00 DEMOLITION NOTES

01 REMOVE & DISPOSE OF EXISTING CORRIDOR.

02 REMOVE & DISPOSE OF EXISTING CURB.

03 REMOVE & DISPOSE OF EXISTING CONCRETE SIDEWALK.

04 REMOVE & DISPOSE OF EXISTING RETAINING WALL.

05 REMOVE & DISPOSE OF EXISTING HANDRAIL.

06 REMOVE & DISPOSE OF EXISTING STORM PIPE.

07 REMOVE & DISPOSE OF EXISTING SANITARY PIPE.

08 REMOVE & RELOCATE EXISTING UNDERGROUND CABLE TV SERVICE LINE.

09 REMOVE & DISPOSE OF EXISTING UNDERGROUND ELECTRIC SERVICE LINE.

10 REMOVE & DISPOSE OF EXISTING ELECTRIC BOX.

11 SALVAGE AND REUSE EXISTING LIGHT POLE AND FIXTURE.

12 REMOVE EXISTING ELECTRIC BOXES, AC UNITS & CONCRETE PAD.

13 REMOVE AND DISPOSE OF EXISTING TREES; SEE TREE REMOVAL PLAN L0.1-L0.2

14 REMOVE EXISTING WATER SERVICE LINE.

15 REMOVE & DISPOSE OF EXISTING TRENCH DRAIN.

16 SAWCUT EXISTING CURB TO CLEAN EDGE.

17 SAWCUT EXISTING SIDEWALK TO CLEAN EDGE.

18 SAWCUT EXISTING PAVEMENT TO CLEAN EDGE.

19 REMOVE & DISPOSE OF EXISTING STORM STRUCTURE.

20 REMOVE & DISPOSE OF EXISTING SANITARY MANHOLE.

21 REMOVE & DISPOSE OF EXISTING ASPHALT PAVEMENT.

22 MILL TOP 2" OF ASPHALT PAVEMENT.

23 REMOVE EXISTING PARKING STALL MARKINGS FROM ENTIRE PARKING BAY NOTED.

24 EXISTING TREE; PROTECT IN PLACE. SEE TREE PROTECTION PLAN L0.1 - L0.2

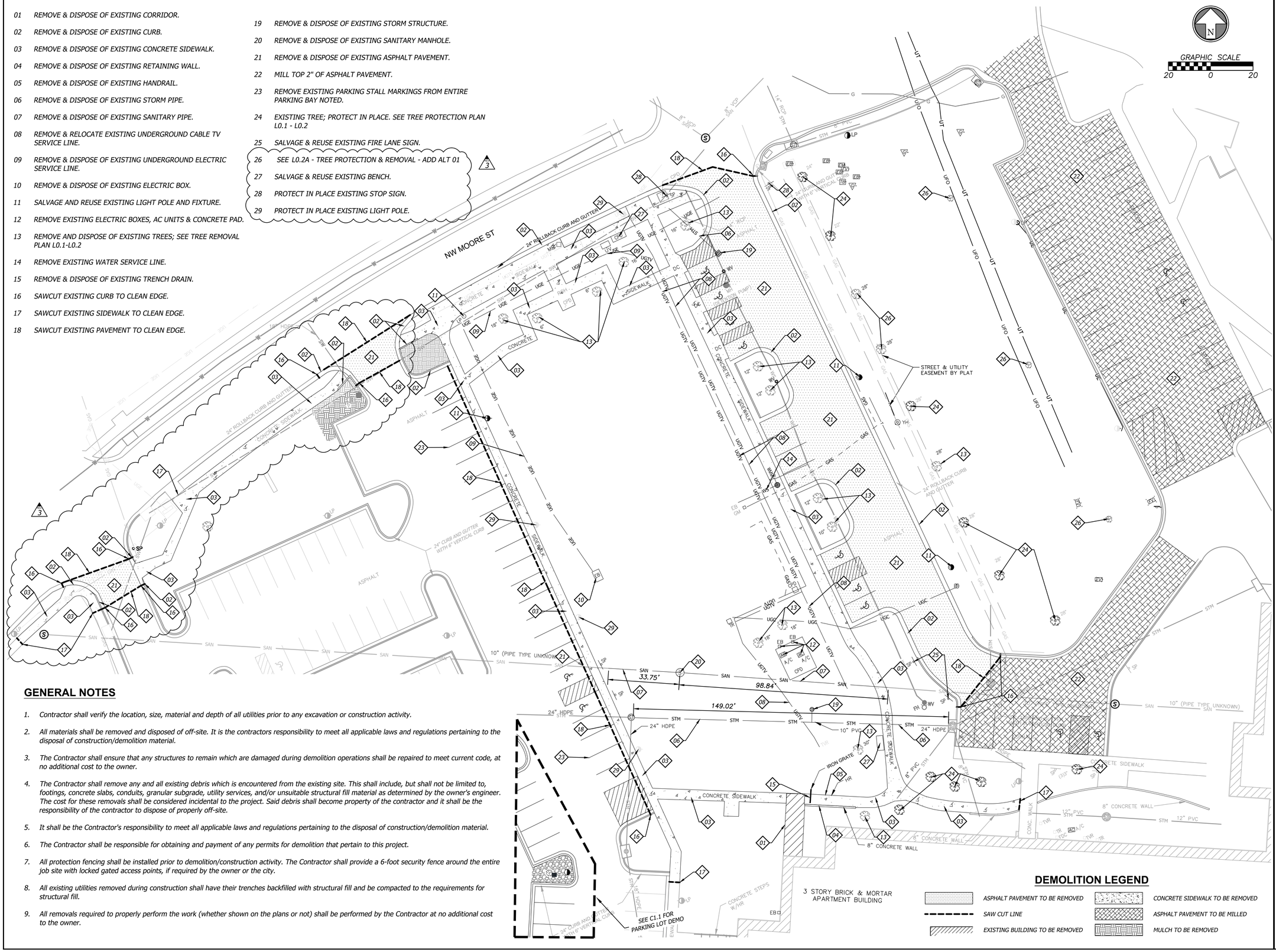
25 SALVAGE & REUSE EXISTING FIRE LANE SIGN.

26 SEE L0.2A - TREE PROTECTION & REMOVAL - ADD ALT 01

27 SALVAGE & REUSE EXISTING BENCH.

28 PROTECT IN PLACE EXISTING STOP SIGN.

29 PROTECT IN PLACE EXISTING LIGHT POLE.



GENERAL NOTES

1. *Contractor shall verify the location, size, material and depth of all utilities prior to any excavation or construction activity.*
2. *All materials shall be removed and disposed of off-site. It is the contractors responsibility to meet all applicable laws and regulations pertaining to the disposal of construction/demolition material.*
3. *The Contractor shall ensure that any structures to remain which are damaged during demolition operations shall be repaired to meet current code, at no additional cost to the owner.*
4. *The Contractor shall remove any and all existing debris which is encountered from the existing site. This shall include, but shall not be limited to, footings, concrete slabs, conduits, granular subgrade, utility services, and/or unsuitable structural fill material as determined by the owner's engineer. The cost for these removals shall be considered incidental to the project. Said debris shall become property of the contractor and it shall be the responsibility of the contractor to dispose of properly off-site.*
5. *It shall be the Contractor's responsibility to meet all applicable laws and regulations pertaining to the disposal of construction/demolition material.*
6. *The Contractor shall be responsible for obtaining and payment of any permits for demolition that pertain to this project.*
7. *All protection fencing shall be installed prior to demolition/construction activity. The Contractor shall provide a 6-foot security fence around the entire job site with locked gated access points, if required by the owner or the city.*
8. *All existing utilities removed during construction shall have their trenches backfilled with structural fill and be compacted to the requirements for structural fill.*
9. *All removals required to properly perform the work (whether shown on the plans or not) shall be performed by the Contractor at no additional cost to the owner.*

DEMOLITION LEGEND

- ASPHALT PAVEMENT TO BE REMOVED
- SAW CUT LINE
- EXISTING BUILDING TO BE REMOVED
- CONCRETE SIDEWALK TO BE REMOVED
- ASPHALT PAVEMENT TO BE MILLED
- MULCH TO BE REMOVED

STATE OF MISSOURI
ERIC BYRD
03/07/2024
NUMBER PE-2010013633
PROFESSIONAL ENGINEER

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FINAL DEVELOPMENT PLAN

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

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ARCHITECT : DAS		CHECKED : ERB	
ENGINEER : ERB		APPROVED : ERB	
NO.	REVISION DESCRIPTION		DATE
1	FDP RESUBMITTAL		2/23/2024
3	Addendum 1		3/7/2024

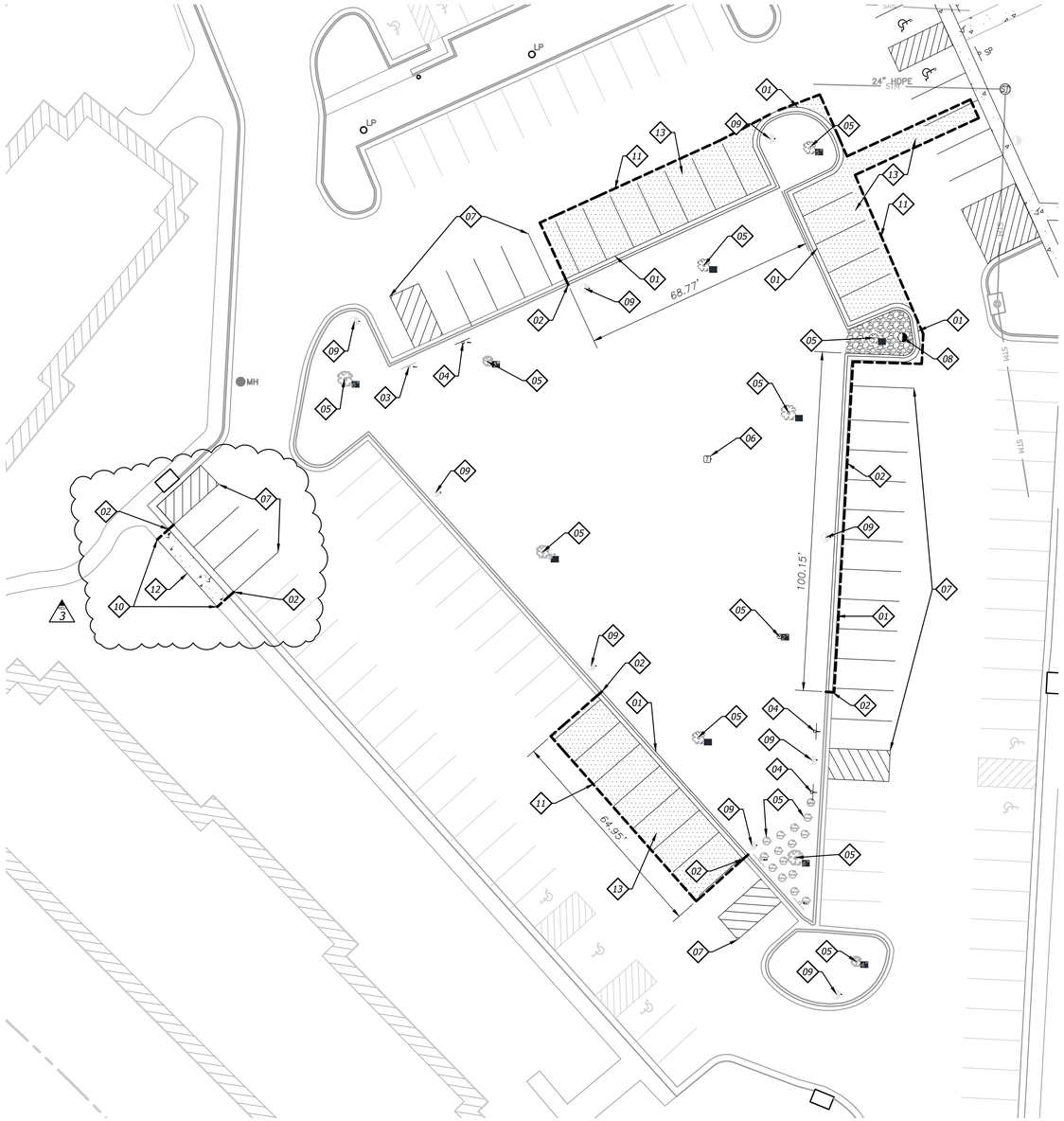
DRAWING TITLE

DEMOLITION PLAN

DATE: December 1, 2023

COMM. NO. 23104.00

DRAWING C1.0



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9. *All removals required to properly perform the work (whether shown on the plans or not) shall be performed by the Contractor at no additional cost to the owner.*

00 DEMOLITION NOTES

01 REMOVE & DISPOSE OF EXISTING CURB.

02 SAWCUT EXISTING CURB TO CLEAN EDGE.

03 PROTECT IN PLACE EXISTING SIGN.

04 SALVAGE & REUSE EXISTING SIGN.

05 SEE L0.2B - TREE PROTECTION & REMOVAL - ADD ALT 02.

06 SALVAGE AND REUSE EXISTING TELEPHONE BOX. NEW LOCATION TO BE COORDINATED WITH OWNER.

07 REMOVE EXISTING PARKING STALL MARKINGS.

08 SALVAGE AND REUSE EXISTING LIGHT POLE AND FIXTURE.

09 EXISTING LIGHT POLE AND FIXTURE; PROTECT IN PLACE.

3

10 SAWCUT EXISTING SIDEWALK TO CLEAN EDGE.

11 SAWCUT EXISTING PAVEMENT TO CLEAN EDGE.

12 REMOVE & DISPOSE OF EXISTING CONCRETE SIDEWALK.

13 REMOVE & DISPOSE OF EXISTING ASPHALT PAVEMENT.

N

GRAPHIC SCALE

20 0 20

DEMOLITION LEGEND

- *SAW CUT LINE*
- *EXISTING BUILDING*
- *GRAVEL PATCH TO BE DISPOSED OF*
- *ASPHALT PAVEMENT TO BE REMOVED*
- *CONCRETE SIDEWALK TO BE REMOVED*

BID ALTERNATE 2

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DRAWING TITLE

PARKING LOT
DEMOLITION PLAN

DATE: December 1, 2023

COMM. NO. 23104.00

DRAWING C1.1

SITE		
SITE AREA:	1.72	AC
	75,000	SF
IMPERVIOUS AREA:		
EXISTING:	34,880	SF (46.5%)
PROPOSED:	43,200	SF (57.6%)
BUILDING		
BUILDING FOOTPRINT AREA :	19,000	SF (25.3%)
GROSS BUILDING AREA:	72,120	SF
52 UNITS		
PARKING		
PARKING REQUIRED:	52	
1 PER UNIT		
*PARKING PROVIDED:	52	TOTAL
	10	HANDICAP
	(4 VAN)	
*REFER TO PARKING NARRATIVE		

SECTION MAP

SECTION 01-T47N-R32W

LEGAL DESCRIPTION

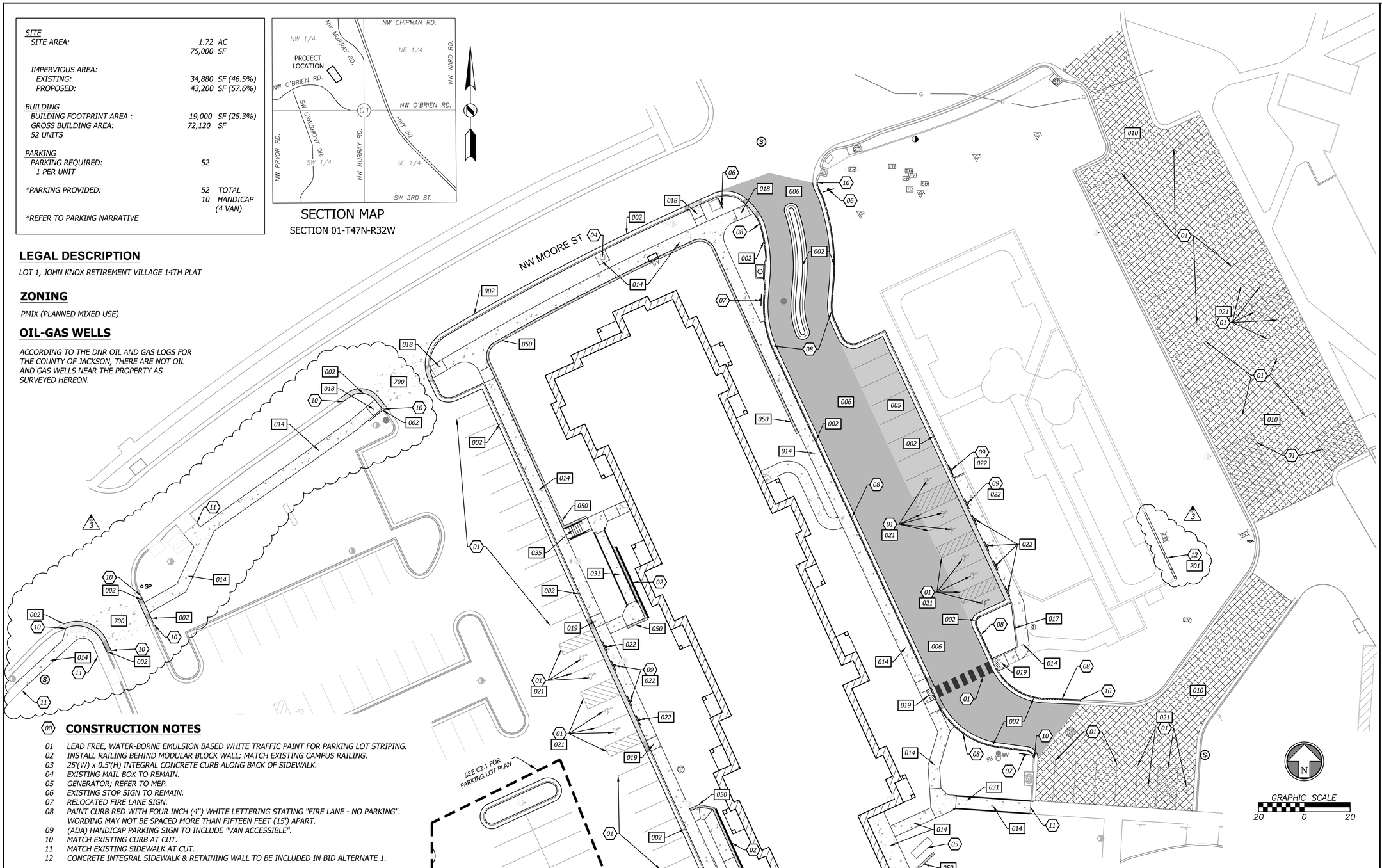
LOT 1, JOHN KNOX RETIREMENT VILLAGE 14TH PLAT

ZONING

PMIX (PLANNED MIXED USE)

OIL-GAS WELLS

ACCORDING TO THE DNR OIL AND GAS LOGS FOR THE COUNTY OF JACKSON, THERE ARE NOT OIL AND GAS WELLS NEAR THE PROPERTY AS SURVEYED HEREON.



00 CONSTRUCTION NOTES

01 *LEAD FREE, WATER-BORNE EMULSION BASED WHITE TRAFFIC PAINT FOR PARKING LOT STRIPING.*
02 *INSTALL RAILING BEHIND MODULAR BLOCK WALL; MATCH EXISTING CAMPUS RAILING.*
03 *25'(W) x 0.5'(H) INTEGRAL CONCRETE CURB ALONG BACK OF SIDEWALK.*
04 *EXISTING MAIL BOX TO REMAIN.*
05 *GENERATOR; REFER TO MEP.*
06 *EXISTING STOP SIGN TO REMAIN.*
07 *RELOCATED FIRE LANE SIGN.*
08 *PAINT CURB RED WITH FOUR INCH (4") WHITE LETTERING STATING "FIRE LANE - NO PARKING". WORDING MAY NOT BE SPACED MORE THAN FIFTEEN FEET (15') APART.*
09 *(ADA) HANDICAP PARKING SIGN TO INCLUDE "VAN ACCESSIBLE".*
10 *MATCH EXISTING CURB AT CUT.*
11 *MATCH EXISTING SIDEWALK AT CUT.*
12 *CONCRETE INTEGRAL SIDEWALK & RETAINING WALL TO BE INCLUDED IN BID ALTERNATE 1.*

000 DETAILS

SEE CONSTRUCTION DETAILS - SHEETS C7.0-C7.3

002 *CONCRETE CURB & GUTTER; RE. LEGEND FOR TYPE*
005 *NORMAL DUTY ASPHALT PAVEMENT*
006 *HEAVY DUTY ASPHALT PAVEMENT*
010 *ASPHALT PAVEMENT OVERLAY*
014 *CONCRETE SIDEWALK*
017 *SIDEWALK CURB*
018 *SIDEWALK RAMP (PUBLIC)*
019 *SIDEWALK RAMP (PRIVATE)*
021 *(ADA) HANDICAP PARKING STRIPING*
022 *(ADA) HANDICAP PARKING SIGNAGE*
031 *CONCRETE RAMP WITH HANDRAIL*
035 *CONCRETE STAIR & HANDRAIL*
050 *MODULAR BLOCK RETAINING WALL*
700 *CONCRETE DRIVEWAY ENTRANCE WITH BUFFER*
701 *INTEGRAL SIDEWALK & RETAINING WALL*

GRAPHIC SCALE
20 0 20

SITE LEGEND

- *PROPOSED BUILDING*
- *EXISTING BUILDING*
- *ASPHALT PAVEMENT OVERLAY*
- *NORMAL DUTY ASPHALT PAVEMENT*
- *HEAVY DUTY ASPHALT PAVEMENT*
- *KCMMB 4K CONCRETE PAVEMENT*
- *HAND RAIL*
- *PAINTED "FIRE LANE" CURB*
- *RETAINING WALL RAILING*
- *ROLLOVER CURB & GUTTER*
- *STANDARD CURB & GUTTER*
- *DRY CURB & GUTTER*
- *STANDARD ZERO HEIGHT CURB*
- *TRANSITION CURB*
- *RETAINING WALL*
- *CONCRETE SIDEWALK*
- *EXISTING MULCH*

STATE OF MISSOURI
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FINAL
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PROJECT TITLE

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ENGINEER : ERB	APPROVED : ERB

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3	Addendum 1	3/7/2024

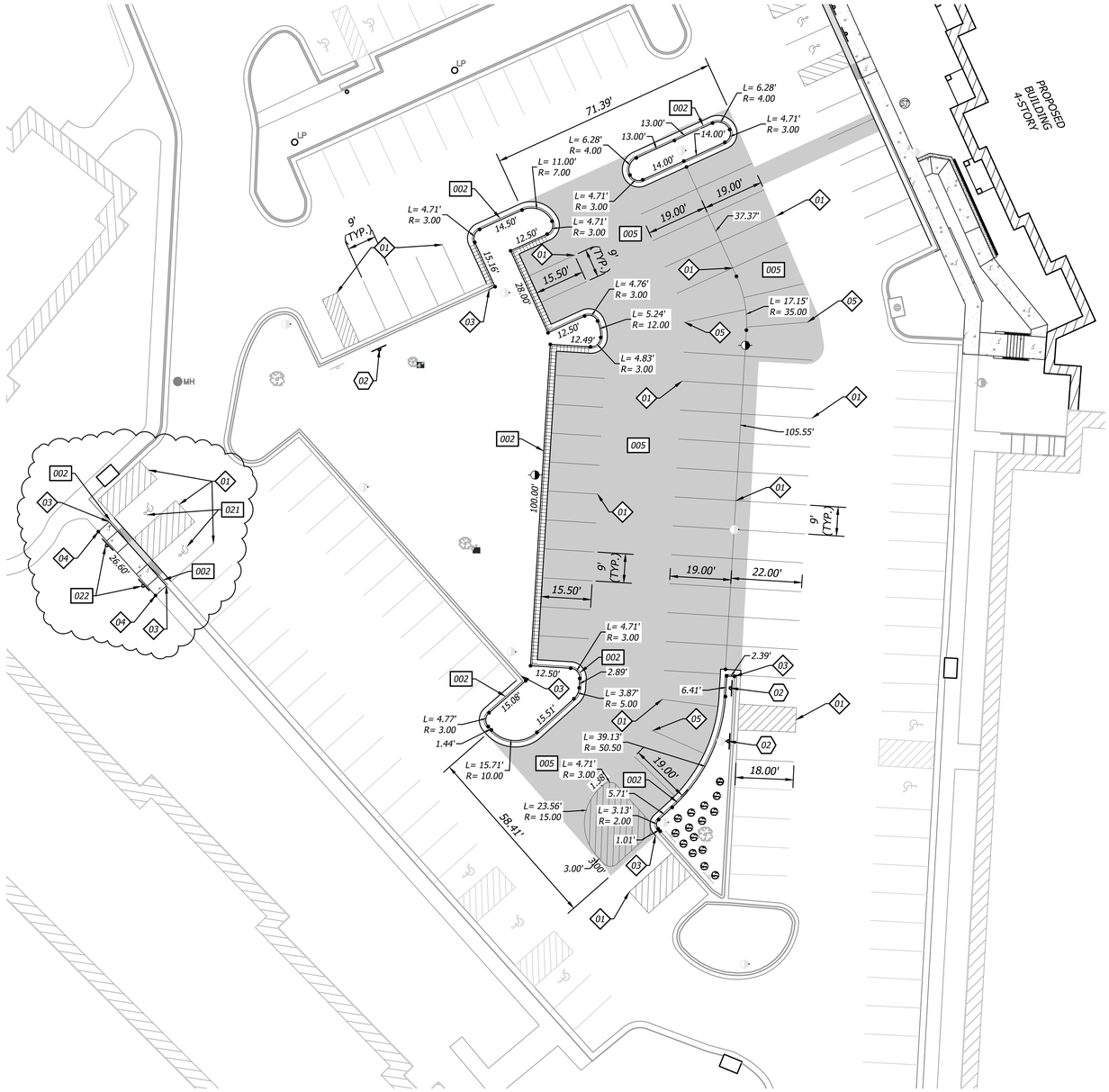
DRAWING TITLE

SITE PLAN

DATE: December 1, 2023

COMM. NO. 23104.00

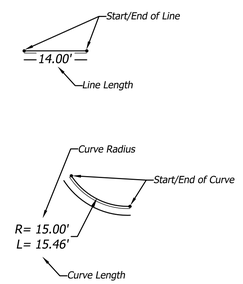
DRAWING C2.0



DIMENSION NOTES

1. *ALL DIMENSIONS ARE TO/ALONG BACK OF CURB UNLESS OTHERWISE NOTED*
2. *ALL DIMENSIONS ARE TO BOTTOM OF WALL UNLESS OTHERWISE NOTED*

DIMENSION LEGEND



00 CONSTRUCTION NOTES

01	*LEAD FREE, WATER-BORNE EMULSION BASED WHITE TRAFFIC PAINT FOR PARKING LOT STRIPING*
02	*RELOCATED MOBILITY PARKING SIGN*
03	*MATCH EXISTING CURB AT CUT*
04	*MATCH EXISTING SIDEWALK AT CUT*
05	*ALL CURVED PARKING SPOTS TO BE A MINIMUM WIDTH OF 9' AND MINIMUM LENGTH OF 19'*

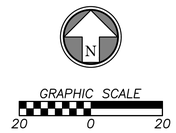
000 DETAILS

SEE CONSTRUCTION DETAILS - SHEETS C7.0-C7.3

002	*CONCRETE CURB & GUTTER; RE. LEGEND FOR TYPE*
005	*NORMAL DUTY ASPHALT PAVEMENT*
021	*(ADA) HANDICAP PARKING STRIPING*
022	*(ADA) HANDICAP PARKING SIGNAGE*

SITE LEGEND

- *PROPOSED BUILDING*
- *EXISTING BUILDING*
- *NORMAL DUTY ASPHALT PAVEMENT*
- *DRY CURB & GUTTER*
- *STANDARD CURB & GUTTER*
- *TRANSITION CURB*
- *STANDARD ZERO HEIGHT CURB*
- *CONCRETE SIDEWALK*



BID ALTERNATE 2

STATE OF MISSOURI
ERIC BYRD
09/07/2024
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PROFESSIONAL ENGINEER

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3	Addendum 1	3/7/2024

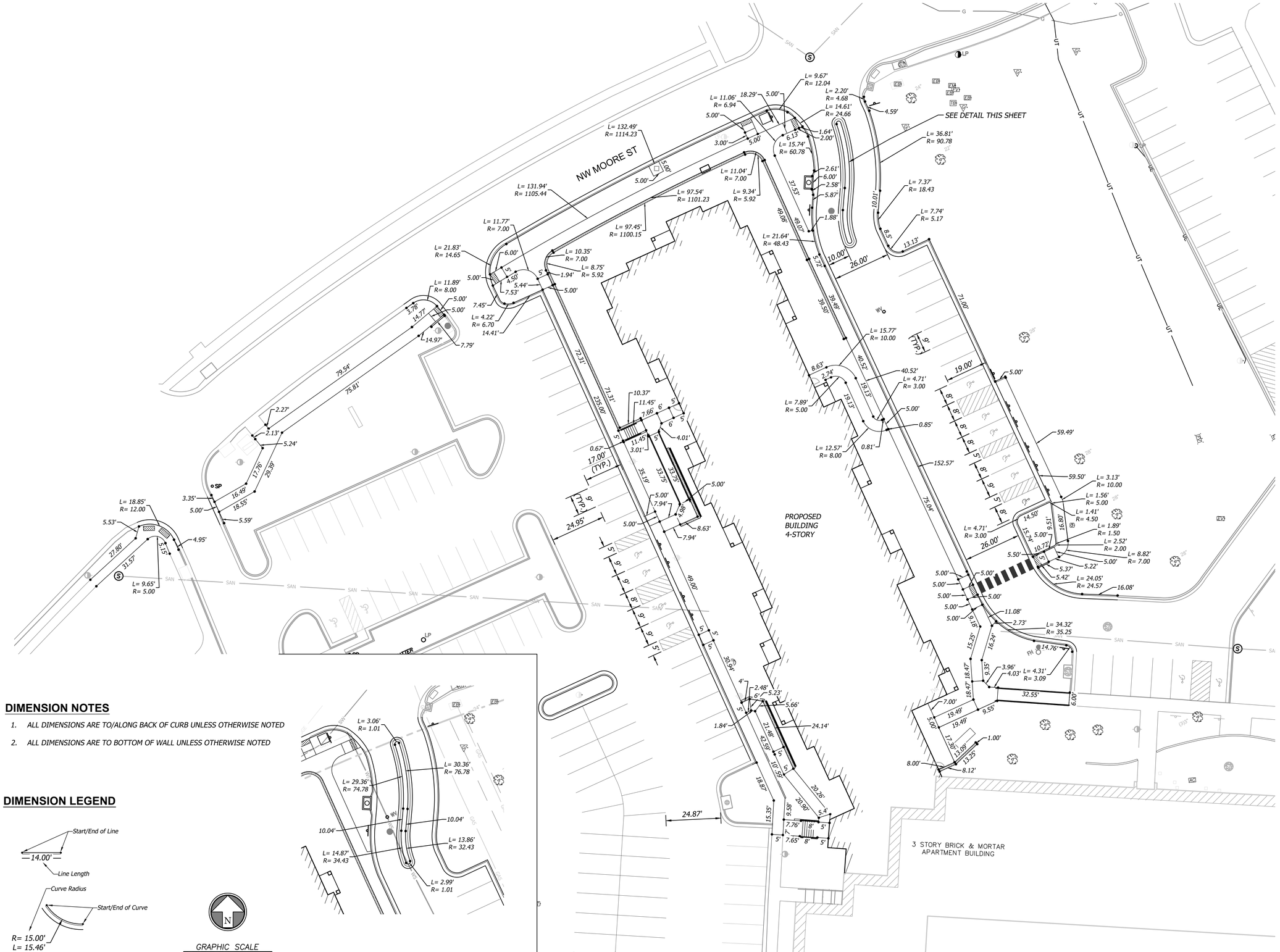
DRAWING TITLE

PARKING LOT SITE PLAN

DATE: December 1, 2023

COMM. NO. 23104.00

DRAWING C2.1



DIMENSION NOTES

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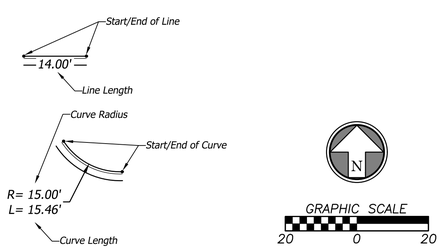
2. ALL DIMENSIONS ARE TO BOTTOM OF WALL UNLESS OTHERWISE NOTED

DIMENSION LEGEND



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DRAWING TITLE

DIMENSION PLAN

DATE: December 1, 2023

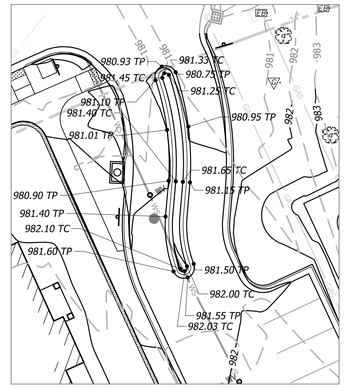
COMM. NO. 23104.00

DRAWING C3.0

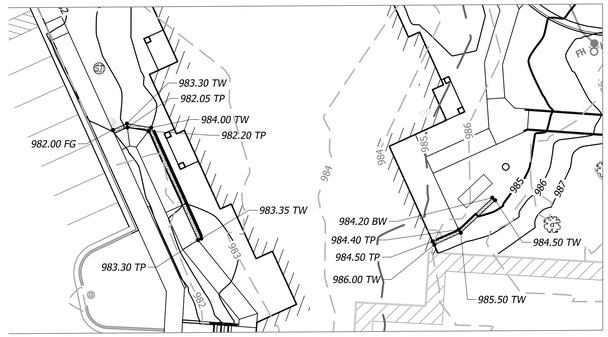
DETAILED GRADING LEGEND

0000.00 FG	FINISHED GRADE ELEVATION
0000.00 TC	TOP OF CURB ELEVATION
0000.00 TP	TOP OF PAVEMENT ELEVATION
0000.00 TW	FG @ TOP OF RETAINING WALL
0000.00 BW	FG @ BOTTOM OF RETAINING WALL
0000.00 ME	MATCH EXISTING GRADE
0000.00 TE	TOP ELEVATION OF STRUCTURE

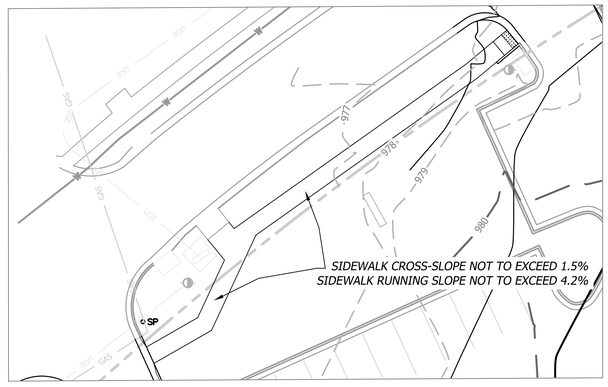
ISLAND



RETAINING WALLS



WEST SIDEWALK



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DRAWING TITLE

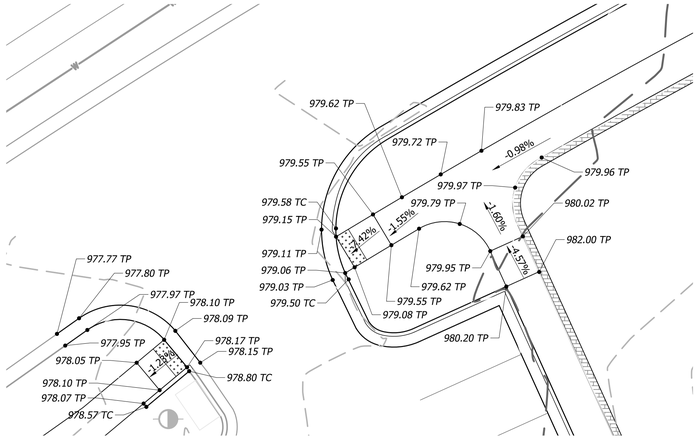
DETAILED GRADING PLAN

DATE: December 1, 2023

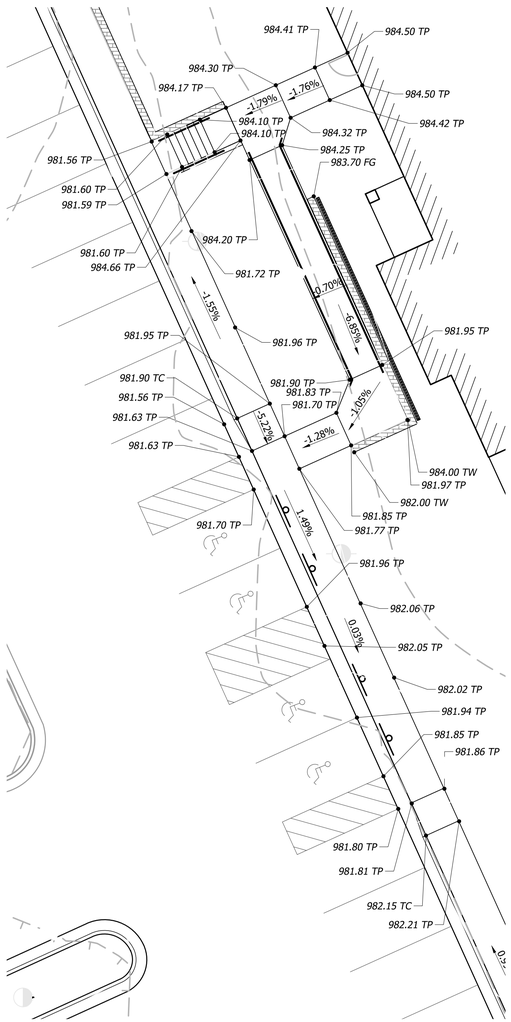
COMM. NO. 23104.00

DRAWING C4.1

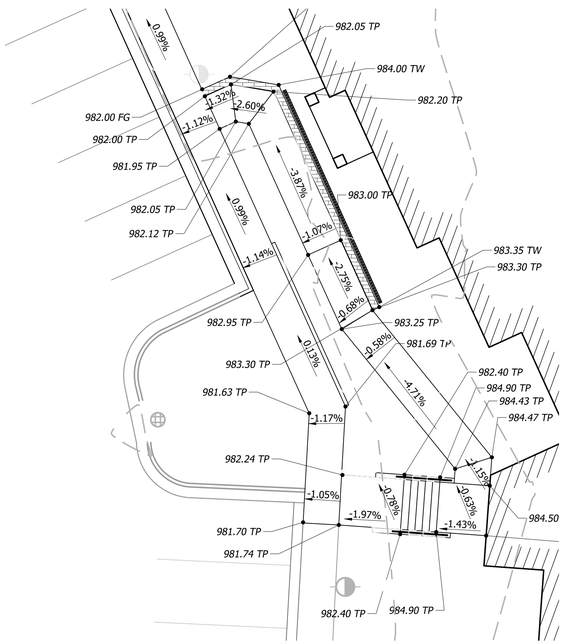
NORTHWEST SECTION



WEST SECTION



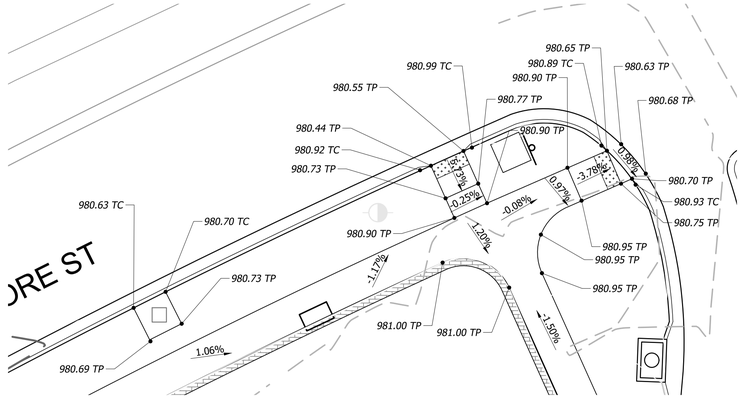
SOUTHWEST SECTION



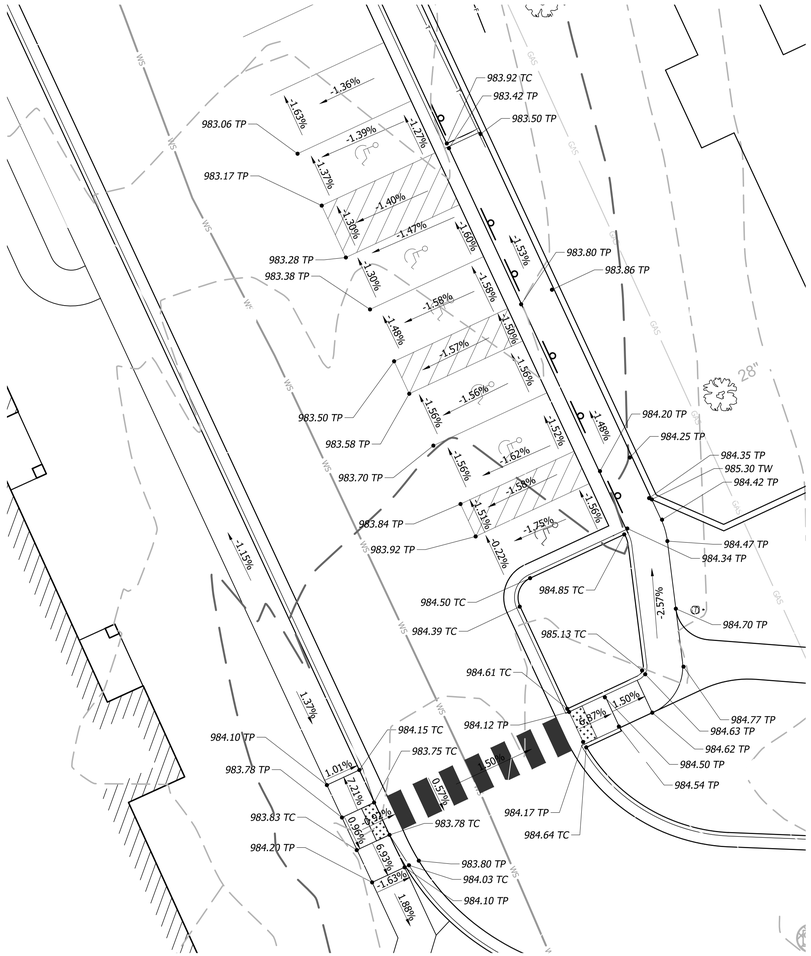
DETAILED GRADING LEGEND

0000.00 FG	FINISHED GRADE ELEVATION
0000.00 TC	TOP OF CURB ELEVATION
0000.00 TP	TOP OF PAVEMENT ELEVATION
0000.00 TW	FG @ TOP OF RETAINING WALL
0000.00 BW	FG @ BOTTOM OF RETAINING WALL
0000.00 ME	MATCH EXISTING GRADE
0000.00 TE	TOP ELEVATION OF STRUCTURE
1.00%	SLOPE INDICATOR

NORTHEAST SECTION



EAST SECTION



GRAPHIC SCALE
10 0 10

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3	Addendum 1	3/7/2024

DRAWING TITLE

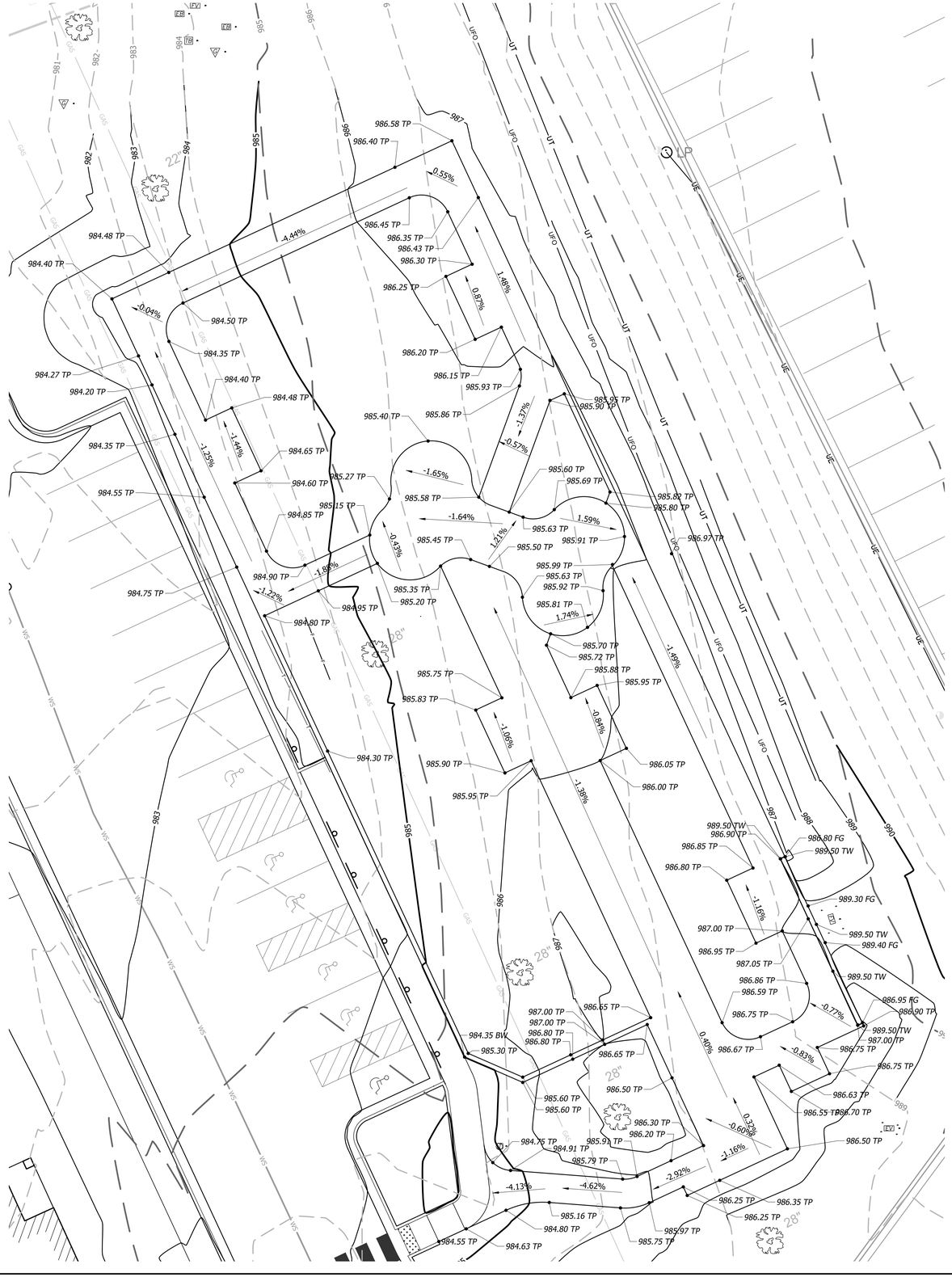
ADA GRADING PLAN

DATE: December 1, 2023

COMM. NO. 23104.00

DRAWING C4.2

DOGPARK SECTION



DETAILED GRADING LEGEND

0000.00 FG	FINISHED GRADE ELEVATION
0000.00 TC	TOP OF CURB ELEVATION
0000.00 TP	TOP OF PAVEMENT ELEVATION
0000.00 TW	FG @ TOP OF RETAINING WALL
0000.00 BW	FG @ BOTTOM OF RETAINING WALL
0000.00 ME	MATCH EXISTING GRADE
0000.00 TE	TOP ELEVATION OF STRUCTURE
1.00%	SLOPE INDICATOR

GRAPHIC SCALE
10 0 10

BID ALTERNATE 1

STATE OF MISSOURI
ERIC BYRD
03/07/2024
NUMBER PE-2010013633
PROFESSIONAL ENGINEER

BHC
CIVIL ENGINEERING / SURVEYING / UTILITIES
7101 College Blvd., Suite 400
Overland Park, Kansas 66210
p. (913) 663-1900
BHC is a trademark of Brungardt Honomichl & Company, P.A.

FINAL
DEVELOPMENT PLAN

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon St. - Suite 207
Charlotte, North Carolina 28203.4633
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

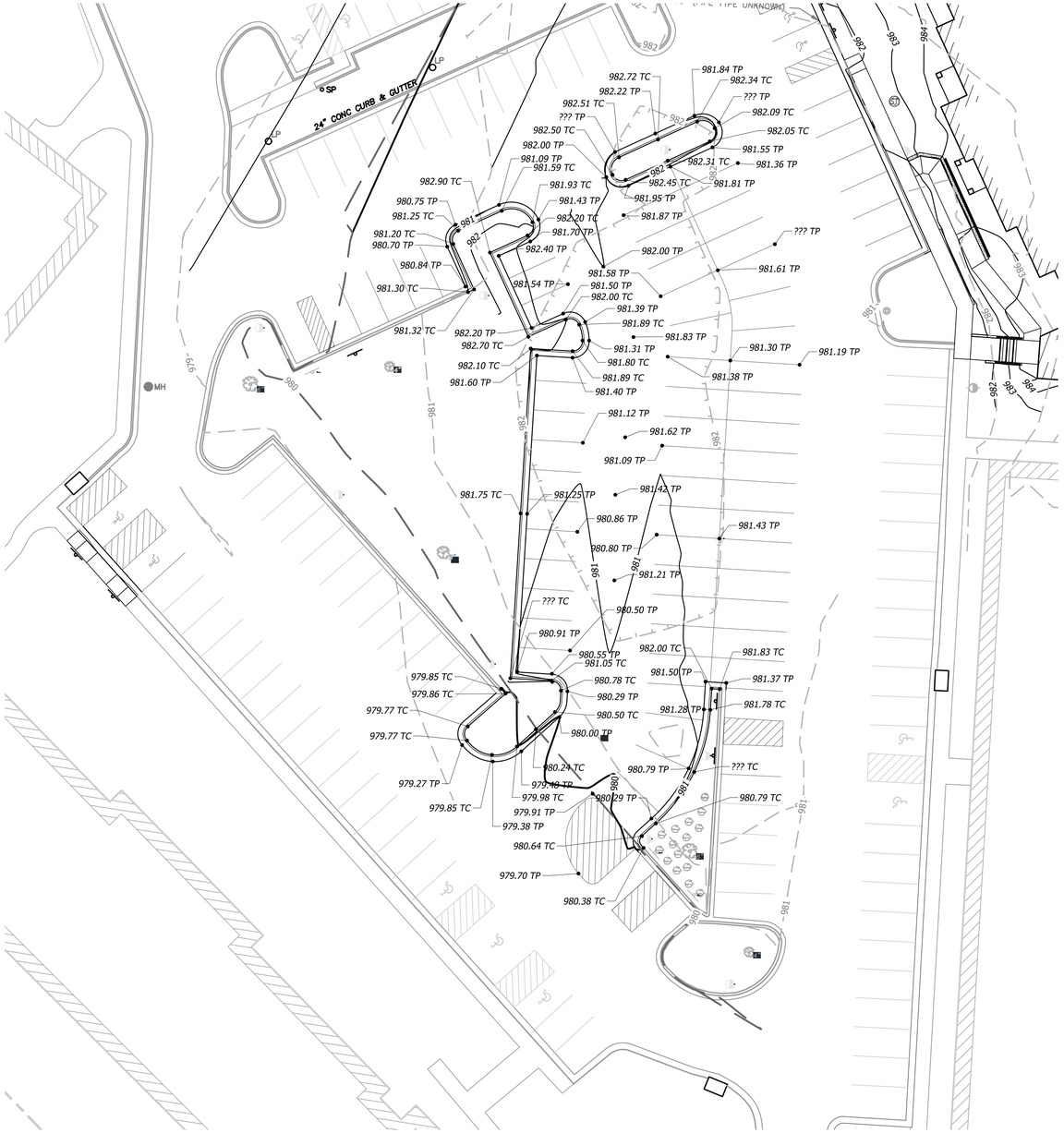
DESIGNER : DAS		DRAWN : ARK	
ARCHITECT : DAS		CHECKED : ERB	
ENGINEER : ERB		APPROVED : ERB	
NO.	REVISION DESCRIPTION		DATE
1	FDP RESUBMITTAL		2/23/2024
3	Addendum 1		3/7/2024

DRAWING TITLE

DOG PARK DETAILED GRADING PLAN

DATE: December 1, 2023
COMM. NO. 23104.00
DRAWING C4.3

SOUTHWEST PARKING LOT



DETAILED GRADING LEGEND

0000.00 FG	FINISHED GRADE ELEVATION
0000.00 TC	TOP OF CURB ELEVATION
0000.00 TP	TOP OF PAVEMENT ELEVATION
0000.00 TW	FG @ TOP OF RETAINING WALL
0000.00 BW	FG @ BOTTOM OF RETAINING WALL
0000.00 ME	MATCH EXISTING GRADE
0000.00 TE	TOP ELEVATION OF STRUCTURE
1.00%	SLOPE INDICATOR

N

GRAPHIC SCALE

20 0 20

BID ALTERNATE 2

STATE OF MISSOURI
ERIC BYRD
09/07/2024
NUMBER PE-2010013633
PROFESSIONAL ENGINEER

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ARCHITECT : DAS	CHECKED : ERB
ENGINEER : ERB	APPROVED : ERB

NO.	REVISION DESCRIPTION	DATE
1	FDP RESUBMITTAL	2/23/2024
3	Addendum 1	3/7/2024

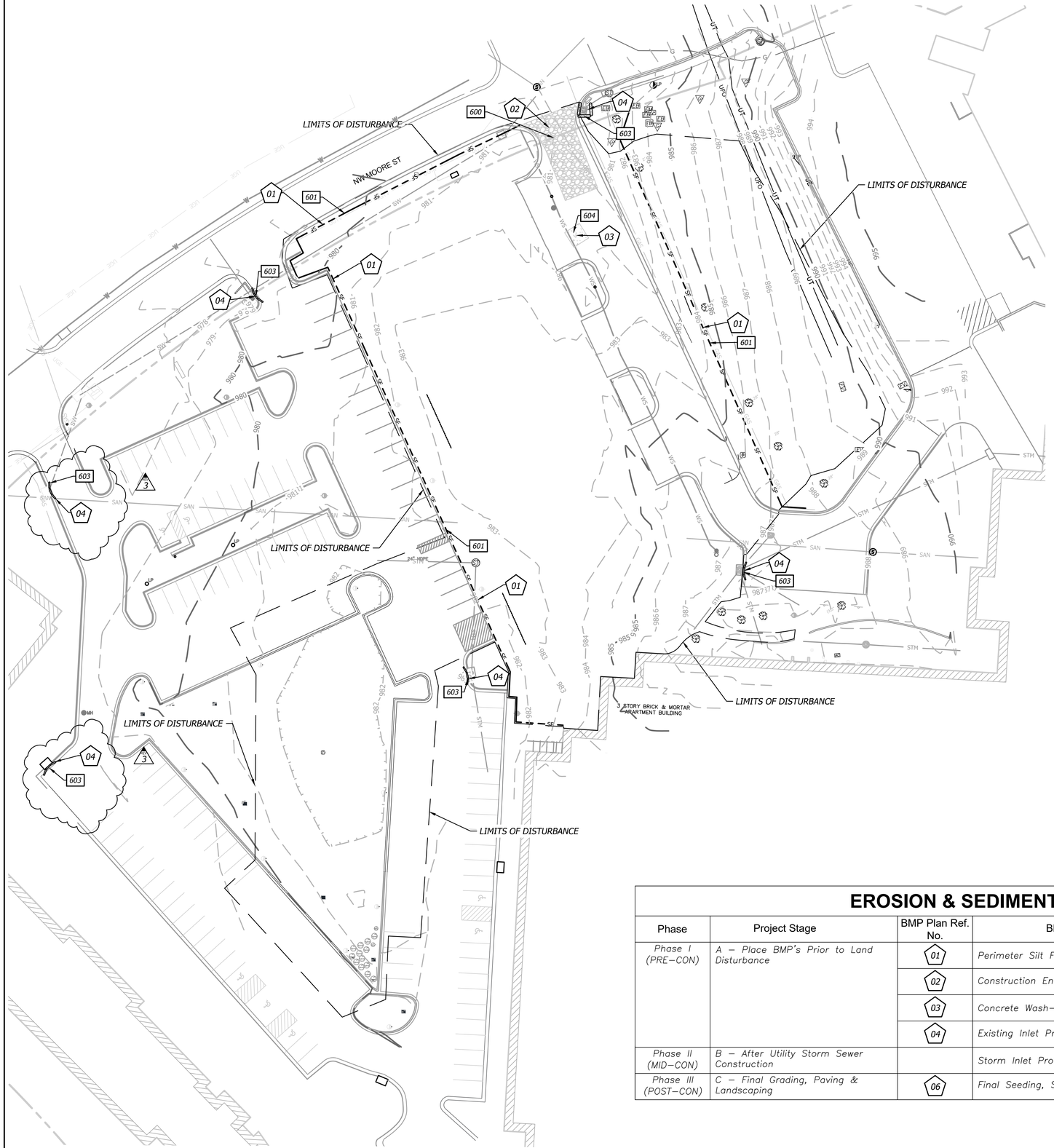
DRAWING TITLE

PARKING LOT DETAILED GRADING PLAN

DATE: December 1, 2023

COMM. NO. 23104.00

DRAWING C4.4



EROSION AND SEDIMENT CONTROL GENERAL NOTES

1. Prior to Land Disturbance activities, the contractor shall:
   - Delineate the outer limits of any natural stream corridor designated with construction fencing.
   - Install perimeter controls and request the inspection of the pre-construction erosion and sediment control measures designated on the approved erosion and sediment control plan. Land disturbance work shall not proceed until there is a satisfactory inspection.
   - Identify the limits of construction on the ground with easily recognizable indications such as construction staking, construction fencing, and placement of physical barriers or other means acceptable to the City inspector and in conformance with the erosion and sediment control plan.

2. The contractor shall comply with all requirements of the Storm Water Pollution Prevention Plan, including but not limited to:
   - The contractor shall seed, mulch, or otherwise stabilize any disturbed area where the land disturbance activity has ceased for more than 14 days.
   - The contractor shall perform inspections of erosion and sediment control measures at the following minimum intervals:
     - o During active construction phases - at least once per week
     - o During periods of inactivity - at least once per 14 days
     - o After each rainfall event of ½ inch or more - within 24 hours of the rain event
   - The contractor shall maintain an inspection log including the inspector's name, date of inspection, observations as to the effectiveness of the erosion and sediment control measures, actions necessary to correct deficiencies, when the deficiencies were corrected, and the signature of the person performing the inspection. The inspection log shall be available for review by the regulatory authority.
   - The contractor shall have the erosion and sediment control plan routinely updated to show all changes and amendments to the plan. A copy of the erosion and sediment control plan shall be kept on site and made available for review by the regulatory authority.

3. Unless otherwise noted in the plans, all seeding must conform to Division II-Construction and Materials Specification-Section 2150 published by the Kansas City Metropolitan Chapter of the American Public Works Association dated May 21, 2008. Permanent seeding shall be installed after completion of final grading except when seeding will occur outside of the acceptable seeding season as specified in Section 2150. When temporary seeding is installed, permanent seeding shall be installed at the next seeding season. Temporary seeding shall not be used as a stabilization measure for a period exceeding 12 months. The Permit will not be closed until permanent seeding has been established to a minimum of 70% density over the entire disturbed area.

4. The contractor shall maintain installed erosion and sediment control devices in a manner that preserves their effectiveness for preventing sediment from leaving the site or entering a sensitive area such as a natural stream corridor, areas of the site intended to be left undisturbed, a storm sewer, or an on-site drainage channel.

5. The contractor is responsible for providing erosion and sediment control for the duration of a project. If the City determines that the BMPs in place do not provide adequate erosion and sediment control at any time during the project, the contractor shall install additional or alternate measures that provide effective control.

6. Concrete wash or rinse water from concrete mixing equipment, tools and/or ready-mix trucks, tools, etc. may not be discharged into or be allowed to run directly into any existing water body or storm inlet. One or more locations for concrete wash out will be designated on site, such that discharges during concrete washout will be contained in a small area where waste concrete can solidify in place.

7. Chemicals or materials capable of causing pollution may only be stored onsite in their original container. Materials stored outside must be in closed and sealed water-proof containers and located outside of drainage ways or areas subject to flooding. Locks and other means to prevent or reduce vandalism shall be used. Spills will be reported as required by law and immediate actions taken to contain them.

8. Silt fences and erosion control BMPs which are shown along the back of curb must be installed within two weeks of curb backfill and prior to placement of base asphalt. Exact locations of these erosion control methods may be field adjusted to minimize conflicts with utility construction; however, anticipated disturbance by utility construction shall not delay installation.

9. Interior Silt Fence as necessary during construction. Portions may be limited as vegetation is established and hardscape is installed. Entire length may be installed at the contractor's option to aid in stabilizing slopes.

10. Private Erosion & Sediment Control inspections are required in accordance with NPDES schedule and requirements. After inspections, provide the City of Lee's Summit with reports and documentation.

EROSION CONTROL LEGEND

- DISTURBED AREA (1.73 AC)
- SILT/SEDIMENT FENCE
- INLET PROTECTION FILTER BAGS
- CONSTRUCTION ENTRANCE
- CONCRETE CLEANOUT

GRAPHIC SCALE
30 0 30

000 DETAILS

- *SEE EROSION CONTROL DETAIL SHEET FOR THE FOLLOWING*

600 TEMPORARY CONSTRUCTION ENTRANCE
601 FILTER FABRIC SILT FENCE
603 STORM INLET PROTECTION
604 CONCRETE WASH-OUT

EROSION & SEDIMENT CONTROL STAGING CHART

Phase	Project Stage	BMP Plan Ref. No.	BMP Description	Remove After Stage:	Notes:
Phase I (PRE-CON)	A – Place BMP's Prior to Land Disturbance	01	Perimeter Silt Fence	C	Place as shown on plan
		02	Construction Entrance & Staging Area	C	Place as shown on plan
		03	Concrete Wash-Out	C	Place as shown on plan
		04	Existing Inlet Protection	C	Place as shown on plan
Phase II (MID-CON)	B – After Utility Storm Sewer Construction		Storm Inlet Protection	C	Place as shown on plan
Phase III (POST-CON)	C – Final Grading, Paving & Landscaping	06	Final Seeding, Sod, and Landscaping	N/A	Silt fencing & inlet protect may be removed once seed & sodded areas are established on 80% of site.

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PROJECT TITLE

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ENGINEER : ERB	APPROVED : ERB

NO.	REVISION DESCRIPTION	DATE
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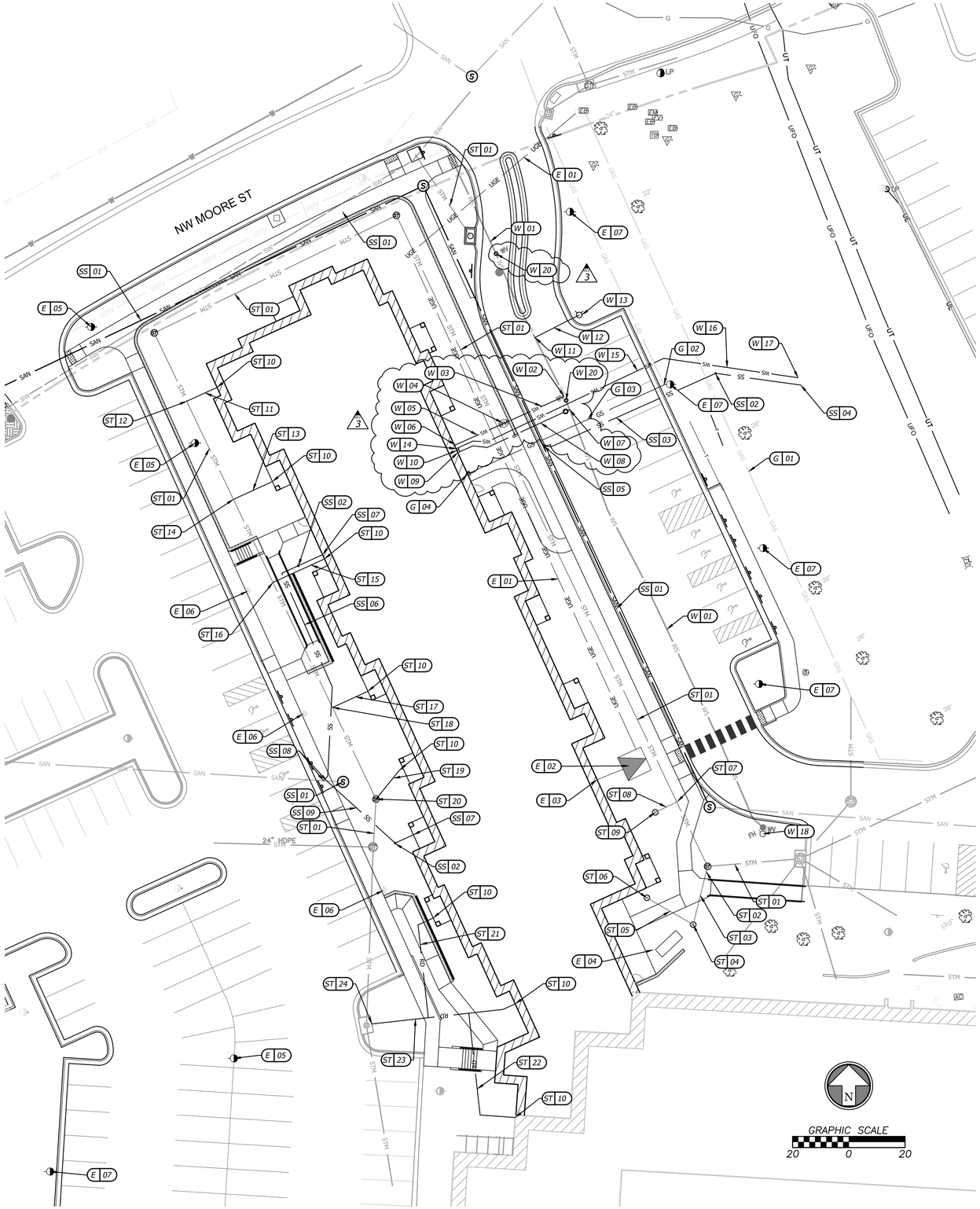
3	Addendum 1	3/7/2024

DRAWING TITLE

PRE-CONSTRUCTION
EROSION CONTROL PLAN

DATE: December 1, 2023
COMM. NO. 23104.00
DRAWING C5.0



X 00 UTILITY CONSTRUCTION NOTES

W - WATER SERVICE INFORMATION - LEE'S SUMMIT WATER UTILITIES

01 EXISTING 6" WATER MAIN LINE.
02 CONNECT TO WATER MAIN WITH 2" CORPORATION STOP; REFER TO CONNECTION DETAIL.
03 INSTALL 22 LF OF 2" TYPE K COPPER SERVICE LINE WITH MINIMUM DEPTH OF COVER OF 42".
04 INSTALL 2" METER IN PIT AND 2"X3" REDUCER AFTER METER.
05 INSTALL 21 LF OF 3" SERVICE LINE WITH MINIMUM DEPTH OF COVER OF 42". THE FIRST 10' OF PIPE BEYOND THE METER SHALL BE COPPER AND THE REMAINING PIPE CAN BE C-900.
06 CONNECT WATER SERVICE TO BUILDING; SEE PLUMBING PLANS.
07 CONNECT TO WATER MAIN WITH 6"X6" TEE AND 6" GATE VALVE.
08 INSTALL 43 LF OF 6" C-900 FIRE PROTECTION LINE WITH MINIMUM DEPTH OF COVER OF 42".
09 CONNECT FIRE PROTECTION LINE TO BUILDING PLUMBING ; SEE MEP PLANS.
10 FIRE DEPARTMENT CONNECTION.
11 CONNECT TO WATER MAIN WITH 6"X6" TEE AND 6" GATE VALVE.
12 INSTALL 18 LF OF 6" C-900 FIRE PROTECTION LINE WITH MINIMUM DEPTH OF COVER OF 42"
13 INSTALL FIRE HYDRANT ASSEMBLY.
14 PICK UP 3/4" WATER SERVICE STUB FROM BUILDING; SEE PLUMBING PLANS (BID ALTERNATE 1)
15 INSTALL 79 LF OF 3/4" COPPER WATER SERVICE WITH MINIMUM DEPTH OF COVER OF 42" (BID ALTERNATE 1)
16 INSTALL 51 LF OF 3/4" COPPER WATER SERVICE WITH MINIMUM DEPTH OF COVER OF 42" (BID ALTERNATE 1)
17 CONNECT WATER SERVICE TO DOG WATER FOUNTAIN; SEE INSTALLATION GUIDE (BID ALTERNATE 1)
18 EXISTING FIRE HYDRANT ASSEMBLY.
3 20 ADJUST VALVE FROM EXISTING TO PROPOSED ELEVATION PER GRADING PLAN

E - ELECTRIC SERVICE INFORMATION - EVERGY

01 CONTRACTOR TO INSTALL PRIMARY UNDERGROUND ELECTRIC SERVICE FROM EXISTING ELECTRIC STRUCTURE TO TRANSFORMER PAD.
02 PROPOSED TRANSFORMER PAD.
03 CONTRACTOR TO INSTALL SECONDARY UNDERGROUND ELECTRIC SERVICE LINE FROM PROPOSED TRANSFORMER TO BUILDING; REF. ELECTRICAL PLAN.
04 PROPOSED GENERATOR; REFER TO MEP
05 PROPOSED RELOCATED LIGHT POLE; REFER TO MEP
06 EXISTING LIGHT POLE TO REMAIN; REFER TO MEP
07 PROPOSED LIGHT POLE; REFER TO MEP

G - GAS SERVICE INFORMATION - SPIRE

01 EXISTING 4" GAS MAIN.
02 TAP EXISTING GAS MAIN FOR SERVICE LINE; COORDINATE W/ SPIRE.
03 INSTALL 72 LF GAS SERVICE LINE.
04 GAS CONNECTION TO BLDG.; RE: PLUMBING PLAN.

ST - STORM SEWER INFORMATION - LEE'S SUMMIT PUBLIC WORKS

01 STORM SEWER LINE; RE: SHEET C6.2
02 CONNECT TO STORM STRUCTURE; FL = 981.00
03 INSTALL 21 LF 6" HDPE @ 2% SLOPE
04 INSTALL 12" NYLOPLAST DRAIN BASIN WITH DOME GRATE; RIM = 984.00; FL = 981.42
05 INSTALL 19 LF 6" HDPE @ 2% SLOPE
06 INSTALL 8" NYLOPLAST DRAIN BASIN WITH DOME GRATE; RIM = 984.20; FL = 981.80
07 CONNECT TO STORM PIPE WITH INSERT A TEE; FL = 980.00
08 INSTALL 8 LF 6" HDPE @ 2% SLOPE
09 INSTALL 12" NYLOPLAST DRAIN BASIN WITH DOME GRATE; RIM = 983.50; FL = 980.16
10 CONNECT ROOF DRAIN LINE TO BUILDING PLUMBING; REFER TO MEP
11 INSTALL 12 LF 4" HDPE @ MIN. 2% SLOPE
12 CONNECT TO STORM PIPE WITH INSERT A TEE; FL = 977.47
13 INSTALL 15 LF 4" HDPE @ MIN. 2% SLOPE
14 CONNECT TO STORM PIPE WITH INSERT A TEE; FL = 977.18
15 INSTALL 20 LF 4" HDPE @ MIN. 2% SLOPE
16 CONNECT TO STORM PIPE WITH INSERT A TEE; FL = 976.94
17 INSTALL 14 LF 4" HDPE @ MIN. 2% SLOPE
18 CONNECT TO STORM PIPE WITH INSERT A TEE; FL = 976.57
19 INSTALL 14 LF 6" HDPE @ MIN. 2% SLOPE
20 CONNECT TO STORM STRUCTURE; FL = 977.63
21 INSTALL 40 LF 6" HDPE @ MIN. 2% SLOPE
22 INSTALL 50 LF 6" HDPE @ MIN. 2% SLOPE
23 INSTALL 50 LF 4" HDPE @ MIN. 2% SLOPE
24 CONNECT TO STORM STRUCTURE; FL = 977.50

SS - SANITARY SEWER INFORMATION - LEE'S SUMMIT PUBLIC WORKS

01 RELOCATED SANITARY SEWER MAIN; RE: SHEET C6.1
02 INSTALL SANITARY SEWER CLEANOUT
03 INSTALL 98 LF OF 4" PVC-SDR26 SANITARY SERVICE LINE @ 2% MIN. SLOPE (BID ALTERNATE 1)
04 CONNECT SANITARY LINE TO DOG WATER FOUNTAIN; REFER TO INSTALLATION GUIDE (BID ALTERNATE 1)
05 CONNECT TO SANITARY MAIN WITH 8"X4" WYE; FL = 971.52 (BID ALTERNATE 1)
06 INSTALL 95 LF OF 6" PVC-SDR26 SANITARY SERVICE LINE @ 1% MIN. SLOPE
07 CONNECT TO BUILDING PLUMBING; REFER TO MEP
08 CONNECT TO SANITARY MAIN WITH 8"X6" WYE; FL = 970.00
09 INSTALL 40 LF OF 6" PVC-SDR26 SANITARY SERVICE LINE @ 1% MIN. SLOPE

UTILITY CONTACTS

CITY OF LEE'S SUMMIT, MO

PLANNING AND DEVELOPMENT
CITY HALL
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
TEL: (816) 969-1600
FAX: (816) 969-1619

PUBLIC WORKS
CITY HALL
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
TEL: (816) 969-1800
FAX: (816) 969-1809

CODES ADMINISTRATION
CITY HALL
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
TEL: (816) 969-1200
FAX: (816) 969-1201

WATER UTILITIES
CITY HALL
1200 SE HAMBLEN RD
LEE'S SUMMIT, MO 64063
TEL: (816) 969-1900
FAX: (816) 969-1935

ELECTRIC COMPANY
EVERGY
TEL: (888) 471-5275

GAS COMPANY
SPIRE
TEL: (816) 756-5252

PLANNING AND DEVELOPMENT
CITY HALL
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
TEL: (816) 969-1600
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UTILITY NOTES

1. *CONTRACTOR SHALL REFER TO ALL SPECIFICATIONS, GUIDELINES, AND INSTALLATION DRAWINGS FROM THE CITY OF LEE'S SUMMIT, EVERGY, AND SPIRE FOR THE INSTALLATION OF ALL SERVICE LINES.*
2. *THE INFORMATION SHOWN ON THESE PLANS CONCERNING THE TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES FOR FIELD LOCATION OF ALL UNDERGROUND UTILITY LINES PRIOR TO ANY EXCAVATION AND FOR MAKING HIS OWN VERIFICATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.*
3. *CONTRACTOR TO ENSURE 6" MINIMUM SEPARATION BETWEEN UTILITIES AT CROSSINGS. CONTRACTOR TO CALL CIVIL IF ANY CONFLICTS BETWEEN UTILITIES ARE FOUND.*
4. *FIRE LINE NOTES:*
   - 4.1. *ALL PRIVATE FIRE LINES SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 24, AND OTHER APPLICABLE CODES AND STANDARDS.*
   - 4.2. *CONTACT THE FIRE DEPARTMENT TO SCHEDULE INSPECTIONS PRIOR TO PRIVATE FIRE LINES BEING BACKFILLED.*
   - 4.3. *CONTACT THE FIRE DEPARTMENT TO WITNESS SCHEDULED HYDROSTATIC TESTS AND FLUSHES OF PRIVATE FIRE LINES.*
5. *STUB ALL CONNECTIONS TO WITHIN 5' OF THE BUILDING TO PROVIDE CONNECTION INTO THE BUILDING BY MECHANICAL/PLUMBING CONTRACTOR.*
6. *CONTRACTOR TO ENSURE MIN. 18" VERTICAL SEPARATION BETWEEN UTILITIES AT CROSSING. CONTRACTOR TO CALL ENGINEER IF ANY CONFLICTS BETWEEN UTILITIES ARE FOUND.*

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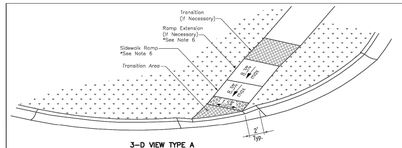
1	FDP RESUBMITTAL	2/23/2024
3	Addendum 1	3/7/2024

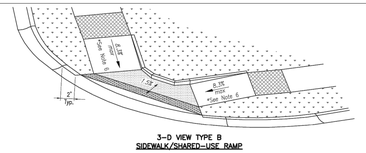
DRAWING TITLE

UTILITY PLAN

DATE: December 1, 2023
COMM. NO. 23104.00
DRAWING C6.0



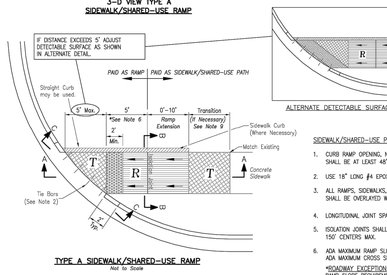
3-D VIEW TYPE A
SIDEWALK/SHARED-USE RAMP



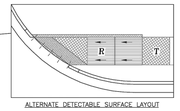
3-D VIEW TYPE B
SIDEWALK/SHARED-USE RAMP

LEGEND

R	SIDEWALK RAMP
TS	TURNING SPACE
	DETECTABLE WARNING SURFACE
T	TRANSITION



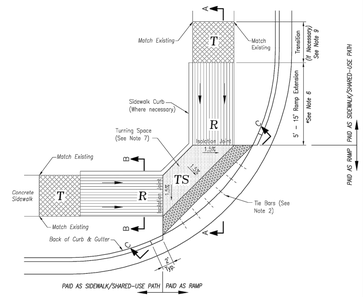
TYPE A SIDEWALK/SHARED-USE RAMP
Not to Scale



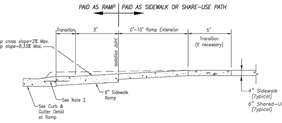
ALTERNATE DETECTABLE SURFACE LAYOUT

SIDEWALK/SHARED-USE PATH & SIDEWALK/SHARED-USE RAMP NOTES:

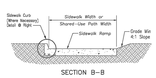
1. CURB RAMP OPENING, NOT INCLUDING FLARES, SHALL MATCH EXISTING SIDEWALK WIDTH AND OPENING SHALL BE AT LEAST 48" WIDE.
2. USE 18" LONG #4 EPOXY COATED TIE BARS @ 24" O.C. EMBED TIE BARS 9" IN EACH DIRECTION.
3. ALL RAMPS, SIDEWALKS, SHARED-USE PATHS SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
4. LONGITUDINAL JOINT SPACING TO MATCH WIDTH OF SIDEWALK.
5. ISOLATION JOINTS SHALL BE PLACED WHERE WALK ABUTS DRIVEWAYS AND SIMILAR STRUCTURES, AND 150' CENTERS MAX.
6. ADA MAXIMUM RAMP SLOPE = 8.33%
   ADA MAXIMUM CROSS SLOPE = 2.0%
   *ROADWAY EXCEPTION: WHERE EXISTING ROAD PROFILE GRADE DOES NOT ALLOW RAMP TO MEET RAMP SLOPE REQUIREMENT OF 8.33% OR LESS, THE RAMP SHALL BE EXTENDED TO A LENGTH OF 15 FEET TO MATCH EXISTING SIDEWALK. CROSS SLOPE OF RAMP SHALL BE 1.5%, ±0.5%.
7. TURNING SPACES SHALL BE 1.5%, ±0.5% SLOPE IN ANY DIRECTION. TURNING SPACES SHALL HAVE A MINIMUM 4'x4' TURNING AREA. TURNING SPACES, WITH A SIDEWALK CURB, SHALL HAVE A 5' TURNING AREA PERPENDICULAR TO THE SIDEWALK CURB.
8. FOR RETROFIT WORK, SLOPES TO BE DETERMINED IN FIELD BY CONTRACTOR AND APPROVED BY CITY INSPECTOR
9. RAMP EXTENSION AREA SHALL NOT BE USED AS TRANSITION TO EXISTING SIDEWALK. ANY TRANSITIONS REQUIRED TO MATCH RAMPS TO EXISTING SIDEWALK SHALL REQUIRE REMOVAL AND REPLACEMENT OF ADDITIONAL SIDEWALK BEYOND THE RAMP AREA. SIDEWALK TRANSITION LENGTH SHALL BE EQUAL TO OR GREATER THAN THE WIDTH OF THE EXISTING SIDEWALK. RAMP EXTENSIONS SHALL BE A CONTINUOUS SLOPE.
10. ALL SIDEWALK AND RAMP CONSTRUCTION SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).



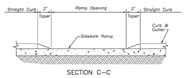
TYPE B SIDEWALK/SHARED-USE RAMP
Not to Scale



SECTION A-A

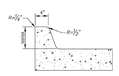


SECTION B-B

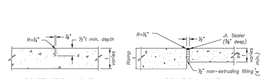


SECTION C-C

TYPE A & B SIDEWALK RAMP
Not to Scale



SIDEWALK CURB DETAIL
Not to Scale

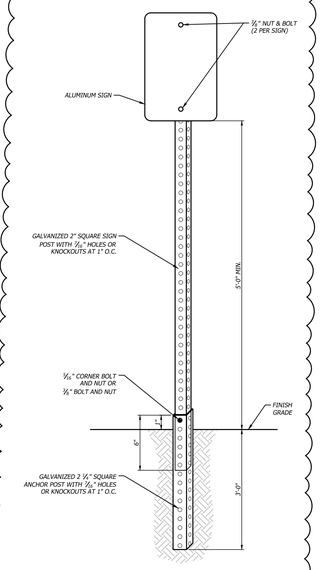


CONTRACTION JOINT ISOLATION JOINT

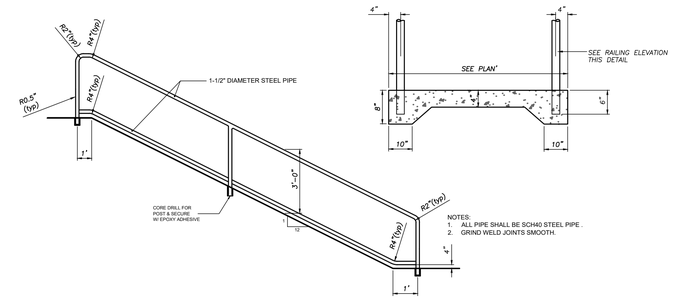
JOINT DETAILS
Not to Scale

CURB & GUTTER DETAIL AT RAMP
Not to Scale

018 Sidewalk Ramp (Public)
Not to Scale

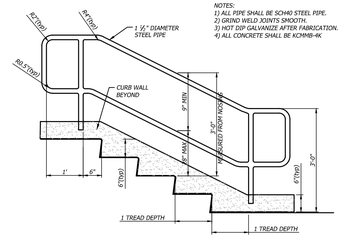


022 Sign Post Installation
Not to Scale



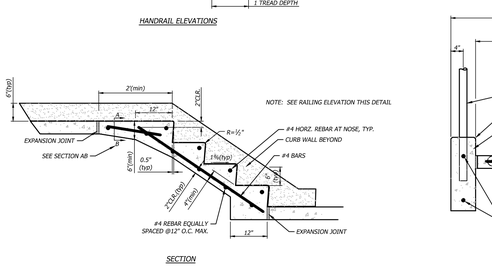
NOTES:
1. ALL PIPE SHALL BE SCH40 STEEL PIPE .
2. GRIND WELD JOINTS SMOOTH.

031 Concrete Ramp with Handrail
Not to Scale

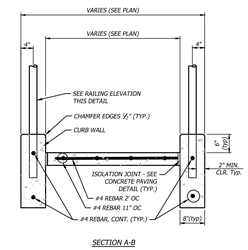


NOTES:
1) ALL PIPE SHALL BE SCH40 STEEL PIPE.
2) GRIND WELD JOINTS SMOOTH.
3) HOT DIP GALVANIZE AFTER FABRICATION.
4) ALL CONCRETE SHALL BE KCMMB-4K

HANDRAIL ELEVATIONS

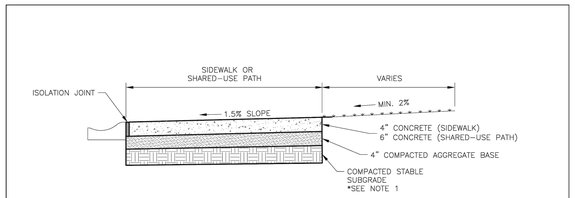


SECTION

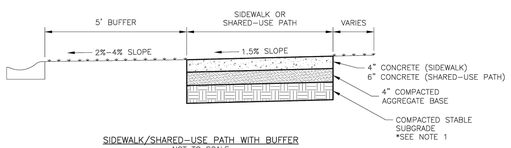


SECTION A-B

035 Concrete Stair & Handrail
Not to Scale



SIDEWALK/SHARED-USE PATH WITHOUT BUFFER
NOT TO SCALE



SIDEWALK/SHARED-USE PATH WITH BUFFER
NOT TO SCALE

GENERAL NOTES:

1. SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
2. 1.5% CROSS SLOPE MUST BE MAINTAINED THROUGH DRIVEWAYS.
3. KCMMB 4K CONCRETE MIX SHALL BE REQUIRED FOR ALL SIDEWALKS/SHARED-USE PATHS OR AS APPROVED BY THE CITY INSPECTOR.
4. ALL SIDEWALK/SHARED-USE PATHS SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).
5. AN ISOLATION JOINT SHALL BE PLACED AT A MAXIMUM OF 150 FT. CONSTRUCTION JOINTS SHALL BE PLACED THE SAME WIDTH OF SIDEWALK/SHARED-USE PATHS, BUT NO GREATER THAN 10 FT.
6. AN ISOLATION JOINT SHALL BE PLACED WHERE THE SIDEWALK/SHARED-USE PATHS MEETS A RESIDENTIAL DRIVEWAY.
7. SHARED-USE PATHS WIDTH SHALL BE 10 FT. WIDE.
8. SIDEWALK/SHARED-USE PATHS FINISHING SHALL BE FULL BROOM FINISH OR AS DIRECTED BY CITY INSPECTOR.
9. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

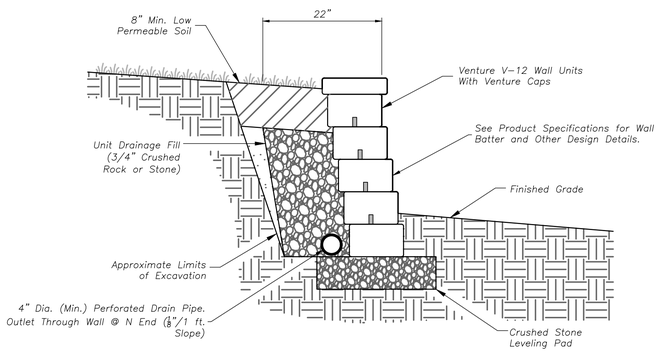
LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

SIDEWALK/SHARED-USE PATH DETAIL

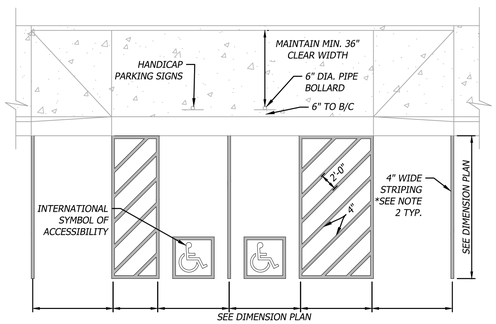
Date: 04/17
Drawn By: MJF
Checked By: DL

GEN-2

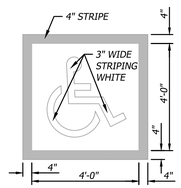
014 Concrete Sidewalk
Not to Scale



050 Modular Block Retaining Wall
Not to Scale



021 (ADA) Handicap Parking Striping
Not to Scale



INTERNATIONAL SYMBOL OF ACCESSIBILITY

NOTE:
1. SEE SITE GRADING AND DRAINAGE PLAN FOR PAVEMENT AND CURB ELEVATIONS, AND ASSOCIATED ALLOWABLE SLOPES FOR ACCESSIBLE PARKING
2. PARKING STRIPING COLOR TO BE YELLOW ON CONCRETE AND WHITE ON ASPHALT.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

Project: STANDARD DETAILS CITY OF LEE'S SUMMIT, MO
Issued Name: LEE'S SUMMIT, JACKSON COUNTY, MO
ADA RAMP RETROFIT DETAIL

Drawn By: MJF
Checked By: DL
Date: 04/17
Proj. #

GEN-3A

3

STATE OF MISSOURI
ERB BYRD
09/07/2024
NUMBER PE-2010013633
PROFESSIONAL ENGINEER

BHC
CIVIL ENGINEERING / SURVEYING / UTILITIES
7101 College Blvd., Suite 400
Overland Park, Kansas 66210
p. (913) 663-1900
BHC is a trademark of Brungardt Honomichl & Company, P.A.

FINAL
DEVELOPMENT PLAN

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon St. - Suite 207
Charlotte, North Carolina 28203.4633
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

DESIGNER	DAS	DRAWN	ARK
ARCHITECT	DAS	CHECKED	ERB
ENGINEER	ERB	APPROVED	ERB

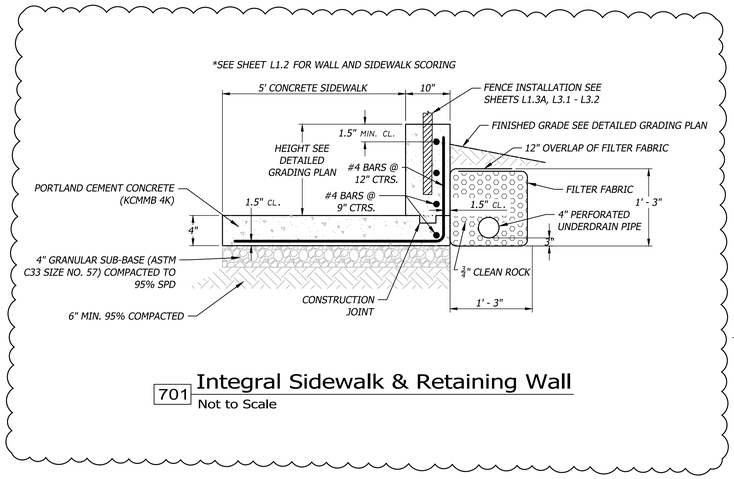
NO.	REVISION DESCRIPTION	DATE
1	FDP RESUBMITTAL	2/23/2024
3	Addendum 1	3/7/2024

DRAWING TITLE

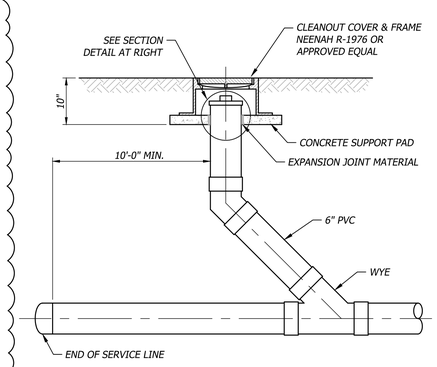
CONSTRUCTION DETAILS 2

DATE: December 1, 2023
COMM. NO. 23104.00
DRAWING C7.1

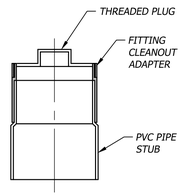
3

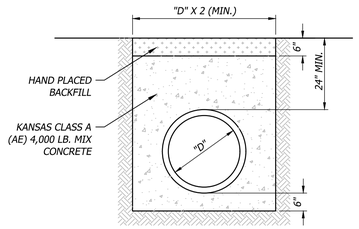


701 Integral Sidewalk & Retaining Wall
Not to Scale

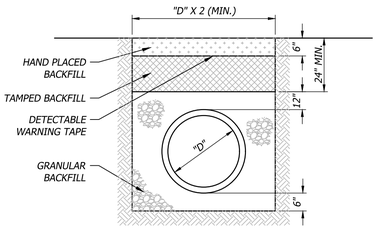


201 Cleanout
Not to Scale

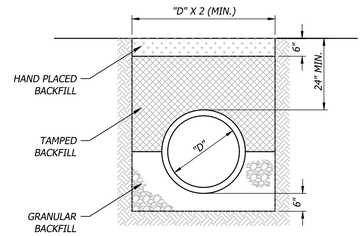




CONCRETE ENCASEMENT
CLASS "A"



HDPE/PVC PIPE BEDDING
CLASS "C"

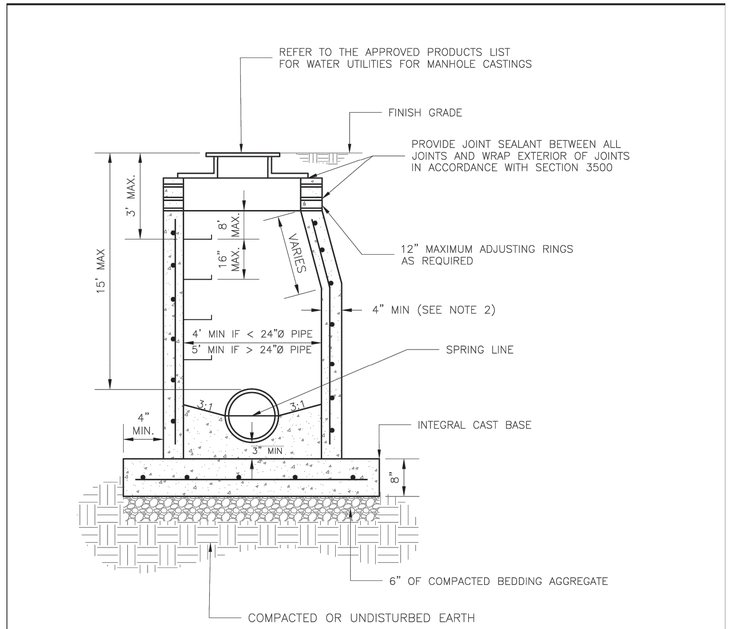


RIGID PIPE (RCP) BEDDING
CLASS "B"

NOTES:

1. GRANULAR FILL SHALL BE 1/2" CLEAN ROCK OR SAND/GRAVEL BEDDING MEETING KDOT TYPE LID-1, PLACED IN 6" LIFTS AND COMPACTED BY SLICING WITH A SHOVEL.
2. TAMPED FILL SHALL BE FINELY DIVIDED, JOB EXCAVATED MATERIAL FREE OF DEBRIS, ORGANIC MATERIAL, AND STONES, COMPACTED TO TYPE AA MR-5 COMPACTION.
3. HAND PLACED FILL SHALL BE FINELY DIVIDED MATERIAL, FREE OF DEBRIS AND STONES, COMPACTED TO TYPE AA MR-5 COMPACTION. ALL PIPE SHALL BE INSPECTED PRIOR TO BACKFILL.
4. ALL PIPE COVERED PRIOR TO INSPECTION SHALL BE UNCOVERED AT THE CONTRACTORS EXPENSE.

306 Pipe Bedding
Not to Scale

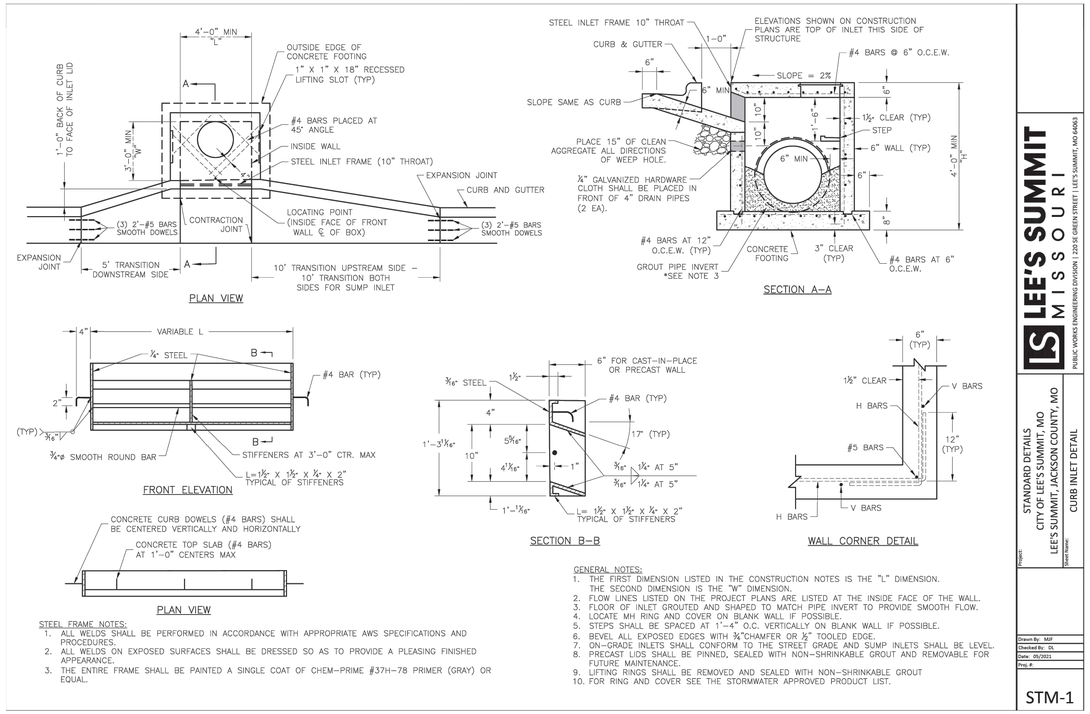


NOTES:

1. PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C478 EXCEPT AS MODIFIED BY THE SPECIFICATIONS.
2. A WALL THICKNESS NOT LESS THAN ONE–TWELFTH ($\frac{1}{12}$) OF THE INSIDE DIAMETER OR 4", WHICHEVER IS GREATER, SHALL BE USED WHEN THE MANHOLE DEPTH IS LESS THEN 15'.
3. WATERPROOFING SHALL BE REQUIRED ON THE OUTSIDE OF MANHOLES. THE WATERPROOFING SHALL CONSIST OF A TOTAL DRY FILM THICKNESS OF NOT LESS THAN 14 MILS OF BITUMINOUS COATING.
4. ONLY ECCENTRIC MANHOLE CONES WILL BE ALLOWED UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
5. THE FILL CONCRETE FLOW CHANNEL FOR SIDE BRANCHES SHALL BE PLACED TO PROVIDE A SMOOTH TRANSITION INTO THE FLOW LINE.
6. REFER TO THE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR APPROVED MANHOLE GASKET MODELS.
7. REFER TO THE APPROVED PRODUCTS LIST FOR APPROVED STEPS.

LS	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063	Date: 12/2015 Drawn By: SC Checked By: DL
	STANDARD SANITARY PRECAST MANHOLE	SAN-2

200 Sanitary Manhole
Not to Scale



STEEL FRAME NOTES:
1. ALL WELDS SHALL BE PERFORMED IN ACCORDANCE WITH APPROPRIATE AWS SPECIFICATIONS AND PROCEDURES.
2. ALL WELDS ON EXPOSED SURFACES SHALL BE DRESSED SO AS TO PROVIDE A PLEASING FINISHED APPEARANCE.
3. THE ENTIRE FRAME SHALL BE PAINTED A SINGLE COAT OF CHEM–PRIME #37H–78 PRIMER (GRAY) OR EQUAL.

GENERAL NOTES:
1. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION.
2. FLOW LINES LISTED ON THE PROJECT PLANS ARE LISTED AT THE INSIDE FACE OF THE WALL.
3. FLOOR OF INLET GROUTED AND SHAPED TO MATCH PIPE INVERT TO PROVIDE SMOOTH FLOW.
4. LOCATE MH RING AND COVER ON BLANK WALL IF POSSIBLE.
5. STEPS SHALL BE SPACED AT 1'–4" O.C. VERTICALLY ON BLANK WALL IF POSSIBLE.
6. BEVEL ALL EXPOSED EDGES WITH ¾"CHAMFER OR ½" TOOLED EDGE.
7. ON–GRADE INLETS SHALL CONFORM TO THE STREET GRADE AND SUMP INLETS SHALL BE LEVEL.
8. PRECAST LIDS SHALL BE PINNED, SEALED WITH NON–SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
9. LIFTING RINGS SHALL BE REMOVED AND SEALED WITH NON–SHRINKABLE GROUT
10. FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

305 Curb Inlet
Not to Scale

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
CURB INLET DETAIL

Drawn By: MAF
Checked By: DL
Date: 05/2021
Proj. #:

STM-1

STATE OF MISSOURI
ERB BYRD
03/07/2024
NUMBER PE-2010013633
PROFESSIONAL ENGINEER

BHC
CIVIL ENGINEERING / SURVEYING / UTILITIES
7101 College Blvd., Suite 400
Overland Park, Kansas 66210
p. (913) 663-1900
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FINAL
DEVELOPMENT PLAN

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

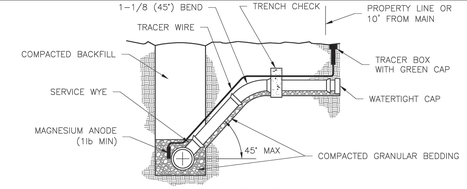
SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon St. - Suite 207
Charlotte, North Carolina 28203.4633
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

DESIGNER : DAS		DRAWN : ARK	
ARCHITECT : DAS		CHECKED : ERB	
ENGINEER : ERB		APPROVED : ERB	
NO.	REVISION DESCRIPTION		DATE
1	FDP RESUBMITTAL		2/23/2024
3	Addendum 1		3/7/2024

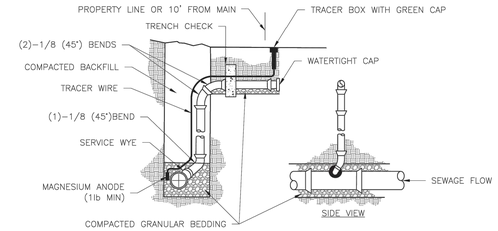
DRAWING TITLE

CONSTRUCTION DETAILS 3

DATE: December 1, 2023
COMM. NO. 23104.00
DRAWING C7.2



STANDARD INSTALLATION
NOT TO SCALE



VERTICAL RISER
NOT TO SCALE

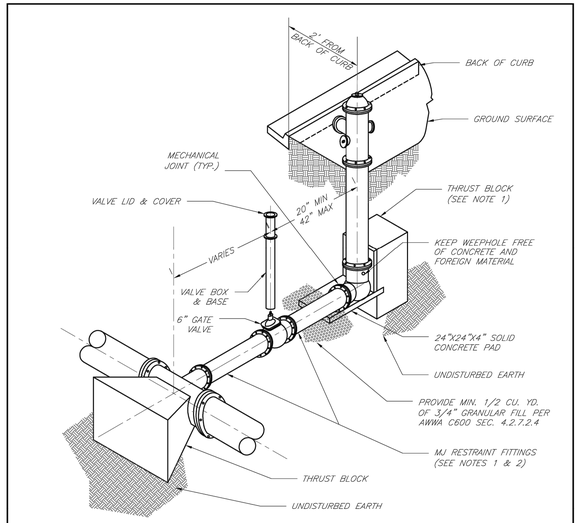
NOTES:
1. ALL SEWER STUBS SHALL BE CONSTRUCTED TO PROPERTY LINE OR 10' MINIMUM FROM THE MAIN, WHICHEVER IS GREATER. WHERE SIDEWALKS ARE PRESENT, CONTRACTOR SHALL EXTEND SERVICE LINE UNDER EXISTING SIDEWALK TO TWO FEET BEYOND.
2. IMPERVIOUS TRENCH CHECKS SHALL BE PLACED ON BUILDING SEWER STUBS (AT LEAST 5' AWAY FROM THE SANITARY SEWER MAIN).
3. TRENCH CHECKS ON THE BUILDING SEWER STUBS SHALL EXTEND 6" BELOW THE BOTTOM OF THE PIPE. LENGTH SHALL BE A MINIMUM OF 12". THE HEIGHT OF THE TRENCH CHECK SHALL EXTEND 12" ABOVE THE TOP OF THE PIPE. THE WIDTH OF THE TRENCH CHECK SHALL BE THE WIDTH OF THE TRENCH.
4. SEE SPECIFICATION SECTION 2100 FOR SEWER MAIN BEDDING AND BACKFILL.
5. #12 GAUGE GREEN INSULATED COPPER TRACER WIRE SHALL BE INSTALLED. TRACER WIRE TERMINAL BOXES SHALL BE INSTALLED DIRECTLY ABOVE THE SEWER SERVICE OR AS DETERMINED BY THE ENGINEER.
6. FOR SERVICES, TRACER WIRE SHALL RUN FROM THE WYE AND TERMINATE IN A FLUSH MOUNTED TRACER BOX WITH A GREEN CAST IRON LOCKABLE TOP. WIRE SHALL BE TAPED OR TIED TO THE PIPE AT 5' INTERVALS.
7. TRACER WIRE BOX SHALL BE INSTALLED WITHIN 1.0' OF PROPERTY LINE.
8. THE TRACER WIRE SHALL REMAIN CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. SPLICES IN THE TRACER WIRE SHOULD BE MADE WITH SPLIT BOLT CONNECTORS. WIRE NUTS SHALL NOT BE USED. A WATER–PROOF CONNECTION IS NECESSARY TO PREVENT CORROSION.

LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

SANITARY SEWER STUB DETAIL

Date: 12/2015
Drawn By: MJF
Checked By: DL

SAN-1

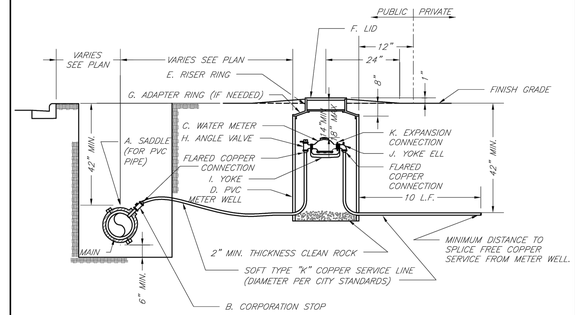


NOTES:
1. WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
2. GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
3. SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
4. BOTTOM HYDRANT FLANGE SHALL BE 2" TO 6" ABOVE FINISHED GRADE.
5. FOR STREETS WITHOUT CURBS FIRE HYDRANTS SHALL BE PLACED WITHIN 1 FOOT OF THE R/W LINE, BUT NOT MORE THAN 10' FROM EDGE OF PAVEMENT. FIRE HYDRANT SHALL NOT BE PLACED IN BOTTOM OF DITCH.
6. HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.

LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

HYDRANT INSTALLATION – STRAIGHT SET

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT–7
Rev: 1/14
Rev:



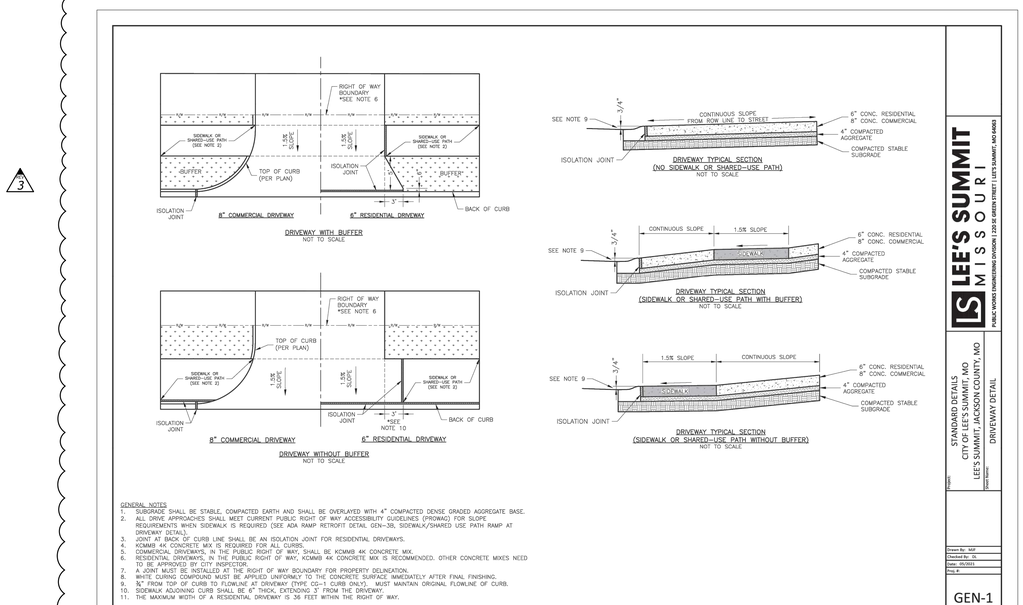
TYPICAL METER INSTALLATION – 2" AND SMALLER
NOT TO SCALE

NOTES:
1. METER INSTALLATION SHALL NOT BE LOCATED IN AREAS SUBJECT TO VEHICULAR TRAFFIC OR IN CONCRETE PAVEMENT WITHOUT CITY APPROVAL.
2. IF METER IS TO BE LOCATED OTHER THAN IN FRONT OF PROPERTY LINE, CITY APPROVAL SHALL BE OBTAINED.
3. CITY TO FURNISH ITEMS A–K.
4. NO OTHER EQUIPMENT SHALL BE INSTALLED IN THIS PIT.
5. 42" MINIMUM BURY DEPTH FOR ALL SERVICE LINES.
6. EXCAVATION FOR TAP TO EXPOSE 4 LINEAR FEET OF MAIN.
7. NO SPLICES ALLOWED BETWEEN METER AND MAIN.
8. SERVICE CONNECTION TAP AT APPROXIMATELY 45 DEGREES.
9. LID AND RISER RING SHALL BE SET SO THAT GROUND WATER WILL DRAIN AWAY FROM THE WELL.
10. CONTACT WATER UTILITIES, 816–969–1900, FOR REQUIREMENTS OF A METER LARGER THAN 2"

LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

SERVICE CONNECTION/METER WELL

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT–11
Rev: 1/14
Rev:



GENERAL NOTES
1. SUBGRADE SHALL BE STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
2. ALL DRIVE APPROACHES SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG) FOR SLOPE REQUIREMENTS. WHEN SIDEWALK IS REQUIRED (SEE ADA RAMP RETROFIT DETAIL GEN–36), SIDEWALK/SHARED USE PATH RAMP AT DRIVEWAY DETAILS.
3. A 3" WIDE SAW CUT OF CURB LINE SHALL BE AN ISOLATION JOINT FOR RESIDENTIAL DRIVEWAYS.
4. KCMMB 4K CONCRETE MIX IS REQUIRED FOR ALL CURBS.
5. COMMERCIAL DRIVEWAYS, IN THE PUBLIC RIGHT OF WAY, SHALL BE KCMMB 4K CONCRETE MIX.
6. RESIDENTIAL DRIVEWAYS, IN THE PUBLIC RIGHT OF WAY, KCMMB 4K CONCRETE MIX IS RECOMMENDED. OTHER CONCRETE MIXES NEED TO BE APPROVED BY CITY INSPECTOR.
7. A JOINT MUST BE INSTALLED AT THE RIGHT OF WAY BOUNDARY FOR PROPERTY DELINEATION.
8. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.
9. ¾" FROM TOP OF CURB TO FLOWLINE AT DRIVEWAY (TYPE CG–1 CURB ONLY). MUST MAINTAIN ORIGINAL FLOWLINE OF CURB.
10. SIDEWALK ADJOINING CURB SHALL BE 6" THICK, EXTENDING 3' FROM THE DRIVEWAY.
11. THE MAXIMUM WIDTH OF A RESIDENTIAL DRIVEWAY IS 36 FEET WITHIN THE RIGHT OF WAY.

LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
Work Name
DRIVEWAY DETAIL

Drawn By: MJF
Checked By: DL
Date: 05/2021
Proj. #

GEN–1

△3

700 Concrete Driveway Entrance with Buffer
Not to Scale

STATE OF MISSOURI
ERIC BYRD
09/07/2024
NUMBER PE-2010013633
PROFESSIONAL ENGINEER

BHC
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Overland Park, Kansas 66210
p. (913) 663-1900
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FINAL
DEVELOPMENT PLAN

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon St. - Suite 207
Charlotte, North Carolina 28203.4633
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

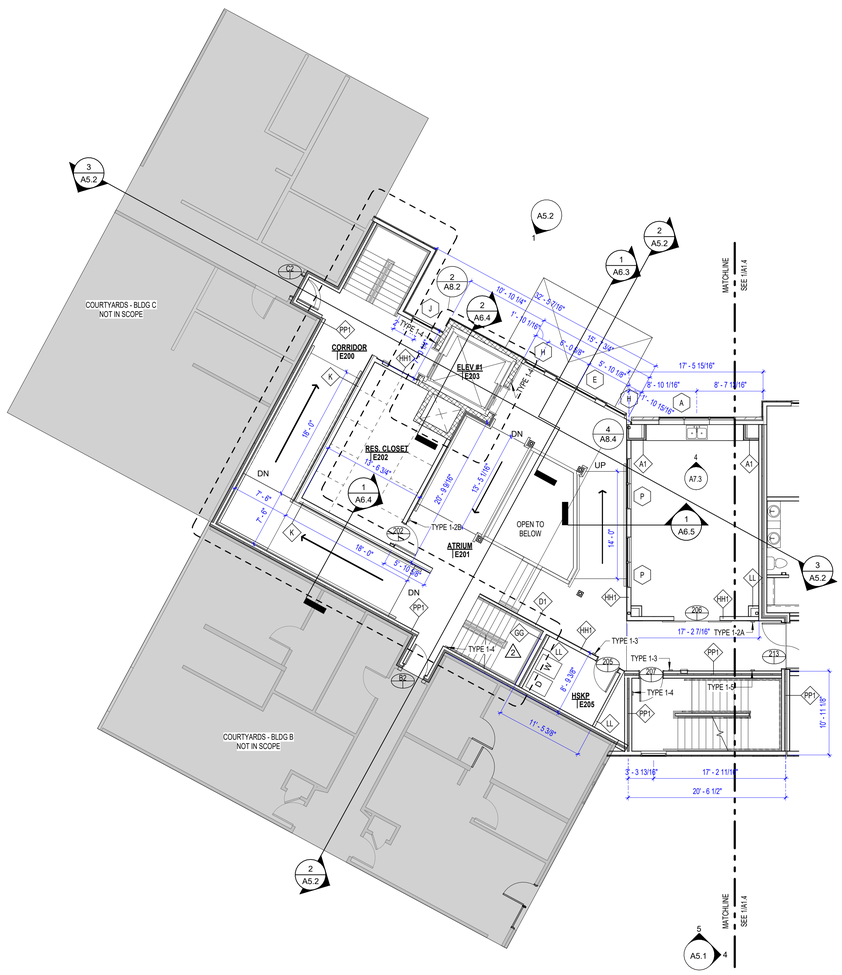
DESIGNER : DAS	DRAWN : ARK
ARCHITECT : DAS	CHECKED : ERB
ENGINEER : ERB	APPROVED : ERB

NO.	REVISION DESCRIPTION	DATE
1	FDP RESUBMITTAL	2/23/2024
3	Addendum 1	3/7/2024

DRAWING TITLE

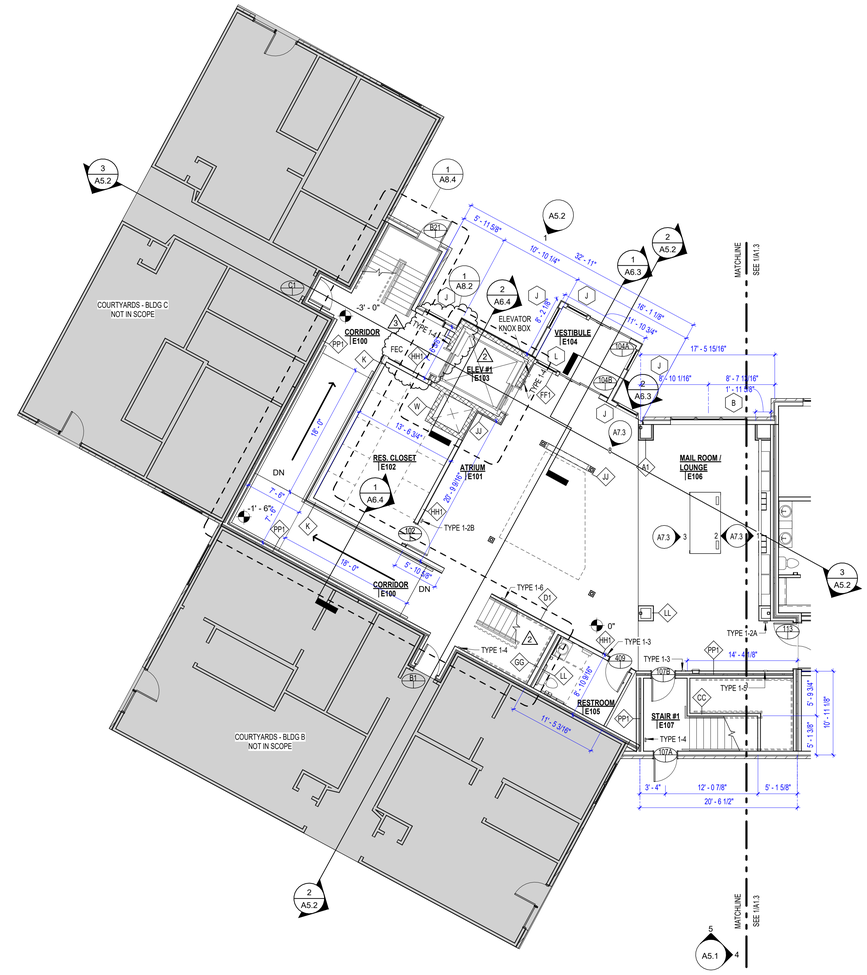
CONSTRUCTION DETAILS 4

DATE: December 1, 2023
COMM. NO. 23104.00
DRAWING C7.3



2 ATRIUM - SECOND FLOOR PLAN

1/8" = 1'-0"



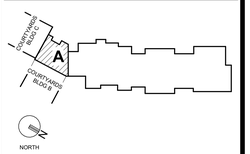
1 ATRIUM - FIRST FLOOR PLAN

1/8" = 1'-0"

NORTH

DIMENSIONS ADDED AND ADJUSTED 2

KEYPLAN



GENERAL NOTES

CONSTRUCTION SET

STATE OF MISSOURI
CURTIS R. JENNINGS III
NUMBER
A-2023034555
ARCHITECT
01-05-2024

PROJECT TITLE

John Knox Village

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DESIGNER	DAS	DRAWN	DAS
ARCHITECT	DAS	CHECKED	AAT
ENGINEER		APPROVED	CRJ

NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/15/24
3	Addendum 1	03/07/24

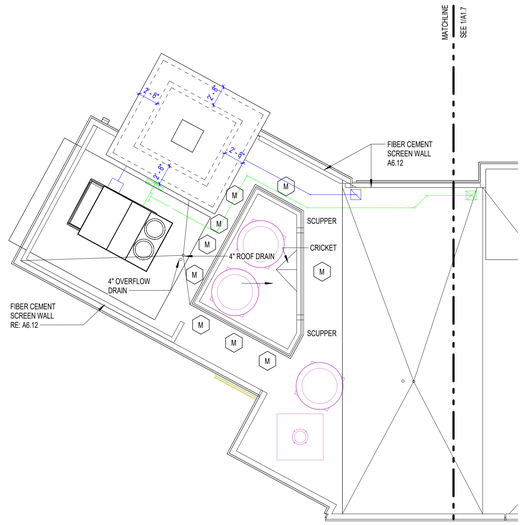
DRAWING TITLE

FIRST AND SECOND FLOOR PLANS - ATRIUM

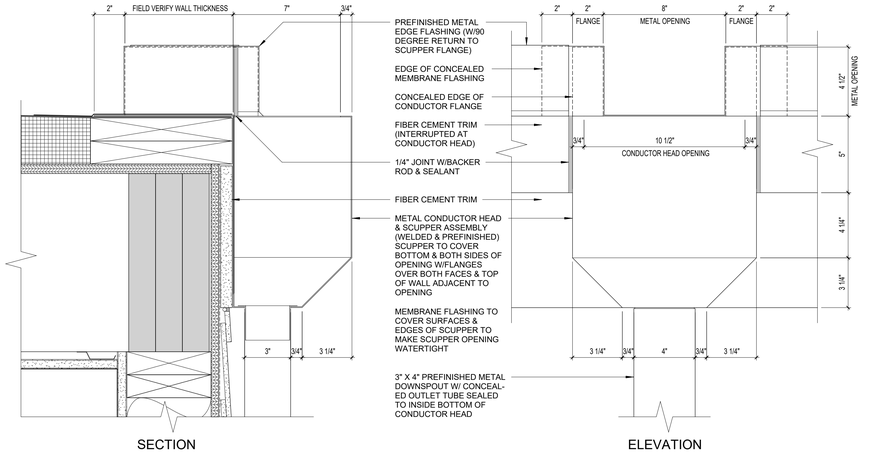
DATE: January 5, 2024

COMM. NO. 23104.00

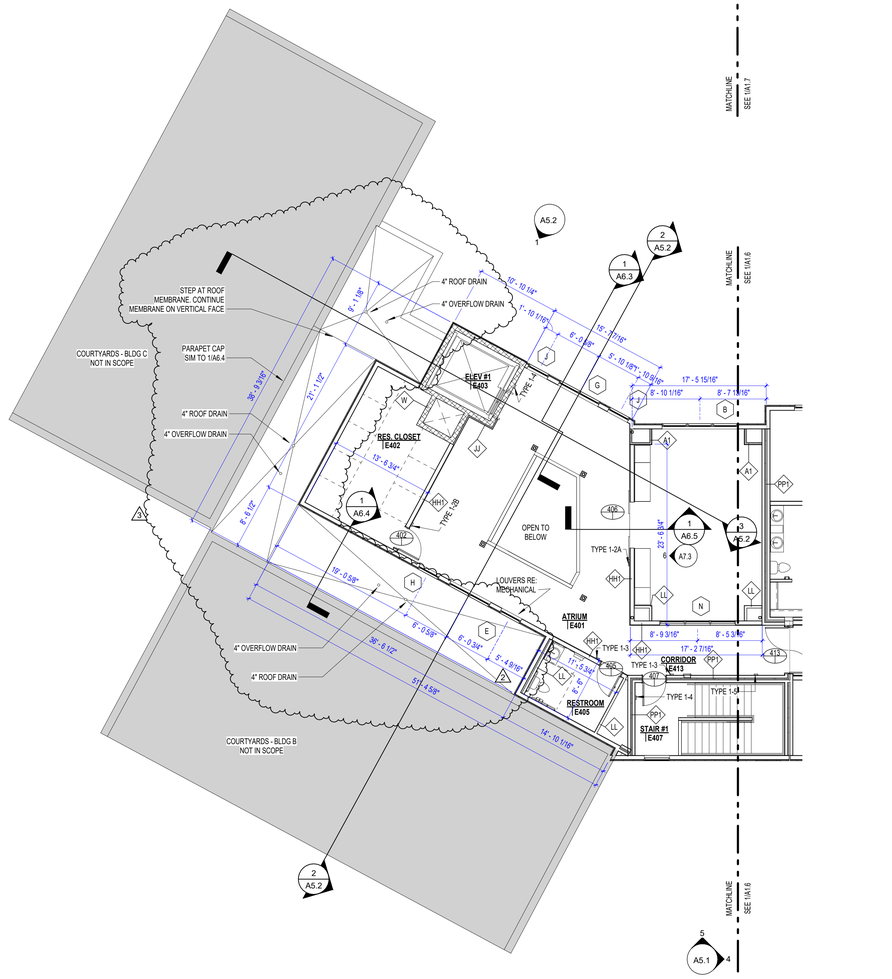
DRAWING A1.8



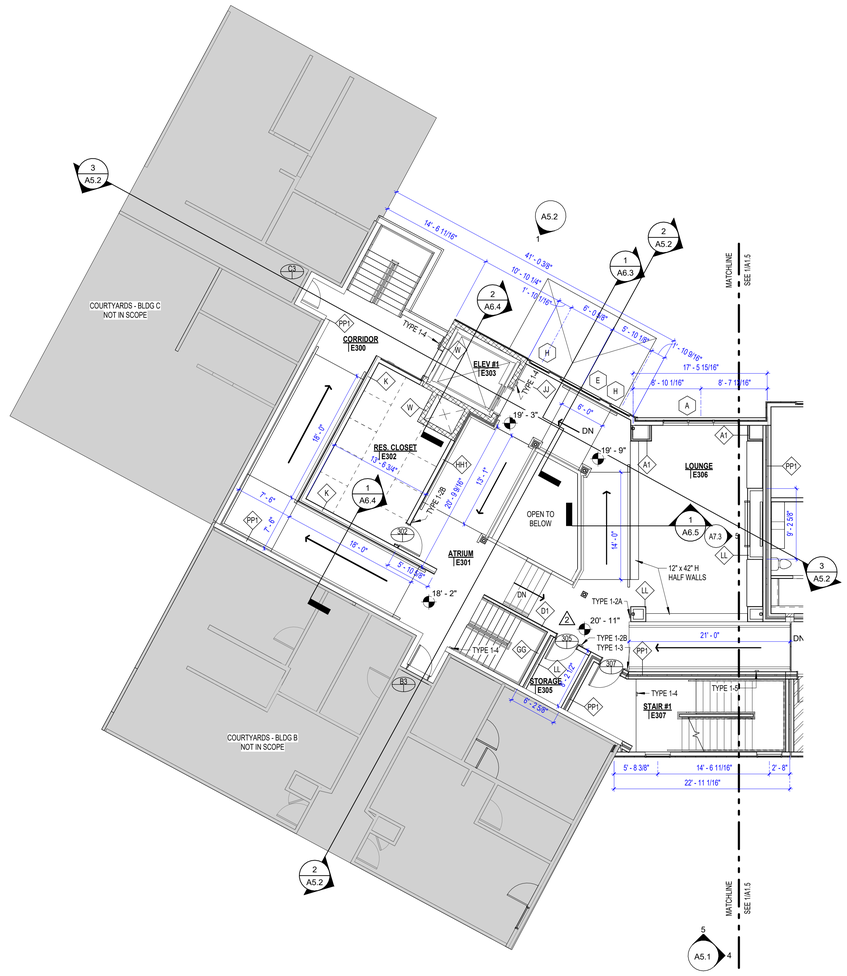
3 ROOF PLAN - ATRIUM
1/8" = 1'-0"



4 SCUPPER & DOWNSPOUTS CONDUCTOR HEAD
3" = 1'-0"



2 ATRIUM - FOURTH FLOOR PLAN
1/8" = 1'-0"

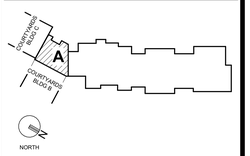


1 ATRIUM - THIRD FLOOR PLAN
1/8" = 1'-0"

DIMENSIONS ADDED AND ADJUSTED
SIGNAGE ADDED
2

NORTH

KEYPLAN



GENERAL NOTES

1. SLOPE TO BE 1/4" PER FOOT UNLESS OTHERWISE NOTED
2. ROOFING MATERIAL IS TO BE SINGLE PLY MEMBRANE ROOF OVER INSULATION UNLESS OTHERWISE NOTED

CONSTRUCTION SET

STATE OF MISSOURI
CURTIS R. JENNINGS III
NUMBER A-2023034555
ARCHITECT
01-05-2024

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

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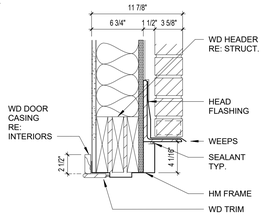
DESIGNER	DAS	DRAWN	DAS
ARCHITECT	DAS	CHECKED	AAT
ENGINEER		APPROVED	CRJ

NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/15/24
3	Addendum 1	03/07/24

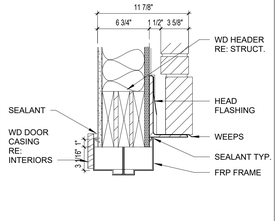
DRAWING TITLE

THIRD, FOURTH AND ROOF FLOOR PLANS - ATRIUM

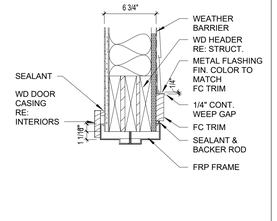
DATE:	January 5, 2024	DRAWING	A1.9
COMM. NO.	23104.00		



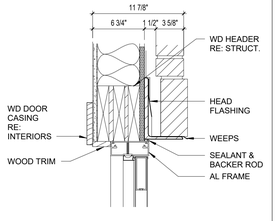
H1 - HM HEAD @ BRICK



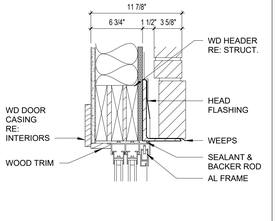
H2 - FBG HEAD @ BRICK



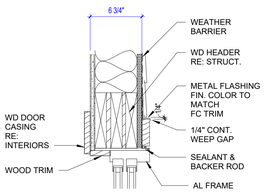
H3 - FBG HEAD @ SIDING



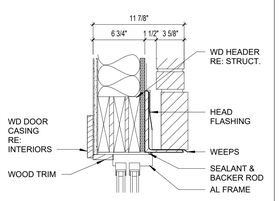
H4 - AL HEAD @ ENTRY



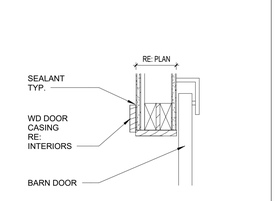
H5 - AL SLIDING HEAD @ BRICK



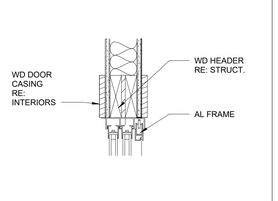
H6 - AL SLIDING HEAD @ SIDING



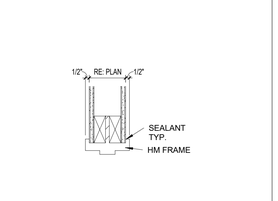
H7 - FBG HEAD @ BRICK



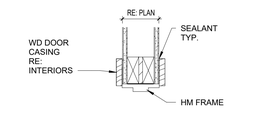
H8 - HEAD @ BARN DOOR



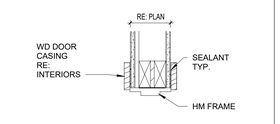
H9 - AL SLIDING HEAD @ GYP WALL



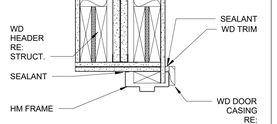
H10 - HM HEAD @ INT GYP



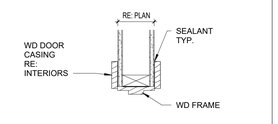
H11 - HM HEAD @ INT GYP W/CASING



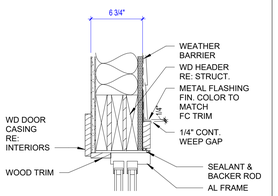
H12 - HM HEAD @ INT GYP FURRING W/CASING



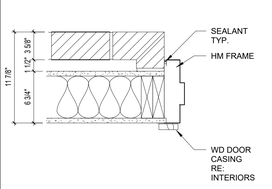
H13 - HM HEAD @ INT GYP SHAFT WALL



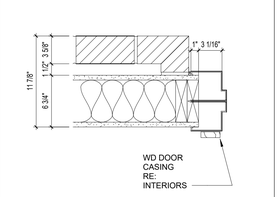
H14 - WD HEAD PRE-HUNG



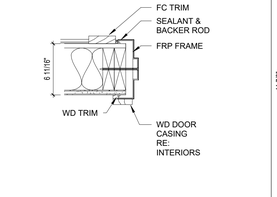
H15 - FBG HEAD @ SIDING



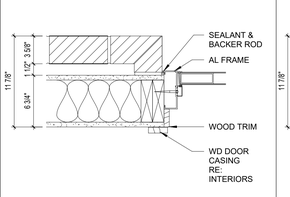
J1 - HM JAMB @ BRICK



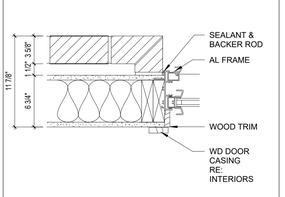
J2 - FBG JAMB @ BRICK



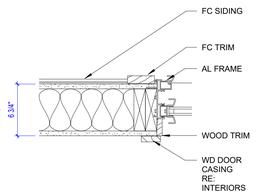
J3 - FBG JAMB @ SIDING



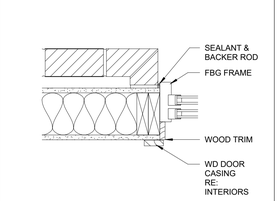
J4 - AL JAMB @ BRICK



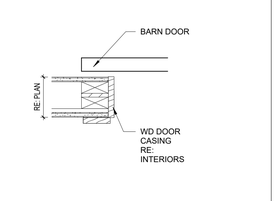
J5 - AL SLIDING JAMB @ SIDING



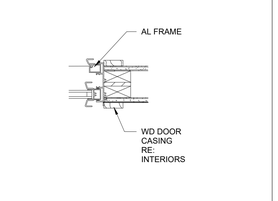
J6 - AL SLIDING JAMB @ SIDING



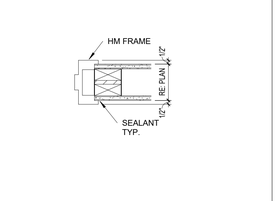
J7 - FBG SLIDING JAMB @ BRICK



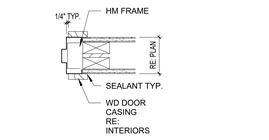
J8 - JAMB @ BARN DOOR



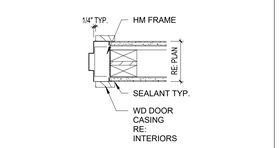
J9 - AL SLIDING JAMB @ GYP CASING



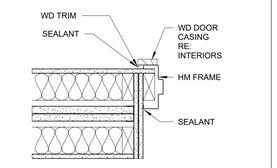
J10 - HM JAMB @ GYP NO CASING



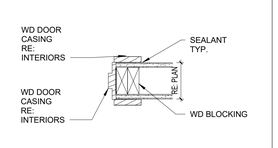
J11 HM JAMB @ GYP W/CASING



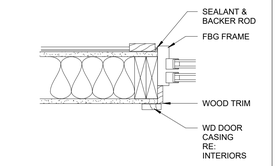
J12 - HM JAMB @ GYP W/FURRING CASING



J13 - HM JAMB @ INT CYP SHAFT WALL



J14 - WD JAMB PRE-HUNG



J15 - FBG SLIDING JAMB @ SIDING

DOOR SCHEDULE

ROOM	DOOR ELEV	TYPE	WIDTH	HEIGHT	FIRE RATING	FRAME ELEV	HEAD	JAMB	HARDWARE LOCK	CLOS	ACCESS CNTRL	Comments
102	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	2	X		2
104A	FG	AL	6' - 0"	7' - 0"		2	H6	J6	8			Integrated with Smoke Control System
104B	FG	AL	6' - 0"	7' - 0"		2	H9	J9	8		X	Integrated with Smoke Control System
107A	F	HM	3' - 0"	7' - 0"		2	H1	J1	7	X	X	
107B	FG	HM	3' - 0"	6' - 8"	90 MIN	1	H13	J13	6			
108A	FG	AL	6' - 0"	7' - 0"		2	H1	J1	8	X		
108B		AL	6' - 0"	7' - 0"		2	H9	J9	8	X	X	
113	F	HM	(2) 3' - 0"	6' - 8"	90 MIN	3	H13	J13	5	X		
115	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	10	X 2		
117	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	11A	X		
118	F	WD	3' - 0"	6' - 8"		1	H10	J10	11A	X		
120	FG	WD	3' - 0"	6' - 8"		1	H11	J11	10	X		
125		AL		7' - 0"		2	H4	J4	9		X	
126	F	WD	5' - 6"	6' - 8"	20 MIN	1	H12	J12	2	X		
127		WD		6' - 8"		1	H10	J10	4			
128A	F	HM	3' - 0"	7' - 0"		1	H1	J1	7	X	X	
128B	F	HM	3' - 0"	6' - 8"	90 MIN	1	H12	J12	6	X		
129	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	2	X		
136	F	WD	3' - 0"	6' - 8"	45 MIN	1	H12	J12	10	X		
202	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	2	X		
205	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	1	X		
206		WD	(2) 3' - 0"	6' - 8"			H8	J8	11			
207	F	HM	3' - 0"	6' - 8"	90 MIN	1	H13	J13	6	X		
208	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	2	X		
213	F	HM	(2) 3' - 0"	6' - 8"	90 MIN	3	H13	J13	5	X		
215	F	WD	3' - 0"	6' - 8"		1	H12	J12	10			
217	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	10	X		
218	F	WD	3' - 0"	6' - 8"		1	H10	J10	10			
226	F	WD	5' - 0" 4' - 6"	6' - 8"	20 MIN	1	H12	J12	2	X		
227		WD		6' - 8"		1	H10	J10	4			
228	F	HM	3' - 0"	6' - 8"	90 MIN	1	H13	J13	6	X		
229	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	2	X		
231	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	2	X		
236	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	1	X		
302	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	2	X		
305	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	10	X		
307	F	HM	3' - 0"	6' - 8"	90 MIN	1	H13	J13	6	X		
308	F	WD	3' - 0"	6' - 8"	90 MIN	1	H13	J13	10	X		
313	F	HM	(2) 3' - 0"	6' - 8"	90 MIN	3	H13	J13	5	X		
315	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	10	X		
317	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	10	X		
318	F	WD	3' - 0"	6' - 8"		1	H10	J10	10			
326	F		5' - 0" 4' - 6"	6' - 8"	20 MIN	1	H12	J12	2	X		
327		WD		6' - 8"		1	H10	J10	4			
328	F	HM	3' - 0"	6' - 8"	90 MIN	1	H13	J13	6	X		
329	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	2	X		
331	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	2	X		
336	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	1	X		
402	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	2	X		
405	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	3	X		
406		WD	(2) 3' - 0"	6' - 8"			H8	J8	11			
407	F	HM	3' - 0"	6' - 8"	90 MIN	1	H13	J13	6	X		
408	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	2	X		
409	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	3	X		
413	F	HM	(2) 3' - 0"	6' - 8"	90 MIN	1	H13	J13	5	X		
415	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	10	X		
417	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	10	X		
418	F	WD	5' - 0" 4' - 6"	6' - 8"		1	H10	J10	10			
426	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	2	X		
427		WD		6' - 8"			H10	J10	4			
428	F	HM	3' - 0"	6' - 8"	90 MIN	1	H13	J13	6	X		
429	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	2	X		
431	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	2	X		
436	F	WD	3' - 0"	6' - 8"	20 MIN	1	H12	J12	1	X		
B1	F	HM	3' - 0"	6' - 8"	90 MIN	1	H13	J13	6	X		
B2	FG	HM	5' - 0"	6' - 8"	90 MIN	1	H13	J13	6	X		
B3	F	HM	3' - 0"	6' - 8"	90 MIN	1	H13	J13	6	X		
B21		AL		7' - 0"			H4	J4	9	X		
C1	F	HM	3' - 0"	6' - 8"	90 MIN	1	H13	J13	6	X		
C2	F	HM	3' - 0"	6' - 8"	90 MIN	1	H13	J13	6	X		
C3	F	HM	3' - 0"	6' - 8"	90 MIN	1	H13	J13	6	X		

MARK	DOOR TYPE	MATERIAL	WIDTH	PAIR	HEIGHT	FIRE RATING	FRAME ELEV	HEAD	JAMB	HW SET	COMMENTS
U1	PD	MDF	3'-0"		6'-8"	20 MIN		H12	J12	12	
U2	FG-1	FBG	3'-0"		6'-8"			H2/H3	J2/J3	16	EXTERIOR - INTEGRAL BLINDS, SCREENED DOOR 3
U3	PD	DF	3'-0"		6'-8"			H14	J14	15	
U4	FG-1	FBG	3'-0"		6'-8"			H7/H15	J7/J15	20	EXTERIOR - INTEGRAL BLINDS
U5	PD-1	DF	2'-10"		6'-8"			H14	J14	13	
U6	PD-1	DF	PAIR 2'-6"		6'-8"			H14	J14	14	
U7	PD-1	DF	PAIR 2'-0"		6'-8"			H14	J14	14	
U8	PD-1	DF	PAIR 1'-9"		6'-8"			H14	J14	21	
U9	PD-1	DF	2'-0"		6'-8"			H14	J14	13	
U10	PD/PKT	DF	2'-10"		6'-8"			H14	J14	17	
U11	PD/PKT	DF	PAIR 2'-4"		6'-8"			H14	J14	18	
U12	PD	DF	2'-6"		6'-8"			H14	J14	16	

FIBERGLASS DOORS BASIS OF DESIGN - JELD WEN DESIGN-PRO SERIES

GENERAL NOTES

1. DOORS ARE TO BE INSTALLED SO THE BACK OF THE FRAME IS 4", TYP. TO FACE OF WALL AT INSIDE CORNER, UNLESS NOTED OTHERWISE.
2. PROVIDE LARSON SIGNATURE CLASSIC STORM DOOR (SANDSTONE) AT ALL SWING TYPE BALCONY DOORS. PROVIDE STANDARD HW.

CONSTRUCTION SET

STATE OF MISSOURI
CURTIS R. JENNINGS III
NUMBER A-2023034555
ARCHITECT
01-05-2024

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

SFCS Architecture Engineering Planning Interiors

SFCS Inc. ▪ 1927 South Tryon St. - Suite 207
Charlotte, North Carolina 28203.4633
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

DESIGNER : DAS	DRAWN : DAS
ARCHITECT : DAS	CHECKED : AAT
ENGINEER : DES	APPROVED : CRJ

NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/15/24
3	Addendum 1	03/07/24

DRAWING TITLE

DOOR SCHEDULE

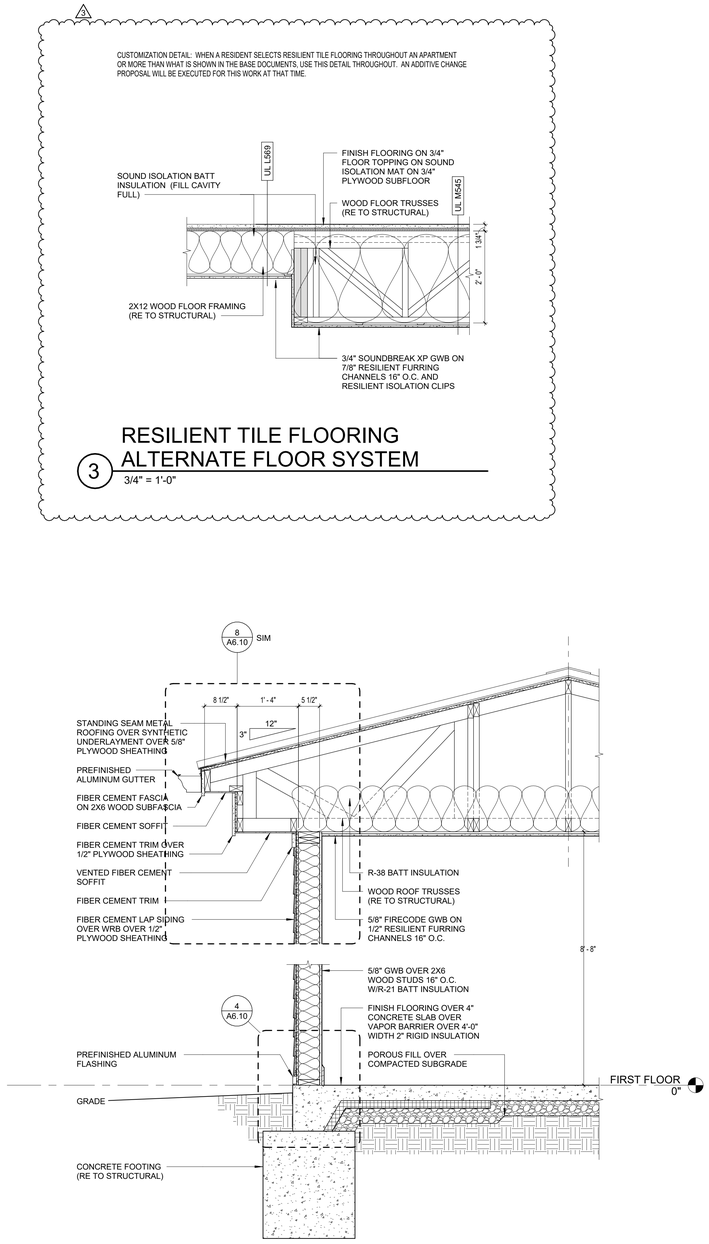
DATE: January 5, 2024

COMM. NO. 23104.00

DRAWING A4.1

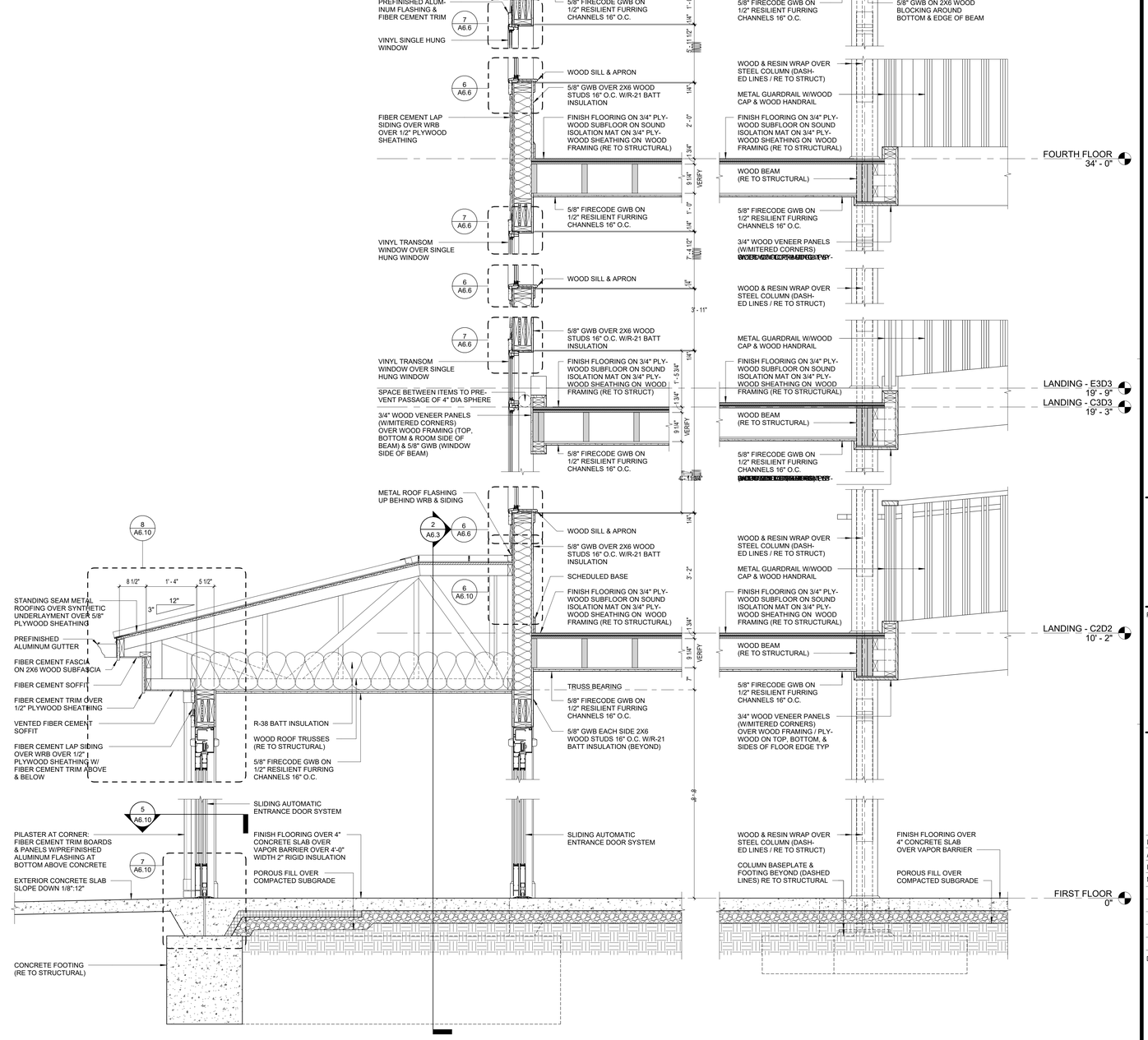
RESILIENT TILE FLOORING ALTERNATE FLOOR SYSTEM

3 3/4" = 1'-0"



MAIN ENTRANCE SIDE SECTION

2 3/4" = 1'-0"



MAIN ENTRANCE VESTIBULE

1 3/4" = 1'-0"

CONSTRUCTION SET

STATE OF MISSOURI
CURTIS R. JENNINGS III
NUMBER A-2023034555
ARCHITECT
01-05-2024

PROJECT TITLE

John Knox Village

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www.sfcs.com

DESIGNER : DAS		DRAWN : JAM	
ARCHITECT : DAS		CHECKED : AAT	
ENGINEER :		APPROVED :	

NO.	REVISION DESCRIPTION	DATE
3	Addendum 1	03/07/24

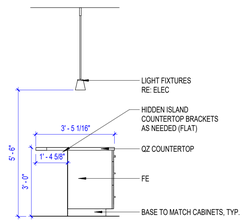
DRAWING TITLE

WALL SECTIONS

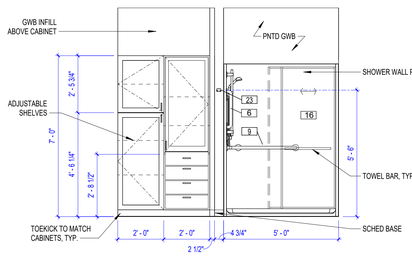
DATE: January 5, 2024

COMM. NO. 23104.00

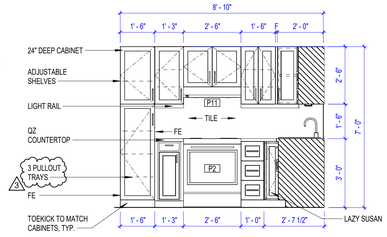
DRAWING A6.3



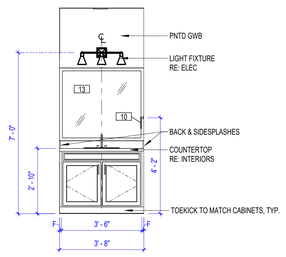
20 UNIT D1-D2-D3 KIT. ISLAND 2
3/8" = 1'-0"



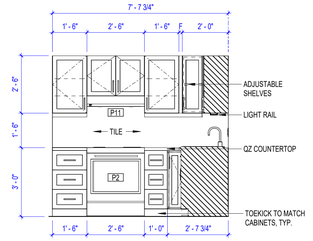
16 UNIT D1-D2-D3 PR. SHOWER
3/8" = 1'-0"



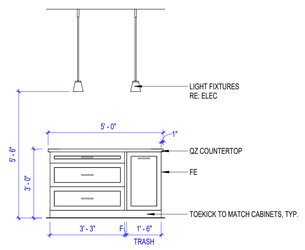
12 UNIT C KITCHEN STOVE
3/8" = 1'-0"



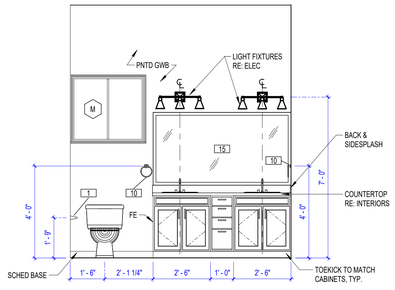
8 UNIT C HALF BATH
3/8" = 1'-0"



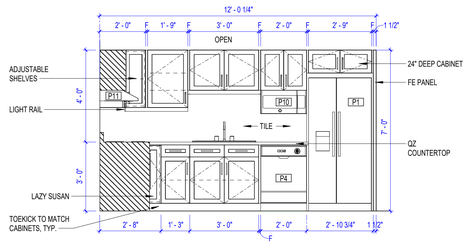
4 UNIT B KITCHEN STOVE
3/8" = 1'-0"



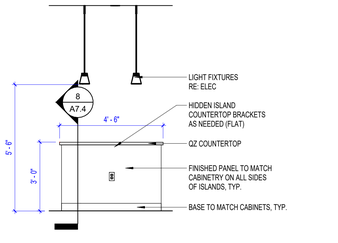
19 UNIT D1-D2-D3 KIT. ISLAND
3/8" = 1'-0"



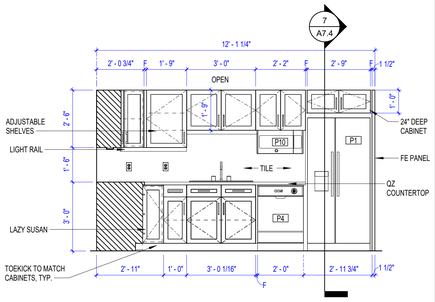
15 UNIT D1-D2-D3 PR. VANITY
3/8" = 1'-0"



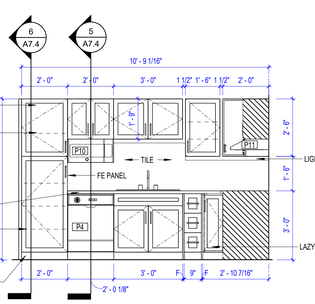
11 UNIT C KITCHEN SINK
3/8" = 1'-0"



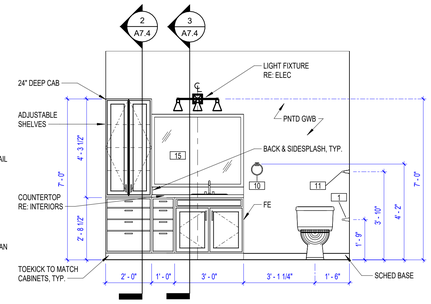
7 UNIT B-C KITCHEN ISLAND 3
3/8" = 1'-0"



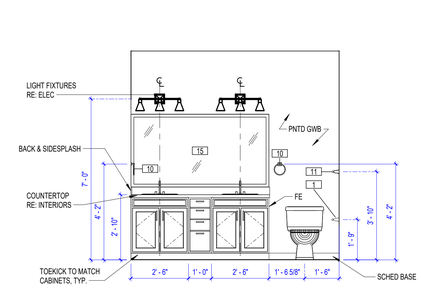
3 UNIT B KITCHEN SINK
3/8" = 1'-0"



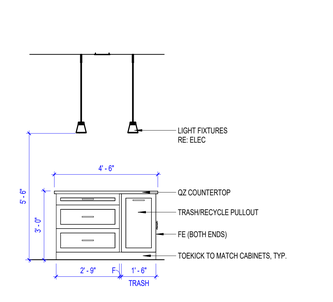
17 UNIT D1-D2-D3 KIT. SINK
3/8" = 1'-0"



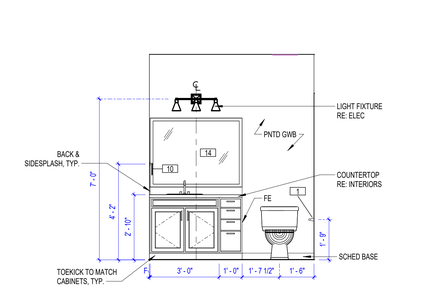
13 UNIT D1-D2-D3 BATH VAN.
3/8" = 1'-0"



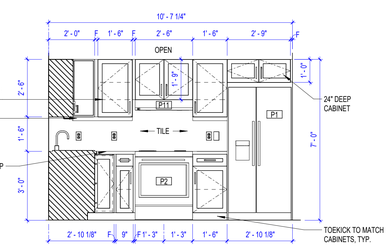
9 UNIT C BATH VANITY
3/8" = 1'-0"



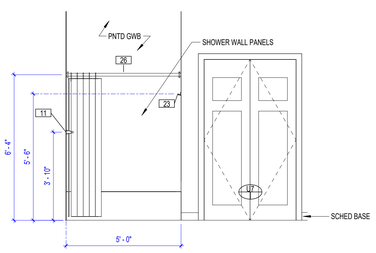
5 UNIT B-C KITCHEN ISLAND 1
3/8" = 1'-0"



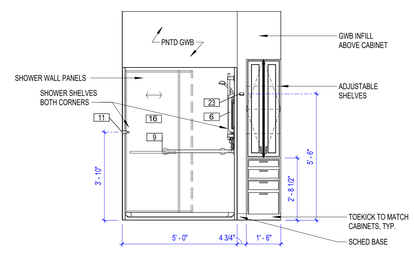
1 UNIT B BATH VANITY
3/8" = 1'-0"



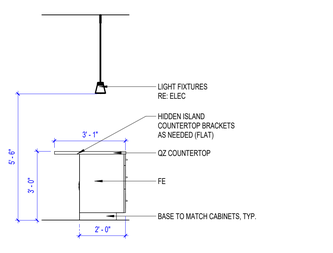
18 UNIT D1-D2-D3 KIT. STOVE
3/8" = 1'-0"



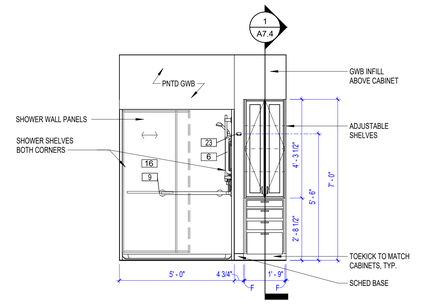
14 UNIT D1-D2-D3 BATHTUB
3/8" = 1'-0"



10 UNIT C SHOWER
3/8" = 1'-0"



6 UNIT B-C KITCHEN ISLAND 2
3/8" = 1'-0"



2 UNIT B SHOWER
3/8" = 1'-0"

GENERAL NOTES

1. PROVIDE BLOCKING FOR FUTURE INSTALLATION OF GRAB BARS IN ALL ANSI TYPE B UNITS PER ANSI REQUIREMENTS. (ALL UNITS ARE TYPE B UNITS BESIDES 2029, WHICH IS A TYPE A UNIT)
2. PROVIDE BLOCKING AND GRAB BARS FOR 18" VERTICAL GRAB BAR AND WRAP AROUND GRAB BAR AT ALL MASTER BATHROOM SHOWERS.
3. PROVIDE GRAB BARS AT TIME OF CONSTRUCTION IN ANSI TYPE A (HC) UNIT PER ANSI REQUIREMENTS.

CONSTRUCTION SET

STATE OF MISSOURI
CURTIS R. JENNINGS III
NUMBER A-2023034555
ARCHITECT
01-05-2024

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

SFCS | Architecture Engineering Planning Interiors
SFCS Inc. • 1927 South Tryon St. - Suite 207
Charlotte, North Carolina 28203.4633
704.372.7327 • Fax 704.372.7369
www.sfcs.com

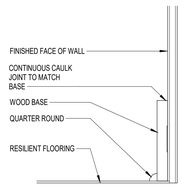
DESIGNER : DAS		DRAWN : DAS/CLH/CRW	
ARCHITECT : DAS		CHECKED : AAT	
ENGINEER :		APPROVED : CRJ	
NO.	REVISION DESCRIPTION		DATE
3	Addendum 1		03/07/24

DRAWING TITLE

INTERIOR ELEVATIONS

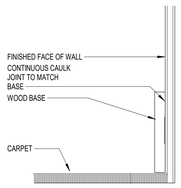
DATE: January 5, 2024
COMM. NO. 23104.00
DRAWING A7.1

FLOOR BASE DETAILS



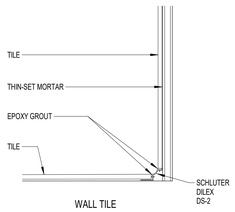
WOOD BASE ON HARD SURFACE FLOORING

NOTE: GENERIC BASE PROFILE SHOWN FOR REFERENCE ONLY

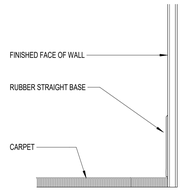


WOOD BASE ON CARPET FLOORING

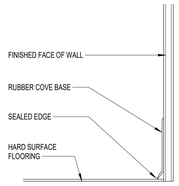
NOTE: GENERIC BASE PROFILE SHOWN FOR REFERENCE ONLY



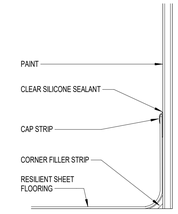
WALL TILE



CARPET

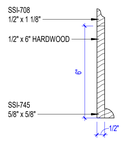


RESILIENT FLOORING

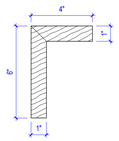


RESILIENT SHEET TO PAINT

TRIM PROFILES



WDB-1



WD-1

RB-1
REVEAL

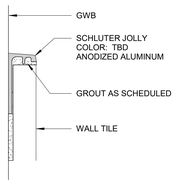
SSI-1354
3/4" x 4 1/4"
S-WDB-1

S-WDB-2
1/2" X 3 1/2"

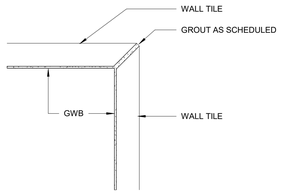
EDGE PROFILE

EASED EDGE

WALL TILE TERMINATION DETAIL

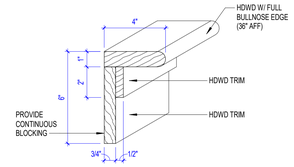


TERMINATION: STRAIGHT EDGE
DS-1

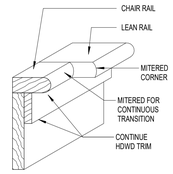


TERMINATION: MITERED CORNER
T-1 & T-2

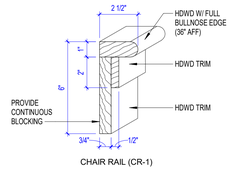
LEAN RAIL DETAILS



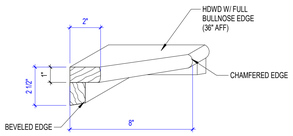
LEAN RAIL (LR-1)



CHAIR RAIL TO LEAN RAIL TRANSITION

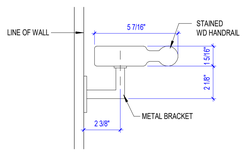


CHAIR RAIL (CR-1)



PACKAGE SHELF (PS-1)

HAND RAIL DETAILS



FINISH KEY PLAN

* AN ASTERISK FOLLOWING ANY FINISH AS NOTED ABOVE SIGNALS TO LOOK FOR MORE INFORMATION ON EITHER CURRENT SHEET OR ANOTHER SHEET, TYPICALLY MEANS THAT THERE IS MORE THAN ONE FINISH ON A GIVEN WALL/BASE/CEILING (1)

EX: P/ CR/ WC

IF ANY FINISH BOX AS SHOWN IN THE KEY ABOVE CONTAINS MORE THAN ONE FINISH CODE THE PROGRESSION OF FINISHES GOES FROM THE FLOOR TO THE CEILING

S-T-1A GUIDE TO READING IL FINISH CODES. THE FIRST DIGIT INDICATED WHETHER A FINISH IS A "S"- STANDARD / "U" - UPGRADE / "P" - PREMIUM PACKAGE FINISH. THE NEXT GROUPING INDICATES A SPECIFIC FINISH AND NUMBER "T-1", THE LAST DIGIT WILL INDICATE WHICH PALETTE PACKAGE THE RESIDENT HAS SELECTED, "A", "B", ETC. THIS LAST DIGIT IS NOT INCLUDED ON FLOOR PLANS. MOST PLANS WILL INDICATE STANDARD FINISH LOCATIONS. FOR EXAMPLES S-T-1.

INDICATES A CHANGE OF MATERIALS, REFERENCE TRANSITION SCHEDULE FOR DETAILS

INDICATES EXTENTS OF "WALL FINISH

INDICATES THE WALL FINISH ASSOCIATED WITH A DASHED LINE

CNTR CAB — INDICATES COUNTER / CABINETRY FINISHES

DIRECTION OF GRAIN

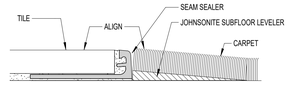
CG-# — INDICATES A CORNERGUARD

NOT IN CONTRACT

NOTE: THESE ARE STANDARD SYMBOLS AND ALL SYMBOLS NOTED ON THIS SHEET MAY NOT APPLY.

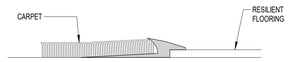
FLOOR TRANSITION SCHEDULE

DS-3



N.T.S.

DS-4 & DS-7

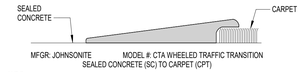


N.T.S.

DS-5

N.T.S.

DS-6



N.T.S.

INTERIOR ABBREVIATIONS

ACT	ACOUSTICAL CEILING TILE
ADJ	ADJUSTABLE
AP	ACOUSTICAL PANEL
B	BLINDS
BAR	BALLET BARRE
BB	BEADBOARD
BOH	BACK OF HOUSE
BQ	BANQUETTE
BR	BRICK
CAB	WOOD CUSTOM CABINET
CAS	RESIDENTIAL CASEWORK
CC	CUBICLE CURTAIN
CG	CORNER GUARD
CM	CULTURED MARBLE
CMP	TOILET COMPARTMENT
CONT.	CONTINUOUS/CONTINUED
CORR.	CORRIDOR
CPT	CARPET
CR	CHAIR RAIL
CRM	CROWN MOULDING
CT	CURTAIN
DM	DECORATIVE METAL
DP	DEEP
DS	DIVIDER STRIP
EFS	ENTRY FLOOR SYSTEM
EQ	EQUAL / EQUIPMENT
EVS	ELEVATOR FINISH
EXIST	EXISTING
F	FILLER
FE	FINISHED END
FL	FLOOR
FRP	FIBER REINFORCED PANEL
FWP	FABRIC WRAPPED PANEL
G	GROUT
GF	GLASS FILM
GR	GRANITE
GL	GLASS
HP	HARDIE PLANK
HR	HAND RAIL
HRD	DOOR HARDWARE
HT	HEIGHT
HW	CABINET HARDWARE
ID	INTERIOR DESIGN
INT	INTERIOR
LL	LOWER LEVEL
LOC	LOCKER
LR	LEAN RAIL
MI	MIRROR
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PAR	PARTITION
PATN	PATTERN
PL	PLASTIC LAMINATE
PLAM	PLASTIC LAMINATE
PNTD	PAINTED
P	PAINT
QZ	QUARTZ
RB	RUBBER BASE
RBT	RUBBER STAIR TREAD
REF	REFERENCE
RES	RESINOUS FLOORING
RF	RESILIENT FLOORING
RM	ROOM
RS	ROLLER SHADE
RUB	RUBBER FLOORING
SC	SEALED CONCRETE
SCHED	SCHEDULED
SH	SHOWER CURTAIN
SN	STONE
SP	SPECIALITY WALL PANEL
SPEC	SPECIFICATION
SS	SOLID SURFACE
ST / STND	STAIN
STD	STANDARD
STC	STAINED CONCRETE
STR	STAIR RISER
STS	STAIR STRETCHER
T	TILE
TBD	TO BE DETERMINED
TR	TOILET ROOM
TRM	TRIM
TYP	TYPICAL
TZ	TERRAZZO
TZB	TERRAZZO BASE
UNO	UNLESS NOTED OTHERWISE
W/	WITH
WDB	WOOD BASE
WDF	WOOD FLOORING
WC	WALL COVERING
WD	WOOD TRIM
WDC	WOOD CEILING
WOC	WALK OFF CARPET
W/O	WITHOUT
WP	WALL PROTECTION
WT	WINDOW TREATMENT

NOTE: THESE ARE STANDARD ABBREVIATIONS AND ALL ABBREVIATIONS NOTED ON THIS SHEET MAY NOT APPLY.

GENERAL ID NOTES

1. REFER TO FINISH LEGEND FOR MATERIAL SPECIFICATIONS.
2. REFER TO FINISH PLANS AND ELEVATIONS FOR EXTENTS OF FLOOR PATTERNS, WALL FINISHES AND CABINET MATERIALS.
3. ALL PRODUCTS / MATERIALS TO BE SOURCED FROM SAME LOTS TO ENSURE COLOR MATCH.
4. ALL PRODUCTS INSTALLED PER MANUFACTURERS REQUIREMENTS AND RECOMMENDATIONS.
5. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXTENTS OF MATERIALS IN THE FIELD WITH EXISTING CONDITIONS AND ADVISE THE ARCHITECT OF ANY CONFLICT.
6. CONTRACTOR TO COORDINATE MEP REQUIREMENTS WITH ALL NEW/AND/OR REUSED EQUIPMENT/FIXTURES AND ADVISE THE ARCHITECT OF ANY CONFLICT.
7. ALL PAINT TO BE EGGSHELL FOR WALLS U.N.O., FLAT FINISH FOR CEILING U.N.O., & SEMI-GLOSS FOR TRIM U.N.O. & ALL PAINT TO BE EPOXY FOR WALLS IN WET AREAS AS SPECIFIED ON FINISH PLANS U.N.O.
8. CORNER GUARDS TO INSTALL FROM (FLOOR) (TOP OF BASE) TO UNDERSIDE OF CHAIR RAIL/LEAN RAIL ON SPLIT FINISH WALLS AND FULL HEIGHT ON WALLS WITH ONLY ONE FINISH. FIRE RATED CORNER GUARDS TO BE INSTALLED IN FIRE RATED WALLS. GC TO ADVISE OF ANY CONFLICTS.
9. FINISHES NOTES IN CORRIDORS ARE TYPICAL CONDITIONS THAT ARE TO BE USED THROUGH REMAINING CORRIDOR.
10. REFER TO DOOR SCHEDULE FOR DOOR TYPE, DOOR FINISH, JAMB AND HARDWARE FINISH SPECIFICATION.
11. CHAIR RAIL IS TO EXTEND AROUND ENTIRE PERIMETER OF A SPACE IN ORDER TO CREATE A CLEAN SEPARATION FOR SPLIT WALL FINISHES.
12. WHERE CABINET BASE MEETS HARD SURFACE FLOOR, INSTALL QUARTER ROUND TO MATCH CABINET FINISH.
13. ALL ARCHITECTURAL MILLWORK AND RESIDENTIAL CASEWORK TO HAVE DECORATIVE HARDWARE AS NOTED IN FINISH LEGEND PER CAB OR PLAM SPECIFICATIONS.
14. TOE KICK SHALL MATCH CABINET FINISH.
15. CABINET CROWN MOLDING IS TO MATCH CABINET FINISH, U.N.O.
16. ALL EXPOSED END PANELS, BACK PANELS AND INTERIOR SIDE PANELS SHALL BE FINISHED TO MATCH CABINETS.
17. ALL EXPOSED INTERIOR OF CABINETS TO MATCH CABINET FACE.
18. REFER TO REFLECTED CEILING PLANS FOR EXTENT OF CROWN MOLDING.
19. (3) ALL MECHANICAL, ELECTRICAL PANELS, DIFFUSERS & GRILLES ARE TO BE PAINTED TO MATCH ADJACENT FINISH IN ALL RESIDENT ROOMS AND PUBLIC/COMMON AREAS.
20. ANY EXPOSED PIPING AND GRILLES TO MATCH ADJACENT WALL FINISH.
21. FIELD VERIFY LOCATION OF ALL WIRING DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN.
22. ALL OUTSIDE EDGES AND CORNERS OR MID WALL TERMINATION OF TILE TO RECEIVE A DIVIDER/TRANSITION STRIP, REFERENCE FINISH LEGEND.
23. ALL CERAMIC TILE SHALL HAVE NECESSARY ACCESSORIES TO MATCH (SATIN NICKEL FINISH) U.N.O.
24. CONTRACTOR TO DETERMINE THE APPROPRIATE HEIGHT PRODUCT FOR THE TRANSITIONING MATERIALS HEIGHT IN ORDER TO HAVE A FLUSH TRANSITION.
25. TRANSITIONS ARE TO BE USED WITH A CONCEALED RUBBER SUBFLOOR LEVELER SYSTEM SCORED AT APPROPRIATE DEPTH FOR SMOOTH, FLUSH TRANSITION FROM ONE MATERIAL TO ANOTHER.
26. HEAVY SEAM SEAL CARPET EDGE AT TRANSITION.
27. REFER TO LEGEND FOR TRANSITION FINISH SELECTION.

PROJECT NOTES

1. IF ADDITIONAL RESILIENT TILE FLOORING IS SELECTED IN CUSTOMIZATION WITHIN RESIDENT UNITS, REFER TO ARCH DRAWINGS FOR ADDITIONAL SOUND PROOFING REQUIREMENTS.

GENERAL NOTES

PERMIT SET

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

SFCS Architecture Engineering Planning Interiors
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DESIGNER	: DAS	DRAWN	: CLH, CRW
ARCHITECT	: DAS	CHECKED	: KED
ENGINEER	: DES	APPROVED	: CRJ

NO.	REVISION DESCRIPTION	DATE
3	Addendum 1	03/07/24

DRAWING TITLE

GENERAL NOTES, FINISH KEY AND ABBREVIATIONS

DATE: January 5, 2024

COMM. NO. 23104.00

DRAWING I0.0

GENERAL STRUCTURAL NOTES

BASIS OF DESIGN

DESIGN IS IN ACCORDANCE WITH THE 2018 INTERNATIONAL BUILDING CODE (ASCE 7-16).

DESIGN OF CONCRETE STRUCTURES IS BASED ON THE REQUIREMENTS OF ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE," EDITION AS REFERENCED IN GOVERNING BUILDING CODE.

DESIGN OF STRUCTURAL STEEL IS BASED ON THE REQUIREMENTS OF AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS," EDITION AS REFERENCED IN GOVERNING BUILDING CODE AND AISC MANUAL OF STEEL CONSTRUCTION, 14TH EDITION.

DESIGN OF MASONRY STRUCTURES IS BASED ON THE REQUIREMENTS OF TMS 402 "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" AND TMS 602 "SPECIFICATIONS FOR MASONRY STRUCTURES," EDITIONS AS REFERENCED IN GOVERNING BUILDING CODE.

DESIGN OF WOOD STRUCTURES IS BASED ON THE REQUIREMENTS OF ANSI/AF&PA NDS "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" AND AWC SDPWS "SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC," EDITION AS REFERENCED IN GOVERNING BUILDING CODE.

DESIGN LOADS:

FLOOR LIVE LOAD

CORRIDORS	100 PSF
RESIDENTIAL	55 PSF (INCLUDES 15 PSF PARTITION LOAD)
BALCONY	60 PSF
STORAGE AREAS	125 PSF

UNIFORM LIVE LOADS HAVE BEEN REDUCED.

ROOF LIVE LOAD: FLAT: 30 PSF.

ROOF SNOW LOAD
- GROUND SNOW LOAD (Pg): 20 PSF
- FLAT-ROOF SNOW LOAD (Pf): 14 PSF+5 PSF RAIN ON SNOW SURCHARGE
- SNOW EXPOSURE FACTOR (Ce): 1.0
- THERMAL FACTOR (Ct): 1.0
- SNOW LOAD IMPORTANCE FACTOR (I): 1.0

WIND DESIGN DATA
- ULTIMATE WIND SPEED, Vult: 109 MPH (3-SECOND GUST)
- NOMINAL WIND SPEED, Vasd: 85 MPH (3-SECOND GUST)
- RISK CATEGORY: II
- EXPOSURE CATEGORY: B
- INTERNAL PRESSURE COEFFICIENT (GCpi): +/- 0.18
- COMPONENTS AND CLADDING DESIGN PRESSURES (ULTIMATE, FOR REFERENCE ONLY. SPECIFIC DESIGN PRESSURES FOR EACH COMPONENT SHALL BE CALCULATED BY THE LICENSED PROFESSIONAL ENGINEER RESPONSIBLE FOR THE COMPONENT'S DESIGN):
- ROOF PRESSURES:

	EFFECTIVE WIND AREA (SF)		
ZONE	10	50	100
1	+16/-36	+16/-32	+16/-30
1'	+16/-22	+16/-22	+16/-22
2	+16/-50	+16/-43	+16/-40
3	+16/-68	+16/-53	+16/-47

- WALL PRESSURES:

	EFFECTIVE WIND AREA (SF)		
ZONE	10	50	100
4	+22/-24	+20/-22	+19/-21
5	+22/-29	+20/-25	+19/-23

SEE ASCE 7 FOR ZONE LOCATIONS. EDGE DISTANCE "0.2h" = 8.6 FT.

EARTHQUAKE DESIGN DATA
- SEISMIC IMPORTANCE FACTOR (I): 1.0
- RISK CATEGORY: II
- MAPPED SPECTRAL RESPONSE ACCELERATIONS: Ss: 9.9%g, S1: 6.8%g
- SITE CLASS: C
- DESIGN SPECTRAL RESPONSE ACCELERATIONS: SDS: 8.6%g, SDI: 6.8%g
- SEISMIC DESIGN CATEGORY: B
- BASIC SEISMIC-FORCE-RESISTING SYSTEM: LIGHT FRAMED WALLS SHEATHED WITH WOOD STRUCTURAL PANELS
- DESIGN BASE SHEAR: 44 KIPS
- SEISMIC RESPONSE COEFFICIENT, Cs: 0.0132
- RESPONSE MODIFICATION COEFFICIENT, R: 6.5
- ANALYSIS PROCEDURE – EQUIVALENT LATERAL FORCE PROCEDURE

RAIN DESIGN DATA
- i=RAIN INTENSITY= 3.67 IN/HOUR
- R= RAIN DESIGN LOAD=19 PSF

MECHANICAL EQUIPMENT LOADS SHOWN ARE DESIGN MINIMUMS. NO PROVISIONS HAVE BEEN MADE FOR MECHANICAL EQUIPMENT LOADS EXCEPT AS SHOWN. CONTRACTOR SHALL ESTABLISH AND COORDINATE ACTUAL LOADS OF ALL SELECTED EQUIPMENT. SUBMIT ALL SELECTED EQUIPMENT AND ALL ADDITIONAL EQUIPMENT REQUIREMENTS FOR APPROVAL. COORDINATE ALL EQUIPMENT LOADS WITH MATERIAL FABRICATORS.

DESIGN INCLUDES NO PROVISION FOR FUTURE VERTICAL EXPANSION OF THE STRUCTURE. FUTURE HORIZONTAL CONSTRUCTION SHALL BE STRUCTURALLY INDEPENDENT AND SEPARATED BY A BUILDING JOINT.

SPECIAL INSPECTIONS

TESTING AND INSPECTION OF THE FOLLOWING BUILDING ELEMENTS IS TO BE PROVIDED IN ACCORDANCE WITH THE 2018 INTERNATIONAL BUILDING CODE, CHAPTER 17. (SEE SPECIFICATIONS FOR DETAILED INSPECTION REQUIREMENTS):

1. PREPARED FILL: SITE PREPARATION, FILL PLACEMENT, AND EVALUATION OF IN-PLACE DENSITY.
2. CONCRETE CONSTRUCTION: MATERIALS, REINFORCING STEEL, FOUNDATION SUBGRADE AND PLACMENT OPERATIONS.
3. MASONRY CONSTRUCTION: MATERIALS, STRENGTH, AND CONSTRUCTION OPERATIONS.
4. WOOD CONSTRUCTION: FLOOR AND ROOF TRUSS FABRICATION.
5. STRUCTURAL STEEL CONSTRUCTION: MATERIALS AND ERECTION, INCLUDING CONNECTIONS, BOLTING AND WELDING.

GENERAL REQUIREMENTS AND CONDITIONS

WHERE A SECTION OR DETAIL IS SHOWN FOR ONE CONDITION, IT SHALL APPLY TO ALL LIKE CONDITIONS EVEN THOUGH NOT SPECIFICALLY MARKED ON THE PLANS.

DIMENSIONS AND ELEVATIONS SHOWN FOR EXISTING CONSTRUCTION ARE BASED ON EXISTING CONSTRUCTION DRAWINGS AND ARE NOT FIELD-MEASURED. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, AND GEOMETRY AT EXISTING CONSTRUCTION. REPORT DISCREPANCIES TO THE ARCHITECT IMMEDIATELY.

WHERE ATTACHMENTS (BOLTS, WELDS, STRAPS, ETC…) ARE DENOTED AS "ON-CENTER" ALONG A MEMBER LENGTH, IT IS IMPLIED THAT AT LEAST ONE (1) ATTACHMENT IS PLACED AT THE BEGINNING AND END OF SUCH MEMBER (WITHIN 6", UNLESS NOTED OTHERWISE).

THE CONTRACTOR SHALL PROTECT THE STRUCTURE DURING CONSTRUCTION AGAINST EARTH PRESSURE, WIND AND OTHER FORCES UNTIL PERMANENT SUPPORTS ARE IN PLACE.

RELATED WORK SPECIFIED OR SHOWN ELSEWHERE

REFER TO PROJECT SPECIFICATIONS AND OTHER PROJECT DRAWINGS FOR RELATED WORK SPECIFIED OR SHOWN ELSEWHERE INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

1. PENETRATIONS, SLEEVES, OPENINGS.
2. INSERTS, EMBEDS, ANCHOR BOLTS AND ANCHORAGE FOR ATTACHMENT OF NON-STRUCTURAL ITEMS.
3. SIZE AND LOCATION OF EQUIPMENT FOUNDATIONS AND PADS
4. ROOF CURBS FOR ROOF MOUNTED EQUIPMENT.
5. RETAINING WALLS, UTILITY STRUCTURES, PAVEMENT, WALKS AND OTHER STRUCTURES OUTSIDE THE BUILDING LINE.
6. FLOOR DEPRESSIONS, FLOOR SLOPES, AND FLOOR SLOPES TO DRAIN.
7. STAIRS, STAIR DETAILS AND STAIR DIMENSIONS.

FOUNDATIONS

STRIP AND SPREAD FOOTINGS ARE DESIGNED IN ACCORDANCE WITH THE RECOMMENDATIONS FOUND IN THE "REPORT OF GEOTECHNICAL EXPLORATION; JKV COURTYARD E BUILDING" PREPARED BY KRUGER TECHNOLOGIES, INC DATED SEPTEMBER 25, 2023. KTI PROJECT NUMBER: 223164G.

SPREAD FOOTINGS ARE DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 2500 PSF.

THE PREPARED FOUNDATION BEARING SOILS SHALL NOT BE LEFT EXPOSED DURING INCLEMENT WEATHER OR OPEN AND EXPOSED LONGER THAN 24 HOURS. PLACE A 2-1/2" THICK UNREINFORCED CONCRETE PAD OVER BEARING SOILS IF EXCAVATION WILL BE OPEN MORE THAN 24 HOURS OR INCLEMENT WEATHER IS EXPECTED.

ALL FOUNDATIONS SHALL BE CENTERED UNDER SUPPORTED WALLS AND COLUMNS, UNLESS NOTED OTHERWISE.

STRUCTURAL FILL MATERIAL AND COMPACTION PROCEDURES SHALL CONFORM TO THE ABOVE-REFERENCED GEOTECHNICAL REPORT.

CONCRETE

AS FOLLOWS:

DESCRIPTION	UNIT WEIGHT (P C F)	F'C AT 28 DAYS (P S I)
FOOTINGS AND GRADE BEAMS	150	3000
SLABS ON GRADE	150	3000
EXTERIOR FLAT WORK	150	4500

REINFORCING STEEL SHALL MEET ASTM A615, GRADE 60, DEFORMED.

MINIMUM LAP SPLICES FOR REINFORCING BARS SHALL BE CLASS B, TENSION LAP CONFORMING TO ACI 318. STAGGER LAP SPLICES, UNLESS INDICATED OTHERWISE.

PROVIDE THE FOLLOWING MINIMUM CONCRETE COVER FOR REINFORCING BARS:
- CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
- CONCRETE EXPOSED TO EARTH OR WEATHER:
  - #6 AND LARGER: 2"
  - #5 AND SMALLER: 1-1/2 "
- CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
  - SLABS, WALLS
    - #11 AND SMALLER: ¾"

CONCRETE WALLS INTERSECTING CONCRETE PIERS SHALL BE CAST MONOLITHICALLY WITH PIERS, UNLESS INDICATED OTHERWISE.

CONCRETE MASONRY UNITS

CONCRETE UNIT MASONRY SHALL DEVELOP AN INSTALLED COMPRESSIVE STRENGTH (f'm) AT 28 DAYS OF 2000 PSI.

GROUT FOR CONCRETE UNIT MASONRY SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 2000 PSI.

GROUT SOLID ALL CELLS BELOW GRADE.

GROUT SOLID ALL CELLS BETWEEN FOOTINGS AND SLAB ON GRADE.

IN ALL GROUTED AND/OR REINFORCED MASONRY, PROVIDE MASONRY UNITS WHICH HAVE CORES THAT ALIGN VERTICALLY TO PROVIDE CONTINUOUS UNOBSTRUCTED CELLS FOR GROUTING AND REINFORCING STEEL PLACEMENT.

WHERE MASONRY IS INDICATED TO BE FULLY GROUTED OR GROUTED SOLID, ALL CORES WITH AND WITHOUT REINFORCEMENT SHALL BE GROUTED.

LAP SPLICE REINFORCEMENT IN CONCRETE UNIT MASONRY AS FOLLOWS:

BAR SIZE	LAP LENGTH
#3	18"
#4	24"
#5	30"
#6	43"

ALL CONCRETE MASONRY UNIT WALLS SHALL HAVE CONTINUOUS HORIZONTAL JOINT REINFORCEMENT AS SPECIFIED.

STRUCTURAL STEEL

STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:
"W" SHAPES, BEAMS AND COLUMNS: ASTM A992.
COLD-FORMED STRUCTURAL STEEL TUBING: ASTM A 500, GRADE C.
OTHER SHAPES, PLATES AND BARS: ASTM A36, (Fy=36KSI).

ALL BOLTS SHALL BE ¾" DIAMETER, ASTM A325-N, TYPE 1, UNLESS NOTED OTHERWISE.

MINIMUM WELDS SHALL BE 3/16" FILLET WELD ALL AROUND UNLESS INDICATED OTHERWISE.

ALL BEAM CONNECTIONS SHALL BE DOUBLE-ANGLE OR SINGLE-PLATE SHEAR CONNECTIONS DESIGNED FOR THE MINIMUM FACTORED END REACTIONS INDICATED, OR WHERE NO REACTION IS INDICATED, DESIGNED FOR LESS THAN FIFTEEN (15) KIPS.

ALL STRUCTURAL STEEL BELOW GRADE SHALL HAVE 3" CONCRETE PROTECTION.

DO NOT USE THERMAL CUTTING OF STRUCTURAL STEEL DURING ERECTION.
DO NOT ENLARGE UNFAIR HOLES IN MEMBERS BY BURNING OR BY USING DRIFT PINS.

PROVIDE CAP PL 3/8" AT ALL STEEL COLUMNS UNLESS NOTED OTHERWISE.

ROUGH CARPENTRY AND ENGINEERED LUMBER PRODUCTS

LUMBER: NOMINAL SIZES ARE INDICATED, EXCEPT AS SHOWN BY DETAIL DIMENSIONS. PROVIDE DRESSED LUMBER, S4S, UNLESS NOTED OTHERWISE. PROVIDE LUMBER WITH 19 PERCENT MOISTURE CONTENT AT TIME OF DRESSING AND SHIPMENT FOR SIZES 2" OR LESS IN NOMINAL THICKNESS, UNLESS NOTED OTHERWISE.

DIMENSION LUMBER (SPECIES AND GRADE):
- LOAD BEARING STUDS: NO.1/ NO. 2 SPRUCE PINE FIR
- STRUCTURAL FRAMING AND SILL AND TOP PLATES: SOUTHERN PINE NO. 2, KILN DRIED

ALL STUD-FRAMED WALLS SHALL BE FRAMED CONTINUOUS, WITHOUT INTERRUPTION, FROM FOUNDATION TO FLOOR OR ROOF MEMBER BEARING (PLATFORM FRAMED).

ALL 4x4 AND 6x6 WOOD POSTS SHALL BE PRESSURE-TREATED SOUTHERN PINE NO. 2, UNO.

LAMINATED VENEER LUMBER (LVL) PRODUCTS SHALL MEET OR EXCEED ALL MATERIAL PROPERTIES FOR I-LEVEL BY WEYERHAUSER: E=1900 KSI (1.9E).

LAMINATED STRAND LUMBER (LSL) PRODUCTS SHALL MEET OR EXCEED ALL MATERIAL PROPERTIES FOR TIMBERSTRAND BY WEYERHAUSER: E=1550 KSI (1.55E).

PARALLEL STRAND LUMBER (PSL) PRODUCTS SHALL MEET OR EXCEED ALL MATERIAL PROPERTIES FOR I-LEVEL BY WEYERHAUSER: E=2000 KSI (2.0E) FOR BEAMS AND HEADERS, AND E=1800 KSI (1.8E) FOR COLUMNS.

ALL FASTENERS, FRAMING HARDWARE, AND CONNECTOR PLATES FASTENING PRESSURE PRESERVATIVE-TREATED (PT) LUMBER SHALL BE HOT DIPPED GALVANIZED OR STAINLESS STEEL IN ACCORDANCE WITH SPECIFICATION 061000-ROUGH CARPENTRY.

ALL NAILS SHALL BE CONSIDERED "COMMON NAILS" UNLESS NOTED OTHERWISE.

WOOD SHEATHING

CONSTRUCTION STANDARD: PS1 "US PRODUCT STANDARD FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD" FOR PLYWOOD PANELS AND WITH AMERICAN PLYWOOD ASSOCIATION (APA) "PERFORMANCE STANDARD AND POLICIES FOR STRUCTURAL-USE PANELS."

EXTERIOR WALL SHEATHING:	APA RATED SHEATHING, EXPOSURE I, SPAN RATING 32/16.
INTERIOR WALL SHEATHING:	APA RATED SHEATHING, EXPOSURE I, SEE SCHEDULE FOR SPAN RATING
FLOOR SHEATHING:	APA RATED TONGUE-AND-GROOVE STURD-I-FLOOR, EXPOSURE 1, SPAN RATING 24" OC.
ROOF SHEATHING:	APA RATED SHEATHING, EXPOSURE I, SPAN RATING 40/20.
PLYWOOD CLIPS:	18-GAUGE, HOT-DIPPED GALVANIZED "H" CLIPS.

ATTACH SHEARWALL WALL SHEATHING TO FRAMING AS INDICATED IN SHEARWALL SCHEDULE. ATTACH REMAINING WALL, FLOOR, AND ROOF SHEATHING TO FRAMING WITH 8d COMMON NAILS @ 6" OC AT PANEL PERIMETER AND 12" OC IN FIELD. PROVIDE BLOCKING AT HORIZONTAL PANEL EDGES OF WALL SHEATHING.

PREFABRICATED WOOD TRUSSES

TRUSSES SHALL BE DESIGNED FOR ALL LOADS AS REQUIRED BY ABOVE REFERENCED BUILDING CODE, INCLUDING WIND, SNOW AND SEISMIC BUT SHALL NOT BE LESS THAN THE FOLLOWING MINIMUM LOADS:
ROOF LIVE LOADS:
- TOP CHORD, LIVE LOAD: VARIES, SEE "BASIS OF DESIGN" ABOVE
- BOTTOM CHORD, LIVE LOAD: 10 PSF, NONCONCURRENT WITH ROOF LIVE LOAD

FLOOR LIVE LOADS:
- TOP CHORD, LIVE LOAD: VARIES, SEE "BASIS OF DESIGN" ABOVE

ROOF SUPERIMPOSED DEAD LOADS:
DEAD LOADS SHALL BE COMPUTED FOR BUILDING MATERIALS AS INDICATED AND SHALL NOT BE LESS THAN:
TOP CHORD, DEAD LOAD: 15 PSF
BOTTOM CHORD, DEAD LOAD: 10 PSF
FLOOR SUPERIMPOSED DEAD LOADS:
DEAD LOADS SHALL BE COMPUTED FOR BUILDING MATERIALS AS INDICATED AND SHALL NOT BE LESS THAN:
TOP CHORD, DEAD LOAD: 20 PSF
BOTTOM CHORD, DEAD LOAD: 10 PSF

TRUSS DESIGN SHALL ACCOUNT FOR SPECIAL LOADING CONDITIONS THAT REQUIRE APPLICATION OF ADDITIONAL DISTRIBUTED AND CONCENTRATED LOADS FROM MECHANICAL EQUIPMENT, DORMERS, VALLEY FRAMING, OVER BUILDING, AND DRIFTING SNOW. DRIFTING SNOW LOADS SHALL BE COMPUTED BASED ON THE GROUND SNOW LOAD LISTED ABOVE.

TRUSS BOTTOM CHORD DOES RECEIVE CONTINUOUS SHEATHING

ROOF TRUSSES SHALL BE SPACED AT 24" O.C. MAXIMUM, UNLESS INDICATED OTHERWISE.

FLOOR TRUSSES SHALL BE SPACED AT 16" O.C. MAXIMUM, UNLESS INDICATED OTHERWISE.

ROOF TRUSSES SHALL BE CONNECTED TO BEARING PLATE WITH SIMPSON TYPE H HURRICANE TIES OR OTHER HOLD DOWN ANCHOR DEVICES FOR THE REACTION SHOWN ON THE TRUSS SHOP DRAWINGS, BUT NOT LESS THAN ONE SIMPSON H3 HURRICANE ANCHOR PER BEARING LOCATION, UNLESS NOTED OTHERWISE.
MULTIPLE ANCHORS ARE ACCEPTABLE AT LOCATIONS WHERE REACTION EXCEEDS CAPACITY OF SINGLE CONNECTOR.

ALL TRUSSES WHICH CANNOT BE SHIPPED WHOLE AND REQUIRE A FIELD CONNECTION SHALL BE DESIGNED, DETAILED AND FABRICATED WITH BOLTED OR PLYWOOD GUSSETED JOINTS.

STEEL LINTELS AT BRICK AND CMU

ALL LINTELS SHALL CONFORM TO ARCHITECTURAL HEAD DETAILS.

UNLESS NOTED OTHERWISE, PROVIDE ONE L4x3-1/2x1/4" FOR SPANS LESS THAN 6'-0" AND ONE L6x3-1/2"x3/8" FOR SPANS BETWEEN 6'-0" AND 11'-6" FOR EACH NOMINAL 4" MASONRY THICKNESS AS LINTELS FOR BRICK OPENINGS, AND OVER ALL OPENINGS IN CMU WALLS AT DOORS, DUCTS, RECESSED HEATING UNITS, PANELS, GRILLS OR LOUVERS.

LINTELS SUPPORTING BRICK AND LINTELS SUPPORTING EXTERIOR CMU SHALL BE HOT-DIPPED GALVANIZED.

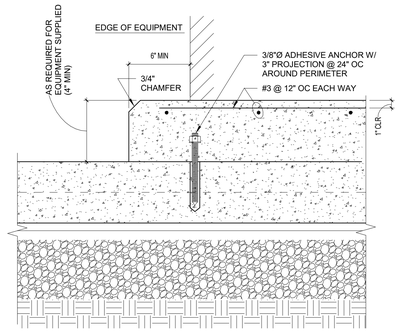
SUBMIT SHOP DRAWINGS FOR APPROVAL SHOWING SCHEDULES, DETAILS, SIZE AND LOCATION FOR ALL STEEL LINTELS.

EXPANSION & ADHESIVE ANCHORS

ALL EXPANSION ANCHORS SHALL BE 5/8" DIAMETER WITH 4" MINIMUM EMBEDMENT UNLESS NOTED OTHERWISE. INSTALL PER MANUFACTURER'S REQUIREMENTS IN CONCRETE OR FULLY GROUTED MASONRY.

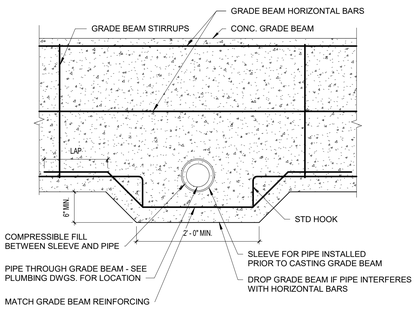
ALL ADHESIVE ANCHORS SHALL BE 5/8" DIAMETER WITH 5" MINIMUM EMBEDMENT UNLESS NOTED OTHERWISE. INSTALL PER MANUFACTURER'S REQUIREMENTS IN CONCRETE OR FULLY GROUTED MASONRY.

NO ANCHOR SHALL BE INSTALLED PRIOR TO RECEIVING PROPER INSTALLATION TRAINING FROM A MANUFACTURER'S REPRESENTATIVE. ALL ANCHORS SHALL BE INSTALLED BY PERSONNEL TRAINED BY MANUFACTURER'S REPRESENTATIVE.

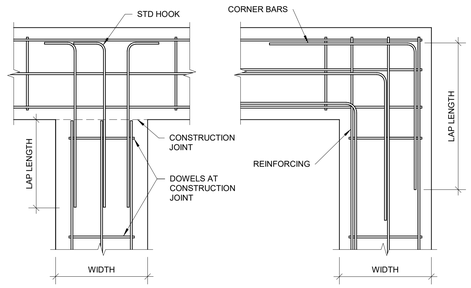


NOTES:
1. SEE MECHANICAL, PLUMBING & ELECTRICAL DRAWINGS FOR EQUIPMENT LOCATIONS REQUIRING EQUIPMENT PADS.

8 S0.1 TYP INTERIOR EQUIPMENT PAD
1 1/2" = 1'-0"



7 S0.1 TYP PIPE THROUGH GRADE BEAM
1" = 1'-0"

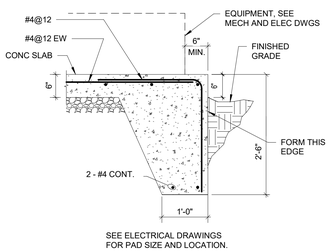


PLAN DETAIL - INTERSECTION

PLAN DETAIL - CORNER

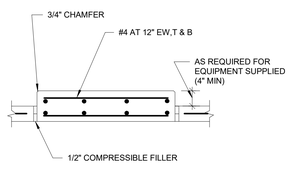
1. LAP REINFORCING AT SPLICES ACCORDING TO SCHEDULE 2/S0.1.
2. PROVIDE CORNER BARS TO MATCH SIZE AND NUMBER OF REINFORCING BAR AT ALL GRADE BEAM CORNERS

6 S0.1 TYP GRADE BEAM DETAILS
3/4" = 1'-0"



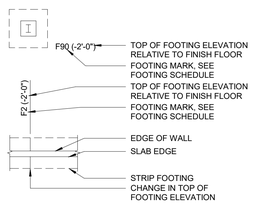
SEE ELECTRICAL DRAWINGS FOR PAD SIZE AND LOCATION.

10 S0.1 TYP GENERATOR EQUIPMENT PAD
3/4" = 1'-0"

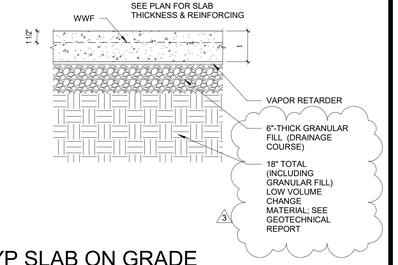


NOTE: SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR TYPE, SIZE, AND LOCATION OF EQUIPMENT PADS.

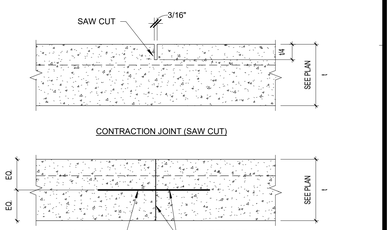
9 S0.1 TYP ISOLATED EQUIP PAD DETAIL
3/4" = 1'-0"



5 S0.1 FOUNDATION LEGEND
N.T.S.



4 S0.1 TYP SLAB ON GRADE
1 1/2" = 1'-0"



NOTE:
LOCATE JOINTS LESS THAN 15'-0" APART, WITH THE LENGTH OF A SLAB PANEL NOT EXCEEDING THE WIDTH BY MORE THAN 50%. SUBMIT JOINT LAYOUT FOR APPROVAL PER SPECIFICATIONS.

3 S0.1 TYP SLAB ON GRADE JOINTS
3" = 1'-0"

TENSION LAP SPLICE LENGTH

BAR SIZE:	f'c = 3000psi		f'c = 4000psi	
	TOP BAR	OTHER BAR	TOP BAR	OTHER BAR
#3	28	22	25	19
#4	38	29	32	25
#5	47	36	41	31
#6	56	43	49	37
#7	81	63	71	54
#8	93	72	81	62
#9	105	81	91	70
#10	116	90	101	78
#11	128	98	111	85

TOP BARS ARE HORIZONTAL BARS WITH 12" OR MORE OF FRESH CONCRETE CAST BENEATH THE BARS.

2 S0.1 TENSION LAP SPLICE LENGTH SCHED
1 1/2" = 1'-0"

ABV	ABOVE	JST	JOIST
ADH AHR	ADHESIVE ANCHOR	JT	JOINT
ADJ	ADJACENT		
AFF	ABOVE FINISHED FLOOR	K	KIP (1000 POUNDS)
APPROX	APPROXIMATE	KSI	KIPS PER SQUARE INCH
ARCH.	ARCHITECTURAL		
		LBS	POUNDS
BLDG	BUILDING	LLH	LONG LEG HORIZONTAL
BLW	BELOW	LLV	LONG LEG VERTICAL
BM	BEAM		
BOT	BOTTOM	MAX.	MAXIMUM
BRG	BEARING	MECH	MECHANICAL
BTWN	BETWEEN	MEP	MECHANICAL, ELECTRICAL, PLUMBING
CIP	CAST-IN-PLACE	MFR	MANUFACTURER
CJ	CONTROL JOINT	MID	MIDDLE
CL	CENTERLINE	MIN	MINIMUM
CLR	CLEAR	MTL	METAL
CMU	CONCRETE MASONRY UNITS		
COL	COLUMN	NTS	NOT TO SCALE
CONC	CONCRETE		
CONN	CONNECTION	OC (O/C)	ON CENTER
CONT	CONTINUOUS	OPNG	OPENING
DIA	DIAMETER	PAF	POWER-ACTUATED FASTENER
DIAG	DIAGONAL	PERP	PERPENDICULAR
DIM.	DIMENSION	PL	PLATE
DWG(S)	DRAWING(S)	PSF	POUNDS PER SQUARE FOOT
		PSI	POUNDS PER SQUARE INCH
EA	EACH	PT	POINT
EF	EACH FACE		
EJ	EXPANSION JOINT	R	RADIUS
ELEC	ELECTRICAL	REINF	REINFORCEMENT, REINFORCED
ELEV	ELEVATION	REQ'D	REQUIRED
EMBED	EMBEDMENT		
EOS	EDGE OF SLAB	SCHED	SCHEDULE
EQ	EQUAL	SHT	SHEET
EQUIP.	EQUIPMENT	SIM	SIMILAR
EW	EACH WAY	SOG	SLAB ON GRADE
EXST	EXISTING	STD	STANDARD
EXT	EXTERIOR	STIFF.	STIFFENER
EXPN AHR	EXPANSION ANCHOR	STL	STEEL
		STRL	STRUCTURAL
FIN. FLR	FINISHED FLOOR	SYM	SYMMETRICAL
FFE	FINISHED FLOOR ELEVATION		
FLG	FLANGE	T&B	TOP AND BOTTOM
FRMG	FRAMING	THK	THICK
FTG	FOOTING	TOF	TOP OF FOOTING
		TOS	TOP OF STEEL
GA	GAUGE	TRANSV	TRANSVERSE
GALV	GALVANIZED	TYP	TYPICAL
GB	GRADE BEAM		
		UNO	UNLESS NOTED OTHERWISE
HDU	HOLD DOWN UNIT		
HORIZ	HORIZONTAL	VERT	VERTICAL
		VIF	VERIFY IN FIELD
INFO	INFORMATION		
INT	INTERIOR	W/	WITH
		WP	WORKING POINT
		WWF	WELDED WIRE FABRIC

1 S0.1 STRUCTURAL ABBREVIATIONS
N.T.S.

CONSTRUCTION SET

STATE OF MISSOURI
LINDSEY B. FASNACHT
NUMBER PE-2022006433
01/05/24
PROFESSIONAL ENGINEER

PROJECT TITLE

John Knox Village

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Architecture Engineering Planning Interiors

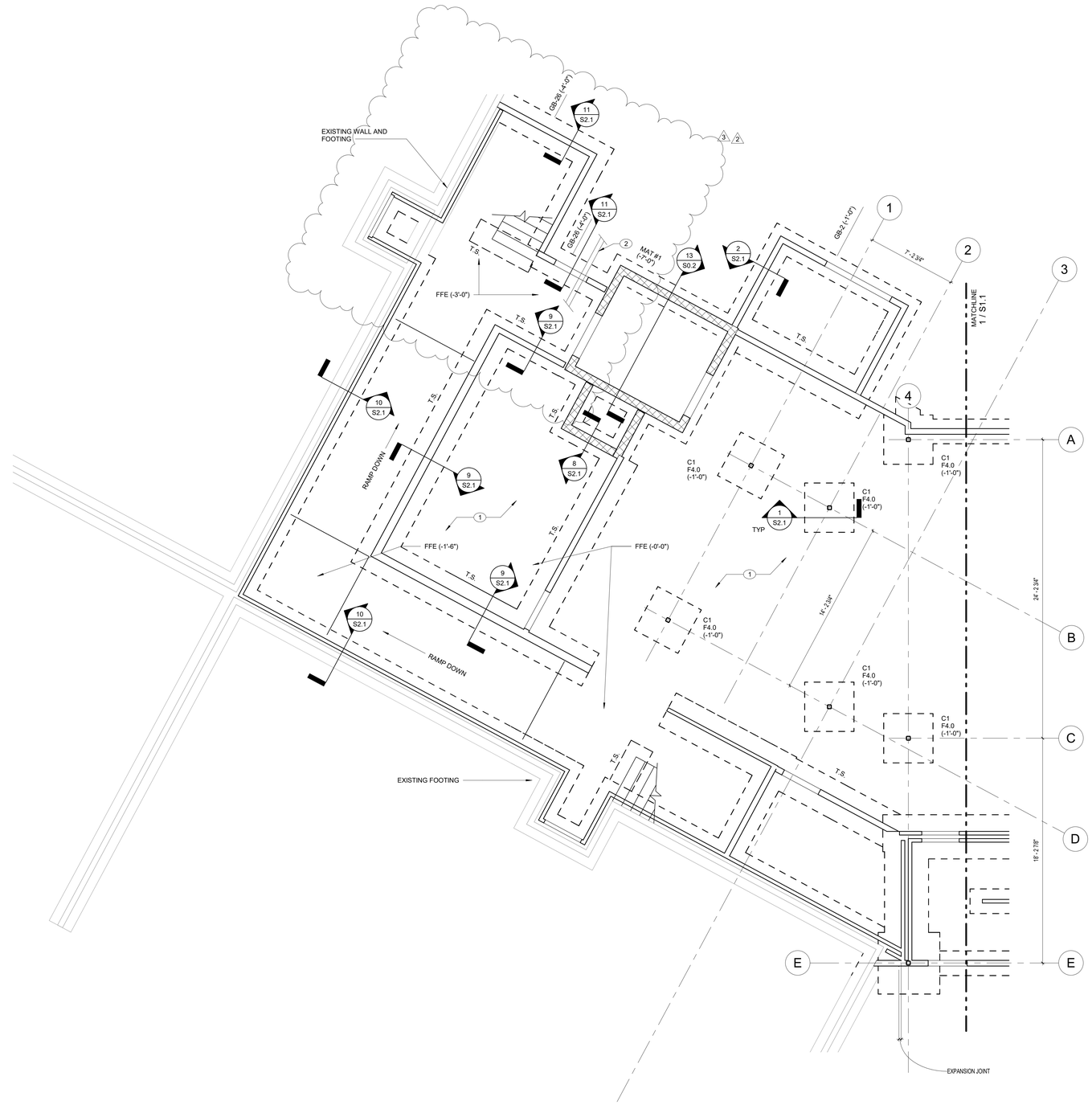
DESIGNER	DAS	DRAWN	BSW
ARCHITECT	DAS	CHECKED	BDT
ENGINEER	LBF	APPROVED	Approver

NO.	REVISION DESCRIPTION	DATE
3	ADDENDUM 1	03/07/24

DRAWING TITLE

GENERAL NOTES AND TYPICAL DETAILS

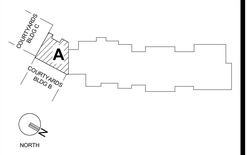
DATE: January 5, 2024
COMM. NO. 23104.00
DRAWING S0.1



1 S1.6 ATRIUM - FIRST FLOOR PLAN

1/4" = 1'-0"

KEYPLAN



GENERAL NOTES

1. TOP OF FIRST FLOOR CONCRETE SLAB ELEVATION = (+0'-0"), UNLESS NOTED OTHERWISE.
2. TOP OF FOOTING ELEVATION= (-1'-0") BELOW REFERENCE FIRST FLOOR, UNLESS NOTED OTHERWISE.
3. FINISHED SECOND FLOOR ELEVATION= (+11'-4") ABOVE REFERENCE FIRST FLOOR, UNLESS NOTED OTHERWISE. TOP OF SECOND FLOOR PLYWOOD ELEV= (-0'-1") BELOW FINISHED FLOOR ELEVATION.
4. TRUSS BEARING ELEV. AT VESTIBULE VARIES WITH LANDING ELEVATIONS, AS REFERENCE FROM BUILDING E SECOND FLOOR ELEVATION. SEE PLAN.
5. REINFORCE ALL CMU WALLS W/ #5 VERTICAL @ 32" O/C, U.N.O.
6. SHADING INDICATES SHEARWALL LOCATION. SEE S4.1 FOR SHEARWALL ELEVATIONS AND LOCATIONS OF SIMPSON HOLDDOWN AT EACH END OF SHEARWALL.
7. CONTRACTOR SHALL COORDINATE ALL FLOOR FRAMING INTERFERENCES WITH MEP. ADD HEADERS AS REQUIRED TO PROVIDE NECESSARY CLEARANCES.
8. SEE SECTION 6S0.3 FOR WOOD BEAM TO STEEL COLUMN CONNECTION.
9. SEE 6S0.2 FOR BEARING WALL SCHEDULE.
10. BEAMS SHALL BE SUPPORTED BY 3-2X WALL STUDS, UNLESS NOTED OTHERWISE. SEE 7S0.2 FOR POST SCHEDULE.
11. "T.S." INDICATES THICKENED SLAB UNDER WALL OR STAIR STRINGER.

PLAN NOTES

1. 4"-THICK CONCRETE SLAB ON GRADE ON VAPOR RETARDER AND GRANULAR FILL, REINFORCED WITH 6x6-W1.4xW1.4 WELDED WIRE FABRIC.
2. UNDERGROUND UTILITY. SEE S0.1 AND PLUMBING DRAWINGS. THICKEN GRADE BEAM TO MAINTAIN 8" CONCRETE BELOW BOTTOM OF PIPE.

CONSTRUCTION SET

STATE OF MISSOURI LINDSEY B FASNACHT NUMBER PE-2022006433 01/05/24 PROFESSIONAL ENGINEER

PROJECT TITLE

John Knox Village

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DESIGNER : DAS		DRAWN : BSW	
ARCHITECT : DAS		CHECKED : BDT	
ENGINEER : LBF		APPROVED : Approver	

NO.	REVISION DESCRIPTION	DATE
2	REV 1- PERMIT COMMENTS	2/15/24
3	ADDENDUM 1	03/07/24

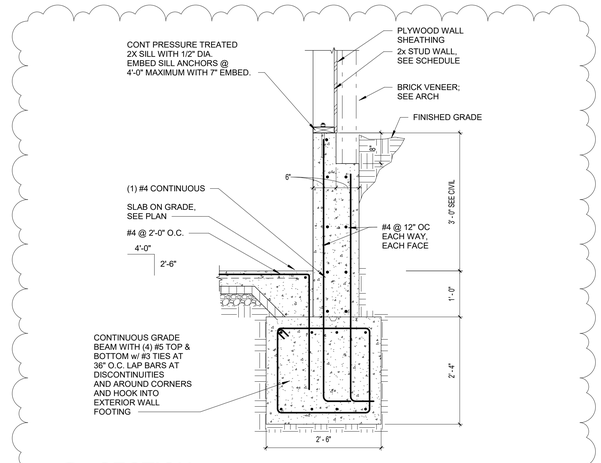
DRAWING TITLE

FOUNDATION PLAN - ATRIUM

DATE: January 5, 2024

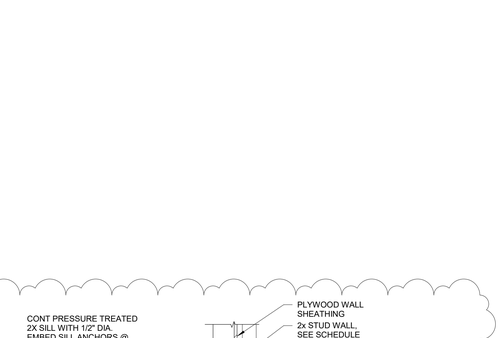
COMM. NO. 23104.00

DRAWING S1.6



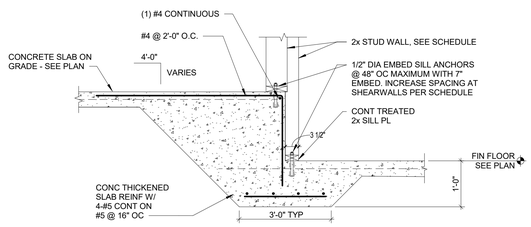
11 S2.1 **SECTION**

3/4" = 1'-0"



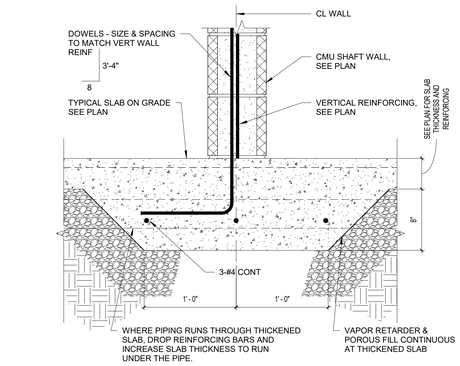
10 S2.1 **SECTION**

3/4" = 1'-0"



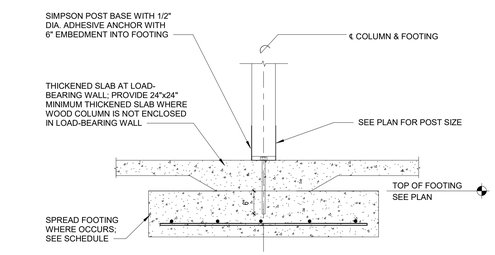
9 S2.1 **SECTION**

3/4" = 1'-0"



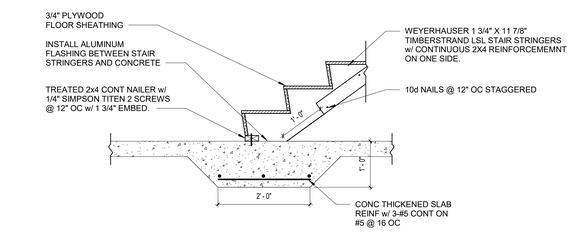
8 S2.1 **TYP THICKENED SLAB AT CMU**

1 1/2" = 1'-0"



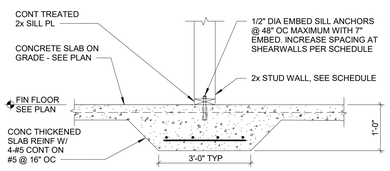
7 S2.1 **TYP INTERIOR POST FOOTING**

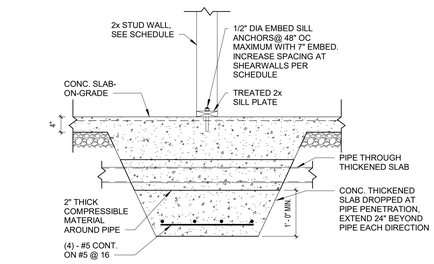
3/4" = 1'-0"



6 S2.1 **STAIR ATTACHMENT TO SLAB**

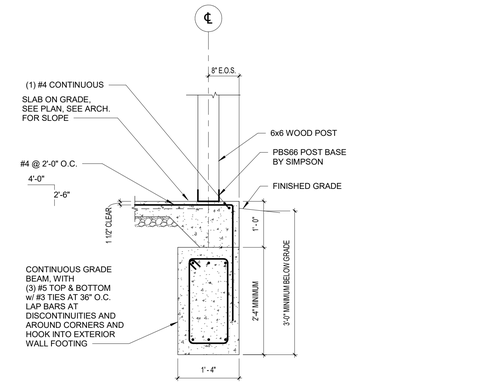
3/4" = 1'-0"





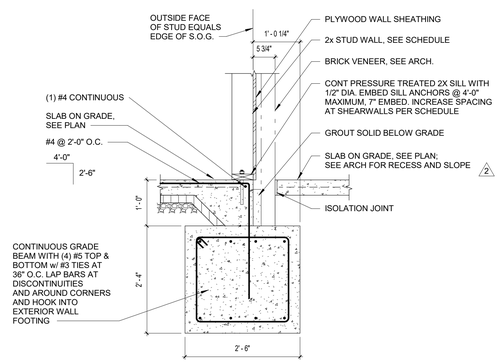
TYP THK SLAB UNDER WOOD STUD BEARING WALL

5 S2.1 3/4" = 1'-0"



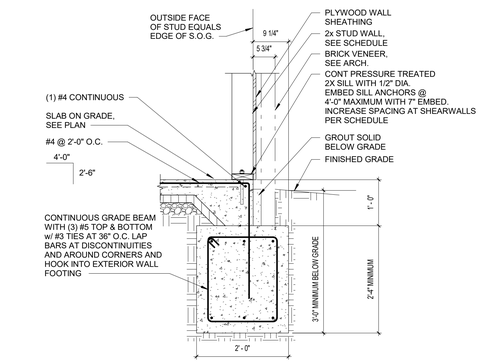
4 S2.1 **TYP PORCH POST ON GRADE BEAM**

3/4" = 1'-0"



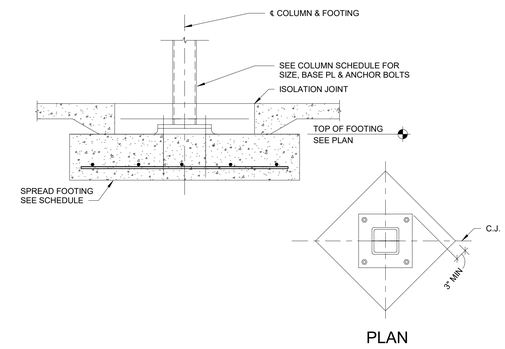
3 S2.1 **TYP GRADE BEAM WITH EXTERIOR SLAB**

3/4" = 1'-0"



TYP BEARING WALL ON PERIMETER GRADE BEAM

2 S2.1 3/4" = 1'-0"



1 S2.1 **TYP STEEL COLUMN ON INTERIOR FOOTING**

3/4" = 1'-0"

CONSTRUCTION SET

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ENGINEER : LBF		APPROVED : Aprover	

NO.	REVISION DESCRIPTION	DATE
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3	ADDENDUM 1	03/07/24

DRAWING TITLE

FOUNDATION SECTIONS AND DETAILS

DATE: January 5, 2024

COMM. NO. 23104.00

DRAWING S2.1

PLUMBING FIXTURE SCHEDULE

TAG	DESCRIPTION	MINIMUM CW	MINIMUM HW	MINIMUM TRAP	MINIMUM SOIL OR WASTE	MINIMUM VENT
	WATER CLOSETS:					
P-10	GERBER "VIPER" MODEL 21-518 ELONGATED BOWL, ADA COMPLIANT, FLOOR MOUNTED, WHITE, TANK TYPE, 1.6 GPF BOLT CAPS AND WHITE CLOSED FRONT SEAT WITH COVER, WITH SLOW CLOSE STAINLESS STEEL CHECK HINGES AND ANGLE SUPPLY WITH WHEEL HANDLE STOPS.	1/2"	-	-	3"	1-1/2"
P-11	GERBER "VIPER" MODEL 21-518 ELONGATED BOWL, ADA COMPLIANT, FLOOR MOUNTED, WHITE, TANK TYPE, 1.6 GPF BOLT CAPS AND WHITE OPEN FRONT SEAT WITH COVER, WITH SLOW CLOSE STAINLESS STEEL CHECK HINGES AND ANGLE SUPPLY WITH WHEEL HANDLE STOPS.	1/2"	-	-	3"	1-1/2"
	LAVATORIES: PROVIDE COMPLETE UNDER LAVATORY ANTI-MICROBIAL WASTE AND WATER PIPING PROTECTION INSULATION KITS AS MANUFACTURERED BY PLUMBEREX SPECIALTY PRODUCTS, INC., OR TRUEBRO, INC. ON ALL HANDICAPPED LAVATORIES.					
P-30	LAVATORY BOWL: INTEGRAL WITH COUNTERTOP. SEE ARCHITECTURAL FINISH SPECIFICATIONS. FAUCET: PEERLESS MODEL P136LF-M SINGLE LEVER HANDLE, 1.5 GPM, BRUSHED NICKEL FINISH. 3 ACCESSORIES: POP UP DRAIN.	1/2"	1/2"	1-1/4"	1-1/2"	1-1/2"
P-31	LAVATORY BOWL: AMERICAN STANDARD "OVALYN" MODEL 0496.221, WHITE, UNDERMOUNT BOWL 19-1/4" X 16-1/4". FAUCET: AMERICAN STANDARD "SELECTRONIC" MODEL 6055.105, BATTERY POWERED SENSOR FAUCET, 0.5 GPM, CHROME FINISH ACCESSORIES: GRID DRAIN, WATTS MODEL LFUSG-B-M2 POINT OF USE THERMOSTATIC MIXING VALVE CONFORMING TO ASSE 1070, WITH INTEGRAL CHECK VALVES. SET MAXIMUM OUTLET TEMPERATURE TO 110 DEGREES.	1/2"	1/2"	1-1/4"	1-1/2"	1-1/2"
	SINKS: PROVIDE COMPLETE UNDER SINK ANTI-MICROBIAL WASTE AND WATER PIPING PROTECTION INSULATION KITS AS MANUFACTURERED BY PLUMBEREX SPECIALTY PRODUCTS, INC., OR TRUEBRO, INC. ON ALL HANDICAPPED SINKS.					
P-40	BASIN: ELKAY MODEL ELUH3220, STAINLESS STEEL, DOUBLE BOWL, UNDERMOUNT SINK. 31-1/4" WIDE X 1-8" LONG X 7-7/8" DEEP. FAUCET: PEERLESS MODEL P6935LF, SINGLE HOLE, SINGLE LEVER HANDLE, PULL DOWN SPRAY, 1.5 GPM, CERAMIC CARTRIDGE, STAINLESS STEEL FINISH ACCESSORIES: BASKET STRAINER DRAIN ASSEMBLY. DO NOT INSTALL INCLUDED DECKPLATE.	1/2"	1/2"	1-1/2"	2"	1-1/2"
P-41	(BIRCH UNIT E123, CEDAR UNIT E316) BASIN: ELKAY MODEL ELUHAD3118, STAINLESS STEEL, DOUBLE BOWL, ADA COMPLIANT, UNDERMOUNT SINK. 30-3/4" WIDE X 18-1/2" LONG X 5-1/2" DEEP. FAUCET: PEERLESS MODEL P6935LF, SINGLE HOLE, SINGLE LEVER HANDLE, PULL DOWN SPRAY, 1.5 GPM, CERAMIC CARTRIDGE, STAINLESS STEEL FINISH ACCESSORIES: BASKET STRAINER DRAIN ASSEMBLY. DO NOT INSTALL INCLUDED DECKPLATE.	1/2"	1/2"	1-1/2"	2"	1-1/2"
P-42	MOP SINK: PROFLO MODEL PFMB2424, MOLDED STONE, INTEGRAL DRAIN. 24" WIDE X 24" LONG X 10" DEEP. FAUCET: ZURN MODEL Z843M1 SERVICE SINK FAUCET WITH VACUUM BREAKER AND INTEGRAL CHECK VALVES AND INTEGRAL STOPS. ACCESSORIES: HOSE AND HOSE BRACKET, MOP HANGER, ADJUSTABLE WALL BRACE, PAIL HOOK, STAINLESS STEEL BUMPERGUARDS ON ALL CURBS AND STAINLESS STEEL WALL GUARDS ON ALL ADJACENT WALLS.	1/2"	1/2"	3"	3"	1-1/2"
P-43	BASIN: ELKAY MODEL ELUHAD3118, STAINLESS STEEL, DOUBLE BOWL, ADA COMPLIANT, UNDERMOUNT SINK. 30-3/4" WIDE X 18-1/2" LONG X 5-1/2" DEEP. FAUCET: PEERLESS MODEL P6935LF, SINGLE HOLE, SINGLE LEVER HANDLE, PULL DOWN SPRAY, 1.5 GPM, CERAMIC CARTRIDGE, STAINLESS STEEL FINISH ACCESSORIES: BASKET STRAINER DRAIN ASSEMBLY. DO NOT INSTALL INCLUDED DECKPLATE.	1/2"	1/2"	1-1/2"	2"	1-1/2"
	SHOWERS/TUB/BATHING UNITS: SHOWERS SHALL HAVE A MAXIMUM FLOW RATE OF 2.5 GALLONS PER MINUTE. UNITS SHALL BE CONFIGURED LEFT-HAND AND RIGHT-HAND UNITS AS REQUIRED BY FLOOR PLAN LAYOUT. PROVIDE INLET CHECK STOPS ON ALL SHOWER VALVES THAT ARE CONNECTED TO HAND-HELD SHOWER WANDS WITH ON/OFF CAPABILITY.					
P-60	SURROUND: COMFORT DESIGNS MODEL XSS 6036 BF, ONE PIECE, GELCOAT/FIBERGLASS SHOWER MODULE WITH 1" THRESHOLD, GRAB BARS, SEMI-PERMANENT THRESHOLD AND T-SHAPED WATER STOPPER. SHOWER TRIM: KOHLER "BANCROFT" MODEL K-10583-4 SHOWER TRIM WITH METAL LEVER HANDLE AND SHOWER HEAD WITH KOHLER RITE-TEMP K-8304-KS PRESSURE-BALANCED MIXING SHOWER VALVE WITH INTEGRAL STOPS AND CHECK VALVES. KOHLER "BANCROFT" MODEL K-T10595-4 TRANSFER VALVE, GROHE MODEL 26077EN0 24 INCH SHOWER BAR WITH HAND HELD SHOWER AND 69 INCH HOSE, AND GROHE MODEL 28627EN0 SHOWER OUTLET ELBOW. ALL COMPONENTS TO BE BRUSHED NICKEL FINISH. PROVIDE ALL REQUIRED MATCHING MANUFACTURER ACCESSORIES. DRAIN: PROVIDE 2" BRUSHED NICKEL FINISH SHOWER DRAIN.	1/2"	1/2"	2"	2"	1-1/2"
P-61	SURROUND: AQUARIUS MODEL G 6237 BF. 75, ONE PIECE, ADA COMPLIANT, ROLL-IN, GELCOAT/FIBERGLASS SHOWER MODULE WITH .75" THRESHOLD, ADA GRAB BARS, FACTORY FOLD UP SEAT, SEMI-PERMANENT THRESHOLD AND T-SHAPED WATER STOPPER. SHOWER TRIM: KOHLER "BANCROFT" MODEL K-10583-4 SHOWER TRIM WITH METAL LEVER HANDLE AND SHOWER HEAD WITH KOHLER RITE-TEMP K-8304-KS PRESSURE-BALANCED MIXING SHOWER VALVE WITH INTEGRAL STOPS AND CHECK VALVES, KOHLER "BANCROFT" MODEL K-T10595-4 TRANSFER VALVE, GROHE MODEL 26077EN0 24 INCH SHOWER BAR WITH HAND HELD SHOWER AND 69 INCH HOSE, AND GROHE MODEL 28627EN0 SHOWER OUTLET ELBOW. ALL COMPONENTS TO BE BRUSHED NICKEL FINISH. PROVIDE ALL REQUIRED MATCHING MANUFACTURER ACCESSORIES. DRAIN: PROVIDE 2" BRUSHED NICKEL FINISH SHOWER DRAIN.	1/2"	1/2"	2"	2"	1-1/2"
P-62	BATHTUB: AMERICAN STANDARD "PRINCETON" MODEL 2390.202, WHITE, ACID RESISTANT PORCELAIN FINISH. TRIM: KOHLER "BANCROFT" MODEL K-T10581-4 BATH TRIM KIT WITH METAL LEVER HANDLE, SHOWER HEAD AND TUB SPOUT WITH KOHLER RITE-TEMP K-8304-KS PRESSURE-BALANCED MIXING SHOWER VALVE WITH INTEGRAL STOPS AND CHECK VALVES. KOHLER "BANCROFT" MODEL K-T10595-4 TRANSFER VALVE, GROHE MODEL 26077EN0 24 INCH SHOWER BAR WITH HAND HELD SHOWER AND 69 INCH HOSE, AND GROHE MODEL 28627EN0 SHOWER OUTLET ELBOW. ALL COMPONENTS TO BE BRUSHED NICKEL FINISH. PROVIDE ALL REQUIRED MATCHING MANUFACTURER ACCESSORIES. DRAIN: PROVIDE BRUSHED NICKEL FINISH TUB DRAIN ASSEMBLY WITH OVERFLOW.	1/2"	1/2"	1-1/2"	1-1/2"	1-1/2"
	MISCELLANEOUS:					
P-70	WASHING MACHINE CONNECTION BOX: UNIT SHALL BE RECESSED TYPE. BOX AND FACE PLATE SHALL BE CONSTRUCTED OF 16 GAUGE STEEL WITH EPOXY FINISH, OR HEAVY-DUTY PLASTIC ABS. UNIT SHALL BE FITTED WITH 2-INCH DRAIN CONNECTION WITH OVERFLOW, BOTTOM SUPPLY HOSE CONNECTIONS, AS REQUIRED. WATER HAMMER ARRESTORS CONFORMING TO ASSE 1010. BOXES LOCATED ON RATED CORRIDOR OR RATED UNIT SEPARATION WALL SHAL BE A FIRE-RATED BOX ASSEMBLY APPROVED FOR FIRE-RATED INSTALLATION.	1/2"	1/2"	2"	3"	1-1/2"
P-71	ICE MAKER CONNECTION BOX: UNIT SHALL BE RECESSED TYPE, BOX AND FACE PLATE SHALL BE CONSTRUCTED OF 16 GAUGE STEEL WITH EPOXY FINISH, OR HEAVY-DUTY PLASTIC ABS. UNIT SHALL BE FITTED WITH CHROME PLATED SUPPLY VALVE. BOXES LOCATED ON RATED CORRIDOR OR RATED UNIT SEPARATION WALL SHALL BE A FIRE-RATED BOX ASSEMBLY APPROVED FOR FIRE-RATED INSTALLATION. MOUNT BOTTOM OF BOX ABOVE TRIM/BASEBOARD.	1/2"	-	-	-	-
WH	FREEZE PROOF, AUTOMATIC DRAINING CHROME-PLATED WALL HYDRANT EQUAL TO WOODFORD MODEL #65. MOUNTED 24" ABOVE FINISHED GRADE.	3/4"	-	-	-	-
TP	PROVIDE BRONZE TRAP PRIMER VALVE WITH AUTOMATIC VACUUM BREAKER COMPLYING WITH ASSE 1018 WITH 1/2" CONNECTIONS MATCHING PIPING SYSTEM. PROVIDE TRAP PRIMERS BY PRECISION PLUMBING PRODUCTS, INC.; JOSAM, MFG. CO.; ZURN INDUSTRIES INC.; SMITH MFG. CO; OR WATTS DRAINAGE.	1/2"	-	-	-	-
PH	ZURN Z1395 ROOF POST HYDRANT, NON FREEZE, WITH VACUUM BREAKER, 3/4" HOSE CONNECTION. DEPTH OF BURY TO BE BASED UPON 4 FEET SO THAT DRAIN PORT IS LOCATED BELOW ATTIC INSULATION IN CEILING SPACE OF ROOM BELOW. FIELD VERIFY DEPTH OF BURY PRIOR TO ORDERING.	3/4"	-	-	-	-
WHA	EQUAL TO ZURN Z1700 WATER HAMMER ARRESTOR.	3/4"	-	-	-	-

1. FIXTURES SHALL BE PROVIDED WITH ALL ITEMS, ARTICLES, MATERIALS AND INCIDENTALS, AS REQUIRED, INCLUDING ALL LABOR NECESSARY FOR A COMPLETE PLUMBING INSTALLATION.
2. THE PLUMBING CONTRACTOR SHALL CLEAN ALL FIXTURES, POLISH ALL METAL PARTS, CHECK AND ADJUST ALL FITTINGS, FAUCETS AND VALVES. ALL OPERATING INSTRUCTIONS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR FOR PRESENTATION TO THE OWNER.
3. PROVIDE INDIVIDUAL STOPS ON ALL PLUMBING FIXTURES.
4. ALL LAVATORY, SINK, LAUNDRY TUB, WATER COOLER AND SIMILAR FIXTURE TRAPS, INCLUDING THOSE MOUNTED IN CASEWORK, SHALL BE CHROME PLATED, CAST BRASS, MINIMUM 17-GAUGE, ADJUSTABLE TYPE WITH CLEANOUT PLUG.
5. PROVIDE CHROME PLATED ANGLE STOPS WITH WHEEL HANDLES AT FIXTURE SUPPLY THROUGH WALLS, INCLUDING THOSE MOUNTED IN CASEWORK.
6. ALL EXPOSED SUPPLY PIPES, STOPS, FLEXIBLE RISERS, INCLUDING THOSE MOUNTED IN CASEWORK, SHALL HAVE A POLISHED CHROME PLATED FINISH AND BE OF THE SAME MANUFACTURER THROUGHOUT THE JOB.
7. ALL EXPOSED SUPPLY PIPES, STOPS, P-TRAP, AND ANY WASTE PIPE IN ADA ACCESSIBLE LOCATIONS SHALL HAVE ADA COMPLIANT UNDER-SINK PROTECTION.
8. PROVIDE CHROME PLATED ESCUTCHEONS AT ALL FIXTURE SUPPLY AND WASTE PIPE PENETRATIONS THROUGH WALLS, INCLUDING THOSE MOUNTED IN CASEWORK.
9. ALL WATER CLOSET FLUSHING MECHANISMS ON HANDICAP WATER CLOSETS SHALL BE INSTALLED ON THE "WIDE SIDE" OF EACH WATER CLOSET TO MAINTAIN ADA ACCESSIBILITY.
10. PROVIDE INLET CHECK STOPS ON ALL FIXTURES (I.E. MOP SINKS, KITCHEN PRE-RINSE SPRAY UNITS, SHOWER VALVES, SPA BATHING UNITS AND SIMILAR FIXTURE(S) SUSCEPTIBLE TO BACKFLOW/CROSS CONNECTION SITUATIONS.
11. PROVIDE CONCEALED FIXTURE CARRIERS AND SUPPORTS OF PROPER TYPE AND DESIGN TO SUIT JOB CONDITIONS. PROVIDE CARRIERS BY J.R. SMITH MFG. CO.; ZURN INDUSTRIES, INC.; JOSAM MFG. CO.; WADE DIVISION/TYLER PIPE.
12. PLUMBING FIXTURE COLORS SHALL BE SELECTED BY ARCHITECT/OWNER AT A LATER DATE FROM STANDARD FACTORY COLORS, UNLESS OTHERWISE NOTED TO BE DESIGNER COLOR IN SCHEDULE.
13. PLUMBING FIXTURES AND TRIM SPECIFIED IN THIS SCHEDULE ARE TO ESTABLISH A STANDARD LEVEL OF QUALITY. OTHER MANUFACTURERS MAY BE CONSIDERED EQUAL. SEE LISTINGS BELOW FOR SOME MANUFACTURERS CONSIDERED EQUALS. OTHER MANUFACTURERS NOT LISTED BELOW MAY ALSO BE CONSIDERED WITH WRITTEN APPROVALS OBTAINED FROM ARCHITECT AND/OR ENGINEER PRIOR TO TEN DAYS BEFORE BIDS ARE DUE.
    A. VITREOUS CHINA PLUMBING FIXTURES: AMERICAN STANDARD, SLOAN, KOHLER, PROFLO, ZURN
    B. MOP SINKS, LAUNDRY TUBS: FIAT, E.L. MUSTEE, PROFLO, STERN WILLIAMS
    C. STAINLESS STEEL SINKS: ELKAY, DAYTON, JUST, PROFLO
    D. FAUCETS, SHOWER VALVES AND TRIM, FLUSH VALVES: AMERICAN STANDARD, KOHLER, SLOAN, ELKAY, MOEN, T&S BRASS, DELTA, CHICAGO, PROFLO
    E. SHOWER AND TUBS: COMFORT DESIGNS, BEST BATH, AQUA BATH, AQUARIUS, AMERICAN STANDARD, KOHLER, AQUATIC (LASCO)
14. PROVIDE SHOP DRAWING/SUBMITTAL AND OPERATIONS MANUAL FOR ALL ITEMS LISTED ABOVE IN PLUMBING FIXTURE SCHEDULE.
15. MINIMUM SIZES IN SCHEDULE ABOVE REPRESENT MINIMUM PLUMBING FIXTURE CONNECTIONS ALLOWED AND DOES NOT REFLECT SPECIAL SITUATIONS SUCH AS WET VENTING, WASTE STACK VENTS, COMBINATION WASTE AND VENT SYSTEMS, ETC. REFER TO PLANS AND/OR RISER DIAGRAMS FOR PIPE SIZES AND ADDITIONAL INFORMATION.

PLUMBING DRAINS/CLEANOUT SCHEDULE

PROVIDE SHOP DRAWING/SUBMITTAL AND OPERATIONS MANUAL FOR ALL ITEMS LISTED BELOW.	
	CLEANOUTS: CLEANOUTS SHALL BE LINE SIZE UP TO 4". FOR PIPE SIZES LARGER THAN 4" PROVIDE A 4" CLEANOUT, WHERE ALLOWED BY CODE AND AUTHORITY HAVING JURISDICTION. ALL EXTERIOR AND INLINE CLEANOUTS SHALL BE TWO-WAY.
CO	EXPOSED HORIZONTAL OR VERTICAL CLEANOUT IN PIPING EXPOSED OR CONCEALED ABOVE ACCESSIBLE CEILINGS.
FCO	(REFER TO ARCHITECTURAL DRAWINGS FOR FLOOR FINISH INFORMATION. PROVIDE CLEANOUTS AS DESCRIBED BELOW.) 1. WHERE SHEET VINYL FLOORING SIMILAR TO ALTRO, PROTECTALL AND ETC. IS INSTALLED, PROVIDE WATTS MODEL CO-200-RFC7 FLOOR CLEANOUT WITH SURFACE MEMBRANE CLAMP. 2. FOR AREAS WHERE CARPET WILL BE INSTALLED PROVIDE ROUND ADJUSTABLE CLEANOUT WITH CARPET MARKER. 3. BACK OF HOUSE AREAS (I.E. KITCHEN, UTILITY ROOMS, LAUNDRY ROOMS AND SIMILAR SPACES) WHERE TILE FLOORS ARE TO BE INSTALLED, PROVIDE SQUARE ADJUSTABLE CLEANOUT WITH STAINLESS STEEL COVER. 4. IN PUBLIC AREAS (I.E. DINING ROOMS, CORRIDORS, OFFICES, CONFERENCE ROOMS AND SIMILAR SPACES) WHERE TILE FLOORS ARE TO BE INSTALLED, PROVIDE SQUARE ADJUSTABLE CLEANOUT WITH RECESS TILE COVER. 5. IN AREAS SUBJECT TO TRAFFIC (I.E. PARKING GARAGES, PARKING SPACES AND SIMILAR SPACES) PROVIDE HEAVY DUTY/TRAFFIC RATED CLEANOUT COVER.
GCO	CLEANOUT TO GRADE WITH HEAVY DUTY ACCESS COVER CAST IN A 12" X 12" X 4" THICK CONCRETE PAD. (PAD MAY BE ELIMINATED IN POURED CONCRETE SIDEWALKS, DRIVEWAYS, PATIOS, ETC.)
WCO	PROVIDE CLEANOUT IN VERTICAL PIPE WITH STAINLESS STEEL ACCESS COVER. (WHERE PIPES ARE CONCEALED IN WALLS OR CHASES.)
	ROOF/OVERFLOW DRAINS: ACCEPTABLE MANUFACTURERS: ZURN, WATTS, JOSAM, JAY R. SMITH, FROET INDUSTRIES.
RD	ROOF DRAIN - EQUAL TO ZURN 100. DRAIN SHALL HAVE DURA-COATED CAST IRON BODY WITH POLY-DOME, COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL GUARDS, SUMP RECEIVER, UNDERDECK CLAMPING DEVICE, EXTENSION COLLAR TO SUIT THICKNESS OF INSULATION.
OD	OVERFLOW DRAIN - EQUAL TO ZURN Z100-W2. DRAIN SHALL HAVE DURA-COATED CAST IRON BODY WITH POLY-DOME, INTERNAL OVERFLOW WATER DAM, COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL GUARDS, SUMP RECEIVER, UNDERDECK CLAMPING DEVICE, EXTENSION COLLAR TO SUIT THICKNESS OF INSULATION.
ODS	OVERFLOW DISCHARGE SPOUT - EQUAL TO FROET INDUSTRIES MODEL LPS, OVERFLOW DISCHARGE SPOUT, STAINLESS STEEL FRAME WITH STAINLESS STEEL HINGED STRAINER.
FD-1	(GENERAL PURPOSE, BACK OF HOUSE, CONCRETE FLOORS) - FLOOR DRAIN EQUAL TO ZURN ZN415B. DURA-COATED CAST IRON BODY WITH INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS. TYPE "B" ROUND NICKEL BRONZE STRAINER; 5" STRAINER FOR 2" OUTLET, 6" STRAINER FOR 3" OUTLET AND 8" STRAINER FOR 4" SEEPAGE SLOTS. TYPE "B" ROUND NICKEL BRONZE STRAINER; 5" STRAINER FOR 2" OUTLET, 6" STRAINER FOR 3" OUTLET AND 8" STRAINER FOR 4" OUTLET. 2
FS-1	(TILE FLOORS, CONCRETE FLOORS) - FLOOR SINK - EQUAL TO ZURN ZN1900. 4" BOTTOM OUTLET, CAST-IRON BODY, ANTI-SPLASH INTERIOR AND SEDIMENT BUCKET, NICKEL BRONZE 1/2 GRATE, 12" SQUARE BY 6" DEEP. 2

EQUIPMENT SCHEDULE

PROVIDE SHOP DRAWING/SUBMITTAL AND OPERATIONS MANUAL FOR ALL ITEMS LISTED BELOW. PROVIDE EQUIPMENT TAGS PER SPECIFICATIONS FOR ALL ITEMS LISTED IN THIS SCHEDULE.	
WTR HTR-1 WTR HTR-2	WATER HEATER - EQUAL TO A.O. SMITH MODEL NO. BTH-250 NATURAL GAS FIRED ASME WATER HEATER WITH GLASS TANK LINING AND CONDENSATE NEUTRILIZING KIT. HEATER TO HAVE 100 GALLON NOMINAL STORAGE CAPACITY WITH RECOVERY CAPACITY OF 327 GPH AT 88ºF TEMPERATURE RISE. 250 CFH INPUT RATING, 120V ELECTRICAL CONNECTION.
ET-1	THERMAL EXPANSION COMPENSATOR - EQUAL TO AMTROL ST-25V-C, ASME RATED, 10.3 GALLON CAPACITY.
TMV-1	THERMOSTATIC MIXING VALVE - EQUAL TO LEONARD VALVE "NUCLEUS" MODEL NV-200-LF .115 GPM AT 10 PSIG PRESSURE LOSS, 200 PSIG MAXIMUM OPERATING PRESSURE, TEMPERATURE OUTLET RANGE OF 65ºF - 180ºF. WITH ABILITY TO CONTROL TEMPERATURE +/-2ºF OF SETPOINT, PROVIDE WALL MOUNTING BRACKET. 120V ELECTRICAL CONNECTION. 2
SP-1 SP-2	ELEVATOR SUMP PUMP - EQUAL TO STANCOR SE-50 ELEVATOR SUMP PUMP, 1/2 HP, 120V, 1 PHASE. PROVIDE WITH WATER LEVEL PROBE AND CONTROL PANEL.
BFP-1 BFP-2	BACKFLOW PREVENTER - EQUAL TO ZURN MODEL NO. 975XL3 WITH Z" CONNECTIONS. PROVIDE WITH AIR GAP ASSEMBLY, BALL VALVES, AND WYE STRAINER ON INLET SIDE OF VALVE.
CP-1 CP-2	HOT WATER RECIRCULATION PUMP - EQUAL TO BELL AND GOSSETT ECOCIRC MODEL 55-45, VARIABLE SPEED WITH CAPACITY OF 25 GPM @ 25 FT.HEAD, 1/2 HP, 208V, 1 PHASE. STAINLESS STEEL CONSTRUCTION. 2

PLUMBING SYMBOLS AND ABBREVIATIONS LEGEND

DIRECTION OF FLOW	
PIPE TURNING UP	
PIPE TURNING DOWN	
BRANCH CONNECTION - TOP	
BRANCH CONNECTION - BOTTOM	
BRANCH CONNECTION - SIDE	
SERVICE VALVE (BALL OR GATE)	
SERVICE VALVE (BUTTERFLY)	
CHECK VALVE	
DI-ELECTRIC UNION	
PIPE CAP OR BLIND FLANGE	
OUTLETS/FIXTURE STOPS (GAS, AIR, VACUUM, OXYGEN)	
PRESSURE REDUCING VALVE	
FLEXIBLE PIPE CONNECTION OR JOINT	
HOSE BIBB OR FREEZEPROOF WALL HYDRANT	HB / WH
GAS SHUT-OFF VALVE	
GAS SOLENOID VALVE	
CONNECT NEW TO EXISTING	
POINT OF DISCONNECTION	
COLD WATER PIPING	
HOT WATER SUPPLY (NUMBER DENOTES TEMPERATURE; NO NUMBER INDICATES 120°F TEMPERATURE SYSTEM)	140
HOT WATER RETURN (NUMBER DENOTES TEMPERATURE; NO NUMBER INDICATES 120°F TEMPERATURE SYSTEM)	140
SANITARY SEWER PIPING	
VENT PIPING	
ROOF DRAIN STORM PIPING	RD
OVERFLOW DRAIN STORM PIPING	OD
GREASE WASTE PIPING	GW
NATURAL GAS PIPING	G
PIPE REFERENCE	G - GAS D - DWV W - WATER S - STORM RISER NUMBER

SOME SYMBOLS ABOVE MAY BE SHOWN WITH DOUBLE LINE PIPING IN LIEU OF SINGLE LINE PIPING AND MAY NOT APPEAR AS INDICATED ABOVE. THESE SYMBOLS WILL BE NOTED ON PLANS WHERE APPLICABLE.

AAV	AIR ADMITTANCE VALVE
AD	AREA DRAIN
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
BFP	BACKFLOW PREVENTER
BP	BOOSTER PUMP
BTUH	BRITISH THERMAL UNIT/HOUR
CFH	CUBIC FEET PER HOUR
CLG	CEILING
CO	CLEANOUT
CP	CIRCULATION PUMP
CW	COLD WATER
DD	DECK DRAIN
DN	DOWN
DWV	DRAINAGE, WASTE AND VENT
EA	EACH
ET	EXPANSION TANK
EX	EXISTING
F	FAHRENHEIT
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FFE	FINISHED FLOOR ELEVATION
FL	FLOOR
FT	FEET
FU	FIXTURE UNIT
G	GAS
GAL	GALLON
GCO	GRADE CLEANOUT
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GW	GREASE WASTE
HB	HOSE BIBB
HD	HEAD
HP	HORSEPOWER
HTR	HEATER
HW	HOT WATER
HWR	HOT WATER RETURN
IE	INVERT ELEVATION
KW	KILOWATT
L	LAVATORY
MIN	MINIMUM
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
OD	OVERFLOW DRAIN
PD	PARKING DRAIN
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
RAC	ROUTE ABOVE CEILING
RBF	ROUTE BELOW FLOOR
RD	ROOF DRAIN
SD	STORM DRAIN
SEP	SEWAGE EJECTOR PUMP
SF	SQUARE FEET
SH	SHOWER
SP	SUMP PUMP
SS	SANITARY SEWER
S/S	STAINLESS STEEL
TD	TRENCH DRAIN
TMV	THERMOSTATIC MIXING VALVE
TP	TRAP PRIMER
V	VENT
VTR	VENT THRU ROOF
W	WASTE
WC	WATER COLUMN
WCO	WALL CLEANOUT
WH	WALL HYDRANT
WHA	WATER HAMMER ARRESTOR
WTR	WATER

THESE SYMBOLS AND ABBREVIATIONS ARE PLUMBING DEPARTMENT STANDARDS AND MAY NOT NECESSARILY BE APPLICABLE TO, OR APPEAR ON THESE DRAWINGS. HOWEVER, WHERE THESE SYMBOLS DO OCCUR ON THE DRAWINGS, THE ITEM SHALL BE PROVIDED AND INSTALLED. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL ABBREVIATIONS.

GENERAL PLUMBING NOTES

1. THE PLUMBING CONTRACTOR SHALL DETERMINE NECESSARY INVERT ELEVATIONS FOR PROPER DRAINAGE AND CONNECTION INTO SEWERS. ALL INVERT ELEVATIONS SHALL BE SET PRIOR TO INSTALLATION.
2. ALL PIPING PASSING THROUGH FIRE RATED OR FIRE AND SMOKE RATED ASSEMBLIES SHALL BE SLEEVED AND FIRESTOPPED. FIRESTOPPING SHALL COMPLY WITH U.L. LISTING AND REQUIREMENTS FOR ASSEMBLY TYPE BEING PENETRATED.
3. PLUMBING CONTRACTOR SHALL NOT CORE DRILL OR DISTURB ANY STRUCTURAL MEMBERS WITHOUT WRITTEN AUTHORIZATION BY THE ARCHITECT AND/OR STRUCTURAL ENGINEER.
4. PLUMBING CONTRACTOR SHALL COORDINATE PIPING LOCATIONS AND ROUTING WITH OTHER PIPING DUCTWORK AND ELECTRICAL CONDUIT INSTALLATIONS. PLUMBING CONTRACTOR SHALL REVIEW ARCHITECTURAL DRAWINGS TO ESTABLISH WHERE FURR-DOWNS AND SOFFITS OCCUR AND DIMENSIONS OF SAME SO THAT DISTANCES AND PIPING ROUTING CAN BE PROPERLY COORDINATED. ALL PIPING SHALL BE ROUTED IN A CONCEALED MANNER.
5. PLUMBING CONTRACTOR SHALL AVOID LOCATING HW/CW PIPING IN LOCATIONS WHERE POSSIBILITY OF FREEZING OF SAME EXISTS. CONTRACTOR SHALL ADVISE ENGINEER WHERE THIS CONDITION MAY OCCUR PRIOR TO ROUGH-IN.
6. ALL ADA ACCESSIBLE LAVATORIES AND SINKS WITH EXPOSED WATER AND DRAIN PIPES SHALL BE INSULATED TO PROTECT AGAINST CONTACT PER ADA REQUIREMENTS. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES.
7. ALL PLUMBING WORK SHALL BE INSTALLED IN COMPLIANCE WITH ALL STATE AND LOCAL CODES.
8. COORDINATE ROUTING OF ALL PIPING WITH THE ELECTRICAL CONTRACTOR SO AS NOT TO ROUTE ANY PLUMBING LINES OVER ELECTRICAL PANELS, SWITCHGEAR, ETC.
9. REFER TO SPECIFICATION SECTION 231123 FACILTY NATURAL-GAS PIPING FOR GAS PIPING AND INSTALLATION INFORMATION.
10. ACCESS DOORS TO VALVES, CLEANOUTS AND ETC. TO BE EQUAL TO "ACUDOR" DW OR FW SERIES, ACCESS DOORS FOR DRYWALL INSERTS. PROVIDE FIRE RATED ACCESS DOORS WHERE REQUIRED. COORDINATE WITH GENERAL CONTRACTOR AND VERIFY EXACT LOCATIONS AND SIZES ON SITE. PAINT TO MATCH CEILING OR WALL.
11. PLASTIC PIPING SHALL NOT BE INSTALLED IN ANY SPACE THAT IS A RETURN AIR PLENUM. COORDINATE WITH MECHANICAL CONTRACTOR FOR PLENUM LOCATIONS PRIOR TO INSTALLATION OF ANY PIPING. ONLY PLASTIC PIPING THAT IS APPROVED FOR PLENUM SPACES AND IS APPROVED BY THE LOCAL AUTHORITY HAVING JURISDICTION MAY BE INSTALLED IN RETURN AIR PLENUMS.
12. PIPING AND EQUIPMENT HANGERS SHALL BE SPACED IN A SYSTEMATIC RANDOM PATTERN AS REQUIRED TO ELIMINATE OVERLOADING INDIVIDUAL STRUCTURAL MEMBERS. THE ESTIMATED WEIGHT ASSIGNED TO PIPE AND EQUIPMENT HANGERS SHALL BE DETERMINED BY THE PLUMBING CONTRACTOR AND SUBMITTED TO THE GENERAL CONTRACTOR FOR REVIEW, COORDINATION AND APPROVAL PRIOR TO INSTALLATION. THIS REQUIREMENT APPLIES TO ALL PLUMBING PIPING.

CONSTRUCTION SET

STATE OF MISSOURI
ALLEN J. MCNUTT
NUMBER PE-2023009252
06/05/2024
PROFESSIONAL ENGINEER

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

SFCS Architecture Engineering Planning Interiors

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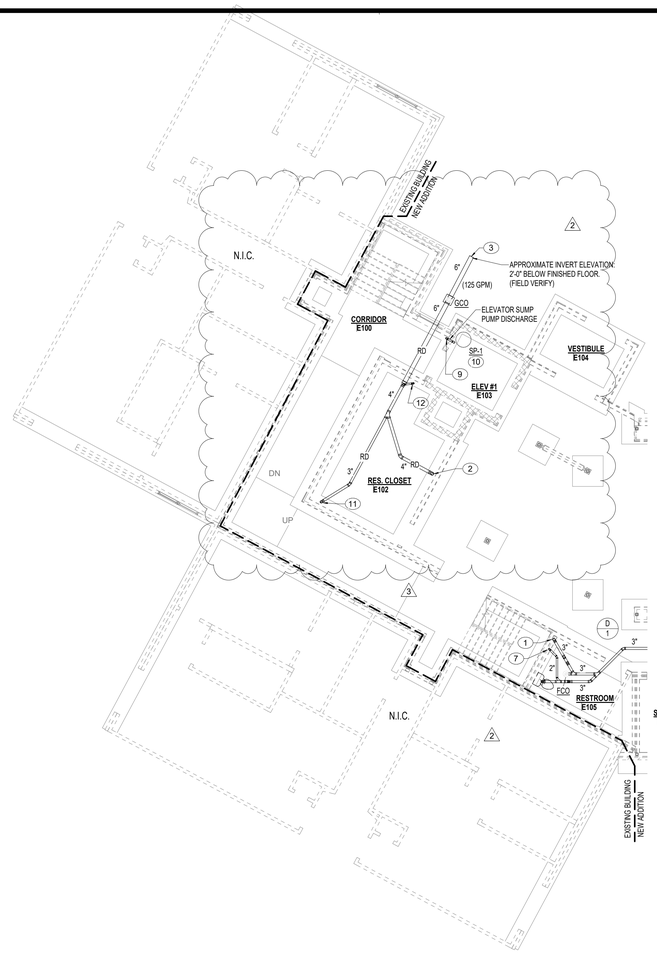
DESIGNER	DAS	DRAWN	RCK
ARCHITECT	DAS	CHECKED	DPW/MAH
ENGINEER	AJM	APPROVED	AJM

NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/07/24
3	Addendum 1	03/07/24

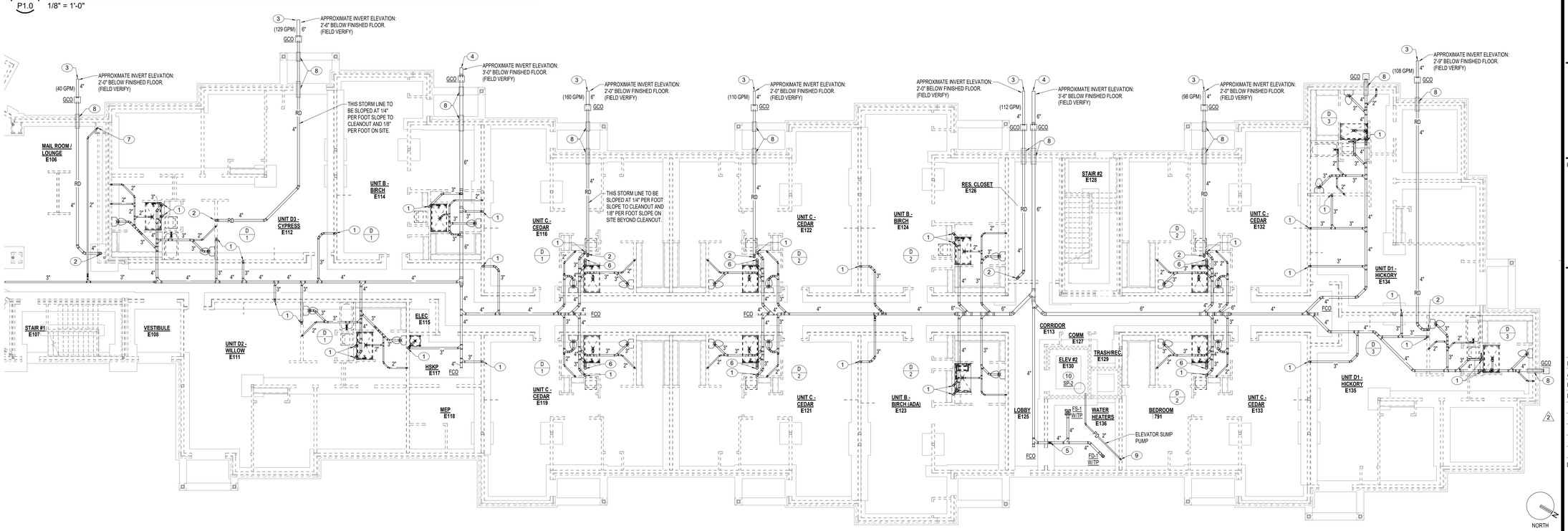
DRAWING TITLE

PLUMBING - LEGENDS, ABBREVIATIONS AND SCHEDULES

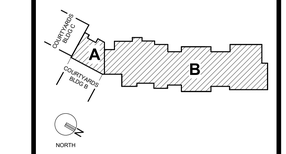
DATE:	January 5, 2024	DRAWING	P0.0
COMM. NO.	23104.00		



2 FOUNDATION PLAN - WASTE, VENT AND STORM - ATRIUM
P1.0 1/8" = 1'-0"



1 FOUNDATION PLAN - WASTE, VENT AND STORM - IL UNITS
P1.0 1/8" = 1'-0"



GENERAL NOTES

1. ALL PIPING INDICATED ON THIS SHEET IS TO BE ROUTED BELOW SLAB, UNLESS NOTED OTHERWISE. COORDINATE ROUTING OF PIPING BELOW SLAB WITH STRUCTURAL FOOTINGS TO AVOID CONFLICT WHERE POSSIBLE.

PLAN NOTES

1. 3" WASTE LINE UP.
2. 4" ROOF DRAIN STORM LINE UP.
3. STORM LINE OUT TO SITE 5'-0". REFER TO CIVIL ENGINEERS PLANS FOR CONTINUATION. PLUMBING CONTRACTOR SHALL MAKE FINAL CONNECTION.
4. 6" WASTE LINE OUT TO SITE 5'-0". REFER TO CIVIL ENGINEERS PLANS FOR CONTINUATION. PLUMBING CONTRACTOR SHALL MAKE FINAL CONNECTION.
5. 3" VENT LINE UP.
6. 4" WASTE LINE UP.
7. 2" WASTE LINE UP.
8. PROVIDE SLEEVE AT PIPE PENETRATION THROUGH GRADE BEAM. COORDINATE WITH GENERAL CONTRACTOR.
9. 2" ELEVATOR SUMP PUMP DISCHARGE LINE UP.
10. ELEVATOR SUMP PUMP; REFER TO DETAIL, SHEET P0.1 FOR ADDITIONAL INFORMATION.
11. 3" ROOF DRAIN STORM LINE UP.
12. 2" ROOF DRAIN STORM LINE UP.

CONSTRUCTION SET

ALLEN J. MCNUTT
NUMBER PE-2023009252
01/05/2024
PROFESSIONAL ENGINEER
STATE OF MISSOURI

PROJECT TITLE

John Knox Village

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SFCS Inc. ▪ 1927 South Tryon St. - Suite 207
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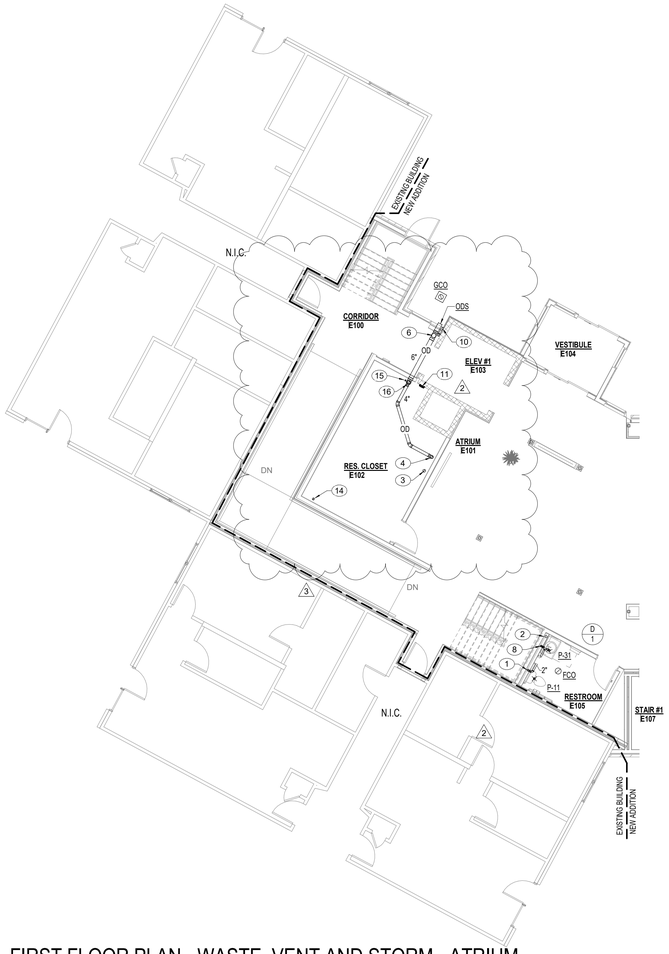
ARCHITECT : DAS		CHECKED : DPW/MAH	
ENGINEER : AJM		APPROVED : AJM	

NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/07/24
3	Addendum 1	03/07/24

DRAWING TITLE

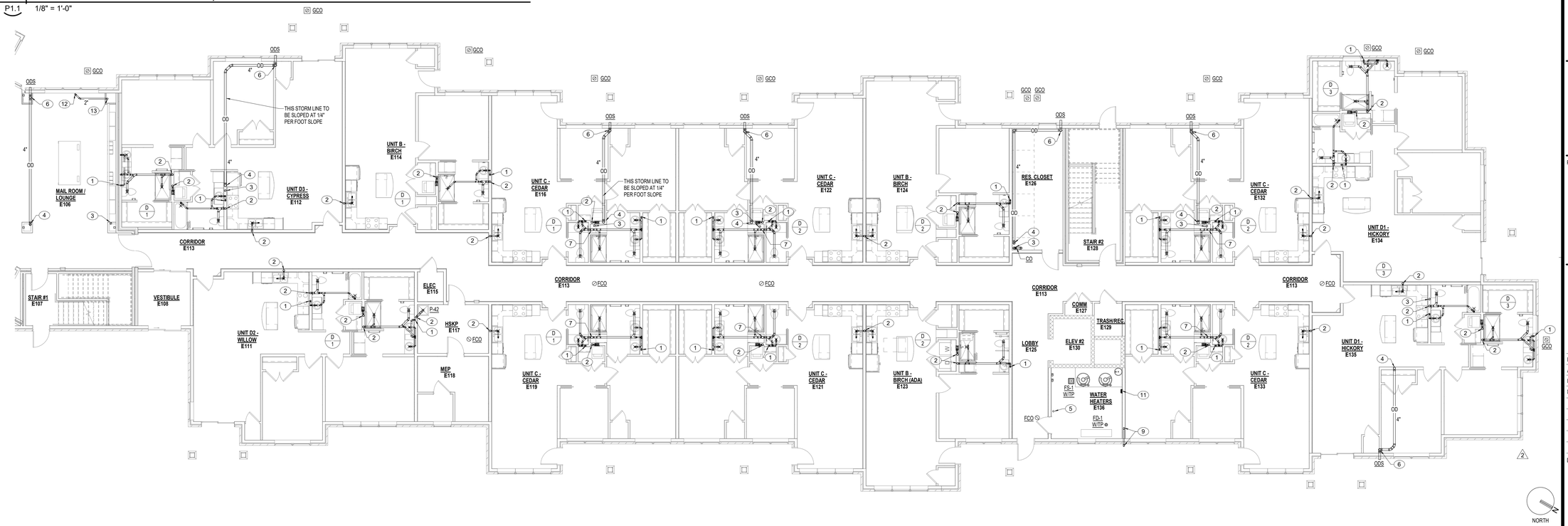
FOUNDATION PLAN - WASTE, VENT AND STORM

DATE: January 5, 2024
COMM. NO. 23104.00
DRAWING P1.0



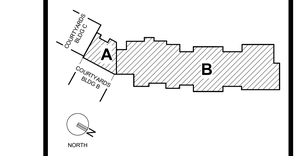
2 FIRST FLOOR PLAN - WASTE, VENT AND STORM - ATRIUM

P1.1 1/8" = 1'-0"



1 FIRST FLOOR PLAN - WASTE, VENT AND STORM - IL UNITS

P1.1 1/8" = 1'-0"



PLAN NOTES

1. 2" VENT LINE UP.
2. 3" WASTE LINE UP AND DOWN.
3. 4" ROOF DRAIN STORM LINE UP AND DOWN.
4. 4" OVERFLOW DRAIN STORM LINE UP.
5. 3" VENT LINE UP AND DOWN.
6. OVERFLOW DRAIN STORM LINE DOWN TO OVERFLOW DISCHARGE SPOUT.
7. 4" WASTE LINE UP AND DOWN.
8. 2" VENT LINE DOWN.
9. EXTEND 2" ELEVATOR SUMP PUMP DISCHARGE AND SPILL TO GRADE. SEAL PENETRATION WATERTIGHT.
10. EXTEND 2" ELEVATOR SUMP PUMP DISCHARGE AND SPILL TO GRADE. SEAL PENETRATION WATERTIGHT. COORDINATE TERMINATION LOCATION WITH OVERFLOW DRAIN NOZZLE TO AVOID CONFLICT. PIPING SHOWN FOR CLARITY.
11. ELEVATOR SUMP PUMP CONTROL PANEL. COORDINATE EXACT LOCATION WITH GENERAL CONTRACTOR AND POWER CONNECTION WITH ELECTRICAL CONTRACTOR.
12. 2" WASTE LINE UP.
13. 2" WASTE LINE DOWN.
14. 3" ROOF DRAIN STORM LINE UP AND DOWN.
15. 2" ROOF DRAIN STORM LINE UP AND DOWN.
16. 4" OVERFLOW STORM LINE UP.

CONSTRUCTION SET

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ENGINEER	AJM	APPROVED	AJM

NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/07/24
3	Addendum 1	03/07/24

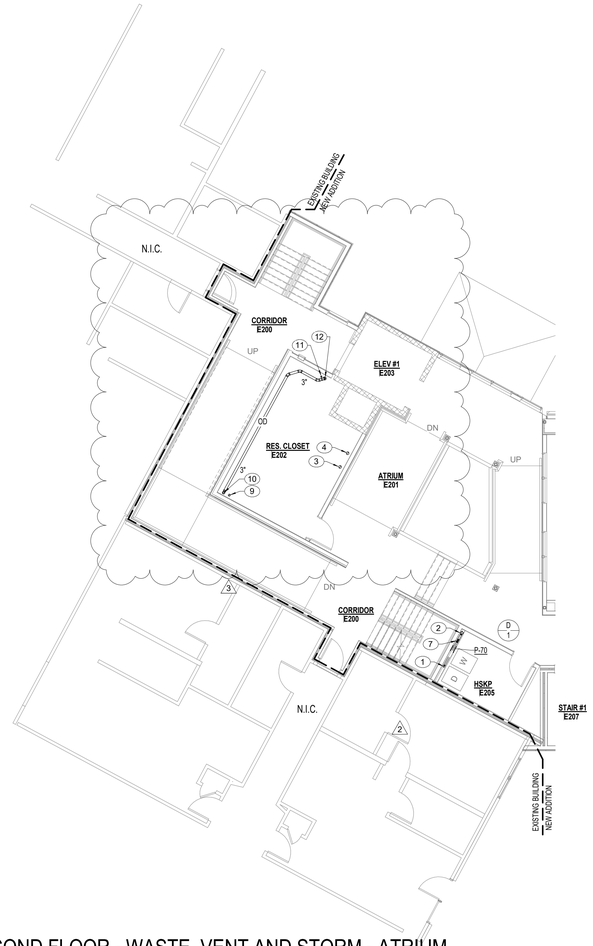
DRAWING TITLE

FIRST FLOOR PLAN - WASTE, VENT AND STORM

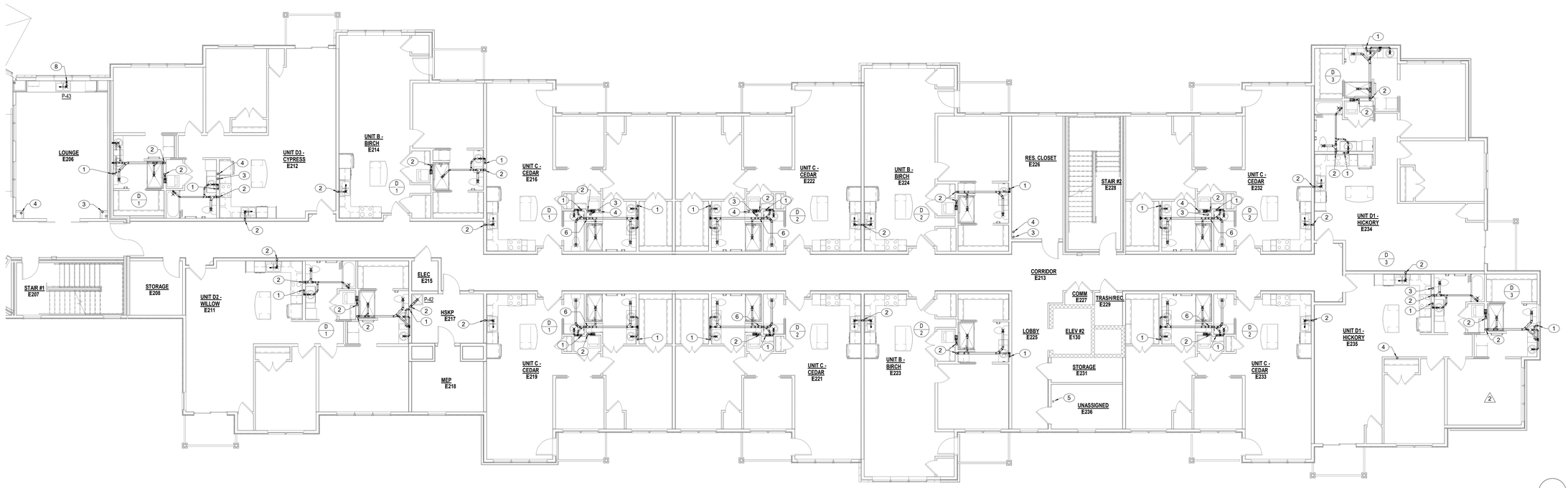
DATE: January 5, 2024

COMM. NO. 23104.00

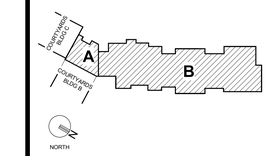
DRAWING P1.1



2 SECOND FLOOR - WASTE, VENT AND STORM - ATRIUM
P1.2 1/8" = 1'-0"



1 SECOND FLOOR - WASTE, VENT AND STORM - IL UNITS
P1.2 1/8" = 1'-0"



PLAN NOTES

1. 2" VENT LINE UP AND DOWN.
2. 3" WASTE LINE UP AND DOWN.
3. 4" ROOF DRAIN STORM LINE UP AND DOWN.
4. 4" OVERFLOW DRAIN STORM LINE UP AND DOWN.
5. 3" VENT LINE UP AND DOWN.
6. 4" WASTE LINE UP AND DOWN.
7. 1-1/2" VENT LINE DOWN.
8. PROVIDE AIR ADMITTANCE VALVE AT SINK. INSTALL PER MANUFACTURERS RECOMMENDATIONS. CONTINUE 2" WASTE LINE DOWN.
9. 3" ROOF DRAIN STORM LINE UP AND DOWN.
10. 3" OVERFLOW STORM LINE UP.
11. 2" ROOF DRAIN STORM LINE UP AND DOWN.
12. 2" OVERFLOW STORM LINE UP, 4" OVERFLOW STORM LINE DOWN.

CONSTRUCTION SET

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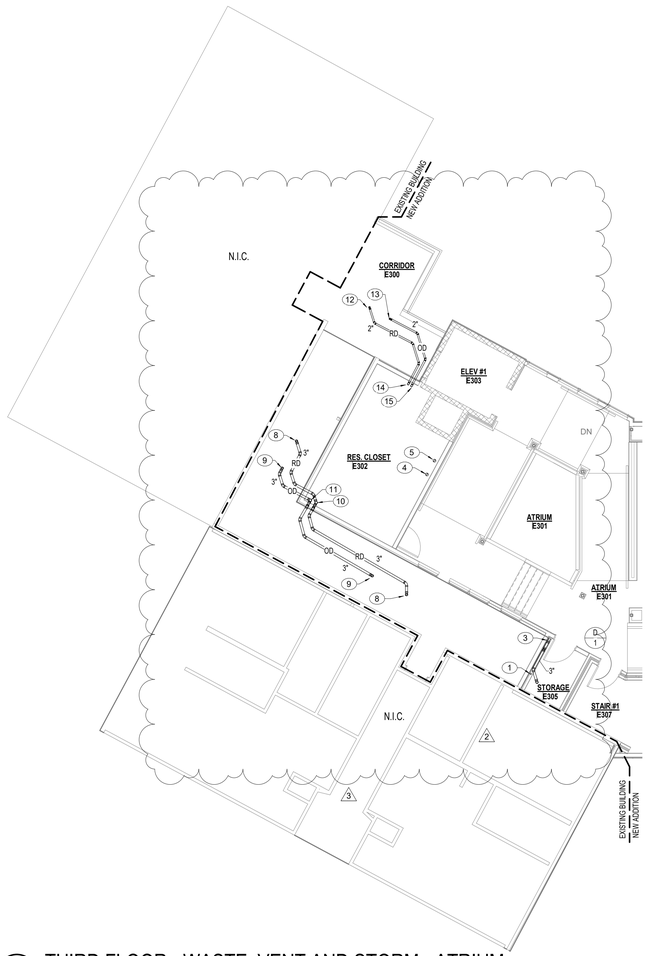
NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/07/24
3	Addendum 1	03/07/24

DRAWING TITLE

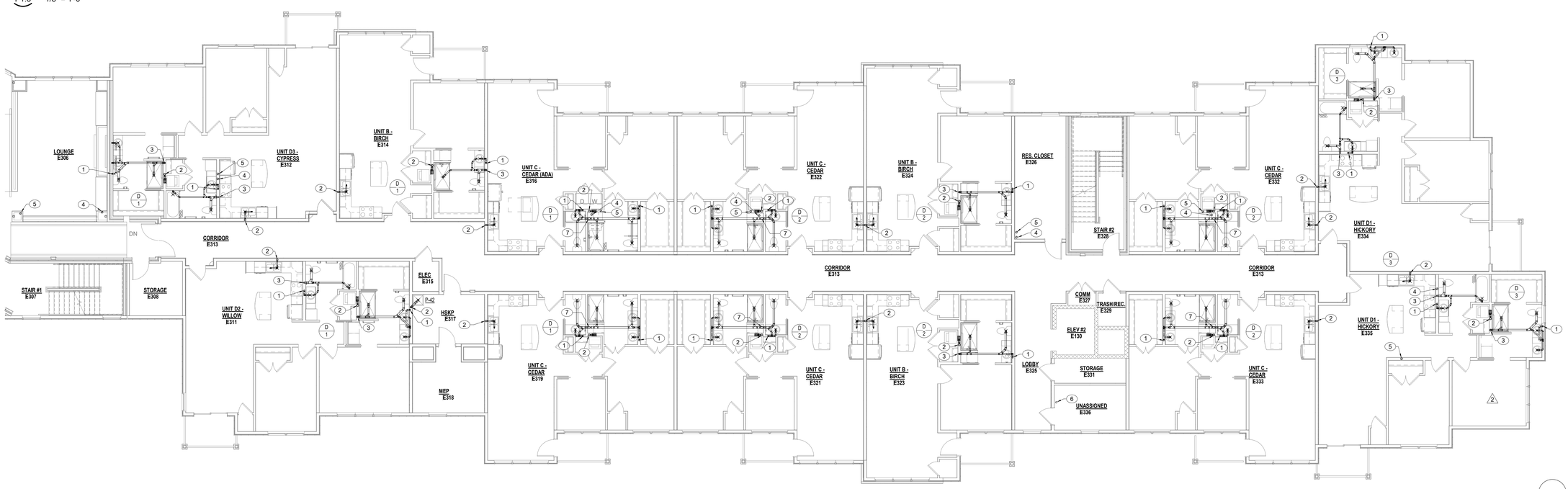
SECOND FLOOR PLAN - WASTE, VENT AND STORM

DATE: January 5, 2024
COMM. NO. 23104.00
DRAWING P1.2



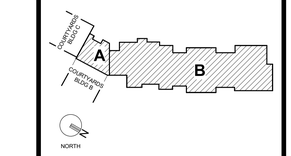
2 THIRD FLOOR - WASTE, VENT AND STORM - ATRIUM

P1.3 1/8" = 1'-0"



1 THIRD FLOOR - WASTE, VENT AND STORM - IL UNITS

P1.3 1/8" = 1'-0"



PLAN NOTES

1. 2" VENT LINE UP AND DOWN.
2. 3" WASTE LINE UP AND DOWN.
3. 3" VENT LINE UP; CONTINUE 3" WASTE LINE DOWN.
4. 4" ROOF DRAIN STORM LINE UP AND DOWN.
5. 4" OVERFLOW DRAIN STORM LINE UP AND DOWN.
6. 3" VENT LINE UP AND DOWN.
7. 4" VENT LINE UP; CONTINUE 4" WASTE LINE DOWN.
8. 3" ROOF DRAIN STORM LINE UP TO ROOF DRAIN.
9. 3" OVERFLOW DRAIN STORM LINE UP TO OVERFLOW DRAIN.
10. 3" ROOF DRAIN STORM LINE DOWN.
11. 3" OVERFLOW DRAIN STORM LINE DOWN.
12. 2" ROOF DRAIN STORM LINE UP TO ROOF DRAIN.
13. 2" OVERFLOW DRAIN STORM LINE UP TO OVERFLOW DRAIN.
14. 2" ROOF DRAIN STORM LINE DOWN.
15. 2" OVERFLOW DRAIN STORM LINE DOWN.

CONSTRUCTION SET

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01/05/2024
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PROJECT TITLE

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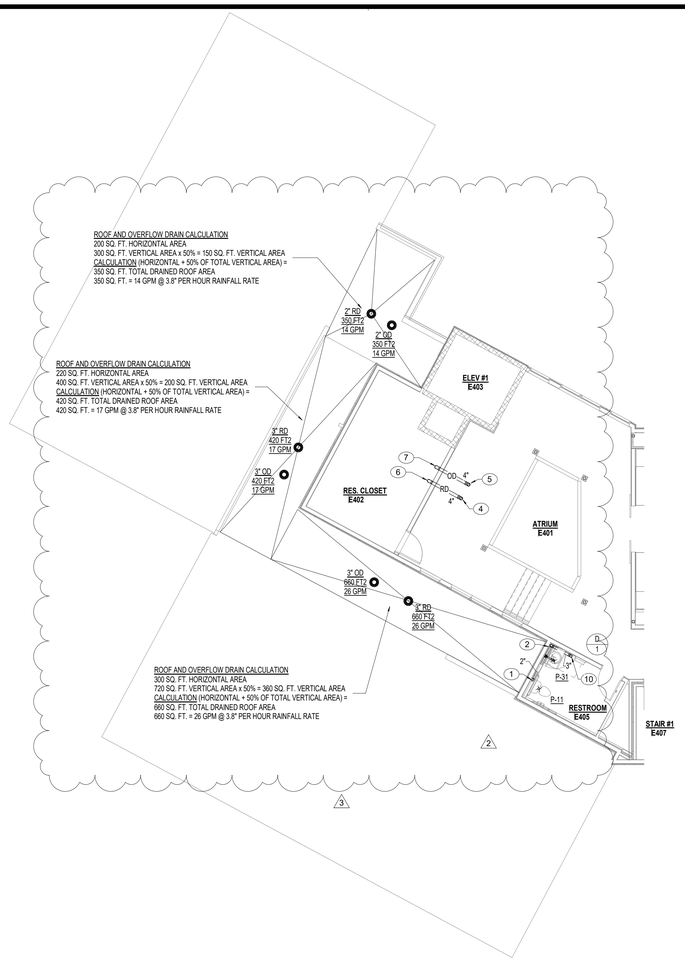
DESIGNER	: DAS	DRAWN	: RCK
ARCHITECT	: DAS	CHECKED	: DPW/MAH
ENGINEER	: AJM	APPROVED	: AJM

NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/07/24
3	Addendum 1	03/07/24

DRAWING TITLE

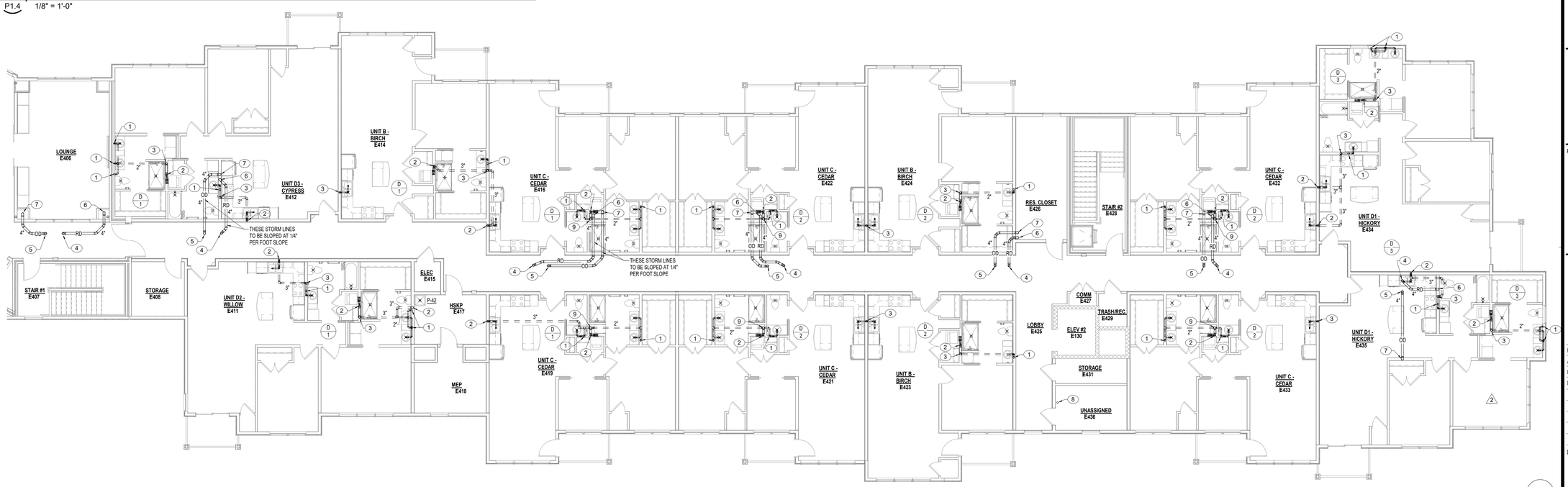
THIRD FLOOR PLAN - WASTE, VENT AND STORM

DATE: January 5, 2024
COMM. NO. 23104.00
DRAWING P1.3



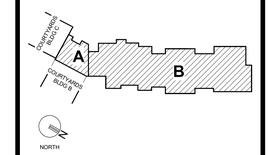
2 FOURTH FLOOR - WASTE, VENT AND STORM - ATRIUM

P1.4 1/8" = 1'-0"



1 FOURTH FLOOR - WASTE, VENT AND STORM - IL UNITS

P1.4 1/8" = 1'-0"



PLAN NOTES

1. 2" VENT LINE DOWN.
2. 3" VENT LINE DOWN.
3. 3" VENT LINE DOWN; CONTINUE 3" VENT UP TO 3" VENT THROUGH ROOF.
4. 4" ROOF DRAIN STORM LINE UP TO ROOF DRAIN.
5. 4" OVERFLOW ROOF DRAIN STORM LINE UP TO OVERFLOW DRAIN.
6. 4" ROOF DRAIN STORM LINE DOWN.
7. 4" OVERFLOW DRAIN STORM LINE DOWN.
8. 3" VENT LINE UP AND DOWN.
9. 4" VENT LINE DOWN; CONTINUE 4" VENT UP TO 4" VENT THROUGH ROOF.
10. 3" VENT UP TO 3" VENT THROUGH ROOF.

CONSTRUCTION SET

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ENGINEER	AJM	APPROVED	AJM

NO.	REVISION DESCRIPTION	DATE
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3	Addendum 1	03/07/24

DRAWING TITLE

FOURTH FLOOR PLAN - WASTE, VENT AND STORM

DATE: January 5, 2024

COMM. NO. 23104.00

DRAWING P1.4

GENERAL FIRE SUPPRESSION NOTES

A. ALL PIPE SIZES INDICATED ON PLANS ARE MINIMUM PIPE SIZES. THE FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ALL PIPE SIZES, PIPING CONFIGURATIONS, AND ETC. AS REQUIRED TO MEET SYSTEM HYDRAULIC CALCULATIONS, BUILDING CONDITIONS, ALL APPLICABLE NFPA STANDARDS AND BUILDING CODES/LOCAL ORDINANCES.

B. CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE FIRE PROTECTION SYSTEM TO PROVIDE COVERAGE FOR THE ENTIRE PREMISES. INCLUDE ALL PIPING AND ACCESSORIES PER THE REQUIREMENTS OF ALL APPLICABLE CODES, NFPA-13, NFPA-13R NFPA-14, NFPA 24 AND OWNER'S FIRE AND CASUALTY INSURER.

C. THE SPRINKLER SYSTEM SHALL BE INSTALLED ACCORDING TO ALL FEDERAL, STATE, LOCAL, AND NFPA STANDARDS. ANY WORK INDICATED ON PLANS THAT IS ABOVE AND BEYOND REGULATIONS SHALL BE INSTALLED AS INDICATED ON PLANS OR IN SPECS.

D. THE FIRE PROTECTION CONTRACTOR SHALL AVOID CONFLICT WITH DUCTWORK, LIGHTS, CONDUITS, PIPING, STRUCTURAL MEMBERS, AND ETC. AND REROUTE LINES AS REQUIRED.

E. SPRINKLER HEADS LOCATED IN LAY-IN CEILINGS SHALL BE LOCATED IN CENTER OF TILES, ONE DIRECTION AND NO CLOSER THAN 12" IN THE OTHER DIRECTION IN 2X4 TILES. SPRINKLER HEADS LOCATED IN DRYWALL CEILINGS SHALL BE LOCATED SYMMETRICALLY WITH OTHER ITEMS IN CEILING.

F. FIRE PROTECTION CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ELECTRICAL PANELS, SWITCHES, MOTOR CONTROL CENTERS, AND ETC. REWORK LINES AND HEADS AS REQUIRED TO AVOID HAVING THEM DIRECTLY ABOVE ELECTRICAL EQUIPMENT.

G. THE FIRE PROTECTION CONTRACTOR SHALL CONSIDER ALL LOCATIONS OF LIGHTS, DIFFUSERS, RETURN GRILLES, SPRINKLER HEADS, AND ETC. TO BE APPROXIMATE LOCATIONS AND SHOULD BE VERIFIED ON SITE BEFORE ANY WORK IS BEGUN. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

H. HANGERS AND SUPPORTS SHALL BE NFPA APPROVED FOR CONSTRUCTION USE. ALSO, SAME SHALL MEET NFPA AND PIPE MANUFACTURER'S REQUIREMENTS FOR INSTALLATION, LOCATIONS AND SPACING. HANGERS AND SUPPORTS SHALL BE RATED AND INSTALLED FOR SEISMIC REQUIREMENTS.

I. PIPING PASSING THROUGH FIRE RATED SURFACES SHALL BE PROVIDED WITH SCHEDULE 40 CARBON STEEL SLEEVES FIRE-STOPPED WITH FIRE SEALANT APPROVED BY AUTHORITY HAVING JURISDICTION FOR ASSEMBLY BEING PENETRATED.

J. DRAINS, DRAIN VALVES, FLUSHING CONNECTIONS, TEST CONNECTIONS, GAUGES, GUARDS, SHIELDS, AND SIMILAR ITEMS NECESSARY TO COMPLY WITH APPLICABLE CODES, STANDARDS AND/OR NFPA-13 SHALL BE FURNISHED AND INSTALLED.

K. WHERE REQUIRED BY LOCAL AND STATE CODES, CONTRACTOR SHALL FURNISH AND INSTALL DEFLECTOR SHIELD ON SPRINKLER HEADS ADJACENT TO ELECTRIC PANELS, TELEPHONE BOARDS AND ELECTRICAL EQUIPMENT.

L. PRIOR TO INSTALLATION, CONTRACTOR SHALL SUBMIT PRINTS OF FIRE PROTECTION DESIGN TO OWNERS FIRE AND CASUALTY INSURER FOR APPROVAL. CONTRACTOR SHALL OBTAIN ALL APPROVALS FROM APPLICABLE STATE AND LOCAL AUTHORITIES. CONTRACTOR SHALL ALSO SUBMIT FIRE PROTECTION DESIGN TO ARCHITECT AND ENGINEER FOR REVIEW.

M. ALL PIPING SHALL BE CONCEALED, WHERE APPLICABLE AND PITCHED FOR POSITIVE DRAINAGE.

N. SPRINKLER CONTRACTOR SHALL INCLUDE NECESSARY ARCHITECTURAL ACCESS DOORS WITH APPROPRIATE FIRE RATING AND SHALL MATCH ARCHITECTURAL FINISH WHERE NECESSARY FOR ACCESS TO VALVES, ETC. THESE ACCESS DOORS SHALL BE INDICATED ON SHOP DRAWINGS.

O. WHERE SIDEWALL SPRINKLER HEADS ARE INSTALLED THRU WALL/SOFFIT, CONTRACTOR SHALL INSTALL ESCUTCHEON PLATES FLUSH WITH WALL/SOFFIT.

P. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL FIRE RATED WALL AND CEILING INFORMATION.

Q. OVERHANGS AND CANOPIES SHALL BE PROVIDED WITH SPRINKLER COVERAGE WHERE REQUIRED BY NFPA-13, STATE AND LOCAL CODES.

R. ALL CEILING CAVITIES WITH COMBUSTIBLE CONSTRUCTION MATERIALS SHALL BE PROVIDED WITH SPRINKLER COVERAGE WHERE REQUIRED BY NFPA-13 AND ALL STATE/LOCAL CODES.

S. REFER TO SPECIFICATIONS FOR HAZARD CLASSIFICATIONS FOR VARIOUS AREAS THROUGHOUT BUILDING.

T. PIPING AND EQUIPMENT HANGERS SHALL BE SPACED IN A SYSTEMATIC RANDOM PATTERN AS REQUIRED TO ELIMINATE OVERLOADING INDIVIDUAL STRUCTURAL MEMBERS. THE ESTIMATED WEIGHT ASSIGNED TO PIPE AND EQUIPMENT HANGERS SHALL BE DETERMINED BY THE FIRE PROTECTION CONTRACTOR AND SUBMITTED TO THE GENERAL CONTRACTOR FOR REVIEW, COORDINATION AND APPROVAL PRIOR TO INSTALLATION. THIS REQUIREMENT APPLIES TO ALL FIRE PROTECTION PIPING.

U. WHERE BACKFLOW PREVENTER IS REQUIRED, CONTRACTOR SHALL PROVIDE FORWARD FLOW TESTING PROVISION IN ACCORDANCE WITH NFPA REQUIREMENTS.

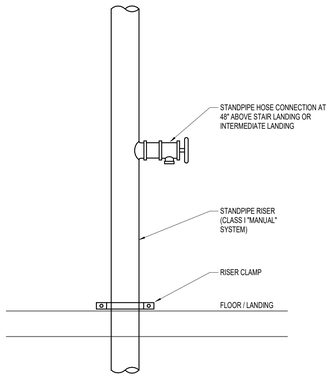
SPRINKLER HEAD SCHEDULE

TYPE	LOCATION
QUICK RESPONSE, CONCEALED TYPE SPRINKLER HEAD WITH WHITE COVER PLATE	PUBLIC AREAS WITH DRYWALL OR HARD CEILINGS
QUICK RESPONSE, CONCEALED TYPE SPRINKLER HEAD WITH WHITE COVER PLATE	CORRIDORS, LOBBY AND SIMILAR SPACES WITH SUSPENDED ACOUSTICAL TILE CEILINGS
QUICK RESPONSE, UPRIGHT TYPE SPRINKLER HEAD (MAY USE PENDANT WHERE APPLICABLE)	MECHANICAL ROOMS, STORAGE ROOMS AND SIMILAR SPACES WITHOUT CEILINGS

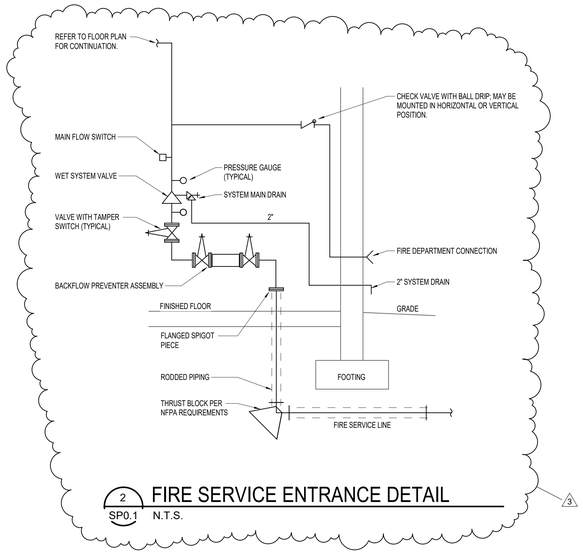
FLOW TEST INFORMATION

FLOW TEST PERFORMED BY: CITY OF LEE'S SUMMIT
FLOW TEST PERFORMED ON: 3-19-2021

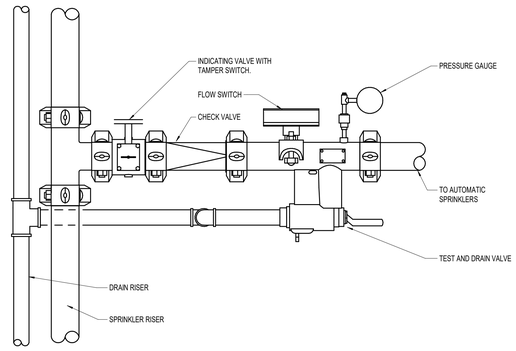
STATIC PRESSURE: 94 PSI
RESIDUAL PRESSURE: 56 PSI
FLOW: 1800 GPM



3 SP0.1 HOSE VALVE DETAIL
N.T.S.



2 SP0.1 FIRE SERVICE ENTRANCE DETAIL
N.T.S.



1 SP0.1 FLOOR CONTROL STATION
N.T.S.

NOTE:
INFORMATION INDICATED ON THESE DRAWINGS IS FOR DESIGN INTENT AND INFORMATION ONLY. THE DESIGN AND LAYOUT OF THE FIRE SUPPRESSION SYSTEM FOR THIS BUILDING IS A DELEGATED DESIGN TO BE PROVIDED BY A LICENSED FIRE SUPPRESSION CONTRACTOR. ALL TAMPER SWITCHES, FLOW SWITCHES, PRESSURE SWITCHES AND ELECTRICAL CONNECTIONS ASSOCIATED WITH THE SYSTEM ARE NOTED ON THESE DOCUMENTS TO ASSIST THE DELEGATED DESIGN FIRE SUPPRESSION AND FIRE ALARM CONTRACTORS IN PREPARING THEIR DOCUMENTS. FIRE SUPPRESSION CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE EXACT QUANTITIES AND LOCATIONS OF ALL POINTS TO BE MONITORED WITH FIRE ALARM CONTRACTOR.

NOTE:
FIRE SUPPRESSION SHOP DRAWINGS, PRODUCT DATA AND HYDRAULIC CALCULATIONS SHALL BE SUBMITTED AS ONE COMPLETE SUBMITTAL PACKAGE. INFORMATION INCLUDED IN SUBMITTAL SHALL BE PROJECT SPECIFIC AND CLEARLY IDENTIFIED.

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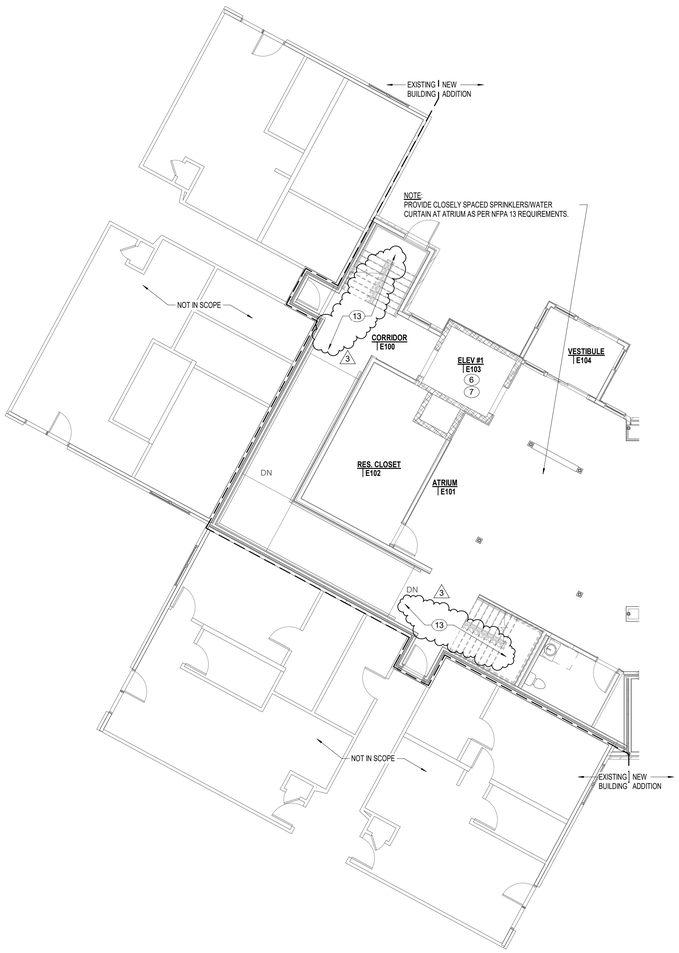
NO.	REVISION DESCRIPTION		DATE
3	Addendum 1		03/07/24

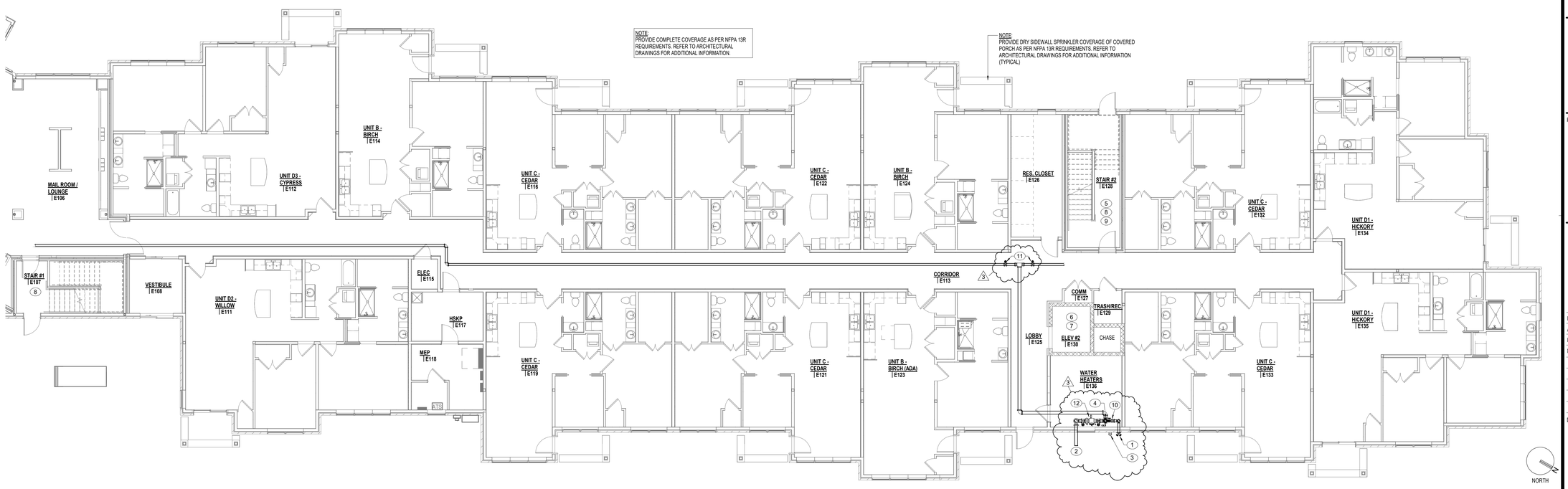
DRAWING TITLE

FIRE SUPPRESSION INFORMATION

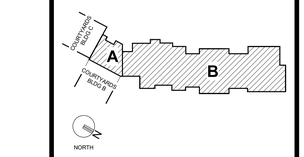
DATE: January 5, 2024
COMM. NO. 23104.00
DRAWING SP0.1



2 FIRST FLOOR PLAN - FIRE SUPPRESSION - ATRIUM
SP1.1 1/8" = 1'-0"



1 FIRST FLOOR PLAN - FIRE SUPPRESSION - IL UNITS
SP1.1 1/8" = 1'-0"



PLAN NOTES

1. FIRE DEPARTMENT CONNECTION. COORDINATE EXACT LOCATION, TYPE AND THREADS WITH LOCAL FIRE DEPARTMENT.
2. FIRE SERVICE OUT TO SITE 5'-0". REFER TO CIVIL ENGINEERS PLANS FOR CONTINUATION.
3. 120 VOLT ELECTRIC BELL/HORN/STROBE FOR SPRINKLER SYSTEM. MOUNT ON EXTERIOR WALL.
4. WET SYSTEM ALARM VALVE RISER WITH TAMPER SWITCH, FLOW SWITCH AND ALL REQUIRED ACCESSORIES PER NFPA REQUIREMENTS. SIZE OF WET SYSTEM TO BE CONFIRMED BASED ON HYDRAULIC CALCULATIONS.
5. FLOOR CONTROL STATION WITH TAMPER AND FLOW SWITCH. REFER TO DETAIL FOR ADDITIONAL INFORMATION. LOCATE IN AN ACCESSIBLE LOCATION ABOVE LAY-IN CEILING.
6. PROVIDE VALVE WITH TAMPER SWITCH AND FLOW SWITCH IN AN ACCESSIBLE LOCATION ABOVE CEILING IN LINE TO SPRINKLER SERVING ELEVATOR PIT.
7. EXTEND SPRINKLER BRANCH LINE DOWN TO ELEVATOR PIT AND PROVIDE HORIZONTAL SIDEWALL SPRINKLER HEAD LOCATED NO MORE THAN 2'-0" ABOVE BOTTOM OF PIT.
8. 4" SPRINKLER RISER UP. 2-1/2" FIRE DEPARTMENT CONNECTION HOSE VALVE WITH CAP AND CHAIN. REFER TO DETAIL FOR ADDITIONAL INFORMATION. LOCATE STANDPIPE AND HOSE VALVE AS TIGHT TO CORNER AS POSSIBLE. MAINTAIN EGRESS CLEARANCE IN STAIRWELL. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION ON SITE.
9. 2" DRAIN RISER UP. PROVIDE DRAIN AT LOW POINT OF STANDPIPE PIPING. EXTEND DRAIN LINE TO EXTERIOR AND SPILL TO GRADE.
10. PROVIDE CHECK VALVE WITH BALL DRIP IN AN ACCESSIBLE LOCATION.
11. PROVIDE VALVE WITH TAMPER SWITCH IN AN ACCESSIBLE LOCATION ABOVE CEILING.
12. PROVIDE DOUBLE CHECK VALVE ASSEMBLY IN FIRE SERVICE LINE IN ACCORDANCE WITH WATER COMPANY/AHJ REQUIREMENTS. VALVES TO BE SUPPLIED WITH TAMPER SWITCHES.
13. PROVIDE STANDPIPE HOSE CONNECTIONS IN THIS AREA AS REQUIRED. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION OF HOSE VALVE AND STANDPIPE ON SITE. PROVIDE CONTROL VALVE WITH TAMPER SWITCH ON EACH STANDPIPE AS REQUIRED. COORDINATE EXACT REQUIREMENTS WITH AUTHORITY HAVING JURISDICTION.

3

CONSTRUCTION SET

STATE OF MISSOURI
ALLEN J. MCNUTT
NUMBER PE-2023009252
05/05/2024
PROFESSIONAL ENGINEER

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

SFCS Architecture Engineering Planning Interiors
SFCS Inc. • 1927 South Tryon St. - Suite 207
Charlotte, North Carolina 28203.4633
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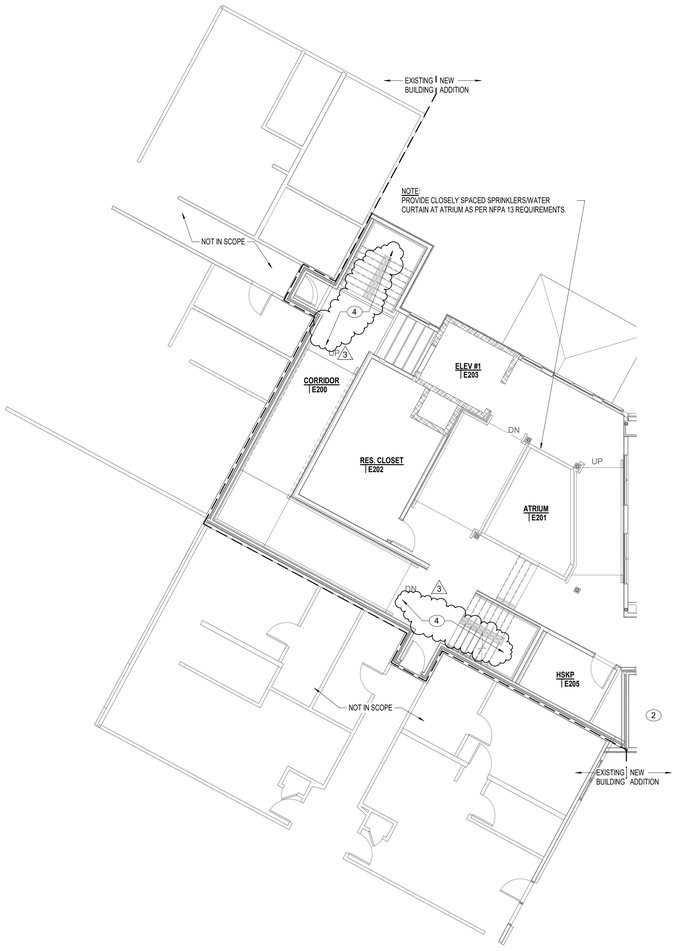
DESIGNER : DAS		DRAWN : DPW/MAH	
ARCHITECT : DAS		CHECKED : DPW/MAH	
ENGINEER : AJM		APPROVED : AJM	
NO.	REVISION DESCRIPTION		DATE
3	Addendum 1		03/07/24

DRAWING TITLE

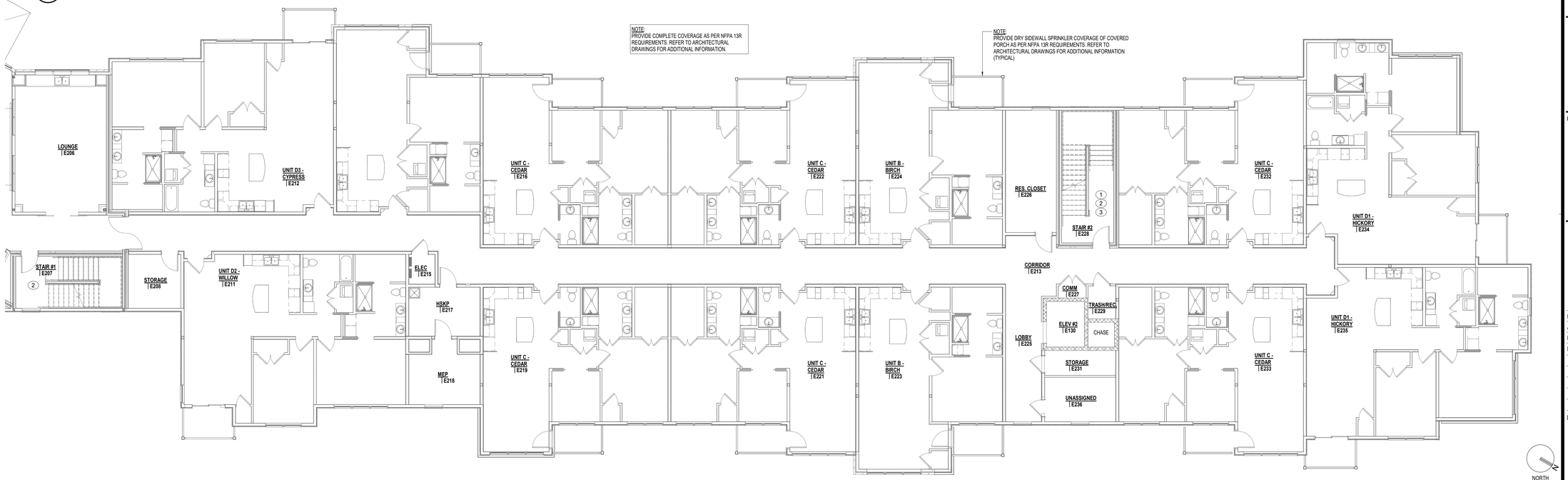
FIRST FLOOR PLAN - FIRE SUPPRESSION

DATE: January 5, 2024
COMM. NO. 23104.00
DRAWING SP1.1



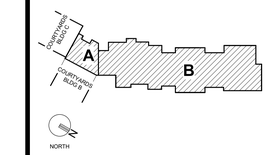
2 SP1.2 SECOND FLOOR PLAN - FIRE SUPPRESSION - ATRIUM

1/8" = 1'-0"



1 SP1.2 SECOND FLOOR PLAN - FIRE SUPPRESSION - IL UNITS

1/8" = 1'-0"



PLAN NOTES

1. FLOOR CONTROL STATION WITH TAMPER AND FLOW SWITCH. REFER TO DETAIL FOR ADDITIONAL INFORMATION. LOCATE IN AN ACCESSIBLE LOCATION.
2. 4" RISER UP AND DOWN. 2-1/2" FIRE DEPARTMENT CONNECTION HOSE VALVE WITH CAP AND CHAIN. REFER TO DETAIL FOR ADDITIONAL INFORMATION. LOCATE STANDPIPE AND HOSE VALVE AS TIGHT TO CORNER AS POSSIBLE. MAINTAIN EGRESS CLEARANCE IN STAIRWELL. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION ON SITE.
3. 2" DRAIN RISER UP AND DOWN.
4. PROVIDE STANDPIPE HOSE CONNECTIONS IN THIS AREA AS REQUIRED. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION OF HOSE VALVE AND STANDPIPE ON SITE. PROVIDE CONTROL VALVE WITH TAMPER SWITCH ON EACH STANDPIPE AS REQUIRED. COORDINATE EXACT REQUIREMENTS WITH AUTHORITY HAVING JURISDICTION.

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ARCHITECT	DAS	CHECKED	DPW/MAH
ENGINEER	AJM	APPROVED	AJM

NO.	REVISION DESCRIPTION	DATE
3	Addendum 1	03/07/24

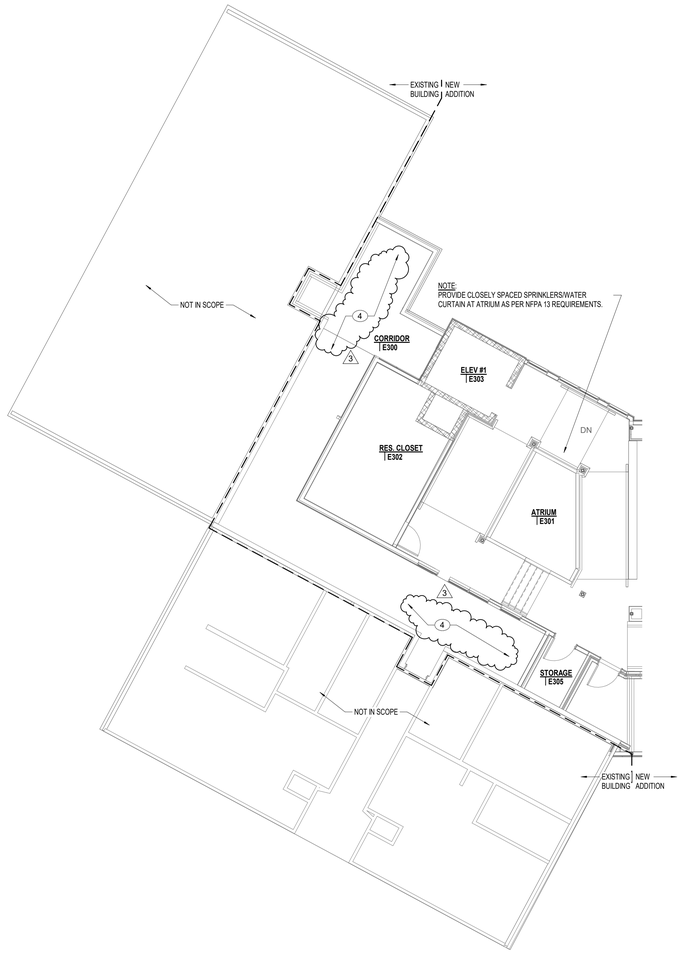
DRAWING TITLE

SECOND FLOOR PLAN - FIRE SUPPRESSION

DATE: January 5, 2024

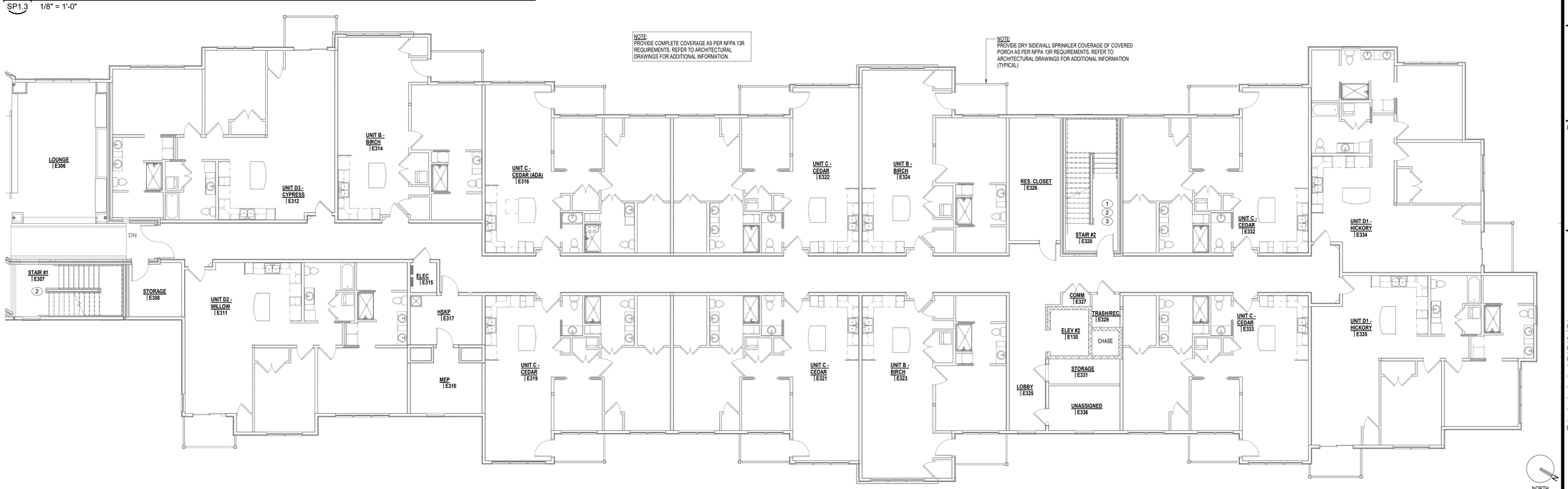
COMM. NO. 23104.00

DRAWING SP1.2



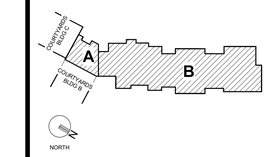
2 THIRD FLOOR PLAN - FIRE SUPPRESSION - ATRIUM

SP1.3 1/8" = 1'-0"



1 THIRD FLOOR PLAN - FIRE SUPPRESSION - IL UNITS

SP1.3 1/8" = 1'-0"



PLAN NOTES

1. FLOOR CONTROL STATION WITH TAMPER AND FLOW SWITCH. REFER TO DETAIL FOR ADDITIONAL INFORMATION. LOCATE IN AN ACCESSIBLE LOCATION.
2. 4" RISER UP AND DOWN. 2-1/2" FIRE DEPARTMENT CONNECTION HOSE VALVE WITH CAP AND CHAIN. REFER TO DETAIL FOR ADDITIONAL INFORMATION. LOCATE STANDPIPE AND HOSE VALVE AS TIGHT TO CORNER AS POSSIBLE. MAINTAIN EGRESS CLEARANCE IN STAIRWELL. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION ON SITE.
3. 2" DRAIN RISER UP AND DOWN. PROVIDE DRAIN AT LOW POINT OF STANDPIPE PIPING.
4. PROVIDE STANDPIPE HOSE CONNECTIONS IN THIS AREA AS REQUIRED. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION OF HOSE VALVE AND STANDPIPE ON SITE. PROVIDE CONTROL VALVE WITH TAMPER SWITCH ON EACH STANDPIPE AS REQUIRED. COORDINATE EXACT REQUIREMENTS WITH AUTHORITY HAVING JURISDICTION.

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ENGINEER	AJM	APPROVED	AJM

NO.	REVISION DESCRIPTION	DATE
3	Addendum 1	03/07/24

DRAWING TITLE

THIRD FLOOR PLAN - FIRE SUPPRESSION

DATE: January 5, 2024

COMM. NO. 23104.00

DRAWING SP1.3

ELECTRICAL SYMBOL LEGEND (NOTE 1)

FIRE ALARM

MTG. HGT. (NOTE 2)	SYMBOL (NOTES 3 & 4)	DESCRIPTION
	S	SMOKE DETECTOR, CEILING. "COT" = COMBINATION CARBON MONOXIDE DETECTOR "SBT" = SOUNDER BASE, LOW FREQUENCY TYPE, UON "D" = SMOKE DETECTOR, DUCT TYPE. SEE MECHANICAL DRAWINGS FOR EXACT LOCATION (NOTE 7). "S" = SINGLE STATION TYPE "LF" = LOW FREQUENCY
6'-8"	S	SMOKE DETECTOR, WALL. (NOTE 7) "COT" = COMBINATION CARBON MONOXIDE DETECTOR "SBT" = SOUNDER BASE TYPE "D" = SMOKE DETECTOR, DUCT TYPE. SEE MECHANICAL DRAWINGS FOR EXACT LOCATION (NOTE 7). "S" = SINGLE STATION TYPE (NOTE 7)
	H	HEAT DETECTOR, CEILING.
6'-8"	H	HEAT DETECTOR, WALL. (NOTE 7)
	F	FLAME DETECTOR, CEILING.
4'-0"	F	FIRE ALARM MANUAL PULL STATION.
5'-6"	F	FIRE ALARM FIRE FIGHTER TWO-WAY COMMUNICATION OUTLET JACK WALL UNIT.
	S	FIRE ALARM SPEAKER WITH INTEGRAL VISUAL DEVICE.
NOTE 7	F	FIRE ALARM HORN OR SPEAKER WITH INTEGRAL VISUAL DEVICE. "LF" = LOW FREQUENCY TYPE "S" = DIGITAL SPEAKER TYPE
NOTE 7	F	FIRE ALARM BELL.
NOTE 7	F	FIRE ALARM VISUAL DEVICE.
NOTE 7	F	FIRE ALARM CHIME.
	F	FIRE ALARM HORN OR SPEAKER WITH INTEGRAL VISUAL DEVICE.
	S	FIRE ALARM SPEAKER FOR AUDIBLE TONE. CEILING/PENDANT MOUNT.
	S	FIRE ALARM SPEAKER/STROBE. CEILING/PENDANT MOUNT.
	AOM	ADDRESSABLE OUTPUT MODULE.
	IAM	INDIVIDUAL ADDRESSABLE MONITOR MODULE.
	ZAM	ZONE ADDRESSABLE MODULE.
	IM	SIGNALING LINE CIRCUIT ISOLATION MODULE.
7'-4"		SMOKE, HEAT OR FLAME DETECTOR REMOTE ALARM LIGHT, WALL.
		SMOKE, HEAT OR FLAME DETECTOR REMOTE ALARM LIGHT, CEILING.
	FS OR W	SPRINKLER SYSTEM WATER FLOW DETECTOR SWITCH. (NOTE 7)
	PS OR X	SPRINKLER SYSTEM PRESSURE SWITCH. (NOTE 7)
	TS OR Y	SPRINKLER SYSTEM VALVE SUPERVISORY SWITCH. (NOTE 7)
5'-0"	FAA	FIRE ALARM ANNUNCIATOR PANEL
6'-0"	FACP	FIRE ALARM CONTROL PANEL
6'-0"	D	MAGNETIC DOOR HOLDER
	NAC	FIRE ALARM NOTIFICATION APPL. CKT PANEL
5'-0"	ARA	AREA OF RESCUE BASE STATION/CONTROL PANEL.
5'-0"	ARC	AREA OF RESCUE CALL STATION.
5'-0"	FAMP	FIRE ALARM AUDIO AMPLIFIER
5'-0"	FAPS	FIRE ALARM POWER SUPPLY

LOW VOLTAGE

MTG. HGT. (NOTE 2)	SYMBOL (NOTES 3 & 4)	DESCRIPTION
1'-6"		WALL MOUNTED DATA OUTLET. "WI" = WALL DATA OUTLET MOUNTED 54" AFF.
1'-6"		WALL MOUNTED PHONE OUTLET "WI" = MOUNTED AT 54" AFF.
1'-6"		WALL MOUNTED COMBINATION PHONE AND DATA OUTLET. "WI" = MOUNTED AT 54" AFF.
		TELEDATA OUTLET, FLOOR.
		PHONE OUTLET, FLOOR.
		COMBINATION PHONE & DATA OUTLET, FLOOR.
1'-6" UON	TV	RECESSED WALL MOUNTED COMBINATION RECEPTACLE, DATA & TV OUTLETS IN 2-GANG OUTLET BOX WITH VOLTAGE BARRIER.
	TV	COMBINATION RECEPTACLE, DATA & TV OUTLET WITH VOLTAGE BARRIER, FLOOR.
6'-8"		BELL, WALL.
6'-8"		BUZZER, WALL.
6'-8"		CHIME, WALL.
4'-0"		PUSHBUTTON, WALL. "DB" = DOOR BELL, "GD" = GARAGE DOOR.
	ST	SIGNAL TRANSFORMER.
		SECURITY VIDEO CAMERA, CEILING OR SOFFIT MOUNTED.
3'-10"	N	NURSES' CALL PATIENT STATION, WALL.
3'-10"	N E	NURSES' CALL EMERGENCY STATION, WALL.
3'-10"	N S	NURSES' CALL STAFF STATION, WALL.
3'-10"	N D	NURSES' CALL DUTY STATION, WALL.
	N MS	NURSES' CALL MASTER STATION.
7'-4"	N Z	NURSES' CALL ZONE LIGHT, WALL.
	N Z	NURSES' CALL ZONE LIGHT, CEILING.
7'-4"	N C	NURSES' CALL CORRIDOR DOME LIGHT, WALL.
	N C	NURSES' CALL CORRIDOR DOME LIGHT, CEILING.
3'-10"	E	EMERGENCY CALL SWITCH, WALL.
	E C	EMERGENCY CALL CORRIDOR DOME LIGHT, CEILING.
7'-4"	E C	EMERGENCY CALL CORRIDOR DOME LIGHT, WALL.
12'-0"		SOUND SYSTEM SPEAKER, WALL. LETTER, WHERE SHOWN, INDICATES TYPE.
		SOUND SYSTEM SPEAKER, CEILING.
20'-0"		SOUND SYSTEM HORN SPEAKER, WALL.
7'-4"		INTERCOM SYSTEM SPEAKER, WALL.
		INTERCOM SYSTEM SPEAKER, CEILING.
20'-0"		INTERCOM SYSTEM HORN SPEAKER, WALL.
1'-6"	M	MICROPHONE OUTLET, WALL.
	M	MICROPHONE OUTLET, FLOOR.
1'-6"	A	AUXILIARY OUTLET FOR SOUND SYSTEM, WALL.
	A	AUXILIARY OUTLET FOR SOUND SYSTEM, FLOOR.
3'-10"	V	VOLUME CONTROL, WALL.
3'-10"	I	INTERCOM SYSTEM CALL-IN STATION, WALL.
	I	INTERCOM SYSTEM CALL-IN STATION, FLOOR.
	I MS	INTERCOM SYSTEM MASTER STATION.
	S	SECURITY SYSTEM DOOR SWITCH.
7'-0"	C	CLOCK HANGER OUTLET, WALL.
7'-0"	A	CLOCK, WALL. LETTER, WHERE SHOWN, INDICATES TYPE.

LIGHTING

MTG. HGT. (NOTE 2)	SYMBOL (NOTES 3 & 4)	DESCRIPTION
	OR	CEILING MOUNTED RECESSED LUMINAIRE. (NOTE 6)
		CEILING SURFACE MOUNTED LUMINAIRE. (NOTE 6)
		WALL MOUNTED LUMINAIRE. (NOTE 6)
		CEILING MOUNTED LUMINAIRE. (NOTE 6)
		CEILING MOUNTED LUMINAIRE, SINGLE WALL-WASHER TYPE. POINTED SIDE INDICATES DIRECTION OF MAXIMUM LIGHT DISTRIBUTION.
		CEILING MOUNTED LUMINAIRE, DOUBLE WALL-WASHER TYPE. POINTED SIDES INDICATE DIRECTION OF MAXIMUM LIGHT DISTRIBUTION.
		SURFACE OR PENDANT CEILING MOUNTED LUMINAIRE. (NOTE 6)
	OR	WALL MOUNTED LUMINAIRE. (NOTE 6)
		FAN, CEILING MOUNTED WITH LUMINAIRE ACCESSORY.
	H	CEILING MOUNTED RECESSED COMBINATION UNIT. "H" = INFRARED HEAT LAMP.
	H	CEILING MOUNTED RECESSED COMBINATION UNIT. "H" = INFRARED HEAT LAMP.
(12)		LIGHT TRACK. " " INDICATES QUANTITY OF FIXTURES PER TRACK, NUMBER INDICATES NOMINAL LENGTH IN FEET.
		POST ARM MOUNTED LIGHTING FIXTURE. LUMINAIRE(S) SHOWN FOR QUANTITY AND ORIENTATION. (NOTE 5)
		POST TOP MOUNTED LIGHTING FIXTURE. (NOTE 5)
		LANDSCAPE LIGHTING FIXTURE, GROUND MOUNTED. (NOTE 5)
		LANDSCAPE LIGHTING FIXTURE, FLUSH IN-GROUND. (NOTE 5)
		CEILING MOUNTED EXIT SIGN. SHADED QUADRANT(S) INDICATES FACE(S). PROVIDE ARROWS AS INDICATED ON DRAWINGS. LUMINAIRE TYPE "X1", UNO.
		WALL MOUNTED EXIT SIGN. SHADED QUADRANT(S) INDICATES FACE(S). PROVIDE ARROWS AS INDICATED ON DRAWINGS. LUMINAIRE TYPE "X1", UNO.
		SELF-CONTAINED EMERGENCY LIGHTING UNIT, WALL.
3'-10"	$A	GENERAL USE SWITCH, SINGLE POLE. LOWER CASE ALPHABETIC SUBSCRIPT.WHERE SHOWN, INDICATES LOADS CONTROLLED. (TYP FOR ALL SWITCHES.)
3'-10"	$$	TWO SINGLE-POLE SWITCHES IN A 2-GANG BOX. EACH SWITCH TO CONTROL A SEPARATE BALLAST IN A LUMINAIRE, REFER TOLUMINAIRE SCHEDULE AND/OR DRAWINGS.
3'-10"	$2	GENERAL USE SWITCH, DOUBLE POLE.
3'-10"	$3	GENERAL USE SWITCH, THREE WAY.
3'-10"	$$3	ONE 3-WAY SWITCH AND ONE SINGLE-POLE SWITCH IN A 2-GANG BOX. EACH SWITCH TO CONTROL A SEPARATE BALLAST IN A LUMINAIRE, REFER TO LUMINAIRE SCHEDULE AND/OR DRAWINGS.
3'-10"	3 $$3	TWO 3-WAY SWITCHES IN A 2-GANG BOX. EACH SWITCH TO CONTROL A SEPARATE BALLAST IN A LUMINAIRE, REFER TO LUMINAIRE SCHEDULE AND/OR DRAWINGS.
3'-10"	$4	GENERAL USE SWITCH, FOUR WAY.
3'-10"	$P	GENERAL USE SWITCH, PILOT LIGHT TYPE. PILOT LIGHT IS "ON" WHEN SWITCH IS "ON".
3'-10"	$K	GENERAL USE SWITCH, KEY OPERATED.
3'-10"	$T	TIMER SWITCH, WALL-BOX MOUNTED.
3'-10"	$F	FAN/LIGHT CONTROL SWITCH, FOUR POSITION FOR SEPERATE CONTROL OF FAN AND FAN LIGHT KIT. SWITCH FURNISHED WITH FAN BY FAN MANUFACTURER.
3'-10"		OCCUPANCY SENSOR SWITCH, WALL MOUNTED. DUAL TECHNOLOGY TYPE UNLESS INDICATED OTHERWISE. SUBSCRIPT : "R" = INFRARED TYPE. "U" =ULTRASONIC TYPE. "Z" = 2-POLE DUAL RELAYS. "D" = DIMMER LOWERCASE ALPHABETIC SUBSCRIPT, WHERE SHOWN, INDICATES LOADS CONTROLLED. SET TIME DELAY TO AUTOMATIC UNLESS INDICATED OTHERWISE. SET TO MANUAL ON AUTO-OFF OPERATION UNLESS INDICATED OTHERWISE.
	OS	OCCUPANCY SENSOR SWITCH, CEILING MOUNTED. DUAL TECHNOLOGY TYPE UNLESS INDICATED OTHERWISE. SUBSCRIPT : "R" = INFRARED TYPE. "U" =ULTRASONIC TYPE. "Z" = 2-POLE DUAL RELAYS; LOWERCASE ALPHABETIC SUBSCRIPT, WHERE SHOWN, INDICATES LOADS CONTROLLED. SET TIME DELAY TO AUTOMATIC UNLESS INDICATED OTHERWISE. SET TO AUTO-ON OPERATION UNLESS INDICATED OTHERWISE.
3'-10"	D	DIMMER SWITCH, COMPATIBLE WITH LOAD TYPE. SUBSCRIPT : "3" = THREE-WAY
	R	UL 924 LISTED EMERGENCY TRANSFER RELAY DEVICE CAPABLE OF SENSING AND SWITCHING FROM NORMAL TO EMERGENCY POWER UPON LOSS.

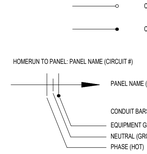
GENERAL

MTG. HGT. (NOTE 2)	SYMBOL (NOTES 3 & 4)	DESCRIPTION
	1	PLAN NOTE DESIGNATION.
	1	KITCHEN EQUIPMENT DESIGNATION.
	1	LUMINAIRE TYPE DESIGNATION.

POWER

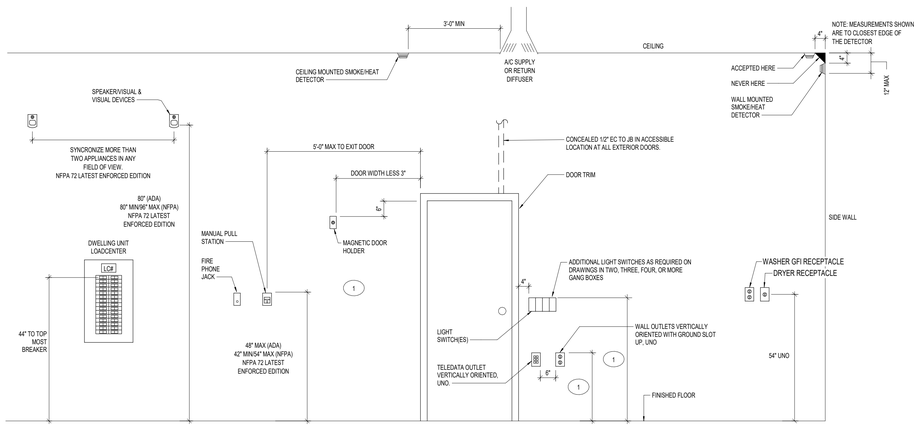
MTG. HGT. (NOTE 2)	SYMBOL (NOTES 3 & 4)	DESCRIPTION
1'-6"		DECORATOR DUPLEX RECEPTACLE, WALL MOUNTED. ALPHA-NUMERIC OR NUMERIC SUBSCRIPT INDICATES PANELBOARD CIRCUIT. (TYPICAL FOR ALL RECEPTACLES). "GF" = GROUND FAULT DECORATOR RECEPTACLE. "WP" = WEATHERPROOF WHILE-IN-USE DEVICE, DECORATOR RECEPTACLE MOUNTED IN (NEMA-3R) WALLPLATE. "HG" = HOSPITAL GRADE. "C" = MOUNT RECEPTACLE 44"AFF TO CENTER OF BOX OR BOTTOM 0'-1" ABOVE BACKSPLASH/COUNTER. "H" = MOUNT RECEPTACLE HORIZONTALLY (ALL RECEPTACLE SHALL BE MOUNTED VERTICALLY UNLESS NOTED BY AN "H"). "U" = USB DEVICE, (LEVITON T5832) "T" = TAMPER RESISTANT DEVICE, "MC" = PROVIDE A MIRRORED COVERPLATE FOR RECEPTACLE MOUNTED IN MIRRORS. "AF" = ARC FAULT CIRCUIT INTERRUPTER DEVICE "E" = INDICATES EMERGENCY DEVICE IF DEVICE NOT SHADED.
		WALL MOUNTED DECORATOR DUPLEX RECEPTACLE. MOUNT AT 44" AFF TO CENTER OF BOX OR BOTTOM AT 1" ABOVE BACKSPLASH OR COUNTER TOP.
1'-6"		WALL MOUNTED DECORATOR DUPLEX RECEPTACLE. GROUND FAULT DEVICE.
		WALL MOUNTED DECORATOR DUPLEX RECEPTACLE. GROUND FAULT DEVICE. WALL MOUNTED DECORATOR DUPLEX RECEPTACLE. MOUNT AT 44" AFF TO CENTER OF BOX OR BOTTOM AT 1" ABOVE BACKSPLASH OR COUNTER TOP.
		SHADED DEVICE SYMBOL INDICATES EMERGENCY (TYPICAL FOR ALL RECEPTACLES)
		DUPLEX RECEPTACLE, FLOOR.
		DUPLEX RECEPTACLE AND TELEPHONE OR DATA OUTLET IN A TWO-COMPARTMENT FLUSH FLOOR BOX.
	C	DUPLEX RECEPTACLE, CEILING.
0'-6"		DUPLEX RECEPTACLE IN A CAST "FS" BOX MOUNTED ON (2) RIGID CONDUITS FROM FLOOR.
1'-6"		SPLIT WIRED TAMPER-RESISTANT DECORATOR DUPLEX RECEPTACLE. WALL MOUNTED. BOTTOM PLUG SHALL BE WIRED THRU A SWITCH. TOP PLUG IS NOT SWITCHED.
1'-6"		TWO DUPLEX RECEPTACLES IN A TWO GANG OUTLET BOX. WALL PROVIDE BARRIER BETWEEN RECEPTACLES UNLESS CONNECTED TO SAME BRANCH CIRCUIT.
		TWO DUPLEX RECEPTACLES IN A TWO GANG OUTLET BOX, FLOOR.
	C	TWO DUPLEX RECEPTACLES IN A TWO GANG OUTLET BOX, CEILING.
1'-6"		SINGLE RECEPTACLE, WALL.
		SINGLE RECEPTACLE, FLOOR.
	C	SINGLE RECEPTACLE, CEILING.
1'-6"	OR	SPECIAL PURPOSE RECEPTACLE, WALL. "D" = DRYER (NEMA 14-30R), "R" = RANGE (NEMA 14-50R), UNO.
		SPECIAL PURPOSE RECEPTACLE (TYPE AS NOTED), FLOOR.
	C	SPECIAL PURPOSE RECEPTACLE (TYPE AS NOTED), CEILING.
1'-6"	J	JUNCTION BOX, WALL.
	J	JUNCTION BOX, FLOOR.
	J C	JUNCTION BOX, CEILING.
		DIRECT CONNECTION TO EQUIPMENT.
		GROUND CONNECTION.
	GR	GROUND ROD
	M	ELECTRIC MOTOR CONNECTION.
	$M	MOTOR RATED SWITCH.
3'-10"	P	POWERED DOOR OPERATOR, WALL.
1'-6" UON	TV	RECESSED WALL MOUNTED COMBINATION RECEPTACLE, DATA & TV OUTLETS IN 2-GANG OUTLET BOX WITH VOLTAGE BARRIER. COORDINATE BLOCKING W/ARCHITECT WHERE WALL MOUNT TV IS REQUIRED.
6'-0" TO TOP	FLUSH / SURFACE	208/120 VOLT PANELBOARD.
6'-0" TO TOP	FLUSH / SURFACE	480/277 VOLT PANELBOARD.
		TRANSFORMER. SIZE AND TYPE AS INDICATED ON DRAWING.
5'-0" TO TOP	3/30/240/3RF	DISCONNECT SWITCH. DESIGNATION INDICATES: FUSED "I" OR NON-FUSED "NF" NEMA ENCLOSURE RATING VOLTAGE AMPACITY RATING NO. OF POLES
5'-0" TO TOP	CB 3/30/240/3RF	ENCLOSED CIRCUIT BREAKER. DESIGNATION INDICATES: FUSED "I" OR NON-FUSED "NF" NEMA ENCLOSURE RATING VOLTAGE AMPACITY RATING NO. OF POLES
	VFD	VARIABLE FREQUENCY DRIVE
5'-0" TO TOP		MANUAL MOTOR STARTER WITH PILOT LIGHT, SURFACE MOUNTED. "I" = FLUSH MOUNTED.
5'-0" TO TOP		MAGNETIC MOTOR STARTER, SURFACE MOUNTED. "I" = FLUSH MOUNTED.
5'-0" TO TOP		COMBINATION MAGNETIC MOTOR STARTER AND FUSED DISCONNECT SWITCH.
5'-0"	RAA	GENERATOR REMOTE ANNUNCIATOR PANEL
		CONDUIT CONCEALED IN OR BELOW FLOOR SLAB OR BELOW GRADE.
		CONDUIT EXPOSED OR CONCEALED IN WALL OR ABOVE CEILING.
		CONDUIT TURNED UP.
		CONDUIT TURNED DOWN.

HOMERUN TO PANEL: PANEL NAME (CIRCUIT #)



ELECTRICAL ABBREVIATIONS (NOTE 8)

A OR	
AMP	AMPERE
ABV	ABOVE
AC	ALTERNATING CURRENT
ACB	ABOVE COUNTER BACKSPLASH
AFCI	ARC FAULT CIRCUIT INTERRUPTER
AFD	ADJUSTABLE FREQUENCY DRIVE
AFF	ABOVE FINISHED FLOOR
AIC	AMPERES INTERRUPTING CAPACITY
AL	ALUMINUM
AM	AMMETER
AMPL	AMPLIFIER
ASYM	ASYMMETRICAL
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAGE
BEL	BELOW
BD	BUS DUCT
BOTT	BOTTOM
BRKR	BREAKER
C	COUNTERTOP
CA	CABLE
CAB	CABINET
CATV	COMMUNITY ANTENNA TELEVISION OR CABLE TELEVISION
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CF	COMPACT FLUORESCENT
CKT	CIRCUIT
CLG	CEILING
CND	CONDUIT
CNTR	CENTER
COMB	COMBINATION
COND	CONDUCTOR
CONN	CONNECTION
CONT	CONTACTOR
CT	CURRENT TRANSFORMER
CTRL	CONTROL
CU	COPPER
CW	COLD WATER
DB	DOOR BELL
DC	DIRECT CURRENT
DIM	DIMENSION
DISC	DISCONNECT
DR	DOOR RELEASE SERVICE
DS	DOOR SWITCH
DWG	DRAWING
E OR	
EMER	EMERGENCY
EL	EXISTING TO BE RELOCATED
ELEC	ELECTRIC(AL)
ELEV	ELEVATION/ELEVATOR
EM	EXISTING TO BE REMOVED
EML	EXIST REMOVED AND RELOCATED TO THIS POSITION
EMN	EXISTING TO BE REMOVED AND NEW INSTALLED
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
ENG	ENGINE
EP	EXPLOSIONPROOF
EQUIP	EQUIPMENT
ER	EXISTING TO REMAIN
ERC	ELEVATOR RECALL
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING
EXT	EXTERIOR
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FDR	FEEDER
FC	FOOTCANDLE
FLUOR	FLUORESCENT
FSDR	MOTOR OPERATED FIRE/SMOKE DAMPER
FSS	FUSIBLE SAFETY SWITCH
FXTR	FIXTURE
GD	GARAGE DOOR
GEN	GENERATOR
GF OR	
GFI	GROUND FAULT
GND	GROUND
H	HORIZONTAL
HG	HOSPITAL GRADE
HGT	HIGH INTENSITY DISCHARGE
HID	HEIGHT
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER OR HEAT PUMP
HPF	HIGH POWER FACTOR
HPS	HIGH PRESSURE SODIUM
HTR	HEATER
HW	HOT WATER
HZ	HERTZ
IC	INTERCOM OR INTERRUPTING CAPACITY
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
INC	INCANDESCENT
INIT	INITIAL
JB	JUNCTION BOX
KO	KNOCKOUT
KV	KILOVOLT
KVA	KILOVOLT-AMPERE
KVAR	KILOVOLT-AMPERE REACTIVE
KW	KILOWATT
KWH	KILOWATT-HOUR
LA	LIGHTNING ARRESTER
LC	LOADCENTER
LPS	LOW PRESSURE SODIUM
LTG	LIGHTING
LUM	LUMENS
MAG	MAGNETIC
MAN	MANUAL
MATV	MASTER ANTENNA TELEVISION
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCM	THOUSAND CIRCULAR MILS
MG	MOTOR/GENERATOR
MH	METAL HALIDE OR MOUNTING HEIGHT
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MOD	MOTOR OPERATED DAMPER
MOT	MOTOR
MS	MAGNETIC STARTER
MTG	MOUNTED OR MOUNTING
MTR	METER
MV	MERCURY VAPOR
NEC	NATIONAL ELECTRICAL CODE
NEUT	NEUTRAL
NFSS	NON-FUSIBLE SAFETY SWITCH
NO	NUMBER
OH	OVERHEAD
P	POLE
PB	PULL BOX OR PUSHBUTTON
PBS	PUSHBUTTON STATION
PH( )	PHASE
PNL	PANEL
PNLBD	PANELBOARD
PRI	PRIMARY
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
PWR	POWER
QTY	QUANTITY
RECPT	RECEPTACLE
REFRIG	REFRIGERATOR
RSC	RIGID STEEL CONDUIT
SCC	SHORT CIRCUIT CURRENT
SDR	MOTOR OPERATED SMOKE DAMPER
SEC	SECONDARY
SMR	SURFACE METAL RACEWAY
SPKR	SPEAKER
SR	SURFACE RACEWAY
SS	SURGE SUPPRESSOR/ ISOLATED GROUND
STR	STARTER
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SYM	SYMMETRICAL
S/N	SOLID NEUTRAL
TC	TIME CLOCK
TEL	TELEPHONE
TV	TELEVISION
TYP	TYPICAL
UF	UNDERFLOOR
UG	UNDERGROUND
UL	UNDERWRITERS' LABORATORIES
UNO	UNLESS NOTED OTHERWISE
V	VOLT
VA	VOLT-AMPERE
VAR	VOLT-AMPERE REACTIVE
VM	VOLTMETER
W	WATT OR WIRE
WP	WEATHERPROOF
XFER	TRANSFER
XFMR	TRANSFORMER



ELEVATIONS - ELECTRICAL & FIRE ALARM DEVICES

NO SCALE

(1) REFER TO SYMBOL LEGEND ON THIS SHEET FOR EXACT HEIGHT OF DEVICES INDICATED.

GENERAL NOTES

NOTES (ELECTRICAL SYMBOL LEGEND)

1. THESE ARE STANDARD SYMBOLS AND MAY NOT ALL APPEAR ON THE PROJECT DRAWINGS. HOWEVER, WHEREVER THIS SYMBOL APPEARS ON THE PROJECT DRAWINGS, THE ITEM SHALL BE FURNISHED AND INSTALLED.
2. UNLESS NOTED OTHERWISE, MOUNTING HEIGHTS ARE FROM FINISHED FLOOR TO CENTERLINE OF OUTLET. WHERE THE MOUNTING HEIGHT INDICATED ON PLAN IS DIFFERENT FROM THE LEGEND, THE PLAN TAKES PRECEDENT.
3. INSTALL RECEPTACLE AND TELEPHONE OUTLET BOXES (OR OTHER OUTLET BOXES SUCH AS TV, COMPUTER, ETC.) 6" APART (EDGE TO EDGE) WHERE SHOWN SIDE BY SIDE ON WALL.
4. SEE ELECTRICAL ABBREVIATIONS FOR ALPHABETIC SUBSCRIPT WITH SYMBOL, UNO.
5. ARROW(S) INDICATE DIRECTION OF MAXIMUM LIGHT DISTRIBUTION.
6. " " = SHADED LUMINAIRE CONNECTED TO EMERGENCY CIRCUIT.
7. INSTALL DETECTOR BETWEEN 0'-4" AND 1'-0" DOWN FROM THE CEILING TO THE TOP OF THE DETECTOR, UNO. FIRE ALARM VISUAL DEVICE (STAND-ALONE OR INTEGRAL STROBE) SHALL BE LOCATED 80 INCHES TO THE BOTTOM ABOVE OF HIGHEST FLOOR LEVEL WITHIN THE SPACE OR 6" TO THE TOP BELOW CEILING, WHICHEVER IS LOWER.
8. REFER TO THE OTHER ABBREVIATION LISTS ELSEWHERE IN THESE DOCUMENTS FOR ABBREVIATIONS NOT LISTED HERE.
9. MOUNT ALL SINGLE AND DUPLEX WALL MOUNT RECEPTACLES VERRICALLY WITH GROUND PIN SLOT UP, EXCEPT RECEPTACLES MOUNTED HORIZONTALLY WITH GROUND PIN SLOT TO THE LEFT.

CODE SUMMARY

- 2018 MISSOURI BUILDING CODE
- 2018 MISSOURI ENERGY CODE
- 2017 NFPA 70 - NATIONAL ELECTRIC CODE
- 2016 NFPA 72
- 2016 NFPA 110 - STANDARD FOR EMERGENCY AND STANDBY POWER SYSTEMS

SHEET LIST - ELECTRICAL

CONSTRUCTION SET

STATE OF MISSOURI — JAMES S. MIDWELL — NUMBER E-25237 — REGISTERED PROFESSIONAL ENGINEER — 3/5/2024

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

SFCS Architecture Engineering Planning Interiors

SFCS Inc. ▪ 305 South Jefferson Street
Roanoke, Virginia 24011.2003
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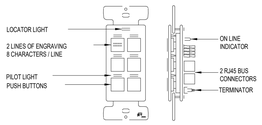
DESIGNER	DAS	DRAWN	MAW, DKW
ARCHITECT	DAS	CHECKED	MAW
ENGINEER	MAW	APPROVED	JSK

NO.	REVISION DESCRIPTION	DATE
3	Addendum #1	03/07/24

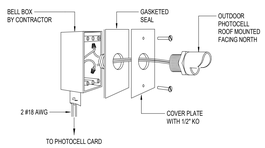
DRAWING TITLE

ELECTRICAL SYMBOL LEGEND & ABBREVIATIONS

DATE:	January 5, 2024
COMM. NO.	23104.00
DRAWING	E0.0



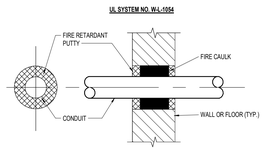
DIGITALSWITCH



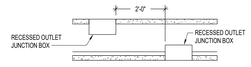
OUTDOOR PHOTOCELL

NOTES:
1. SWITCH BUTTONS ARE FACTORY ENGRAVED.
2. PUSH BUTTONS MAY CONTROL ANYRELAY(S) IN ANY COMBINATION.
3. LED PILOT LIGHTS INDICATE STATUS.
4. SWITCH LINKED TO THE GR 2400 DIGITAL BUS VIA CAT. 5 PATCH CABLE WITH RJ45 CONNECTORS.
5. DECORA STYLE FACE PLATE BY CONTRACTOR.

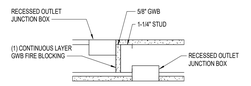
6 E0.1 **PHOTOCELL DETAILS**
N.T.S.



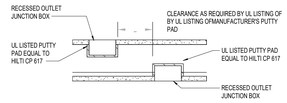
5 E0.1 **FIRESTOP INSTALLATION DETAIL**
N.T.S.



MINIMUM 24" CODE REQUIREMENT - PLAN VIEW



FIREBLOCKING DETAIL - PLAN VIEW

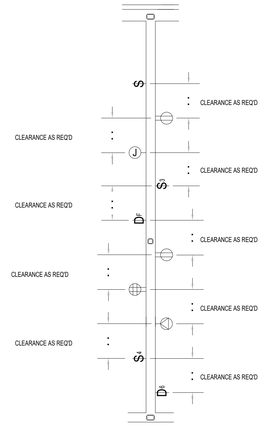


UL LISTED PUTTY PAD DETAIL - PLAN VIEW

NOTE:
RECESSED ELECTRICAL BOXES IN RATED ASSEMBLIES ARE MEMBRANE PENETRATIONS AND MUST COMPLY WITH 714.3.2 OF THE 2012 IBC CODE. RECESSED OUTLET BOXES ON OPPOSITE SIDES OF THE WALL MUST BE SEPARATED BY 24" HORIZONTAL DISTANCE, SOLID FIREBLOCKING, OR WITH UL LISTED PUTTY PADS.

DETAILS FOR MEMBRANE PENETRATIONS IN FIRE & ACOUSTICAL RATED ASSEMBLIES

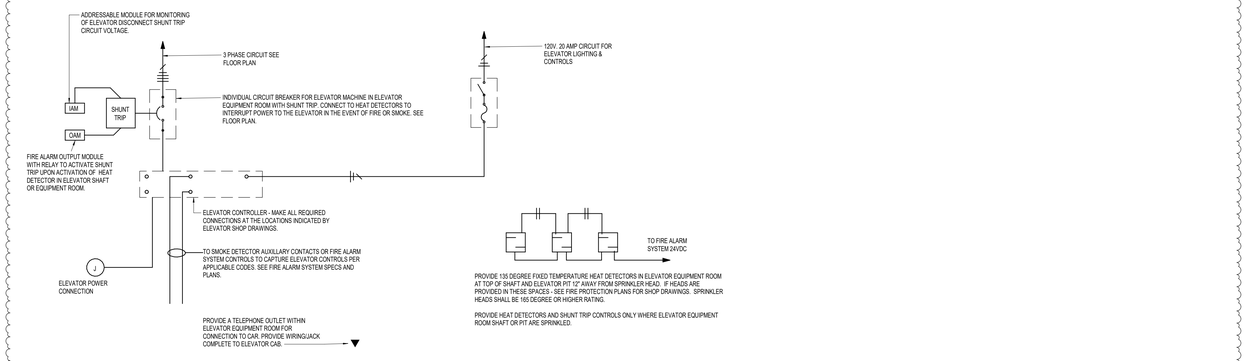
4 E0.1 N.T.S.



NOTE:
TYPICAL OF RECESSED WALL MOUNTED ELECTRICAL DEVICES LOCATED AT FIRE AND ACCOUSTICAL RATED PARTITIONS. REFER TO "DETAIL 5 FOR MEMBRANE PENETRATIONS IN FIRE & ACCOUSTICAL RATED WALLS" ON THIS DRAWING AND TO SPECIFICATIONS.

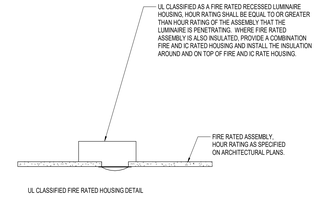
PARTIAL FIRE OR ACCOUSTICAL RATED PARTITION

2 E0.1 N.T.S.

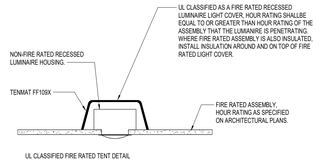


ELEVATOR POWER WIRING DIAGRAM

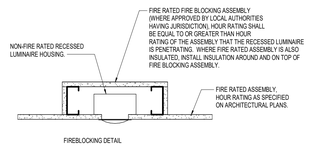
7 E0.1 N.T.S.



UL CLASSIFIED FIRE RATED HOUSING DETAIL



UL CLASSIFIED FIRE RATED TENT DETAIL

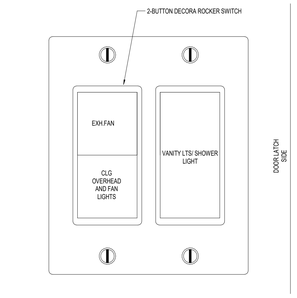


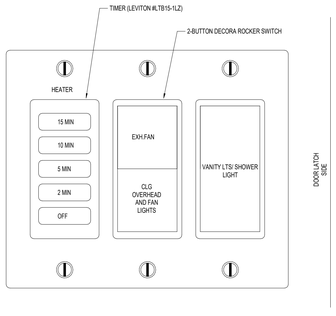
FIREBLOCKING DETAIL

NOTE:
RECESSED LUMINAIRES IN FIRE-RESISTANCE-RATED HORIZONTAL ASSEMBLIES ARE MEMBRANE PENETRATIONS AND MUST COMPLY WITH 714.4.1.1 OR 714.4.1.2 OF THE 2012 IBC CODE. RECESSED LUMINAIRES SHALL BE INSTALLED SUCH THAT THE REQUIRED FIRE RESISTANCE WILL NOT BE REDUCED.

DETAILS FOR LUMINAIRE PENETRATIONS IN FIRE RATED ASSEMBLIES

3 E0.1 N.T.S.





DWELLING UNIT BATHROOM COMBINATION TIMER AND SINGLE POLE SWITCHES

1 E0.1 12" = 1'-0"

GENERAL NOTES

CONSTRUCTION SET

STATE OF MISSOURI
JAMES S. KOVEM
NUMBER E-25237
PROFESSIONAL ENGINEER
1/5/2024

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

SFCS Architecture Engineering Planning Interiors
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Roanoke, Virginia 24011.2003
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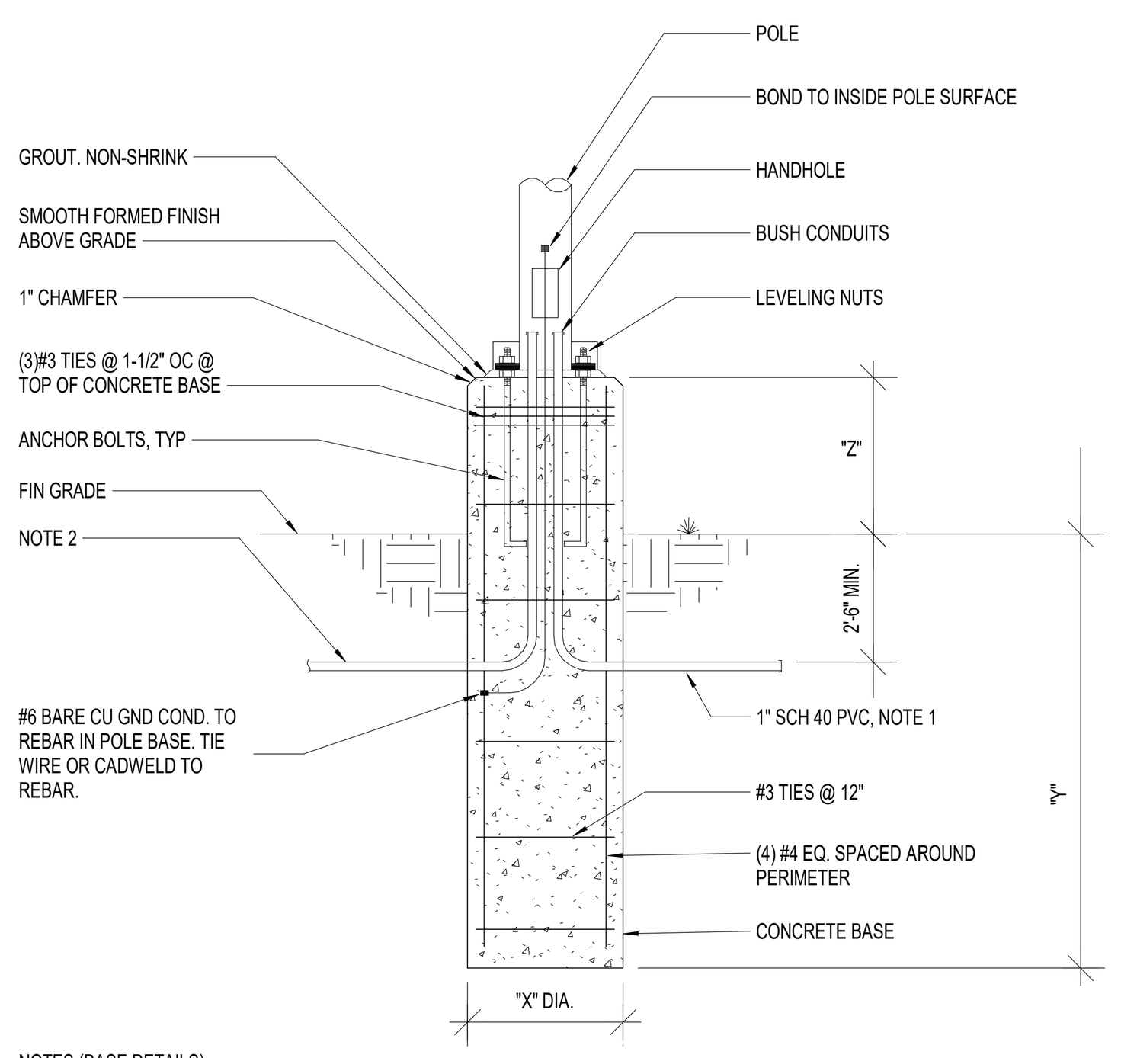
DESIGNER : DAS		DRAWN : MAW, DKW	
ARCHITECT : DAS		CHECKED : MAW	
ENGINEER : MAW		APPROVED : JSK	

NO.	REVISION DESCRIPTION	DATE
3	Addendum #1	03/07/24

DRAWING TITLE
ELECTRICAL DETAILS

DATE: January 5, 2024
COMM. NO. 23104.00
DRAWING E0.1



NOTES (BASE DETAILS):

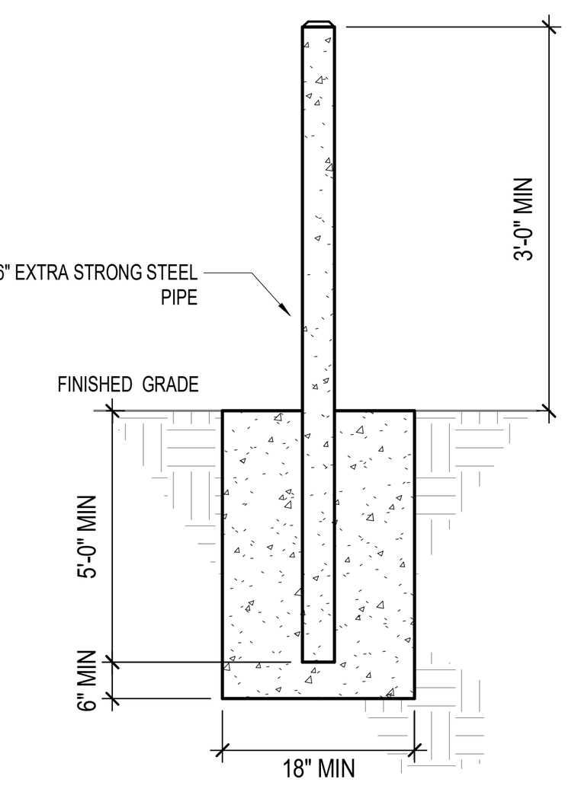
1. STUB OUT CONDUIT 1'-0" BEYOND BASE FOR LAST LIGHTING FIXTURE IN RUN AND CAP FOR FUTURE EXTENSION OF CIRCUIT.
2. 1" SCH 40 PVC HOMERUN OR TO ADJACENT FIXTURE.
3. NO RUBBING OR PARGING OF CONCRETE BASE AFTER REMOVAL OF FORM.

POLE BASE DIMENSIONS			
TYPE / DIM	"X"	"Y"	"Z"
S1	2'-0"	4'-0"	2'-0"

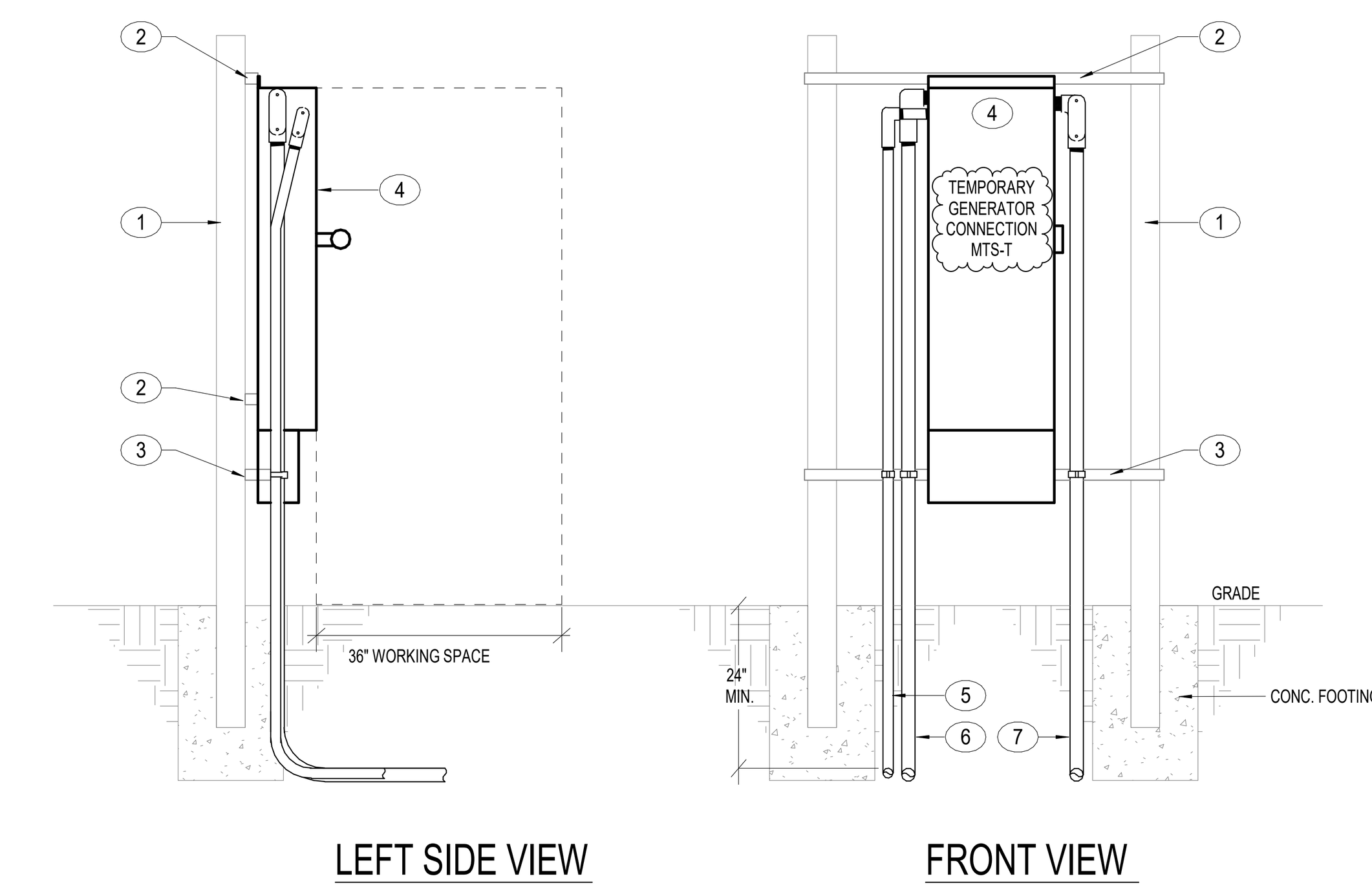
4 POLE BASE DETAIL
1/16" = 1'-0"

NOTES:

1. HOLES FOR STEEL PIPE MAY BE DUG ROUND OR SQUARE 2'W X 3'D.
2. 6"X8' EXTRA STRONG SCH. 40 STEEL PIPE TO BE FILLED WITH CONCRETE AND ROUNDED OFF AT THE TOP TO SHED WATER.
3. (2)COATS GALV. PRIME, THEN GALV. PAINT (2) COATS OF BRIGHT YELLOW.



2 PROTECTIVE BOLLARD INSTALLATION
1/2" = 1'-0"

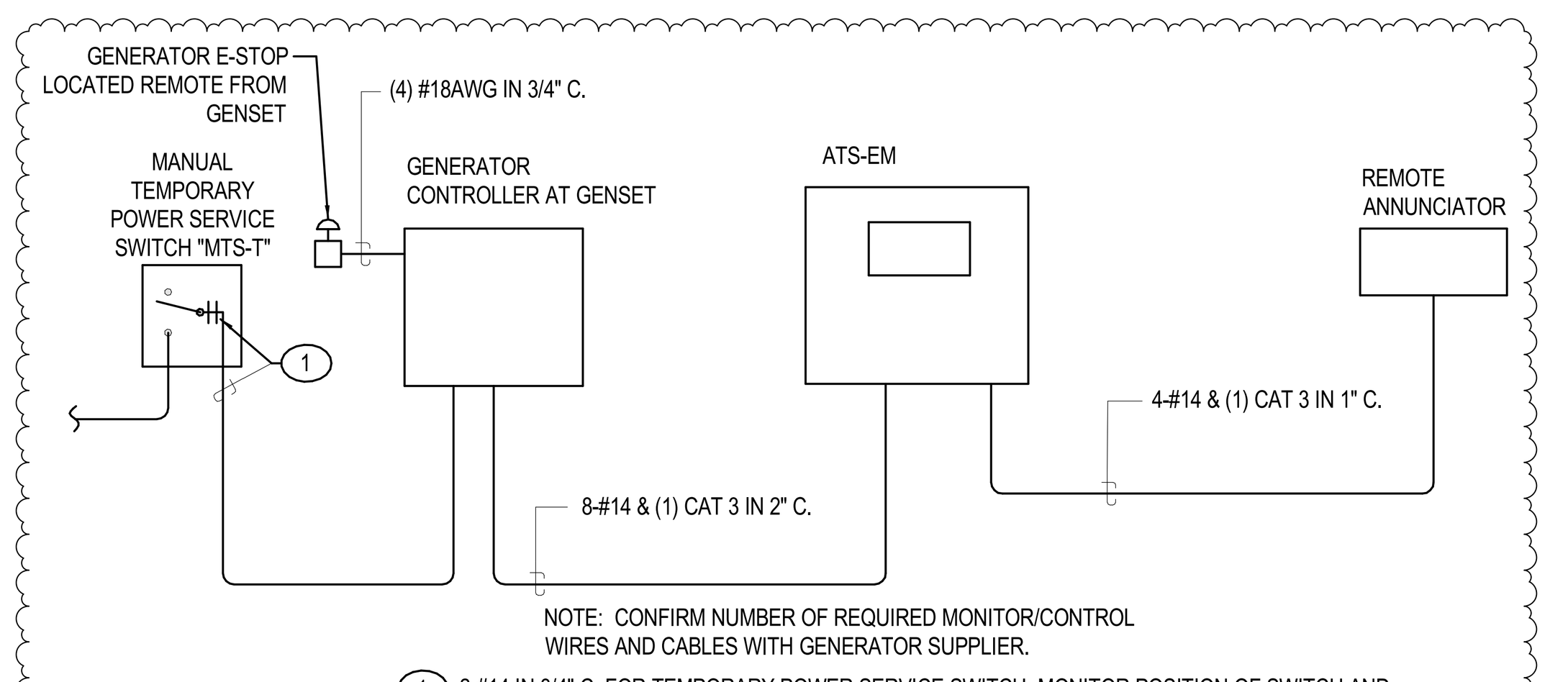


EQUIPMENT ELEVATION DETAILS GENERAL NOTES:
GRSC EXPOSED OUTSIDE AND SCHEDULE 40 PVC BELOW GRADE.

EQUIPMENT ELEVATION DETAILS PLAN NOTES:
1. MINIMUM 4" GALVANIZED STRUCTURAL STEEL CHANNEL OR 4" RIGID GALVANIZED CONDUIT.
2. 1-5/8",12 GAUGE, SLOTTED BACK, GALVANIZED-ZINC UNISTRUT.
3. (2) STACKED 1-5/8",12 GAUGE, SLOTTED BACK, GALVANIZED-ZINC UNISTRUT WITH CONDUIT STRAPS.
4. PROVIDE EATON #DT423URKSNLC-FLX, MANUAL TRANSFER SWITCH WITH CAM LOCKS FOR CONNECTION OF TEMPORARY EMERGENCY SYSTEM GENERATOR, 150A, 4P, 240V, NEMA 3R.
5. 1" C. GRSC WITH STEEL THREADED TYPE CONNECTORS AND PVC SCH. 40. FOR COMMUNICATION CABLES TO GENERATOR CONTROL PANEL.
6. GRSC WITH STEEL THREADED TYPE CONNECTORS AND PVC SCH. 40. FEEDER TO GENERATOR.
7. GRSC WITH STEEL THREADED TYPE CONNECTORS AND PVC SCH. 40. FEEDER TO BUILDING.

3

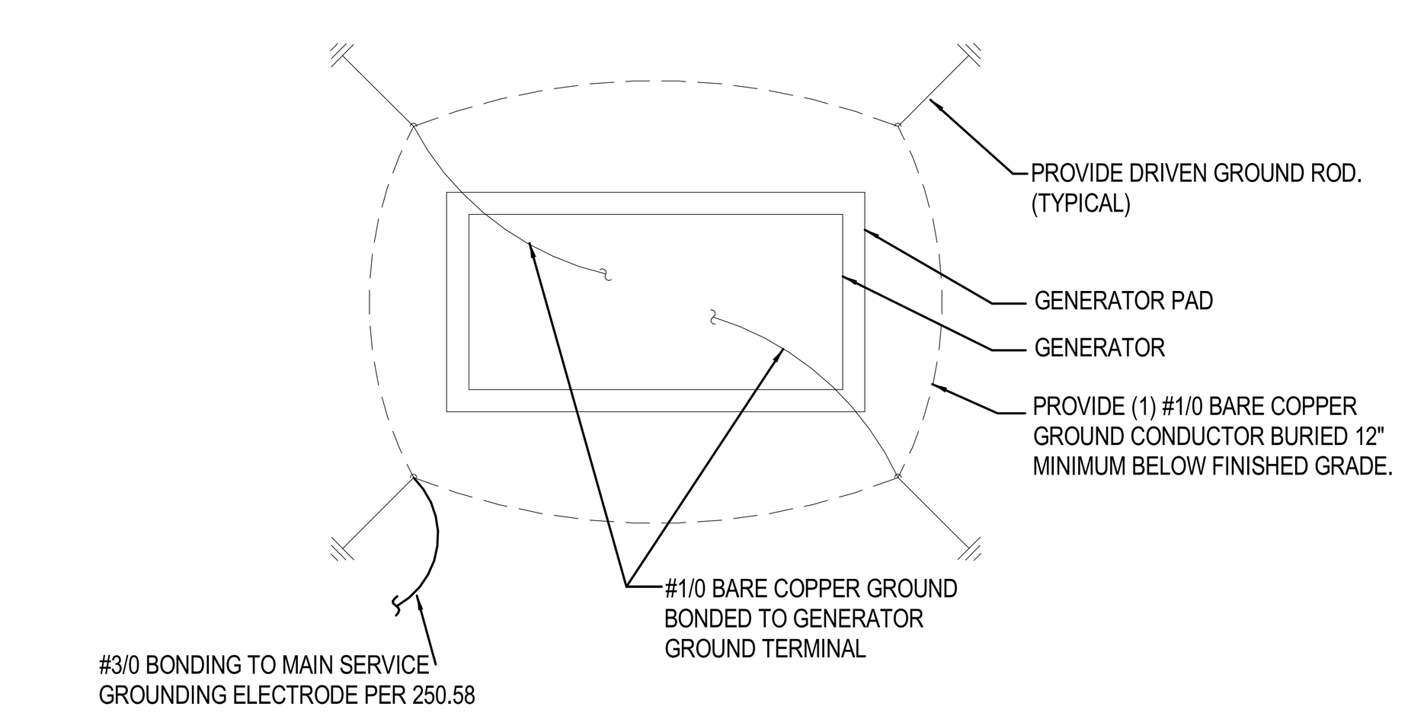
1 QUICK-CONNECT ELEVATION
12" = 1'-0"



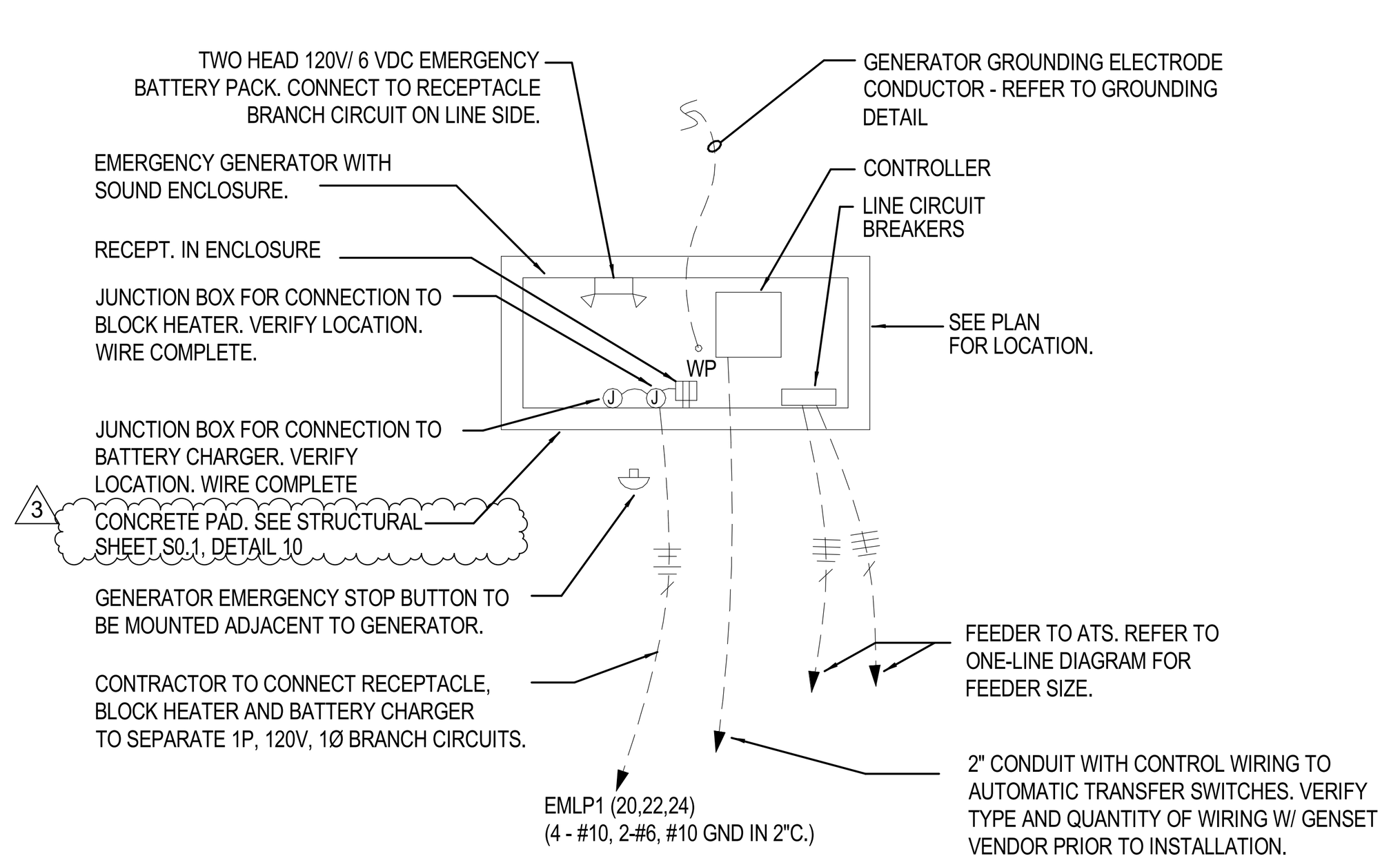
NOTE: CONFIRM NUMBER OF REQUIRED MONITOR/CONTROL WIRES AND CABLES WITH GENERATOR SUPPLIER.

(1) 2-#14 IN 3/4" C. FOR TEMPORARY POWER SERVICE SWITCH. MONITOR POSITION OF SWITCH AND ANNUNCIATE AT REMOTE ANNUNCIATOR WHEN PERMANENT GENERATOR IS DISCONNECTED (NEC. 70-700.3(F)(5)).

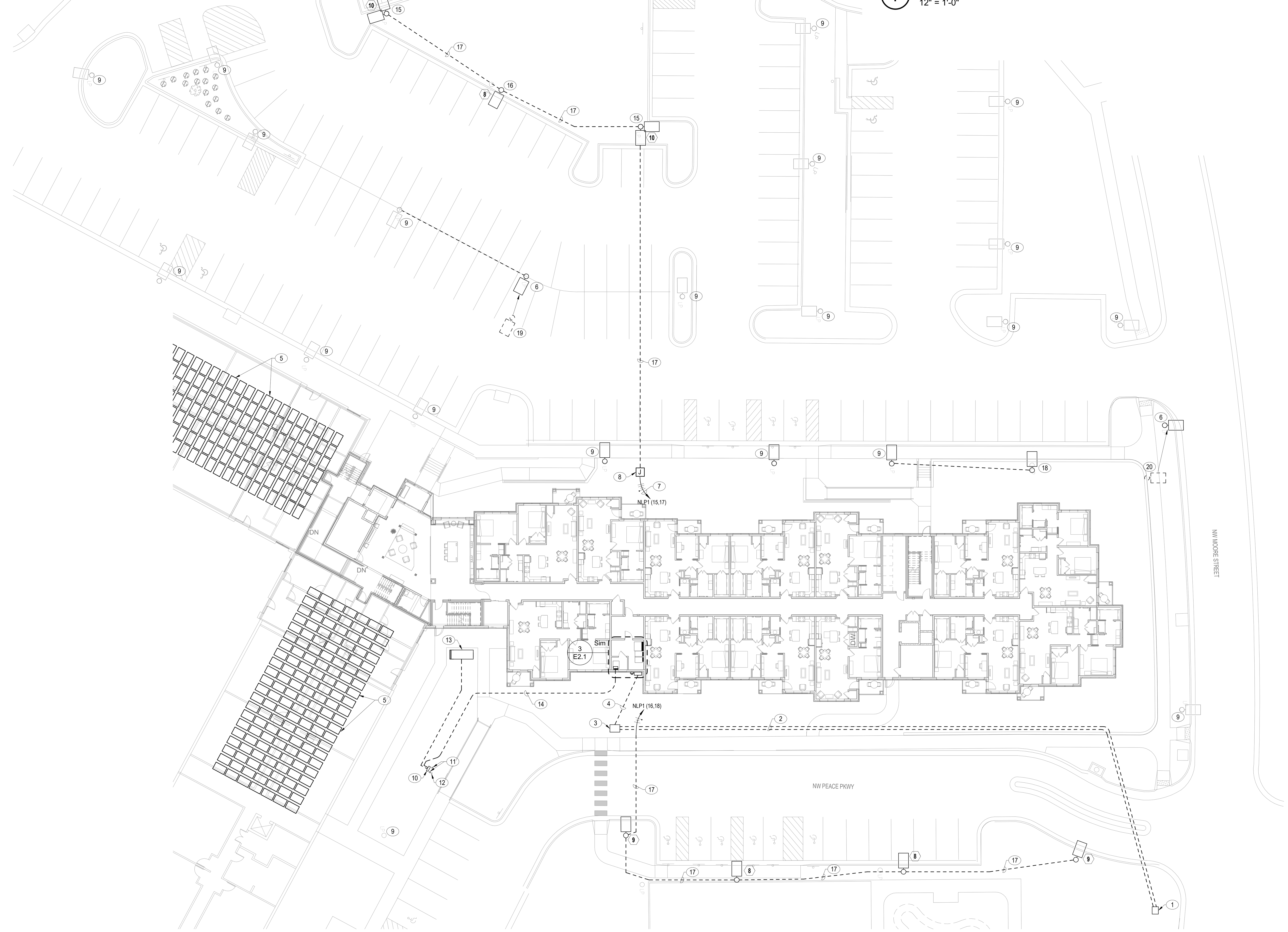
3 GENERATOR MONITOR/ CONTROL WIRING DIAGRAM
SCALE: NONE



4 GENERATOR GROUNDING DETAIL
SCALE: NONE



5 GENERATOR INSTALLATION DETAIL
SCALE: NONE



3 ELECTRICAL SITE PLAN
E0.4
1" = 20'-0"

GENERAL NOTES

PLAN NOTES (#)

1. EXISTING UTILITY PAD MOUNTED SWITCH
2. TWO (2) 4" SCH. 40 PVC FOR PRIMARY PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. UTILITY PROVIDER TO PROVIDE AND INSTALL CONDUCTORS.
3. PAD MOUNTED UTILITY SERVICE TRANSFORMER PROVIDED AND INSTALLED BY UTILITY. E.C. TO PROVIDE AND INSTALL CONCRETE TRANSFORMER PAD PER UTILITY REQUIREMENTS.
4. UNDERGROUND SERVICE LATERAL. – 4 SETS OF (4 - #500 KCMIL ALUMINUM IN 3 ½"C.)
5. EXISTING SOLAR ARRAY AND DISTRIBUTION ON EXISTING BUILDING ROOF TO BE RELOCATED OR REMOVE.
6. TO BE RELOCATED. PROVIDE NEW UNDERGROUND WIRING AND RECONNECT TO EXISTING CIRCUIT.
7. PROVIDE AND INSTALL TWO (2) 2" SCH 40 PVC WITH PULL STRING FROM PANEL NLP1 TO PULLBOX. (1) CONDUIT IS FOR FUTURE AND (1) CONDUIT TO HAVE 2#10, 1#10G FOR NEW LIGHTING CIRCUIT.
8. PROVIDE AND INSTALL 12"'X12" PULLBOX.
9. EXISTING LIGHTING POLES TO REMAIN.
10. ROLL-UP TEMPORARY GENERATOR CONNECTION CABINET ON STRUT FRAME. REF: ONE-LINE DIAGRAM, E4.1, AND DETAIL ON THIS SHEET
11. PROTECTIVE BOLLARD. REF: ONE-LINE DIAGRAM AND DETAIL ON THIS SHEET
12. GENERATOR EMERGENCY STOP BUTTON. TAMPER RESISTANT. MOUNTED AT 48"AFF ADJACENT TO OPENING OF GENERATOR DOOR. INTERFACE WITH GENERATOR CONTROLS TO SHUT GENERATOR DOWN WHEN OPERATED.
13. 36 KW EMERGENCY GAS GENERATOR SET WITH CONCRETE PAD. REFER TO DETAILS ON THIS SHEET FOR ADDITIONAL GENERATOR RELATED CONNECTIONS, DETAILS AND INFORMATION. REFER TO ONE-LINE DIAGRAM SHEET E4.1
14. UNDERGROUND FEEDER FROM EMERGENCY GAS GENERATOR TO ATS-EM IN ELEC. ROOM #E120. INSTALL 36" BELOW GRADE. REFER TO ONE-LINE DIAGRAM SHEET E4.1.
15 REMOVE EXISTING POLE AND LIGHT FIXTURE. POLE BASE TO REMAIN. INSTALL NEW POLE AND (2) LIGHT FIXTURES ON EXISTING POLE BASE. INTERCEPT EXISTING UNDERGROUND CIRCUIT, DISCONNECT AND INSTALL NEW UNDERGROUND CIRCUIT AS SHOWN. ENSURE NEW POLE MATCHES UP TO EXISTING ANCHORE BOLT SPACING PATTERN.
16 NEW POLE BASE, POLE AND LIGHT FIXTURE. SEE POLE BASE DETAIL.
17 (2#10, 1#10G) 1" SCH. 40 PVC.
18 REMOVE POLE AND LIGHT FIXTURE FROM EXISTING POLE BASE. DEMO EXISTING POLE BASE. INSTALL NEW POLE BASE AND COORDINATE WITH LOCATION OF NEW RETAINING WALL. ENSURE ANCHOR BOLTS IN NEW POLE BASE MATCHES WITH EXISTING POLE. INSTALL EXISTING POLE AND LIGHT FIXTURE ON NEW POLE BASE. INTERCEPT EXSTING UNDERGROUND CIRCUITING AND CONNECT TO NEW POLE BASE.
19 REMOVE POLE AND LIGHT FIXTURE FROM EXISTING POLE BASE. DEMO EXISTING POLE BASE. INSTALL NEW POLE BASE AND COORDINATE LOCATION WITH NEW PAINT STRIPING IN PARKING LOT. ENSURE ANCHOR BOLTS IN NEW POLE BASE MATCHES WITH EXISTING POLE. INSTALL EXISTING POLE AND LIGHT FIXTURE ON NEW POLE BASE. INTERCEPT EXSTING UNDERGROUND CIRCUITING AND CONNECT TO NEW POLE BASE.
20 REMOVE POLE AND LIGHT FIXTURE FROM EXISTING POLE BASE. DEMO EXISTING POLE BASE. INSTALL NEW POLE BASE AND COORDINATE LOCATION WITH CIVIL ENGINEER. ENSURE ANCHOR BOLTS IN NEW POLE BASE MATCHES WITH EXISTING POLE. INSTALL EXISTING POLE AND LIGHT FIXTURE ON NEW POLE BASE. INTERCEPT EXSTING UNDERGROUND CIRCUITING AND CONNECT TO NEW POLE BASE.

CONSTRUCTION SET

STATE OF MISSOURI
JAMES S. HOWELL
NUMBER E-25237
PROFESSIONAL ENGINEER
3/5/2024

PROJECT TITLE

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COURTYARDS - BUILDING E

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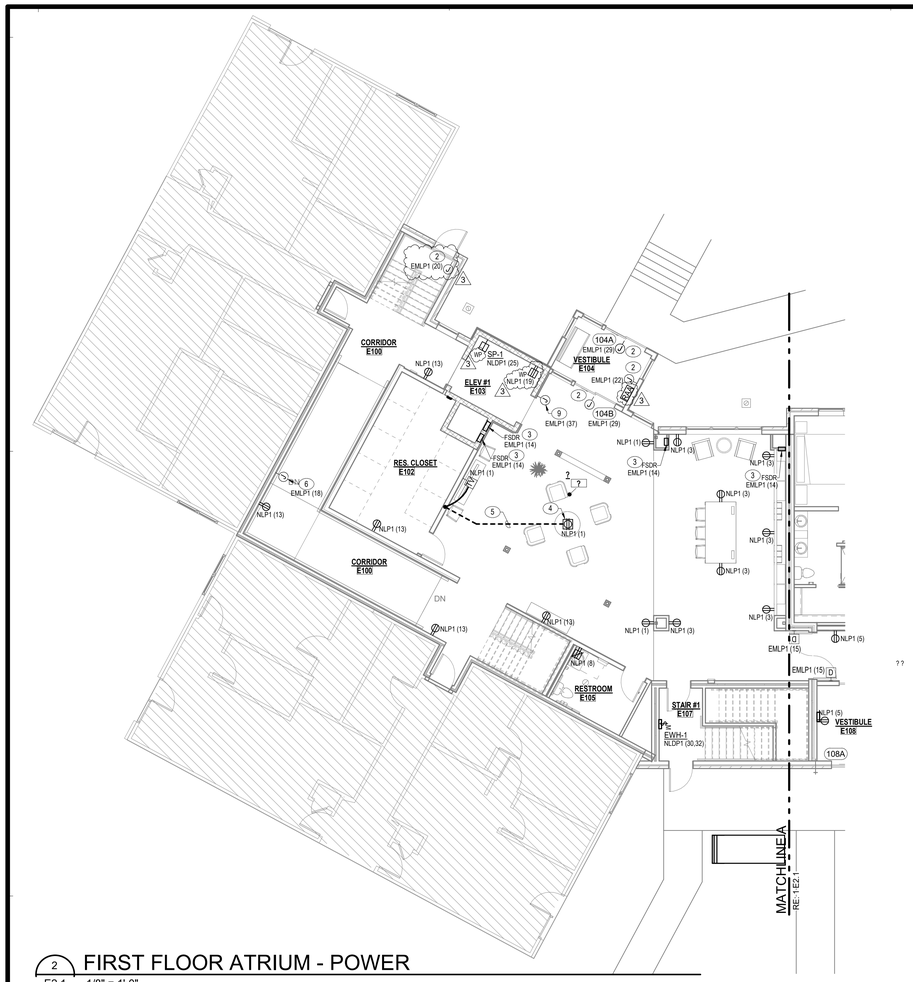
ENGINEER : MAW	APPROVED : JSK

NO.	REVISION DESCRIPTION	DATE
1	FDP 1	02/22-24
3	Addendum #1	03/07/24

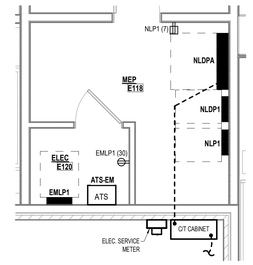
DRAWING TITLE
ELECTRICAL SITE PLAN

DATE: January 5, 2024	DRAWING E0.4
COMM. NO. 23104.00	



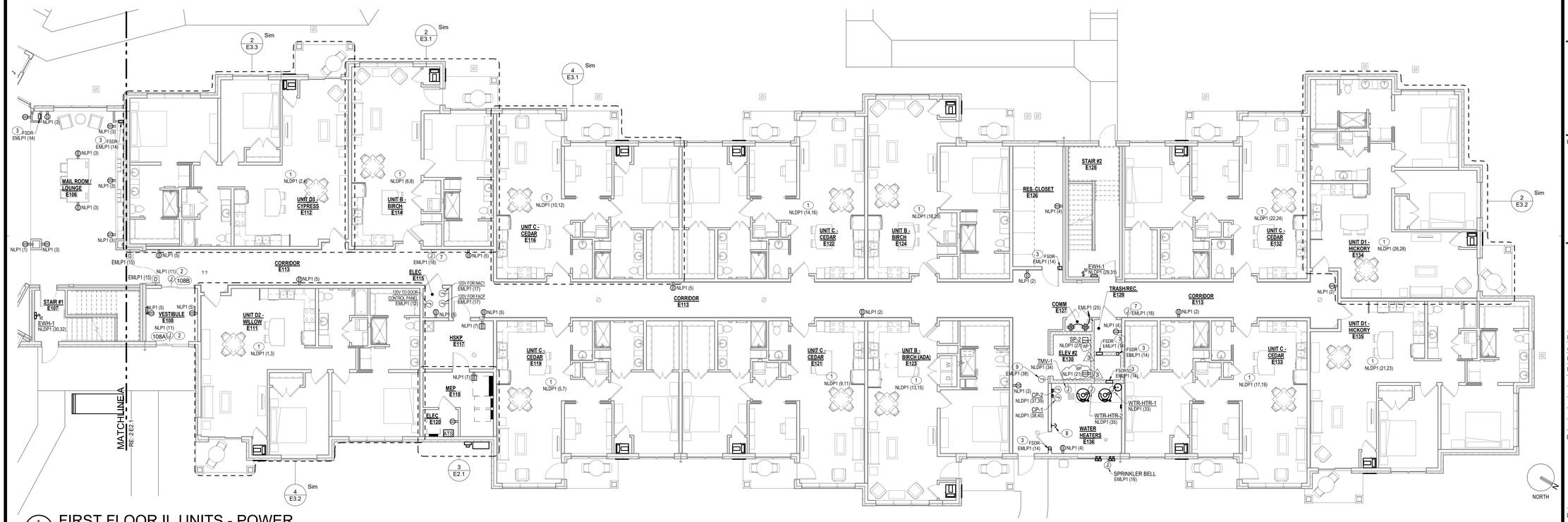
2 E2.1 FIRST FLOOR ATRIUM - POWER

1/8" = 1'-0"



3 E2.1 ENLARGED PLAN - MEP RM. #E118 & ELEC. RM. E120

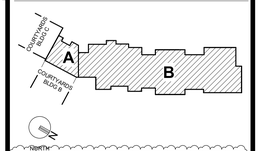
1/4" = 1'-0"



1 E2.1 FIRST FLOOR IL UNITS - POWER

1/8" = 1'-0"

KEYPLAN



GENERAL NOTES

A. REFER TO "MECHANICAL EQUIPMENT ELECTRICAL CONNECTION SCHEDULE" FOR ADDITIONAL EQUIPMENT CONNECTION INFORMATION.
B. DOORS INDICATED WITH A DOOR TAG ARE CONTROLLED DOORS. REFER TO DOOR HARDWARE SPECIFICATIONS FOR ELECTRICAL CONNECTION REQUIREMENTS, ROUGH-INS, AND ADDITIONAL INFORMATION. COORDINATE WITH DOOR HARDWARE SUPPLIER AND ACCESS CONTROL VENDOR.
C. ELECTRICALLY/ELECTROMAGNETICALLY HELD OPEN DOORS SHALL BE INTERFACED WITH FIRE ALARM SYSTEM FOR RELEASE UPON FIRE ALARM SIGNAL. ELECTRICALLY LOCKED DOORS SHALL FAIL "SAFE" IN EVENT OF POWER OUTAGE.
D. REFERENCE FIRE ALARM DRAWINGS FOR ADDITIONAL DEVICES REQUIRING POWER CONNECTIONS AS WELL AS AN INTERFACE WITH FIRE ALARM SYSTEM. REFER TO MECHANICAL DRAWINGS FOR QUANITY AND LOCATION OF SMOKE DAMPERS, SMOKE/FIRE DAMPERS AND DUCT SMOKE DETECTORS. PROVIDE 120VAC CONNECTION TO SMOKE DAMPERS, FIRE/SMOKE DAMPERS AND PROVIDE WITH SMOKE DETECTOR.
E. SEE PANEL SCHEDULES AND MECHANICAL EQUIPMENT SCHEDULES FOR RELATED INFORMATION.

PLAN NOTES

1. INDICATES PANEL/CIRCUIT FROM WHICH APARTMENT LOADCENTER IS SERVED. REFER TO ENLARGED UNIT PLANS FOR LOADCENTER LOCATION WITHIN UNITS.
2. 120VAC CONNECTION TO AUTOMATIC DOOR OPERATOR. PROVIDE POWER CONNECTION TO DOOR MOTOR AND PROVIDE CONTROL WIRING TO PUSHPLATE LOCATIONS.
3. LOCATION OF FIRE SMOKE DAMPER WITH 120VAC CONNECTION AND DUCT SMOKE DETECTOR. COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT LOCATION OF FIRE/ SMOKE DAMPERS. REFER TO DETAILS ON DRAWING E0.022 FOR ADDITIONAL INFORMATION.
4. FLOOR BOX HUBBELL 6261 CAST IRON OR EQUAL WITH 6230 FLANGE AND 6284 COVER WITH FLIP RECEPTACLE COVERS.
5. 3/4" CONDUIT INSTALLED BELOW SLAB. ROUTE UP IN WALL 12" INTO ACCESSIBLE CEILING BRANCH CIRCUIT INDICATED.
6. PROVIDE JUNCTION BOX AT 6'-0 FOR 120V DIRECT CONNECTION FOR EMERGENCY CALL SARA SYSTEM REPEATER. VERIFY LOCATION WITH SARA SYSTEM CONTRACTOR. CONNECT TO 120V EMERGENCY CIRCUIT.
7. PROVIDE 120V DIRECT CONNECTION ABOVE ACCESSIBLE CEILING FOR EMERGENCY CALL SARA SYSTEM REPEATER. VERIFY LOCATION WITH SARA SYSTEM CONTRACTOR. CONNECT TO 120V EMERGENCY CIRCUIT.
8. EMERGENCY STOP BUTTON FOR WTR-HTR-1 & WTR-HTR-2 INTERFACE WITH WATER HEATERS CONTROLS TO SHUT DOWN BOTH WATER HEATERS WHEN OPERATED.
9. 120V CONNECTION TO ELEVATOR SMOKE CURTAIN REWIND MOTOR. PROVIDE ALARM CIRCUIT FROM N.O. AUXILIARY CONTACT OF SMOKE DETECTOR FOR CONNECTION TO AND ACTIVATION BY FIRE ALARM SYSTEM.

CONSTRUCTION SET

STATE OF MISSOURI JAMES K. DEWEW NUMBER E-28237 REGISTERED PROFESSIONAL ENGINEER 2/5/2024

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

SFCS Architecture Engineering Planning Interiors

SFCS Inc. ▪ 305 South Jefferson Street
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540.344.6664 ▪ Fax 540.343.6925
www.sfcs.com

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ARCHITECT	: DAS	CHECKED	: MAW
ENGINEER	: MAW	APPROVED	: JSK

NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/15/24
3	Addendum #1	03/07/24

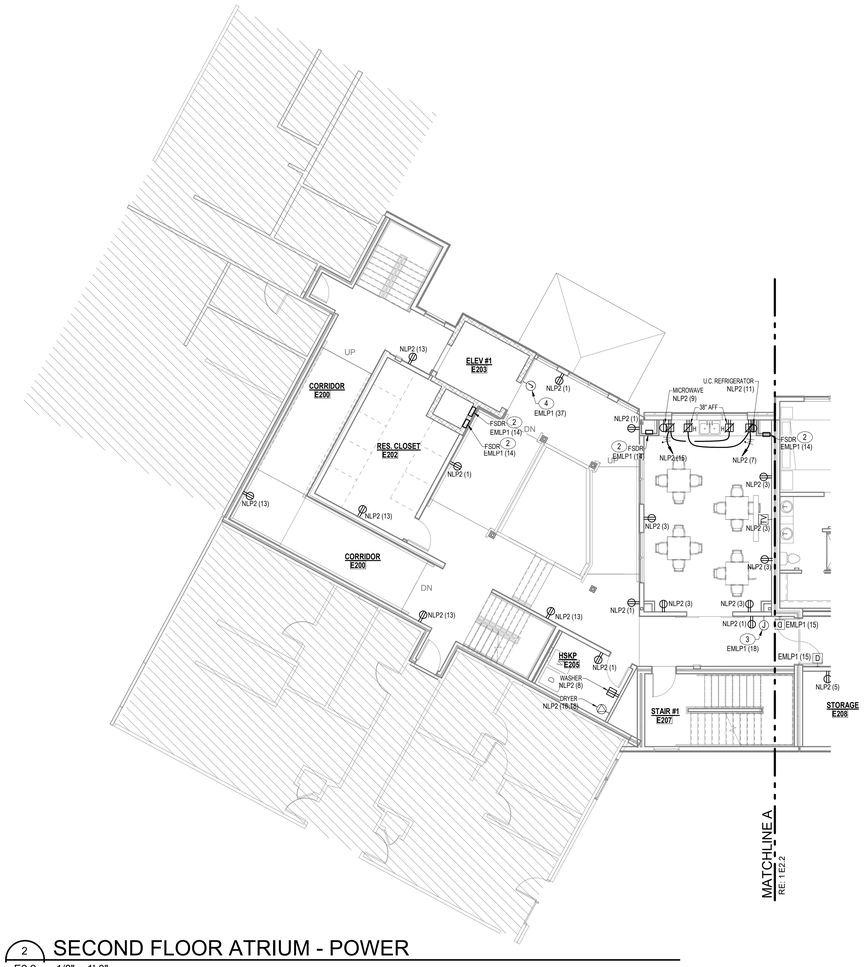
DRAWING TITLE

FIRST FLOOR PLAN - POWER

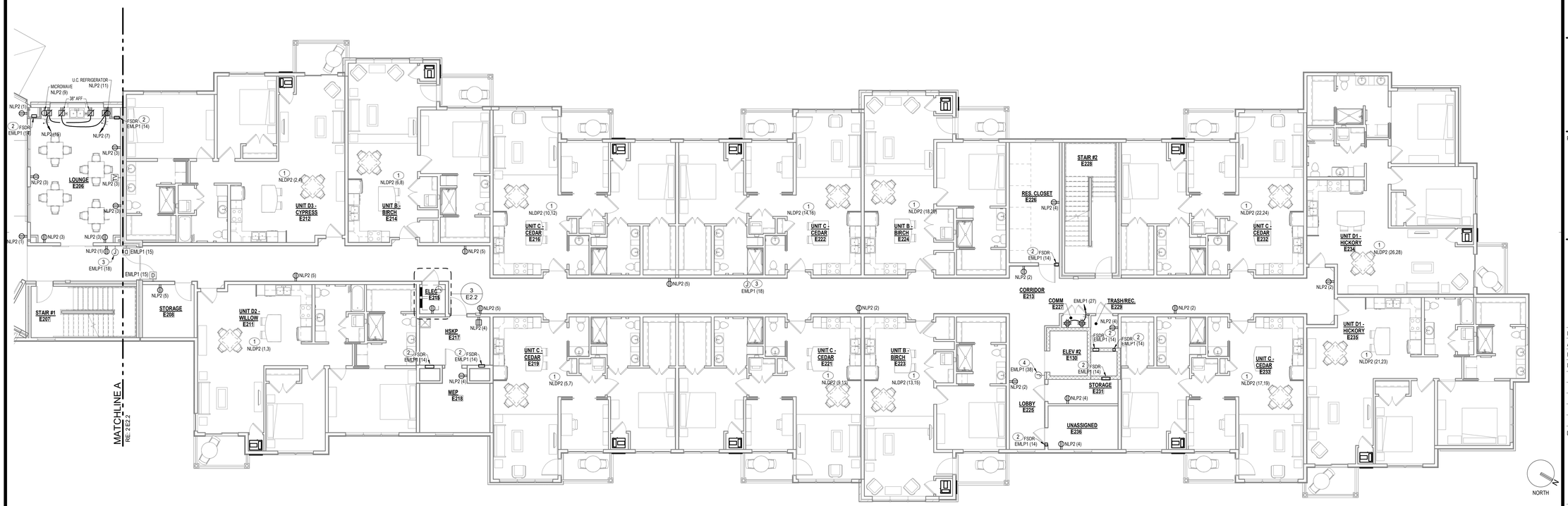
DATE: January 5, 2024

COMM. NO. 23104.00

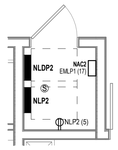
DRAWING E2.1



2 E2.2 — SECOND FLOOR ATRIUM - POWER
1/8" = 1'-0"

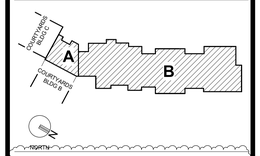


1 E2.2 — SECOND FLOOR IL UNITS - POWER
1/8" = 1'-0"



3 E2.2 — ENLARGED PLAN - ELEC. RM. #E215
1/4" = 1'-0"

KEYPLAN



GENERAL NOTES

A. REFER TO "MECHANICAL EQUIPMENT ELECTRICAL CONNECTION SCHEDULE" FOR ADDITIONAL EQUIPMENT CONNECTION INFORMATION.
B. DOORS INDICATED WITH A DOOR HIC ARE CONTROLLED DOORS. REFER TO DOOR HARDWARE SPECIFICATIONS FOR ELECTRICAL CONNECTION REQUIREMENTS, ROUGH-INS, AND ADDITIONAL INFORMATION. COORDINATE WITH DOOR HARDWARE SUPPLIER AND ACCESS CONTROL VENDOR.
C. ELECTRICALLY ELECTROMAGNETICALLY HELD OPEN DOORS SHALL BE INTERFACED WITH FIRE ALARM SYSTEM FOR RELEASE UPON FIRE ALARM SIGNAL. ELECTRICALLY LOCKED DOORS SHALL FAIL "SAFE" IN EVENT OF POWER OUTAGE.
D. REFERENCE FIRE ALARM DRAWINGS FOR ADDITIONAL DEVICES REQUIRING POWER CONNECTIONS AS WELL AS AN INTERFACE WITH FIRE ALARM SYSTEM. REFER TO MECHANICAL DRAWINGS FOR QUANITY AND LOCATION OF SMOKE DAMPERS. SMOKE/FIRE DAMPERS AND DUCT SMOKE DETECTORS. PROVIDE 120VAC CONNECTION TO SMOKE DAMPERS, FIRE/SMOKE DAMPERS AND PROVIDE WITH SMOKE DETECTOR.
E. SEE PANEL SCHEDULES AND MECHANICAL EQUIPMENT SCHEDULES FOR RELATED INFORMATION.

PLAN NOTES

1 INDICATES PANEL/CIRCUIT FROM WHICH APARTMENT LOADCENTER IS SERVED. REFER TO ENLARGED UNIT PLANS FOR LOADCENTER LOCATION WITHIN UNITS.
2 LOCATION OF FIRE SMOKE DAMPER WITH 120VAC CONNECTION AND DUCT SMOKE DETECTOR. COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT LOCATION OF FIRE/ SMOKE DAMPERS. REFER TO DETAILS ON DRAWING E0.022 FOR ADDITIONAL INFORMATION.
3 PROVIDE 120V DIRECT CONNECTION ABOVE ACCESSIBLE CEILING FOR EMERGENCY CALL SARA SYSTEM REPEATER. VERIFY LOCATION WITH SARA SYSTEM CONTRACTOR. CONNECT TO 120V EMERGENCY CIRCUIT.
4 120V CONNECTION TO ELEVATOR SMOKE CURTAIN REWIND MOTOR. PROVIDE ALARM CIRCUIT FROM N.O. AUXILIARY CONTACT OF SMOKE DETECTOR FOR CONNECTION TO AND ACTIVATION BY FIRE ALARM SYSTEM.

CONSTRUCTION SET

STATE OF MISSOURI — JAMES S. MCVEY — NUMBER E-25237 — REGISTERED PROFESSIONAL ENGINEER — 1/5/2024

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

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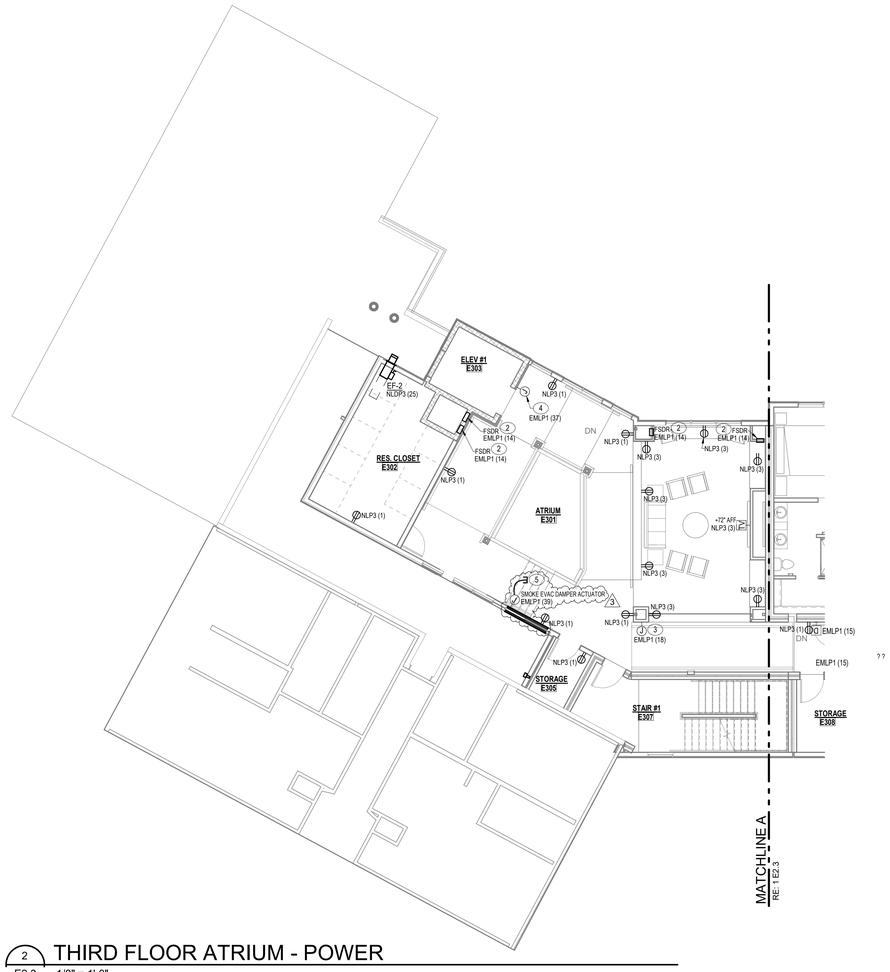
ARCHITECT	DAS	CHECKED	MAW
ENGINEER	MAW	APPROVED	JSK

NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/15/24
3	Addendum #1	03/07/24

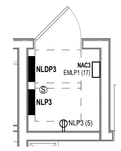
DRAWING TITLE
SECOND FLOOR PLAN - POWER

DATE: January 5, 2024
COMM. NO. 23104.00
DRAWING E2.2



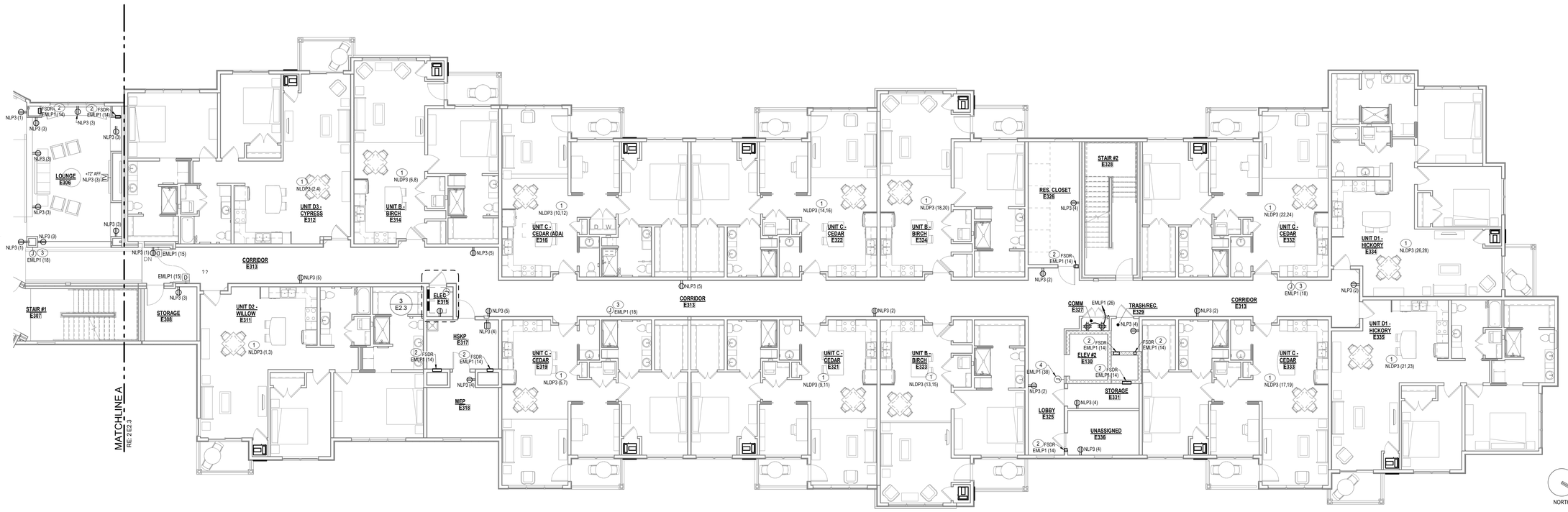
2 E2.3 THIRD FLOOR ATRIUM - POWER

1/8" = 1'-0"



3 E2.3 ENLARGED PLAN - ELEC. RM. #E315

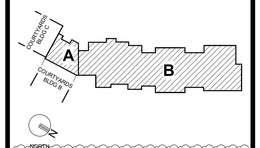
1/4" = 1'-0"



1 E2.3 THIRD FLOOR IL UNITS - POWER

1/8" = 1'-0"

KEYPLAN



NORTH

GENERAL NOTES

A. REFER TO "MECHANICAL EQUIPMENT ELECTRICAL CONNECTION SCHEDULE" FOR ADDITIONAL EQUIPMENT CONNECTION INFORMATION.
B. DOORS INDICATED WITH A DOOR TAG ARE CONTROLLED DOORS. REFER TO DOOR HARDWARE SPECIFICATIONS FOR ELECTRICAL CONNECTION REQUIREMENTS, ROUGH-INS, AND ADDITIONAL INFORMATION. COORDINATE WITH DOOR HARDWARE SUPPLIER AND ACCESS CONTROL VENDOR.
C. ELECTRICALLY/ELECTROMAGNETICALLY HELD OPEN DOORS SHALL BE INTERFACED WITH FIRE ALARM SYSTEM FOR RELEASE UPON FIRE ALARM SIGNAL. ELECTRICALLY LOCKED DOORS SHALL FAIL "SAFE" IN EVENT OF POWER OUTAGE.
D. REFERENCE FIRE ALARM DRAWINGS FOR ADDITIONAL DEVICES REQUIRING POWER CONNECTIONS AS WELL AS AN INTERFACE WITH FIRE ALARM SYSTEM. REFER TO MECHANICAL DRAWINGS FOR QUANITY AND LOCATION OF SMOKE DAMPERS. SMOKE/FIRE DAMPERS AND DUCT SMOKE DETECTORS. PROVIDE 120VAC CONNECTION TO SMOKE DAMPERS, FIRE/SMOKE DAMPERS AND PROVIDE WITH SMOKE DETECTOR.
E. SEE PANEL SCHEDULES AND MECHANICAL EQUIPMENT SCHEDULES FOR RELATED INFORMATION.

PLAN NOTES

1 INDICATES PANEL/CIRCUIT FROM WHICH APARTMENT LOADCENTER IS SERVED. REFER TO ENLARGED UNIT PLANS FOR LOADCENTER LOCATION WITHIN UNITS.
2 LOCATION OF FIRE SMOKE DAMPER WITH 120VAC CONNECTION AND DUCT SMOKE DETECTOR. COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT LOCATION OF FIRE/ SMOKE DAMPERS. REFER TO DETAILS ON DRAWING E0.022 FOR ADDITIONAL INFORMATION.
3 PROVIDE 120V DIRECT CONNECTION ABOVE ACCESSIBLE CEILING FOR EMERGENCY CALL SARA SYSTEM REPEATER. VERIFY LOCATION WITH SARA SYSTEM CONTRACTOR. CONNECT TO 120V EMERGENCY CIRCUIT.
4 120V CONNECTION TO ELEVATOR SMOKE CURTAIN REWIND MOTOR. PROVIDE ALARM CIRCUIT FROM N.O. AUXILIARY CONTACT OF SMOKE DETECTOR FOR CONNECTION TO AND ACTIVATION BY FIRE ALARM SYSTEM.
5 EXTEND 1" EMT TO SMOKE EVACUATION CONTROL PANEL.

CONSTRUCTION SET

STATE OF MISSOURI
JAMES G. HOWELL
NUMBER E-25237
REGISTERED PROFESSIONAL ENGINEER
2/5/2024

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

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ARCHITECT	: DAS	CHECKED	: MAW
ENGINEER	: MAW	APPROVED	: JSK

NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/15/24
3	Addendum #1	03/07/24

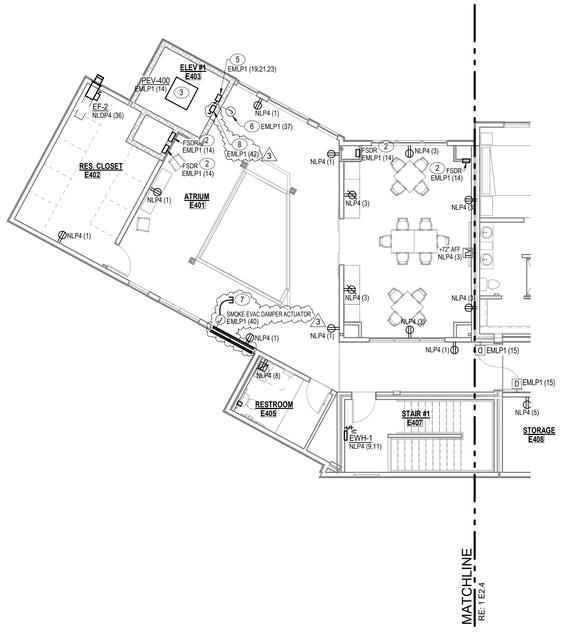
DRAWING TITLE

THIRD FLOOR PLAN - POWER

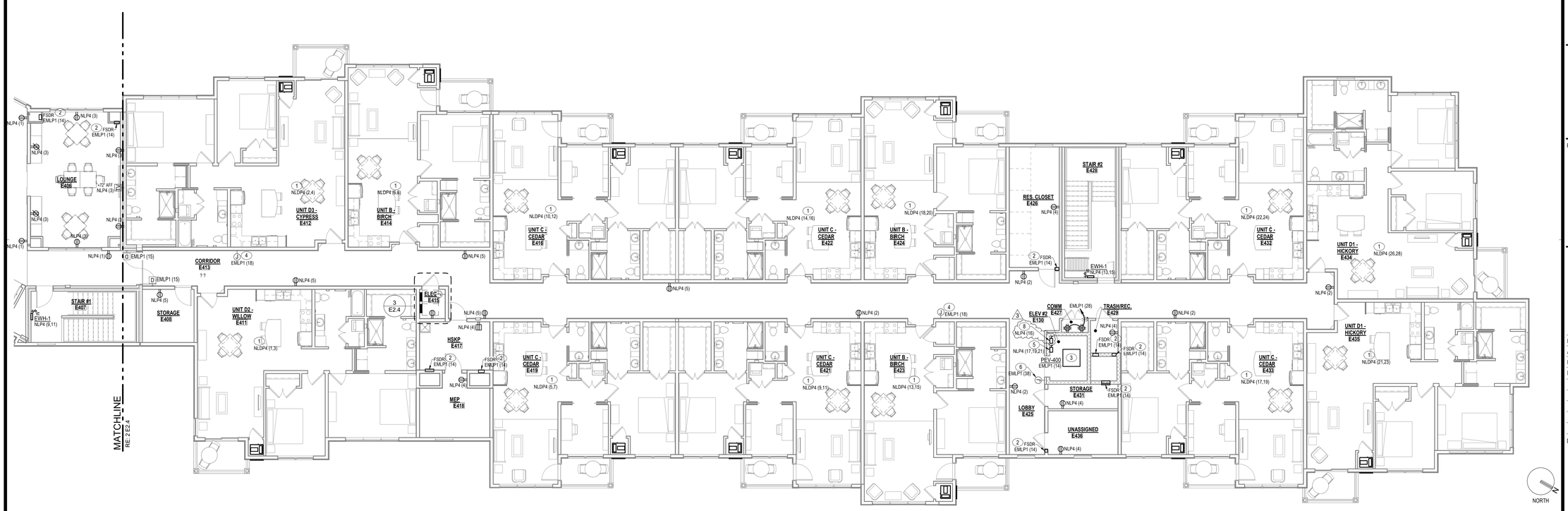
DATE: January 5, 2024

COMM. NO. 23104.00

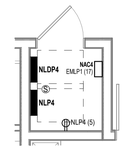
DRAWING E2.3



2 FOURTH FLOOR ATRIUM - POWER
E2.4 1/8" = 1'-0"

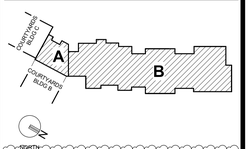


1 FOURTH FLOOR IL UNITS- POWER
E2.4 1/8" = 1'-0"



ENLARGED PLAN - ELEC. RM. #E415
3 / E2.4 1/4" = 1'-0"

KEYPLAN



NORTH

GENERAL NOTES

A. REFER TO "MECHANICAL EQUIPMENT ELECTRICAL CONNECTION SCHEDULE" FOR ADDITIONAL EQUIPMENT CONNECTION INFORMATION.
B. DOORS INDICATED WITH A DOOR HQ ARE CONTROLLED DOORS. REFER TO DOOR HARDWARE SPECIFICATIONS FOR ELECTRICAL CONNECTION REQUIREMENTS, ROUGH-INS, AND ADDITIONAL INFORMATION. COORDINATE WITH DOOR HARDWARE SUPPLIER AND ACCESS CONTROL VENDOR.
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D. REFERENCE FIRE ALARM DRAWINGS FOR ADDITIONAL DEVICES REQUIRING POWER CONNECTIONS AS WELL AS AN INTERFACE WITH FIRE ALARM SYSTEM. REFER TO MECHANICAL DRAWINGS FOR QUANITY AND LOCATION OF SMOKE DAMPERS. SMOKE/FIRE DAMPERS AND DUCT SMOKE DETECTORS. PROVIDE 120VAC CONNECTION TO SMOKE DAMPERS. FIRE/SMOKE DAMPERS AND PROVIDE WITH SMOKE DETECTOR.
E. SEE PANEL SCHEDULES AND MECHANICAL EQUIPMENT SCHEDULES FOR RELATED INFORMATION.

PLAN NOTES

1 INDICATES PANEL/CIRCUIT FROM WHICH APARTMENT LOADCENTER IS SERVED. REFER TO ENLARGED UNIT PLANS FOR LOADCENTER LOCATION WITHIN UNITS.
2 LOCATION OF FIRE SMOKE DAMPER WITH 120VAC CONNECTION AND DUCT SMOKE DETECTOR. COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT LOCATION OF FIRE/ SMOKE DAMPERS. REFER TO DETAILS ON DRAWING E0.022 FOR ADDITIONAL INFORMATION.
3 LOCATION OF GREENHECK PEV-400 PENTHOUSE ELEVATOR VENT REFER TO FOURTH FLOOR PLAN FIRE ALARM DRAWINGS.
4 PROVIDE 120V DIRECT CONNECTION ABOVE ACCESSIBLE CEILING FOR EMERGENCY CALL SARA SYSTEM REPEATER. VERIFY LOCATION WITH SARA SYSTEM CONTRACTOR. CONNECT TO 120V EMERGENCY CIRCUIT.
5 3P, 60 AMP, 208V ENCLOSED MOLDED CASE CIRCUIT BREAKER WITH LOCK-OUT DEVICE FOR ELEVATOR CONTROLLER DISCONNECT. EXTEND FEEDER FROM LOAD SIDE OF CIRCUIT BREAKER AND TERMINATE ON ELEVATOR CONTROLLER. VERIFY EXACT OVERCURRENT PROTECTIVE DEVICE REQUIRED WITH ELEVATOR MANUFACTURER PRIOR TO ORDERING.
6 120V CONNECTION TO ELEVATOR SMOKE CURTAIN REWIND MOTOR. PROVIDE ALARM CIRCUIT FROM N.O. AUXILIARY CONTACT OF SMOKE DETECTOR FOR CONNECTION TO AND ACTIVATION BY FIRE ALARM SYSTEM.
7 EXTEND 1" EMT TO SMOKE EVACUATION CONTROL PANEL.
8 1/30/240/1/F FOR CONNECTION TO ELEVATOR LIGHTS AND CONTROLS. E.C. SHALL VERIFY EXACT REQUIREMENTS WITH ELEVATOR SUPPLIER PRIOR TO ROUGH-IN.

CONSTRUCTION SET

STATE OF MISSOURI
JAMES S. KIDWELL
NUMBER E-25237
PROFESSIONAL ENGINEER
1/5/2024

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

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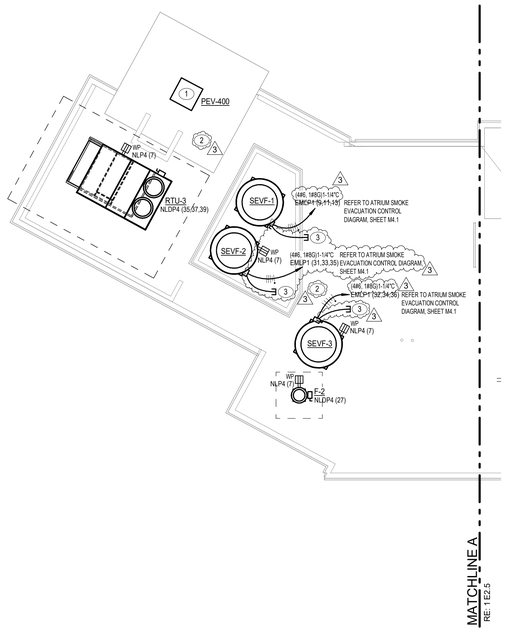
ARCHITECT	: DAS	CHECKED	: MAW
ENGINEER	: MAW	APPROVED	: JSK

NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/15/24
3	Addendum #1	03/07/24

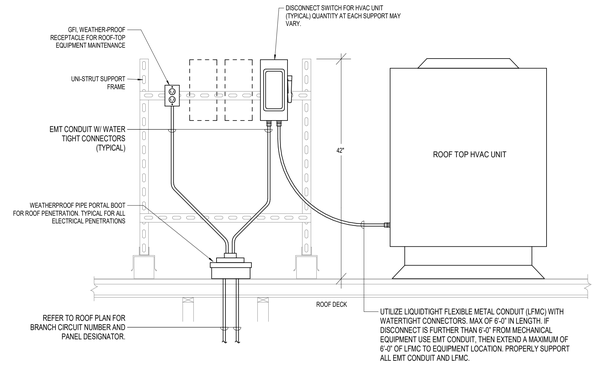
DRAWING TITLE

FOURTH FLOOR PLAN - POWER

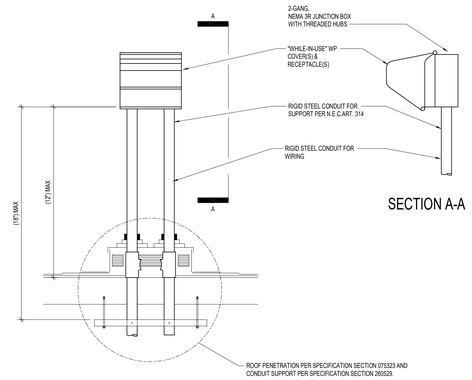
DATE: January 5, 2024
COMM. NO. 23104.00
DRAWING E2.4



MATCHLINE A
RE: 1 E2.5



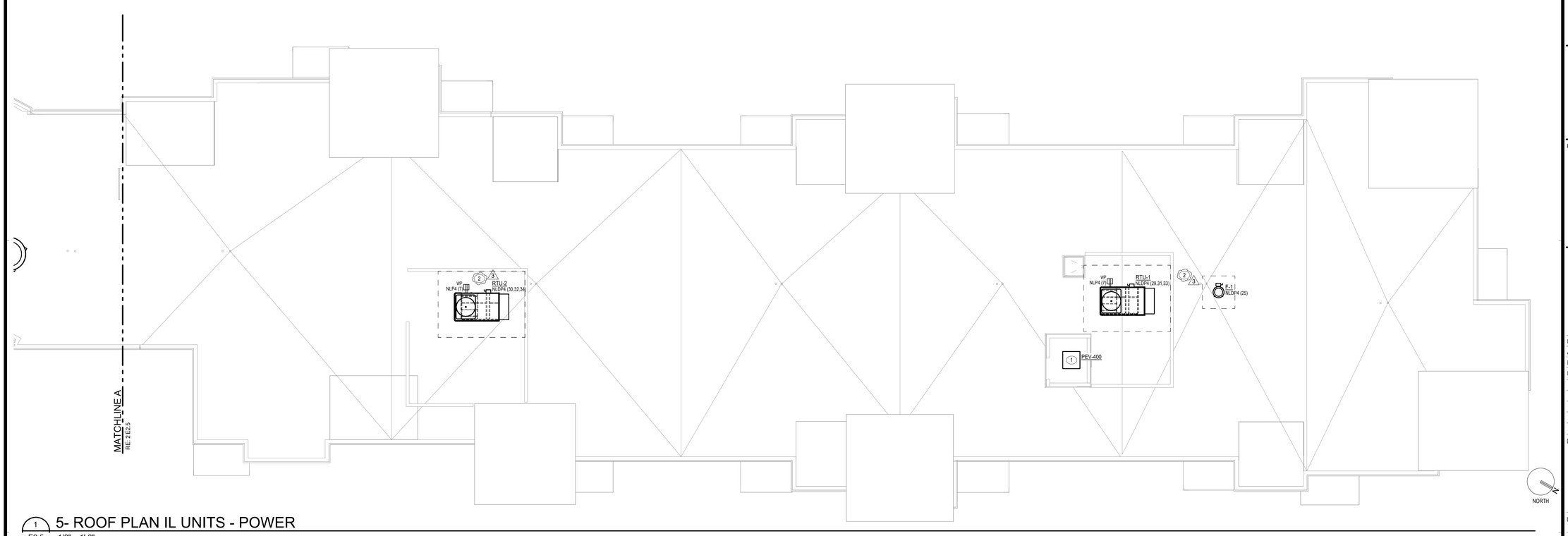
4 E2.5 ROOF HVAC EQUIP. DISCONNECT MOUNTING DETAIL
1/4" = 1'-0"



SECTION A-A

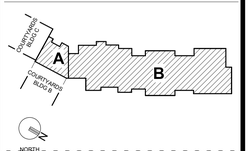
3 E2.5 ROOF MOUNTED RECEPTACLE DETAIL
1/4" = 1'-0"

2 E2.5 5 - ROOF PLAN ATRIUM - POWER
1/8" = 1'-0"



1 E2.5 5- ROOF PLAN IL UNITS - POWER
1/8" = 1'-0"

KEYPLAN



GENERAL NOTES

A. REFER TO "MECHANICAL EQUIPMENT ELECTRICAL CONNECTION SCHEDULE" FOR ADDITIONAL EQUIPMENT CONNECTION INFORMATION.
B. LOCATIONS OF ELECTRICAL CONNECTIONS AND LOCAL DISCONNECTS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING CONTRACTORS TO ENSURE ACCESS AND WORKING CLEARANCE IS MAINTAINED PER NEC. NOTIFY OTHER TRADES OF REQUIRED CLEARANCE AREAS TO AVOID ROUTING OF OTHER SYSTEMS IN THESE AREAS. DO NOT INSTALL ELECTRICAL EQUIPMENT OVER EQUIPMENT NAMEPLATES OR ACCESS PANELS.
C. PROVIDE MAINTENANCE RECEPTACLE WITHIN 25 FT OF EACH MECHANICAL UNIT AS REQUIRED BY NEC. COORDINATE INSTALLATION LOCATIONS WITH FINAL EQUIPMENT LAYOUT PROVIDE BY MECHANICAL CONTRACTOR.
D. BRANCH CIRCUIT RACEWAY AND CABLE SERVING ROOF MOUNTED EQUIPMENT SHALL BE ROUTED IN CEILING SPACE BELOW ROOF DECK TO A POINT NEAR THE EQUIPMENT IN ORDER TO MINIMIZE EXPOSED RACEWAY ON ROOF.
E. COORDINATE WITH ARCHITECTURAL AND STRUCTURAL PLANS FOR ROOF PENETRATIONS. SEAL PENETRATIONS PER ROOF MANUFACTURER'S RECOMMENDATIONS.
F. ANY ADHESIVES USED ON ROOF SURFACES MUST BE APPROVED BY ROOF MANUFACTURER. DO NOT USE ANY PRODUCTS OR METHODS THAT VOID OR REDUCES ROOF WARRANTIES.
G. WHERE RACEWAY OR CONDUCTORS ARE INSTALLED EXPOSED ON ROOF, DERATE AMPACITY OF CONDUCTORS IN ACCORDANCE WITH NEC.
H. NONMETALIC FLEXIBLE CONDUIT IS NOT AN ACCEPTABLE RACEWAY ON ROOF.

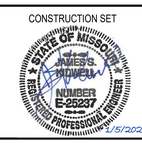
3

PLAN NOTES

1 LOCATION OF GREENHECK PEV-400 PENTHOUSE ELEVATOR VENT. REFER TO FOURTH FLOOR PLAN FIRE ALARM DRAWINGS.
2 ALL DISCONNECTS SHALL BE INSTALLED ON A UNISTRUT RACK, PER "ROOF HVAC EQUIP. DISCONNECT MOUNTING DETAIL" ON THIS SHEET. PROVIDE WP RECEPTACLE ON RACK AND CONNECT TO RECEPTACLE CIRCUIT AS SHOWN ON ROOF PLAN.
3 EXTEND 1 1/4" EMT FROM FAN CONTROLLER TO THE SMOKE EVACUATION CONTROL PANEL IN VESTIBULE FOR USE BY M.C. FOR WIRING.

3

CONSTRUCTION SET



PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

SFCS Architecture Engineering Planning Interiors
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540.344.6664 ▪ Fax 540.343.6925
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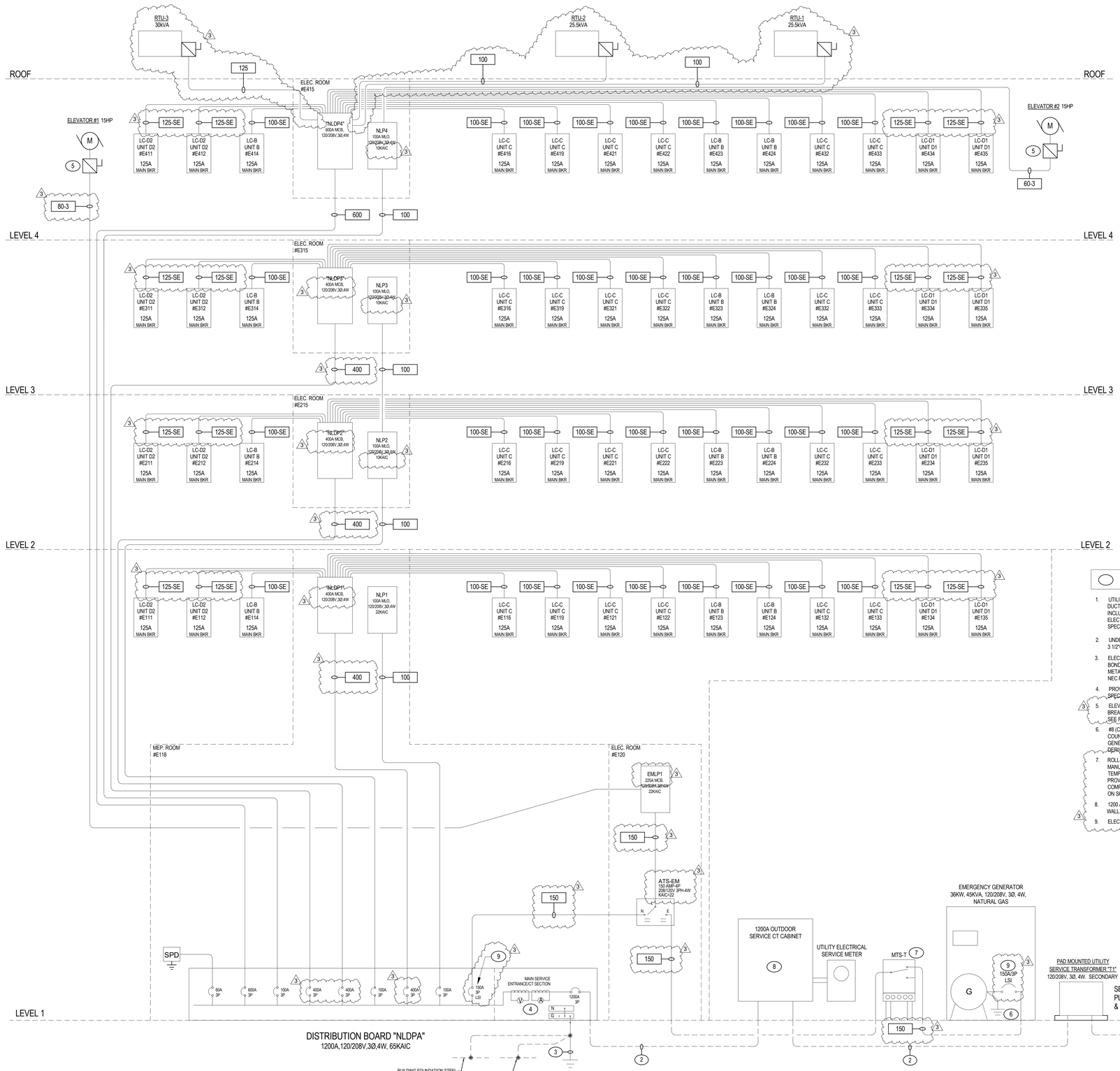
ARCHITECT	: DAS	CHECKED	: MAW
ENGINEER	: MAW	APPROVED	: JSK

NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/15/24
3	Addendum #1	03/07/24

DRAWING TITLE

ROOF PLAN - POWER

DATE: January 5, 2024
COMM. NO. 23104.00
DRAWING E2.5



ONE-LINE RISER FEEDER SCHEDULE

CABLE TAG ##	CABLE AMPACITY	CONDUIT NO. SETS	CONDUIT SIZE	PHASE CONDUCTORS NO.	PHASE CONDUCTORS SIZE	PHASE CONDUCTORS CU/AL	GND. SIZE PER SET	REMARKS
20	20	1	3/4"	4	#12	CU	#12	
20-3	20	1	3/4"	3	#12	CU	#12	
25	20	1	3/4"	4	#10	CU	#10	
25-3	25	1	3/4"	3	#10	CU	#10	
30	30	1	3/4"	4	#10	CU	#10	
30-3	30	1	3/4"	3	#10	CU	#10	
40	40	1	3/4"	4	#8	CU	#10	
45-3	40	1	3/4"	3	#8	CU	#10	
50	50	1	3/4"	4	#8	CU	#10	
50-3	50	1	3/4"	3	#8	CU	#10	
60	60	1	1-1/4"	4	#4	CU	#10	
60-3	60	1	1-1/4"	3	#4	CU	#10	
70-3	70	1	1-1/4"	3	#3	CU	#8	
80	80	1	1-1/2"	4	#2	CU	#8	
80-3	80	1	1-1/2"	3	#2	CU	#8	
100	100	1	1-1/2"	4	#1	CU	#6	
100X	100	1	1-1/2"	4	#1	CU	#6 CU	
100-3	100	1	1-1/2"	3	#1	CU	#6	
100-SE	100	-	-	3	#1/0	AL	#6	3/C ALUMINUM SE RATED
125	125	1	2"	4	#2/0	AL	#4	
125-3	125	1	1-1/2"	3	#2/0	AL	#4	
125-SE	125	-	-	3	#2/0	AL	#4	3/C ALUMINUM SE RATED
150	150	1	2"	4	#3/0	AL	#4	
150-3	150	1	2"	3	#3/0	AL	#4	
150-SE	150	-	-	3	#2/0	AL	#1	3/C ALUMINUM SE RATED
175	175	1	2-1/2"	4	#4/0	AL	#4	
175-3	175	1	2"	3	#4/0	AL	#4	
200	200	1	2-1/2"	4	#250 kcmil	AL	#4	
200X	200	1	2-1/2"	4	#250 kcmil	AL	#2 CU	
200-3	200	1	2 1/2"	3	#250 kcmil	AL	#4	
200-SE	200	-	-	3	#4/0	AL	#2/0	3/C ALUMINUM SE RATED
225	225	1	3"	4	#300 kcmil	AL	#2	
225-3	225	1	2 1/2"	3	#300 kcmil	AL	#2	
250	250	1	3"	4	#350 kcmil	AL	#2	
250-3	250	1	2-1/2"	3	#350 kcmil	AL	#2 CU	
300	300	1	3-1/2"	4	#500 kcmil	AL	#2	
350	350	2	2-1/2"	4	#4/0	AL	#1	
350-3	350	2	2-1/2"	3	#4/0	AL	#1	
400	400	2	2-1/2"	4	#250 kcmil	AL	#1	
400X	400	2	2-1/2"	4	#250 kcmil	AL	#1/0 CU	
400-3	400	2	2-1/2"	3	#250 kcmil	AL	#1/0	
450-3	450	2	2-1/2"	3	#300 kcmil	AL	#1/0	
500	500	2	3"	4	#350 kcmil	AL	#1/0	
600	600	2	3-1/2"	4	#500 kcmil	AL	#2/0	
600-3	600	2	3"	3	#500 kcmil	AL	#2/0	
750-3	750	3	2-1/2"	3	#350 kcmil	AL	#3/0	
800	800	3	3"	4	#400 kcmil	AL	#3/0	
800X	800	3	3"	4	#400 kcmil	AL	#1/0 CU	
1000	1000	4	3"	4	#500 kcmil	AL	#4/0	
1200	1200	4	3-1/2"	4	#500 kcmil	AL	250 kcmil	
1600	1600	6	3"	4	#400 kcmil	AL	350 kcmil	
2000	2000	7	3-1/2"	4	#500 kcmil	AL	400 kcmil	
2500	2500	9	3-1/2"	4	#500 kcmil	AL	600 kcmil	
3000	3000	10	3-1/2"	4	#500 kcmil	AL	600 kcmil	

FEEDER SCHEDULE NOTES:

A. ALL FEEDER SIZES INDICATED IN SCHEDULE ARE BASED ON CONDUCTORS WITH A TEMPERATURE RATING OF 75° C UNLESS NOTED OTHERWISE.

B. SCHEDULE DOES NOT INCLUDE VOLTAGE DROP CONSIDERATIONS. CONTRACTOR SHALL ACCOUNT FOR VOLTAGE DROP BY UTILIZING AN NEC APPROVED CALCULATION METHOD FOR FEEDERS WITH LENGTHS GREATER THAN 200 FEET.

C. GROUND CONDUCTOR MATERIAL SHALL MATCH PHASE CONDUCTOR MATERIAL UNLESS OTHERWISE NOTED.

D. GROUNDING ELECTRODE FOR TRANSFORMERS SHALL ALWAYS BE COPPER.

SINGLE-LINE KEYED NOTES

1. UTILITY PRIMARY FEEDER TO SERVICE TRANSFORMER. UNDERGROUND DUCT WITH (2)-4" SCH 40 PVC CONDUITS, PULL BOXES. SPLICE BOXES INCLUDING CONCRETE TRANSFORMER PAD BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL FOLLOW ALL CONCORD ELECTRICAL SPECIFICATIONS FOR INSTALLATIONS.
2. UNDERGROUND SERVICE LATERAL. 4 SETS OF (4 - #500 KCMIL ALUMINUM IN 3 1/2"C.)
3. ELECTRICAL SERVICE GROUNDING ELECTRODE CONDUCTOR - #3/0 CU. BOND TO GROUND RODS, BUILDING AND FOUNDATION REINFORCING STEEL, METAL WATER SERVICE PIPING AND CONCRETE ENCASED ELECTRODE PER NEC REQUIREMENTS.
4. PROVIDE SWITCHBOARD WITH DIGITAL CUSTOMER METER. REFER TO SPECIFICATIONS.
5. ELEVATOR CONTROLLER DISCONNECT - 3P, 60A, SHUNT TRIP CIRCUIT BREAKER WITH LOCKOUT DEVICE FOR ELEVATOR CONTROLLER DISCONNECT. SEE FORTH FLOOR POWER PLAN FOR FURTHER DETAILS.
6. #8 (CU) GROUNDING ELECTRODE CONDUCTOR. BOND TO GROUND COUNTERPOISE. DO NOT BOND NEUTRAL AND GROUND TERMINALS OF GENERATOR OUTPUT TERMINALS. GENERATOR IS NOT A SEPERATELY DERIVED SYSTEM.
7. ROLL-UP TEMPORARY GENERATOR QUICK CONNECT CABINET / MANUAL TRANSFER SWITCH WITH CAM LOCKS FOR CONNECTION OF TEMPORARY LIFE SAFETY GENERATOR, 150A, 4P, 240V, NEMA 3R, PROVIDE EATON #DT42URKSNLC-FLX OR EQUIVALENT. (FOR COMPLIANCE WITH 2020 NEC 700.3(F) AND 517.26. REFER TO DETAILS ON SHEET E0.5.
8. 1200 AMP, OUTDOOR CT COMPARTMENT MOUNTED TO EXTERIOR WALL. PROVIDE PER ELECTRICAL UTILITY REQUIREMENTS.
9. ELECTRONIC TRIP, LSI, MOLDED CASE CIRCUIT BREAKER

ELECTRICAL PANEL KEY:

N L P 1 A E

SYSTEM
EM - EMERGENCY
EQ - EQUIPMENT (OPTIONAL STANDBY)
G- GENERATOR
LS - LIFE SAFETY (LEGALLY REQ'D. STANDBY)
N - NORMAL POWER

VOLTAGE
H - 277/480V
L - 120/208V

PANEL TYPE
DP- DISTRIBUTION PANEL
P - BRANCH PANEL
SD - SERVICE DISCONNECT
SW - SWITCHBOARD
T - TRANSITION ENCLOSURE

FLOOR
L - LOWER LEVEL / GARAGE
1 - 1ST FLOOR
2 - 2ND FLOOR
3 - 3RD FLOOR
4 - 4TH FLOOR
5 - 5TH FLOOR
R - ROOF

PANELBOARD SUFFIX
A, B, C...(DEPENDING ON NO. OF PANELS)

BUILDING SUFFIX
E - EAST BUILDING
W - WEST BUILDING

GENERAL NOTES

1. VOLTAGE DROP IN FEEDER CONDUCTORS SHALL NOT EXCEED 1.5%.
2. VOLTAGE DROP IN BRANCH CONDUCTORS SHALL NOT EXCEED 1.5%.

CONSTRUCTION SET

COMMONWEALTH OF MASSACHUSETTS
JAMES S. PROVENZA
NUMBER E-25237
REGISTERED PROFESSIONAL ENGINEER
1/5/2024

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 305 South Jefferson Street
Roanoke, Virginia 24011.2003
540.344.6664 ▪ Fax 540.343.6925
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DESIGNER	: DAS	DRAWN	: MAW, DKW
ARCHITECT	: DAS	CHECKED	: MAW
ENGINEER	: MAW	APPROVED	: JSK

NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/15/24
3	Addendum #1	03/07/24

DRAWING TITLE

ELECTRICAL ONE-LINE DIAGRAM

DATE: January 5, 2024
COMM. NO. 23104.00
DRAWING E4.1

Branch Panel: NLDP2

Location: ELEC E215
Supply From: NLDPA
Mounting: SURFACE
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22,000 AIC
Mains Type: MLO
Mains Rating: 400 A
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	LC-D2 - UNIT #E211	125 A	2	11044... 11044...			2	125 A	LC-D2 - UNIT #E212	2
3	--	--	--		11044... 11044...		--	--	--	4
5	LC-C - UNIT #E213	100 A	2			9930 VA 9857 VA	2	100 A	LC-B - UNIT #E214	6
7	--	--	--	9930 VA 9857 VA			--	--	--	8
9	LC-C - UNIT #E221	100 A	2	9930 VA 9930 VA			2	100 A	LC-C - UNIT #E216	10
11	--	--	--			9930 VA 9930 VA	--	--	--	12
13	LC-B - UNIT #E223	100 A	2	9857 VA 9930 VA			2	100 A	LC-C - UNIT #E222	14
15	--	--	--		9857 VA 9930 VA		--	--	--	16
17	LC-C - UNIT #E233	100 A	2			9930 VA 9857 VA	2	100 A	LC-B - UNIT #E224	18
19	--	--	--	9930 VA 9857 VA			--	--	--	20
21	LC-D1 - UNIT #E235	125 A	2		11080... 9930 VA		2	100 A	LC-C - UNIT #E232	22
23	--	--	--			11080... 9930 VA	--	--	--	24
25	SPARE	20 A	1	0 VA 11080...			2	125 A	LC-D1 - UNIT #E234	26
27	SPARE	20 A	1		0 VA 11080...		--	--	--	28
29	SPARE	20 A	1			0 VA 0 VA	1	20 A	SPARE	30
31	SPARE	20 A	1	0 VA 0 VA			1	20 A	SPARE	32
33	SPARE	20 A	1		0 VA 0 VA		1	20 A	SPARE	34
35	SPACE	--	1			-- 0 VA	1	20 A	SPARE	36
37	SPACE	--	1	-- 0 VA			1	20 A	SPARE	38
39	SPACE	--	1		-- --		1	--	SPACE	40
41	SPACE	--	1			-- --	1	--	SPACE	42
		Total Load:		92526 VA	93823 VA	80441 VA				
		Total Amps:		787 A	797 A	670 A				

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Residential per NEC 220.84	266789 VA	41.00%	109383 VA		
				Total Conn. Load:	266789 VA
				Total Est. Demand:	109383 VA
				Total Conn.:	741 A
				Total Est. Demand:	304 A

Notes:

Branch Panel: NLDP1

Location: MEP E118
Supply From: NLDPA
Mounting: SURFACE
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22,000 AIC
Mains Type: MLO
Mains Rating: 400 A
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	LC-D2 - UNIT #E111	125 A	2	11044... 11044...			2	125 A	LC-D2 - UNIT #E112	2
3	--	--	--		11044... 11044...		--	--	--	4
5	LC-C - UNIT #E119	100 A	2			9930 VA 9857 VA	2	100 A	LC-B - UNIT #E114	6
7	--	--	--	9930 VA 9857 VA			--	--	--	8
9	LC-C - UNIT #E121	100 A	2	9930 VA 9930 VA			2	100 A	LC-C - UNIT #E116	10
11	--	--	--			9930 VA 9930 VA	--	--	--	12
13	LC-B - UNIT #E123	100 A	2	9857 VA 9930 VA			2	100 A	LC-C - UNIT #E122	14
15	--	--	--		9857 VA 9930 VA		--	--	--	16
17	LC-C - UNIT #E133	100 A	2			9930 VA 9857 VA	2	100 A	LC-B - UNIT #E124	18
19	--	--	--	9930 VA 9857 VA			--	--	--	20
21	LC-D1 - UNIT #E135	125 A	2		11080... 9930 VA		2	100 A	LC-C - UNIT #E132	22
23	--	--	--			11080... 9930 VA	--	--	--	24
25	SP-1	20 A	1	1176 VA 11080...			2	125 A	LC-D1 - UNIT #E134	26
27	SP-2	20 A	1		1176 VA 11080...		--	--	--	28
29	EWH-1 (STAIRWELL #2, 1ST FLOOR)	20 A	2			1500 VA 1500 VA	--	--	--	30
31	--	--	--	1500 VA 1500 VA			--	--	--	32
33	WTR-HTR-1 (CONTROLS)	20 A	1		600 VA 240 VA		1	20 A	TMV-1 (CONTROLS)	34
35	WTR-HTR-2 (CONTROLS)	20 A	1			600 VA				36
37	CP-2	20 A	2	562 VA 562 VA			2	20 A	CP-1	38
39	--	--	--		562 VA 562 VA		--	--	--	40
41	SPARE	20 A	1			0 VA 0 VA	1	20 A	SPARE	42
		Total Load:		97825 VA	96962 VA	84041 VA				
		Total Amps:		832 A	825 A	700 A				

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Heating	6000 VA	100.00%	6000 VA		
Motor	2246 VA	100.00%	2246 VA	**Total Conn. Load:**	278827 VA
Receptacle	3792 VA	100.00%	3792 VA	**Total Est. Demand:**	121421 VA
Residential per NEC 220.84	266789 VA	41.00%	109383 VA	**Total Conn.:**	774 A
				Total Est. Demand:	337 A

Notes:

Branch Panel: NLDPA

Location: MEP E118
Supply From:
Mounting: SURFACE
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 25,000 AIC
Mains Type:
Mains Rating: 1200 A
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	PANEL NLDP1	600 A	3	97825... 92526...			3	600 A	PANEL NLDP2	2
3	--	--	--		96962... 93823...		--	--	--	4
5	--	--	--			84041... 80441...	--	--	--	6
7	PANEL NLDP3	600 A	3	93054... 120226...			3	600 A	PANEL NLDP4	8
9	--	--	--		93823... 121351...		--	--	--	10
11	--	--	--			80441... 107969...	--	--	--	12
13	PANEL NLP1E	400 A	3	3851 VA 8673 VA			3	400 A	PANEL NLP4E	14
15	--	--	--		3754 VA 10970...		--	--	--	16
17	--	--	--			2977 VA 6928 VA	--	--	--	18
19	ATS-EM	100 A	3	16163... 0 VA			3	100 A	SPARE	20
21	--	--	--		13602... 0 VA		--	--	--	22
23	--	--	--			13364... 0 VA	--	--	--	24
25	SPARE	100 A	3	0 VA 0 VA			3	60 A	SPD	26
27	--	--	--		0 VA 0 VA		--	--	--	28
29	--	--	--			0 VA 0 VA	--	--	--	30
		Total Load:		432518 VA	434283 VA	375759 VA				
		Total Amps:		3677 A	3692 A	3131 A				

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	101089 VA	100.00%	101089 VA		
Heating	12000 VA	100.00%	12000 VA	**Total Conn. Load:**	1242560 VA
Motor	27506 VA	100.00%	27506 VA	**Total Est. Demand:**	416717 VA
Other	1574 VA	100.00%	1574 VA	**Total Conn.:**	3449 A
Receptacle	22302 VA	72.42%	16151 VA	**Total Est. Demand:**	1157 A
Spare	180 VA	100.00%	180 VA		
Lighting	8922 VA	125.00%	11152 VA		
Power	1556 VA	100.00%	1556 VA		
Residential per NEC 220.84	1067431 VA	23.00%	245509 VA		

Notes:

Branch Panel: NLDP4

Location: ELEC E415
Supply From: NLDPA
Mounting: SURFACE
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22,000 AIC
Mains Type: MLO
Mains Rating: 600 A
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	LC-D2 - UNIT #E411	125 A	2	11044... 11044...			2	125 A	LC-D2 - UNIT #E412	2
3	--	--	--		11044... 11044...		--	--	--	4
5	LC-C - UNIT #E419	100 A	2			9930 VA 9857 VA	2	100 A	LC-B - UNIT #E414	6
7	--	--	--	9930 VA 9857 VA			--	--	--	8
9	LC-C - UNIT #E421	100 A	2	9930 VA 9930 VA			2	100 A	LC-C - UNIT #E416	10
11	--	--	--			9930 VA 9930 VA	--	--	--	12
13	LC-B - UNIT #E423	100 A	2	9857 VA 9930 VA			2	100 A	LC-C - UNIT #E422	14
15	--	--	--		9857 VA 9930 VA		--	--	--	16
17	LC-C - UNIT #E433	100 A	2			9930 VA 9857 VA	2	100 A	LC-B - UNIT #E424	18
19	--	--	--	9930 VA 9857 VA			--	--	--	20
21	LC-D1 - UNIT #E435	125 A	2		11080... 9930 VA		2	100 A	LC-C - UNIT #E432	22
23	--	--	--			11080... 9930 VA	--	--	--	24
25	F-1 (IL - ROOF)	20 A	1	765 VA 11080...			2	125 A	LC-D1 - UNIT #E434	26
27	F-2 (ATRIUM ROOF)	20 A	1		528 VA 11080...		--	--	--	28
29	RTU-1	90 A	3			8520 VA 8520 VA	3	90 A	RTU-2	30
31	--	--	--	8520 VA 8520 VA			--	--	--	32
33	--	--	--		8520 VA 8520 VA		--	--	--	34
35	RTU-3	110 A	3			9960 VA 528 VA	1	20 A	EF-2 (RES. CLOSET #E402)	36
37	--	--	--	9960 VA 0 VA			1	20 A	SPARE	38
39	--	--	--		9960 VA 0 VA		1	20 A	SPARE	40
41	SPARE	20 A	1			0 VA 0 VA	1	20 A	SPARE	42
		Total Load:		120226 VA	121351 VA	107969 VA				
		Total Amps:		1018 A	1027 A	900 A				

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	82228 VA	100.00%	82228 VA		
Power	528 VA	100.00%	528 VA	**Total Conn. Load:**	349545 VA
Residential per NEC 220.84	266789 VA	41.00%	109383 VA	**Total Est. Demand:**	192139 VA
				Total Conn.:	970 A
				Total Est. Demand:	533 A

Notes:

Branch Panel: NLDP3

Location: ELEC E315
Supply From: NLDPA
Mounting: SURFACE
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22,000 AIC
Mains Type: MLO
Mains Rating: 400 A
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	LC-D2 - UNIT #E311	125 A	2	11044... 11044...			2	125 A	LC-D2 - UNIT #E312	2
3	--	--	--		11044... 11044...		--	--	--	4
5	LC-C - UNIT #E319	100 A	2			9930 VA 9857 VA	2	100 A	LC-B - UNIT #E314	6
7	--	--	--	9930 VA 9857 VA			--	--	--	8
9	LC-C - UNIT #E321	100 A	2	9930 VA 9930 VA			2	100 A	LC-C - UNIT #E316	10
11	--	--	--			9930 VA 9930 VA	--	--	--	12
13	LC-B - UNIT #E323	100 A	2	9857 VA 9930 VA			2	100 A	LC-C - UNIT #E322	14
15	--	--	--		9857 VA 9930 VA		--	--	--	16
17	LC-C - UNIT #E333	100 A	2			9930 VA 9857 VA	2	100 A	LC-B - UNIT #E324	18
19	--	--	--	9930 VA 9857 VA			--	--	--	20
21	LC-D1 - UNIT #E335	125 A	2		11080... 9930 VA		2	100 A	LC-C - UNIT #E332	22
23	--	--	--			11080... 9930 VA	--	--	--	24
25	EF-2 (RES. CLOSET #E302)	20 A	1	528 VA 11080...			2	125 A	LC-D1 - UNIT #E334	26
27					11080...		--	--	--	28
29	SPARE	20 A	1			0 VA 0 VA	1	20 A	SPARE	30
31	SPARE	20 A	1	0 VA 0 VA			1	20 A	SPARE	32
33	SPARE	20 A	1		0 VA 0 VA		1	20 A	SPARE	34
35	SPARE	20 A	1			0 VA 0 VA	1	20 A	SPARE	36
37	SPARE	20 A	1	0 VA 0 VA			1	20 A	SPARE	38
39	SPACE	--	1		-- --		1	--	SPACE	40
41	SPACE	--	1			-- --	1	--	SPACE	42
		Total Load:		93054 VA	93823 VA	80441 VA				
		Total Amps:		792 A	798 A	670 A				

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	528 VA	100.00%	528 VA		
Residential per NEC 220.84	266789 VA	41.00%	109383 VA	**Total Conn. Load:**	267317 VA
				Total Est. Demand:	109911 VA
				Total Conn.:	742 A
				Total Est. Demand:	305 A

Notes:

Branch Panel: EMLP1

Location: ELEC E120
Supply From: ATS-EM
Mounting: SURFACE
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 AIC
Mains Type: MCB
Mains Rating: 225 A
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	EMERG. LTG. - STAIRWELL #1	20 A	1	339 VA 758 VA			1	20 A	NL LTG. - 1ST FLOOR CORRIDOR & ATRIUM	2
3	EMERG. LTG. - STAIRWELL #2	20 A	1		227 VA 505 VA		1	20 A	NL LTG. - 2ND FLOOR CORRIDOR & ATRIUM	4
5	EMERG. PIT LTG. - ELEV. #1	20 A	1			80 VA 452 VA	1	20 A	NL LTG. - 3RD FLOOR CORRIDOR & ATRIUM	6
7	EMERG. PIT LTG. - ELEV. #2	20 A	1	120 VA 435 VA			1	20 A	NL LTG. - 4TH FLOOR CORRIDOR & ATRIUM	8
9	SEVF-1	30 A	3		2004 VA 576 VA		1	20 A	LTG. - EXTERIOR	10
11	--	--	--			2004 VA 500 VA	1	20 A	DOOR CONTROL PANEL - ELEC. #E115	12
13	--	--	--	2004 VA 1100 VA			1	20 A	FIRE SMOKE DAMPERS	14
15	MAGNETIC DOOR HOLDS - ALL FLOORS	20 A	1		32 VA 250 VA		1	20 A	SPRINKLER BELL	16
17	FACP & NAC'S	20 A	1			500 VA 200 VA	1	20 A	SARA SYSTEM REPEATERS	18
19	ELEVATOR #1 (15 HP)	60 A	3	3360 VA 200 VA			1	20 A	POWER AUTODOORS #821	20
21	--	--	--		3360 VA 0 VA		1	20 A	POWER FOR SMOKE EVAC CONTROL PANEL	22
23	--	--	--			3380 VA 180 VA	1	20 A	GENERATOR RECEPT	24
25	RCPT'S - COMM. #E127	20 A	1	720 VA 720 VA			1	20 A	RCPT'S - COMM. #E327	26
27	RCPT'S - COMM. #E227	20 A	1		720 VA 720 VA		1	20 A	RCPT'S - COMM. #E427	28
29	POWER AUTODOORS #104A, 104B	20 A	1			400 VA 180 VA	1	20 A	RCPT'S - ELEC. #E120	30
31	SEVF-2	30 A	3	2004 VA 2004 VA			3	30 A	SEVF-3	32
33	--	--	--		2004 VA 2004 VA		--	--	--	34
35	--	--	--			2004 VA 2004 VA	--	--	--	36
37	ELEVATOR SMOKE CURTAIN - ALL FLOORS	20 A	1	1200 VA 1200 VA			1	20 A	ELEVATOR SMOKE CURTAIN - ALL FLOORS	38
39	SMOKE EVAC DAMPER ACTUATOR - 3RD FLR	20 A	1		600 VA 600 VA		1	20 A	SMOKE EVAC DAMPER ACTUATOR - 4TH FLR	40
41	SPARE	20 A	1			0 VA 1500 VA	1	20 A	ELEV #1 - LIGHTS & CONTROLS	42
		Total Load:		16163 VA	13602 VA	13364 VA				
		Total Amps:		135 A	114 A	111 A				

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	18861 VA	100.00%	18861 VA		
Motor	15180 VA	100.00%	15180 VA	**Total Conn. Load:**	43129 VA
Other	32 VA	100.00%	32 VA	**Total Est. Demand:**	43843 VA
Receptacle	4610 VA	100.00%	4610 VA	**Total Conn.:**	120 A
Spare	180 VA	100.00%	180 VA	**Total Est. Demand:**	122 A
Lighting	3491 VA	125.00%	4364 VA		
Power	500 VA	100.00%	500 VA		
Residential per NEC 220.84	275 VA	42.00%	116 VA		

Notes:

GENERAL NOTES

CONSTRUCTION SET

STATE OF MISSOURI — JAMES S. MOWEN — NUMBER E-25237 — PROFESSIONAL ENGINEER — 1/5/2024

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

SFCS | Architecture Engineering Planning Interiors

SFCS Inc. ▪ 305 South Jefferson Street
Roanoke, Virginia 24011.2003
540.344.6664 ▪ Fax 540.343.6925
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DESIGNER	DAS	DRAWN	MAW, DKW
ARCHITECT	DAS	CHECKED	MAW
ENGINEER	MAW	APPROVED	JSK

NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/15/24
3	Addendum #1	03/07/24

DRAWING TITLE

PANELBOARD SCHEDULES

DATE: January 5, 2024
COMM. NO. 23104.00

DRAWING E5.1

Branch Panel: NLP4

Location: ELEC E415
Supply From: NLDPA
Mounting: SURFACE
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 AIC
Mains Type: MLO
Mains Rating: 100 A
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	RCPT'S - ATRIUM #E401	20 A	1	1260 VA	900 VA					1	20 A	RCPT'S - CORRIDOR #E413	2
3	RCPT'S - LOUNGE #E406	20 A	1			1260 VA	1080 VA			1	20 A	RCPT'S - RM. #E417, E418, E426, E429, E431,...	4
5	RCPT'S - CORRIDOR #E413 & ELEC #E415	20 A	1					1080 VA	0 VA	1	20 A	SPARE	6
7	GFI / WP RCPT - ROOFTOP	20 A	1	1080 VA	180 VA					1	20 A	GFI RCPT'S - RESTROOM #E405	8
9	EWH-1 (STAIRWELL #1 , 4TH FLOOR)	20 A	2			1500 VA	770 VA			1	20 A	LTG. - 4TH FLOOR CORRIDOR & ATRIUM	10
11	--	--	--					1500 VA	588 VA	1	20 A	LTG. - RM. #E417, E418, E426, E429, E431, E436	12
13	EWH-1 (STAIRWELL #2 , 4TH FLOOR)	20 A	2	1500 VA	593 VA					1	20 A	LTG. - LOUNGE #E406 & RES. CLOSET #E402	14
15						1500 VA	1500 VA			1	20 A	ELEV #2 - LIGHTS & CONTROLS	16
17	ELEVATOR #2 (15 HP)	60 A	3					3360 VA	0 VA	1	20 A	SPARE	18
19	--	--	--	3360 VA	0 VA					1	20 A	SPARE	20
21	--	--	--			3360 VA	0 VA			1	20 A	SPARE	22
23	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	24
25	SPARE	20 A	1	0 VA	--					1	--	SPACE	26
27	SPARE	20 A	1			0 VA	--			1	--	SPACE	28
29	SPARE	20 A	1					0 VA	--	1	--	SPACE	30
31	SPARE	20 A	1	0 VA	--					1	--	SPACE	32
33	SPACE	--	1			--	--			1	--	SPACE	34
35	SPACE	--	1					--	--	1	--	SPACE	36
37	SPACE	--	1	--	--					1	--	SPACE	38
39	SPACE	--	1			--	--			1	--	SPACE	40
41	SPACE	--	1					--	--	1	--	SPACE	42
				Total Load:		8473 VA		10970 VA		6328 VA			
				Total Amps:		77 A		94 A		54 A			

3

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Heating	6000 VA	100.00%	6000 VA		
Motor	10080 VA	100.00%	10080 VA	**Total Conn. Load:**	26371 VA
Other	1521 VA	100.00%	1521 VA	**Total Est. Demand:**	26853 VA
Receptacle	6840 VA	100.00%	6840 VA	**Total Conn.:**	73 A
Lighting	1930 VA	125.00%	2412 VA	**Total Est. Demand:**	75 A

Notes:

Branch Panel: NLP1

Location: MEP E118
Supply From: NLDPA
Mounting: SURFACE
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22,000 AIC
Mains Type: MLO
Mains Rating: 100 A
MCB Rating:

3

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	RCPT'S - ATRIUM #E101	20 A	1	720 VA	900 VA					1	20 A	RCPT'S - CORRIDOR #E113	2
3	RCPT'S - MAIL RM. / LOUNGE #E106	20 A	1			1260 VA	540 VA			1	20 A	RCPT'S - RM. #E126, E129, E131, E136	4
5	RCPT'S - CORRIDOR #113 & ELEC #E115	20 A	1					1440 VA	0 VA	1	20 A	SPARE	6
7	RCPT'S - RM. #E105, E117, E118	20 A	1	360 VA	180 VA					1	20 A	GFI RCPT'S - RESTROOM #E105	8
9	Space	--	1			--	1066 VA			1	20 A	LTG. - 1ST FLOOR CORRIDOR & ATRIUM	10
11	POWER AUTODOORS #108A, 108B	20 A	1					400 VA	428 VA	1	20 A	LTG. - RM. #E117, E118, E126, E129, E131, E136	12
13	RCPT'S - CORRIDOR #E100	20 A	1	900 VA	611 VA					1	20 A	LTG. - LOUNGE #E106 & RES. CLOSET #E102	14
15	SITE LTG. - WEST PARKING LOT	20 A	2			468 VA	241 VA			2	20 A	SITE LTG. - EAST PARKING LOT	16
17								958 VA	241 VA				18
19	GFI/ WP RCPT. - ELEVATOR #1 PIT	20 A	1	180 VA	0 VA					1	20 A	SPARE	20
21	GFI/ WP RCPT. - ELEVATOR #2 PIT	20 A	1			180 VA	0 VA			1	20 A	SPARE	22
23	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	24
25	SPARE	20 A	1	0 VA	0 VA					1	20 A	SPARE	26
27	SPARE	20 A	1			0 VA	--			1	--	SPACE	28
29	SPARE	20 A	1					0 VA	--	1	--	SPACE	30
31	SPACE	--	1	--	--					1	--	SPACE	32
33	SPACE	--	1			--	--			1	--	SPACE	34
35	SPACE	--	1					--	--	1	--	SPACE	36
37	SPACE	--	1	--	--					1	--	SPACE	38
39	SPACE	--	1			--	--			1	--	SPACE	40
41	SPACE	--	1					--	--	1	--	SPACE	42
				Total Load:		3851 VA		3794 VA		2977 VA			
				Total Amps:		33 A		32 A		25 A			

3

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	21 VA	100.00%	21 VA		
Receptacle	7060 VA	100.00%	7060 VA	**Total Conn. Load:**	10582 VA
Lighting	3501 VA	125.00%	4376 VA	**Total Est. Demand:**	11457 VA
				Total Conn.:	29 A
				Total Est. Demand:	32 A

Notes:

Branch Panel: NLP2

Location: ELEC E215
Supply From:
Mounting: SURFACE
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 AIC
Mains Type: MLO
Mains Rating: 100 A
MCB Rating:

3

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	RCPT'S - ATRIUM #E201	20 A	1	1080 VA	900 VA					1	20 A	RCPT'S - CORRIDOR #E213	2
3	RCPT'S - LOUNGE #E206	20 A	1			1080 VA	1080 VA			1	20 A	RCPT'S - RM. #E217, E218, E226, E229, E231,...	4
5	RCPT'S - CORRIDOR #E213 & ELEC #E215	20 A	1					1080 VA	0 VA	1	20 A	SPARE	6
7	GFI RCPT'S - LOUNGE #E206	20 A	1	360 VA	850 VA					1	20 A	CLOTHES WASHER - HSKP #E205	8
9	UC MICROWAVE - LOUNGE #E206	20 A	1			1200 VA	927 VA			1	20 A	LTG. - 2ND FLOOR CORRIDOR & ATRIUM	10
11	UC REFRIGERATOR - LOUNGE #E206	20 A	1					600 VA	588 VA	1	20 A	LTG. - RM. #E217, E218, E226, E229, E231, E236	12
13	RCPT'S - CORRIDOR #E200	20 A	1	900 VA	624 VA					1	20 A	LTG. - LOUNGE #E206 & RES. CLOSET #E202	14
15	GFI RCPT'S - LOUNGE #E206	20 A	1			360 VA	2500 VA			2	20 A	CLOTHES DRYER - HSKP #E205	16
17	SPARE	20 A	1					0 VA	2500 VA				18
19	SPARE	20 A	1	0 VA	0 VA					1	20 A	SPARE	20
21	SPARE	20 A	1			0 VA	0 VA			1	20 A	SPARE	22
23	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	24
25	SPARE	20 A	1	0 VA	0 VA					1	20 A	SPARE	26
27	Space	--	1			--	0 VA			1	20 A	SPARE	28
29	Space	--	1					--	--	1	--	Space	30
31	Space	--	1	--	--					1	--	Space	32
33	Space	--	1			--	--			1	--	Space	34
35	Space	--	1					--	--	1	--	Space	36
37	Space	--	1	--	3004 VA					3	100 A	PANEL NLP3	38
39	Space	--	1			--	3629 VA			--	--	--	40
41	Space	--	1					--	1458 VA	--	--	--	42
				Total Load:		7718 VA		10775 VA		6256 VA			
				Total Amps:		66 A		92 A		52 A			

3

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	0 VA	0.00%	0 VA		
Receptacle	20610 VA	74.26%	15305 VA	**Total Conn. Load:**	24749 VA
Lighting	4139 VA	125.00%	5174 VA	**Total Est. Demand:**	20479 VA
				Total Conn.:	69 A
				Total Est. Demand:	57 A

Notes:

Branch Panel: NLP3

Location: ELEC E315
Supply From: NLP2
Mounting: SURFACE
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 AIC
Mains Type: MLO
Mains Rating: 100 A
MCB Rating:

3

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	RCPT'S - ATRIUM #E301	20 A	1	1440 VA	900 VA					1	20 A	RCPT'S - CORRIDOR #E313	2
3	RCPT'S - LOUNGE #E306	20 A	1			1800 VA	1080 VA			1	20 A	RCPT'S - RM. #E317, E318, E326, E329, E331,...	4
5	RCPT'S - CORRIDOR #E313 & ELEC #E315	20 A	1					900 VA	0 VA	1	20 A	SPARE	6
7	SPARE	20 A	1	0 VA	0 VA					1	20 A	SPARE	8
9	SPARE	20 A	1			0 VA	749 VA			1	20 A	LTG. - 3RD FLOOR CORRIDOR & ATRIUM	10
11	SPARE	20 A	1					0 VA	588 VA	1	20 A	LTG. - RM. #E317, E318, E326, E329, E331, E336	12
13	SPARE	20 A	1	0 VA	664 VA					1	20 A	LTG. - LOUNGE #E306 & RES. CLOSET #E302	14
15	SPARE	20 A	1			0 VA	0 VA			1	20 A	SPARE	16
17	SPACE	--	1					--	0 VA	1	20 A	SPARE	18
19	SPACE	--	1	--	0 VA					1	20 A	SPARE	20
21	SPACE	--	1			--	0 VA			1	20 A	SPARE	22
23	SPACE	--	1					--	0 VA	1	20 A	SPARE	24
25	SPACE	--	1	--	--					1	--	SPACE	26
27	SPACE	--	1			--	--			1	--	SPACE	28
29	SPACE	--	1					--	--	1	--	SPACE	30
31	SPACE	--	1	--	--					1	--	SPACE	32
33	SPACE	--	1			--	--			1	--	SPACE	34
35	SPACE	--	1					--	--	1	--	SPACE	36
37	SPACE	--	1	--	--					1	--	SPACE	38
39	SPACE	--	1			--	--			1	--	SPACE	40
41	SPACE	--	1					--	--	1	--	SPACE	42
				Total Load:		3004 VA		3629 VA		1488 VA			
				Total Amps:		27 A		32 A		12 A			

3

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	0 VA	0.00%	0 VA		
Receptacle	6120 VA	100.00%	6120 VA	**Total Conn. Load:**	8121 VA
Lighting	2001 VA	125.00%	2501 VA	**Total Est. Demand:**	8621 VA
				Total Conn.:	23 A
				Total Est. Demand:	24 A

Notes:

GENERAL NOTES

CONSTRUCTION SET

STATE OF MISSOURI
JAMES W. DIDWELL
NUMBER E-25237
PROFESSIONAL ENGINEER
2/5/2024

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

SFCS | Architecture Engineering Planning Interiors

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DESIGNER	: DAS	DRAWN	: MAW, DKW
ARCHITECT	: DAS	CHECKED	: MAW
ENGINEER	: MAW	APPROVED	: JSK

NO.	REVISION DESCRIPTION	DATE
1	FDP 1	02/22-24
3	Addendum #1	03/07/24

DRAWING TITLE

PANELBOARD SCHEDULES

DATE: January 5, 2024
COMM. NO. 23104.00
DRAWING E5.2

Branch Panel: LC-C

Location: DINING ROOM 230 | **Volts:** 120/208 Single | **A.I.C. Rating:** 10,000 AIC
Supply From: | **Phases:** 1 | **Mains Type:**
Mounting: FLUSH | **Wires:** 3 | **Mains Rating:** 125 A
Enclosure: NEMA 1 | **MCB Rating:**

Notes:

CKT	Circuit Description	Trip	Poles	A		B		Poles	Trip	Circuit Description	CKT
1	GFI RCPT'S - KITCHEN	20 A	1	540 VA	780 VA			1	20 A	REFRIGERATOR	2
3	GFI RCPT'S - KITCHEN	20 A	1			540 VA	3840 VA	2	30 A	ELECTRIC COOKTOP	4
5	ISLAND GFI RCPT'S - KITCHEN	20 A	1	540 VA	3840 VA			--	--	--	6
7	MICROWAVE	20 A	1			1200 VA	2500 VA	2	40 A	CLOTHES DRYER	8
9	GARBAGE DISPOSAL	20 A	1	540 VA	2500 VA			--	--	--	10
11	DISHWASHER	20 A	1			852 VA	850 VA	1	20 A	CLOTHES WASHER	12
13	RCPT'S - LIVING ROOM	20 A	1	1080 VA	360 VA			1	20 A	GFI RCPT'S - BATHROOM	14
15	RCPT'S - BEDROOM	20 A	1			1260 VA	180 VA	1	20 A	GFI / WP RCPT - BALCONY	16
17	RCPT'S - DINING ROOM	20 A	1	900 VA	180 VA			1	20 A	GFI RCPT'S - BATHROOM	18
19	RCPT'S - DEN	20 A	1			720 VA	423 VA	1	20 A	LIGHTING - DWELLING UNIT	20
21	VPTAC-2 (UNIT C)	35 A	2	3640 VA	160 VA			1	20 A	EF-1 (UNIT C)	22
23	--					3640 VA	0 VA	1	20 A	SPARE	24
25	SPARE	20 A	1	0 VA	0 VA			1	20 A	SPARE	26
27	SPARE	20 A	1			0 VA	0 VA	1	20 A	SPARE	28
29	SPARE	20 A	1	0 VA	0 VA			1	20 A	SPARE	30
31	SPARE	20 A	1			0 VA	--	1	--	SPACE	32
33	SPACE	--	1	--	--			1	--	SPACE	34
35	SPACE	--	1			--	--	1	--	SPACE	36
37	SPACE	--	1	--	--			1	--	SPACE	38
39	SPACE	--	1			--	--	1	--	SPACE	40
41	SPACE	--	1	--	--			1	--	SPACE	42
		Total Load:		15060 VA		16005 VA					
		Total Amps:		145 A		153 A					

Legend:

Notes:

Branch Panel: LC-B

Location: BEDROOM 209 | **Volts:** 120/208 Single | **A.I.C. Rating:** 10,000 AIC
Supply From: | **Phases:** 1 | **Mains Type:**
Mounting: FLUSH | **Wires:** 3 | **Mains Rating:** 125 A
Enclosure: NEMA 1 | **MCB Rating:**

Notes:

CKT	Circuit Description	Trip	Poles	A		B		Poles	Trip	Circuit Description	CKT
1	GFI RCPT'S - KITCHEN	20 A	1	540 VA	780 VA			1	20 A	REFRIGERATOR	2
3	GFI RCPT'S - KITCHEN	20 A	1			540 VA	3840 VA	2	30 A	ELECTRIC COOKTOP	4
5	ISLAND GFI RCPT'S - KITCHEN	20 A	1	720 VA	3840 VA			--	--	--	6
7	MICROWAVE	20 A	1			1200 VA	2500 VA	2	40 A	CLOTHES DRYER	8
9	GARBAGE DISPOSAL	20 A	1	540 VA	2500 VA			--	--	--	10
11	DISHWASHER	20 A	1			852 VA	850 VA	1	20 A	CLOTHES WASHER	12
13	RCPT'S - LIVING ROOM	20 A	1	1080 VA	360 VA			1	20 A	GFI RCPT'S - BATHROOM	14
15	RCPT'S - BEDROOM	20 A	1			1080 VA	180 VA	1	20 A	GFI / WP RCPT - BALCONY	16
17	RCPT'S - DINING ROOM	20 A	1	900 VA	180 VA			1	20 A	LIGHTING - DWELLING UNIT	18
19	VPTAC-1 (UNIT B)	35 A	2			3640 VA	80 VA	1	20 A	EF-1 (UNIT B)	20
21	--	--	--	3640 VA	0 VA			1	20 A	SPARE	22
23	SPARE	20 A	1			0 VA	0 VA	1	20 A	SPARE	24
25	SPARE	20 A	1	0 VA	0 VA			1	20 A	SPARE	26
27	SPARE	20 A	1			0 VA	0 VA	1	20 A	SPARE	28
29	SPARE	20 A	1	0 VA	--			1	--	SPACE	30
31	SPACE	--	1			--	--	1	--	SPACE	32
33	SPACE	--	1	--	--			1	--	SPACE	34
35	SPACE	--	1			--	--	1	--	SPACE	36
37	SPACE	--	1	--	--			1	--	SPACE	38
39	SPACE	--	1			--	--	1	--	SPACE	40
41	SPACE	--	1	--	--			1	--	SPACE	42
		Total Load:		15216 VA		14762 VA					
		Total Amps:		146 A		142 A					

Legend:

Notes:

PROJECT TITLE: JOHN KNOX VILLAGE - UNIT TYPE C **PROJECT #:** 23104.00

Optional Method Load Calulation for One-Family Dwellings

1	General Lighting and Receptacle Loads 220.12 *Do not include open porches, garages, and unused or unfinished spaces not adaptable for future use.*	3 x 888 (sq ft outside dimension) =	1	2664
2	Small Appliance Branch-Circuits 220.52(A) *At least **two** small appliance branch circuits must be included. 210.11(C)(1)*	1500 x 2 (minimum of two) =	2	3000
3	Laundry Branch-Circuit(s) 220.52(B) *At least **one** laundry branch circuits must be included. 210.11(C)(2)*	1500 x 1 (minimum of one) =	3	1500

4 Appliances 220.53
*Use nameplate rating of **ALL** appliances (fastened-n-place, permanently connected, or connected to a specific circuit), ranges, ovens cooktops, motors, and clothes dryers.*

Convert any maneplate rating given in amperes to volt-amperes by miltiplying the amperes by the rated voltage.

Do not include any heating or air conditioning equipment in this section.
#4 TOTAL VA OF ALL APPLIANCES: Take 75% of the total appliances and laundry loads minus the Range and Clothes Dyer and then add in the 100% of the Range and Clothes Dryer

Refrigerator	780 (va each)	Clothes Washer	850 (va each)
Dishwasher	852 (va each)	Clothes Dryer	5000 (va each)
Disposal	540 (va each)	Water Heater (N/A)	0 (va each)
Microwaves	1200 (va each)	Exhaust Fans	100 (va each)
Range	7680 (va each)	HW Circ Pump (N/A)	0 (va each)
Cook Top (N/A)	0 (va each)		0 (va each)
Range Hood	250 (va each)		0 (va each)

Total volt-amperes of all appliances LISTED ABOVE | 4 | 16109

5	Apply 220.82(B) demand factor to the total of lines 1 through 4. 23273 (total of lines 1 through 4) - 10000 = 13273 x 40% = 5309 + 10000 =	5	15309
6	Heating and/or Air Conditioning System 220.82(C) *Use the nameplate rating(s) in volt-amperes for all applicable systems in lines **a** through **e**.*		
	a) Air-conditioning and cooling system(s), including heat pump compressors and supplemental heating, unless the controller prevents the compressor and supplemental heating from operate at the same time. 3328 x 100% = **a)** 3328		
	b) Electrical thermal storage and other heating systems where the usual load is expected to be continuous at full nameplate value: Systems qualifying under this section shall not be figured under any other selection in 220.82(C). 0 x 100% = **b)** 0		
	c) Central electric space heating equipment, including integral supplemental heating in heat pumps where the controller prevents the compressor and supplemental heating from operate at the same time. 0 x 65% = **c)** 0		
	d) Electric space heating equipment, if less than four separately controlled units. 7000 x 65% = **d)** 4550		
	e) Electric space heating equipment, if four or more separately controlled units. 0 x 40% = **e)** 0		
7	Total Volt-Ampere Demand Load: 4550 (largest VA rating from line 6a through 6e) + 15309 (line 5) =	7	19859
8	Minimum Amperes *Divide the total volt-amperes by the voltage* 19859 (line 7) ÷ 208 (voltage) =	8 **95** (min.amps)	9 Minimum Size Service and/or Feeder 220.40 — 9 (min. is 100A)

PROJECT TITLE: JOHN KNOX VILLAGE - UNIT TYPE B **PROJECT #:** 23104.00

Optional Method Load Calulation for One-Family Dwellings

1	General Lighting and Receptacle Loads 220.12 *Do not include open porches, garages, and unused or unfinished spaces not adaptable for future use.*	3 x 766 (sq ft outside dimension) =	1	2298
2	Small Appliance Branch-Circuits 220.52(A) *At least **two** small appliance branch circuits must be included. 210.11(C)(1)*	1500 x 2 (minimum of two) =	2	3000
3	Laundry Branch-Circuit(s) 220.52(B) *At least **one** laundry branch circuits must be included. 210.11(C)(2)*	1500 x 1 (minimum of one) =	3	1500

4 Appliances 220.53
*Use nameplate rating of **ALL** appliances (fastened-n-place, permanently connected, or connected to a specific circuit), ranges, ovens cooktops, motors, and clothes dryers.*

Convert any maneplate rating given in amperes to volt-amperes by miltiplying the amperes by the rated voltage.

Do not include any heating or air conditioning equipment in this section.
#4 TOTAL VA OF ALL APPLIANCES: Take 75% of the total appliances and laundry loads minus the Range and Clothes Dyer and then add in the 100% of the Range and Clothes Dryer

Refrigerator	780 (va each)	Clothes Washer	850 (va each)
Dishwasher	852 (va each)	Clothes Dryer	5000 (va each)
Disposal	540 (va each)	Water Heater (N/A)	0 (va each)
Microwaves	1200 (va each)	Exhaust Fans	100 (va each)
Range	7680 (va each)	HW Circ Pump (N/A)	0 (va each)
Cook Top (N/A)	0 (va each)		0 (va each)
Range Hood	250 (va each)		0 (va each)

Total volt-amperes of all appliances LISTED ABOVE | 4 | 16109

5	Apply 220.82(B) demand factor to the total of lines 1 through 4. 22907 (total of lines 1 through 4) - 10000 = 12907 x 40% = 5163 + 10000 =	5	15163
6	Heating and/or Air Conditioning System 220.82(C) *Use the nameplate rating(s) in volt-amperes for all applicable systems in lines **a** through **e**.*		
	a) Air-conditioning and cooling system(s), including heat pump compressors and supplemental heating, unless the controller prevents the compressor and supplemental heating from operate at the same time. 2517 x 100% = **a)** 2517		
	b) Electrical thermal storage and other heating systems where the usual load is expected to be continuous at full nameplate value: Systems qualifying under this section shall not be figured under any other selection in 220.82(C). 0 x 100% = **b)** 0		
	c) Central electric space heating equipment, including integral supplemental heating in heat pumps where the controller prevents the compressor and supplemental heating from operate at the same time. 0 x 65% = **c)** 0		
	d) Electric space heating equipment, if less than four separately controlled units. 7000 x 65% = **d)** 4550		
	e) Electric space heating equipment, if four or more separately controlled units. 0 x 40% = **e)** 0		
7	Total Volt-Ampere Demand Load: 4550 (largest VA rating from line 6a through 6e) + 15163 (line 5) =	7	19713
8	Minimum Amperes *Divide the total volt-amperes by the voltage* 19713 (line 7) ÷ 208 (voltage) =	8 **95** (min.amps)	9 Minimum Size Service and/or Feeder 220.40 — 9 (min. is 100A)

GENERAL NOTES

CONSTRUCTION SET

STATE OF MISSOURI — MATTHEW A. WELLS — NUMBER E-25237 — PROFESSIONAL ENGINEER — 2/5/2024

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

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ARCHITECT : DAS	CHECKED : MAW
ENGINEER : MAW	APPROVED : JSK

NO.	REVISION DESCRIPTION	DATE
3	Addendum #1	03/07/24

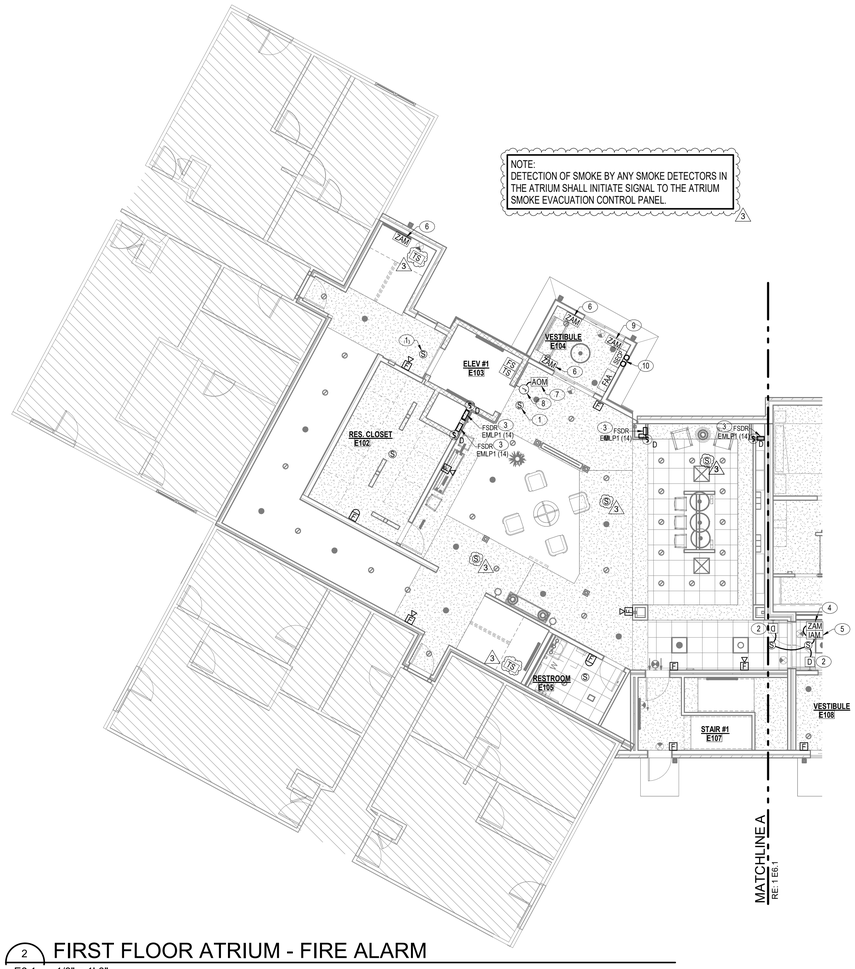
DRAWING TITLE

PANELBOARD SCHEDULES

DATE: January 5, 2024

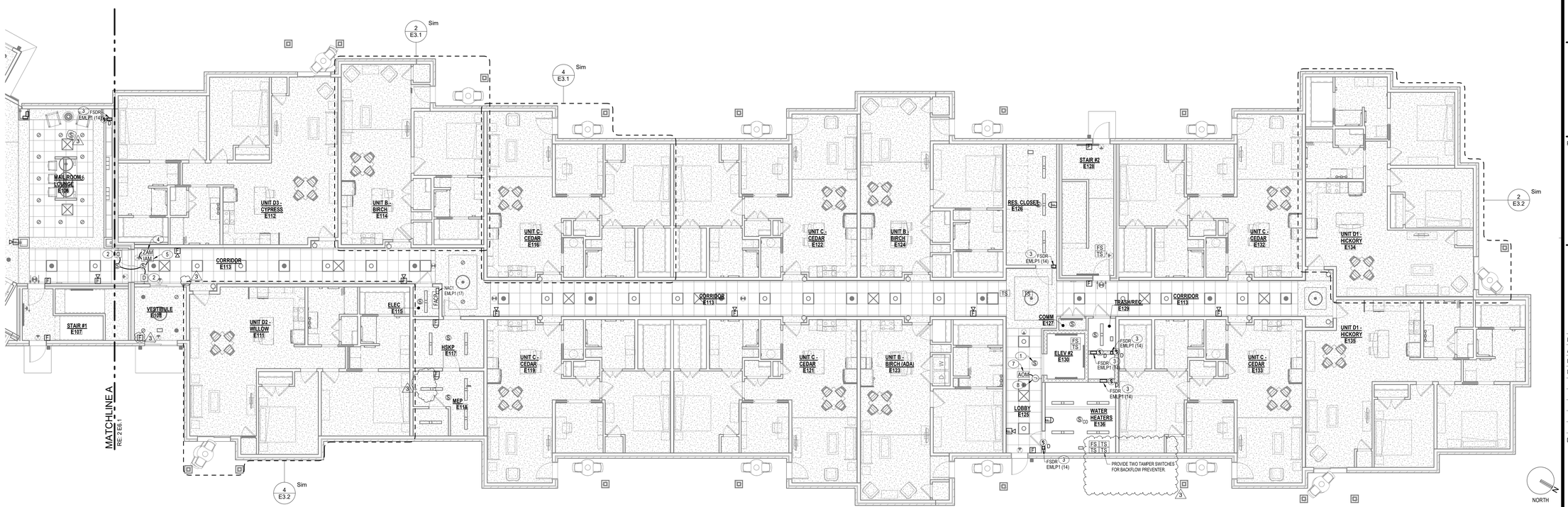
COMM. NO. 23104.00

DRAWING E5.3



2 E6.1 FIRST FLOOR ATRIUM - FIRE ALARM

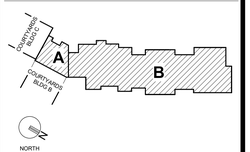
1/8" = 1'-0"



1 E6.1 FIRST FLOOR IL UNITS - FIRE ALARM

1/8" = 1'-0"

KEYPLAN



GENERAL NOTES

A. PROVIDE ALL REQUIRED CONNECTIONS, MATERIALS AND FIRE ALARM DEVICES TO INTERFACE TO ANY LOW VOLTAGE EQUIPMENT. LOW VOLTAGE EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO, EMERGENCY CALL SYSTEM, DOOR SECURITY SYSTEM, ETC. REFER TO LOW VOLTAGE SUBMITTALS AND COORDINATE WITH THE LOW VOLTAGE INSTALLERS FOR REQUIRED CONNECTIONS.

B. PROVIDE ALL REQUIRED CONNECTIONS, MATERIALS AND FIRE ALARM DEVICES TO INTERFACE TO HVAC EQUIPMENT. REFER TO THE HVAC DRAWINGS, SPECIFICATIONS AND SUBMITTALS FOR REQUIRED CONNECTIONS.

C. PROVIDE ALL REQUIRED CONNECTIONS, MATERIALS AND FIRE ALARM DEVICES TO INTERFACE WITH THE SPRINKLER SYSTEM. SPRINKLER SYSTEM CONNECTIONS INCLUDE, BUT IS NOT LIMITED TO, FLOW SWITCHES, PRESSURE SWITCHES, SUPERVISORY SWITCHES, ETC. COORDINATE QUANTITY AND LOCATION OF SWITCHES WITH THE SPRINKLER DRAWINGS AND INSTALLER FOR REQUIRED CONNECTIONS. NOTE THAT SPRINKLER DRAWINGS SHALL BE PROVIDED BY THE SPRINKLER CONTRACTOR.

D. PROVIDE ALL REQUIRED CONNECTIONS, MATERIALS AND FIRE ALARM DEVICES TO INTERFACE TO THE TRASH CHUTE DOOR INTERLOCKS. REFER TO THE TRASH CHUTE SUBMITTAL AND COORDINATE WITH THE INSTALLER TO PROVIDE ALL REQUIRED CONNECTIONS.

E. FIRE ALARM SYSTEM DEVICES SHOWN ARE FOR BIDDING PURPOSES ONLY. SYSTEM SHALL BE DESIGNED BY AN ENTITY MEETING THE REQUIREMENTS LISTED IN THE SPECIFICATIONS. COORDINATE WORK WITH FIRE ALARM VENDOR PRIOR TO SUBMITTING BIDS.

F. ONLY FIRE ALARM SHOP DRAWINGS APPROVED BY ENGINEER AND PERMITTING AGENCY SHALL BE USED FOR CONSTRUCTION.

PLAN NOTES

1. SMOKE DETECTOR SHALL BE INTERLOCKED WITH ELEVATOR CONTROLLER AS REQUIRED FOR ELEVATOR RECALL PER NFPA 72 GUIDELINES. CONNECT TO ELEVATOR SMOKE CURTAIN (WHERE APPLICABLE) FOR DEPLOYMENT UPON SMOKE DETECTOR ACTIVATION.
2. DOOR HOLDER SHALL RELEASE UPON ACTIVATION OF FIRE ALARM SYSTEM. PROVIDE LIFE SAFETY BRANCH CIRCUIT CONNECTION FOR MAGNETIC DOOR HOLDER. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
3. LOCATION OF FIRE/ SMOKE DAMPER WITH 120VAC CONNECTION AND DUCT SMOKE DETECTOR. COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT LOCATION OF FIRE/ SMOKE DAMPERS. REFER TO DETAILS ON DRAWING E0.022 FOR ADDITIONAL INFORMATION.
4. PROVIDE AND INSTALL AN ADDRESSABLE RELAY MODULE AND INTERFACE MAGNETIC DOOR HOLDER OPERATION WITH THE FIRE ALARM SYSTEM. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
5. PROVIDE AND INSTALL AN ADDRESSABLE INPUT MODULE TO SEND DOOR STATUS TO THE FIRE ALARM SYSTEM. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
6. FIRE ALARM ZAM CONNECTED TO DOOR CONTROLLER TO SIGNAL OPEN/ CLOSE FOR ATRIUM SMOKE EVACUATION.
7. OUTPUT MODULE FOR INTERFACE TO SMOKE CURTAIN AT ELEVATOR DOOR.
8. 120V CONNECTION TO ELEVATOR SMOKE CURTAIN REWIND MOTOR. PROVIDE ALARM CIRCUIT FROM N.O. AUXILIARY CONTACT OF SMOKE DETECTOR FOR CONNECTION TO AND ACTIVATION BY FIRE ALARM SYSTEM.
9. FIRE ALARM OUTPUT MODULE FOR INTERFACE TO SMOKE EVACUTION CONTROL PANEL. COORDINATE WITH MECHANICAL CONTRACTOR FOR CONNECTIONS.
10. (2) 1-1/4" CONDUITS FROM SMOKE EVACUATION CONTROL PANEL TO SEVF FANS ON ATRIUM ROOF.

CONSTRUCTION SET

STATE OF MISSOURI JAMES S. ADDUCCI NUMBER E-25237 REGISTERED PROFESSIONAL ENGINEER 1/5/2024

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

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ARCHITECT	DAS	CHECKED	MAW
ENGINEER	MAW	APPROVED	JSK

NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/15/24
3	Addendum #1	03/07/24

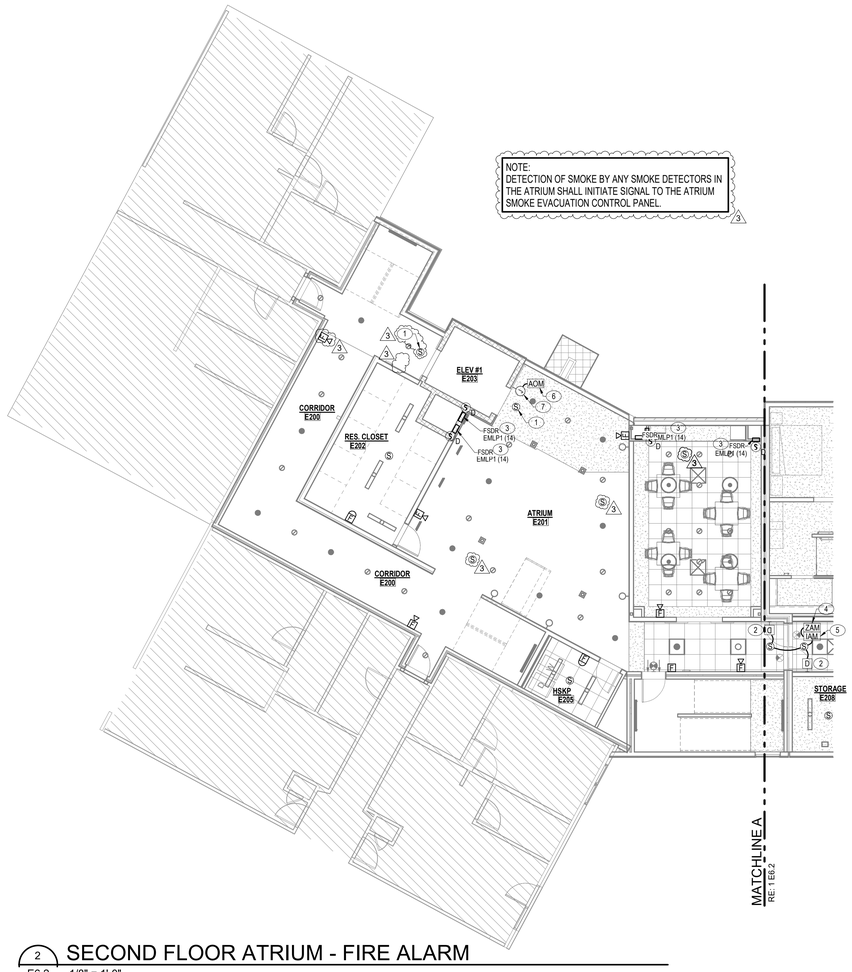
DRAWING TITLE

FIRST FLOOR PLAN - FIRE ALARM

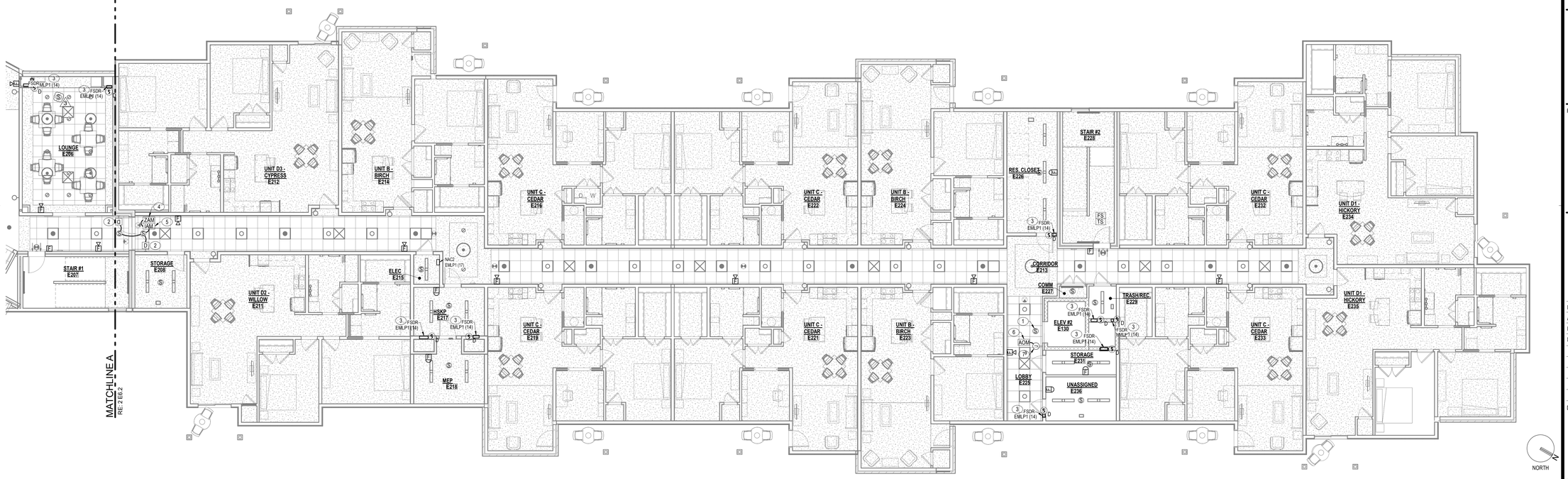
DATE: January 5, 2024

COMM. NO. 23104.00

DRAWING E6.1

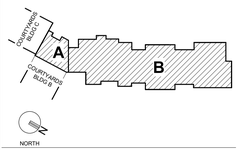


2 E6.2 SECOND FLOOR ATRIUM - FIRE ALARM
1/8" = 1'-0"



1 E6.2 SECOND FLOOR IL UNITS - FIRE ALARM
1/8" = 1'-0"

KEYPLAN



GENERAL NOTES

A. REFER TO SHEET E6.1 FOR FIRE ALARM GENERAL NOTES.

PLAN NOTES

1. SMOKE DETECTOR SHALL BE INTERLOCKED WITH ELEVATOR CONTROLLER AS REQUIRED FOR ELEVATOR RECALL PER NFPA 72 GUIDELINES. CONNECT TO ELEVATOR SMOKE CURTAIN (WHERE APPLICABLE) FOR DEPLOYMENT UPON SMOKE DETECTOR ACTIVATION.
2. DOOR HOLDER SHALL RELEASE UPON ACTIVATION OF FIRE ALARM SYSTEM. PROVIDE LIFE SAFETY BRANCH CIRCUIT CONNECTION FOR MAGNETIC DOOR HOLDER. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
3. LOCATION OF FIRE SMOKE DAMPER WITH 120VAC CONNECTION AND DUCT SMOKE DETECTOR. COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT LOCATION OF FIRE/ SMOKE DAMPERS. REFER TO DETAILS ON DRAWING E0.022 FOR ADDITIONAL INFORMATION.
4. PROVIDE AND INSTALL AN ADDRESSABLE RELAY MODULE AND INTERFACE MAGNETIC DOOR HOLDER OPERATION WITH THE FIRE ALARM SYSTEM. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
5. PROVIDE AND INSTALL AN ADDRESSABLE INPUT MODULE TO SEND DOOR STATUS TO THE FIRE ALARM SYSTEM. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
6. OUTPUT MODULE FOR INTERFACE TO SMOKE CURTAIN AT ELEVATOR DOOR.
7. 120V CONNECTION TO ELEVATOR SMOKE CURTAIN REWIND MOTOR. PROVIDE ALARM CIRCUIT FROM N.O. AUXILIARY CONTACT OF SMOKE DETECTOR FOR CONNECTION TO AND ACTIVATION BY FIRE ALARM SYSTEM.

CONSTRUCTION SET

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

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ENGINEER	: MAW	APPROVED	: JSK

NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/15/24
3	Addendum #1	03/07/24

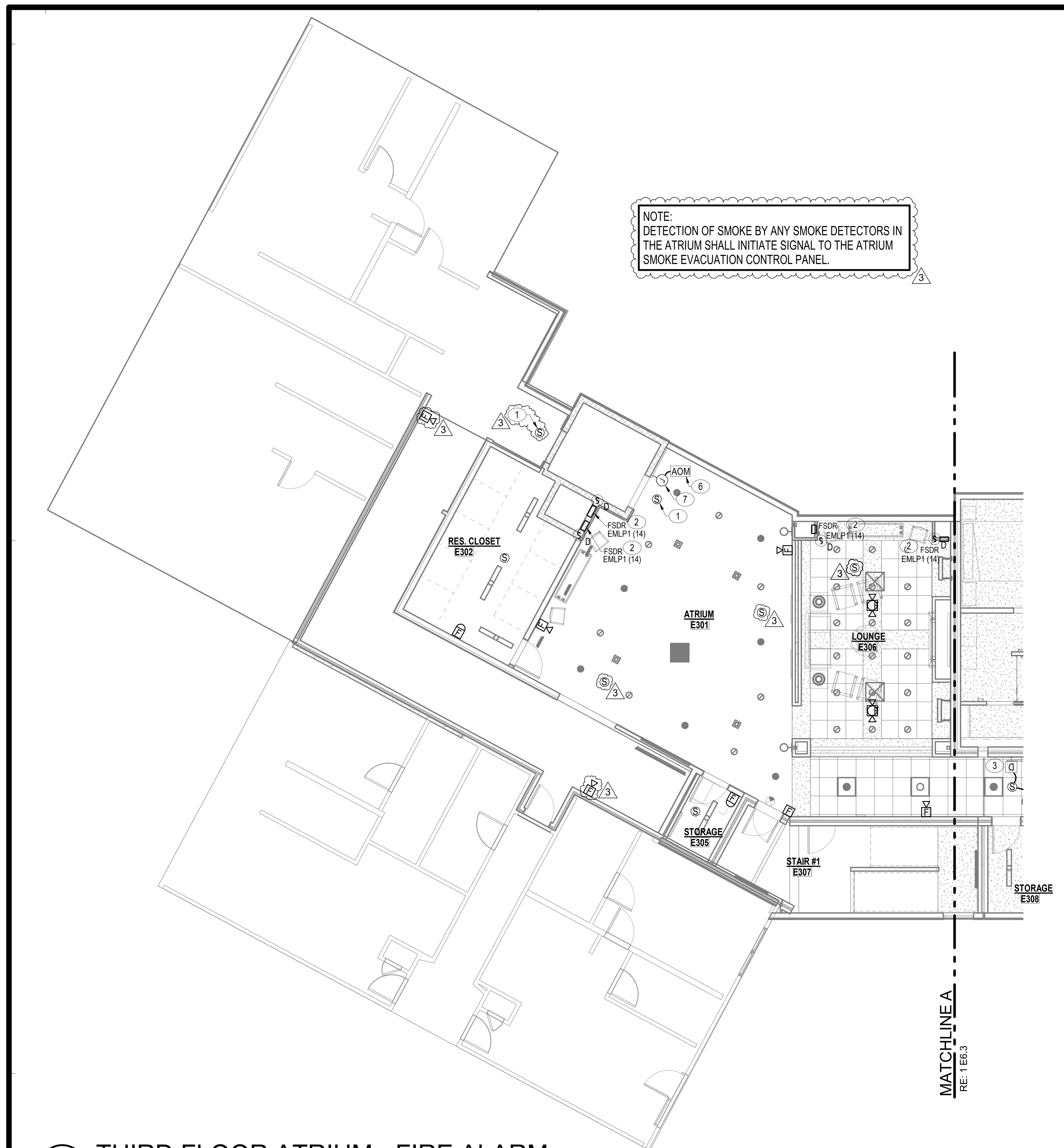
DRAWING TITLE

SECOND FLOOR PLAN - FIRE ALARM

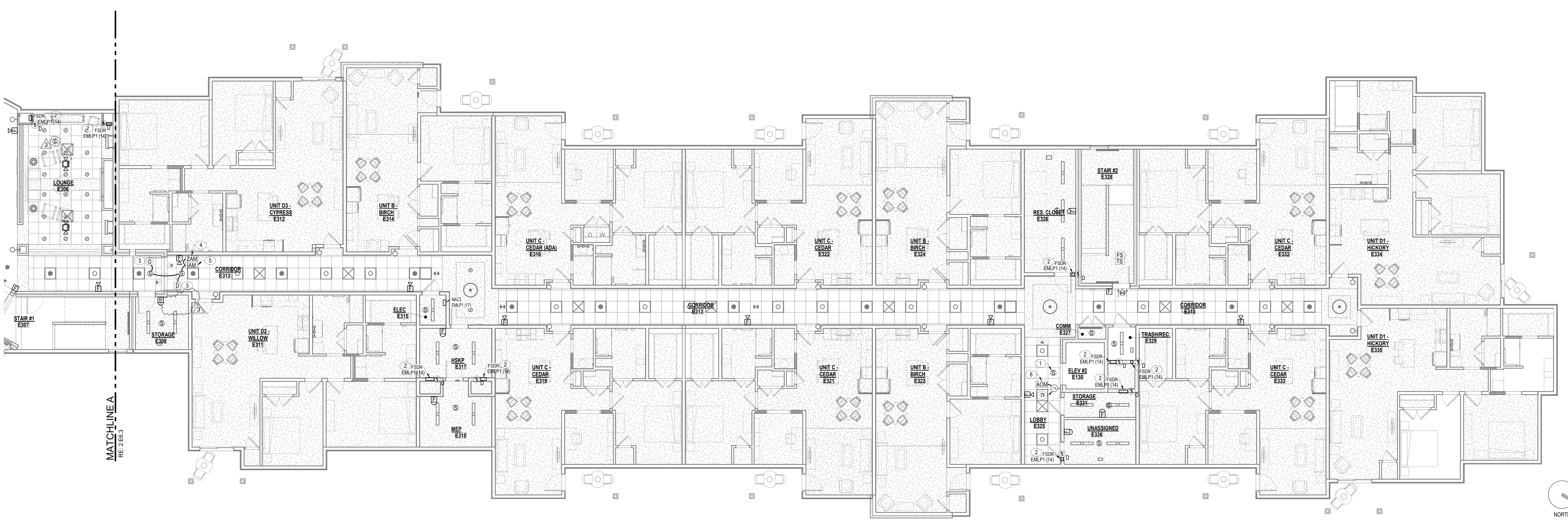
DATE: January 5, 2024

COMM. NO. 23104.00

DRAWING E6.2

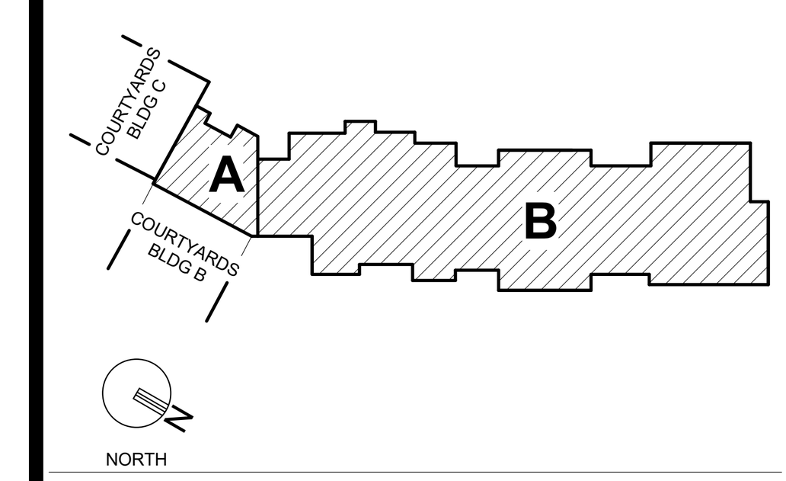


2 E6.3 THIRD FLOOR ATRIUM - FIRE ALARM
1/8" = 1'-0"



1 E6.3 THIRD FLOOR IL UNITS - FIRE ALARM
1/8" = 1'-0"

KEYPLAN



GENERAL NOTES

A. REFER TO SHEET E6.1 FOR FIRE ALARM GENERAL NOTES.

PLAN NOTES

1. SMOKE DETECTOR SHALL BE INTERLOCKED WITH ELEVATOR CONTROLLER AS REQUIRED FOR ELEVATOR RECALL PER NFPA 72 GUIDELINES. CONNECT TO ELEVATOR SMOKE CURTAIN (WHERE APPLICABLE) FOR DEPLOYMENT UPON SMOKE DETECTOR ACTIVATION.
2. LOCATION OF FIRE SMOKE DAMPER WITH 120VAC CONNECTION AND DUCT SMOKE DETECTOR. COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT LOCATION OF FIRE/ SMOKE DAMPERS. REFER TO DETAILS ON DRAWING E0.022 FOR ADDITIONAL INFORMATION.
3. DOOR HOLDER SHALL RELEASE UPON ACTIVATION OF FIRE ALARM SYSTEM. PROVIDE LIFE SAFETY BRANCH CIRCUIT CONNECTION FOR MAGNETIC DOOR HOLDER. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
4. PROVIDE AND INSTALL AN ADDRESSABLE RELAY MODULE AND INTERFACE MAGNETIC DOOR HOLDER OPERATION WITH THE FIRE ALARM SYSTEM. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
5. PROVIDE AND INSTALL AN ADDRESSABLE INPUT MODULE TO SEND DOOR STATUS TO THE FIRE ALARM SYSTEM. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
6. OUTPUT MODULE FOR INTERFACE TO SMOKE CURTAIN AT ELEVATOR DOOR.
7. 120V CONNECTION TO ELEVATOR SMOKE CURTAIN REWIND MOTOR. PROVIDE ALARM CIRCUIT FROM N.O. AUXILIARY CONTACT OF SMOKE DETECTOR FOR CONNECTION TO AND ACTIVATION BY FIRE ALARM SYSTEM.

CONSTRUCTION SET

STATE OF MISSOURI
JAMES S. HOWELL
NUMBER E-25237
REGISTERED PROFESSIONAL ENGINEER
1/5/2024

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

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ARCHITECT : DAS		CHECKED : MAW	
ENGINEER : MAW		APPROVED : JSK	

NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/15/24
3	Addendum #1	03/07/24

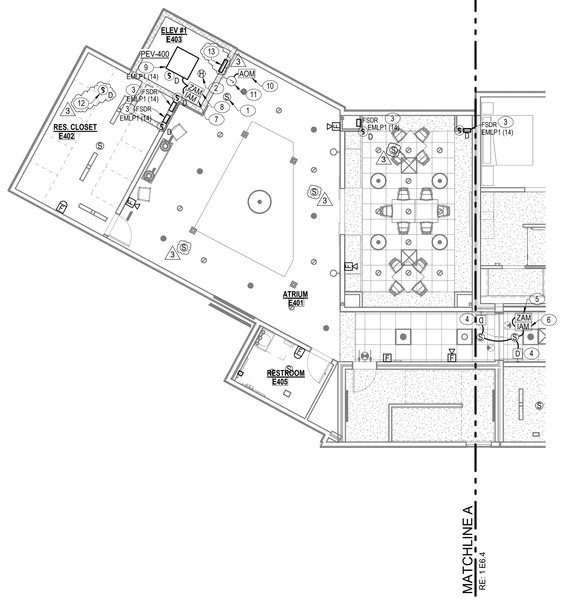
DRAWING TITLE

THIRD FLOOR PLAN - FIRE ALARM

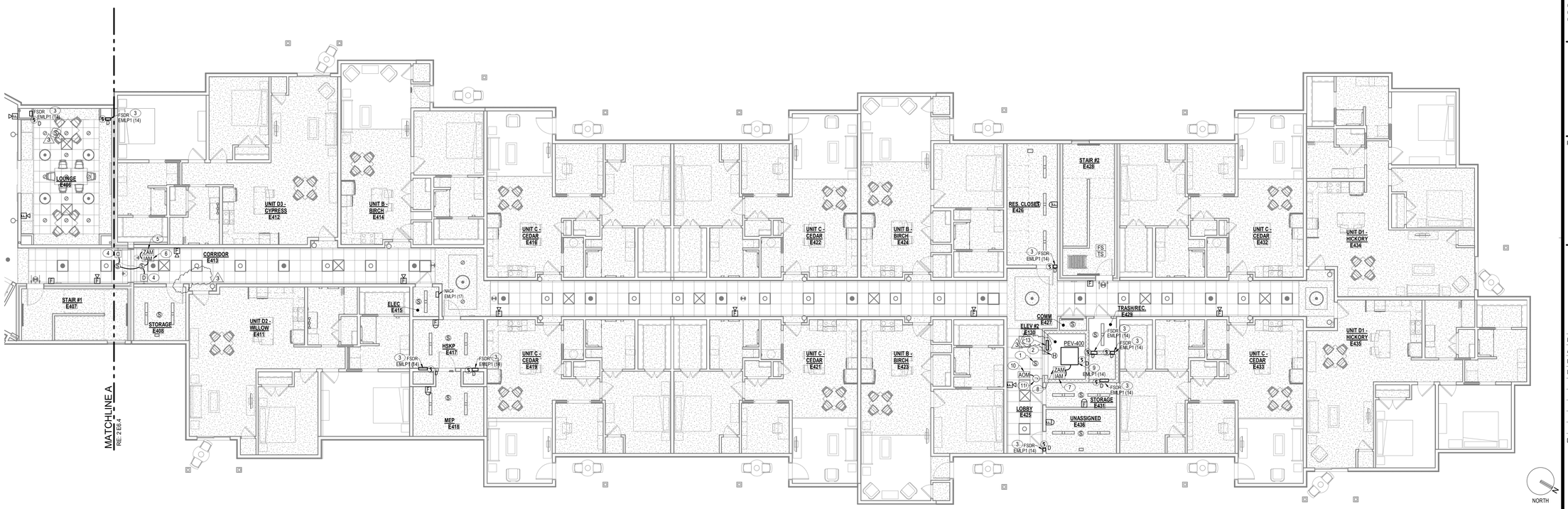
DATE: January 5, 2024 DRAWING E6.3

COMM. NO. 23104.00

NOTE:
DETECTION OF SMOKE BY ANY SMOKE DETECTORS IN THE ATRIUM SHALL INITIATE SIGNAL TO THE ATRIUM SMOKE EVACUATION CONTROL PANEL.

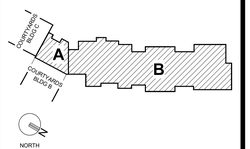


2 FOURTH FLOOR ATRIUM - FIRE ALARM
E6.4 1/8" = 1'-0"



1 FOURTH FLOOR IL UNITS - FIRE ALARM
E6.4 1/8" = 1'-0"

KEYPLAN



GENERAL NOTES

A. REFER TO SHEET E6.1 FOR FIRE ALARM GENERAL NOTES.

PLAN NOTES

1. SMOKE DETECTOR SHALL BE INTERLOCKED WITH ELEVATOR CONTROLLER AS REQUIRED FOR ELEVATOR RECALL PER NFPA 72 GUIDELINES. CONNECT TO ELEVATOR SMOKE CURTAIN (WHERE APPLICABLE) FOR DEPLOYMENT UPON SMOKE DETECTOR ACTIVATION.
2. HEAT DETECTOR SHALL BE MOUNTED AT TOP OF ELEVATOR SHAFT. LOCATE DETECTORS PER NFPA 72 GUIDELINES. HEAT DETECTOR SHALL BE INTERLOCKED WITH SHUNT TRIP OPERATOR OF ELEVATOR CONTROLLER POWER DISCONNECT.
3. LOCATION OF FIRE SMOKE DAMPER WITH 120VAC CONNECTION AND DUCT SMOKE DETECTOR. COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT LOCATION OF FIRE/ SMOKE DAMPERS. REFER TO DETAILS ON DRAWING E0.022 FOR ADDITIONAL INFORMATION.
4. DOOR HOLDER SHALL RELEASE UPON ACTIVATION OF FIRE ALARM SYSTEM. PROVIDE LIFE SAFETY BRANCH CIRCUIT CONNECTION FOR MAGNETIC DOOR HOLDER. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
5. PROVIDE AND INSTALL AN ADDRESSABLE RELAY MODULE AND INTERFACE MAGNETIC DOOR HOLDER OPERATION WITH THE FIRE ALARM SYSTEM. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
6. PROVIDE AND INSTALL AN ADDRESSABLE INPUT MODULE TO SEND DOOR STATUS TO THE FIRE ALARM SYSTEM. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
7. PROVIDE AND INSTALL AN ADDRESSABLE INPUT MODULE TO SEND GREENHECK PEV-400 PENTHOUSE ELEVATOR VENT STATUS TO THE FIRE ALARM SYSTEM.
8. PROVIDE AND INSTALL AN ADDRESSABLE RELAY MODULE AND INTERFACE GREENHECK PEV-400 PENTHOUSE ELEVATOR VENT OPERATION WITH THE FIRE ALARM SYSTEM.
9. LOCATION OF GREENHECK PEV-400 PENTHOUSE ELEVATOR VENT TOP OF ELEVATOR SHAFT. SMOKE DAMPER AND SMOKE DETECTOR IS ALL CONTAINED WITHIN VENTILATOR FROM GREENHECK. PROVIDE 120VAC CONNECTION TO HONEYWELL MODEL #MS4120F1006 DAMPER ACTUATOR AND COORDINATE WITH MECHANICAL DRAWINGS.
10. OUTPUT MODULE FOR INTERFACE TO SMOKE CURTAIN AT ELEVATOR DOOR.
11. 120V CONNECTION TO ELEVATOR SMOKE CURTAIN REWIND MOTOR. PROVIDE ALARM CIRCUIT FROM N.O. AUXILIARY CONTACT OF SMOKE DETECTOR FOR CONNECTION TO AND ACTIVATION BY FIRE ALARM SYSTEM.
12. DUCT MOUNTED SMOKE DETECTOR INSTALLED ON RTU-3 RETURN AIR DUCT IN SHAFT. PROVIDE ACCESS DOOR IN SHAFT.
13. AT ELEVATOR CONTROLLER, PROVIDE FOR MONITORING OF ELEVATOR POWER DISCONNECT SHUNT TRIP CIRCUIT AND SHUNT TRIP ACTIVATION. REFER TO ELEVATOR WIRING DETAIL. 3

CONSTRUCTION SET

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

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ARCHITECT	: DAS	CHECKED	: MAW
ENGINEER	: MAW	APPROVED	: JSK

NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/15/24
3	Addendum #1	03/07/24

DRAWING TITLE

FOURTH FLOOR PLAN - FIRE ALARM

DATE: January 5, 2024

COMM. NO. 23104.00

DRAWING E6.4

SYSTEM SEQUENCE OF OPERATIONS

	SYSTEM INPUTS	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	REMARKS
1	SMOKE SENSOR/DETECTOR	•	•					•	•	•		•	•											•		•	•	•								1
2	SMOKE/HEAT SENSOR W/ SOUNDER BASE			•	•			•				•		•																						2
3	MANUAL PULL STATION	•	•					•	•	•		•	•														•									3
4	HEAT SENSOR/DETECTOR	•	•					•	•	•		•	•														•									4
5	MAIN FLR. ELEV. LOBBY SMOKE DETECTOR	•	•					•	•	•		•	•					•		•				•		•	•	•								5
6	ELEVATOR LOBBY SMOKE DETECTORS (EXC. MAIN FLR)	•	•					•	•	•		•	•					•		•				•		•	•	•								6
7	ELEVATOR MECH. ROOM HEAT DETECTOR	•	•					•	•	•		•	•										•				•									7
8	ELEVATOR MECH. ROOM SMOKE DETECTOR	•	•					•	•	•		•	•							•		•		•		•	•	•								8
9	ELEVATOR SHAFT HEAT DETECTOR	•	•					•	•	•		•	•										•				•									9
10	ELEVATOR SHAFT SMOKE DETECTOR	•	•					•	•	•		•	•							•		•		•		•	•	•								10
11	ELEVATOR POWER MONITOR			•	•			•				•		•													•									11
12	WATERFLOW SWITCH	•	•					•	•	•		•	•											•												12
13	TAMPER SWITCH			•	•			•				•		•																						13
14	FIRE ALARM AC POWER FAILURE					•	•					•			•			•						•												14
15	OPEN CIRCUIT OR GROUND FAULT					•	•					•			•																					15
16	FIRE ALARM SYSTEM LOW BATTERY					•	•					•			•																					16
17	CLASS B NOTIFICATION CIRCUIT (NAC) - SHORT					•	•					•			•																					17
18	DUCT SENSOR/DETECTOR			•	•			•				•		•													•	•	•							18
19	MAINTENANCE SWITCH					•	•					•			•																					19
20	SMOKE DETECTORS IN ATRIUM	•	•					•	•	•		•																	•	•	•	•				20 ★
21																																				21
22																																				22
23																																				23
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27																																				27
28																																				28
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ

SYSTEM OUTPUTS (CTRL UNIT ANNUNCIATION / NOTIFICATION / FIRE SAFETY CONTROL):
A. CT/ATC COMMON ALARM SIGNAL INDICATOR
B. CT/ATC AUDIBLE ALARM SIGNAL INDICATOR
C. CT/ATC COMMON SUPERVISORY SIGNAL INDICATOR
D. CT/ATC AUDIBLE SUPERVISORY SIGNAL INDICATOR
E. CT/ATC COMMON TROUBLE SIGNAL INDICATOR
F. CT/ATC AUDIBLE TROUBLE SIGNAL INDICATOR
G. ACTUATE APPROPRIATE LOCATION INDICATOR
H. ACTUATE AUDIBLE EVACUATION SIGNALS
I. ACTUATE VISIBLE EVACUATION SIGNALS
J. DISPLAY CHANGE OF STATUS
K. TRANSMIT ALARM SIGNAL TO SUPERVISING STATION
L. TRANSMIT SUPV. SIGNAL TO SUPERVISING STATION
M. TRANSMIT TROUBLE SIGNAL TO SUPERVISING STATION
N. RELEASE ELEVATOR FIRE DOORS
O. MAIN FLOOR ELEVATOR RECALL
P. ALTERNATE FLOOR ELEVATOR RECALL
Q. ELEVATOR SHUNT TRIP
R. RELEASE MAGNETICALLY HELD SMOKE DOORS
S. FAN SHUT DOWN
T. DAMPER SHUT DOWN
U. DAMPER OPEN
V. REMOTE ANNUNCIATOR ALARM STATUS
W. CONTROL PANEL ALARM SIGNAL TO SMOKE EVACUATION
X. RELEASE DOORS AT ATRIUM
Y. TRANSMIT OPEN SIGNAL TO VESTIBULE AND VERTICAL DOORS
Z. AA. AB. AC. AD. AE. AF. AG. AH. AI. AJ.

★ UPON RECEIPT OF SYSTEM OFF INPUT FROM SMOKE EVACUATION PANEL, CLOSE DOORS AND RE-ENGAGE MAGNETIC HOLD DOORS (3)

FIRE ALARM SYSTEM RISER LEGEND:

- (F) FIRE ALARM SPEAKER/ STROBE (VISUAL OUTPUT @ 110 CANDELAS)
- (F) FIRE ALARM HORN/ STROBE (VISUAL OUTPUT @ 110 CANDELAS)
- (F) MANUAL FIRE ALARM DUAL-ACTION PULL STATION. MOUNT TOP OF PULL STATION @ 48" A.F.F.
- (F) WALL MOUNTED FIRE ALARM STROBE LIGHT. MOUNT @ 80" A.F.F. OR 6" BELOW CEILING. 'C' DENOTES CEILING MOUNTED
- (H) CEILING MOUNTED FIRE ALARM HEAT DETECTOR
- (S) CEILING MOUNTED FIRE ALARM SMOKE DETECTOR SB = SOUNDER BASE D = DUCT TYPE
- ICP FOUR (4) CIRCUIT FIRE ALARM INDICATING CIRCUIT POWER EXTENDER.
- IM SIGNALING LINE CIRCUIT ISOLATION MODULE.
- AOM ADDRESSABLE OUTPUT MODULE.
- IAM INDIVIDUAL ADDRESSABLE MONITOR MODULE.
- TS FIRE ALARM TAMPER SWITCH
- FS FIRE ALARM FLOW SWITCH
- PIV FIRE ALARM POST INDICATING VALVE
- FACP FIRE ALARM CONTROL PANEL
- FAA FIRE ALARM REMOTE ANNUNCIATOR
- NAC NOTIFICATION APPLIANCE CIRCUIT PANEL
- FIRE FIGHTER PHONE JACK

ATRIUM SMOKE EVACUATION SYSTEM INTERFACE:

PROVIDE SYSTEM INPUT AND OUTPUT MODULES TO INTERFACE THE FIRE ALARM SYSTEM AND DEVICES TO THE OPERATION OF THE SMOKE EVACUATION SYSTEM AS FOLLOWS:

- SEND AUTOMATIC SYSTEM INITIATION SIGNAL UPON DETECTION OF SMOKE BY ANY DETECTOR IN THE ATRIUM.
- INTERFACE TO SYSTEM OFF SIGNAL, WHICH WILL OVERRIDE SMOKE DETECTION SIGNAL.
- MANUAL ON SIGNAL FROM CONTROL PANEL SHALL INITIATE ALL OUTPUTS SIMILAR TO ATRIUM SMOKE DETECTOR.
- EXTEND WIRING IN EMT TO CONTROL PANEL. TERMINATION OF WIRING AT PANEL BY M.C.

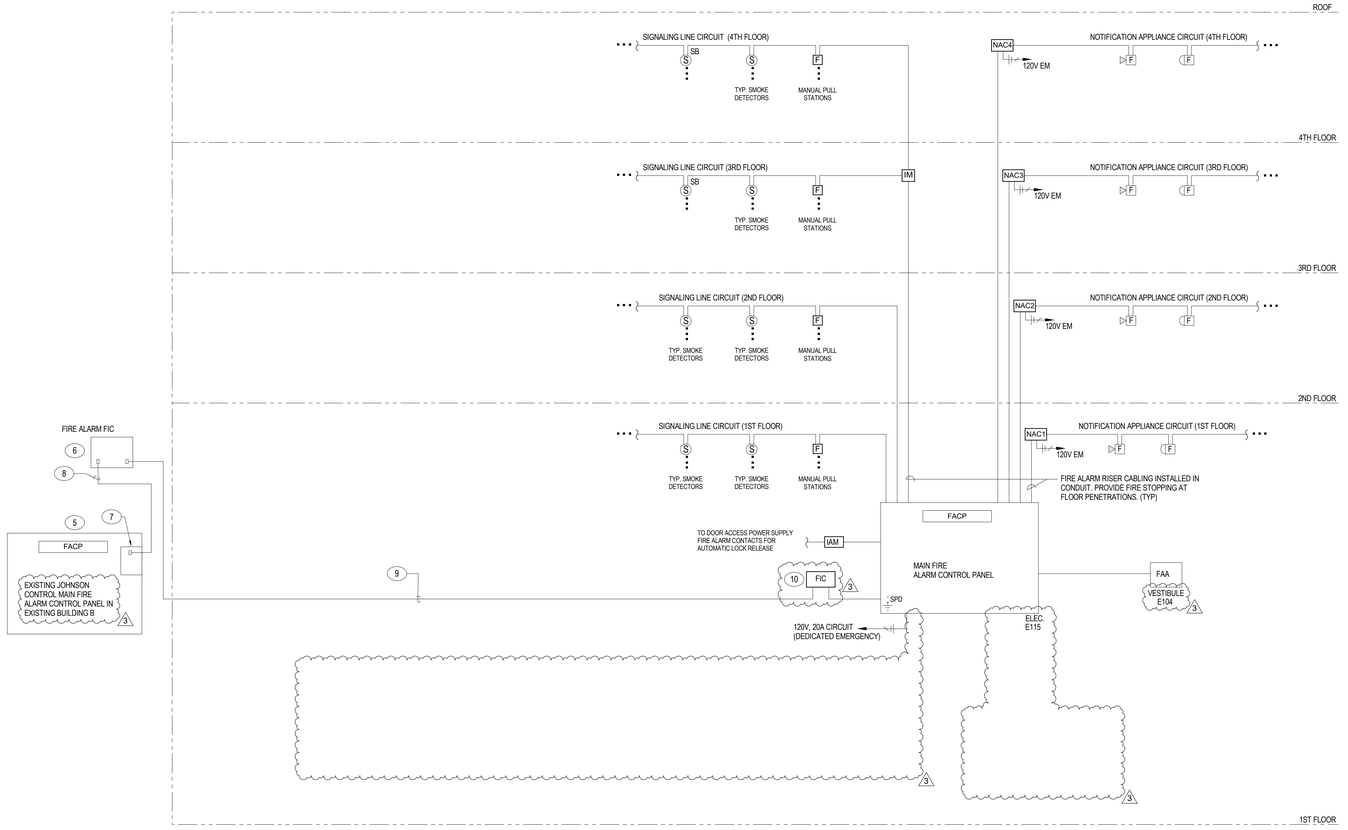
(3)

FIRE ALARM KEYED NOTES:

1. COORDINATE WITH DRAWINGS/ SPRINKLER CONTRACTOR FOR ACTUAL NUMBER OF TAMPER AND FLOW SWITCHES REQUIRED TO BE MONITORED ON THE FIRE SUPPRESSION RISER AND THE SUPPRESSION ZONES ON EACH FLOOR.
2. EXTEND TO ELEVATOR CONTROLLER FOR FIREMAN RECALL. TYPICAL FOR ALL ELEVATOR LOBBY SMOKE DETECTORS.
3. TO STAIR PRESSURIZATION FAN FIRE ALARM CONTACTS FOR AUTOMATIC ACTIVATION OF FANS THROUGH FIRE SYSTEM (TYPICAL)
4. TO STAIRWELL PRESSURIZATION FAN CONTROL PANEL(S).
5. EXISTING JOHNSON CONTROL FIRE ALARM CONTROL PANEL. SHALL BE MODIFIED TO ACCEPT ANNUNCIATION FROM NEW LINDBERGH BUILDING SYSTEM.
6. FIBER OPTIC TERMINATION CABINET IN EXISTING COMMUNICATIONS ROOM. PATCH NEW FIBER OPTIC CABLE TO EXISTING FIRE ALARM SYSTEM FIBER OPTIC NETWORK.
7. EXISTING FIBER OPTIC COMMUNICATIONS CARD IN JOHNSON CONTROLS PANEL.
8. CONNECT NEW FIBER OPTIC CABLES TO EXISTING FIBER OPTIC FIRE ALARM NETWORK IN ORDER TO MAINTAIN REDUNDANT LOOP NETWORK (3)
9. FIBER OPTIC COMMUNICATION CABLING IN 2" CONDUIT. 6 STRAND MULTIMODE CABLE OR AS PER FIRE ALARM MANUFACTURER. EXTEND TO EXISTING TWR BLDG NETWORK PANEL.
10. 12 STRAND, MULTIMODE, WALL MOUNT, SPLICE ENCLOSURE. (3)

FIRE ALARM SYSTEM GENERAL NOTES:

1. PROVIDE AN INTELLIGENT ADDRESSABLE FIRE ALARM SYSTEM FOR THE FACILITY. THIS NEW FIRE ALARM SYSTEM SHALL BE CAPABLE OF MONITORING THE INCOMING FIRE SUPPRESSION RISER, MANUAL PULL STATIONS, ALL CEILING MOUNTED AUTOMATIC SMOKE AND HEAT DETECTORS AND ALL DUCT-MOUNTED AUTOMATIC SMOKE DETECTORS.
2. PROVIDE ADDRESSABLE NOTIFICATION APPLIANCES WITH THIS SYSTEM. AUDIBLE NOTIFICATION APPLIANCES ARE TO UTILIZE A SETTING AT A MINIMUM OF 87dB. VISUAL NOTIFICATION APPLIANCES SHALL BE CAPABLE OF MULTIPLE CANDELA SETTINGS UP TO 110 CANDELAS.
3. FOR EACH FIRE/SMOKE DAMPER IN DUCTWORK, PROVIDE A DUCT-MOUNTED SMOKE DETECTOR IN THE DUCTWORK TO MONITOR THE DUCT OPENING IN THE SMOKE/FIRE RATED PARTITION. THESE DETECTORS ARE TO BE PROVIDED WITH AN AUXILIARY, 24V, NORMALLY-CLOSED, RELAY WHICH HOLDS THE DAMPER OPEN. THIS RELAY IS TO KEEP THE DAMPER OPEN UNDER NORMAL CONDITIONS. THIS RELAY IS TO BE WIRED SO THAT IT OPENS, THUS ALLOWING THE DAMPER TO CLOSE, IN THE EVENT OF AN ALARM OR LOSS OF POWER CONDITION. IN ADDITION TO THE RELAY, PROVIDE A 120V-24V CONTROL TRANSFORMER, FOR EACH DAMPER, AND CONNECT TO CLOSEST 120V RECEPTACLE CIRCUIT. THESE DETECTORS ARE TO BE SUPPLIED AND CONNECTED TO THE EXISTING FIRE ALARM SYSTEM, AND INSTALLED, BY THE ELECTRICAL CONTRACTOR.
4. FIRE ALARM MANUAL STATIONS SHALL BE DOUBLE-ACTION TYPE, POSITIVE VISUAL INDICATION OF OPERATION, KEY RESET AND ALL SHOULD BE KEYED ALIKE.
5. AVOID PLACEMENT OF HEAT DETECTORS CLOSE TO HEAT-PRODUCING EQUIPMENT WHERE RATE-OF-RISE WILL DEGRADE DETECTOR PERFORMANCE OR PRODUCE NUISANCE ALARMS. USE DEVICES CAPABLE FIXED TEMPERATURE (165°F TO 190°F) DETECTION IN SUCH AREAS.
6. ALL ANNUNCIATOR LEGEND WORDING AND/OR ALPHANUMERIC DISPLAY LEGENDS SHALL BE APPROVED BY THE ENGINEER, OWNER AND/OR LOCAL FIRE DEPARTMENT AUTHORITY, AS APPLICABLE. SUBMIT THIS INFORMATION WITH SHOP DRAWING SUBMITTALS.
7. THE SENSITIVITY OF SMOKE DETECTORS SHALL BE ADJUSTED FOR THE SERVICE DUTY IN THE AREA INDICATED, TO SUIT BUILDING OPERATIONAL CONDITIONS.
8. WIRE SIZE SELECTIONS FOR AUDIO/VISUAL UNITS SHALL BE CALCULATED AND SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
9. RISER DIAGRAM FOR FIRE ALARM SYSTEM IS DIAGRAMMATIC AND FOR BID PURPOSES ONLY. SYSTEM SHALL BE INSTALLED AND CONNECTED IN ACCORDANCE WITH WIRING DIAGRAMS OBTAINED FROM THE MANUFACTURER AND THAT HAVE BEEN APPROVED BY THE STATE FIRE MARSHALL'S OFFICE OR THE LOCAL AUTHORITY HAVING JURISDICTION, AS APPLICABLE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM ALL QUANTITIES AND LOCATION OF FIRE ALARM DEVICES PRIOR TO SYSTEM INSTALLATION.
10. AUTOMATIC FIRE ALARM DETECTORS SHALL BE LOCATED SO AS TO PREVENT SHIELDING BY DUCTWORK, EQUIPMENT AND PIPING ON CEILING. SPACING BETWEEN DETECTORS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS IN ANY CASE. ADDITIONAL DETECTORS SHALL BE PROVIDED IF NEEDED TO INSURE COMPLETE COVERAGE OF THE INDICATED SPACE.
11. PER NFPA 72, 18.5.4.4.5 - VISIBLE APPLIANCES SHALL BE NO MORE THAN 15 FT. FROM THE END OF THE CORRIDOR WITH A SEPARATION NO GREATER THAN 100 FT. BETWEEN APPLIANCES. ANY INTERRUPTION OF THE CONCENTRATED VIEWING PATH SUCH AS FIRE DOORS OR ELEVATION CHANGE, THE AREA SHALL BE CONSIDERED AS A SEPARATE CORRIDOR. CORRIDORS WHERE MORE THAN TWO VISIBLE NOTIFICATION APPLIANCES ARE IN ANY FIELD OF VIEW, THEY SHALL FLASH IN SYNCHRONIZATION.
12. MOUNT ALL VISUAL UNITS AT NOT LESS THAN 80" AND NOT GREATER THAN 96" ABOVE FINISHED FLOOR.
13. MOUNT ALL MANUAL PULL STATIONS WITHIN 5' OF DOORWAYS AND BETWEEN 42" AND 48" TO CENTER OF DEVICE ABOVE FINISHED FLOOR. MEASUREMENT TO BE VERTICAL.
14. ALL WIRING SHALL BE IN ACCORDANCE WITH NFPA 70 (NATIONAL ELECTRIC CODE) ARTICLE 760 AND WITH NFPA 72.
15. CONTRACTOR SHALL CHECK ALL RUNS OF CABLE FOR SHORTS OR GROUND, FOR OPEN WIRING AND SHALL INSTALL AND CHECK FOR ALL RESISTORS TO BE IN PLACE.
16. CONTRACTOR SHALL PROTECT SMOKE DETECTORS FROM THE ENTRANCE OF DUST OR DIRT DURING CONSTRUCTION.
17. PER NFPA, DETECTORS SHOULD NOT BE LOCATED IN A DIRECT AIR-FLOW AND NO CLOSER THAN 3 FT. (900MM) FROM AN AIR SUPPLY DIFFUSER OR RETURN OPENING.
18. AREA SMOKE DETECTORS IN DWELLING UNITS SHALL BE SUCH THAT ACTIVATION OF SMOKE DETECTOR SHALL ANNUNCIATE AS A SUPERVISORY ALARM AND NOT INITIATE A FIRE ALARM ACTIVATION.
19. ALL FIRE ALARM RISER CABLING, SMOKE EVACUATION CABLING AND STAIRWELL PRESSURIZATION CABLING SHALL BE INSTALLED IN CONTINUOUS RACEWAY.



GENERAL NOTES

CONSTRUCTION SET

STATE OF MISSOURI — JAMES S. MOWEN — NUMBER E-25237 — PROFESSIONAL ENGINEER — 3/5/2024

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

SFCS Architecture Engineering Planning Interiors

SFCS Inc. ▪ 305 South Jefferson Street
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DESIGNER	: DAS	DRAWN	: MAW, DKW
ARCHITECT	: DAS	CHECKED	: MAW
ENGINEER	: MAW	APPROVED	: JSK

NO.	REVISION DESCRIPTION	DATE
3	Addendum #1	03/07/24

DRAWING TITLE

FIRE ALARM RISER

DATE: January 5, 2024

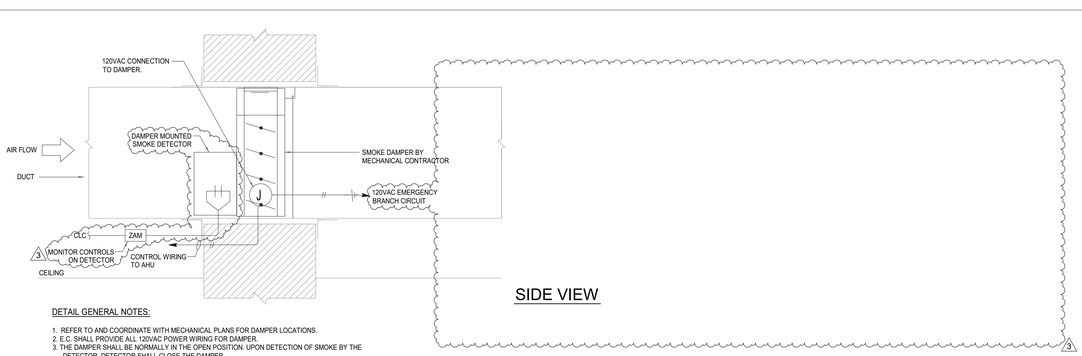
COMM. NO. 23104.00

DRAWING E6.5

FIRE ALARM SYSTEM RISER DIAGRAM

NO SCALE | 1

GENERAL NOTES

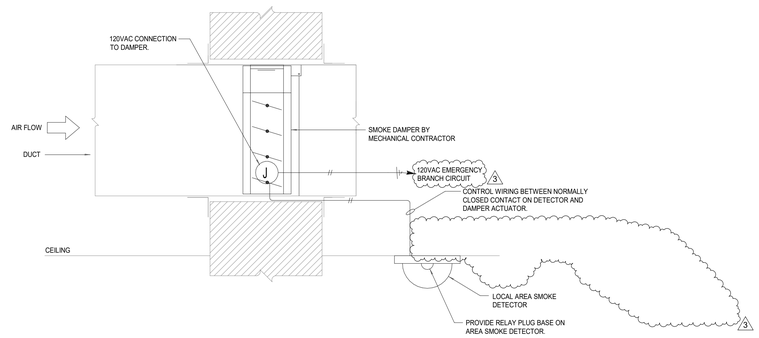


DETAIL GENERAL NOTES:

1. REFER TO AND COORDINATE WITH MECHANICAL PLANS FOR DAMPER LOCATIONS.
2. E.C. SHALL PROVIDE ALL 120VAC POWER WIRING FOR DAMPER.
3. THE DAMPER SHALL BE NORMALLY IN THE OPEN POSITION. UPON DETECTION OF SMOKE BY THE DETECTOR, DETECTOR SHALL CLOSE THE DAMPER.
4. CONTRACTOR MAY ADJUST LOCATION OF SPACE DETECTOR PROVIDED FOR ON ELECTRICAL DRAWINGS TO SERVE PURPOSE OF DAMPER DETECTOR REQUIREMENT.

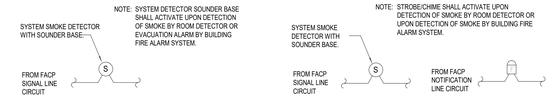
5 / E4.2 SMOKE DAMPER CONNECTION DETAIL - DAMPER MOUNTED SMOKE DETECTORS (FSDR)

NTS.



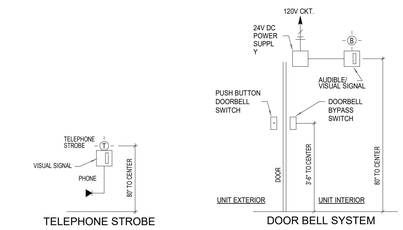
4 / E4.2 SMOKE DAMPER CONNECTION DETAIL - AREA MOUNTED SMOKE DETECTORS

NTS.



3 / E6.6 TYPICAL DWELLING UNIT FIRE ALARM DETAIL

12" = 1'-0"

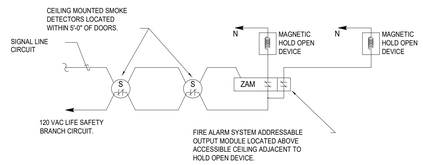


NOTES:

A. REFER TO ARCHITECTURAL PLANS FOR NUMBER AND LOCATION OF HANDICAP ACCESSIBLE UNITS.
B. TELEPHONE STROBE SYSTEM FOR HANDICAP ACCESSIBLE UNITS ONLY.
C. DOORBELL AUDIBLE/VISUAL STROBE SYSTEM FOR HANDICAP ACCESSIBLE UNITS ONLY. DOORBELL AUDIBLE ONLY FOR ALL NON-HANDICAP ACCESSIBLE UNITS.
D. ALL CABLING BY E.C. VERIFY EXACT REQUIREMENTS WITH MANUFACTURER.
E. DOORBELL BYPASS SWITCH SHALL BE LOCATED IN THE VICINITY OF THE LIGHT SWITCHES AT DWELLING UNIT ENTRY AND SHALL BE LABELED AS SUCH.

2 / E6.6 DWELLING UNIT - PHONE STROBE AND DOORBELL SYSTEM DIAGRAM

12" = 1'-0"



MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM

NO SCALE

1

CONSTRUCTION SET

STATE OF MISSOURI — JAMES S. ANDREW — NUMBER E-25237 — PROFESSIONAL ENGINEER — 1/5/2024

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

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NO.	REVISION DESCRIPTION	DATE
3	Addendum #1	03/07/24

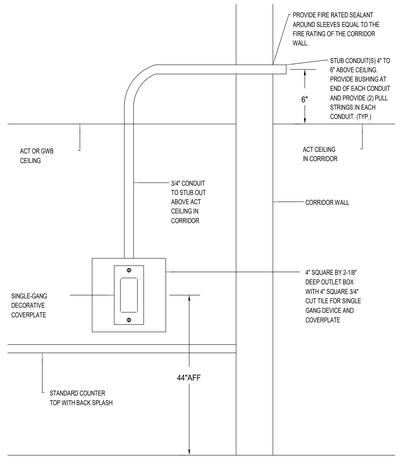
DRAWING TITLE

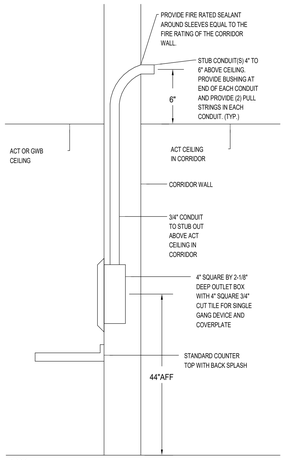
FIRE ALARM DETAILS

DATE: January 5, 2024

COMM. NO. 23104.00

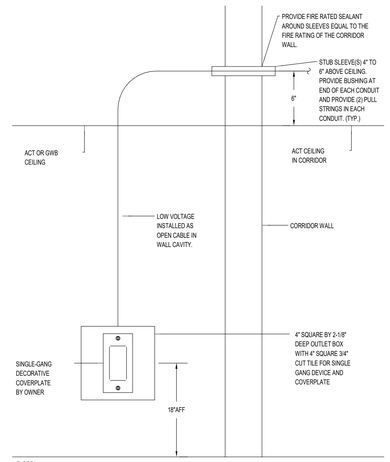
DRAWING E6.6

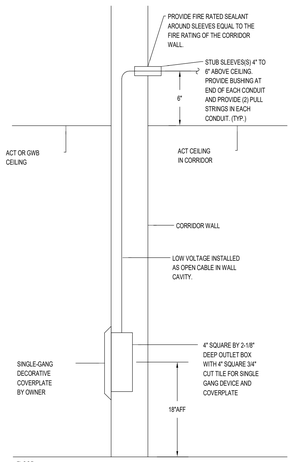




VOICE & DATA DIAGRAMS (COUNTER TOP HEIGHT)

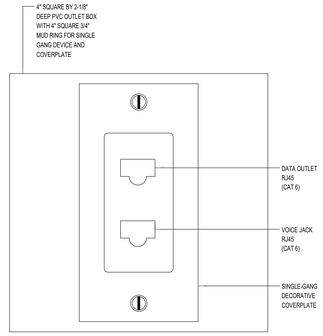
NO SCALE | 5





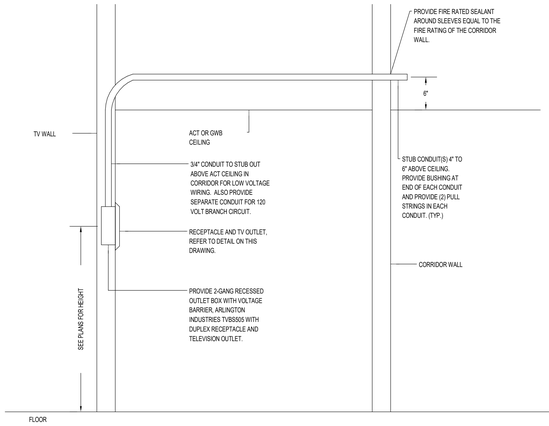
VOICE & DATA DIAGRAMS (STANDARD MOUNTING HEIGHT)

NO SCALE | 4



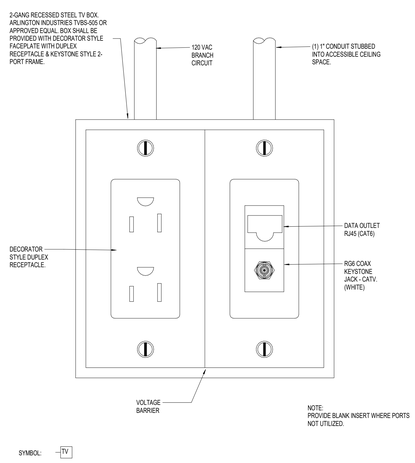
VOICE & DATA OUTLET DETAIL

NO SCALE | 2



TV OUTLET DIAGRAM

NO SCALE | 3



TYP. COMBINATION TV OUTLET DETAIL

NO SCALE | 1

LOW VOLTAGE SYSTEMS WORKSCOPE NARRATIVE

GENERAL

THE OWNER'S INTENT IS TO CONTRACT THROUGH THE GENERAL CONSTRUCTION CONTRACT WITH VENDORS/CONTRACTORS TO SUPPLY ALL LOW VOLTAGE SYSTEMS AS DESCRIBED IN PARAGRAPHS BELOW. RESPECTIVE CONTRACTORS SHALL PROVIDE AND INSTALL ALL CABLING, COMPONENTS AND HARDWARE AS PART OF THE WORK SCOPE, AS DESCRIBED ON DRAWINGS AND IN SPECIFICATIONS.

ALL LOW VOLTAGE CABLING SHALL BE INSTALLED AS AN OPEN CABLE SYSTEM IN THE ACCESSIBLE CEILING SPACE. LOW VOLTAGE CABLING SHALL BE INSTALLED IN CONDUIT IN INACCESSIBLE CEILING SPACES (HARD CEILINGS). PROVIDE OUTLET BOXES AND CONDUIT STUB UPS FOR ROUTING CABLES CONCEALED IN WALLS BETWEEN THE OUTLET LOCATIONS AND THE ACCESSIBLE CEILING SPACE. PROVIDE NEW SUPPORT STRUCTURE, SLEEVES AND FIRESTOPPING AS REQUIRED FOR ALL NEW CABLING INSTALLED IN THE ACCESSIBLE CEILING SPACE. CABLING SHALL BE PLENUM RATED.

THE WALL MOUNTED RACK OR WALL MOUNTED EQUIPMENT FOR THE NEW ADDITION IS LOCATED ON EACH LEVEL IN THE "COMM" ROOMS. VOICE, DATA, SECURITY HORIZONTAL CABLES INSTALLED, FOR COMMON SPACES, WITHIN THE NEW BUILDING SHALL BE EXTENDED TO THE FIRST FLOOR TELE "COMM" ROOM AND TERMINATED THERE ON A PATCH PANEL. A FIBER OPTIC BACKBONE CABLE SHALL BE EXTENDED FROM THIS FIRST FLOOR COMM ROOM "MDF" BACK TO THE "B" BUILDING EXISTING TELECOM ROOM FOR INTERCONNECTION TO EXISTING SYSTEMS.

CONTRACTOR SHALL TEST ALL LABEL, TERMINATE AND TEST CABLES TO CONFIRM PROPER PERFORMANCE.

ALL COMMUNICATIONS OUTLETS, HORIZONTAL CABLES AND TERMINATION HARDWARE SHALL BE LABELED PER THE DESIGNED LABELING SCHEME DETAIL

DATA/VOICE - VOIP

OUTLETS SHALL BE PROVIDED WITH TWO PORTS, IN COMMONS AREA AND IN RESIDENTIAL A COMBINATION TWO PORT FOR DATA/VOICE OR SINGLE PORT FOR VOICE OR DATA. THE HORIZONTAL CABLE SHALL EXTEND AND TERMINATE ON PATCH PANEL FOR COMMON AREAS LOCATIONS. RESIDENT UNIT CABLING WILL TERMINATE IN STRUCTURED MEDIA CABINET (SMC) WITHIN UNIT. PROVIDE AND INSTALL PATCH PANELS OF SUFFICIENT CAPACITY TO TERMINATE ALL NEW DATA NETWORK OUTLETS AND ALLOW FOR 25% SPARE PORTS. CONTRACTOR SHALL PROVIDE PUNCHDOWN BLOCKS, RACK, PATCH PANELS, CABLE MANAGEMENT, LABELING PRODUCTS, ETC.

VOICE (ANALOG)

FOR ANALOG VOICE LINES FOR ANY FAX LOCATIONS, FIRE ALARM SYSTEM & ELEVATOR CONTRACTOR SHALL PROVIDE AND INSTALL JACK IN SINGLE GANG OUTLET BOX. EXTEND HORIZONTAL CABLE TO TYPE 110 BLOCK TERMINAL BOARD. REFER TO RISER FOR ADDITIONAL INFORMATION.

CATV SYSTEM - RESIDENT

FOR ALL OUTLET LOCATIONS WITHIN RESIDENT UNITS, CONTRACTOR SHALL PROVIDE AND INSTALL CATV OUTLETS OF TYPE AND NUMBER AS SHOWN ON THE DRAWINGS. INSTALL OUTLET BOXES, FACEPLATES, JACKS AND RG6 COAX CABLE AND CAT6 CABLING. EXTEND CATE CABLING AND COAX CABLING BACK TO SMC AND TERMINATE AT DATA MODULE. COIL COAX WITHIN SMC FOR SERVICE PROVIDER TERMINATION AT CATV SPLITTER.

WIRELESS EMERGENCY CALL SYSTEM

ALL SARA COMPONENTS SHALL BE PROVIDED BY JKV SARA SYSTEM VENDOR. CONTRACTOR SHALL PROVIDE 120V POWER FOR THE SYSTEM TRANCEIVERS (REPEATERS). REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

ACCESS CONTROL SYSTEM

DOORS DESIGNATED WITH AN "A" ON DOOR TAG NUMBER WILL BE PART OF THE NEW ACCESS CONTROL SYSTEM. THE SYSTEM SHALL BE COMPATIBLE WITH THE EXISTING DSX ACCESS CONTROL SYSTEM CURRENTLY IN EXISTING CAMPUS BUILDINGS. REFER TO DOOR ELEVATION DETAILS FOR ADDITIONAL INFORMATION FOR DEVICES AT EACH LOCATION. THE NEW SYSTEM SHALL BE INTEGRATED WITH THE EXISTING SECURITY SYSTEM SO THAT WHEN SECURITY DISPATCH RECEIVES COMMUNICATION THROUGH THE ALGO INTERCOM THEY ARE CAPABLE OF RESPONDING TO CALLERS NEEDS BY PHYSICALLY OR REMOTELY PERMITTING ENTRANCE INTO FACILITY. ALL DOOR SYSTEM ALARMS WILL BE ANNUCIATED AT THE SECURITY DISPATCH OFFICE.

INTERCOM

AT ENTRY LOCATIONS SHOWN ON PLANS A NEW INTERCOM STATION SHALL BE PROVIDED. THE INTERCOM SHALL BE AN IP BASED, AUDIO INTERCOM, ALGO 8028 OR EQUAL, WITH DOOR CONTROLLER. THE INTERCOM SHALL BE INTERFACED WITH THE SECURITY SYSTEM SO THAT THE OPERATION OF THE INTERCOM STATION AT ANY PARTICULAR DOOR WILL PROMPT THE LOCAL CAMERA TO DISPLAY AT THE SECURITY OFFICE. ONCE THE SECURITY CAMERA FOR THE RESPECTIVE DOOR HAS DISPLAYED AND THE INTERCOM COMMUNICATION HAS BEEN MADE WITH THE SITE SECURITY OFFICE, THE SECURITY OFFICER MAY PERMIT FACILITY ENTRANCE.

SECURITY SURVEILLANCE CAMERAS - CCTV

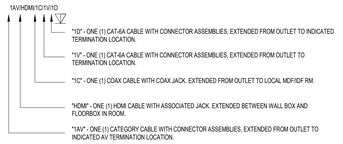
CONTRACTOR SHALL PROVIDE AND INSTALL ALL ROUGH-IN CONDUIT, BACKBOXES AND HORIZONTAL CAT6A CABLING TO THE NEW CAMERA LOCATIONS SHOWN ON DRAWINGS ONCE BUILDING FACILITIES (JKV) HAS REVIEWED LOCATIONS. CONTRACTOR SHALL INCLUDE IN THE SCOPE A COORDINATION MEETING AFTER THE STRUCTURE HAS BEEN ERECTED PRIOR TO BEGINNING ROUGH-IN. JKV WILL MAKE CHANGES TO ANY OF THE LOCATIONS AT THAT TIME. ALL NEW SECURITY CAMERAS WILL BE PROVIDED AND INSTALLED BY JKV.

LV WORKSCOPE GENERAL NOTES

1. OUTER JACKETS OF CATEGORY HORIZONTAL CABLES SHALL BE COLOR CODED FOR RESPECTIVE SYSTEMS:
   DATA: BLUE
   VOIP VOICE: BLUE
   FAX/ELEVATOR/ANALOG VOICE: WHITE
   SURVEILLANCE CAMERAS: YELLOW FOR INTERIOR, SHIELDED GREY FOR EXTERIOR
   WAP: BLUE
2. THE LOW VOLTAGE WORK SCOPE CONTRACTORS SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL OUTLET BOXES, RACEWAY, PATHWAYS AND SUPPORTS AS SPECIFICALLY INDICATED ON THESE DRAWINGS AND AS REQUIRED FOR COMPLETE INSTALLATION OF THE SYSTEMS.
3. CONTRACTOR SHALL PROPERLY SUPPORT LOW VOLTAGE CABLES BETWEEN OUTLET BOXES AND CABLE TRAY UTILIZING J-HOOK SUPPORTS AT A MAXIMUM OF 5FT. ON CENTER.
4. CONTRACTOR SHALL UTILIZE PLENUM RATED VELCRO STRAPS FOR CABLE BUNDLING. NO ZIP TIES ALLOWED. NO MORE THAN 24 CABLES SHALL BE BUNDLED TOGETHER. CABLING FOR DIFFERENT SYSTEMS SHALL BE BUNDLED SEPARATELY.
5. PARTS OF THE EXISTING BUILDING WILL BE OCCUPIED AND THE RENOVATION WORK MUST BE COMPLETED IN PHASES. COORDINATE WITH THE GENERAL CONTRACTOR FOR PROPER SEQUENCE OF THE WORK.
6. PROTECT ANY EXISTING CABLES AND COMPONENTS THAT MAY STILL BE IN USE DURING CONSTRUCTION. IF CABLING OR COMPONENTS ARE IN CONFLICT WITH NEW CONSTRUCTION OR IN NEED OF PROPER SUPPORT, NOTIFY GENERAL CONTRACTOR.
7. PROVIDE WALL TELEPHONE OUTLET 4'-0" AFF FOR THE ELEV CAB TELEPHONE. EXTEND (1) 3/4" EMPTY CONDUIT FROM THE OUTLET BOX TO ACCESSIBLE CEILING SPACE AND PROVIDE BUSHINGS AT EACH END. LOCATE OUTLET BOX AS DIRECTED BY THE ELEV EQUIP INSTALLER.

NOTES (LOW VOLTAGE SYMBOL LEGEND):

1. THESE ARE STANDARD SYMBOLS AND MAY NOT ALL APPEAR ON THE PROJECT DRAWINGS. HOWEVER, WHEREVER THIS SYMBOL APPEARS ON THE PROJECT DRAWINGS, THE ITEM SHALL BE FURNISHED AND INSTALLED.
2. UNLESS NOTED OTHERWISE, MOUNTING HEIGHTS ARE FROM FINISHED FLOOR TO CENTERLINE OF OUTLET AND SHALL MATCH THE HEIGHTS SHOWN ON THE ELECTRICAL SYSMBOLS LEGEND. SHOULD THEY DIFFER, WHERE THE MOUNTING HEIGHT INDICATED ON THE FLOOR PLAN IS DIFFERENT, THE PLAN TAKES FROM THE LEGEND PRECEDENT.
3. INSTALL RECEPTACLE AND VOICE/DATA OUTLET BOXES 6" APART (EDGE TO EDGE) WHERE SHOWN SIDE BY SIDE ON WALL, UNLESS INDICATED TO BE INSTALLED IN A MULTIGANG BOX WITH VOLTAGE BARRIER.
4. CONTRACTOR SHALL PROVIDE TELECOMMUNICATION CABLES TO ALL LOW VOLTAGE DEVICES INDICATED ON PLANS ACCORDING TO THE NOMENCLATURE BELOW OR AS INDICATED IN THE LEGEND NOTES. ALL COMBINATION VOICE/DATA OUTLETS SHALL RECEIVE ONE (1) CAT5A DATA CABLE AND ONE (1) CAT5A VOICE CABLE UNLESS NOTED OTHERWISE ON PLAN DRAWINGS.



LOW VOLTAGE SYMBOL LEGEND

(NOTE 1)

MTG. HGT. (NOTE 2)	SYMBOL (NOTE 3)	DESCRIPTION
1'-6" ABOVE COUNTER	1V R	TELEPHONE OUTLET, WALL. SINGLE GANG OUTLET BOX WITH 3/4" CONDUIT STUB INTO ACCESSIBLE CEILING SPACE. PROVIDE WITH ONE (1) CAT 6 RJ45 JACK. EXTEND CAT 6A VOICE CABLE TO NEAREST IDF LOCATION ON RESPECTIVE FLOOR. RESIDENT UNITS SHALL BE OPEN CABLING "W" = WALL TYPE TELEPHONE OUTLET MOUNTED 52" AFF AND PROVIDED WITH RECESSED STAINLESS STEEL WALL PHONE MOUNT FACEPLATE. "EL" = ELEVATOR EMERGENCY TELEPHONE. WALL TYPE TELEPHONE OUTLET MOUNTED 48" AFF AND PROVIDED WITH RECESSED STAINLESS STEEL WALL PHONE MOUNT FACEPLATE. "#V" - INDICATES CABLING SCOPE TYPE & QTY. REFER TO LOW VOLTAGE NOTES BELOW FOR ADDITIONAL INFORMATION. IF NO # INDICATED, PROVIDE (1) VOICE CABLE (1V) TO OUTLET LOCATION.
1'-6" ABOVE COUNTER	2D R	DATA OUTLET, WALL. SINGLE GANG OUTLET BOX WITH 1" CONDUIT STUB INTO ACCESSIBLE CEILING SPACE. PROVIDE WITH TWO (2) CAT 6 RJ45 JACK. EXTEND CAT 6A DATA CABLE TO NEAREST IDF LOCATION ON RESPECTIVE FLOOR. "#D" - INDICATES CABLING SCOPE TYPE & QTY. REFER TO LOW VOLTAGE NOTES BELOW FOR ADDITIONAL INFORMATION. IF NO # INDICATED, PROVIDE (2) DATA CABLE (2D) TO OUTLET LOCATION.
1'-6" ABOVE COUNTER	#V/#D R	COMBINATION VOICE/DATA OUTLET, WALL. TWO GANG OUTLET BOX WITH SINGLE GANG MUD RING AND 1-1/4" CONDUIT STUB INTO ACCESSIBLE CEILING SPACE. PROVIDE WITH TWO (2) CAT 6A RJ45 DATA JACK AND ONE (1) CAT 6A RJ45 VOICE JACK. EXTEND CABLES TO NEAREST IDF LOCATION ON RESPECTIVE FLOOR. "R" = EXTEND DATA AND VOICE CABLES TO DWELLING UNIT COMM. ENCLOSURE AND TERMINATE. CABLING SHALL BE RAN OPEN IN RESIDENT UNITS. (3) "#V/#D" - INDICATES CABLING SCOPE TYPE & QTY. REFER TO LOW VOLTAGE NOTES BELOW FOR ADDITIONAL INFORMATION. IF NO # INDICATED, PROVIDE (2) DATA (2D) AND (1) VOICE (1V) CABLES TO OUTLET LOCATION.
3'-10"	1V Ma	AREA OF RESCUE ASSISTANCE MASTER STATION, SUBSCRIPT INDICATES SYSTEM. SINGLE GANG OUTLET BOX WITH 3/4" CONDUIT STUB INTO ACCESSIBLE CEILING SPACE. PROVIDE WITH ONE (1) CAT 5e RJ11 JACK. EXTEND CAT 5e VOICE CABLE TO NEAREST IDF LOCATION ON RESPECTIVE FLOOR. "#V" - INDICATES CABLING SCOPE TYPE & QTY. REFER TO LOW VOLTAGE NOTES BELOW FOR ADDITIONAL INFORMATION. IF NO # INDICATED, PROVIDE (1) VOICE CABLE (1V) TO OUTLET LOCATION.
FLOOR	1V	PHONE OUTLET, FLOOR. REFER TO FLOOR PLANS FOR ADDITIONAL INFORMATION. "#V" - INDICATES CABLING SCOPE TYPE & QTY. REFER TO LOW VOLTAGE NOTES BELOW FOR ADDITIONAL INFORMATION. IF NO # INDICATED, PROVIDE (1) VOICE CABLE (1V) TO OUTLET LOCATION.
FLOOR	1D	DATA OUTLET, FLOOR. REFER TO FLOOR PLANS FOR ADDITIONAL INFORMATION. "#D" - INDICATES CABLING SCOPE TYPE & QTY. REFER TO LOW VOLTAGE NOTES BELOW FOR ADDITIONAL INFORMATION. IF NO # INDICATED, PROVIDE (1) DATA CABLE (1D) TO OUTLET LOCATION.
FLOOR	1V/1D	COMBINATION PHONE & DATA OUTLET, FLOOR. REFER TO FLOOR PLANS FOR ADDITIONAL INFORMATION. "#V/#D" - INDICATES CABLING SCOPE TYPE & QTY. REFER TO LOW VOLTAGE NOTES BELOW FOR ADDITIONAL INFORMATION. IF NO # INDICATED, PROVIDE (1) DATA (1D) AND (1) VOICE (1V) CABLES TO OUTLET LOCATION.
1'-6" UON	TV	WALL MOUNTED COMBINATION RECEPTACLE AND TV OUTLET WITH VOLTAGE BARRIER. PROVIDE WITH (1) 120V DUPLEX RECEPTACLE, (1) TYPE F COAX CONNECTOR WITH RG6 COAX CABLE AND (1) CAT6 CABLE WITH RJ45 JACK TO NEAREST IDF OR SMC. USE RG11 COAX CABLE FOR RUNS GREATER THAN 200FT. TYPICAL FOR DIGITAL SIGNAGE DISPLAY MONITOR ALSO. "R" = EXTEND RG6 COAX CATV CABLE TO DWELLING UNIT COMM. ENCLOSURE AND TERMINATE. "+##" = REFERS TO DIFFERENT ABOVE FLOOR MOUNTING HEIGHT. CONTRACTOR SHALL VERIFY EXACT MOUNTING LOCATION WITH ARCHITECT TO AVOID CONFLICT WITH WALL TV MOUNTS AND/OR CASEWORK.
CEILING	WAP 1D	LAN SYSTEM. WIRELESS ACCESS POINT (WAP) / FIELD MOUNTABLE CAT6A RJ45 PLUG SHALL BE UTILIZED FOR CONNECTION TO DEVICE. EXTEND ONE (1) CAT 6 HORIZONTAL CABLE TO NEAREST IDF LOCATION ON RESPECTIVE FLOOR. WAP DEVICE SHALL BE PROVIDED BY OWNER AND CONNECTED/INSTALLED BY CONTRACTOR. "#D" - INDICATES CABLING SCOPE TYPE & QTY. REFER TO LOW VOLTAGE NOTES BELOW FOR ADDITIONAL INFORMATION. IF NO # INDICATED, PROVIDE (1) DATA CABLE (1D) TO OUTLET LOCATION.
CEILING	C 1D EXT.	FIXED SECURITY CAMERA - INTERIOR MOUNT. INSTALL FLUSH MOUNT SINGLE GANG OUTLET BOX AND 3/4" CONDUIT TO ACCESSIBLE CEILING SPACE. COORDINATE EXACT MOUNTING REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN. CAMERA DEVICE SHALL BE PROVIDED BY OWNER AND CONNECTED/INSTALLED BY OWNER. (4) "#D" - INDICATES CABLING SCOPE TYPE & QTY. REFER TO LOW VOLTAGE NOTES BELOW FOR ADDITIONAL INFORMATION. IF NO # INDICATED, PROVIDE (1) DATA CABLE (1D) TO OUTLET LOCATION. "360" - INDICATES 360 DEGREE CAMERA TO BE CEILING MOUNTED. "EXT" - INDICATES EXTERIOR MOUNTED CAMERA. "AV" - FIXED AUDIO VISUAL SYSTEM CAMERA. REFER TO DETAILS FOR MORE INFORMATION.
WALL	C 1D EXT.	FIXED SECURITY CAMERA - INTERIOR MOUNT. INSTALL FLUSH MOUNT SINGLE GANG OUTLET BOX AND 3/4" CONDUIT, U.O.N., WITH CAT6A HORIZONTAL CABLING TO ACCESSIBLE CEILING SPACE. COORDINATE EXACT MOUNTING REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN. CAMERAS SHALL BE PROVIDED AND INSTALLED BY OWNER. "#D" - INDICATES CABLING SCOPE TYPE & QTY. REFER TO LOW VOLTAGE NOTES BELOW FOR ADDITIONAL INFORMATION. IF NO # INDICATED, PROVIDE (1) DATA CABLE (1D) TO OUTLET LOCATION. "180" - INDICATES 180 DEGREE CAMERA TO BE WALL MOUNTED. "EXT" - INDICATES EXTERIOR MOUNTED CAMERA. "AV" - FIXED AUDIO VISUAL SYSTEM CAMERA. REFER TO DETAILS FOR MORE INFORMATION.
3'-10"	I	INTERCOM SYSTEM CALL-IN STATION, WALL.
	I MS	INTERCOM SYSTEM MASTER STATION.
	A	DESIGNATED DOOR TO BE PROVIDED WITH ACCESS CONTROL. REFER TO DOOR ELEVATIONS FOR ADDITIONAL INFORMATION.
4'-0"	CR M	ACCESS CONTROL SYSTEM CARD READER. INSTALL WITH FLUSH MOUNT SINGLE GANG OUTLET BOX AND 1/2" C TO ACCESSIBLE CEILING SPACE. "M" - INDICATES MULLION MOUNTED CARD READER.
	DC	DOOR "AJAR" CONTACT. INSTALL 1/2" C IN DOOR FRAME TO ACCESSIBLE CEILING SPACE. COORDINATE EXACT REQUIREMENTS WITH OWNER'S ACCESS CONTROL VENDOR.
6'-0"	D	MAGNETIC DOOR HOLDER, WALL. "F" = FLUSH MOUNTED.
	D	MAGNETIC DOOR HOLDER, FLOOR.
	WG	DELAYED EGRESS ELOPEMENT CONTROL SYSTEM DOOR LOCATION. REFER TO DOOR ELEVATION DETAIL FOR ADDITIONAL INFORMATION.
6'-6"	DB	WIRELESS DOORBELL - WITH AUDIO VISUAL NOTIFIER, WALL MOUNT.
3'-6"	DB	PUSHBUTTON, WALL.
7'-6"	HPR	EMERGENCY CALL HIGH POWER REPEATER FOR SARA SYSTEM WIRELESS DEVICES. DEVICES SHALL BE PROVIDED AND INSTALLED BY OWNER OR OWNER'S SARA SYSTEM REPRESENTATIVE UNDER SEPARATE CONTRACT (NIC). CONTRACTOR SHALL COORDINATE HEIGHT AND FINAL LOCATIONS WITH OWNER/VENDOR PRIOR TO ROUGH-IN AND SHALL PROVIDE A 120V CIRCUIT FOR SYSTEM DEVICES.
(2)	N OR E	EMERGENCY CALL STATION FOR SARA SYSTEM.
	ARA	AREA OR RESCUE BASE STATION/CONTROL PANEL FOR TWO-WAY COMMUNICATIONS.
	ARC	AREA OR RESCUE CALL STATION FOR TWO-WAY COMMUNICATIONS - ALGO 8208 INTERCOM.

GENERAL NOTES

NOTES (LOW VOLTAGE SYMBOL LEGEND):

1. THESE ARE STANDARD SYMBOLS AND MAY NOT ALL APPEAR ON THE PROJECT DRAWINGS. HOWEVER, WHEREVER THIS SYMBOL APPEARS ON THE PROJECT DRAWINGS, THE ITEM SHALL BE FURNISHED AND INSTALLED.
2. UNLESS NOTED OTHERWISE, MOUNTING HEIGHTS ARE FROM FINISHED FLOOR TO CENTERLINE OF OUTLET. LOW VOLTAGE OUTLET BOX MOUNTING HEIGHTS SHALL MATCH THAT SHOWN ON THE ELECTRICAL SYMBOLS LEGEND PLAN. WHERE THE MOUNTING HEIGHT INDICATED ON FLOOR PLANS ARE DIFFERENT FROM THE LEGEND, THE PLAN TAKES PRECEDENT.
3. INSTALL RECEPTACLE AND VOICE/DATA OUTLET BOXES 6" APART (EDGE TO EDGE) WHERE SHOWN SIDE BY SIDE ON WALL, UNLESS INDICATED TO BE INSTALLED IN A MULTIGANG BOX WITH VOLTAGE BARRIER.

SHEET LIST - LOW VOLTAGE

SHEET NUMBER	SHEET NAME
LV0.0	LOW VOLTAGE SYMBOL LEGEND
LV0.1	LOW VOLTAGE DETAILS
LV0.2	LOW VOLTAGE DETAILS
LV0.3	DOOR ELEVATION AND DETAILS
LV0.4	LOW VOLTAGE - SECURITY DETAILS
LV0.5	LOW VOLTAGE SITE PLAN
LV1.1	FIRST FLOOR PLAN - LOW VOLTAGE
LV1.2	SECOND FLOOR PLAN - LOW VOLTAGE
LV1.3	THIRD FLOOR PLAN - LOW VOLTAGE
LV1.4	FOURTH FLOOR PLAN - LOW VOLTAGE
LV2.1	ENLARGED PLANS - LOW VOLTAGE
LV2.2	ENLARGED PLANS - LOW VOLTAGE

CONSTRUCTION SET

STATE OF MISSOURI — JAMES S. MOMEN — NUMBER E-25237 — PROFESSIONAL ENGINEER — 1/5/2024

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

SFCS Architecture Engineering Planning Interiors

SFCS Inc. ▪ 305 South Jefferson Street
Roanoke, Virginia 24011.2003
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ARCHITECT	: DAS	CHECKED	: DAH
ENGINEER	: DAH	APPROVED	: JSK

NO.	REVISION DESCRIPTION	DATE
3	Addendum #1	03/07/24

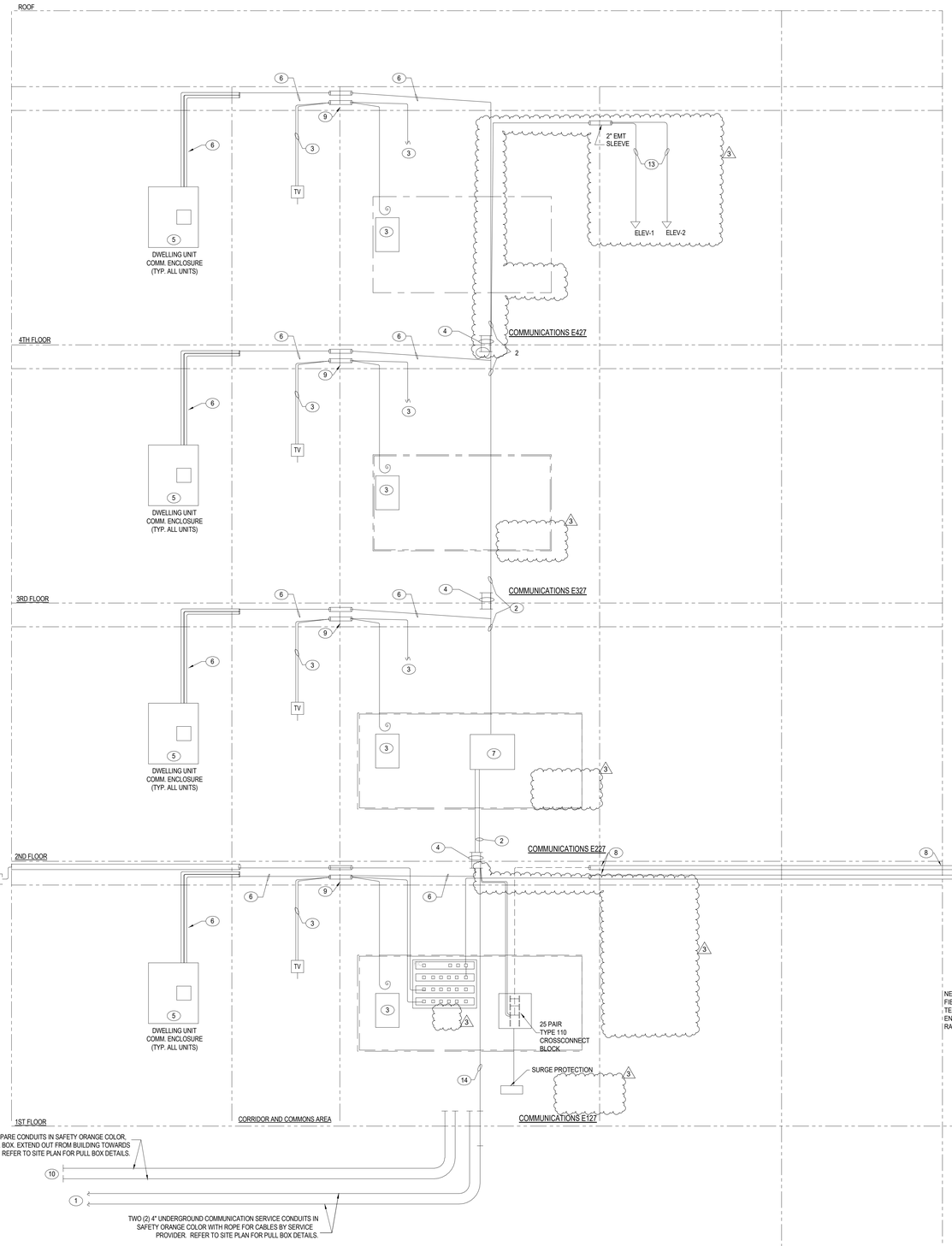
DRAWING TITLE

LOW VOLTAGE SYMBOL LEGEND

DATE: January 5, 2024

COMM. NO. 23104.00

DRAWING LV0.0

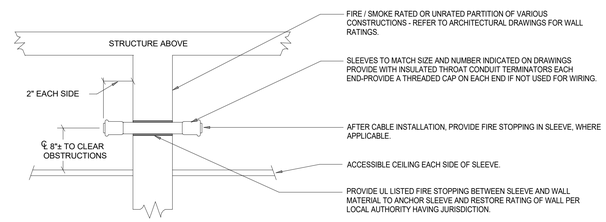


TYPICAL TELECOMMUNICATIONS/CATV RISER DIAGRAM

NO SCALE | 1

(#) RISER KEY NOTES

1. FIBER OPTIC CABLE, BY SERVICE PROVIDER, EVERFAST, IN UNDERGROUND CONDUIT RACEWAY WITH PULL ROPE, BY CONTRACTOR. REFER TO SITE PLAN FOR ADDITIONAL INFORMATION.
2. PROVIDE 3" EMT CONDUIT, WITH PULL ROPE, FOR FIBER OPTIC RISER CABLE FROM 2ND FLOOR TELECOM DMARC ROOM TO EACH TELECOM CLOSET. FIBER CABLES PROVIDED AND INSTALLED BY SERVICE PROVIDER, EVERFAST. COORDINATE ALL WORK WITH EVERFAST PRIOR TO BEGINNING.
3. COMMUNICATIONS DISTRIBUTION HARDWARE FOR COMMONS AREA, COAX AND NETWORK CABLE PROVIDED AND INSTALLED BY CONTRACTOR. COAX CABLE TO BE COILED ABOVE BACKBOARD IN IDF FOR SERVICE PROVIDER TERMINATION. CAT6A HORIZONTAL NETWORK CABLE TERMINATED AT TELECOM E127 RACK MOUNTED PATCH PANEL.
4. PROVIDE (2) 3" SLEEVES FOR CABLE ROUTING. SLEEVES SHALL BE PROVIDED AND INSTALLED WHEREVER CABLE PASSES THROUGH FLOORS AND WALLS. ALL PENTRATIONS SHALL BE PROPERLY SEALED TO MAINTAIN FLOOR/WALL RATING.
5. STRUCTURED MEDIA CABINET (SMC) IN EACH RESIDENT UNIT FOR SERVICE PROVIDER EQUIPMENT, TELECOMMUNICATIONS AND SMART HOME DEVICES. CONTRACTOR TO PROVIDE SMC WITH DEVICES FOR UNIT DATA, VOICE AND COAX CABLE TERMINATIONS.
6. RESIDENT TELECOMMUNICATIONS FIBER CABLES, PROVIDED AND INSTALLED BY SERVICE PROVIDER, EVERFAST, FROM 2ND FLOOR TELECOM ROOM TO EACH RESIDENT SMC. CONTRACTOR TO PROVIDE PATHWAY ABOVE CEILING, WITH PULL ROPE, FROM RESIDENT SMC TO ACCESSIBLE CEILING SPACE IN CORRIDOR, TYPICAL FOR ALL UNITS. REFER TO UNIT AND FLOOR PLANS FOR ADDITIONAL INFORMATION.
7. DMARC HARDWARE AND DISTRIBUTION EQUIPMENT BY SERVICE PROVIDER.
8. PROVIDE AND INSTALL TWO (2) 2" CONDUITS WITH PULL STRING. LOW VOLTAGE CONTRACTOR TO PROVIDE 12 STRAND FO CABLE FOR NETWORK COMMUNICATION, IN ONE CONDUIT, FROM EXISTING BUILDING MDF TO NEW BUILDING FIRST FLOOR TELECOMMUNICATION (MDF) CLOSET AND TERMINATE AT RACK MOUNTED FO CASSETTE (CORNINGCCH-01, OR AS DETERMINED BY JKV IT). PROVIDE IN SECOND CONDUIT 25PAIR CAT5E FROM EXISTING CROSS CONNECT BLOCK TO NEW 110 BLOCK AND TERMINATE.
9. PROVIDE AND INSTALL TWO (2) 3" HORIZONTAL SLEEVES.
10. PROVIDE AND INSTALL (2) SCHEDULE 40 PVC CONDUITS FOR SPARES.
11. PROVIDE AND INSTALL 3/4" CONDUIT WITH PULL ROPE FROM ACCESSIBLE CEILING SPACE TO EXTERIOR CAMERA LOCATION. REFER TO SECURITY CAMERA DETAIL, LV0.5.
12. NOT USED.
13. PROVIDE (1) CAT6A VOICE HORIZONTAL CABLE FOR ELEVATOR PHONE, TYPICAL FOR EACH ELEVATOR.
14. TRANSITION UNDERGROUND PVC CONDUIT TO IMC AND ROUTE TO 2ND FLOOR TELECOM CLOSET. PROVIDE PULL STRING FOR SERVICE PROVIDER CABLE INSTALLATION.



PROVIDE CONDUIT SLEEVES AT WALL PENETRATIONS.

TYP. TELECOMM CONDUIT SLEEVE INSTALLATION DETAIL

NO SCALE | 2

GENERAL NOTES

CONSTRUCTION SET

STATE OF MISSOURI — JAMES S. HOWELL — NUMBER E-25237 — REGISTERED PROFESSIONAL ENGINEER — 1/5/2024

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

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DESIGNER	: DAS	DRAWN	: DAH, DKW
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ENGINEER	: DAH	APPROVED	: JSK

NO.	REVISION DESCRIPTION	DATE
3	Addendum #1	03/07/24

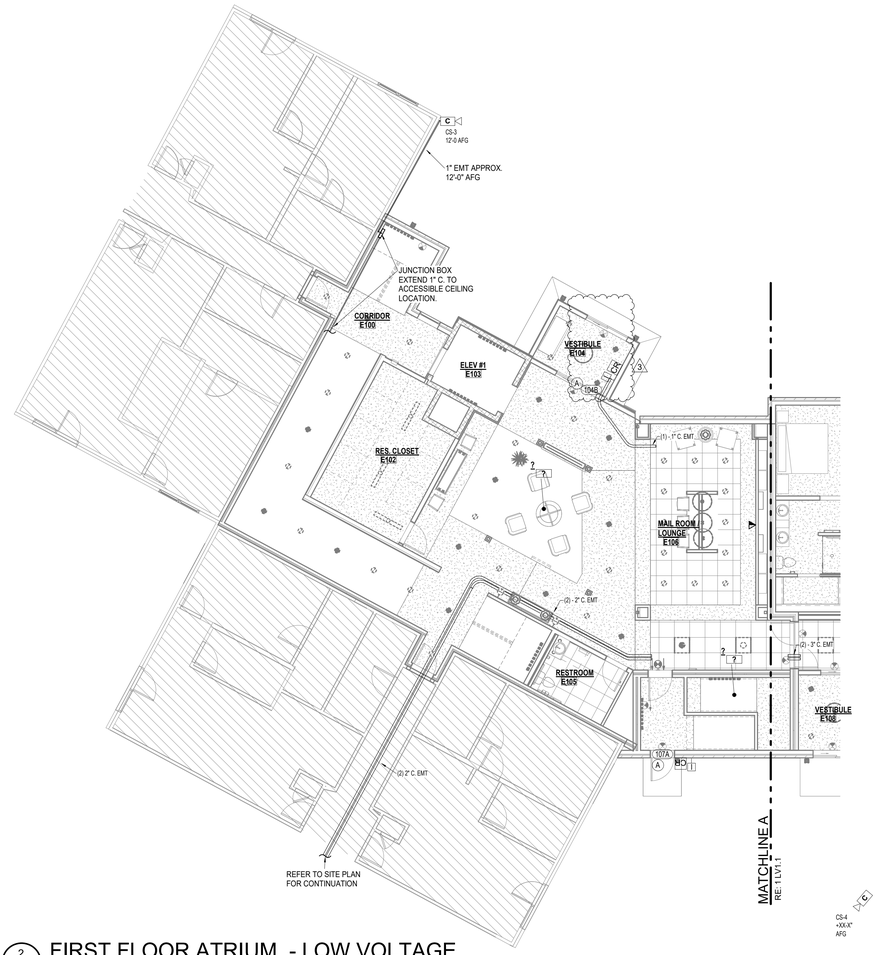
DRAWING TITLE

LOW VOLTAGE DETAILS

DATE: January 5, 2024

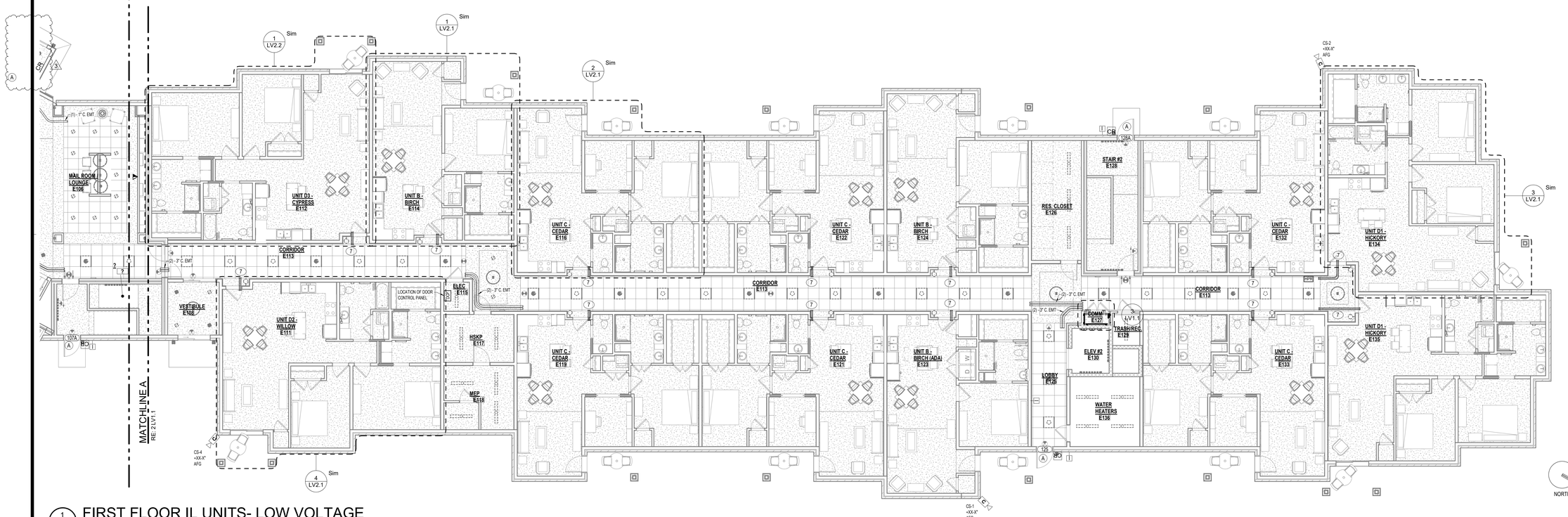
COMM. NO. 23104.00

DRAWING LV0.1



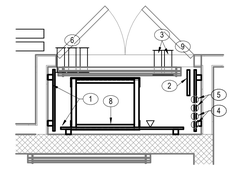
2 LV1.1 1/8" = 1'-0"

FIRST FLOOR ATRIUM - LOW VOLTAGE



1 LV1.1 1/8" = 1'-0"

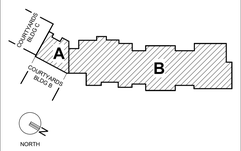
FIRST FLOOR IL UNITS- LOW VOLTAGE



3 LV1.1 1/2" = 1'-0"

ENLARGED PLAN - COMM. RM. #E127

KEYPLAN



GENERAL NOTES

A. DOORS INDICATED WITH A DOOR TAG OR "A" ARE ACCESS CONTROLLED DOORS. PROVIDE 120VAC CONNECTION WHERE REQUIRED. REFER TO DOOR HARDWARE SPECIFICATIONS FOR ELECTRICAL CONNECTION REQUIREMENTS, ROUGH-INS, AND ADDITIONAL INFORMATION. COORDINATE WITH DOOR HARDWARE SUPPLIER AND ACCESS CONTROL VENDOR.

B. CONDUIT TO BE PROVIDED ABOVE GWB OR OTHER INACCESSIBLE AREAS WITH PULL STRING FOR LOW VOLTAGE CONTRACTORS USE FOR CABLE ROUTING ABOVE CEILING.

C. ON RESIDENT FLOORS PROVIDE SUPPORTED J-HOOKS FOR CABLE ROUTING OF CABLE IN CORRIDOR CEILING SPACE.

D. PROVIDE AND INSTALL SLEEVES AT ALL LOCATIONS WHERE CABLE MUST PASS THORUGH WALLS AND PARTITIONS. DO NOT ROUTE CABLE THROUGH WALLS WITHOUT SLEEVES.

E. COORDINATE ALL CONDUITS AND SLEEVES FOR LOW VOLTAGE WITH OTHER DISCIPLINES PRIOR TO INSTALLATION.

PLAN NOTES

1. COMMUNICATIONS BACKBOARD - PROVIDE AND INSTALL 8'-0" H x3 /4" FIRE RATED PLYWOOD SECURED ALONG ENTIRE LENGTH OF TWO WALLS, AS INDICATED. INSTALL BOTTOM OF BOARD AT 8" AFF. TERMINAL BOARD FOR USE BY IN HOUSE FACILITIES AND TELECOMM SERVICE PROVIDERS FOR DISTRIBUTION OF THEIR RESPECTIVE HARDWARE AND CABLE DISTRIBUTION.
2. TGB GROUND BAR AT 24" AFF.
3. TWO (2) 2"C. ROUTED THROUGH CEILING SPACE FOR OWNER BACKBONE CABLING AND SPARE.
4. TWO (2) 3"C. SLEEVES ROUTED THROUGH FLOOR/CEILING SPACE FOR SERVICE PROVIDER USE FOR CABLE ROUTING.
5. TWO (2) 3"C. STUBBED UP 6" THROUGH FLOOR SLAB FOR SERVICE PROVIDER CABLES.
6. PROVIDE THREE (3) 3" SLEEVES THROUGH WALL ABOVE CORRIDOR ACCESSIBLE CEILING.
7. EXTEND TWO (2) 1-1/4" INNERDUCT, WITH PULL STRING, FROM CORRIDOR ACCESSIBLE CEILING SPACE TO THE RESIDENT UNIT MEDIA CENTER TYPICAL FOR ALL RESIDENT UNITS.
8. PROVIDE WALL RACK FOR OWNER IT NETWORK EQUIPMENT.
9. TELECOM ROOM DESIGNATED FOR OWNERS NETWORK HARDWARE EQUIPMENT. CONTRACTOR TO PROVIDE WALL RACK FOR OWNERS USE. CONTRACTOR TO PROVIDE FIBER CABLE FROM EXISTING MDF TO THIS ROOM. TERMINATION OF FIBER BY OTHERS.

CONSTRUCTION SET

STATE OF MISSOURI
JAMES S. HOUCK
NUMBER E-28207
REGISTERED PROFESSIONAL ENGINEER
1/5/2024

PROJECT TITLE

John Knox Village

COURTYARDS - BUILDING E

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ARCHITECT	DAS	CHECKED	DAH
ENGINEER	DAH	APPROVED	JSK

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3	Addendum #1	03/07/24

DRAWING TITLE

FIRST FLOOR PLAN - LOW VOLTAGE

DATE: January 5, 2024

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DRAWING LV1.1