

May 09, 2019 -- 11:58am User: cquezada  
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PHARR - SAN JUAN - ALAMO INDEPENDENT SCHOOL DISTRICT

NORTH ECHS - AND - COLLEGE & UNIVERSITY CAMPUS  
STUDENT RESTROOM RENOVATIONS

ABBREVIATIONS

THIS IS A GENERAL LIST. ALL ABBREVIATIONS MAY NOT APPLY.

A	AT	G	Q
AMP	AMPERES	GAS	QA
AB	ANCHOR BOLT	GAUZE	QT
ABV	ABOVE	CAUL	
A/C	AIR CONDITIONING	CB	
ACCU	ADJUSTABLE	CC	
ADU	ADMINISTRATIVE	CD	
ADMIN	ADJUSTABLE	CEM.	
AFC	ADJUSTABLE	CYP.BD.	
AFT	ADJUSTABLE	GEN	
AG	ADJUSTABLE	GLASS	
AGG	ADJUSTABLE	OND	
AHU	ADJUSTABLE	OSFT	
ALUM	ALUMINUM	OWP	
ALT	ALTERNATE	QTP	
Δ	ANGLE	H	
AND	ANDKIDZ	HB	
AP	ACCESS PANEL	HV	
APC	ACCOUSTICAL PANEL CEILING	HDC	
APPROX	APPROXIMATELY	HDR	
ARCH.	ARCHITECTURAL	HDR	
ASSEMBLY	ASSEMBLY	HDR	
AUX	AUXILIARY	HDR	
AW	ARCHITECTURAL WOODWORK INSTITUTE	HDR	
AWP	ARCHITECTURAL WALL PANEL	HDR	
B	B	I	
BLDG	BUILDING	IN	
BLK	BLOCKING	IN	
BLKG	BLOCKING	IN	
BM	BEAM	IN	
BOS	BOTTOM OF STEEL	IN	
B, BOT	BOTTOM	IN	
BRZ	BROZE	IN	
BTU	BRITISH THERMAL UNIT	IN	
BUR	BUILT-UP ROOF	IN	
C	C	J	
CAB	CABINET	JST	
CMF	COLD-FORMED METAL FRAMING	JT	
CH	CHALK BOARD	L	
CHBD	CHALK BOARD	LAM	
CI	CAST IRON	LAV	
CJ	CONTROL JOINT	LB	
CL	CENTER LINE	LF	
CLG	CEILING	LIB	
CLO	CLOSET	LLH	
CLR	CLEAR	LLV	
CMU	CONCRETE MASONRY UNIT	LLD	
COL	CONCRETE	LVR	
CONC	CONCRETE	LW	
CONNX	CONNECTION	M	
CONST.	CONSTRUCTION	MAS	
CONT	CONTINUOUS	MAINT	
CORD	CORRIDOR	MAK	
CRS	COURSE	MS	
CT	CERAMIC TILE	MC	
CTK	CURTAIN TRACK	MECH.	
CU	CUBIC	MECH.	
CUST	CUSTOMER	MFR	
CWFP	CEMENTITIOUS WOOD FIBER PLANK	MGR	
D	D	MH	
DBL	DOUBLE	MI	
DEF	DEFORMED	MIN	
DA	DIAMETER	MIR	
DAG	DIAGRAM	MISC	
DM	DIMENSION	MM	
DSP	DISPENSER	MMB	
DV	DIVISION	ND	
DN	DOWN	MPH	
DP	DOWN	MTCS	
DR	DOOR	MTL	
DS	DOWNSPOUT	MILL	
DTL	DETAIL	N	
DWG	DRAWING	NA	
DWLS	DOWELS	NEG	
DWR	DRAWER	NIC	
E	E	NIS	
ELEC	ELECTRICAL	N	
EA	EACH	O	
EF	EXHAUST FLUE	OC	
EGSB	EXTERIOR GYPSUM SOFFIT BOARD	OD	
EFS	EXTERIOR INSULATED FINISH SYSTEM	OF	
EJ	EXPANSION JOINT	OH	
EL	ELEVATION	OPH	
EQ	EQUAL	OPNG	
EQU	EQUIPMENT	OPP	
ETC	ETCETERA	ORD	
EW	EACH WAY	F	
EW	ELECTRIC WATER COOLER	FAH	
EW	ELECTRIC WATER COOLER	FC	
EXGR	EXISTING GRADE	FD	
EXH	EXHAUST	FE	
EXIST.	EXISTING	FF	
EXT	EXPANDED	FGD	
EXT	EXTERIOR	FHS	
F	F	FIN	
FA	FAHRENHEIT	FLASH	
FC	FIRE CODE	FLR	
FD	FLOOR DRAIN	FOD	
FE	FIRE EXTINGUISHER	FOM	
FE	FIRE EXTINGUISHER CABINET	FOP	
FF	FINISH FLOOR	FPR	
FGD	FINISH GRADE	FR-WD	
FHS	FIRE HOSE CABINET	FS	
FIN	FINISH	FT	
FLASH	FLASHING	FY	
FLR	FLOOR	FUR	
FOD	FACE OF CONCRETE		
FOM	FACE OF MASONRY		
FOP	FOLDING PARTITION		
FPR	FIRED REINFORCED PLASTIC		
FR-WD	FIRE-RETARDANT TREATED WOOD		
FS	FOOT SCRAPER		
FT	FEET		
FY	YIELD STRESS		
FUR	FURRING		

MATERIAL LEGEND

THIS IS A GENERAL LEGEND. ALL SYMBOLS MAY NOT APPLY.

	EARTH (UNDISTURBED)
	EARTH (COMPACTED)
	POROUS FILL (STONE OR GRAVEL, ETC.)
	ROCK
	STRUCTURAL CONCRETE
	BRICK (COMMON OR FACE)
	CONCRETE MASONRY UNITS (CMU)
	GLAZED STRUCTURAL FACING TILE (GSFT)
	CUT STONE
	METAL (LARGE SCALE)
	METAL (SMALL SCALE)
	ACOUSTICAL CEILING TILE
	PLASTER, SAND, CEMENT, GROUT
	GYPSUM DRYWALL
	GLASS
	RIGID INSULATION
	BATT INSULATION
	ROUGH WOOD (CONTINUOUS)
	ROUGH WOOD (NON-CONTINUOUS)
	FINISH WOOD
	PLYWOOD

SYMBOL LEGEND

THIS IS A GENERAL LEGEND. ALL SYMBOLS MAY NOT APPLY.

	SECTION
	DETAIL
	CONSTRUCTION NOTE
	DEMOLITION NOTE
	DETAIL NUMBER
	DOOR NUMBER
	EQUIPMENT NOTE
	GLAZING TYPE
	INTERIOR ELEVATION
	REVISION NUMBER
	ROOM NAME & NUMBER
	TOILET NOTE
	PARTITION TYPE
	WINDOW TYPE
	NEW CONSTRUCTION

INDEX OF DRAWINGS

GENERAL

G-000	INDEX OF DRAWINGS
G-001	ADA GUIDELINES

SITE 1: NORTH ECHS & COLLEGE

STRUCTURAL

S1.1N	GENERAL STRUCTURAL NOTES
S1.2N	GENERAL STRUCTURAL NOTES
SD2.1N	FOUNDATION DEMO PLAN AREA S
S2.1N	FOUNDATION RENOVATION PLAN AREA S
SD2.2N	FOUNDATION DEMO PLAN AREA N
S2.2N	FOUNDATION RENOVATION PLAN AREA N
SD2.3N	FOUNDATION DEMO PLAN AREA P
S2.3N	FOUNDATION RENOVATION PLAN AREA P
SD2.4N	FOUNDATION DEMO PLAN AREA V
S2.4N	FOUNDATION RENOVATION PLAN AREA V
SD2.5N	FOUNDATION DEMO PLAN AREA E
S2.5N	FOUNDATION RENOVATION PLAN AREA E
SD2.6N	FOUNDATION DEMO PLAN AREA A,G,H, AND J
S2.6N	FOUNDATION RENOVATION PLAN AREA A,G,H, AND J
SD2.7N	FOUNDATION DEMO PLAN AREA K
S2.7N	FOUNDATION RENOVATION PLAN AREA K
S2.8N	FOUNDATION DEMO PLAN AREA K

DEMOLITION

D-100-N	BUILDING S & BUILDING N DEMO PLAN
D-101-N	BUILDING P & BUILDING V DEMO PLAN
D-102-N	BUILDING E DEMO PLAN
D-103-N	BUILDING A-G-H-J DEMO PLAN
D-104-N	BUILDING A-G-H-J DEMO PLAN
D-105-N	BUILDING A-G-H-J DEMO PLAN
D-106-N	BUILDING K DEMO PLAN

ARCHITECTURAL

A-110-N	BLDG S FLRPLN & REFL. CLG. PLAN
A-111-N	BLDG S INT. ELEV. & ENLGR. FLRPLN.
A-112-N	BLDG N FLRPLN & REFL. CLG. PLAN
A-113-N	BLDG N INT. ELEV. & ENLGR. FLRPLN.
A-114-N	BLDG P FLRPLN & REFL. CLG. PLAN
A-115-N	BLDG P INT. ELEV. & ENLGR. FLRPLN.
A-116-N	BLDG V FLRPLN & REFL. CLG. PLAN
A-117-N	BLDG V INT. ELEV. & ENLGR. FLRPLN.
A-118-N	BLDG E FLOORPLAN
A-119-N	BLDG E REFL CLG PLAN & ENLGR FLRPLN
A-120-N	BLDG E INTERIOR ELEVATION

SITE 2: UNIVERSITY CAMPUS

STRUCTURAL

SD2.1U	FOUNDATION DEMO PLAN AREA R
S2.1U	FOUNDATION RENOVATION PLAN AREA R
SD2.2U	FOUNDATION DEMO PLAN AREA J AND R
S2.2U	FOUNDATION RENOVATION PLAN AREA J AND R
S2.3U	SLAB REPAIR DETAILS

DEMOLITION

D-210-U	OVERALL DEMOLITION PLAN
D-211-U	ENLARGED DEMOLITION PLANS

ARCHITECTURAL

AS-200-U	CAMPUS SITE PLAN
AS-201-U	SITE DETAILS
A-210-U	OVERALL FLOOR PLAN
A-211-U	SCIENCE LAB ENLARGED PLANS, ROOM FINISH & DOOR SCHEDULES
A-212-U	RESTROOM ENLARGED PLANS, FIXTURE LEGEND, ROOM FINISH & DOOR SCHEDULES
A-220-U	INTERIOR ELEVATIONS
A-221-U	INTERIOR ELEVATIONS
A-230-U	WALL TYPES
A-240-U	REFLECTED CEILING PLANS
A-250-U	DOOR / WINDOW TYPES & DETAILS

ARCHITECTURAL

BLDG A-G-H-J FLOORPLAN
BLDG A-G-H-J REFL. CLG. PLAN
BLDG A-G-H-J ENLGR. FLRPLN. & REFLECTED CEILING PLAN
BLDG A-G-H-J ENLGR. FLRPLN. & INTERIOR ELEVATION
BLDG A-G-H-J INTERIOR ELEVATION
BLDG K FLRPLN & REFL. CLG. PLAN
BLDG K INT. ELEV. & ENLGR. FLRPLN.
DOOR TYPES & DETAILS

MEP

MECHANICAL

M0.01N	MECHANICAL SYMBOLS AND ABBREVIATIONS
MD2.11N	BUILDING S & BUILDING N MECHANICAL DEMOLITION PLAN
MD2.12N	BUILDING P & BUILDING V MECHANICAL DEMOLITION PLAN
MD2.13N	BUILDING E MECHANICAL DEMOLITION PLAN
MD2.14N	BUILDING A-G-H-J MECHANICAL DEMOLITION PLAN
MD2.15N	BUILDING K MECHANICAL DEMOLITION PLAN
M2.11N	BLDG. S & BLDG. N MECHANICAL PLAN
M2.12N	BLDG. P & BLDG. V MECHANICAL PLAN
M2.13N	BUILDING E MECHANICAL PLAN
M2.14N	BUILDING A-G-H-J MECHANICAL PLAN
M2.15N	BUILDING K MECHANICAL PLAN
M4.01N	MECHANICAL DETAILS AND SCHEDULES

ELECTRICAL

E0.01N	ELECTRICAL SYMBOL LEGEND
ED2.11N	BUILDING S & BUILDING N ELECTRICAL DEMOLITION PLAN
ED2.12N	BUILDING P & BUILDING V ELECTRICAL DEMOLITION PLAN
ED2.13N	BUILDING E ELECTRICAL DEMOLITION PLAN
ED2.14N	BUILDING A-G-H-J ELECTRICAL DEMOLITION PLAN

LOCATION MAP

SITE 1: PHARR, TEXAS
500 E. NOLANA LOOP
PHARR, TEXAS 78577
SITE 2: SAN JUAN, TEXAS
1229 S. VETERANS
SAN JUAN, TEXAS 78589
OWNER CONTACT INFO:
PSJA ISD
ATTN. GERARDO LOPEZ
(956) 354-2075

ELECTRICAL

ED2.15N	BUILDING A-G-H-J ELECTRICAL DEMOLITION PLAN
ED2.16N	BUILDING K ELECTRICAL DEMOLITION PLAN
EL2.11N	BLDG. S & BLDG. N ELECT. LIGHTING PLAN
EL2.12N	BLDG. P & BLDG. V ELECT. LIGHTING PLAN
EL2.13N	BUILDING E ELECTRICAL LIGHTING PLAN
EL2.14N	BUILDING A-G-H-J ELECT. LIGHTING PLAN
EL2.15N	BUILDING A-G-H-J ELECT. LIGHTING PLAN
EL2.16N	BUILDING K ELECTRICAL LIGHTING PLAN
EP2.11N	BLDG. S & BLDG. N ELECTRICAL POWER PLAN
EP2.12N	BLDG. P & BLDG. V ELECTRICAL POWER PLAN
EP2.13N	BUILDING E ELECTRICAL POWER PLAN
EP2.14N	BUILDING A-G-H-J ELECTRICAL POWER PLAN
EP2.15N	BUILDING K ELECTRICAL POWER PLAN
EP2.16N	ELECTRICAL SCHEDULE
E5.01N	ELECTRICAL DETAILS
E6.01N	ELECTRICAL DETAILS

PLUMBING

P-000N	PLUMBING LEGENDS
PD-105N	PLUMBING PLANS - NORTH CAMPUS
P-100N	BUILDINGS A,G,H,J PLUMBING PLANS - NORTH CAMPUS
P-101N	BUILDING S PLUMBING PLANS - NORTH CAMPUS
P-101N	BUILDING N PLUMBING PLANS - NORTH CAMPUS
P-102N	BUILDING P PLUMBING PLANS - NORTH CAMPUS
P-103N	BUILDING E PLUMBING PLANS - NORTH CAMPUS
P-104N	BUILDING A-G-H-J PLUMBING PLANS - NORTH CAMPUS
P-105N	BUILDING K PLUMBING PLANS - NORTH CAMPUS
P-106N	BUILDING A,G,H,J PLUMBING PLANS - NORTH CAMPUS
P-401N	BUILDING K PLUMBING SCHEDULES
P-402N	PLUMBING DETAILS

ELECTRICAL

EP2.11U	COMPOSITE ELECTRICAL POWER PLAN - UNIVERSITY CAMPUS
EP2.12U	ENLARGED ELECTRICAL POWER PLAN - UNIVERSITY CAMPUS
EP2.13U	ENLARGED ELECTRICAL POWER PLAN - UNIVERSITY CAMPUS
E4.01U	ELECTRICAL SINGLE LINE DIAGRAM
E5.01U	ELECTRICAL SCHEDULES
E6.01U	ELECTRICAL DETAILS
E6.02U	ELECTRICAL DETAILS

PLUMBING

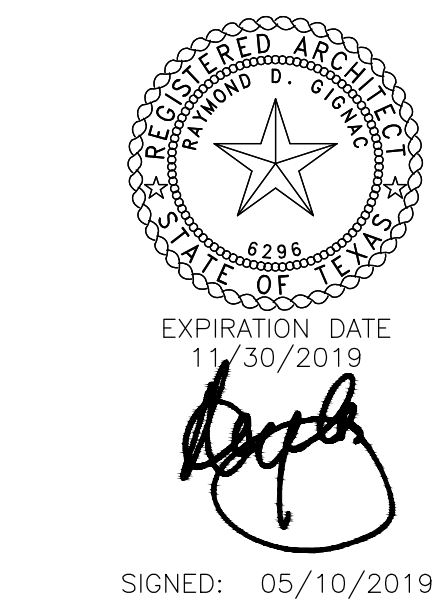
P-000U	PLUMBING LEGENDS
PD-210U	COMPOSITE PLUMBING DEMO PLAN - UNIVERSITY CAMPUS
P-210U	COMPOSITE PLUMBING PLAN - UNIVERSITY CAMPUS
P-211U	COMPOSITE PLUMBING PLAN - UNIVERSITY CAMPUS
P-212U	COMPOSITE PLUMBING PLAN - UNIVERSITY CAMPUS
P-401U	PLUMBING SCHEDULES
P-402U	PLUMBING DETAILS
P-501U	PLUMBING RISERS - SEWER AND VENT - UNIVERSITY CAMPUS
P-502U	PLUMBING RISERS - DOMESTIC WATER - UNIVERSITY CAMPUS
P-503U	PLUMBING RISERS - UNIVERSITY CAMPUS

Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO & ASSOCIATES INC.

MEP:  
DBR ENGINEERING



SIGNED: 05/10/2019



PSJA ISD  
NORTH ECHS & COLLEGE

AND  
UNIVERSITY CAMPUS

STUDENT  
RESTROOM  
RENOVATIONS

KEYPLAN

Project Number:	19.04
Drawing Date:	MAY 10, 2019
Drawn:	AL / CQ
Checked:	JM
Scale:	N/A
ACAD File:	G-000

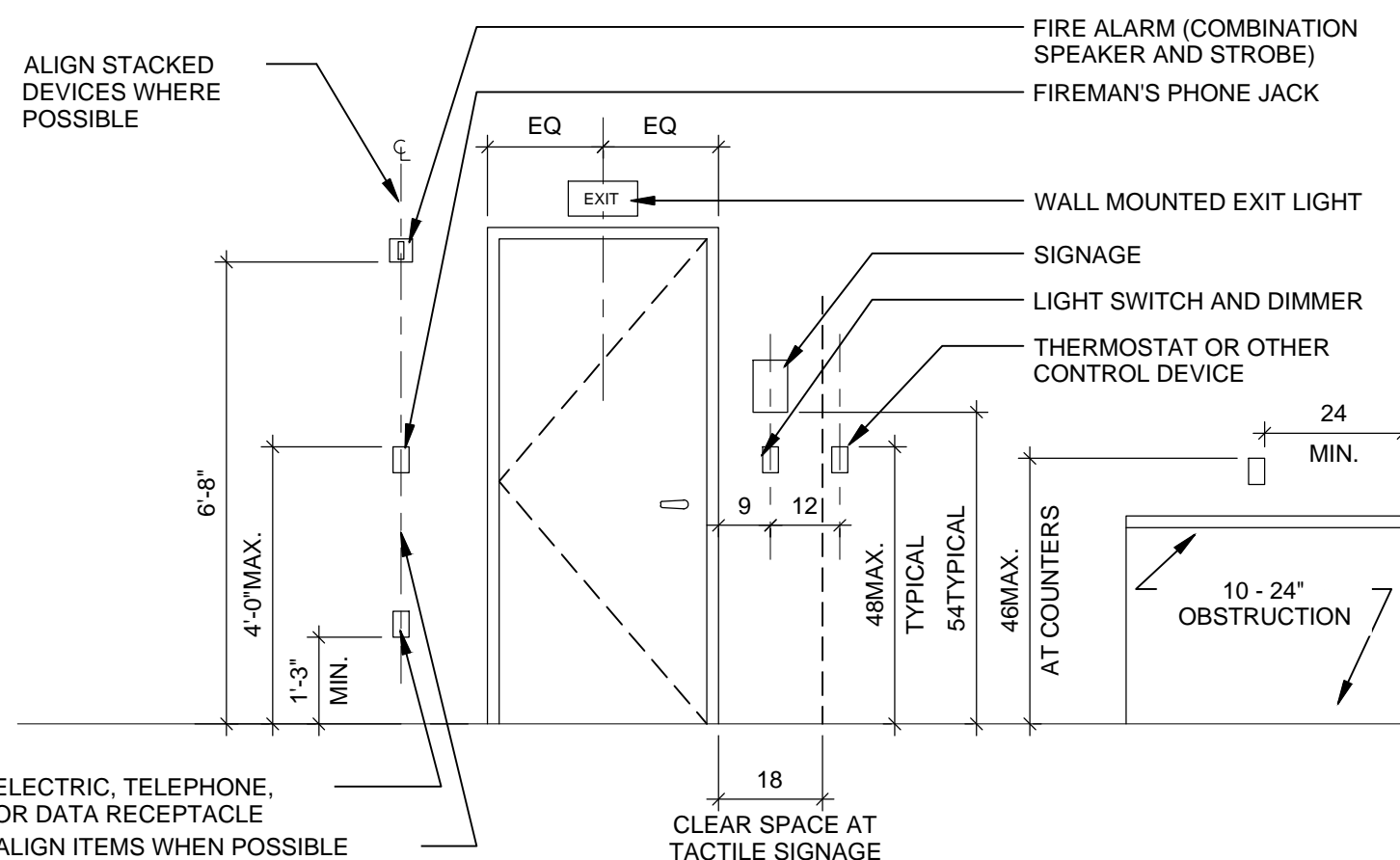
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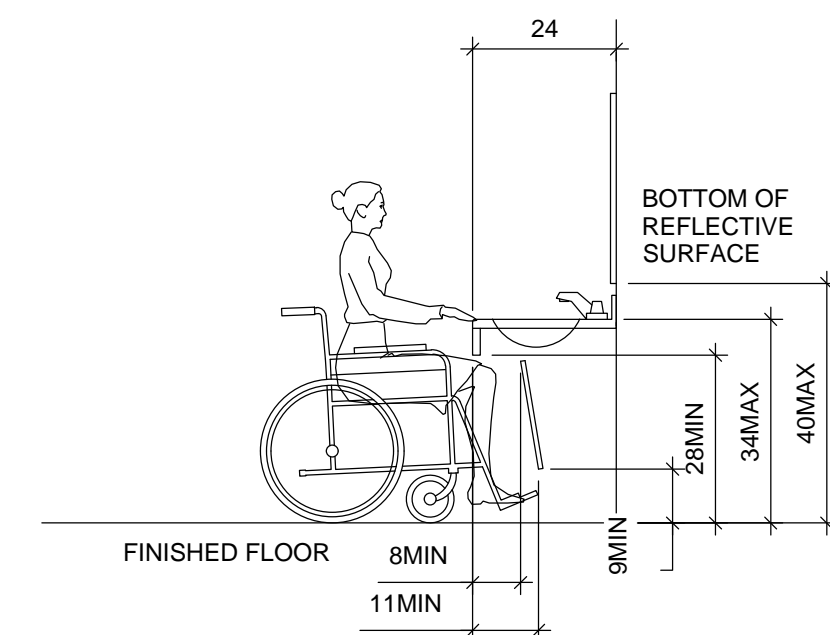
COVER  
INDEX OF  
DRAWINGS



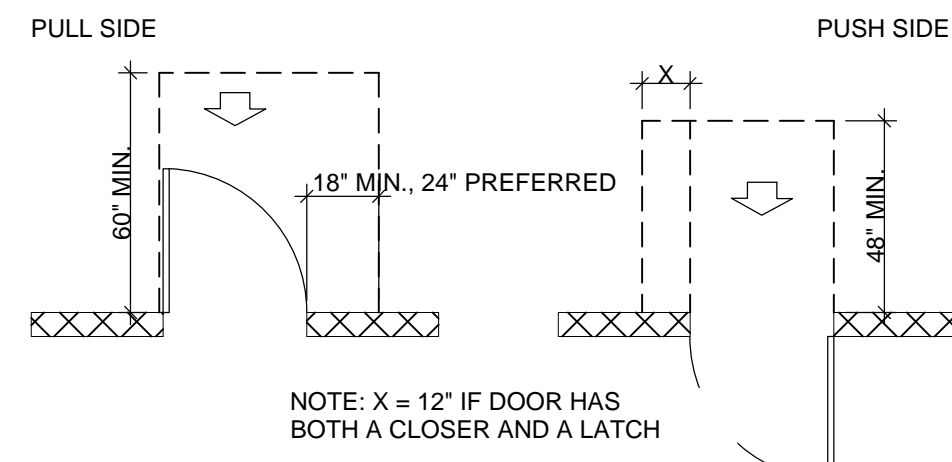
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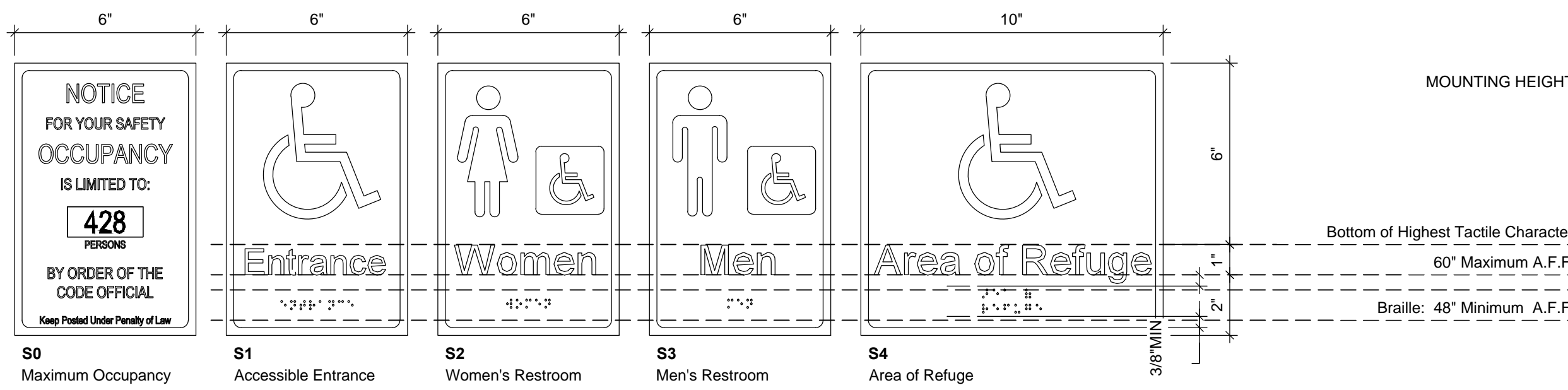
7 MISCELLANEOUS HEIGHTS  
SCALE: 3/8" = 1'-0"



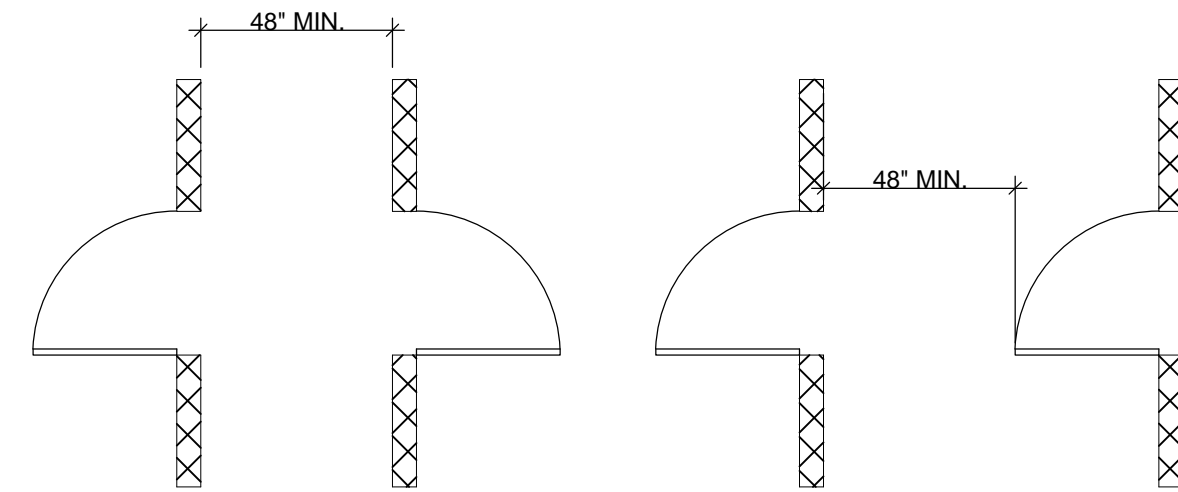
2 LAVATORY CLEARANCES  
SCALE: 3/8" = 1'-0"



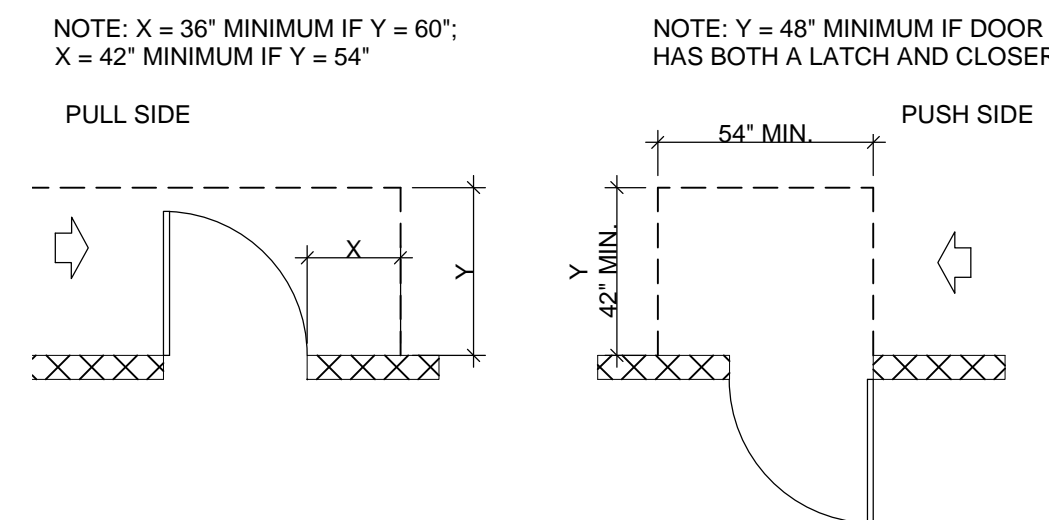
3 FRONT DOOR APPROACH  
SCALE: 1/4" = 1'-0"



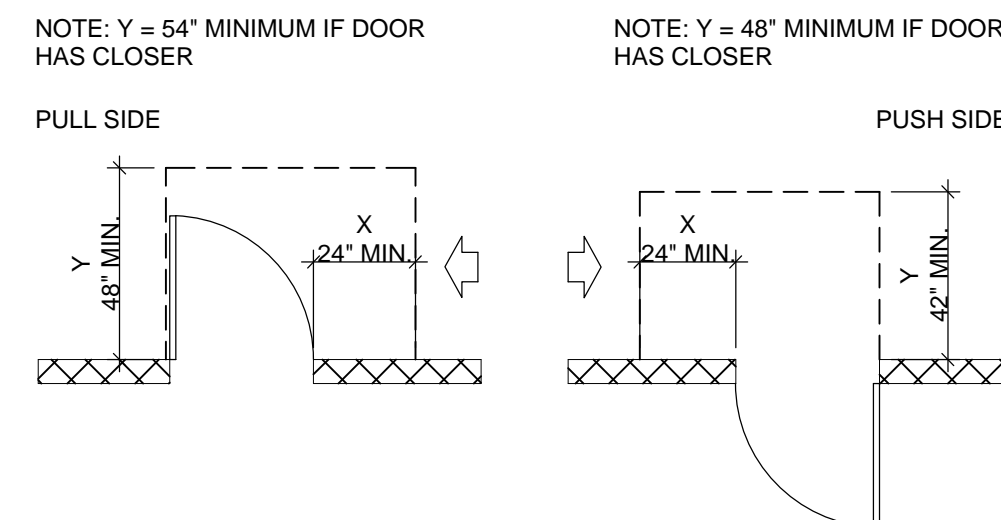
8 REQUIRED SIGNAGE  
SCALE: 3/8" = 1'-0"



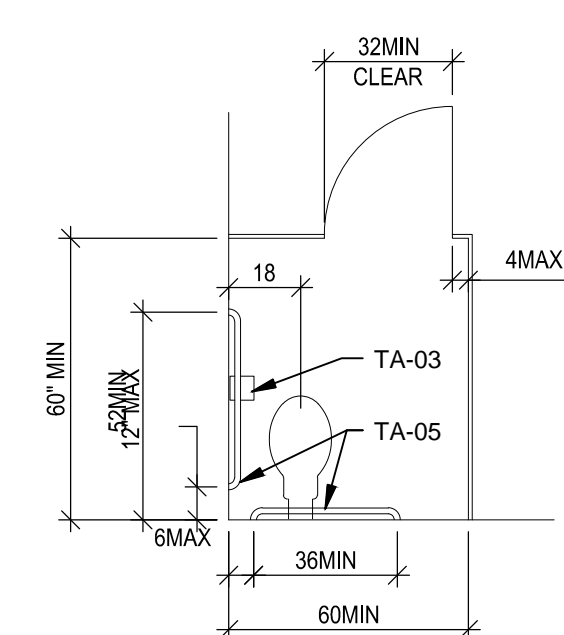
4 TWO HINGED DOORS IN SERIES  
SCALE: 1/4" = 1'-0"



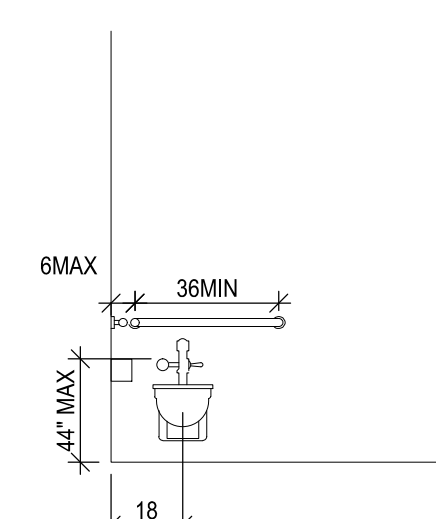
5 HINGE SIDE DOOR APPROACH  
SCALE: 1/4" = 1'-0"



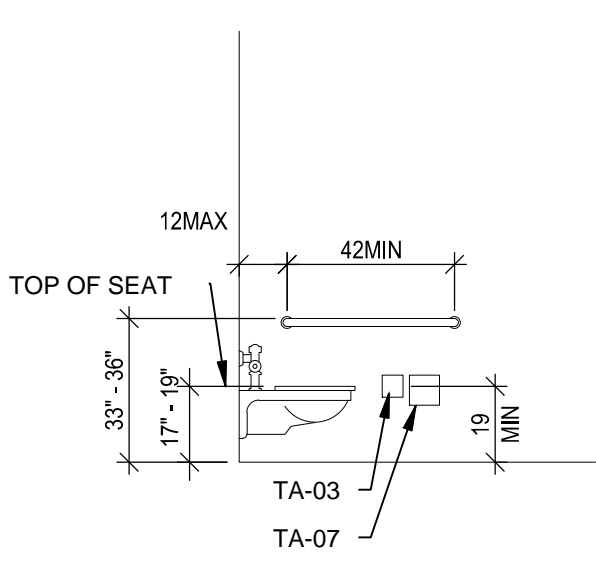
6 LATCH SIDE DOOR APPROACH  
SCALE: 1/4" = 1'-0"



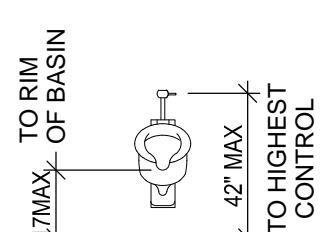
ACCESSIBLE TOILET STALL



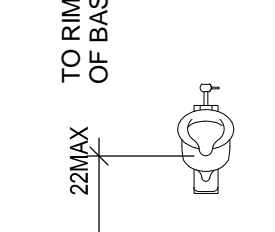
ACCESSIBLE TOILET W/ GRAB BARS AND TOILET PAPER DISPENSER



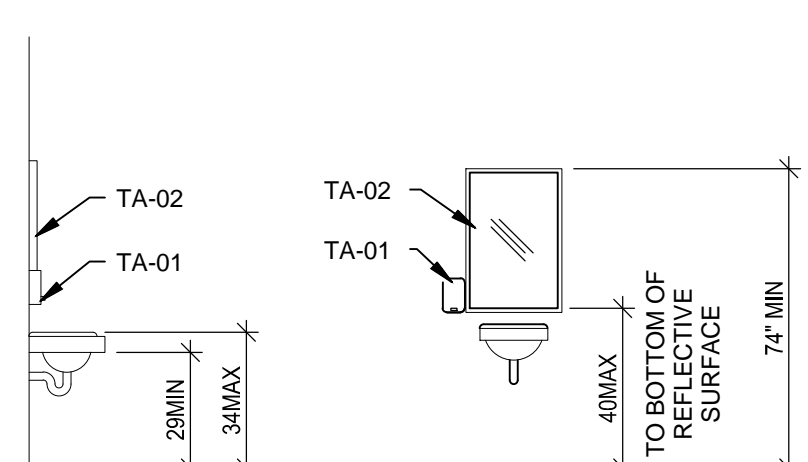
ACCESSIBLE TOILET W/ GRAB BARS, TOILET PAPER DISPENSER, AND SANITARY NAPKIN DISPOSAL



ACCESSIBLE URINAL



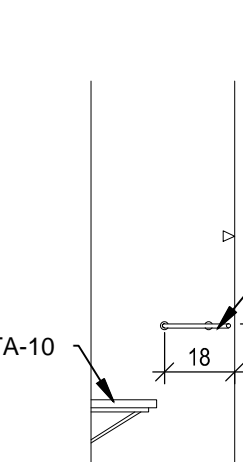
STANDARD URINAL



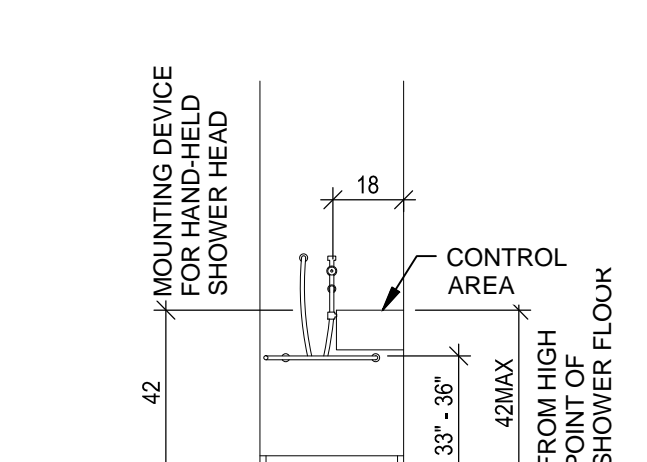
ACCESSIBLE LAVATORY



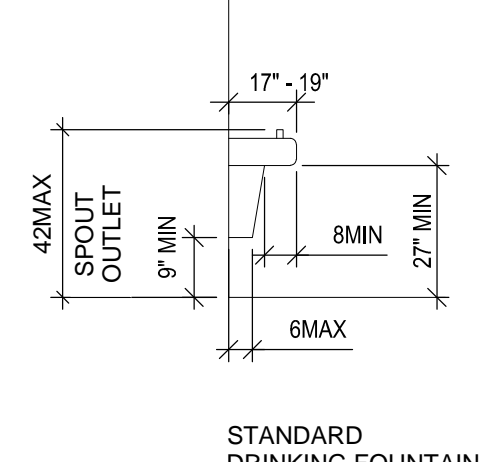
ACCESSIBLE MIRROR



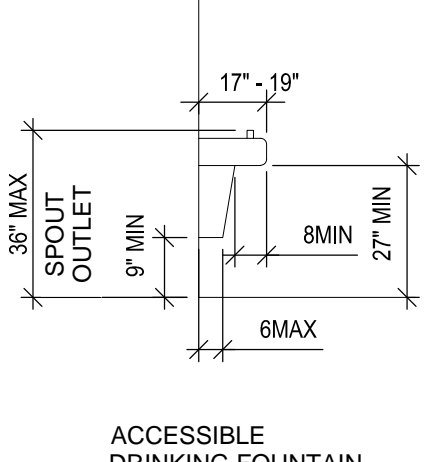
ACCESSIBLE SHOWER SEAT



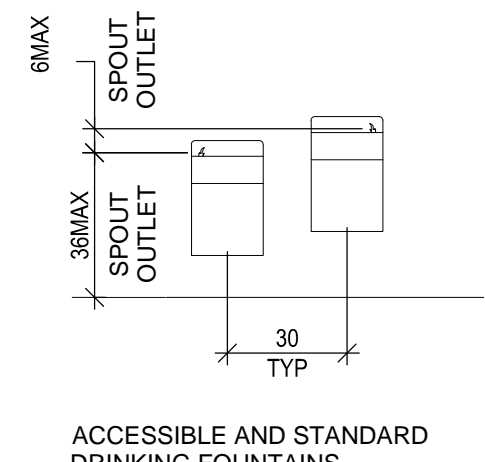
ACCESSIBLE SHOWER



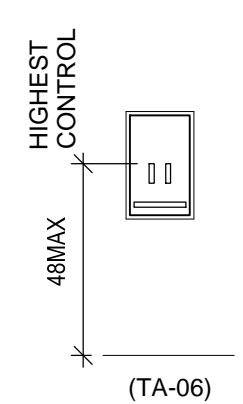
STANDARD DRINKING FOUNTAIN



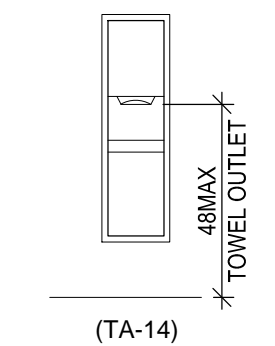
ACCESSIBLE DRINKING FOUNTAIN



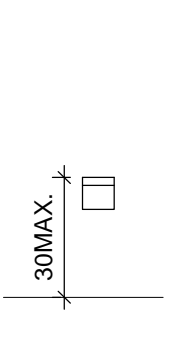
ACCESSIBLE AND STANDARD DRINKING FOUNTAINS (COMBINED)



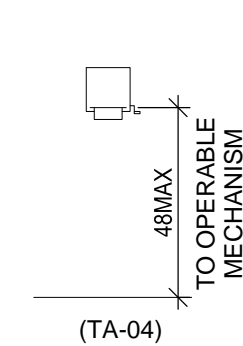
ACCESSIBLE SANITARY NAPKIN DISPENSER



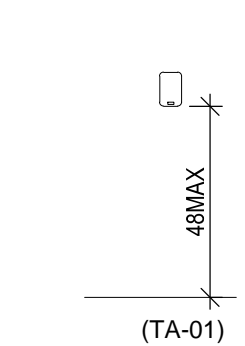
ACCESSIBLE PAPER TOWEL DISPENSER AND TRASH RECEPTACLE



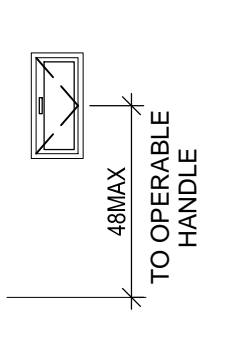
ACCESSIBLE SANITARY NAPKIN DISPOSAL



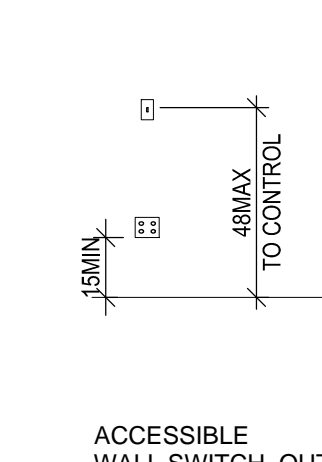
ACCESSIBLE PAPER TOWEL DISPENSER



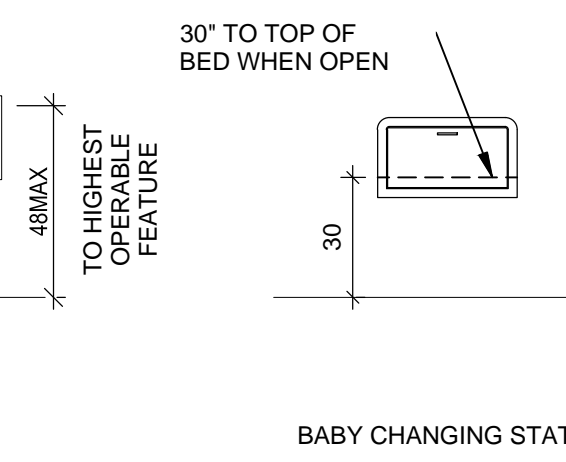
ACCESSIBLE SOAP DISPENSER



ACCESSIBLE FIRE EXTINGUISHER CABINET



ACCESSIBLE WALL SWITCH, OUTLET, AND TELEPHONE



BABY CHANGING STATION

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



GENERAL STRUCTURAL NOTES

THESE GENERAL NOTES SHALL APPLY UNLESS OTHERWISE SPECIFICALLY NOTED ON PLANS OR DETAILS. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SHALL COORDINATE ALL STRUCTURAL PLANS AND DETAILS WITH ARCHITECTURAL & MECHANICAL DRAWINGS BEFORE STARTING WORK. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR CONTRACTOR MEANS AND METHODS OF CONSTRUCTION OR SITE SAFETY. DESIGN, CONSTRUCTION, WORKMANSHIP AND MATERIALS SHALL COMPLY WITH THE CONTROLLING PROVISIONS OF THE 2012 EDITION OF THE **INTERNATIONAL BUILDING CODE (IBC)**.

**DESIGN CRITERIA**

1. BASIS FOR DESIGN AND CODE COMPLIANCE

A. GOVERNING BUILDING CODE.....IBC 2012 EDITION

**CONSTRUCTION NOTES ON THE REPAIR WORKS ON EXISTING STRUCTURE**

1. BEFORE PROCEEDING WITH ANY WORK WITHIN THE EXISTING FACILITY, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH EXISTING STRUCTURAL AND OTHER CONDITIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL NECESSARY BRACING, SHORING AND OTHER SAFEGUARDS TO MAINTAIN ALL PARTS OF THE EXISTING WORK IN A SAFE CONDITION DURING THE PROCESS OF DEMOLITION AND CONSTRUCTION AND TO PROTECT FROM DAMAGE THOSE PORTIONS OF THE EXISTING WORK WHICH ARE TO REMAIN.

2. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS, ELEVATIONS, ETC. NECESSARY FOR THE PROPER CONSTRUCTION AND ALIGNMENT OF THE WORK PORTIONS OF THE WORK TO THE EXISTING WORK. THE CONTRACTOR SHALL MAKE ALL MEASUREMENTS NECESSARY FOR FABRICATION AND ERECTION OF STRUCTURAL MEMBERS. ANY DISCREPANCY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.

3. WELDING TO AND WITHIN AN EXISTING FACILITY PRESENTS POTENTIAL HAZARDS INCLUDING:

A. FIRE HAZARD – DUE TO THE EXISTING CONSTRUCTION AND BUILDING CONTENTS.

B. STRUCTURAL LIQUEFACTION – DUE TO WELDING ACROSS THE FULL SECTION OF STRUCTURAL STEEL MEMBERS. RECOMMENDATIONS TO PREVENT THESE HAZARDS INCLUDE.

A. FIRE HAZARD – PROTECT EXISTING COMBUSTIBLES PRIOR TO WELDING. KEEP A SEPARATE WATCHMAN AND SEVERAL FIRE EXTINGUISHERS ON HAND.

B. STRUCTURAL LIQUEFACTION – WELD IN SMALL INCREMENTS. ALLOW WELDS TO HARDEN BEFORE CONTINUING TO THE NEXT INCREMENT.

C. DO NOT LEAVE THE SITE UNTIL SATISFIED THAT NO FIRE HAZARD EXISTS.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND ERECTION OF ALL SHORING NECESSARY TO SAFEGUARD THE EXISTING STRUCTURE.

**EXISTING CONDITIONS**

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS. DIMENSIONS SHOWN ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL OBTAIN ALL FIELD MEASUREMENTS AS NECESSARY TO COORDINATE NEW CONSTRUCTION TO EXISTING CONDITIONS.

2. IF EXISTING CONDITIONS DIFFER FROM THE DRAWINGS, INFORM THE ENGINEER AND ADDITIONAL DETAILS OR INTERPRETATION WILL BE PROVIDED. DO NOT PROCEED WITHOUT VERIFICATION.

3. THE CONTRACTOR SHALL VISIT THE SITE OF THE PROPOSED WORK AND FULLY ACQUAINT THEMSELVES WITH THE EXISTING CONDITIONS.

**DEMOLITION NOTES**

1. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING STRUCTURE AND SURROUNDING BUILDINGS DURING CONSTRUCTION.

2. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY WATERTIGHTNESS OF THE BUILDING DURING DEMOLITION AND RECONSTRUCTION.

3. GENERAL CONTRACTOR SHALL COORDINATE WITH ENGINEER ITEMS THAT ARE UNCLEAR PRIOR TO ANY DEMOLITION.

4. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE PROJECT SITE TO DETERMINE DEMOLITION REQUIREMENTS AT THIS PROJECT. CONTRACTOR SHALL INCLUDE IN THEIR BID ALL THE DEMOLITION REQUIREMENTS TO COMPLETE THIS PROJECT.

5. GENERAL CONTRACTOR SHALL LOCATE AND LABEL ALL UTILITIES BEFORE COMMENCEMENT OF DEMOLITION & CONSTRUCTION ACTIVITIES. UTILITIES SHALL BE CLEARLY MARKED SO THAT ANY SUBCONTRACTOR VISITING THIS SITE CAN EASILY IDENTIFY UTILITIES. ANY COSTS TO REPAIR DAMAGES IF UTILITIES ARE NOT PROPERLY IDENTIFIED, ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

6. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING DEBRIS & MATERIAL AWAY FROM SITE ACCORDING TO GOVERNING LOCAL, STATE OR FEDERAL REGULATIONS.

7. ANY AREA DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.

**PENETRATIONS**

1. PENETRATIONS THROUGH EXISTING ELEMENTS SHALL COMPLY WITH THE DRAWINGS AND SPECIFICATIONS.

2. DO NOT CUT JOISTS, BEAMS OR COLUMNS WITHOUT PRIOR APPROVAL.

3. PENETRATIONS THROUGH LOAD-BEARING ELEMENTS SHALL BE TEMPORARILY SHORED TO PREVENT COLLAPSE, AS SPECIFIED BELOW.

**TEMPORARY BRACING, FALSEWORK AND FORMWORK**

1. CONTRACTOR SHALL PROVIDE ENGINEERED SHORING PLAN PRIOR TO START OF ROOF COLUMN DEMOLITION. SHORING PLAN SHALL BE SIGNED AND SEALED BY A STATE OF TEXAS PROFESSIONAL ENGINEER.

2. THE DESIGN, ENGINEERING, FABRICATION, CONSTRUCTION, ERECTION, REMOVAL AND OVERALL SAFETY OF ALL TEMPORARY SUPPORTS SUCH AS FALSEWORK, FORMWORK, SHORING AND BRACING REQUIRED FOR THE EXECUTION OF THE CONTRACT ARE NOT INCLUDED IN THE DRAWINGS AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

3. THE ENGINEER'S EFFORTS ARE AIMED AT DESIGNING A PROJECT WHICH WILL BE SAFE AFTER FULL COMPLETION. THE ENGINEER HAS NO EXPERIENCE IN, AND TAKES NO RESPONSIBILITY FOR, CONSTRUCTION MEANS AND METHODS OR JOB SITE SAFETY DURING CONSTRUCTION. SAFETY IS EXCLUSIVELY THE CONTRACTOR'S RESPONSIBILITY. PROCESSING AND/OR APPROVING SUBMITTALS MADE BY CONTRACTOR WHICH MAY CONTAIN INFORMATION RELATED TO SHORING, CONSTRUCTION METHODS OR SAFETY ISSUES, OR PARTICIPATION IN MEETINGS WHERE SUCH ISSUES MIGHT BE DISCUSSED, MUST NOT BE CONSTRUED AS VOLUNTARY ASSUMPTION BY ENGINEER OF ANY RESPONSIBILITY FOR THESE SAFETY PROCEDURES.

**SAFETY**

1. PERFORM ALL WORK IN A SAFE AND CONSCIENTIOUS MANNER TO PREVENT INJURIES.

2. CONTRACTOR SHALL MAINTAIN OSHA STANDARDS FOR JOB SAFETY AND WORKER PROTECTION, INCLUDING, BUT NOT LIMITED TO ADEQUATE PROTECTION, BARRICADES, SIGNS, ETC.

3. THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR SAFETY. THE ENGINEER EXPRESSLY EXCLUDES ANY RESPONSIBILITY FOR CONTRACTOR SAFETY OR SAFETY OF JOBSITE.

**HAZARDOUS MATERIALS ABATEMENT/ MANAGEMENT**

1. THE ENGINEER HAS NO RESPONSIBILITY OR LIABILITY FOR DESIGN, REMOVAL OF, OR TESTING FOR ASBESTOS/LEAD, OR FOR ABATEMENT /MANAGERIAL TREATMENTS, MONITORING, AND LEGAL DISPOSAL OF MATERIALS. CONTRACTOR SHALL DETERMINE IF ANY HAZARDOUS MATERIAL ABATEMENT/ MANAGEMENT IS REQUIRED AND SHALL INCLUDE COSTS THEREOF IN THE BID.

**CONCRETE**

1. ALL CONCRETE WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE SPECIFICATION, A.C.I. #301 AND BUILDING CODE REQUIREMENTS, A.C.I. #318, LATEST EDITION.

2. ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, UNLESS OTHERWISE NOTED, MUST FOLLOW THE A.C.I. "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE", A.C.I. #315, LATEST EDITION.

3. CONCRETE SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 3,000 PSI AT 28 DAYS.

4. A MAXIMUM OF 25% FLYASH MAY BE USED AS A CEMENT SUBSTITUTE AND SHALL CONFORM TO ASTM C618, CLASS C. THE WATER/CEMENT RATIO SHALL NOT EXCEED 0.6 AND SLUMPS SHALL BE 5 INCHES (±1 INCH). AGGREGATE SHALL BE WELL-GRADED, 1" MAXIMUM FOR THE SLAB ON GRADE. COARSE AGGREGATE SHALL MEET ASTM C33, GRADATION #57. A QUALIFIED TESTING LABORATORY SHALL BE RETAINED TO FURNISH MIX DESIGNS FOR ALL CLASSES OF CONCRETE. A SAMPLE OF FOUR CYLINDERS SHALL BE TAKEN NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE FOR EACH 100 YD3 OF CONCRETE. ONE CYLINDER SHALL BE TESTED AT 7 DAYS AND TWO AT 28 DAYS. THE FOURTH CYLINDER MAY BE DISPOSED OF AFTER 45 DAYS IF NOT USED. DO NOT USE AIR ENTRAINED CONCRETE FOR STEEL TROWELED FINISHED CONCRETE.

5. ADMIXTURES CONTAINING WATER SOLUBLE CHLORIDE IONS GREATER THAN 0.06% BY WEIGHT OF CEMENT SHALL NOT BE USED.

6. REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A-615, GRADE 60. #3 BARS MAY BE GRADE 40.

7. STANDARD PROTECTIVE COVER OF REINFORCING BARS UNLESS OTHERWISE NOTED SHALL BE:

WHERE CAST AGAINST DIRT OR FILL ..... 3 IN.

EXPOSED TO EARTH OR WEATHER ..... 2 IN.

SLABS AND WALLS ..... 1 IN.

OTHER ..... 1-1/2 IN.

8. ALL ACCESSORIES SHALL BE IN ACCORDANCE WITH THE A.C.I. "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE", A.C.I. #315, LATEST EDITION.

9. SLAB MAT TO BE SUPPORTED BY MASONRY BATTS OR CHAIRS (MIN OF 1/2 BRICK) SPACED AT 4 FEET ON CENTER EACH WAY (MAX). BEAM CAGES SUPPORTED BY BATTS AT 4 FEET ON CENTER.

CONCRETE CONTINUED:

10. INCLUDE AN ALLOWANCE FOR **2.0 TON** OF REINFORCING BARS TO BE USED AS DIRECTED IN FIELD FOR SPECIAL CONDITIONS AT A COST OF **\$2,000.00 PER TON** (LABOR FOR PLACING SAME TO BE INCLUDED).
11. MAINTAIN A MINIMUM OF ONE AND ONE-HALF (1-1/2) TIMES THE MAXIMUM COARSE AGGREGATE SIZE BETWEEN ALL REINFORCING BARS (EXCEPT AT LAPS).
12. BARS SCHEDULED OR DETAILED "CONT" SHALL BE LAPPED 40 BAR DIAMETERS (24 INCHES MINIMUM) UNLESS OTHERWISE NOTED.
13. CONCRETE MAY BE PLACED WITH CHUTES UP TO 25' MAXIMUM. SLUMP SHALL NOT EXCEED 6" AT TRUCK DISCHARGE POINT.
14. CONCRETE PLACED BY PUMPING SHALL MEET THE FOLLOWING REQUIREMENTS:
- A. COARSE AGGREGATE SHALL BE GRADED FROM A MAXIMUM OF 1" DOWN
- B. MAXIMUM ALLOWABLE INCREASE IN CEMENT FACTOR SHALL BE 1/2 SACK PER CUBIC YARD OVER NORMAL MIX DESIGN.
- C. MAXIMUM WATER CEMENT RATIO SHALL BE 7-1/2 GALLONS PER SACK OF CEMENT. IF MORE WORKABILITY IS REQUIRED, AN ADMIXTURE MAY BE USED.
- D. MAXIMUM WEIGHT RATIO OF FINE AGGREGATES TO COARSE AGGREGATES SHALL NOT EXCEED 2/3.
- E. REFER TO A.C.I. #301, LATEST EDITION, SECTION 800, FOR OTHER PUMPING REQUIREMENTS.
- F. IN NO CASE SHALL CONCRETE BE PUMPED THROUGH AN ALUMINUM TUBE.
- G. SLUMP SHALL NOT EXCEED 6" AT TRUCK DISCHARGE POINT.
15. FLOOR FINISH (TOLERANCES)
- A. STEEL TROWEL FINISH 1/8" IN 10'
- B. FLOAT FINISH 1/4" IN 10'
- C. SCRATCH FINISH 1/2" IN 10'
16. CONCRETE TO BE CURED IN ACCORDANCE WITH ACI RECOMMENDATIONS. PROPOSED METHOD OF CURING TO BE COORDINATED WITH ENGINEER PRIOR TO CONCRETE PLACEMENT.
17. SHOP DRAWINGS SHALL BE PREPARED FOR ALL REINFORCING STEEL AND SUBMITTED FOR REVIEW BY ENGINEER. SUBMITTALS SHALL INCLUDE ELECTRONIC (PDF) COPIES OF EACH DRAWING. ENGINEERING DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS.
18. THE CONTRACTOR SHALL REVIEW AND ANNOTATE SHOP DRAWING BEFORE SUBMITTING THEM TO THE ARCHITECT / ENGINEER FOR REVIEW. THE CONTRACTOR SHALL ALLOW ARCHITECT / ENGINEER 10 WORKING DAYS FOR REVIEW OF SHOP DRAWINGS.
19. ENGINEER TO BE NOTIFIED 48 HOURS PRIOR TO PLACEMENT OF FOUNDATION AND OF STRUCTURAL CONCRETE SCHEDULE REQUIRED OBSERVATIONS.

CONCRETE MASONRY

1. **THE GENERAL CONTRACTOR, PROJECT SUPERINTENDENT, TESTING LABORATORY AND THE MASONRY FOREMAN** SHALL MEET WITH THE STRUCTURAL ENGINEER PRIOR TO THE START OF MASONRY WORK TO REVIEW PROJECT REQUIREMENTS AND PROCEDURES.
2. AN INDEPENDENT TESTING LAB SHALL VERIFY PLACEMENT OF VERTICAL REINFORCING IN WALLS AND HORIZONTAL REINFORCING IN BOND BEAMS AND LINTELS PRIOR TO PLACEMENT OF GROUT. INDEPENDENT TESTING LAB SHALL PROVIDE CONTINUOUS VISUAL OBSERVATIONS OF GROUTING PROCEDURES, REBAR PLACEMENT, SITE MIXING OF MORTAR, INSTALLATION OF EMBEDDED STEEL CONNECTORS, AND GENERAL PLACEMENT OF MASONRY UNITS AND MORTAR JOINTS. INSPECTION REPORTS ARE TO BE GENERATED DAILY BY THE TESTING LAB. INSPECTION SUMMARY REPORTS SHALL BE EMAILED TO THE STRUCTURAL ENGINEER IN ELECTRONIC (PDF) FORMAT.
3. ALL CONCRETE MASONRY SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL BUILDING CODES AND THE AMERICAN CONCRETE INSTITUTE (ACI 530-02/ ASCE 5-02/ TMS 402-02). DESIGN IS BASED ON MASONRY COMPRESSIVE STRENGTH (f<sub>m</sub>) OF 2,150 PSI.
4. HOT AND COLD WEATHER CONSTRUCTION PROCEDURES SHALL BE UTILIZED AS REQUIRED BY THE SPECIFICATIONS AND ACI 530.1.
5. HOLLOW CONCRETE MASONRY UNITS SHALL BE DOMESTIC LIGHTWEIGHT MOISTURE CONTROLLED TYPE I UNITS, CONFORMING TO ASTM C-90-97.
6. MASONRY UNITS SHALL HAVE A MINIMUM AVERAGE COMPRESSIVE STRENGTH OF 1,900 PSI (NET AREA) WHEN TESTED IN ACCORDANCE WITH ASTM C-140, "METHODS OF SAMPLING AND TESTING CONCRETE MASONRY UNITS".
7. MORTAR PROPORTIONS FOR REINFORCED MASONRY SHALL BE ESTABLISHED PER ASTM C270 PROPORTION SPECIFICATIONS, TYPE S USING MASONRY CEMENT. FIELD TESTS OF MORTAR SHALL BE PERFORMED BY A QUALIFIED TESTING LABORATORY IN ACCORDANCE WITH ASTM C780 AT A RATE OF ONE TEST PER 2,000 SF OF WALL SURFACE TO DETERMINE BATCH-TO-BATCH UNIFORMITY OF MORTAR. REFERENCE SPECIFICATIONS FOR NON REINFORCED MASONRY.
8. GROUT FOR ALL REINFORCED HOLLOW MASONRY UNIT WALLS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI WITH A MAXIMUM 3/8" AGGREGATE. A MID RANGE WATER REDUCING AGENT SUCH AS "POLYHEED" (MASTER BUILDERS) SHALL BE USED. SLUMP TO BE BETWEEN 8 AND 11 INCHES. **ALL GROUT SHALL BE PUMPED**. PLACING OF GROUT TO FOLLOW AMERICAN CONCRETE INSTITUTE (ACI) RECOMMENDATIONS REGARDING **LOT & HIGH LIFT GROUTING**. MAXIMUM LIFT OF GROUT SHALL NOT EXCEED 5'-0" UNLESS APPROVED BY THE ENGINEER PRIOR TO START OF GROUTING. GROUT TO BE TESTED BY A QUALIFIED TESTING LABORATORY AT A RATE OF ONE TEST PER 25 CY OF GROUT IN ACCORDANCE WITH ASTM C1019.
9. REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60. ALL BAR REINFORCING SHALL BE LAPPED 48 BAR DIAMETERS (MIN). BARS SHALL BE PLACED WITHIN 1/2" (CENTERLINE OF BAR TO FACE OF MASONRY) OF LOCATION SHOWN ON STRUCTURAL PLANS. BARS SHOULD BE HELD IN POSITION DURING GROUTING WITH BAR POSITIONERS. POSITIONERS SHALL BE LOCATED AT THE BOTTOM AND TOP OF THE WALL AND AT 8 TO 10 FOOT INTERVALS. BARS SPLICED BY NON-CONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN ONE-FIFTH THE REQUIRED LENGTH OF LAP NOR MORE THAN 8 INCHES.
10. VERTICAL BARS SHALL EXTEND TO THE TOP OF THE PARAPET WALL OR BOND BEAM WHEN A 16" DEEP BEAM IS SPECIFIED. HOOKED DOWELS SHALL BE PROVIDED AT ROOF BOND BEAMS (W/O PARAPETS) LESS THAN 16" DEEP. DOWELS SHALL BE 30" LONG WITH 12" HOOKS.
11. ALL EXTERIOR MASONRY WALLS SHALL BE REINFORCED WITH 9 GA. HOT DIPPED GALVANIZED HORIZONTAL WIRE REINFORCEMENT (LADDER TYPE) EMBEDDED IN MORTAR JOINTS AT 16" O.C. NOMINAL WIDTH OF JOINT REINFORCING SHALL EQUAL WALL THICKNESS. (INTERIOR WALLS MAY BE MILL GALVANIZED). WIRE REINFORCEMENT SHALL CONFORM TO ASTM DESIGNATION A-82, AND SHALL BE LAPPED AT LEAST 8" WITH AT LEAST ONE CROSS WIRE WITHIN THE LAP. JOINT REINFORCING SHALL BE INSTALLED IN THE FIRST AND SECOND MORTAR BED JOINTS IMMEDIATELY ABOVE AND BELOW ALL OPENINGS. WIRE REINFORCING SHALL BE DISCONTINUOUS AT CONTROL JOINTS.
12. EXTERIOR WALLS SHALL BE BONDED WITH CONCRETE MASONRY UNITS AT BUILDING CORNERS.
13. ONE GROUTED #5 BAR SHALL BE PROVIDED AROUND THE PERIMETER OF ALL WALL OPENINGS AND AT BUILDING CORNERS UNLESS NOTED OTHERWISE ON THE STRUCTURAL PLANS.
14. NEATLY TOOL INTERIOR AND EXTERIOR JOINTS IN MASONRY TO FORM A SLIGHTLY CONCAVE PROFILE WHEN MORTAR IS THUMBPRINT HARD UNLESS SHOWN OTHERWISE. ALL MORTAR JOINTS SHALL BE TOOLED THE ENTIRE HEIGHT OF WALL.
15. BOND BEAMS SHALL BE REINFORCED WITH TWO CONTINUOUS #5 BARS UNLESS NOTED OTHERWISE ON THE STRUCTURAL PLANS. REINFORCING SHALL BE CONTINUOUS AT ALL CORNERS AND INTERSECTING WALLS. (PROVIDE CORNER BARS). WHERE SIDE WALL AND END WALL BOND BEAMS DO NOT COURSE CONTINUE THE LOWER BOND BEAM AROUND THE BUILDING CORNER TO THE FIRST VERTICAL REINFORCED CELL.
16. CONTROL JOINTS SHALL BE CONSTRUCTED WITH SLOTTED MASONRY UNITS AND FACTORY MOLDED JOINT FILLER. JOINTS SHALL BE CAULKED WITH AN APPROVED MATERIAL. JOINTS SHALL BE PROVIDED AT MAXIMUM SPACING OF 22 FT. AND AT ALL LOCATIONS WHERE COLUMNS ARE PLACED IN CMU CELLS. (EXTERIOR AND INTERIOR WALLS). JOINT LOCATIONS, IF NOT SHOWN ON PLANS, SHALL BE COORDINATED WITH ARCHITECT.
17. CONTROL JOINTS **SHALL NOT** EXTEND THROUGH BOND BEAMS UNLESS INDICATED ON THE STRUCTURAL PLANS.
18. CONTROL JOINTS IN CMU WALLS SHALL NOT BE LOCATED CLOSER THAN 2'-0" FROM AN EDGE OF OPENING WITHOUT REVIEW OF STRUCTURAL ENGINEER.
19. COLUMNS WHICH EXTEND THROUGH BOND BEAMS SHALL BE WRAPPED WITH 2 LAYERS OF 30# BUILDING PAPER. REINFORCING SHALL BE CONTINUOUS THROUGH ADEQUATE CLEARANCE.
20. LINTELS OVER ALL OPENINGS IN INTERIOR MASONRY PARTITIONS, NOT OTHERWISE COVERED, ARE TO BE OF STANDARD CMU LINTEL BLOCK WITH THICKNESS EQUAL TO WALL THICKNESS. DEPTH SHALL BE 8" FOR OPENINGS UP TO 6'-0", REINFORCED WITH TWO #5's. LOCATED 2-1/2" ABOVE THE BOTTOM EXTERIOR FACE OF THE UNIT.
21. INCLUDE IN BID AN ALLOWANCE OF **2.0 TON** OF REINFORCING BARS TO BE USED AS DIRECTED IN FIELD FOR SPECIAL CONDITIONS AT A COST OF **\$2,000.00 PER TON** (LABOR AND GROUT FOR PLACING SAME TO BE INCLUDED). ANY UNUSED ALLOWANCE WILL BE CREDITED TO THE OWNER AT THE END OF THE PROJECT.

STRUCTURAL STEEL

1. TOP OF BEAM/PLATE (TOB OR TOP) IS USED INTERCHANGEABLY ON PLANS. REFERENCE APPLICABLE SECTION FOR CLARIFICATION.
2. STRUCTURAL STEEL WIDE FLANGE MEMBERS SHALL CONFORM TO ASTM SPECIFICATION A 572 AND/OR ASTM A 992 (F<sub>y</sub> = 50 KSI) UNLESS OTHERWISE SHOWN OR NOTED. PLATE AND ANGLES MAY BE A36 (F<sub>y</sub> = 36 KSI).
3. ALL STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM SPECIFICATION A-500, GRADE 60 (F<sub>y</sub>=46 KSI). STEEL PIPE SHALL COMPLY WITH ASTM A53 TYPE E OR S (F<sub>y</sub>=35 KSI).
4. ALL STRUCTURAL STEEL SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
5. ALL BOLTS SHALL BE 3/4 DIAMETER ASTM A325. WASHERS SHALL BE PROVIDED AT OVERSIZED HOLES AND AT SLOTTED CONNECTIONS AT EXPANSION JOINTS. A325 CONNECTIONS SHALL BE BEARING TYPE CONNECTIONS UNLESS NOTED OTHERWISE. ANCHOR BOLTS MAY BE ASTM A307 UNLESS NOTED OTHERWISE.
6. REFER TO ARCHITECTURAL & MECHANICAL PLANS FOR VERIFICATION OF ALL BOLTS, BLOCKING ANCHORS, ETC., FOR THE ANCHORAGE OF THEIR RESPECTIVE ITEMS.

STRUCTURAL STEEL CONTINUED:

7. ALL BEAMS AND COLUMNS SHALL BE FULL LENGTH WITHOUT SPLICES UNLESS INDICATED ON PLANS OR APPROVED BY THE ENGINEER IN WRITING.
8. ALL SHOP AND FIELD WELDS SHALL BE MADE BY WELDERS WHO HAVE BEEN QUALIFIED AND CERTIFIED TO MAKE THE REQUIRED WELDS IN ACCORDANCE WITH THE LATEST AMERICAN WELDING SOCIETY SPECIFICATIONS (A.W.S. D-1.1).
9. WELDS SHALL BE MADE WITH COVERED MILD STEEL ELECTRODES COMPLYING WITH AWS D1-72 CODE AND SERIES E 70XX.
10. ERECTION CONNECTORS SHALL BE PROVIDED IN ORDER TO PROPERLY ALIGN AND BE TRUE AND PLUMB WHEN WELDS ARE MADE.
11. ALL COMPLETE PENETRATION WELDS, BOTH SHOP AND FIELD, SHALL BE TESTED BY A QUALIFIED TESTING LABORATORY UTILIZING ULTRA SONIC TESTING PROCEDURES IN ACCORDANCE WITH A.W.S. D-1.1. ANY WELDS FOUND DEFECTIVE SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER. ALL X-RAYED WELDS SHALL BE GROUND SMOOTH.
12. THE FABRICATOR SHALL SUPPLY BACK-UP PLATES AND EXTENSION TABS FOR ALL COMPLETE PENETRATION WELDS.
13. ALL STEEL MEMBERS INCLUDING SECONDARY COMPONENTS, FASTENERS AND ASSOCIATED ACCESSORIES, SHALL BE HOT-DIPPED GALVANIZED.
14. WELDED HEADED STUDS (WHS) SHALL BE "NELSON ANCHORS", OR EQUAL, F<sub>s</sub> = 60 KSI, DIAMETER AND LENGTH AS SHOWN ON PLANS. STUDS TO BE WELDED& SHOP TESTED IN ACCORDANCE W/ THE MANUFACTURER'S RECOMMENDATIONS.
15. AFTER ERECTION, PRIME WELDS, ABRASIONS AND SURFACES NOT PRIMED. USE PRIMER CONSISTENT WITH SHOP COAT. GALVANIZED SURFACES (HOT DIPPED OR COLD) SHALL BE CLEANED AND PAINTED WITH "ZRC".
16. FIELD WELDS AND BOLTED CONNECTIONS SHALL BE VISUALLY INSPECTED BY A QUALIFIED INDEPENDENT INSPECTOR. THE INSPECTOR SHALL PROVIDE A WRITTEN REPORT TO THE STRUCTURAL ENGINEER.
17. A SINGLE ELECTRONIC FILE (PDF FORMAT) SHOP DRAWINGS SHALL BE PREPARED FOR ALL STRUCTURAL STEEL COMPONENTS AND SUBMITTED FOR REVIEW BY ENGINEER. ENGINEERING DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS.
18. THE CONTRACTOR SHALL REVIEW AND ANNOTATE SHOP DRAWINGS BEFORE SUBMITTING THEM TO THE ARCHITECT/ENGINEER FOR REVIEW. THE CONTRACTOR SHALL ALLOW ARCHITECT/ENGINEER 10 WORKING DAYS FOR REVIEW OF SHOP DRAWINGS.
19. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED FOR A FRAMING OBSERVATION IMMEDIATELY AFTER ROOF PANELS ARE INSTALLED AND BEFORE INSTALLATION OF THE CEILING.
20. INCLUDE IN BID AN ALLOWANCE FOR **1.0 TON** OF FABRICATED AND PRIMED STRUCTURAL STEEL TO BE USED AS DIRECTED IN THE FIELD FOR SPECIAL CONDITIONS AT A COST OF **\$4,000.00 PER TON** (LABOR FOR ERECTING SAME TO BE INCLUDED). ANY UNUSED ALLOWANCE WILL BE CREDITED TO THE OWNER AT THE END OF THE PROJECT.
- FASTENERS**
1. CAST-IN-PLACE AND POST-INSTALLED ANCHORS SHALL BE PER ANCHOR DIAMETER AND EMBEDMENT DEPTH NOTED ON THE DRAWINGS. POST-INSTALLED ANCHORS SHALL BE UTILIZED ONLY WHERE SPECIFIED.
2. ALL ANCHORS NOTED BELOW SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL CONDUCT THE MANUFACTURER'S REPRESENTATIVE FOR THE INITIAL TRAINING AND INSTALLATION OF ANCHORS, AND FOR PRODUCT RELATED QUESTIONS AND AVAILABILITY.
3. SPECIAL INSPECTIONS SHALL BE PROVIDED FOR ALL MECHANICAL AND ADHESIVE ANCHORS PER THE APPLICABLE EVALUATION REPORT NOTED BELOW. SPECIAL INSPECTIONS SHALL BE PERFORMED BY INDEPENDENT TESTING LABORATORY PERFORMING QA/QC SERVICES ON PROJECT.
4. EXPANSION BOLTS (EB) IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:
- A. KWIK BOLT III (ICC-ES ESR-2302) BY HILTI (CONCRETE)
- B. KWIK BOLT III (ICC-ES-ESR-1385) BY HILTI (MASONRY)
- C. STRONG-BOLT 2 (ICC-ES ESR-3037) BY SIMPSON STRONG-TIE (CONCRETE)
- D. WEDGE-ALL ANCHOR (ICC-ES ESR-1396) BY SIMPSON STRONG-TIE (MASONRY)
5. HEAVY DUTY SLEEVE ANCHORS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED OR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. EXPANSION BOLTS (EB) SHALL NOT BE SUBSTITUTED FOR SLEEVE ANCHORS WITHOUT PRIOR WRITTEN APPROVAL BY STRUCTURAL ENGINEER. ACCEPTABLE PRODUCTS:
- A. HSL-3 (ICC-ES ESR-1545) BY HILTI (CONCRETE)
6. SCREW ANCHORS IN CONCRETE SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:
- A. KWIK HUS-EZ (ICC-ES ESR-3027) BY HILTI (CONCRETE)
- B. KWIK HUS-EZ (ICC-ES ESR-3056) BY HILTI (MASONRY)
- C. TITEN HD (ICC-ES ESR-2713) BY SIMPSON STRONG-TIE (CONCRETE)
- D. TAPCON ANCHORS (ICC-ES ESR-1671) (MASONRY)
- E. POWERS WEDGE BOLT (ICC-ES ESR-1678) (MASONRY)
7. UNDERCUT ANCHORS IN CONCRETE SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:
- A. HDA (ICC-ES ESR-1546) BY HILTI (CONCRETE)
- B. TORO-OUT (ICC-ES ESR-2705) BY SIMPSON STRONG-TIE (CONCRETE)
8. POWDER ACTUATED FASTENERS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:
- A. X-U (ICC-ES ESR-2269) BY HILTI (CONCRETE/MASONRY/STEEL)
- B. POWDER ACTUATED FASTENERS (ICC-ES ESR-2136) BY SIMPSON STRONG TIE (CONCRETE/MASONRY)
9. ADHESIVE ANCHORS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308. ACCEPTABLE PRODUCTS:
- A. HIT-RE 500-V3 (ICC-ES ESR-3814) BY HILTI (CONCRETE)
- B. HIT-HY 270 (ICC-ES ESR-4143) BY HILTI (MASONRY)
- C. SET-XP (ICC-ES ESR-2508) BY SIMPSON STRONG-TIE (CONCRETE)
- D. SET (ICC-ES ESR-1772) BY SIMPSON STRONG-TIE (MASONRY)
10. J-BOLTS SHALL BE FABRICATED FROM ASTM A36/A307 ROD. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED. EXPANSION BOLTS/SLEEVE ANCHORS SHALL NOT BE SUBSTITUTED FOR J-BOLTS WITHOUT PRIOR WRITTEN APPROVAL BY STRUCTURAL ENGINEER.
11. HEADED ANCHOR RODS SHALL BE FABRICATED FROM ASTM F1554 MATERIAL, F<sub>y</sub>=36 KSI
12. SUBSTITUTION REQUESTS FOR PRODUCTS LISTED ABOVE SHALL BE SUBMITTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARDS. SUBSTITUTED ANCHORS SHALL HAVE A VALID CURRENT EVALUATION (ICC-ES OR IAPMO-ES) REPORT.
13. REFERENCE STRUCTURAL STEEL NOTES FOR BOLTS CONNECTING STRUCTURAL STEEL COMPONENTS.

Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO & ASSOCIATES INC.**

**MEP:**  
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GENERAL STRUCTURAL NOTES

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS INDEPENDENT OF THE CONTRACTOR, THE ARCHITECT, OR THE ENGINEER, SHALL BE PROVIDED BY A SPECIAL INSPECTOR EMPLOYED BY THE OWNER ACCORDING TO CHAPTER 17 OF THE IBC 2012. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS. THE SPECIAL INSPECTOR SHALL SEND WRITTEN REPORTS TO THE OWNER, THE ARCHITECT, THE ENGINEER AND THE CONTRACTOR. THE REPORTS SHALL INDICATE IF WORK INSPECTED WAS DONE IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE SPECIAL INSPECTOR SHALL BRING THE DISCREPANCIES TO THE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO THE COMPLETION OF THAT PHASE OF THE WORK. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING THAT THE SPECIAL INSPECTION WORK WAS, TO THE BEST OF THEIR KNOWLEDGE, IN OR NOT IN CONFORMANCE WITH THE DRAWINGS, SPECIFICATIONS AND APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC 2012.

CONTINUOUS OR PERIODIC SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING WORK:

REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT		X
INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE	X	
VERIFY USE OF REQUIRED DESIGN MIX		X
PERFORM SLUMP AND AIR CONTENT TEST, AND DETERMINE THE TEMPERATURE OF THE CONCRETE AT THE TIME OF SAMPLING FRESH CONCRETE FOR MAKING SPECIMENS FOR STRENGTH TESTS PER ACI 318	X	
INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X	
INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES		X
INSPECTION OF PRESTRESSED CONCRETE APPLICATION OF PRESTRESSING FORCES AND GROUTING OF BONDED PRESTRESSING TENDONS	X	
VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS		X
ERECTION OF PRECAST CONCRETE MEMBERS		X
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED		X

REQUIRED LEVEL 1 SPECIAL INSPECTION OF MASONRY CONSTRUCTION  
(OCCUPANCY CATEGORY I, II, III)

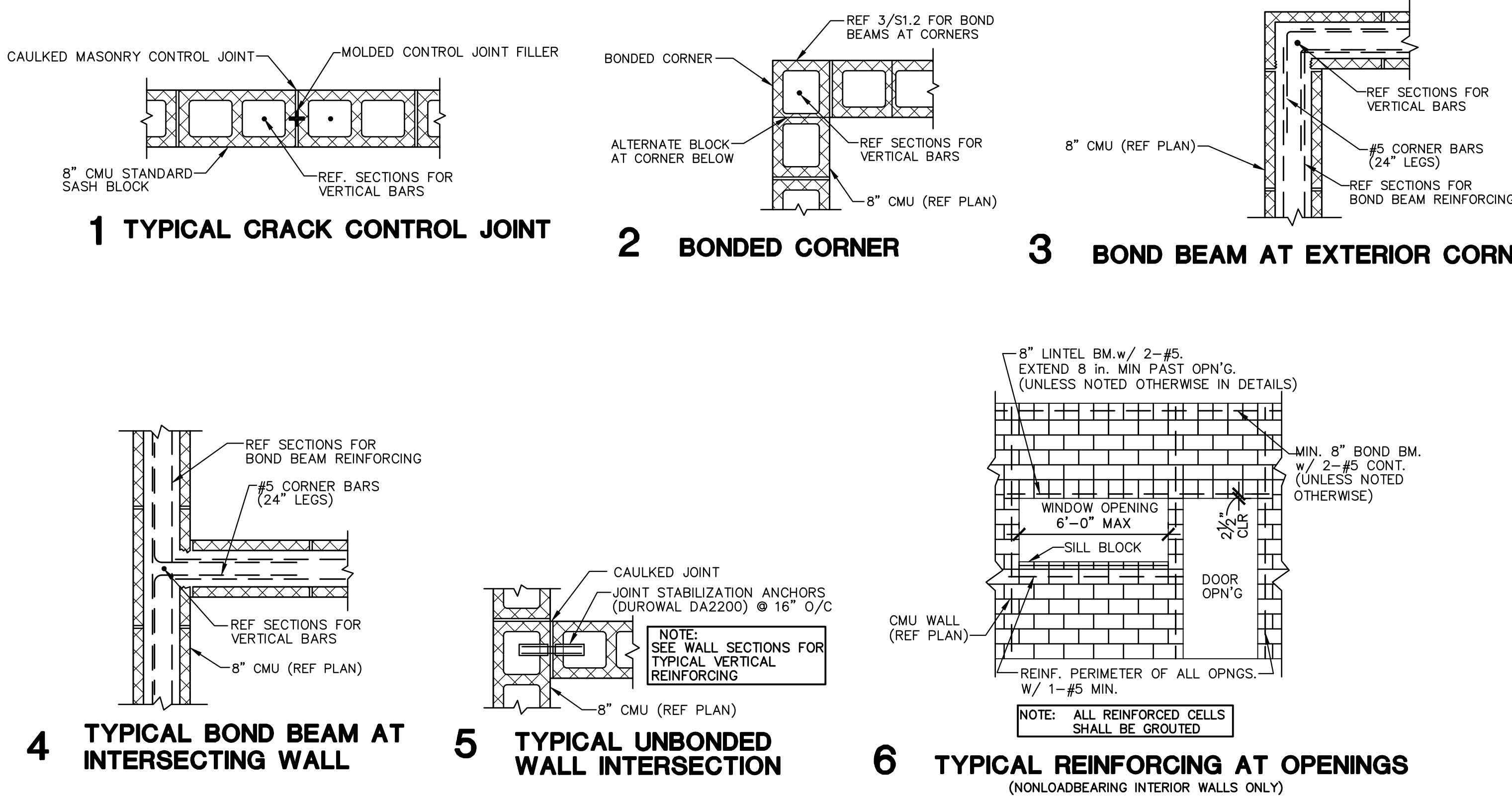
INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:		
PROPORTIONS OF SITE-PREPARED MORTAR		X
PLACEMENT OF MASONRY UNITS AND CONSTRUCTION OF MORTAR JOINTS		X
LOCATION OF REINFORCEMENT, CONNECTORS AND ANCHORAGES		X
THE INSPECTION PROGRAM SHALL VERIFY:		
SIZE AND LOCATION OF STRUCTURAL ELEMENTS		X
TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION		X
SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT		X
PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F)		X
PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:		
GROUT SPACE IS CLEAN		X
PLACEMENT OF REINFORCEMENT, CONNECTORS AND ANCHORAGES		X
CONSTRUCTION OF MORTAR JOINTS		X
GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS	X	
PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED	X	
COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED		X

REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS		X
INSPECTION OF HIGH STRENGTH BOLTING		X
INSPECTION OF WELDING:		
COMPLETE AND PARTIAL PENETRATION GROOVE WELDS	X	
MULTIPASS FILLET WELDS	X	
SINGLE-PASS FILLET WELDS		X
FLOOR AND ROOF DECK WELDS		X
INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS		X

REQUIRED VERIFICATION AND INSPECTION OF ANCHORS

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
CAST-IN-PLACE, POST-INSTALLED, MECHANICAL AND EPOXY SET ANCHORS:		
AS APPLICABLE, THE INSPECTION PROGRAM SHALL VERIFY THE ANCHOR TYPE, EMBEDMENT, TIGHTENING TORQUE, DIMENSIONS, HOLE DEPTH & DIAMETER AND CLEANOUT, EPOXY MIXING AND PLACEMENT PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE CURRENT ICC-ES EVALUATION REPORT		FREQUENCY OF INSPECTION SHALL BE IN ACCORDANCE WITH THE CURRENT ICC-ES EVALUATION REPORT, OR PER THE SPECIAL INSPECTION REQUIREMENTS OF THE ANCHOR SUBSTRATE, WHICHEVER IS MORE STRINGENT



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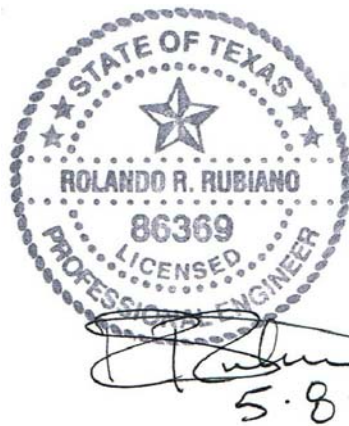


Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
GREEN, RUBIANO &  
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**MEP:**  
DBR ENGINEERING



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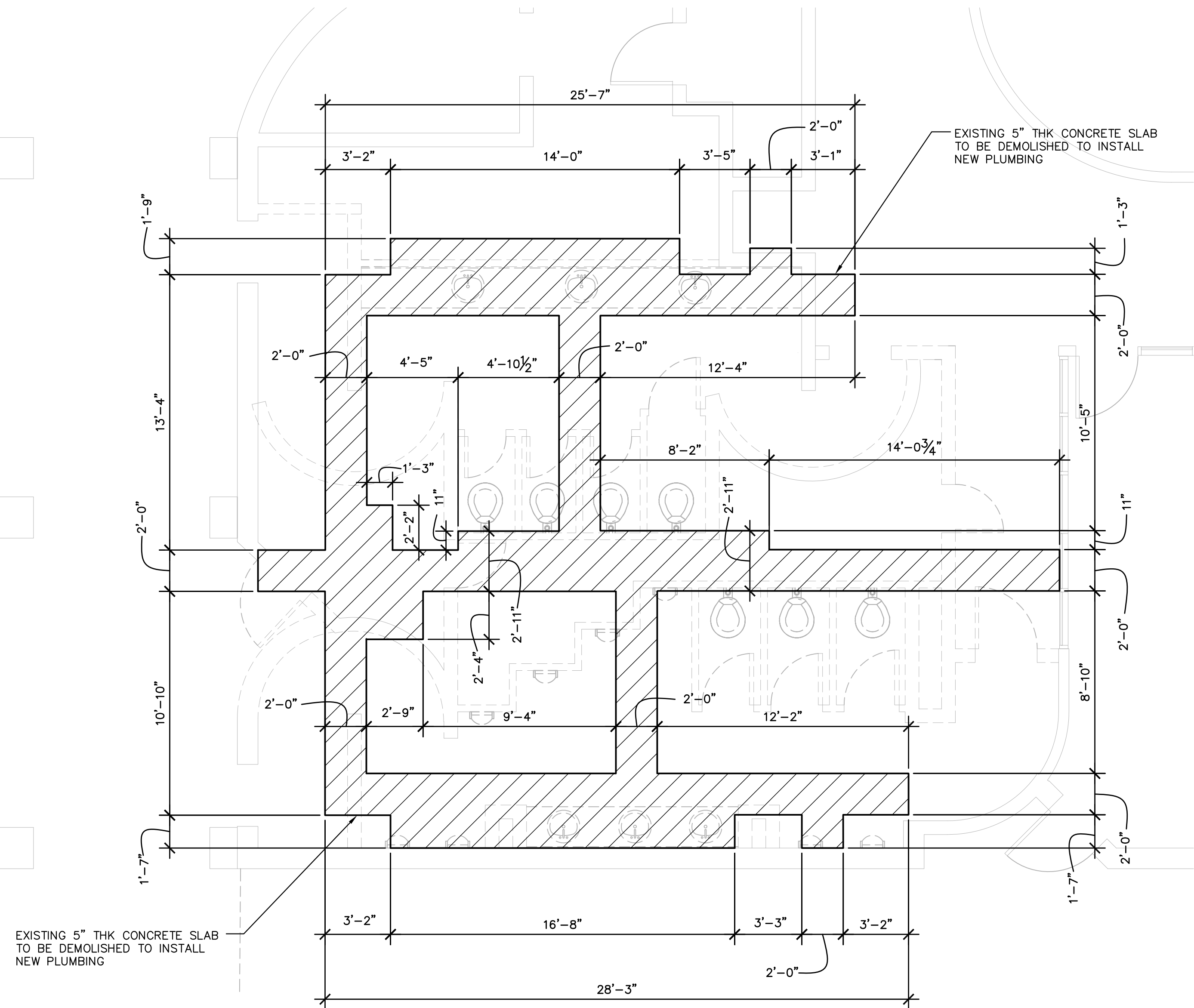
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**FOUNDATION DEMO  
PLAN AREA S**



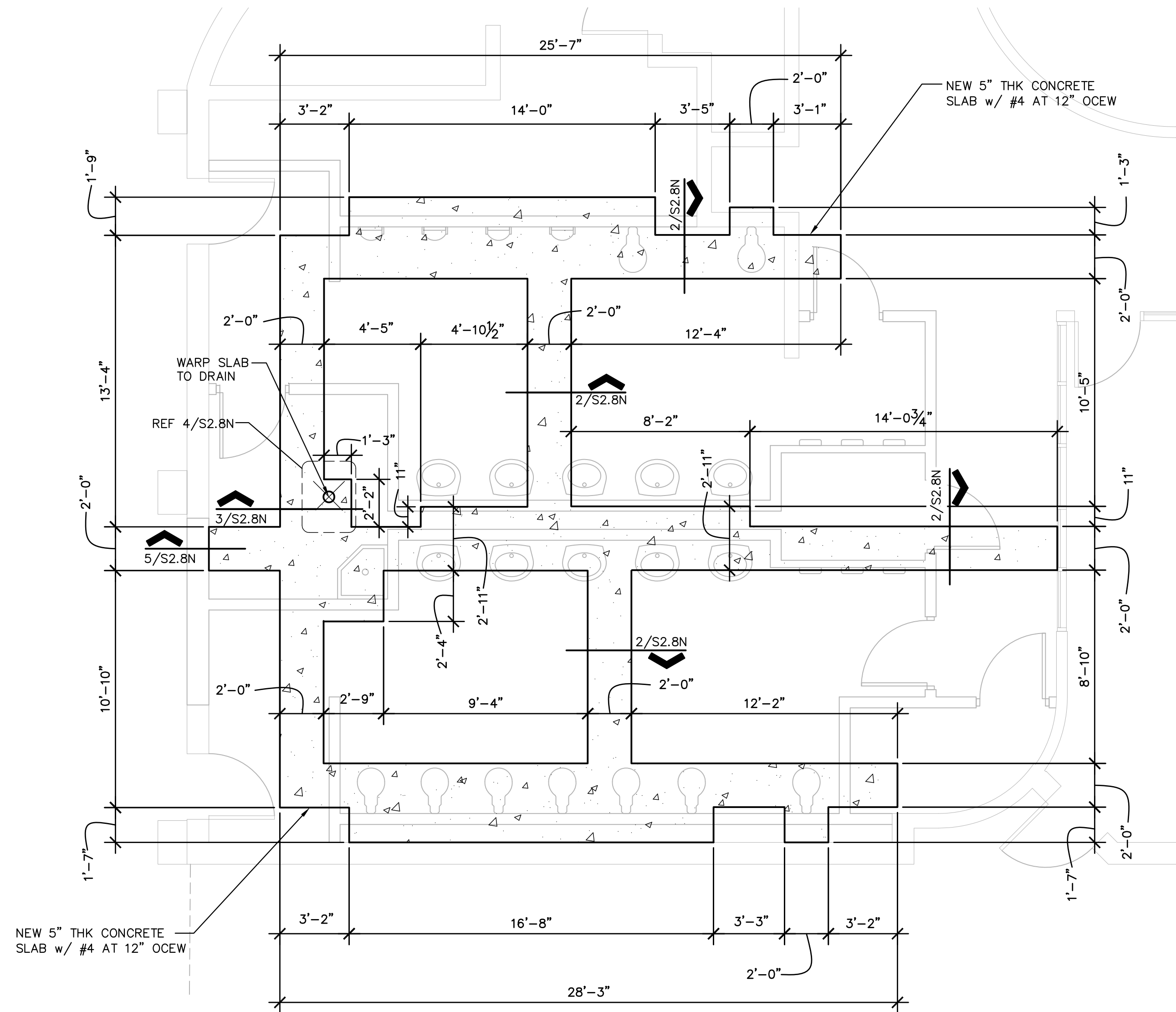
**1 FOUNDATION DEMO PLAN**  
1/4" = 1'-0" AREA S PLAN NORTH

NOTES:

1. [Hatched Box Symbol] INDICATES LOCATIONS WHERE EXISTING 5" THICK SLAB (FIELD VERIFY & COORDINATE WITH MEP) WILL BE DEMOLISHED TO INSTALL NEW PLUMBING. CONTRACTOR SHALL COORDINATE ADDITIONAL LOCATIONS OF SLAB OPENINGS WITH UNDER-SLAB UTILITY DRAWINGS. REFERENCE ARCHITECTURAL AND M.E.P. DRAWINGS FOR ADDITIONAL INFORMATION.
2. REFER TO ARCHITECTURAL AND M.E.P. FOR ADDITIONAL DEMOLITION SCOPE.
3. EXISTING SLAB SHALL BE SAW CUT ALONG PERIMETER OF SLAB DEMOLITION AREAS. CONTRACTOR SHALL CUT A MINIMUM OF 1 1/2" DEEP CUT INTO EXISTING SLAB. CONTRACTOR SHALL USE APPROPRIATE SIZE DEMOLITION EQUIPMENT AND TOOLS TO AVOID EXCESSIVE VIBRATIONS IN EXISTING STRUCTURE.
4. CONTRACTOR SHALL INCLUDE ALL NECESSARY LABOR, EQUIPMENT, TOOLS, AND SUPERVISION TO DEMOLISH EXISTING CONCRETE TO EXPOSE UNDER SLAB SUBGRADE. CONCRETE THICKNESS MAY VARY.

CONTRACTOR SHALL FIELD VERIFY  
ALL DIMENSIONS & EXISTING CONDITIONS  
IN THE FIELD. CONTACT ENGINEER IF  
CONDITIONS VARY FROM THOSE SHOWN  
ON THE DRAWINGS.





**1 FOUNDATION RENOVATION PLAN**  
1/4" = 1'-0" AREA S PLAN NORTH

NOTES:

1. [LIMIT] INDICATES LIMIT OF NEW 5" THICK SLAB ON GRADE FOUNDATION SLAB.
2. ALL CONDUIT GREATER THAN 1.1/2" IN DIAMETER SHALL BE RECESSED TO PROVIDE 1.1/2" CLEAR DISTANCE BETWEEN SLAB REBAR & CONDUIT.
3. MAINTAIN 2" MINIMUM CLEAR DISTANCE BETWEEN ALL CONDUIT IN SLAB.
4. REFERENCE DETAIL 1/S2.BN AT LOCATIONS WHERE NEW CONDUIT & PLUMBING INTERSECT EXISTING INTERIOR GRADE BEAMS.

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS & EXISTING CONDITIONS IN THE FIELD. CONTACT ENGINEER IF CONDITIONS VARY FROM THOSE SHOWN ON THE DRAWINGS.

Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
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**MEP:**  
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**RESTROOM**  
**RENOVATIONS**

**KEYPLAN**

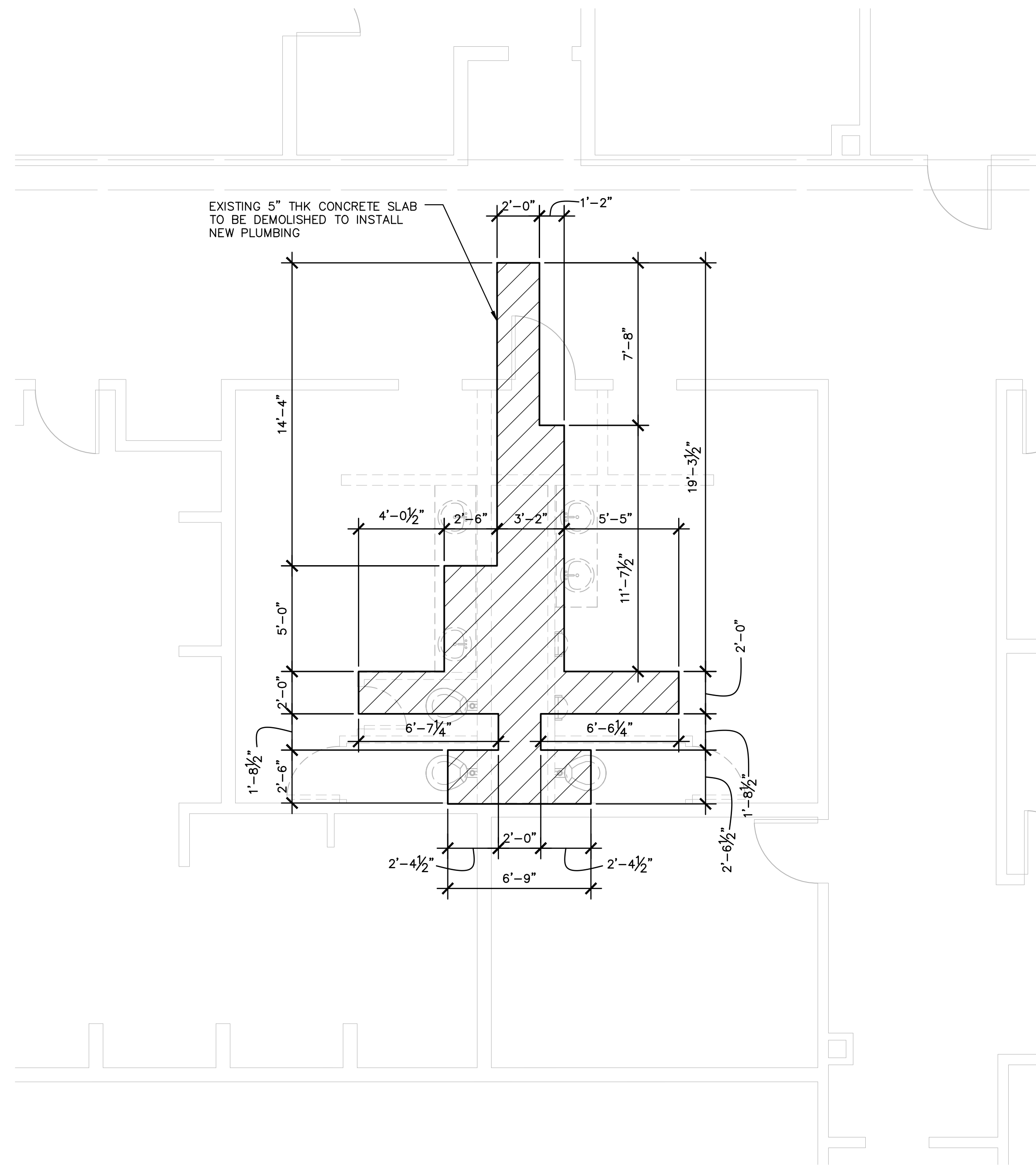
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**FOUNDATION**  
**RENOVATION PLAN**  
**AREA S**





**1 FOUNDATION DEMO PLAN**

1/4" = 1'-0" AREA N PLAN NORTH

- NOTES:
1. [Hatched Box] INDICATES LOCATIONS WHERE EXISTING 5" THICK SLAB (FIELD VERIFY & COORDINATE WITH MEP) WILL BE DEMOLISHED TO INSTALL NEW PLUMBING. CONTRACTOR SHALL COORDINATE ADDITIONAL LOCATIONS OF SLAB OPENINGS WITH UNDER-SLAB UTILITY DRAWINGS. REFERENCE ARCHITECTURAL AND M.E.P. DRAWINGS FOR ADDITIONAL INFORMATION.
  2. REFER TO ARCHITECTURAL AND M.E.P. FOR ADDITIONAL DEMOLITION SCOPE.
  3. EXISTING SLAB SHALL BE SAW CUT ALONG PERIMETER OF SLAB DEMOLITION AREAS. CONTRACTOR SHALL CUT A MINIMUM OF 1.1/2" DEEP CUT INTO EXISTING SLAB. CONTRACTOR SHALL USE APPROPRIATE SIZE DEMOLITION EQUIPMENT AND TOOLS TO AVOID EXCESSIVE VIBRATIONS IN EXISTING STRUCTURE.
  4. CONTRACTOR SHALL INCLUDE ALL NECESSARY LABOR, EQUIPMENT, TOOLS, AND SUPERVISION TO DEMOLISH EXISTING CONCRETE TO EXPOSE UNDER SLAB SUBGRADE. CONCRETE THICKNESS MAY VARY.

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS & EXISTING CONDITIONS IN THE FIELD. CONTACT ENGINEER IF CONDITIONS VARY FROM THOSE SHOWN ON THE DRAWINGS.

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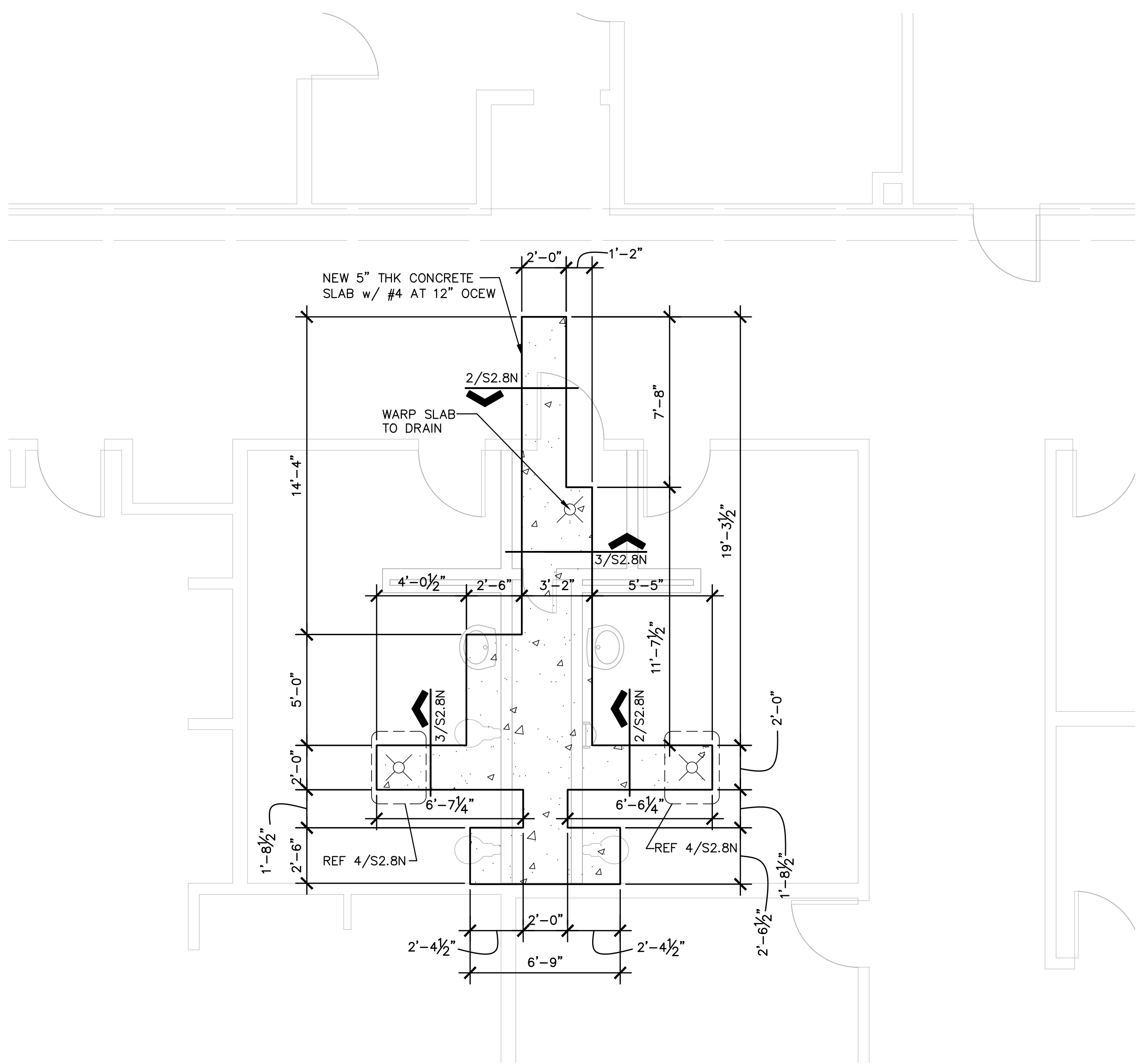
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**FOUNDATION DEMO**  
**PLAN AREA N**

**SD2.2N**





1

FOUNDATION RENOVATION PLAN

1/4" = 1'-0"

AREA N

N

PLAN NORTH

- NOTES:
- INDICATES LIMIT OF NEW 5" THICK SLAB ON GRADE FOUNDATION SLAB.
  - ALL CONDUIT GREATER THAN 1.1/2" IN DIAMETER SHALL BE RECESSED TO PROVIDE 1.1/2" CLEAR DISTANCE BETWEEN SLAB REBAR & CONDUIT.
  - MAINTAIN 2" MINIMUM CLEAR DISTANCE BETWEEN ALL CONDUIT IN SLAB.
  - REFERENCE DETAIL 1/S2.BN AT LOCATIONS WHERE NEW CONDUIT & PLUMBING INTERSECT EXISTING INTERIOR GRADE BEAMS.

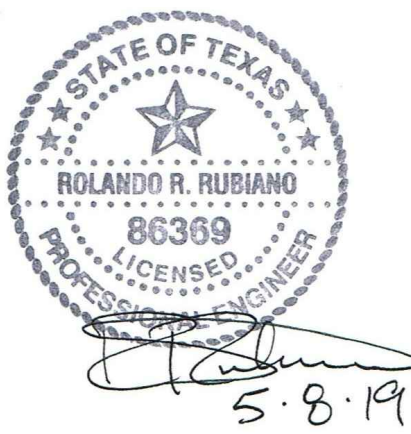
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**KEYPLAN**

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**FOUNDATION**  
**RENOVATION PLAN**  
**AREA N**

**S2.2N**

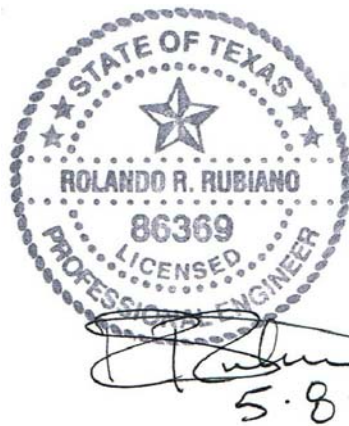


Consultants:

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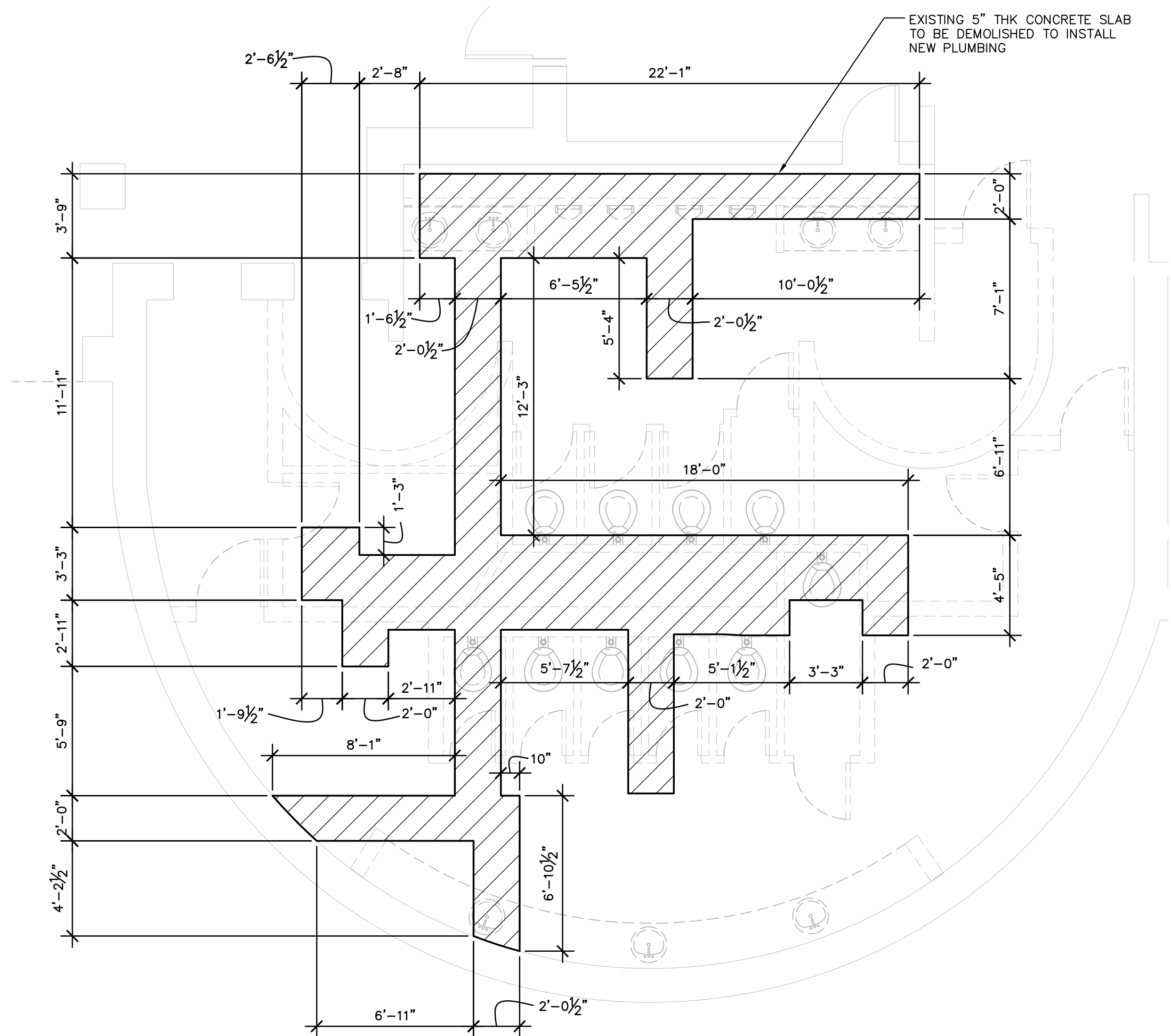
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**FOUNDATION DEMO  
PLAN AREA P**



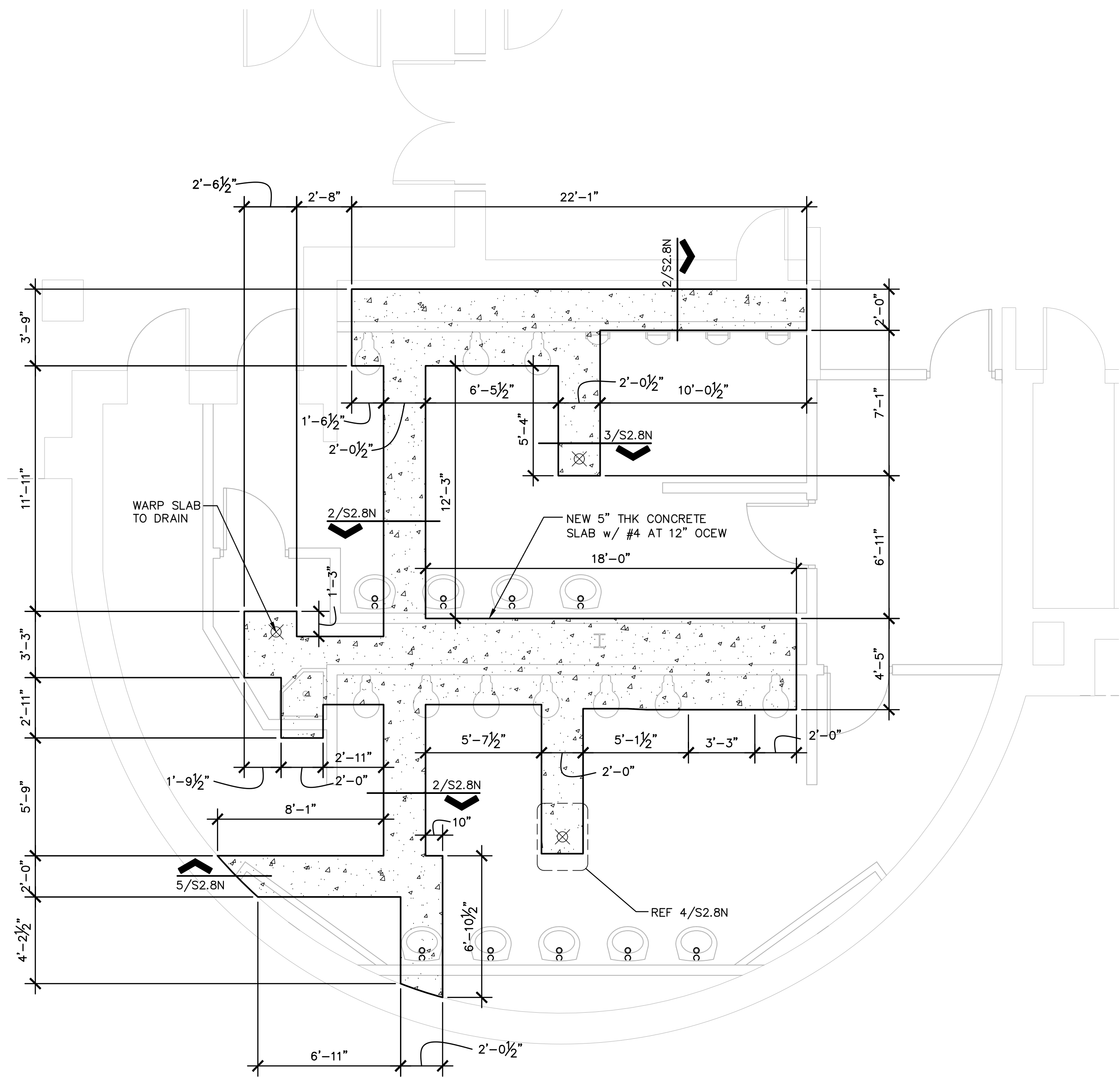
**1 FOUNDATION DEMO PLAN**  
1/4" = 1'-0" AREA P PLAN NORTH

NOTES:

1. INDICATES LOCATIONS WHERE EXISTING 5" THICK SLAB (FIELD VERIFY & COORDINATE WITH MEP) WILL BE DEMOLISHED TO INSTALL NEW PLUMBING. CONTRACTOR SHALL COORDINATE ADDITIONAL LOCATIONS OF SLAB OPENINGS WITH UNDER-SLAB UTILITY DRAWINGS. REFERENCE ARCHITECTURAL AND M.E.P. DRAWINGS FOR ADDITIONAL INFORMATION.
2. REFER TO ARCHITECTURAL AND M.E.P. FOR ADDITIONAL DEMOLITION SCOPE.
3. EXISTING SLAB SHALL BE SAW CUT ALONG PERIMETER OF SLAB DEMOLITION AREAS. CONTRACTOR SHALL CUT A MINIMUM OF 1 1/2" DEEP CUT INTO EXISTING SLAB. CONTRACTOR SHALL USE APPROPRIATE SIZE DEMOLITION EQUIPMENT AND TOOLS TO AVOID EXCESSIVE VIBRATIONS IN EXISTING STRUCTURE.
4. CONTRACTOR SHALL INCLUDE ALL NECESSARY LABOR, EQUIPMENT, TOOLS, AND SUPERVISION TO DEMOLISH EXISTING CONCRETE TO EXPOSE UNDER SLAB SUBGRADE. CONCRETE THICKNESS MAY VARY.

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS & EXISTING CONDITIONS IN THE FIELD. CONTACT ENGINEER IF CONDITIONS VARY FROM THOSE SHOWN ON THE DRAWINGS.





1

FOUNDATION RENOVATION PLAN

1/4" = 1'-0"

AREA P

N

PLAN NORTH

NOTES:

1. INDICATES LIMIT OF NEW 5" THICK SLAB ON GRADE FOUNDATION SLAB.
2. ALL CONDUIT GREATER THAN 1.1/2" IN DIAMETER SHALL BE RECESSED TO PROVIDE 1.1/2" CLEAR DISTANCE BETWEEN SLAB REBAR & CONDUIT.
3. MAINTAIN 2" MINIMUM CLEAR DISTANCE BETWEEN ALL CONDUIT IN SLAB.
4. REFERENCE DETAIL 1/S2.8N AT LOCATIONS WHERE NEW CONDUIT & PLUMBING INTERSECT EXISTING INTERIOR GRADE BEAMS.

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS & EXISTING CONDITIONS IN THE FIELD. CONTACT ENGINEER IF CONDITIONS VARY FROM THOSE SHOWN ON THE DRAWINGS.

Consultants:

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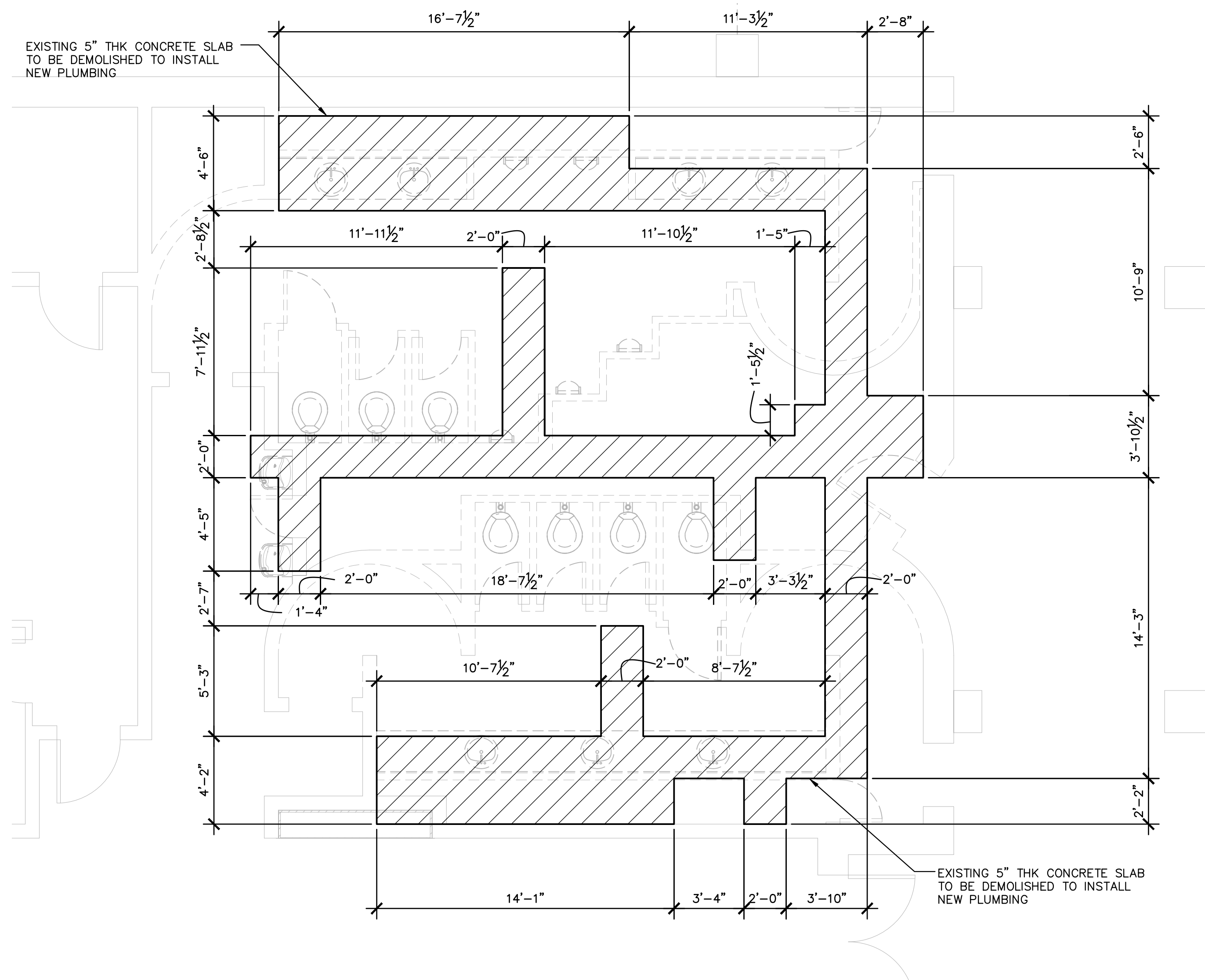
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FOUNDATION  
RENOVATION PLAN  
AREA P

S2.3N





**1 FOUNDATION DEMO PLAN**  
1/4" = 1'-0" AREA V PLAN NORTH

- NOTES:
1. [Hatched symbol] INDICATES LOCATIONS WHERE EXISTING 5" THICK SLAB (FIELD VERIFY & COORDINATE WITH MEP) WILL BE DEMOLISHED TO INSTALL NEW PLUMBING. CONTRACTOR SHALL COORDINATE ADDITIONAL LOCATIONS OF SLAB OPENINGS WITH UNDER-SLAB UTILITY DRAWINGS. REFERENCE ARCHITECTURAL AND M.E.P. DRAWINGS FOR ADDITIONAL INFORMATION.
  2. REFER TO ARCHITECTURAL AND M.E.P. FOR ADDITIONAL DEMOLITION SCOPE.
  3. EXISTING SLAB SHALL BE SAW CUT ALONG PERIMETER OF SLAB DEMOLITION AREAS. CONTRACTOR SHALL CUT A MINIMUM OF 1.1/2" DEEP CUT INTO EXISTING SLAB. CONTRACTOR SHALL USE APPROPRIATE SIZE DEMOLITION EQUIPMENT AND TOOLS TO AVOID EXCESSIVE VIBRATIONS IN EXISTING STRUCTURE.
  4. CONTRACTOR SHALL INCLUDE ALL NECESSARY LABOR, EQUIPMENT, TOOLS, AND SUPERVISION TO DEMOLISH EXISTING CONCRETE TO EXPOSE UNDER SLAB SUBGRADE. CONCRETE THICKNESS MAY VARY.

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**KEYPLAN**

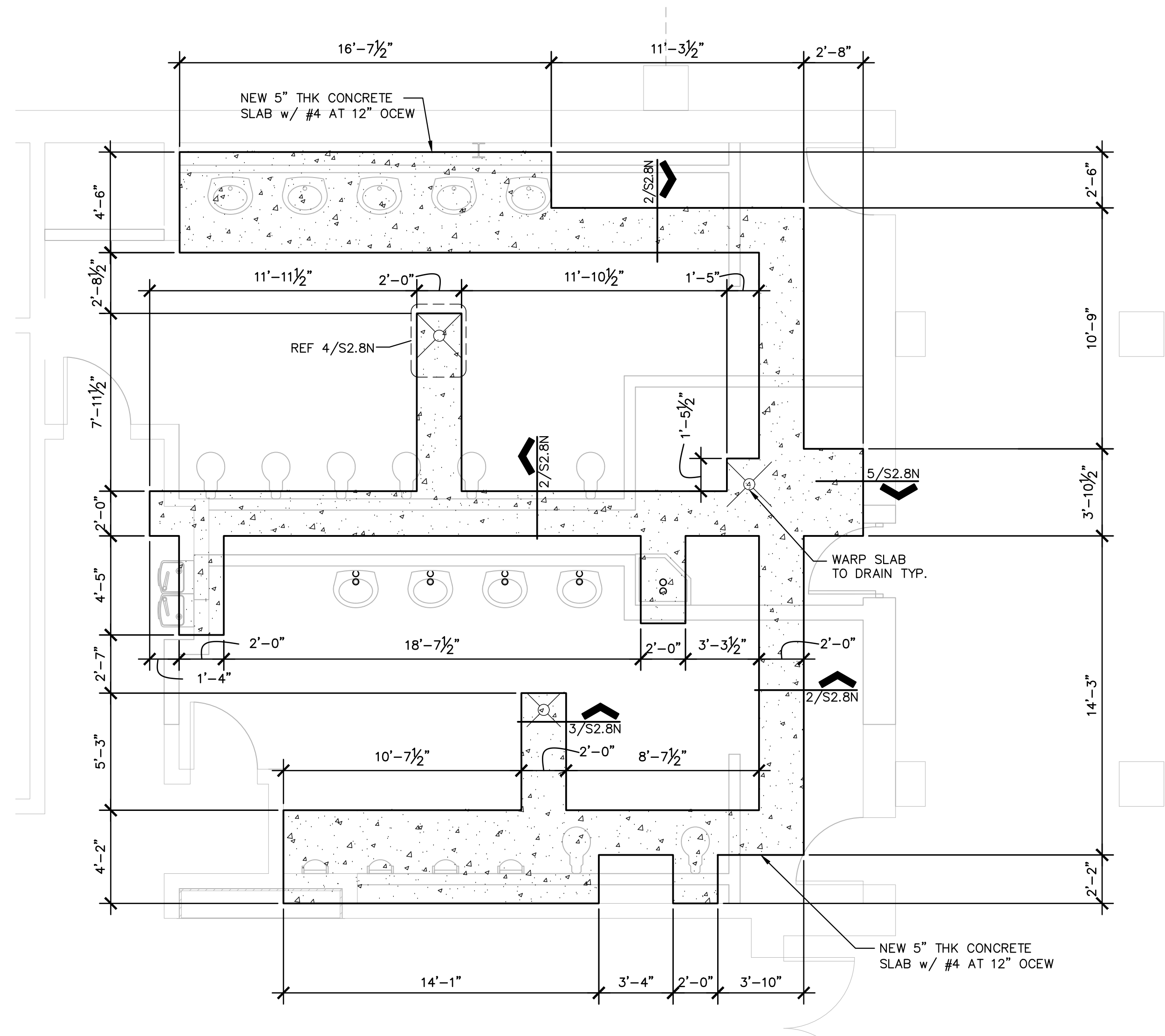
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**FOUNDATION DEMO**  
**PLAN AREA V**





**1 FOUNDATION RENOVATION PLAN**  
1/4" = 1'-0"  
AREA V PLAN NORTH

- NOTES:
1. [Symbol] INDICATES LIMIT OF NEW 5" THICK SLAB ON GRADE FOUNDATION SLAB.
  2. ALL CONDUIT GREATER THAN 1.1/2" IN DIAMETER SHALL BE RECESSED TO PROVIDE 1.1/2" CLEAR DISTANCE BETWEEN SLAB REBAR & CONDUIT.
  3. MAINTAIN 2" MINIMUM CLEAR DISTANCE BETWEEN ALL CONDUIT IN SLAB.
  4. REFERENCE DETAIL 1/S2.8N AT LOCATIONS WHERE NEW CONDUIT & PLUMBING INTERSECT EXISTING INTERIOR GRADE BEAMS.

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS & EXISTING CONDITIONS IN THE FIELD. CONTACT ENGINEER IF CONDITIONS VARY FROM THOSE SHOWN ON THE DRAWINGS.

Consultants:

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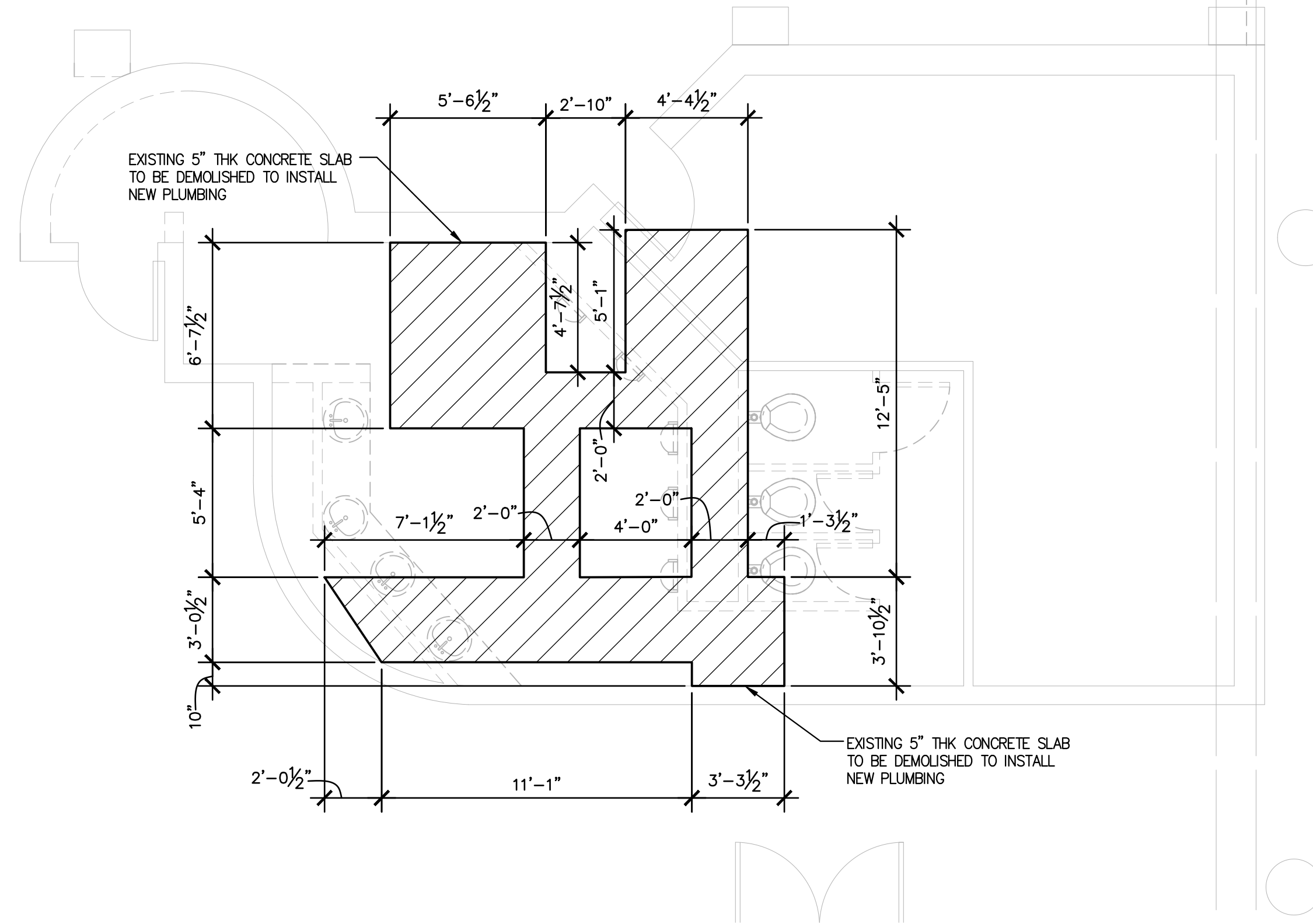
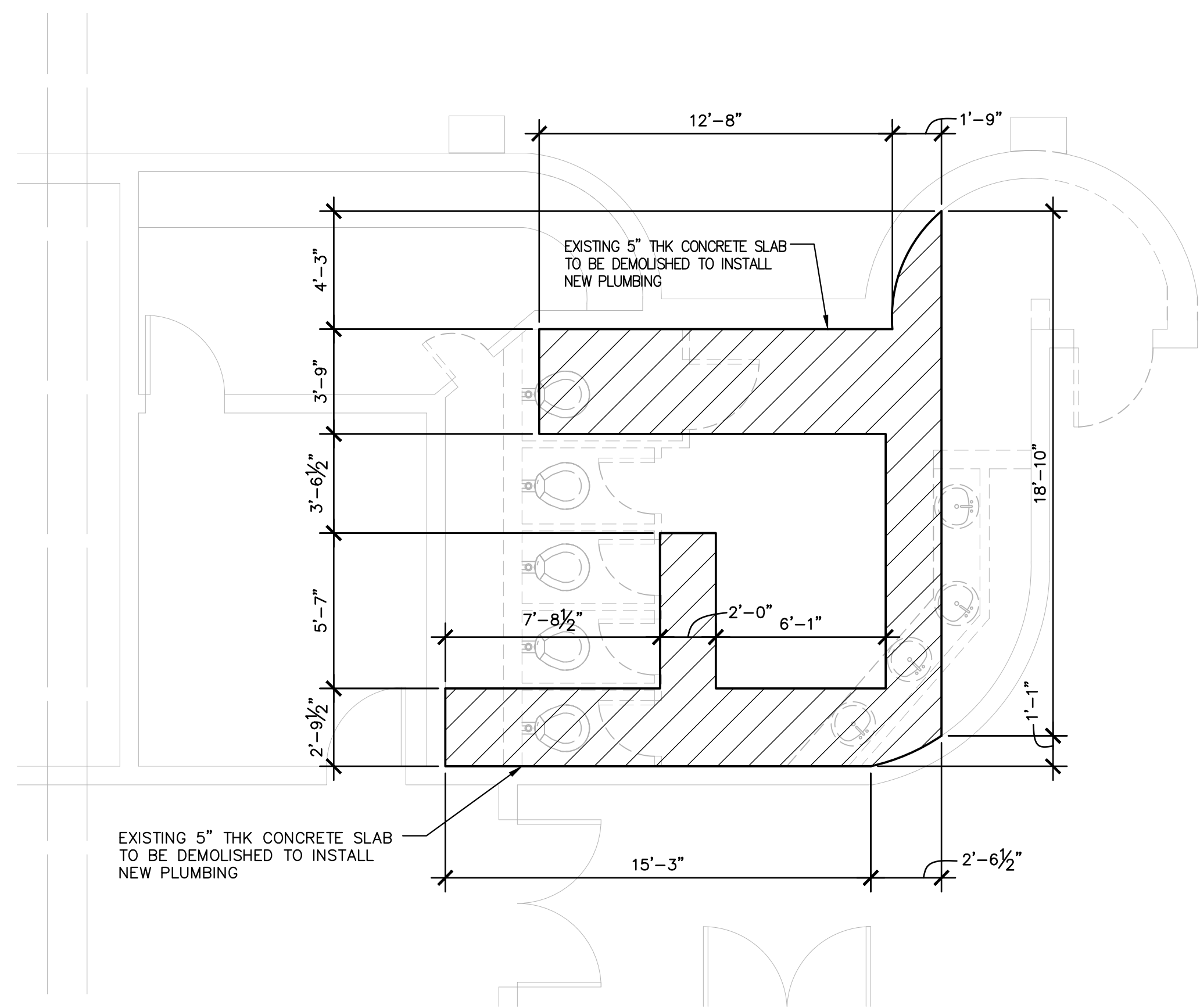
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**FOUNDATION**  
**RENOVATION PLAN**  
**AREA V**

**S2.4N**





# 1 FOUNDATION DEMO PLAN

1/4" = 1'-0" AREA E PLAN NORTH

- NOTES:
1. [Hatched Box] INDICATES LOCATIONS WHERE EXISTING 5" THICK SLAB (FIELD VERIFY & COORDINATE WITH MEP) WILL BE DEMOLISHED TO INSTALL NEW PLUMBING. CONTRACTOR SHALL COORDINATE ADDITIONAL LOCATIONS OF SLAB OPENINGS WITH UNDER-SLAB UTILITY DRAWINGS. REFERENCE ARCHITECTURAL AND M.E.P. DRAWINGS FOR ADDITIONAL INFORMATION.
  2. REFER TO ARCHITECTURAL AND M.E.P. FOR ADDITIONAL DEMOLITION SCOPE.
  3. EXISTING SLAB SHALL BE SAW CUT ALONG PERIMETER OF SLAB DEMOLITION AREAS. CONTRACTOR SHALL CUT A MINIMUM OF 1-1/2" DEEP CUT INTO EXISTING SLAB. CONTRACTOR SHALL USE APPROPRIATE SIZE DEMOLITION EQUIPMENT AND TOOLS TO AVOID EXCESSIVE VIBRATIONS IN EXISTING STRUCTURE.
  4. CONTRACTOR SHALL INCLUDE ALL NECESSARY LABOR, EQUIPMENT, TOOLS, AND SUPERVISION TO DEMOLISH EXISTING CONCRETE TO EXPOSE UNDER SLAB SUBGRADE. CONCRETE THICKNESS MAY VARY.

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Project Number: 696-190  
Drawing Date: 5-08-19  
Drawn: AV  
Checked: BD  
Scale: AS SHOWN

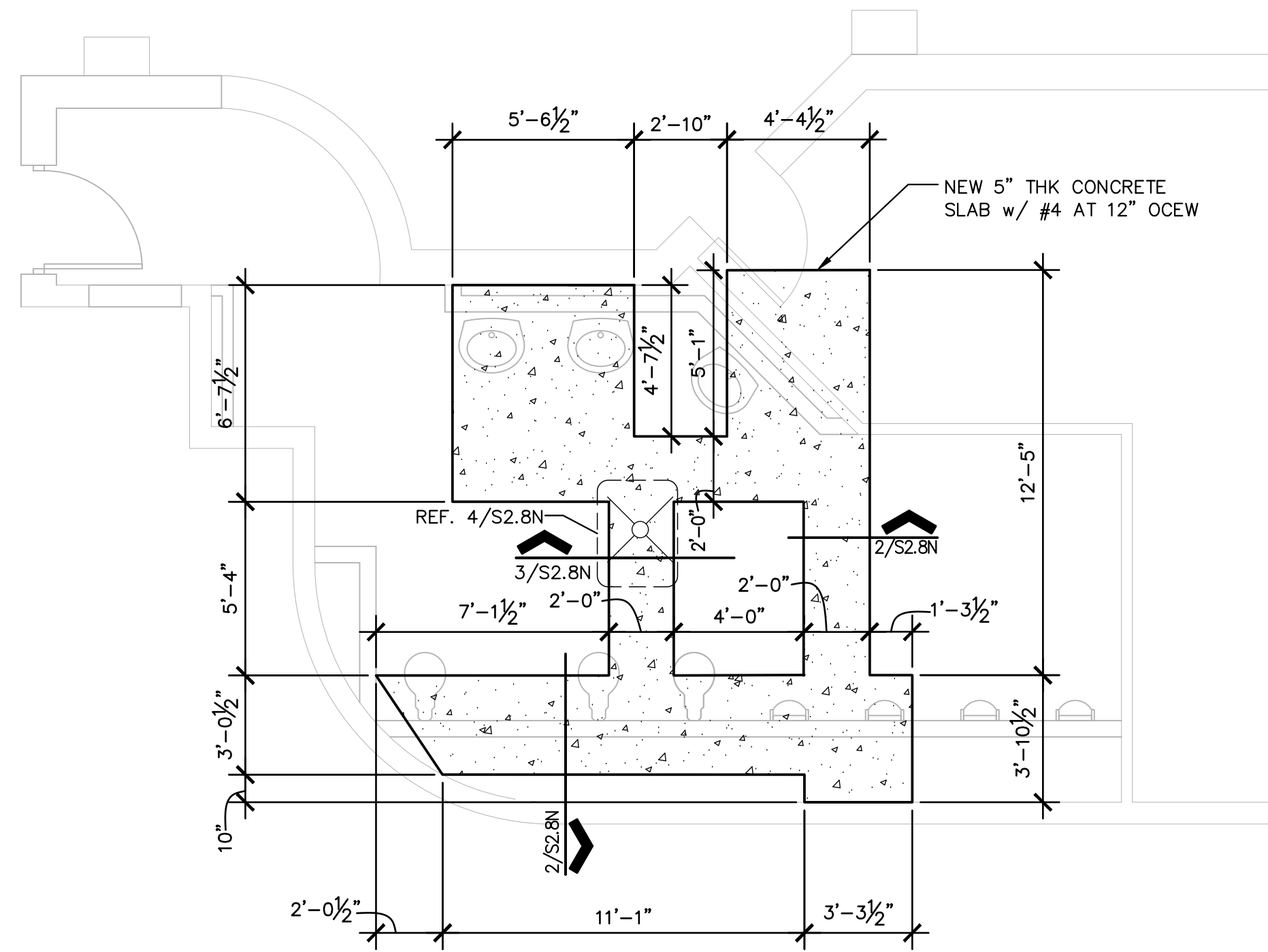
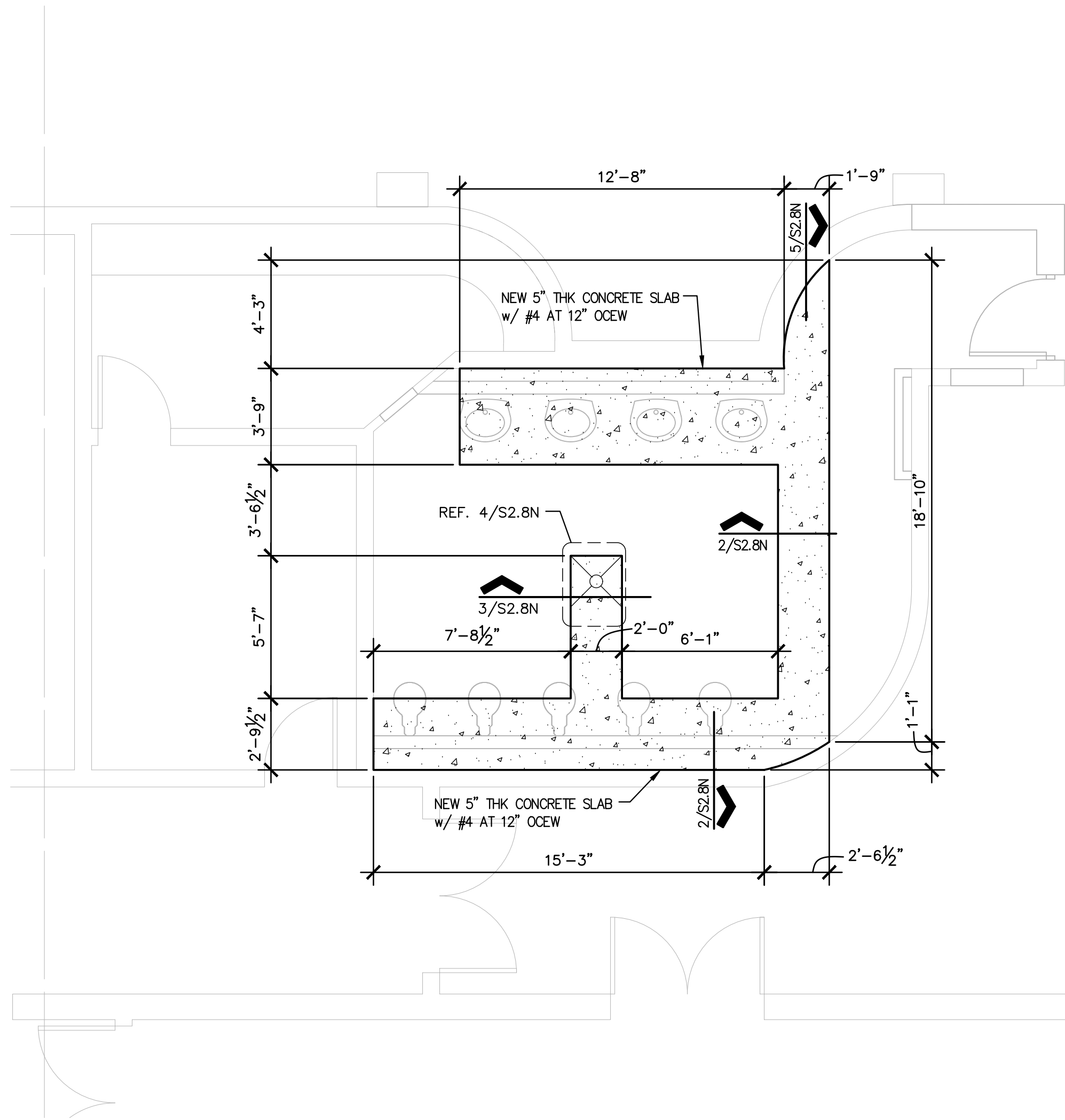
Revisions:

Sheet Title:

**FOUNDATION DEMO**  
**PLAN AREA E**

**SD2.5N**





# 1 FOUNDATION RENOVATION PLAN

1/4" = 1'-0" AREA E PLAN NORTH

- NOTES:
1. [Symbol] INDICATES LIMIT OF NEW 5" THICK SLAB ON GRADE FOUNDATION SLAB.
  2. ALL CONDUIT GREATER THAN 1.1/2" IN DIAMETER SHALL BE RECESSED TO PROVIDE 1.1/2" CLEAR DISTANCE BETWEEN SLAB REBAR & CONDUIT.
  3. MAINTAIN 2" MINIMUM CLEAR DISTANCE BETWEEN ALL CONDUIT IN SLAB.
  4. REFERENCE DETAIL 1/S2.8N AT LOCATIONS WHERE NEW CONDUIT & PLUMBING INTERSECT EXISTING INTERIOR GRADE BEAMS.

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS & EXISTING CONDITIONS IN THE FIELD. CONTACT ENGINEER IF CONDITIONS VARY FROM THOSE SHOWN ON THE DRAWINGS.

Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



## PSJA ISD NORTH ECHS & COLLEGE AND UNIVERSITY CAMPUS STUDENT RESTROOM RENOVATIONS

### KEYPLAN

Project Number: 696-190  
Drawing Date: 5-08-19  
Drawn: AV  
Checked: BD  
Scale: AS SHOWN

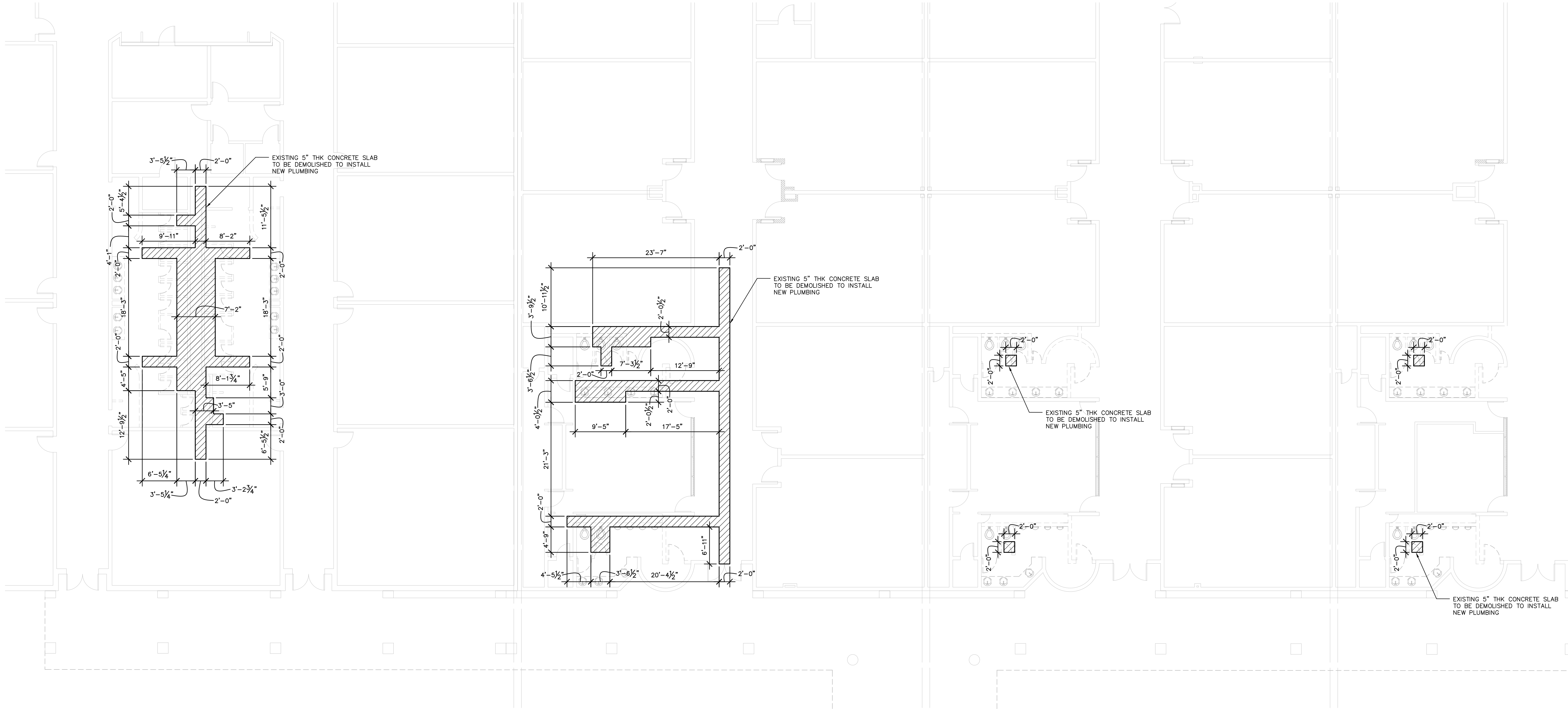
Revisions:

Sheet Title:

### FOUNDATION RENOVATION PLAN AREA E

# S2.5N





**1 FOUNDATION DEMO PLAN**  
1/8" = 1'-0" AREA A, G, H, J PLAN NORTH

- NOTES:
- INDICATES LOCATIONS WHERE EXISTING 5" THICK SLAB (FIELD VERIFY & COORDINATE WITH MEP) WILL BE DEMOLISHED TO INSTALL NEW PLUMBING. CONTRACTOR SHALL COORDINATE ADDITIONAL LOCATIONS OF SLAB OPENINGS WITH UNDER-SLAB UTILITY DRAWINGS. REFERENCE ARCHITECTURAL AND M.E.P. DRAWINGS FOR ADDITIONAL INFORMATION.
  - REFER TO ARCHITECTURAL AND M.E.P. FOR ADDITIONAL DEMOLITION SCOPE.
  - EXISTING SLAB SHALL BE SAW CUT ALONG PERIMETER OF SLAB DEMOLITION AREAS. CONTRACTOR SHALL CUT A MINIMUM OF 1-1/2" DEEP CUT INTO EXISTING SLAB. CONTRACTOR SHALL USE APPROPRIATE SIZE DEMOLITION EQUIPMENT AND TOOLS TO AVOID EXCESSIVE VIBRATIONS IN EXISTING STRUCTURE.
  - CONTRACTOR SHALL INCLUDE ALL NECESSARY LABOR, EQUIPMENT, TOOLS, AND SUPERVISION TO DEMOLISH EXISTING CONCRETE TO EXPOSE UNDER SLAB SUBGRADE. CONCRETE THICKNESS MAY VARY.

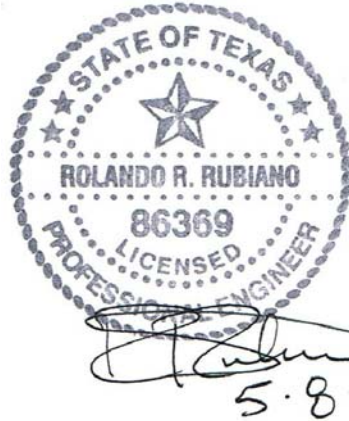
CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS & EXISTING CONDITIONS IN THE FIELD. CONTACT ENGINEER IF CONDITIONS VARY FROM THOSE SHOWN ON THE DRAWINGS.

**Consultants:**

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO & ASSOCIATES INC.**

**MEP:**  
**DBR ENGINEERING**



**PSJA ISD**  
**NORTH ECHS & COLLEGE**  
**AND**  
**UNIVERSITY CAMPUS**  
**STUDENT RESTROOM RENOVATIONS**

**KEYPLAN**

Project Number: 696-190  
Drawing Date: 5-08-19  
Drawn: AV  
Checked: BD  
Scale: AS SHOWN

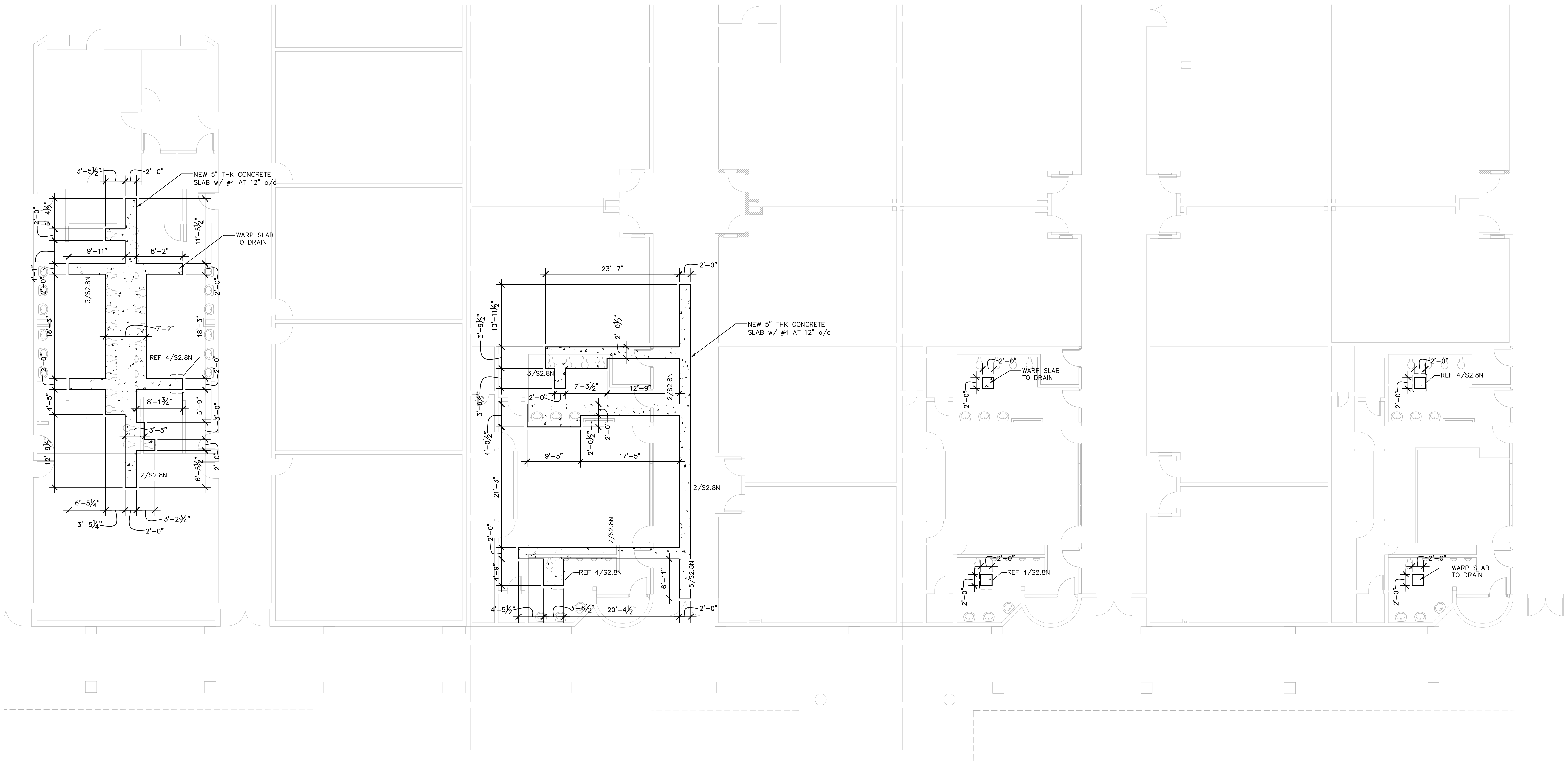
**Revisions:**

Sheet Title:

**FOUNDATION DEMO  
PLAN AREA A, G, H,  
AND J**

**SD2.6N**





**1 FOUNDATION RENOVATION PLAN**  
1/8" = 1'-0" AREA A, G, H, J PLAN NORTH

- NOTES:
1. [Hatched Pattern] INDICATES LIMIT OF NEW 5" THICK SLAB ON GRADE FOUNDATION SLAB.
  2. ALL CONDUIT GREATER THAN 1.1/2" IN DIAMETER SHALL BE RECESSED TO PROVIDE 1.1/2" CLEAR DISTANCE BETWEEN SLAB REBAR & CONDUIT.
  3. MAINTAIN 2" MINIMUM CLEAR DISTANCE BETWEEN ALL CONDUIT IN SLAB.
  4. REFERENCE DETAIL 1/S2.8N AT LOCATIONS WHERE NEW CONDUIT & PLUMBING INTERSECT EXISTING INTERIOR GRADE BEAMS.

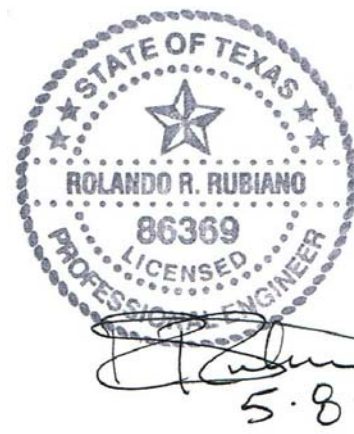
CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS & EXISTING CONDITIONS IN THE FIELD. CONTACT ENGINEER IF CONDITIONS VARY FROM THOSE SHOWN ON THE DRAWINGS.

Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
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**UNIVERSITY**  
**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

**KEYPLAN**

Project Number: 696-190  
Drawing Date: 5-08-19  
Drawn: AV  
Checked: BD  
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Revisions:

Sheet Title:

**FOUNDATION**  
**RENOVATION PLAN**  
**AREA A, G, H, AND J**

**S2.6N**

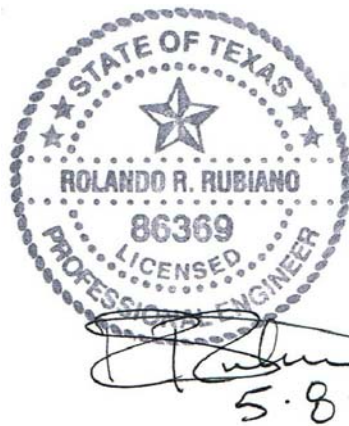


Consultants:

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& COLLEGE**

**AND  
UNIVERSITY  
CAMPUS**

**STUDENT  
RESTROOM  
RENOVATIONS**

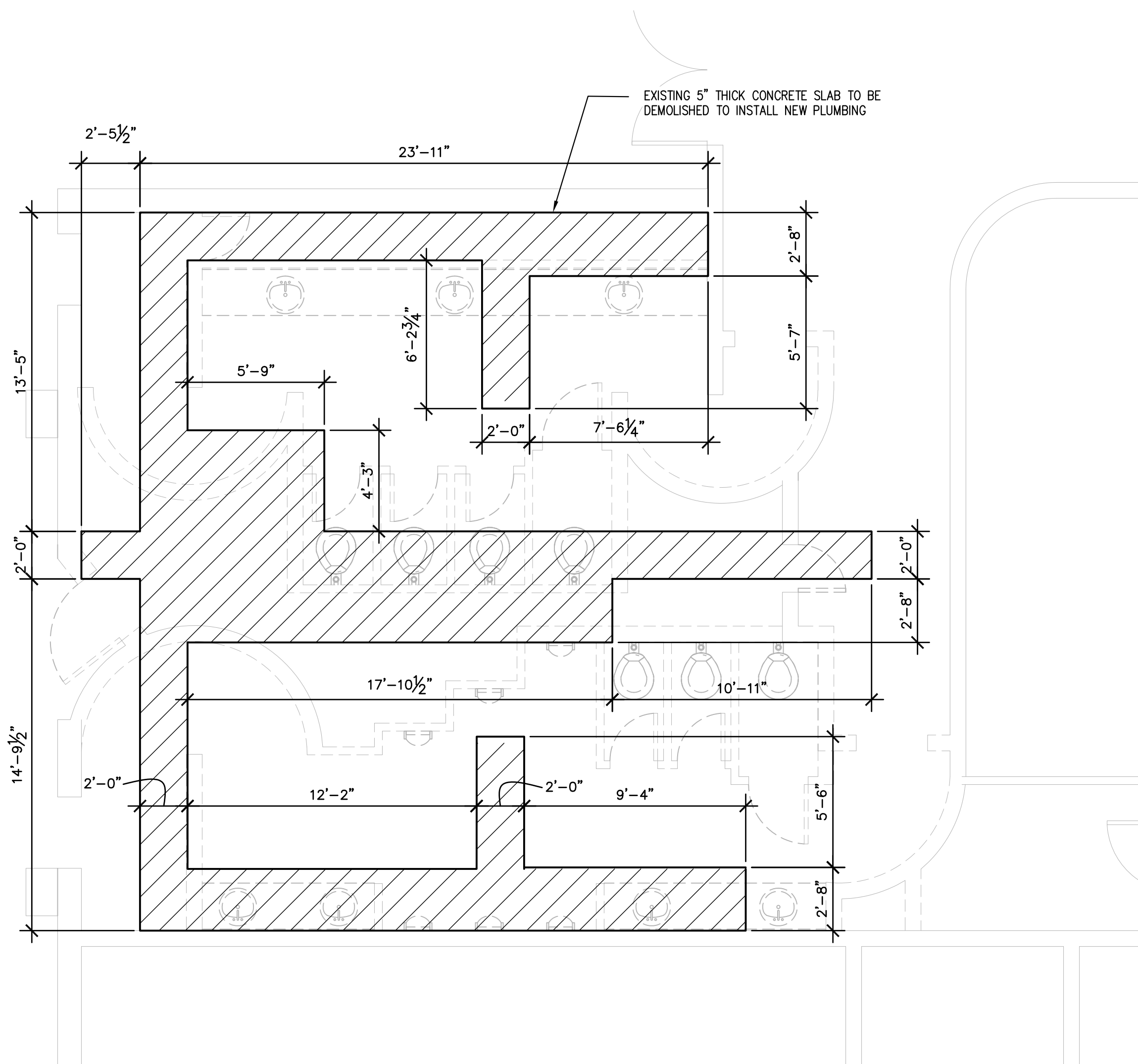
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Project Number: 696-190  
Drawing Date: 5-08-19  
Drawn: AV  
Checked: BD  
Scale: AS SHOWN

Revisions:

Sheet Title:

**FOUNDATION DEMO  
PLAN AREA K**



**1 FOUNDATION DEMO PLAN**  
1/4" = 1'-0"  
AREA K PLAN NORTH

- NOTES:
- INDICATES LOCATIONS WHERE EXISTING 5" THICK SLAB (FIELD VERIFY & COORDINATE WITH MEP) WILL BE DEMOLISHED TO INSTALL NEW PLUMBING. CONTRACTOR SHALL COORDINATE ADDITIONAL LOCATIONS OF SLAB OPENINGS WITH UNDER-SLAB UTILITY DRAWINGS. REFERENCE ARCHITECTURAL AND M.E.P. DRAWINGS FOR ADDITIONAL INFORMATION.
  - REFER TO ARCHITECTURAL AND M.E.P. FOR ADDITIONAL DEMOLITION SCOPE.
  - EXISTING SLAB SHALL BE SAW CUT ALONG PERIMETER OF SLAB DEMOLITION AREAS. CONTRACTOR SHALL CUT A MINIMUM OF 1 1/2" DEEP CUT INTO EXISTING SLAB. CONTRACTOR SHALL USE APPROPRIATE SIZE DEMOLITION EQUIPMENT AND TOOLS TO AVOID EXCESSIVE VIBRATIONS IN EXISTING STRUCTURE.
  - CONTRACTOR SHALL INCLUDE ALL NECESSARY LABOR, EQUIPMENT, TOOLS, AND SUPERVISION TO DEMOLISH EXISTING CONCRETE TO EXPOSE UNDER SLAB SUBGRADE. CONCRETE THICKNESS MAY VARY.

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS & EXISTING CONDITIONS IN THE FIELD. CONTACT ENGINEER IF CONDITIONS VARY FROM THOSE SHOWN ON THE DRAWINGS.



Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
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UNIVERSITY  
CAMPUS**

**STUDENT  
RESTROOM  
RENOVATIONS**

**KEYPLAN**

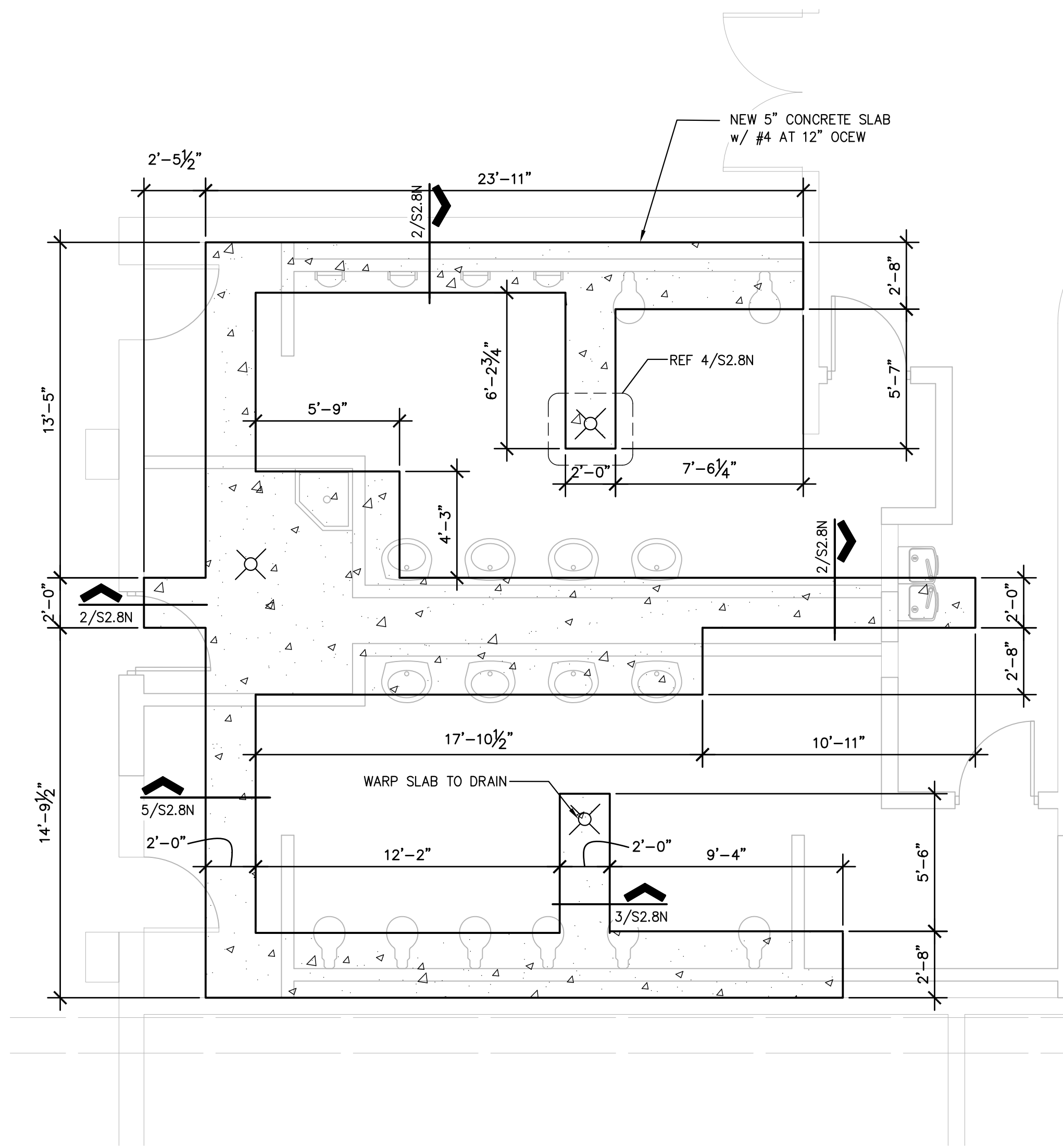
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Revisions:

Sheet Title:

**FOUNDATION  
RENOVATION PLAN  
AREA K**

**S2.7N**

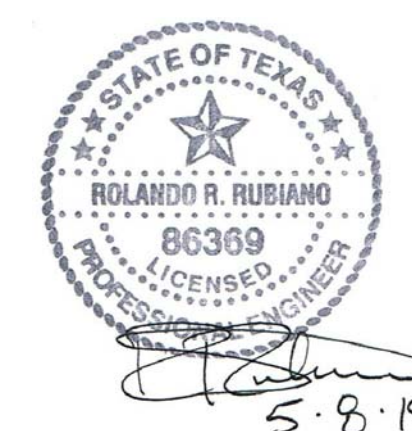
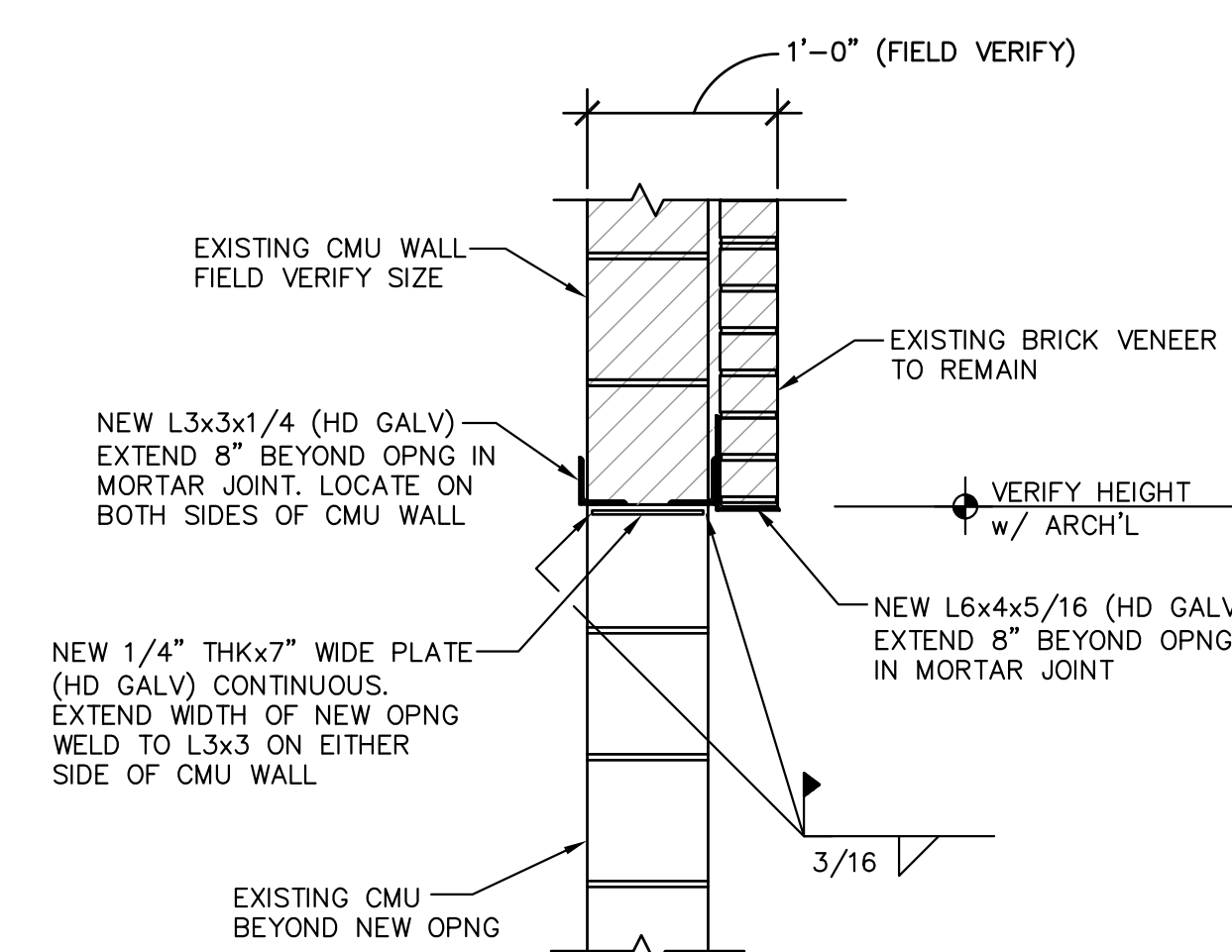
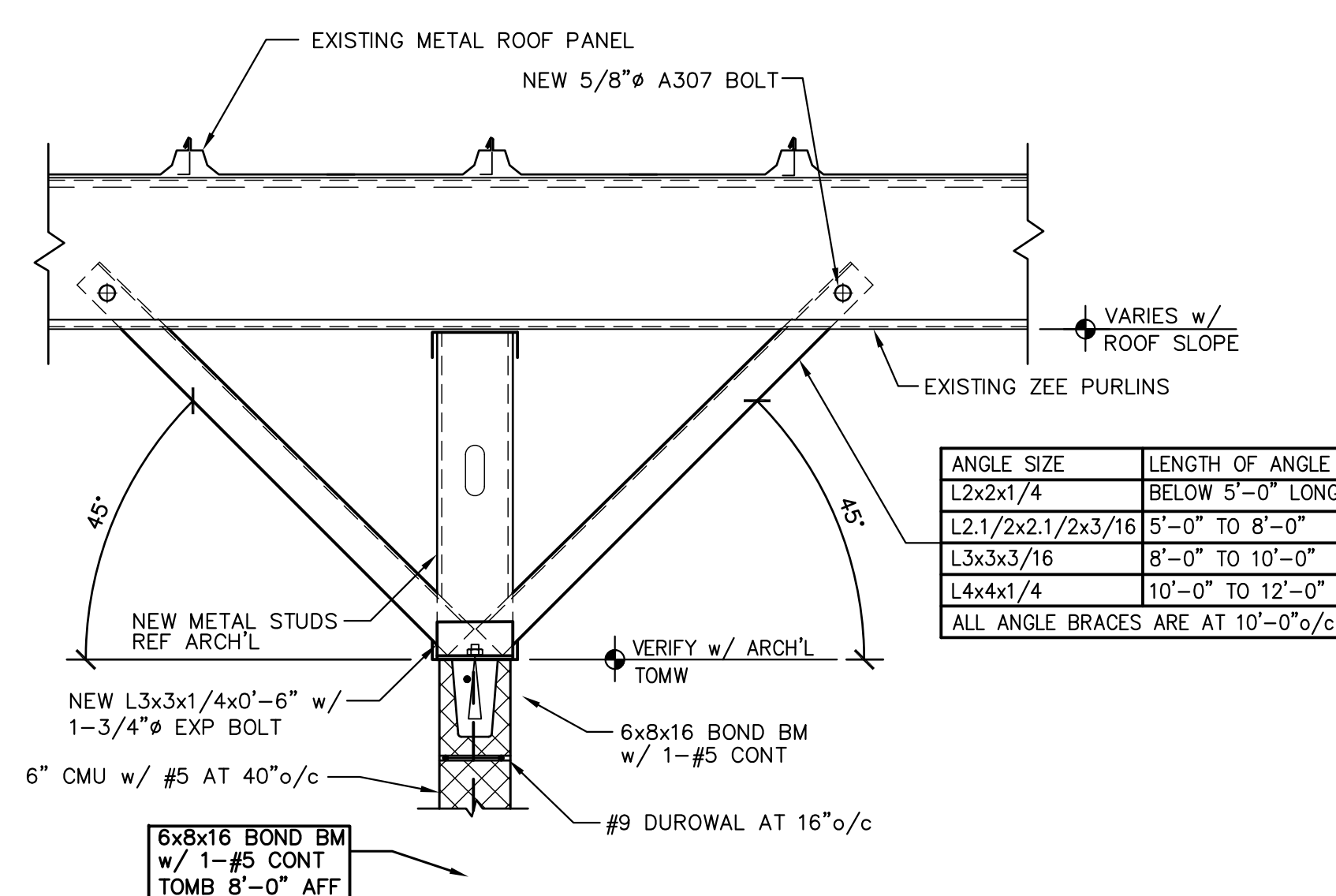
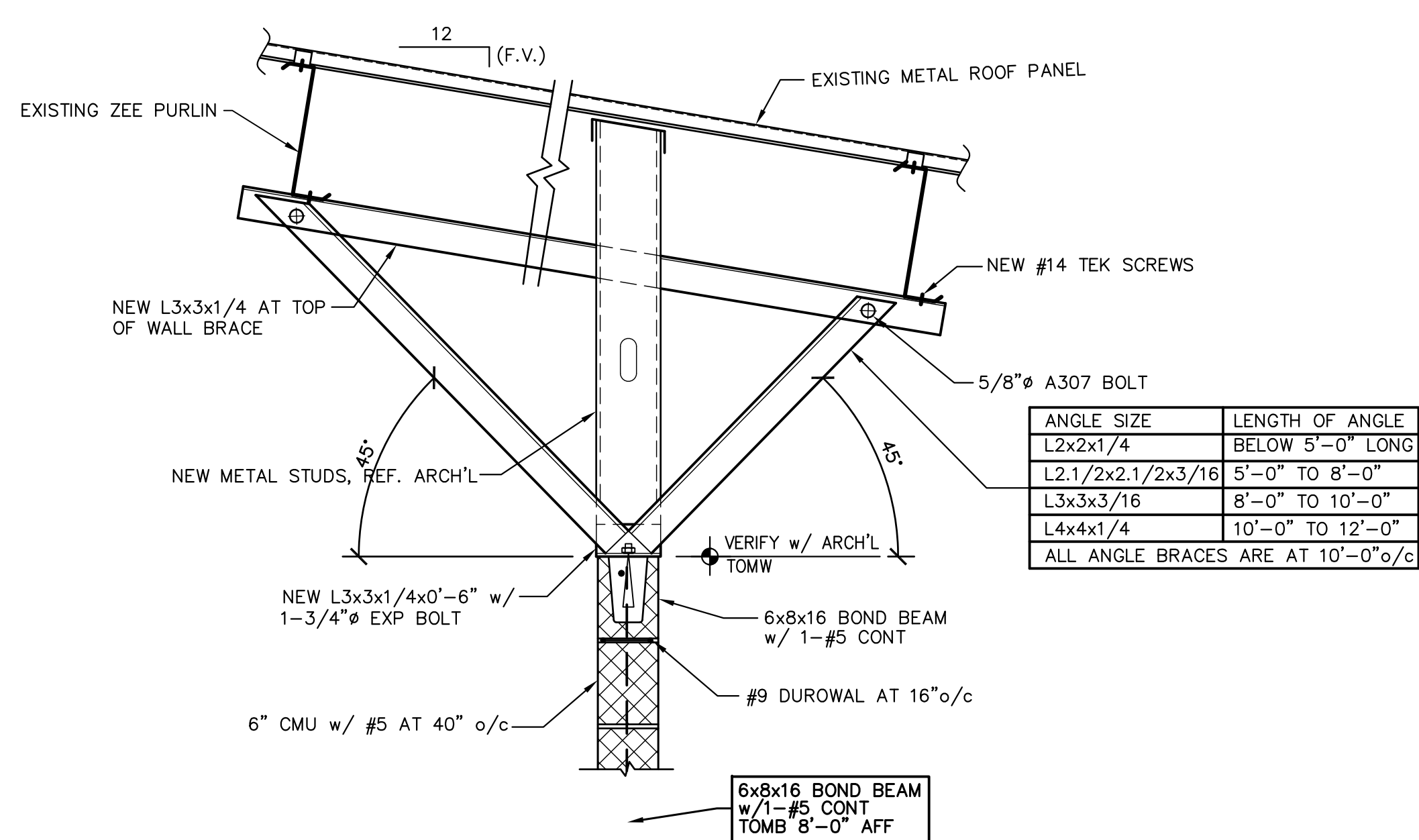
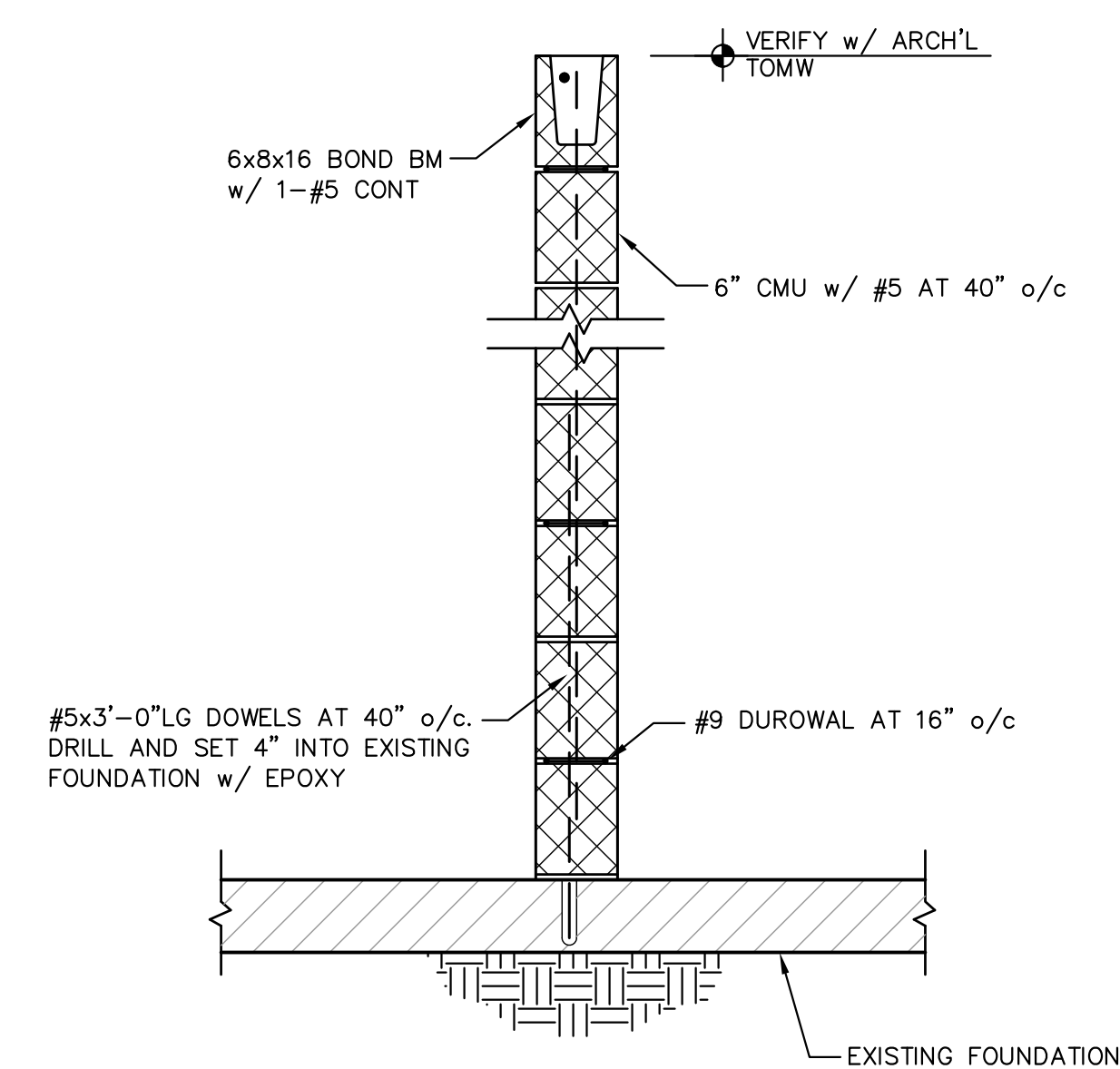
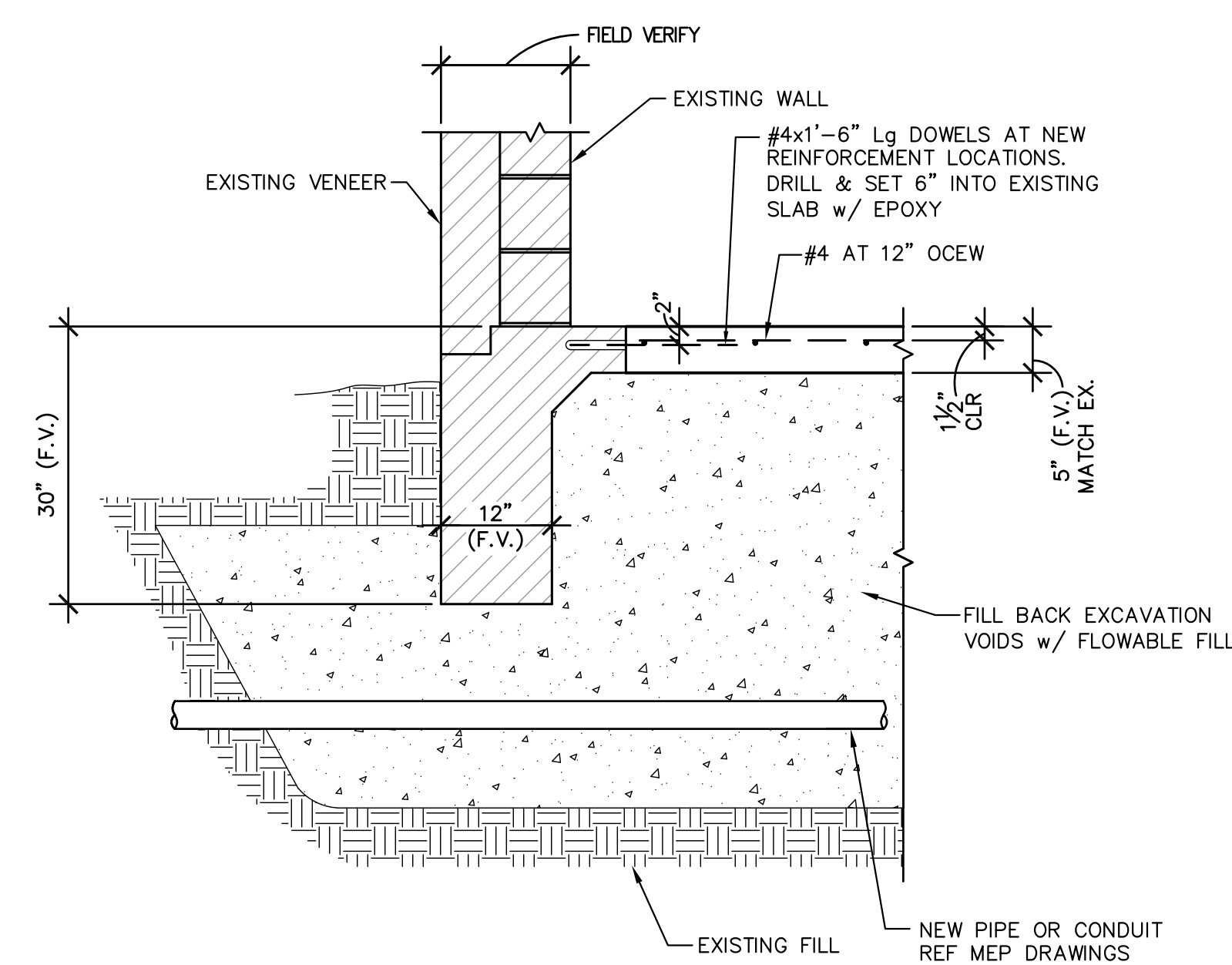
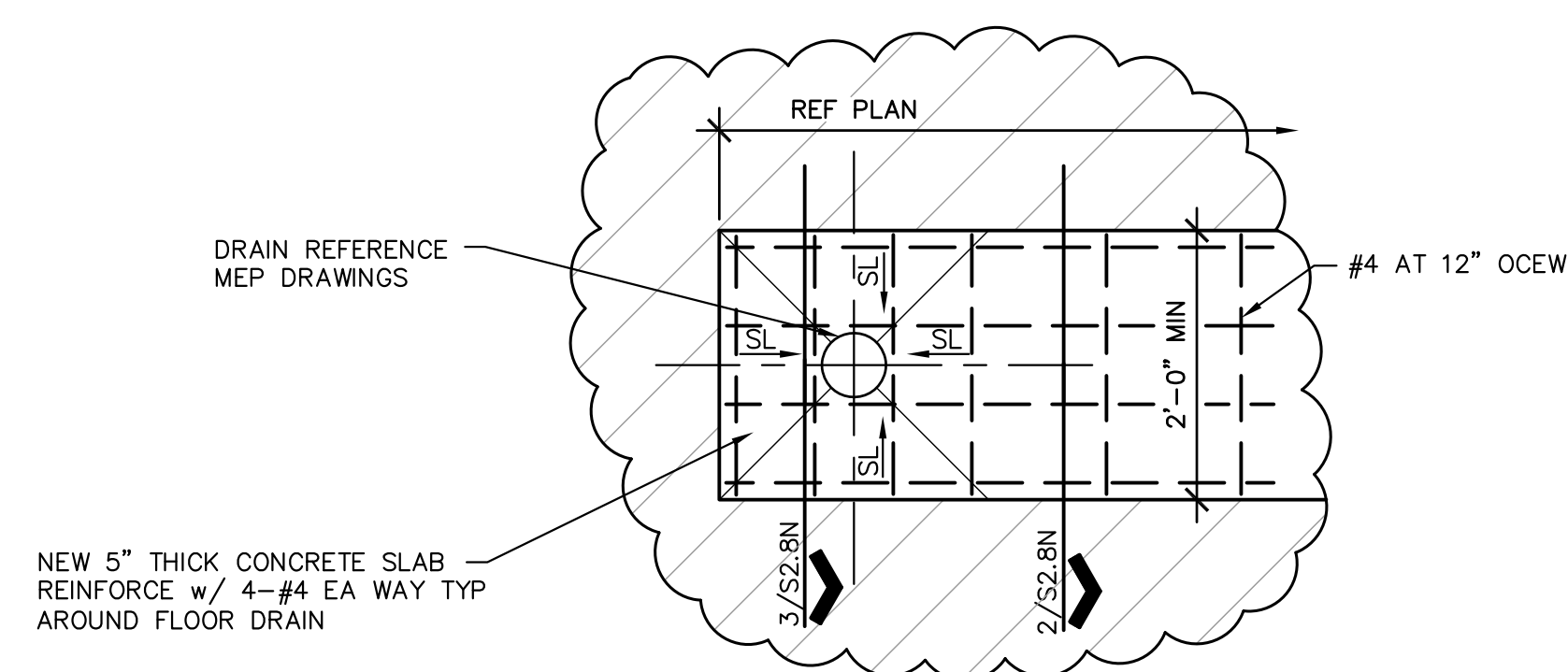
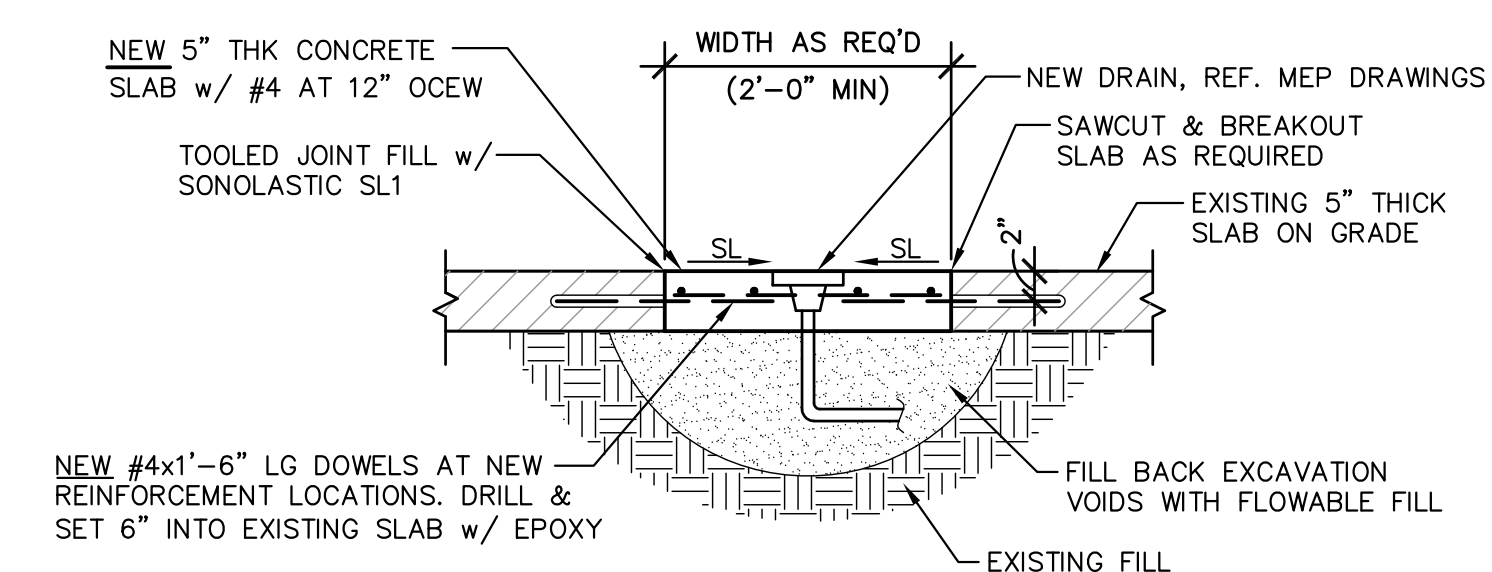
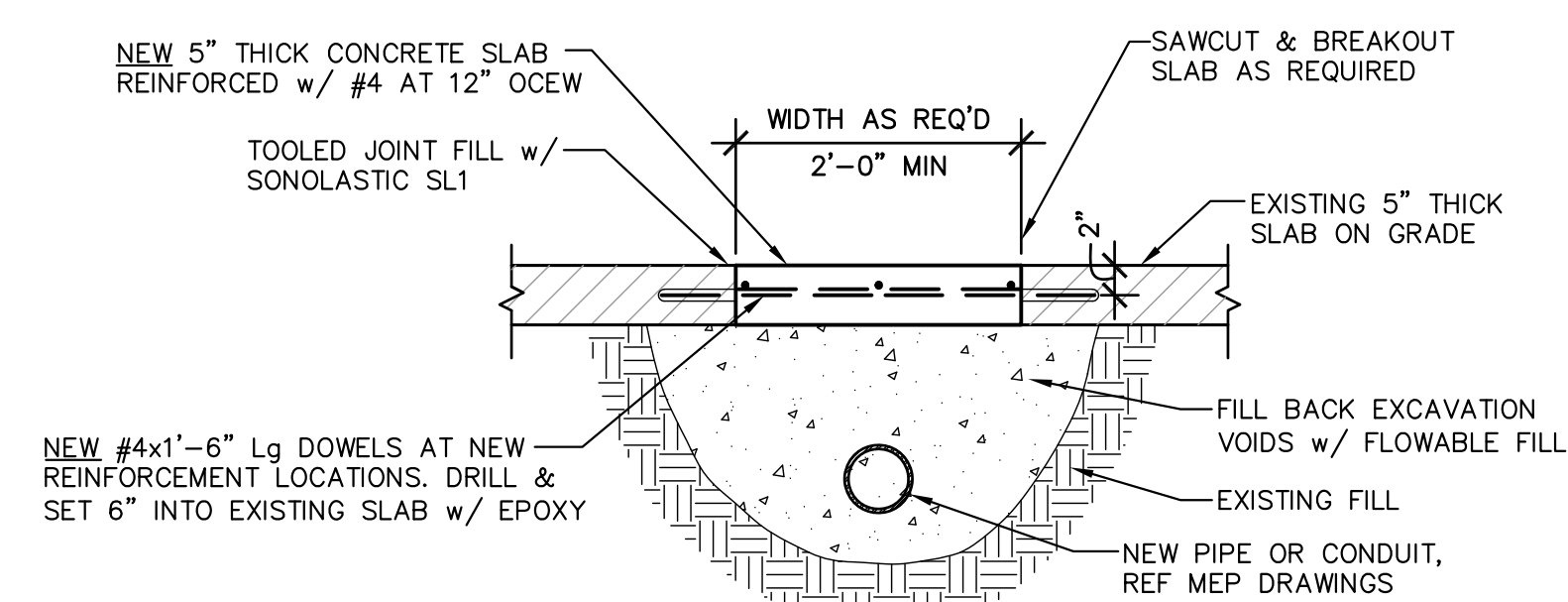
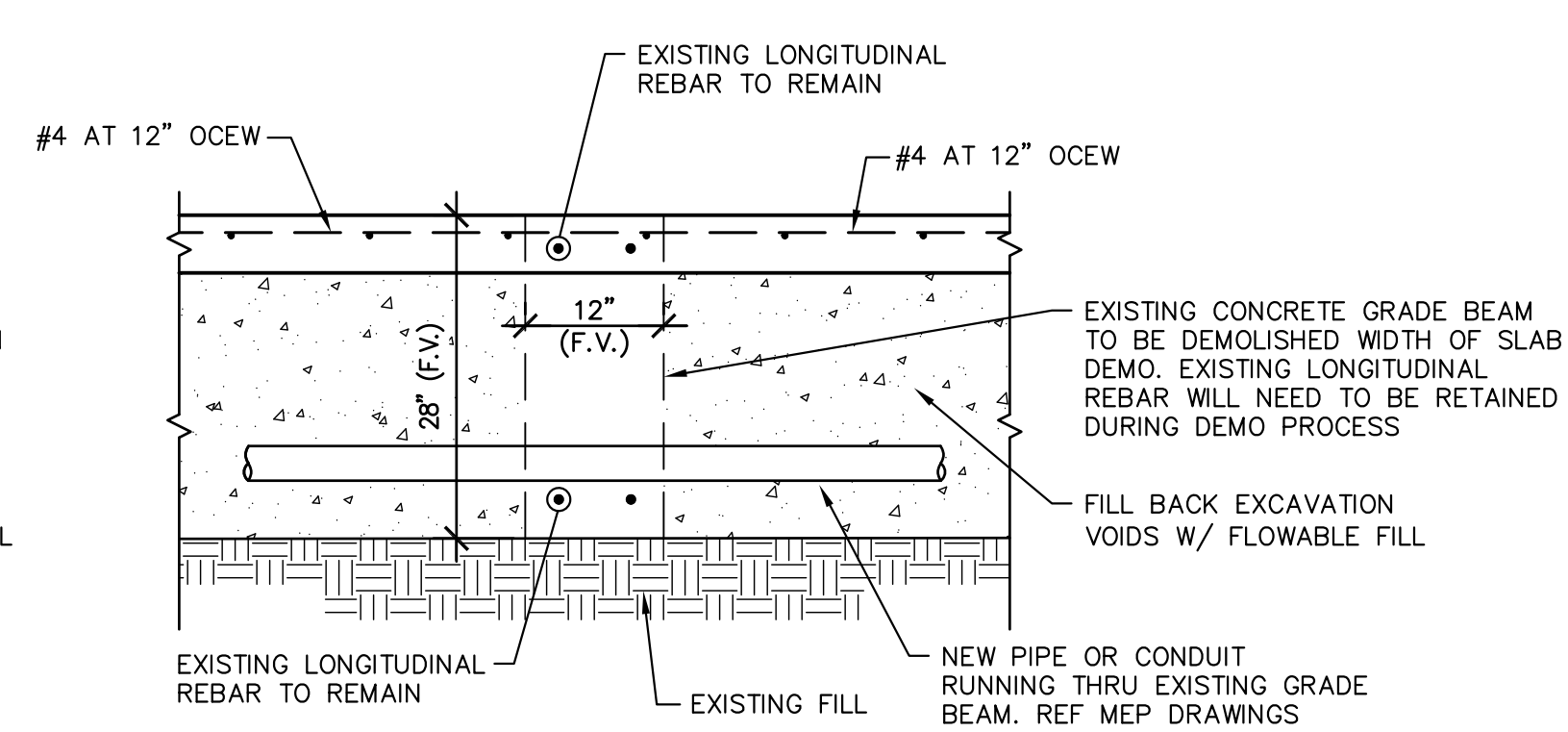
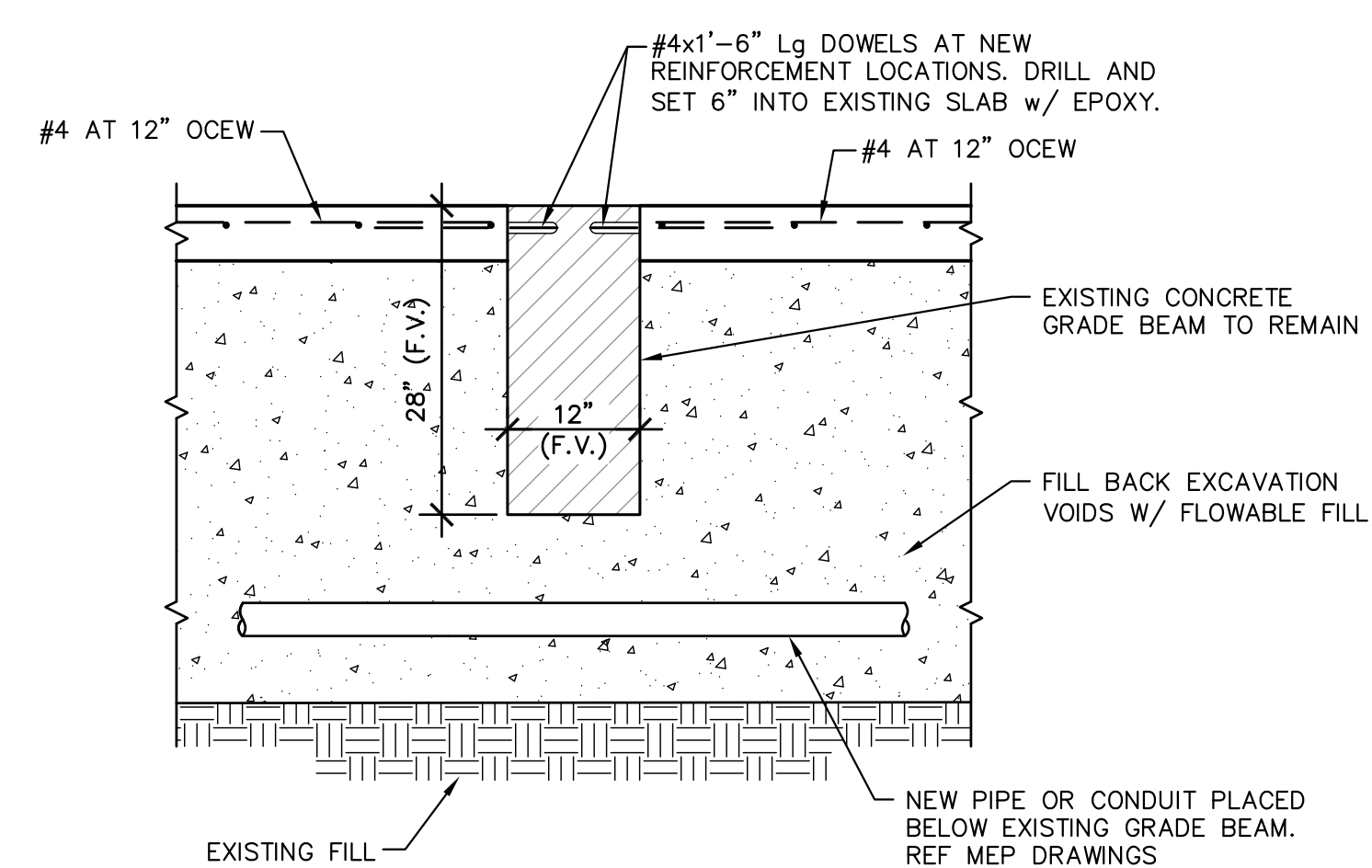


**1 FOUNDATION RENOVATION PLAN**  
1/4" = 1'-0" AREA K PLAN NORTH

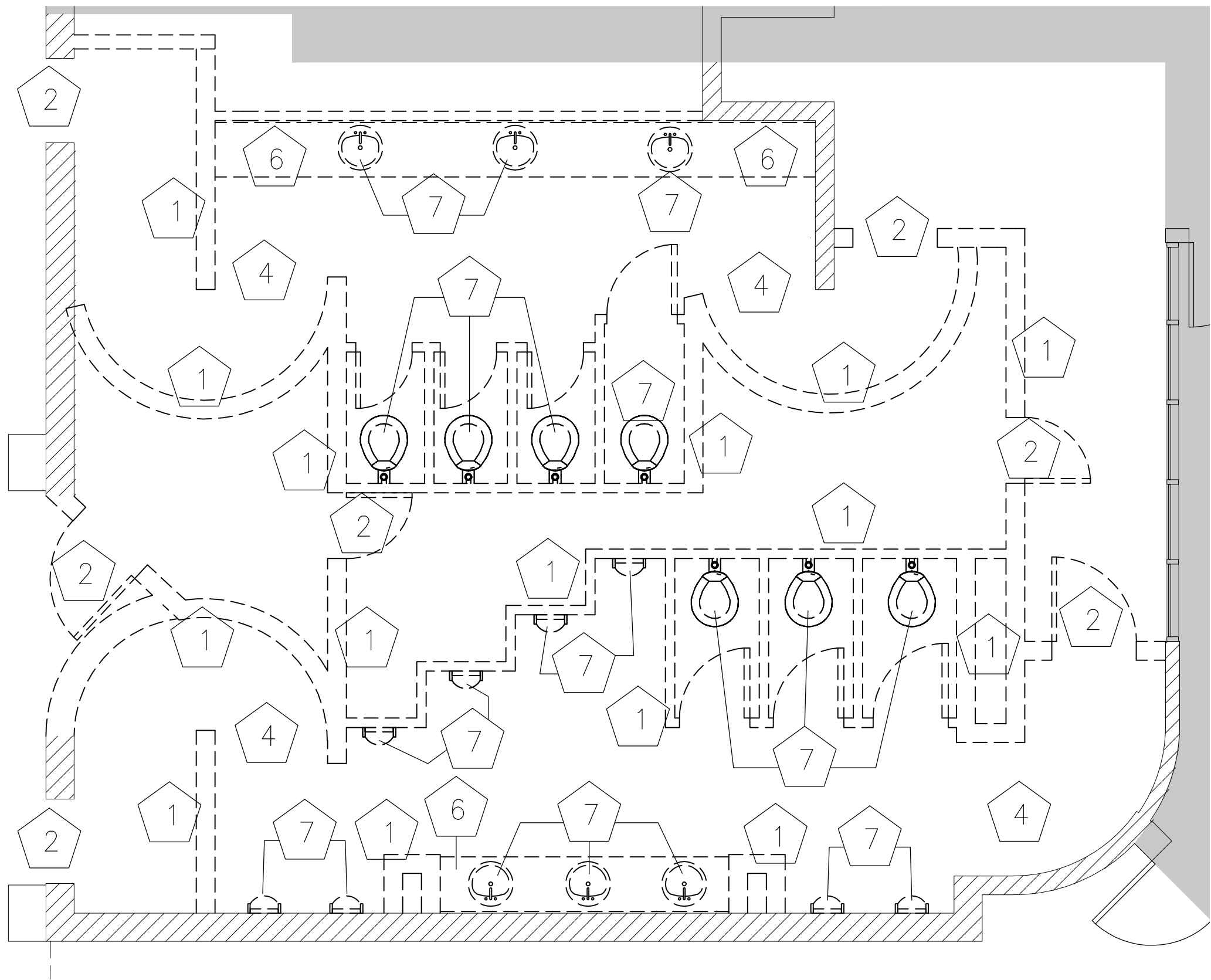
- NOTES:
1. [Symbol] INDICATES LIMIT OF NEW 5" THICK SLAB ON GRADE FOUNDATION SLAB.
  2. ALL CONDUIT GREATER THAN 1.1/2" IN DIAMETER SHALL BE RECESSED TO PROVIDE 1.1/2" CLEAR DISTANCE BETWEEN SLAB REBAR & CONDUIT.
  3. MAINTAIN 2" MINIMUM CLEAR DISTANCE BETWEEN ALL CONDUIT IN SLAB.
  4. REFERENCE DETAIL 1/S2.8N AT LOCATIONS WHERE NEW CONDUIT & PLUMBING INTERSECT EXISTING INTERIOR GRADE BEAMS.

CONTRACTOR SHALL FIELD VERIFY  
ALL DIMENSIONS & EXISTING CONDITIONS  
IN THE FIELD. CONTACT ENGINEER IF  
CONDITIONS VARY FROM THOSE SHOWN  
ON THE DRAWINGS.

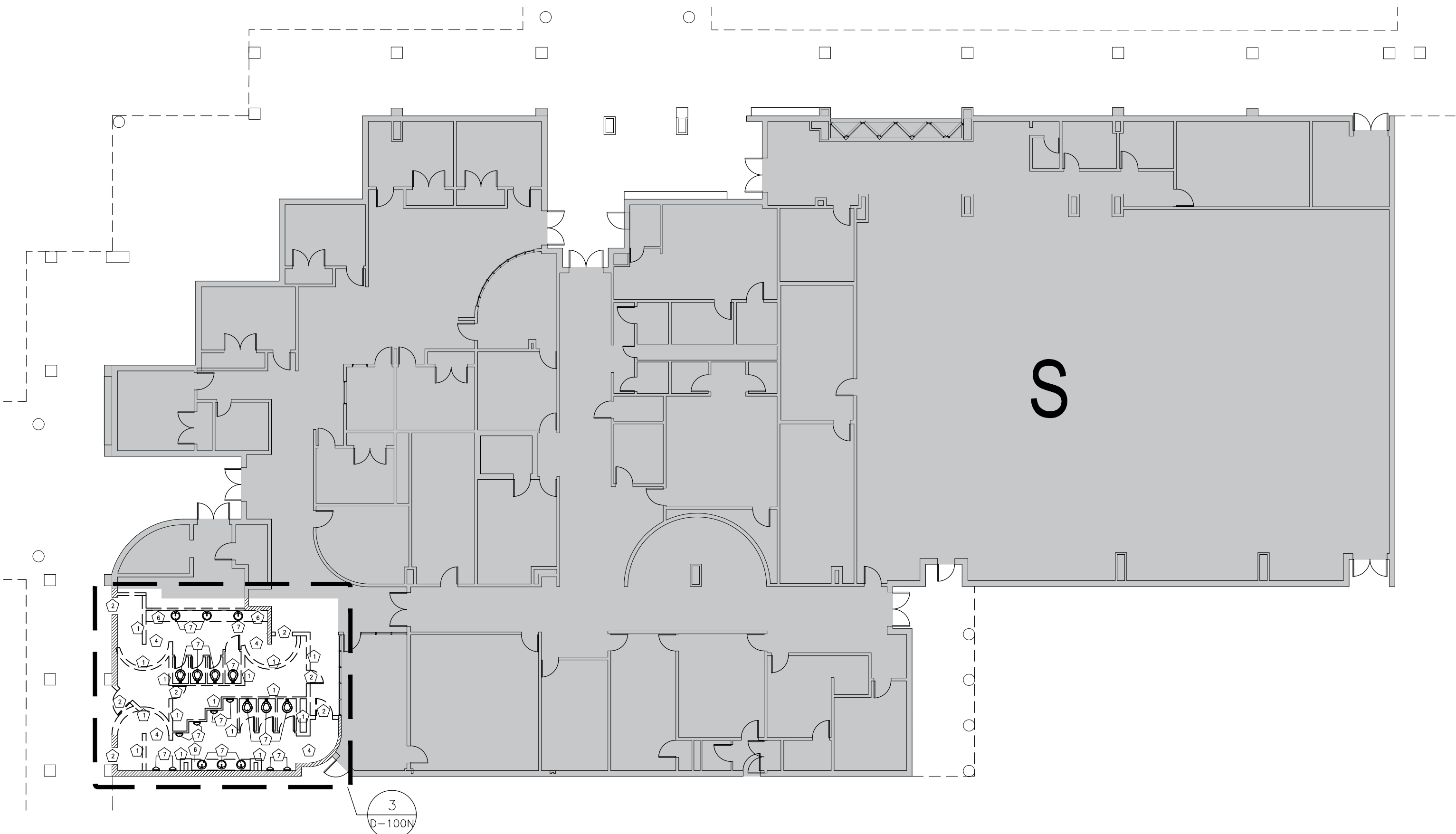




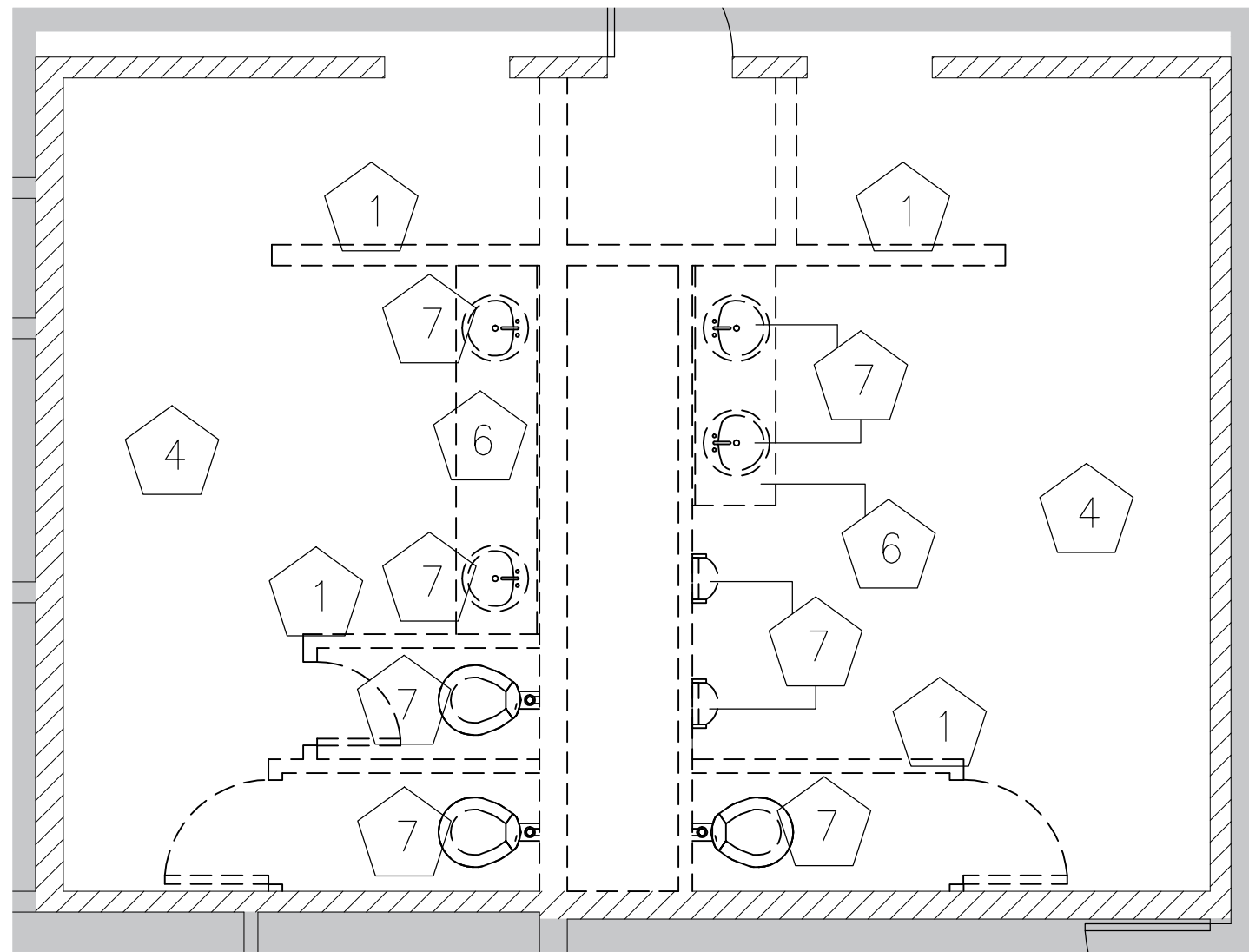




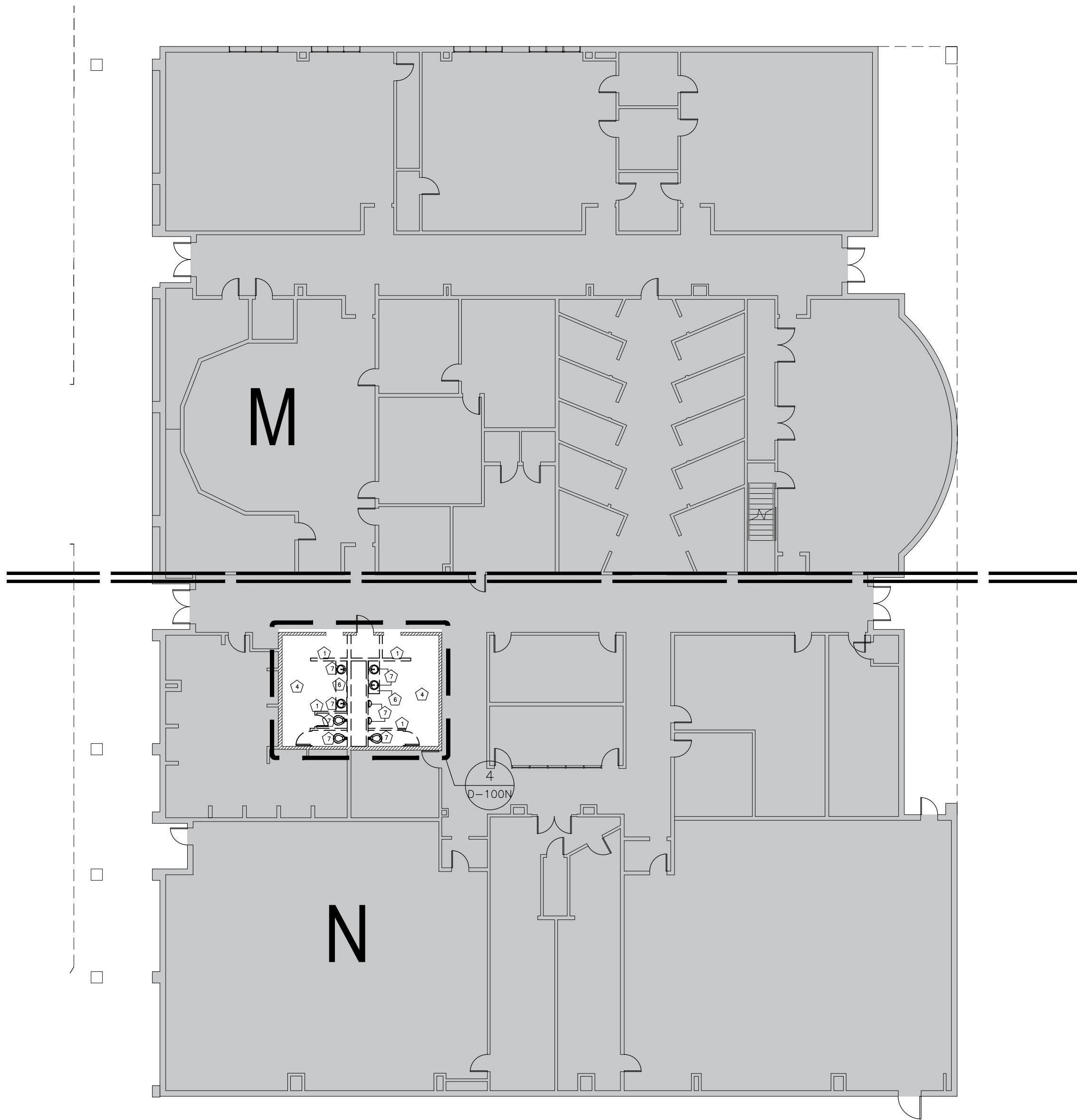
DEMOLITION PLAN -- ENLARGED PLAN  
1/4" = 1'-0"



DEMOLITION PLAN -- BUILDING S  
1/16" = 1'-0"



DEMOLITION PLAN -- ENLARGED PLAN  
1/4" = 1'-0"



DEMOLITION PLAN -- BUILDING N  
1/16" = 1'-0"

#### DEMOLITION KEY NOTES

- REMOVE EXISTING WALL OR PORTION OF WALL TO CREATE NEW OPENING; REFER TO PROPOSED FLOOR PLAN FOR EXTENTS OF NEW WALLS AND OPENINGS.
- REMOVE EXISTING DOOR & FRAME. PATCH AND PREPARE AREA TO RECEIVE NEW FRAME AND DOOR.
- ITEM NOT USED
- REMOVE EXISTING FLOORING & FLOOR BASE. PREPARE AREA TO RECEIVE NEW FLOORING; REFER TO ROOM FINISH SCHEDULE. (FIELD VERIFICATION REQUIRED).
- REMOVE EXISTING CEILING. PREPARE AREA TO RECEIVE NEW CEILING. REFER TO ROOM FINISH SCHEDULE. REFER TO MEP DRAWINGS FOR ITEMS SUCH AS LIGHT FIXTURES, HVAC, ETC.
- REMOVE EXISTING COUNTERS.
- REMOVE EXISTING PLUMBING FIXTURES, ITEMS & ACCESSORIES.
- EXISTING DOOR TO REMAIN; PROVIDE NEW HARDWARE.

#### GENERAL DEMOLITION NOTES

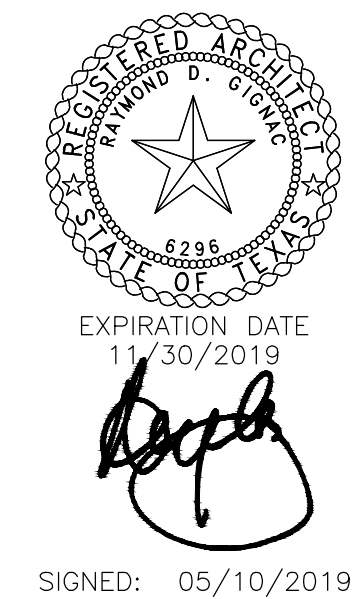
- GENERAL CONTRACTOR SHALL VISIT THE SITE TO FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING THIS PROJECT. ANY DISCREPANCIES OR AMBIGUOUS ITEMS MUST BE REPORTED TO THE ARCHITECT PRIOR TO BIDDING FOR CLARIFICATION.
- REFER TO CIVIL, STRUCTURAL, & MEP DRAWINGS FOR ADDITIONAL DEMOLITION AND ALTERATION NOTES.
- THE OWNER HAS FIRST RIGHT OF SALVAGE OF ALL FIXTURES, EQUIPMENT AND BUILDING MATERIALS REMOVED AS PART OF THIS CONTRACT SHALL NOT BE REUSED IN THE NEW CONSTRUCTION, UNLESS OTHERWISE NOTED. REMOVE ALL OTHER DEBRIS AND WASTE FROM THE SITE AND DISPOSE OF PROPERLY, IN ACCORDANCE WITH FED., STATE, & LOCAL REGULATIONS.
- FIELD VERIFY LOCATIONS OF ALL EXISTING EXTERIOR PUBLIC ADDRESS SPEAKERS, INTERCOM SPEAKERS, PLUGS, SWITCHES, HOSE BIBS, LIGHTS AND CONTROLS PRIOR TO DEMOLITION. THESE SYSTEMS MUST BE PUT BACK IN FUNCTIONING ORDER.
- IF ABATEMENT REQUIRED, ANY NEW OPENINGS IN AN AREA-- COORDINATE WITH THE TESTING LAB.
- STRUCTURAL INTEGRITY:
  - PROVIDE SUPPORT FOR THE EXISTING STRUCTURE BEFORE PERFORMING ANY ALTERATION THERETO.
  - UNLESS OTHERWISE INDICATED ON THE STRUCTURAL OR ARCHITECTURAL DRAWINGS: NEW OPENINGS CUT IN EXISTING MASONRY WALLS, WHETHER BEARING OR NON-BEARING, SHALL RECEIVE LOOSE STEEL IUTELS, MINIMUM 8" BEARING.
- CUTTING AND PATCHING:
  - ANY EXISTING CONSTRUCTION THAT IS TO BE REMOVED, SHALL BE PATCHED TO MATCH EXISTING CONDITIONS. PATCH WALLS AND FLOORS TO MATCH EXISTING CONDITIONS. REFER TO THE PLUMBING PLANS.
  - WHERE EXISTING FLOOR, CEILING, OR WALL FINISHES ARE TO BE REPLACED WITH NEW FINISHINGS, EXISTING SURFACES SHALL BE STRIPPED CLEAN OF ALL EXISTING COVERINGS & MADE READY TO RECEIVE NEW FINISHINGS.
- IN ACCORDANCE WITH FINISH MANUFACTURERS WRITTEN INSTRUCTIONS AND RECOMMENDATIONS INCLUDING LEVEL 4 PLUMB TOLERANCES REFER TO ROOM FINISH SCHEDULE SHEETS FOR TYPES & LOCATIONS OF NEW FINISHES.
- ALL FLOOR FINISHES BEING REPLACED, SHALL BE COMPLETELY REMOVED & THE FLOOR CLEANED & PROPERLY PREPARED PRIOR TO INSTALLATION OF NEW FINISH MATERIAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING ALL FLOORS THAT RECEIVE NEW FINISHES PRIOR TO BID. FLOORS SHALL BE PATCHED, FILLED, & STRIPPED AS REQ'D. TO PROVIDE A SMOOTH, DURABLE SURFACE FREE OF ALL BURRS OR ADHESIVE & SUITABLE FOR APPLICATION OF NEW FINISH MATERIAL. ANY UNDER CUTTING OF DOORS REQ'D. TO ACCOMMODATE NEW FLOOR FINISHES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- WHERE NEW CONCRETE TOPPING IS TO BE POURED OVER AN EXISTING CONCRETE SLAB: BUSH HAMMER THE EXISTING CONCRETE FINISH FOR BETTER BOND.
- WHERE EXISTING MASONRY ABUTS NEW MASONRY: EXISTING MASONRY SHALL BE TOOTHED TO RECEIVE NEW MASONRY (U.O.N.). NEW MASONRY SHALL MATCH EXISTING COURSING (TYP.)
- WHERE A PORTION OF AN EXISTING MASONRY WALL IS TO BE REMOVED: PROVIDE A FINISHED EDGE BY TOOTHING IN NEW MASONRY TO MATCH EXISTING (U.O.N.)
- REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL NOTES.
- REFER TO ABATEMENT REPORT & PLAN FOR NEW OPENINGS OR WALLS PRIOR TO DEMOLITION.

#### Consultants:

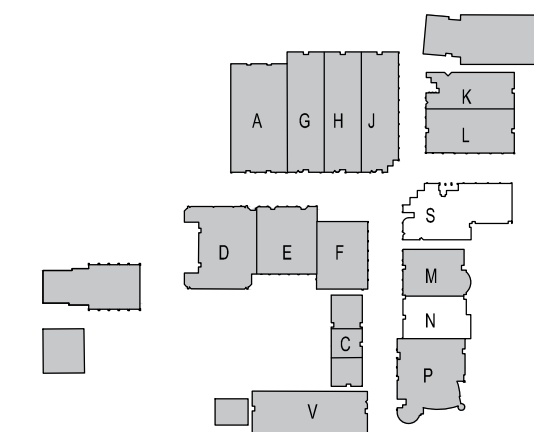
**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



## PSJA ISD NORTH ECHS & COLLEGE AND UNIVERSITY CAMPUS STUDENT RESTROOM RENOVATIONS



#### KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: CQ  
Checked: JM  
Scale: VARIES  
ACAD File: DEMO PLAN

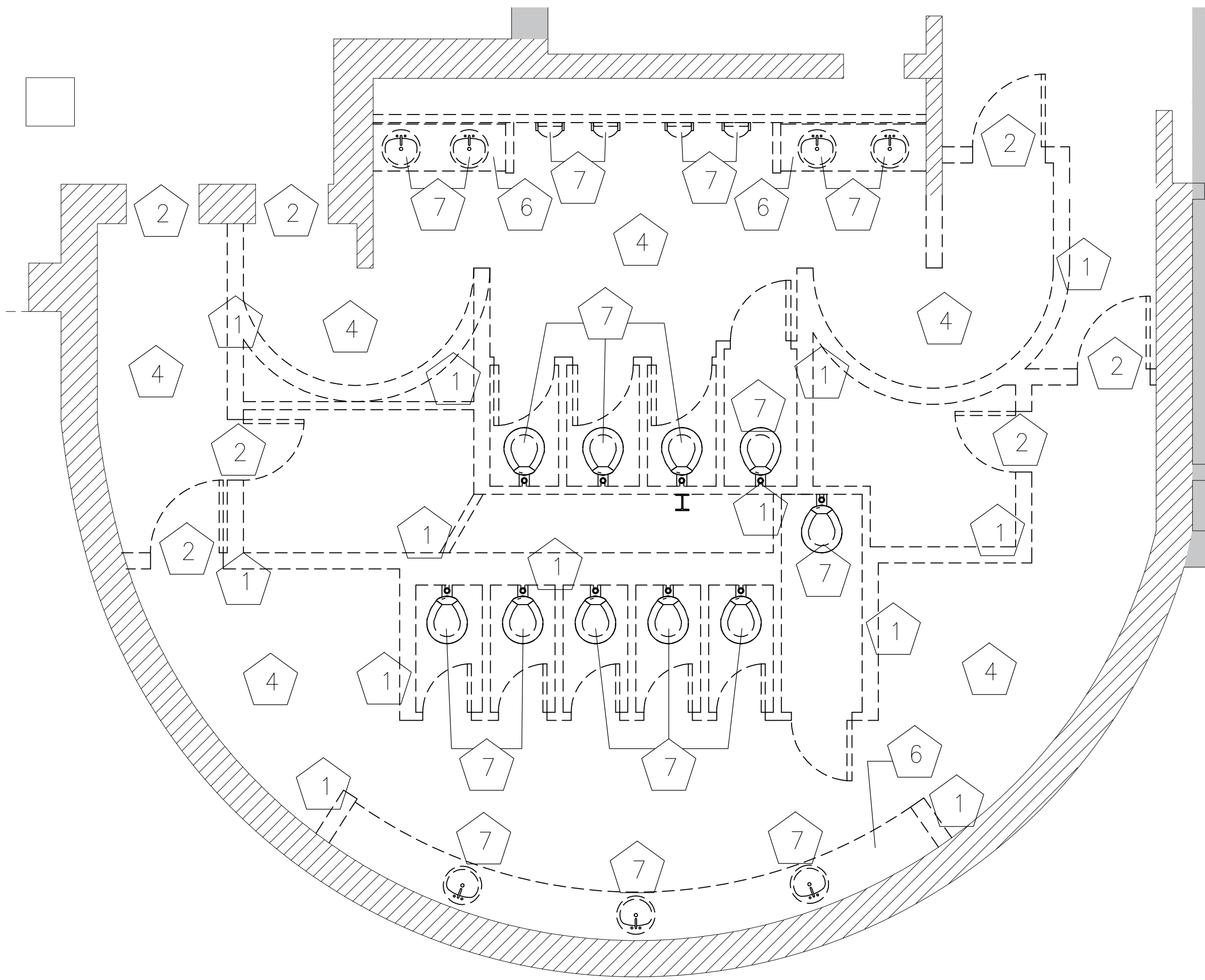
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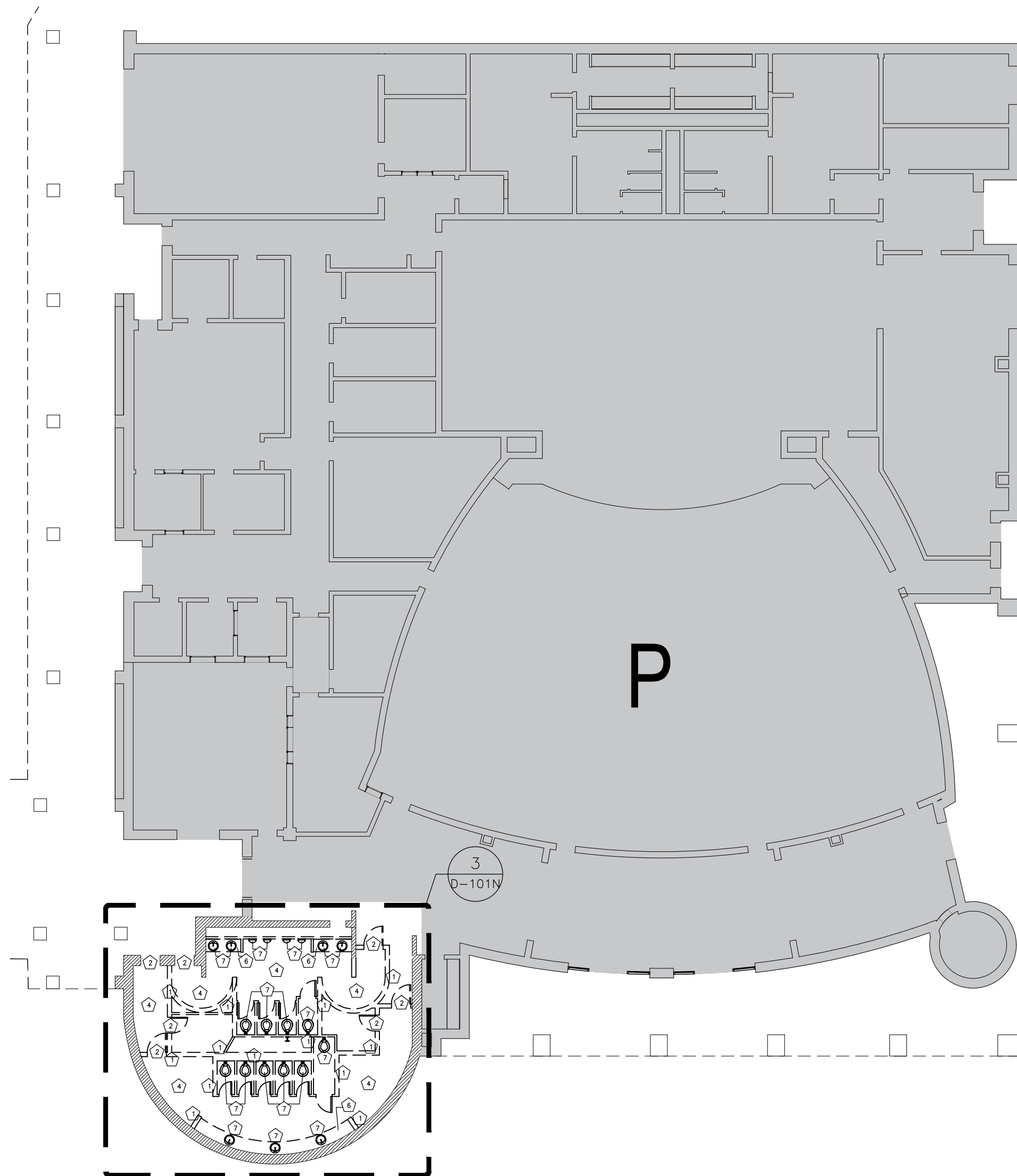
**BUILDING S  
& BUILDING N  
DEMO PLAN**

**D-100N**

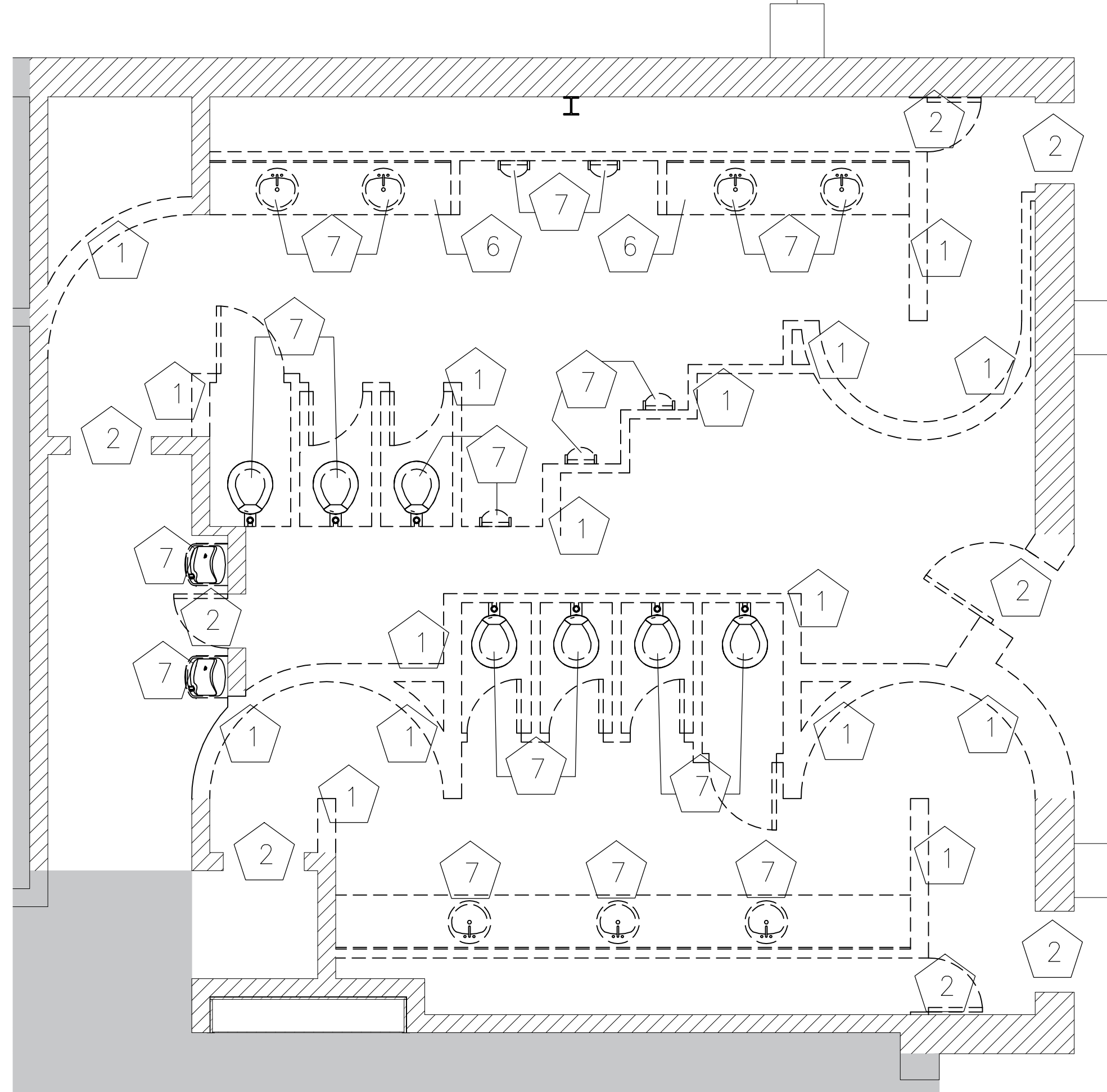




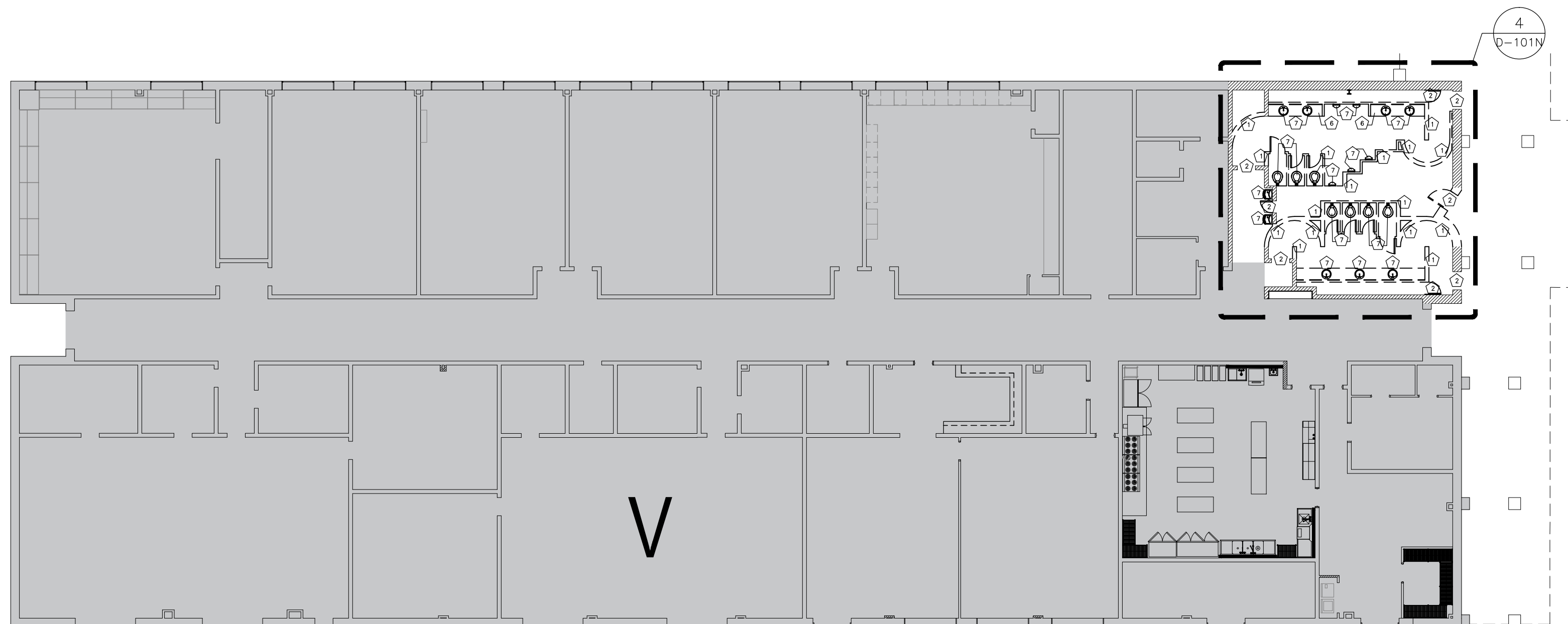
3 DEMOLITION PLAN -- ENLARGED PLAN  
1/4" = 1'-0"



1 DEMOLITION PLAN -- BUILDING P  
1/16" = 1'-0"



4 DEMOLITION PLAN -- ENLARGED PLAN  
1/4" = 1'-0"



2 DEMOLITION PLAN -- BUILDING V  
1/16" = 1'-0"

#### DEMOLITION KEY NOTES

- 1 REMOVE EXISTING WALL OR PORTION OF WALL TO CREATE NEW OPENING; REFER TO PROPOSED FLOOR PLAN FOR EXTENTS OF NEW WALLS AND OPENINGS.
- 2 REMOVE EXISTING DOOR & FRAME. PATCH AND PREPARE AREA TO RECEIVE NEW FRAME AND DOOR.
- 3 ITEM NOT USED
- 4 REMOVE EXISTING FLOORING & FLOOR BASE. PREPARE AREA TO RECEIVE NEW FLOORING; REFER TO ROOM FINISH SCHEDULE. (FIELD VERIFICATION REQUIRED).
- 5 REMOVE EXISTING CEILING. PREPARE AREA TO RECEIVE NEW CEILING. REFER TO ROOM FINISH SCHEDULE. REFER TO MEP DRAWINGS FOR ITEMS SUCH AS LIGHT FIXTURES, HVAC, ETC.
- 6 REMOVE EXISTING COUNTERTOPS.
- 7 REMOVE EXISTING PLUMBING FIXTURES, ITEMS & ACCESSORIES.
- 8 EXISTING DOOR TO REMAIN; PROVIDE NEW HARDWARE.

#### GENERAL DEMOLITION NOTES

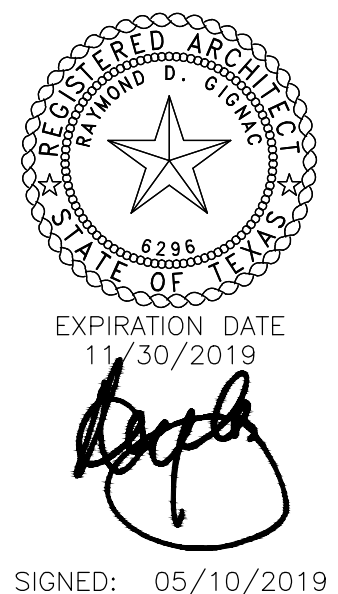
1. GENERAL CONTRACTOR SHALL VISIT THE SITE TO FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING THIS PROJECT. ANY DISCREPANCIES OR AMBIGUOUS ITEMS MUST BE REPORTED TO THE ARCHITECT PRIOR TO BIDDING FOR CLARIFICATION.
  2. REFER TO CIVIL, STRUCTURAL, & MEP DRAWINGS FOR ADDITIONAL DEMOLITION AND ALTERATION NOTES.
  3. THE OWNER HAS FIRST RIGHT OF SALVAGE OF ALL FIXTURES, EQUIPMENT AND BUILDING MATERIALS REMOVED AS PART OF THIS CONTRACT. SHALL NOT BE REUSED IN THE NEW CONSTRUCTION, UNLESS OTHERWISE NOTED. REMOVE ALL OTHER DEBRIS AND WASTE FROM THE SITE AND DISPOSE OF PROPERLY, IN ACCORDANCE WITH FED., STATE, & LOCAL REGULATIONS.
  4. FIELD VERIFY LOCATIONS OF ALL EXISTING EXTERIOR PUBLIC ADDRESS SPEAKERS, INTERCOM SPEAKERS, PLUGS, SWITCHES, HOSE BIBS, LIGHTS AND CONTROLS PRIOR TO DEMOLITION. THESE SYSTEMS MUST BE PUT BACK IN FUNCTIONING ORDER.
  5. IF ABATEMENT REQUIRED, ANY NEW OPENINGS IN AN AREA-- COORDINATE WITH THE TESTING LAB.
- STRUCTURAL INTEGRITY:
6. PROVIDE SUPPORT FOR THE EXISTING STRUCTURE BEFORE PERFORMING ANY ALTERATION THERETO.
  7. UNLESS OTHERWISE INDICATED ON THE STRUCTURAL OR ARCHITECTURAL DRAWINGS: NEW OPENINGS CUT IN EXISTING MASONRY WALLS, WHETHER BEARING OR NON-BEARING, SHALL RECEIVE LOOSE STEEL LINTELS, MINIMUM 8" BEARING.
- CUTTING AND PATCHING:
9. ANY EXISTING CONSTRUCTION THAT IS TO BE REMOVED, SHALL BE PATCHED TO MATCH EXISTING CONDITIONS AND MADE READY TO RECEIVE ANY NEW FINISHES WHERE APPLICABLE.
  10. PLUMBING LINES THAT ARE TO BE REMOVED SHALL BE REMOVED COMPLETELY. PATCH WALLS AND FLOORS TO MATCH EXISTING CONDITIONS. REFER TO THE PLUMBING PLANS.
  11. WHERE EXISTING FLOOR, CEILING, OR WALL FINISHES ARE TO BE REPLACED WITH NEW FINISHINGS, EXISTING SURFACES SHALL BE STRIPPED CLEAN OF ALL EXISTING COVERINGS & MADE READY TO RECEIVE NEW FINISHINGS.
  12. ALL FLOOR FINISHES BEING REPLACED, SHALL BE COMPLETELY REMOVED & THE FLOOR CLEANED & PROPERLY PREPARED PRIOR TO INSTALLATION OF NEW FINISH MATERIAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING ALL FLOORS THAT RECEIVE NEW FINISHES PRIOR TO BID. FLOORS SHALL BE PATCHED, FILLED, & STRIPPED AS REQ'D. TO PROVIDE A SMOOTH, DURABLE SURFACE FREE OF ALL BURRS OR ADHESIVE & SUITABLE FOR APPLICATION OF NEW FINISH MATERIAL. ANY UNDER CUTTING OF DOORS REQ'D. TO ACCOMMODATE NEW FLOOR FINISHES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
  13. WHERE NEW CONCRETE TOPPING IS TO BE POURED OVER AN EXISTING CONCRETE SLAB: BUSH HAMMER THE EXISTING CONCRETE FINISH FOR BETTER BOND.
  14. WHERE EXISTING MASONRY ABUTS NEW MASONRY; EXISTING MASONRY SHALL BE TOOTHED TO RECEIVE NEW MASONRY (U.O.N.). NEW MASONRY SHALL MATCH EXISTING COURSING (TYP.)
  15. WHERE A PORTION OF AN EXISTING MASONRY WALL IS TO BE REMOVED: PROVIDE A FINISHED EDGE BY TOOTHING IN NEW MASONRY TO MATCH EXISTING.(U.O.N.)
  16. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL NOTES.
  17. REFER TO ABATEMENT REPORT & PLAN FOR NEW OPENINGS OR WALLS PRIOR TO DEMOLITION.

#### Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO & ASSOCIATES INC.**

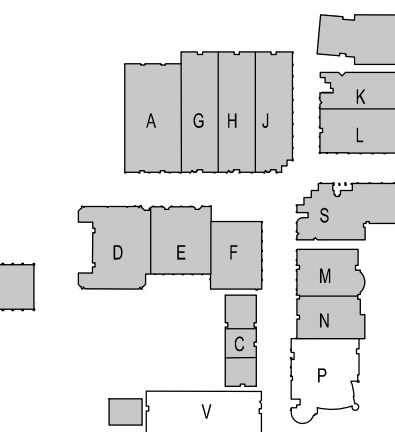
**MEP:**  
**DBR ENGINEERING**



SIGNED: 05/10/2019



## PSJA ISD NORTH ECHS & COLLEGE AND UNIVERSITY CAMPUS STUDENT RESTROOM RENOVATIONS



#### KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: CQ  
Checked: JM  
Scale: VARIES  
ACAD File: DEMO PLAN

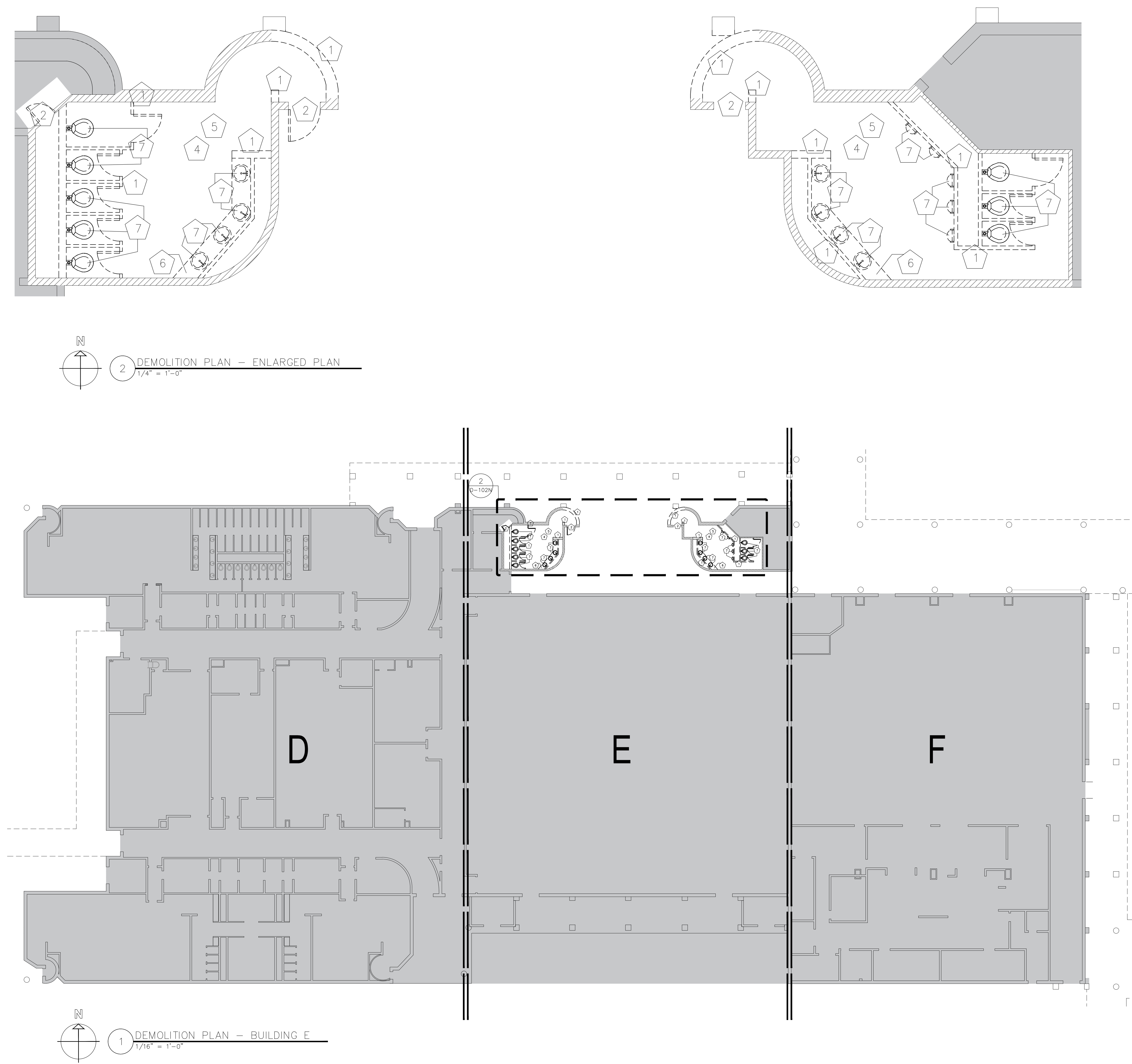
#### Revisions:

Sheet Title:

## BUILDING P & BUILDING V DEMO PLAN

# D-101N





2 DEMOLITION PLAN - ENLARGED PLAN  
1/4" = 1'-0"

1 DEMOLITION PLAN - BUILDING E  
1/16" = 1'-0"

#### DEMOLITION KEY NOTES

- 1 REMOVE EXISTING WALL OR PORTION OF WALL TO CREATE NEW OPENING; REFER TO PROPOSED FLOOR PLAN FOR EXTENTS OF NEW WALLS AND OPENINGS.
- 2 REMOVE EXISTING DOOR & FRAME. PATCH AND PREPARE AREA TO RECEIVE NEW FRAME AND DOOR.
- 3 ITEM NOT USED
- 4 REMOVE EXISTING FLOORING & FLOOR BASE. PREPARE AREA TO RECEIVE NEW FLOORING; REFER TO ROOM FINISH SCHEDULE. (FIELD VERIFICATION REQUIRED).
- 5 REMOVE EXISTING CEILING. PREPARE AREA TO RECEIVE NEW CEILING. REFER TO ROOM FINISH SCHEDULE. REFER TO MEP DRAWINGS FOR ITEMS SUCH AS LIGHT FIXTURES, HVAC, ETC.
- 6 REMOVE EXISTING COUNTERS.
- 7 REMOVE EXISTING PLUMBING FIXTURES, ITEMS & ACCESSORIES.
- 8 EXISTING DOOR TO REMAIN; PROVIDE NEW HARDWARE.

#### GENERAL DEMOLITION NOTES

1. GENERAL CONTRACTOR SHALL VISIT THE SITE TO FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING THIS PROJECT. ANY DISCREPANCIES OR AMBIGUOUS ITEMS MUST BE REPORTED TO THE ARCHITECT PRIOR TO BIDDING FOR CLARIFICATION.
  2. REFER TO CIVIL, STRUCTURAL, & MEP DRAWINGS FOR ADDITIONAL DEMOLITION AND ALTERATION NOTES.
  3. THE OWNER HAS FIRST RIGHT OF SALVAGE OF ALL FIXTURES, EQUIPMENT AND BUILDING MATERIALS REMOVED AS PART OF THIS CONTRACT. SHALL NOT BE REUSED IN THE NEW CONSTRUCTION, UNLESS OTHERWISE NOTED. REMOVE ALL OTHER DEBRIS AND WASTE FROM THE SITE AND DISPOSE OF PROPERLY, IN ACCORDANCE WITH FED., STATE, & LOCAL REGULATIONS.
  4. FIELD VERIFY LOCATIONS OF ALL EXISTING EXTERIOR PUBLIC ADDRESS SPEAKERS, INTERCOM SPEAKERS, PLUGS, SWITCHES, HOSE BIBS, LIGHTS AND CONTROLS PRIOR TO DEMOLITION. THESE SYSTEMS MUST BE PUT BACK IN FUNCTIONING ORDER.
  5. IF ABATEMENT REQUIRED, ANY NEW OPENINGS IN AN AREA-- COORDINATE WITH THE TESTING LAB.
- STRUCTURAL INTEGRITY:
6. PROVIDE SUPPORT FOR THE EXISTING STRUCTURE BEFORE PERFORMING ANY ALTERATION THERE TO.
  7. UNLESS OTHERWISE INDICATED ON THE STRUCTURAL OR ARCHITECTURAL DRAWINGS: NEW OPENINGS CUT IN EXISTING MASONRY WALLS, WHETHER BEARING OR NON-BEARING, SHALL RECEIVE LOOSE STEEL LINTELS, MINIMUM 8" BEARING.
- CUTTING AND PATCHING:
9. ANY EXISTING CONSTRUCTION THAT IS TO BE REMOVED, SHALL BE REMOVED IN SUCH A MANNER AS TO MAINTAIN THE EXISTING BUILDING STRUCTURE. PATCHES SHALL BE MADE READY TO RECEIVE NEW FINISHES.
  10. PLUMBING LINES THAT ARE TO BE REMOVED SHALL BE REMOVED COMPLETELY. PATCH WALLS AND FLOORS TO MATCH EXISTING CONDITIONS. REFER TO THE PLUMBING PLANS.
  11. WHERE EXISTING FLOOR, CEILING, OR WALL FINISHES ARE TO BE REPLACED WITH NEW FINISHES, EXISTING SURFACES SHALL BE STRIPPED CLEAN OF ALL EXISTING COVERINGS & MADE READY TO RECEIVE NEW FINISHES.
- IN ACCORDANCE WITH FINISH MANUFACTURERS WRITTEN INSTRUCTIONS AND RECOMMENDATIONS INCLUDING LEVEL 4 PLUMB TOLERANCES REFER TO ROOM FINISH SCHEDULE SHEETS FOR TYPES & LOCATIONS OF NEW FINISHES.
12. ALL FLOOR FINISHES BEING REPLACED, SHALL BE COMPLETELY REMOVED & THE FLOOR CLEANED & PROPERLY PREPARED PRIOR TO INSTALLATION OF NEW FINISH MATERIAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING ALL FLOORS THAT RECEIVE NEW FINISHES PRIOR TO BID. FLOORS SHALL BE PATCHED, FILLED, & STRIPPED AS REQ'D TO PROVIDE A SMOOTH, DURABLE SURFACE FREE OF ALL BURRS OR ADHESIVE & SUITABLE FOR APPLICATION OF NEW FINISH MATERIAL. ANY UNDER CUTTING OF DOORS REQ'D TO ACCOMMODATE NEW FLOOR FINISHES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
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#### Consultants:

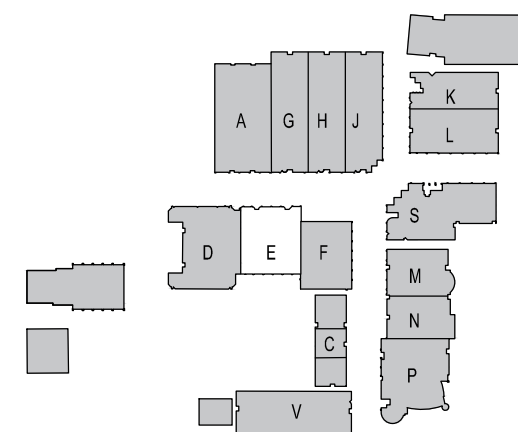
**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



## PSJA ISD NORTH ECHS & COLLEGE AND UNIVERSITY CAMPUS STUDENT RESTROOM RENOVATIONS



#### KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: CQ  
Checked: JM  
Scale: VARIES  
ACAD File: DEMO PLAN

#### Revisions:

Sheet Title:

## BUILDING E DEMO PLAN

# D-102N





#### DEMOLITION KEY NOTES

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- 2 REMOVE EXISTING DOOR & FRAME. PATCH AND PREPARE AREA TO RECEIVE NEW FRAME AND DOOR.
- 3 ITEM NOT USED
- 4 REMOVE EXISTING FLOORING & FLOOR BASE. PREPARE AREA TO RECEIVE NEW FLOORING; REFER TO ROOM FINISH SCHEDULE. (FIELD VERIFICATION REQUIRED).
- 5 REMOVE EXISTING CEILING. PREPARE AREA TO RECEIVE NEW CEILING. REFER TO ROOM FINISH SCHEDULE. REFER TO MEP DRAWINGS FOR ITEMS SUCH AS LIGHT FIXTURES, HVAC, ETC.
- 6 REMOVE EXISTING COUNTERS.
- 7 REMOVE EXISTING PLUMBING FIXTURES, ITEMS & ACCESSORIES.
- 8 EXISTING DOOR TO REMAIN; PROVIDE NEW HARDWARE.

#### GENERAL DEMOLITION NOTES

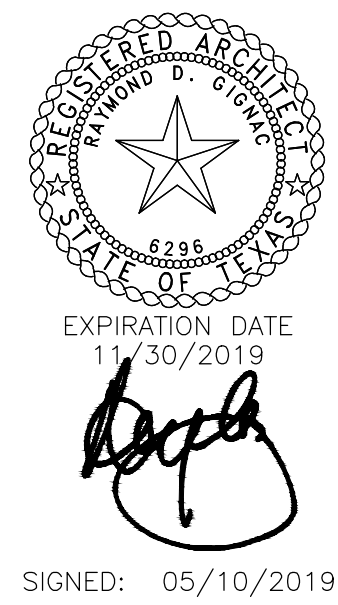
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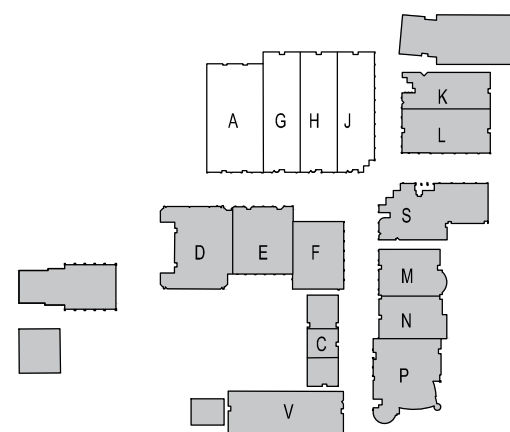
**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO & ASSOCIATES INC.**

**MEP:**  
**DBR ENGINEERING**



## PSJA ISD NORTH ECHS & COLLEGE AND UNIVERSITY CAMPUS STUDENT RESTROOM RENOVATIONS



#### KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: CQ  
Checked: JM  
Scale: VARIES  
ACAD File: DEMO PLAN

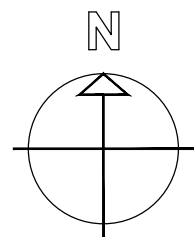
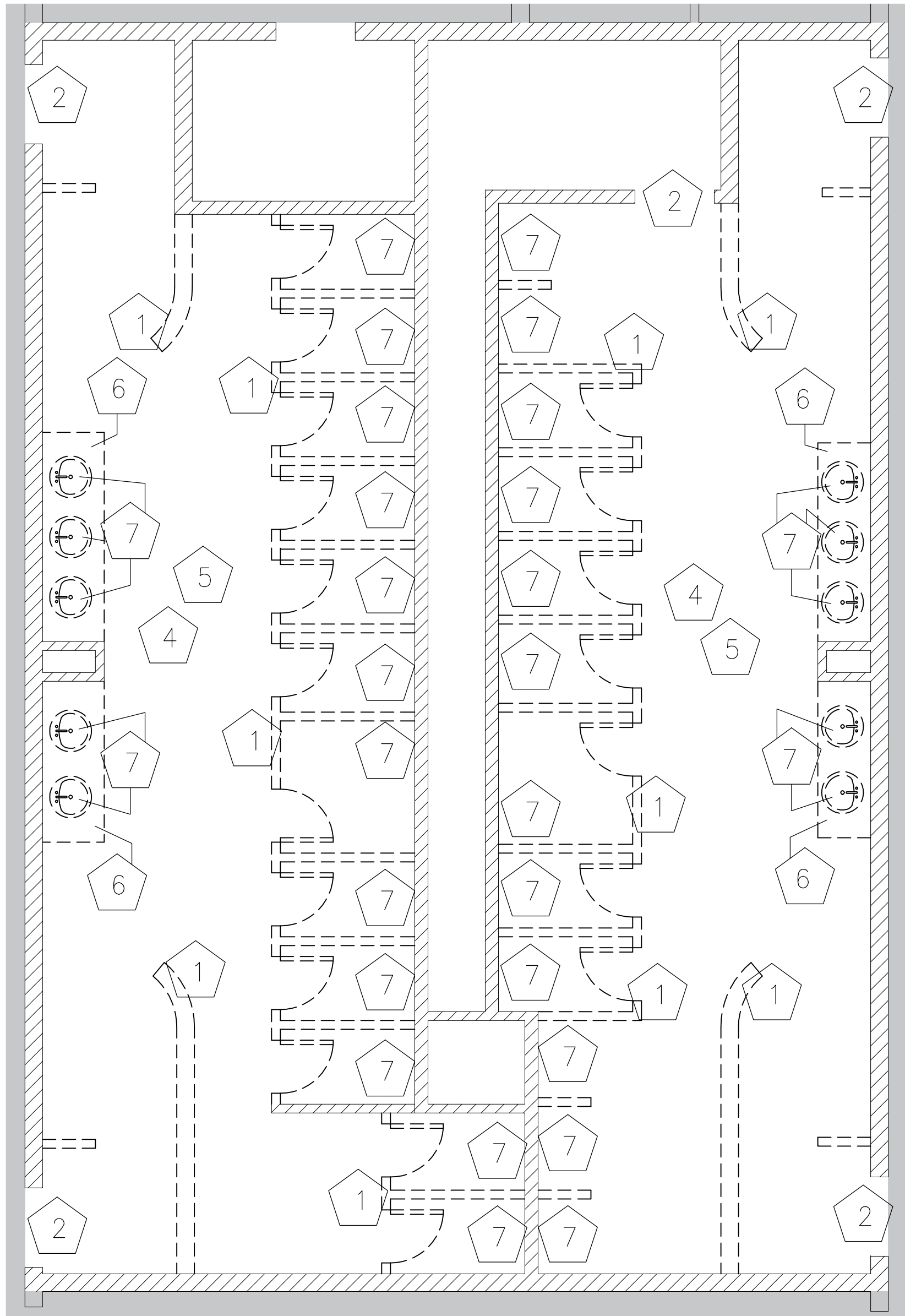
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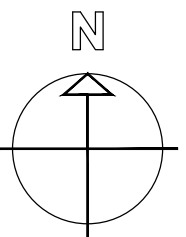
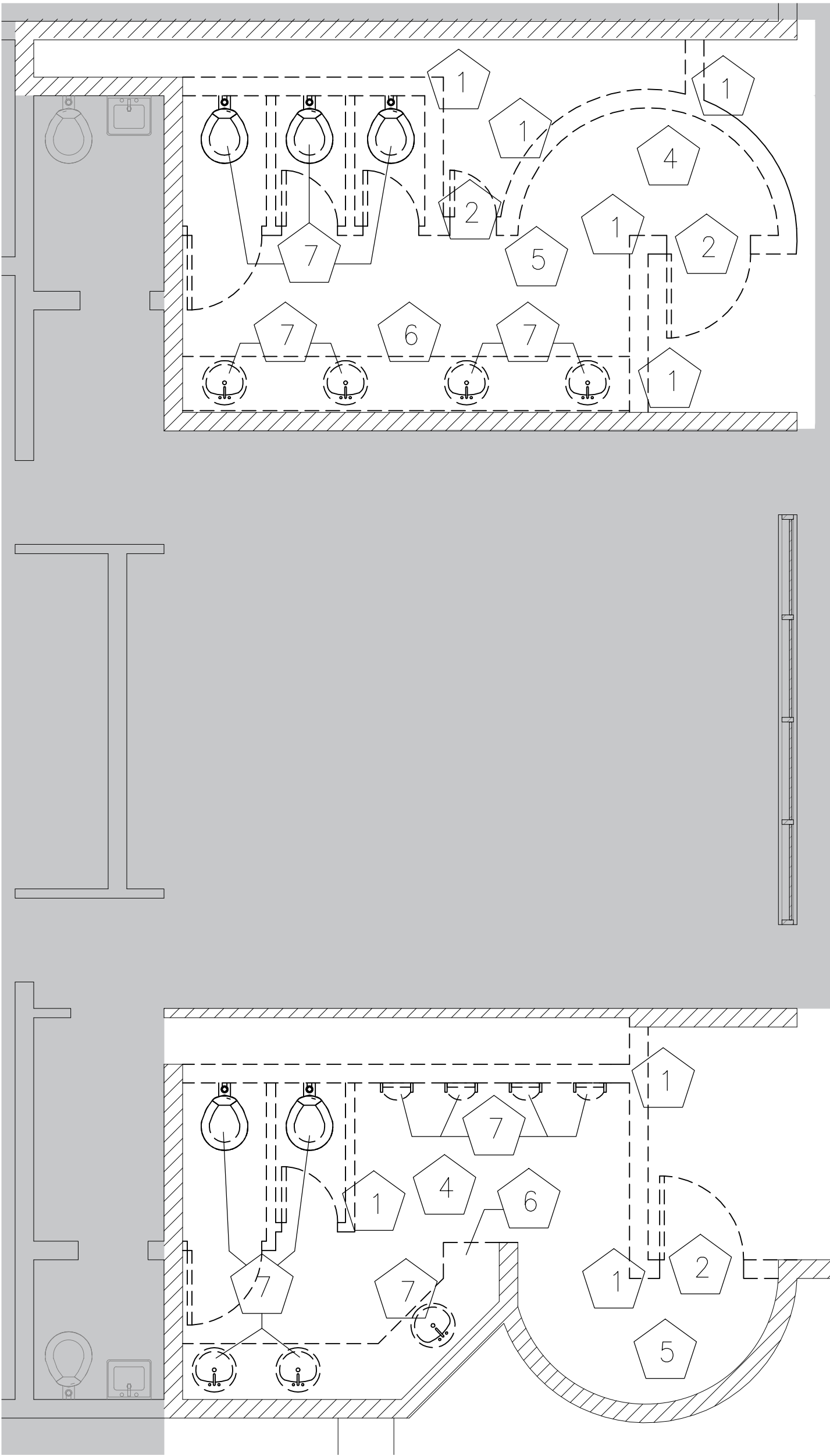
## BUILDING A-G-H-J DEMO PLAN

# D-103N





2 DEMOLITION PLAN — ENLARGED PLAN  
1/4" = 1'-0"



1 DEMOLITION PLAN — ENLARGED PLAN  
1/4" = 1'-0"

#### DEMOLITION KEY NOTES

- 1 REMOVE EXISTING WALL OR PORTION OF WALL TO CREATE NEW OPENING; REFER TO PROPOSED FLOOR PLAN FOR EXTENTS OF NEW WALLS AND OPENINGS.
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#### STRUCTURAL INTEGRITY:

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#### CUTTING AND PATCHING:

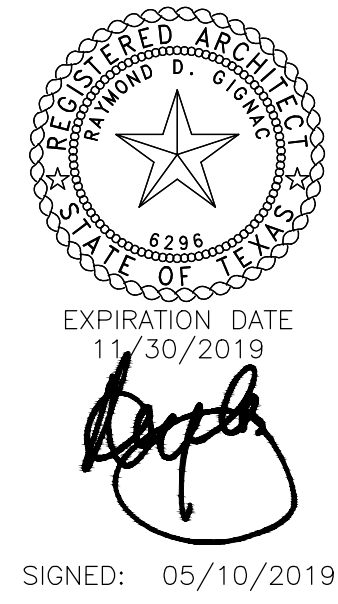
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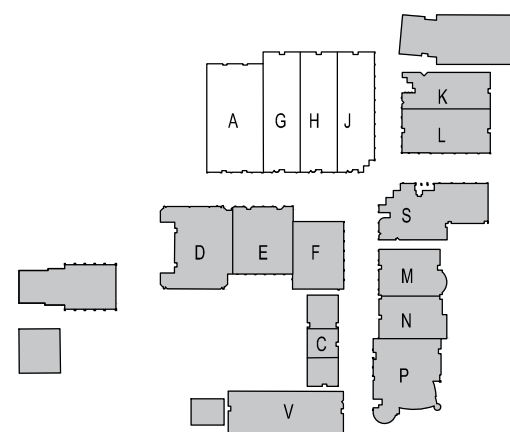
**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO &  
ASSOCIATES INC.**

**MEP:**  
**DBR ENGINEERING**



## PSJA ISD NORTH ECHS & COLLEGE AND UNIVERSITY CAMPUS STUDENT RESTROOM RENOVATIONS



#### KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
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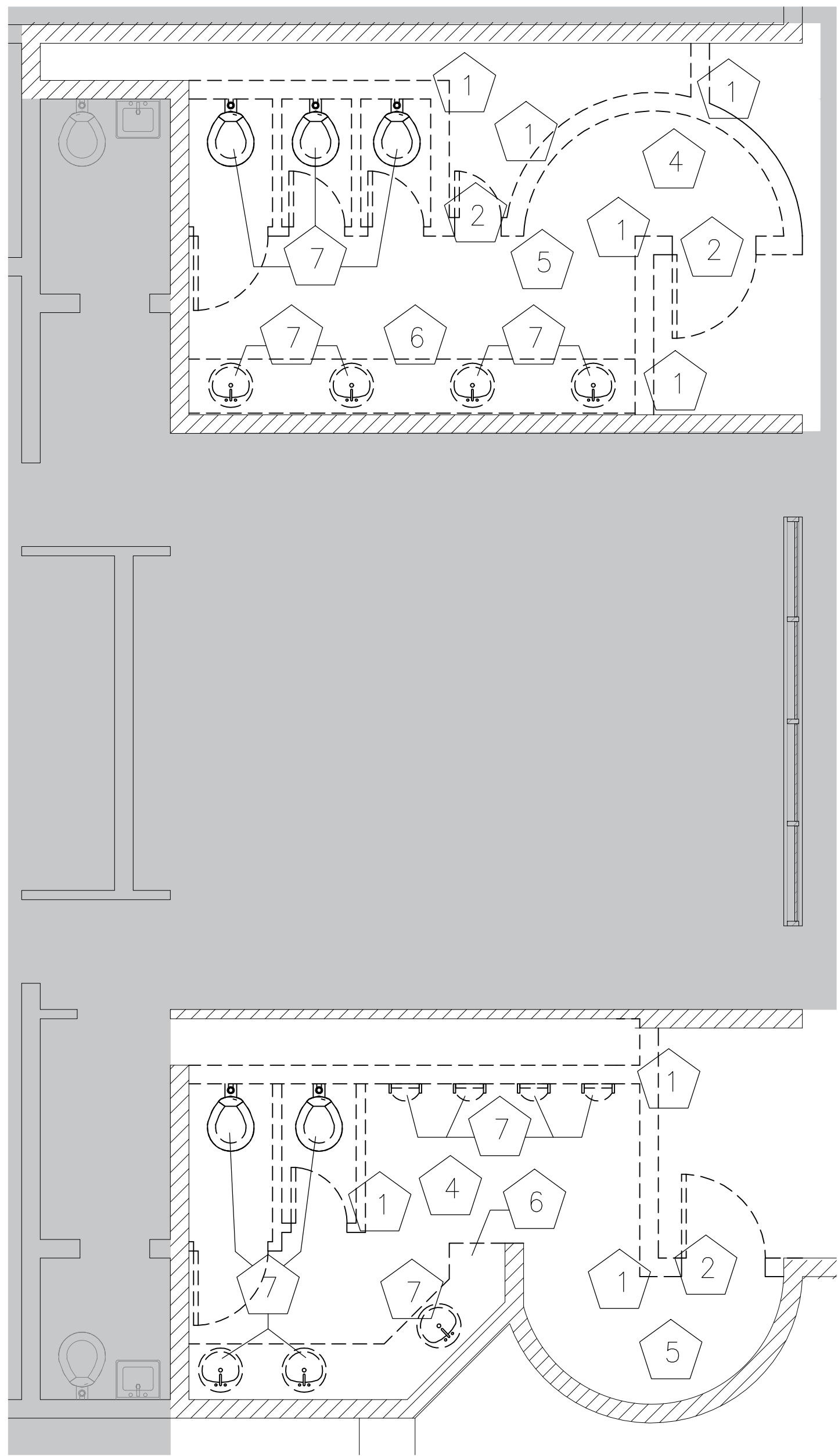
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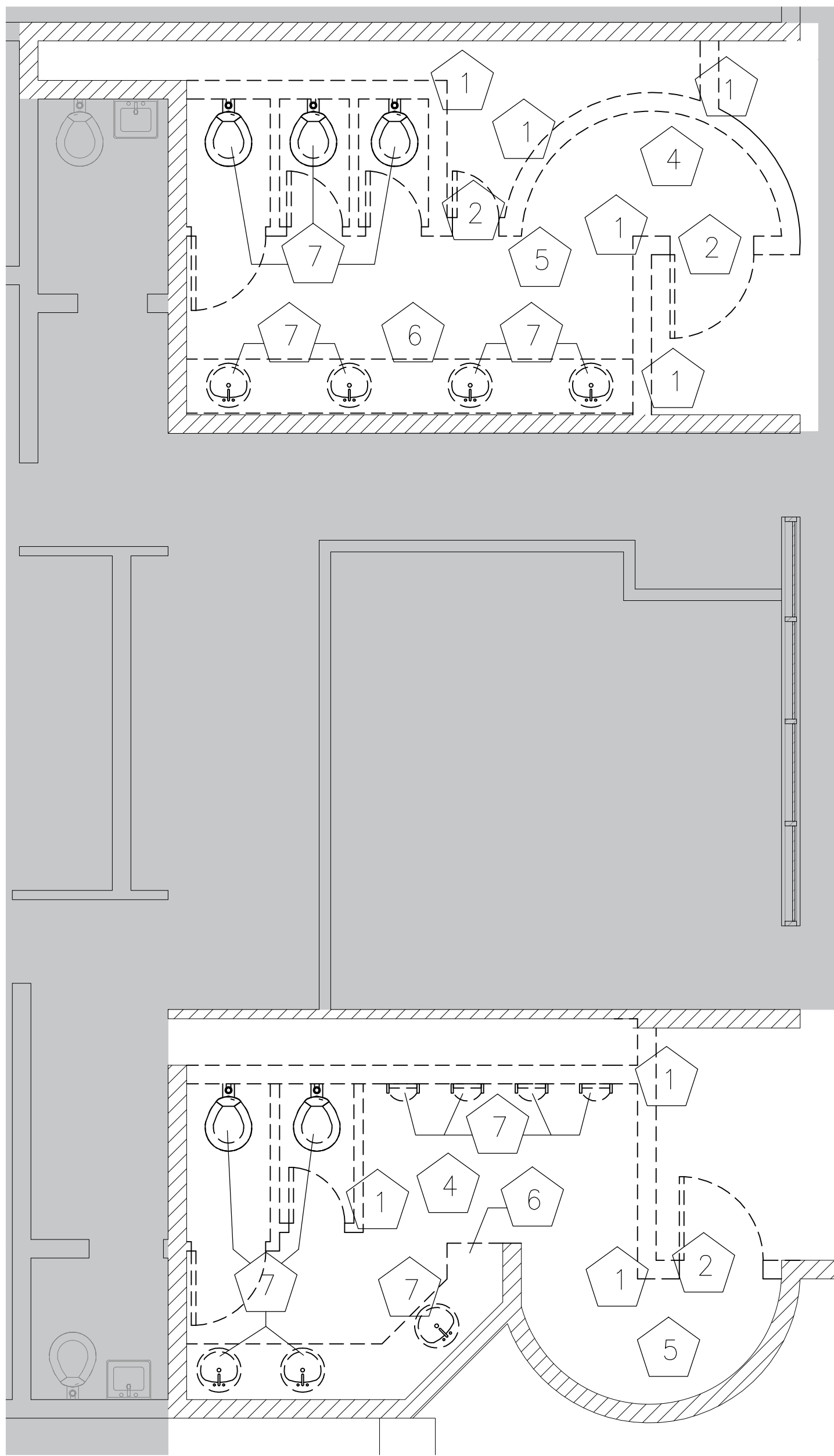
## BUILDING A-G-H-J DEMO PLAN

# D-104N





2 DEMOLITION PLAN — ENLARGED PLAN  
1/4" = 1'-0"



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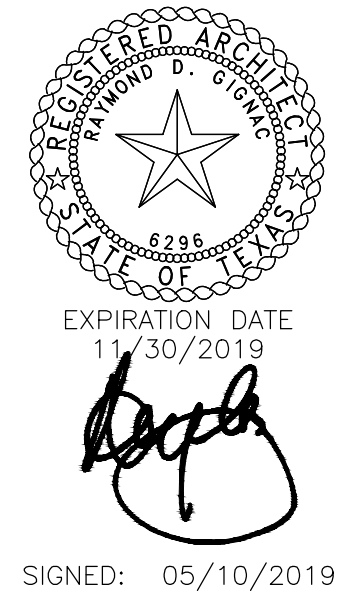
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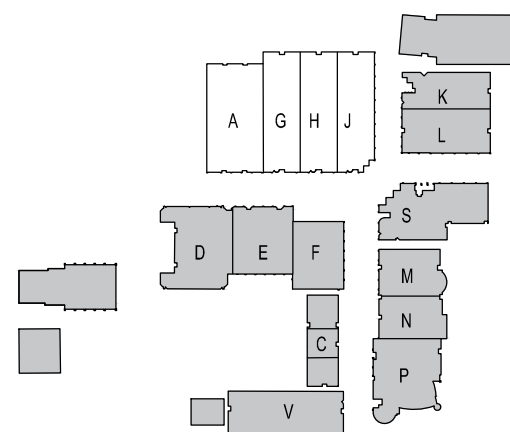
**CIVIL:**  
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**STRUCTURAL:**  
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**MEP:**  
**DBR ENGINEERING**



## PSJA ISD NORTH ECHS & COLLEGE AND UNIVERSITY CAMPUS STUDENT RESTROOM RENOVATIONS



#### KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: CQ  
Checked: JM  
Scale: VARIES  
ACAD File: DEMO PLAN

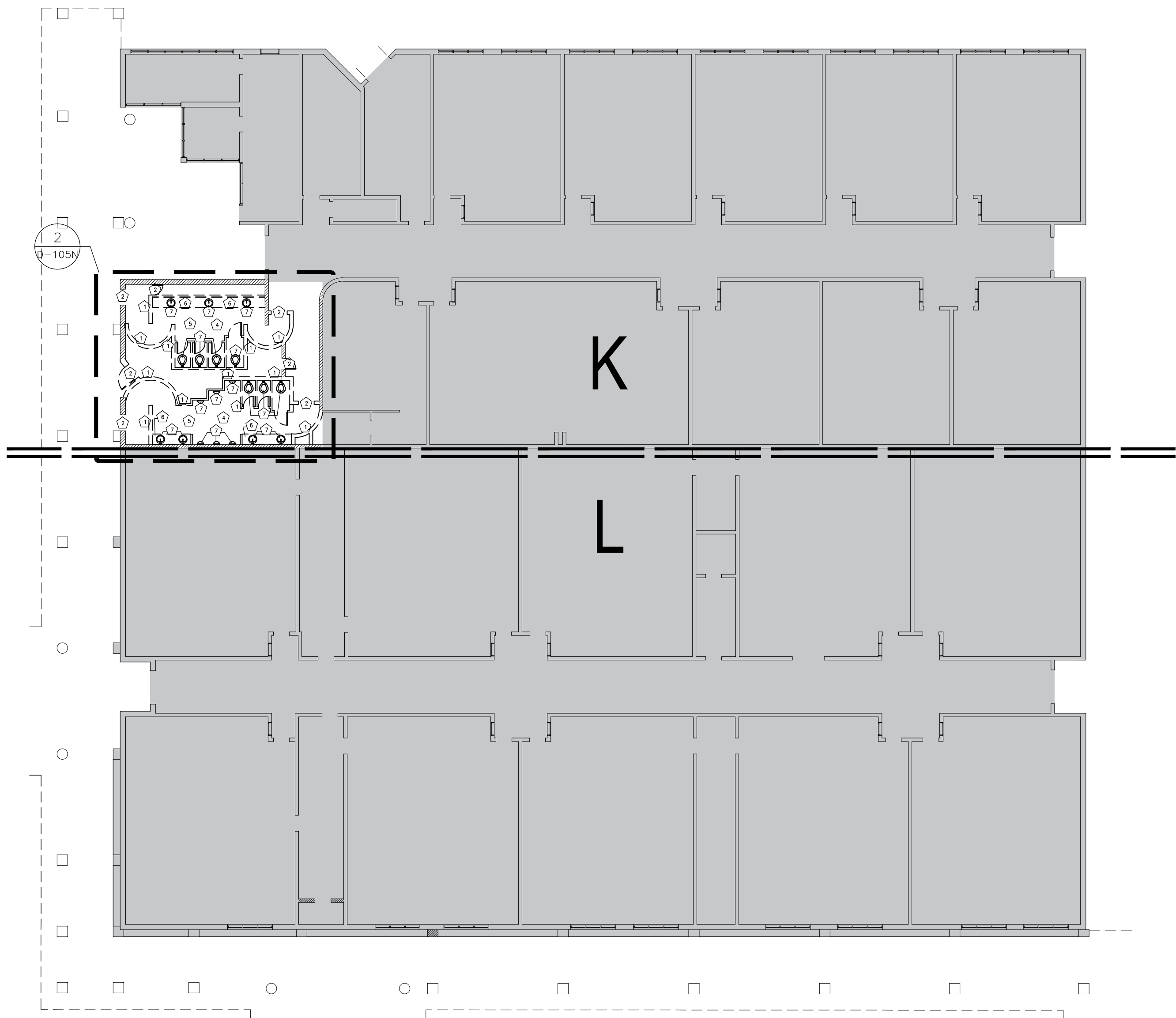
#### Revisions:

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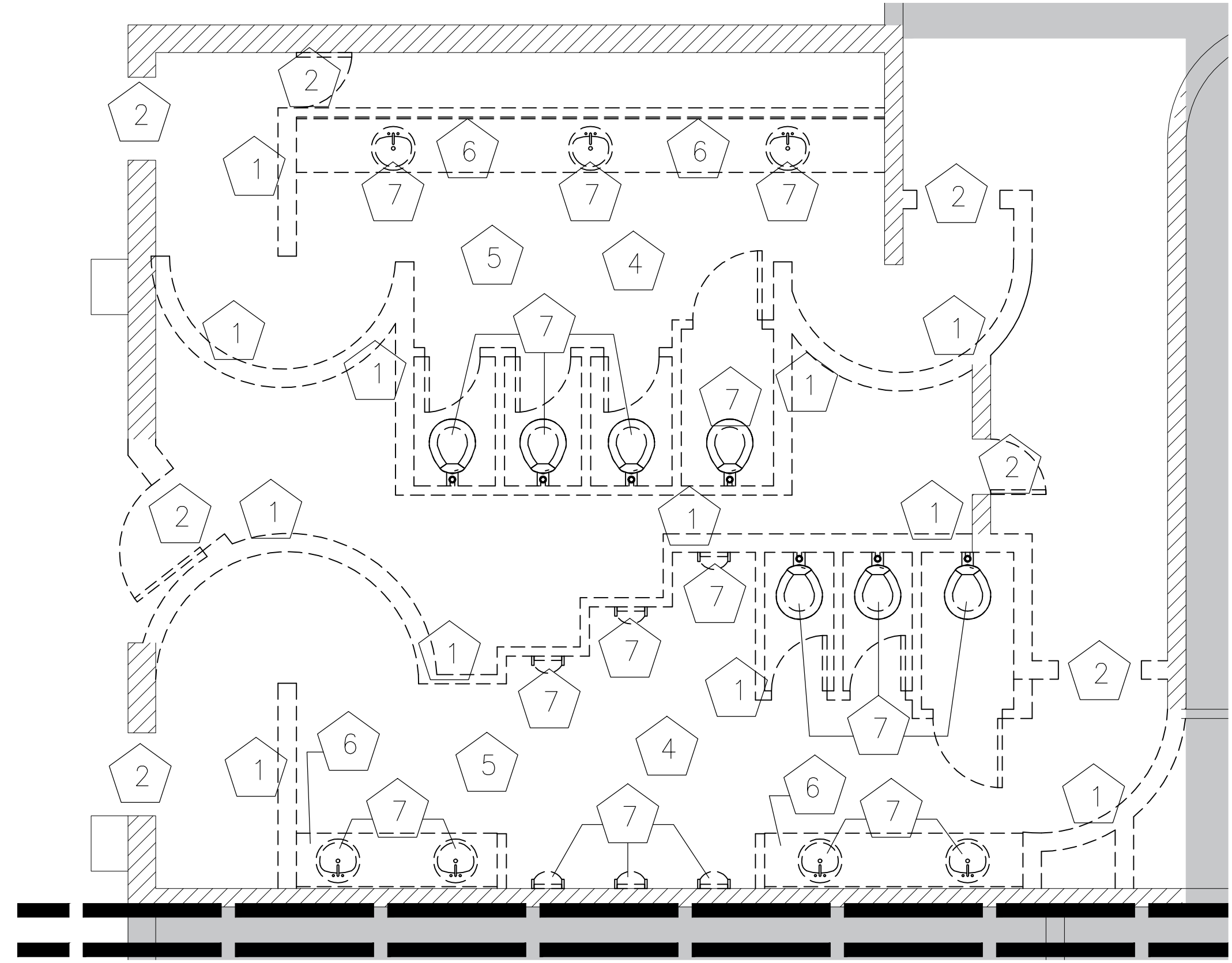
## BUILDING A-G-H-J DEMO PLAN

# D-105N





1 DEMOLITION PLAN - BUILDING K  
1/16" = 1'-0"



2 DEMOLITION PLAN - ENLARGED PLAN  
1/4" = 1'-0"

#### DEMOLITION KEY NOTES

- 1 REMOVE EXISTING WALL OR PORTION OF WALL TO CREATE NEW OPENING; REFER TO PROPOSED FLOOR PLAN FOR EXTENTS OF NEW WALLS AND OPENINGS.
- 2 REMOVE EXISTING DOOR & FRAME. PATCH AND PREPARE AREA TO RECEIVE NEW FRAME AND DOOR.
- 3 ITEM NOT USED
- 4 REMOVE EXISTING FLOORING & FLOOR BASE. PREPARE AREA TO RECEIVE NEW FLOORING; REFER TO ROOM FINISH SCHEDULE. (FIELD VERIFICATION REQUIRED).
- 5 REMOVE EXISTING CEILING. PREPARE AREA TO RECEIVE NEW CEILING. REFER TO ROOM FINISH SCHEDULE. REFER TO MEP DRAWINGS FOR ITEMS SUCH AS LIGHT FIXTURES, HVAC, ETC.
- 6 REMOVE EXISTING COUNTERS.
- 7 REMOVE EXISTING PLUMBING FIXTURES, ITEMS & ACCESSORIES.
- 8 EXISTING DOOR TO REMAIN; PROVIDE NEW HARDWARE.

#### GENERAL DEMOLITION NOTES

1. GENERAL CONTRACTOR SHALL VISIT THE SITE TO FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING THIS PROJECT. ANY DISCREPANCIES OR AMBIGUOUS ITEMS MUST BE REPORTED TO THE ARCHITECT PRIOR TO BIDDING FOR CLARIFICATION.
  2. REFER TO CIVIL, STRUCTURAL, & MEP DRAWINGS FOR ADDITIONAL DEMOLITION AND ALTERATION NOTES.
  3. THE OWNER HAS FIRST RIGHT OF SALVAGE OF ALL FIXTURES, EQUIPMENT AND BUILDING MATERIALS REMOVED AS PART OF THIS CONTRACT. SHALL NOT BE REUSED IN THE NEW CONSTRUCTION, UNLESS OTHERWISE NOTED. REMOVE ALL OTHER DEBRIS AND WASTE FROM THE SITE AND DISPOSE OF PROPERLY, IN ACCORDANCE WITH FED., STATE, & LOCAL REGULATIONS.
  4. FIELD VERIFY LOCATIONS OF ALL EXISTING EXTERIOR PUBLIC ADDRESS SPEAKERS, INTERROOM SPEAKERS, PLUGS, SWITCHES, HOSE BIBS, LIGHTS AND CONTROLS PRIOR TO DEMOLITION. THESE SYSTEMS MUST BE PUT BACK IN FUNCTIONING ORDER.
  5. IF ABATEMENT REQUIRED, ANY NEW OPENINGS IN AN AREA-- COORDINATE WITH THE TESTING LAB.
- STRUCTURAL INTEGRITY:
6. PROVIDE SUPPORT FOR THE EXISTING STRUCTURE BEFORE PERFORMING ANY ALTERATION THERETO.
  7. UNLESS OTHERWISE INDICATED ON THE STRUCTURAL OR ARCHITECTURAL DRAWINGS: NEW OPENINGS CUT IN EXISTING MASONRY WALLS, WHETHER BEARING OR NON-BEARING, SHALL RECEIVE LOOSE STEEL LINTELS, MINIMUM 8" BEARING.
- CUTTING AND PATCHING:
9. ANY EXISTING CONSTRUCTION THAT IS TO BE REMOVED, SHALL BE REMOVED IN SUCH A MANNER AS TO MAINTAIN THE EXISTING BUILDING STRUCTURE. PATCHES SHALL BE MADE TO MATCH EXISTING CONDITIONS AND MADE READY TO RECEIVE ANY NEW FINISHES WHERE APPLICABLE.
  10. PLUMBING LINES THAT ARE TO BE REMOVED SHALL BE REMOVED COMPLETELY. PATCH WALLS AND FLOORS TO MATCH EXISTING CONDITIONS. REFER TO THE PLUMBING PLANS.
  11. WHERE EXISTING FLOOR, CEILING, OR WALL FINISHES ARE TO BE REPLACED WITH NEW FINISHINGS, EXISTING SURFACES SHALL BE STRIPPED CLEAN OF ALL EXISTING COVERINGS & MADE READY TO RECEIVE NEW FINISHINGS.
- IN ACCORDANCE WITH FINISH MANUFACTURERS WRITTEN INSTRUCTIONS AND RECOMMENDATIONS INCLUDING LEVEL 4 PLUMB TOLERANCES REFER TO ROOM FINISH SCHEDULE SHEETS FOR TYPES & LOCATIONS OF NEW FINISHES.
12. ALL FLOOR FINISHES BEING REPLACED, SHALL BE COMPLETELY REMOVED & THE FLOOR CLEANED & PROPERLY PREPARED PRIOR TO INSTALLATION OF NEW FINISH MATERIAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING ALL FLOORS THAT RECEIVE NEW FINISHES PRIOR TO BID. FLOORS SHALL BE PATCHED, FILLED, & STRIPPED AS REQ'D. TO PROVIDE A SMOOTH, DURABLE SURFACE FREE OF ALL BURRS OR ADHESIVE & SUITABLE FOR APPLICATION OF NEW FINISH MATERIAL. ANY UNDER CUTTING OF DOORS REQ'D. TO ACCOMMODATE NEW FLOOR FINISHES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
  13. WHERE NEW CONCRETE TOPPING IS TO BE POURED OVER AN EXISTING CONCRETE SLAB: BUSH HAMMER THE EXISTING CONCRETE FINISH FOR BETTER BOND.
  14. WHERE EXISTING MASONRY ABUTS NEW MASONRY; EXISTING MASONRY SHALL BE TOOTHED TO RECEIVE NEW MASONRY (U.O.N.). NEW MASONRY SHALL MATCH EXISTING COURSING (TYP.)
  15. WHERE A PORTION OF AN EXISTING MASONRY WALL IS TO BE REMOVED: PROVIDE A FINISHED EDGE BY TOOTHING IN NEW MASONRY TO MATCH EXISTING.(U.O.N.)
  16. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL NOTES.
  17. REFER TO ABATEMENT REPORT & PLAN FOR NEW OPENINGS OR WALLS PRIOR TO DEMOLITION.

#### Consultants:

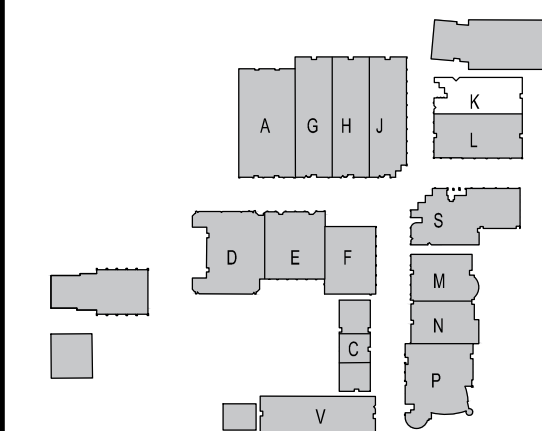
**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO & ASSOCIATES INC.**

**MEP:**  
**DBR ENGINEERING**



## PSJA ISD NORTH ECHS & COLLEGE AND UNIVERSITY CAMPUS STUDENT RESTROOM RENOVATIONS



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#### Revisions:

Sheet Title:

## BUILDING K DEMO PLAN

# D-106N



GENERAL CONSTRUCTION NOTES

- DEMOLITION AND PROPOSED WORK WILL HAVE TO BE COORDINATED WITH THE OWNER TO MINIMIZE DISRUPTIONS TO THE CAMPUS, WHICH MAY BE IN USE.
- ANY EXISTING WALLS TO REMAIN THAT REQUIRE REPAIR AFTER DEMOLITION IS COMPLETE, SHALL BE OBSERVED BY THE DESIGN TEAM AND OWNER PRIOR TO REPAIR. COORDINATION WILL BE REQUIRED.
- ANY OPENINGS IN EXISTING WALLS SCHEDULED TO BE INFILLED SHALL HAVE THE SAME MATERIAL AND FINISH AS THAT OF THE EXISTING WALL. ALL INFILLED OPENINGS SHALL BE FLUSH WITH EXISTING WALL SURFACES AND PAINTED.

DOOR SCHEDULE

DOOR SCHEDULE	DOOR				FRAME		REMARKS
	WIDTH	HEIGHT	TYPE	MATERIAL	TYPE	MATERIAL	
S100A	3'-0"	7'-0"	FL	WD	A	HM	FIELD VERIFY EXISTING OPENING
S100B	3'-0"	7'-0"	FL	HM	A	HM	FIELD VERIFY EXISTING OPENING
S101A	3'-0"	7'-0"	FL	WD	A	HM	
S101B	3'-0"	7'-0"	FL	HM	A	HM	FIELD VERIFY EXISTING OPENING
S102	3'-0"	7'-0"	FL	WD	A	HM	
S103	3'-0"	7'-0"	FL	WD	A	HM	

ROOM FINISH SCHEDULE

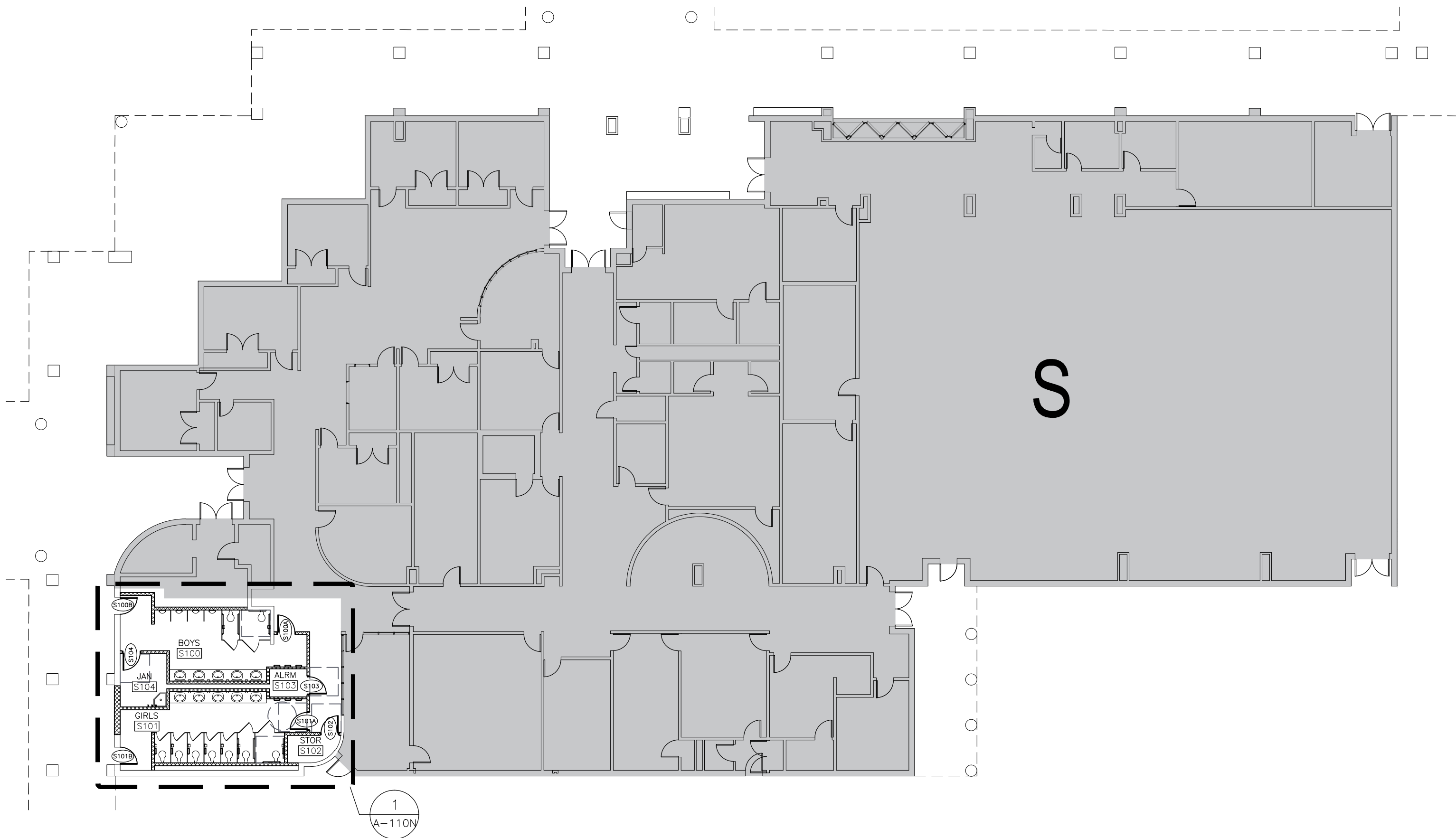
NUMBER	NAME	FLOOR	BASE	NORTH WALL	SOUTH WALL	EAST WALL	WEST WALL	CEILING	CLG HT.	NOTES
S100	BOYS	TILE: UNITY ASH GREY	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	GYP. PTD.	9'-0"	
S101	GIRLS	TILE: UNITY ASH GREY	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	GYP. PTD.	9'-0"	
S102	STORAGE	SEALED CONCRETE	NONE	PT	PT	PT	PT	EXP STRUC		PAINT EXPOSED STRUCTURE & DECK
S103	JANITOR	SEALED CONCRETE	NONE	PT	PT	PT	PT	EXP STRUC		PAINT EXPOSED STRUCTURE & DECK

REFLECTED CEILING LEGEND

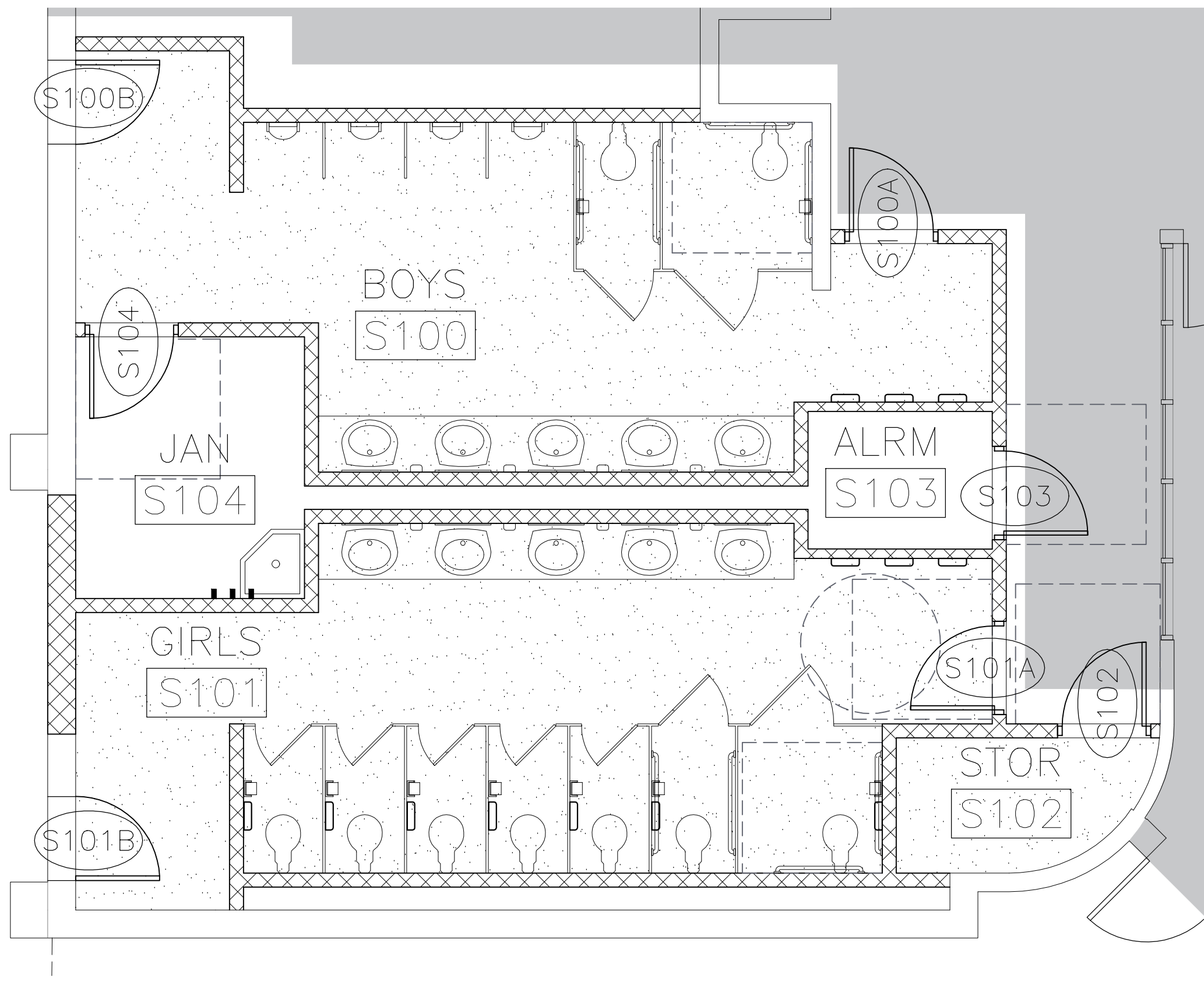
- PAINTED GYP. BOARD
- EXPOSED STRUCTURE, PAINTED
- THIS AREA NOT IN SCOPE

REFLECTED CEILING NOTES:

- REFER TO MEP DRAWINGS FOR CEILING MOUNTED ITEMS.
- FIELD VERIFICATION OF EXISTING STRUCTURE AND COORDINATION WITH MEP DURING SUBMITTAL PROCESS SHALL BE REQUIRED IN ORDER TO ACHIEVE MAXIMUM CEILING HEIGHTS.



1 FLOORPLAN - BUILDING S  
1/16" = 1'-0"



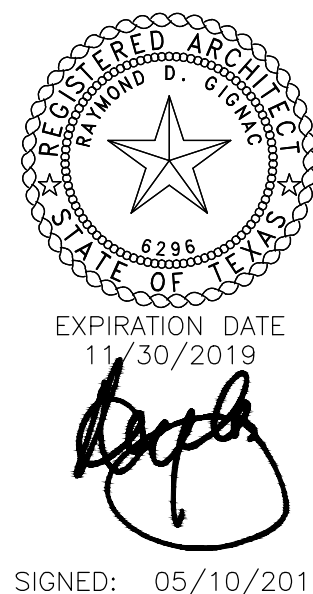
2 REFLECTED CEILING PLAN - BUILDING S  
1/4" = 1'-0"

Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING



SIGNED: 05/10/2019

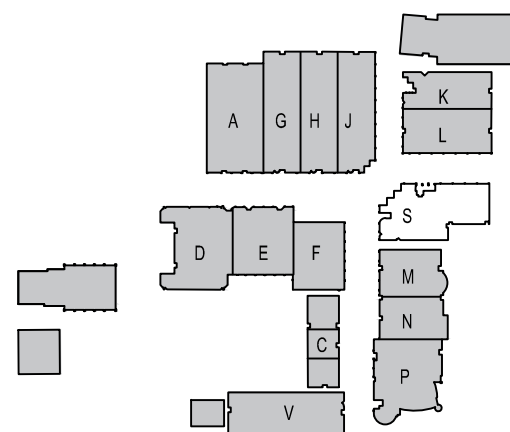


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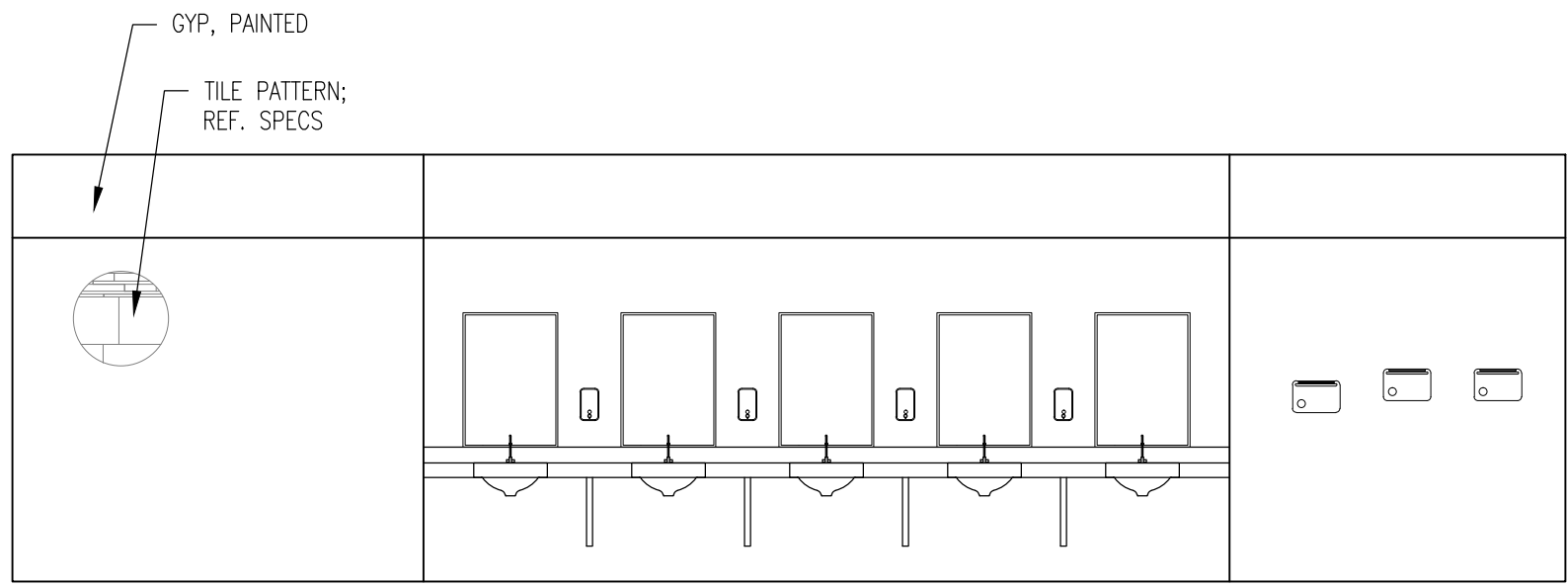
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BUILDING S  
FLOORPLAN &  
REFL. CLG. PLN.

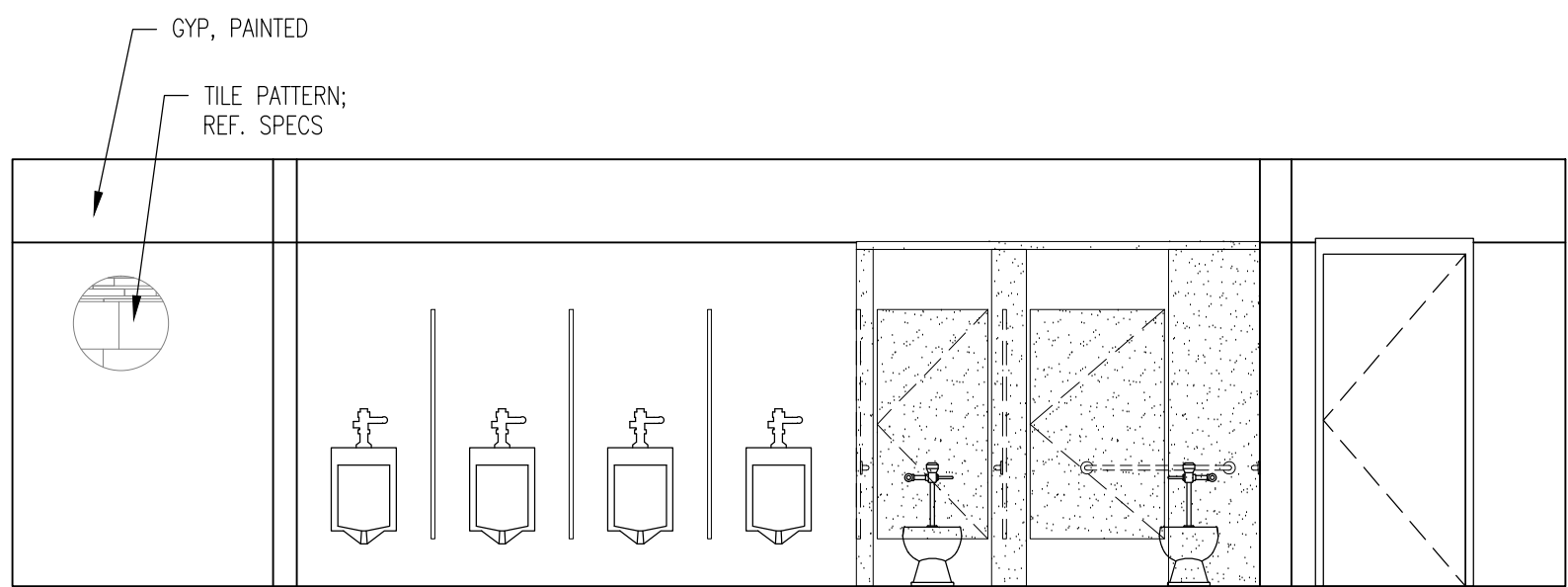
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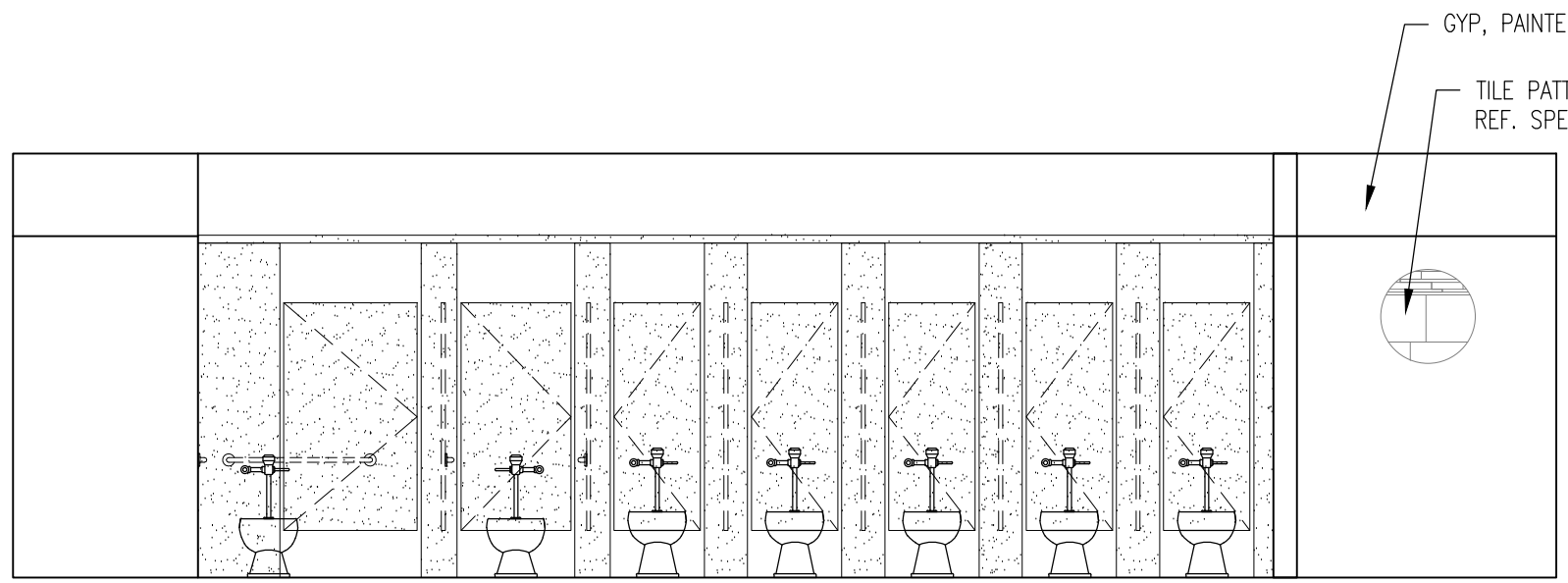
	FIXTURE MOUNTING HEIGHT SCHEDULE		ADULTS
	* REFER TO ADA GUIDELINES ON SHEET G-102.		
1	1. LAVATORIES/SINK (MEASURED FROM FLOOR TO RIM)	STANDARD	32"
		ACCESSIBLE	34" MAX (29" MIN KNEESPACE)
2	2. URINALS (MEASURED FROM FLOOR TO RIM)	STANDARD	16" MAX
		ACCESSIBLE	17" MAX
3	3. WATER CLOSETS (MEASURED FROM FLOOR TO TOP OF SEAT)	STANDARD	15"
		ACCESSIBLE	17" TO 19"
4	4. DRINKING FOUNTAINS AND EWC's FRONTAL APPROACH (MEASURED FROM FLOOR TO SPOUT OUTLET)	STANDARD	42"
		ACCESSIBLE	36" MAX (27" MIN KNEESPACE)
5	5. GRAB BARS (MEASURED FROM FLOOR TO CENTERLINE OF BAR - 36" LONG @ REAR WALL & 42" LONG @ SIDE WALL OR 90 DEGREE CONT. GRAB BAR WHERE INDICATED)	STANDARD	
		ACCESSIBLE	33" TO 36" TO TOP OF GRAB BAR
6	6. TOILET TISSUE DISPENSER (MEASURED FROM FLOOR TO CENTERLINE OF ROLL)	STANDARD	20"
		ACCESSIBLE	19" MIN
7	7. ELECTRIC HAND DRYER (MEASURED FROM FLOOR TO CENTER OF CONTROL)	STANDARD	48"
		ACCESSIBLE	45" MAX
8	8. SOAP DISPENSER (MEASURED FROM FLOOR TO CENTERLINE OF PUSH BUTTON)	STANDARD	38"
		ACCESSIBLE	36"
9	9. SANITARY NAPKIN DISPOSAL UNIT (MEASURED FROM FLOOR TO TOP OF UNIT) (ONLY IN ROOMS LABELED WOMEN & GIRLS)	STANDARD	40"
		ACCESSIBLE	
10	10. MIRRORS MIRROR PER LAVATORY (NOT NOTED FOR CLARITY). MEASURED FROM FLOOR TO BOTTOM OF REFLECTING SURFACE.	STANDARD	
		ACCESSIBLE	40" MAX
11	11. MOP BASIN / SERVICE SINK (ONE PER ROOM LABELED CUSTODIAN)		
12	12. MOP HOLDER (ONE PER ROOM LABELED CUSTODIAN)		48" MAX
13	13. TOILET PARTITION / URINAL SCREEN	NOT NOTED FOR CLARITY	



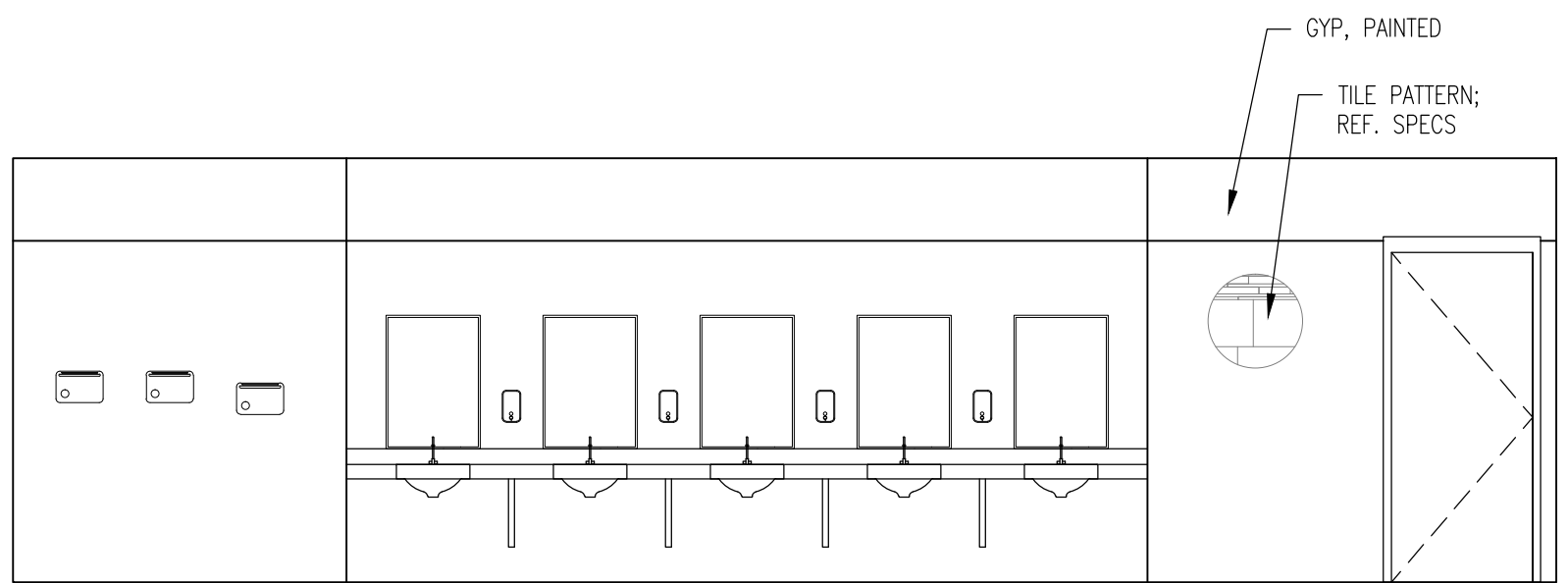
4 INTERIOR ELEVATION — GIRLS S101  
1/4" = 1'-0"



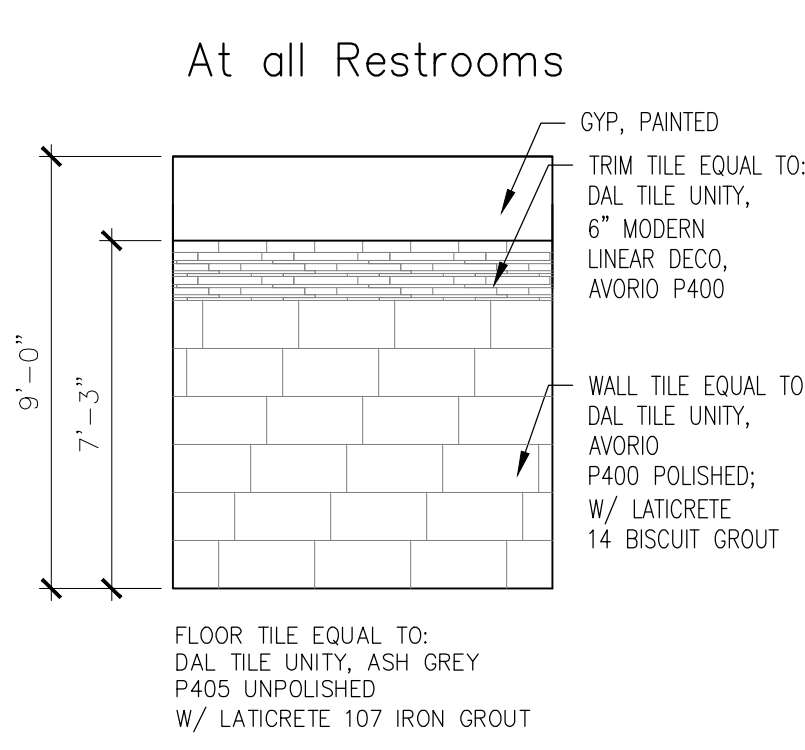
2 INTERIOR ELEVATION — BOYS S100  
1/4" = 1'-0"



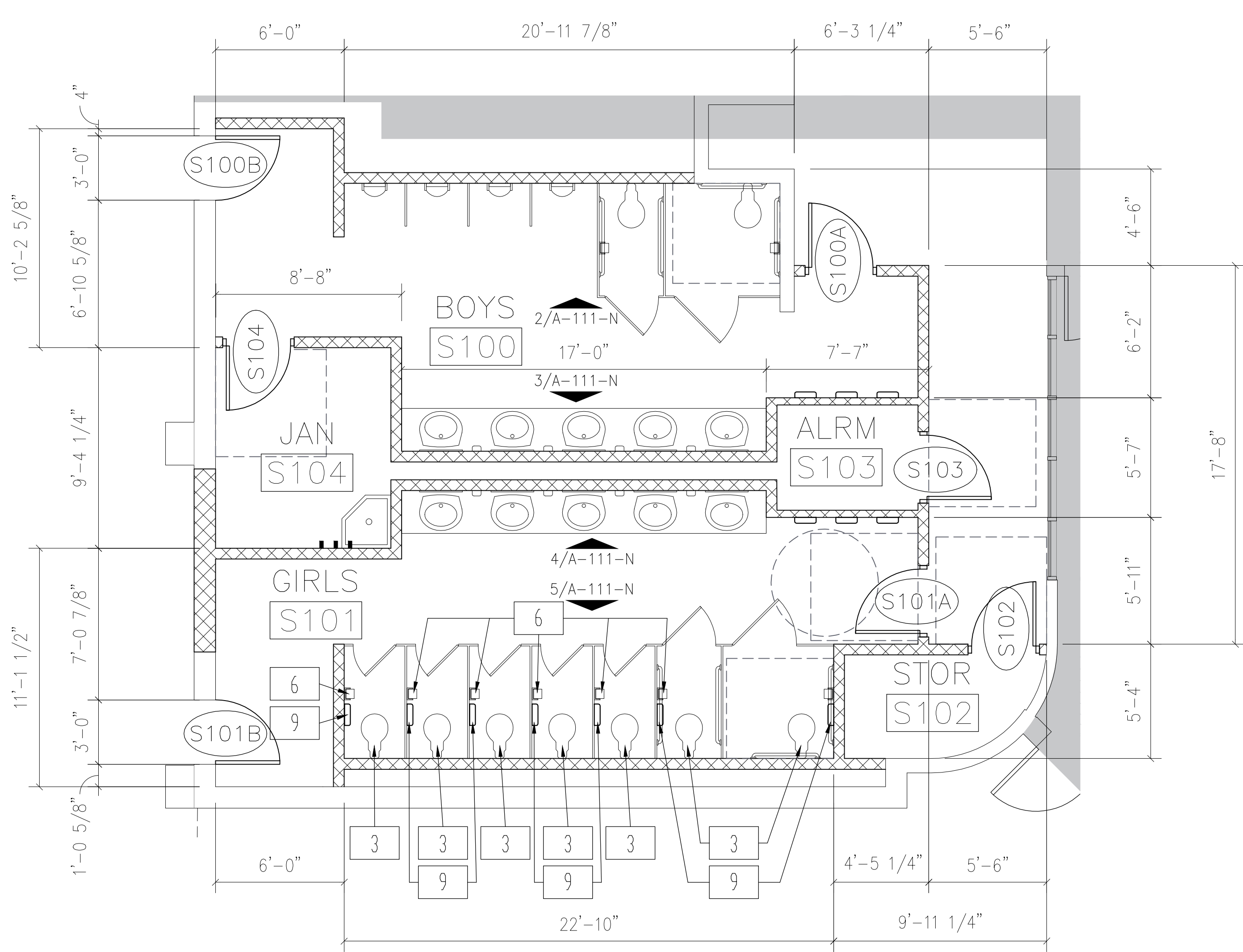
5 INTERIOR ELEVATION — GIRLS S101  
1/4" = 1'-0"



3 INTERIOR ELEVATION — BOYS S100  
1/4" = 1'-0"



6 TYPICAL WALL FINISHES  
1/4" = 1'-0"



1 ENLARGED FLOORPLAN — BUILDING S  
1/4" = 1'-0"



**KEYPLAN**

Project Number: 19.04  
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Revisions:

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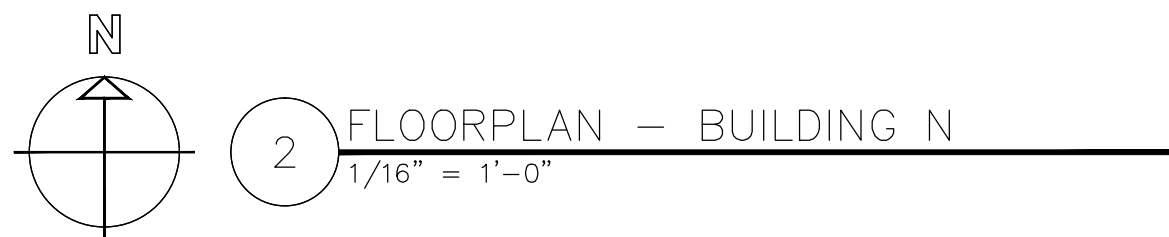
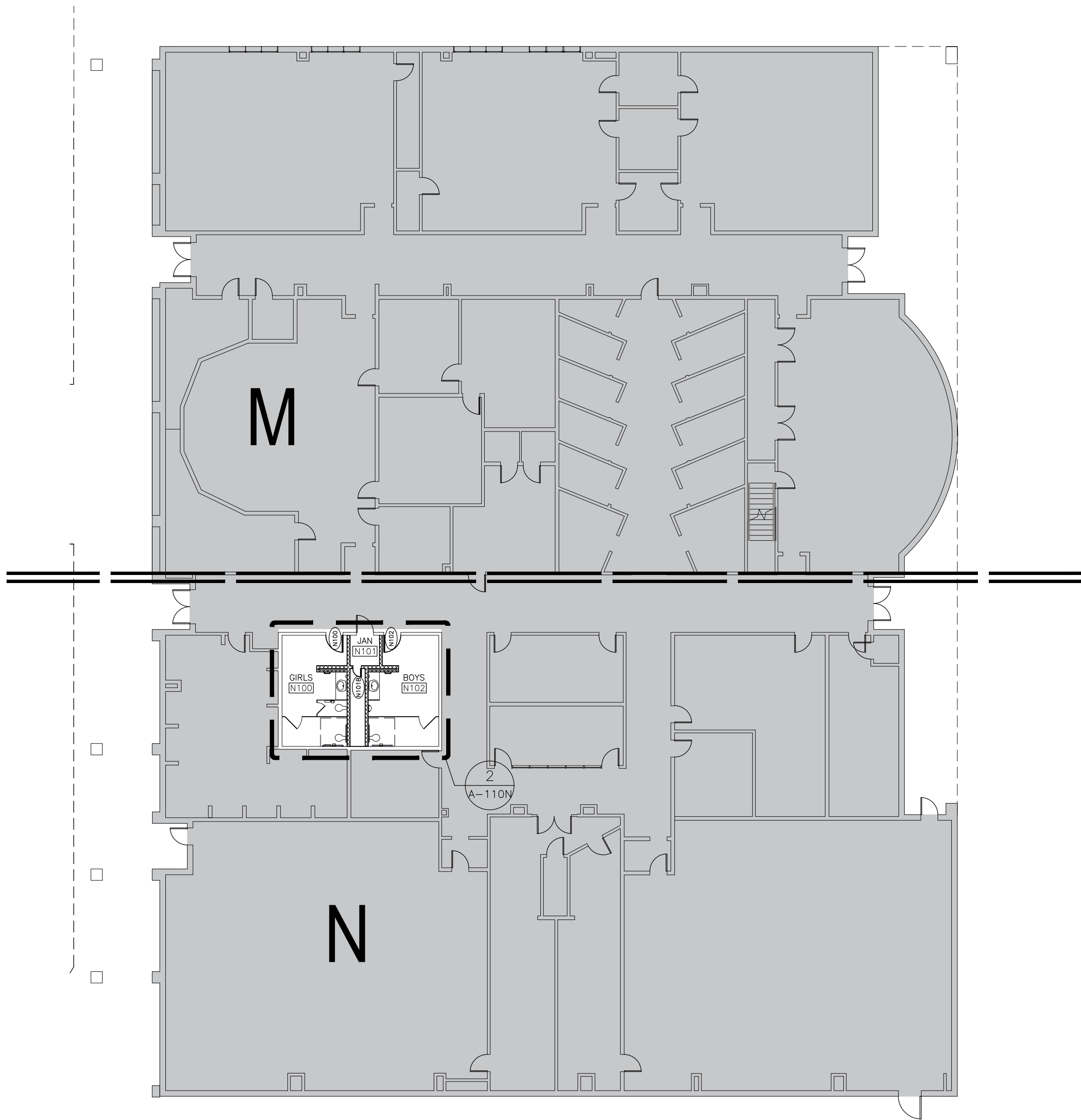


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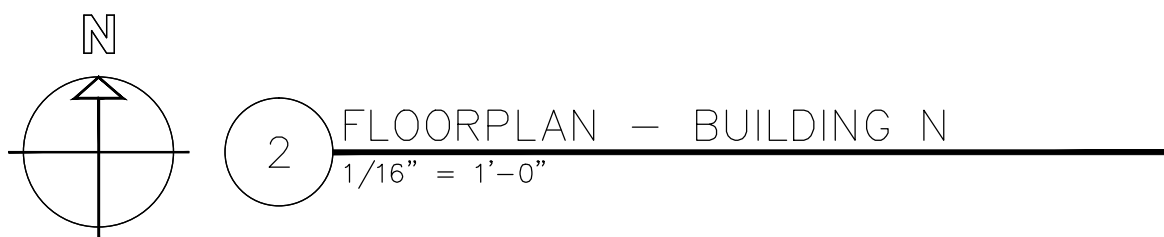
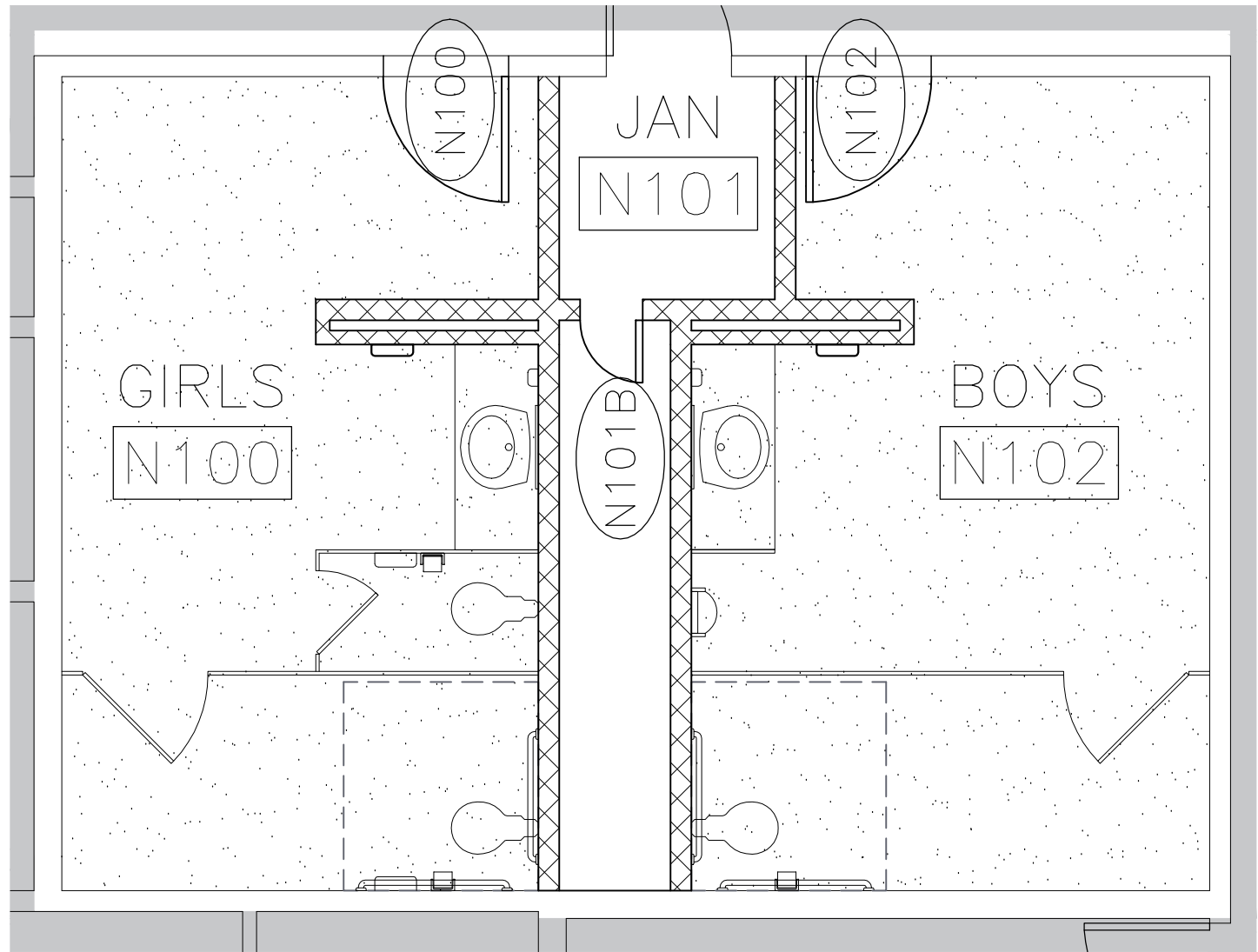
GENERAL CONSTRUCTION NOTES						
1. DEMOLITION AND PROPOSED WORK WILL HAVE TO BE COORDINATED WITH THE OWNER TO MINIMIZE DISRUPTIONS TO THE CAMPUS, WHICH MAY BE IN USE.						
2. ANY EXISTING WALLS TO REMAIN THAT REQUIRE REPAIR AFTER DEMOLITION IS COMPLETE, SHALL BE OBSERVED BY THE DESIGN TEAM AND OWNER PRIOR TO REPAIR. COORDINATION WILL BE REQUIRED.						
3. ANY OPENINGS IN EXISTING WALLS SCHEDULED TO BE INFILLED SHALL HAVE THE SAME MATERIAL AND FINISH AS THAT OF THE EXISTING WALL. ALL INFILLED OPENINGS SHALL BE FLUSH WITH EXISTING WALL SURFACES AND PAINTED.						

DOOR SCHEDULE						
DOOR SCHEDULE	DOOR			FRAME		REMARKS
	WIDTH	HEIGHT	TYPE	MATERIAL	TYPE MATERIAL	
N100	3'-0"	7'-0"	FL	WD	A HM	FIELD VERIFY EXISTING OPENING
N101B	1'-6"	7'-0"	FL	WD	A HM	
N102	3'-0"	7'-0"	FL	WD	A HM	FIELD VERIFY EXISTING OPENING

ROOM FINISH SCHEDULE										
NUMBER	NAME	FLOOR	BASE	NORTH WALL	SOUTH WALL	EAST WALL	WEST WALL	CEILING	CLG HT.	NOTES
N100	GIRLS	TILE: UNITY ASH GREY	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	GYP. PTD.	9'-0"	
N101	JANITOR	SEALED CONCRETE	NONE	PT	PT	PT	PT	EXP. STRUC		PAINT EXPOSED STRUCTURE & DECK
N102	BOYS	TILE: UNITY ASH GREY	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	GYP. PTD.	9'-0"	



REFLECTED CEILING LEGEND	
	PAINTED GYP. BOARD
	EXPOSED STRUCTURE, PAINTED
	THIS AREA NOT IN SCOPE
REFLECTED CEILING NOTES:	
1. REFER TO MEP DRAWINGS FOR CEILING MOUNTED ITEMS.	
2. FIELD VERIFICATION OF EXISTING STRUCTURE AND COORDINATION WITH MEP DURING SUBMITTAL PROCESS SHALL BE REQUIRED IN ORDER TO ACHIEVE MAXIMUM CEILING HEIGHTS.	



Consultants:

**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

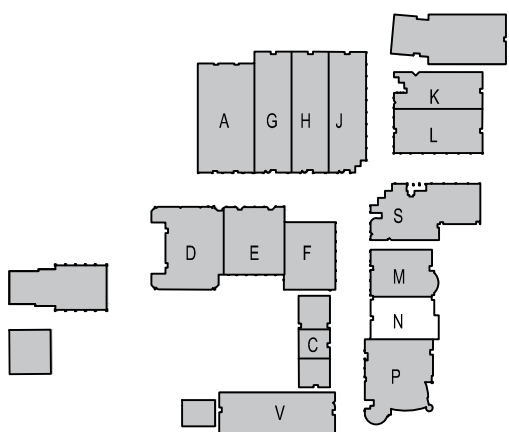
**MEP:**  
DBR ENGINEERING



SIGNED: 05/10/2019



**PSJA ISD**  
**NORTH ECHS**  
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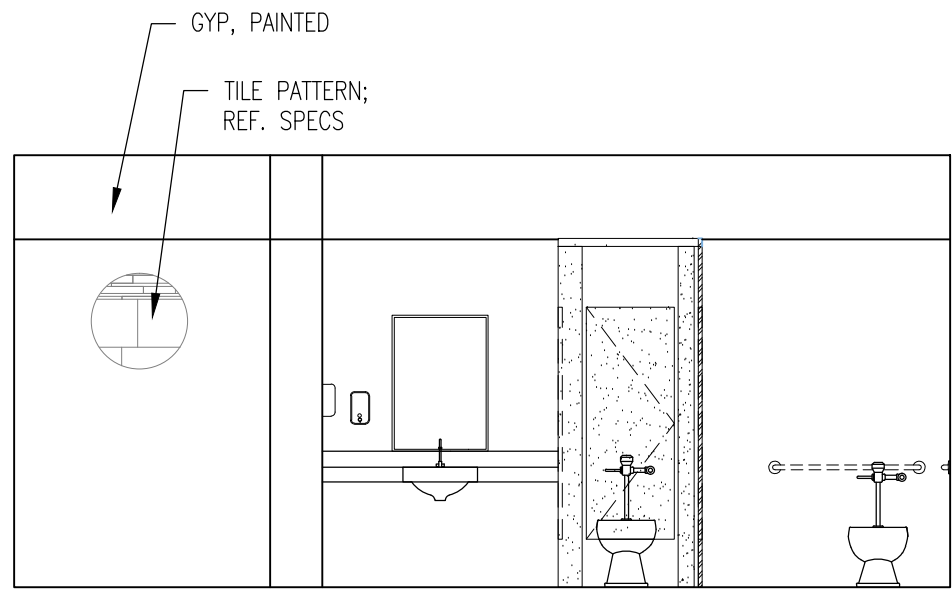
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**FLOORPLAN &**  
**REFL. CLG. PLN.**

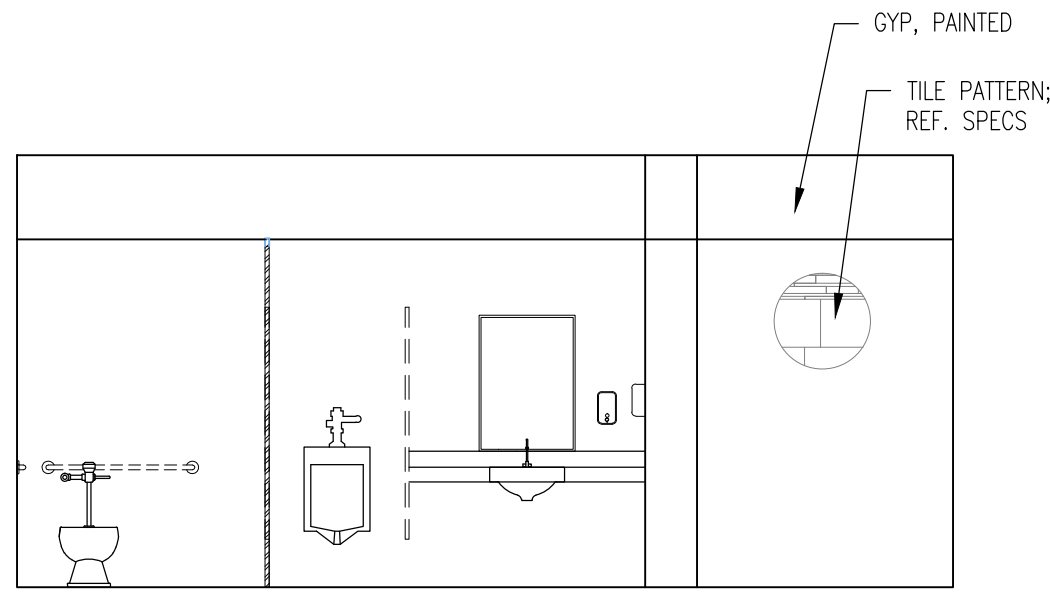
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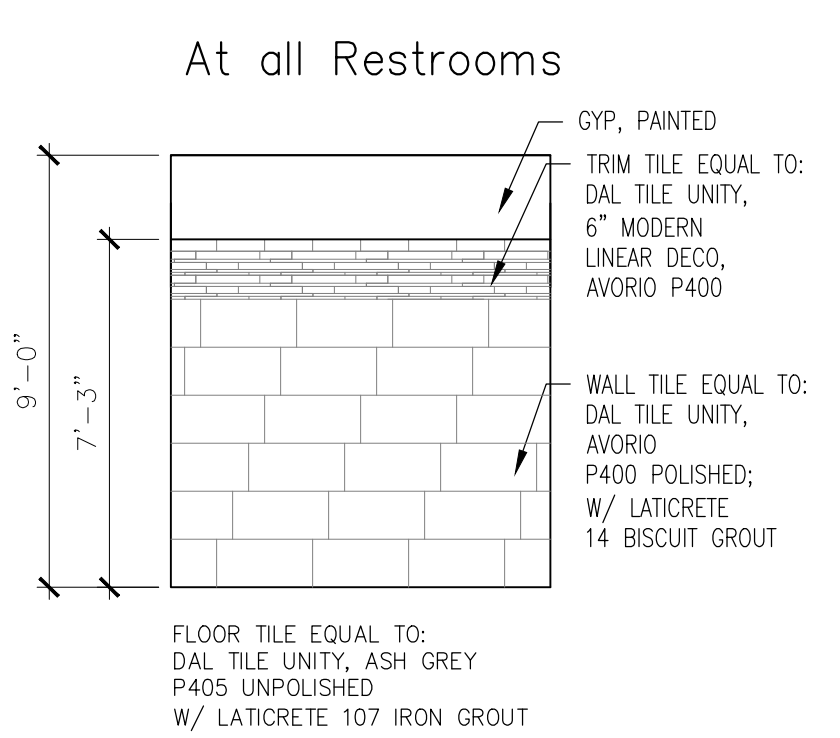
	FIXTURE MOUNTING HEIGHT SCHEDULE		ADULTS
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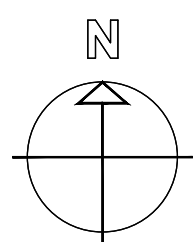
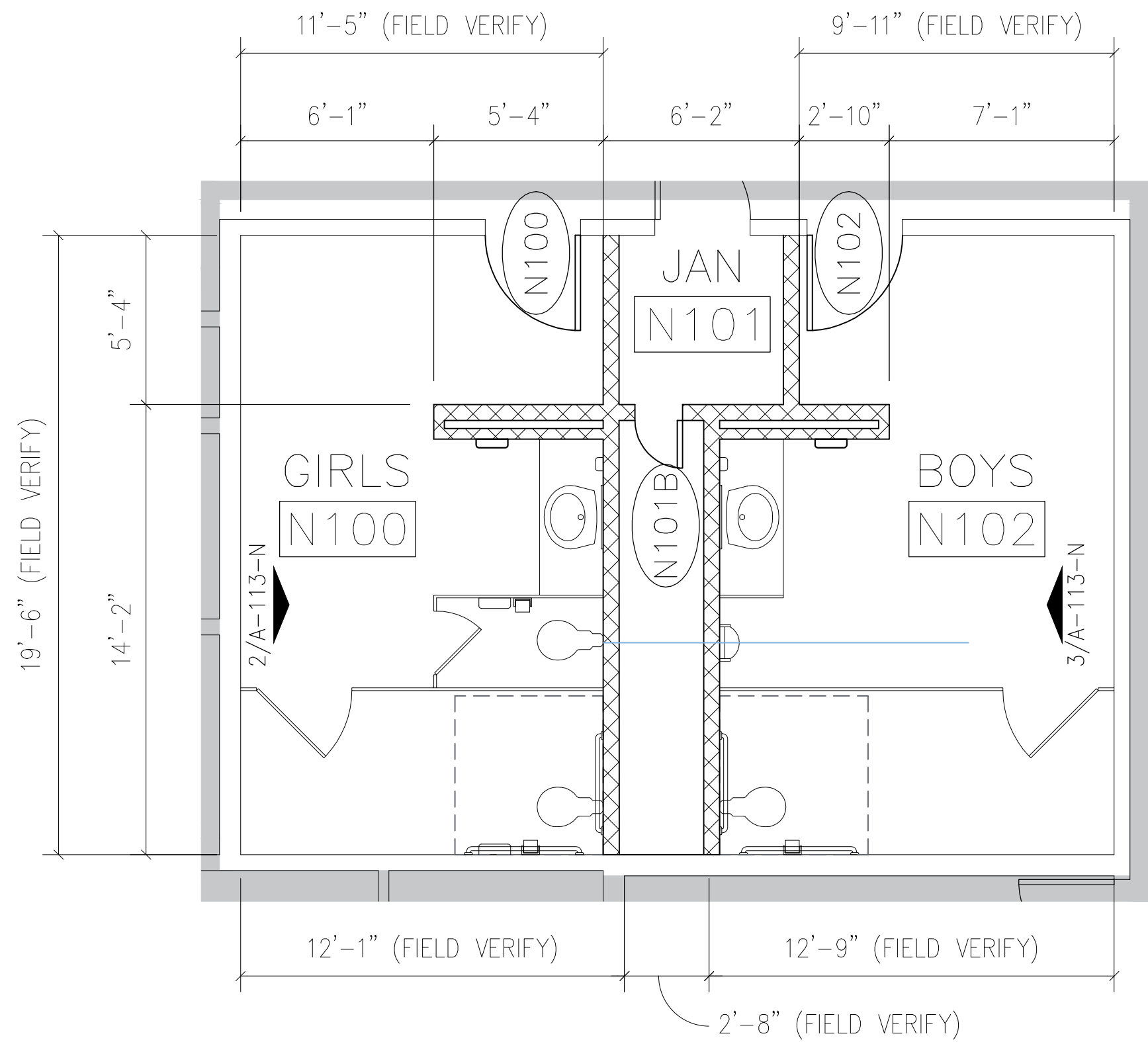
2 INTERIOR ELEVATION — GIRLS N100  
1/4" = 1'-0"



3 INTERIOR ELEVATION — BOYS N102  
1/4" = 1'-0"



4 TYPICAL WALL FINISHES  
1/4" = 1'-0"



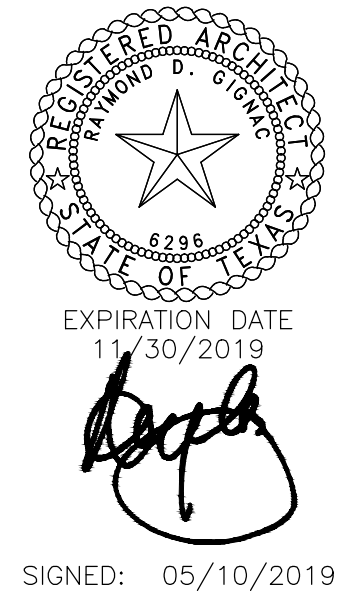
1 ENLARGED FLOORPLAN — BUILDING N  
1/4" = 1'-0"

Consultants:

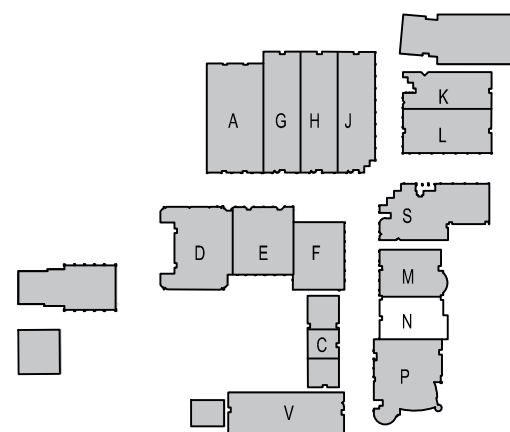
CIVIL:  
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Revisions:

Sheet Title:

BUILDING N  
INT ELEV. &  
ENLRG. FLRPLN.

A-113-N

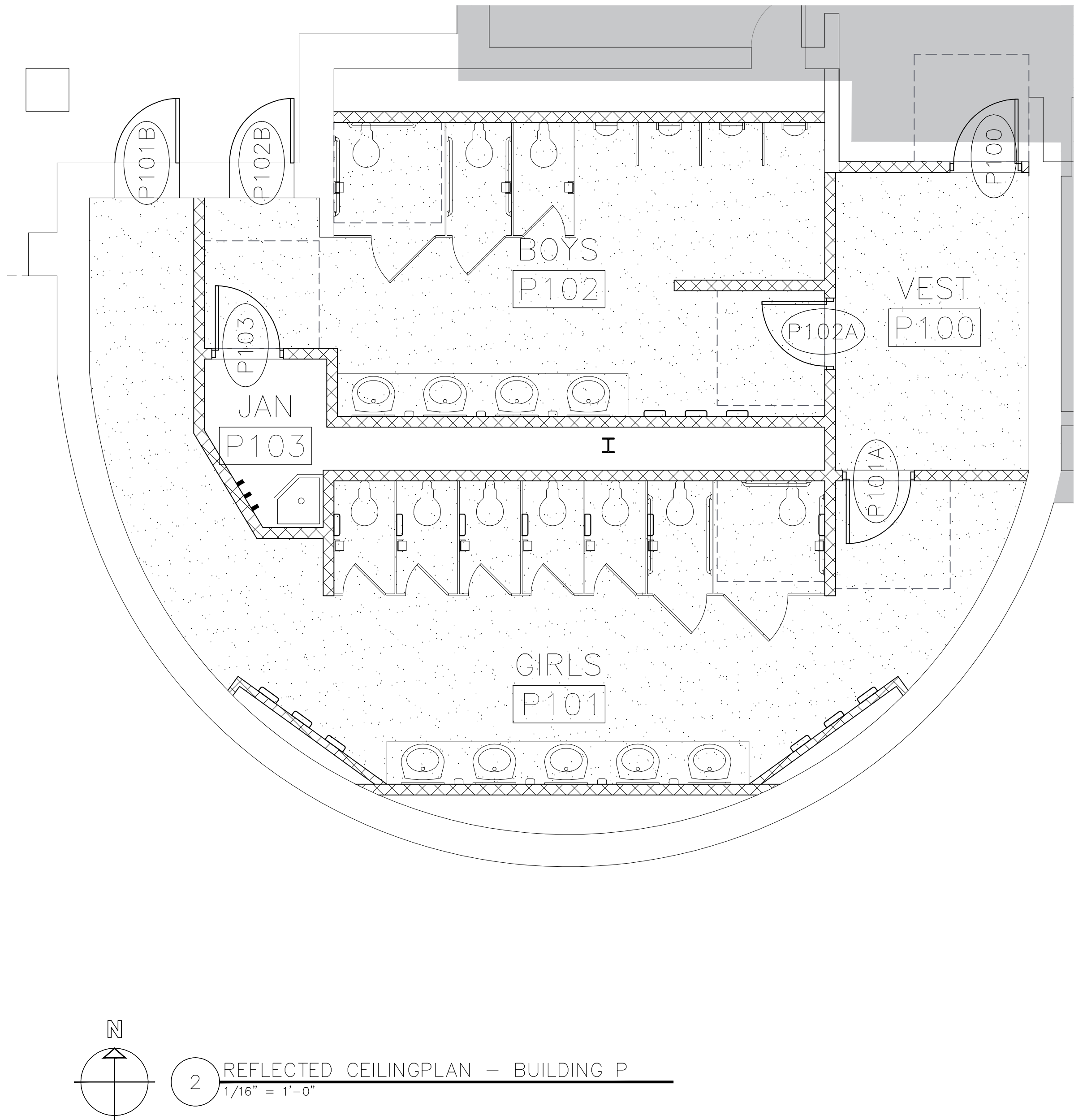
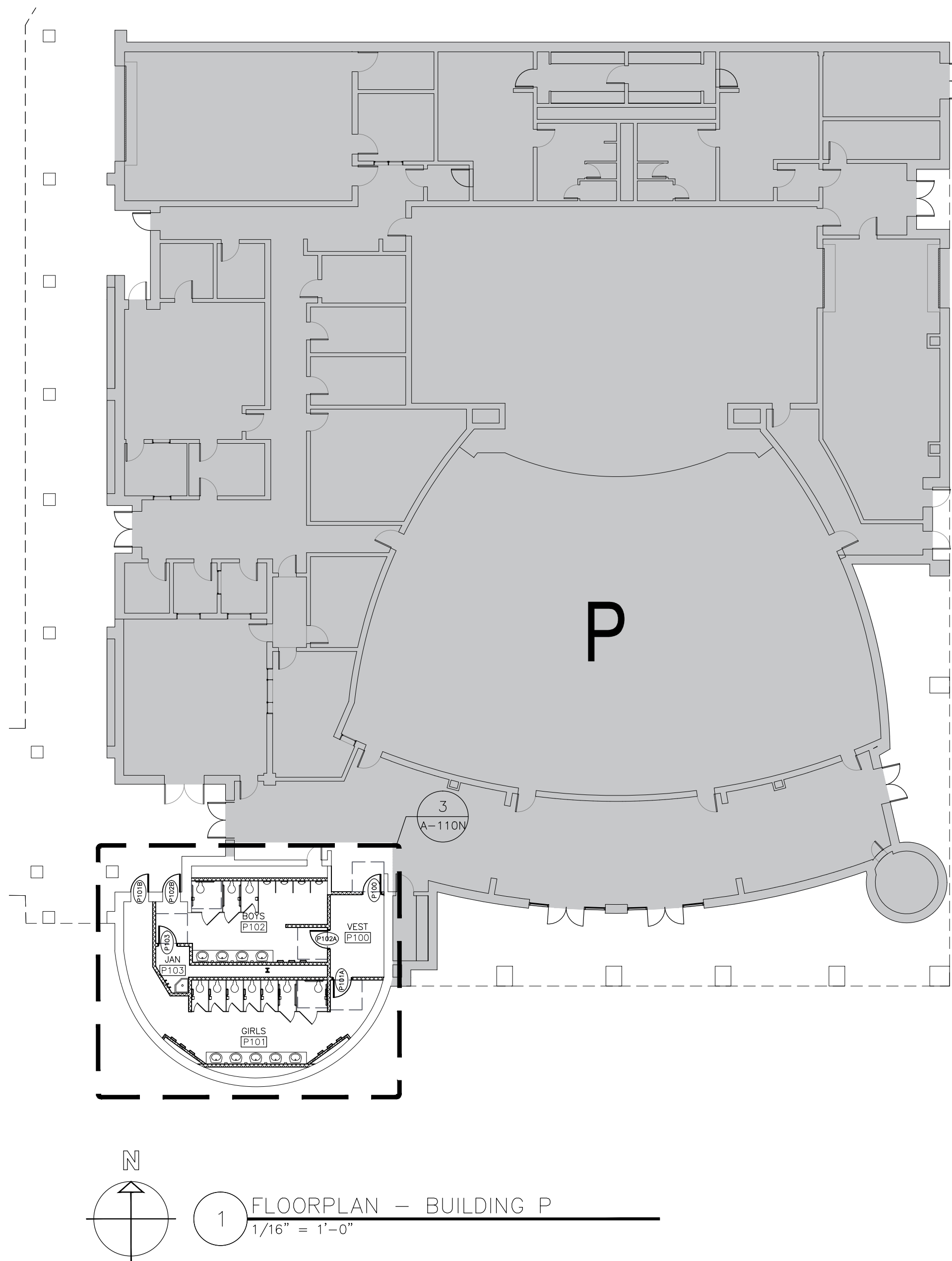


GENERAL CONSTRUCTION NOTES						
1. DEMOLITION AND PROPOSED WORK WILL HAVE TO BE COORDINATED WITH THE OWNER TO MINIMIZE DISRUPTIONS TO THE CAMPUS, WHICH MAY BE IN USE.						
2. ANY EXISTING WALLS TO REMAIN THAT REQUIRE REPAIR AFTER DEMOLITION IS COMPLETE, SHALL BE OBSERVED BY THE DESIGN TEAM AND OWNER PRIOR TO REPAIR. COORDINATION WILL BE REQUIRED.						
3. ANY OPENINGS IN EXISTING WALLS SCHEDULED TO BE INFILLED SHALL HAVE THE SAME MATERIAL AND FINISH AS THAT OF THE EXISTING WALL. ALL INFILLED OPENINGS SHALL BE FLUSH WITH EXISTING WALL SURFACES AND PAINTED.						

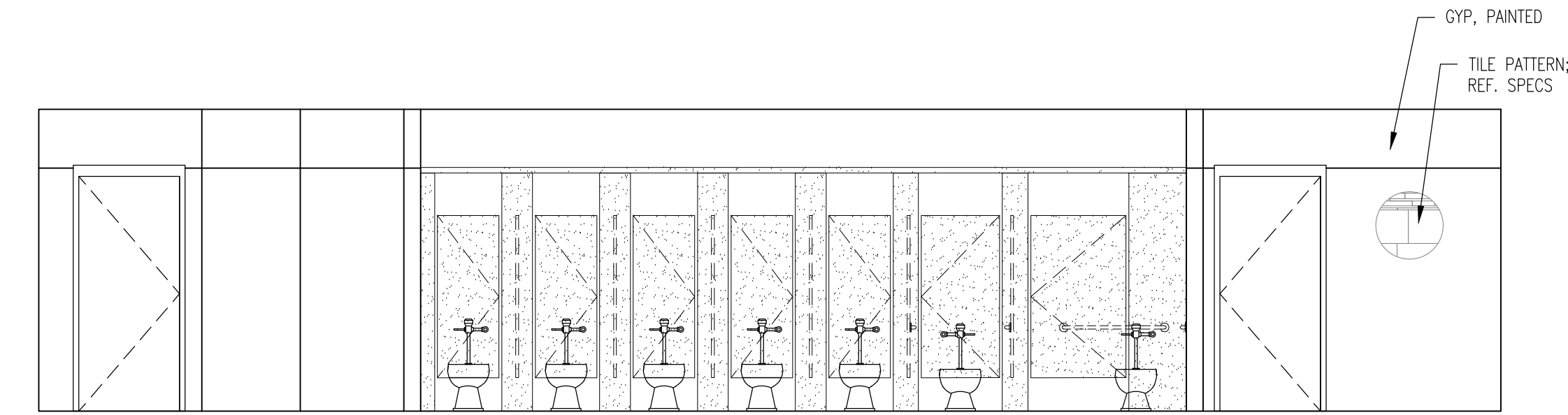
DOOR SCHEDULE						
DOOR SCHEDULE	WIDTH	HEIGHT	DOOR TYPE	MATERIAL	FRAME TYPE	MATERIAL
P100	3'-0"	7'-0"	FL	WD	A	HM
P101A	3'-0"	7'-0"	FL	WD	A	HM
P101B	3'-0"	7'-0"	FL	HM	A	HM
P102A	3'-0"	7'-0"	FL	WD	A	HM
P102B	3'-0"	7'-0"	FL	HM	A	HM
P103	3'-0"	7'-0"	FL	WD	A	HM

ROOM FINISH SCHEDULE										
NUMBER	NAME	FLOOR	BASE	NORTH WALL	SOUTH WALL	EAST WALL	WEST WALL	CEILING	CLG HT.	NOTES
P100	VESTIBULE	SEALED CONCRETE	NONE	PT	PT	PT	PT	EXP. STRUC		PAINT EXPOSED STRUCTURE & DECK
P101	GIRLS	TILE: UNITY ASH GREY	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	GYP. PTD.	9'-0"	
P102	BOYS	TILE: UNITY ASH GREY	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	GYP. PTD.	9'-0"	
P103	JANITOR	SEALED CONCRETE	NONE	PT	PT	PT	PT	EXP. STRUC		PAINT EXPOSED STRUCTURE & DECK

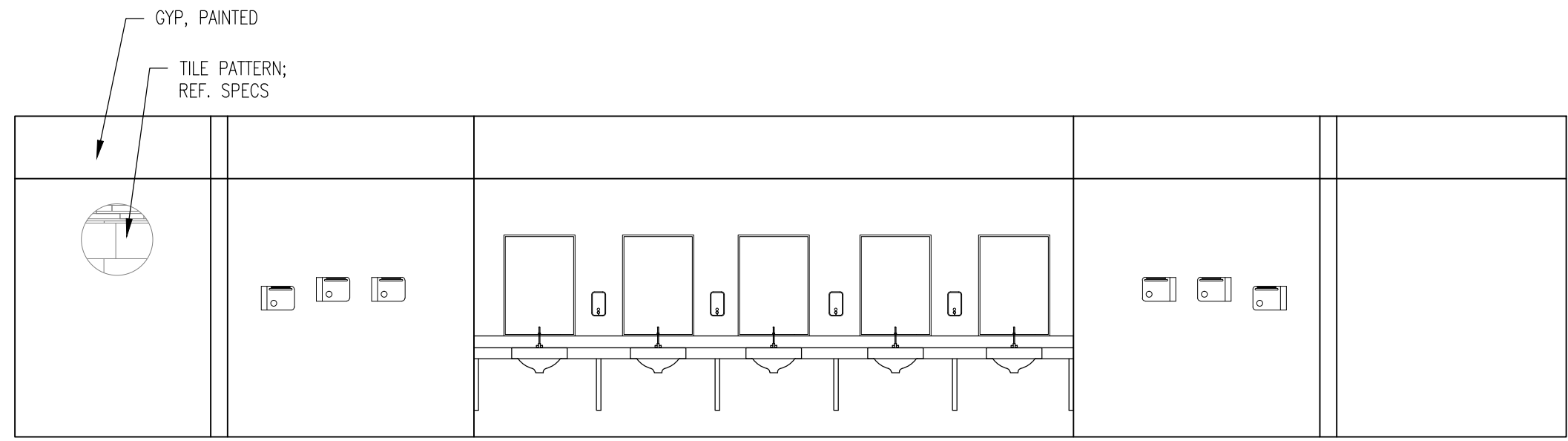
REFLECTED CEILING LEGEND	
<div></div>	PAINTED GYP. BOARD
<div></div>	EXPOSED STRUCTURE, PAINTED
<div></div>	THIS AREA NOT IN SCOPE
REFLECTED CEILING NOTES:	
1. REFER TO MEP DRAWINGS FOR CEILING MOUNTED ITEMS.	
2. FIELD VERIFICATION OF EXISTING STRUCTURE AND COORDINATION WITH MEP DURING SUBMITTAL PROCESS SHALL BE REQUIRED IN ORDER TO ACHIEVE MAXIMUM CEILING HEIGHTS.	



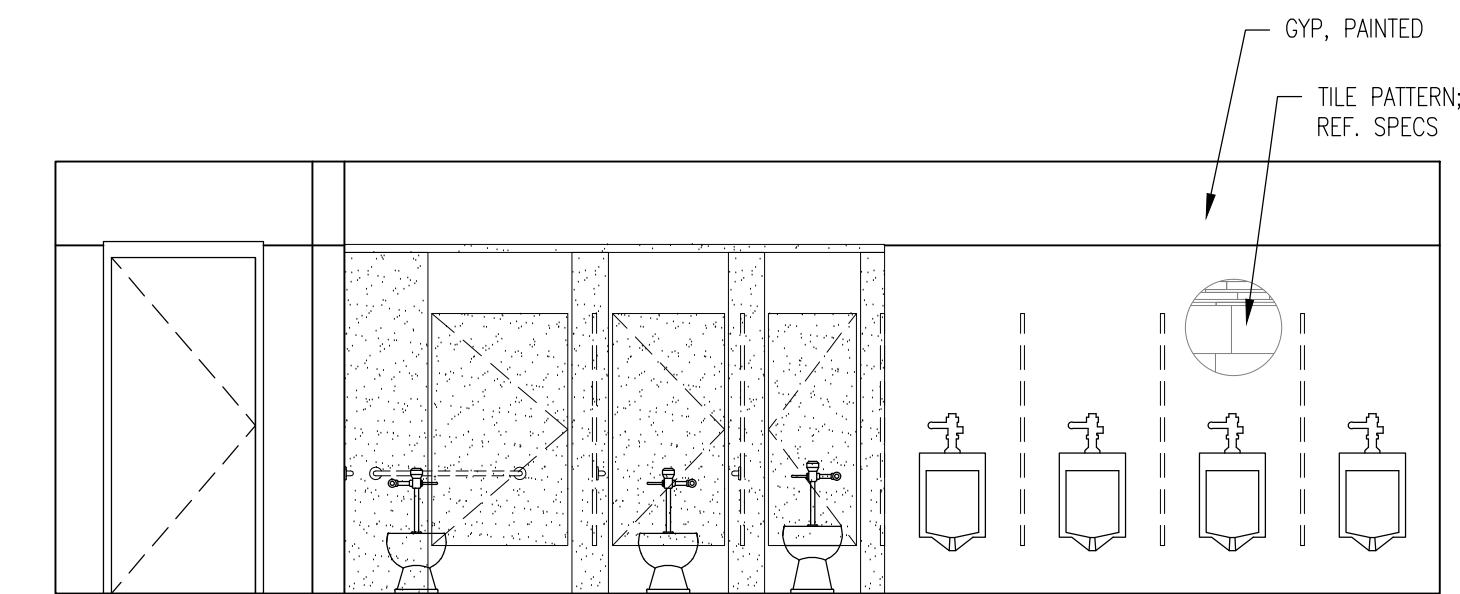
	FIXTURE MOUNTING HEIGHT SCHEDULE		ADULTS
	* REFER TO ADA GUIDELINES ON SHEET G-102.		
1	1. LAVATORIES/SINK (MEASURED FROM FLOOR TO RIM)	STANDARD	32"
		ACCESSIBLE	34" MAX (29" MIN KNEESPACE)
2	2. URINALS (MEASURED FROM FLOOR TO RIM)	STANDARD	16" MAX
		ACCESSIBLE	17" MAX
3	3. WATER CLOSETS (MEASURED FROM FLOOR TO TOP OF SEAT)	STANDARD	15"
		ACCESSIBLE	17" TO 19"
4	4. DRINKING FOUNTAINS AND EWC's FRONTAL APPROACH (MEASURED FROM FLOOR TO SPOUT OUTLET)	STANDARD	42"
		ACCESSIBLE	36" MAX (27" MIN KNEESPACE)
5	5. GRAB BARS (MEASURED FROM FLOOR TO CENTERLINE OF BAR - 36" LONG @ REAR WALL & 42" LONG @ SIDE WALL OR 90 DEGREE CONT. GRAB BAR WHERE INDICATED)	STANDARD	
		ACCESSIBLE	33" TO 36" TO TOP OF GRAB BAR
6	6. TOILET TISSUE DISPENSER (MEASURED FROM FLOOR TO CENTERLINE OF ROLL)	STANDARD	20"
		ACCESSIBLE	19" MIN
7	7. ELECTRIC HAND DRYER (MEASURED FROM FLOOR TO CENTER OF CONTROL)	STANDARD	48"
		ACCESSIBLE	45" MAX
8	8. SOAP DISPENSER (MEASURED FROM FLOOR TO CENTERLINE OF PUSH BUTTON)	STANDARD	38"
		ACCESSIBLE	38"
9	9. SANITARY NAPKIN DISPOSAL UNIT (MEASURED FROM FLOOR TO TOP OF UNIT) (ONLY IN ROOMS LABELED WOMEN & GIRLS)	STANDARD	40"
		ACCESSIBLE	
10	10. MIRRORS 1 MIRROR PER LAVATORY (NOT NOTED FOR CLARITY). MEASURED FROM FLOOR TO BOTTOM OF REFLECTING SURFACE.	STANDARD	
		ACCESSIBLE	40" MAX
11	11. MOP BASIN / SERVICE SINK (ONE PER ROOM LABELED CUSTODIAN)		
12	12. MOP HOLDER (ONE PER ROOM LABELED CUSTODIAN)		48" MAX
13	13. TOILET PARTITION / URINAL SCREEN	NOT NOTED FOR CLARITY	



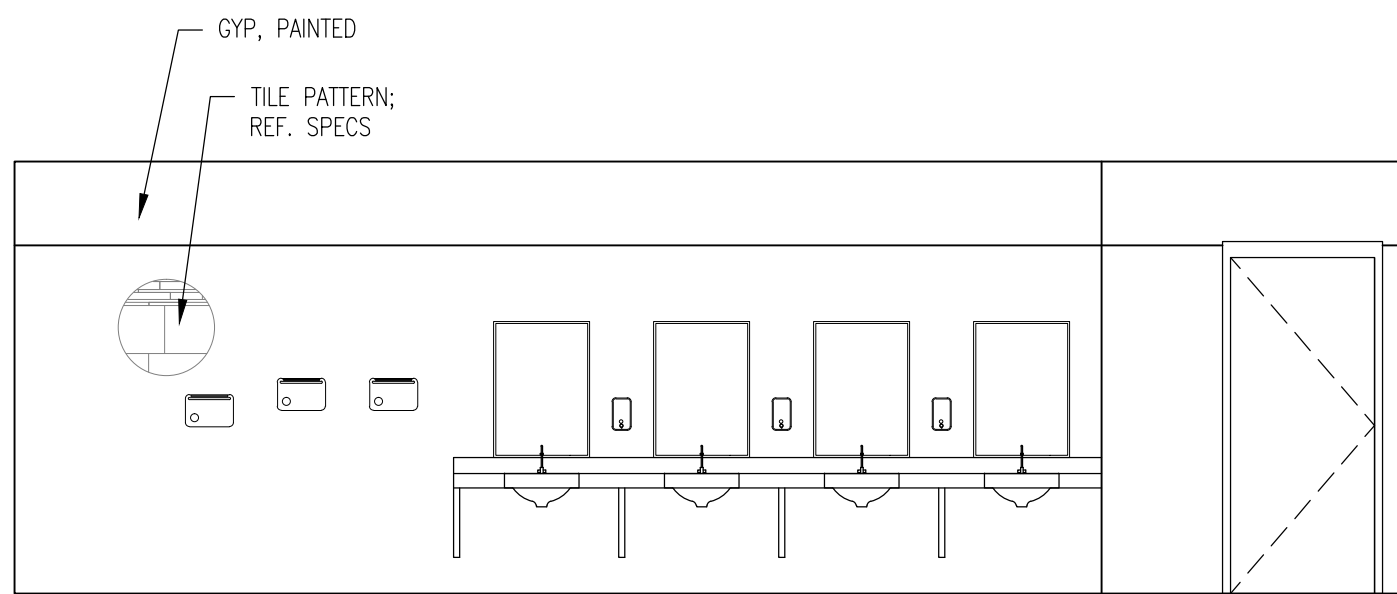
4 INTERIOR ELEVATION — GIRLS P101  
1/4" = 1'-0"



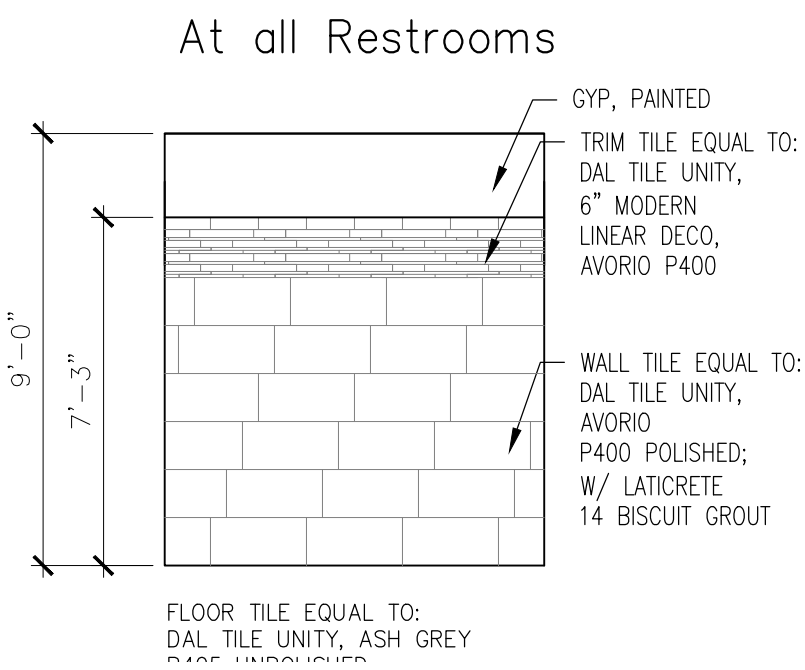
5 INTERIOR ELEVATION — GIRLS P101  
1/4" = 1'-0"



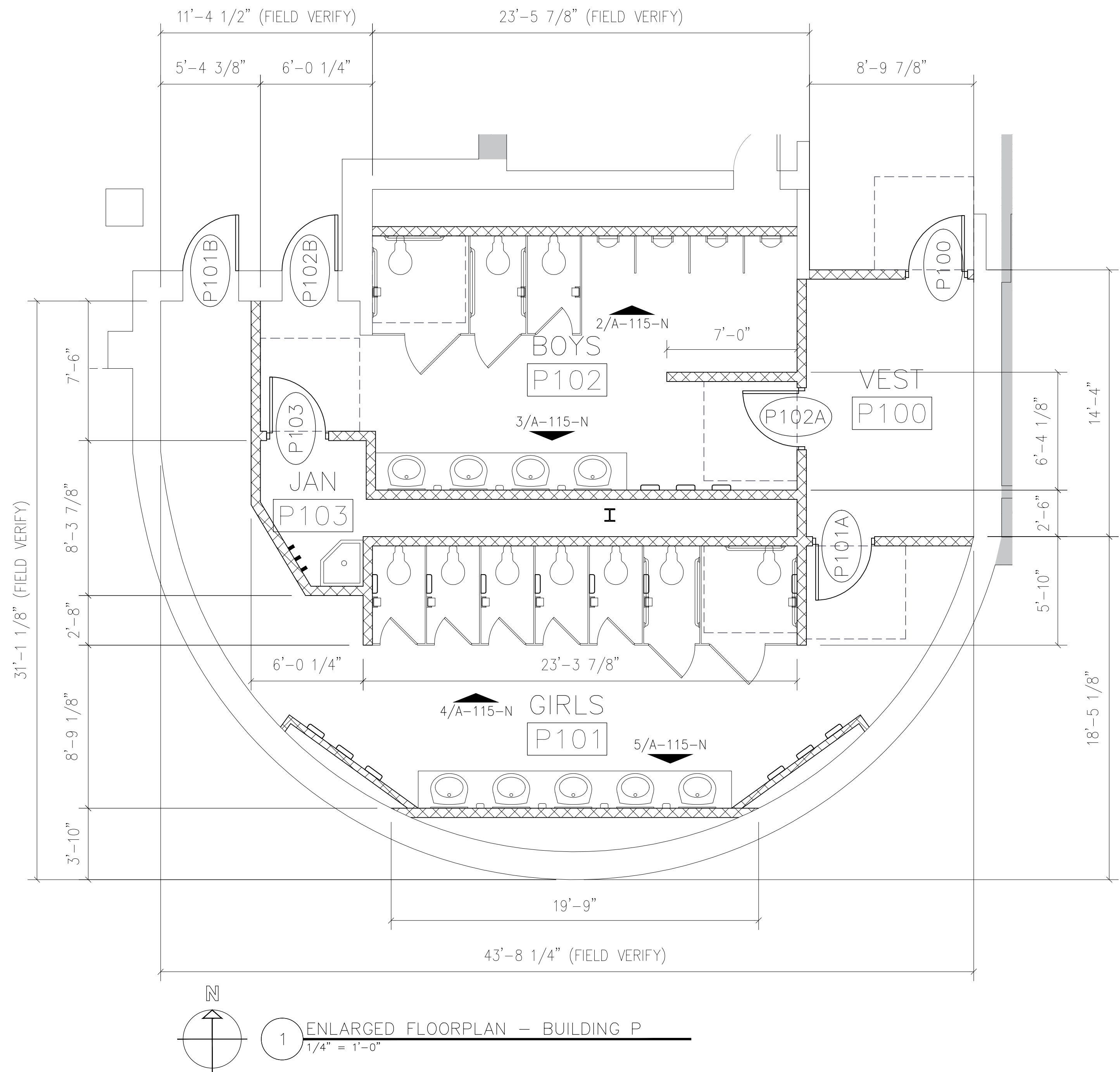
2 INTERIOR ELEVATION — BOYS P102  
1/4" = 1'-0"



3 INTERIOR ELEVATION — BOYS P102  
1/4" = 1'-0"



6 TYPICAL WALL FINISHES  
1/4" = 1'-0"



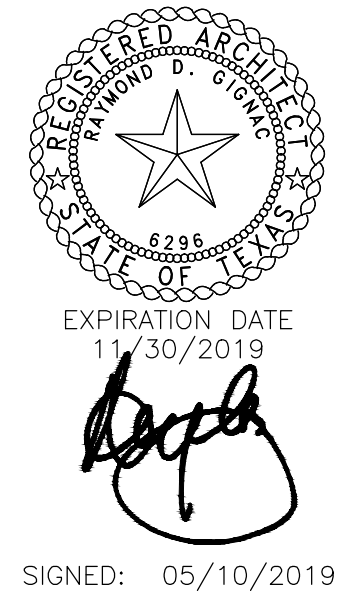
1 ENLARGED FLOORPLAN — BUILDING P  
1/4" = 1'-0"

Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING



SIGNED: 05/10/2019



**PSJA ISD**  
**NORTH ECHS**  
**& COLLEGE**  
**AND**  
**UNIVERSITY**  
**CAMPUS**

**STUDENT**  
**RESTROOM**  
**RENOVATIONS**



KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: CQ  
Checked: JM  
Scale: VARIES  
ACAD File: DEMO PLAN

Revisions:

Sheet Title:

**BUILDING P**  
**INT ELEV. &**  
**ENLRG. FLRPLN.**

**A-115-N**

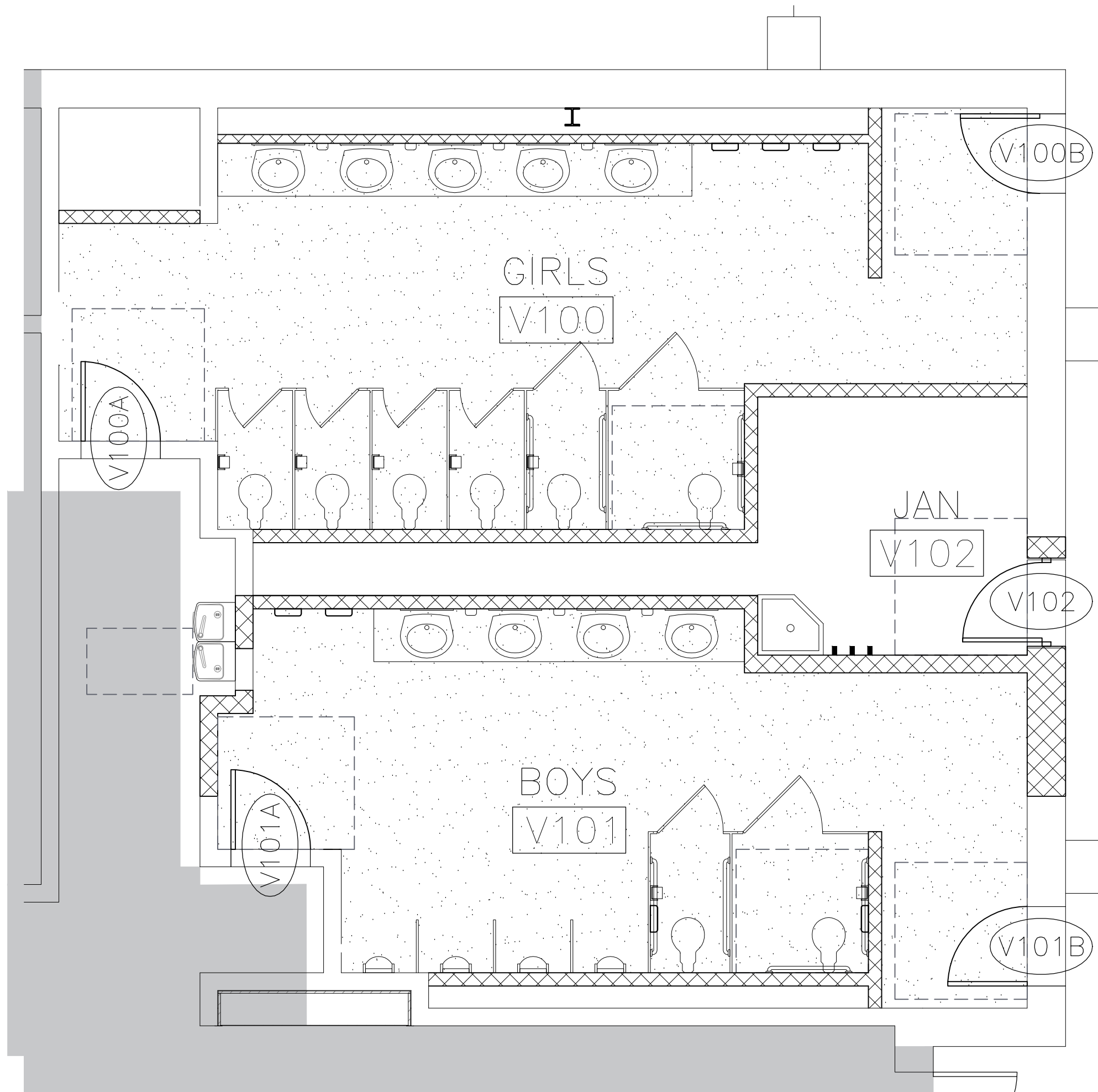
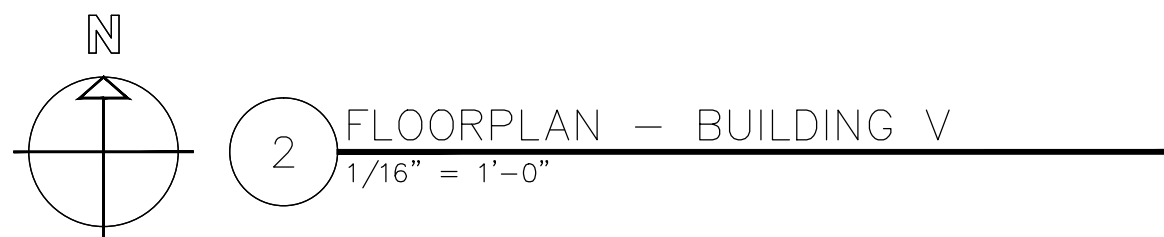
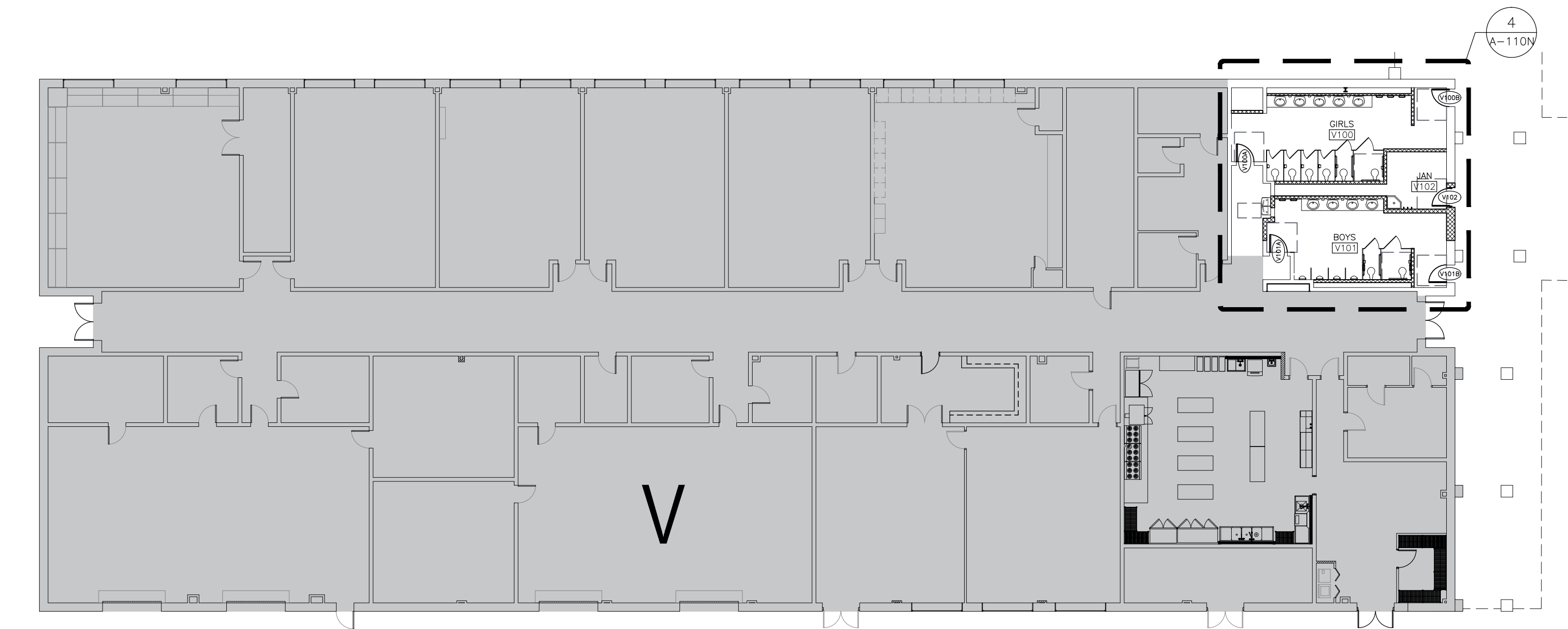


GENERAL CONSTRUCTION NOTES							
1. DEMOLITION AND PROPOSED WORK WILL HAVE TO BE COORDINATED WITH THE OWNER TO MINIMIZE DISRUPTIONS TO THE CAMPUS, WHICH MAY BE IN USE.							
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DOOR SCHEDULE							
DOOR SCHEDULE	DOOR				FRAME		REMARKS
	WIDTH	HEIGHT	TYPE	MATERIAL	TYPE	MATERIAL	
V100A	3'-0"	7'-0"	FL	WD	A	HM	
V100B	3'-0"	7'-0"	FL	HM	A	HM	FIELD VERIFY EXISTING OPENING
V101A	3'-0"	7'-0"	FL	WD	A	HM	
V101B	3'-0"	7'-0"	FL	HM	A	HM	FIELD VERIFY EXISTING OPENING
V102	3'-0"	7'-0"	FL	HM	A	HM	

ROOM FINISH SCHEDULE										
NUMBER	NAME	FLOOR	BASE	NORTH WALL	SOUTH WALL	EAST WALL	WEST WALL	CEILING	CLG HT.	NOTES
V100	GIRLS	TILE: UNITY ASH GREY	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	GYP. PTD.	9'-0"	
V101	BOYS	TILE: UNITY ASH GREY	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	GYP. PTD.	9'-0"	
V102	JANITOR	SEALED CONCRETE	NONE	PT	PT	PT	PT	EXP. STRUC		PAINT EXPOSED STRUCTURE & DECK

REFLECTED CEILING LEGEND	
<div></div>	PAINTED GYP. BOARD
<div></div>	EXPOSED STRUCTURE, PAINTED
<div></div>	THIS AREA NOT IN SCOPE
REFLECTED CEILING NOTES:	
1. REFER TO MEP DRAWINGS FOR CEILING MOUNTED ITEMS.	
2. FIELD VERIFICATION OF EXISTING STRUCTURE AND COORDINATION WITH MEP DURING SUBMITTAL PROCESS SHALL BE REQUIRED IN ORDER TO ACHIEVE MAXIMUM CEILING HEIGHTS.	



## KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: CQ  
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ACAD File: DEMO PLAN

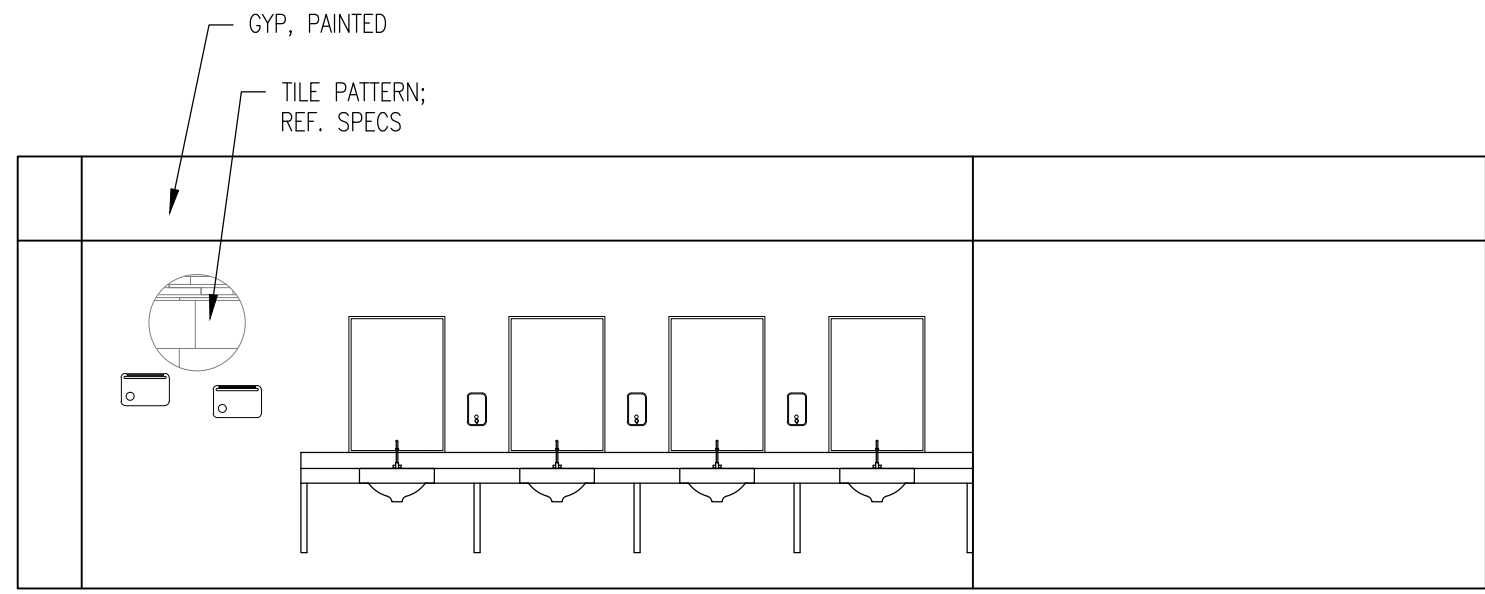
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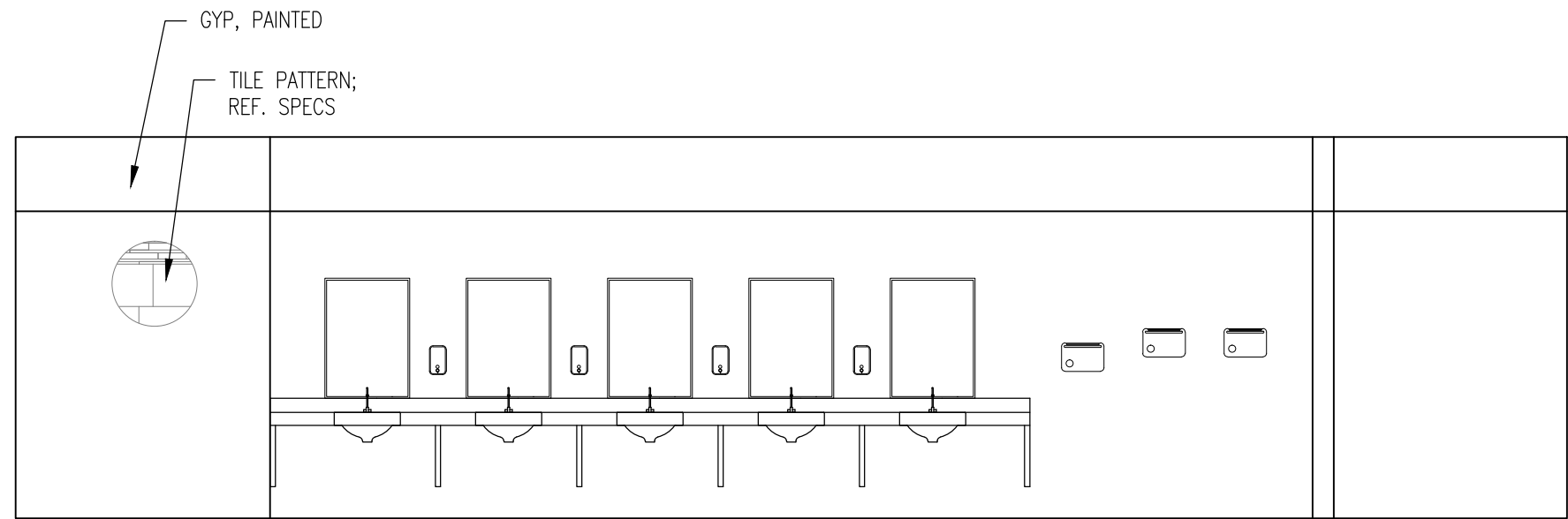
BUILDING V  
FLOORPLAN &  
REFL. CLG. PLN.

A-116-N

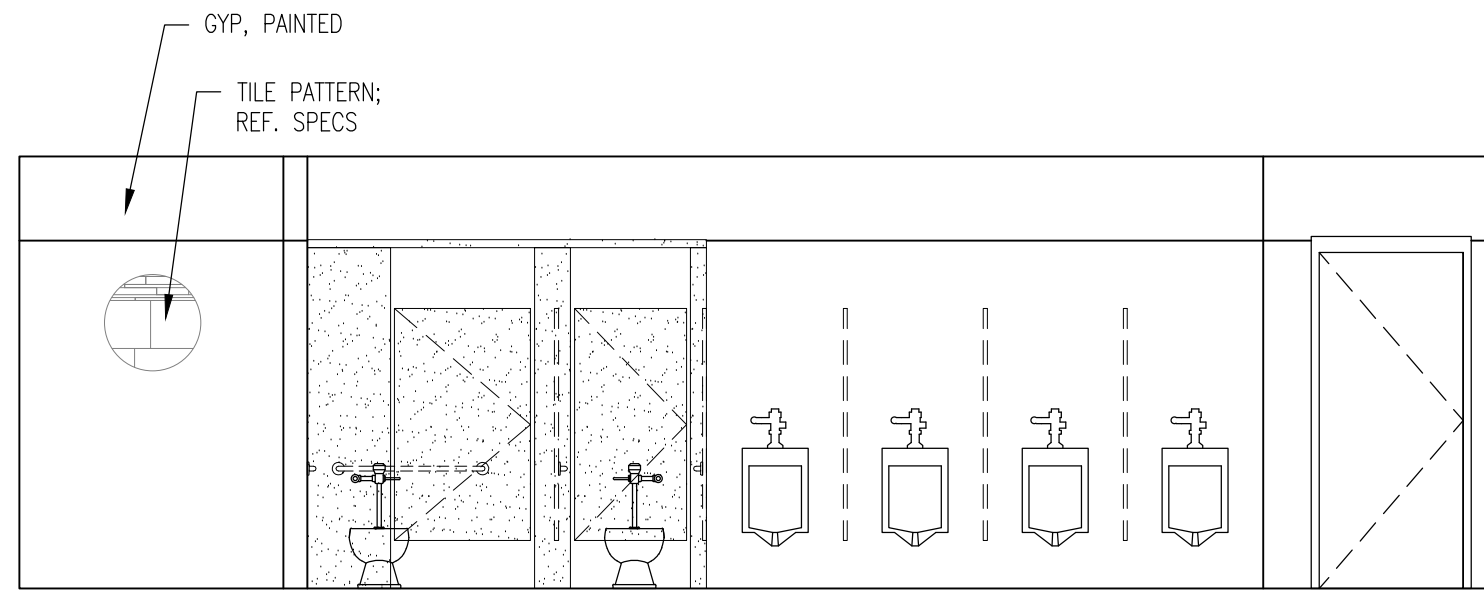
	FIXTURE MOUNTING HEIGHT SCHEDULE		ADULTS
	* REFER TO ADA GUIDELINES ON SHEET G-102.		
1	1. LAVATORIES/SINK (MEASURED FROM FLOOR TO RIM)	STANDARD ACCESSIBLE	32" 34" MAX (29" MIN KNEESPACE)
2	2. URINALS (MEASURED FROM FLOOR TO RIM)	STANDARD ACCESSIBLE	16" MAX 17" MAX
3	3. WATER CLOSETS (MEASURED FROM FLOOR TO TOP OF SEAT)	STANDARD ACCESSIBLE	15" 17" TO 19"
4	4. DRINKING FOUNTAINS AND EWC's FRONTAL APPROACH (MEASURED FROM FLOOR TO SPOUT OUTLET)	STANDARD ACCESSIBLE	42" 36" MAX (27" MIN KNEESPACE)
5	5. GRAB BARS (MEASURED FROM FLOOR TO CENTERLINE OF BAR - 36" LONG @ REAR WALL & 42" LONG @ SIDE WALL OR 90 DEGREE CONT. GRAB BAR WHERE INDICATED)	STANDARD ACCESSIBLE	33" TO 36" TO TOP OF GRAB BAR
6	6. TOILET TISSUE DISPENSER (MEASURED FROM FLOOR TO CENTERLINE OF ROLL)	STANDARD ACCESSIBLE	20" 19" MIN
7	7. ELECTRIC HAND DRYER (MEASURED FROM FLOOR TO CENTER OF CONTROL)	STANDARD ACCESSIBLE	48" 45" MAX
8	8. SOAP DISPENSER (MEASURED FROM FLOOR TO CENTERLINE OF PUSH BUTTON)	STANDARD ACCESSIBLE	38" 38"
9	9. SANITARY NAPKIN DISPOSAL UNIT (MEASURED FROM FLOOR TO TOP OF UNIT) (ONLY IN ROOMS LABELED WOMEN & GIRLS)	STANDARD ACCESSIBLE	40" 
10	10. MIRRORS 1 MIRROR PER LAVATORY (NOT NOTED FOR CLARITY). MEASURED FROM FLOOR TO BOTTOM OF REFLECTING SURFACE.	STANDARD ACCESSIBLE	40" MAX 
11	11. MOP BASIN / SERVICE SINK (ONE PER ROOM LABELED CUSTODIAN)		
12	12. MOP HOLDER (ONE PER ROOM LABELED CUSTODIAN)		48" MAX
13	13. TOILET PARTITION / URINAL SCREEN	NOT NOTED FOR CLARITY	



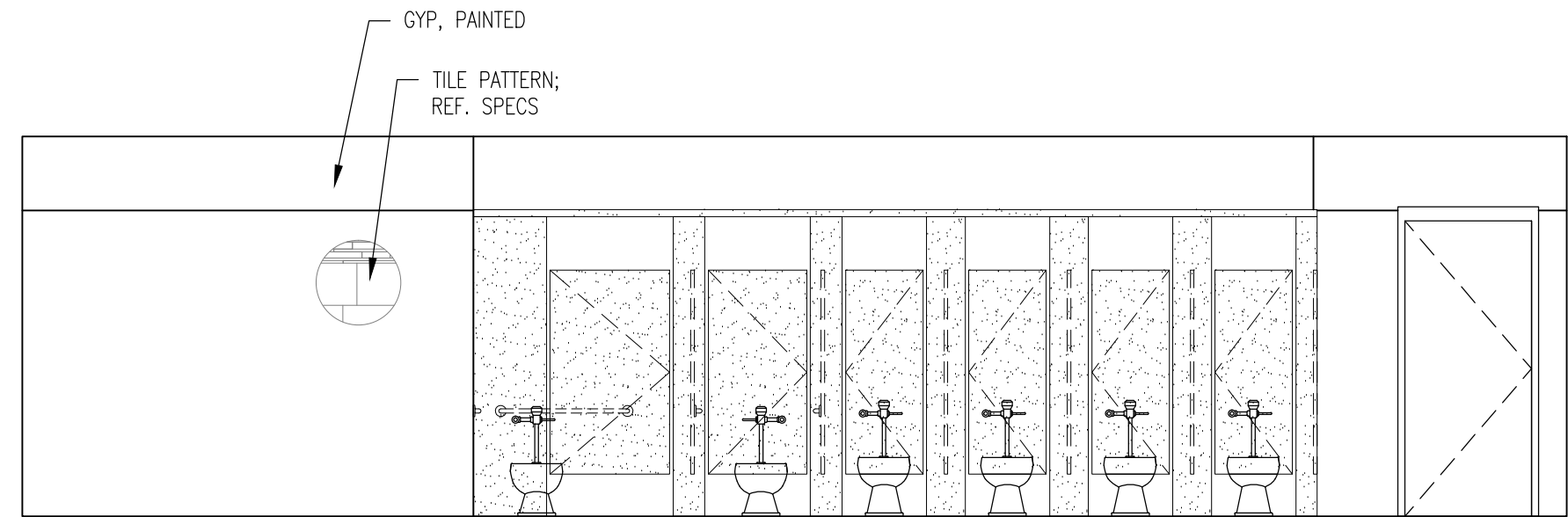
4 INTERIOR ELEVATION - BOYS V101  
1/4" = 1'-0"



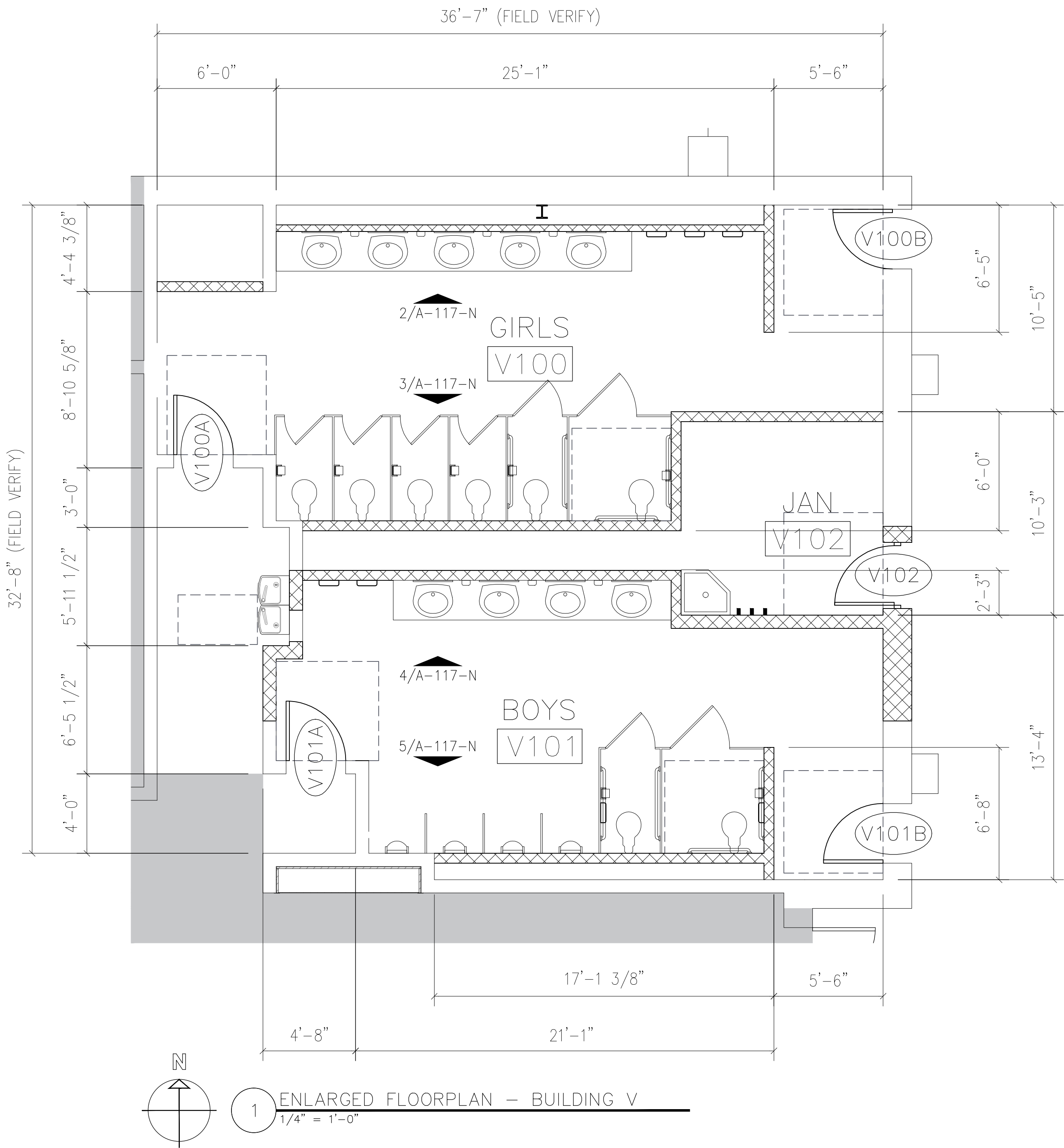
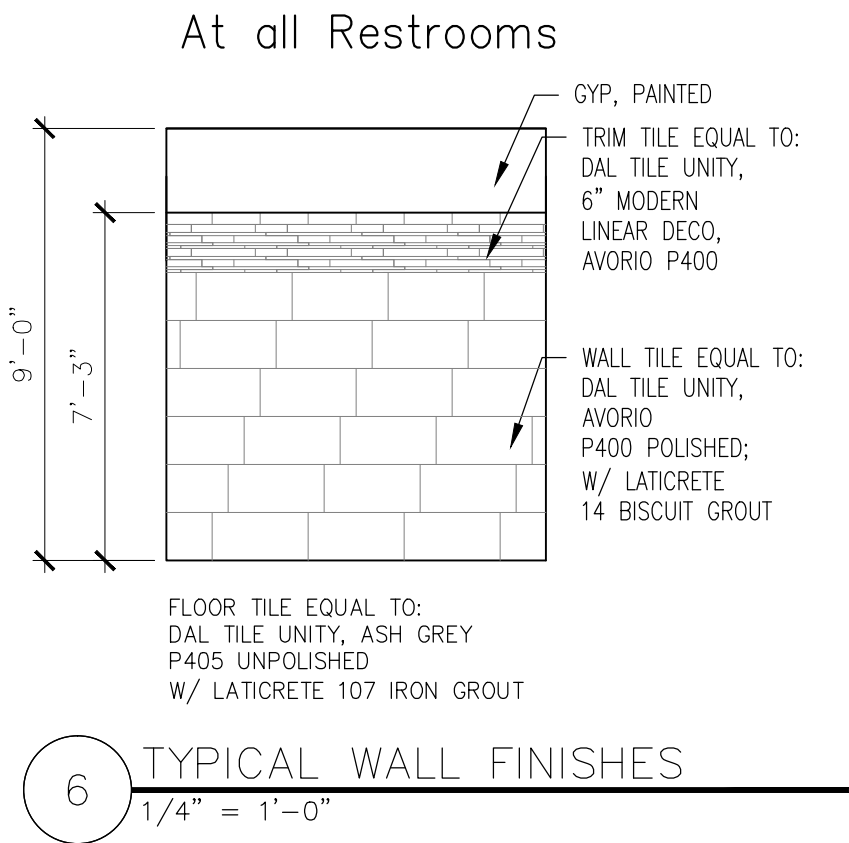
2 INTERIOR ELEVATION - GIRLS V100  
1/4" = 1'-0"



5 INTERIOR ELEVATION - BOYS V101  
1/4" = 1'-0"



3 INTERIOR ELEVATION - GIRLS V100  
1/4" = 1'-0"



1 ENLARGED FLOORPLAN - BUILDING V  
1/4" = 1'-0"

Consultants:

CIVIL:

MELDEN & HUNT

STRUCTURAL:

GREEN, RUBIANO &

ASSOCIATES INC.

MEP:

DBR ENGINEERING



PSJA ISD

NORTH ECHS

& COLLEGE

AND

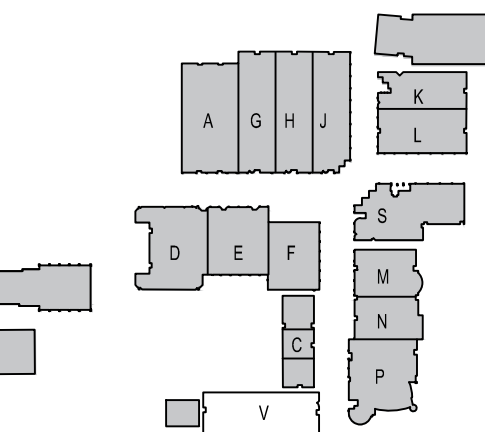
UNIVERSITY

CAMPUS

STUDENT

RESTROOM

RENOVATIONS



KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: CQ  
Checked: JM  
Scale: VARIES  
ACAD File: DEMO PLAN

Revisions:


Sheet Title:

BUILDING V  
INT ELEV. &  
ENLGR. FLRPLN.

A-117-N

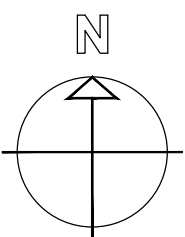
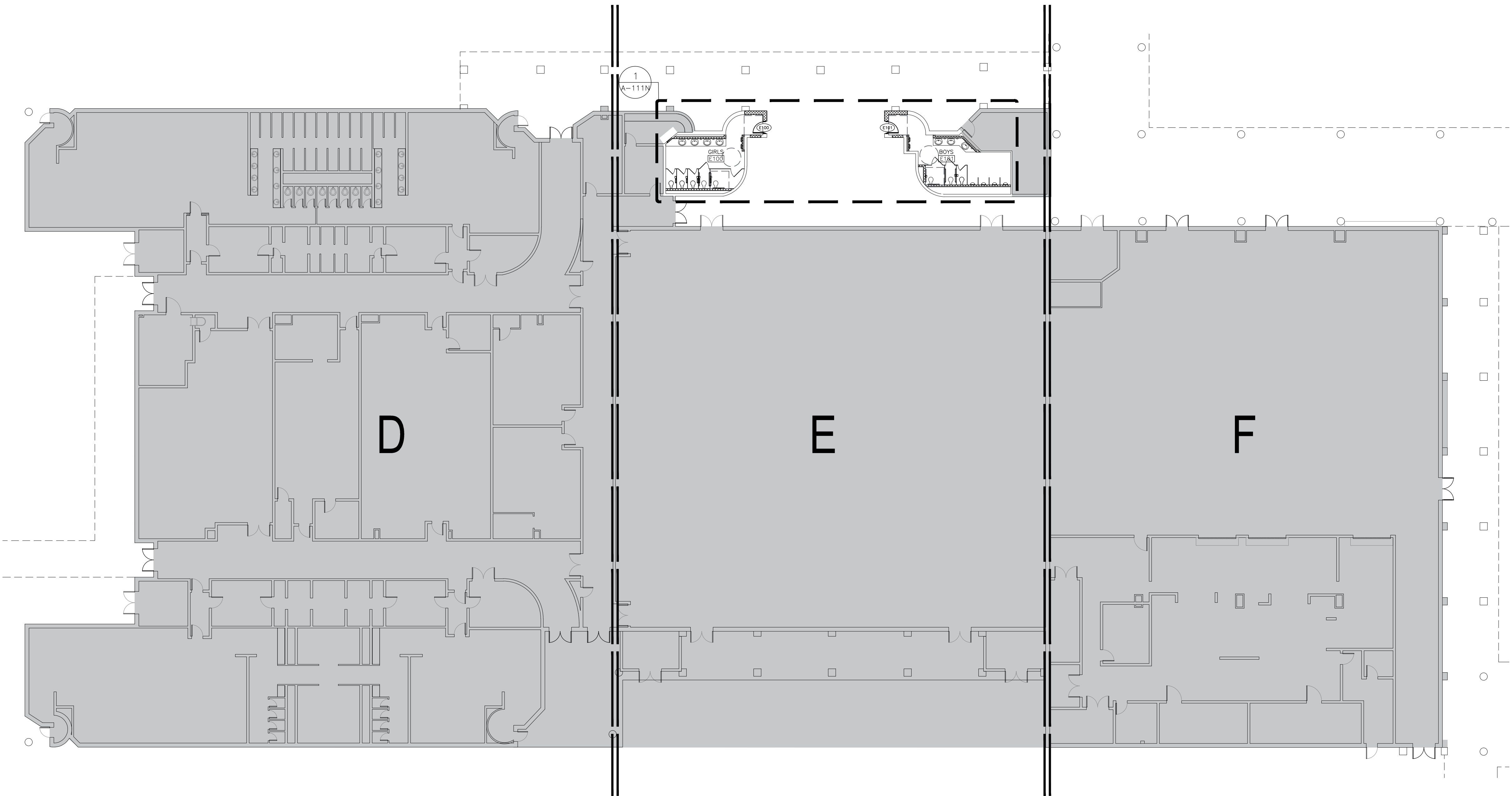


May 08, 2019 -- 7:02pm User: cquezada  
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GENERAL CONSTRUCTION NOTES						
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DOOR SCHEDULE							
DOOR SCHEDULE	DOOR				FRAME		REMARKS
	WIDTH	HEIGHT	TYPE	MATERIAL	TYPE	MATERIAL	
E100	3'-0"	7'-0"	FL	HM	A	HM	
E101	3'-0"	7'-0"	FL	HM	A	HM	

ROOM FINISH SCHEDULE										
NUMBER	NAME	FLOOR	BASE	NORTH WALL	SOUTH WALL	EAST WALL	WEST WALL	CEILING	CLG HT.	NOTES
E100	GIRLS	TILE: UNITY ASH GREY	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	GYP. PTD.	9'-0"	
E101	BOYS	TILE: UNITY ASH GREY	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	GYP. PTD.	9'-0"	



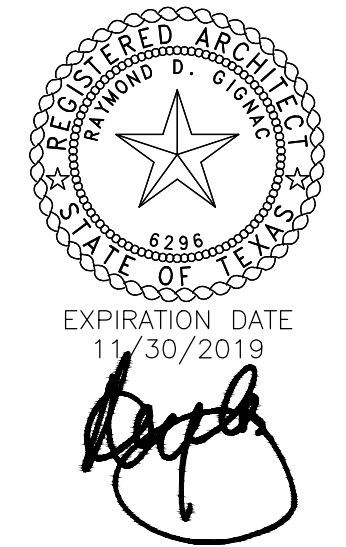
1 FLOORPLAN -- BUILDING E  
1/16" = 1'-0"

Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING



SIGNED: 05/10/2019



PSJA ISD  
NORTH ECHS  
& COLLEGE  
AND  
UNIVERSITY  
CAMPUS  
STUDENT  
RESTROOM  
RENOVATIONS



KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: CQ  
Checked: JM  
Scale: VARIES  
ACAD File: DEMO PLAN

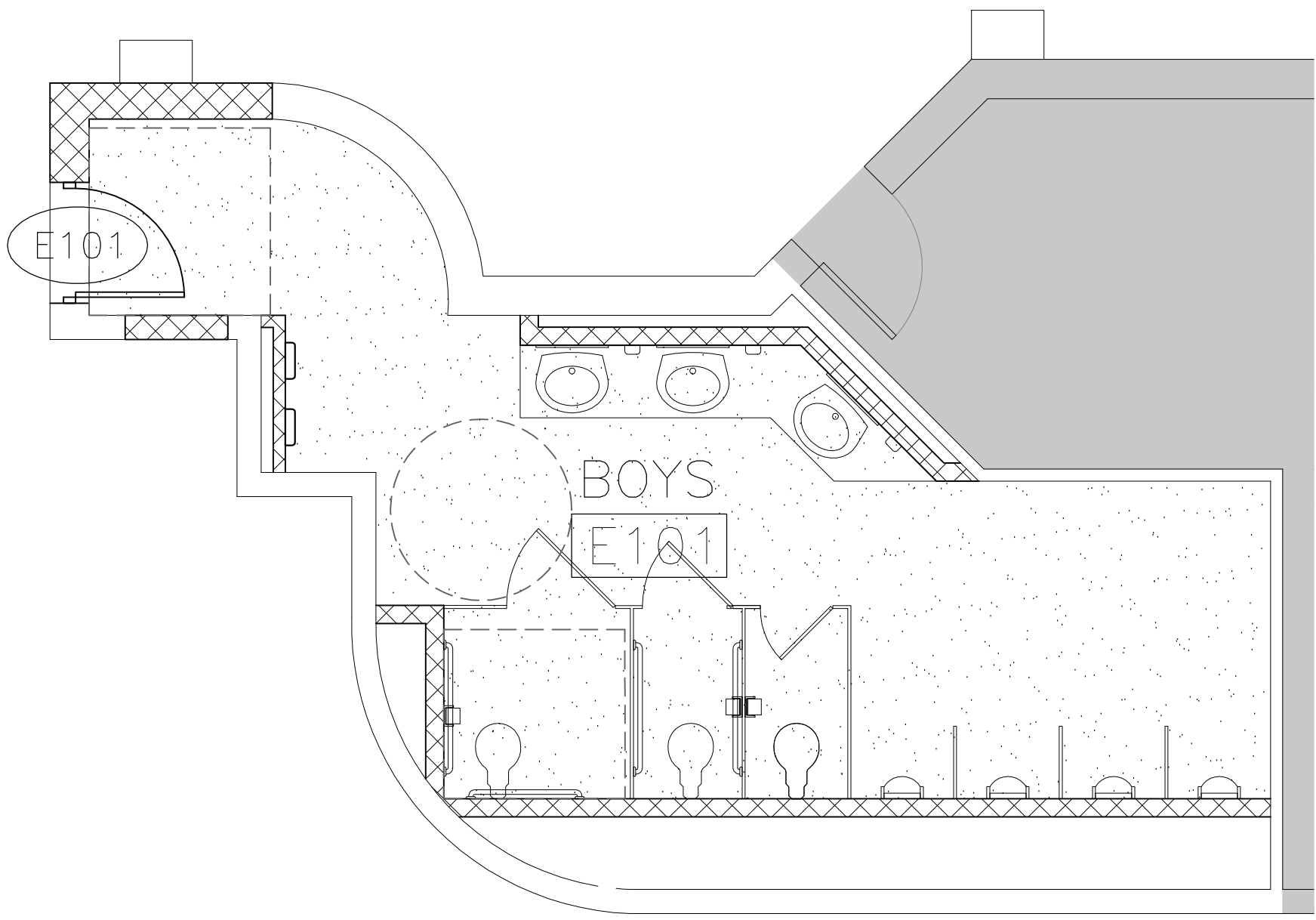
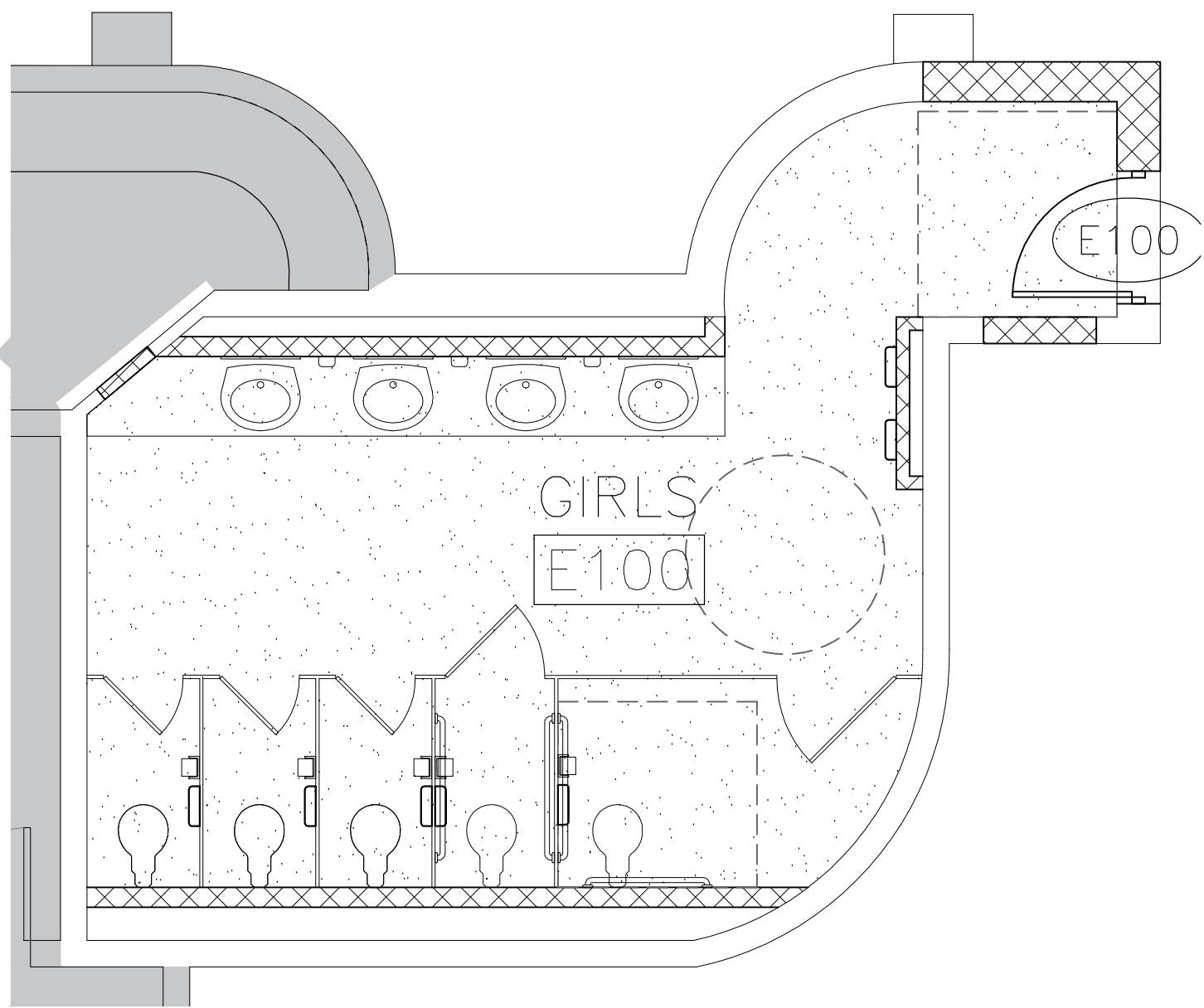
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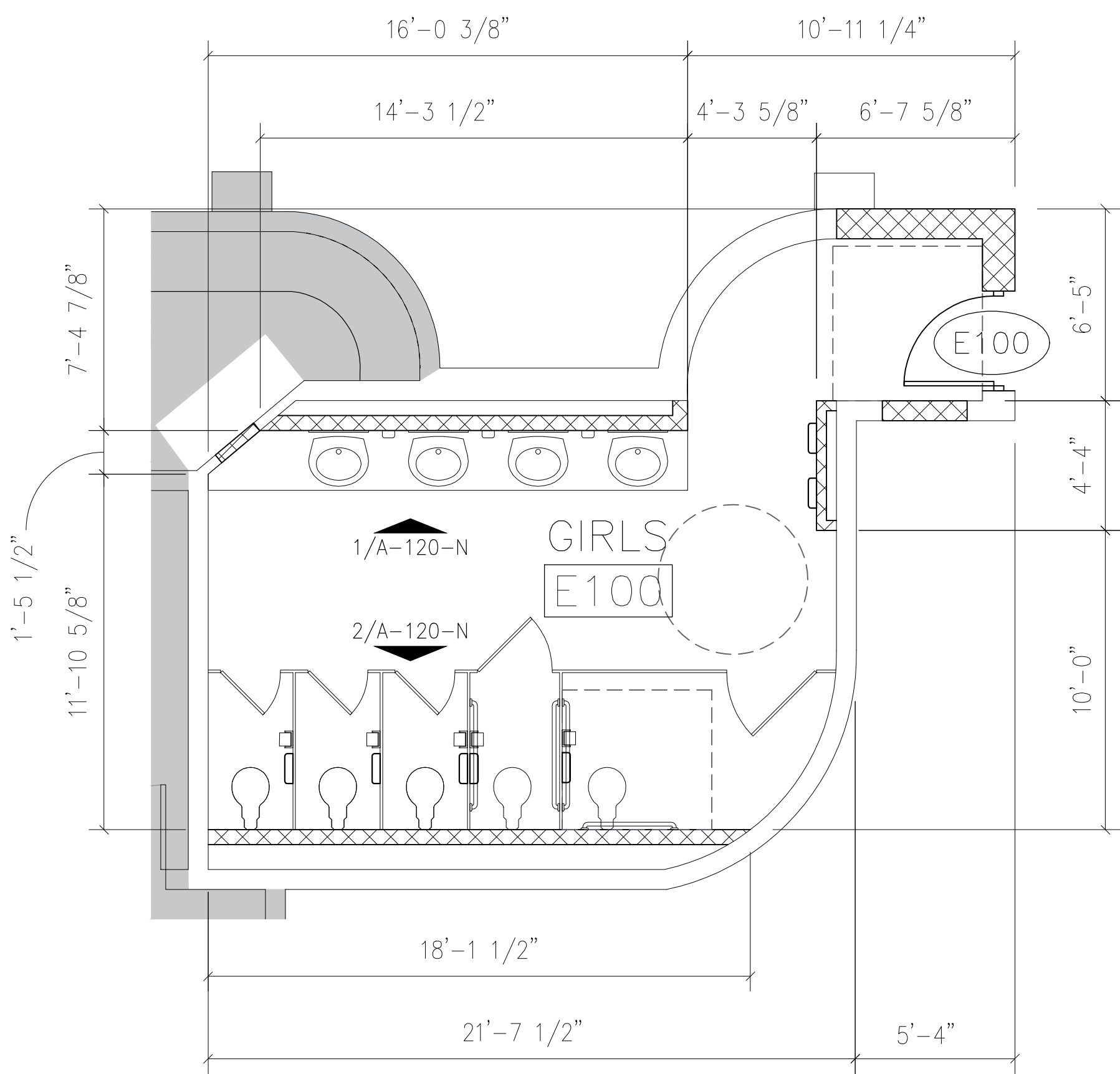
BUILDING E  
FLOORPLAN

A-118-N

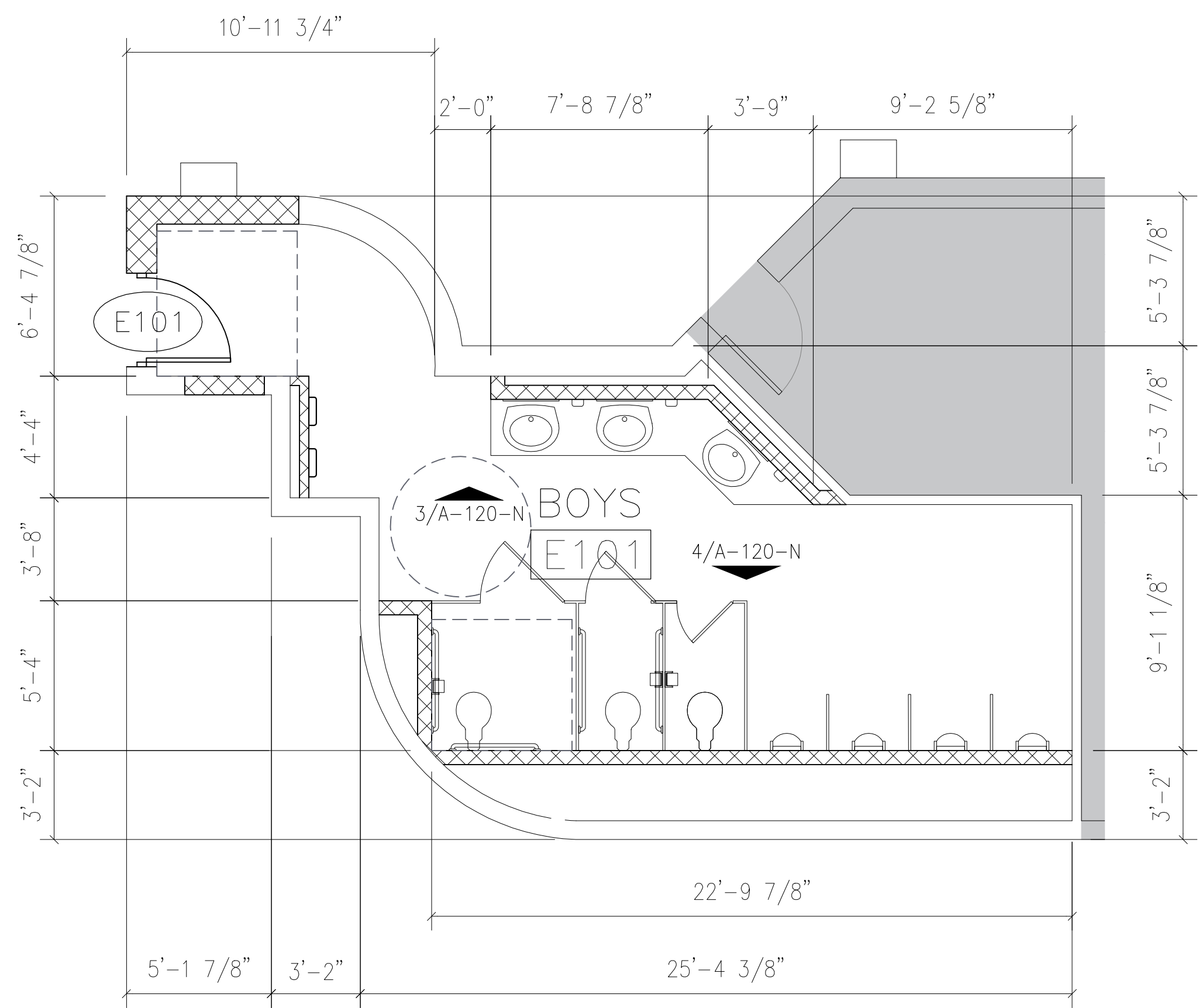
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2 REFLECTED CEILING PLAN — BUILDING E  
1/4" = 1'-0"



1 ENLARGED FLOORPLAN — BUILDING E  
1/4" = 1'-0"



#### REFLECTED CEILING LEGEND

- PAINTED GYP. BOARD
- EXPOSED STRUCTURE, PAINTED
- THIS AREA NOT IN SCOPE

#### REFLECTED CEILING NOTES:

- REFER TO MEP DRAWINGS FOR CEILING MOUNTED ITEMS.
- FIELD VERIFICATION OF EXISTING STRUCTURE AND COORDINATION WITH MEP DURING SUBMITTAL PROCESS SHALL BE REQUIRED IN ORDER TO ACHIEVE MAXIMUM CEILING HEIGHTS.

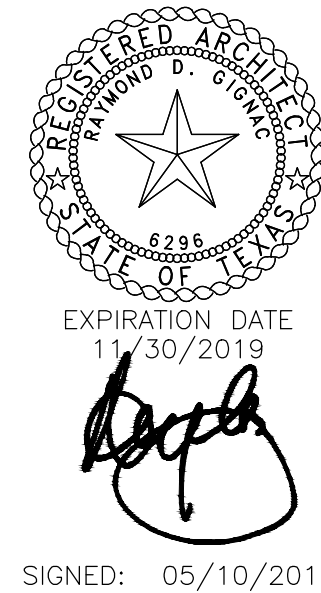
FIXTURE MOUNTING HEIGHT SCHEDULE			
* REFER TO ADA GUIDELINES ON SHEET G-102.		ADULTS	
1	1. LAVATORIES/SINK (MEASURED FROM FLOOR TO RIM)	STANDARD	32"
		ACCESSIBLE	34" MAX (29" MIN. KNEESPACE)
2	2. URINALS (MEASURED FROM FLOOR TO RIM)	STANDARD	16" MAX
		ACCESSIBLE	17" MAX
3	3. WATER CLOSETS (MEASURED FROM FLOOR TO TOP OF SEAT)	STANDARD	15"
		ACCESSIBLE	17" TO 19"
4	4. DRINKING FOUNTAINS AND EWC's FRONTAL APPROACH (MEASURED FROM FLOOR TO SPOUT OUTLET)	STANDARD	42"
		ACCESSIBLE	36" MAX (27" MIN. KNEESPACE)
5	5. GRAB BARS (MEASURED FROM FLOOR TO CENTERLINE OF BAR - 36" LONG @ REAR WALL & 42" LONG @ SIDE WALL OR 90 DEGREE CONT. GRAB BAR WHERE INDICATED)	STANDARD	
		ACCESSIBLE	33" TO 36" TO TOP OF GRAB BAR
6	6. TOILET TISSUE DISPENSER (MEASURED FROM FLOOR TO CENTERLINE OF ROLL)	STANDARD	20"
		ACCESSIBLE	19" MIN
7	7. ELECTRIC HAND DRYER (MEASURED FROM FLOOR TO CENTER OF CONTROL)	STANDARD	48"
		ACCESSIBLE	45" MAX
8	8. SOAP DISPENSER (MEASURED FROM FLOOR TO CENTERLINE OF PUSH BUTTON)	STANDARD	38"
		ACCESSIBLE	38"
9	9. SANITARY NAPKIN DISPOSAL UNIT (MEASURED FROM FLOOR TO TOP OF UNIT) (ONLY IN ROOMS LABELED WOMEN & GIRLS)	STANDARD	40"
		ACCESSIBLE	
10	10. MIRRORS 1 MIRROR PER LAVATORY (NOT NOTED FOR CLARITY). MEASURED FROM FLOOR TO BOTTOM OF REFLECTING SURFACE.	STANDARD	
		ACCESSIBLE	40" MAX
11	11. MOP BASIN / SERVICE SINK (ONE PER ROOM LABELED CUSTODIAN)		
12	12. MOP HOLDER (ONE PER ROOM LABELED CUSTODIAN)		48" MAX
13	13. TOILET PARTITION / URINAL SCREEN	NOT NOTED FOR CLARITY	

#### Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING



SIGNED: 05/10/2019

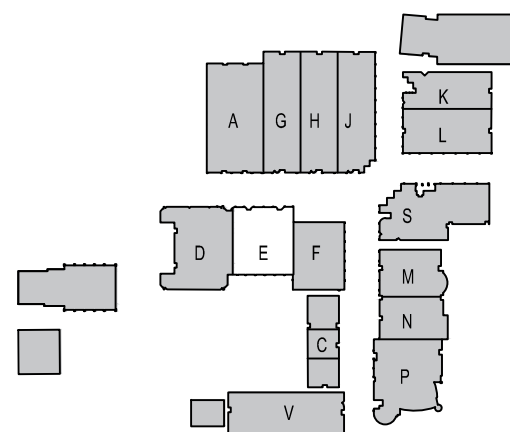


## PSJA ISD

NORTH ECHS  
& COLLEGE

AND  
UNIVERSITY  
CAMPUS

STUDENT  
RESTROOM  
RENOVATIONS



#### KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: CQ  
Checked: JM  
Scale: VARIES  
ACAD File: DEMO PLAN

#### Revisions:

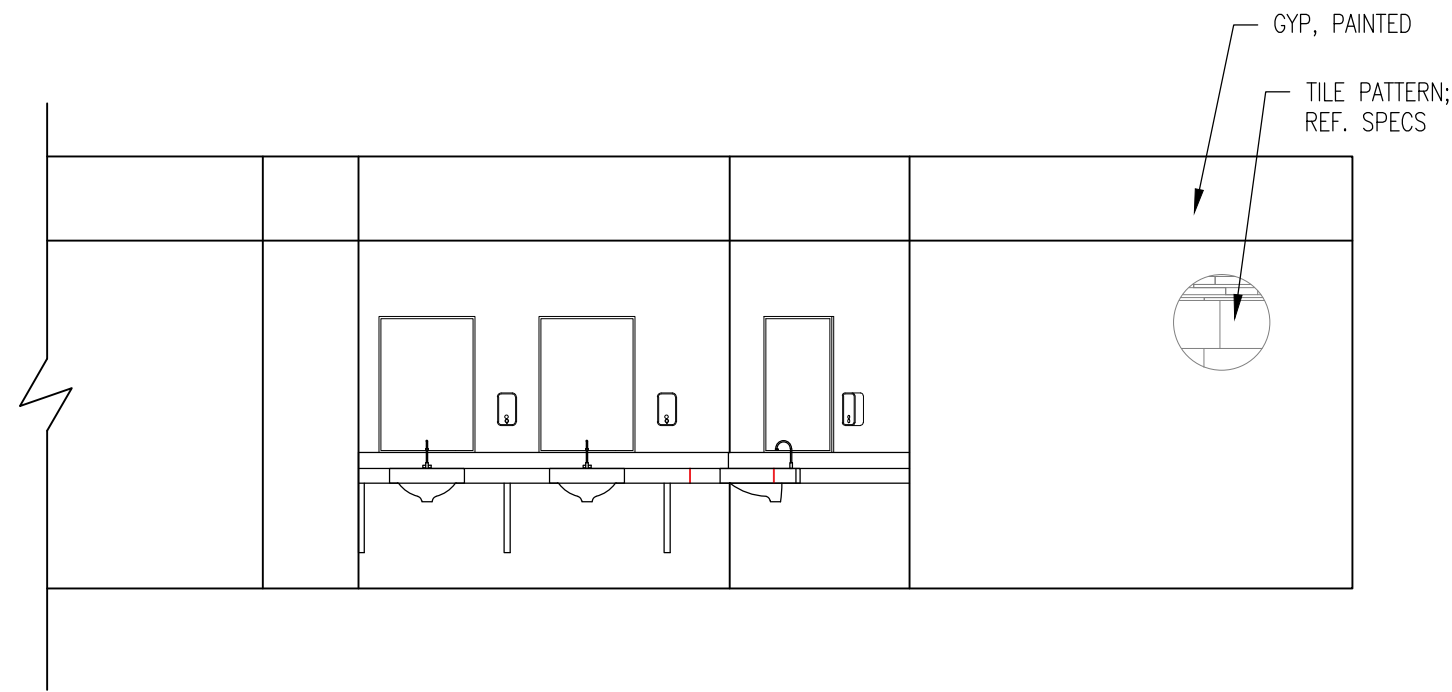
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REFL. CLG. PLN.  
& ELRG., FLRPLN.

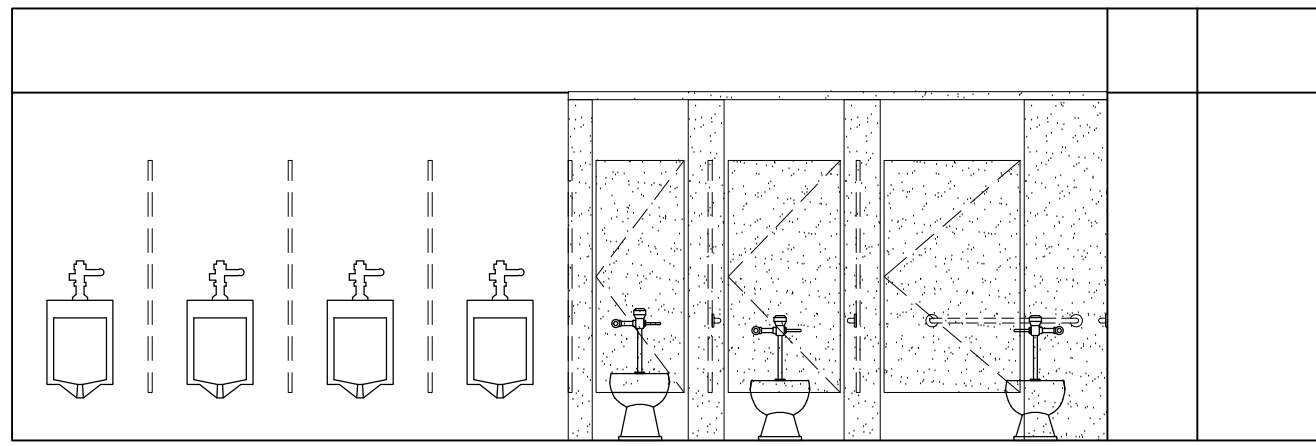
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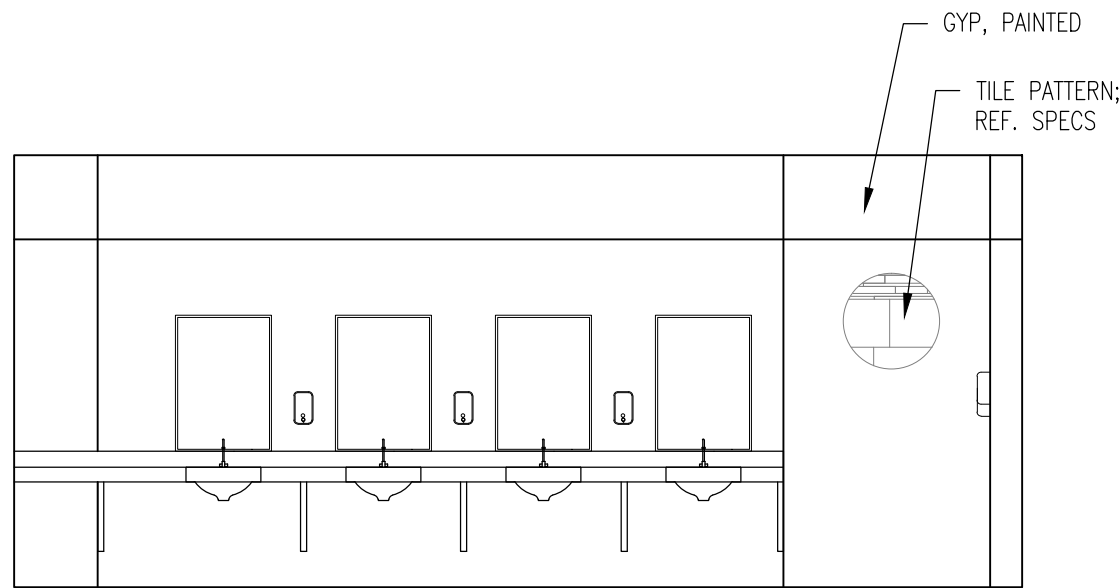
	FIXTURE MOUNTING HEIGHT SCHEDULE		ADULTS
	* REFER TO ADA GUIDELINES ON SHEET G-102.		
1	1. LAVATORIES/SINK (MEASURED FROM FLOOR TO RIM)	STANDARD	32"
		ACCESSIBLE	34" MAX (29" MIN KNEESPACE)
2	2. URINALS (MEASURED FROM FLOOR TO RIM)	STANDARD	16" MAX
		ACCESSIBLE	17" MAX
3	3. WATER CLOSETS (MEASURED FROM FLOOR TO TOP OF SEAT)	STANDARD	15"
		ACCESSIBLE	17" TO 19"
4	4. DRINKING FOUNTAINS AND EWC's FRONTAL APPROACH (MEASURED FROM FLOOR TO SPOUT OUTLET)	STANDARD	42"
		ACCESSIBLE	36" MAX (27" MIN KNEESPACE)
5	5. GRAB BARS (MEASURED FROM FLOOR TO CENTERLINE OF BAR - 36" LONG @ REAR WALL & 42" LONG @ SIDE WALL OR 90 DEGREE CONT. GRAB BAR WHERE INDICATED)	STANDARD	
		ACCESSIBLE	33" TO 36" TO TOP OF GRAB BAR
6	6. TOILET TISSUE DISPENSER (MEASURED FROM FLOOR TO CENTERLINE OF ROLL)	STANDARD	20"
		ACCESSIBLE	19" MIN
7	7. ELECTRIC HAND DRYER (MEASURED FROM FLOOR TO CENTER OF CONTROL)	STANDARD	48"
		ACCESSIBLE	45" MAX
8	8. SOAP DISPENSER (MEASURED FROM FLOOR TO CENTERLINE OF PUSH BUTTON)	STANDARD	38"
		ACCESSIBLE	36"
9	9. SANITARY NAPKIN DISPOSAL UNIT (MEASURED FROM FLOOR TO TOP OF UNIT) (ONLY IN ROOMS LABELED WOMEN & GIRLS)	STANDARD	40"
		ACCESSIBLE	
10	10. MIRRORS 1 MIRROR PER LAVATORY (NOT NOTED FOR CLARITY). MEASURED FROM FLOOR TO BOTTOM OF REFLECTING SURFACE.	STANDARD	
		ACCESSIBLE	40" MAX
11	11. MOP BASIN / SERVICE SINK (ONE PER ROOM LABELED CUSTODIAN)		
12	12. MOP HOLDER (ONE PER ROOM LABELED CUSTODIAN)		48" MAX
13	13. TOILET PARTITION / URINAL SCREEN	NOT NOTED FOR CLARITY	



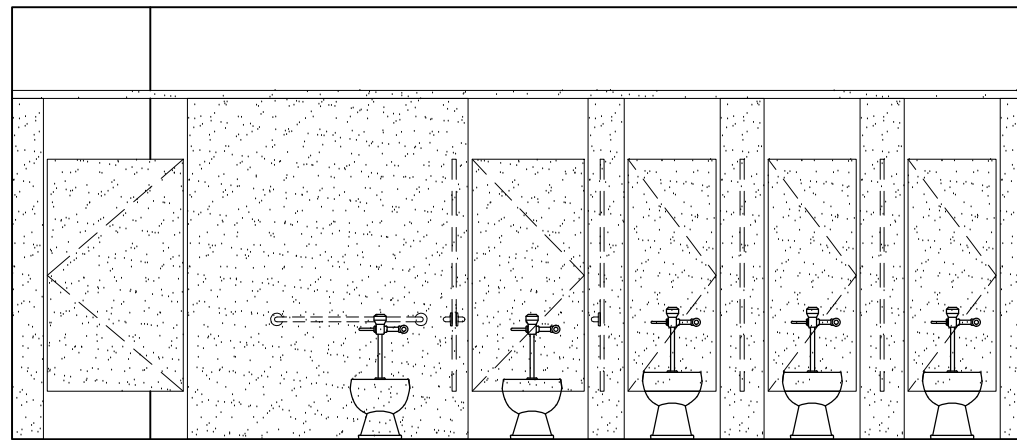
3 INTERIOR ELEVATION — BOYS E101  
1/4" = 1'-0"



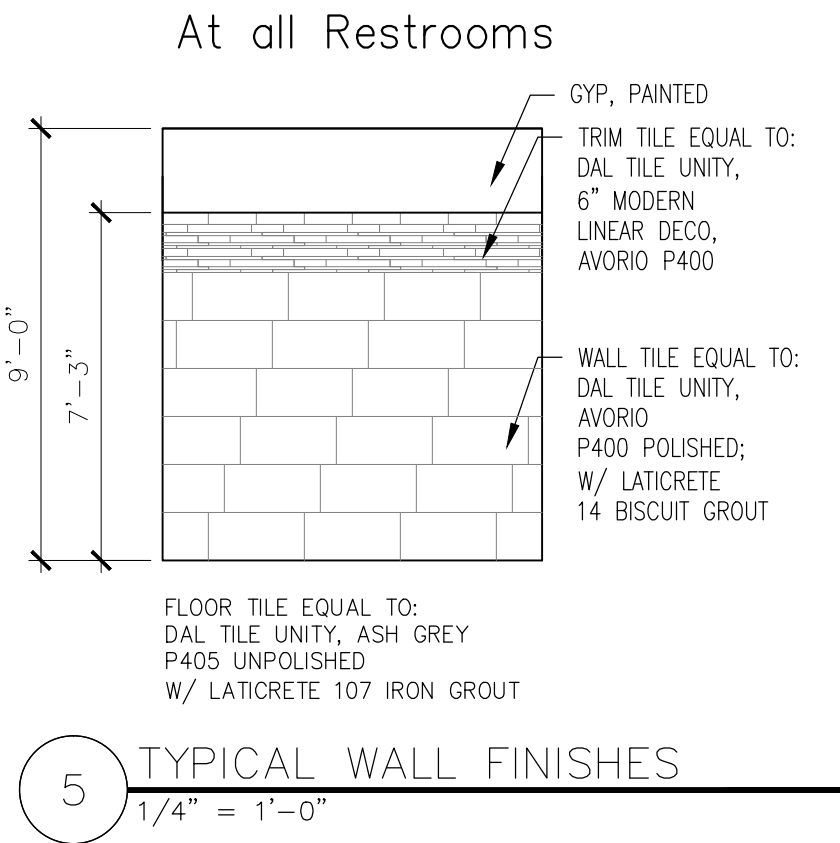
4 INTERIOR ELEVATION — BOYS E101  
1/4" = 1'-0"



1 INTERIOR ELEVATION — GIRLS E100  
1/4" = 1'-0"



2 INTERIOR ELEVATION — GIRLS E100  
1/4" = 1'-0"



Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING



SIGNED: 05/10/2019



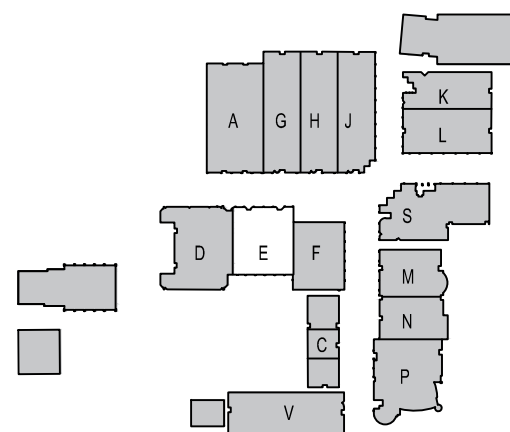
PSJA ISD

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AND

UNIVERSITY  
CAMPUS

STUDENT  
RESTROOM  
RENOVATIONS



KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: CQ  
Checked: JM  
Scale: VARIES  
ACAD File: DEMO PLAN

Revisions:


Sheet Title:

BUILDING E  
INTERIOR  
ELEVATION

A-120-N

GENERAL CONSTRUCTION NOTES

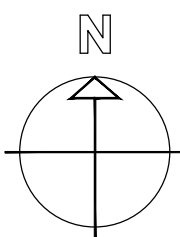
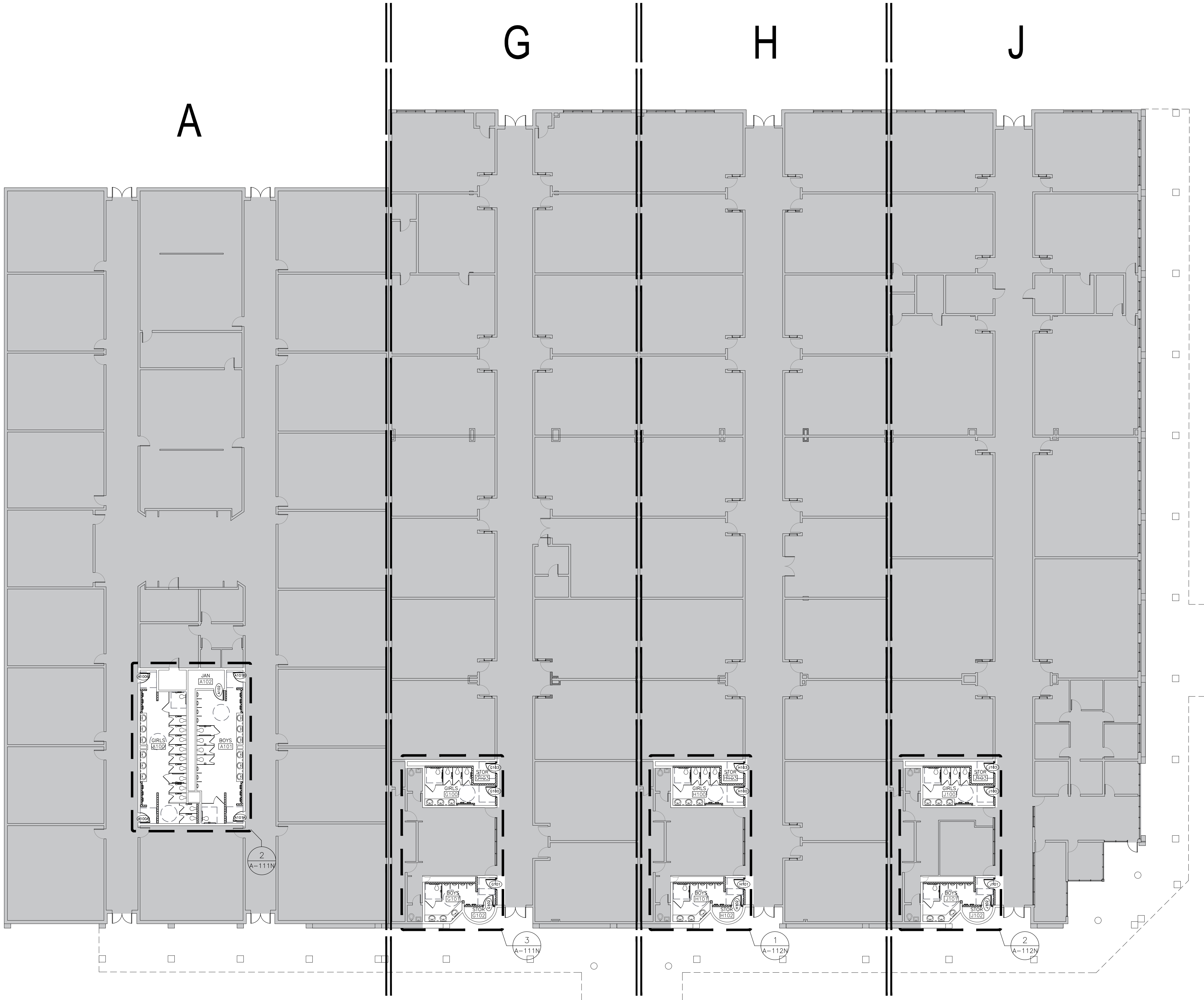
- DEMOLITION AND PROPOSED WORK WILL HAVE TO BE COORDINATED WITH THE OWNER TO MINIMIZE DISRUPTIONS TO THE CAMPUS, WHICH MAY BE IN USE.
- ANY EXISTING WALLS TO REMAIN THAT REQUIRE REPAIR AFTER DEMOLITION IS COMPLETE, SHALL BE OBSERVED BY THE DESIGN TEAM AND OWNER PRIOR TO REPAIR. COORDINATION WILL BE REQUIRED.
- ANY OPENINGS IN EXISTING WALLS SCHEDULED TO BE INFILLED SHALL HAVE THE SAME MATERIAL AND FINISH AS THAT OF THE EXISTING WALL. ALL INFILLED OPENINGS SHALL BE FLUSH WITH EXISTING WALL SURFACES AND PAINTED.

ROOM FINISH SCHEDULE

NUMBER	NAME	FLOOR	BASE	NORTH WALL	SDUTH WALL	EAST WALL	WEST WALL	CEILING	CLG HT.	NOTES
A100	GIRLS	TILE: UNITY ASH GREY	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	GYP. PTD.	9'-0"	
A101	BOYS	TILE: UNITY ASH GREY	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	GYP. PTD.	9'-0"	
A102	JANITOR	SEALED CONCRETE	NONE	PT	PT	PT	PT	EXP. STRUC		PAINT EXPOSED STRUCTURE & DECK
G100	GIRLS	TILE: UNITY ASH GREY	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	GYP. PTD.	9'-0"	
G101	BOYS	TILE: UNITY ASH GREY	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	GYP. PTD.	9'-0"	
G102	STORAGE	SEALED CONCRETE	NONE	PT	PT	PT	PT	EXP. STRUC		PAINT EXPOSED STRUCTURE & DECK
G103	STORAGE	SEALED CONCRETE	NONE	PT	PT	PT	PT	EXP. STRUC		PAINT EXPOSED STRUCTURE & DECK
H100	GIRLS	TILE: UNITY ASH GREY	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	GYP. PTD.	9'-0"	
H101	BOYS	TILE: UNITY ASH GREY	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	GYP. PTD.	9'-0"	
H102	STORAGE	SEALED CONCRETE	NONE	PT	PT	PT	PT	EXP. STRUC		PAINT EXPOSED STRUCTURE & DECK
H103	STORAGE	SEALED CONCRETE	NONE	PT	PT	PT	PT	EXP. STRUC		PAINT EXPOSED STRUCTURE & DECK
J100	GIRLS	TILE: UNITY ASH GREY	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	GYP. PTD.	9'-0"	
J101	BOYS	TILE: UNITY ASH GREY	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	TILE: UNITY AVORID/PT	GYP. PTD.	9'-0"	
J102	STORAGE	SEALED CONCRETE	NONE	PT	PT	PT	PT	EXP. STRUC		PAINT EXPOSED STRUCTURE & DECK
J103	STORAGE	SEALED CONCRETE	NONE	PT	PT	PT	PT	EXP. STRUC		PAINT EXPOSED STRUCTURE & DECK

DOOR SCHEDULE

DOOR SCHEDULE	DOOR				FRAME		REMARKS
	WIDTH	HEIGHT	TYPE	MATERIAL	TYPE	MATERIAL	
A100A	3'-0"	7'-0"	FL	WD	A	HM	FIELD VERIFY EXISTING OPENING
A100B	3'-0"	7'-0"	FL	WD	A	HM	FIELD VERIFY EXISTING OPENING
A101A	3'-0"	7'-0"	FL	WD	A	HM	FIELD VERIFY EXISTING OPENING
A101B	3'-0"	7'-0"	FL	WD	A	HM	FIELD VERIFY EXISTING OPENING
A102	3'-0"	7'-0"	FL	WD	A	HM	FIELD VERIFY EXISTING OPENING
G100	3'-0"	7'-0"	FL	WD	A	HM	
G101	3'-0"	7'-0"	FL	WD	A	HM	
G102	3'-0"	7'-0"	FL	WD	A	HM	
G103	3'-0"	7'-0"	FL	WD	A	HM	
H100	3'-0"	7'-0"	FL	WD	A	HM	
H101	3'-0"	7'-0"	FL	WD	A	HM	
H102	3'-0"	7'-0"	FL	WD	A	HM	
H103	3'-0"	7'-0"	FL	WD	A	HM	
J100	3'-0"	7'-0"	FL	WD	A	HM	
J101	3'-0"	7'-0"	FL	WD	A	HM	
J102	3'-0"	7'-0"	FL	WD	A	HM	
J103	3'-0"	7'-0"	FL	WD	A	HM	



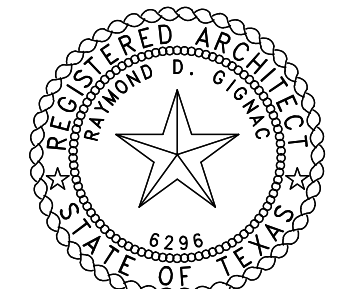
1 FLOORPLAN -- BUILDING A-G-H-J  
1/16" = 1'-0"

Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING



EXPIRATION DATE  
11/30/2019  
SIGNED: 05/10/2019

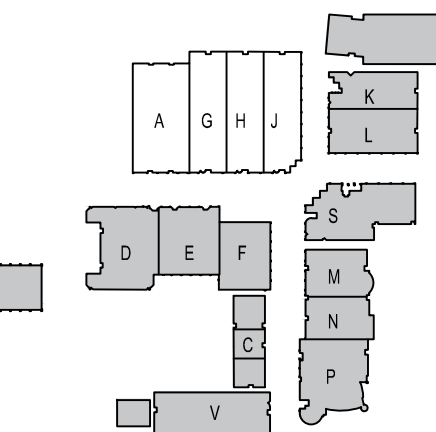


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RENOVATIONS



KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: CQ  
Checked: JM  
Scale: VARIES  
ACAD File: DEMO PLAN

Revisions:

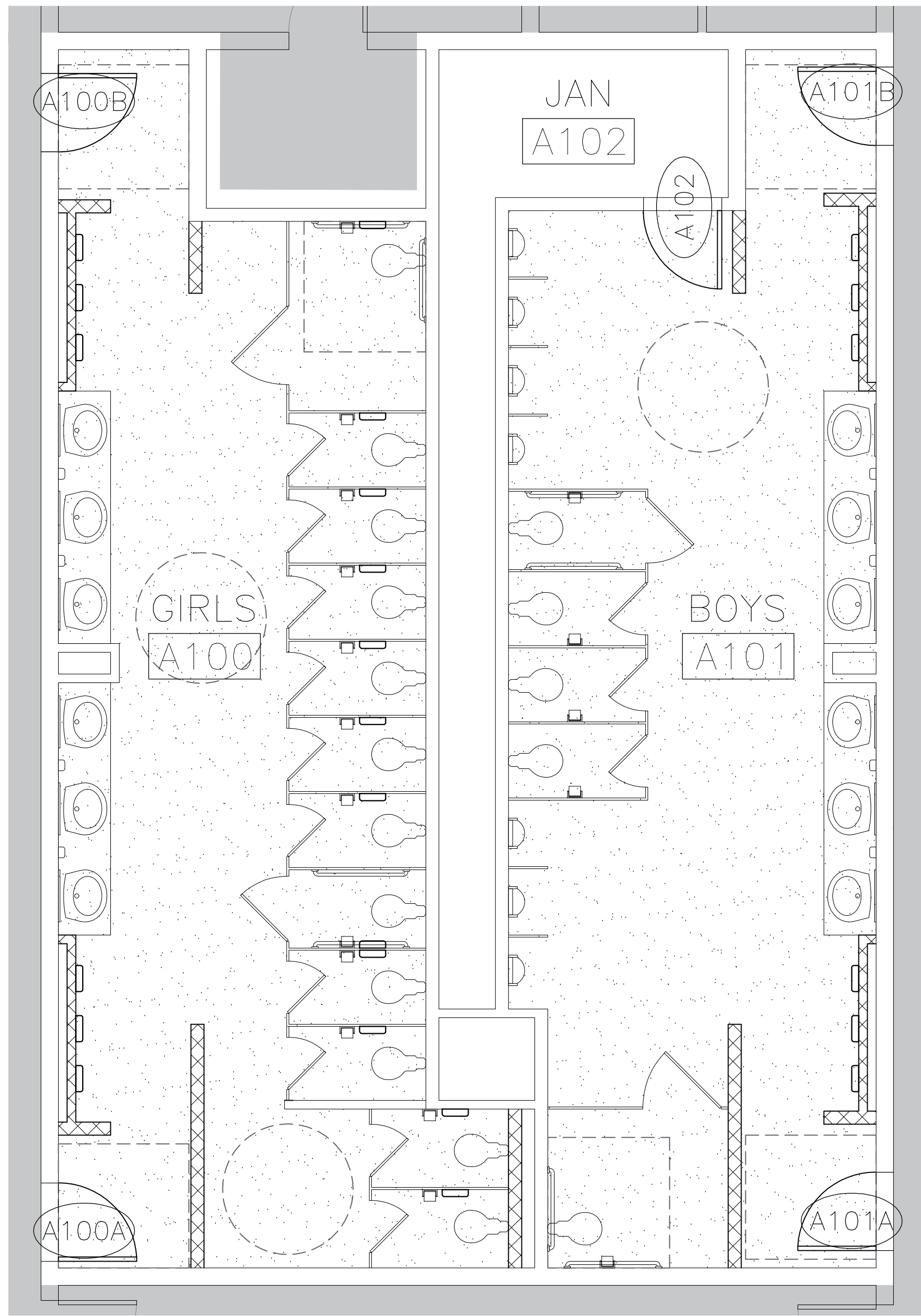
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FLOORPLAN

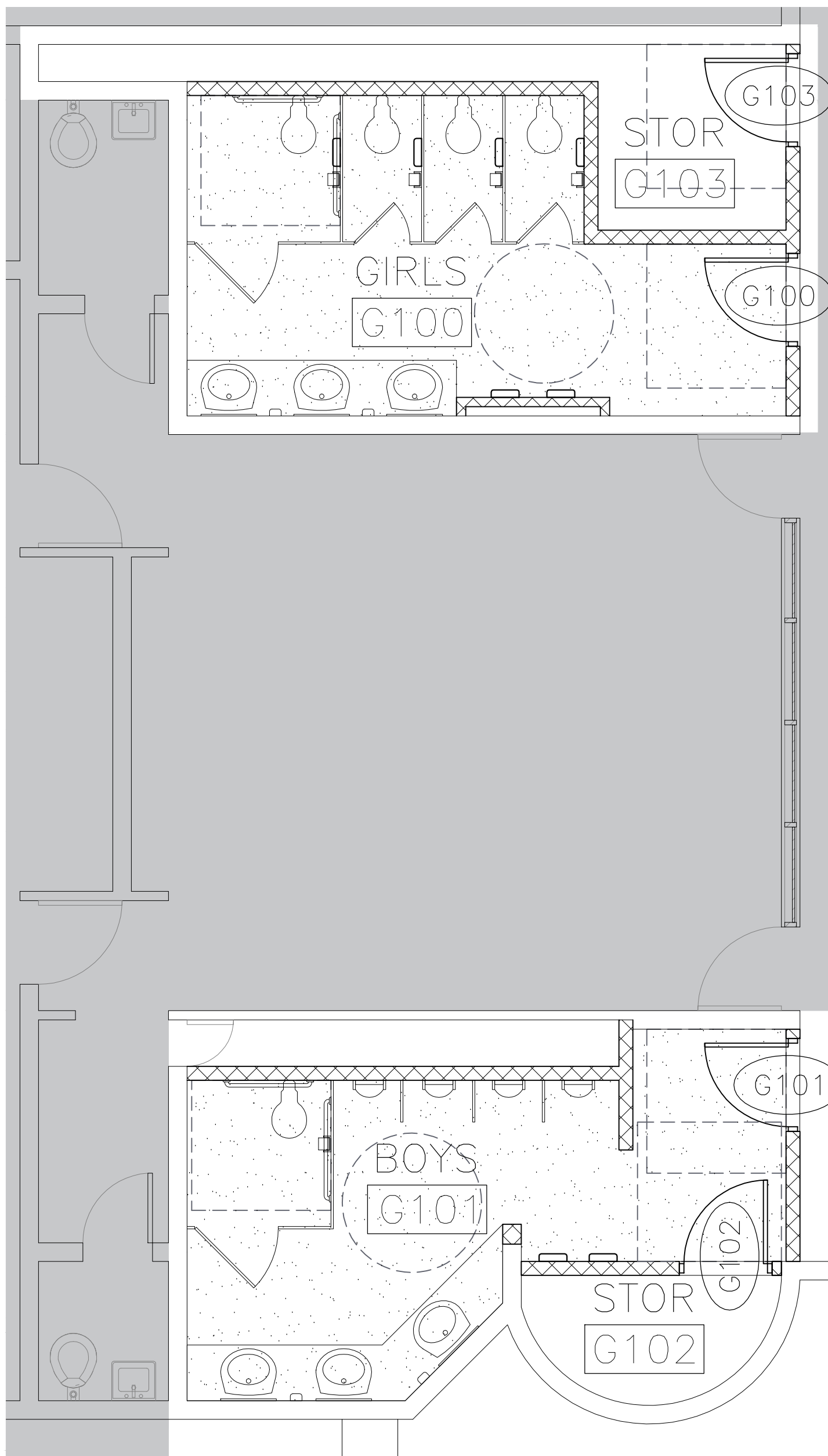
A-121-N



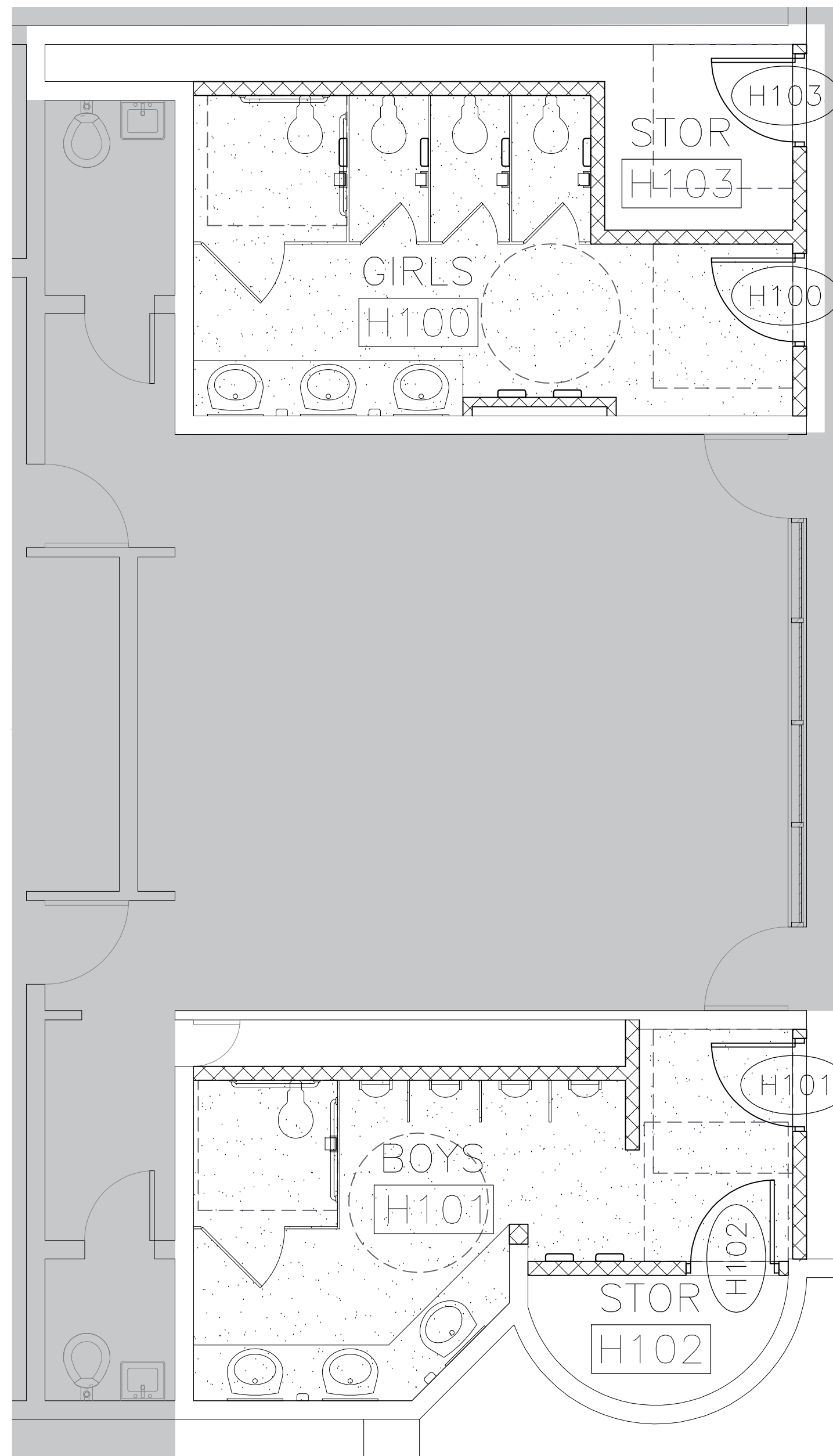
May 08, 2019 - 7:06pm User: cquezada P:\G&A Projects\19.04 PSJA ECHS Restroom Renov\19.04 CAD\19.04-A100 RR floorplan.dwg



1 REFLECTED CEILING PLAN — BUILDING A  
1/4" = 1'-0"



2 REFLECTED CEILING PLAN — BUILDING G  
1/4" = 1'-0"



3 REFLECTED CEILING PLAN — BUILDING H  
1/4" = 1'-0"

#### REFLECTED CEILING LEGEND

- PAINTED GYP. BOARD
- EXPOSED STRUCTURE, PAINTED
- THIS AREA NOT IN SCOPE

#### REFLECTED CEILING NOTES:

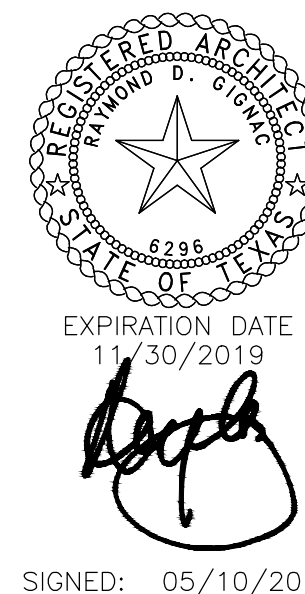
- REFER TO MEP DRAWINGS FOR CEILING MOUNTED ITEMS.
- FIELD VERIFICATION OF EXISTING STRUCTURE AND COORDINATION WITH MEP DURING SUBMITTAL PROCESS SHALL BE REQUIRED IN ORDER TO ACHIEVE MAXIMUM CEILING HEIGHTS.

#### Consultants:

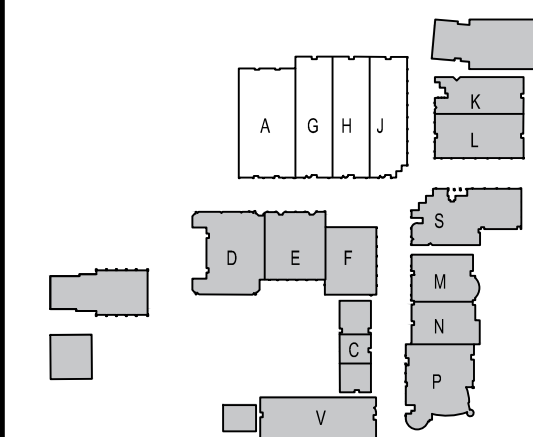
**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



## PSJA ISD NORTH ECHS & COLLEGE AND UNIVERSITY CAMPUS STUDENT RESTROOM RENOVATIONS



#### KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: CQ  
Checked: JM  
Scale: VARIES  
ACAD File: DEMO PLAN

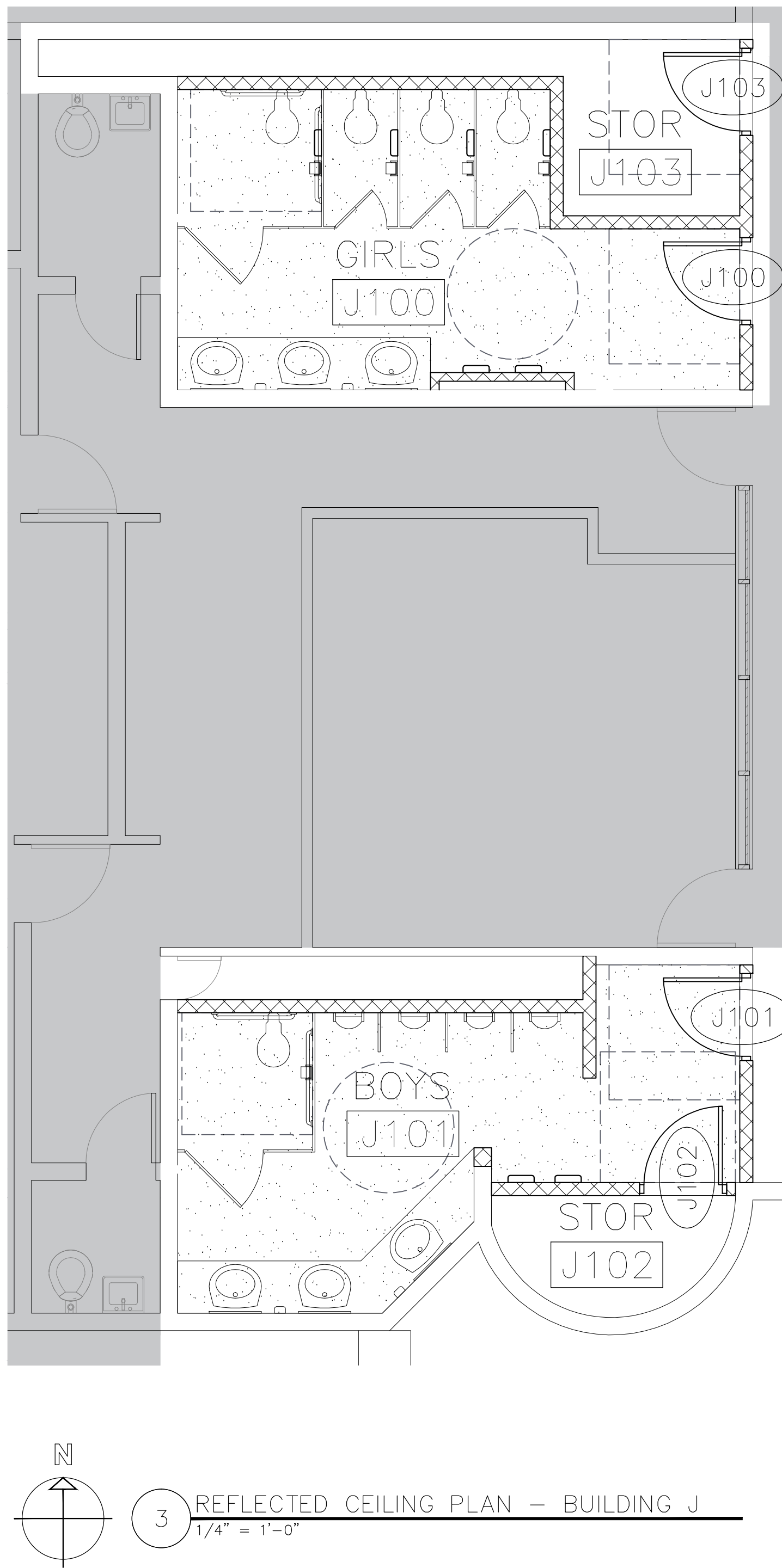
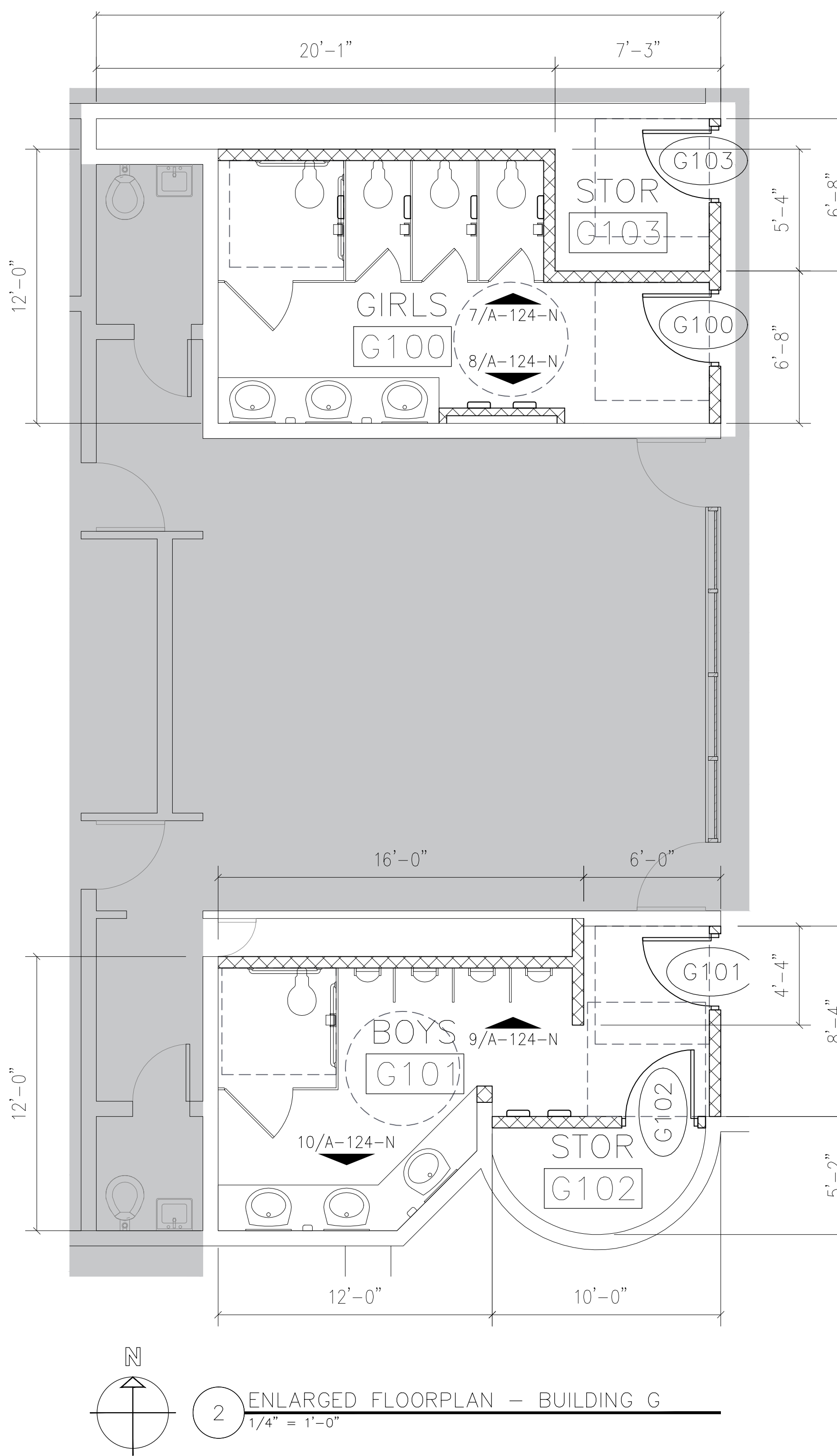
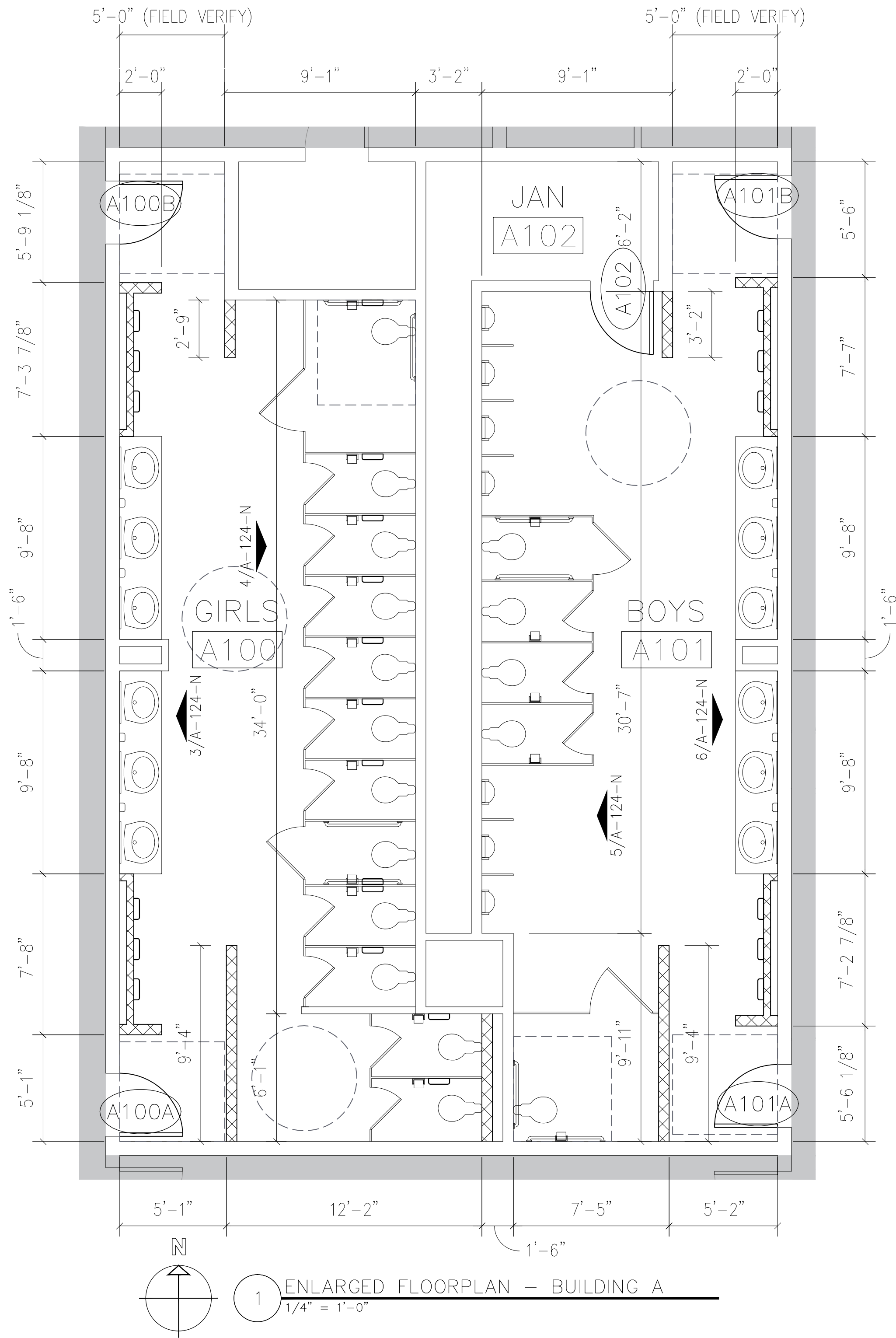
#### Revisions:

Sheet Title:

**BLDG. A-G-H-J  
REFLECTED  
CEILING PLAN**

**A-122-N**

	FIXTURE MOUNTING HEIGHT SCHEDULE		ADULTS
	* REFER TO ADA GUIDELINES ON SHEET G-102.		
1	1. LAVATORIES/SINK (MEASURED FROM FLOOR TO RIM)	STANDARD	32"
		ACCESSIBLE	34" MAX (29" MIN KNEESPACE)
2	2. URINALS (MEASURED FROM FLOOR TO RIM)	STANDARD	16" MAX
		ACCESSIBLE	17" MAX
3	3. WATER CLOSETS (MEASURED FROM FLOOR TO TOP OF SEAT)	STANDARD	15"
		ACCESSIBLE	17" TO 19"
4	4. DRINKING FOUNTAINS AND EWC's FRONTAL APPROACH (MEASURED FROM FLOOR TO SPOUT OUTLET)	STANDARD	42"
		ACCESSIBLE	36" MAX (27" MIN KNEESPACE)
5	5. GRAB BARS (MEASURED FROM FLOOR TO CENTERLINE OF BAR - 36" LONG @ REAR WALL & 42" LONG @ SIDE WALL OR 90 DEGREE CONT. GRAB BAR WHERE INDICATED)	STANDARD	
		ACCESSIBLE	33" TO 36" TO TOP OF GRAB BAR
6	6. TOILET TISSUE DISPENSER (MEASURED FROM FLOOR TO CENTERLINE OF ROLL)	STANDARD	20"
		ACCESSIBLE	19" MIN
7	7. ELECTRIC HAND DRYER (MEASURED FROM FLOOR TO CENTER OF CONTROL)	STANDARD	48"
		ACCESSIBLE	45" MAX
8	8. SOAP DISPENSER (MEASURED FROM FLOOR TO CENTERLINE OF PUSH BUTTON)	STANDARD	38"
		ACCESSIBLE	36"
9	9. SANITARY NAPKIN DISPOSAL UNIT (MEASURED FROM FLOOR TO TOP OF UNIT) (ONLY IN ROOMS LABELED WOMEN & GIRLS)	STANDARD	40"
		ACCESSIBLE	
10	10. MIRRORS (MIRROR PER LAVATORY (NOT NOTED FOR CLARITY). MEASURED FROM FLOOR TO BOTTOM OF REFLECTING SURFACE.	STANDARD	
		ACCESSIBLE	40" MAX
11	11. MOP BASIN / SERVICE SINK (ONE PER ROOM LABELED CUSTODIAN)		
12	12. MOP HOLDER (ONE PER ROOM LABELED CUSTODIAN)		48" MAX
13	13. TOILET PARTITION / URINAL SCREEN	NOT NOTED FOR CLARITY	



#### REFLECTED CEILING LEGEND

PAINTED GYP. BOARD

EXPOSED STRUCTURE, PAINTED

THIS AREA NOT IN SCOPE

#### REFLECTED CEILING NOTES:

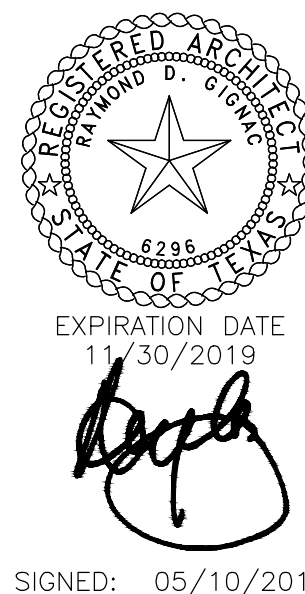
1. REFER TO MEP DRAWINGS FOR CEILING MOUNTED ITEMS.
2. FIELD VERIFICATION OF EXISTING STRUCTURE AND COORDINATION WITH MEP DURING SUBMITTAL PROCESS SHALL BE REQUIRED IN ORDER TO ACHIEVE MAXIMUM CEILING HEIGHTS.

#### Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO &  
ASSOCIATES INC.**

**MEP:**  
**DBR ENGINEERING**



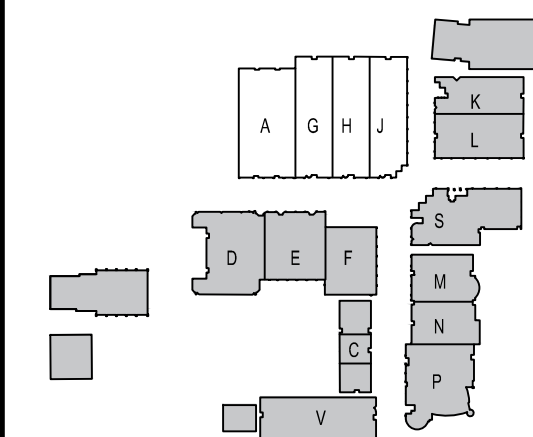
## PSJA ISD

**NORTH ECHS  
& COLLEGE**

**AND**

**UNIVERSITY  
CAMPUS**

**STUDENT  
RESTROOM  
RENOVATIONS**



#### KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: CQ  
Checked: JM  
Scale: VARIES  
ACAD File: DEMO PLAN

#### Revisions:

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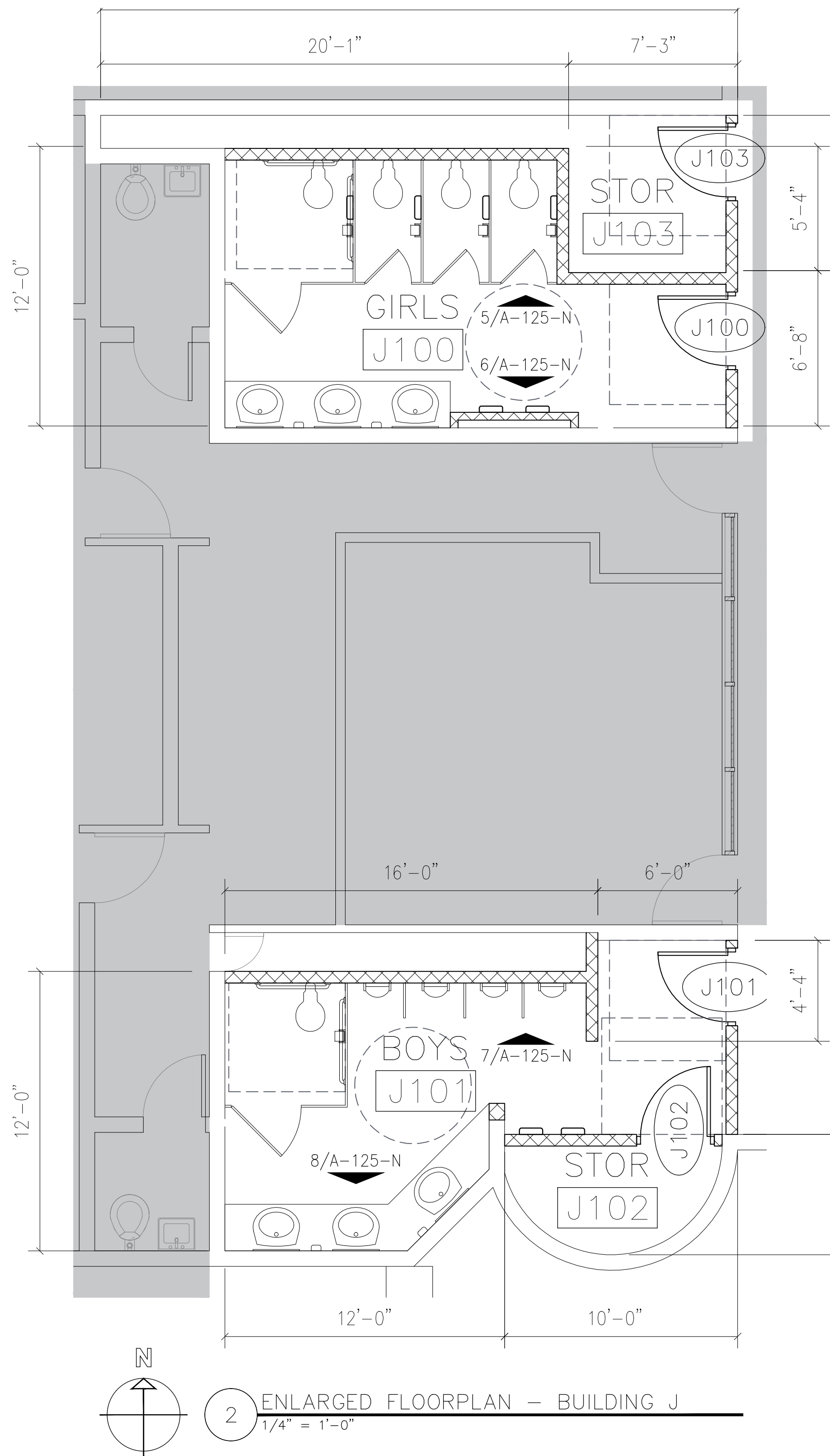
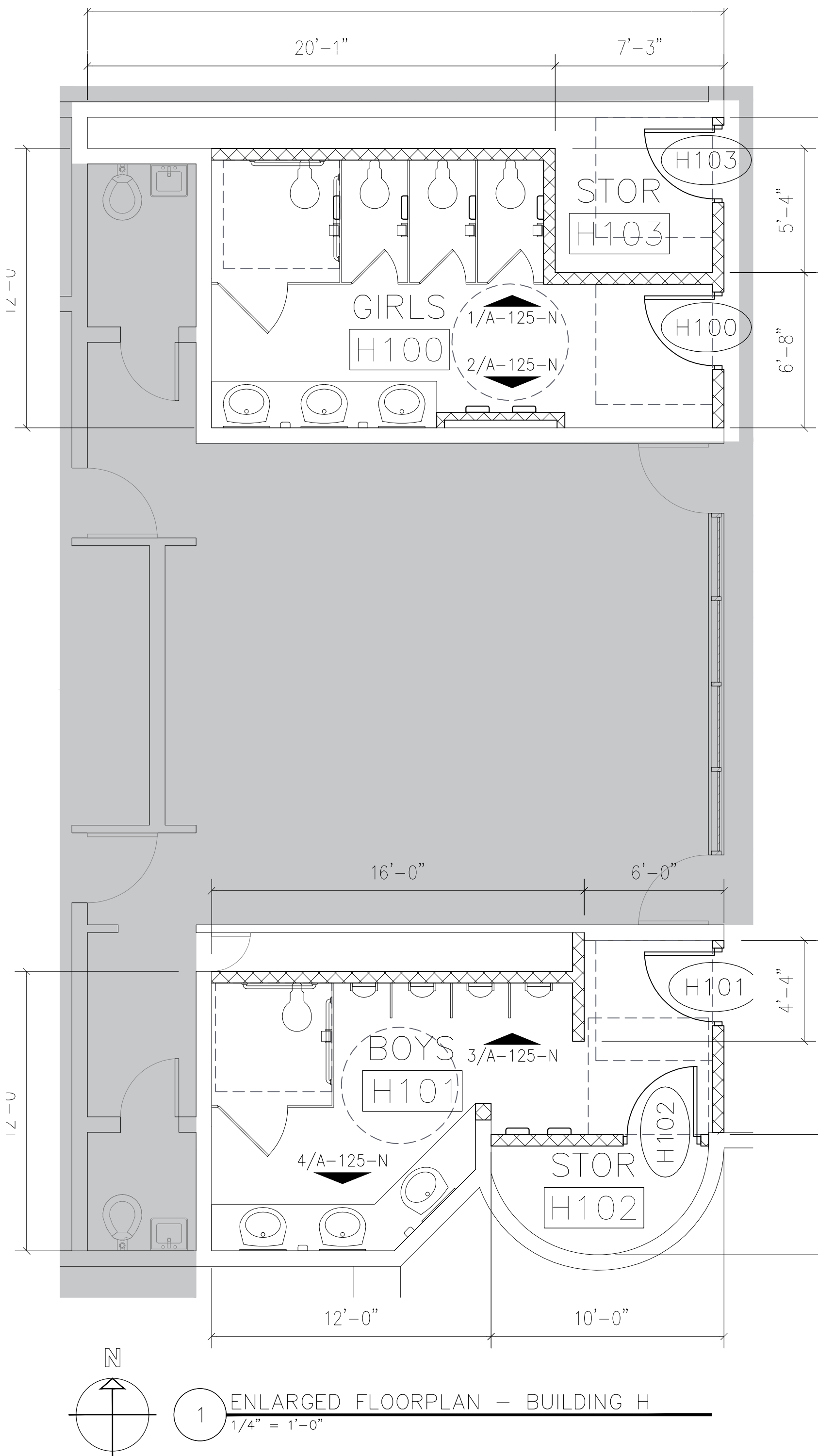
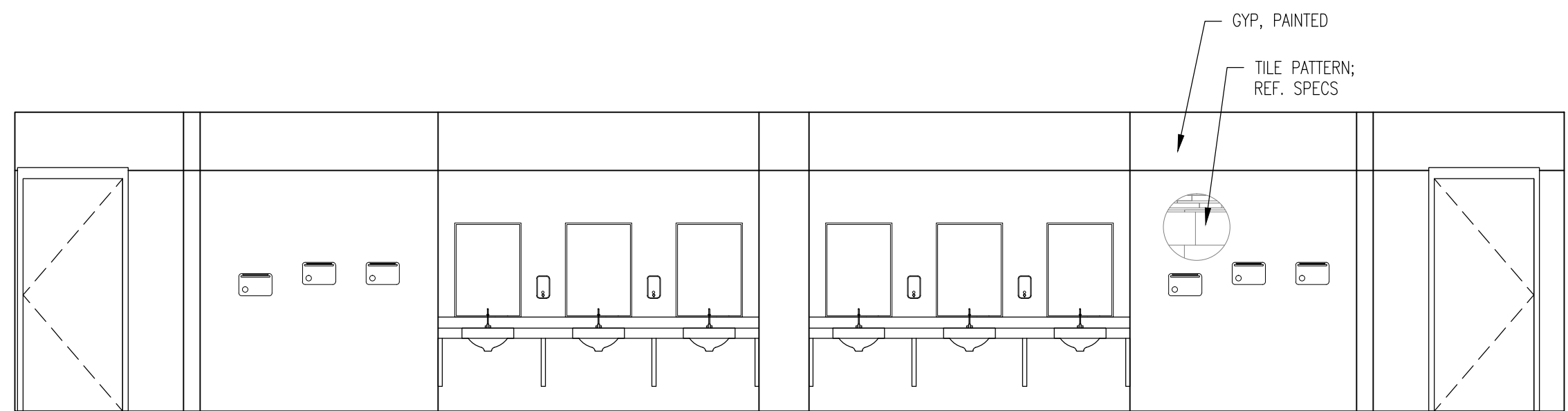
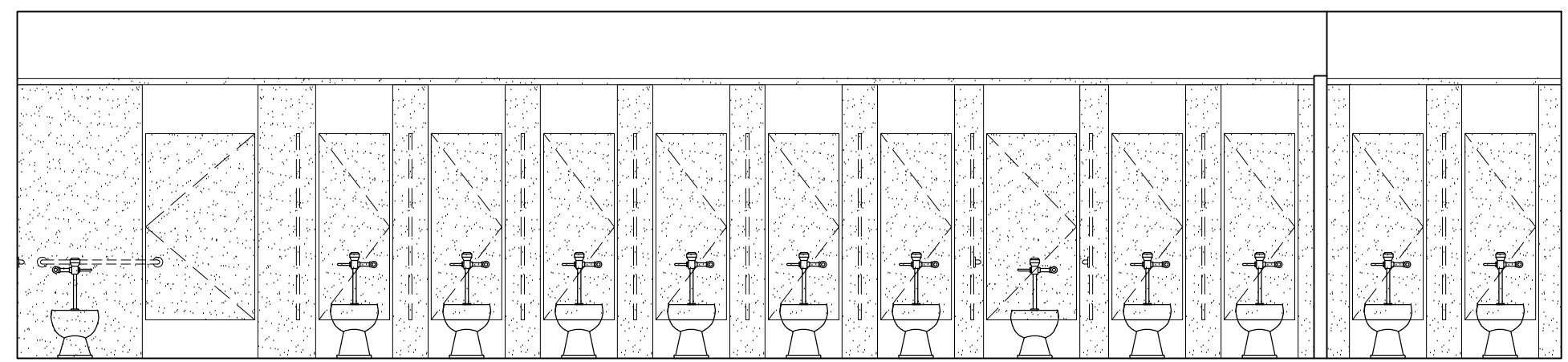
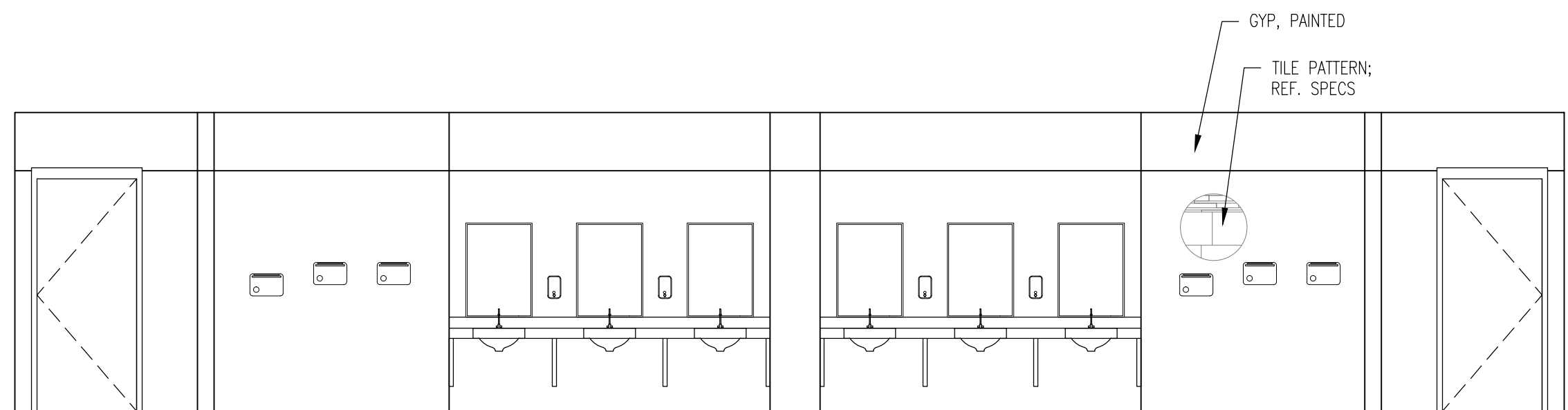
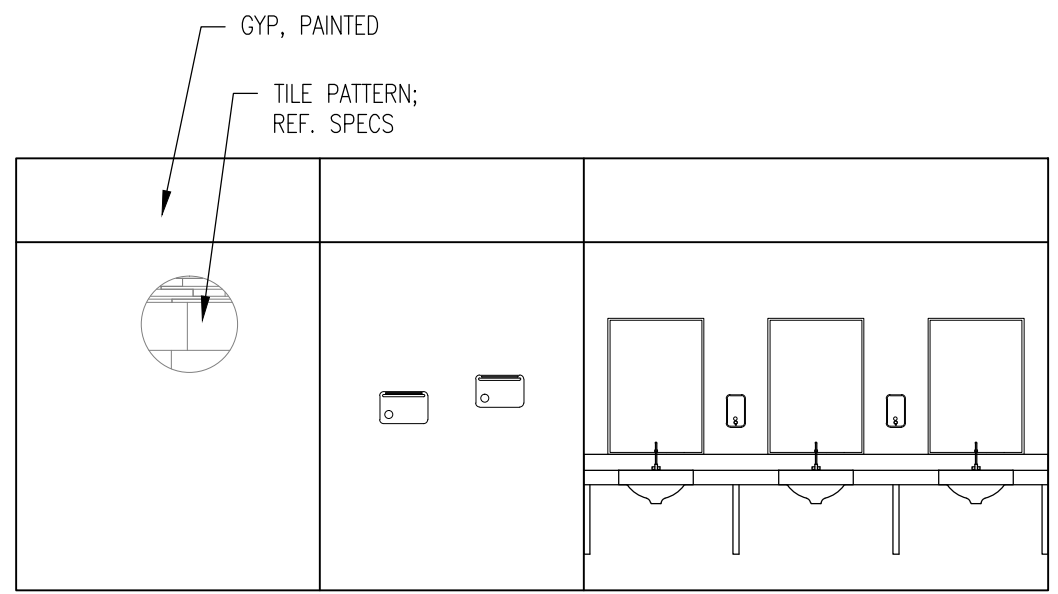
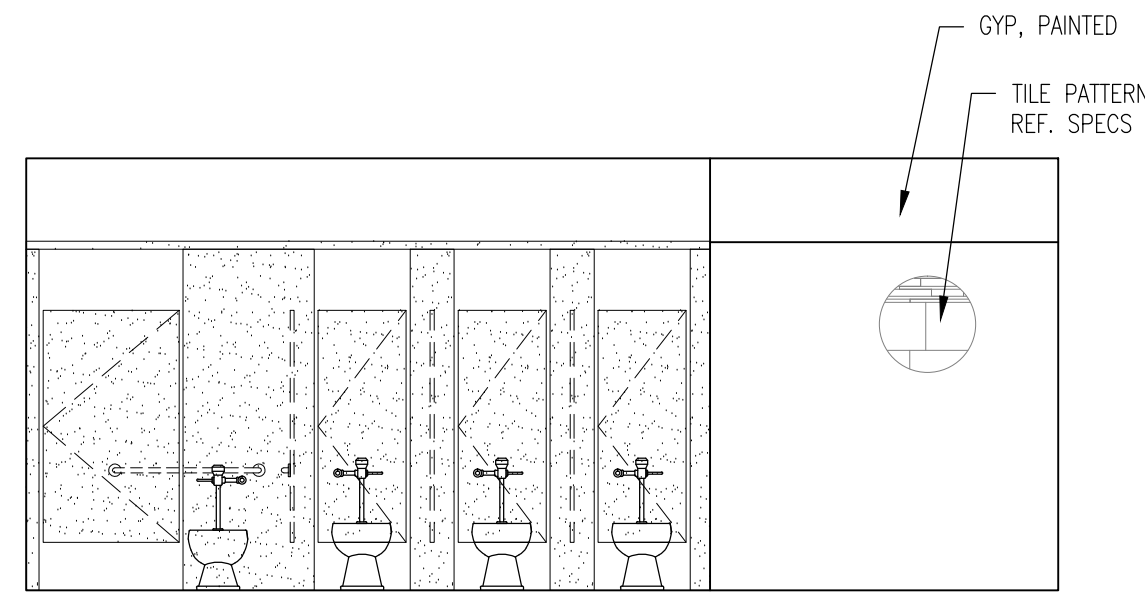
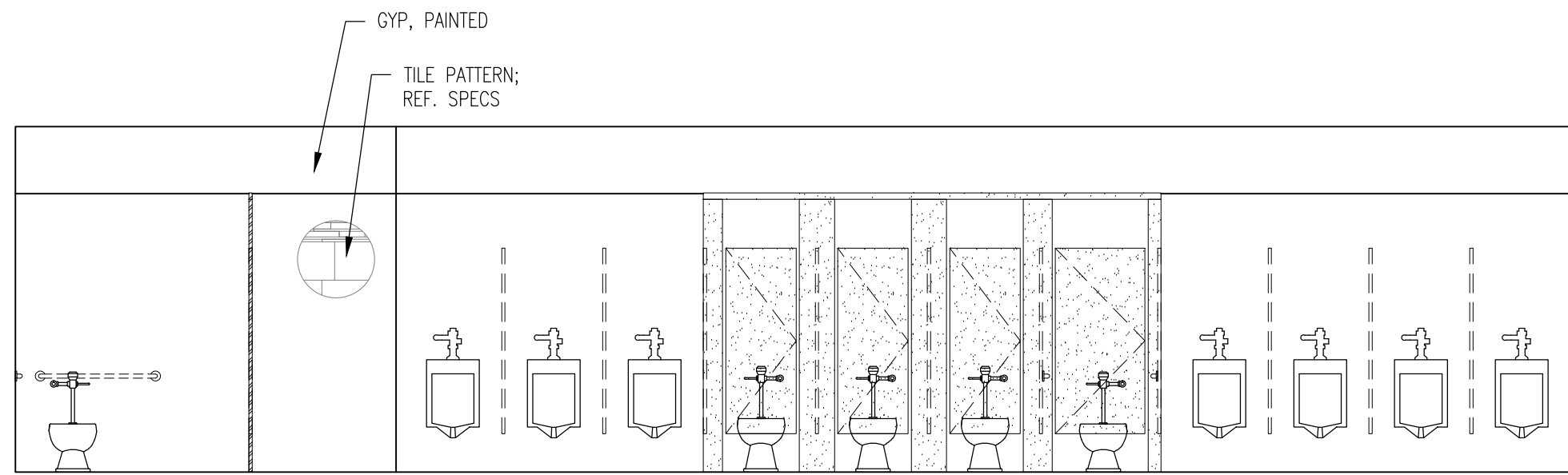
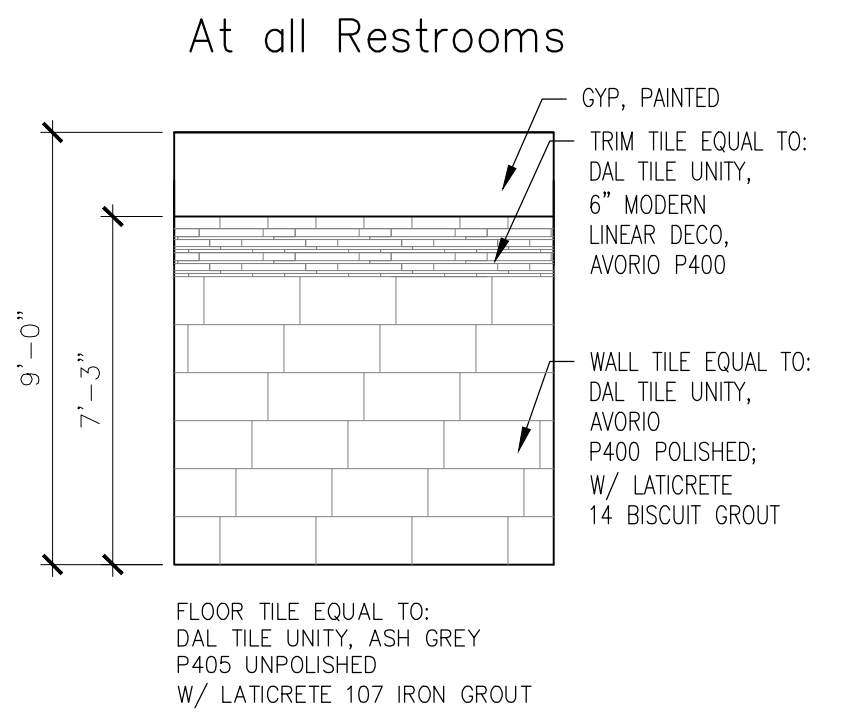
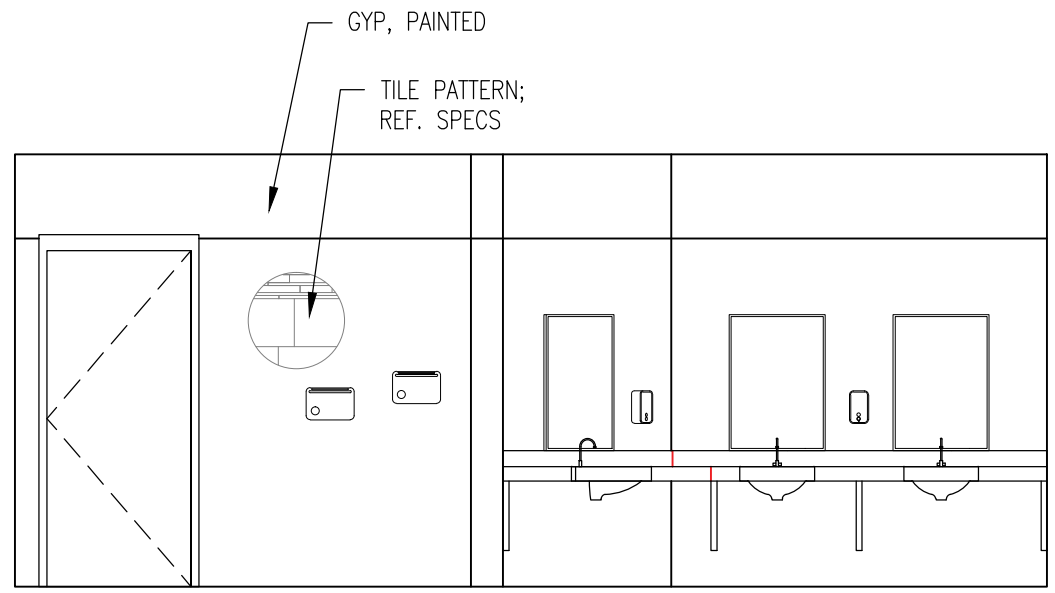
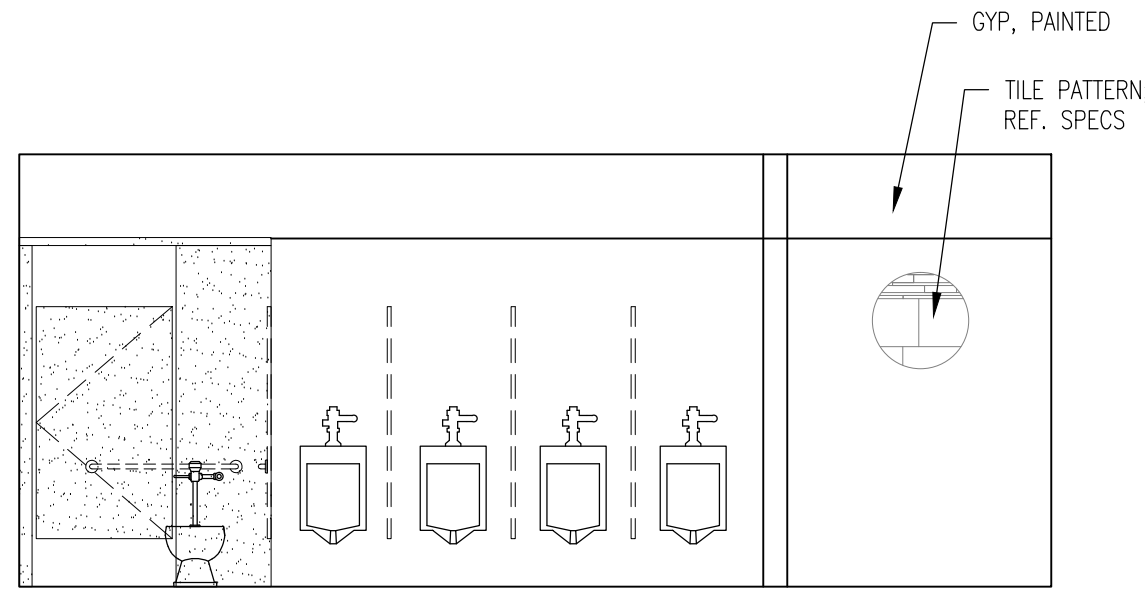
**BLDG. A-G-H-J  
ENLRG. FLRPLN.  
& REFL. CLG. PLN.**

# A-123-N



May 08, 2019 - 7:11pm User: cquezada  
F:\G&A Projects\1904 PSJA ECHS Restroom Renovation\19.04 CAD\19.04-A100 RR floorplan.dwg

	FIXTURE MOUNTING HEIGHT SCHEDULE		ADULTS
	* REFER TO ADA GUIDELINES ON SHEET G-102.		
1	1. LAVATORIES/SINK (MEASURED FROM FLOOR TO RIM)	STANDARD	32"
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12	12. MOP HOLDER (ONE PER ROOM LABELED CUSTODIAN)		48" MAX
13	13. TOILET PARTITION / URINAL SCREEN	NOT NOTED FOR CLARITY	



Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING

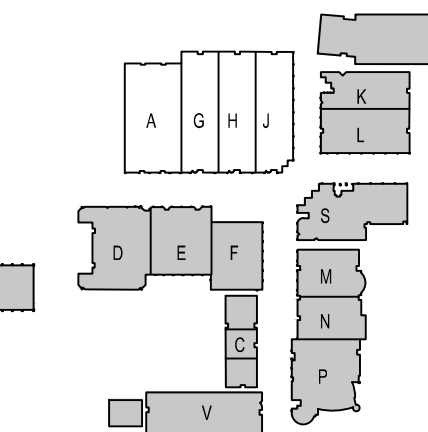


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RESTROOM  
RENOVATIONS



KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
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ACAD File: DEMO PLAN

Revisions:

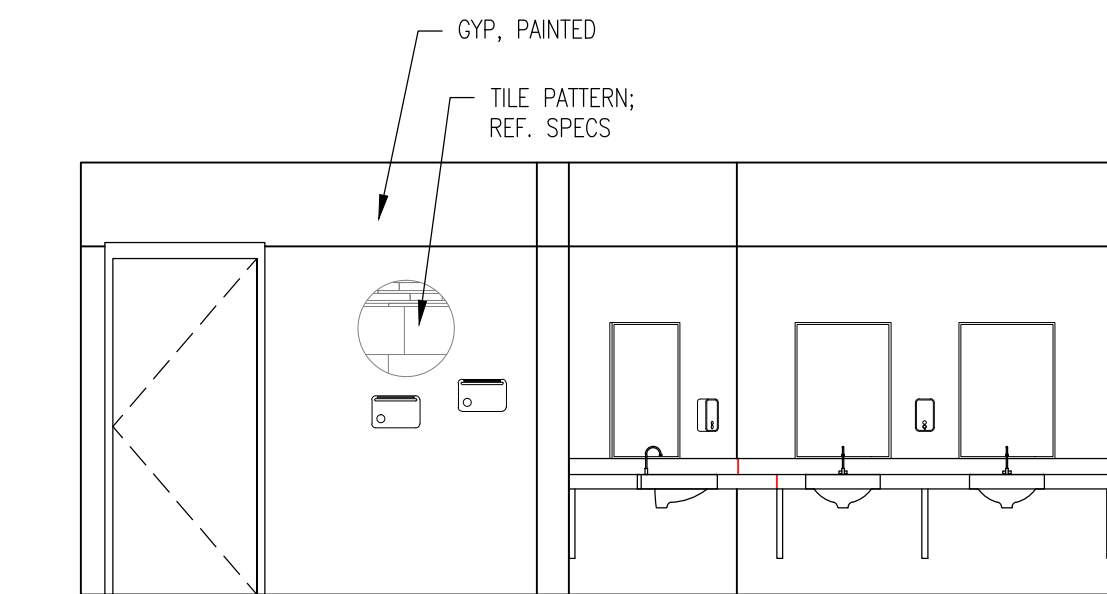
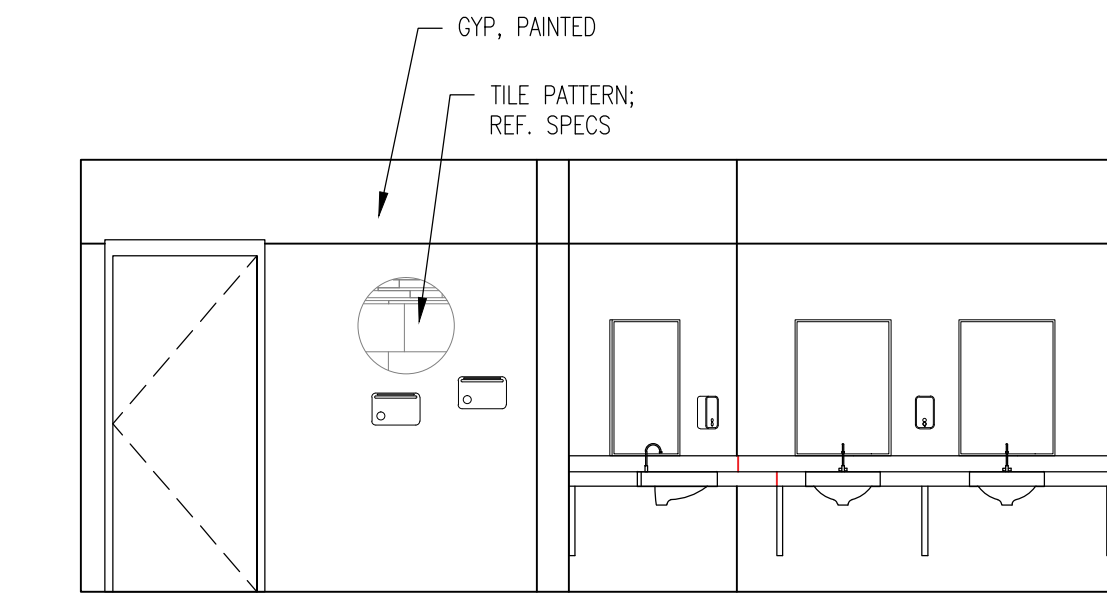
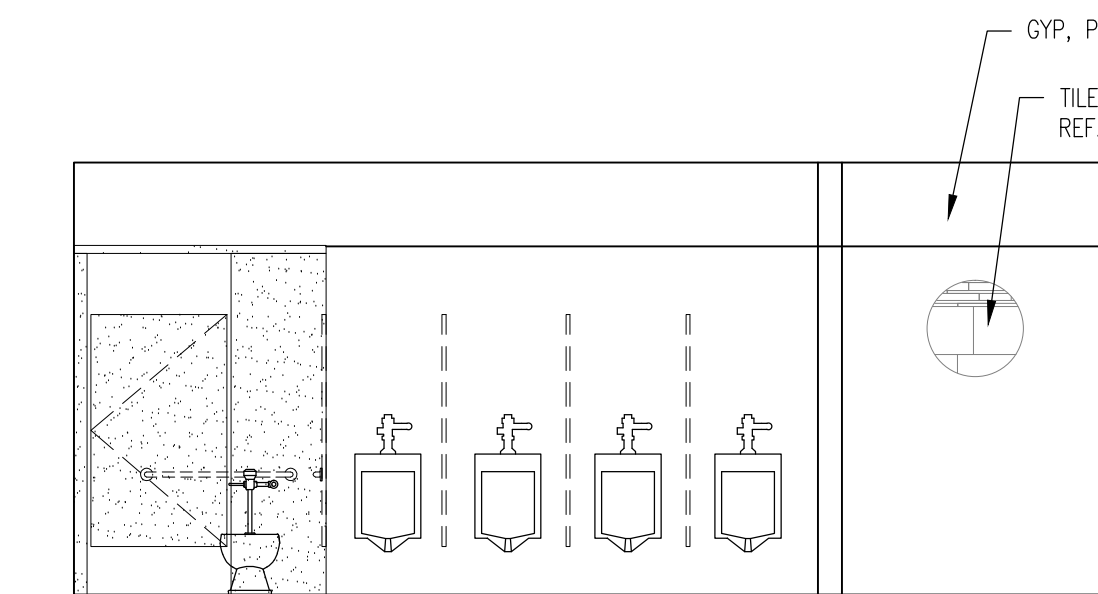
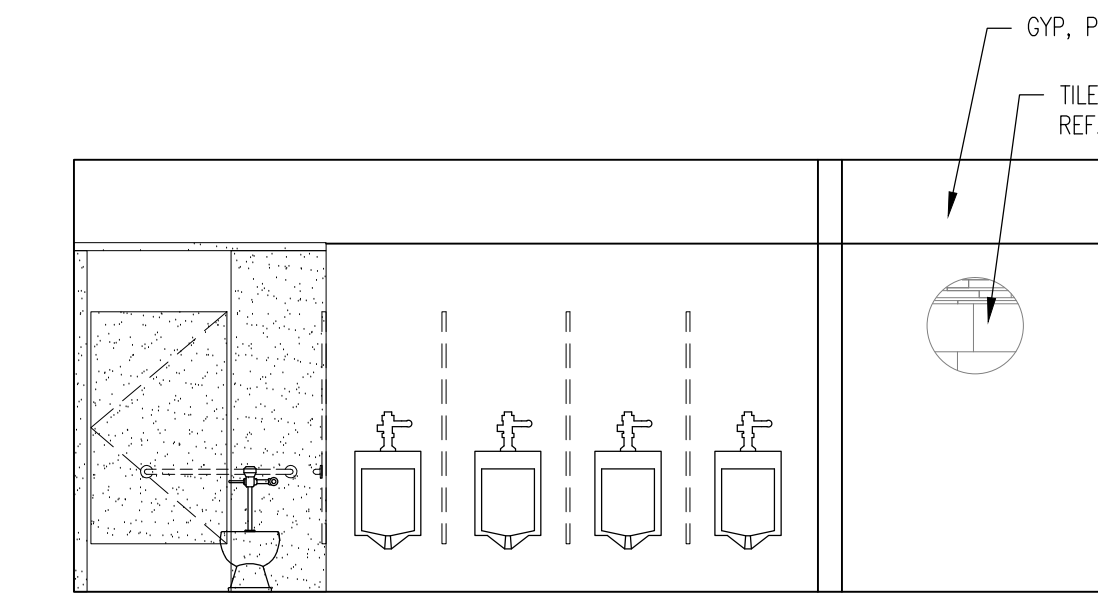
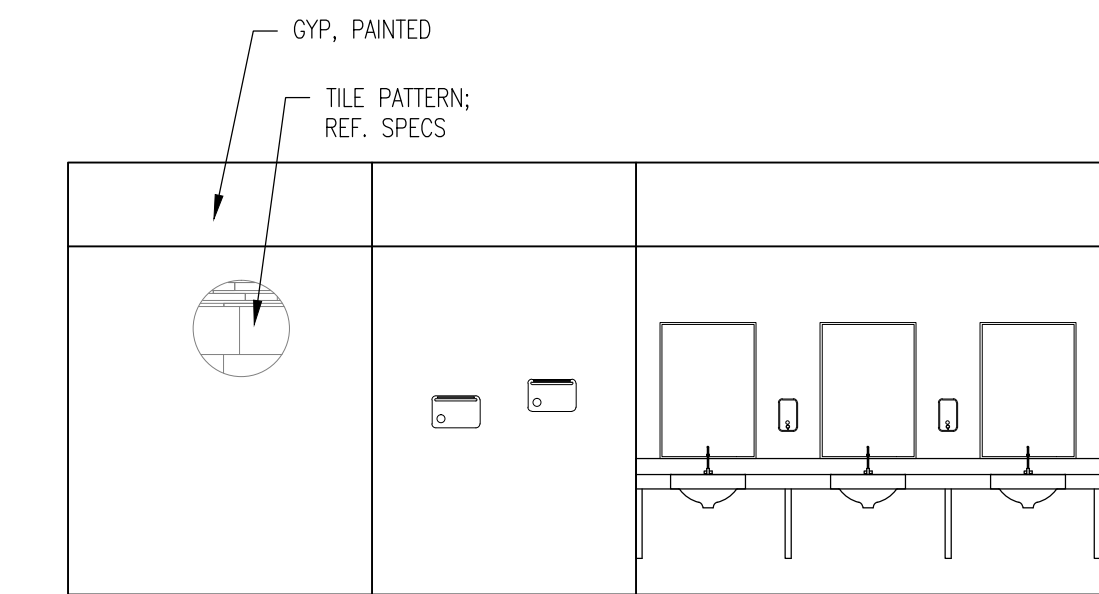
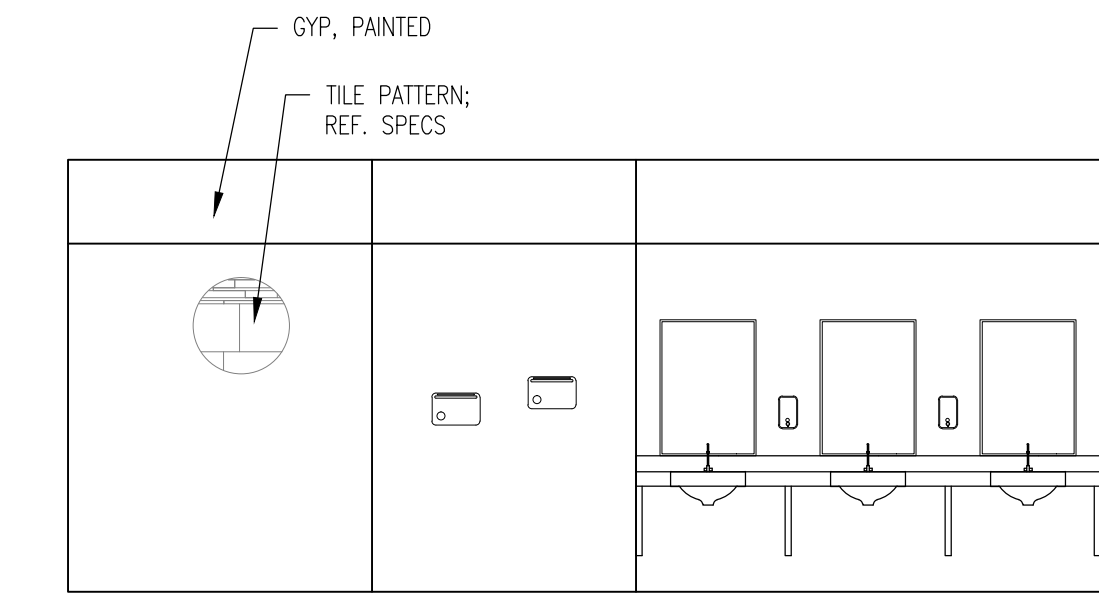
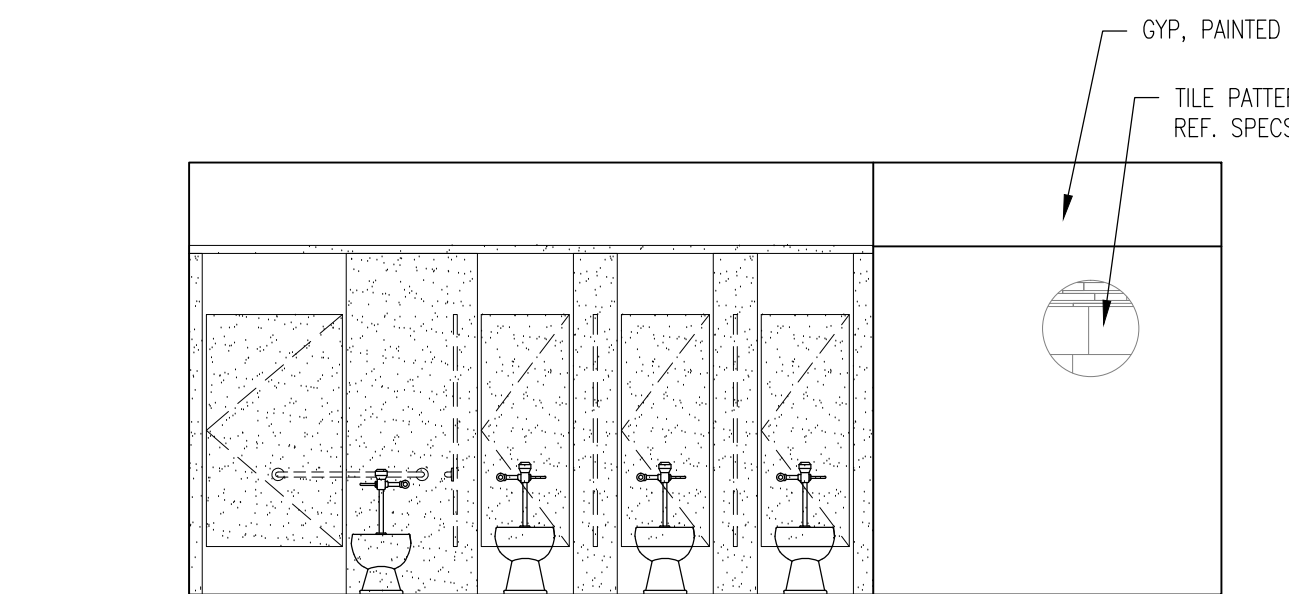
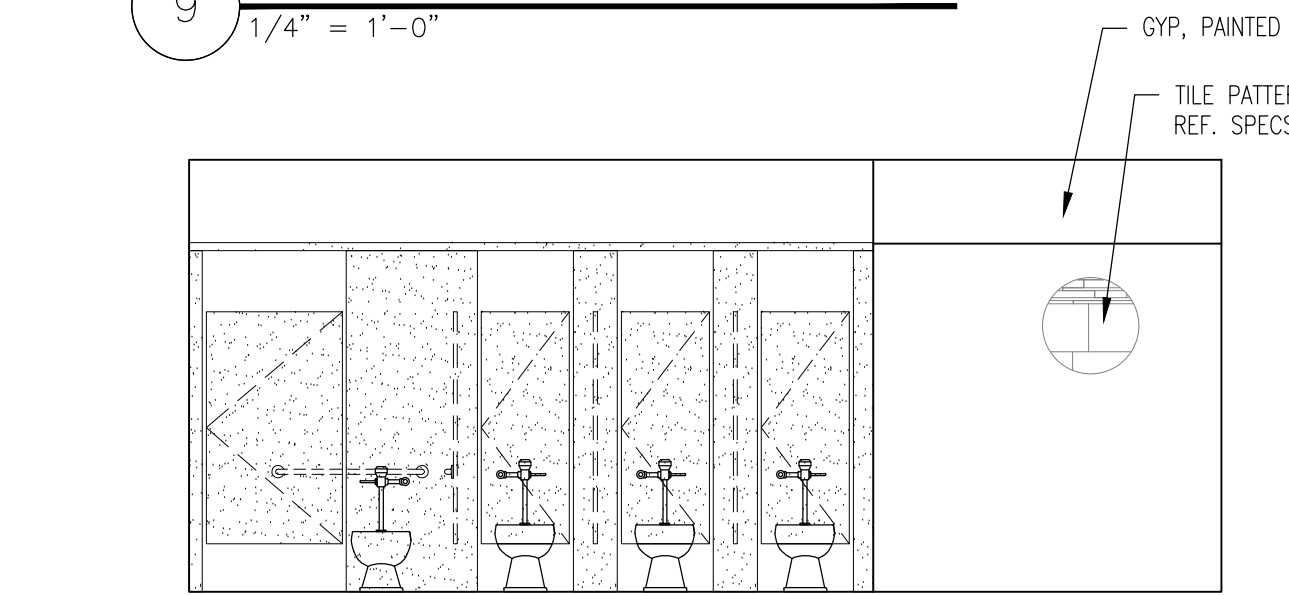
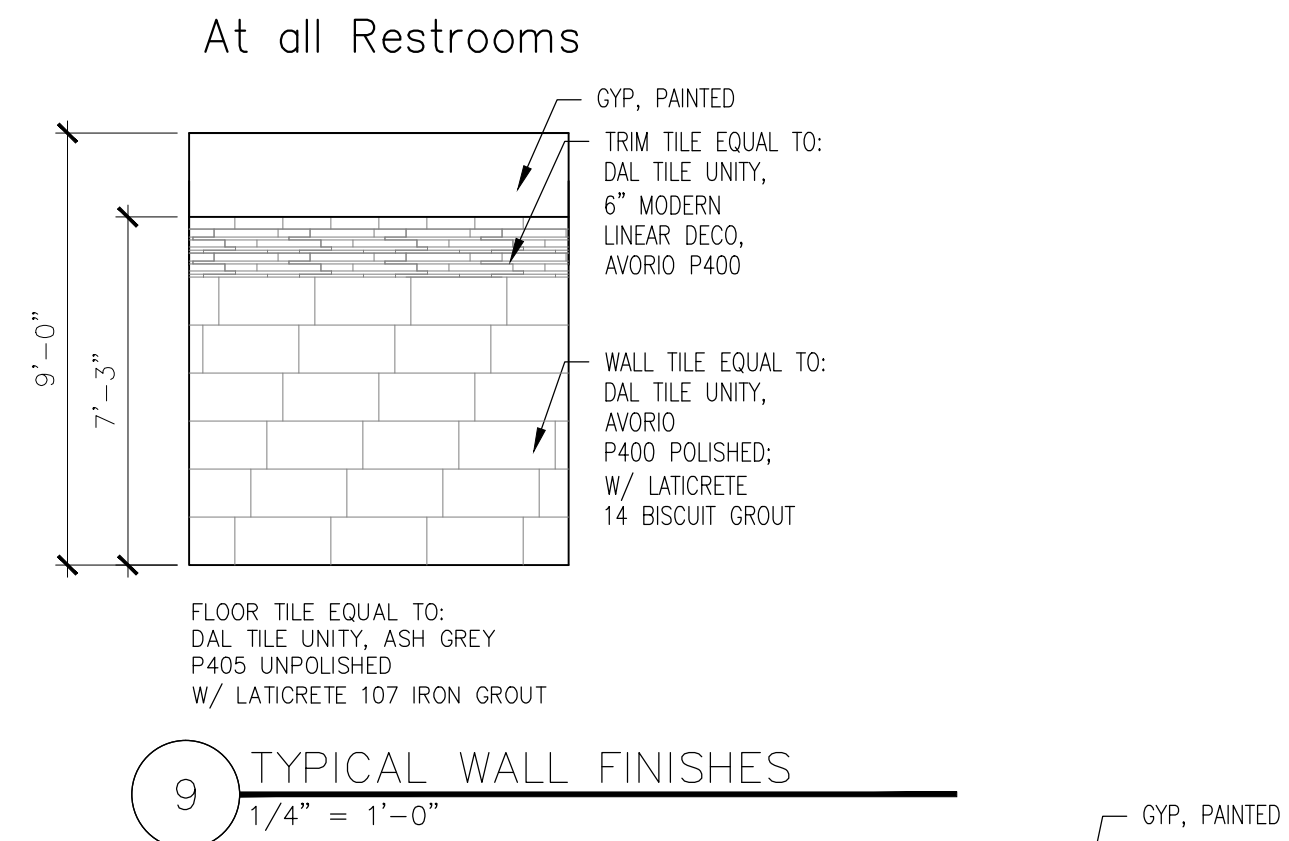
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BLDG. A-G-H-J  
ENLRG. FLRPLN.  
& INT. ELEV.

A-124-N

May 08, 2019 - 7:12pm User: cquezada P:\G&A Projects\1904 PSJA ECHS Restroom Renov\19.04 CAD\19.04-A100 RR floorplan.dwg

	FIXTURE MOUNTING HEIGHT SCHEDULE		
	* REFER TO ADA GUIDELINES ON SHEET G-102.		ADULTS
1	1. LAVATORIES/SINK (MEASURED FROM FLOOR TO RIM)	STANDARD	32"
		ACCESSIBLE	34" MAX (29" MIN KNEESPACE)
2	2. URINALS (MEASURED FROM FLOOR TO RIM)	STANDARD	16" MAX
		ACCESSIBLE	17" MAX
3	3. WATER CLOSETS (MEASURED FROM FLOOR TO TOP OF SEAT)	STANDARD	15"
		ACCESSIBLE	17" TO 19"
4	4. DRINKING FOUNTAINS AND EWC's FRONTAL APPROACH (MEASURED FROM FLOOR TO SPOUT OUTLET)	STANDARD	42"
		ACCESSIBLE	36" MAX (27" MIN KNEESPACE)
5	5. GRAB BARS (MEASURED FROM FLOOR TO CENTERLINE OF BAR - 36" LONG @ REAR WALL & 42" LONG @ SIDE WALL OR 90 DEGREE CONT. GRAB BAR WHERE INDICATED)	STANDARD	
		ACCESSIBLE	33" TO 36" TO TOP OF GRAB BAR
6	6. TOILET TISSUE DISPENSER (MEASURED FROM FLOOR TO CENTERLINE OF ROLL)	STANDARD	20"
		ACCESSIBLE	19" MIN
7	7. ELECTRIC HAND DRYER (MEASURED FROM FLOOR TO CENTER OF CONTROL)	STANDARD	48"
		ACCESSIBLE	45" MAX
8	8. SOAP DISPENSER (MEASURED FROM FLOOR TO CENTERLINE OF PUSH BUTTON)	STANDARD	38"
		ACCESSIBLE	36"
9	9. SANITARY NAPKIN DISPOSAL UNIT (MEASURED FROM FLOOR TO TOP OF UNIT) (ONLY IN ROOMS LABELED WOMEN & GIRLS)	STANDARD	40"
		ACCESSIBLE	
10	10. MIRRORS 1 MIRROR PER LAVATORY (NOT NOTED FOR CLARITY). MEASURED FROM FLOOR TO BOTTOM OF REFLECTING SURFACE.	STANDARD	
		ACCESSIBLE	40" MAX
11	11. MOP BASIN / SERVICE SINK (ONE PER ROOM LABELED CUSTODIAN)		
12	12. MOP HOLDER (ONE PER ROOM LABELED CUSTODIAN)		48" MAX
13	13. TOILET PARTITION / URINAL SCREEN	NOT NOTED FOR CLARITY	

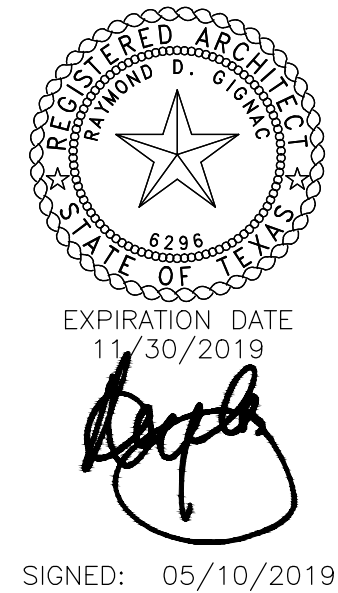


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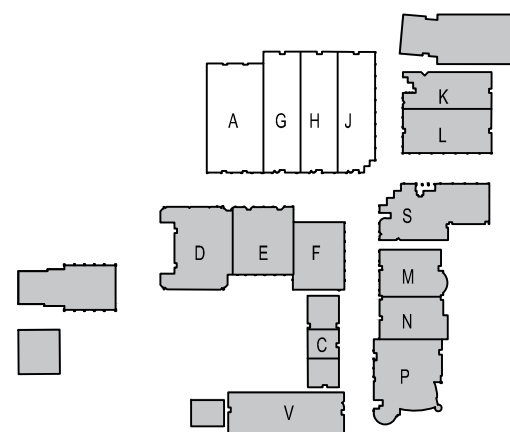
CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING



PSJA ISD  
NORTH ECHS  
& COLLEGE  
AND  
UNIVERSITY  
CAMPUS  
STUDENT  
RESTROOM  
RENOVATIONS



KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: CQ  
Checked: JM  
Scale: VARIES  
ACAD File: DEMO PLAN

Revisions:

Sheet Title:

BLDG. A-G-H-J  
INT. ELEV.



GENERAL CONSTRUCTION NOTES

- DEMOLITION AND PROPOSED WORK WILL HAVE TO BE COORDINATED WITH THE OWNER TO MINIMIZE DISRUPTIONS TO THE CAMPUS, WHICH MAY BE IN USE.
- ANY EXISTING WALLS TO REMAIN THAT REQUIRE REPAIR AFTER DEMOLITION IS COMPLETE, SHALL BE OBSERVED BY THE DESIGN TEAM AND OWNER PRIOR TO REPAIR. COORDINATION WILL BE REQUIRED.
- ANY OPENINGS IN EXISTING WALLS SCHEDULED TO BE INFILLED SHALL HAVE THE SAME MATERIAL AND FINISH AS THAT OF THE EXISTING WALL. ALL INFILLED OPENINGS SHALL BE FLUSH WITH EXISTING WALL SURFACES AND PAINTED.

DOOR SCHEDULE

DOOR SCHEDULE	DOOR				FRAME		REMARKS
	WIDTH	HEIGHT	TYPE	MATERIAL	TYPE	MATERIAL	
K100A	3'-0"	7'-0"	FL	WD	A	HM	
K100B	3'-0"	7'-0"	FL	HM	A	HM	FIELD VERIFY EXISTING OPENING
K101	3'-0"	7'-0"	FL	HM	A	HM	
K102A	3'-0"	7'-0"	FL	WD	A	HM	
K102B	3'-0"	7'-0"	FL	HM	A	HM	FIELD VERIFY EXISTING OPENING

ROOM FINISH SCHEDULE

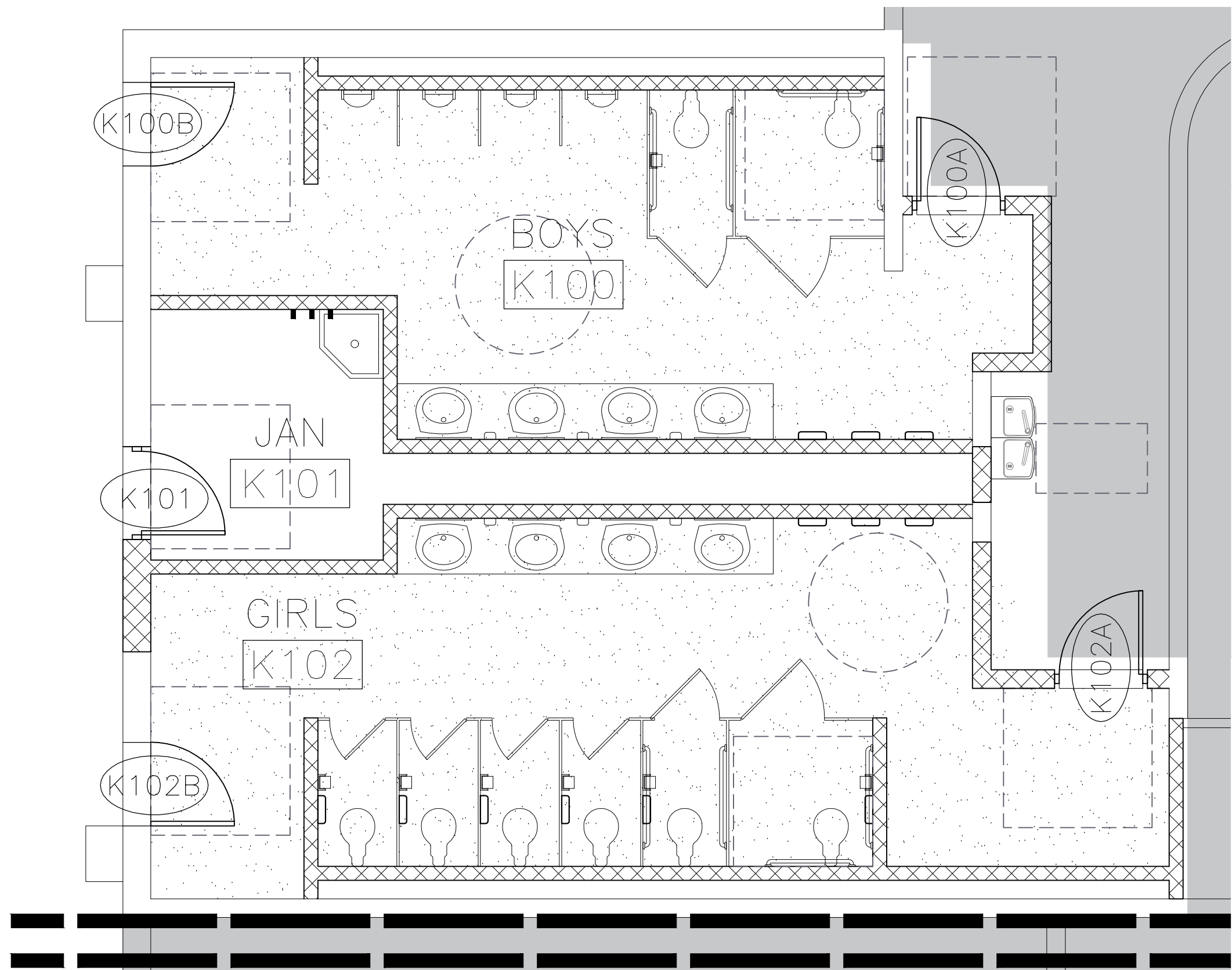
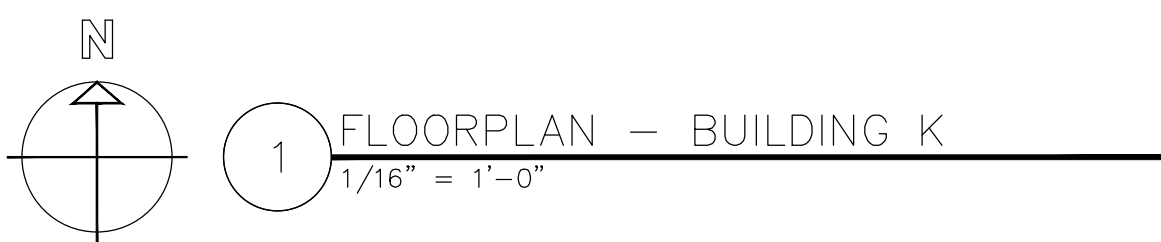
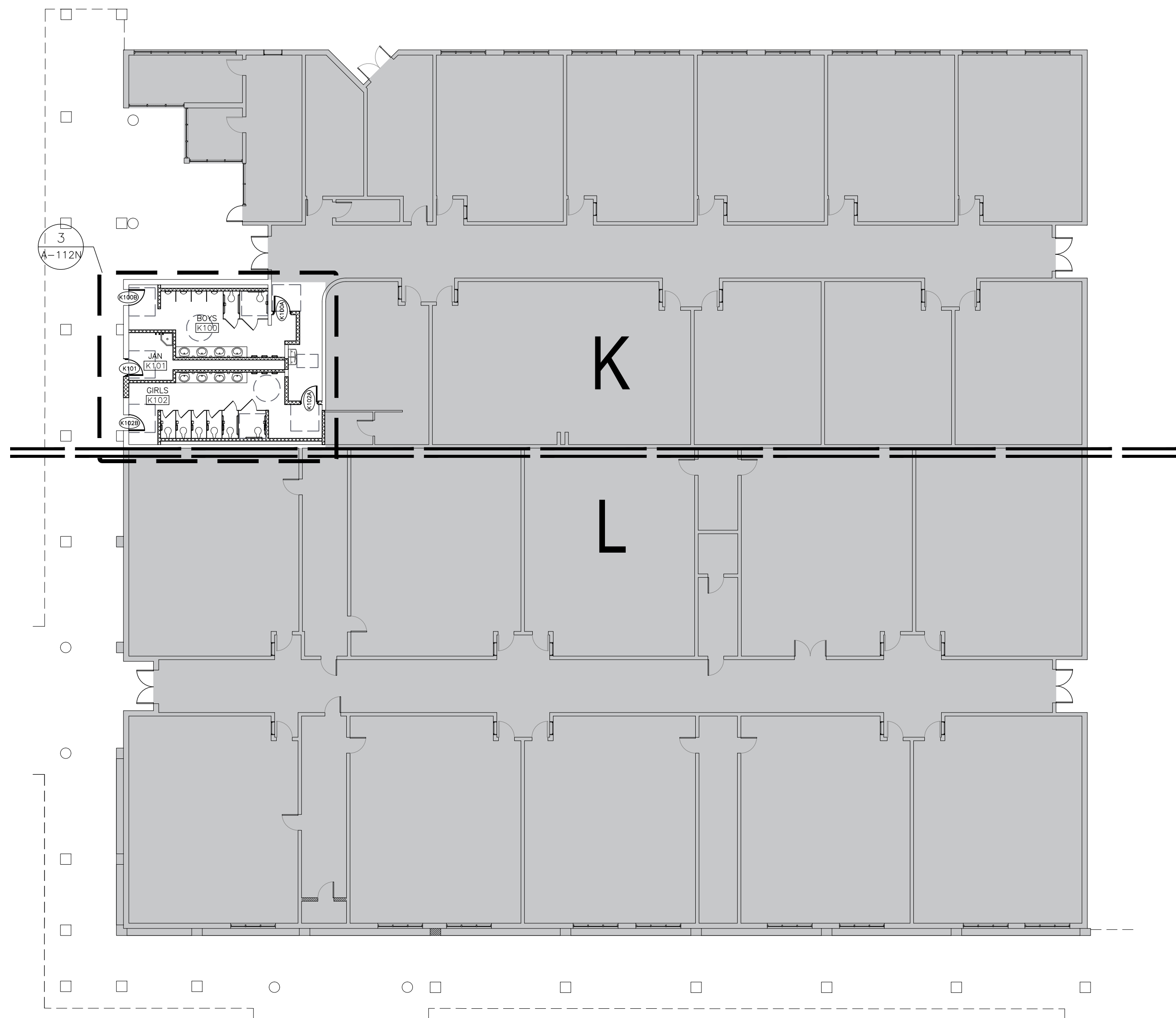
NUMBER	NAME	FLOOR	BASE	NORTH WALL	SOUTH WALL	EAST WALL	WEST WALL	CEILING	CLG HT.	NOTES
K100	BOYS	TILE: UNITY ASH GREY	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	GYP. PTD.	9'-0"	
K101	JANITOR	SEALED CONCRETE	NONE	PT	PT	PT	PT	EXP. STRUC		PAINT EXPOSED STRUCTURE & DECK
K102	GIRLS	TILE: UNITY ASH GREY	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	TILE: UNITY AVORIO/PT	GYP. PTD.	9'-0"	

REFLECTED CEILING LEGEND

- PAINTED GYP. BOARD
- EXPOSED STRUCTURE, PAINTED
- THIS AREA NOT IN SCOPE

REFLECTED CEILING NOTES:

- REFER TO MEP DRAWINGS FOR CEILING MOUNTED ITEMS.
- FIELD VERIFICATION OF EXISTING STRUCTURE AND COORDINATION WITH MEP DURING SUBMITTAL PROCESS SHALL BE REQUIRED IN ORDER TO ACHIEVE MAXIMUM CEILING HEIGHTS.



Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

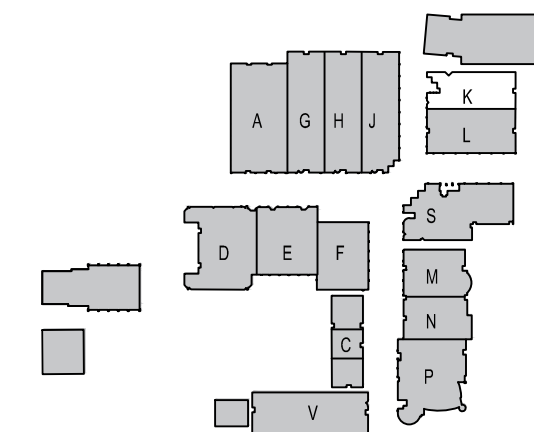
MEP:  
DBR ENGINEERING



SIGNED: 05/10/2019



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RESTROOM  
RENOVATIONS



KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: CQ  
Checked: JM  
Scale: VARIES  
ACAD File: DEMO PLAN

Revisions:

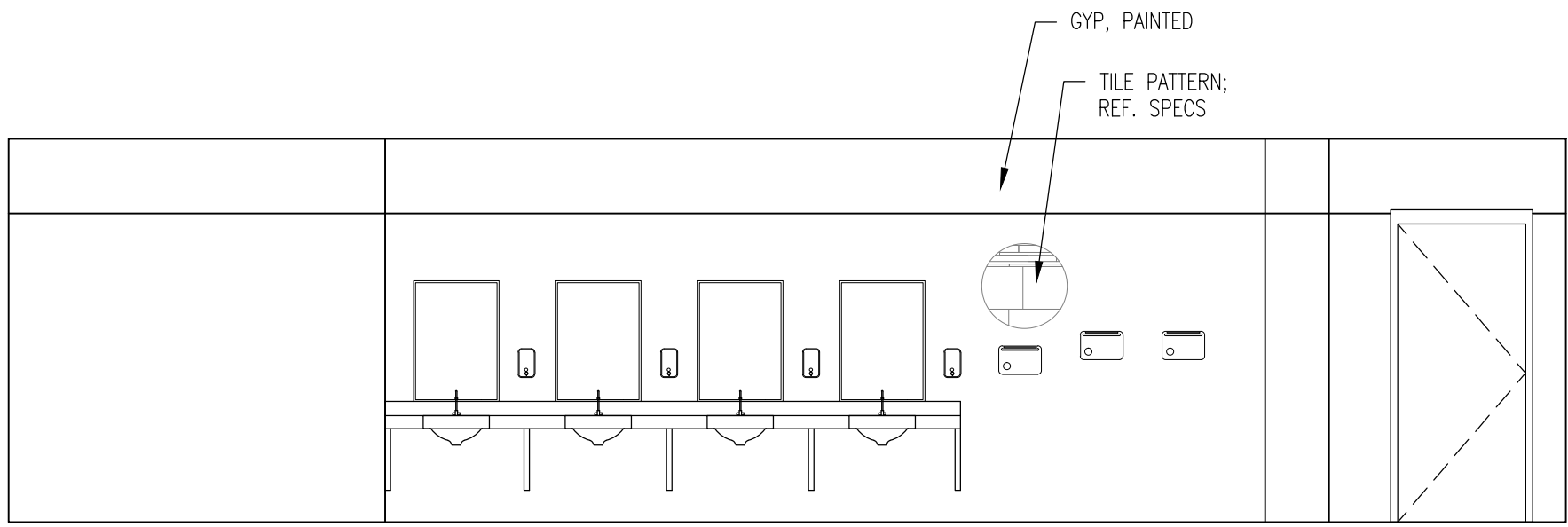
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FLOORPLAN &  
REFL. CLG. PLN.

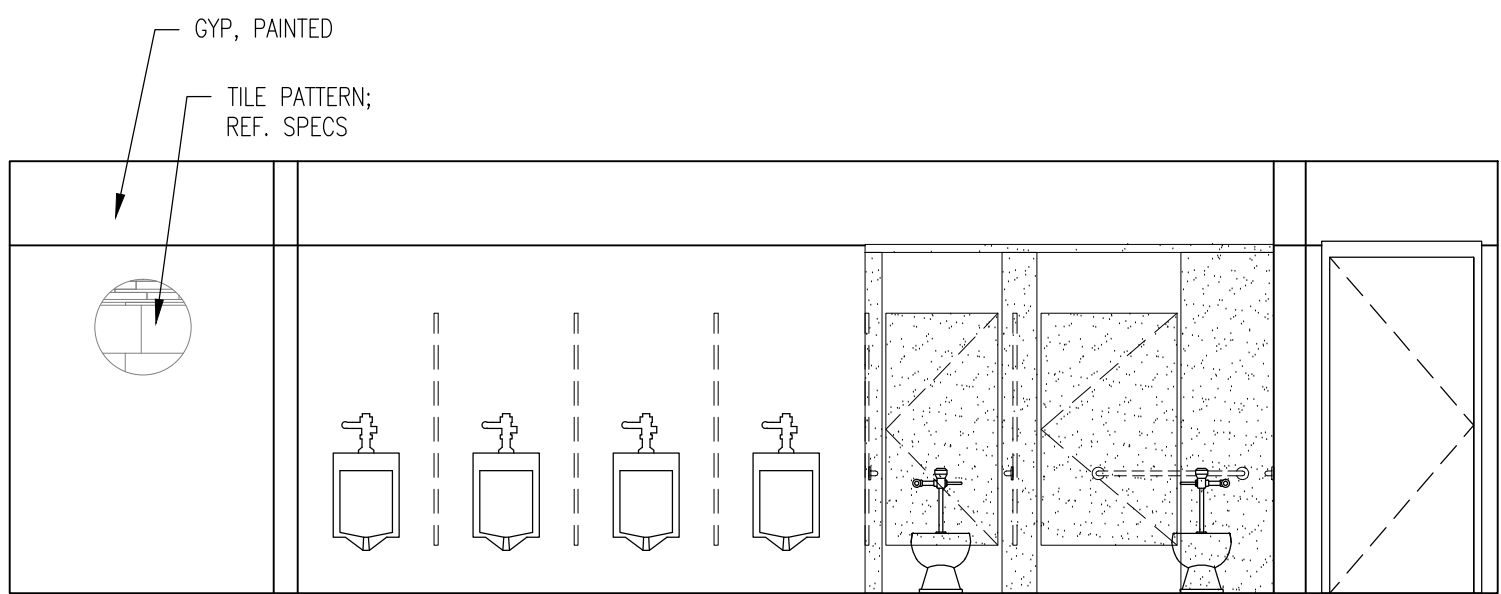
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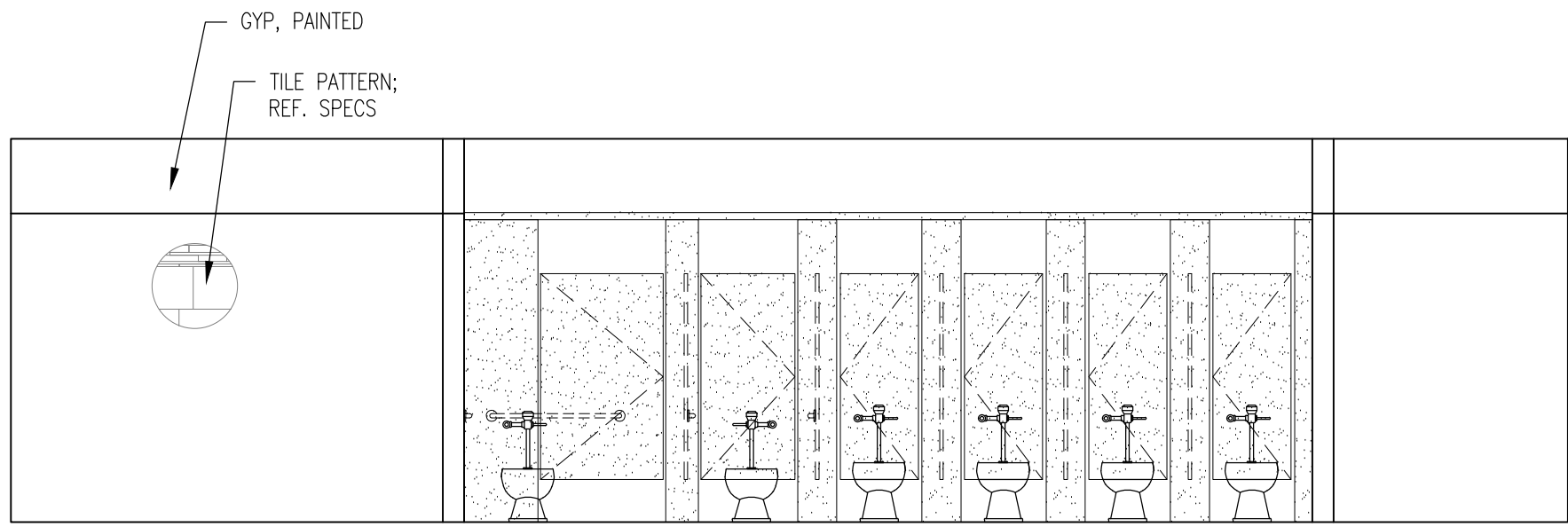
	FIXTURE MOUNTING HEIGHT SCHEDULE		
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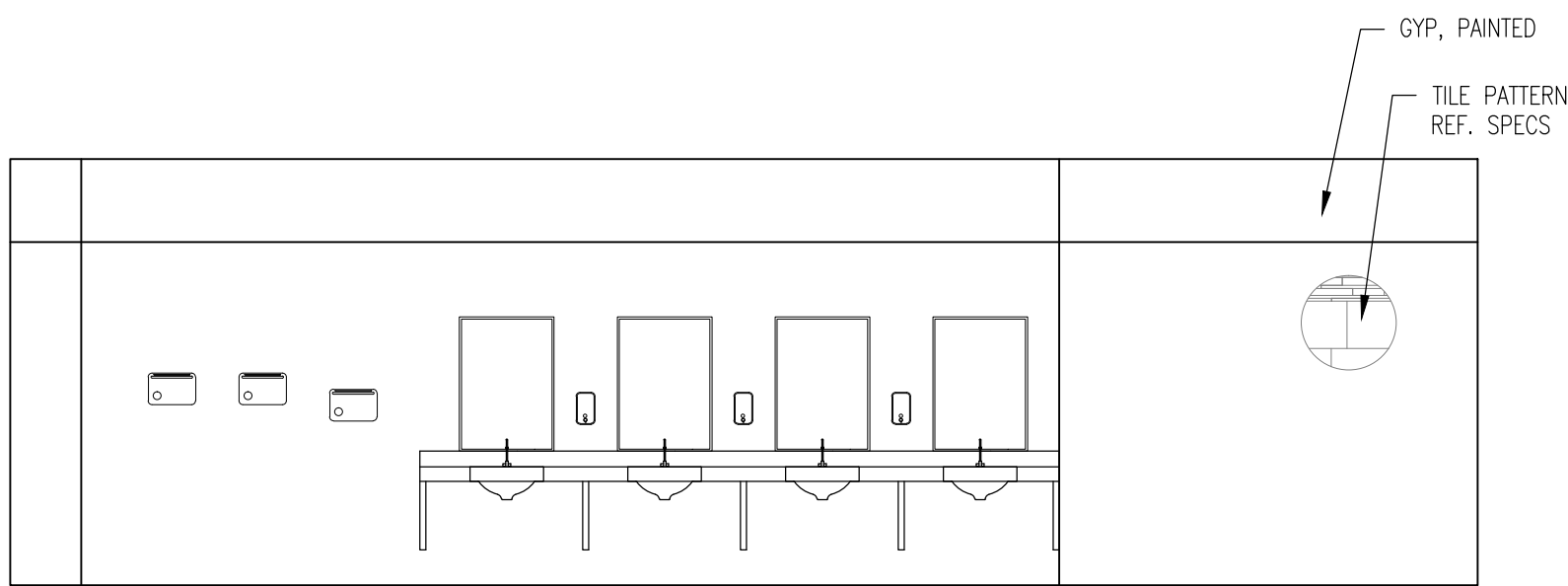
4 INTERIOR ELEVATION - GIRLS K102  
1/4" = 1'-0"



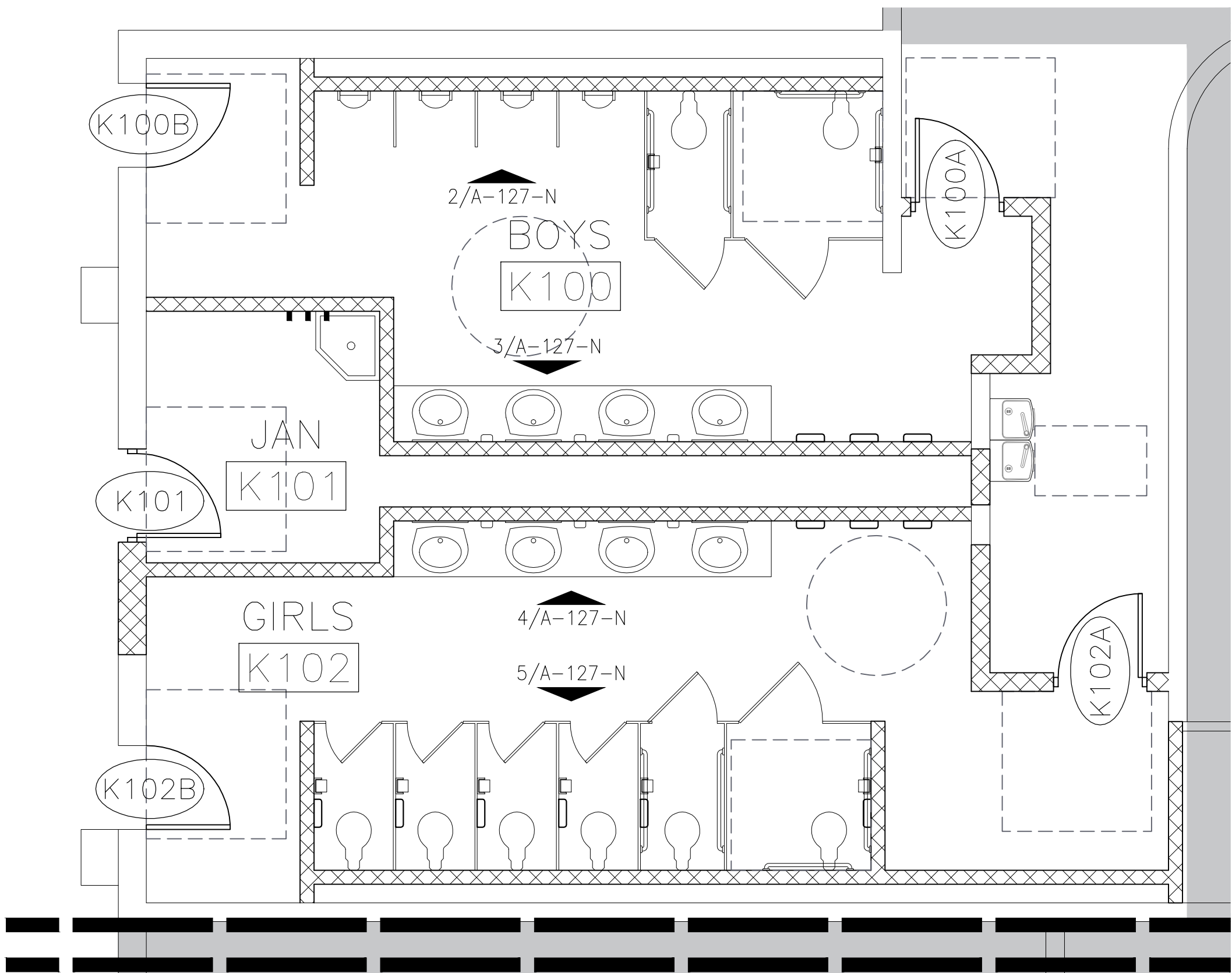
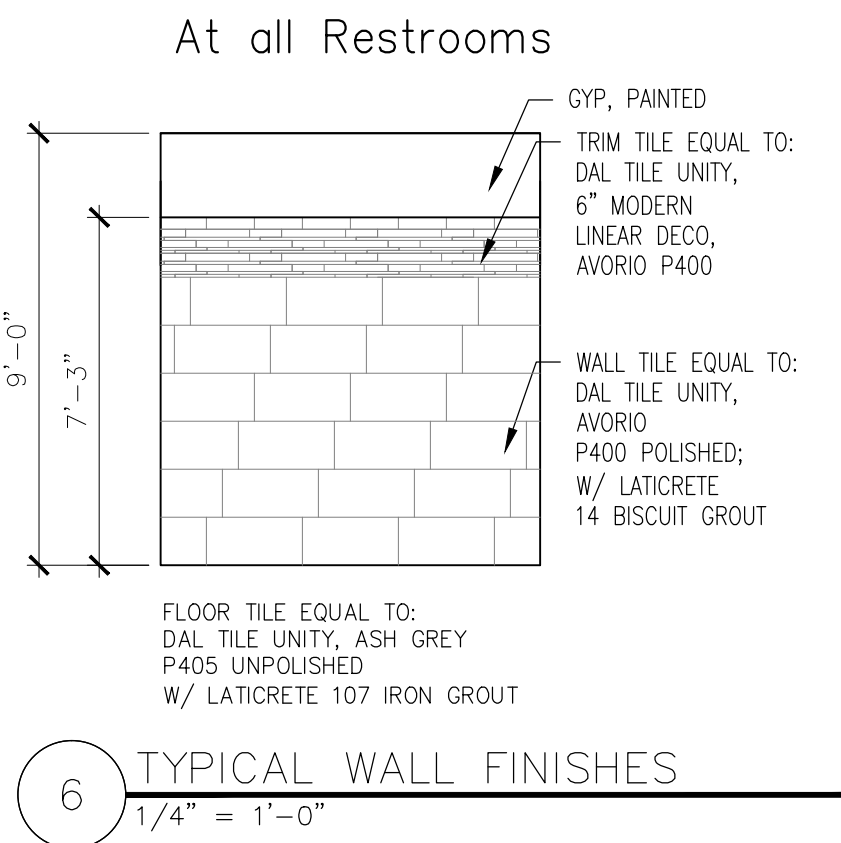
2 INTERIOR ELEVATION - BOYS K100  
1/4" = 1'-0"



5 INTERIOR ELEVATION - GIRLS K102  
1/4" = 1'-0"



3 INTERIOR ELEVATION - BOYS K100  
1/4" = 1'-0"



1 ENLARGED FLOORPLAN - BUILDING K  
1/4" = 1'-0"

Consultants:

CIVIL:

MELDEN & HUNT

STRUCTURAL:

GREEN RUBIANO &

ASSOCIATES INC.

MEP:

DBR ENGINEERING



SIGNED: 05/10/2019

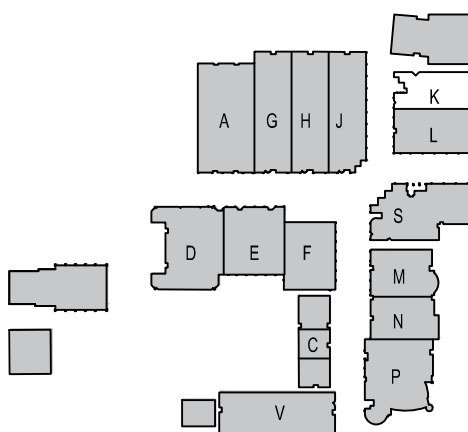


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STUDENT  
RESTROOM  
RENOVATIONS



KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: CQ  
Checked: JM  
Scale: VARIES  
ACAD File: DEMO PLAN

Revisions:

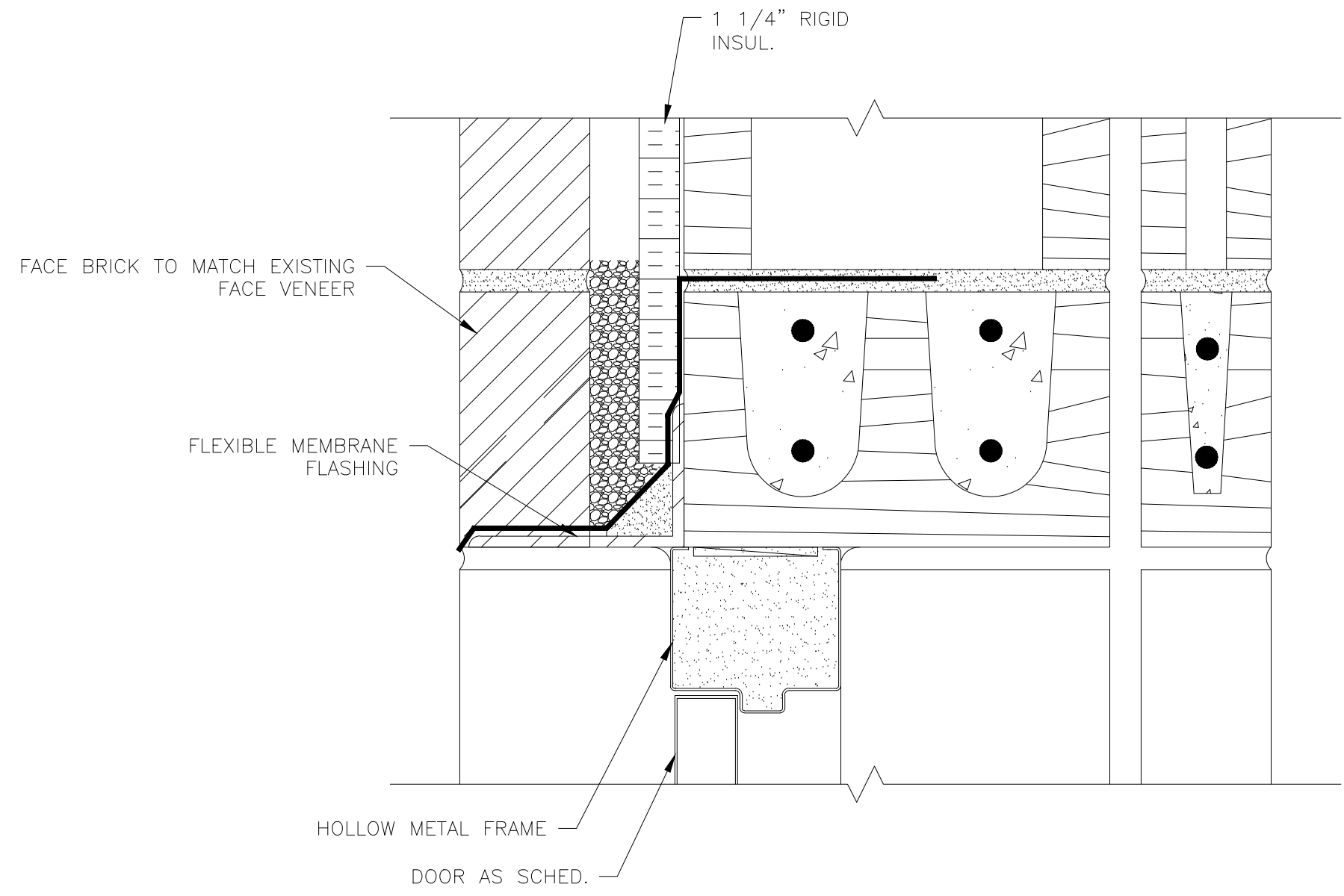
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ENLRG. FLRPLN.

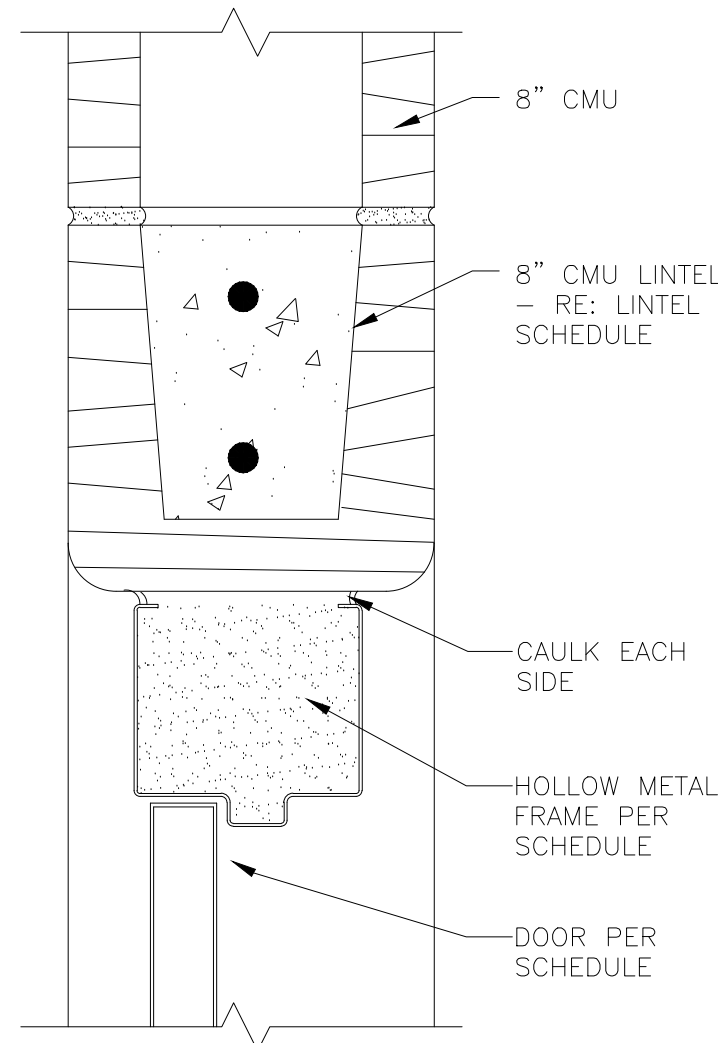
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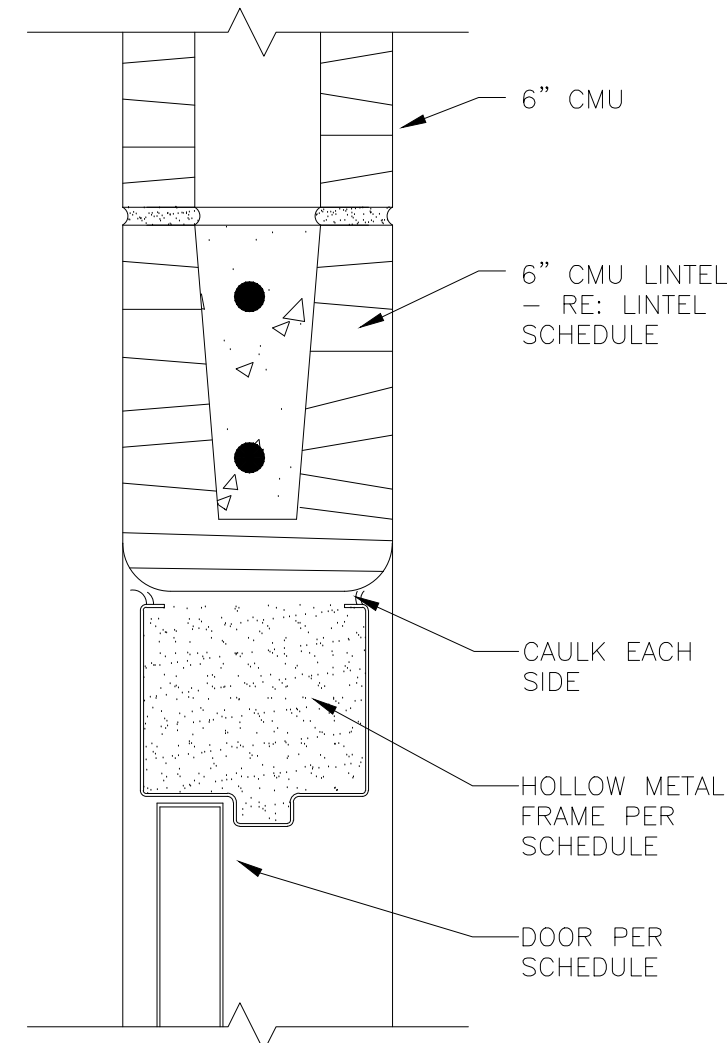
May 09, 2019 - 8:59am User: cquezada P:\G&A Projects\1904 PSJA ECHS Restroom Renov\19.04 CAD\19.04 Door Details North.dwg



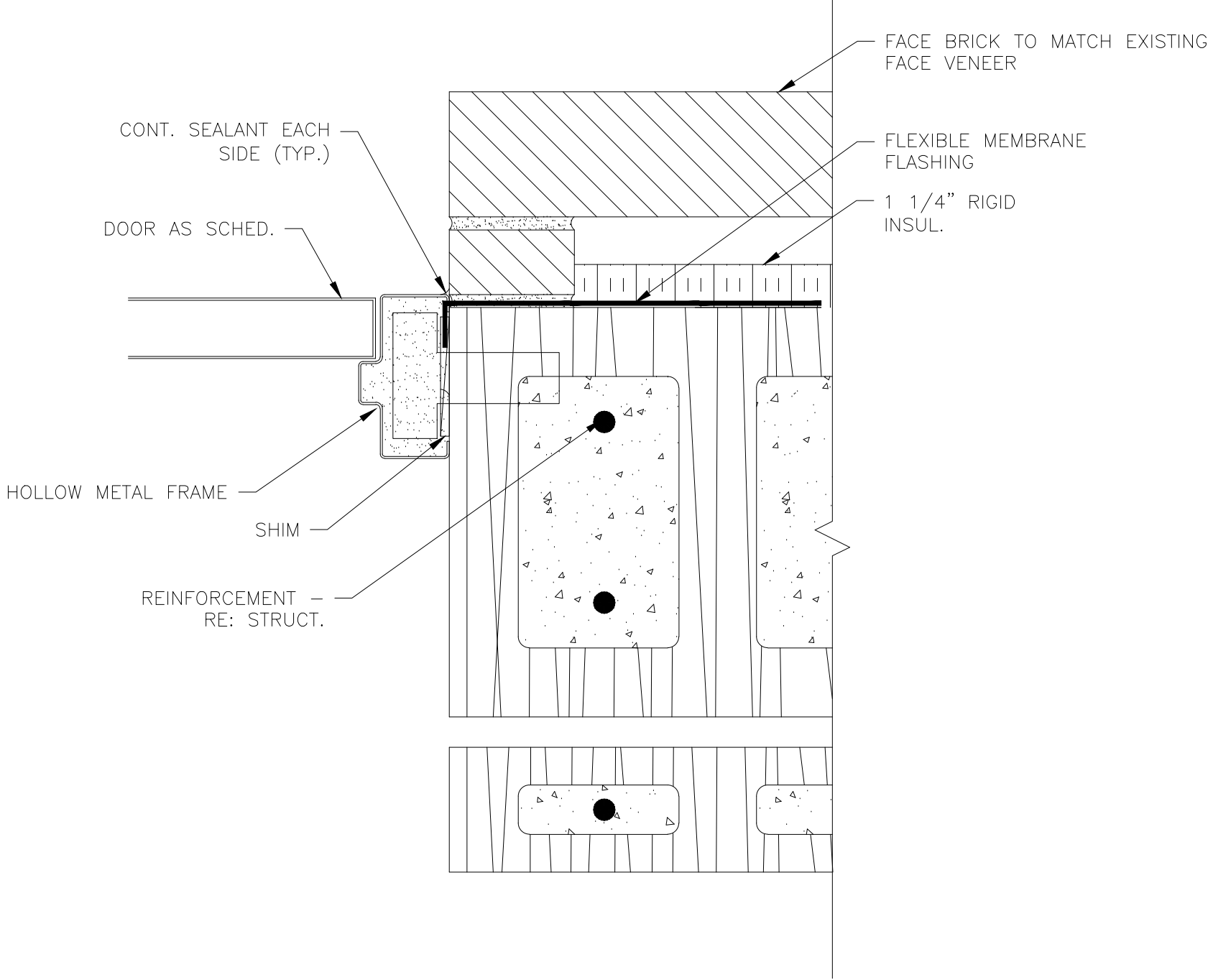
6 EXT. DOOR HEAD - TYP.  
3" = 1'-0"



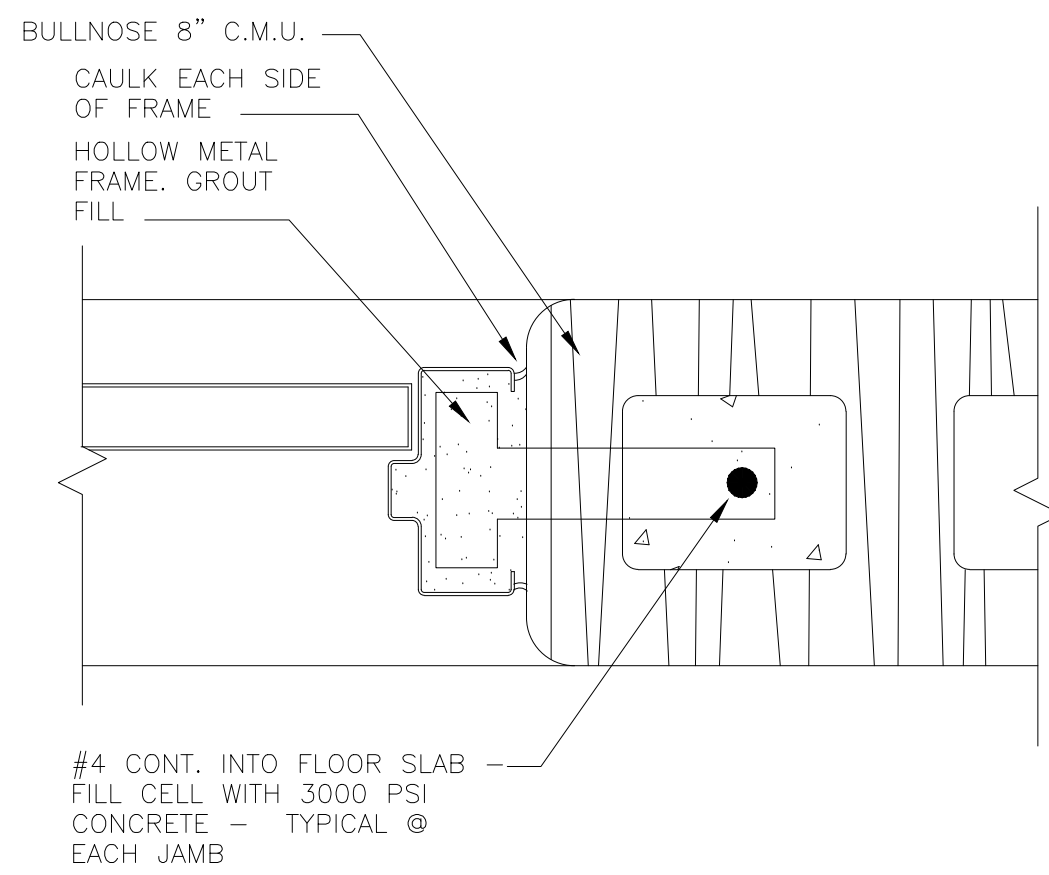
7 INT. DOOR HEAD - TYP.  
3" = 1'-0"



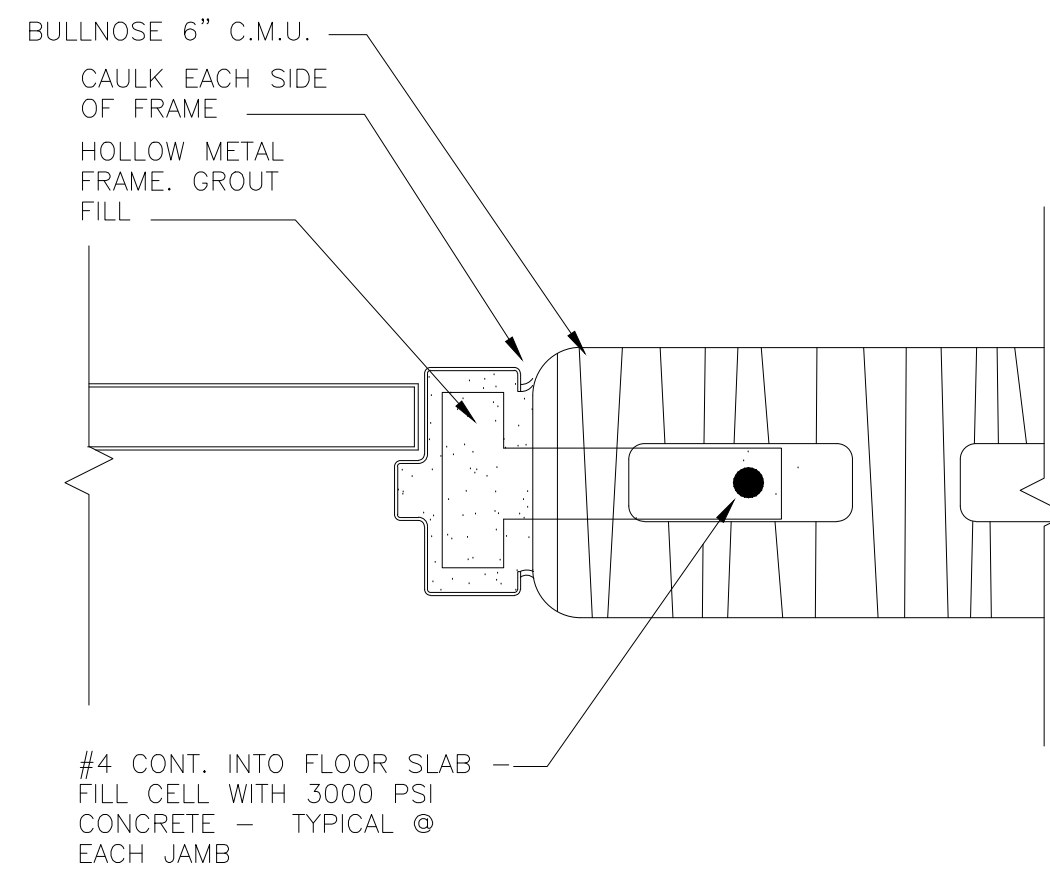
8 INT. DOOR HEAD - TYP.  
3" = 1'-0"



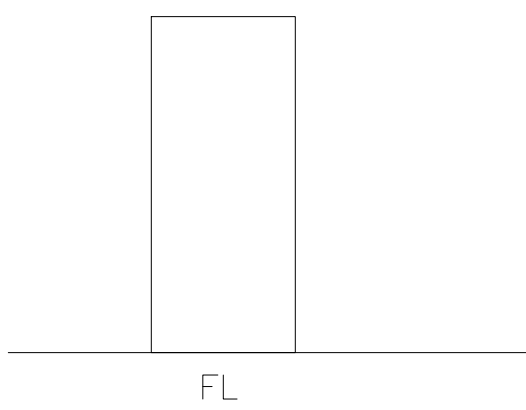
3 EXT. DOOR JAMB - TYP.  
3" = 1'-0"



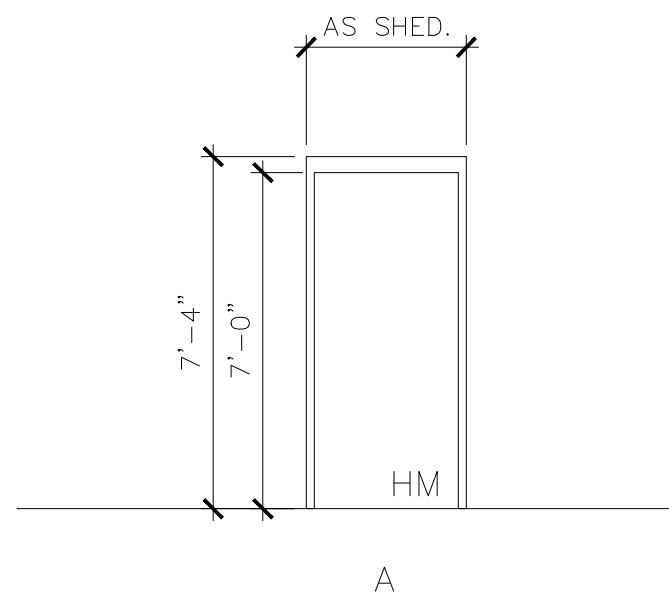
4 INT. DOOR JAMB - TYP.  
3" = 1'-0"



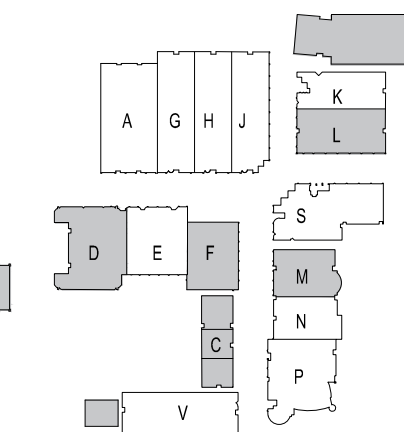
5 INT. DOOR JAMB - TYP.  
3" = 1'-0"



1 DOOR TYPES  
1/4" = 1'-0"



2 DOOR FRAME TYPES  
1/4" = 1'-0"





## ABBREVIATIONS

(NOT ALL ITEMS INDICATED APPLY TO THIS PROJECT)

A	
ABV	AIR (COMPRESSED)
A/C	AIR CONDITIONING
AC	ALTERNATING CURRENT AIR COMPRESSOR
ACH	AIR COOLED CHILLER
ACCU	AIR COOLED CONDENSING UNIT
AD	ACCESS DOOR, AREA DRAIN
ADJ	ADJUSTABLE
AF	AIR FILTER
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AL	ALUMINUM
AMB	AMBIENT
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
ARI	AMERICAN REFRIGERANT INSTITUTE
ARCH	ARCHITECT, ARCHITECTURAL
AS	AIR SEPARATOR
ASHRAE	AMERICAN SOCIETY OF HEATING AND REFRIGERATION ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
AV	ACID VENT, AIR VENT
AVG	AVERAGE
AWG	AMERICAN WELDING SOCIETY
AUX	AUXILIARY
B	
B	BOILER
BC	BELOW COUNTER
B/C	BACK OF CURB
BFV	BUTTERFLY VALVE
BH	BOX HYDRANT
BLDG	BUILDING
BM	BENCHMARK
BOF	BOTTOM OF FOOTING
BOS	BOTTOM OF STRUCTURE
BT	BATH TUB, BREAK TANK
BTU	BRITISH THERMAL UNIT
BV	BALL VALVE
BWV	BACK WATER VALVE
C	
C	CELSIUS
CAB	CABINET
CB	CATCH BASIN
CD	CONDENSATE DRAIN LINE
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CH	CHILLER
CHW	CHILLED WATER
CHWP	CHILLED WATER PUMP
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CI	CAST IRON
CIRC	CIRCULATING
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CPI	CAST IRON PIPE INSTITUTE
CPVC	CHLORINATED POLYVINYL CHLORIDE
CO	CLEAN OUT
COL	COLUMN
COMB	COMBINATION
COMP	COMPRESSOR
CON	CONVERTER
CONC	CONCRETE, CONCENTRIC
COND	CONDENSER, CONDENSATE
CONN	CONNECTION
CONT	CONTINUOUS, CONTINUATION
CONTR	CONTROLLER, CONTRACTOR
CRAC	COMPUTER ROOM A/C UNIT
CRT	CATHODE RAY TUBE
CT	COOLING TOWER
CTR	CENTER
CU	COPPER
CW	COLD WATER
CWP	CONDENSER WATER PUMP
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY

D	
D	DEPTH, DRAIN, DRYER
DB	DRY BULB
DC	DOUBLE DUCT CONSTANT VOLUME, DIRECT CURRENT
DDC	DIRECT DIGITAL CONTROL
DESIG	DESIGNATION
DTL	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIFF	DIFFUSER
DM	DIMENSION
DISC	DISCONNECT
DN	DOWN
DPR	DAMPER
DS	DOWNSPOUT, DOUBLE SUCTION
DV	DOUBLE DUCT VAV
DW	DISHWASHER
DWG	DRAWING
DWH	DOMESTIC WATER HEATER
DWP	DOMESTIC WATER PUMP
DX	DIRECT EXPANSION
E	
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
ECC	ECCENTRIC
EDB	ENTERING DRY BULB
EDF	ELECTRIC DRINKING FOUNTAIN
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
EFF	EFFICIENCY
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR EMERGENCY ENCLOSURE
EMERG	EMERGENCY
ENCL	ENCLOSURE
ENGR	ENGINEER
EQ	EQUAL
EQUIP	EQUIPMENT
ES	END SUCTION, EMERGENCY SHOWER
ESP	EXTERNAL STATIC PRESSURE EXPANSION TANK
ET	EXPANSION TANK
ETR	EXISTING TO REMAIN
EVAP	EVAPORATOR
EWB	ENTERING WET BULB
EWT	ENTERING WATER TEMPERATURE
EX	EXPLOSION-PROOF
EXT	EXTERNAL
EXTD	EXISTING
F	
F	FAHRENHEIT, FIRE
FBD	FURNISHED BY OTHERS
FCD	FLOOR CLEAN OUT
FCS	FLOOR CONTROL STATION
FCU	FAN COIL UNIT
FD	FLOOR DRAIN, FIRE DAMPER
FDS	FIRE DEPARTMENT SIAMSE
FDV	FIRE DEPARTMENT VALVE
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FHR	FIRE HOSE RACK
FIXT	FIXTURE
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE
FL	FLOW LINES
FLR	FLOOR
FP	FIRE PUMP
FPT	FAN POWERED TERMINAL
FRZR	FREEZER
FS	FLOW SWITCH, FIRE SPRINKLER
FSK	FLOOR SINK
FT	FOOT, FEET
FUT	FUTURE
G	
G	GAS
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GLV	GLOBE VALVE
GND	GROUND
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GSH	GRAND SENSIBLE HEAT
GTH	GRAND TOTAL HEAT
GV	GATE VALVE

H	
HB	HOSE BIBB
HD	HEAD, HUB DRAIN
HE	HEAT EXCHANGER
HF	HUMIDIFIER
HORIZ	HORIZONTAL
HPR	HORSEPOWER, HALON PANEL
HPU	HEAT PUMP UNIT
HWP	HOUSEKEEPING PAD
HSC	HORIZONTAL SPLIT CASE
DIFF	DIFFUSER
HSTAT	HUMIDISTAT
HT	HEAT
HTD	HEATING
HTR	HEATER
HW	HOT WATER
HWC	HOT WATER CIRCULATOR
HWP	HEATING WATER PUMP
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
Hz	HERTZ
I	
ID	INSIDE DIAMETER
I	INVERT ELEVATION
IH	INFRARED HEATER
IN	INCH
INSUL	INSULATION
INT	INTERNAL, INTERIOR
IW	INDIRECT WASTE
J	
JB	JUNCTION BOX
JP	JOCKEY PUMP
K	
KES	KITCHEN EQUIPMENT CONTRACTOR
KO	KNOCKOUT
KVA	KILOVOLT-AMPS
KW	KILOWATT
L	
L	LENGTH, LAVATORY
LAT	LEAVING AIR TEMPERATURE
LAV	LAVATORY
LF	LINEAR FEET
LP	LOW PRESSURE
LRA	LOCKED ROTOR AMPS
LVL	LEVEL
LWB	LEAVING WET BULB
LWCO	LOW WATER CUT OFF
LWT	LEAVING WATER TEMPERATURE
M	
MAT	MIXED AIR TEMPERATURE
MAX	MAXIMUM
MBTUH	THOUSAND OF BTU/S
MC	MECHANICAL CONTRACTOR
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MI	MALLEABLE IRON
MIN	MINIMUM
MP	MEDIUM PRESSURE
MS	MOP SINK
MTD	MOUNTED
MU	MAKE-UP
MVD	MANUAL VOLUME DAMPER
N	
N.C.	NORMALLY CLOSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
NO.	NUMBER
NTS	NOT TO SCALE
O	
OA	OUTSIDE AIR
OAF	OUTSIDE AIR FAN
OAHU	OUTSIDE AIR HANDLING UNIT
OD	OPPOSED BLADE DAMPER
OC	ON CENTER
OD	OUTSIDE DIAMETER, OVERFLOW DRAIN
OFDU	OUTSIDE AIR FAN COIL UNIT
OPG	OPENING
OS&Y	OPEN STEM AND YOLK

P	
P	PUMP, PLUMBING EQUIPMENT
PC	PLUMBING CONTRACTOR
PCR	PUMPED CONDENSATE RETURN
PD	PRESSURE DROP, PLANTER DRAIN
PH	PHASE, POST HYDRANT
PIV	POST INDICATOR VALVE
PLBG	PLUMBING
PNEU	PNEUMATIC
PNL	PANEL
PNT	PENTHOUSE
PP	POLYPROPYLENE
PPM	PART PER MILLION
PR	PRIMARY
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE REDUCING VALVE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PT	PLUMBING TUB
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE
Q	
QTY	QUANTITY
R	
RA	RETURN AIR
RAD	REFRIGERATED AIR DRYER
RAF	RETURN AIR FAN
RAG	RETURN AIR GRILL
RAT	RETURN AIR TEMPERATURE
ROP	REFLECTED CEILING PLAN, REINFORCED CONCRETE PILES
RD	ROOF DRAIN
RE	REFERENCE, REFER
RECIRC	RECIRCULATE
RED	REDUCER
REFR	REFRIGERATOR
REG	REGISTER
REIN	REINFORCING
REQD	REQUIRED
REV	REVISION, REVISE
RH	RELATIVE HUMIDITY
RHG	REFRIGERANT HOT GAS
RKVA	RUNNING KILOVOLT-AMPS
RKW	RUNNING KILOWATTS
RL	REFRIGERANT LIQUID
RLA	RUNNING LOAD AMPS
RM	ROOM, REFRIGERATION MACHINE
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
RTU	ROOFTOP UNIT
RV	RELIEF VALVE
S	
S	STEAM
SA	SUPPLY AIR
S&F	SUPPLY AIR FAN
S&G	SUPPLY AIR GRILLE
SAW	SANITARY SEWER
S&R	SUPPLY AIR REGISTER
SC	STEAM CONDENSATE
SCHED	SCHEDULED
SCR	SILICON CONTROLLED RECTIFIER
SD	STORM DRAIN
SE	SEWAGE EJECTOR
SEC	SECONDARY
SECT	SECTION
SENS	SENSIBLE
SF	SQUARE FEET
SFCS	SPRINKLER FLOOR CONTROL STATION
SH	SHOWER
SHT	SHEET
SH	SIMILAR
SK	SINK
SKVA	STARTING KILOVOLT-AMPS
SKW	STARTING KILOWATTS
SM	SHEETMETAL
SP	SUMP PUMP, STATIC PRESSURE
SPEC	SPECIFICATION
SPR	SPRINKLER
SQ	SQUARE
SS	SERVICE SINK
SSD	SUBSURFACE DRAIN
SSFU	SANITARY SEWER FIXTURE UNITS
SSSC	SOLID STATE SPEED CONTROL
STD	STANDARD
STL	STEEL
STR	STRAINER
SURF	SURFACE
SUSP	SUSPEND
SV	SANITARY VENT

## MECHANICAL PIPING SYMBOLS

—CWS—	CONDENSER WATER SUPPLY		STRAINER WITH BLOW DOWN VALVE
—CWR—	CONDENSER WATER RETURN		GATE VALVE, HVAC BALANCING/STOP VALVE
—CHS—	CHILLED WATER SUPPLY		GLOBE VALVE
—CHR—	CHILLED WATER RETURN		BALL VALVE
—CD—	CONDENSATE DRAIN LINE		BALANCING VALVE WITH DIFFERENTIAL PRESSURE TAPS
—3—	CAP ON END OF PIPE		OS&Y VALVE
—45°—	ELBOW UP		CHECK VALVE
—90°—	ELBOW DOWN		BUTTERFLY VALVE
—V—	VALVE IN DROP		TWO-WAY MODULATING CONTROL VALVE
—V—	VALVE IN RISE		THREE-WAY MODULATING CONTROL VALVE
—45°—	DIRECTION OF FLOW		SOLENOID VALVE
—45°—	DIRECTION OF SLOPE DOWN		PRESSURE REDUCING VALVE
—45°—	ECCENTRIC REDUCER		GAS REGULATOR
—45°—	TEE OUTLET UP		GAS COOK
—45°—	TEE OUTLET DOWN		SPRINKLER FLOOR CONTROL STATION
—45°—	FLANGE		MANUAL AIR VENT
—45°—	PIPE ANCHOR		AUTOMATIC AIR VENT
—45°—	EXPANSION JOINT		TAP RELIEF VALVE
—45°—	PRESSURE AND TEMPERATURE TAP		PRESSURE GAUGE WITH GAUGE COOK
—45°—	FLOW VENTURI		STEAM TRAP
—45°—	VACUUM BREAKER		WATER METER
—45°—	VACUUM RELIEF VALVE		FLEXIBLE CONNECTION
—45°—	BACKFLOW PREVENTOR		
—45°—	THERMOMETER		
—45°—	CIRCULATING PUMP		

T	
TC	TEMPERATURE CONTROL
TCC	TEMPERATURE CONTROL COMPRESSOR
TD	TRENCH DRAIN
TF	TRANSFER FAN
TDH	TOTAL DYNAMIC HEAD
TH BLK	THRUST BLOCK
TP	TRAP PRIMER
TPD	TRAP PRIMER DEVICE
TSP	TOTAL STATIC PRESSURE
TSTAT	THERMOSTAT
TYP	TYPICAL
U	
U	URINAL
UCD	UNDER CUT DOOR
UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES, INC.
UNO	UNLESS NOTED OTHERWISE
U/F	UNDERFLOOR
U/S	UNDERSLAB
V	
V	VOLT, VENT
VA	VOLT-AMPERE
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VB	VALVE BOX, VACUUM BREAKER
VCP	VITRIFIED CLAY PIPE
VD	VOLUME DAMPER
VEL	VELOCITY
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VB	VALVE IN BOX
VOV	VALVE ON VERTICAL
VP	VACUUM PUMP
VR	VARIABLE AIR VOLUME REHEAT
VTR	VENT THRU ROOF
W	
W	WATT, WASTE, WIDTH, WASHER
W/	WITH
W/O	WITHOUT
WB	WET BULB
WC	WATER CLOSET
WCO	WALL CLEAN OUT
WH	WALL HYDRANT
WM	WATER METER
WP	WEATHERPROOF
WPD	WATER PRESSURE DROP
WT	WELDED WIRE FABRIC
WT	WATERTIGHT, WEIGHT
Y	
Y	YARD HYDRANT
Z	
Z	ZONE

## DUCTWORK SYMBOLS - NEW

	SUPPLY OR OUTSIDE AIR UP
	OPPOSED BLADE DAMPER
	VOLUME DAMPER
	FIRE DAMPER
	SMOKE DAMPER
	FIRE/SMOKE DAMPER
	MOTORIZED DAMPER
	RETURN, RELIEF OR EXHAUST AIR UP
	INCLINED RISE IN DUCT
	INCLINED DROP IN DUCT
	RETURN OR EXHAUST OFFUSER
	INCLINED DROP IN DUCT
	RETURN, RELIEF OR EXHAUST AIR DOWN
	HUMIDITY SENSOR
	TEMPERATURE SENSOR
	CARBON DIOXIDE
	CARBON MONOXIDE SENSOR
	EXISTING DIFFUSER
	EXISTING FLEX DUCT
	EXISTING DUCTWORK
	EXISTING DUCT DIMENSIONS CONNECTION TO EXISTING RECTANGULAR BRANCH DUCT TAP
	DIFFUSER TYPE: REFER TO SCHEDULE NEXT SIZE CFM
	SUPPLY DIFFUSER
	FLEXIBLE DUCT CONNECTION
	NEW DUCTWORK
	TRANSITION
	SPLITTER DAMPER SYMBOL
	NEW DUCT DIMENSIONS (WIDTH x HEIGHT)
	SUPPLY OR OUTSIDE AIR DOWN
	TURNING VANES
	SPLITTER DAMPER
	SLOT DIFFUSER W/ PLENUM CONNECTION

Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING



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## KEYPLAN

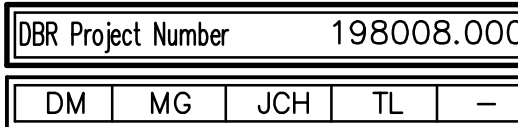
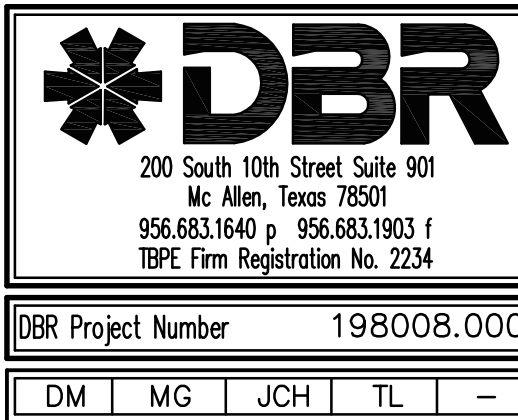
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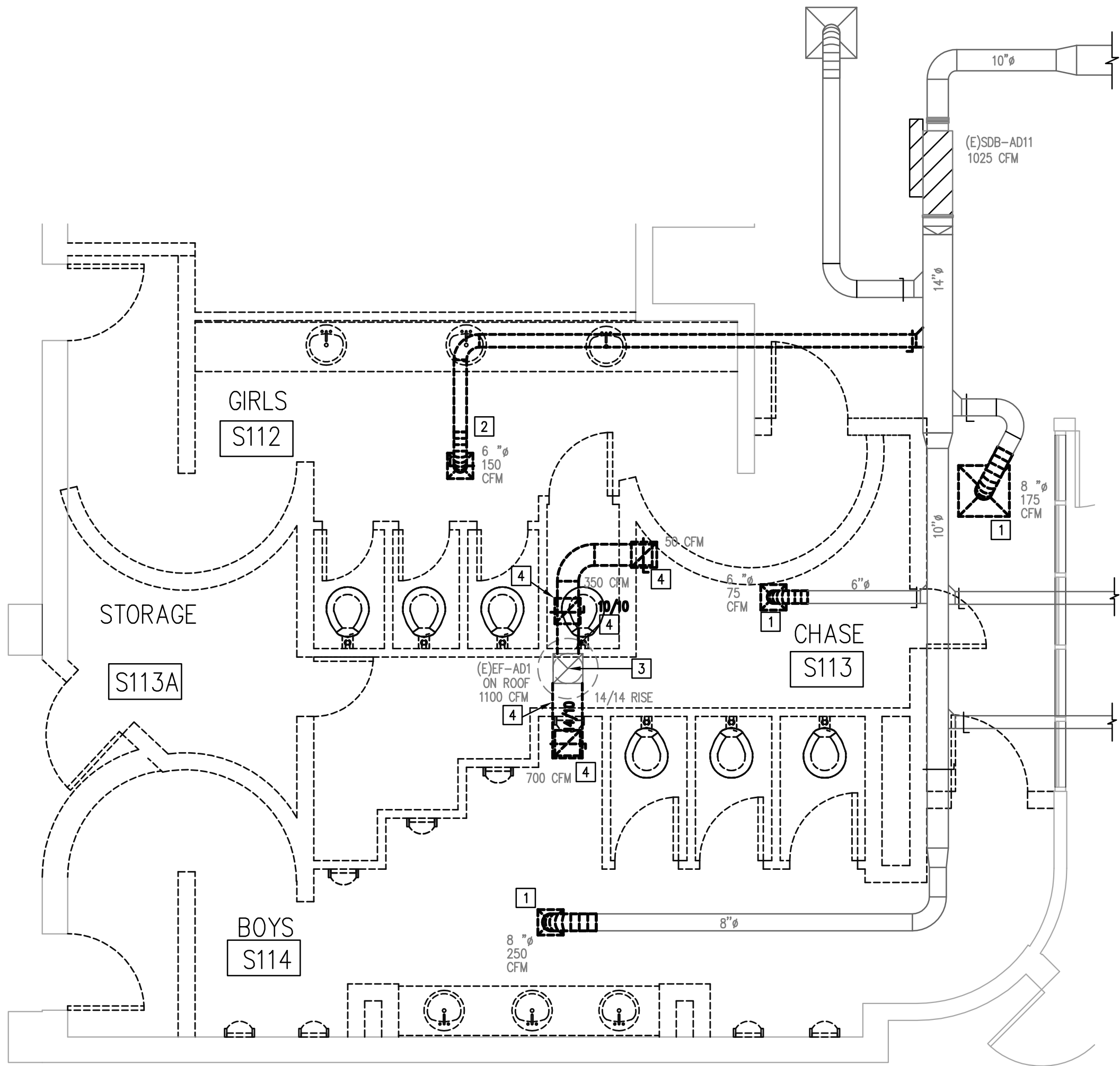
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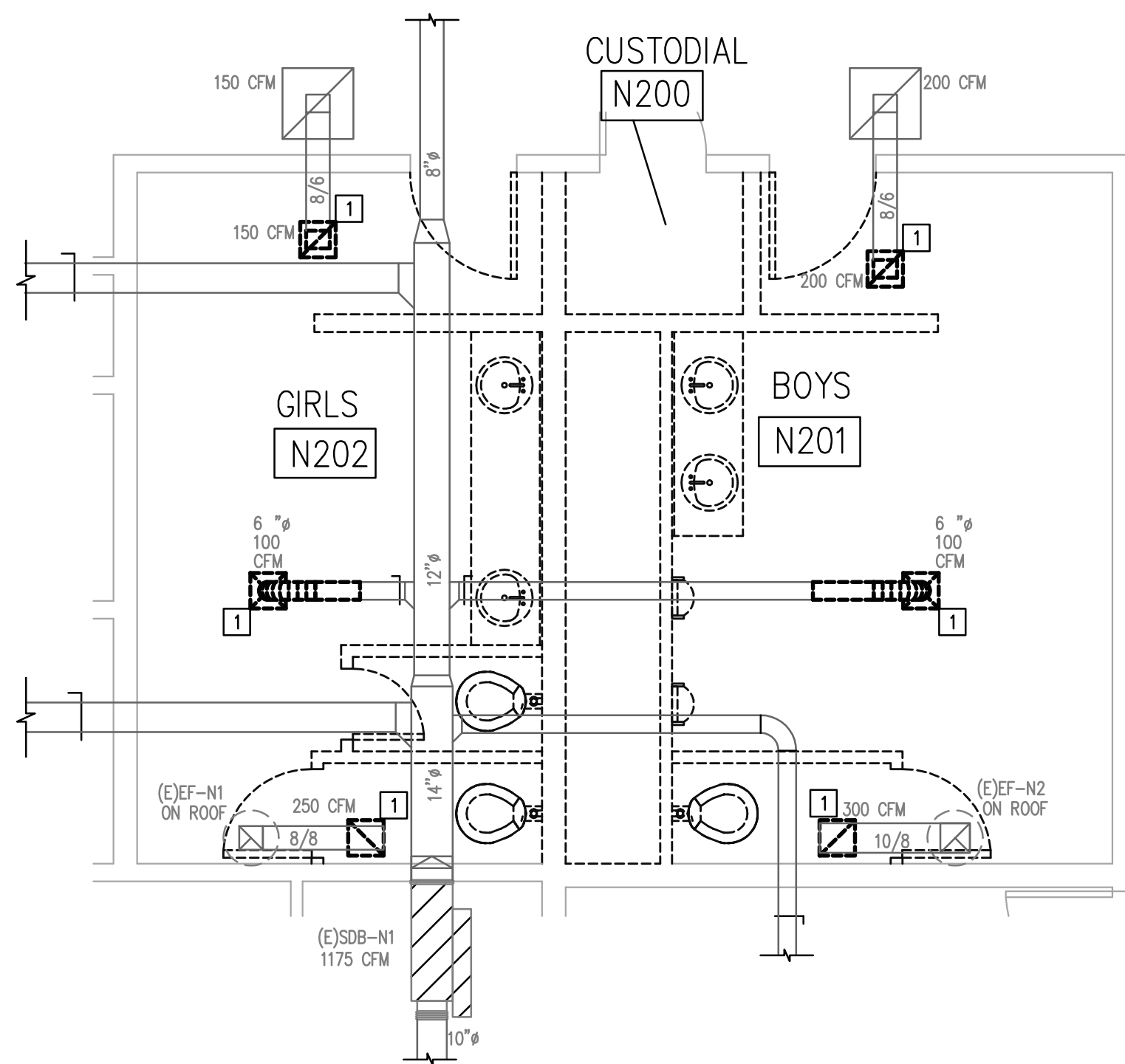




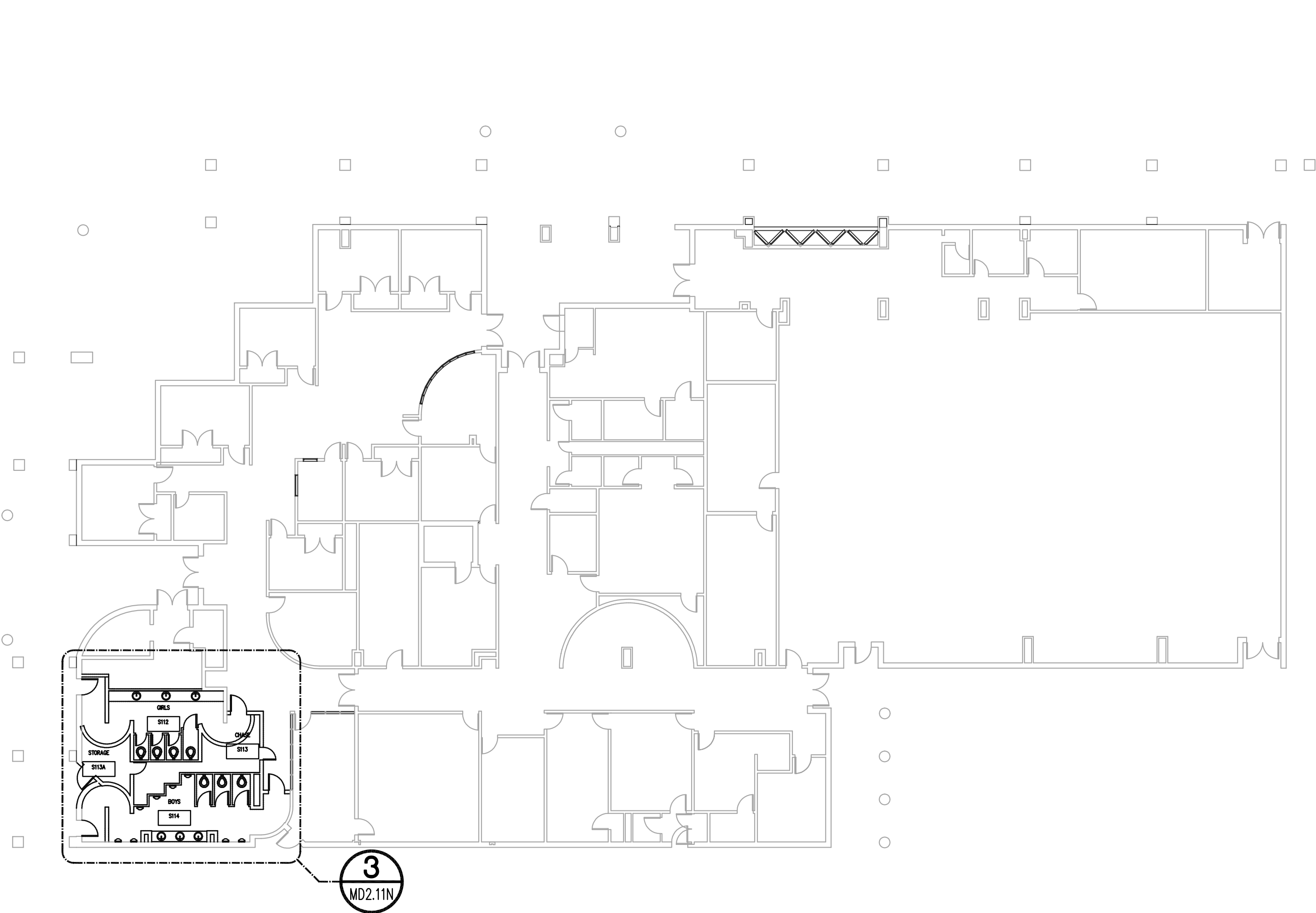
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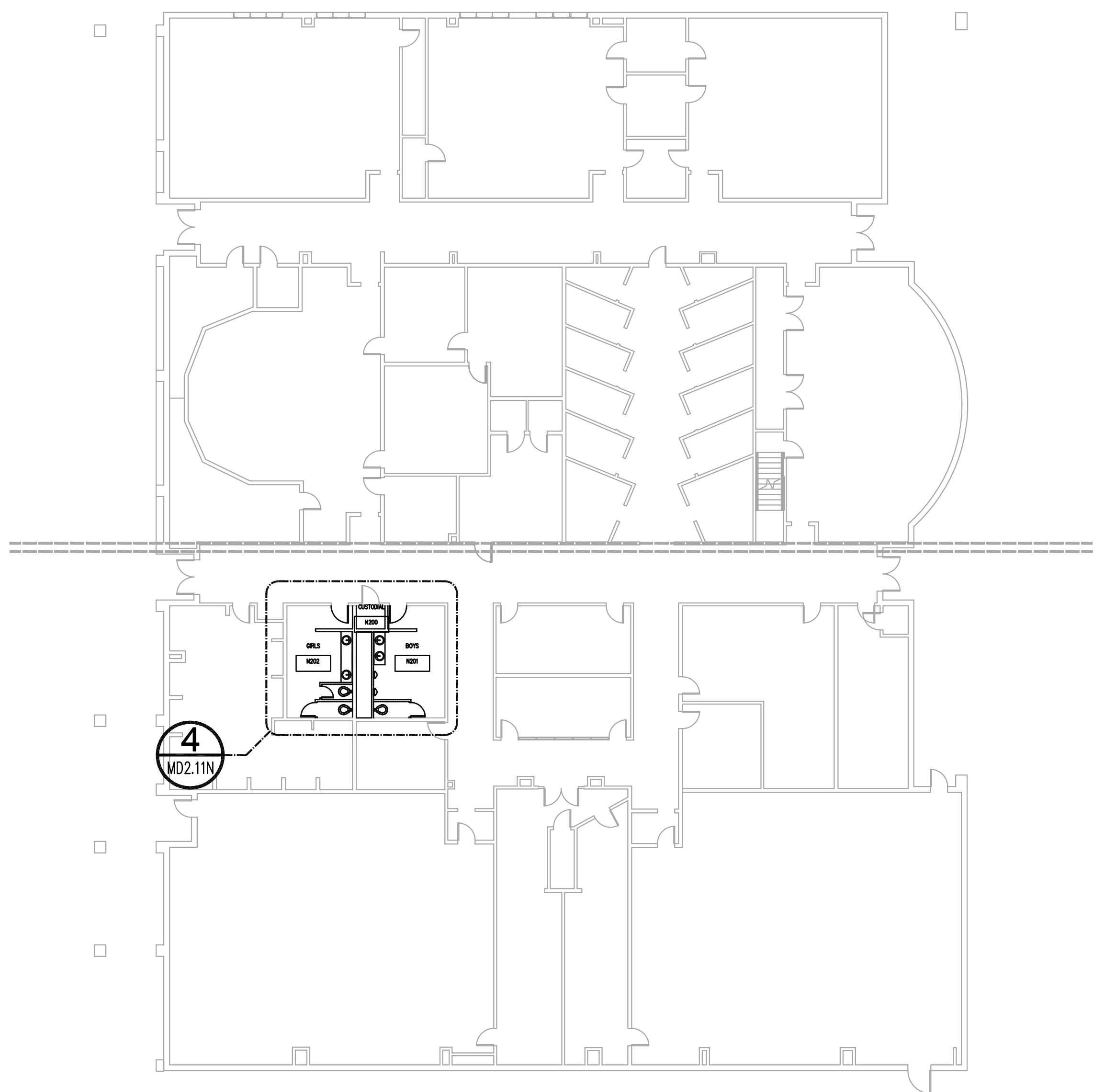
**3** ENLARGED MECHANICAL DEMOLITION PLAN  
MD2.11N 1/4"=1'-0"



**4** ENLARGED MECHANICAL DEMOLITION PLAN  
MD2.11N 1/4"=1'-0"



**1** MECHANICAL DEMOLITION PLAN - BUILDING S  
MD2.11N 1/16"=1'-0"



**2** MECHANICAL DEMOLITION PLAN - BUILDING N  
MD2.11N 1/16"=1'-0"

## MECHANICAL GENERAL DEMO NOTES

- A. COORDINATE DEMOLITION WORK WITH ELECTRICAL AND OTHER DISCIPLINES AS REQUIRED.
- B. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE VERIFIED EXISTING JOBSITE CONDITIONS DURING THE BIDDING PERIOD, SO THEY WILL HAVE DISCOVERED THE FULL SCOPE OF WORK INVOLVED WITH THE MODIFICATION OF THIS EXISTING SPACE. THE SCOPE OF THE WORK SHALL INCLUDE ALL MATERIALS FOR A COMPLETE INSTALLATION INCLUDING DEVICES, EQUIPMENT, OR APPARATUS WHICH MUST BE REROUTED, RELOCATED, OR REMOVED EITHER TEMPORARILY OR PERMANENTLY, OR WHICH MUST BE PROVIDED TO ACCOMMODATE THE INDICATED REWORKING. NOT ALL EXISTING CONDITIONS ARE NECESSARILY INDICATED ON THE DRAWINGS. ALL HVAC SHOWN ARE TAKEN FROM AS-BUILT HARD COPY AND MUST BE FIELD VERIFIED.
- C. WHEN AN EQUIPMENT IS IDENTIFIED TO BE REMOVED, THE OWNER HAS FIRST RIGHT OF REFUSAL BEFORE DISPOSING OF THAT EQUIPMENT. PROVIDE DISTRICT ONE WEEK NOTICE PRIOR TO DEMOLITION.
- D. PROVIDE ALL NECESSARY CLEAR PATH TO MOVE DEMOLISHED EQUIPMENT OUT OF THE FACILITY AS WELL TO BRING NEW EQUIPMENT INTO THE BUILDING. MODIFY EXISTING PIPING, DUCTWORK CONDUITS, AS REQUIRED TO COMPLETE THE DEMOLITION.

## MECHANICAL DEMO KEYED NOTES

- EXISTING AIR DEVICE SHALL BE REMOVED. ASSOCIATED BRANCH DUCTWORK SHALL REMAIN AND TEMPORARILY CAPPED AND SEALED FOR NEW WORK RECONNECTION. ALL EXISTING MAIN DUCTWORK SHALL REMAIN. CONTRACTOR SHALL FIELD VERIFY EXACT QUANTITIES AND LOCATIONS OF EXISTING AIR DEVICES AND ASSOCIATED DUCTWORK. REFER TO M2.11N FOR NEW WORK.
- EXISTING AIR DEVICE SHALL BE REMOVED. ASSOCIATED BRANCH DUCTWORK SHALL BE REMOVED. CAP AND SEAL AT MAIN DUCTWORK ALL EXISTING MAIN DUCTWORK SHALL REMAIN. CONTRACTOR SHALL FIELD VERIFY EXACT QUANTITIES AND LOCATIONS OF EXISTING AIR DEVICES AND ASSOCIATED DUCTWORK. REFER TO M2.11N FOR NEW WORK.
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- REMOVE EXISTING EXHAUST DUCT TAP FROM VERTICAL DUCT RISE AT LOCATION INDICATED ON PLAN. REMOVE ASSOCIATED AIR DEVICES AND DAMPERS. TEMPORARILY SEAL. REFER TO M2.11N FOR NEW WORK.

Consultants:

**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



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RENOVATIONS

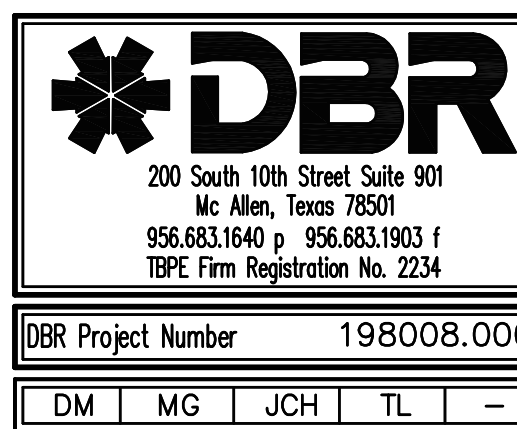
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Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
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Revisions:

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**BUILDING S  
& BUILDING N  
MECHANICAL  
DEMOLITION  
PLAN**

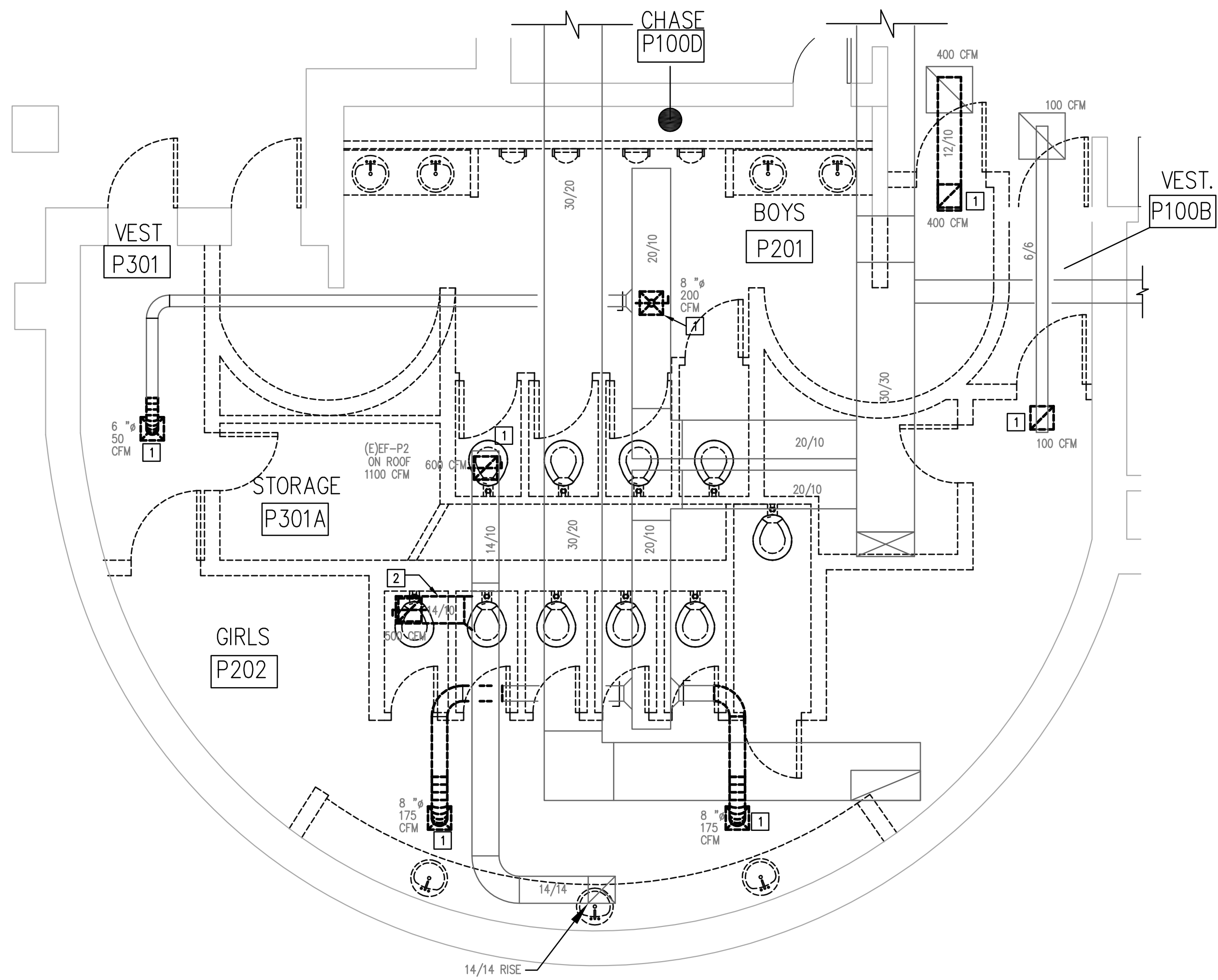


DBR Project Number 198008.000				
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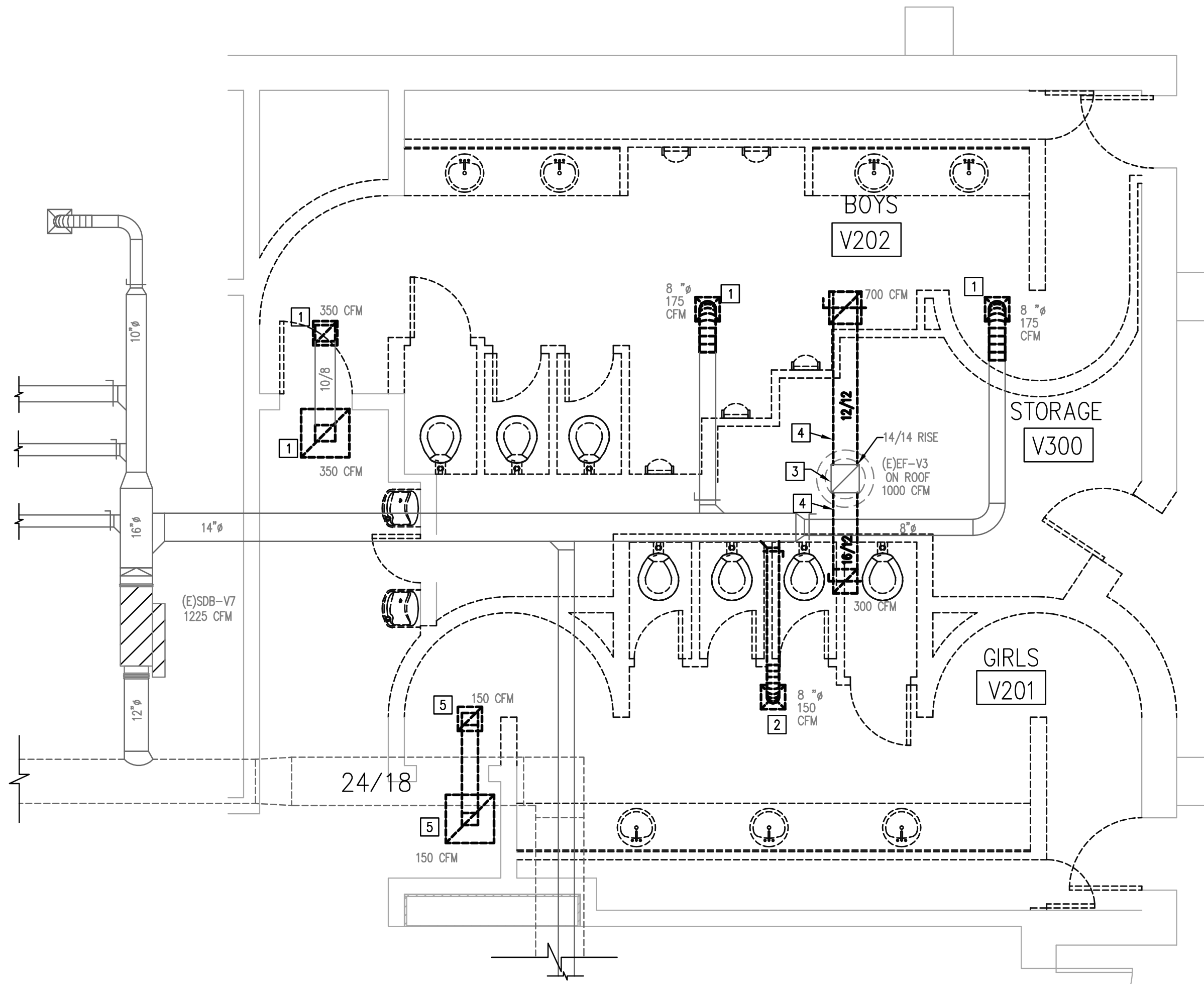
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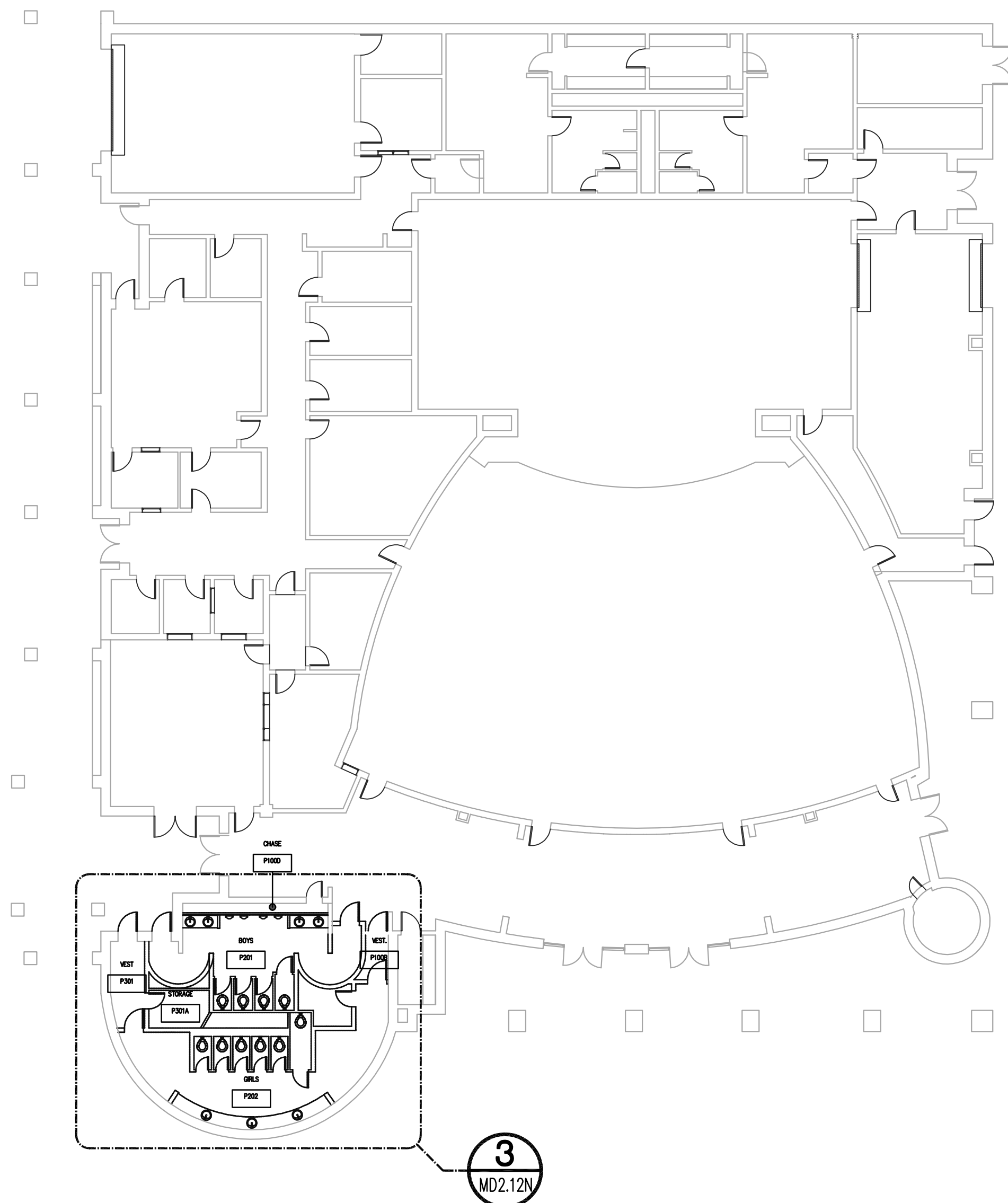
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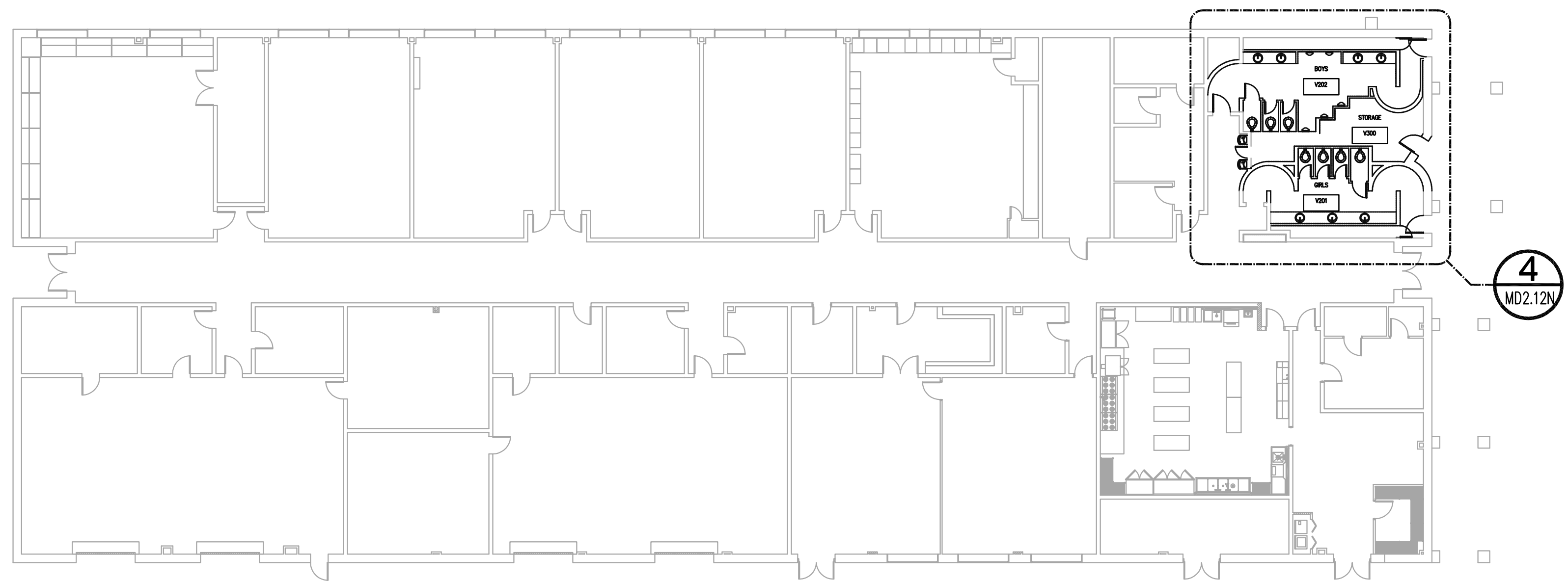
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MD2.12N 1/4"=1'-0"



4 ENLARGED MECHANICAL DEMOLITION PLAN  
MD2.12N 1/4"=1'-0"



1 MECHANICAL DEMOLITION PLAN - BUILDING P  
MD2.12N 1/16"=1'-0"



2 MECHANICAL DEMOLITION PLAN - BUILDING V  
MD2.12N 1/16"=1'-0"

## MECHANICAL GENERAL DEMO NOTES

- COORDINATE DEMOLITION WORK WITH ELECTRICAL AND OTHER DISCIPLINES AS REQUIRED.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE VERIFIED EXISTING JOB SITE CONDITIONS DURING THE BIDDING PERIOD, SO THEY WILL HAVE DISCOVERED THE FULL SCOPE OF THE WORK INVOLVED WITH THE MODIFICATION OF THIS EXISTING SPACE. THE SCOPE OF THE WORK SHALL INCLUDE ALL MATERIALS FOR A COMPLETE INSTALLATION INCLUDING DEVICES, EQUIPMENT, OR APPARATUS WHICH MUST BE RELOCATED, RELOCATED, OR REMOVED EITHER TEMPORARILY OR PERMANENTLY, OR WHICH MUST BE PROVIDED TO ACCOMMODATE THE INDICATED REMODELING. NOT ALL EXISTING CONDITIONS ARE NECESSARILY INDICATED ON THE DRAWINGS. ALL HVAC SHOWN ARE TAKEN FROM AS-BUILT HARD COPY AND MUST BE FIELD VERIFIED.
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- PROVIDE ALL NECESSARY CLEAR PATH TO MOVE DEMOLISHED EQUIPMENT OUT OF THE FACILITY AS WELL TO BRING NEW EQUIPMENT INTO THE BUILDING. MODIFY EXISTING PIPING, DUCTWORK CONDUITS, AS REQUIRED TO COMPLETE THE DEMOLITION.

## MECHANICAL DEMO KEYED NOTES

- EXISTING AIR DEVICE SHALL BE REMOVED. ASSOCIATED BRANCH DUCTWORK SHALL REMAIN AND TEMPORARILY CAPPED AND SEALED FOR NEW WORK RECONNECTION. ALL EXISTING MAIN DUCTWORK SHALL REMAIN. CONTRACTOR SHALL FIELD VERIFY EXACT QUANTITIES AND LOCATIONS OF EXISTING AIR DEVICES AND ASSOCIATED DUCTWORK. REFER TO M2.12N FOR NEW WORK.
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- REMOVE EXISTING EXHAUST DUCT TAP FROM VERTICAL DUCT RISE AT LOCATION INDICATED ON PLAN. REMOVE ASSOCIATED AIR DEVICES AND DAMPERS. TEMPORARILY SEAL. REFER TO M2.11N FOR NEW WORK.
- REMOVE EXISTING AIR DEVICE AND ASSOCIATED DUCTWORK IN ITS ENTIRETY. REFER TO M2.12N FOR NEW WORK.

Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING



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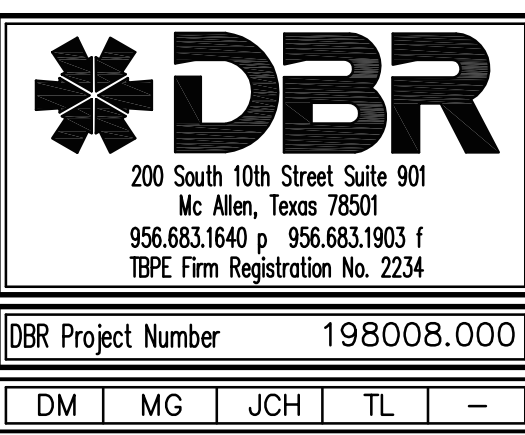
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Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

Sheet Title:

BUILDING P  
& BUILDING V  
MECHANICAL  
DEMOLITION  
PLAN



DBR Project Number		198008.000		
DM	MG	JCH	TL	—

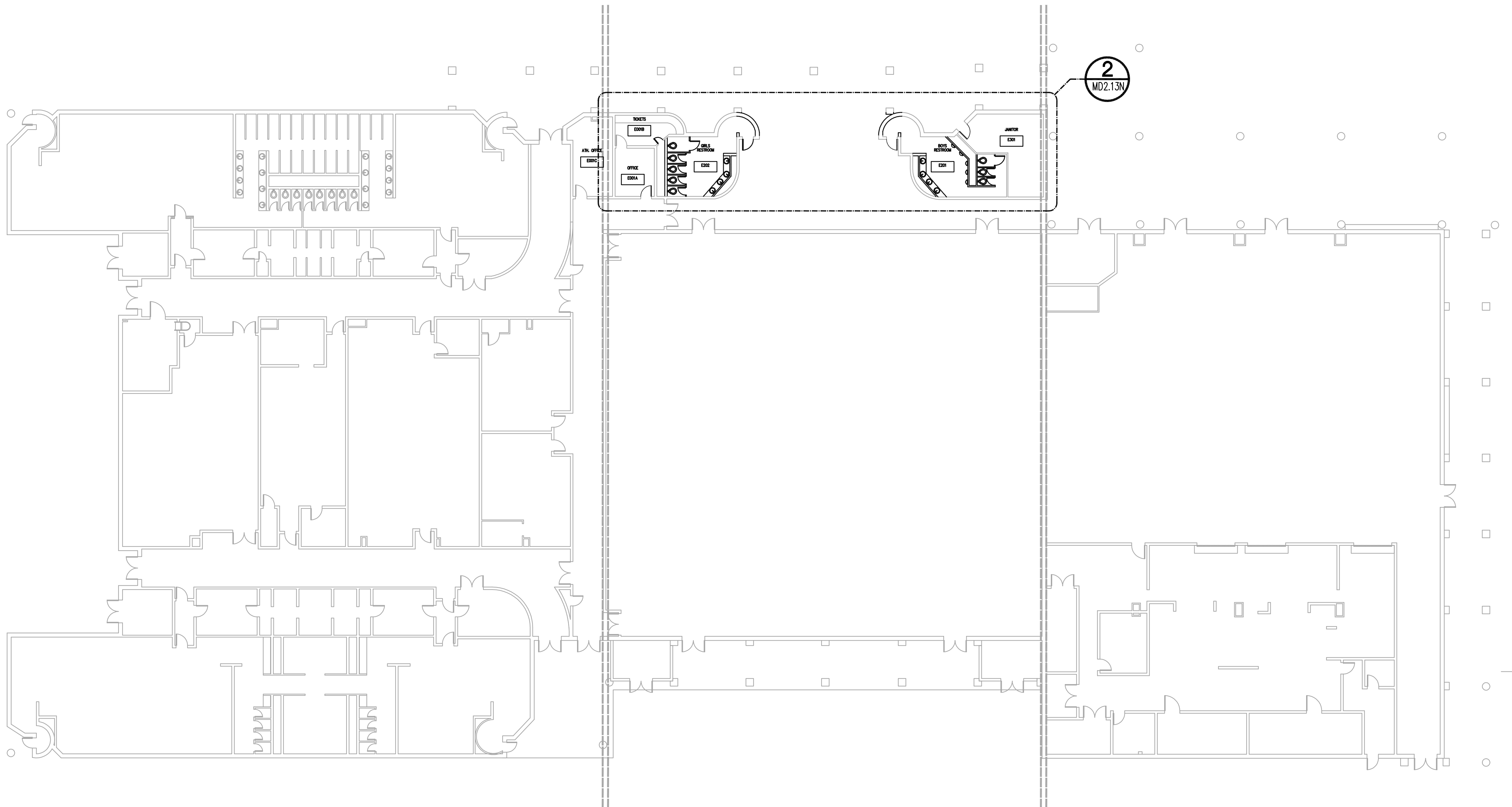
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**2** ENLARGED MECHANICAL DEMOLITION PLAN  
MD2.13N 1/4"=1'-0"



**1** MECHANICAL DEMOLITION PLAN - BUILDING E  
MD2.13N 1/16"=1'-0"

## MECHANICAL GENERAL DEMO NOTES

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## MECHANICAL DEMO KEYED NOTES

- 1 EXISTING ROOF EXHAUST FAN AND VERTICAL DUCTWORK UP TO EXHAUST FAN SHALL REMAIN.
- 2 REMOVE EXISTING EXHAUST DUCT TAP FROM VERTICAL DUCT RISE AT LOCATION INDICATED ON PLAN. REMOVE ASSOCIATED AIR DEVICES AND DAMPERS. TEMPORARILY SEAL. REFER TO M2.13N FOR NEW WORK.

Consultants:

**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



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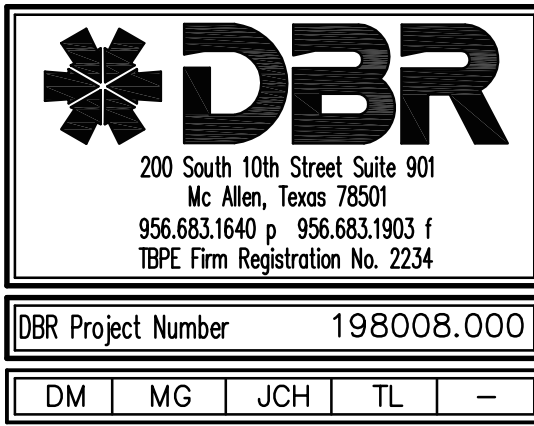
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Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
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ACAD File: A-240-U

Revisions:

Sheet Title:

**BUILDING E  
MECHANICAL  
DEMOLITION  
PLAN**

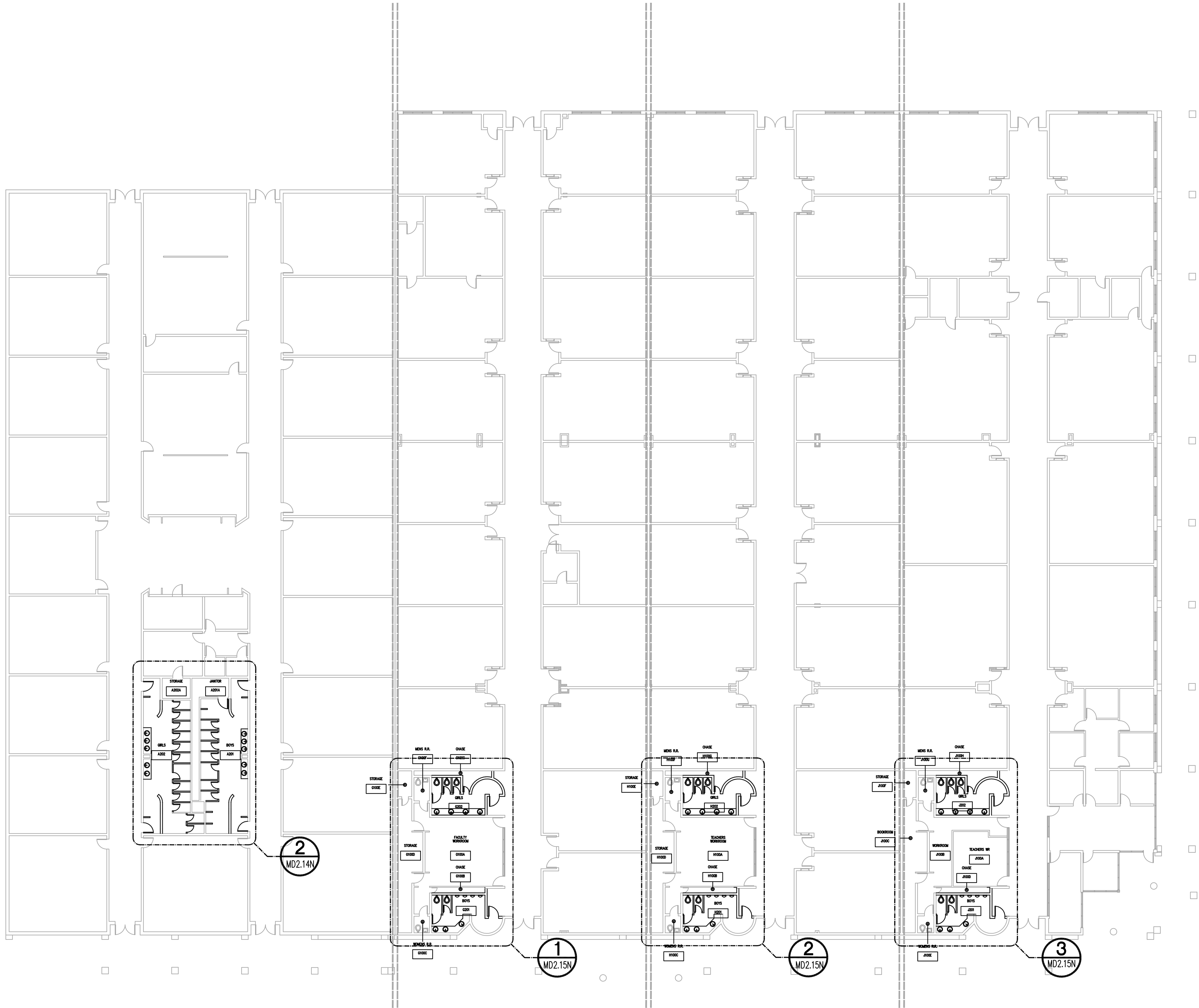


DBR Project Number		198008.000	
DM	MG	JCH	TL

MD2.13N



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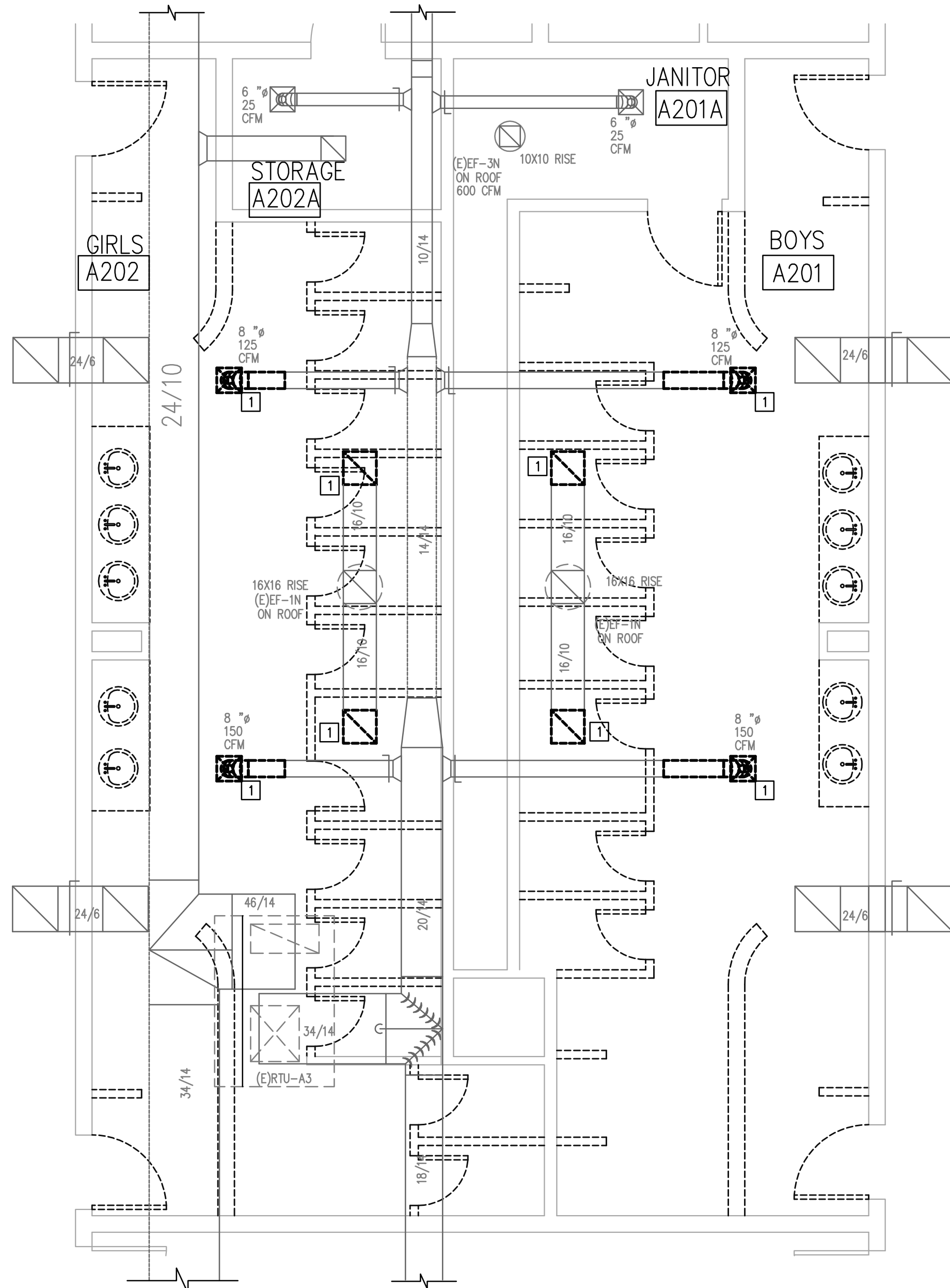
1 MECHANICAL DEMOLITION PLAN - BUILDING A-G-H-J  
1/16"=1'-0"

## MECHANICAL GENERAL DEMO NOTES

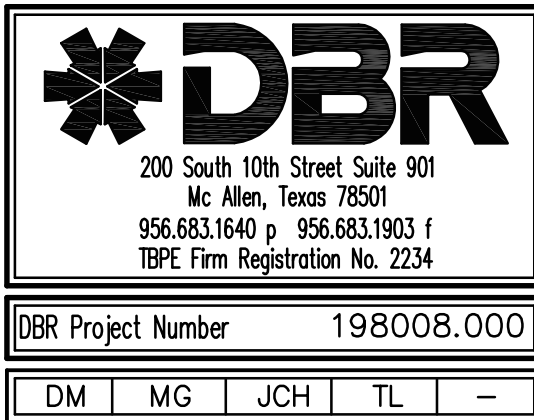
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2 ENLARGED MECHANICAL DEMOLITION PLAN  
1/4"=1'-0"



Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING



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## KEYPLAN

Project Number: 19.04  
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Revisions:

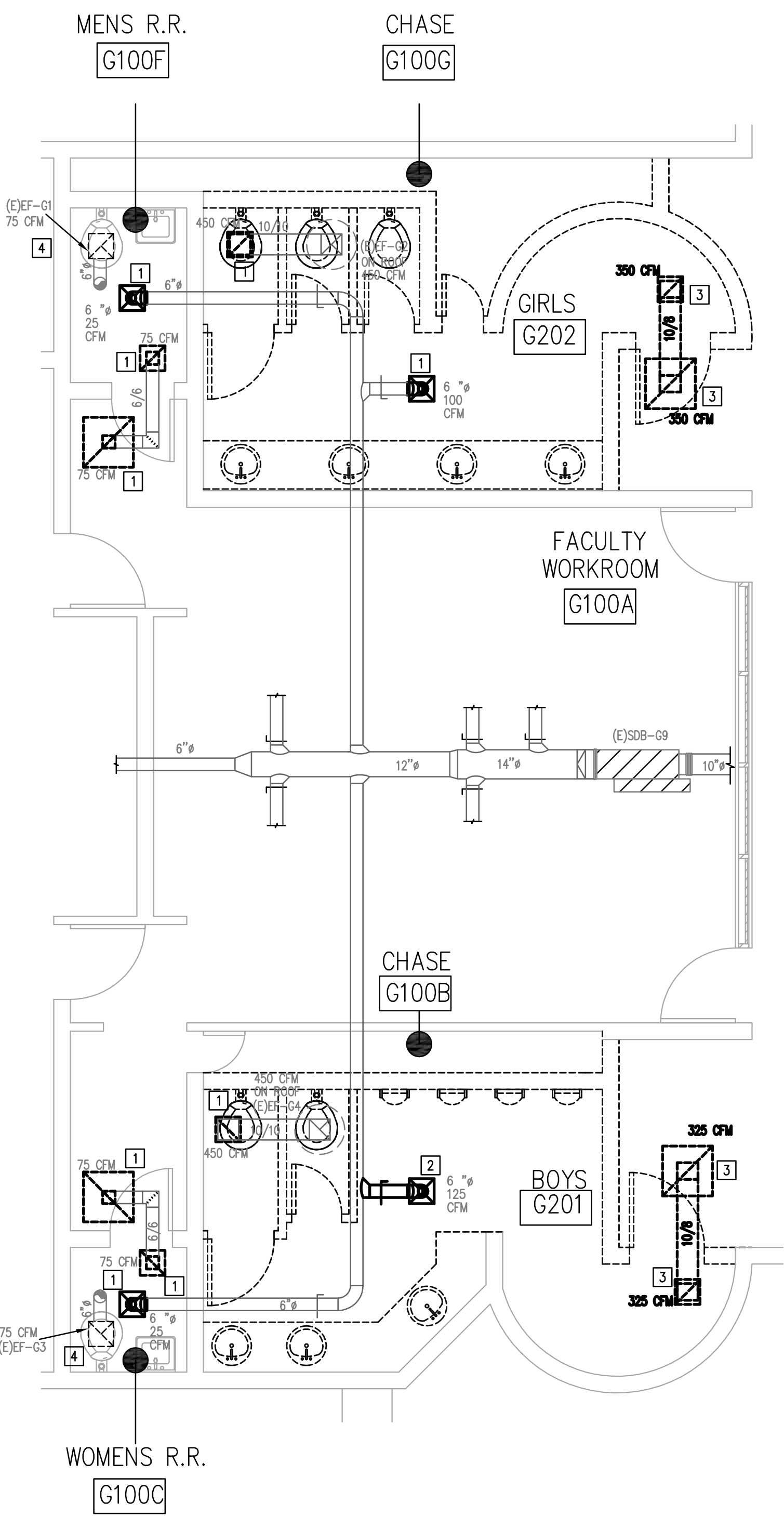
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BUILDING  
A-G-H-J  
MECHANICAL  
DEMOLITION  
PLAN

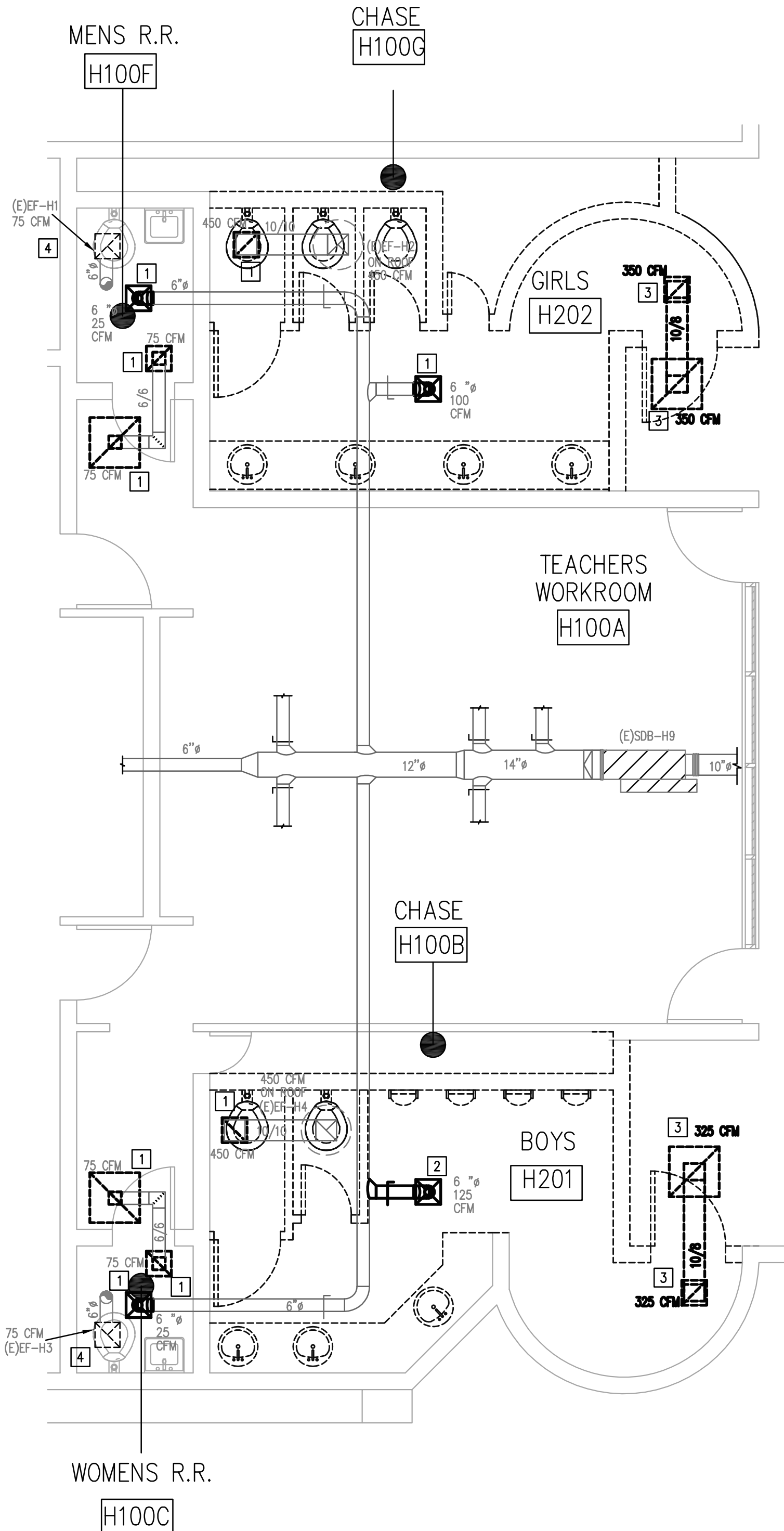
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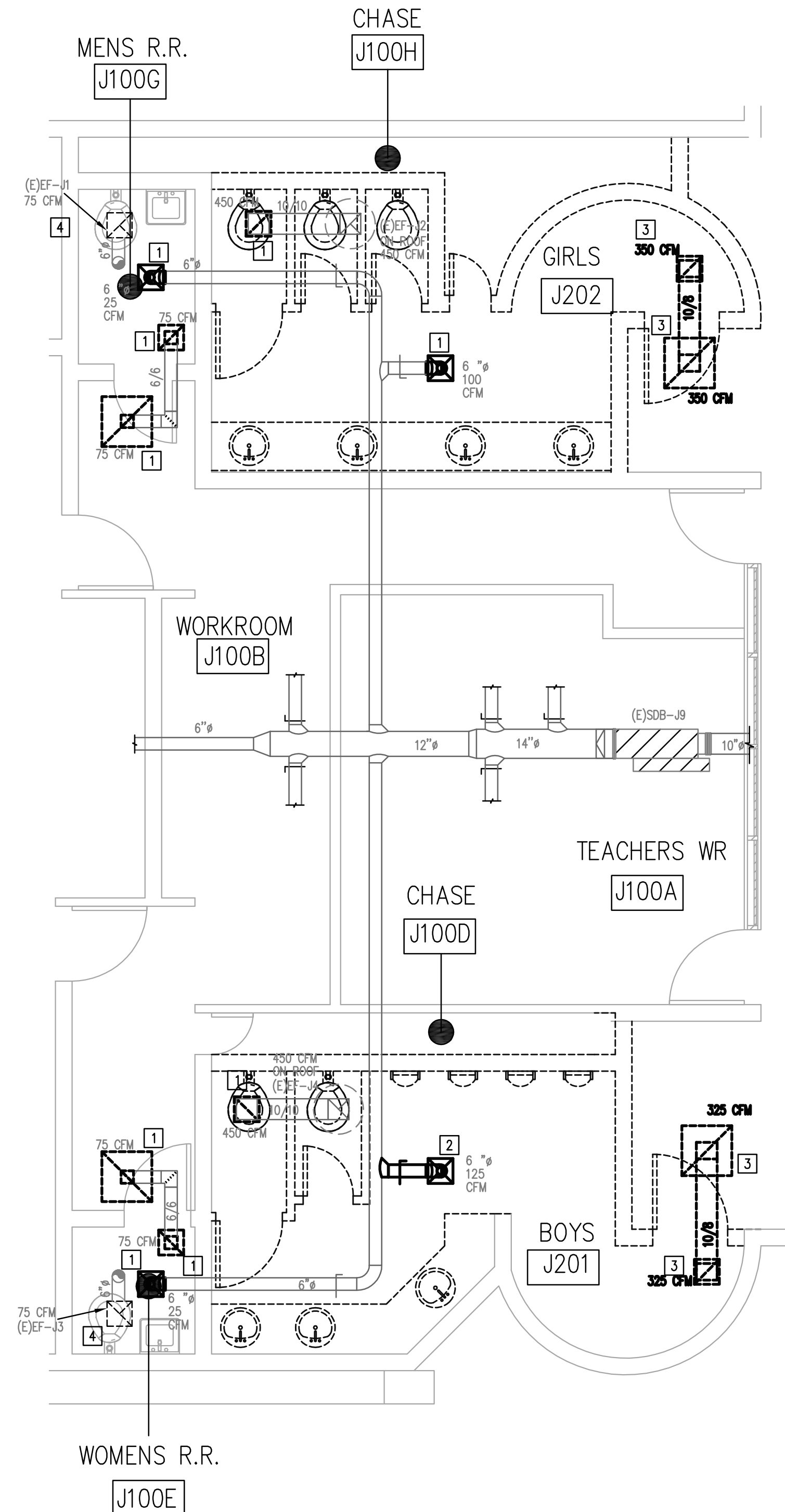
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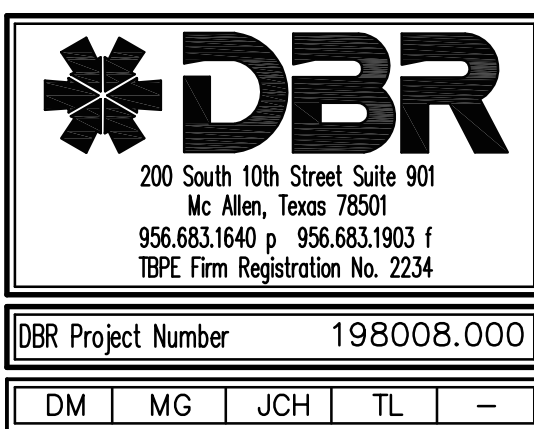
**1 ENLARGED MECHANICAL DEMOLITION PLAN**  
MD2.15N 1/4"=1'-0"



**2 ENLARGED MECHANICAL DEMOLITION PLAN**  
MD2.15N 1/4"=1'-0"



**3 ENLARGED MECHANICAL DEMOLITION PLAN**  
MD2.15N 1/4"=1'-0"



## MECHANICAL GENERAL DEMO NOTES

- A. COORDINATE DEMOLITION WORK WITH ELECTRICAL AND OTHER DISCIPLINES AS REQUIRED.
- B. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE VERIFIED EXISTING JOBSITE CONDITIONS DURING THE BIDDING PERIOD, SO THEY WILL HAVE DISCOVERED THE FULL SCOPE OF WORK INVOLVED WITH THE MODIFICATION OF THIS EXISTING SPACE. THE SCOPE OF THE WORK SHALL INCLUDE ALL MATERIALS FOR A COMPLETE INSTALLATION INCLUDING DEVICES, EQUIPMENT, OR APPARATUS WHICH MUST BE REROUTED, RELOCATED, OR REMOVED EITHER TEMPORARILY OR PERMANENTLY, OR WHICH MUST BE PROVIDED TO ACCOMMODATE THE INDICATED REMODELING. NOT ALL EXISTING CONDITIONS ARE NECESSARILY INDICATED ON THE DRAWINGS. ALL HVAC SHOWN ARE TAKEN FROM AS-BUILT HARD COPY AND MUST BE FIELD VERIFIED.
- C. WHEN AN EQUIPMENT IS IDENTIFIED TO BE REMOVED, THE OWNER HAS FIRST RIGHT OF REFUSAL BEFORE DISPOSING OF THAT EQUIPMENT. PROVIDE DISTRICT ONE WEEK NOTICE PRIOR TO DEMOLITION.
- D. PROVIDE ALL NECESSARY CLEAR PATH TO MOVE DEMOLISHED EQUIPMENT OUT OF THE FACILITY AS WELL TO BRING NEW EQUIPMENT INTO THE BUILDING. MODIFY EXISTING PIPING, DUCTWORK, CONDUITS, AS REQUIRED TO COMPLETE THE DEMOLITION.

## MECHANICAL DEMO KEYED NOTES

1. EXISTING AIR DEVICE SHALL BE REMOVED. ASSOCIATED BRANCH DUCTWORK SHALL REMAIN AND TEMPORARILY CAPPED AND SEALED FOR NEW WORK RECONNECTION. ALL EXISTING MAIN DUCTWORK SHALL REMAIN. CONTRACTOR SHALL FIELD VERIFY EXACT QUANTITIES AND LOCATIONS OF EXISTING AIR DEVICES AND ASSOCIATED DUCTWORK. REFER TO M2.15N FOR NEW WORK.
2. EXISTING AIR DEVICE SHALL BE REMOVED. ASSOCIATED BRANCH DUCTWORK SHALL BE REMOVED. CAP AND SEAL AT MAIN DUCTWORK ALL EXISTING MAIN DUCTWORK SHALL REMAIN. CONTRACTOR SHALL FIELD VERIFY EXACT QUANTITIES AND LOCATIONS OF EXISTING AIR DEVICES AND ASSOCIATED DUCTWORK. REFER TO M2.15N FOR NEW WORK.
3. REMOVE EXISTING AIR DEVICE AND ASSOCIATED DUCTWORK IN ITS ENTIRETY. REFER TO M2.15N FOR NEW WORK.
4. EXISTING CEILING EXHAUST FAN SHALL BE TEMPORARILY REMOVED. CAP AND SEAL ASSOCIATED DUCTWORK. REFER TO M2.15N FOR NEW WORK.

Consultants:

**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



## PSJA ISD

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& COLLEGE

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UNIVERSITY  
CAMPUS

STUDENT  
RESTROOM  
RENOVATIONS

## KEYPLAN

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

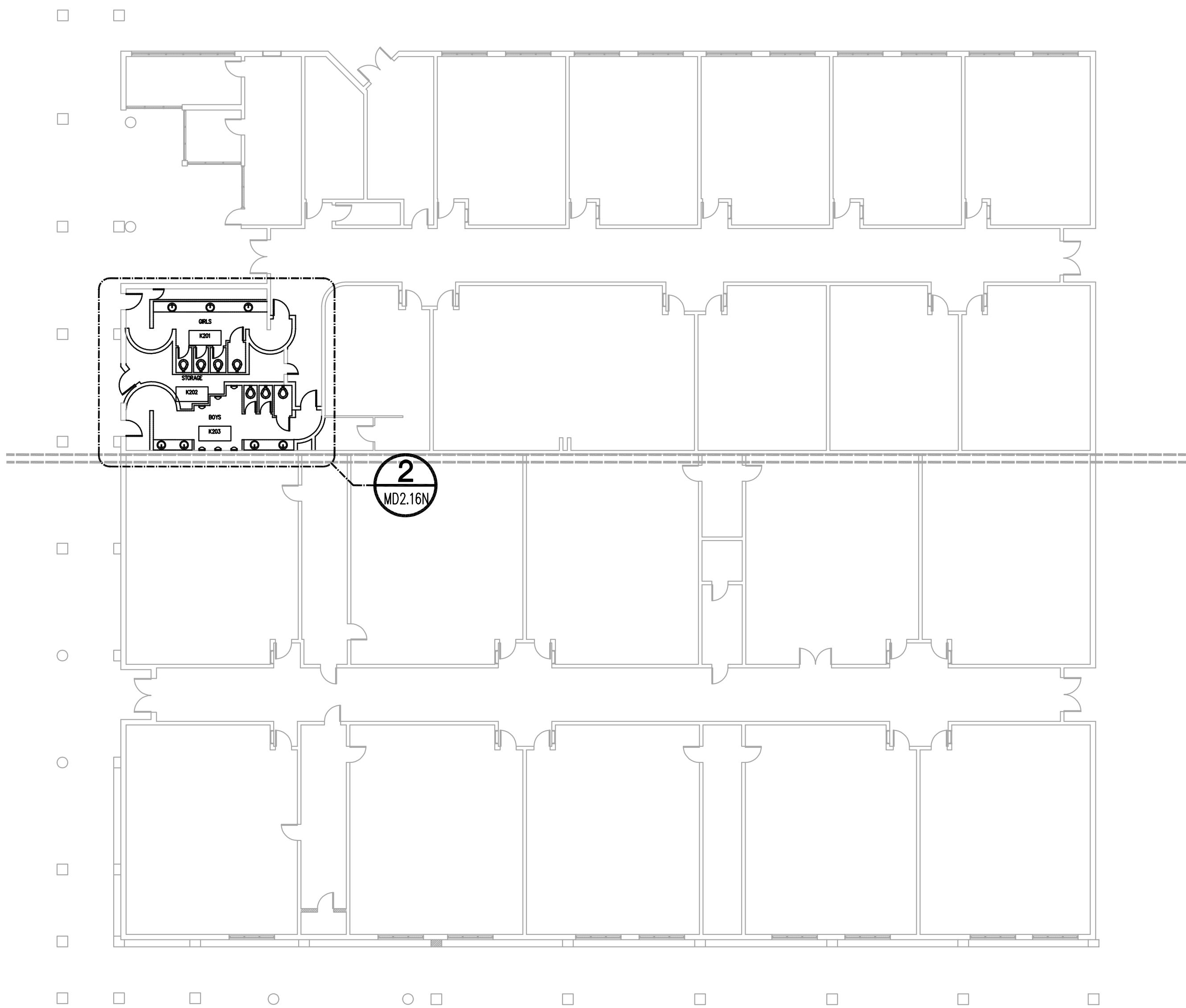
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**BUILDING  
A-G-H-J  
MECHANICAL  
DEMOLITION  
PLAN**

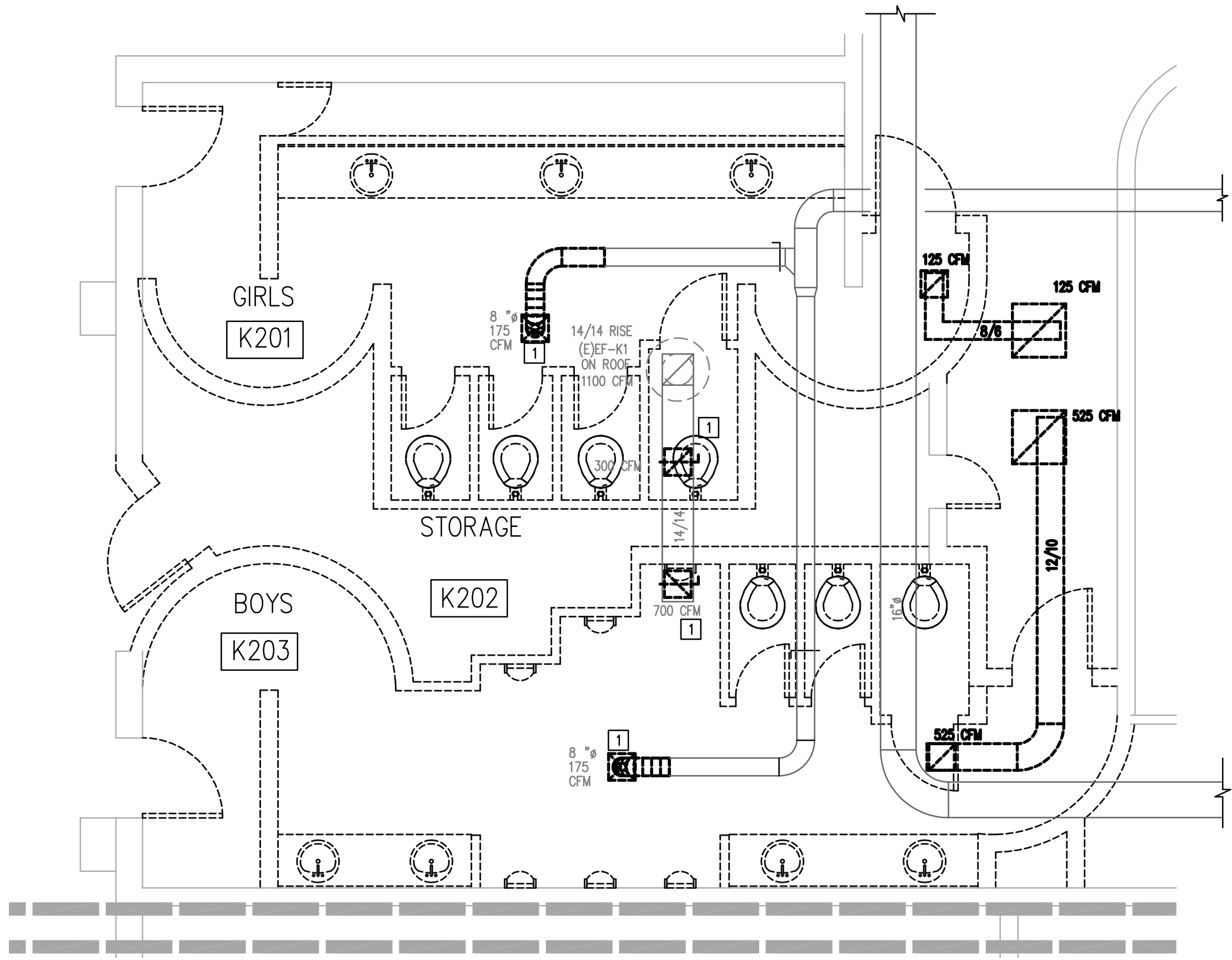
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1 MECHANICAL DEMOLITION PLAN - BUILDING K  
MD2.16N 1/16"=1'-0"



2 ENLARGED MECHANICALDEMOLITION PLAN  
MD2.16N 1/4"=1'-0"

**DBR**  
200 South 10th Street Suite 901  
Mc Allen, Texas 78501  
956.683.1040 p 956.683.1903 f  
TBPB Firm Registration No. 2234

DBR Project Number 198008.000

DM	MG	JCH	TL	—
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## MECHANICAL GENERAL DEMO NOTES

- A. COORDINATE DEMOLITION WORK WITH ELECTRICAL AND OTHER DISCIPLINES AS REQUIRED.
- B. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE VERIFIED EXISTING JOBSITE CONDITIONS DURING THE BIDDING PERIOD, SO THEY WILL HAVE DISCOVERED THE FULL SCOPE OF WORK INVOLVED WITH THE MODIFICATION OF THIS EXISTING SPACE. THE SCOPE OF THE WORK SHALL INCLUDE ALL MATERIALS FOR A COMPLETE INSTALLATION INCLUDING DEVICES, EQUIPMENT, OR APPARATUS WHICH MUST BE REDUCED, RELOCATED, OR REMOVED EITHER TEMPORARILY OR PERMANENTLY, OR WHICH MUST BE PROVIDED TO ACCOMMODATE THE INDICATED REMODELING. NOT ALL EXISTING CONDITIONS ARE NECESSARILY INDICATED ON THE DRAWINGS. ALL HVAC SHOWN ARE TAKEN FROM AS-BUILT HARD COPY AND MUST BE FIELD VERIFIED.
- C. WHEN AN EQUIPMENT IS IDENTIFIED TO BE REMOVED, THE OWNER HAS FIRST RIGHT OF REFUSAL BEFORE DISPOSING OF THAT EQUIPMENT. PROVIDE DISTRICT ONE WEEK NOTICE PRIOR TO DEMOLITION.
- D. PROVIDE ALL NECESSARY CLEAR PATH TO MOVE DEMOLISHED EQUIPMENT OUT OF THE FACILITY AS WELL TO BRING NEW EQUIPMENT INTO THE BUILDING. MODIFY EXISTING PIPING, DUCTWORK CONDUITS, AS REQUIRED TO COMPLETE THE DEMOLITION.

## MECHANICAL DEMO KEYED NOTES

- 1 EXISTING AIR DEVICE SHALL BE REMOVED, ASSOCIATED BRANCH DUCTWORK SHALL REMAIN AND TEMPORARILY CAPPED AND SEALED FOR NEW WORK RECONNECTION. ALL EXISTING MAIN DUCTWORK SHALL REMAIN. CONTRACTOR SHALL FIELD VERY EXACT QUANTITIES AND LOCATIONS OF EXISTING AIR DEVICES AND ASSOCIATED DUCTWORK. REFER TO M2.16N FOR NEW WORK.
- 2 REMOVE EXISTING AIR DEVICE AND ASSOCIATED DUCTWORK IN ITS ENTIRETY. REFER TO M2.16N FOR NEW WORK.

Consultants:

**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



## PSJA ISD

NORTH ECHS  
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CAMPUS

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RESTROOM  
RENOVATIONS

## KEYPLAN

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
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ACAD File: A-240-U

Revisions:

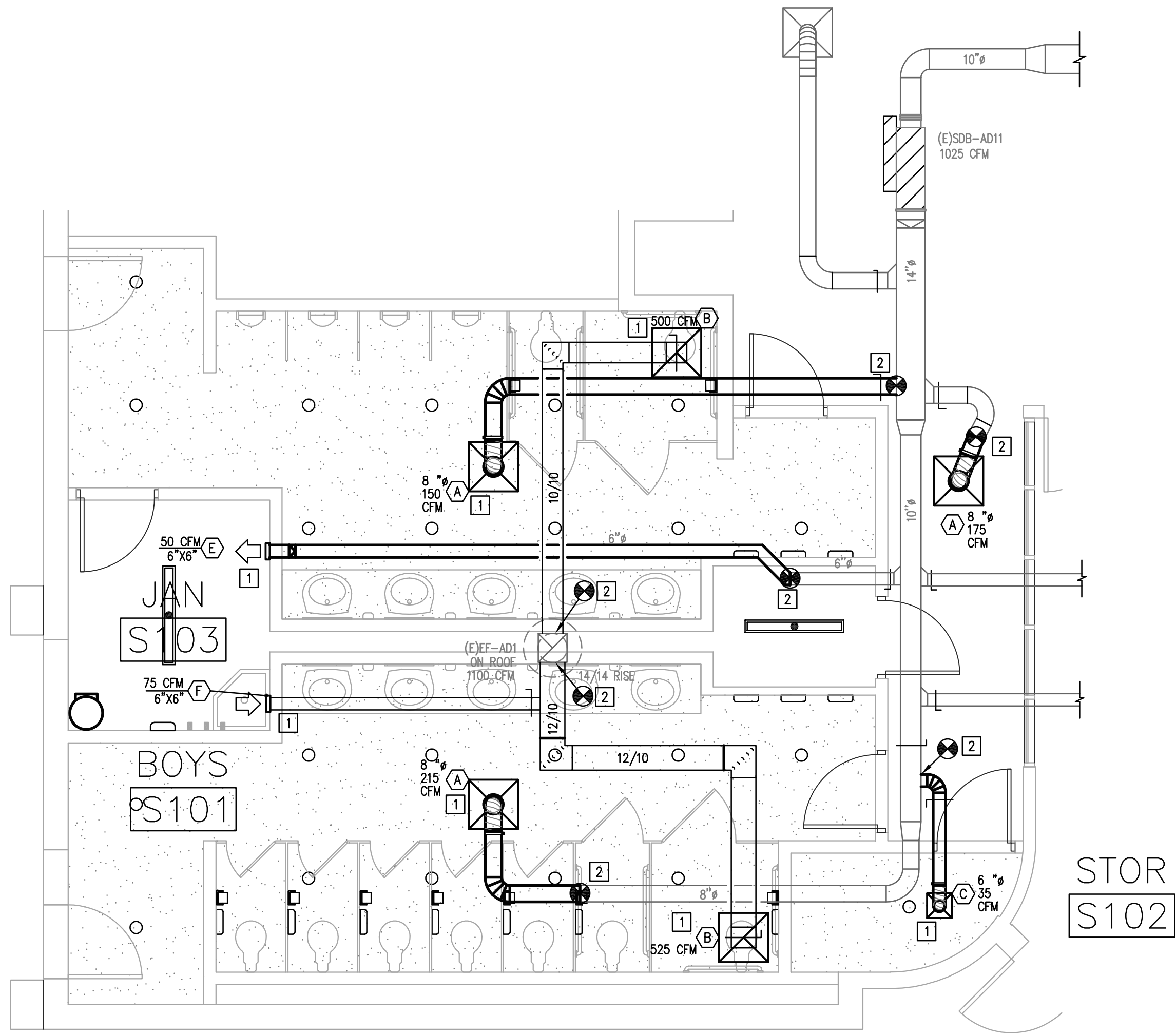
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**BUILDING K  
MECHANICAL  
DEMOLITION  
PLAN**

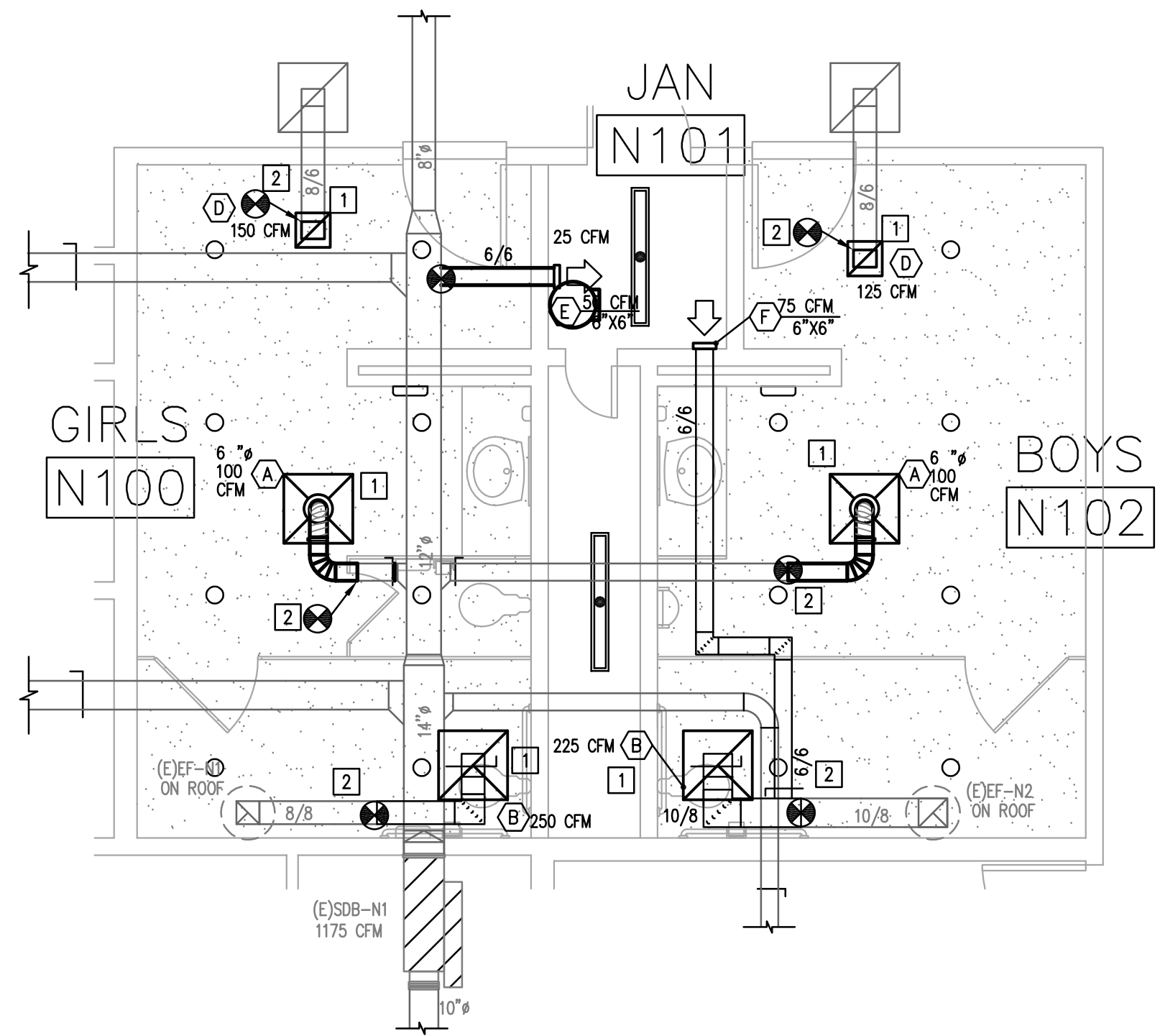
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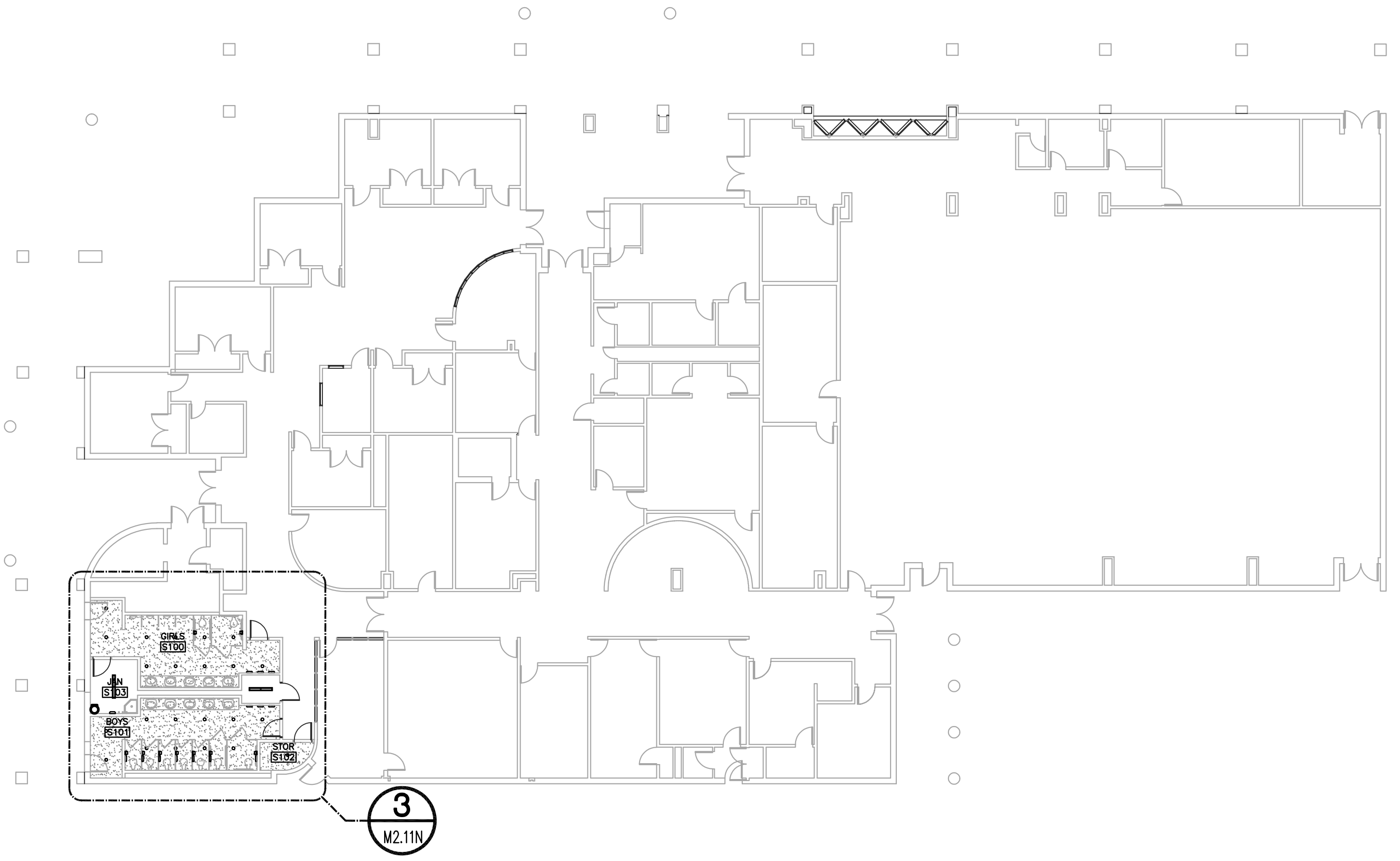
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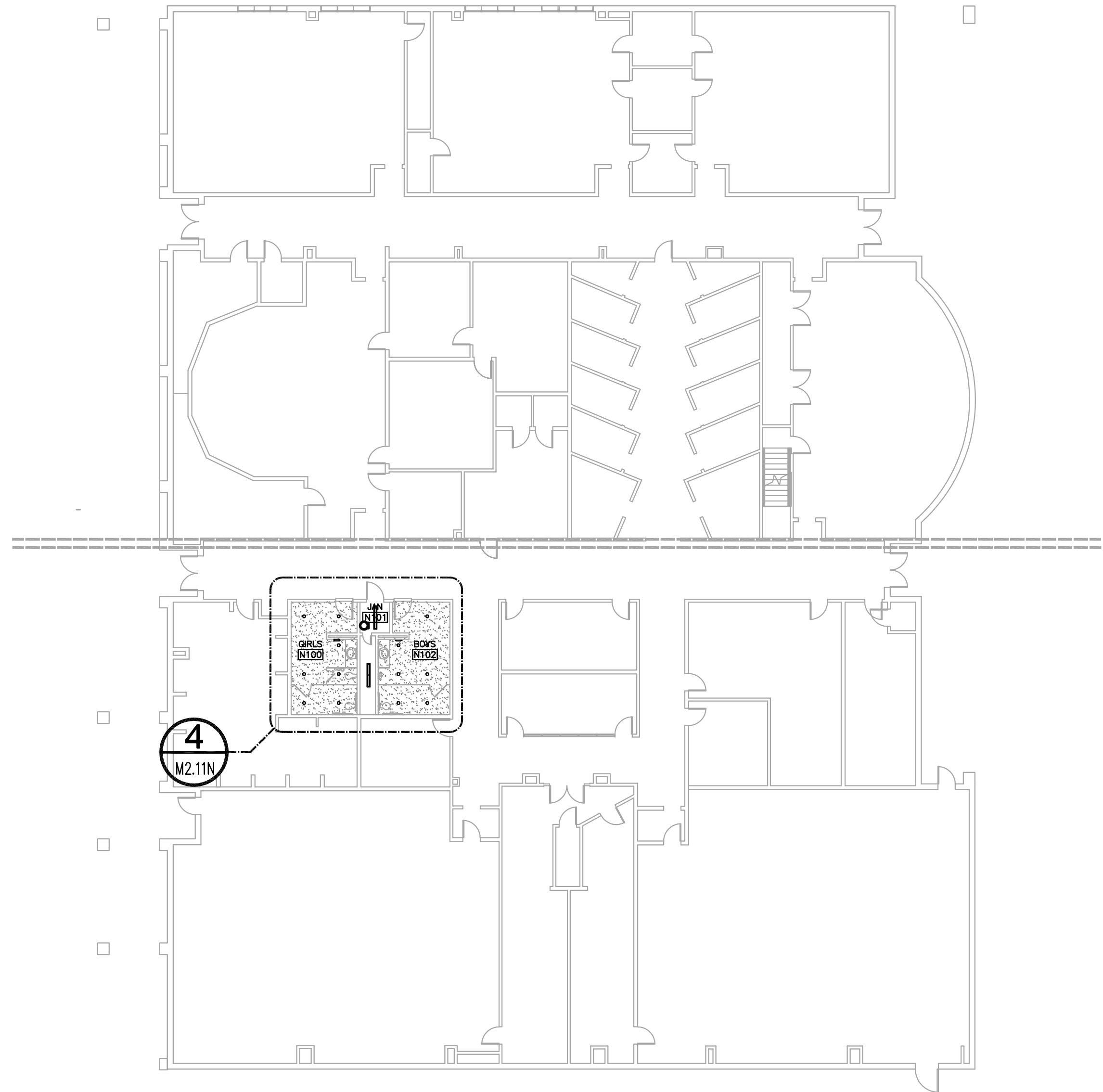
**3 ENLARGED MECHANICAL PLAN**  
1/4"=1'-0"



**4 ENLARGED MECHANICAL PLAN**  
1/4"=1'-0"



**1 MECHANICAL PLAN - BUILDING S**  
1/16"=1'-0"



**2 MECHANICAL PLAN - BUILDING N**  
1/16"=1'-0"

### GENERAL MECHANICAL NOTES

- THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL LOCATION OF EQUIPMENT, DUCTS, AND GRILLES, ETC. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS THAT COMPLETE MECHANICAL SYSTEMS BE FURNISHED, INSTALLED, TESTED, AND READY FOR OPERATION WHETHER OR NOT EVERY ITEM OF EQUIPMENT, ACCESSORY, DEVICE, ETC. IS SHOWN. REFERENCE SHALL BE MADE TO THE FULL DRAWING PACKAGE INCLUDING ARCHITECTURAL, STRUCTURAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR COORDINATION AND POTENTIAL CONFLICTS. THE MECHANICAL SUBCONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICTS WITH OTHER TRADES, OR FOR PROPER EXECUTION OF THE WORK. FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATING DUCTWORK.
- EQUIPMENT SIZES, DIMENSIONS, AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE MANUFACTURER'S DRAWINGS AND CUT SHEETS BEFORE FABRICATING OF DUCTWORK, PIPING, OR POURING OF HOUSEKEEPING PADS.
- ALL FLEXIBLE DUCTWORK SHALL NOT EXCEED 5 FEET IN TOTAL LENGTH.
- ALL DUCTWORK AND ASSOCIATED ACCESSORIES SHALL BE CONSTRUCTED TO MEET THE LATEST SMANNA STANDARDS FOR LOW PRESSURE DUCTWORK.
- EXACT LOCATION OF GRILLES AND DAMPERS SHALL BE FIELD COORDINATED WITH OTHER TRADES TO AVOID CONFLICTS AND ALLOW ADEQUATE CLEARANCES.
- DIVISION 23 MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
- PROVIDE INSULATION FOR ALL PIPING AND DUCTWORK THAT MEETS THE LATEST EDITION OF IECC.
- PROVIDE AIRFOIL TYPE TURNING VANES IN ALL NEW 90 DEGREE ELBOWS.
- ALL CEILING MOUNTED AND WALL MOUNTED AIR DEVICES SHALL MATCH ADJACENT ARCHITECTURAL SURFACE. CONTRACTOR SHALL COORDINATE COLOR WITH ARCHITECT.
- ALL SUPPLY AIR TAPS TO DIFFUSERS AND GRILLES SHALL BE SUPPLIED WITH MANUAL VOLUME DAMPERS. PROVIDE YOUNG'S REGULATORS FOR DAMPERS LOCATED ABOVE INACCESSIBLE CEILINGS.
- DUCT DIMENSIONS INDICATED ON DRAWINGS ARE CLEAR INSIDE AIR STREAM DIMENSIONS.

### MECHANICAL KEYED NOTES

- PROVIDE NEW AIR DEVICE AS SCHEDULED. EXTEND WITH NEW DUCTWORK AS REQUIRED AND CONNECT TO EXISTING DUCTWORK. COORDINATE FINAL LOCATION OF AIR DEVICE WITH LIGHTS. BALANCE TO CFM INDICATED ON PLAN.
- CONNECT NEW DUCTWORK TO EXISTING DUCTWORK. SIZE AS NOTED ON PLAN.

414 STARR STREET  
CORPUS CHRISTI, TEXAS 78401  
T 361.884.2461  
F 361.884.4232  
  
222 E. VAN BUREN, SUITE 102  
HARLINGEN, TEXAS 78550  
T 956.365.4820  
F 956.365.4822  
  
3700 N. 10TH, SUITE 205  
MCALLEN, TEXAS 78501  
T 956.686.0100  
F 956.622.7313

Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO & ASSOCIATES INC.**

**MEP:**  
**DBR ENGINEERING**



**PSJA ISD**  
**NORTH ECHS**  
**& COLLEGE**  
**AND**  
**UNIVERSITY**  
**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

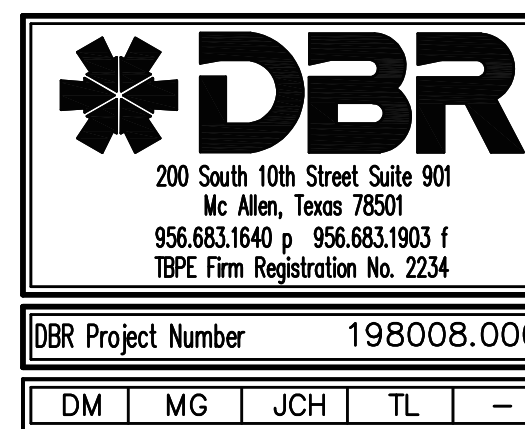
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Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

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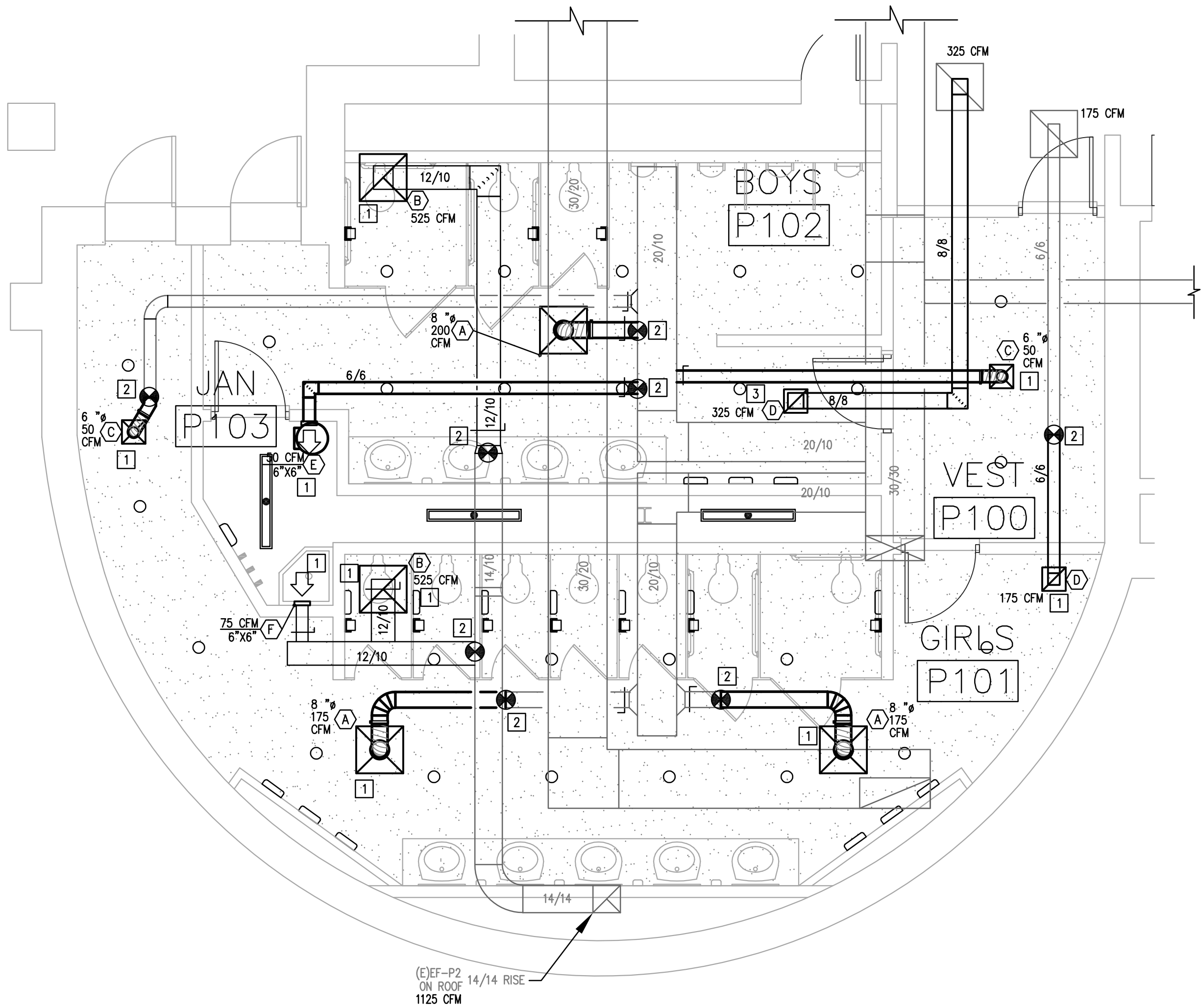
**BUILDING S**  
**& BUILDING N**  
**MECHANICAL**  
**DEMOLITION**  
**PLAN**



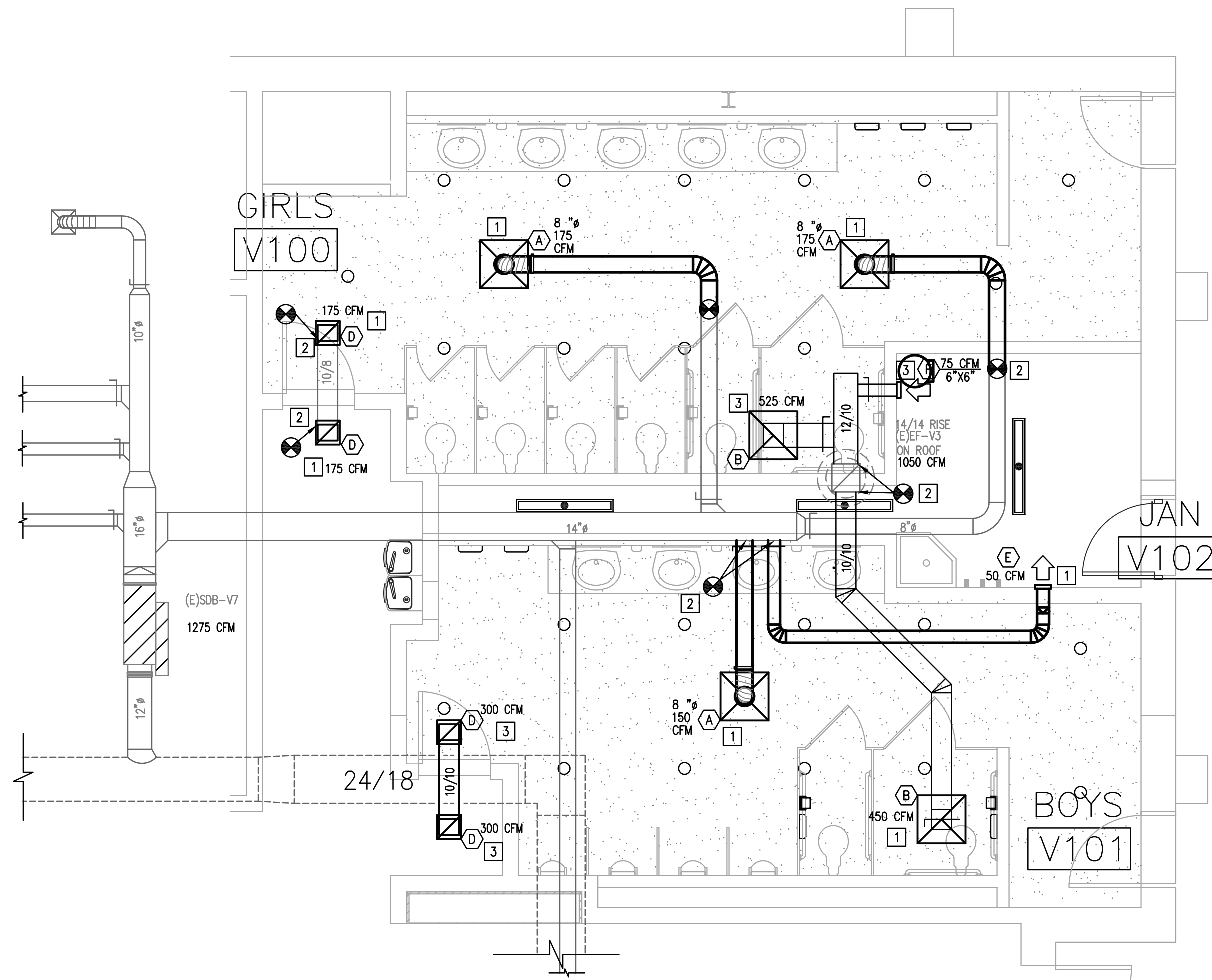
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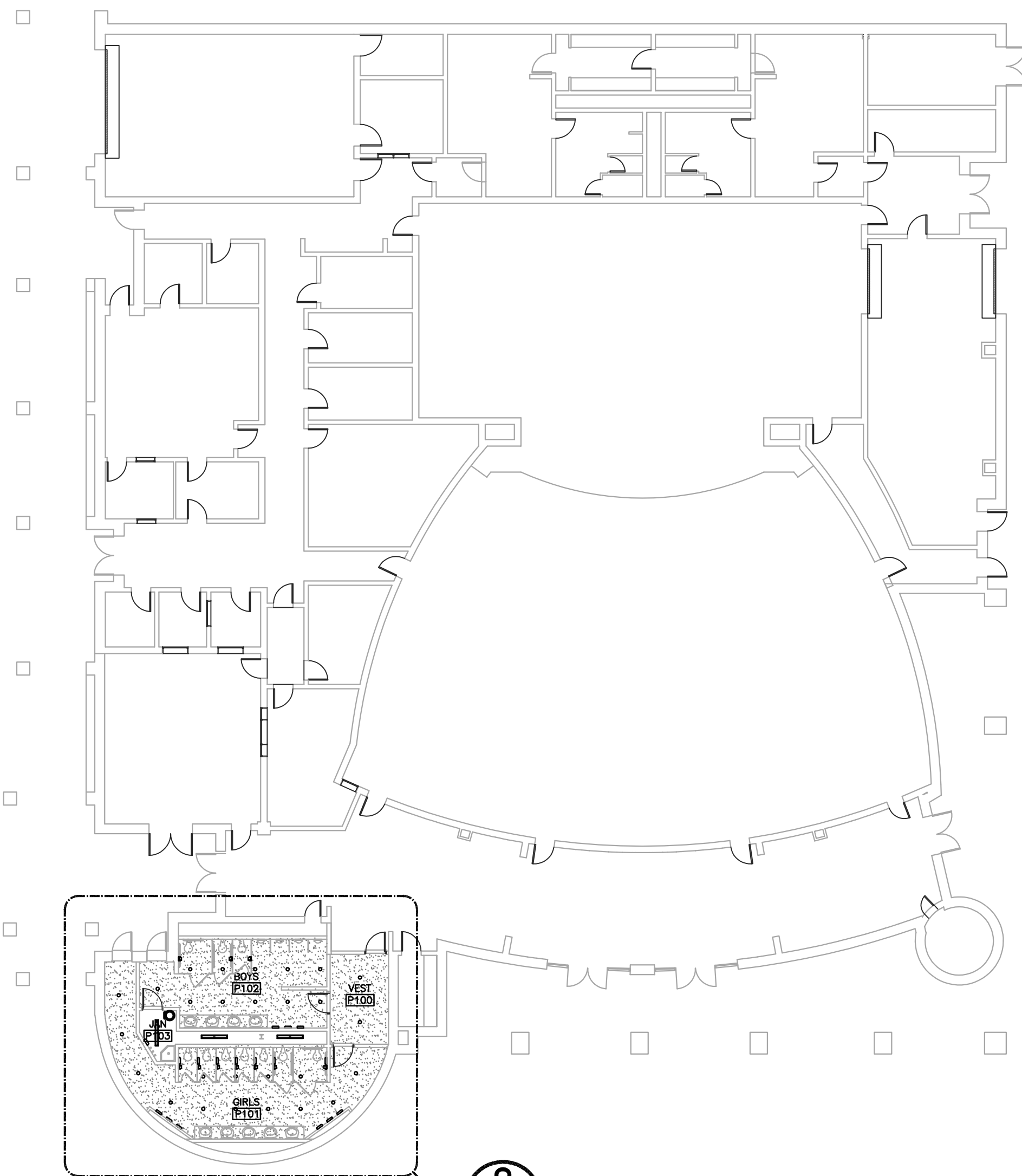
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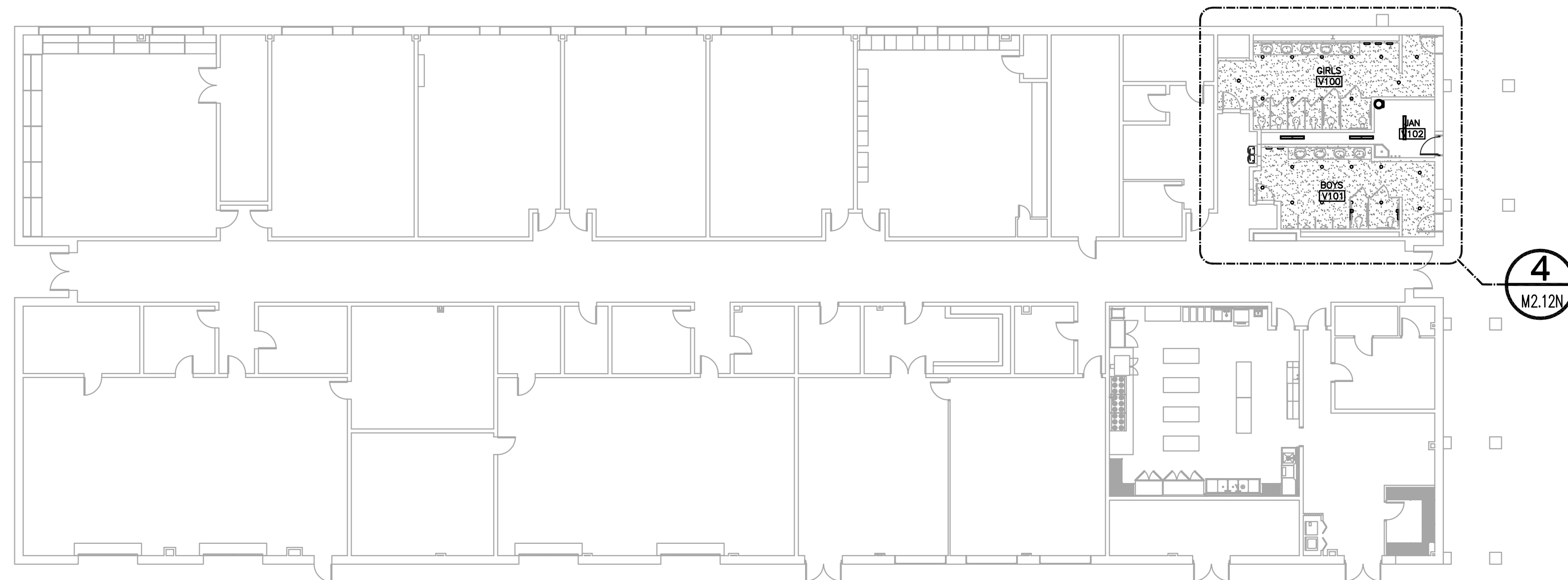
**3 ENLARGED MECHANICAL PLAN**  
M2.12N 1/4"=1'-0"



**4 ENLARGED MECHANICAL PLAN**  
M2.12N 1/4"=1'-0"



**1 MECHANICAL PLAN - BUILDING P**  
M2.12N 1/16"=1'-0"



**2 MECHANICAL PLAN - BUILDING V**  
M2.12N 1/16"=1'-0"

## GENERAL MECHANICAL NOTES

- THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL LOCATION OF EQUIPMENT, DUCTS, AND GRILLES, ETC. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS THAT COMPLETE MECHANICAL SYSTEMS BE FURNISHED, INSTALLED, TESTED, AND READY FOR OPERATION WHETHER OR NOT EVERY ITEM OF EQUIPMENT, ACCESSORY, DEVICE, ETC. IS SHOWN. REFERENCE SHALL BE MADE TO THE FULL DRAWING PACKAGE INCLUDING ARCHITECTURAL, STRUCTURAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR COORDINATION AND POTENTIAL CONFLICTS. THE MECHANICAL SUBCONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICTS WITH OTHER TRADES, OR FOR PROPER EXECUTION OF THE WORK. FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATING DUCTWORK.
- EQUIPMENT SIZES, DIMENSIONS, AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE MANUFACTURER'S DRAWINGS AND CUT SHEETS BEFORE FABRICATING OF DUCTWORK, PIPING, OR POURING OF HOUSING/KEEPING PADS.
- ALL FLEXIBLE DUCTWORK SHALL NOT EXCEED 5 FEET IN TOTAL LENGTH.
- ALL DUCTWORK AND ASSOCIATED ACCESSORIES SHALL BE CONSTRUCTED TO MEET THE LATEST SMADNA STANDARDS FOR LOW PRESSURE DUCTWORK.
- EXACT LOCATION OF GRILLES AND DAMPERS SHALL BE FIELD COORDINATED WITH OTHER TRADES TO AVOID CONFLICTS AND ALLOW ADEQUATE CLEARANCES.
- DIVISION 23 MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
- PROVIDE INSULATION FOR ALL PIPING AND DUCTWORK THAT MEETS THE LATEST EDITION OF IECC.
- PROVIDE AIRFOIL TYPE TURNING VANES IN ALL NEW 90 DEGREE ELBOWS.
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- ALL SUPPLY AIR TAPS TO DIFFUSERS AND GRILLES SHALL BE SUPPLIED WITH MANUAL VOLUME DAMPERS. PROVIDE YOUNG'S REGULATORS FOR DAMPERS LOCATED ABOVE INACCESSIBLE CEILINGS.
- DUCT DIMENSIONS INDICATED ON DRAWINGS ARE CLEAR INSIDE AIR STREAM DIMENSIONS.

## MECHANICAL KEYED NOTES

- PROVIDE NEW AIR DEVICE AS SCHEDULED. EXTEND WITH NEW DUCTWORK AS REQUIRED AND CONNECT TO EXISTING DUCTWORK. COORDINATE FINAL LOCATION OF AIR DEVICE WITH LIGHTS. BALANCE TO CFM INDICATED ON PLAN.
- CONNECT NEW DUCTWORK TO EXISTING DUCTWORK. SIZE AS NOTED ON PLAN.
- PROVIDE NEW AIR DEVICE AS SCHEDULED. PROVIDE NEW DUCTWORK. COORDINATE FINAL LOCATION OF AIR DEVICE WITH LIGHTS. BALANCE TO CFM INDICATED ON PLAN. SIZE DUCTWORK AS NOTED ON PLAN.

Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO & ASSOCIATES INC.**

**MEP:**  
**DBR ENGINEERING**



**PSJA ISD**  
**NORTH ECHS**  
**& COLLEGE**  
**AND**  
**UNIVERSITY**  
**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

## KEYPLAN

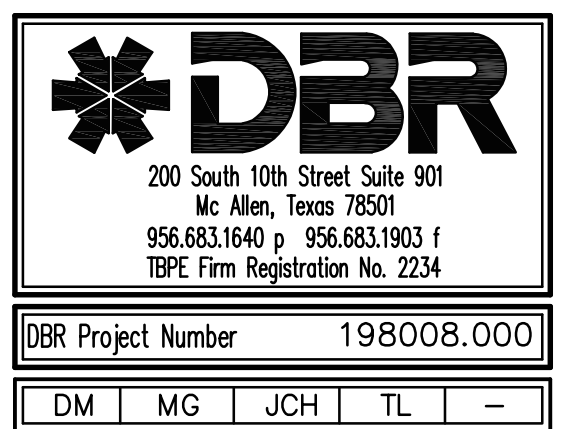
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Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

NO.	DESCRIPTION	DATE

Sheet Title:

**BUILDING P**  
**& BUILDING V**  
**ELECTRICAL**  
**DEMOLITION**  
**PLAN**



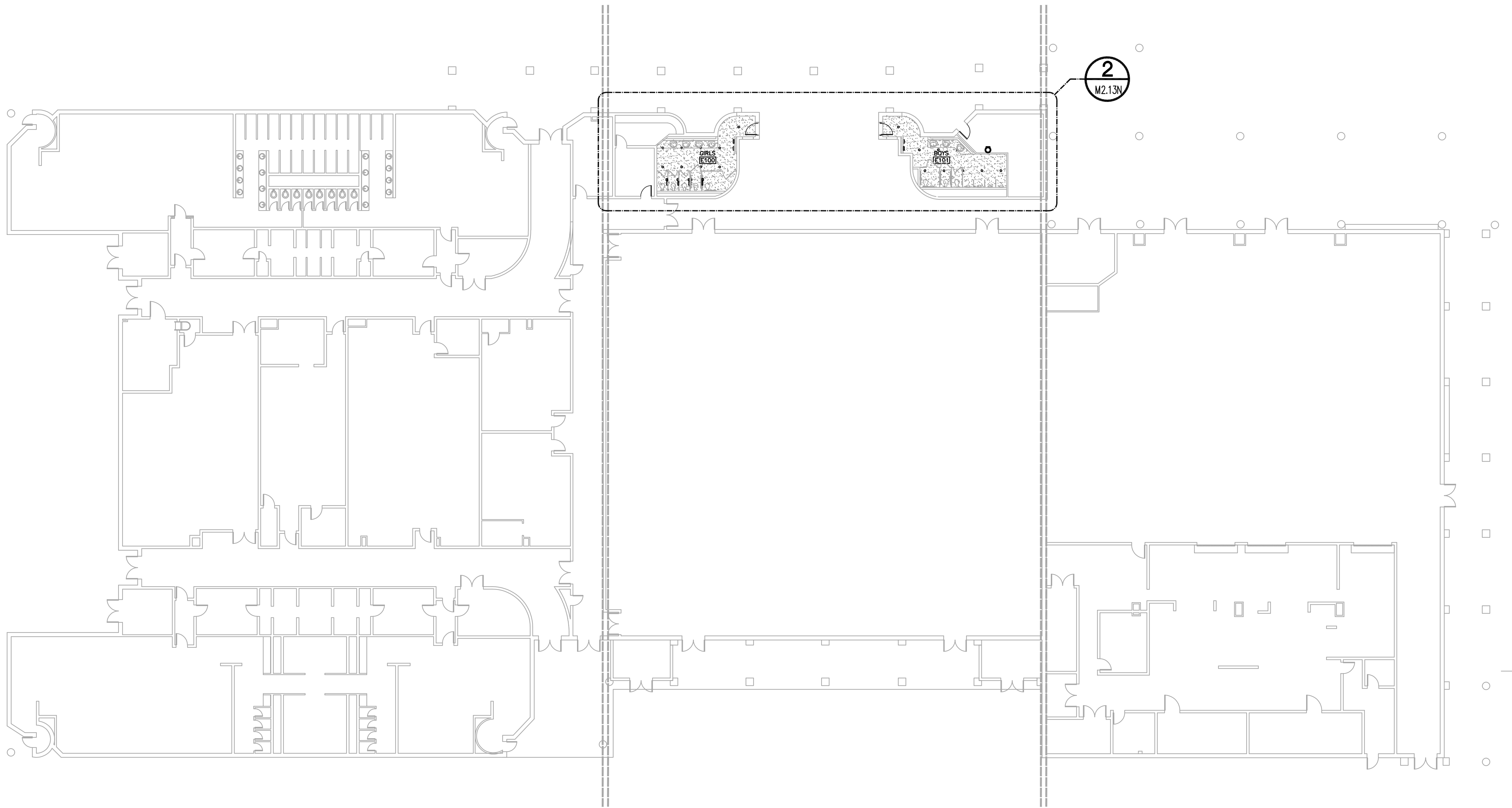
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**2 ENLARGED MECHANICAL PLAN**  
1/4"=1'-0"



**1 MECHANICAL PLAN - BUILDING E**  
1/16"=1'-0"

**GENERAL MECHANICAL NOTES**

- A. THE DRAWINGS ARE DIAGRAMATIC AND INDICATE THE GENERAL LOCATION OF EQUIPMENT, DUCTS, AND GRILLES, ETC. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS THAT COMPLETE MECHANICAL SYSTEMS BE FURNISHED, INSTALLED, TESTED, AND READY FOR OPERATION WHETHER OR NOT EVERY ITEM OF EQUIPMENT, ACCESSORY, DEVICE, ETC. IS SHOWN. REFERENCE SHALL BE MADE TO THE FULL DRAWING PACKAGE INCLUDING ARCHITECTURAL, STRUCTURAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR COORDINATION AND POTENTIAL CONFLICTS. THE MECHANICAL SUBCONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICTS WITH OTHER TRADES, OR FOR PROPER EXECUTION OF THE WORK. FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATING DUCTWORK.
- B. EQUIPMENT SIZES, DIMENSIONS, AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE MANUFACTURER'S DRAWINGS AND CUT SHEETS BEFORE FABRICATING OF DUCTWORK, PIPING, OR POURING OF HOUSEKEEPING PADS.
- C. ALL FLEXIBLE DUCTWORK SHALL NOT EXCEED 5 FEET IN TOTAL LENGTH.
- D. ALL DUCTWORK AND ASSOCIATED ACCESSORIES SHALL BE CONSTRUCTED TO MEET THE LATEST SMACNA STANDARDS FOR LOW PRESSURE DUCTWORK.
- E. EXACT LOCATION OF GRILLES AND DAMPERS SHALL BE FIELD COORDINATED WITH OTHER TRADES TO AVOID CONFLICTS AND ALLOW ADEQUATE CLEARANCES.
- F. DIVISION 23 MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
- G. PROVIDE INSULATION FOR ALL PIPING AND DUCTWORK THAT MEETS THE LATEST EDITION OF IECC.
- H. PROVIDE AIRFOIL TYPE TURNING VANES IN ALL NEW 90 DEGREE ELBOWS.
- I. ALL CEILING MOUNTED AND WALL MOUNTED AIR DEVICES SHALL MATCH ADJACENT ARCHITECTURAL SURFACE. CONTRACTOR SHALL COORDINATE COLOR WITH ARCHITECT.
- J. ALL SUPPLY AIR TAPS TO DIFFUSERS AND GRILLES SHALL BE SUPPLIED WITH MANUAL VOLUME DAMPERS. PROVIDE YOUNG'S REGULATORS FOR DAMPERS LOCATED ABOVE INACCESSIBLE CEILINGS.
- K. DUCT DIMENSIONS INDICATED ON DRAWINGS ARE CLEAR INSIDE AIR STREAM DIMENSIONS.

**MECHANICAL KEYED NOTES**

1. PROVIDE NEW AIR DEVICE AS SCHEDULED. EXTEND WITH NEW DUCTWORK AND CONNECT TO EXISTING MAIN DUCTWORK. COORDINATE FINAL LOCATION OF AIR DEVICE WITH LIGHTS. SIZE DUCTWORK AS NOTED ON PLAN.
2. CONNECT NEW DUCTWORK TO EXISTING DUCTWORK. SIZE AS NOTED ON PLAN.

414 STARR STREET  
CORPUS CHRISTI, TEXAS 78401  
T 361.884.2461  
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222 E. VAN BUREN, SUITE 102  
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F 956.365.4822

3700 N. 10TH, SUITE 205  
MCALLEN, TEXAS 78501  
T 956.686.0100  
F 956.622.7313

Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO & ASSOCIATES INC.**

**MEP:**  
**DBR ENGINEERING**



**PSJA ISD**  
**NORTH ECHS**  
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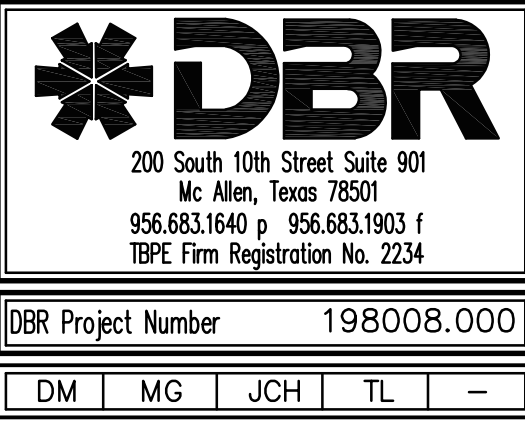
**KEYPLAN**

Project Number: 19.04  
Drawing Date: 5-10-2019  
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ACAD File: A-240-U

Revisions:

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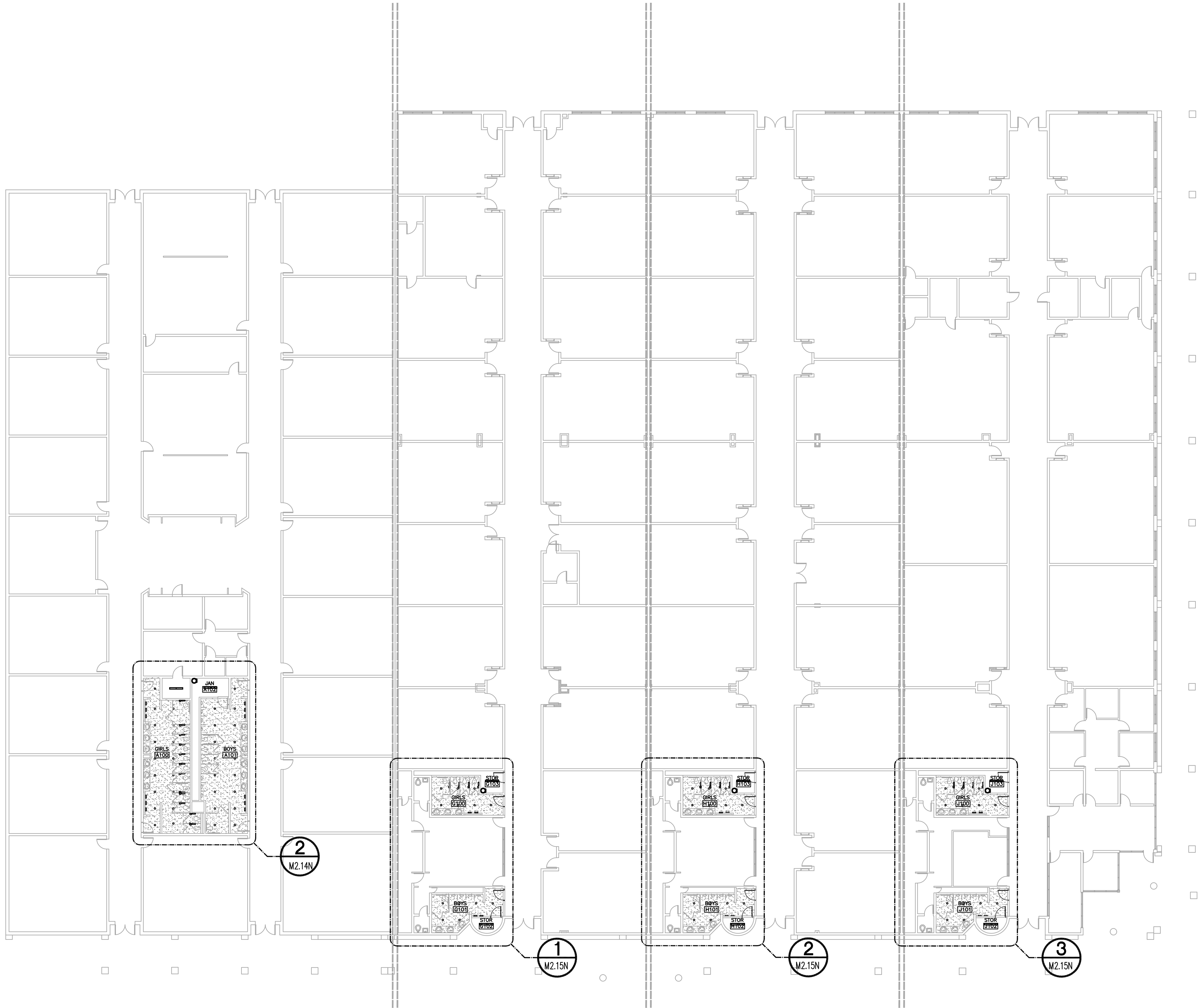
**BUILDING E**  
**MECHANICAL**  
**DEMOLITION**  
**PLAN**



**M2.13N**



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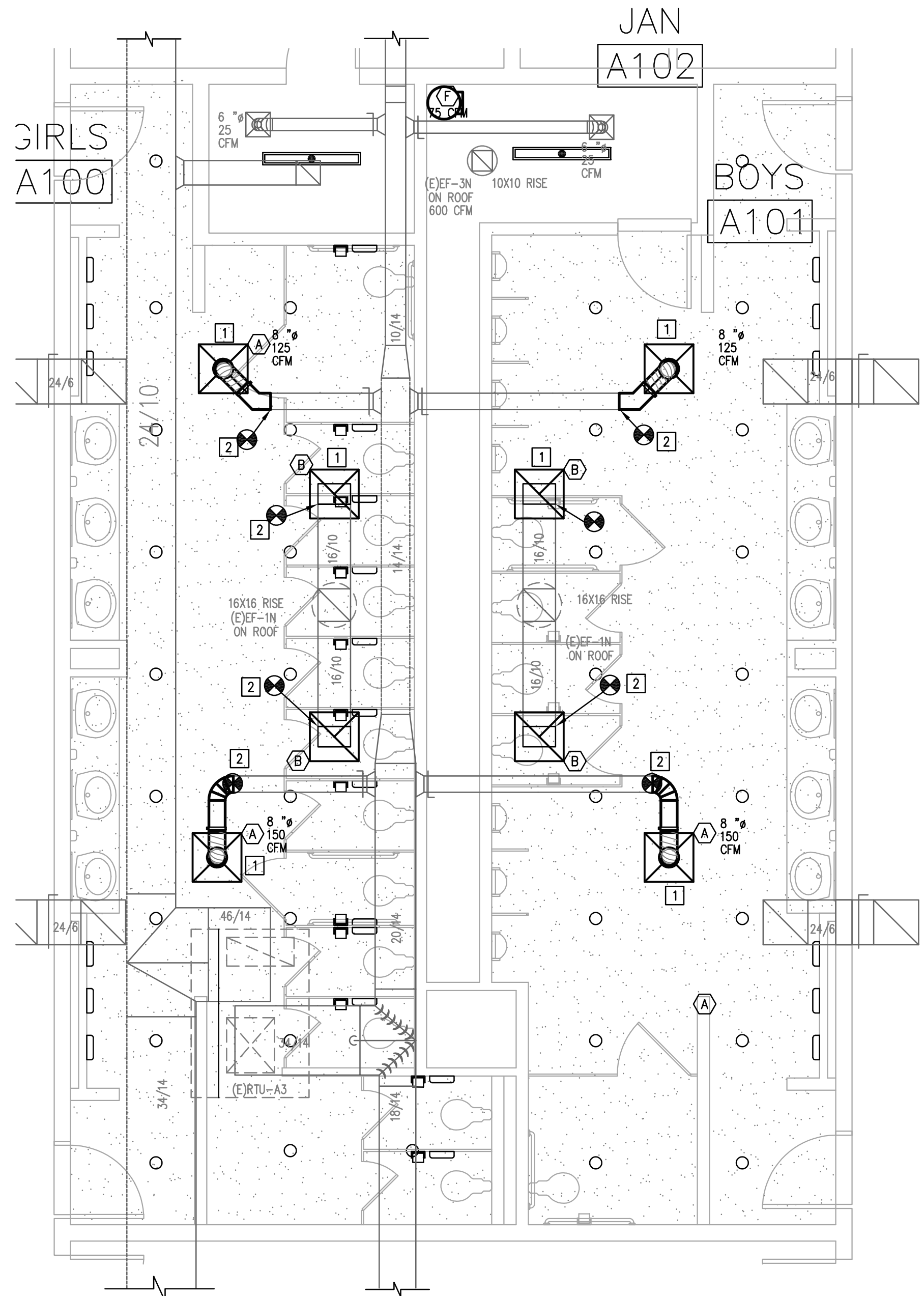
1 MECHANICAL PLAN - BUILDING A-G-H-J  
1/16"=1'-0"

### GENERAL MECHANICAL NOTES

- THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL LOCATION OF EQUIPMENT, DUCTS, AND GRILLES, ETC. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS THAT COMPLETE MECHANICAL SYSTEMS BE FURNISHED, INSTALLED, TESTED, AND READY FOR OPERATION WHETHER OR NOT EVERY ITEM OF EQUIPMENT, ACCESSORY, DEVICE, ETC. IS SHOWN. REFERENCE SHALL BE MADE TO THE FULL DRAWING PACKAGE INCLUDING ARCHITECTURAL, STRUCTURAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR COORDINATION AND POTENTIAL CONFLICTS. THE MECHANICAL SUBCONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICTS WITH OTHER TRADES, OR FOR PROPER EXECUTION OF THE WORK. FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATING DUCTWORK.
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- ALL FLEXIBLE DUCTWORK SHALL NOT EXCEED 5 FEET IN TOTAL LENGTH.
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- EXACT LOCATION OF GRILLES AND DAMPERS SHALL BE FIELD COORDINATED WITH OTHER TRADES TO AVOID CONFLICTS AND ALLOW ADEQUATE CLEARANCES.
- DIVISION 23 MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
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- PROVIDE AIRFOIL TYPE TURNING VANES IN ALL NEW 90 DEGREE ELBOWS.
- ALL CEILING MOUNTED AND WALL MOUNTED AIR DEVICES SHALL MATCH ADJACENT ARCHITECTURAL SURFACE. CONTRACTOR SHALL COORDINATE COLOR WITH ARCHITECT.
- ALL SUPPLY AIR TAPS TO DIFFUSERS AND GRILLES SHALL BE SUPPLIED WITH MANUAL VOLUME DAMPERS. PROVIDE YOUNG'S REGULATORS FOR DAMPERS LOCATED ABOVE INACCESSIBLE CEILINGS.
- DUCT DIMENSIONS INDICATED ON DRAWINGS ARE CLEAR INSIDE AIR STREAM DIMENSIONS.

### MECHANICAL KEYED NOTES

- PROVIDE NEW AIR DEVICE AS SCHEDULED. EXTEND WITH NEW DUCTWORK AS REQUIRED AND CONNECT TO EXISTING DUCTWORK. COORDINATE FINAL LOCATION OF AIR DEVICE WITH LIGHTS. BALANCE TO CFM INDICATED ON PLAN.
- CONNECT NEW DUCTWORK TO EXISTING DUCTWORK. SIZE AS NOTED ON PLAN.
- PROVIDE NEW AIR DEVICE AS SCHEDULED. PROVIDE NEW DUCTWORK. COORDINATE FINAL LOCATION OF AIR DEVICE WITH LIGHTS. BALANCE TO CFM INDICATED ON PLAN. SIZE DUCTWORK AS NOTED ON PLAN.



2 ENLARGED MECHANICAL PLAN  
1/4"=1'-0"

**DBR**  
200 South 10th Street Suite 901  
Mc Allen, Texas 78501  
956.683.1940 • 956.683.1933 f  
TPE Firm Registration No. 2234

DBR Project Number 198008.000

DM	MG	JCH	TL	-
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414 STARR STREET  
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T 361.884.2661  
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222 E. VAN BUREN, SUITE 102  
HARLINGEN, TEXAS 78550  
T 956.365.4820  
F 956.365.4822

3700 N. 10TH, SUITE 205  
MCALLEN, TEXAS 78501  
T 956.686.0100  
F 956.622.7313

Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



**PSJA ISD**  
**NORTH ECHS**  
**& COLLEGE**  
**AND**  
**UNIVERSITY**  
**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

### KEYPLAN

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

Sheet Title:

**BUILDING**  
**A-G-H-J**  
**MECHANICAL**  
**DEMOLITION**  
**PLAN**

**M2.14N**



**MEP:**  
CIVIL ENGINEERING



## STUDENT RESTROOM RENOVATIONS

Project Number: 19.04  
 Drawing Date: 5-10-2019  
 Drawn: AL  
 Checked: JM  
 Scale: 1/4" = 1'-0"  
 CAD File: A-240-U

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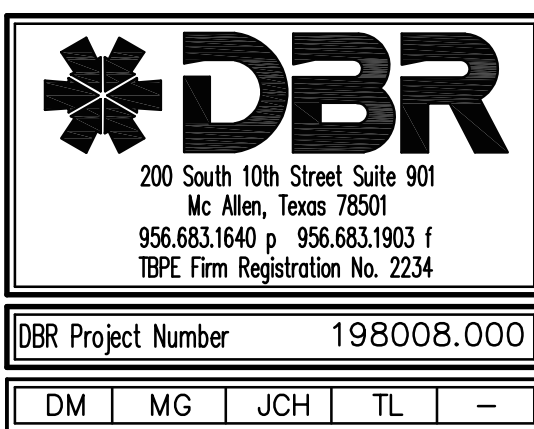
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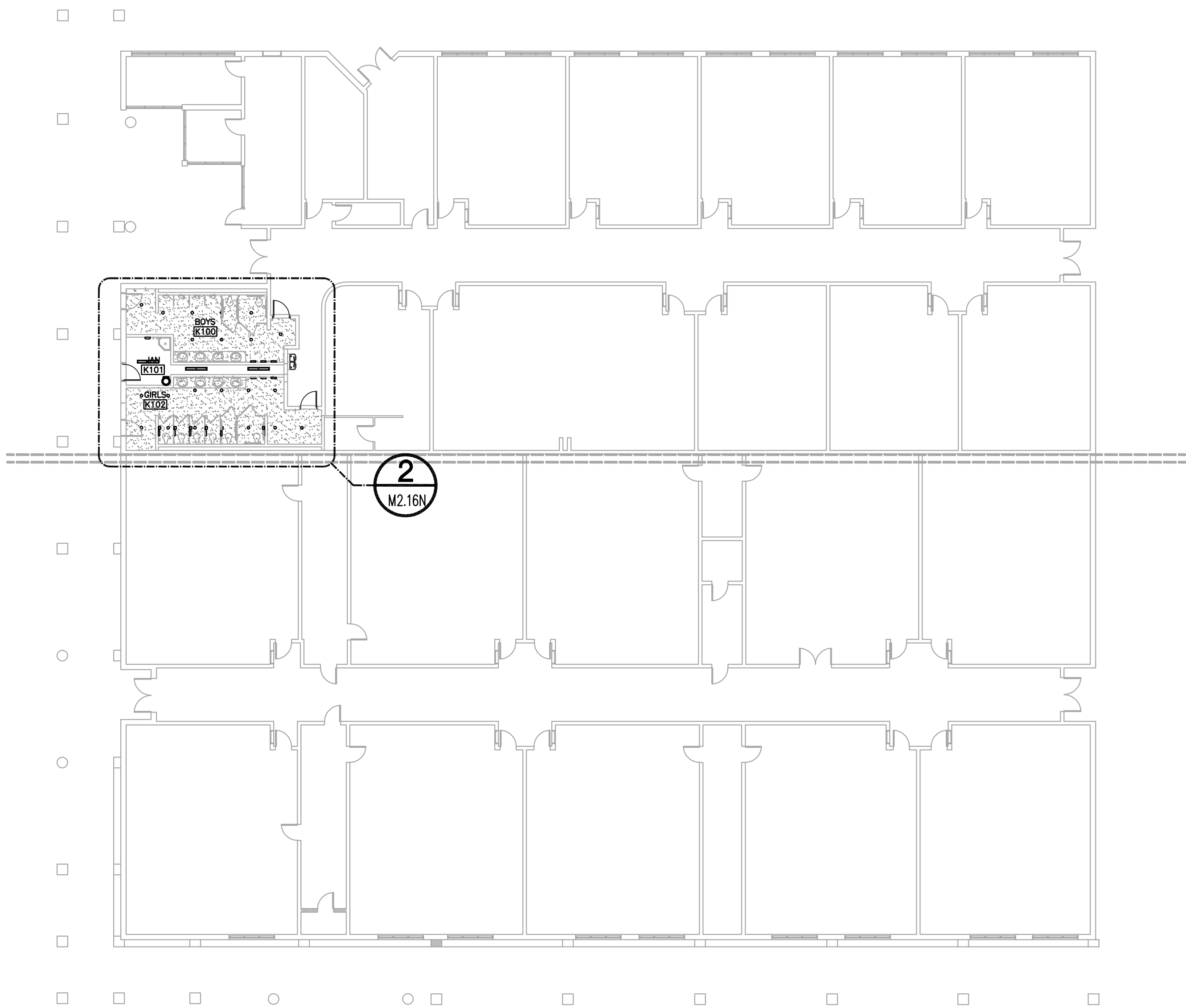
# BUILDING G-H-J MECHANICAL DEMOLITION PLAN

# M2.15N

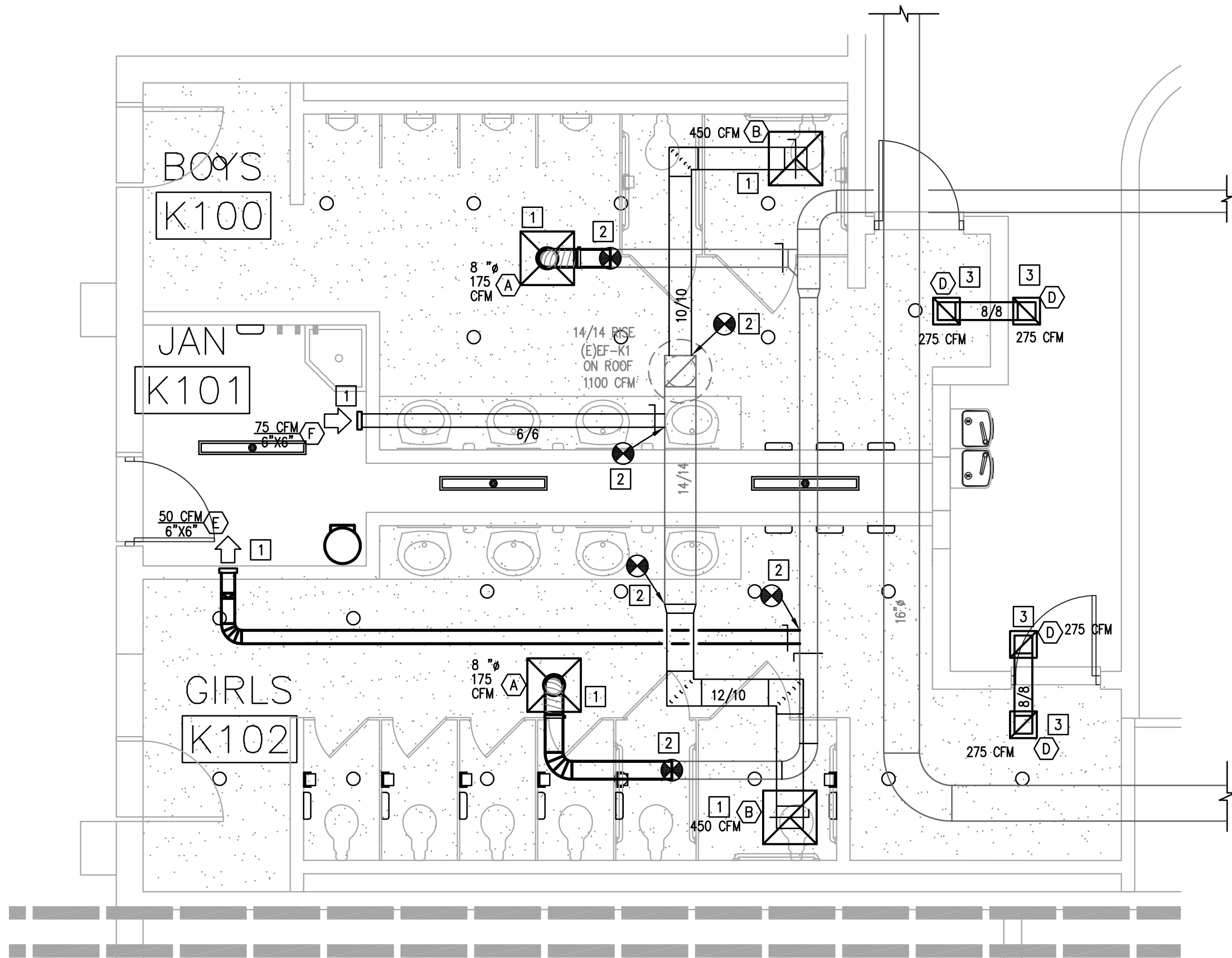
3 PROVIDE NEW AIR DEVICE AS SCHEDULED. PROVIDE NEW DUCTWORK. COORDINATE FINAL LOCATION OF AIR DEVICE WITH LIGHTS. BALANCE TO CFM INDICATED ON PLAN. SIZE DUCTWORK AS NOTED ON PLAN.







1 MECHANICAL PLAN - BUILDING K  
1/16"=1'-0"



2 ENLARGED MECHANICAL PLAN  
1/4"=1'-0"

**DBR**  
200 South 10th Street Suite 901  
Mc Allen, Texas 78501  
956.683.1940 • 956.683.1903 f  
TPE Firm Registration No. 2234

DBR Project Number 198008.000

DM	MG	JCH	TL	-
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Consultants:

**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



**PSJA ISD**  
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**UNIVERSITY**  
**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

KEYPLAN

Project Number: 19.04  
Drawing Date: 5-10-2019  
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Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

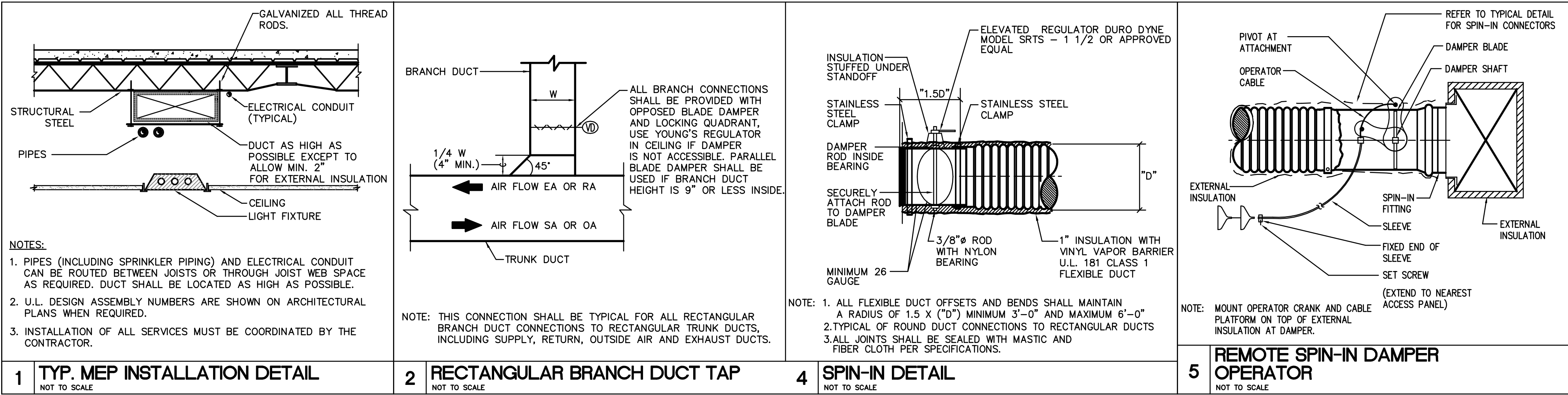
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**BUILDING K**  
**MECHANICAL**  
**DEMOLITION**  
**PLAN**

M2.16N



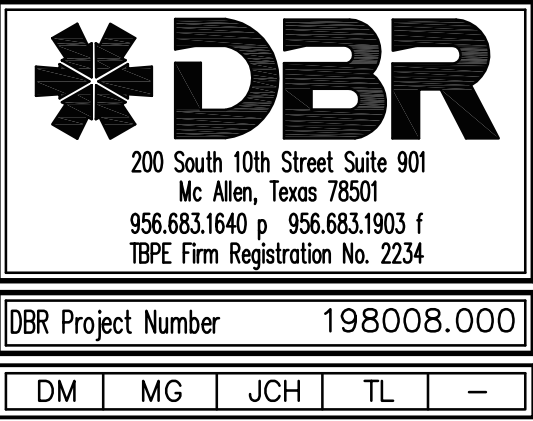
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AIR DEVICE SCHEDULE				
MARK	MANUFACTURER/MODEL	TYPE	NC	REMARKS
A	TITUS/TMS-AA	24"X24" SUPPLY	25	ALUMINUM CONSTRUCTION. NECK SIZES AS INDICATED BELOW UNLESS NOTED ON PLAN.
B	TITUS/50F	24"X24" EGGCRATE RETURN	20	ALUMINUM CONSTRUCTION. PROVIDE DAMPER FOR EXHAUST.
C	TITUS/TMS	12"X12" SUPPLY	25	STEEL CONSTRUCTION. NECK SIZES AS INDICATED BELOW UNLESS NOTED ON PLAN.
D	TITUS/50F	12"X12" EGGCRATE RETURN	20	ALUMINUM CONSTRUCTION. PROVIDE DAMPER FOR EXHAUST.
E	TITUS/300FS	SIDEWALL SUPPLY	25	ALUMINUM CONSTRUCTION. SEE MECHANICAL PLAN FOR SIZE.
F	TITUS/350FL	SIDEWALL RETURN	20	ALUMINUM CONSTRUCTION. PROVIDE DAMPER FOR EXHAUST.SEE MECHANICAL PLAN FOR SIZE.

- NOTES:
- PROVIDE STANDARD WHITE FINISH FOR ALL AIR DEVICES UNLESS NOTED OTHERWISE ON PLAN.
  - PANT ALL SURFACES VISIBLE THROUGH FACE OF RETURN AIR GRILLES FLAT BLACK. THIS SHALL INCLUDE PIPING, CONDUIT, DUCTWORK, AND STRUCTURAL MEMBERS.
  - PROVIDE FRAME FOR MOUNTING AIR DEVICE IN LAY-IN GRID CEILING UNLESS REFLECTED CEILING PLAN INDICATES HARD CEILING. IN AREAS WITH HARD CEILINGS, PROVIDE FRAMES FOR SURFACE MOUNTING. PROVIDE REMOTE OPERATOR DAMPER AND CONTROL.
  - UNLESS OTHERWISE NOTED, BRANCH DUCTS SERVING AIR DEVICES SHALL BE SAME SIZE AS NECK OF AIR DEVICE.
  - FOR ROUND NECK DIFFUSERS:
- |          |             |
|----------|-------------|
| 6" DIA:  | 0-120 CFM   |
| 8" DIA:  | 125-220 CFM |
| 10" DIA: | 225-380 CFM |
| 12" DIA: | 385-600 CFM |

**1 MECHANICAL DETAILS AND SCHEDULES**  
NOT TO SCALE



Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO & ASSOCIATES INC.**

**MEP:**  
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**RENOVATIONS**

**KEYPLAN**

Project Number: 19.04  
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ACAD File: A-240-U

Revisions:

Sheet Title:

**MECHANICAL**  
**DETAILS AND**  
**SCHEDULES**

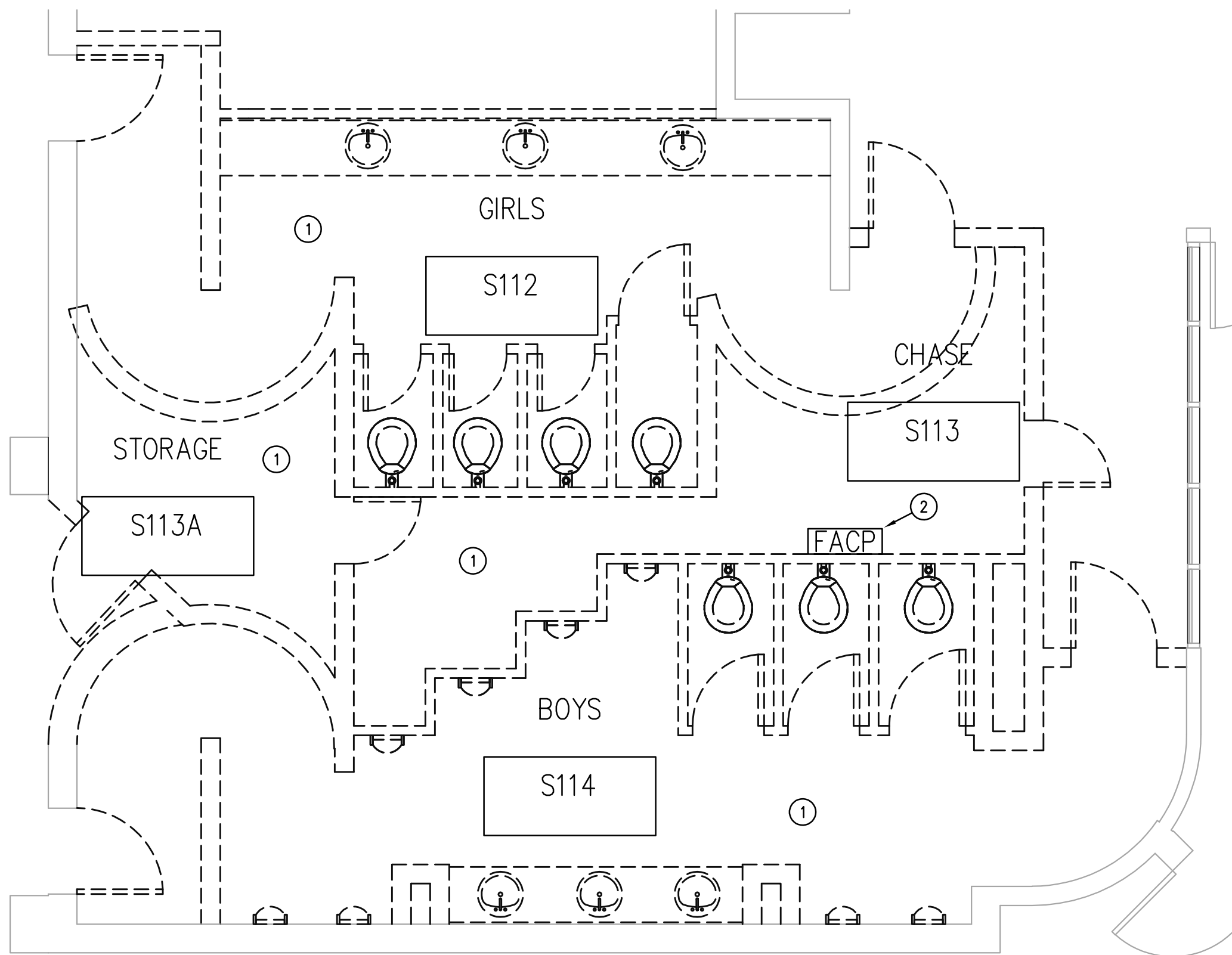
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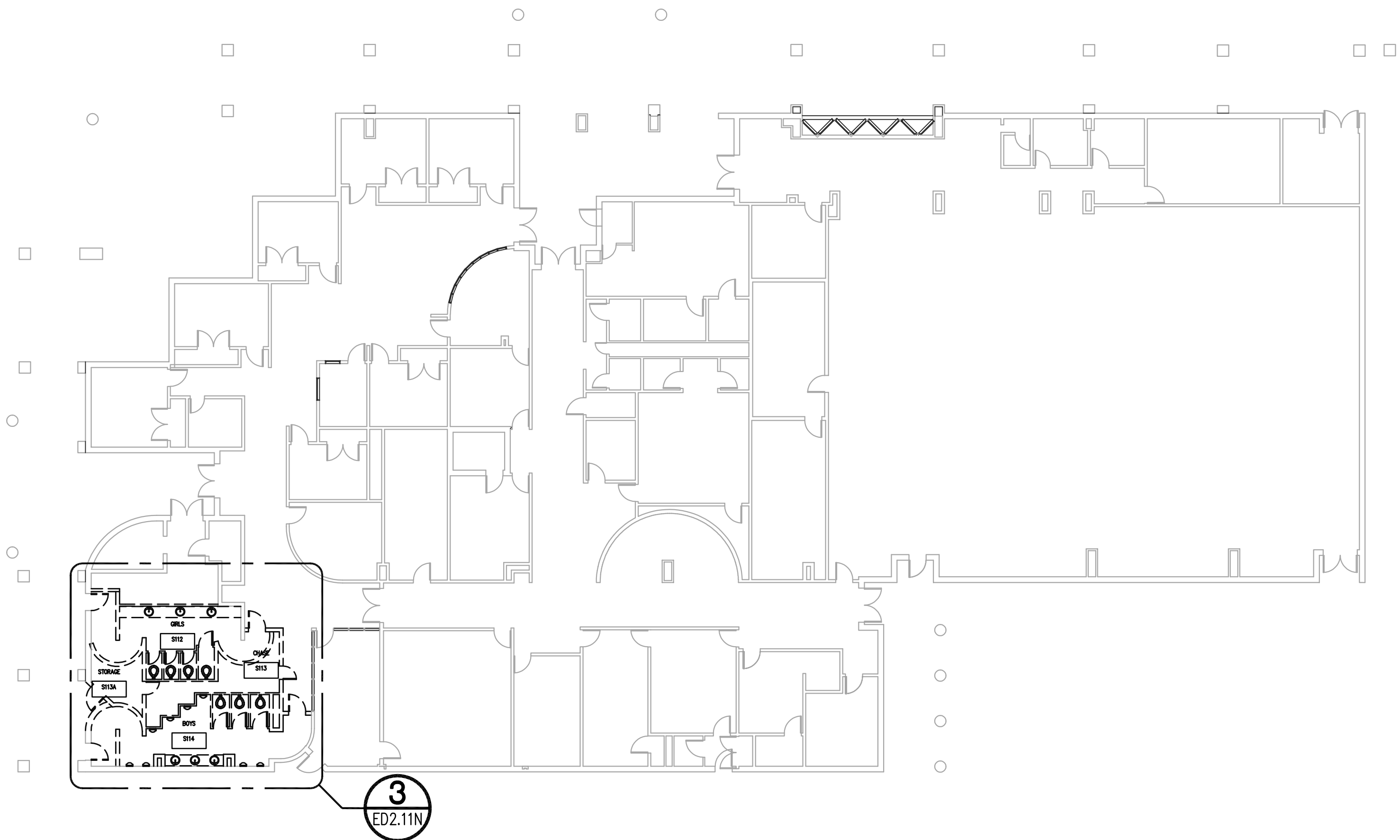




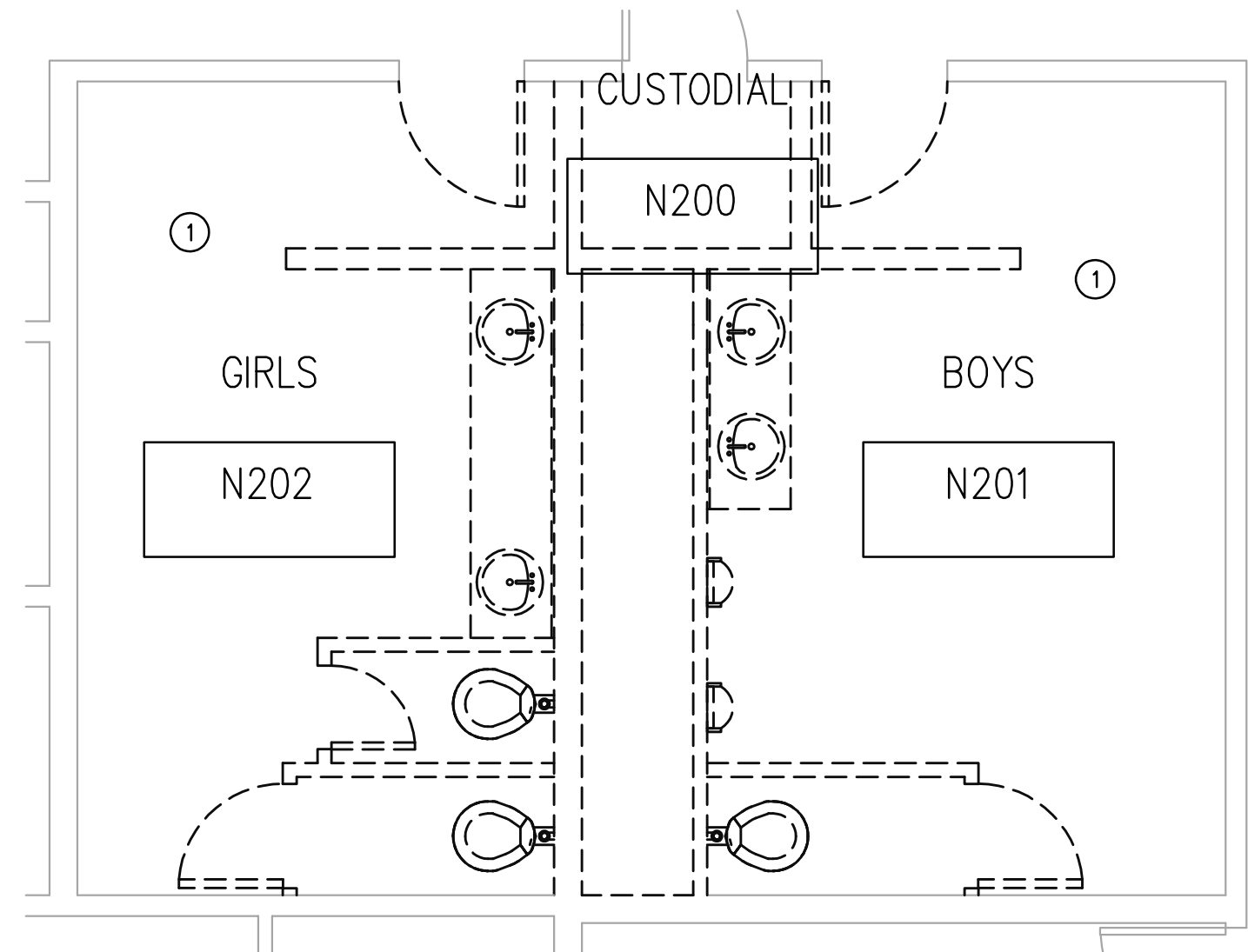
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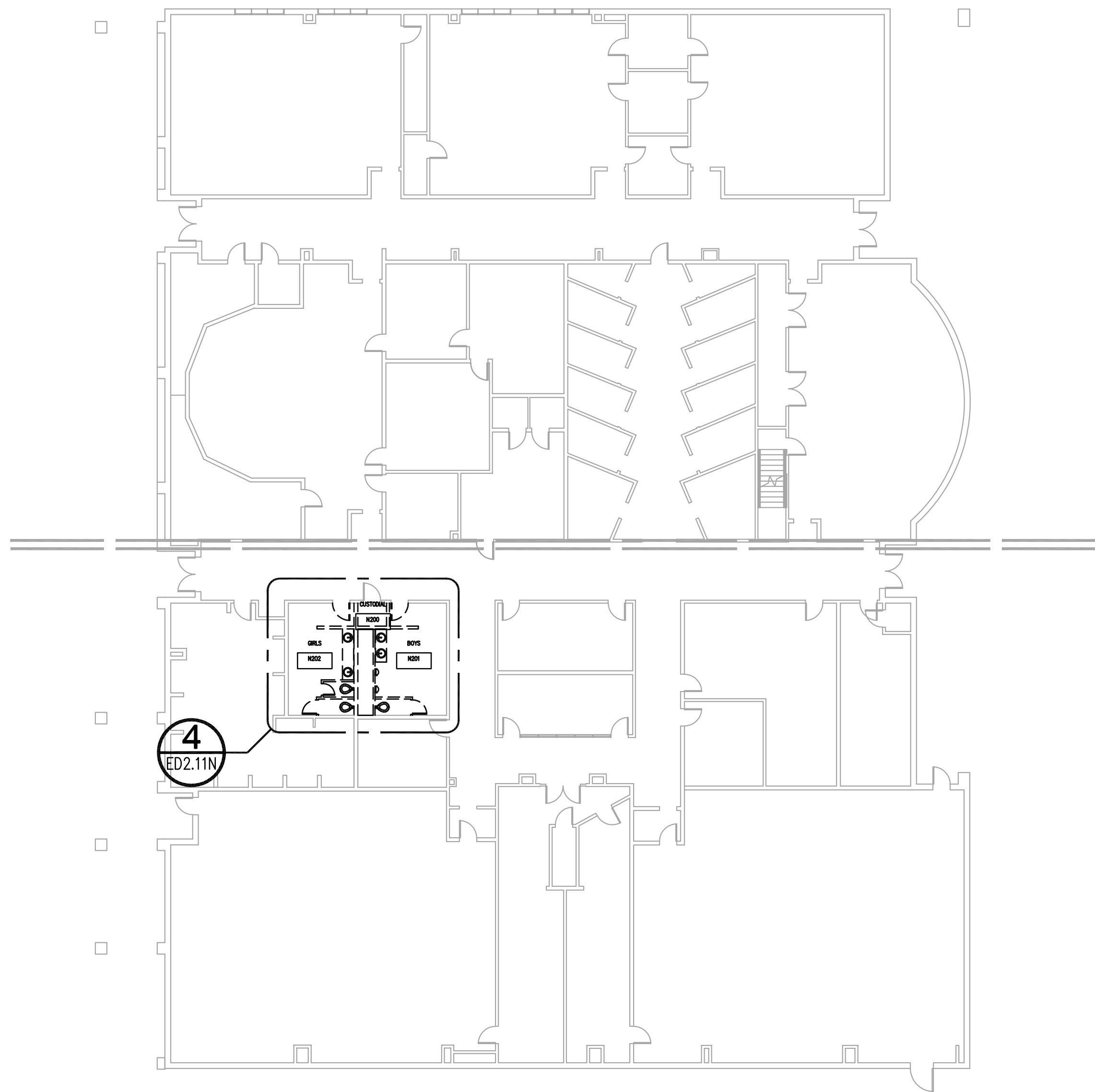
**3 ENLARGED ELECTRICAL DEMOLITION PLAN**  
ED2.11N 1/4"=1'-0"



**1 ELECTRICAL DEMOLITION PLAN - BUILDING S**  
ED2.11N 1/16"=1'-0"



**4 ENLARGED ELECTRICAL DEMOLITION PLAN**  
ED2.11N 1/4"=1'-0"



**2 ELECTRICAL DEMOLITION PLAN - BUILDING N**  
ED2.11N 1/16"=1'-0"

**GENERAL NOTES:**

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE FIELD VERIFIED EXISTING JOB-SITE CONDITIONS DURING THE BIDDING PERIOD TO OBTAIN SCOPE OF ELECTRICAL WORK INVOLVED AS A RESULT OF ARCHITECTURAL MODIFICATIONS TO THE EXISTING STRUCTURE. THE SCOPE OF WORK SHALL INCLUDE ALL LABOR AND MATERIAL, CONSISTING OF FIXTURES, DEVICES, EQUIPMENT OR APPARATUS, CONDUIT AND WIRING WHICH MUST BE REMOVED, RELOCATED OR REMOVED EITHER TEMPORARILY OR PERMANENTLY, OR WHICH MUST BE PROVIDED, SO THAT THE INDICATED REMODELING MAY BE ACCOMPLISHED.
- ALL EQUIPMENT IS EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL REMOVE ALL ELECTRICAL CONNECTIONS TO EXISTING PREMISED FURNITURE. REMOVE CONDUIT AND WIRING BACK TO LAST ACTIVE JUNCTION. ALL DATA CABLES SHALL BE REMOVED BACK TO LAST ACTIVE JUNCTION AND SALVAGED FOR REINSTALLATION.
- OWNER SHALL RESERVE THE RIGHT TO CLAIM ALL EQUIPMENT AND CABLES REMOVED DURING DEMOLITION.
- CONTRACTOR SHALL REMOVE ALL ELECTRICAL DEVICES WITHIN DEMOLISHED WALLS INCLUDING RECEPTACLES, SWITCHES, DATA/TELEPHONE DROPS, FIRE ALARM DEVICES, P/A DEVICES, CONDUIT, AND WIRING. REMOVE CONDUIT AND WIRING BACK TO PANEL OR LAST ACTIVE JUNCTION BOX. REFER TO ARCHITECTURAL DEMO PLAN. ALL DEVICES SHALL BE STORED AND PROTECTED FROM DAMAGE FOR REINSTALLATION PER NEW ELECTRICAL WORK.
- CONTRACTOR SHALL REMOVE AND SALVAGE ALL EXISTING FIRE ALARM DEVICES. PROVIDE ADDITIONAL DEVICES AS REQUIRED PER NEW FIRE ALARM DESIGN. EXISTING FIRE ALARM CONTROL PANEL SHALL REMAIN.
- ANY EXISTING CONDUIT NOT BEING REUSED ROUTED BELOW GRADE SHALL BE ABANDONED.
- ALL ELECTRICAL LIGHTING AND EQUIPMENT SHALL BE LOCATED PER NEW ELECTRICAL PLANS. EXTEND ALL EXISTING FEEDERS AS REQUIRED FOR RELOCATION.
- CONTRACTOR SHALL REPORT ANY DAMAGED DEVICES THAT ARE SHOWN AS EXISTING TO REMAIN TO THE OWNER BEFORE STARTING WORK. ALL DEVICES FOUND TO BE DAMAGED AT THE TIME OF SUBSTANTIAL COMPLETION THAT ARE NOT REPORTED PRIOR TO STARTING WORK SHALL BE REPLACED BY THE CONTRACTOR AT HIS COST.

**KEYED NOTES:**

- ELECTRICAL CONTRACTOR SHALL DISCONNECT AND REMOVE ALL EXISTING INTERIOR LIGHT FIXTURES THROUGH OUT THE SPACE, CEILING MOUNTED LIGHTING CONTROL DEVICES, CEILING MOUNTED FIRE ALARM DEVICES AND ALL ASSOCIATED CONDUIT AND WIRING BACK TO PANEL OR LAST ACTIVE JUNCTION BOX. REFER TO NEW ELECTRICAL WORK FOR NEW LIGHT FIXTURE LOCATIONS.
- EXISTING FIRE ALARM PANEL SHALL REMAIN IN SERVICE DURING DEMOLITION AND CONSTRUCTION. CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT STRUCTURE FOR FACP AND ALL ASSOCIATED BATTERY CABINETS, EXTENDER PANELS, WIREWAYS, CONDUIT AND DEVICES. ALL EXISTING FIRE ALARM COMPONENTS SHALL BE REINSTALLED AND PROTECTED FROM DAMAGE.

414 STARR STREET  
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T 361.884.2661  
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HARLINGEN, TEXAS 78550  
T 956.365.4820  
F 956.365.4822  
  
3700 N. 10TH, SUITE 205  
MCALLEN, TEXAS 78501  
T 956.686.0100  
F 956.622.7313

**Consultants:**

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO & ASSOCIATES INC.**

**MEP:**  
**DBR ENGINEERING**



**PSJA ISD**

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& COLLEGE**

**AND  
UNIVERSITY  
CAMPUS**

**STUDENT  
RESTROOM  
RENOVATIONS**

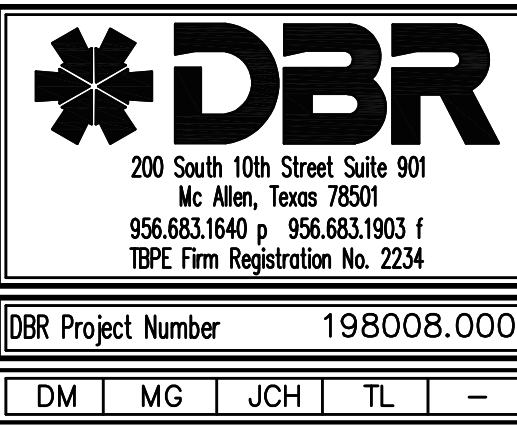
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Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

**Revisions:**

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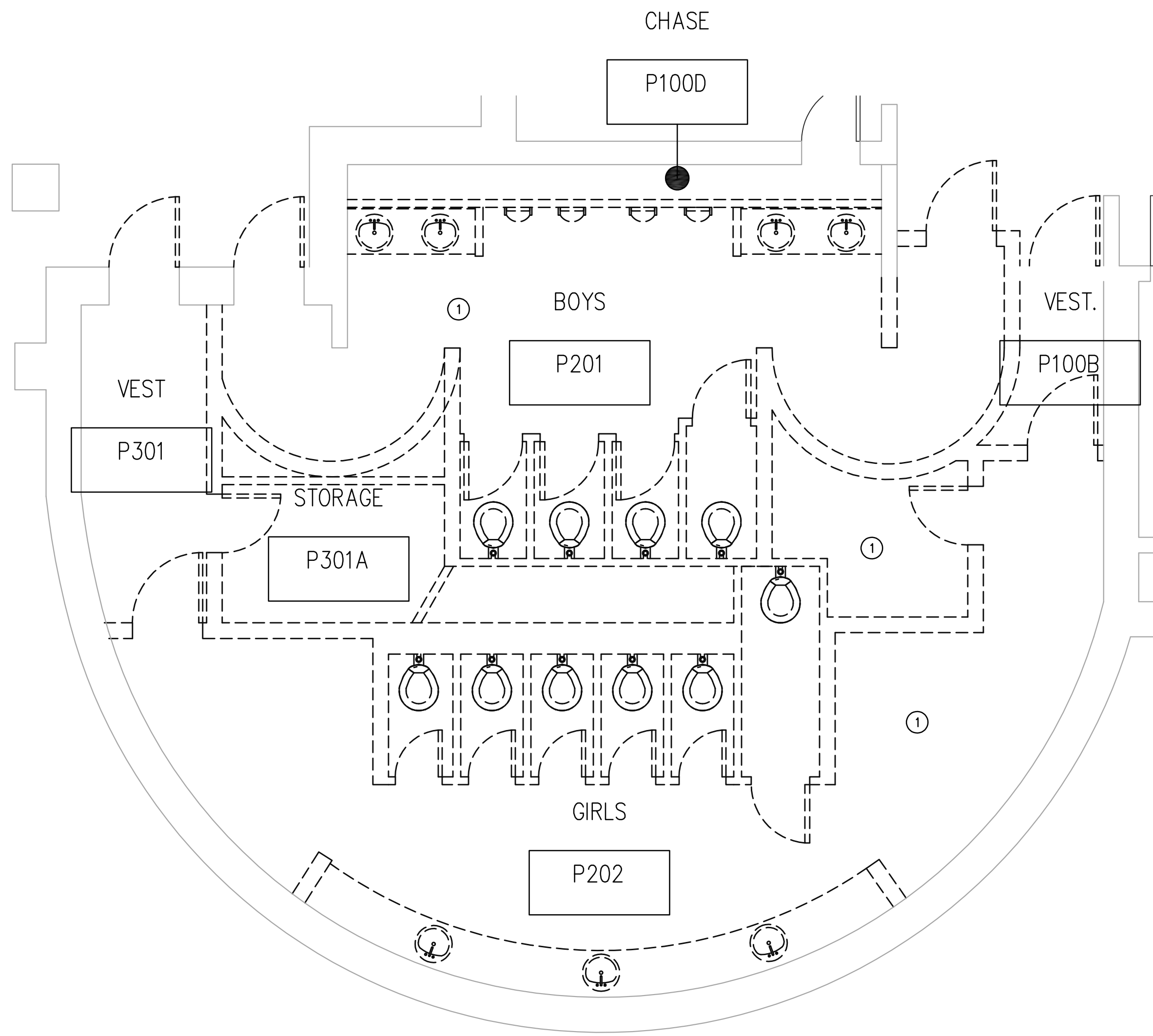
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& BUILDING N  
ELECTRICAL  
DEMOLITION  
PLAN**



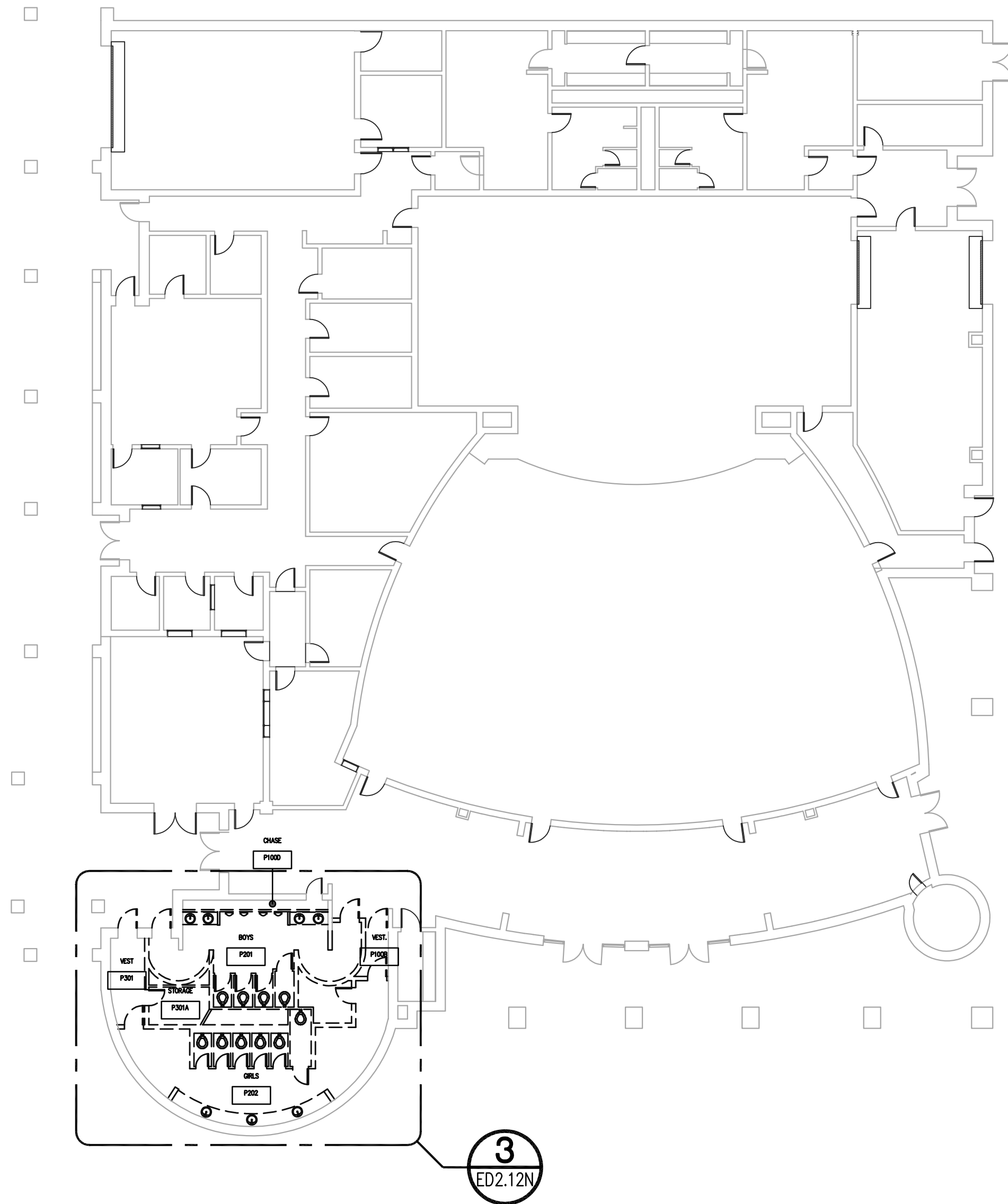
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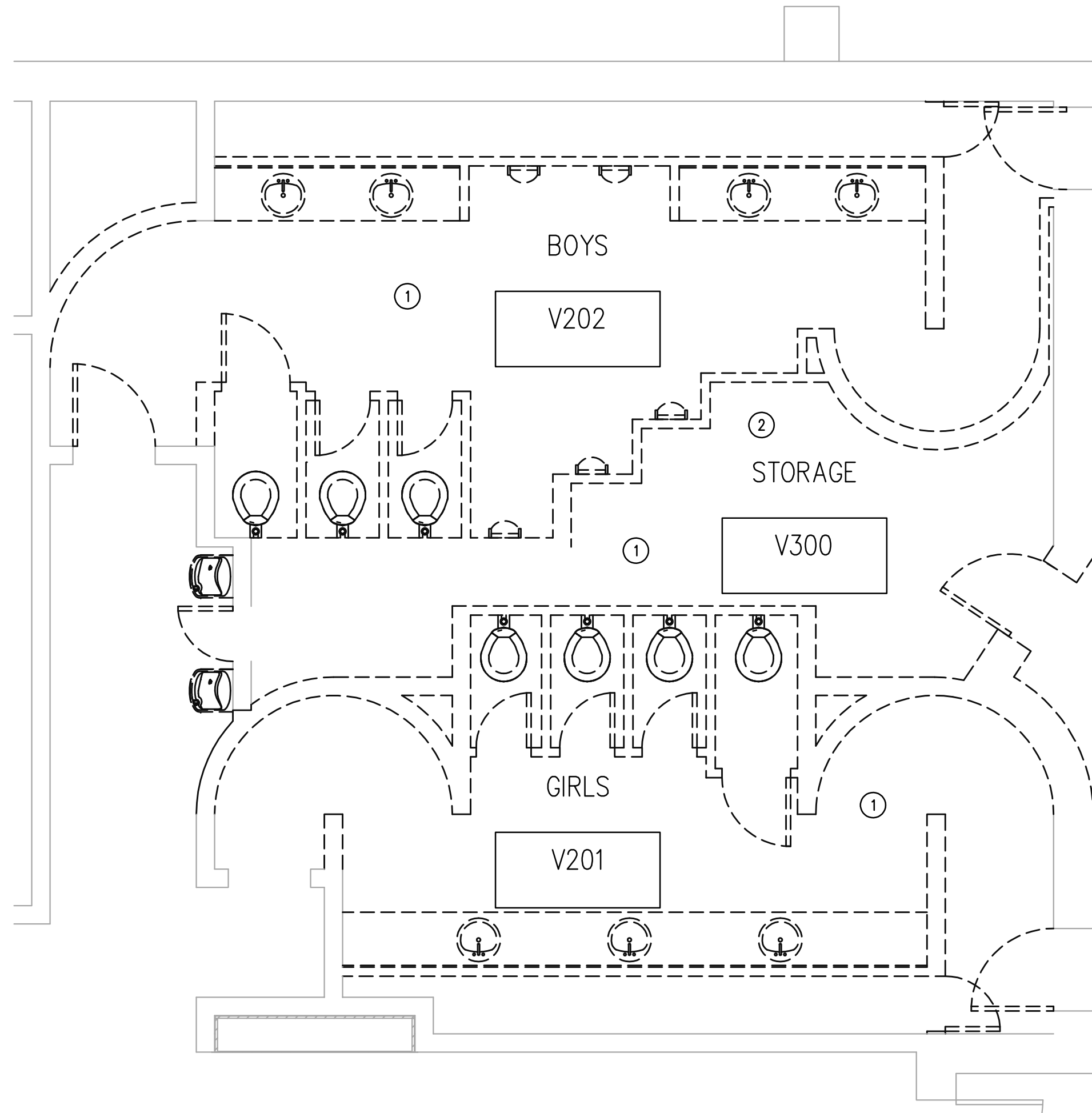
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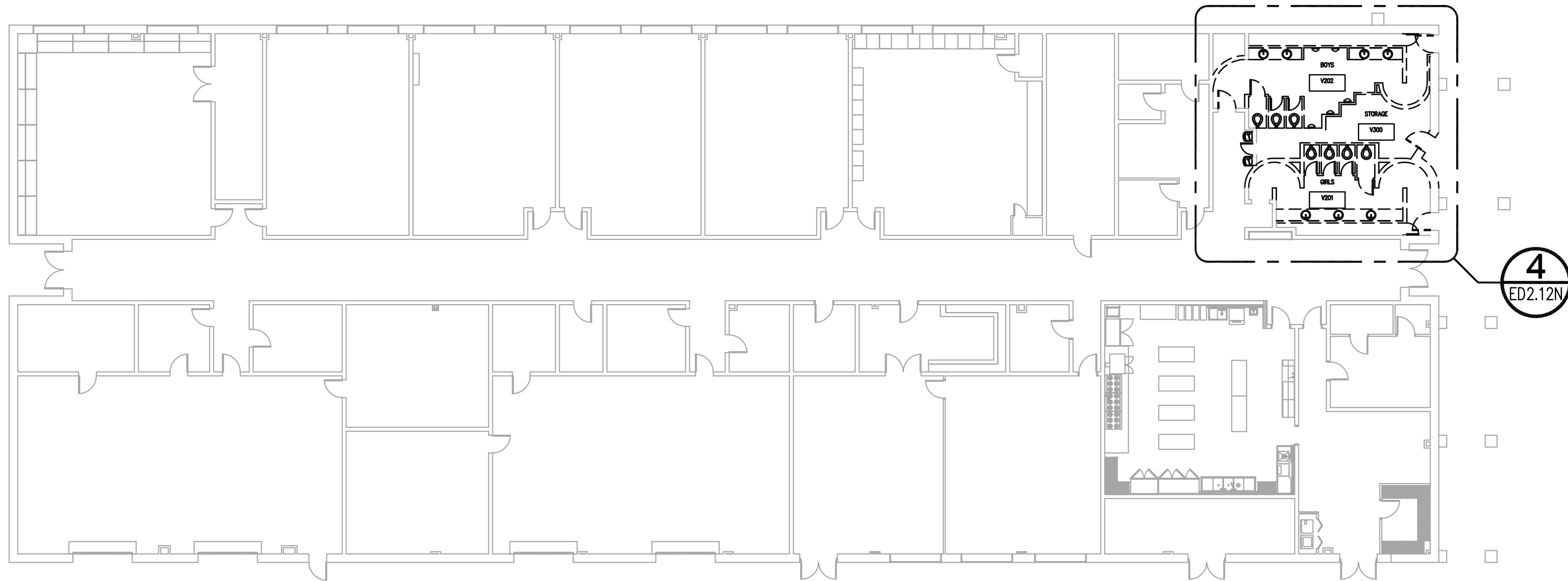
**3 ENLARGED ELECTRICAL DEMOLITION PLAN**  
ED2.12N 1/4"=1'-0"



**1 ELECTRICAL DEMOLITION PLAN - BUILDING P**  
ED2.12N 1/16"=1'-0"



**4 ENLARGED ELECTRICAL DEMOLITION PLAN**  
ED2.12N 1/4"=1'-0"



**2 ELECTRICAL DEMOLITION PLAN - BUILDING V**  
ED2.12N 1/16"=1'-0"

**GENERAL NOTES:**

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE FIELD VERIFIED EXISTING JOB-SITE CONDITIONS DURING THE BIDDING PERIOD TO OBTAIN SCOPE OF ELECTRICAL WORK INVOLVED AS A RESULT OF ARCHITECTURAL MODIFICATIONS TO THE EXISTING STRUCTURE. THE SCOPE OF WORK SHALL INCLUDE ALL LABOR AND MATERIAL CONSISTING OF FIXTURES, DEVICES, EQUIPMENT OR APPARATUS, CONDUIT AND WIRING WHICH MUST BE REROUTED, RELOCATED OR REMOVED EITHER TEMPORARILY OR PERMANENTLY, OR WHICH MUST BE PROVIDED, SO THAT THE INDICATED REMODELING MAY BE ACCOMPLISHED.
- ALL EQUIPMENT IS EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL REMOVE ALL ELECTRICAL CONNECTIONS TO EXISTING PREWIRED FURNITURE, REMOVE CONDUIT AND WIRING BACK TO LAST ACTIVE JUNCTION. ALL DATA CABLEING SHALL BE REMOVED BACK TO LAST ACTIVE JUNCTION AND SALVAGED FOR REINSTALLATION.
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- CONTRACTOR SHALL REMOVE AND SALVAGE ALL EXISTING FIRE ALARM DEVICES. PROVIDE ADDITIONAL DEVICES AS REQUIRED PER NEW FIRE ALARM DESIGN. EXISTING FIRE ALARM CONTROL PANEL SHALL REMAIN.
- ANY EXISTING CONDUIT NOT BEING REUSED ROUTED BELOW GRADE SHALL BE ABANDONED.
- ALL ELECTRICAL LIGHTING AND EQUIPMENT SHALL BE LOCATED PER NEW ELECTRICAL PLANS. EXTEND ALL EXISTING FEEDERS AS REQUIRED FOR RELOCATION.
- CONTRACTOR SHALL REPORT ANY DAMAGED DEVICES THAT ARE SHOWN AS EXISTING TO REMAIN TO THE OWNER BEFORE STARTING WORK. ALL DEVICES FOUND TO BE DAMAGED AT THE TIME OF SUBSTANTIAL COMPLETION THAT ARE NOT REPORTED PRIOR TO STARTING WORK SHALL BE REPLACED BY THE CONTRACTOR AT HIS COST.

**KEYED NOTES:**

- ELECTRICAL CONTRACTOR SHALL DISCONNECT AND REMOVE ALL EXISTING INTERIOR LIGHT FIXTURES THROUGH OUT THE SPACE, CEILING MOUNTED LIGHTING CONTROL DEVICES, CEILING MOUNTED FIRE ALARM DEVICES AND ALL ASSOCIATED CONDUIT AND WIRING BACK TO PANEL OR LAST ACTIVE JUNCTION BOX. REFER TO NEW ELECTRICAL WORK FOR NEW LIGHT FIXTURE LOCATIONS.
- VERIFY BOILER EQUIPMENT (ONTER CIRCUIT AND DOCUMENT FOR RELOCATION. REFER TO NEW WORK FOR NEW BOILER LOCATION.

Consultants:

**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



**PSJA ISD**  
**NORTH ECHS**  
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**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

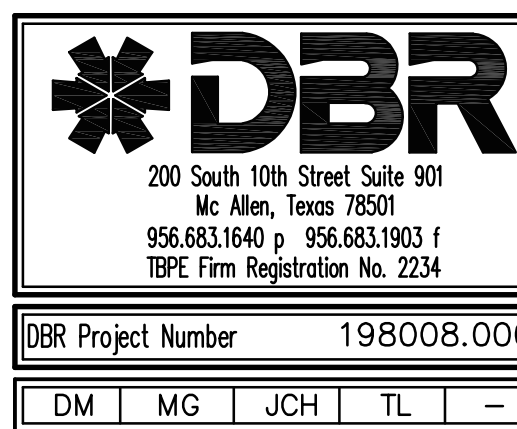
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Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
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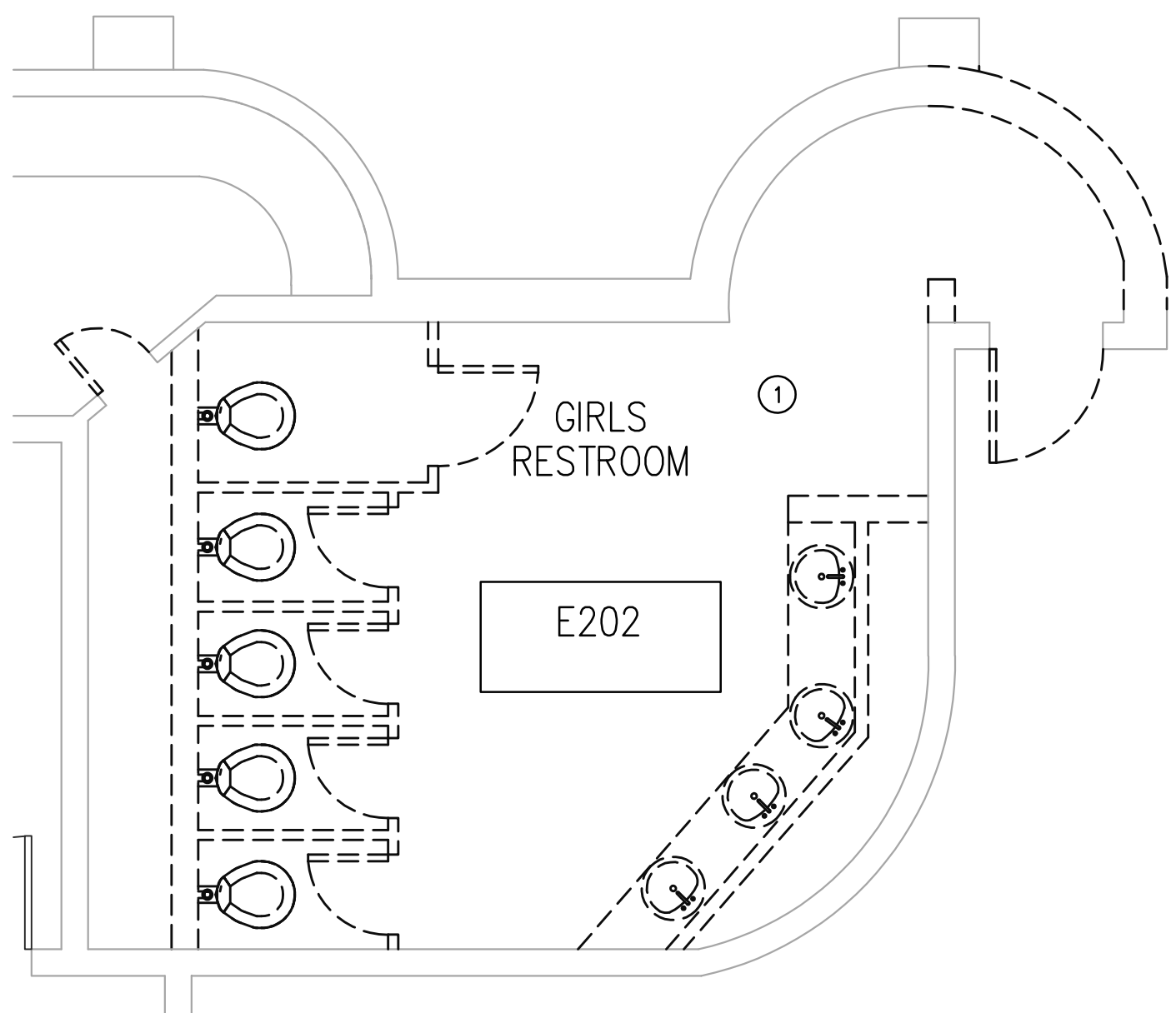
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**& BUILDING V**  
**ELECTRICAL**  
**DEMOLITION**  
**PLAN**



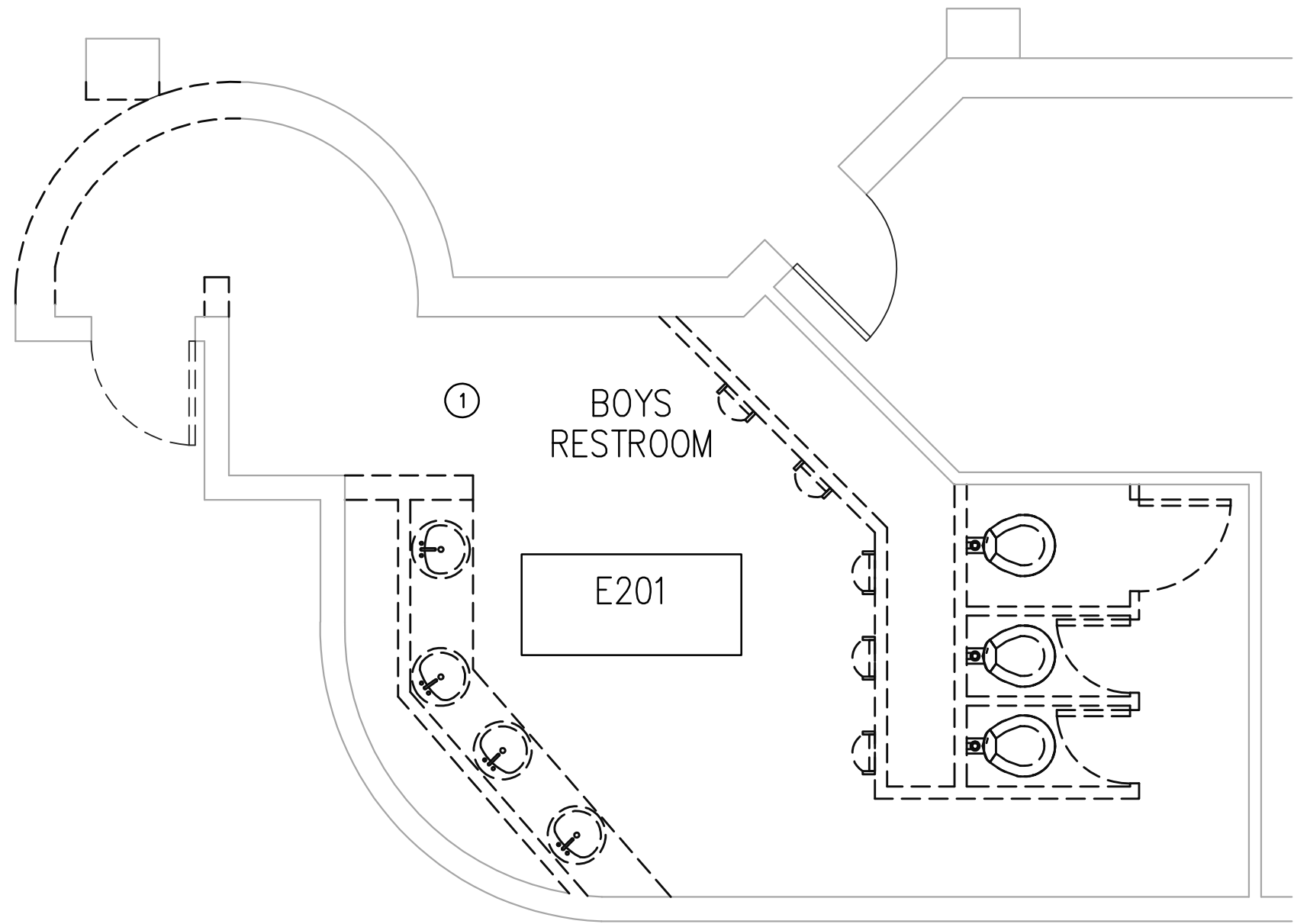
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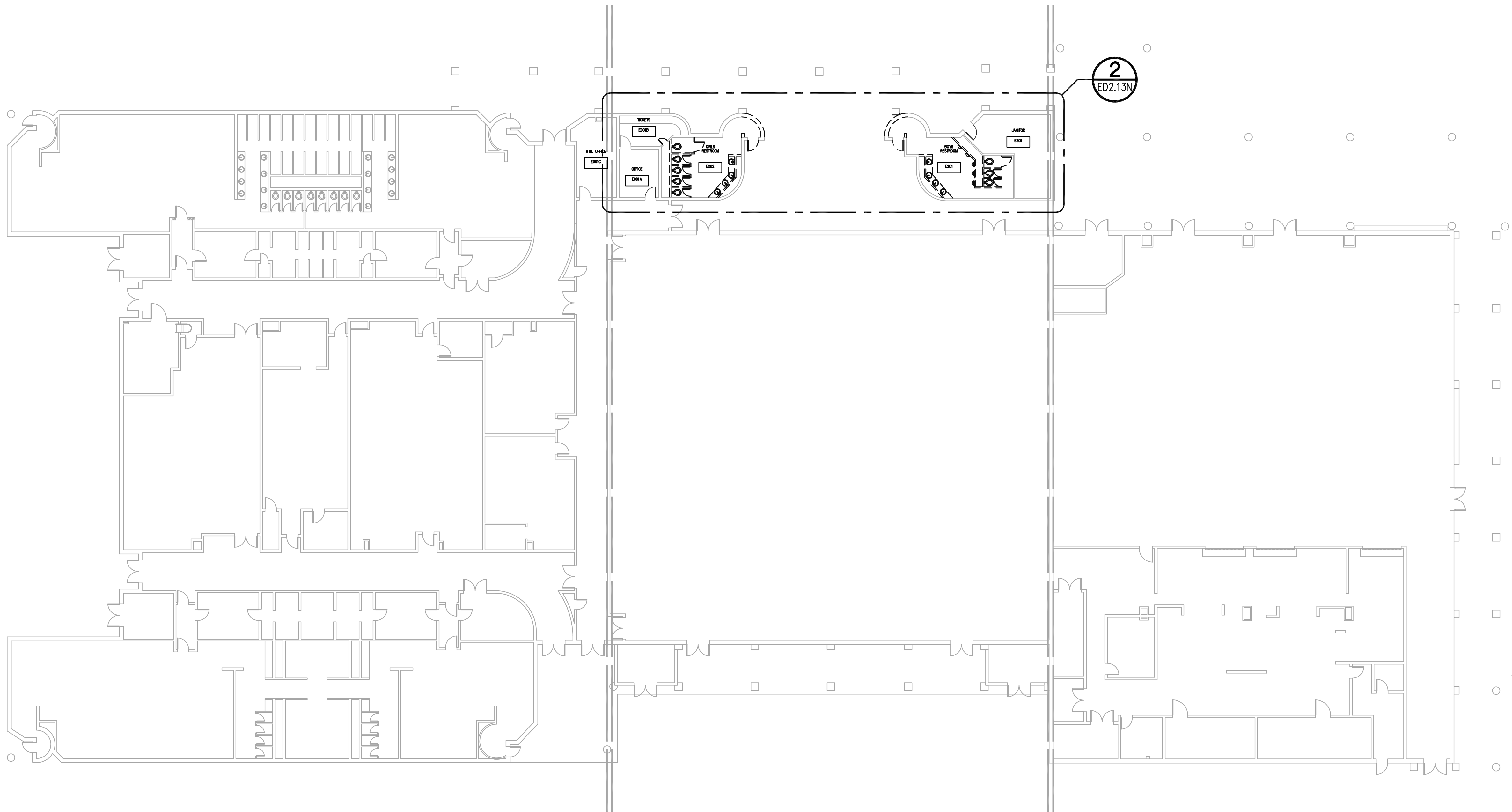
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**2 ENLARGED ELECTRICAL DEMOLITION PLAN**  
ED2.13N 1/4"=1'-0"



**2**  
ED2.13N



**1 ELECTRICAL DEMOLITION PLAN - BUILDING E**  
ED2.13N 1/16"=1'-0"

**GENERAL NOTES:**

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE FIELD VERIFIED EXISTING JOB-SITE CONDITIONS DURING THE BIDDING PERIOD TO OBTAIN SCOPE OF ELECTRICAL WORK INVOLVED AS A RESULT OF ARCHITECTURAL MODIFICATIONS TO THE EXISTING STRUCTURE. THE SCOPE OF WORK SHALL INCLUDE ALL LABOR AND MATERIAL, CONSISTING OF FIXTURES, DEVICES, EQUIPMENT OR APPARATUS, CONDUIT AND WIRING WHICH MUST BE REROUTED, RELOCATED OR REMOVED EITHER TEMPORARILY OR PERMANENTLY, OR WHICH MUST BE PROVIDED, SO THAT THE INDICATED REMODELING MAY BE ACCOMPLISHED.
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- ANY EXISTING CONDUIT NOT BEING REUSED ROUTED BELOW GRADE SHALL BE ABANDONED.
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**KEYED NOTES:**

- ELECTRICAL CONTRACTOR SHALL DISCONNECT AND REMOVE ALL EXISTING INTERIOR LIGHT FIXTURES THROUGH OUT THE SPACE, CEILING MOUNTED LIGHTING CONTROL DEVICES, CEILING MOUNTED FIRE ALARM DEVICES AND ALL ASSOCIATED CONDUIT AND WIRING BACK TO PANEL OR LAST ACTIVE JUNCTION BOX. REFER TO NEW ELECTRICAL WORK FOR NEW LIGHT FIXTURE LOCATIONS.

**Consultants:**

**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



**PSJA ISD**

**NORTH ECHS  
& COLLEGE**

**AND  
UNIVERSITY  
CAMPUS**

**STUDENT  
RESTROOM  
RENOVATIONS**

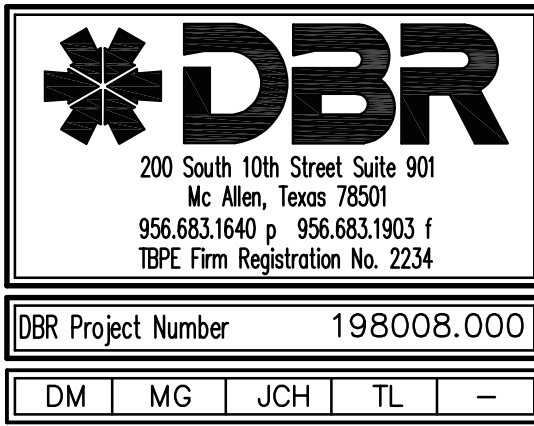
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Drawing Date: 5-10-2019  
Drawn: AL  
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Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

**Revisions:**

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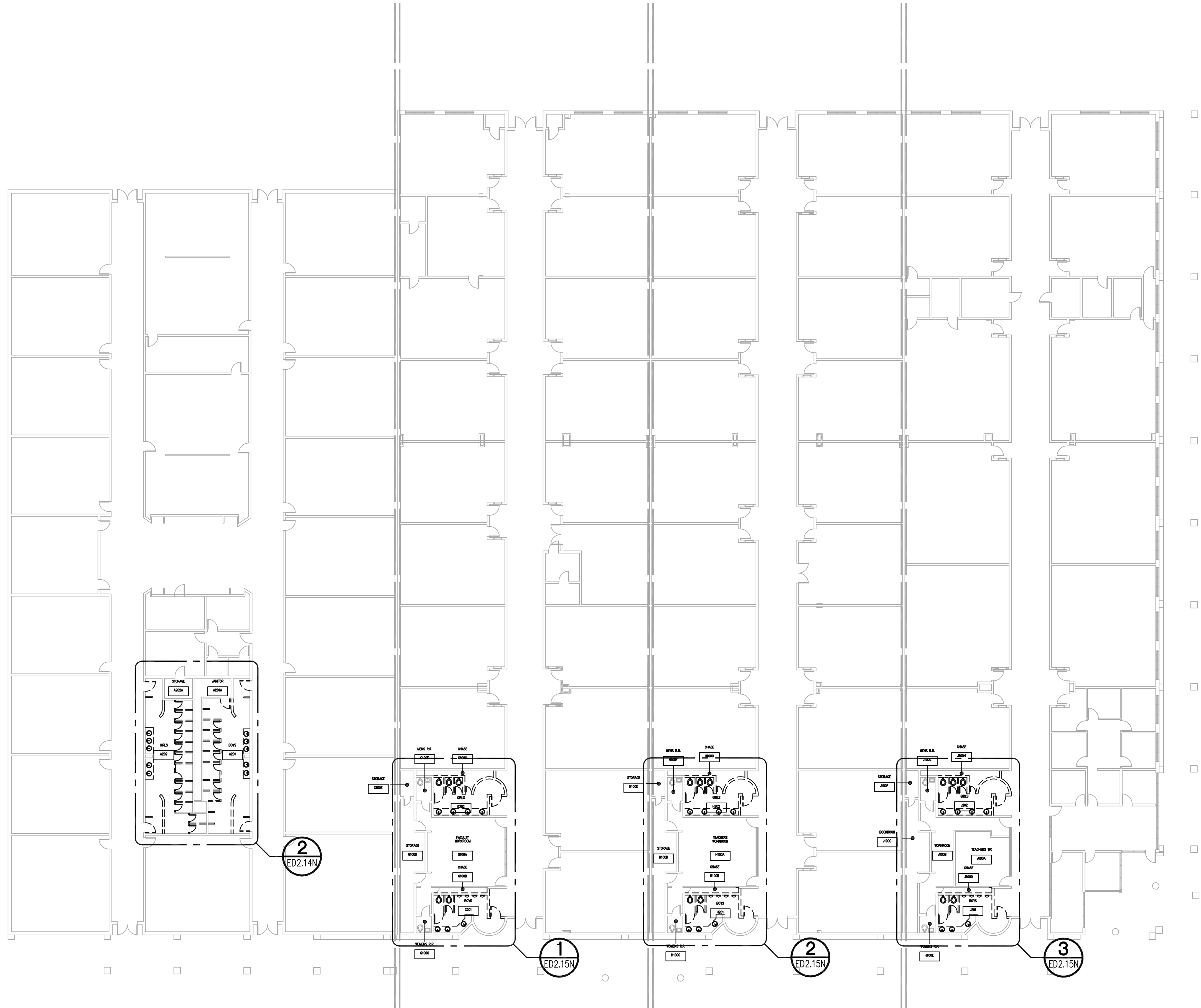
**BUILDING E  
ELECTRICAL  
DEMOLITION  
PLAN**



**ED2.13N**



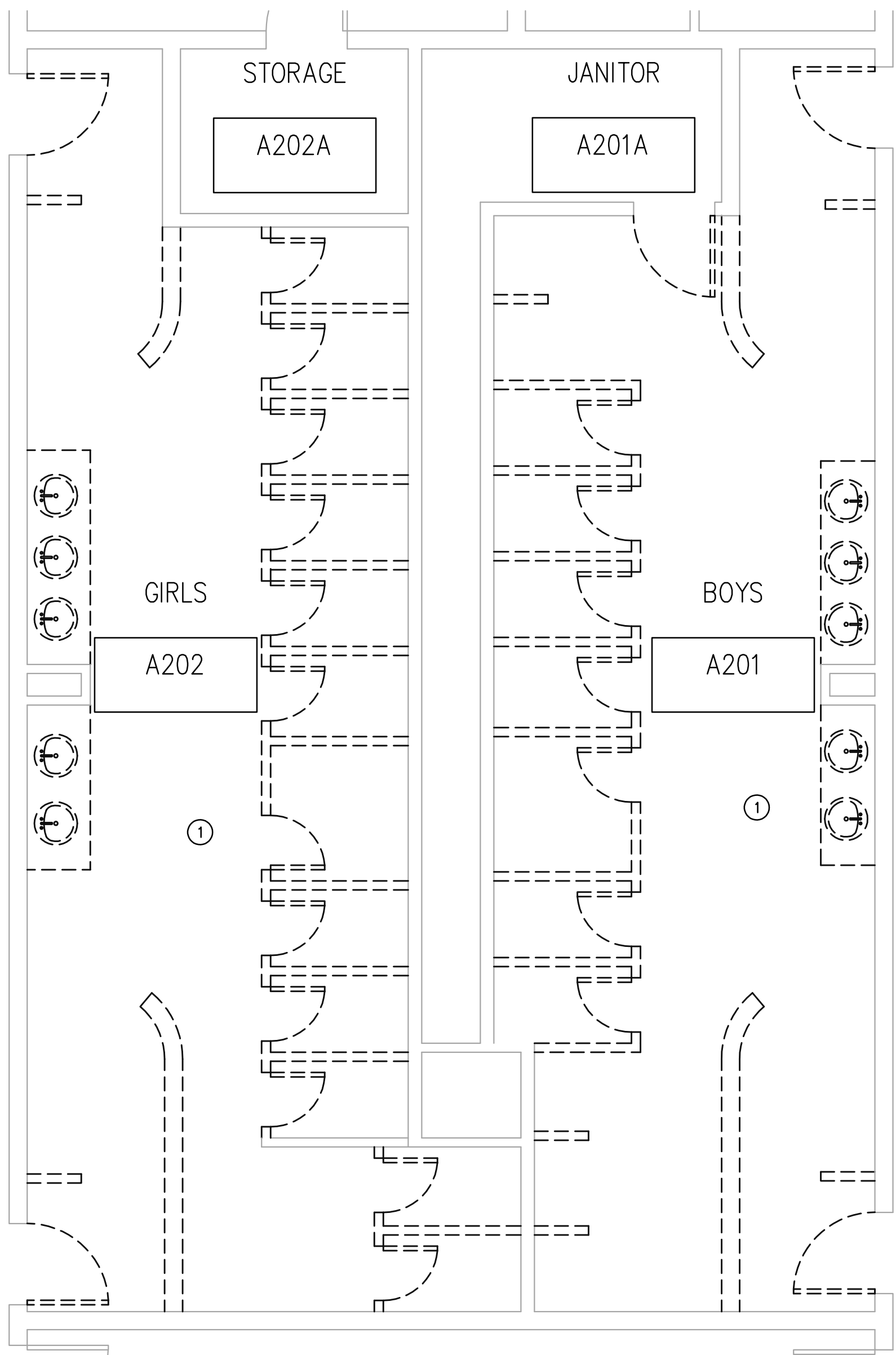
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**1** ELECTRICAL DEMOLITION PLAN - BUILDING A-G-H-J  
1/16"=1'-0"

- GENERAL NOTES:**
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE FIELD VERIFIED EXISTING JOB-SITE CONDITIONS DURING THE BIDDING PERIOD TO OBTAIN SCOPE OF ELECTRICAL WORK INVOLVED AS A RESULT OF ARCHITECTURAL MODIFICATIONS TO THE EXISTING STRUCTURE. THE SCOPE OF WORK SHALL INCLUDE ALL LABOR AND MATERIAL, CONSISTING OF FIXTURES, DEVICES, EQUIPMENT OR APPARATUS, CONDUIT AND WIRING WHICH MUST BE REROUTED, RELOCATED OR REMOVED EITHER TEMPORARILY OR PERMANENTLY, OR WHICH MUST BE PROVIDED, SO THAT THE INDICATED REMODELING MAY BE ACCOMPLISHED.
  - ALL EQUIPMENT IS EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
  - CONTRACTOR SHALL REMOVE ALL ELECTRICAL CONNECTIONS TO EXISTING PREEMED FURNITURE. REMOVE CONDUIT AND WIRING BACK TO LAST ACTIVE JUNCTION. ALL DATA CABLES SHALL BE REMOVED BACK TO LAST ACTIVE JUNCTION AND SALVAGED FOR REINSTALLATION.
  - OWNER SHALL RESERVE THE RIGHT TO CLAIM ALL EQUIPMENT AND CABLES REMOVED DURING DEMOLITION.
  - CONTRACTOR SHALL REMOVE ALL ELECTRICAL DEVICES WITHIN DEMOLISHED WALLS INCLUDING RECEPTACLES, SWITCHES, DATA/TELEPHONE DROPS, FIRE ALARM DEVICES, P/A DEVICES, CONDUIT, AND WIRING. REMOVE CONDUIT AND WIRING BACK TO PANEL OR LAST ACTIVE JUNCTION BOX. REFER TO ARCHITECTURAL DEMO PLAN. ALL DEVICES SHALL BE STORED AND PROTECTED FROM DAMAGE FOR REINSTALLATION PER NEW ELECTRICAL WORK.
  - CONTRACTOR SHALL REMOVE AND SALVAGE ALL EXISTING FIRE ALARM DEVICES. PROVIDE ADDITIONAL DEVICES AS REQUIRED PER NEW FIRE ALARM DESIGN. EXISTING FIRE ALARM CONTROL PANEL SHALL REMAIN.
  - ANY EXISTING CONDUIT NOT BEING REUSED ROUTED BELOW GRADE SHALL BE ABANDONED.
  - ALL ELECTRICAL LIGHTING AND EQUIPMENT SHALL BE LOCATED PER NEW ELECTRICAL PLANS. EXTEND ALL EXISTING FEEDERS AS REQUIRED FOR RELOCATION.
  - CONTRACTOR SHALL REPORT ANY DAMAGED DEVICES THAT ARE SHOWN AS EXISTING TO REMAIN TO THE OWNER BEFORE STARTING WORK. ALL DEVICES FOUND TO BE DAMAGED AT THE TIME OF SUBSTANTIAL COMPLETION THAT ARE NOT REPORTED PRIOR TO STARTING WORK SHALL BE REPLACED BY THE CONTRACTOR AT HIS COST.

- KEYED NOTES:**
- ELECTRICAL CONTRACTOR SHALL DISCONNECT AND REMOVE ALL EXISTING INTERIOR LIGHT FIXTURES THROUGH OUT THE SPACE, CEILING MOUNTED LIGHTING CONTROL DEVICES, CEILING MOUNTED FIRE ALARM DEVICES AND ALL ASSOCIATED CONDUIT AND WIRING BACK TO PANEL OR LAST ACTIVE JUNCTION BOX. REFER TO NEW ELECTRICAL WORK FOR NEW LIGHT FIXTURE LOCATIONS.



**2** ENLARGED ELECTRICAL DEMOLITION PLAN  
1/4"=1'-0"

**DBR**  
200 South 10th Street Suite 901  
Mc Allen, Texas 78501  
956.683.1940 • 956.683.1903 f  
TSP# Firm Registration No. 2234

DBR Project Number 198008.000

DM	MG	JCH	TL	-
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222 E. VAN BUREN, SUITE 102  
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3700 N. 10TH, SUITE 205  
MCALLEN, TEXAS 78501  
T 956.686.0100  
F 956.622.7313

Consultants:

**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



**PSJA ISD**  
**NORTH ECHS**  
**& COLLEGE**  
**AND**  
**UNIVERSITY**  
**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

**KEYPLAN**

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

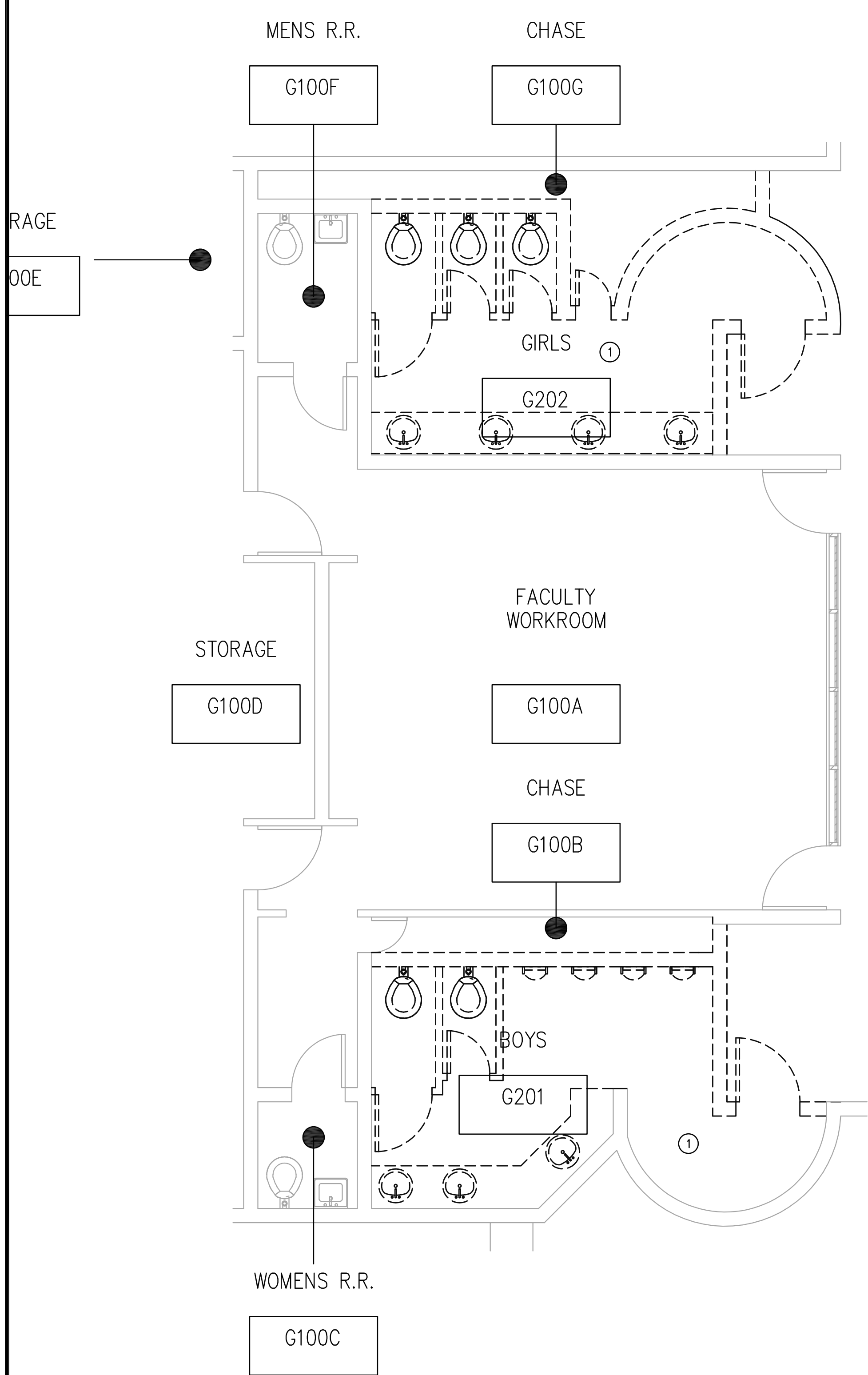
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**BUILDING**  
**A-G-H-J**  
**ELECTRICAL**  
**DEMOLITION**  
**PLAN**

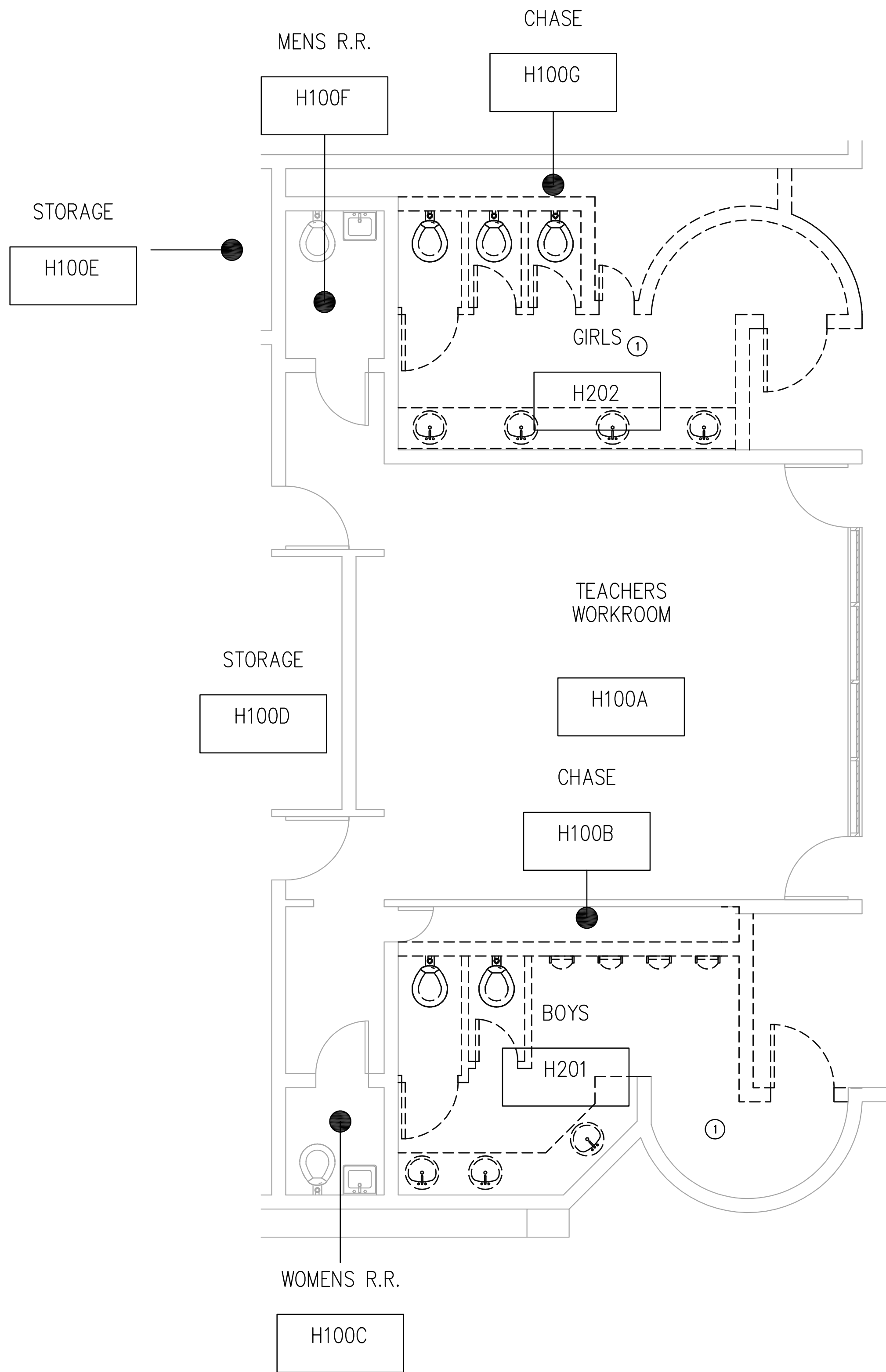
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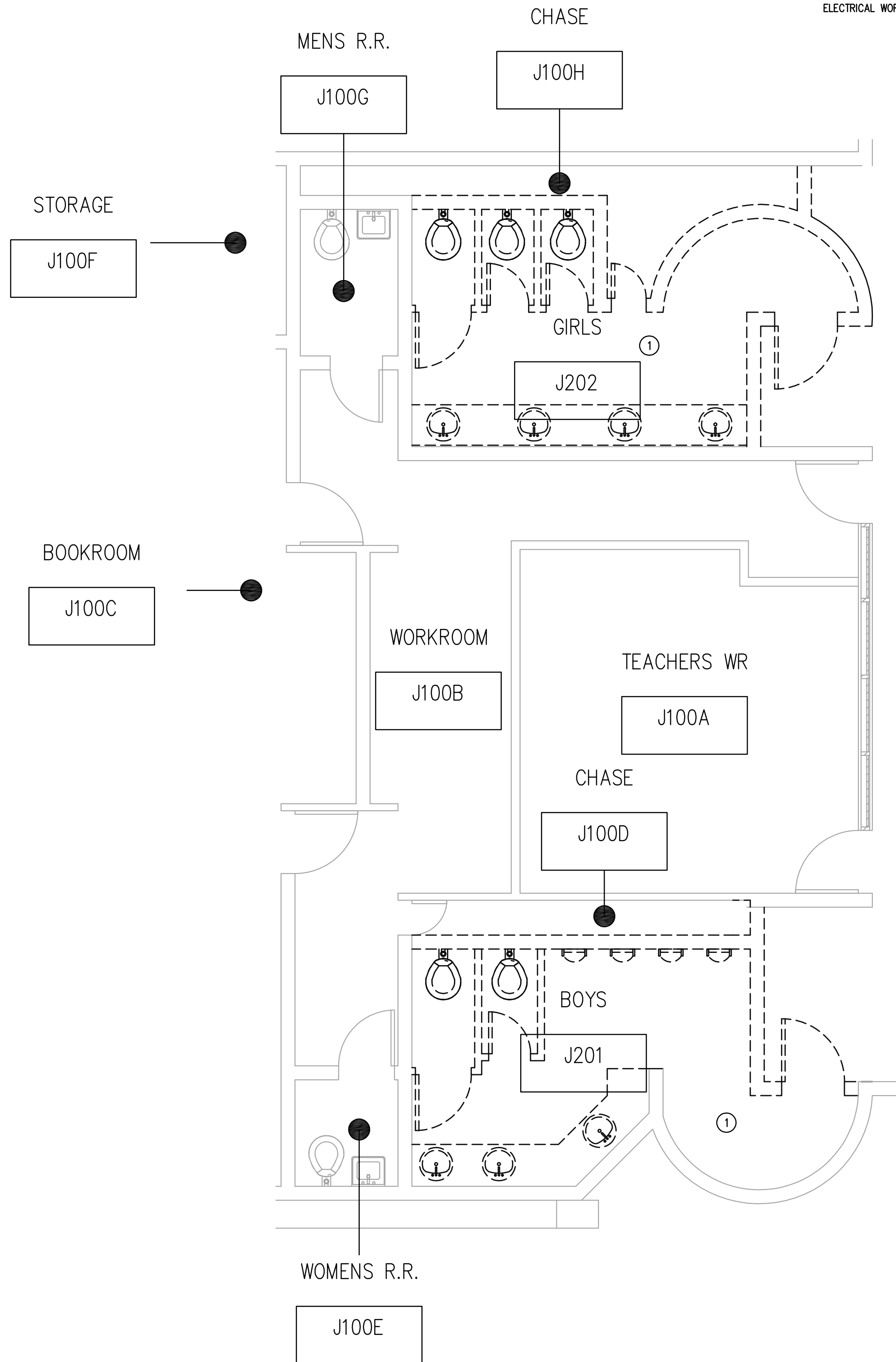
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**1 ENLARGED ELECTRICAL DEMOLITION PLAN**  
ED2.15N 1/4"=1'-0"



**2 ENLARGED ELECTRICAL DEMOLITION PLAN**  
ED2.15N 1/4"=1'-0"



**3 ENLARGED ELECTRICAL DEMOLITION PLAN**  
ED2.15N 1/4"=1'-0"

**GENERAL NOTES:**

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE FIELD VERIFIED EXISTING JOB-SITE CONDITIONS DURING THE BIDDING PERIOD TO OBTAIN SCOPE OF ELECTRICAL WORK INVOLVED AS A RESULT OF ARCHITECTURAL MODIFICATIONS TO THE EXISTING STRUCTURE. THE SCOPE OF WORK SHALL INCLUDE ALL LABOR AND MATERIAL, CONSISTING OF FIXTURES, DEVICES, EQUIPMENT OR APPARATUS, CONDUIT AND WIRING WHICH MUST BE REROUTED, RELOCATED OR REMOVED EITHER TEMPORARILY OR PERMANENTLY, OR WHICH MUST BE PROVIDED, SO THAT THE INDICATED REMODELING MAY BE ACCOMPLISHED.
- ALL EQUIPMENT IS EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL REMOVE ALL ELECTRICAL CONNECTIONS TO EXISTING PREMISED FURNITURE. REMOVE CONDUIT AND WIRING BACK TO LAST ACTIVE JUNCTION. ALL DATA CABLES SHALL BE REMOVED BACK TO LAST ACTIVE JUNCTION AND SALVAGED FOR REINSTALLATION.
- OWNER SHALL RESERVE THE RIGHT TO CLAIM ALL EQUIPMENT AND CABLES REMOVED DURING DEMOLITION.
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- CONTRACTOR SHALL REMOVE AND SALVAGE ALL EXISTING FIRE ALARM DEVICES. PROVIDE ADDITIONAL DEVICES AS REQUIRED PER NEW FIRE ALARM DESIGN. EXISTING FIRE ALARM CONTROL PANEL SHALL REMAIN.
- ANY EXISTING CONDUIT NOT BEING REUSED ROUTED BELOW GRADE SHALL BE ABANDONED.
- ALL ELECTRICAL LIGHTING AND EQUIPMENT SHALL BE LOCATED PER NEW ELECTRICAL PLANS. EXTEND ALL EXISTING FEEDERS AS REQUIRED FOR RELOCATION.
- CONTRACTOR SHALL REPORT ANY DAMAGED DEVICES THAT ARE SHOWN AS EXISTING TO REMAIN TO THE OWNER BEFORE STARTING WORK. ALL DEVICES FOUND TO BE DAMAGED AT THE TIME OF SUBSTANTIAL COMPLETION THAT ARE NOT REPORTED PRIOR TO STARTING WORK SHALL BE REPLACED BY THE CONTRACTOR AT HIS COST.

**KEYED NOTES:**

- ELECTRICAL CONTRACTOR SHALL DISCONNECT AND REMOVE ALL EXISTING INTERIOR LIGHT FIXTURES THROUGH OUT THE SPACE, CEILING MOUNTED LIGHTING CONTROL DEVICES, CEILING MOUNTED FIRE ALARM DEVICES AND ALL ASSOCIATED CONDUIT AND WIRING BACK TO PANEL OR LAST ACTIVE JUNCTION BOX. REFER TO NEW ELECTRICAL WORK FOR NEW LIGHT FIXTURE LOCATIONS.

**Consultants:**

**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



**PSJA ISD**  
**NORTH ECHS**  
**& COLLEGE**  
**AND**  
**UNIVERSITY**  
**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

**KEYPLAN**

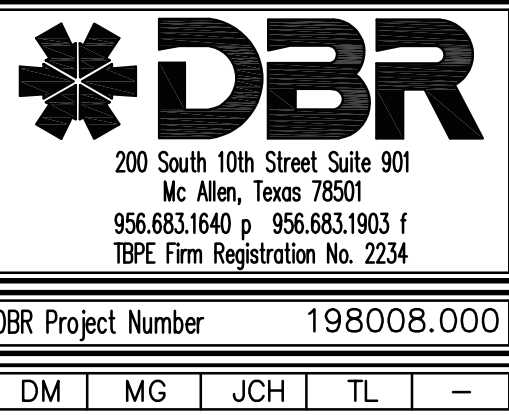
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Drawing Date: 5-10-2019  
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Checked: JM  
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ACAD File: A-240-U

**Revisions:**

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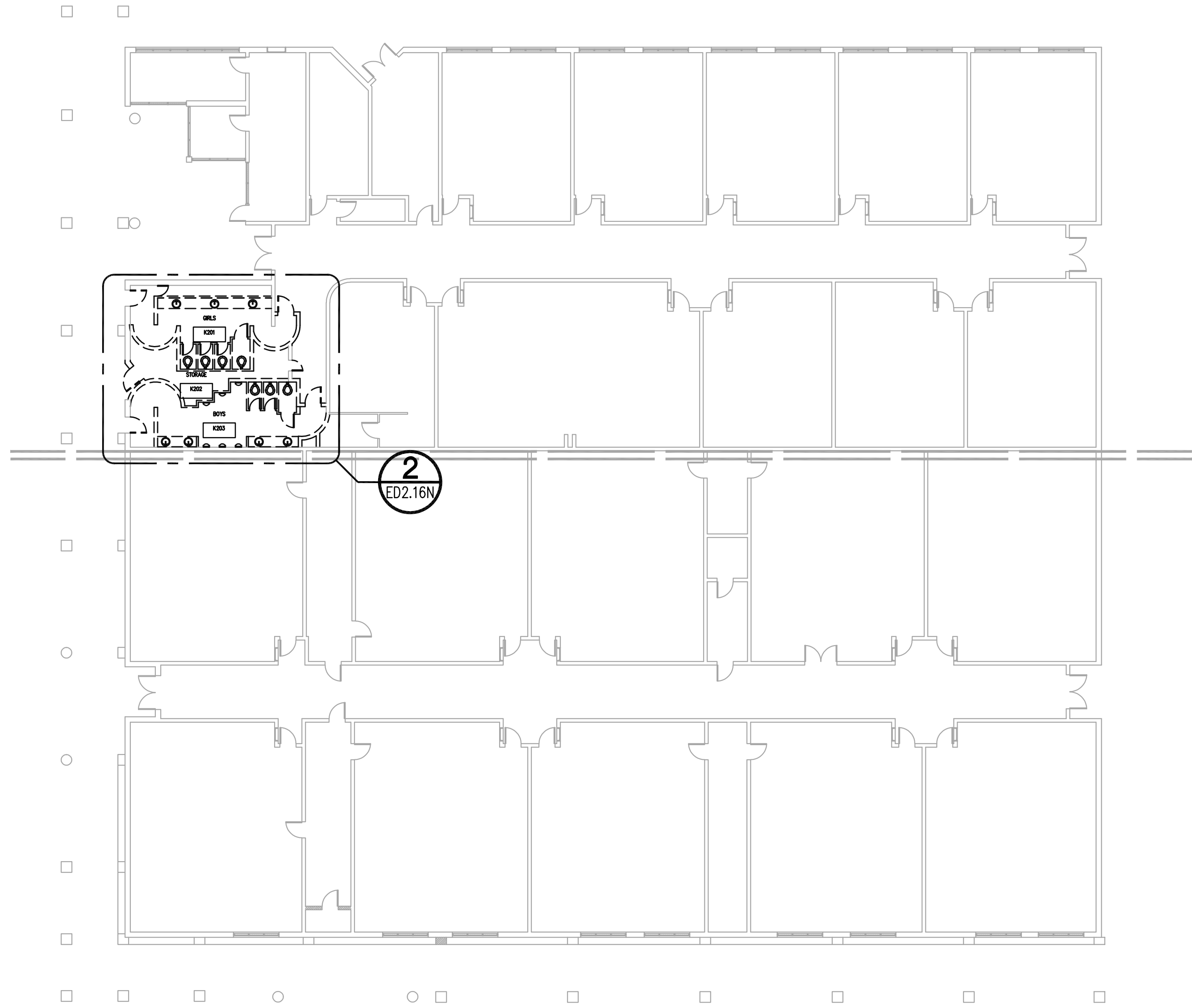
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**A-G-H-J**  
**ELECTRICAL**  
**DEMOLITION**  
**PLAN**

**ED2.15N**

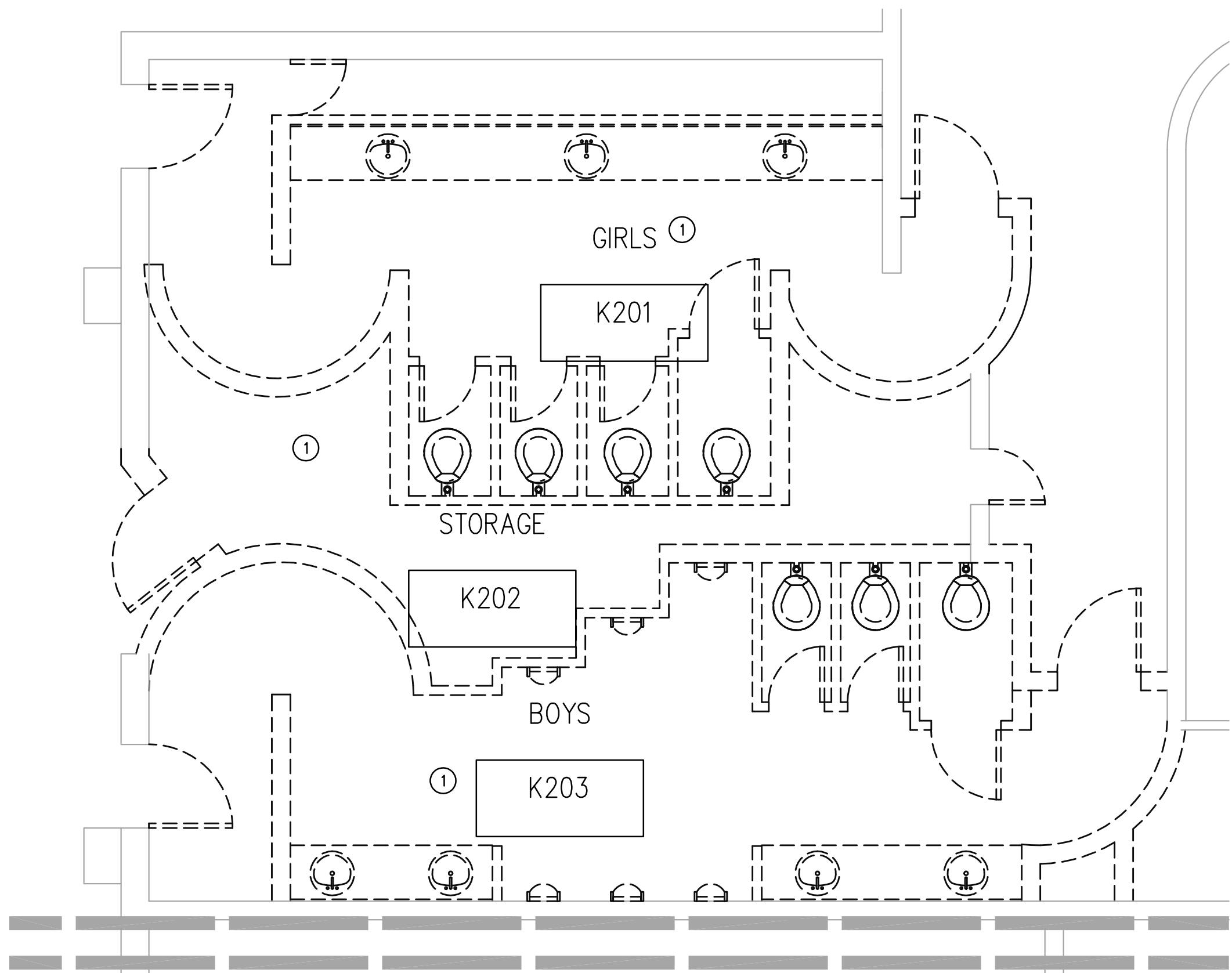




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**1** ELECTRICAL DEMOLITION PLAN - BUILDING K  
ED2.16N 1/16"=1'-0"



**2** ENLARGED ELECTRICAL DEMOLITION PLAN  
ED2.16N 1/4"=1'-0"

- GENERAL NOTES:**
- A. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE FIELD VERIFIED EXISTING JOB-SITE CONDITIONS DURING THE BIDDING PERIOD TO OBTAIN SCOPE OF ELECTRICAL WORK INVOLVED AS A RESULT OF ARCHITECTURAL MODIFICATIONS TO THE EXISTING STRUCTURE. THE SCOPE OF WORK SHALL INCLUDE ALL LABOR AND MATERIAL CONSISTING OF FIXTURES, DEVICES, EQUIPMENT OR APPARATUS, CONDUIT AND WIRING WHICH MUST BE REROUTED, RELOCATED OR REMOVED EITHER TEMPORARILY OR PERMANENTLY, OR WHICH MUST BE PROVIDED, SO THAT THE INDICATED REMODELING MAY BE ACCOMPLISHED.
  - B. ALL EQUIPMENT IS EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
  - C. CONTRACTOR SHALL REMOVE ALL ELECTRICAL CONNECTIONS TO EXISTING PREMISED FURNITURE. REMOVE CONDUIT AND WIRING BACK TO LAST ACTIVE JUNCTION. ALL DATA CABLES SHALL BE REMOVED BACK TO LAST ACTIVE JUNCTION AND SALVAGED FOR REINSTALLATION.
  - D. OWNER SHALL RESERVE THE RIGHT TO CLAIM ALL EQUIPMENT AND CABLES REMOVED DURING DEMOLITION.
  - E. CONTRACTOR SHALL REMOVE ALL ELECTRICAL DEVICES WITHIN DEMOLISHED WALLS INCLUDING RECEPTACLES, SWITCHES, DATA/TELEPHONE DROPS, FIRE ALARM DEVICES, P/A DEVICES, CONDUIT, AND WIRING. REMOVE CONDUIT AND WIRING BACK TO PANEL OR LAST ACTIVE JUNCTION BOX. REFER TO ARCHITECTURAL DEMO PLAN. ALL DEVICES SHALL BE STORED AND PROTECTED FROM DAMAGE FOR REINSTALLATION PER NEW ELECTRICAL WORK.
  - F. CONTRACTOR SHALL REMOVE AND SALVAGE ALL EXISTING FIRE ALARM DEVICES. PROVIDE ADDITIONAL DEVICES AS REQUIRED PER NEW FIRE ALARM DESIGN. EXISTING FIRE ALARM CONTROL PANEL SHALL REMAIN.
  - G. ANY EXISTING CONDUIT NOT BEING REUSED ROUTED BELOW GRADE SHALL BE ABANDONED.
  - H. ALL ELECTRICAL LIGHTING AND EQUIPMENT SHALL BE LOCATED PER NEW ELECTRICAL PLANS. EXTEND ALL EXISTING FEEDERS AS REQUIRED FOR RELOCATION.
  - I. CONTRACTOR SHALL REPORT ANY DAMAGED DEVICES THAT ARE SHOWN AS EXISTING TO REMAIN TO THE OWNER BEFORE STARTING WORK. ALL DEVICES FOUND TO BE DAMAGED AT THE TIME OF SUBSTANTIAL COMPLETION THAT ARE NOT REPORTED PRIOR TO STARTING WORK SHALL BE REPLACED BY THE CONTRACTOR AT HIS COST.

- KEYED NOTES:**
- 1. ELECTRICAL CONTRACTOR SHALL DISCONNECT AND REMOVE ALL EXISTING INTERIOR LIGHT FIXTURES THROUGH OUT THE SPACE, CEILING MOUNTED LIGHTING CONTROL DEVICES, CEILING MOUNTED FIRE ALARM DEVICES AND ALL ASSOCIATED CONDUIT AND WIRING BACK TO PANEL OR LAST ACTIVE JUNCTION BOX. REFER TO NEW ELECTRICAL WORK FOR NEW LIGHT FIXTURE LOCATIONS.

**DBR**  
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TBP# Firm Registration No. 2234

DBR Project Number 198008.000

DM	MG	JCH	TL	-
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3700 N. 10TH, SUITE 205  
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Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING

**PSJA ISD**  
**NORTH ECHS**  
**& COLLEGE**  
**AND**  
**UNIVERSITY**  
**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

**KEYPLAN**

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

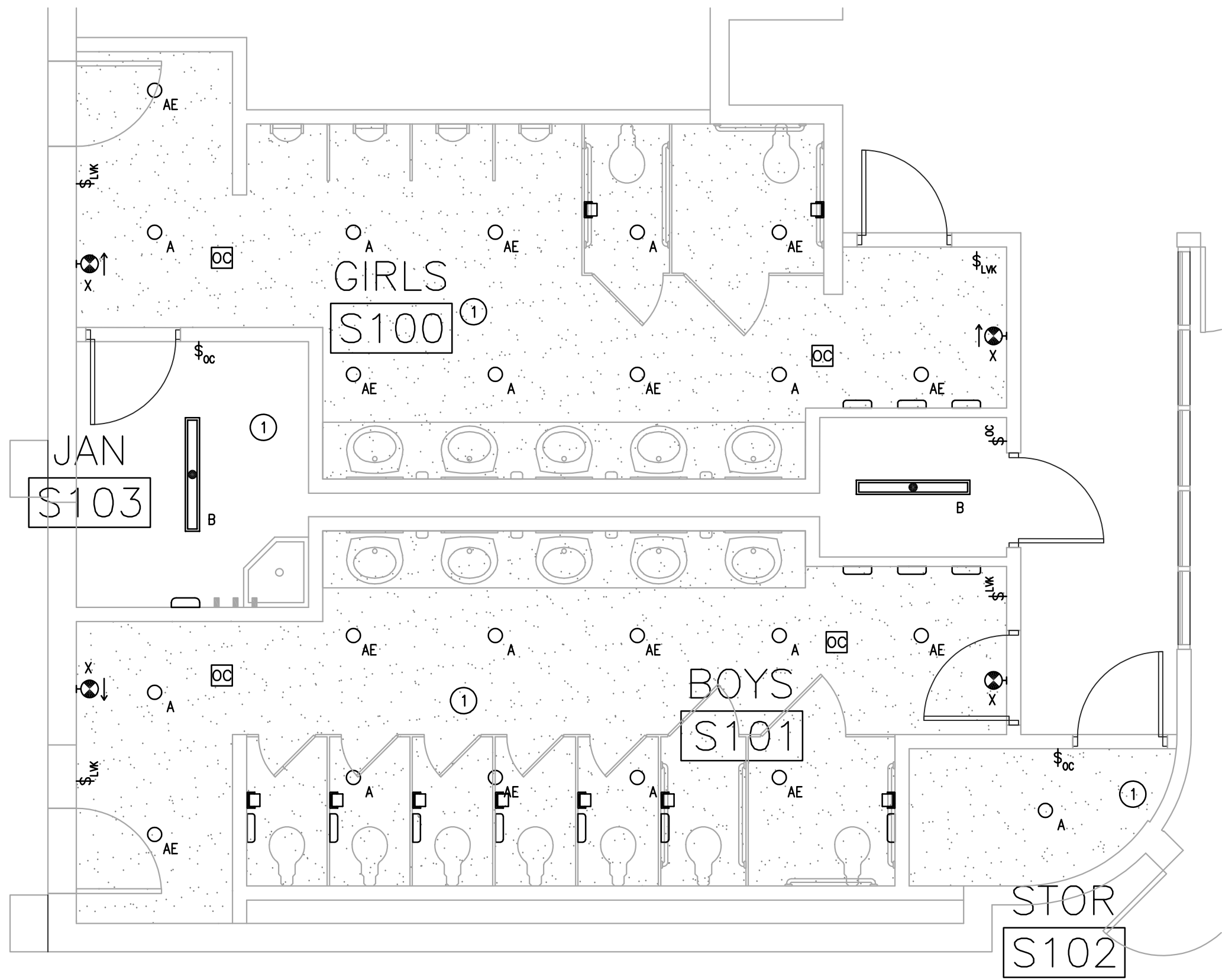

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**BUILDING K**  
**ELECTRICAL**  
**DEMOLITION**  
**PLAN**

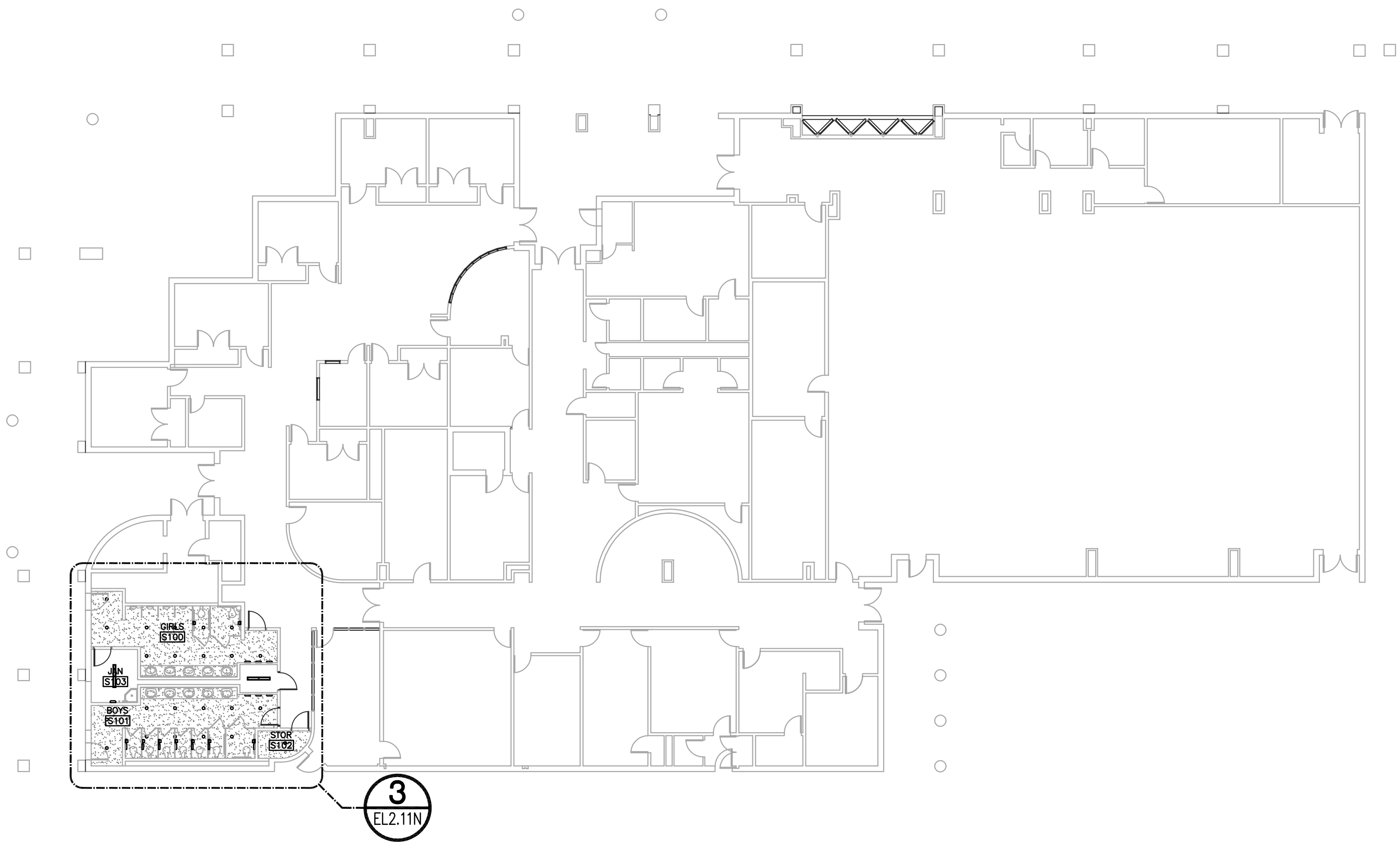
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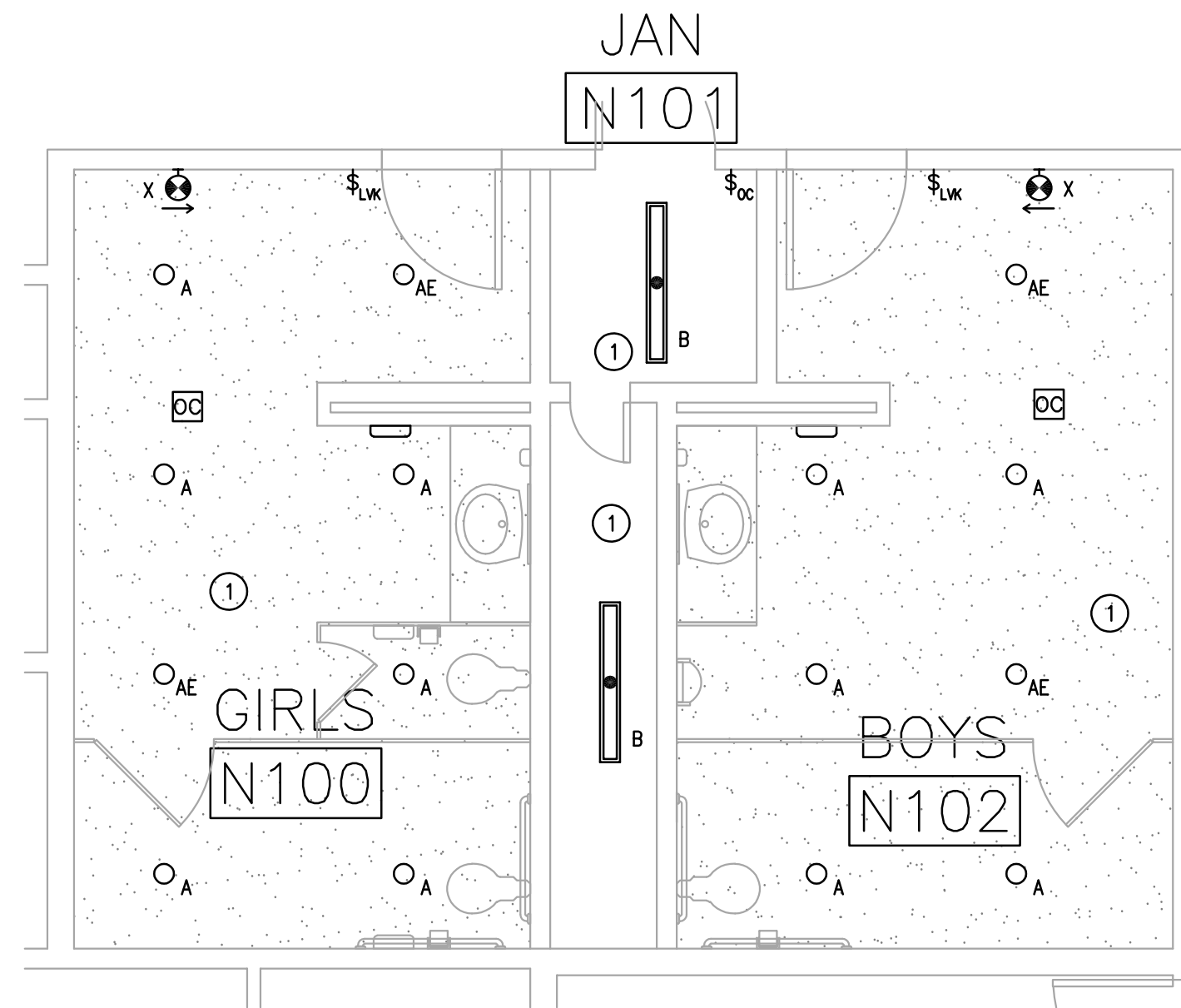
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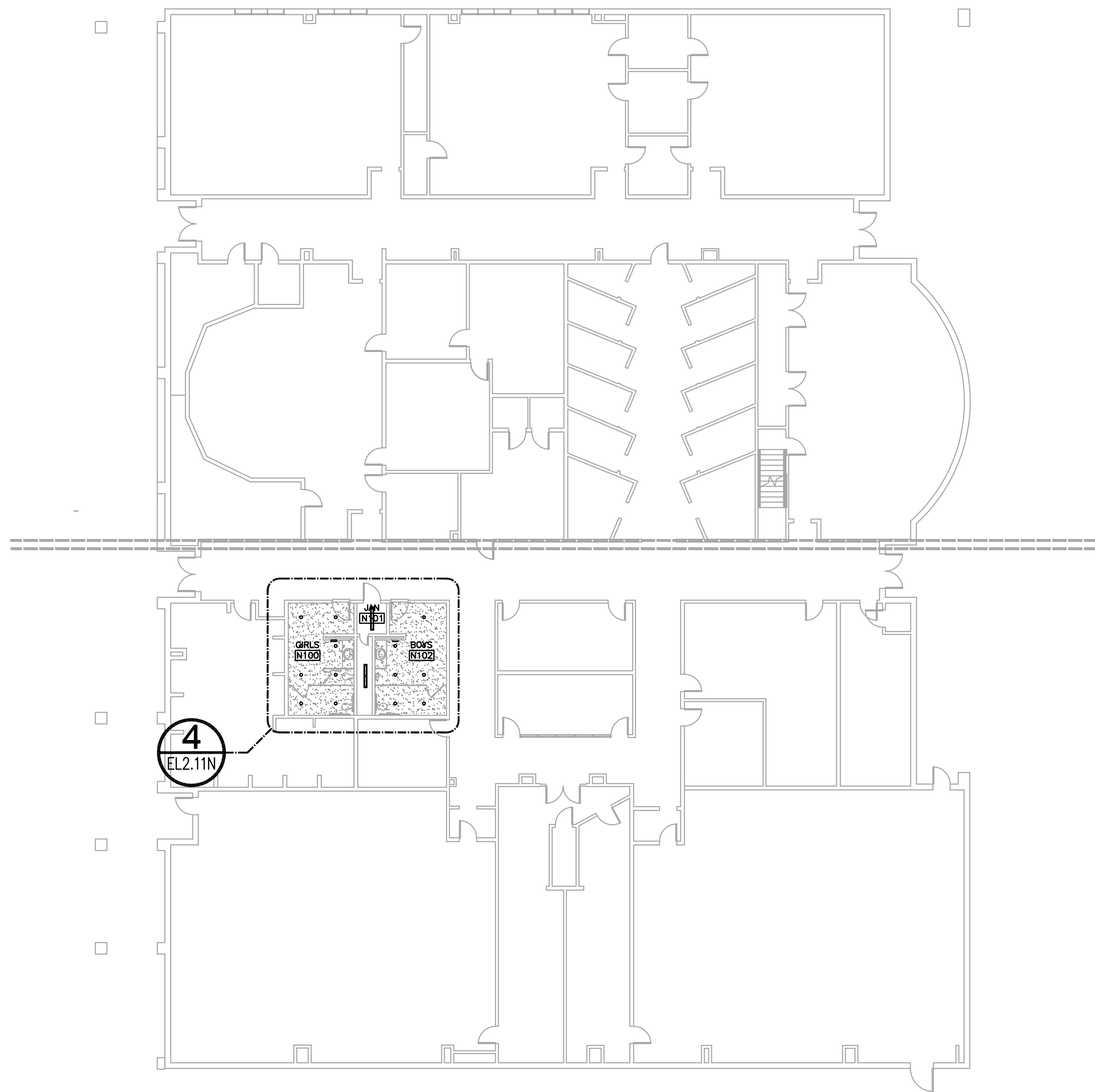
**3 ENLARGED ELECTRICAL PLAN**  
1/4"=1'-0"



**1 ELECTRICAL PLAN - BUILDING S**  
1/16"=1'-0"



**4 ENLARGED ELECTRICAL PLAN**  
1/4"=1'-0"



**2 ELECTRICAL PLAN - BUILDING N**  
1/16"=1'-0"

**GENERAL NOTES:**

- ALL LIGHT FIXTURE LOCATIONS SHOWN ARE APPROXIMATE. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS WITH INSTALLED CEILING GRID, MECHANICAL DUCT WORK, STRUCTURAL MEMBERS AND ALL OTHER TRADES.
- ELECTRICAL CONTRACTOR SHALL COORDINATE MOUNTING HEIGHTS OF ALL SUSPENDED, PENDANT MOUNTED AND WALL MOUNTED LIGHT FIXTURES WITH ARCHITECT AND/OR ENGINEER. PROVIDE ALL MOUNTING HARDWARE AS REQUIRED AT NO ADDITIONAL COST TO OWNER.
- ALL LIGHT FIXTURES SHALL BE PROVIDED WITH UNIVERSAL VOLTAGE DRIVERS. ELECTRICAL CONTRACTOR SHALL VERIFY VOLTAGE OF EXISTING AND NEW PANELS AND CONNECT ALL LIGHT FIXTURES ACCORDINGLY.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE LIGHTING CONTROLS MANUFACTURER AND PROVIDE ADEQUATE NUMBER OF POWER PACKS FOR THE INTENDED NUMBER OF LIGHT FIXTURES IN EACH ROOM.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE LIGHTING CONTROLS MANUFACTURER AND PROVIDE ADEQUATE NUMBER OF OCCUPANCY SENSORS TO PROVIDE FULL COVERAGE FOR EACH ROOM.
- ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF ALL WALL MOUNTED LIGHTING CONTROL DEVICES WITH ARCHITECT AND/OR OWNER IN FIELD BEFORE ROUGH-IN.
- ALL EXIT LIGHTS SHALL BE CONNECTED TO UNSWITCHED CIRCUIT.
- ALL LIGHT FIXTURES WITH AN 'E' SUFFIX SHALL BE PROVIDED WITH AN EMERGENCY BATTERY PACK. FIXTURES SHALL BE WIRED SO THAT FIXTURE REMAINS ON DURING LOSS OF POWER AT PANEL.
- NEW LIGHTING CONTROL DEVICES SHALL MATCH EXISTING CONTROLS MANUFACTURER. CONTRACTOR SHALL PROVIDE NEW LIGHTING CONTROL DEVICES THAT CAN INTERFACE WITH EXISTING CONTROLS PROTOCOL. COORDINATE MODEL NUMBERS WITH MANUFACTURER PRIOR TO PURCHASE.
- PROVIDE NEW FIRE ALARM DEVICES COMPATIBLE WITH EXISTING FACP. EXISTING FACP MANUFACTURER IS NOTIFIER, FIELD VERIFY MODEL NUMBER.

**KEYED NOTES:**

- INSTALL NEW LIGHT FIXTURES APPROXIMATELY AS SHOWN. CONTRACTOR SHALL CONNECT NEW LIGHT FIXTURES TO EXISTING LIGHTING CIRCUIT WITHIN THE SPACE.

**Consultants:**

**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



**PSJA ISD**

**NORTH ECHS  
& COLLEGE**

**AND  
UNIVERSITY  
CAMPUS**

**STUDENT  
RESTROOM  
RENOVATIONS**

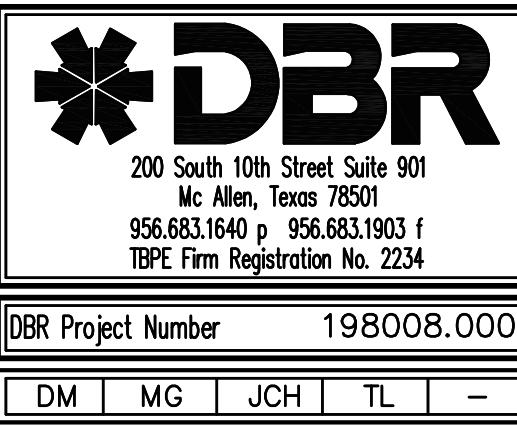
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Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

**Revisions:**

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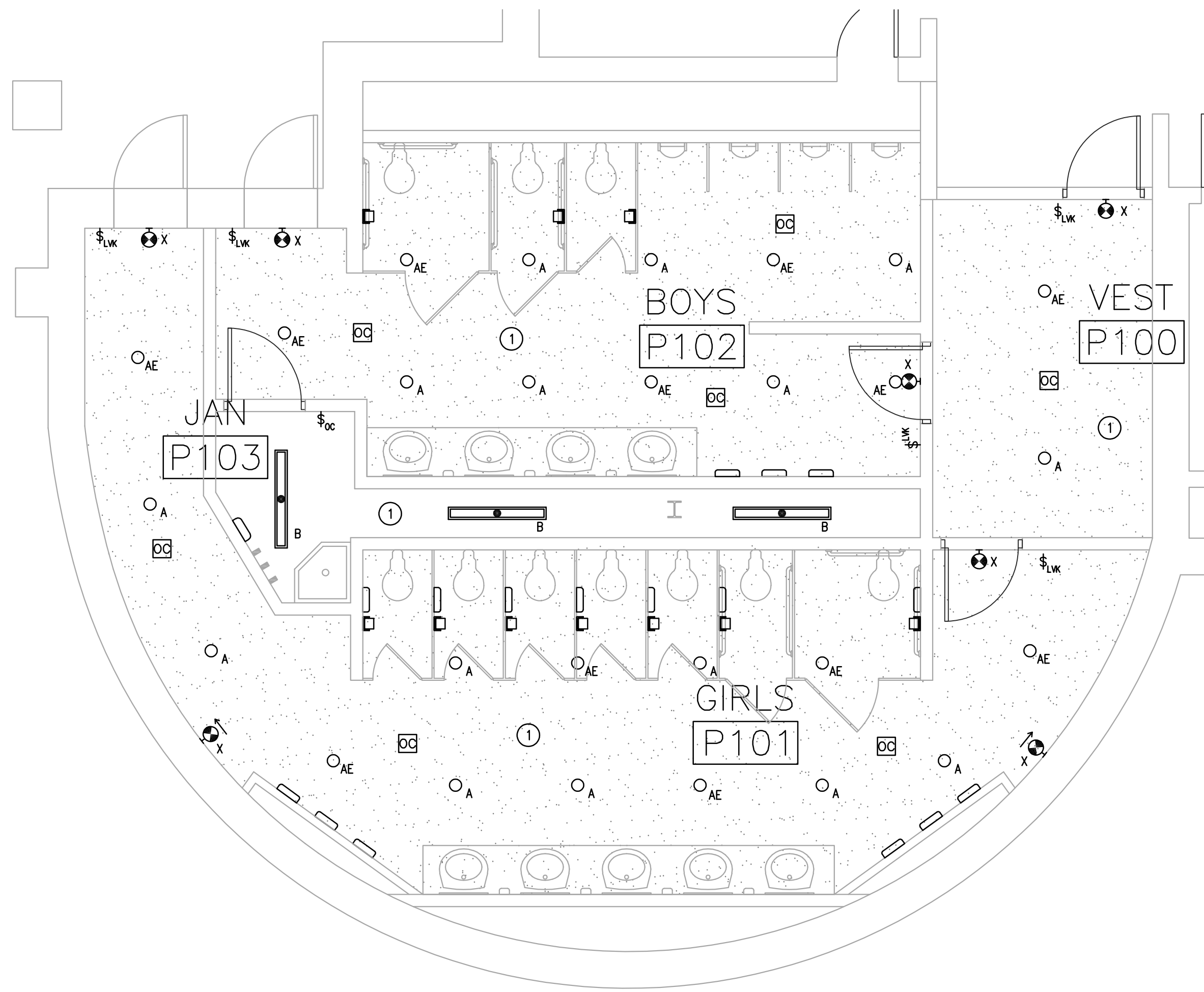
**BUILDING S  
& BUILDING N  
ELECTRICAL  
LIGHTING PLAN**



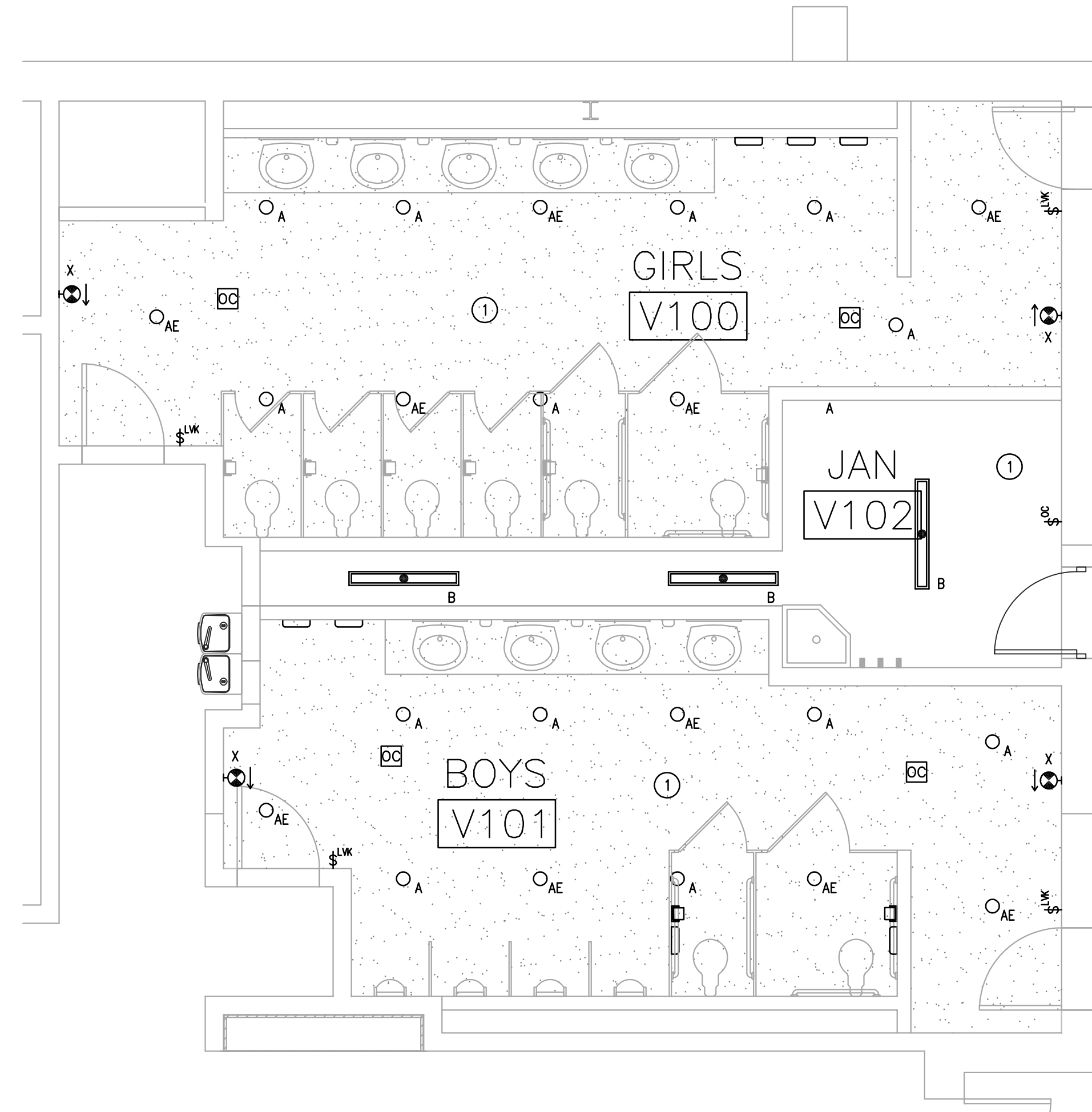
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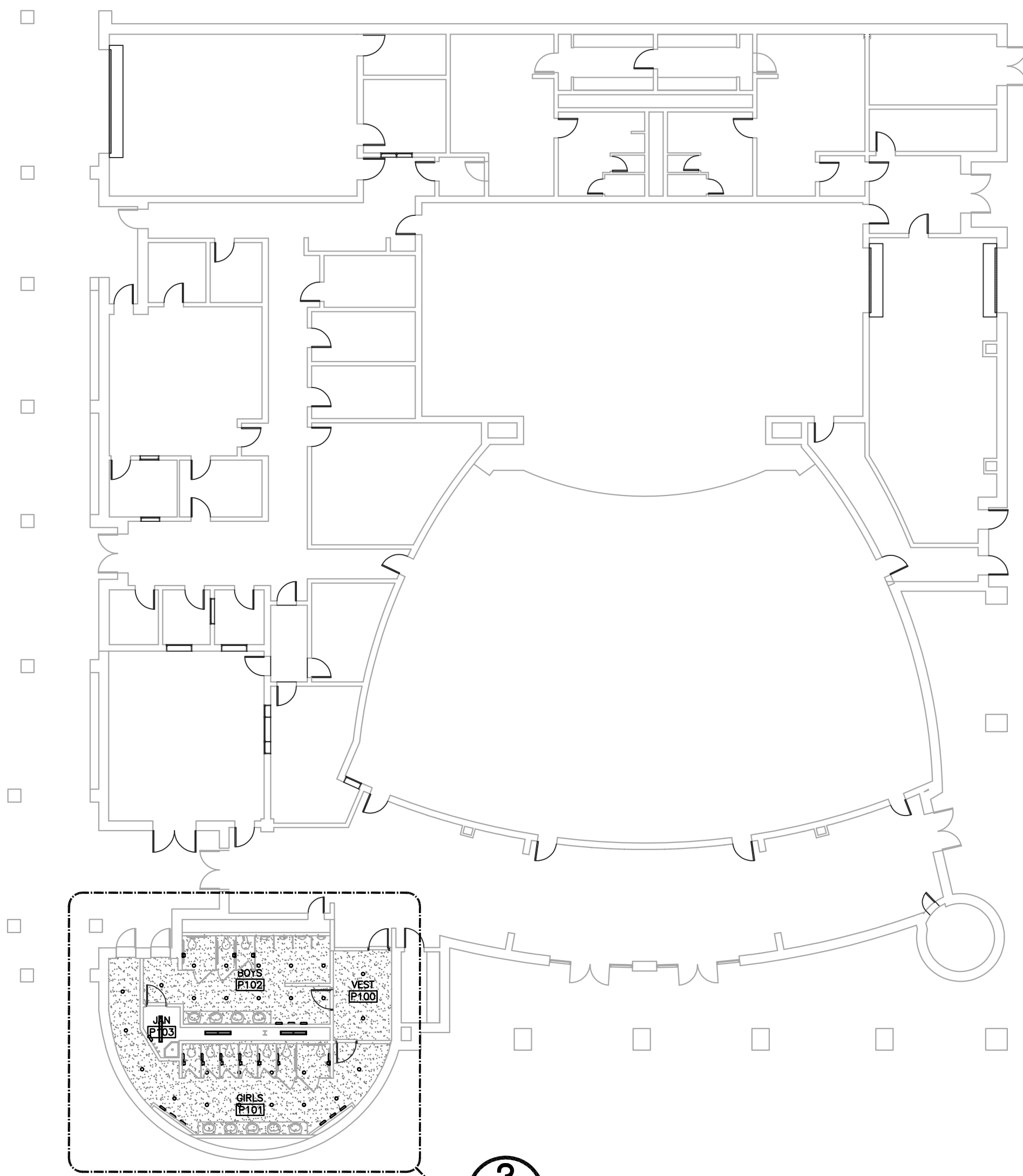
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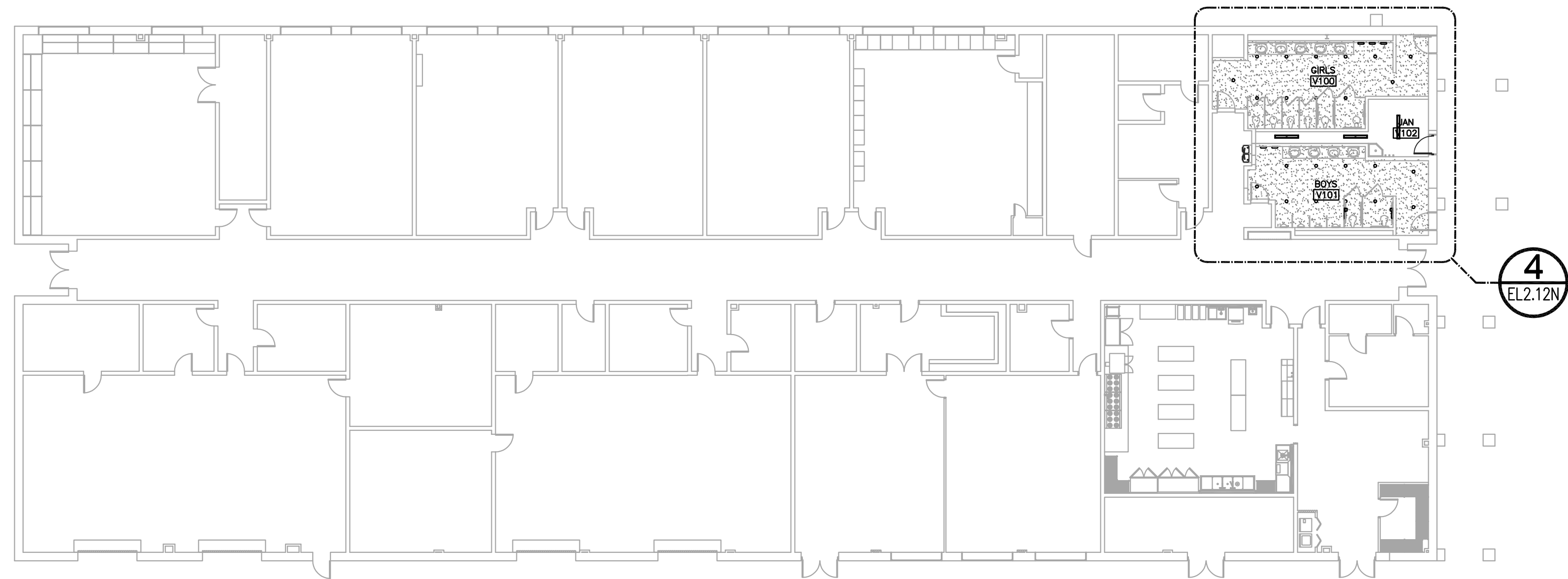
**3 ENLARGED ELECTRICAL PLAN**  
EL2.12N 1/4"=1'-0"



**4 ENLARGED ELECTRICAL PLAN**  
EL2.12N 1/4"=1'-0"



**1 ELECTRICAL PLAN - BUILDING P**  
EL2.12N 1/16"=1'-0"



**2 ELECTRICAL PLAN - BUILDING V**  
EL2.12N 1/16"=1'-0"

**GENERAL NOTES:**

- ALL LIGHT FIXTURE LOCATIONS SHOWN ARE APPROXIMATE. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS WITH INSTALLED CEILING GRID, MECHANICAL DUCT WORK, STRUCTURAL MEMBERS AND ALL OTHER TRADES.
- ELECTRICAL CONTRACTOR SHALL COORDINATE MOUNTING HEIGHTS OF ALL SUSPENDED, PENDANT MOUNTED AND WALL MOUNTED LIGHT FIXTURES WITH ARCHITECT AND/OR ENGINEER. PROVIDE ALL MOUNTING HARDWARE AS REQUIRED AT NO ADDITIONAL COST TO OWNER.
- ALL LIGHT FIXTURES SHALL BE PROVIDED WITH UNIVERSAL VOLTAGE DRIVERS. ELECTRICAL CONTRACTOR SHALL VERIFY VOLTAGE OF EXISTING AND NEW PANELS AND CONNECT ALL LIGHT FIXTURES ACCORDINGLY.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE LIGHTING CONTROLS MANUFACTURER AND PROVIDE ADEQUATE NUMBER OF POWER PACKS FOR THE INTENDED NUMBER OF LIGHT FIXTURES IN EACH ROOM.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE LIGHTING CONTROLS MANUFACTURER AND PROVIDE ADEQUATE NUMBER OF OCCUPANCY SENSORS TO PROVIDE FULL COVERAGE FOR EACH ROOM.
- ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF ALL WALL MOUNTED LIGHTING CONTROL DEVICES WITH ARCHITECT AND/OR OWNER IN FIELD BEFORE ROUGH-IN.
- ALL EXIT LIGHTS SHALL BE CONNECTED TO UNSWITCHED CIRCUIT.
- ALL LIGHT FIXTURES WITH AN 'E' SUFFIX SHALL BE PROVIDED WITH AN EMERGENCY BATTERY PACK. FIXTURES SHALL BE WIRED SO THAT FIXTURE REMAINS ON DURING LOSS OF POWER AT PANEL.
- NEW LIGHTING CONTROL DEVICES SHALL MATCH EXISTING CONTROLS MANUFACTURER. CONTRACTOR SHALL PROVIDE NEW LIGHTING CONTROL DEVICES THAT CAN INTERFACE WITH EXISTING CONTROLS PROTOCOL. COORDINATE MODEL NUMBERS WITH MANUFACTURER PRIOR TO PURCHASE.
- PROVIDE NEW FIRE ALARM DEVICES COMPATIBLE WITH EXISTING FACP. EXISTING FACP MANUFACTURER IS NOTIFIER, FIELD VERIFY MODEL NUMBER.

**KEYED NOTES:**

- INSTALL NEW LIGHT FIXTURES APPROXIMATELY AS SHOWN. CONTRACTOR SHALL CONNECT NEW LIGHT FIXTURES TO EXISTING LIGHTING CIRCUIT WITHIN THE SPACE.

Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO & ASSOCIATES INC.**

**MEP:**  
**DBR ENGINEERING**



**PSJA ISD**

**NORTH ECHS  
& COLLEGE**

**AND**

**UNIVERSITY  
CAMPUS**

**STUDENT  
RESTROOM  
RENOVATIONS**

**KEYPLAN**

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

Sheet Title:

**BUILDING P  
& BUILDING V  
ELECTRICAL  
LIGHTING PLAN**

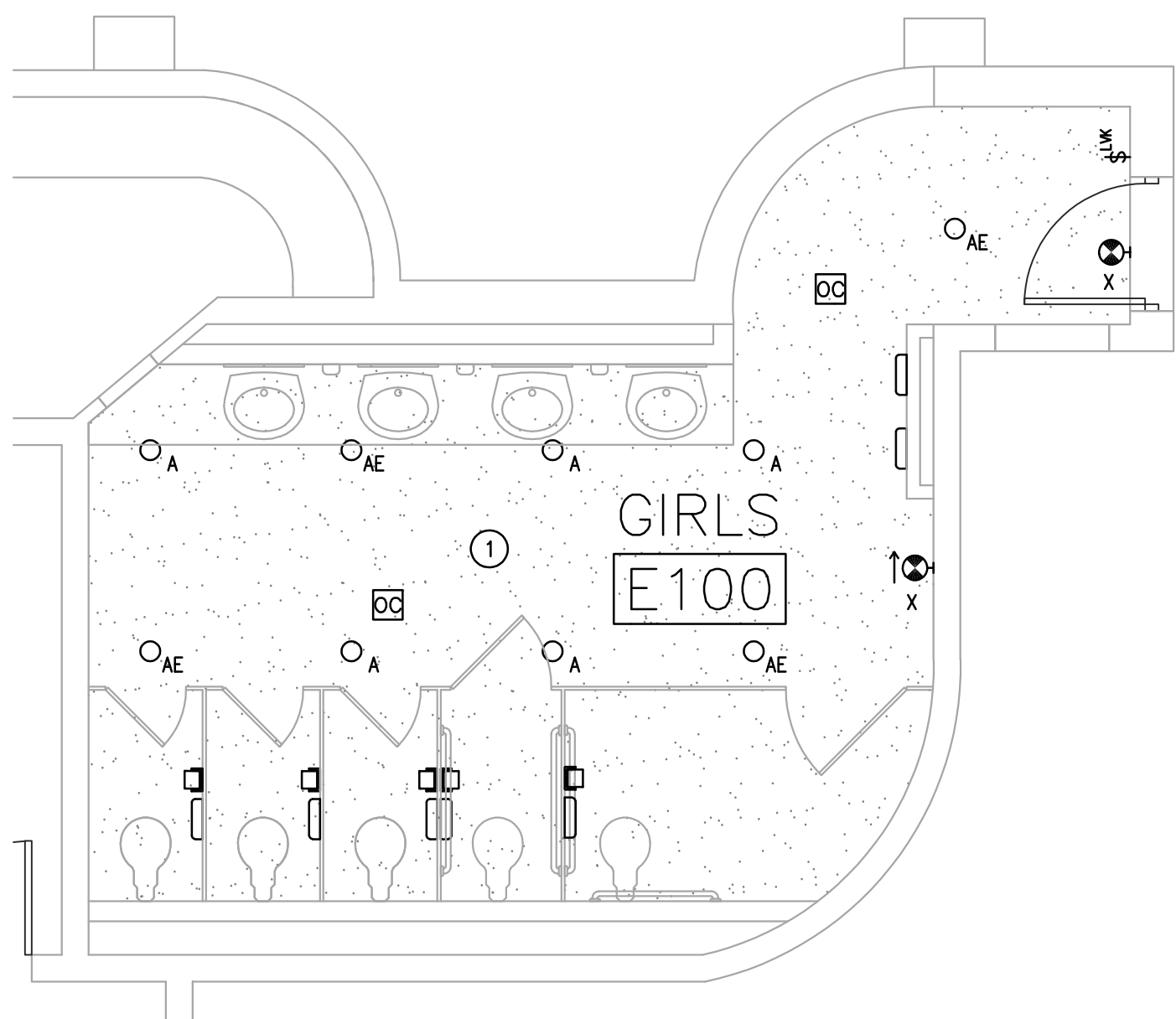


DBR Project Number		198008.000		
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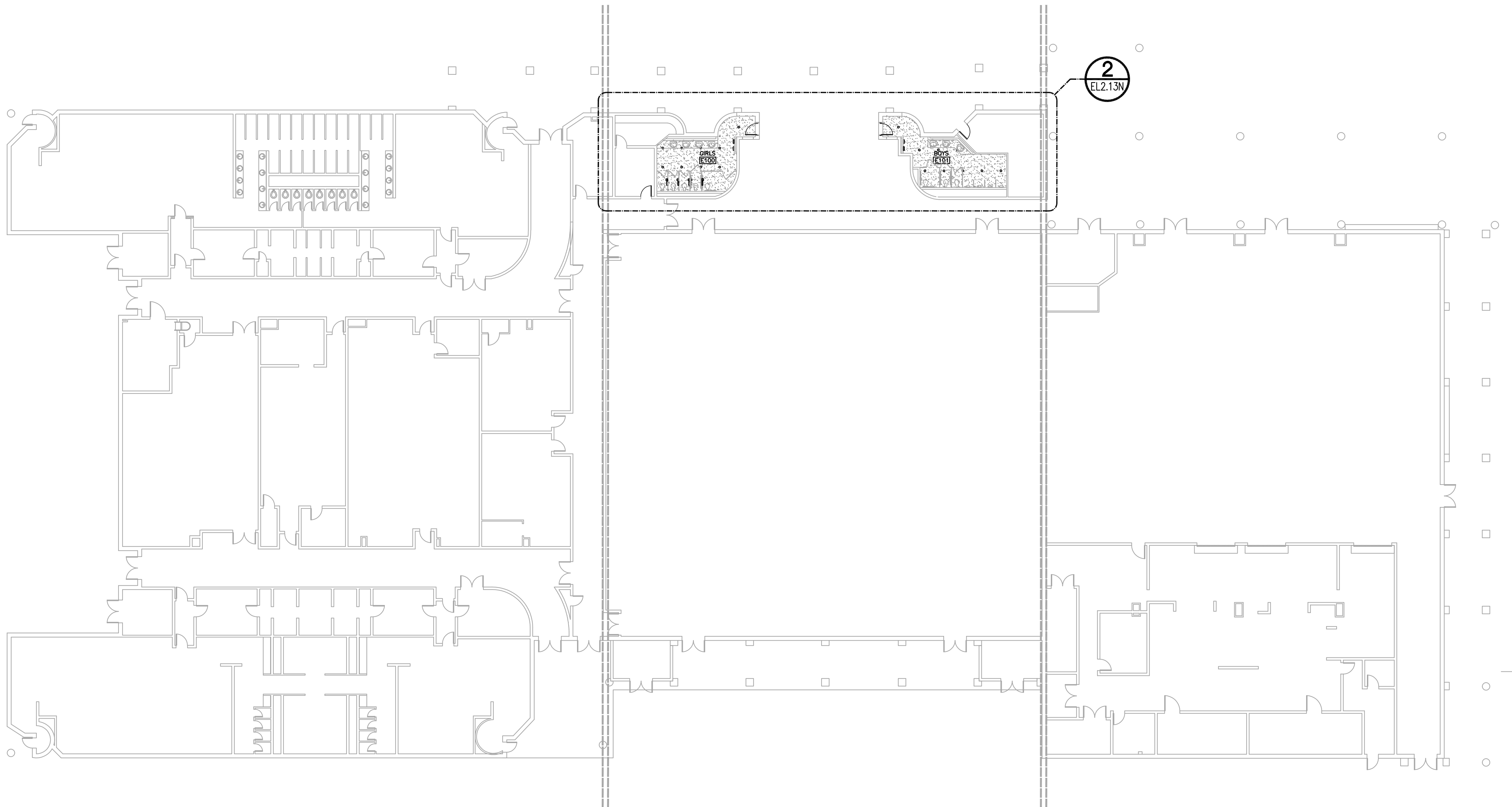
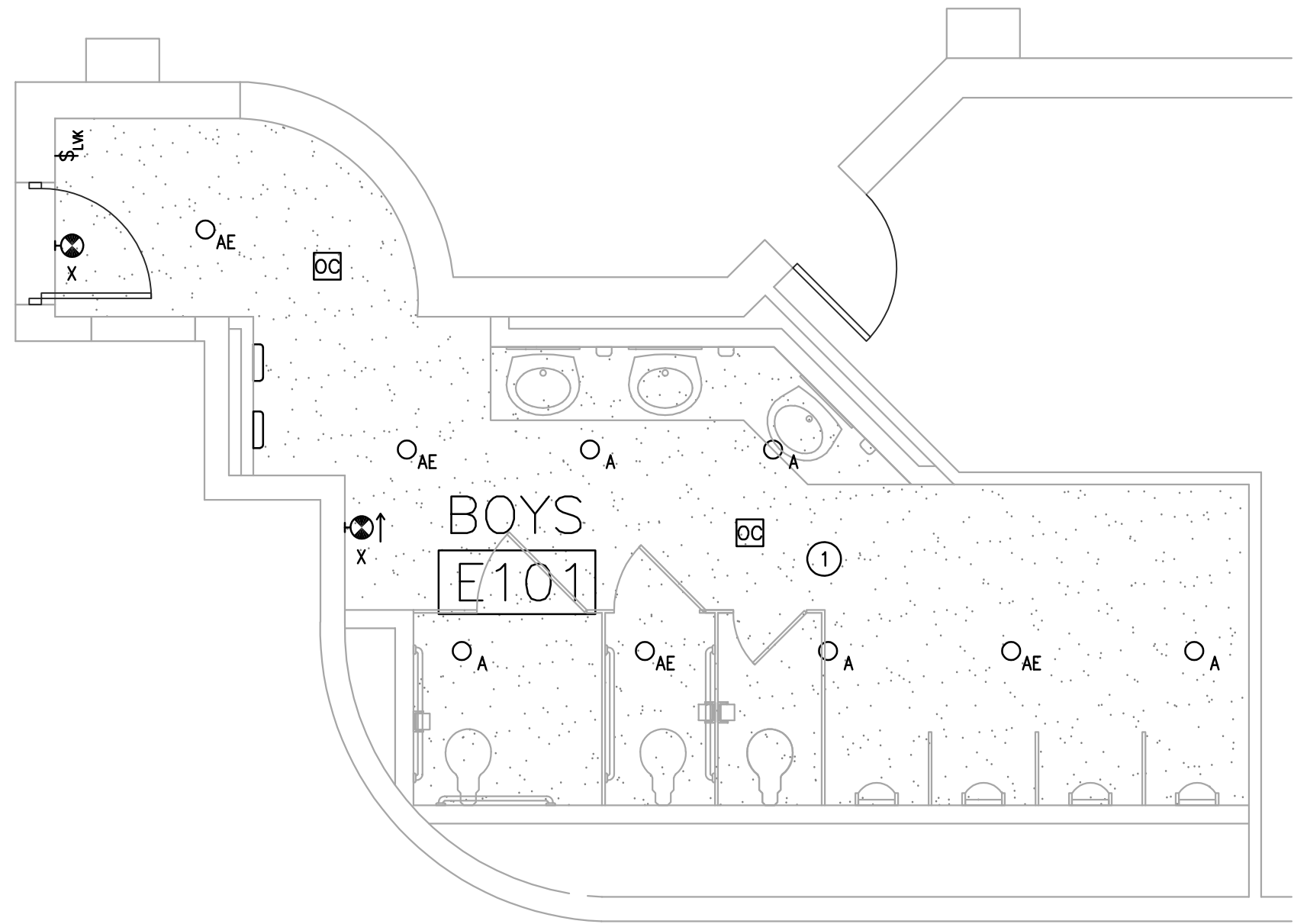
**EL2.12N**



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**2 ENLARGED ELECTRICAL PLAN**  
EL2.13N 1/4"=1'-0"



**1 ELECTRICAL PLAN - BUILDING E**  
EL2.13N 1/16"=1'-0"

- GENERAL NOTES:**
- ALL LIGHT FIXTURE LOCATIONS SHOWN ARE APPROXIMATE. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS WITH INSTALLED CEILING GRID, MECHANICAL DUCT WORK, STRUCTURAL MEMBERS AND ALL OTHER TRADES.
  - ELECTRICAL CONTRACTOR SHALL COORDINATE MOUNTING HEIGHTS OF ALL SUSPENDED, PENDANT MOUNTED AND WALL MOUNTED LIGHT FIXTURES WITH ARCHITECT AND/OR ENGINEER. PROVIDE ALL MOUNTING HARDWARE AS REQUIRED AT NO ADDITIONAL COST TO OWNER.
  - ALL LIGHT FIXTURES SHALL BE PROVIDED WITH UNIVERSAL VOLTAGE DRIVERS. ELECTRICAL CONTRACTOR SHALL VERIFY VOLTAGE OF EXISTING AND NEW PANELS AND CONNECT ALL LIGHT FIXTURES ACCORDINGLY.
  - ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE LIGHTING CONTROLS MANUFACTURER AND PROVIDE ADEQUATE NUMBER OF POWER PACKS FOR THE INTENDED NUMBER OF LIGHT FIXTURES IN EACH ROOM.
  - ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE LIGHTING CONTROLS MANUFACTURER AND PROVIDE ADEQUATE NUMBER OF OCCUPANCY SENSORS TO PROVIDE FULL COVERAGE FOR EACH ROOM.
  - ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF ALL WALL MOUNTED LIGHTING CONTROL DEVICES WITH ARCHITECT AND/OR OWNER IN FIELD BEFORE ROUGH-IN.
  - ALL EXIT LIGHTS SHALL BE CONNECTED TO UNSWITCHED CIRCUIT.
  - ALL LIGHT FIXTURES WITH AN 'E' SUFFIX SHALL BE PROVIDED WITH AN EMERGENCY BATTERY PACK. FIXTURES SHALL BE WIRED SO THAT FIXTURE REMAINS ON DURING LOSS OF POWER AT PANEL.
  - NEW LIGHTING CONTROL DEVICES SHALL MATCH EXISTING CONTROLS MANUFACTURER. CONTRACTOR SHALL PROVIDE NEW LIGHTING CONTROL DEVICES THAT CAN INTERFACE WITH EXISTING CONTROLS PROTOCOL. COORDINATE MODEL NUMBERS WITH MANUFACTURER PRIOR TO PURCHASE.
  - PROVIDE NEW FIRE ALARM DEVICES COMPATIBLE WITH EXISTING FACP. EXISTING FACP MANUFACTURER IS NOTIFIER, FIELD VERIFY MODEL NUMBER.

- KEYED NOTES:**
- INSTALL NEW LIGHT FIXTURES APPROXIMATELY AS SHOWN. CONTRACTOR SHALL CONNECT NEW LIGHT FIXTURES TO EXISTING LIGHTING CIRCUIT WITHIN THE SPACE.

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3700 N. 10TH, SUITE 205  
MCALLEN, TEXAS 78501  
T 956.686.0100  
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Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



**PSJA ISD**  
**NORTH ECHS**  
**& COLLEGE**  
**AND**  
**UNIVERSITY**  
**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

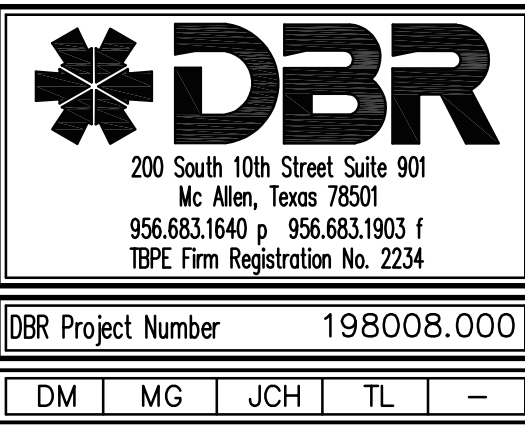
### KEYPLAN

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

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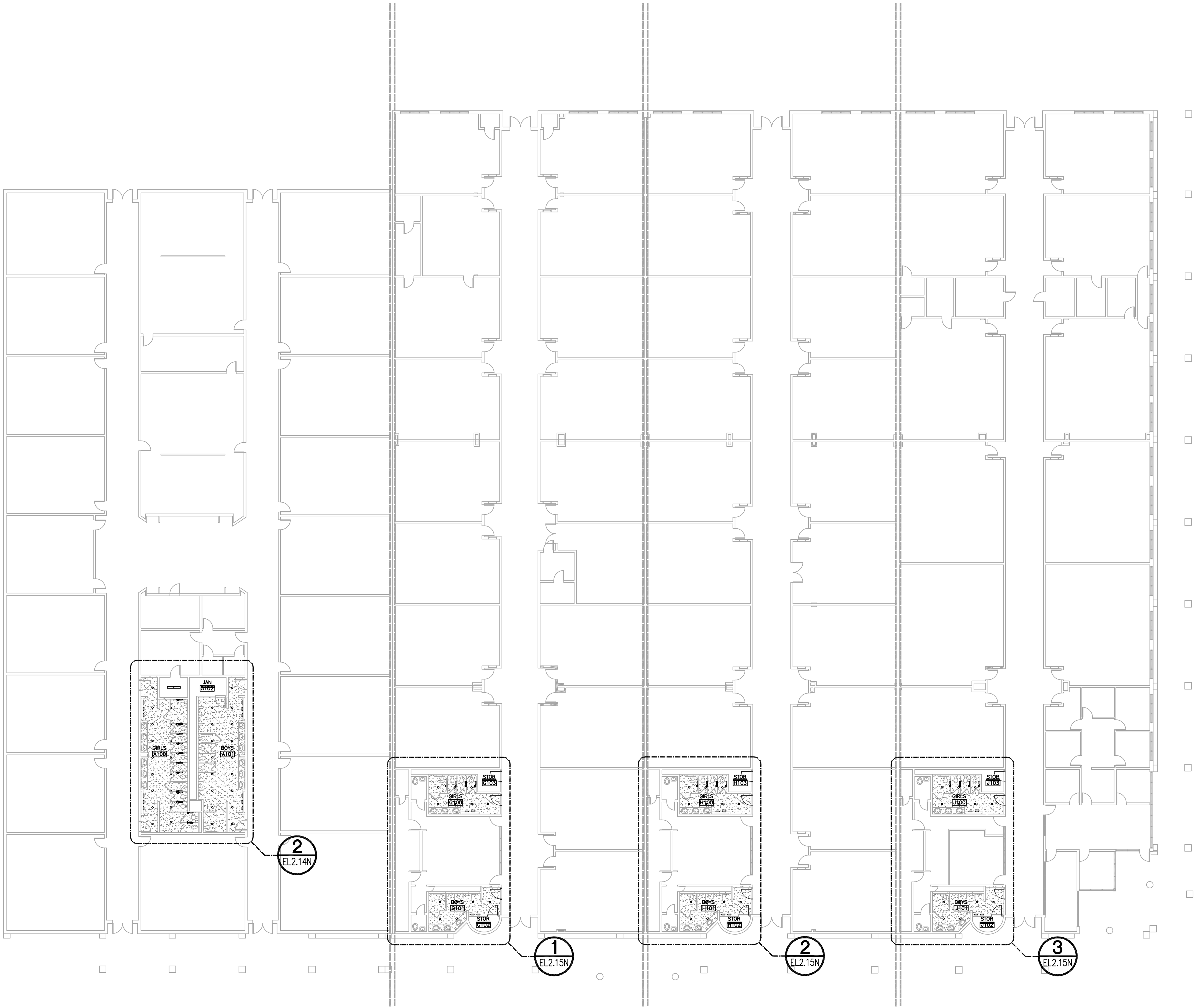
**BUILDING E**  
**ELECTRICAL**  
**LIGHTING PLAN**



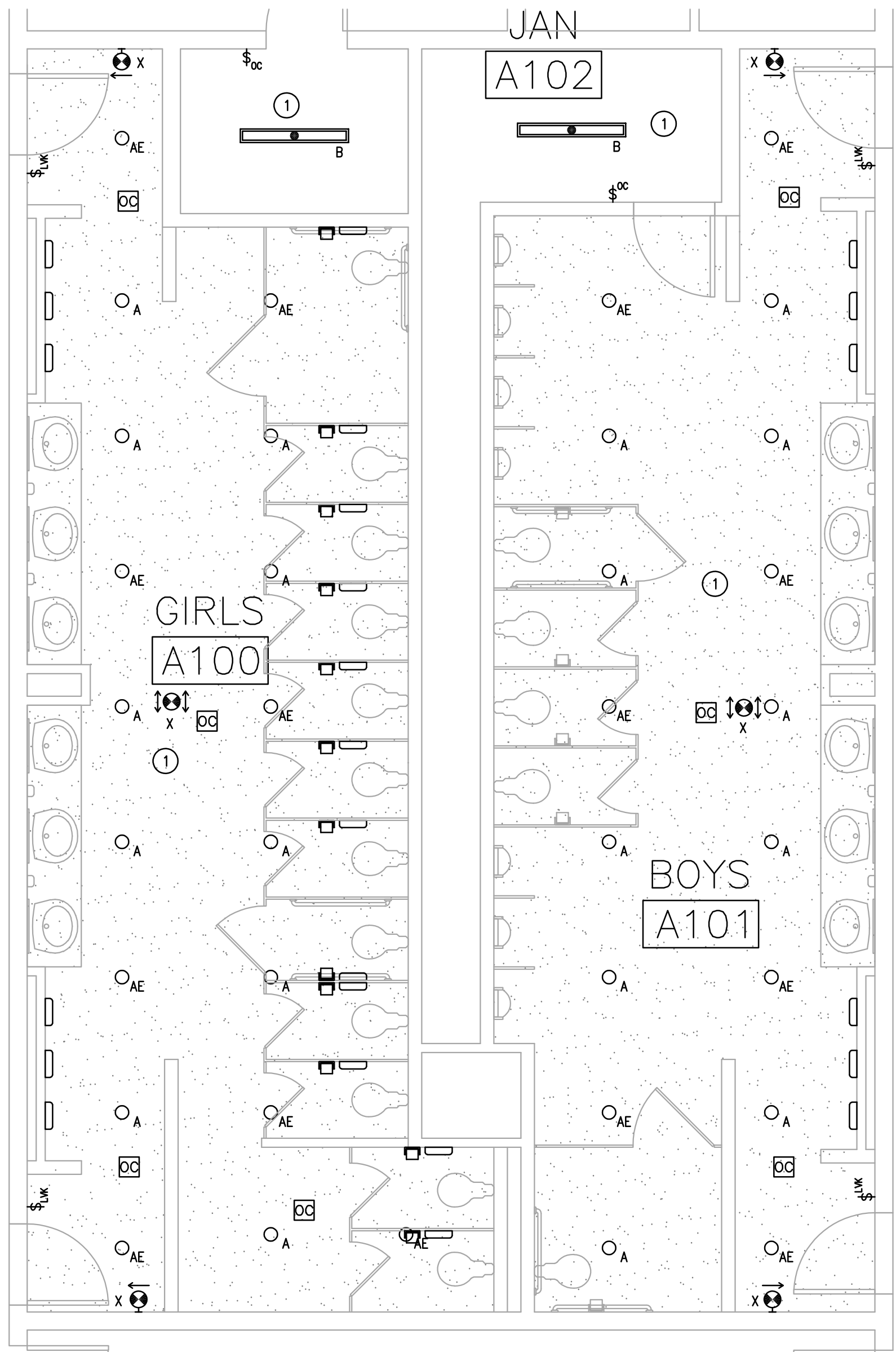
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1 ELECTRICAL PLAN - BUILDING A-G-H-J  
1/16"=1'-0"



2 ENLARGED ELECTRICAL PLAN  
1/4"=1'-0"

**DBR**  
200 South 10th Street Suite 901  
Mc Allen, Texas 78501  
956.683.1940 • 956.683.1903 f  
TBP Firm Registration No. 2234

DBR Project Number 198008.000

DM	MG	JCH	TL	-
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- GENERAL NOTES:**
- A. ALL LIGHT FIXTURE LOCATIONS SHOWN ARE APPROXIMATE. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS WITH INSTALLED CEILING GRID, MECHANICAL DUCT WORK, STRUCTURAL MEMBERS AND ALL OTHER TRADES.
  - B. ELECTRICAL CONTRACTOR SHALL COORDINATE MOUNTING HEIGHTS OF ALL SUSPENDED, PENDANT MOUNTED AND WALL MOUNTED LIGHT FIXTURES WITH ARCHITECT AND/OR ENGINEER. PROVIDE ALL MOUNTING HARDWARE AS REQUIRED AT NO ADDITIONAL COST TO OWNER.
  - C. ALL LIGHT FIXTURES SHALL BE PROVIDED WITH UNIVERSAL VOLTAGE DRIVERS. ELECTRICAL CONTRACTOR SHALL VERIFY VOLTAGE OF EXISTING AND NEW PANELS AND CONNECT ALL LIGHT FIXTURES ACCORDINGLY.
  - D. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE LIGHTING CONTROLS MANUFACTURER AND PROVIDE ADEQUATE NUMBER OF POWER PACKS FOR THE INTENDED NUMBER OF LIGHT FIXTURES IN EACH ROOM.
  - E. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE LIGHTING CONTROLS MANUFACTURER AND PROVIDE ADEQUATE NUMBER OF OCCUPANCY SENSORS TO PROVIDE FULL COVERAGE FOR EACH ROOM.
  - F. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF ALL WALL MOUNTED LIGHTING CONTROL DEVICES WITH ARCHITECT AND/OR OWNER IN FIELD BEFORE ROUGH-IN.
  - G. ALL EXIT LIGHTS SHALL BE CONNECTED TO UNSWITCHED CIRCUIT.
  - H. ALL LIGHT FIXTURES WITH AN "E" SUFFIX SHALL BE PROVIDED WITH AN EMERGENCY BATTERY PACK. FIXTURES SHALL BE WIRED SO THAT FIXTURE REMAINS ON DURING LOSS OF POWER AT PANEL.
  - I. NEW LIGHTING CONTROL DEVICES SHALL MATCH EXISTING CONTROLS MANUFACTURER. CONTRACTOR SHALL PROVIDE NEW LIGHTING CONTROL DEVICES THAT CAN INTERFACE WITH EXISTING CONTROLS PROTOCOL. COORDINATE MODEL NUMBERS WITH MANUFACTURER PRIOR TO PURCHASE.
  - J. PROVIDE NEW FIRE ALARM DEVICES COMPATIBLE WITH EXISTING FACP. EXISTING FACP MANUFACTURER IS NOTIFIER, FIELD VERIFY MODEL NUMBER.

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- 1. INSTALL NEW LIGHT FIXTURES APPROXIMATELY AS SHOWN. CONTRACTOR SHALL CONNECT NEW LIGHT FIXTURES TO EXISTING LIGHTING CIRCUIT WITHIN THE SPACE.

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Consultants:

**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



**PSJA ISD**  
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**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

**KEYPLAN**

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

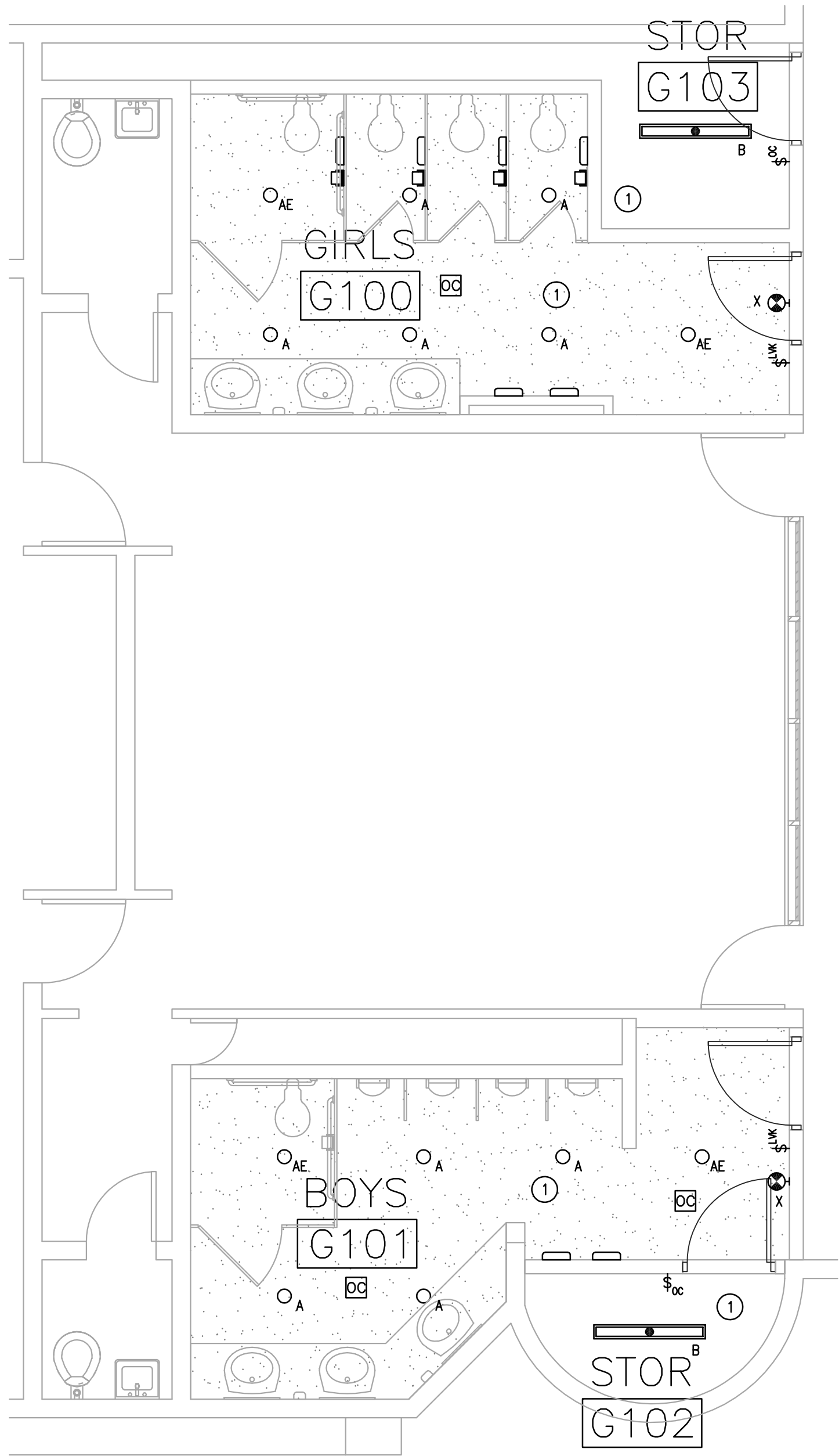
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**A-G-H-J**  
**ELECTRICAL**  
**LIGHTING PLAN**

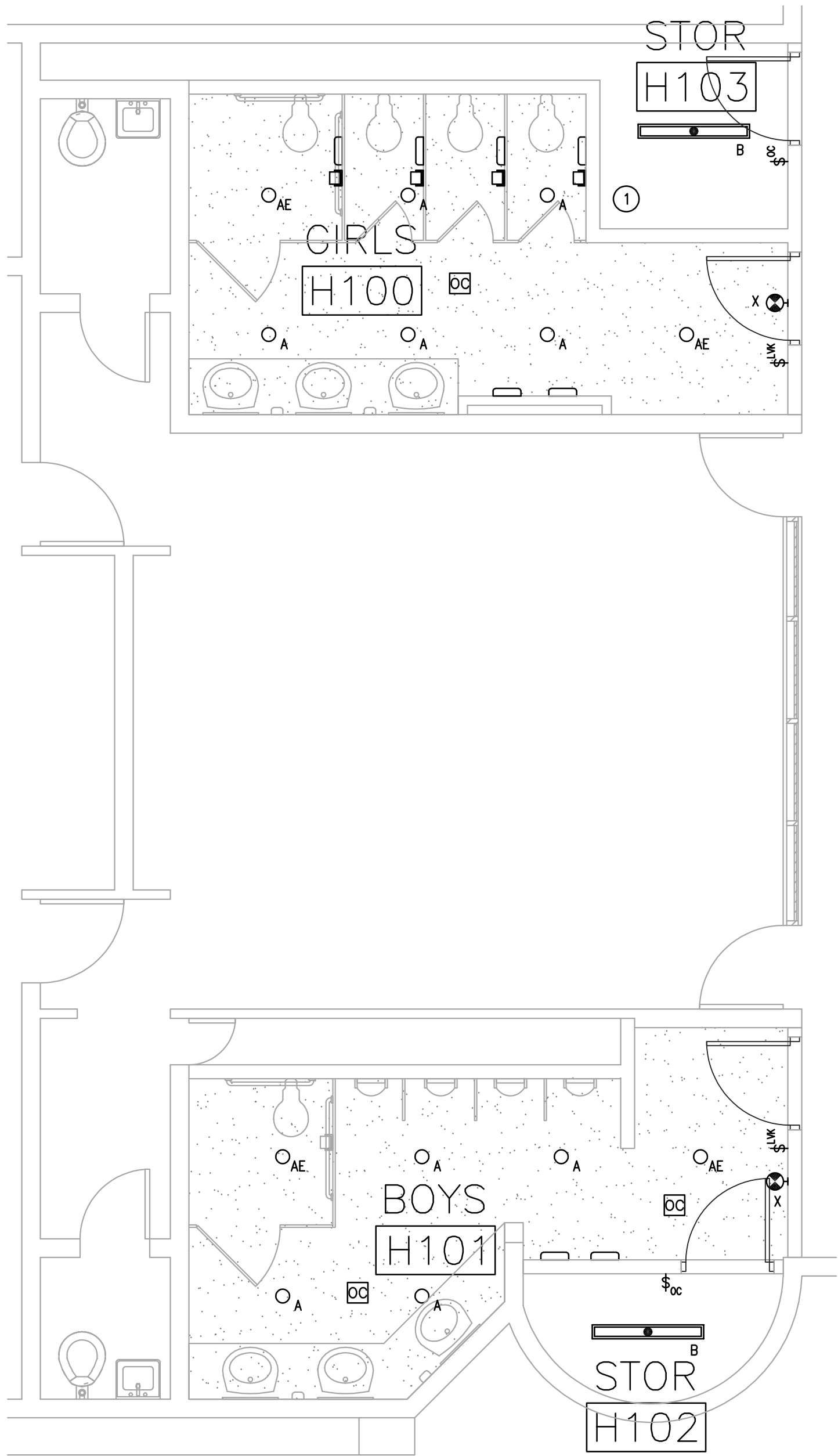
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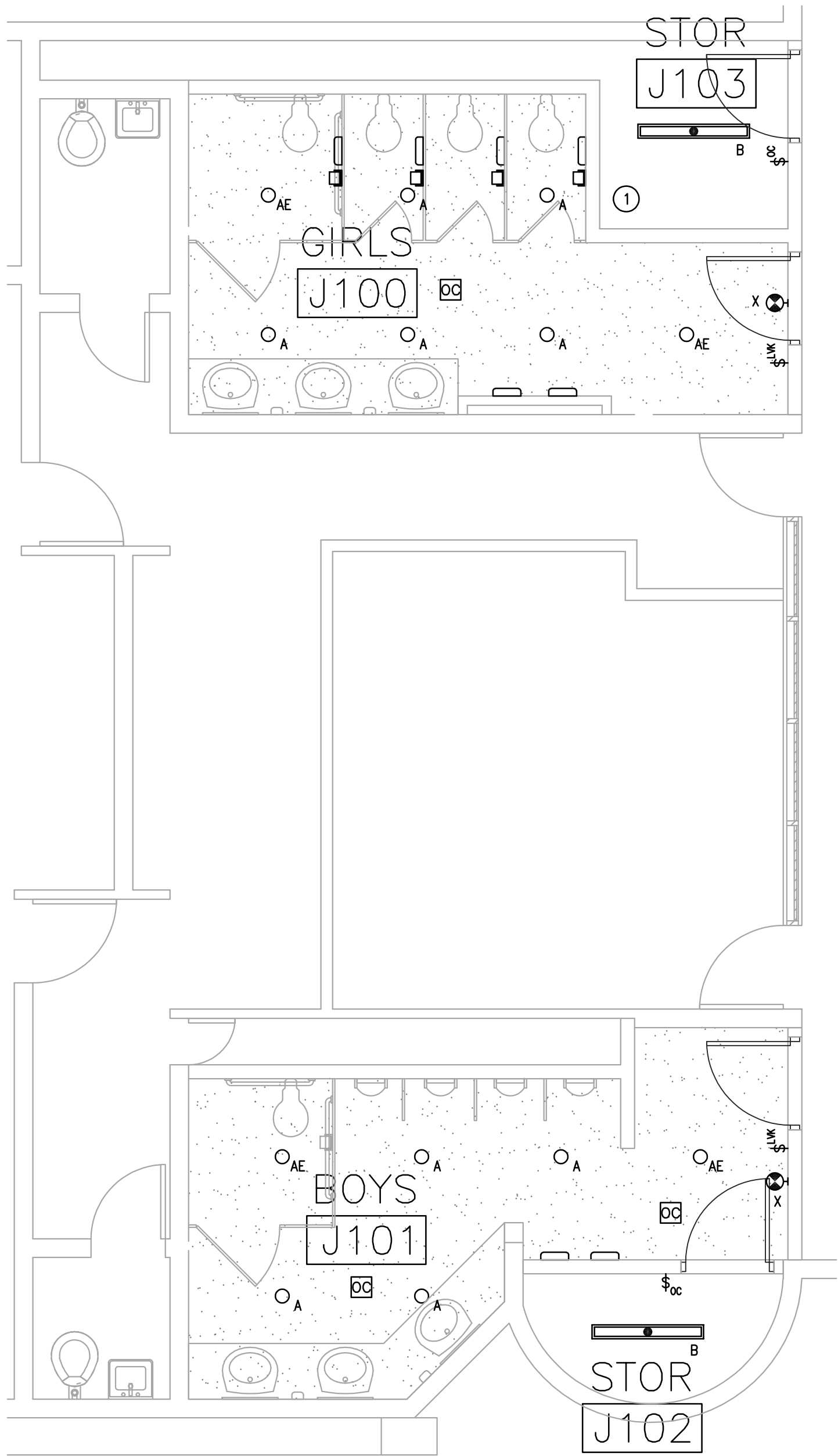
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1 ENLARGED ELECTRICAL PLAN  
EL2.15N  
1/4"=1'-0"



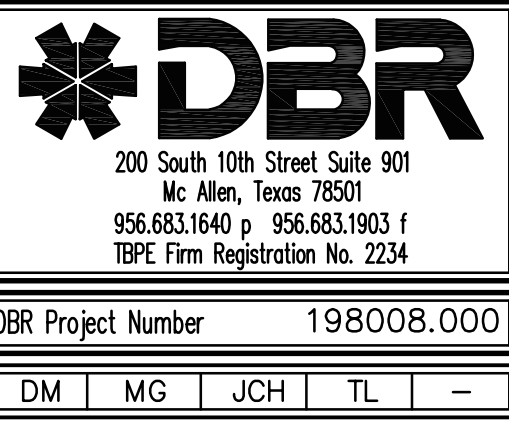
2 ENLARGED ELECTRICAL PLAN  
EL2.15N  
1/4"=1'-0"



3 ENLARGED ELECTRICAL PLAN  
EL2.15N  
1/4"=1'-0"

- GENERAL NOTES:**
- ALL LIGHT FIXTURE LOCATIONS SHOWN ARE APPROXIMATE. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS WITH INSTALLED CEILING GRID, MECHANICAL DUCT WORK, STRUCTURAL MEMBERS AND ALL OTHER TRADES.
  - ELECTRICAL CONTRACTOR SHALL COORDINATE MOUNTING HEIGHTS OF ALL SUSPENDED, PENDANT MOUNTED AND WALL MOUNTED LIGHT FIXTURES WITH ARCHITECT AND/OR ENGINEER. PROVIDE ALL MOUNTING HARDWARE AS REQUIRED AT NO ADDITIONAL COST TO OWNER.
  - ALL LIGHT FIXTURES SHALL BE PROVIDED WITH UNIVERSAL VOLTAGE DRIVERS. ELECTRICAL CONTRACTOR SHALL VERIFY VOLTAGE OF EXISTING AND NEW PANELS AND CONNECT ALL LIGHT FIXTURES ACCORDINGLY.
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  - ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF ALL WALL MOUNTED LIGHTING CONTROL DEVICES WITH ARCHITECT AND/OR OWNER IN FIELD BEFORE ROUGH-IN.
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- KEYED NOTES:**
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Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



**PSJA ISD**  
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**RESTROOM**  
**RENOVATIONS**

**KEYPLAN**

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

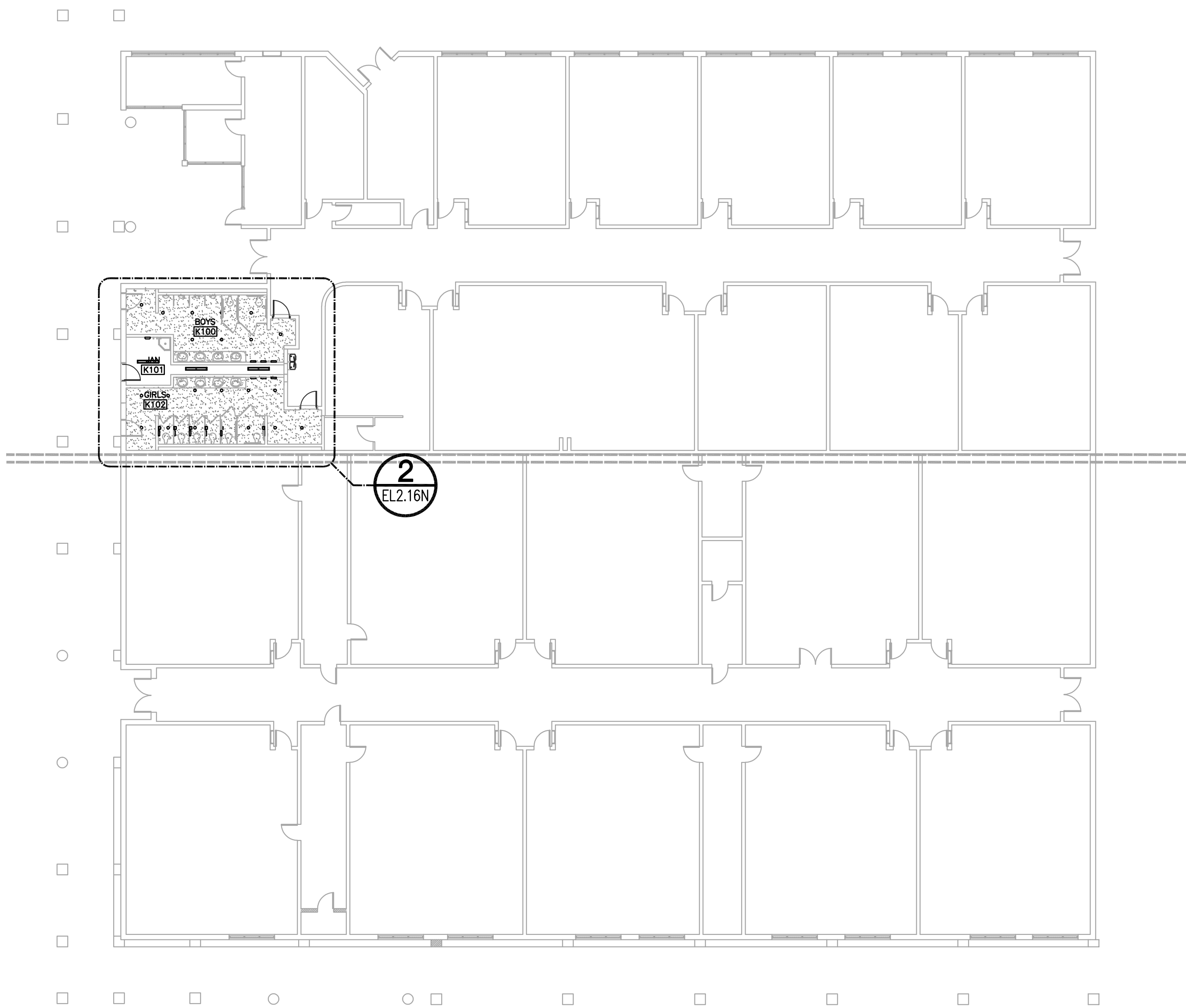
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**BUILDING**  
**A-G-H-J**  
**ELECTRICAL**  
**LIGHTING PLAN**

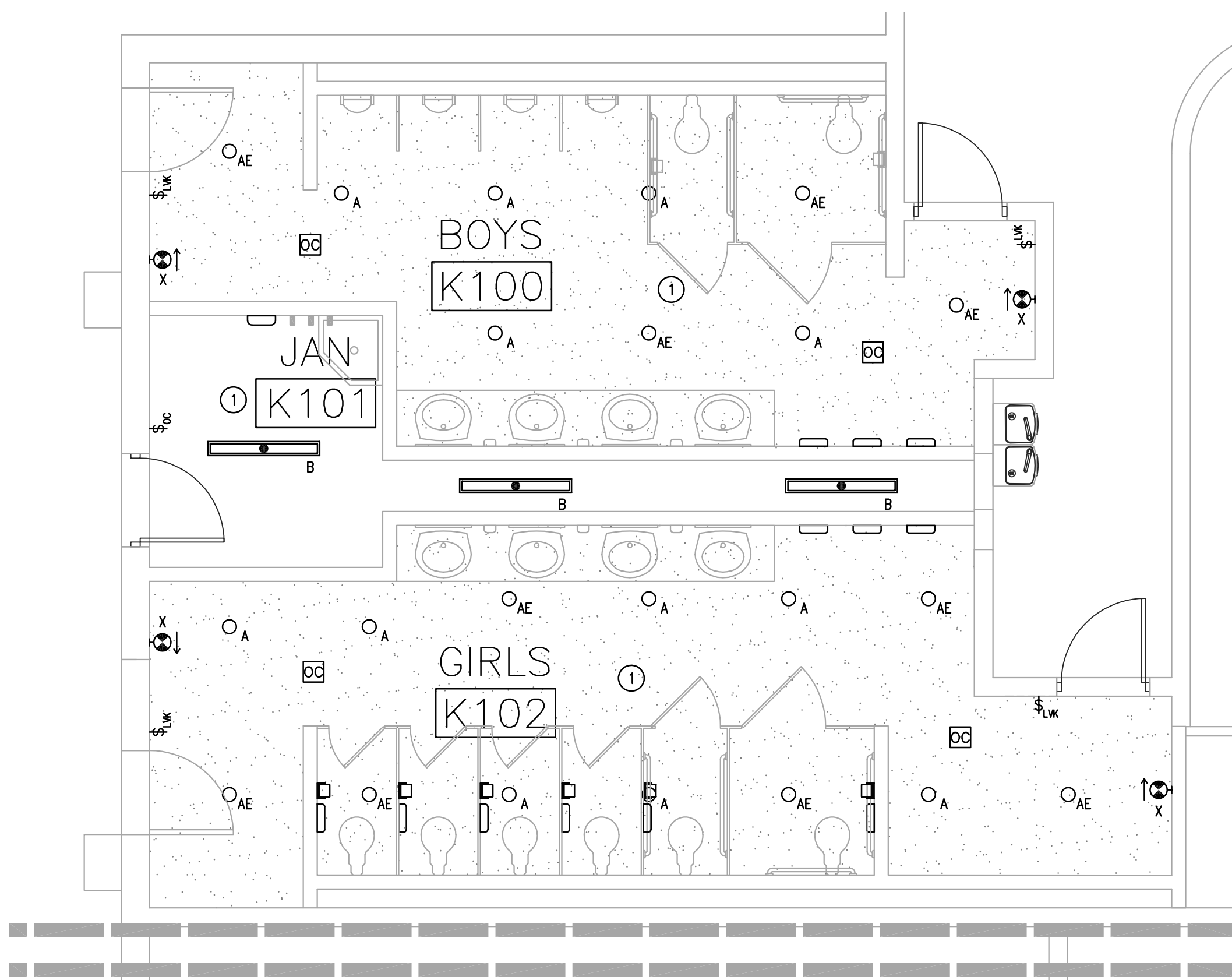
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1 ELECTRICAL PLAN - BUILDING K  
EL2.16N 1/16"=1'-0"



2 ENLARGED ELECTRICAL PLAN  
EL2.16N 1/4"=1'-0"

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TBPPE Firm Registration No. 2234

DBR Project Number 198008.000

DM	MG	JCH	TL	-
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Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING

**PSJA ISD**  
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**RENOVATIONS**

**KEYPLAN**

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

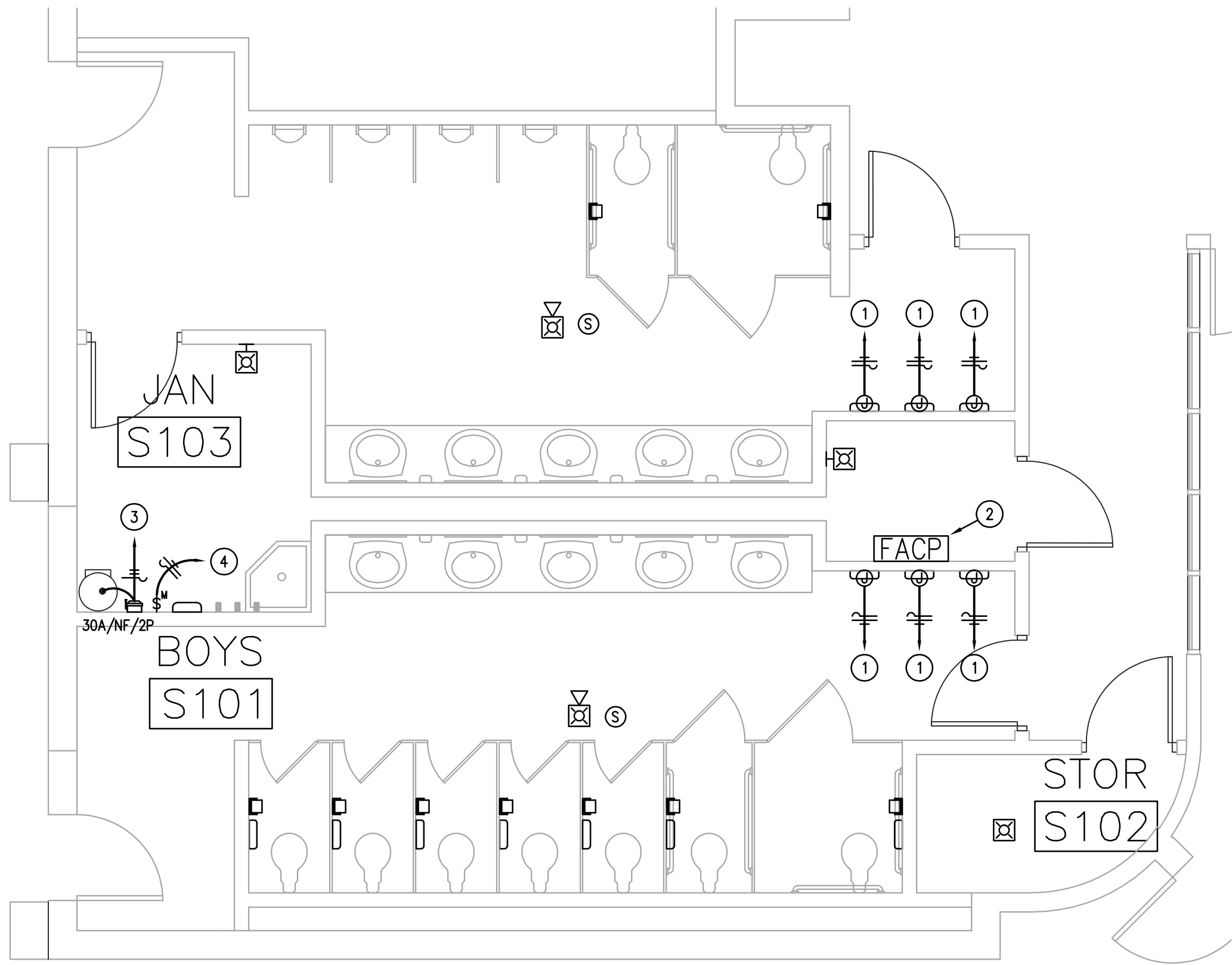
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**BUILDING K**  
**ELECTRICAL**  
**LIGHTING PLAN**

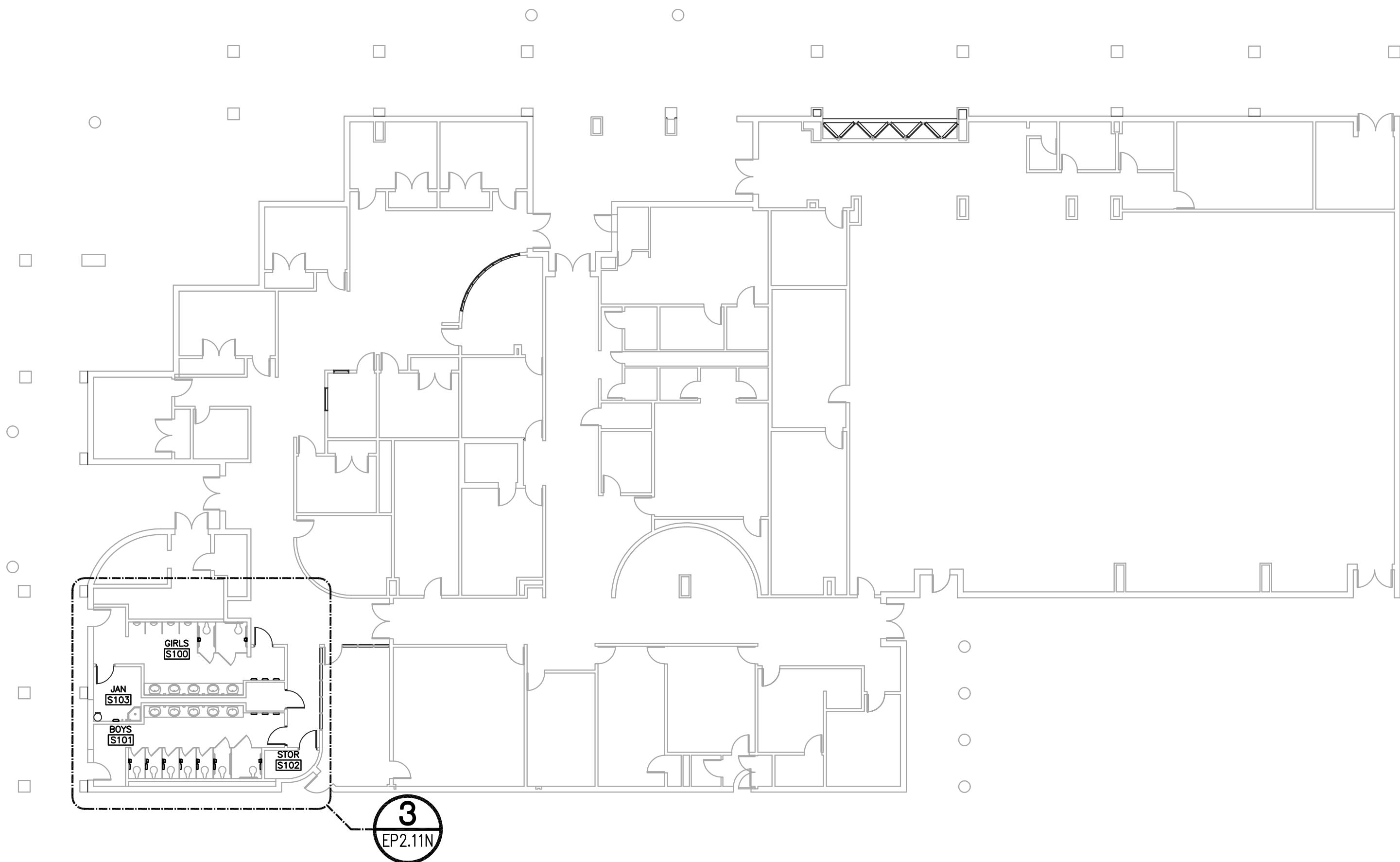
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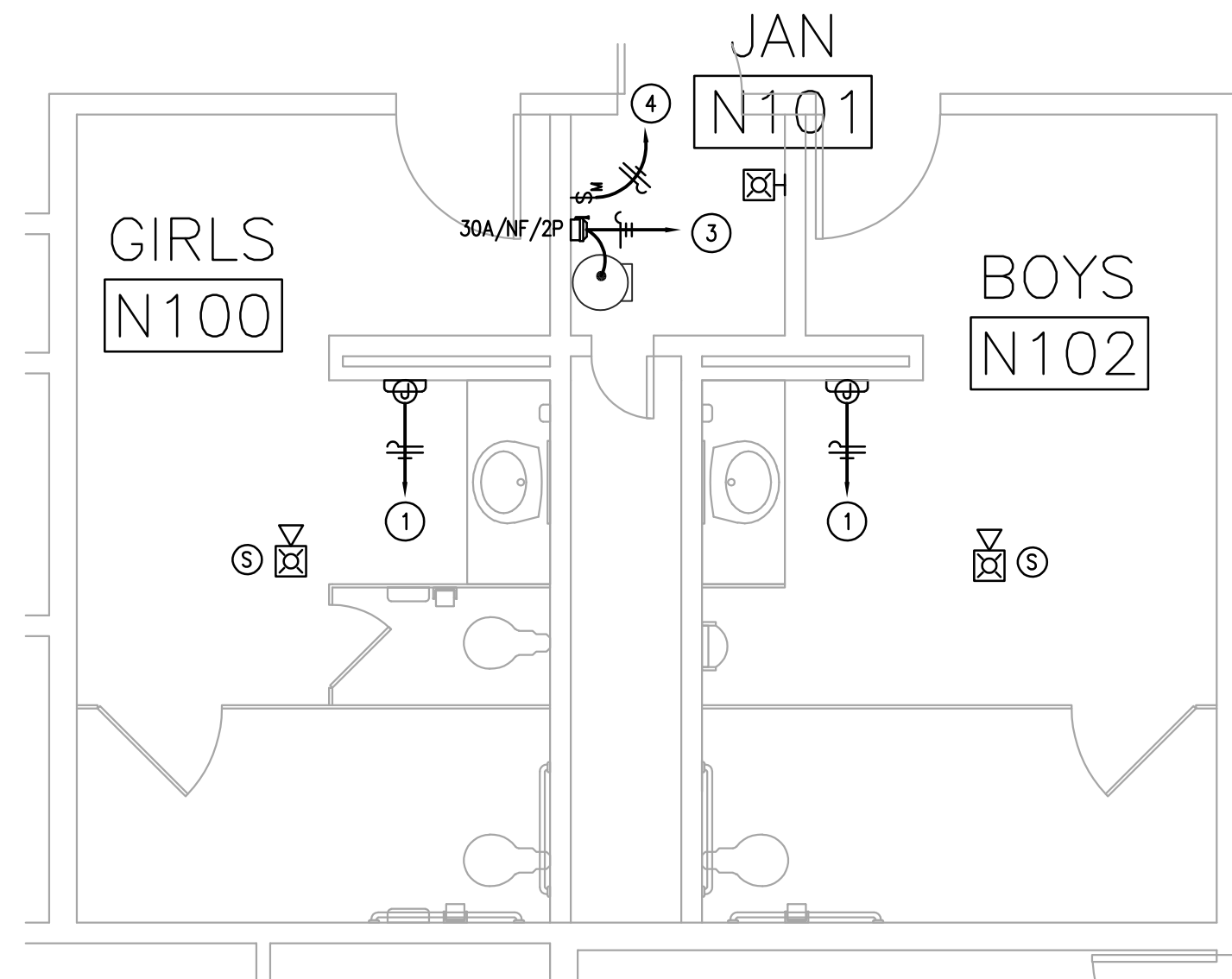
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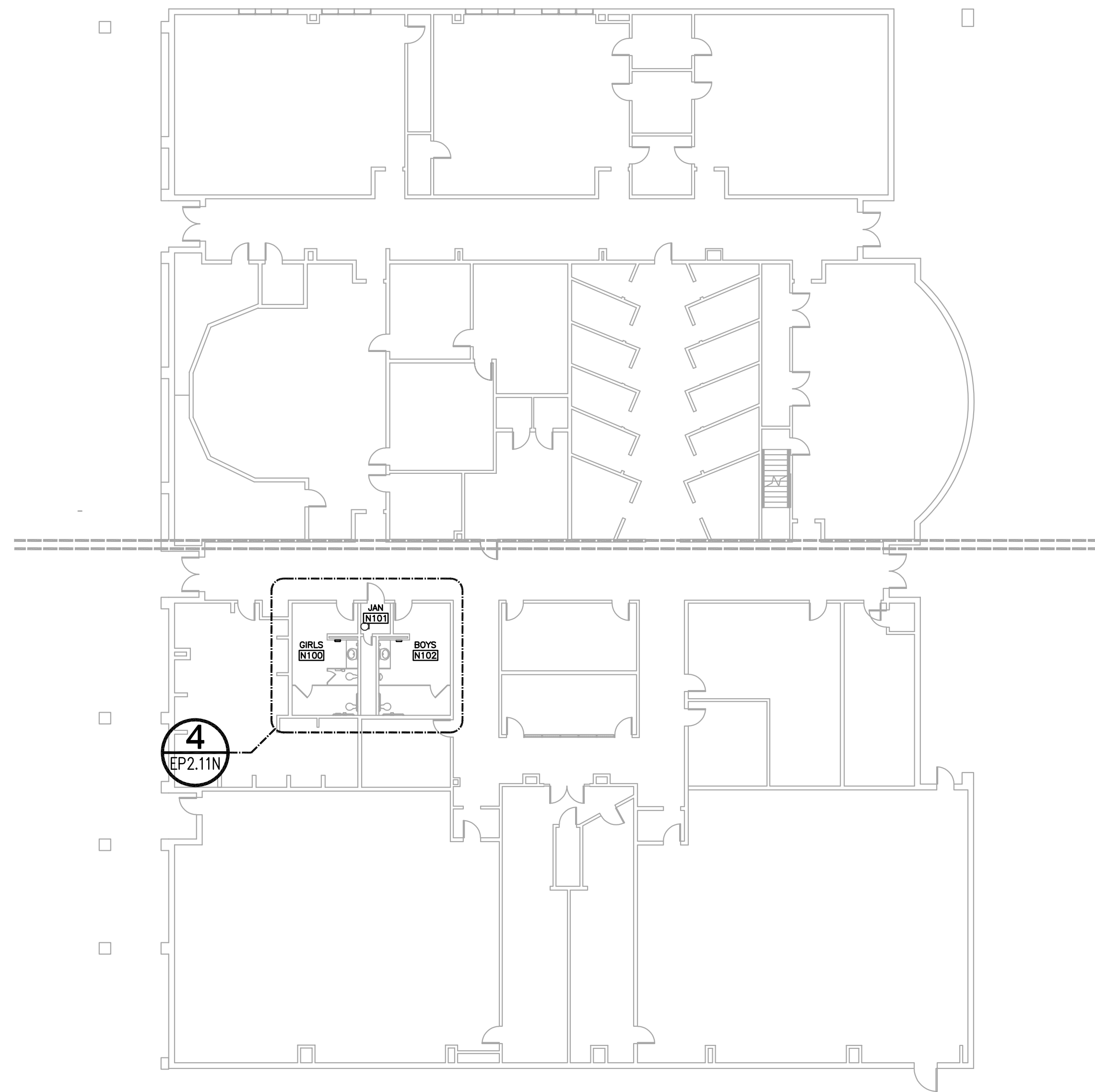
**3 ENLARGED ELECTRICAL PLAN**  
EP2.11N 1/4"=1'-0"



**1 ELECTRICAL PLAN - BUILDING S**  
EP2.11N 1/16"=1'-0"



**4 ENLARGED ELECTRICAL PLAN**  
EP2.11N 1/4"=1'-0"



**2 ELECTRICAL PLAN - BUILDING N**  
EP2.11N 1/16"=1'-0"

#### GENERAL NOTES:

- ELECTRICAL CONTRACTOR SHALL GROUP HOMERUNS WITH THREE HOT'S (A,B, AND C PHASES), AND #10 NEUTRAL TO PROVIDE MULTI-WIRE BRANCH CIRCUITS. NO MORE THAN 2 MULTI-WIRE HOMERUNS PER CONDUIT.
- CONTRACTOR SHALL VERIFY DEVICE LOCATIONS WITH ARCHITECT PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL CASEWORK AND MILLWORK ELEVATIONS.
- ELECTRICAL CONTRACTOR SHALL REFERENCE TECHNOLOGY DRAWINGS FOR ADDITIONAL CONDUIT AND BACK BOX REQUIREMENTS. DIVISION 26 SHALL PROVIDE ALL PATHWAYS FOR LOW VOLTAGE SYSTEMS. DIVISION 26 CONTRACTOR SHALL COORDINATE WITH DIVISION 27 AND 28 CONTRACTORS FOR PATHWAY AND ROUGH-IN NEEDS.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR FOR ALL EXHAUST FAN CONTROLS. PROVIDE A FAN SWITCH IF INDICATED BY MECHANICAL. ALL EXHAUST FANS SHALL BE PROVIDED WITH BUILT-IN DISCONNECT SWITCH.
- HVAC AND PLUMBING EQUIPMENT MAY DIFFER FROM LOCATIONS AS SHOWN ON ELECTRICAL DRAWINGS COORDINATE EXACT LOCATIONS WITH MECHANICAL AND PLUMBING CONTRACTOR.
- ALL RECEPTACLES MOUNTED ABOVE COUNTERS AND WITHIN 6 FEET OF SINKS OR LAVATORIES SHALL BE GFCI TYPE.
- PROVIDE A DEDICATED HOT, NEUTRAL, AND GROUND FOR ALL COPY MACHINES.
- CONTRACTOR SHALL PROVIDE HANDLE TIES MANUFACTURED BY THE SWITCH GEAR SUPPLIER ON ALL MULTI-WIRE CIRCUITS TO MEET THE REQUIREMENTS OF ARTICLE 210-4(B) OF THE 2011 NEC. AT THE CONTRACTOR'S OPTION, TWO AND THREE POLE BREAKERS MAY BE USED.
- CONTRACTOR SHALL INDICATE CIRCUIT SERVING EACH RECEPTACLE BY PROVIDING TYPE WRITTEN LABELING LOCATED ON INSIDE FACE OF EACH RECEPTACLE COVER PLATE.
- ELECTRICAL CONTRACTOR SHALL ROUTE ELECTRICAL CONDUIT AND WIRING TO ALL ROOF HVAC EQUIPMENT THROUGH ROOF CURBS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
- MECHANICAL CONTRACTOR SHALL FURNISH INTEGRAL DISCONNECT SWITCH FOR ALL MECHANICAL EQUIPMENT. ELECTRICAL CONNECTIONS SHALL BE PROVIDED BY DIVISION 26.
- PROVIDE JUNCTION BOX AND POWER FOR ALL HARD WIRED PLUMBING FLUSH VALVES AND SENSOR EQUIPMENT TRANSFORMERS FROM NEAREST 120V/20A CIRCUIT. COORDINATE WITH PLUMBER PRIOR TO ROUGH-IN FOR EXACT LOCATION.
- ALL RECEPTACLES LOCATED IN RESTROOMS, JANITOR CLOSETS, MECHANICAL ROOMS, ELEVATOR PIT'S OR SHAFTS, ELEVATOR EQUIPMENT ROOMS, SERVING ELECTRIC DRINKING FOUNTAINS OR VENDING MACHINES, LOCATED WITHIN 6' OF A SINK, LOCATED ABOVE A WET COUNTERTOP OR IN A KITCHEN OR COFFEE BAR SHALL BE GFCI. EACH GFCI PROTECTED RECEPTACLE SHARING THE SAME CIRCUIT SHALL HAVE ITS OWN RE-SET AND TEST BUTTON.

#### KEYED NOTES:

- #12 WIRE, 3/4" TO NEAREST PANEL. PROVIDE NEW 20A/1P BREAKER AS REQUIRED.
- REMOVE TEMPORARY SUPPORT STRUCTURE AND REINSTALL EXISTING FIRE ALARM PANEL ON NEW WALL ALONG WITH ALL ASSOCIATED BATTERY CABINETS, EXTENDER PANELS, WIREWAYS, CONDUIT AND DEVICES. CONTRACTOR SHALL EXTEND FIRE ALARM CIRCUITS AS REQUIRED DUE TO FACTOR RELOCATION. CONTRACTOR SHALL KEEP FIRE ALARM SYSTEM DOWNTIME TO A MINIMUM. COORDINATE ANY REQUIRED DOWNTIME WITH OWNER.
- #12 WIRE, 3/4" TO NEAREST PANEL. PROVIDE NEW 20A/2P BREAKER AS REQUIRED FOR ELECTRICAL CONNECTION TO WATER HEATER.
- #12 WIRE, 3/4" TO NEAREST PANEL. PROVIDE NEW 20A/1P BREAKER AS REQUIRED FOR ELECTRICAL CONNECTION TO CIRCULATION PUMP. PUMP SHALL BE CONTROLLED VIA TIME SWITCH. REFER TO PLUMBING SCHEDULE FOR TIME SWITCH TYPE. TIME SWITCH PROVIDED BY ELECTRICAL CONTRACTOR.

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TPE Firm Registration No. 2234

DBR Project Number 198008.000

DM	MG	JCH	TL	—
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Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
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#### KEYPLAN

Project Number: 19.04  
Drawing Date: 5-10-2019  
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Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

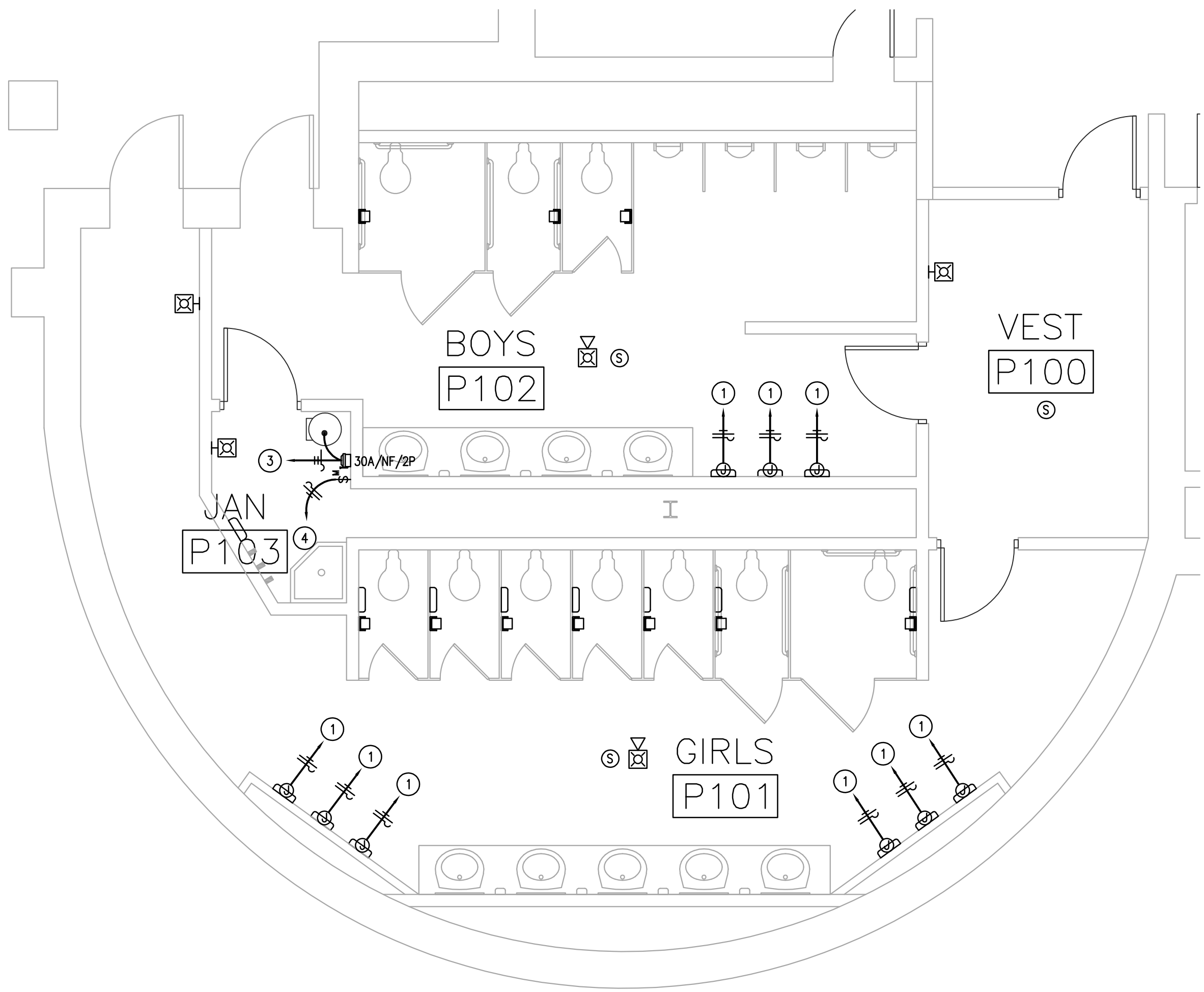
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**& BUILDING N**  
**ELECTRICAL**  
**POWER PLAN**

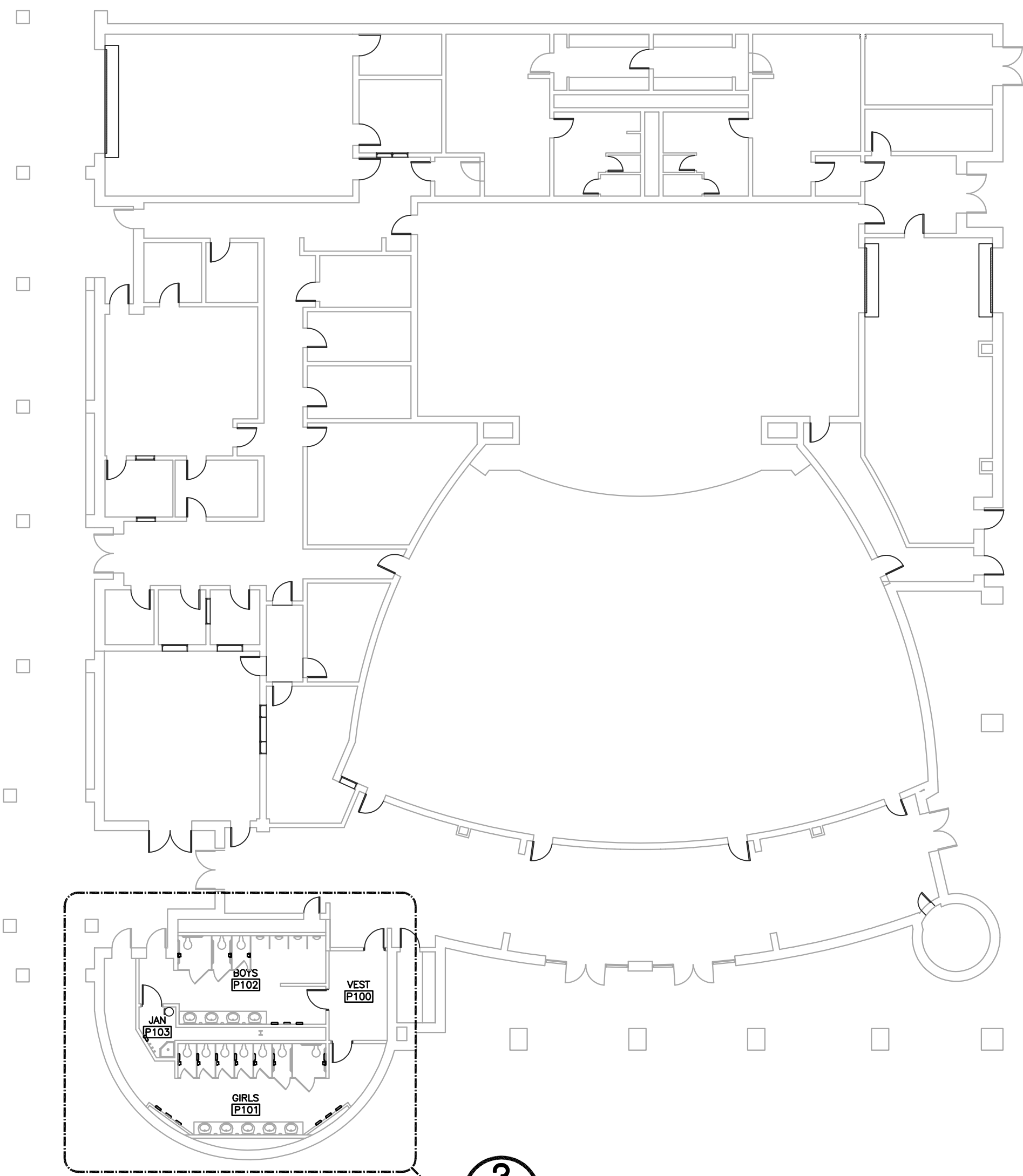
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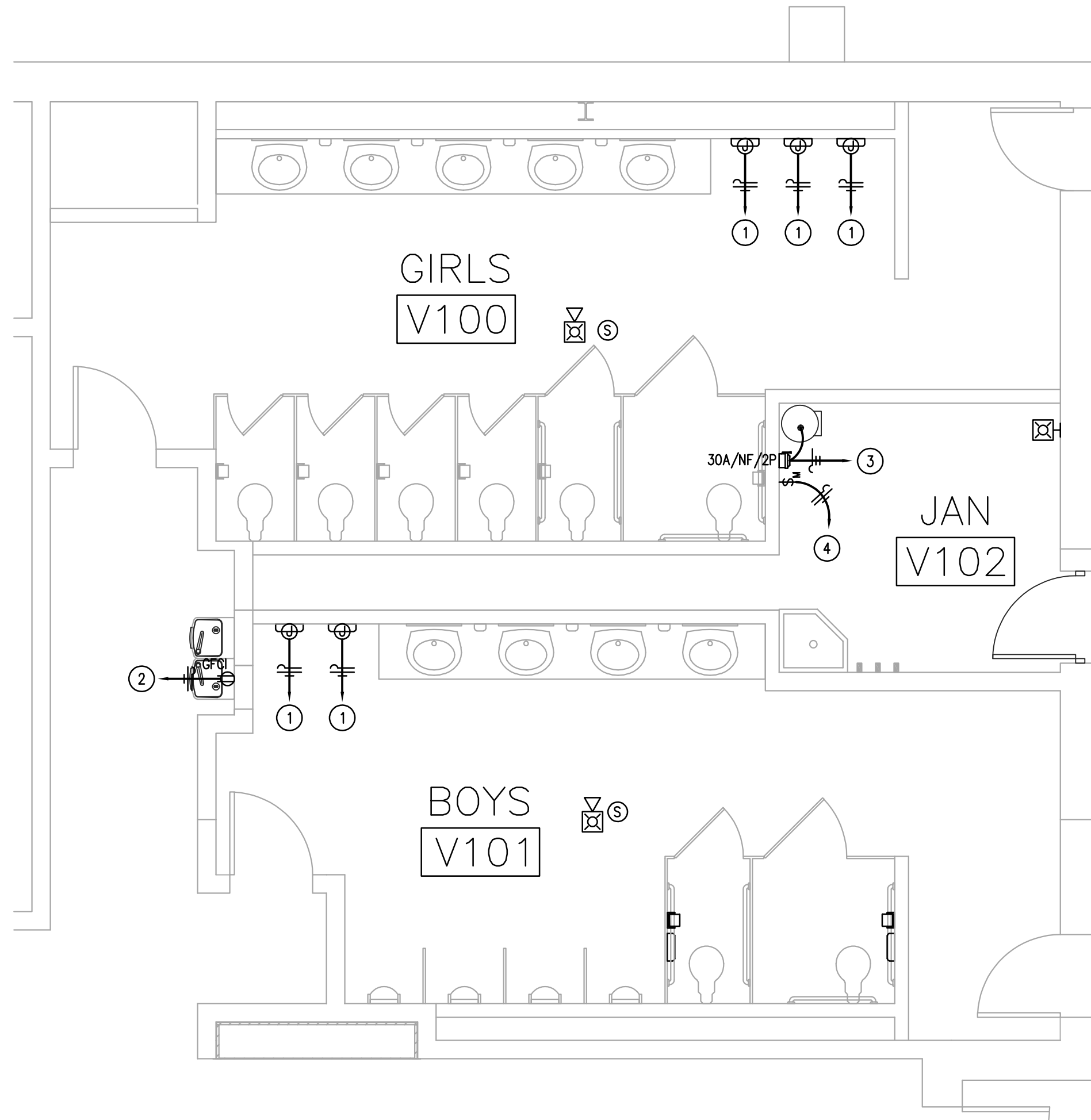
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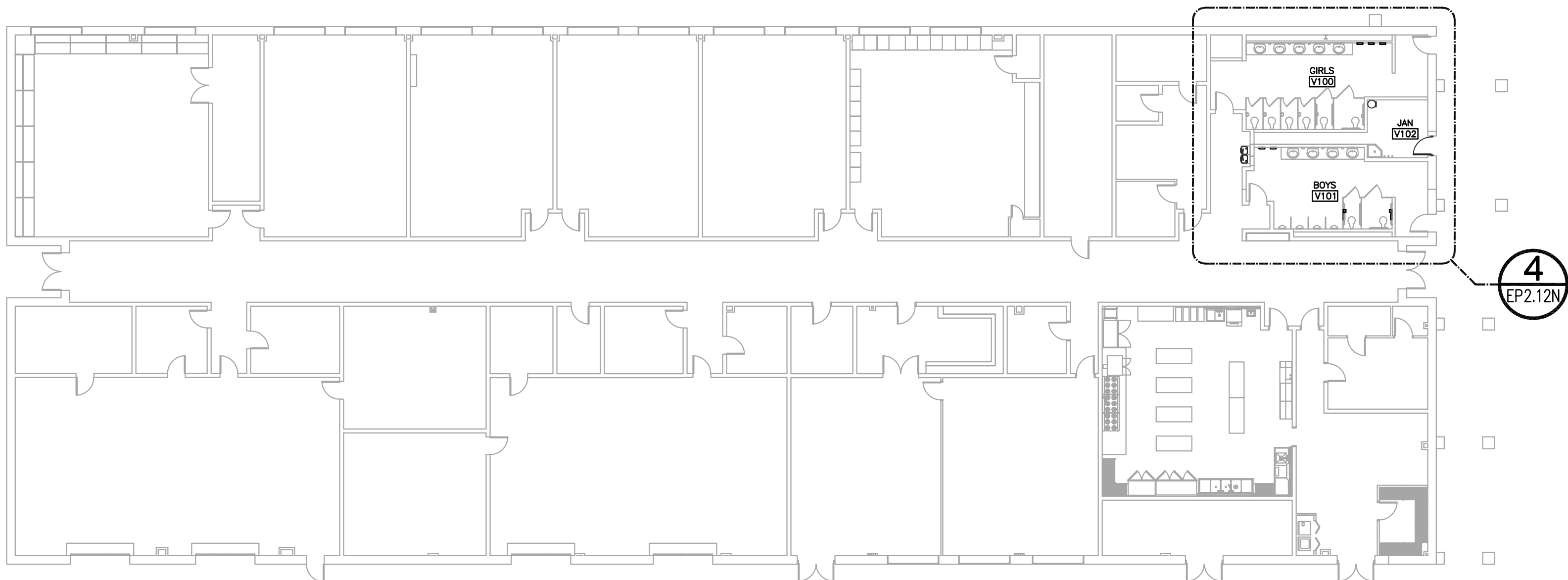
**3 ENLARGED ELECTRICAL PLAN**  
EP2.12N 1/4"=1'-0"



**1 ELECTRICAL PLAN - BUILDING P**  
EP2.12N 1/16"=1'-0"



**4 ENLARGED ELECTRICAL PLAN**  
EP2.12N 1/4"=1'-0"



**2 ELECTRICAL PLAN - BUILDING V**  
EP2.12N 1/16"=1'-0"

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- ELECTRICAL CONTRACTOR SHALL ROUTE ELECTRICAL CONDUIT AND WIRING TO ALL ROOF HVAC EQUIPMENT THROUGH ROOF CURBS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
- MECHANICAL CONTRACTOR SHALL FURNISH INTEGRAL DISCONNECT SWITCH FOR ALL MECHANICAL EQUIPMENT. ELECTRICAL CONNECTIONS SHALL BE PROVIDED BY DIVISION 26.
- PROVIDE JUNCTION BOX AND POWER FOR ALL HARD WIRED PLUMBING FLUSH VALVES AND SENSOR EQUIPMENT TRANSFORMERS FROM NEAREST 120V/20A CIRCUIT. COORDINATE WITH PLUMBER PRIOR TO ROUGH-IN FOR EXACT LOCATION.
- ALL RECEPTACLES LOCATED IN RESTROOMS, JANITOR CLOSETS, MECHANICAL ROOMS, ELEVATOR PITTS OR SHAFTS, ELEVATOR EQUIPMENT ROOMS, SERVING ELECTRIC DRINKING FOUNTAINS OR VENDING MACHINES, LOCATED WITHIN 6' OF A SINK, LOCATED ABOVE A NET COUNTERTOP OR IN A KITCHEN OR COFFEE BAR SHALL BE GFCI. EACH GFCI PROTECTED RECEPTACLE SHARING THE SAME CIRCUIT SHALL HAVE ITS OWN RE-SET AND TEST BUTTON.

#### KEYED NOTES:

- #12 WIRE, 3/4" TO NEAREST PANEL. PROVIDE NEW 20A/1P BREAKER AS REQUIRED.
- CONNECT TO EXISTING ELECTRICAL WATER COOLER CIRCUIT. FIELD VERIFY.
- #12 WIRE, 3/4" TO NEAREST PANEL. PROVIDE NEW 20A/2P BREAKER AS REQUIRED FOR ELECTRICAL CONNECTION TO WATER HEATER.
- #12 WIRE, 3/4" TO NEAREST PANEL. PROVIDE NEW 20A/1P BREAKER AS REQUIRED FOR ELECTRICAL CONNECTION TO CIRCULATION PUMP. PUMP SHALL BE CONTROLLED VIA TIME SWITCH. REFER TO PLUMBING SCHEDULE FOR TIME SWITCH TYPE. TIME SWITCH PROVIDED BY ELECTRICAL CONTRACTOR.

Consultants:

**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



**PSJA ISD**  
**NORTH ECHS**  
**& COLLEGE**  
**AND**  
**UNIVERSITY**  
**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

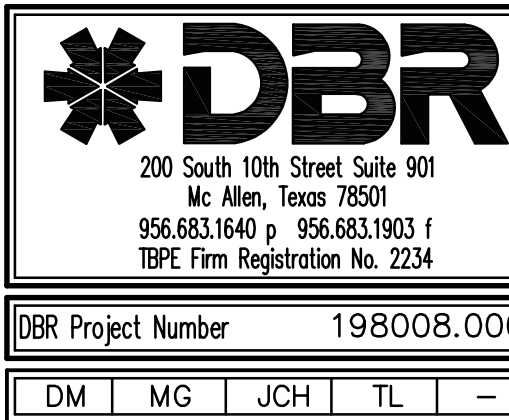
#### KEYPLAN

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
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ACAD File: A-240-U

Revisions:

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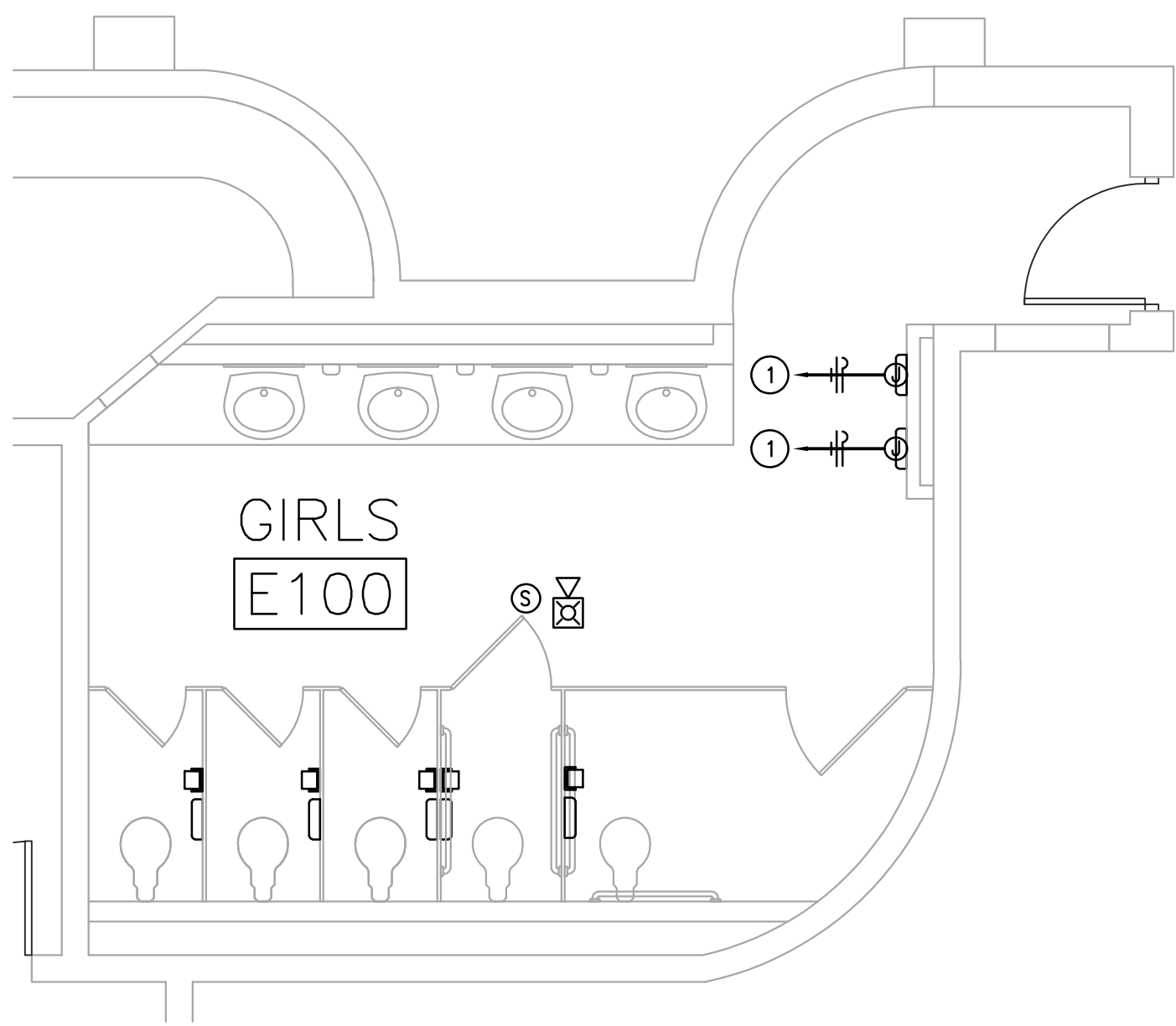
**BUILDING P**  
**& BUILDING V**  
**ELECTRICAL**  
**POWER PLAN**



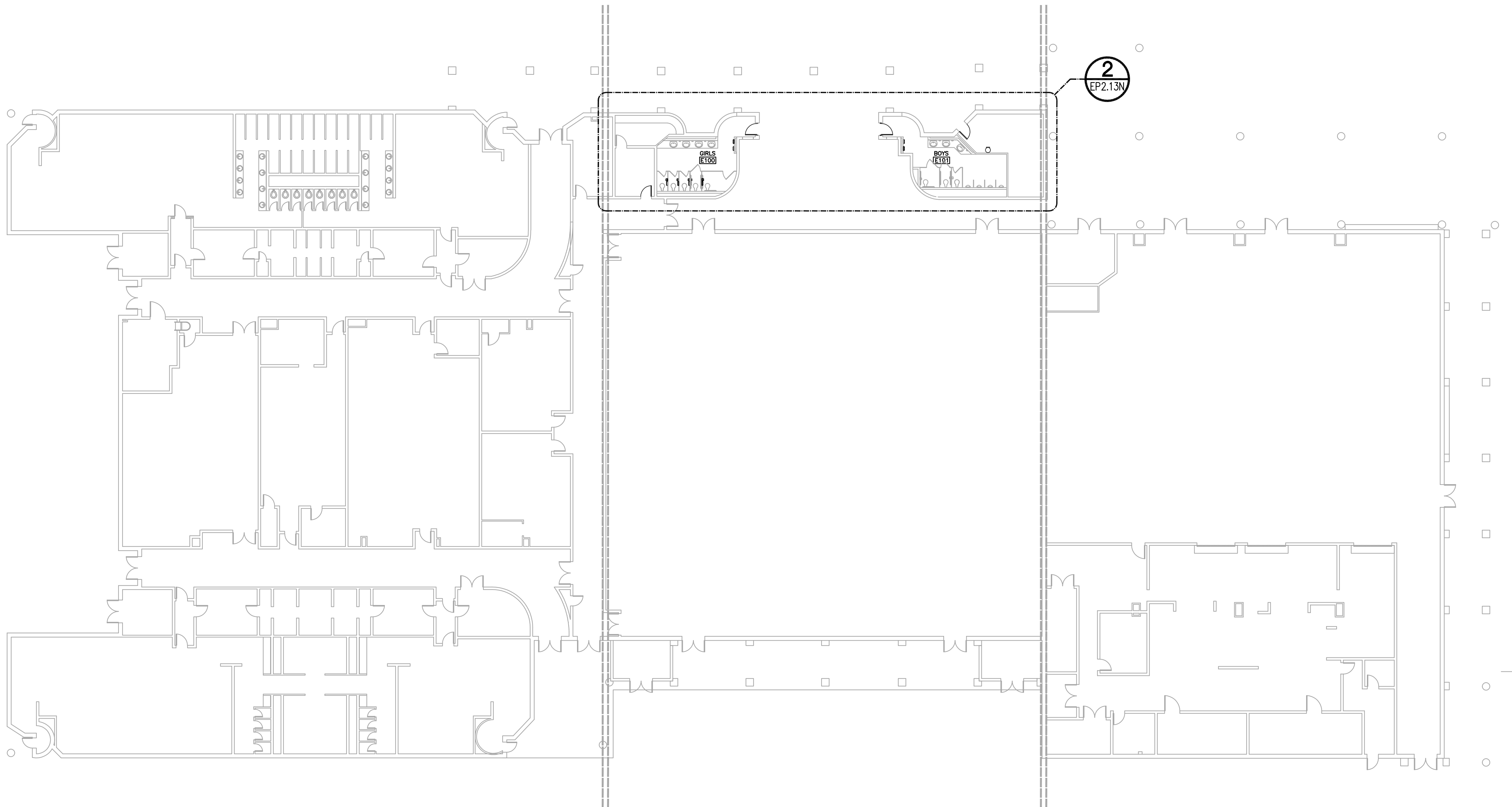
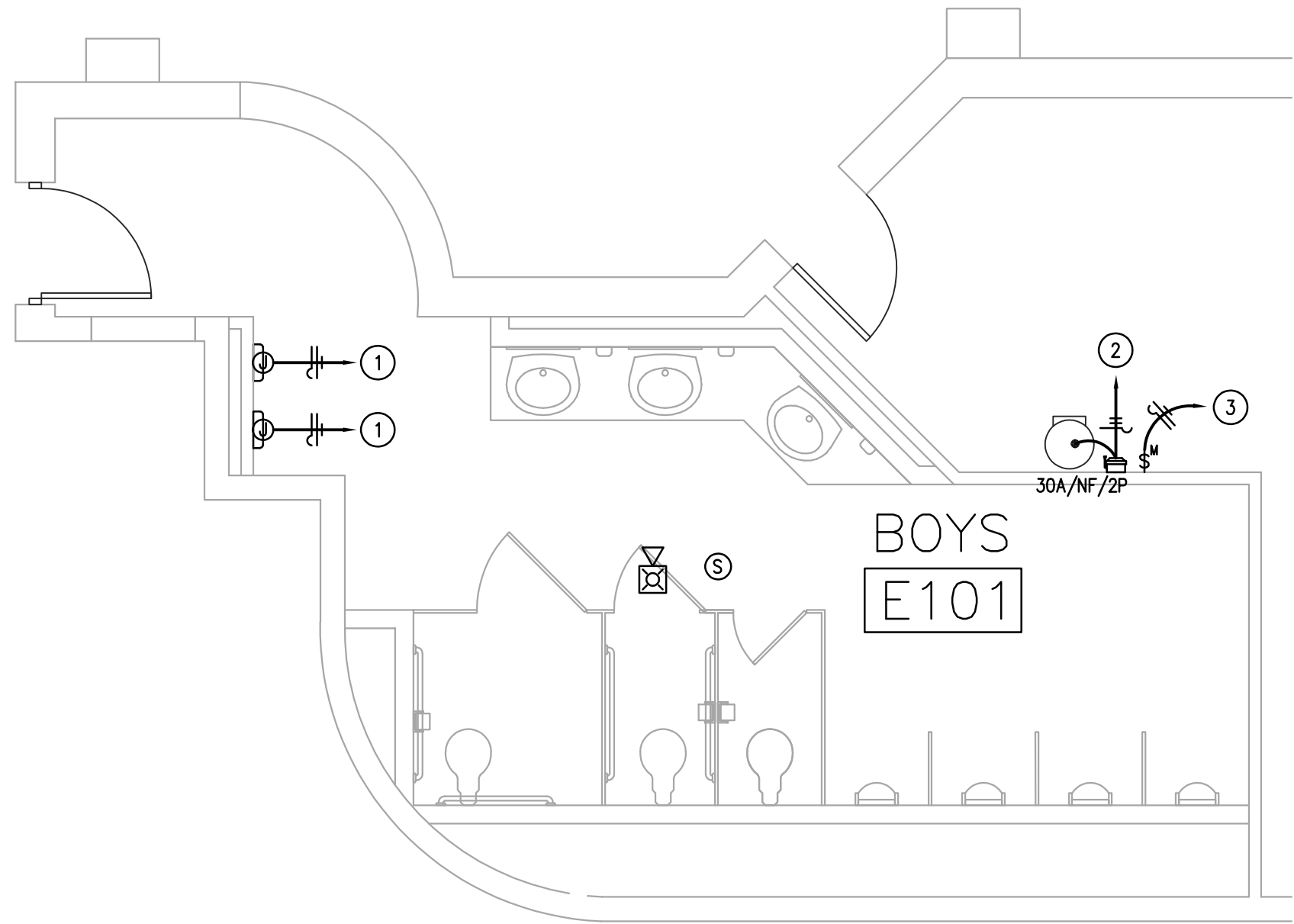
**EP2.12N**



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**2 ENLARGED ELECTRICAL PLAN**  
EP2.13N 1/4"=1'-0"



**1 ELECTRICAL PLAN - BUILDING E**  
EP2.13N 1/16"=1'-0"

**GENERAL NOTES:**

- ELECTRICAL CONTRACTOR SHALL GROUP HOMERUNS WITH THREE HOT/NEUTRAL (A,B, AND C PHASES), AND #10 NEUTRAL TO PROVIDE MULTI-WIRE BRANCH CIRCUITS. NO MORE THAN 2 MULTI-WIRE HOMERUNS PER CONDUIT.
- CONTRACTOR SHALL VERIFY DEVICE LOCATIONS WITH ARCHITECT PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL CASEWORK AND MILLWORK ELEVATIONS.
- ELECTRICAL CONTRACTOR SHALL REFERENCE TECHNOLOGY DRAWINGS FOR ADDITIONAL CONDUIT AND BACK BOX REQUIREMENTS. DIVISION 26 SHALL PROVIDE ALL PATHWAYS FOR LOW VOLTAGE SYSTEMS. DIVISION 26 CONTRACTOR SHALL COORDINATE WITH DIVISION 27 AND 28 CONTRACTORS FOR PATHWAY AND ROUGH-IN NEEDS.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR FOR ALL EXHAUST FAN CONTROLS. PROVIDE A FAN SWITCH IF INDICATED BY MECHANICAL. ALL EXHAUST FANS SHALL BE PROVIDED WITH BUILT-IN DISCONNECT SWITCH.
- HVAC AND PLUMBING EQUIPMENT MAY DIFFER FROM LOCATIONS AS SHOWN ON ELECTRICAL DRAWINGS COORDINATE EXACT LOCATIONS WITH MECHANICAL AND PLUMBING CONTRACTOR.
- ALL RECEPTACLES MOUNTED ABOVE COUNTERS AND WITHIN 6 FEET OF SINKS OR LAVATORIES SHALL BE GFCI TYPE.
- PROVIDE A DEDICATED HOT, NEUTRAL, AND GROUND FOR ALL COPY MACHINES.
- CONTRACTOR SHALL PROVIDE HANDLE TIES MANUFACTURED BY THE SWITCH GEAR SUPPLIER ON ALL MULTI-WIRE CIRCUITS TO MEET THE REQUIREMENTS OF ARTICLE 210-4(B) OF THE 2011 NEC. AT THE CONTRACTOR'S OPTION, TWO AND THREE POLE BREAKERS MAY BE USED.
- CONTRACTOR SHALL INDICATE CIRCUIT SERVING EACH RECEPTACLE BY PROVIDING TYPE WRITTEN LABELING LOCATED ON INSIDE FACE OF EACH RECEPTACLE COVER PLATE.
- ELECTRICAL CONTRACTOR SHALL ROUTE ELECTRICAL CONDUIT AND WIRING TO ALL ROOF HVAC EQUIPMENT THROUGH ROOF CURBS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
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**KEYED NOTES:**

- #12 WIRE, 3/4" TO NEAREST PANEL. PROVIDE NEW 20A/1P BREAKER AS REQUIRED.
- #12 WIRE, 3/4" TO NEAREST PANEL. PROVIDE NEW 20A/2P BREAKER AS REQUIRED FOR ELECTRICAL CONNECTION TO WATER HEATER.
- #12 WIRE, 3/4" TO NEAREST PANEL. PROVIDE NEW 20A/1P BREAKER AS REQUIRED FOR ELECTRICAL CONNECTION TO CIRCULATION PUMP. PUMP SHALL BE CONTROLLED VIA TIME SWITCH. REFER TO PLUMBING SCHEDULE FOR TIME SWITCH TYPE. TIME SWITCH PROVIDED BY ELECTRICAL CONTRACTOR.

**Consultants:**

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO & ASSOCIATES INC.**

**MEP:**  
**DBR ENGINEERING**



**PSJA ISD**  
**NORTH ECHS**  
**& COLLEGE**  
**AND**  
**UNIVERSITY**  
**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

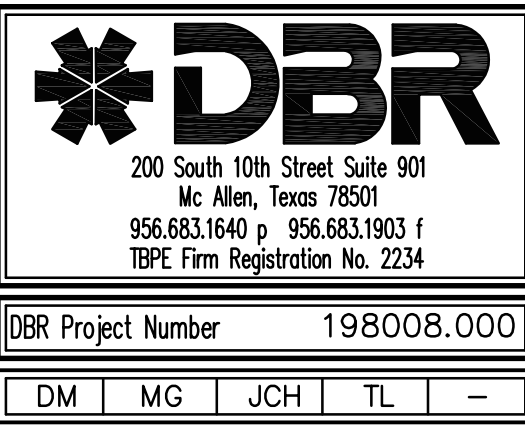
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Drawing Date: 5-10-2019  
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Checked: JM  
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ACAD File: A-240-U

**Revisions:**

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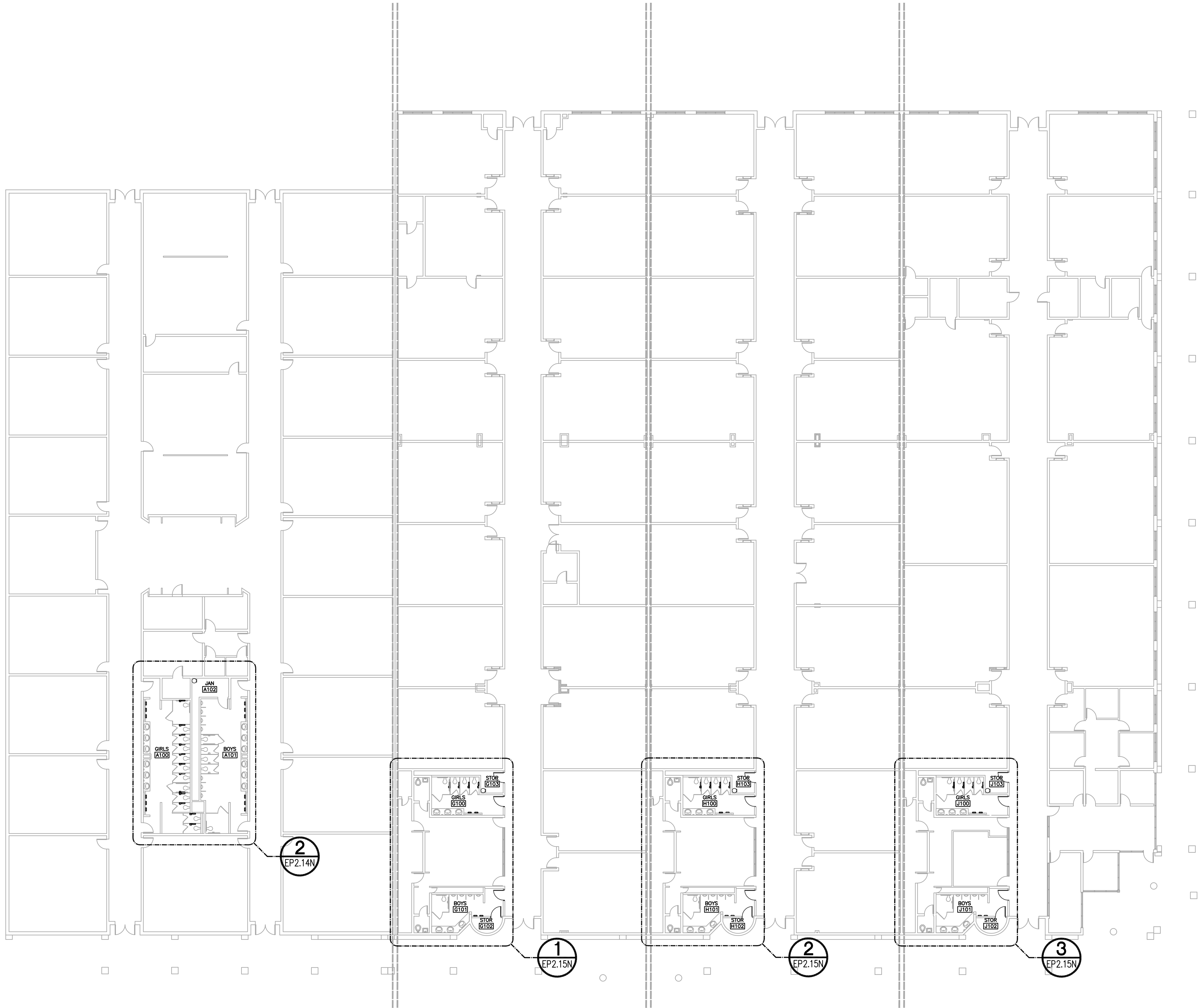
**BUILDING E**  
**ELECTRICAL**  
**POWER PLAN**



**EP2.13N**



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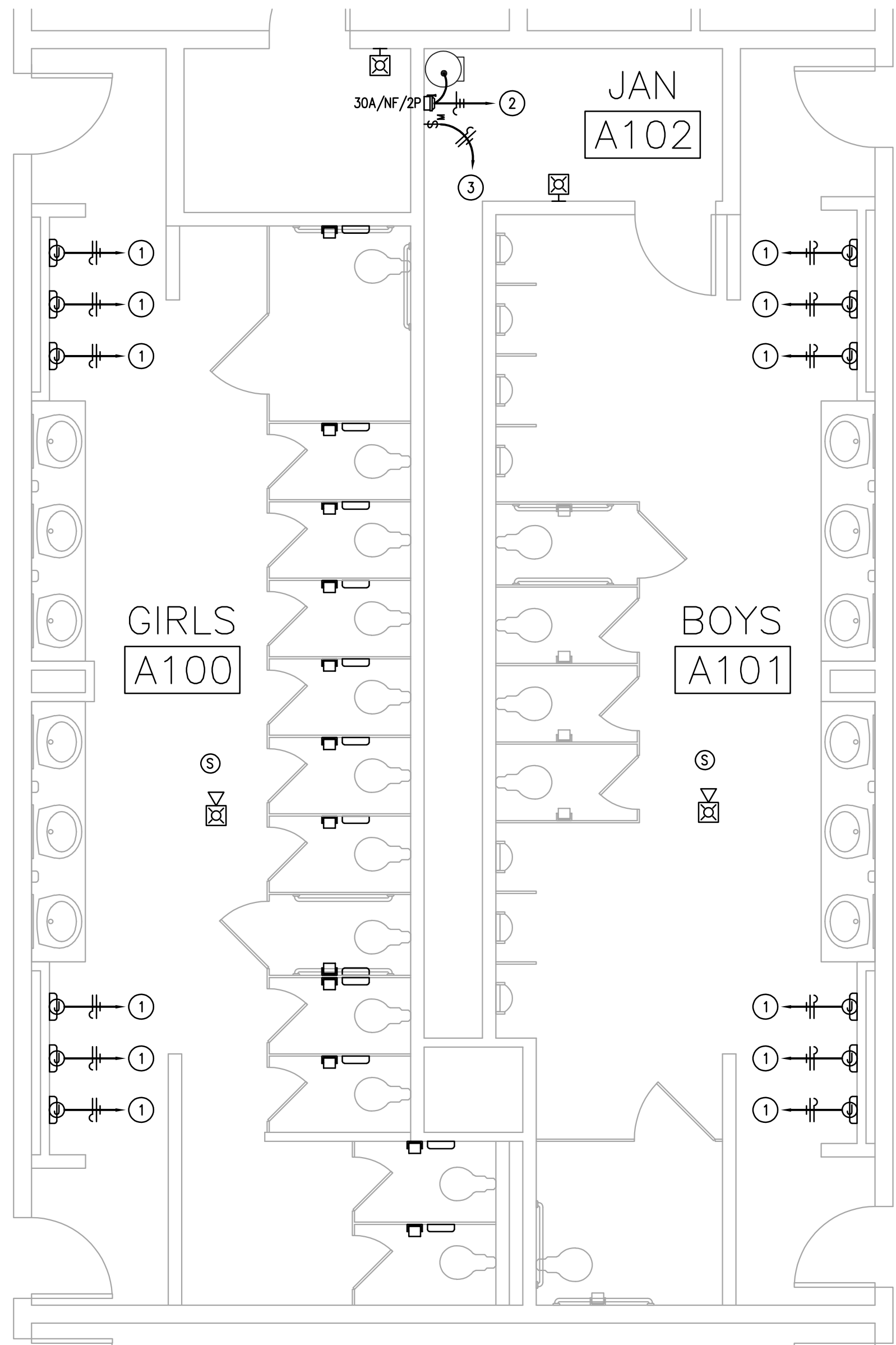
1 ELECTRICAL PLAN - BUILDING A-G-H-J  
1/16"=1'-0"

#### KEYED NOTES:

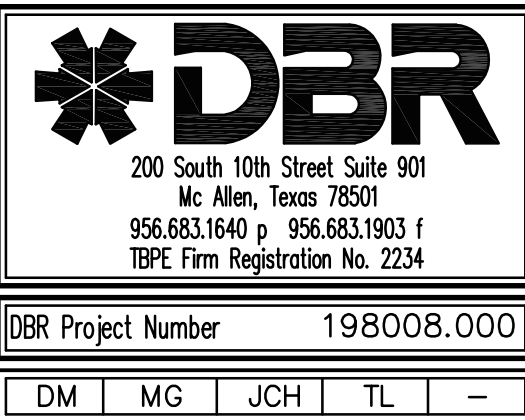
- #12 WIRE, 3/4" C TO NEAREST PANEL. PROVIDE NEW 20A/1P BREAKER AS REQUIRED.
- #12 WIRE, 3/4" C TO NEAREST PANEL. PROVIDE NEW 20A/2P BREAKER AS REQUIRED FOR ELECTRICAL CONNECTION TO WATER HEATER.
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#### GENERAL NOTES:

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2 ENLARGED ELECTRICAL PLAN  
1/4"=1'-0"



Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING



PSJA ISD  
NORTH ECHS  
& COLLEGE  
AND  
UNIVERSITY  
CAMPUS  
STUDENT  
RESTROOM  
RENOVATIONS

#### KEYPLAN

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

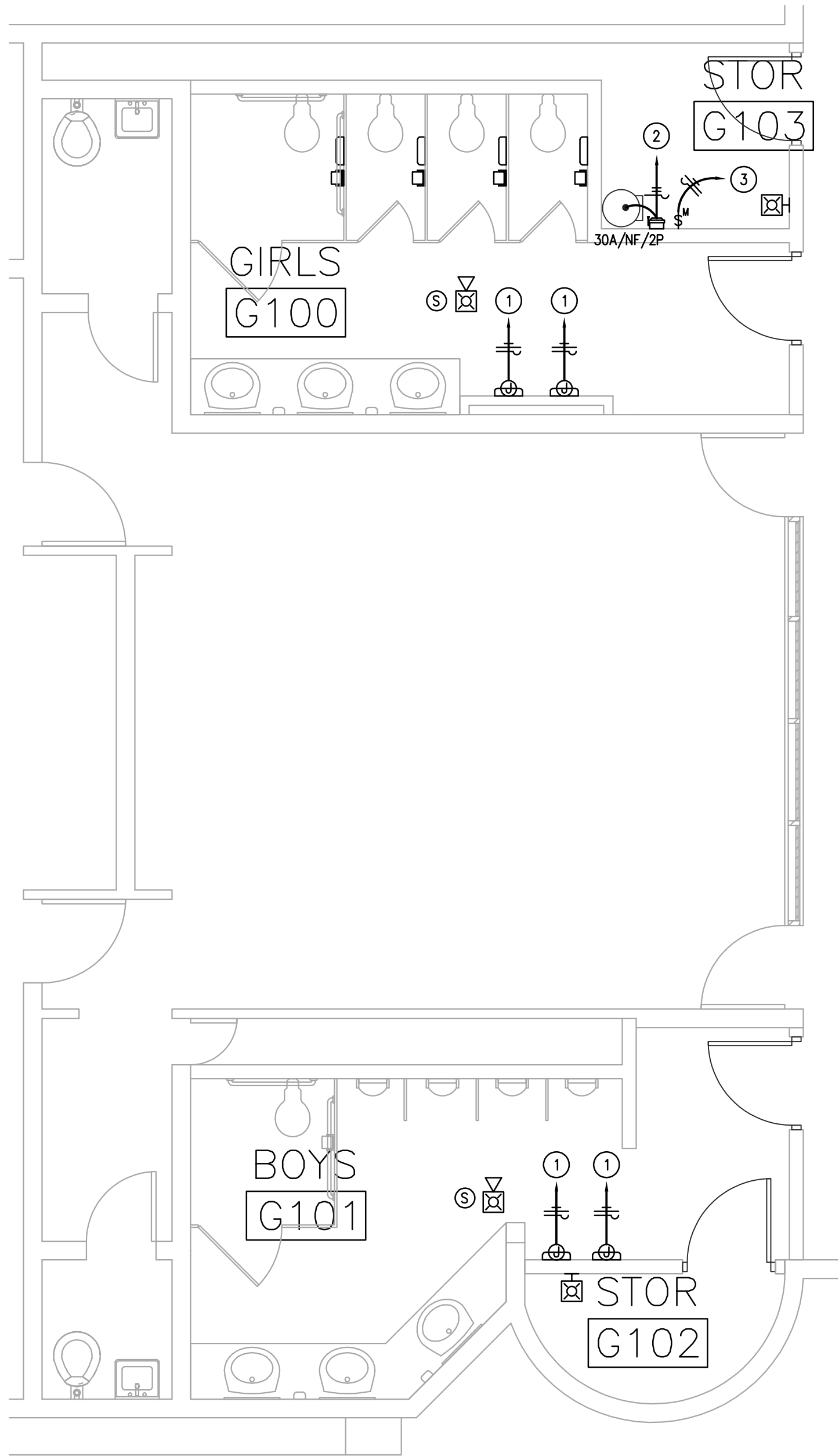
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BUILDING  
A-G-H-J  
ELECTRICAL  
POWER PLAN

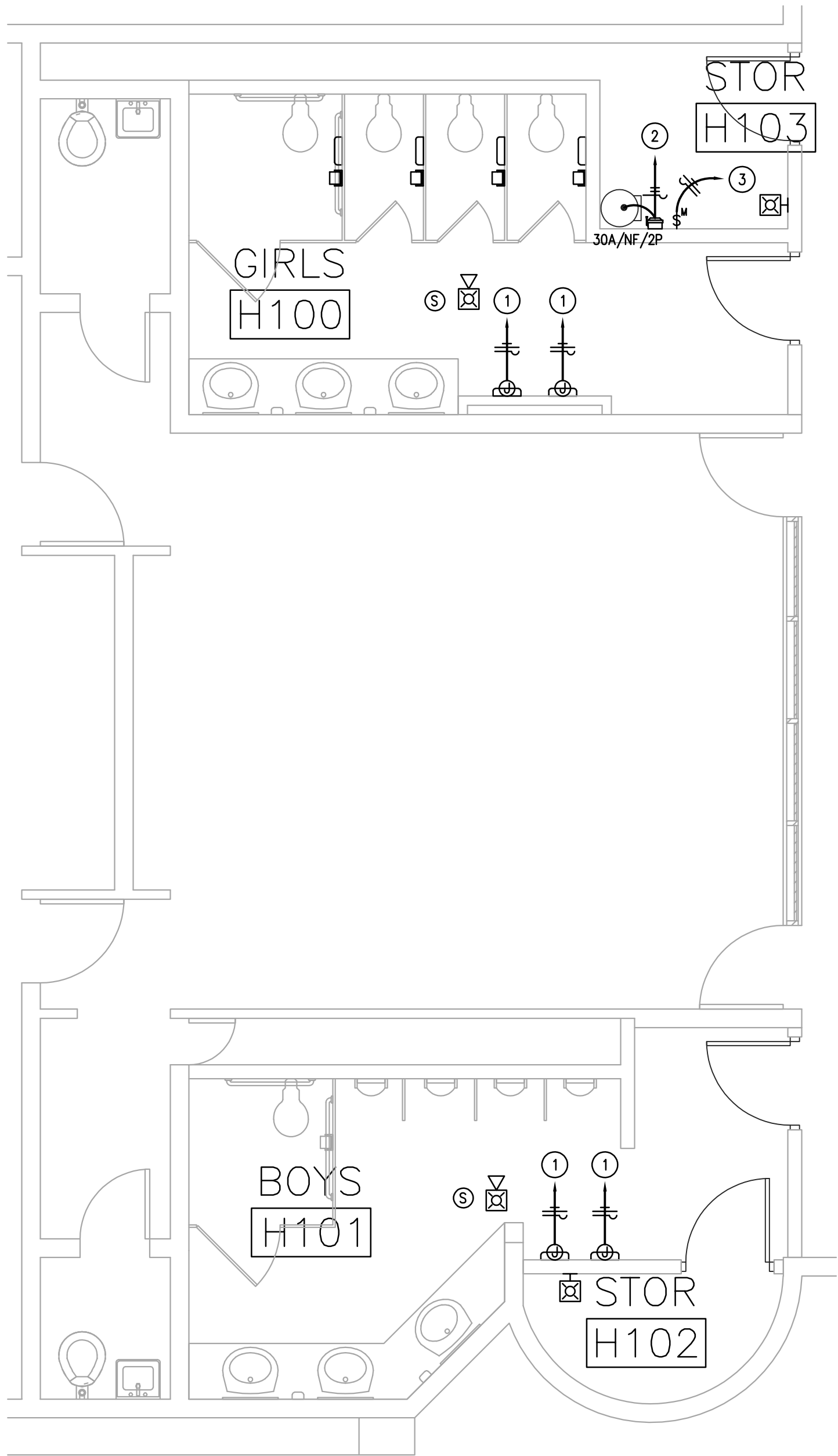
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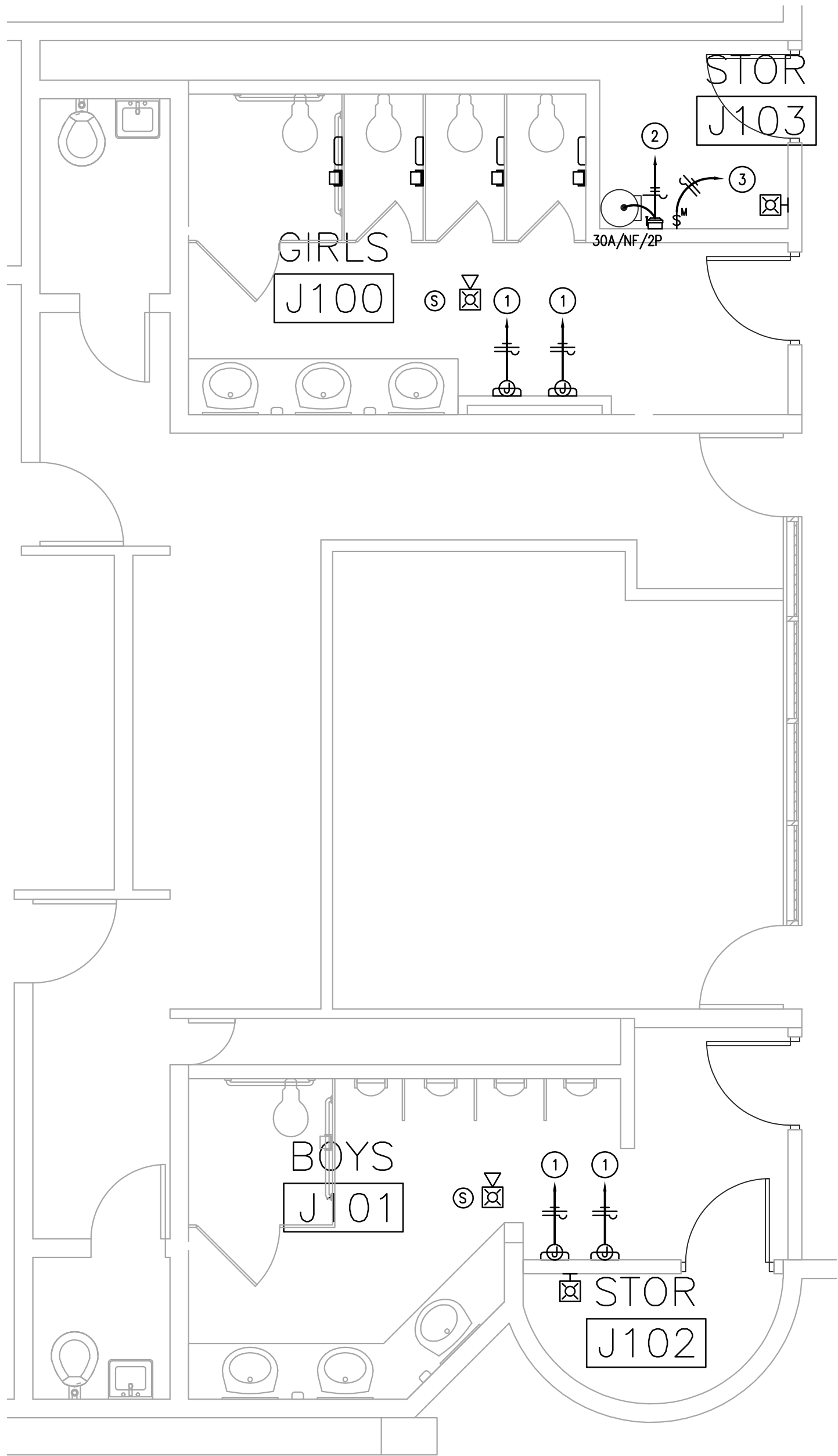
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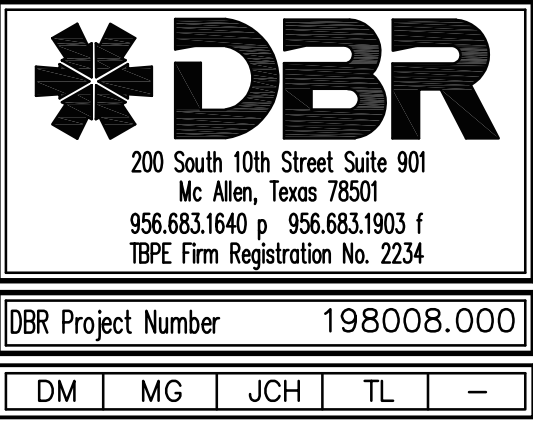
1 ENLARGED ELECTRICAL PLAN  
EP2.15N 1/4"=1'-0"



2 ENLARGED ELECTRICAL PLAN  
EP2.15N 1/4"=1'-0"



3 ENLARGED ELECTRICAL PLAN  
EP2.15N 1/4"=1'-0"



Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING



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UNIVERSITY  
CAMPUS  
STUDENT  
RESTROOM  
RENOVATIONS

KEYPLAN

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
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ACAD File: A-240-U

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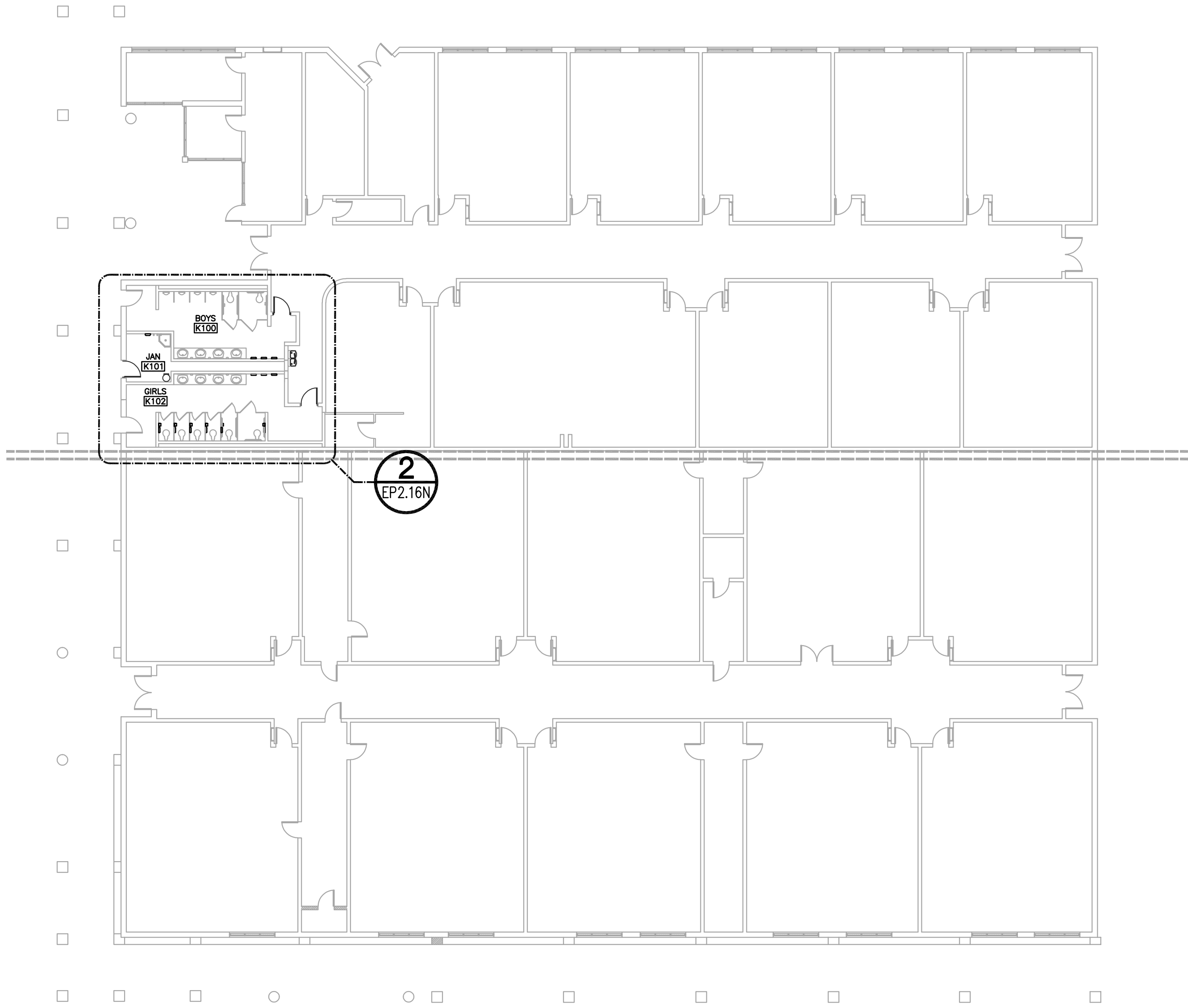
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BUILDING  
A-G-H-J  
ELECTRICAL  
POWER PLAN

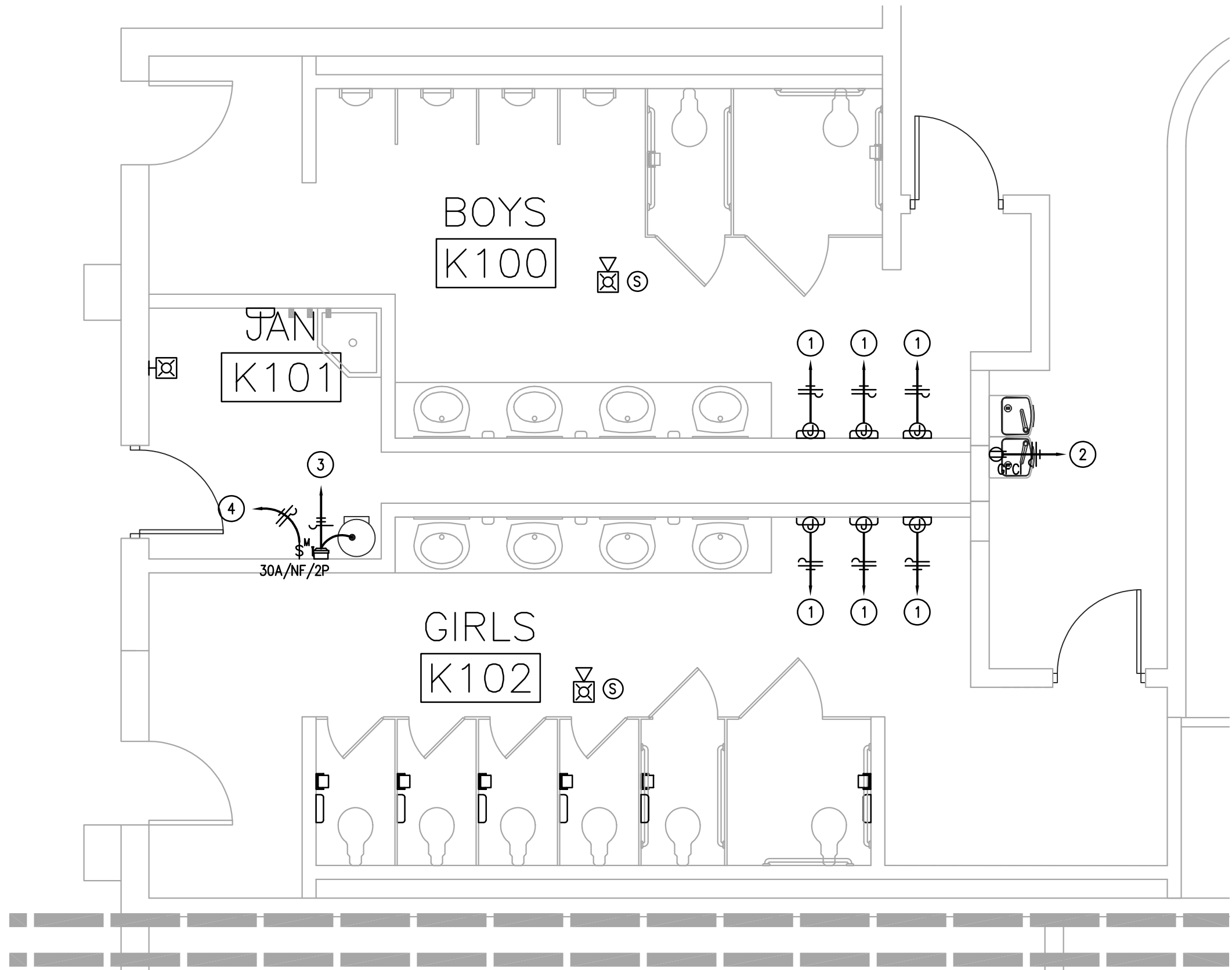
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**1** ELECTRICAL PLAN - BUILDING K  
EP2.16N 1/16"=1'-0"



**2** ENLARGED ELECTRICAL PLAN  
EP2.16N 1/4"=1'-0"

**GENERAL NOTES:**

- ELECTRICAL CONTRACTOR SHALL GROUP HOMERUNS WITH THREE HOT/TS (A,B, AND C PHASES), AND #10 NEUTRAL TO PROVIDE MULTI-WIRE BRANCH CIRCUITS. NO MORE THAN 2 MULTI-WIRE HOMERUNS PER CONDUIT.
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**KEYED NOTES:**

- #12 WIRE, 3/4" TO NEAREST PANEL. PROVIDE NEW 20A/1P BREAKER AS REQUIRED.
- CONNECT TO EXISTING ELECTRICAL WATER COOLER CIRCUIT. FIELD VERIFY.
- #12 WIRE, 3/4" TO NEAREST PANEL. PROVIDE NEW 20A/2P BREAKER AS REQUIRED FOR ELECTRICAL CONNECTION TO WATER HEATER.
- #12 WIRE, 3/4" TO NEAREST PANEL. PROVIDE NEW 20A/1P BREAKER AS REQUIRED FOR ELECTRICAL CONNECTION TO CIRCULATION PUMP. PUMP SHALL BE CONTROLLED VIA TIME SWITCH. REFER TO PLUMBING SCHEDULE FOR TIME SWITCH TYPE. TIME SWITCH PROVIDED BY ELECTRICAL CONTRACTOR.

**DBR**  
200 South 10th Street Suite 901  
Mc Allen, Texas 78501  
956.683.1940 P 956.683.1903 F  
TBE Firm Registration No. 2234

DBR Project Number 198008.000

DM	MG	JCH	TL	-
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Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO & ASSOCIATES INC.**

**MEP:**  
**DBR ENGINEERING**



**PSJA ISD**  
**NORTH ECHS**  
**& COLLEGE**  
**AND**  
**UNIVERSITY**  
**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

**KEYPLAN**

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
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Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:


Sheet Title:

**BUILDING K**  
**ELECTRICAL**  
**POWER PLAN**

**EP2.16N**



LIGHT FIXTURE SCHEDULE											
TYPE	MANUF	CATALOG No	MOUNTING	LAMPS			VOLTAGE	INPUT W	MOUNTING HEIGHT *	REMARKS	NOTES
				#	TYPE	COLOR					
A	LITHONIA	LDN6-40/10-LO6/AR-LSS-MVOLT-GZ10	RECESSED	-	LED	4000K	MVOLT	13	9'	6" RECESSED LED CAN LIGHT	
AE	LITHONIA	LDN6-40/10-LO6/AR-LSS-MVOLT-GZ10-ELR	RECESSED	-	LED	4000K	MVOLT	13	9'	6" RECESSED LED CAN LIGHT WITH BATTERY	
B	LITHONIA	CLX-L48-3000LM-SEF-FDL-MVOLT-GZ10-40K-80CRI-WH-HC38	SUSPENDED	-	LED	4000K	MVOLT	21	9'	4' LED STRIP LIGHT WITH LENS.	
X	LITHONIA	LQM-S-W-3-R-120/277-EL N	SURFACE	-	LED	-	MVOLT	6	-	LED EXIT SIGN WITH RED LETTERING.	
* MOUNTING HEIGHT APPLIES TO ALL FIXTURES NOT SURFACE MOUNTED TO CEILING OR STRUCTURE, OR RECESSED INTO CEILING. MOUNT ALL FIXTURES TO SCHEDULED MOUNTING HEIGHT, MEASURED TO BOTTOM OF FIXTURE, UNLESS NOTED OTHERWISE ON DRAWINGS. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL MOUNTING HEIGHTS AND LOCATIONS WITH ARCHITECT. SEE ARCHITECTURAL ELEVATIONS.											
NOTES:											
	ALL FIXTURES WITH 'E' SUFFIX (A1E) SHALL HAVE [BODINE GTD -OR- EMERGENCY BATTERY PACK]										



200 South 10th Street Suite 901  
Mc Allen, Texas 78501  
956.683.1940 p 956.683.1903 f  
TBPB Firm Registration No. 2234

DBR Project Number

198008.000

DM

MG

JCH

TL

-

414 STARR STREET  
CORPUS CHRISTI, TEXS 78401  
T 361.884.2661  
F 361.884.4232

222 E. VAN BUREN, SUITE 102  
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F 956.365.4822

3700 N. 10TH, SUITE 205  
MCALLEN, TEXAS 78501  
T 956.686.0100  
F 956.622.7313

Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



**PSJA ISD**  
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**RENOVATIONS**

KEYPLAN

Project Number: 19.04  
Drawing Date: 5-10-2019  
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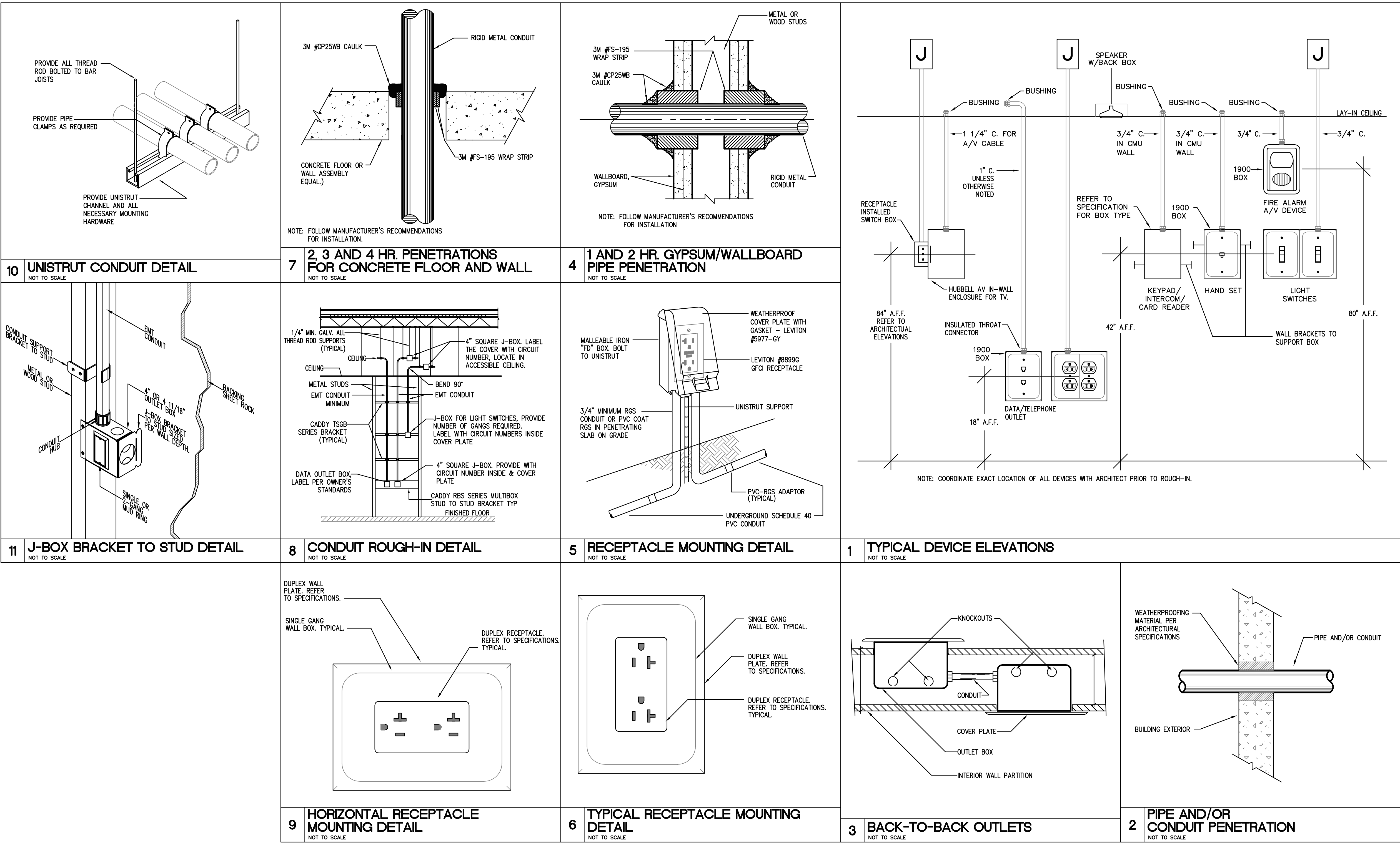
Revisions:


Sheet Title:

ELECTRICAL  
SCHEDULES

E5.01N





PSJA ISD  
NORTH ECHS  
& COLLEGE  
AND  
UNIVERSITY  
CAMPUS  
STUDENT  
RESTROOM  
RENOVATIONS

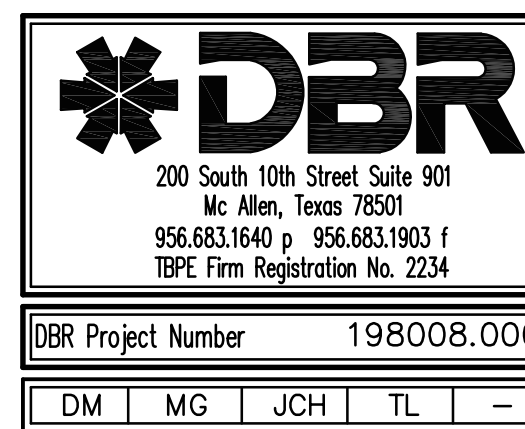
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Drawing Date: 5-10-2019  
Drawn: AL  
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ACAD File: A-240-U

Revisions:

Sheet Title:

ELECTRICAL  
DETAILS



DBR Project Number		198008.00		
DM	MG	JCH	TL	-

E6.01N

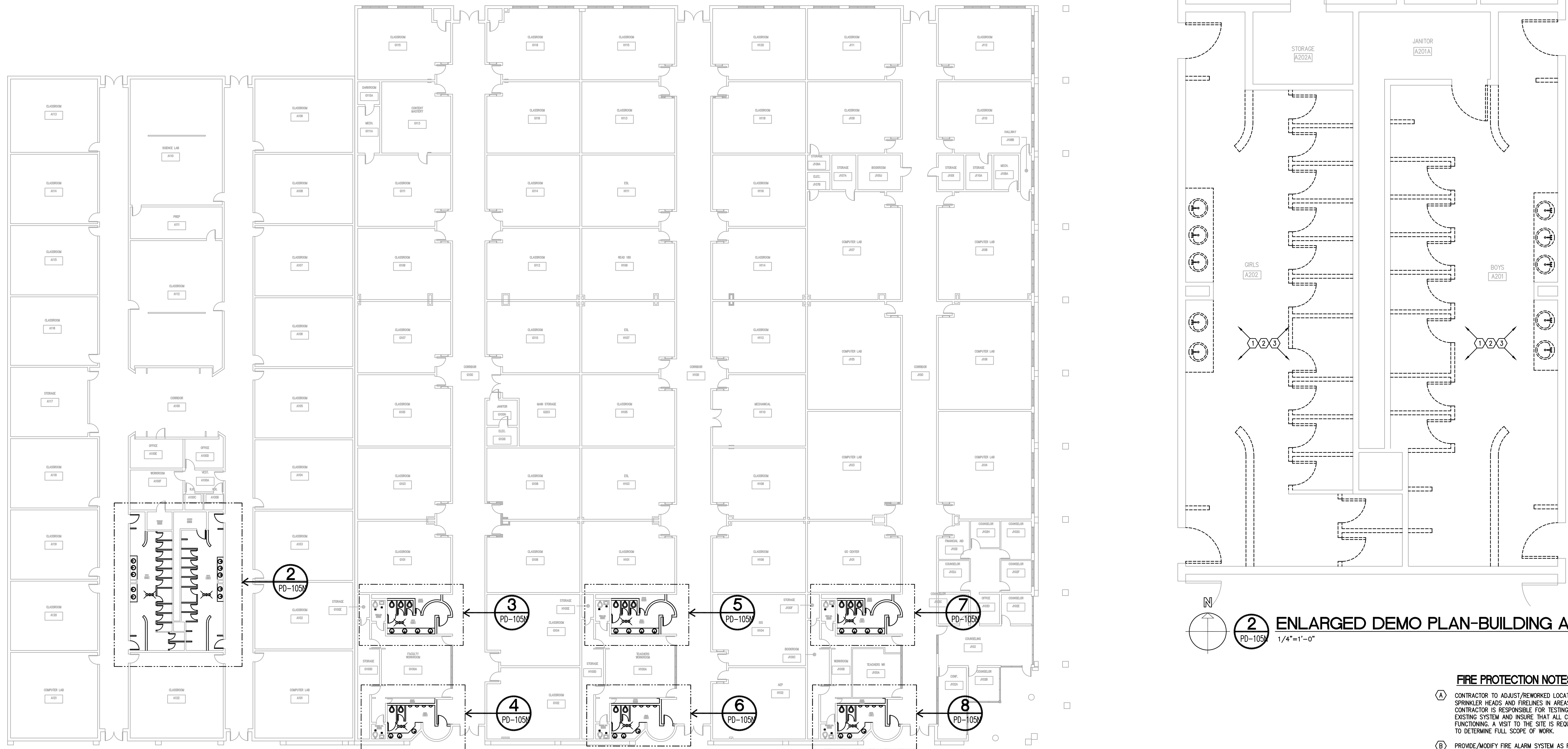


PLUMBING SYMBOLS AND ABBREVIATIONS

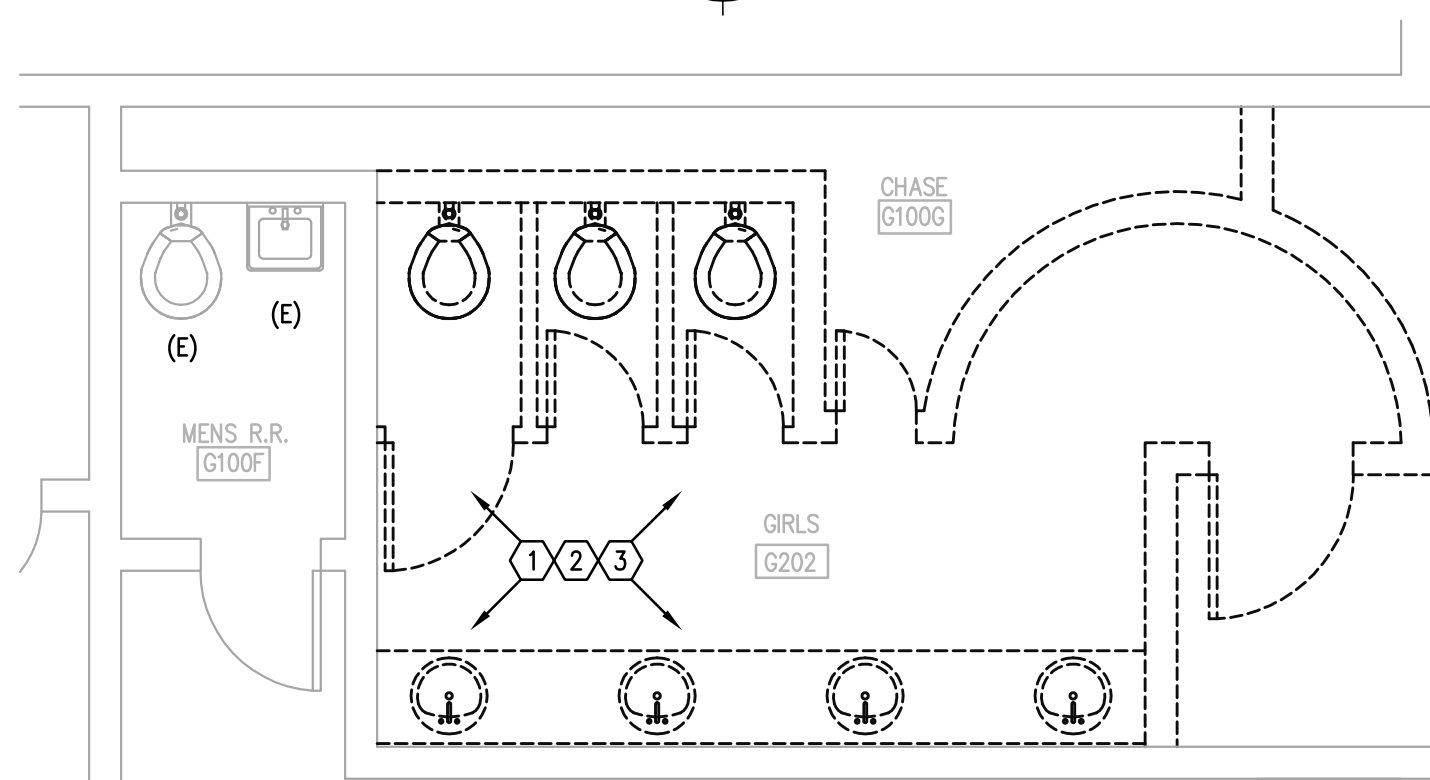
(NOT ALL ITEMS INDICATED APPLY TO THIS PROJECT)

ABBREVIATIONS				SYMBOLS		MISCELLANEOUS					
A		F		N		U		PIPING FITTINGS			
A	AIR (COMPRESSED)	F	FARENHEIT, FIRE	N.C.	NORMALLY CLOSED	U	URNAL		CAP ON END OF PIPE		PLUMBING DRAWING NOTE REFERENCE
ABV	ABOVE	FBO	FURNISHED BY OTHERS	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	UCD	UNDER CUT DOOR		ELBOW UP		DETAIL NUMBER OR PLAN
AC	ABOVE CEILING	FCD	FLOOR CLEAN OUT	NIC	NOT IN CONTRACT	UG	UNDERGROUND		ELBOW DOWN		SHEET WHERE DETAIL OR PLAN IS SHOWN
AD	ACCESS DOOR, AREA DRAIN	FCS	FLOOR CONTROL STATION	N.O.	NORMALLY OPEN	UH	UNIT HEATER		VALVE IN DROP		FLOW SWITCH
ADJ	ADJUSTABLE	FD	FLOOR DRAIN, FIRE DAMPER	NO.	NUMBER	UNO	UNLESS NOTED OTHERWISE		VALVE IN RISE		TAMPER SWITCH
AF	ABOVE FINISHED FLOOR	FDSC	FIRE DEPARTMENT SIAMESE CONNECTION	NTS	NOT TO SCALE	U/F	UNDERFLOOR		DIRECTION OF FLOW		FIRE HOSE CABINET
AFG	ABOVE FINISHED GRADE	FDV	FIRE DEPARTMENT VALVE			UL	UNDERWRITERS LABORATORIES, INC.		DIRECTION OF SLOPE DOWN		FIRE DEPARTMENT SIAMESE CONNECTION(WALL MOUNTED)
AHU	AIR HANDLING UNIT	FH	FIRE HYDRANT			UNO	UNLESS NOTED OTHERWISE		ECCENTRIC REDUCER		FIRE DEPARTMENT SIAMESE CONNECTION(FREE STANDING)
AL	ALUMINUM	FHC	FIRE HOSE CABINET			U/S	UNDERSLAB		TEE OUTLET UP		
AP	ACCESS PANEL	FHR	FIRE HOSE RACK						TEE OUTLET DOWN		
ARCH	ARCHITECT, ARCHITECTURAL	FHT	FIXTURE						UNION		
AS	AIR SEPARATOR	FLX	FLEXIBLE						FLANGE		
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS	FL	FLOW LINES						PIPE ANCHOR		
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS	FLR	FLOOR						EXPANSION JOINT		
AV	ACID VENT	FP	FIRE PUMP						STRAINER WITH BLOWDOWN VALVE		
AVG	AVERAGE	FRZR	FREEZER						GATE VALVE, HVAC BALANCING/STOP VALVE		
AW	ACID WASTE	FS	FLOW SWITCH, FIRE SPRINKLER						GLOBE VALVE		
AWS	AMERICAN WELDING SOCIETY	FSK	FLOOR SINK						BALL VALVE		
AUX	AUXILIARY	FT	FOOT, FEET						BALANCING VALVE WITH DIFFERENTIAL PRESSURE TAPS		
		FUT	FUTURE						OS&Y VALVE		
									CHECK VALVE		
									BUTTERFLY VALVE		
									TWO-WAY MODULATING CONTROL VALVE		
									THREE-WAY MODULATING CONTROL VALVE		
									SOLENOID VALVE		
									PRESSURE REDUCING VALVE		
									GAS REGULATOR		
									GAS COCK		
									SPRINKLER FLOOR CONTROL STATION		
									MANUAL AIR VENT		
									AUTOMATIC AIR VENT		
									T&P RELIEF VALVE		
									LINE CLEANOUT/ WALL CLEANOUT		
									FLOOR CLEANOUT		
									YARD CLEANOUT		
									PRESSURE GAUGE WITH GAUGE COCK		
									THERMOMETER		
									WATER METER		
									FLEXIBLE CONNECTION		
									PRESSURE AND TEMPERATURE TAP		
									FLOW VENTURI		
									VACUUM BREAKER		
									VACUUM RELIEF VALVE		
									BACKFLOW PREVENTOR		
									CIRCULATING PUMP		
									DRAIN(TYPE AND SIZE AS NOTED ON PLANS)		
									ROOF DRAIN OR OVERFLOW DRAIN		
									ROOF DRAIN OR OVERFLOW DRAIN(FROM ABOVE)		
									WATER HAMMER ARRESTOR		
									HOSE BIBB		
									WALL HYDRANT		
									PLUMBING FIXTURES		
									POINT OF NEW CONNECTION TO EXISTING PIPING		
</											

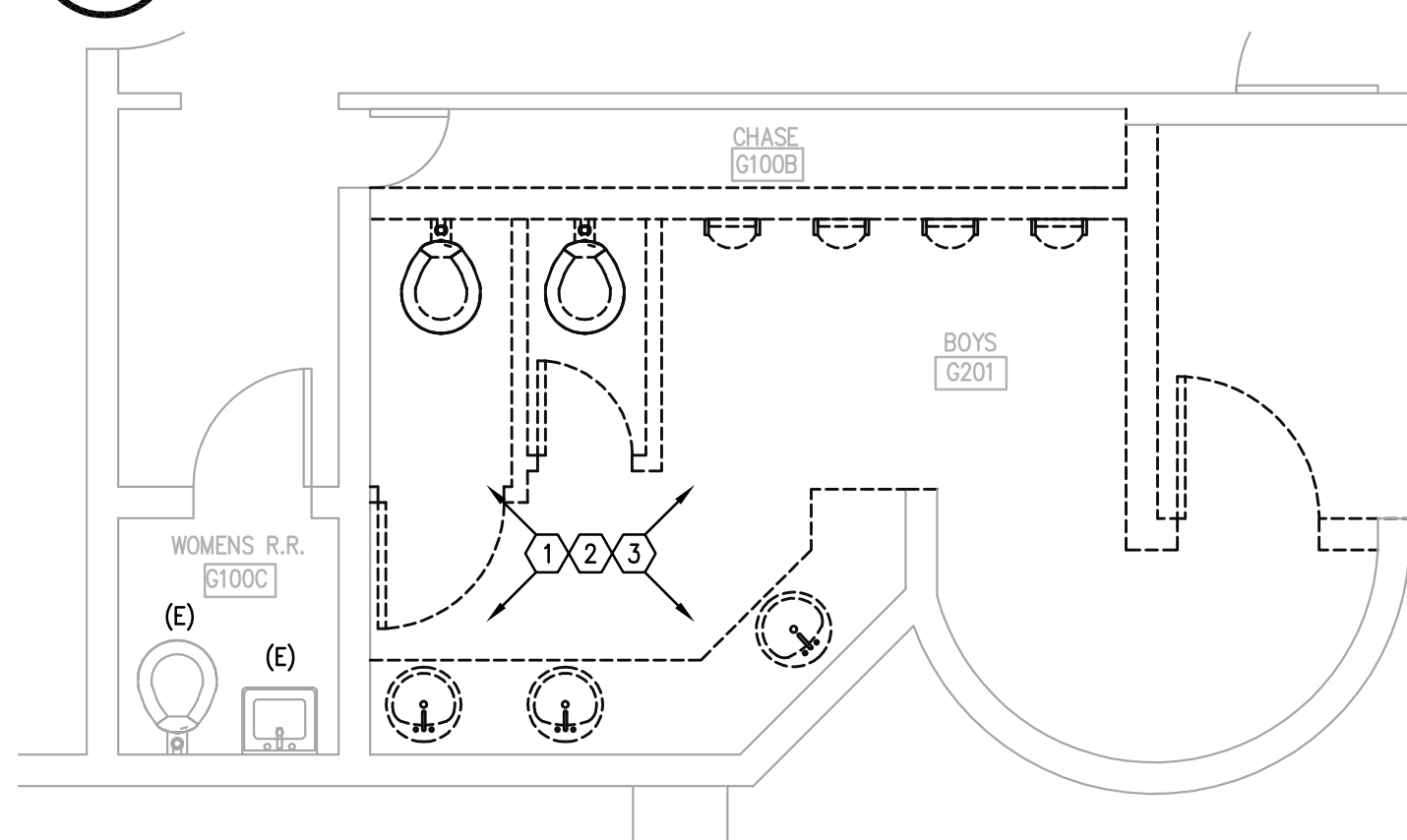




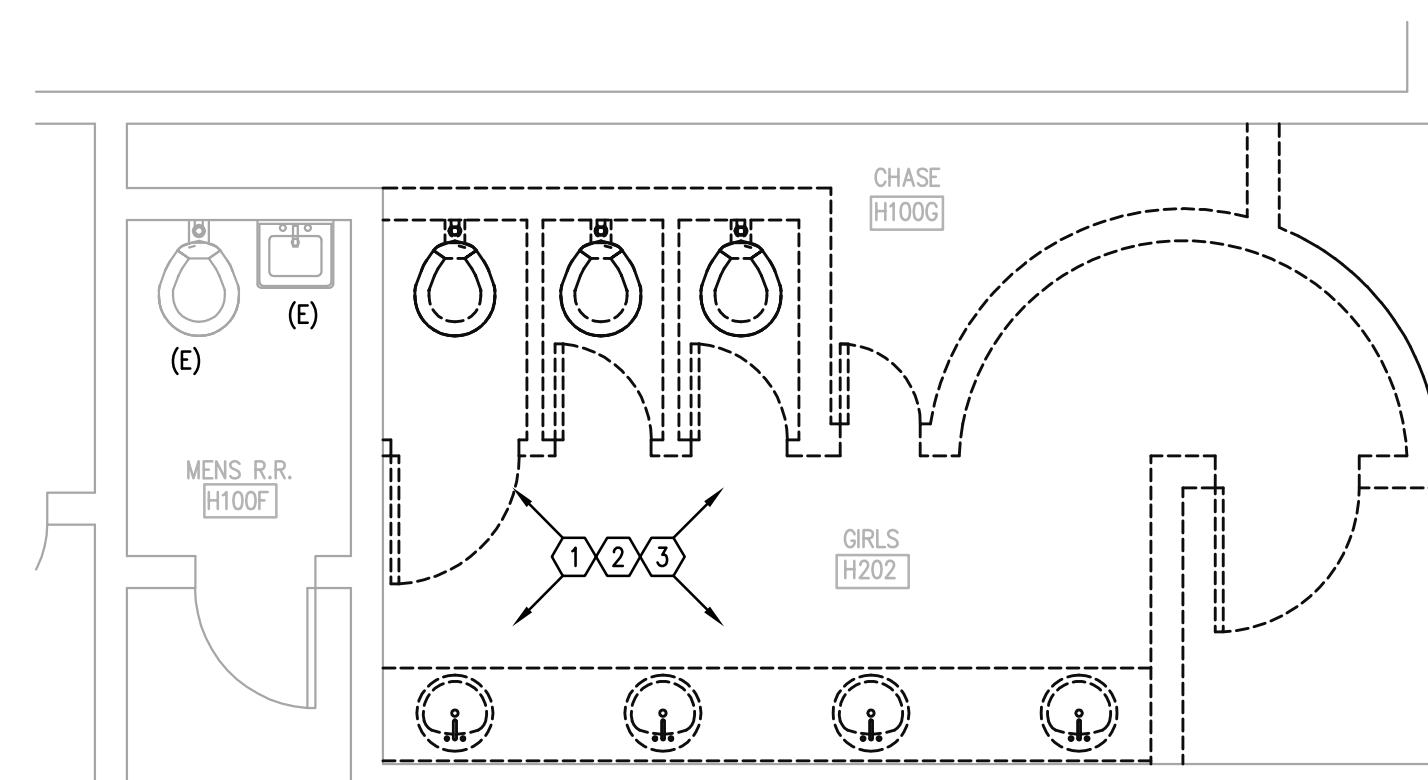
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PD-105N  
1/16"=1'-0"



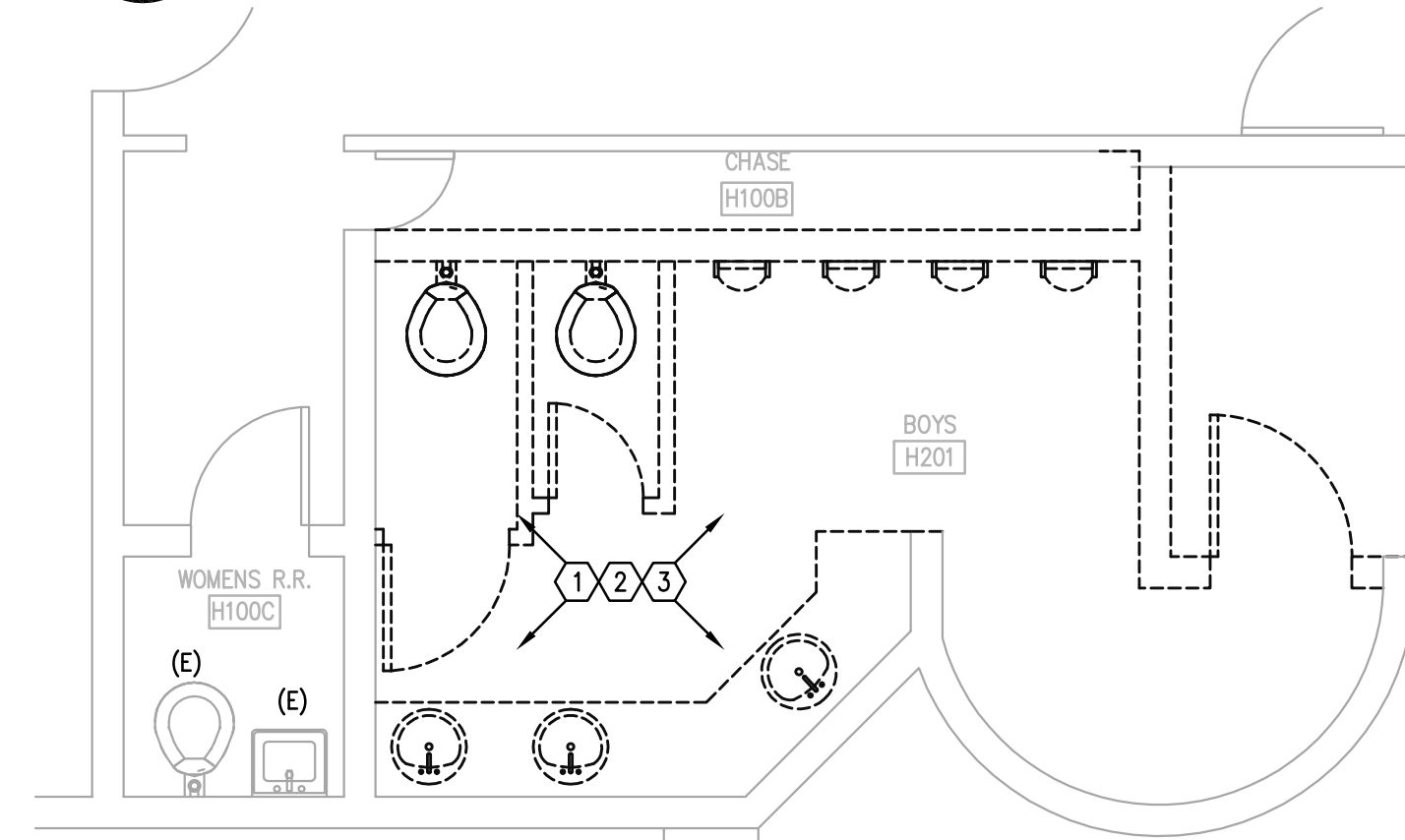
**3** ENLARGED DEMO PLAN-BUILDING G  
PD-105G  
1/4"=1'-0"



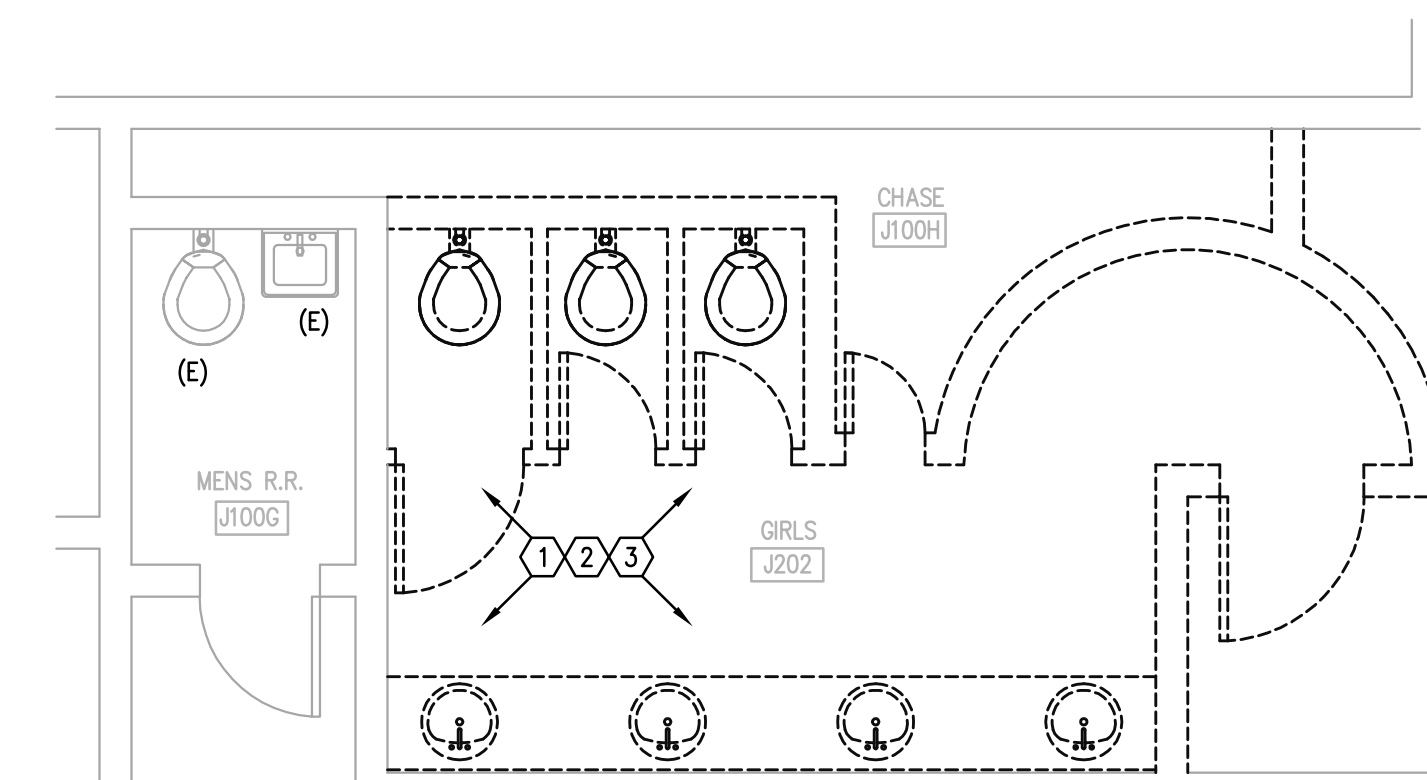
**4** ENLARGED DEMO PLAN-BUILDING G  
PD-105G  
1/4"=1'-0"



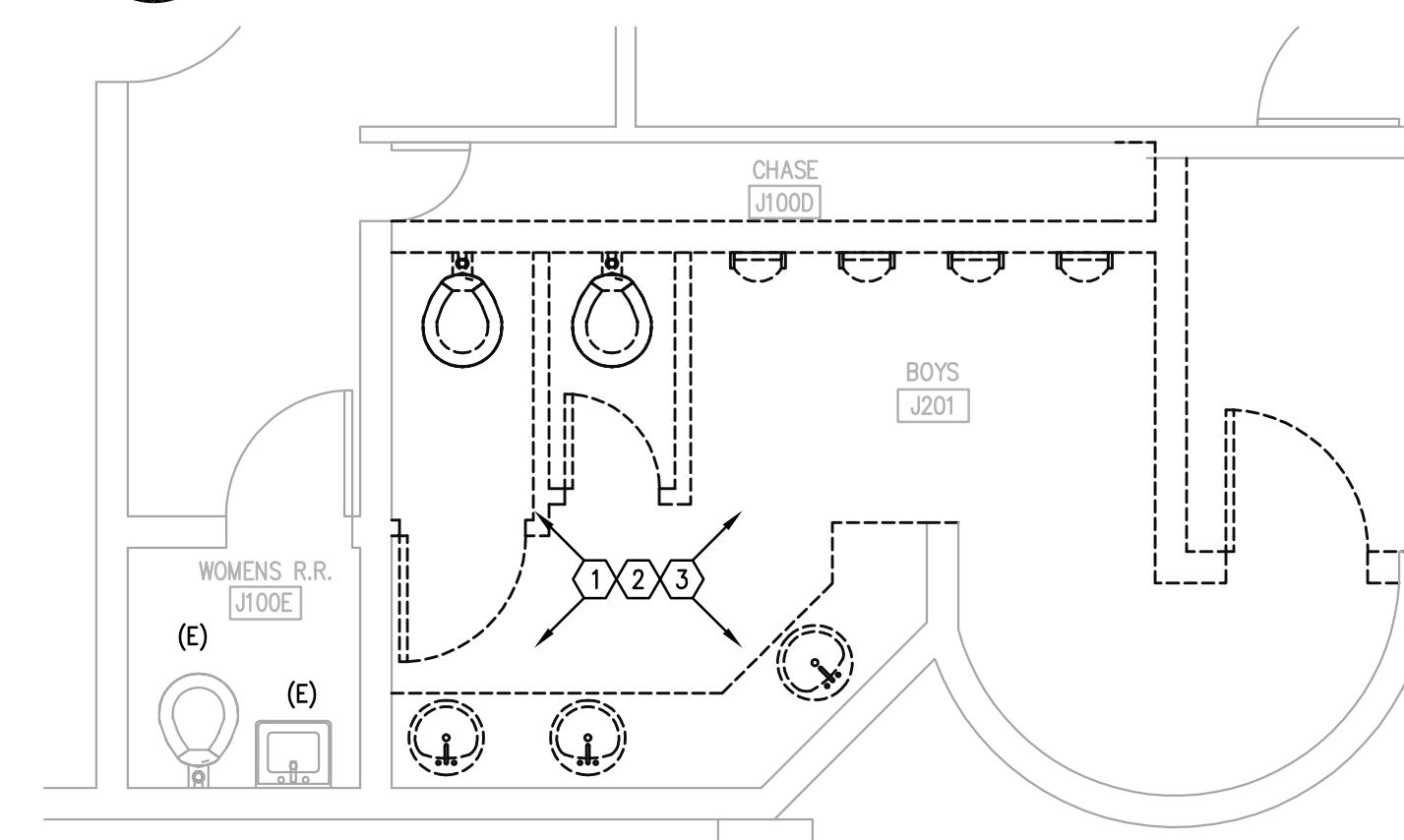
**5** ENLARGED DEMO PLAN-BUILDING H  
PD-105H  
1/4"=1'-0"



**6** ENLARGED DEMO PLAN-BUILDING H  
PD-105H  
1/4"=1'-0"



**7** ENLARGED DEMO PLAN-BUILDING J  
PD-105J  
1/4"=1'-0"



**8** ENLARGED DEMO PLAN-BUILDING J  
PD-105J  
1/4"=1'-0"

**2** ENLARGED DEMO PLAN-BUILDING A  
PD-105A  
1/4"=1'-0"

**FIRE PROTECTION NOTES:**

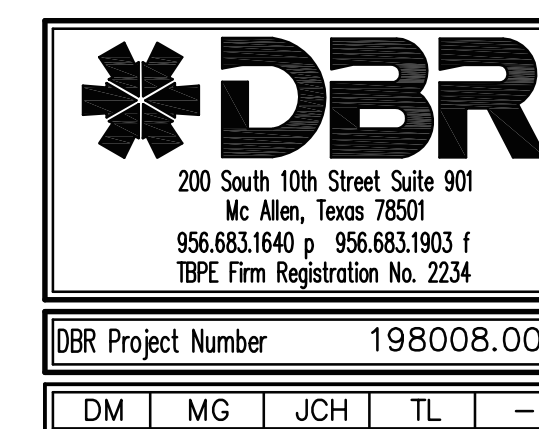
- CONTRACTOR TO ADJUST/REWORKED LOCATIONS OF ALL AFFECTED SPRINKLER HEADS AND FIREALARM IN AREAS OF RENOVATIONS. CONTRACTOR IS RESPONSIBLE FOR TESTING AND INSPECTING EXISTING SYSTEM AND INSURE THAT ALL COMPONENTS ARE FULLY FUNCTIONING. A VISIT TO THE SITE IS REQUIRED PRIOR TO BIDDING TO DETERMINE FULL SCOPE OF WORK.
- PROVIDE/ADJUST FIRE ALARM SYSTEM AS REQUIRED BY LOCAL, STATE OR FEDERAL CODES TO RECEIVE CERTIFICATE OF OCCUPANCY FOR THE PROJECT.
- PROVIDE AND INSTALL SURFACE MOUNTED FIRE EXTINGUISHERS. TYPE AND QUANTITY AND LOCATIONS SHALL BE PER LOCAL AUTHORITIES.
- A STATE LICENSED FIRE SPRINKLER AND FIRE ALARM CONTRACTOR MUST SUBMIT SHOP DRAWINGS DIRECTLY TO THE CITY FIRE DEPARTMENT FIRE MARSHAL'S OFFICE FOR REVIEW AND APPROVAL OF THE PROPOSED FIRE SPRINKLER AND ALARM SYSTEM WORK. THESE SHOP DRAWINGS MUST BE APPROVED BY THE FIRE DEPARTMENT PRIOR TO THE CONTRACTOR BEGINNING THE WORK. ALL WORK MUST BE IN COMPLIANCE WITH THE APPLICABLE NFPA STANDARDS AND THE INTERNATIONAL FIRE CODE.
- PRIOR TO SHUT-DOWN OF ANY EXISTING FIRE PROTECTION SYSTEM, CONTRACTOR SHALL NOTIFY OWNER OR OWNER'S APPOINTED REPRESENTATIVE 5 DAYS PRIOR TO SERVICE INTERRUPTION. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING SYSTEM TO FULL OPERATION.

**GENERAL NOTES:**

- NO EXISTING ENGINEERING PLANS WERE PROVIDED FOR THIS BUILDING. PLUMBER TO FIELD VERIFY LOCATIONS OF EXISTING UTILITIES. SITE VISIT IS REQUIRED PRIOR TO BIDDING TO DETERMINE FULL SCOPE OF WORK.

**PLUMBING DEMO KEYED NOTES:**

- REMOVE ALL EXISTING PLUMBING FIXTURES AND PLUMBING EQUIPMENT INCLUDING ALL ROUGH-INS AND APPURTENANCES. ALL NEW DOMESTIC WATER LINES TO BE PROVIDED. NEW DRAIN AND VENT ROUGH-INS TO BE PROVIDED. SANITARY VENTS AND UNDERGROUND WASTE TO REMAIN. REFER TO ARCHITECTURAL PLANS AND PLUMBING PLANS (SHEET P-105N) FOR NEW WORK.
- REWORK/ADJUST ROUGH-INS AS NECESSARY FOR SERVICE TO NEW FIXTURES.
- PROVIDE NEW ROUGH-INS FOR ADDED/ADJUSTED FIXTURES. CONNECT TO EXISTING WASTE AND VENT LINES. REFER TO NEW WORK ON SHEET P-105N.



Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
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**MEP:**  
**DBR ENGINEERING**



**PSJA ISD**  
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**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

**KEYPLAN**

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

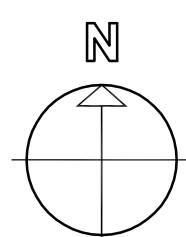
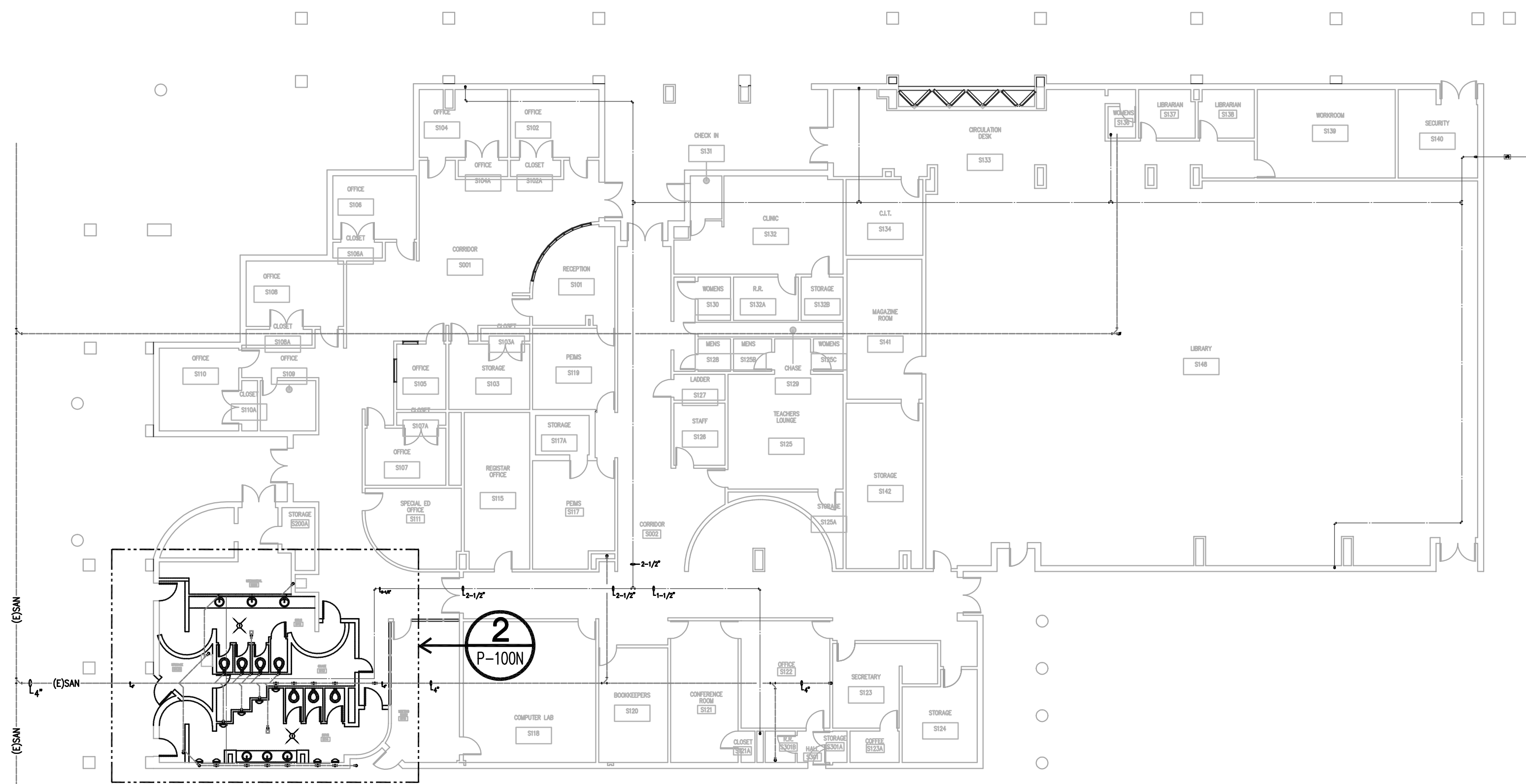
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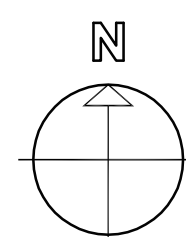
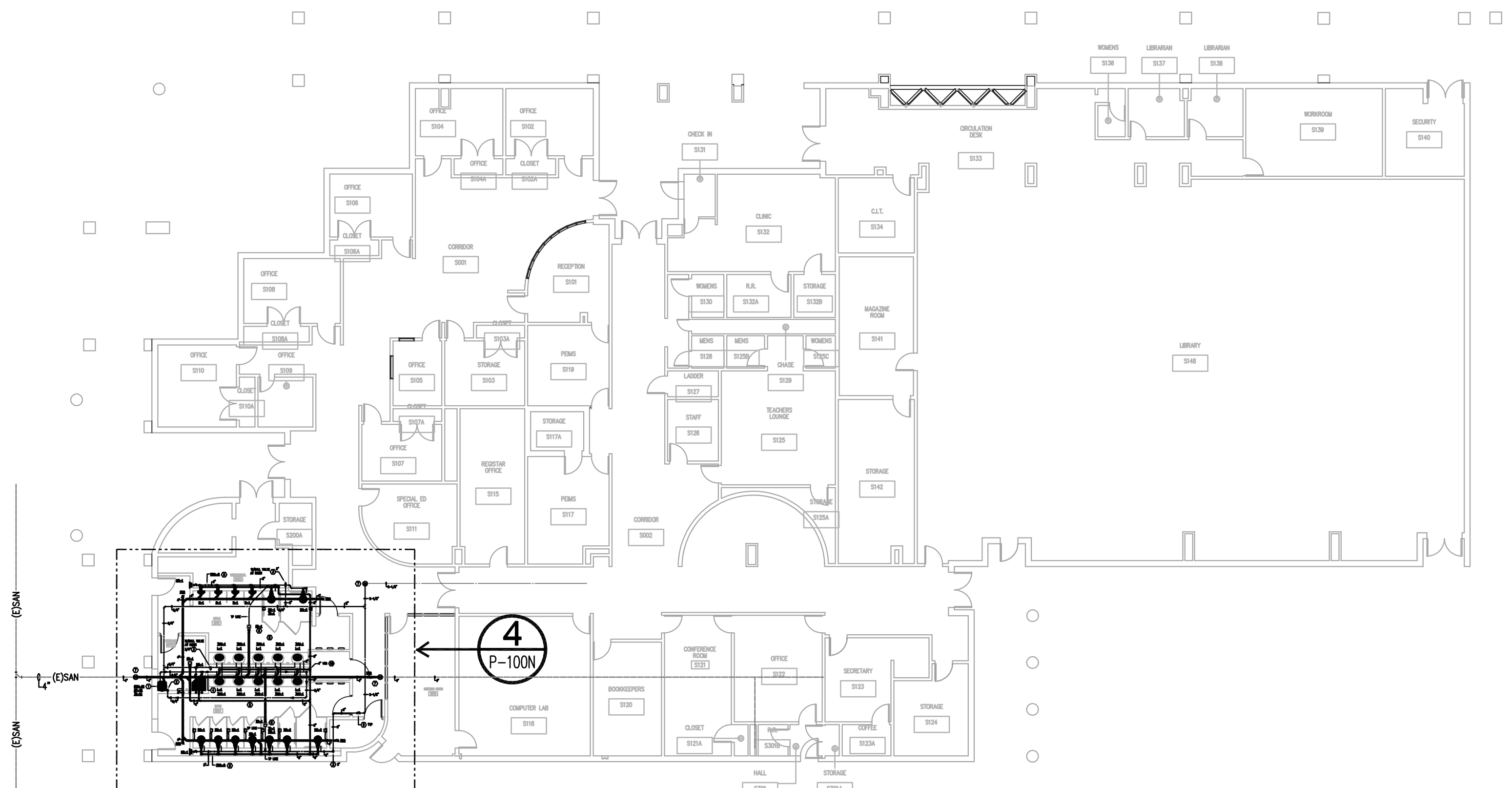
**PLUMBING**  
**PLANS -**  
**NORTH CAMPUS**  
**BLDGS. A, G, H, J**

**PD-105N**

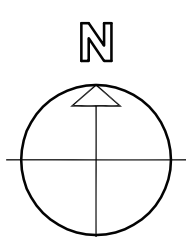
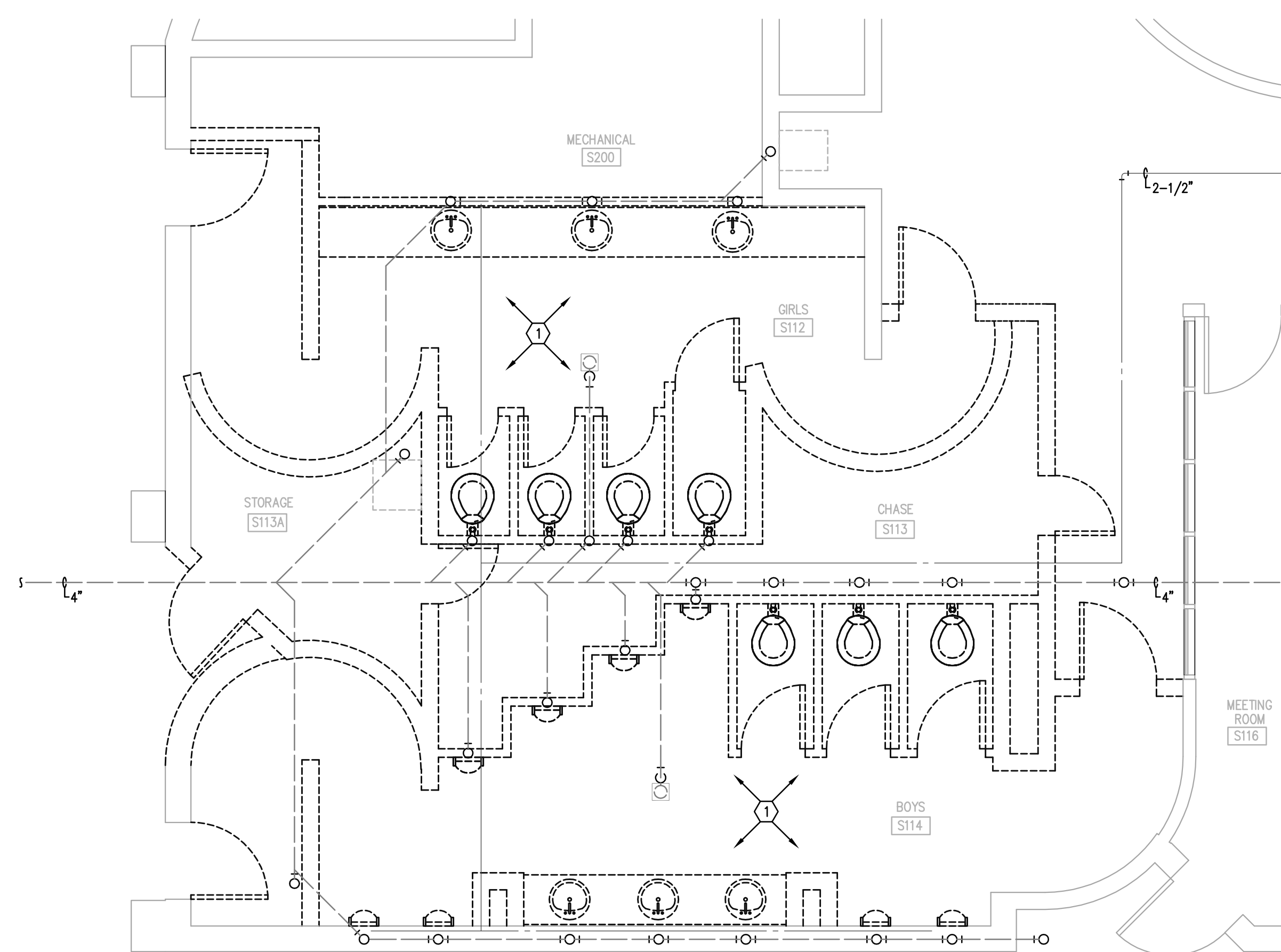




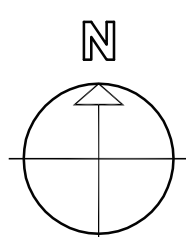
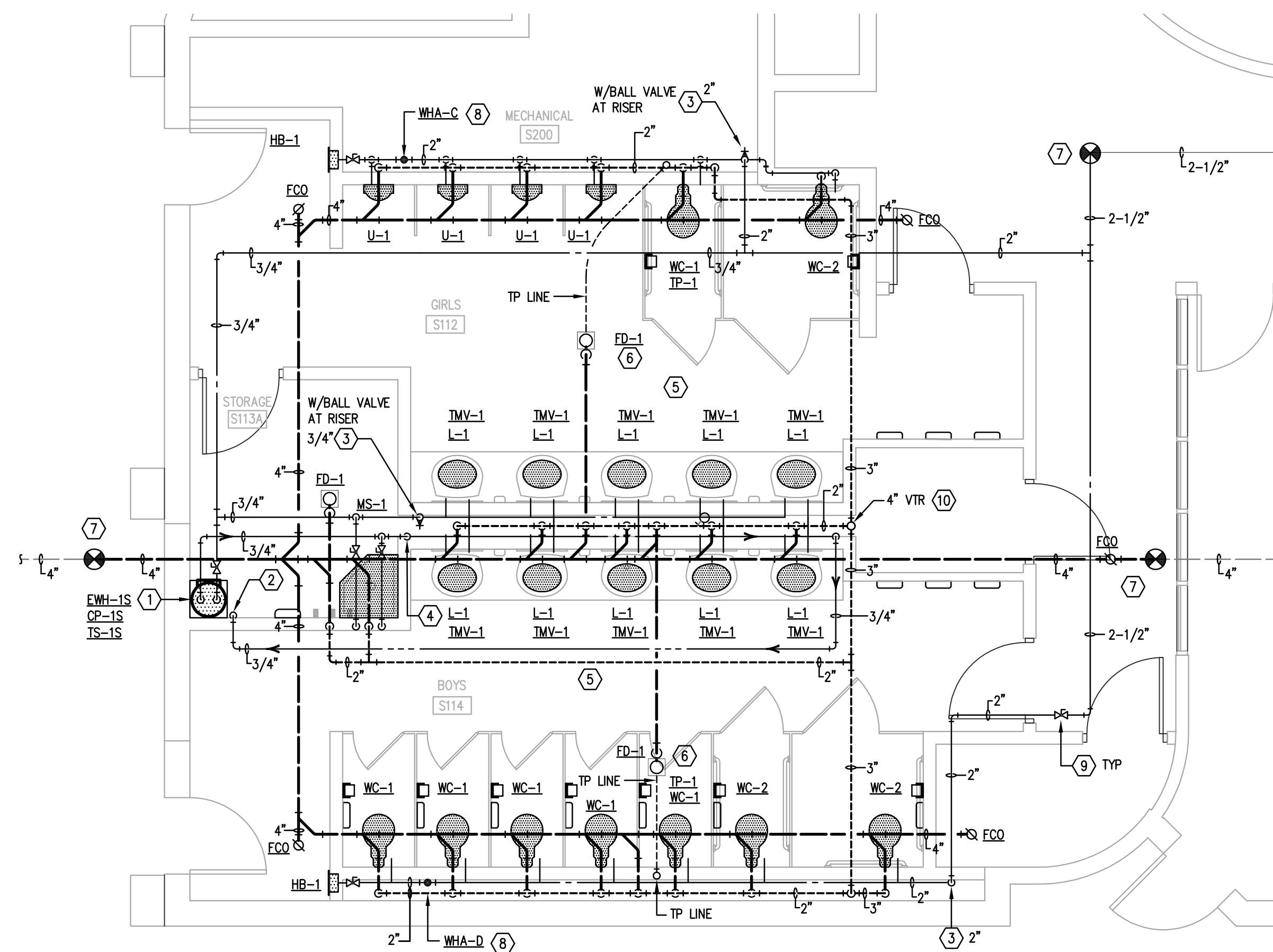
**1 PLUMBING DEMOLITION PLAN - NORTH CAMPUS BLDG. S**  
3/32"=1'-0"



**3 PLUMBING PLAN - NORTH CAMPUS BLDG. S**  
3/32"=1'-0"



**2 ENLARGED PLUMBING DEMO PLAN - NORTH CAMPUS BLDG. S**  
1/4"=1'-0"



**4 ENLARGED PLUMBING PLAN - NORTH CAMPUS BLDG. S**  
1/4"=1'-0"

#### GENERAL NOTES:

- SIZES AND LOCATION OF EXISTING PIPINGS SHOWN WERE TAKEN FROM ENGINEERING PLANS FROM WHICH EXISTING SYSTEMS WERE INSTALLED. CONTRACTOR NEED TO FIELD VERIFY EXACT SIZES, CONDITIONS AND LOCATIONS OF INDICATED EXISTING UTILITIES.
- ALL FIXTURES, EQUIPMENT AND PLUMBING LINES SHOWN WITH (E) ARE EXISTING TO REMAIN, UNLESS NOTED OTHERWISE.
- THE CONTRACTOR IS FULLY RESPONSIBLE FOR PERFORMING ALL WORK UNDER THIS SECTION OF THE PROJECT IN FULL COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES INCLUDING THOSE PUBLISHED BY OSHA AND EPA.
- THE EXTENT OF DEMOLITION WORK IS INDICATED ON THE ARCHITECTURAL DRAWINGS AND BY THE REQUIREMENTS OF THIS SECTION. A VISIT TO THE SITE WILL BE REQUIRED PRIOR TO BIDDING. CONTRACTOR SHALL IDENTIFY/VERIFY ALL PLUMBING LINES BEFORE STARTING ANY DEMOLITION WORK.
- CUTTING OF CONCRETE FLOORS SHALL BE BY MACHINE SAW. HOLES FOR PIPES (WALL OR FLOOR) SHALL BE DONE WITH CORE DRILLING EQUIPMENT WITH PRIOR APPROVAL FROM THE STRUCTURAL ENGINEERS. PATCH AND SEAL OPENINGS AS REQUIRED. COORDINATE ALL CUTTING AND PATCHING WITH OTHER TRADES.
- ALL EXISTING PLUMBING FIXTURES AND EQUIPMENT REMOVED DURING CONSTRUCTION THAT ARE NOT TO BE REUSED SHALL BE REMOVED FROM THE JOB SITE AND PROPERLY RETURNED TO THE OWNER, IF DESIRED BY OWNER.
- PROVIDE ALL WORK REQUIRED FOR THE REMOVAL OF FIXTURES TO BE DEMOLISHED AND INSTALLATION OF NEW FIXTURES AND ASSOCIATED SERVICES TO PROVIDE A COMPLETE AND OPERABLE SYSTEM UPON COMPLETION OF THE PROJECT.
- PLUMBING CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW THE ARCH'L DOCUMENTS IN ADDITION TO THE DIVISION 22, 23 AND 26 DOCUMENTS TO DETERMINE THE COMPLETE SCOPE OF WORK.
- COORDINATE DEMOLITION OF DIVISION 22 SYSTEMS AS REQUIRED WITH ALL OTHER TRADES.
- ALL EXISTING EXTERIOR GAS LINES IN THE CAMPUS TO REMAIN, UNLESS NOTED OTHERWISE.
- ALL EXISTING ROOF DRAINS, GUTTERS AND DOWNSPOUTS TO REMAIN, UNLESS NOTED OTHERWISE.

#### PLUMBING DEMO KEYED NOTES:

- REMOVE ALL EXISTING PLUMBING FIXTURES AND PLUMBING EQUIPMENT INCLUDING ALL ASSOCIATED PLUMBING LINES AND APPURTENANCES. REFER TO ARCHITECTURAL PLANS AND PLUMBING PLAN (4/P-100N) FOR NEW WORK.

#### GENERAL NOTES:

- NO EXISTING ENGINEERING PLANS WERE PROVIDED FOR THIS BUILDING. PLUMBER TO FIELD VERIFY LOCATIONS OF EXISTING UTILITIES. SITE VISIT IS REQUIRED PRIOR TO BIDDING TO DETERMINE FULL SCOPE OF WORK.

#### FIRE PROTECTION NOTES:

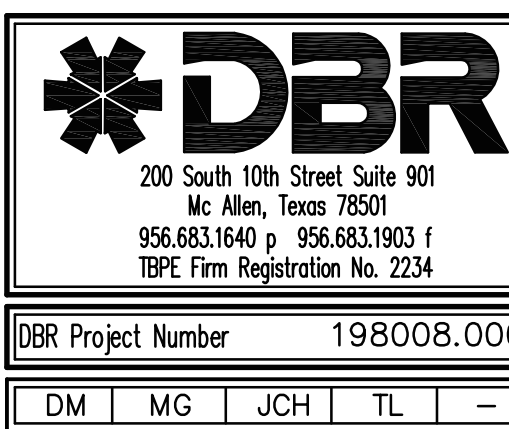
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- PRIOR TO SHUT-DOWN OF ANY EXISTING FIRE PROTECTION SYSTEM, CONTRACTOR SHALL NOTIFY OWNER OR OWNER'S APPOINTED REPRESENTATIVE 5 DAYS PRIOR TO SERVICE INTERRUPTION. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING SYSTEM TO FULL OPERATION.

#### NOTE:

DRAWING IS DIAGRAMMATIC ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF PIPING, DEVICES AND EQUIPMENT WITH BUILDING ELEMENTS AND THE WORK OF OTHER TRADES. REFER TO RISER DIAGRAMS FOR MORE PIPE SIZING INFORMATION AND OTHER REQUIREMENTS.

#### PLUMBING KEYED NOTES

- WALL HUNG ELECTRIC WATER HEATER WITH RECIRCULATION SYSTEM. RE: 15/P-402N.
- 3/4" HOT WATER RETURN DROP TO CIRCULATING PUMP WITH TIMER SWITCH AND AQUASTAT; SEE DETAIL 15/P-402N.
- COLD WATER DROP TO FIXTURE/S. SIZE AS NOTED. SEE PLUMBING RISER DIAGRAMS FOR CONTINUATION IN WALL OR CHASE.
- HW DROP FOR SERVICE TO LAVS. SIZE AS NOTED. RUN RECIRCULATING LINE WITHIN 2 FEET OF HW ROUGH-INS FOR IECC COMPLIANCE.
- PROVIDE TMV-1 (ASSE 1070 LISTED) FOR HOT WATER SUPPLY TO LAVATORY. SET AT MAX. 110°F. INSTALL UNDER FIXTURE AS HIGH AS POSSIBLE FOR CLEAN/NEAT APPEARANCE. RE: 14/P-402N.
- REPLACE EXISTING FLOOR DRAIN IN ITS CURRENT LOCATION. PROVIDE WITH TRAP PRIMER (TP-1) SEWER GAS PROTECTION DEVICE.
- POINT OF CONNECTION TO EXISTING UTILITY. FIELD VERIFY EXACT LOCATION OF EXISTING UTILITIES.
- WATER HAMMER ARRESTOR. SIZE AS NOTED. PROVIDE ACCESS PANEL WHERE LOCATED IN AN INACCESSIBLE WALL/CEILING. PANEL SHALL BE 12"X12" PAINTED TO MATCH WALL/CEILING. PROVIDE PROPERLY SIZED WATER HAMMER ARRESTOR FOR EACH GROUP OF FIXTURES WHETHER SHOWN OR NOT ON PLANS.
- BALL VALVE ABOVE CEILING. PROVIDE ACCESS PANEL WHERE LOCATED IN AN INACCESSIBLE WALL/CEILING. PANEL SHALL BE 12"X12" PAINTED TO MATCH WALL/CEILING. PROVIDE MARKING OF VALVE LOCATION ALONG THE CEILING TILE.
- PROVIDE NEW VTR AT LOCATION OF EXISTING. FIELD VERIFY LOCATION OF EXISTING VTR.



Consultants:

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**RENOVATIONS**

#### KEYPLAN

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

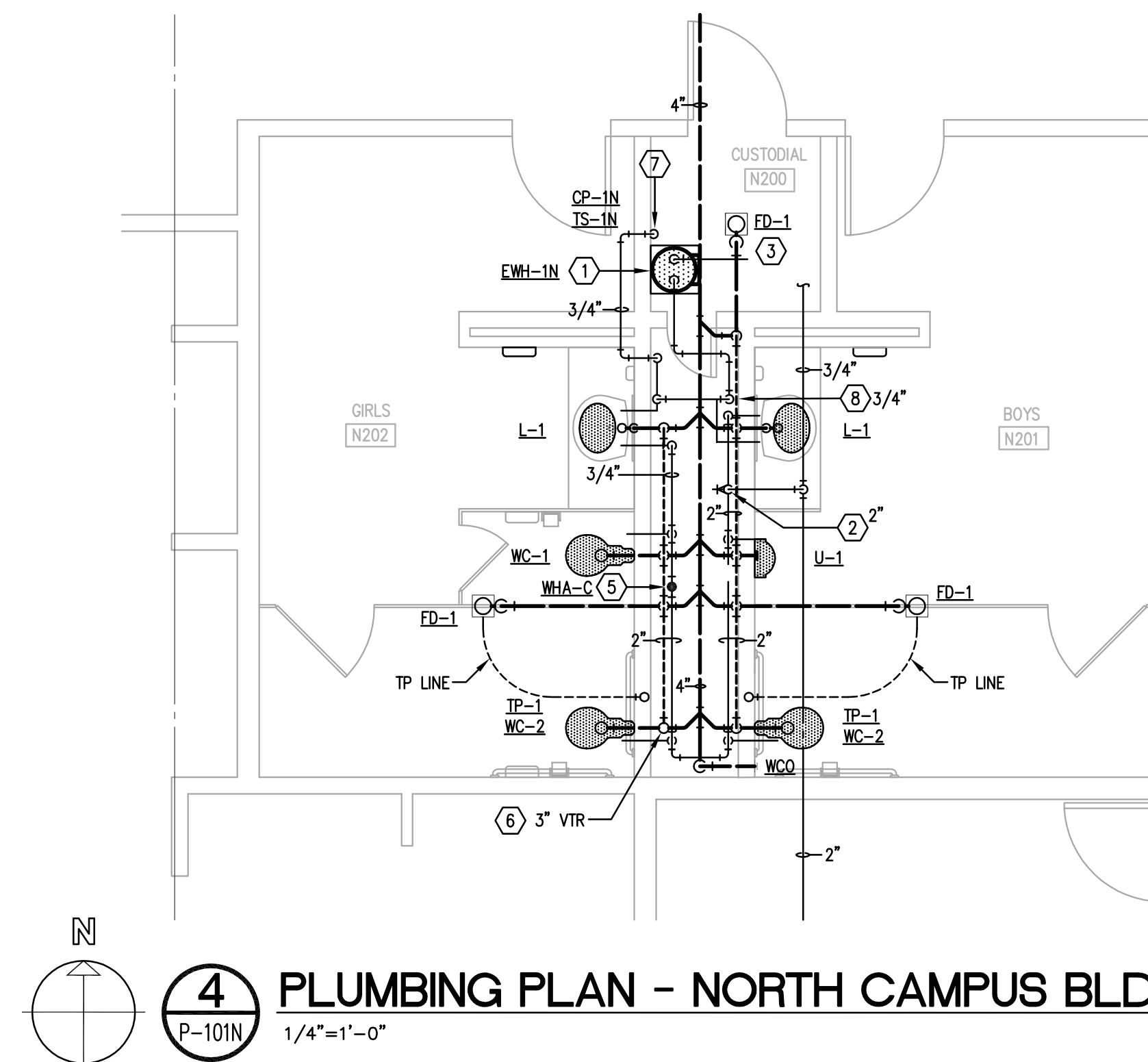
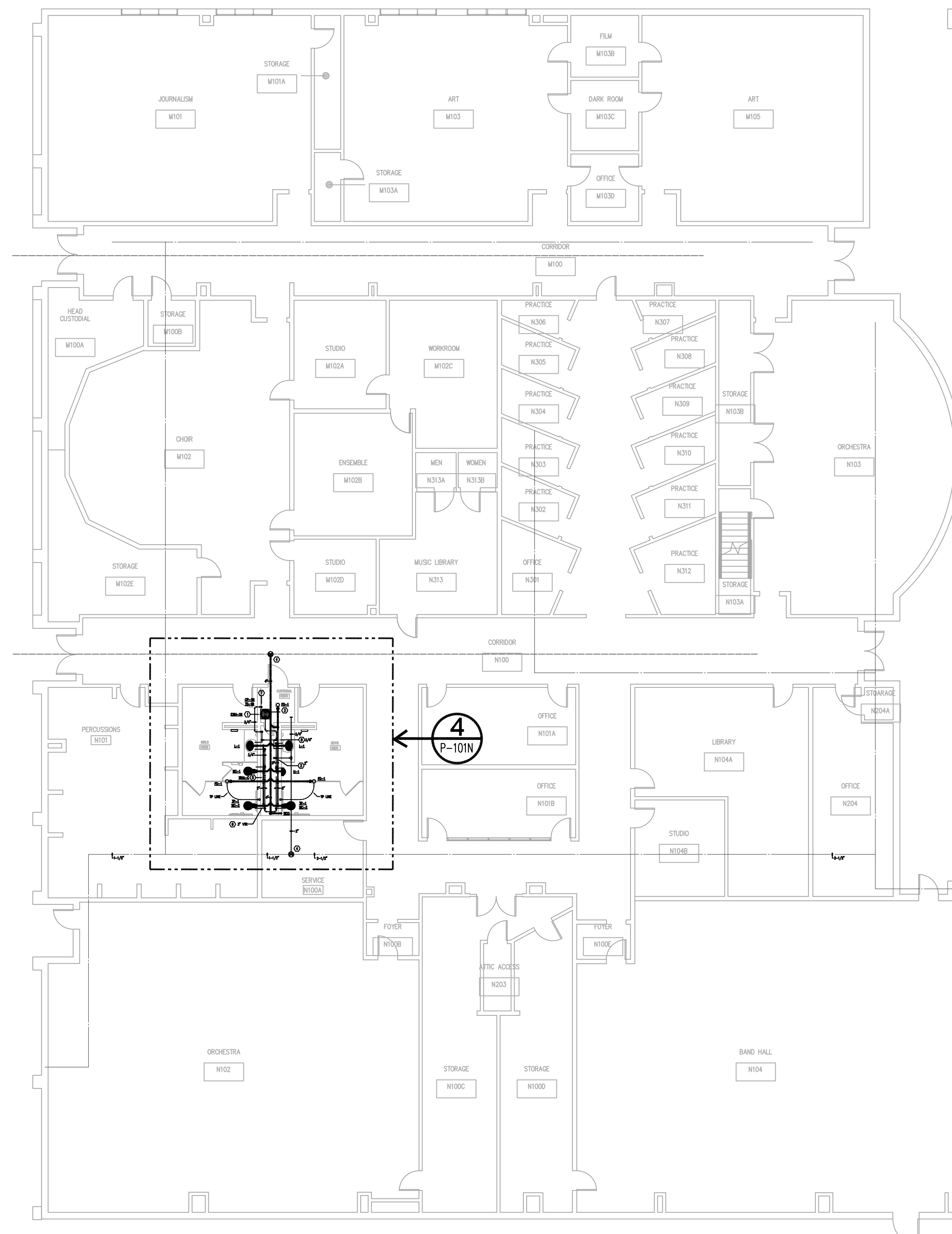
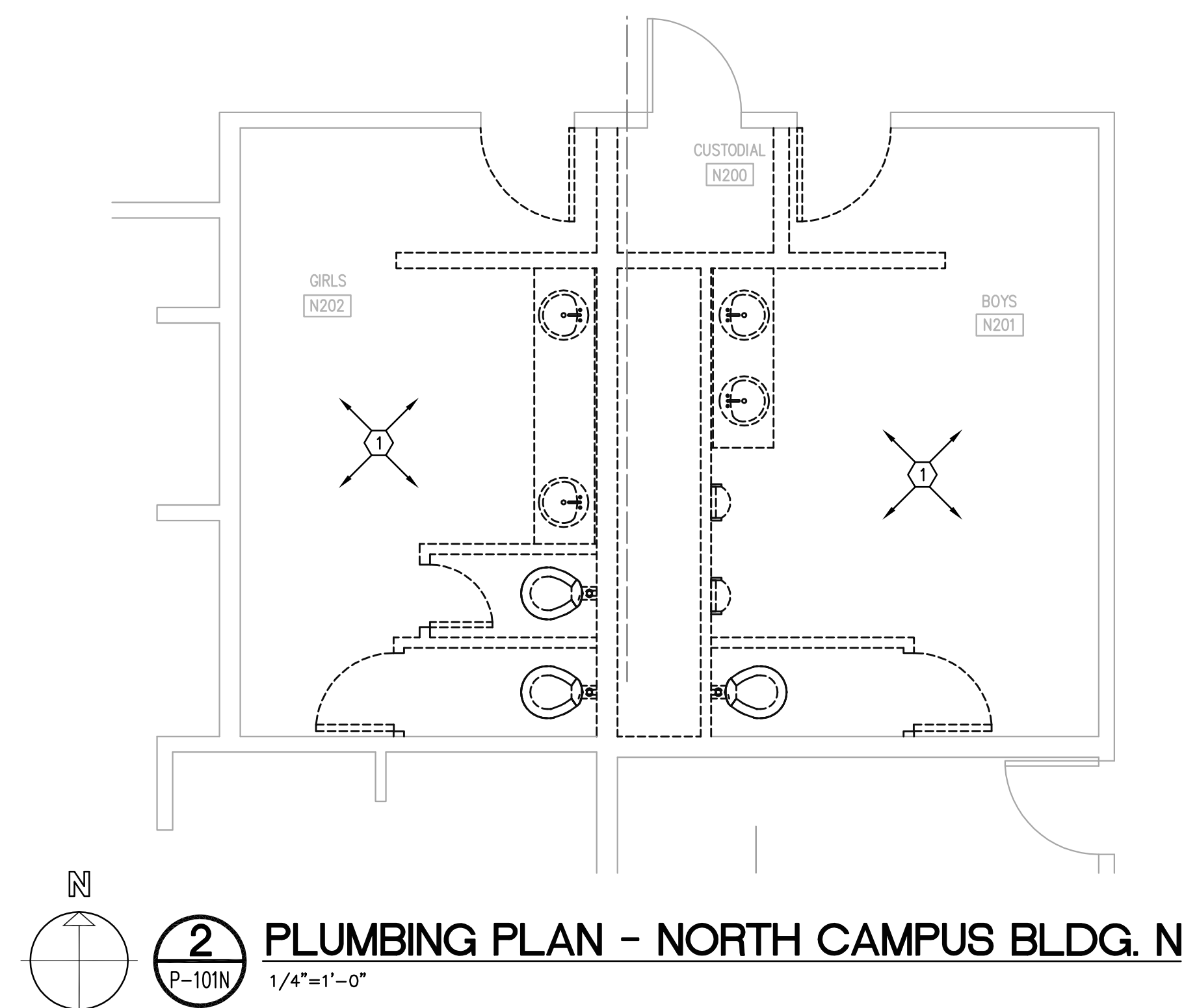
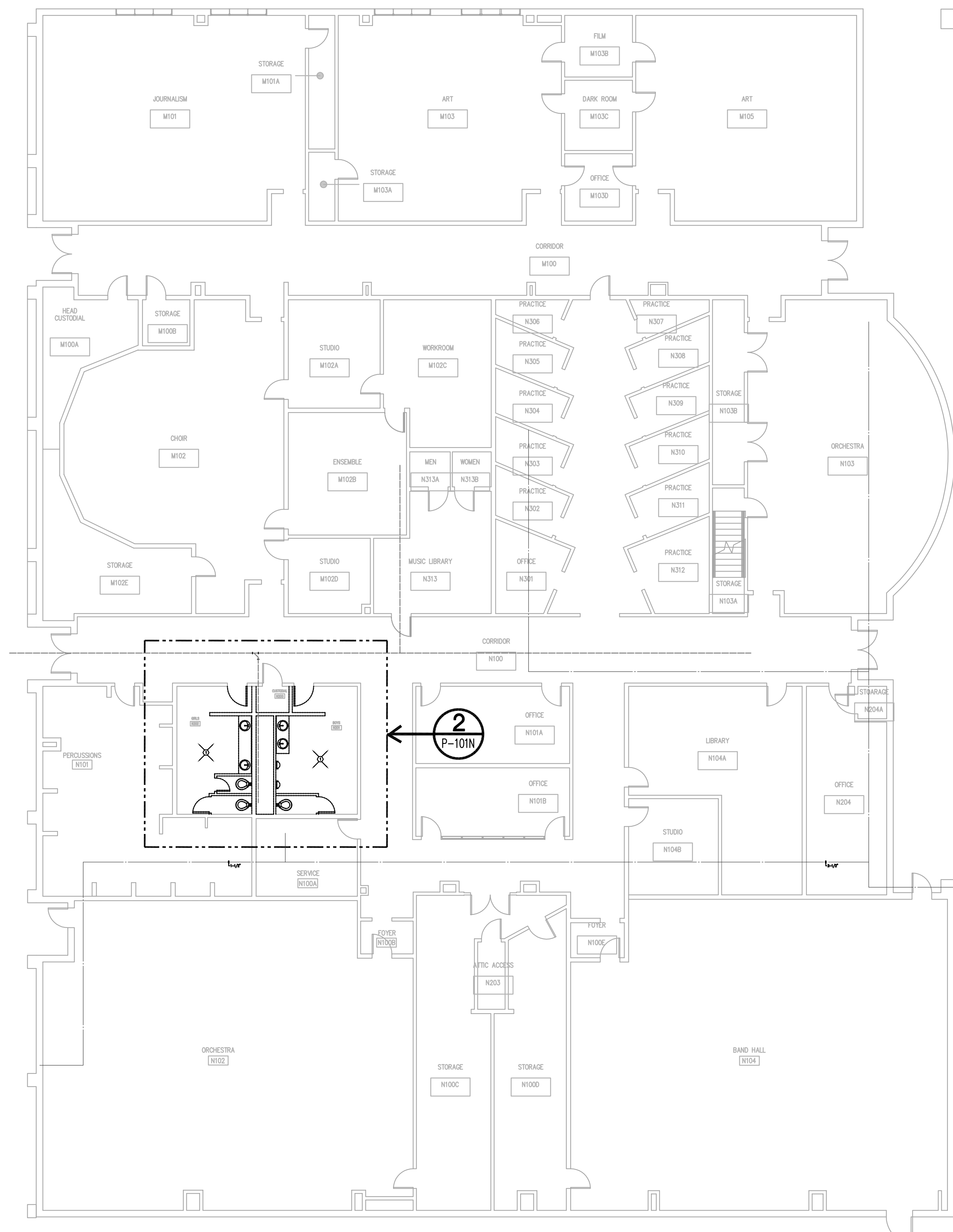
Revisions:

Sheet Title:

**PLUMBING**  
**PLANS -**  
**NORTH CAMPUS**  
**BLDG. S**

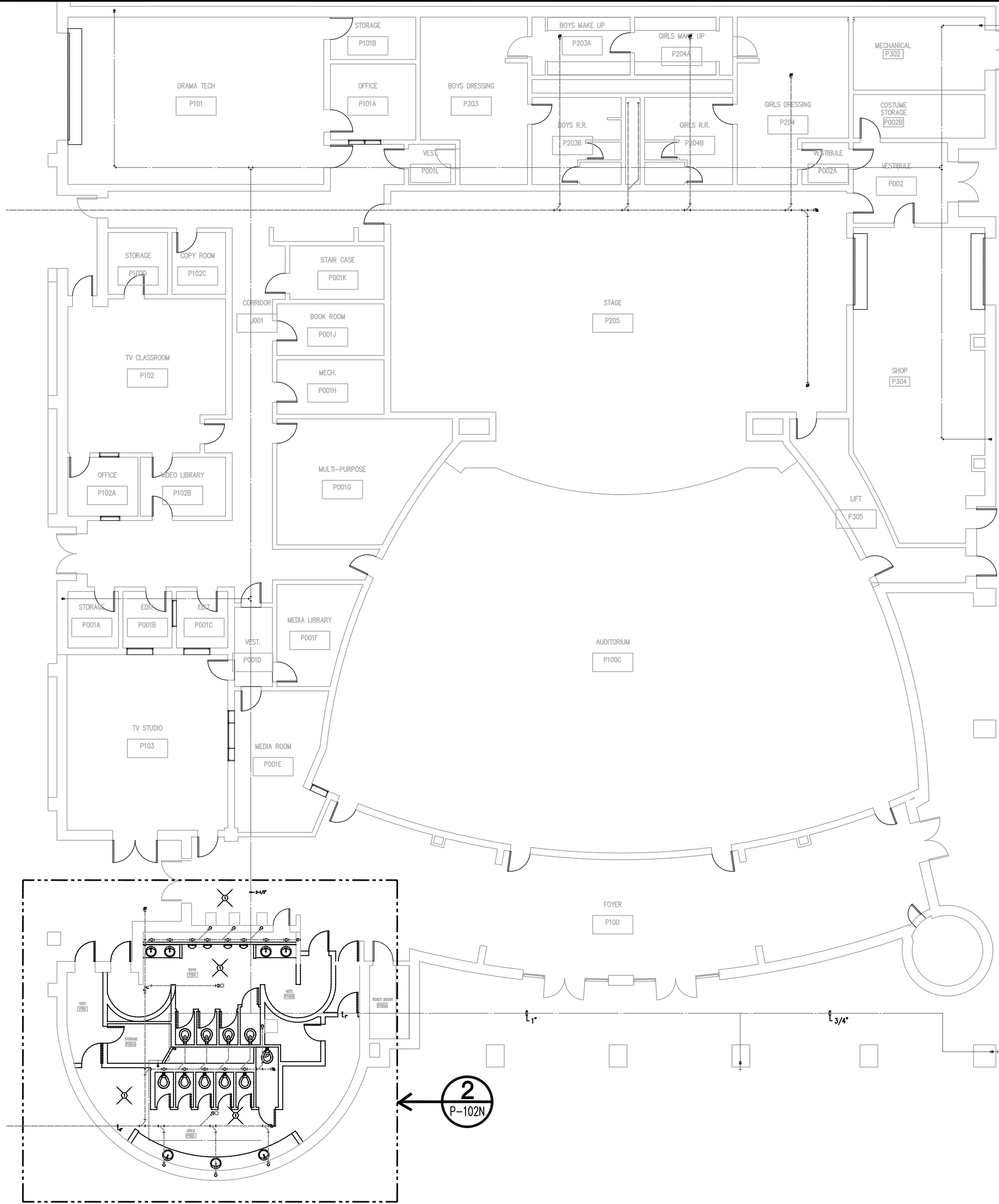
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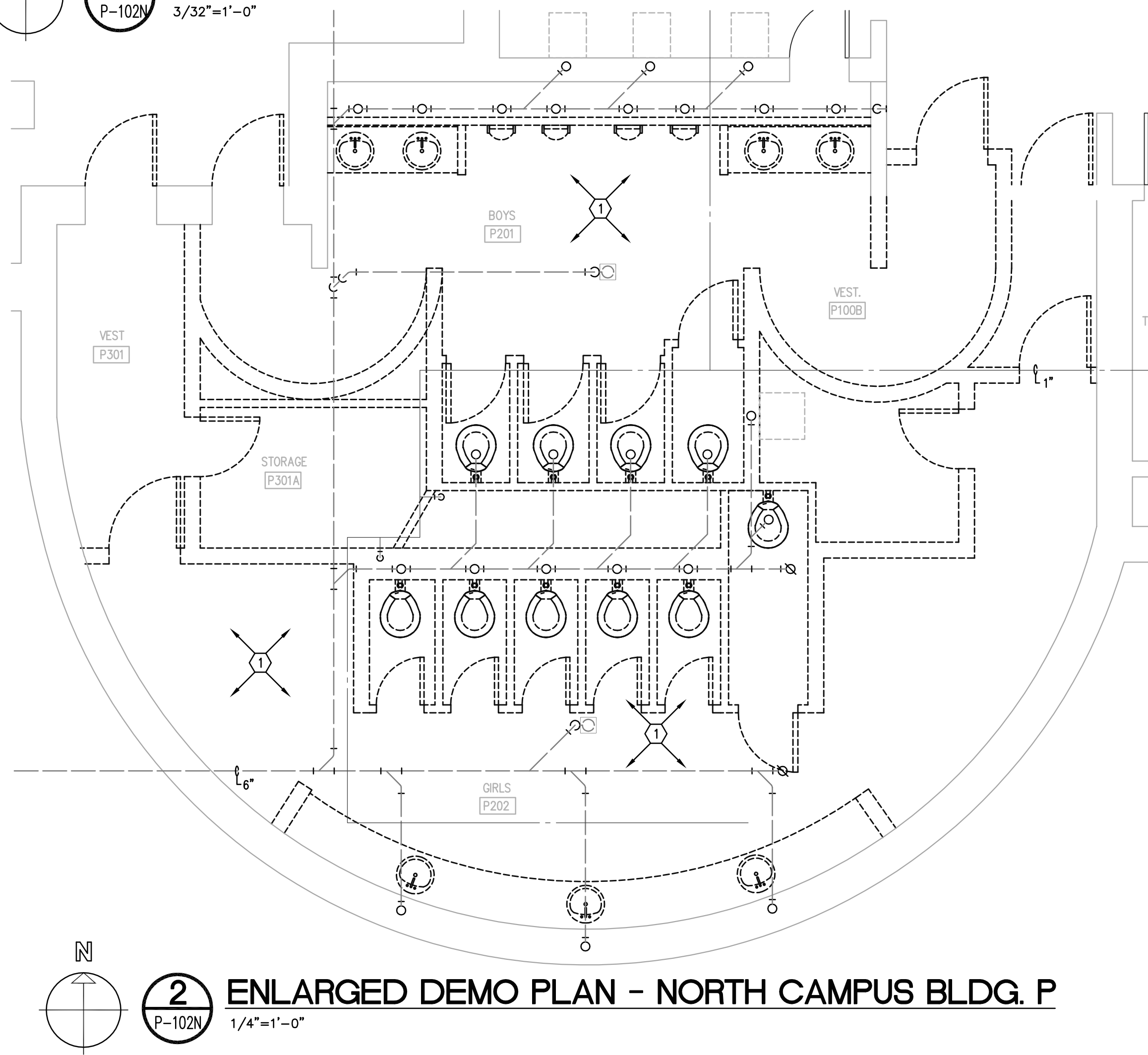




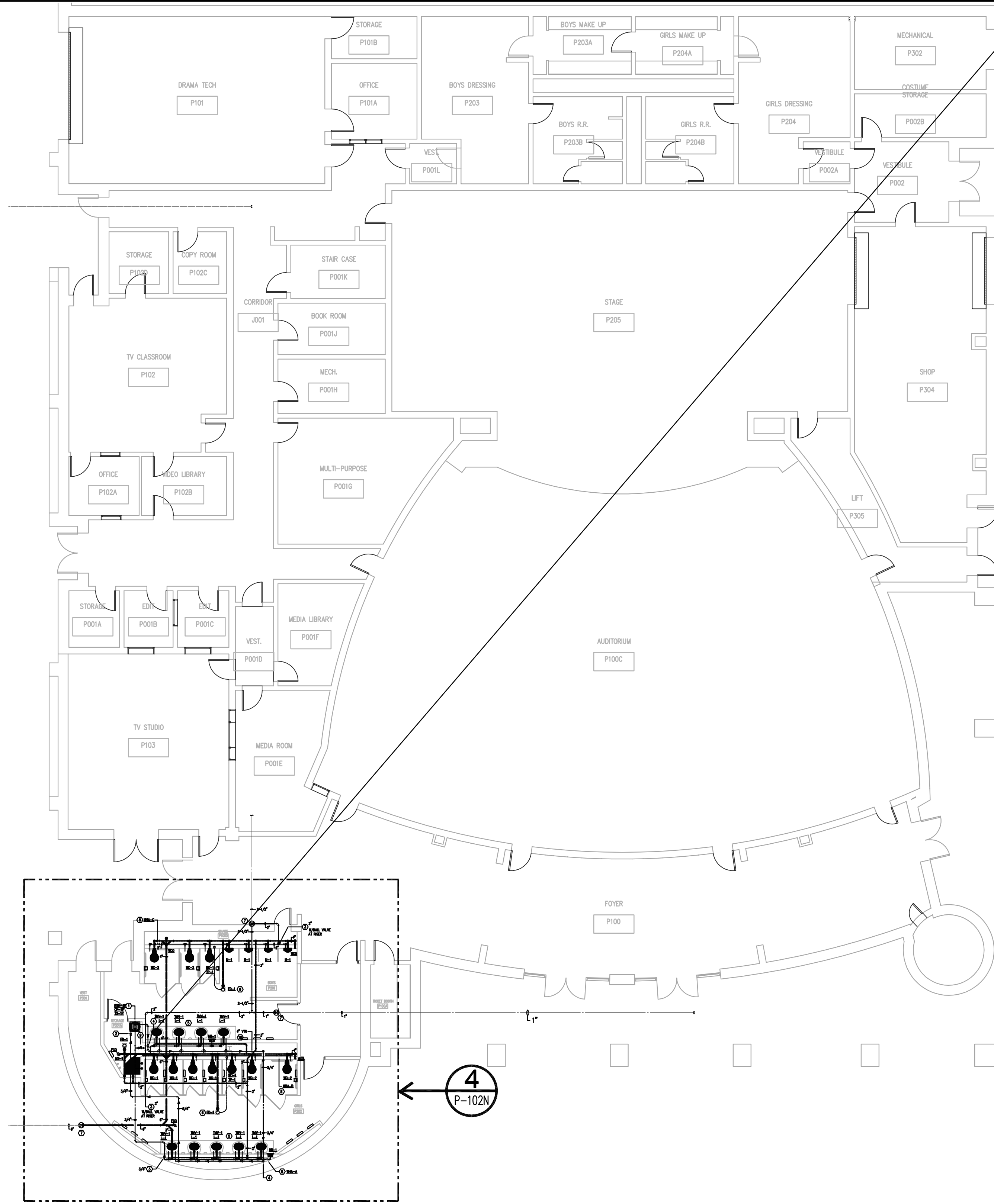
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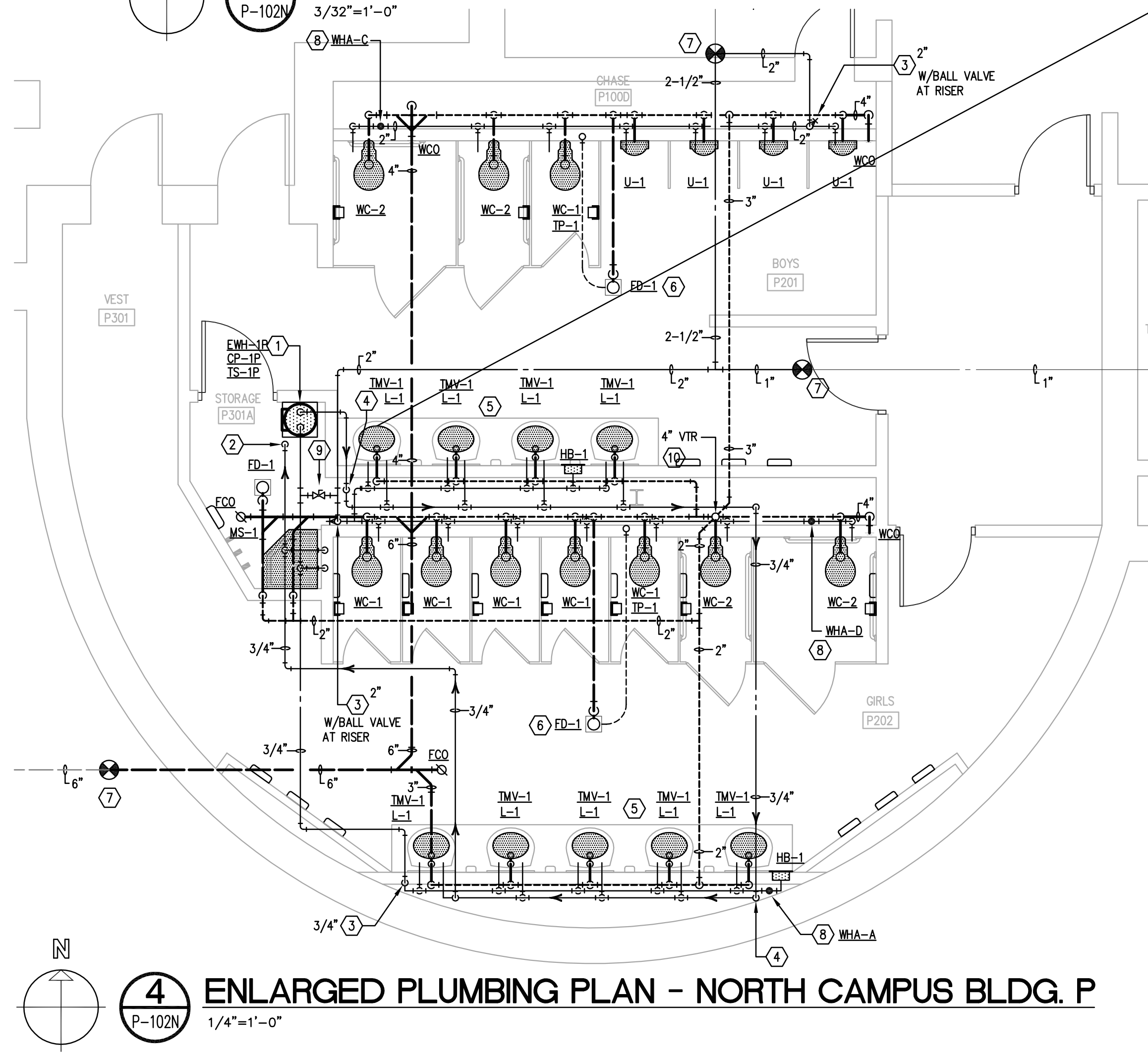
1 PLUMBING DEMOLITION PLAN - NORTH CAMPUS BLDG. P  
P-102N 3/32"=1'-0"



2 ENLARGED DEMO PLAN - NORTH CAMPUS BLDG. P  
P-102N 1/4"=1'-0"



3 PLUMBING PLAN - NORTH CAMPUS BLDG. P  
P-102N 3/32"=1'-0"



4 ENLARGED PLUMBING PLAN - NORTH CAMPUS BLDG. P  
P-102N 1/4"=1'-0"

#### GENERAL NOTES:

- SIZES AND LOCATION OF EXISTING PIPINGS SHOWN WERE TAKEN FROM ENGINEERING PLANS FROM WHICH EXISTING SYSTEMS WERE INSTALLED. CONTRACTOR NEED TO FIELD VERIFY EXACT SIZES, CONDITIONS AND LOCATIONS OF INDICATED EXISTING UTILITIES.
- ALL FIXTURES, EQUIPMENT AND PLUMBING LINES SHOWN WITH (E) ARE EXISTING TO REMAIN, UNLESS NOTED OTHERWISE.
- THE CONTRACTOR IS FULLY RESPONSIBLE FOR PERFORMING ALL WORK UNDER THIS SECTION OF THE PROJECT IN FULL COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES INCLUDING THOSE PUBLISHED BY CGSA AND ETC.
- THE EXTENT OF DEMOLITION WORK IS INDICATED ON THE ARCHITECTURAL DRAWINGS AND BY THE REQUIREMENTS OF THIS SECTION. A VISIT TO THE SITE WILL BE REQUIRED PRIOR TO BIDDING. CONTRACTOR SHALL IDENTIFY/VERIFY ALL PLUMBING LINES BEFORE STARTING ANY DEMOLITION WORK.
- CUTTING OF CONCRETE FLOORS SHALL BE BY MACHINE SAW. HOLES FOR PIPES (WALL OR FLOOR) SHALL BE DONE WITH CORE DRILLING EQUIPMENT WITH PRIOR APPROVAL FROM THE STRUCTURAL ENGINEERS. PATCH AND SEAL OPENINGS AS REQUIRED. COORDINATE ALL CUTTING AND PATCHING WITH OTHER TRADES.
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- PLUMBING CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW THE ARCH. DOCUMENTS IN ADDITION TO THE DIVISION 22, 23 AND 26 DOCUMENTS TO DETERMINE THE COMPLETE SCOPE OF WORK.
- COORDINATE DEMOLITION OF DIVISION 22 SYSTEMS AS REQUIRED WITH ALL OTHER TRADES.
- ALL EXISTING ROOF DRAINS, GUTTERS AND DOWNSPOUTS TO REMAIN, UNLESS NOTED OTHERWISE.
- ALL EXISTING ROOF DRAINS, GUTTERS AND DOWNSPOUTS TO REMAIN, UNLESS NOTED OTHERWISE.

#### PLUMBING DEMO KEYED NOTES:

- REMOVE ALL EXISTING PLUMBING FIXTURES AND PLUMBING EQUIPMENT INCLUDING ALL ASSOCIATED PLUMBING LINES AND APPURTENANCES. REFER TO ARCHITECTURAL PLANS AND PLUMBING PLAN (4/P-100N) FOR NEW WORK.

#### FIRE PROTECTION NOTES:

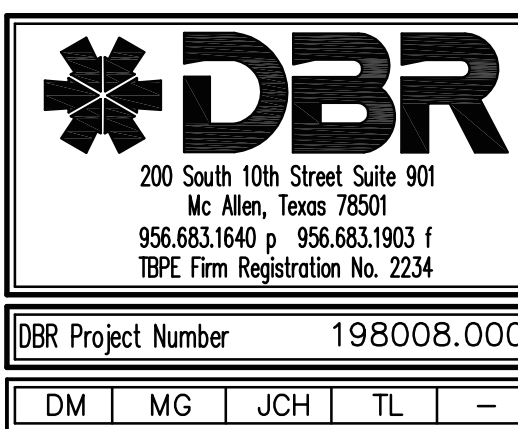
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#### NOTE:

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#### PLUMBING KEYED NOTES

- WALL HUNG ELECTRIC WATER HEATER WITH RECIRCULATION SYSTEM. RE: 16/P-402.
- 3/4" HOT WATER RETURN DROP TO CIRCULATING PUMP WITH TIMER SWITCH AND AQUASTAT; SEE DETAIL 16/P-402N.
- COLD WATER DROP TO FUTURE/S. SIZE AS NOTED. SEE PLUMBING RISER DIAGRAMS FOR CONTINUATION IN WALL OR CHASE.
- HW DROP FOR SERVICE TO LAVS, SIZE AS NOTED. RUN RECIRCULATING LINE WITHIN 2 FEET OF HW ROUGH-INS FOR IECC COMPLIANCE.
- PROVIDE TMV-1 (ASSE 1070 LISTED) FOR HOT WATER SUPPLY TO LAVATORY. SET AT MAX. 110°F. INSTALL UNDER FIXTURE AS HIGH AS POSSIBLE FOR CLEAN/NEAT APPEARANCE. RE: 14/P-402N.
- REPLACE EXISTING FLOOR DRAIN IN ITS CURRENT LOCATION. PROVIDE WITH TRAP PRIMER (TP-1) SEWER GAS PROTECTION DEVICE.
- POINT OF CONNECTION TO EXISTING UTILITY. FIELD VERIFY EXACT LOCATION OF EXISTING UTILITIES.
- WATER HAMMER ARRESTOR, SIZE AS NOTED. PROVIDE ACCESS PANEL WHERE LOCATED IN AN INACCESSIBLE WALL/CEILING. PANEL SHALL BE 12"x12" PAINTED TO MATCH WALL/CEILING. PROVIDE PROPERLY SIZED WATER HAMMER ARRESTOR FOR EACH GROUP OF FIXTURES WHETHER SHOWN OR NOT ON PLANS.
- BALL VALVE ABOVE CEILING. PROVIDE ACCESS PANEL WHERE LOCATED IN AN INACCESSIBLE WALL/CEILING. PANEL SHALL BE 12"x12" PAINTED TO MATCH WALL/CEILING. PROVIDE MARKING OF VALVE LOCATION ALONG THE CEILING TILE.
- PROVIDE NEW VIR AT LOCATION OF EXISTING. FIELD VERIFY LOCATION OF EXISTING VIR.



Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING



PSJA ISD  
NORTH ECHS  
& COLLEGE  
AND  
UNIVERSITY  
CAMPUS  
STUDENT  
RESTROOM  
RENOVATIONS

#### KEYPLAN

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

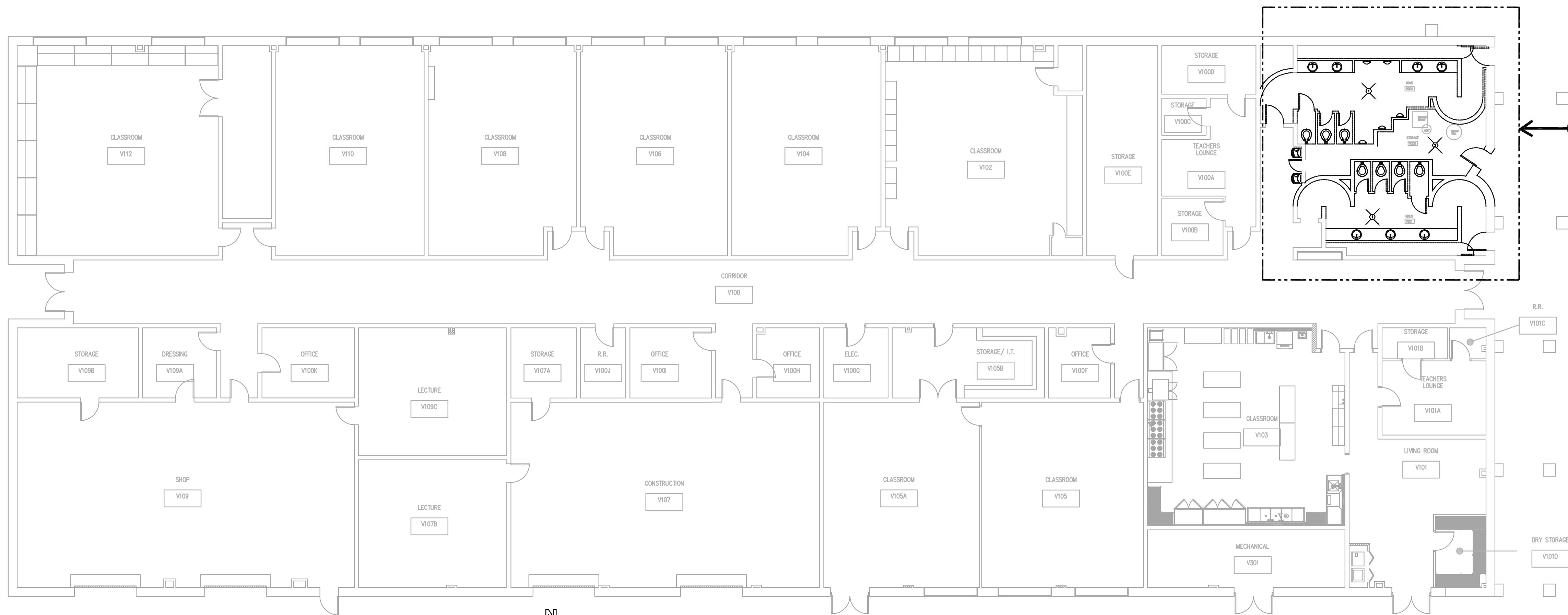
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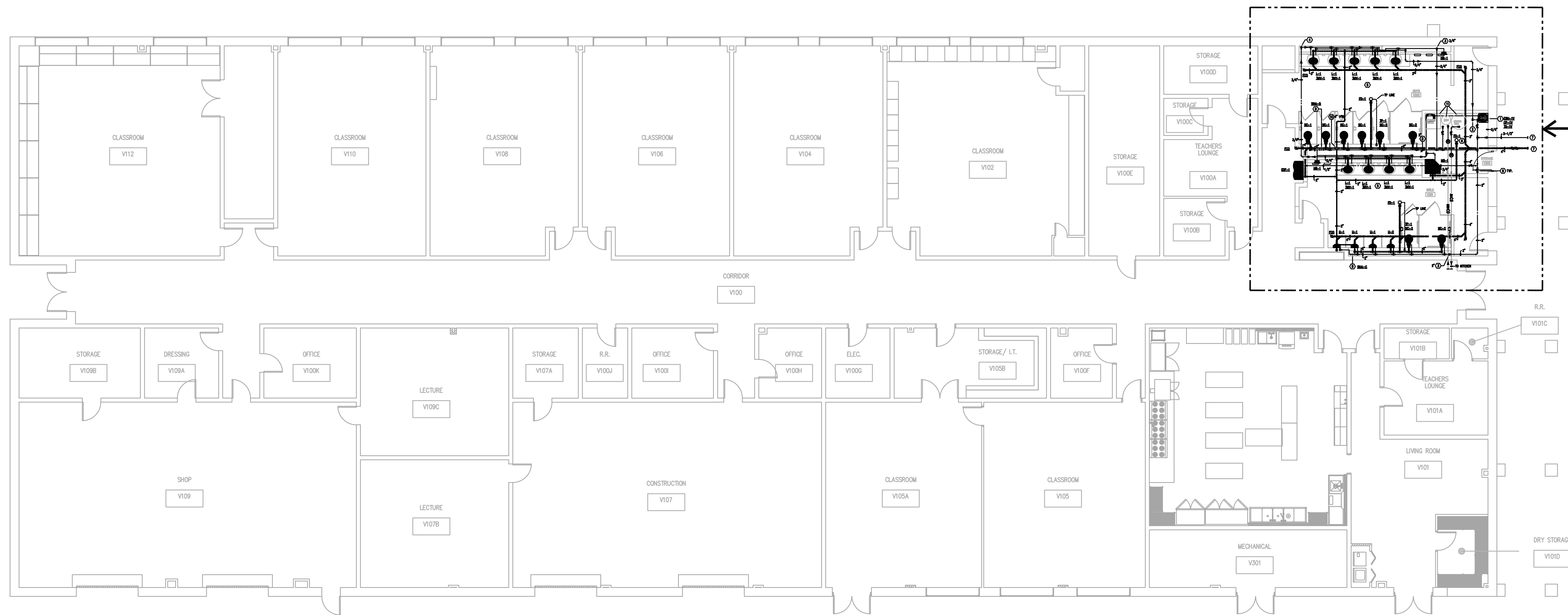
PLUMBING  
PLANS -  
NORTH CAMPUS  
BLDG. P

P-102N

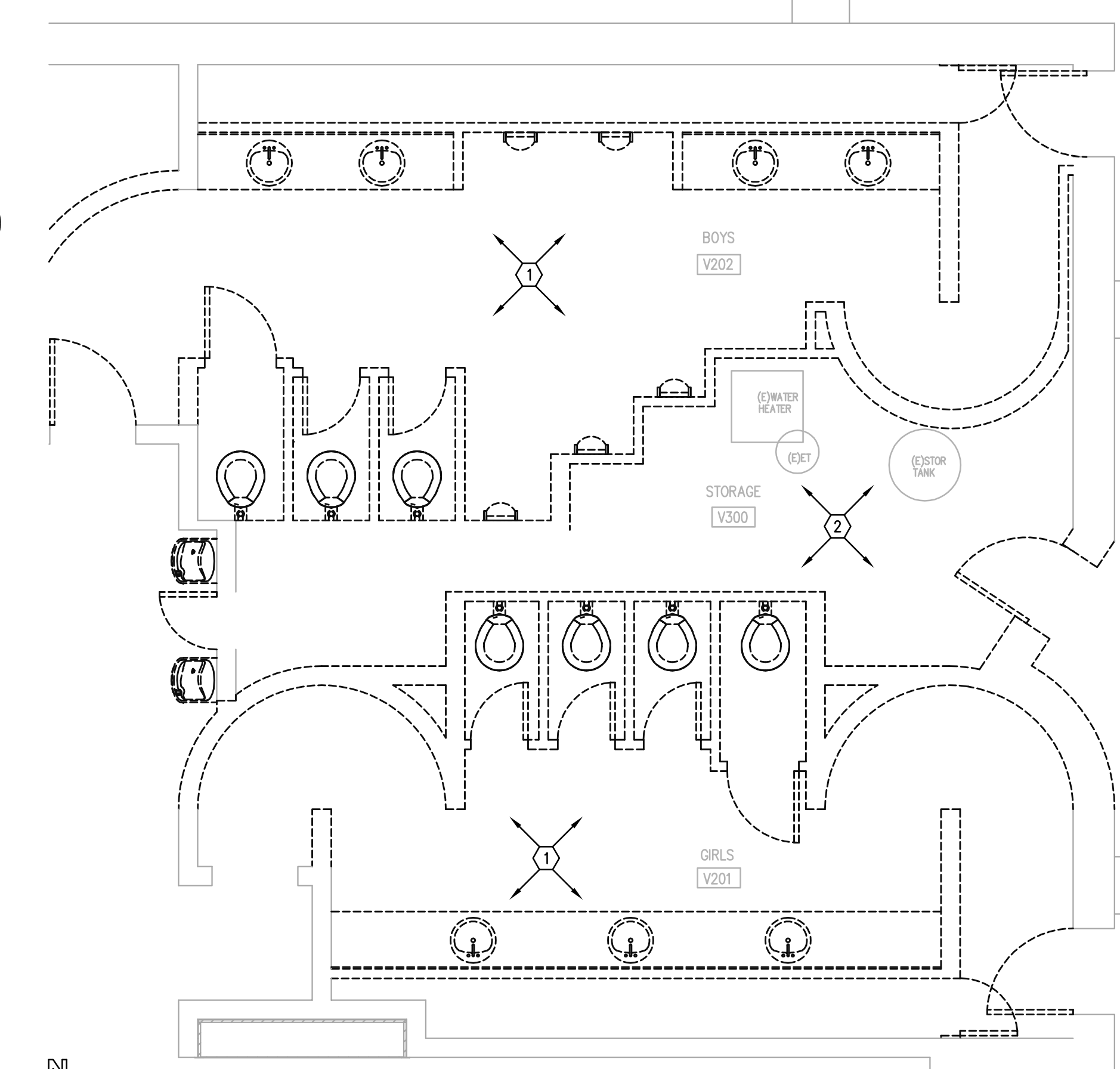




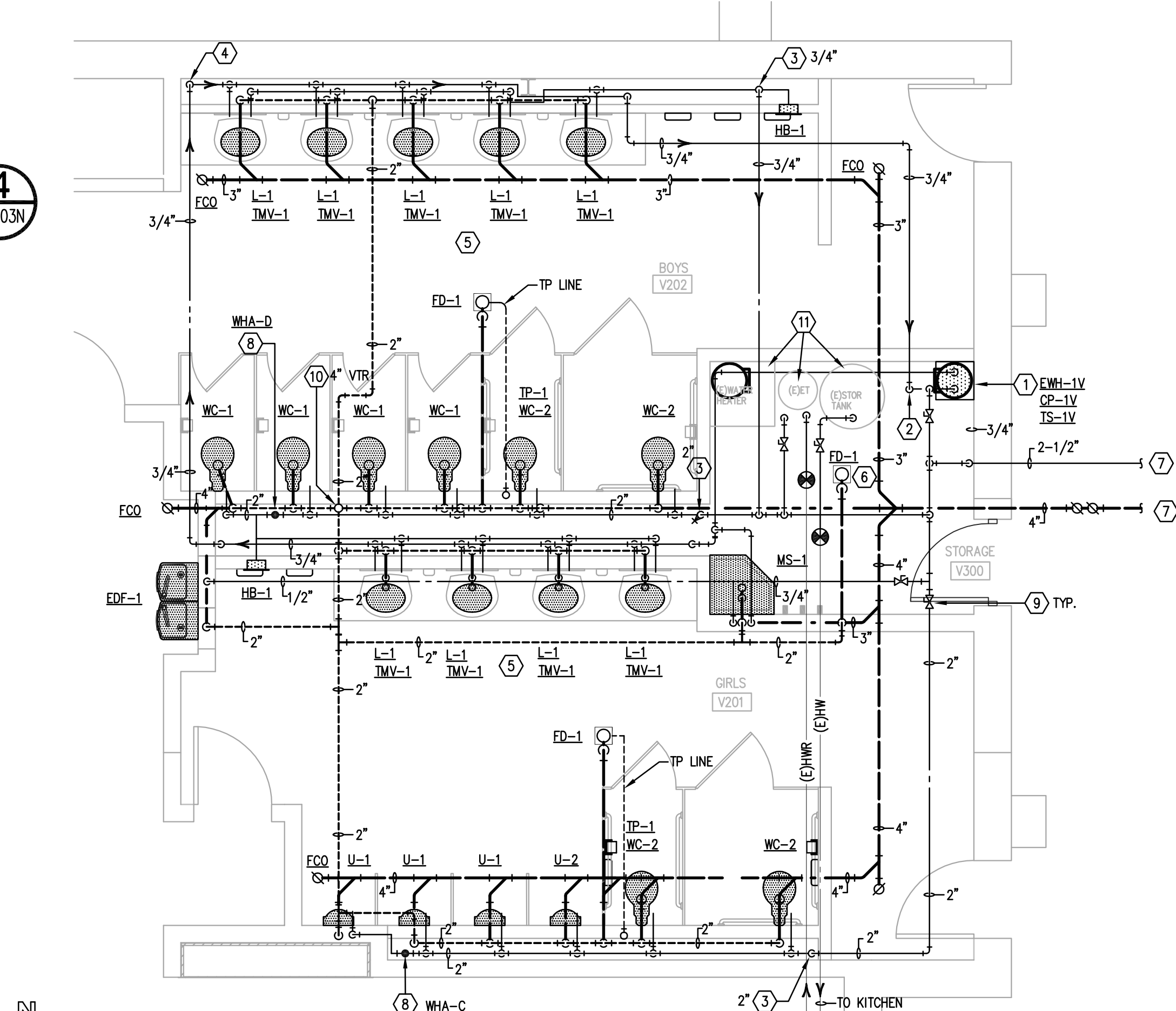
1 PLUMBING DEMOLITION PLAN - NORTH CAMPUS BLDG. V  
3/32"=1'-0"



3 PLUMBING PLAN - NORTH CAMPUS BLDG. V  
3/32"=1'-0"



2 ENLARGED DEMO PLAN - NORTH CAMPUS BLDG. V  
1/4"=1'-0"



4 ENLARGED PLUMBING PLAN - NORTH CAMPUS BLDG. V  
1/4"=1'-0"

#### PLUMBING DEMO KEYED NOTES:

- REMOVE ALL EXISTING PLUMBING FIXTURES AND PLUMBING EQUIPMENT INCLUDING ALL ASSOCIATED PLUMBING LINES AND APPURTENANCES. REFER TO ARCHITECTURAL PLANS AND PLUMBING PLAN (4/P-100N) FOR NEW WORK.
- EXISTING HOT WATER SYSTEM SERVING THE KITCHEN TO REMAIN AND RELOCATED. REFER TO 4/P-103N FOR NEW LAY-OUT.

#### GENERAL NOTES:

- NO EXISTING ENGINEERING PLANS WERE PROVIDED FOR THIS BUILDING. PLUMBER TO FIELD VERIFY LOCATIONS OF EXISTING UTILITIES. SITE VISIT IS REQUIRED PRIOR TO BIDDING TO DETERMINE FULL SCOPE OF WORK.
- WHERE EXISTING FIXTURE OR EQUIPMENT IS TO BE REMOVED AND REINSTALLED AFTER REPLACEMENT OF PLUMBING LINES, BE CAUTIOUS TO PREVENT DAMAGE DURING THE REMOVAL AND REINSTALLATION. WHERE DAMAGED OCCURS, THE EQUIPMENT OR FIXTURE SHALL BE REPLACED OR REPAIRED TO THE SATISFACTION AND APPROVAL OF THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.

#### FIRE PROTECTION NOTES:

- CONTRACTOR TO ADJUST/REWORKED LOCATIONS OF ALL AFFECTED SPRINKLER HEADS AND RISELINES IN AREAS OF RENOVATIONS. CONTRACTOR IS RESPONSIBLE FOR TESTING AND INSPECTING EXISTING SYSTEM AND INSURE THAT ALL COMPONENTS ARE FULLY FUNCTIONING. A VISIT TO THE SITE IS REQUIRED PRIOR TO BIDDING TO DETERMINE FULL SCOPE OF WORK.
- PROVIDE/MODIFY FIRE ALARM SYSTEM AS REQUIRED BY LOCAL, STATE OR FEDERAL CODES TO RECEIVE CERTIFICATE OF OCCUPANCY FOR THE PROJECT.
- PROVIDE AND INSTALL SURFACE MOUNTED FIRE EXTINGUISHERS. TYPE AND QUANTITY AND LOCATIONS SHALL BE PER LOCAL AUTHORITIES.
- A STATE LICENSED FIRE SPRINKLER AND FIRE ALARM CONTRACTOR MUST SUBMIT SHOP DRAWINGS DIRECTLY TO THE CITY FIRE DEPARTMENT FIRE MARSHAL'S OFFICE FOR REVIEW AND APPROVAL OF THE PROPOSED FIRE SPRINKLER AND ALARM SYSTEM WORK. THESE SHOP DRAWINGS MUST BE APPROVED BY THE FIRE DEPARTMENT PRIOR TO THE CONTRACTOR BEGINNING THE WORK. ALL WORK MUST BE IN COMPLIANCE WITH THE APPLICABLE NFPA STANDARDS AND THE INTERNATIONAL FIRE CODE.
- PRIOR TO SHUT-DOWN OF ANY EXISTING FIRE PROTECTION SYSTEM, CONTRACTOR SHALL NOTIFY OWNER OR OWNER'S APPOINTED REPRESENTATIVE 5 DAYS PRIOR TO SERVICE INTERRUPTION. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING SYSTEM TO FULL OPERATION.

#### NOTE:

DRAWING IS DIAGRAMMATIC ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF PIPING, DEVICES AND EQUIPMENT WITH BUILDING ELEMENTS AND THE WORK OF OTHER TRADES. REFER TO RISER DIAGRAMS FOR MORE PIPE SIZING INFORMATION AND OTHER REQUIREMENTS.

#### PLUMBING KEYED NOTES

- WALL HUNG ELECTRIC WATER HEATER WITH RECIRCULATION SYSTEM. RE: 16/P-402.
- 3/4" HOT WATER RETURN DROP TO CIRCULATING PUMP WITH TIMER SWITCH AND AQUASTAT; SEE DETAIL 16/P-402N.
- COLD WATER DROP TO FIXTURE/S; SIZE AS NOTED. SEE PLUMBING RISER DIAGRAMS FOR CONTINUATION IN WALL OR CHASE.
- HW DROP FOR SERVICE TO LAVS, SIZE AS NOTED. RUN RECIRCULATING LINE WITHIN 2 FEET OF HW ROUGH-INS FOR IECC COMPLIANCE.
- PROVIDE TMW-1 (ASSE 1070 LISTED) FOR HOT WATER SUPPLY TO LAVATORY. SET AT MAX 110°F. INSTALL UNDER FIXTURE AS HIGH AS POSSIBLE FOR CLEAN/NEAT APPEARANCE. RE: 14/P-402N.
- REPLACE EXISTING FLOOR DRAIN IN ITS CURRENT LOCATION. PROVIDE WITH TRAP PRIMER (TP-1) SEWER GAS PROTECTION DEVICE.
- POINT OF CONNECTION TO EXISTING UTILITY. FIELD VERIFY EXACT LOCATION OF EXISTING UTILITIES.
- WATER HAMMER ARRESTOR. SIZE AS NOTED. PROVIDE ACCESS PANEL WHERE LOCATED IN AN INACCESSIBLE WALL/CEILING. PANEL SHALL BE 12"x12" PAINTED TO MATCH WALL/CEILING. PROVIDE PROPERLY SIZED WATER HAMMER ARRESTOR FOR EACH GROUP OF FIXTURES WHETHER SHOWN OR NOT ON PLANS.
- BALL VALVE ABOVE CEILING. PROVIDE ACCESS PANEL WHERE LOCATED IN AN INACCESSIBLE WALL/CEILING. PANEL SHALL BE 12"x12" PAINTED TO MATCH WALL/CEILING. PROVIDE MARKING OF VALVE LOCATION ALONG THE CEILING TILE.
- PROVIDE NEW VTR AT LOCATION OF EXISTING. FIELD VERIFY LOCATION OF EXISTING VTR.



DBR Project Number		198008.00		
DM	MG	JCH	TL	-

#### Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING



## PSJA ISD

NORTH ECHS  
& COLLEGE  
AND  
UNIVERSITY  
CAMPUS

STUDENT  
RESTROOM  
RENOVATIONS

#### KEYPLAN

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

#### Revisions:

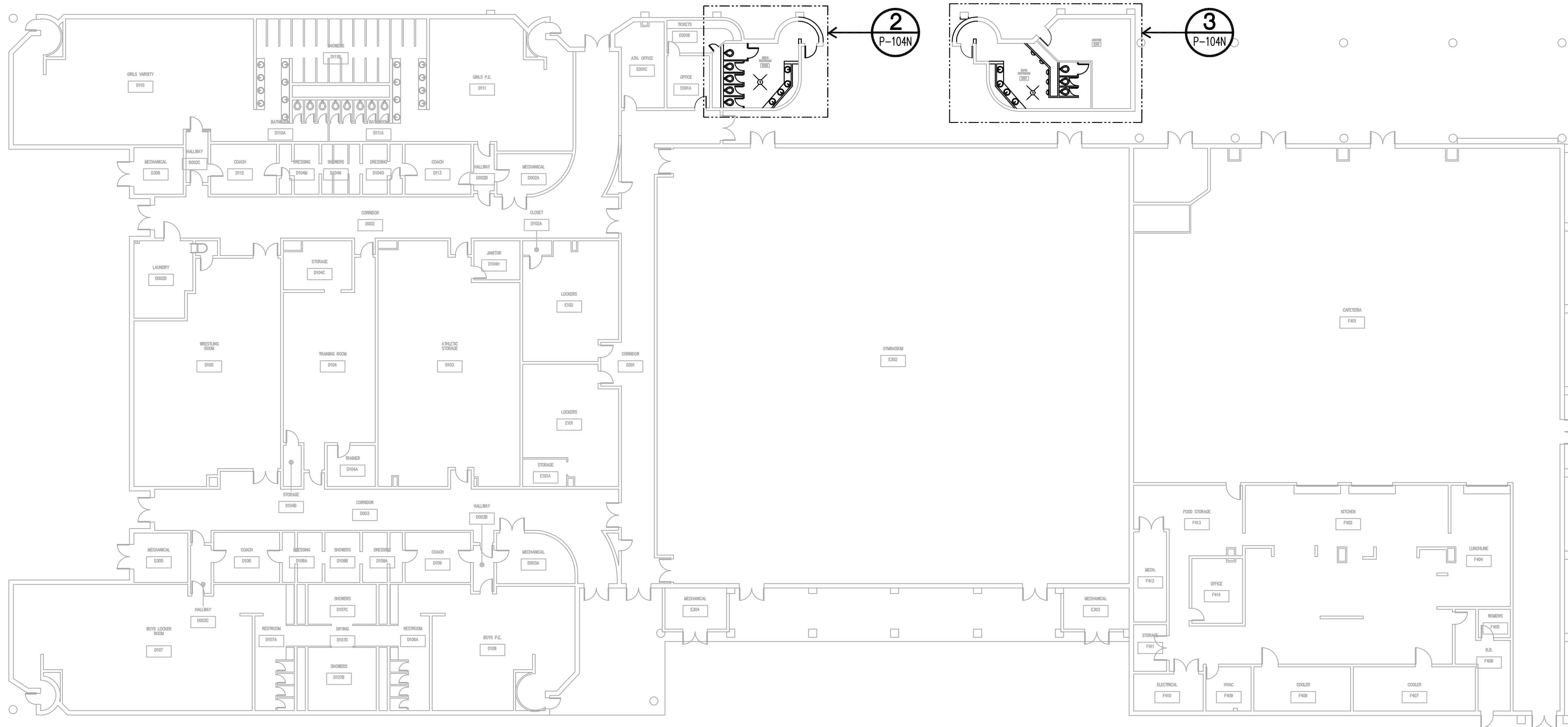
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PLUMBING  
PLANS -  
NORTH CAMPUS  
BLDG. V

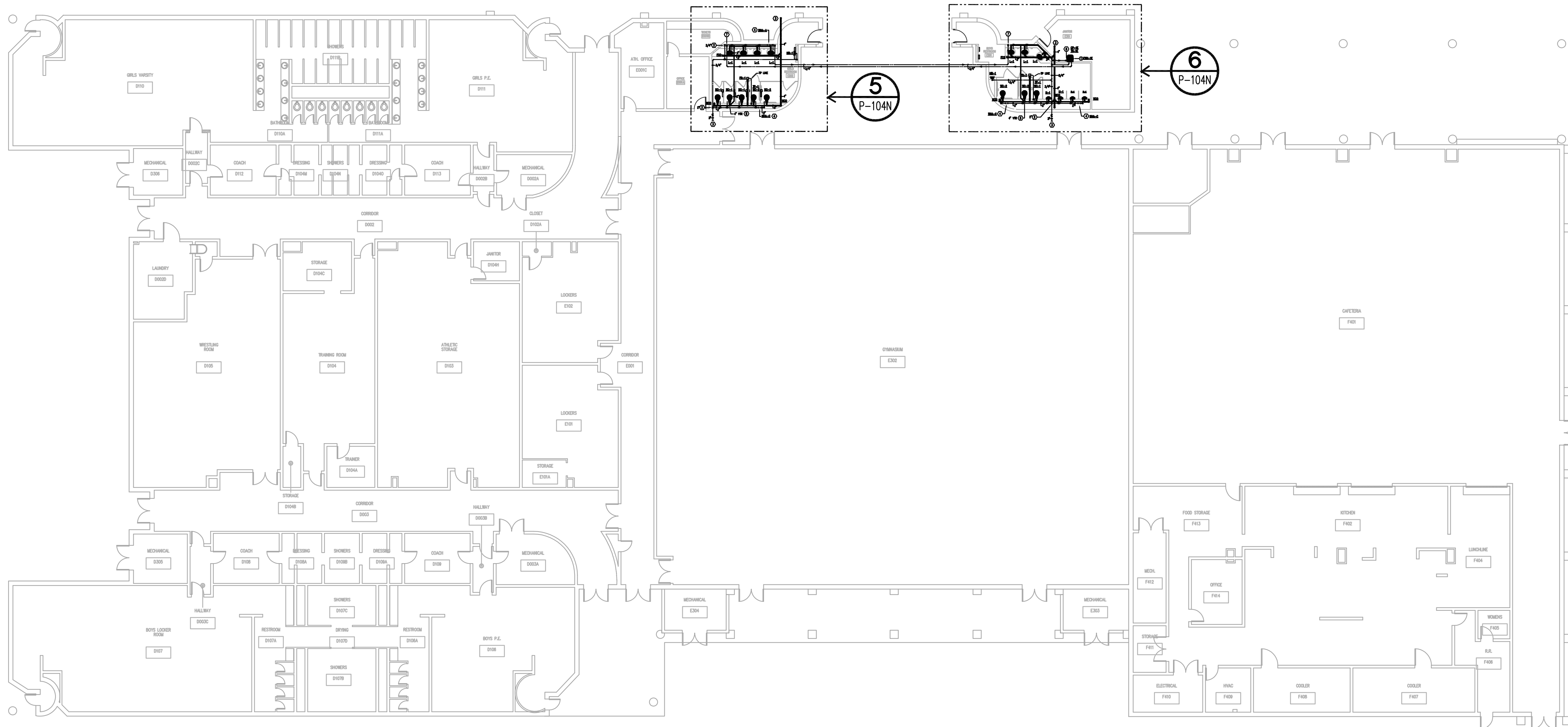
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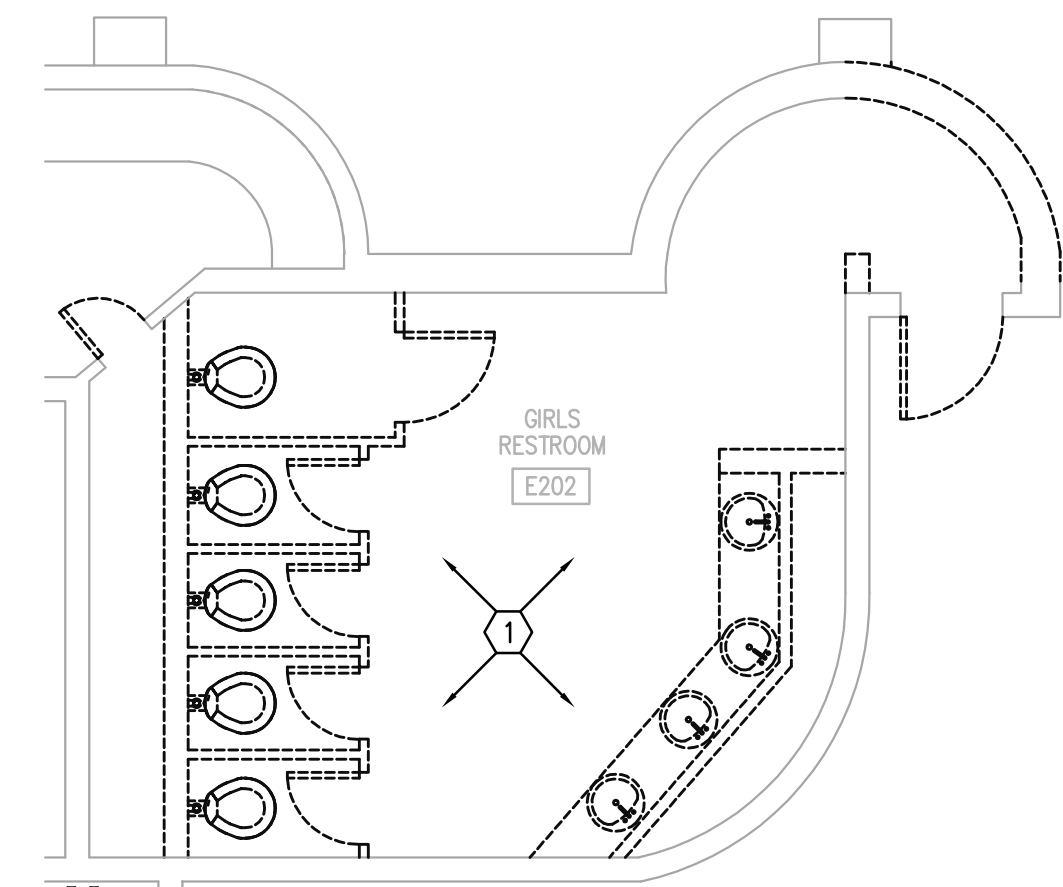
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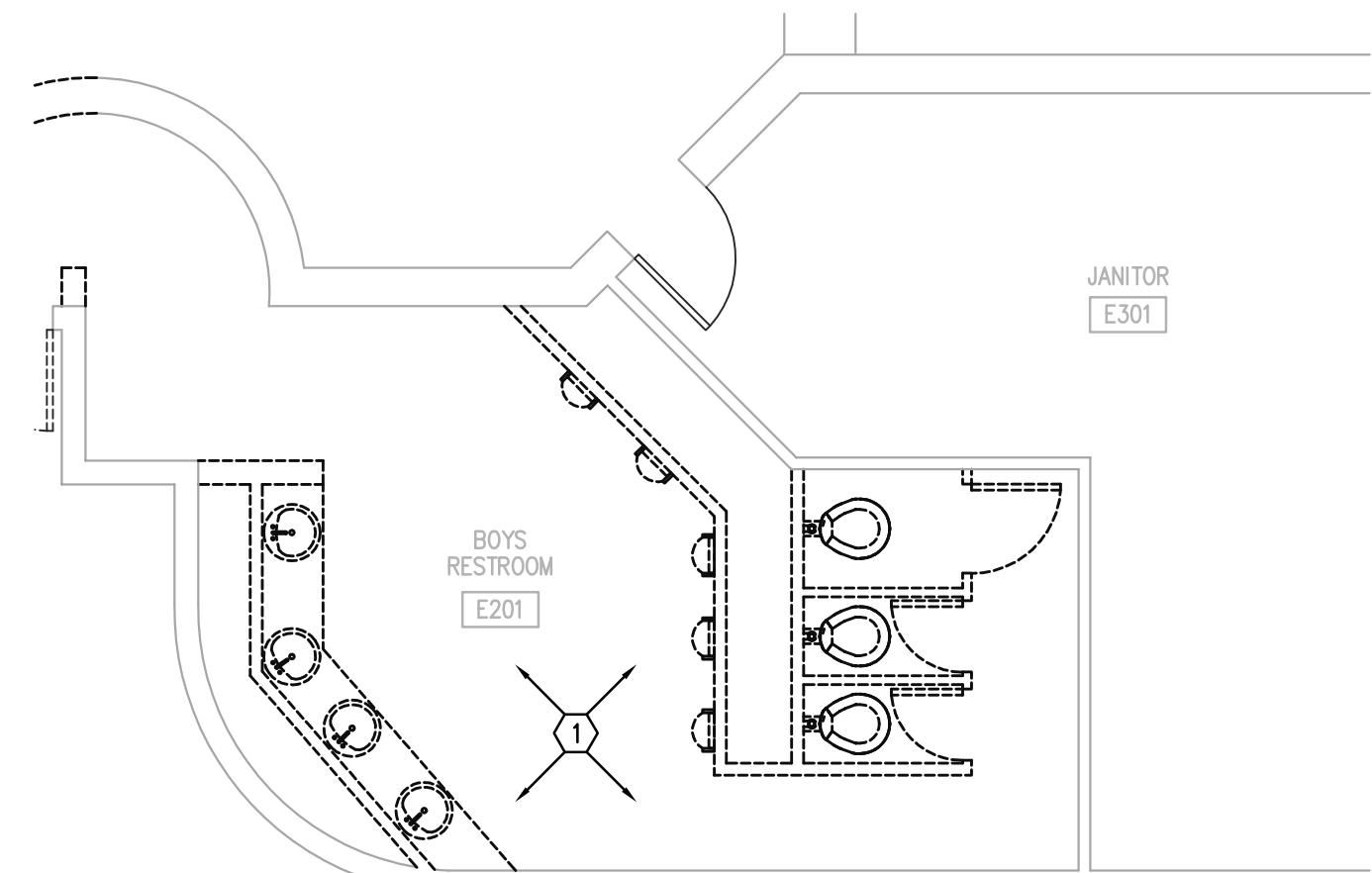
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P-104N 1/16"=1'-0"



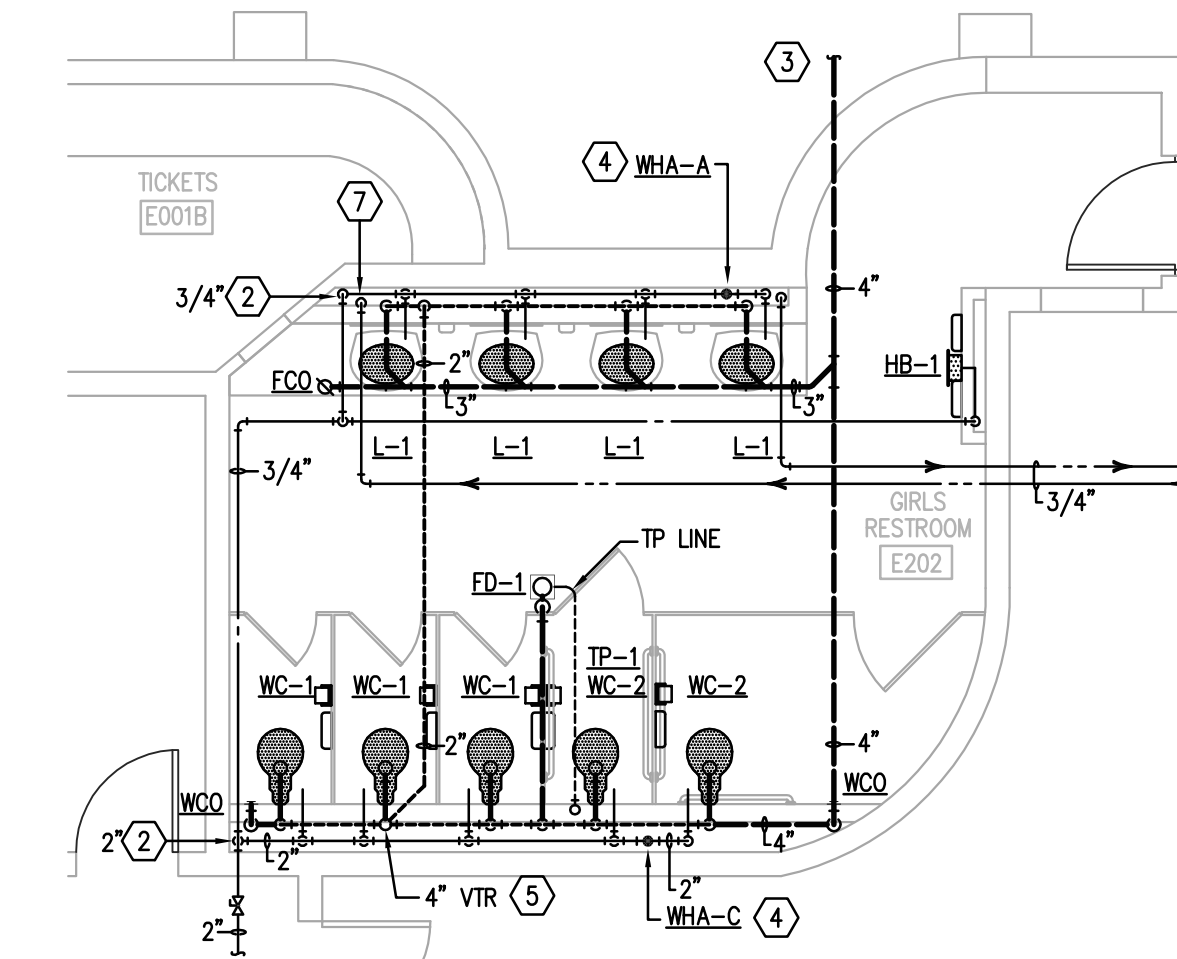
**4 PLUMBING PLAN - NORTH CAMPUS BLDG. E**  
P-104N 1/16"=1'-0"



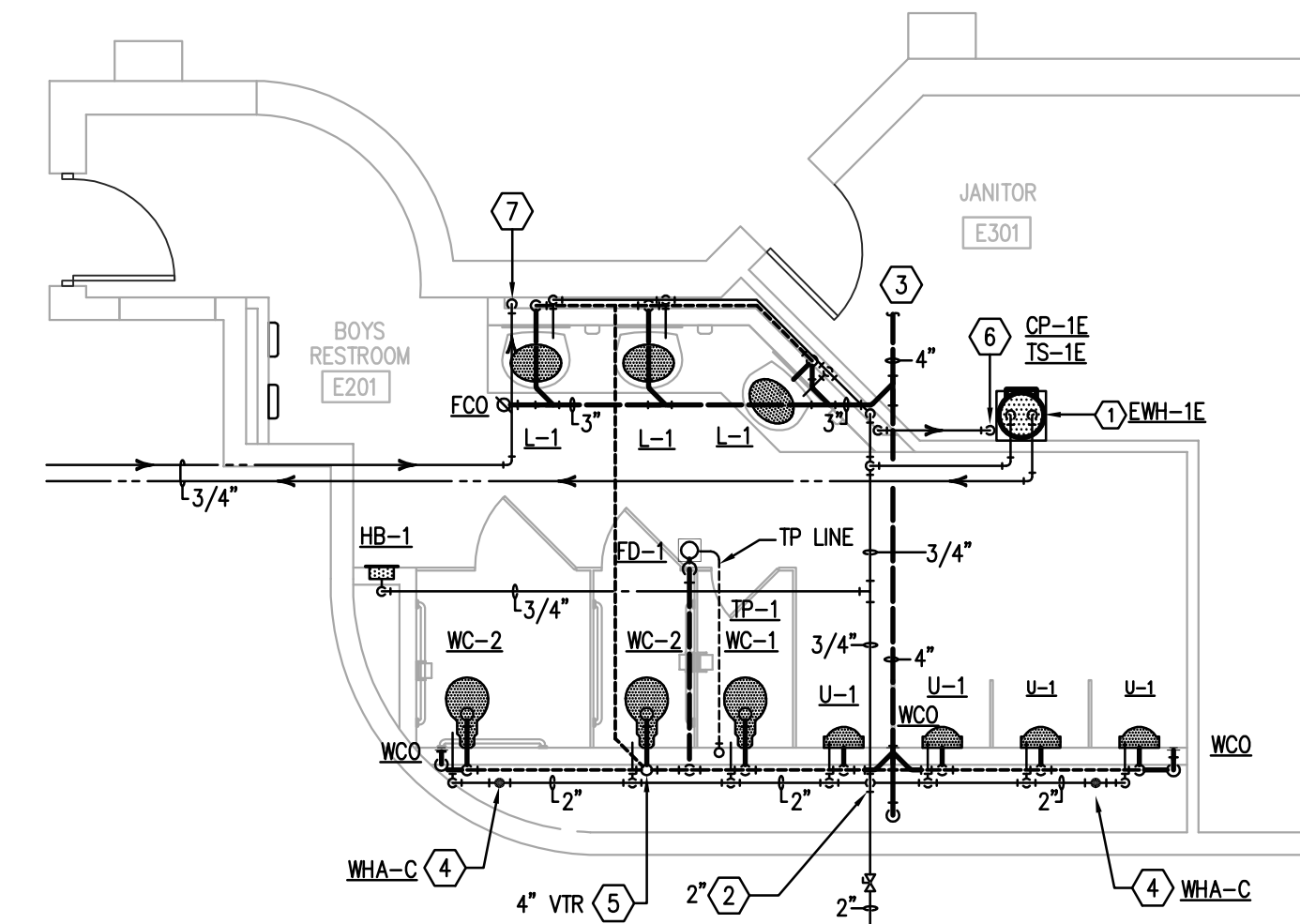
**2 ENLARGED DEMO PLAN**  
P-104N 3/16"=1'-0"



**3 ENLARGED DEMO PLAN**  
P-104N 3/16"=1'-0"



**5 ENLARGED PLUMBING PLAN**  
P-104N 3/16"=1'-0"



**6 ENLARGED PLUMBING PLAN**  
P-104N 3/16"=1'-0"

#### PLUMBING DEMO KEYED NOTES:

- REMOVE ALL EXISTING PLUMBING FIXTURES AND PLUMBING EQUIPMENT INCLUDING ALL ASSOCIATED PLUMBING LINES AND APPURTENANCES. REFER TO ARCHITECTURAL PLANS AND PLUMBING PLAN (4/P-100N) FOR NEW WORK.

#### GENERAL NOTES:

- NO EXISTING ENGINEERING PLANS WERE PROVIDED FOR THIS BUILDING. PLUMBER TO FIELD VERIFY LOCATIONS OF EXISTING UTILITIES. SITE VISIT IS REQUIRED PRIOR TO BIDDING TO DETERMINE FULL SCOPE OF WORK.

#### FIRE PROTECTION NOTES:

- CONTRACTOR TO ADJUST/REWORKED LOCATIONS OF ALL AFFECTED SPRINKLER HEADS AND FIRELINES IN AREAS OF RENOVATIONS. CONTRACTOR IS RESPONSIBLE FOR TESTING AND INSPECTING EXISTING SYSTEM AND INSURE THAT ALL COMPONENTS ARE FULLY FUNCTIONING. A VISIT TO THE SITE IS REQUIRED PRIOR TO BIDDING TO DETERMINE FULL SCOPE OF WORK.
- PROVIDE/MODIFY FIRE ALARM SYSTEM AS REQUIRED BY LOCAL, STATE OR FEDERAL CODES TO RESERVE CERTIFICATE OF OCCUPANCY FOR THE PROJECT.
- PROVIDE AND INSTALL SURFACE MOUNTED FIRE EXTINGUISHERS. TYPE AND QUANTITY AND LOCATIONS SHALL BE PER LOCAL AUTHORITIES.
- A STATE LICENSED FIRE SPRINKLER AND FIRE ALARM CONTRACTOR MUST SUBMIT SHOP DRAWINGS DIRECTLY TO THE CITY FIRE DEPARTMENT FIRE MARSHAL'S OFFICE FOR REVIEW AND APPROVAL OF THE PROPOSED FIRE SPRINKLER AND ALARM SYSTEM WORK. THESE SHOP DRAWINGS MUST BE APPROVED BY THE FIRE DEPARTMENT PRIOR TO THE CONTRACTOR BEGINNING THE WORK. ALL WORK MUST BE IN COMPLIANCE WITH THE APPLICABLE NFPA STANDARDS AND THE INTERNATIONAL FIRE CODE.
- PRIOR TO SHUT-DOWN OF ANY EXISTING FIRE PROTECTION SYSTEM, CONTRACTOR SHALL NOTIFY OWNER OR OWNER'S APPOINTED REPRESENTATIVE 5 DAYS PRIOR TO SERVICE INTERRUPTION. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING SYSTEM TO FULL OPERATION.

#### NOTE:

DRAWING IS DIAGRAMMATIC ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF PIPING, DEVICES AND EQUIPMENT WITH BUILDING ELEMENTS AND THE WORK OF OTHER TRADES. REFER TO RISER DIAGRAMS FOR MORE PIPE SIZING INFORMATION AND OTHER REQUIREMENTS.

#### PLUMBING KEYED NOTES

- ELECTRIC WATER HEATER WITH HW RECIRCULATING SYSTEM. RE: 16/P-402N.
- COLD WATER DROP TO FIXTURES; SIZE AS NOTED. SEE PLUMBING RISER DIAGRAMS FOR CONTINUATION IN WALL OR CHASE.
- CONNECT TO EXISTING UTILITY. FIELD VERIFY EXACT LOCATION OF EXISTING UTILITIES.
- WATER HAMMER ARRESTOR, SIZE AS NOTED. PROVIDE PROPERLY SIZED WATER HAMMER ARRESTOR FOR EACH GROUP OF FIXTURES WHETHER SHOWN OR NOT ON PLANS.
- PROVIDE NEW VTR AT LOCATION OF EXISTING, FIELD VERIFY LOCATION OF EXISTING VTR.
- 3/4" HOT WATER RETURN DROP TO CIRCULATING PUMP WITH TIMER SWITCH AND AQUASTAT; SEE DETAIL 16/P-402N.
- HW DROP FOR SERVICE TO LAVS, SIZE AS NOTED. RUN RECIRCULATING LINE WITHIN 2 FEET OF HW ROUGH-INS FOR IECC COMPLIANCE.

#### Consultants:

**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



**PSJA ISD**  
**NORTH ECHS**  
**& COLLEGE**  
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**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

#### KEYPLAN

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

#### Revisions:

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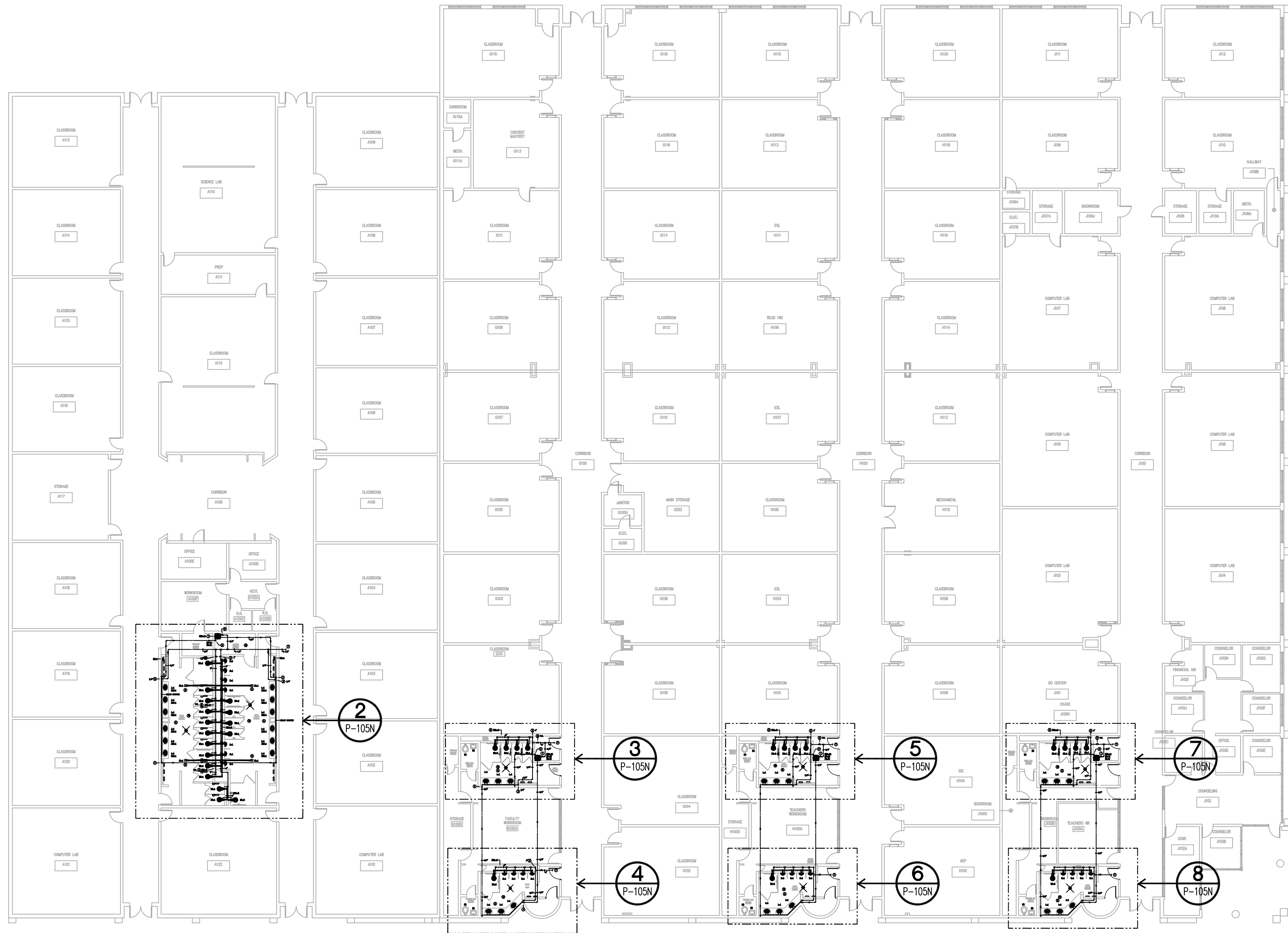
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**PLANS -**  
**NORTH CAMPUS**  
**BLDG. E**



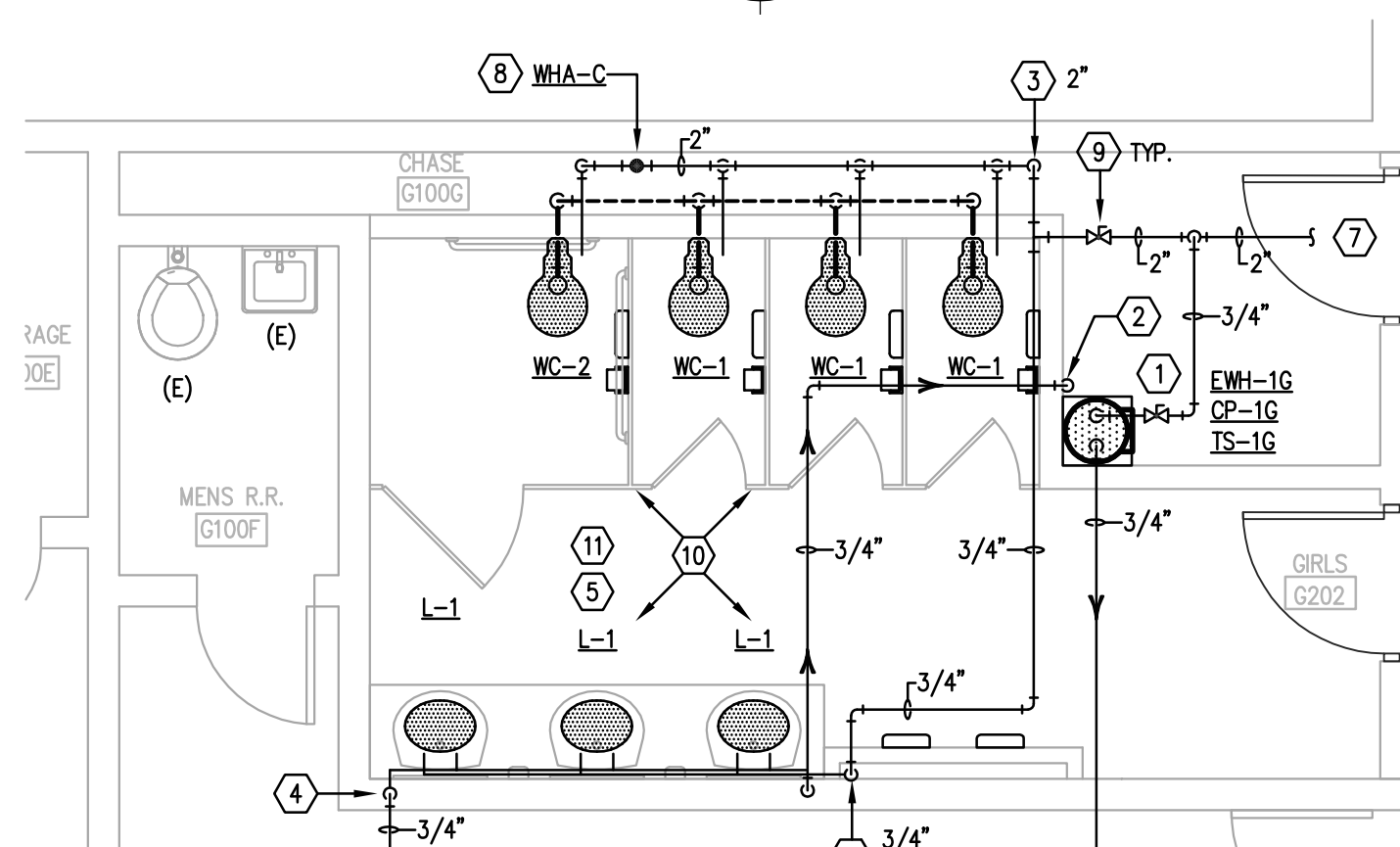
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**P-104N**

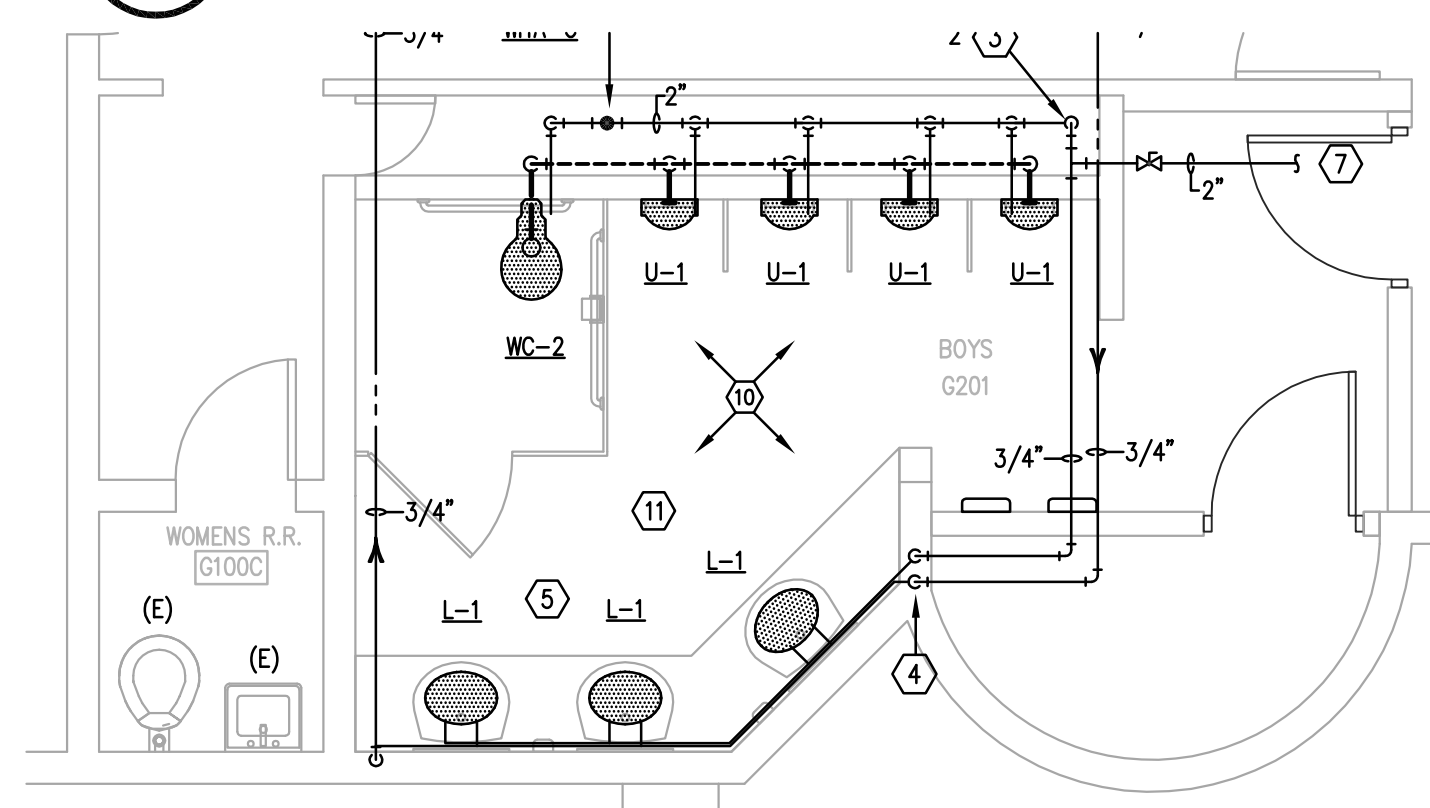




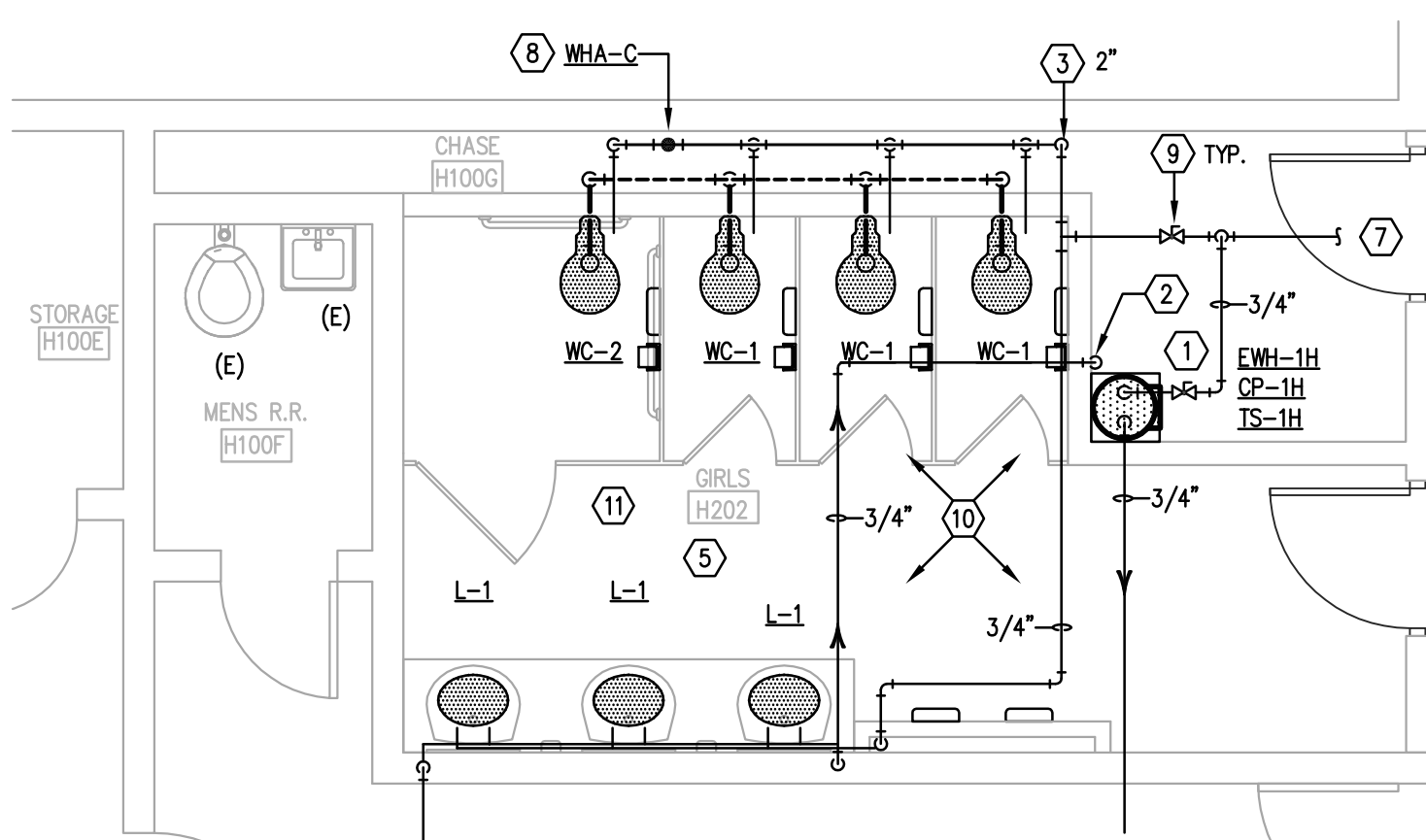
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P-105N  
1/16"=1'-0"



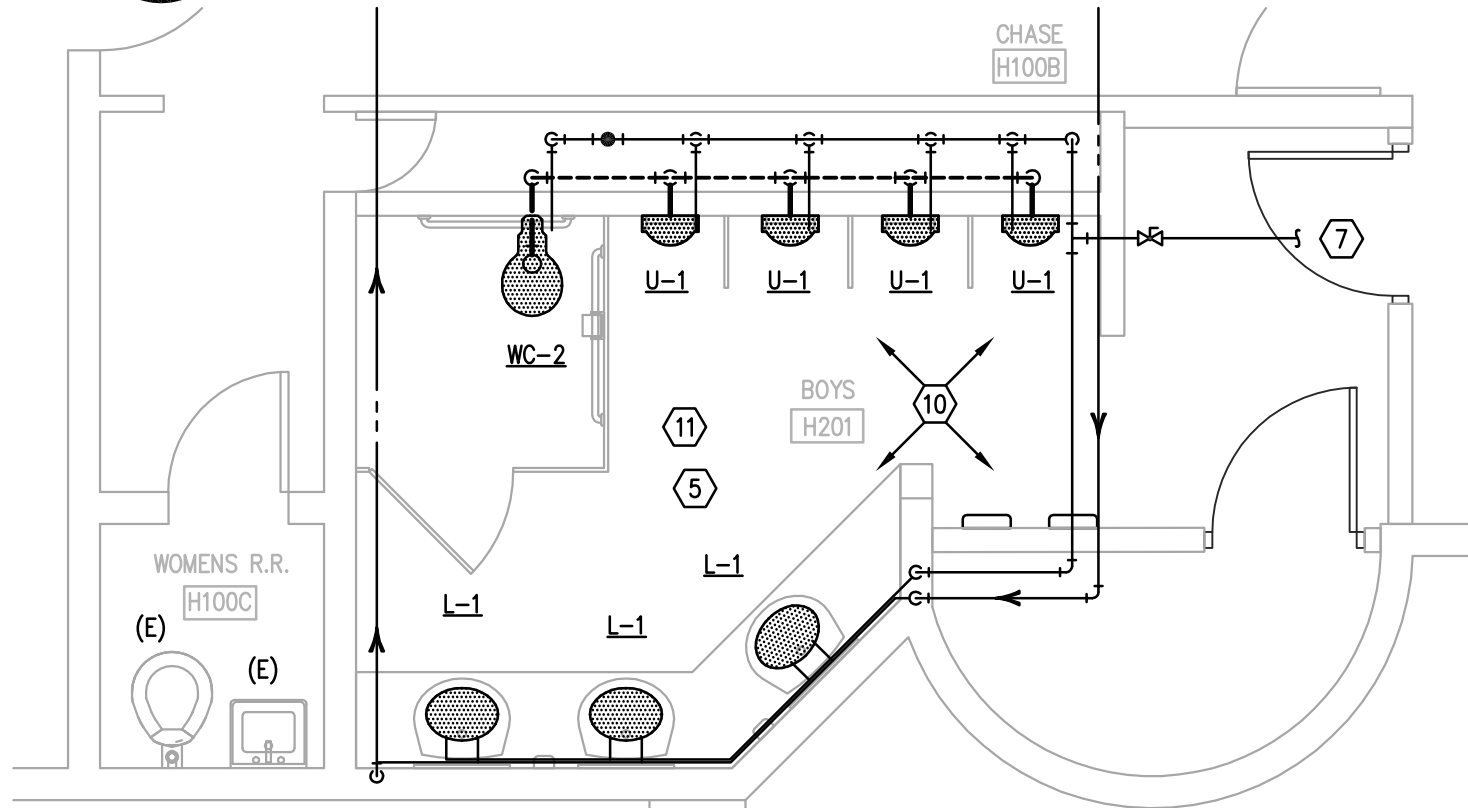
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P-105N  
1/4"=1'-0"



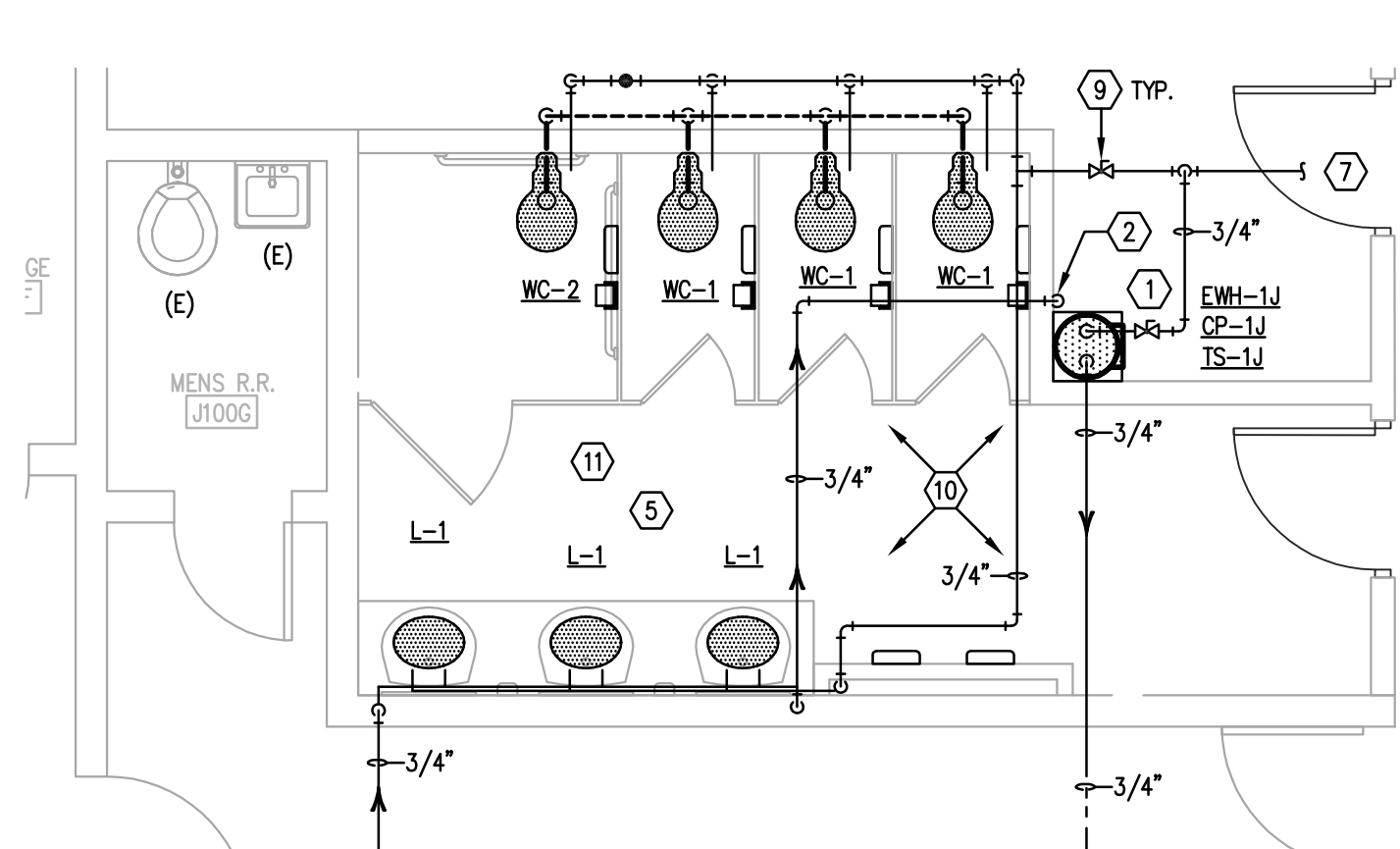
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P-105N  
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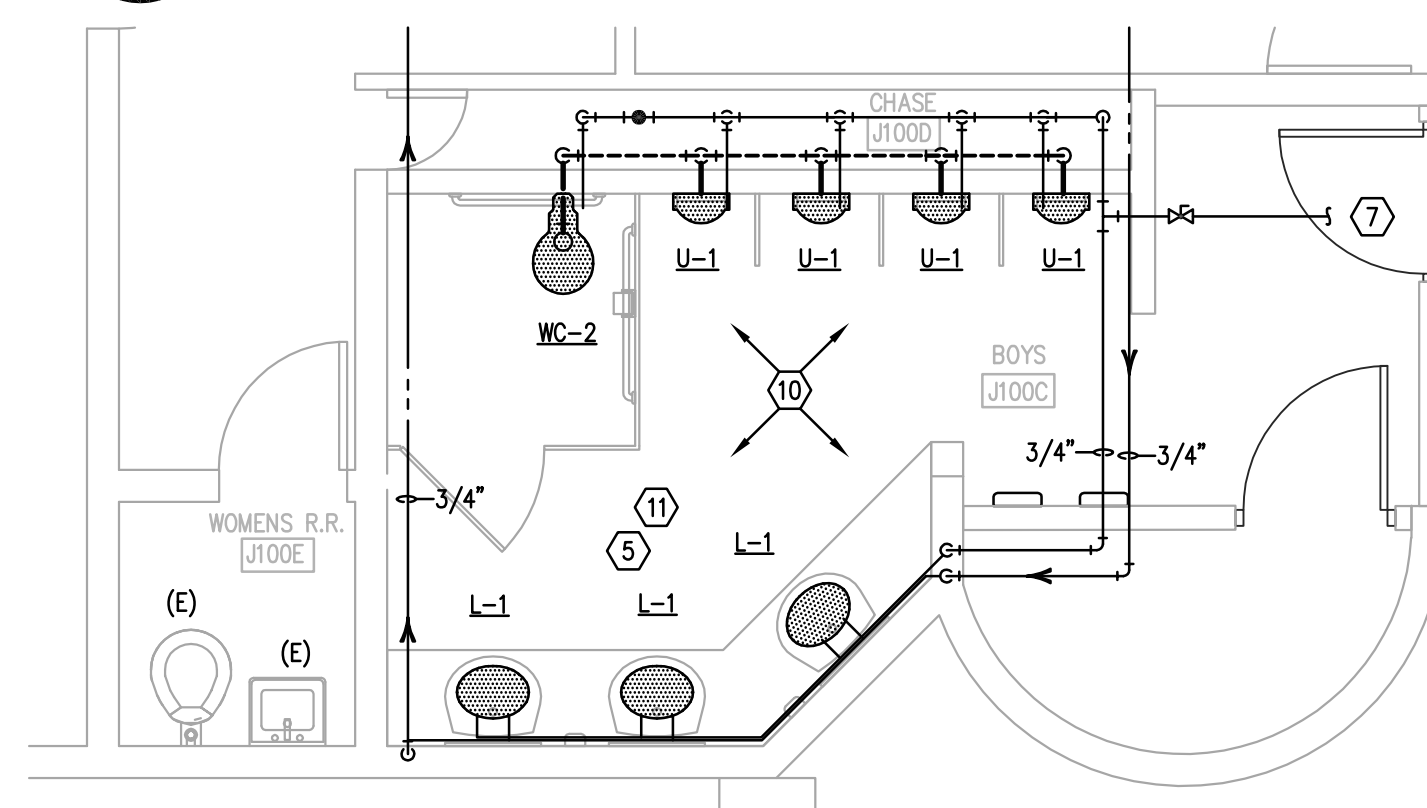
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P-105N  
1/4"=1'-0"



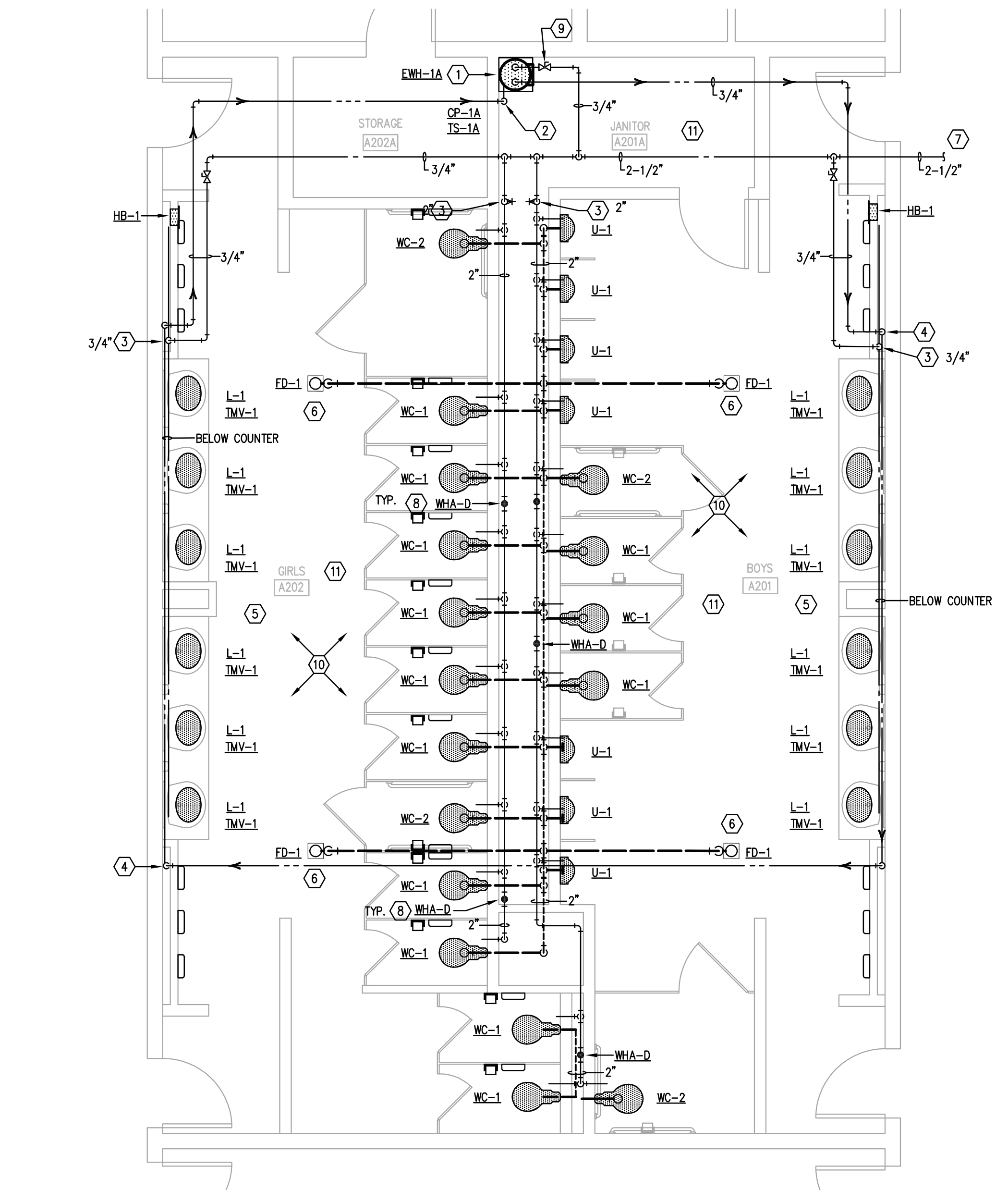
6 PLUMBING PLAN - BLDGS. A, G, H, J  
P-105N  
1/4"=1'-0"



7 PLUMBING PLAN - BLDGS. A, G, H, J  
P-105N  
1/4"=1'-0"



8 PLUMBING PLAN - BLDGS. A, G, H, J  
P-105N  
1/4"=1'-0"



2 PLUMBING PLAN - NORTH CAMPUS BLDGS. A, G, H, J  
P-105N  
1/4"=1'-0"

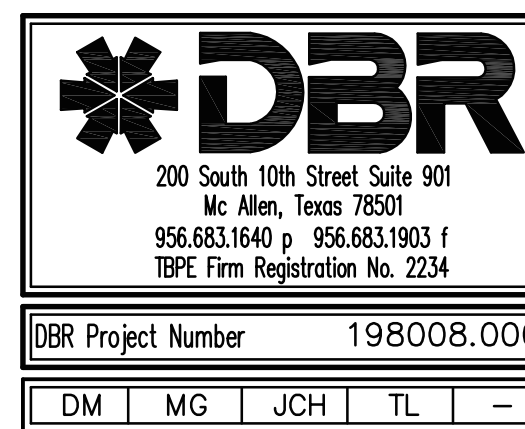
NOTE:  
DRAWING IS DIAGNOSTIC ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF PIPING, DEVICES AND EQUIPMENT WITH BUILDING ELEMENTS AND THE WORK OF OTHER TRADES. REFER TO RISER DIAGRAMS FOR MORE PIPE SIZING INFORMATION AND OTHER REQUIREMENTS.

PLUMBING KEYED NOTES

- ELECTRIC WATER HEATER WITH RECIRCULATION SYSTEM. RE: 18/P4.02.
- 3/4" HOT WATER RETURN DROP TO CIRCULATING PUMP WITH TIMER SWITCH AND AQUASTAT; SEE DETAIL 23/24/P4.02.
- COLD WATER DROP TO FIXTURE/S; SIZE AS NOTED. SEE PLUMBING RISER DIAGRAMS FOR CONTINUATION IN WALL OR CHASE.
- HW DROP FOR SERVICE TO LAVS, SIZE AS NOTED. RUN RECIRCULATING LINE WITHIN 2 FEET OF HW ROUGH-INS FOR 2015 IECC COMPLIANCE.
- PROVIDE TMV-1 (ASSE 1070 LISTED) FOR HOT WATER SUPPLY TO LAVATORY. SET AT MAX. 110°F. INSTALL UNDER FIXTURE AS HIGH AS POSSIBLE FOR CLEAN/NEAT APPEARANCE. RE: 14/P4.02.
- PROVIDE THIS FLOOR DRAIN WITH TRAPGUARD SEWER GAS PROTECTION DEVICE.
- CONNECT TO EXISTING UTILITY. FIELD VERIFY EXACT LOCATION OF EXISTING UTILITIES.
- WATER HAMMER ARRESTOR, SIZE AS NOTED. PROVIDE PROPERLY SIZED WATER HAMMER ARRESTOR FOR EACH GROUP OF FIXTURES WHETHER SHOWN OR NOT ON PLANS.
- BALL VALVE ABOVE CEILING. PROVIDE ACCESS PANEL WHERE LOCATED IN AN INACCESSIBLE CEILING. PANEL SHALL BE 12"x12" PAINTED TO MATCH CEILING. PROVIDE MARKING OF VALVE LOCATION ALONG THE CEILING TILE.
- EXISTING VENT LINE AND UNDERGROUND DRAIN LINES TO REMAIN. CONNECT NEW FIXTURES TO EXISTING/ADJUSTED/NEW DRAIN AND VENT ROUGH-INS.
- PROVIDE EXISTING FLOOR DRAINS WITH TRAPGUARD.

FIRE PROTECTION NOTES:

- CONTRACTOR TO ADJUST/REWORK LOCATIONS OF ALL AFFECTED SPRINKLER HEADS AND FIRELINES IN AREAS OF RENOVATIONS. CONTRACTOR IS RESPONSIBLE FOR TESTING AND INSPECTING EXISTING SYSTEM AND INSURE THAT ALL COMPONENTS ARE FULLY FUNCTIONING. A VISIT TO THE SITE IS REQUIRED PRIOR TO BIDDING TO DETERMINE FULL SCOPE OF WORK.
- PROVIDE/MODIFY FIRE ALARM SYSTEM AS REQUIRED BY LOCAL, STATE OR FEDERAL CODES TO RECEIVE CERTIFICATE OF OCCUPANCY FOR THE PROJECT.
- PROVIDE AND INSTALL SURFACE MOUNTED FIRE EXTINGUISHERS. TYPE AND QUANTITY AND LOCATIONS SHALL BE PER LOCAL AUTHORITIES.
- A STATE LICENSED FIRE SPRINKLER AND FIRE ALARM CONTRACTOR MUST SUBMIT SHOP DRAWINGS DIRECTLY TO THE CITY FIRE DEPARTMENT FIRE MARSHAL'S OFFICE FOR REVIEW AND APPROVAL OF THE PROPOSED FIRE SPRINKLER AND ALARM SYSTEM WORK. THESE SHOP DRAWINGS MUST BE APPROVED BY THE FIRE DEPARTMENT PRIOR TO THE CONTRACTOR BEGINNING WORK. ALL WORK MUST BE IN COMPLIANCE WITH THE APPLICABLE NFPA STANDARDS AND THE INTERNATIONAL FIRE CODE.
- PRIOR TO SHUT-DOWN OF ANY EXISTING FIRE PROTECTION SYSTEM, CONTRACTOR SHALL NOTIFY OWNER OR OWNER'S APPOINTED REPRESENTATIVE 5 DAYS PRIOR TO SERVICE INTERRUPTION. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING SYSTEM TO FULL OPERATION.



Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING



PSJA ISD  
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RENOVATIONS

KEYPLAN

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

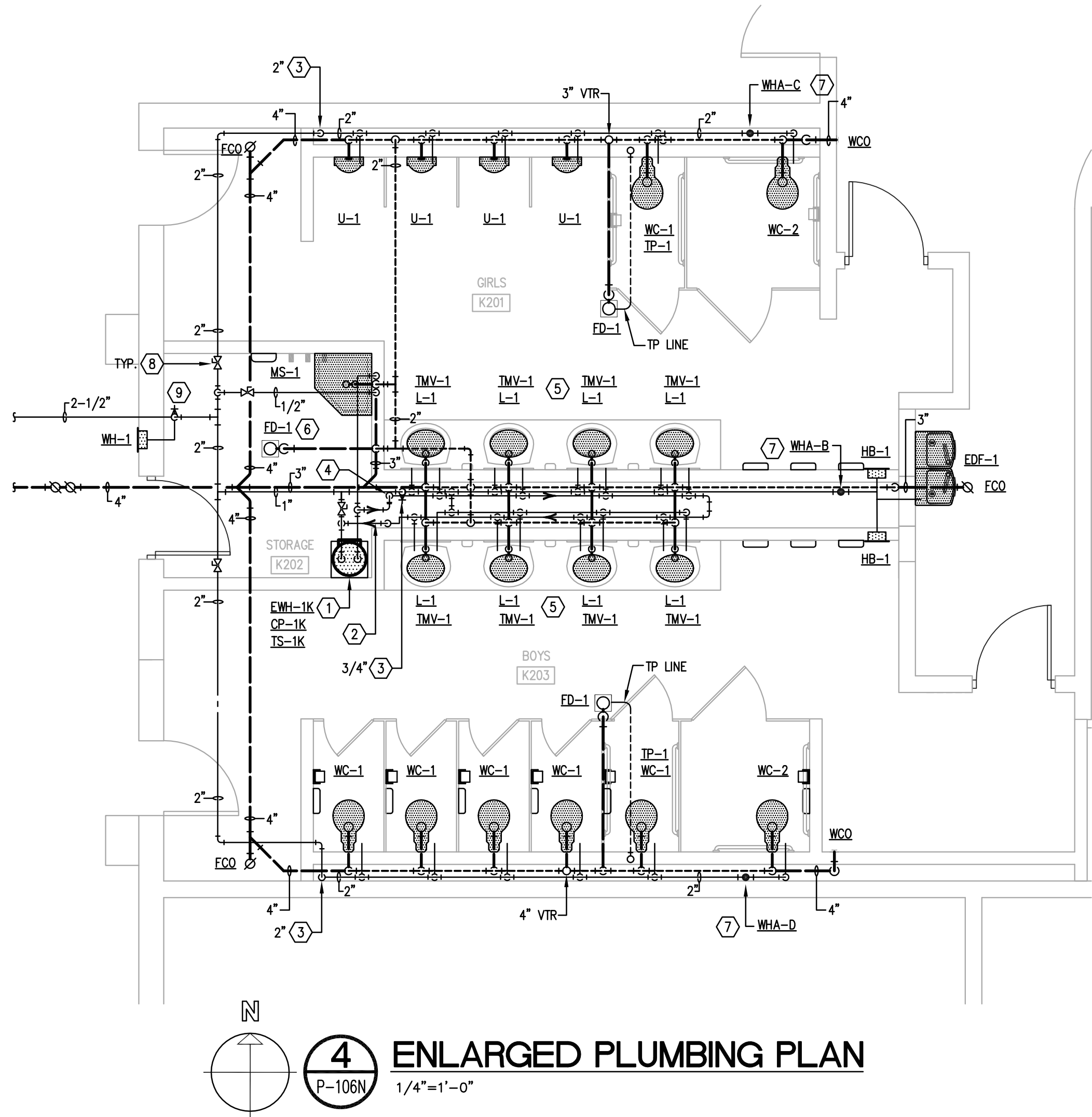
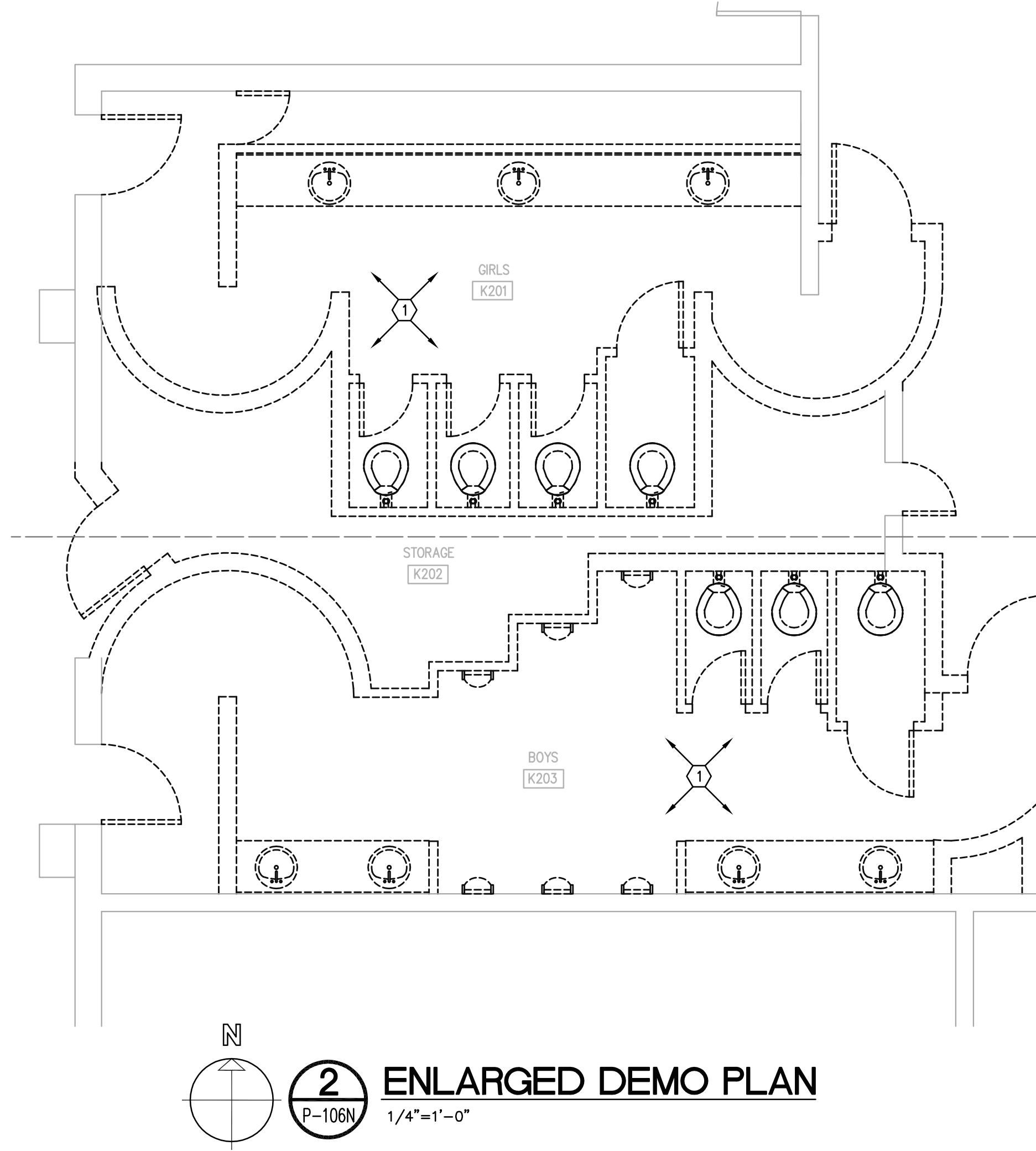
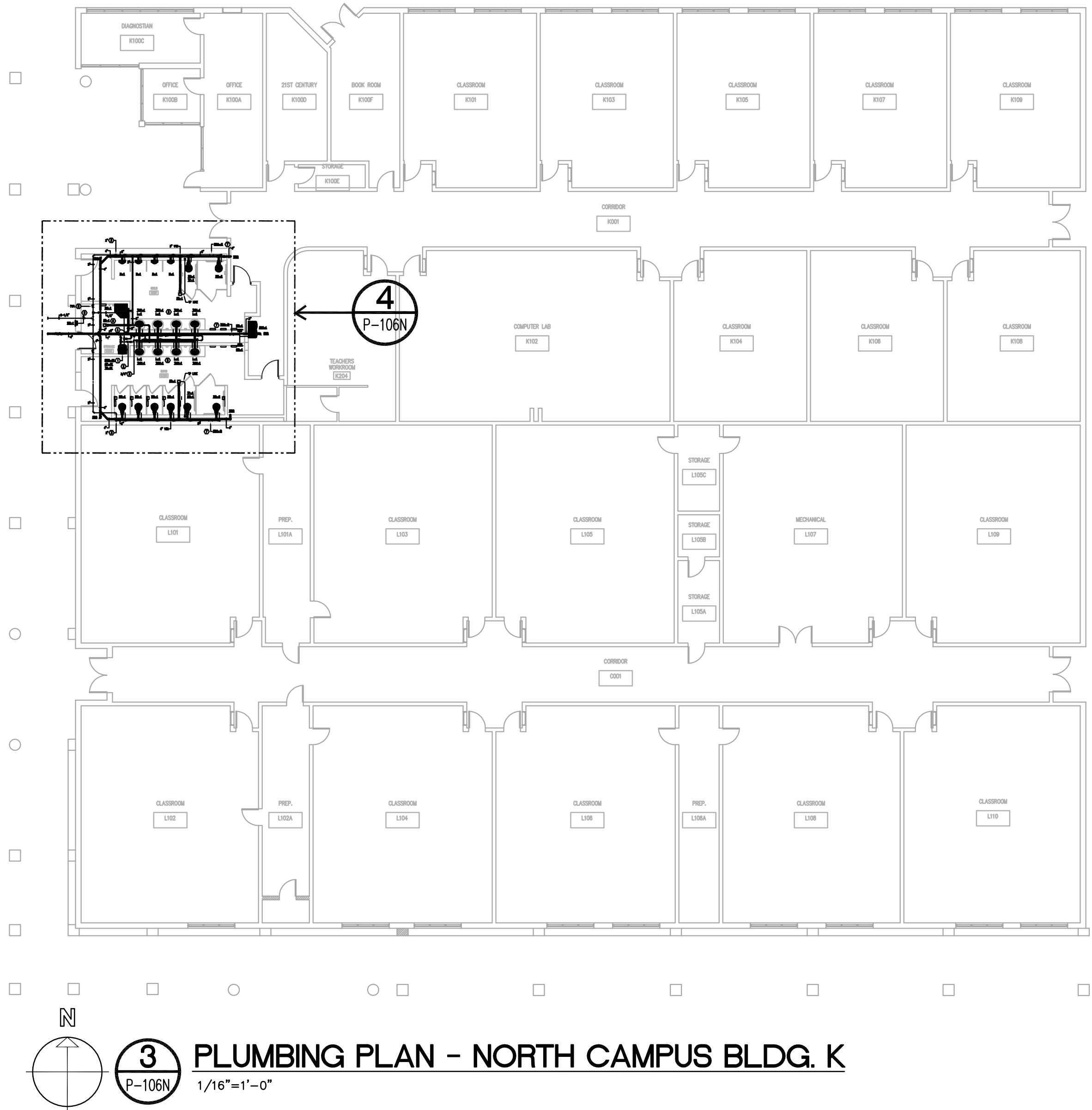
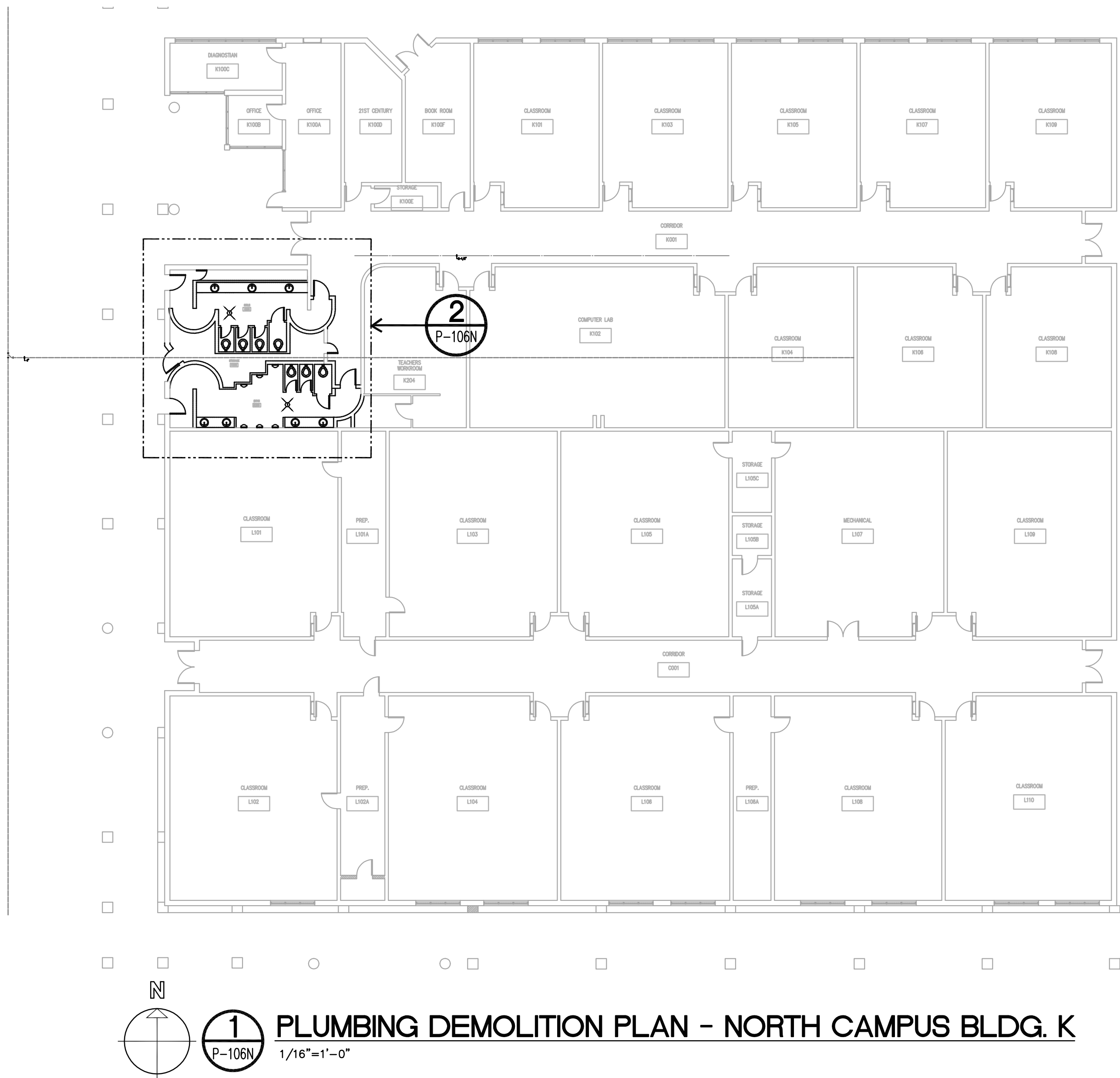
Revisions:

Sheet Title:

PLUMBING  
PLANS -  
NORTH CAMPUS  
BLDGS. A, G, H, J

P-105N





**PLUMBING DEMO KEYED NOTES:**

1 REMOVE ALL EXISTING PLUMBING FIXTURES AND PLUMBING EQUIPMENT INCLUDING ALL ASSOCIATED PLUMBING LINES AND APPLIANCES. REFER TO ARCHITECTURAL PLANS AND PLUMBING PLAN (4/P-106N) FOR NEW WORK.

**GENERAL NOTES:**

A NO EXISTING ENGINEERING PLANS WERE PROVIDED FOR THIS BUILDING. PLUMBER TO FIELD VERIFY LOCATIONS OF EXISTING UTILITIES. SITE VISIT IS REQUIRED PRIOR TO BIDDING TO DETERMINE FULL SCOPE OF WORK.

**FIRE PROTECTION NOTES:**

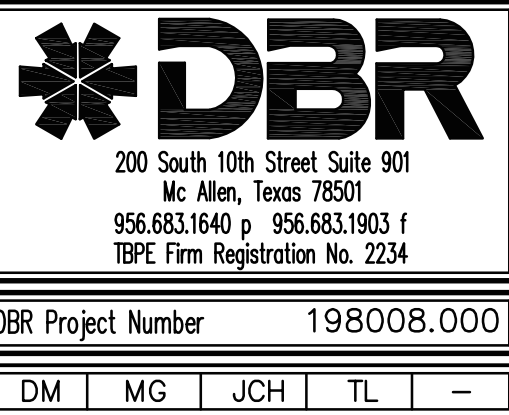
- A CONTRACTOR TO ADJUST/REWORKED LOCATIONS OF ALL AFFECTED SPRINKLER HEADS AND FIRELINES IN AREAS OF RENOVATIONS. CONTRACTOR IS RESPONSIBLE FOR TESTING AND INSPECTING EXISTING SYSTEM AND INSURE THAT ALL COMPONENTS ARE FULLY FUNCTIONING. A VISIT TO THE SITE IS REQUIRED PRIOR TO BIDDING TO DETERMINE FULL SCOPE OF WORK.
- B PROVIDE/MODIFY FIRE ALARM SYSTEM AS REQUIRED BY LOCAL, STATE OR FEDERAL CODES TO RECEIVE CERTIFICATE OF OCCUPANCY FOR THE PROJECT.
- C PROVIDE AND INSTALL SURFACE MOUNTED FIRE EXTINGUISHERS. TYPE AND QUANTITY AND LOCATIONS SHALL BE PER LOCAL AUTHORITIES.
- D A STATE LICENSED FIRE SPRINKLER AND FIRE ALARM CONTRACTOR MUST SUBMIT SHOP DRAWINGS DIRECTLY TO THE CITY FIRE DEPARTMENT FIRE MARSHAL'S OFFICE FOR REVIEW AND APPROVAL OF THE PROPOSED FIRE SPRINKLER AND ALARM SYSTEM WORK. THESE SHOP DRAWINGS MUST BE APPROVED BY THE FIRE DEPARTMENT PRIOR TO THE CONTRACTOR BEGINNING THE WORK. ALL WORK MUST BE IN COMPLIANCE WITH THE APPLICABLE NFPA STANDARDS AND THE INTERNATIONAL FIRE CODE.
- E PRIOR TO SHUT-DOWN OF ANY EXISTING FIRE PROTECTION SYSTEM, CONTRACTOR SHALL NOTIFY OWNER OR OWNER'S APPOINTED REPRESENTATIVE 5 DAYS PRIOR TO SERVICE INTERRUPTION. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING SYSTEM TO FULL OPERATION.

**NOTE:**

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**PLUMBING KEYED NOTES**

- 1 WALL HUNG ELECTRIC WATER HEATER WITH RECIRCULATION SYSTEM. RE: 16/P-402N.
- 2 3/4" HOT WATER RETURN TO CIRCULATING PUMP WITH TIMER SWITCH AND AQUASTAT; SEE DETAIL 16/P-402N.
- 3 COLD WATER DROP TO FIXTURE/S; SIZE AS NOTED. SEE PLUMBING RISER DIAGRAMS FOR CONTINUATION IN WALL OR CHASE.
- 4 HW DROP FOR SERVICE TO LAVS, SIZE AS NOTED. RUN RECIRCULATING LINE WITHIN 2 FEET OF HW ROUGH-INS FOR IECC COMPLIANCE.
- 5 PROVIDE TMV-1 (ASSE 1070 LISTED) FOR HOT WATER SUPPLY TO LAVATORY. SET AT MAX. 110°F, RE: 14/P-402N.
- 6 PROVIDE THIS FLOOR DRAIN WITH TRAPGUARD SEWER GAS PROTECTION DEVICE.
- 7 WATER HAMMER ARRESTOR. SIZE AS NOTED. PROVIDE PROPERLY SIZED WATER HAMMER ARRESTOR FOR EACH GROUP OF FIXTURES WHETHER SHOWN OR NOT ON PLANS.
- 8 BALL VALVE ABOVE CEILING. PROVIDE ACCESS PANEL WHERE LOCATED IN AN INACCESSIBLE CEILING. PANEL SHALL BE 12"X12" PAINTED TO MATCH CEILING. PROVIDE MARKING OF VALVE LOCATION ALONG THE CEILING TILE.
- 9 DOMESTIC WATER ENTRY, WITH ISOLATION VALVE ON RISER.



Consultants:

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**KEYPLAN**

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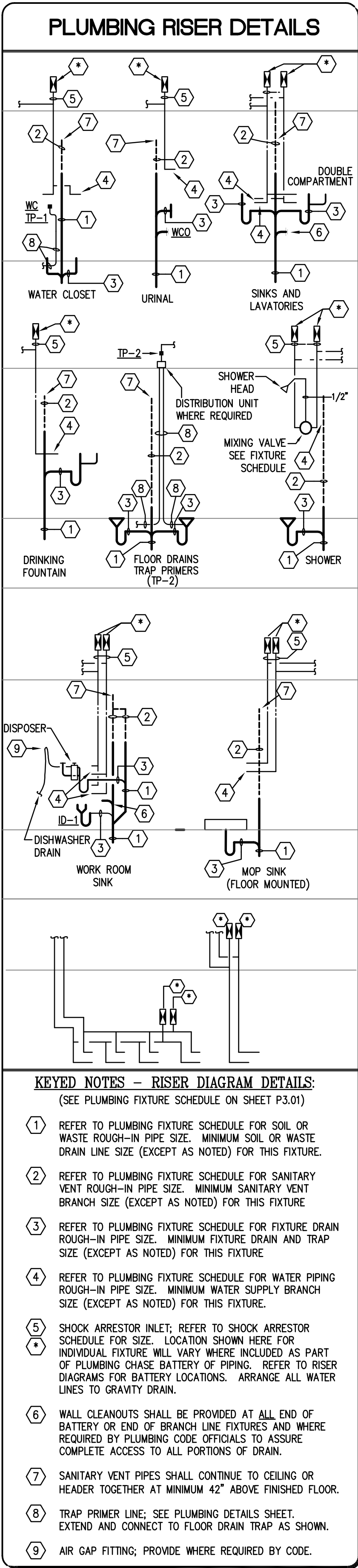
Revisions:

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**PLUMBING**  
**PLANS -**  
**NORTH CAMPUS**  
**BLDG. K**

**P-106N**





WATER HAMMER ARRESTOR SCHEDULE		
P.D.I. SYMBOL	FIXTURE UNITS	SIZE
(A)	1-11	1/2" NPT
(B)	12-32	3/4" NPT
(C)	33-60	1" NPT
(D)	61-113	1 1/4" NPT
(E)	114-154	1 1/2" NPT
(F)	155-330	2" NPT

PIPING RISER DIAGRAMS/TYPICAL RISER DETAILS ILLUSTRATE WATER HAMMER ARRESTORS FOR FIXTURE WATER PIPE OPENINGS. ALL ARRESTORS SHALL BE SIZED AS INDICATED ON DRAWINGS OR IN ACCORDANCE WITH THIS SCHEDULE, WHICHEVER PLACES THE MOST STRINGENT REQUIREMENT.

PROVIDE ARRESTORS IN ACCORDANCE WITH THE REQUIREMENTS OF PLUMBING DRAINAGE INSTITUTE (PDI) STANDARD PDI-WH-201. THE USE OF AIR CHAMBERS SHALL NOT BE ACCEPTABLE.

- GENERAL NOTES - PLUMBING FIXTURES**
- MOUNTING HEIGHT ELEVATION OF ALL WALL HUNG OR COUNTER MOUNTED FIXTURES SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS PRIOR TO INSTALLATION OF ROUGH-IN WORK.
  - FOR ALL FIXTURES AND EQUIPMENT WITH ASSOCIATED TRIM OR COMPONENT ACCESSORIES PROVIDED UNDER SEPARATE DIVISIONS AND REQUIRING PLUMBING CONNECTIONS, THIS CONTRACTOR SHALL FIELD COORDINATE EXACT REQUIREMENTS OF, MAKE PROVISIONS FOR, AND SUPPLY ALL MATERIALS AND LABOR FOR MAKING FINAL CONNECTIONS.
  - CONTRACTOR SHALL REFER TO SHOP DRAWINGS OF EQUIPMENT TO BE SUPPLIED FOR FINAL COORDINATION OF ALL ROUGH-IN OPENINGS BEFORE BEGINNING WORK.
  - ALL FIXTURE AND EQUIPMENT STUB-OUTS SHALL BE PROVIDED WITH A STOP VALVE. ALL FIXTURE STOPS SHALL BE SOLID BRASS, LOOSE KEY OPERATED, CHROME PLATED (WHERE EXPOSED), AND FITTED TIGHT TO CHROME PLATED BRASS WALL ESCUTCHEON PLATES. SUPPLY RISERS SHALL BE STAINLESS STEEL FLEXIBLE CONNECTORS.
  - ALL P-TRAPS WITHIN THE BUILDING, ABOVE GRADE AND EXPOSED TO INSPECTION SHALL BE C.P. ADJUSTABLE, CAST BRASS WITH CLEANOUT PLUG. PROVIDE CAST BRASS SLIP NUTS AND WASHERS, 17 GAGE SEAMLESS TUBULAR BRASS DRAIN TO WALL AND WALL FLANGE. PROVIDE MCGUIRE NO. 8872C, 1-1/4" P-TRAP FOR ALL LAVATORIES AND SIMILAR FIXTURES PROVIDE MCGUIRE NO. 8912C, 1-1/2" P-TRAP FOR ALL SINKS AND SIMILAR FIXTURES.
  - PROVIDE DEEP SEAL P-TRAP FOR ALL DRAINS OF INFREQUENT USE OR REQUIRING TRAP PRIMER.
  - ALL ROUGH IN OPENINGS SHALL BE FITTED WITH CHROME PLATED, WROUGHT BRASS DEEP BELL OR BOX ESCUTCHEON PLATES FITTED TIGHT TO THE PIPE AND FLUSH TO THE WALL. STEEL ESCUTCHEON PLATES ARE NOT ACCEPTED.
  - ALL EXPOSED BRASS SHALL BE CHROME PLATED.
  - ALL HANDICAPPED ACCESSIBLE FIXTURES INDICATED WITH (B) SHALL BE PROVIDED OF APPROVED TYPES AND WITH REQUIRED CONTROLS AND INSTALLED TO HEIGHTS AND CLEARANCES, AS PRESCRIBED BY AMERICANS WITH DISABILITIES ACT (ADA). FIXTURES SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL ACCESSIBILITY CODE REQUIREMENTS. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONED MOUNTING HEIGHTS AND SPECIFIED CLEARANCE REQUIREMENTS. PROVIDE FIXTURES WITH DEPTHS AT MAXIMUM PERMITTED AND AVAILABLE FOR INTENDED FIXTURE USE.
  - ALL WHEELCHAIR LAVATORY AND SINK PIPING WHERE EXPOSED SHALL BE INSULATED. PROVIDE OFFSET DRAIN FITTINGS WHERE REQUIRED TO PROVIDE MINIMUM CLEARANCES. REFER TO SPECIFICATIONS SECTION 15440.
  - ALL SINKS FOR HANDICAPPED USE SHALL BE STAMPED WITH DRAIN OUTLET AT REAR OF BOWL.
  - PLUMBING FIXTURES SHALL BE OF WATER CONSERVATION TYPE IN ACCORDANCE WITH PLUMBING CODE REQUIREMENTS FOR WATER SAVING PERFORMANCE. LAVATORY AND SINK FAUCETS SHALL INCLUDE 2.2 GPM FLOW CONTROL.
  - ORIENT ADA WATER CLOSET FLUSH VALVE WITH OPERATOR ON WIDE SIDE OF ENCLOSURE.
  - SEAL ALL SPACES BETWEEN PLUMBING FIXTURES AND MOUNTING SURFACES WITH WHITE LATEX CAULK WIPED SMOOTH AND FLUSH WITH FIXTURE.
  - FLOOR DRAINS SHALL BE INSTALLED AT LOW POINTS OF UNIFORMLY SLOPED FLOOR. CONTRACTOR SHALL FIELD COORDINATE WITH STRUCTURAL TO INSURE FLOORS ARE SLOPED UNIFORMLY ACROSS ENTIRE TOILET ROOMS OR OVER WIDE AREA AS PRACTICAL FOR OPEN AREA FLOOR DRAINS. CONVEX FLOOR SLOPE IN THE IMMEDIATE VICINITY OF THE FLOOR DRAIN IS NOT ACCEPTABLE.

- PLUMBING GENERAL PLAN NOTES**
- DRAINAGE PIPING INVERT ELEVATIONS NOTED ON FLOOR PLANS AS: INV. EL. = 0.00' BFF ARE BELOW FINISHED FLOOR TAKEN FROM FIRST FLOOR FINISHED ELEVATION OF 0.00' TO INSIDE BOTTOM OF PIPE.
  - PLUMBER SHALL FIELD VERIFY EXACT BUILDING FINISHED FLOOR ELEVATION AND THE INVERT ELEVATION OF ALL DRAIN LINES AT PROPOSED CONNECTING POINTS WITH SITE CIVIL UTILITIES PRIOR TO INSTALLATION OF BUILDING PIPING.
  - ALL PIPE PASSING THROUGH FIRE RATED WALLS OR FLOOR SLABS SHALL BE SUPPORTED AT PENETRATION AND OPENINGS SHALL BE SEALED WITH APPROVED, NON-HARDENING, FIRE STOP MATERIALS AS SPECIFIED OR REQUIRED.
  - CONTRACTOR SHALL COORDINATE WITH THE STRUCTURAL CONDITIONS AT THE SITE AND PROVIDE PROPER ROUGH-IN CONNECTIONS REQUIRED WITHOUT DAMAGE TO STRUCTURE. WHERE STRUCTURAL MODIFICATIONS ARE NECESSARY, CONTRACTOR SHALL FIRST RECEIVE WRITTEN APPROVAL OF THE ARCHITECT AND STRUCTURAL ENGINEER.
  - THIS CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD COORDINATING LOCATIONS AND ELEVATIONS OF ALL PLUMBING PIPING WITH OTHER TRADES PRIOR TO INSTALLATION. CORRECTIONS OR RELOCATIONS DUE TO MISALIGNED PIPE SHALL BE PERFORMED IN A TIMELY MANNER AT NO ADDITIONAL COST TO OWNER.
  - DO NOT SCALE THE PLUMBING DRAWINGS FOR ROUGH-IN WORK. CONTRACTOR SHALL REFER TO THE DIMENSIONED ARCHITECTURAL AND STRUCTURAL DRAWINGS TO FIELD DETERMINE EXACT LOCATIONS OF PLUMBING ROUGH-IN WORK.
  - SANITARY DRAINAGE PIPING 2" AND SMALLER SHALL HAVE A UNIFORM MINIMUM CONTINUOUS SLOPE OF 1/4 INCH PER FOOT OF RUN. DRAINAGE PIPING OF 3" SIZE AND LARGER SHALL SLOPE MINIMUM 1/8 INCH PER FOOT OF RUN. SLOPE ALL VENT PIPING MINIMUM 6" PER 100 FEET OF RUN BACK TO DRAIN.
  - STORM DRAINAGE PIPING SHALL HAVE A UNIFORM MINIMUM CONTINUOUS SLOPE OF 1/8 INCH PER FOOT OF RUN. SLOPES OF 1/4 INCH PER FOOT ARE PERMITTED WHERE NOTED ON PLAN OR AS REQUIRED.
  - PROVIDE BRACING TO PREVENT AXIAL MOVEMENT FOR ALL STORM DRAINAGE PIPING ABOVE GROUND. PROVIDE RESTRAINTS FOR ALL DRAINAGE PIPING AT ALL CHANGES IN DIRECTION AND AT ALL DIAMETER CHANGES GREATER THAN TWO PIPE SIZES. BRACKES, BLOCKS, RODDING AND OTHER PERMANENT METHODS AS PRESCRIBED BY PIPE AND COUPLING MANUFACTURER SHALL BE ACCEPTABLE.
  - PROVIDE AND INSTALL CLEANOUTS AT EACH CHANGE OF DIRECTION OF THE BUILDING SANITARY DRAIN, AT MINIMUM 75' INTERVALS ALONG STRAIGHT RUNS OF MAIN DRAIN AND BRANCHES, AT EACH HORIZONTAL CHANGE OF DIRECTION IN SOIL OR WASTE PIPES GREATER THAN 45 DEGREES, AT END OF INDIVIDUAL BRANCH DRAINS LONGER THAN 5'. PROVIDE CLEANOUTS IN ACCORD WITH INTERNATIONAL PLUMBING CODE SECTION 708.
  - PROVIDE FITTINGS FOR SANITARY DRAIN WASTE AND VENT PIPING SYSTEMS IN COMPLIANCE WITH INTERNATIONAL PLUMBING CODE SECTION 708.
  - INSTALL EACH WATER HEATER AND ALL PLUMBING EQUIPMENT WITH ADEQUATE CLEARANCES FOR ACCESS BY SERVICE PERSONNEL AND WITH PROPER ORIENTATION FOR ELEMENT REMOVALS/REPLACEMENTS.
  - PROVIDE ISOLATION VALVES FOR ALL BRANCHES OFF DOMESTIC WATER MAINS. ALL PLUMBING SYSTEM VALVES SHALL BE INSTALLED IN ACCESSIBLE CEILING SPACES, WHERE CEILING IS NOT ACCESSIBLE, OR SPACE IS CONFLICTING, VALVES SHALL BE INSTALLED IN PARTITIONS OR PIPE CHASES. PROVIDE APPROVED PAINTED STEEL HINGED ACCESS PANELS IN LOCATIONS PRE-APPROVED BY THE ARCHITECT. PROVIDE STAINLESS STEEL ACCESS DOORS FOR SHOWER, LOCKER AND LOCKER TOILET ROOM PANELS. PROVIDE MARKINGS ON CEILING TILES ON LOCATIONS OF ISOLATION VALVES.
  - THIS CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD COORDINATING LOCATIONS OF ALL SANITARY VENTS UP THROUGH ROOF TO MAINTAIN MINIMUM 15' CLEARANCE TO ANY BUILDING OUTDOOR AIR INLET.

PLUMBING PIPE MATERIALS SCHEDULE	
PIPING SYSTEM	PIPING MATERIAL
SANITARY DRAINS AND VENTS INSIDE BUILDING AND BELOW GROUND	SCHEDULE 40 PWC DWV
GREASE WASTE DRAINS AND VENTS INSIDE BUILDING AND BELOW GROUND	CAST IRON HUB AND SPIGOT
GREASE WASTE DRAINS AND VENTS INSIDE BUILDING AND ABOVE GROUND	CAST IRON NO-HUB DWV
SANITARY DRAINS AND VENTS INSIDE BUILDING AND ABOVE GROUND	CAST IRON NO-HUB DWV
SANITARY DRAINS AND VENTS INSIDE BUILDING AT PLENUM CEILING	CAST IRON NO-HUB DWV
DOMESTIC HOT & COLD WATER INSIDE BUILDING AND ABOVE GROUND	COPPER, TYPE "L" HARD DRAIN
DOMESTIC HOT & COLD WATER INSIDE BUILDING AND BELOW GROUND	COPPER, TYPE "M" SOFT ANNEALED
DOMESTIC WATER AT ENTRY	COPPER, TYPE "M" HARD DRAIN
FIRE SPRINKLER BELOW GROUND	DUCTILE IRON
FIRE SPRINKLER ABOVE GROUND - 2" AND SMALLER	BLACK STEEL SCHEDULE 40
FIRE SPRINKLER ABOVE GROUND - 2-1/2" AND LARGER	BLACK STEEL SCHEDULE 10
COMPRESSED AIR	TYPE "L" COPPER

NOTE: REFER TO SPECIFICATIONS FOR COMPLETE PIPING MATERIAL REQUIREMENTS FOR ASSOCIATED PIPING SYSTEMS.

PLUMBING FIXTURE SCHEDULE					
PLAN MARK	MINIMUM ROUGH-IN SIZES				
	WST & VENT	DRAIN	CW	HW	DESCRIPTION
WATER CLOSET WC-1	4"	2"	4"	1"	AMERICAN STANDARD NO. 3461.128 "MADERA" WHITE V.C. ELONGATED SIPHON JET FLOOR MTD. (1.28 GPF) BOWL WITH TOP SPUD, BOLT CAPS, BEMIS 1955 SSCOT WHITE OPEN FRONT SEAT, LESS COVER AND SLOAN ROYAL 111-1.28 HET FV.
WATER CLOSET WC-2 ADA	4"	2"	4"	1"	AMERICAN STANDARD NO. 3461.128 "MADERA" WHITE V.C. ELONGATED SIPHON JET FLOOR MTD. (1.28 GPF) BOWL WITH TOP SPUD, BOLT CAPS, BEMIS 1955 SSCOT WHITE OPEN FRONT SEAT, LESS COVER AND SLOAN ROYAL 111-1.28 HET FV.
URINAL U-1 U-2 ADA	2"	2"	2"	3/4"	AMERICAN STANDARD NO. 6590.125 "WASHERBROOK" WHITE V.C. LINE 0.128 GPF, WITH 3/4" TOP SPUD AND WALL HANGERS, WITH SLOAN ROYAL NO. MODEL 189-0.13 FLUSH VALVE AND WOOD OR EQUAL FLOOR MOUNTED CARRIER WITH MOUNTING RE: ARCH'L PLANS FOR MOUNTING HEIGHT.
LAVATORY-COUNTER TOP L-1	2"	1-1/2"	1-1/4"	1/2"	AMERICAN STANDARD NO. 0476.028 WHITE VC 20 X 17 OVAL SELF RIMMING FIXTURE WITH FRONT OVERFLOW AND FAUCET HOLES DRILLED ON 4" CENTERS FOR CHICAGO 802-VE2805-665ABCP METERING FAUCET & FIXED GRID DRAIN, CHROME PLATED BRASS P-TRAP, STOPS AND SUPPLIES. PROVIDE TW-1 WHERE INDICATED.
ELECTRIC DRINKING FOUNTAIN EDF-1 (B1-LEVEL)	2"	1-1/4"	1-1/4"	1/2"	ELKAY No. 1900RCL8C B1-LEVEL BARRIER-FREE, LEAD FREE WALL MOUNTED COOLER, 8.8 GPH CAPACITY COOLED TO 50° F WITH 80° F AMBIENT TEMP. 1/5 HP 0.0 FL. AMPS. WIRED FOR POWER AS SCHEDULED ON ELECTRICAL DRAWINGS. PROVIDE ZURN OR EQUAL FLOOR MOUNTED PLATE TYPE CARRIER AND TRAP AND SUPPLY. PROVIDE WITH ALL STAINLESS STEEL CABINET AND CAME APRON FOR PROJECTING UNITS. REFER TO ARCHITECT'S DRAWINGS FOR MOUNTING HEIGHT.
MOP SINK MS-1	3"	2"	3"	3/4"	FIAT TSB 100 24 X 24 X 12 WITH STAINLESS STEEL CAP AND CALLA OUTLET DRAIN WITH N.B. STRAINER. PROVIDE CHICAGO NO. 867-RSP 1" MOUNT FAUCET WITH INTEGRAL STOPS, WALL BRACE AND VACUUM BREAKER. PROVIDE 1-3/8 HOSE AND WALL BRACKET AND 1-40 STAINLESS STEEL MOP HANGER.
WALL HYDRANT WH-1	----	----	3/4"	----	WADE 8600MT RECESSED NON-FREEZE BRONZE WALL BOX, ANTI-SIPHON HYDRANT, WITH LOOSE KEY OPERATOR AND POLISHED NICKEL BRONZE LOCKING COVER. INSTALL WITH FACE FLUSH AND SQUARE TO FINISHED WALL.
HOSE BIBB HB-1 (TOILET ROOMS)	----	----	3/4"	----	WADE 8600MT RECESSED STAINLESS STEEL WALL BOX WITH COLD WATER WHEEL HANDLE VALVE, INTEGRAL STOP, VB AND HINGED LOCKING COVER STAMPED "WATER" INSTALL FLUSH AND RIGID TO FINISHED WALL AND SEAL WATERTIGHT.
WALL BOX WB-1	----	----	1/2"	----	GUY GRAY NO. BIM-875 WITH 1/2 X 1/4 O.D. TUBE, CHROME PLATED FIXTURE SUPPLY STOP. INSTALL BOX 64" AFF BEHIND FREE STANDING REFRIGERATOR WITH ICE MAKER.
TRAP PRIMER TP-1	----	----	1/2"	----	PROVIDE SLOAN NO. VBF-72-A1 FLUSH VALVE VACUUM BREAKER TRAP REFILL SUPPLY. ALL EXPOSED PIPES TO BE CHROM PLATED AND RUN SHORT AS POSSIBLE TO WALL. CONCEALED DRAIN TUBING SHALL BE 1/2" TYPE "K" SOFT COPPER SLOPING UNIFORMLY TO DRAIN WRAPPED IN CONTINUOUS PLASTIC SLEEVE.
FLOOR DRAIN FD-1	3"	2"	----	----	ZURN NO. ZN-415 CAST IRON DRAIN WITH 6" DIAMETER TYPE "B" STRAINER AND 1/2" IPS TRAP PRIMER CONNECTION. (PLUGGED WHERE NOT REQUIRED)
FLOOR DRAIN FD-2	3"	2"	----	----	ZURN Z4151 WITH TYPE "1" CAST IRON DRAIN WITH 7" DIA. DEEP FLANGE GRATE, W/ ACID RESISTANT EPOXY COATED INTERIOR, RECESSED HINGED GRATE. PROVIDE TRAP GUARD.
WALL CLEAN-OUT WCO	----	----	----	----	ZURN NO. ZN-1443 DURO-COATED CAST IRON CLEANOUT TEE WITH COUNTER-SUNK GASKET, WATERTIGHT THREADED PLUG AND SQUARE SMOOTH ACCESS COVER WITH VANDAL PROOF SCREWS.
FLOOR CLEAN-OUT FCO	----	----	----	----	ZURN NO. ZN-1400 DURO-COATED CAST IRON CLEANOUT WITH COUNTER-SUNK PLUG AND SUITED FOR THE INSTALLATION REQUIRED. VERIFY TOP FINISHES WITH ARCHITECT.
YARD CLEAN-OUT YCO	----	----	----	----	ZURN NO. Z-1402 DURO-COATED CAST IRON CLEANOUT WITH COUNTER-SUNK PLUG AND SUITED FOR THE INSTALLATION REQUIRED. VERIFY TOP FINISHES WITH ARCHITECT.
ELECTRIC WATER HEATER EWH-1S, 1N, 1P, 1V, 1E 1A, 1G, 1H, 1J, 1K	----	----	----	SEE PLAN	RHEEM EGSP15, 15 GALLON STORAGE WITH 2 KW ELEMENTS WIRED FOR 208 V, 1 PH. POWER. VERIFY WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING EQUIPMENT. UNIT SHALL HAVE CAPACITY OF 14 GPH RECOVERY AT 60°F. TEMPERATURE RISE PROVIDE ASME TEMPERATURE AND PRESSURE RELIEF VALVE AND THERMOMETER IN HW OUTLET PIPING. W/AMTROL ST-5-C XPN TANK.
CIRCULATING PUMP CP-1S, 1N, 1P, 1V, 1E 1A, 1G, 1H, 1J, 1K	----	----	3/4"	----	GRUNDFOS MODEL UP15-42SF ALL BRONZE, FLANGED PUMP, 1/25 HP WIRED FOR 120/60/1 POWER AND FITTED WITH REMOTE HEAT SENSING ADJUSTAT CONTROLLER AND SHUT-OFF TIMER TS-1.
TIME SWITCH TS-1 (ALL TS)	----	----	----	----	TORK ELECTROMECHANICAL 24 HOUR TIME SWITCH POWERED BY A SELF STARTING SYNCHRONOUS MOTOR. INSTALL ON WALL ADJACENT TO CIRCULATING PUMPS. COORDINATE WITH ELECTRICAL AND PROVIDE FOR 120V/1/60 POWER REQUIREMENT.
THERMOSTATIC MIXING VALVE TMW-1	----	----	1/2"	1/2"	POWERS NO. LF480 ADJUSTABLE POINT-OF-USE THERMOSTATIC MIXING VALVE, ASSE 1070 WITH INLET CHECK STOPS TO LIMIT HOT WATER TEMPERATURE TO MAXIMUM 105° F AT FAUCET OUTLET, SUPPLY ON TO MIXING VALVE FROM CW RISER TO FAUCET. INSTALL BELOW FIXTURE AND HIGH AS POSSIBLE TO PROVIDE NEAT AND CLEAN APPEARANCE.

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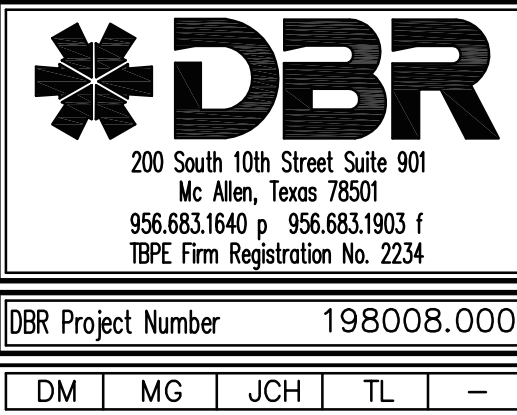
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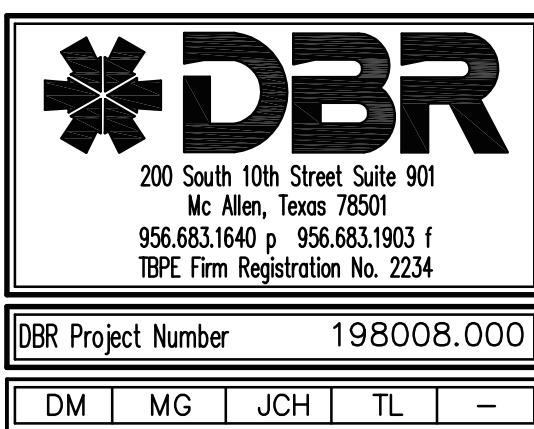
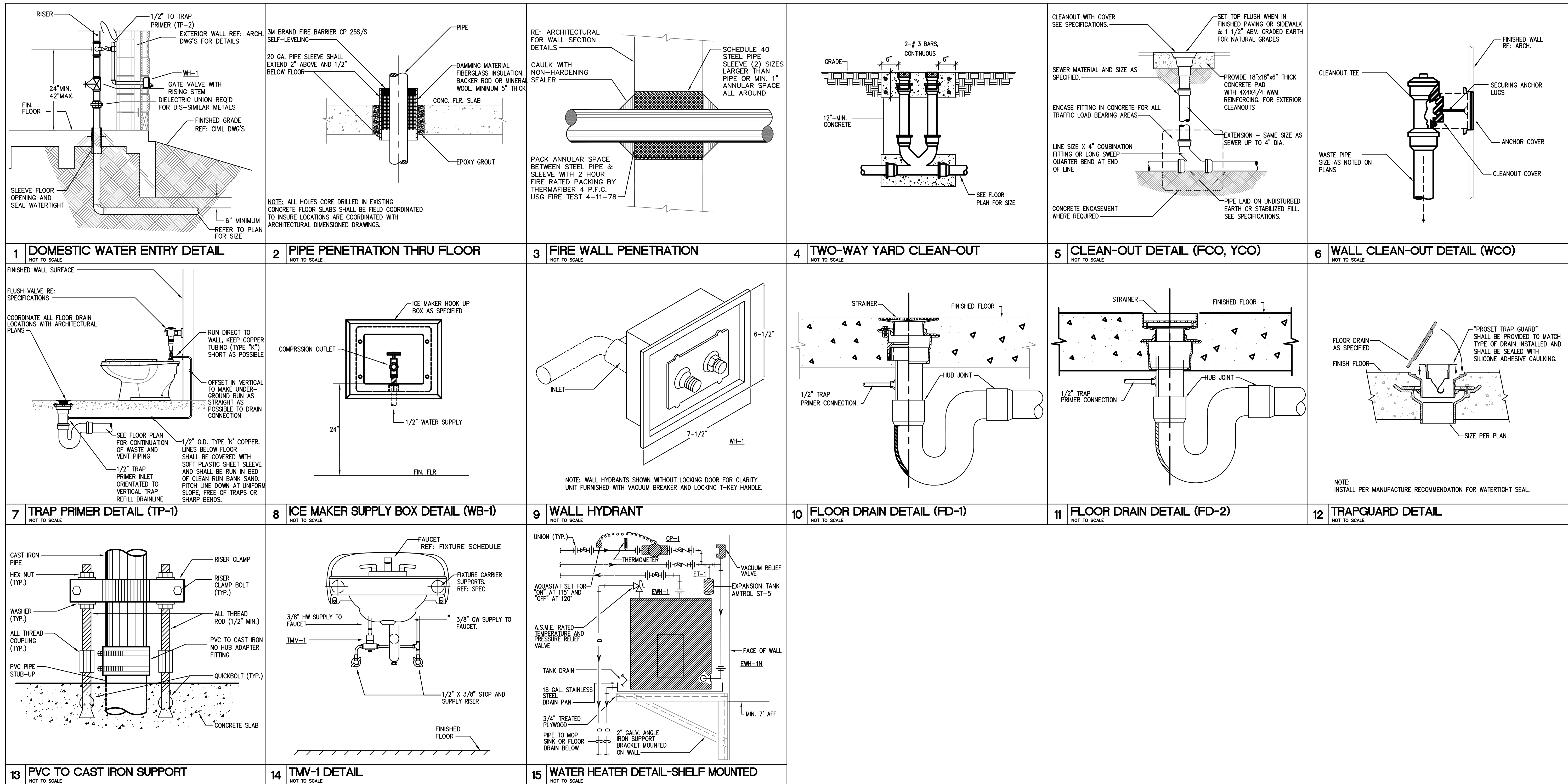
**PLUMBING**  
**SCHEDULES**



**P-401N**



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PLUMBING  
DETAILS

P-402N



GENERAL STRUCTURAL NOTES

THESE GENERAL NOTES SHALL APPLY UNLESS OTHERWISE SPECIFICALLY NOTED ON PLANS OR DETAILS. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SHALL COORDINATE ALL STRUCTURAL PLANS AND DETAILS WITH ARCHITECTURAL & MECHANICAL DRAWINGS BEFORE STARTING WORK. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR CONTRACTOR MEANS AND METHODS OF CONSTRUCTION OR SITE SAFETY, DESIGN, CONSTRUCTION, WORKMANSHIP AND MATERIALS SHALL COMPLY WITH THE CONTROLLING PROVISIONS OF THE 2012 EDITION OF THE **INTERNATIONAL BUILDING CODE (IBC)**.

**DESIGN CRITERIA**

1. BASIS FOR DESIGN AND CODE COMPLIANCE

A. GOVERNING BUILDING CODE.....IBC 2012 EDITION

**CONSTRUCTION NOTES ON THE REPAIR WORKS ON EXISTING STRUCTURE**

1. BEFORE PROCEEDING WITH ANY WORK WITHIN THE EXISTING FACILITY, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH EXISTING STRUCTURAL AND OTHER CONDITIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL NECESSARY BRACING, SHORING AND OTHER SAFEGUARDS TO MAINTAIN ALL PARTS OF THE EXISTING WORK IN A SAFE CONDITION DURING THE PROCESS OF DEMOLITION AND CONSTRUCTION AND TO PROTECT FROM DAMAGE THOSE PORTIONS OF THE EXISTING WORK WHICH ARE TO REMAIN.

2. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS, ELEVATIONS, ETC. NECESSARY FOR THE PROPER CONSTRUCTION AND ALIGNMENT OF THE NEW PORTIONS OF THE WORK TO THE EXISTING WORK. THE CONTRACTOR SHALL MAKE ALL MEASUREMENTS NECESSARY FOR FABRICATION AND ERECTION OF STRUCTURAL MEMBERS. ANY DISCREPANCY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.

3. WELDING TO AND WITHIN AN EXISTING FACILITY PRESENTS POTENTIAL HAZARDS INCLUDING:

A. FIRE HAZARD – DUE TO THE EXISTING CONSTRUCTION AND BUILDING CONTENTS.

B. STRUCTURAL LIQUEFACTION – DUE TO WELDING ACROSS THE FULL SECTION OF STRUCTURAL STEEL MEMBERS. RECOMMENDATIONS TO PREVENT THESE HAZARDS INCLUDE.

A. FIRE HAZARD – PROTECT EXISTING COMBUSTIBLES PRIOR TO WELDING. KEEP A SEPARATE WATCHMAN AND SEVERAL FIRE EXTINGUISHERS ON HAND.

B. STRUCTURAL LIQUEFACTION – WELD IN SMALL INCREMENTS. ALLOW WELDS TO HARDEN BEFORE CONTINUING TO THE NEXT INCREMENT.

C. DO NOT LEAVE THE SITE UNTIL SATISFIED THAT NO FIRE HAZARD EXISTS.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND ERECTION OF ALL SHORING NECESSARY TO SAFEGUARD THE EXISTING STRUCTURE.

**EXISTING CONDITIONS**

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS. DIMENSIONS SHOWN ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL OBTAIN ALL FIELD MEASUREMENTS AS NECESSARY TO COORDINATE NEW CONSTRUCTION TO EXISTING CONDITIONS.

2. IF EXISTING CONDITIONS DIFFER FROM THE DRAWINGS, INFORM THE ENGINEER AND ADDITIONAL DETAILS OR INTERPRETATION WILL BE PROVIDED. DO NOT PROCEED WITHOUT VERIFICATION.

3. THE CONTRACTOR SHALL VISIT THE SITE OF THE PROPOSED WORK AND FULLY ACQUANT THEMSELVES WITH THE EXISTING CONDITIONS.

**DEMOLITION NOTES**

1. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING STRUCTURE AND SURROUNDING BUILDINGS DURING CONSTRUCTION.

2. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY WATERTIGHTNESS OF THE BUILDING DURING DEMOLITION AND RECONSTRUCTION.

3. GENERAL CONTRACTOR SHALL COORDINATE WITH ENGINEER ITEMS THAT ARE UNCLER PRIOR TO ANY DEMOLITION.

4. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE PROJECT SITE TO DETERMINE DEMOLITION REQUIREMENTS AT THIS PROJECT. CONTRACTOR SHALL INCLUDE IN THEIR BID ALL THE DEMOLITION REQUIREMENTS TO COMPLETE THIS PROJECT.

5. GENERAL CONTRACTOR SHALL LOCATE AND LABEL ALL UTILITIES BEFORE COMMENCEMENT OF DEMOLITION & CONSTRUCTION ACTIVITIES. UTILITIES SHALL BE CLEARLY MARKED SO THAT ANY SUBCONTRACTOR VISITING THIS SITE CAN EASILY IDENTIFY UTILITIES. ANY COSTS TO REPAIR DAMAGES IF UTILITIES ARE NOT PROPERLY IDENTIFIED, ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

6. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING DEBRIS & MATERIAL AWAY FROM SITE ACCORDING TO GOVERNING LOCAL, STATE OR FEDERAL REGULATIONS.

7. ANY AREA DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.

**PENETRATIONS**

1. PENETRATIONS THROUGH EXISTING ELEMENTS SHALL COMPLY WITH THE DRAWINGS AND SPECIFICATIONS.

2. DO NOT CUT JOISTS, BEAMS OR COLUMNS WITHOUT PRIOR APPROVAL.

3. PENETRATIONS THROUGH LOAD-BEARING ELEMENTS SHALL BE TEMPORARILY SHORED TO PREVENT COLLAPSE, AS SPECIFIED BELOW.

**TEMPORARY BRACING, FALSEWORK AND FORMWORK**

1. CONTRACTOR SHALL PROVIDE ENGINEERED SHORING PLAN PRIOR TO START OF ROOF COLUMN DEMOLITION. SHORING PLAN SHALL BE SIGNED AND SEALED BY A STATE OF TEXAS PROFESSIONAL ENGINEER.

2. THE DESIGN, ENGINEERING, FABRICATION, CONSTRUCTION, ERECTION, REMOVAL AND OVERALL SAFETY OF ALL TEMPORARY SUPPORTS SUCH AS FALSEWORK, FORMWORK, SHORES AND BRACING REQUIRED FOR THE EXECUTION OF THE CONTRACT ARE NOT INCLUDED IN THE DRAWINGS AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

3. THE ENGINEER'S EFFORTS ARE AIMED AT DESIGNING A PROJECT WHICH WILL BE SAFE AFTER FULL COMPLETION. THE ENGINEER HAS NO EXPERIENCE IN, AND TAKES NO RESPONSIBILITY FOR, CONSTRUCTION MEANS AND METHODS OR JOB SITE SAFETY DURING CONSTRUCTION. SAFETY IS EXCLUSIVELY THE CONTRACTOR'S RESPONSIBILITY. PROCESSING AND/OR APPROVING SUBMITTALS MADE BY CONTRACTOR WHICH MAY CONTAIN INFORMATION RELATED TO SHORING, CONSTRUCTION METHODS OR SAFETY ISSUES, OR PARTICIPATION IN MEETINGS WHERE SUCH ISSUES MIGHT BE DISCUSSED, MUST NOT BE CONSTRUED AS VOLUNTARY ASSUMPTION BY ENGINEER OF ANY RESPONSIBILITY FOR THESE SAFETY PROCEDURES.

**SAFETY**

1. PERFORM ALL WORK IN A SAFE AND CONSCIENTIOUS MANNER TO PREVENT INJURIES.

2. CONTRACTOR SHALL MAINTAIN OSHA STANDARDS FOR JOB SAFETY AND WORKER PROTECTION, INCLUDING, BUT NOT LIMITED TO ADEQUATE PROTECTION, BARRICADES, SIGNS, ETC.

3. THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR SAFETY. THE ENGINEER EXPRESSLY EXCLUDES ANY RESPONSIBILITY FOR CONTRACTOR SAFETY OR SAFETY OF JOBSITE.

**HAZARDOUS MATERIALS ABATEMENT/ MANAGEMENT**

1. THE ENGINEER HAS NO RESPONSIBILITY OR LIABILITY FOR DESIGN, REMOVAL OF, OR TESTING FOR ASBESTOS/LEAD, OR FOR ABATEMENT /MANAGERIAL TREATMENTS, MONITORING, AND LEGAL DISPOSAL OF MATERIALS. CONTRACTOR SHALL DETERMINE IF ANY HAZARDOUS MATERIAL ABATEMENT/ MANAGEMENT IS REQUIRED AND SHALL INCLUDE COSTS THEREOF IN THE BID.

**CONCRETE**

1. ALL CONCRETE WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE SPECIFICATION, A.C.I. #301 AND BUILDING CODE REQUIREMENTS, A.C.I. #318, LATEST EDITION.

2. ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, UNLESS OTHERWISE NOTED, MUST FOLLOW THE A.C.I. "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE", A.C.I. #315, LATEST EDITION.

3. CONCRETE SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 3,000 PSI AT 28 DAYS.

4. A MAXIMUM OF 25% FLYASH MAY BE USED AS A CEMENT SUBSTITUTE AND SHALL CONFORM TO ASTM C618, CLASS C. THE WATER/CEMENT RATIO SHALL NOT EXCEED 0.6 AND SLUMPS SHALL BE 5 INCHES (±1 INCH). AGGREGATE SHALL BE WELL-GRADED, 1" MAXIMUM FOR THE SLAB ON GRADE. COARSE AGGREGATE SHALL MEET ASTM C33, GRADATION #57. A QUALIFIED TESTING LABORATORY SHALL BE RETAINED TO FURNISH MIX DESIGNS FOR ALL CLASSES OF CONCRETE. A SAMPLE OF FOUR CYLINDERS SHALL BE TAKEN NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE FOR EACH 100 YD3 OF CONCRETE. ONE CYLINDER SHALL BE TESTED AT 7 DAYS AND TWO AT 28 DAYS. THE FOURTH CYLINDER MAY BE DISPOSED OF AFTER 45 DAYS IF NOT USED. DO NOT USE AIR ENTRAINED CONCRETE FOR STEEL TROWELED FINISHED CONCRETE.

5. ADMIXTURES CONTAINING WATER SOLUBLE CHLORIDE IONS GREATER THAN 0.06% BY WEIGHT OF CEMENT SHALL NOT BE USED.

6. REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A-615, GRADE 60. #3 BARS MAY BE GRADE 44.

7. STANDARD PROTECTIVE COVER OF REINFORCING BARS UNLESS OTHERWISE NOTED SHALL BE:

WHERE CAST AGAINST DIRT OR FILL ..... 3 IN.

EXPOSED TO EARTH OR WEATHER ..... 2 IN.

SLABS AND WALLS ..... 1 IN.

OTHER ..... 1-1/2 IN.

8. ALL ACCESSORIES SHALL BE IN ACCORDANCE WITH THE A.C.I. "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE", A.C.I. #315, LATEST EDITION.

9. SLAB MAT TO BE SUPPORTED BY MASONRY BATTS OR CHAIRS (MIN OF 1/2 BRICK) SPACED AT 4 FEET ON CENTER EACH WAY (MAX). BEAM CAGES SUPPORTED BY BATTS AT 4 FEET ON CENTER.

CONCRETE CONTINUED:

10. INCLUDE AN ALLOWANCE FOR **2.0 TON** OF REINFORCING BARS TO BE USED AS DIRECTED IN FIELD FOR SPECIAL CONDITIONS AT A COST OF **\$2,000.00 PER TON** (LABOR FOR PLACING SAME TO BE INCLUDED).
11. MAINTAIN A MINIMUM OF ONE AND ONE-HALF (1-1/2) TIMES THE MAXIMUM COARSE AGGREGATE SIZE BETWEEN ALL REINFORCING BARS (EXCEPT AT LAPS).
12. BARS SCHEDULED OR DETAILED "CONT" SHALL BE LAPPED 40 BAR DIAMETERS (24 INCHES MINIMUM) UNLESS OTHERWISE NOTED.
13. CONCRETE MAY BE PLACED WITH CHUTES UP TO 25' MAXIMUM. SLUMP SHALL NOT EXCEED 6" AT TRUCK DISCHARGE POINT.
14. CONCRETE PLACED BY PUMPING SHALL MEET THE FOLLOWING REQUIREMENTS:
- A. COARSE AGGREGATE SHALL BE GRADED FROM A MAXIMUM OF 1" DOWN
- B. MAXIMUM ALLOWABLE INCREASE IN CEMENT FACTOR SHALL BE 1/2 SACK PER CUBIC YARD OVER NORMAL MIX DESIGN.
- C. MAXIMUM WATER CEMENT RATIO SHALL BE 7-1/2 GALLONS PER SACK OF CEMENT. IF MORE WORKABILITY IS REQUIRED, AN ADMIXTURE MAY BE USED.
- D. MAXIMUM WEIGHT RATIO OF FINE AGGREGATES TO COARSE AGGREGATES SHALL NOT EXCEED 2/3.
- E. REFER TO A.C.I. #301, LATEST EDITION, SECTION 800, FOR OTHER PUMPING REQUIREMENTS.
- F. IN NO CASE SHALL CONCRETE BE PUMPED THROUGH AN ALUMINUM TUBE.
- G. SLUMP SHALL NOT EXCEED 6" AT TRUCK DISCHARGE POINT.
15. FLOOR FINISH (TOLERANCES)
- A. STEEL TROWEL FINISH 1/8" IN 10'
- B. FLOAT FINISH 1/4" IN 10'
- C. SCRATCH FINISH 1/2" IN 10'
16. CONCRETE TO BE CURED IN ACCORDANCE WITH ACI RECOMMENDATIONS. PROPOSED METHOD OF CURING TO BE COORDINATED WITH ENGINEER PRIOR TO CONCRETE PLACEMENT.
17. SHOP DRAWINGS SHALL BE PREPARED FOR ALL REINFORCING STEEL AND SUBMITTED FOR REVIEW BY ENGINEER. SUBMITTALS SHALL INCLUDE ELECTRONIC (PDF) COPIES OF EACH DRAWING. ENGINEERING DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS.
18. THE CONTRACTOR SHALL REVIEW AND ANNOTATE SHOP DRAWING BEFORE SUBMITTING THEM TO THE ARCHITECT / ENGINEER FOR REVIEW. THE CONTRACTOR SHALL ALLOW ARCHITECT / ENGINEER 10 WORKING DAYS FOR REVIEW OF SHOP DRAWINGS.
19. ENGINEER TO BE NOTIFIED 48 HOURS PRIOR TO PLACEMENT OF FOUNDATION AND OF STRUCTURAL CONCRETE SCHEDULE REQUIRED OBSERVATIONS.

CONCRETE MASONRY

1. **THE GENERAL CONTRACTOR, PROJECT SUPERINTENDENT, TESTING LABORATORY AND THE MASONRY FOREMAN** SHALL MEET WITH THE STRUCTURAL ENGINEER PRIOR TO THE START OF MASONRY WORK TO REVIEW PROJECT REQUIREMENTS AND PROCEDURES.
2. AN INDEPENDENT TESTING LAB SHALL VERIFY PLACEMENT OF VERTICAL REINFORCING IN WALLS AND HORIZONTAL REINFORCING IN BOND BEAMS AND LINTELS PRIOR TO PLACEMENT OF GROUT. INDEPENDENT TESTING LAB SHALL PROVIDE CONTINUOUS VISUAL OBSERVATIONS OF GROUTING PROCEDURES, REBAR PLACEMENT, SITE MIXING OF MORTAR, INSTALLATION OF EMBEDDED STEEL CONNECTORS, AND GENERAL PLACEMENT OF MASONRY UNITS AND MORTAR JOINTS. INSPECTION REPORTS ARE TO BE GENERATED DAILY BY THE TESTING LAB. INSPECTION SUMMARY REPORTS SHALL BE EMAILED TO THE STRUCTURAL ENGINEER IN ELECTRONIC (PDF) FORMAT.
3. ALL CONCRETE MASONRY SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL BUILDING CODES AND THE AMERICAN CONCRETE INSTITUTE (ACI 530-02/ ASCE 9-02/ TMS 402-02). DESIGN IS BASED ON MASONRY COMPRESSIVE STRENGTH (f'm) OF 2,150 PSI.
4. HOT AND COLD WEATHER CONSTRUCTION PROCEDURES SHALL BE UTILIZED AS REQUIRED BY THE SPECIFICATIONS AND ACI 530.1.
5. HOLLOW CONCRETE MASONRY UNITS SHALL BE DOMESTIC LIGHTWEIGHT MOISTURE CONTROLLED TYPE I UNITS, CONFORMING TO ASTM C-90-97.
6. MASONRY UNITS SHALL HAVE A MINIMUM AVERAGE COMPRESSIVE STRENGTH OF 1,900 PSI (NET AREA) WHEN TESTED IN ACCORDANCE WITH ASTM C-140, "METHODS OF SAMPLING AND TESTING CONCRETE MASONRY UNITS".
7. MORTAR PROPORTIONS FOR REINFORCED MASONRY SHALL BE ESTABLISHED PER ASTM C270 PROPORTION SPECIFICATIONS, TYPE S USING MASONRY CEMENT. FIELD TESTS OF MORTAR SHALL BE PERFORMED BY A QUALIFIED TESTING LABORATORY IN ACCORDANCE WITH ASTM C780 AT A RATE OF ONE TEST PER 2,000 SF OF WALL SURFACE TO DETERMINE BATCH-TO-BATCH UNIFORMITY OF MORTAR. REFERENCE SPECIFICATIONS FOR NON REINFORCED MASONRY.
8. GROUT FOR ALL REINFORCED HOLLOW MASONRY UNIT WALLS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI WITH A MAXIMUM 3/8" AGGREGATE, A MID RANGE WATER REDUCING AGENT SUCH AS "POLYHED" (MASTER BUILDERS) SHALL BE USED. SLUMP TO BE BETWEEN 8 AND 11 INCHES. **ALL GROUT SHALL BE PUMPED**. PLACING OF GROUT TO FOLLOW AMERICAN CONCRETE INSTITUTE (ACI) RECOMMENDATIONS REGARDING **LOW & HIGH LIFT GROUTING** MAXIMUM LIFT OF GROUT SHALL NOT EXCEED 5'-0" UNLESS APPROVED BY THE ENGINEER PRIOR TO START OF GROUTING. GROUT TO BE TESTED BY A QUALIFIED TESTING LABORATORY AT A RATE OF ONE TEST PER 25 CY OF GROUT IN ACCORDANCE WITH ASTM C1019.
9. REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60. ALL BAR REINFORCING SHALL BE LAPPED 48 BAR DIAMETERS (MIN). BARS SHALL BE PLACED IN CENTERLINE OF BAR TO FACE OF MASONRY) OF LOCATION SHOWN IN STRUCTURAL PLANS. BARS SHALL BE HELD IN POSITION DURING GROUTING WITH BAR POSITIONERS. POSITIONERS SHALL BE LOCATED AT THE BOTTOM AND TOP OF THE WALL AND AT 8 TO 10 FOOT INTERVALS. BARS SPICED BY NON-CONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN ONE-FIFTH THE REQUIRED LENGTH OF LAP NOR MORE THAN 8 INCHES.
10. VERTICAL BARS SHALL EXTEND TO THE TOP OF THE PARAPET WALL OR BOND BEAM WHEN A 16" DEEP BEAM IS SPECIFIED. HOOKED DOWELS SHALL BE PROVIDED AT ROOF BOND BEAMS (w/o PARAPETS) LESS THAN 16" DEEP. DOWELS SHALL BE 30" LONG WITH 12" HOOKS.
11. ALL EXTERIOR MASONRY WALLS SHALL BE REINFORCED WITH 9 GA. HOT DIPPED GALVANIZED HORIZONTAL WIRE REINFORCEMENT (LADDER TYPE) EMBEDDED IN MORTAR JOINTS AT 16" O.C. NOMINAL WIDTH OF JOINT REINFORCING SHALL EQUAL WALL THICKNESS. (INTERIOR WALLS MAY BE MILL GALVANIZED). WIRE REINFORCEMENT SHALL CONFORM TO ASTM DESIGNATION A-82, AND SHALL BE LAPPED AT LEAST 8" WITH AT LEAST ONE CROSS WIRE WITHIN THE LAP. JOINT REINFORCEMENT SHALL BE INSTALLED IN THE FIRST AND SECOND MORTAR BED JOINTS IMMEDIATELY ABOVE AND BELOW ALL OPENINGS. WIRE REINFORCING SHALL BE DISCONTINUOUS AT CONTROL JOINTS.
12. EXTERIOR WALLS SHALL BE BONDED WITH CONCRETE MASONRY UNITS AT BUILDING CORNERS.
13. ONE GROUTED #5 BAR SHALL BE PROVIDED AROUND THE PERIMETER OF ALL WALL OPENINGS AND AT BUILDING CORNERS UNLESS NOTED OTHERWISE ON THE STRUCTURAL PLANS.
14. NEATLY TOOL INTERIOR AND EXTERIOR JOINTS IN MASONRY TO FORM A SLIGHTLY CONCAVE PROFILE WHEN MORTAR IS THUMBPRINT HARD UNLESS SHOWN OTHERWISE. ALL MORTAR JOINTS SHALL BE TOOLED THE ENTIRE HEIGHT OF WALL.
15. BOND BEAMS SHALL BE REINFORCED WITH TWO CONTINUOUS #5 BARS UNLESS NOTED OTHERWISE ON THE STRUCTURAL PLANS. REINFORCING SHALL BE CONTINUOUS AT ALL CORNERS AND INTERSECTING WALLS. (PROVIDE CORNER BARS). WHERE SIDE WALL AND END WALL BOND BEAMS DO NOT COURSE CONTINUE THE LOWER BOND BEAM AROUND THE BUILDING CORNER TO THE FIRST VERTICAL REINFORCED CELL.
16. CONTROL JOINTS SHALL BE CONSTRUCTED WITH SLOTTED MASONRY UNITS AND FACTORY MOLDED JOINT FILLER. JOINTS SHALL BE CAULKED WITH AN APPROVED MATERIAL. JOINTS SHALL BE PROVIDED AT MAXIMUM SPACING OF 22 FT. AND AT ALL LOCATIONS WHERE COLUMNS ARE PLACED IN CMU CELLS. (EXTERIOR AND INTERIOR WALLS). JOINT LOCATIONS, IF NOT SHOWN ON PLANS, SHALL BE COORDINATED WITH ARCHITECT.
17. CONTROL JOINTS **SHALL NOT** EXTEND THROUGH BOND BEAMS UNLESS INDICATED ON THE STRUCTURAL PLANS.
18. CONTROL JOINTS IN CMU WALLS SHALL NOT BE LOCATED CLOSER THAN 2'-0" FROM AN EDGE OF OPENING WITHOUT REVIEW OF STRUCTURAL ENGINEER.
19. COLUMNS WHICH EXTEND THROUGH BOND BEAMS SHALL BE WRAPPED WITH 2 LAYERS OF 30# BUILDING PAPER. REINFORCING SHALL BE CONTINUOUS PAST COLUMNS WHEN ADEQUATE CLEARANCE EXISTS.
20. LINTELS OVER ALL OPENINGS IN INTERIOR MASONRY PARTITIONS, NOT OTHERWISE COVERED, ARE TO BE OF STANDARD CMU LINTEL BLOCK WITH WALL THICKNESS. DEPTH SHALL BE 8" FOR OPENINGS UP TO 6'-0", REINFORCED WITH TWO #5's, LOCATED 2-1/2" ABOVE THE BOTTOM EXTERIOR FACE OF THE UNIT.
21. INCLUDE IN BID AN ALLOWANCE OF **2.0 TON** OF REINFORCING BARS TO BE USED AS DIRECTED IN FIELD FOR SPECIAL CONDITIONS AT A COST OF **\$2,000.00 PER TON** (LABOR AND GROUT FOR PLACING SAME TO BE INCLUDED). ANY UNUSED ALLOWANCE WILL BE CREDITED TO THE OWNER AT THE END OF THE PROJECT.

STRUCTURAL STEEL

1. TOP OF BEAM/PLATE (TOB OR TOP) IS USED INTERCHANGEABLY ON PLANS. REFERENCE APPLICABLE SECTION FOR CLARIFICATION.
2. STRUCTURAL STEEL WIDE FLANGE MEMBERS SHALL CONFORM TO ASTM SPECIFICATION A 572 AND/OR ASTM A 992 (Fy = 50 KSI) UNLESS OTHERWISE SHOWN OR NOTED. PLATE AND ANGLES MAY BE A36 (Fy = 36 KSI).
3. ALL STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM SPECIFICATION A-500, GRADE B (Fy=46 KSI). STEEL PIPE SHALL COMPLY WITH ASTM A53 TYPE E OR S (Fy=35 KSI).
4. ALL STRUCTURAL STEEL SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
5. ALL BOLTS SHALL BE 3/4 DIAMETER ASTM A325. WASHERS SHALL BE PROVIDED AT OVERSIZED HOLES AND AT SLOTTED CONNECTIONS AT EXPANSION JOINTS. A325 CONNECTIONS SHALL BE BEARING TYPE CONNECTIONS UNLESS NOTED OTHERWISE. ANCHOR BOLTS MAY BE ASTM A307 UNLESS NOTED OTHERWISE.
6. REFER TO ARCHITECTURAL & MECHANICAL PLANS FOR VERIFICATION OF ALL BOLTS, BLOCKING ANCHORS, ETC., FOR THE ANCHORAGE OF THEIR RESPECTIVE ITEMS.

STRUCTURAL STEEL CONTINUED:

7. ALL BEAMS AND COLUMNS SHALL BE FULL LENGTH WITHOUT SPLICES UNLESS INDICATED ON PLANS OR APPROVED BY THE ENGINEER IN WRITING.
8. ALL SHOP AND FIELD WELDS SHALL BE MADE BY WELDERS WHO HAVE BEEN QUALIFIED AND CERTIFIED TO MAKE THE REQUIRED WELDS IN ACCORDANCE WITH THE LATEST AMERICAN WELDING SOCIETY SPECIFICATIONS (A.W.S. D-1.1).
9. WELDS SHALL BE MADE WITH COVERED MILD STEEL ELECTRODES COMPLYING WITH AWS D1-72 CODE AND SERIES E 70XX.
10. ERECTION CONNECTORS SHALL BE PROVIDED IN ORDER TO PROPERLY ALIGN AND BE TRUE AND PLUMB WHEN WELDS ARE MADE.
11. ALL COMPLETE PENETRATION WELDS, BOTH SHOP AND FIELD, SHALL BE TESTED BY A QUALIFIED TESTING LABORATORY UTILIZING ULTRA SONIC TESTING PROCEDURES IN ACCORDANCE WITH A.W.S. D-1.1. ANY WELDS FOUND DEFECTIVE SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER. ALL X-RAYED WELDS SHALL BE GROUND SMOOTH.
12. THE FABRICATOR SHALL SUPPLY BACK-UP PLATES AND EXTENSION TABS FOR ALL COMPLETE PENETRATION WELDS.
13. ALL STEEL MEMBERS INCLUDING SECONDARY COMPONENTS, FASTENERS AND ASSOCIATED ACCESSORIES, SHALL BE HOT-DIPPED GALVANIZED.
14. WELDED HEADED STUDS (WHS) SHALL BE "NELSON ANCHORS", OR EQUAL, F<sub>u</sub> = 60 KSI, DIAMETER AND LENGTH AS SHOWN ON PLANS. STUDS TO BE WELDED& SHOP TESTED IN ACCORDANCE W/ THE MANUFACTURER'S RECOMMENDATIONS.
15. AFTER ERECTION, PRIME WELDS, ABRASIONS AND SURFACES NOT PRIMED. USE PRIMER CONSISTENT WITH SHOP COAT. GALVANIZED SURFACES (HOT DIPPED OR COLD) SHALL BE CLEANED AND PAINTED WITH "ZRC".
16. FIELD WELDS AND BOLTED CONNECTIONS SHALL BE VISUALLY INSPECTED BY A QUALIFIED INDEPENDENT INSPECTOR. THE INSPECTOR SHALL PROVIDE A WRITTEN REPORT TO THE STRUCTURAL ENGINEER.
17. A SINGLE ELECTRONIC FILE (PDF FORMAT) SHOP DRAWINGS SHALL BE PREPARED FOR ALL STRUCTURAL STEEL COMPONENTS AND SUBMITTED FOR REVIEW BY ENGINEER. ENGINEERING DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS.
18. THE CONTRACTOR SHALL REVIEW AND ANNOTATE SHOP DRAWINGS BEFORE SUBMITTING THEM TO THE ARCHITECT/ENGINEER FOR REVIEW. THE CONTRACTOR SHALL ALLOW ARCHITECT/ENGINEER 10 WORKING DAYS FOR REVIEW OF SHOP DRAWINGS.
19. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED FOR A FRAMING OBSERVATION IMMEDIATELY AFTER ROOF PANELS ARE INSTALLED AND BEFORE INSTALLATION OF THE CEILING.
20. INCLUDE IN BID AN ALLOWANCE FOR **1.0 TON** OF FABRICATED AND PRIMED STRUCTURAL STEEL TO BE USED AS DIRECTED IN THE FIELD FOR SPECIAL CONDITIONS AT A COST OF **\$4,000.00 PER TON** (LABOR FOR ERECTING SAME TO BE INCLUDED). ANY UNUSED ALLOWANCE WILL BE CREDITED TO THE OWNER AT THE END OF THE PROJECT.

FASTENERS

1. CAST-IN-PLACE AND POST-INSTALLED ANCHORS SHALL BE PER ANCHOR DIAMETER AND EMBEDMENT DEPTH NOTED ON THE DRAWINGS. POST-INSTALLED ANCHORS SHALL BE UTILIZED ONLY WHERE SPECIFIED.
2. ALL ANCHORS NOTED BELOW SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL CONTACT MANUFACTURER'S REPRESENTATIVE FOR THE INITIAL TRAINING AND INSTALLATION OF ANCHORS, AND FOR PRODUCT RELATED QUESTIONS AND AVAILABILITY.
3. SPECIAL INSPECTIONS SHALL BE PROVIDED FOR ALL MECHANICAL AND ADHESIVE ANCHORS PER THE APPLICABLE EVALUATION REPORT NOTED BELOW. SPECIAL INSPECTIONS SHALL BE PERFORMED BY INDEPENDENT TESTING LABORATORY PERFORMING QA/QC SERVICES ON PROJECT.
4. EXPANSION BOLTS (EB) IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:
- A. KWIK BOLT III (ICC-ES ESR-2302) BY HILTI (CONCRETE)
- B. KWIK BOLT III (ICC-ES ESR-1385) BY HILTI (MASONRY)
- C. STRONG-BOLT 2 (ICC-ES ESR-3037) BY SIMPSON STRONG-TIE (CONCRETE)
- D. WEDGE-ALL ANCHOR (ICC-ES ESR-1396) BY SIMPSON STRONG-TIE (MASONRY)
5. HEAVY DUTY SLEEVE ANCHORS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED OR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. EXPANSION BOLTS (EB) SHALL NOT BE SUBSTITUTED FOR SLEEVE ANCHORS WITHOUT PRIOR WRITTEN APPROVAL BY STRUCTURAL ENGINEER. ACCEPTABLE PRODUCTS:
- A. HSL-3 (ICC-ES ESR-1545) BY HILTI (CONCRETE)
6. SCREW ANCHORS IN CONCRETE SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:
- A. KWIK HUS-EZ (ICC-ES ESR-3027) BY HILTI (CONCRETE)
- B. KWIK HUS-EZ (ICC-ES ESR-3056) BY HILTI (MASONRY)
- C. ITTEN HD (ICC-ES ESR-2713) BY SIMPSON STRONG-TIE (CONCRETE)
- D. TAPCON ANCHORS (ICC-ES ESR-1671) (MASONRY)
- E. POWERS WEDGE BOLT (ICC-ES ESR-1678) (MASONRY)
7. UNDERCUT ANCHORS IN CONCRETE SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:
- A. HDA (ICC-ES ESR-1546) BY HILTI (CONCRETE)
- B. TORQ-CUT (ICC-ES ESR-2705) BY SIMPSON STRONG-TIE (CONCRETE)
8. POWDER ACTUATED FASTENERS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:
- A. X-1 (ICC-ES ESR-2269) BY HILTI (CONCRETE/MASONRY/STEEL)
- B. POWDER ACTUATED FASTENERS (ICC-ES ESR-2138) BY SIMPSON STRONG TIE (CONCRETE/MASONRY)
9. ADHESIVE ANCHORS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308. ACCEPTABLE PRODUCTS:
- A. HIT-RE 500-V3 (ICC-ES ESR-3814) BY HILTI (CONCRETE)
- B. HIT-HY 270 (ICC-ES ESR-4143) BY HILTI (MASONRY)
- C. SET-XP (ICC-ES ESR-2508) BY SIMPSON STRONG-TIE (CONCRETE)
- D. SET (ICC-ES ESR-1772) BY SIMPSON STRONG-TIE (MASONRY)
10. J-BOLTS SHALL BE FABRICATED FROM ASTM A36/A307 ROD. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED. EXPANSION BOLTS/SLEEVE ANCHORS SHALL NOT BE SUBSTITUTED FOR J-BOLTS WITHOUT PRIOR WRITTEN APPROVAL BY STRUCTURAL ENGINEER.
11. HEADED ANCHOR RODS SHALL BE FABRICATED FROM ASTM F1554 MATERIAL, Fy=36 KSI
12. SUBSTITUTION REQUESTS FOR PRODUCTS LISTED ABOVE SHALL BE SUBMITTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARDS. SUBSTITUTED ANCHORS SHALL HAVE A VALID CURRENT EVALUATION (ICC-ES OR IAPMO-ES) REPORT.
13. REFERENCE STRUCTURAL STEEL NOTES FOR BOLTS CONNECTING STRUCTURAL STEEL COMPONENTS.

Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO & ASSOCIATES INC.**

**MEP:**  
**DBR ENGINEERING**



PSJA ISD  
NORTH ECHS  
& COLLEGE  
AND  
UNIVERSITY  
CAMPUS  
STUDENT  
RESTROOM  
RENOVATIONS

KEYPLAN

Project Number: 696-190  
Drawing Date: 5-08-19  
Drawn: AV  
Checked: BD  
Scale: AS SHOWN

Revisions:

Sheet Title:



GENERAL STRUCTURAL NOTES

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS INDEPENDENT OF THE CONTRACTOR, THE ARCHITECT, OR THE ENGINEER, SHALL BE PROVIDED BY A SPECIAL INSPECTOR EMPLOYED BY THE OWNER ACCORDING TO CHAPTER 17 OF THE IBC 2012. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS. THE SPECIAL INSPECTOR SHALL SEND WRITTEN REPORTS TO THE OWNER, THE ARCHITECT, THE ENGINEER AND THE CONTRACTOR. THE REPORTS SHALL INDICATE IF WORK INSPECTED WAS DONE IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE SPECIAL INSPECTOR SHALL BRING THE DISCREPANCIES TO THE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO THE COMPLETION OF THAT PHASE OF THE WORK. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING THAT THE SPECIAL INSPECTION WORK WAS, TO THE BEST OF THEIR KNOWLEDGE, IN OR NOT IN CONFORMANCE WITH THE DRAWINGS, SPECIFICATIONS AND APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC 2012.

CONTINUOUS OR PERIODIC SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING WORK:

REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT		X
INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE	X	
VERIFY USE OF REQUIRED DESIGN MIX		X
PERFORM SLUMP AND AIR CONTENT TEST, AND DETERMINE THE TEMPERATURE OF THE CONCRETE AT THE TIME OF SAMPLING FRESH CONCRETE FOR MAKING SPECIMENS FOR STRENGTH TESTS PER ACI 318	X	
INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X	
INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES		X
INSPECTION OF PRESTRESSED CONCRETE APPLICATION OF PRESTRESSING FORCES AND GROUTING OF BONDED PRESTRESSING TENDONS	X	
VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS		X
ERECTION OF PRECAST CONCRETE MEMBERS		X
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED		X

REQUIRED LEVEL 1 SPECIAL INSPECTION OF MASONRY CONSTRUCTION (OCCUPANCY CATEGORY I, II, III)

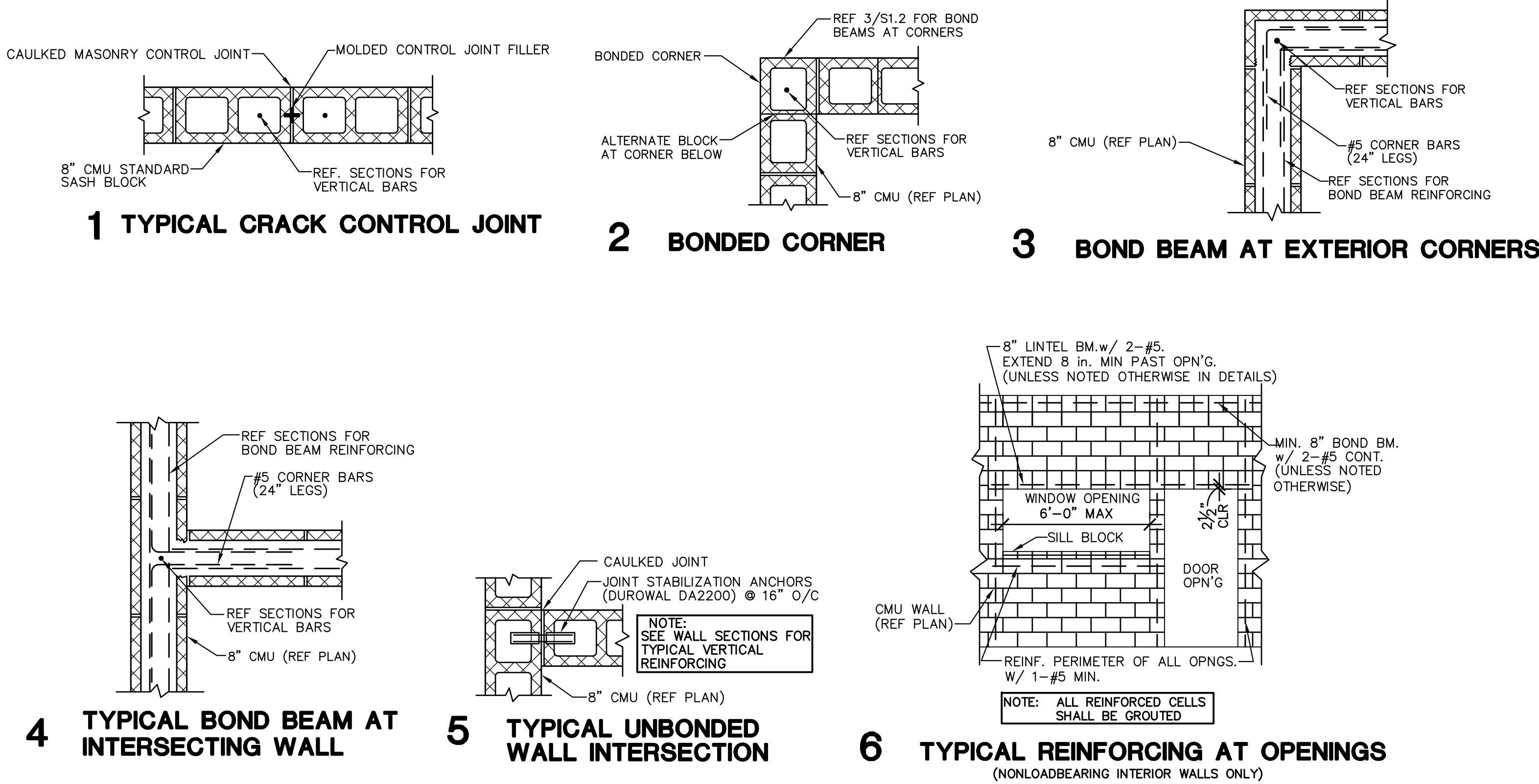
INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:		
PROPORTIONS OF SITE-PREPARED MORTAR		X
PLACEMENT OF MASONRY UNITS AND CONSTRUCTION OF MORTAR JOINTS		X
LOCATION OF REINFORCEMENT, CONNECTORS AND ANCHORAGES		X
THE INSPECTION PROGRAM SHALL VERIFY:		
SIZE AND LOCATION OF STRUCTURAL ELEMENTS		X
TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION		X
SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT		X
PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F)		X
PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:		
GROUT SPACE IS CLEAN		X
PLACEMENT OF REINFORCEMENT, CONNECTORS AND ANCHORAGES		X
CONSTRUCTION OF MORTAR JOINTS		X
GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS	X	
PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED	X	
COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBTITLS SHALL BE VERIFIED		X

REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS		X
INSPECTION OF HIGH STRENGTH BOLTING		X
INSPECTION OF WELDING:		
COMPLETE AND PARTIAL PENETRATION GROOVE WELDS	X	
MULTIPASS FILLET WELDS	X	
SINGLE-PASS FILLET WELDS		X
FLOOR AND ROOF DECK WELDS		X
INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS		X

REQUIRED VERIFICATION AND INSPECTION OF ANCHORS

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
CAST-IN-PLACE, POST-INSTALLED, MECHANICAL AND EPOXY SET ANCHORS:		
AS APPLICABLE, THE INSPECTION PROGRAM SHALL VERIFY THE ANCHOR TYPE, EMBEDMENT, TIGHTENING TORQUE, DIMENSIONS, HOLE DEPTH & DIAMETER AND CLEANOUT, EPOXY MIXING AND PLACEMENT PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE CURRENT ICC-ES EVALUATION REPORT		
	FREQUENCY OF INSPECTION SHALL BE IN ACCORDANCE WITH THE CURRENT ICC-ES EVALUATION REPORT, OR PER THE SPECIAL INSPECTION REQUIREMENTS OF THE ANCHOR SUBSTRATE WHICHEVER IS MORE STRINGENT	



Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
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RENOVATIONS

KEYPLAN

Project Number: 696-190  
Drawing Date: 5-08-19  
Drawn: AV  
Checked: BD  
Scale: AS SHOWN

Revisions:

Sheet Title:

GENERAL  
STRUCTURAL NOTES



Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO &  
ASSOCIATES INC.**

**MEP:**  
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**RESTROOM**  
**RENOVATIONS**

**KEYPLAN**

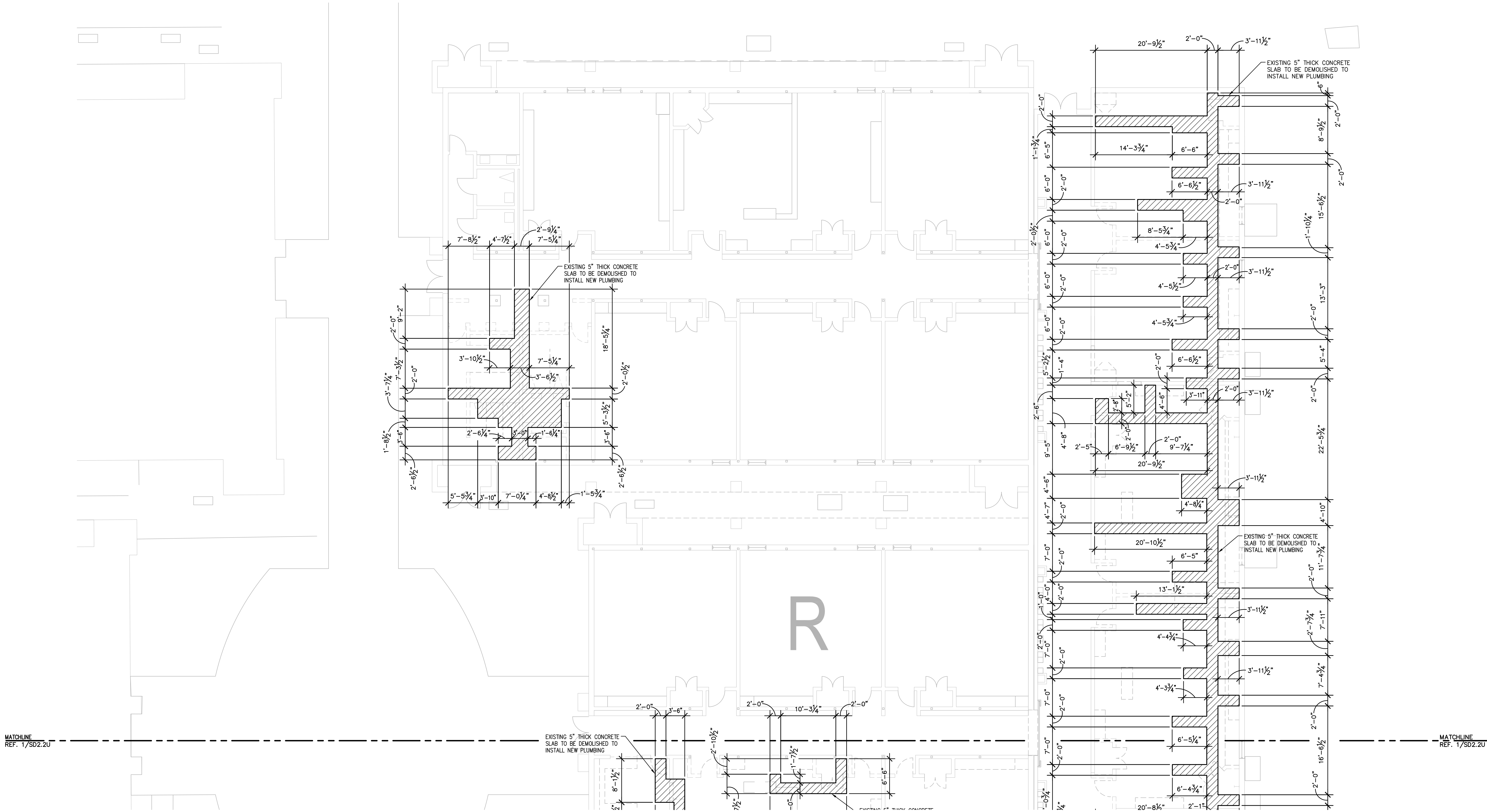
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Drawing Date: 5-08-19  
Drawn: AV  
Checked: BD  
Scale: AS SHOWN

Revisions:

Sheet Title:

**FOUNDATION DEMO**  
**PLAN AREA R**

**SD2.1U**



**1 FOUNDATION DEMO PLAN**  
1/8" = 1'-0"  
AREA R  
PLAN NORTH

NOTES:

1. INDICATES LOCATIONS WHERE EXISTING 5" THICK SLAB (FIELD VERIFY & COORDINATE WITH MEP) WILL BE DEMOLISHED TO INSTALL NEW PLUMBING. CONTRACTOR SHALL COORDINATE ADDITIONAL LOCATIONS OF SLAB OPENINGS WITH UNDER-SLAB UTILITY DRAWINGS. REFERENCE ARCHITECTURAL AND M.E.P. DRAWINGS FOR ADDITIONAL INFORMATION.
2. REFER TO ARCHITECTURAL AND M.E.P. FOR ADDITIONAL DEMOLITION SCOPE.
3. EXISTING SLAB SHALL BE SAW CUT ALONG PERIMETER OF SLAB DEMOLITION AREAS. CONTRACTOR SHALL CUT A MINIMUM OF 1 1/2" DEEP CUT INTO EXISTING SLAB. CONTRACTOR SHALL USE APPROPRIATE SIZE DEMOLITION EQUIPMENT AND TOOLS TO AVOID EXCESSIVE VIBRATIONS IN EXISTING STRUCTURE.
4. CONTRACTOR SHALL INCLUDE ALL NECESSARY LABOR, EQUIPMENT, TOOLS, AND SUPERVISION TO DEMOLISH EXISTING CONCRETE TO EXPOSE UNDER SLAB SUBGRADE. CONCRETE THICKNESS MAY VARY.

CONTRACTOR SHALL FIELD VERIFY  
ALL DIMENSIONS & EXISTING CONDITIONS  
IN THE FIELD. CONTACT ENGINEER IF  
CONDITIONS VARY FROM THOSE SHOWN  
ON THE DRAWINGS.



Consultants:

**CIVIL:**  
**MELDEN & HUNT****STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.**MEP:**  
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**RESTROOM**  
**RENOVATIONS**

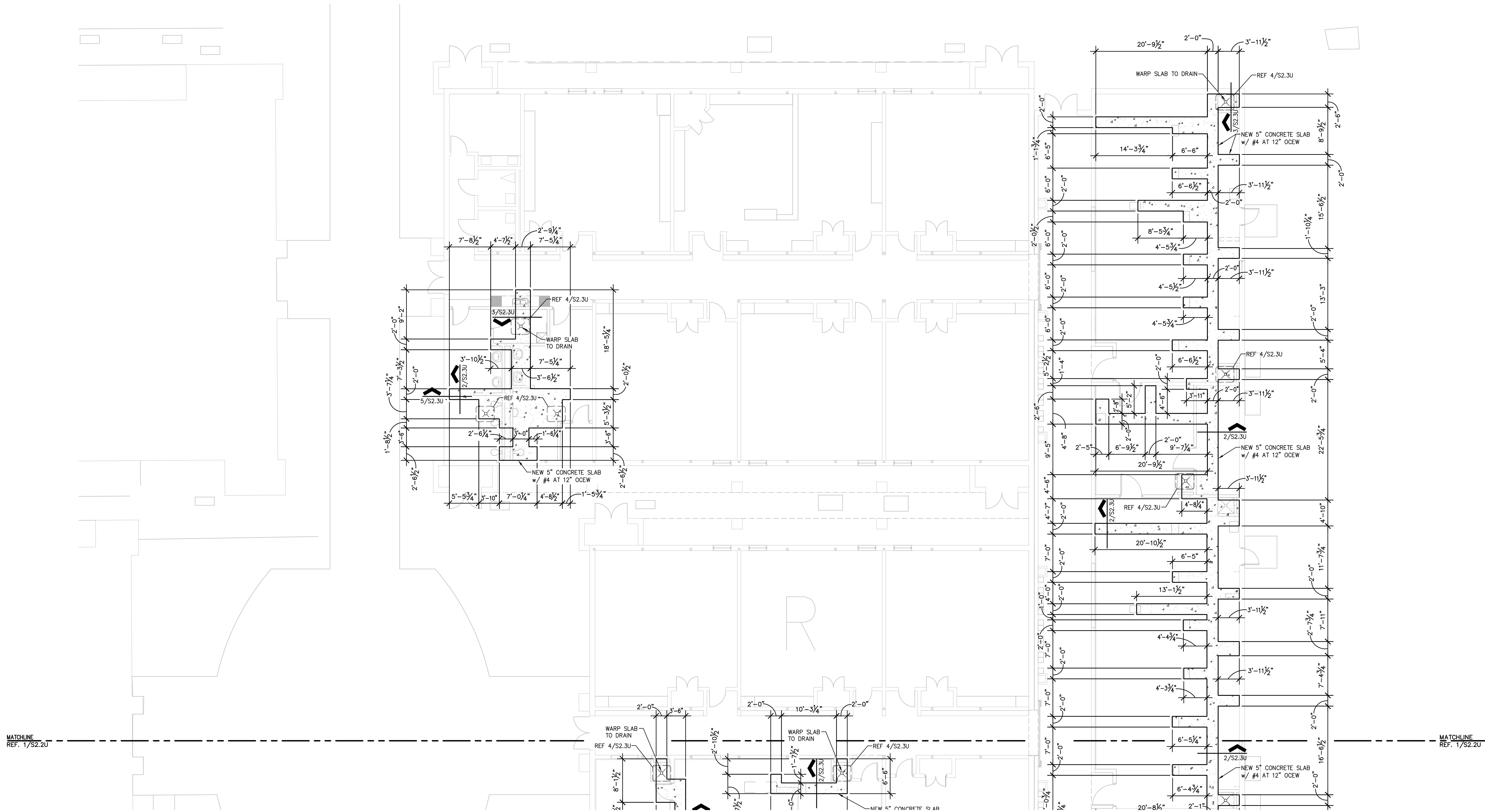
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Drawing Date: 5-08-19  
Drawn: AV  
Checked: BD  
Scale: AS SHOWN

Revisions:

Sheet Title:

**FOUNDATION**  
**RENOVATION PLAN**  
**AREA R**



**1 FOUNDATION RENOVATION PLAN**  
1/8" = 1'-0"  
AREA R PLAN NORTH

NOTES:

1. [Symbol] INDICATES LIMIT OF NEW 5" THICK SLAB ON GRADE FOUNDATION SLAB.
2. ALL CONDUIT GREATER THAN 1.1/2" IN DIAMETER SHALL BE RECESSED TO PROVIDE 1.1/2" CLEAR DISTANCE BETWEEN SLAB REBAR & CONDUIT.
3. MAINTAIN 2" MINIMUM CLEAR DISTANCE BETWEEN ALL CONDUIT IN SLAB.
4. REFERENCE DETAIL 1/S2.3U AT LOCATIONS WHERE NEW CONDUIT AND PLUMBING INTERSECT EXISTING INTERIOR GRADE BEAM.

CONTRACTOR SHALL FIELD VERIFY  
ALL DIMENSIONS & EXISTING CONDITIONS  
IN THE FIELD. CONTACT ENGINEER IF  
CONDITIONS VARY FROM THOSE SHOWN  
ON THE DRAWINGS.



Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO & ASSOCIATES INC.**

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**RESTROOM**  
**RENOVATIONS**

**KEYPLAN**

Project Number: 696-190  
Drawing Date: 5-08-19  
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Scale: AS SHOWN

Revisions:

Sheet Title:

**FOUNDATION DEMO**  
**PLAN AREA J AND R**

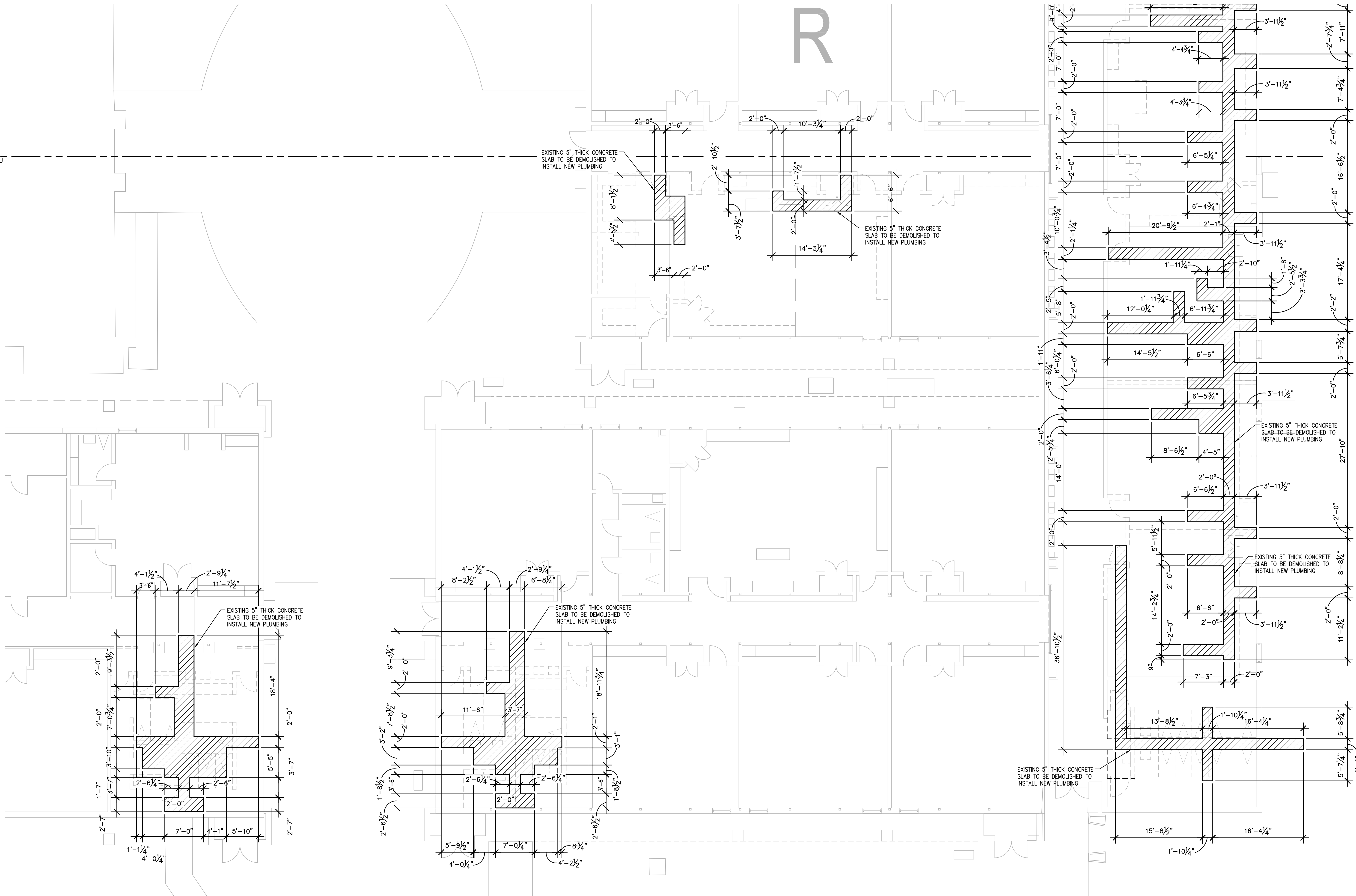
**SD2.2U**



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MATCHLINE  
REF. 1/SD2.1U

MATCHLINE  
REF. 1/SD2.1U



**1 FOUNDATION DEMO PLAN**  
1/8" = 1'-0" AREA J AND R PLAN NORTH

NOTES:

- INDICATES LOCATIONS WHERE EXISTING 5" THICK SLAB (FIELD VERIFY & COORDINATE WITH MEP) WILL BE DEMOLISHED TO INSTALL NEW PLUMBING. CONTRACTOR SHALL COORDINATE ADDITIONAL LOCATIONS OF SLAB OPENINGS WITH UNDER-SLAB UTILITY DRAWINGS. REFERENCE ARCHITECTURAL AND M.E.P. DRAWINGS FOR ADDITIONAL INFORMATION.
- REFER TO ARCHITECTURAL AND M.E.P. FOR ADDITIONAL DEMOLITION SCOPE.
- EXISTING SLAB SHALL BE SAW CUT ALONG PERIMETER OF SLAB DEMOLITION AREAS. CONTRACTOR SHALL CUT A MINIMUM OF 1 1/2" DEEP CUT INTO EXISTING SLAB. CONTRACTOR SHALL USE APPROPRIATE SIZE DEMOLITION EQUIPMENT AND TOOLS TO AVOID EXCESSIVE VIBRATIONS IN EXISTING STRUCTURE.
- CONTRACTOR SHALL INCLUDE ALL NECESSARY LABOR, EQUIPMENT, TOOLS, AND SUPERVISION TO DEMOLISH EXISTING CONCRETE TO EXPOSE UNDER SLAB SUBGRADE. CONCRETE THICKNESS MAY VARY.

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS & EXISTING CONDITIONS IN THE FIELD. CONTACT ENGINEER IF CONDITIONS VARY FROM THOSE SHOWN ON THE DRAWINGS.



Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
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**RESTROOM**  
**RENOVATIONS**

**KEYPLAN**

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Drawing Date: 5-08-19  
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Revisions:

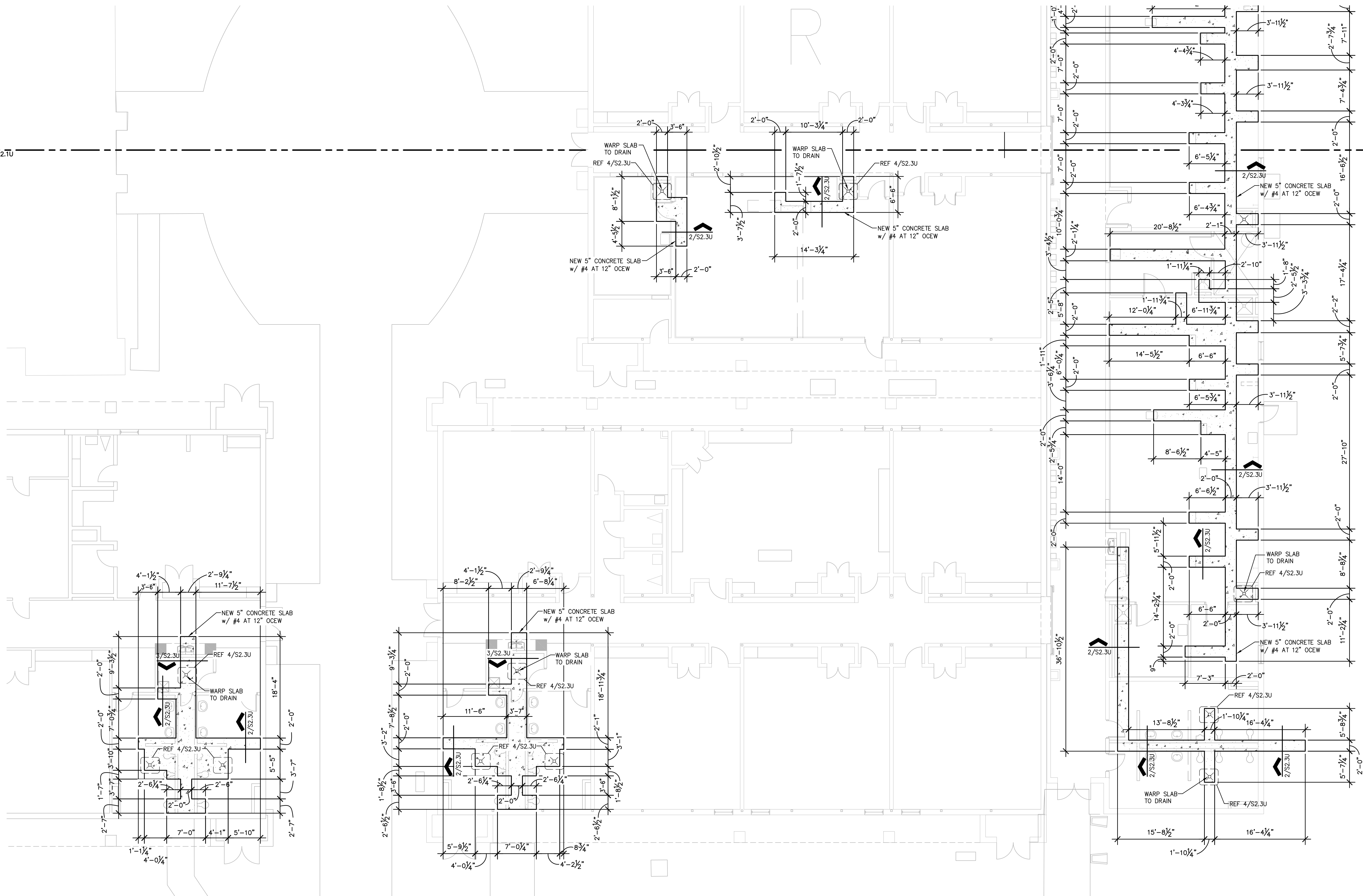
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**FOUNDATION**  
**RENOVATION PLAN**  
**AREA J AND R**

**S2.2U**

MATCHLINE  
REF. 1/S2.1U

MATCHLINE  
REF. 1/S2.1U



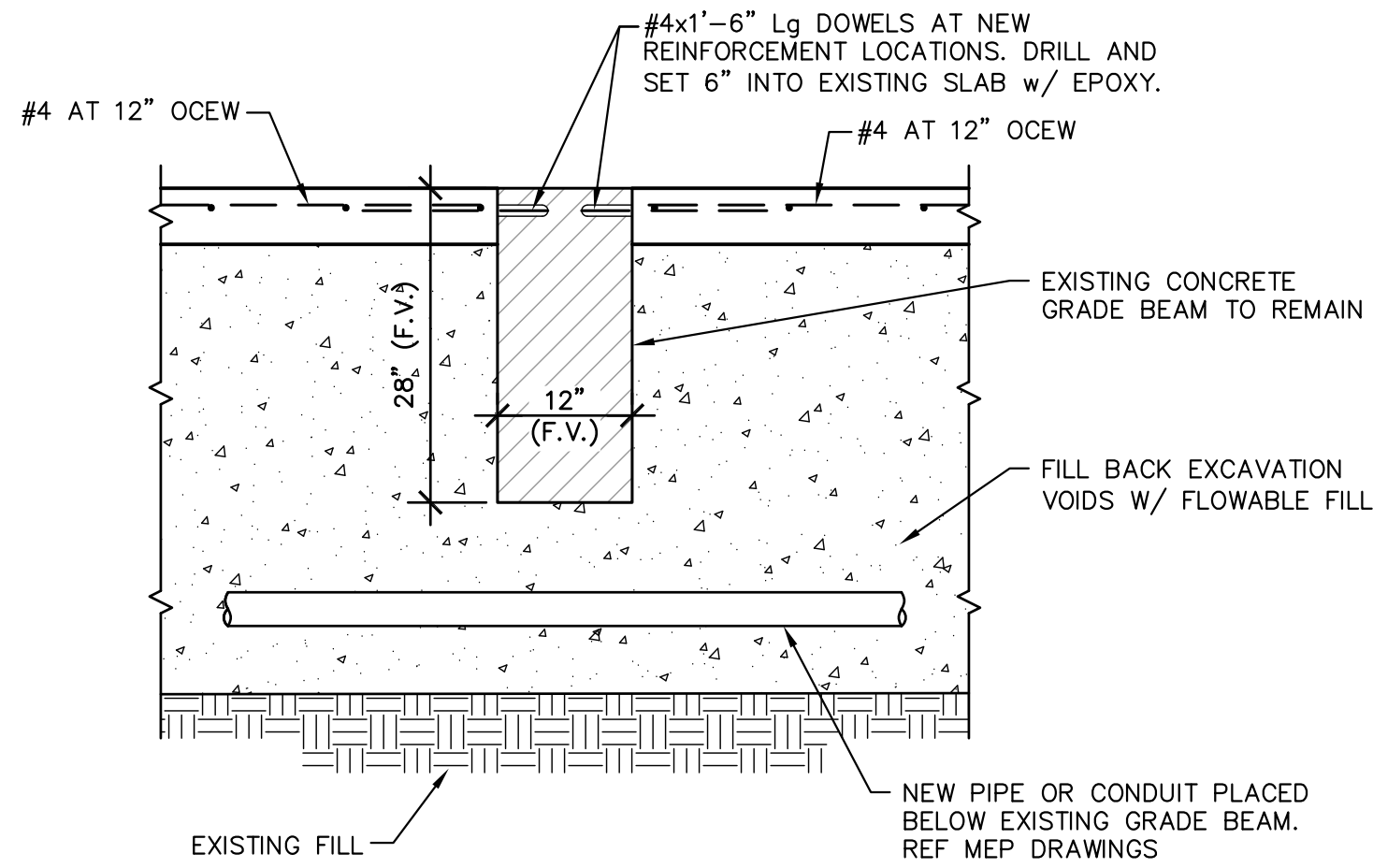
**1 FOUNDATION RENOVATION PLAN**  
1/8" = 1'-0"  
AREA J AND R  
PLAN NORTH

NOTES:

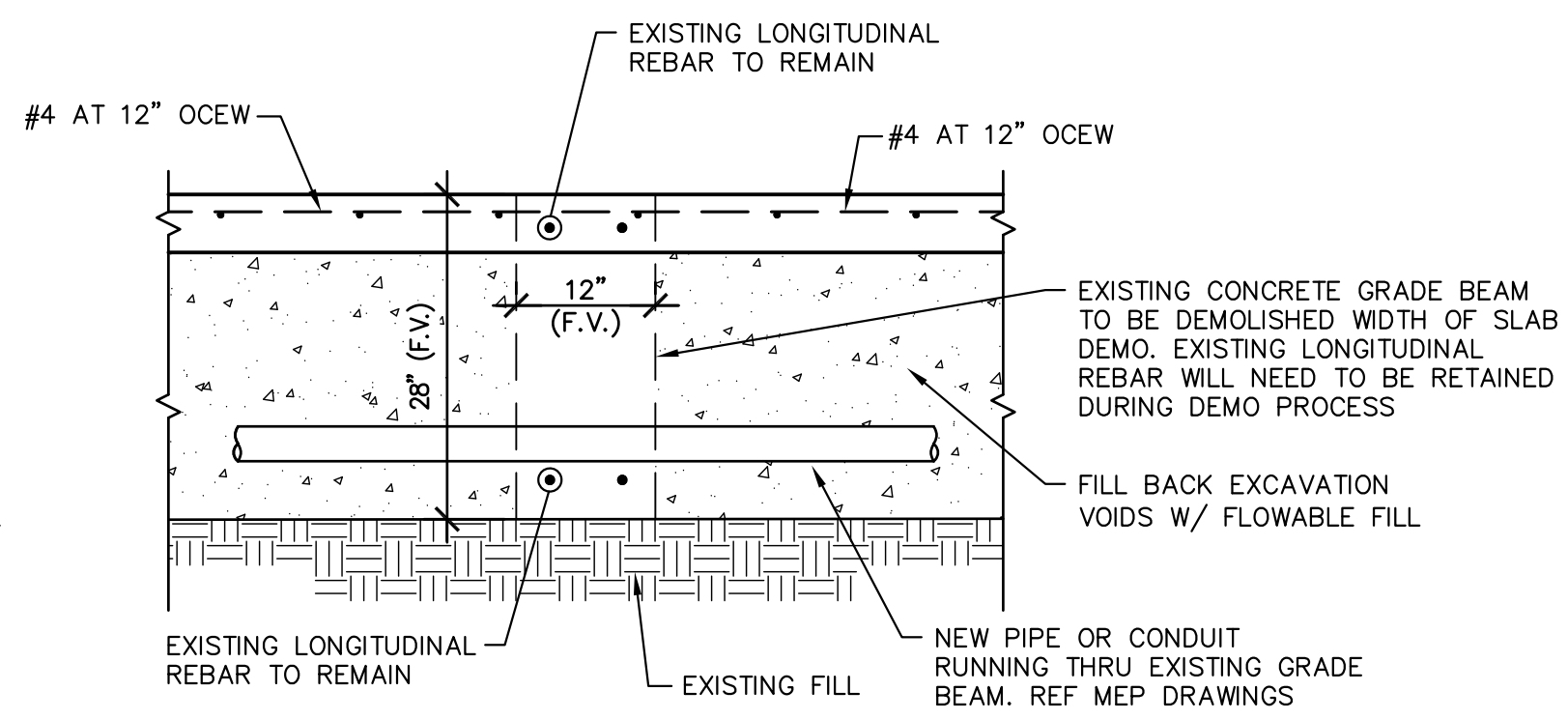
- INDICATES LIMIT OF NEW 5" THICK SLAB ON GRADE FOUNDATION SLAB.
- ALL CONDUIT GREATER THAN 1.1/2" IN DIAMETER SHALL BE RECESSED TO PROVIDE 1.1/2" CLEAR DISTANCE BETWEEN SLAB REBAR & CONDUIT.
- MAINTAIN 2" MINIMUM CLEAR DISTANCE BETWEEN ALL CONDUIT IN SLAB.
- REFERENCE DETAIL 1/S2.3U AT LOCATIONS WHERE NEW CONDUIT AND PLUMBING INTERSECT EXISTING INTERIOR GRADE BEAM.

CONTRACTOR SHALL FIELD VERIFY  
ALL DIMENSIONS & EXISTING CONDITIONS  
IN THE FIELD. CONTACT ENGINEER IF  
CONDITIONS VARY FROM THOSE SHOWN  
ON THE DRAWINGS.



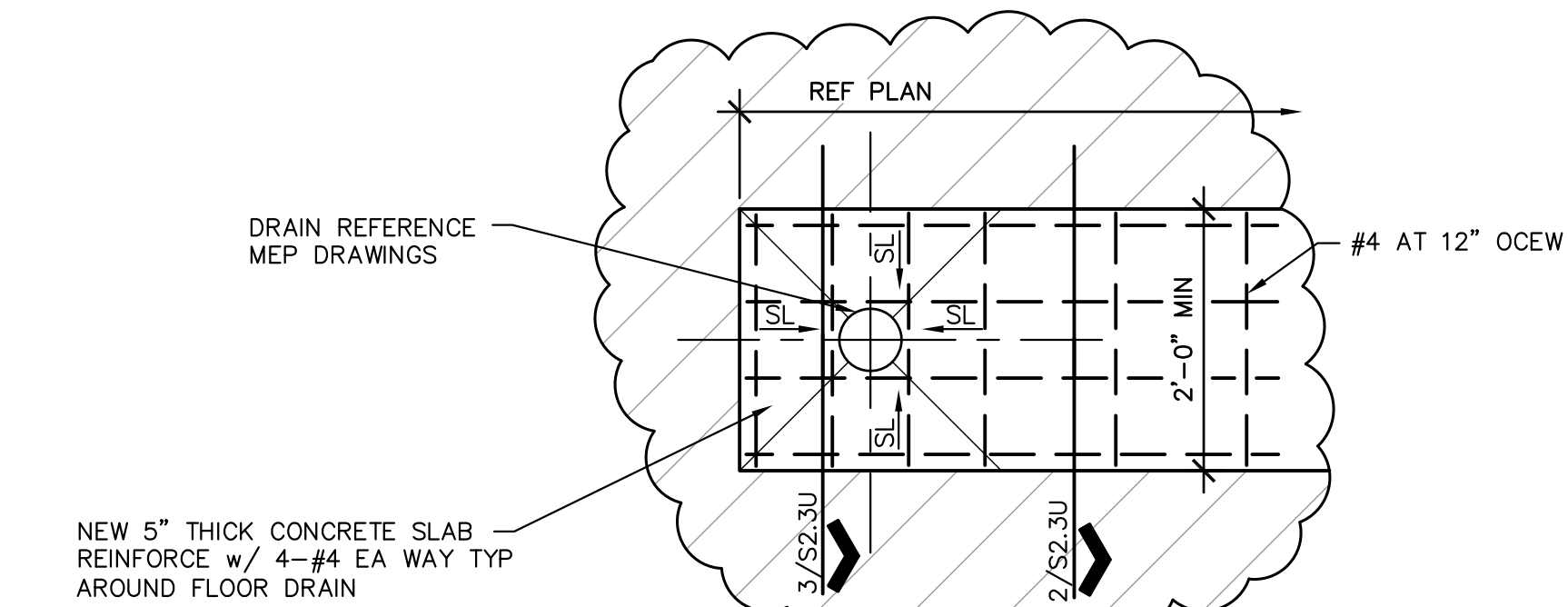


**OPTION 1 IF NEW PLUMBING LINES RUN BELOW EXISTING GRADE BEAM**



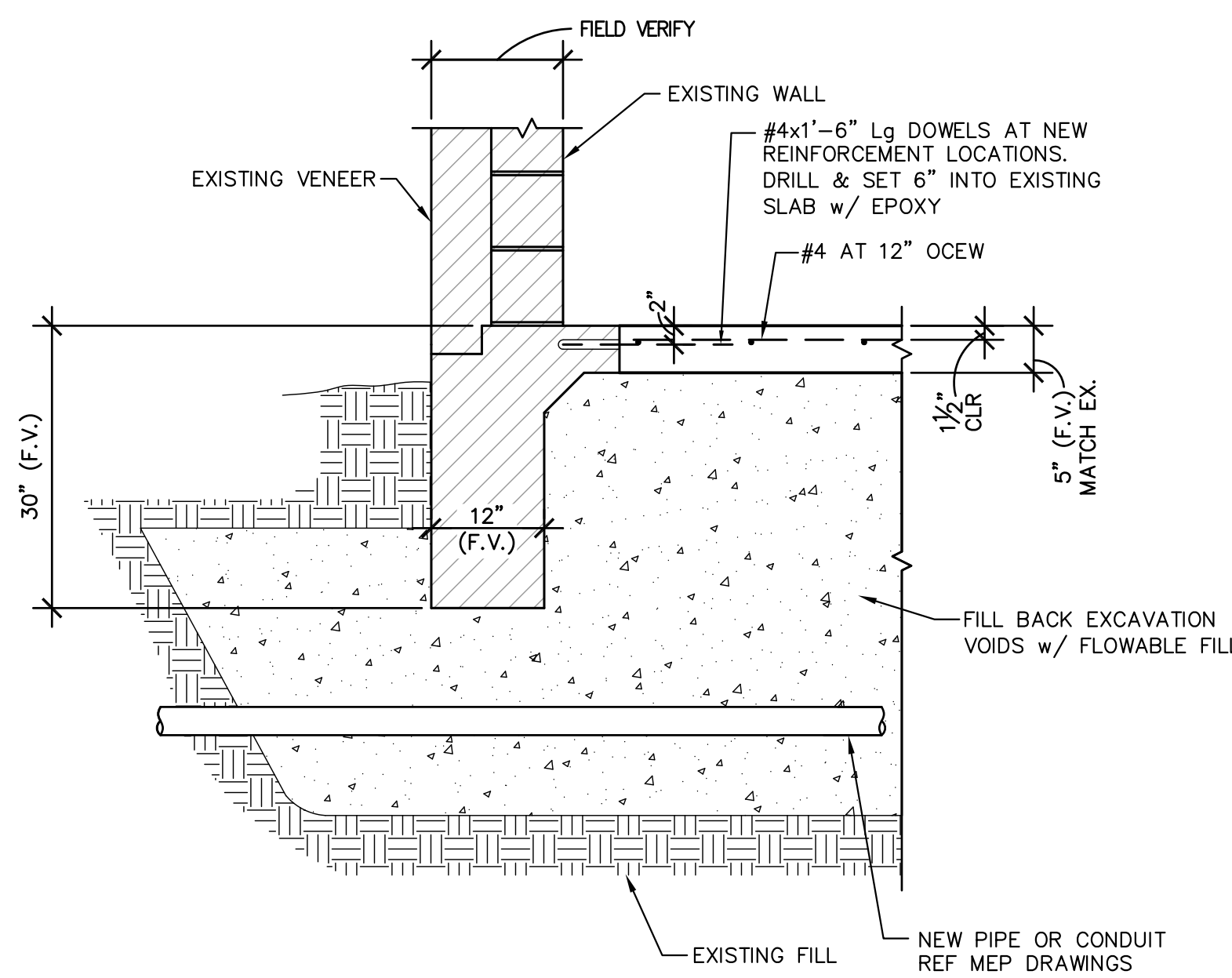
**OPTION 2 IF NEW PLUMBING LINES RUN THRU EXISTING GRADE BEAM**

- 1** NOTES:
1. CONTRACTOR TO COORDINATE LOCATIONS OF INTERIOR GRADE BEAMS IN THE FIELD.

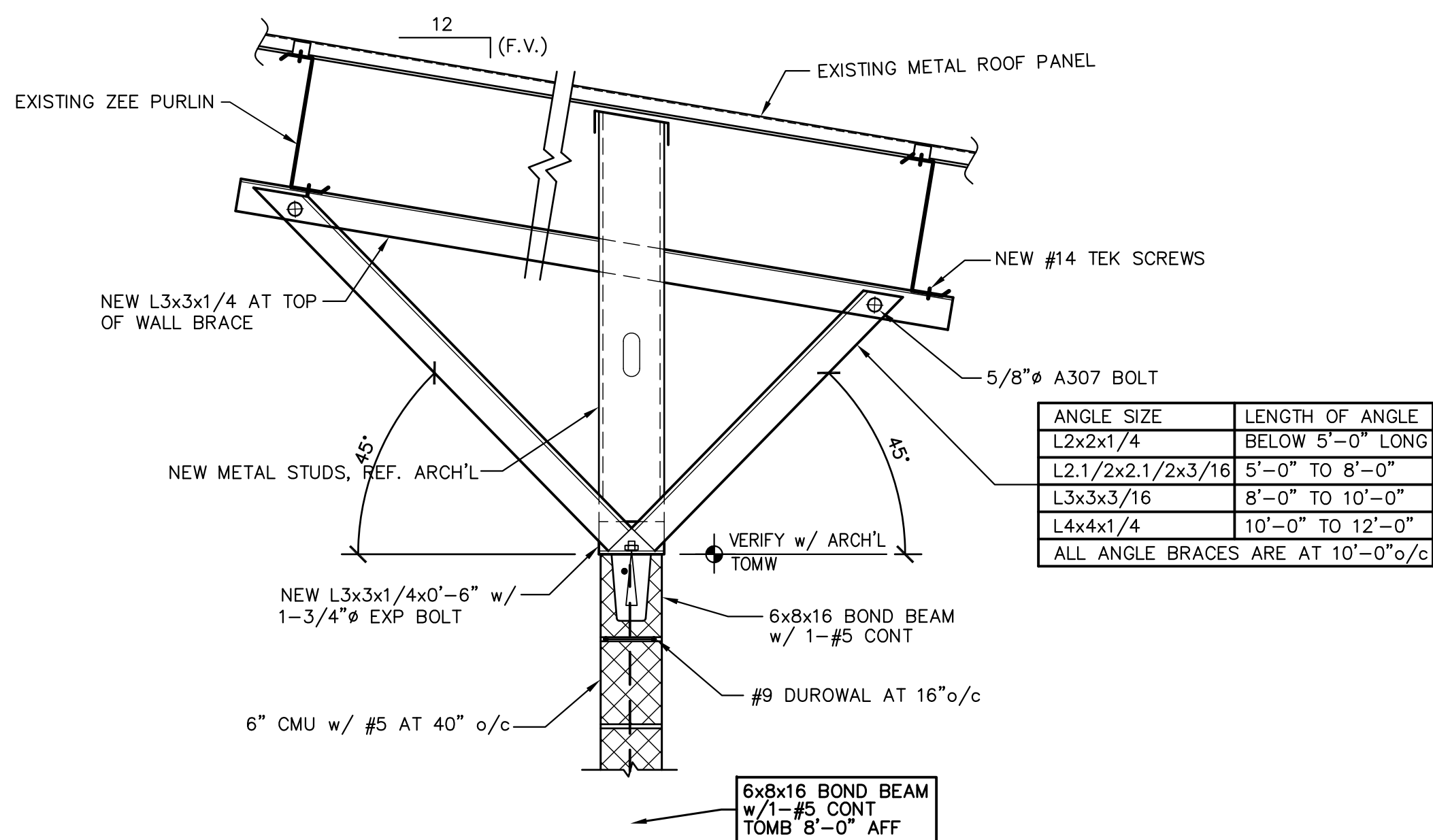


**4 TYPICAL DRAIN DETAIL**

- NOTES:
1. COORDINATE LOCATION W/ MEP DRAWINGS.

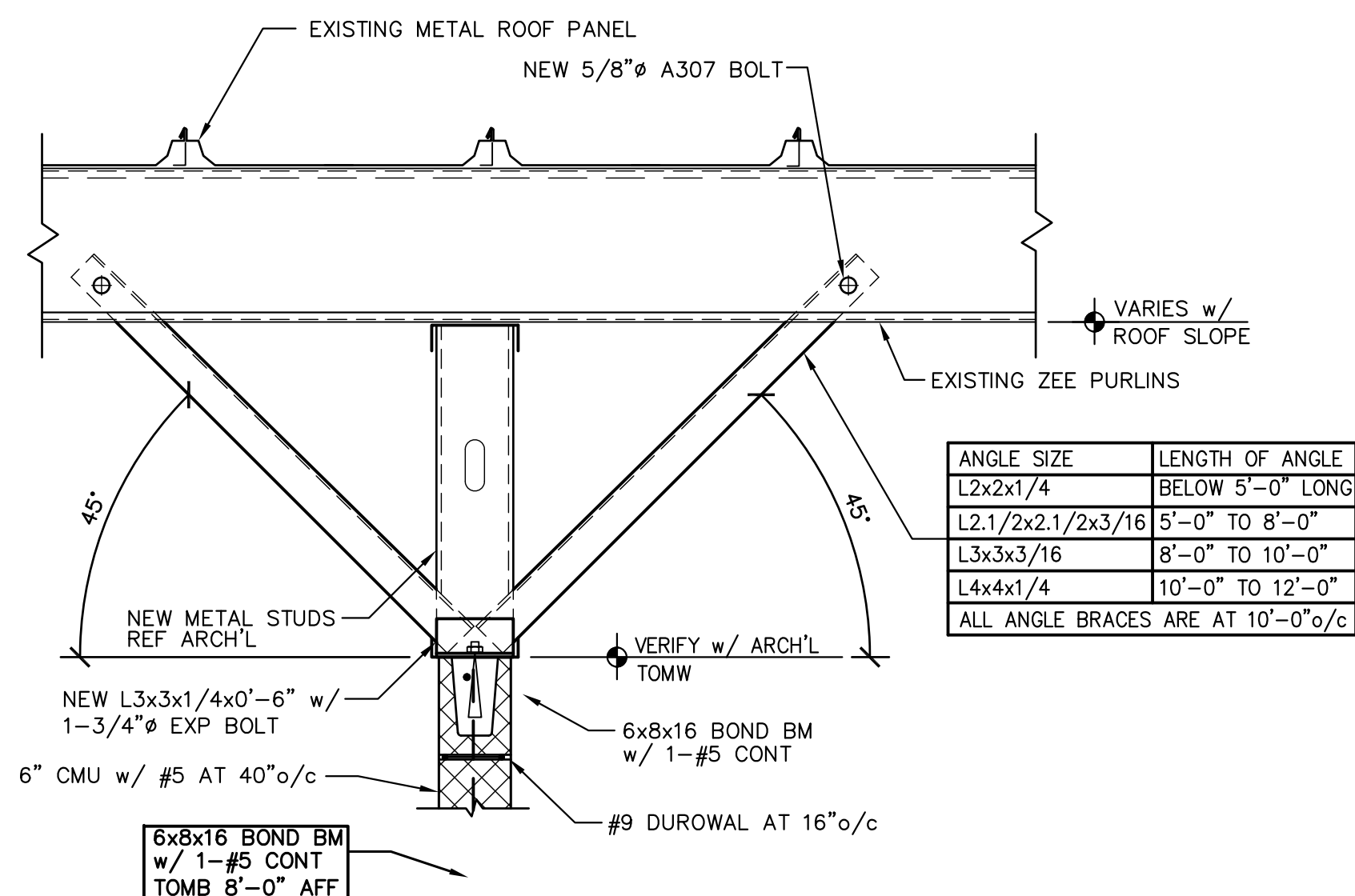


**5 TYPICAL UTILITY TRENCH AT EXTERIOR GRADE BEAM**



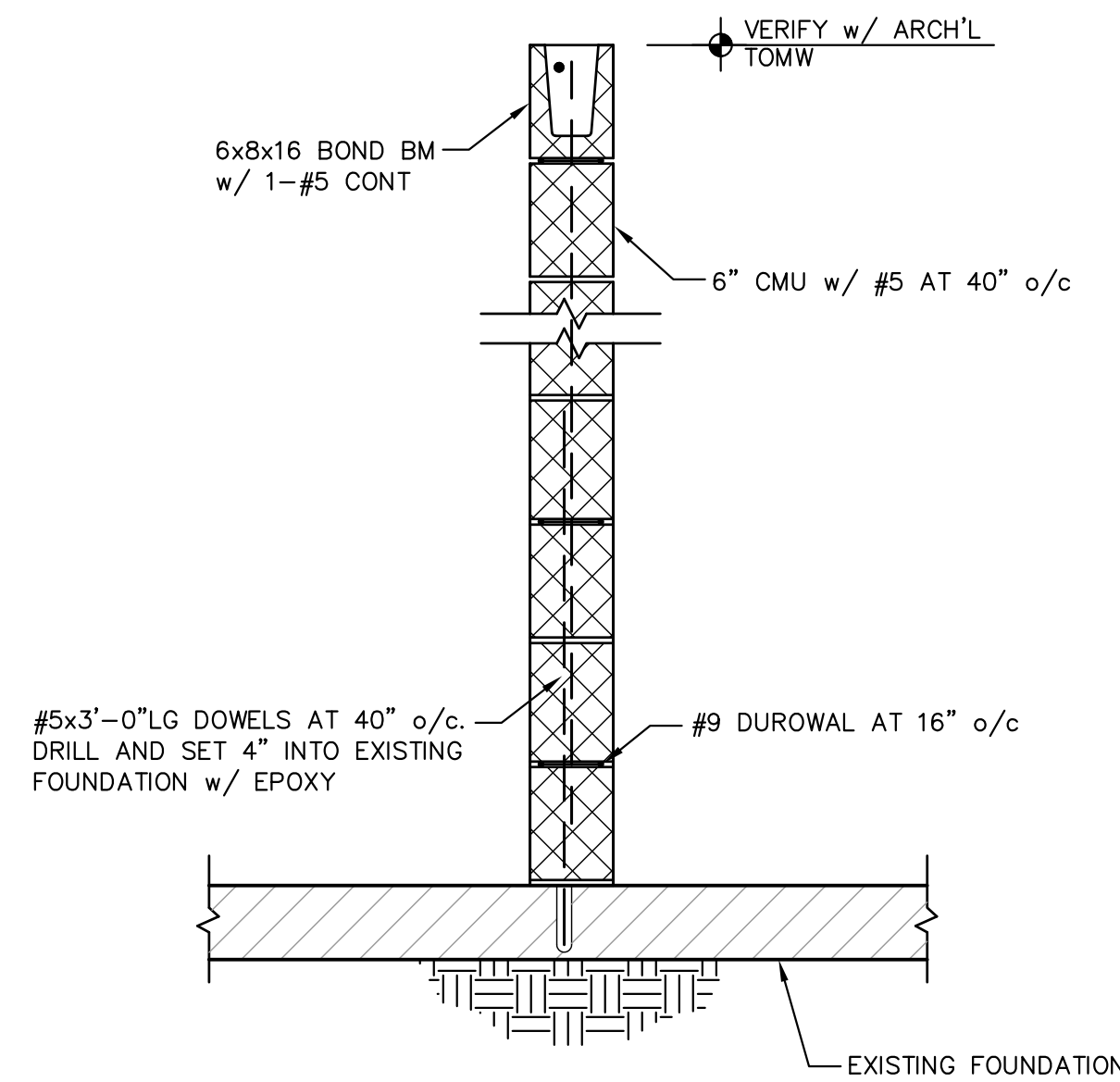
**7 TYPICAL CMU WALL BRACE PERPENDICULAR TO EXISTING PURLINS**

PURLINS PARALLEL TO WALL (MAXIMUM SPACING OF BRACE 10'-0" o/c MAX)  
 \*ORIENT BRACE TOWARDS AREAS WITH CEILINGS  
 SO THAT THEY ARE CONCEALED FROM VIEW\*



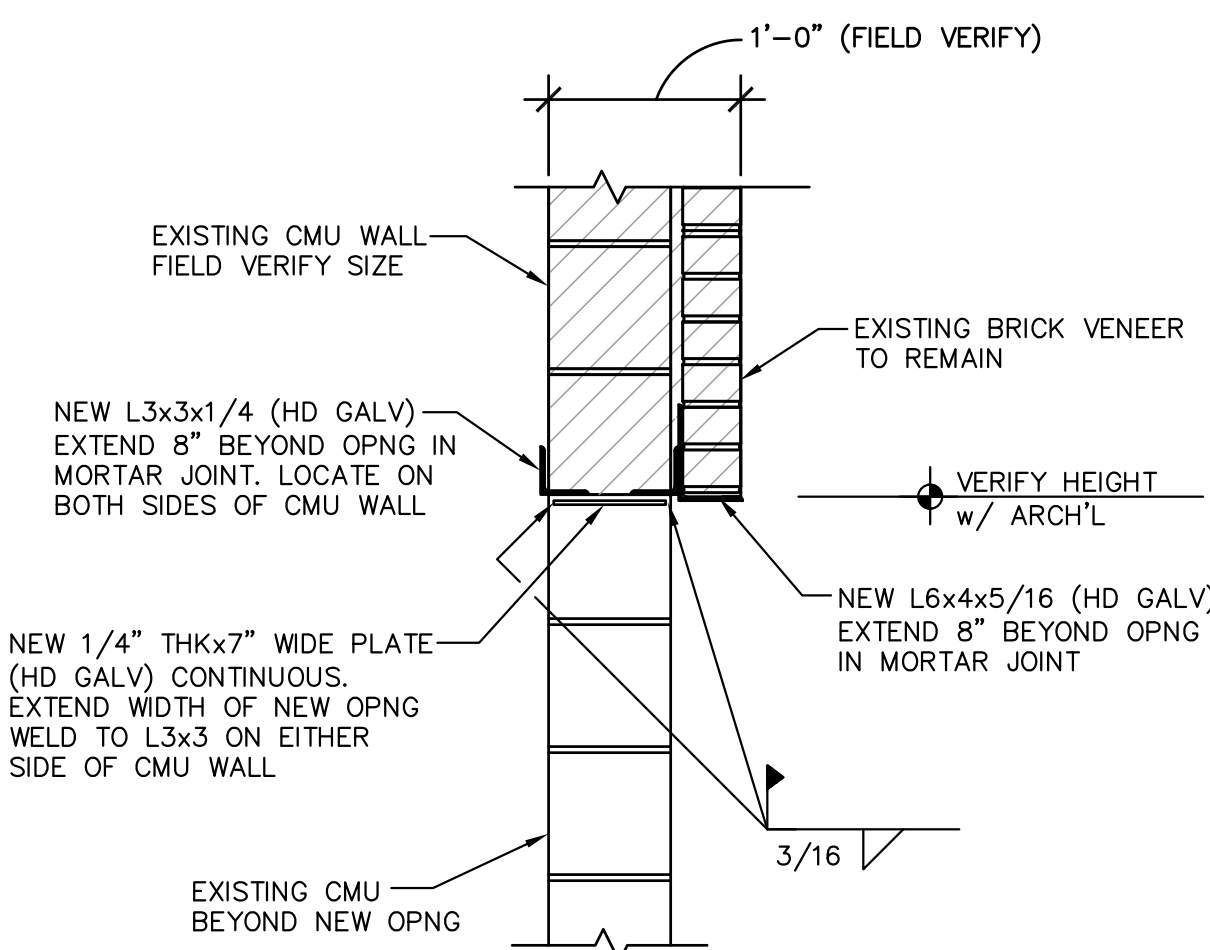
**8 TYPICAL CMU WALL BRACE PARALLEL EXISTING PURLINS**

PURLINS PERPENDICULAR TO WALL (MAXIMUM SPACING OF BRACE 10'-0" o/c)  
 \*ORIENT BRACE TOWARDS AREAS WITH CEILINGS  
 SO THAT THEY ARE CONCEALED FROM VIEW\*



**6 NEW TYPICAL INTERIOR 6" CMU WALL**

- NOTE:
1. IF WALL IS LONGER THAN 20'-0" WITHOUT AN INTERSECTING WALL PROVIDE AN ANGLE BRACE TO EXISTING STRUCTURE. REF DETAILS 7/S2.8N & 8/S2.8.
  2. COORDINATE LOCATION AND LIMIT OF NEW INTERIOR MASONRY WALL WITH ARCHITECT.



**9 TYPICAL LINTEL SUPPORT FRAMING AT NEW OPENINGS IN EXISTING MASONRY WALLS**

**2 TYPICAL UTILITY TRENCH DETAIL**

- NOTES:
1. COORDINATE UTILITY TRENCH LOCATION WITH MEP DRAWINGS.

**3 TYPICAL DRAIN CROSS SECTION**

Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO & ASSOCIATES INC.**

**MEP:**  
**DBR ENGINEERING**



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**RESTROOM**  
**RENOVATIONS**

## KEYPLAN

Project Number: 696-190  
 Drawing Date: 5-08-19  
 Drawn: AV  
 Checked: BD  
 Scale: AS SHOWN

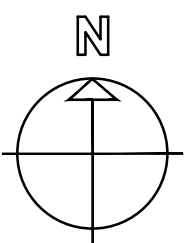
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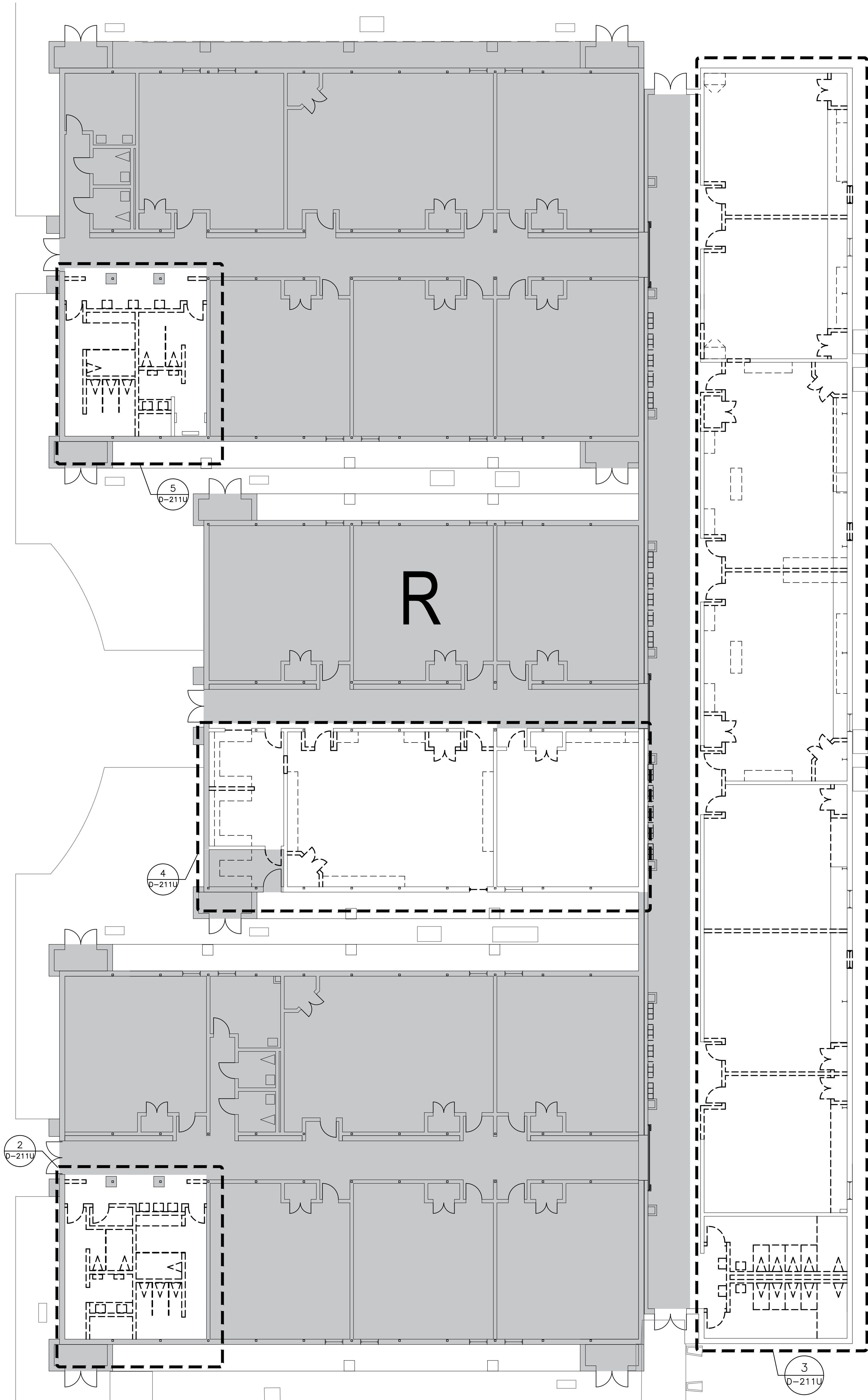
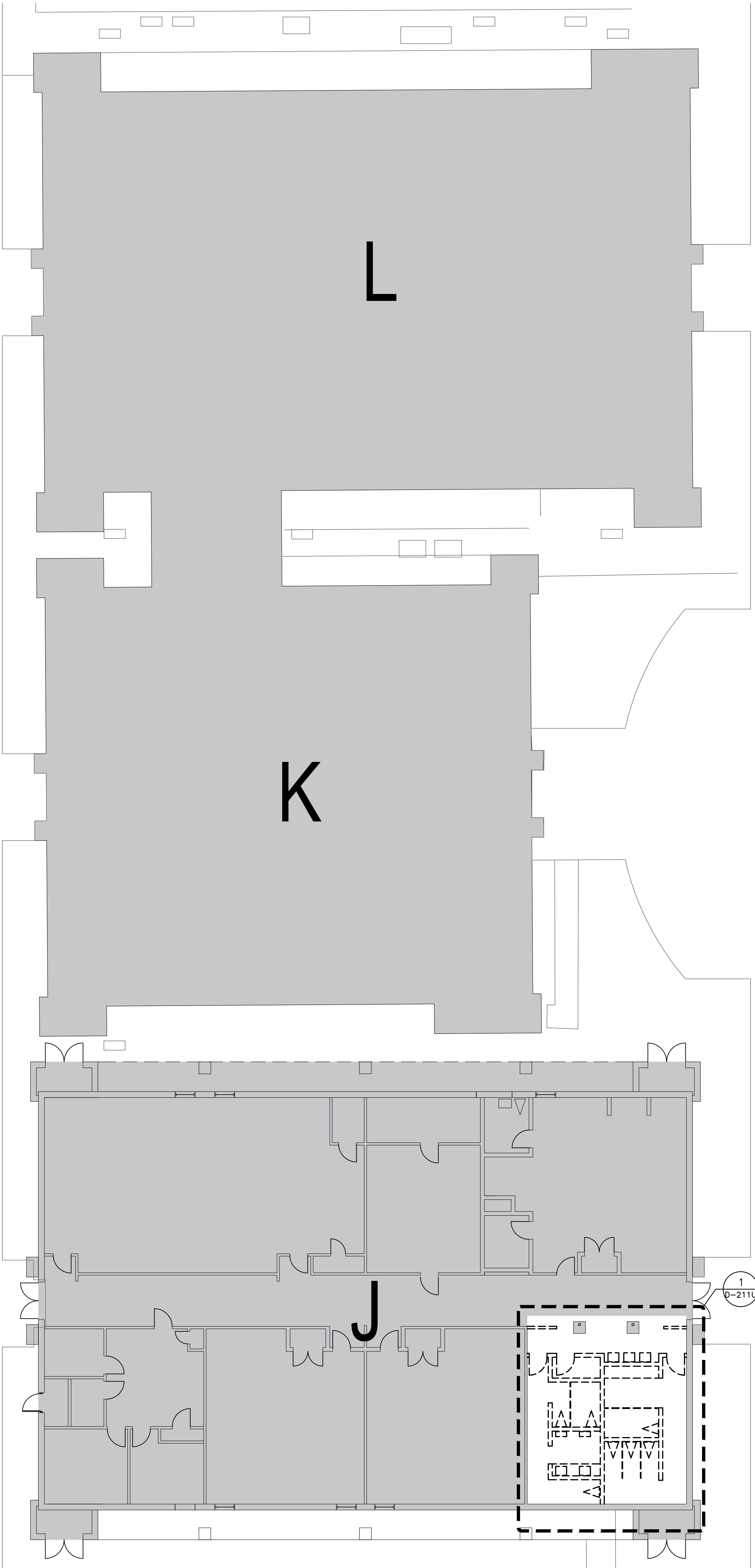
SLAB REPAIR DETAILS



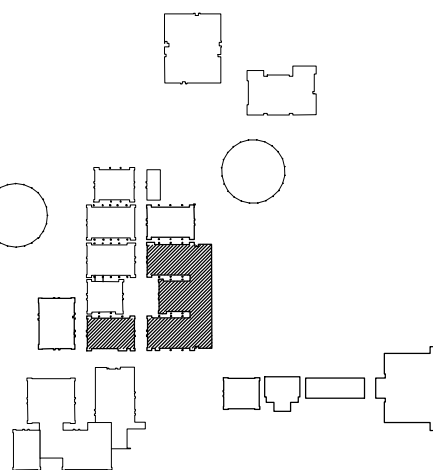
May 08, 2019 -- 10:22am User: aluksa  
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1 DEMOLITION PLAN  
3/32" = 1'-0"



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KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: AL  
Checked: JM  
Scale: 3/32"  
ACAD File: D-210-U

Revisions:

Sheet Title:

UNIV. CAMPUS  
DEMOLITION  
PLAN

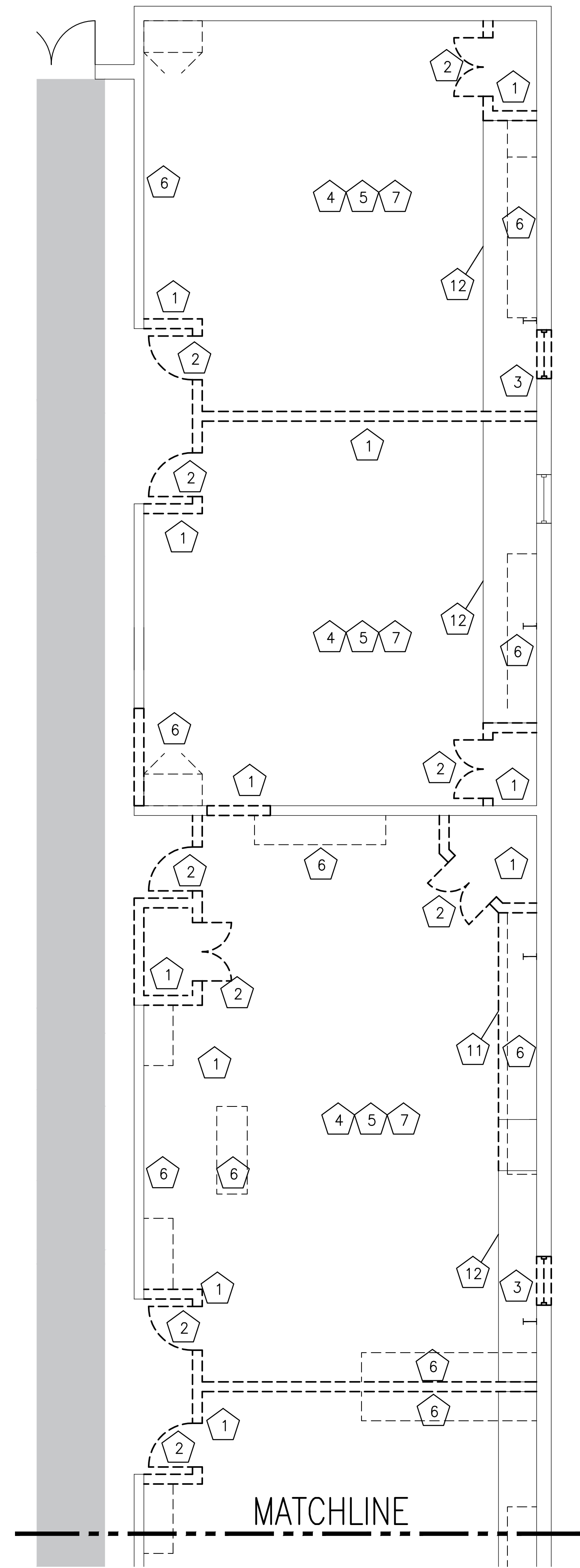
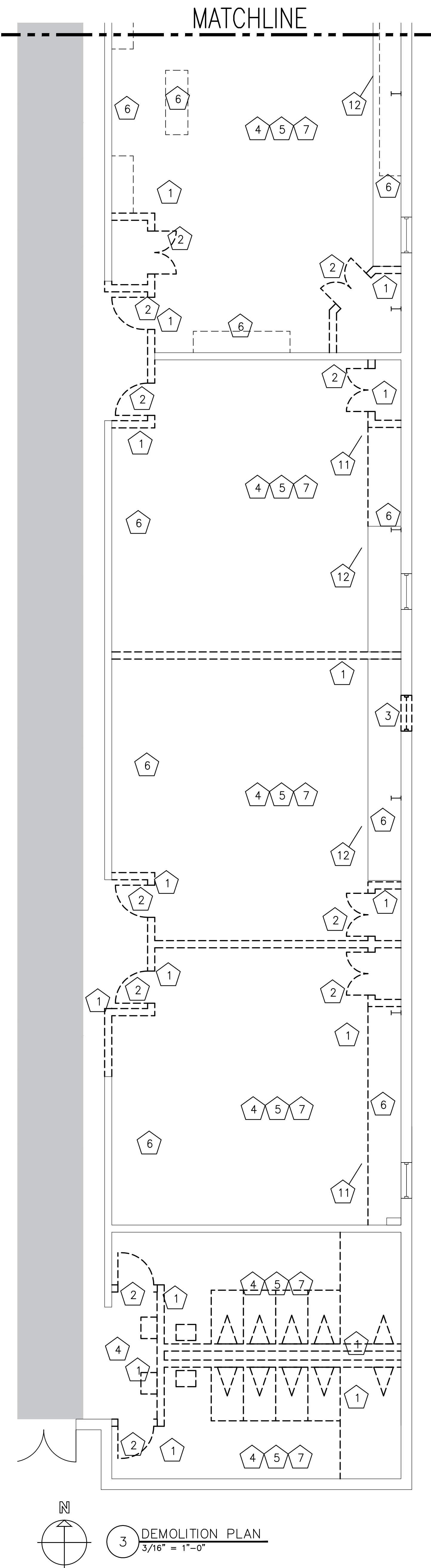
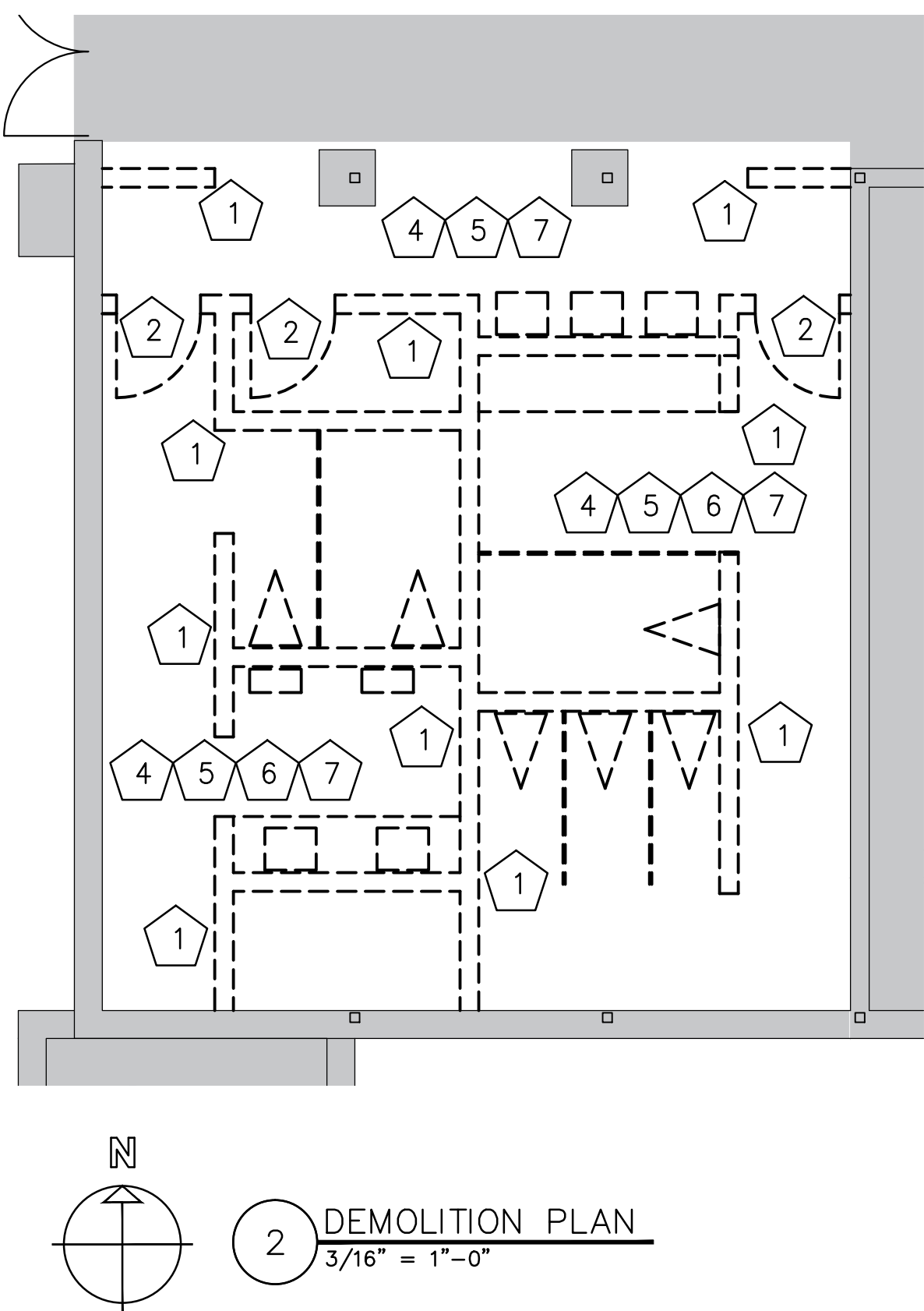
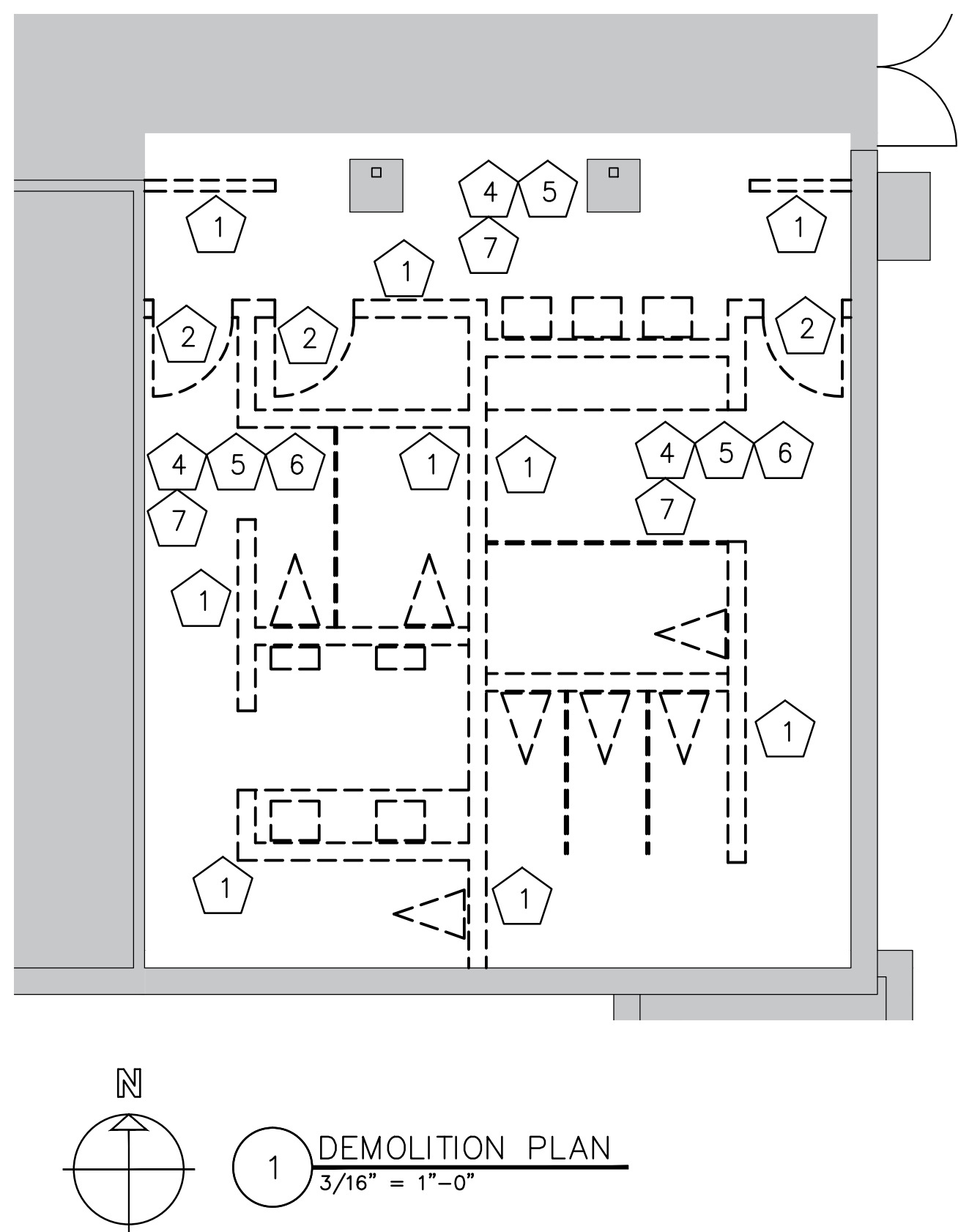
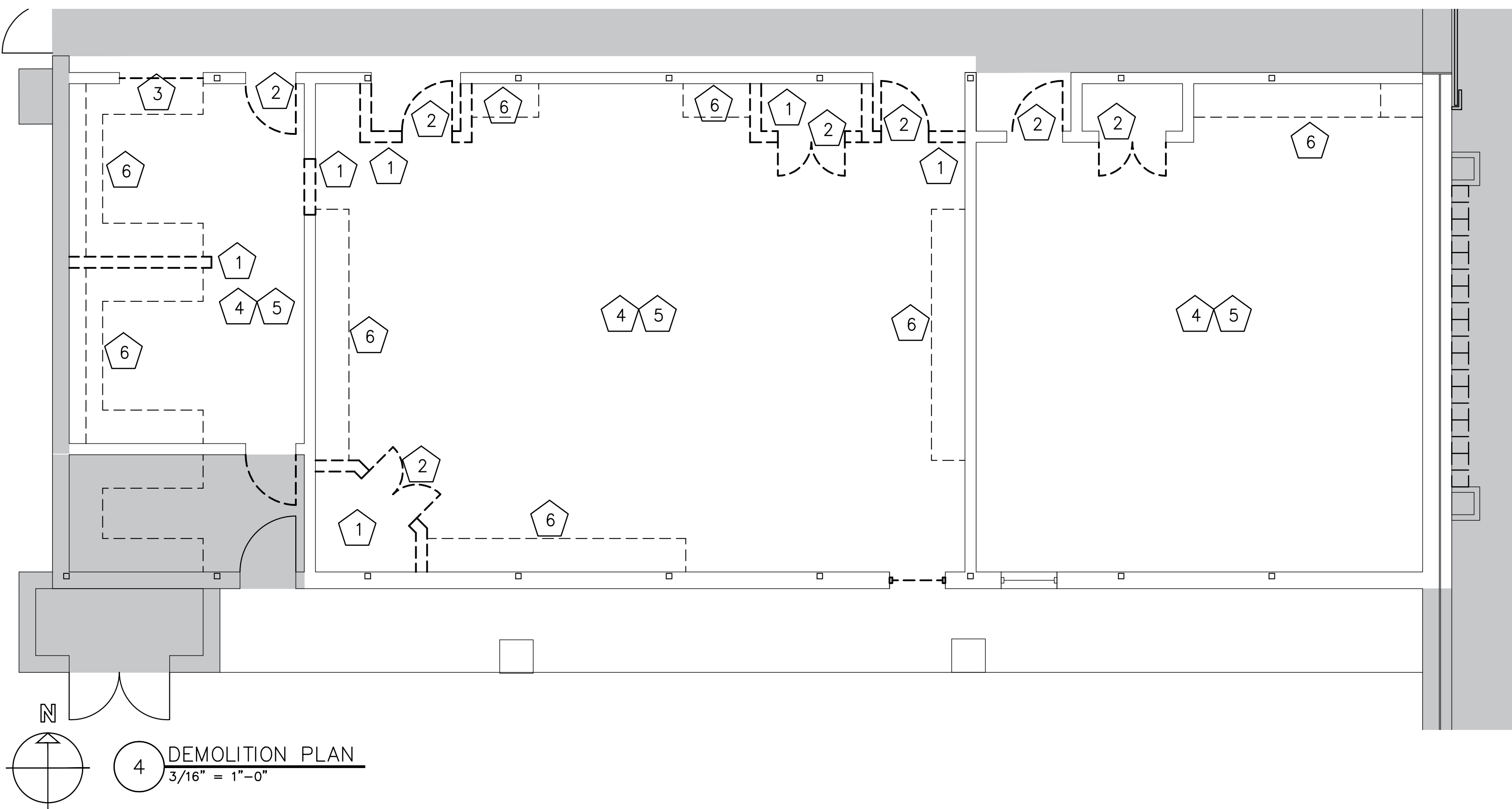
D-210-U



# DEMOLITION KEY NOTES

- 1 REMOVE EXISTING WALL OR PORTION OF WALL TO CREATE NEW OPENINGS; REFER TO PROPOSED FLOOR PLAN FOR EXTENTS OF NEW WALLS AND OPENINGS.
- 2 REMOVE EXISTING DOOR & FRAME.
- 3 REMOVE EXISTING WINDOWS, STOREFRONT FRAMING OR GLAZING.
- 4 REMOVE EXISTING FLOORING & FLOOR BASE WHERE NEW FLOOR FINISHES ARE PROPOSED; REFER PROPOSED PLANS. (FIELD VERIFICATION REQUIRED).
- 5 REMOVE EXISTING CEILING. 2X2 CLG TILES TO BE STORED TO MAINTAIN IN GOOD CONDITION AND SHALL BE RE-USED. REFER TO MEP DRAWINGS FOR ITEMS SUCH AS LIGHT FIXTURES, HVAC, ETC.
- 6 REMOVE EXISTING MILLWORK.
- 7 REMOVE EXISTING PLUMBING FIXTURES, ITEMS & ACCESSORIES.
- 8 EXISTING DOOR TO REMAIN; PROVIDE NEW HARDWARE.
- 9 REMOVE ANY EXISTING WALL-MOUNTED ITEMS SUCH AS BOARDS. RETURN TO OWNER.
- 10 REMOVE EXISTING CONCRETE SLAB. REFER STRUCTURAL.
- 11 REMOVE CEILING FURRDOWN.
- 12 EXISTING FURRDOWN TO REMAIN.
- 13 ELECTRICAL EQUIPMENT TO REMAIN; REF. MEP DRAWINGS.

5 DEMOLITION PLAN  
3/16" = 1'-0"

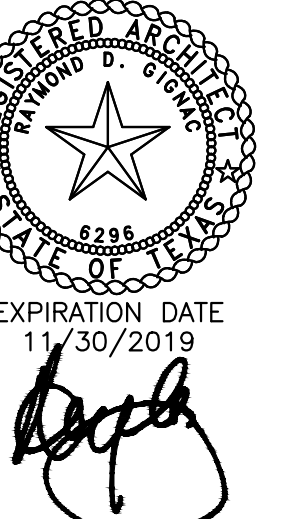


Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

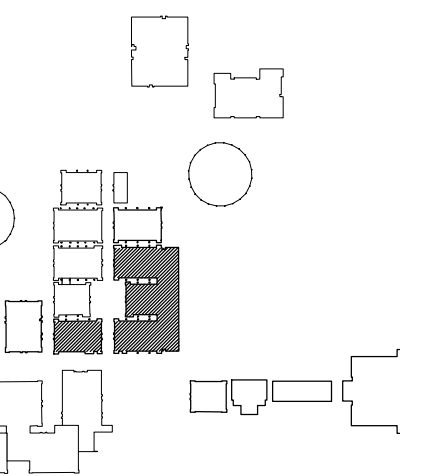
**MEP:**  
DBR ENGINEERING



SIGNED: 05/10/2019



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**RENOVATIONS**



## KEYPLAN

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Drawing Date: MAY 10, 2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: D-211-U

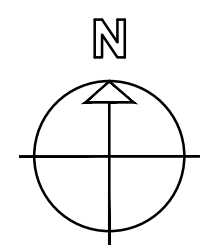
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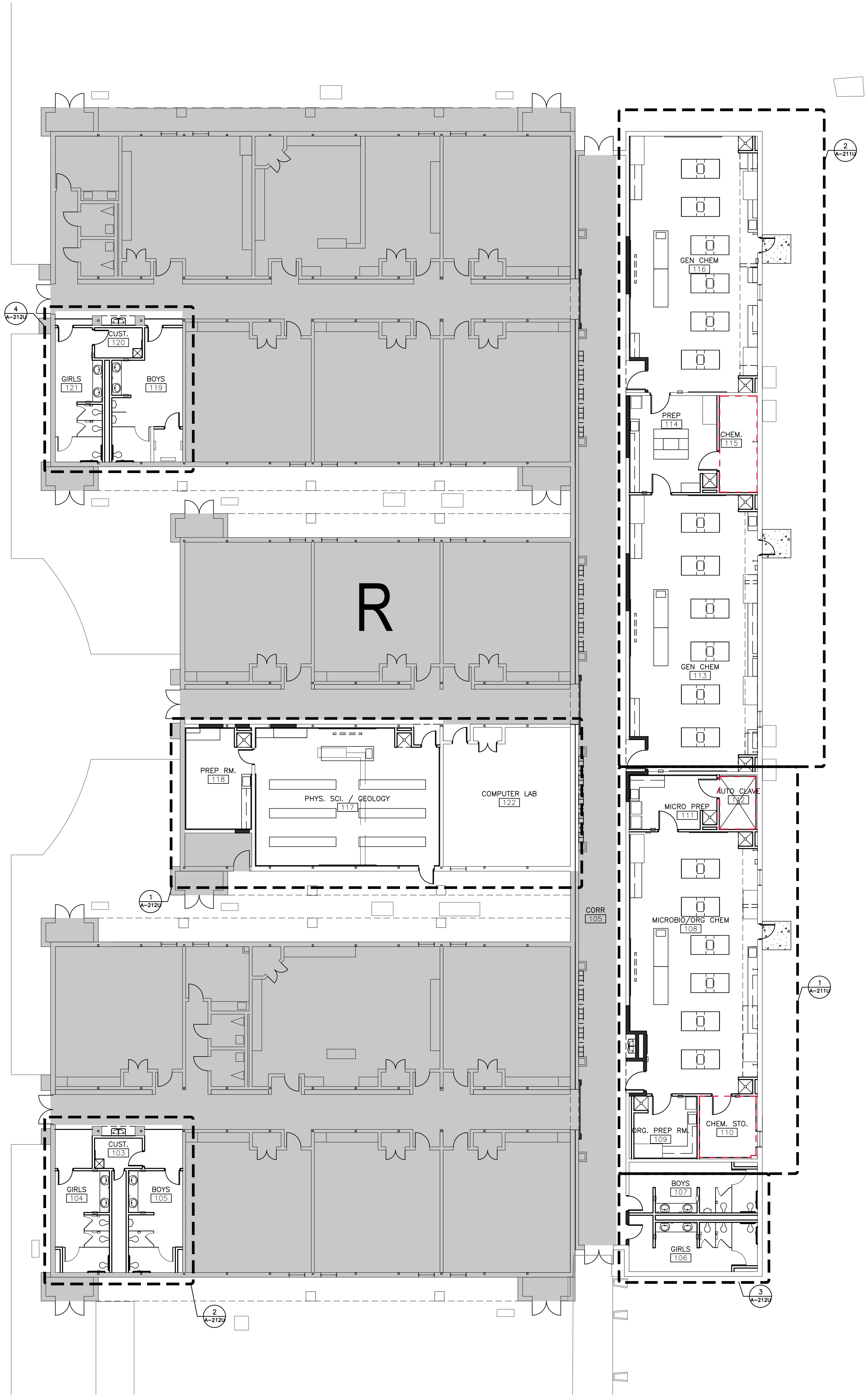
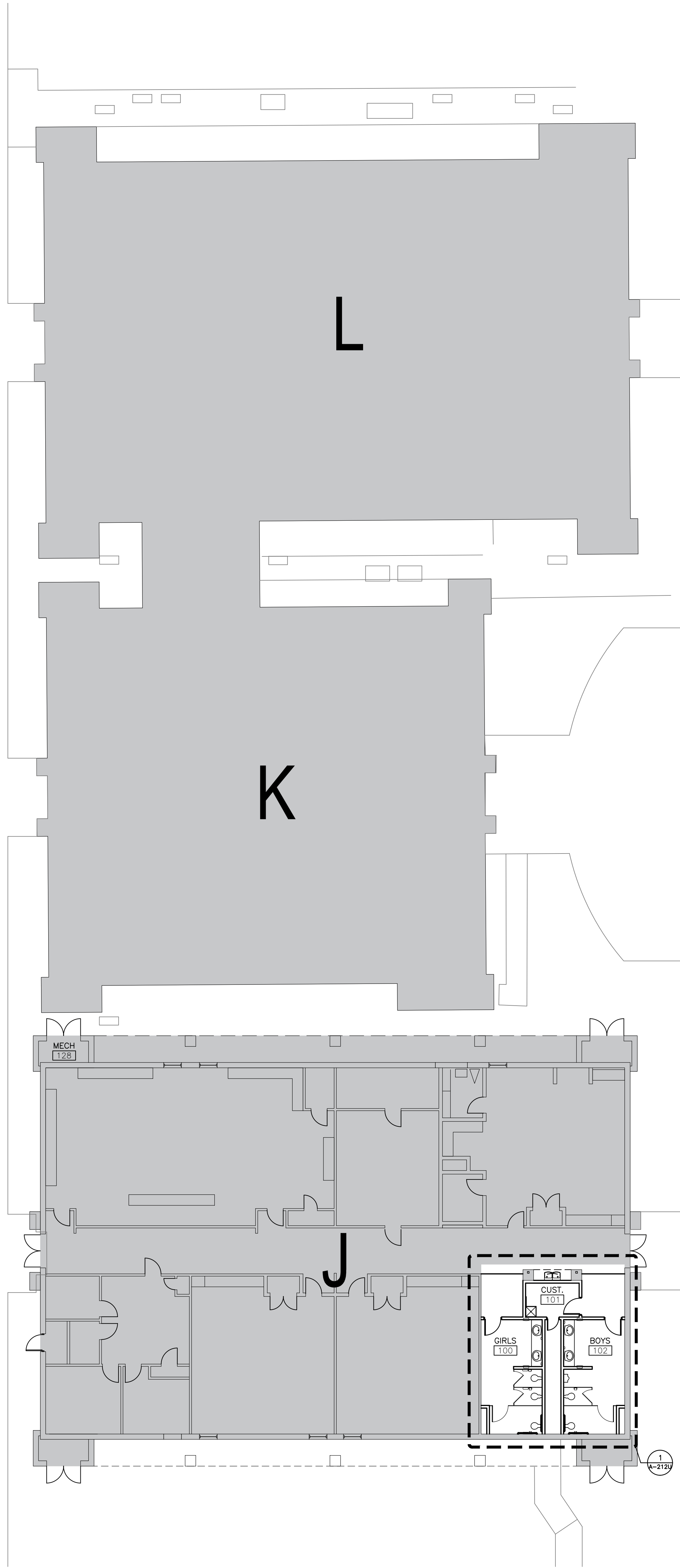
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**SCIENCE LAB**  
**DEMO PLANS**

**D-211-U**





1 OVERALL PLAN  
3/32" = 1'-0"

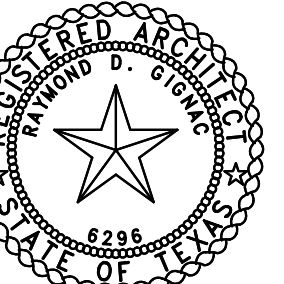


Consultants:

**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING

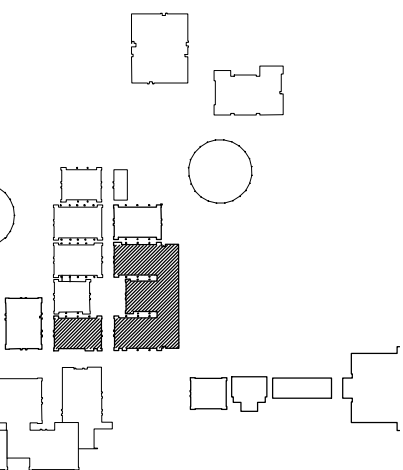


EXPIRATION DATE  
11/30/2019

SIGNED: 05/10/2019



**PSJA ISD**  
**NORTH ECHS**  
**& COLLEGE**  
**AND**  
**UNIVERSITY**  
**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**



**KEYPLAN**

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: AL  
Checked: JM  
Scale: 3/32"  
ACAD File: A-210-U

Revisions:

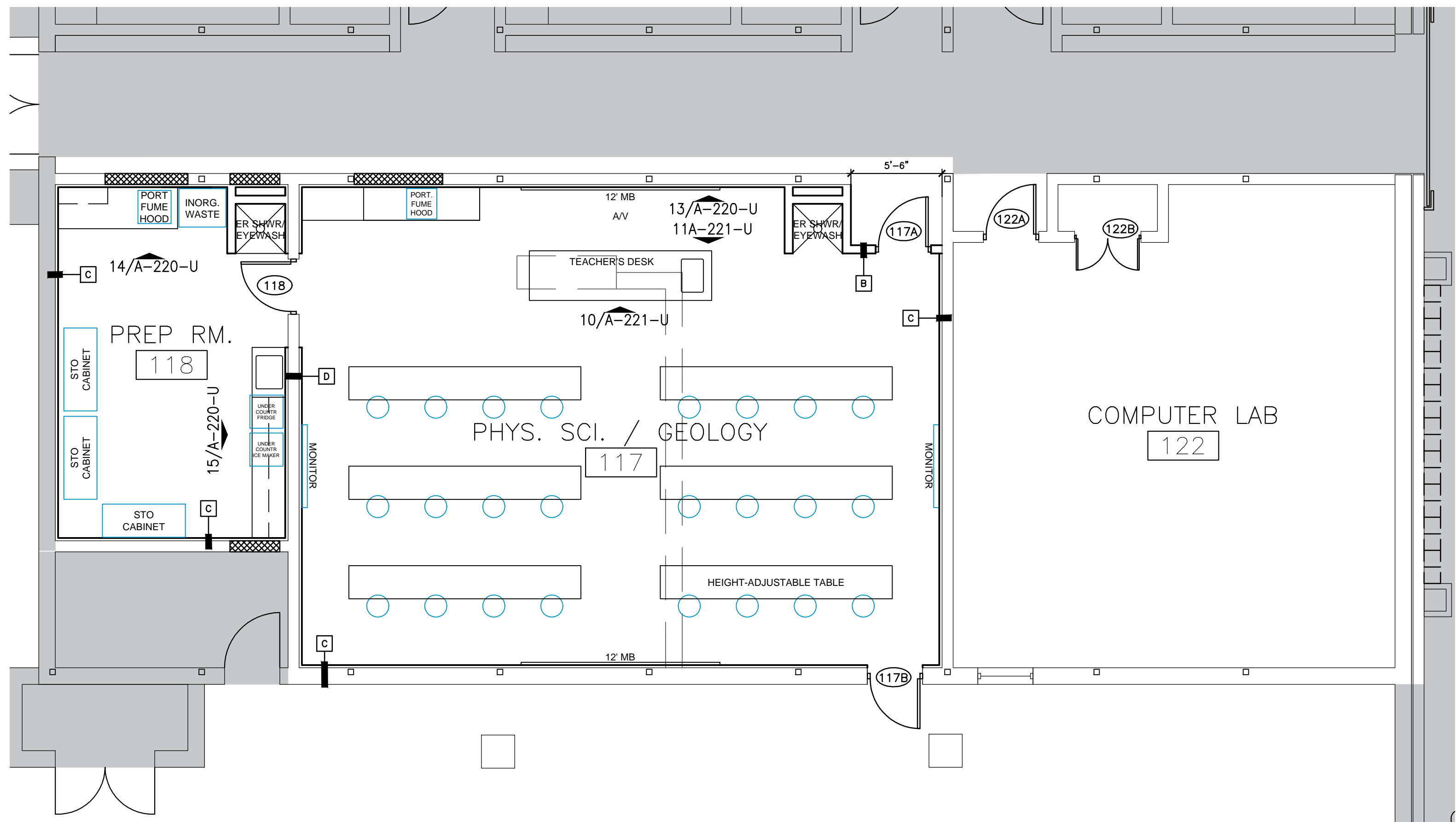
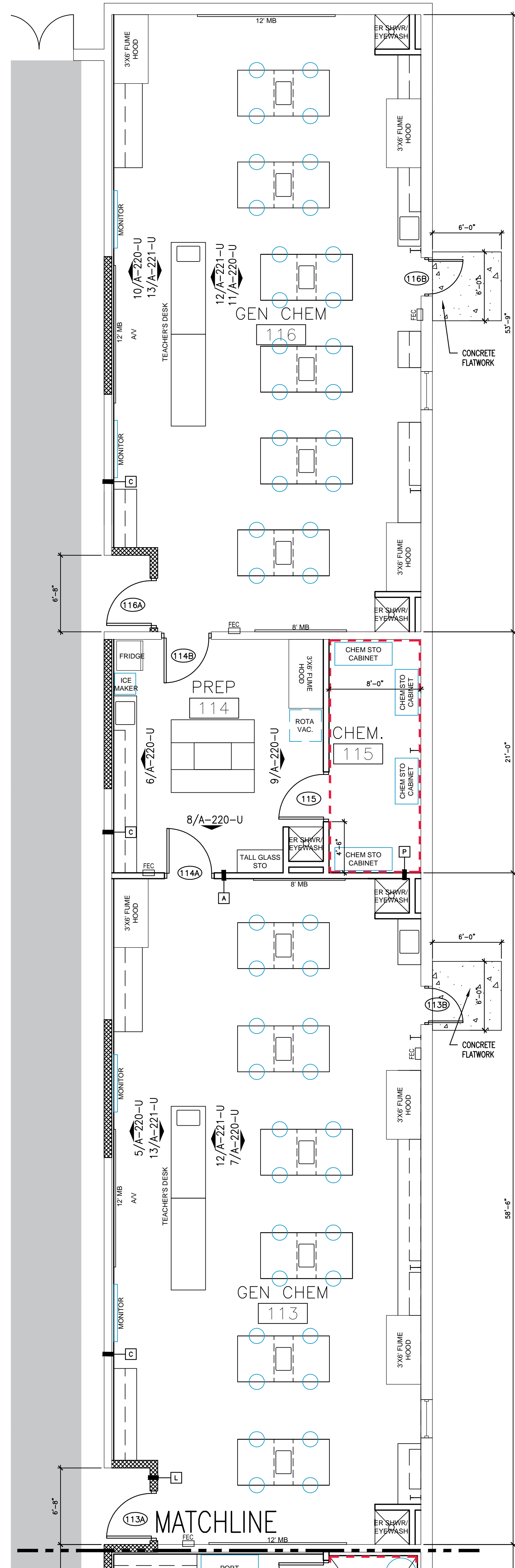
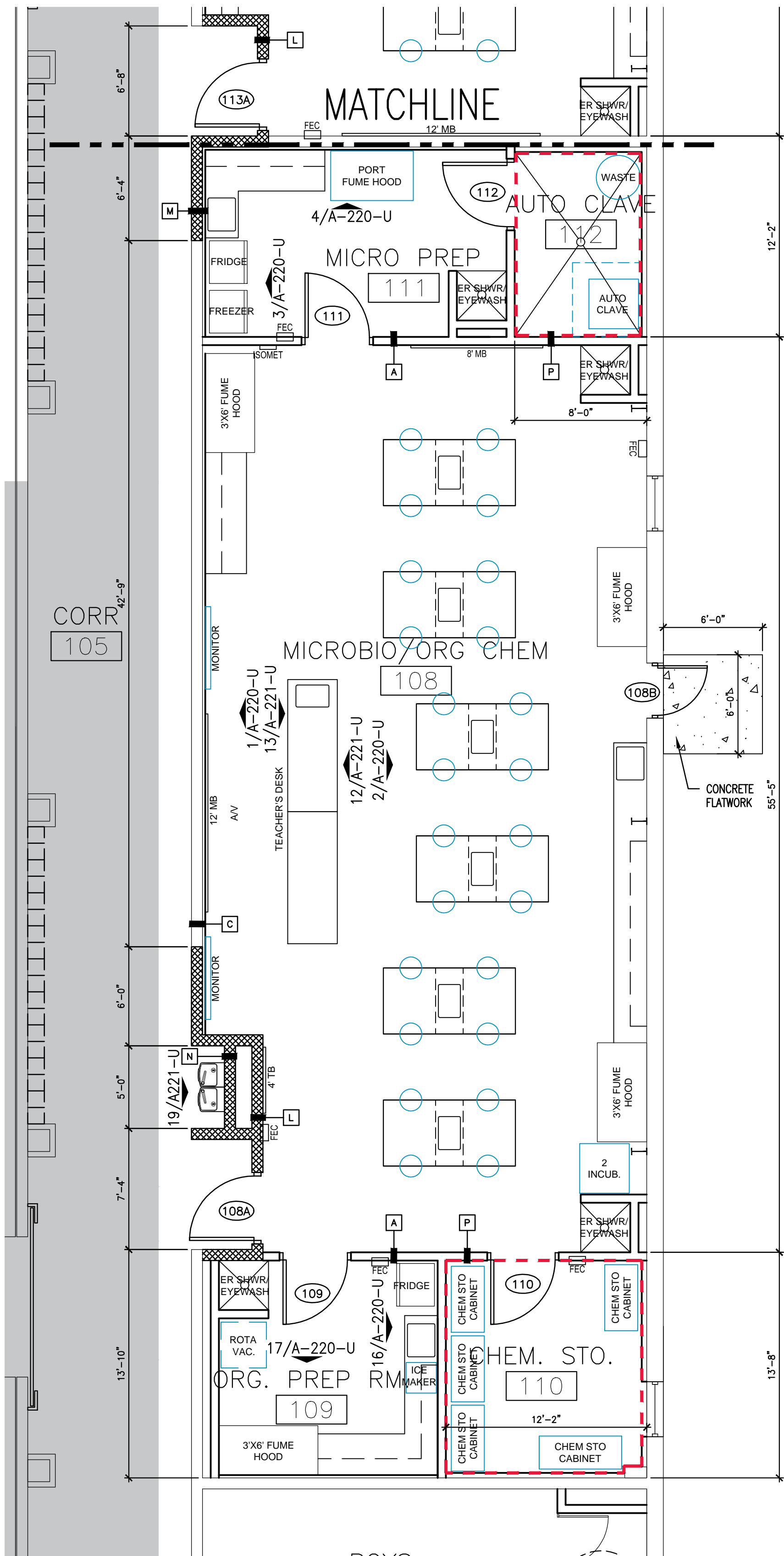
Sheet Title:

**UNIV. CAMPUS**  
**OVERALL**  
**FLOOR PLAN**

**A-210-U**

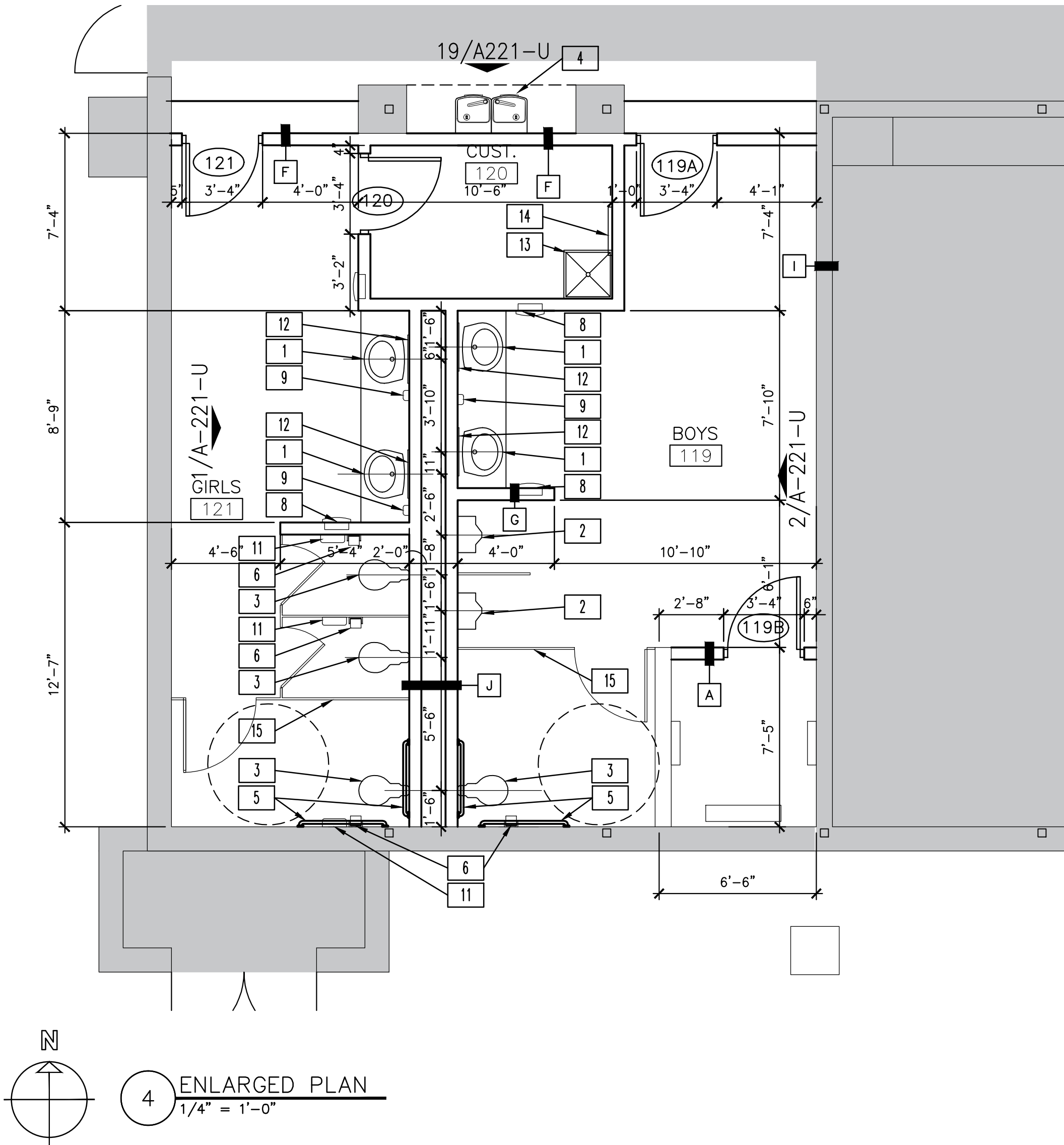


- GENERAL CONSTRUCTION NOTES
- DEMOLITION AND PROPOSED WORK WILL HAVE TO BE COORDINATED WITH THE OWNER TO MINIMIZE DISRUPTIONS TO THE CAMPUS, WHICH MAY BE IN USE.
  - TV MONITORS, MONITOR WALL BRACKETS, CEILING-MOUNTED PROJECTORS, REFRIGERATORS, FURNITURE & OTHER SCIENCE LAB EQUIPMENT ARE SHOWN FOR COORDINATION WITH MEP TRADES. THEY ARE NOT TO BE INCLUDED IN THE CONTRACT; THEY ARE TO BE PROVIDED BY THE OWNER & INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
  - ANY EXISTING WALLS TO REMAIN THAT REQUIRE REPAIR AFTER DEMOLITION IS COMPLETE, SHALL BE OBSERVED BY THE DESIGN TEAM AND OWNER PRIOR TO REPAIR. COORDINATION WILL BE REQUIRED.
  - EVERY BUILDING SHALL HAVE UP TO 3 PAINT ACCENTS IN ADDITION TO THE FIELD PAINT COLOR.
  - ANY OPENINGS IN EXISTING WALLS SCHEDULED TO BE INFILLED SHALL HAVE THE SAME MATERIAL AND FINISH AS THAT OF THE EXISTING WALL. ALL INFILLED OPENINGS SHALL BE FLUSH WITH EXISTING WALL SURFACES AND PAINTED.





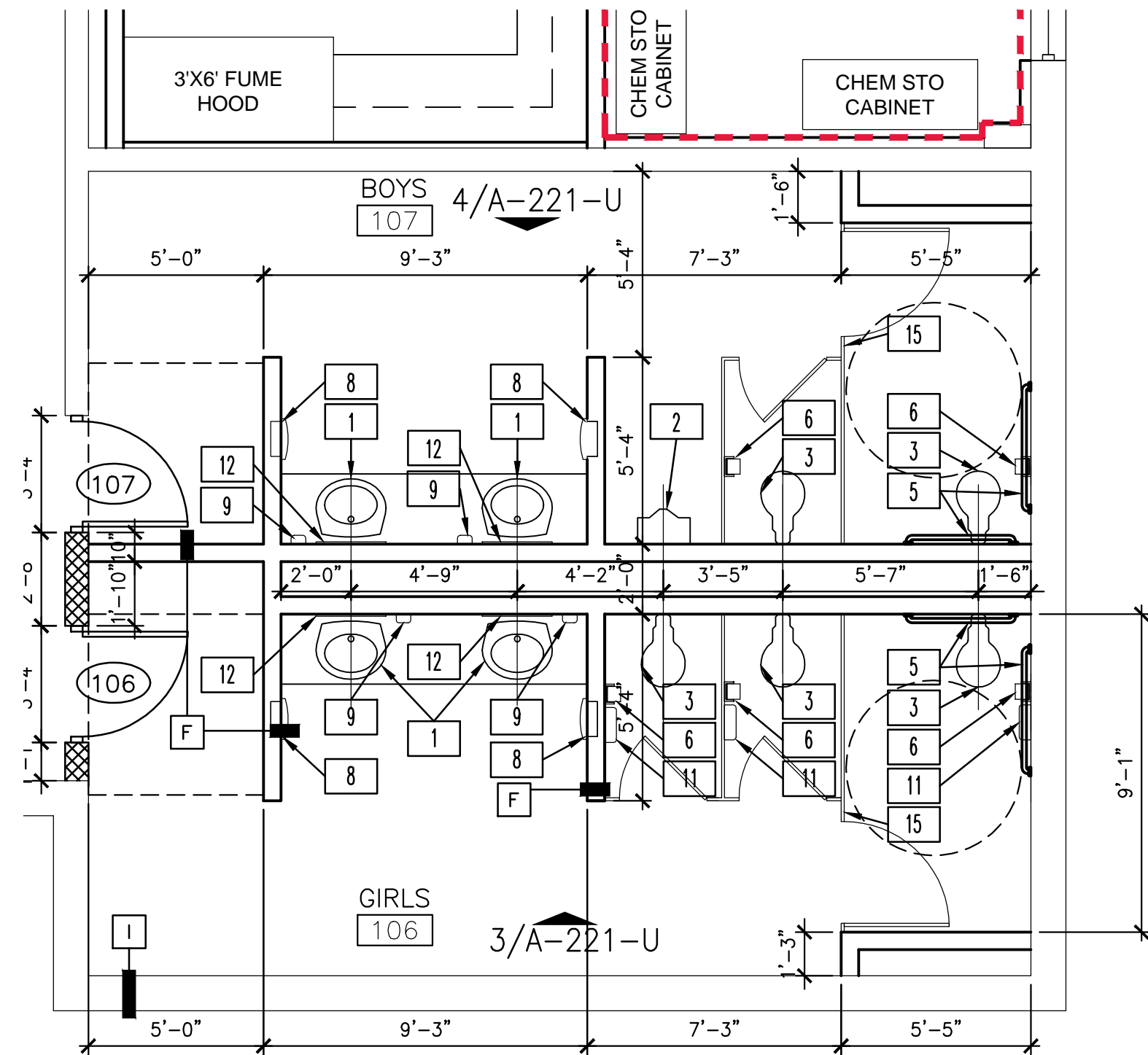
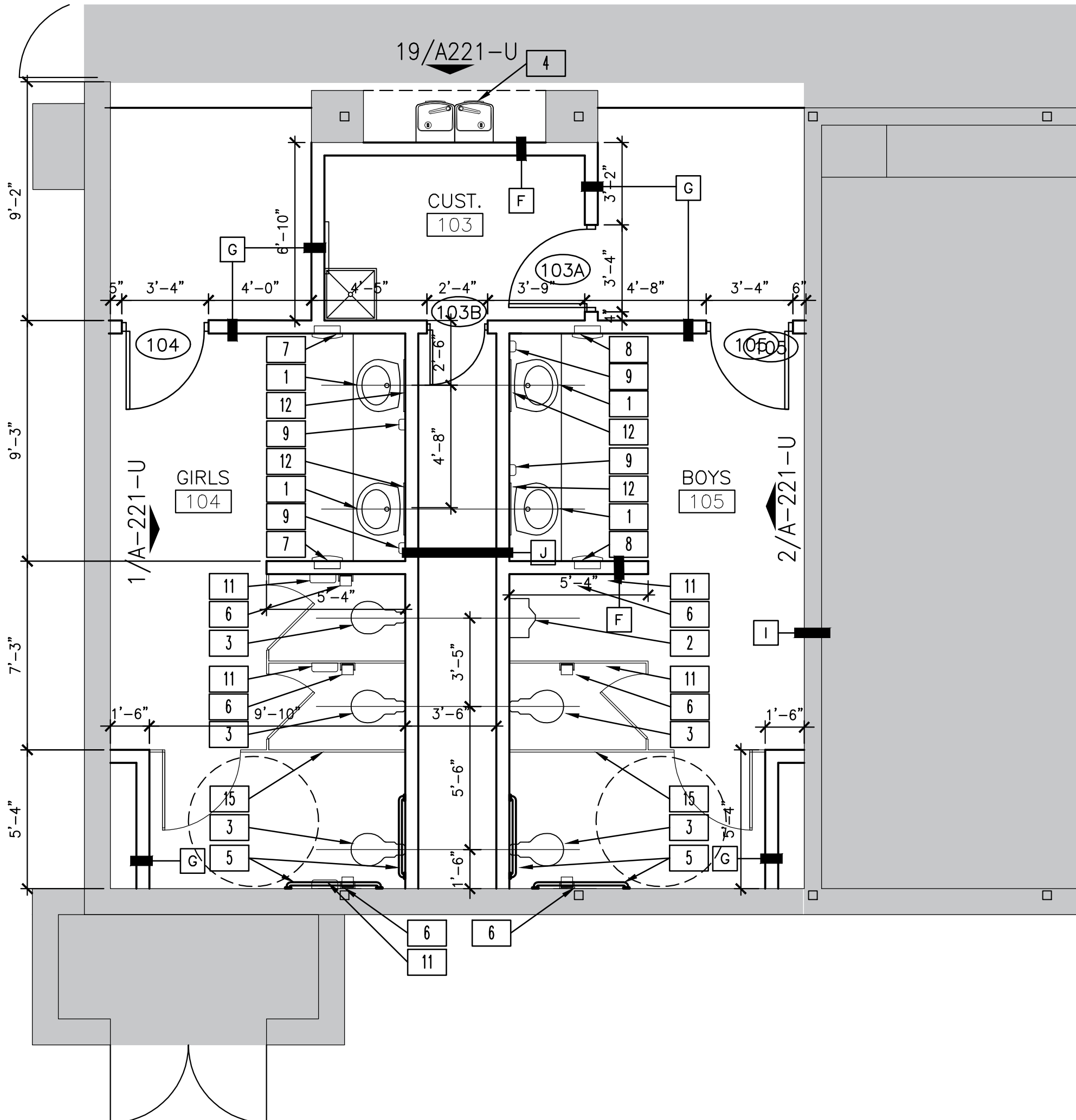
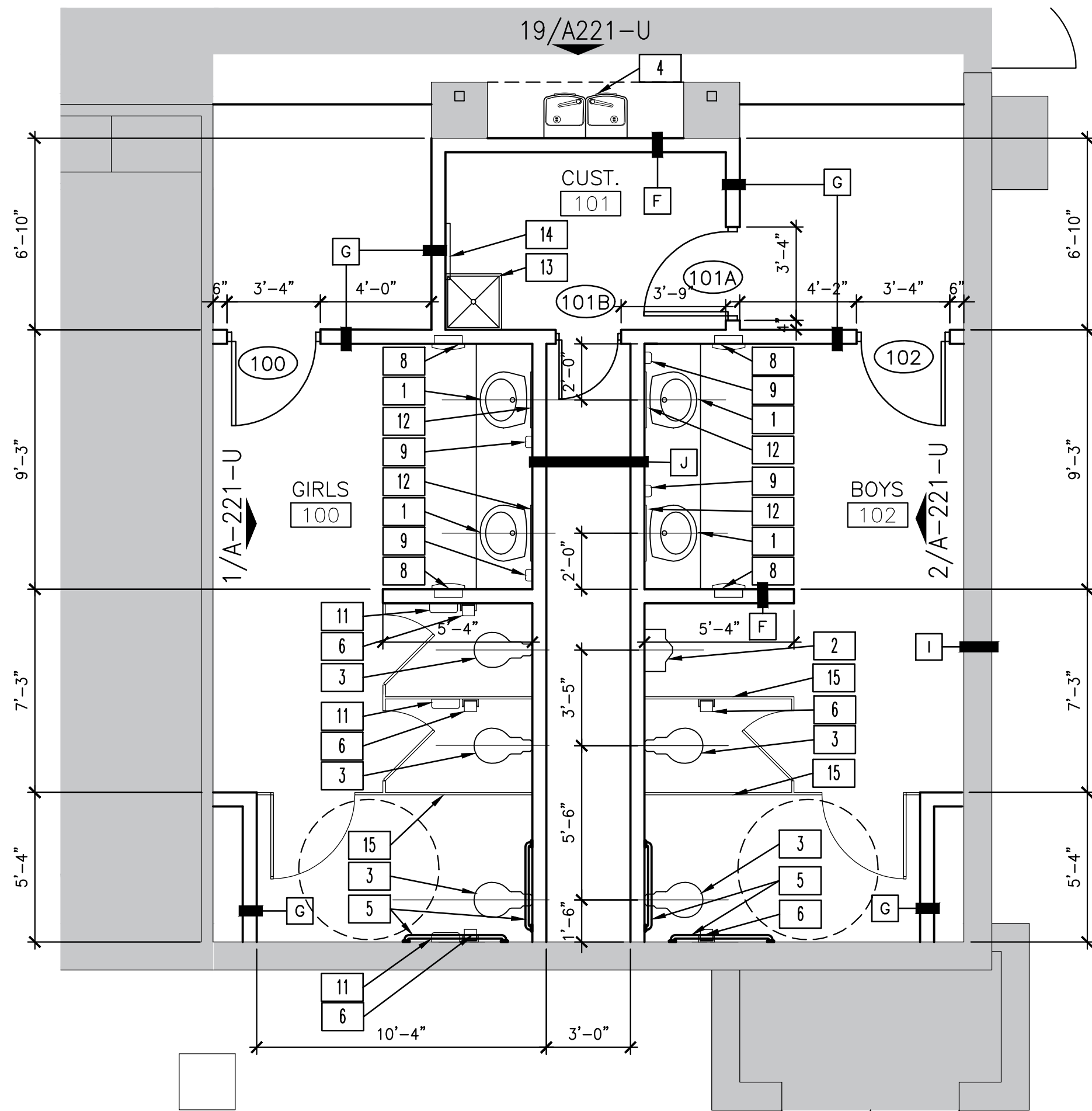
FIXTURE MOUNTING HEIGHT SCHEDULE		ADULTS	
* REFER TO ADA GUIDELINES ON SHEET G-102.			
1	1. LAVATORIES/SINK (MEASURED FROM FLOOR TO RIM)	STANDARD ACCESSIBLE	32" 34" MAX (29" MIN KNEESPACE)
2	2. URINALS (MEASURED FROM FLOOR TO RIM)	STANDARD ACCESSIBLE	16" MAX 17" MAX
3	3. WATER CLOSETS (MEASURED FROM FLOOR TO TOP OF SEAT)	STANDARD ACCESSIBLE	15" 17" TO 19"
4	4. DRINKING FOUNTAINS AND EWC's FRONTAL APPROACH (MEASURED FROM FLOOR TO SPOUT OUTLET)	STANDARD ACCESSIBLE	42" 36" MAX (27" MIN KNEESPACE)
5	5. GRAB BARS (MEASURED FROM FLOOR TO CENTERLINE OF BAR -- 36" LONG @ REAR WALL & 42" LONG @ SIDE WALL OR 90 DEGREE CONT. GRAB BAR WHERE INDICATED)	STANDARD ACCESSIBLE	33" TO 36" TO TOP OF GRAB BAR
6	6. TOILET TISSUE DISPENSER (MEASURED FROM FLOOR TO CENTERLINE OF ROLL)	STANDARD ACCESSIBLE	20" 19" MIN
7	7. PAPER TOWEL DISPENSER (FRONT APPROACH) & TRASH RECEPTACLE COMBO (MEASURED FROM FLOOR TO TOWEL SLOT)	STANDARD ACCESSIBLE	48" 48"
8	8. ELECTRIC HAND DRYER (MEASURED FROM FLOOR TO CENTER OF CONTROL)	STANDARD ACCESSIBLE	48" 45" MAX
9	9. SOAP DISPENSER (MEASURED FROM FLOOR TO CENTERLINE OF PUSH BUTTON)	STANDARD ACCESSIBLE	38" 38"
10	10. SANITARY NAPKIN DISPENSER (MEASURED FROM FLOOR TO COIN SLOT)	STANDARD ACCESSIBLE	48" 45" MAX
11	11. SANITARY NAPKIN DISPOSAL UNIT (MEASURED FROM FLOOR TO TOP OF UNIT) (ONLY IN ROOMS LABELED WOMEN & GIRLS)	STANDARD ACCESSIBLE	40" 40"
12	12. MIRRORS 1 MIRROR PER LAVATORY (NOT NOTED FOR CLARITY). MEASURED FROM FLOOR TO BOTTOM OF REFLECTING SURFACE.	STANDARD ACCESSIBLE	48" 40" MAX
13	13. MOP BASIN / SERVICE SINK (ONE PER ROOM LABELED CUSTODIAN)		
14	14. MOP HOLDER (ONE PER ROOM LABELED CUSTODIAN)		48" MAX
15	15. TOILET PARTITION / URINAL SCREEN	NOT NOTED FOR CLARITY	
16	16. SHOWER STALL (ADA) TOP OF SEAT  HAND SHOWER HEAD MOUNTING  CONTROL AREA (TOP OF)	ACCESSIBLE ACCESSIBLE ACCESSIBLE	17" TO 19" 48" 48" MAX
17	17. ADA BENCH AS SPECIFIED. REFER TO MANUFACTURER'S RECOMMENDED HEIGHTS.		



- GENERAL CONSTRUCTION NOTES**
- DEMOLITION AND PROPOSED WORK WILL HAVE TO BE COORDINATED WITH THE OWNER TO MINIMIZE DISRUPTIONS TO THE CAMPUS, WHICH MAY BE IN USE.
  - TV MONITORS, MONITOR WALL BRACKETS, CEILING-MOUNTED PROJECTORS, REFRIGERATORS, FURNITURE & OTHER SCIENCE LAB EQUIPMENT ARE SHOWN FOR COORDINATION WITH MEP TRADES. THEY ARE NOT TO BE INCLUDED IN THE CONTRACT; THEY ARE TO BE PROVIDED BY THE OWNER & INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
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  - EVERY BUILDING SHALL HAVE UP TO 3 PAINT ACCENTS IN ADDITION TO THE FIELD PAINT COLOR.
  - ANY OPENINGS IN EXISTING WALLS SCHEDULED TO BE INFILLED SHALL HAVE THE SAME MATERIAL AND FINISH AS THAT OF THE EXISTING WALL. ALL INFILLED OPENINGS SHALL BE FLUSH WITH EXISTING WALL SURFACES AND PAINTED.

ROOM FINISH SCHEDULE									
NUMBER	NAME	FLOOR	BASE	NORTH WALL	SOUTH WALL	EAST WALL	WEST WALL	CEILING	CLG. HT.
100	GIRLS	TILE	TILE	TILE/PT	TILE/PT	TILE/PT	TILE/PT	PTD GYP	8'-0"
101	CUSTODIAN	TILE	TILE	TILE/PT	TILE/PT	TILE/PT	TILE/PT	PTD GYP	8'-0"
102	BOYS	TILE	TILE	TILE/PT	TILE/PT	TILE/PT	TILE/PT	PTD GYP	8'-0"
103	CUSTODIAN	TILE	TILE	TILE/PT	TILE/PT	TILE/PT	TILE/PT	PTD GYP	8'-0"
104	GIRLS	TILE	TILE	TILE/PT	TILE/PT	TILE/PT	TILE/PT	PTD GYP	8'-0"
105	BOYS	TILE	TILE	TILE/PT	TILE/PT	TILE/PT	TILE/PT	PTD GYP	8'-0"
106	GIRLS	TILE	TILE	TILE/PT	TILE/PT	TILE/PT	TILE/PT	PTD GYP	8'-0"
107	BOYS	TILE	TILE	TILE/PT	TILE/PT	TILE/PT	TILE/PT	PTD GYP	8'-0"
119	BOYS	TILE	TILE	TILE/PT	TILE/PT	TILE/PT	TILE/PT	PTD GYP	8'-0"
120	CUSTODIAN	TILE	TILE	TILE/PT	TILE/PT	TILE/PT	TILE/PT	PTD GYP	8'-0"
121	GIRLS	TILE	TILE	TILE/PT	TILE/PT	TILE/PT	TILE/PT	PTD GYP	8'-0"

DOOR SCHEDULE						
DOOR SCHEDULE	DOOR			FRAME		
	WIDTH	HEIGHT	TYPE	MATERIAL	TYPE	MATERIAL
100	3'-0"	7'-0"	FL	WOOD	B	HM
101A	3'-0"	7'-0"	FL	WOOD	B	HM
101B	2'-0"	7'-0"	FL	WOOD	B	HM
102	3'-0"	7'-0"	FL	WOOD	B	HM
103A	3'-0"	7'-0"	FL	WOOD	B	HM
103B	2'-0"	7'-0"	FL	WOOD	B	HM
104	3'-0"	7'-0"	FL	WOOD	B	HM
105	3'-0"	7'-0"	FL	WOOD	B	HM
106	3'-0"	7'-0"	FL	WOOD	A	HM
107	3'-0"	7'-0"	FL	WOOD	A	HM
119	3'-0"	7'-0"	FL	WOOD	B	HM
120A	3'-0"	7'-0"	FL	WOOD	B	HM
120B	2'-0"	7'-0"	FL	WOOD	B	HM
121	3'-0"	7'-0"	FL	WOOD	B	HM
113	3'-0"	7'-0"	FL	WOOD	B	HM



Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING



SIGNED: 05/10/2019



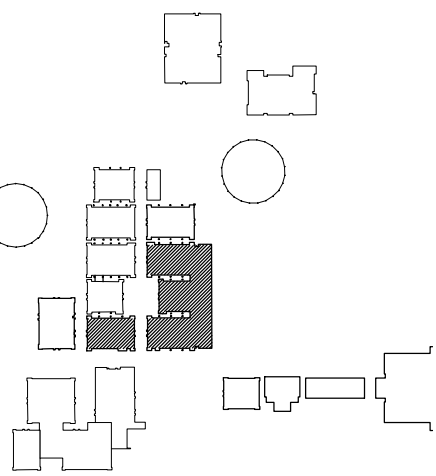
PSJA ISD

NORTH ECHS  
& COLLEGE

AND

UNIVERSITY  
CAMPUS

STUDENT  
RESTROOM  
RENOVATIONS



KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-212-U

Revisions:

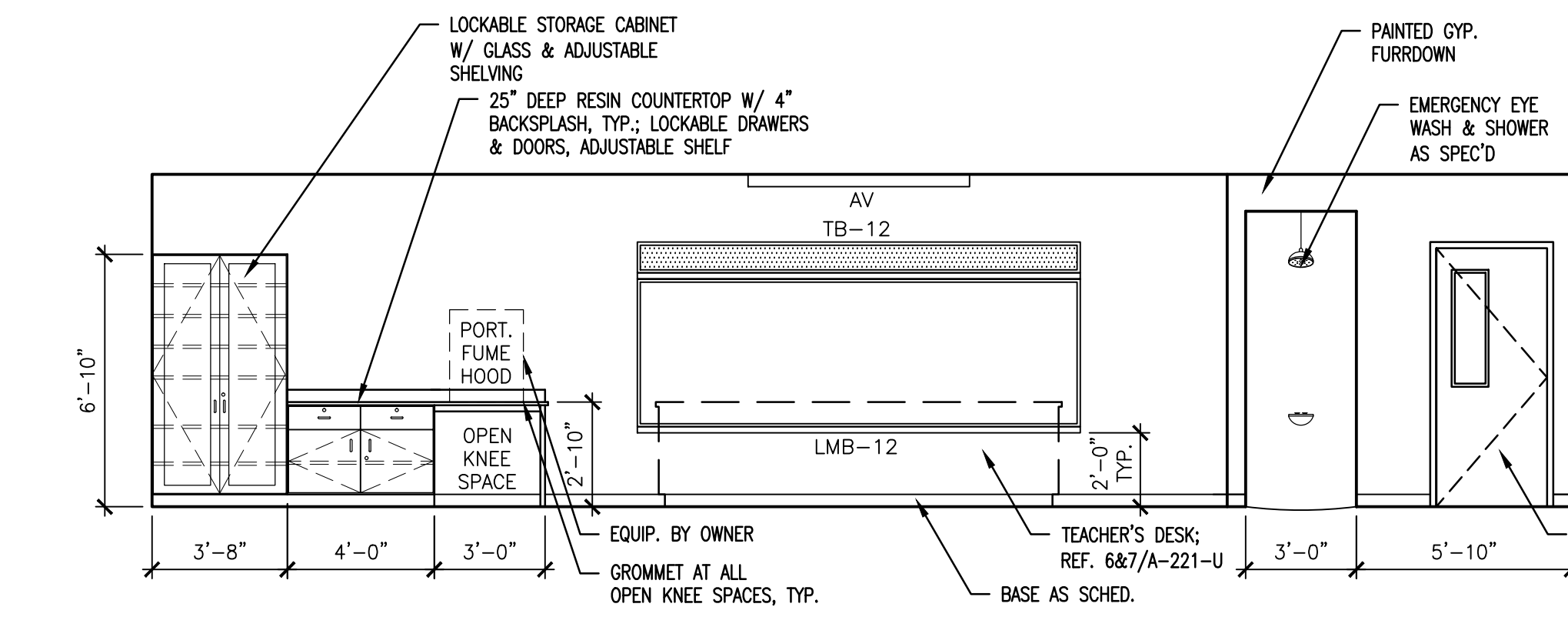
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RESTROOM  
PLANS

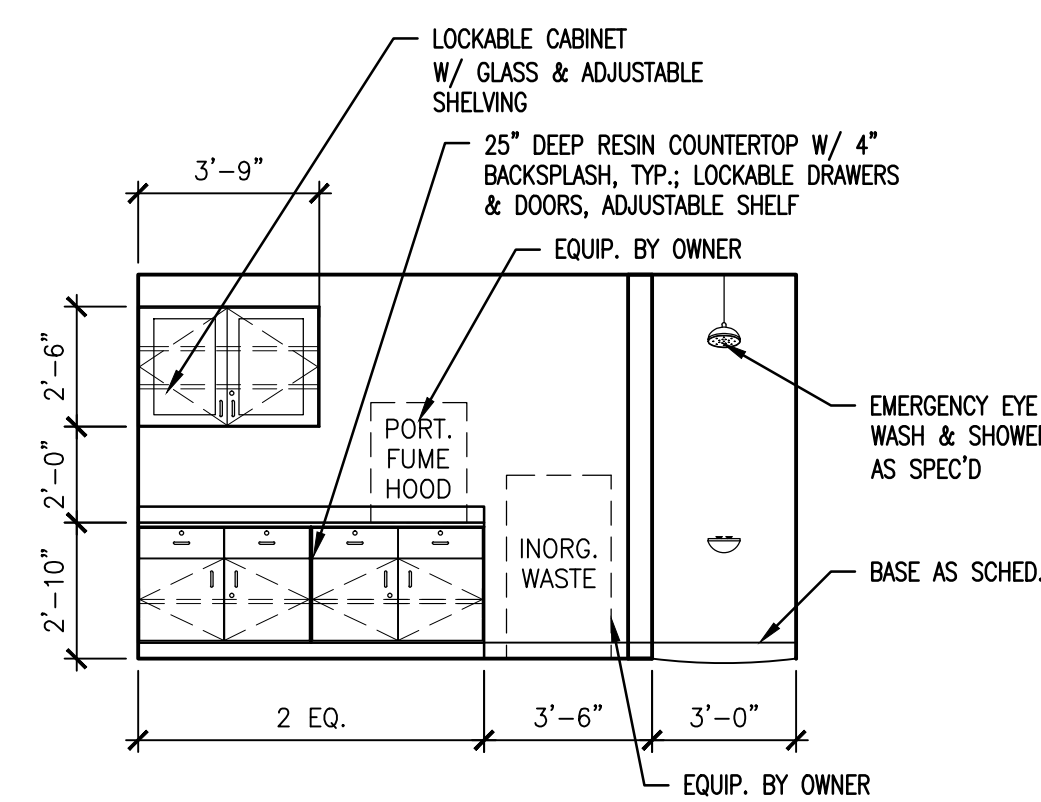
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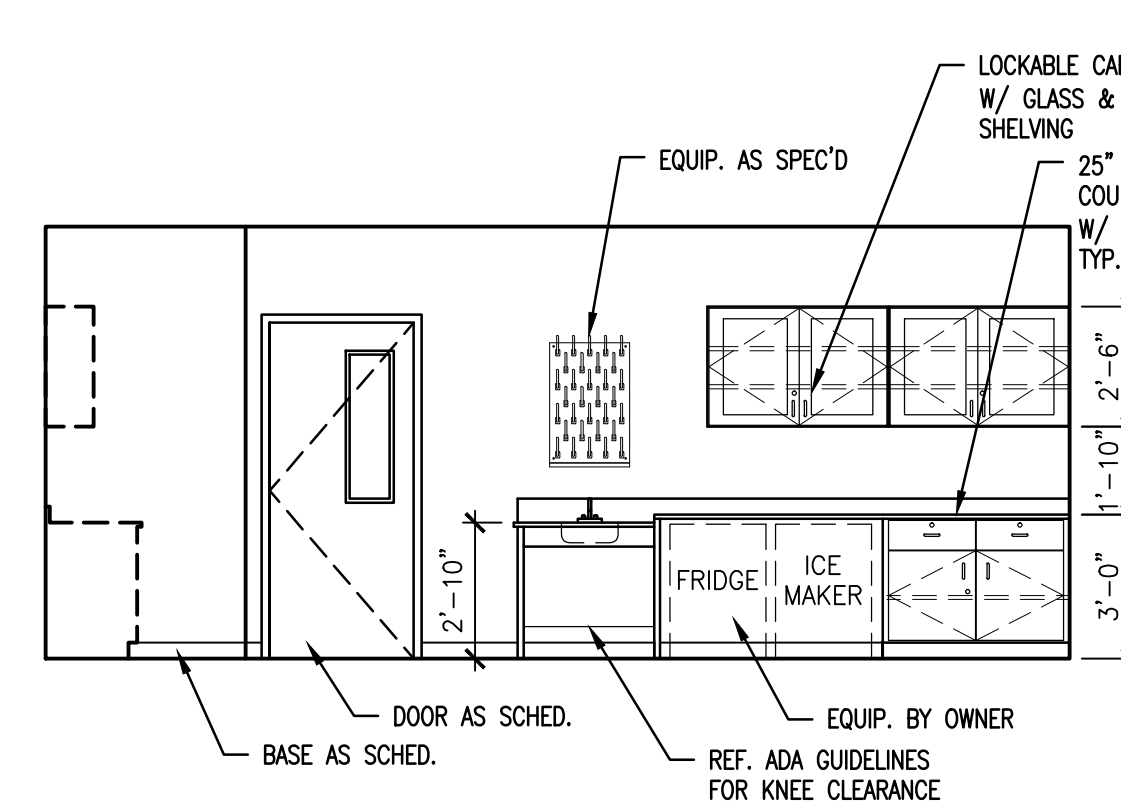
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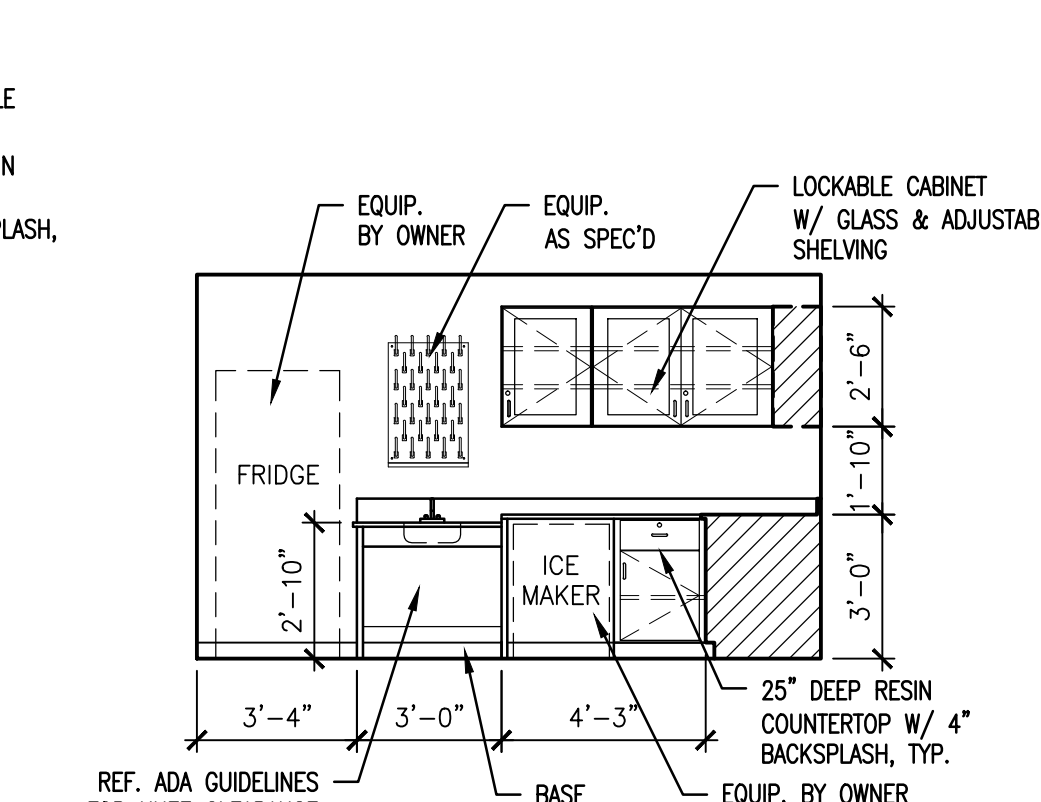
13 INTERIOR ELEVATION - PHY. SCIENCE / GEOLOGY 117  
1/4" = 1'-0"



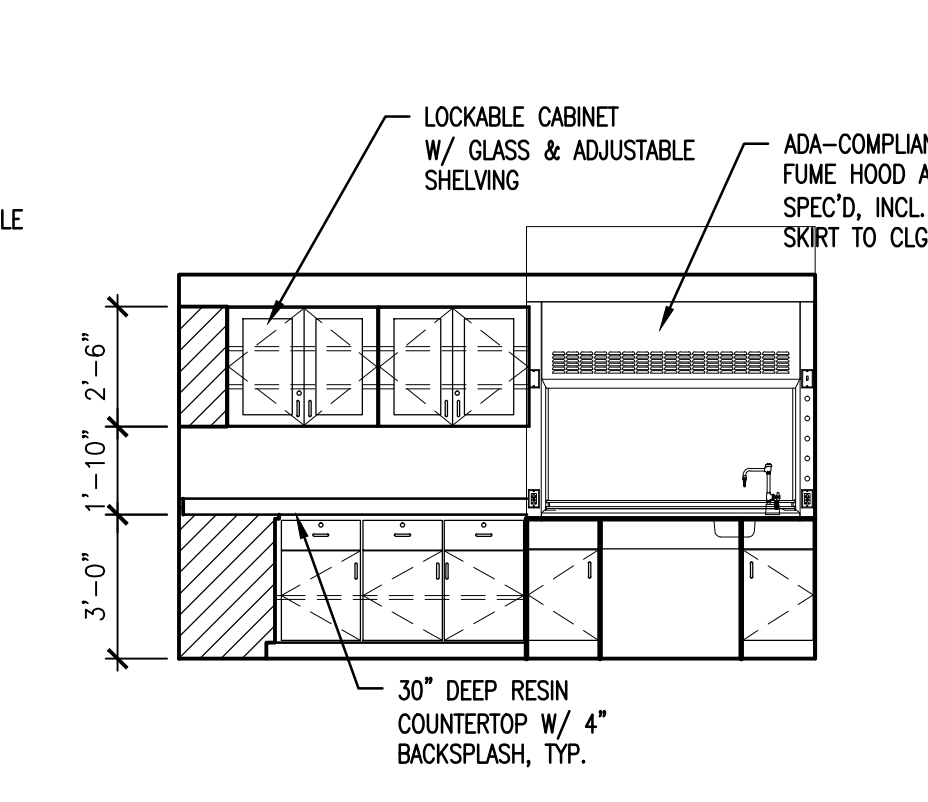
14 INTERIOR ELEVATION - 118  
1/4" = 1'-0"



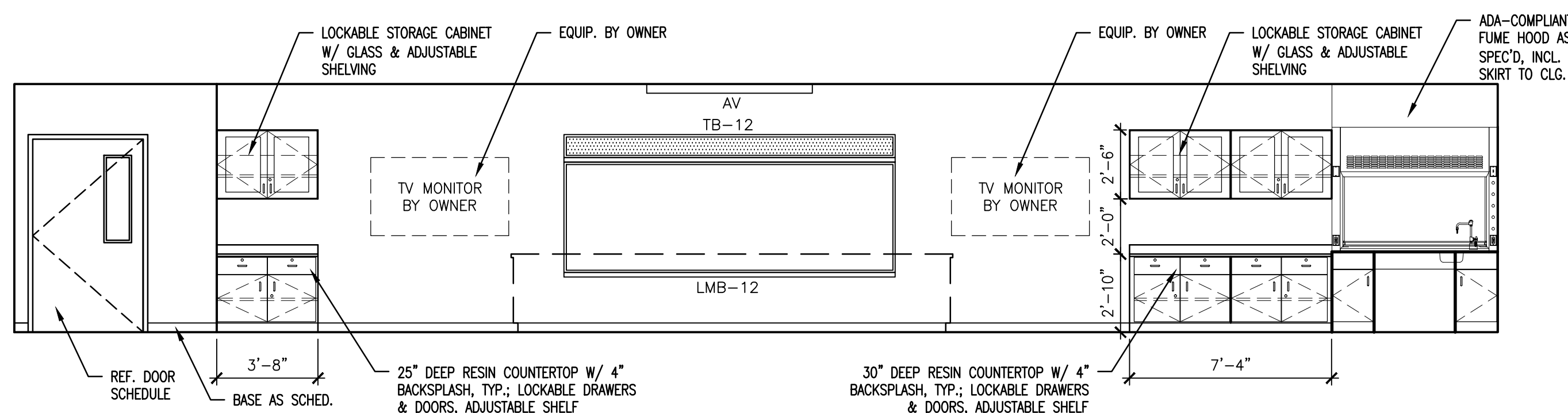
15 INTERIOR ELEVATION - 118  
1/4" = 1'-0"



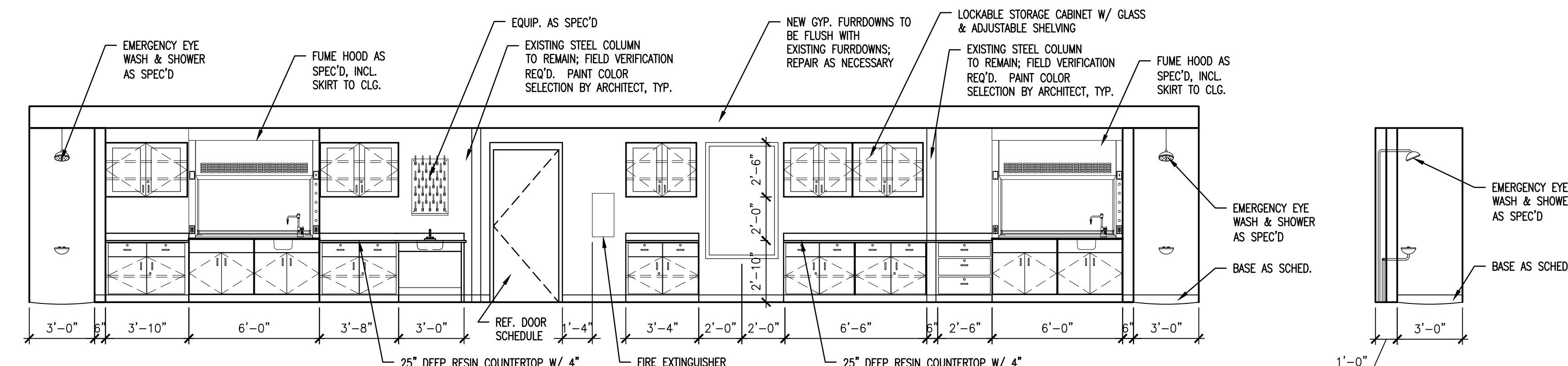
16 INTERIOR ELEVATION - 109  
1/4" = 1'-0"



17 INTERIOR ELEVATION - 109  
1/4" = 1'-0"

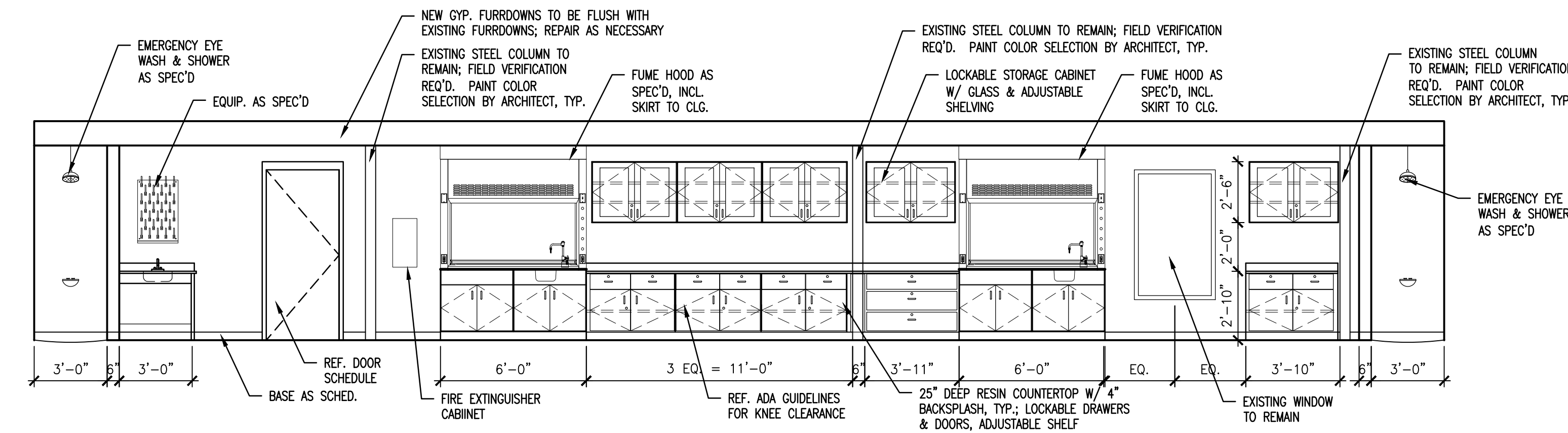


10 INTERIOR ELEVATION - GEN. CHEMISTRY 116  
1/4" = 1'-0"

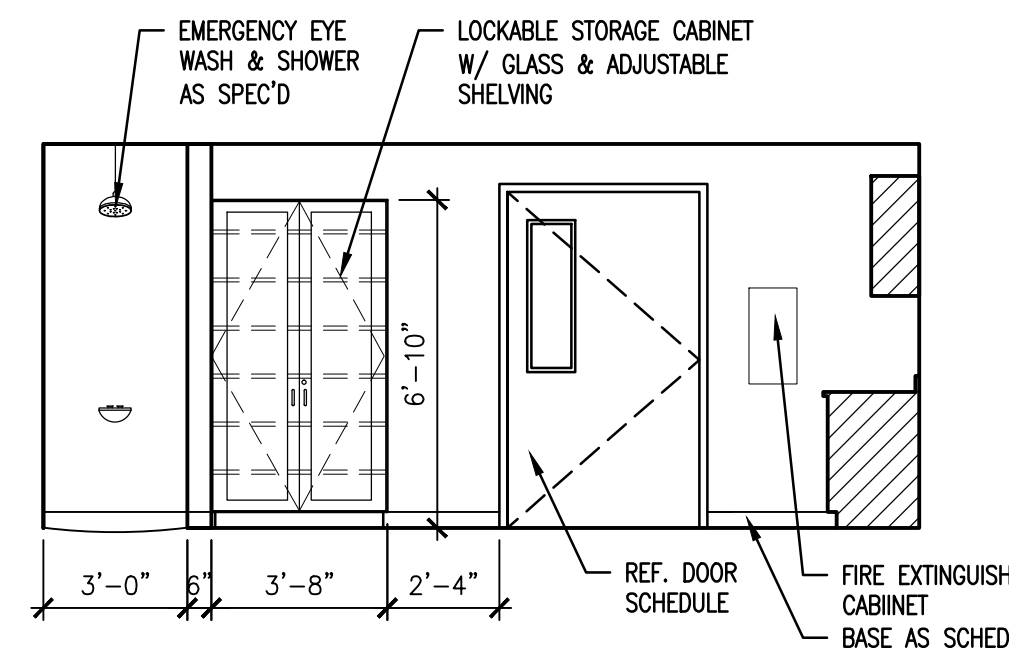


11 INTERIOR ELEVATION - GEN. CHEMISTRY 116  
1/4" = 1'-0"

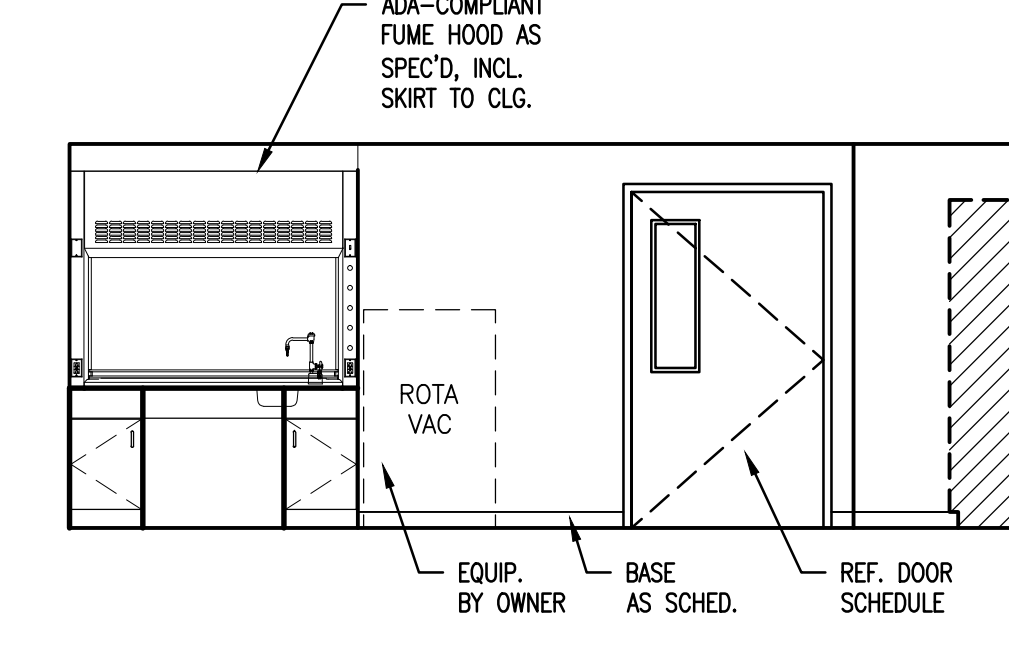
12 TYP. EMER. SHOWER/EYE WASH  
1/4" = 1'-0"



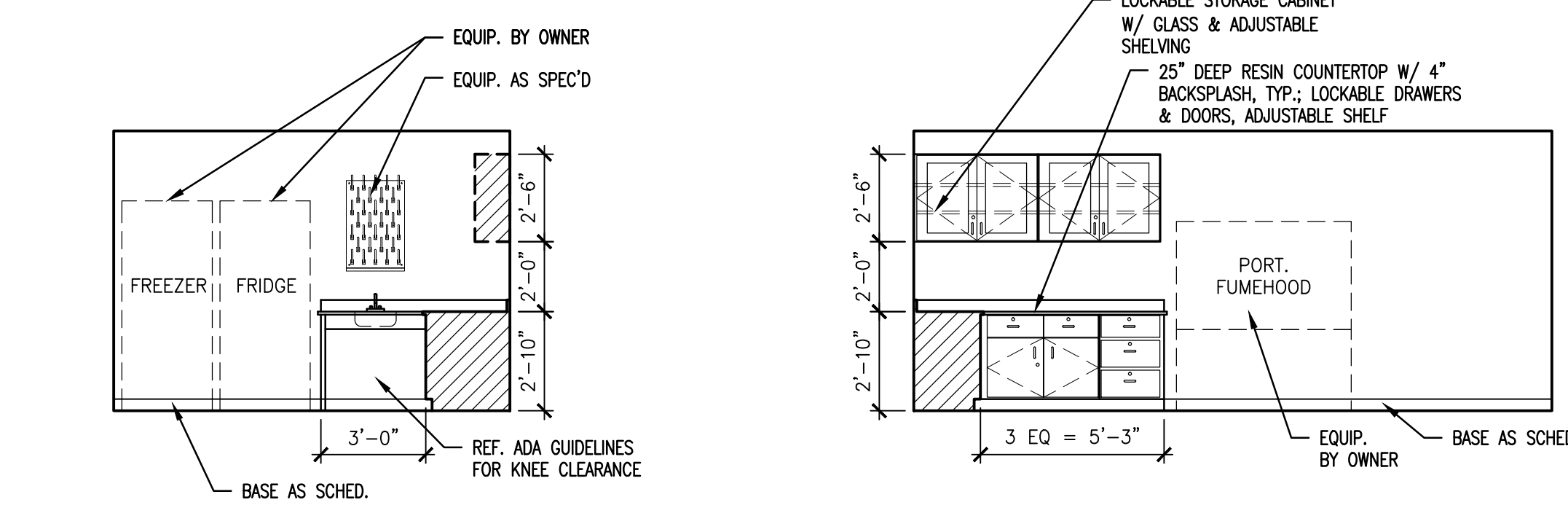
7 INTERIOR ELEVATION - GEN. CHEMISTRY 113  
1/4" = 1'-0"



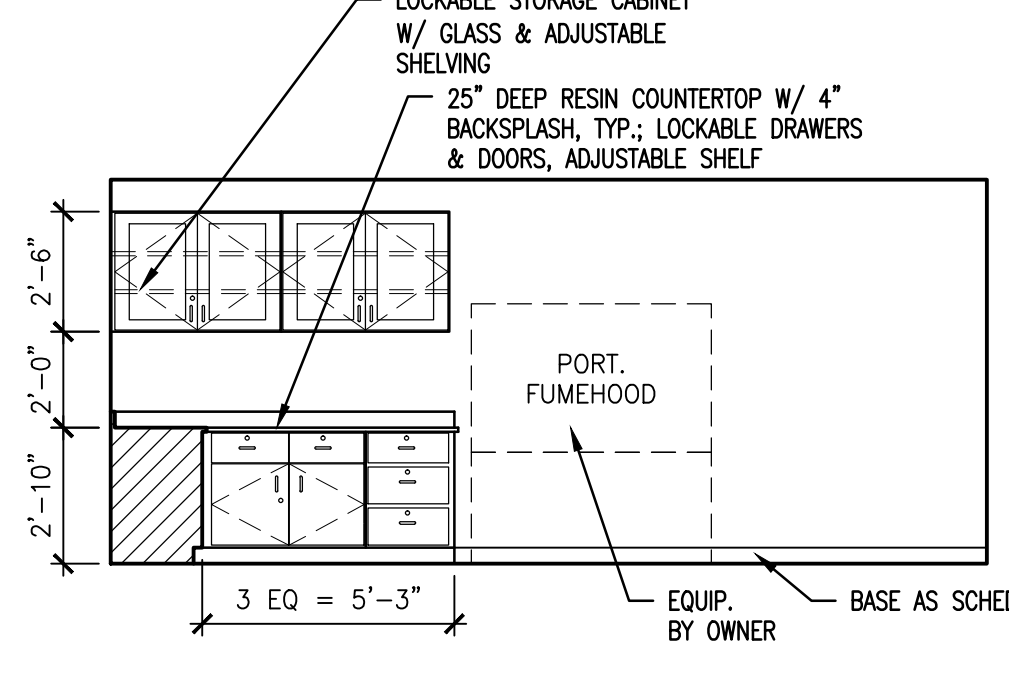
8 INTERIOR ELEVATION - 114  
1/4" = 1'-0"



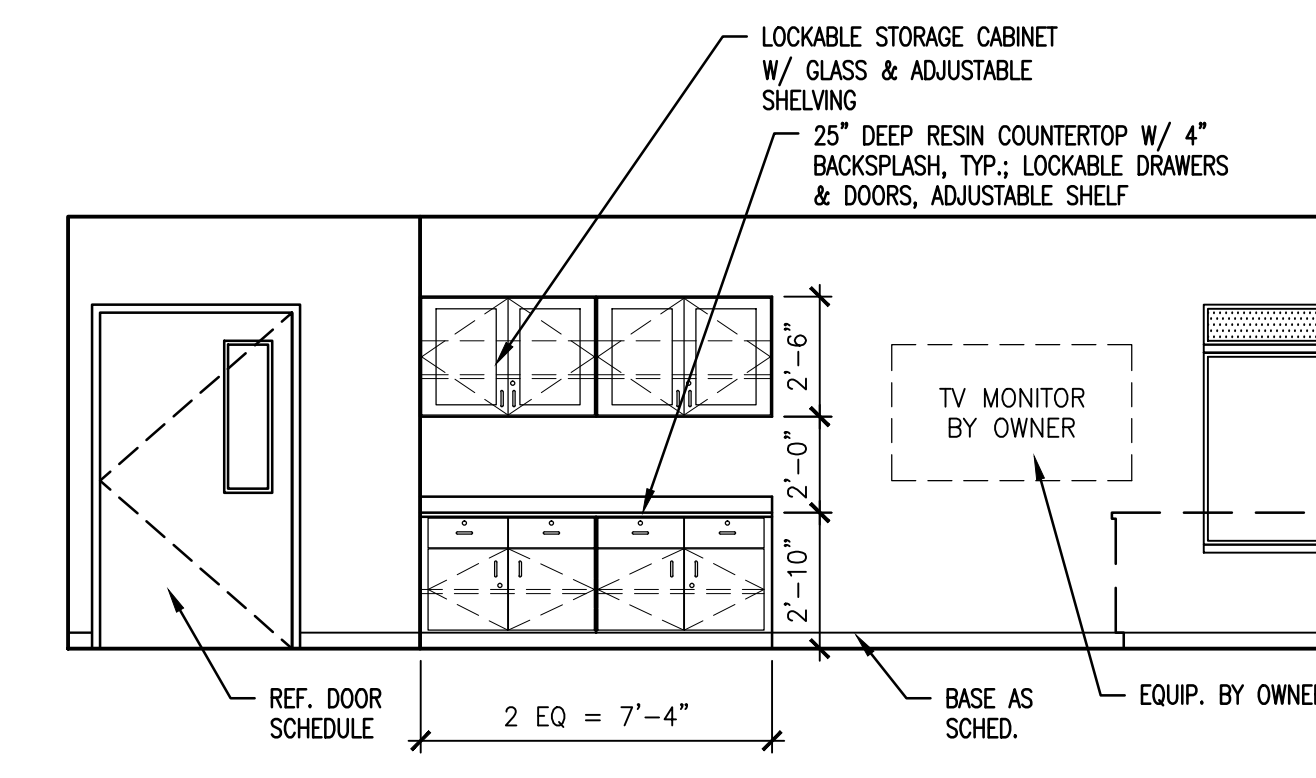
9 INTERIOR ELEVATION - 114  
1/4" = 1'-0"



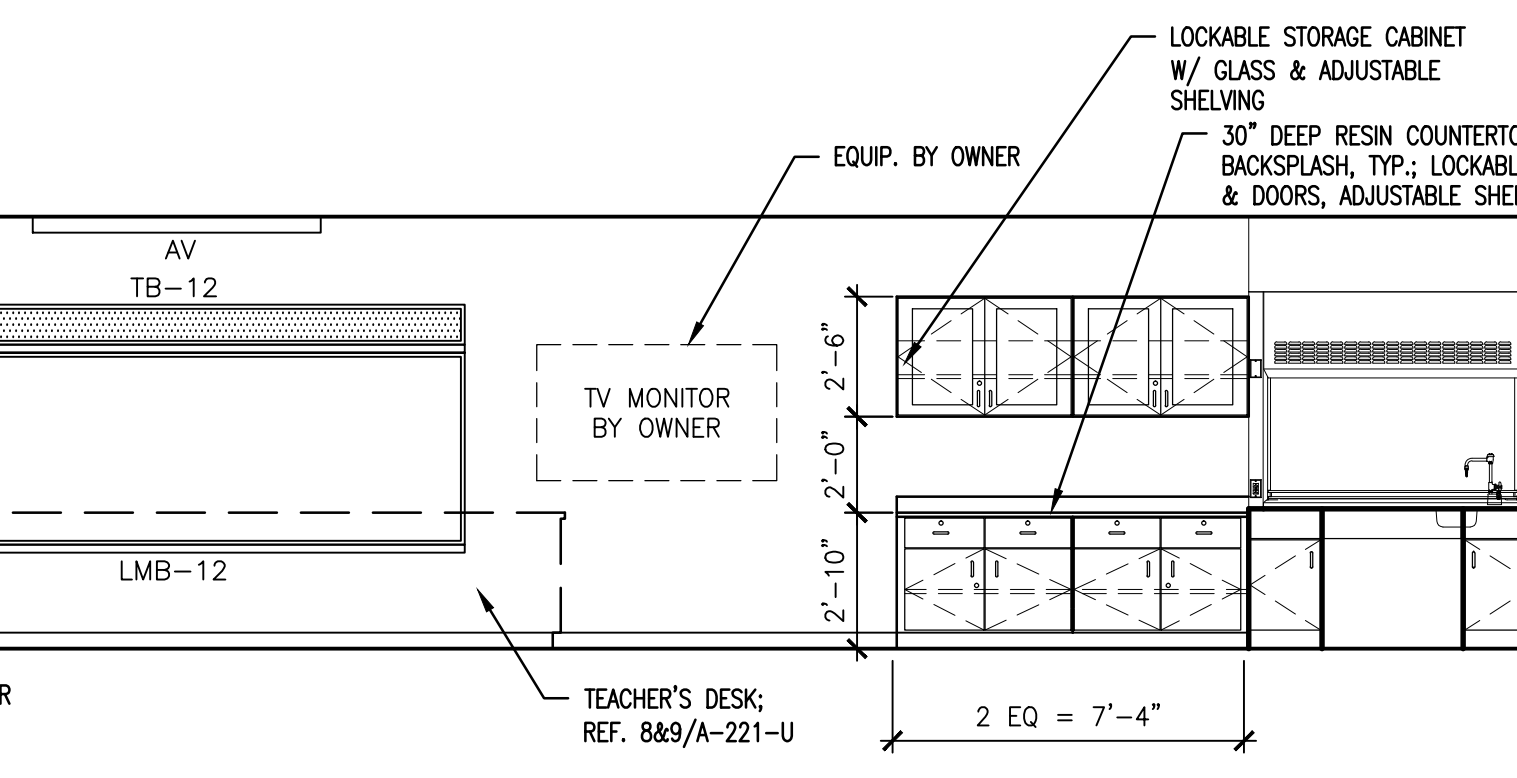
3 INTERIOR ELEVATION - 111  
1/4" = 1'-0"



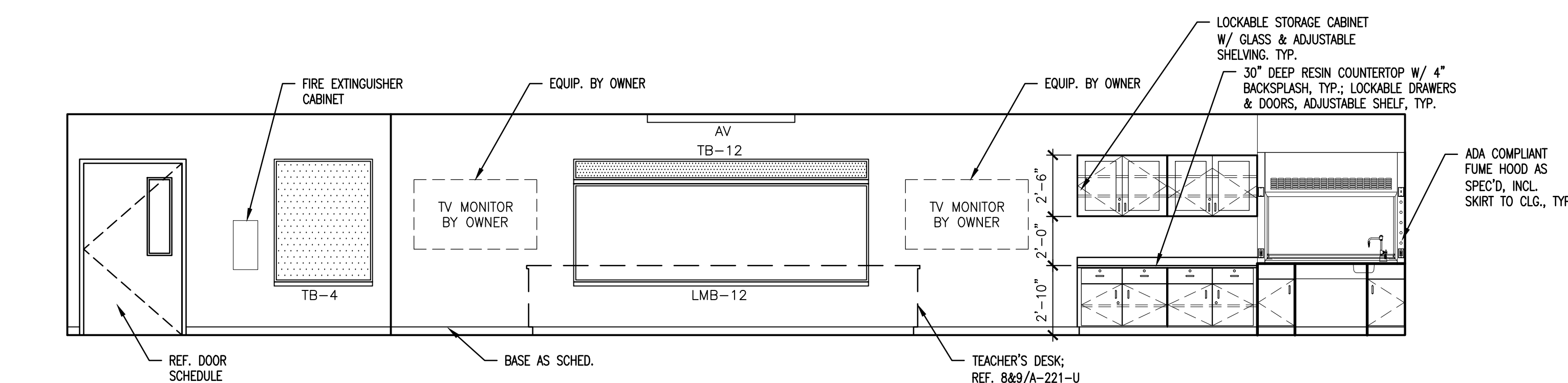
4 INTERIOR ELEVATION - 111  
1/4" = 1'-0"



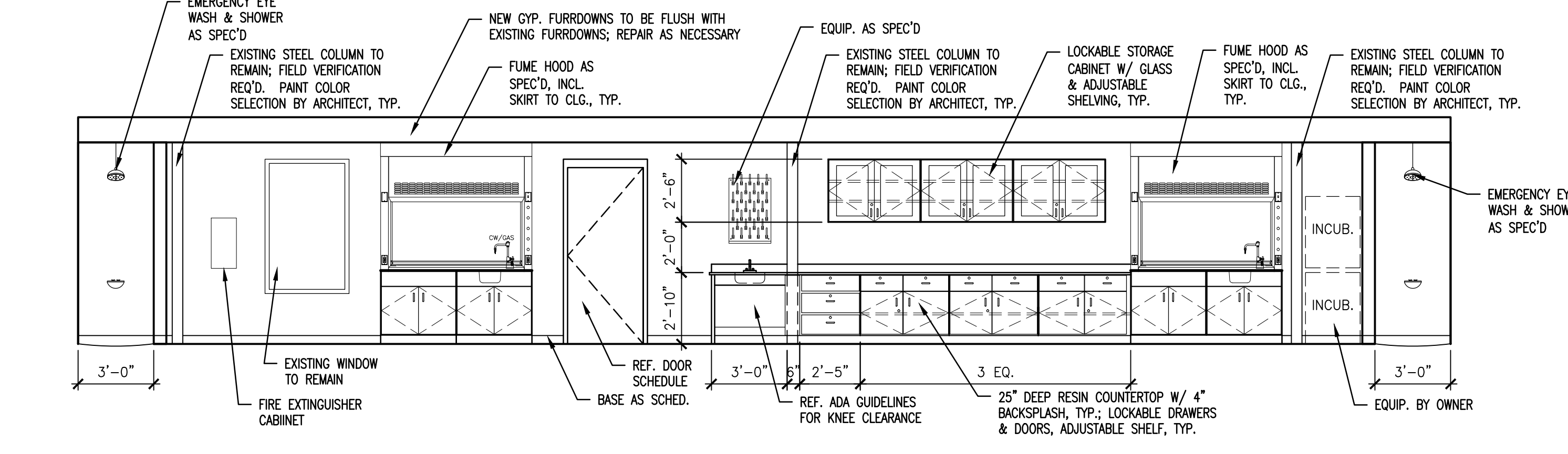
5 INTERIOR ELEVATION - GEN. CHEMISTRY 113  
1/4" = 1'-0"



6 INTERIOR ELEVATION - 114  
1/4" = 1'-0"



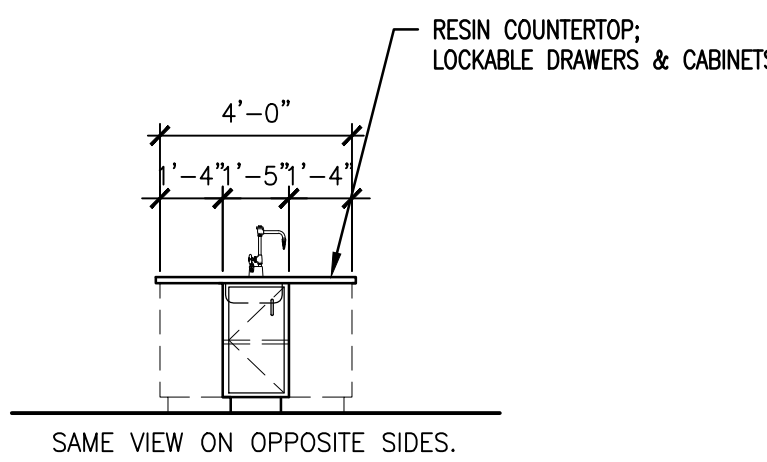
1 INTERIOR ELEVATION - MICROBIOLOGY / ORGANIC CHEM. 108  
1/4" = 1'-0"



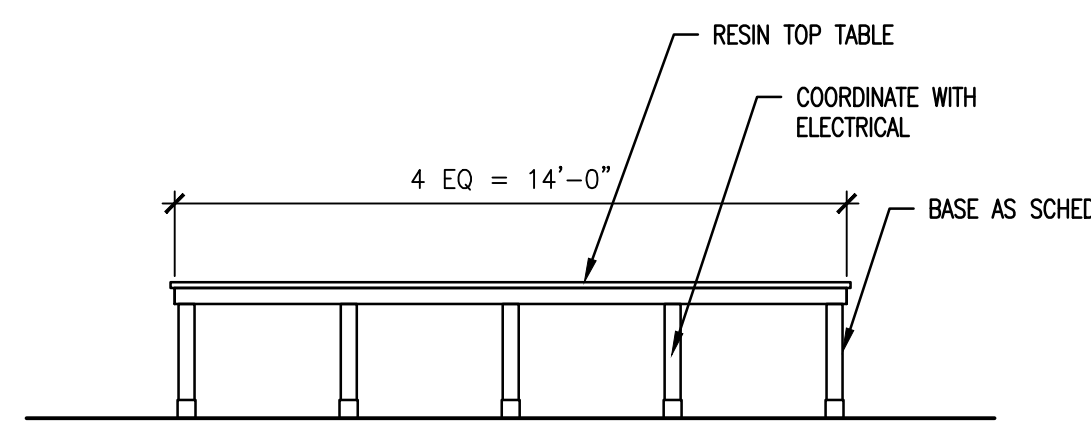
2 INTERIOR ELEVATION - MICROBIOLOGY / ORGANIC CHEM. 108  
1/4" = 1'-0"



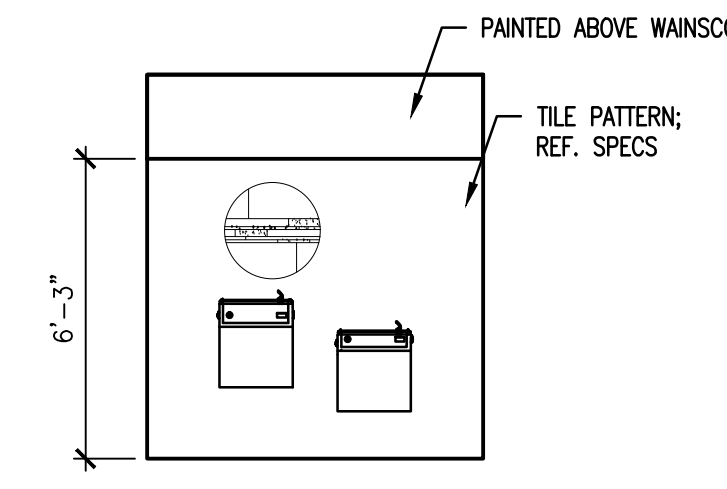
FIXTURE MOUNTING HEIGHT SCHEDULE			
* REFER TO ADA GUIDELINES ON SHEET G-102.			
			ADULTS
1	1. LAVATORIES/SINK (MEASURED FROM FLOOR TO RIM)	STANDARD	32"
		ACCESSIBLE	34" MAX (29" MIN KNEESPACE)
2	2. URINALS (MEASURED FROM FLOOR TO RIM)	STANDARD	16" MAX
		ACCESSIBLE	17" MAX
3	3. WATER CLOSETS (MEASURED FROM FLOOR TO TOP OF SEAT)	STANDARD	15"
		ACCESSIBLE	17" TO 19"
4	4. DRINKING FOUNTAINS AND EWC'S FRONTAL APPROACH (MEASURED FROM FLOOR TO SPOUT OUTLET)	STANDARD	42"
		ACCESSIBLE	36" MAX (27" MIN KNEESPACE)
5	5. GRAB BARS (MEASURED FROM FLOOR TO CENTERLINE OF BAR - 36" LONG @ REAR WALL & 42" LONG @ SIDE WALL OR 90 DEGREE CONT. GRAB BAR WHERE INDICATED)	STANDARD	
		ACCESSIBLE	33" TO 36" TO TOP OF GRAB BAR
6	6. TOILET TISSUE DISPENSER (MEASURED FROM FLOOR TO CENTERLINE OF ROLL)	STANDARD	20"
		ACCESSIBLE	19" MIN
7	7. PAPER TOWEL DISPENSER (FRONT APPROACH) & TRASH RECEPTACLE COMBO (MEASURED FROM FLOOR TO TOWEL SLOT)	STANDARD	46"
		ACCESSIBLE	46"
8	8. ELECTRIC HAND DRYER (MEASURED FROM FLOOR TO CENTER OF CONTROL)	STANDARD	48"
		ACCESSIBLE	45" MAX
9	9. SOAP DISPENSER (MEASURED FROM FLOOR TO CENTERLINE OF PUSH BUTTON)	STANDARD	38"
		ACCESSIBLE	36"
10	10. SANITARY NAPKIN DISPENSER (MEASURED FROM FLOOR TO COIN SLOT)	STANDARD	40"
		ACCESSIBLE	45" MAX
11	11. SANITARY NAPKIN DISPOSAL UNIT (MEASURED FROM FLOOR TO TOP OF UNIT) (ONLY IN ROOMS LABELED WOMEN & GIRLS)	STANDARD	40"
		ACCESSIBLE	
12	12. MIRRORS (1 MIRROR PER LAVATORY (NOT NOTED FOR CLARITY), MEASURED FROM FLOOR TO BOTTOM OF REFLECTING SURFACE)	STANDARD	
		ACCESSIBLE	40" MAX
13	13. MOP BASIN / SERVICE SINK (ONE PER ROOM LABELED CUSTODIAN)		
14	14. MOP HOLDER (ONE PER ROOM LABELED CUSTODIAN)		48" MAX
15	15. TOILET PARTITION / URINAL SCREEN	NOT NOTED FOR CLARITY	
16	16. SHOWER STALL (ADA) TOP OF SEAT	ACCESSIBLE	17" TO 19"
	HAND SHOWER HEAD MOUNTING	ACCESSIBLE	48"
	CONTROL AREA (TOP OF)	ACCESSIBLE	48" MAX
17	17. ADA BENCH AS SPECIFIED. REFER TO MANUFACTURER'S RECOMMENDED HEIGHTS.		



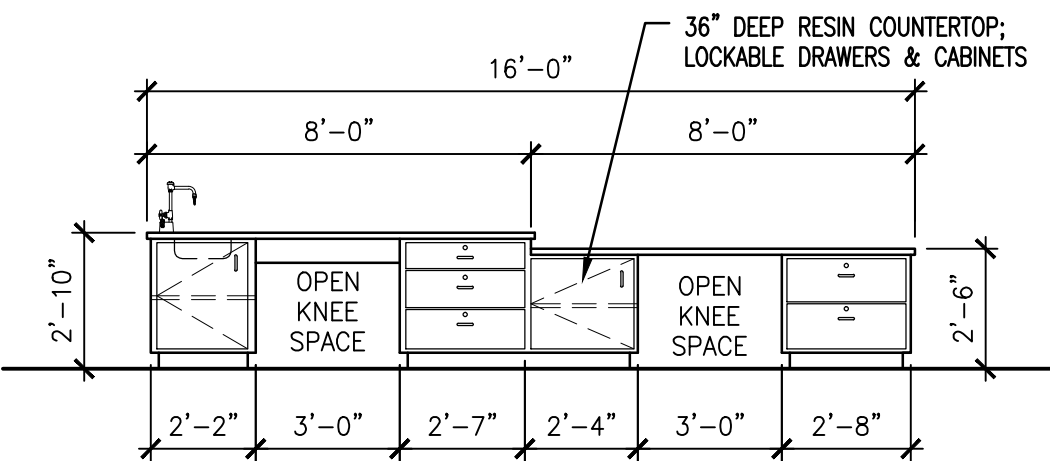
17 STUDENT'S DESK AT 108, 113 & 116  
1/4" = 1'-0"



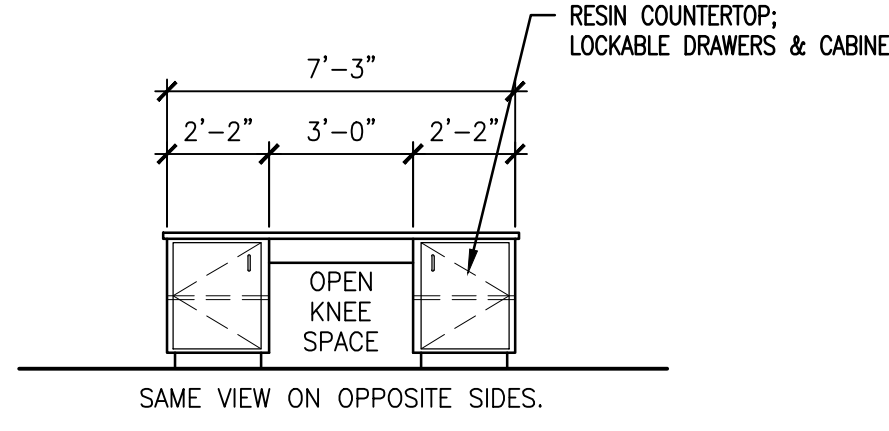
18 STUDENT'S TABLE AT 117  
1/4" = 1'-0"



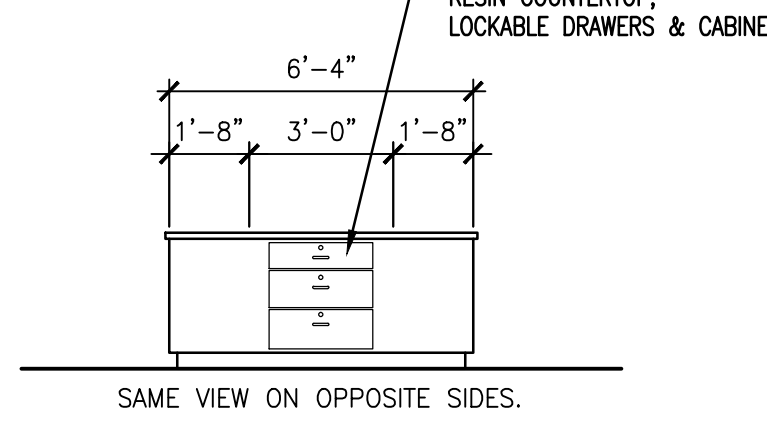
19 TYP. AT WATER COOLERS  
1/4" = 1'-0"



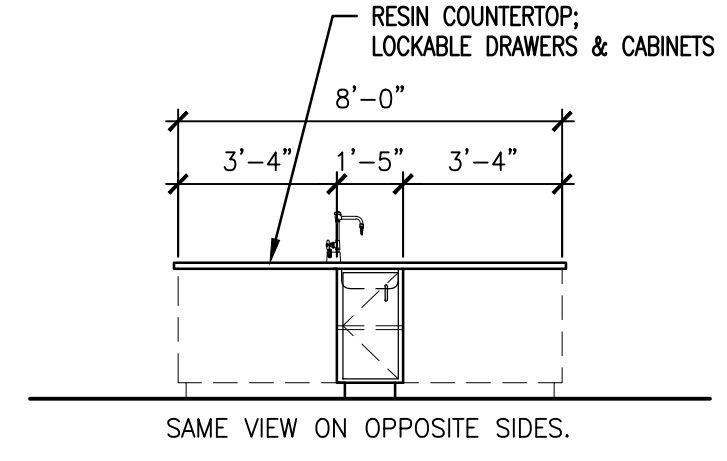
13 TEACHER'S DESK AT 108, 113 & 116  
1/4" = 1'-0"



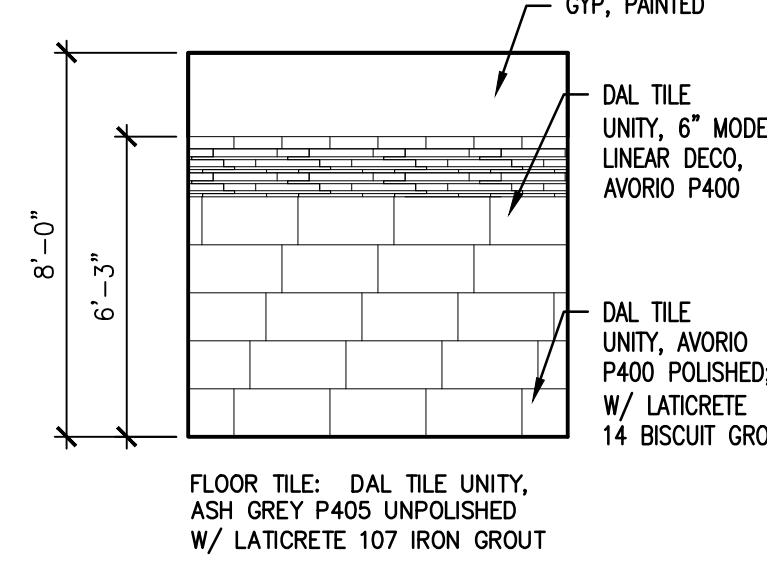
14 PREP TABLE AT 114  
1/4" = 1'-0"



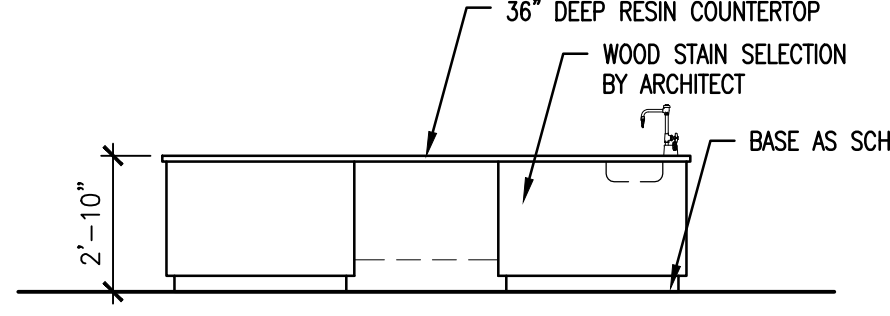
15 PREP TABLE AT 114  
1/4" = 1'-0"



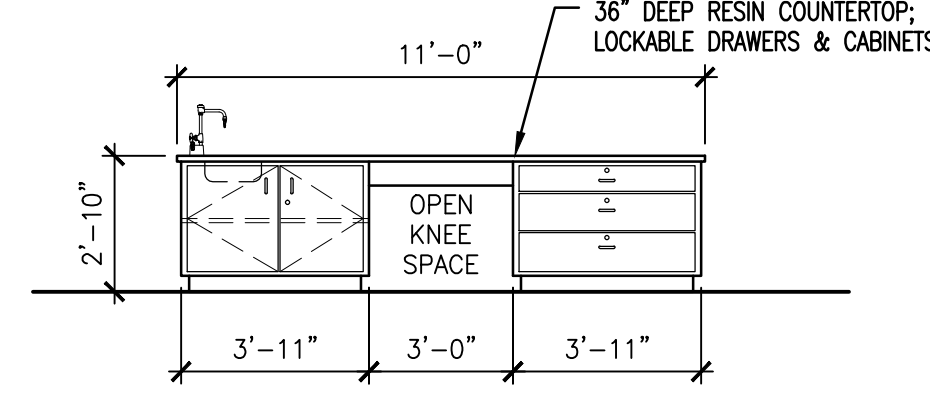
16 STUDENT'S DESK AT 108, 113 & 116  
1/4" = 1'-0"



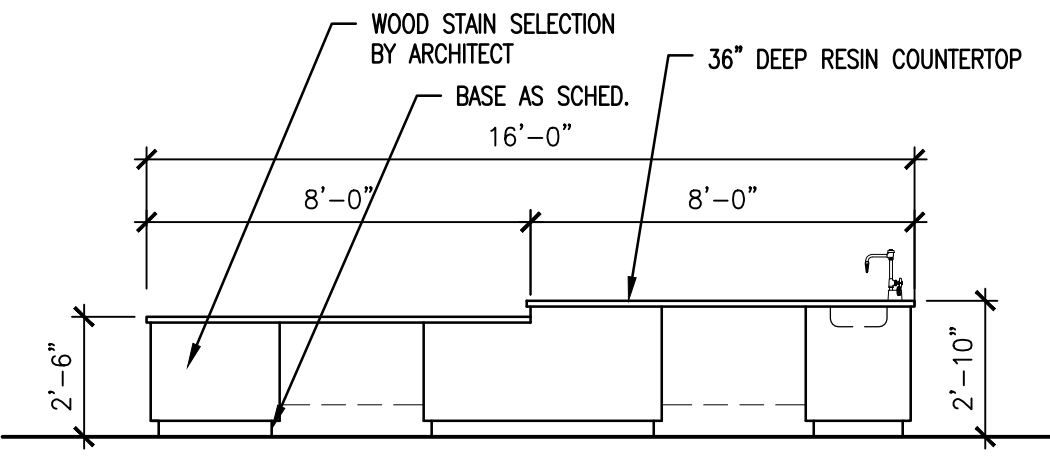
9 TYPICAL TILE PATTERN  
1/4" = 1'-0"



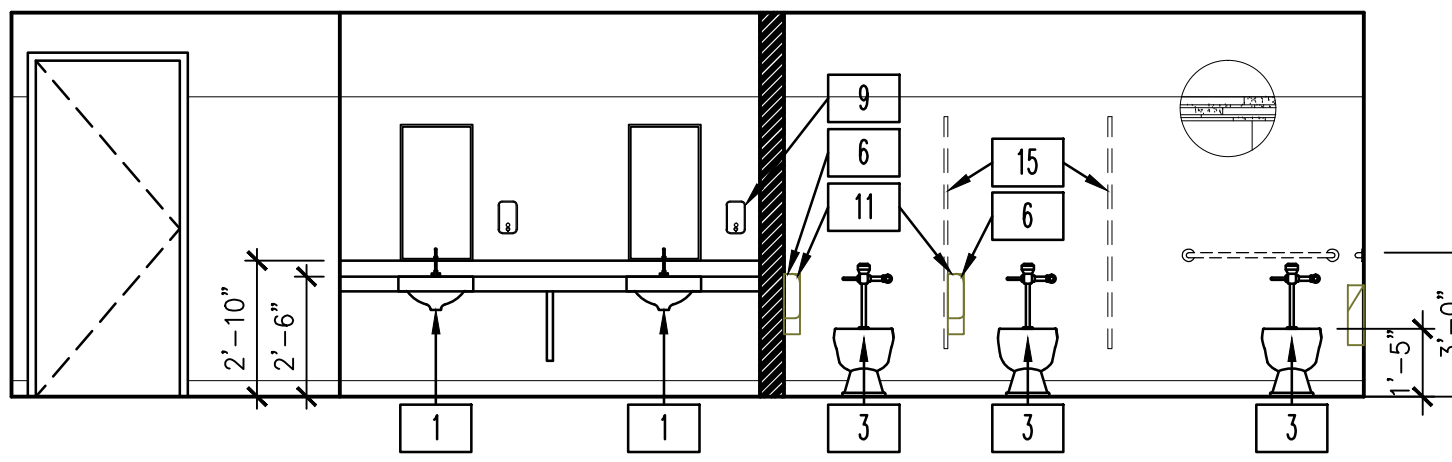
10 TEACHER'S DESK AT 117  
1/4" = 1'-0"



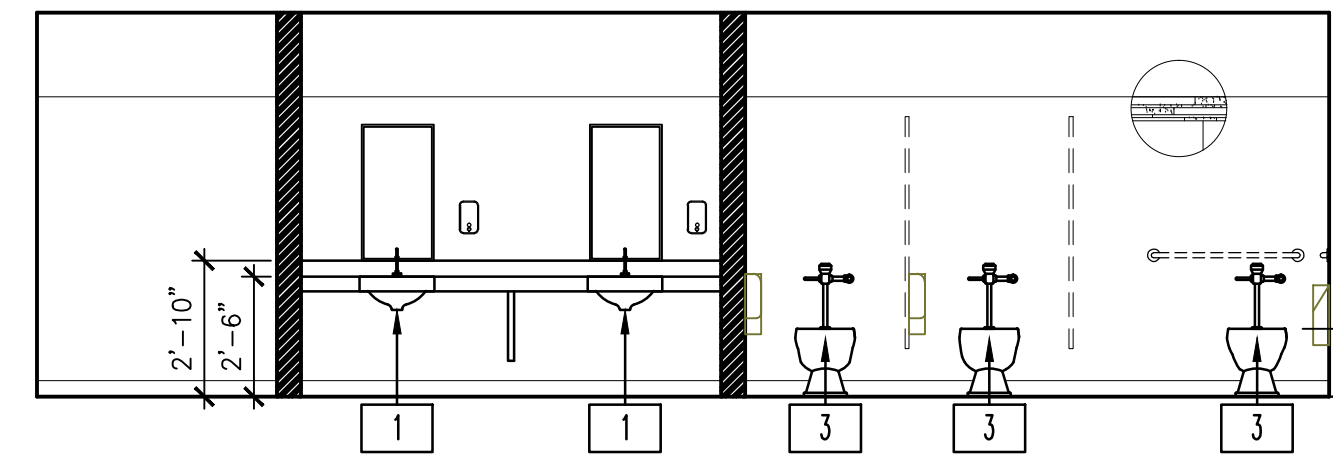
11 TEACHER'S DESK AT 117  
1/4" = 1'-0"



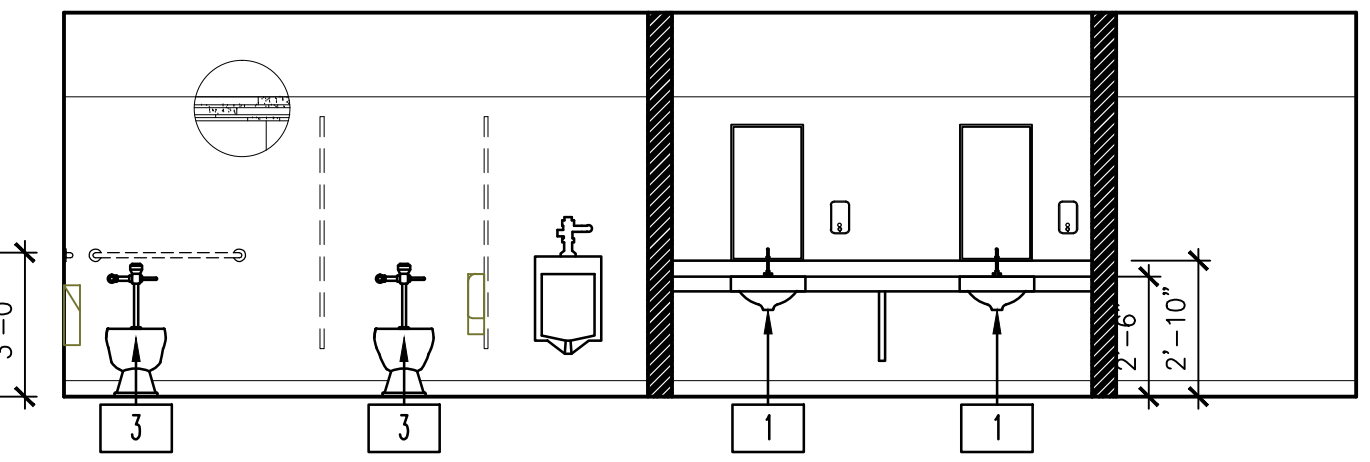
12 TEACHER'S DESK AT 108, 113 & 116  
1/4" = 1'-0"



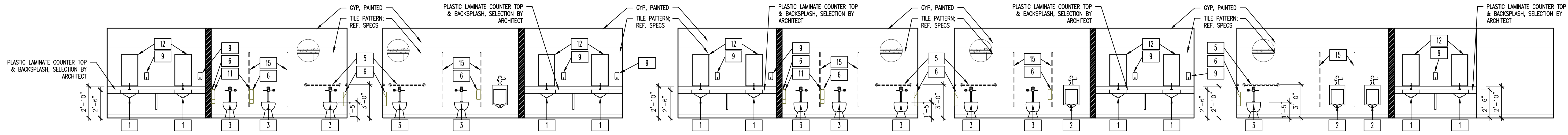
6 INTERIOR ELEVATION - GIRLS 121  
1/4" = 1'-0"



7 INTERIOR ELEVATION - GIRLS 106  
1/4" = 1'-0"



8 INTERIOR ELEVATION - BOYS 107  
1/4" = 1'-0"



1 INTERIOR ELEVATION - GIRLS 100  
1/4" = 1'-0"

2 INTERIOR ELEVATION - BOYS 102  
1/4" = 1'-0"

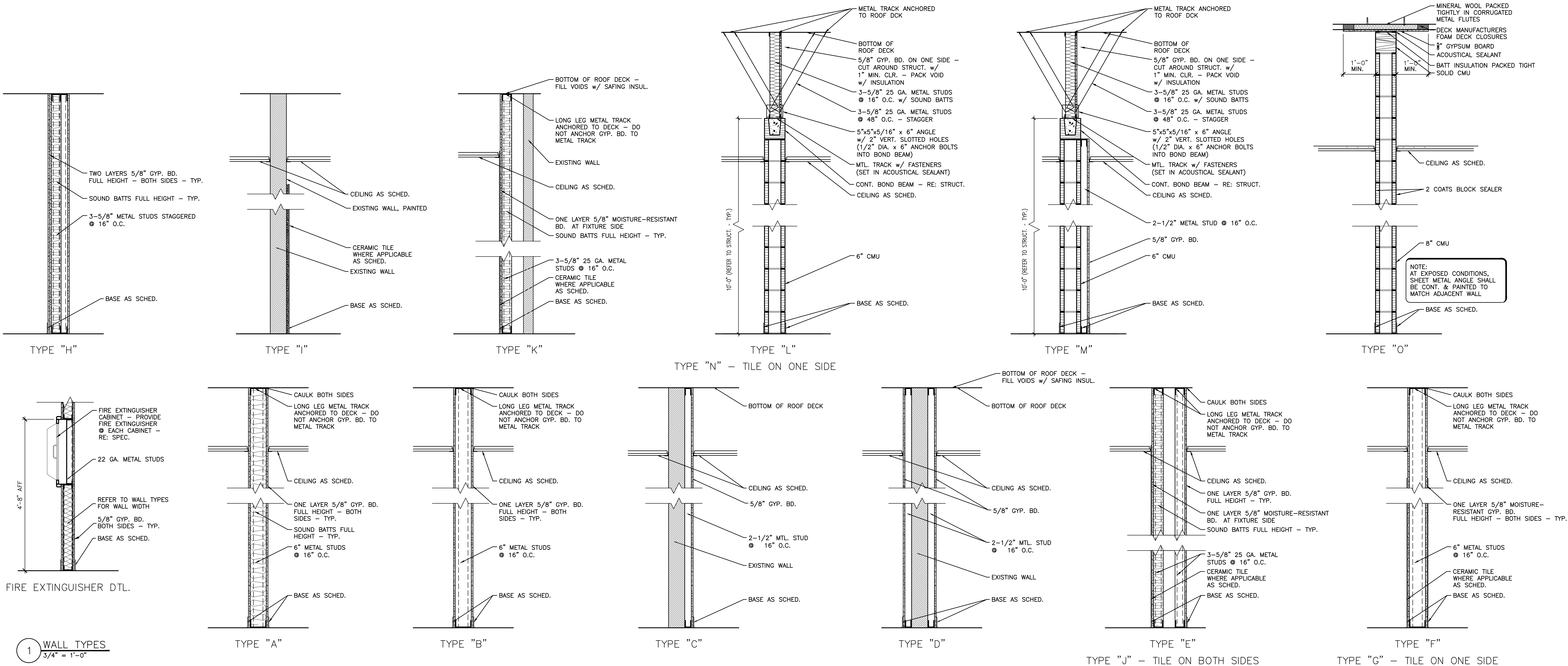
3 INTERIOR ELEVATION - GIRLS 104  
1/4" = 1'-0"

4 INTERIOR ELEVATION - BOYS 105  
1/4" = 1'-0"

5 INTERIOR ELEVATION - BOYS 119  
1/4" = 1'-0"



May 08, 2019 - 10:49am User: aluksa  
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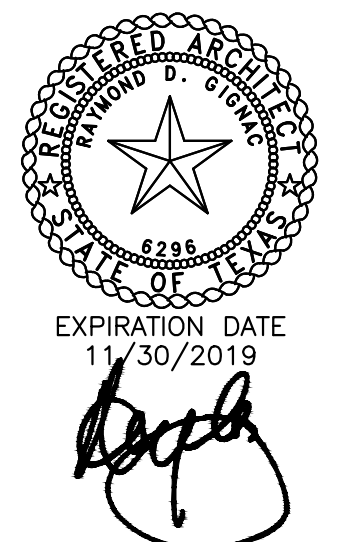


Consultants:

**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



SIGNED: 05/10/2019



**PSJA ISD**  
**NORTH ECHS**  
**& COLLEGE**  
**AND**  
**UNIVERSITY**  
**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

**KEYPLAN**

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: AL  
Checked: JM  
Scale: VARIOUS  
ACAD File: A-230-U

Revisions:

Sheet Title:

**DOORS/FRAME**  
**TYPES &**  
**WALL TYPES**



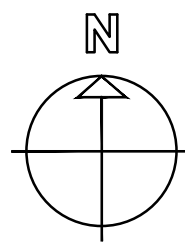
May 08, 2019 - 10:59am User: aluksa P:\G&A Projects\1904 PSJA ECHS Restroom Renov\19.04 CAD\19.04-A-240U-rccp.dwg

REFLECTED CEILING LEGEND

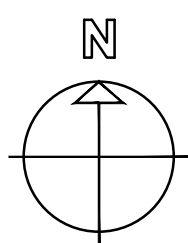
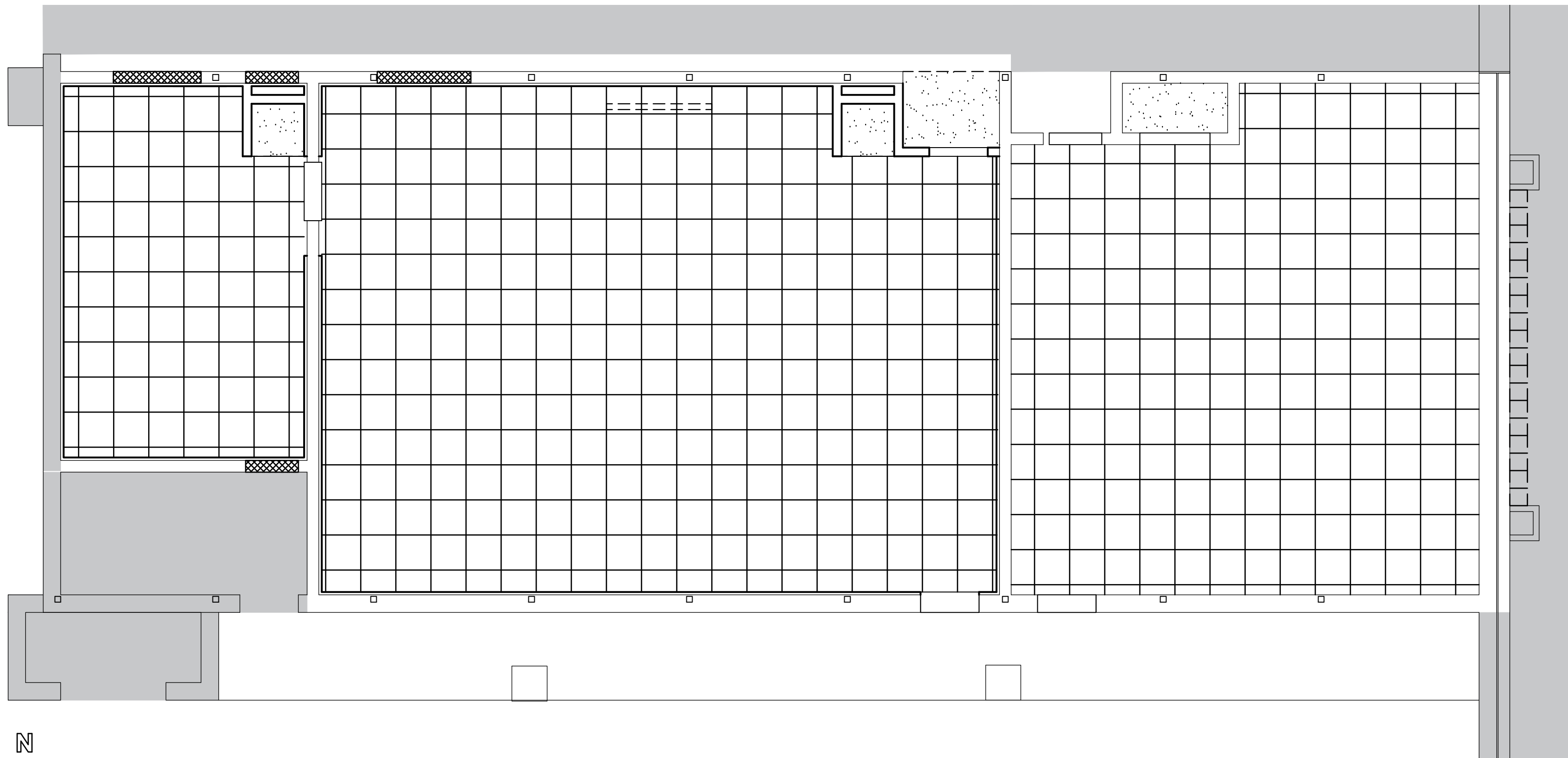
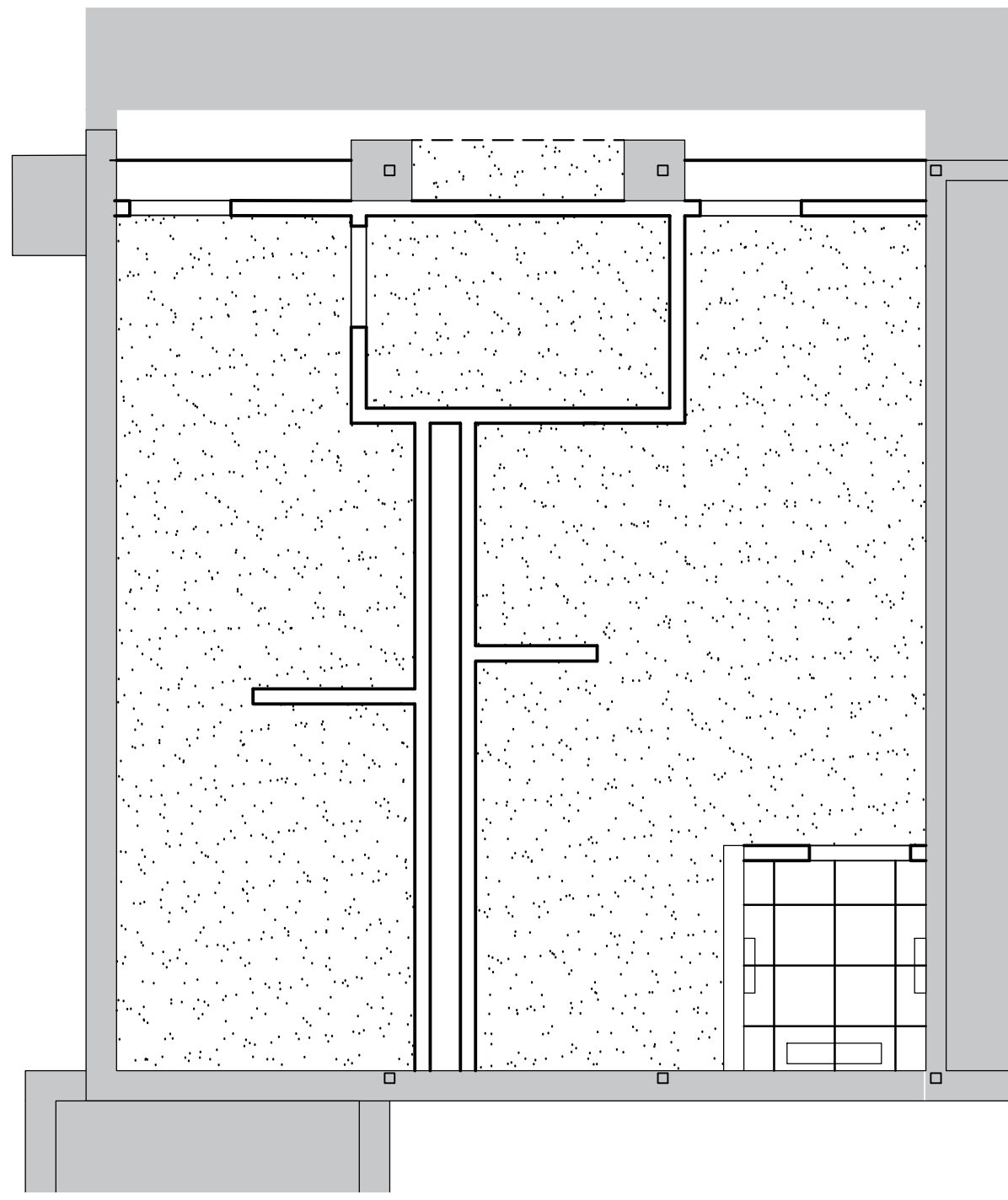
- 2 X 2 SUSPENDED ACOUSTICAL CEILING GRID
- PAINTED GYP. BOARD
- EXPOSED STRUCTURE, PAINTED
- PLASTER, LOCATE 1 - 36"x36" ACCESS PANEL @ ALL PLASTER CLGS.
- PLYWOOD AS SPEC. (PAINT)
- THIS AREA NOT IN SCOPE

REFLECTED CEILING NOTES:

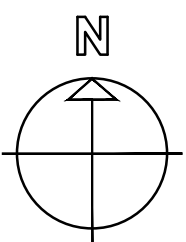
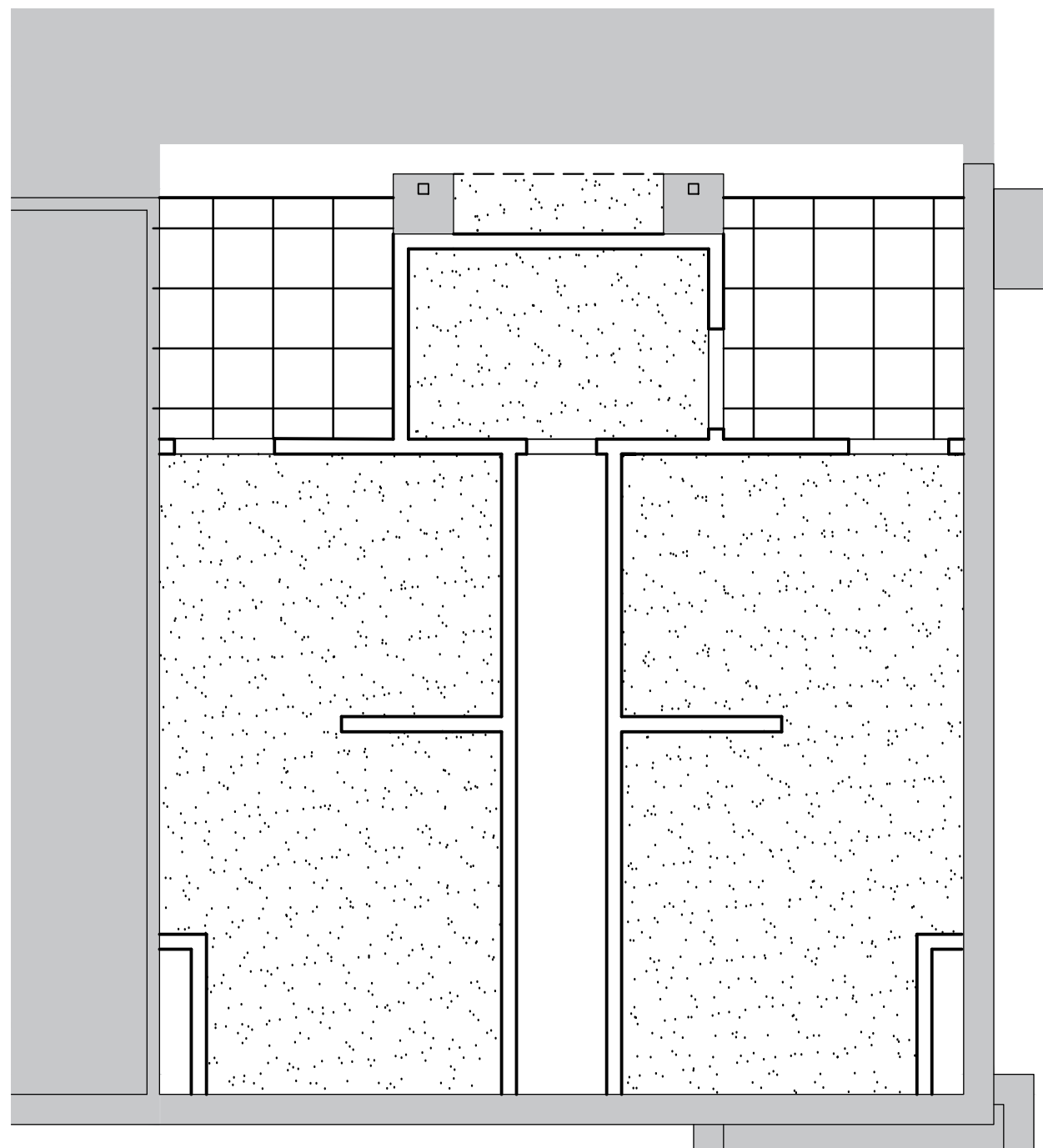
- REFER TO MEP DRAWINGS FOR CEILING MOUNTED ITEMS.
- ALL EXTERIOR SOFFITS TO BE REPAIR IF DAMAGED DURING THE DEMOLITION STAGE.
- FIELD VERIFICATION OF EXISTING STRUCTURE AND COORDINATION WITH MEP DURING SUBMITTAL PROCESS SHALL BE REQUIRED IN ORDER TO ACHIEVE MAXIMUM CEILING HEIGHTS.
- GYPSON BOARD FURRDOWNS MAY BE 6" - 12" BELOW THE ACOUSTICAL SUSPENDED CEILING, BUT MUST BE AT LEAST 8'-0" AFF.
- ALL 2X2 CEILING TILES TO BE RE-USED SHALL BE STORED TO REMAIN IN GOOD CONDITION FOR INSTALLATION.



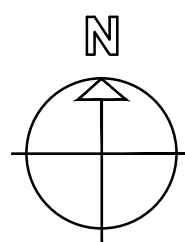
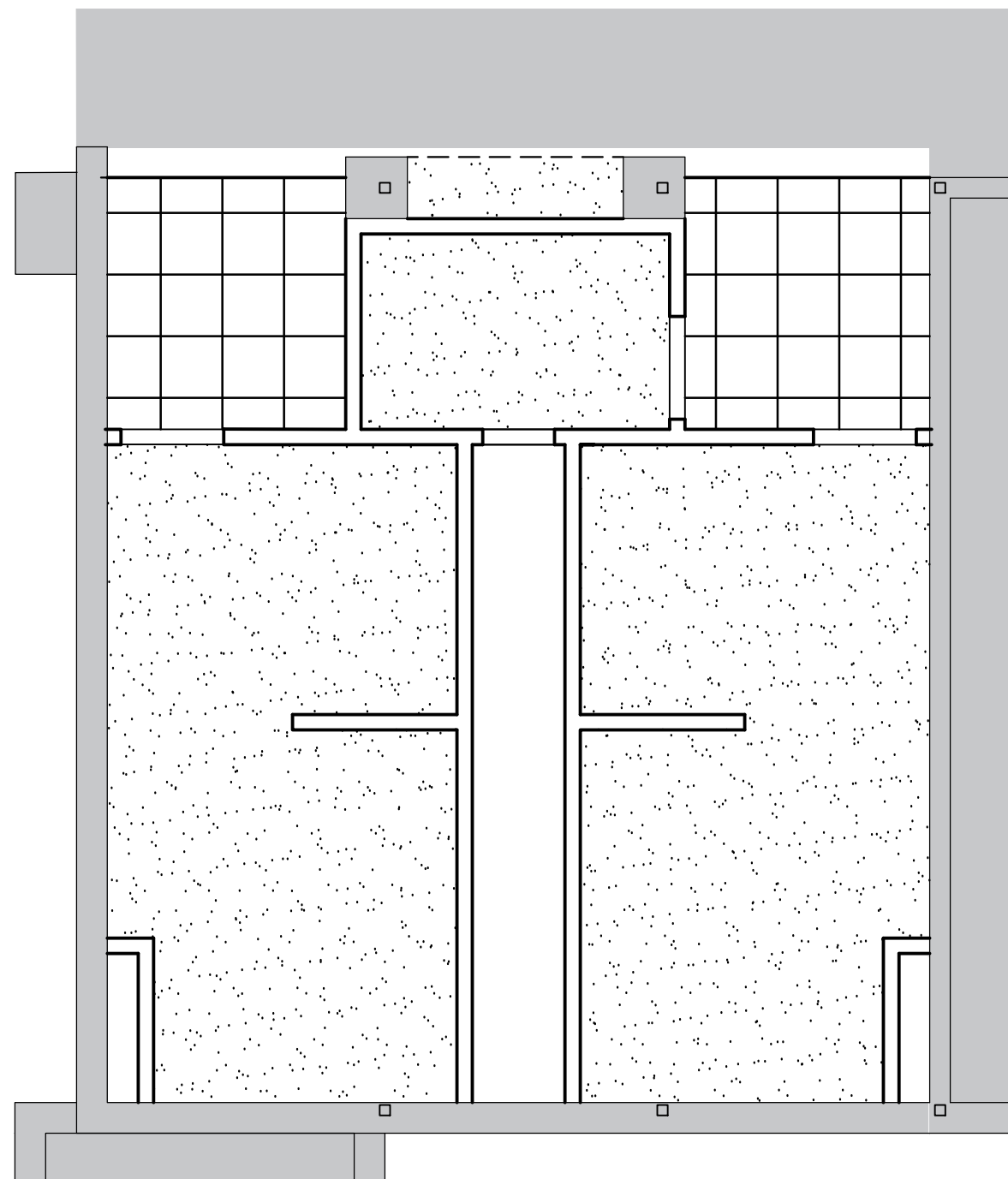
5 REFL. CLG. PLAN - 119, 120, 121  
3/16" = 1'-0"



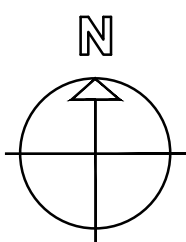
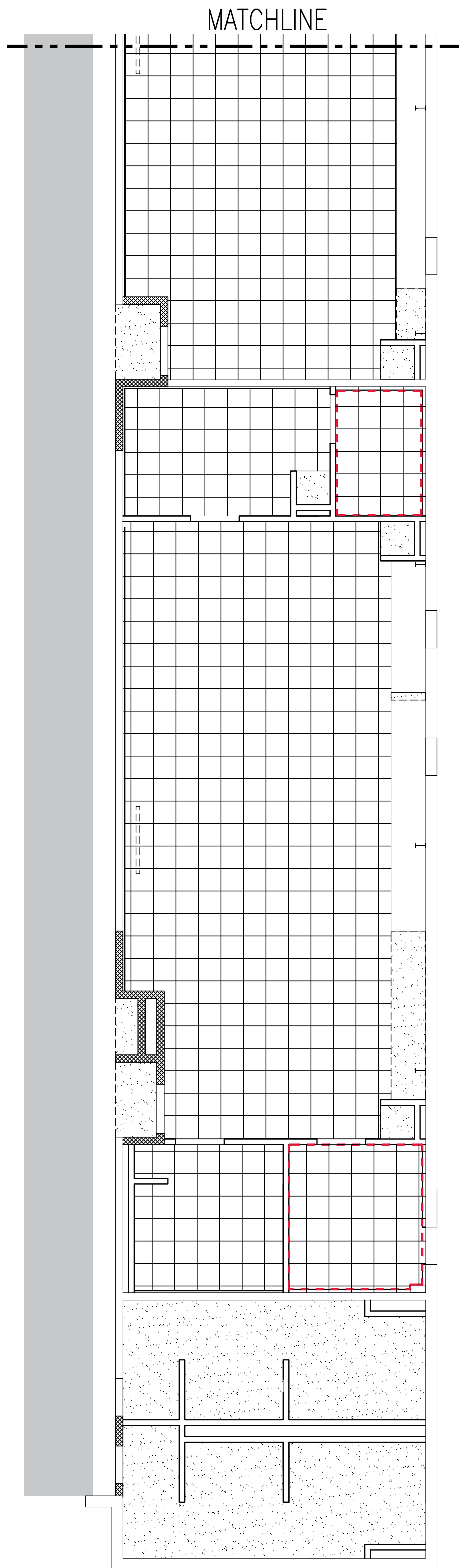
4 REFL. CLG. PLAN - 117, 118, 122  
3/16" = 1'-0"



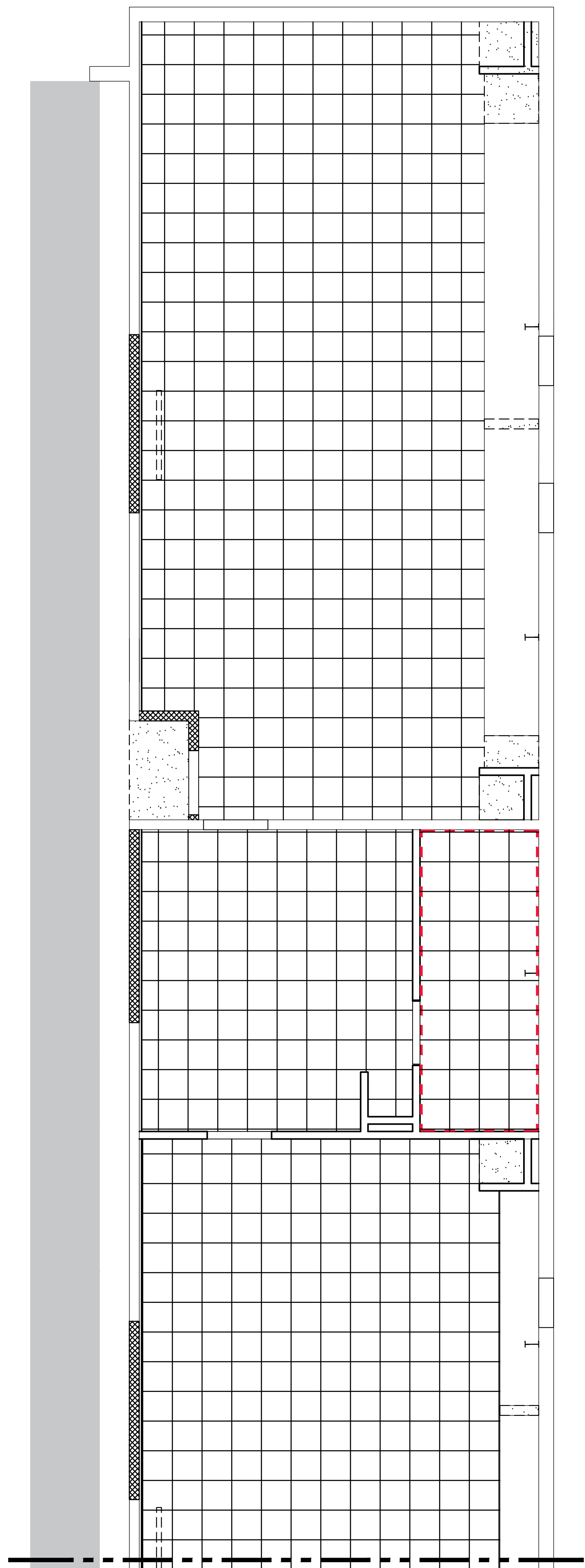
1 REFL. CLG. PLAN - 100, 101, 102  
3/16" = 1'-0"



2 REFL. CLG. PLAN - 103, 104, 105  
3/16" = 1'-0"



3 REFL. CLG. PLAN - EAST WING  
3/16" = 1'-0"

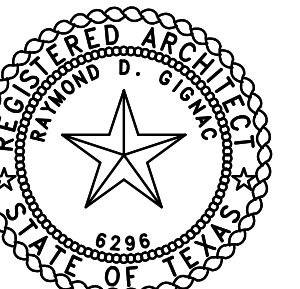


Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING

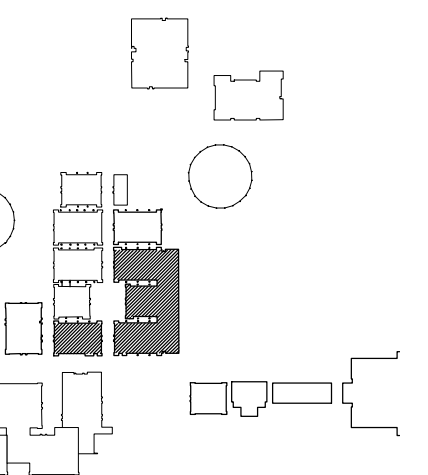


EXPIRATION DATE  
11/30/2019

SIGNED: 05/10/2019



PSJA ISD  
NORTH ECHS  
& COLLEGE  
AND  
UNIVERSITY  
CAMPUS  
STUDENT  
RESTROOM  
RENOVATIONS



KEYPLAN

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

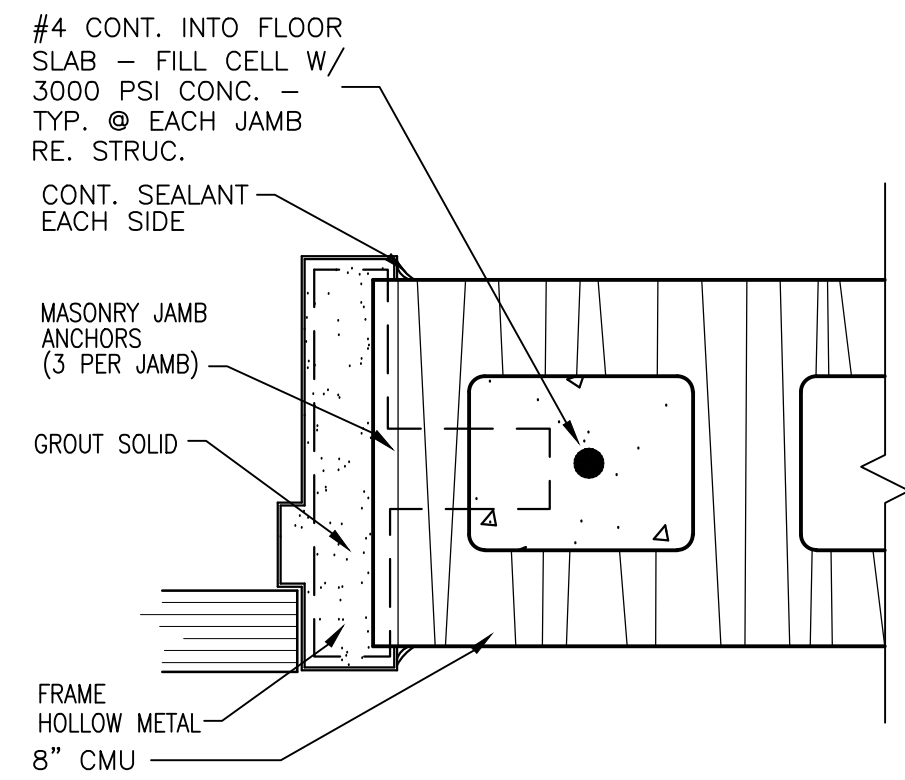

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UNIV. CAMPUS  
REFLECTED  
CLG PLANS

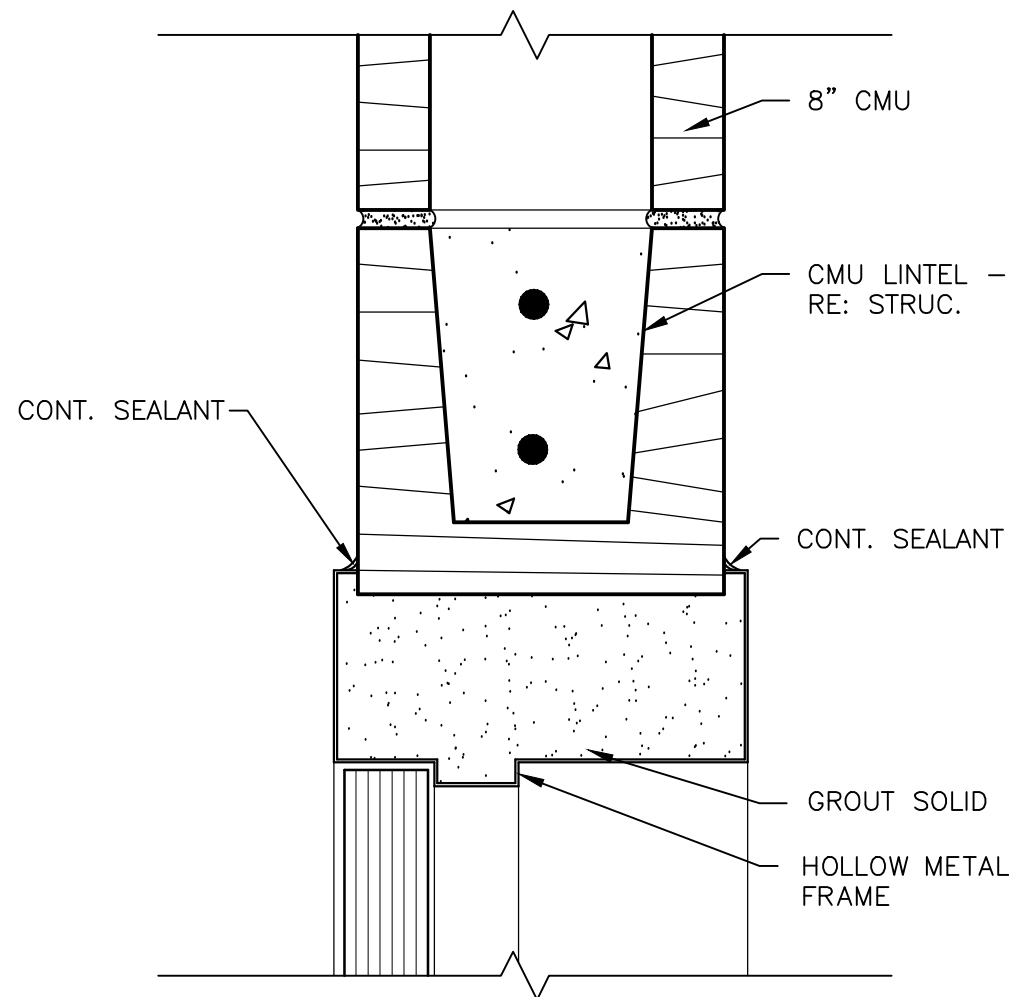
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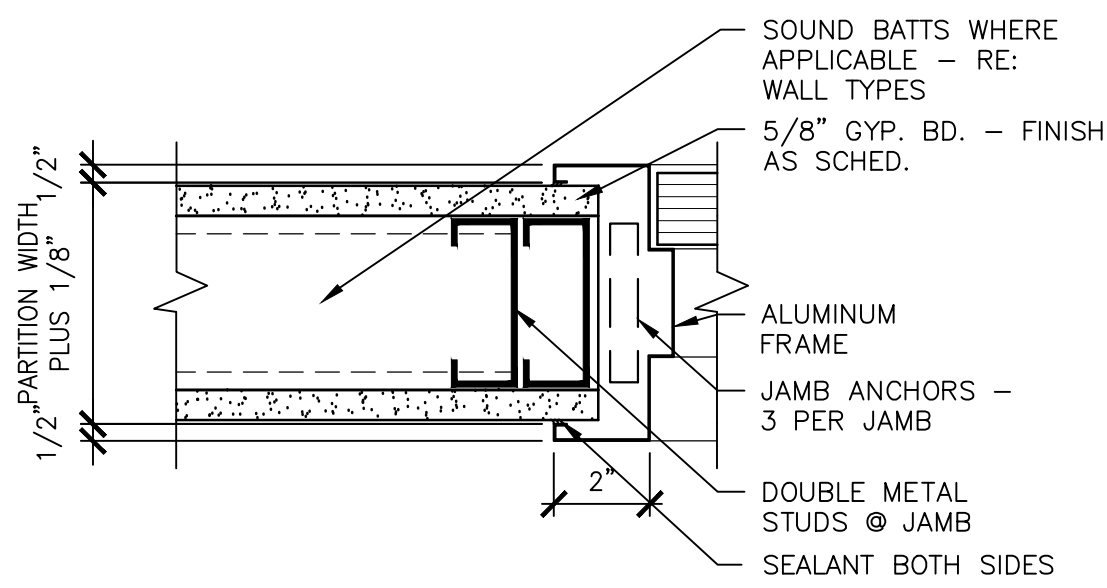
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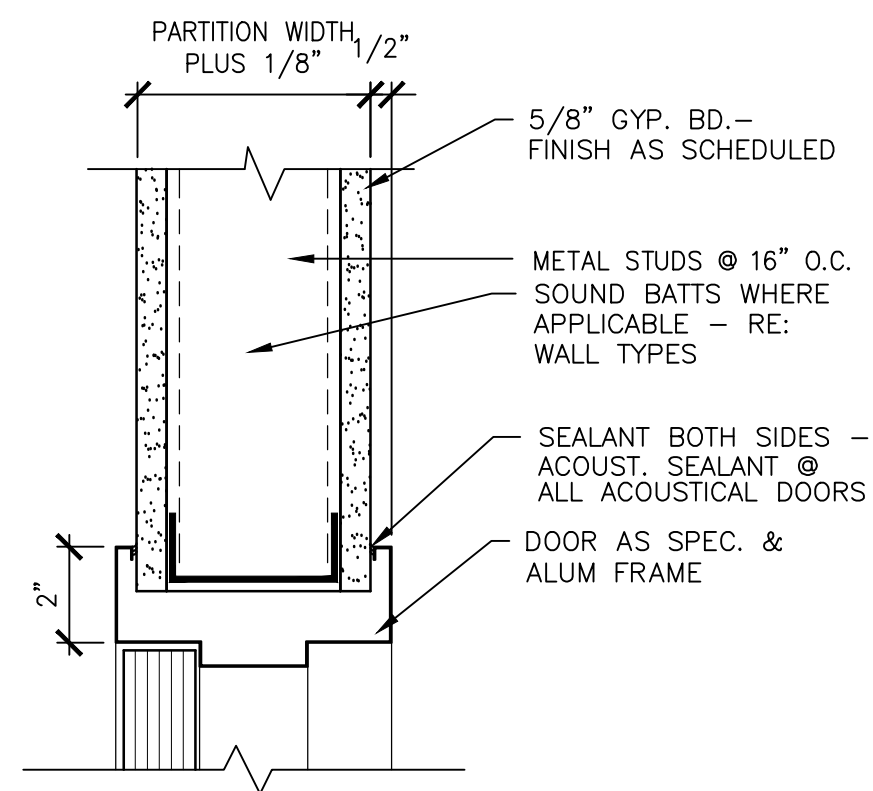
3 EXT. DOOR AT EXIST. HEADER  
3/4" = 1'-0"



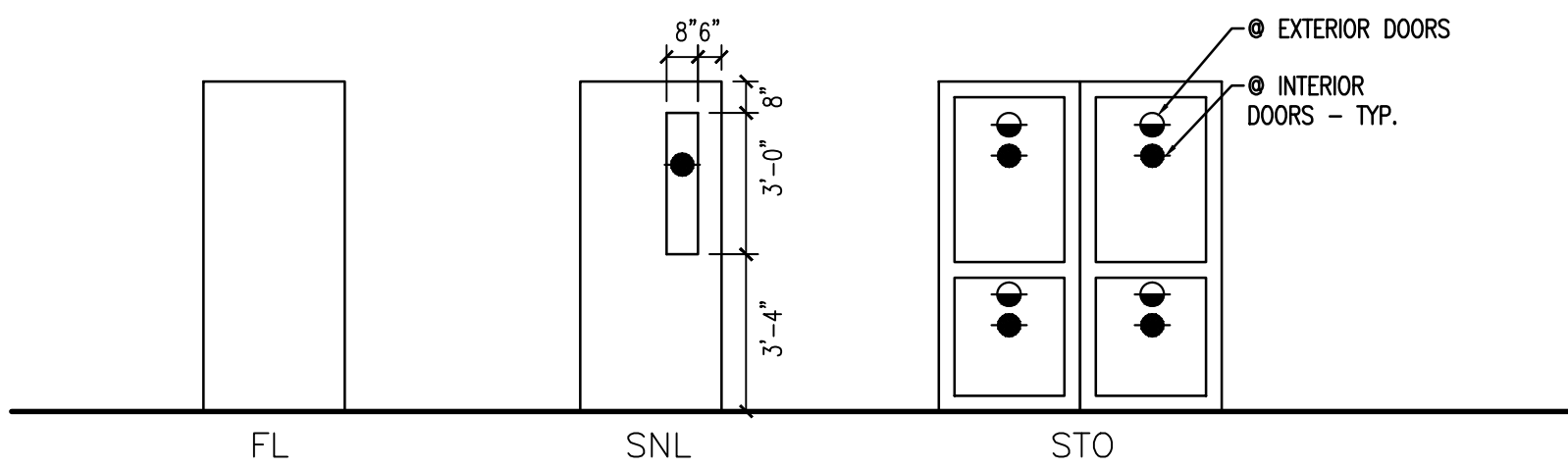
4 INT. DOOR AT CMU HEADER  
3/4" = 1'-0"



5 INT. DOOR AT MTL STUD JAMB  
3/4" = 1'-0"

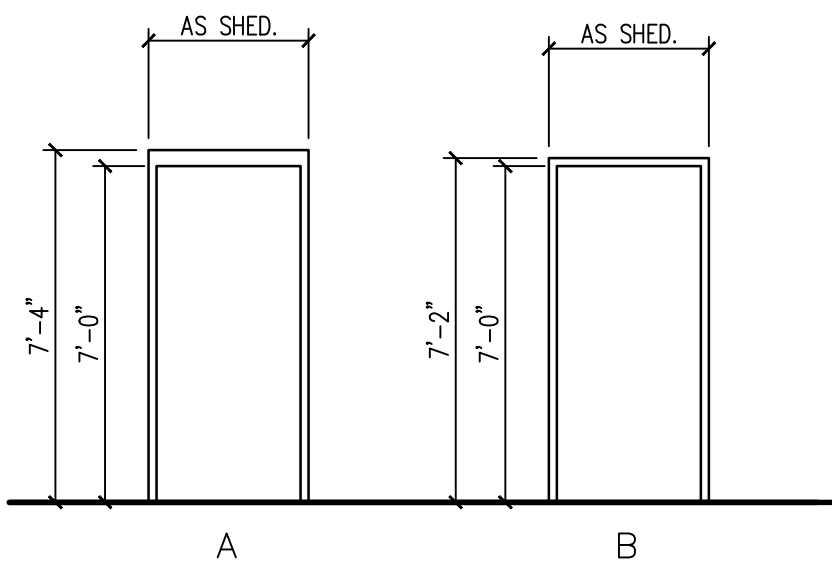


6 INT. DOOR AT MTL STUD HEADER  
3/4" = 1'-0"



1 DOOR TYPES  
1/4" = 1'-0"

GLAZING SCHEDULE	
GL-1:	1/4" CLEAR PLATE GLASS
GL-2:	1/4" CLEAR TEMPERED GLASS
GL-3:	1/4" FROSTED TEMPERED GLASS
GL-4:	1-5/16" TINTED PLATE INSULATED LAMINATED GLASS



2 FRAME TYPES  
1/4" = 1'-0"

Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO &  
ASSOCIATES INC.**

**MEP:**  
**DBR ENGINEERING**



SIGNED: 05/10/2019



**PSJA ISD**  
**NORTH ECHS**  
**& COLLEGE**  
**AND**  
**UNIVERSITY**  
**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

**KEYPLAN**

Project Number: 19.04  
Drawing Date: MAY 10, 2019  
Drawn: AL  
Checked: JM  
Scale: VARIOUS  
ACAD File: A-250-U

Revisions:

Sheet Title:

**DOOR &  
WINDOW  
TYPES & DTLS.**

**A-250-U**



## ABBREVIATIONS

(NOT ALL ITEMS INDICATED APPLY TO THIS PROJECT)

A	
ABV	AIR (COMPRESSED)
A/C	AIR CONDITIONING
AC	ALTERNATING CURRENT AIR COMPRESSOR
ACH	AIR COOLED CHILLER
ACCU	AIR COOLED CONDENSING UNIT
AD	ACCESS DOOR, AREA DRAIN
ADJ	ADJUSTABLE
AF	AIR FILTER
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AL	ALUMINUM
AMB	AMBIENT
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
ARI	AMERICAN REFRIGERANT INSTITUTE
ARCH	ARCHITECT, ARCHITECTURAL
AS	AIR SEPARATOR
ASHRAE	AMERICAN SOCIETY OF HEATING AND REFRIGERATION ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
AV	ACID VENT, AIR VENT
AVG	AVERAGE
AWG	AMERICAN WELDING SOCIETY
AUX	AUXILIARY
B	
B	BOILER
BC	BELOW COUNTER
B/C	BACK OF CURB
BFV	BUTTERFLY VALVE
BH	BOX HYDRANT
BLDG	BUILDING
BM	BENCHMARK
BOF	BOTTOM OF FOOTING
BOS	BOTTOM OF STRUCTURE
BT	BATH TUB, BREAK TANK
BTU	BRITISH THERMAL UNIT
BV	BALL VALVE
BWV	BACK WATER VALVE
C	
C	CELSIUS
CAB	CABINET
CB	CATCH BASIN
CD	CONDENSATE DRAIN LINE
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CH	CHILLER
CHW	CHILLED WATER
CHWP	CHILLED WATER PUMP
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CI	CAST IRON
CIRC	CIRCULATING
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CPI	CAST IRON PIPE INSTITUTE
CPVC	CHLORINATED POLYVINYL CHLORIDE
CO	CLEAN OUT
COL	COLUMN
COMB	COMBINATION
COMP	COMPRESSOR
CON	CONVERTER
CONC	CONCRETE, CONCENTRIC
COND	CONDENSER, CONDENSATE
CONN	CONNECTION
CONT	CONTINUOUS, CONTINUATION
CONTR	CONTROLLER, CONTRACTOR
ORAC	COMPUTER ROOM A/C UNIT
ORT	CATHODE RAY TUBE
CT	COOLING TOWER
CTR	CENTER
CU	COPPER
CW	COLD WATER
CWP	CONDENSER WATER PUMP
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY

D	
D	DEPTH, DRAIN, DRYER
DB	DRY BULB
DC	DOUBLE DUCT CONSTANT VOLUME, DIRECT CURRENT
DDC	DIRECT DIGITAL CONTROL
DESIG	DESIGNATION
DTL	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIFF	DIFFUSER
DM	DIMENSION
DISC	DISCONNECT
DN	DOWN
DPR	DAMPER
DS	DOWNSPOUT, DOUBLE SUCTION
DV	DOUBLE DUCT VAV
DW	DISHWASHER
DWG	DRAWING
DWH	DOMESTIC WATER HEATER
DWP	DOMESTIC WATER PUMP
DX	DIRECT EXPANSION

E	
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
ECC	ECCENTRIC
EDB	ENTERING DRY BULB
EDF	ELECTRIC DRINKING FOUNTAIN
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
EFF	EFFICIENCY
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR EMERGENCY ENCLOSURE
EMERG	EMERGENCY
ENCL	ENCLOSURE
ENGR	ENGINEER
EQ	EQUAL
EQUIP	EQUIPMENT
ES	END SUCTION, EMERGENCY SHOWER
ESP	EXTERNAL STATIC PRESSURE EXPANSION TANK
ET	EXPANSION TANK
ETR	EXISTING TO REMAIN
EWAP	EVAPORATOR
EWB	ENTERING WET BULB
EWT	ENTERING WATER TEMPERATURE
EX	EXPLOSION-PROOF
EXT	EXTERNAL
EXTD	EXISTING

F	
F	FAHRENHEIT, FIRE
FBD	FURNISHED BY OTHERS
FCD	FLOOR CLEAN OUT
FCS	FLOOR CONTROL STATION
FCU	FAN COIL UNIT
FD	FLOOR DRAIN, FIRE DAMPER
FDS	FIRE DEPARTMENT SIAMSE
FDV	FIRE DEPARTMENT VALVE
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FHR	FIRE HOSE RACK
FIXT	FIXTURE
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE
FL	FLOW LINES
FLR	FLOOR
FP	FIRE PUMP
FPT	FAN POWERED TERMINAL
FRZR	FREEZER
FS	FLOW SWITCH, FIRE SPRINKLER
FSK	FLOOR SINK
FT	FOOT, FEET
FUT	FUTURE

G	
G	GAS
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GLV	GLOBE VALVE
GND	GROUND
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GSH	GRAND SENSIBLE HEAT
GTH	GRAND TOTAL HEAT
GV	GATE VALVE

H	
HB	HOSE BIBB
HD	HEAD, HUB DRAIN
HE	HEAT EXCHANGER
HF	HUMIDIFIER
HORIZ	HORIZONTAL
HPR	HORSEPOWER, HALON PANEL
HPU	HEAT PUMP UNIT
HWP	HOUSEKEEPING PAD
HSC	HORIZONTAL SPLIT CASE
DIFF	DIFFUSER
HSTAT	HUMIDISTAT
HT	HEISTAT
HTD	HEATING
HTR	HEATER
HW	HOT WATER
HWC	HOT WATER CIRCULATOR
HWP	HEATING WATER PUMP
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
Hz	HERTZ

I	
ID	INSIDE DIAMETER
I	INVERT ELEVATION
IH	INFRARED HEATER
IN	INCH
INSUL	INSULATION
INT	INTERNAL, INTERIOR
IW	INDIRECT WASTE

J	
JB	JUNCTION BOX
JP	JOCKEY PUMP

K	
KES	KITCHEN EQUIPMENT CONTRACTOR
KO	KNOCKOUT
KVA	KILOVOLT-AMPS
KW	KILOWATT

L	
L	LENGTH, LAVATORY
LAT	LEAVING AIR TEMPERATURE
LAV	LAVATORY
LF	LINEAR FEET
LP	LOW PRESSURE
LRA	LOCKED ROTOR AMPS
LVL	LEVEL
LWB	LEAVING WET BULB
LWCO	LOW WATER CUT OFF
LWT	LEAVING WATER TEMPERATURE

M	
MAT	MIXED AIR TEMPERATURE
MAX	MAXIMUM
MBTUH	THOUSAND OF BTU/S
MC	MECHANICAL CONTRACTOR
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MI	MALLEABLE IRON
MIN	MINIMUM
MP	MEDIUM PRESSURE
MS	MOP SINK
MTD	MOUNTED
MU	MAKE-UP
MVD	MANUAL VOLUME DAMPER

N	
N.C.	NORMALLY CLOSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
NO.	NUMBER
NTS	NOT TO SCALE

O	
OA	OUTSIDE AIR
OAF	OUTSIDE AIR FAN
OHU	OUTSIDE AIR HANDLING UNIT
OD	OPPOSED BLADE DAMPER
OC	ON CENTER
OD	OUTSIDE DIAMETER, OVERFLOW DRAIN
OFU	OUTSIDE AIR FAN COIL UNIT
OPG	OPENING
OS&Y	OPEN STEM AND YOLK

P	
P	PUMP, PLUMBING EQUIPMENT
PC	PLUMBING CONTRACTOR
PCR	PUMPED CONDENSATE RETURN
PD	PRESSURE DROP, PLANTER DRAIN
PH	PHASE, POST HYDRANT
PIV	POST INDICATOR VALVE
PLBG	PLUMBING
PNEU	PNEUMATIC
PNL	PANEL
PNT	PENTHOUSE
PP	POLYPROPYLENE
PPM	PART PER MILLION
PR	PRIMARY
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE REDUCING VALVE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PT	PLUMBING TRIM
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE

Q	
QTY	QUANTITY

R	
RA	RETURN AIR
RAD	REFRIGERATED AIR DRYER
RAF	RETURN AIR FAN
RAG	RETURN AIR GRILL
RAT	RETURN AIR TEMPERATURE
ROP	REFLECTED CEILING PLAN, REINFORCED CONCRETE PILES
RD	ROOF DRAIN
RE	REFERENCE, REFER
RECIRC	RECIRCULATE
RED	REDUCER
REFR	REFRIGERATOR
REG	REGISTER
REIN	REINFORCING
REQD	REQUIRED
REV	REVISION, REVISE
RH	RELATIVE HUMIDITY
RHG	REFRIGERANT HOT GAS
RKVA	RUNNING KILOVOLT-AMPS
RKW	RUNNING KILOWATTS
RL	REFRIGERANT LIQUID
RLA	RUNNING LOAD AMPS
RM	ROOM, REFRIGERATION MACHINE
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
RTU	ROOFTOP UNIT
RV	RELIEF VALVE

S	
S	STEAM
SA	SUPPLY AIR
S&F	SUPPLY AIR FAN
S&G	SUPPLY AIR GRILLE
SAW	SANITARY SEWER
S&R	SUPPLY AIR REGISTER
SC	STEAM CONDENSATE
SCHED	SCHEDULED
SCR	SILICON CONTROLLED RECTIFIER
SD	STORM DRAIN
SE	SEWAGE EJECTOR
SEC	SECONDARY
SECT	SECTION
SENS	SENSIBLE
SF	SQUARE FEET
SFCS	SPRINKLER FLOOR CONTROL STATION
SH	SHOWER
SHT	SHEET
SH	SIMILAR
SK	SINK
SKVA	STARTING KILOVOLT-AMPS
SKW	STARTING KILOWATTS
SM	SHEETMETAL
SP	SUMP PUMP, STATIC PRESSURE
SPEC	SPECIFICATION
SPR	SPRINKLER
SQ	SQUARE
SS	SERVICE SINK
SSD	SUBSURFACE DRAIN
SSFU	SANITARY SEWER FIXTURE UNITS
SSSC	SOLID STATE SPEED CONTROL
STD	STANDARD
STL	STEEL
STR	STRAINER
SURF	SURFACE
SUSP	SUSPEND
SV	SANITARY VENT

## MECHANICAL PIPING SYMBOLS

—CWS—	CONDENSER WATER SUPPLY		STRAINER WITH BLOW DOWN VALVE
—CWR—	CONDENSER WATER RETURN		GATE VALVE, HVAC BALANCING/STOP VALVE
—CHS—	CHILLED WATER SUPPLY		GLOBE VALVE
—CHR—	CHILLED WATER RETURN		BALL VALVE
—CD—	CONDENSATE DRAIN LINE		BALANCING VALVE WITH DIFFERENTIAL PRESSURE TAPS
—3—	CAP ON END OF PIPE		OS&Y VALVE
—45°—	ELBOW UP		CHECK VALVE
—90°—	ELBOW DOWN		BUTTERFLY VALVE
—V—	VALVE IN DROP		TWO-WAY MODULATING CONTROL VALVE
—V—	VALVE IN RISE		THREE-WAY MODULATING CONTROL VALVE
—45°—	DIRECTION OF FLOW		SOLENOID VALVE
—45°—	DIRECTION OF SLOPE DOWN		PRESSURE REDUCING VALVE
—45°—	ECCENTRIC REDUCER		GAS REGULATOR
—45°—	TEE OUTLET UP		GAS COOK
—45°—	TEE OUTLET DOWN		SPRINKLER FLOOR CONTROL STATION
—45°—	FLANGE		MANUAL AIR VENT
—45°—	PIPE ANCHOR		AUTOMATIC AIR VENT
—45°—	EXPANSION JOINT		TAP RELIEF VALVE
—45°—	PRESSURE AND TEMPERATURE TAP		PRESSURE GAUGE WITH GAUGE COOK
—45°—	FLOW VENTURI		STEAM TRAP
—45°—	VACUUM BREAKER		WATER METER
—45°—	VACUUM RELIEF VALVE		FLEXIBLE CONNECTION
—45°—	BACKFLOW PREVENTOR		
—45°—	THERMOMETER		
—45°—	CIRCULATING PUMP		

T	
TC	TEMPERATURE CONTROL
TCC	TEMPERATURE CONTROL COMPRESSOR
TD	TRENCH DRAIN
TF	TRANSFER FAN
TDH	TOTAL DYNAMIC HEAD
TH BLK	THRUST BLOCK
TP	TRAP PRIMER
TPD	TRAP PRIMER DEVICE
TSP	TOTAL STATIC PRESSURE
TSTAT	THERMOSTAT
TYP	TYPICAL

U	
U	URINAL
UCD	UNDER CUT DOOR
UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES, INC.
UNO	UNLESS NOTED OTHERWISE
U/F	UNDERFLOOR
U/S	UNDERSLAB

V	
V	VOLT, VENT
VA	VOLT-AMPERE
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VB	VALVE BOX, VACUUM BREAKER
VCP	VITRIFIED CLAY PIPE
VD	VOLUME DAMPER
VEL	VELOCITY
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VB	VALVE IN BOX
VOV	VALVE ON VERTICAL
VP	VACUUM PUMP
VR	VARIABLE AIR VOLUME REHEAT
VTR	VENT THRU ROOF

W	
W	WATT, WASTE, WIDTH, WASHER
W/	WITH
W/O	WITHOUT
WB	WET BULB
WC	WATER CLOSET
WCO	WALL CLEAN OUT
WH	WALL HYDRANT
WM	WATER METER
WP	WEATHERPROOF
WPD	WATER PRESSURE DROP
WTF	WELDED WIRE FABRIC
WT	WATERTIGHT, WEIGHT

Y	
Y	YARD HYDRANT

Z	
Z	ZONE

## DUCTWORK SYMBOLS - NEW

Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING



## PSJA ISD

NORTH ECHS  
& COLLEGE

AND  
UNIVERSITY  
CAMPUS

STUDENT  
RESTROOM  
RENOVATIONS

## KEYPLAN

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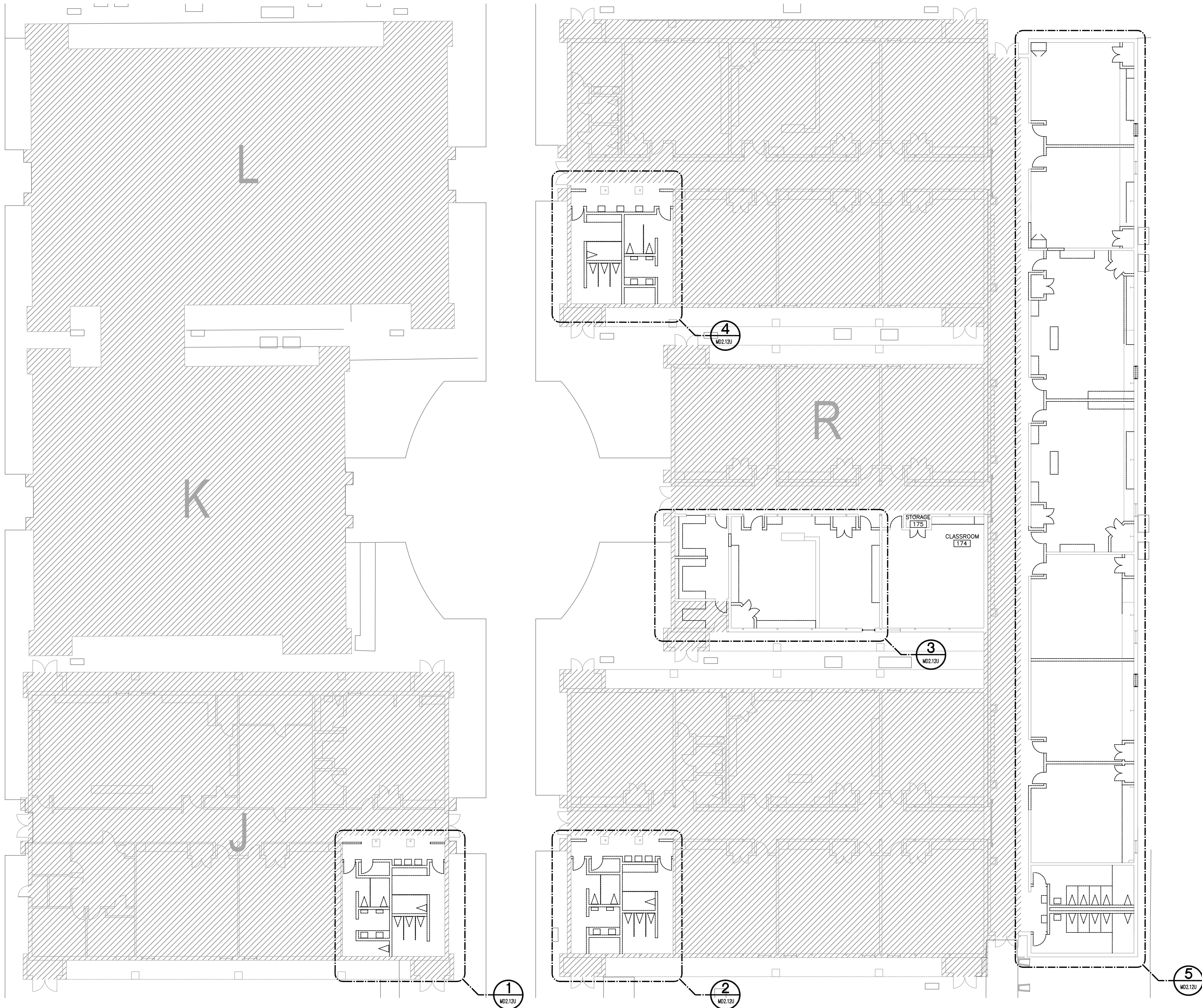
DBR Project Number 198008.000  
DM MG JCH TL

M0.01U

MECHANICAL  
SYMBOLS AND  
ABBREVIATIONS



May 08, 2019 - 6:01pm User: mgarza  
N:\19\198008.000\Drawings\DMO-198008-UNIVERSITY-01.dwg



**1** MECHANICAL DEMOLITION PLAN - UNIVERSITY CAMPUS  
MD2.11U 3/32"=1'-0"

**DBR**  
200 South 10th Street Suite 901  
Mc Allen, Texas 78501  
956.683.1040 • 956.683.1903 f  
TBP Firm Registration No. 2234

DBR Project Number 198008.000

DM	MG	JCH	TL	-
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Consultants:

**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



**PSJA ISD**  
**NORTH ECHS**  
**& COLLEGE**  
**AND**  
**UNIVERSITY**  
**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

**KEYPLAN**

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
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Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

Sheet Title:

**COMPOSITE**  
**MECHANICAL**  
**DEMO PLAN-**  
**UNIV. CAMPUS**

**MD2.11U**



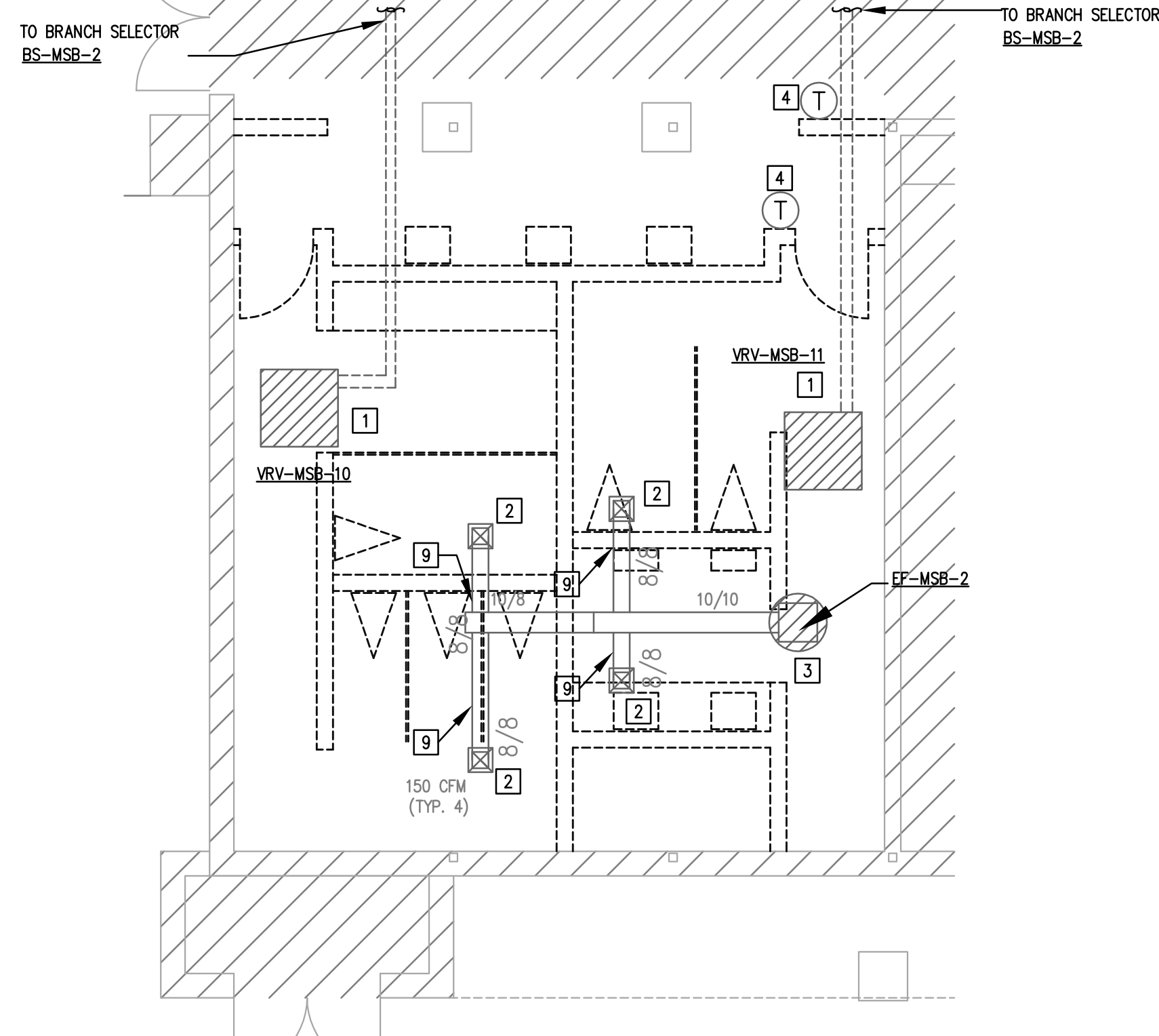
May 08, 2019 - 6:05pm User: mgarza  
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## MECHANICAL GENERAL DEMO NOTES

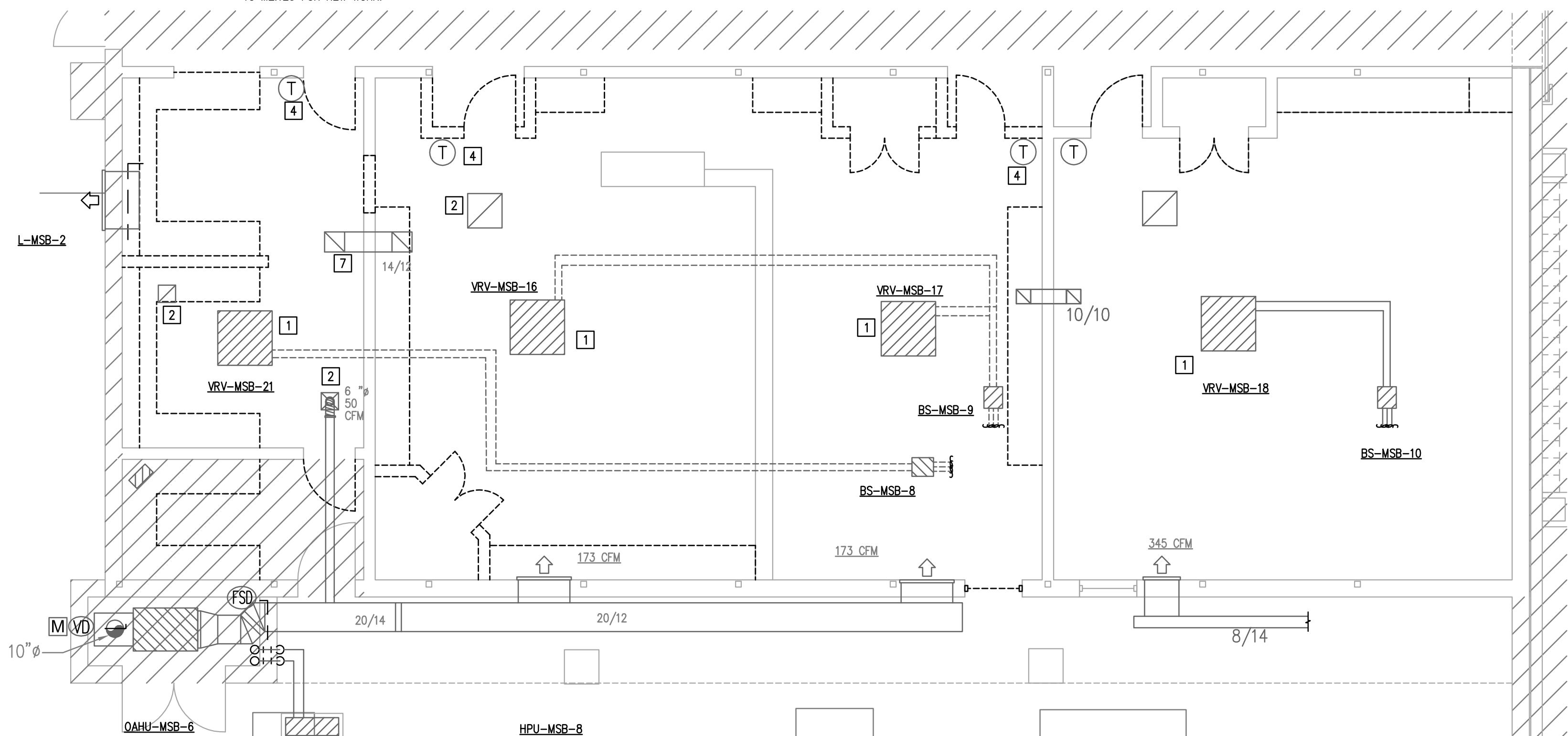
- COORDINATE DEMOLITION WORK WITH ELECTRICAL AND OTHER DISCIPLINES AS REQUIRED.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE VERIFIED EXISTING JOBSITE CONDITIONS DURING THE BIDDING PERIOD. SO THEY WILL HAVE DISCOVERED THE FULL SCOPE OF WORK INVOLVED WITH THE MODIFICATION OF THIS EXISTING SPACE. THE SCOPE OF THE WORK SHALL INCLUDE ALL MATERIALS FOR A COMPLETE INSTALLATION INCLUDING DEVICES, EQUIPMENT, OR APPARATUS WHICH MUST BE RELOCATED, RELOCATED, OR REMOVED EITHER TEMPORARILY OR PERMANENTLY, OR WHICH MUST BE PROVIDED TO ACCOMMODATE THE INDICATED REMODELING. NOT ALL EXISTING CONDITIONS ARE NECESSARILY INDICATED ON THE DRAWINGS. ALL HVAC SHOWN ARE TAKEN FROM AS-BUILT HARD COPY AND MUST BE FIELD VERIFIED.
- WHEN AN EQUIPMENT IS IDENTIFIED TO BE REMOVED, THE OWNER HAS FIRST RIGHT OF REFUSAL BEFORE DISPOSING OF THAT EQUIPMENT. PROVIDE DISTRIBUTE ONE WEEK NOTICE PRIOR TO DEMOLITION.
- PROVIDE ALL NECESSARY CLEAR PATH TO MOVE DEMOLISHED EQUIPMENT OUT OF THE FACILITY AS WELL TO BRING NEW EQUIPMENT INTO THE BUILDING. MODIFY EXISTING PIPING, DUCTWORK CONDUITS, AS REQUIRED TO COMPLETE THE DEMOLITION.

## MECHANICAL DEMO KEYED NOTES

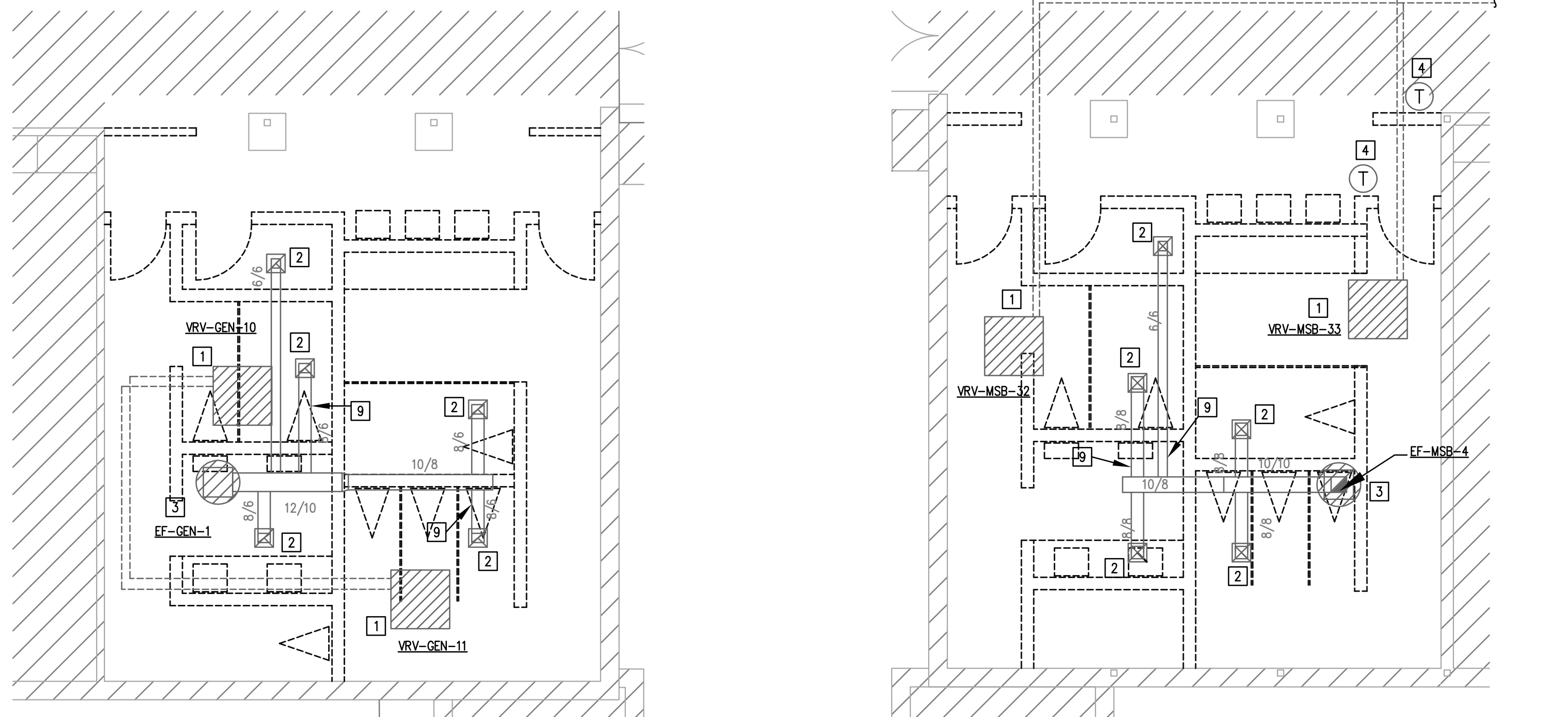
- EXISTING VRV UNIT SHALL BE RELOCATED TO NEW LOCATION. EXISTING ASSOCIATED REFRIGERANT PIPING, BRANCH SELECTOR, AND CONDENSATE PIPING SHALL REMAIN. CONTRACTOR SHALL DISCONNECT AND PUMP DOWN REFRIGERANT IN THE ASSOCIATED SYSTEM AS PER MANUFACTURERS RECOMMENDATIONS. REFER TO M2.12U AND M2.13U FOR NEW WORK.
- EXISTING AIR DEVICE SHALL BE REMOVED AND SALVAGED TO BE REUSED. TEMPORARILY SEAL DUCTWORK. REFER TO M2.12U AND M2.13U FOR NEW WORK.
- EXISTING EXHAUST FAN AND ASSOCIATED DUCTWORK SHALL REMAIN. REFER TO M2.12U AND M2.13U FOR NEW WORK TO EXISTING DUCTWORK.
- EXISTING THERMOSTAT SHALL BE RELOCATED. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF THERMOSTAT. REFER TO M2.12U AND M2.13U FOR NEW LOCATION.
- EXISTING OAHU-MSB VRV UNIT SHALL BE REMOVED. REMOVE ASSOCIATED EQUIPMENT, DUCTWORK, CONTROLS, AND AIR DEVICES.
- EXISTING VRV SYSTEM AND AIR DEVICES SHALL BE RELOCATED. DUCTWORK SHALL BE RELOCATED AND MODIFIED. EXISTING ASSOCIATED REFRIGERANT PIPING, BRANCH SELECTOR, AND CONDENSATE PIPING SHALL REMAIN. CONTRACTOR SHALL DISCONNECT AND PUMP DOWN REFRIGERANT IN THE ASSOCIATED SYSTEM AS PER MANUFACTURERS RECOMMENDATIONS. REFER TO M2.12U FOR NEW SYSTEM LAYOUT AND NEW DUCTWORK MODIFICATIONS.
- EXISTING TRANSFER DUCT SHALL BE REMOVED AND SALVAGED TO BE RELOCATED. REFER TO M2.12U FOR NEW WORK.
- EXISTING TRANSFER DUCT SHALL BE REMOVED.
- EXISTING BRANCH DUCTWORK SHALL BE REMOVED AND SALVAGED TO BE REUSED. CONTRACTOR SHALL SEAL AND INSULATE MAIN DUCTWORK. REFER TO M2.13U FOR NEW WORK AND NEW LOCATION ON MAIN DUCTWORK.
- EXISTING VRV CASSETTE SHALL BE REMOVED. EXISTING ASSOCIATED REFRIGERANT PIPING, BRANCH SELECTOR, AND CONDENSATE PIPING SHALL REMAIN. CONTRACTOR SHALL DISCONNECT AND PUMP DOWN REFRIGERANT IN THE ASSOCIATED SYSTEM AS PER MANUFACTURERS RECOMMENDATIONS. REFER TO M2.12U FOR NEW WORK.



**5 ENLARGED MECHANICAL DEMOLITION PLAN**  
MD2.12U 3/16"=1'-0"

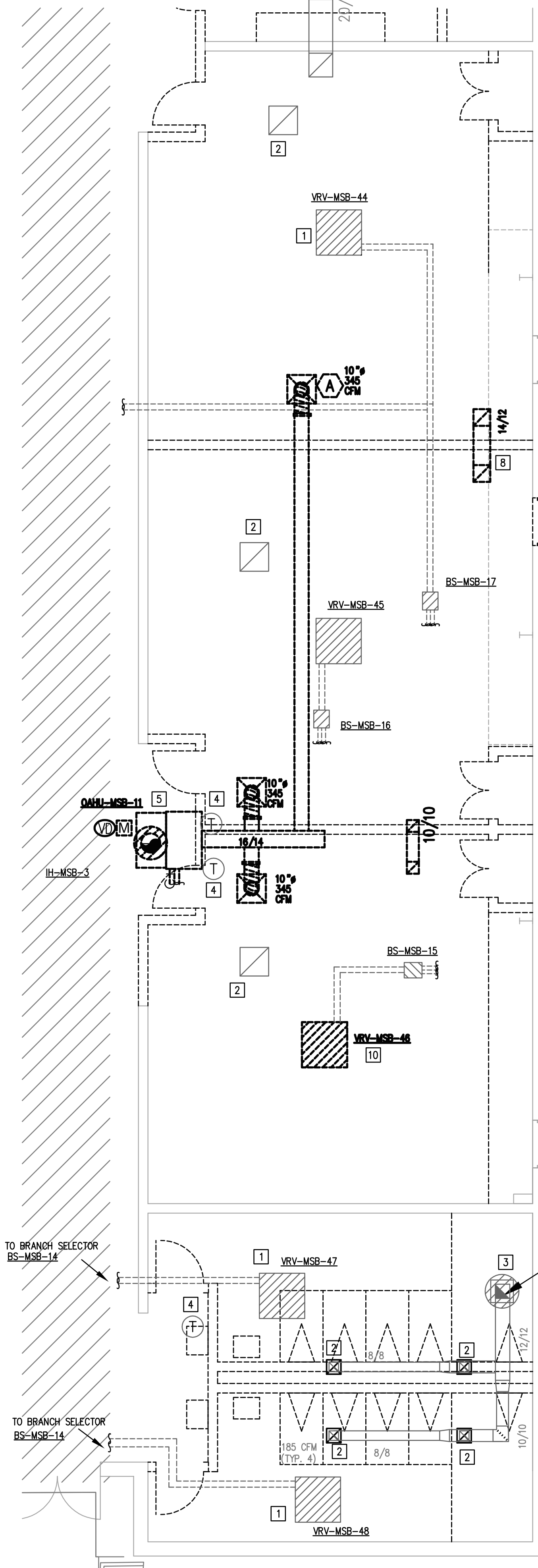


**4 ENLARGED MECHANICAL DEMOLITION PLAN**  
MD2.12U 3/16"=1'-0"

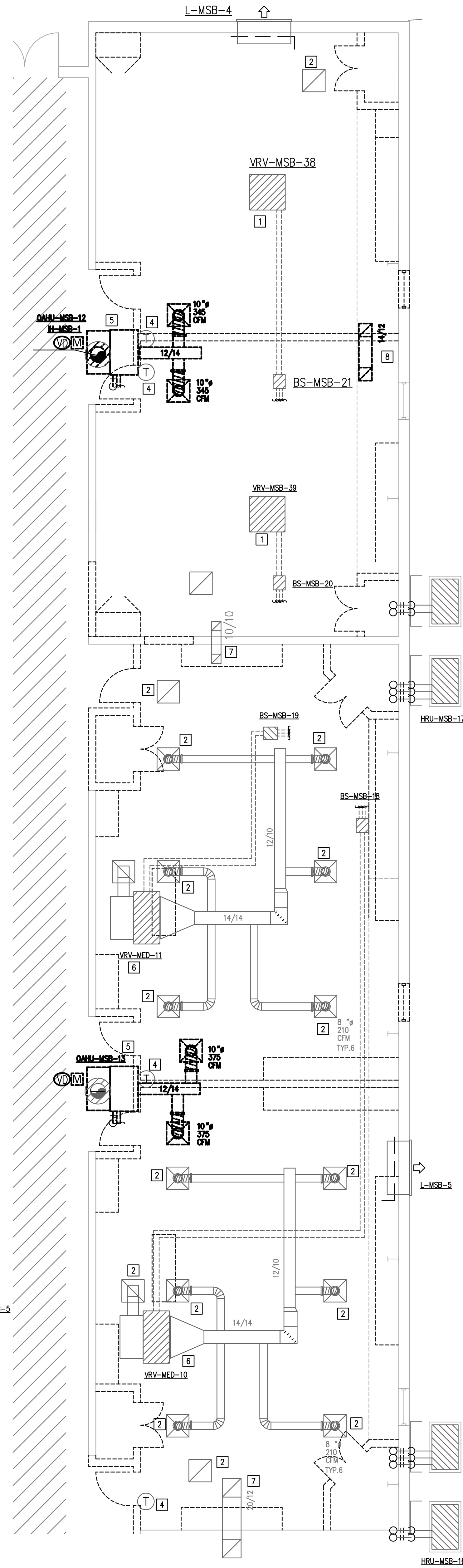


**1 ENLARGED MECHANICAL DEMOLITION PLAN**  
MD2.12U 3/16"=1'-0"

**2 ENLARGED MECHANICAL DEMOLITION PLAN**  
MD2.12U 3/16"=1'-0"



**3 ENLARGED MECHANICAL DEMOLITION PLAN**  
MD2.12U 3/16"=1'-0"



DBR Project Number					198008.000
DM	MG	JCH	TL	—	

Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO &  
ASSOCIATES INC.**

**MEP:**  
**DBR ENGINEERING**



**PSJA ISD**  
**NORTH ECHS  
& COLLEGE**  
**AND**  
**UNIVERSITY**  
**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

## KEYPLAN

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

Sheet Title:

**COMPOSITE  
MECHANICAL  
DEMO PLAN -  
UNIV. CAMPUS**

**MD2.12U**



**P:**  
**R ENGINEERING**



## STUDENT RESTROOM ENOVATIONS

File: A-240-

**Title**

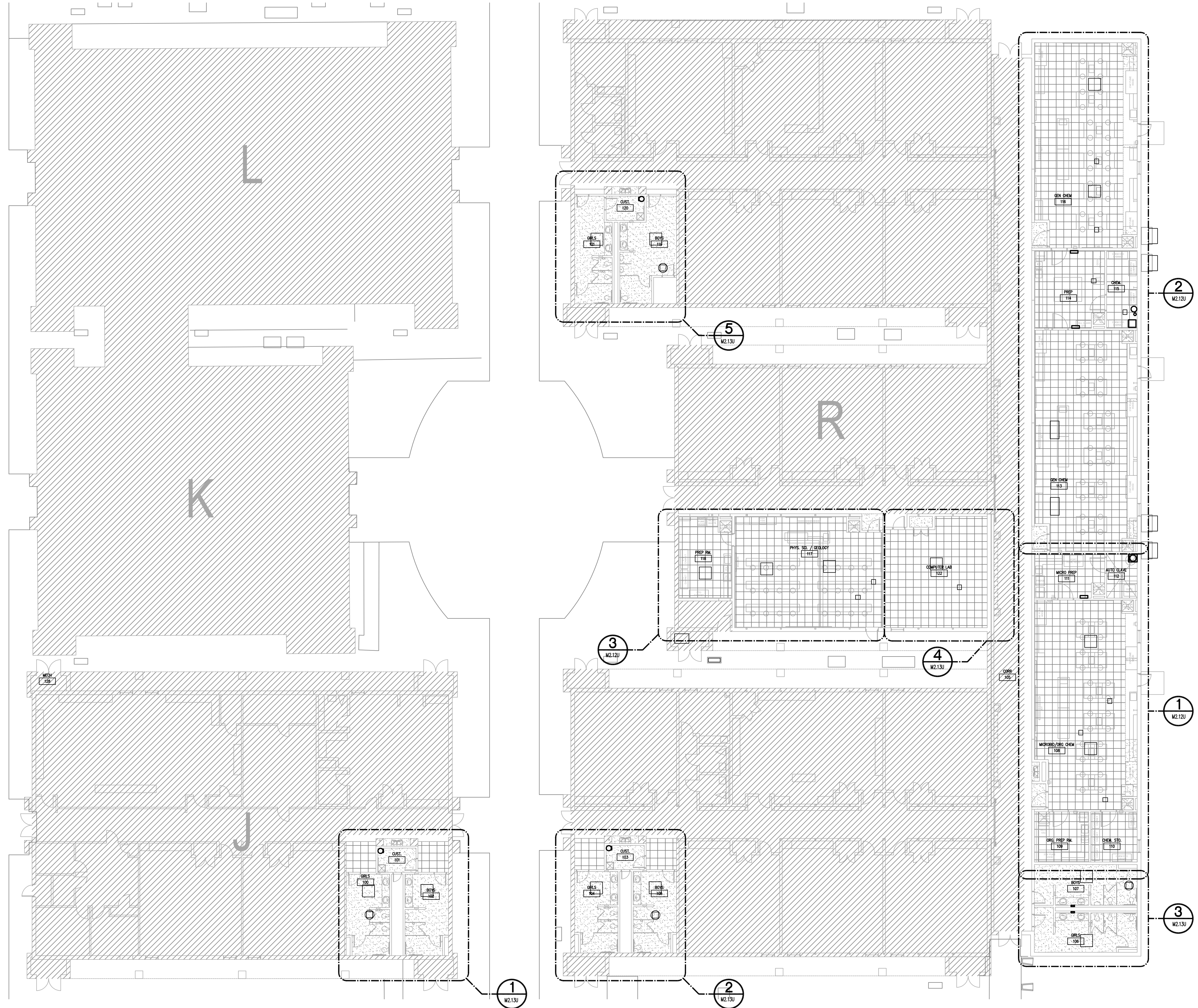
**COMPOSITE  
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BR Project Number 198008.000

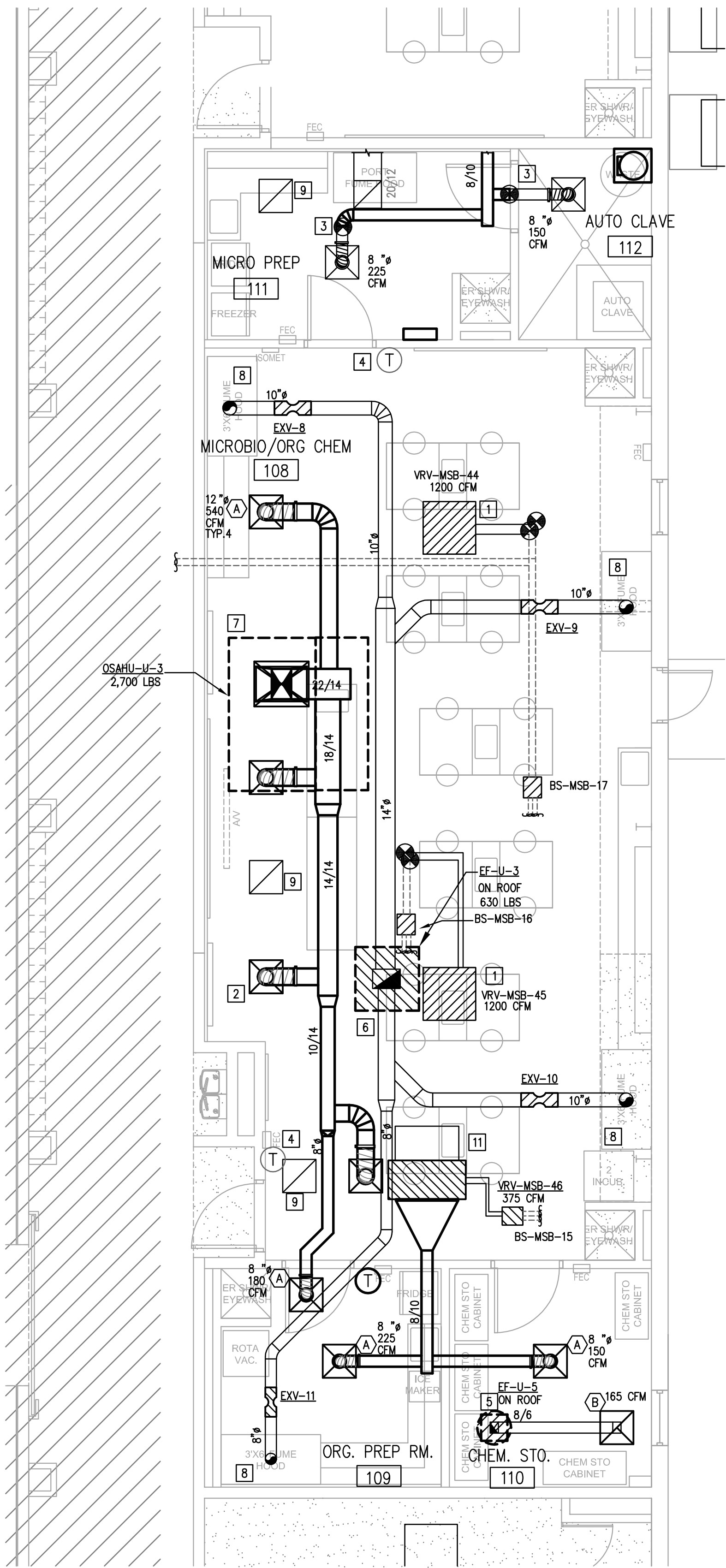
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## M2.11U

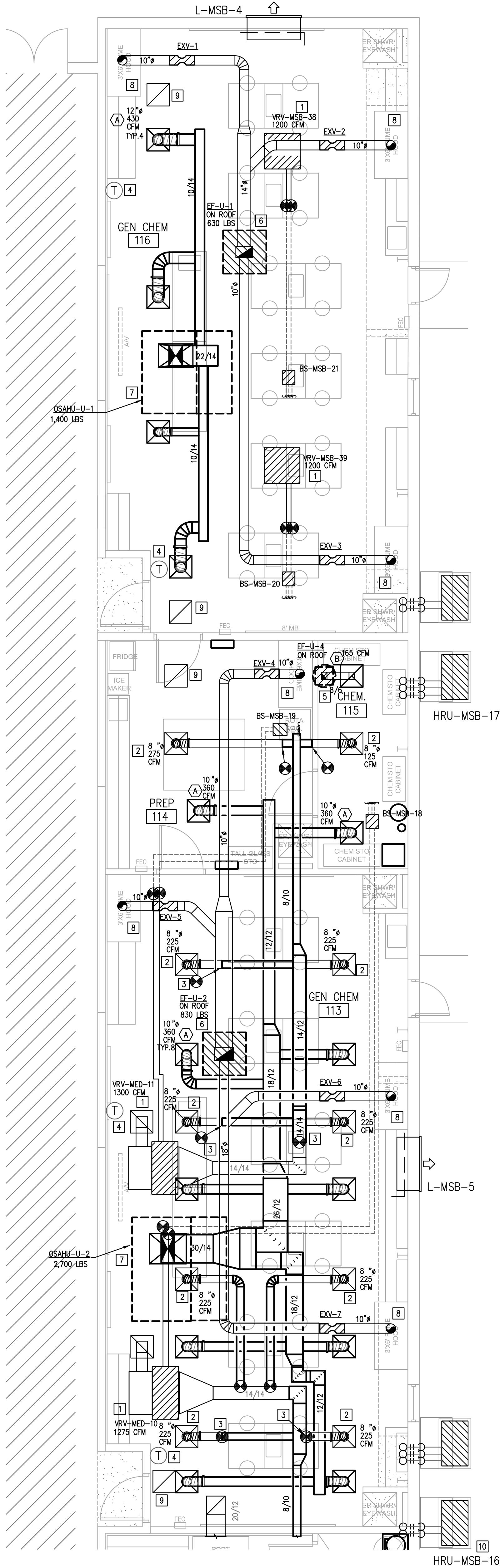


1 MECHANICAL PLAN - UNIVERSITY CAMPUS  
M2.11U 3/32"=1'-0"

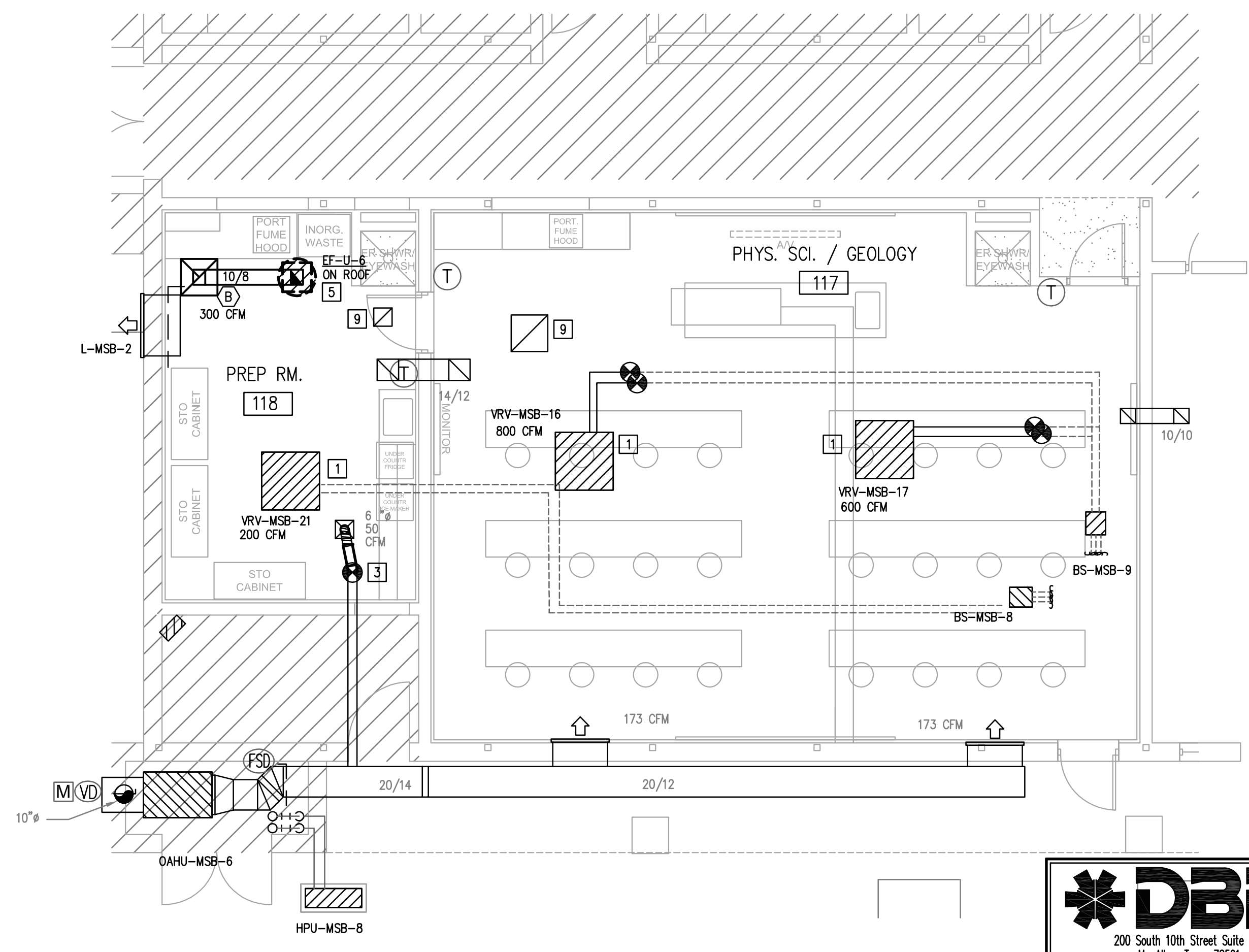




1 ENLARGED MECHANICAL PLAN  
3/16"=1'-0"



2 ENLARGED MECHANICAL PLAN  
3/16"=1'-0"



3 ENLARGED MECHANICAL PLAN  
3/16"=1'-0"

### GENERAL MECHANICAL NOTES

- THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL LOCATION OF EQUIPMENT, DUCTS, AND GRILLES, ETC. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS THAT COMPLETE MECHANICAL SYSTEMS BE FURNISHED, INSTALLED, TESTED, AND READY FOR OPERATION WHETHER OR NOT EVERY ITEM OF EQUIPMENT, ACCESSORY, DEVICE, ETC. IS SHOWN. REFERENCE SHALL BE MADE TO THE FULL DRAWING PACKAGE INCLUDING ARCHITECTURAL, STRUCTURAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR COORDINATION AND POTENTIAL CONFLICTS. THE MECHANICAL SUBCONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICTS WITH OTHER TRADES, OR FOR PROPER EXECUTION OF THE WORK. FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATING DUCTWORK.
- EQUIPMENT SIZES, DIMENSIONS, AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE MANUFACTURER'S DRAWINGS AND CUT SHEETS BEFORE FABRICATING DUCTWORK, PIPING, OR POURING OF HOUSEKEEPING PADS.
- ALL FLEXIBLE DUCTWORK SHALL NOT EXCEED 5 FEET IN TOTAL LENGTH.
- ALL DUCTWORK AND ASSOCIATED ACCESSORIES SHALL BE CONSTRUCTED TO MEET THE LATEST SMACNA STANDARDS FOR LOW PRESSURE DUCTWORK.
- EXACT LOCATION OF GRILLES AND DAMPERS SHALL BE FIELD COORDINATED WITH OTHER TRADES TO AVOID CONFLICTS AND ALLOW ADEQUATE CLEARANCES.
- DIVISION 23 MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
- PROVIDE INSULATION FOR ALL PIPING AND DUCTWORK THAT MEETS THE LATEST EDITION OF IECC.
- PROVIDE AIRFOIL TYPE TURNING VANES IN ALL NEW 90 DEGREE ELBOWS.
- ALL CEILING MOUNTED AND WALL MOUNTED AIR DEVICES SHALL MATCH ADJACENT ARCHITECTURAL SURFACE. CONTRACTOR SHALL COORDINATE COLOR WITH ARCHITECT.
- ALL SUPPLY AIR TAPS TO DIFFUSERS AND GRILLES SHALL BE SUPPLIED WITH MANUAL VOLUME DAMPERS. PROVIDE YOUNG'S REGULATORS FOR DAMPERS LOCATED ABOVE INACCESSIBLE CEILINGS.
- DUCT DIMENSIONS INDICATED ON DRAWINGS ARE CLEAR INSIDE AIR STREAM DIMENSIONS.

### MECHANICAL KEYED NOTES

- NEW LOCATION OF RELOCATED VRV UNIT. CONTRACTOR SHALL EXTEND WITH NEW REFRIGERANT AND CONNECT TO CORRESPONDING REFRIGERANT PIPING. EXTEND WITH NEW CONDENSATE PIPING TO EXISTING CONDENSATE PIPING. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF CONDENSATE PIPING. CONTRACTOR SHALL COORDINATE EXACT LOCATION WITH ALL CEILING DEVICES. SUPPORT FROM STRUCTURE ABOVE.
- NEW LOCATION OF SALVAGED AIR DEVICE. EXTEND WITH NEW DUCTWORK AS REQUIRED TO NEW LOCATION. BALANCE TO CFM AS NOTED ON PLAN.
- CONNECT NEW DUCTWORK TO RELOCATED DUCTWORK. SIZE AS NOTED ON PLAN.
- NEW LOCATION OF THERMOSTAT. MOUNT 48" A.F.F. COORDINATE EXACT HEIGHT AND LOCATIONS WITH OWNER AND ARCHITECT.
- PROVIDE EXHAUST FAN ON ROOF AS SCHEDULED WITH PREFABRICATED ROOF CURB. ROUTE DUCTWORK UP AND TRANSITION AS REQUIRED. COORDINATE ROUTING WITH ALL DISCIPLINES AND STRUCTURAL MEMBERS PRIOR TO INSTALLATION. RE: DETAIL 7/M4.01U.
- PROVIDE FUME HOOD EXHAUST FAN ON ROOF AS SCHEDULED. ROUTE EXHAUST DUCT UP THROUGH ROOF. COORDINATE ROUTING WITH ALL DISCIPLINES AND STRUCTURAL MEMBERS PRIOR TO INSTALLATION. RE: DETAIL 6/M4.01U.
- PROVIDE PACKAGED 100% OUTSIDE AIR UNIT ON ROOF. ROUTE DUCTWORK UP THROUGH ROOF. COORDINATE ROUTING WITH ALL DISCIPLINES AND STRUCTURAL MEMBERS PRIOR TO INSTALLATION. RE: DETAIL 12/M4.01U.
- ROUTE FUME HOOD EXHAUST DUCT TO FUME HOOD COLLAR. TRANSITION AS REQUIRED. SIZE AS NOTED ON PLAN.
- NEW LOCATION OF SALVAGED AIR DEVICE.
- REFER TO M6.01U FOR NEW REFRIGERANT PIPE CHANGE.
- PROVIDE NEW VRV FAN COIL UNIT AS SCHEDULED ON M6.01U TAG VRV-MSB-46. CONNECT AND ROUTE REFRIGERANT PIPING TO EXISTING BRANCH SELECTOR. ROUTE CONDENSATE TO EXISTING CONDENSATE PIPING. SUSPEND FROM STRUCTURAL ABOVE.

Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING



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**RESTROOM**  
**RENOVATIONS**

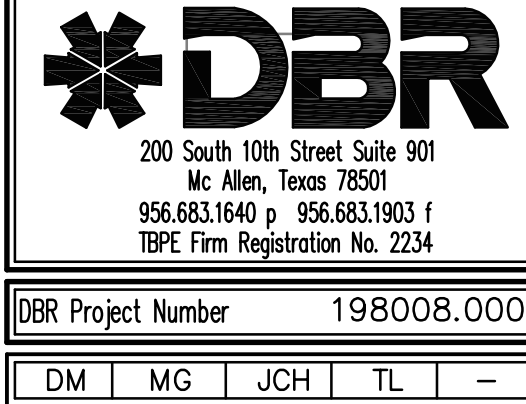
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Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

Sheet Title:

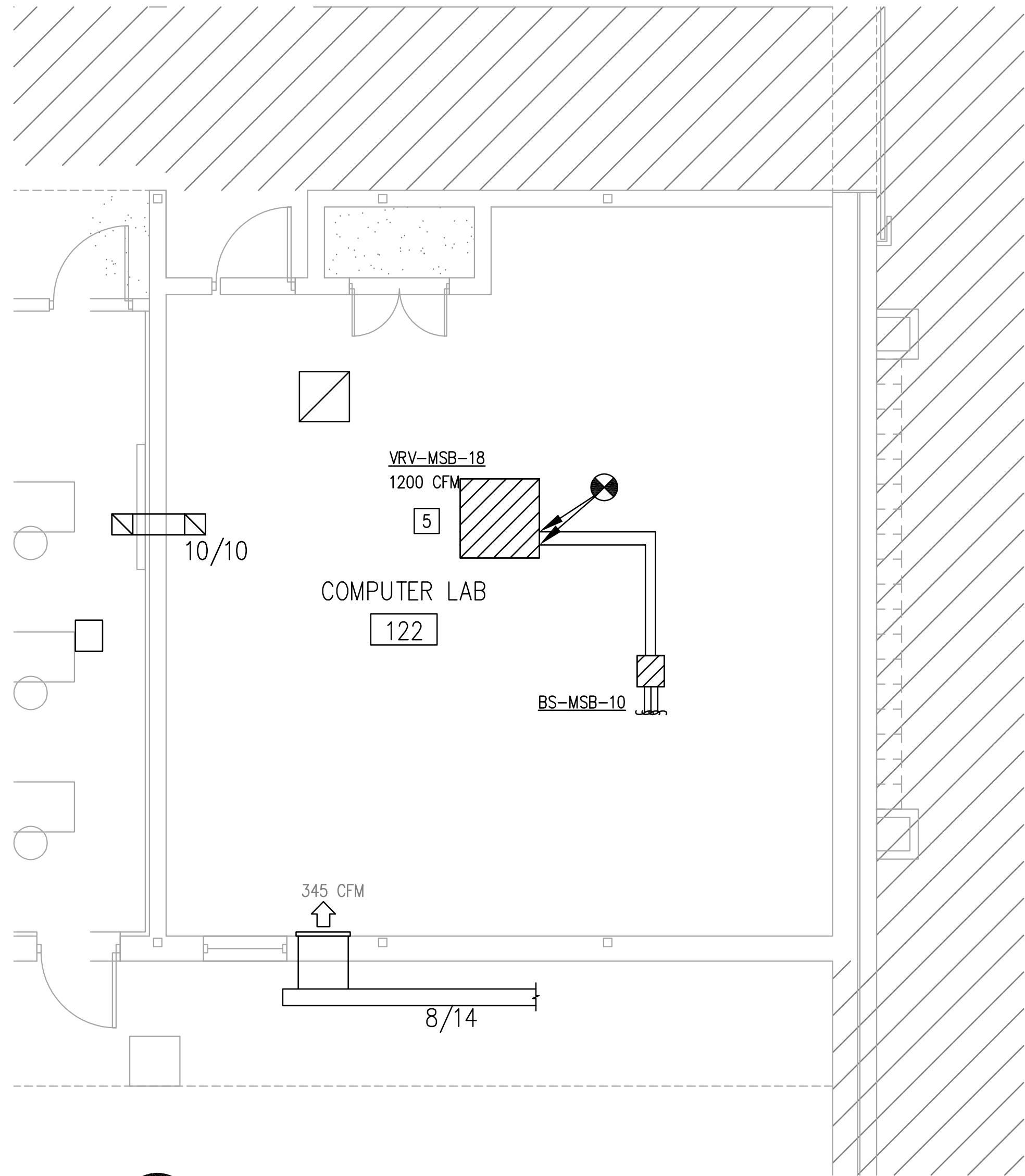
**COMPOSITE**  
**MECHANICAL**  
**PLAN -**  
**UNIV. CAMPUS**



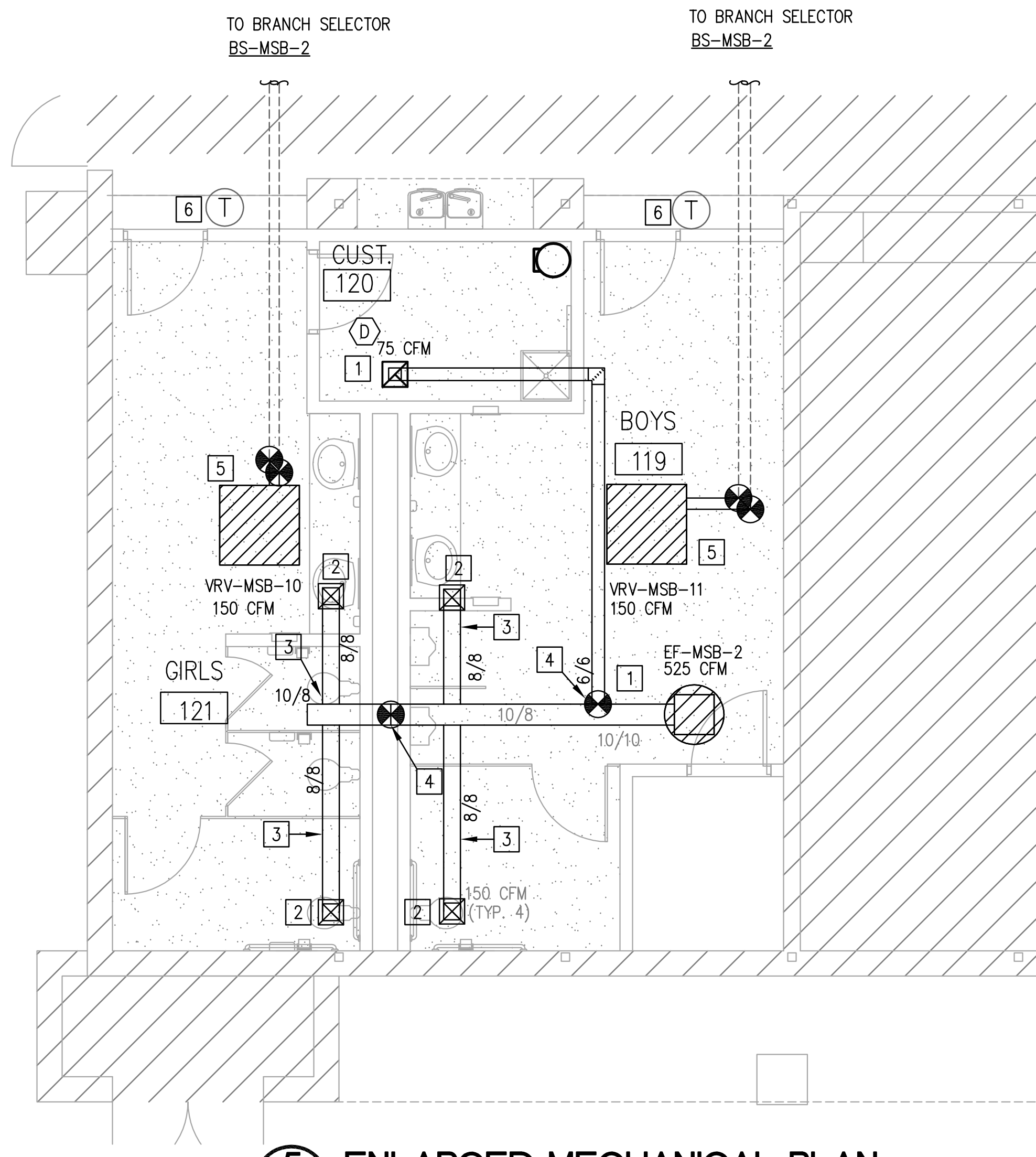
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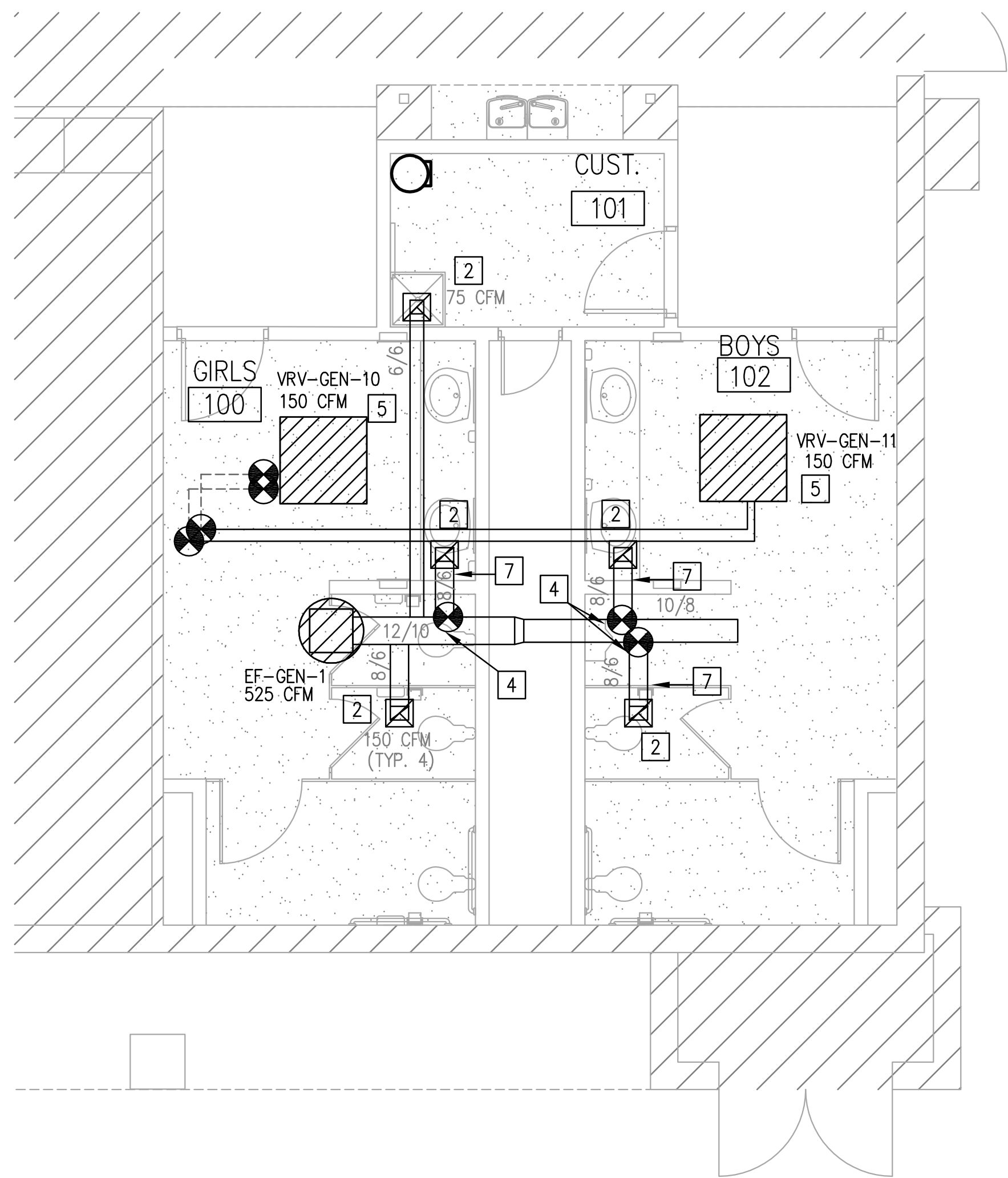
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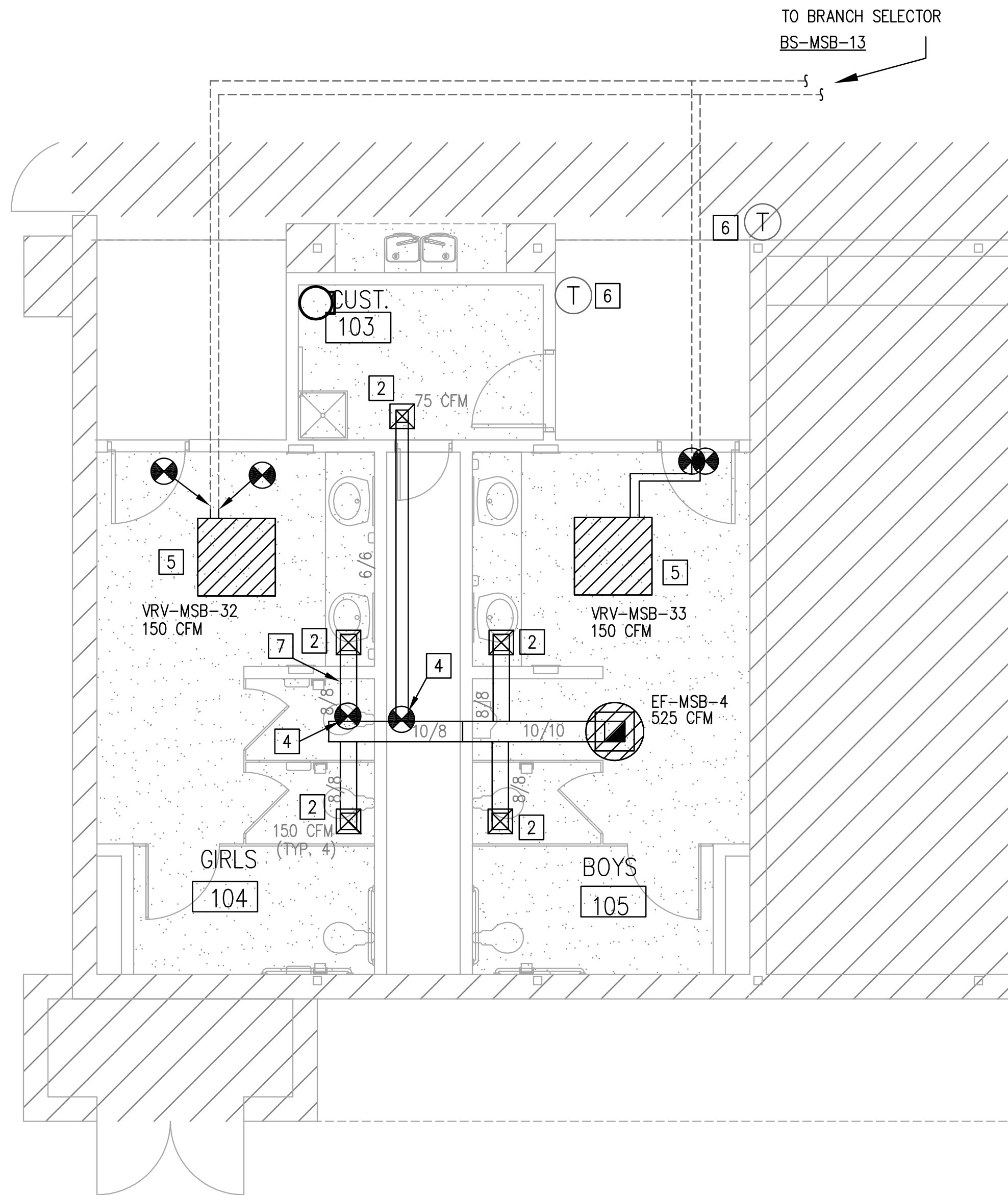
4 ENLARGED MECHANICAL PLAN  
M2.13U 1/4"=1'-0"



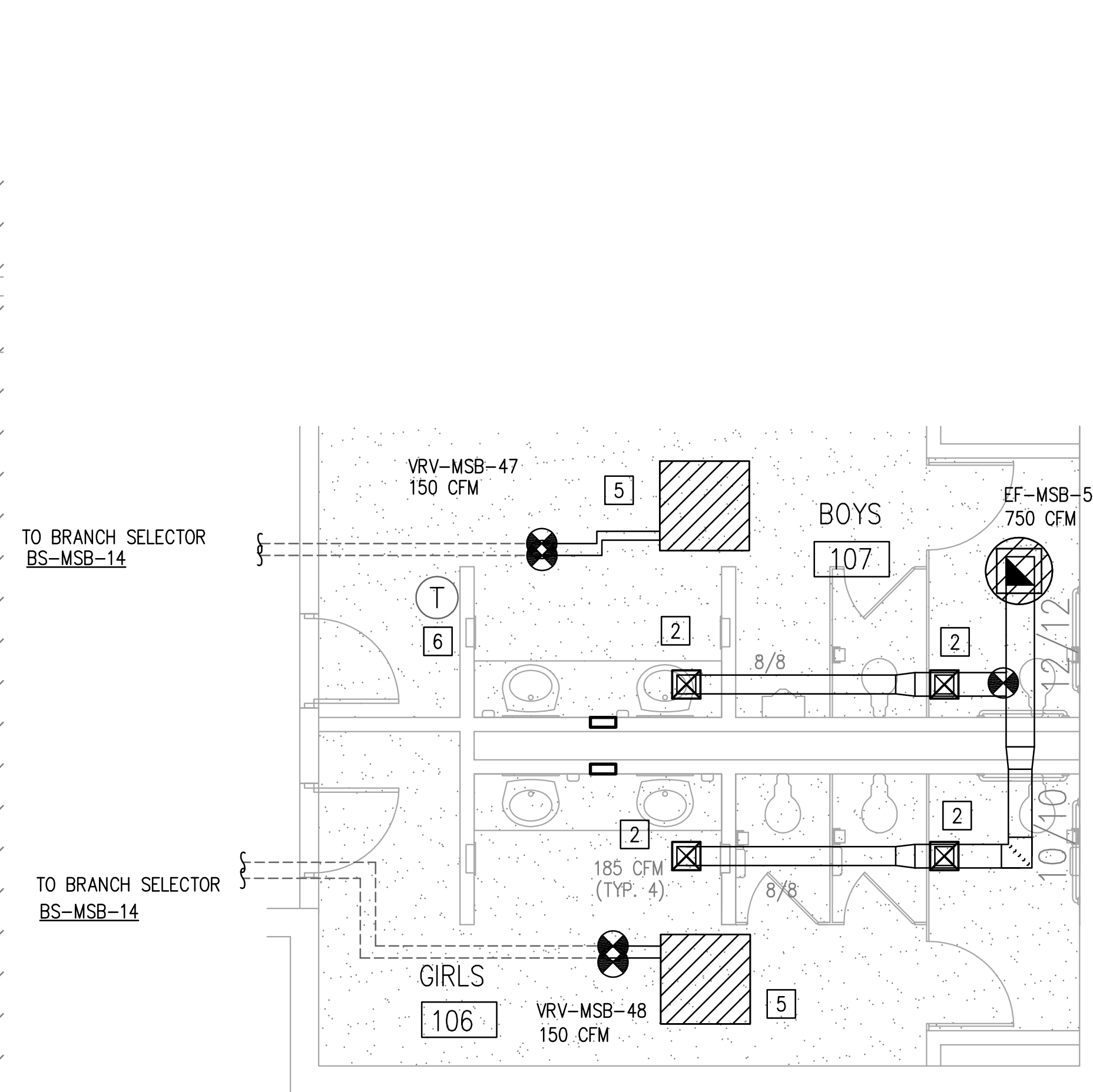
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M2.13U 1/4"=1'-0"



1 ENLARGED MECHANICAL PLAN  
M2.13U 1/4"=1'-0"



2 ENLARGED MECHANICAL PLAN  
M2.13U 1/4"=1'-0"



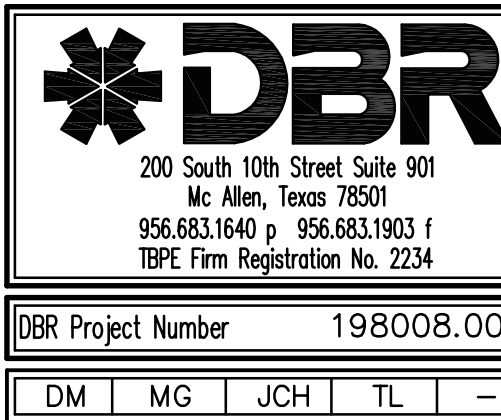
3 ENLARGED MECHANICAL PLAN  
M2.13U 1/4"=1'-0"

#### GENERAL MECHANICAL NOTES

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- EQUIPMENT SIZES, DIMENSIONS, AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE MANUFACTURER'S DRAWINGS AND CUT SHEETS BEFORE FABRICATING OF DUCTWORK, PIPING, OR POURING OF HOUSEKEEPING PADS.
- ALL FLEXIBLE DUCTWORK SHALL NOT EXCEED 5 FEET IN TOTAL LENGTH.
- ALL DUCTWORK AND ASSOCIATED ACCESSORIES SHALL BE CONSTRUCTED TO MEET THE LATEST SMACNA STANDARDS FOR LOW PRESSURE DUCTWORK.
- EXACT LOCATION OF GRILLES AND DAMPERS SHALL BE FIELD COORDINATED WITH OTHER TRADES TO AVOID CONFLICTS AND ALLOW ADEQUATE CLEARANCES.
- DIVISION 23 MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
- PROVIDE INSULATION FOR ALL PIPING AND DUCTWORK THAT MEETS THE LATEST EDITION OF IECC.
- PROVIDE AIRFOIL TYPE TURNING VANES IN ALL NEW 90 DEGREE ELBOWS.
- ALL CEILING MOUNTED AND WALL MOUNTED AIR DEVICES SHALL MATCH ADJACENT ARCHITECTURAL SURFACE. CONTRACTOR SHALL COORDINATE COLOR WITH ARCHITECT.
- ALL SUPPLY AIR TAPS TO DIFFUSERS AND GRILLES SHALL BE SUPPLIED WITH MANUAL VOLUME DAMPERS. PROVIDE YOUNG'S REGULATORS FOR DAMPERS LOCATED ABOVE INACCESSIBLE CEILINGS.
- DUCT DIMENSIONS INDICATED ON DRAWINGS ARE CLEAR INSIDE AIR STREAM DIMENSIONS.

#### MECHANICAL KEYED NOTES

- PROVIDE NEW AIR DEVICE AS SCHEDULED. EXTEND WITH NEW DUCTWORK AS REQUIRED AND CONNECT TO EXISTING DUCTWORK. COORDINATE FINAL LOCATION OF AIR DEVICE WITH LIGHTS. BALANCE TO CFM INDICATED ON PLAN.
- NEW LOCATION OF SALVAGED AIR DEVICE. CONNECT TO DUCTWORK. BALANCE TO CFM INDICATED ON PLAN.
- REINSTALL SALVAGED DUCTWORK AND EXTEND WITH NEW DUCTWORK AS REQUIRED TO NEW LOCATION OF RELOCATED AIR DEVICE AND DUCTWORK. SIZE AS NOTED ON PLAN.
- CONNECT TO EXISTING DUCTWORK.
- NEW LOCATION OF RELOCATED VRV UNIT. CONTRACTOR SHALL EXTEND WITH NEW REFRIGERANT AND CONNECT TO CORRESPONDING REFRIGERANT PIPING. COORDINATE EXACT HEIGHT AND LOCATIONS WITH OWNER AND ARCHITECT.
- NEW LOCATION OF THERMOSTAT. MOUNT 48" A.F.F. COORDINATE EXACT HEIGHT AND LOCATIONS WITH OWNER AND ARCHITECT.
- SHORTEN AND REINSTALL SALVAGED DUCTWORK AS REQUIRED TO NEW LOCATION OF RELOCATED AIR DEVICE. SIZE AS NOTED ON PLAN.



Consultants:

**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



**PSJA ISD**  
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**RENOVATIONS**

#### KEYPLAN

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

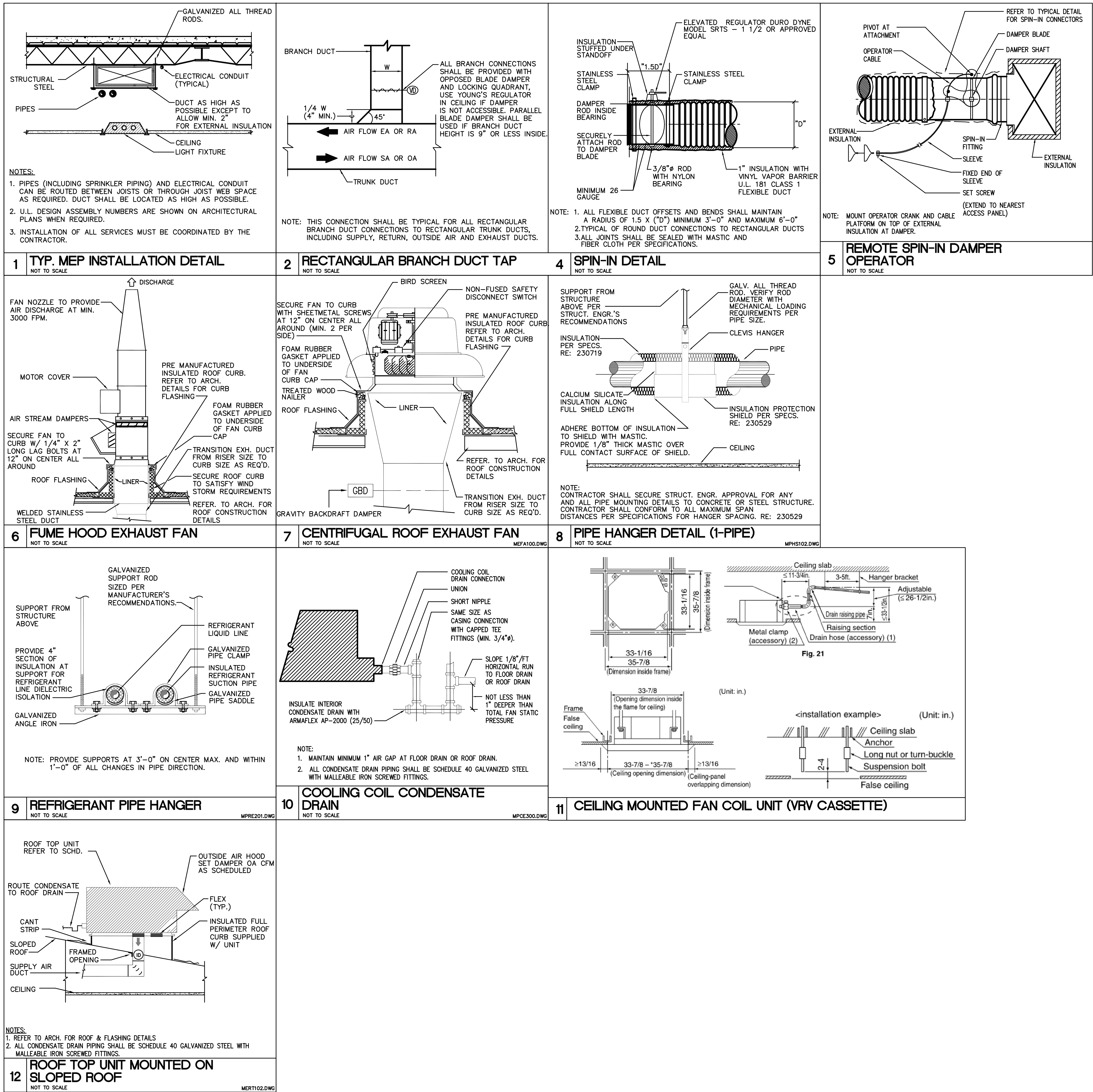
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**DEMO PLAN -**  
**UNIV. CAMPUS**

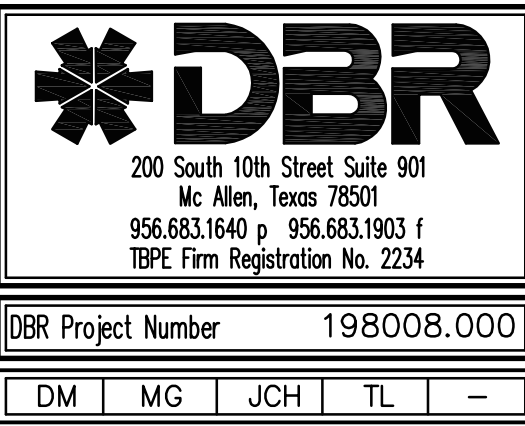
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1 MECHANICAL DETAILS AND SCHEDULES  
NOT TO SCALE



Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

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Revisions:

Sheet Title:

MECHANICAL  
DETAILS AND  
SCHEDULES

M4.01U



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FAN SCHEDULE							
MARK	EF-U-1	EF-U-2	EF-U-3	EF-U-4	EF-U-5	EF-U-6	
SERVES	FUME HOODS	FUME HOODS	FUME HOODS	CHEM STO 115	CHEM STO 110	PREP RM 118	
CFM	2,400	3,200	2,400	165	165	300	
E S P. (IN W.G.)	2.5	2.5	2.5	0.375	0.375	0.375	
TYPE	ROOF	ROOF	ROOF	ROOF	ROOF	ROOF	
DIRECT/BELT DRIVE	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	
FAN RPM	2,087	1,783	2,087	1,725	1,725	1,725	
MOTOR HORSEPOWER	2	5	2	1/6	1/6	1/6	
VOLTS/PHASE/HERTZ	460/3/60	460/3/60	460/3/60	120/1/60	120/1/60	120/1/60	
WEIGHT (LBS)	630	830	630	30	30	30	
SONES	85 DBA	70 DBA	70 DBA	3.9	3.9	5.1	
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	COOK	COOK	COOK	
MODEL NO.	VEKTOR-MD-15-4-85-LV-HPW	VEKTOR-MD-18-4-85-MV-HPW	VEKTOR-MD-15-4-85-LV-HPW	90C17DEC	90C17DEC	90C17DEC	
NOTES	4	4	4	1, 2, 3	1, 2, 3	1, 2, 3	
NOTES: 1. PROVIDE WITH PRE-FABRICATED ROOF CURB (MINIMUM OF 12"), WEATHERPROOF DISCONNECT SWITCH, BACKDRAFT DAMPER, AND BIRD SCREEN. PROVIDE WITH ECM. 2. INTERLOCK WITH ASSOCIATED AIR HANDLING UNIT. 3. ALL ROOF CURBS MUST MEET THE WIND LOAD REQUIREMENTS BASED ON A MINIMUL OF 130 MPH OR GREATER IN OUR REGION. TYPICAL FOR ALL ROOF MOUNTED EQUIPMENT. 4. PROVIDE WITH INSULATED ROOF CURB, DISCONNECT SWITCH, VFD.							

AIR DEVICE SCHEDULE				
MARK	MANUFACTURER/MODEL	TYPE	NC	REMARKS
A	TITUS/TMS-AA	24"x24" SUPPLY	25	ALUMINUM CONSTRUCTION. NECK SIZES AS INDICATED BELOW UNLESS NOTED ON PLAN.
B	TITUS/50F	24"x24" EGGCRATE RETURN	20	ALUMINUM CONSTRUCTION. PROVIDE DAMPER FOR EXHAUST.
C	TITUS/TMS	12"x12" SUPPLY	25	STEEL CONSTRUCTION. NECK SIZES AS INDICATED BELOW UNLESS NOTED ON PLAN.
D	TITUS/50F	12"x12" EGGCRATE RETURN	20	ALUMINUM CONSTRUCTION. PROVIDE DAMPER FOR EXHAUST.
E	TITUS/300FS	SIDEWALL SUPPLY	25	ALUMINUM CONSTRUCTION. SEE MECHANICAL PLAN FOR SIZE.
F	TITUS/350FL	SIDEWALL RETURN	20	ALUMINUM CONSTRUCTION. PROVIDE DAMPER FOR EXHAUST.SEE MECHANICAL PLAN FOR SIZE.
NOTES: 1. PROVIDE STANDARD WHITE FINISH FOR ALL AIR DEVICES UNLESS NOTED OTHERWISE ON PLAN. 2. PAINT ALL SURFACES VISIBLE THROUGH FACE OF RETURN AIR GRILLES FLAT BLACK. THIS SHALL INCLUDE PIPING, CONDUIT, DUCTWORK, AND STRUCTURAL MEMBERS. 3. PROVIDE FRAME FOR MOUNTING AIR DEVICE IN LAY-IN GRID CEILING UNLESS REFLECTED CEILING PLAN INDICATES HARD CEILING. IN AREAS WITH HARD CEILINGS, PROVIDE FRAMES FOR SURFACE MOUNTING. PROVIDE REMOTE OPERATOR DAMPER AND CONTROL. 4. UNLESS OTHERWISE NOTED, BRANCH DUCTS SERVING AIR DEVICES SHALL BE SAME SIZE AS NECK OF AIR DEVICE. FOR ROUND NECK DIFFUSERS: 5. WHERE THERE IS NO ACCESS ABOVE CEILING, PROVIDE REMOTE OPERATED DAMPERS WITH THROUGH THE AIR DEVICE CONTROL. 6" DIA: 0-120 CFM 8" DIA: 125-220 CFM 10" DIA: 225-380 CFM 12" DIA: 385-600 CFM				

VENTURI VALVE SCHEDULE												
MARK	EXV-1	EXV-2	EXV-3	EXV-4	EXV-5	EXV-6	EXV-7	EXV-8	EXV-9	EXV-10	EXV-11	
SERVES	GEN. CHEM 116	GEN. CHEM 116	GEN. CHEM 116	PREP 114	GEN. CHEM 113	GEN. CHEM 113	GEN. CHEM 113	MICROBIO/ORG	MICROBIO/ORG	MICROBIO/ORG	ORG PREP RM	
VALVE SIZE	10		10		10		10	10	10	10	8	
CONTROL TYPE	VAV	VAV	VAV	VAV	VAV	VAV	VAV	VAV	VAV	VAV	VAV	
MANUFACTURER	PHEONIX CONTROLS	PHEONIX CONTROLS	PHEONIX CONTROLS	PHEONIX CONTROLS	PHEONIX CONTROLS	PHEONIX CONTROLS	PHEONIX CONTROLS	PHEONIX CONTROLS	PHEONIX CONTROLS	PHEONIX CONTROLS	PHEONIX CONTROLS	
MODEL NO.	ACCEL II - EXV	ACCEL II - EXV	ACCEL II - EXV	ACCEL II - EXV	ACCEL II - EXV	ACCEL II - EXV	ACCEL II - EXV	ACCEL II - EXV	ACCEL II - EXV	ACCEL II - EXV	ACCEL II - EXV	
NOTES	1	1	1	1	1	1	1	1	1	1	1	
NOTES: 1. AIRFLOW CONTROL VALVES BY PHEONIX CONTROLS OR APPROVED EQUAL.												

100% OUTSIDE AIR HANDLING UNIT SCHEDULE (ELECTRIC HEAT)				
FAN & MOTOR DATA	MARK	OSAHU-U-1	OSAHU-U-2	OSAHU-U-3
	SERVES	GEN CHEM 116	GEN CHEM 113	MICROBIO/ORG CHEM 108
	SUPPLY AIR (CFM)	2,150	3,600	2,340
	OUTSIDE AIR (CFM)	2,150	3,600	2,340
	EXT. SP. (IN W.G.)	1	1	1
COOLING	TOTAL COOLING (MBH)	186.9	309.4	205.8
	SENSIBLE COOLING (MBH)	64.2	106.4	71.0
	ENTERING AIR TEMP. DB/WB (F)	83.0/80.0	83.0/80.0	83.0/80.0
	LEAVING AIR TEMP. DB/WB (F)	54.5/54.41	55.0/56.1	54.1/54.0
	AMBIENT TEMP. (F)	100	100	100
HEATING	TOTAL HEATING (KW) / STAGES	37.6/5	60.1/8	40.0/4
	ENTERING AIR TEMP.(F)	35	35	35
	LEAVING AIR TEMP. (F)	90	90	95
REHEAT	CAPCITY (MBH)	47.0	58.0	40.0
	LEAVING AIR TEMP. DB/WB (F)	75.0/62.1	70.0/60.5	70.0/60.1
ELECTRIC	VOLTS/PHASE/HERTZ	460/3/60	460/3/60	460/3/60
	MCA	64	76	64
	MOCP	70	80	70
	MANUFACTURER	AAON	AAON	AAON
GENERAL	MODEL	RN015	RN025	RN018
	NOMINAL TONS	15	25	18
	EER (AHR)	10.8	11.5	11.6
	WEIGHT (LBS)	1,400	2,700	2,500
	NOTES	ALL	ALL	ALL
NOTES: 1. PROVIDE 2" DOUBLE WALL CONSTRUCTION WITH R-13 FOAM INSULATION. 2. PROVIDE FACTORY MOUNTED CONDENSER COIL HAIL GUARD AND FACTORY APPLIED E-COATING. 3. PROVIDE MODULATING HOT GAS REHEAT. 4. PROVIDE VARIABLE CAPACITY COMPRESSOR CAPABLE OF MODULATING FROM 10 TO 100% OF CAPACITY ON FIRST CIRCUIT. 5. PROVIDE WITH VARIABLE SPEED FAN. 6. PROVIDE WITH SINGLE POINT CONNECTION. 7. PROVIDE CONTROLS CONTRACTOR CONTROLLER AS PER EXISTING BAS INSTALLED BY FACTORY. VENDOR SHALL COORDINATE WITH LOCAL CONTROLS INSTALL TEAM FOR CORRECT CONTROLLER. FACTORY UNITARY CONTROLLERS SHALL NOT BE ALLOWED. BACNET INTERFACE SHALL NOT BE ALLOWED.				

Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING



PSJA ISD  
NORTH ECHS  
& COLLEGE  
AND  
UNIVERSITY  
CAMPUS  
STUDENT  
RESTROOM  
RENOVATIONS

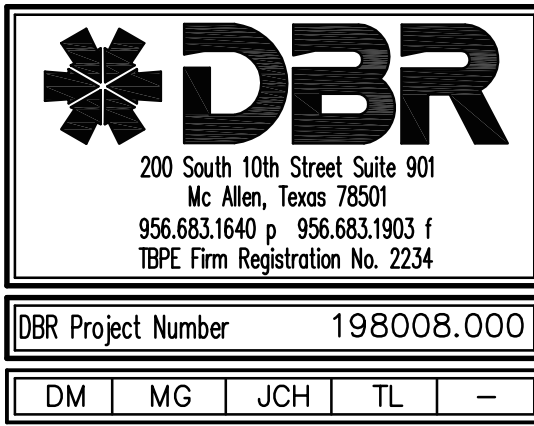
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Checked: JM  
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ACAD File: A-240-U

Revisions:

Sheet Title:

MECHANICAL  
SCHEDULES





CIVIL:  
MELDEN & HUNT

**MEP:**  
DBR ENGINEERING



## KEYPLAN

Revisions:

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## MECHANICAL

## MECHANISMS RIDING AND

## WIRING DIAGRAM

## WIRING DIAGRAM

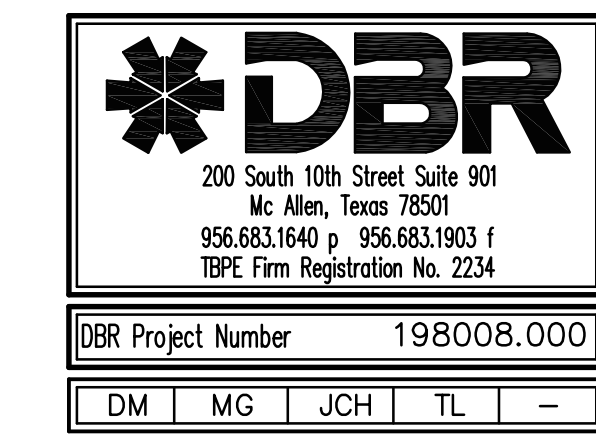
M6 0111

## IVIO.010

TAG: ROOM	DESCRIPTION	COOLING CAPACITY		HEATING CAPACITY		REFRIGERANT CHARGE		CONNECTION RATIO (%)	ELECTRICAL			DIMENSIONS			EFFICIENCY (NonDucted/Ducted)					NOMINAL TONNAGE	BASIS OF DESIGN (DAIN)
		Btu/hr	AMBIENT DESIGN (°F DB)	Btu/hr	AMBIENT DESIGN (°F DB / WB)	Factory Charge (lbs)	Add'l Refrigerant (lbs)		VOLTAGE-PHASE	MIN CIRCUIT AMPS (MCA)	MAX OVERCURRENT PROTECTION (MOP)	(WxHxD) (inch)	WEIGHT (lbs)	EER	EER	COP 47	COP17	SCH4			
Column1	Column2	Column3	Column4	Column5	Column6	Column7	Column8	Column9	Column10	Column11	Column12	Column13	Column14	Column15	Column16	Column17	Column18	Column19	Column20	Column21	
HPU-GEN-1	HP-AC	48,300	105	44,400	32.0 / 27.0	7.5	0.8	100	230V 1ph	29.1	35 A	37.0x39.0x12.6	176	11.7/11.3	22/19.5	3.77/3.33	2.32/2.15		4	RXTQ487AVJU	
HPU-GEN-2	HP-AC	48,300	105	44,400	32.0 / 27.0	7.5	0.8	100	230V 1ph	29.1	35 A	37.0x39.0x12.6	176	11.7/11.3	22/19.5	3.77/3.33	2.32/2.15		4	RXTQ487AVJU	
HPU-GEN-3	HP-AC	48,300	105	44,400	32.0 / 27.0	7.5	0.8	100	230V 1ph	29.1	35 A	37.0x39.0x12.6	176	11.7/11.3	22/19.5	3.77/3.33	2.32/2.15		4	RXTQ487AVJU	
HPU-GEN-4	HP-AC	32,000	105	35,700	32.0 / 27.0	6.4	2	83	230V 1ph	16.5	25 A	37.0x39.0x12.6	172	11.7/11.3	22/19.5	3.77/3.33	2.32/2.15		3	RXTQ367AVJU	
HPU-GEN-6	HP-AC	48,300	105	44,400	32.0 / 27.0	7.5	0.8	100	230V 1ph	29.1	35 A	37.0x39.0x12.6	176	11.7/11.3	22/19.5	3.77/3.33	2.32/2.15		4	RXTQ487AVJU	
HPU-MSB-1	HP-AC	59,500	105	52,400	32.0 / 27.0	7.9	0.8	80	230V 1ph	29.1	35 A	35.4x53.0x12.6	225	11.7/11.3	22/19.5	3.77/3.33	2.32/2.15		5	RXTQ607AVJU	
HPU-MSB-11	HP-AC	95,000	105	89,000	32.0 / 27.0	22.7	1.2	75	208-230V 3ph	36.3	45A	48.9x66.7x30.2	525	11.7/11.3	22/19.5	3.77/3.33	2.32/2.15		8	RXYQ67TJU	
HPU-MSB-12	HP-AC	48,300	105	44,400	32.0 / 27.0	7.5	0.8	100	230V 1ph	29.1	35 A	37.0x39.0x12.6	176	11.7/11.3	22/19.5	3.77/3.33	2.32/2.15		4	RXTQ487AVJU	
HPU-MSB-13	HP-AC	48,300	105	44,400	32.0 / 27.0	7.5	0.8	100	230V 1ph	29.1	35 A	37.0x39.0x12.6	176	11.7/11.3	22/19.5	3.77/3.33	2.32/2.15		4	RXTQ487AVJU	
HPU-MSB-14	HP-AC	59,500	105	52,400	32.0 / 27.0	7.9	0.8	80	230V 1ph	29.1	35 A	35.4x53.0x12.6	225	11.7/11.3	22/19.5	3.77/3.33	2.32/2.15		5	RXTQ607AVJU	
HPU-MSB-18	HP-AC	116,000	105	106,000	32.0 / 27.0	22.9	5.6	80	208-230V 3ph	36.3	45A	48.9x66.7x30.2	527	11.7/11.3	22/19.5	3.77/3.33	2.32/2.15		10	RXYQ120TTJU	
HPU-MSB-3	HP-AC	48,300	105	44,400	32.0 / 27.0	7.5	0.8	100	230V 1ph	29.1	35 A	37.0x39.0x12.6	176	11.7/11.3	22/19.5	3.77/3.33	2.32/2.15		4	RXTQ487AVJU	
HPU-MSB-4	HP-AC	48,300	105	44,400	32.0 / 27.0	7.5	0.8	100	230V 1ph	29.1	35 A	37.0x39.0x12.6	176	11.7/11.3	22/19.5	3.77/3.33	2.32/2.15		4	RXTQ487AVJU	
HPU-MSB-6	HP-AC	95,000	105	89,000	32.0 / 27.0	22.7	1.4	75	208-230V 3ph	36.3	45A	48.9x66.7x30.2	525	11.7/11.3	22/19.5	3.77/3.33	2.32/2.15		8	RXYQ67TJU	
HPU-MSB-7	HP-AC	59,500	105	52,400	32.0 / 27.0	7.9	1.2	80	230V 1ph	29.1	35 A	35.4x53.0x12.6	225	11.7/11.3	22/19.5	3.77/3.33	2.32/2.15		5	RXTQ607AVJU	
HPU-MSB-8	HP-AC	48,300	105	44,400	32.0 / 27.0	7.5	1.2	100	230V 1ph	29.1	35 A	37.0x39.0x12.6	176	11.7/11.3	22/19.5	3.77/3.33	2.32/2.15		4	RXTQ487AVJU	
HRU-GEN-5	HR-AC	163,000																			

[illegible][illegible][illegible]

NOTES:					
1.	PROVIDE WALL MOUNTED REMOTE SENSOR FOR MOUNTING IN SPACE. PROVIDE SEPARATE PROGRAMMABLE BACKLIT THERMOSTAT WITH 2 DEG F AUTO-CHANGEOVER DEADBAND, OCCUPIED AND UNOCCUPIED SETPOINTS AND ABILITY TO DIAGNOSE ERRORS FOR MOUNTING ABOVE CEILING.				
2.	ALL CONTROLS TO BE PROVIDED BY VRF MANUFACTURER. NO THIRD PARTY OR BACNET INTERFACES ARE ALLOWED. OAU's ARE TO BE TIED INTO THE VRF CONTROLS.				
3.	VRF MANUFACTURER TO PROVIDE FIELD INSTALLED FILTER RACK AND FILTERS AT THE INLET TO THE DUCTED FCU'S. MINUS BOX BY INSTALLING CONTRACTOR. FXFO CASSETTE UNITS TO BE PROVIDED WITH FIELD INSTALLED SELF CLEANING FILTER DECORATION PANEL EQUAL TO DAKIN P				
4.	EQUIPMENT MANUFACTURER TO PROVIDE ALL BRANCH FITTINGS REQUIRED FOR THE PROJECT.				
5.	INSTALL PER MANUFACTURER'S INSTRUCTIONS. ONLY CERTIFIED COMPANIES ARE ALLOWED TO INSTALL. CERTIFICATION INFORMATION IS AVAILABLE FROM PERRY MECHANICAL SYSTEMS.				
6.	COORDINATE NEW PIPING AND WIRING DIAGRAM WITH MANUFACTURE PRIOR TO ORDERING AND PRICING.				
7.	PROVIDE 10-YEAR MANUFACTURER PARTS WARRANTY ON ALL VRF EQUIPMENT.				



# MECHANICAL PIPING AND WIRING DIAGRAMS

## M6.01U



## ABBREVIATIONS

A

A

ABV

AC

ACC

ACCU

AD

ADA

AF

AFC

AFF

AFG

AHU

AIC

AL

AM

AMP

ANN

AP

ARCH

ASC

AT

ATS

AVG

AUX

AWG

AMPERES

ABOVE

AIR CONDITIONING

ALTERNATING CURRENT, AIR COMPRESSOR, ABOVE CONTAINER

AIR COOLED CHILLER

AIR COOLED CONDENSING UNIT

ACCESS DOOR

AMERICANS WITH DISABILITIES ACT

AMPERE FUSE, AMPERE FRAME

ABOVE FINISHED CEILING

ABOVE FINISHED FLOOR

ABOVE FINISHED GRADE

AIR HANDLING UNIT

AMPERE INTERRUPT CAPACITY

ALUMINUM

AMMETER

AMPLIFIER

ANNUNCIATOR

ACCESS PANEL, ALARM PANEL

ARCHITECT, ARCHITECTURAL

AMPERES SHORT CIRCUIT

AMPERE TRIP RATING

AUTOMATIC TRANSFER SWITCH

AVERAGE

AUXILIARY

AMERICAN WIRE GAUGE

B

BAS

BC

BKR

BLDG.

BUILDING AUTOMATION SYSTEM

BELOW COUNTER

BREAKER

BUILDING

C

C

CATV

CCTV

CHP

CH

CHP

CHT

CL

CLG

CMU

COL

CONC

CONN

CONT.

CONTR.

CP

CPUC

CR

CRU

CT

CTR

CU

CONDUIT, CELSIUS

CABLE TELEVISION SYSTEM

CLOSED CIRCUIT TELEVISION

CONDENSER WATER PUMP

CHILLER

CHILLED WATER PUMP

CIRCULATING

CIRCUIT

CENTERLINE

CEILING

CONCRETE MASONRY UNIT

COLUMN

CONCRETE

CONNECTION

CONTINUOUS,CONTINUATION

CONTROLLER, CONTRACTOR

CIRCULATING PUMP

CPU CHILLER

CARD READER, CORD REEL

CONDENSATE RETURN UNIT

CURRENT TRANSFORMER, COOLING TOWER

CENTER

COPPER

D

dB

DC

DDC

DIA

DIA

DM

DISC

DN

DP

DPDT

DPST

DR

DS

DW

DWG

DWH

DWP

DXFC

DZ

DECIBEL

DIRECT CURRENT

DIRECT DIGITAL CONTROL

DETAIL

DIAMETER

DIMENSION

DISCONNECT

DOWN

DISTRIBUTION PANEL

DOUBLE-POLE, DOUBLE-THROW

DOUBLE-POLE, SINGLE-THROW

DROPPED RECEPTACLE

DAYLIGHT SENSOR

DISHWASHER

DRAWING

DOMESTIC WATER HEATER

DOMESTIC WATER PUMP

DX FAN COIL UNIT

DAYLIGHT ZONE

E

(E)

EA

EC

E.C.

EDF

EF

EFF

EHC

EJ

EL

ELEC.

ELEV.

EMCS

EMERG

EMS

ENCL

ENGR

EPO

EQUIP

(ER)

EUH

EWB

EXH

EXISTING

EACH

ELECTRICAL CONTRACTOR

EMPTY CONDUIT

ELECTRIC DRINKING FOUNTAIN

EXHAUST FAN

EFFICIENCY

ELECTRIC HEATING COIL

EXPANSION JOINT

ELEVATION

ELECTRICAL

ELEVATOR

ENERGY MANAGEMENT AND CONTROLS SYSTEM

EMERGENCY

ENERGY MANAGEMENT SYSTEM

ENCLOSURE

ENGINEER

EMERGENCY POWER OFF

EQUIPMENT

EXISTING TO REMAIN

ELECTRIC UNIT HEATER

ELECTRIC WATER HEATER

EXHAUST

F

F

FA

FACP

FCU

FF

FHT

FIA

FLEX

FLR

FLUOR

FP

FPBT

FRZ

FS

FSD

FT

FTL

FUT

FVNR

FAHRENHEIT, FAN, FIRE

FIRE ALARM

FIRE ALARM CONTROL PANEL

FAN COIL UNIT

FURNITURE FEED

FURNITURE

FULL LOAD AMPS

FLEXIBLE

FLOOR

FLUORESCENT

FIRE PUMP, FAN POWERED

FAN POWERED TERMINAL BOX

FREEZER

FUSED SWITCH, FLOW SWITCH

MOTORIZED FIRE SMOKE DAMPER

FOOT, FEET

FEED-THRU LUGS

FUTURE

FULL-VOLTAGE, NON-REVERSING

G

GA

GAL

GALV

GC

GEN

GFCI

GND

OTO

QUH

GAUGE

GALLON

GALVANIZED

GENERAL CONTRACTOR

GENERATOR

GROUND FAULT CIRCUIT INTERRUPTER

GROUND

GENERATOR TRANSFER DEVICE

GAS UNIT HEATER

H

HACR

HD

HID

HQA

HORIZ

HP

HPS

HS

HSC

HIG

HTR

HVAC

HEATING, AIR CONDITIONING RATED CIRCUIT BREAKER

ELECTRIC HAND DRYER

HIGH INTENSITY DISCHARGE

HAND-OFF-AUTOMATIC

HORSEPOWER

HIGH PRESSURE SODIUM

HAND SET

HAND SCANNER

HEATING

HEATER

HEATING, VENTILATING, AND AIR CONDITIONING

HEATING/ VENTILATING UNIT

HOT WATER BOILER

HOT WATER CIRCULATOR

HOT WATER PUMP

HERTZ

I

ID

IG

INCH

INCD

INT

INSIDE DIAMETER

ISOLATED GROUND

INCH

INCANDESCENT

INTERNAL, INTERIOR

J

JB

JBP

JUNCTION BOX

JOCKEY PUMP

K

KEC

KO

KVA

KW

KWH

KITCHEN EQUIPMENT CONTRACTOR

KNOCKOUT

KILOVOLT- AMPS

KILOWATT

KILOWATT-HOUR

L

LED

LF

LRA

LTG

LV

LVL

LIGHT EMITTING DIODE

LINEAL FEET

LOOKED ROTOR AMPS

LIGHTING

LOW VOLTAGE TRANSFORMER

LEVEL

M

M

MAP

MATV

MAX.

MC

MCA

MCB

MCC

MD

MDP

MECH.

MFR

MH

MIC

MIN.

MLO

MOPP

MSB

MTD

MV

METER

MASTER ALARM PANEL

MASTER ANTENNA TELEVISION SYSTEM

MAXIMUM

METAL CLAD CABLE

MINIMUM CIRCUIT AMPS

MAIN CIRCUIT BREAKER

MOTOR CONTROL CENTER

MOTORIZED DAMPER

MAIN DISTRIBUTION PANEL

MECHANICAL

MANUFACTURER

METAL HALIDE

MICROPHONE

MINIMUM

MAIN LUGS ONLY

MAXIMUM OVER-CURRENT PROTECTION

MAIN SWITCHBOARD

MOUNTED

MERCURY VAPOR

N

N3R

N4X

N.C.

NEC

NEMA

NF

NFPA

NFS

NIC

NL

N.O.

N.O.

NTS

NEMA 3R ENCLOSURE

NEMA 4X ENCLOSURE

NORMALLY CLOSED

NATIONAL ELECTRICAL CODE

NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION

NON-FUSED

NATIONAL FIRE PROTECTION ASSOCIATION

NON-FUSED SWITCH

NOT IN CONTRACT

NIGHT LIGHT

NORMALLY OPEN

NUMBER

NOT TO SCALE

O

OAF

OAHU

OC

OD

OHE

OPG

OUTSIDE AIR FAN

OUTSIDE AIR HANDLING UNIT

ON CENTER

OUTSIDE DIAMETER

OVERHEAD ELECTRICAL

OPENING

P

P

PB

PC

PH

PL

PLBG

PNEU

PNEU

POS

PP

PR

PR

PS

PVC

PWR

POLE, PUMP

PUSHBUTTON

PHOTOCELL

PHASE

PILOT LIGHT

PLUMBING

PNEUMATIC

PANEL

POINT OF SALE

POWER POLE

PAIR

PRIMARY

PHOTOSENSOR

POLYVINYL CHLORIDE

POWER

Q

QTY

QUANTITY

R

RA

RAF

RC

RCP

RCPRT

RE

REC

REFR

REINF

REL

REL/EX

REOD

REV

RGS

RLA

RPM

RR

RTU

EXISTING TO BE REMOVED

RETURN AIR

REFRIGERATED AIR DRYER

RETURN AIR FAN

RECONNECT EXISTING DEVICE TO CIRCUIT

INDICATED

REFLECTED CEILING PLAN

RECEPTACLE

REFERENCE, REFER

RECEPTACLE

REFRIGERATOR

REINFORCING

EXISTING TO BE RELOCATED

NEW LOCATION OF RELOCATED EQUIPMENT

REVISION, REVISE

RIGID GALVANIZED STEEL

RUNNING LOAD AMPS

REVOLUTIONS PER MINUTE

REMOVE AND REPLACE

ROOFTOP UNIT

S

SA

SAF

SCHED

SE

SEC

SECT

SF

SHT

SM

SKVA

SKW

SP

SPFC

SPP

SPKR

SPD

SPDT

SPST

SQ

SS

SSSC

ST

STB

STD

STL

SURF

SW

SWBD

SUPPLY AIR

SUPPLY AIR FAN

SCHEDULE

SEWAGE EJECTOR

SECONDARY

SECTION

SQUARE FEET

SHEET

SMILAR

STARTING KILOVOLT-AMPS

STARTING KILOWATTS

SUMP PUMP

SPECIFICATION

STAIR PRESSURIZATION FAN

SPEAKER

SURGE PROTECTION DEVICE

SINGLE-POLE, DOUBLE-THROW

SINGLE-POLE, SINGLE-THROW

SQUARE

SMOKE REMOVAL FAN

START-STOP PUSH BUTTON

SOLID STATE SPEED CONTROL

SHUNT TRIP

STEAM BOILER

STEEL

SURFACE

SWITCH

SWITCHBOARD

T

TC

TEL

TF

TL

TOC

TOS

TP

TSTAT

TTB

TTC

TV

TVS

TVSS

TYP

TEMPERATURE CONTROL

TELEPHONE

TRANSFER FAN

TWIST-LOCK

TOP OF CURB

TOP OF STEEL

CHILD TAMPER PROOF DEVICE

THERMOSTAT

TELEPHONE TERMINAL BOARD

TELEPHONE TERMINAL CABINET

TERMINAL UNIT

TELEVISION

TRANSIENT VOLTAGE SURGE SUPPRESSOR

TYPICAL

U

UG

UL

UL

UNO

UPS

UNDERGROUND

UNIT HEATER

UNDERWRITERS LABORATORIES, INC.

UNLESS NOTED OTHERWISE

UNINTERRUPTABLE POWER SYSTEM

V

V

VX

VAV

VC

VERT

VFD

VP

VM

VOLT

VOLT-AMPERE

VARIABLE AIR VOLUME

VOLUME CONTROL

VERTICAL

VARIABLE FREQUENCY DRIVE

VACUUM PUMP

VOLT METER

W

W

WG

W/

W/O

WP

WS

WT

WWT

W/FT

WATT, WIRE, WIDTH

WIREGUARD

WITH

WITHOUT

WEATHERPROOF

WATER SOFTENER

WATERTIGHT, WEIGHT

WELDED WIRE FABRIC

WATTS PER SQUARE FOOT

X

XMR

TRANSFORMER

Z

Z

ZONE

## ELECTRICAL SYMBOLS

### MOTORS AND CONTROLS

<input type="checkbox"/>	SINGLE OR THREE PHASE MOTOR NUMBER INDICATES HORSE POWER
<input type="checkbox"/>	ELECTRIC DUCT HEATER
<input type="checkbox"/>	DISCONNECT (SAFETY) SWITCH "200/3/150" DENOTES AMPERES/POLES/USE "N" DENOTES NON-FUSED "NFR" DENOTES NEMA 3R
<input type="checkbox"/>	ENCLOSED CIRCUIT BREAKER- "200/3/150" DENOTES AMPERES/POLES/TRIP.
<input checked="" type="checkbox"/>	MOTOR STARTER FURNISHED BY DIVISION 23 AND INSTALLED BY DIVISION 26.
<input checked="" type="checkbox"/>	COMBINATION DISCONNECT (SAFETY) SWITCH AND MOTOR STARTER. "200/3/15/150" DENOTES AMPERES/POLES/USE/STARTER SIZE. "N" DENOTES NON-FUSED, FURNISHED BY DIVISION 23 AND INSTALLED BY DIVISION 26.
<input type="checkbox"/>	VARIABLE FREQUENCY DRIVE PROVIDED BY DIVISION 23 AND INSTALLED BY DIVISION 26.
<input type="checkbox"/>	EMERGENCY POWER OFF BUTTON.

## RECEPTACLES AND OUTLETS

ALL RECEPTABLES SHALL BE MOUNTED 18" ABOVE FINISHED FLOOR TO CENTER OF DEVICE UNLESS NOTED OTHERWISE.

① SIMPLEX WALL RECEPTACLE, NEMA 5-20R, 20A, 125V.

② DUPLEX WALL RECEPTACLE, NEMA 5-20R, 20A, 125V.

"G" DENOTES GROUND FAULT INTERRUPTER.  
"W" DENOTES WEATHER-PROOF.  
"I" DENOTES ISOLATED GROUND.  
"S" DENOTES SAFETY TYPE, (TAMPER PROOF).  
"R" DENOTES DROPPED RECEPTACLE.  
"T" DENOTES RECEPTACLE WITH UNIVERSAL SERIAL BUS.  
"A" DENOTES ABOVE COUNTER MOUNTING, SEE  
"C" DENOTES UNDER COUNTER MOUNTING, SEE  
"H" DENOTES HORIZONTALLY ORIENTED RECEPTACLE. SEE  
ARCHITECTURAL PLANS FOR EXACT MOUNTING HEIGHT.

③ DUPLEX WALL RECEPTACLE ON EMERGENCY CIRCUIT, RED COLOR.

④ DUPLEX WALL RECEPTACLE ON A CIRCUIT DEDICATED TO DATA PROCESSING, GRAY COLOR. PROVIDE ISOLATED GROUND TO RECEPTABLES WHERE NOTED.

⑤ SPLIT WIRED RECEPTACLE, TOP RECEPTABLE SHALL BE SWITCHED ACCORDING TO PLANS, AND BOTTOM SHALL REMAIN UNSWITCHED.

SP ⑥ CONTROLLED DUPLEX WALL RECEPTACLE, NEMA 5-20R, 20A, 125V.  
"S" DENOTES SPLIT WIRED

⑦ FOURPLEX (DOUBLE DUPLEX) WALL RECEPTACLE, NEMA 5-20R, 20A, 125V.

⑧ FOURPLEX WALL RECEPTACLE ON EMERGENCY CIRCUIT, RED COLOR.

⑨ CONTROLLED FOURPLEX (DOUBLE DUPLEX) WALL RECEPTACLE, NEMA 5-20R, 20A, 125V.

⑩ SPECIAL RECEPTACLE, NEMA CONFIGURATION AS NOTED.

⑪ TWO-GANG FLOOR OUTLET

⑫ THREE-GANG FLOOR OUTLET

⑬ MULTI-OUTLET SURFACE RACEWAY. SEE ARCHITECTURAL DRAWINGS FOR EXACT MOUNTING HEIGHTS.

⑭ JUNCTION BOX  
"M" DENOTES MOTOR DAMPER,  
"C" DENOTES CORD REEL,  
"D" DENOTES DROP CORD RECEPTACLE.

⑮ DUPLEX RECEPTACLE WITH HOMERUN

⑯ DUPLEX RECEPTACLE (PEDESTAL MOUNTED)

⑰ TWO-GANG CEILING OUTLET

⑱ FLUSH ELECTRICAL FLOOR OUTLET, "P" DENOTES POKE-THRU.  
"D" INDICATES DUPLEX RECEPTACLE, "R" INDICATES RED RECEPTACLE ON EMERGENCY POWER. REFER TO FLOOR BOX SCHEDULE, FIRE RATING, POLE-THROUGH SCHEDULE AND NOTED NOTES.

⑲ POWER POLE


⑳ DIRECT CONNECTION TO EQUIPMENT


㉑ PULL BOX (OVER 4" SQUARE)


㉒ CLOCK RECEPTABLE SHALL BE MOUNTED 12" BELOW FINISHED CEILING. (2) DENOTES DOUBLE SIZED CLOCK.


## LIGHTING


LETTER(S) DENOTE TYPE— SEE LIGHTING FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.


 2' x 4' LIGHTING FIXTURE.


 2' x 2' LIGHTING FIXTURE.


 1' x 4' LIGHTING FIXTURE.


 1' x 2' LIGHTING FIXTURE.


 1' x 1' LIGHTING FIXTURE.


 STRIP LIGHTING FIXTURES.


 STAGGERED STRIP LIGHTING FIXTURE.


 ROUND DOWNLIGHT FIXTURE.


 SQUARE DOWNLIGHT FIXTURE.


 WALL MOUNTED LIGHTING FIXTURE.


 TRACK LIGHTING FIXTURE, MOUNTED AS SHOWN ON LIGHTING FIXTURE SCHEDULE.


 CEILING MOUNTED EXIT SIGN; ARROWS AS INDICATED. SHADED AREA DENOTES FACE.


 WALL MOUNTED EXIT SIGN; ARROWS AS INDICATED. SHADED AREA DENOTES FACE.


 EMERGENCY WALL MOUNTED LIGHTING FIXTURE.


 BATTERY OPERATED UNLESS NOTED OTHERWISE.


 SECURITY WALL PACK


 SITE LIGHTING FIXTURE.


 POST-TOP FIXTURE/ACORN FIXTURE.


 BRACKET ARM/ICADON FIXTURE, WALL MOUNT WITH ARM

 EMERGENCY LIGHT FIXTURE WITH BATTERY PACK. PROVIDE WITH UNSWITCHED HOT FOR LOSS OF VOLTAGE AND CHARGING (SAME CIRCUIT AS NORMAL POWER LIGHTING). FIXTURES SHALL BE WIRED IN A MANNER AS TO ALLOW SWITCHING OF FIXTURES WITHOUT DISCHARGING THE EMERGENCY BATTERY. BATTERY PACK IS TO ONLY OPERATE IN THE EVENT OF A POWER OUTAGE.

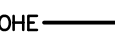
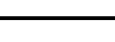
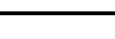

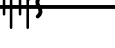
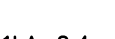
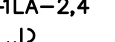
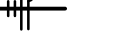
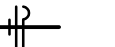
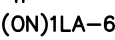
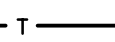






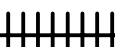



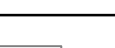



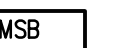










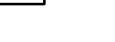
 LIGHT FIXTURE ON EMERGENCY BRANCH CIRCUIT, CIRCUIT NUMBER ADJACENT TO FIXTURE INDICATES EMERGENCY CIRCUIT CONNECTED TO FIXTURE. PROVIDE UNSWITCHED HOT, NEUTRAL AND GROUND FOR ALL EMERGENCY LIGHTING ORIGINATING FROM THE EMERGENCY CIRCUIT SYSTEM.

 EMERGENCY "NIGHT LIGHT" LIGHT FIXTURE. LIGHT FIXTURE IS UNSWITCHED AND INTENDED FOR 24 HOUR OPERATION. FEED VIA UNSWITCHED HOT.

 DAYLIGHT ZONE/PRIMARY DAYLIGHT ZONE

 SECONDARY DAYLIGHT ZONE

## RACEWAYS AND WIRING

	CAP AND STAVE
	CONDUIT CONCEALED IN WALL OR CEILING
	CONDUIT UNDERSLAB OR UNDERGROUND
	EMERGENCY CONDUIT
	EXPOSED CONDUIT
	UNDERGROUND CONDUIT
	"DUCTBANK" "PM" DENOTES DUCTBANK CONCEALED IN CONCRETE
	OVERHEAD ELECTRIC PRIMARY UTILITY POWER LINE
	CONDUIT TURNED UP
	CONDUIT TURNED DOWN
	HASH MARKS INDICATE NUMBER OF CONDUCTORS. NOTE TO RIGHT-PHASE/NEUTRAL/SWITCH LEG/GROUND/ISOLATED GROUND NO HASH MARKS INDICATES # 12, PLUS GROUND, UNLESS NOTED OTHERWISE.
	HOMERUN TO PANEL WITH CIRCUIT NUMBER(S) AS INDICATED.
	PARTIAL CIRCUIT HOMERUN TO PANEL.
	COMMUNICATIONS CONDUIT OR CABLE:
	"CA" DENOTES MASTER CLOCK
	"CM" DENOTES MASTER CLOCK
	"CR" DENOTES CASH REGISTER
	"D" DENOTES DATA
	"FA" DENOTES FIRE ALARM
	"I" DENOTES INTERCOM
	"OH" DENOTES OVERHEAD ELECTRICAL LINE.
	"PA" DENOTES PAGING
	"SC" DENOTES SECURITY
	"TE" DENOTES TELEPHONE
	"V" DENOTES VIDEO
	TELECOMMUNICATIONS CABLE TRAY TO BE CONCEALED ABOVE ACCESSIBLE CEILING.
	ELECTRICAL EQUIPMENT
	DISTRIBUTION PANEL
	SWITCHBOARD, MAIN DISTRIBUTION PANEL OR MOTOR CONTROL CENTER
	PANELBOARD (FLUSH/SURFACE MOUNT)
	FLOOR MOUNTED DRY-TYPE TRANSFORMER
	SUSPENDED OR WALL MOUNTED TRANSFORMER
	AUTOMATIC TRANSFER SWITCH
	FIRE RATED PLYWOOD TERMINAL BOARD, TYPE AS NOTED, 4" x 4" x 3/4" UNLESS NOTED OTHERWISE.
	TERMINAL CABINET (FLUSH/SURFACE MOUNT), TYPE AS NOTED, 24" x 48" x 3-1/2" UNLESS NOTED OTHERWISE.
	BATTERY/INVERTER UNIT
	LOW VOLTAGE TRANSFORMER.

## COMMUNICATIONS

ALL OUTLET BOXES SHALL BE MOUNTED 18" ABOVE FINISHED FLOOR TO CENTER OF DEVICE UNLESS NOTED OTHERWISE.

THE FOLLOWING NOTATIONS REFER TO ALL COMMUNICATIONS OUTLETS:

"TAM" DENOTES OUTLET SPECIFIED FOR A FAX.

"W" DENOTES WALL PHONE SHALL BE MOUNTED AT 42" A.F.F.

"PAY" DENOTES PAY PHONE SHALL BE MOUNTED 42" A.F.F.

**SCHOOL INTERCOMMUNICATION SYSTEM HANDBOOK.**

◁ INDICATES THE LOCATION OF A NEW TECHNOLOGY WALL OUTLET, PROVIDE DUAL GANG BACK BOX. REFERENCE TECHNOLOGY SHEET FOR CONTENT.

①W MICROPHONE FLOOR OUTLET. "W" INDICATES WALL MOUNTED. "F" INDICATES FLOOR MOUNTED. "H" INDICATES HANGING MOUNTED.

①C CEILING MOUNTED SPEAKER. "VC" INDICATES VOLUME CONTROL OR SPEAKER.

①S WALL MOUNTED SPEAKER. "L" INDICATES LOCAL SOUND REINFORCEMENT.

①CB SCHOOL INTERCOMMUNICATION SYSTEM CALL-IN, PUSH BUTTON.

①O BELL, BUZZER OR CHIME AT 80+ A.F.F.

①VC VOLUME CONTROL - WALL MOUNTED.

①W AUXILIARY INPUT JACK. "W" INDICATES WALL MOUNTED. "F" INDICATES FLOOR MOUNTED. "H" INDICATES HANGING MOUNTED.

①A "HIGH" PORTION OF "HIGH/LOW" OUTLETS, REFER TO OUTLET DETAIL.

①L "LOW" PORTION OF "HIGH/LOW" OUTLETS, REFER TO OUTLET DETAIL.

## ONE LINE AND RISER DIAGRAMS

TRANSFORMER, TYPE AND RATINGS AS NOTED

SWITCH, RATING AS SHOWN

FUSE, RATING AS SHOWN

CIRCUIT BREAKER, RATING AS SHOWN, 3 POLE UNLESS NOTED OTHERWISE. "C" INDICATES CURRENT LIMITING

DRAWOUT CIRCUIT BREAKER, RATINGS AS SHOWN, 3 POLE UNLESS NOTED OTHERWISE

SHUNT TRIP

GROUND FAULT RELAY

KIRK-KEY INTERLOCK

DIGITAL METER

0-2000

AMMETER, RANGE AS SHOWN

AMMETER SWITCH

0-600

VOLTMETER, RANGE AS SHOWN

VOLTMETER SWITCH

0-15

WATT-HOUR METER, "D" DENOTES DEMAND REGISTER "1" DENOTES MINUTES OF DEMAND INTERVAL

1200/5

12-47KV/20V

POTENTIAL TRANSFORMER, RATING AS SHOWN

GROUND CONNECTION

LIGHTING ARRESTOR

GENERATOR SET

AUTOMATIC TRANSFER SWITCH

BUS DUCT PLUG














TRANSIENT VOLTAGE SURGE SUPPRESSOR

ELECTRIC METER


























SURGE PROTECTION DEVICE

**GENERAL NOTES:** A. NOT ALL SYMBOLS SHOWN ON THIS SYMBOL LIST ARE USED IN THE CONTRACT DOCUMENTS.















## MISCELLANEOUS

	SHADE SYMBOLS INDICATE EXISTING DEVICES TO REMAIN, UNLESS OTHERWISE NOTED.
	INDICATES WALL-MOUNTED WHEN ATTACHED TO ANY SYMBOL
	DRAWING NOTE REFERENCE
	STARTER/DISCONNECT SCHEDULE REFERENCE
	FEEDER SCHEDULE REFERENCE
	LIGHTING CONTACTOR
	TIME SWITCH
	PHOTOCELL
	PUSH BUTTON/DOOR BELL
	TIMECLOCK
	RELAY
	AREA OF RESCUE ASSISTANCE
	BELL

## FIRE ALARM

	WATER FLOW SWITCH
	SUPERVISORY SWITCH
	SMOKE DETECTOR – MULTI CRITERIA DETECTOR
	SMOKE DETECTOR – “SB” INDICATES IN INTEGRAL SOUNDER BASE “D” INDICATES DUCT TYPE “R” INDICATES 120 VOLT RESIDENTIAL TYPE
	HEAT DETECTOR
	BEAM DETECTOR TRANSMITTER, HIGH IN CEILING WALL DIRECT LINE OF SIGHT.
	BEAM DETECTOR RECEIVER, HIGH IN CEILING WALL DIRECT LINE OF SIGHT.
	FIRE ALARM SPEAKER STROBE / CEILING MOUNTED
	FIRE ALARM SPEAKER STROBE / WALL MOUNTED
	FIRE ALARM SPEAKER / CEILING MOUNT.
	FIRE ALARM SPEAKER / WALL MOUNTED
	MAGNETIC DOOR HOLDER
	AUXILIARY CONTROL RELAY
	FIRE FIGHTER HANDSET
	FIRE ALARM PULL STATION + 42” AFF
	FIREMAN’S TELEPHONE JACK + 42” AFF
	VISUAL FIRE ALARM (STROBE) CEILING MOUNT – 15/75cd U.N.O.
	VISUAL FIRE ALARM (STROBE) WALL MOUNT + 80” AFF – 15/75cd U.N.O.
	AUDIO VISUAL FIRE ALARM HORN STROBE + 80” AFF – 15/75cd U.N.O.
	AUDIO FIRE ALARM HORN + 80” AFF
	FIRE FIRE CONTROL PANEL
	REMOTE FIRE ALARM ANNUNCIATOR PANEL
	REMOTE POWER SUPPLY FOR AUDIO/VISUAL FIRE ALARM DEVICES.
	FIRE SMOKE DAMPER
	REMOTE LED INDICATOR LIGHT

## SECURITY

	KEYPAD		INTRUSION DETECTION PANEL
	GLASS BREAK SENSOR		DOOR CONTACT
	HOLD UP BUTTON		ADA AUTO DOOR OPEN BUTTON
	INTERCOM DOOR STATION		DOOR RELEASE BUTTON
	INTERCOM MASTER STATION		CARD READER
	LONG RANGE MOTION DETECTOR		WALL MOUNTED CARD READER
	WALL MOUNTED MOTION DETECTOR		
	CEILING MOUNTED MOTION DETECTOR		

REFERENCE TECHNOLOGY/SECURITY SHEET FOR ADDITIONAL INFORMATION.

## SWITCHES

ALL WALL SWITCHES SHALL BE MOUNTED AT 42" ABOVE FINISHED FLOOR TO CENTER OF DEVICE UNLESS NOTED OTHERWISE.

SWITCH, SPST, 20A, 120/277V.

SWITCH, 20A, 120/277V:  
"2" DENOTES DPST,  
"3" DENOTES THREE-WAY,  
"4" DENOTES FOUR-WAY,  
"KEY" DENOTES KEY SWITCH,  
"P" DENOTES PILOT LIGHT,  
"SP" DENOTES SPRING WOUND TIMER,  
"M" DENOTES RED  
"F" DENOTES FAN SPEED CONTROLLER  
"OC" DENOTES OCCUPANCY SENSOR SWITCH  
"LV" DENOTES LOW VOLTAGE KEYSWITCH  
"LY" DENOTES LOW VOLTAGE SWITCH  
"L" DENOTES LOCKING SWITCH

SWITCH, SPST, CENTER OFF, MOMENTARY CONTACT.

DIMMER CONTROL, SWITCH, 600 WATT UNLESS OTHERWISE NOTED.

THREE-WAY KEY SWITCH, 20A, 120/277V.

WALL MOUNTED SWITCH TO CONTROL MOTORIZED PROJECTION SCREENS.

MOTOR RATED SWITCH WITH THERMAL OVERLOADS

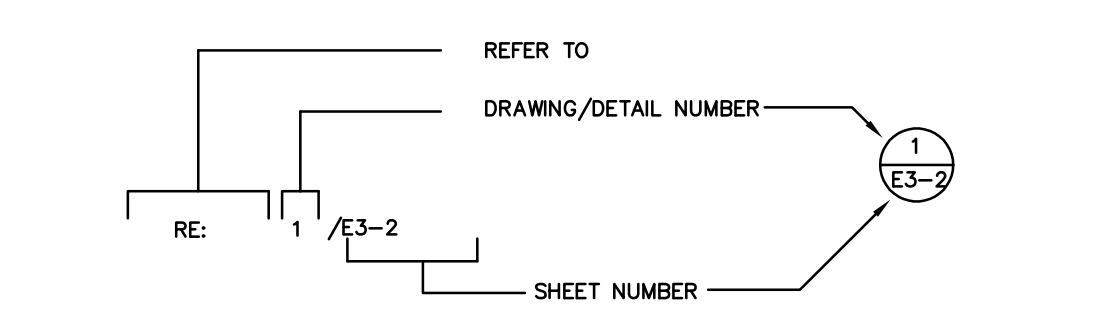
CEILING MOUNTED OCCUPANCY SENSOR

MASTER OCCUPANCY SENSOR POWER PACK

DAYLIGHT/PHOTO SENSOR

PARTITION SENSOR

### DRAWING/DETAIL REFERENCE KEY



## GENERAL NOTES

A. NOT ALL SYMBOLS SHOWN ON THIS SYMBOL LIST ARE USED IN THE CONTRACT DOCUMENTS.

200 South 10th Street Suite 901  
Mc Allen, Texas 78501  
956.683.1640 p 956.683.1903 f  
TBPE Firm Registration No. 2234

DBR Project Number		198008.000	
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			—

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Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



**PSJA ISD  
NORTH ECHS  
& COLLEGE  
AND  
UNIVERSITY  
CAMPUS  
STUDENT  
RESTROOM  
RENOVATIONS**

## KEYPLAN

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

ACAD File: A-240-U

Revisions:

Sheet Title:

## ELECTRICAL SYMBOL LEGEND

# E0.01U



May 08, 2019 - 6:51pm User: jchavez  
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**1** **ELECTRICAL DEMOLITION PLAN - UNIVERSITY CAMPUS**  
ED2.11U 3/32"=1'-0"

- GENERAL NOTES:**
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE FIELD VERIFIED EXISTING JOB-SITE CONDITIONS DURING THE BIDDING PERIOD TO OBTAIN SCOPE OF ELECTRICAL WORK INVOLVED AS A RESULT OF ARCHITECTURAL MODIFICATIONS TO THE EXISTING STRUCTURE. THE SCOPE OF WORK SHALL INCLUDE ALL LABOR AND MATERIAL CONSISTING OF FIXTURES, DEVICES, EQUIPMENT OR APPARATUS, CONDUIT AND WIRING WHICH MUST BE REROUTED, RELOCATED OR REMOVED EITHER TEMPORARILY OR PERMANENTLY, OR WHICH MUST BE PROVIDED, SO THAT THE INDICATED REMODELING MAY BE ACCOMPLISHED.
  - ALL EQUIPMENT IS EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
  - CONTRACTOR SHALL REMOVE ALL ELECTRICAL CONNECTIONS TO EXISTING PREWIRED FURNITURE, REMOVE CONDUIT AND WIRING BACK TO LAST ACTIVE JUNCTION, ALL DATA CABLEING SHALL BE REMOVED BACK TO LAST ACTIVE JUNCTION AND SALVAGED FOR REINSTALLATION.
  - OWNER SHALL RESERVE THE RIGHT TO CLAIM ALL EQUIPMENT AND CABLEING REMOVED DURING DEMOLITION.
  - CONTRACTOR SHALL REMOVE ALL ELECTRICAL DEVICES WITHIN DEMOLISHED WALLS INCLUDING RECEPTACLES, SWITCHES, DATA/TELEPHONE DROPS, FIRE ALARM DEVICES, P/A DEVICES, CONDUIT, AND WIRING. REMOVE CONDUIT AND WIRING BACK TO PANEL OR LAST ACTIVE JUNCTION BOX. REFER TO ARCHITECTURAL DEMO PLAN. ALL DEVICES SHALL BE STORED AND PROTECTED FROM DAMAGE FOR REINSTALLATION PER NEW ELECTRICAL WORK.
  - CONTRACTOR SHALL REMOVE AND SALVAGE ALL EXISTING FIRE ALARM DEVICES, PROVIDE ADDITIONAL DEVICES AS REQUIRED PER NEW FIRE ALARM DESIGN. EXISTING FIRE ALARM CONTROL PANEL SHALL REMAIN.
  - ANY EXISTING CONDUIT NOT BEING REUSED ROUTED BELOW GRADE SHALL BE ABANDONED.
  - ALL ELECTRICAL LIGHTING AND EQUIPMENT SHALL BE LOCATED PER NEW ELECTRICAL PLANS. EXTEND ALL EXISTING FEEDERS AS REQUIRED FOR RELOCATION.
  - CONTRACTOR SHALL REPORT ANY DAMAGED DEVICES THAT ARE SHOWN AS EXISTING TO REMAIN TO THE OWNER BEFORE STARTING WORK. ALL DEVICES FOUND TO BE DAMAGED AT THE TIME OF SUBSTANTIAL COMPLETION THAT ARE NOT REPORTED PRIOR TO STARTING WORK SHALL BE REPLACED BY THE CONTRACTOR AT HIS COST.

- KEYED NOTES:**
- UNLESS NOTED OTHERWISE, ALL EXISTING PANELS IN THIS BUILDING SHALL REMAIN AND SHALL BE IN SERVICE AT END OF PROJECT.

**GIGNAC | ARCHITECTS**

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**MEP:**  
**DBR ENGINEERING**



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**NORTH ECHS**  
**& COLLEGE**  
**AND**  
**UNIVERSITY**  
**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

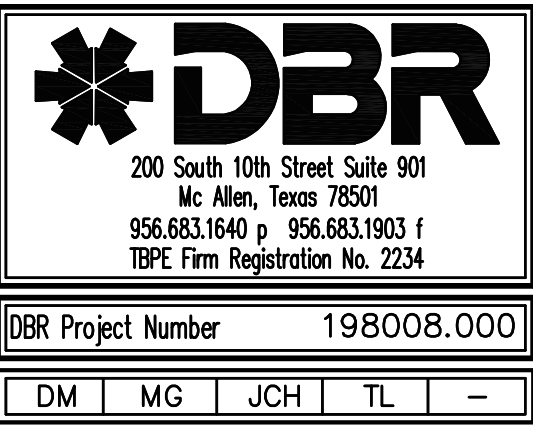
**KEYPLAN**

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

Sheet Title:

**COMPOSITE**  
**LIGHTING**  
**PLAN -**  
**UNIV. CAMPUS**

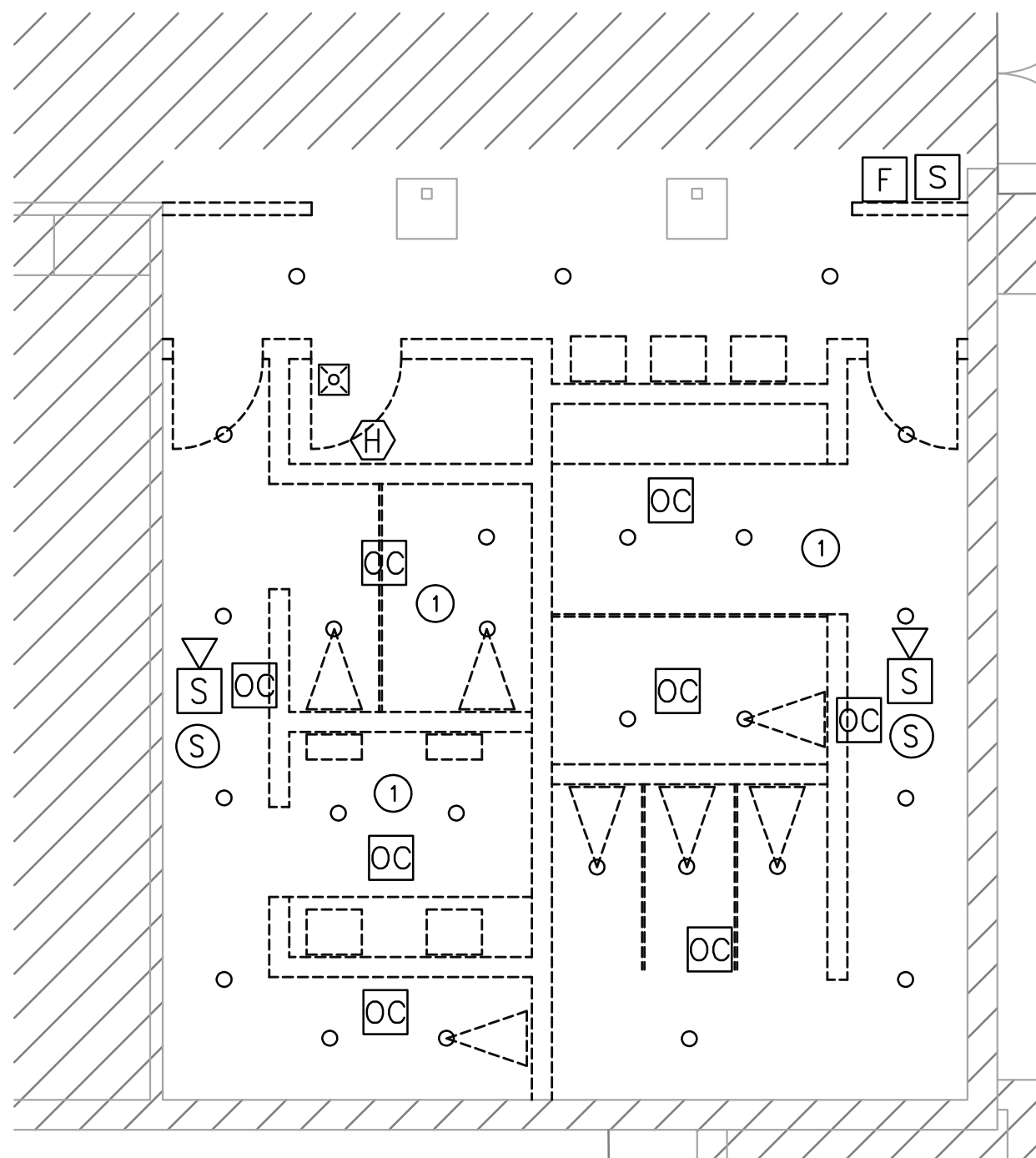


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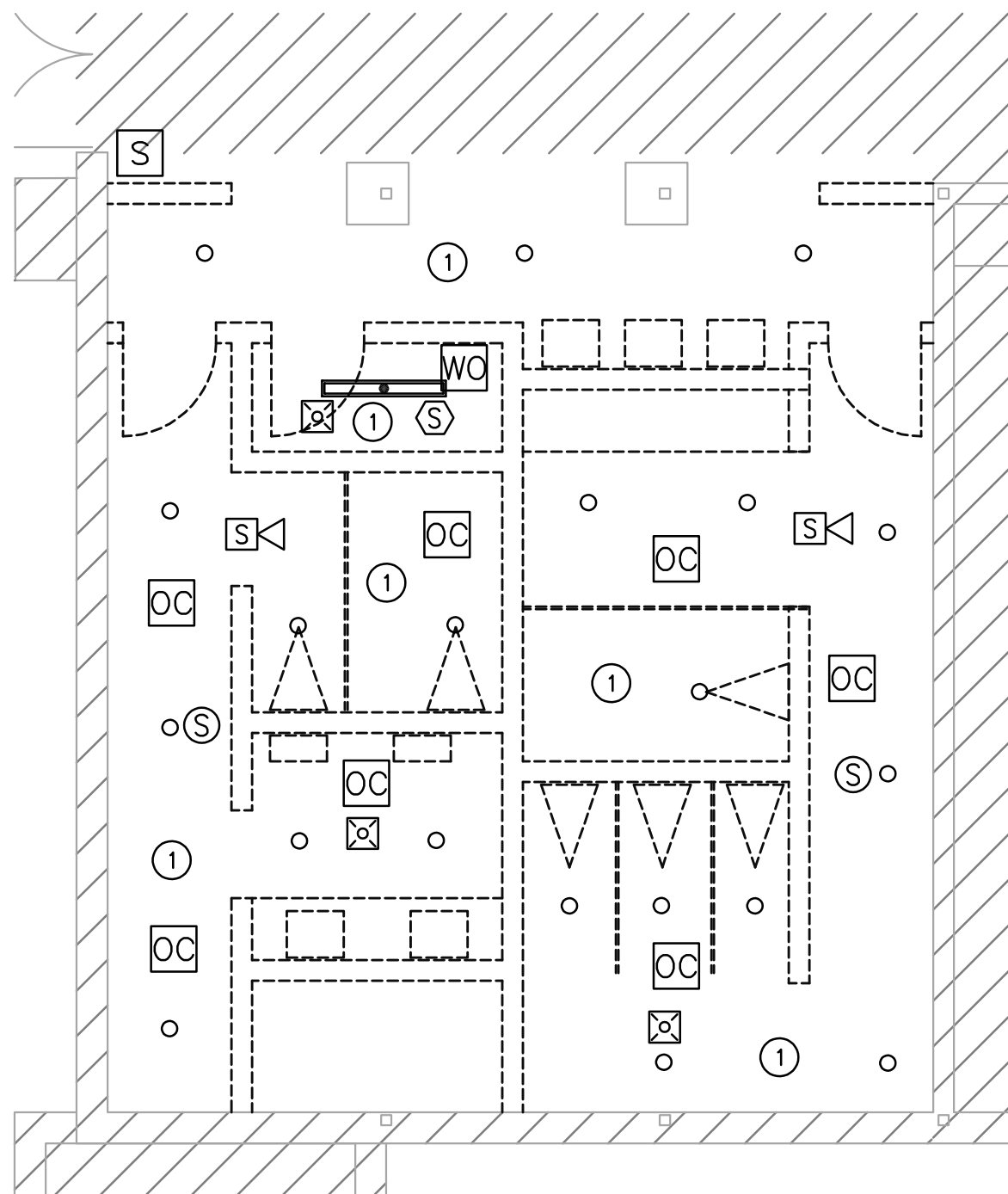


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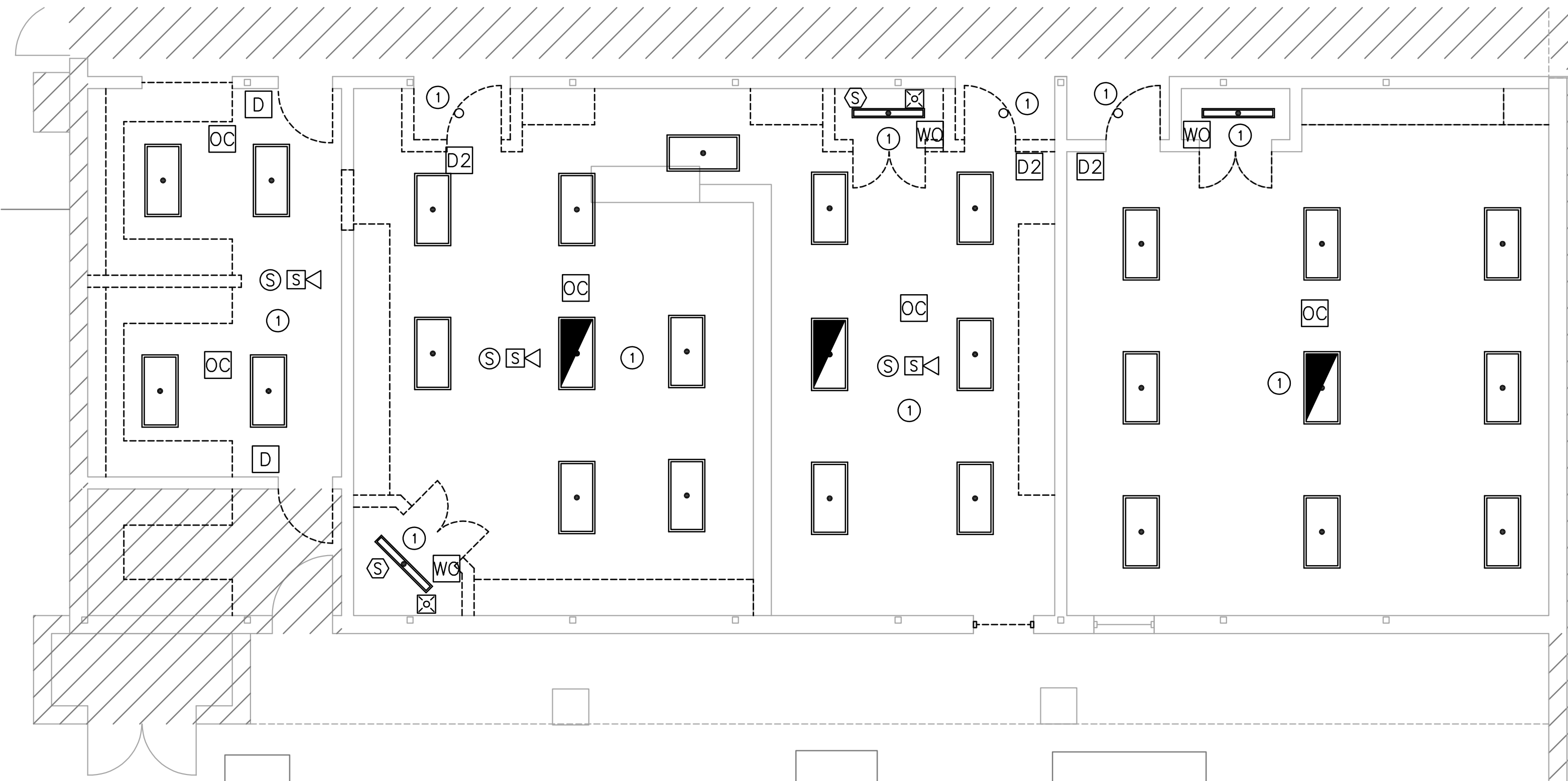
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ED2.12U 3/16"=1'-0"



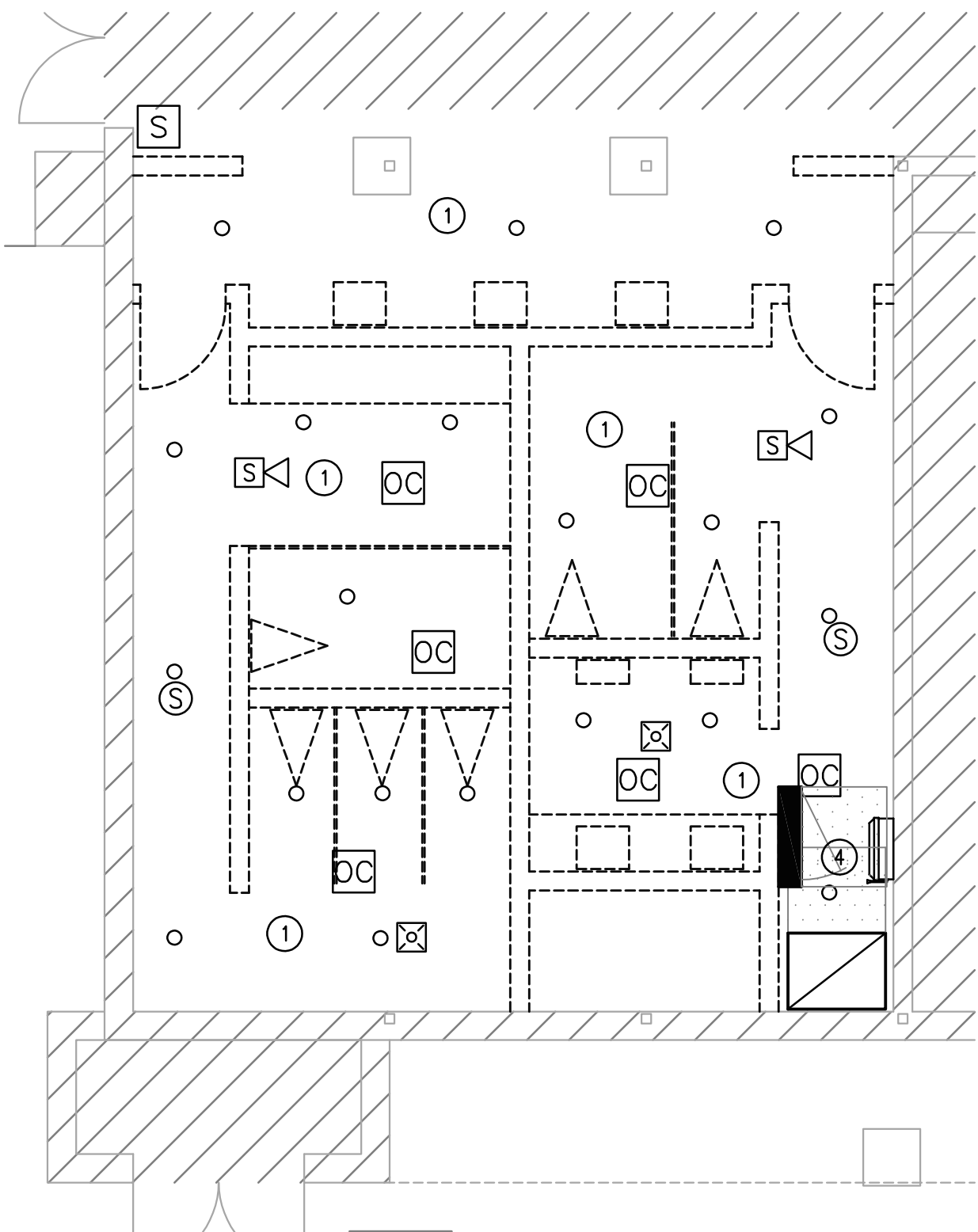
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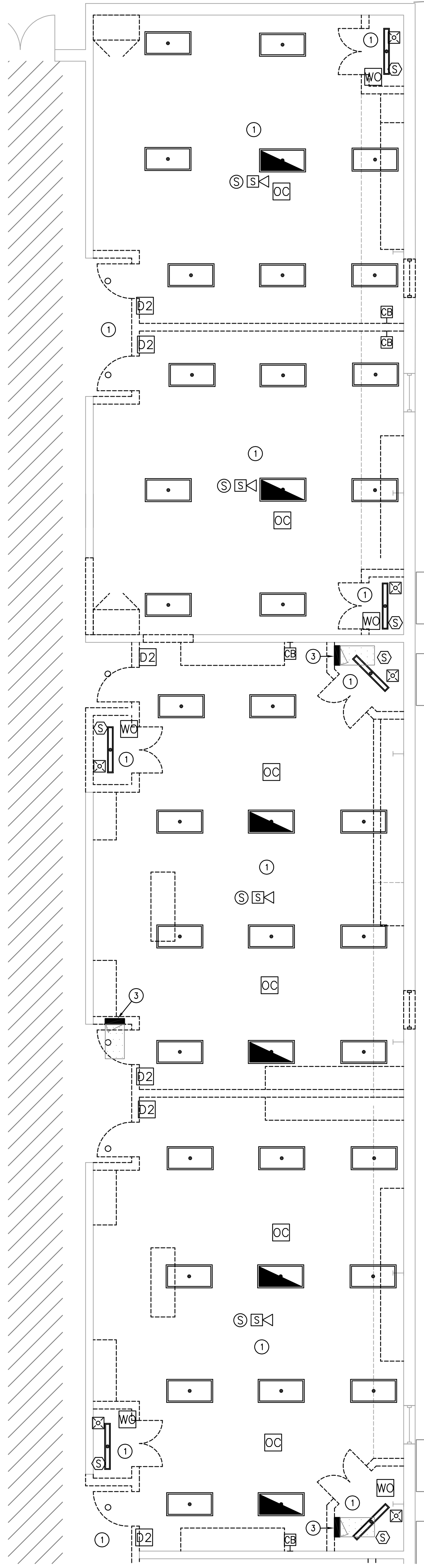
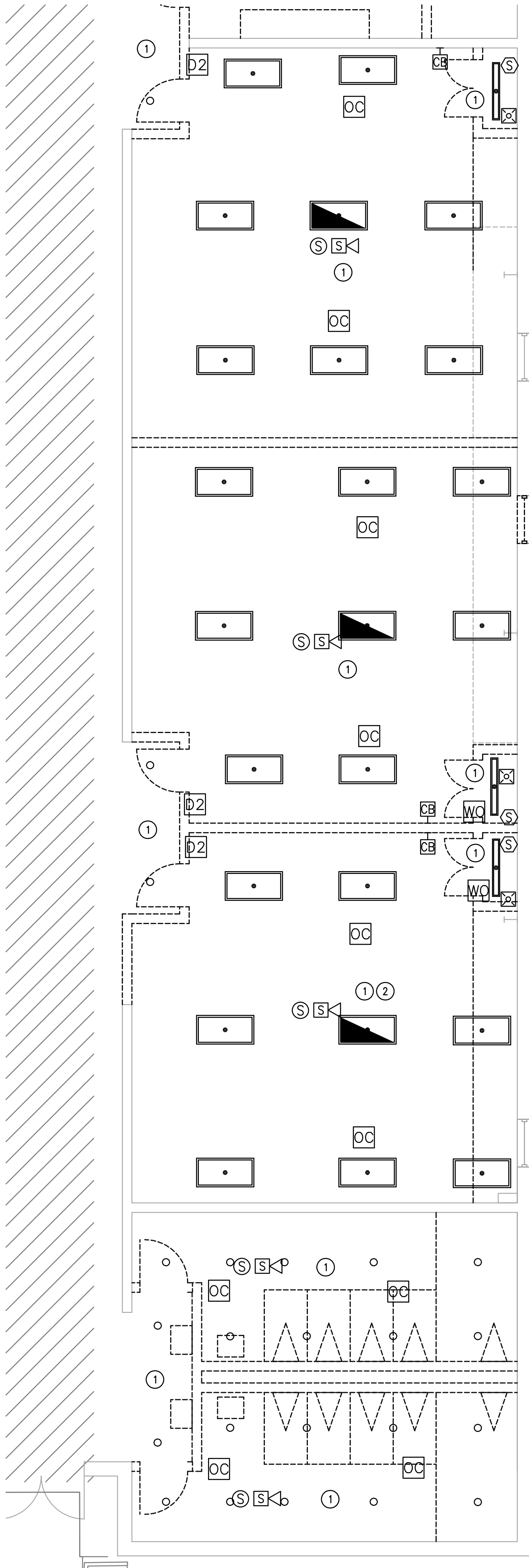
**4 ENLARGED ELECTRICAL DEMOLITION PLAN**  
ED2.12U 3/16"=1'-0"



**5 ENLARGED ELECTRICAL DEMOLITION PLAN**  
ED2.12U 3/16"=1'-0"



**3 ENLARGED ELECTRICAL DEMOLITION PLAN**  
ED2.12U 3/16"=1'-0"



**GENERAL NOTES:**

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE FIELD VERIFIED EXISTING JOB-SITE CONDITIONS DURING THE BIDDING PERIOD TO OBTAIN SCOPE OF ELECTRICAL WORK INVOLVED AS A RESULT OF ARCHITECTURAL MODIFICATIONS TO THE EXISTING STRUCTURE. THE SCOPE OF WORK SHALL INCLUDE ALL LABOR AND MATERIAL CONSISTING OF FIXTURES, DEVICES, EQUIPMENT OR APPARATUS, CONDUIT AND WIRING WHICH MUST BE REROUTED, RELOCATED OR REMOVED EITHER TEMPORARILY OR PERMANENTLY, OR WHICH MUST BE PROVIDED, SO THAT THE INDICATED REMODELING MAY BE ACCOMPLISHED.
- ALL EQUIPMENT IS EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL REMOVE ALL ELECTRICAL CONNECTIONS TO EXISTING PREWIRED FURNITURE, REMOVE CONDUIT AND WIRING BACK TO LAST ACTIVE JUNCTION. ALL DATA CABLEING SHALL BE REMOVED BACK TO LAST ACTIVE JUNCTION AND SALVAGED FOR REINSTALLATION.
- OWNER SHALL RESERVE THE RIGHT TO CLAIM ALL EQUIPMENT AND CABLEING REMOVED DURING DEMOLITION.
- CONTRACTOR SHALL REMOVE ALL ELECTRICAL DEVICES WITHIN DEMOLISHED WALLS INCLUDING RECEPTACLES, SWITCHES, DATA/TELEPHONE DROPS, FIRE ALARM DEVICES, P/A DEVICES, CONDUIT, AND WIRING. REMOVE CONDUIT AND WIRING BACK TO PANEL OR LAST ACTIVE JUNCTION BOX. REFER TO ARCHITECTURAL DEMO PLAN. ALL DEVICES SHALL BE STORED AND PROTECTED FROM DAMAGE FOR REINSTALLATION PER NEW ELECTRICAL WORK.
- CONTRACTOR SHALL REMOVE AND SALVAGE ALL EXISTING FIRE ALARM DEVICES. PROVIDE ADDITIONAL DEVICES AS REQUIRED PER NEW FIRE ALARM DESIGN. EXISTING FIRE ALARM CONTROL PANEL SHALL REMAIN.
- ANY EXISTING CONDUIT NOT BEING REUSED ROUTED BELOW GRADE SHALL BE ABANDONED.
- ALL ELECTRICAL LIGHTING AND EQUIPMENT SHALL BE LOCATED PER NEW ELECTRICAL PLANS. EXTEND ALL EXISTING FEEDERS AS REQUIRED FOR RELOCATION.
- CONTRACTOR SHALL REPORT ANY DAMAGED DEVICES THAT ARE SHOWN AS EXISTING TO REMAIN TO THE OWNER BEFORE STARTING WORK. ALL DEVICES FOUND TO BE DAMAGED AT THE TIME OF SUBSTANTIAL COMPLETION THAT ARE NOT REPORTED PRIOR TO STARTING WORK SHALL BE REPLACED BY THE CONTRACTOR AT HIS COST.

**KEYED NOTES:**

- ELECTRICAL CONTRACTOR SHALL DISCONNECT AND REMOVE ALL EXISTING INTERIOR LIGHT FIXTURES THROUGH OUT THE SPACE. CEILING MOUNTED LIGHTING CONTROL DEVICES, CEILING MOUNTED FIRE ALARM DEVICES AND ALL ASSOCIATED CONDUIT AND WIRING BACK TO PANEL OR LAST ACTIVE JUNCTION BOX. REFER TO NEW ELECTRICAL WORK FOR NEW LIGHT FIXTURE LOCATIONS.
- REMOVE A TOTAL OF 25 COMPUTER DATA DROPS. ALL COMPUTER EQUIPMENT TO BE RELOCATED TO NEW CLASSROOM. CONTRACTOR SHALL DOCUMENT ELECTRICAL CIRCUITS SERVING COMPUTER LAB AND REINSTALL AT NEW LOCATION.
- DEMOLISH EXISTING PANEL. REMOVE ALL ASSOCIATED CONDUIT AND CIRCUIT WIRING. CONTRACTOR SHALL DEMOLISH INCOMING FEEDER BACK TO DISTRIBUTION PANEL BOARD.
- EXISTING ELECTRICAL EQUIPMENT TO REMAIN. CONTRACTOR SHALL COORDINATE WITH DEMOLITION WORK AND PROVIDE TEMPORARY SUPPORT STRUCTURE FOR EQUIPMENT AS REQUIRED. KEEP AS MUCH OF THE EQUIPMENT INTACT AS POSSIBLE.

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TPE Firm Registration No. 2234

DBR Project Number 198008.000

DM	MG	JCH	TL	—
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**MEP:**  
**DBR ENGINEERING**



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**RENOVATIONS**

**KEYPLAN**

Project Number: 19.04  
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Revisions:

Sheet Title:

**COMPOSITE**  
**ELECTRICAL**  
**DEMO PLAN -**  
**UNIV. CAMPUS**

**ED2.12U**



**CIVIL:**  
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ASSOCIATES INC.

**MEP:**  
CIVIL ENGINEERING



**NORTH ECHS  
& COLLEGE**

**AND  
UNIVERSITY  
CAMPUS**

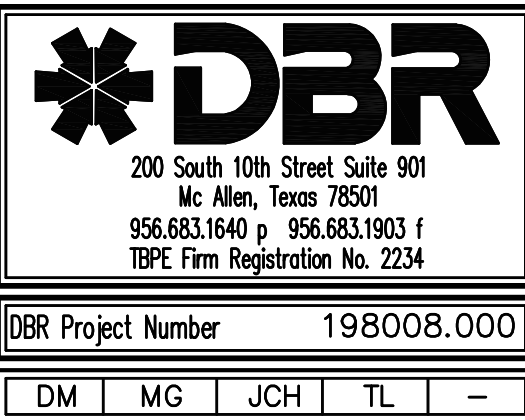
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Project Number: 19.04  
 Drawing Date: 5-10-2019  
 Drawn: AL  
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 Scale: 1/4" = 1'-0"  
 CAD File: A-240-U

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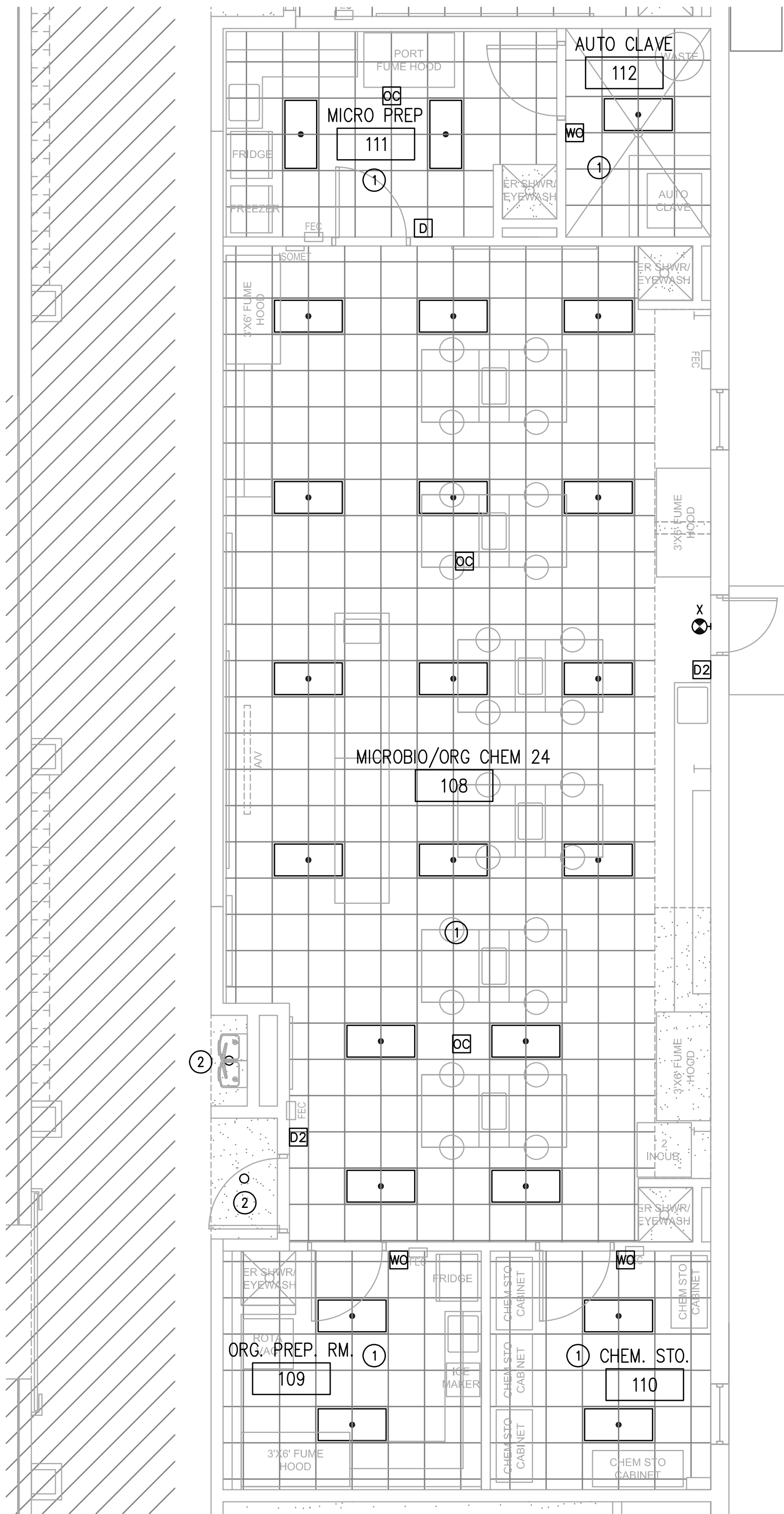
# COMPOSITE ELECTRICAL LIGHTING PLAN - UNIV. CAMPUS

## EL2.11U

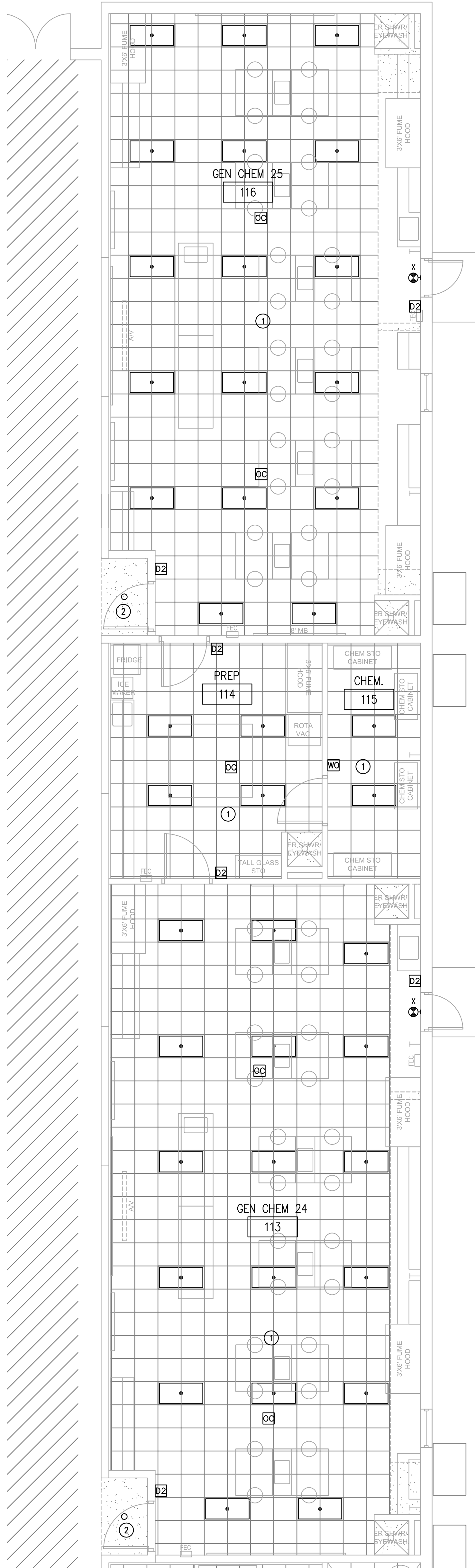




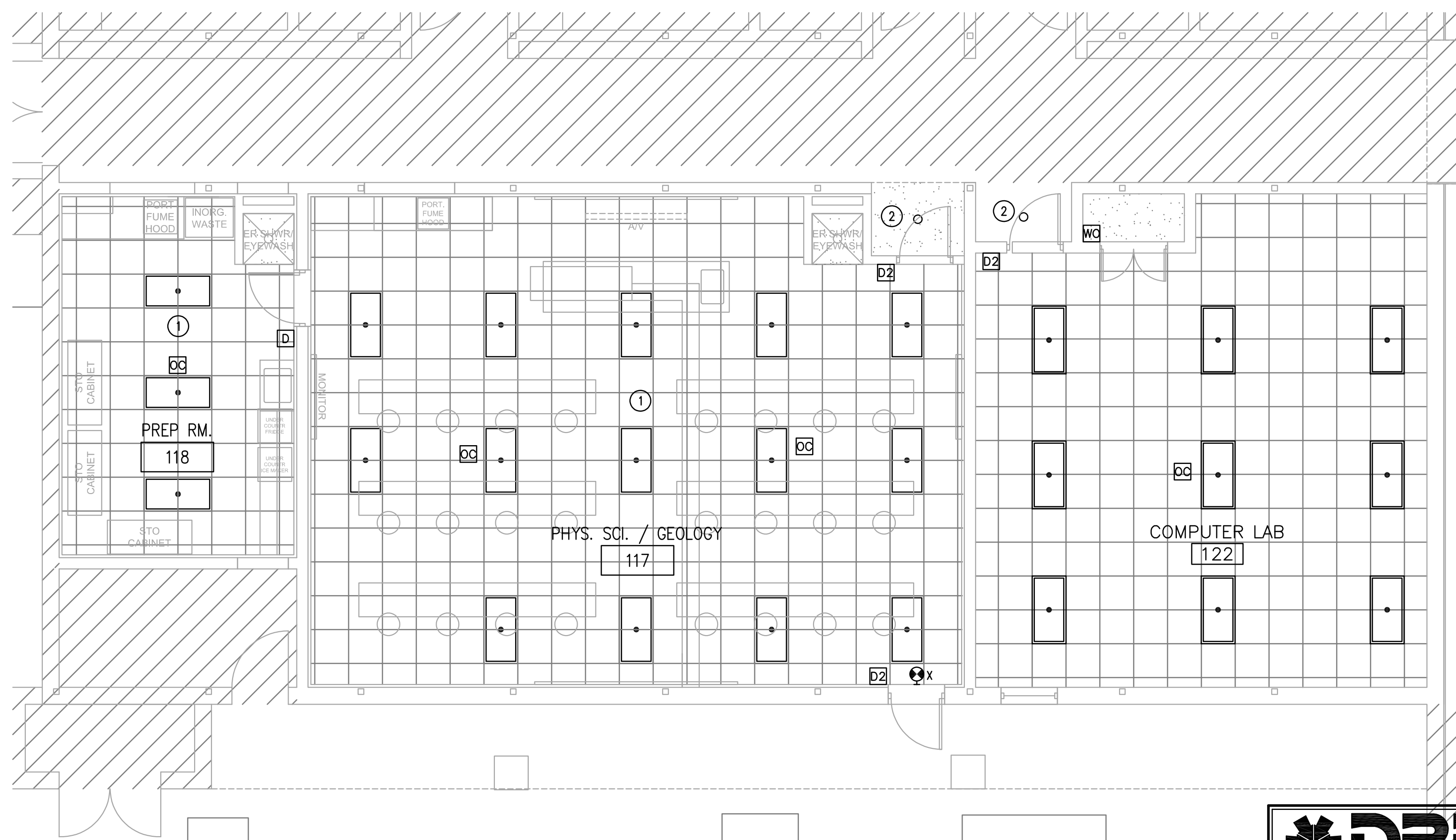
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1 ENLARGED ELECTRICAL PLAN  
EL2.12U 3/16"=1'-0"



2 ENLARGED ELECTRICAL PLAN  
EL2.12U 3/16"=1'-0"



3 ENLARGED ELECTRICAL PLAN  
EL2.12U 3/16"=1'-0"

#### GENERAL NOTES:

- ALL LIGHT FIXTURE LOCATIONS SHOWN ARE APPROXIMATE. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS WITH INSTALLED CEILING GRID, MECHANICAL DUCT WORK, STRUCTURAL MEMBERS AND ALL OTHER TRADES.
- ELECTRICAL CONTRACTOR SHALL COORDINATE MOUNTING HEIGHTS OF ALL SUSPENDED, PENDANT MOUNTED AND WALL MOUNTED LIGHT FIXTURES WITH ARCHITECT AND/OR ENGINEER. PROVIDE ALL MOUNTING HARDWARE AS REQUIRED AT NO ADDITIONAL COST TO OWNER.
- ALL LIGHT FIXTURES SHALL BE PROVIDED WITH UNIVERSAL VOLTAGE DRIVERS. ELECTRICAL CONTRACTOR SHALL VERIFY VOLTAGE OF EXISTING AND NEW PANELS AND CONNECT ALL LIGHT FIXTURES ACCORDINGLY.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE LIGHTING CONTROLS MANUFACTURER AND PROVIDE ADEQUATE NUMBER OF POWER PACKS FOR THE INTENDED NUMBER OF LIGHT FIXTURES IN EACH ROOM.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE LIGHTING CONTROLS MANUFACTURER AND PROVIDE ADEQUATE NUMBER OF OCCUPANCY SENSORS TO PROVIDE FULL COVERAGE FOR EACH ROOM.
- ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF ALL WALL MOUNTED LIGHTING CONTROL DEVICES WITH ARCHITECT AND/OR OWNER IN FIELD BEFORE ROUGH-IN.
- ALL EXIT LIGHTS SHALL BE CONNECTED TO UNSWITCHED CIRCUIT.
- ALL LIGHT FIXTURES WITH AN 'E' SUFFIX SHALL BE PROVIDED WITH AN EMERGENCY BATTERY PACK. FIXTURES SHALL BE WIRED SO THAT FIXTURE REMAINS ON DURING LOSS OF POWER AT PANEL.
- NEW LIGHTING CONTROL DEVICES SHALL MATCH EXISTING CONTROLS MANUFACTURER. CONTRACTOR SHALL PROVIDE NEW LIGHTING CONTROL DEVICES THAT CAN INTERFACE WITH EXISTING CONTROLS PROTOCOL. COORDINATE MODEL NUMBERS WITH MANUFACTURER PRIOR TO PURCHASE.

#### KEYED NOTES:

- REINSTALL EXISTING LIGHT FIXTURES APPROXIMATELY AS SHOWN. CONTRACTOR SHALL CONNECT LIGHT FIXTURES TO EXISTING LIGHTING CIRCUIT WITHIN THE SPACE.
- NEW LIGHTING CONTROL DEVICES SHALL MATCH EXISTING CONTROLS MANUFACTURER. CONTRACTOR SHALL PROVIDE NEW LIGHTING CONTROL DEVICES THAT CAN INTERFACE WITH EXISTING CONTROLS PROTOCOL. COORDINATE MODEL NUMBERS WITH MANUFACTURER PRIOR TO PURCHASE.

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MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
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MEP:  
DBR ENGINEERING



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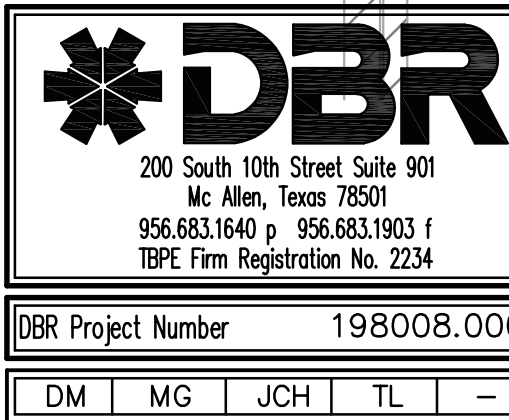
#### KEYPLAN

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
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Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

Sheet Title:

ENLARGED  
ELECTRICAL  
LIGHTING PLANS  
- UNIV. CAMPUS



EL2.12U



FILE:  
LDEN & HUNT

**P:**  
R ENGINEERING



## STUDENT RESTROOM ENOVATIONS

Object Number: 19.04  
 Accession Date: 5-10-2019  
 Location: AL  
 Requested: JM  
 Size: 1/4" = 1'-0"  
 File: A-240-U

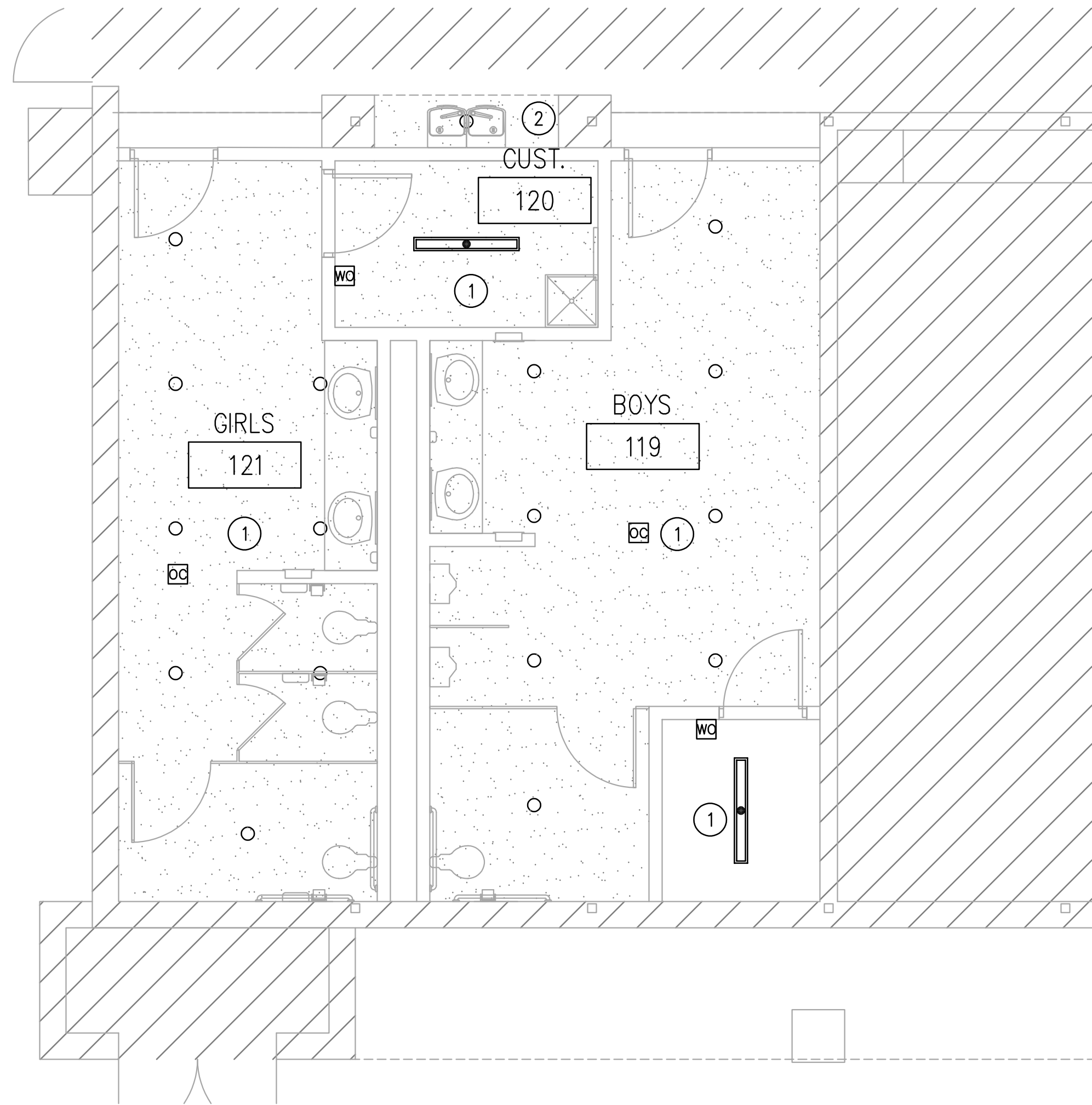
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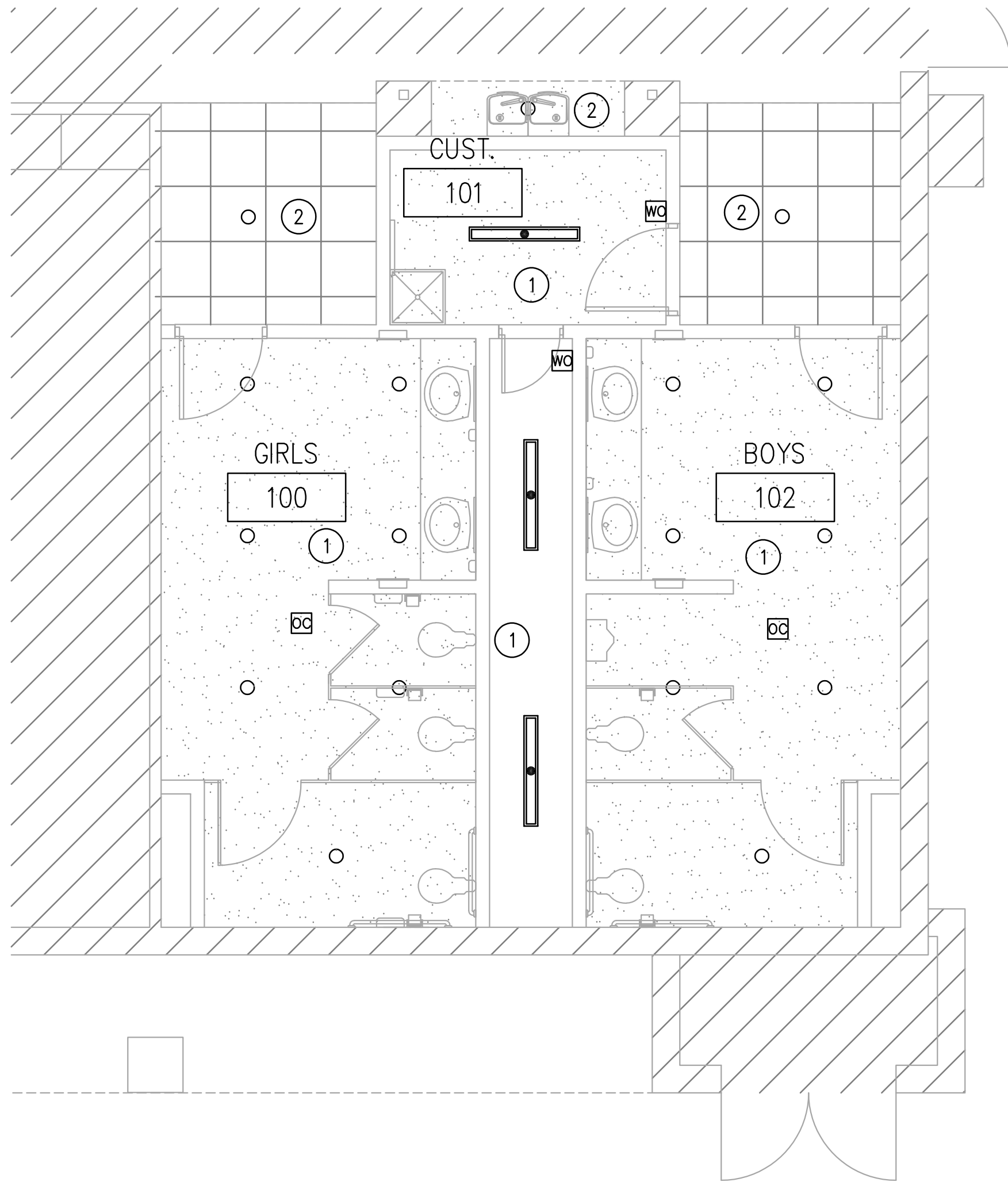
## 2.13U

- A. ALL LIGHT FIXTURE LOCATIONS SHOWN ARE APPROXIMATE. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS WITH UNPAID CEILING FRAID AND/OR CONCRETE WORK. STRUCTURAL MEMBERS AND ALL OTHER TRADES.
- B. ELECTRICAL CONTRACTOR SHALL COORDINATE MOUNTING HEIGHTS OF ALL SUSPENDING, PENDANT MOUNTED AND WALL MOUNTED LIGHT FIXTURES WITH CEILING FRAID AND/OR ENGINEER. PROVIDE ALL LIGHT MOUNTING HARDWARE AS REQUIRED AT NO ADDITIONAL COST TO OWNER.
- C. ALL LIGHT FIXTURES SHALL BE PROVIDED WITH UNIVERSAL VOLTAGE ELECTRICAL CONTRACTOR SHALL VERIFY VOLTAGE OF ALL EXISTING AND NEW PANELS AND CONNECT ALL LIGHT FIXTURES ACCORDINGLY.
- D. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE LIGHTING CONTROLS MANUFACTURER AND PROVIDE ADEQUATE NUMBER OF PUSHBUTTONS FOR THE INTENDED NUMBER OF LIGHT FIXTURES IN EACH ROOM.
- E. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE LIGHTING CONTROLS MANUFACTURER AND PROVIDE ADEQUATE NUMBER OF OCCUPANCY SENSORS TO PROVIDE FULL COVERAGE FOR EACH ROOM.
- F. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF ALL WALL MOUNTED LIGHTING CONTROL DEVICES WITH ARCHITECT AND/OR OWNER IN FIELD BEFORE ROUGH-IN.
- G. ALL EXIST LIGHTS SHALL BE CONNECTED TO UNDERSIDE CIRCUIT.
- H. ALL LIGHT FIXTURES WITH AN "E" SUFFIX SHALL BE PROVIDED WITH A "BATTERY BACKUP" OPTION. CONTRACTOR TO PROVIDE SO THAT FIXTURE REMAINS ON DURING LOSS OF POWER AT PANEL.
- I. NEW LIGHTING CONTROL DEVICES SHALL MATCH EXISTING CONTROLS MANUFACTURER. CONTRACTOR SHALL PROVIDE NEW LIGHTING CONTROL DEVICES THAT CAN INTERFACE WITH EXISTING CONTROLS PROGRAM. COORDINATE MODEL NUMBERS WITH MANUFACTURER PRIOR TO PURCHASE.

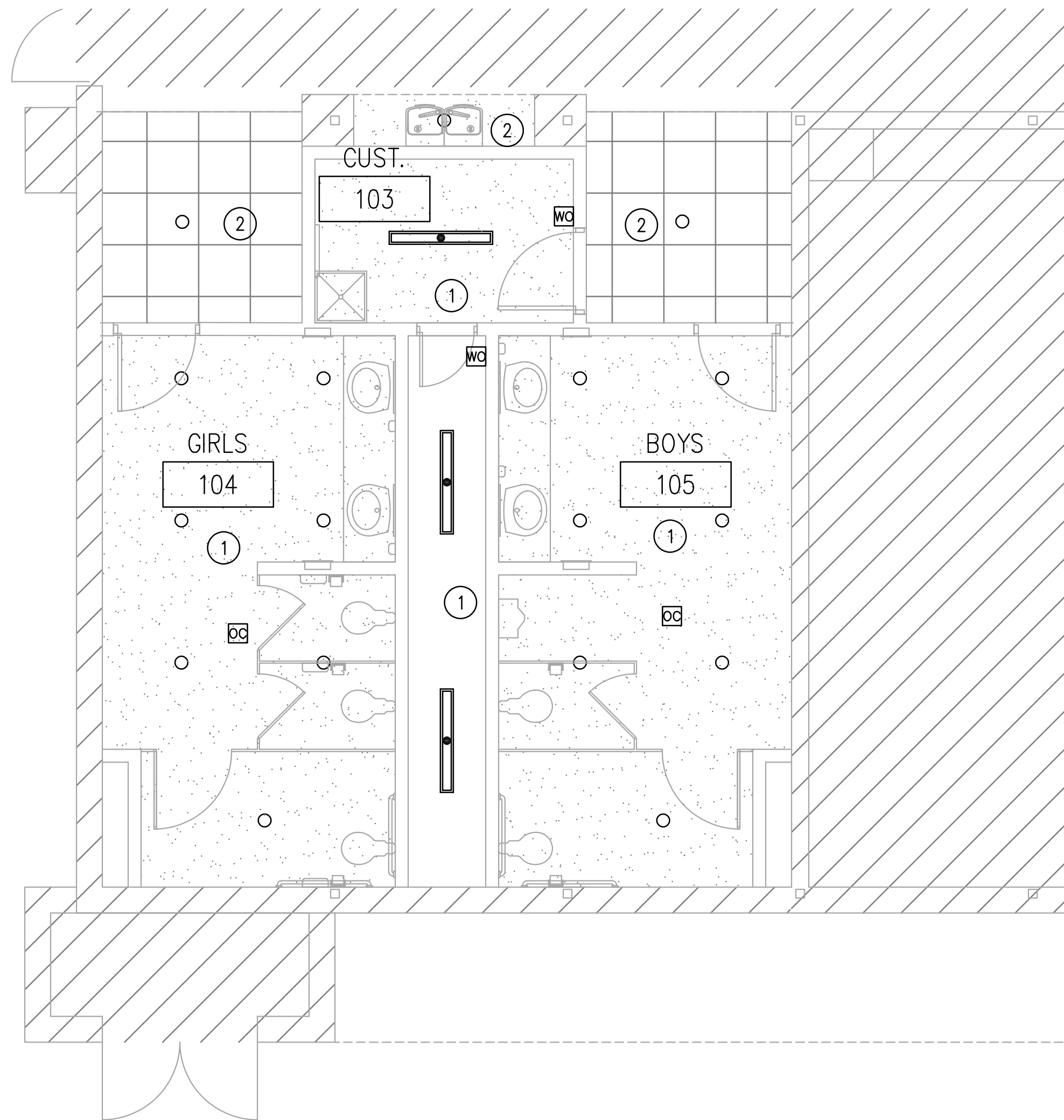
1. REINSTALL EXISTING LIGHT FIXTURES APPROXIMATELY AS SHOWN. CONTRACTOR SHALL CONNECT LIGHT FIXTURES TO EXISTING LIGHTING CIRCUIT WITHIN THE SPACE.
2. LIGHT FIXTURES TO BE CONTROLLED WITH HALLWAY LIGHTING. PROVIDE REQUIRED POWER PACKS AND CONTROL WIRING COMPATIBLE WITH EXISTING LIGHTING CONTROL SYSTEM.



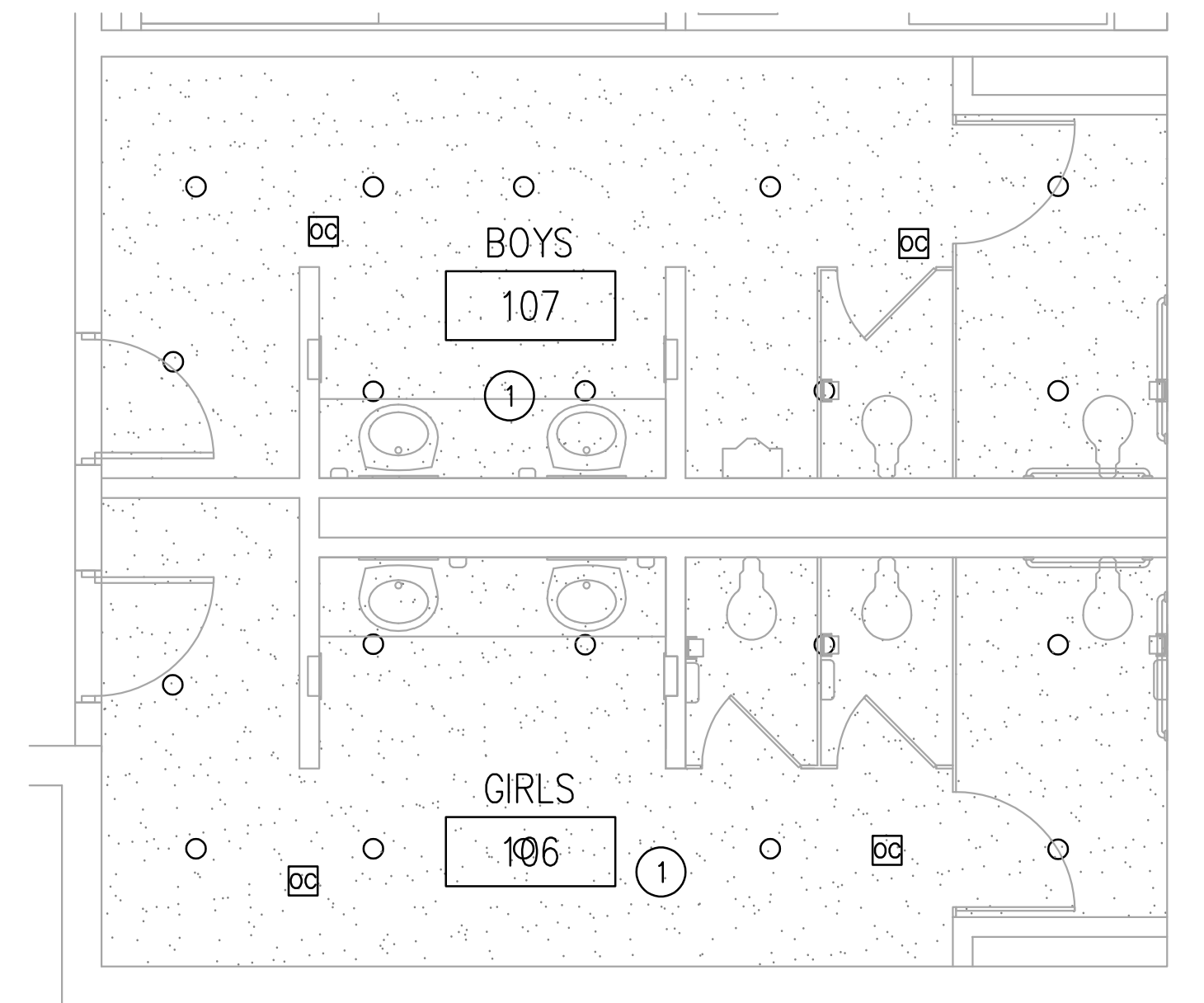
**4** ENLARGED ELECTRICAL PLAN  
EL2.13U 1/4"=1'-0"



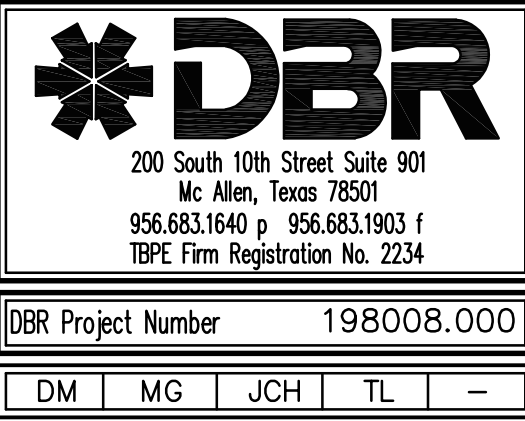
**1** ENLARGED ELECTRICAL PLAN  
EL2.13U 1/4"=1'-0"



**2** ENLARGED ELECTRICAL PLAN  
EL2.13U 1/4"=1'-0"



# 3 EL2.13U ENLARGED ELECTRICAL PLAN 1/4"=1'-0"

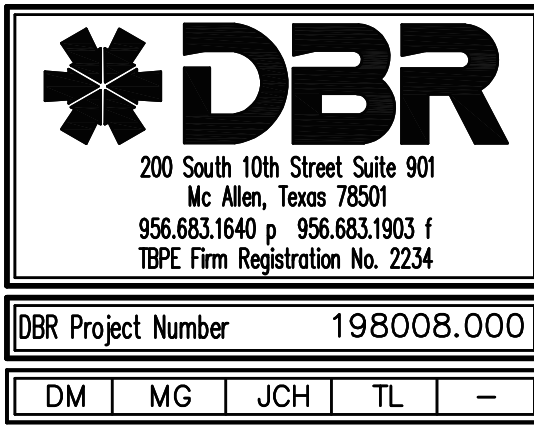






**1** EP2.11U 3/32"=1'-0" **ELECTRICAL LIGHTING PLAN - UNIVERSITY CAMPUS**

- GENERAL NOTES:**
- ELECTRICAL CONTRACTOR SHALL GROUP HOMERUNS WITH THREE HOT/NEUTRAL, AND #10 NEUTRAL TO PROVIDE MULTI-WIRE BRANCH CIRCUITS. NO MORE THAN 2 MULTI-WIRE HOMERUNS PER CONDUIT.
  - CONTRACTOR SHALL VERIFY DEVICE LOCATIONS WITH ARCHITECT PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL CASEWORK AND MILLWORK ELEVATIONS.
  - ELECTRICAL CONTRACTOR SHALL REFERENCE TECHNOLOGY DRAWINGS FOR ADDITIONAL CONDUIT AND BOX BOX REQUIREMENTS. DIVISION 26 SHALL PROVIDE ALL PATHWAYS FOR LOW VOLTAGE SYSTEMS. DIVISION 26 CONTRACTOR SHALL COORDINATE WITH DIVISION 27 AND 28 CONTRACTORS FOR PATHWAY AND ROUGH-IN NEEDS.
  - ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR FOR ALL EXHAUST FAN CONTROLS. PROVIDE A FAN SWITCH IF INDICATED BY MECHANICAL. ALL EXHAUST FANS SHALL BE PROVIDED WITH BUILT-IN DISCONNECT SWITCH.
  - HVAC AND PLUMBING EQUIPMENT MAY DIFFER FROM LOCATIONS AS SHOWN ON ELECTRICAL DRAWINGS. COORDINATE EXACT LOCATIONS WITH MECHANICAL AND PLUMBING CONTRACTOR.
  - ALL RECEPTACLES MOUNTED ABOVE COUNTERS AND WITHIN 6 FEET OF SINKS OR LAVATORIES SHALL BE GFCI TYPE.
  - PROVIDE A DEDICATED HOT, NEUTRAL, AND GROUND FOR ALL COPY MACHINES.
  - CONTRACTOR SHALL PROVIDE HANDLE TIES MANUFACTURED BY THE SWITCH GEAR SUPPLIER ON ALL MULTI-WIRE CIRCUITS TO MEET THE REQUIREMENTS OF ARTICLE 210.4(B) OF THE 2011 NEC. AT THE CONTRACTOR'S OPTION, TWO AND THREE POLE BREAKERS MAY BE USED.
  - CONTRACTOR SHALL INDICATE CIRCUIT SERVING EACH RECEPTACLE BY PROVIDING TYPE WRITTEN LABELING LOCATED ON INSIDE FACE OF EACH RECEPTACLE COVER PLATE.
  - ELECTRICAL CONTRACTOR SHALL ROUTE ELECTRICAL CONDUIT AND WIRING TO ALL ROOF HVAC EQUIPMENT THROUGH ROOF CURBS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
  - MECHANICAL CONTRACTOR SHALL FURNISH INTEGRAL DISCONNECT SWITCH FOR ALL MECHANICAL EQUIPMENT. ELECTRICAL CONNECTIONS SHALL BE PROVIDED BY DIVISION 26.
  - PROVIDE JUNCTION BOX AND POWER FOR ALL HARD WIRED PLUMBING FLUSH VALVES AND SENSOR EQUIPMENT TRANSFORMERS FROM NEAREST 120V/208A CIRCUIT. COORDINATE WITH PLUMBER PRIOR TO ROUGH-IN FOR EXACT LOCATION.
  - ALL RECEPTACLES LOCATED IN RESTROOMS, JANITOR CLOSETS, MECHANICAL ROOMS, ELEVATOR PITTS OR SHAFTS, ELEVATOR EQUIPMENT ROOMS, SERVING ELECTRIC DRINKING FOUNTAINS OR VENDING MACHINES, LOCATED WITHIN 6' OF A SINK, LOCATED ABOVE A WET COUNTERTOP OR IN A KITCHEN OR COFFEE BAR SHALL BE GFCI. EACH GFCI PROTECTED RECEPTACLE SHARING THE SAME CIRCUIT SHALL HAVE ITS OWN RE-SET AND TEST BUTTON.



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Consultants:

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**STRUCTURAL:**  
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**MEP:**  
**DBR ENGINEERING**



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**KEYPLAN**

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Revisions:

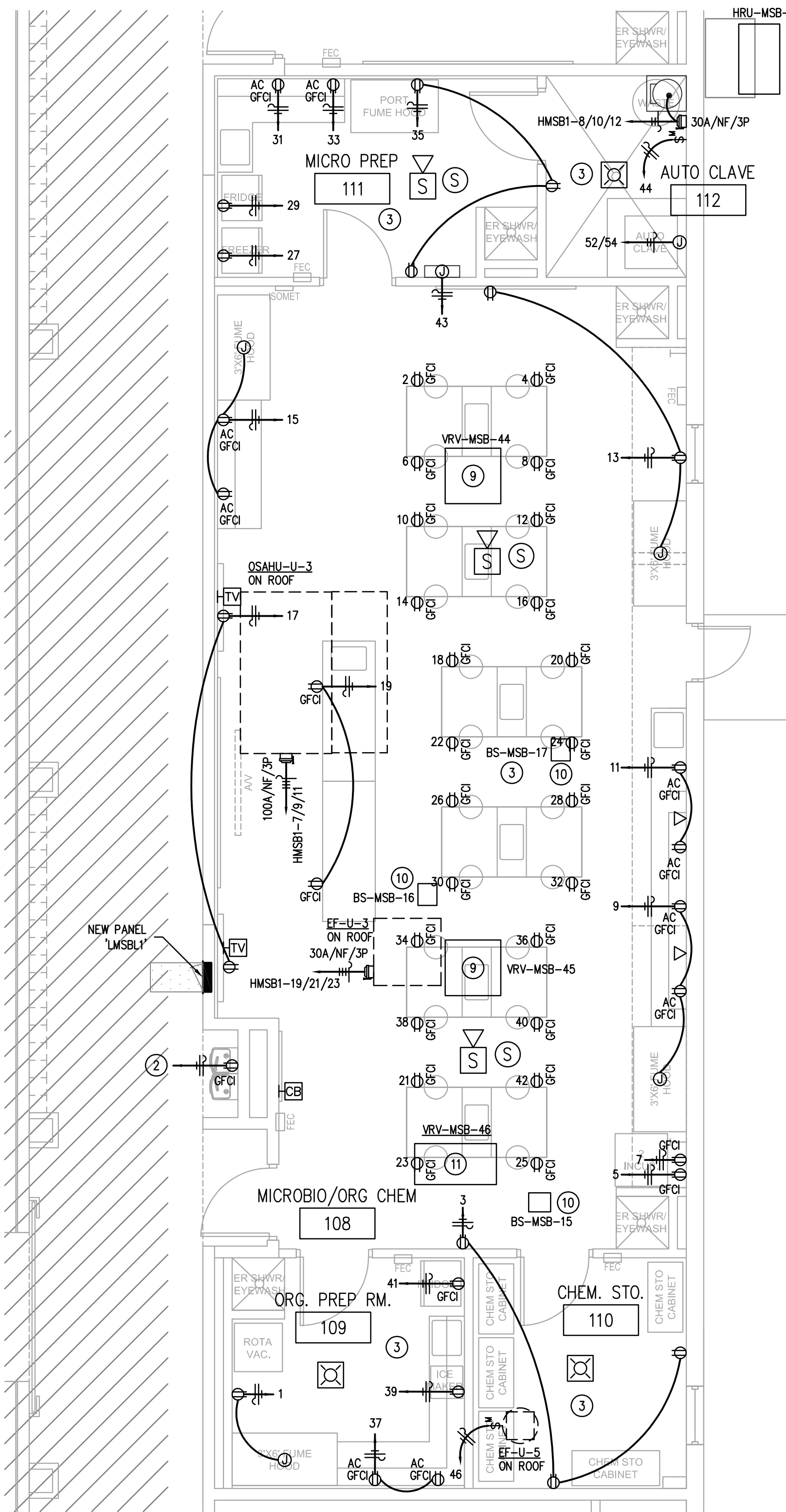
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**POWER PLAN -**  
**UNIV. CAMPUS**

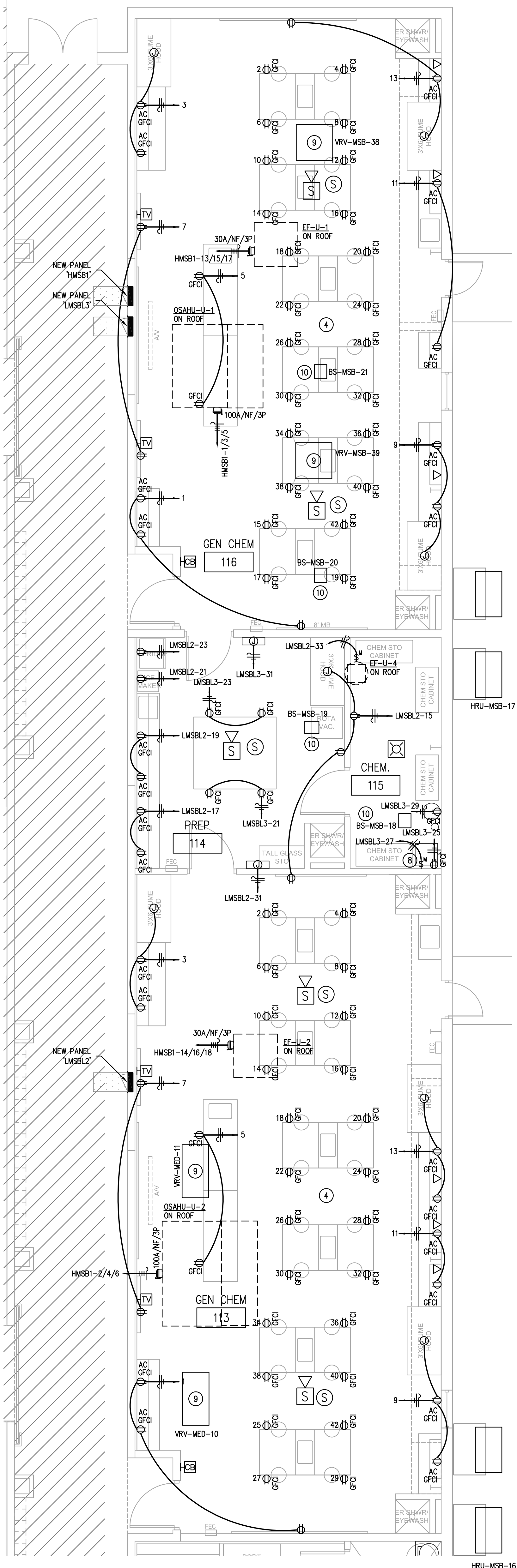
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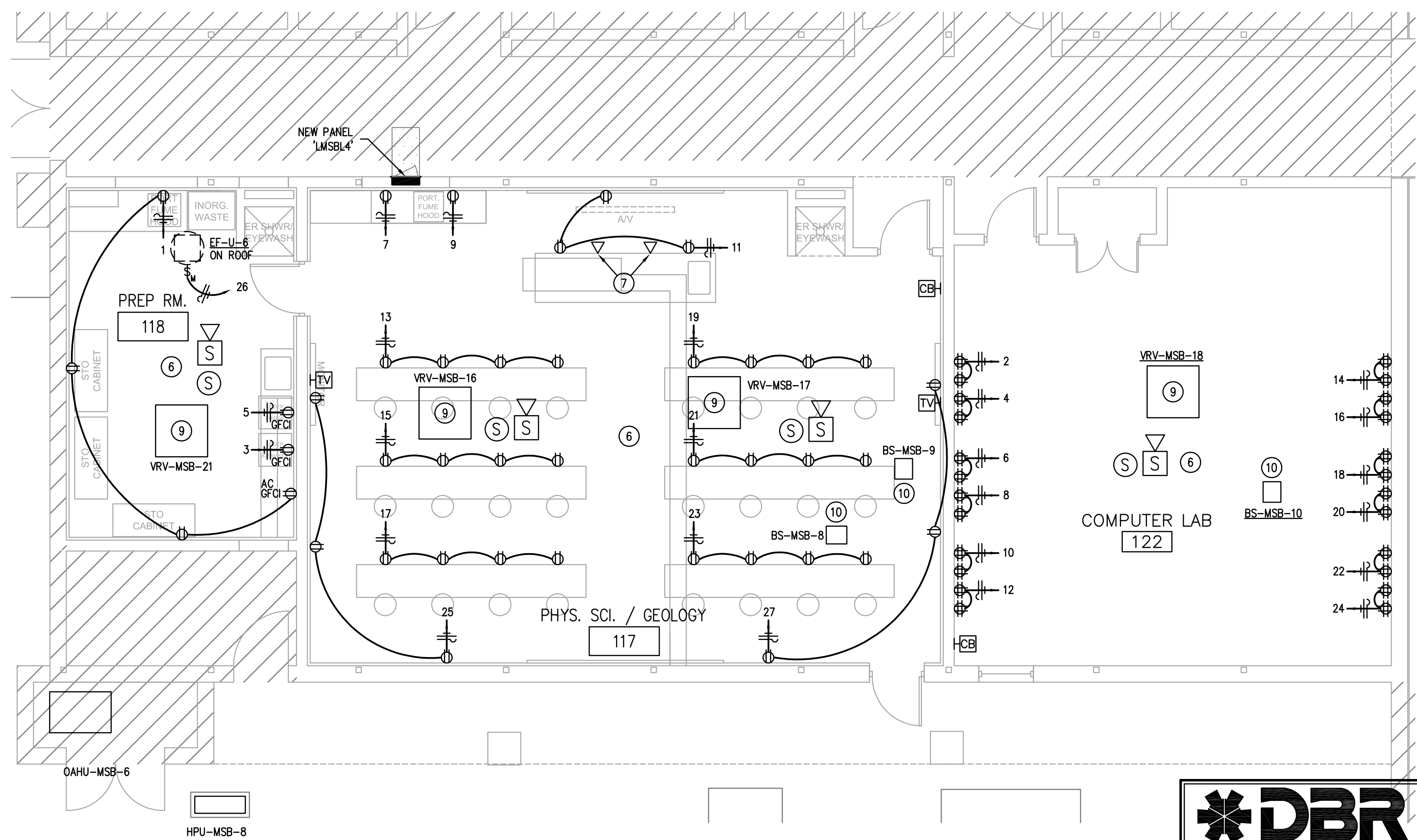
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1 ENLARGED ELECTRICAL PLAN  
EP2.12U 3/16"=1'-0"



2 ENLARGED ELECTRICAL PLAN  
EP2.12U 3/16"=1'-0"



3 ENLARGED ELECTRICAL PLAN  
EP2.12U 3/16"=1'-0"

#### GENERAL NOTES:

- ELECTRICAL CONTRACTOR SHALL GROUP HOMERUNS WITH THREE HOTS (A,B, AND C PHASE), AND #10 NEUTRAL TO PROVIDE MULTI-WIRE BRANCH CIRCUITS. NO MORE THAN 2 MULTI-WIRE HOMERUNS PER CONDUIT.
- CONTRACTOR SHALL VERIFY DEVICE LOCATIONS WITH ARCHITECT PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL CASEWORK AND MILLWORK ELEVATIONS.
- ELECTRICAL CONTRACTOR SHALL REFERENCE TECHNOLOGY DRAWINGS FOR ADDITIONAL CONDUIT AND BOX BOX REQUIREMENTS. DIVISION 26 SHALL PROVIDE ALL PATHWAYS FOR LOW VOLTAGE SYSTEMS. DIVISION 26 CONTRACTOR SHALL COORDINATE WITH DIVISION 27 AND 28 CONTRACTORS FOR PATHWAY AND ROUGH-IN NEEDS.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR FOR ALL EXHAUST FAN CONTROLS. PROVIDE A FAN SWITCH IF INDICATED BY MECHANICAL. ALL EXHAUST FANS SHALL BE PROVIDED WITH BUILT-IN DISCONNECT SWITCH.
- HVAC AND PLUMBING EQUIPMENT MAY DIFFER FROM LOCATIONS AS SHOWN ON ELECTRICAL DRAWINGS. COORDINATE EXACT LOCATIONS WITH MECHANICAL AND PLUMBING CONTRACTOR.
- ALL RECEPTACLES MOUNTED ABOVE COUNTERS AND WITHIN 6 FEET OF SINKS OR LAVATORIES SHALL BE GFCI TYPE.
- PROVIDE A DEDICATED HOT, NEUTRAL, AND GROUND FOR ALL COPY MACHINES.
- CONTRACTOR SHALL PROVIDE HANDLE TIES MANUFACTURED BY THE SWITCH GEAR SUPPLIER ON ALL MULTI-WIRE CIRCUITS TO MEET THE REQUIREMENTS OF ARTICLE 210.4(B) OF THE 2011 NEC. AT THE CONTRACTOR'S OPTION, TWO AND THREE POLE BREAKERS MAY BE USED.
- CONTRACTOR SHALL INDICATE CIRCUIT SERVING EACH RECEPTACLE BY PROVIDING TYPE WRITTEN LABELING LOCATED ON INSIDE FACE OF EACH RECEPTACLE COVER PLATE.
- ELECTRICAL CONTRACTOR SHALL ROUTE ELECTRICAL CONDUIT AND WIRING TO ALL ROOF HVAC EQUIPMENT THROUGH ROOF CURBS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
- MECHANICAL CONTRACTOR SHALL FURNISH INTEGRAL DISCONNECT SWITCH FOR ALL MECHANICAL EQUIPMENT. ELECTRICAL CONNECTIONS SHALL BE PROVIDED BY DIVISION 26.
- PROVIDE JUNCTION BOX AND POWER FOR ALL HARD WIRED PLUMBING FLUSH VALVES AND SENSOR EQUIPMENT TRANSFORMERS FROM NEAREST 120V/208A CIRCUIT. COORDINATE WITH PLUMBER PRIOR TO ROUGH-IN FOR EXACT LOCATION.
- ALL RECEPTACLES LOCATED IN RESTROOMS, JANITOR CLOSETS, MECHANICAL ROOMS, ELEVATOR PITTS OR SHAFTS, ELEVATOR EQUIPMENT ROOMS, SERVING ELECTRIC DRINKING FOUNTAINS OR VENDING MACHINES, LOCATED WITHIN 6' OF A SINK, LOCATED ABOVE A WET COUNTERTOP OR IN A KITCHEN OR COFFEE BAR SHALL BE GFCI. EACH GFCI PROTECTED RECEPTACLE SHARING THE SAME CIRCUIT SHALL HAVE ITS OWN RE-SET AND TEST BUTTON.
- POWER TO RECEPTACLE DEVICES AT STUDENT STATIONS SHALL COME FROM BELOW SLAB. ROUTE CONDUIT IN SAME TRENCH AS PLUMBING UTILITIES AND STUB INTO FURNITURE STORAGE SPACE. REFER TO ARCHITECTURAL MILLWORK DETAILS FOR STUB UP LOCATION.

#### KEYED NOTES:

- #12 WIRE, 3/4" TO NEAREST PANEL. PROVIDE NEW 20A/1P BREAKER AS REQUIRED.
- CONNECT TO EXISTING ELECTRICAL WATER COOLER CIRCUIT. FIELD VERIFY.
- ALL CIRCUIT IN THIS SPACE ARE FED FROM PANEL 'LMSBL1'.
- ALL CIRCUIT IN THIS SPACE ARE FED FROM PANEL 'LMSBL2'.
- ALL CIRCUIT IN THIS SPACE ARE FED FROM PANEL 'LMSBL3'.
- ALL CIRCUIT IN THIS SPACE ARE FED FROM PANEL 'LMSBL4'.
- PROVIDE SINGLE GANG BOX, 1" CONDUIT WITH PULL STRING FOR INSTALLATION OF DATA DEVICES, DEVICES AND CABLING INSTALLED BY SCHOOL DISTRICT. CONDUIT SHALL BE ROUTED BELOW SLAB. COORDINATE ROUTING WITH OTHER TRADES.
- PROVIDE FLEXIBLE, LIQUID TIGHT CONNECTION TO PUMP.
- EXTEND CONDUIT AND CIRCUIT WIRING TO RELOCATE VRV CASSETTE.
- EXISTING BRANCH SELECTORS TO REMAIN.
- CONNECT NEW VRV-MSB-46 EQUIPMENT TO EXISTING DISCONNECT AND CIRCUIT. EXTEND CONDUIT AND CIRCUIT WIRING AS REQUIRED.

Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING



PSJA ISD  
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& COLLEGE  
AND  
UNIVERSITY  
CAMPUS  
STUDENT  
RESTROOM  
RENOVATIONS

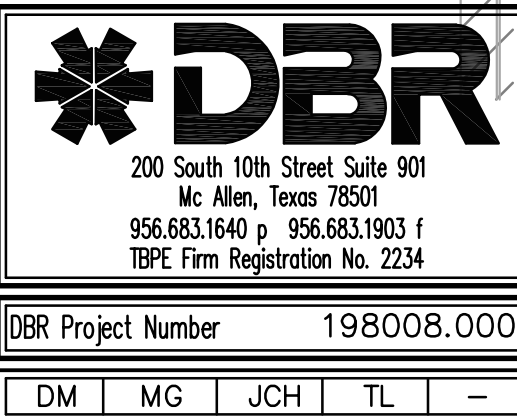
#### KEYPLAN

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

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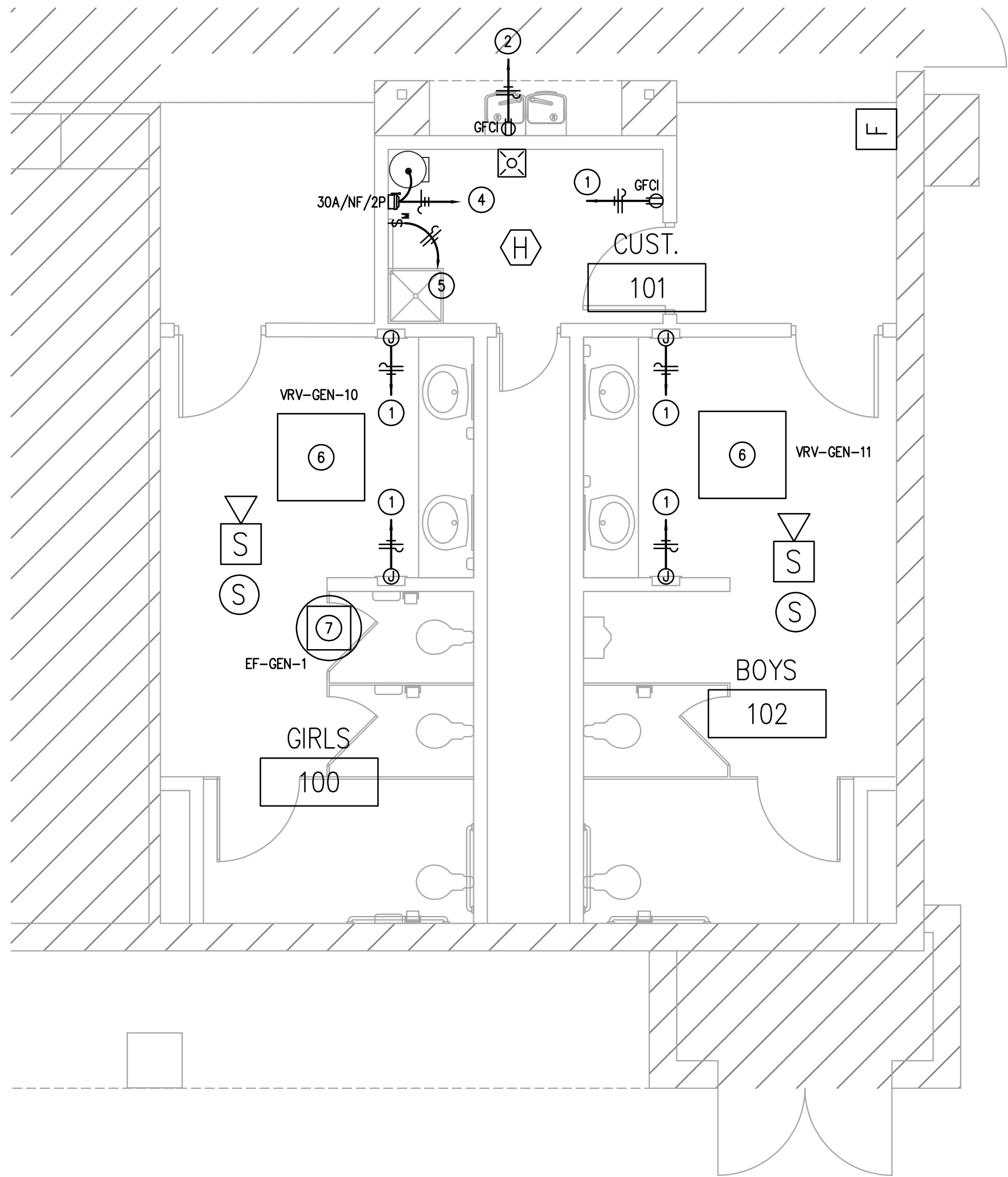
ENLARGED  
ELECTRICAL  
POWER PLANS  
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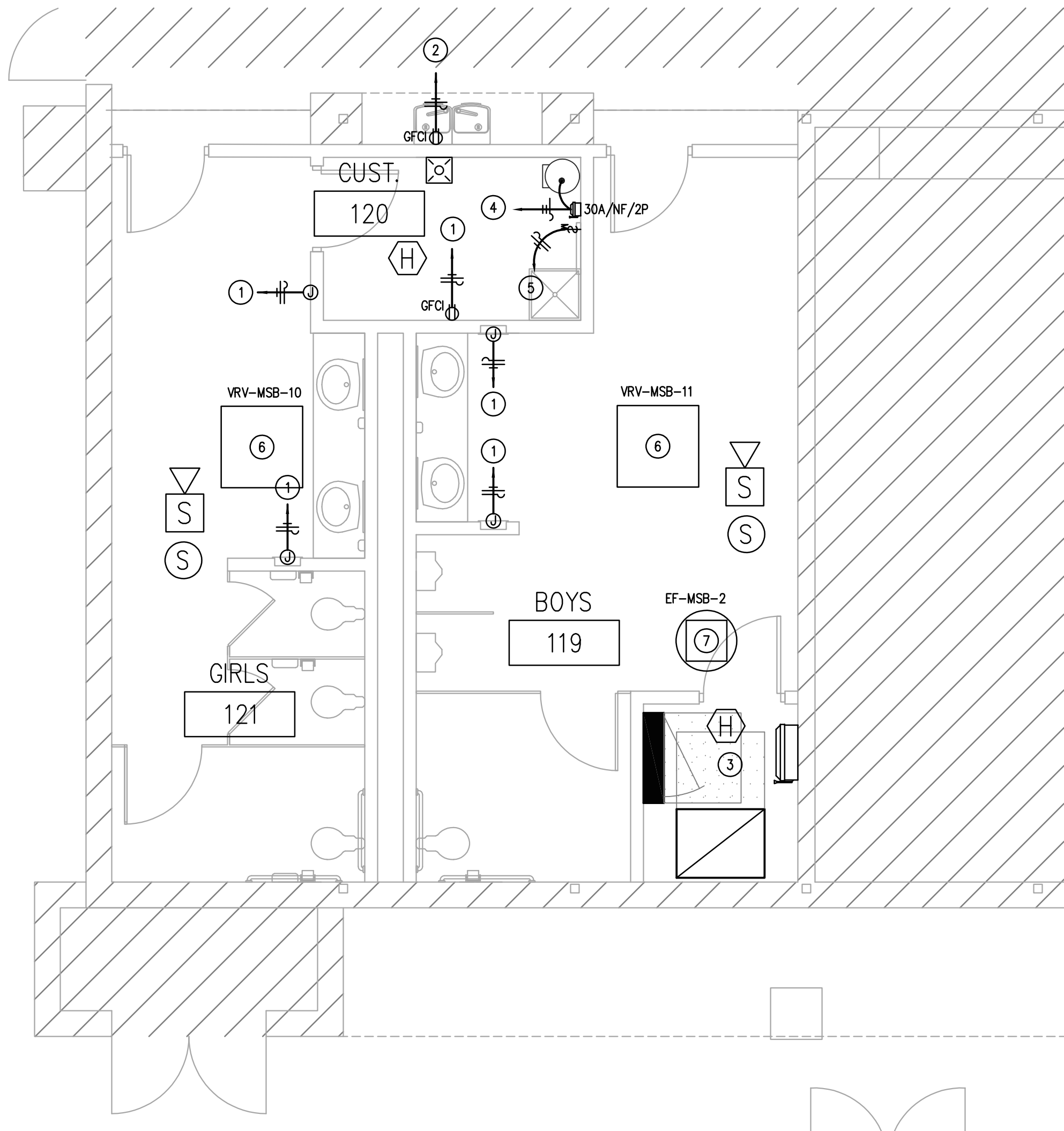
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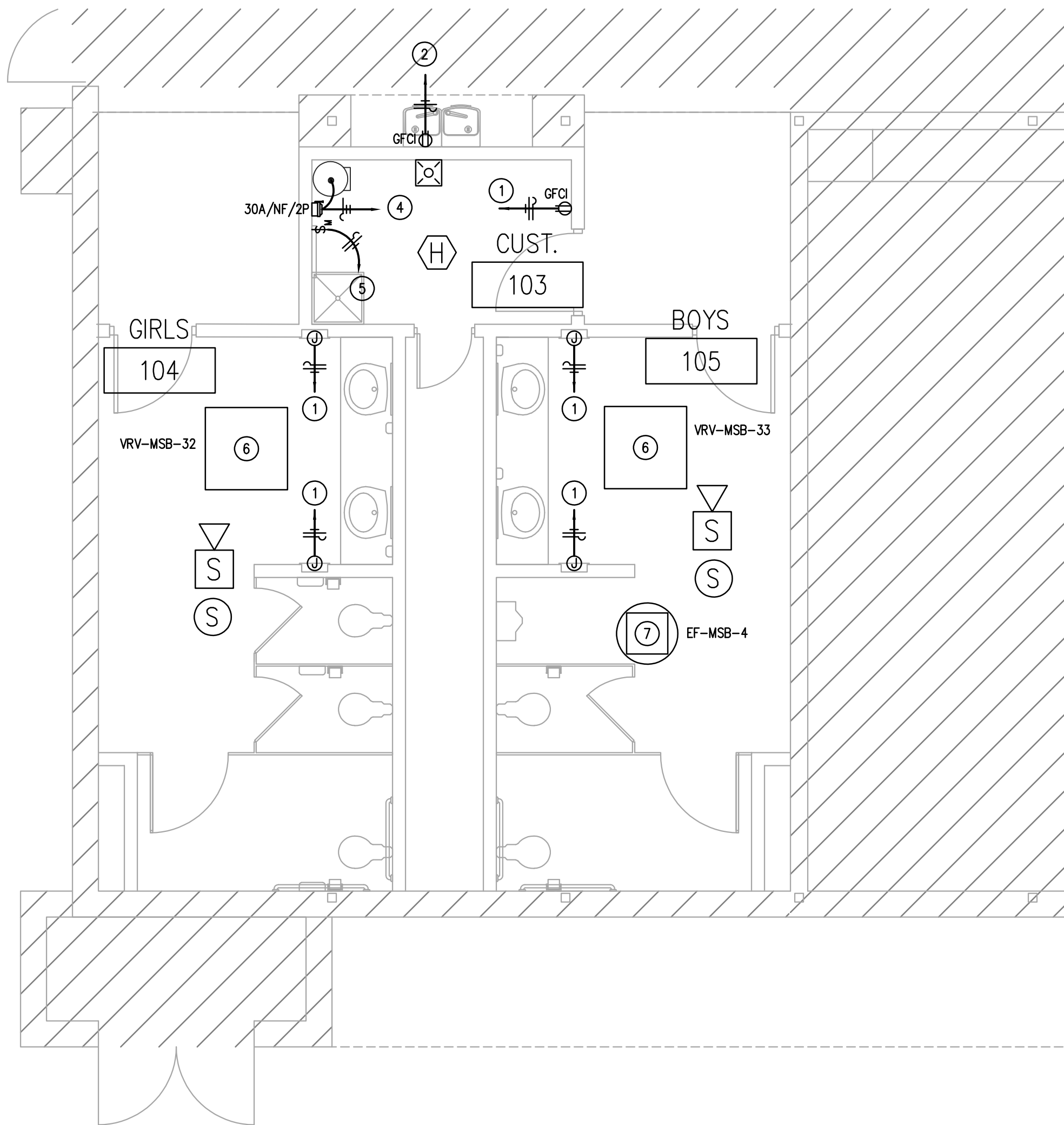
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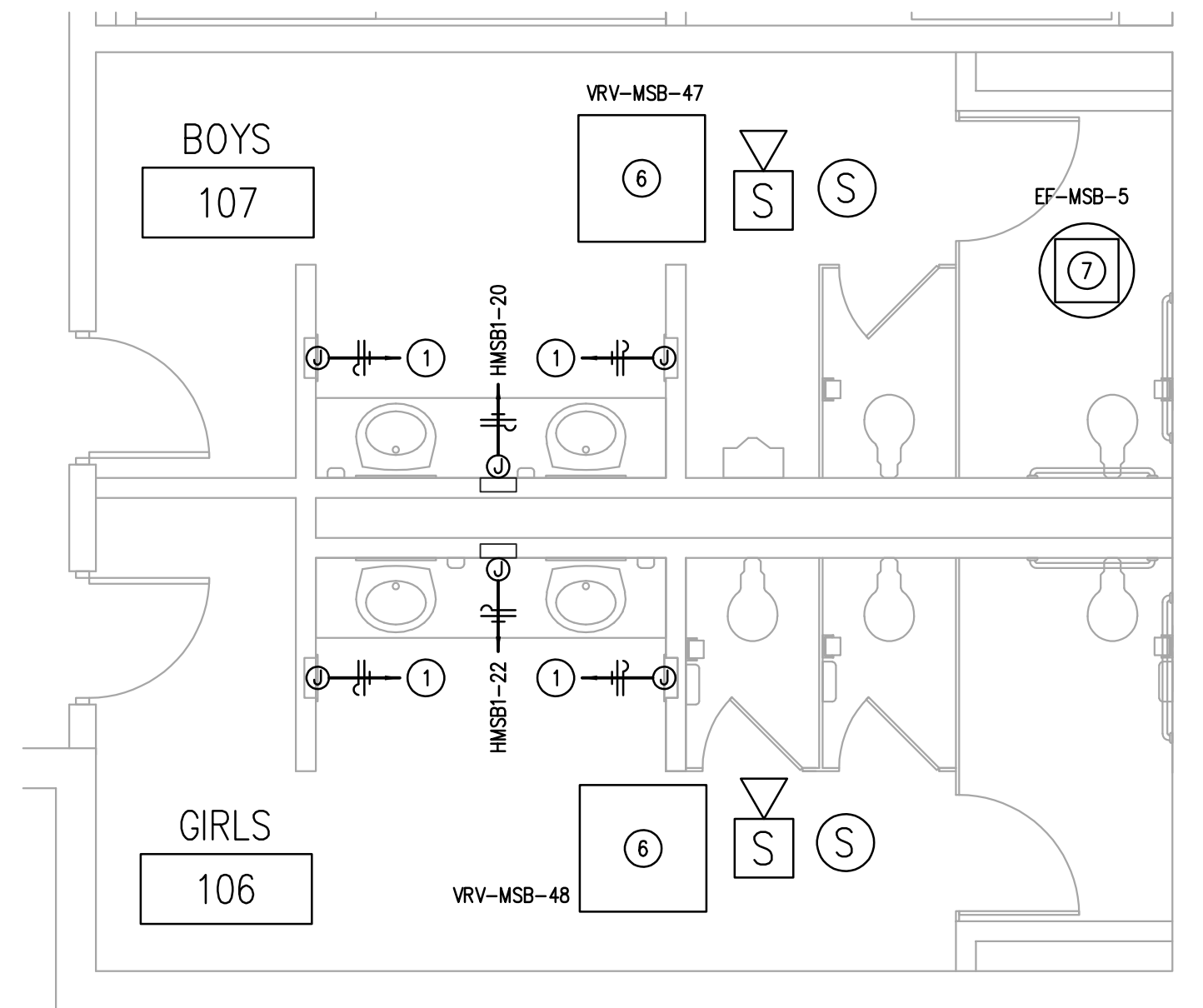
**1 ENLARGED ELECTRICAL PLAN**  
EP2.13U 1/4"=1'-0"



**4 ENLARGED ELECTRICAL PLAN**  
EP2.13U 1/4"=1'-0"



**2 ENLARGED ELECTRICAL PLAN**  
EP2.13U 1/4"=1'-0"



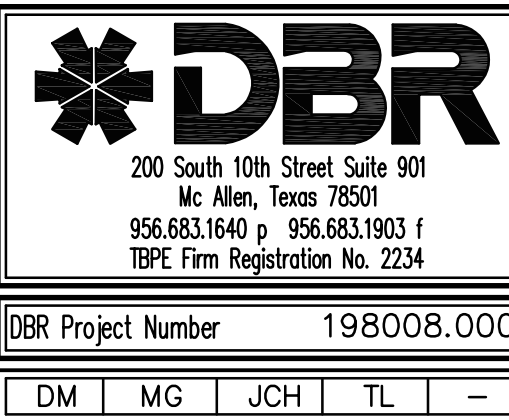
**3 ENLARGED ELECTRICAL PLAN**  
EP2.13U 1/4"=1'-0"

**GENERAL NOTES:**

- ELECTRICAL CONTRACTOR SHALL GROUP HOMERUNS WITH THREE HOTS (A, B, AND C PHASE), AND #10 NEUTRAL TO PROVIDE MULTI-WIRE BRANCH CIRCUITS. NO MORE THAN 2 MULTI-WIRE HOMERUNS PER CONDUIT.
- CONTRACTOR SHALL VERIFY DEVICE LOCATIONS WITH ARCHITECT PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL CASEWORK AND MILLWORK ELEVATIONS.
- ELECTRICAL CONTRACTOR SHALL REFERENCE TECHNOLOGY DRAWINGS FOR ADDITIONAL CONDUIT AND BOX BOX REQUIREMENTS. DIVISION 26 SHALL PROVIDE ALL PATHWAYS FOR LOW VOLTAGE SYSTEMS. DIVISION 26 CONTRACTOR SHALL COORDINATE WITH DIVISION 27 AND 28 CONTRACTORS FOR PATHWAY AND ROUGH-IN NEEDS.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR FOR ALL EXHAUST FAN CONTROLS. PROVIDE A FAN SWITCH IF INDICATED BY MECHANICAL. ALL EXHAUST FANS SHALL BE PROVIDED WITH BUILT-IN DISCONNECT SWITCH.
- HVAC AND PLUMBING EQUIPMENT MAY DIFFER FROM LOCATIONS AS SHOWN ON ELECTRICAL DRAWINGS. COORDINATE EXACT LOCATIONS WITH MECHANICAL AND PLUMBING CONTRACTOR.
- ALL RECEPTACLES MOUNTED ABOVE COUNTERS AND WITHIN 6 FEET OF SINKS OR LAVATORIES SHALL BE GFCI TYPE.
- PROVIDE A DEDICATED HOT, NEUTRAL, AND GROUND FOR ALL COPY MACHINES.
- CONTRACTOR SHALL PROVIDE HANDLE TIES MANUFACTURED BY THE SWITCH GEAR SUPPLIER ON ALL MULTI-WIRE CIRCUITS TO MEET THE REQUIREMENTS OF ARTICLE 210.4(B) OF THE 2011 NEC. AT THE CONTRACTOR'S OPTION, TWO AND THREE POLE BREAKERS MAY BE USED.
- CONTRACTOR SHALL INDICATE CIRCUIT SERVING EACH RECEPTACLE BY PROVIDING TYPE WRITTEN LABELING LOCATED ON INSIDE FACE OF EACH RECEPTACLE COVER PLATE.
- ELECTRICAL CONTRACTOR SHALL ROUTE ELECTRICAL CONDUIT AND WIRING TO ALL ROOF HVAC EQUIPMENT THROUGH ROOF CURBS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
- MECHANICAL CONTRACTOR SHALL FURNISH INTEGRAL DISCONNECT SWITCH FOR ALL MECHANICAL EQUIPMENT. ELECTRICAL CONNECTIONS SHALL BE PROVIDED BY DIVISION 26.
- PROVIDE JUNCTION BOX AND POWER FOR ALL HARD WIRED PLUMBING FLUSH VALVES AND SENSOR EQUIPMENT TRANSFORMERS FROM NEAREST 120V/20A CIRCUIT. COORDINATE WITH PLUMBER PRIOR TO ROUGH-IN FOR EXACT LOCATION.
- ALL RECEPTACLES LOCATED IN RESTROOMS, JANITOR CLOSETS, MECHANICAL ROOMS, ELEVATOR PITTS OR SHAFTS, ELEVATOR EQUIPMENT ROOMS, SERVING ELECTRIC DRINKING FOUNTAINS OR VENDING MACHINES, LOCATED WITHIN 6' OF A SINK, LOCATED ABOVE A WET COUNTERTOP OR IN A KITCHEN OR COFFEE BAR SHALL BE GFCI. EACH GFCI PROTECTED RECEPTACLE SHARING THE SAME CIRCUIT SHALL HAVE ITS OWN RE-SET AND TEST BUTTON.

**KEYED NOTES:**

- #12 WIRE, 3/4" TO NEAREST PANEL. PROVIDE NEW 20A/1P BREAKER AS REQUIRED.
- CONNECT TO EXISTING ELECTRICAL WATER COOLER CIRCUIT. FIELD VERIFY.
- RELOCATE EXISTING ELECTRICAL EQUIPMENT AS REQUIRED TO INSTALL WITHIN NEW ELECTRICAL CLOSET. CONTRACTOR SHALL PROVIDE ALL NECESSARY CONDUIT, FITTING, J-BOXES AND WIRING REQUIRED TO EXTEND ALL CIRCUITS.
- #12 WIRE, 3/4" TO NEAREST PANEL. PROVIDE NEW 20A/2P BREAKER AS REQUIRED FOR ELECTRICAL CONNECTION TO WATER HEATER.
- #12 WIRE, 3/4" TO NEAREST PANEL. PROVIDE NEW 20A/1P BREAKER AS REQUIRED FOR ELECTRICAL CONNECTION TO CIRCULATION PUMP. PUMP SHALL BE CONTROLLED VIA TIME SWITCH. REFER TO PLUMBING SCHEDULE FOR TIME SWITCH TYPE. TIME SWITCH PROVIDED BY ELECTRICAL CONTRACTOR.
- EXTEND CONDUIT AND CIRCUIT WIRING TO RELOCATE VRV CASSETTE.
- EXISTING EXHAUST FAN TO REMAIN.



Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO & ASSOCIATES INC.**

**MEP:**  
**DBR ENGINEERING**



**PSJA ISD**  
**NORTH ECHS**  
**& COLLEGE**  
**AND**  
**UNIVERSITY**  
**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

**KEYPLAN**

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

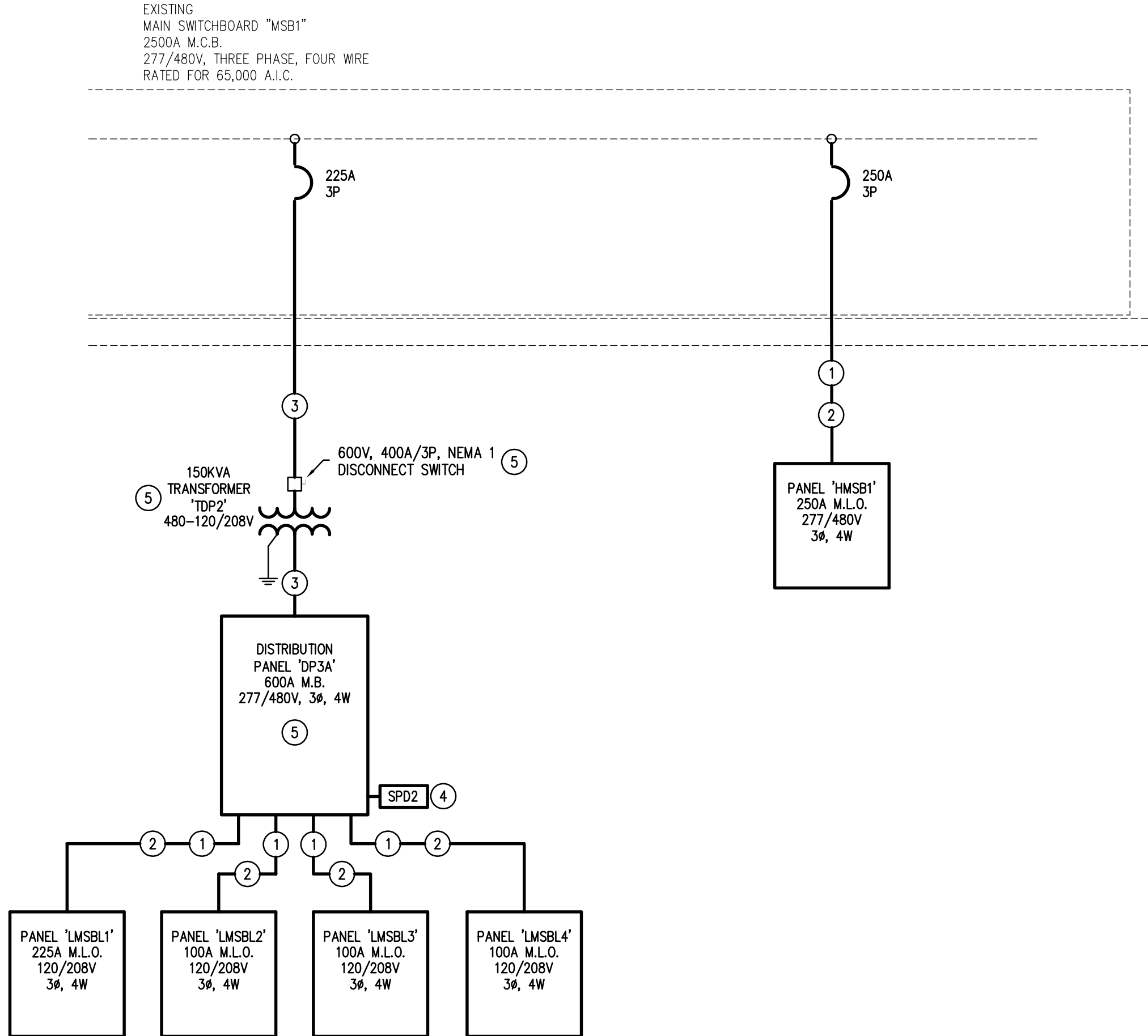
Revisions:

Sheet Title:

**ENLARGED**  
**ELECTRICAL**  
**POWER PLANS**  
**- UNIV. CAMPUS**

**EP2.13U**





### ONE-LINE KEYED NOTES:

- ROUTE CONDUIT AND WIRE IN (OR ON TOP OF) NEW SIDEWALK CANOPY.
- REFER TO FEEDER SCHEDULE FOR FEEDER SIZE REQUIREMENTS. (REFER TO E5.01U)
- REFER TO DRY TYPE 3-PHASE TRANSFORMER FEEDER SCHEDULE FOR FEEDER SIZE REQUIREMENTS (REFER TO E5.01U)
- REFER TO SPD SCHEDULE E5.01U. (TYPICAL)
- LOCATED EQUIPMENT AT EXISTING CENTRAL PLANT FACILITY. FIELD VERIFY EXACT LOCATION OF BUILDING. CONTRACTOR SHALL LOCATE DISCONNECT, TRANSFORMER AND DISTRIBUTION PANEL AT AVAILABLE WALL SPACE.

Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



## PSJA ISD

**NORTH ECHS  
& COLLEGE**

**AND  
UNIVERSITY  
CAMPUS**

**STUDENT  
RESTROOM  
RENOVATIONS**

### KEYPLAN

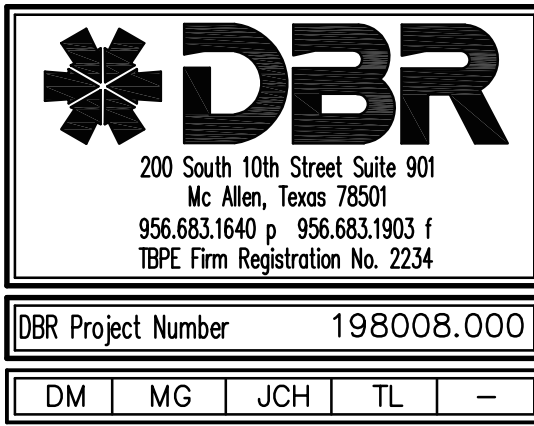
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Drawing Date: 5-10-2019  
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Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

Sheet Title:

**ELECTRICAL  
SINGLE LINE  
DIAGRAM**

**E4.01U**



DBR Project Number		198008.000	
DM	MG	JCH	TL



DRY TYPE 3-PHASE TRANSFORMER FEEDER SCHEDULE									
PRIMARY VOLTAGE				SECONDARY VOLTAGE					
480V, THREE PHASE				120/208V, THREE PHASE, FOUR WIRE					
KVA	FEEDER	CONDUIT	BREAKER	FEEDER	CONDUIT	BREAKER	GND. ELEC. SIZE		
9	3 #12, 1 #12 GND.	3/4" C.	15A/3P	4 #10, 1 #10 GND.	3/4"	30A/3P	#8		
15	3 #10, 1 #10 GND.	3/4" C.	25A/3	4 #6, 1 #10 GND.	1"	60A/3P	#8		
30	3 #8, 1 #10 GND.	1" C.	45A/3P	4 #3, 1 #8 GND.	1 1/4"	100A/3P	#8		
45	3 #4, 1 #8 GND.	1 1/4" C.	70A/3P	4 #1/0, 1 #6 GND.	1 1/2"	150A/3P	#6		
75	3 #1, 1 #6 GND.	1 1/4" C.	125A/3P	4 #250KCMIL, 1 #6 GND.	3"	250A/3P	#2		
112.5	3 #2/0, 1 #6 GND.	1 1/2" C.	175A/3P	4 #500KCMIL, 1 #3 GND.	4"	400A/3P	#1/0		
150	3 #4/0, 1 #4 GND.	2" C.	225A/3P	(2) SETS OF 4 #250KCMIL, 1 #2 GND.	(2) 2 1/2"	500A/3P	#1/0		
225	3 #500KCMIL, 1 #3 GND.	3" C.	350A/3P	(2) SETS OF 4 #500KCMIL, 1 #1/0 GND.	(2) 3 1/2"	800A/3P	#3/0		
300	(2) SETS OF 3 #4/0, 1 #2 GND.	(2) 2 1/2" C.	450A/3P	(3) SETS OF 4 #500KCMIL, 1 #2/0 GND.	(3) 3 1/2"	1000A/3P	#3/0		
400	(2) SETS OF 3 #350 KCMIL, 1 #1 GND.	(2) 2 1/2" C.	600A/3P	(4) SETS OF 4 #500KCMIL, 1 #4/0 GND.	(4) 4"	1600A/1400AT/3P	#3/0		
500	(2) SETS OF 3 #500 KCMIL, 1 #1/0 GND.	(2) 3" C.	800A/3P	(5) SETS OF 4 #500KCMIL, 1 #250KCMIL GND.	(5) 4"	2000A/1800AT/3P	#3/0		
750	(4) SETS OF 3 #350 KCMIL, 1 #3/0 GND.	(4) 2 1/2" C.	1200A/3P	(7) SETS OF 4 #500KCMIL, 1 #350KCMIL GND.	(7) 4"	2500A/3P	#3/0		

SPD SCHEDULE					
MARK	MANUFACTURER	MODEL	RATING PHASE TO PHASE	LIBERT ACCUGUIDE CABLE SIZE	
SPD 1	LIEBERT	560YIC2ANC3S	250 KA	5 #6, 1 1/2" C	
SPD 2	LIEBERT	510YABANA2S	160 KA	5 #10, 1 1/2" C	
SPD 3	LIEBERT	510YCBANA2S	160 KA	5 #6, 1 1/2" C	

FEEDER SCHEDULE									
AMPERAGE	SETS	CONDUCTOR SIZE	CONDUIT (INCHES)	SETS	CONDUCTOR SIZE	CONDUIT (INCHES)			
30A	1	4#10, 1#10 G.	N/A	1	N/A	N/A			
40A	1	4#8, 1#10 G.	1" C	1	N/A	N/A			
50A	1	4#6, 1#10 G.	1" C	1	N/A	N/A			
60A	1	4#6, 1#10 G.	1" C	1	N/A	N/A			
70A	1	4#4, 1#8 G.	1 1/4" C	1	N/A	N/A			
80A	1	4#4, 1#8 G.	1 1/4" C	1	N/A	N/A			
90A	1	4#3, 1#8 G.	1 1/4" C	1	N/A	N/A			
100A	1	4#3, 1#8 G.	1 1/4" C	1	N/A	N/A			
125A	1	4#1, 1#6 G.	1 1/2" C	1	N/A	N/A			
150A	1	4#1/0, 1#6 G.	1 1/2" C	1	N/A	N/A			
175A	1	4#2/0, 1#6 G.	2" C	1	N/A	N/A			
200A	1	4#2/0, 1#6 G.	2" C	1	4#250KCMIL, 1#4G.	2 1/2" C			
225A	1	4#4/0, 1#4 G.	2 1/2" C	1	4#300KCMIL, 1#2G.	3" C			
250A	1	4#250KCMIL, 1#4 G.	2 1/2" C	1	4#350KCMIL, 1#2G.	3" C			
300A	1	4#350KCMIL, 1#4 G.	3" C	1	4#500KCMIL, 1#2G.	4" C			
350A	1	4#500KCMIL, 1#3 G.	3 1/2" C	2	4#4/0, 1#1G.	2 1/2" C			
400A	1	4#500KCMIL, 1#3 G.	4" C	2	4#250KCMIL, 1#1G.	2 1/2" C			
450A	2	4#4/0, 1#2 G.	2 1/2" C	2	4#300KCMIL, 1#1/0G.	3" C			
500A	2	4#250KCMIL, 1#2G.	2 1/2" C	2	4#350KCMIL, 1#1/0G.	3" C			
600A	2	4#350KCMIL, 1#1G.	3" C	2	4#500KCMIL, 1#2/0G.	3" C			
700A	2	4#500KCMIL, 1#1/0G.	4" C	3	4#350KCMIL, 1#3/0G.	3" C			
800A	2	4#600KCMIL, 1#1/0G.	4" C	3	4#400KCMIL, 1#3/0G.	3" C			
1000A	3	4#500KCMIL, 1#2/0G.	4" C	4	4#350KCMIL, 1#4/0G.	4" C			
1200A	4	4#350KCMIL, 1#3/0G.	3" C	4	4#500KCMIL, 1#250KCMIL G.	4" C			
1600A	4(600) OR 5(500)	4#600KCMIL, 1#4/0G. OR 4#500KCMIL, 1#4/0G.	4" C	5	4#750KCMIL, 1#350KCMIL G.	4" C			
2000A	5(600) OR 6(500)	4#600KCMIL, 1#250KCMIL G. OR 4#500KCMIL, 1#250KCMIL G.	4" C	6	4#750KCMIL, 1#400KCMIL G.	4" C			
2500A	6(600) OR 7(500)	4#600KCMIL, 1#350KCMIL G. OR 4#500KCMIL, 1#350KCMIL G.	4" C	7	4#750KCMIL, 1#600KCMIL G.	4" C			
3000A	8(500)	4#500KCMIL, 1#400KCMIL G.	4" C	8	4#750KCMIL, 1#600KCMIL G.	4" C			
3500A	9(600) OR 10(500)	4#600KCMIL, 1#500KCMIL G. OR 4#500KCMIL, 1#500KCMIL G.	4" C	10	4#750KCMIL, 1#750KCMIL G.	4" C			
4000A	10(600) OR 11(500)	4#600KCMIL, 1#500KCMIL G. OR 4#500KCMIL, 1#500KCMIL G.	4" C	11	4#750KCMIL, 1#750KCMIL G.	4" C			
5000A	12(600) OR 14(500)	4#600KCMIL, 1#700KCMIL G. OR 4#500KCMIL, 1#700KCMIL G.	4" C	13	4#750KCMIL, 2#600KCMIL G.	5" C			

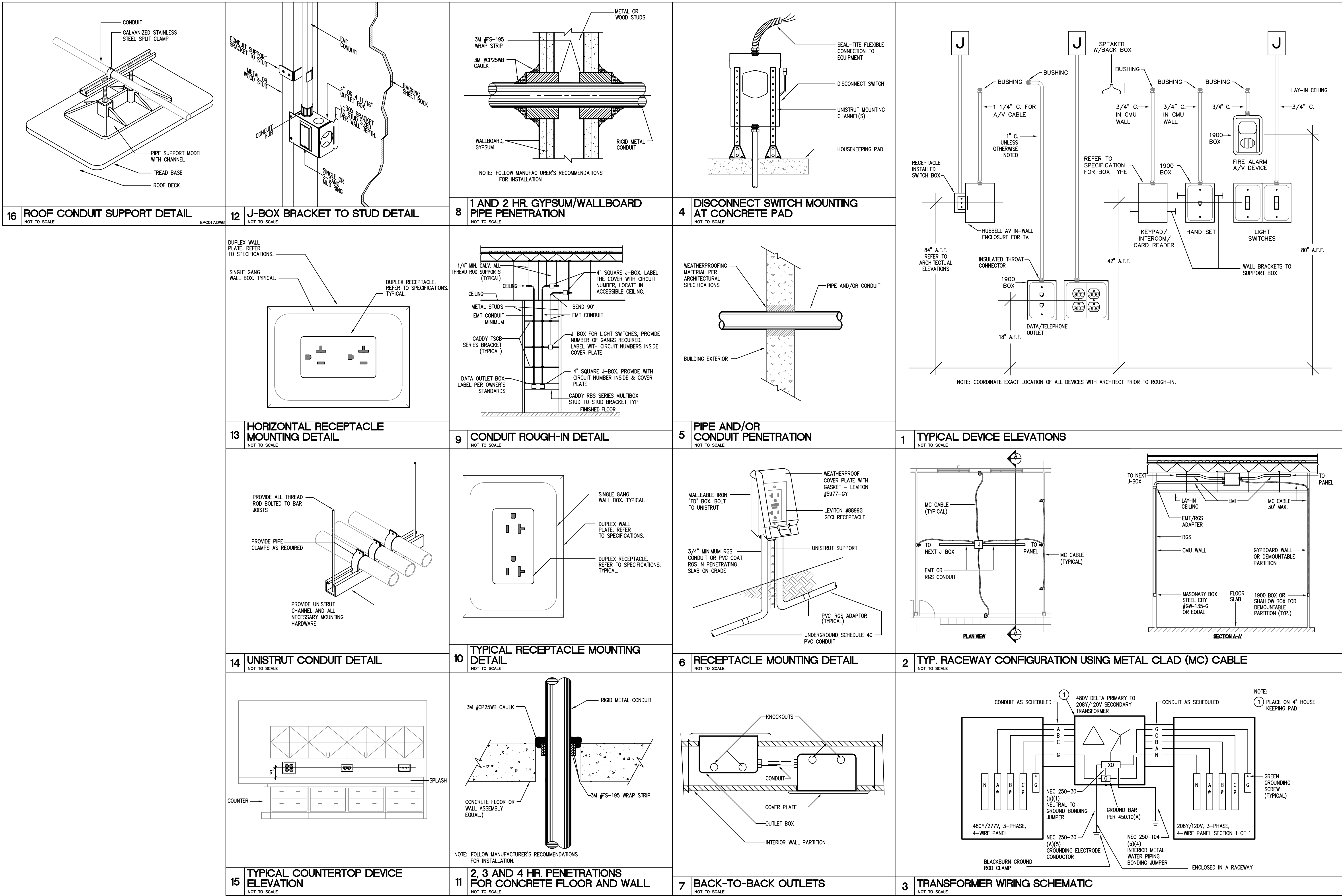
- ALUMINUM CONDUCTORS SHALL BE COMPRESSION TYPE CONDUCTORS AND SHALL USE PENETROX WITH COMPRESSION TERMINATION FITTINGS.
- ALUMINUM FEEDERS ARE NOT APPROVED FOR USE ON THE FOLLOWING:
  - CHILLERS
  - TRANSFORMER SECONDARY
  - ELEVATORS
  - VARIABLE FREQUENCY DRIVE
- ELECTRICAL CONTRACTOR SHALL PROVIDE THE NUMBER OF LUGS AND PROPER LUG SIZES TO ACCEPT CONDUCTOR SIZES SHOWN.
- GROUND NOT REQUIRED AT SERVICE LATERAL.
- ALUMINUM CONDUCTORS MAY BE USED FOR FEEDERS RATED FOR GREATER THAN 200 AMPS EXCEPT FOR EQUIPMENT LOADS. ALL MOTORS, CHILLERS, ETC. SHALL REQUIRE THE USE OF COPPER CONDUCTORS ONLY.

Panelboard DP3A									
42,000 AIC Rating Existing X New									
120/208 Volt, 3-Phase, 4-Wire 1 Section 1 -Nema Rating				X	MCB MLO	0 AMP MCB AMP BUS (Copper)	600	X	Single Double Feed - Thru
Notes	Load (VA)	Description	Type	Wire	CB	OKT #	OKT #	CB	Wiring
12310		PANEL 'LMSBL1'	SP	3/0	200/3	3 B 4	100/3	3	SP
12338		PANEL 'LMSBL2'	SP						SP
12350		PANEL 'LMSBL3'	SP						SP
9880		PANEL 'LMSBL4'	SP						SP
9880		SPACE							SPACE
9880		SPACE							SPACE
9880		SPACE							SPACE
76.198		Subtotal							50.376
N.E.C. (2011)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2011)	Load Type	Conn.	Fct.	Diversity
220.44	(R) Recept.	0	100%	0	220.12	(L) Lighting	0	125%	0
220.56	(K) Kitchen	0	0%	0	220.12	(E) Ext. Ltg.	0	125%	0
220.60	(C) Cooling	0	0%	0	620.14	(E) Elevators	0	100%	0
220.60	(H) Heating	0	0%	0		(WH) Water Ht.	0	100%	0
220.60	(F) Fans	0	100%	0	220.5	(MT) Lrg. Mot.	0	125%	0
630.11	(W) Welders	0	0%	0		(SP) Sub Panel	126.574	100%	126.574
	(M) Misc.	0	100%	0					
Total Connected Load =				126.574 VA =	351.6 AMPS	Location of Panel:			
Total Load (Diversified) =				126.574 VA =	351.6 AMPS				

Panelboard LMSBL3									
10,000 AIC Rating Existing X New									
120/208 Volt, 3-Phase, 4-Wire 1 Section 1 -Nema Rating				X	MCB MLO	0 AMP MCB AMP BUS (Copper)	100	X	Single Double Feed - Thru
Notes	Load (VA)	Description	Type	Wire	CB	OKT #	OKT #	CB	Wiring
900		RM116-FRONT COUNT.	R	12	20/1	1 A 2	20/1	12	R
900		RM116-FRONT COUNT.	R	12	20/1	3 B 4	20/1	12	R
900		RM116-TEACHERS STA.	R	12	20/1	5 C 6	20/1	12	R
720		RM116-TVS	R	12	20/1	7 A 8	20/1	12	R
900		RM116-REAR COUNT.	R	12	20/1	9 B 10	20/1	12	R
900		RM116-REAR COUNT.	R	12	20/1	11 C 12	20/1	12	R
900		RM116-REAR COUNT.	R	12	20/1	13 A 14	20/1	12	R
900		RM116-STUDENT STA.	R	12	20/1	15 B 16	20/1	12	R
900		RM116-STUDENT STA.	R	12	20/1	17 C 18	20/1	12	R
900		RM116-STUDENT STA.	R	12	20/1	19 A 20	20/1	12	R
380		PREP114	R	12	20/1	21 B 22	20/1	12	R
380		PREP114	R	12	20/1	23 C 24	20/1	12	R
500		DI-1	R	12	20/1	25 A 26	20/1	12	R
500		DI-1	R	12	20/1	27 B 28	20/1	12	R
500		WBSU-1	MT	12	20/1	29 C 30	20/1	12	R
180		LAB UTILITY CONTROL	M	12	20/1	31 A 32	20/1	12	R
		SPARE BREAKER		12	20/1	33 B 34	20/1	12	R
		SPARE BREAKER		12	20/1	35 C 36	20/1	12	R
		SPARE BREAKER		12	20/1	37 A 38	20/1	12	R
		SPARE BREAKER		12	20/1	39 B 40	20/1	12	R
		SPARE BREAKER		12	20/1	41 C 42	20/1	12	R
11.220		Subtotal							18.900
N.E.C. (2011)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2011)	Load Type	Conn.	Fct.	Diversity
220.44	(R) Recept.	28.440	0	19.720	220.12	(L) Lighting	0	125%	0
220.56	(K) Kitchen	0	100%	0	220.12	(E) Ext. Ltg.	0	125%	0
220.60	(C) Cooling	0	0%	0	620.14	(E) Elevators	0	100%	0
220.60	(H) Heating	0	0%	0		(WH) Water Ht.	0	100%	0
220.60	(F) Fans	0	100%	0	220.5	(MT) Lrg. Mot.	500	125%	625
630.11	(W) Welders	0	0%	0		(SP) Sub Panel	0	100%	0
	(M) Misc.	180	100%	180					
Total Connected Load =				30.120 VA =	83.7 AMPS	Location of Panel:			
Total Load (Diversified) =				20.525 VA =	57.0 AMPS				

Panelboard LMSBL4										10,000 AIC Rating			
										Existing			
										X New			
120/208 Volt, 3-Phase, 4-Wire 1 Section -Nema Rating				MCB X MLO		0 AMP MCB 100 AMP BUS (Copper)		X Single Double Feed - Thru		Mounting Surface X Flush			
Notes	Load (VA)	Description	Type	Wire	CB	OKT #	OKT #	CB	Wire	Type	Description	Load (VA)	Notes
	720	RM116	R	12	20/1	1 A	2	20/1	12	R	RM122-COMPUTERS	720	
	900	RM116-ICE MAKER	R	12	20/1	3 B	4	20/1	12	R	RM122-COMPUTERS	720	
	900	RM116-REFRIGERATOR	R	12	20/1	5 C	6	20/1	12	R	RM122-COMPUTERS	720	
	180	RM117-FRONT COUNT.	R	12	20/1	7 A	8	20/1	12	R	RM122-COMPUTERS	720	
	180	RM117-FRONT COUNT.	R	12	20/1	9 B	10	20/1	12	R	RM122-COMPUTERS	720	
	360	RM117-TEACHERS STA.	R	12	20/1	11 C	12	20/1	12	R	RM122-COMPUTERS	720	
	720	RM117-STUDENT STA.	R	12	20/1	13 A	14	20/1	12	R	RM122-COMPUTERS	720	
	720	RM117-STUDENT STA.	R	12	20/1	15 B	16	20/1	12	R	RM122-COMPUTERS	720	
	720	RM117-STUDENT STA.	R	12	20/1	17 C	18	20/1	12	R	RM122-COMPUTERS	720	
	720	RM117-STUDENT STA.	R	12	20/1	19 A	20	20/1	12	R	RM122-COMPUTERS	720	
	720	RM117-STUDENT STA.	R	12	20/1	21 B	22	20/1	12	R	RM122-COMPUTERS	720	
	720	RM117-STUDENT STA.	R	12	20/1	23 C	24	20/1	12	R	RM122-COMPUTERS	720	
	360	RM117	R	12	20/1	25 A	26	20/1	12	MT	EF-U-6	528	
	360	RM117	R	12	20/1	27 B	28	20/1	12		SPARE BREAKER		
		SPARE BREAKER		12	20/1	29 C	30	20/1	12		SPARE BREAKER		
		SPARE BREAKER		12	20/1	31 A	32	20/1	12		SPARE BREAKER		
		SPARE BREAKER		12	20/1	33 B	34	20/1	12		SPARE BREAKER		
		SPARE BREAKER		12	20/1	35 C	36	20/1	12		SPARE BREAKER		
		SPARE BREAKER		12	20/1	37 A	38	20/1	12		SPARE BREAKER		
		SPARE BREAKER		12	20/1	39 B	40	20/1	12		SPARE BREAKER		
		SPARE BREAKER		12	20/1	41 A	42	20/1	12		SPARE BREAKER		
	8,290	Subtotal									Subtotal	9,168	
N.E.C. (2011)													
220.44	(R) Receipt	Conn.	Fct.	Diversity	N.E.C. (2011)	Load Type		Conn.	Fct.	Diversity			
220.44	(K) Kitchen	0	100%	0	13,460	(L) Lighting		0	125%	0			
220.56	(C) Cooling	0	100%	0		(E) Elev.		0	125%	0			
220.60	(H) Heating	0	0%	0	620.14	(W) Water Ht.		0	100%	0			
220.60	(F) Fans	0	100%	0	220.5	(MT) Lpg. Mot.		528	125%	660			
630.11	(W) Welders	0	100%	0		(SP) Sub Panel		0	100%	0			
	(M) Misc.	0	100%	0									
Total Connected Load = 17,448 VA = 48.5 AMPS													
Total Load (Diversified)= 14,120 VA = 39.2 AMPS													
Location of Panel:													





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**NORTH ECHS**  
**& COLLEGE**  
**AND**  
**UNIVERSITY**  
**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

**KEYPLAN**

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

Sheet Title:

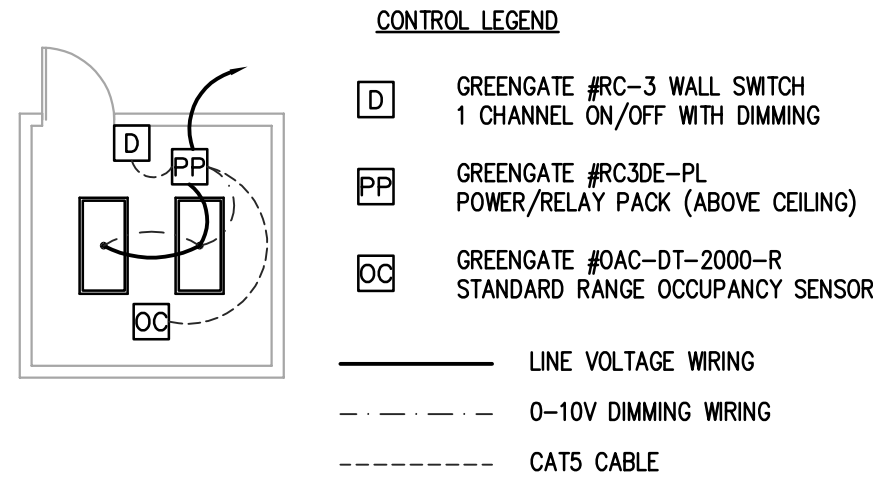
**ELECTRICAL**  
**DETAILS**



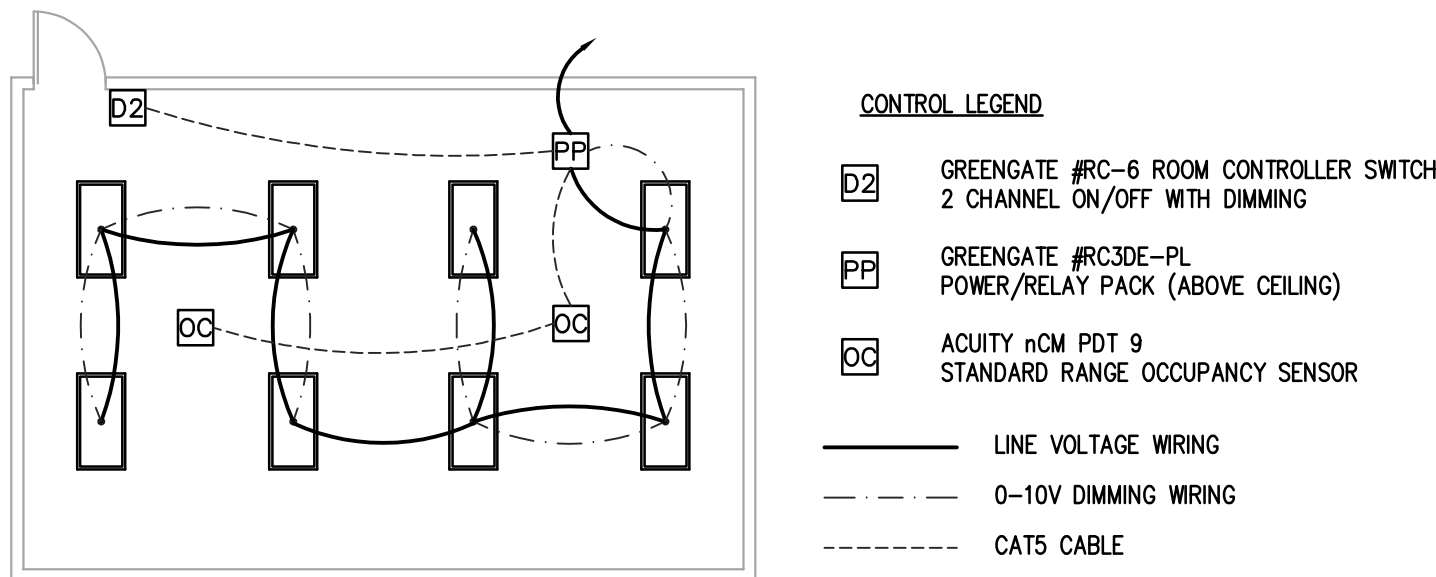
DBR Project Number 198008.000  
DM MG JCH TL

**E6.01U**

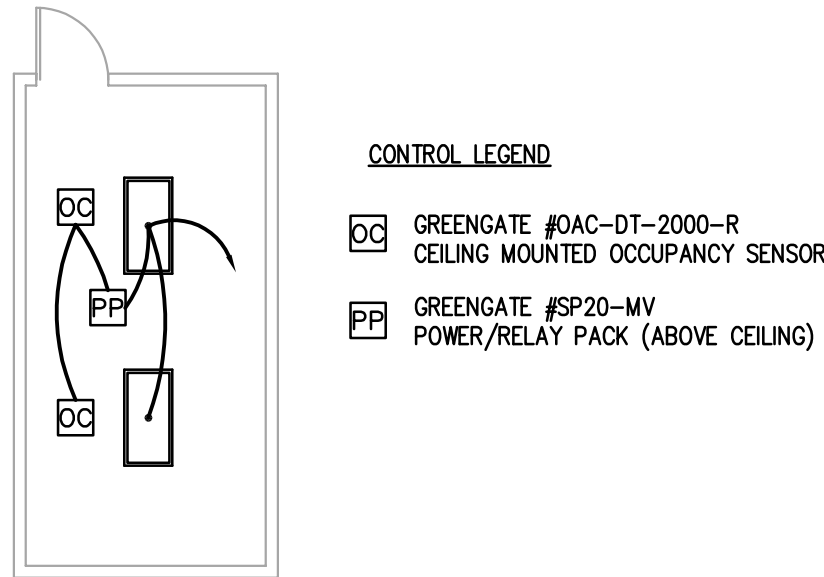




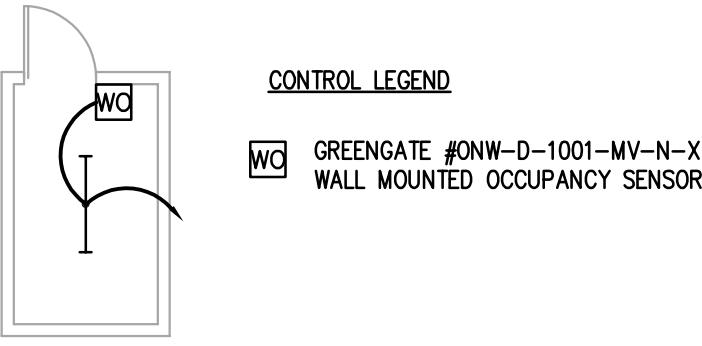
**1** TYPICAL OFFICE LIGHTING CONTROL DETAIL  
E6.02U N.T.S.



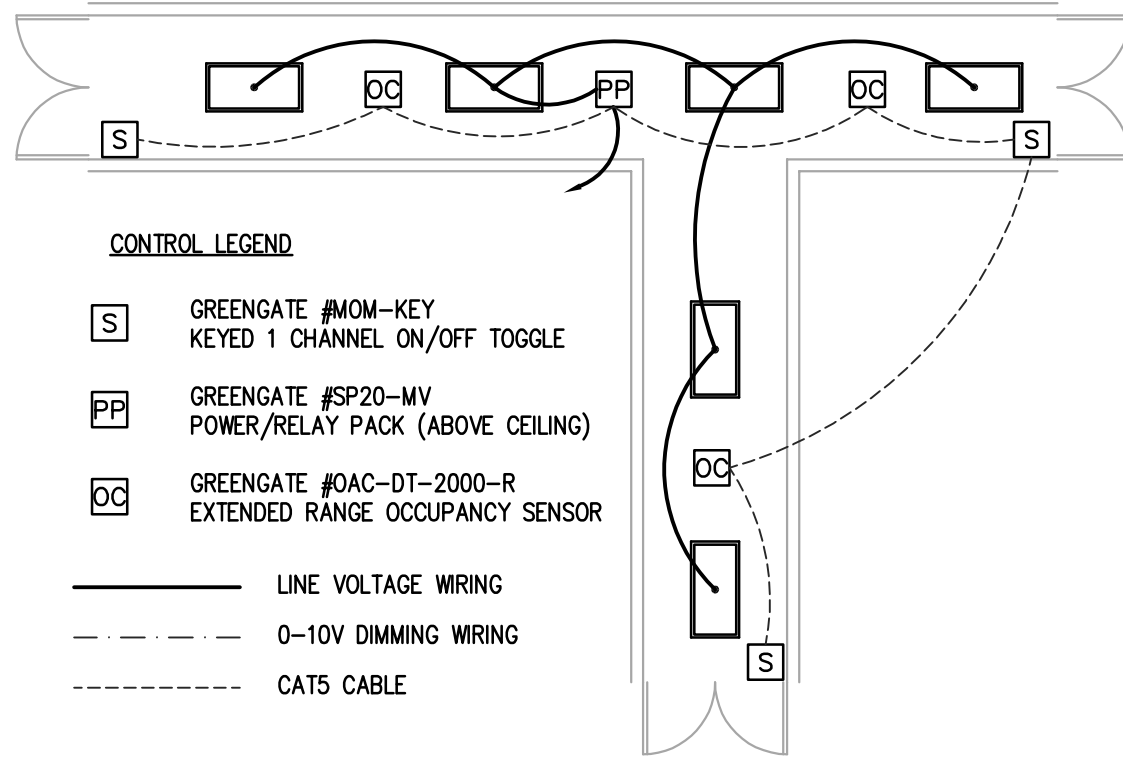
**2** TYPICAL CLASSROOM/LARGE ROOM LIGHTING CONTROL DETAIL  
E6.02U N.T.S.



**3** TYPICAL RESTROOM LIGHTING CONTROL DETAIL  
E6.02U N.T.S.



**4** TYPICAL UTILITY ROOM LIGHTING CONTROL DETAIL  
E6.02U N.T.S.



**5** TYPICAL CORRIDOR LIGHTING CONTROL DETAIL  
E6.02U N.T.S.

Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



**PSJA ISD**  
**NORTH ECHS**  
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**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

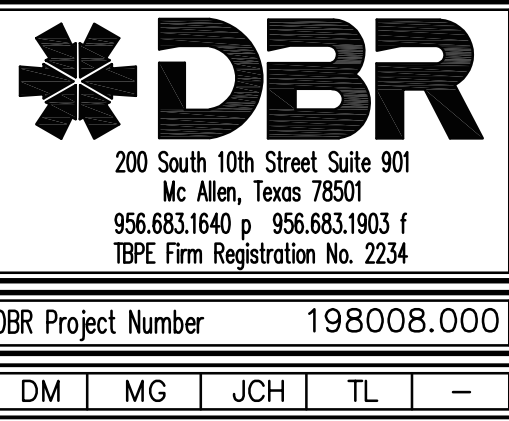
## KEYPLAN

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:

Sheet Title:

**ELECTRICAL**  
**DETAILS**



**E6.02U**



# PLUMBING SYMBOLS AND ABBREVIATIONS

(NOT ALL ITEMS INDICATED APPLY TO THIS PROJECT)

ABBREVIATIONS				SYMBOLS		MISCELLANEOUS	
A		F		N		U	
A	AIR (COMPRESSED)	F	FARENHEIT, FIRE	N.C.	NORMALLY CLOSED	U	URINAL
ABV	ABOVE	FBO	FURNISHED BY OTHERS	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	UCD	UNDER CUT DOOR
AC	ABOVE CEILING	FCD	FLOOR CLEAN OUT	NIC	NOT IN CONTRACT	UG	UNDERGROUND
AD	ACCESS DOOR, AREA DRAIN	FCS	FLOOR CONTROL STATION	N.O.	NORMALLY OPEN	UH	UNIT HEATER
ADJ	ADJUSTABLE	FD	FLOOR DRAIN, FIRE DAMPER	N.O.	NORMALLY OPEN	UL	UNDERWRITERS LABORATORIES, INC.
AF	ABOVE FINISHED FLOOR	FDSC	FIRE DEPARTMENT SIAMESE CONNECTION	NO.	NUMBER	UNO	UNLESS NOTED OTHERWISE
AFG	ABOVE FINISHED GRADE	FDV	FIRE DEPARTMENT VALVE	NTS	NOT TO SCALE	U/F	UNDERFLOOR
AHU	AIR HANDLING UNIT	FH	FIRE HYDRANT			U/S	UNDERSLAB
AL	ALUMINUM	FHC	FIRE HOSE CABINET	O			
AP	ACCESS PANEL	FHR	FIRE HOSE RACK	OC	ON CENTER		
ARCH	ARCHITECT, ARCHITECTURAL	FIXT	FIXTURE	OD	OUTSIDE DIAMETER, OVERFLOW DRAIN		
AS	AIR SEPARATOR	FLX	FLEXIBLE	OFU	OUTSIDE AIR FAN COIL UNIT		
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS	FL	FLOW LINES	OPG	OPENING		
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS	FP	FIRE PUMP	OS&Y	OPEN STEM AND YOLK		
AV	ACID VENT	FRZR	FREEZER	O	MEDICAL OXYGEN		
AVG	AVERAGE	FS	FLOW SWITCH, FIRE SPRINKLER	P			
AW	ACID WASTE	FSK	FLOOR SINK	P	PUMP, PLUMBING EQUIPMENT		
AWS	AMERICAN WELDING SOCIETY	FT	FOOT, FEET	PC	PLUMBING CONTRACTOR		
AUX	AUXILIARY	FUT	FUTURE	PD	PRESSURE DROP, PLANTER DRAIN		
				PH	PHASE, POST HYDRANT		
				PIV	POST INDICATOR VALVE		
				PLBG	PLUMBING		
				PNEU	PNEUMATIC		
				PNL	PANEL		
				PNTH	PENTHOUSE		
				PP	POLYPROPYLENE		
				PPM	PART PER MILLION		
				PR	PRIMARY		
				PRS	PRESSURE REDUCING STATION		
				PRV	PRESSURE REDUCING VALVE		
				PSF	POUNDS PER SQUARE FOOT		
				PSI	POUNDS PER SQUARE INCH		
				PSG	POUNDS PER SQUARE INCH GAUGE		
				PV	PLUMBING TRIM		
				PVC	POLYVINYL CHLORIDE		
B		G		Q		Y	
B	BOILER	G	GAS	QTY	QUANTITY	Y	YARD HYDRANT
BC	BELOW COUNTER	GA	GAUGE				
B/C	BACK OF CURB	GAL	GALLON	R		Z	
BF	BELOW FLOOR	GALV	GALVANIZED	ROP	REFLECTED CEILING PLAN, REINFORCED CONCRETE PIPE	Z	ZONE
BFV	BUTTERFLY VALVE	GC	GENERAL CONTRACTOR	RD	ROOF DRAIN		
BH	BOX HYDRANT	GLV	GLOBE VALVE	RE	REFERENCE,REFER		
BLDG	BUILDING	GND	GROUND	REORG	REIRCULATE		
BM	BENCHMARK	GPD	GALLONS PER DAY	RED	REDUCER		
BOF	BOTTOM OF FOOTING	GPH	GALLONS PER HOUR	REFR	REFRIGERATOR		
BOS	BOTTOM OF STRUCTURE	GPM	GALLONS PER MINUTE	REINF	REINFORCING		
BT	BATH TUB	GV	GATE VALVE	REQD	REQUIRED		
BTU	BRITISH THERMAL UNIT	H		REV	REVISION, REVISE		
BV	BALL VALVE	HB	HOSE BIBB	RM	ROOM		
BWV	BACK WATER VALVE	HD	HEAD, HUB DRAIN	RPM	REVOLUTIONS PER MINUTE		
		HORIZ	HORIZONTAL	RTU	ROOFTOP UNIT		
		HP	HORSEPOWER	RV	RELIEF VALVE		
		HWP	HOUSEKEEPING PAD	S			
		HSC	HORIZONTAL SPLIT CASE	SCHED SD	SCHEDULED STORM DRAIN		
		HT	HEIGHT	SE	SEWAGE EJECTOR		
		HTR	HEATER	SEC	SECONDARY		
		HW	HOT WATER	SECT	SECTION		
		HWR	HOT WATER RETURN	SF	SQUARE FEET		
		HWS	HOT WATER SUPPLY	SFCS	SPRINKLER FLOOR CONTROL STATION		
		HZ	HERTZ	SH	SHOWER		
C		I		SHT	SHEET		
C	CELSIUS	ID	INSIDE DIAMETER	SH	SIMILAR		
CAB	CABINET	IE	INVERT ELEVATION	SK	SINK		
CB	CATCH BASIN	IN	INCH	SP	SUMP PUMP, STATIC PRESSURE		
CD	CONDENSATE DRAIN LINE	INSUL	INSULATION	SPEC	SPECIFICATION		
CFM	CUBIC FEET PER MINUTE	IW	INDIRECT WASTE	SPR	SPRINKLER		
CFS	CUBIC FEET PER SECOND	J		SQ	SQUARE		
CH	CHILLER	J.P	JOCKEY PUMP	SS	SERVICE SINK		
CP	CIRCULATING PUMP			SSD	SUBSURFACE DRAIN		
C	CAST IRON			SSFU	SANITARY SEWER FIXTURE UNITS		
CIRC	CIRCULATING			STD	STANDARD		
CL	CENTERLINE			STL	STEEL		
CLG	CEILING			STR	STRAINER		
CLR	CLEAR			SURF	SURFACE		
CMU	CONCRETE MASONRY UNIT			SUSP	SUSPEND		
CPI	CAST IRON PIPE INSTITUTE			SV	SANITARY VENT		
CPVC	CHLORINATED POLYVINYL CHLORIDE			SW	SOFT WATER		
CO	CLEAN OUT	K					
COL	COLUMN	KEC	KITCHEN EQUIPMENT CONTRACTOR				
COMB	COMBINATION	KD	KNOCKOUT				
COMP	COMPRESSOR	KVA	KILOVOLT-AMPS				
CONC	CONCRETE, CONCENTRIC	KW	KILOWATT				
CONN	CONNECTION	L					
CONT	CONTINUOUS,CONTINUATION	L	LENGTH, LAVATORY				
CONTR	CONTROLLER, CONTRACTOR	LAV	LAVATORY				
CRAC	COMPUTER ROOM A/C UNIT	LF	LINEAR FEET				
CTR	CENTER	LP	LOW PRESSURE				
CU	COPPER	LRA	LOCKED ROTOR AMPS				
CW	COLD WATER	LVL	LEVEL				
		LWCO	LOW WATER OUT OFF				
D		M		T			
D	DEPTH, DRAIN, DRYER	MAX	MAXIMUM	TD	TRENCH DRAIN		
DESIG	DESIGNATION	MTUH	THOUSAND OF BTU'S	TDH	TOTAL DYNAMIC HEAD		
DTL	DETAIL	MC	MECHANICAL CONTRACTOR	TH BLK	THRUST BLOCK		
DF	DRINKING FOUNTAIN	MFR	MANUFACTURER	TP	TRAP PRIMER		
DIA	DIAMETER	MH	MANHOLE	TPD	TRAP PRIMER DEVICE		
DM	DIMENSION	MI	MILE	TPP	TYPICAL		
DISC	DISCONNECT	MIN	MINIMUM				
DN	DOWN	MOP	MEDIUM PRESSURE				
DS	DOWNSPOUT, DOUBLE SUCTION	MTD	MOUNTED				
DW	DISHWASHER	MU	MAKE-UP				
DWG	DRAWING						
DWH	DOMESTIC WATER HEATER						
DWP	DOMESTIC WATER PUMP						
E							
EA	EACH						
EC	ELECTRICAL CONTRACTOR						
ECC	ECCENTRIC						
EDF	ELECTRIC DRINKING FOUNTAIN						
EFF	EFFICIENCY						
EJ	EXPANSION JOINT						
EL	ELEVATION						
ELEC	ELECTRICAL						
ELEV	ELEVATOR						
EMERG	EMERGENCY						
ENCL	ENCLOSURE						
ENGR	ENGINEER						
EQ	EQUAL						
EQUIP	EQUIPMENT						
ET	EXPANSION TANK						
ETR	EXISTING TO REMAIN						
EXT	EXTERNAL						
EXTG	EXISTING						

Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO &  
ASSOCIATES INC.

MEP:  
DBR ENGINEERING



PSJA ISD  
NORTH ECHS  
& COLLEGE  
AND  
UNIVERSITY  
CAMPUS  
STUDENT  
RESTROOM  
RENOVATIONS

## KEYPLAN

Project Number: 19-04  
Drawing Date: 5-10-2019  
Drawn: AL  
Checked: JM  
Scale: 1/4" = 1'-0"  
ACAD File: A-240-U

Revisions:


Sheet Title:

PLUMBING  
LEGENDS



DBR Project Number		198008.000		
DM	MG	JCH	TL	—

P-000U



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**1** COMPOSITE PLUMBING DEMOLITION PLAN - UNIVERSITY CAMPUS  
PD-210U 3/32"=1'-0"

- GENERAL NOTES:**
- (A) SIZES AND LOCATION OF EXISTING PIPINGS SHOWN WERE TAKEN FROM ENGINEERING PLANS FROM WHICH EXISTING SYSTEMS WERE INSTALLED. CONTRACTOR NEED TO FIELD VERIFY EXACT SIZES, CONDITIONS AND LOCATIONS OF INDICATED EXISTING UTILITIES.
  - (B) ALL FIXTURES, EQUIPMENT AND PLUMBING LINES SHOWN WITH (E) ARE EXISTING TO REMAIN, UNLESS NOTED OTHERWISE.
  - (C) THE CONTRACTOR IS FULLY RESPONSIBLE FOR PERFORMING ALL WORK UNDER THIS SECTION OF THE PROJECT IN FULL COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES INCLUDING THOSE PUBLISHED BY OSHA AND EPA.
  - (D) THE EXTENT OF DEMOLITION WORK IS INDICATED ON THE ARCHITECTURAL DRAWINGS AND BY THE REQUIREMENTS OF THIS SECTION. A VISIT TO THE SITE WILL BE REQUIRED PRIOR TO BIDDING. CONTRACTOR SHALL IDENTIFY/VERIFY ALL PLUMBING LINES BEFORE STARTING ANY DEMOLITION WORK.
  - (E) CUTTING OF CONCRETE FLOORS SHALL BE BY MACHINE SAW, HOLES FOR PIPES (WALL OR FLOOR) SHALL BE DONE WITH CORE DRILLING EQUIPMENT WITH PRIOR APPROVAL FROM THE STRUCTURAL ENGINEERS. PATCH AND SEAL OPENINGS AS REQUIRED. COORDINATE ALL CUTTING AND PATCHING WITH OTHER TRADES.
  - (F) ALL EXISTING PLUMBING FIXTURES AND EQUIPMENT REMOVED DURING CONSTRUCTION THAT ARE NOT TO BE REUSED SHALL BE REMOVED FROM THE JOB SITE AND PROPERLY RETURNED TO THE OWNER, IF DESIRED BY OWNER.
  - (G) PROVIDE ALL WORK REQUIRED FOR THE REMOVAL OF FIXTURES TO BE DEMOLISHED AND INSTALLATION OF NEW FIXTURES AND ASSOCIATED SERVICES TO PROVIDE A COMPLETE AND OPERABLE SYSTEM UPON COMPLETION OF THE PROJECT.
  - (H) PLUMBING CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW THE ARCH. DOCUMENTS IN ADDITION TO THE DIVISION 22, 23 AND 26 DOCUMENTS TO DETERMINE THE COMPLETE SCOPE OF WORK.
  - (I) COORDINATE DEMOLITION OF DIVISION 22 SYSTEMS AS REQUIRED WITH ALL OTHER TRADES.
  - (J) ALL EXISTING EXTERIOR GAS LINES IN THE CAMPUS TO REMAIN, UNLESS NOTED OTHERWISE.
  - (K) ALL EXISTING ROOF DRAINS, GUTTERS AND DOWNSPOUTS TO REMAIN, UNLESS NOTED OTHERWISE.
- PLUMBING DEMO KEYED NOTES:**
- (1) REMOVE ALL EXISTING PLUMBING FIXTURES AND PLUMBING EQUIPMENT INCLUDING ALL ASSOCIATED PLUMBING LINES AND APPURTENANCES. REFER TO ARCHITECTURAL PLANS AND ENLARGED PLUMBING PLANS (SHEETS P-211-U AND P-212-U) FOR NEW WORK.
  - (2) REMOVE ALL LAB FIXTURES AND EQUIPMENTS INCLUDING ALL ASSOCIATED PLUMBING LINES AND APPURTENANCES. REFER TO ARCHITECTURAL PLANS AND ENLARGED PLUMBING PLANS (SHEETS P-211-U AND P-211-U) FOR NEW WORK.

**DBR**  
200 South 10th Street Suite 901  
Mc Allen, Texas 78501  
956.683.1940 • 956.683.1903 f  
TBP Firm Registration No. 2234

DBR Project Number 198008.000

DM	MG	JCH	TL	—
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Consultants:

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**MEP:**  
DBR ENGINEERING



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**KEYPLAN**

Project Number: 19.04  
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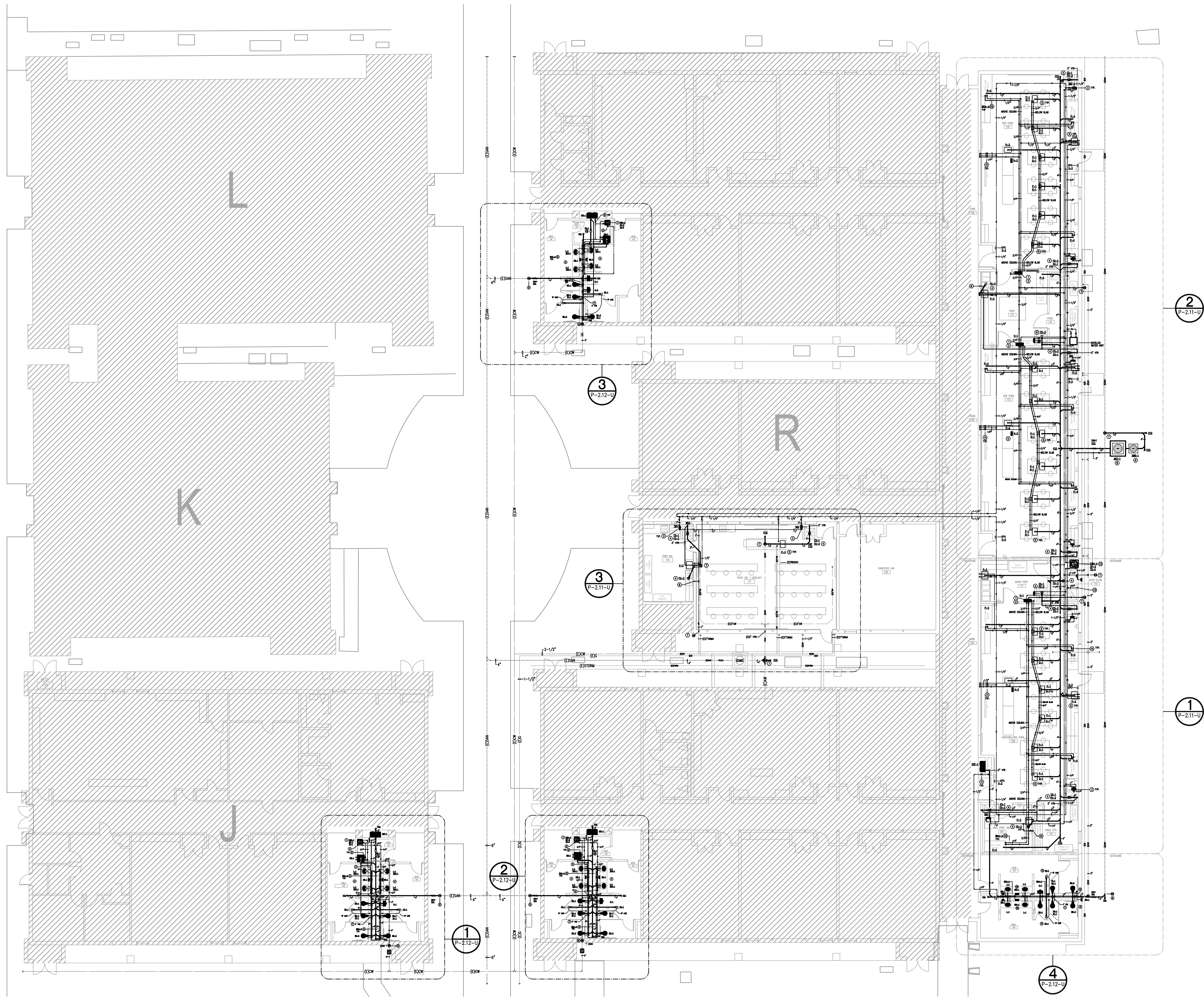
Revisions:

Sheet Title:

**COMPOSITE**  
**PLUMBING**  
**DEMO PLAN -**  
**UNIV. CAMPUS**

**PD-210U**





1 COMPOSITE PLUMBING PLAN - UNIVERSITY CAMPUS  
3/32"=1'-0"

**DBR**  
200 South 10th Street Suite 901  
Mc Allen, Texas 78501  
956.683.1040 • 956.683.1903 f  
TBPB Firm Registration No. 2234

DBR Project Number 198008.000

DM	MG	JCH	TL	—
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Consultants:

**CIVIL:**  
MELDEN & HUNT

**STRUCTURAL:**  
GREEN, RUBIANO &  
ASSOCIATES INC.

**MEP:**  
DBR ENGINEERING



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**KEYPLAN**

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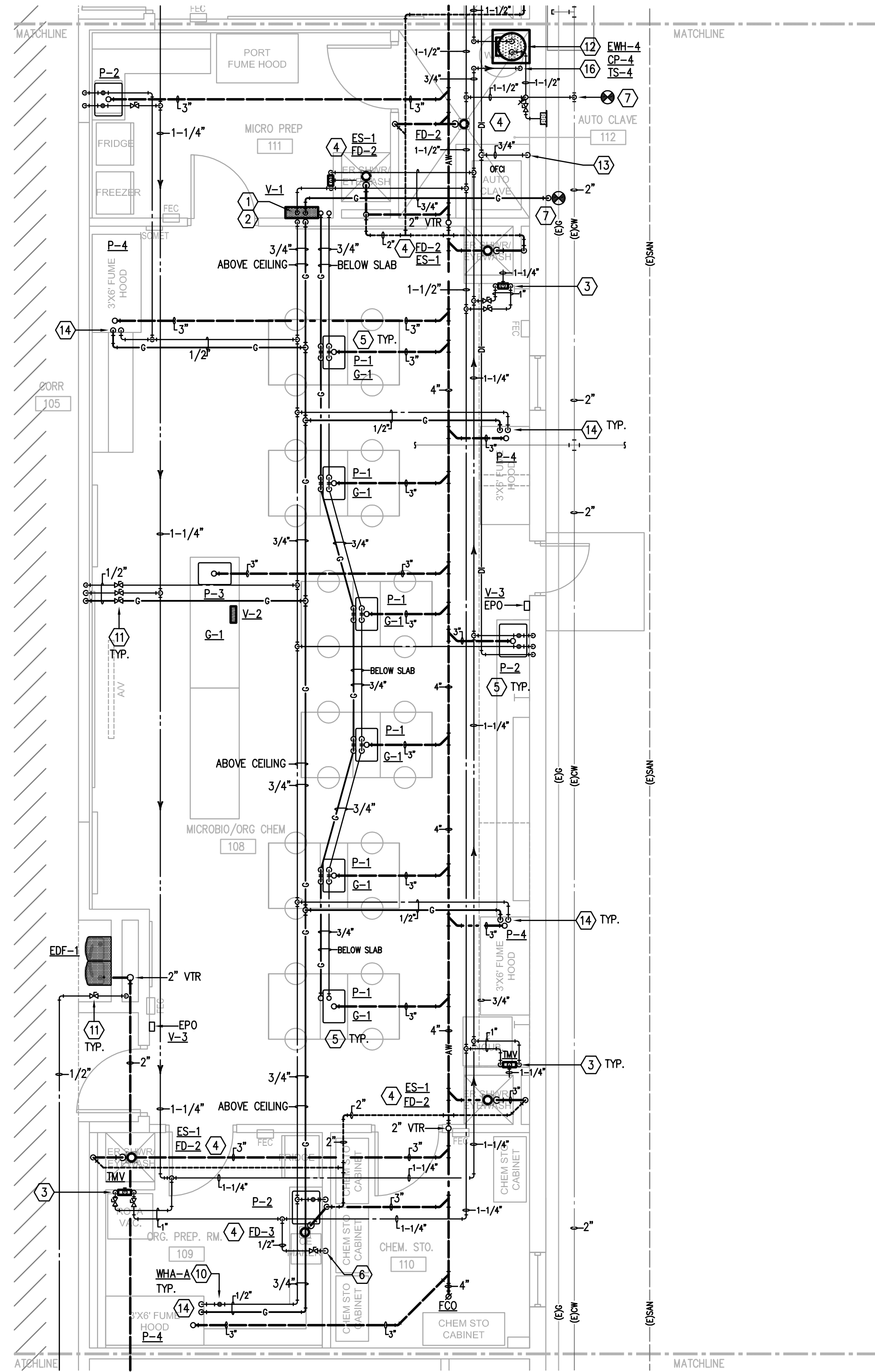
**COMPOSITE**  
**PLUMBING**  
**PLAN -**  
**UNIV. CAMPUS**

**P-210U**

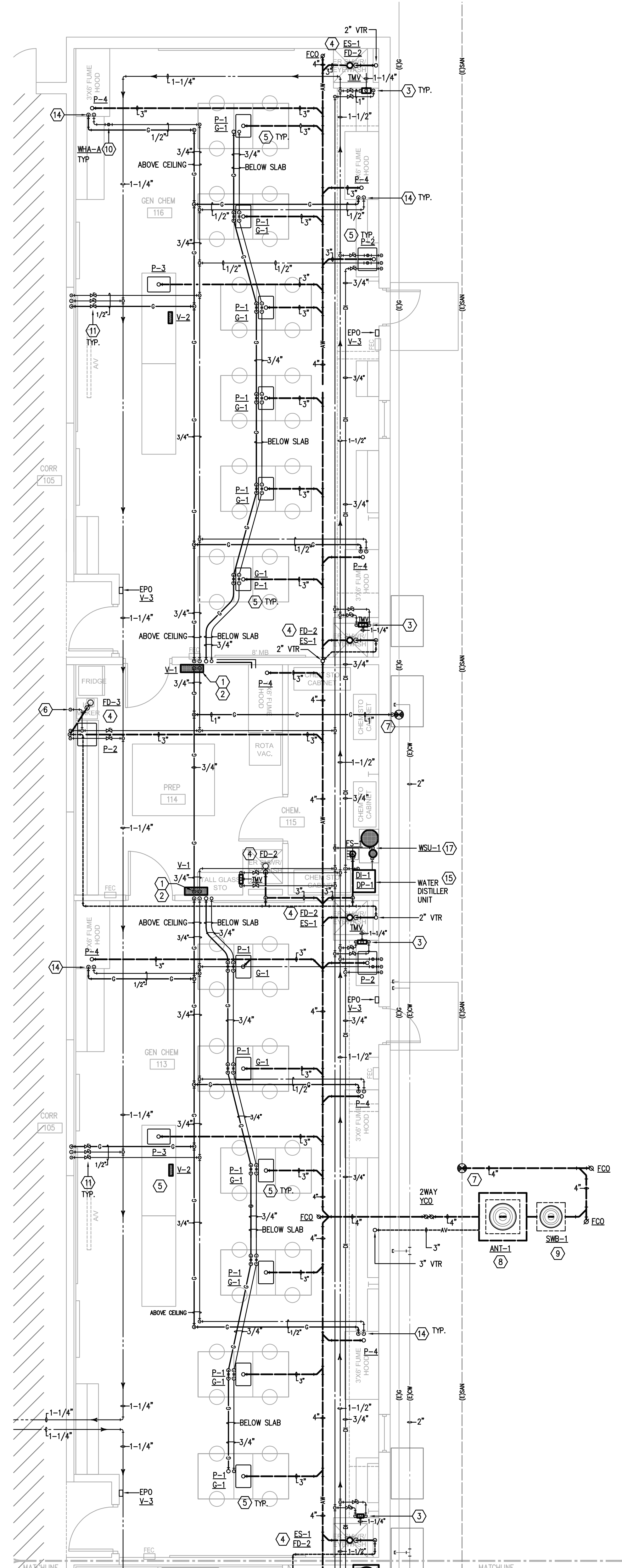


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**1 ENLARGED PLUMBING PLAN - MICROBIOLOGY/ORG. CHEM.**  
P-211U 3/16"=1'-0"



**2 ENLARGED PLUMBING PLAN - GEN. CHEMISTRY**  
P-211U 3/16"=1'-0"



**FIRE PROTECTION NOTES:**

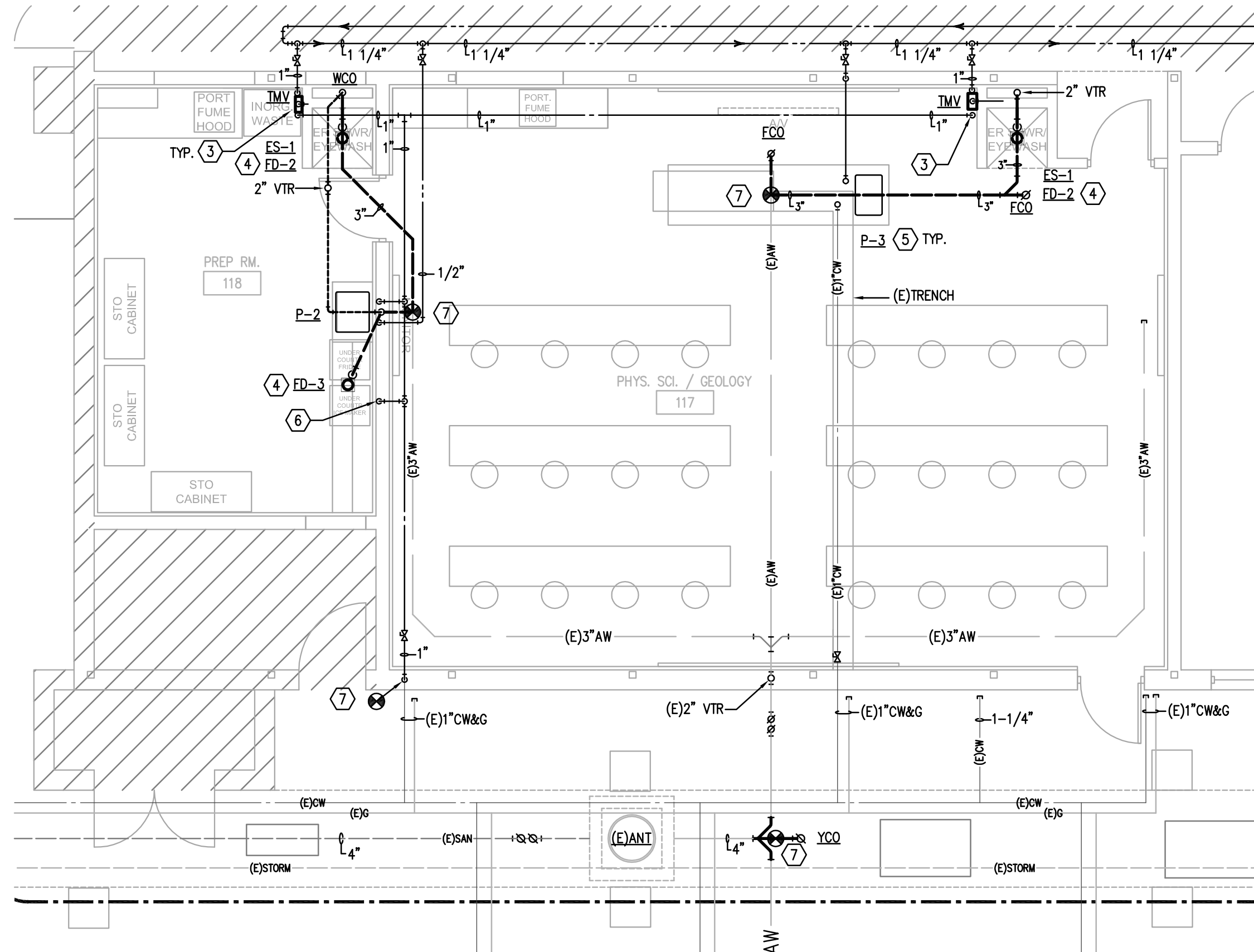
- CONTRACTOR TO ADJUST/REWORKED LOCATIONS OF ALL AFFECTED SPRINKLER HEADS AND FIRELINES IN AREAS OF RENOVATIONS. CONTRACTOR IS RESPONSIBLE FOR TESTING AND INSPECTING EXISTING SYSTEM AND INSURE THAT ALL COMPONENTS ARE FULLY FUNCTIONING. A VISIT TO THE SITE IS REQUIRED PRIOR TO BIDDING TO DETERMINE FULL SCOPE OF WORK.
- PROVIDE/MODIFY FIRE ALARM SYSTEM AS REQUIRED BY LOCAL, STATE OR FEDERAL CODES TO RECEIVE CERTIFICATE OF OCCUPANCY FOR THE PROJECT.
- PROVIDE AND INSTALL SURFACE MOUNTED FIRE EXTINGUISHERS. TYPE AND QUANTITY AND LOCATIONS SHALL BE PER LOCAL AUTHORITIES.
- A STATE LICENSED FIRE SPRINKLER AND FIRE ALARM CONTRACTOR MUST SUBMIT SHOP DRAWINGS DIRECTLY TO THE CITY FIRE DEPARTMENT FIRE MARSHAL'S OFFICE FOR REVIEW AND APPROVAL OF THE PROPOSED FIRE SPRINKLER AND ALARM SYSTEM WORK. THESE SHOP DRAWINGS MUST BE APPROVED BY THE FIRE DEPARTMENT PRIOR TO THE CONTRACTOR BEGINNING THE WORK. ALL WORK MUST BE IN COMPLIANCE WITH THE APPLICABLE NFPA STANDARDS AND THE INTERNATIONAL FIRE CODE.
- PRIOR TO SHUT-DOWN OF ANY EXISTING FIRE PROTECTION SYSTEM, CONTRACTOR SHALL NOTIFY OWNER OR OWNER'S APPOINTED REPRESENTATIVE 5 DAYS PRIOR TO SERVICE INTERRUPTION. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING SYSTEM TO FULL OPERATION.

**NOTE:**

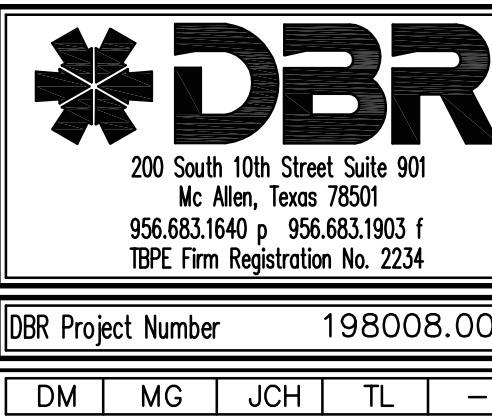
- DRAWING IS DIAGRAMMATIC ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF PIPING, DEVICES AND EQUIPMENT WITH BUILDING ELEMENTS AND THE WORK OF OTHER TRADES.
- PROVIDE ROUGH-IN AS REQUIRED FOR ALL FIXTURES AND EQUIPMENT PROVIDED BY SEPARATE DIVISION AND/OR OWNER. PROVIDE ALL MATERIALS AND LABOR TO INSTALL AND MAKE FINAL CONNECTIONS TO ALL EQUIPMENT. ALL CONNECTIONS FOR EQUIPMENT TO BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF HEALTH DEPARTMENT AND PLUMBING CODES.

**PLUMBING KEYED NOTES**

- 3/4" CW AND GAS DROPS TO SOLENOID ENCLOSURE V-1, RE: 22/P-402U.
- 3/4" GAS AND 3/4" CW UP TO CEILING AND 3/4" GAS & CW DROP TO BELOW FLOOR. ROUTE LINES BELOW SLAB FOR SERVICE TO ISLAND SINKS AND LINES ABOVE CEILING FOR SINKS AND FUME HOOD ALONG THE PERIMETER. RE: 22/P-402U.
- 1" H & CW DROPS TO MIXING VALVE FOR SERVICE TO RECESSED EMERGENCY SHOWER WITH EYEWASH UNIT (ES-1). EXTEND 1 1/4" TEPID WATER TO EQUIPMENT.
- PROVIDE TRAP GUARD SINKER GAS EMISSION PROTECTION IN THIS FLOOR DRAIN.
- REFER TO ISLAND SINK PLUMBING DETAIL 18/P-402U.
- 1/2" CW DROP FOR ICE MAKER. PROVIDE RP2 BACKFLOW PREVENTER EQUAL TO WATTS LF009. RE: 15/P-402U.
- POINT OF CONNECTION TO EXISTING UTILITY. FIELD VERIFY EXACT LOCATION OF EXISTING UTILITY.
- ACID NEUTRALIZING TANK EQUAL TO PARK ANT250. RE: 19/P-402U.
- SAMPLE WELL BASIN EQUAL TO PARK SWB-1. RE: 20/P-402U.
- WATER HAMMER ARRESTOR. SIZE AS INDICATED. PROVIDE ACCESS PANEL WHERE LOCATED IN AN INACCESSIBLE CEILING. PANEL SHALL BE 12"X12" PAINTED TO MATCH CEILING.
- BALL VALVE ABOVE CEILING. PROVIDE ACCESS PANEL WHERE LOCATED IN AN INACCESSIBLE CEILING. PANEL SHALL BE 12"X12" PAINTED TO MATCH CEILING. PROVIDE MARKING ON LOCATION OF ALL ISOLATION VALVES ALONG THE CEILING TILE.
- ELECTRIC WATER HEATER WITH REGULATION SYSTEM. RE:17/P-402U.
- 3/4" DISTILLED WATER DROP TO AUTOCLAVE. PROVIDE RP2A BFP EQUAL TO WATTS LF009. ALL INSTALLATION TO COMPLY WITH MANUFACTURER'S DETAILS AND RECOMMENDATIONS. AUTOCLAVE IS OWNER PROVIDED CONTRACTOR INSTALLED.
- 1/2" CW AND GAS DROPS TO FUME HOOD. ALL CONNECTIONS AS PER MANUFACTURER'S DETAILS AND RECOMMENDATIONS.
- WATER DISTILLER UNIT. INSTALLATION TO COMPLY WITH MANUFACTURER'S DETAILS AND RECOMMENDATIONS. COORDINATE ROUGH-INS WITH OWNER/ARCHITECT. INSTALL PUMP BELOW THE UNIT.
- 3/4" HMR DROP TO CIRCULATING PUMP. RE: 17/P-402U.
- PROVIDE WATER SOFTENER UNIT TO FEED THE WATER DISTILLER. PROVIDE RP2A BACKFLOW PREVENTER EQUAL TO WATTS LF009. RE: 24/P-402U.



**3 ENLARGED PLUMBING PLAN - PHYSICS/GEOLOGY**  
P-211U 3/16"=1'-0"



Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO & ASSOCIATES INC.**

**MEP:**  
**DBR ENGINEERING**



**PSJA ISD**  
**NORTH ECHS**  
**& COLLEGE**  
**AND**  
**UNIVERSITY**  
**CAMPUS**  
**STUDENT**  
**RESTROOM**  
**RENOVATIONS**

**KEYPLAN**

Project Number: 19.04  
Drawing Date: 5-10-2019  
Drawn: AL  
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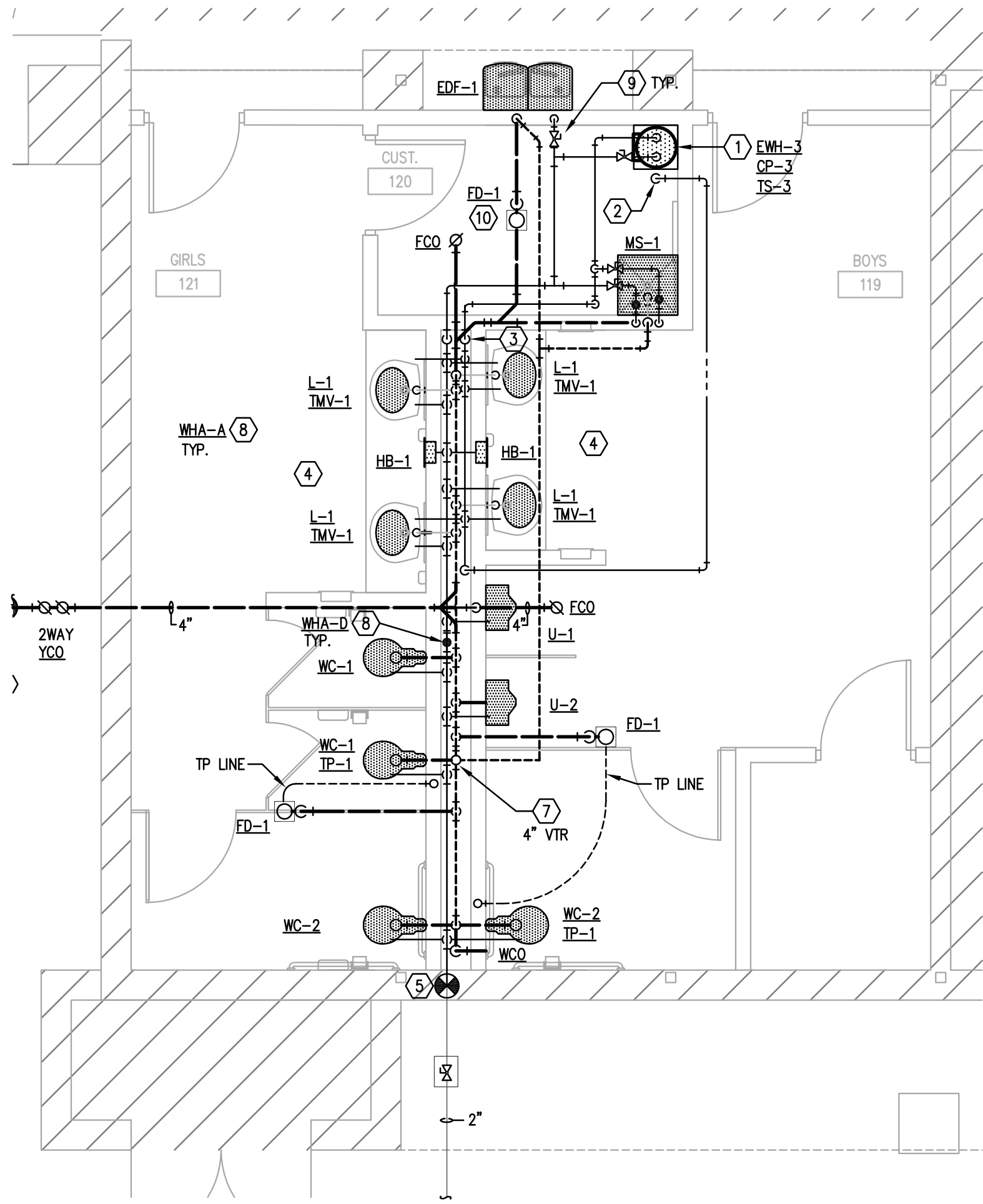
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**COMPOSITE**  
**PLUMBING**  
**PLAN -**  
**UNIV. CAMPUS**

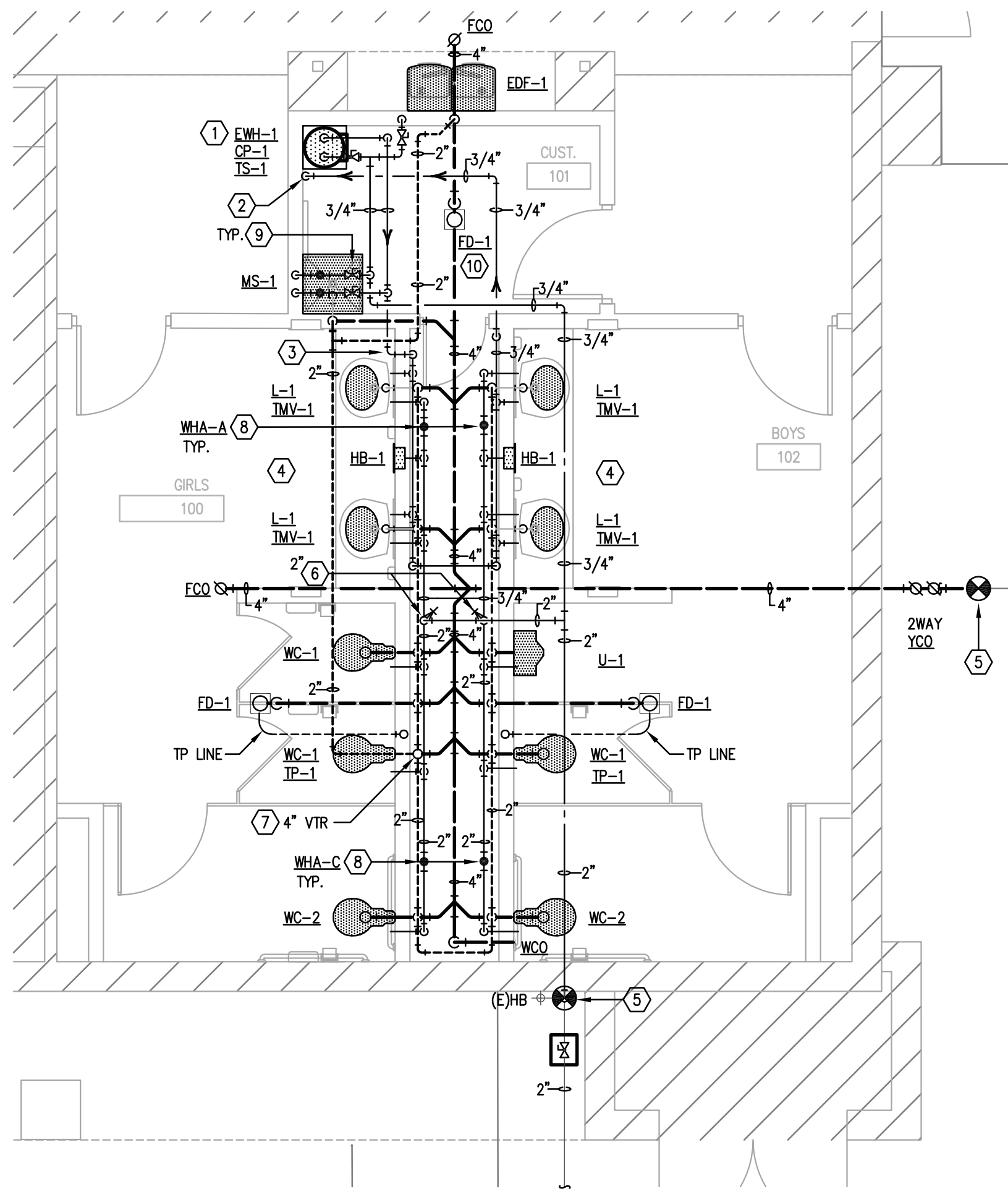
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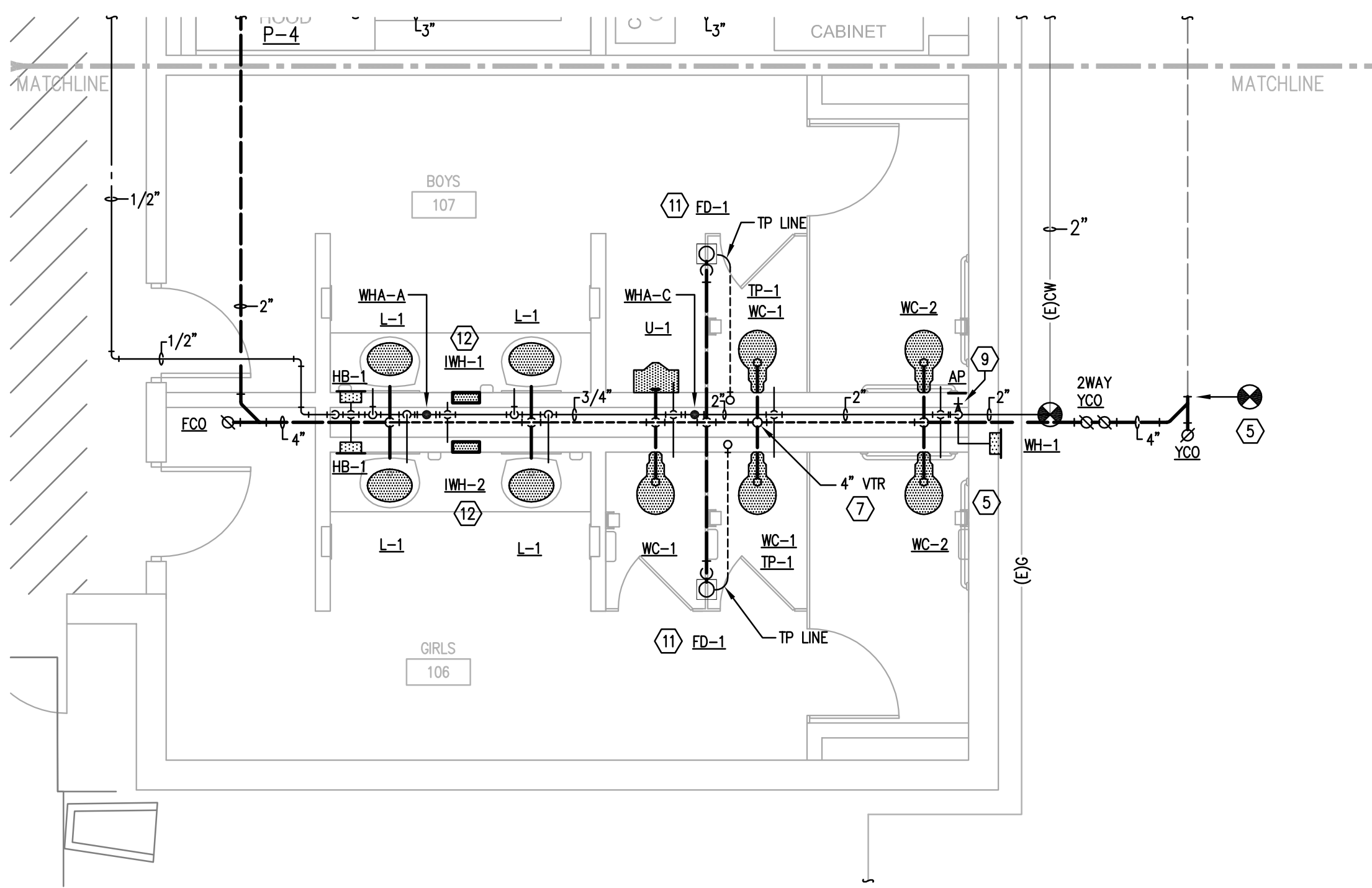
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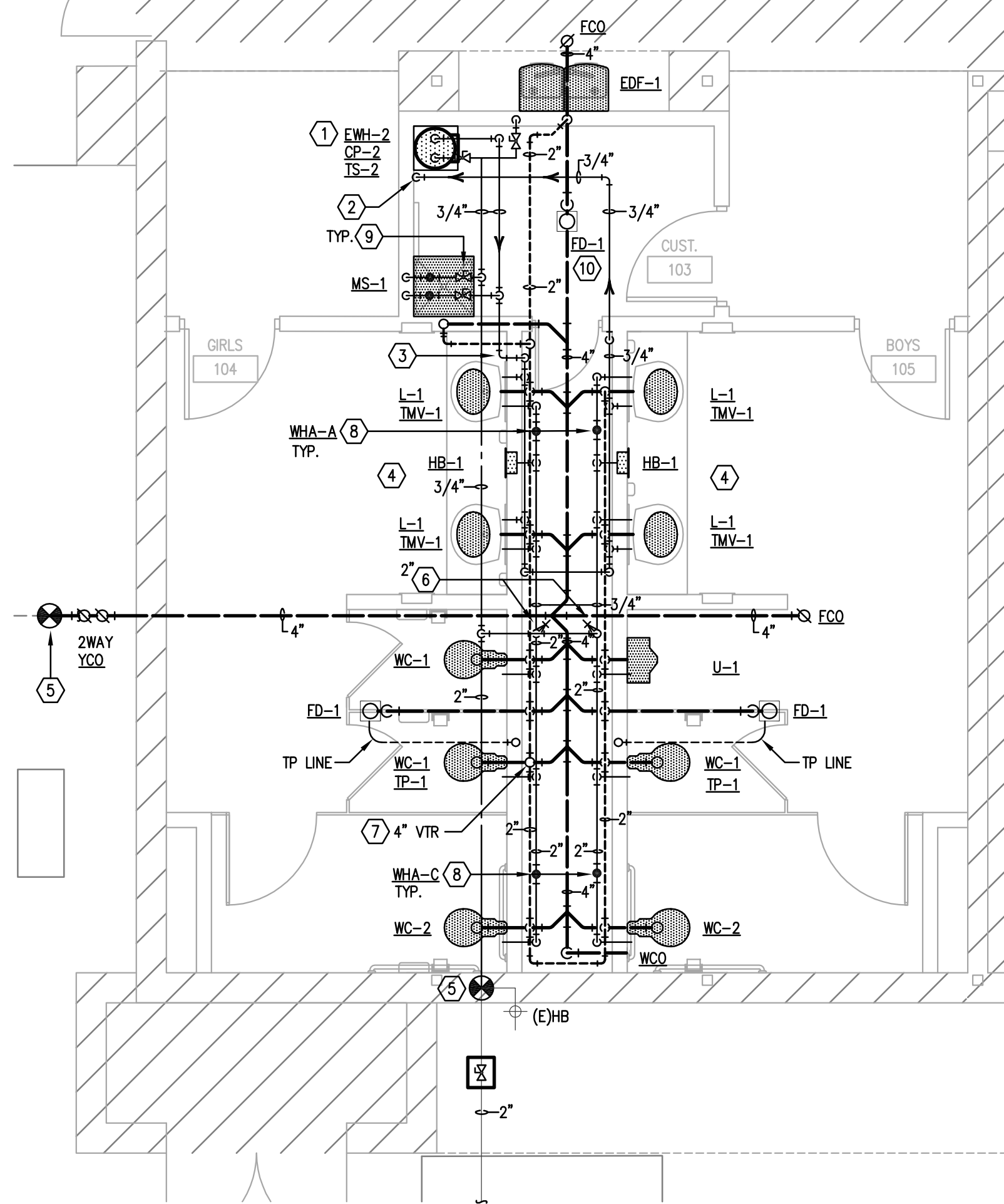
**3 PLUMBING PLAN - UNIVERSITY CAMPUS**  
P-212U 1/4"=1'-0"



**1 PLUMBING PLAN - UNIVERSITY CAMPUS**  
P-212U 1/4"=1'-0"



**4 PLUMBING PLAN - UNIVERSITY CAMPUS**  
P-212U 1/4"=1'-0"



**2 PLUMBING PLAN - UNIVERSITY CAMPUS**  
P-212U 1/4"=1'-0"

#### FIRE PROTECTION NOTES

- CONTRACTOR TO ADJUST/REWORK LOCATIONS OF ALL AFFECTED SPRINKLER HEADS AND PRELINES IN AREAS OF RENOVATIONS. CONTRACTOR IS RESPONSIBLE FOR TESTING AND INSPECTING EXISTING SYSTEM AND INSURE THAT ALL COMPONENTS ARE FULLY FUNCTIONING. A VISIT TO THE SITE IS REQUIRED PRIOR TO BIDDING TO DETERMINE FULL SCOPE OF WORK.
- PROVIDE/ADJUST FIRE ALARM SYSTEM AS REQUIRED BY LOCAL, STATE OR FEDERAL CODES TO RECEIVE CERTIFICATE OF OCCUPANCY FOR THE PROJECT.
- PROVIDE AND INSTALL SURFACE MOUNTED FIRE EXTINGUISHERS. TYPE AND QUANTITY AND LOCATIONS SHALL BE PER LOCAL AUTHORITIES.
- A STATE LICENSED FIRE SPRINKLER AND FIRE ALARM CONTRACTOR MUST SUBMIT SHOP DRAWINGS DIRECTLY TO THE CITY FIRE DEPARTMENT FIRE MARSHAL'S OFFICE FOR REVIEW AND APPROVAL OF THE PROPOSED FIRE SPRINKLER AND ALARM SYSTEM WORK. THESE SHOP DRAWINGS MUST BE APPROVED BY THE FIRE DEPARTMENT PRIOR TO THE CONTRACTOR BEGINNING THE WORK. ALL WORK MUST BE IN COMPLIANCE WITH THE APPLICABLE NFPA STANDARDS AND THE INTERNATIONAL FIRE CODE.
- PRIOR TO SHUT-DOWN OF ANY EXISTING FIRE PROTECTION SYSTEM, CONTRACTOR SHALL NOTIFY OWNER OR OWNER'S APPOINTED REPRESENTATIVE 5 DAYS PRIOR TO SERVICE INTERRUPTION. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING SYSTEM TO FULL OPERATION.

#### NOTE:

DRAWING IS DIAGNOSTIC ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF PIPING, DEVICES AND EQUIPMENT WITH BUILDING ELEMENTS AND THE WORK OF OTHER TRADES. REFER TO RISER DIAGRAMS FOR M OR PE PIPE SIZING INFORMATION AND OTHER REQUIREMENTS.

#### PLUMBING KEYED NOTES

- WALL HUNG ELECTRIC WATER HEATER WITH RECIRCULATING SYSTEM. RE: 16/P4.020.
- 3/4" HOT WATER RETURN DROP TO CIRCULATING PUMP WITH TIMER SWITCH AND AQUASTAT; SEE DETAIL 16/P4.020.
- 3/4" HW DROP FOR SERVICE TO LAVS, SIZE AS NOTED. RUN RECIRCULATING LINE WITHIN 2 FEET OF HW ROUGH-INS FOR 2015 IECC COMPLIANCE.
- PROVIDE TMV-1 (ASSE 1070 LISTED) FOR HOT WATER SUPPLY TO LAVATORY. SET AT MAX. 110°F. INSTALL UNDER FIXTURE AS HIGH AS POSSIBLE FOR CLEAN/NEAT APPEARANCE. RE: 14/P4.020.
- POINT OF CONNECTION TO EXISTING UTILITY. FIELD VERIFY EXACT LOCATION OF EXISTING UTILITIES.
- COLD WATER DROP TO FIXTURES. SIZE AS NOTED. PROVIDE ISOLATION BALL VALVE ON THE RISER. SEE PLUMBING RISER DIAGRAMS FOR CONTINUATION IN WALL OR CHASE.
- PROVIDE NEW VTR AT LOCATION OF EXISTING, FIELD VERIFY LOCATION OF EXISTING VTR.
- WATER HAMMER ARRESTOR, SIZE AS NOTED. PROVIDE ACCESS PANEL WHERE LOCATED IN AN INACCESSIBLE WALL/CEILING. PANEL SHALL BE 12"X12" PAINTED TO MATCH WALL/CEILING. PROVIDE PROPERLY SIZED WATER HAMMER ARRESTOR FOR EACH GROUP OF FIXTURES WHETHER SHOWN OR NOT ON PLANS.
- BALL VALVE AT CEILING/WALL SPACE. PROVIDE ACCESS PANEL WHERE LOCATED IN AN INACCESSIBLE WALL/CEILING. PANEL SHALL BE 12"X12" PAINTED TO MATCH WALL/CEILING. PROVIDE MARKING OF VALVE LOCATION ALONG THE CEILING TILE.
- PROVIDE TRAP GUARD SEWER GAS EMISSION PROTECTION IN THIS FLOOR DRAIN.
- REPLACE FLOOR DRAIN IN ITS EXISTING LOCATION. PROVIDE WITH TRAP PRIMER (TP-1) SEWER GAS PROTECTION DEVICE.
- PROVIDE POINT OF USE INSTANTANEOUS WATER HEATER FOR SERVICE TO LAVS. RE: 21/P-4.020.

Consultants:

**CIVIL:**  
**MELDEN & HUNT**

**STRUCTURAL:**  
**GREEN, RUBIANO & ASSOCIATES INC.**

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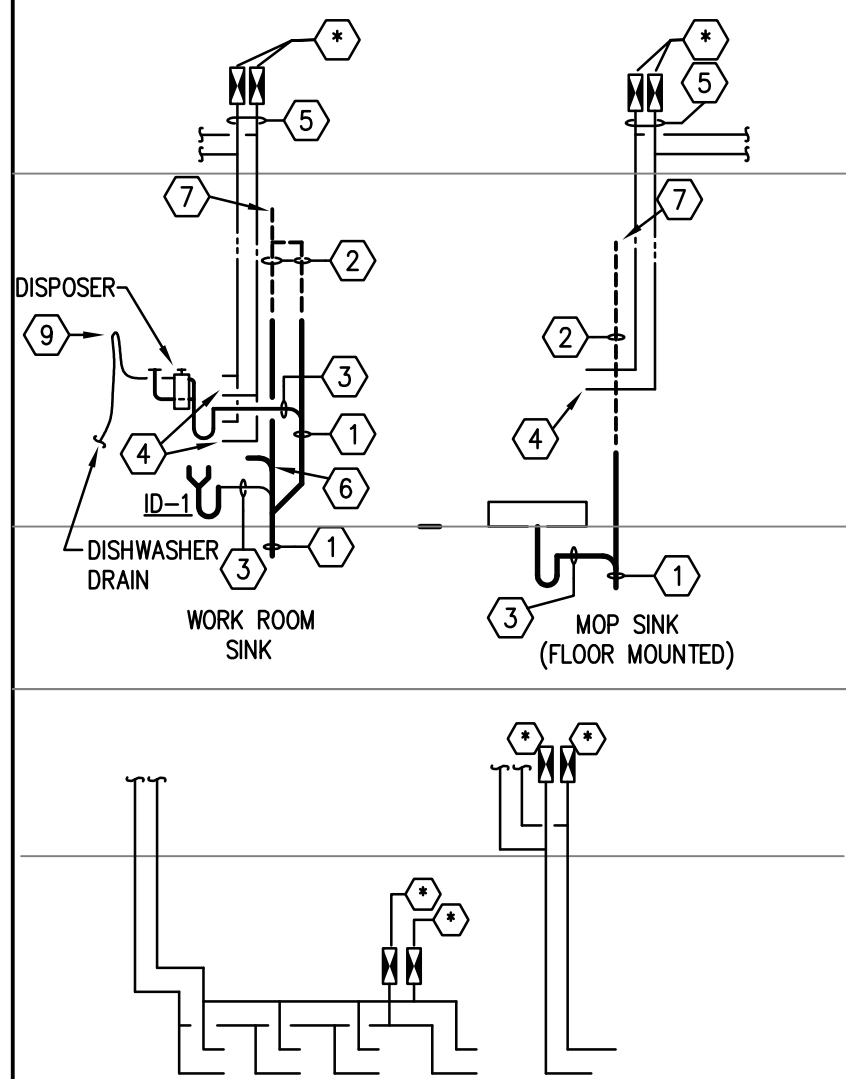
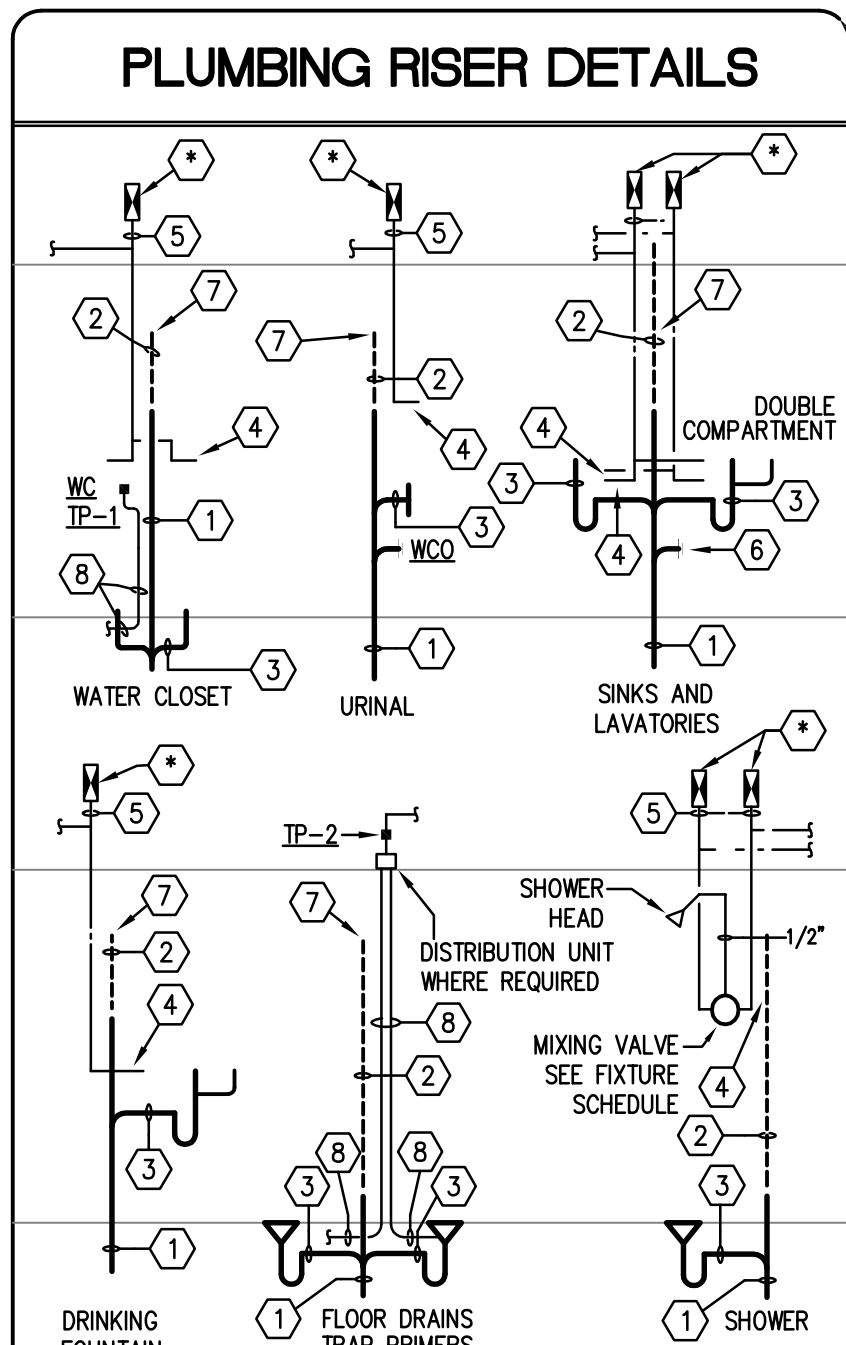
**COMPOSITE  
PLUMBING  
PLAN -  
UNIV. CAMPUS**



DBR Project Number: 198008.000  
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**KEYED NOTES - RISER DIAGRAM DETAILS:**  
(SEE PLUMBING FIXTURE SCHEDULE ON SHEET P-3.01)

- REFER TO PLUMBING FIXTURE SCHEDULE FOR SOIL OR WASTE ROUGH-IN PIPE SIZE. MINIMUM SOIL OR WASTE DRAIN LINE SIZE (EXCEPT AS NOTED) FOR THIS FIXTURE.
- REFER TO PLUMBING FIXTURE SCHEDULE FOR SANITARY VENT ROUGH-IN PIPE SIZE. MINIMUM SANITARY VENT BRANCH SIZE (EXCEPT AS NOTED) FOR THIS FIXTURE.
- REFER TO PLUMBING FIXTURE SCHEDULE FOR FIXTURE DRAIN ROUGH-IN PIPE SIZE. MINIMUM FIXTURE DRAIN AND TRAP SIZE (EXCEPT AS NOTED) FOR THIS FIXTURE.
- REFER TO PLUMBING FIXTURE SCHEDULE FOR WATER PIPING ROUGH-IN PIPE SIZE. MINIMUM WATER SUPPLY BRANCH SIZE (EXCEPT AS NOTED) FOR THIS FIXTURE.
- SHOCK ARRESTOR INLET. REFER TO SHOCK ARRESTOR SCHEDULE FOR SIZE. LOCATION SHOWN HERE FOR INDIVIDUAL FIXTURE WILL VARY WHERE INCLUDED AS PART OF PLUMBING CHASE. BATTERY OF PIPING. REFER TO RISER DIAGRAMS FOR BATTERY LOCATIONS. ARRANGE ALL WATER LINES TO GRAVITY DRAIN.
- WALL CLEANOUTS SHALL BE PROVIDED AT ALL END OF BATTERY OR END OF BRANCH LINE FIXTURES AND WHERE REQUIRED BY PLUMBING CODE OFFICIALS TO ASSURE COMPLETE ACCESS TO ALL PORTIONS OF DRAIN.
- SANITARY VENT PIPES SHALL CONTINUE TO CEILING OR HEADER THROUGH AT MINIMUM 42" ABOVE FINISHED FLOOR.
- TRAP PRIMER LINE: SEE PLUMBING DETAILS SHEET. EXTEND AND CONNECT TO FLOOR DRAIN TRAP AS SHOWN.
- AIR GAP FITTING. PROVIDE WHERE REQUIRED BY CODE.

WATER HAMMER ARRESTOR SCHEDULE		
P.D.I. SYMBOL	FIXTURE UNITS	SIZE
(A)	1-11	1/2" NPT
(B)	12-32	3/4" NPT
(C)	33-60	1" NPT
(D)	61-113	1 1/4" NPT
(E)	114-154	1 1/2" NPT
(F)	155-330	2" NPT

PLUMBING RISER DIAGRAMS/TYPICAL RISER DETAILS ILLUSTRATE WATER HAMMER ARRESTORS FOR FIXTURE WATER PIPE OPENINGS. ALL ARRESTORS SHALL BE SIZED AS INDICATED ON DRAWINGS OR IN ACCORDANCE WITH THIS SCHEDULE, WHICHEVER PLACES THE MOST STRINGENT REQUIREMENT.

PROVIDE ARRESTORS IN ACCORDANCE WITH THE REQUIREMENTS OF PLUMBING DRAINAGE INSTITUTE (PDI) STANDARD PDI-WH-201. THE USE OF AIR CHAMBERS SHALL NOT BE ACCEPTABLE.

WATER HAMMER ARRESTORS SHALL HAVE LIFETIME WARRANTY AND SHALL BE CERTIFIED BY THE MANUFACTURER AS SUITABLE FOR INSTALLATION WITHOUT A REQUIREMENT FOR ACCESS PANELS. NONE THELESS, ACCESS PANELS SHALL BE PROVIDED IF AND AS REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION (LHA).

**GENERAL NOTES - PLUMBING FIXTURES**

- MOUNTING HEIGHT ELEVATION OF ALL WALL HUNG OR COUNTER MOUNTED FIXTURES SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS PRIOR TO INSTALLATION OF ROUGH-IN WORK.
- FOR ALL FIXTURES AND EQUIPMENT WITH ASSOCIATED TRIM OR COMPONENT ACCESSORIES PROVIDED UNDER SEPARATE DIVISIONS AND REQUIRING PLUMBING CONNECTIONS: THIS CONTRACTOR SHALL FIELD COORDINATE EXACT REQUIREMENTS OF, MAKE PROVISIONS FOR, AND SUPPLY ALL MATERIALS AND LABOR FOR MAKING FINAL CONNECTIONS.
- CONTRACTOR SHALL REFER TO SHOP DRAWINGS OF EQUIPMENT TO BE SUPPLIED FOR FINAL COORDINATION OF ALL ROUGH-IN OPENINGS BEFORE BEGINNING WORK.
- ALL FIXTURE AND EQUIPMENT STUB-OUTS SHALL BE PROVIDED WITH A STOP VALVE. ALL FIXTURE STOPS SHALL BE SOLID BRASS, LOOSE KEY OPERATED, CHROME PLATED (WHERE EXPOSED), AND TIGHT TO CHROME PLATED BRASS WALL. ESCUTCHEON PLATES. SUPPLY RISERS SHALL BE STAINLESS STEEL FLEXIBLE CONNECTORS.
- ALL P-TRAPS WITHIN THE BUILDING, ABOVE GRADE AND EXPOSED TO INSPECTION SHALL BE C.P. ADJUSTABLE, CAST BRASS WITH CLEANOUT PLUG. PROVIDE CAST BRASS SLIP NUTS AND WASHERS, 17 GAGE SEAMLESS TUBULAR BRASS DRAIN TO WALL AND WALL FLANGE. PROVIDE MCGUIRE NO. 8872C, 1-1/4" P-TRAP FOR ALL LAVATORIES AND SIMILAR FIXTURES PROVIDE MCGUIRE NO. 8912C, 1-1/2" P-TRAP FOR ALL SINKS AND SIMILAR FIXTURES.
- PROVIDE DEEP SEAL P-TRAP FOR ALL DRAINS OF INFREQUENT USE OR REQUIRING TRAP PRIMER.
- ALL ROUGH IN OPENINGS SHALL BE FITTED WITH CHROME PLATED, WROUGHT BRASS DEEP BELL OR BOX ESCUTCHEON PLATES FITTED TIGHT TO THE PIPE AND FLUSH TO THE WALL. STEEL ESCUTCHEON PLATES ARE NOT ACCEPTED.
- ALL EXPOSED BRASS SHALL BE CHROME PLATED.
- ALL HANDICAPPED ACCESSIBLE FIXTURES INDICATED WITH (B) SHALL BE PROVIDED OF APPROVED TYPES AND WITH REQUIRED CONTROLS AND INSTALLED TO HEIGHTS AND CLEARANCES, AS PRESCRIBED BY AMERICANS WITH DISABILITIES ACT (ADA). FIXTURES SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL ACCESSIBILITY CODE REQUIREMENTS. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONED MOUNTING HEIGHTS AND SPECIFIED CLEARANCE REQUIREMENTS. PROVIDE FIXTURES WITH DEPTHS AT MAXIMUM PERMITTED AND AVAILABLE FOR INTENDED FIXTURE USE.
- ALL WHEELCHAIR LAVATORY AND SINK PIPING WHERE EXPOSED SHALL BE INSULATED. PROVIDE OFFSET DRAIN FITTINGS WHERE REQUIRED TO PROVIDE MINIMUM CLEARANCES. REFER TO SPECIFICATIONS SECTION 5440.
- ALL SINKS FOR HANDICAPPED USE SHALL BE STAMPED WITH DRAIN OUTLET AT REAR OF BOWL.
- PLUMBING FIXTURES SHALL BE OF WATER CONSERVATION TYPE IN ACCORDANCE WITH PLUMBING CODE WITH INTEGRATIONS FOR WATER SAVING PERFORMANCE. LAVATORY AND SINK FAUCETS SHALL INCLUDE 2.2 GPM FLOW CONTROL.
- ORIENT ADA WATER CLOSET FLUSH VALVE WITH OPERATOR ON WIDE SIDE OF ENCLOSURE.
- SEAL ALL SPACES BETWEEN PLUMBING FIXTURES AND MOUNTING SURFACES WITH WHITE LATEX CAULK WIPED SMOOTH AND FLUSH WITH FIXTURE.
- FLOOR DRAINS SHALL BE INSTALLED AT LOW POINTS OF UNIFORMLY SLOPED FLOOR. CONTRACTOR SHALL FIELD COORDINATE WITH STRUCTURAL TO INSURE FLOOR SLOPE IS SLOPED UNIFORMLY ACROSS ENTIRE TOILET ROOMS OR OVER AS WIDE AN AREA AS PRACTICABLE FOR OPEN AREA FLOOR DRAINS. CONVEX FLOOR SLOPE IN THE IMMEDIATE VICINITY OF THE FLOOR DRAIN IS NOT ACCEPTABLE.

**PLUMBING GENERAL PLAN NOTES:**

- DRAINAGE PIPING INVERT ELEVATIONS NOTED ON FLOOR PLANS AS: INV. EL.= 0.00' BFF ARE BELOW FINISHED FLOOR TAKEN FROM FIRST FLOOR FINISHED ELEVATION OF 0.00' TO INSIDE BOTTOM OF PIPE.
- PLUMBER SHALL FIELD VERIFY EXACT BUILDING FINISHED FLOOR ELEVATION AND THE INVERT ELEVATION OF ALL DRAIN LINES AT PROPOSED CONNECTING POINTS WITH SITE CIVIL UTILITIES PRIOR TO INSTALLATION OF BUILDING PIPING.
- ALL PIPE PASSING THROUGH FIRE RATED WALLS OR FLOOR SLABS SHALL BE SUPPORTED AT PENETRATION AND OPENINGS SHALL BE SEALED WITH APPROVED, NON-HARDENING, FIRE STOP MATERIALS AS SPECIFIED OR REQUIRED.
- CONTRACTOR SHALL COORDINATE WITH THE STRUCTURAL CONDITIONS AT THE SITE AND PROVIDE PROPER ROUGH-IN CONNECTIONS REQUIRED WITHOUT DAMAGE TO STRUCTURE. WHERE STRUCTURAL MODIFICATIONS ARE NECESSARY, CONTRACTOR SHALL FIRST RECEIVE WRITTEN APPROVAL OF THE ARCHITECT AND STRUCTURAL ENGINEER.
- THIS CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD COORDINATING LOCATIONS AND ELEVATIONS OF ALL PLUMBING PIPES WITH OTHER TRADES PRIOR TO INSTALLATION. CORRECTIONS OR RELOCATIONS DUE TO MISALIGNED PIPE SHALL BE PERFORMED IN A TIMELY MANNER AT NO ADDITIONAL COST TO OWNER.
- DO NOT SCALE THE PLUMBING DRAWINGS FOR ROUGH-IN WORK. CONTRACTOR SHALL REFER TO THE DIMENSIONED ARCHITECTURAL AND STRUCTURAL DRAWINGS TO FIELD DETERMINE EXACT LOCATIONS OF PLUMBING ROUGH-IN WORK.
- SANITARY DRAINAGE PIPING 2" AND SMALLER SHALL HAVE A UNIFORM MINIMUM CONTINUOUS SLOPE OF 1/4 INCH PER FOOT OF RUN. DRAINAGE PIPING OF 3" SIZE AND LARGER SHALL SLOPE MINIMUM 1/8 INCH PER FOOT OF RUN. SLOPE ALL VENT PIPING MINIMUM 6" PER 100 FEET OF RUN BACK TO DRAIN.
- STORM DRAINAGE PIPING SHALL HAVE A UNIFORM MINIMUM CONTINUOUS SLOPE OF 1/8 INCH PER FOOT OF RUN. SLOPES OF 1/4 INCH PER FOOT ARE PERMITTED WHERE NOTED ON PLAN OR AS REQUIRED.
- PROVIDE BRACING TO PREVENT AXIAL MOVEMENT FOR ALL STORM DRAINAGE PIPING ABOVE GROUND. PROVIDE RESTRAINTS IN ALL DRAINAGE PIPING AT ALL CHANGES IN DIRECTION AND AT ALL DIAMETER CHANGES GREATER THAN TWO PIPE SIZES. BRACES, BLOCKS, RODDING AND OTHER PERMANENT METHODS AS PRESCRIBED BY PIPE AND COUPLING MANUFACTURER SHALL BE ACCEPTABLE.
- PROVIDE AND INSTALL CLEANOUTS AT EACH CHANGE OF DIRECTION OF THE BUILDING SANITARY DRAIN. AT MINIMUM 75' INTERVALS ALONG STRAIGHT RUNS OF MAIN DRAIN AND BRANCHES, AT EACH HORIZONTAL CHANGE OF DIRECTION IN SOIL OR WASTE PIPES GREATER THAN 45 DEGREES, AT END OF INDIVIDUAL BRANCH DRAINS LONGER THAN 5'. PROVIDE CLEANOUTS IN ACCORD WITH INTERNATIONAL PLUMBING CODE SECTION 708.
- PROVIDE FITTINGS FOR SANITARY DRAIN WASTE AND VENT PIPING SYSTEMS IN COMPLIANCE WITH INTERNATIONAL PLUMBING CODE SECTION 708.
- INSTALL EACH WATER HEATER AND ALL PLUMBING EQUIPMENT WITH ADEQUATE CLEARANCES FOR ACCESS BY SERVICE PERSONNEL AND WITH PROPER ORIENTATION FOR ELEMENT REMOVALS/REPLACEMENTS.
- PROVIDE ISOLATION VALVES FOR ALL BRANCHES OFF DOMESTIC WATER MAINS. ALL PLUMBING SYSTEM VALVES SHALL BE INSTALLED IN ACCESSIBLE CEILING SPACES. WHERE CEILING IS NOT ACCESSIBLE, OR SPACE IS CONFLICTING, VALVES SHALL BE INSTALLED IN PARTITIONS OR PIPE CHASES. PROVIDE APPROVED PAINTED STEEL HINGED ACCESS PANELS IN LOCATIONS PRE-APPROVED BY THE ARCHITECT. PROVIDE STAINLESS STEEL ACCESS DOORS FOR SHOWER, LOCKER AND LOCKER TOILET ROOM PANELS. PROVIDE MARKINGS ON CEILING TILES ON LOCATIONS OF ISOLATION VALVES.
- THIS CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD COORDINATING LOCATIONS OF ALL SANITARY VENTS UP THROUGH ROOF TO MAINTAIN MINIMUM 15' CLEARANCE TO ANY BUILDING OUTDOOR AIR INLET.

**PLUMBING PIPE MATERIALS SCHEDULE**

PIPING SYSTEM		PIPING MATERIAL
SANITARY DRAINS AND VENTS INSIDE BUILDING AND BELOW GROUND		SCHEDULE 40 PVC DWV
SANITARY DRAINS AND VENTS INSIDE BUILDING AND ABOVE GROUND		CAST IRON NO-HUB DWV
SANITARY DRAINS AND VENTS INSIDE BUILDING AT PLENUM CEILING		CAST IRON NO-HUB DWV
DOMESTIC HOT & COLD WATER INSIDE BUILDING AND ABOVE GROUND		COPPER, TYPE "L" HARD DRAWN
DOMESTIC HOT & COLD WATER INSIDE BUILDING AND BELOW GROUND		COPPER, TYPE "K" HARD ANNEALED
DOMESTIC WATER AT ENTRY		COPPER, TYPE "K" HARD DRAWN
NATURAL GAS		BLACK STEEL SCHEDULE 40
DISTILLED WATER		STAINLESS STEEL 304-L
ACID WASTE PIPING		SCHEDULE 40 PVDF FUSION JOINT
ACID VENT IN PLENUM CEILING		FR-PVDF
FIRE SPRINKLER BELOW GROUND		DUCTILE IRON
FIRE SPRINKLER ABOVE GROUND - 2" & SMALLER		BLACK STEEL SCHEDULE 40
FIRE SPRINKLER ABOVE GROUND - 2-1/2" AND LARGER		BLACK STEEL SCHEDULE 10

NOTE: REFER TO SPECIFICATIONS FOR COMPLETE PIPING MATERIAL REQUIREMENTS FOR ASSOCIATED PIPING SYSTEMS.

**PLUMBING FIXTURE SCHEDULE**

PLAN MARK	MINIMUM ROUGH-IN SIZES				DESCRIPTION
	WST & VENT	DRAIN	CW	HW	
WATER CLOSET WC-1	4" 2"	4" 1"	4" 1"	1"	AMERICAN STANDARD NO. 3451.128 "MADERA" WHITE V.C. ELONGATED SIPHON JET FLOOR MTD. (1.28 GPF) BOWL WITH TOP SPRD. BOLT CAPS, BEHMS 1955 SSCOT WHITE OPEN FRONT SEAL, LESS COVER AND SLOAN ROYAL 111-1.28 HET FV.
WATER CLOSET WC-2 ADA	4" 2"	4" 1"	4" 1"	1"	AMERICAN STANDARD NO. 3461.128 "MADERA" WHITE V.C. ELONGATED SIPHON JET FLOOR MTD. (1.28 GPF) BOWL WITH TOP SPRD. BOLT CAPS, BEHMS 1955 SSCOT WHITE OPEN FRONT SEAL, LESS COVER AND SLOAN ROYAL 111-1.28 HET FV.
URINAL U-1	2" 2"	2" 2"	3/4" 1"	1"	AMERICAN STANDARD NO. 6500.125 "WASHROOM" WHITE V.C. UHE 0.125 GPF. WITH 3/4" TOP SPRD AND WALL HANGERS. WITH SLOAN ROYAL NO. MODEL 186-0.13 FLUSH VALVE AND WAGE OR EQUAL FLOOR MOUNTED CARRIER WITH MOUNTING RE. ARCH'L PLANS FOR MOUNTING HEIGHT.
LAVATORY-COUNTER TOP L-1	2" 1-1/2"	1-1/4" 1/2"	1/2" 1/2"	1/2"	AMERICAN STANDARD NO. 0475.028 WHITE VC 20 X 17 OVAL SELF RIMMING FIXTURE WITH FRONT OVERFLOW AND FAUCET HOLES DRILLED ON 4" CENTERS FOR CHICAGO 802-VE2805-BRASSOP METERING FAUCET & FIXED GRID DRAIN. CHROME PLATED BRASS P-TRAP, STOPS AND SUPPLIES. PROVIDE TMV-1 WHERE INDICATED.
ELECTRIC DRINKING FOUNTAIN EDF-1 (61-LEVEL)	2" 1-1/4"	1-1/4" 1/2"	1/2" 1/2"	1/2"	ELKAY NO. VRC5NTLBC B1-LEVEL BARRIER-FREE LEAD FREE WALL MOUNTED COOLER. 8.8 GPH CAPACITY COOLED TO 50° F WITH 80° F AMBIENT TEMP. 1/5 HP 4.0 FL. AMPS. WIRED FOR POWER AS SCHEDULED ON ELECTRICAL DRAWINGS. PROVIDE TURN OR EQUAL FLOOR MOUNTED PLATE TYPE CARRIER AND TRAP AND SUPPLY. PROVIDE WITH ALL STAINLESS STEEL CABINET AND CAME APRON FOR PROTECTING FIXTURES. REFER TO ARCHITECTS DRAWINGS FOR MOUNTING HEIGHT.
MOP SINK MS-1	3" 2"	3" 3/4" 3/4"	3/4" 3/4"	3/4"	FIAT TSB 100 24 X 24 X 12 WITH STAINLESS STEEL CAP AND CAULK OUTLET DRAIN WITH N.B. STRAINER. PROVIDE CHICAGO NO. 897-RDF WALL MOUNT FAUCET WITH INTEGRAL STOP, VB AND HINGED LOCKING COVER. STAMPED WATER. INSTALL FLUSH AND RIGID TO FINISHED WALL AND SEAL WATER TIGHT.
WALL HYDRANT WH-1	---	---	3/4" 1"	1"	WADE 8600MT RECESSED NON-FREEZE BRONZE WALL BOX. ANTI-SIPHON HYDRANT. WITH LOOSE KEY OPERATOR AND POLISHED NICKEL BRONZE LOCKING COVER. INSTALL WITH FACE FLUSH AND SQUARE TO FINISHED WALL.
HOSE BIBB HB-1 (TOILET ROOMS)	---	---	3/4" 1"	1"	WADE 8600MT RECESSED STAINLESS STEEL WALL BOX WITH COLD WATER WHEEL HANDLE VALVE. INTERNAL STOP, VB AND HINGED LOCKING COVER. STAMPED WATER. INSTALL FLUSH AND RIGID TO FINISHED WALL AND SEAL WATER TIGHT.
WALL BOX WB-1	---	---	1/2" 1"	1"	GUT GRAY NO. B1M-875 WITH 1/2 X 1/4 O.D. TUBE. CHROME PLATED FIXTURE SUPPLY STOP. INSTALL BOX 54" AFF BEHIND FREE STANDING REFRIGERATOR WITH ICE MAKER.
TRAP PRIMER TP-1	---	---	1/2" 1"	1"	PROVIDE SLOAN NO. VBF-72-A1 FLUSH VALVE VACUUM BREAKER TRAP PRELL SUPPLY. ALL EXPOSED PIPES TO BE CHROME PLATED AND RUN SHORT AS POSSIBLE TO WALL. CONCEALED DRAIN TUBING SHALL BE 1/2" TYPE "K" SOFT COPPER SLOPING UNIFORMLY TO DRAIN WRAPPED IN CONTINUOUS PLASTIC SLEEVE.
FLOOR DRAIN FD-1	3" 2"	---	---	---	ZURN NO. 2N-415 CAST IRON DRAIN WITH 6" DIAMETER TYPE "B" STRAINER AND 1/2" IPS TRAP PRIMER CONNECTION. (PLUGGED WHERE NOT REQUIRED)
FLOOR DRAIN FD-3	3" 2"	---	---	---	ZURN 24161 WITH TYPE "T" CAST IRON DRAIN WITH 7" DIA. DEEP FLANGE GRATE. W/ ACID RESISTANT EPOXY COATED INTERIOR. RECESSED HINGED GRATE. WITH ACID RESISTANT EPOXY COATING. PROVIDE TRAP GUARD.
WALL CLEAN-OUT WCO	---	---	---	---	ZURN NO. 2N-1443 DURO-COATED CAST IRON CLEANOUT TEE WITH COUNTER-SINK GASKET. WATER TIGHT. THREADED PLUG AND SQUARE SMOOTH ACCESS COVER WITH VANDAL PROOF SCREWS.
FLOOR CLEAN-OUT FCO	---	---	---	---	ZURN NO. 2N-1400 DURO-COATED CAST IRON CLEANOUT WITH COUNTER-SINK PLUG AND SUITED FOR THE INSTALLATION REQUIRED. VERIFY TOP FINISHES WITH ARCHITECT.
YARD CLEAN-OUT YCO	---	---	---	---	ZURN NO. 2-1402 DURO-COATED CAST IRON CLEANOUT WITH ARCHITECT.
FLOOR SINK FS-1	3" 2"	---	---	---	ZURN NO. 2N-1901-2-25-K, 12" SQUARE, 8" DEEP CAST IRON DRAIN WITH EMBELED INTERIOR. WITH SINKED SEDIMENT BUCKET STRAINER AND SECURED HALF NICKEL BRONZE GRATE. WITH 1/2" IPS TRAP PRIMER CONNECTION. (PLUGGED WHERE NOT REQUIRED).
ELECTRIC WATER HEATER WH-1,2,3	---	---	---	---	SEE PLAN RHEEM ESB5, 85 GALLON STORAGE WITH 15 KW (3-5 KW ELEMENTS) WIRED FOR 480 V, 3 PH. POWER AND SIMULTANEOUS OPERATION. VERIFY WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING EQUIPMENT. UNIT SHALL HAVE CAPACITY OF 78 GPH RECOVERY AT 80° F TEMPERATURE. RISE PROVIDE ASME TEMPERATURE AND PRESSURE RELIEF VALVE AND THERMOMETER IN HW OUTLET PIPING. PROVIDE EXPANSION TANK AMTROL ST-5-C.
ELECTRIC WATER HEATER WH-1,2,3	---	---	---	---	SEE PLAN RHEEM EGP15, 15 GALLON STORAGE WITH 2 KW ELEMENTS WIRED FOR 208 V, 1 PH. POWER. VERIFY WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING EQUIPMENT. UNIT SHALL HAVE CAPACITY OF 14 GPH RECOVERY AT 80° F TEMPERATURE. RISE PROVIDE ASME TEMPERATURE AND PRESSURE RELIEF VALVE AND THERMOMETER IN HW OUTLET PIPING. W/AMTROL ST-5-C XPN TANK.
CIRCULATING PUMP CP-1, 2,3	---	---	3/4" 1"	1"	GRUNDFOS MODEL UP15-42SF ALL BRONZE, FLANGED PUMP. 1/25 HP WIRED FOR 120/60/1 POWER AND FITTED WITH REMOTE HEAT SENSING AQUASTAT CONTROLLER AND SHUT-OFF TIMER TS-1.
CIRCULATING PUMP CP-4	---	---	3/4" 1"	1"	BELL & GOSSET SERIES 100, ALL BRONZE, FLANGED PUMP. 1/12 HP WIRED FOR 120/60/1 POWER AND FITTED WITH REMOTE HEAT SENSING AQUASTAT CONTROLLER AND SHUT-OFF TIMER TS-1.
TIME SWITCH TS-1 (ALL TS)	---	---	---	---	TORK ELECTROMECHANICAL 24 HOUR TIME SWITCH POWERED BY A SELF STARTING SYNCHRONOUS MOTOR. INSTALL ON WALL ADJACENT TO CIRCULATING PUMPS. COORDINATE WITH ELECTRICAL AND PROVIDE FOR 120/1/60 POWER REQUIREMENT.
INSTANTANEOUS WATER HEATER IWH-1,2	---	---	1/2" 1/2"	1/2"	INSTANT-FLOW MICRO MIX WATER HEATER EQUAL TO CHRONOFLOW 304-277-W, 277V/1PH, 8.32 KW, 30 AMPS, 115° F RISE AT 0.5 GPM. WITH ASSE1070 MIXING VALVE SET AT 110° F.
THERMOSTATIC MIXING VALVE TMV-1	---	---	1/2" 1/2"	1/2"	POWERS NO. LF480 ADJUSTABLE POINT-OF-USE THERMOSTATIC MIXING VALVE. ASSE 1070 WITH INLET CHECK STOPS TO LIMIT HOT WATER TEMPERATURE TO MAXIMUM 105° F AT FAUCET. OUTLET, SUPPLY ON TO MIXING VALVE FROM CW RISER TO FAUCET. INSTALL BELOW FIXTURE AND HIGH AS POSSIBLE TO PROVIDE NEAT AND CLEAN APPEARANCE.
WATER SOFTENER WSU-1	---	---	---	---	EQUAL TO KINETICO POWERLINE MODEL PS 840X WATER SOFTENER FOR SERVICE FLOW OF 7 GPM AT 15 PSI PRESSURE DROP. POWER: 120V/24V, 16.

- NOTE:
- FLOOR DRAINS FOR SCIENCE LABS EQUAL TO ZURN 2N-415B-AR CAST IRON, 6" DIA. WITH ACID RESISTANT EPOXY COATING (FD-2). W/TRAPGUARD.
  - ALL FLOOR CLEANOUTS ASSOCIATED WITH THE ACID WASTE SYSTEM SHALL BE EQUAL TO ZURN 29A-C01-F POLYPROPYLENE WITH STAINLESS STEEL COVERS. (FCO-2).
  - ALL WALL CLEANOUTS SHALL BE OF SIMILAR ACID RESISTANT MATERIAL AS ABOVE. (WCO-2)
  - ALL ACCESS PANELS SHALL HAVE A "SCREWDRIVER OPERATED CAM LATCH" LOCK.

**SCIENCE LAB FIXTURES ROUGH-IN SCHEDULE**  
PROVIDED UNDER SEPARATE DIVISION, FINAL CONNECTIONS BY PLUMBER

PLAN MARK	MINIMUM ROUGH-IN SIZES				DESCRIPTION
	WST & VENT	DRAIN	CW	HW	
EMERGENCY SHOWER ES-1	---	---	1-1/2" 3"	1" 1"	RECESSED SAFETY STATION WITH DRAIN PAN. EXPOSED SHOWER HEAD EQUAL TO GUARDIAN G8F2340. FLOOR DRAIN COMBINATION. PROVIDE THERMOSTATIC MIXING VALVE. EQUAL TO GUARDIAN G30402. WITH SURFACE MOUNTED CABINET SET AT 60". MAX. 90° F. INSTALLATION TO COMPLY WITH ANSI/ISEA Z358.1-2014 AND MANUFACTURER'S DETAILS AND RECOMMENDATIONS. EQUAL TO GUARDIAN G1909-BC.
TEPID WATER SUPPLY ES-1 AND APPURTENANCES SUPPLIED BY PLUMBER	---	---	---	---	---
LAB SINK STUDENT TABLE P-1	2"	2"	1-1/2" 1/2"	1/2"	FIXTURE WITH DRAIN OUTLET AND FAUCET ARE PROVIDED UNDER SEPARATE DIVISIONS. THIS CONTRACTOR SHALL PROVIDE AND INSTALL ALL ASSOCIATED PIPING, TRAP, VALVES AND TRIM AS REQUIRED. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.
LAB SINK STUDENT TABLE P-1A (ADA)	2"	2"	1-1/2" 1/2"	1/2"	FIXTURE WITH DRAIN OUTLET AND FAUCET ARE PROVIDED UNDER SEPARATE DIVISIONS. THIS CONTRACTOR SHALL PROVIDE AND INSTALL ALL ASSOCIATED PIPING, TRAP, VALVES AND TRIM AS REQUIRED. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.
LAB SINK STUDENT TABLE P-3	2"	2"	1-1/2" 1/2"	1/2"	FIXTURE WITH DRAIN OUTLET AND FAUCET ARE PROVIDED UNDER SEPARATE DIVISIONS. THIS CONTRACTOR SHALL PROVIDE AND INSTALL ALL ASSOCIATED PIPING, TRAP, VALVES AND TRIM AS REQUIRED. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.
LAB SINK PREC. ROOMS P-2	2"	2"	1-1/2" 1/2"	1/2"	FIXTURE WITH DRAIN OUTLET AND FAUCET ARE PROVIDED UNDER SEPARATE DIVISIONS. THIS CONTRACTOR SHALL PROVIDE AND INSTALL ALL ASSOCIATED PIPING, TRAP, VALVES AND TRIM AS REQUIRED. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.
CUP SINK FUME HOOD P-4	2"	2"	1-1/2" 1/2"	1/2"	FIXTURE WITH DRAIN OUTLET AND FAUCET ARE PROVIDED UNDER SEPARATE DIVISIONS. THIS CONTRACTOR SHALL PROVIDE AND INSTALL ALL ASSOCIATED PIPING, TRAP, VALVES AND TRIM AS REQUIRED. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.
SCIENCE GAS OUTLETS G-1	---	---	---	---	SINGLE GAS OUTLET (5 CFH) GAS OUTLETS ARE PROVIDED UNDER SEPARATE DIVISIONS. THIS CONTRACTOR SHALL PROVIDE AND INSTALL ALL ASSOCIATED PIPING VALVES AND TRIM AS REQUIRED. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.

**ISMET SYSTEM - PROVIDED BY PLUMBER - V-1 INSTALLATION BY PLUMBER**  
ELECTRICAL COMPONENTS INSTALLATION AND CONNECTIONS BY ELECTRICAL DIVISION  
ALL INSTALLATION AS PER MANUFACTURER'S DETAILS AND RECOMMENDATIONS

SOLENOID VALVE BOX V-1 RE: DETAIL 24/P402	---	---	---	---	THIS UTILITY SOLENOID VALVE CONTROL ENCLOSURE, LOCATED ADJACENT TO SCIENCE CLASSROOM. FULLY FACTORY ASSEMBLED AND PRE-TESTED PANEL. MINIMUM 16 GAUGE NEMA-1 SURFACE MOUNTED ENCLOSURE WITH WHITE POWDER COATED FINISH AND KEYS LOCKING COVERED DOOR. U/L LISTED COMPONENTS. EXTERIOR SHALL HAVE AN ENGRAVED BLACK NAMEPLATE WITH WHITE LETTERING "LABORATORY SOLENOID VALVE BOX". FOR EACH PIPED UTILITY PROVIDE A SUITED, LINE-SIZED, FULL PORT BALL TYPE WITH STAINLESS STEEL BALL AND STEM. MANUAL ISOLATION VALVE (LEAD FREE FOR WATER). STRAINER. NORMALLY CLOSED, ENERGIZED TO STAY-OPEN TYPE. 120 VAC ASCO SOLENOID VALVE. AND PIPE UNIONS TO FACILITATE SOLENOID VALVE MAINTENANCE (LOCATED ADJACENT TO SOLENOID VALVE ON BOTH SIDES). PROVIDE CONFIGURED FOR USE IN CONJUNCTION WITH ASSOCIATED UTILITY CONTROLLER UCL-1. SPECIFIED BELOW. ISMET S-1-1-1-2-2-K-4 OR APPROVED EQUAL. REFER TO FLOOR PLANS FOR INTENDED LOCATION AND TO CONFIRM LINE/VALVE SIZES. COORDINATE FINAL LOCATION AND MOUNTING HEIGHT WITH OWNER AND ARCHITECT PRIOR TO ANY ROUGH-INS. PROVIDE ENCLOSURE TO BE SURFACE MOUNTED. COORDINATE IN ADVANCE WITH ELECTRICAL CONTRACTOR TO PROVIDE ALL POWER AND CONTROL WIRING IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. REFER TO WIRING SCHEMATICS PROVIDED WITH ENCLOSURE.
UTILITY CONTROLLER U-2	---	---	---	---	UTILITY CONTROLLER, LOCATED ADJACENT TO INSTRUCTOR'S SPACE. FULLY FACTORY ASSEMBLED AND PRE-TESTED PANEL. MINIMUM 18 GAUGE NEMA-1 FULLY RECESSED ENCLOSURE WITH STAINLESS STEEL FINISH AND KEYS LOCKING DOOR. U/L LISTED COMPONENTS. EXTERIOR SHALL BE CLEARLY LABELED "UTILITY CONTROLLER" AND ALSO INCLUDE A CLEARLY LABELED SWITCH FOR EACH SERVICE (GAS, WATER, AND ELECTRIC) WITH A CORRESPONDING GREEN LIGHT TO ILLUMINATE WHEN THAT SERVICE IS ACTIVE. PROVIDE A RED, MUSHROOM STYLE, TWO POSITION, PANIC PUSHBUTON COVERED BY KEY CONTROL, WHICH IS REQUIRED FOR ROUTINE ON-OFF, ON-OFF KEY REQUIRED TO ACTIVATE CONTROLLER SHALL BE KEYS SEPARATELY FROM KEY FOR ENCLOSURE LOCKING DOOR. NO KEY SHALL BE REQUIRED TO DEACTIVATE UTILITIES VIA THE EMERGENCY PUSHBUTON STOP. PROVIDE CONFIGURED FOR SINGLE POINT OF CONNECTION 120VAC POWER SUPPLY. PROVIDE CONFIGURED TO CONTROL ASSOCIATED REMOTE GAS AND WATER SOLENOID VALVES AND ALSO SUITED TO INTERFACE WITH REMOTE ELECTRICAL CONTRACTOR TO CONTROL LAB RECEPTACLES AS INDICATED ON ELECTRIC DRAWINGS. ISMET UTO-2-2-0-3 OR APPROVED EQUAL. PROVIDE RELAY FOR GENERAL PURPOSE EXHAUST FAN IN LABS. REFER TO FLOOR PLANS FOR INTENDED LOCATION. COORDINATE FINAL LOCATION AND MOUNTING HEIGHT WITH OWNER AND ARCHITECT PRIOR TO ANY ROUGH-INS. POWER SUPPLY/WIRING TO/FROM PANEL AND ASSOCIATED V-LI SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
REMOTE PANIC BUTTON V-3 EPO	---	---	---	---	IP-0-C, REMOTE PANIC BUTTON ASSEMBLY WITH CLEAR COVER.
ELECTRICAL ENCLOSURE	---	---	---	---	E-31 (NO. OF CONTACTS)-S-L GRAY POWDER COAT, SURFACE MOUNT, SCREWED PANEL COVER.

**PLUMBING EQUIPMENT SCHEDULE**

TYPE	MANUFACTURER	DESCRIPTION
DISTILLED WATER SYSTEM DLI-1	H2OLABS MODEL 4696 DURASTILL WATER DISTILLER, 25 GALLON, 110 VOLT, 50 HZ, 12 GALLONS PER DAY, AUTOMATIC WATER DISTILLER WITH 25 GALLON RESERVE TANK. AUTOMATICALLY TURNS ON AND OFF TO REPLENISH RESERVE TANK AS NECESSARY.	PROVIDE DOUBLE CHECK VALVE BACK-FLOW PREVENTION (DCCA) AT THE FEED WATER INLET TO SYSTEM EQUAL TO WAITS 007. ROUTE ALL DISTILLED WATER LINES TIGHT TO STRUCTURE. PIPE, VALVES AND FITTINGS SHALL BE STAINLESS STEEL 304-L. ALL INSTALLATION TO COMPLY WITH MANUFACTURER'S PRINTED RECOMMENDATIONS. AFTER INSTALLATION THE CONTRACTOR SHALL FLUSH THE ENTIRE PIPING SYSTEM WITH DISTILLED WATER TO THE SATISFACTION OF THE OWNER.
DJ PUMP DP-1	GRUNDFOS CRN-3-3 A-FG-G-E-HOZE, 0.5 HP, 60HZ, 115V.	---
WATER SOFTENER WSU-1	KINETICO POWERLINE MODEL PS-840X	---



DBR Project Number 198008.000	
DM	MG JCH TL

Consultants:

CIVIL:  
MELDEN & HUNT

STRUCTURAL:  
GREEN, RUBIANO & ASSOCIATES INC.

MEP:  
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RENOVATIONS

**KEYPLAN**

Project Number: 19.04  
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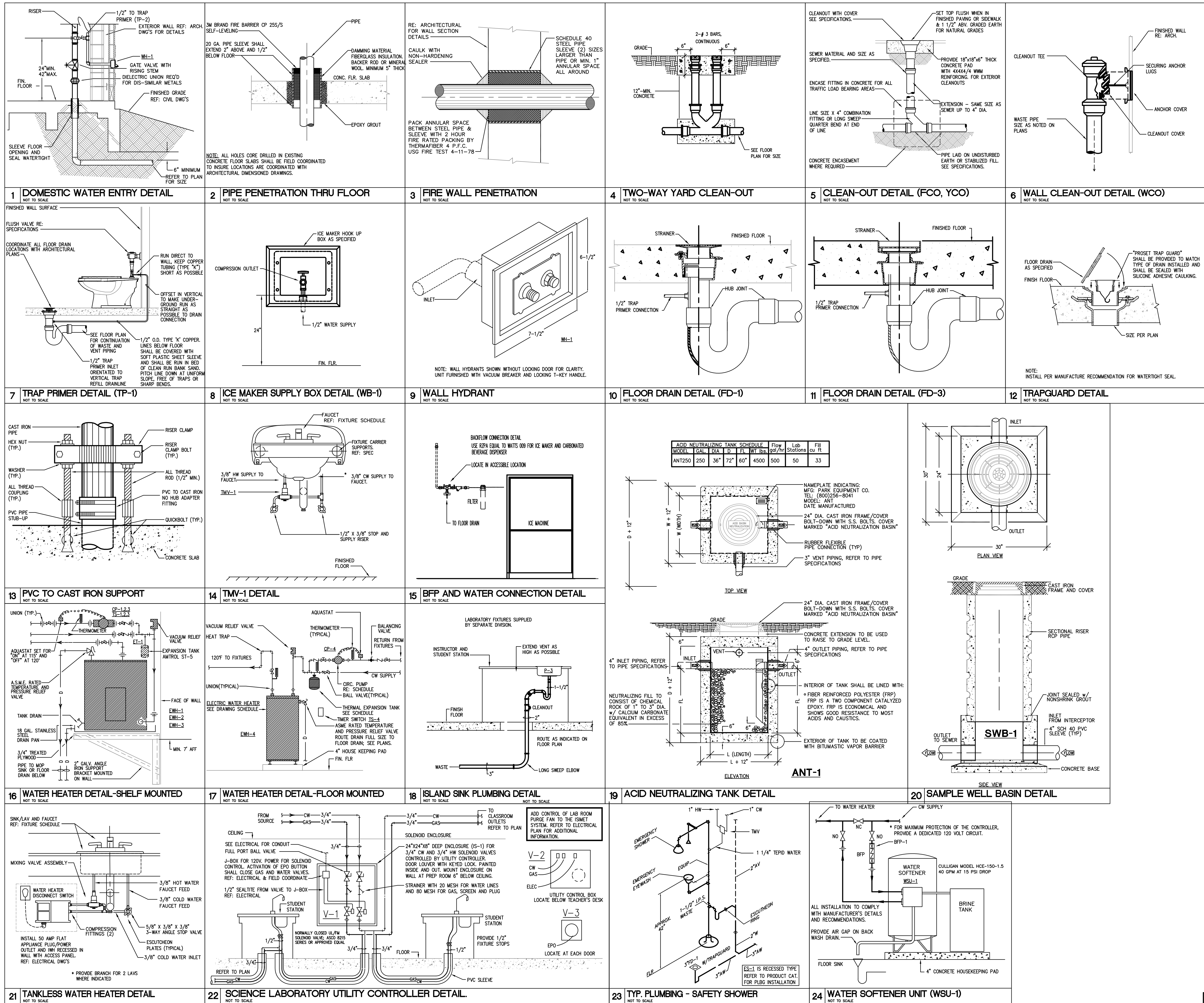
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**PLUMBING  
SCHEDULES**

**P-401U**





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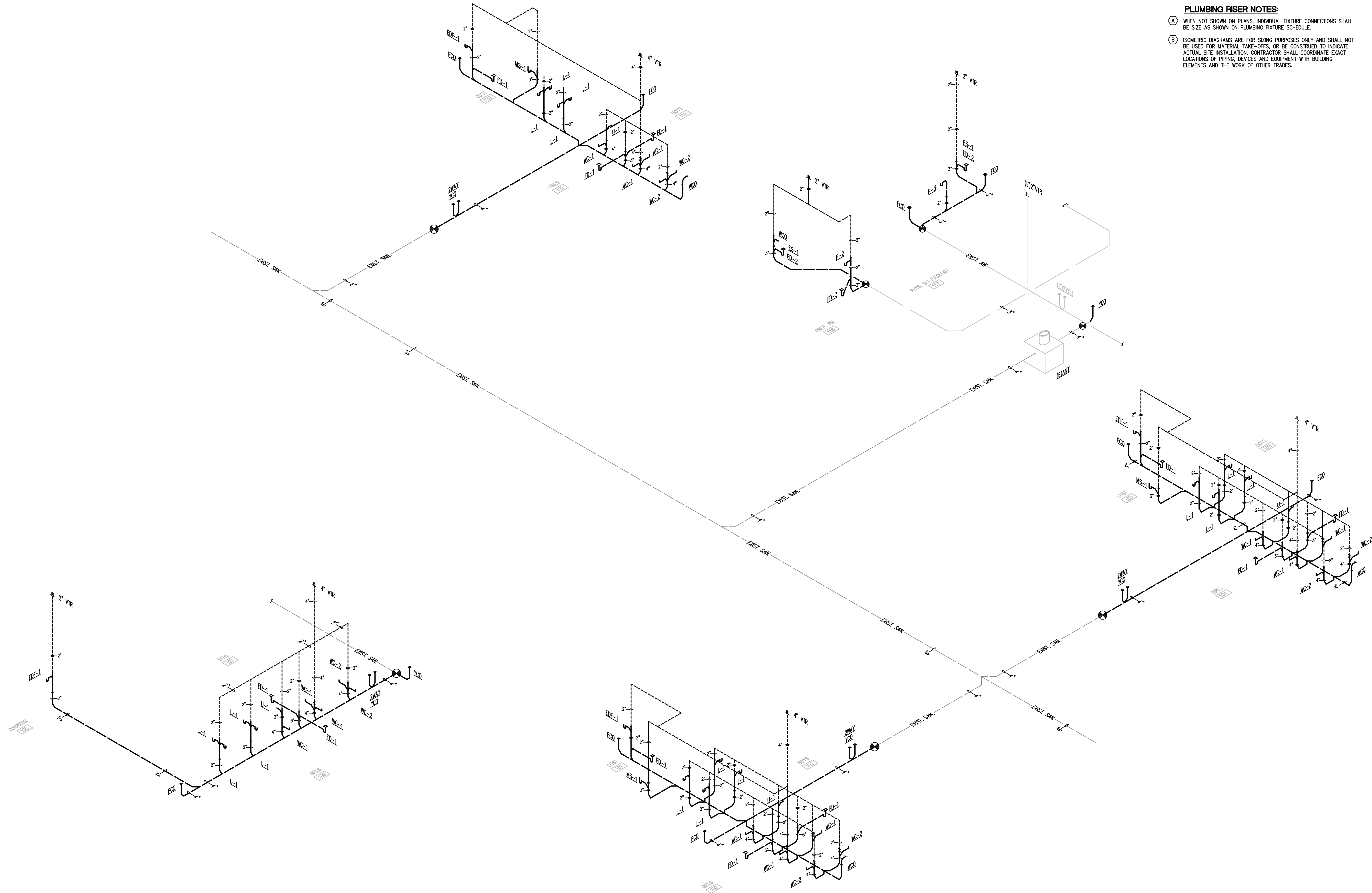
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**DETAILS**



DBR Project Number		198008.000		
DM	MG	JCH	TL	-

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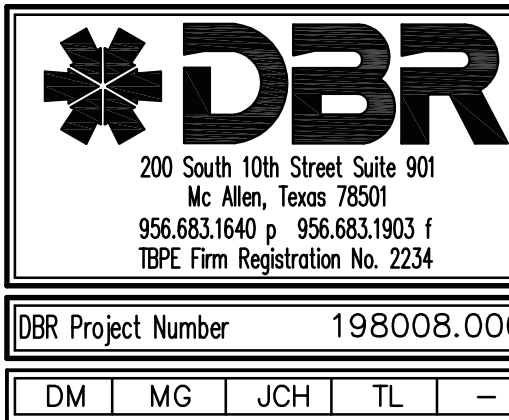




**PLUMBING RISER NOTES:**

- (A) WHEN NOT SHOWN ON PLANS, INDIVIDUAL FIXTURE CONNECTIONS SHALL BE SIZE AS SHOWN ON PLUMBING FIXTURE SCHEDULE.
- (B) ISOMETRIC DIAGRAMS ARE FOR SIZING PURPOSES ONLY AND SHALL NOT BE USED FOR MATERIAL TAKE-OFFS, OR BE CONSTRUED TO INDICATE ACTUAL SITE INSTALLATION. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF PIPING, DEVICES AND EQUIPMENT WITH BUILDING ELEMENTS AND THE WORK OF OTHER TRADES.

**1 PLUMBING RISERS - SEWER AND VENT - UNIVERSITY CAMPUS**  
P-501U NTS



Consultants:

**CIVIL:**  
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**STRUCTURAL:**  
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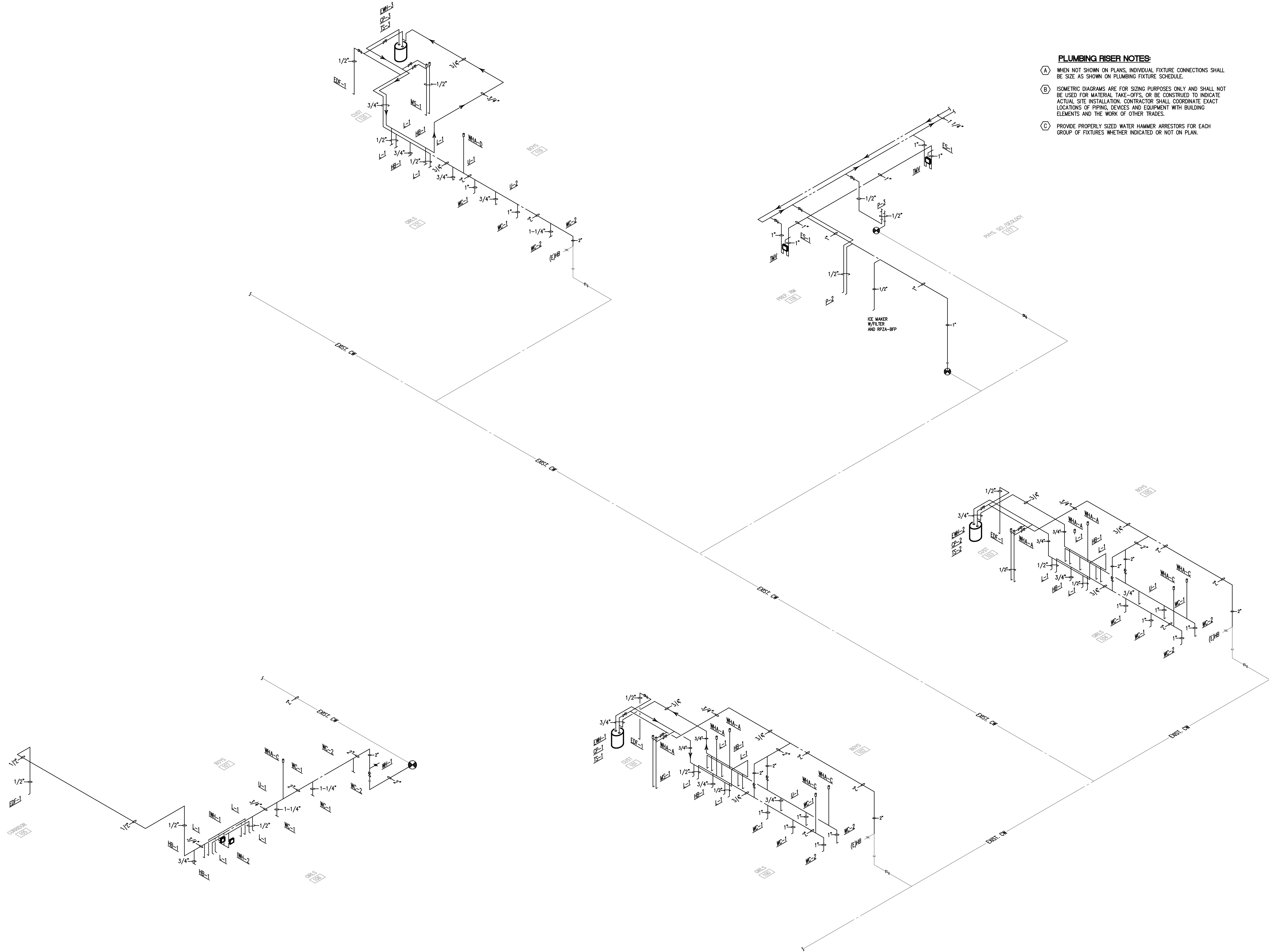
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**PLUMBING**  
**RISERS -**  
**SEWER AND VENT**  
**- UNIV. CAMPUS**

**P-501U**



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- (C) PROVIDE PROPERLY SIZED WATER HAMMER ARRESTORS FOR EACH GROUP OF FIXTURES WHETHER INDICATED OR NOT ON PLAN.

1  
P-502U  
NTS

**PLUMBING RISERS - DOMESTIC WATER - UNIVERSITY CAMPUS**

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T&E Firm Registration No. 2234

DBR Project Number 198008.000

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Consultants:

**CIVIL:**  
**MELDEN & HUNT**

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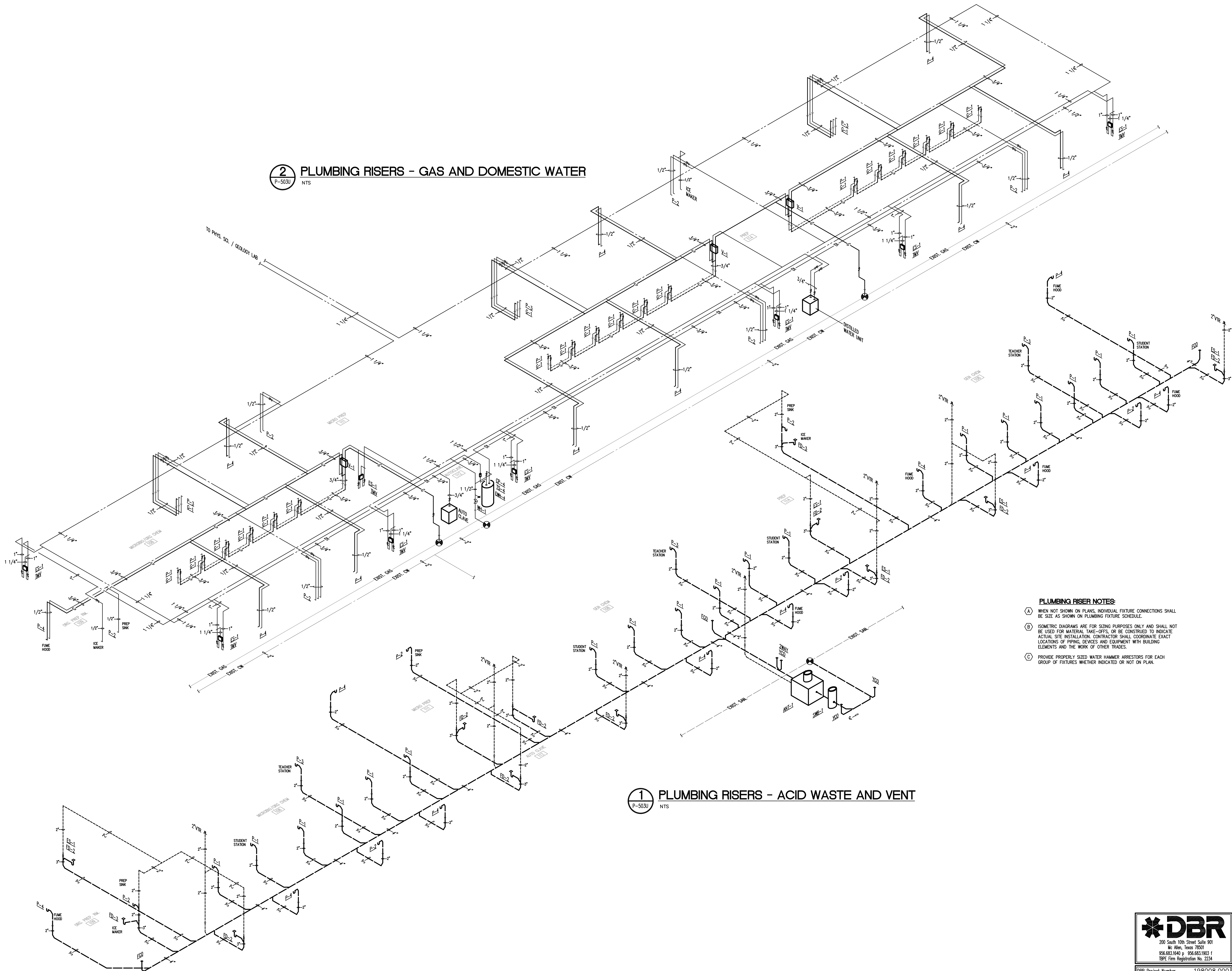
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**RISERS -**  
**DOM. WATER**  
**- UNIV. CAMPUS**

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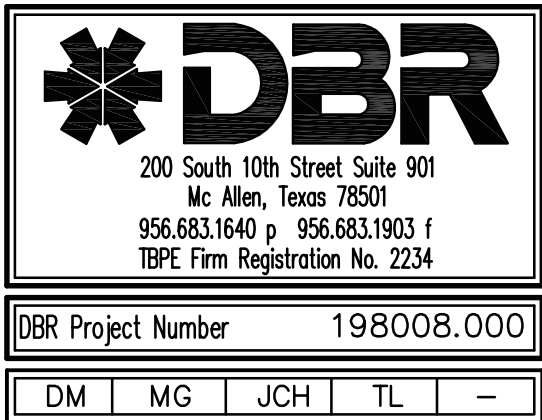


**2 PLUMBING RISERS - GAS AND DOMESTIC WATER**  
P-503U NTS

**1 PLUMBING RISERS - ACID WASTE AND VENT**  
P-503U NTS

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- (C) PROVIDE PROPERLY SIZED WATER HAMMER ARRESTORS FOR EACH GROUP OF FIXTURES WHETHER INDICATED OR NOT ON PLAN.



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