

ADDENDUM NO. 1

August 3, 2023

FOR:

Geiger House 2631 Gilbert Avenue Cincinnati, OH 45206

PREPARED BY:

Emboss Design (formerly PCA) 906 Monmouth Street Newport, KY 41071

BID EXTENSION – The bid date has been extended to Tuesday, August 15th at 2:00 pm.

DRAWINGS:

1. C-03 GRADING & UTILITY PLANS

- Added top elevations and invert elevations to sheet for various pipes and structures
- Added note for size of new water line
- Added note for hot box
- Revised notes for sizes and lengths of various pipes
- Added note clarifying RCP or DIP for storm sewer pipe

2. C-04 SITE DETAILS

- Revised pipe size note for underdrain detail
- Revised detention outlet structure detail

3. A101 FIRST FLOOR PLAN

- Removed window W2 previously shown behind sink in Community Room 107
- Revised sink type in RR 113 and enlarged room 3 ¾" to the North

4. A201 EXTERIOR ELEVATIONS

• Removed Window W2 under front entry porch and added dimension letters where window previously shown.

5. A302 ENLARGED PLANS

- Revised sink type in RR 113 and enlarged room 3 ¾" to the North
- Added enlarged community room kitchenette plan to sheet

Addendum No. 1 2023.08.02 Page 1 of 4



6. A303 INTERIOR ELEVATIONS

- Added notes for outside corners to be radiused in response to OHFA review comment.
- Added elevation for Restroom 113 showing revised sink
- Added elevations for Community Room Kitchenette

7. P100 PLUMBING BASEMENT PLAN

Removed cleanout in Corridor 002 floor in response to OHFA review comment

8. P101 PLUMBING FIRST FLOOR PLAN:

Removed cleanouts in Corridor 106 and 108 floor in response to OHFA review comment

9. P300 PLUMBING DETAILS, SCHEDULES, AND ISOMETRIC:

Revised WC1 water closet plumbing fixture

10. P301 PLUMBING DETAILS, SCHEDULES, AND ISOMETRIC:

Removed floor cleanouts in response to OHFA review comment

11. E301 ELECTRICAL ENLARGED UNIT PLANS

 Provided additional audible and visual notifiers for doorbell in bedroom and bathroom for Sensory Impairment Units U213 and U305 in response to OHFA review comment

12. E400 ELECTRICAL DETAILS:

Revised single line diagram and feeder schedule

13. E401 ELECTRICAL DETAILS:

- Revised MDP Schedule
- Added information for Feeder Raceway and Conductors for CT-CAB schedules

14. E403 ELECTRICAL DETAILS:

Revised Bus Amps on Schedules

15. E404 ELECTRICAL DETAILS:

• Revised Bus Amps on Schedules

16. E405 ELECTRICAL DETAILS:

Revised Bus Amps on Schedules

QUESTIONS AND ANSWERS:

- 1. What is the basis of design for the cabinets and countertops?
 - a. Model The basis of design is a stained cabinet by Smart Cabinets with full plywood construction. Cabinets shall have soft close doors and drawers. Door style to be Group 1. The

Addendum No. 1 2023.08.02 Page 2 of 4



plastic laminate countertops shall be standard Group 1 colors. Cultured marble countertops shall be standard colors.

- 2. Are the wood doors solid core or hollow core?
 - a. All wood doors shall be solid core.
- 3. Who ir responsible for backfilling the existing basement?
 - a. **BP 31 Site Work** is responsible for backfilling the existing basement and footings. The demolition contractor shall set back the grade 1:1 at foundation walls.
- 4. What is the specification for the ACT ceilings?
 - a. Ceilings shall be 2x2 tegular ceiling pads.
- 5. Sheet S140 does not show the hoist beam. Please provide beam size and weight along with bearing details.
 - a. Include a \$2,000 allowance for the hoist beam material.
- 6. The specified range is no longer available and is a front control standard range.
 - a. Provide a similar model range to the specified range. ADA units shall have the front control ranges. Non-ADA units do NOT require front controls.
- 7. Do all units need ADA refrigerators?
 - a. No, only the ADA units require ADA refrigerators.
- 8. Will elevator access be available for appliance deliveries?
 - a. Assume the elevator will NOT be available.
- 9. What color are the appliances to be?
 - a. Appliances shall be white.
- 10. What are the hollow metal door, frame and hardware specs?
 - a. Hollow metal doors shall be 18 gauge. Hollow metal frames shall be 16 gauge. Door hardware shall be Grade 2 hardware.
- 11. Who is responsible for hauling out existing trash and furniture?
 - a. Demolition Contractor shall include a \$15,000 allowance for removing existing trash and furniture left behind by the owner.
- 12. Will building demolition quotes be taken separately or are they required to be included in the Site Work package.
 - a. Building demolition numbers will be accepted separately. The building demolition contractor shall include sloping the grade at removed foundation walls at a 1:1 slope. The site contractor is

Addendum No. 1 2023.08.02 Page 3 of 4

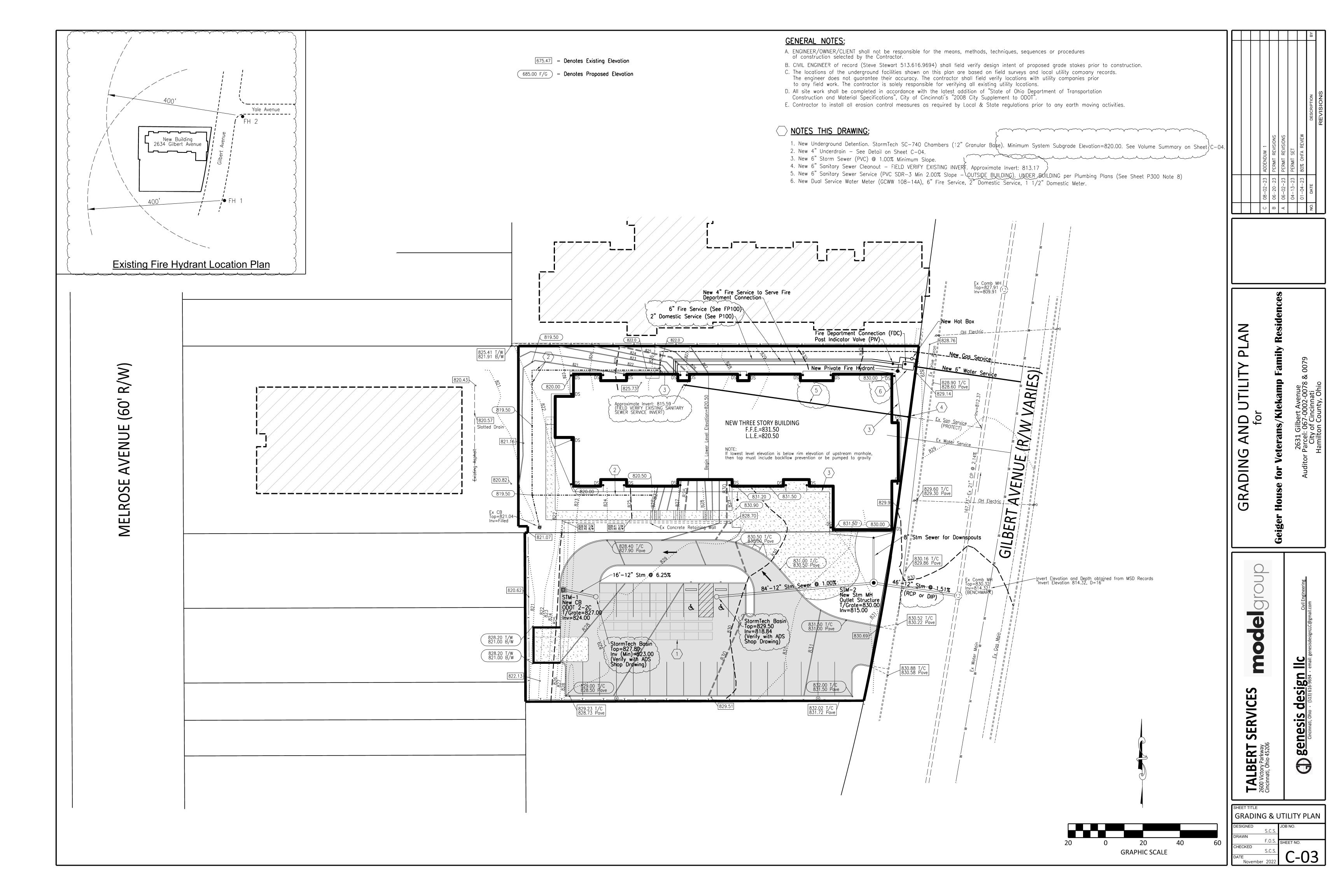


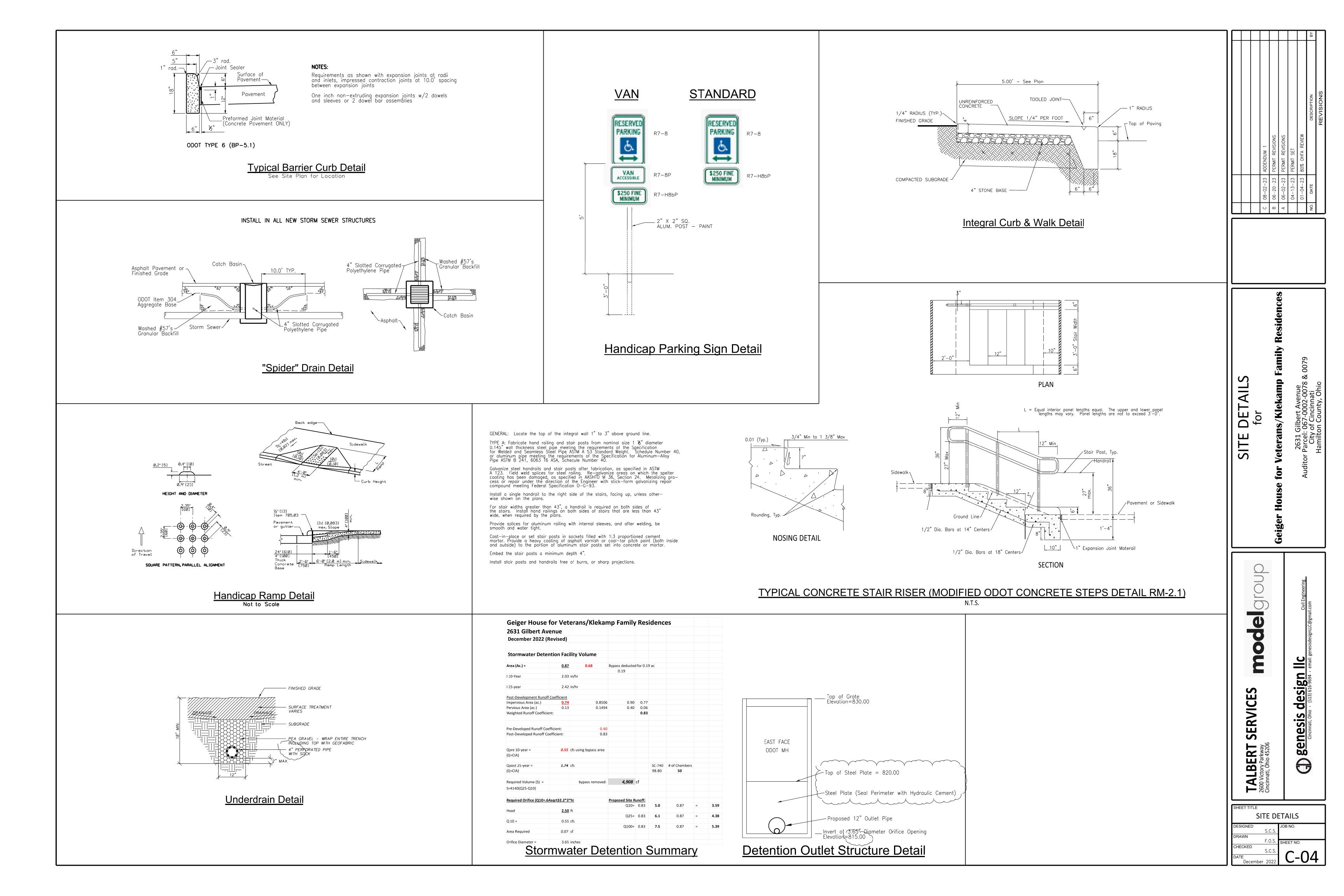
responsible for backfilling the existing basement and old foundations as required. Spoils from the storm detention system may be used for backfilling the existing basement.

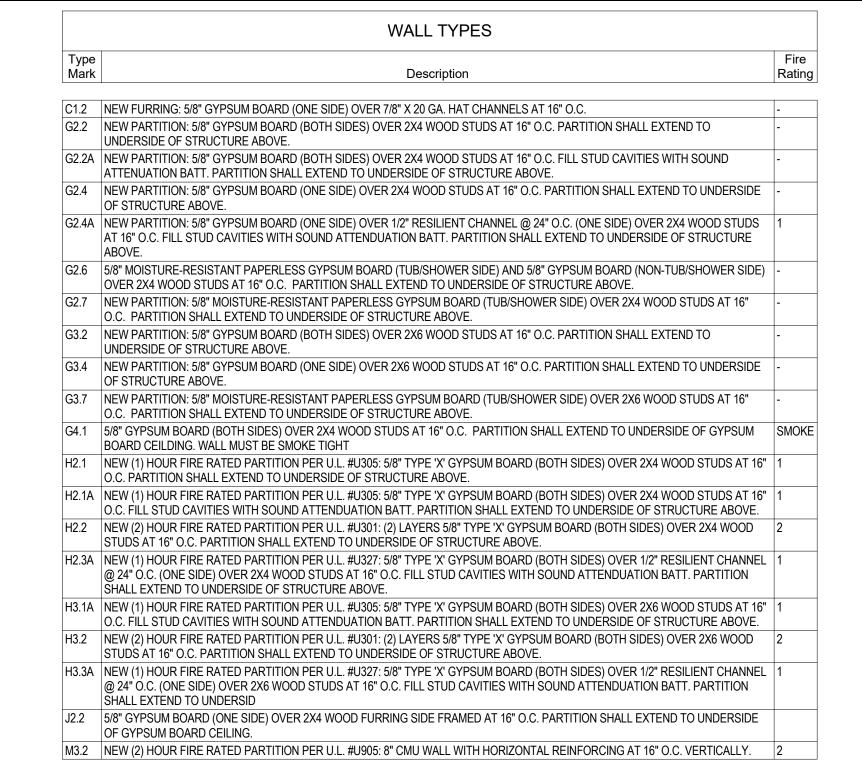
- 13. Will the sidewalk be closed during demolition?
 - a. Yes, the sidewalk will be closed during demolition and site work. The sidewalk closure permit will be covered by Model. The site work contractor shall include removing the City sidewalks even though they are not called out. The concrete contractor shall include pouring new City sidewalks. Curb is to remain unless noted otherwise.
- 14. Who is responsible for the temporary shoring at the street?
 - a. Model will procure separate pricing for the temporary shoring at the street, if required.
- 15. Do wood doors get painted or are they prefinished?
 - a. All wood doors will be factory primed and painted in the field.
- 16. What is the domestic water meter size?
 - a. The water meter shall be 1.5".

End of Addendum 1

Addendum No. 1 2023.08.02 Page 4 of 4





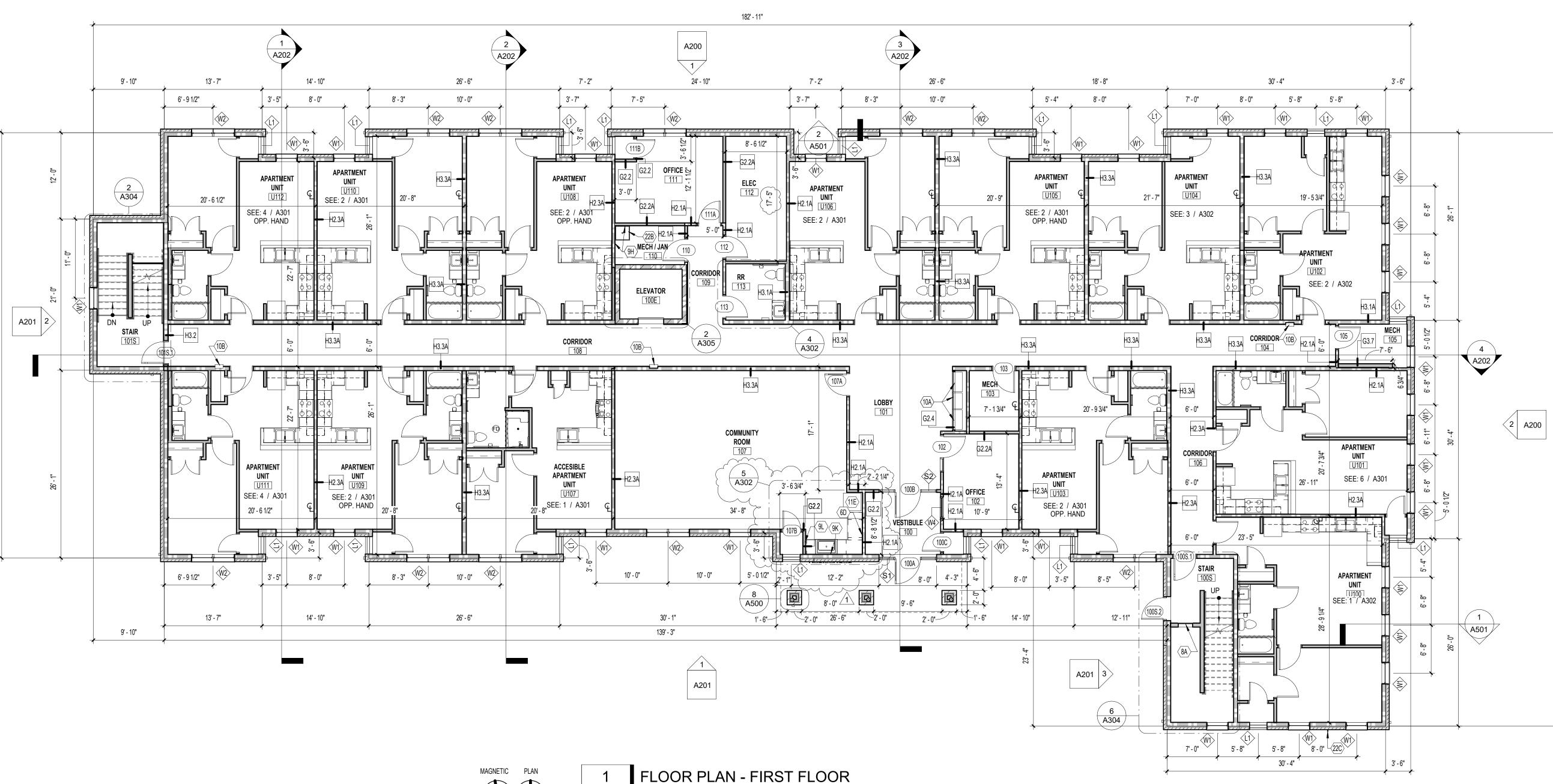


GENERAL NOTES - FLOOR PLANS

- ALL DIMENSIONS ARE TO FACE OF STUD OR FACE OF MASONRY UNLESS NOTED
- SEE SHEET G102 FOR WALL TYPES
- PROVIDE BLOCKING IN WALLS AROUND TUB/SHOWER (ALL SIDES) AND TOILET FOR POTENTIAL FUTURE GRAB BARS
- PROVIDE 2x8 BLOCKING TOP AND BOTTOM OF ALL WALL CABINETS
- OFFSET NEW DOORS FROM ADJACENT PERPENDICULAR WALL 4" UNLESS INDICATED
- PROVIDE UL LISTED FIRESTOPPING AT ALL PENETRATIONS THROUGH FIRE RATED WALLS AND FLOOR TO MAINTAIN THE REQUIRED FIRE RESISTANCE RATING OF THE
 - WASHERS AND DRYERS SHALL BE ENERGY STAR RATED.
- PROVIDE 1/2" SOLID ACRYLIC RESIN WINDOW STOOL EXTENDING 1/2" BEYOND FACE OF GYPSUM AT ALL WINDOWS.
- A RADON MITIGATION SYSTEM WILL BE PROVIDED UNDER SEPARATE CONTRACT. COORDINATE PIPE RUNS FOR THIS SYSTEM WITH MEP EQUIPMENT AND WALL. WHERE POSSIBLE. PIPES SHALL BE LOCATED IN NEW WALLS. WHERE NOT POSSIBLE TO LOCATE PIPES WITHIN CURRENTLY SHOWN WALLS, PIPES SHALL BE BOXED OUT TO MINIMUM DIMENSION.

SHEET KEYNOTES

- PLASTIC LAMINATE COUNTER.
- 24"W X 48"H ACCESS DOOR
- PROVIDE 5/8" MOISTURE-RESISTANT GYPSUM BOARD ON THIS FACE OF WALL. PROVIDE 5/8" MOISTURE-RESISTANT PAPERLESS GYPSUM BOARD THIS FACE AT WALL BEHIND SINK TO A HEIGHT OF 4'-0" (OR TOP OF KNEE WALL WHERE APPLICABLE). REMAINDER OF WALL FACE TO BE MOISTURE-RESISTANT GYPSUM
- PROVIDE 5/8" MOISTURE-RESISTANT GYPSUM BOARD ON THIS FACE OF WALL AT PORTIONS OF WALL WITHIN 4'-0" OF SINK HORIZONTALLY AND VERTICALLY.
- MAILBOXES PROVIDE SALSBURY INDUSTRIES 3600 SERIES MAILBOXES: (2) 24 UNIT MODEL #3625AFP AND (1) 14 UNIT MODEL #3615FP OR EQUAL. FRONT LOADING, PRIVATE ACCESS. VERIFY REQUIRED WALL OPENING
- SEMI-RECESSED FIRE EXTINGUISHER CABINET AND EXTINGUISHER ICC ANSI A117.1 COMPLIANT, ENERGY STAR QUALIFIED REFRIGERATOR - FRIGIDAIRE
- #FFT1814Q OR EQUAL, AT LEAST 505 OF FREEZER SHELVES, INCLUDING BOTTOM OF THE FREEZER, 54" MAXIMUM ABOVE THE FLOOR WHEN THE SHELVES ARE INSTALLED AT MAXIMUM HEIGHTS POSSIBLE
- MOP SINK. SEE MEP DRAWINGS. HOSE BIBB. SEE MEP DRAWINGS.



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

ARCHITECTURE

906 MONMOUTH STREET NEWPORT, KY 41071 www.PCA-ARCH.com 859.431.8612

EMMA ADKISSON ، N6 ARC.2118357 م

EMMA ADKISSON, LIC# 2118357 EXPIRATION DATE 12/31/2023

NO. DESCRIPTION DATE 01/04/23 80% OHFA REVIEW 04/13/23

07/10/23

07/20/23

08/02/23

KLEKA

GEIGER

REVISION

ADDENDUM 1

FIRST FLOOR PLAN

21-116

A101

7/27/2023 11:44:35 AM

WEST ELEVATION

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

ARCHITECTURE

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GEIG

AVE. 45206 **X**

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0.	DESCRIPTION	DATE
	80% OHFA REVIEW	01/04/23
	PERMIT SET	04/13/23
	ADDENDUM 1	08/02/23

EXTERIOR ELEVATIONS

21-116

A201

U100, U200, U300

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

H3.3A

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

A302

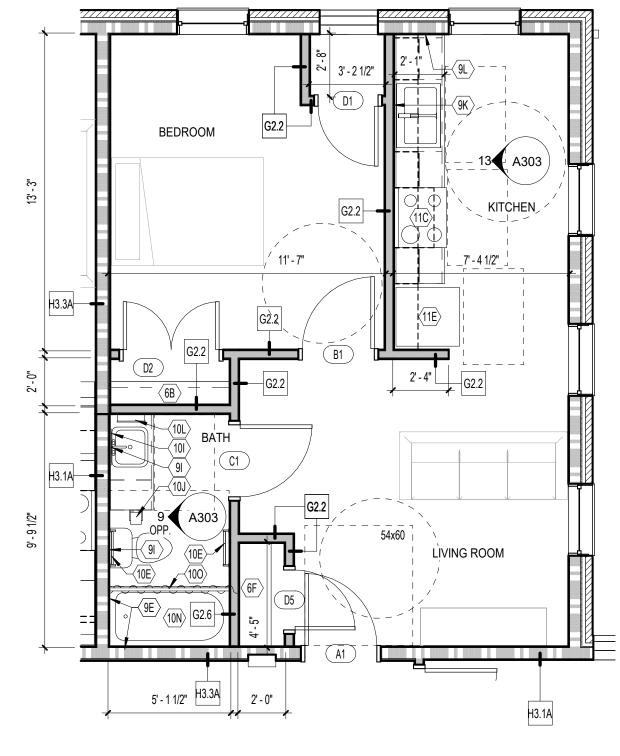
8' - 4 1/2"

ENLARGED RESTROOM PLAN

A302

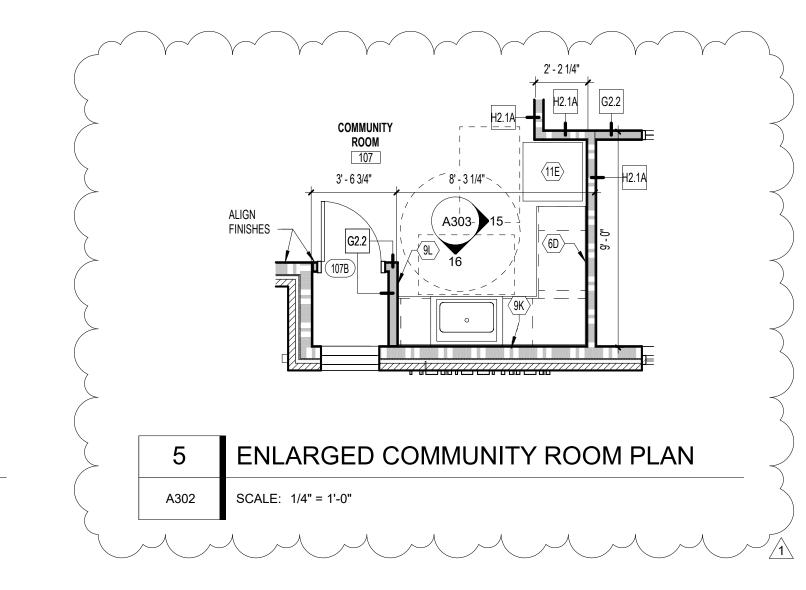
■ ENLARGED FLOOR PLAN

ONE BEDROOM APARTMENT



U102, U202, U302

ENLARGED FLOOR PLAN ONE BEDROOM APARTMENT A302 SCALE: 1/4" = 1'-0"



BEDROOM LIVING ROOM 10' - 6 1/4" 7' - 1"

KITCHEN

6' - 8 1/2"

U104, U204, U304

5' - 1 1/2" H3.3A

ENLARGED FLOOR PLAN ONE BEDROOM APARTMENT SCALE: 1/4" = 1'-0"

6' - 5"

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- OFFSET NEW DOORS FROM ADJACENT PERPENDICULAR WALL 4" UNLESS INDICATED
- PROVIDE UL LISTED FIRESTOPPING AT ALL PENETRATIONS THROUGH FIRE RATED WALLS AND FLOOR TO MAINTAIN THE REQUIRED FIRE RESISTANCE RATING OF THE
- WASHERS AND DRYERS SHALL BE ENERGY STAR RATED. PROVIDE 1/2" SOLID ACRYLIC RESIN WINDOW STOOL EXTENDING 1/2" BEYOND FACE OF
- GYPSUM AT ALL WINDOWS. A RADON MITIGATION SYSTEM WILL BE PROVIDED UNDER SEPARATE CONTRACT.
- COORDINATE PIPE RUNS FOR THIS SYSTEM WITH MEP EQUIPMENT AND WALL. WHERE POSSIBLE. PIPES SHALL BE LOCATED IN NEW WALLS, WHERE NOT POSSIBLE TO LOCATE PIPES WITHIN CURRENTLY SHOWN WALLS, PIPES SHALL BE BOXED OUT TO MINIMUM DIMENSION.

SHEET KEYNOTES

- COAT ROD AND 12" DEEP WIRE SHELF. AT ACCESSIBLE UNITS THE SHELF SHALL BE 48" A.F.F.
- PLASTIC LAMINATE COUNTER.
- (5) 16" DEEP ADJUSTABLE SHELVES TO EXTEND FROM 12"-72". WIRE SHELVES STANDARD.
- KNEE WALL BELOW COUNTER
- PROVIDE 5/8" MOISTURE-RESISTANT PAPERLESS GYPSUM BOARD ON THIS FACE OF RATED WALL AT TUB/SHOWER SURROUNDS IN ACCORDANCE WITH UL RATED WALL ASSEMBLY. WHERE SURROUND IS NEXT TO TOILET, EXTEND MOISTURE-RESISTANT

PAPERLESS GYPSUM BOARD AT SAME HEIGHT TO SPACE BETWEEN, BEHIND, AND

- PROVIDE 5/8" MOISTURE-RESISTANT PAPERLESS GYPSUM BOARD ON THIS FACE OF RATED WALL TO A HEIGHT OF 4'-0" BEHIND SINK/TOILET IN ACCORDANCE WITH UL
- RATED WALL ASSEMBLY. PROVIDE 5/8" MOISTURE-RESISTANT PAPERLESS GYPSUM BOARD THIS FACE AT WALL BEHIND SINK TO A HEIGHT OF 4'-0" (OR TOP OF KNEE WALL WHERE APPLICABLE). REMAINDER OF WALL FACE TO BE MOISTURE-RESISTANT GYPSUM
- PROVIDE 5/8" MOISTURE-RESISTANT GYPSUM BOARD ON THIS FACE OF WALL AT PORTIONS OF WALL WITHIN 4'-0" OF SINK HORIZONTALLY AND VERTICALLY.
- 18" TOWEL BAR
- 18" VERTICAL GRAB BAR
- 36" GRAB BAR
- 42" GRAB BAR
- 18"X30" MIRROR CENTERED OVER SINK
- TOILET TISSUE DISPENSER EQUAL TO BOBRICK #2888
- PAPER TOWEL DISPENSER/RECEPTACLE EQUAL TO BOBRICK #B-3699 SURFACE MOUNTED MEDICINE CABINET
- PROVIDE ICC ANSI A117.1 COMPLIANT BATHTUB AND FIBERGLASS WALL SURROUND
- SHOWER CURTAIN AND ROD SOAP DISPENSER
- ELECTRIC RANGE FRIGIDAIRE #FFEF3009P OR EQUAL
- ICC ANSI A117.1 COMPLIANT, ENERGY STAR QUALIFIED REFRIGERATOR FRIGIDAIRE #FFT1814Q OR EQUAL. AT LEAST 505 OF FREEZER SHELVES, INCLUDING BOTTOM OF THE FREEZER, 54" MAXIMUM ABOVE THE FLOOR WHEN THE SHELVES ARE INSTALLED AT MAXIMUM HEIGHTS POSSIBLE

WALL TYPES Description

C1.2 NEW FURRING: 5/8" GYPSUM BOARD (ONE SIDE) OVER 7/8" X 20 GA. HAT CHANNELS AT 16" O.C.

- G2.2 NEW PARTITION: 5/8" GYPSUM BOARD (BOTH SIDES) OVER 2X4 WOOD STUDS AT 16" O.C. PARTITION SHALL EXTEND TO UNDERSIDE OF STRUCTURE ABOVE.
- G2.2A NEW PARTITION: 5/8" GYPSUM BOARD (BOTH SIDES) OVER 2X4 WOOD STUDS AT 16" O.C. FILL STUD CAVITIES WITH SOUND ATTENUATION BATT. PARTITION SHALL EXTEND TO UNDERSIDE OF STRUCTURE ABOVE.
- G2.4 NEW PARTITION: 5/8" GYPSUM BOARD (ONE SIDE) OVER 2X4 WOOD STUDS AT 16" O.C. PARTITION SHALL EXTEND TO UNDERSIDE OF STRUCTURE ABOVE.
- G2.4A NEW PARTITION: 5/8" GYPSUM BOARD (ONE SIDE) OVER 1/2" RESILIENT CHANNEL @ 24" O.C. (ONE SIDE) OVER 2X4 WOOD STUDS
- AT 16" O.C. FILL STUD CAVITIES WITH SOUND ATTENDUATION BATT. PARTITION SHALL EXTEND TO UNDERSIDE OF STRUCTURE
- G2.6 | 5/8" MOISTURE-RESISTANT PAPERLESS GYPSUM BOARD (TUB/SHOWER SIDE) AND 5/8" GYPSUM BOARD (NON-TUB/SHOWER SIDE)
- OVER 2X4 WOOD STUDS AT 16" O.C. PARTITION SHALL EXTEND TO UNDERSIDE OF STRUCTURE ABOVE. NEW PARTITION: 5/8" MOISTURE-RESISTANT PAPERLESS GYPSUM BOARD (TUB/SHOWER SIDE) OVER 2X4 WOOD STUDS AT 16"
- O.C. PARTITION SHALL EXTEND TO UNDERSIDE OF STRUCTURE ABOVE. G3.2 NEW PARTITION: 5/8" GYPSUM BOARD (BOTH SIDES) OVER 2X6 WOOD STUDS AT 16" O.C. PARTITION SHALL EXTEND TO
- UNDERSIDE OF STRUCTURE ABOVE. G3.4 NEW PARTITION: 5/8" GYPSUM BOARD (ONE SIDE) OVER 2X6 WOOD STUDS AT 16" O.C. PARTITION SHALL EXTEND TO UNDERSIDE
- OF STRUCTURE ABOVE. G3.7 NEW PARTITION: 5/8" MOISTURE-RESISTANT PAPERLESS GYPSUM BOARD (TUB/SHOWER SIDE) OVER 2X6 WOOD STUDS AT 16"
- O.C. PARTITION SHALL EXTEND TO UNDERSIDE OF STRUCTURE ABOVE.
- G4.1 | 5/8" GYPSUM BOARD (BOTH SIDES) OVER 2X4 WOOD STUDS AT 16" O.C. PARTITION SHALL EXTEND TO UNDERSIDE OF GYPSUM SMOKE BOARD CEILDING. WALL MUST BE SMOKE TIGHT

O.C. FILL STUD CAVITIES WITH SOUND ATTENDUATION BATT. PARTITION SHALL EXTEND TO UNDERSIDE OF STRUCTURE ABOVE.

- H2.1 | NEW (1) HOUR FIRE RATED PARTITION PER U.L. #U305: 5/8" TYPE 'X' GYPSUM BOARD (BOTH SIDES) OVER 2X4 WOOD STUDS AT 16" | 1
- O.C. PARTITION SHALL EXTEND TO UNDERSIDE OF STRUCTURE ABOVE. H2.1A NEW (1) HOUR FIRE RATED PARTITION PER U.L. #U305: 5/8" TYPE 'X' GYPSUM BOARD (BOTH SIDES) OVER 2X4 WOOD STUDS AT 16" 1
- H2.2 NEW (2) HOUR FIRE RATED PARTITION PER U.L. #U301: (2) LAYERS 5/8" TYPE 'X' GYPSUM BOARD (BOTH SIDES) OVER 2X4 WOOD 2 STUDS AT 16" O.C. PARTITION SHALL EXTEND TO UNDERSIDE OF STRUCTURE ABOVE.
- H2.3A NEW (1) HOUR FIRE RATED PARTITION PER U.L. #U327: 5/8" TYPE 'X' GYPSUM BOARD (BOTH SIDES) OVER 1/2" RESILIENT CHANNEL
- @ 24" O.C. (ONE SIDE) OVER 2X4 WOOD STUDS AT 16" O.C. FILL STUD CAVITIES WITH SOUND ATTENDUATION BATT. PARTITION SHALL EXTEND TO UNDERSIDE OF STRUCTURE ABOVE
- H3.1A NEW (1) HOUR FIRE RATED PARTITION PER U.L. #U305: 5/8" TYPE 'X' GYPSUM BOARD (BOTH SIDES) OVER 2X6 WOOD STUDS AT 16" O.C. FILL STUD CAVITIES WITH SOUND ATTENDUATION BATT. PARTITION SHALL EXTEND TO UNDERSIDE OF STRUCTURE ABOVE.
- NEW (2) HOUR FIRE RATED PARTITION PER U.L. #U301: (2) LAYERS 5/8" TYPE 'X' GYPSUM BOARD (BOTH SIDES) OVER 2X6 WOOD STUDS AT 16" O.C. PARTITION SHALL EXTEND TO UNDERSIDE OF STRUCTURE ABOVE.
- H3.3A NEW (1) HOUR FIRE RATED PARTITION PER U.L. #U327: 5/8" TYPE 'X' GYPSUM BOARD (BOTH SIDES) OVER 1/2" RESILIENT CHANNEL @ 24" O.C. (ONE SIDE) OVER 2X6 WOOD STUDS AT 16" O.C. FILL STUD CAVITIES WITH SOUND ATTENDUATION BATT. PARTITION
- SHALL EXTEND TO UNDERSID
- J2.2 | 5/8" GYPSUM BOARD (ONE SIDE) OVER 2X4 WOOD FURRING SIDE FRAMED AT 16" O.C. PARTITION SHALL EXTEND TO UNDERSIDE OF GYPSUM BOARD CEILING.
- M3.2 NEW (2) HOUR FIRE RATED PARTITION PER U.L. #U905: 8" CMU WALL WITH HORIZONTAL REINFORCING AT 16" O.C. VERTICALLY.

ENLARGED PLANS

NO. DESCRIPTION

PERMIT SET

ADDENDUM 1

REVISION

80% OHFA REVIEW

DATE

01/04/23

04/13/23

07/20/23

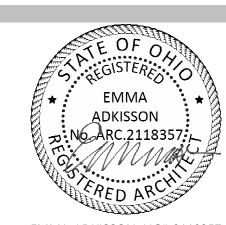
08/02/23

21-116

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ARCHITECTURE

906 MONMOUTH STREET NEWPORT, KY 41071 www.PCA-ARCH.com 859.431.8612



EMMA ADKISSON, LIC# 2118357

EXPIRATION DATE 12/31/2023

AVE. 45206

ARCHITECTURE

SURROUND UNIT W/HORIZ.

AND VERT. GRAB BARS &

FOLD-UP SHOWER SEAT

FOLDING SHOWER SEAT

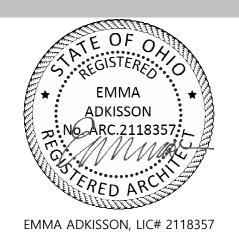
GRAB BAR

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

REFRIGERATOR

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

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EXPIRATION DATE 12/31/2023 TERA

AVE. 45206

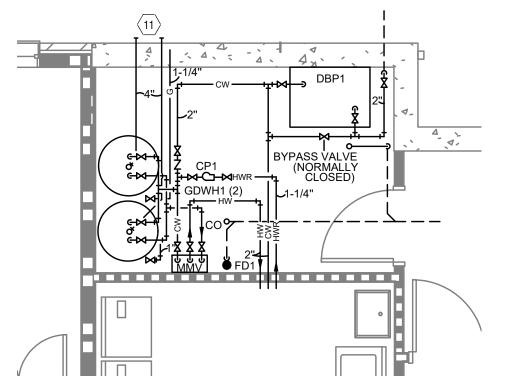
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NO.	DESCRIPTION	DATE
	80% OHFA REVIEW	01/04/23
	PERMIT SET	04/13/23
	REVISION	07/20/23
1	ADDENDUM 1	08/02/23

INTERIOR ELEVATIONS

21-116

A303







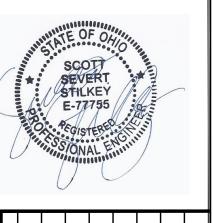
PLUMBING GENERAL NOTES

CONDITIONS.

- THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT.
- DESIGN DRAWINGS ARE SCHEMATIC. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FIELD CONDITIONS. CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY FOR REQUIRED FIELD MODIFICATIONS DUE TO EXISTING
- BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.
- PROVIDE POINT-OF-USE THERMOSTATIC MIXING VALVES ON ALL PUBLIC LAVATORIES AND HAND SINKS. VALVES SHALL MEET ASSE 1070 AND SHALL BE EQUAL TO WATTS USG-B.
- PROVIDE SQUARE STRAINERS ON FLOOR DRAINS IN TILED AREAS.
- REFER TO ARCHITECT'S PLANS AND ELEVATIONS FOR ALL FIXTURE MOUNTING
- PROVIDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO COMPLETELY FURNISH, INSTALL, AND PLACE INTO OPERATION, ALL SYSTEMS SHOWN ON THE DRAWINGS AND DELINEATED IN THE SPECIFICATIONS IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND ORDINANCES. REPORT ANY KNOWN DISCREPANCIES TO THE ARCHITECT/ENGINEER PRIOR TO INSTALLATION.
- COORDINATE ALL WORK AND SPACE REQUIREMENTS IN CEILING SPACES WITH OTHER TRADES PRIOR TO INSTALLATION; INCLUDING BUT NOT LIMITED TO: ARCHITECTURAL, CIVIL, STRUCTURAL, ELECTRICAL, FIRE PROTECTION, AND MECHANICAL.
- INSTALL ALL EQUIPMENT WITH CODE REQUIRED AND MANUFACTURER RECOMMENDED MINIMUM CLEARANCES FOR SERVICE, ACCESS, AND FIRE
- MAINTAIN A MINIMUM OF 10 FEET BETWEEN ALL OUTSIDE AIR INTAKES AND ALL EXHAUST, VENT, AND FLUE OUTLETS.
- WATER PIPING IN AREAS SUBJECT TO FREEZING TEMPERATURES WILL NOT BE PERMITTED WITHOUT PROVIDING FROST PROOF PROTECTION.
- MAKE FINAL CONNECTION TO OWNER SUPPLIED EQUIPMENT.
- WHEREVER FIXTURES REQUIRING PLUMBING CONNECTIONS ARE FURNISHED BY OWNER OR ARE RELOCATED, PLUMBING SUBCONTRACTOR SHALL FURNISH AND INSTALL CARRIERS, "P" TRAP AND STOPS.

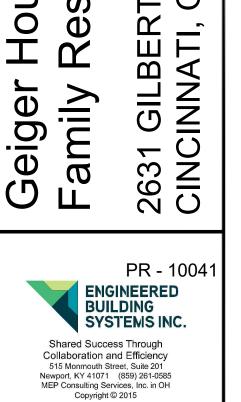
PLUMBING KEYED SHEET NOTES

- 1. HOT, COLD AND HOT WATER RETURN WATER RISERS
- 2. SANITARY PIPING UP TO LEVEL ABOVE
- 3. VENT PIPING UP TO LEVEL ABOVE
- VENT PIPING DOWN TO FIXTURE BELOW
- 5. VENT PIPING DOWN TO LEVEL BELOW 6. NEW SANITARY SERVICE, REFER TO CIVIL UTILITY PLAN FOR CONTINUATION
- 7. NEW DOMESTIC WATER SERVICE, REFER TO CIVIL UTILITY PLAN FOR
- CONTINUATION AND METER LOCATION. 8. SANITARY PIPING DOWN TO LEVEL BELOW
- 9. NEW GAS SERVICE, REFER TO CIVIL UTILITY PLAN FOR CONTINUATION,
- COORDINATE WITH UTILITY COMPANY. 10. NEW STORM PIPING FOR DOWNSPOUT, COORDINATE WITH UTILITY PLAN FOR
- CONTINUATION.
- 11. ROUTE 4" PVC WATER HEATER EXHAUST AND INTAKE PIPING OUT WALL PER MANUFACTURER'S INSTALLATION AND INSTRUCTIONS. PROVIDE MANUFACTURER-SUPPLIED TERMINATION KITS.
- 12. HOT AND COLD WATER DOWN TO LEVEL BELOW.



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PROJECT NO.: 10041

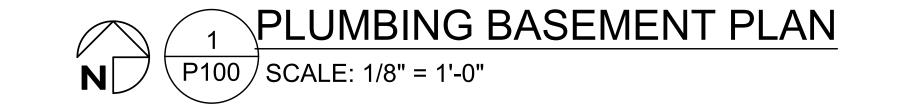
SCALE:AS NOTED

DATE: 04-13-2023

DRAWING TITLE **PLUMBING**

BASEMENT PLAN

SHEET NO. P100



Date/Time: Jul 26, 2023-3:10pm - By: david.dumont STRATE COMPLIANCE WITH APPLICABLE CODES, TION ARE INSTALLED IN ACCORDANCE WITH ANY

2:\~Project Directories\10000-10001\10041 - Talbert House - The Geiger House for Veterans - Cincinnati OH\~Construction Documents\10041-P100-PLUMBING-BASEMENT-PLAN.c
THESE DRAWINGS AND SPECIFICATIONS ARE NOT AUTHORIZED TO BE USED AS CONTRACT DOCUMENTS. THESE DRAWINGS HAVE BEEN PREPARED TO DETERMINE CODE COMPLIANCE. THE INSTALLING CONTRACTOR IS RESPONSIBLE TO ENSURE THAT MEANS, METHODS, AND MATERIALS USED IN GENERAL CONTRACTOR. ETC. EBS ACCEPTS NO RESPONSIBILITY OR LIABILITY FOR THE COMPLIANCE OR CONDITION OF EXISTING EQUIPMENT AND NOTED.

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PROVIDE CLEANOUT AT

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EXTEND 1-1/2" PIPING AND

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ot Date/Time: Jul 26, 2023–3: STRATE COMPLIANCE WIT FION ARE INSTALLED IN A

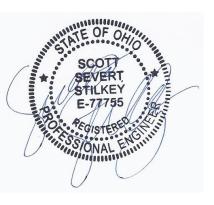
PLUMBING GENERAL NOTES

CONDITIONS.

- THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT.
- DESIGN DRAWINGS ARE SCHEMATIC. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FIELD CONDITIONS. CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY FOR REQUIRED FIELD MODIFICATIONS DUE TO EXISTING
- BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.
- PROVIDE POINT-OF-USE THERMOSTATIC MIXING VALVES ON ALL PUBLIC LAVATORIES AND HAND SINKS. VALVES SHALL MEET ASSE 1070 AND SHALL BE EQUAL TO WATTS USG-B.
- PROVIDE SQUARE STRAINERS ON FLOOR DRAINS IN TILED AREAS.
- REFER TO ARCHITECT'S PLANS AND ELEVATIONS FOR ALL FIXTURE MOUNTING
- PROVIDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO COMPLETELY FURNISH, INSTALL, AND PLACE INTO OPERATION, ALL SYSTEMS SHOWN ON THE DRAWINGS AND DELINEATED IN THE SPECIFICATIONS IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND ORDINANCES. REPORT ANY KNOWN DISCREPANCIES TO THE ARCHITECT/ENGINEER PRIOR TO INSTALLATION.
- COORDINATE ALL WORK AND SPACE REQUIREMENTS IN CEILING SPACES WITH OTHER TRADES PRIOR TO INSTALLATION; INCLUDING BUT NOT LIMITED TO: ARCHITECTURAL, CIVIL, STRUCTURAL, ELECTRICAL, FIRE PROTECTION, AND MECHANICAL.
- INSTALL ALL EQUIPMENT WITH CODE REQUIRED AND MANUFACTURER RECOMMENDED MINIMUM CLEARANCES FOR SERVICE, ACCESS, AND FIRE
- MAINTAIN A MINIMUM OF 10 FEET BETWEEN ALL OUTSIDE AIR INTAKES AND ALL EXHAUST, VENT, AND FLUE OUTLETS.
- WATER PIPING IN AREAS SUBJECT TO FREEZING TEMPERATURES WILL NOT BE PERMITTED WITHOUT PROVIDING FROST PROOF PROTECTION.
- MAKE FINAL CONNECTION TO OWNER SUPPLIED EQUIPMENT.
- WHEREVER FIXTURES REQUIRING PLUMBING CONNECTIONS ARE FURNISHED BY OWNER OR ARE RELOCATED, PLUMBING SUBCONTRACTOR SHALL FURNISH AND INSTALL CARRIERS, "P" TRAP AND STOPS.

PLUMBING KEYED SHEET NOTES

- 1. HOT, COLD AND HOT WATER RETURN WATER RISERS
- 2. SANITARY PIPING UP TO LEVEL ABOVE
- 3. VENT PIPING UP TO LEVEL ABOVE
- VENT PIPING DOWN TO FIXTURE BELOW
- 5. VENT PIPING DOWN TO LEVEL BELOW 6. NEW SANITARY SERVICE, REFER TO CIVIL UTILITY PLAN FOR CONTINUATION
- . NEW DOMESTIC WATER SERVICE, REFER TO CIVIL UTILITY PLAN FOR
- CONTINUATION AND METER LOCATION.
- 9. NEW GAS SERVICE, REFER TO CIVIL UTILITY PLAN FOR CONTINUATION, COORDINATE WITH UTILITY COMPANY.
- 10. NEW STORM PIPING FOR DOWNSPOUT, COORDINATE WITH UTILITY PLAN FOR
- 11. ROUTE 4" PVC WATER HEATER EXHAUST AND INTAKE PIPING OUT WALL PER MANUFACTURER'S INSTALLATION AND INSTRUCTIONS. PROVIDE
- MANUFACTURER-SUPPLIED TERMINATION KITS.
- 12. HOT AND COLD WATER DOWN TO LEVEL BELOW.



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2631 GILBERT CINCINNATI, (PR - 10041 ENGINEERED BUILDING SYSTEMS INC. Shared Success Through Collaboration and Efficiency 515 Monmouth Street, Suite 201 Newport, KY 41071 (859) 261-0585 MEP Consulting Services, Inc. in OH Copyright © 2015

DRAWN BY CHECKED B SSS

PROJECT NO.: 10041

SCALE:AS NOTED

DATE: 04-13-2023

DRAWING TITLE PLUMBING FIRST FLOOR PLAN

> SHEET NO. P101

PLUMBING FIRST FLOOR PLAN
P101 SCALE: 1/8" = 1'-0"

- b. THE PLUMBING CONTRACTOR SHALL BE LICENSED BY THE STATE OF OHIO TO INSTALL PLUMBING SYSTEMS.
- c. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL APPLICABLE STATE, LOCAL CODES AND ORDINANCES. THE PLUMBING CONTRACTOR SHALL SATISFY CODE REQUIREMENTS AS A MINIMUM
- d. SUBMIT TO THE ARCHITECT PDF FILE COPIES OF COMPLETE AND CERTIFIED SHOP DRAWINGS, DESCRIPTIVE DATA, PERFORMANCE DATA AND RATINGS, DIAGRAMS AND SPECIFICATIONS ON ALL SPECIFIED EQUIPMENT INCLUDING ACCESSORIES, AND MATERIALS FOR REVIEW.
- e. REFER TO ARCHITECTURAL DRAWINGS, GENERAL NOTES, INSTRUCTIONS TO BIDDERS, GENERAL CONDITIONS, SUPPLEMENTARY GENERAL CONDITIONS, SPECIFICATIONS, AND DRAWINGS EXCEPT AS NOTED HEREIN WHICH APPLY IN ALL RESPECTS TO THIS SECTION.
- f. COORDINATE PIPING CHASES, SHAFTS, ABOVE CEILING WORK, ETC. WITH ARCHITECT. ALL DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW PRIOR TO WORK
- g. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL NECESSARY PLUMBING PIPING PENETRATIONS. THIS INCLUDES CORING HOLES IN SLABS, ETC
- h. EQUIPMENT AND MATERIALS SHALL CONFORM WITH APPROPRIATE PROVISIONS OF AGA, ARI, ASME, ASTM, CISPI, UL, NEMA, ANSI, SMACNA, ASHRAE, NFPA, NEC, AS APPLICABLE TO EACH INDIVIDUAL UNIT OR ASSEMBLY. ALL EQUIPMENT MUST BEAR UL LABEL.
- i. INSTALL EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. MAINTAIN ALL CODE RECOMMENDED CLEARANCES.
- j. WHERE NOT PROVIDED BY OTHERS, PROCURE AND PAY FOR ALL PERMITS FEES TAXES AND INSPECTIONS NECESSARY TO COMPLETE THE PLUMBING WORK. FURNISH CERTIFICATE OF APPROVAL FOR WORK FROM INSPECTION AUTHORITY TO OWNER BEFORE FINAL ACCEPTANCE FOR WORK. CERTIFICATE OF FINAL INSPECTION AND APPROVAL SHALL BE SUBMITTED WITH THE CONTRACTOR'S REQUEST FOR PAYMENT. NO FINAL PAYMENT WILL BE APPROVED WITHOUT THIS CERTIFICATE.
- k. ALL WORK SHALL BE ACCURATELY LAID-OUT WITH OTHER TRADES, PRIOR TO INSTALLATION & FABRICATION, TO AVOID ALL CONFLICTS AND OBTAIN A NEAT AND WORKMANLIKE INSTALLATION WHICH WILL AFFORD MAXIMUM ACCESSIBILITY FOR EQUIPMENT OPERATION, MAINTENANCE CLEARANCES AND HEADROOM.

2. USE OF INFORMATION PROVIDED BY EBS

a. THE INFORMATION PROVIDED IS INTENDED TO CONVEY DESIGN INTENT ONLY. ALL MEANS AND METHODS, SEQUENCES, TECHNIQUES, AND PROCEDURES OF CONSTRUCTION AS WELL AS ANY ASSOCIATED SAFETY PRECAUTIONS AND PROGRAMS. AND ALL INCIDENTAL AND TEMPORARY DEVICES REQUIRED TO CONSTRUCT THE PROJECT, AND TO PROVIDE A COMPLETE AND FULLY OPERATIONAL PLUMBING SYSTEM ARE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR.

3. CONTRACTOR COORDINATION

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a. COORDINATION DRAWINGS SHOWING SYSTEM AND COMPONENT INSTALLATION LAYOUT, ROUTING, DETAILS, ETC. SHALL BE PRODUCED BY THE PLUMBING CONTRACTOR AND UNDER THE SUPERVISION OF THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER, OR APPROPRIATE PARTY AS APPLICABLE. ALL SYSTEMS INSTALLED BY EACH SUB-CONTRACTOR SHALL BE COORDINATED WITH ONE ANOTHER AND APPROVED BY GENERAL CONTRACTOR/CONSTRUCTION MANAGER, ETC. PRIOR TO INSTALLATION AND/OR FABRICATION. IF OUESTIONS CONCERNING DESIGN INTENT ARISE DURING COORDINATION, EBS CAN ASSIST WHERE APPROPRIATE

4. PLUMBING FIXTURES

a. SHUT OFF VALVES/STOPS SHALL BE PROVIDED AT ALL LAVATORIES,

- b. ALL WALL-HUNG PLUMBING FIXTURES, INCLUDING, BUT NOT LIMITED TO WATER CLOSETS, URINALS, LAVATORIES, AND SINKS SHALL BE ANCHORED TO THE FLOOR WITH CONCEALED IN-WALL CARRIERS WALL-HUNG FIXTURES SHALL NOT BE SIMPLY BOLTED TO THE WALL OR ANCHORED TO WOOD BLOCKING
- c. COORDINATE COLOR OF FIXTURES WITH ARCHITECT. FIXTURES SHALL BE WHITE UNLESS OTHERWISE NOTED.
- d PROVIDE ADA COMPLIANT FIXTURES WHERE INDICATED ON THE ARCHITECTURAL PLANS. PROVIDE OFFSET FIXTURE TAILPIECES AND TRAPS WHERE REQUIRED TO MEET ADA LEG CLEARANCES.
- e. FIXTURES SHALL BE SECURELY FASTENED TO PREVENT ANY MOVEMENT OF FIXTURE DURING NORMAL USE. SEAL TO WALL, FLOOR OR COUNTERTOP WITH SILICONIZED ACRYLIC-LATEX CAULK.

5. DOMESTIC WATER SYSTEMS

a. PROVIDE A NEW DOMESTIC WATER SERVICE TO THE BUILDING.

b. EXTERIOR DOMESTIC WATER SERVICE PIPING:

- i. EXTERIOR WATER SERVICE PIPING 2" AND SMALLER TO BE PVC. SDR 21 SERIES PIPE, MANUFACTURED FROM A TYPE I, GRADE I POLYVINYL CHLORIDE (PVC) COMPOUND WITH A CELL CLASSIFICATION OF 12454 PER ASTM D1784. THE PIPE SHALL BE MANUFACTURED IN STRICT COMPLIANCE TO ASTM D2241. STANDARD LENGTHS OF PIPE SIZES 10" AND LARGER SHALL BE BEVELED EACH END BY THE PIPE MANUFACTURER. ALL PIPE SHALL BE STORED INDOORS AFTER PRODUCTION AT THE MANUFACTURING SITE UNTIL SHIPPED FROM FACTORY. THIS PIPE MUST CARRY THE NATIONAL SANITATION FOUNDATION (NSF) SEAL OF APPROVAL FOR POTABLE WATER APPLICATIONS. PIPE MUST INCORPORATE A FORMED BELL COMPLETE WITH A SINGLE RUBBER GASKET CONFORMING TO ASTM F477. JOINTS SHALL BE DESIGNED TO MEET THE ZERO LEAKAGE TEST REQUIREMENTS OF ASTM D 3139. SOLVENT CEMENT: JOINT SURFACES SHALL BE CLEAN AND FREE FROM MOISTURE. A PRIMER THAT CONFORMS TO ASTM F656 SHALL BE APPLIED. SOLVENT CEMENT CONFORMING TO ASTM D2564 SHALL BE APPLIED TO
- ALL JOINT SURFACES. THE JOINT SHALL BE MADE WHILE THE CEMENT IS WET AND SHALL BE IN ACCORDANCE WITH ASTM D2855.
- c. INTERIOR DOMESTIC WATER PIPING:
- i. WHERE ALLOWED BY CODE, CPVC PIPING CAN BE USED.
- a. CPVC PIPING 2" AND SMALLER SHALL BE EQUAL TO FLOW GUARD GOLD -THIS SPECIFICATION COVERS COPPER TUBE SIZE (CTS) CPVC MANUFACTURED TO STANDARD DIMENSIONAL RATIO (SDR) 11 FOR HOT AND COLD DOMESTIC WATER DISTRIBUTION. THIS SYSTEM IS INTENDED FOR PRESSURE APPLICATIONS WHERE THE OPERATING TEMPERATURE WILL NOT EXCEED 180°F AT 100 PSI. PIPE AND FITTINGS SHALL BE MANUFACTURED FROM VIRGIN RIGID CPVC (CHLORINATED POLYVINYI CHLORIDE) VINYL COMPOUNDS WITH A CELL CLASS OF 24448 AS IDENTIFIED IN ASTM D 1784. CTS CPVC PIPE AND FITTINGS SHALL CONFORM TO ASTM D 2846, PIPE AND FITTINGS SHALL BE MANUFACTURED AS A SYSTEM AND BE THE PRODUCT OF ONE MANUFACTURER. ALL PIPE AND FITTINGS SHALL BE MANUFACTURED IN THE UNITED STATES. PIPE AND FITTINGS SHALL CONFORM TO NATIONAL SANITATION FOUNDATION (NSF) STANDARDS 14 AND 61. INSTALLATION SHALL COMPLY WITH LATEST INSTALLATION PROVIDED BY THE MANUFACTURER AND SHALL CONFORM TO ALL LOCAL PLUMBING, BUILDING AND FIRE CODE REQUIREMENTS. BURIED PIPE SHALL BE INSTALLED IN ACCORDANCE WITH ASTM F 1668. SOLVENT WELD JOINTS SHALL BE MADE USING CPVC CEMENT CONFORMING TO ASTM F 493. YELLOW ONE-STEP CEMENT MAY BE USED WITHOUT PRIMER. IF A PRIMER IS REQUIRED BY LOCAL PLUMBING OR BUILDING CODES, THEN A PRIMER CONFORMING TO ASTM F 656 SHOULD BE USED. THE SYSTEM SHALL BE PROTECTED FROM CHEMICAL AGENTS, FIRE STOPPING MATERIALS, THREAD SEALANT, PLASTICIZED VINYL PRODUCTS OR OTHER AGGRESSIVE CHEMICAL
- TRANSPORT/STORE COMPRESSED AIR OR GAS IN CPVC PIPE OR FITTINGS. ii. WHERE ALLOWED BY CODE, PEX TUBE AND FITTINGS CAN BE USED. TUBING SHALL BE PEX-A TYPE AND FITTINGS SHALL BE FOUAL TO UPONOR AOUAPEX, TUBING AND FITTINGS MUST CONFORM TO ASTM F876 "STANDARD SPECIFICATION FOR CROSSLINKED POLYETHYLENE, ASTM F877 "STANDARD FOR CROSSLINKED POLYETHYLENE PLASTIC HOT AND COLD WATER DISTRIBUTION SYSTEMS". PROVIDE ENGINEERED PLASTIC FITTINGS WITH PLASTIC COLLARS WHICH CONFORM TO ASTM F1960 STANDARD SPECIFICATION FOR COLD EXPANSION FITTINGS WITH PEX REINFORCING RINGS FOR USE WITH CROSSLINKED POLYETHYLENE

AGENTS NOT COMPATIBLE WITH CPVC COMPOUNDS. SYSTEMS SHALL BE

HYDROSTATICALLY TESTED AFTER INSTALLATION. NEVER TEST WITH OR

PIPING. PEX TUBING AND CONNECTIONS SHALL BE WARRANTED FOR A PERIOD OF 25 YEARS. DO NOT WELD, GLUE, TAPE OR ALLOW OTHER SOLVENT BASED ADHESIVES OR PAINTS TO COME INTO CONTACT WITH TUBING. DO NOT ALLOW TUBING TO COME IN CONTACT WITH PIPE THREAD COMPOUNDS, FIREWALL PENETRATION SEALING COMPOUNDS, AND PETROLEUM BASED SEALANTS. DO NOT ALLOW TUBING TO COME WITHIN 6" OF GAS APPLIANCE VENTS OR 12" OF RECESSED LIGHT FIXTURES. DO NOT EXPOSE TUBING TO OPEN FLAME. DO NOT SOLDER

WITHIN 18" OF TUBING. DO NOT INSTALL TUBING BETWEEN TUB SPOUT

- AND SHOWER VALVE. RADIUS OF BENDS MUST NOT EXCEED SIX TIMES OUTSIDE TUBE DIAMETER. REPAIR KINKS IN TUBING USING HEAT AS RECOMMENDED BY MANUFACTURER TUBING SHALL BE INSTALLED IN MAXIMUM PRACTICAL LENGTHS, AS DIRECTLY AS POSSIBLE TO REMOTE MANIFOLD WITH MINIMUM FITTINGS. TUBING SHALL BE SUPPORTED IN A MATTER THAT DOES NOT DAMAGE TUBING AND ALLOWS FOR THERMAI EXPANSION. SUPPORTS SHALL BE SPACED AT 32" MINIMUM HORIZONTALLY AND 60" VERTICALLY AND WITHIN 6" OF FITTINGS OR BENDS, USE BEND SUPPORTS AT 90 DEGREE BENDS, PROTECT INSTALLED TUBING FROM DAMAGE. INSTALL METAL PLATES WHERE TUBING
- PENETRATES STUDS AT FACE OF STUDS, REMOTE MANIFOLD TYPE FITTINGS SHALL BE UTILIZED AT BRANCHES IN ROOMS WHERE TUBING IS TERMINATED (MODIFIED HOME-RUN INSTALLATION TYPE). UTILIZE EXPANDER TOOLS RECOMMENDED BY MANUFACTURER FOR CONNECTION OF TUBING TO FITTINGS. DO NOT OVER EXPAND TUBING. PIPE SHALL BE SUPPORTED AT FITTINGS AND FIXTURES AS RECOMMENDED BY MANUFACTURER. PIPING SHALL BE INSTALLED WITH MINIMUM AMOUNT OF FITTINGS. USE MANUFACTURER APPROVED VALVES, FITTINGS, HOSE
- d. CONTROL VALVES SHALL BE MANUFACTURED BY OR APPROVED BY PIPING MANUFACTURER
- e. ADJUST ALL STOPS AND VALVES PROPERLY PRIOR TO PROJECT COMPLETION.

6. BACKFLOW PREVENTION

BIBS AND BOXES AT FIXTURES.

- a. BACKFLOW PREVENTER TO BE INSTALLED IN HOT BOX OUTSIDE. REFER TO SITE UTILITY PLAN.
- b. BACKFLOW PREVENTERS FOR 2" AND SMALLER WATER SERVICES -PROVIDE REDUCED PRESSURE BACKFLOW PREVENTER ON THE WATER SERVICE MAIN WHERE THE WATER SERVICE ENTERS THE BUILDING. REDUCED PRESSURE BACKFLOW PREVENTER TO BE EQUAL TO WATTS SERIES LF919QT. APPROVED MANUFACTURERS OF EQUAL PRODUCTS SHALL BE CONBRACO AND WILKINS.

7. WATER HAMMER ARRESTORS/SHOCK ABSORBERS

a. REMOVE SHOCK CONDITIONS FROM ALL PIPING. PROVIDE AND INSTALL WATER HAMMER ARRESTORS/SHOCK ABSORBERS ON ALL PIPING SERVING FLUSH VALVE FIXTURES, CLOTHES WASHER SUPPLY BOXES, COMMERCIAL WASHER SUPPLY LINES, AND OTHER EQUIPMENT WITH QUICK-CLOSING VALVES. WATER HAMMER ARRESTORS SHALL BE PROVIDED PER PLUMBING AND DRAINAGE INSTITUTE STANDARD PDI-WH

8. SANITARY AND VENT SYSTEMS

- a. PROVIDE NEW SANITARY LATERAL FROM BUILDING TO PUBLIC MAIN. b. EXTERIOR SANITARY PIPING
- i. EXTERIOR SANITARY PIPING OUTSIDE BUILDING TO BE PVC: ANSI/ASTM D 3033, TYPE PSP OR ASTM D 3034, TYPE PSM SDR-35.
- c. INTERIOR SANITARY, WASTE, AND VENT PIPING: i. WHERE NOT INSTALLED IN A PLENUM, SANITARY, WASTE, AND VENT PIPING WITHIN BUILDING TO BE SCHEDULE 40 PVC PIPING AND FITTINGS CONFORMING TO ASTM D 2665, SOLID-WALL DRAIN PIPING WITH PVC SOCKET SOLVENT WELD FITTINGS CONFORMING TO ASTM D2665, MADE TO ASTM D3311, DRAIN, WASTE, AND VENT PATTERNS.
- ii. WHERE PIPING SHALL BE INSTALLED IN A PLENUM, SANITARY, WASTE, AND VENT PIPING WITHIN BUILDING TO BE NO-HUB, CAST-IRON PIPE WITH NO-HUB COUPLINGS CONSISTING OF A STAINLESS STEEL SHIELD, CLAMP AND NEOPRENE GASKET. COUPLINGS SHALL BE TESTED AND CERTIFIED TO CISPI 310, ASTM C1277, ASTM C564, AND NSF. IDEAL CLAMP PRODUCTS' HEAVY DUTY POW'R GEAR (RED SHIELD) COUPLINGS ARE ALSO APPROVED AND ACCEPTABLE. THESE COUPLINGS ARE LISTED WITH NSF INTERNATIONAL AND CONFORM WITH ASTM C1540 PERFORMANCE REQUIREMENTS (SHEAR, DEFLECTION AND UNRESTRAINED THRUST
- iii. ABOVEGROUND SANITARY, WASTE, AND VENT PIPING WITHIN MECHANICAL CLOSETS (PLENUMS) TO BE NO-HUB, CAST-IRON PIPE CONFORMING TO ASTM A74, ASTM A888, AND CISPI 301, WITH NO-HUB COUPLINGS CONSISTING OF A STAINLESS STEEL SHIELD, CLAMP, AND NEOPRENE GASKET. COUPLINGS SHALL BE TESTED AND CERTIFIED TO CISPI 310. ASTM C1277, ASTM C564, AND NSF, IDEAL CLAMP PRODUCTS' HEAVY DUTY POW'R GEAR (RED SHIELD) COUPLINGS ARE ALSO APPROVED AND ACCEPTABLE. THESE COUPLINGS ARE LISTED WITH NSF INTERNATIONAL AND CONFORM WITH ASTM C1540 PERFORMANCE REQUIREMENTS (SHEAR, DEFLECTION AND UNRESTRAINED THRUST
- d. COORDINATE WITH LOCAL AUTHORITIES FOR DRAINAGE REQUIREMENTS FOR EOUIPMENT DESIGNATED WITH INDIRECT WASTE TO FLOOR DRAINS. PROVIDE PIPED DRAIN TO SANITARY IF REQUIRED BY LOCAL JURISDICTION.

9. TRAP SEAL PROTECTION

- a. TRAP SEALS SUBJECT TO EVAPORATION SHALL BE PROTECTED BY ONE OF THE METHODS BELOW, AS APPROVED BY THE LOCAL PLUMBING AUTHORITY HAVING JURISDICTION:
- b. POTABLE WATER-SUPPLIED TRAP SEAL PRIMER VALVE A POTABLE WATER-SUPPLIED TRAP SEAL PRIMER VALVE MUST SUPPLY WATER TO THE TRAP. WATER-SUPPLIED TRAP SEAL PRIMERS MUST CONFORM TO ASSE 1018. THE DISCHARGE PIPE FROM THE TRAP SEAL PRIMER MUST CONNECT TO THE TRAP ABOVE THE TRAP SEAL ON THE INLET SIDE OF THE
- c. BARRIER-TYPE TRAP SEAL PROTECTION DEVICE A BARRIER-TYPE TRAP SEAL PROTECTION DEVICE MUST PROTECT THE TRAP SEAL FROM EVAPORATION. BARRIER-TYPE TRAP SEAL PROTECTION DEVICES MUST CONFORM TO ASSE 1072. THE DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

10. CLEANOUTS

11. NATURAL GAS PIPING SYSTEMS

STANDARD PATTERN.

- a. PROVIDE FLOOR AND WALL CLEANOUTS WHERE REQUIRED IN ALL SOIL, WASTE, DRAIN AND STORM PIPING. IN AREAS WITH CERAMIC TILE OR CARPETED FLOORING, PROVIDE CLEANOUTS WITH SQUARE, ADJUSTABLE, NICKEL BRONZE TOP. IN AREAS WITH RESILIENT FLOORING, PROVIDE CLEANOUTS WITH SQUARE, ADJUSTABLE, NICKEL BRONZE TOP WITH TILE RECESS. CLEANOUTS SHALL BE SAME SIZE AS PIPE EXCEPT THAT CLEANOUTS LARGER THAN 4" WILL NOT BE REQUIRED. WHERE CLEANOUTS OCCUR IN WALLS OF FINISHED AREAS, THEY SHALL BE CONCEALED BEHIND CHROME PLATED ACCESS COVERS.
- a. PROVIDE NEW GAS SERVICE FROM THE PUBLIC MAIN TO THE BUILDING AND PROVIDE NEW METER SIZED FOR THE TOTAL CONNECTED LOAD. NEW SERVICE DELIVERY PRESSURE SHALL BE 7" W.C
- b. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH WORK PROVIDED BY THE UTILITY COMPANY, INCLUDING TAP FEES, INSTALLATION COSTS, ROAD CUTS, AND BORES IF APPLICABLE. c. GAS SERVICE PIPING - ALL EXTERIOR GAS PIPING SHALL BE MEDIUM DENSITY POLYETHYLENE PLASTIC PIPING APPROVED BY THE LOCAL UTILITY COMPANY.
- d. INTERIOR GAS PIPING SHALL BE SCHEDULE 40 STEEL PIPE, ASTM A53. i. PIPING 2" AND UNDER SHALL BE JOINED BY EITHER THREADED FITTINGS OR COLD PRESS MECHANICAL JOINT FITTINGS WHERE APPROVED BY THE AUTHORITY HAVING JURISDICTION. 2-1/2", 3", AND 4" PIPING CAN BE THREADED OR WELDED. PIPING LARGER THAN 4" SHALL BE WELDED.
 - WHERE APPROVED BY THE AUTHORITY HAVING JURISDICTION, COLD PRESS MECHANICAL JOINT FITTINGS ARE ACCEPTABLE AND SHALL CONFORM TO MATERIAL REQUIREMENTS OF ASTM A420 OR ASME B16.3 AND PERFORMANCE CRITERIA ANSI LC-4/CSA 6.32. COLD PRESS MECHANICAL JOINT FITTINGS SHALL BE EQUAL TO VIEGA MEGAPRESS G, WITH HNBR SEALING ELEMENTS FOR PRESS FITTINGS. SEALING ELEMENTS SHALL BE FACTORY INSTALLED OR AN ALTERNATIVE SUPPLIED BY FITTING MANUFACTURER. PRESS ENDS SHALL BE DESIGNED TO ASSURE LEAKAGE OF LIQUIDS AND/OR GASES FROM INSIDE THE SYSTEM PAST THE SEALING ELEMENT OF AN UN-PRESSED CONNECTION. THE FUNCTION OF THIS FEATURE IS TO PROVIDE THE INSTALLER QUICK AND EASY

MALLEABLE-IRON THREADED FITTINGS: ASME B16.3, CLASS 150,

- IDENTIFICATION OF CONNECTIONS WHICH HAVE NOT BEEN PRESSED PRIOR TO PUTTING THE SYSTEM INTO OPERATION.
- WROUGHT-STEEL WELDING FITTINGS: ASTM A 234/A 234M FOR BUTT WELDING AND SOCKET WELDING.
- f. PROVIDE GAS PIPING RUN-OUTS TO ALL GAS-FIRED EOUIPMENT. PIPING SHALL BE INSTALLED FULL-SIZE TO EACH UNIT'S GAS INLET CONNECTION, BURNER, REGULATOR, ETC. PROVIDE AND INSTALL GAS COCK AND MAKE FINAL CONNECTIONS. CONNECTIONS TO EACH GAS-FIRED EQUIPMENT ITEM MUST INCLUDE A DRIP LEG AND SHUTOFF GAS COCK. COMPLY WITH EQUIPMENT MANUFACTURER'S INSTRUCTION. FOR CONNECTIONS TO GAS-FIRED ROOFTOP EOUIPMENT, INCLUDE THE ROOF PENETRATION AND INSTALL THE GAS PIPING THROUGH THE ROOF IN A LOCATION THAT HAS BEEN COORDINATED WITH THE MECHANICAL CONTRACTOR.

- a. PLUMBING CONTRACTOR MUST PROVIDE VALVES AS NECESSARY FOR PROPER SYSTEM OPERATION AND COMPONENT ISOLATION. INSTALL VALVES FOR EACH ISOLATED FIXTURE OR GROUP OF FIXTURES, AND EACH CONNECTION TO EQUIPMENT
- b. LOCATE SHUT-OFF VALVES ADJACENT TO EQUIPMENT FOR EASY ACCESS SUCH THAT VALVES CAN BE REACHED WITHOUT MOVING EQUIPMENT.
- a. VALVES FOR DOMESTIC WATER MUST MEET THE REQUIREMENTS OF THE LEAD-FREE LAW S.3874. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE LEAD-FREE PRODUCTS AS MANDATED BY THE LAW AND AS REQUIRED/INTERPRETED BY THE AUTHORITY HAVING JURISDICTION.
- b. PROVIDE VALVES FOR WORKING PRESSURE IN WATER PIPING OF 125 PSI OR GREATER.
- c. GENERAL DUTY SHUT-OFF BALL VALVES
- i. PROVIDE TWO-PIECE, FULL PORT, SILICON BRONZE BALL VALVES WITH THE CAPABILITY OF ACCEPTING EXTENDED OPERATING HANDLES (FOR INSULATED PIPING). VALVES SHALL BE NIBCO MODEL T/S/PC-595-Y-66-LF (-NS) OR EOUAL PRODUCT MANUFACTURED BY AMERICAN VALVE CO. CRANE, HAMMOND, MILWAUKEE, RED-WHITE VALVE CORPORATION, OR
- d. BALANCING VALVES
- i. BALANCING VALVES SHALL BE EQUAL TO CIRCUITSOLVER, THERMOSTATIC, SELF-ACTUATING BALANCING VALVES WITH UNIONS, STRAINER, CHECK VALVE, THERMOMETER, AND TWO INTEGRATED BALL
- e. MASTER THERMOSTATIC MIXING VALVES i. PROVIDE LEONARD TM-1520B-LF-DT-LF NEXT GENERATION HIGH LOW ASSEMBLY. VALVE SHALL BE LEAD-FREE AND LISTED TO ASSE 1017.
- f. THERMOSTATIC MIXING VALVES i. TEMPERED WATER SHALL BE DELIVERED FROM PUBLIC HAND-WASHING FACILITIES (LAVATORIES AND SINKS) THROUGH AN APPROVED WATER-TEMPERATURE LIMITING DEVICE THAT CONFORMS TO ASSE 1070. SET OUTLET TEMPERATURE OF THERMOSTATIC MIXING VALVE TO 110 DEGREES F. POINT-OF-USE THERMOSTATIC MIXING VALVES SHALL BE EQUAL TO WATTS SERIES USG-B. ROUTE TEMPERED WATER TO HOT WATER SIDE OF SINK/LAVATORY. ACCEPTABLE MANUFACTURERS
- 14. ELEVATOR PIT SUMP PUMP
- a. ELEVATOR PUMP SYSTEM TO BE EOUAL TO TOPP INDUSTRIES #B22ELE. 18" X 22" BASIN WITH PERFORATED STEEL COVER, AND ZOELLER 98 PUMP, ½ HP, 115 VOLT WITH 11/2" DISCHARGE, FLOAT VALVE, AND CHECK VALVE. AVAILABLE MANUFACTURERS INCLUDE ZOELLER, WEIL PUMPS, LIBERTY PUMPS, ARMSTRONG, DAYTON, BARNES, OR GORMAN RUPP CO.

INCLUDE SYMMONS, LAWLER, LEONARD, POWERS, BRADLEY, AND WATTS.

a. THE PLUMBING CONTRACTOR MUST FURNISH ALL PIPE SUPPORTS REOUIRED FOR THEIR WORK. ALL PIPING SHALL BE SUPPORTED PER CODE. ADDITIONAL SUPPORTS SHALL BE PROVIDED WHERE REQUIRED TO PREVENT SAGGING. WHERE ALTERNATIVE PIPING MATERIALS ARE USED, HANGER SPACING CAN BE REDUCED AS RECOMMENDED BY THE MANUFACTURER AND WHERE ALLOWED BY CODE.

- a. PROVIDE THERMAL INSULATION ON ALL METALLIC DOMESTIC COLD WATER, DOMESTIC HOT WATER, DOMESTIC HOT WATER RETURN, PIPING WITH SELF-SEALING CLOSED CELL ELASTOMERIC FOAM. PROVIDE A CONTINUOUS VAPOR TIGHT SEAL. INSULATION SHALL BE CONTINUOUS THRU ALL WALLS AND FLOORS. NFPA FIRE HAZARD RATING FOR INSULATION, ADHESIVES, SEALERS, AND COATINGS MUST NOT EXCEED 2 FOR FLAME SPREAD AND 50 FOR SMOKE DEVELOPED, UNLESS OTHERWISE REQUIRED BY THE LOCAL AUTHORITY OR ENERGY CODES. THE MINIMUM INSULATION LEVELS SHALL BE AS FOLLOWS:
- i. PROVIDE 1" THICK ELASTOMERIC INSULATION ON HOT AND HOT WATER RETURN PIPING. PROVIDE 1/2" THICK ELASTOMETRIC INSULATION ON METALLIC DOMESTIC COLD WATER PIPING.
- b. PROVIDE INSULATION ON ALL PEX PIPING WHEN USED IN PLENUMS AND WHERE REQUIRED TO MAINTAIN THE REQUIRED FLAME AND SMOKE RATINGS. MOST PEX PIPING 3/4" AND SMALLER SHALL BE INSULATED TO MAINTAIN ITS PLENUM RATED PROPERTY IF 18" SEPARATION BETWEEN THE PIPING CANNOT BE PROVIDED.
- 17. INSULATION FOR HANDICAP ACCESSIBLE FIXTURES (WHERE NOT PROTECTED WITH A SHROUD)
- a. ALL HANDICAP LAVATORY P-TRAP AND ANGLE STOP ASSEMBLIES SHALL BE INSULATED WITH TRAP WRAP PROTECTIVE KIT MANUFACTURED BY PROFLO MODEL PE200 SERIES OR FOLIAL. PROVIDE OFFSET TRAPS FOR HANDICAP ACCESSIBLE FIXTURES WHERE REQUIRED. ABRASION RESISTANT, ANTI-MICROBIAL VINYL EXTERIOR COVER SHALL BE SMOOTH. FOR TRAPS. THE INSULATION MUST HAVE A CLEANOUT NUT CAP TO ALLOW SERVICE TO THE TRAP WITHOUT DISASSEMBLY. FOR STOPS, THE INSULATION MUST HAVE A LOCK LID THAT PREVENTS TAMPERING BUT ALLOWS ACCESS WITHOUT REMOVAL OF THE INSULATION. FASTENERS MUST REMAIN SUBSTANTIALLY OUT OF SIGHT. ACCEPTABLE MANUFACTURERS INCLUDE PROFLO, TRUEBRO, PLUMBEREX, AND

18. CONCRETE HOUSEKEEPING PADS

a. ALL FLOOR-MOUNTED EQUIPMENT SHALL BE INSTALLED LEVEL AND PLUMB ON 4" THICK CONCRETE HOUSEKEEPING PAD.

19. ESCUTCHEON PLATES

DEARBORN.

a. INSTALL ONE-PIECE CHROME PLATED BRASS WALL PLATE EQUIPPED WITH SET SCREW AROUND ALL EXPOSED PIPE PASSING THROUGH WALLS IN FINISHED AREAS.

20. ACCESS PANELS

a. LOCATE VALVES IN READILY ACCESSIBLE LOCATIONS. WHERE VALVES SHALL BE INSTALLED ABOVE NON-ACCESSIBLE CEILINGS, PROVIDE ACCESS PANELS, ACCESS PANELS SHALL BE PAINTABLE METAL. COORDINATE ACCESS PANEL SIZES AND LOCATIONS WITH THE

21. FIRE STOPPING

- a. PROVIDE FIRE STOPPING AT ALL PENETRATIONS THROUGH RATED SEPARATIONS PER LOCAL CODES & REGULATIONS & PER UL RECOMMENDATIONS FOR ASSEMBLIES ENCOUNTERED IN PROJECT
- b. THE FIRE STOPPING MATERIAL MUST MEET THE INTEGRITY OF THE FIRE RATED WALL, FLOOR, CEILING & ROOF BEING PENETRATED. REFER TO ARCHITECT'S DRAWINGS FOR WALL, FLOOR, CEILING & ROOF FIRE RATINGS PRIOR TO BIDDING WORK.

22. FLASHING & COUNTERFLASHING

- a. PROVIDE ROOF FLASHING AND COUNTERFLASHING FOR ALL ROOF PENETRATIONS.
- b. OBTAIN APPROVAL FROM GENERAL CONTRACTOR, CONSTRUCTION MANAGER, OWNER AND/OR ROOFING CONTRACTOR PRIOR TO MAKING ANY PENETRATIONS SO THAT WARRANTIES ARE NOT COMPROMISED OR

23. CATHODIC PROTECTION

- a. PROVIDE DIELECTRIC INSULATION AT POINTS WHERE COPPER OR BRASS PIPE COMES IN CONTACT WITH FERROUS PIPING, REINFORCING STEEL OR OTHER DISSIMILAR METAL IN STRUCTURE.
- 24. EXCAVATION, TRENCHING & BACKFILL a. DO ALL EXCAVATION, TRENCHING & BACKFILL REQUIRED FOR THE
- INSTALLATION OF PLUMBING WORK. b. ALL BACKFILL SHALL BE COMPACTED & BROUGHT TO FINISHED GRADE

- AND MUST MATCH SURROUNDING CONDITIONS.
- c. RESTORE ALL DISTURBED FLOORING TO ORIGINAL CONDITION. d. ALL PIPING SHALL BE LAID ON A BED OF SAND. 6" THICK MINIMUM
- BACKFILL UNDER BUILDING AND ALL DRIVES, ROADS AND WALKS WITH BANK-RUN GRAVEL.

a. CUT AND PATCH WALLS AND FLOORS TO MATCH BUILDING CONSTRUCTION WHERE REQUIRED TO INSTALL ALL PLUMBING.

a. INSTALL UNIONS AT FINAL CONNECTION TO EACH PIECE OF EQUIPMENT. INSTALL DIELECTRIC COUPLINGS TO CONNECT PIPING MATERIALS OF DISSIMILAR METALS.

a. INSTALL PIPING FREE OF SAGS AND BENDS. INSTALL FITTINGS FOR CHANGES IN DIRECTION AND BRANCH CONNECTIONS. INSTALL SLEEVES FOR PIPES PASSING THROUGH CONCRETE AND MASONRY WALLS, GYPSUM-BOARD PARTITIONS, CONCRETE FLOOR, AND ROOF SLABS. SEAL PIPE PENETRATIONS THROUGH RATED CONSTRUCTION WITH FIRESTOPPING SEALANT MATERIAL. UNDERGROUND WATER AND SEWER LINES SHALL BE LAID IN SEPARATE TRENCHES WITH A MINIMUM HORIZONTAL SPACING AS REQUIRED BY CODE, EXCAVATED TO THE PROPER DEPTH AND GRADED TO PRODUCE THE REQUIRED FALL.

a. ALL PLUMBING WORK SHALL BE TESTED & APPROVED BY INSPECTOR PRIOR TO BEING BACKFILLED, CONCEALED & PUT INTO SERVICE. AFTER TESTING IS COMPLETE & APPROVED, THE PLUMBING CONTRACTOR MUST DISINFECT THE POTABLE WATER SYSTEM AS REQUIRED BY LOCAL AUTHORITY. TEST WATER PURITY ACCORDING TO LOCAL REQUIREMENTS AND SUBMIT CERTIFIED TEST RESULTS TO OWNER FOR REVIEW AND APPROVAL

29. SHOP DRAWINGS

- a. SUBMIT TO THE ARCHITECT PDF FILE COPIES OF COMPLETE & CERTIFIED SHOP DRAWINGS, DESCRIPTIVE DATA, PERFORMANCE DATA & RATINGS, DIAGRAMS AND SPECIFICATIONS ON ALL SPECIFIED EQUIPMENT, INCLUDING ACCESSORIES, AND MATERIALS FOR REVIEW.
- b. THE MAKE, MODEL NUMBER, TYPE, FINISH & ACCESSORIES OF ALI EQUIPMENT AND MATERIALS SHALL BE REVIEWED & APPROVED BY THE PLUMBING CONTRACTOR & GENERAL CONTRACTOR PRIOR TO SUBMITTING TO THE ARCHITECT FOR THEIR REVIEW & APPROVAL.
- c. REVIEW OF SHOP DRAWINGS DOES NOT RELIEVE THE PLUMBING CONTRACTOR/VENDOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT DRAWINGS, SPECIFICATIONS & APPLICABLE CODES.

30. OWNER'S INSTRUCTIONS

a. PROVIDE TWO SETS OF COMPLETE OPERATING AND MAINTENANCE INSTRUCTIONS WITH DRAWINGS, TYPEWRITTEN INSTRUCTIONS AND OPERATING SEQUENCES AND DESCRIPTIVE DATA SHEETS. ASSEMBLE EACH SET IN A HARD-BOUND COVER.

НВ **Н**

a. THE PLUMBING CONTRACTOR MUST UNCONDITIONALLY WARRANT ALL WORK TO BE FREE OF DEFECTS IN EQUIPMENT, MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE BY OWNER AND THE PLUMBING CONTRACTOR WILL REPAIR OR REPLACE ANY DEFECTIVE WORK PROMPTLY AND WITHOUT CHARGE TO THE OWNER.

PLUMBING LEGEND

b. RESTORE ANY OTHER EXISTING WORK DAMAGED IN THE COURSE OF REPAIRING DEFECTIVE EQUIPMENT, MATERIALS AND WORKMANSHIP

SYMBOL DESCRIPTION <u> — s — -</u> SANITARY WASTE PIPING VENT PIPING --v--**COLD WATER PIPING** <u> —</u>сw — HOT WATER PIPING ——HW — —HWR — HOT WATER RETURN PIPING —— G —— NATURAL GAS PIPING <u> —</u>sт— STORM PIPING FLOOR DRAIN —⋈— BALL VALVE CHECK VALVE _______ BALANCING VALVE —₩— **GAS REGULATOR** COo CLEANOUT WH **H** FROST PROOF WALL HYDRANT

VENT THROUGH ROOF RISER INDICATOR

HOT WATER RETURN PUMP

PLUMBING EQUIPMENT AND FIXTURE SCHEDULE

FD1 - FLOOR DRAIN FOUAL TO SIQUX CHIFF MODEL 842-P WITH NICKEL BRONZE ADJUSTABLE STRAINER. PROVIDE TRAP PRIMERS WHERE REQUIRED BY CODE. REFER TO WASTE AND VENT ISOMETRIC FOR SIZES.

WB1 - WASHER BOX, EQUAL TO OATEY CENTRO, IN WALL WASHER SUPPLY / DRAIN BOX FOR CLOTHES WASHER.

SK1 - SINK, EQUAL TO ELKAY MODEL LRADQ221945 ONE COMPARTMENT STAINLESS STEEL SELF-RIMMING 18 GAUGE WITH 4-1/2" DEEP BOWL, 3-HOLE WITH LKD2437BH FAUCET WITH LK-99 CRUMB CUP STRAINER AND DRAIN. PROVIDE WITH 1-1/2 17-GAGE "P" TRAP AND 1/2" HOT AND COLD WATER STOPS. CENTERLINE OF THE DRAIN SHALL BE LOCATED 5" FROM FAUCET SIDE OF BOWL, CENTERED.

SK2 - SINK, EQUAL TO FIAT LAUNDRY TUB, P-1, WITH A1000 FAUCET

GDWH1 - GAS FIRED DOMESTIC WATER HEATER, EQUAL TO A.O. SMITH BTH-199, 100 GALLON, 199 CFH, PROVIDE 6.4 GALLON ST-12C AMTROL EXPANSION TANK

CP1 - HOT WATER CIRCULATION PUMP, EQUAL TO BELL AND GOSSETT SERIES 100, 1/12 HP, 1 PHASE, 115V, 1.75 F.L. AMPS WITH TIMER KIT COORDINATED WITH OWNERS OPERATION HOURS. PLUMBING CONTRACTOR SHALL PROVIDE ALL SHUT-OFF, CHECK AND BALANCING VALVES AS NECESSARY.

ESP1 - ELEVATOR SUMP PUMP, REFER TO PLUMBING SPECIFICATIONS

LV1 - LAVATORY SINK, WITH INTEGRAL BOWL AND CLEVELAND CA47711L FAUCET WC1 - WATER CLOSET, TANK TYPE, EQUAL TO MANSFIELD 135.3173.WHT, VITREOUS CHINA, WHITE, ELONGATED BOWL

BT1 - BATHTUB, EQUAL TO STERLING 710411120, WITH SYMMONS S-96-300-B30-L-V FAUCET, WATERSENSE LABELED. PROVIDE FIBERGLASS WALL SURROND.

KS1 - KITCHEN SINK, EQUAL TO ELKAY K23319 COUNTERTOP SINK, WITH PROFLO PFXC4111CP FAUCET. AAV - AIR ADMITTANCE VALVE, EQUAL TO OATEY 6 DFU SURE-VENT AIR ADMITTANCE

VALVE WITH TUBULAR ADAPTER, RATED FOR 6 DFU'S FOR VENTING DWV 2" AND SH1 - 63" POLYRESIN / FIBERGLASS ROLL- IN ICC ANSI A117.1 COMPLIANT SHOWER

BASE & WALL SURROUND (STERLING #OC-S-63, SERIES #6206 OR EQUAL PROVIDING

MIN. 30"X60" CLEAR), GRAB BARS, AND FOLDING SEAT. PROVIDE ADA COMPLIANT

FINISH ON BRASS CASTING WITH BOX AND HINGED, DOOR. CONCEAL WITHIN

INTERIOR PARTITIONS AND/OR INSTALL IN A MANNER THAT PREVENTS FREEZING

FURNISH TO OWNER, ONE VALVE KEY FOR EACH KEY OPERATED WALL HYDRANT

SHOWER AND FIBERGLASS WALL SURROUND. REFER TO ARCHITECTURAL SHEET WH1 - WALL HYDRANT, EQUAL TO WOODFORD MODEL B-67 3/4". PROVIDE FROST-PROOF EXTERIOR WALL HYDRANTS WITH LOOSE-TEE KEYS ON EACH ELEVATION OF BUILDING. WALL HYDRANTS SHALL BE WALL HYDRANT WITH CHROME

INSTALLED. APPROVED MANUFACTURERS OF EQUAL PRODUCTS SHALL BE ZURN, WADE, JOSAM, SMITH, OR WATTS. MMV - MASTER MIXING VALVE, SEE PLUMBING SPECIFICATIONS.

ST1- STORAGE TANK, SEE BOOSTER PUMP SPECIFICATION.

• ONE (1) 53 GALLON ASME-RATED BLADDER TANK.

DOMESTIC BOOSTER PUMP

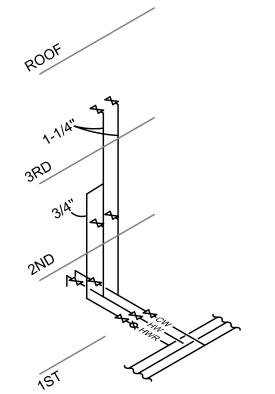
VC SYSTEMS DUPLEX VARIABLE SPEED DOMESTIC WATER BOOSTER PUMP

ONE (1) VC SYSTEMS MODEL 2VC-PMC-V-2-252-208, VARIABLE FREQUENCY DRIVI DOMESTIC WATER BOOSTER PACKAGE WITH END SUCTION PUMPS, FLANGED DUCTILE IRON CASINGS, AND 304 SS IMPELLERS. HEADER MATERIAL IS 2.5' FLANGED, WELDED 304 STAINLESS STEEL PIPE; INCLUDING SINGLE SPHERE RUBBER PIPE ISOLATION FITTINGS AND RUBBER VIBRATION MOUNTS. SYSTEM CAPACITY: 90 GPM AT 70 PSI WITH A MINIMUM SUCTION PRESSURE OF 4.

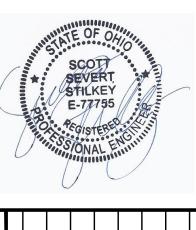
PSI, MAXIMUM SUCTION PRESSURE OF 50 PSI AND A BOOST OF 30 PSI. • TWO (2) PUMPS RATED AT 59 GPM AT 69 FT. EACH. 2.0 HP / 3,500 RPM. VOLTAGE IS 208-VOLT, THREE-PHASE, 17 FLA, 18.875 MCA, 5K AIC.

• INDIVIDUAL ISOLATION AND CHECK VALVES FOR EACH PUMP. • ONE (1) UL 508A LISTED CONTROL PANEL, SINGLE POINT POWER FEED, VARIABLE SPEED DRIVES FOR EACH PUMP, MAIN DISCONNECT SWITCH WITH DOOR INTERLOCK, INDIVIDUAL PUMP FUSE BLOCKS WITH FUSES, POWER "ON" PILOT LIGHT, GREEN PUMP RUN LIGHTS AND HOA SWITCHES, MANUAL ANI AUTOMATIC ALTERNATION FOR PUMPS, ALARMS INCLUDE: LOW SUCTION PRESSURE SHUT-DOWN, LOW SYSTEM PRESSURE ALARM ONLY, HIGH SYSTEM PRESSURE SHUT DOWN, NO FLOW SHUT DOWN, SUCTION PRESSURE TRANSDUCER, REDUNDANT DISCHARGE PRESSURE TRANSDUCERS; COMMON AUDIBLE/VISUAL ALARM WITH SILENCE PUSH BUTTON, COMMON NO/NO REMOTE ALARM CONTACT, 4.3" COLOR TOUCH SCREEN INTERFACE; BACNET MS/TP. BACNET IP AND MODBUS TCP PROTOCOLS ARE INCLUDED: ALL ENCLOSED IN A NEMA 4, UL TYPE 1, POWDER COATED STEEL ENCLOSURE.

GAS INPUT SCHEDULE FOR 10041 TALBERT GEIGER							
SERVICE ADDRESS: 2631 GILBERT AVE.							
FOTAL EQUIVALENT LENGTH OF PIPE: 20'	GAS SERVICE LENGTH: 140'						
REQUIRED DELIVERY PRESSURE: 7" W.C.	NUMBER OF METERS: 1						
EQUIPMENT	LOAD (CFH)						
GDWH1	199						
GDWH1	199						
	200						
BUILDINGTOTAL	398						



TYPICAL WATER RISER



SSUANCES). DESCRIPTION	80% OHFA Review	PERMIT SET	ADDENDUM 1			
Z	.ON			1			
SSUA	ATE	18/2023	13/2023	02/2023			

04/ 04/ D

fo <u>0</u> S

PR - 1004² ENGINEERED BUILDING SYSTEMS INC Shared Success Through Collaboration and Efficiency 515 Monmouth Street, Suite 201 Newport, KY 41071 (859) 261-058

DRAWN BY CHECKED B PROJECT NO.: 10041

MEP Consulting Services, Inc. in OH

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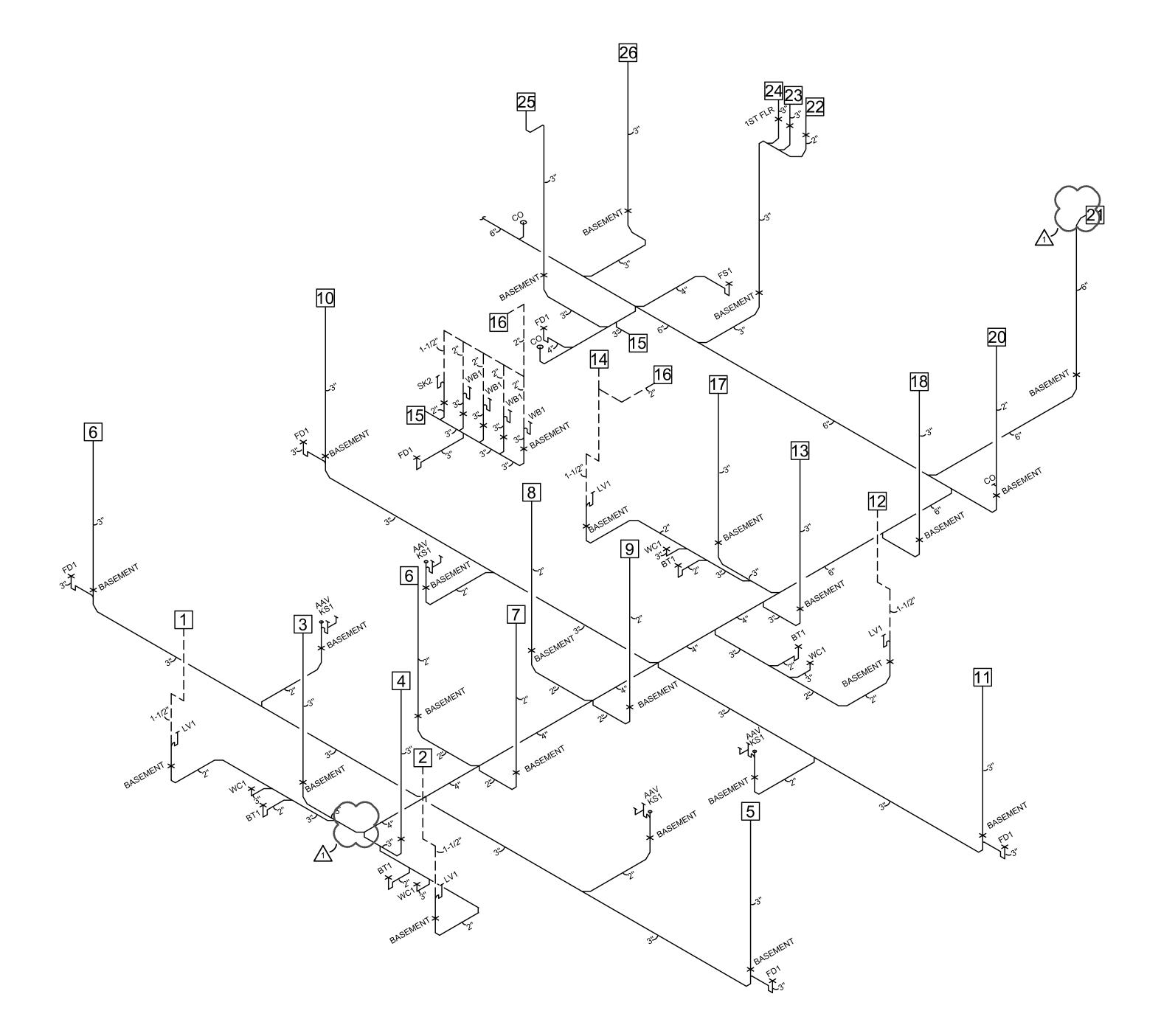
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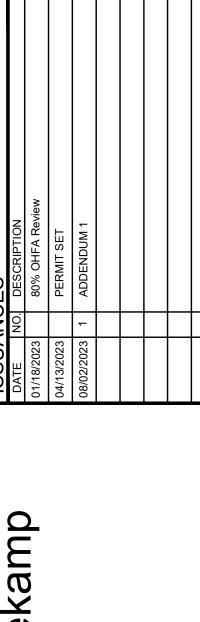
SCALE: AS NOTED

DATE: 04-13-2023 DRAWING TITLE PLUMBING DETAILS SCHEDULES, AND

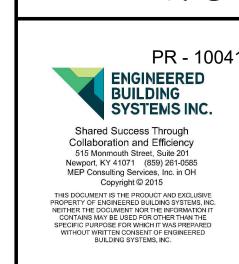
ISOMETRIC



PS01 NOT TO SCALE



Geiger House for \	2631 GILBERT AVE.
Family Residence	CINCINNATI, OH
ENG BUIL	PR - 10041 INEERED DING



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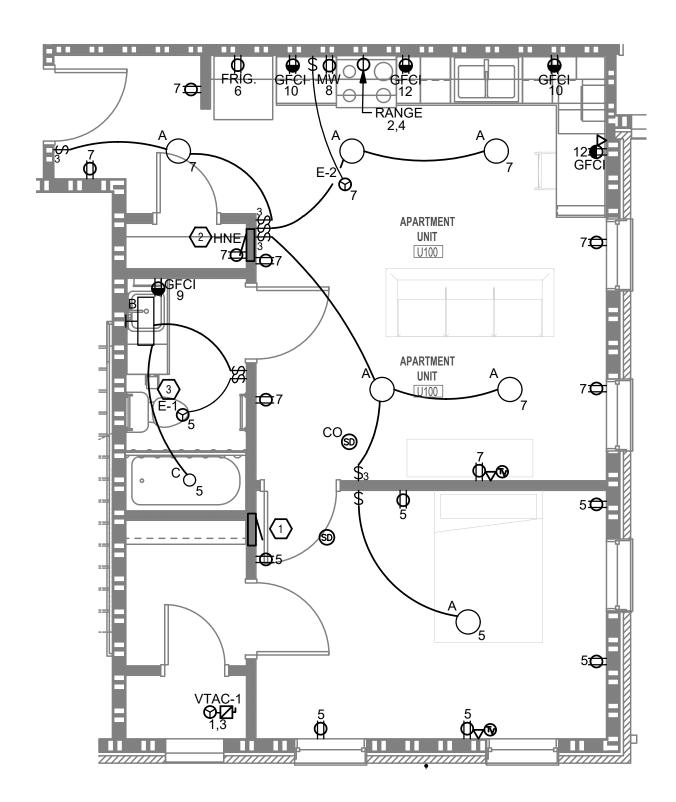
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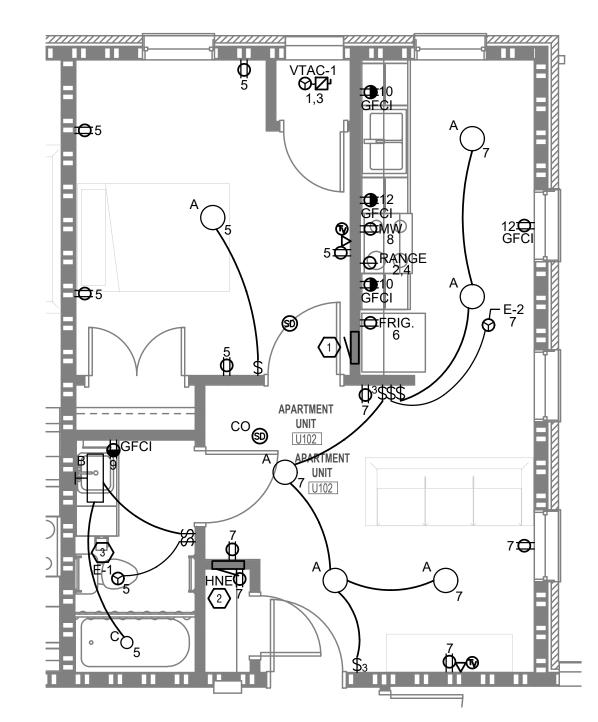
DRAWING TITLE
PLUMBING DETAILS,
SCHEDULES, AND
ISOMETRIC

P301

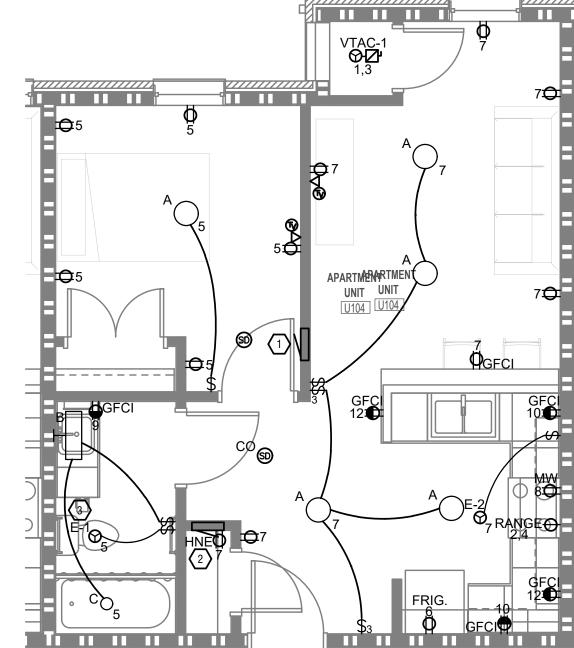




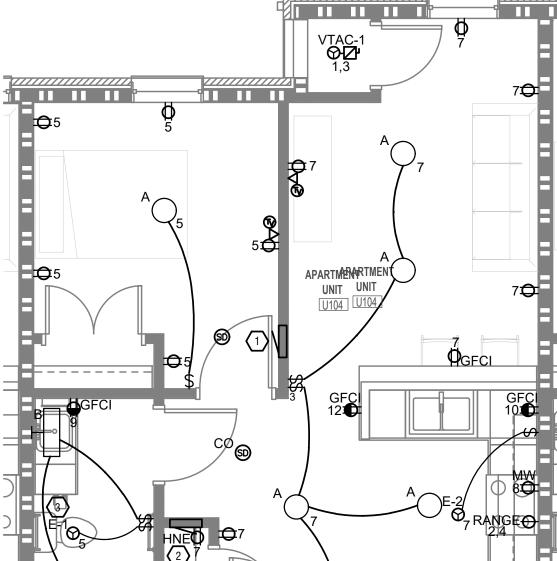
. Plot Date/Time: Jul 20, 2023-3:23pm - By: alec.gates RATE COMPLIANCE WITH APPLICABLE CODES, AND ARE ON ARE INSTALLED IN ACCORDANCE WITH ANY CONTRA



ONE BEDROOM - U102, U202, U302 SCALE: 1/4" = 1'-0"



ONE BEDROOM - U104, U204, U304 E301 SCALE: 1/4" = 1'-0"



EXECUTE SHEET NOTES - UNITS

SCOPE OF WORK

BRANCH CIRCUIT WIRING, LIGHTING, AND DEVICES.

DESIGN-BUILD BASIS BY THE ELECTRICIAN.

LOCATIONS OF ALL LIGHT FIXTURES.

DWELLING UNIT LOAD CALCULATIONS

ACCORDANCE WITH NEC 410.16.

DATA, AND CATV CABLES.

NEW CONSTRUCTION OF A MULTI-FAMILY APARTMENT BUILDING. PROJECT CONSIST

TENANT UNIT PANEL LOCATION SHOWN FOR REFERENCE. ACTUAL LOCATION MAY DIFFER BETWEEN UNITS. SEE OVERALL FLOOR PLAN FOR ACTUAL

SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR DIMENSIONED

PROVIDE CONDUIT AND PULL STRING TO APPROVED LOCATION FOR VOICE,

CIRCUITING ON DRAWINGS AND PANEL SCHEDULE IS SHOWN TYPICAL FOR SIMILAR UNITS. REFER TO DWELLING UNIT LOAD SUMMARIES FOR INDIVIDUAL

ADDED OR MINOR VARIATIONS AMONG UNITS THAT ARE SHOWN AS "TYPICAL"

PROVIDE FLOOR RECEPTACLE WITHIN 18 INCHES OF THE BASE OF THE WALL

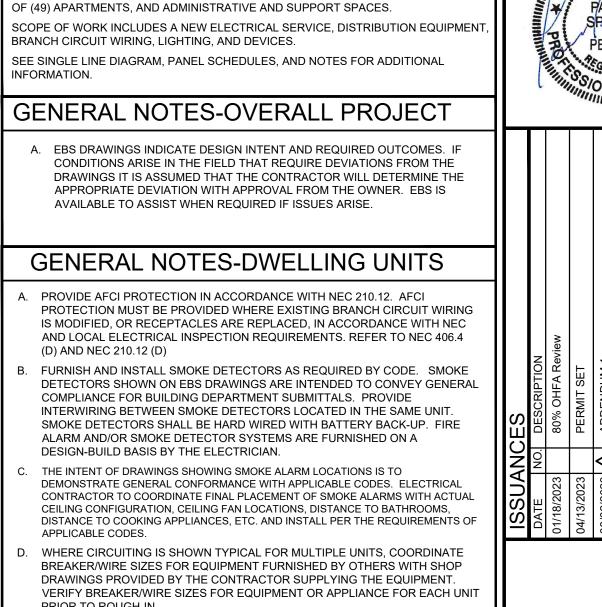
PROVIDE TAMPER PROOF RECEPTACLES AS REQUIRED BY NEC ART. 406.12.

COORDINATE RECEPTACLE, PHONE, AND TV DEVICE PLACEMENT WITH FURNITURE LOCATIONS. VERIFY WITH ARCHITECT PRIOR TO ROUGH IN. LOCATIONS SHOWN ON DRAWINGS ARE INTENDED TO CONVEY DESIGN INTENT, AND DEMONSTRATE GENERAL COMPLIANCE WITH CODE. WHERE

RECEPTACLE SPACING REQUIREMENTS. WHERE ACTUAL WINDOW CONSTRUCTION PROHIBITS THE INSTALLATION OF A WALL RECEPTACLE

LIGHTING INSTALLED IN CLOTHES CLOSETS SHALL BE INSTALLED IN

- LOCATION OF CATV/PHONE DWELLING UNIT DEMARC CABINET. PROVIDE AND INSTALL ALL ITEMS NECESSARY FOR CATV/PHONE, AND RECEPTACLE LOCATED IN THE CABINET. OWNER TO PROVIDE SPEC FOR MUTLI-MEDIA PANEL. ALL HOME RUNS FROM UNIT ARE TO BE BROUGHT BACK TO THIS BOX. PROVIDE GC SPECIFIED HOMERUN CABLE FROM UTILITY DEMARC LOCATION IN FIRST FLOOR ELECTRICAL CLOSET TO THIS BOX. CONFIRM LOCATION WITH OWNER/ARCHITECT PRIOR TO INSTALLATION.
- MULTI-SPEED BATH FAN/LIGHT COMBO TO BE INSTALLED BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR TO PROVIDE A CONSTANT HOT AND (1) SWITCH. UNIT SHALL BE WIRED SO THAT FAN RUNS CONTINUOUSLY,
- SENSORY ITEMS ONLY NEED TO BE INSTALLED IN UNIT 213 & 305. ALL OTHER
- INSTALL HARDWIRED DOORBELL. THE NOTIFIER INSIDE THE UNIT SHALL BE BOTH AUDIBLE AND VISUAL.
- PROVIDE AUDIBLE AND VISUAL SMOKE DETECTOR DEVICES.



side Geiger



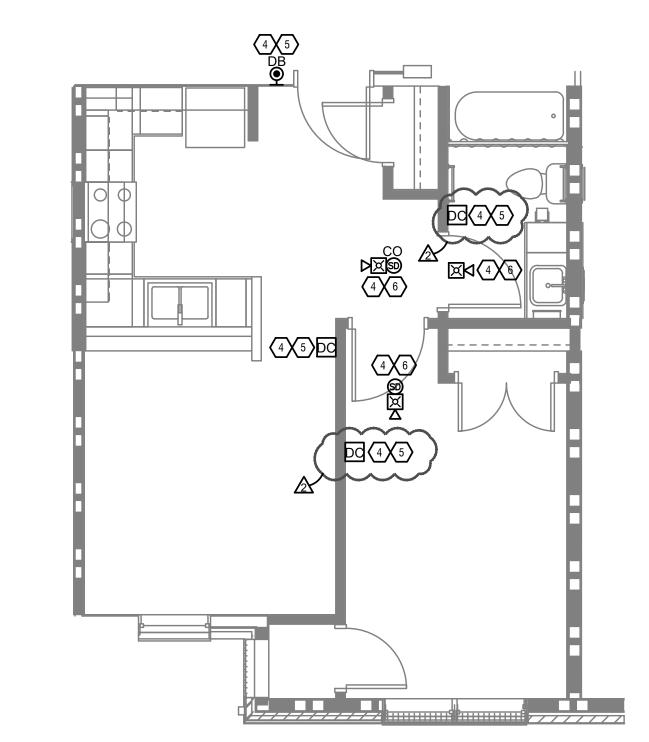
PROJECT NO.: 10041

SCALE:AS NOTED

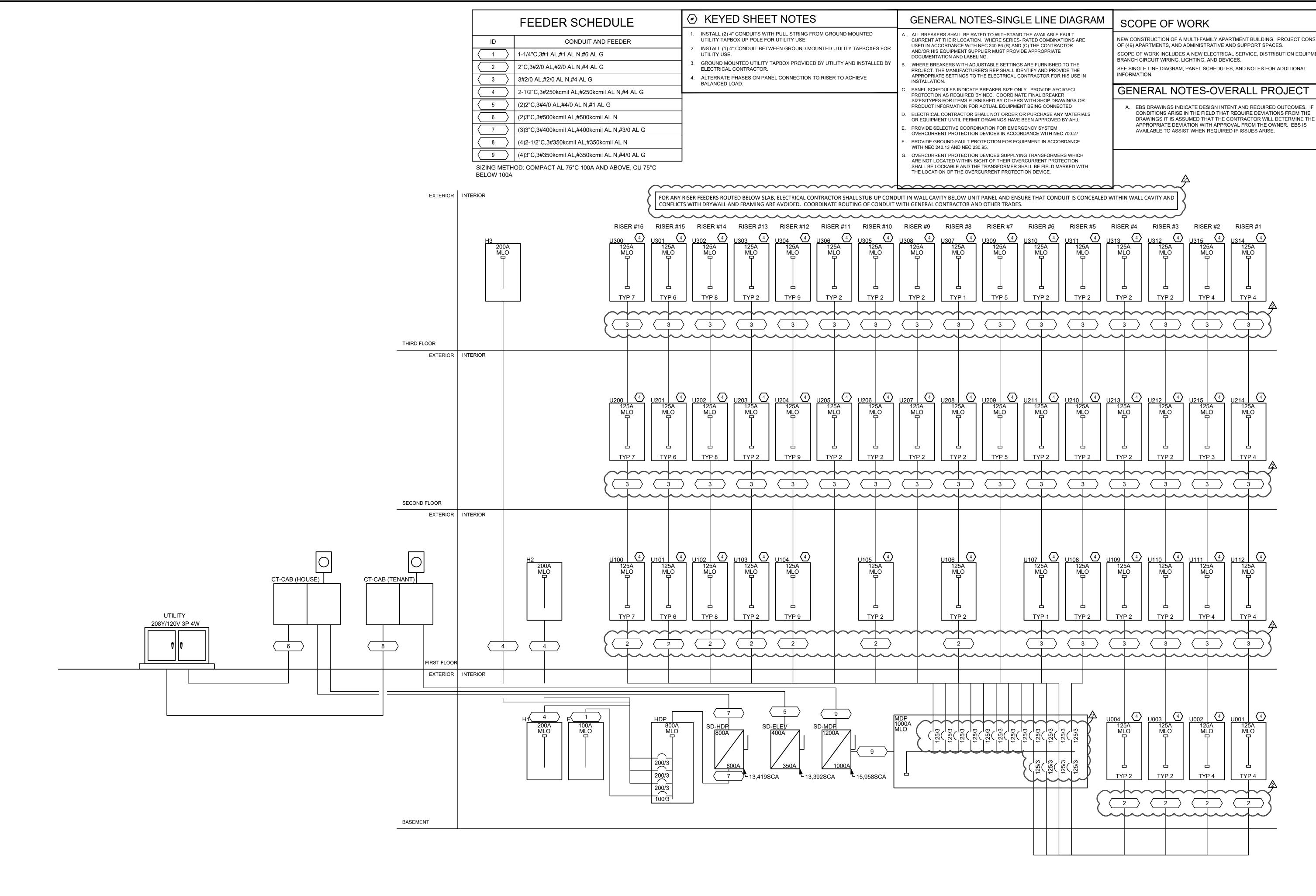
DATE: 04-13-2023

DRAWING TITLE ELECTRICAL **ENLARGED UNIT PLANS**

> SHEET NO. E301

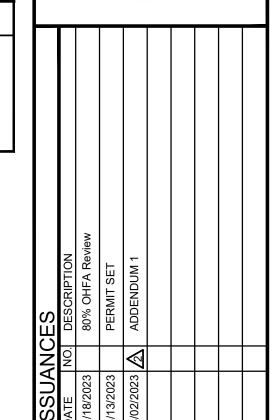


ONE BEDROOM - U213, U305 - Sensory Impairment Unit E301 SCALE: 1/4" = 1'-0"



NEW CONSTRUCTION OF A MULTI-FAMILY APARTMENT BUILDING. PROJECT CONSISTS SCOPE OF WORK INCLUDES A NEW ELECTRICAL SERVICE, DISTRIBUTION EQUIPMENT

CONDITIONS ARISE IN THE FIELD THAT REQUIRE DEVIATIONS FROM THE DRAWINGS IT IS ASSUMED THAT THE CONTRACTOR WILL DETERMINE THE APPROPRIATE DEVIATION WITH APPROVAL FROM THE OWNER. EBS IS



Klekam Residence for House Geiger Family

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> MEP Consulting Services, Inc. in OH
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2631 GILBERT AV CINCINNATI, OH

CHECKED E PRS

PROJECT NO.: 10041

SCALE:AS NOTED

DATE: 04-13-2023

DRAWING TITLE ELECTRICAL DETAILS

> SHEET NO. E400

SINGLE LINE DIAGRAM

	ITING SURFA (FROM SD-HD		В	/OLTS 208Y, BUS AMPS 8 NEUTRAL 10 0	800	5P 4W		AIC T.B.D. MAIN BKR MLO LUGS STANDARD			
CKT #	BREAKER TRIP/POLES	CIRCUIT DESCRIP	TION		A	OAD KV	A C	FEEDER RACEWAY AND	FEEDER RACEWAY AND CONDUCTORS		
1 2 3 4 5 6 7 8 9 10 11	200/3 200/3 200/3 20/3 100/3 20/3 20/3 20/3 20/3 20/3 20/3 20/3	PANEL H1 PANEL H2 PANEL H3 DOMESTIC BOOSTER PUMP SYSTEM PANEL E SPACE			17.5 20 13 1.88 1.43 0 0 0 0	13 21.3 10.6 1.88 0.414 0 0 0 0	13.9 13.8 9.49 1.88 0.522 0 0 0 0	2-1/2"C,3#250kcm 2-1/2"C,3#250kcm 2-1/2"C,3#250kcm 1/2"C,3#12 CU,#12 1-1/4"C,3#1 AL,#1	il AL,#250kcmil il AL,#250kcmil CU G	AL N,#4 AL G	
		TOTAL CONNI	ECTED KVA	BY PHASE	53.7	47.2	39.6				
LIGHTING ELECTRIC DRYER LARGEST MOTOR MOTORS		IC DRYER 20 20 ST MOTOR 9.26 2.31		(125%) (100%) (25%) (100%)	RECEPTAG CONTINUC NONCONT HEATING COOLING TOTAL LO		TINUOUS CONTINU TING ILING	0.54	CALC KVA 11.2 0.675 0.101 89 0 141	(50%>10) (125%) (100%) (100%) (0%)	

	NTING SURFAC FROM UTILITY		VC	olts 208Y ,	/120V 3	SP 4W		AIC T.B.D. LUGS STAN	IDARD	
CKT	BREAKER				LOAD KVA					
#	TRIP/POLES	CIRCUIT DESCRIPTION			Α	В	С	FEEDER RACEWAY AND CONDUCTORS		
1 2	-/3 -/3	FUSED DISCO	53.7 14.4	47.2 14.4	39.6 (3)3"C,3#400kcmil AL,#400kcmil AL 14.4 (2)2"C,3#4/0 AL,#4/0 AL N,#1 AL			** *		
		TOTAL CC	NNECTED KVA	BY PHASE	68.1	61.6	54			
		TOTAL CO			68.1	61.6	54	CONN KVA	CALC KVA	
LIG	HTING		/A CALC KVA 8.15	(125%)	68.1		54 EPTACLE		CALC KVA	- (50%>10)
ELE	CTRIC DRYER	6.52 20	CALC KVA 8.15 20	(125%) (100%)	68.1	REC CON	EPTACLE	12.4 S 0.54	11.2 0.675	(125%)
ELE	CTRIC DRYER GEST MOTOR	6.52 20 43.2	/A CALC KVA 8.15 20 10.8	(125%) (100%) (25%)	68.1	REC CON NON	EPTACLE TINUOUS CONTINU	12.4 S 0.54 JOUS 0.101	11.2 0.675 0.101	(125%) (100%)
ELE	CTRIC DRYER	6.52 20	CALC KVA 8.15 20	(125%) (100%)	68.1	REC CON NON HEA	EPTACLE	12.4 S 0.54	11.2 0.675	(125%) (100%) (100%)
ELE	CTRIC DRYER GEST MOTOR	6.52 20 43.2	/A CALC KVA 8.15 20 10.8	(125%) (100%) (25%)	68.1	REC CON NON HEA COC	EPTACLE TINUOUS CONTINU	12.4 S 0.54 JOUS 0.101 89 58.8	11.2 0.675 0.101 89	(125%) (100%)

C	T-CA	AB (T)	ENAN	1T)						
	NTING SURFAC FROM UTILITY		٧	OLTS 208Y ,	/120V 3	SP 4W		AIC T.B.D. LUGS STANDARD		
CĶT	BREAKER			L	OAD KV	A				
#	TRIP/POLES	CIRCUIT DESC	SCRIPTION		Α	В	С	FEEDER RACEWAY AND CONDUCTORS		
1	-/3	FUSED DISCONNECT SD-MDP			550	480	151	(4)3"C,3#350kcmil AL,#350kcmil AL N,#4/0 AL G		
		TOTAL CO	NNECTED KVA	BY PHASE	550	480	151			
OPTI	ONAL MULTIFAM	IILY DWELLING C	ALCULATION (N KVA	IEC 220.84)				KVA		
LIGI	HTING AND REC	EPTACLES	82.5	27,500 SF		CON	INECTED	D LOAD 1,130		
SMA	ALL-APPLIANCE		147	(3 VA/SF))	DWE	LLING U	JNITS 49		
	PLIANCES		113			DEM	AND FAC	CTOR (26%)		
	CTRIC COOKING	à	490			CALCULATED LOAD 295				
	ATING		302	(100%)		BALANCED 3-PHASE LOAD 818 A				
	OLING		302	(0%)						
				` '						

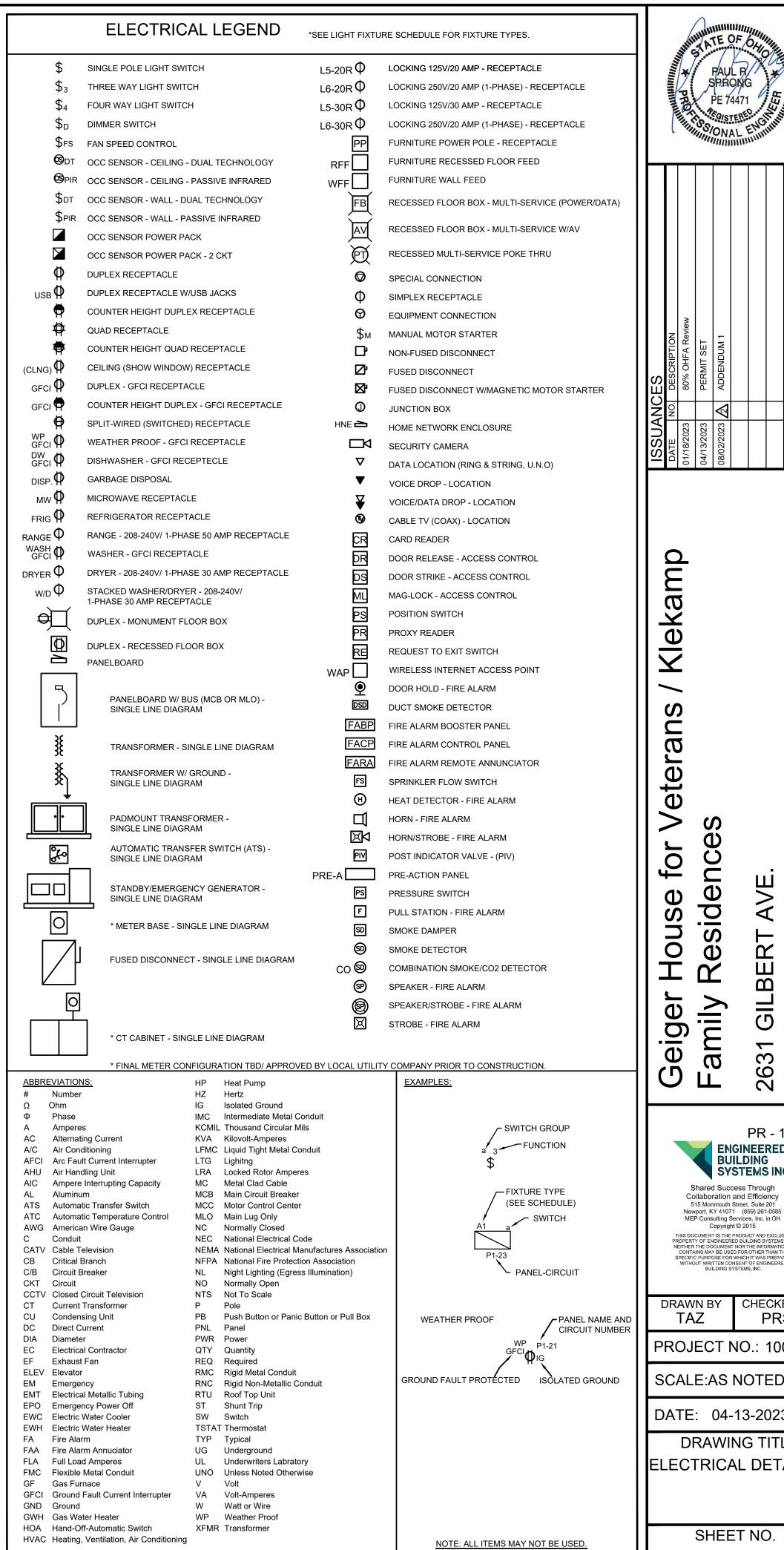
Project Directories\10000-10001\10041 - Talbert House ESE DRAWINGS AND SPECIFICATIONS ARE NOT DETERMINE CODE COMPLIANCE. THE INSTALLI VERAL CONTRACTOR. ETC. FRS ACCEPTS NO PI

MDP					
ROOM MOUNTING SURFACE FED FROM SD-MDP NOTE		000	P 4W		AIC T.B.D. MAIN BKR MLO LUGS STANDARD
CKT BREAKER		LOAD KVA		A	
# TRIP/POLES	CIRCUIT DESCRIPTION	Α	В	С	FEEDER RACEWAY AND CONDUCTORS
1 (125/3	RISER #1	45.5	39	12.2	2"C,3#2/O AL,#2/O AL N,#4 AL G
	RISER #2	45.3	39	12.2	2"C,3#2/0 AL,#2/0 AL N,#4 AL G
	RISER #3	44.7	39	12.2	2"C,3#2/O AL,#2/O AL N,#4 AL G
4 125/3	RISER #4	44.7	39	12.2 (2"C,3#2/O AL,#2/O AL N,#4 AL G
5 (125/3)	RISER #5	33.6	29.3	9.16 (3#2/0 AL,#2/0 AL N,#4 AL G
6 (125/3 K	RISER #6	33.6	29.3	9.16	3#2/0 AL,#2/0 AL N,#4 AL G
	RISER #7	23.1	19.5	6.11	1 " ' " ' " ' " ' " ' " ' " ' " ' " ' "
	RISER #8	33.6	29.3	9.16	, , , , , , , , , , , , , , , , , , , ,
	RISER #9	22.4	19.5	6.11 (, , , , , , , , , , , , , , , , , , , ,
	RISER #10	33.6	29.3		2"C,3#2/0 AL,#2/0 AL N,#4 AL G
	RISER #11	22.4	19.5	6.11	1 " ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '
	RISER #12	34	29.3	9.16	, , , , , , , , , , , , , , , , , , , ,
	RISER #13	33.6	29.3	9.16	,
	RISER #14	33	29.3		2"C,3#2/0 AL,#2/0 AL N,#4 AL G
1 3 11	RISER #15	33	31.5	10.2 (, " ' " ' " ' " ' " " " " " " " " " " "
16 (125/3	RISER #16	34.6	29.3	9.7	2"C,3#2/0 AL,#2/0 AL N,#4 AL G
	TOTAL CONNECTED KVA BY PHASE	550	480	151	

	KVA			KVA
LIGHTING AND RECEPTACLES	82.5	27,500 SF (3 VA/SF)	CONNECTED LOAD	1,130
SMALL-APPLIANCE	147	(0 11 4 21)	DWELLING UNITS	49
APPLIANCES	113		DEMAND FACTOR	(26%)
ELECTRIC COOKING	490		CALCULATED LOAD	295
HEATING	302	(100%)	BALANCED 3-PHASE LOAD	818 A
COOLING	302	(0%)		

OPTIONAL MULTIFAMILY DWELLING CALCULATION (NEC 220.84)

MDP BREAKDOWN									
220.84 Multi-Family Calculation	KVA	Qty	Total KVA						
TYP 1	23.11	2	46.22						
TYP 2	23.11	25	577.75						
TYP 3	23.11	1	23.11						
TYP 4	23.11	7	161.77						
TYP 5	23.26	2	46.52						
TYP 6	23.26	3	69.78						
TYP 7	23.41	3	70.23						
TYP 8	23.11	3	69.33						
TYP 9	23.11	3	69.33						
Total Quantity and Connecte	ed Load =	49	1134.0						







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PR - 10041

ENGINEERED

BUILDING

SYSTEMS INC.

SCALE:AS NOTED

DATE: 04-13-2023

DRAWING TITLE ELECTRICAL DETAILS

> SHEET NO. E401

VOLTS 208Y/120V 3P 4W BUS AMPS 125 ROOM AIC T.B.D. MOUNTING FLUSH MAIN BKR MLO NEUTRAL 100% FED FROM LUGS FEEDTHRU NOTE LOAD KVA CIRCUIT DESCRIPTION LOAD KVA CKT CKT # BKR CIRCUIT DESCRIPTION 30/2 | 6.16 | VTAC-1 2 50/2 10 RANGE 1.06 E-1, LIGHTING, RECEPTACLE 6 **20/1** 1.31 E-2, LIGHTING, RECEPTACLE 8 20/1 MICROWAVE 10 20/1 20/1 0.18 BATH SMALL APPLIANCE 11 |20**/1** | 0 SPACE 12 20/1 SMALL APPLIANCE 13 **20/1** SPACE 14 | 20/1 SPACE SPACE 16 **20/1** SPACE 17 **20/1** SPACE 18 20/1 SPACE SPACE 20 **20/1** SPACE 21 **20/1** SPACE b 22 **20/1** SPACE SPACE SPACE 23 **20/1** c|24 |**20/1** OPTIONAL DWELLING UNIT CALCULATION (NEC 220.82) CALC CONN CONN KVA KVA KVA LIGHTING AND **GENERAL LOAD** 1.65 RECEPTACLES (3 VA/SF) UP TO 10 KVA (100%) SMALL-APPLIANCE OVER 10 KVA (40%) 2.78 APPLIANCES 2.3 MAX HEATING OR (220.82(C)(1)) 6.16 ELECTRIC COOKING COOLING TOTAL GENERAL LOAD TOTAL LOAD 18.9 BALANCED 3-PHASE 52.6 A LOAD Multi-Family Dwelling Unit Calc PHASE A 140% Total General Load PHASE B 125% Largest Heating or Cooling Load 220.84 PHASE C 35.3% 220.84 CONNECTED LOAD CALC APPLIANCE BREAKDOWN **HVAC Load Calculation** KVA NEC Code 6.16 Heating REFRIGERATOR 6.16 Cooling MICROWAVE Mini Split TOTAL 6.16 220.82 C(1) 100% of Nameplate Rating of AC and Cooling 100% of Nameplate Rating of Heat Pump w/o Supplmental Heat | 0.00 | 220.82 C(2) 0.00 220.82 C(3) Heat Pump plus 65% of Supplemental Heat 6.16 220.84 C(5) Largest Heating or Cooling Load

KVA

17.0

6.16

23.11

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ED TO PROVIDE THE . . AGREEMENT THAT N

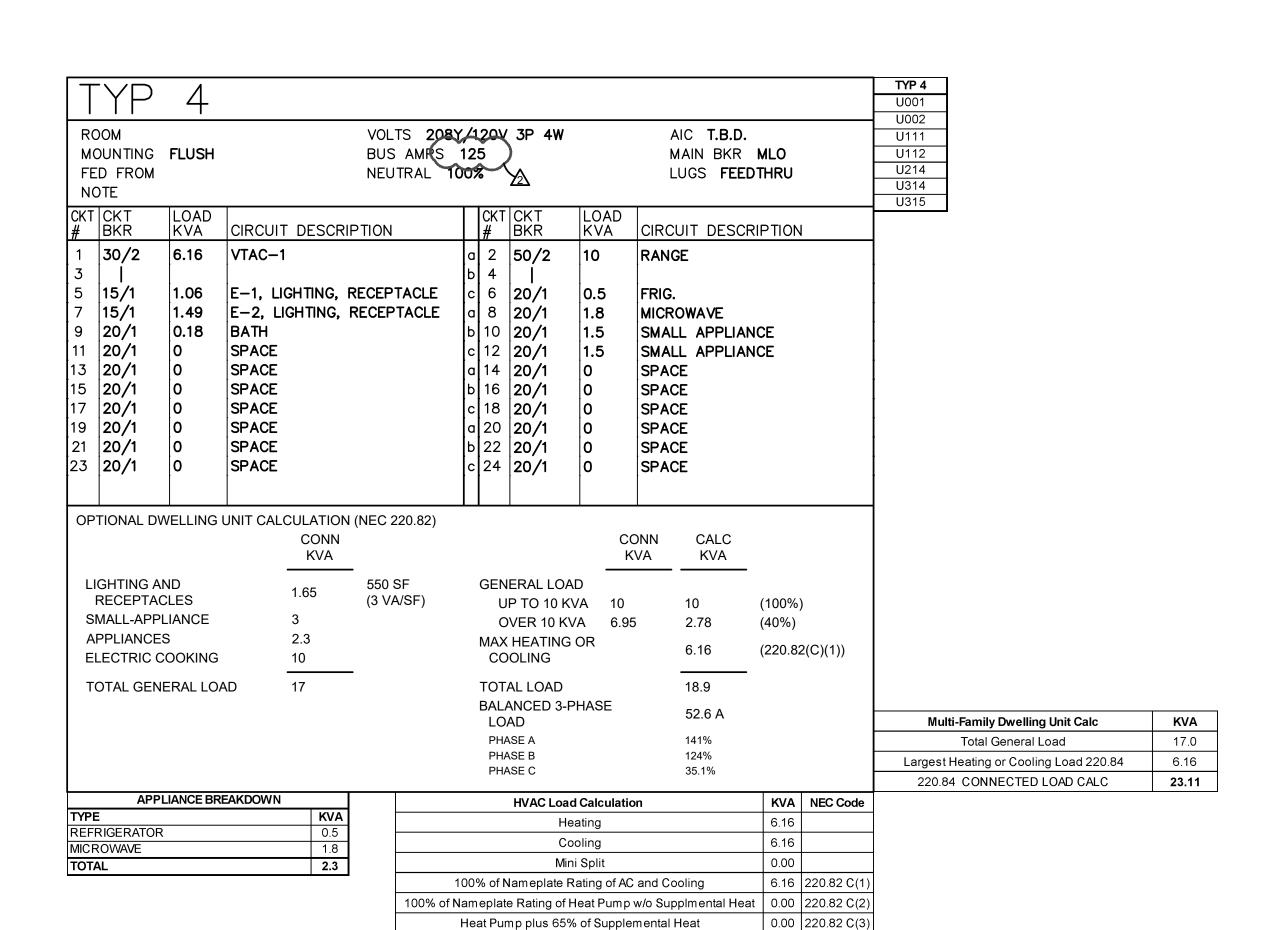
2:\~Project Directories\10000-10001\10041 - Talbert House - The Geiger House for Veterans - Cincinnati OH\~Construction Documents\10041-E403-ELECTRICAL-DETAlLS.dwg-EBS. Plot Date/Time: Aug 01, 2023-5:04pm - By: tim.ziebold
THESE DRAWINGS AND SPECIFICATIONS ARE NOT AUTHORIZED TO BE USED AS CONTRACT DOCUMENTS. THESE DRAWINGS HAVE BEEN PREPARED TO DEMONSTRATE COMPLIANCE WITH APPLICABLE CODES, AND MATERIALS USED IN CONSTRUCTION ARE INSTALLING CONTRACTOR IS RESPONSIBLE TO ENSURE THAT MEANS, METHODS, AND MATERIALS USED IN CONSTRUCTION ARE INSTALLING CONTRACTOR IS RESPONSIBILITY FOR THE COMPLIANCE OR CONDITION OF EXISTING EQUIPMENT AND WIRING.

ROOM																		
ROOM NO FLUSH BUS AME 125 SAME SAME 125 SAME SAM	lΤ	YP	3												TYP 3 U215			
Color Colo	M(DUNTING D FROM				BUS .	AMRS	125)			MAIN BKR	MLO					
1 30/2 6.16	CKT	CKT	LOAD KVA	CIRCUIT	DESCRIF	 PTION		CK #	T CKT BKR	LOAD KVA	CIRC	CUIT DESC	RIPTION	N	1			
1	1		6.16	VTAC-1				a 2		10	RAN	GE			1			
17 20/1 0 SPACE 0 20 20/1 0 SPACE 20/1	5 7 9 11 13	15/1 20/1 20/1 20/1	1.31 E-2, LIGHTING, RECEP 0.18 BATH 0 SPACE 0 SPACE					c 6 a 8 b 10 c 12 a 14	20/1 20/1 20/1 20/1	1.8 1.5 1.5 0	1.8 MICROWAVE 1.5 SMALL APPLIANCE 1.5 SMALL APPLIANCE							
CONN KVA CALC KVA	17 19	20/1 20/1 20/1	0 0 0	SPACE SPACE SPACE				c 18 a 20 b 22	20/1 20/1 20/1	0 0	SPA SPA SPA	CE CE CE						
RECEPTACLES 1.65 (3 VA/SF)	ОР	TIONAL DV	WELLING	UNIT CAL	CONN	(NEC 22	0.82)		1									
TOTAL GENERAL LOAD 17 TOTAL LOAD 18.9 BALANCED 3-PHASE LOAD 52.6 A LOAD 52.6 A PHASE A 140% PHASE B 125% PHASE C 35.3% TOTAL SEREKDOWN TYPE KVA REFRIGERATOR 0.55 MICROWAVE 1.8 TOTAL 2.3 Mini Split 0.00 100% of Nameplate Rating of AC and Cooling 6.16 220.82 C(1) 100% of Nameplate Rating of Heat Pump w/o Supplmental Heat 0.00 220.82 C(2)	S	RECEPTACLES 1.65 (3 \ SMALL-APPLIANCE 3 APPLIANCES 2.3				MA	UP TO 10 K OVER 10 K X HEATING	VA 10 VA 6.9	5	2.78	(40%)	(40%)						
LOAD S2.6 A 140% Total General Load 17.0				AD								18.9	-					
PHASE B 125% 35.3% Largest Heating or Cooling Load 220.84 6.16										PHASE		52.6 A				Multi-Family	Dwelling Unit Calc	KVA
PHASE C 35.3% 220.84 CONNECTED LOAD CALC 23.11																Total G	eneral Load	17.0
APPLIANCE BREAKDOWN	1														Larg	est Heating c	r Cooling Load 220.84	6.16
APPLIANCE BREAKDOWN TYPE KVA REFRIGERATOR 0.5 MICROWAVE 1.8 TOTAL 2.3 Mini Split 0.00 100% of Nameplate Rating of AC and Cooling 6.16 100% of Nameplate Rating of Heat Pump w/o Supplmental Heat 0.00 220.82 C(1) 100% of Nameplate Rating of Heat Pump w/o Supplmental Heat 0.00								PH	IASE C			35.3 %			22	20.84 CONNI	ECTED LOAD CALC	23.11
TYPE KVA REFRIGERATOR 0.5 MICROWAVE 1.8 TOTAL 2.3 Mini Split 0.00 100% of Nameplate Rating of AC and Cooling 6.16 100% of Nameplate Rating of Heat Pump w/o Supplmental Heat 0.00 220.82 C(1) 100% of Nameplate Rating of Heat Pump w/o Supplmental Heat 0.00		APP	LIANCE BRI	EAKDOWN					HVAC Loa	d Calculati	on		KVA	NEC Code				1
REFRIGERATOR 0.5													_	+	7			
TOTAL 2.3 Mini Split 0.00			<u> </u>											+	1			
100% of Nameplate Rating of AC and Cooling 6.16 220.82 C(1) 100% of Nameplate Rating of Heat Pump w/o Supplmental Heat 0.00 220.82 C(2)														+				
100% of Nameplate Rating of Heat Pump w/o Supplmental Heat 0.00 220.82 C(2)	101/				2.3		1	00% of			C and C	oolina			7			
						 			· · · · · · · · · · · · · · · · · · ·			-		<u> </u>				
										•		• •		<u> </u>				

Largest Heating or Cooling Load

6.16 220.84 C(5)

	YP	2			VOLTS 208	W W 1	3P 4W			AIC T.B.D.			U003 U004 U103	U210 U211 U212	
FE N	TED FROM NEU			BUS AMPS NEUTRAL	00%	<u> </u>			MAIN BKR _UGS FEE			U105 U106 U108 U109	U213 U303 U305 U306		
CKT #	CKT BKR	LOAD KVA	CIRCUIT	DESCRI	PTION	CKT	CKT BKR	LOAD KVA	CIRC	UIT DESC	RIPTION	 -	U110	U308	
1 3	30/2 	6.16	VTAC-1			a 2 b 4	50/2	10	RAN	GE	ANT TION	<u>'</u>	U203 U205 U206 U207	U310 U311 U312 U313	
5 7 9 11 13	15/1 15/1 20/1 20/1 20/1 20/1	1.06 1.31 0.18 0 0	E-2, LIG BATH SPACE SPACE SPACE		RECEPTACLE RECEPTACLE	b 16	20/1 20/1 20/1 20/1 20/1 20/1	0.5 1.8 1.5 1.5 0	SMA	OWAVE LL APPLIA LL APPLIA CE			U208		
17 19 21 23	20/1 20/1 20/1 20/1	0 0 0	SPACE SPACE SPACE SPACE			a 20 b 22	20/1 20/1 20/1 20/1	0 0	SPA SPA SPA	CE CE					
			UNIT CALC	CULATION CONN KVA	(NEC 220.82)			K	ONN IVA	CALC KVA	-				
S	GHTING A RECEPTA MALL-APP PPLIANCE	CLES LIANCE S		1.65 3 2.3	550 SF (3 VA/SF)	U C MAX	IERAL LOA IP TO 10 K OVER 10 K (HEATING	VA 10 VA 6.95	5	10 2.78 6.16	(100%) (40%)) 2(C)(1))			
	LECTRIC (OTAL GEN			17	-	ТОТ	OOLING AL LOAD			18.9	-	=(0)(1))			
							ANCED 3-I AD	PHASE		52.6 A			Mult	ti-Family Dwelling Unit Calc	KVA
						PH	ASE A			140%				Total General Load	17.0
							ASE B ASE C			125% 35.3%				Heating or Cooling Load 220.8	
	ADD	LIANCE BR	EVKDOMM					d Calculatio	n .		KVA	NEC Code	220.8	4 CONNECTED LOAD CALC	23.11
ΓΥΡ		LIAINUE DR		KVA				eating	· · · ·		6.16	1420 0000			
REF	RIGERATOF	}		0.5				poling			6.16				
MICI TOT	ROWAVE			1.8 2.3				ni Split			0.00				
101	~L			2.3		100% of N	Nameplate F		and C	ooling	6.16	220.82 C(1)			
					100% of			·		oplmental He	at 0.00	220.82 C(2)			
											1				
							mp plus 659 gest Heatin			Heat		220.82 C(3) 220.84 C(5)			



Largest Heating or Cooling Load

6.16 220.84 C(5)



for

House

Resider

Geiger House Family Reside	2631 GILBERT AV CINCINNATI, OH
BUIL	PR - 10041 INEERED LDING TEMS INC.
Shared Succe: Collaboration ar 515 Monmouth Str Newport, KY 41071 MEP Consulting Sen Copyright © THIS DOCUMENT IS THE PR PROPERTY OF ENGINEERED NEITHER THE DOCUMENT NI CONTAINS MAY BE USED! SPECIFIC PURPOSE FOR WI WITHOUT WRITTEN CONSI BUILDING SYS*	SS Through nd Efficiency reet, Suite 201 (859) 261-0585 vices, Inc. in OH 3) 2015 000UCT AND EXCLUSIVE BUILDING SYSTEMS, INC. OR THE INFORMATION IT FOR OTHER THAN THE HICH IT WAS PREPARED ENT OF ENGINEERED
	CHECKED BY

DRAWN BY CHECKED BA TAZ PROJECT NO.: 10041

SCALE:AS NOTED

DATE: 04-13-2023

DRAWING TITLE **ELECTRICAL DETAILS**

SHEET NO.

E403

TYP U209 U309 VOLTS 208Y/120V 3P 4W ROOM AIC T.B.D. BUS AMRS 125 MOUNTING FLUSH MAIN BKR MLO NEUTRAL 100% FED FROM LUGS FEEDTHRU NOTE LOAD KVA LOAD KVA CKT CKT # BKR CIRCUIT DESCRIPTION CIRCUIT DESCRIPTION 30/2 6.16 VTAC-1 a 2 | **50/2** RANGE 1.06 E-1, LIGHTING, RECEPTACLE 6 20/1 1.69 0.18 8 20/1 E-2, LIGHTING, RECEPTACLE MICROWAVE b 10 **20/1** SMALL APPLIANCE 20/1 BATH c 12 **20/1** 20/1 SPACE SMALL APPLIANCE 3 20/1 SPACE a 14 20/1 SPACE 5 **20/1** SPACE SPACE 16 **20/1** 7 20/1 SPACE c 18 **20/1** SPACE a 20 **20/1** 9 20/1 SPACE SPACE 21 **20/1** SPACE b 22 **20/1** SPACE 23 **20/1** SPACE c 24 20/1 SPACE OPTIONAL DWELLING UNIT CALCULATION (NEC 220.82) CONN CONN CALC KVA KVA KVA LIGHTING AND 600 SF GENERAL LOAD 1.8 RECEPTACLES (3 VA/SF) UP TO 10 KVA 10 (100%) SMALL-APPLIANCE OVER 10 KVA 7.1 2.84 (40%) APPLIANCES 2.3 MAX HEATING OR 6.16 (220.82(C)(1)) ELECTRIC COOKING 10 COOLING TOTAL GENERAL LOAD 17.1 TOTAL LOAD 19 BALANCED 3-PHASE 52.7 A LOAD Multi-Family Dwelling Unit Calc KVA PHASE A 142% 17.1 123% PHASE B Largest Heating or Cooling Load 220.84 6.16 PHASE C 34.8% 220.84 CONNECTED LOAD CALC 23.26 APPLIANCE BREAKDOWN **HVAC Load Calculation** KVA NEC Code 6.16 Heating REFRIGERATOR 6.16 Cooling MICROWAVE Mini Split 0.00 TOTAL 2.3 6.16 220.82 C(1) 100% of Nameplate Rating of AC and Cooling 100% of Nameplate Rating of Heat Pump w/o Supplmental Heat | 0.00 | 220.82 C(2) 0.00 220.82 C(3) Heat Pump plus 65% of Supplemental Heat Largest Heating or Cooling Load 6.16 220.84 C(5)

TYP 5

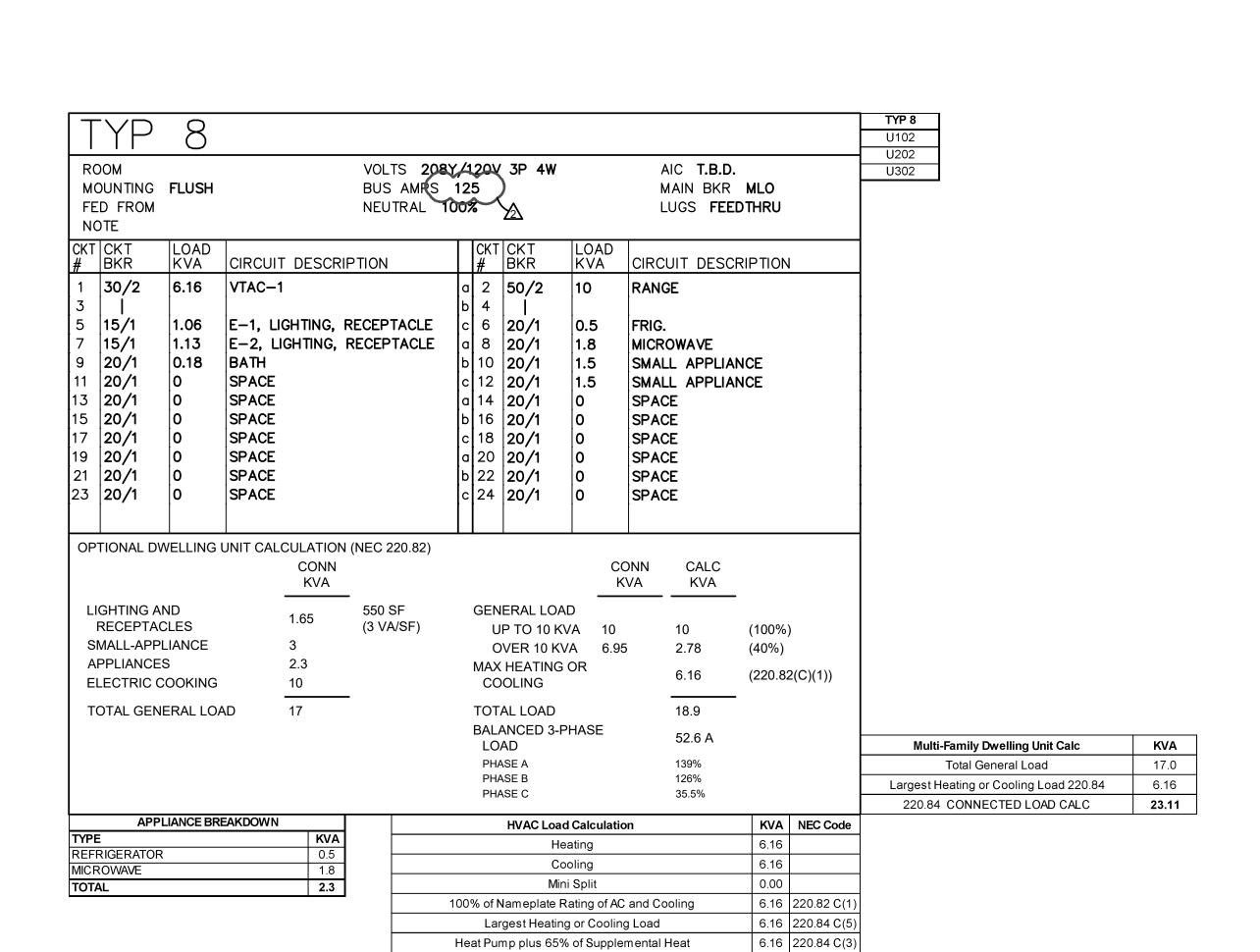
															<u>_</u>			
	YD	7												TYP 7 U100	_			
		/												U200				
RO	MC				VOLTS 208	YY	1201	(3P 4W			AIC T.B.D).		U300				
МО	UNTING	FLUSH					S AMRS 125 MAIN BKR MLO											
	FROM				NEUTRAL	OÛ.	%	<u>^</u>			LUGS FE	EDTHF	RU					
NO.	TE																	
CKT (CKT BKR	LOAD KVA	CIRCUIT	DESCR	IPTION		CKT #	CKT BKR	LOAD KVA	CIRC	CUIT DESC	CRIPT	ION					
1 3	30/2 I	6.16	VTAC-1			a	ł.	50/2	10	RAN	GE							
	15/1	1.24	E-1. LIC	GHTING.	RECEPTACLE	c	1 _	20/1	0.5	FRIG	L							
	15/1	1.67	1		RECEPTACLE	a	1	20/1	1.8		ROWAVE							
	20/1	0.18	BATH	•			10		1.5		LL APPLIA	ANCE						
	20/1	0	SPACE				12	20/1	1.5	+	LL APPLIA							
	20/1	0	SPACE			a	14	20/1	0	SPA	CE							
	20/1	0	SPACE					20/1	0	SPA	CE							
	20/1	0	SPACE					20/1	0	SPA								
	20/1	0	SPACE					20/1	0	SPA								
	20/1	0	SPACE					20/1	0	SPA								
23	20/1	0	SPACE			c	24	20/1	0	SPA	CŁ							
ОРТ	IONAL DV	VELLING	UNIT CALO	CULATION	N (NEC 220.82)													
				CONN	,				C	ONN	CALC							
				KVA					ı	KVA	KVA							
LIG	HTING AI	ND			- 650 SF		GEN	NERAL LOA				_						
	ECEPTAC			1.95	(3 VA/SF)			JP TO 10 K			10	(10	0%)					
SM	IALL-APPI	LIANCE		3				OVER 10 K			2.9	(40	· ·					
AP	PLIANCE	S		2.3			MAX	(HEATING	OR		6.16	•						
ELE	ECTRIC C	OOKING		10	_		CC	OOLING			0.10	(22 -	0.82(C)(1))					
то	TAL GEN	ERAL LOA	AD.	17.3				AL LOAD			19.1							
								ANCED 3-F AD	PHASE		52.9 A			Mı	ulti-Famil	y Dwelling Unit Calc		KVA
								ASE A			141%				Total	General Load		17.3
								ASE B ASE C			122% 36.6%			Larges	t Heating	or Cooling Load 220.84		6.16
							FIL	ASE C			30.070			220	.84 CON	NECTED LOAD CALC		23.41
	APPI	LIANCE BR	EAKDOWN	T				HVAC Loa	d Calculat	ion		K	VA NEC Code				•	
TYPE	IGERATOR			KVA 0.5				He	eating			6	16					
	OWAVE			1.8				Co	ooling			6	16					
TOTAL				2.3	1			Mir	ni Split			0	.00					
						100	% of I	Nameplate F	Rating of A	C and C	ooling	6	.16 220.82 C(1)					
							La	rgest Heatin	g or Coolir	ng Load		6	.16 220.84 C(5)					

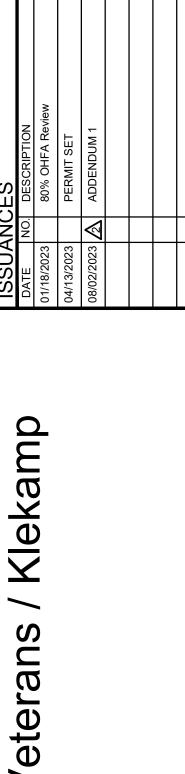
Heat Pump plus 65% of Supplemental Heat

6.16 220.84 C(3)

2:\~Project Directories\10000-10001\10041 - Talbert House - The Geiger House for Veterans - Cincinnati OH\~Construction Documents\10041-E404-ELECTRICAL-DETAll.S.dwg-EBS. Plot Date/Time: Aug 01, 2023-5:09pm - By: tim.ziebold
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ROOM MOUNTING FL FED FROM NOTE	6 LUSH	VOLTS 208Y/120V 3P 4W AIC T.B.D. BUS AMPS 125 MAIN BKR MLO NEUTRAL 100% LUGS FEEDTHRU								TYP 6 U101 U201 U301						
CKT CKT L	OAD (VA	CIRCUIT DE	SCRIPTION		CK1	CKT BKR	LOAD KVA	CIRC	UIT DESC	RIPTION						
1 30/2 6		VTAC-1			a 2	50/2	10	RANC								
7 15/1 1. 9 15/1 0	.13).92).18))	E-1, LIGHTI LIGHTING, R E-2, LIGHT BATH SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE	RECEPTACLE	Ξ	c 12 a 14 b 16 c 18 a 20 b 22	20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1	0.5 1.8 1.5 1.5 0 0 0 0	SMAL	OWAVE LL APPLIA CE CE CE CE CE CE							
OPTIONAL DWEL	LLING U	C	ATION (NEC : ONN OVA	220.82)				ONN (VA	CALC KVA	_						
OPTIONAL DWEL)	C	ONN IVA 600	SF		NERAL LO	AD		KVA	- (100%						
LIGHTING AND RECEPTACLE SMALL-APPLIA) ES	C(ONN IVA 600	ŕ	ι	NERAL LO JP TO 10 F DVER 10 K	AD (VA 10			- (100% (40%))					
LIGHTING AND RECEPTACLE) ES NCE	1.8	ONN IVA 600	SF	U) (AM	JP TO 10 k	AD (VA 10 (VA 7.1		10 KVA	(40%)) 2(C)(1))					
LIGHTING AND RECEPTACLE SMALL-APPLIAI APPLIANCES	S ES NCE OKING	1.8 3 2.3 10	ONN (VA 600 (3 V	SF	MA) CO	JP TO 10 H OVER 10 K (HEATING	AD (VA 10 (VA 7.1		10 2.84	(40%)						
LIGHTING AND RECEPTACLE SMALL-APPLIAI APPLIANCES ELECTRIC COC	S ES NCE OKING	1.8 3 2.3 10	ONN (VA 600 (3 V	SF	MAX CC TOT BAL	JP TO 10 P OVER 10 K CHEATING OOLING FAL LOAD ANCED 3-	AD KVA 10 KVA 7.1 GOR		10 2.84 6.16	(40%)			JAI Face the	Dana Illian en Universit	Colo	10/4
LIGHTING AND RECEPTACLE SMALL-APPLIAI APPLIANCES ELECTRIC COC	S ES NCE OKING	1.8 3 2.3 10	ONN (VA 600 (3 V	SF	MAX CO TO1 BAL	JP TO 10 F OVER 10 K C HEATING OOLING FAL LOAD ANCED 3- OAD	AD KVA 10 KVA 7.1 GOR		10 2.84 6.16 19 52.7 A	(40%)		Mu		Owelling Unit	Calc	KVA 17.1
LIGHTING AND RECEPTACLE SMALL-APPLIAI APPLIANCES ELECTRIC COC	S ES NCE OKING	1.8 3 2.3 10	ONN (VA 600 (3 V	SF	MAX CC TO1 BAL LC	JP TO 10 P OVER 10 K CHEATING OOLING FAL LOAD ANCED 3-	AD KVA 10 KVA 7.1 GOR		10 2.84 6.16	(40%)			Total G	eneral Load		17.1
LIGHTING AND RECEPTACLE SMALL-APPLIAI APPLIANCES ELECTRIC COC	S ES NCE OKING	1.8 3 2.3 10	ONN (VA 600 (3 V	SF	L MAX CC TO1 BAL LC PH PH	JP TO 10 F OVER 10 K C HEATING OOLING FAL LOAD ANCED 3- OAD ASE A	AD KVA 10 KVA 7.1 GOR		10 2.84 6.16 19 52.7 A 134%	(40%)		Larges	Total Gotal Heating o	eneral Load r Cooling Loa	ad 220.84	17.1 6.16
LIGHTING AND RECEPTACLE SMALL-APPLIAI APPLIANCES ELECTRIC COC TOTAL GENERA) ES NOCE OKING (AL LOA)	1.8 3 2.3 10	ONN (VA 600 (3 V	SF	L MAX CC TO1 BAL LC PH PH	JP TO 10 F DVER 10 K C HEATING DOLING TAL LOAD ANCED 3- DAD ASE A ASE B ASE C	AD KVA 10 KVA 7.1 GOR	(VA	10 2.84 6.16 19 52.7 A 134% 128%	(40%)		Larges	Total Gotal Heating o	eneral Load	ad 220.84	17.1
LIGHTING AND RECEPTACLE SMALL-APPLIAI APPLIANCES ELECTRIC COC TOTAL GENERA APPLIAN TYPE) ES NOCE OKING (AL LOA)	1.8 3 2.3 10 D 17.7	600 (3 V	SF	L MAX CC TO1 BAL LC PH PH	JP TO 10 F OVER 10 K C HEATING OOLING FAL LOAD ANCED 3- OAD ASE A ASE B ASE C	AD (VA 10 (VA 7.1 GOR PHASE	(VA	10 2.84 6.16 19 52.7 A 134% 128%	(40%)	2(C)(1))	Larges	Total Gotal Heating o	eneral Load r Cooling Loa	ad 220.84	17.1 6.16
LIGHTING AND RECEPTACLE SMALL-APPLIAI APPLIANCES ELECTRIC COC TOTAL GENERA TYPE REFRIGERATOR) ES NOCE OKING (AL LOA)	1.8 3 2.3 10 D 17.7	ONN (VA) 600 (3 VA)	SF	L MAX CC TO1 BAL LC PH PH	JP TO 10 F DVER 10 K C HEATING DOLING TAL LOAD ANCED 3- DAD ASE A ASE B ASE C	AD (VA 10 (VA 7.1 G OR PHASE	(VA	10 2.84 6.16 19 52.7 A 134% 128%	(40%) (220.82	2(C)(1))	Larges	Total Gotal Heating o	eneral Load r Cooling Loa	ad 220.84	17.1 6.16
LIGHTING AND RECEPTACLE SMALL-APPLIAI APPLIANCES ELECTRIC COC TOTAL GENERA TYPE REFRIGERATOR MICROWAVE) ES NOCE OKING (AL LOA)	1.8 3 2.3 10 D 17.7	600 (3 V)	SF	L MAX CC TO1 BAL LC PH PH	JP TO 10 F OVER 10 K C HEATING OOLING FAL LOAD ANCED 3- OAD ASE A ASE B ASE C	AD (VA 10 (VA 7.1 G OR PHASE ad Calculation leating	(VA	10 2.84 6.16 19 52.7 A 134% 128%	(40%) (220.87 - KVA 6.16 6.16	2(C)(1))	Larges	Total Gotal Heating o	eneral Load r Cooling Loa	ad 220.84	17.1 6.16
LIGHTING AND RECEPTACLE SMALL-APPLIAI APPLIANCES ELECTRIC COC TOTAL GENERA TYPE REFRIGERATOR MICROWAVE) ES NOCE OKING (AL LOA)	1.8 3 2.3 10 D 17.7	ONN (VA) 600 (3 VA)	SF A/SF)	MAX CC TO1 BAL LC PH PH PH	JP TO 10 F DVER 10 K K HEATING DOLING TAL LOAD ANCED 3- DAD ASE A ASE B ASE C HVAC Loa M	AD (VA 10 (VA 7.1 GOR PHASE ad Calculation leating cooling ini Split	on	10 2.84 6.16 19 52.7 A 134% 128% 38.2%	(40%) (220.8) - - - - - - - - - - - - - - - - - - -	2(C)(1)) NEC Code	Larges	Total Gotal Heating o	eneral Load r Cooling Loa	ad 220.84	17.1 6.16
LIGHTING AND RECEPTACLE SMALL-APPLIAI APPLIANCES ELECTRIC COC TOTAL GENERA TYPE REFRIGERATOR) ES NOCE OKING (AL LOA)	1.8 3 2.3 10 D 17.7	600 (3 V)	SF A/SF)	TOT BAL LO PH PH PH	JP TO 10 F DVER 10 K C HEATING DOLING FAL LOAD ANCED 3- DAD ASE A ASE B ASE C HVAC Loa M Nameplate	AD (VA 10 (VA 7.1 G OR PHASE ad Calculation leating	on C and Cc	10 2.84 6.16 19 52.7 A 134% 128% 38.2%	(40%) (220.8) - - - - - - - - - - - - - - - - - - -	2(C)(1))	Larges	Total Gotal Heating o	eneral Load r Cooling Loa	ad 220.84	17.1 6.16





nce

for

Geiger House Family Reside	2631 GILBERT AVE CINCINNATI, OH								
BUIL	PR - 10041 SINEERED LDING TEMS INC.								
SYSTEMS INC. Shared Success Through Collaboration and Efficiency 515 Monmouth Street, Suite 201 Newport, KY 41071 (859) 261-0585 MEP Consulting Services, Inc. in OH Copyright © 2015 THIS DOCUMENT IS THE PRODUCT AND EXCLUSIVE PROPERTY OF ENGINEERED BUILDING SYSTEMS, INC. NEITHER THE DOCUMENT NOR THE INFORMATION IT CONTAINS MAY BE USED FOR OTHER THAN THE SPECIFIC PURPOSE FOR WHICH IT WAS PREPARED WITHOUT WRITTEN CONSENT OF ENGINEERED BUILDING SYSTEMS, INC.									

DRAWN BY | CHECKED BY TAZ PRS

PROJECT NO.: 10041

SCALE:AS NOTED DATE: 04-13-2023

DRAWING TITLE

ELECTRICAL DETAILS

SHEET NO. E404

TYP 9 U204 VOLTS 208Y/120V 3P 4W BUS AMPS 125 ROOM AIC T.B.D. U304 MOUNTING FLUSH MAIN BKR MLO NEUTRAL 100% FED FROM LUGS FEEDTHRU NOTE CKT CKT # BKR LOAD KVA CIRCUIT DESCRIPTION LOAD KVA CKT CKT # BKR CIRCUIT DESCRIPTION a 2 50/2 30/2 6.16 VTAC-1 10 RANGE 1.06 E-1, LIGHTING, RECEPTACLE |c| 6 |**20/1** 7 | 15/1 9 | 20/1 11 | 20/1 13 | 20/1 15 | 20/1 17 | 20/1 1.46 E-2, LIGHTING, RECEPTACLE MICROWAVE 8 20/1 0.18 b 10 20/1 c 12 20/1 SMALL APPLIANCE SPACE SMALL APPLIANCE SPACE 0 a 14 20/1 SPACE SPACE SPACE b 16 20/1 SPACE SPACE a 20 **20/1** 19 **20/1** 21 **20/1** SPACE SPACE b 22 20/1 SPACE SPACE c 24 20/1 23 **20/1** SPACE SPACE OPTIONAL DWELLING UNIT CALCULATION (NEC 220.82) CONN CONN CALC KVA KVA KVA LIGHTING AND 550 SF **GENERAL LOAD** 1.65 RECEPTACLES (3 VA/SF) UP TO 10 KVA 10 (100%) SMALL-APPLIANCE OVER 10 KVA 2.78 (40%) APPLIANCES 2.3 MAX HEATING OR (220.82(C)(1)) 6.16 10 ELECTRIC COOKING COOLING TOTAL GENERAL LOAD 17 TOTAL LOAD 18.9 **BALANCED 3-PHASE** 52.6 A LOAD Multi-Family Dwelling Unit Calc PHASE A 141% Total General Load PHASE B 124% Largest Heating or Cooling Load 220.84 PHASE C 35.1% 220.84 CONNECTED LOAD CALC APPLIANCE BREAKDOWN **HVAC Load Calculation** KVA NEC Code 6.16 Heating REFRIGERATOR 6.16 Cooling MICROWAVE Mini Split 0.00 TOTAL 2.3 100% of Nameplate Rating of AC and Cooling 6.16 220.82 C(1) Largest Heating or Cooling Load 6.16 220.84 C(5)

Heat Pump plus 65% of Supplemental Heat

6.16 220.84 C(3)

2:\~Project Directories\10000-10001\10041 - Talbert House - The Geiger House for Veterans - Cincinnati OH\~Construction Documents\10041-E405-ELECTRICAL-DETAILS.dwg-EBS. Plot Date/Time: Aug 01, 2023-5:10pm - By: tim.ziebold

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Geiger House for Veterans / Klekamp Family Residences

KVA

17.0

6.16

23.11

04/13/2023 80% OHFA Review
04/13/2023 PERMIT SET
08/02/2023 ADDENDUM 1

Family Reside

Shared Success Through
Collaboration and Efficiency

Collaboration and Efficiency

PR - 10041

ENGINEERED
BUILDING
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Shared Success Through
Collaboration and Efficiency
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PROJECT NO.: 10041

SCALE:AS NOTED

DATE: 04-13-2023

DRAWING TITLE
ELECTRICAL DETAILS

SHEET NO. E405