIDE CLEAR PLASTIC LOCKABLE GUARDS ON ALL THERMOSTATS OR SENSORS WITH ADJUSTABLE SET-POINTS LOCATED IN PUBLIC SPACES.

DEMOLITION:

- 1. THE CONTRACTOR SHALL MAKE ALL PROVISIONS TO PROTECT THE PREMISES FROM DAMAGE DURING DEMOLITION
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MOVING AND PROTECTING ALL OWNER OWNED FURNITURE,
- EQUIPMENT ETC. AS REQUIRED TO PERFORM THE WORK OF THIS PROJECT. THE CONTRACTOR SHALL PROTECT THE ROOF MEMBRANE DURING DEMOLITION AND MAKE ANY PROVISIONS
- REQUIRED TO MAINTAIN THE CURRENT ROOFING SYSTEM WARRANTY. 4. PROVIDE TEMPORARY WEATHERPROOFING AND CURBING AT ROOF OPENINGS AS REQUIRED DURING DEMOLITION
- TO PROTECT THE SPACE BELOW. 5. WHEN TEMPORARY OPENINGS THROUGH THE ROOF MUST REMAIN OPEN 8 HOURS OR LONGER, FRAME AND COVER OPENINGS WITH 3/4" PLYWOOD. TEMPORARY OPENING ENCLOSURES SHALL BE SECURED IN PLACE WITH
- MECHANICAL MEANS TO WITHSTAND POTENTIAL ADVERSE WEATHER CONDITIONS. . WHERE THE USE OF CUTTING TORCHES ARE REQUIRED, PROVIDE A MEANS TO VENTILATE THE SPACE TO REMOVE SMOKE AND ODORS. COORDINATE ALL TORCH CUTTING OPERATIONS WITH THE OWNER AND OBTAIN NECESSARY BURN PERMITS. PROVIDE A DOCUMENTED FIRE SAFETY PLAN PRIOR TO CUTTING OPERATIONS AND INSTRUCT ALL
- PERSONNEL ON THE PLANS IMPLEMENTATION. FIRE EXTINGUISHERS SHALL BE PRESENT AT ALL TIMES. THE CONTRACTOR SHALL NOTE ANY EXISTING DAMAGE ON CEILING TILES, ROOFING, LIGHT FIXTURES, WALLS, FLOORS FURNITURE, PAVING, ETC. PRIOR TO THE START OF ANY WORK, THE CONTRACTOR SHALL PHOTOGRAPH THESE ITEMS AND SUBMIT THEM TO THE ENGINEER BEFORE BEGINNING WORK.
- THE CONTRACTOR SHALL DISPOSE OF ALL DEMOLISHED EQUIPMENT EXCEPT WHERE NOTED OTHERWISE 9. THE CONTRACTOR SHALL REMOVE ALL ABANDONED THERMOSTATS, CONDUIT, ELECTRICAL COMPONENTS,
- EQUIPMENT, WIRING, CONTROLS, ETC. 10. WHERE EXISTING PIPING, DUCTWORK, EQUIPMENT, CONTROLS, CONDUIT, WIRE MOLD, ETC, HAVE BEEN REMOVED FROM WALLS, PATCH WALL AND PAINT TO NEAREST "EYE BREAK" OR MASONRY UNIT. OBTAIN THE APPROPRIATE
- PAINT COLOR FROM THE OWNER OR USE COMPUTER COLOR MATCHING BY THE PAINT SUPPLIER. 11. WHERE EXISTING PIPING, DUCTWORK, EQUIPMENT, CONTROLS, CONDUIT, WIRE MOLD, ETC. HAVE BEEN REMOVED FROM CEILINGS, PATCH CEILING AND BLEND PAINT INTO EXISTING AS MUCH AS POSSIBLE. OBTAIN THE
- APPROPRIATE PAINT COLOR FROM THE OWNER OR USE COMPUTER COLOR MATCHING BY THE PAINT SUPPLIER. WHERE EXISTING PIPING, DUCTWORK, EQUIPMENT, CONDUIT, SUPPORT PADS ETC. HAVE BEEN REMOVED FROM FLOORS, PATCH FLOOR TO MATCH EXISTING MATERIALS, COLOR AND SURFACE FINISH TO MATCH EXISTING AND BLEND PAINT INTO EXISTING AS MUCH AS POSSIBLE. OBTAIN SPARE TILE AND OR CARPET MATERIAL FROM THE
- WHERE PIPING, CONDUIT, DUCTWORK, CONTROLS, EQUIPMENT, ETC ARE CALLED FOR TO BE DEMOLISHED, REMOVE ALL ASSOCIATED HANGERS, SUPPORTS AND OTHER ASSOCIATED AND OR CONNECTED ITEMS ABANDONED AS A RESULT OF THE DEMOLITION.

IDENTIFICATION:

- PROVIDE PLASTIC LAMINATE IDENTIFICATION LABELS ON ALL EQUIPMENT SCHEDULED ON THE DRAWINGS. THE IDENTIFICATION SHALL BE CONSISTENT WITH THE PLANMARKS SHOWN ON THE DRAWINGS AND THE BAS SYSTEM USER INTERFACE. SEE DETAILS ON DRAWINGS REGARDING COLOR, SIZE, TEXT HEIGHT, ETC.
- PROVIDE PLASTIC LAMINATE IDENTIFICATION LABELS ON ALL TEMPERATURE CONTROL COMPONENTS SUCH AS VALVE AND DAMPER ACTUATORS, CONTROL PANELS, TEMPERATURE SENSORS, HUMIDITY SENSORS, ETC. THE IDENTIFICATION SHALL BE CONSISTENT WITH THE PLANMARKS SHOWN ON THE DRAWINGS WHERE AVAILABLE AND THE BAS SYSTEM USER INTERFACE. SEE DETAILS ON DRAWINGS REGARDING COLOR, SIZE, TEXT HEIGHT, ETC.
- 3. PROVIDE IDENTIFICATION LABELS ON ALL PIPING SYSTEMS. SEE DETAILS ON DRAWINGS REGARDING COLOR, SIZE, TEXT HEIGHT, ETC.
- 4. PROVIDE A STENCILED LABEL ON ALL ACCESS DOORS PROVIDED FOR ACCESS TO FIREDAMPERS. THE STENCILED LABEL SHALL BE RED, 2" HIGH AND READ "FD"
- 5. PLASTIC LAMINATE SIGNS AND LABELS ON OUTDOOR EQUIPMENT SHALL BE FIXED TO EQUIPMENT WITH STAINLESS STEEL OR ALUMINUM RIVETS OR STAINLESS STEEL OR PLATED SCREWS.
- 6. CLEAN EQUIPMENT AND PIPING PRIOR TO AFFIXING ADHESIVE TYPE LABELS AND SIGNS.

DUCTWORK - GENERAL:

- 1. ALL DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED PER THE LATEST VERSION OF THE S.M.A.C.N.A. H.V.A.C. DUCT CONSTRUCTION STANDARDS. UNLESS SPECIFIED MORE STRINGENTLY ELSEWHERE IN THESE CONSTRUCTION
- 2. ALL 90° RECTANGULAR ELBOWS, 2" PRESSURE CLASS AND BELOW, SHALL BE EQUIPPED WITH SINGLE THICKNESS TURNING VANES MOUNTED TO A PREFABRICATED VANE RAIL, UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
- 3. ALL RECTANGULAR 90° ELBOWS, 3" PRESSURE CLASS AND HIGHER, SHALL BE RADIUS TYPE, EQUIPPED WITH 3 SPLITTER VANES FOR DUCT 40" AND WIDER, AND TWO SPLITTER VANES FOR DUCTS 39" WIDE AND SMALLER. SPACE AND MOUNT SPLITTER VANES ACCORDING TO THE S.M.A.C.N.A. STANDARDS. 4. ALL RECTANGULAR RADIUS ELBOWS TO BE FABRICATED WITH AN INSIDE RADIUS NO LESS THAN 1/2 OF WIDTH OF
- THE DUCT. THE WIDTH IS DEFINED AS THE DIMENSION OF THE DUCT IN THE PLANE IN WHICH THE DUCT IS TURNING. RECTANGULAR DUCTWORK SHALL BE SUPPORTED PER THE S.M.A.C.N.A. STANDARDS AND AT EACH CHANGE IN
- DIRECTION. 6. "BULL HEAD" RECTANGULAR TEES WITH OR WITHOUT TURNING VANES AND SPIRAL DUCT TEES ARE NOT
- ACCEPTABLE. PROVIDE MANUAL, SINGLE BLADE, BALANCING DAMPERS WITH LOCKING QUADRANT AND INTEGRAL POSITION
- INDICATOR ON ALL RUNOUTS TO SUPPLY AND EXHAUST AIR DEVICES. PROVIDE MANUAL OPPOSED BLADE, BALANCING DAMPERS WITH LOCKING QUADRANT AND INTEGRAL POSITION
- INDICATOR ON ALL RECTANGULAR BRANCH DUCTS AND AIR DEVICE RUNOUTS THAT EXCEED 12" IN HEIGHT. MANUAL SPLITTER DAMPERS ARE NOT ACCEPTABLE.
- 10. ALL DUCT, 3" PRESSURE CLASS AND HIGHER, SHALL BE SEALED EXTERNALLY AT EACH JOINT AND INTERNALLY ALONG ALL LONGITUDINAL SEAMS.
- 11. ALL DUCT, 3" PRESSURE CLASS AND HIGHER, SHALL BE EXTERNALLY SEALED AT EACH JOINT. 12. ALL DUCTWORK LOCATED WITHIN MECHANICAL ROOMS SHALL BE SEALED EXTERNALLY AT EACH JOINT REGARDLESS OF PRESSURE CLASS.
- 13. ALL DUCTWORK SHALL BE PROVIDED WITH SEISMIC RESTRAINTS IN ACCORDANCE WITH THE SEISMIC RESTRAINT MANUAL: GUIDELINES FOR MECHANICAL SYSTEMS, 3RD EDITION 2008, AS PUBLISHED BY THE SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION, INC. (SMACNA) AS WELL AS ALL LOCAL CODES.
- 14. ALL DUCTWORK SHALL BE SUPPORTED FROM ROOF OR FLOOR STRUCTURE ABOVE. DUCTWORK SHALL NOT LAY ON TOP OF CEILING OR LIGHT FIXTURES.
- 15. FLEXIBLE DUCT RUNOUTS TO AIR DEVICES SHALL NOT EXCEED 5'-0" IN LENGTH. FLEXIBLE RUNOUTS SHALL BE TRIMMED TO THE MINIMUM LENGTH NECESSARY TO MAKE THE CONNECTION. 16. WHERE DAMPER ACTUATORS ARE MOUNTED TO DUCTWORK OR PLENUMS PROVIDE A HEAVY GAGE BASE PLATE, ANGLE STIFFENERS OR MOUNTING AS REQUIRED TO ELIMINATE DEFLECTION OF DUCTWORK DURING ACTUATOR
- OPERATION. 17. COORDINATION OF DUCT SYSTEM INSTALLATION WITH OTHER TRADES SHALL BE PERFORMED PRIOR TO THE FABRICATION OF ANY DUCTWORK. VERIFY DUCT CLEARANCES PRIOR TO FABRICATION. NOTIFY THE ARCHITECT/ENGINEER OF ANY CONFLICTS THAT REQUIRE DIMENSIONAL CHANGES OR REQUIRE MAJOR RELOCATION
- OF DUCTWORK. 18. PROVIDE STANDARD FLEXIBLE DUCT CONNECTIONS ON ALL FAN POWERED TERMINAL UNITS, FAN COIL UNITS,
- FURNACES, BLOWER COILS AND EXHAUST FANS. 19. PROVIDE HIGH TEMPERATURE SYSTEM FLEXIBLE CONNECTORS ON ALL KITCHEN AND DISHWASHER EXHAUST EQUIPMENT AND DUCTWORK.
- 20. PROVIDE 45° FLARED TAKEOFFS FOR ALL RECTANGULAR BRANCH DUCT CONNECTIONS TO THE MAIN DUCT. 21. ALL DUCTWORK SIZES SHOWN ARE EXTERNAL DIMENSIONS. ALLOWANCE HAS BEEN MADE FOR 1" DUCTLINER WHERE AND IF REQUIRED. SEE DUCTWORK SCHEDULE ON DRAWINGS.

4454 IDEA CENTER BOULEVARD DAYTON, OH 45430-1500

CONSTRUCTION

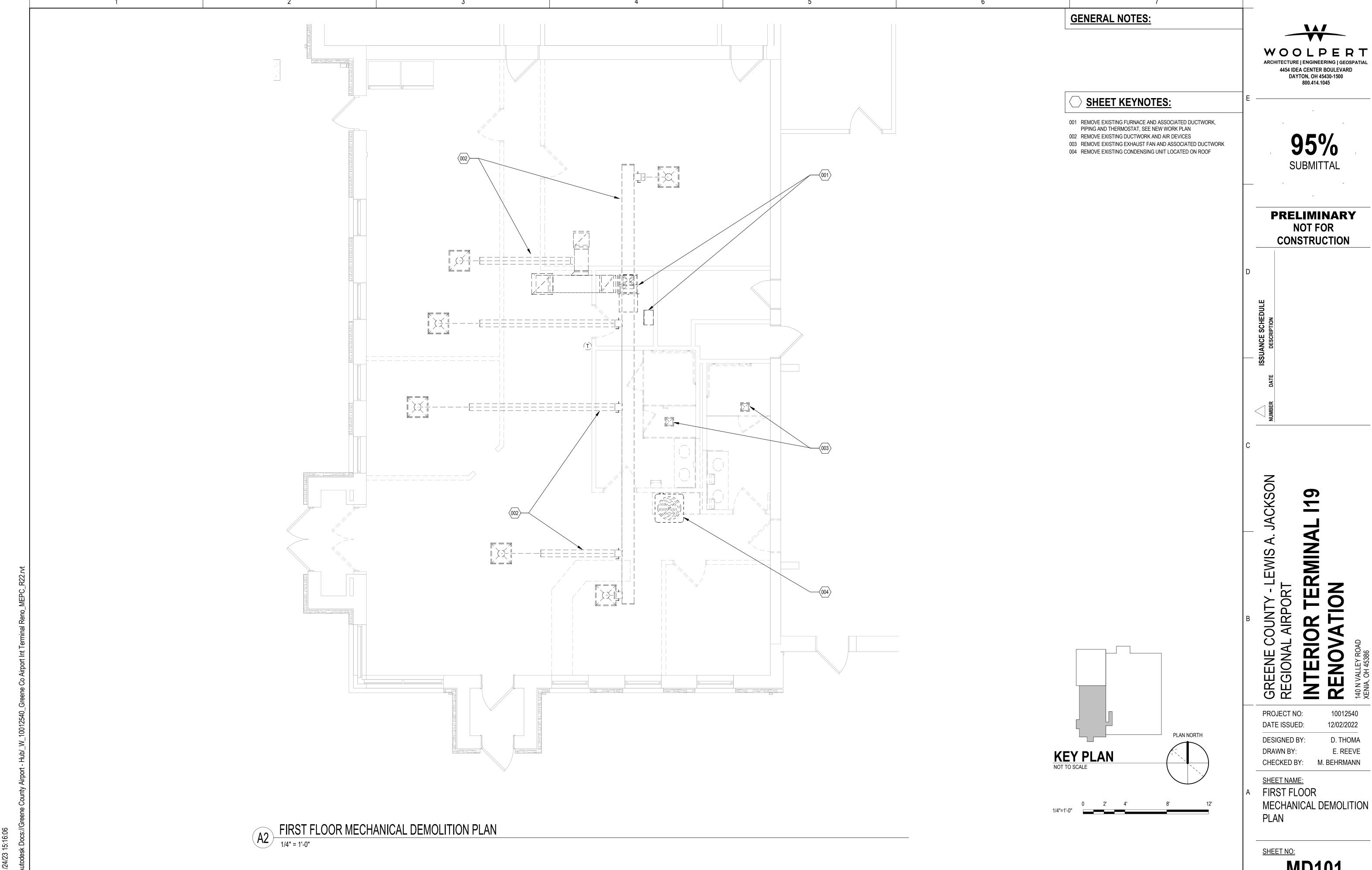
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10012540 12/02/2022 D. THOMA

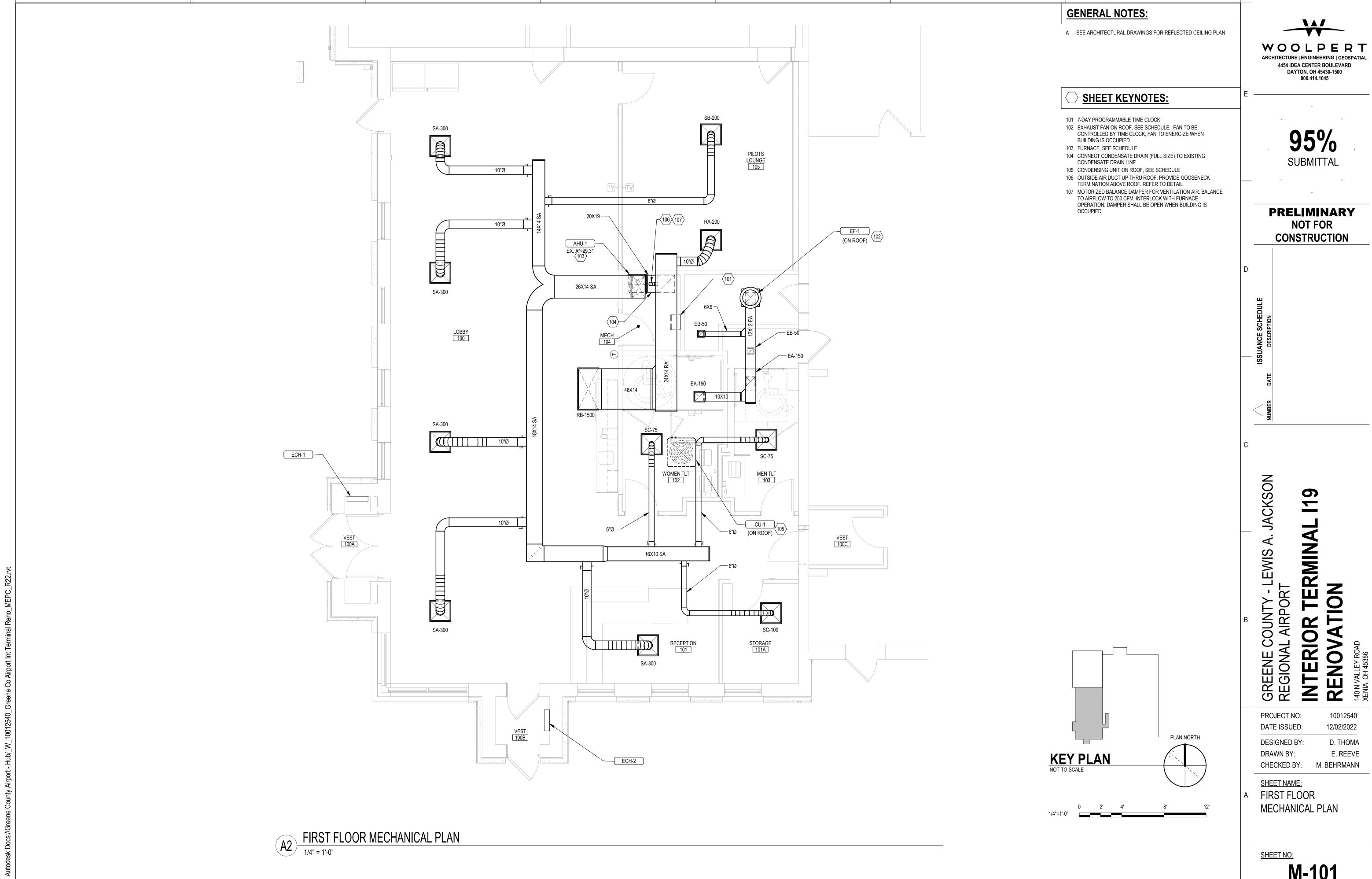
E. REEVE

DRAWN BY: M. BEHRMANN CHECKED BY:

SHEET NAME:



MD101



M-101

NOTES:

- 1.) STENCIL OR LABEL COLORS SHALL CONTRAST WITH THE DUCT SYSTEM COLOR. USE BLACK ON FOIL FACED DUCT INSULATION.
- LABEL ALL ACCESSIBLE DUCT SYSTEMS AFTER EXITING A MECHANICAL ROOM OR CHASE AND BEFORE ENTERING A MECHANICAL ROOM OR CHASE.
- LABEL DUCT SYSTEMS WHERE MULTIPLE DUCT SYSTEMS OCCUR IN A CONCENTRATED AREA OR CROSS PATHS. STENCIL PAINT SHALL BE AN ALKYD BASED GLOSS OR SEMI-GLOSS.
 - CLEAN DUCTWORK PRIOR TO STENCILING OR APPLYING ADHESIVE LABELS.

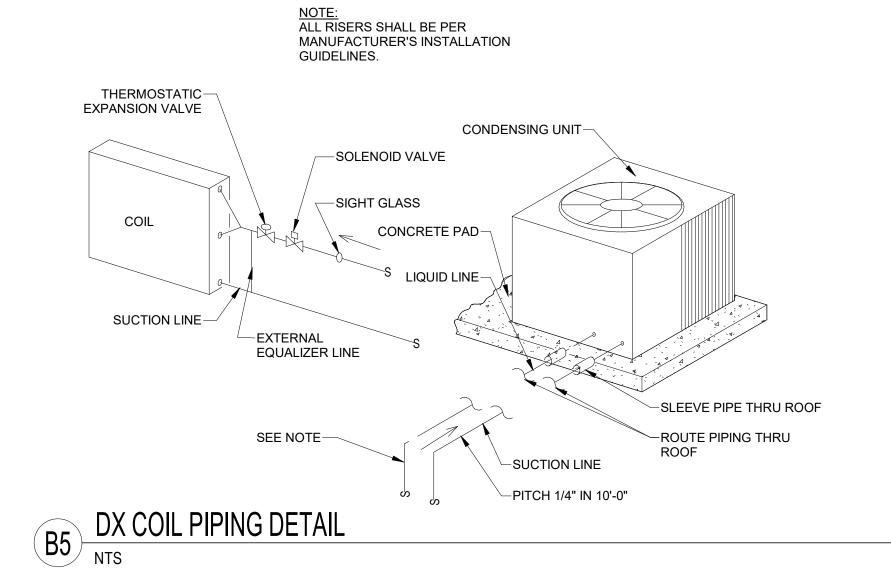
D2 DUCT SYSTEM LABELING DETAIL

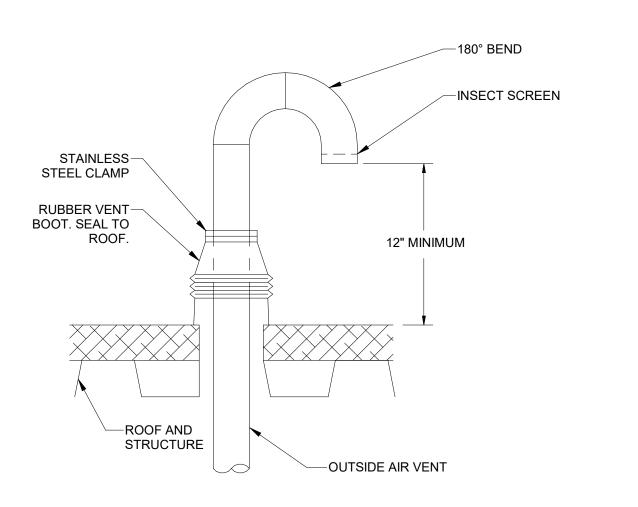
NTS

PROVIDE HANGERS REQUIRED TO LIMIT FLEXIBLE DUCT SAG INSULATED ROUND SHEETMETAL AR REQUIRED. SAME SIZE AS DIFFUSER NECK. BOTTOM OF-5'-0" -FLEXIBLE DUCT, SAME SIZE BUILDING MAXIMUM AS DIFFUSER NECK STRUCTURE -WIRE HANGER (TYP.) PROVIDE SHEETMETAL— SPIN-IN FITTING W/ DAMPER CONNECTION ELBOW, EXTERNALLY & VOLUME EXTRACTOR INSULATE -RADIUS NO LESS THAN —1 1/2" WIDE -MAIN DUCT DUCT DIAMETER SHEETMETAL STRAP SUSPENDED CEILING -CEILING DIFFUSER

AIR DEVICE RUNOUT CONNECTION DETAIL

NTS





OUTSIDE AIR GOOSENECK DETAIL

NTS

WOOLPERT 4454 IDEA CENTER BOULEVARD DAYTON, OH 45430-1500 800.414.1045

PRELIMINARY NOT FOR CONSTRUCTION

SON

- LEWIS A. JACK

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INTERIOR TERMINAL RENOVATION 140 N VALLEY ROAD XENIA, OH 45386

PROJECT NO: 10012540 12/02/2022 DATE ISSUED: DESIGNED BY: D. THOMA

E. REEVE DRAWN BY: CHECKED BY: M. BEHRMANN

SHEET NAME: MECHANICAL DETAILS

SHEET NO:

M-501

		/ \11 \		OL O		OLL		
PLAN MARK	MANUFACTURER	MODEL	NECK SIZE	FUNCTION	LOCATION	THROW	MATERIAL	NOTES
						ITIKOW		
EA	TITUS	50F	10X10	EXHAUST	CEILING	-	ALUMINUM	1,2,5
EB	TITUS	50F	6X6	EXHAUST	CEILING	-	ALUMINUM	1,2,5
RA	TITUS	355RL	22X22 (8"Ø)	RETURN	CEILING	-	STEEL	1,2,3,6
RB	TITUS	23RL	46X22	RETURN	CEILING	-	STEEL	1,2,3,6
SA	TITUS	TDC	18X18 (10"Ø)	SUPPLY	CEILING	4-WAY	STEEL	1,2,4
SB	TITUS	TDC	18X18 (8"Ø)	SUPPLY	CEILING	4-WAY	STEEL	1,2,4
SC	TITUS	TDC	18X18 (6"Ø)	SUPPLY	CEILING	4-WAY	STEEL	1,2,4

NOTES:

- . SEE ARCHITECTURAL DRAWINGS FOR CEILING TYPE . STANDARD WHITE FINISH
- 3. HORIZONTAL FRONT BLADES (PARALLEL TO LONG DIMENSION)
- 4. LOUVERED FACE
- 5. EGG CRATE FACE6. 1/2" BLADE SPACING

- **GENERAL NOTES:**
- 1. PROVIDE LAY-IN CEILING PANELS FOR ALL AIR DEVICES MOUNTED IN LAY-IN CEILINGS. DO NOT MOUNT AIR DEVICE IN
- CEILING TILE. 2. PROVIDE OPPOSED BLADE DAMPERS IN NECK WHERE DAMPERS IN RUNOUT
- WOULD BE INACCESSIBLE. 3. ALL AIR DEVICES SHALL BE SELECTED FOR 25 NC OR LOWER AS DESIGNED UNLESS NOTED OTHERWISE.

INDOOR ELECTRIC FURNACE SCHEDULE

				ELEC	CTRIC HT	G. CAPA	ACITIES	BLOWER			ELECTRICAL				COOLING COIL CAPACITIES							
PLAN					EAT	LAT		NOM.	ESP		TOTAL		RTIES	SENS			SENS. TOTAL EAT			OPER.		
MARK	AREA SERVED	MFR.	MODEL	KW	(°F)	(°F)	STAGES	CFM	"WC	HP	AMPS	VOLTAGE	PHASE	FREQUENCY	MOP	MBH	MBH	DB	WB	SEER	WEIGHT	NOTES AND ACCESSORIES
AHU-1	LOUNGE/LOBBY	TRANE	4TEC3H60A	10	60.0	95.0	5	1800.0	0.50	0.75	30.0	240	1	60	50.0	52.0	60.0	78.0	72.0	14	185	1,2,3,4

NOTES:

- 1. UPFLOW CONFIGURATION WITH SIDEWALL RETURN
- 2. COOLING COIL WITH ENCLOSURE
- 3. PROVIDE BACNET COMPATIBLE SEVEN DAY PROGRAMMABLE THERMOSTAT WITH DIGITAL DISPLAY, AND TOUCH SCREEN

4. VARIABLE SPEED BLOWER 5. PROVIDE UNIT MFR APPROVED HOUSEKEEPING PAD

			E	XHA	UST	FA	N S	CHE	DUL	Ε						
										ELECTI			ELECTRICAL		OPER.	
PLAN MARK	AREA SERVED	MFR.	MODEL	TYPE	CFM	ESP ("WC)	RPM	DRIVE	SONES	HP	VOLT	PH	HZ	FLA	WEIGHT (LBS)	NOTES
EF-1	TOILET RMS	GREENHECK	VG-1/6	RMC	400	0.50	1725	DIRECT	8.7	0.125	120	1	60	11.0	25	1,2,3,4
2. UN 3. GF	- ' ALUMINUM INSUL/ IIT MOUNTED DISC RAVITY BACKDRAFT		DAMPER TRAY										AFC CMC CVS ILC WMC WMF RMC RMP RMU TAP	CEI CEI INL WA WA ROO ROO	AL FLOW CE ILING MTD CI NTRIFUGAL \ INE CENTRIF ILL MTD CEN ILL MTD PRO OF MTD CEN	ENTRIFUGAL /ENT SET FUGAL FAN TRIFUGAL FAN PELLER FAN ITRIFUGAL FAN PELLER FAN LAST FAN

			ELEC	TRIC CA	BINE [*]	T HE	EATI	ER S	CHE	EDL	JLE			
PLAN									EL	ECTRIC	AL		OPER. WEIGHT	
MARK	AREA SERVED	MFR.	MODEL	TYPE	CFM	KW	STEPS	MBH	VOLT	PH	HZ	FLA	(LBS)	NOTES
ECH-1	VESTIBULE	MARKEL	3420	WALL HEATER	200	3.0	3	10.2	208	1	60	10.8	44	1,2,3,4,5,6
ECH-2	VESTIBULE	MARKEL	3420	WALL HEATER	200	3.0	3	10.2	208	1	60	10.8	44	1,2,3,4,5,6

NOTES:

NOTES:

. INTERNAL TAMPERPROOF DOUBLE-POLE THERMOSTAT /

1. PROVIDE UNIT WITH LOW AMBIENT OPERATION KIT, CRANKCASE HEATER AND SUPPORT LEGS

PROVIDE EXTERIOR RATED DISCONNECT SWITCH FOR UNIT. WIRING BY ELECTRICAL CONTRACTOR

COMPRESSOR SHALL BE CAPABLE OF 2 SPEED OPERATION

- CIRCUIT BREAKER DISCONNECT
- 2. THERMOAL OVERLOAD CUT OUT
- 3. LOUVERED GRILLE COVER 4. SURFACE WALL MOUNT

5. 2-POLE DISCONNECT SWITCH 6. INTEGRAL THERMOSTAT

AIR-COOLED CONDENSING UNIT SCHEDULE SENS. TOTAL TEMP TONS # OF # OF HP UNIT (MBH) (°F) QTY EA CKTS FANS EA SEER REFRIG. V PH MCA MOCP INDOOR UNIT MANUFACTURER MODEL TRANE 4TTR7060 41.2 55.5 95 1 5 1 1 0.25 16 410A 230 1 41.0 60.0 1,2,3

NOTE: FANS SELECTIONS BASED UPON A MEDIUM DRIVE LOSS FOR BELT DRIVEN MODELS. ALL FANS SELECTED AT AN ALTITUDE OF 500 FT AND 70°F UNLESS NOTED OTHERWISE.

INTERIOR TER

SON

JACK

4454 IDEA CENTER BOULEVARD DAYTON, OH 45430-1500 800.414.1045

PRELIMINARY

NOT FOR

CONSTRUCTION

PROJECT NO: DATE ISSUED:

DESIGNED BY: D. THOMA E. REEVE DRAWN BY: CHECKED BY: M. BEHRMANN

10012540

12/02/2022

SHEET NAME:

MECHANICAL SCHEDULES

UPON A CALL FOR COOLING FROM THE SPACE THERMOSTAT, THE

MAINTAINED CU SHALL BE OFF.

<u>OUTSIDE AIR INTAKE DAMPER:</u>

UNOCCUPIED MODE - SETBACK MODE:

DEGREES BELOW OCCUPIED SET POINT.

COMPRESSORS SHALL CYCLE TO SATISFY THE THERMOSTAT COOLING TEMPERATURE SET-POINT. WHEN THERMOSTAT COOLING SET POINT IS

MAINTAINED. WHEN HEATING SET-POINT IS MAINTAINED, UNIT SHALL OFF

THE TIME CLOCK WILL CONTROL THE OUTSIDE AIR DAMPER. THE OUTSIDE AIR DAMPER SHALL OPEN WHEN THE BUILDING IS OCCUPIED AND SHALL CLOSE WHEN THE BUILDING IS UNOCCUPIED. THE OUTSIDE AIR INTAKE DAMPER SHALL OPEN TO ITS PRESET MINIMUM BALANCED POSITION. THE OWNER'S BUILDING USE SCHEDULE (OCCUPIED AND UNOCCUPIED PERIODS) SHALL BE PROGRAMMED BY THE CONTRACTOR. CONTRACTOR TO COORDINATE WITH OWNER FOR REQUIRED SCHEDULE REQUIREMENTS. THE SHEDULE SHALL BE ADJUSTABLE BY THE

OPERATION SHALL BE AS DESCRIBED ABOVE WITH COOLING TEMPERATURE SET POINT 3 DEGREES ABOVE OCCUPIED AND HEATING SET POINT 3

UPON A CALL FOR HEATING FROM THE SPACE THERMOSTAT, THE HEAT PUMP WILL ACTIVATE AS NEEDED TO MAINTAIN HEATING TEMPERATURE SET-POINT. IF HEAT PUMP CANNOT SATISFY SPACE TEMPERATURE SET-POINT, THEN THE ELECTRIC HEATER WILL ENERGIZE AND OPERATE UNTIL SPACE TEMPERATURE SET-POINT IS

CPVC CS	CHLORINATED PVC CARBON STEEL		N NO PE POLYETHYLI	-NIE						WCU WLD		WROU: WELDE	IGHT COPPE	:R	
CU	COPPER			NURATE FOAM						VVLD		YES	בט		
FG	FIBERGLASS									1		_		NIAL TOO (SE	E ODECIEIOATIO
FLGD	FLANGED			LINE						≤ .				,	E SPECIFICATIO
FMG	FOAM GLASS		PRESS PRESSURE PU POLYETHAN	T TOAM						≥		GREAT	IER ITAN U	R EQUAL TOC) (SEE SPECIFIC
FS	FORGED STEEL														
GR	GROOVED		PVDC POLYVINYLII	DENE CHLORIDE											
	HV	AC DI	ICTWORK SCHEDULF	ΔSHR	<u>ΔF 9</u> (<u> </u>	CI	IMΔ [·]	TF	70N	F 4\				
	HV	AC DU	JCTWORK SCHEDULE		AE 9	0.1	CL		ΤE						
DUCT SYSTEM				PRESSURE				LINER			NSULATIO	N _		NOTE	s
DUCT SYSTEM AHU-1	FUNCTION SUPPLY	AC DU	LOCATION		MATERIAL				TE D		NSULATIO PE D	JACKET	Г	NOTE	s
	FUNCTION	SHAPE		PRESSURE CLASS *wg				LINER		TH TY	NSULATIO PE D	JACKET	Г	NOTE	s
AHU-1	FUNCTION SUPPLY	SHAPE ALL	LOCATION ABOVE CEILING, IN CHASES	PRESSURE CLASS *wg	MATERIAL GS		TH -	LINER TYPE	D -	TH TY	NSULATION DE D	JACKET FFJ	Г	NOTE	s
AHU-1 AHU-1	FUNCTION SUPPLY RETURN	SHAPE ALL ALL	LOCATION ABOVE CEILING, IN CHASES ABOVE CEILING, IN CHASES	PRESSURE CLASS *wg 2" 2"	MATERIAL GS GS		TH - 1"	LINER TYPE - MFF	D - 1.5	TH TY 2" FG	NSULATION DE D W 1.5	JACKET FFJ	Γ	NOTE	S
AHU-1 AHU-1	FUNCTION SUPPLY RETURN	SHAPE ALL ALL	LOCATION ABOVE CEILING, IN CHASES ABOVE CEILING, IN CHASES	PRESSURE CLASS *wg 2" 2"	MATERIAL GS GS		TH - 1"	LINER TYPE - MFF	D - 1.5	TH TY 2" FG	NSULATION DE D.	JACKET FFJ	Г	NOTE	S
AHU-1 AHU-1 AHU-1	FUNCTION SUPPLY RETURN OUTSIDE AIR	SHAPE ALL ALL ALL	LOCATION ABOVE CEILING, IN CHASES ABOVE CEILING, IN CHASES ABOVE CEILING, IN CHASES	PRESSURE CLASS *wg 2" 2"	MATERIAL GS GS GS		TH - 1" 1"	LINER TYPE - MFF	D - 1.5 1.5	TH TY 2" FG	NSULATION DE D.	JACKET FFJ		NOTE	S
AHU-1 AHU-1 AHU-1 AIR DEVICE RUNOUTS	FUNCTION SUPPLY RETURN OUTSIDE AIR SUPPLY	SHAPE ALL ALL ALL RND	LOCATION ABOVE CEILING, IN CHASES ABOVE CEILING, IN CHASES ABOVE CEILING, IN CHASES ABOVE CEILING, IN CHASES	PRESSURE CLASS *wg 2" 2" 2" 1"	MATERIAL GS GS GS GS GS	* * * *	TH - 1" 1" -	LINER TYPE - MFF	D - 1.5 1.5 -	TH TY 2" FG 1.5" FG	NSULATIC PE D W 1.5 -	JACKET 5 FFJ	Γ	NOTE	S

ALL		EXPOSED TO VIEW	1"	GS	*	-	-	-	-	-	-	-				
	0.51	JEDU MOTES					<u>AS</u>	SHRA	λE 90.	1 DUCT S	OUCT SEALING REQUIREMENTS					
	<u>GE</u>	NERAL NOTES:									SMA	CNA DUCT SE	EALING CLAS	S/LEVEL		
	1.	ALL INTERIOR CONCEALED SUPPLY, RETURN OR OUTS NOT SPECIFICALLY LISTED ABOVE SHALL BE INSULATE		ΓWORK	DUCT T	YPE &	PRESSURE	E CLAS	ss c	OUTDOOR DUCT UNCONDITION		UNCONDITIO	NED SPACE*	CONDITIONED SPACE	E**	
		FIBERGLASS WRAP WITH A FOIL FACED JACKET.			SUPPL	Y 2"w.g.	AND BELC	W		Α		В		С		
	2.	ALL INTERIOR EXPOSED SUPPLY, RETURN OR OUTSIDI SPECIFICALLY LISTED ABOVE SHALL BE INSULATED WI			SUPPL	Y GREA	TER THAN	2" w.g	J.	Α		А		В	В	
	ر ا	BOARD WITH A FOIL FACED JACKET.		ICTED	EXHAUST 2"w.g. AND BELOW				С		С		В			
	ე.	ALL EXTERIOR SUPPLY OR RETURN AIR DUCT NOT SPE ABOVE SHALL BE INSULATED WITH 2" OF EXTRUDED P			EXHAU	ST GRE	ATER THA	N 2" w	r.g.	Α		В		С		
	4. 5.	WITH AN ALUMINUM JACKET. SOUND SENSITIVE AREAS SHALL INCLUDE AS A MINIMUTRAINING AREAS, MUSIC ROOMS, LIBRARIES, AUDITOR TELECONFERENCE ROOMS AND CONFERENCE ROOMS ALL RECTANGULAR DUCTWORK SIZES INDICATED ON REFLECT SHEET METAL DIMENSIONS. ALLOWANCE HA	RIUM / STAGES S. THE DRAWING	S, GS	** CO	OLED. I NDITIO	MECHANIC NED SPAC	AL RO	OF PE TERIOF	ENTHOUSES	S ARE U	UNCONDITIO RE DIRECTLY	NED SPACES	HEATED AND/OR		
	1	THE LEGI GILLI WILITE DIWILINGIGING. ALLOWANGE HA	O PERINIVE	- 1 011 1												

DUCT ABBREVIATION SCHEDULE

DUCTLINER WHERE AND IF REQUIRED.

ALL DOUBLE WALL ROUND DUCTWORK SIZES INDICATED ON THE DRAWINGS

ABA	ADHESIVE BACKED ALUMINUM	IFD	INSULATED ELEXIBLE DUCT	
AIFD	ACCOUSTICAL INSULATED FLEXIBLE DUCT	MFF	MATT FACED FIBERGI ASS	
ALUM	ALUMINUM	PFL	PREFORMED LINER	
ASJ	ALL SERVICE JACKET	PGGS	PAINT GRIP GAI VANIZED STEEL	
CS	CARBON STEEL	PVCGS	PVC COATED GALVANIZED STEEL	
D	DENSITY	RETC	RECTANGULAR	
EPTS	EXTRUDED POLYSTYRENE	RND	ROUND	
FB	FIBERGLASS BOARD	SS	STAINLESS STEEL	
FFJ	FOIL FACED JACKET	TH	THICKNESS	
FGW	FIBERGLASS WRAP	UFD	UNINSULATED FLEXIBLE DUCT	
FPW	FIRE-PROOF WRAP			
GS	GALVANIZED STEEL			

GALVANIZED STEEL SPIRAL PIPE

I TIPE & PRESSURE CLASS	OUTDOOK DOCT	UNCONDITIONED SPACE	CONDITIONED SPACE
PPLY 2"w.g. AND BELOW	A	В	С
PPLY GREATER THAN 2" w.g.	A	Α	В
IAUST 2"w.g. AND BELOW	С	С	В
IAUST GREATER THAN 2" w.g.	А	В	С

DUCT SEALING NOTES:

- SEAL CLASS A: TRAVERSE AND LONGITUDINAL JOINTS AND DUCT WALL PENETRATIONS
- SEAL CLASS B: TRAVERSE AND LONGITUDINAL JOINTS TO BE SEALED SEAL CLASS C: TRAVERSE JOINTS ONLY TO BE SEALED ALL DUCTWORK CARRYING HAZARDOUS FUMES (CLASS 3 OR 4 AIR), NOT REQUIRING
- LIQUID TIGHT JOINTS AND SEAMS, REGARDLESS OF PRESSURE CLASS OR LOCATION SHALL BE SMACNA SEAL CLASS A. ALL DUCTWORK SERVING COMMERCIAL KITCHEN HOODS, DISHWASHERS OR WHERE SPECIFIED, SHALL HAVE WELDED, LIQUID TIGHT JOINTS AND SEAMS. USE APPROPRIATE
- GASKETS AND SEALANTS WHERE WELDING IS NOT POSSIBLE.
- *** 20 GAGE MINIMUM, OTHERWISE SMACNA STANDARD FOR PRESSURE CLASS INDICATED 22 GAGE MINIMUM, OTHERWISE SMACNA STANDARD FOR PRESSURE CLASS INDICATED

PER SMACNA STANDARD FOR PRESSURE CLASS INDICATED

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NOTES

PRELIMINARY NOT FOR CONSTRUCTION

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PROJECT NO: 10012540 12/02/2022

DATE ISSUED: **DESIGNED BY:** D. THOMA E. REEVE DRAWN BY:

M. BEHRMANN CHECKED BY: SHEET NAME:

MECHANICAL SCHEDULES AND SEQUENCE OF **OPERATIONS**

GENERAL PLUMBING SYMBOLS

PROJECT PLUMBING NOTES

GENERAL PLUMBING DEMOLITION NOTES

- AREAS OF DEMOLITION ARE BASED ON VISIBLE FIELD CONDITIONS AND ALL NOTED DEMOLITION IS ASSUMED TO BE WITHIN THE DESIGNATED AREAS SHOWN. PROVIDE ALL NECESSARY DEMOLITION AS REQUIRED TO COMPLY WITH THE DESIGN INTENT OF THESE DOCUMENTS WHETHER SPECIFICALLY FOUND IN AREA SHOWN OR IN ADJACENT SPACES, AND AS REQUIRED TO MEET LOCAL CODE REQUIREMENTS. PLUMBING SYSTEMS (DWV, DOMESTIC WATER, ETC.) IN ALL OTHER EXISTING AREAS ARE TO REMAIN OPERATIONAL UNLESS NOTED OTHERWISE. NOTIFY OWNER PRIOR TO INTERRUPTING
- 2. THE CONTRACTOR SHALL MAKE ALL PROVISIONS TO PROTECT THE PREMISES FROM DAMAGE DURING DEMOLITION WORK
- 3. THIS CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING THE QUANTITY, LOCATION AND ROUTING OF ALL EXISTING PLUMBING RELATED DEVICES, FIXTURES, PIPING SYSTEMS, DRAINS AND APPURTENANCES PRIOR TO BIDDING PROJECT.
- 4. PLUMBING DEMOLITION IS TO INCLUDE THE REMOVAL OF ALL UNUSED PLUMBING RELATED DEVICES, PIPE, HANGERS, SUPPORTS, INSULATION, AS WELL AS ANY PREVIOUSLY ABANDONED PLUMBING PIPING SYSTEMS AND ALL MISCELLANEOUS ITEMS ASSOCIATED WITH THE CURRENTLY DEMOLISHED PLUMBING SYSTEMS NOT REMOVED UNDER THE GENERAL DEMOLITION WORK NOTED ON THE ARCHITECTURAL DRAWINGS, AS REQUIRED TO COMPLY WITH THE DESIGN INTENT OF THESE DOCUMENTS, WHETHER SPECIFICALLY NOTED OR NOT, AND AS REQUIRED TO MEET LOCAL CODE REQUIREMENTS.
- 5. COORDINATE WITH THE GENERAL CONTRACTOR IN REGARD TO THE DEMOLITION AND RETENTION OF SUPPLY AND DWV PIPING SYSTEMS AS REQUIRED TO COMPLETE THE WORK INDICATED IN THESE DOCUMENTS.
- 6. COORDINATE THE TEMPORARY SHUT OFF OF THE EXISTING WATER SUPPLY TO THIS FACILITY, WHEN NECESSARY, WITH THE OWNER PRIOR TO BEGINNING WORK. LOCATE AND IDENTIFY THE ACTIVE AND THE "TO BE DEMOLISHED" SUPPLY AND DWV PIPING, PRIOR TO STARTING ANY DEMOLITION WORK. WHERE PORTIONS OF THE EXISTING PIPING SYSTEMS ARE TO BE RETAINED AND REUSED. DEMOLISH PIPING AS INDICATED AND CAP ENDS OF INACTIVE DWV AND COLD / HOT WATER SUPPLY BRANCHES WITHIN 12" OF THE ACTIVE SYSTEM, TO AVOID A DEAD-END CONDITION.
- DURING THE COURSE OF DEMOLITION WORK, THIS CONTRACTOR SHALL KEEP IN MIND THE SUBSEQUENT RECONNECTION OR EXTENSION OF THE PLUMBING SYSTEMS AND ITS COMPONENTS AS SHOWN IN THESE DOCUMENTS.
- 8. PRIOR TO ANY CORE DRILLING OR DESTRUCTIVE REMOVAL OF EXISTING FLOOR AREAS. PLUMBING CONTRACTOR SHALL ELECTRONICALLY SCAN FLOOR FOR POSSIBLE CONDUIT, PIPING OR ANCILLARY MATERIALS WHICH MAY BE ENCOUNTERED AND BRING POTENTIAL CONFLICTS TO THE ATTENTION OF THE COR WHERE IN CONFLICT WITH NEW PLUMBING INSTALLATIONS. REPAIR OF DAMAGED ITEMS DUE TO INADEQUATE IDENTIFICATION WILL BE THE RESPONSIBILITY OF THE RESPONSIBLE CONTRACTOR.
- 9. ALL SANITARY PIPING BELOW SLAB ON GRADE INDICATED TO BE REMOVED MAY BE ABANDONED IN PLACE IF THE PIPING DOES NOT CONFLICT WITH THE INSTALLATION OF NEW WORK BY THIS OR OTHER TRADES. WHERE PIPE IS ABANDONED IN PLACE, THE PIPING SHALL BE CAPPED AT OPEN ENDS.
- 10. IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO LEGALLY DISPOSE OF ALL PLUMBING RELATED EQUIPMENT FIXTURES, PIPING, FITTINGS, HANGERS, DRAINS, APPURTENANCES AND DEBRIS, DEMOLISHED AS PART OF THIS SCOPE OF
- 11. CONTRACTOR IS REQUIRED TO PROVIDE ASBESTOS ABATEMENT FOR ALL DESIGNATED AREAS DISTURBED FOR THE RENOVATION PROJECT. REFER TO PROVIDED SPECIFICATION SECTION AND HAZMAT INSPECTION AND TESTING REPORT

GENERAL PLUMBING NOTES:

- 1. WORK PLANS TO BE CONSIDERED AS DIAGRAMMATIC AND ALONG WITH THE SPECIFICATIONS, REFLECT A MINIMUM ACCEPTABLE STANDARD, ALL WORK SHALL CONFORM TO THE 2018 OHIO PLUMBING CODE AND THE AMERICANS WITH DISABILITIES ACT GUIDELINES.
- 2. THIS CONTRACTOR SHALL SECURE AND PAY FOR ALL FEES AND PERMITS ASSOCIATED WITH THIS PORTION OF THE WORK.
- 3. EQUIPMENT, MATERIAL AND WORKMANSHIP TO BE WARRANTED FOR ONE YEAR MINIMUM FROM DATE OF FINAL ACCEPTANCE EXCEPT WHERE NOTED AS MORE STRINGENT IN PROJECT MANUAL.
- 4. THIS CONTRACTOR SHALL COORDINATE ALL ASPECTS OF WORK WITH OTHER TRADES PRIOR TO AND DURING CONSTRUCTION / INSTALLATION.
- 5. THIS CONTRACTOR SHALL FIELD VERIFY LOCATION AND SIZES OF EXISTING SUPPLY AND DWV SYSTEMS UTILITIES INCLUDING ANY AND ALL FIELD CONDITIONS APPLICABLE TO THIS TRADE, PRIOR TO STARTING WORK.
- 6. UNDERGROUND AND ABOVE GROUND PLUMBING SYSTEMS HAVE BEEN PLOTTED FROM LIMITED AREA SURVEY AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY, THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS NOT KNOWN. THE INCLUDED INFORMATION REPRESENTS ONLY THE ASSUMPTIONS OF THE ENGINEER AS TO THE LOCATION OF SUCH SYSTEMS AND IS ONLY INCLUDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATSOEVER, IN RESPECT TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS RELATIVE TO THE LOCATIONS OF THESE SYSTEMS OR THE MANNER IN WHICH THEY ARE TO BE REMOVED, EXTENDED OR ADJUSTED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION AND PROPER IDENTIFICATION OF SAID PLUMBING SYSTEMS AND THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. IF EXISTING SYSTEMS OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT IN LOCATION WITH THE NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE COR SO THAT THE CONFLICT MAY BE RESOLVED. WHERE UTILITIES ARE INADVERTENTLY DISTURBED, THE REPAIR OF SAME UTILITY SHALL BE THE RESPONSIBILITY OF THE RESPONSIBLE CONTRACTOR. VERIFICATION OF THE LOCATIONS, INVERTS, AND DIRECTION OF FLOWS OF UNDERGROUND SYSTEMS AND UTILITIES, SHOWN OR NOT SHOWN, WILL BE THE OBLIGATION OF THE CONTRACTOR PRIOR TO AND DURING CONSTRUCTION / INSTALLATION.
- WHEN A CONFLICT BETWEEN PLANS AND SPECIFICATIONS OR NOTES OCCURS, THE ENGINEER SHALL DECIDE WHICH GOVERNS, GENERALLY, THE MORE RESTRICTIVE, MORE SPECIFIC, OR STRICTER PROVISION SHALL GOVERN, IF ANY DISCREPANCIES ARE DISCOVERED ON THE PLANS OR BETWEEN THE PLANS AND THE SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OBTAIN CLARIFICATION OF THE INTENT FROM THE ENGINEER PRIOR TO CONSTRUCTION OR INSTALLATION OF THE PROPOSED IMPROVEMENTS.
- 8. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING ALL FIXTURES, PIPING, SPECIALTIES AND APPURTENANCES AS INDICATED ON THE PLUMBING DRAWINGS. SCHEDULES AND IN THE SPECIFICATIONS.
- 9. WHERE EXISTING PLUMBING SYSTEMS ARE MODIFIED OR WHERE NEW PLUMBING SYSTEMS INTERFACE WITH EXISTING SYSTEMS, THIS CONTRACTOR SHALL CLEAN AND FLUSH THE EXISTING PIPING SYSTEM. CONTRACTOR SHALL ENSURE THAT DRAINAGE LINES ALLOW PROPER FLOWS AND LINE CARRY. BRING ANY UNRESOLVED ADVERSE CONDITIONS TO THE ATTENTION OF THE ON COR.
- 10. NOT ALL HANGER TYPES, LABEL DESIGNATIONS, OR LEGEND REFERENCES WILL NECESSARILY BE USED FOR THIS PROJECT. STANDARD INDUSTRY PRACTICE, SPECIFICATIONS, AND PLANS INDICATE THE MAGNITUDE OF APPLICATION.
- 11. SEE ARCHITECTURAL DRAWINGS FOR FIXTURE HEIGHTS AND ACCESSIBILITY REQUIREMENTS.

- 1. ALL UNDERGROUND SANITARY PIPING ROUTED NEAR COLUMN FOOTINGS SHALL BE LOCATED OUTSIDE OF THE ZONE OF
- PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY PIPE SLEEVES TO THE GENERAL CONTRACTOR & COORDINATING ALL PIPE SLEEVE LOCATIONS (ABOVE AND BELOW GRADE).
- WASTE AND VENT PIPING SHALL BE STANDARD. CODE APPROVED. DWV PATTERN FITTINGS WITH THE MINIMIUM SIZE DRAINAGE PIPING BELOW FLOOR BEING 2". DIRECTIONAL CHANGES IN DRAINAGE PIPING SYSTEM SHALL NOT INCLUDE THE USE OF QUARTER BENDS OR SHORT SWEEP QUARTER BENDS AND UNLESS ACCOMPANIED BY AN APPROPRIATE CLEANOUT SHALL NOT EXCEED A 45 DEGREE BEND. SLOPE OF HORIZONTAL SANITARY SEWER PIPE SHALL BE AS NOTED: 2-1/2" OR LESS = 1/4" PER FOOT AND FOR 3" AND GREATER = 1/8" PER FOOT. FOR SIZES SEE PLANS, DETAILS, AND ISOMETRICS.
- 4. THIS CONTRACTOR SHALL SCHEDULE ALL WORK OF THIS TRADE TO AVOID INTERFERENCE WITH FIRE PROOFING WORK.
- THIS CONTRACTOR SHALL INSTALL PIPING FREE OF SAGS AND BENDS. OVERHEAD PIPING SHALL BE INSTALLED PARALLEL AND PERPENDICULAR TO COLUMN LINES. CONTRACTOR SHALL PROVIDE HANGERS, CLAMPS, OFFSETS, EXPANSION LOOPS/JOINTS, ANCHORS AND GUIDES AS NECESSARY TO PREVENT STRESS ON PIPING.
- INTERIOR WATER SUPPLY PIPING TO BE TYPE "L" COPPER WITH LEAD-FREE SOLDER JOINTS. UNDERGROUND WATER PIPING TO BE TYPE "K" COPPER WITHOUT JOINTS.
- INSTALLED PLUMBING PIPE, FITTINGS, VALVES, TRIM AND ETC, IN CONTACT WITH POTABLE WATER, SHALL BE MADE OF LEAD FREE MATERIALS IN COMPLIANCE WITH NSF/ANSI 61, SECTION 8 AND NSF/ANSI 372, IN CONFORMANCE WITH PUBLIC LAW 111-380 (S3874) ALSO KNOWN AS THE "REDUCTION IN LEAD IN DRINKING WATER ACT" EFFECTIVE JANUARY 4, 2014.
- 8. ALL PIPING, VALVES AND APPURTENANCES SHALL BE INSTALLED SUCH AS NOT TO OBSTRUCT ANY PORTION OF WINDOWS. DOORWAYS, STAIRS, PASSAGEWAYS, OR ACCESS TO VARIOUS MECHANICAL EQUIPMENT (INCLUDING BUT NOT LIMITED TO: VAV BOXES, CONTROLS, FANS, DAMPERS, FILTERS, AND ANY OTHER MAINTENANCE ACCESS POINTS) OR LIGHTING, ETC.
- PIPING SHALL NOT BE ROUTED ABOVE ELECTRICAL PANELS NOR WITHIN 36" OF THE FRONT OF THE PANELS. COORDINATE INSTALLATION WITH ELECTRICAL TRADE.
- 10. DWV AND SUPPLY PIPING ROUTED THROUGH FINISHED AREAS SHALL BE CONCEALED ABOVE CEILING OR IN FURRED-OUT WALL DWY AND SUPPLY PIPING SHALL NOT BE EXPOSED IN FINISHED AREAS UNLESS SPECIFICALLY NOTED OTHERWISE ON
- 11. ACCESSIBLE SHUTOFF VALVES TO BE PROVIDED ON ALL BRANCH PIPING, AT EACH TOILET ROOM AND EACH FIXTURE. PLUMBING CONTRACTOR TO PROVIDE 8"x8" (MINIMUM) ACCESS PANELS FOR SHUTOFF VALVES WHERE REQUIRED, COORDINATE TYPE AND FINISH WITH DIVISION 8 REQUIREMENTS.
- 12. ALL ABOVE CEILING ISOLATION / SHUT-OFF VALVES SHALL BE INSTALLED SUCH THAT THEY MAY BE EASILY SEEN & REACHED FROM FLOOR OR STEP LADDER.
- 13. FIXTURES AND ROUGHED IN FIXTURES SHALL BE COMPLETE WITH SUPPLY PIPES WITH STOPS. SUPPLIES AND STOPS TO BE CHROME PLATE ESCUTCHEONS. WHERE EXPOSED TO VIEW ESCUTCHEONS SHALL BE SET SCREW TYPE.
- 14. PROVIDE TYPE "A" WATER HAMMER ARRESTORS AT COLD WATER CONNECTIONS TO ELECTRIC WATER COOLERS AND LOCATIONS AND WHERE THE USE OF QUICK CLOSING VALVES ARE INVOLVED. PROVIDE WATER HAMMER ARRESTORS FOR EACH RESTROOM FIXTURE GROUP PER THE RECOMMENDED METHODS OUTLINED BY THE PDI INSTITUTE AND APPLICABLE MANUFACTURERS.
- 15. THIS CONTRACTOR SHALL PROVIDE ALL DRAINAGE LINES FROM EQUIPMENT TO FLOOR DRAINS, FLOOR SINKS AND/OR HUB DRAINS. INSTALL DRAINAGE LINES WITH AN AIR GAP, A MINIMUM OF 2 TIMES THE DRAINAGE PIPE DIAMETER.
- 16. THIS CONTRACTOR SHALL PROVIDE AND INSTALL ALL ROUGH-INS, FITTINGS AND TRIM FOR PLUMBING FIXTURES PROVIDED BY THE OWNER OR GENERAL CONTRACTOR SEE ARCHITECTURAL DRAWINGS & SPECIFICATIONS FOR ADDITIONAL
- 17. DRY VENTS SHALL RISE VERTICALLY TO A POINT NOT LESS THAN 6" ABOVE THE FLOOD RIM LEVEL OF THE TRAP BEING
- 18. PROVIDE ALL NECESSARY PIPE FITTINGS AND OFFSETS, ETC. AS REQUIRED PER THE OHIO PLUMBING CODE, CHAPTER 9, FOR VENTING OF FIXTURES, WHETHER OR NOT SPECIFICALLY INDICATED ON DRAWINGS OR ISOMETRICS, FOR A COMPLETE AND COMPLIANT INSTALLATION.
- 19. PRIOR TO BEGINNING WORK THIS CONTRACTOR SHALL SNAKE THE EXISTING SANITARY PIPING BELOW SLAB TO VERIFY THE CONDITION IS IN WORKING ORDER. ANY PIPING DISCOVERED TO BE DAMAGED SHALL BE INCLUDED IN THIS SCOPE TO BE REPLACED WITH NEW.

EQUIPMENT NOTES:

PROVIDE WATER HAMMER ARRESTORS WHERE WATER SUPPLY IS CONNECTED TO EQUIPMENT WHICH UTILIZE A SOLONOID VALVE IN IT'S OPERATION AND LOCATIONS WHERE THE USE OF QUICK CLOSING VALVES ARE INVOLVED, PER THE RECOMMENDED METHODS OUTLINED BY THE PDI INSTITUTE AND APPLICABLE MANUFACTURERS.

- WHERE PIPE INSULATION HAS BEEN REMOVED OR DAMAGED IN THE COURSE OF THIS PROJECT. THIS CONTRACTOR SHALL REPLACE WITH LIKE KIND; INCLUDING ANY AND ALL TAPE, WIRES, BANDS AND APPURTENANCES.
- THIS CONTRACTOR SHALL PROVIDE ALL FIRESTOPPING AND / OR ACOUSTICAL SEALANTS FOR PLUMBING PIPE PENETRATIONS THAT PENETRATE ACOUSTICAL RATED AND SMOKE AND FIRE RATED ASSEMBLIES. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL RATED ASSEMBLIES. ALL RATED PENETRATIONS SHALL BE ACOUSTICALLY SEALED AND / OR FIRESTOPPED TO ORIGINAL ASSEMBLY RATING. ALL NON-RATED FLOOR PENETRATIONS SHALL BE SEALED WATER TIGHT WITH A FLEXIBLE SEALANT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING AND SLEEVES REQUIRED FOR HIS TRADE. FLOORS, WALLS AND SURFACES SHALL BE RETURNED TO ORIGINAL CONDITION WHERE PENETRATED OR DAMAGED. FINAL FINISHES SHALL BE THE RESPONSIBILITY OF GENERAL CONTRACTOR...
- 4. PROVIDE CEILING TILE MARKERS INDICATING THE LOCATION OF ABOVE CEILING PLUMBING VALVES.

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> S. SAVAGE S. SAVAGE

PROJECT NO: 10012540 02/17/23 DATE ISSUED:

DESIGNED BY: DRAWN BY:

CHECKED BY: V. AMADOR

SHEET NAME: PLUMBING LEGENDS

SHEET NO:

* NOTE *

*SEE PLUMBING SCHEDULES FOR ADDITIONAL KEY MARK (ABBREVIATIONS) OF FIXTURE CALLOUTS.

*NOT ALL SYMBOLS AND ABBREVIATIONS WILL NECESSAIRLY BE USED WITHIN THESE DOCUMENTS.

*ALL GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET.

PLUMBING REQUIREMENTS PART 1 - GENERAL

1.1 SECTION INCLUDES A. PLUMBING WORK.

1.2 SCOPE

A. WORK INCLUDED CONSISTS OF PROVIDING ALL LABOR, TOOLS SUPERINTENDENCE, TESTS AND INSPECTIONS REQUIRED FOR THE INSTALLATION OF ALL FIXTURES, EQUIPMENT AND SYSTEMS AS SPECIFIED... HEREIN, AS SHOWN ON THE CONTRACT DRAWINGS, AND AS DESCRIBED IN THE SUPPLEMENTS TO THE BID FORM.

B. ANY APPARATUS, APPLIANCE, MATERIAL OR WORK NOT SHOWN ON. DRAWINGS BUT MENTIONED IN THE SPECIFICATIONS, OR VICE VERSA, OR ANY INCIDENTAL ACCESSORIES NECESSARY TO MAKE THE WORK COMPLETE AND PERFECT IN ALL RESPECTS AND READY FOR OPERATION, EVEN IF NOT PARTICULARLY SPECIFIED OR INDICATED, SHALL BE FURNISHED, DELIVERED AND / OR INSTALLED BY THE CONTRACTOR WITHOUT ADDITIONAL EXPENSE TO THE OWNER.

C. MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED, BUT NECESSARY FOR THE PROPER INSTALLATION AND OPERATION, SHALL BE INCLUDED IN THE WORK AND IN THE CONTRACTOR'S BID, THE SAME AS IF HEREIN SPECIFIED OR SHOWN ON THE DRAWINGS.

 D. WORK INDICATED ON DRAWINGS BUT NOT MENTIONED IN SPECIFICATIONS, OR VISE VERSA, SHALL BE PERFORMED THE SAME AS IF SPECIFICALLY MENTIONED OR INDICATED IN BOTH LOCATIONS. ALL SUPPLEMENTARY LABOR OR MATERIALS REQUIRED FOR A COMPLETE, APPROVED, AND PROPERLY OPERATING INSTALLATIONS SHALL BE FURNISHED WHETHER OR NOT INDICATED AND SPECIFIED, AND WITHOUT ADDITIONAL COST TO OWNER.

1.3 QUALITY ASSURANCE

A. APPLICABLE CODES AND STANDARDS:

1. ALL WORK UNDER THIS SECTION SHALL COMPLY WITH THE FOLLOWING RECOGNIZED CODES AND STANDARDS: A) STATE AND LOCAL BUILDING CODES AND PLUMBING CODES.

B) STATE DEPARTMENT OF HEALTH REQUIREMENTS. C) AMERICAN SOCIETY OF TESTING MATERIALS "ASTM". D) AMERICAN NATIONAL STANDARDS INSTITUTE "ANSI"

E) AMERICANS WITH DISABILITIES ACT (ADA). 2. REFERENCE TO CODES, STANDARDS, SPECIFICATIONS AND VARIOUS ASSOCIATIONS, SOCIETIES, REGULATORY AGENCIES, AND MANUFACTURER'S SPECIFICATIONS, INSTRUCTIONS AND DIRECTIONS ARE TO BE THE LATEST PUBLISHED EDITIONS AND AMENDMENTS THEREOF

3. SUPERVISION: PERFORM THE WORK UNDER THE CONTINUOUS SUPERVISION OF A COMPETENT SUPERINTENDENT AND / OR FOREMAN CAPABLE OF UNDERSTANDING THE CONTRACT DOCUMENT AND IMPLEMENTING THEIR REQUIREMENTS. DO NOT CHANGE SUPERVISOR WITHOUT ACCEPTANCE OF SUBSTITUTION BY ARCHITECT.

4. WORKSMANSHIP: EMPLOY WORKMEN SKILLED IN THE VARIOUS TYPES OF WORK BEING PERFORMED. 5. PERFORM WORK AS SPECIFIED.

6. REPLACE WORK NOT CONFORMING TO REVIEWED / ACCEPTED SHOP DRAWINGS / PRODUCT DATA.

1.4 DEFINITIONS

A. "PIPING" INCLUDES IN ADDITION TO PIPE, ALL FITTINGS, VALVES, HANGERS AND OTHER ACCESSORIES RELATING TO SUCH PIPING.

7. REPLACE WORK NOT CONFORMING TO CONTRACT REQUIREMENTS.

B. "CONCEALED" MEANS HIDDEN FROM SIGHT IN TRENCHES, CHASES, FURRED SPACES, SHAFTS, HUNG CEILINGS, EMBEDDED IN CONSTRUCTION OR IN CRAWL SPACES. D. "EXPOSED" MEANS NOT INSTALLED UNDERGROUND, UNDER SLAB ON GRAD OR "CONCEALED" AS DEFINED ABOVE.

1.5 SUBMITTALS

A. PRODUCT DATA: 1. FIXTURES, PIPING, VALVES, FLOOR DRAINS, ETC.:

A. THE DRAWINGS ARE GENERALLY DIAGRAMMATIC AND ARE INTENDED TO CONVEY THE SCOPE OF THE WORK AND INDICATE GENERAL ARRANGEMENT OF EQUIPMENT, PIPING AND FIXTURES.

B. IF DIRECTED BY THE ARCHITECT / ENGINEER, THE CONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICT WITH WORK OF OTHER TRADES OR FOR PROPER EXECUTION OF THE WORK.

C. UNDER NO CIRCUMSTANCES SHALL ANY SIZES BE DECREASED OR INCREASED, AS APPLICABLE, OR RADICAL CHANGES IN ANY PART OF THE INSTALLATION BE MADE. WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT / ENGINEER.

1.7 MATERIALS AND MANUFACTURERS

A. THE MATERIALS USED ON THIS PROJECT SHALL BE AS SPECIFIED AND SHALL PERFORM THE REQUIRED FUNCTIONS.

B. THE PHYSICAL SIZE, ARRANGEMENT AND CAPACITIES OF EQUIPMENT SHOWN ON THE DRAWINGS CORRESPONDS TO THE PARTICULAR MANUFACTURER NAMED ON THE DRAWINGS. IF THIS CONTRACTOR ELECTS TO USE EQUIPMENT BY ANOTHER MANUFACTURER WHICH IS ACCEPTABLE TO THE ARCHITECT / ENGINEER, IT SHALL BE THIS CONTRACTOR'S RESPONSIBILITY TO ADJUST HIS WORK AND TO COMPENSATE THE OTHER CONTRACTORS FOR ADDITIONAL WORK THAT MAY BE REQUIRED BY THEM TO ACCOMMODATE OR SERVE THIS CONTRACTOR'S EQUIPMENT.

1.8 COORDINATION OF TRADES

A. EACH CONTRACTOR SHALL GIVE FULL COOPERATION TO OTHER TRADES AND SHALL FURNISH ANY INFORMATION NECESSARY TO PERMIT THE WORK OF ALL TRADES TO BE INSTALLED SATISFACTORILY, INCLUDING SERVICE CLEARANCES, AND WITH THE LEAST POSSIBLE INTERFERENCE OR DELAY. B. CLAIMS FOR EXTRA COST TO COVER ADDITIONAL COORDINATION WORK

PERFORMED BY THE CONTRACTOR WITHOUT PRIOR WRITTEN APPROVAL BY THE ARCHITECT / ENGINEER WILL NOT BE APPROVED.

A. ALL WORK SHALL BE INSTALLED SO THAT ALL REQUIRED PARTS ARE READILY ACCESSIBLE FOR INSPECTION, OPERATION MAINTENANCE AND REPAIR. SUCH ACCESS SHALL BE PROVIDED BY THIS CONTRACTOR, TO THE SATISFACTION OF THE ARCHITECT / ENGINEER, WHERE SAME IS NOT PART OF THE BIDDING DOCUMENTS, IN ANY PHASE OF THE WORK.

A. VERIFY FIELD CONDITIONS: THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS. HE SHALL EXAMINE THE DRAWINGS AND SPECIFICATIONS FOR OTHER DISCIPLINES / BRANCHES OF THE WORK AND SHALL REFER TO THEM FOR THE PROPER COORDINATION OF THIS WORK. B. PROTECTION OF WORK:

1. EQUIPMENT SHALL BE PROTECTED DURING HANDLING AND DELIVERY FROM BEING DROPPED, BUMPED OR OTHER DAMAGE.

A. THE CONTRACTOR WARRANTIES BY HIS ACCEPTANCE OF THE CONTRACT THAT ALL WORK INSTALLED WILL BE FREE FROM ANY AND ALL DEFECTES IN WORKMANSHIP AND / OR MATERIAL, THAT ALL APPARATUS WILL DEVELOP CAPACITIES AND CHARACTERISTICS SPECIFIED, AND THAT IF, DURING A PERIOD OF ONE YEAR, OR AS OTHERWISE SPECIFIED, FROM DATE OF CERTIFICATE OF COMPLETION AND ACCEPTANCE OF WORK, OR OTHER DATE AS MAY BE MUTUALLY AGREED UPON BY THE OWNER AND CONTRACTOR, ANY SUCH DEFECTS IN WORKMANSHIP, MATERIAL OR PERFORMANCE APPEAR, HE SHALL, WITHOUT COST TO THE OWNER, REMEDY SUCH DEFECTS WITHIN A REASONABLE TIME TO BE SPECIFIED IN NOTICE FROM THE ARCHITECT / ENGINEER. IN DEFAULT THEREOF, THE OWNER MAY HAVE SUCH WORK DONE AND CHARGE THE COST TO THE CONTRACTOR.

B. THE CONTRACTOR WILL NOT BE RESPONSIBLE UNDER THE WARRANTY FOR THE NORMAL MAINTENANCE OBLIGATION OF THE OWNER.

1.12 RECORD DOCUMENTS

A. PROVIDE AS REQUIRED BY GENERAL CONDITIONS.

B. PROVIDE MAINTAIN SHOP DRAWINGS FOR WORK OF THIS SECTION. C. PROVIDE RECORD DRAWINGS WITH INFORMATION THAT HAS BEEN KEPT UP TO DATE AS THE PROJECT PROGRESSES.

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION

A. ALL EQUIPMENT SHALL BE INSTALLED SUCH THAT SERVICE CAN BE EASILY PERFORMED. ADJUSTABLE PARTS SHALL BE WITHIN EASY REACH.

3.2 PIPE LAYOUT

A. THIS CONTRACTOR SHALL LAY OUT THE WORK REQUIRED BY THIS SPECIFICATION AND SHALL BE RESPONSIBLE FOR FURNISHING AND PLACING ALL SLEEVES AND INSERTS, LOCATING ALL OPENINGS REQUIRED FOR INSTALLATION OF THIS WORK, AND SETTING ALL LINES AND LEVELS AND INSTALLATION OF PIPE AT PROPER PITCH, WITH ADEQUATE SUPPORT FOR ALL PIPE AND EQUIPMENT.

3.3 PIPE EXPANSION WORK A. ALL PIPE CONNECTIONS SHALL BE INSTALLED TO ALLOW FOR FREEDOM OF MOVEMENT OF THE PIPING DURING EXPANSION AND CONTRACTION WITHOUT SPRINGING OF PIPING OR DISTORTION OF FITTINGS.

3.4 ACCESS DOORS

A. WHEREVER MECHANISM REQUIRING ACCESS FOR OPERATION AND / OR MAINTENANCE ARE CONCEALED IN THE STRUCTURE, AND WHEREVER ELSE INDICATED ON THE PLUMBING DRAWINGS, THIS CONTRACTOR SHALL SUPPLY ACCESS DOORS OF SIZES NECESSARY TO PROVIDE READY ACCESS TO THE CONCEALED ITEM (MINIMUM SIZE 12" x 12").

A. PROVIDE FIRESTOPPING AT RATED CONSTRUCTION IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.

A. PROVIDE PLUMBING FIXTURES COMPLETE WITH SUPPORTS, CARRIERS, AND SUPPLY AND WASTE TRIM. SUPPLIES TO EACH FIXTURE SHALL BE INDIVIDUALLY VALVED. ALL WASTE AND SUPPLY TRIM SHALL BE CHROME PLATED BRASS. FIXTURES SHALL BE WHITE UNLESS OTHERWISE SPECIFIED. SEAL JOINTS AROUND EACH FIXTURE AT THE WALL, FLOOR, AND ANY ADJACENT CONSTRUCTION, JOINT SEALANT SHALL BE ONE PART, MILDEW RESISTANT SILICONE, ASTM C920, TYPE S, GRADE NS, CLASS 25.

B. ALL FIXTURES SHALL BE SECURELY ATTACHED TO SUPPORTING SURFACES AS SPECIFIED AND INSTALLED PLUMB AND LEVEL. GROUT BEHIND ALL WALL HUNG PLUMBING FIXTURES WITH WHITE, DURABLE PLASTIC MATERIAL, ELIMINATING ALL CRACKS AND VOIDS.

C. SEPARATELY VALVE EVERY SUPPLY TO EVERY FIXTURE AND PIECE OF EQUIPMENT REQUIRING VARIOUS SERVICES WITH LOOSE KEY STOPS. IN GENERAL, THESE VALVES ARE SPECIFIED WITH FIXTURE, BUT WHERE NOT CALLED FOR IN FIXTURE SPECIFICATIONS, PROVIDE SUITABLE STOPS IN ADDITION TO FAUCETS.

D. ALL CONNECTIONS TO FIXTURES SHALL BE MADE WITH DROP ELBOWS SECURED TO BUILDING STRUCTURE AND OUTLETS OF ELBOWS SHALL BE SCREWED. CONNECTIONS FROM ELBOW TO FIXTURE SUPPLY PIPE SHALL BE MADE WITH 85% BRASS CHROME PLATED NIPPLE.

3.7 RESPONSIBILITY

A. THE CONTRACTOR'S RESPONSIBILITY SHALL NOT END WITH THE INSTALLATION OF AND THE CONNECTING OF THE VARIOUS ITEMS OF EQUIPMENT, PIPING, ETC. HE SHALL PROVIDE MECHANICS TO PROPERLY ADJUST ALL SYSTEMS, MAKE REQUIRED TESTS. AND SHALL KEEP WORKMEN IN THE BUILDING UNTIL THE ENTIRE PLUMBING SYSTEM INSTALLATION PROPERLY FUNCTIONS IN EVERY DETAIL

B. IF THE CONTRACTOR INSTALLS HIS WORK BEFORE COORDINATING WITH OTHER TRADES, OR SO AS TO CAUSE INTERFERENCE WITH WORK OF OTHER TRADES, HE SHALL AT HIS EXPENSE MAKE NECESSARY CHANGES IN HIS WORK TO CORRECT THE CONDITION.

PART 1 - GENERAL

1.1 WORK INCLUDED A. VALVES

PART 2 - PRODUCTS

A. 150 PSI, FORGED BRASS TWO-PIECE BODY, HARD CHROME PLATED FULL PORT

FORGED BRASS BALL, ADJUSTABLE PACKING NUT, BLOW-OUT PROOF STEM AND "TEFLON" OR TFE SEATS AND SEALS. COMPLY WITH MSS SP-110. B. VALVES USED IN INSULATED PIPING SYSTEMS SHALL HAVE A 2" STEM EXTENSION.

PART 3 - EXECUTION

3.1 INSTALLATION A. PROVIDE CLEARANCE FOR INSTALLATION OF INSULATION AND ACCESS TO VALVES

AND FITTINGS. B. PROVIDE ACCESS WHERE VALVES AND FITTINGS ARE NOT EXPOSED. COORDINATE

SIZE AND LOCATION OF ACCESS DOORS. C. INSTALL VALVES WITH STEMS UPRIGHT OR HORIZONTAL, NOT INVERTED. D. VALVES USED IN INSULATED PIPING SYSTEMS SHALL HAVE A 2" STEM EXTENSION.

A. INSTALL UNIONS DOWNSTREAM OF THREADED VALVES AND AT THREADED EQUIPMENT OR APPARATUS CONNECTIONS.

B. INSTALL BRASS MALE ADAPTERS EACH SIDE OF VALVES IN COPPER PIPED SYSTEM. SWEAT SOLDER ADAPTERS TO PIPE. C. INSTALL BALL VALVES FOR SHUT-OFF DUTY AND TO ISOLATE EQUIPMENT, PART OF

SYSTEMS, OR VERTICAL RISERS IN ALL PIPING 2" AND SMALLER. D. INSTALL INSULATING (DIELECTRIC) UNIONS WHENEVER TWO DISSIMILAR METALS ARE BEING JOINED.

HANGERS AND SUPPORTS FOR PLUMBING PIPING AND EQUIPMENT

PART 1 - GENERAL

1.1 WORK INCLUDED A. PIPE AND EQUIPMENT HANGERS, SUPPORTS, AND ASSOCIATED ANCHORS. B. SLEEVES AND SEALS.

PART 2 - PRODUCTS

2.1 PIPE HANGARS AND SUPPORTS A. HANGERS FOR PIPE SIZES 1/2 TO 1-1/2 INCH: CARBON STEEL, ADJUSTABLE SWIVEL,

B. HANGERS FOR PIPE SIZES 2 TO 4 INCHES: CARBON STEEL, ADJUSTABLE, CLEVIS.

C. SHIELD FOR INSULATED PIPING 2 INCHES AND SMALLER: 18 GAGE GALVANIZED STEEL SHIELD OVER INSULATION IN 180 DEGREE SEGMENTS, MINIMUM 12 INCHES LONG AT PIPE SUPPORT.

PLUMBING SPECIFICATIONS

D. SEE PIPE HANGER DETAILS FOR ADDITIONAL INFORMATION.

2.2 HANGER RODS

A. STEEL HANGER RODS: THREADED BOTH ENDS, THREADED ONE END, OR CONTINUOUS THREADED.

2.3 FABRICATION

A. SIZE SLEEVES LARGE ENOUGH TO ALLOW FOR MOVEMENT DUE TO EXPANSION AND CONTRACTION. PROVIDE FOR CONTINUOUS INSULATION WRAPPING. B. DESIGN HANGERS WITHOUT DISENGAGEMENT OF SUPPORTED PIPE.

C. PROVIDE COPPER PLATED HANGERS AND SUPPORTS FOR COPPER PIPING. D. HANGER AND SUPPORT MATERIALS SHALL BE NEW AND MANUFACTURED FOR THE SPECIFIC PURPOSE OF SUPPORTING SYSTEMS, EQUIPMENT, PIPE AND ACCESSORIES.

3.1 HANGER AND SUPPORT INSTALLATION A. PIPE HANGERS SHALL BE SIZED TO ALLOW FOR INSULATION TO BE APPLIED CONTINUOUSLY WITH NO BREAKS IN THE INSULATION. B. HANGERS FOR UNCOVERED / UNINSULATED PIPING SHALL INCLUDE FACTORY APPLIED

MATERIAL AS PIPE. C. METAL PIPE-HANGER INSTALLATION: COMPLY WITH MSS SP-69 AND MSS SP-89. INSTALL HANGERS, SUPPORTS, CLAMPS, AND ATTACHMENTS AS REQUIRED TO PROPERLY SUPPORT PIPING FROM THE BUILDING STRUCTURE.

3.2 HANGER AND SUPPORT SCHEDULE

A. SUPPORT HORIZONTAL PIPING AS FOLLOWS: B. INSTALL HANGERS TO PROVIDE MINIMUM 1/2 INCH SPACE BETWEEN FINISHED

COVERING AND ADJACENT WORK C. PLACE A HANGER WITHIN 12 INCHES OF EACH HORIZONTAL ELBOW

O. I ENOL MININGER	WITTIIN 12 INOTILO	OI EXCITIONIZOIVIX
PIPE SIZE DIAMETER	MAX. HANGER SPACING	HANGER ROD
COPPER 1/2 TO 3/4 INCH 1 TO 1-1/2 INCH 2 TO 2-1/2 INCH	5'-0" 7'-0" 8'-0"	3/8" 3/8" 1/2"
PVC 3/4" AND SMALLER 1 TO 2 INCH 2-1/2 TO 3 INCH 4 INCH	2'-6" 4'-0" 4'-0" 4'-0"	3/8" 3/8" 1/2" 5/8"

PLACTIC COATINGS OR INSERTS OR SHALL BE OF SAME

D. USE HANGERS WITH 1-1/2 INCH MINIMUM VERTICAL ADJUSTMENT. E. WHERE SEVERAL PIPES CAN BE INSTALLED IN PARALLEL AND AT SAME ELEVATION,

PROVIDE MULTIPLE OR TRAPEZE HANGERS. F. MAXIMUM VERTICAL SPACING BETWEEN SUPPORTS SHALL BE 8'-0" FOR COPPER PIPING AND 4'-0" PVC PIPING.

IDENTIFICATION FOR PLUMBING PIPING

PART 1 - GENERAL

A. IDENTIFICATION OF PLUMBING PRODUCTS INSTALLED BY PLUMBING CONTRACTOR.

PART 2 - PRODUCTS

A. COLOR: UNLESS SPECIFIED OTHERWISE, CONFORM WITH ANSI/ASME A13.1. B. PLASTIC PIPE MARKERS: FACTORY FABRICATED, FLEXIBLE, SEMI-RIGID PLASTIC, PERFORMED TO FIT AROUND PIPE OR PIPE COVERING; MINIMUM INFORMATION

INDICATING FLOW DIRECTION ARROW AND FLUID BEING CONVEYED. C. PLASTIC TAPE PIPE MARKERS: FLEXIBLE, VINYL FILM TAPE WITH PRESSURE SENSITIVE ADHESIVE BACKING AND PRINTED MARKINGS.

D. PIPE LABELS 1. MANUFACTURERS STANDARD LEGENDS AND COLORS SHOULD BE USED WHENEVER POSSIBLE. PIPE MARKER COLOR FIELD AND LEGEND HEIGHT SHALL

COMPLY WITH ASME/ANSE A 13.1 SPECIFICATIONS. 2. PRETENSIONED PIPE LABELS: PRECOILED, SEMI-RIGID PLASTIC FORMED TO PARTIALLY COVER CIRCUMFERENCE OF PIPE AND TO ATTACH TO PIPE WITHOUT

FASTENERS OR ADHESIVE. 3. SELF-ADHESIVE PIPE LABELS: PRINTED PLASTIC WITH CONTACT-TYPE, PERMANENT ADHESIVE BACKING. 4. PIPE LABEL CONTENTS: INCLUDE IDENTIFICATION OF PIPING SERVICE USING SAME

DESIGNATIONS OR ABBREVIATIONS AS USED ON DRAWINGS, PIPE SIZE, AND AN

ARROW INDICATING FLOW DIRECTION. 5. FLOW-DIRECTION ARROWS: INTEGRAL WITH PIPING SYSTEM SERVICE LETTERING TO ACCOMMODATE BOTH DIRECTIONS, OR AS SEPARATE UNIT ON EACH PIPE LABEL TO INDICATE FLOW DIRECTION.

PART 3 - EXECUTION

3.1 PREPARATION

A. DEGREASE AND CLEAN SURFACES TO RECEIVE ADHESIVE FOR IDENTIFICATION MATERIALS.

A. PLASTIC PIPE MARKERS: INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. B. PLASTIC TAPE PIPE MARKERS: INSTALL COMPLETE AROUND PIPE IN ACCORDANCE

WITH MANUFACTURER'S INSTRUCTIONS. C. PIPING: IDENTIFY PIPING, CONCEALED OR EXPOSED, WITH PLASTIC TAPE PIPE MARKERS. IDENTIFY SERVICE, FLOW DIRECTION. INSTALL IN CLEAR VIEW AND ALIGN WITH AXIS OF PIPING. LOCATE IDENTIFICATION EVERY 15 - 30 FEET ON STRAIGHT RUNS INCLUDING RISERS AND DROPS, ADJACENT TO EACH VALVE AND "T", AT EACH SIDE OF PENETRATION OF STRUCTURE OR ENCLOSURE, AND AT EACH OBSTRUCTION.

PLUMBING PIPING INSULATION

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. SECTION INCLUDES INSULATING THE FOLLOWING PLUMBING PIPING SERVICES: A) DOMESTIC COLD-WATER PIPING. B) DOMESTIC HOT-WATER PIPING.

1.2 QUALITY ASSURANCE

A. APPLICATOR: COMPANY SPECIALIZING IN PIPING INSULATION APPLICATION WITH THREE YEARS MINIMUM EXPERIENCE.

B. MATERIALS: FLAME SPREAD / FUEL CONTRIBUTED / SMOKE DEVELOPED RATING OF 25/50 IN ACCORDANCE WITH ASTM E84.

PART 2 - PRODUCTS

A. ELASTOMERIC INSULATION SHALL BE MINIMUM 5.5 LB/FT3 DENSITY; THERMAL CONDUCTIVITY OF 0.27 AT 75°F TEMPERATURE DIFFERENTIAL, MAXIMUM 5.6% SHRINKAGE AT 200°F FOR 7 DAYS; MINIMUM 0.2 PERM-IN WATER VAPOR PERMEABILITY, MAXIMUM 4.8% BY WEIGHT WATER ABSORPTION; SELF-

EXTINGUISHING; CLOSED-CELL CONSTRUCTION; FLAME SPREAD OF 25 BY ASTM E84 TEST METHOD: SMOKE DEVELOP RATING OF 50 BY ASTM E84 TEST METHOD.

INSULATION SHALL BE FURNISHED IN FACTORY MOLDED PIPE INSULATION SECTIONS. B. FIRE BARRIER PLENUM WRAP: ASTM E 84 & ASTM E 136 LIGHTWEIGHT, NON-ASBESTOS HIGH TEMPERATURE, BIO-SOLUBLE, CALCIUM-MAGNESIUM-SILICATE (CMS) NON WOVEN BLANKET, ENCAPSULATED IN A SCRIM-REINFORCED FOIL, BLANKET THICKNESS OF 0.5 INCHES (13 MM) FOR PROTECTION OF ITEMS WITHIN A PLENUM

2.2 ACCESSORIES

A. FINISHING CEMENT: ASTM C449. B. ADHESIVES AND TAPES: COMPATIBLE WITH INSULATION.

C. FITTINGS: 1. FITTINGS IN PIPING COVERED WITH PIPE INSULATION SHALL BE INSULATED WITH MITERED SECTIONS OF THE SAME MATERIAL. REMOVABLE PORTIONS OF VALVES, STRAINERS, ETC., SHALL BE INSULATED IN A MANNER TO ALLOW THE REMOVABLE PARTS TO BE REMOVED FOR SERVICING WITHOUT DISTURBING THE INSULATED

PART 3 - EXECUTION

3.1 PREPARATION

A. INSTALL MATERIALS AFTER PIPING HAS BEEN TESTED AND APPROVED.

3.2 INSTALLATION

A. INSTALL MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. B. VAPOR BARRIER INSULATION TO BE CONTINUED WITHOUT INTERRUPTION. CONTINUE INSULATION WITH VAPOR BARRIER THROUGH PENETRATIONS.

C. IN EXPOSED PIPING, LOCATE INSULATION AND COVER SEAMS IN LEAST VISIBLE LOCATIONS. D. ON INSULATED PIPING INSULATE FITTINGS, VALVES, UNIONS, FLANGES, STRAINERS, FLEXIBLE CONNECTIONS, AND EXPANSION JOINTS.

E. NEATLY FINISH INSULATION AT SUPPORTS, PROTRUSIONS, AND INTERRUPTIONS.

F. CONDENSATE DRAINS FOR AIR CONDITIONING UNITS SHALL BE INSULATED INSIDE OF BUILDING. G. INSULATION EXPOSED TO WEATHER SHALL BE PROTECTED AND MAKE WEATHERPROOF BY COVERING WITH ALUMINUM JACKET. ARRANGE SEAMS TO

3.3 INSTALLATION TYPES

A. CONCEALED PIPING (IN WALLS AND ABOVE CEILING): USE ELASTOMERIC. B. EXPOSED PIPING (EQUIPMENT ROOMS, MAINTENANCE ROOMS, PIPE CHASES, AND SERVICE AREAS): USE ELASTOMERIC.

B. PLASTIC PIPING IN CEILING PLENUM SPACE: 3-M PLENUM WRAP INSULATION.

3.4 INSULATION SCHEDULE

PREVENT TRAPPING OF MOISTURE.

A. PLUMBING PIPE UP TO 140 DEG. F WATER TEMPERATURE: PIPE SIZE THRU 1-1/4": 1" THICK. PIPE SIZE 1-1/2 TO 2": 1" THICK

C. BRANCHES AND NON-RECIRCULATED MAINS: 1" THICK

SANITARY WASTE AND VENT PIPING

1.1 WORK INCLUDES

PART 1 - GENERAL

A. SANITARY WASTE B. VENT PIPING

A. CAST IRON PIPE: ASTM A-74, CISPI 301

PART 2 - PRODUCTS

2.1 PIPE AND FITTINGS

A. PIPING BELOW GRADE: PVC. B. PIPING ABOVE GRADE: EITHER CAST IRON (CISPI 301) OR PVC AS SCHEDULED.

A. NO-HUB CAST IRON PIPE JOINTS: NEOPRENE SLEEVES WITH HEAVY DUTY BOLTED

B. PLASTIC: SOLID WALL, SCHEDULE 40 PVC-DWV PATTERN - ASTM D-2665-82.

STAINLESS STEEL COMPRESSION BAND. B. PLASTIC: SOLVENT WELDED JOINTS.

PART 3 - EXECUTION

A. WHEN LAYING AND BACKFILLING PVC PIPE, THE TRENCH BOTTOM SHALL BE CONTINUOUS, RELETIVELY SMOOTH AND FREE OF ROCKS. WHERE LEDGE ROCK, ARDPAN OR BOLDERS ARE ENCOUNTERED, PAD THE TRENCH BOTTOM USING A MAXIMUM OF FOUR (4) INCHES OF TAMPED EARTH OR SAND BENEATH THE PIPE AS A CUSHION AND FOR PROTECTION OF THE PIPE FROM DAMAGE. BACKFILL MATERIALS SHALL BE FREE OF ROCKS WITH PARTICLE SIZE OF 1/2" OR LESS SURROUNDING THE PIPE WITH A MINIMUM OF 6" - 8" OF COVER. PIPING SHALL BE PROPERLY SUPPORTED ALONG IT'S HORIZONTAL RUN (MIN. OF EVERY 4'-0") PRIOR TO BACKFILLING. BACKFILL SHALL BE PLACED IN LAYERS TO A MINIMUM FILL OF TWO TIMES THE PIPE OUTSIDE DIAMETER. EACH SOIL LAYER SHALL BE SUFFICIENTLY COMPACTED OR VIBRATED TO UNIFORMLY DEVELOPE LATERAL PASSIVE SOIL FORCES DURING THE BACKFILL OPERATION. WHERE POSSIBLE, IT IS RECOMMENDED THAT THE CONTRACTOR PLACE THE PIPE UNDER PRESSURE (15 TO 25 PSI) DURING THE BACKFILLING. SEE ASTM D2321 AND MANUFACTURER'S SPECIFIC RECOMMENDATIONS AND REQUIREMENTS. B. ABOVE GRADE PIPING TO BE SUPPORTED FROM THE BUILDING STRUCTURE.

ABOVE WITH PIPE HANGERS OR FROM THE FLOOR BELOW WITH STANCHIONS OR C. SUPPORT CAST IRON PIPE AND FITTINGS PER CISPI 301-12. BRACE HORIZONTAL PIPE AND FITTINGS GREATER THAN 4" SHALL BE SUITABLY RESTRAINED TO PREVENT MOVEMENT. THIS SHALL BE DONE AT EVERY BRANCH OPENING AND CHANGE OF DIRECTION. SUPPORT AND RESTRAINT SHALL UTILIZE MANUFACTURED PIPE AND

HORIZONTAL PIPING TO BE SUPPORTED AT EACH JOINT FROM THE STRUCTURE

FITTING RESTRAINTS, BRACES AND RODDING AS NECESSARY TO PREVENT MOVEMENT AND / OR JOINT SEPARATION, D. HUBBLESS CAST IRON MUST BE SUPPORTED WITHIN 18" OF HUB COUPLING. ALL OTHER PIPING SHALL BE SUPPORTED AS NOTED IN SPECIFICATIONS UNLESS MORE STRINGENT SUPPORT IS REQUIRED BY MFR. SUPPORT ALL PLUMBING PIPING FROM ROOF / FLOOR STRUCTURAL MEMBERS OR STRUCTURAL WALLS ONLY, NOT CEILING. WHERE STRUCTURE SUPPORT FOR LONG VERTICAL RUNS IS NOT POSSIBLE, PIPING SHALL BE SUPPORTED AND BRACED AT UPPER DECK FRAMING AND FLOOR. MULTIPLE VERTICAL PIPES SHALL ALSO BE SECURED TOGETHER AT INTERMEDIATE POINTS

BARRIER PLENUM WRAP FIRE RETARDANT INSULATION COMPLYING WITH FIRE CODE

USING STRUT SUPPORT CHANNEL AND CLAMPS. F. PIPING IN WALLS OR CHASES TO BE SECURELY SUPPORTED FROM THE WALL G. PVC PIPING INSTALLED IN RETURN AIR PLENUM SHALL BE WRAPPED WITH FIRE

REQUIREMENTS.

CLEAN COPPER SURFACE.

AUTHORITY HAVING JURISDICTION.

B. NO-HUB JOINTS: USE THE PIPE MANUFACTURER'S SLEEVES AND COMPRESSION C. COPPER PIPING: USE SOLDER AND PETROLEUM FLUX APPLIED TO A BRIGHT,

A. THREADED JOINTS: PIPE DOPE OR TEFLON TAPE. DRAW UP TIGHT AND WITHOUT

D. PLASTIC PIPING: USE MANUFACTURER'S RECOMMENDED PRIMER AND SOLVENT.

LOCAL PLUMBING CODE, LOCAL AMENDMENTS AND THE REQUIREMENTS OF THE

3.3 INSPECTION AND TESTING A. SYSTEM SHALL BE INSPECTED AND TESTED PER THE REQUIREMENT OF THE

DOMESTIC WATER PIPING

1.1 WORK INCLUDES A. PIPING, FITTINGS AND VALVES.

1.2 PERFORMANCE REQUIREMENTS FOR PIPING A. PROVIDE COMPONENTS AND INSTALLATION CAPABLE OF PRODUCING DOMESTIC WATER PIPING SYSTEMS WITH THE FOLLOWING MINIMUM WORKING-PRESSURE RATINGS, UNLESS OTHERWISE INDICATED:

1. DOMESTIC WATER DISTRIBUTION PIPING: 125 PSIG (860 KPA)

1.3 QUALITY ASSURANCE

A. COMPLY WITH NSF 61, "DRINKING WATER SYSTEM COMPONENTS-HEALTH EFFECTS; SECTIONS 1" THROUGH 9," FOR POTABLE DOMESTIC WATER PIPING AND COMPONENTS. B. COMPLY WITH NSF/ANSI 372, IN CONFORMANCE WITH PUBLIC LAW 111-380 (S3874) ALSO KNOWN AS THE "REDUCTION IN LEAD IN DRINKING WATER ACT" EFFECTIVE JAN. 4, 2014. C. PUBLIC LAW III-380 (S.3874) "REDUCTION IN LEAD IN DRINKING WATER ACT" D. THE SAFE WATER DRINKING ACT (SWDA)

PART 2 - PRODUCTS

A. HARD COPPER TUBE: ASTM B 88, TYPE L WATER TUBE, DRAWN TEMPER. B. VALVES: BRASS OR BRONZE WITH EXTENDED STEM TO ALLOW 1" INSULATION.

1. CAST-COPPER, SOLDER-JOINT FITTINGS: ASME B16.18, PRESSURE FITTINGS. 2. WROUGHT-COPPER, SOLDER-JOINT FITTINGS:

ASME B16.22, WROUGHT-COPPER PRESSURE FITTINGS. 3. BRONZE FLANGES: ASME B16.24, CLASS 150, WITH SOLDER-JOINT ENDS. 4. COPPER UNIONS:

a.) MSS SP-123. b.) CAST-COPPER-ALLOY, HEXAGONAL-STOCK BODY c.) BALL-AND-SOCKET, METAL-TO-METAL SEATING SURFACES.

d.) SOLDER-JOINT OR THREADED ENDS.

AND SQUARE WITH ALL BURRS REMOVED.

PART 3 - EXECUTION 3.1 PIPING AND VALVES A. CLEAN PIPING BOTH INSIDE AND OUT BEFORE INSTALLATION. CUT PIPING CLEAN

B. USE DIELECTRIC FITTING TO JOIN PIPING OF DISSIMILAR METALS.

C. SUPPORT PIPING IN WALLS AND CHASES USING NON-METALLIC, MANUFACTURED SUPPORTS SECURELY ANCHORED TO THE WALL CONSTRUCTION. D. SUPPORT VERTICAL PIPING TO RESTRICT MOVEMENT FROM HORIZONTAL FORCES. E. CONCEAL PIPING WITHIN THE WALLS OR PIPE CHASE UNLESS OTHERWISE NOTED. INSTALL PIPING PLUMB AND TRUE TO BUILDING WALLS AND STRUCTURAL COMPONENTS AND SO AS NOT TO INTERFERE WITH LIGHTS AND DUCTWORK.

F. SOLDER PIPING USING NON-LEAD SOLDER AND FLUX. CLEAN JOINT TO A BRIGHT COPPER FINISH ON BOTH THE MALE AND FEMALE PARTS WITH EMERY CLOTH. APPLY HEAT SUFFICIENT TO PRODUCE A MECHANICALLY SOUND AND WATERTIGHT JOINT. G. INSTALL VALVES WITH STEMS IN AN UPWARD OR HORIZONTAL POSITION. H. INSULATE PIPING AS SPECIFIED AND PROVIDE STEM EXTENSIONS ON VALVES

I. SEAL PIPING TO PREVENT THE ENTRANCE OF FOREIGN MATTER DURING CONSTRUCTION.

J. SANITIZE THE DOMESTIC WATER SYSTEM PER THE REQUIREMENTS OF THE AHJ:

K. BURIED PIPE: PROVIDE MINIMUM 6" OF BURIAL DEPTH.

LOCATED IN INSULATED PIPING RUNS.

A. INSPECT THE WATER PIPING AS FOLLOWS: 1. DO NOT ENCLOSE. COVER. OR PUT PIPING INTO OPERATION UNTIL IT IS INSPECTED AND APPROVED BY AUTHORITIES HAVING JURISDICTION (AHJ). 2. DURING INSTALLATION, NOTIFY AHJ AT LEAST 72 HOURS PRIOR TO REQUIRED INSPECTION DEADLINES. PERFORM INSPECTIONS SPECIFIED BELOW IN PRESENCE OF

a.) ROUGHING-IN INSPECTION: ARRANGE FOR INSPECTION OF PIPING BEFORE CONCEALING OR CLOSING-IN AFTER ROUGHING-IN AND BEFORE SETTING FIXTURES. b.) FINAL INSPECTION: ARRANGE FOR FINAL INSPECTION BY AHJ TO OBSERVE TESTS SPECIFIED BELOW AND TO ENSURE COMPLIANCE WITH REQUIREMENTS. . REINSPECTION: IF AHJ FIND THAT PIPING WILL NOT PASS TEST OR INSPECTION, MAKE

A. TEST FOR LEAKS AND DEFECTS IN NEW PIPING AND WHERE APPLICABLE, PARTS OF EXISTING PIPING THAT HAVE BEEN ALTERED, EXTENDED, OR REPAIRED. IF TESTING IS PERFORMED IN SEGMENTS, SUBMIT SEPARATE REPORT FOR EACH TEST, COMPLETE WITH DIAGRAM OF PORTION OF PIPING TESTED.

B. LEAVE UNCOVERED AND UNCONCEALED NEW, ALTERED, EXTENDED, OR REPLACED

REQUIRED CORRECTIONS AND ARRANGE FOR REINSPECTION.

DOMESTIC WATER PIPING UNTIL IT HAS BEEN TESTED AND APPROVED BY THE LOCAL AUTHORITY. EXPOSE WORK THAT WAS PREMATURELY COVERED OR CONCEALED C. CAP AND SUBJECT PIPING TO STATIC WATER PRESSURE OF 50 PSIG (345 KPA) ABOVE OPERATING PRESSURE, WITHOUT EXCEEDING PRESSURE RATING OF PIPING SYSTEM MATERIALS. ISOLATE TEST SOURCE AND ALLOW TO STAND FOR FOUR HOURS. LEAKS AND LOSS IN TEST PRESSURE CONSTITUTE DEFECTS THAT MUST BE REPAIRED.

D. REPAIR LEAKS AND DEFECTS WITH NEW MATERIALS AND RETEST PIPING OR PORTION

THEREOF UNTIL SATISFACTORY RESULTS ARE OBTAINED. E. PREPARE REPORTS FOR TESTS AND REQUIRED CORRECTIVE ACTION.

A. CLEAN AND DISINFECT POTABLE DOMESTIC WATER PIPING AS FOLLOWS: 1. PURGE NEW PIPING AND PORTIONS OF EXISTING DOMESTIC WATER PIPING THAT

AUTHORITY. EXPOSE WORK THAT WAS PREMATURELY COVERED OR CONCEALED C. CAP AND SUBJECT PIPING TO STATIC WATER PRESSURE OF 50 PSIG (345 KPA) ABOVE OPERATING PRESSURE, WITHOUT EXCEEDING PRESSURE RATING OF PIPING SYSTEM MATERIALS. ISOLATE TEST SOURCE AND ALLOW TO STAND FOR FOUR HOURS. LEAKS

AND LOSS IN TEST PRESSURE CONSTITUTE DEFECTS THAT MUST BE REPAIRED. D. REPAIR LEAKS AND DEFECTS WITH NEW MATERIALS AND RETEST PIPING OR PORTION

HAVE BEEN ALTERED, EXTENDED, OR REPAIRED PRIOR TO PLACING INTO USE.

DOMESTIC WATER PIPING UNTIL IT HAS BEEN TESTED AND APPROVED BY THE LOCAL

B. LEAVE UNCOVERED AND UNCONCEALED NEW, ALTERED, EXTENDED, OR REPLACED

E. PREPARE REPORTS FOR TESTS AND REQUIRED CORRECTIVE ACTION.

A. CLEAN AND DISINFECT POTABLE DOMESTIC WATER PIPING AS FOLLOWS:

THEREOF UNTIL SATISFACTORY RESULTS ARE OBTAINED.

1. PURGE NEW PIPING AND PORTIONS OF EXISTING DOMESTIC WATER PIPING THAT HAVE BEEN ALTERED, EXTENDED, OR REPAIRED PRIOR TO PLACING INTO USE. 2. USE PURGING AND DISINFECTING PROCEDURES PRESCRIBED BY AUTHORITIES HAVING JURISDICTION OR, IF METHODS ARE NOT PRESCRIBED, PROCEDURES DESCRIBED IN EITHER AWWA C651 OR AWWA C652 OR AS DESCRIBED BELOW: a.) FLUSH PIPING SYSTEM WITH CLEAN, POTABLE WATER UNTIL DIRTY WATER DOES NOT APPEAR AT OUTLETS.

LEAST 50 PPM (50 MG/L) OF CHLORINE. ISOLATE WITH VALVES AND ALLOW TO STAND FOR 24 HOURS. (2) FILL SYSTEM OR PART THEREOF WITH WATER / CHLORINE SOLUTION WITH AT LEAST 200 PPM (200 MG/L) OF CHLORINE. ISOLATE AND ALLOW TO STAND FOR 3 HRS. c.) FLUSH SYSTEM WITH CLEAN, POTABLE WATER UNTIL NO CHLORINE IS IN WATER

(1) FILL SYSTEM OR PART THEREOF WITH WATER / CHLORINE SOLUTION WITH AT

b.) FILL AND ISOLATE SYSTEM ACCORDING TO EITHER OF THE FOLLOWING:

d.) SUBMIT WATER SAMPLES IN STERILE BOTTLES TO AHJ. REPEAT PROCEDURES IF BIOLOGICAL EXAMINATION SHOWS CONTAMINATION. B. PREPARE AND SUBMIT REPORTS OF PURGING AND DISINFECTING ACTIVITIES TO THE AHJ: C. CLEAN INTERIOR OF DOMESTIC WATER PIPING SYSTEM. REMOVE DIRT AND DEBRIS AS

COMING FROM SYSTEM AFTER THE STANDING TIME.

WORK PROGRESSES.

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PRELIMINARY

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PROJECT NO: 10012540 02/17/23 DATE ISSUED: **DESIGNED BY:** S. SAVAGE

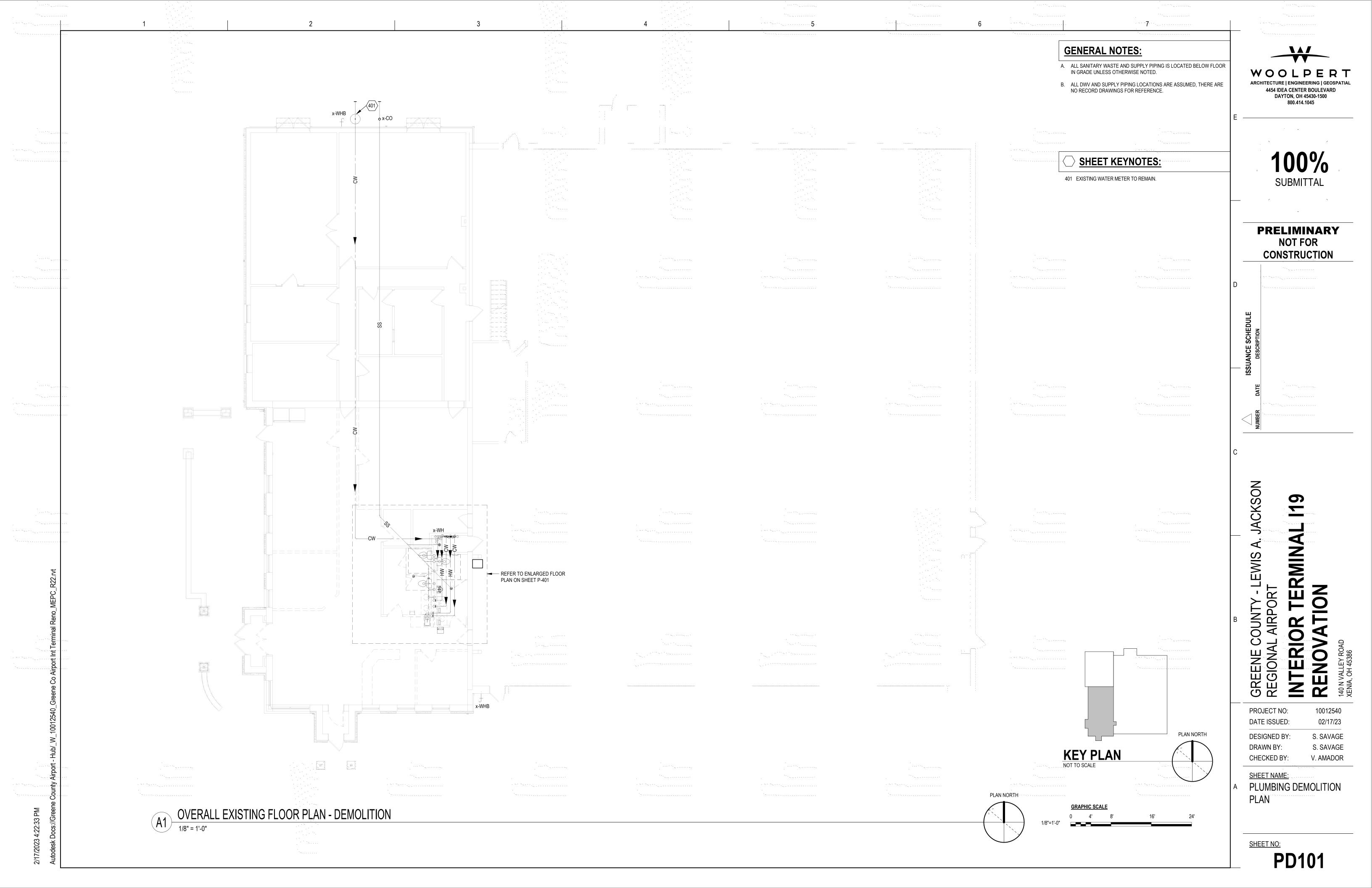
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V. AMADOR

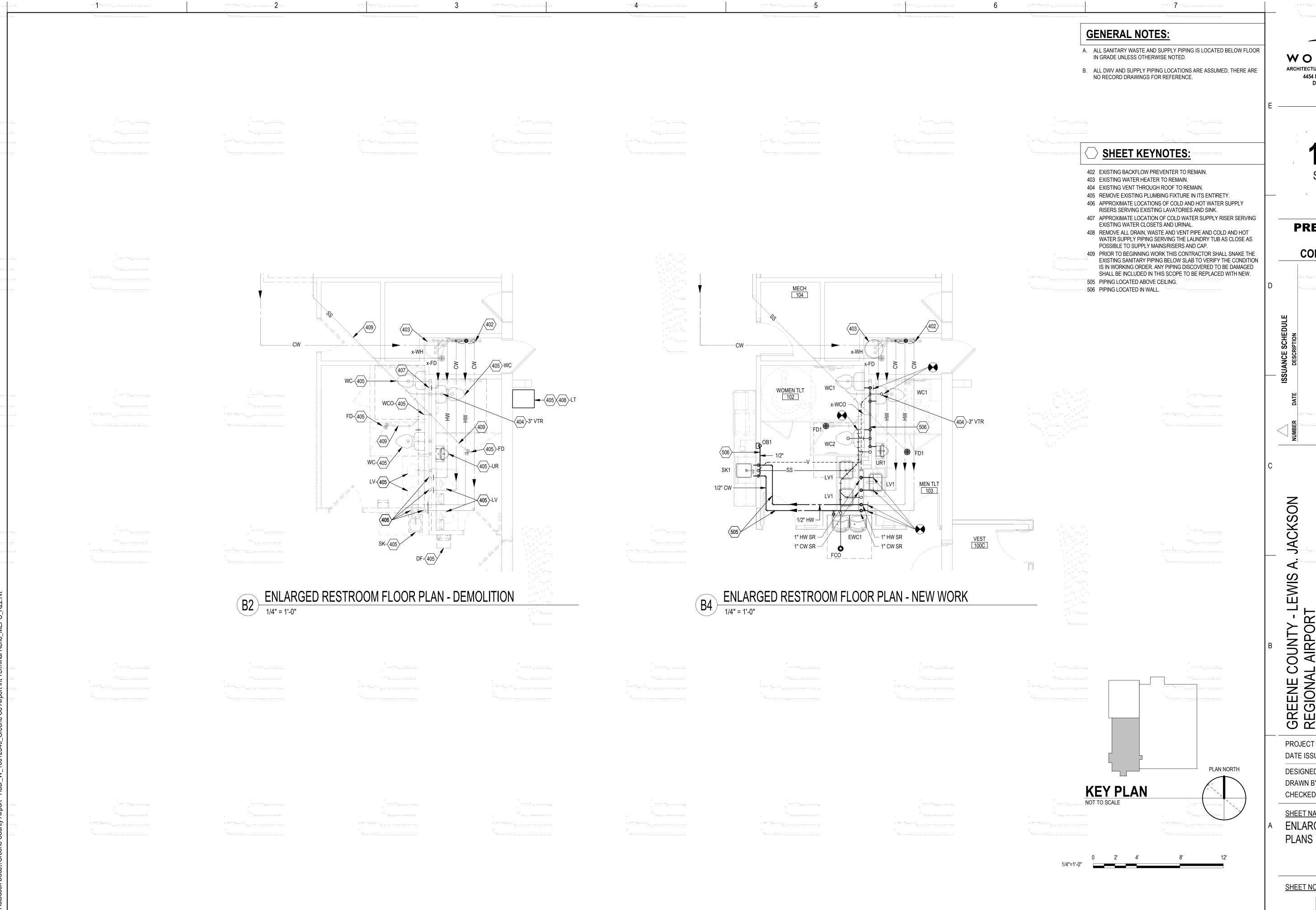
SHEET NAME: PLUMBING **SPECIFICATIONS**

DRAWN BY:

CHECKED BY:



GENERAL NOTES: A. ALL SANITARY WASTE AND SUPPLY PIPING IS LOCATED BELOW FLOOR IN GRADE UNLESS OTHERWISE NOTED. WOOLPERT B. ALL DWV AND SUPPLY PIPING LOCATIONS ARE ASSUMED, THERE ARE NO RECORD DRAWINGS FOR REFERENCE. 4454 IDEA CENTER BOULEVARD DAYTON, OH 45430-1500 800.414.1045 SHEET KEYNOTES: 501 EXISTING WATER METER TO REMAIN. **PRELIMINARY NOT FOR** CONSTRUCTION PILOTS LOUNGE 105 SON GREENE COUNTY - LEWIS A. JACK REGIONAL AIRPORT REFER TO ENLARGED FLOOR PLAN ON SHEET P-401 LOBBY INTERIOR PROJECT NO: 10012540 DATE ISSUED: 02/17/23 VEST 100B PLAN NORTH S. SAVAGE DESIGNED BY: S. SAVAGE DRAWN BY: KEY PLAN NOT TO SCALE CHECKED BY: V. AMADOR SHEET NAME: PLUMBING PLAN SHEET NO: P-101



WOOLPERT 4454 IDEA CENTER BOULEVARD DAYTON, OH 45430-1500 800.414.1045

PRELIMINARY NOT FOR CONSTRUCTION

SON JACK TERMINAL GREENE COUNTY - LEWIS A. REGIONAL AIRPORT

10012540

PROJECT NO: DATE ISSUED: S. SAVAGE

DESIGNED BY: DRAWN BY: CHECKED BY:

S. SAVAGE V. AMADOR

02/17/23

SHEET NAME: ENLARGED PLUMBING

SHEET NO:

P-401

SET CLEANOUT COVER TO FINISHED FLOOR

ELEVATION. PLUMBING CONTRACTOR SHALL LEVEL AND ADJUST AS NECESSARY, THE

CLEANOUT ASSEMBLY. SUBSEQUENT FINISH/

PLUMBING PIPING -

FINISH FLOOR -

FLOOR SLAB

GROUTING OF FLOOR AROUND CLEANOUT

- NICKEL-BRONZE COVER. INSTALL

SEAL BETWEEN PIPE AND SLAB. SEE

LIFE SAFETY AND ARCHITECTURAL

SPECIFICATIONS FOR APPROPRIATE

SEALING MATERIALS. NOTE: ALL

PENETRATIONS, FIRE RATED AND

DRAWINGS FOR FIRE RATED

ASSEMBLY LOCATIONS AND

DETAILS. SEE DIVISION 7

NON-FIRE RATED SHALL BE

APPROPRIATELY SEALED.

FLUSH WITH FINISHED FLOOR LEVEL

NOTE: CO COVER SHALL BE SET AS

NECESSARY TO ACCOMMODATE FLOOR

FINISH (I.E. SEALED; VCT; CERAMIC TILE;

GENERAL NOTE: SEE MANUFACTURER FOR TRAP GUARD INSTALLATION REQUIREMENTS NICKEL-BRONZE STRAINER INSTALL 1/4" BELOW FIN. FLOOR, NOTE: STRAINER HEAD SHALL BE SET W/ 24" DIA. (MIN.) SWALE AROUND AS NECESSARY TO ACCOMMODATE FLOOR FLOOR DRAIN. PLUMBING CONTRACTOR FINISH (I.E. SEALED; VCT; CERAMIC TILE; SHALL ADJUST/LEVEL FLOOR DRAIN PRIOR TO FINAL FINISH FLOOR. RESINOUS FLOORING MATERIALS; ETC.). FINISH FLOOR FLOOR DRAIN -BODY SEWER GAS EMISSION -PVC WASTE PIPING PROTECTION INSERT

PIPE HANGER PER SPECIFICATIONS PIPE INSULATION PER -SPECIFICATIONS WOOD BLOCK

PIPE HANGER AND INSULATION DETAIL

- HANGER ROD PER SPECIFICATIONS INSULATION PROTECTION SHIELD AT EACH HANGER PER SPECIFICATIONS

2.5" HIGH LETTERS (MINIMUM) DOMESTIC HOT WATER 24" OR LONGER SNAP-ON OR WRAP-AROUND POLYESTER LABELS WITH ADHESIVE STRIP(S). **DOMESTIC HOT WATER** FLOW DIRECTION ARROW 8" O.D. PIPING AND ABOVE. (O.D. INCLUDES INSULATION WHERE REQUIRED 1.25" HIGH LETTERS (MINIMUM) DOMESTIC HOT WATER 12" LONGER SNAP-ON OR WRAP-AROUND POLYESTER LABELS WITH ADHESIVE STRIP(S). DOMESTIC HOT WATER FLOW DIRECTION ARROWS 2" TO 6" O.D. PIPING AND ABOVE. (O.D. INCLUDES INSULATION WHERE REQUIRED) .75" HIGH LETTERS (MINIMUM) DOMESTIC HOT WATER - 8" OR LONGER SNAP-ON OR WRAP-AROUND LABELS WITH ADHESIVE STRIP(S). DOMESTIC HOT WATER - FLOW DIRECTION ARROWS 1.5" O.D. PIPING. (O.D. INCLUDES INSULATION WHERE REQUIRED) .5" HIGH LETTERS (MINIMUM) - 8" OR LONGER SNAP-ON OR WRAP-AROUND DOMESTIC HOT WATER ===> POLYESTER LABELS WITH ADHESIVE STRIP(S) □ DOMESTIC HOT WATER
 □ DOMESTIC H - FLOW DIRECTION ARROWS 1.25" O.D. AND SMALLER PIPING. (O.D. INCLUDES INSULATION WHERE REQUIRED) LABEL SHALL INCLUDE GAS PRESSURE. PROVIDE LABELS INDICATING GAS PRESSURE WITHIN 36" OF THE INLET AND OUTLET OF ALL PRESSURE REGULATING VALVES. 2 PSIG NAT. GAS SNAP-ON OR WRAP-AROUND POLYESTER LABELS WITH Z PSIG NAT. GAS ADHESIVE STRIP(S). BACKGROUND COLOR - YELLOW, MINIMUM LENGTH 12" - FLOW DIRECTION ARROWS - 1.25" BLACK HIGH LETTERS (MINIMUM) 2.5" O.D. AND LARGER NATURAL OR LIQUID PROPANE GAS PIPING LABEL SHALL INCLUDE GAS PRESSURE. PROVIDE LABELS INDICATING GAS PRESSURE WITHIN 36" OF THE INLET AND OUTLET OF ALL PRESSURE REGULATING VALVES. 2 PSIG NAT. GAS ===> **2 PSIG NAT. GAS** - SNAP-ON OR WRAP-AROUND POLYESTER LABELS WITH ADHESIVE STRIP(S). BACKGROUND COLOR -

YELLOW, MINIMUM LENGTH 8" - FLOW DIRECTION ARROWS .75" BLACK HIGH LETTERS (MINIMUM) 2" O.D. AND SMALLER NATURAL OR LIQUID PROPANE GAS PIPING LABEL TEXT AND COLOR LEGEND PIPE SYSTEM LETTER LETTER BACKGROUND BACKGROUND PIPE SYSTEM COLOR COLOR DESCRIPTION COLOR COLOR DESCRIPTION

ACID VENT RED WHITE SPRINKLER-FIRE ACID WASTE BLACK WHITE **GREEN** YELLOW STORM **BLACK** YELLOW CITY WATER WHITE GREEN MEDICAL AIR COMPRESSED AIR WHITE BLACK WHITE BLUE MEDICAL VACUUM **DEIONIZED WATER** WHITE WHITE BLACK **GREEN** NITROGEN DOMESTIC COLD WATER WHITE GREEN WHITE BLUE NITROUS OXIDE DOMESTIC HOT WATER* BLACK WHITE YELLOW GREEN OXYGEN DOMESTIC HOT WATER RETURN BLACK YELLOW NATURAL OR LP GAS BLACK YELLOW WHITE **GREEN** SANITARY DRAIN $\frac{\text{*NOTE:}}{\text{LABELS IDENTIFYING TEMPERATURE MAINTENANCE CABLE SYSTEM IS INSTALLED ON DOMESTIC HOT WATER PIPING, MANUFACTURER PROVIDED LABELS IDENTIFYING TEMPERATURE MAINTENANCE CABLE MUST BE INSTALLED.}$

SHEET NO:

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PROJECT NO:

DATE ISSUED:

DESIGNED BY:

SHEET NAME:

PLUMBING DETAILS

DRAWN BY: CHECKED BY:

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10012540

02/17/23

S. SAVAGE S. SAVAGE

V. AMADOR

4454 IDEA CENTER BOULEVARD DAYTON, OH 45430-1500 800.414.1045

PRELIMINARY

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CONSTRUCTION

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PLAN

MARK

EWC1

LV1

OB1

SK1

UR1

WC1

WC2

- 1. SEE PLUMBING SPECIFICATIONS, DRAWINGS AND DETAILS FOR ADDITIONAL INFORMATION.
- 2. SEE ARCHITECTURAL DRAWINGS FOR FIXTURE HEIGHTS AND LOCATION REQUIREMENTS.

DESCRIPTION

ELECTRIC WATER COOLER - DUAL HEIGHT - BOTTLE FILLER - ADA

LAVATORY - COUNTER - ADA

COFFEE MAKER OUTLET BOX

SINGLE BOWL SINK - KITCHENETTE - ADA

URINAL - ADA

WATER CLOSET - FLOOR MOUNT - TANK TYPE - ADA

WATER CLOSET - FLOOR MOUNT - TANK TYPE

- 3. SEE PLUMBING DRAWINGS AND DETAILS FOR ADDITIONAL INFORMATION.
- 4. FLUSH VALVE LEVER TO BE ON WIDE AREA SIDE OF TOILET ROOM. 5. LAVATORY MUST BE MOUNTED PER MANUFACTURER ACCESSIBILITY REQUIREMENTS IN ORDER TO COMPLY WITH ADA GUIDELINES FOR PROPER KNEE CLEARANCE.
- CAULK / SEAL AROUND PERIMETER OF FIXTURE / UNIT.
- RATED FOR 8 GPH AT 50° BASED ON 80° INLET WATER AND 90°F AMBIENT.
- UNDER LAVATORY / SINK, IN-LINE INSTALLATION OF THERMOSTATIC MIXING VALVE. LAVATORY: SET TEMP: 105 DEGREES F. / SINK: SET TEMP: 115 DEGREES F
- 9. SEE ARCHITECTURAL DRAWINGS FOR COUNTERTOP AND BOWL REQUIREMENTS.
- 10. RESTROOM FIXTURE GROUP ARRANGEMENTS MAY INCLUDE THE SUBSTITUTION OF ONE LARGER SHOCK ARRESTOR ("C"- COLD WATER AND "A"- HOT WATER) PER RESTROOM GROUP, IN LIEU OF ONE EACH, INDIVIDUAL FIXTURE SHOCK ARRESTOR . SEE MANUFACTURER'S INSTALLATION REQUIREMENTS WHERE THIS OPTION IS SELECTED.

MANUFACTURER

ELKAY

KOHLER

SIOUX CHIEF

KOHLER

AMERICAN STANDARD

AMERICAN STANDARD

AMERICAN STANDARD

MODEL

EZSTL8WSSK

K-20000

696-G1000MF

K-3331-NA

WASHBROOK 6590.503

2462.016

MATERIAL DESCRIPTION

GALVANIZED STEEL

WHITE VITREOUS CHINA

ABS PLASTIC

STAINLESS STEEL

WHITE VITREOUS CHINA

WHITE VITREOUS CHINA

WHITE VITREOUS CHINA

11. CANE APRON WILL NOT BE REQUIRED IF WATER COOLER IS RECESSED INTO AN "ADA" APPROVED ALCOVE.

CARRIER/SUPPORTS
A1 - WATER CLOSET CARRIER

YES

WHITE

WHITE

B1- CHAIR CARRIER C1- CHAIR CARRIER WITH CONCEALED ARMS

NO FLOOR

- D1 WALL REINFORCEMENT FOR HANGER ATTACHMENT E1 - MANUFACTURER'S STD

FLOOR

- F1 FIELD FABRICATED G1 - WALL BRACKET / HANGER
- **EQUIPMENT/FITTINGS** A2 - LAVATORY TRAP COVER/SHROUD (TRUEBRO #2018-TO-L)

MANUAL

MANUAL

16-1/2" TO RIM

15" TO RIM

B2 - CANE BEZEL/APRON C2 - INSULATION: PREMOLDED VINYL JACKETING ON SUPPLY & WASTE.

UNIT

UNIT

- D2 SHOWER ROD w/ RECEIVER CUPS AND WEIGHTED CURTAIN w/ HOOKS, STATIONARY SHOWER HEAD, SUPPLY ELBOW, FRONT TRENCH DRAIN
- E2 GRAB BARS, FOLDING SEAT, SHOWER ROD w/ RECEIVER CUPS AND WEIGHTED CURTAIN w/ HOOKS, HAND HELD SHOWER WINLINE VACUUM BREAKER, 60"S.S. HOSE, SLIDE BAR/RAIL, STATIONARY
- SHOWER HEAD, SUPPLY ELBOW, DIVERTER, FRONT TRENCH DRAIN F2 - HOSE WITH BRACKET & FOUR HOLDER MOP RACK
- G2 STAINLESS STEEL WALL GUARD H2 - ASSE 1070 THERMOSTATIC MIXING VALVE
- 12 ASSE 1016T/P T'STATIC/PRESSURE BALANCE SHOWER VALVE
- J2 2" STANDPIPE, 1/2" DUAL CLOSE BALL TYPE VALVES w/SHOCK ARRESTORS. K2 - ANGLE BALL VALVE ARRANGEMENT w/ SHOCK ARRESTOR
- L2 ASSE 1070 THERMOSTATIC MIXING VALVE AND WALL ACCESS PANEL M2 - GARBAGE DISPOSER - 3/4 HP

WOOLPERT
ARCHITECTURE ENGINEERING GEOSPATIAL
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PROJECT NO:

DATE ISSUED:

DESIGNED BY:

DRAWN BY: CHECKED BY:

STRAINER/GRATE SIZE WASTE VENT NOTES

MARK

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DESCRIPTION

FLOOR CLEANOUT

FLOOR DRAIN

- 1. CLEANOUT SIZES SHALL BE SAME SIZE AS PIPE SERVED, UP TO 6". CONTRACTOR TO COORDINATE AND FIELD VERIFY.
- 2. PROVIDE SEWER EMISSIONS INSERT IN FLOOR DRAIN OUTLETS, SEE SPECIFICATIONS FOR ADDITIONAL SEWER EMISSION INSERT INFORMATION. INSTALL PER INSERT MANUFACTURER'S INSTALLATION INSTRUCTIONS.

EPOXY COATED CAST IRON NICKEL BRONZE

DRAIN AND CLEANOUT SCHEDULE

DRAIN BODY

CAST IRON

WATER HAMMER ARRESTOR
SIZING TABLE (PER PDI)

CONNECTION SIZE	FIXTURE UNITS	CROSS REF. PDI
1/2"	1-11	A
3/4"	12-32	В
1"	33-60	С
1-1/4"	61-113	D
1-1/2"	114-154	Е
2"	155-300	F

ATER HAMMER ARRESTOR SIZING TABLE (PER PDI)			
TION	FIXTURE UNITS	CROSS REF. PDI	
'	1-11	Α	
1	12-32	В	
•	33-60	С	
."	61-113	D	
"	114-154	Е	
	155-300	F	

3" 1-1/2" 2

1,2,3,4,6,10,A3,B3,D3

4" 2" 1/2" --- 1,2,3,4,6,10,A3,B3,D3

F3 - TRAP: 17 GAUGE, 1-1/4"; 1-1/2"; 2"; 3" NPS, WITH CLEANOUT PLUG

M4 - FITTINGS AND FLEXIBLE TUBING FOR COFFEE MAKER CONNECTION.

M5 - FITTINGS AND FLEXIBLE TUBING FOR ICE MAKER CONNECTION. (COORDINATE REQUIREMENTS WITH OWNER ON SPECIFIC ICE

(COORDINATE REQUIREMENTS WITH OWNER ON SPECIFIC COFFEE

M3 - TWO 60" HOSES (WASHING MACHINE LOCATION ONLY)

A3 - TOILET SEAT - "ANTI-MICROBIAL" B3 - SUPPLIES WITH SCREWDRIVER STOPS

D3 - NO-SEEP #3 URETHANE / WAX RING

G3 - FOLD UP, PHENOLIC SHOWER SEAT

K3 - SHOCK ARRESTOR (type: A,B,C,D)

MAKER CONNECTION REQUIREMENTS)

MAKER CONNECTION REQUIREMENTS.)

NICKEL BRONZE

E3 - STRAINER/DRAIN: BASKET TYPE

C3 - STRAINER / DRAIN: GRID

H3 - CONTINUOUS WASTE

L3 - ALARM PACKAGE

SHEET NAME: PLUMBING SCHEDULES

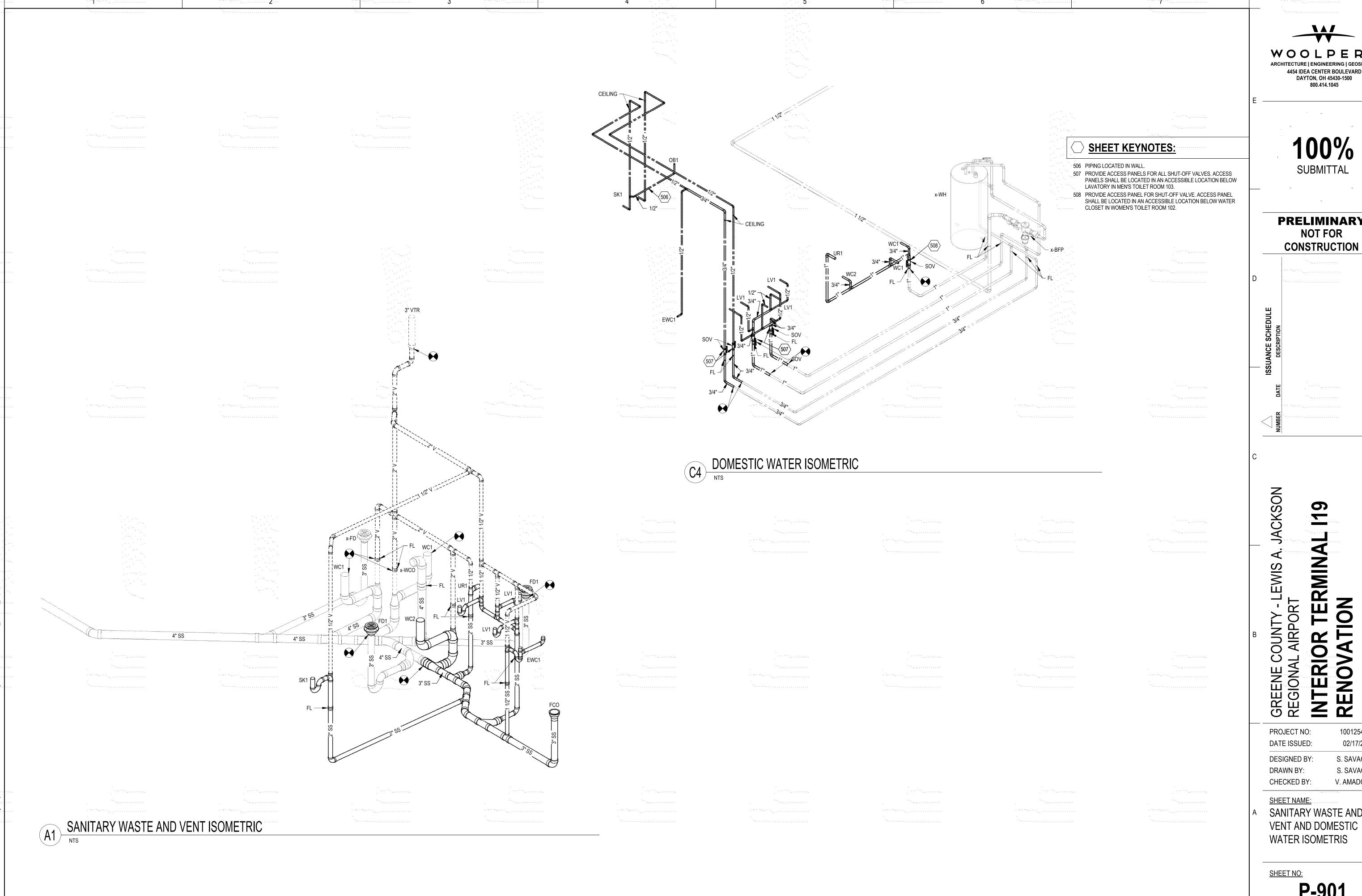
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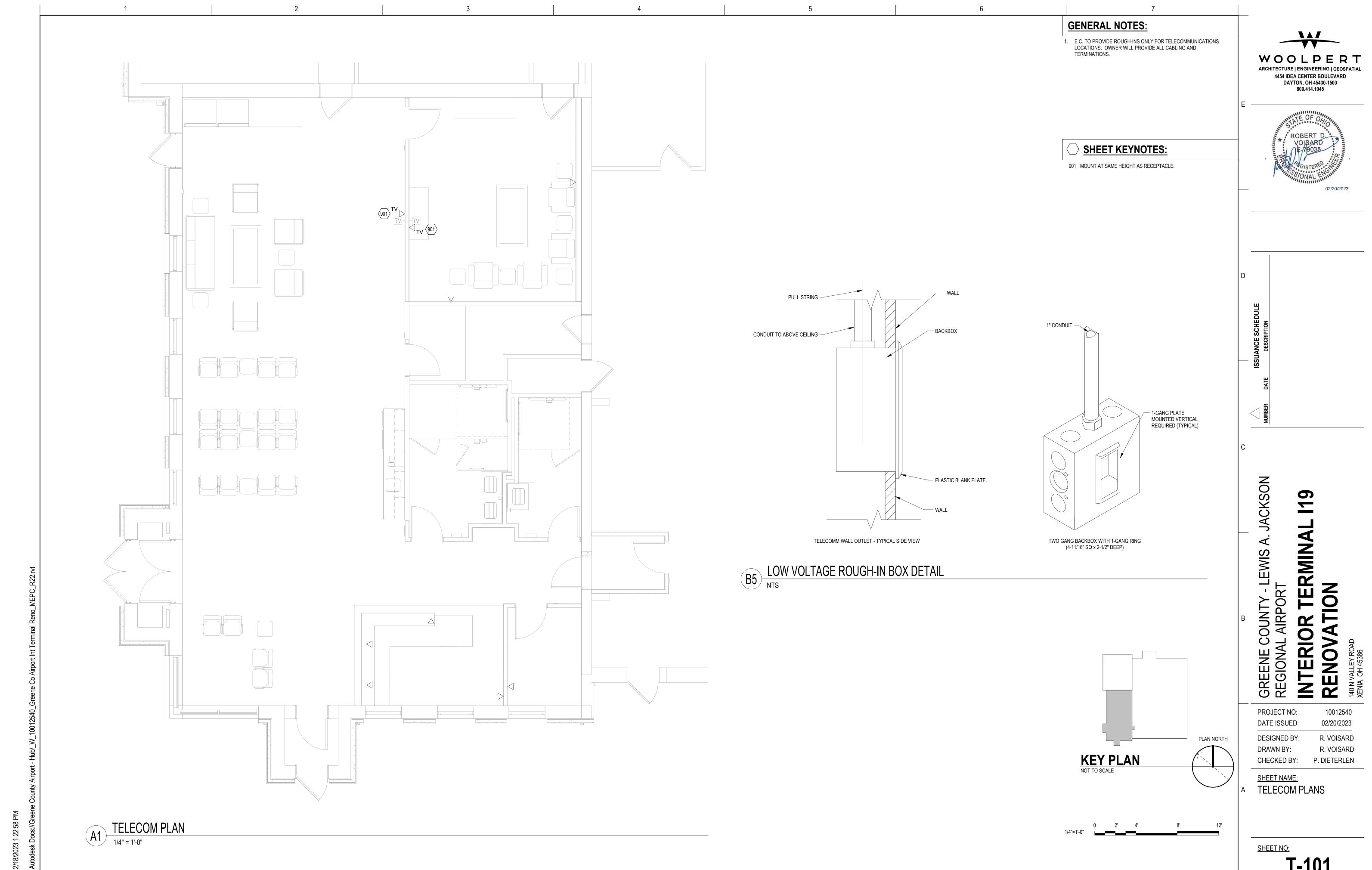
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S. SAVAGE S. SAVAGE

V. AMADOR

SANITARY WASTE AND VENT AND DOMESTIC

P-901



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